Addendum I

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

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

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

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

The following example illustrates the changes :-

September 2002

*NEIC **01** 18:45:41.7±1.7,21°.70S×179°.55W,h600km,mb4.6/6,*
Error ellipse: s-maj=75.5km s-min=25.7km az=151.0
*IDC **01** 18:45:46.3±2.6,21°.76S×179°.70W,h627km,37km,mb3.5/4,*
mb1 3.7/4,mb1mx3.2/14,Error ellipse: s-maj=83.2km
s-min=20.6km az=159.0
ISC 01 18:45:41.7±1.4,22°.1S×0°.2×179°.3W×0°.2,h600km,n22,
σ1§55/24,mb4.4/9,1C,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
HBZ	**Hicks Bay**	**15.60**	**187**	*e*P		**P**	**18 48 53.1**	**-2.1**
URZ	**Urewera**	**16.41**	**190**	P		**P**	**18 49 01.5**	**-1.1**
MRZ	**Mangatainoka R**	**19.02**	**192**	*e*P		**P**	**18 49 26.7**	**+0.3**
DIW	**D'Urville Isla**	**19.52**	**195**	*e*P		**P**	**18 49 27.3**	**-3.6**
CAW	**Cannon Point**	**19.55**	**193**	*e*P		**P**	**18 49 31.7**	**+0.5**
OTW	**Orongorongo Tu**	**19.73**	**193**	*e*P		**P**	**18 49 33.0**	**+0.2**
MOW	**Moikau**	**19.82**	**192**	*e*P		**P**	**18 49 35.5**	**+1.9**
THZ	**Tophouse**	**20.68**	**197**	*e*P		**P**	**18 49 42.0**	**+0.5**
KHZ	**Kahutara**	**21.14**	**195**	P		**P**	**18 49 46.2**	**+0.8**
ARMA	**Armidale**	**27.28**	**246**	*e*P		**P**	**18 50 42.4**	**+2.3**
	4.9nm,0.5s							
CTA	**Charters Tower**	**32.13**	**267**	⇑*i*P		**P**	**18 51 22.3**	**+0.5**
	13nm,0.5s							
STKA	**Stephens Creek**	**36.00**	**246**	*e*P		**P**	**18 51 55.3**	**+1.5**
	3.1nm,0.4s							
ASAR	**Alice Springs**	**42.97**	**259**	P		**P**	**18 52 50.1**	**+0.4**
	9.8nm,0.5s,baz=92,slow=8.2,SNR=47							
ASAR				S		**S**	**18 58 31.3**	**-1.6**
	1.0nm,0.8s,baz=95,slow=15,SNR=5.7							
ASPA	**Alice Springs**	**42.97**	**259**	*e*P		**P**	**18 52 50.1**	**+0.4**
WRA	**Warramunga Arr**	**43.18**	**264**	P		**P**	**18 52 51.0**	**-0.4**
	1.8nm,0.3s,baz=96,slow=7.8,SNR=93							
WRA				S		**S**	**18 58 33.0**	**-2.9**
	0.3nm,0.9s,baz=99,slow=14,SNR=3.0							
KAKA	**Kakadu**	**46.79**	**273**	*e*P		**P**	**18 53 18.2**	**-0.7**
	14nm,0.4s							
FITZ	**Fitzroy Crossi**	**51.61**	**264**	*e*P		**P**	**18 53 54.3**	**+0.1**
	12nm,0.3s							
MBWA	**Marble Bar**	**56.31**	**259**	*e*P		**P**	**18 54 27.1**	**-0.1**
	11nm,0.6s							
CMAR	**Chiang Mai Arr**	**89.48**	**290**	P		**P**	**18 57 38.1**	**+1.7**
	1.3nm,0.8s,baz=135,slow=3.1,SNR=8.1							
ARCES	**ARCESS Array B**	**130.23**	**349**	PKP		**PKiKP**	**19 03 43.7**	**-1.2**
	0.7nm,0.6s,baz=282,slow=4.2,SNR=3.5							
FINES	**FINESS Array B**	**136.91**	**342**	PKP		**PKiKP**	**19 03 57.3**	**-1.3**
	3.7nm,1.1s,baz=158,slow=3.2,SNR=3.4							
MLR	**Muntele Rosu**	**148.83**	**325**	PKPbc		**PKiKP**	**19 04 22.7**	**-1.0**
	0.2nm,0.7s,baz=1.2,slow=23,SNR=2.3							

Epicentral Estimates

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

Observational Data

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

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

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

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

Addendum II

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

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

Addendum III

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

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

RSNC 01 00:08:52.2±0.0, 7°N±1°×7°6W±°, h6km±3km, M2.2, ML1.9, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UREC	**San Jos de Ur**	**0.68**	**26**	P	Pg	00 09 04.1	-1.1
UREC				S	Sg	00 09 13.3	-0.7
HELC	**Santa Helena**	**0.99**	**162**	P	Pg	00 09 09.0	-2.2
HELC				S	Sg	00 09 22.0	-2.1
APAC	**Apartado, Choc**	**1.06**	**315**	P	Pg	00 09 10.4	-2.2
APAC				S	Sg	00 09 25.6	-0.7
CBOC	**Ciudad Bolivar**	**1.28**	**188**	P	Pg	00 09 14.5	-2.3
CBOC				S	Sg	00 09 29.7	-3.7
PTBC	**PUERTO BERRIO,**	**1.49**	**114**	P	Pn	00 09 17.9	-1.6
PTBC				S	Sn	00 09 38.6	-0.7
LCBC	**Los crdobas,**	**1.79**	**343**	P	Pn	00 09 19.0	-4.6
LCBC				S	Sn	00 09 44.5	-2.2
NORC	**Norcasia**	**1.83**	**149**	P	Pn	00 09 24.2	-0.1
NORC				S	Sn	00 09 46.2	-1.7
GUY2C	**Guyana, Caldas**	**1.96**	**166**	P	Pn	00 09 26.1	-0.3
GUY2C				S	Sn	00 09 49.6	-2.0

RSNC 01 00:09:04.5±0.0, 7°N±5°×7°3W±°, h141km±8km, M2.4, ML2.1, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.18**	**190**	P	Pn	00 09 25.0	+1.0
BARC				S	Sn	00 09 40.1	+1.4
BRJC	**Barrancabermej**	**0.62**	**289**	P	Pn	00 09 26.6	+1.1
BRJC	**Barrancabermej**	**0.62**	**289**	P	Pn	00 09 26.6	+1.1
BRJC				S	Sn	00 09 43.1	+1.6
RUSC	**La Rusia**	**0.87**	**176**	P	Pn	00 09 28.8	+0.8
RUSC				S	Sn	00 09 46.8	+1.1
PTBC	**PUERTO BERRIO,**	**1.32**	**260**	P	Pn	00 09 32.9	+1.4
PTBC				S	Sn	00 09 52.0	0.0
TAMC	**Tame, Arauca**	**1.39**	**104**	P	Pn	00 09 33.4	+1.1
TAMC				S	Sn	00 09 54.9	+1.5
SPBC	**San Pablo de B**	**1.44**	**220**	P	Pn	00 09 33.9	+1.0
SPBC				S	Sn	00 09 55.8	+1.3
OCAC	**Ocana**	**1.47**	**353**	P	Pn	00 09 33.1	-0.1
OCAC				S	Sn	00 09 55.2	0.0
CVER	**Cruz Verde, Cu**	**2.42**	**202**	P	Pn	00 09 45.9	+1.3
CVER				S	Sn	00 10 17.3	+1.9
UREC	**San Jos de Ur**	**2.56**	**293**	P	Pn	00 09 47.0	+1.1
UREC				S	Sn	00 10 16.6	-1.2
VILC	**Villavicencio,**	**2.69**	**192**	P	Pn	00 09 48.8	+1.0
VILC				S	Sn	00 10 22.2	+1.0
PTGC	**Puerto Gaitan,**	**2.75**	**158**	P	Pn	00 09 48.1	-0.2
PTGC				S	Sn	00 10 21.4	-0.8

ATH 01 00:17:57.0, 38.37N×21.82E, h7km±2km, ML0.7/6, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km, Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGRP	**Agrapidokambos**	**0.08**	**289**	P	Pg	00 17 59.0	0.0
AGRP				S	Sg	00 18 00.6	+0.2
EFP	**Efpalio**	**0.09**	**51**	P	Pg	00 17 59.3	+0.1
EFP				S	Sg	00 18 00.8	+0.2
EFP				AML	AML		
MG00	**Magoula, Dorid**	**0.11**	**66**	P	Pg	00 17 59.7	+0.2
MG00				S	Sg	00 18 01.6	+0.5
MG00				AML	AML		
PYRG	**Pyrgos, Dorida**	**0.16**	**76**	P	Pg	00 18 00.9	+0.5
PYRG				S	Sg	00 18 02.7	+0.1
LAKA	**Lakka**	**0.18**	**135**	P	Pg	00 18 00.8	+0.1
LAKA				S	Sg	00 18 03.5	+0.3
AGEO	**AgiosGiorgios,**	**0.22**	**118**	P	Pg	00 18 01.5	+0.1
ANX	**Ano Chora**	**0.24**	**20**	P	Pg	00 18 02.1	+0.3
ANX				S	Sg	00 18 06.0	+1.0
ANX				AML	AML		
KALE	**Kalithea**	**0.26**	**85**	P	Pg	00 18 01.6	-0.4
AIOA	**Agios Ioannis,**	**0.26**	**133**	P	Pg	00 18 02.1	0.0
AIOA				S	Sg	00 18 05.9	+0.3
TEME	**Temeni, Aigial**	**0.27**	**120**	P	Pg	00 18 02.5	+0.1
PLEV	**Plevrona-Mesol**	**0.33**	**278**	P	Pg	00 18 03.1	-0.3
PLEV				S	Sg	00 18 08.1	+0.4
PVO	**Paravola**	**0.34**	**317**	P	Pg	00 18 03.7	+0.1
PVO				S	Sg	00 18 09.2	+1.2
AXS	**Araxos**	**0.39**	**244**	P	Pg	00 18 05.2	+0.7
AXS				S	Sg	00 18 10.9	+1.2
RLS	**Riolos of Patr**	**0.42**	**222**	P	Pg	00 18 05.4	+0.3
RLS				S	Sg	00 18 11.6	+1.0
KLV	**Kalavryta, Ach**	**0.42**	**141**	P	Pg	00 18 04.9	-0.3
KLV				S	Sg	00 18 11.2	+0.6
DRO	**Drossia**	**0.42**	**191**	P	Pg	00 18 05.4	+0.2
DRO				S	Sg	00 18 12.1	+1.2
DRO				AML	AML		
EVR	**Evrytania**	**0.55**	**359**	P	Pg	00 18 06.6	-1.0
EVR				S	Sg	00 18 15.1	+0.3
PDO	**Prodromos**	**0.55**	**295**	P	Pg	00 18 07.6	0.0
PDO				S	Sg	00 18 15.7	+0.9
GUR	**Goura**	**0.60**	**136**	P	Pg	00 18 07.8	-0.8
GUR				S	Sg	00 18 17.1	+0.7

*LJU **01** 00:20:01.9, 45.34N×13.25E, h34km, ML2.5, Presumed earthquake*
*ROM **01** 00:20:02.5±0.1, 45.356N±0.005×13.243E±0.008, h32km, ML2.6/50, Error ellipse: s-maj=0.7km s-min=0.4km az=128.0*
*PRU **01** 00:20:06.9, 45.48N×13.53E, h31km*

ISC 01 00:20:01.0±1.0, 45.32N±0.02×13.25E±0.02, h17km±9km, n111, σ0.95/179, 2C-8D, Northern Italy

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IESO	**Jesolo**	**0.53**	**292**	*e*Pg	**Pn**	**00 20 14.0**	**+0.3**
IESO				*e*Sg	**Sn**	**00 20 21.7**	**-0.5**
TRI	**Trieste**	**0.53**	**43**	*e*Sg	**Sb**	**00 20 20.7**	**+1.5**
TRI	**Trieste**	**0.53**	**43**	P	**Pn**	**00 20 13.4**	**-0.4**
TRI				S	**Sn**	**00 20 21.0**	**-1.3**
TRI				AML	AML		
	comp=N,322μm,0.9s						
TRI				AML	AML		
	comp=E,524μm,0.7s						
TRI				AML	AML		
	comp=N,322μm,1.1s						
TRI	**Trieste**	**0.53**	**43**	*e*Pg	**Pn**	**00 20 13.3**	**-0.4**
SKDS	**Skadanscina**	**0.58**	**67**	*i* Pg	**Pn**	**00 20 14.3**	**-0.2**
SKDS				*i* Sg	**Sn**	**00 20 23.1**	**-0.7**
SKDS				IAML		00 20 23.2	
	comp=Z,94nm,0.1s						
VENL	**Venezia Lido**	**0.62**	**279**	P	**Pn**	**00 20 15.2**	**+0.2**
VENL				S	**Sn**	**00 20 25.4**	**+0.9**
SABO	**M.te Sabotino**	**0.70**	**21**	*e*Pg	**Pn**	**00 20 16.1**	**-0.1**
SABO				*e*Sg	**Sn**	**00 20 26.2**	**-0.5**
SABO	**M.te Sabotino**	**0.70**	**21**	P	**Pn**	**00 20 16.1**	**-0.1**
SABO				S	**Sn**	**00 20 25.8**	**-0.9**
SABO				AML	AML		
	comp=E,4170μm,0.8s						
SABO				AML	AML		
	comp=N,2920μm,1.0s						
SABO				AML	AML		
	comp=N,716μm,0.7s						
SABO				AML	AML		
	comp=N,716μm,1.3s						
SABO				AML	AML		
	comp=N,2920μm,1.0s						
SABO				AML	AML		
	comp=E,1044μm,0.8s						
SABO				AML	AML		
	comp=E,4175μm,0.8s						
JAVS	**Javornik**	**0.81**	**45**	*i* Pg	**Pn**	**00 20 17.8**	**+0.1**
JAVS				*i* Sg	**Sn**	**00 20 29.1**	**-0.3**
JAVS				IAML		00 20 30.1	
	comp=Z,55nm,0.1s						
COLI	**Coloredo**	**0.82**	**6**	*e*Pg	**Pn**	**00 20 17.7**	**0.0**
COLI				*e*Sg	**Sn**	**00 20 28.7**	**-0.7**
VOJS	**Vojsko**	**0.84**	**32**	*i* Pg	**Pn**	**00 20 18.2**	**+0.1**
VOJS				*i* Sg	**Sn**	**00 20 30.0**	**-0.1**
VOJS				IAML		00 20 30.7	
	comp=Z,27nm,0.1s						
RIY	**Rijeka**	**0.87**	**89**	*e*Pg	**Pn**	**00 20 19.1**	**+0.6**
RIY				Sg	**Sn**	**00 20 30.7**	**-0.1**
CAE	**Caneva**	**0.89**	**321**	*e*Pg	**Pn**	**00 20 19.0**	**+0.2**
CAE				*e*Sg	**Sn**	**00 20 31.3**	**0.0**
CAE	**Caneva**	**0.89**	**321**	P	**Pn**	**00 20 19.0**	**+0.2**
CAE				S	**Sn**	**00 20 31.0**	**-0.3**
DRE	**Drenchia**	**0.90**	**18**	*i* Sg	**Sn**	**00 20 31.1**	**-0.4**
DRE	**Drenchia**	**0.90**	**18**	P	**Pn**	**00 20 18.9**	**0.0**
DRE				S	**Sn**	**00 20 31.0**	**-0.4**
DRE	**Drenchia**	**0.90**	**18**	*i* Pg	**Pn**	**00 20 18.8**	**0.0**
BUA	**Buia**	**0.90**	**355**	*e*Pg	**Pn**	**00 20 19.1**	**+0.3**
BUA				*e*Sg	**Sn**	**00 20 31.2**	**-0.3**
ED06	**Collalto TV**	**0.90**	**307**	*e*Pg	**Pn**	**00 20 19.3**	**+0.4**
BAD	**Bernadia**	**0.91**	**360**	*e*Pg	**Pn**	**00 20 19.1**	**0.0**
BAD				*e*Sg	**Sn**	**00 20 31.5**	**-0.4**
BAD	**Bernadia**	**0.91**	**360**	P	**Pn**	**00 20 19.1**	**0.0**
BAD				S	**Sn**	**00 20 31.4**	**-0.4**
FRE8	**Fregona**	**0.93**	**318**	P	**Pn**	**00 20 19.5**	**+0.2**
FRE8				S	**Sn**	**00 20 32.1**	**-0.2**
VINO	**Villanova**	**0.93**	**1**	P	**Pn**	**00 20 19.4**	**+0.1**
VINO				S	**Sn**	**00 20 32.0**	**-0.4**
VINO				AML	AML		
	comp=E,561μm,0.7s						
VINO				AML	AML		
	comp=N,311μm,0.5s						
MPRI	**Monte Prat**	**0.94**	**349**	*e*Pg	**Pn**	**00 20 19.7**	**+0.2**
MPRI				*e*Sg	**Sn**	**00 20 32.4**	**-0.1**
MPRI	**Monte Prat**	**0.94**	**349**	P	**Pn**	**00 20 19.8**	**+0.4**
MPRI				S	**Sn**	**00 20 31.8**	**-0.7**
MPRI				AML	AML		
	comp=E,363μm,0.8s						
MPRI				AML	AML		
	comp=N,375μm,1.0s						
MLNI	**Malnisio**	**0.94**	**332**	*e*Pg	**Pn**	**00 20 19.9**	**+0.4**
MLNI				*e*Sg	**Sn**	**00 20 32.5**	**-0.1**
ROBS	**Robic**	**0.94**	**11**	*i* Pg	**Pn**	**00 20 19.4**	**0.0**
ROBS				*e*Sg	**Sn**	**00 20 32.3**	**-0.2**
ROBS				IAML		00 20 33.4	
	comp=Z,40nm,0.2s						
MTLO	**Montello**	**0.94**	**302**	*e*Pg	**Pn**	**00 20 20.1**	**+0.6**
FREG	**Fregona**	**0.95**	**317**	P	**Pn**	**00 20 19.8**	**+0.3**
GEPF	**Gemona**	**0.95**	**356**	P	**Pn**	**00 20 19.7**	**+0.1**
GEPF				S	**Sn**	**00 20 32.6**	**-0.2**
GEPF				AML	AML		
	comp=E,345μm,0.6s						
GEPF				AML	AML		
	comp=E,345μm,1.4s						
GEPF				AML	AML		
	comp=N,350μm,0.5s						
CRND	**Cornuda**	**0.97**	**302**	P	**Pn**	**00 20 20.6**	**+0.8**
BOO	**Bordano**	**1.00**	**354**	*e*Pg	**Pn**	**00 20 20.6**	**+0.4**
BOO				*e*Sg	**Sn**	**00 20 33.9**	**-0.1**
BOO	**Bordano**	**1.00**	**354**	P	**Pn**	**00 20 20.4**	**+0.1**
BOO				S	**Sg**	**00 20 33.5**	**-0.1**
STAL	**STALIGIAL**	**1.01**	**338**	P	**Pn**	**00 20 20.5**	**+0.1**
STAL				S	**Sn**	**00 20 33.9**	**-0.3**
STAL				AML	AML		
	comp=E,410μm,1.6s						
STAL				AML	AML		
	comp=N,369μm,1.2s						
STAL				AML	AML		
	comp=N,322μm,1.5s						
STAL				AML	AML		
	comp=E,410μm,0.4s						
STAL				AML	AML		
	comp=E,342μm,0.2s						
STAL				AML	AML		
	comp=N,369μm,0.8s						
STAL				AML	AML		
	comp=N,322μm,0.5s						
VARN	**Col Varnada, M**	**1.04**	**310**	P	**Pn**	**00 20 21.0**	**+0.1**
VARN				AML	AML		
	comp=N,146μm,0.3s						
VARN				AML	AML		
	comp=E,225μm,0.3s						
ASOL	**Asolo**	**1.06**	**297**	P	**Pg**	**00 20 21.5**	**0.0**
ASOL				S	**Sn**	**00 20 35.5**	**+0.2**
PNAL	**Ponte nelle Va**	**1.08**	**322**	P	**Pg**	**00 20 22.1**	**+0.2**
PTCC	**Patocco-Chiusa**	**1.08**	**4**	P	**Pg**	**00 20 21.7**	**-0.4**
PTCC				S	**Sn**	**00 20 36.1**	**0.0**
PTCC				AML	AML		
	comp=E,303μm,0.4s						
PTCC				AML	AML		
	comp=N,175μm,0.8s						
TEOL	**Teolo**	**1.11**	**272**	P	**Pb**	**00 20 21.6**	**-0.1**
GORS	**Gorjuse**	**1.12**	**28**	*i* Pg	**Pg**	**00 20 22.6**	**-0.1**
GORS				*i* Sg	**Sn**	**00 20 37.8**	**+0.7**
GORS				IAML		00 20 38.6	
	comp=Z,95nm,0.2s						
CIMO	**Cimolais**	**1.14**	**331**	P	**Pn**	**00 20 22.2**	**0.0**
CIMO				S	**Sb**	**00 20 36.9**	**+0.2**
CIMO				AML	AML		
	comp=E,58μm,0.3s						
CIMO				AML	AML		
	comp=N,53μm,0.5s						
PRED	**Cave del Predi**	**1.14**	**11**	P	**Pg**	**00 20 22.7**	**-0.4**
PRED				S	**Sn**	**00 20 37.4**	**-0.2**
LJU	**Ljubljana**	**1.15**	**51**	P	**Pg**	**00 20 23.4**	**+0.2**
LJU				AML	AML		
	comp=E,1735μm,0.8s						
LJU				AML	AML		
	comp=N,1980μm,0.5s						
LJU				AML	AML		
	comp=E,1735μm,1.2s						
CGRP	**Cima Grappa**	**1.16**	**299**	P	**Pn**	**00 20 22.3**	**-0.3**
CLUD	**Cludinico**	**1.16**	**347**	P	**Pb**	**00 20 22.8**	**+0.2**
CLUD				S	**Sn**	**00 20 38.0**	**0.0**
CLUD				AML	AML		
	comp=E,196μm,0.4s						
CLUD				AML	AML		
	comp=N,89μm,0.7s						
CLUD				AML	AML		
	comp=N,89μm,1.3s						
RABC	**Rab**	**1.23**	**117**	*e*Pg	**Pn**	**00 20 23.7**	**+0.3**
RABC				Sg	**Sb**	**00 20 39.6**	**+0.3**
ACOM	**Acomizza, Ital**	**1.24**	**9**	P	**Pg**	**00 20 24.3**	**-0.6**
ACOM				AML	AML		
	comp=E,298μm,0.4s						
ACOM				AML	AML		
	comp=N,196μm,0.8s						
ACOM				AML	AML		
	comp=E,266μm,0.4s						
ACOM				AML	AML		
	comp=N,194μm,0.5s						
ACOM				AML	AML		
	comp=E,266μm,1.6s						
ACOM				AML	AML		
	comp=N,196μm,1.2s						
ACOM				AML	AML		
	comp=N,194μm,1.5s						
ACOM				AML	AML		
	comp=E,298μm,1.6s						
AGOR	**Agordo**	**1.27**	**319**	P	**Pb**	**00 20 24.8**	**+0.3**
FVI	**Forni Avoltri**	**1.31**	**346**	P	**Pb**	**00 20 25.6**	**+0.3**
FVI				AML	AML		
	comp=E,103μm,0.2s						
FVI				AML	AML		
	comp=N,73μm,0.5s						
FVI				AML	AML		
	comp=N,73μm,1.5s						
CTI	**Castel Tesino**	**1.33**	**304**	P	**Pn**	**00 20 25.0**	**+0.1**
MYKA	**Terra Mystica**	**1.34**	**12**	*e*Pg	**Pg**	**00 20 26.5**	**-0.3**
	comp=N,4.0nm,0.2s,SNR=16						
MYKA				*e*Sg	**Sg**	**00 20 43.7**	**-0.6**
	comp=N,18nm,0.3s,SNR=7.4						
PESA	**Pesaro**	**1.41**	**192**	P	**Pb**	**00 20 27.0**	**+0.2**
BOJS	**Bojanci**	**1.42**	**82**	P	**Pb**	**00 20 27.5**	**+0.4**
BOJS				AML	AML		
	comp=E,100μm,0.8s						
BOJS				AML	AML		
	comp=N,101μm,1.5s						
BOJS				AML	AML		
	comp=N,101μm,0.5s						
BOJS				AML	AML		
	comp=E,100μm,1.2s						
MARN	**Marana (Italy)**	**1.47**	**283**	P	**Pn**	**00 20 26.6**	**-0.1**
OBKA	**Obir**	**1.50**	**37**	*e*Pg	**Pb**	**00 20 28.7**	**+0.3**
	comp=E,1.3nm,0.1s,SNR=21						
OBKA				*e*Sg	**Sg**	**00 20 49.2**	**-0.1**
	comp=E,24nm,0.2s						
ABTA	**Abfaltersbach**	**1.51**	**341**	*e*Pn	**Pb**	**00 20 28.6**	**-0.1**
	comp=E,2.6nm,0.1s						
ABTA				*e*Pg	**Pg**	**00 20 34.5**	**+4.4**
	comp=E,3.3nm,0.2s						
ABTA				*e*Sg	**Sg**	**00 20 50.5**	**+0.7**
	comp=E,21nm,0.6s						
ZIAN	**Ziano**	**1.52**	**310**	P	**Pn**	**00 20 27.9**	**+0.5**
ZIAN				AML	AML		
	comp=E,86μm,0.4s						
ZIAN				AML	AML		
	comp=N,81μm,0.4s						
ZIAN				AML	AML		
	comp=E,86μm,0.4s						
PANI	**Panarotta**	**1.52**	**299**	P	**Pn**	**00 20 27.8**	**+0.2**
DOSS	**Dosso del Somm**	**1.55**	**292**	P	**Pn**	**00 20 28.0**	**+0.1**
DOSS				AML	AML		
	comp=E,170μm,1.5s						
DOSS				AML	AML		
	comp=N,199μm,1.1s						
DOSS				AML	AML		
	comp=N,162μm,0.9s						
DOSS				AML	AML		
	comp=E,170μm,0.5s						
DOSS				AML	AML		
	comp=E,176μm,1.1s						
MTRZ	**Monterenzio**	**1.58**	**234**	P	**Pg**	**00 20 30.8**	**-0.6**
OZLJ	**Ozalj**	**1.59**	**79**	*e*Pn	**Pb**	**00 20 30.0**	**+0.2**
OZLJ				Sn	**Sg**	**00 20 51.9**	**-0.3**
VIRC	**Vir**	**1.65**	**128**	*i* Pn	**Pn**	**00 20 29.8**	**+0.7**
VIRC				Sg	**Sb**	**00 20 51.0**	**-0.3**
BRIS	**BRISIGHELLA**	**1.71**	**227**	P	**Pn**	**00 20 28.0**	**-1.9**
VISG	**Visignano**	**1.72**	**229**	P	**Pn**	**00 20 30.8**	**+0.6**
MBAL	**Monte Baldo -**	**1.72**	**283**	P	**Pn**	**00 20 30.5**	**+0.3**
MBAL				AML	AML		
	comp=E,106μm,1.6s						
MBAL				AML	AML		
	comp=N,106μm,1.5s						
MBAL				AML	AML		
	comp=E,106μm,1.6s						
MBAL				AML	AML		
	comp=N,106μm,1.5s						
MBAL				AML	AML		
	comp=N,106μm,0.5s						
MBAL				AML	AML		
	comp=E,106μm,0.4s						
VARA	**Varagna**	**1.73**	**288**	P	**Pn**	**00 20 30.7**	**+0.3**
VARA				AML	AML		
	comp=E,222μm,0.8s						
VARA				AML	AML		
	comp=N,197μm,0.4s						
MPAG	**Monte Paganucc**	**1.73**	**192**	P	**Pn**	**00 20 31.5**	**+1.2**
BRES	**Bressanone**	**1.73**	**323**	P	**Pb**	**00 20 31.6**	**-0.9**
BRES				AML	AML		
	comp=E,69μm,1.6s						
BRES				AML	AML		
	comp=N,67μm,1.6s						
BRES				AML	AML		
	comp=N,67μm,1.6s						
BRES				AML	AML		
	comp=N,67μm,0.4s						
BRES				AML	AML		
	comp=E,69μm,0.4s						
KOSI	**Kohlern**	**1.73**	**312**	P	**Pn**	**00 20 31.3**	**+0.8**
SFI	**Santa Sofia**	**1.73**	**216**	P	**Pn**	**00 20 30.9**	**+0.5**
PLIT	**Plitvice**	**1.74**	**104**	*e*Pn	**Pg**	**00 20 34.1**	**-0.4**
PLIT				Sn	**Sg**	**00 20 56.9**	**-0.2**
KBA	**Koelnbreinsper**	**1.76**	**2**	Pg	**Pb**	**00 20 33.4**	**+0.6**
	comp=E,3.5nm,0.2s,SNR=5.1						
KBA				*e*Sg	**Sb**	**00 20 54.2**	**-0.5**
	comp=E,5.1nm,0.2s						
APPI	**Appiano**	**1.82**	**310**	P	**Pn**	**00 20 32.2**	**+0.6**
SOKA	**Soboth**	**1.84**	**42**	*e*Pg	**Pg**	**00 20 35.8**	**-0.6**
	comp=E,0.9nm,0.3s						
SOKA				*e*Sg	**Sb**	**00 20 58.0**	**+1.0**
	comp=E,7.3nm,0.3s						
DUGI	**Dugi Otok**	**1.86**	**135**	*e*Pn	**Pn**	**00 20 32.3**	**+0.3**
DUGI				Sg	**Sn**	**00 20 54.4**	**-0.6**
OZOL	**Ozolo**	**1.88**	**306**	P	**Pn**	**00 20 32.7**	**+0.3**
OZOL				AML	AML		
	comp=E,228μm,0.7s						
OZOL				AML	AML		
	comp=N,156μm,0.4s						
MAGA	**Magasa**	**1.89**	**285**	P	**Pn**	**00 20 33.5**	**+0.9**
UDBI	**Udbina**	**1.96**	**113**	*e*Pn	**Pb**	**00 20 35.7**	**-0.5**
UDBI				Sn	**Sb**	**00 21 01.2**	**+0.9**
ZAG	**Zagreb**	**1.99**	**74**	*e*Pn	**Pg**	**00 20 39.8**	**+0.6**
ZAG				Sn	**Sg**	**00 21 06.1**	**+1.1**
PTJ	**Puntijarka**	**2.00**	**72**	*e*Pn	**Pg**	**00 20 38.9**	**-0.5**
PTJ				Sn	**Sg**	**00 21 06.3**	**+1.0**
SESA	**Seetaler Alpe,**	**2.01**	**27**	Pg	**Pg**	**00 20 40.4**	**+0.8**
	comp=N,1.8nm,0.2s						
SESA				*i* Sg	**Sg**	**00 21 04.6**	**-1.2**
	comp=N,7.0nm,0.3s,SNR=4.7						
ROSI	**Rosskopf**	**2.05**	**322**	P	**Pn**	**00 20 36.0**	**+1.1**
ROSI				AML	AML		
	comp=E,64μm,1.1s						
ROSI				AML	AML		
	comp=N,70μm,0.6s						
ROSI				AML	AML		
	comp=E,64μm,0.9s						
LESA	**Schwarzleotal**	**2.14**	**350**	*e*Pn	**Pn**	**00 20 37.3**	**+1.3**
	comp=E,1.4nm,0.2s,SNR=6.5						
LESA				*e*Sg	**Sb**	**00 21 05.8**	**+0.2**
	comp=E,3.4nm,0.2s						
LOBO	**Lobor**	**2.15**	**66**	*e*Pn	**Pg**	**00 20 40.9**	**-1.3**
LOBO				Sn	**Sg**	**00 21 09.8**	**-0.1**
WTTA	**Wattenberg**	**2.24**	**331**	P	**Pn**	**00 20 38.7**	**+1.2**
WTTA	**Wattenberg**	**2.24**	**331**	Pn	**Pb**	**00 20 39.3**	**-1.8**
	comp=E,1.8nm,0.2s						
WTTA				*e*Sg	**Sn**	**00 21 04.6**	**-0.2**
	comp=E,12nm,0.4s						
MORI	**Morici**	**2.28**	**129**	*i* Pn	**Pn**	**00 20 39.0**	**+1.2**
MORI				Sn	**Sn**	**00 21 05.2**	**-0.4**
WATA	**Walderalm**	**2.32**	**331**	*e*Pn	**Pn**	**00 20 40.4**	**+1.9**
	comp=E,2.3nm,0.2s,SNR=9.0						
WATA				*e*Sn	**Sb**	**00 21 11.0**	**+0.1**
	comp=E,2.9nm,0.2s						
SQTA	**Sankt Quirin**	**2.37**	**324**	*e*Pn	**Pb**	**00 20 41.5**	**-1.7**
	comp=E,1.0nm,0.1s,SNR=4.0						
SQTA				*i* Pg	**Pg**	**00 20 47.0**	**+0.7**
	comp=E,9.4nm,0.4s						
BIOA	**Bad Ischl, Aus**	**2.38**	**6**	Pn	**Pb**	**00 20 42.7**	**-0.7**
	comp=E,1.8nm,0.3s						
KALN	**Kalnik**	**2.39**	**69**	*e*Pn	**Pg**	**00 20 45.2**	**-1.6**
KALN				Sn	**Sg**	**00 21 16.8**	**-1.0**
FETA	**Feichten**	**2.44**	**315**	Pn	**Pb**	**00 20 44.2**	**-0.3**
	comp=E,1.1nm,0.3s						
MOSL	**Moslavina**	**2.49**	**82**	*e*Pn	**Pb**	**00 20 46.2**	**+1.0**
MOSL				Sn	**Sb**	**00 21 16.6**	**+1.2**
ARSA	**Arzberg**	**2.49**	**38**	*e*Sg	**Sg**	**00 21 19.9**	**-1.2**
	comp=E,1.5nm,0.3s						
MOTA	**Moosalm**	**2.51**	**324**	*e*Pn	**Pn**	**00 20 43.4**	**+2.3**
	comp=E,0.4nm,0.1s						
PII	**Pisa**	**2.52**	**232**	P	**Pn**	**00 20 41.5**	**+0.4**
KIJV	**Kijevo**	**2.61**	**119**	*e*Pn	**Pn**	**00 20 43.3**	**+0.9**
KIJV				Sn	**Sn**	**00 21 14.0**	**+0.3**
MOA	**Molln**	**2.62**	**15**	*e*Pn	**Pn**	**00 20 44.4**	**+1.8**
	comp=E,0.2nm,0.1s						
MOA				*e*Sn	**Sn**	**00 21 14.0**	**0.0**
	comp=E,1.7nm,0.3s						
DAVA	**Damuels**	**3.05**	**311**	*e*Pn	**Pn**	**00 20 51.2**	**+2.6**
	comp=E,0.4nm,0.2s						
HVAR	**Hvar**	**3.15**	**132**	*i* Pn	**Pn**	**00 20 49.8**	**+0.1**
HVAR				Sn	**Sn**	**00 21 26.3**	**-0.6**
RONA	**Rosalia, Austr**	**3.18**	**40**	*e*Pg	**Pb**	**00 20 57.9**	**+0.9**
	comp=E,0.6nm,0.1s						
RICI	**Ricice**	**3.33**	**122**	*e*Pn	**Pn**	**00 20 54.4**	**+2.1**
RICI				Sn	**Sn**	**00 21 32.0**	**+0.5**
MAKA	**Makarska**	**3.39**	**126**	*i* Pn	**Pn**	**00 20 54.8**	**+1.7**
MAKA				Sn	**Sn**	**00 21 32.1**	**-0.7**
CKRC	**Cesky Krumlov**	**3.57**	**11**	*e*PN	**Pn**	**00 20 58.5**	**+2.9**
CKRC				*e*

baz=7.3,slow=12,SNR=1.8
0.2nm,0.7s

ASAR	**Alice Springs**	**21.55**	**185**	P	P	00 27 27.4	-0.3
	0.3nm,0.8s,baz=8.1,slow=11,SNR=4.4						
	0.3nm,0.8s						
ILAR	**Eielson Array**	**86.41**	**25**	P	P	00 35 21.1	+0.5
	0.2nm,0.8s,baz=274,slow=4.9,SNR=1.3						
	0.2nm,0.8s						

IDC 01 00:33:12.2±3.4, 6°18S×149°50E, h0km, mb3.1/2, mbtmp3.4/3, ML2.0/1, Error ellipse: s-maj=125.6km s-min=29.8km az=117.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.95**	**216**	Pn	Pn	00 34 15.8	+1.7
	7.0nm,0.3s,baz=268,slow=12,SNR=9.4						
PMG				Sn	Sn	00 34 58.6	-2.6
	5.6nm,0.3s,baz=107,slow=14,SNR=6.8						
	15nm,0.3s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**20.10**	**226**	P	P	00 37 47.1	-0.5
	0.6nm,0.4s,baz=51,slow=11,SNR=8.5						
	0.6nm,0.4s						
ASAR	**Alice Springs**	**22.96**	**219**	P	P	00 38 18.1	-0.4
	0.2nm,0.5s,baz=56,slow=9.5,SNR=9.7						
	0.2nm,0.5s						
TORD	**Torodi Ar. Bea**	**147.54**	**285**	PKPbc	PKPbc	00 52 58.6	-0.9
	0.7nm,0.8s,baz=72,slow=4.5,SNR=3.1						

*IDC **01** 00:35:41.1±13.0, 24°35N×125°53E, h0km, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=382.5km s-min=156.2km az=15.0*
*JMA **01** 00:35:47.3±0.3, 24°N±2°×124°9E±0°8, h60km, MV3.0/10, NEAR ISHIGAKIJIMA ISLAND*
ISC 01 00:35:42.1±1.4, 23°80N±0°09×124°98E±0°07, h7km, n21, σ0s97/25, mb3.6/5, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTJ	**Tarama**	**0.87**	**343**	P	**Pb**	**00 36 00.0**	**+0.4**
JTJ				*e*S	**Sg**	**00 36 09.3**	**-1.0**
JIJ	**Ishigaki jima**	**0.94**	**307**	P	**Pb**	**00 36 01.4**	**+0.5**
JKRS	**Kuro-shima**	**0.98**	**296**	P	**Pn**	**00 36 03.1**	**+0.7**
JISG	**Ishigakijimahi**	**0.99**	**322**	P	**Pb**	**00 36 01.7**	**+0.1**
JMJ2	**Miyako jima3**	**0.99**	**19**	P	**Pb**	**00 36 02.6**	**+0.9**
JMJ2				*e*S	**Sg**	**00 36 14.3**	**+0.3**
JOGS	**Gusukube**	**1.03**	**22**	P	**Pb**	**00 36 03.4**	**+1.1**
JOGS				*e*S	**Sg**	**00 36 15.5**	**+0.1**
JIRJ	**Irabujima**	**1.05**	**11**	P	**Pg**	**00 36 02.6**	**+0.3**
JIRJ				*e*S	**Sg**	**00 36 14.5**	**-1.4**
JMJ	**Miyako jima 2**	**1.05**	**16**	P	**Pg**	**00 36 02.0**	**-0.3**
IRIF	**Iriomote-Funau**	**1.26**	**295**	*e*P	**Pb**	**00 36 06.6**	**+0.5**
YOJ	**Yonaguni jima**	**1.91**	**291**	P	**Pg**	**00 36 19.4**	**+0.6**
NACB	**Ninganchiao**	**3.11**	**278**	P	**Pn**	**00 36 31.4**	**-0.3**
YHNB	**Yeheng**	**3.40**	**285**	P	**Pn**	**00 36 37.4**	**+1.7**
YULB	**Yu-li**	**3.40**	**264**	P	**Pn**	**00 36 34.9**	**-0.7**
SSLB	**Suanglung**	**3.68**	**271**	P	**Pn**	**00 36 40.5**	**+1.0**
TWGBT	**Beinan**	**3.71**	**256**	P	**Pn**	**00 36 39.4**	**-0.5**
TPUB	**Ta-pu**	**4.02**	**264**	P	**Pn**	**00 36 45.7**	**+1.6**
MKAR	**Makanchi Array**	**41.05**	**315**	P	**P**	**00 43 25.4**	**-0.8**
	0.3nm,0.4s,baz=99,slow=8.8,SNR=6.8						
	0.3nm,0.4s						
ZALV	**Zalesovo Beam**	**42.48**	**326**	P	**P**	**00 43 36.3**	**-1.5**
	0.7nm,0.6s,baz=113,slow=9.6,SNR=4.2						
	0.7nm,0.6s						
KURBB	**Kurchatov Arra**	**44.65**	**319**	P	**P**	**00 43 54.5**	**-0.8**
	0.2nm,0.6s,baz=109,slow=9.3,SNR=4.2						
	0.2nm,0.6s						
BVAR	**Borovoye Array**	**50.18**	**320**	P	**P**	**00 44 39.4**	**+1.0**
	0.3nm,0.4s,baz=113,slow=8.0,SNR=2.4						
	0.3nm,0.4s						
FINES	**FINES Array B**	**73.51**	**330**	P	**P**	**00 47 13.8**	**-1.5**
	3.3nm,1.0s,baz=82,slow=7.4,SNR=1.8						
	3.3nm,1.0s						

BUC 01 00:36:34.0±0.2, 45°64N×26°56E, h144km±1km, ml3.5/59, 229C-127D, Error ellipse: s-maj=1.4km s-min=1.2km az=162.0, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAHR	**Sahastru**	**0.13**	**46**	↓P	Pn	00 36 54.0	+0.5
SAHR				↓S	Sn	00 37 09.4	+1.1
SAHR	**Sahastru**	**0.13**	**46**	↓P	Pn	00 36 54.0	+0.5
SAHR				↓S	Sn	00 37 09.4	+1.1
SAHR	**Sahastru**	**0.13**	**46**	↓P	Pn	00 36 54.0	+0.5
SAHR				↓S	Sn	00 37 09.4	+1.1
SAHR				AML	AML		
SAHR				AML	AML		
BISRR	**Bisoca**	**0.14**	**130**	↑P	Pn	00 36 53.8	+0.3
BISRR				↑S	Sn	00 37 09.4	+1.2
BISRR	**Bisoca**	**0.14**	**130**	↑P	Pn	00 36 53.8	+0.3
BISRR				↑S	Sn	00 37 09.4	+1.2
BISRR	**Bisoca**	**0.14**	**130**	↑P	Pn	00 36 53.8	+0.3
BISRR				↑S	Sn	00 37 09.4	+1.2
BISRR				AML	AML		
BISRR				AML	AML		
PLOR	**Plostina**	**0.22**	**17**	↓P	Pn	00 36 53.7	+0.1
PLOR				↓S	Sn	00 37 08.4	-0.2
PLOR	**Plostina**	**0.22**	**17**	↓P	Pn	00 36 53.7	+0.1
PLOR				↓S	Sn	00 37 08.4	-0.2
PLOR	**Plostina**	**0.22**	**17**	↓P	Pn	00 36 53.7	+0.1
PLOR				↓S	Sn	00 37 08.4	-0.2
PLOR				AML	AML		
PLOR				AML	AML		
VRI	**Vrincioaia**	**0.26**	**28**	↑P	Pn	00 36 53.7	+0.1
VRI				↓S	Sn	00 37 08.6	0.0
VRI	**Vrincioaia**	**0.26**	**28**	↑P	Pn	00 36 53.7	+0.1
VRI				↓S	Sn	00 37 08.6	0.0
VRI	**Vrincioaia**	**0.26**	**28**	↑P	Pn	00 36 53.7	+0.1
VRI				↓S	Sn	00 37 08.6	0.0
VRI				AML	AML		
VRI				AML	AML		
NEHR	**Nehoiu**	**0.28**	**221**	↑P	Pn	00 36 54.1	+0.4
NEHR				↑S	Sn	00 37 09.5	+0.8
NEHR	**Nehoiu**	**0.28**	**221**	↑P	Pn	00 36 54.1	+0.4
NEHR				↑S	Sn	00 37 09.5	+0.8
NEHR	**Nehoiu**	**0.28**	**221**	↑P	Pn	00 36 54.1	+0.4
NEHR				↑S	Sn	00 37 09.5	+0.8
NEHR				AML	AML		
NEHR				AML	AML		
COVR	**Voineasa-Covas**	**0.32**	**310**	↑P	Pn	00 36 53.6	-0.2
COVR				↑S	Sn	00 37 08.9	-0.1
COVR	**Voineasa-Covas**	**0.32**	**310**	↑P	Pn	00 36 53.6	-0.2
COVR				↑S	Sn	00 37 08.9	-0.1
COVR	**Voineasa-Covas**	**0.32**	**310**	↑P	Pn	00 36 53.6	-0.2
COVR				↑S	Sn	00 37 08.9	-0.1
COVR				AML	AML		
COVR				AML	AML		
ODBI	**Odobesti**	**0.37**	**70**	↑P	Pn	00 36 54.8	+0.9
ODBI				↓S	Sn	00 37 09.5	+0.3
ODBI	**Odobesti**	**0.37**	**70**	↑P	Pn	00 36 54.8	+0.9
ODBI				↓S	Sn	00 37 09.5	+0.3
ODBI	**Odobesti**	**0.37**	**70**	↑P	Pn	00 36 54.8	+0.9
ODBI				↓S	Sn	00 37 09.5	+0.3
ODBI				AML	AML		
ODBI				AML	AML		
GRER		**0.39**	**131**	↓P	Pn	00 36 54.9	+0.8
GRER				↑S	Sn	00 37 09.7	+0.4
GRER		**0.39**	**131**	↓P	Pn	00 36 54.9	+0.8
GRER				↑S	Sn	00 37 09.7	+0.4
GRER		**0.39**	**131**	↓P	Pn	00 36 54.9	+0.8
GRER				↑S	Sn	00 37 09.7	+0.4
GRER				AML	AML		
GRER				AML	AML		
MLR	**Muntele Rosu**	**0.45**	**251**	↑P	Pn	00 36 54.9	+0.4
MLR				↑S	Sn	00 37 11.1	+1.0
MLR	**Muntele Rosu**	**0.45**	**251**	↑P	Pn	00 36 54.9	+0.4
MLR				↑S	Sn	00 37 11.1	+1.0
MLR	**Muntele Rosu**	**0.45**	**251**	↑P	Pn	00 36 54.9	+0.4
MLR				↑S	Sn	00 37 11.1	+1.0
MLR				AML	AML		
MLR				AML	AML		
PANC	**Panciu**	**0.47**	**61**	↑P	Pn	00 36 55.2	+0.8
PANC				↓S	Sn	00 37 10.8	+0.8
PANC	**Panciu**	**0.47**	**61**	↑P	Pn	00 36 55.2	+0.8
PANC				↓S	Sn	00 37 10.8	+0.8
PANC	**Panciu**	**0.47**	**61**	↑P	Pn	00 36 55.2	+0.8
PANC				↓S	Sn	00 37 10.8	+0.8
ISR	**Istrita**	**0.52**	**181**	↓P	Pn	00 36 55.5	+0.6
ISR				↑S	Sn	00 37 10.3	-0.3
ISR	**Istrita**	**0.52**	**181**	↓P	Pn	00 36 55.5	+0.6
ISR				↑S	Sn	00 37 10.3	-0.3
ISR	**Istrita**	**0.52**	**181**	↓P	Pn	00 36 55.5	+0.6
ISR				↑S	Sn	00 37 10.3	-0.3
ISR				AML	AML		
ISR				AML	AML		
TURR	**Turia**	**0.56**	**318**	↑P	Pn	00 36 54.9	-0.1
TURR				↓S	Sn	00 37 10.6	-0.4
TURR	**Turia**	**0.56**	**318**	↑P	Pn	00 36 54.9	-0.1
TURR				↓S	Sn	00 37 10.6	-0.4
TURR	**Turia**	**0.56**	**318**	↑P	Pn	00 36 54.9	-0.1
TURR				↓S	Sn	00 37 10.6	-0.4
TURR				AML	AML		
TURR				AML	AML		
COSR	**Cosmesti PH**	**0.57**	**68**	↓P	Pn	00 36 55.1	+0.1
COSR				↓S	Sn	00 37 12.1	+1.2
COSR	**Cosmesti PH**	**0.57**	**68**	↓P	Pn	00 36 55.1	+0.1
COSR				↓S	Sn	00 37 12.1	+1.2
COSR	**Cosmesti PH**	**0.57**	**68**	↓P	Pn	00 36 55.1	+0.1
COSR				↓S	Sn	00 37 12.1	+1.2
COSR				AML	AML		
COSR				AML	AML		
ONER	**Baraj Valea Uz**	**0.70**	**351**	↑P	Pn	00 36 55.8	0.0
ONER				↑S	Sn	00 37 12.5	0.0
ONER	**Baraj Valea Uz**	**0.70**	**351**	↑P	Pn	00 36 55.8	0.0
ONER				↑S	Sn	00 37 12.5	0.0
ONER	**Baraj Valea Uz**	**0.70**	**351**	↑P	Pn	00 36 55.8	0.0
ONER				↑S	Sn	00 37 12.5	0.0
OZUR		**0.70**	**311**	↑P	Pn	00 36 55.4	-0.5
OZUR		**0.70**	**311**	↑P	Pn	00 36 55.4	-0.5
OZUR		**0.70**	**311**	↑P	Pn	00 36 55.4	-0.5
GHRR		**0.73**	**54**	↑P	Pn	00 36 56.2	+0.3
GHRR				↓S	Sn	00 37 13.2	+0.5
GHRR		**0.73**	**54**	↑P	Pn	00 36 56.2	+0.3
GHRR				↓S	Sn	00 37 13.2	+0.5
GHRR		**0.73**	**54**	↑P	Pn	00 36 56.2	+0.3
GHRR				↓S	Sn	00 37 13.2	+0.5
GHRR				AML	AML		
GHRR				AML	AML		
BOSR	**Bodos**	**0.76**	**305**	↑P	Pn	00 36 56.0	-0.3
BOSR	**Bodos**	**0.76**	**305**	↑P	Pn	00 36 56.0	-0.3
BOSR	**Bodos**	**0.76**	**305**	↑P	Pn	00 36 56.0	-0.3
BOSR				AML	AML		
TUDR		**0.78**	**93**	↓P	Pn	00 36 56.7	+0.4
TUDR				↑S	Sn	00 37 14.3	+1.0
TUDR		**0.78**	**93**	↓P	Pn	00 36 56.7	+0.4
TUDR				↑S	Sn	00 37 14.3	+1.0
TUDR		**0.78**	**93**	↓P	Pn	00 36 56.7	+0.4
TUDR				↑S	Sn	00 37 14.3	+1.0
TUDR				AML	AML		
TUDR				AML	AML		
PGOR	**Pogoanele**	**0.79**	**157**	↑P	Pn	00 36 56.7	+0.3
PGOR				↑S	Sn	00 37 14.4	+0.9
PGOR	**Pogoanele**	**0.79**	**157**	↑P	Pn	00 36 56.7	+0.3
PGOR				↑S	Sn	00 37 14.4	+0.9
PGOR	**Pogoanele**	**0.79**	**157**	↑P	Pn	00 36 56.7	+0.3
PGOR				↑S	Sn	00 37 14.4	+0.9
PGOR				AML	AML		
PGOR				AML	AML		
IZVR	**Izvoarele**	**0.86**	**96**	↑P	Pn	00 36 56.7	-0.2
IZVR				↑S	Sn	00 37 14.3	-0.1
IZVR	**Izvoarele**	**0.86**	**96**	↑P	Pn	00 36 56.7	-0.2
IZVR				↑S	Sn	00 37 14.3	-0.1
IZVR	**Izvoarele**	**0.86**	**96**	↑P	Pn	00 36 56.7	-0.2
IZVR				↑S	Sn	00 37 14.3	-0.1
IZVR				AML	AML		
IZVR				AML	AML		
TESR	**Tescani**	**0.87**	**4**	↑P	Pn	00 36 56.5	-0.6
TESR	**Tescani**	**0.87**	**4**	↑P	Pn	00 36 56.5	-0.6
TESR	**Tescani**	**0.87**	**4**	↑P	Pn	00 36 56.5	-0.6
TESR				AML	AML		
DOPR	**Dopca**	**0.88**	**292**	↑P	Pn	00 36 57.0	-0.1
DOPR	**Dopca**	**0.88**	**292**	↑P	Pn	00 36 57.0	-0.1
DOPR	**Dopca**	**0.88**	**292**	↑P	Pn	00 36 57.0	-0.1
DOPR				AML	AML		
SCHL	**Schela**	**0.91**	**98**	↑P	Pn	00 36 57.4	+0.1
SCHL				↑S	Sn	00 37 15.1	+0.1
SCHL	**Schela**	**0.91**	**98**	↑P	Pn	00 36 57.4	+0.1
SCHL				↑S	Sn	00 37 15.1	+0.1
SCHL	**Schela**	**0.91**	**98**	↑P	Pn	00 36 57.4	+0.1
SCHL				↑S	Sn	00 37 15.1	+0.1
SCHL				AML	AML		
SCHL				AML	AML		
SCHLR	**Schela**	**0.91**	**100**	↓P	Pn	00 36 57.8	+0.4
SCHLR				↑S	Sn	00 37 16.4	+1.3

COPA				AML	AML			
COPA				AML	AML			
LOT	**Lotru**	**1.97**	**265**	⇓P	Pn	00 37 09.2	+0.8	
LOT				⇑S	Sn	00 37 35.0	+0.1	
LOT	**Lotru**	**1.97**	**265**	⇓P	Pn	00 37 09.2	+0.8	
LOT				⇑S	Sn	00 37 35.0	+0.1	
LOT	**Lotru**	**1.97**	**265**	⇓P	Pn	00 37 09.2	+0.8	
LOT				⇑S	Sn	00 37 35.0	+0.1	
MFTR	**Murfatlar**	**1.97**	**137**	⇑P	Pn	00 37 08.5	+0.1	
MFTR	**Murfatlar**	**1.97**	**137**	⇑P	Pn	00 37 08.5	+0.1	
MFTR	**Murfatlar**	**1.97**	**137**	⇑P	Pn	00 37 08.5	+0.1	
MFTR				AML	AML			
KIS	**Kishinev**	**2.07**	**48**	⇑P	Pn	00 37 09.0	-0.5	
KIS	**Kishinev**	**2.07**	**48**	⇑P	Pn	00 37 09.0	-0.5	
KIS	**Kishinev**	**2.07**	**48**	⇑P	Pn	00 37 09.0	-0.5	
KIS				AML	AML			
RAZG	**Razgrad**	**2.07**	**181**	⇑P	Pn	00 37 09.6	0.0	
RAZG	**Razgrad**	**2.07**	**181**	⇑P	Pn	00 37 09.6	0.0	
RAZG	**Razgrad**	**2.07**	**181**	⇑P	Pn	00 37 09.6	0.0	
RAZG				AML	AML			
ZIMR		**2.16**	**204**	⇓S	Sn	00 37 38.2	-0.4	
ZIMR		**2.16**	**204**	⇓S	Sn	00 37 38.2	-0.4	
ZIMR		**2.16**	**204**	⇓S	Sn	00 37 38.2	-0.4	
ZIMR				AML	AML			
BURAR	**Bucovina Array**	**2.18**	**335**	⇑P	Pn	00 37 11.4	+0.5	
BURAR	**Bucovina Array**	**2.18**	**335**	⇑P	Pn	00 37 11.4	+0.5	
BURAR	**Bucovina Array**	**2.18**	**335**	⇑P	Pn	00 37 11.4	+0.5	
VLAD	**Vladila**	**2.25**	**224**	⇓S	Sn	00 37 40.3	-0.2	
VLAD	**Vladila**	**2.25**	**224**	⇓S	Sn	00 37 40.3	-0.2	
VLAD	**Vladila**	**2.25**	**224**	⇓S	Sn	00 37 40.3	-0.2	
LOZB	**Loznitsa**	**2.27**	**179**	⇑P	Pn	00 37 12.0	0.0	
LOZB	**Loznitsa**	**2.27**	**179**	⇑P	Pn	00 37 12.0	0.0	
LOZB	**Loznitsa**	**2.27**	**179**	⇑P	Pn	00 37 12.0	0.0	
LOZB				AML	AML			
PURM	**Purcari**	**2.47**	**68**	⇓P	Pn	00 37 14.3	-0.1	
PURM				⇑S	Sn	00 37 45.5	0.0	
PURM	**Purcari**	**2.47**	**68**	⇓P	Pn	00 37 14.3	-0.1	
PURM				⇑S	Sn	00 37 45.5	0.0	
PURM	**Purcari**	**2.47**	**68**	⇓P	Pn	00 37 14.3	-0.1	
PURM				⇑S	Sn	00 37 45.5	0.0	
PURM				AML	AML			
PURM				AML	AML			
MARR	**Marisel-Cluj**	**2.60**	**295**	⇓P	Pn	00 37 15.1	-1.0	
MARR	**Marisel-Cluj**	**2.60**	**295**	⇓P	Pn	00 37 15.1	-1.0	
MARR	**Marisel-Cluj**	**2.60**	**295**	⇓P	Pn	00 37 15.1	-1.0	
PLVB	**Pleven**	**2.64**	**212**	⇑P	Pn	00 37 15.9	-0.7	
PLVB	**Pleven**	**2.64**	**212**	⇑P	Pn	00 37 15.9	-0.7	
PLVB	**Pleven**	**2.64**	**212**	⇑P	Pn	00 37 15.9	-0.7	
PLVB				AML	AML			
ELND	**Elena**	**2.75**	**190**	⇑P	Pn	00 37 18.2	+0.2	
ELND	**Elena**	**2.75**	**190**	⇑P	Pn	00 37 18.2	+0.2	
ELND	**Elena**	**2.75**	**190**	⇑P	Pn	00 37 18.2	+0.2	
MDVR	**Moldovita**	**3.53**	**258**	⇑P	Pn	00 37 28.1	+0.2	
MDVR	**Moldovita**	**3.53**	**258**	⇑P	Pn	00 37 28.1	+0.2	
MDVR	**Moldovita**	**3.53**	**258**	⇑P	Pn	00 37 28.1	+0.2	

*IDC **01** 00:38:26.9±1.9, 37°.68N×26°.98E, h0km, mb3.4/2, mbtmp3.3/4, ML3.2/2, Error ellipse: s-maj=40.8km s-min=23.2km az=152.0*
*ATH **01** 00:38:28.3, 37°.87N×26°.97E, h13km±2km, ML3.3/7, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*THE **01** 00:38:28.7, 38°.N±1°×2°.7E±°, h6km±3km, M3.2/13, MLh3.2/13*
*AFAD **01** 00:38:28.3, 37°.87N×26°.94E, h5km±3km, ML3.4*
*ISK **01** 00:38:28.1, 37°.86N×26°.96E, h13km, ML3.6/21*

ISC 01 00:38:28.4±0.8, 37°.85N±0°.02×26°.95E±0°.02, h12km±6km, n92, σ0↑57/112, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.20**	**253**	P	**Pg**	**00 38 32.6**	**-0.1**
KRL1				S	**Sg**	**00 38 36.4**	**+0.7**
DGB	**zmir**	**0.20**	**345**	P	**Pg**	**00 38 32.6**	**-0.2**
DGB				IAML		00 38 35.0	
	comp=N,8μm,0.3s						
DGB				IAML		00 38 35.0	
	comp=E,7μm,0.5s						
DGB				S	**Sg**	**00 38 35.1**	**-0.6**
GMLD	**Gumuldur**	**0.22**	**353**	Pg	**Pg**	**00 38 32.9**	**-0.2**
GMLD				Sg	**Sg**	**00 38 36.4**	**+0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**89**	Pg	**Pg**	**00 38 34.1**	**+0.2**
KUSD				Sg	**Sg**	**00 38 37.8**	**+0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**124**	P	**Pg**	**00 38 34.3**	**+0.3**
GCAM	**G?zelcaml?**	**0.27**	**124**	Pg	**Pg**	**00 38 34.4**	**+0.4**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**357**	P	**Pg**	**00 38 35.6**	**-0.2**
DDIM	**Aydin, Didim**	**0.46**	**150**	P	**Pg**	**00 38 37.8**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.52**	**318**	P	**Pg**	**00 38 38.5**	**0.0**
ZEYE				S	**Sg**	**00 38 45.5**	**0.0**
ZEYE				IAML		00 38 46.0	
	comp=N,7μm,0.4s						
ZEYE				IAML		00 38 48.0	
	comp=E,2μm,0.3s						
DIDI	**Didim-Aydin**	**0.53**	**154**	Pg	**Pg**	**00 38 39.4**	**+0.7**
DIDI				AML	AML		
BLCB	**Balcova**	**0.54**	**8**	P	**Pg**	**00 38 38.8**	**0.0**
BLCB				S	**Sg**	**00 38 46.1**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**8**	Pg	**Pg**	**00 38 38.8**	**0.0**
DUVT	**Torbali**	**0.54**	**47**	P	**Pg**	**00 38 38.8**	**-0.1**
DUVT				S	**Sg**	**00 38 45.7**	**-0.4**
DUVT				IAML		00 38 50.0	
	comp=E,2μm,0.6s						
CESE	**eme**	**0.70**	**313**	Pg	**Pb**	**00 38 42.4**	**-0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**83**	Pg	**Pb**	**00 38 43.7**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.76**	**104**	P	**Pb**	**00 38 43.2**	**-0.4**
AYDN				S	**Sb**	**00 38 53.0**	**-1.0**
YKAV	**Yalikavak-Bodr**	**0.78**	**160**	Pg	**Pb**	**00 38 43.4**	**-0.4**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**337**	Pg	**Pb**	**00 38 44.1**	**-0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.80**	**355**	P	**Pb**	**00 38 44.2**	**-0.1**
BAGT				S	**Sb**	**00 38 55.0**	**-0.2**
BAGT				IAML		00 38 55.0	
	comp=E,2μm,0.7s						
BODT	**Bodrum**	**0.84**	**160**	P	**Pb**	**00 38 44.4**	**-0.5**
BODT				S	**Sg**	**00 38 56.9**	**+1.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**160**	Pg	**Pb**	**00 38 44.5**	**-0.5**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.84**	**70**	P	**Pb**	**00 38 44.8**	**-0.2**
IZMR				P	**Pg**	**00 38 45.3**	**+0.7**
IZMR				S	**Sb**	**00 38 54.4**	**-1.9**
IZMR				S	**Sg**	**00 38 55.0**	**-0.6**
IZMR				IAML		00 38 57.0	
	comp=N,1μm,0.6s						
IZMR				IAML		00 38 57.0	
	comp=N,1μm,0.6s						
MLSB	**Milas**	**0.86**	**130**	Pg	**Pb**	**00 38 45.5**	**+0.2**
MLSB				AML	AML		
FOCM	**Foa**	**0.87**	**349**	Pg	**Pb**	**00 38 45.2**	**-0.3**
FOCM				AML	AML		
BDRM	**Kayabasi**	**0.88**	**153**	P	**Pb**	**00 38 45.1**	**-0.5**
BDRM				S	**Sb**	**00 38 56.8**	**-0.6**
CHOS	**Chios island**	**0.88**	**307**	P	**Pb**	**00 38 45.6**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	Pg	**Pb**	**00 38 45.6**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	P	**Pb**	**00 38 45.7**	**-0.1**
CHOS				S	**Sb**	**00 38 57.7**	**+0.2**
CHOS				AML	AML		
KLNA	**Kalymnos**	**0.90**	**179**	P	**Pb**	**00 38 45.5**	**-0.4**
KLNA				S	**Sb**	**00 38 58.0**	**+0.2**
KARB	**zmir-Karabur**	**0.91**	**333**	P	**Pb**	**00 38 46.2**	**0.0**
KARB				S	**Sb**	**00 38 57.8**	**-0.5**
KARB				IAML		00 39 01.0	
	comp=N,1μm,0.4s						
KARB				IAML		00 39 01.0	
	comp=E,2μm,0.7s						
CAMT	**Merkez**	**0.94**	**18**	P	**Pb**	**00 38 46.6**	**0.0**
CAMT				S	**Sg**	**00 39 00.6**	**+1.9**
CAMT				IAML		00 39 04.0	
	comp=N,3μm,0.6s						
EAG2	**Marmaro, Chios**	**0.96**	**316**	P	**Pb**	**00 38 46.5**	**-0.4**
EAG2				S	**Sb**	**00 38 59.5**	**0.0**

NAZL	**Nazilli-Aydin**	**1.07**	**84**	Pg	**Pb**	**00 38 48.7**	**-0.1**	
NAZL				AML	AML			
ESEN	**Aydn-Nazilli**	**1.11**	**92**	P	**Pn**	**00 38 49.6**	**-0.1**	
ZEDA	**zmir-Bergama**	**1.11**	**5**	P	**Pn**	**00 38 49.6**	**-0.2**	
GOMA	**Golmarmara-Man**	**1.14**	**42**	Pn	**Pn**	**00 38 50.1**	**-0.1**	
GOMA				AML	AML			
KIRA	**zmir-Kiraz**	**1.20**	**73**	P	**Pn**	**00 38 51.0**	**0.0**	
DKL	**Dikili**	**1.22**	**358**	Pn	**Pn**	**00 38 51.2**	**0.0**	
DKL				AML	AML			
DKL	**Dikili**	**1.22**	**358**	P	**Pn**	**00 38 51.0**	**-0.3**	
KTTT	**Salihli**	**1.23**	**47**	P	**Pn**	**00 38 51.7**	**+0.3**	
AKHS	**Akhisar**	**1.23**	**33**	P	**Pn**	**00 38 51.6**	**+0.2**	
AKS	**Akhisar**	**1.23**	**33**	Pn	**Pn**	**00 38 51.2**	**-0.3**	
AKS				AML	AML			
DAT	**Datca**	**1.23**	**156**	P	**Pn**	**00 38 51.9**	**+0.3**	
DAT				AML	AML			
DAT	**Datca**	**1.23**	**156**	Pn	**Pn**	**00 38 51.5**	**-0.1**	
DAT				AML	AML			
YAZI	**Mula-Dat§a-**	**1.24**	**161**	P	**Pn**	**00 38 51.3**	**-0.2**	
YER	**Yerkesik**	**1.28**	**124**	P	**Pn**	**00 38 52.3**	**+0.1**	
YER	**Yerkesik**	**1.28**	**124**	Pn	**Pn**	**00 38 51.9**	**-0.3**	
SOMA	**Soma-Manisa**	**1.38**	**19**	Pn	**Pn**	**00 38 53.8**	**+0.3**	
SOMA				AML	AML			
MANT	**Manisa**	**1.42**	**63**	P	**Pb**	**00 38 55.4**	**+0.5**	
GORD	**Gordes-Manisa**	**1.43**	**42**	Pn	**Pn**	**00 38 54.2**	**0.0**	
GORD				AML	AML			
SULTU	**Buldan**	**1.45**	**82**	P	**Pn**	**00 38 54.2**	**-0.4**	
TNSA	**Tinos**	**1.45**	**258**	P	**Pn**	**00 38 53.3**	**-1.1**	
TNSA				AML	AML			
AYVA	**Ayvalik**	**1.47**	**352**	P	**Pn**	**00 38 55.6**	**+0.9**	
PRK	**Paraskevi**	**1.49**	**339**	P	**Pn**	**00 38 55.0**	**0.0**	
PRK				S	**Sb**	**00 39 15.2**	**+0.3**	
PRK				AML	AML			
PRK	**Paraskevi**	**1.49**	**339**	P	**Pn**	**00 38 54.7**	**-0.3**	
PRK				AML	AML			
TURN	**Turunc**	**1.49**	**136**	P	**Pn**	**00 38 54.4**	**-0.7**	
TURN	**Turunc**	**1.49**	**136**	Pn	**Pn**	**00 38 54.9**	**-0.1**	
HARTU	**Esme**	**1.54**	**71**	P	**Pn**	**00 38 55.8**	**+0.1**	
TAVA	**DENIZLI_Tavas**	**1.61**	**103**	P	**Pn**	**00 38 56.6**	**-0.1**	
STEP	**BALIKESIR_Sava**	**1.64**	**21**	P	**Pn**	**00 38 58.0**	**+0.9**	
BUHA	**Balikesir, Bur**	**1.65**	**3**	P	**Pn**	**00 38 57.1**	**-0.1**	
DNIZ	**Denizli-Tavas-**	**1.67**	**97**	P	**Pn**	**00 38 57.6**	**0.0**	
DALY	**Dalyan (Mula)**	**1.71**	**127**	P	**Pn**	**00 38 58.6**	**+0.6**	
YAYO	**Edremit-Balk**	**1.76**	**3**	Pn	**Pn**	**00 38 58.6**	**-0.1**	
YAYO				AML	AML			
DEMI	**Demirci**	**1.82**	**49**	P	**Pb**	**00 39 01.6**	**-0.2**	
USAK	**Uak-Merkez**	**1.84**	**62**	P	**Pn**	**00 38 59.8**	**-0.2**	
CMBO	**Columbo, Santo**	**1.85**	**222**	P	**Pn**	**00 39 01.0**	**+1.0**	
ARG	**Arkhangelos**	**1.89**	**150**	P	**Pn**	**00 39 00.5**	**+0.1**	
ARG				AML	AML			
ARG	**Arkhangelos**	**1.89**	**150**	P	**Pn**	**00 39 00.6**	**+0.1**	
ARG				AML	AML			
THT1	**Athinios (Pele**	**1.90**	**220**	P	**Pn**	**00 39 01.6**	**+0.9**	
THT1				AML	AML			
BAYC	**CANAKKALE_Bayr**	**1.91**	**351**	P	**Pn**	**00 39 00.1**	**-0.7**	
BALB	**Balikesir**	**1.93**	**22**	Pn	**Pn**	**00 39 01.4**	**+0.4**	
BALB				AML	AML			
EZNE	**Ezine-Canakkal**	**1.95**	**347**	Pn	**Pn**	**00 39 02.1**	**+0.7**	
BALY	**Balya**	**1.95**	**15**	P	**Pb**	**00 39 03.5**	**-0.5**	
KARY	**Karystos**	**1.99**	**276**	P	**Pn**	**00 39 01.4**	**-0.5**	
BKES	**Balkesir-Mer**	**2.03**	**22**	P	**Pb**	**00 39 04.9**	**-0.2**	
EZN	**Ezine**	**2.03**	**346**	P	**Pn**	**00 39 03.4**	**+0.9**	
EZN				AML	AML			
SIMV	**Simav**	**2.05**	**52**	P	**Pb**	**00 39 06.1**	**+0.4**	
DURS	**Dursunbey**	**2.11**	**34**	P	**Pn**	**00 39 05.3**	**+1.6**	
KARP	**Karpathos**	**2.31**	**176**	P	**Pn**	**00 39 06.2**	**-0.1**	
DION	**Dionisos Attik**	**2.39**	**276**	P	**Pn**	**00 39 07.2**	**-0.2**	
DION				AML	AML			
DION	**Dionisos Attik**	**2.39**	**276**	P	**Pn**	**00 39 07.3**	**-0.2**	
DION				AML	AML			
PTL	**Penteli**	**2.45**	**275**	P	**Pn**	**00 39 08.1**	**-0.1**	
PTL				AML	AML			
LIA	**Limnos Island**	**2.46**	**327**	P	**Pn**	**00 39 08.4**	**0.0**	
LIA				AML	AML			
LIA	**Limnos Island**	**2.46**	**327**	P	**Pn**	**00 39 08.0**	**-0.4**	
LIA				AML	AML			
GADA	**Gvkgeada**	**2.47**	**341**	P	**Pn**	**00 39 08.8**	**+0.3**	
GADA				AML	AML			
VLY	**Voula,Athens**	**2.50**	**271**	P	**Pn**	**00 39 08.6**	**-0.3**	
VLY	**Voula,Athens**	**2.50**	**271**	P	**Pn**	**00 39 08.6**	**-0.3**	
VLY				AML	AML			
BRTR	**Keskin Array B**	**5.55**	**68**	Pn	**Pn**	**00 39 52.6**	**+1.7**	
	0.2nm,0.3s,baz=244,slow=15,SNR=9.8 1.6nm,0.8s							
BRTR				AML	AML			
MMAI	**Mount Meron Ar**	**8.42**	**122**	Pn	**Pn**	**00 40 28.4**	**-1.9**	
	1.1nm,0.3s,baz=324,slow=14,SNR=7.5 0.4nm,0.2s							
MMAI				AML	AML			
TORD	**Torodi Ar. Bea**	**33.33**	**229**	P	**P**	**00 45 05.9**	**-0.5**	
	0.4nm,0.7s,baz=39,slow=7.7,SNR=4.5 0.4nm,0.7s							
MKAR	**Makanchi Array**	**41.12**	**59**	P	**P**	**00 46 12.5**	**+0.2**	
	0.4nm,0.8s,baz=280,slow=9.6,SNR=1.7 0.4nm,0.8s							

*IDC **01** 00:46:54.4±2.1, 3°.21N×126°.77E, h0km, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=197.6km s-min=23.1km az=67.0*
*DJA **01** 00:47:02.3±1.0, 3°.N±9°×12°.7E±°, h20km±13km, M4.1/13, mb4.3/3, MLv4.0/13*
*MAN **01** 00:47:07.0, 3°.38N×126°.42E, h29km, MS3.5*

ISC 01 00:47:02.6±1.3, 3°.05N±0°.05×126°.7E±0°.1, h63km, n12, σ1↑90/15, mb3.5/4, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNI	**Manado**	**2.47**	**230**	P	**Pn**	**00 47 40.2**	**-0.4**
MNI				S	**Sn**	**00 48 08.7**	**-0.9**
MNI				AML	AML		
DDMP	**Don Marcelino,**	**3.19**	**342**	*eP*	**Pn**	**00 47 50.8**	**+0.4**
DDMP				*eS*	**Sn**	**00 48 23.1**	**-4.2**
KMSI	**Cibinong**	**3.68**	**228**	P	**Pn**	**00 47 57.4**	**+0.3**
KCP	**Kidapawan**	**4.25**	**338**	*eP*	**Pn**	**00 48 06.9**	**+1.9**
KCP				*eS*	**Sn**	**00 48 56.3**	**+2.9**
GTOI	**Gorontalo**	**4.42**	**237**	P	**Pn**	**00 48 07.0**	**-0.2**
GTOI				AML	AML		
SANI	**Sanana**	**5.12**	**188**	P	**Pn**	**00 48 16.0**	**-0.9**
	0.1nm13nm,0.9s						
SANI				AML	AML		
LUWI	**Luwuk**	**5.67**	**224**	P	**Pn**	**00 48 26.9**	**+2.6**
APSI	**Ampana**	**6.42**	**232**	P	**Pn**	**00 48 35.6**	**+1.0**
WRA	**Warramunga Arr**	**24.05**	**162**	P	**P**	**00 52 11.9**	**-0.2**
	0.5nm,0.3s,baz=342,slow=10,SNR=15 0.5nm,0.3s						
ASAR	**Alice Springs**	**27.46**	**166**	P	**P**	**00 52 44.6**	**+1.6**
	0.6nm,0.8s,baz=344,slow=7.1,SNR=6.5 0.6nm,0.8s						
MKAR	**Makanchi Array**	**58.10**	**325**	P	**P**	**00 56 48.2**	**-1.5**
	0.3nm,0.6s,baz=108,slow=8.4,SNR=1.8 0.3nm,0.6s						
KURBB	**Kurchatov Arra**	**62.30**	**328**	P	**P**	**00 57 18.2**	**0.0**
	0.4nm,0.7s,baz=127,slow=6.5,SNR=2.0 0.4nm,0.7s						

*MAN **01** 00:51:26.0, 4°.44N×127°.61E, h1km, MS3.8*
*IDC **01** 00:51:30.1±3.4, 4°.48N×127°.89E, h120km±34km, mb3.5/8, mbtmp3.9/9, Error ellipse: s-maj=51.0km s-min=15.2km az=72.0*

ISC 01 00:51:18.1±0.8, 4°.83N±0°.07×128°.0E±0°.1, h10km, n14, σ2↑22/19, mb3.9/8, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.59**	**299**	*eP*	**Pg**	**00 52 10.2**	**+2.4**
DDMP				*eS*	**Sb**	**00 52 34.8**	**-1.8**
CDOP	**Cateel, Davao**	**3.31**	**333**	*i P*	**Pg**	**00 52 21.4**	**-0.3**
CDOP				*i S*	**Sb**	**00 52 57.3**	**-0.1**
KCP	**Kidapawan**	**3.60**	**307**	*i P*	**Pg**	**00 52 27.6**	**+0.5**
BIPH	**Bislig**	**3.70**	**334**	*eP*	**Pb**	**00 52 20.4**	**-3.3**
BIPH				*eS*	**Sb**	**00 53 05.3**	**-3.4**
TSSP	**Tandag City**	**4.55**	**337**	*eP*	**Pb**	**00 52 39.2**	**+1.2**
TSSP				*eS*	**Sn**	**00 53 19.1**	**-0.8**
SIJI	**Sorong**	**6.54**	**150**	P	Pn	00 53 01.3	+6.8
	3.1nm,0.3s,baz=242,slow=23,SNR=6.3			S			
SIJI					**Sn**	**00 54 10.1**	**+0.8**
	3.5nm,0.3s,baz=168,slow=22,SNR=1.9						
WRA	**Warramunga Arr**	**25.40**	**166**	P	**P**	**00 56 43.6**	**-2.3**
	1.1nm,0.7s,baz=344,slow=10,SNR=10						

	1.1nm,0.7s							
ASAR	**Alice Springs**	**28.90**	**169**	P	**P**	**00 57 15.6**	**-1.9**	
	0.5nm,0.4s,baz=351,slow=6.9,SNR=17							
ASAR				PcP	**PcP**	**01 00 23.5**	**-3.3**	
	0.2nm,0.4s,baz=345,slow=2.1,SNR=5.5 0.5nm,0.4s							
KSRS	**Korea Array**	**32.47**	**360**	P	**P**	**00 57 52.7**	**+3.9**	
	1.2nm,0.6s,baz=179,slow=9.2,SNR=4.9 1.2nm,0.6s							
SONM	**Songino Array**	**46.68**	**340**	P	**P**	**00 59 50.1**	**+3.0**	
	0.4nm,0.4s,baz=161,slow=8.5,SNR=3.5 0.4nm,0.4s							
MKAR	**Makanchi Array**	**57.38**	**324**	P	**P**	**01 01 07.2**	**+0.4**	
	0.9nm,0.4s,baz=113,slow=8.1,SNR=13 0.9nm,0.4s							
KURBB	**Kurchatov Arra**	**61.50**	**327**	P	**P**	**01 01 35.1**	**0.0**	
	1.8nm,0.6s,baz=128,slow=6.3,SNR=29 1.8nm,0.6s							
BVAR	**Borovoye Array**	**67.09**	**326**	P	**P**	**01 02 11.7**	**-0.1**	
	0.7nm,0.5s,baz=126,slow=7.5,SNR=4.2 0.7nm,0.5s							
ILAR	**Eielson Array**	**83.58**	**25**	P	**P**	**01 03 45.7**	**-0.7**	
	0.3nm,0.6s,baz=250,slow=4.5,SNR=4.5 0.3nm,0.6s							

*IDC **01** 01:02:54.6±1.9, 33°.55S×177°.66W, h0km, mb3.8/3, mbtmp3.7/4, ML3.2/1, Error ellipse: s-maj=41.0km s-min=35.0km az=93.0*

ISC 01 01:03:00.6±1.4, 33°.5S±0°.2×177°.8W±0°.2, h35km, n7, σ1↑35/8, mb3.9/5, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**6.27**	**219**	Pn	**Pn**	**01 04 29.0**	**-1.5**
	0.6nm,0.3s,baz=242,slow=3.6,SNR=8.7						
URZ				Sn	**Sn**	**01 05 42.0**	**+1.0**
	5.7nm,0.3s,baz=129,slow=22,SNR=15 1.8nm,0.3s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.16**	**270**	P	**P**	**01 10 58.8**	**+0.7**
	1.0nm,0.8s,baz=109,slow=7.5,SNR=13 1.0nm,0.8s						
WRA	**Warramunga Arr**	**44.43**	**275**	P	**P**	**01 11 08.5**	**+0.3**
	0.6nm,0.4s,baz=117,slow=7.7,SNR=8.7 0.6nm,0.4s						
QSPA	**South Pole Qui**	**56.62**	**180**	P	**P**	**01 12 39.0**	**-0.9**
	1.0nm,0.9s,baz=118,slow=10,SNR=3.7 1.0nm,0.9s						
VNA3	**Neumayer Olymp**	**75.21**	**176**	P	**P**	**01 14 40.4**	**+1.3**
	comp=Z,1.3nm,0.8s						
VNA2	**Neumayer--Watz**	**75.65**	**177**	P	**P**	**01 14 43.0**	**+1.4**
	comp=Z,1.4nm,0.8s,baz=185,slow=5.8						
FINES	**FINESS Array B**	**148.08**	**338**	PKPbc	**PKPbc**	**01 22 40.7**	**-0.9**
	comp=Z,1.4nm,0.7s,baz=29,slow=3.2,SNR=5.4						

*IDC **01** 01:21:21.7±1.0, 21°.96S×65°.77W, h265km±9km, mb3.8/21, mbtmp4.4/27, Error ellipse: s-maj=12.9km s-min=8.2km az=62.0*
*NEIC **01** 01:21:21.2±2.0, 22°.06S±0°.07×65°.88W±0°.08, h254km±6km, mb4.5/244, Error ellipse: s-maj=11.0km s-min=9.8km az=52.0*
*SJA **01** 01:21:21.1±0.7, 22°.02S×65°.95W, h274km±5km, ML4.7, MW4.4*
*VAO **01** 01:21:21.0±0.5, 21°.99S×65°.93W, h268km±5km, mb4.4, Presumed earthquake*
*GFZ **01** 01:21:22.2±0.2, 22°.S±3°×6°.6W±°, h260km±6km, M4.5/16, mb4.5/16*

ISC 01 01:21:21.3±0.5, 21°.94S±0°.04×65°.95W±0°.04, h266km±5km, n336, σ1↑64/273, mb4.5/128, 10C, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YJA	**Yavi**	**0.47**	**120**	*eP*	**Pn**	**01 21 57.8**	**+1.2**
YJA				*eS*	**S**	**01 22 24.6**	**+0.3**
YJA	**Yavi**	**0.47**	**120**	*eP*	**Pn**	**01 21 57.5**	**+1.0**
YJA				*eS*	**S**	**01 22 23.2**	**-1.0**
HJA	**Humahuaca**	**1.35**	**158**	*eP*	**Pn**	**01 22 01.3**	**+0.6**
AF01	**San Pedro de A**	**2.29**	**244**	*eP*	**Pn**	**01 22 09.7**	**+1.6**
AF01				*eS*	**S**	**01 22 52.7**	**+7.5**
AF01	**San Pedro de A**	**2.29**	**244**		**Pn**	**01 22 09.3**	**+1.2**
AF01	**San Pedro de A**	**2.29**	**244**	⇑*iP*	**Pn**	**01 22 09.2**	**+1.1**
AF01				*eS*	**S**	**01 22 43.5**	**-1.6**
SALTA		**2.30**	**189**	*eP*	**Pn**	**01 22 09.3**	**+1.0**
SALTA		**2.30**	**189**	P	**Pn**	**01 22 09.2**	**+0.8**
SLA	**San Lorenzo**	**2.79**	**172**	*eP*	**Pn**	**01 22 13.2**	**+0.4**
SLA				*eS*	**S**	**01 22 51.0**	**-2.8**
SLA	**San Lorenzo**	**2.79**	**172**	*i P*	**Pn**	**01 22 13.1**	**+0.2**
PB09	**IPOC Station P**	**3.06**	**272**	*eP*	**Pn**	**01 22 16.6**	**+1.0**
PB09				IAML		01 23 07.1	
	comp=Z,397nm,0.4s						
PB09	**IPOC Station P**	**3.06**	**272**		**Pn**	**01 22 16.4**	**+0.7**
PB09	**IPOC Station P**	**3.06**	**272**	⇑*iP*	**Pn**	**01 22 16.3**	**+0.7**
PB09				IAML		01 23 07.5	
	comp=N,512nm,0.3s						
PB09	**IPOC Station P**	**3.06**	**272**	P	**Pn**	**01 22 16.6**	**+1.0**
PB06	**IPOC Station P**	**3.44**	**257**	*eP

TA02 Huaiquique 4.24 292 eP Pn 01 22 27.9 -0.8
PB10 IPOC Station P 4.53 249 eP Pn 01 22 31.4 -0.6
PB10 eS S 01 23 24.3 -4.2
PB10 IAML 01 23 26.7
comp=Z,420nm,0.4s
PB10 IPOC Station P 4.53 249 Pn 01 22 31.0 -1.0
PB10 IPOC Station P 4.53 249 eP Pn 01 22 30.8 -1.2
PB10 IPOC Station P 4.53 249 P Pn 01 22 31.2 -0.8
PSGCX Pisagua 4.55 300 eP Pn 01 22 31.9 -0.5
PSGCX eS S 01 23 26.7 -2.5
PSGCX Pisagua 4.55 300 Pn 01 22 31.7 -0.7
PSGCX Pisagua 4.55 300 eP Pn 01 22 31.7 -0.7
PSGCX Pisagua 4.55 300 P Pn 01 22 31.9 -0.5
PB14 IPOC Station P 4.89 236 eP Pn 01 22 35.6 -1.1
PB14 eS S 01 23 31.4 -5.3
PB14 IPOC Station P 4.89 236 Pn 01 22 35.3 -1.3
PB14 IPOC Station P 4.89 236⇑ iP Pn 01 22 35.3 -1.3
PB14 IPOC Station P 4.89 236 P Pn 01 22 35.5 -1.1
PB16 IPOC Station P 4.91 316 eP Pn 01 22 38.9 +1.8
PB16 eS S 01 23 34.8 -2.8
PB16 IAML 01 23 42.8
comp=Z,530nm,0.4s
PB16 IPOC Station P 4.91 316 Pn 01 22 39.0 +1.8
PB16 IPOC Station P 4.91 316 i P Pn 01 22 38.9 +1.8
PB16 IPOC Station P 4.91 316 P Pn 01 22 39.1 +2.0
PB12 IPOC Station P 5.28 308 eP Pn 01 22 37.1 -4.0
PB12 eS S 01 23 41.3 -3.7
PB12 IPOC Station P 5.28 308 Pn 01 22 40.0 -1.1
PB12 IPOC Station P 5.28 308 eP Pn 01 22 39.9 -1.2
PB12 IPOC Station P 5.28 308 P Pn 01 22 40.5 -0.7
PB18 Visviri 5.46 322 Pn 01 22 46.4 +2.6
PB18 Visviri 5.46 322 P Pn 01 22 46.6 +2.8
comp=Z,420nm,0.7s
AC02 Maricunga 5.67 210 Pn 01 22 45.2 -1.0
AC02 Maricunga 5.67 210 P Pn 01 22 45.1 -1.0
comp=Z,54nm,0.7s
AC01 Pan de Azucar 5.96 225 Pn 01 22 47.0 -2.3
AC01 Pan de Azucar 5.96 225 P Pn 01 22 47.0 -2.3
comp=Z,289nm,0.7s
LPAZ La Paz 5.99 340 P Pn 01 22 52.3 +1.9
comp=Z,18nm,0.4s,baz=127,slow=6.0,SNR=77
LPAZ S S 01 24 00.1 -1.6
comp=Z,68nm,0.9s,baz=317,slow=15,SNR=13
LPAZ La Paz 5.99 340 Pn 01 22 52.4 +2.0
LPAZ La Paz 5.99 340 P Pn 01 22 52.3 +1.9
comp=Z,29nm,0.8s
LPAZ AML AML
LPAZ La Paz 5.99 340 P Pn 01 22 52.4 +2.0
comp=Z,28nm,0.8s
LPAZ La Paz 5.99 340 eP Pn 01 22 50.6 +0.2
AC06 Mina Casimiro 6.71 216 Pn 01 22 55.7 -2.9
GO03 Copiapo 6.84 214 Pn 01 22 57.4 -2.8
GO03 Copiapo 6.84 214 P Pn 01 22 57.6 -2.7
comp=Z,57nm,0.6s
BBSD Serra de San D 6.91 48 eP Pn 01 23 01.3 +0.1
SIV San Ignacio 7.51 39 P Pn 01 23 08.6 0.0
comp=Z,29nm,0.7s,baz=230,slow=6.8,SNR=122
SIV S S 01 24 29.8 -5.4
comp=Z,8.4nm,0.8s,baz=241,slow=12,SNR=7.9
MURT Porto Murtinho 7.75 89 eP Pn 01 23 10.7 -1.0
AC04 Llanos de Chal 7.77 216 Pn 01 23 08.6 -3.2
AC04 Llanos de Chal 7.77 216 P Pn 01 23 08.3 -3.5
comp=Z,46nm,0.6s
COIM Forte Coimbra 7.89 77 eP Pn 01 23 11.6 -1.7
AC05 El Transito 7.90 209 P Pn 01 23 09.8 -3.7
comp=Z,30nm,0.8s
LCO Las Campanas 8.24 210 Pn 01 23 15.0 -2.9
BDQN Bodoquena, MS 8.71 82 eP Pn 01 23 23.0 -0.7
CPUP Villa Florida 9.00 121 P Pn 01 23 25.1 -2.2
comp=Z,2.4nm,0.7s,baz=313,slow=13,SNR=9.5
PTLB Pontes e Lacer 9.13 46 Pn 01 23 28.9 -0.1
PTLB Pontes e Lacer 9.13 46 eP Pn 01 23 28.8 -0.1
SJPY San Joaquin 9.54 110 eP Pn 01 23 33.2 -0.7
AQDB Aquidauana 9.67 83 Pn 01 23 35.8 0.0
AQDB Aquidauana 9.67 83 P Pn 01 23 35.7 0.0
comp=Z,55nm,1.4s
AQDB Aquidauana 9.67 83 eP Pn 01 23 35.7 0.0
CFA Coronel Fontan 9.84 191 P Pn 01 23 33.9 -3.8
comp=Z,4.0nm,0.2s,baz=53,slow=17,SNR=37
CFA S S 01 25 16.7 -12
comp=Z,5.2nm,0.3s,baz=90,slow=20,SNR=14
ZON Zonda 9.87 194 Pn 01 23 35.0 -3.1
CO02 Combarbal 10.27 205 Pn 01 23 41.5 -1.7
VILB Vilhena 10.49 32 Pn 01 23 46.6 +0.6
VILB Vilhena 10.49 32 eP Pn 01 23 46.5 +0.6
PP1B Ponte de Pedra 11.28 69 eP Pn 01 23 55.1 -0.7
ITQB Itaqui 11.39 134 eP Pn 01 23 55.4 -1.6
SALV Santo Antonio 11.41 60 eP Pn 01 23 57.1 -0.3
VA03 San Esteban 11.53 200 P P 01 24 02.8 +1.0
comp=Z,57nm,0.9s
PEL Peldehue 11.92 200 P P 01 24 07.0 +1.0
comp=Z,36nm,0.9s
MT08 Bocatoma Ro 12.01 197 P Pn 01 24 04.3 -0.5
MT02 Curacav 12.17 201 P Pn 01 24 05.1 -1.4
MT09 Talagante 12.60 200 P Pn 01 24 10.2 -1.8
MT01 Popeta 12.76 200 P Pn 01 24 12.2 -1.6
BO01 Tunca 13.20 199 Pn 01 24 17.9 -1.2
BO01 Tunca 13.20 199 P P 01 24 20.4 +0.1
comp=Z,65nm,0.8s
BO02 Sierra Bellavi 13.49 197 P P 01 24 24.2 +0.7
comp=Z,44nm,1.0s
PDRB Porto dos Gac 13.54 42 eP Pn 01 24 22.9 -0.6
ITAB Concordia 13.63 115 P 01 24 24.5 -0.6
ITAB Concordia 13.63 115 P P 01 24 25.3 +0.2
comp=Z,49nm,0.9s
ITAB Concordia 13.63 115 eP P 01 24 24.5 -0.6
LDASE Londrina, Braz 13.77 99 eP Pn 01 24 25.8 -0.5
GO05 Hualane 14.03 201 P P 01 24 28.6 -0.9
NNA Nana 14.36 312 P P 01 24 30.5 -2.9
comp=Z,7.1nm,0.4s,baz=100,slow=14,SNR=4.8
NNA S S 01 27 05.0 -7.2
comp=Z,5.7nm,0.3s,baz=214,slow=7.7,SNR=1.6
NNA Nana 14.36 312 P Pn 01 24 36.4 +2.9
comp=Z,30nm,2.2s
ML02 Panimavida 14.57 198 P Pn 01 24 35.9 +0.1
comp=Z,60nm,0.5s
CLDB Colider 14.69 43 P Pn 01 24 37.7 +0.4
comp=Z,26nm,0.9s
CLDB Colider 14.69 43 eP P 01 24 37.5 +0.6
ARAG Araguaiana, MT 14.75 68 eP P 01 24 37.3 -0.3
CNLB Canela 15.46 121 eP P 01 24 44.7 -0.7
CZSB Cruzeiro do Su 15.56 334 P 01 24 46.8 +0.3
CZSB IAmb IAmb 01 24 59.0
comp=Z,19nm,0.6s
CZSB Cruzeiro do Su 15.56 334 P P 01 24 47.1 +0.6
comp=Z,35nm,0.6s
CZSB Cruzeiro do Su 15.56 334 eP P 01 24 46.6 +0.1
BB19B Bebedouro 16.24 90 eP P 01 24 54.0 +0.1
IPMB Ipameri, GO 17.13 80 eP P 01 25 03.3 -0.4
SNDB Serra Nova Dou 17.16 57 eP P 01 25 04.0 +0.1
PET01 Itanhaem-SP 17.34 101 eP P 01 25 05.8 0.0
VAO Valinhos 17.58 97 P P 01 25 08.4 -0.1
VAO Valinhos 17.58 97 eP P 01 25 07.9 -0.7
NPGB Novo Progresso 18.00 36 eP P 01 25 12.5 -0.6
BDFB Brasilia 18.09 73 P P 01 25 14.6 +0.4
comp=Z,12nm,0.6s,baz=249,slow=13,SNR=15
BDFB Brasilia 18.09 73 P 01 25 15.0 +0.8
BDFB IAmb IAmb 01 25 16.7
comp=Z,21nm,0.9s
GO06 Curarrehue 18.20 194 P P 01 25 14.9 -0.3
comp=Z,47nm,0.9s
CANS Sao Roque de M 18.32 88 eP P 01 25 15.8 -0.8
PMNB Patos De Minas 18.62 83 P P 01 25 21.0 +1.1
comp=Z,54nm,0.7s
PMNB Patos De Minas 18.62 83 eP P 01 25 19.2 -0.6
ATAH Atahualpa 19.00 319 P P 01 25 26.2 +1.9
comp=Z,19nm,0.7s,baz=172,slow=7.2,SNR=14
PLCA Paso Flores 19.13 191 P P 01 25 24.4 -0.7
comp=Z,6.8nm,0.9s,baz=7.4,slow=11,SNR=24
PLCA Paso Flores 19.13 191 P 01 25 24.4 -0.7
PLCA Paso Flores 19.13 191 P P 01 25 24.4 -0.7
comp=Z,12nm,1.3s
PLCA Paso Flores 19.13 191 eP P 01 25 23.8 -1.3
LL03 Petrohue 19.90 194 P P 01 25 32.0 -1.1
comp=Z,66nm,0.8s
ITTB Itaituba 20.09 31 eP P 01 25 34.4 -1.0
DIAM Diamantina, MG 21.23 84 eP P 01 25 46.4 -0.8
LL02 Futaleuf 21.75 192 P 01 25 50.3 -1.3
LL02 IAmb IAmb 01 25 52.4
comp=Z,23nm,1.1s
SMTB Santa Maria do 21.93 56 P 01 25 53.1 -0.4
SMTB Santa Maria do 21.93 56 eP P 01 25 53.2 -0.4
SDBA SAO DESIDERIO 22.21 68 eP P 01 25 55.0 -1.1

PIAT Ana Tenorio 24.03 328 P P 01 26 16.3 +3.3
comp=Z,15nm,0.8s
OTAV Otavalo 25.19 329 P 01 26 26.1 +2.5
OTAV Otavalo 25.19 329 P P 01 26 25.9 +2.3
comp=Z,4.9nm,0.7s
OTAV Otavalo 25.19 329 eP P 01 26 23.4 -0.2
GUA01 Guaratinga, BA 25.23 82 eP P 01 26 22.8 -0.6
PAC1 Pacto, Paraso 25.38 329 P P 01 26 28.6 +3.6
comp=Z,113µmcomp=Z,9.3nm,0.7s
BBAC Balboa, Cauca 26.25 334 P P 01 26 34.5 +1.7
comp=Z,19nm,0.7s
URMC La Uribe, Meta 26.36 341 P P 01 26 33.0 -0.6
comp=Z,5.8nm,1.3s
POPC Popayan, Colom 26.50 335 P P 01 26 37.2 +2.2
comp=Z,14nm,0.7s
VILC Villavicencio, 26.98 343 P P 01 26 41.0 +1.8
NBPN Ponto Novo - B 27.01 70 eP P 01 26 38.2 -1.1
JAMC Jamundi, Valle 27.11 336 P P 01 26 40.0 -0.5
comp=Z,3µmcomp=Z,9.9nm,0.7s
ORTC Ortega, Tolima 27.26 339 P P 01 26 42.0 +0.5
comp=Z,14nm,0.9s
YOTC Yotoco, Valle 27.70 337 P P 01 26 45.1 -0.5
comp=Z,7.9nm,0.7s
GUY2C Guyana, Caldas 28.53 340 P P 01 26 52.2 -1.1
comp=Z,6.4nm,0.8s
RUSC La Rusia 28.53 345 P 01 26 53.9 +0.5
RUSC IAmb IAmb 01 26 57.0
comp=Z,7.8nm,0.7s
CBOC Ciudad Bolivar 29.34 339 P P 01 26 58.8 -1.3
comp=Z,9.7nm,0.8s
NBPS Pedro II - PI 29.47 57 eP P 01 27 00.6 -0.6
HELC Santa Helena 29.50 340 P P 01 27 00.7 -1.0
HELC IAmb IAmb 01 27 01.6
comp=Z,8.2nm,0.7s
HELC Santa Helena 29.50 340 P P 01 26 58.9 -2.8
PTBC PUERTO BERRIO, 29.51 343 P P 01 26 59.5 -1.9
comp=Z,28nm,0.7s
NBMA Murití-CE 29.95 65 eP P 01 27 04.6 -0.8
SJCC San Jacinto, C 32.91 343 P P 01 27 30.3 -0.9
SJCC IAmb IAmb 01 27 31.2
comp=Z,21nm,1.1s
NBPV Pedro Velho 33.39 67 eP P 01 27 34.7 -0.6
MTO3 Montecristo 42.80 325 IAmb IAmb 01 28 56.5
comp=Z,13nm,0.7s
APG El Apazote 43.89 325 P P 01 29 04.1 +1.8
comp=Z,0.5nm,0.5s,baz=165,slow=8.7,SNR=5.7
comp=Z,0.5nm,0.5s
CMIG Matias Romero 48.04 322 P P 01 29 35.1 +0.8
comp=Z,3.4nm,0.6s,baz=133,slow=5.9,SNR=5.8
comp=Z,3.4nm,0.6s
ZAIG Zacatecas 56.99 319 P 01 30 41.9 +1.9
ZAIG IAmb IAmb 01 30 43.3
comp=Z,6.7nm,0.8s
Y58A Scranton 57.05 346 IAmb IAmb 01 31 08.9
comp=Z,7.5nm,0.8s
BELA Belgrano 2 57.94 173 P 01 30 46.7 +1.2
VNA3 Neumayer Olymp 58.78 162 ⇑P P 01 30 52.5 +1.0
comp=Z,2.9nm,0.7s
VNA1 Neumayer--Stat 58.95 161 P P 01 30 53.7 +1.1
comp=Z,4.8nm,0.8s
VNA2 Neumayer--Watz 59.33 161 ⇑P P 01 30 56.2 +1.1
comp=Z,6.4nm,0.8s,baz=281,slow=7.3
833A Chaparral WMA, 59.49 326 P P 01 30 58.1 +1.3
X48A Hartselle 59.56 340 P P 01 30 57.9 +0.7
X48A IAmb IAmb 01 30 58.6
comp=Z,16nm,0.8s
SNAG San Augustine 59.65 332 P P 01 30 59.9 +2.1
TKL Tuckaleechee C 59.73 343 P P 01 30 58.6 +0.4
comp=Z,6.9nm,0.7s,baz=175,slow=7.6,SNR=7.8
comp=Z,6.9nm,0.7s
TKL Tuckaleechee C 59.73 343 IAmb IAmb 01 30 59.5
comp=Z,9.2nm,0.8s
SWET Sewanee 59.92 341 IAmb IAmb 01 31 00.9
comp=Z,13nm,0.8s
NATX Nacogdoches 60.06 332 P P 01 31 02.0 +1.4
HNDO Hondo 60.41 327 P P 01 31 04.5 +1.5
HNDO IAmb IAmb 01 31 07.7
comp=Z,8.9nm,0.6s
OXF Oxford 60.41 338 P P 01 31 02.6 -0.3
V48A Smith Brothers 60.68 341 IAmb IAmb 01 31 05.5
comp=Z,8.1nm,0.6s
SNAA Sanae 60.97 161 P P 01 31 07.4 +1.1
comp=Z,72nm,0.7s
SNAA Sanae 60.97 161 P P 01 31 06.6 +0.3
comp=Z,3.8nm,0.8s,baz=292,slow=3.3,SNR=6.5
comp=Z,3.8nm,0.8s
SNAA Sanae 60.97 161 IAmb IAmb 01 31 08.0
comp=Z,5.2nm,0.9s
WVT Waverly 61.36 340 P 01 31 09.4 +0.2
JCT Junction City 61.44 327 IAmb IAmb 01 31 11.8
comp=Z,11nm,1.0s
HPIG 61.95 320 P P 01 31 15.1 +1.4
HPIG IAmb IAmb 01 31 16.1
comp=Z,5.8nm,0.7s
SAND Sanderson 62.23 325 IAmb IAmb 01 31 17.5
comp=Z,6.8nm,0.9s
OZNA Ozona 62.47 326 IAmb IAmb 01 31 18.9
comp=Z,7.2nm,0.7s
TXAR Lajitas Array 62.60 323 P P 01 31 18.8 +1.0
comp=Z,1.5nm,0.7s,baz=149,slow=7.9,SNR=20
comp=Z,1.5nm,0.7s
PLPT Palo Pinto 62.61 329 IAmb IAmb 01 31 19.7
comp=Z,9.3nm,0.8s
TROLL Troll, Antarti 62.68 161 P P 01 31 19.0 +1.3
comp=Z,218nm,0.7s
TMB01 Midkiff 63.56 326 IAmb IAmb 01 31 25.7
comp=Z,6.3nm,0.8s
TPB05 Hovey Rd 63.63 324 IAmb IAmb 01 31 26.7
comp=Z,8.8nm,0.9s
HHAR Hobbs 63.67 335 IAmb IAmb 01 31 26.0
comp=Z,8.4nm,0.7s
APMT Aspermont 63.90 328 IAmb IAmb 01 31 28.0
comp=Z,13nm,0.8s
TPB01 Permian Basin 63.90 324 IAmb IAmb 01 31 28.6
comp=Z,10nm,0.8s
SN07 Snyder 07 64.09 328 IAmb IAmb 01 31 28.9
comp=Z,6.8nm,0.7s
129A Stewart Farms, 64.21 327 IAmb IAmb 01 31 29.9
comp=Z,10nm,1.0s
CCM Cathedral Cave 64.24 338 P P 01 31 28.5 +0.3
VHRN Van Horn 64.44 323 IAmb IAmb 01 31 31.8
comp=Z,7.5nm,0.8s
128A Castleberry Fa 64.52 326 IAmb IAmb 01 31 31.4
comp=Z,5.3nm,0.5s
DKNS Dickens 64.57 328 IAmb IAmb 01 31 31.6
comp=Z,7.7nm,1.0s
TPB11 China Draw 64.80 325 IAmb IAmb 01 31 35.1
comp=Z,16nm,1.1s
TPB28 64.85 324 IAmb IAmb 01 31 35.2
comp=Z,9.2nm,0.8s
T35A Sooner Cattle 65.26 333 IAmb IAmb 01 31 36.8
comp=Z,15nm,1.1s
DBIC Dimbokro 66.24 72 P P 01 31 40.5 -0.9
comp=Z,4.0nm,0.7s,baz=258,slow=7.6,SNR=7.7
comp=Z,4.0nm,0.7s
DBIC Dimbokro 66.24 72 IAmb IAmb 01 31 53.1
comp=Z,20nm,1.5s
121A Cookes Peak, D 67.33 322 IAmb IAmb 01 31 51.6
comp=Z,12nm,0.9s
319A Douglas 67.35 321 IAmb IAmb 01 31 51.3
comp=Z,12nm,0.8s
QSPA South Pole Qui 68.25 180 P P 01 31 54.7 +1.3
comp=Z,6.7nm,0.8s,baz=173,slow=1.8,SNR=40
comp=Z,6.7nm,0.8s
QSPA South Pole Qui 68.25 180 P P 01 31 54.6 +1.3
QSPA IAmb IAmb 01 31 55.6
comp=Z,7.1nm,0.8s
ALQ Albuquerque 68.40 325 IAmb IAmb 01 31 57.8
comp=Z,5.8nm,0.9s
ALQ Albuquerque 68.40 325 IAmb IAmb 01 31 57.7
comp=Z,5.7nm,0.9s
ANMO Albuquerque 68.41 325 P P 01 31 56.7 +1.9
comp=Z,4.9nm,0.8s,baz=144,slow=7.1,SNR=21
comp=Z,4.9nm,0.8s
ANMO Albuquerque 68.41 325 P 01 31 56.7 +1.9
ANMO Albuquerque 68.41 325 IAmb IAmb 01 31 57.8
comp=Z,5.0nm,0.8s
TASM ASL Pad, Albuq 68.41 325 IAmb IAmb 01 31 57.8
comp=Z,5.3nm,0.9s
TUC Tucson 68.91 320 P 01 31 59.6 +1.8
T25A Trinidad 69.05 328 IAmb IAmb 01 32 01.8
comp=Z,6.0nm,0.9s
SDCO Great Sand Dun 70.06 328 IAmb IAmb 01 32 08.1
comp=Z,10nm,1.1s
W18A Petrified Fore 70.33 323 IAmb IAmb 01 32 09.7
comp=Z,11nm,0.9s
Q24A Divide 70.84 329 IAmb IAmb 01 32 12.7
comp=Z,9.2nm,0.9s
ECSD EROS Data Cent 71.16 337 IAmb IAmb 01 32 12.2
comp=Z,7.2nm,0.6s
MVCO Mesa Verde 71.20 325 IAmb IAmb 01 32 14.9
comp=Z,22nm,1.4s
WUAZ Wupatki 71.54 322 IAmb IAmb 01 32 17.4
comp=Z,11nm,0.9s
PV01 Paradox Valley 71.92 326 IAmb IAmb 01 32 19.5
comp=Z,12nm,0.8s
PV02 Paradox Valley 72.07 326 IAmb IAmb 01 32 20.1
comp=Z,24nm,1.4s
PV13 Radium Mtn., P 72.07 326 IAmb IAmb 01 32 20.1
comp=Z,10nm,0.8s
BLYC Blythe 72.16 319 IAmb IAmb 01 32 20.8
comp=Z,7.2nm,1.1s
PV05 Paradox Valley 72.16 325 IAmb IAmb 01 32 20.4
comp=Z,10nm,0.9s
PV12 Saucer Basin, 72.18 326 IAmb IAmb 01 32 20.8
comp=Z,12nm,0.9s
PV18 Skein Mesa, Pa 72.19 326 IAmb IAmb 01 32 22.6
comp=Z,6.0nm,0.8s
PV07 Paradox Valley 72.19 326 IAmb IAmb 01 32 20.9
comp=Z,14nm,1.0s
PV16 Nyswonger Mesa 72.24 326 IAmb IAmb 01 32 27.3
comp=Z,8.3nm,1.1s
PV17 East Wray Mesa 72.24 326 IAmb IAmb 01 32 20.4
comp=Z,5.2nm,0.8s
PV04 Paradox Valley 72.29 326 IAmb IAmb 01 32 21.4
comp=Z,6.8nm,0.7s
PV14 Lion Creek, Pa 72.34 326 IAmb IAmb 01 32 21.5
comp=Z,8.2nm,0.9s
PV10 Paradox Valley 72.35 326 IAmb IAmb 01 32 21.3
comp=Z,7.2nm,0.8s
PV23 Carpenter Ridg 72.39 326 IAmb IAmb 01 32 22.8
comp=Z,8.7nm,0.7s
PV21 Cone Mtn., Par 72.45 326 IAmb IAmb 01 32 21.9
comp=Z,8.8nm,0.8s
U15A North Rim 72.71 322 IAmb IAmb 01 32 24.6
comp=Z,9.3nm,0.9s
IRM Iron Mountain 72.81 319 P P 01 32 22.2 +1.0
HMU Henry Mountain 72.93 324 IAmb IAmb 01 32 25.8
comp=Z,17nm,1.2s
BELC Belle Mtn. Jos 73.23 318 P P 01 32 25.4 +1.7
PFO Pinyon Flats O 73.26 318 P P 01 32 24.4 +0.5
comp=Z,2.4nm,0.9s,baz=74,slow=7.8,SNR=16
comp=Z,2.4nm,0.9s
O20A White River Ci 73.26 327 IAmb IAmb 01 32 27.1
comp=Z,5.6nm,0.8s
Q16A Castle Valley 73.88 325 IAmb IAmb 01 32 31.6
comp=Z,5.0nm,0.7s
P17A Butcher Ranch, 74.05 325 IAmb IAmb 01 32 31.6
comp=Z,10nm,0.8s
CCUT Cedar City 74.11 323 IAmb IAmb 01 32 32.9
comp=Z,5.7nm,0.8s
TMUT Trail Mountain 74.17 325 IAmb IAmb 01 32 32.4
comp=Z,4.7nm,0.7s
RDMU Red Mountain 74.26 327 IAmb IAmb 01 32 32.5
comp=Z,8.8nm,0.8s
K22A Casper 74.37 330 IAmb IAmb 01 32 33.2
comp=Z,8.1nm,0.9s
RSSD Black Hills 74.42 333 P P 01 32 30.9 +0.4
RSSD IAmb IAmb 01 32 33.5
comp=Z,5.1nm,0.8s
GSC Goldstone, Bar 74.59 319 IAmb IAmb 01 32 35.0
comp=Z,10nm,1.4s
BSUT Blindstream Ca 74.84 326 IAmb IAmb 01 32 36.6
comp=Z,13nm,0.8s
MPU Maple Canyon 74.92 325 IAmb IAmb 01 32 36.7
comp=Z,7.1nm,0.8s
TORD Torodi Ar. Bea 74.93 69 P P 01 32 33.0 -0.7
comp=Z,2.3nm,0.5s,baz=256,slow=6.1,SNR=33
comp=Z,2.3nm,0.5s
PSUT Pine Spring 75.07 323 IAmb IAmb 01 32 37.8
comp=Z,6.7nm,0.7s
GWY Greenwater Val 75.10 320 IAmb IAmb 01 32 37.6
comp=Z,8.1nm,0.7s
TPNV Topopah Spring 75.36 320 IAmb IAmb 01 32 39.7
comp=Z,9.6nm,1.1s
FURC Furnace Creek, 75.40 320 IAmb IAmb 01 32 39.6
comp=Z,11nm,0.8s
WCT Wildcat Mounta 75.48 320 IAmb IAmb 01 32 40.4
comp=Z,7.8nm,1.0s
TCUT Toone Canyon 75.60 326 IAmb IAmb 01 32 40.0
comp=Z,7.2nm,0.9s
ISA Isabella, Lake 75.86 318 IAmb IAmb 01 32 42.1
comp=Z,7.0nm,0.8s
PDAR Pinedale Array 75.90 328 P P 01 32 40.5 +1.6
comp=Z,1.6nm,0.5s,baz=126,slow=8.3,SNR=30
comp=Z,1.6nm,0.5s
PDAR Pinedale Array 75.90 328 P P 01 32 40.3 +1.4
HWUT Hardwood Ranch 76.04 326 IAmb IAmb 01 32 42.1
comp=Z,5.2nm,0.7s
SPUT South Promonto 76.28 326 IAmb IAmb 01 32 44.1
comp=Z,9.4nm,0.7s
ULM Lac du Bonnet 76.60 341 P P 01 32 42.2 -0.2
comp=Z,7.5nm,0.6s,baz=148,slow=7.2,SNR=11
comp=Z,7.5nm,0.6s
ULM Lac du Bonnet 76.60 341 IAmb IAmb 01 32 43.7
comp=Z,10nm,0.6s
AHID Auburn Hatcher 76.66 328 IAmb IAmb 01 32 46.0
comp=Z,11nm,0.9s
TPH Tonopah 76.69 321 IAmb IAmb 01 32 46.6
comp=Z,6.9nm,1.1s
VNDA Vanda 76.88 190 P P 01 32 44.7 +1.0
comp=Z,1.3nm,0.8s,baz=143,slow=4.6,SNR=6.9
comp=Z,1.3nm,0.8s
SNOW Snow King Moun 77.00 328 IAmb IAmb 01 32 48.7
comp=Z,4.8nm,0.7s
ELK Elko 77.38 324 P P 01 32 49.0 +1.7
comp=Z,3.6nm,0.8s,baz=165,slow=1.5,SNR=16
comp=Z,3.6nm,0.8s
RLMT Red Lodge 77.54 330 IAmb IAmb 01 32 50.6
comp=Z,5.2nm,0.7s
NVAR Mina Array Bea 77.56 320 P P 01 32 50.2 +1.9
comp=Z,3.7nm,0.9s,baz=158,slow=6.2,SNR=21
comp=Z,3.7nm,0.9s
NVAR Mina Array Bea 77.56 320 P P 01 32 49.8 +1.5
LHV Little Huntoon 77.56 320 IAmb IAmb 01 32 51.6
comp=Z,5.2nm,0.8s
YNE Yellowstone No 77.79 330 IAmb IAmb 01 32 52.4
comp=Z,7.8nm,0.8s
KVN Kaiserville 77.85 321 IAmb IAmb 01 32 52.8
comp=Z,9.4nm,0.9s
YHH Holmes Hill 78.03 329 IAmb IAmb 01 32 54.5
comp=Z,8.9nm,0.9s
YHL Hebgen Lake 78.23 329 IAmb IAmb 01 32 55.1
comp=Z,4.4nm,0.6s
YERR Yerington 78.48 320 IAmb IAmb 01 32 56.3
comp=Z,6.7nm,0.7s
HLID Hailey 78.91 326 IAmb IAmb 01 32 59.2
comp=Z,11nm,0.8s
SUTB Sutter Butte 80.16 319 IAmb IAmb 01 33 05.7
comp=Z,6.5nm,0.7s
ORV Oroville 80.19 320 IAmb IAmb 01 33 05.6
comp=Z,6.3nm,0.9s
PLID Pearl Lake 80.79 327 P 01 33 07.5 +1.9
PLID IAmb IAmb 01 33 08.5
comp=Z,8.2nm,0.8s
BOSA Boshof 80.80 117 P P 01 33 05.4 -0.6
comp=Z,2.0nm,0.8s,baz=354,slow=5.6,SNR=5.9
comp=Z,2.0nm,0.8s
BOSA Boshof 80.80 117 IAmb IAmb 01 33 38.8
comp=Z,15nm,1.4s
O03E Paynes Creek 80.83 320 IAmb IAmb 01 33 10.8
comp=Z,8.2nm,1.0s
MOD Modoc Plateau 80.98 322 IAmb IAmb 01 33 09.6
comp=Z,6.8nm,1.0s
K05A Summer Lake 81.85 322 IAmb IAmb 01 33 14.5
comp=Z,14nm,0.9s
YBH Yreka Blue Hor 82.27 321 P P 01 33 14.0 +0.8
comp=Z,1.8nm,0.7s,baz=88,slow=8.4,SNR=5.9
comp=Z,1.8nm,0.7s
MAW Mawson 83.10 162 P P 01 33 18.1 +1.1
comp=Z,4.8nm,0.9s,baz=198,slow=5.2,SNR=11
comp=Z,4.8nm,0.9s
MAW Mawson 83.10 162 P P 01 33 18.1 +1.1
NEW Newport 83.54 328 P P 01 33 20.6 +1.1
comp=Z,0.9nm,0.5s,baz=101,slow=5.2,SNR=2.3
comp=Z,0.9nm,0.5s
ESDC Sonseca Array 84.25 43 P P 01 33 22.7 -0.5
comp=Z,1.0nm,1.1s,baz=252,slow=5.1,SNR=5.6
comp=Z,1.0nm,1.1s
YKA Yellowknife Ar 92.54 340 P P 01 34 03.1 +1.1
comp=Z,3.0nm,0.6s,baz=129,slow=4.5,SNR=19
comp=Z,3.0nm,0.6s
ASAR Alice Springs 130.72 204 PKP PKiKP 01 40 01.9 -0.4
comp=Z,1.9nm,0.7s,baz=136,slow=1.8,SNR=22
ASAR SKPbc SKPbc 01 43 00.2 0.0
comp=Z,1.4nm,0.8s,baz=146,slow=3.5,SNR=12

ASAR	**Alice Springs**	**130.72**	**204**		**PKiKP**	**01 40 02.0**	**-0.4**
WRA	**Warramunga Arr**	**133.89**	**207**	PKhKP	PKPpre	01 40 00.5	
	comp=Z,0.5nm,0.8s,baz=207,slow=1.4,SNR=4.8						
WRA				PKP	**PKPdf**	**01 40 07.6**	**+0.1**
	comp=Z,1.6nm,0.5s,baz=172,slow=1.7,SNR=23						
WRA				SKPbc	**SKPbc**	**01 43 11.8**	**+0.6**
	comp=Z,1.5nm,0.8s,baz=146,slow=2.9,SNR=9.0						
BVAR	**Borovoye Array**	**134.57**	**36**	PKP	**PKPdf**	**01 40 08.5**	**+0.8**
	comp=Z,1.2nm,0.8s,baz=286,slow=2.8,SNR=5.0						
KURBB	**Kurchatov Array**	**140.15**	**35**	PKP	**PKPdf**	**01 40 18.2**	**+0.1**
	comp=Z,0.5nm,0.6s,baz=302,slow=2.3,SNR=5.9						
ZALV	**Zalesovo Beam**	**141.13**	**27**	PKP	**PKPdf**	**01 40 20.4**	**+0.7**
	comp=Z,2.3nm,0.6s,baz=282,slow=1.4,SNR=7.5						
ZALV				SKPbc	**SKPbc**	**01 43 30.1**	**-0.9**
	comp=Z,0.7nm,0.6s,baz=331,slow=5.8,SNR=3.5						
MKAR	**Makanchi Array**	**144.32**	**38**	PKP	**PKPdf**	**01 40 25.8**	**+0.2**
	comp=Z,3.8nm,0.5s,baz=309,slow=4.3,SNR=25						
MKAR				SKPbc	**SKPbc**	**01 43 38.9**	**-0.2**
	comp=Z,1.3nm,0.9s,baz=352,slow=4.4,SNR=2.5						
MKAR	**Makanchi Array**	**144.32**	**38**		**PKPdf**	**01 40 25.9**	**+0.3**
HILR	**Hailar Array B**	**152.08**	**352**	PKPbc	**PKPbc**	**01 40 44.5**	**-0.4**
	comp=Z,2.1nm,0.4s,baz=53,slow=2.8,SNR=3.7						
SONM	**Songino Array**	**153.44**	**12**	PKPbc	**PKiKP**	**01 40 49.0**	**+0.8**
	comp=Z,1.6nm,0.7s,baz=335,slow=4.1,SNR=3.6						
SONM				PKPab	**PKPab**	**01 41 02.2**	**+0.7**
	comp=Z,0.8nm,0.5s,baz=356,slow=4.4,SNR=4.1						
HHC	**Hu-ho-hao-te**	**161.03**	**6**	*eP*	**PKPdf**	**01 40 46.7**	**-3.3**
XAN	**Xi'an**	**167.13**	**19**	*ePKP*	**PKPdf**	**01 40 51.1**	**-4.5**
NJ2	**Nanjing**	**169.06**	**338**	*eP*	**PKPdf**	**01 40 56.8**	**-0.1**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						

*ISK **01** 01:30:52.7, 37.86N×26.45E, h9km, ML2.9/17*
*AFAD **01** 01:30:52.2, 37.88N×26.48E, h7km±2km, ML3.0*
*THE **01** 01:30:53.4, 38°N±2°×2°7E±°, h0km±4km, M2.9/11, ML/h2.9/11*

ISC 01 01:30:52.8±1.0, **37.89N**±0.02×**26.46E**±0.02, **h10**km±9km, **n44**, σ0**69**/65, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZEYE	**Izmir, Urla-Ze**	**0.35**	**5**	P	**Pg**	**01 30 59.6**	**-0.1**
ZEYE				S	**Sg**	**01 31 04.9**	**+0.5**
ZEYE				IAML		01 31 07.0	
	comp=N,2μm,0.8s						
DGB	**zmir**	**0.37**	**64**	P	**Pg**	**01 30 59.6**	**-0.5**
GMLD	**Gumuldur**	**0.40**	**63**	Pg	**Pg**	**01 31 01.1**	**+0.4**
GMLD				Sg	**Sb**	**01 31 07.2**	**-0.9**
GMLD				AML	AML		
CESE	**eme**	**0.46**	**344**	Pg	**Pb**	**01 31 02.8**	**-0.1**
CESE				Sg	**Sb**	**01 31 09.4**	**-0.4**
CESE				AML	AML		
BEYE	**izmir**	**0.50**	**47**	P	**Pg**	**01 31 01.6**	**-0.9**
BEYE				S	**Sg**	**01 31 09.2**	**+0.1**
CHOS	**Chios island**	**0.59**	**327**	P	**Pg**	**01 31 04.7**	**+0.4**
CHOS				S	**Sb**	**01 31 13.5**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.59**	**327**	Pg	**Pg**	**01 31 05.0**	**+0.7**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.64**	**107**	P	**Pg**	**01 31 04.7**	**-0.5**
GCAM				S	**Sg**	**01 31 13.8**	**+0.2**
GCAM				IAML		01 31 17.0	
	comp=N,639nm,0.2s						
GCAM	**G?zelcaml?**	**0.64**	**107**	Pg	**Pg**	**01 31 05.0**	**-0.2**
GCAM				Sg	**Sb**	**01 31 14.9**	**-0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.65**	**93**	Pg	**Pb**	**01 31 06.3**	**+0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.67**	**43**	P	**Pg**	**01 31 05.3**	**-0.5**
BLCB				S	**Sg**	**01 31 15.4**	**+0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.67**	**43**	Pg	**Pb**	**01 31 06.4**	**-0.2**
BLCB				AML	AML		
KRBN	**Karaburun**	**0.70**	**6**	Pg	**Pb**	**01 31 07.1**	**0.0**
KRBN				AML	AML		
DDIM	**Aydin, Didim**	**0.75**	**125**	P	**Pg**	**01 31 06.7**	**-0.7**
DDIM				S	**Sg**	**01 31 16.9**	**-0.3**
DDIM				IAML		01 31 20.0	
	comp=N,509nm,0.3s						
KARB	**zmir-Karabur**	**0.77**	**357**	P	**Pg**	**01 31 06.7**	**-1.0**
KARB				S	**Sg**	**01 31 18.7**	**+0.9**
KARB				IAML		01 31 22.0	
	comp=E,639nm,0.4s						
BAGT	**Foa**	**0.82**	**22**	P	**Pg**	**01 31 07.0**	**-1.6**
BAGT				S	**Sg**	**01 31 17.9**	**-1.5**
DUVT	**Torbali**	**0.84**	**67**	P	**Pg**	**01 31 08.8**	**-0.2**
FOCM	**Foa**	**0.85**	**14**	Pg	**Pb**	**01 31 10.2**	**+0.6**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**1.00**	**139**	Pg	**Pb**	**01 31 12.3**	**+0.1**
YKAV				AML	AML		
BODT	**Bodrum**	**1.07**	**141**	P	**Pn**	**01 31 13.7**	**-0.1**
BODT				S	**Sn**	**01 31 28.8**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**1.07**	**141**	Pg	**Pb**	**01 31 13.1**	**-0.2**
BODT				AML	AML		
CAMT	**Merkez**	**1.08**	**38**	P	**Pg**	**01 31 13.4**	**-0.2**
CAMT				S	**Sb**	**01 31 28.8**	**+0.9**
CAMT				IAML		01 31 38.0	
	comp=N,365nm,0.5s						
AYDB	**Zeytinkoy-Aydi**	**1.13**	**87**	Pn	**Pn**	**01 31 15.6**	**+0.8**
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.15**	**101**	P	**Pg**	**01 31 14.1**	**-0.7**
AYDN				S	**Sb**	**01 31 29.6**	**0.0**
IZMR	**zmir-demi**	**1.20**	**78**	P	**Pg**	**01 31 15.3**	**-0.6**
IZMR				P	**Pn**	**01 31 16.2**	**+0.6**
MLSB	**Milas**	**1.20**	**119**	Pn	**Pn**	**01 31 15.9**	**+0.3**
MLSB				Sn	**Sn**	**01 31 32.7**	**+0.7**
MLSB				AML	AML		
DKL	**Dikili**	**1.23**	**16**	Pn	**Pg**	**01 31 16.9**	**+0.5**
DKL				AML	AML		
PRK	**Paraskevi**	**1.36**	**354**	P	**Pg**	**01 31 18.9**	**0.0**
PRK				S	**Sg**	**01 31 38.3**	**+1.7**
GOMA	**Golmarmara-Man**	**1.40**	**54**	Pn	**Pg**	**01 31 19.7**	**0.0**
GOMA				AML	AML		
AKS	**Akhisar**	**1.45**	**47**	Pn	**Pb**	**01 31 20.1**	**+0.3**
AKS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.45**	**87**	Pn	**Pg**	**01 31 20.2**	**-0.4**
NAZL				AML	AML		
SOMA	**Soma-Manisa**	**1.52**	**33**	Pn	**Pb**	**01 31 21.2**	**+0.2**
SOMA				Sn	**Sg**	**01 31 41.9**	**+0.3**
CMBO	**Columbo, Santo**	**1.65**	**211**	P	**Pb**	**01 31 23.4**	**+0.2**
CMBO				S	**Sg**	**01 31 47.7**	**+1.8**
THR8	**Santorini-Mono**	**1.68**	**208**	P	**Pb**	**01 31 23.6**	**-0.1**
THRA	**Thira**	**1.69**	**210**	P	**Pg**	**01 31 24.9**	**-0.2**
THRA				AML	AML		
SAP3	**Santorini-Thir**	**1.71**	**212**	P	**Pb**	**01 31 24.7**	**+0.5**
SAP3				S	**Sg**	**01 31 48.7**	**+1.1**
THR3	**Thira Island,**	**1.71**	**210**	P	**Pb**	**01 31 24.2**	**0.0**
SNT5	**Nea Kammeni, S**	**1.71**	**210**	P	**Pb**	**01 31 24.6**	**+0.2**
SNT5				AML	AML		
THERA	**Ancient Thera,**	**1.71**	**208**	P	**Pb**	**01 31 23.9**	**-0.5**
THERA				S	**Sg**	**01 31 48.1**	**+0.2**
THERA				AML	AML		
THT1	**Athinios (Pele**	**1.71**	**209**	P	**Pb**	**01 31 24.3**	**0.0**
THT1				AML	AML		
DION	**Dionisos Attik**	**2.01**	**276**	P	**Pn**	**01 31 25.5**	**-1.2**
DION				AML	AML		
VLY	**Voula,Athens**	**2.11**	**270**	P	**Pn**	**01 31 27.1**	**-1.1**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.12**	**273**	P	**Pn**	**01 31 27.0**	**-1.3**
LIA	**Limnos Island**	**2.24**	**334**	P	**Pn**	**01 31 28.9**	**-1.0**

*ISK **01** 01:34:55.2, 38.94N×27.15E, h8km, ML3.5/37*
*AFAD **01** 01:34:55.0, 38.94N×27.14E, h7km±2km, MW3.4*
*ATH **01** 01:34:55.2, 38.93N×27.21E, h13km±2km, ML3.4/6, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **01** 01:34:55.9, 39°N±1°×2°7E±°, h3km±2km, M3.1/17, ML/h3.1/17*

ISC 01 01:34:55.5±0.9, **38.94N**±0.02×**27.17E**±0.02, **h11**km±8km, **n104**, σ0**70**/123, **10C-5D, Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CAMT	**Merkez**	**0.22**	**150**	P	**Pg**	**01 35 00.3**	**+0.1**
DKL	**Dikili**	**0.24**	**302**	Pg	**Pg**	**01 35 00.5**	**0.0**
DKL				Sg	**Sg**	**01 35 04.1**	**+0.2**
DKL				AML	AML		
SOMA	**Soma-Manisa**	**0.36**	**53**	Pg	**Pb**	**01 35 03.2**	**-0.7**
SOMA				AML	AML		
BAGT	**Foa**	**0.38**	**221**	P	**Pg**	**01 35 02.6**	**-0.4**
FOCM	**Foa**	**0.41**	**237**	Pg	**Pg**	**01 35 03.3**	**-0.3**
FOCM				AML	AML		
AKS	**Akhisar**	**0.51**	**97**	Pg	**Pg**	**01 35 05.2**	**-0.2**
AKS				AML	AML		
AKHS	**Akhisar**	**0.51**	**97**	P	**Pg**	**01 35 05.3**	**-0.1**
AYVA	**Ayvalik**	**0.52**	**315**	P	**Pg**	**01 35 05.4**	**-0.3**
BLCB	**Balcova**	**0.56**	**190**	P	**Pg**	**01 35 06.3**	**-0.2**
BLCB				S	**Sg**	**01 35 13.8**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**190**	Pg	**Pb**	**01 35 06.9**	**-0.5**
BLCB				AML	AML		
BUHA	**Balikesir, Bur**	**0.56**	**353**	P	**Pg**	**01 35 05.9**	**-0.6**
KRBN	**Karaburun**	**0.59**	**234**	Pg	**Pg**	**01 35 06.9**	**-0.1**
KRBN				Sg	**Sb**	**01 35 15.5**	**-0.8**
KRBN				AML	AML		
STEP	**BALIKESIR_Sava**	**0.61**	**44**	P	**Pg**	**01 35 07.0**	**-0.4**
STEP				S	**Sg**	**01 35 16.1**	**+0.7**
STEP				IAML		01 35 17.0	
	comp=E,3μm,0.4s						
GOMA	**Golmarmara-Man**	**0.63**	**111**	Pg	**Pb**	**01 35 08.9**	**+0.4**
GOMA				AML	AML		
KARB	**zmir-Karabur**	**0.65**	**245**	P	**Pg**	**01 35 07.5**	**-0.7**
YAYO	**Edremit-Balk**	**0.67**	**354**	Pg	**Pg**	**01 35 08.2**	**-0.4**
YAYO				AML	AML		
BEYE	**izmir**	**0.74**	**195**	P	**Pg**	**01 35 09.5**	**-0.3**
DUVT	**Torbali**	**0.75**	**163**	P	**Pg**	**01 35 09.6**	**-0.4**
PRK	**Paraskevi**	**0.76**	**294**	P	**Pg**	**01 35 10.2**	**-0.1**
PRK				S	**Sb**	**01 35 21.6**	**+0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**0.76**	**294**	P	**Pb**	**01 35 10.7**	**-0.1**
PRK				S	**Sb**	**01 35 20.5**	**-0.7**
PRK				AML	AML		
KTTT	**Salihli**	**0.77**	**109**	P	**Pb**	**01 35 10.5**	**-0.4**
GORD	**Gordes-Manisa**	**0.79**	**92**	Pg	**Pb**	**01 35 11.3**	**+0.1**
GORD				AML	AML		
BALY	**Balya**	**0.87**	**23**	P	**Pb**	**01 35 12.7**	**0.0**
BALY				S	**Sb**	**01 35 24.8**	**+0.3**
BALY				IAML		01 35 25.0	
	comp=E,840nm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**0.87**	**217**	P	**Pn**	**01 35 14.4**	**+0.7**
GMLD	**Gumuldur**	**0.89**	**193**	Pg	**Pb**	**01 35 12.9**	**0.0**
GMLD				AML	AML		
BALB	**Balikesir**	**0.89**	**38**	Pg	**Pg**	**01 35 12.2**	**-0.5**
BALB				AML	AML		
BALB	**Balikesir**	**0.89**	**38**	P	**Pg**	**01 35 12.4**	**-0.2**
BALB				S	**Sg**	**01 35 23.6**	**-0.7**
CESE	**eme**	**0.91**	**228**	Pg	**Pg**	**01 35 11.9**	**-1.2**
CESE				AML	AML		
DGB	**zmir**	**0.92**	**194**	P	**Pg**	**01 35 12.5**	**-0.6**
DGB				S	**Sb**	**01 35 25.5**	**-0.1**
DGB				IAML		01 35 28.0	
	comp=N,1μm,0.5s						
DGB				IAML		01 35 28.0	
	comp=E,1μm,0.7s						
EAG2	**Marmaro, Chios**	**0.92**	**245**	P	**Pg**	**01 35 12.9**	**-0.3**
EAG2				S	**Sb**	**01 35 25.6**	**-0.1**
BAYC	**CANAKKALE_Bayr**	**0.93**	**329**	P	**Pb**	**01 35 13.4**	**-0.3**
KOCA	**Canakkale, Ayv**	**0.98**	**305**	P	**Pg**	**01 35 13.6**	**-0.7**
YENI	**Yenice-Canakka**	**1.00**	**3**	Pg	**Pn**	**01 35 15.2**	**-0.3**
EZNE	**Ezine-Canakkal**	**1.02**	**323**	Pg	**Pb**	**01 35 15.1**	**-0.2**
CHOS	**Chios island**	**1.03**	**238**	P	**Pn**	**01 35 15.8**	**-0.2**
CHOS				S	**Sn**	**01 35 30.1**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.03**	**238**	Pg	**Pb**	**01 35 15.3**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.03**	**238**	P	**Pb**	**01 35 15.5**	**+0.1**
CHOS				S	**Sb**	**01 35 29.4**	**+0.4**
CHOS				AML	AML		
CANM	**Can-anakkale**	**1.07**	**355**	Pg	**Pn**	**01 35 16.5**	**0.0**
CANM				AML	AML		
KUSD	**Kusadasi-Aydin**	**1.08**	**175**	Pn	**Pn**	**01 35 16.9**	**+0.3**
KUSD				AML	AML		
EZN	**Ezine**	**1.10**	**324**	P	**Pg**	**01 35 16.3**	**-0.3**
EZN				S	**Sb**	**01 35 31.5**	**+0.6**
EZN				AML	AML		
EZN	**Ezine**	**1.10**	**324**	Pn	**Pb**	**01 35 16.5**	**0.0**
EZN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.14**	**150**	Pn	**Pg**	**01 35 16.9**	**-0.6**
AYDB				AML	AML		
GONE	**Gonen-Balikesi**	**1.18**	**20**	Pn	**Pn**	**01 35 18.3**	**+0.4**
GONE				AML	AML		
GCAM	**G?zelcaml?**	**1.24**	**178**	Pn	**Pg**	**01 35 19.3**	**0.0**
GCAM				AML	AML		
SUSR	**Susurluk-Balik**	**1.24**	**34**	Pn	**Pg**	**01 35 19.7**	**+0.3**
SUSR				AML	AML		
BOZC	**Bozcaada**	**1.25**	**316**	Pn	**Pn**	**01 35 18.9**	**0.0**
BOZC				AML	AML		
DST	**Dursunbey**	**1.31**	**59**	Pn	**Pn**	**01 35 19.6**	**-0.2**
DST				AML	AML		
NAZL	**Nazilli-Aydin**	**1.31**	**138**	Pn	**Pg**	**01 35 20.9**	**+0.2**
NAZL				AML	AML		
SIMA	**Simav-Kutahya**	**1.42**	**84**	Pn	**Pb**	**01 35 22.2**	**+0.1**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**1.42**	**83**	Pn	**Pb**	**01 35 21.8**	**-0.2**
SMAA				AML	AML		
BAND	**Balkesir-Ban**	**1.58**	**27**	⇑P	**Pn**	**01 35 23.5**	**-0.1**
GADA	**Gvkgeada**	**1.59**	**322**	P	**Pn**	**01 35 24.1**	**+0.5**
GADA				S	**Sn**	**01 35 43.9**	**-0.2**
GADA				AML	AML		
SHAP	**Saphane-Kutahy**	**1.60**	**86**	Pn	**Pb**	**01 35 24.8**	**-0.4**
SHAP				AML	AML		
MLSB	**Milas**	**1.71**	**164**	Pn	**Pb**	**01 35 26.4**	**-0.6**
MLSB				AML	AML		
GEDZ	**Gediz**	**1.75**	**86**	Pn	**Pb**	**01 35 27.0**	**-0.7**
GEDZ				AML	AML		
LIA	**Limnos Island**	**1.81**	**302**	P	**Pn**	**01 35 26.5**	**-0.1**
LIA				S	**Sb**	**01 35 51.6**	**+0.3**
LIA				AML	AML		
LIA	**Limnos Island**	**1.81**	**302**	P	**Pn**	**01 35 26.7**	**+0.1**
LIA				S	**Sn**	**01 35 50.3**	**+0.7**
LIA				AML	AML		
BODT	**Bodrum**	**1.88**	**177**	P	**Pn**	**01 35 28.6**	**+1.0**
BODT				S	**Sb**	**01 35 53.2**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**1.88**	**177**	Pn	**Pn**	**01 35 28.6**	**+1.0**
BODT				AML	AML		
CAVK	**Edirne/Enez-Ca**	**1.91**	**337**	⇑P	**Pn**	**01 35 28.9**	**+0.9**
ENEZ	**Enez**	**1.96**	**337**	P	**Pn**	**01 35 29.4**	**+0.8**
ENEZ				S	**Sb**	**01 35 54.7**	**-0.8**
ENEZ				AML	AML		
SMTH	**Samothraki Isl**	**1.98**	**321**	P	**Pb**	**01 35 30.4**	**-1.2**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.98**	**321**	P	**Pn**	**01 35 30.0**	**+1.0**
SMTH				S	**Sn**	**01 35 53.6**	**-0.3**
YER	**Yerkesik**	**2.01**	**154**	P	**Pn**	**01 35 29.1**	**-0.2**
YER	**Yerkesik**	**2.01**	**154**	Pn	**Pn**	**01 35 29.0**	**-0.4**
YER				AML	AML		
TAVA	**DENIZLI_Tavas**	**2.01**	**136**	⇑P	**Pn**	**01 35 29.5**	**0.0**
ALN	**Alexandroupoli**	**2.14**	**337**	P	**Pn**	**01 35 32.2**	**+1.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**2.14**	**337**	P	**Pn**	**01 35 30.5**	**-0.6**
ALN				S	**Sn**	**01 35 56.8**	**-0.9**
ALN				AML	AML		
APMY	**Acipayam-Deniz**	**2.23**	**130**	Pn	**Pn**	**01 35 32.3**	**-0.2**
APMY				AML	AML		
DAT	**Datca**	**2.23**	**172**	P	**Pn**	**01 35 33.4**	**+0.9**
DAT				AML	AML		
DAT	**Datca**	**2.23**	**172**	Pn	**Pn**	**01 35 33.5**	**+0.9**
DAT				AML	AML		
TURN	**Turunc**	**2.32**	**158**	Pn	**Pn**	**01 35 35.1**	**+1.4**
TURN				AML	AML		
KARY	**Karystos**	**2.33**	**248**	P	**Pn**	**01 35 34.4**	**+0.6**
KARY				AML	AML		
DALY	**Dalyan (Mula)**	**2.42**	**151**	Pn	**Pn**	**01 35 35.4**	**+0.4**
DALY				AML	AML		
BASM	**Basmaki-Afyon**	**2.48**	**113**	Pn	**Pn**	**01 35 35.7**	**-0.2**
BASM				AML	AML		
THAS	**Thassos island**	**2.52**	**312**	P	**Pn**	**01 35 37.3**	**+1.0**
THAS				AML	AML		
CAME	**Cameli-Denizli**	**2.61**	**139**	Pn	**Pn**	**01 35 38.5**	**+0.7**
CAME				AML	AML		
DION	**Dionisos Attik**	**2.68**	**252**	P	**Pn**	**01 35 39.4**	**+0.7**
DION				AML	AML		
FETY	**Fethiye**	**2.76**	**146**	Pn	**Pn**	**01 35 40.9**	**+1.2**
FETY				AML	AML		
ARG	**Arkhangelos**	**2.82**	**164**	P	**Pn**	**01 35 42.2**	**+1.6**
ARG				AML	AML		
OUR	**Ouranopolis**	**2.83**	**300**	P	**Pn**	**01 35 41.8**	**+1.2**
OUR				AML	AML		
KAVA	**Kavala**	**2.90**	**316**	P	**Pn**	**01 35 42.0**	**+0.4**
KDZ	**Kurdzhali**	**3.03**	**333**	P	**Pn**	**01 35 44.1**	**+0.7**
RZN	**Rozhen**	**3.32**	**327**	P	**Pn**	**01 35 48.4**	**+0.8**
DIM	**Dimitrovgrad**	**3.33**	**339**	P	**Pn**	**01 35 49.1**	**+1.6**
SAHE	**Sakarya_HENDEK**	**3.42**	**55**	⇓P	**Pn**	**01 35 49.1**	**+0.4**
MMB	**Musomishta**	**3.69**	**316**	P	**Pn**	**01 35 54.7**	**+2.2**
PLD	**Plovdiv**	**3.70**	**331**	P	**Pn**	**01 35 53.6**	**+1.1**
ELND	**Elena**	**4.10**	**347**	⇑P	**Pn**	**01 35 58.8**	**+0.7**
KKB	**Krupnik**	**4.23**	**314**	P	**Pn**	**01 36 01.4**	**+1.5**
VAY	**Valandovo**	**4.25**	**305**	*i* Pn	Pg	01 36 23.6	+6.7
PEHC	**Pehcevo**	**4.32**	**312**	*i* Pn	**Pn**	**01 36 02.2**	**+1.0**
SZH	**Strazhitsa**	**4.41**	**349**	P	**Pn**	**01 36 03.3**	**+0.9**
LDB	**Loznitsa**	**4.45**	**355**	⇑P	**Pn**	**01 36 03.5**	**+0.6**
VTS	**Vitosha**	**4.73**	**322**	P	**Pn**	**01 36 09.0**	**+2.0**
BLKB	**Belogradchik**	**5.77**	**326**	⇓P	**Pn**	**01 36 21.9**	**+0.8**
BOVS	**Bovan**	**6.24**	**320**	⇓P	**Pn**	**01 36 28.4**	**+1.0**
HERR	**Herculane**	**6.91**	**331**	⇓P	**Pn**	**01 36 36.4**	**-0.3**
VRI	**Vrincioaia**	**6.93**	**357**	⇑P	**Pn**	**01 36 37.9**	**+0.9**
COVR	**Voineasa-Covas**	**6.94**	**354**	⇑P	**Pn**	**01 36 37.9**	**+0.8**
MDVR	**Moldovita**	**7.12**	**327**	⇓P	**Pn**	**01 36 40.1**	**+0.6**
DOPR	**Dopca**	**7.14**	**350**	⇑P	**Pn**	**01 36 41.1**	**+1.2**
TESR	**Tescani**	**7.58**	**357**	⇑P	**Pn**	**01 36 47.4**	**+1.5**
BZS	**Buzias**	**7.84**	**330**	⇑P	**Pn**	**01 36 49.4**	**0.0**

*IDC **01** 01:37:34.1±1.4, 34.98N×143.07E, h0km, mb3.1/3, mbtmp3.1/4, ML2.6/1, MS2.6/3, Error ellipse: s-maj=31.0km s-min=20.5km az=33.0*
*NIED **01** 01:37:40.6, 34.87N×142.43E, h11km, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}=1.45; $M_{\theta\theta}$=0.16; $M_{\phi\phi}$=1.60; $M_{r\theta}$=0.43; $M_{\theta\phi}$=0.57; $M_{\phi r}$=2.12; Fault plane solution: $M_0$2.70000×10^{14} NP1:ϕ_s23.00000°, δ19.00000°, λ-80.00000°. NP2:ϕ_s192.00000°, δ72.00000°, λ-93.00000°.*
*JMA **01** 01:37:40.6±0.1, 34.9N±0.2×142.4E±0.2, h11km±1km, MV3.5/27, FAR E OFF CENTRAL HONSHU*

ISC 01 01:37:37.3±2.0, **34.8N**±0.2×**142.6E**±0.1, **h10**km, **n7**, σ1§**42**/6, **mb3.2**/3, **Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BSO1	**Boso 1**	**1.32**	**262**	P	**Pn**	**01 38 01.9**	**+0.6**
BSO1				eS	**Sb**	**01 38 19.0**	**+0.4**
MJAR	**Matsushiro Arr**	**3.93**	**297**	Pn	**Pn**	**01 38 39.0**	**+1.3**
	0.3nm,0.3s,baz=103,slow=14,SNR=12						
MJAR				Sn	**Sn**	**01 39 22.1**	**-1.8**
	0.2nm,0.3s,baz=130,slow=13,SNR=4.7						
MJAR				LR	LR	01 40 07.7	
	comp=Z,25nm,20.8s,baz=169,slow=36 1.2nm,0.3s						
MJAR				AML	AML		
KSRS	**Korea Array**	**12.12**	**287**	LR	LR	01 44 59.9	
	comp=Z,22nm,19.9s,baz=140,slow=36						
TIXI	**Tiksi**	**37.58**	**353**	LR	LR	02 03 19.1	
	comp=Z,36nm,19.3s,baz=177,slow=41						
ILAR	**Eielson Array**	**50.86**	**31**	P	P	01 46 33.7	-4.2
	0.2nm,0.7s,baz=271,slow=7.9,SNR=5.3 0.2nm,0.7s						
WRA	**Warramunga Arr**	**55.04**	**189**	P	**P**	**01 47 09.2**	**0.0**
	0.2nm,0.7s,baz=4.9,slow=7.4,SNR=1.8 0.2nm,0.7s						
ASAR	**Alice Springs**	**58.76**	**189**	P	**P**	**01 47 34.8**	**-0.8**
	0.1nm,0.6s,baz=7.1,slow=8.4,SNR=1.5 0.1nm,0.6s						

*ISK **01** 01:48:15.9, 37.78N×27.01E, h2km, ML3.2/31*
*THE **01** 01:48:16.9, 37.8N±0.9×27.7E±°, h0km±2km, M3.2/9, ML/h3.2/9*
*AFAD **01** 01:48:16.7, 37.77N×27.03E, h7km±2km, ML3.3*
*ATH **01** 01:48:16.1, 37.79N×27.09E, h7km±2km, ML3.1/11, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 01 01:48:17.0±0.8, **37.77N**±0.02×**27.03E**±0.02, **h13**km±6km, **n70**, σ0**64**/89, **Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.17**	**115**	P	**Pg**	**01 48 21.2**	**+0.1**
GCAM				S	**Sg**	**01 48 23.4**	**-0.5**
GCAM				IAML		01 48 24.0	
	comp=N,7μm,0.7s						
GCAM				IAML		01 48 24.0	
	comp=E,8μm,0.2s						
GCAM	**G?zelcaml?**	**0.17**	**115**	Pg	**Pg**	**01 48 20.9**	**-0.2**
GCAM				Sg	**Sg**	**01 48 24.3**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.22**	**67**	Pg	**Pg**	**01 48 21.9**	**+0.1**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.26**	**275**	P	**Pg**	**01 48 22.0**	**-0.5**
KRL1				S	**Sg**	**01 48 26.2**	**-0.1**
KRL1				AML	AML		
DGB	**zmir**	**0.30**	**337**	P	**Pg**	**01 48 22.9**	**-0.4**
DGB				S	**Sg**	**01 48 26.8**	**-0.7**
DGB				IAML		01 48 28.0	
	comp=E,2μm,0.5s						
GMLD	**Gumuldur**	**0.32**	**343**	Pg	**Pg**	**01 48 23.1**	**-0.4**
GMLD				Sg	**Sb**	**01 48 28.9**	**-

GOMA				AML	AML		
YER	**Yerkesik**	**1.18**	**122**	P	**Pg**	01 48 39.1	**-0.7**
YER				S	**Sn**	01 48 55.9	**+0.6**
YER	**Yerkesik**	**1.18**	**122**	Pn	**Pn**	01 48 39.7	**+0.4**
YER				AML	AML		
ZEDA	**zmir-Bergama**	**1.19**	**2**	P	**Pg**	01 48 38.9	**-1.1**
KTTT	**Salihli**	**1.24**	**42**	P	**Pb**	01 48 39.9	**-0.3**
AKS	**Akhisar**	**1.26**	**29**	Pn	**Pg**	01 48 41.1	**-0.2**
AKS				AML	AML		
DKL	**Dikili**	**1.30**	**356**	Pn	**Pb**	01 48 41.4	**+0.1**
DKL				AML	AML		
TURN	**Turunc**	**1.39**	**136**	Pn	**Pn**	01 48 41.1	**-0.9**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**16**	Pn	**Pn**	01 48 43.3	**+0.6**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**38**	Pn	**Pb**	01 48 43.9	**+0.1**
GORD				AML	AML		
PRK	**Paraskevi**	**1.59**	**338**	P	**Pb**	01 48 46.1	**-0.1**
PRK				S	**Sg**	01 49 08.0	**-0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.59**	**338**	P	**Pn**	01 48 44.7	**-0.1**
PRK				AML	AML		
DALY	**Dalyan (Mula)**	**1.61**	**126**	Pn	**Pb**	01 48 46.6	**+0.1**
DALY				AML	AML		
ARG	**Arkhangelos**	**1.78**	**150**	P	**Pn**	01 48 48.1	**+0.6**
ARG				S	**Sg**	01 49 13.2	**-1.2**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.78**	**150**	Pn	**Pb**	01 48 48.8	**-0.8**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.78**	**150**	P	**Pn**	01 48 48.1	**+0.6**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**99**	Pn	**Pb**	01 48 49.7	**-0.6**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.83**	**1**	Pn	**Pn**	01 48 49.1	**+0.9**
YAYO				AML	AML		
THERA	**Ancient Thera,**	**1.88**	**222**	P	**Pn**	01 48 47.8	**-1.0**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.88**	**222**	P	**Pn**	01 48 48.8	**0.0**
THERA				AML	AML		
THR3	**Thira Island,**	**1.89**	**224**	P	**Pn**	01 48 49.7	**+0.8**
BALB	**Balikesir**	**1.98**	**19**	Pn	**Pb**	01 48 51.9	**-0.9**
BALB				AML	AML		
CAME	**Cameli-Denizli**	**1.99**	**114**	Pn	**Pn**	01 48 51.9	**+1.4**
CAME				AML	AML		
FETY	**Fethiye**	**1.99**	**124**	Pn	**Pb**	01 48 52.5	**-0.6**
FETY				AML	AML		
SIMA	**Simav-Kutahya**	**2.01**	**49**	Pn	**Pb**	01 48 52.4	**-1.1**
SIMA				AML	AML		
KARY	**Karystos**	**2.07**	**278**	P	**Pn**	01 48 52.0	**+0.6**
EZN	**Ezine**	**2.12**	**345**	P	**Pn**	01 48 52.6	**+0.5**
KARP	**Karpathos**	**2.23**	**177**	P	**Pn**	01 48 53.7	**+0.1**
KARP				AML	AML		
GEDZ	**Gediz**	**2.26**	**55**	Pn	**Pn**	01 48 56.0	**+1.9**
GEDZ				AML	AML		
KYMI	**Kymi, Euboea I**	**2.46**	**291**	P	**Pn**	01 48 58.0	**+1.1**
DION	**Dionisos Attik**	**2.47**	**278**	P	**Pn**	01 48 57.5	**+0.5**
DION				AML	AML		
LIA	**Limnos Island**	**2.57**	**326**	P	**Pn**	01 48 58.3	**0.0**
LIA				AML	AML		
VLY	**Voula,Athens**	**2.57**	**273**	P	**Pn**	01 48 59.1	**+0.8**
VLY				AML	AML		
ATH	**Athens Observa**	**2.63**	**275**	P	**Pn**	01 48 59.9	**+0.7**
ATH				AML	AML		

*TAP **01** 01:48:31.3,24˚.95N×121˚.79E,h127km,ML4.1,B*
*JMA **01** 01:48:31.5±0.2,24˚.9N±0˚.8×121˚.8E±0˚.5,h122km±1km,*
MV3.2/13,TAIWAN REGION
ISC 01 01:48:30.9±1.3**,24˚96N**±0˚.03×**121˚80E**±0˚.03**,h129**km±5km,**
n153,σ0**$83/**293**,18C-1D,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TIPB	**Shuangxi**	**0.03**	**56**	⇑*i*P	**Pn**	**01 48 48.5**	**+0.1**
TIPB				*i* S	**Sn**	**01 49 01.8**	**+0.1**
NWF	**Wu-fen Shan**	**0.12**	**351**	*i* P	**Pn**	**01 48 48.6**	**-0.1**
NWF				*i* S	**Sn**	**01 49 02.6**	**+0.6**
WFSB	**Wu-fen Shan**	**0.12**	**351**	⇑*i*P	**Pn**	**01 48 48.6**	**0.0**
WFSB				*i* S	**Sn**	**01 49 02.5**	**+0.6**
SXI1	**Grass Mountain**	**0.15**	**26**	*i* P	**Pn**	**01 48 48.3**	**-0.4**
SXI1				*i* S	**Sn**	**01 49 02.5**	**+0.4**
EGS		**0.16**	**133**	*i* P	**Pn**	**01 48 48.9**	**+1.3**
EGS				*i* S	**Sn**	**01 49 03.9**	**+2.1**
TWB1	**Santiao Chiao**	**0.18**	**73**	⇑*i*P	**Pn**	**01 48 48.7**	**+0.1**
TWB1				*i* S	**Sn**	**01 49 01.9**	**0.0**
TNOU	**National Taiwa**	**0.19**	**352**	*i* P	**Pn**	**01 48 48.6**	**-0.1**
TNOU				*i* S	**Sn**	**01 49 01.8**	**-0.3**
ILA	**Ilan**	**0.20**	**194**	*i* P	**Pn**	**01 48 48.8**	**+0.1**
ILA				S	**Sn**	**01 49 03.0**	**+0.9**
TWA	**Mucha**	**0.20**	**277**	*i* P	**Pn**	**01 48 48.7**	**0.0**
TWA				*i* S	**Sn**	**01 49 01.5**	**-0.5**
NHY	**Taipei**	**0.23**	**291**	*e*P	**Pn**	**01 48 48.9**	**+0.2**
NHY				S	**Sn**	**01 49 02.0**	**-0.1**
NHDH	**Xindian Distri**	**0.25**	**271**	*i* P	**Pn**	**01 48 48.9**	**+0.1**
NHDH				*i* S	**Sn**	**01 49 01.6**	**-0.6**
TWE	**Neicheng**	**0.27**	**208**	*i* P	**Pn**	**01 48 49.0**	**+0.2**
TWE				*i* S	**Sn**	**01 49 02.2**	**-0.1**
FUSB	**Fushanzhiwuyua**	**0.28**	**225**	⇑*i*P	**Pn**	**01 48 48.8**	**-0.2**
FUSB				*i* S	**Sn**	**01 49 01.4**	**-1.2**
TAP	**Taipei**	**0.28**	**287**	*i* P	**Pn**	**01 48 48.9**	**+0.1**
TAP				S	**Sn**	**01 49 01.8**	**-0.7**
YM01	**YM01**	**0.28**	**312**	*i* P	**Pn**	**01 48 49.0**	**0.0**
YM01				S	**Sn**	**01 49 02.0**	**-0.6**
TATO	**Taipei**	**0.28**	**274**	P	**Pn**	**01 48 49.0**	**+0.1**
TATO	**Taipei**	**0.28**	**274**	S	**Sn**	**01 49 01.4**	**-1.1**
TATO	**Taipei**	**0.28**	**274**	*i* P	**Pn**	**01 48 48.8**	**-0.1**
TATO				S	**Sn**	**01 49 00.8**	**-1.7**
YM08	**YM08**	**0.30**	**320**	P	**Pn**	**01 48 49.1**	**+0.1**
YM08				S	**Sn**	**01 49 02.6**	**-0.1**
ZUZH	**Zhuzihu**	**0.31**	**311**	*i* P	**Pn**	**01 48 48.3**	**-0.7**
ZUZH				*i* S	**Sn**	**01 49 01.5**	**-1.3**
NWLT	**Wulai**	**0.33**	**237**	*i* P	**Pn**	**01 48 48.9**	**-0.2**
NWLT				*i* S	**Sn**	**01 49 01.2**	**-1.7**
NDS	**Dongshan**	**0.33**	**194**	*i* P	**Pn**	**01 48 49.8**	**+0.6**
NDS				*i* S	**Sn**	**01 49 02.8**	**0.0**
TWC	**Suao**	**0.35**	**173**	⇑*i*P	**Pn**	**01 48 49.7**	**+0.5**
TWC				*i* S	**Sn**	**01 49 04.4**	**+1.5**
TWY	**Chenhua**	**0.37**	**330**	*i* P	**Pn**	**01 48 49.4**	**+0.1**
TWY				*i* S	**Sn**	**01 49 02.9**	**-0.2**
TWS1	**Kuangyinshan**	**0.38**	**292**	*i* P	**Pn**	**01 48 49.6**	**+0.4**
TWS1				*i* S	**Sn**	**01 49 02.6**	**-0.5**
NTST	**Danshui**	**0.38**	**303**	*i* P	**Pn**	**01 48 49.6**	**+0.3**
NTST				*i* S	**Sn**	**01 49 02.8**	**-0.4**
ENTT	**Nioudou**	**0.38**	**214**	⇑*i*P	**Pn**	**01 48 49.5**	**+0.2**
ENTT				*i* S	**Sn**	**01 49 02.6**	**-0.6**
ESAO	**Su ao**	**0.38**	**174**	*i* P	**Pn**	**01 48 49.9**	**+0.6**
ESAO				*i* S	**Sn**	**01 49 04.1**	**+0.9**
NDT	**Datong Townshi**	**0.44**	**217**	*i* P	**Pn**	**01 48 49.8**	**+0.2**
NDT				*i* S	**Sn**	**01 49 03.1**	**-0.5**
NTY	**Taoyuan**	**0.46**	**275**	*i* P	**Pn**	**01 48 50.0**	**+0.3**
NTY				S	**Sn**	**01 49 02.6**	**-1.2**
YHNB	**Yeheng**	**0.48**	**234**	P	**Pn**	**01 48 49.6**	**-0.3**
YHNB	**Yeheng**	**0.48**	**234**	S	**Sn**	**01 49 02.5**	**-1.7**
YHNB	**Yeheng**	**0.48**	**234**	⇑*i*P	**Pn**	**01 48 49.7**	**-0.2**
YHNB				*i* S	**Sn**	**01 49 02.6**	**-1.6**
LATG	**Datong**	**0.49**	**211**	⇑*i*P	**Pn**	**01 48 50.3**	**+0.3**
LATG				*i* S	**Sn**	**01 49 03.9**	**-0.4**
NSK	**Sanguang**	**0.49**	**235**	⇑*i*P	**Pn**	**01 48 49.8**	**-0.2**
NSK				*i* S	**Sn**	**01 49 02.7**	**-1.6**
EWUT	**Wuta**	**0.51**	**182**	*i* P	**Pn**	**01 48 50.3**	**+0.3**
EWUT				*i* S	**Sn**	**01 49 05.3**	**+1.0**
ENA	**Nanau**	**0.53**	**186**	*i* P	**Pn**	**01 48 50.5**	**+0.4**
ENA				S	**Sn**	**01 49 05.0**	**+0.4**
NCU	**National Centr**	**0.56**	**271**	⇑*i*P	**Pn**	**01 48 50.6**	**+0.3**
NCU				*i* S	**Sn**	**01 49 03.2**	**-1.6**
KSHI	**Guanxi Townshi**	**0.60**	**253**	*i* P	**Pn**	**01 48 50.8**	**+0.3**
KSHI				*i* S	**Sn**	**01 49 03.1**	**-2.1**
EAHA	**Aohua**	**0.63**	**185**	*i* P	**Pn**	**01 48 51.0**	**+0.2**
EAHA				*i* S	**Sn**	**01 49 06.3**	**+0.7**
NNS	**Nan Shan**	**0.65**	**217**	*i* P	**Pn**	**01 48 51.4**	**+0.4**
NNS				*i* S	**Sn**	**01 49 06.0**	**-0.2**
NNSB	**Datong**	**0.65**	**216**	⇑*i*P	**Pn**	**01 48 51.3**	**+0.3**
NNSB				S	**Sn**	**01 49 05.4**	**-0.8**
EOS2	**EOS2**	**0.66**	**144**	P	**Pn**	**01 48 51.8**	**+0.9**
EOS2				S	**Sn**	**01 49 06.7**	**+0.9**
NJD	**Zhudong**	**0.69**	**251**	*i* P	**Pn**	**01 48 51.6**	**+0.5**
NJD				*i* S	**Sn**	**01 49 06.1**	**-0.2**
NHW	**Xinwu Township**	**0.69**	**274**	*i* P	**Pn**	**01 48 52.3**	**+1.2**
NHW				S	**Sn**	**01 49 08.1**	**+1.7**
NFF	**Wufeng Townshi**	**0.70**	**243**	⇑*i*P	**Pn**	**01 48 51.3**	**0.0**
NFF				*i* S	**Sn**	**01 49 05.5**	**-1.2**
PCYT	**Pengchaiyu**	**0.71**	**20**	*i* P	**Pn**	**01 48 51.7**	**+0.4**
PCYT				*e*S	**Sn**	**01 49 06.9**	**+0.1**
HSN1	**Hsinchu**	**0.73**	**256**	*i* P	**Pn**	**01 48 51.9**	**+0.5**
HSN1				*i* S	**Sn**	**01 49 07.0**	**0.0**
SBCB	**Hsinchu**	**0.76**	**258**	⇑*i*P	**Pn**	**01 48 52.0**	**+0.4**
SBCB				S	**Sn**	**01 49 06.2**	**-1.1**
HSN	**Hsinchu**	**0.77**	**259**	⇑*i*P	**Pn**	**01 48 51.8**	**+0.1**
HSN				*i* S	**Sn**	**01 49 06.8**	**-0.7**
LIOB	**Emei**	**0.78**	**247**	⇑*i*P	**Pn**	**01 48 52.2**	**+0.3**
LIOB				S	**Sn**	**01 49 06.4**	**-1.3**
NSTT	**Nanjuang**	**0.80**	**246**	⇑*i*P	**Pn**	**01 48 52.2**	**+0.2**
NSTT				*i* S	**Sn**	**01 49 07.1**	**-0.8**
ETLH	**Xiulin Townshi**	**0.80**	**201**	*i* P	**Pn**	**01 48 52.0**	**-0.2**
ETLH				*i* S	**Sn**	**01 49 08.3**	**+0.1**
NACB	**Ninganchiao**	**0.80**	**194**	P	**Pn**	**01 48 51.4**	**-0.7**
NACB	**Ninganchiao**	**0.80**	**194**	*i* P	**Pn**	**01 48 51.4**	**-0.7**
NACB				*i* S	**Sn**	**01 49 07.3**	**-0.7**
ETL	**Fush Village**	**0.81**	**192**	*i* P	**Pn**	**01 48 51.5**	**-0.7**
ETL				*i* S	**Sn**	**01 49 07.7**	**-0.5**
EOS3	**EOS3**	**0.82**	**145**	*i* P	**Pn**	**01 48 53.1**	**+1.1**
EOS3				*i* S	**Sn**	**01 49 08.8**	**+0.9**
FUSS	**Fushou**	**0.87**	**216**	*i* P	**Pn**	**01 48 53.9**	**+1.0**
FUSS				*i* S	**Sn**	**01 49 09.8**	**+0.3**
TWD	**Chiawan**	**0.89**	**192**	*i* P	**Pn**	**01 48 52.3**	**-0.6**
TWD				*i* S	**Sn**	**01 49 08.6**	**-0.8**
TWT	**Tachien**	**0.90**	**219**	*i* P	**Pn**	**01 48 53.9**	**+0.7**
TWT				*i* S	**Sn**	**01 49 10.2**	**+0.3**
TDCB	**Techi**	**0.91**	**220**	*i* P	**Pn**	**01 48 53.9**	**+0.7**
TDCB				*i* S	**Sn**	**01 49 10.1**	**+0.1**
WHF	**Hehuan Shan**	**0.94**	**211**	⇑*i*P	**Pn**	**01 48 54.4**	**+0.7**
WHF				*i* S	**Sn**	**01 49 11.2**	**+0.2**
EOS4	**EOS4**	**0.96**	**150**	P	**Pn**	**01 48 53.4**	**+0.5**
EOS4				S	**Sn**	**01 49 09.9**	**+0.3**
LXIB	**Xiulin Townshi**	**1.00**	**201**	*i* P	**Pn**	**01 48 53.6**	**-0.4**
LXIB				*i* S	**Sn**	**01 49 10.7**	**-0.6**
NMLH	**Miaoli**	**1.01**	**246**	*i* P	**Pn**	**01 48 54.5**	**+0.6**
NMLH				*i* S	**Sn**	**01 49 11.7**	**+0.5**
ETM	**Tongmen**	**1.03**	**196**	*i* P	**Pn**	**01 48 53.5**	**-0.5**
ETM				*i* S	**Sn**	**01 49 10.0**	**-1.6**
WHP	**Taichung City**	**1.03**	**229**	*i* P	**Pn**	**01 48 54.7**	**+0.6**
WHP				*i* S	**Sn**	**01 49 11.3**	**-0.4**
TEYL	**Yanliau Villag**	**1.10**	**190**	*i* P	**Pn**	**01 48 55.0**	**+0.3**
TEYL				S	**Sn**	**01 49 12.3**	**-0.5**
TWQ1	**Liyutan**	**1.12**	**237**	*i* P	**Pn**	**01 48 55.2**	**+0.3**
TWQ1				*i* S	**Sn**	**01 49 12.6**	**-0.4**
WUSB	**Renai**	**1.15**	**213**	*i* P	**Pn**	**01 48 56.1**	**+0.7**
WUSB				*i* S	**Sn**	**01 49 14.0**	**+0.1**
OWD	**Renai**	**1.15**	**210**	*i* P	**Pn**	**01 48 56.2**	**+0.8**
OWD				*i* S	**Sn**	**01 49 14.3**	**+0.3**
JYNG	**Yonagunijimaku**	**1.16**	**116**	S	**Sn**	**01 49 13.2**	**-0.5**
SHUL	**Shoufeng**	**1.19**	**191**	*i* P	**Pn**	**01 48 55.6**	**0.0**
SHUL				*i* S	**Sn**	**01 49 15.1**	**+0.8**
ESL	**Shilin**	**1.19**	**197**	*i* P	**Pn**	**01 48 54.7**	**-0.9**
ESL				*i* S	**Sn**	**01 49 12.6**	**-1.7**
YOJ	**Yonaguni jima**	**1.21**	**114**	*i* P	**Pn**	**01 48 56.1**	**+0.4**
YOJ				S	**Sn**	**01 49 14.1**	**-0.5**
YOJ	**Yonaguni jima**	**1.21**	**114**	P	**Pn**	**01 48 56.0**	**+0.2**
YOJ				S	**Sn**	**01 49 13.8**	**-0.8**
WCS	**Beigang Elemen**	**1.21**	**222**	*i* P	**Pn**	**01 48 56.5**	**+0.6**
WCS				*i* S	**Sn**	**01 49 14.6**	**-0.1**
DPDB	**Guoxing**	**1.22**	**221**	*i* P	**Pn**	**01 48 56.8**	**+0.7**
DPDB				*i* S	**Sn**	**01 49 16.1**	**+1.1**
WDJ	**Dajia District**	**1.22**	**240**	*i* P	**Pn**	**01 48 56.7**	**+0.8**
WDJ				*i* S	**Sn**	**01 49 15.3**	**+0.4**
TEGC	**Jichi Village**	**1.27**	**191**	P	**Pn**	**01 48 56.9**	**+0.5**
TEGC				*i* S	**Sn**	**01 49 17.2**	**+1.4**
WARBT	**Fenglin Townsh**	**1.29**	**197**	*i* P	**Pn**	**01 48 55.7**	**-1.1**
WARBT				*i* S	**Sn**	**01 49 14.7**	**-1.7**
TCU	**Taichung**	**1.30**	**232**	*i* P	**Pn**	**01 48 57.6**	**+0.8**
TCU				S	**Sn**	**01 49 16.6**	**+0.1**
EGFH	**Guangfu**	**1.33**	**195**	*i* P	**Pn**	**01 48 56.4**	**-0.7**
EGFH				S	**Sn**	**01 49 16.0**	**-1.0**
VWDT	**VWDT**	**1.34**	**207**	*i* P	**Pn**	**01 48 58.4**	**+1.2**
VWDT				*i* S	**Sn**	**01 49 18.8**	**+1.6**
SMLT	**Sun Moon Lake**	**1.35**	**218**	*i* P	**Pn**	**01 48 58.0**	**+0.6**
SMLT				*i* S	**Sn**	**01 49 18.0**	**+0.4**
WWF	**Wufeng**	**1.36**	**228**	*i* P	**Pn**	**01 48 58.2**	**+0.8**
WWF				*i* S	**Sn**	**01 49 18.6**	**+1.1**
TYC	**Yuchr**	**1.36**	**220**	*i* P	**Pn**	**01 48 58.0**	**+0.6**
TYC				*i* S	**Sn**	**01 49 17.9**	**+0.4**
SSLB	**Suanglung**	**1.40**	**214**	P	**Pn**	**01 48 58.3**	**+0.4**
SSLB	**Suanglung**	**1.40**	**214**	⇑*i*P	**Pn**	**01 48 58.5**	**+0.6**
SSLB				*i* S	**Sn**	**01 48 58.2**	**-0.2**
WCHH	**Zhanghua**	**1.43**	**233**	*i* P	**Pn**	**01 48 58.7**	**+0.5**
WCHH				*i* S	**Sn**	**01 49 18.8**	**-0.1**
WNT	**Mingjian**	**1.48**	**224**	*i* P	**Pn**	**01 48 59.5**	**+0.7**
WNT				*i* S	**Sn**	**01 49 19.9**	**-0.1**
WJS	**Zhushan**	**1.50**	**221**	*i* P	**Pn**	**01 48 59.6**	**+0.6**
WJS				*i* S	**Sn**	**01 49 20.3**	**+0.1**
HGSD	**Ruisui**	**1.50**	**193**	*i* P	**Pn**	**01 48 59.8**	**+0.8**
HGSD				S	**Sn**	**01 49 21.2**	**+0.9**
EHY	**Hungye**	**1.51**	**197**	*i* P	**Pn**	**01 48 58.3**	**-0.8**
EHY				*i* S	**Sn**	**01 49 19.5**	**-1.1**
EHYH	**Wanrong**	**1.52**	**196**	*i* P	**Pn**	**01 48 58.8**	**-0.4**
EHYH				*i* S	**Sn**	**01 49 19.8**	**-0.8**
WHYT	**Xinyi Township**	**1.52**	**215**	*i* P	**Pn**	**01 49 00.0**	**+0.7**
WHYT				*i* S	**Sn**	**01 49 21.1**	**+0.2**
YULB	**Yu-li**	**1.62**	**197**	P	**Pn**	**01 49 00.0**	**-0.5**
YULB	**Yu-li**	**1.62**	**197**	S	**Sn**	**01 49 21.4**	**-1.5**
YULB	**Yu-li**	**1.62**	**197**	*i* P	**Pn**	**01 48 59.7**	**-0.8**
YULB				S	**Sn**	**01 49 21.9**	**-1.1**
YUS	**Yu-Shan**	**1.66**	**208**	*i* P	**Pn**	**01 49 02.1**	**+0.8**
YUS				*i* S	**Sn**	**01 49 25.3**	**+0.9**
TWF1	**Yuli**	**1.66**	**196**	*i* P	**Pn**	**01 48 59.9**	**-1.0**
TWF1				*i* S	**Sn**	**01 49 22.1**	**-1.7**
ECBN	**Changbin**	**1.67**	**191**	*i* P	**Pn**	**01 49 01.4**	**+0.5**
ECBN				*i* S	**Sn**	**01 49 24.6**	**+0.8**
RLNB	**Erlin**	**1.69**	**231**	*i* P	**Pn**	**01 49 01.5**	**+0.3**
RLNB				*i* S	**Sn**	**01 49 24.9**	**+0.7**
WGK	**Gukeng**	**1.70**	**222**	*e*P	**Pn**	**01 49 00.4**	**-0.8**
WGK				*i* S	**Sn**	**01 49 24.6**	**+0.2**
ALS	**Alishan**	**1.70**	**212**	*i* P	**Pn**	**01 49 02.3**	**+0.7**
ALS				*i* S	**Sn**	**01 49 25.5**	**+0.5**
WDLH	**Douliu**	**1.71**	**223**	*i* P	**Pn**	**01 49 02.4**	**+1.0**
WDLH				*i* S	**Sn**	**01 49 24.8**	**+0.2**
CHKH	**Chenggong**	**1.80**	**192**	*i* P	**Pn**	**01 49 02.7**	**+0.3**
CHKH				S	**Sn**	**01 49 26.5**	**0.0**
FULB	**Fuli**	**1.81**	**195**	*i* P	**Pn**	**01 49 02.9**	**+0.4**
FULB				*i* S	**Sn**	**01 49 26.8**	**-0.1**
IRIF	**Iriomote-Funau**	**1.86**	**109**	P	**Pn**	**01 49 03.1**	**-0.1**
IRIF				S	**Sn**	**01 49 27.3**	**-0.5**
CHN2	**Minshiung**	**1.87**	**221**	*e*P	**Pn**	**01 49 02.3**	**-0.9**
CHN2				*i* S	**Sn**	**01 49 29.2**	**+1.3**
WCKO	**Fanlu**	**1.87**	**216**	*e*P	**Pn**	**01 49 03.8**	**+0.5**
WCKO				*i* S	**Sn**	**01 49 28.6**	**+0.6**
EHD	**Haiduan**	**1.88**	**197**	*i* P	**Pn**	**01 49 03.7**	**+0.2**
EHD				S	**Sn**	**01 49 26.7**	**-1.6**
CHKT	**Chengkung**	**1.89**	**192**	*i* P	**Pn**	**01 49 03.1**	**-0.4**
CHKT				*i* S	**Sn**	**01 49 28.4**	**-0.1**
ELDTW	**Lidau**	**1.90**	**202**	*i* P	**Pn**	**01 49 04.8**	**+0.9**
ELDTW				*i* S	**Sn**	**01 49 29.9**	**+1.0**
CHY	**Chiayi**	**1.92**	**221**	P	**Pn**	**01 49 04.1**	**+0.2**
CHY				*i* S	**Sn**	**01 49 29.0**	**-0.1**
CHN4	**Tsaushan**	**1.94**	**215**	*i* P	**Pn**	**01 49 04.7**	**+0.5**
CHN4				*i* S	**Sn**	**01 49 30.2**	**+0.6**
WSF	**Szhu**	**1.95**	**228**	*e*P	**Pn**	**01 49 04.6**	**+0.3**
WSF				*i* S	**Sn**	**01 49 30.4**	**+0.6**
TPUB	**Ta-pu**	**1.97**	**213**	P	**Pn**	**01 49 03.1**	**-1.4**
TPUB	**Ta-pu**	**1.97**	**213**	S	**Sn**	**01 49 29.8**	**-0.4**
TPUB	**Ta-pu**	**1.97**	**213**	P	**Pn**	**01 49 05.0**	**+0.5**
TPUB				*i* S	**Sn**	**01 49 30.5**	**+0.3**
STYH	**Taoyuan**	**2.01**	**208**	*e*P	**Pn**	**01 49 07.3**	**+2.3**
STYH				*i* S	**Sn**	**01 49 31.2**	**+0.2**
WTP	**Ta-pu**	**2.02**	**213**	*i* P	**Pn**	**01 49 05.7**	**+0.5**
WTP				*i* S	**Sn**	**01 49 30.8**	**-0.5**
STYT	**Tauyuan**	**2.03**	**208**	⇓*i*P	**Pn**	**01 49 06.0**	**+0.8**
STYT				*i* S	**Sn**	**01 49 31.7**	**+0.2**
WSL	**Shuilin Townsh**	**2.03**	**225**	*e*P	**Pn**	**01 49 05.3**	**+0.1**
WSL				*i* S	**Sn**	**01 49 31.8**	**+0.4**
HATJ	**Hateruma jima**	**2.03**	**116**	S	**Sn**	**01 49 30.7**	**-0.8**
TWK	**Hsinying**	**2.07**	**216**	*i* P	**Pn**	**01 49 06.2**	**+0.5**
TWK				*i* S	**Sn**	**01 49 32.7**	**+0.3**
MSUT	**Lienchiang**	**2.08**	**306**	*i* P	**Pn**	**01 49 05.6**	**-0.3**
MSUT				*e*S	**Sn**	**01 49 32.5**	**-0.1**
ICHU	**Yijhu**	**2.11**	**221**	P	**Pn**	**01 49 06.8**	**+0.5**
ICHU				*i* S	**Sn**	**01 49 33.4**	**+0.1**
CHN1	**Nanshi**	**2.11**	**214**	*i* P	**Pn**	**01 49 06.7**	**+0.4**
CHN1				*i* S	**Sn**	**01 49 33.4**	**0.0**
JKRS	**Kuro-shima**	**2.13**	**109**	P	**Pn**	**01 49 07.0**	**+0.5**
JKRS				*e*S	**Sn**	**01 49 32.8**	**-0.9**
VWUC	**VWUC**	**2.13**	**271**	*i* P	**Pn**	**01 49 06.4**	**-0.1**
VWUC				S	**Sn**	**01 49 32.1**	**-1.7**
SGST	**Jiashian**	**2.17**	**211**	*i* P	**Pn**	**01 49 06.9**	**-0.1**
SGST				*i* S	**Sn**	**01 49 34.4**	**-0.3**
JIJ	**Ishigaki jima**	**2.21**	**105**	P	**Pn**	**01 49 07.7**	**+0.2**
JIJ				S	**Sn**	**01 49 34.2**	**-1.2**
SLGT	**Liugui**	**2.22**	**209**	*e*P	**Pn**	**01 49 08.6**	**+1.0**
SLGT				*i* S	**Sn**	**01 49 36.3**	**+0.5**
TWG	**Pinlang**	**2.23**	**198**	P	**Pn**	**01 49 05.2**	**-2.5**
TWG				*i* S	**Sn**	**01 49 34.5**	**-1.5**
TWGBT	**Beinan**	**2.23**	**197**	P	**Pn**	**01 49 08.1**	**+0.3**
TWGBT	**Beinan**	**2.23**	**197**	P	**Pn**	**01 49 07.7**	**-0.1**
TWGBT				*e*S	**Sn**	**01 49 35.0**	**-0.9**
JISG	**Ishigakijimahi**	**2.31**	**99**	*e*P	**Pn**	**01 49 09.2**	**+0.6**
JISG				S	**Sn**	**01 49 37.2**	**-0.5**
SCST	**Cishan**	**2.38**	**210**	*i* P	**Pn**	**01 49 10.7**	**+1.0**
SCST				*i* S	**Sn**	**01 49 40.6**	**+1.2**
LYJJ	**Jianjiangzhen**	**2.43**	**311**	*i* P	**Pn**	**01 49 10.1**	**-0.1**
LYJJ				*e*S	**Sn**	**01 49 44.9**	**+4.5**
PTMZ	**Houxiangcun**	**2.44**	**273**	*i* P	**Pn**	**01 49 10.2**	**0.0**
PTMZ				*i* S	**Sn**	**01 49 39.1**	**-1.3**
XPSS	**Dashiqiu**	**2.44**	**324**	*i* P	**Pn**	**01 49 10.0**	**-0.3**
XPSS				*e*S	**Sn**	**01 49 40.3**	**-0.3**
SSD	**Sandimen**	**2.45**	**206**	*i* P	**Pn**	**01 49 10.1**	**-0.4**
SSD				S	**Sn**	**01 49 41.5**	**+0.6**
PNG	**Penghu**	**2.47**	**236**	P	**Pn**	**01 49 11.1**	**+0.3**
PNG				*i* S	**Sn**	**01 49 39.6**	**-1.8**
PHUB	**P'eng-hu**	**2.49**	**235**	P	**Pn**	**01 49 10.5**	**-0.5**
PHUB				*i* S	**Sn**	**01 49 39.8**	**-2.0**
MASBT	**Mashibuluo**	**2.57**	**205**	*i* P	**Pn**	**01 49 12.9**	**+0.9**
MASBT				*i* S	**Sn**	**01 49 43.8**	**+0.3**
WDGT	**Dungji**	**2.59**	**230**	*i* P	**Pn**	**01 49 12.3**	**+0.1**
WDGT				*i* S	**Sn**	**01 49 42.4**	**-1.6**
WSSB	**Gushan**	**2.70**	**212**	*e*P	**Pn**	**01 49 14.9**	**+1.1**
WSSB				*i* S	**Sn**	**01 49 48.8**	**+2.2**
EAST	**Anshuo**	**2.71**	**199**	*i* P	**Pn**	**01 49 15.4**	**+1.5**
EAST				S	**Sn**	**01 49 46.8**	**0.0**
MHZQ	**Yeshan**	**2.75**	**295**	*i* P	**Pn**	**01 49 14.2**	**-0.1**
MHZQ				*e*S	**Sn**	**01 49 47.8**	**+0.2

ZEDA	**zmir-Bergama**	**1.23**	**23**	P	**Pn**	**02 21 33.4**	**+0.5**
ZEDA				S	**Sb**	**02 21 48.8**	**-0.1**
ZEDA				IAML		02 21 53.0	
	comp=N,2µm,0.7s						
DKL	**Dikili**	**1.28**	**16**	Pn	**Pn**	**02 21 33.2**	**-0.4**
DKL				AML	AML		
ASTA	**Astypalaia**	**1.30**	**183**	P	**Pg**	**02 21 34.4**	**0.0**
ASTA				AML	AML		
YAZI	**Mula-Dat§a-**	**1.41**	**145**	P	**Pn**	**02 21 34.8**	**-0.6**
PRK	**Paraskevi**	**1.41**	**354**	P	**Pn**	**02 21 34.4**	**-1.1**
PRK				S	**Sg**	**02 21 55.1**	**+0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**1.41**	**354**	P	**Pn**	**02 21 35.5**	**+0.1**
DAT	**Datca**	**1.43**	**141**	Pn	**Pn**	**02 21 35.5**	**-0.3**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.44**	**53**	Pn	**Pb**	**02 21 36.6**	**0.0**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.46**	**85**	Pn	**Pg**	**02 21 37.3**	**-0.3**
NAZL				AML	AML		
AYVA	**Ayvalik**	**1.48**	**7**	P	**Pn**	**02 21 36.2**	**-0.1**
AYVA				S	**Sn**	**02 21 54.6**	**-1.2**
AYVA				IAML		02 22 00.0	
	comp=N,2µm,0.7s						
AKHS	**Akhisar**	**1.49**	**46**	P	**Pb**	**02 21 37.6**	**+0.1**
AKHS				S	**Sn**	**02 21 55.7**	**-0.5**
AKHS				IAML		02 22 07.0	
	comp=N,940nm,0.4s						
AKS	**Akhisar**	**1.49**	**46**	Pn	**Pb**	**02 21 37.4**	**0.0**
AKS				AML	AML		
ESEN	**Aydn-Nazilli**	**1.50**	**91**	P	**Pg**	**02 21 38.4**	**0.0**
KTTT	**Salihli**	**1.54**	**56**	P	**Pb**	**02 21 38.1**	**-0.2**
KTTT				S	**Sn**	**02 21 55.5**	**-2.1**
KTTT				IAML		02 22 05.0	
	comp=N,873nm,1.0s						
SOMA	**Soma-Manisa**	**1.56**	**33**	Pn	**Pb**	**02 21 38.1**	**-0.6**
SOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.58**	**76**	P	**Pb**	**02 21 39.0**	**0.0**
MULA	**Mugla, Merkez-**	**1.60**	**111**	P	**Pb**	**02 21 39.3**	**0.0**
CMBO	**Columbo, Santo**	**1.60**	**212**	P	**Pn**	**02 21 37.1**	**-1.0**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.60**	**212**	P	**Pn**	**02 21 37.0**	**-1.0**
KARY	**Karystos**	**1.60**	**277**	P	**Pn**	**02 21 36.9**	**-1.2**
KARY				AML	AML		
KARY	**Karystos**	**1.60**	**277**	P	**Pn**	**02 21 37.0**	**-1.2**
THR2	**Thira island,**	**1.61**	**211**	P	**Pn**	**02 21 37.2**	**-1.0**
YER	**Yerkesik**	**1.62**	**115**	P	**Pn**	**02 21 37.9**	**-0.5**
YER				S	**Sb**	**02 22 00.3**	**+0.1**
YER				AML	AML		
YER	**Yerkesik**	**1.62**	**115**	Pn	**Pb**	**02 21 39.1**	**-0.6**
YER				AML	AML		
THR8	**Santorini-Mono**	**1.63**	**209**	P	**Pn**	**02 21 37.8**	**-0.7**
THR8	**Santorini-Mono**	**1.63**	**209**	P	**Pn**	**02 21 37.6**	**-0.8**
THRA	**Thira**	**1.64**	**210**	P	**Pn**	**02 21 37.6**	**-1.0**
SAP3	**Santorini-Thir**	**1.66**	**213**	P	**Pn**	**02 21 37.5**	**-1.4**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.66**	**213**	P	**Pn**	**02 21 37.8**	**-1.0**
THR3	**Thira Island,**	**1.66**	**211**	P	**Pn**	**02 21 38.5**	**-0.3**
SNT5	**Nea Kammeni, S**	**1.67**	**211**	P	**Pn**	**02 21 38.6**	**-0.4**
SNT5				AML	AML		
THERA	**Ancient Thera,**	**1.67**	**208**	P	**Pn**	**02 21 37.8**	**-1.2**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.67**	**208**	P	**Pn**	**02 21 37.8**	**-1.2**
THERA				AML	AML		
THR5	**Thira Island,**	**1.67**	**212**	P	**Pn**	**02 21 37.9**	**-1.1**
THR5	**Thira Island,**	**1.67**	**212**	P	**Pn**	**02 21 38.2**	**-0.8**
THR6	**Thira Island,**	**1.71**	**210**	P	**Pn**	**02 21 39.5**	**0.0**
GORD	**Gordes-Manisa**	**1.73**	**51**	Pn	**Pb**	**02 21 41.1**	**-0.4**
GORD				AML	AML		
BUHA	**Balikesir, Bur**	**1.73**	**16**	P	**Pn**	**02 21 39.3**	**-0.6**
BUHA				S	**Sb**	**02 22 03.3**	**-0.1**
BUHA				IAML		02 22 07.0	
	comp=N,2µm,0.7s						
BUHA				IAML		02 22 09.0	
	comp=E,3µm,0.7s						
MANT	**Manisa**	**1.78**	**68**	P	**Pg**	**02 21 43.5**	**-0.3**
MANT				S	**Sn**	**02 22 03.0**	**-0.7**
MANT				IAML		02 22 08.0	
	comp=N,666nm,0.7s						
TURN	**Turunc**	**1.78**	**126**	Pn	**Pn**	**02 21 41.3**	**+0.8**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.83**	**15**	Pn	**Pn**	**02 21 42.1**	**+0.8**
YAYO				AML	AML		
EZNE	**Ezine-Canakkal**	**1.91**	**358**	Pn	**Pn**	**02 21 42.9**	**+0.6**
TAVA	**DENIZLI_Tavas**	**1.99**	**100**	⇑P	**Pn**	**02 21 43.6**	**+0.1**
MHLO	**Agia Marina, M**	**2.00**	**235**	P	**Pn**	**02 21 42.4**	**-1.1**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**2.00**	**235**	P	**Pn**	**02 21 42.2**	**-1.3**
DION	**Dionisos Attik**	**2.00**	**278**	P	**Pn**	**02 21 42.7**	**-1.0**
DION				AML	AML		
DION	**Dionisos Attik**	**2.00**	**278**	P	**Pn**	**02 21 42.7**	**-1.0**
DION				AML	AML		
KYMI	**Kymi, Euboea I**	**2.01**	**294**	P	**Pn**	**02 21 43.0**	**-0.7**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.01**	**294**	P	**Pn**	**02 21 42.7**	**-1.0**
KYMI				AML	AML		
PTL	**Penteli**	**2.06**	**277**	P	**Pn**	**02 21 43.4**	**-1.0**
PTL				AML	AML		
PTL	**Penteli**	**2.06**	**277**	P	**Pn**	**02 21 43.5**	**-0.8**
PTL				AML	AML		
VLY	**Voula,Athens**	**2.10**	**271**	P	**Pn**	**02 21 44.1**	**-0.9**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.10**	**271**	P	**Pn**	**02 21 44.0**	**-0.9**
VLY				AML	AML		
ARG	**Arkhangelos**	**2.10**	**140**	P	**Pn**	**02 21 44.7**	**-0.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.10**	**140**	P	**Pn**	**02 21 44.7**	**-0.3**
ARG				AML	AML		
ATHU	**Athens Univers**	**2.11**	**274**	P	**Pn**	**02 21 44.0**	**-1.1**
BALB	**Balikesir**	**2.12**	**31**	Pn	**Pn**	**02 21 45.9**	**+0.8**
BALB				AML	AML		
ATH	**Athens Observa**	**2.17**	**274**	P	**Pn**	**02 21 45.1**	**-0.7**
ATH				AML	AML		
ATH	**Athens Observa**	**2.17**	**274**	P	**Pn**	**02 21 45.0**	**-0.8**
ATH				AML	AML		
NOAC	**Athens-Thissio**	**2.17**	**274**	P	**Pn**	**02 21 45.1**	**-0.7**
NOAC				AML	AML		
LIA	**Limnos Island**	**2.28**	**335**	P	**Pn**	**02 21 46.2**	**-1.3**
LIA	**Limnos Island**	**2.28**	**335**	P	**Pn**	**02 21 46.1**	**-1.3**
LIA				AML	AML		
STFN	**Stefani**	**2.32**	**279**	P	**Pn**	**02 21 47.5**	**-0.4**
STFN				AML	AML		
KARP	**Karpathos**	**2.36**	**166**	P	**Pn**	**02 21 48.1**	**-0.4**
KARP				AML	AML		
MET4	**Agioi Theodoro**	**2.43**	**266**	P	**Pn**	**02 21 49.8**	**+0.4**
MET5	**Makryloggos,Me**	**2.46**	**266**	P	**Pn**	**02 21 49.5**	**-0.4**
MET6	**Megalochori,Me**	**2.47**	**265**	P	**Pn**	**02 21 50.3**	**+0.3**
MET2	**Kameni Chora,**	**2.48**	**266**	P	**Pn**	**02 21 50.2**	**0.0**
MET2				AML	AML		
VIL2	**Platees**	**2.54**	**279**	P	**Pn**	**02 21 49.9**	**-1.1**
VIL2				AML	AML		
MET3	**Ano Fanari,Met**	**2.57**	**265**	P	**Pn**	**02 21 51.3**	**-0.1**
EPID	**Epidavros**	**2.65**	**266**	P	**Pn**	**02 21 52.4**	**-0.2**
EPID				AML	AML		
NPS	**Neapolis**	**2.66**	**195**	P	**Pn**	**02 21 52.2**	**-0.4**
NPS				AML	AML		
SMTH	**Samothraki Isl**	**2.72**	**345**	P	**Pn**	**02 21 52.6**	**-0.9**
SMTH				AML	AML		
ZKR	**Zakros**	**2.73**	**184**	P	**Pn**	**02 21 53.2**	**-0.3**
ZKR				AML	AML		
LOUT	**Loutraki**	**2.75**	**274**	P	**Pn**	**02 21 53.4**	**-0.6**
LOUT				AML	AML		
LTK	**Loutraki**	**2.76**	**275**	P	**Pn**	**02 21 53.5**	**-0.5**
LTK				AML	AML		
BAND	**Balkesir-Ban**	**2.82**	**27**	⇑P	**Pn**	**02 21 55.6**	**+0.8**
ATAL	**Atalanti**	**2.83**	**289**	P	**Pn**	**02 21 54.4**	**-0.6**
ACOR	**Acrocorinthos**	**2.83**	**272**	P	**Pn**	**02 21 54.2**	**-0.9**
IDI	**Anoyia**	**2.84**	**207**	Pn	**Pn**	**02 21 54.1**	**-1.1**
	5.3nm,0.5s,baz=129,slow=6.4,SNR=21						
IDI				Sn	**Sn**	**02 22 27.0**	**-2.6**
	5.7nm,0.3s,baz=322,slow=18,SNR=5.9						
IDI				Lg	Lg	02 22 36.9	
	5.8nm,0.3s,baz=285,slow=9.4,SNR=4.8						
IDI	**Anoyia**	**2.84**	**207**	P	**Pn**	**02 21 53.9**	**-1.3**
IDI				AML	AML		
CAVK	**Edirne/Enez-Ca**	**2.85**	**356**	⇓P	**Pn**	**02 21 55.1**	**-0.1**
NEO	**Neokhori**	**2.92**	**301**	P	**Pn**	**02 21 55.7**	**-0.6**
XOR	**Xorichti**	**2.97**	**302**	P	**Pn**	**02 21 57.0**	**+0.1**
THAL	**Thalero**	**3.00**	**275**	P	**Pn**	**02 21 57.6**	**+0.3**
THAL				AML	AML		
VLI	**Veliai**	**3.02**	**249**	P	**Pn**	**02 21 56.9**	**-0.7**
VLI				AML	AML		
CHAN	**Chania**	**3.02**	**221**	P	**Pn**	**02 21 57.8**	**+0.3**
ALN	**Alexandroupoli**	**3.07**	**354**	P	**Pn**	**02 21 57.1**	**-1.1**
ALN				AML	AML		
THAS	**Thassos island**	**3.07**	**335**	P	**Pn**	**02 21 56.5**	**-1.7**
SIVA	**Sivas**	**3.11**	**206**	P	**Pn**	**02 22 00.0**	**+1.2**
SIVA				AML	AML		
AXAR	**Agios Charalam**	**3.12**	**288**	P	**Pn**	**02 21 59.0**	**0.0**
AXAR				AML	AML		
KTHA	**Kythira Island**	**3.14**	**241**	P	**Pn**	**02 21 57.9**	**-1.3**
KTHA				AML	AML		
RODP	**Rodopos**	**3.14**	**224**	P	**Pn**	**02 21 59.5**	**+0.2**
OUR	**Ouranopolis**	**3.14**	**323**	P	**Pn**	**02 21 58.5**	**-0.8**
OUR				AML	AML		
ANKY	**Antikythira Is**	**3.20**	**233**	P	**Pn**	**02 21 59.6**	**-0.5**
ANKY				AML	AML		
GUR	**Goura**	**3.25**	**273**	P	**Pn**	**02 22 00.4**	**-0.5**
GUR				AML	AML		
KLV	**Kalavryta, Ach**	**3.41**	**275**	P	**Pn**	**02 22 02.6**	**-0.3**
AGG	**Agios Georgios**	**3.44**	**291**	P	**Pn**	**02 22 03.6**	**+0.1**
AGG				AML	AML		
KALE	**Kalithea**	**3.44**	**280**	P	**Pn**	**02 22 03.8**	**+0.3**
KALE				AML	AML		
AGEO	**AgiosGiorgios,**	**3.49**	**278**	P	**Pn**	**02 22 04.2**	**+0.2**
KAVA	**Kavala**	**3.49**	**335**	P	**Pn**	**02 22 02.8**	**-1.2**
KAVA				AML	AML		
SERG	**Sergoula**	**3.51**	**281**	P	**Pn**	**02 22 04.6**	**+0.2**
SERG				AML	AML		
PYRG	**Pyrgos, Dorida**	**3.54**	**281**	P	**Pn**	**02 22 04.7**	**-0.1**
MG00	**Magoula, Dorid**	**3.60**	**281**	P	**Pn**	**02 22 05.7**	**+0.2**
MG00				AML	AML		
EFP	**Efpalio**	**3.63**	**281**	P	**Pn**	**02 22 06.3**	**+0.3**
EFP				AML	AML		
ANX	**Ano Chora**	**3.65**	**283**	P	**Pn**	**02 22 06.3**	**0.0**
ANX				AML	AML		
ITM	**Ithomi**	**3.66**	**261**	P	**Pn**	**02 22 07.1**	**+0.7**
ITM				AML	AML		
AGRP	**Agrapidokambos**	**3.77**	**280**	P	**Pn**	**02 22 08.3**	**+0.4**
AGRP				AML	AML		
TYRN	**Tyrnavos**	**3.79**	**301**	P	**Pn**	**02 22 08.1**	**0.0**
EVR	**Evrytania**	**3.80**	**288**	P	**Pn**	**02 22 09.2**	**+0.7**
EVR				AML	AML		
SOH	**Sokhos**	**3.82**	**322**	P	**Pn**	**02 22 08.3**	**-0.4**
THL	**Klokotos Trika**	**3.87**	**298**	P	**Pn**	**02 22 09.5**	**+0.2**
RLS	**Riolos of Patr**	**3.94**	**275**	P	**Pn**	**02 22 10.9**	**+0.6**
RLS				AML	AML		
NVR	**Nevrokopi**	**4.03**	**331**	P	**Pn**	**02 22 10.8**	**-0.8**
NVR				AML	AML		
KEPZ	**Antalya-Kepez**	**4.21**	**101**	⇑P	**Pn**	**02 22 15.0**	**+1.0**
PDO	**Prodromos**	**4.22**	**282**	P	**Pn**	**02 22 15.2**	**+1.2**
PDO				AML	AML		
KNT	**Kendrikon**	**4.31**	**321**	P	**Pn**	**02 22 15.2**	**-0.1**
TETR	**Tetrakomo, Epi**	**4.32**	**292**	P	**Pn**	**02 22 15.8**	**+0.2**
TETR				AML	AML		
GRG	**Griva**	**4.42**	**316**	P	**Pn**	**02 22 17.3**	**+0.5**
SAHE	**Sakarya_HENDEK**	**4.55**	**47**	⇑P	**Pn**	**02 22 19.3**	**+0.7**
VAY	**Valandovo**	**4.59**	**320**	*i* Pn	**Pb**	**02 22 32.8**	**+2.5**
NEST	**Nestorio**	**4.92**	**303**	P	**Pn**	**02 22 24.6**	**+0.8**
BRTR	**Keskin Array B**	**5.92**	**69**	Pn	**Pn**	**02 22 38.5**	**+0.9**
	0.2nm,0.3s,baz=245,slow=14,SNR=9.6						
	1.8nm,0.9s						
BRTR				AML	AML		
KIRS	**Kirsehir-Merke**	**6.00**	**75**	⇑P	**Pn**	**02 22 39.1**	**+0.5**
BLKB	**Belogradchik**	**6.45**	**335**	⇑P	**Pn**	**02 22 44.6**	**-0.1**
BOVS	**Bovan**	**6.82**	**330**	⇓P	**Pn**	**02 22 49.8**	**+0.1**
MLR	**Muntele Rosu**	**7.65**	**357**	Pn	Pn	02 23 11.2	+10
	0.4nm,0.3s,baz=229,slow=12,SNR=3.2						
MLR				Lg	Lg	02 25 19.6	
	0.3nm,0.3s,baz=131,slow=14,SNR=3.7						
MLR				LR	LR	02 26 37.9	
	comp=Z,166nm,18.5s,baz=352,slow=41						
HERR	**Herculane**	**7.66**	**338**	⇑P	**Pn**	**02 23 00.1**	**-1.2**
TIP	**Timpagrande**	**7.72**	**283**	⇓P	**Pn**	**02 23 01.7**	**-0.5**
MDVR	**Moldovita**	**7.79**	**334**	⇓P	**Pn**	**02 23 02.7**	**-0.5**
PLOR	**Plostina**	**8.01**	**1**	⇓P	**Pn**	**02 23 06.0**	**0.0**
VRI	**Vrincioaia**	**8.02**	**1**	⇓P	**Pn**	**02 23 06.4**	**+0.2**
BZS	**Buzau**	**8.57**	**337**	⇓P	**Pn**	**02 23 13.6**	**-0.1**
MMAI	**Mount Meron Ar**	**8.75**	**121**	Pn	**Pn**	**02 23 12.9**	**-3.5**
	0.7nm,0.3s,baz=325,slow=16,SNR=13						
MMAI				Sn	Sn	02 24 44.7	-10
	2.3nm,0.3s,baz=322,slow=28,SNR=8.3						
MMAI				LR	LR	02 27 13.1	
	comp=Z,61nm,19.6s,baz=300,slow=43						
SIRR	**Siria**	**9.14**	**339**	⇑P	**Pn**	**02 23 20.7**	**-0.9**
MARR	**Marisel-Cluj**	**9.17**	**345**	⇓P	**Pn**	**02 23 22.2**	**+0.1**
VAE	**Valguarnera**	**9.55**	**272**	Pn	**Pn**	**02 23 31.8**	**+4.4**
	2.3nm,0.7s,baz=214,slow=17,SNR=1.4						
MORH	**Mrgy, Hungar**	**10.18**	**328**	⇓P	**Pn**	**02 23 35.4**	**-0.4**
ASF	**Jabal al Asfar**	**10.23**	**120**	Pn	**Pn**	**02 23 33.8**	**-3.4**
	0.2nm,0.3s,baz=44,slow=20,SNR=1.6						
	0.5nm,0.5s						
ASF				AML	AML		
EIL	**Elat**	**10.79**	**137**	Pn	**Pn**	**02 23 39.8**	**-4.5**
	0.2nm,0.3s,baz=9.6,slow=12,SNR=2.5						
	2.0nm,0.7s						
EIL				AML	AML		
VRAC	**Vranov**	**13.49**	**331**	Pn	**P**	**02 24 28.2**	**-2.3**
	0.1nm,0.3s,baz=142,slow=5.1,SNR=6.7						
	0.7nm,0.7s						
VRAC				AML	AML		
KBZ	**Khabaz**	**13.77**	**60**	LR	LR	02 31 03.8	
	comp=Z,43nm,19.5s,baz=211,slow=43						
GERES	**GERESS Array B**	**14.36**	**324**	Pn	**P**	**02 24 40.2**	**-0.1**
	baz=145,slow=16,SNR=6.8						
	0.4nm,0.6s						
DAVOX	**Davos/Dischmat**	**15.14**	**311**	Pn	**P**	**02 24 47.1**	**-1.9**
	0.1nm,0.3s,baz=162,slow=20,SNR=1.6						
DAVOX				LR	LR	02 30 41.3	
	comp=Z,108nm,18.6s,baz=82,slow=37						
	0.6nm,0.6s						
DAVOX				AML	AML		
BRG	**Berggiesshubel**	**15.77**	**330**	*e*P	**P**	**02 25 00.9**	**+5.2**
BRG				Amp		02 25 01.3	
	comp=Z,4.0nm,1.1s						
OBN	**Obninsk**	**18.59**	**18**	LR	LR	02 33 57.3	
	comp=Z,62nm,21.2s,baz=9.5,slow=41						
ESDC	**Sonseca Array**	**23.74**	**284**	P	**P**	**02 26 25.6**	**+3.5**
	comp=Z,1.5nm,1.1s,baz=88,slow=7.4,SNR=4.9						
	comp=Z,1.5nm,1.1s						
NOA	**NORSAR Array B**	**25.12**	**342**	P	**P**	**02 26 37.6**	**+3.1**
	comp=Z,1.8nm,0.9s,baz=149,slow=11,SNR=3.5						
	comp=Z,1.8nm,0.9s						
KIRV	**Kirov**	**25.55**	**28**	LR	LR	02 39 11.6	
	comp=Z,47nm,18.4s,baz=276,slow=42						
ARCES	**ARCESS Array B**	**31.76**	**359**	LR	LR	02 41 33.0	
	comp=Z,68nm,20.8s,baz=273,slow=38						
TORD	**Torodi Ar. Bea**	**33.03**	**228**	P	**P**	**02 27 45.9**	**+0.5**
	comp=Z,1.7nm,0.6s,baz=37,slow=8.3,SNR=7.7						
	comp=Z,1.7nm,0.6s						
KURBB	**Kurchatov Arra**	**38.66**	**54**	P	**P**	**02 28 35.0**	**+1.8**
	comp=Z,1.2nm,0.2s,baz=278,slow=8.6,SNR=4.9						
	comp=Z,1.2nm,0.2s						
MKAR	**Makanchi Array**	**41.47**	**59**	P	**P**	**02 28 57.0**	**+0.3**
	comp=Z,0.7nm,0.8s,baz=271,slow=9.9,SNR=2.0						
	comp=Z,0.7nm,0.8s						
DBIC	**Dimbokro**	**42.06**	**230**	P	**P**	**02 29 01.4**	**-0.5**
	comp=Z,1.4nm,0.5s,baz=54,slow=6.1,SNR=5.0						
	comp=Z,1.4nm,0.5s						
TSUM	**Tsumeb**	**57.35**	**190**	LR	LR	02 56 39.5	
	comp=Z,40nm,18.4s,baz=336,slow=37						

*ISK **01** 02:24:52.9,37˚.85N×26˚.42E,h6km,ML3.8/12*
*IDC **01** 02:24:52.2±1.3,37˚.70N×26˚.54E,h0km,mb3.8/3,*
mbtmp3.5/7,ML2.7/2,MS2.7/1,Error ellipse: s-maj=18.1km
s-min=12.7km az=165.0
*THE **01** 02:24:53.4,38˚№1˚×2˚6E±˚,h8km±3km,M3.5/35,*
MLh3.5/35
*AFAD **01** 02:24:53.5,37˚.86N×26˚.41E,h7km±2km,ML3.4*
*ATH **01** 02:24:53.8,37˚.84N×26˚.42E,h12km±2km,ML3.6/41,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
ISC 01 02:24:53.7±0.9,37˚84N±0˚02×26˚43E±0˚02,h13km±7km,
n167,σ0§95/197,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.22**	**101**	P	**Pg**	**02 24 58.8**	**+0.3**
KRL1				S	**Sg**	**02 25 02.3**	**+0.5**
KRL1				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.40**	**8**	P	**Pg**	**02 25 01.2**	**-0.6**
ZEYE				S	**Sg**	**02 25 07.5**	**+0.3**
ZEYE				IAML		02 25 08.0	
	comp=E,2µm,0.3s						
ZEYE				IAML		02 25 09.0	
	comp=N,4µm,0.7s						
DGB	**zmir**	**0.41**	**59**	P	**Pg**	**02 25 01.8**	**-0.1**
DGB				S	**Sg**	**02 25 07.7**	**+0.2**
DGB				IAML		02 25 08.0	
	comp=N,3µm,0.3s						
DGB				IAML		02 25 08.0	
	comp=E,3µm,0.2s						
GMLD	**Gumuldur**	**0.45**	**58**	Pg	**Pg**	**02 25 01.9**	**-0.7**
GMLD				Sg	**Sg**	**02 25 08.5**	**-0.1**
GMLD				AML	AML		
CESE	**eme**	**0.50**	**348**	Pg	**Pg**	**02 25 02.9**	**-0.7**
CESE				Sg	**Sg**	**02 25 10.4**	**+0.1**
CESE				AML	AML		
BEYE	**izmir**	**0.55**	**45**	P	**Pg**	**02 25 03.8**	**-0.7**
BEYE				S	**Sg**	**02 25 12.0**	**+0.2**
BEYE				IAML		02 25 13.0	
	comp=E,1µm,0.3s						
CHOS	**Chios island**	**0.62**	**331**	P	**Pg**	**02 25 05.1**	**-0.8**
CHOS				S	**Sg**	**02 25 14.0**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**331**	Pg	**Pg**	**02 25 05.3**	**-0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**331**	P	**Pg**	**02 25 05.6**	**-0.3**
CHOS				S	**Sg**	**02 25 14.5**	**+0.3**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.65**	**102**	P	**Pg**	**02 25 06.5**	**+0.1**
GCAM				S	**Sb**	**02 25 16.4**	**+0.6**
GCAM				IAML		02 25 19.0	
	comp=N,2µm,0.7s						
GCAM				IAML		02 25 19.0	
	comp=E,3µm,0.8s						
GCAM	**G?zelcaml?**	**0.65**	**102**	Pg	**Pg**	**02 25 06.2**	**-0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.68**	**88**	Pg	**Pg**	**02 25 06.8**	**-0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.73**	**41**	P	**Pg**	**02 25 06.7**	**-1.1**
BLCB				S	**Sg**	**02 25 16.4**	**-1.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.73**	**41**	Pg	**Pg**	**02 25 07.2**	**-0.6**
DDIM	**Aydin, Didim**	**0.75**	**120**	P	**Pb**	**02 25 08.6**	**+0.1**
DDIM				S	**Sb**	**02 25 20.0**	**+1.4**
DDIM				IAML		02 25 22.0	
	comp=N,3µm,0.3s						
DDIM				IAML		02 25 22.0	
	comp=E,5µm,0.8s						
EAG2	**Marmaro, Chios**	**0.75**	**340**	P	**Pg**	**02 25 07.7**	**-0.5**
EAG2				S	**Sg**	**02 25 18.3**	**+0.2**
KRBN	**Karaburun**	**0.76**	**7**	Pg	**Pg**	**02 25 07.8**	**-0.7**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.82**	**359**	P	**Pg**	**02 25 08.7**	**-1.0**
KARB				S	**Sg**	**02 25 20.2**	**-0.3**
KARB				IAML		02 25 28.0	
	comp=N,1µm,0.9s						
KARB				IAML		02 25 29.0	
	comp=E,1µm,0.7s						
BAGT	**Foa**	**0.88**	**22**	P	**Pg**	**02 25 10.2**	**-0.6**
BAGT				S	**Sb**	**02 25 23.2**	**+0.7**
BAGT				IAML		02 25 30.0	
	comp=E,3µm,0.7s						
BAGT				IAML		02 25 31.0	
	comp=N,5µm,1.0s						
DUVT	**Torbali**	**0.89**	**64**	P	**Pg**	**02 25 10.8**	**-0.1**
DUVT				IAML		02 25 30.0	
	comp=E,1µm,1.0s						
FOCM	**Foa**	**0.90**	**15**	Pg	**Pg**	**02 25 10.6**	**-0.6**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.98**	**154**	P	**Pg**	**02 25 12.9**	**+0.3**
KLNA				S	**Sn**	**02 25 26.3**	**-0.5**
KLNA				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.98**	**136**	Pg	**Pb**	**02 25 12.4**	**-0.1**
BODT	**Bodrum**	**1.04**	**138**	P	**Pg**	**02 25 13.9**	**+0.1**
BODT				S	**Sn**	**02 25 28.7**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**1.04**	**138**	Pg	**Pg**	**02 25 13.9**	**+0.1**
BODT				AML	AML		
TNSA	**Tinos**	**1.05**	**254**	P	**Pb**	**02 25 13.3**	**-0.4**
TNSA				AML	AML		
DAGE	**izmir**	**1.05**	**81**	S	**Sb**	**02 25 26.8**	**-0.8**
BDRM	**Kayabasi**	**1.11**	**134**	S	**Sn**	**02 25 31.7**	**+1.5**
CAMT	**Merkez**	**1.14**	**37**	P	**Pb**	**02 25 14.9**	**-0.4**
CAMT				S	**Sn**	**02 25 32.1**	**+1.2**
CAMT				IAML		02 25 43.0	
	comp=N,2µm,0.7s						
CAMT				IAML		02 25 44.0	
	comp=E,1µm,0.7s						
AYDB	**Zeytinkoy-Aydi**	**1.16**	**84**	Pn	**Pb**	**02 25 15.6**	**0.0**
AYDN	**Tasoluk**	**1.16**	**98**	P	**Pb**	**02 25 15.7**	**+0.1**
AYDN				S	**Sn**	**02 25 34.1**	**+2.7**
AYDN				IAML		02 25 35.0	
	comp=N,586nm,0.3s						
AYDN				IAML		02 25 37.0	
	comp=E,403nm,0.3s						
MLSB	**Milas**	**1.20**	**117**	Pn	**Pb**	**02 25 16.4**	**+0.2**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.23**	**24**	P	**Pn**	**02 25 16.8**	**+0.2**
ZEDA				S	**Sg**	**02 25 34.5**	**+1.0**
ZEDA	

BUHA	**Balikesir, Bur**	**1.73**	**17**	P	**Pn**	**02 25 24.1 +0.5**
BUHA				S	**Sg**	**02 25 51.3 +1.7**
BUHA				IAML		02 25 59.0
	comp=E,705nm,0.7s					
BUHA				IAML		02 26 00.0
	comp=N,612nm,0.7s					
GORD	**Gordes-Manisa**	**1.74**	**52**	Pn	**Pn**	**02 25 24.5 +0.9**
TURN	**Turunc**	**1.79**	**126**	Pn	**Pn**	**02 25 25.3 +1.0**
YAYO	**Edremit-Balk**	**1.84**	**16**	Pn	**Pn**	**02 25 26.0 +1.1**
YAYO				AML	AML	
EZNE	**Ezine-Canakkal**	**1.92**	**358**	Pn	**Pn**	**02 25 26.8 +0.8**
DION	**Dionisos Attik**	**1.99**	**278**	P	**Pn**	**02 25 27.1 +0.1**
DION				AML	AML	
DION	**Dionisos Attik**	**1.99**	**278**	P	**Pn**	**02 25 26.9 -0.2**
DION				AML	AML	
KYMI	**Kymi, Euboea I**	**2.00**	**294**	P	**Pn**	**02 25 27.1 0.0**
PTL	**Penteli**	**2.04**	**277**	P	**Pn**	**02 25 27.9 +0.1**
PTL				AML	AML	
PTL	**Penteli**	**2.04**	**277**	P	**Pn**	**02 25 27.7 -0.1**
PTL				AML	AML	
VLY	**Voula,Athens**	**2.09**	**271**	P	**Pn**	**02 25 28.5 +0.1**
VLY				AML	AML	
VLY	**Voula,Athens**	**2.09**	**271**	P	**Pn**	**02 25 28.4 +0.1**
VLY				AML	AML	
ATHU	**Athens Univers**	**2.10**	**274**	P	**Pn**	**02 25 28.6 0.0**
ATHU				AML	AML	
ATHU	**Athens Univers**	**2.10**	**274**	P	**Pn**	**02 25 28.4 -0.1**
ARG	**Arkhangelos**	**2.11**	**140**	P	**Pn**	**02 25 29.3 +0.6**
ARG				S	**Sn**	**02 25 55.5 +0.7**
ARG				AML	AML	
ARG	**Arkhangelos**	**2.11**	**140**	P	**Pn**	**02 25 29.2 +0.5**
ARG				AML	AML	
BALB	**Balikesir**	**2.12**	**32**	Pn	**Pn**	**02 25 30.2 +1.3**
BALB				AML	AML	
ATH	**Athens Observa**	**2.15**	**274**	P	**Pn**	**02 25 29.5 +0.2**
ATH				AML	AML	
ATH	**Athens Observa**	**2.15**	**274**	P	**Pn**	**02 25 29.5 +0.2**
ATH				AML	AML	
NOAC	**Athens-Thissio**	**2.15**	**274**	P	**Pn**	**02 25 29.5 +0.2**
NOAC				AML	AML	
LIA	**Limnos Island**	**2.28**	**335**	P	**Pn**	**02 25 30.6 -0.3**
LIA				AML	AML	
LIA	**Limnos Island**	**2.28**	**335**	P	**Pn**	**02 25 30.6 -0.3**
LIA				AML	AML	
STFN	**Stefani**	**2.31**	**279**	P	**Pn**	**02 25 31.9 +0.5**
STFN				AML	AML	
STFN	**Stefani**	**2.31**	**279**	P	**Pn**	**02 25 31.9 +0.5**
STFN				AML	AML	
KARP	**Karpathos**	**2.36**	**165**	P	**Pn**	**02 25 32.8 +0.6**
KARP				AML	AML	
GADA	**Gvkgeada**	**2.39**	**350**	P	**Pn**	**02 25 32.2 -0.2**
GADA				S	**Sn**	**02 26 02.1 +0.6**
GADA				AML	AML	
MET4	**Agioi Theodoro**	**2.42**	**266**	P	**Pn**	**02 25 33.4 +0.5**
MET5	**Makryloggos,Me**	**2.45**	**266**	P	**Pn**	**02 25 33.8 +0.5**
MET6	**Megalochori,Me**	**2.45**	**265**	P	**Pn**	**02 25 34.1 +0.7**
VILL	**Villia**	**2.49**	**278**	P	**Pn**	**02 25 34.2 +0.3**
VILL				AML	AML	
VIL2	**Platees**	**2.53**	**279**	P	**Pn**	**02 25 34.2 -0.2**
VIL2				AML	AML	
MET3	**Ano Fanari,Met**	**2.56**	**265**	P	**Pn**	**02 25 34.9 0.0**
EPID	**Epidavros**	**2.64**	**266**	P	**Pn**	**02 25 37.0 +1.1**
EPID				AML	AML	
EPID	**Epidavros**	**2.64**	**266**	P	**Pn**	**02 25 37.1 +1.1**
EPID				AML	AML	
LOUT	**Loutraki**	**2.74**	**274**	P	**Pn**	**02 25 37.5 +0.2**
LOUT				AML	AML	
LTK	**Loutraki**	**2.75**	**275**	P	**Pn**	**02 25 37.9 +0.4**
LTK				AML	AML	
LTK	**Loutraki**	**2.75**	**275**	P	**Pn**	**02 25 37.8 +0.4**
LTK				AML	AML	
ATAL	**Atalanti**	**2.82**	**289**	P	**Pn**	**02 25 38.8 +0.4**
ATAL	**Atalanti**	**2.82**	**289**	P	**Pn**	**02 25 38.6 +0.2**
ACOR	**Acrocorinthos**	**2.82**	**272**	P	**Pn**	**02 25 38.7 +0.2**
LKR	**Lokris**	**2.82**	**288**	P	**Pn**	**02 25 38.7 +0.2**
IDI	**Anoyia**	**2.83**	**206**	Pn	**Pn**	**02 25 38.8 +0.1**
	5.3nm,0.4s,baz=355,slow=12,SNR=9.3					
IDI				Sn	**Sn**	**02 26 12.2 -0.5**
	8.4nm,0.3s,baz=62,slow=20,SNR=4.5					
IDI				Lg	Lg	02 26 23.4
	18nm,0.3s,baz=270,slow=12,SNR=5.6					
NEO	**Neokhori**	**2.91**	**301**	P	**Pn**	**02 25 39.9 +0.2**
XOR	**Xorichti**	**2.96**	**302**	P	**Pn**	**02 25 40.8 +0.4**
XOR	**Xorichti**	**2.96**	**302**	P	**Pn**	**02 25 40.7 +0.3**
THAL	**Thalero**	**2.99**	**275**	P	**Pn**	**02 25 41.4 +0.6**
THAL				AML	AML	
THAL	**Thalero**	**2.99**	**275**	P	**Pn**	**02 25 41.3 +0.6**
PAIG	**Paliouri**	**3.00**	**315**	P	**Pn**	**02 25 41.3 +0.5**
VLI	**Veliai**	**3.00**	**249**	P	**Pn**	**02 25 41.0 0.0**
VLI				AML	AML	
VLI	**Veliai**	**3.00**	**249**	P	**Pn**	**02 25 40.7 -0.2**
VLI				AML	AML	
CHAN	**Chania**	**3.01**	**220**	P	**Pn**	**02 25 41.2 +0.1**
THAS	**Thassos island**	**3.07**	**335**	P	**Pn**	**02 25 41.1 -0.8**
ALN	**Alexandroupoli**	**3.07**	**354**	P	**Pn**	**02 25 41.6 -0.2**
ALN				AML	AML	
ALN	**Alexandroupoli**	**3.07**	**354**	P	**Pn**	**02 25 41.9 0.0**
ALN				AML	AML	
AXAR	**Agios Charalam**	**3.11**	**288**	P	**Pn**	**02 25 43.1 +0.7**
AXAR	**Agios Charalam**	**3.11**	**288**	P	**Pn**	**02 25 43.3 +0.8**
KTHA	**Kythira Island**	**3.12**	**241**	P	**Pn**	**02 25 42.3 -0.4**
KTHA				AML	AML	
KTHA	**Kythira Island**	**3.12**	**241**	P	**Pn**	**02 25 42.3 -0.4**
KTHA				AML	AML	
RODP	**Rodopos**	**3.13**	**224**	P	**Pn**	**02 25 42.6 -0.1**
RODP				AML	AML	
OUR	**Ouranopolis**	**3.14**	**323**	P	**Pn**	**02 25 43.0 +0.2**
OUR	**Ouranopolis**	**3.14**	**323**	P	**Pn**	**02 25 42.9 +0.1**
ANKY	**Antikythira Is**	**3.19**	**233**	P	**Pn**	**02 25 43.4 -0.1**
ANKY				AML	AML	
ANKY	**Antikythira Is**	**3.19**	**233**	P	**Pn**	**02 25 43.3 -0.3**
ANKY				AML	AML	
GUR	**Goura**	**3.24**	**273**	P	**Pn**	**02 25 44.8 +0.5**
GUR				AML	AML	
GUR	**Goura**	**3.24**	**273**	P	**Pn**	**02 25 44.8 +0.5**
GUR				AML	AML	
VLX	**Vlachokerasia**	**3.25**	**263**	P	**Pn**	**02 25 45.7 +1.2**
VLX				AML	AML	
KLV	**Kalavryta, Ach**	**3.39**	**275**	P	**Pn**	**02 25 47.1 +0.7**
KLV				AML	AML	
KLV	**Kalavryta, Ach**	**3.39**	**275**	P	**Pn**	**02 25 47.2 +0.9**
TEME	**Temeni, Aigial**	**3.43**	**278**	P	**Pn**	**02 25 48.4 +1.6**
AGG	**Agios Georgios**	**3.43**	**291**	P	**Pn**	**02 25 47.8 +0.9**
AGG	**Agios Georgios**	**3.43**	**291**	P	**Pn**	**02 25 47.6 +0.7**
AGG				AML	AML	
AGEO	**AgiosGiorgios,**	**3.48**	**278**	P	**Pn**	**02 25 48.7 +1.3**
KAVA	**Kavala**	**3.49**	**335**	P	**Pn**	**02 25 47.2 -0.4**
SERG	**Sergoula**	**3.50**	**281**	P	**Pn**	**02 25 48.8 +1.0**
SERG	**Sergoula**	**3.50**	**281**	P	**Pn**	**02 25 48.7 +0.9**
SERG				AML	AML	
PYRG	**Pyrgos, Dorida**	**3.53**	**281**	P	**Pn**	**02 25 49.2 +0.9**
LAKA	**Lakka**	**3.54**	**278**	P	**Pn**	**02 25 49.6 +1.2**
MG00	**Magoula, Dorid**	**3.58**	**281**	P	**Pn**	**02 25 50.1 +1.2**
MG00				AML	AML	
EFP	**Efpalio**	**3.62**	**281**	P	**Pn**	**02 25 50.7 +1.3**
EFP				AML	AML	
ANX	**Ano Chora**	**3.63**	**283**	P	**Pn**	**02 25 51.0 +1.3**
ANX				AML	AML	
ANX	**Ano Chora**	**3.63**	**283**	P	**Pn**	**02 25 50.8 +1.1**
ANX				AML	AML	
VVK	**Vomvokou**	**3.69**	**280**	P	**Pn**	**02 25 51.5 +1.1**
VVK				AML	AML	
AGRP	**Agrapidokambos**	**3.76**	**280**	P	**Pn**	**02 25 52.4 +1.1**
AGRP				AML	AML	
EVR	**Evrytania**	**3.79**	**288**	P	**Pn**	**02 25 52.6 +0.7**
EVR				AML	AML	
EVR	**Evrytania**	**3.79**	**288**	P	**Pn**	**02 25 53.2 +1.3**
EVR				AML	AML	
THL	**Klokotos Trika**	**3.86**	**298**	P	**Pn**	**02 25 53.8 +1.0**
THL	**Klokotos Trika**	**3.86**	**298**	P	**Pn**	**02 25 53.8 +1.0**
KDZ	**Kurdzhali**	**3.88**	**348**	P	**Pn**	**02 25 52.6 -0.4**
PVO	**Paravola**	**3.94**	**283**	P	**Pn**	**02 25 55.1 +1.3**
PVO	**Paravola**	**3.94**	**283**	P	**Pn**	**02 25 55.2 +1.4**
PVO				AML	AML	
PLEV	**Plevrona-Mesol**	**4.00**	**280**	P	**Pn**	**02 25 54.2 -0.5**
PLEV				AML	AML	
NVR	**Nevrokopi**	**4.03**	**331**	P	**Pn**	**02 25 54.4 -0.7**
NVR	**Nevrokopi**	**4.03**	**331**	P	**Pn**	**02 25 54.8 -0.3**
RZN	**Rozhen**	**4.07**	**342**	P	**Pn**	**02 25 55.7 0.0**
TETR	**Tetrakomo, Epi**	**4.31**	**292**	P	**Pn**	**02 26 00.3 +1.2**
TETR	**Tetrakomo, Epi**	**4.31**	**292**	P	**Pn**	**02 26 00.2 +1.2**
TETR				AML	AML	
KPRO	**Kipourio**	**4.49**	**300**	P	**Pn**	**02 26 02.3 +0.9**
KPRO	**Kipourio**	**4.49**	**300**	P	**Pn**	**02 26 02.6 +1.2**
PRMD	**Pramanda**	**4.50**	**294**	P	**Pn**	**02 26 03.6 +2.0**
PRMD				AML	AML	
VTS	**Vitosha**	**5.36**	**334**	P	**Pn**	**02 26 14.0 +0.5**
BRTR	**Keskin Array B**	**5.94**	**69**	Pn	**Pn**	**02 26 22.3 +0.9**
	0.1nm,0.3s,baz=250,slow=12,SNR=1.5					
	0.6nm,0.6s					
BRTR				AML	AML	
MMAI	**Mount Meron Ar**	**8.76**	**121**	Pn	**Pn**	**02 26 58.5 -1.6**
	0.6nm,0.3s,baz=308,slow=12,SNR=7.3					
	1.7nm,0.6s					
MMAI				Sn	**Sn**	**02 28 31.2 -7.5**
	0.5nm,0.3s,baz=311,slow=22,SNR=4.4					
EIL	**Elat**	**10.79**	**137**	Pn	**Pn**	**02 27 23.4 -4.5**
	0.1nm,0.3s,baz=22,slow=18,SNR=1.6					
EIL				Sn	Sn	02 29 14.7 -14
	0.2nm,0.3s,baz=126,slow=17,SNR=1.2					
EIL				LR	LR	02 32 35.1
	comp=Z,37nm,18.9s,baz=327,slow=44					
	2.1nm,0.7s					
EIL				AML	AML	
ESDC	**Sonseca Array**	**23.72**	**284**	P	**P**	**02 30 07.3 +1.9**
	0.6nm,1.0s,baz=83,slow=10,SNR=4.9					
	0.6nm,1.0s					
TORD	**Torodi Ar. Bea**	**33.02**	**228**	P	**P**	**02 31 28.4 -0.3**
	1.7nm,0.6s,baz=35,slow=7.6,SNR=8.9					
	2.5nm,0.8s,baz=46,slow=7.7,SNR=4.9					
DBIC	**Dimbokro**	**42.05**	**230**	P	**P**	**02 32 44.6 -0.5**
	2.5nm,0.8s,baz=46,slow=7.7,SNR=4.9					
	2.5nm,0.8s					

*ISK **01** 02:28:49.1,37˚.83N×26˚.99E,h13km,ML2.7/11*
*THE **01** 02:28:49.8,38˚N±18˚×2˚7E±1˚2,h2km±14km,M2.7/6, MLh2.7/6*
*AFAD **01** 02:28:49.4,37˚.85N×27˚.00E,h7km±3km,ML2.3*

ISC 01 02:28:49.9±0.9,37˚.85N±0˚.02×27˚.01E±0˚.03,h12km±7km, n31,σ0°44/51,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.23**	**334**	P	**Pg**	**02 28 54.4**	**-0.3**
DGB				S	**Sg**	**02 28 57.5**	**-0.4**
DGB				IAML		02 28 58.0	
	comp=N,317nm,0.2s						
DGB				IAML		02 28 58.0	
	comp=E,364nm,0.3s						
GCAM	**G?zelcaml?**	**0.23**	**129**	P	**Pg**	**02 28 54.7**	**-0.1**
GCAM				S	**Sg**	**02 28 58.5**	**+0.3**
GCAM				IAML		02 28 59.0	
	comp=N,2μm,0.4s						
GCAM				IAML		02 28 59.0	
	comp=E,671nm,0.1s						
GCAM	**G?zelcaml?**	**0.23**	**129**	Pg	**Pg**	**02 28 54.7**	**-0.1**
GCAM				Sg	**Sg**	**02 28 58.4**	**+0.3**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.24**	**343**	Pg	**Pg**	**02 28 54.8**	**-0.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.38**	**351**	P	**Pg**	**02 28 57.2**	**-0.3**
BEYE				S	**Sg**	**02 29 03.1**	**+0.5**
BEYE				IAML		02 29 04.0	
	comp=N,199nm,0.2s						
BEYE				IAML		02 29 04.0	
	comp=E,299nm,0.2s						
DDIM	**Aydin, Didim**	**0.43**	**154**	P	**Pg**	**02 28 58.1**	**-0.3**
DDIM				S	**Sg**	**02 29 04.8**	**+0.5**
DDIM				IAML		02 29 05.0	
	comp=N,198nm,0.3s						
DDIM				IAML		02 29 05.0	
	comp=E,232nm,0.5s						
DUVT	**Torbali**	**0.51**	**43**	P	**Pg**	**02 28 59.7**	**-0.2**
DUVT				S	**Sg**	**02 29 06.4**	**-0.3**
DUVT				IAML		02 29 11.0	
	comp=E,351nm,0.3s						
BLCB	**Balcova**	**0.54**	**3**	P	**Pg**	**02 28 59.9**	**-0.5**
BLCB				S	**Sg**	**02 29 07.3**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**3**	Pg	**Pg**	**02 29 00.1**	**-0.3**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**315**	P	**Pg**	**02 29 00.1**	**-0.6**
ZEYE				S	**Sg**	**02 29 08.4**	**+0.3**
ZEYE				IAML		02 29 11.0	
	comp=N,548nm,0.5s						
ZEYE				IAML		02 29 11.0	
	comp=E,331nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.71**	**82**	Pg	**Pb**	**02 29 04.0**	**-0.2**
AYDB				Sg	**Sb**	**02 29 14.1**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.72**	**105**	P	**Pg**	**02 29 03.5**	**-0.3**
AYDN				S	**Sg**	**02 29 13.2**	**0.0**
AYDN				IAML		02 29 17.0	
	comp=E,132nm,0.4s						
AYDN				IAML		02 29 18.0	
	comp=N,104nm,0.4s						
IZMR	**zmir-demi**	**0.80**	**69**	P	**Pb**	**02 29 05.7**	**0.0**
IZMR				S	**Sg**	**02 29 15.1**	**-0.7**
IZMR				IAML		02 29 18.0	
	comp=E,57nm,0.5s						
BAGT	**Foa**	**0.81**	**351**	P	**Pg**	**02 29 05.4**	**-0.2**
BAGT				IAML		02 29 17.0	
	comp=N,99nm,0.6s						
BAGT				S	**Sb**	**02 29 17.0**	**+0.2**
BAGT				IAML		02 29 19.0	
	comp=E,136nm,0.3s						
BODT	**Bodrum**	**0.82**	**163**	P	**Pg**	**02 29 05.0**	**-0.8**
BODT				S	**Sb**	**02 29 17.5**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**163**	Pg	**Pg**	**02 29 05.0**	**-0.8**
BODT				Sg	**Sb**	**02 29 16.8**	**-0.3**
BODT				AML	AML		
KRBN	**Karaburun**	**0.82**	**335**	Pg	**Pb**	**02 29 06.1**	**0.0**
KRBN				AML	AML		
MLSB	**Milas**	**0.82**	**132**	Pg	**Pg**	**02 29 05.6**	**-0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.86**	**156**	P	**Pg**	**02 29 05.5**	**-0.9**
BDRM				S	**Sg**	**02 29 17.5**	**-0.1**
BDRM				IAML		02 29 20.0	
	comp=E,103nm,0.5s						
BDRM				IAML		02 29 21.0	
	comp=N,174nm,0.3s						
CHOS	**Chios island**	**0.92**	**306**	P	**Pb**	**02 29 07.7**	**-0.1**
CHOS				S	**Sb**	**02 29 20.3**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**306**	Pg	**Pb**	**02 29 07.7**	**-0.1**
CHOS				Sg	**Sb**	**02 29 20.6**	**+0.5**
CHOS				AML	AML		
CAMT	**Merkez**	**0.93**	**15**	P	**Pg**	**02 29 07.4**	**-0.4**
CAMT				S	**Sn**	**02 29 21.9**	**-0.1**
CAMT				IAML		02 29 24.0	
	comp=E,175nm,0.3s						
CAMT				IAML		02 29 30.0	
	comp=N,171nm,0.7s						
KARB	**zmir-Karabur**	**0.94**	**330**	P	**Pg**	**02 29 06.9**	**-1.1**
KARB				S	**Sb**	**02 29 20.8**	**+0.3**
KARB				IAML		02 29 22.0	
	comp=N,94nm,0.6s						
KARB				IAML		02 29 22.0	
	comp=E,76nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.02**	**83**	Pg	**Pb**	**02 29 09.5**	**-0.1**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**3**	P	**Pg**	**02 29 10.8**	**-0.6**
ZEDA				S	**Sb**	**02 29 25.8**	**+0.2**
ZEDA				IAML		02 29 28.0	
	comp=N,62nm,0.6s						
ZEDA				IAML		02 29 30.0	
	comp=E,66nm,0.4s						
GOMA	**Golmarmara-Man**	**1.12**	**40**	Pn	**Pb**	**02 29 11.2**	**+0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**356**	Pn	**Pb**	**02 29 12.4**	**-0.5**
DKL				AML	AML		
YER	**Yerkesik**	**1.24**	**125**	P	**Pb**	**02 29 12.7**	**-0.5**
PRK	**Paraskevi**	**1.51**	**338**	P	**Pb**	**02 29 17.5**	**-0.3**
PRK				AML	AML		
THERA	**Ancient Thera,**	**1.92**	**220**	P	**Pn**	**02 29 22.9**	**+0.5**
THERA				AML	AML		
SNT5	**Nea Kammeni, S**	**1.93**	**222**	P	**Pn**	**02 29 23.5**	**+1.0**

*NNC **01** 02:29:55.5±2.0,45˚.30N×84˚.89E,h0km,mb3.8,mpv3.5, Error ellipse: s-maj=15.4km s-min=7.5km az=105.0*
*SOME **01** 02:29:56.6,45˚.50N×84˚.72E,h15km*

ISC 01 02:29:51.7±2.0,45˚.13N±0˚.07×84˚.94E±0˚.09,h10km,n22, σ18°61/32,8C-3D,Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZSN	**Zaisan**	**2.32**	**359**	Pg	**Pb**	**02 30 33.4**	**-0.2**
	35nm,0.7s						
ZSN				Lg	Lg	02 31 00.6	
	38nm,0.3s						
ZSN	**Zaisan**	**2.32**	**359**	*eP*	**Pb**	**02 30 33.4**	**-0.2**
	35nm,0.7s						
ZSN				*eS*	**Sn**	**02 30 59.0**	**+0.4**
	38nm,0.3s						
MK31	**Makanchi Array**	**2.49**	**313**	⇑Pn	**Pb**	**02 30 36.8**	**+0.3**
	4.8nm,0.4s,baz=129,slow=16,SNR=323						
MK31				⇓Sn	**Sb**	**02 31 06.3**	**-0.8**
	56nm,0.5s,baz=122,slow=30,SNR=43						
MAKZ	**Makanchi**	**2.66**	**310**	⇓Pn	**Pb**	**02 30 38.8**	**-0.6**
	4.6nm,0.4s						
MAKZ				⇑Sn	**Sb**	**02 31 11.1**	**-1.1**
	60nm,0.6s						
KTMS	**Ketmen**	**3.70**	**245**	Pg	**Pg**	**02 31 02.0**	**-0.6**
	2.6nm,0.2s						
KTMS				Lg	Lg	02 31 48.9	
	24nm,0.4s						
KTMS	**Ketmen**	**3.70**	**245**	*eP*	**Pg**	**02 31 02.0**	**-0.6**
	2.6nm,0.2s						
KTMS				*eS*	**Sg**	**02 31 48.9**	**-1.6**
	24nm,0.4s						
PDGK	**Podgornoye**	**4.31**	**247**	⇑Pg	**Pg**	**02 31 14.6**	**+0.4**
	2.8nm,0.5s						
PDGK				⇑Lg	Lg	02 32 10.7	
	21nm,0.5s						
SHLS	**Shalkode**	**4.41**	**245**	Pg	**Pg**	**02 31 13.3**	**-2.8**
	5.3nm,0.2s						
SHLS				Lg	Lg	02 32 08.0	
	29nm,0.4s						
TDK	**Taldyqorghan**	**4.63**	**271**	Pg	**Pg**	**02 31 19.5**	**-0.8**
	14nm,0.2s						
TDK				Lg	Lg	02 32 18.6	
	63nm,0.5s						
TDK	**Taldyqorghan**	**4.63**	**271**	*eP*	**Pg**	**02 31 19.5**	**-0.8**
	14nm,0.2s						
TDK				*eS*	**Sg**	**02 32 18.6**	**-1.7**
	63nm,0.5s						
UZB	**Uzynbulak**	**4.70**	**247**	Pg	**Pg**	**02 31 20.5**	**-1.1**
	2.8nm,0.2s						
UZB				Lg	Lg	02 32 20.3	
	11nm,0.7s						
UZB	**Uzynbulak**	**4.70**	**247**	*eP*	**Pg**	**02 31 20.6**	**-1.1**
	2.8nm,0.2s						
UZB				*eS*	**Sg**	**02 32 20.3**	**-2.2**
	11nm,0.7s						
KPKS	**Kokpek**	**4.79**	**252**	Pg	**Pg**	**02 31 25.9**	**+2.5**
	0.4nm,0.2s						
KPKS				Lg	Lg	02 32 30.1	
	20nm,0.5s						
KPKS	**Kokpek**	**4.79**	**252**	*eP*	**Pg**	**02 31 25.9**	**+2.5**
	0.4nm,0.2s						
KPKS				*eS*	**Sg**	**02 32 30.1**	**+4.7**
	20nm,0.5s						
KURS	**Kuram**	**5.13**	**254**	Pg	**Pg**	**02 31 30.0**	**+0.1**
	2.2nm,0.4s						
KURS				Lg	Lg	02 32 36.8	
	7.8nm,0.4s						
KURS	**Kuram**	**5.13**	**254**	*eP*	**Pg**	**02 31 30.0**	**+0.1**
	2.2nm,0.4s						
KURS				*eS*	**Sg**	**02 32 36.8**	**+0.6**
	7.8nm,0.4s						
SATY	**Saty**	**5.14**	**249**	Pg	**Pg**	**02 31 30.8**	**+0.7**
	3.7nm,0.2s						
SATY				Lg	Lg	02 32 38.1	
	21nm,0.3s						
SATY	**Saty**	**5.14**	**249**	*eP*	**Pg**	**02 31 30.8**	**+0.7**
	3.7nm,0.2s						
SATY				*eS*	**Sg**	**02 32 38.1**	**+1.4**
	21nm,0.3s						
ARXS	**Arharly**	**5.16**	**262**	Pg	**Pg**	**02 31 29.5**	**-0.9**
	4.2nm,0.4s						
ARXS				Lg	Lg	02 32 36.4	
	14nm,0.4s						
ARXS	**Arharly**	**5.16**	**262**	*eP*	**Pg**	**02 31 29.5**	**-0.9**
	4.2nm,0.4s						
ARXS				*eS*	**Sg**	**02 32 36.4**	**-0.7**
	14nm,0.4s						
KURBB	**Kurchatov Arra**	**6.98**	**324**	⇓Sn	**Sn**	**02 32 55.0**	**+1.7**
	4.2nm,0.6s						
KURBB				⇑Lg	Lg	02 33 33.1	
	29nm,0.5s						
KURK	**Kurchatov**	**7.02**	**325**	⇑Pg	Pg	02 31 59.8	-6.1
KURK				⇑Sn	**Sn**	**02 32 56.8**	**+2.6**
	0.9nm,0.5s						
KURK				⇑Lg	Lg	02 33 31.8	
	8.2nm,0.6s						

*IDC **01** 02:32:06.9±0.5,29˚.06S×178˚.64W,h291km±4km,mb3.3/7, mbtmp4.1/10,Error ellipse: s-maj=20.6km s-min=15.8km az=61.0*

ISC 01 02:32:07.6±0.6,29˚.46S±0˚.08×178˚.7W±0˚.1,h300km,n34, σ2°29/49,mb3.7/10,1C,Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RIZ	**Raoul Island**	**0.73**	**73**	P	**Pn**	**02 32 47.4**	**+0.5**
RIZ				AML	AML		
GLKZ	**Green Lake**	**0.74**	**75**	P	**Pn**	**02 32 47.2**	**+0.3**
GLKZ				S	**S**	**02 33 15.6**	**-2.5**
GLKZ				AML	AML		
RAO	**Raoul Island**	**0.74**	**74**	P	**Pn**	**02 32 46.2**	**-0.7**
	338nm,0.2s,baz=82,slow=7.6,SNR=5.1						
RAO				S	**S**	**02 33 15.7**	**-2.5**
	1μm,0.5s,baz=66,slow=23,SNR=14						
MXZ	**Matakaoa Point**	**8.45**	**196**	P	**Pn**	**02 34 05.4**	**-1.2**
MXZ				S	**S**	**02 35 40.2**	**-3.0**
WCZ	**Waipu Caves**	**8.70**	**220**	P	**P**	**02 34 14.7**	**-0.1**
HAZ	**Te Kaha**	**8.77**	**198**	P	**Pn**	**02 34 09.1**	**-1.3**
HAZ				S	**S**	**02 35 50.5**	**+0.1**
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**8.80**	**197**	P	**Pn**	**02 34 09.3**	**-1.6**
PKGZ				S	**S**	**02 35 50.8**	**-0.2**
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**8.95**	**195**	P	**Pn**	**02 34 08.7**	**-4.0**
PUZ				S	**S**	**02 35 50.0**	**-4.4**
RUGZ	**Raukumara Rang**	**8.99**	**198**	P	**Pn**	**02 34 12.6**	**-0.8**
RUGZ				S	**S**	**02 35 53.0**	**-2.7**
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	**Carnagh Statio**	**9.35**	**195**	P	**Pn**	**02 34 15.8**	**-1.8**
CNGZ				S	**S**	**02 36 02.6**	**-1.0**
MWZ	**Matawai**	**9.38**	**198**	P	**Pn**	**02 34 15.1**	**-2.9**
MWZ				S	**S**	**02 36 02.3**	**-2.0**
URZ	**Urewera**	**9.43**	**200**	P	**Pn**	**02 34 19.4**	**+0.8**

2.2nm,1.1s,baz=161,slow=7.4,SNR=2.5
2.2nm,1.1s
TROLL Troll, Antarti 78.81 180 P **P** **02 43 39.6 +2.4**
comp=Z,142nm,0.6s
VNA3 Neumayer Olymp 79.28 176 P **P** **02 43 41.5 +1.9**
comp=Z,6.2nm,0.7s
VNA2 Neumayer--Watz 79.71 177 ⇑P **P** **02 43 43.8 +1.9**
comp=Z,4.1nm,0.6s,baz=171,slow=4.7
VNA1 Neumayer--Stat 79.94 177 P **P** **02 43 45.5 +2.4**
comp=Z,5.7nm,1.0s
PLCA Paso Flores 83.61 133 P **P** **02 44 03.9 +1.0**
comp=Z,0.9nm,0.9s,baz=271,slow=4.0,SNR=3.1
comp=Z,0.9nm,0.9s
NVAR Mina Array Bea 87.99 43 P **P** **02 44 23.1 -1.1**
comp=Z,0.5nm,0.6s,baz=221,slow=4.8,SNR=4.7
comp=Z,0.5nm,0.6s
FINES FINESS Array B 144.04 340 PKP **PKPab** **02 51 04.6 -0.6**
comp=Z,1.2nm,0.5s,baz=48,slow=2.8,SNR=12
TORD Torodi Ar. Bea 163.76 181 PKP **PKPdf** **02 51 36.9 +1.5**
comp=Z,0.8nm,1.1s,baz=163,slow=2.4,SNR=2.3
TORD PKPab **PKPab** **02 52 30.5 +1.3**
comp=Z,1.4nm,1.0s,baz=174,slow=5.4,SNR=3.7

*ISK **01** 02:39:40.7, 37°.85N×26°.88E, h4km, ML3.6/21*
*THE **01** 02:39:40.8, 38°.N±3°.×2°.7E±°, h7km±.5km, M3.1/12, MLh3.1/12*
*AFAD **01** 02:39:40.2, 37°.82N×26°.81E, h7km±1km, ML3.3*
*ATH **01** 02:39:41.3, 37°.80N×26°.74E, h14km±1km, ML3.2/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 01 02:39:40.6±0.8, 37°.83N±0°.02×26°.83E±0°.02, h14km±6km, n67, σ0s56/89, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.10**	**251**	P		**Pg**		**02 39 43.3**	**-0.4**
KRL1				S		**Sg**		**02 39 45.7**	**-0.1**
DGB	**zmir**	**0.23**	**11**	P		**Pg**		**02 39 45.3**	**-0.2**
DGB				S		**Sg**		**02 39 49.1**	**+0.2**
GMLD	**Gumuldur**	**0.26**	**15**	Pg		**Pg**		**02 39 45.9**	**-0.1**
GMLD				Sg		**Sg**		**02 39 49.8**	**+0.1**
GMLD				AML		AML			
GCAM	**G?zelcaml?**	**0.34**	**112**	P		**Pg**		**02 39 47.9**	**+0.3**
GCAM				IAML				02 39 53.0	
	comp=N,6μm,0.3s								
GCAM				IAML				02 39 53.0	
	comp=E,7μm,0.5s								
GCAM				S		**Sb**		**02 39 53.2**	**-0.7**
GCAM	**G?zelcaml?**	**0.34**	**112**	Pg		**Pg**		**02 39 47.7**	**+0.1**
KUSD	**Kusadasi-Aydin**	**0.36**	**85**	Pg		**Pg**		**02 39 47.7**	**-0.2**
KUSD				Sg		**Sg**		**02 39 52.8**	**-0.1**
KUSD				AML		AML			
BEYE	**izmir**	**0.40**	**11**	P		**Pg**		**02 39 48.5**	**-0.2**
BEYE				S		**Sg**		**02 39 54.5**	**+0.3**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**328**	P		**Pg**		**02 39 49.9**	**-0.2**
ZEYE				S		**Sg**		**02 39 57.2**	**+0.6**
ZEYE				IAML				02 39 58.0	
	comp=N,4μm,0.4s								
DDIM	**Aydin, Didim**	**0.49**	**139**	P		**Pg**		**02 39 50.1**	**-0.2**
DDIM				S		**Sg**		**02 39 57.2**	**+0.2**
DDIM				IAML				02 39 58.0	
	comp=N,2μm,0.6s								
DDIM				IAML				02 39 59.0	
	comp=E,2μm,0.6s								
DIDI	**Didim-Aydin**	**0.56**	**144**	Pg		**Pb**		**02 39 52.6**	**+0.5**
DIDI				AML		AML			
BLCB	**Balcova**	**0.58**	**17**	P		**Pg**		**02 39 51.9**	**-0.1**
BLCB				S		**Sg**		**02 40 00.0**	**+0.3**
BLCB				AML		AML			
BLCB	**Balcova**	**0.58**	**17**	Pg		**Pg**		**02 39 51.9**	**-0.1**
BLCB				Sg		**Sg**		**02 40 00.2**	**+0.5**
BLCB				AML		AML			
DUVT	**Torbali**	**0.62**	**51**	P		**Pg**		**02 39 52.5**	**-0.3**
DUVT				S		**Sg**		**02 40 00.9**	**-0.2**
DUVT				IAML				02 40 01.0	
	comp=E,1μm,0.2s								
CESE	**eme**	**0.65**	**320**	Pg		**Pb**		**02 39 54.2**	**+0.4**
CESE				AML		AML			
YKAV	**Yalikavak-Bodr**	**0.79**	**153**	Pg		**Pb**		**02 39 56.7**	**+0.6**
YKAV				AML		AML			
KRBN	**Karaburun**	**0.79**	**344**	Pg		**Pb**		**02 39 56.6**	**+0.4**
KRBN				AML		AML			
BAGT	**Foa**	**0.82**	**1**	P		**Pg**		**02 39 56.0**	**-0.6**
CHOS	**Chios island**	**0.83**	**313**	P		**Pb**		**02 39 56.7**	**-0.1**
CHOS				S		**Sb**		**02 40 09.0**	**+1.1**
CHOS				AML		AML			
CHOS	**Chios island**	**0.83**	**313**	Pg		**Pb**		**02 39 57.3**	**+0.5**
CHOS				AML		AML			
CHOS	**Chios island**	**0.83**	**313**	P		**Pb**		**02 39 56.9**	**0.0**
CHOS				S		**Sb**		**02 40 08.1**	**+0.2**
CHOS				AML		AML			
AYDB	**Zeytinkoy-Aydi**	**0.85**	**82**	Pg		**Pb**		**02 39 57.2**	**0.0**
AYDN	**Tasoluk**	**0.85**	**101**	P		**Pg**		**02 39 57.0**	**-0.1**
BODT	**Bodrum**	**0.86**	**153**	P		**Pg**		**02 39 56.5**	**-0.7**
BODT				S		**Sb**		**02 40 09.0**	**+0.4**
BODT				AML		AML			
BODT	**Bodrum**	**0.86**	**153**	Pg		**Pb**		**02 39 57.9**	**+0.6**
BODT				AML		AML			
KLNA	**Kalymnos**	**0.88**	**173**	P		**Pg**		**02 39 57.4**	**-0.2**
KLNA				S		**Sb**		**02 40 09.4**	**+0.2**
KLNA				AML		AML			
FOCM	**Foa**	**0.89**	**355**	Pg		**Pb**		**02 39 57.9**	**+0.1**
FOCM				AML		AML			
KARB	**zmir-Karabur**	**0.90**	**339**	P		**Pg**		**02 39 57.7**	**-0.2**
KARB				S		**Sb**		**02 40 10.1**	**+0.3**
KARB				IAML				02 40 14.0	
	comp=E,1μm,0.3s								
BDRM	**Kayabasi**	**0.91**	**147**	P		**Pg**		**02 39 57.7**	**-0.4**
BDRM				S		**Sg**		**02 40 09.2**	**-0.7**
BDRM				IAML				02 40 13.0	
	comp=E,1μm,0.4s								
EAG2	**Marmaro, Chios**	**0.91**	**322**	P		**Pb**		**02 39 58.5**	**+0.3**
MLSB	**Milas**	**0.92**	**125**	Pg		**Pb**		**02 39 58.5**	**+0.1**
MLSB				AML		AML			
IZMR	**zmir-demi**	**0.94**	**71**	P		**Pg**		**02 39 57.8**	**-0.9**
IZMR				P		**Pb**		**02 39 58.8**	**+0.1**
IZMR				S		**Sg**		**02 40 08.4**	**-2.6**
CAMT	**Merkez**	**0.99**	**22**	P		**Pb**		**02 40 00.1**	**+0.5**
CAMT				S		**Sg**		**02 40 12.3**	**-0.4**
CAMT				IAML				02 40 21.0	
	comp=N,2μm,0.9s								
ZEDA	**zmir-Bergama**	**1.15**	**10**	P		**Pg**		**02 40 02.4**	**-0.4**
ZEDA				S		**Sg**		**02 40 17.4**	**-0.4**
ZEDA				IAML				02 40 25.0	
	comp=E,872nm,0.5s								
NAZL	**Nazilli-Aydin**	**1.16**	**83**	Pn		**Pb**		**02 40 02.9**	**+0.4**
ESEN	**Aydn-Nazilli**	**1.20**	**91**	P		**Pg**		**02 40 03.1**	**-0.7**
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn		**Pb**		**02 40 03.8**	**+0.2**
GOMA				AML		AML			
DKL	**Dikili**	**1.24**	**3**	Pn		**Pg**		**02 40 05.1**	**+0.6**
DKL				AML		AML			
DKL	**Dikili**	**1.24**	**3**	P		**Pg**		**02 40 04.7**	**+0.2**
DAT	**Datca**	**1.25**	**151**	P		**Pn**		**02 40 04.7**	**+0.9**
DAT				AML		AML			
DAT	**Datca**	**1.25**	**151**	Pn		**Pn**		**02 40 05.2**	**+1.4**
DAT				AML		AML			
KIRA	**zmir-Kiraz**	**1.29**	**73**	P		**Pn**		**02 40 04.7**	**+0.3**
AKHS	**Akhisar**	**1.30**	**36**	P		**Pn**		**02 40 04.8**	**+0.4**
AKS	**Akhisar**	**1.30**	**36**	Pn		**Pg**		**02 40 05.4**	**-0.2**
AKS				AML		AML			
KTTT	**Salihli**	**1.31**	**49**	P		**Pn**		**02 40 04.7**	**+0.1**
YER	**Yerkesik**	**1.35**	**121**	P		**Pn**		**02 40 05.4**	**+0.3**
YER	**Yerkesik**	**1.35**	**121**	Pn		**Pg**		**02 40 06.7**	**+0.2**
YER				AML		AML			
TNSA	**Tinos**	**1.35**	**258**	P		**Pn**		**02 40 04.5**	**-0.5**
TNSA				S		**Sb**		**02 40 21.2**	**-1.7**
TNSA				AML		AML			
SOMA	**Soma-Manisa**	**1.44**	**22**	Pn		**Pg**		**02 40 07.9**	**-0.3**
SOMA				AML		AML			
PRK	**Paraskevi**	**1.48**	**343**	P		**Pn**		**02 40 06.5**	**-0.4**
PRK				AML		AML			
PRK	**Paraskevi**	**1.48**	**343**	P		**Pn**		**02 40 07.0**	**+0.2**
GORD	**Gordes-Manisa**	**1.51**	**44**	Pn		**Pb**		**02 40 09.1**	**+0.6**
GORD				AML		AML			
TURN	**Turunc**	**1.54**	**133**	Pn		**Pg**		**02 40 09.6**	**-0.6**
TURN				AML		AML			
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn		**Pb**		**02 40 12.8**	**-0.4**
YAYO				AML		AML			
THERA	**Ancient Thera,**	**1.82**	**217**	P		**Pn**		**02 40 11.4**	**-0.1**
THERA				AML		AML			
KARY	**Karystos**	**1.90**	**277**	P		**Pn**		**02 40 12.6**	**-0.1**
KARY				AML		AML			
KARY	**Karystos**	**1.90**	**277**	P		**Pn**		**02 40 12.6**	**-0.1**
ARG	**Arkhangelos**	**1.92**	**147**	P		**Pn**		**02 40 13.3**	**+0.5**
ARG				AML		AML			
ARG	**Arkhangelos**	**1.92**	**147**	P		**Pn**		**02 40 14.1**	**+1.3**
ARG				AML		AML			
BALB	**Balikesir**	**1.98**	**24**	Pn		**Pb**		**02 40 15.8**	**-0.7**
BALB				AML		AML			
KARP	**Karpathos**	**2.29**	**173**	P		**Pn**		**02 40 18.1**	**0.0**
DION	**Dionisos Attik**	**2.30**	**277**	P		**Pn**		**02 40 18.5**	**+0.3**
DION				AML		AML			
PTL	**Penteli**	**2.35**	**276**	P		**Pn**		**02 40 19.1**	**+0.1**
PTL				AML		AML			
VLY	**Voula,Athens**	**2.40**	**271**	P		**Pn**		**02 40 19.7**	**+0.1**
VLY				AML		AML			
ATHU	**Athens Univers**	**2.41**	**274**	P		**Pn**		**02 40 19.7**	**0.0**
ATHU				AML		AML			
LIA	**Limnos Island**	**2.43**	**329**	P		**Pn**		**02 40 19.9**	**0.0**
LIA	**Limnos Island**	**2.43**	**329**	P		**Pn**		**02 40 20.6**	**+0.7**
LIA				AML		AML			
SMTH	**Samothraki Isl**	**2.83**	**339**	P		**Pn**		**02 40 25.5**	**+0.1**
SMTH				AML		AML			

*SJA **01** 02:47:30.9±0.7, 18°.62S×69°.95W, h109km±8km, ML4.3, MW4.1*
*VAO **01** 02:47:30.9±0.6, 18°.98S×69°.74W, h105km, mb4.2, Presumed earthquake*
*NEIC **01** 02:47:33.5±1.8, 18°.67S±0°.03×69°.91W±0°.04, h86km±5km, mb4.6/20, ML4.4(GUC), Error ellipse: s-maj=6.1km s-min=2.9km az=130.0*
*GUC **01** 02:47:34.3±0.8, 18°.61S×69°.81W, h79km±4km, ML4.4, Presumed earthquake*
*IDC **01** 02:47:36.0±2.3, 18°.69S×69°.57W, h120km±19km, mb3.6/9, mbtmp4.0/12, MS3.4/1, Error ellipse: s-maj=25.2km s-min=17.1km az=100.0*
ISC 01 02:47:32.4±0.6, 18°.63S±0°.03×69°.81W±0°.05, h89km±5km, n115, σ1s79/117, mb4.3/13, 1C-4D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB16	**IPOC Station P**	**0.41**	**44**	*e*P		**Pn**		**02 47 48.1**	**+1.0**
PB16				IAML				02 48 01.6	
	comp=Z,6μm,0.3s								
PB16	**IPOC Station P**	**0.41**	**44**			**Pn**		**02 47 48.0**	**+1.0**
PB16				Sn		**Sn**		**02 47 59.0**	**+1.2**
PB16	**IPOC Station P**	**0.41**	**44**	⇓*i*P		**Pn**		**02 47 47.9**	**+0.9**
PB16				*e*S		**Sn**		**02 47 58.8**	**+1.0**
PB16				IAML				02 48 00.2	
	comp=E,21μm,0.4s								
PB12	**IPOC Station P**	**0.49**	**271**	*e*P		**Pn**		**02 47 47.4**	**+0.3**
PB12				IAML				02 48 00.9	
	comp=Z,4μm,0.6s								
PB12	**IPOC Station P**	**0.49**	**271**			**Pn**		**02 47 47.2**	**+0.2**
PB12				Sn		**Sn**		**02 47 57.6**	**-0.4**
PB12	**IPOC Station P**	**0.49**	**271**	*e*P		**Pn**		**02 47 47.0**	**0.0**
PB12				*e*S		**Sn**		**02 47 57.5**	**-0.4**
PB12				IAML				02 47 58.6	
	comp=E,10μm,0.3s								
PX02	**IPOC Station P**	**0.50**	**228**	⇓*i*P		**Pn**		**02 47 46.4**	**-0.8**
AP01	**Chacalluta**	**0.57**	**297**	*e*P		**Pn**		**02 47 48.2**	**+0.7**
AP01				IAML				02 48 06.7	
	comp=Z,5μm,0.4s								
AP01	**Chacalluta**	**0.57**	**297**			**Pn**		**02 47 48.1**	**+0.5**
AP01				Sn		**Sn**		**02 47 58.9**	**+0.1**
AP01	**Chacalluta**	**0.57**	**297**	*e*P		**Pn**		**02 47 48.0**	**+0.5**
AP01				*e*S		**Sn**		**02 47 59.0**	**+0.1**
AP01				IAML				02 48 00.2	
	comp=E,23μm,0.5s								
PSGCX	**Pisagua**	**1.01**	**197**	*e*P		**Pn**		**02 47 52.6**	**+0.3**
PSGCX				IAML				02 48 10.5	
	comp=Z,4μm,0.2s								
PSGCX	**Pisagua**	**1.01**	**197**			**Pn**		**02 47 52.5**	**+0.3**
PSGCX				Sn		**Sn**		**02 48 06.8**	**-0.2**
PSGCX	**Pisagua**	**1.01**	**197**	*i* P		**Pn**		**02 47 52.4**	**+0.3**
PSGCX				*e*S		**Sn**		**02 48 07.1**	**+0.1**
PB18	**Visviri**	**1.08**	**17**			**Pn**		**02 47 56.7**	**+3.2**
PB18	**Visviri**	**1.08**	**17**	⇓*i*P		**Pn**		**02 47 56.6**	**+3.2**
PB11	**IPOC Station P**	**1.14**	**173**	*e*P		**Pn**		**02 47 54.7**	**+1.0**
PB11				IAML				02 48 14.3	
	comp=Z,2μm,0.3s								
PB11	**IPOC Station P**	**1.14**	**173**			**Pn**		**02 47 54.4**	**+0.6**
PB11				Sn		**Sn**		**02 48 10.9**	**+1.2**
PB11	**IPOC Station P**	**1.14**	**173**	*i* P		**Pn**		**02 47 54.4**	**+0.6**
PB11				IAML				02 48 14.2	
	comp=E,5μm,0.2s								
GO01	**Chusmiza**	**1.19**	**151**	*e*P		**Pn**		**02 47 56.5**	**+1.9**
GO01				IAML				02 48 17.9	
	comp=Z,2μm,0.2s								
GO01	**Chusmiza**	**1.19**	**151**			**Pn**		**02 47 56.6**	**+1.9**
GO01	**Chusmiza**	**1.19**	**151**	⇑*i*P		**Pn**		**02 47 56.5**	**+1.9**
GO01				*e*S		**Sn**		**02 48 14.0**	**+2.6**
GO01				IAML				02 48 16.2	
	comp=E,9μm,0.2s								
PB08	**IPOC Station P**	**1.63**	**158**	*e*P		**Pn**		**02 48 01.9**	**+1.9**
PB08				*e*S		**Sn**		**02 48 24.0**	**+3.0**
PB08				IAML				02 48 27.0	
	comp=Z,2μm,0.2s								
PB08	**IPOC Station P**	**1.63**	**158**			**Pn**		**02 48 01.9**	**+1.9**
PB08	**IPOC Station P**	**1.63**	**158**	*i* P		**Pn**		**02 48 02.0**	**+1.9**
PB08				*e*S		**Sn**		**02 48 23.0**	**+2.0**
PB08				IAML				02 48 27.3	
	comp=E,3μm,0.2s								
TA02	**Huaiquique**	**1.66**	**191**	*e*P		**Pn**		**02 48 01.4**	**+1.3**
TA02				IAML				02 48 26.9	
	comp=Z,2μm,0.1s								
TA02	**Huaiquique**	**1.66**	**191**	*e*P		**Pn**		**02 48 01.2**	**+1.0**
TA02				*i* S		**Sn**		**02 48 21.0**	**+0.4**
TA01	**Diego Aracena**	**1.96**	**190**	*e*P		**Pn**		**02 48 04.2**	**+0.2**
TA01				*e*S		Sn		02 48 11.1	-17
TA01				IAML				02 48 33.5	
	comp=Z,3μm,0.6s								
TA01	**Diego Aracena**	**1.96**	**190**			**Pn**		**02 48 04.0**	**0.0**
TA01	**Diego Aracena**	**1.96**	**190**	*e*P		**Pn**		**02 48 03.6**	**-0.4**
PB02	**IPOC Station P**	**2.68**	**182**	*e*P		**Pn**		**02 48 14.3**	**+0.7**
PB02				IAML				02 48 55.3	
	comp=Z,3μm,0.3s								
PB02	**IPOC Station P**	**2.68**	**182**			**Pn**		**02 48 14.2**	**+0.5**
PB02	**IPOC Station P**	**2.68**	**182**	*e*P		**Pn**		**02 48 13.9**	**+0.2**
PB02				IAML				02 48 57.1	
	comp=E,5μm,0.3s								
LPAZ	**La Paz**	**2.82**	**35**	P		**Pn**		**02 48 20.1**	**+4.0**
	comp=E,46nm,0.3s,baz=198,slow=2.4,SNR=441								
LPAZ				S		**Sn**		**02 48 47.0**	**-2.6**
	comp=E,73nm,0.9s,baz=220,slow=9.7,SNR=5.9								
LPAZ	**La Paz**	**2.82**	**35**	*e*P		**Pn**		**02 48 14.5**	**-1.6**
LPAZ	**La Paz**	**2.82**	**35**	*i* P		**Pn**		**02 48 20.0**	**+3.9**
LPAZ	**La Paz**	**2.82**	**35**	*e*P		**Pn**		**02 48 18.9**	**+2.8**
PB07	**IPOC Station P**	**3.08**	**181**	*e*P		**Pn**		**02 48 19.7**	**+0.5**
PB07				IAML				02 49 07.5	
	comp=Z,1μm,0.3s								
PB07	**IPOC Station P**	**3.08**	**181**			**Pn**		**02 48 20.3**	**+1.1**
PB07	**IPOC Station P**	**3.08**	**181**	*e*P		**Pn**		**02 48 19.4**	**+0.2**
PB07				IAML				02 49 04.6	
	comp=E,2μm,0.5s								
PB09	**IPOC Station P**	**3.20**	**171**	*e*P		**Pn**		**02 48 22.1**	**+1.4**
PB09				*e*S		Sn		02 48 43.3	-15
PB09				IAML				02 49 10.9	
	comp=Z,1μm,0.5s								
PB09	**IPOC Station P**	**3.20**	**171**			**Pn**		**02 48 22.1**	**+1.4**
PB09	**IPOC Station P**	**3.20**	**171**	*e*P		**Pn**		**02 48 21.9**	**+1.2**
PB09				IAML				02 49 17.7	
	comp=E,1μm,0.6s								
PB03	**IPOC Station P**	**3.40**	**179**	*e*P		**Pn**		**02 48 23.9**	**+0.4**
PB03				IAML				02 49 15.7	
	comp=Z,1μm,0.5s								
PB03	**IPOC Station P**	**3.40**	**179**			**Pn**		**02 48 23.6**	**+0.1**
PB03	**IPOC Station P**	**3.40**	**179**	*e*P		**Pn**		**02 48 23.4**	**-0.1**
PB03				IAML				02 49 16.5	
	comp=N,1μm,0.6s								
PB06	**IPOC Station P**	**4.06**	**177**	*e*P		**Pn**		**02 48 32.5**	**0.0**
PB06				IAML				02 49 39.8	
	comp=Z,559nm,0.9s								
PB06	**IPOC Station P**	**4.06**	**177**			**Pn**		**02 48 32.5**	**0.0**
PB06	**IPOC Station P**	**4.06**	**177**	⇓*e*P		**Pn**		**02 48 32.4**	**0.0**
PB05	**IPOC Station P**	**4.22**	**185**	*e*P		**Pn**		**02 48 33.7**	**-0.8**
PB05				IAML				02 49 38.6	
	comp=Z,325nm,0.5s								
PB05	**IPOC Station P**	**4.22**	**185**			**Pn**		**02 48 34.2**	**-0.3**
PB05	**IPOC Station P**	**4.22**	**185**	*e*P		**Pn**		**02 48 34.0**	**-0.6**
PB10	**IPOC Station P**	**4.91**	**188**	*e*P		**Pn**		**02 48 43.5**	**-0.3**
PB10				IAML				02 50 14.5	
	comp=Z,159nm,0.7s								
PB10	**IPOC Station P**	**4.91**	**188**	*e*P		**Pn**		**02 48 42.6**	**-1.2**
PB14	**IPOC Station P**	**6.00**	**185**			**Pn**		**02 48 57.3**	**-1.5**
AC02	**Maricunga**	**8.19**	**176**			**Pn**		**02 49 28.3**	**-0.6**
AC06	**Mina Casimiro**	**8.70**	**183**			**Pn**		**02 49 32.0**	**-3.5**
SIV	**San Ignacio**	**8.74**	**74**	P		**Pn**		**02 49 36.2**	**+0.1**
	comp=Z,9.4nm,0.4s,baz=266,slow=9.4,SNR=40								
BBSD	**Serra de San D**	**8.87**	**82**	*e*P		**Pn**		**02 49 36.9**	**-0.9**
NNA	**Nana**	**9.47**	**313**	S		**Sn**		**02 51 33.8**	**+3.0**
	comp=Z,10nm,0.8s,baz=229,slow=10,SNR=1.6								
PTLB	**Pontes e Lacer**	**10.68**	**74**			**Pn**		**02 50 03.1**	**+0.6**
PTLB	**Pontes e Lacer**	**10.68**	**74**	*e*P		**Pn**		**02 50 01.6**	**-0.9**
VILB	**Vilhena**	**10.83**	**60**			**Pn**		**02 50 04.7**	**+0.1**
VILB	**Vilhena**	**10.83**	**60**	*e*P		**Pn**		**02 50 04.3**	**-0.2**
COIM	**Forte Coimbra**	**11.42**	**98**	*e*P		**Pn**		**02 50 09.6**	**-2.9**
MURT	**Porto Murtinho**	**11.85**	**107**	*e*P		**Pn**		**02 50 15.3**	**-2.9**
BDQN	**Bodoquena, MS**	**12.44**	**101**	*e*P		Pn		02 50 21.4	-4.8
CFA	**Coronel Fontan**	**13.00**	**174**	P		**Pn**		**02 50 35.1**	**+1.5**
	comp=Z,0.4nm,0.3s,baz=326,slow=8.4,SNR=3.6								
SALV	**Santo Antonio**	**13.75**	**81**	*e*P		**Pn**		**02 50 40.3**	**-3.3**
PDRB	**Porto dos Gac**	**14.42**	**63**	*e*P		**Pn**		**02 50 50.9**	**-1.3**
MT01	**Popeta**	**15.23**	**185**	Pn		**Pn**		**02 51 02.3**	**-0.2**
CLDB	**Colider**	**15.58**	**62**	*e*P		**Pn**		**02 51 06.0**	**-1.1**
H03N1	**Juan Fernandez**	**16.86**	**207**	T		T		03 08 30.1	
	baz=31,slow=74,SNR=78								
H03N2	**Juan Fernandez**	**16.86**	**207**	T		T		03 08 29.9	
	baz=231,slow=74,SNR=57								
ITAB	**Concordia**	**18.38**	**121**	Pn		**Pn**		**02 51 43.1**	**+1.7**
ITAB				IAmb		IAmb		02 52 16.9	
	comp=Z,28nm,1.4s								
CPSB	**Cacapava Do Su**	**18.93**	**131**	P		**Pn**		**02 51 46.7**	**-1.2**
SNDB	**Serra Nova Dou**	**19.03**	**72**	*e*P		**P**		**02 51 45.4**	**-2.2**
ITTB	**Itaituba**	**19.75**	**46**	*e*P		**P**		**02 51 54.7**	**-0.7**
OTAV	**Otavalo**	**20.58**	**335**	*e*P		**P**		**02 52 05.0**	**+0.2**
BDFB	**Brasilia**	**21.03**	**85**	P		**P**		**02 52 08.7**	**-0.6**
	comp=Z,1.7nm,0.4s,baz=242,slow=12,SNR=4.2								
	comp=Z,1.7nm,0.4s								
PLCA	**Paso Flores**	**22.04**	**182**	P		**P**		**02 52 20.8**	**+1.0**
	comp=Z,3.4nm,1.0s,baz=4.5,slow=10,SNR=5.5								
	comp=Z,3.4nm,1.0s								
BOAV	**Boa Vista**	**22.80**	**25**	P		**P**		**02 52 28.8**	**+0.9**
BOAV	**Boa Vista**	**22.80**	**25**	*e*P		**P**		**02 52 28.1**	**+0.1**
SMTB	**Santa Maria do**	**23.64**	**69**	P		**P**		**02 52 36.1**	**+0.3**
SMTB				IAmb		IAmb		02 53 09.3	
	comp=Z,27nm,1.5s								
SMTB	**Santa Maria do**	**23.64**	**69**	*e*P		**P**		**02 52 32.0**	**-3.9**
RUSC	**La Rusia**	**24.58**	**352**	P		**P**		**02 52 45.3**	**+0.5**
SDV	**Santo Domingo**	**27.35**	**358**	LR		LR		03 06 50.3	
	comp=Z,65nm,18.3s,baz=74,slow=42								
CELP	**Cerrillos**	**36.61**	**5**	P		**P**		**02 54 30.1**	**-0.1**
PMSA	**Palmer Station**	**46.28**	**177**	*e*P		P		02 55 42.6	-6.1
V55A	**Taylorsville**	**55.25**	**349**	P		**P**		**02 56 57.1**	**+0.7**
V55A				IAmb		IAmb		02 57 00.9	
	comp=Z,19nm,1.3s								
WVT	**Waverly**	**57.07**	**343**	P		**P**		**02 57 09.3**	**0.0**
WVT				IAmb		IAmb		02 57 44.6	
	comp=Z,2.7nm,0.9s								
PBMO	**Poplar Bluff**	**58.45**	**341**	P		**P**		**02 57 20.3**	**+1.4**
PBMO				IAmb		IAmb		02 57 25.8	
	comp=Z,3.8nm,0.6s								
S44A	**Carbondale**	**58.94**	**342**	P		**P**		**02 57 24.4**	**+2.0**
OK051	**E0350 and S346**	**60.49**	**335**	P		**P**		**02 57 34.7**	**+1.6**
G62A	**West of Eustis**	**63.54**	**359**	P		**P**		**02 57 54.2**	**+0.9**
G62A				IAmb		IAmb		02 57 58.5	
	comp=Z,10nm,1.4s								
DBIC	**Dimbokro**	**68.77**	**75**	P		**P**		**02 58 25.8**	**-1.7**
	comp=Z,2.9nm,1.0s,baz=264,slow=8.5,SNR=4.3								
	comp=Z,2.9nm,1.0s								
DBIC	**Dimbokro**	**68.77**	**75**	IAmb		IAmb		02 58 26.9	
	comp=Z,12nm,1.3s								
DBIC				P		P		**02 58 27.1**	**-0.3**
PDAR	**Pinedale Array**	**71.21**	**330**	P		**P**		**02 58 43.8**	**+1.7**
	comp=Z,0.1nm,0.5s,baz=123,slow=6.7,SNR=1.4								
	comp=Z,0.1nm,0.5s								
QSPA	**South Pole Qui**	**71.55**	**180**	P		**P**		**02 58 43.2**	**-0.5**
	comp=Z,1.4nm,0.7s,baz=193,slow=0.3,SNR=9.6								
	comp=Z,1

SMIR	**Smir Dam**	**1.64**	**220**	P		**Pn**	**02 55 51.7**	**+0.9**
SMIR				S		**Sn**	**02 56 09.1**	**-2.0**
PALE	**Palemas**	**1.74**	**176**	P		**Pn**	**02 55 53.3**	**+1.1**
PALE				S		**Sn**	**02 56 11.1**	**-2.5**
AKLM	**AKL**	**2.45**	**175**	P		**Pn**	**02 56 02.3**	**+0.6**
AKLM				S		**Sn**	**02 56 26.1**	**-4.5**
PAB	**San Pablo**	**2.59**	**356**	Pn		**Pn**	**02 56 04.7**	**+1.0**
PAB				⇑IVmb_VC			02 56 09.5	
	93nm,SNR=2.0							
PAB				Sn		**Sn**	**02 56 32.5**	**-1.7**
ETOB	**Tobarra**	**2.63**	**49**	Pn		**Pn**	**02 56 05.3**	**+1.2**
ETOB				⇑IVmb_VC			02 56 13.7	
	141nm,SNR=1.5							
ETOB				Sn		**Sn**	**02 56 33.6**	**-1.6**
PBAR	**Barrancos**	**2.63**	**298**	*e*P		**Pn**	**02 56 05.8**	**+1.7**
PBAR				*e*S		**Sn**	**02 56 33.9**	**-1.2**
PBAR				IAML			02 56 35.5	
PBAR				IAML			02 56 35.8	
PBAR				IAML			02 56 36.5	
CIBOR	**Castaar de Ib**	**2.87**	**339**	Pn		**Pn**	**02 56 08.6**	**+1.2**
CIBOR				Sn		**Sn**	**02 56 40.4**	**-0.5**
JBK	**JBK**	**2.90**	**154**	P		**Pn**	**02 56 11.3**	**+3.5**
JBK				S		**Sn**	**02 56 41.9**	**+0.1**
EBAD	**Badajoz**	**2.92**	**309**	Pn		**Pn**	**02 56 09.3**	**+1.3**
EBAD				⇑IVmb_VC			02 56 09.9	
	133nm,SNR=1.7							
EBAD				Sn		**Sn**	**02 56 40.6**	**-1.4**
PVAQ	**Vaqueiros**	**2.92**	**280**	*e*P		**Pn**	**02 56 09.0**	**+1.0**
PVAQ				*e*S		**Sn**	**02 56 40.6**	**-1.4**
PVAQ				IAML			02 56 42.9	
PVAQ				IAML			02 56 43.1	
PVAQ				IAML			02 56 43.8	
PBDV	**Barranco-do-Ve**	**3.08**	**277**	*e*P		**Pn**	**02 56 11.8**	**+1.7**
PBDV				*e*S		**Sn**	**02 56 44.8**	**-1.1**
PBDV				IAML			02 56 47.8	
PBDV				IAML			02 56 47.9	
PBDV				IAML			02 56 49.8	
PBEJ	**Beja**	**3.18**	**291**	*e*S		**Sn**	**02 56 46.4**	**-1.9**
PBEJ				IAML			02 56 49.3	
PBEJ				IAML			02 56 49.5	
PBEJ				IAML			02 56 49.7	
PCVE	**Castro Verde**	**3.21**	**283**	*e*S		**Sn**	**02 56 47.5**	**-1.6**
PCVE				IAML			02 56 48.9	
PCVE				IAML			02 56 50.2	
PCVE				IAML			02 56 54.2	
PESTR	**Estremoz**	**3.36**	**306**	*e*S		**Sn**	**02 56 51.2**	**-1.4**
PESTR				IAML			02 56 52.6	
PESTR				IAML			02 56 52.7	
PESTR				IAML			02 56 53.9	
MESJ	**Messejana**	**3.40**	**286**	*e*P		**Pn**	**02 56 15.7**	**+1.3**
MESJ				*e*S		**Sn**	**02 56 51.8**	**-1.7**
MESJ				IAML			02 56 54.0	
	comp=N,1.9nm,0.2s							
MESJ	**Messejana**	**3.40**	**286**	*e*P		**Pn**	**02 56 15.9**	**+1.5**
MESJ				*e*S		**Sn**	**02 56 51.9**	**-1.7**
MESJ				IAML			02 56 53.8	
MESJ				IAML			02 56 54.2	
MESJ				IAML			02 56 54.7	
EVO	**Evora**	**3.48**	**298**	*e*P		**Pn**	**02 56 17.2**	**+1.7**
EVO				*e*S		**Sn**	**02 56 54.4**	**-1.2**
EVO				IAML			02 56 56.6	
EVO				IAML			02 56 56.7	
EVO				IAML			02 56 56.8	
PMRV	**Marv??o**	**3.58**	**315**	*e*S		**Sn**	**02 56 56.5**	**-1.6**
PMRV				IAML			02 56 58.8	
PMRV				IAML			02 56 58.8	
PLOUS	**Minas do Lousa**	**3.60**	**289**	*e*P		**Pn**	**02 56 18.6**	**+1.5**
PLOUS				*e*S		**Sn**	**02 56 56.8**	**-1.7**
PLOUS				IAML			02 56 58.1	
PLOUS				IAML			02 56 58.7	
PLOUS				IAML			02 56 58.9	
ECHE	**Chera**	**3.61**	**42**	Pn		**Pn**	**02 56 18.6**	**+1.3**
ECHE				⇑IVmb_VC			02 56 28.5	
	comp=N,100nm,SNR=1.0							
ECHE				Sn		**Sn**	**02 56 56.4**	**-2.3**
PARRA	**Arraiolos**	**3.63**	**302**	*e*P		**Pn**	**02 56 19.0**	**+1.5**
PARRA				*e*S		**Sn**	**02 56 57.1**	**-2.1**
PARRA				IAML			02 56 58.9	
PARRA				IAML			02 56 59.9	
PARRA				IAML			02 57 02.6	
MORF	**Marmelete**	**3.65**	**277**	*e*P		**Pn**	**02 56 20.0**	**+2.0**
MORF				*e*S		**Sn**	**02 56 59.5**	**-0.5**
MORF				IAML			02 57 01.4	
MORF				IAML			02 57 02.1	
MORF				IAML			02 57 02.2	
PTEO	**Sao Teotonio**	**3.74**	**280**	*e*P		**Pn**	**02 56 20.8**	**+1.8**
PTEO				*e*S		**Sn**	**02 57 00.7**	**-1.1**
PTEO				IAML			02 57 03.1	
PTEO				IAML			02 57 03.4	
PTEO				IAML			02 57 03.7	
PFVI	**Vila Bisbo**	**3.79**	**274**	*e*S		**Sn**	**02 57 01.6**	**-1.4**
PMTG	**Montargil**	**3.88**	**304**	*e*P		**Pn**	**02 56 23.0**	**+2.0**
PMTG				*e*S		**Sn**	**02 57 03.5**	**-1.8**
MD31	**MD31**	**4.11**	**188**	P		**Pn**	**02 56 25.9**	**+1.6**
MD31				S		**Sn**	**02 57 09.2**	**-2.0**
PSARD	**Sardoal**	**4.15**	**311**	*e*P		**Pn**	**02 56 26.7**	**+2.1**
PSARD				*e*S		**Sn**	**02 57 09.6**	**-2.3**
PSARD				IAML			02 57 11.5	
PSARD				IAML			02 57 11.6	
PSARD				IAML			02 57 12.3	
ETOR	**Torete**	**4.18**	**22**	Pn		**Pn**	**02 56 26.2**	**+1.1**
ETOR				Sn		**Sn**	**02 57 09.9**	**-2.8**

*IDC **01** 02:56:55.0±1.0,62.03S×58.15W,h0km,mb3.9/6, mbtmp3.9/6,MS3.7/13,Error ellipse: s-maj=61.9km s-min=18.1km az=72.0*

*NEIC **01** 02:56:56.4±2.2,62.25S±0.07×58.32W±0.08,h10km±1km, mb4.5/10,Error ellipse: s-maj=12.8km s-min=5.0km az=198.0*

ISC 01 02:56:56.7±0.6,62°21S±0.06×58°4W±0.1,h10km,n42, σ1§56/29,mb4.2/11,MS3.7/12,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.35**	**152**			**Pn**	**02 57 18.7**	**-2.8**
PMSA	**Palmer Station**	**3.61**	**222**	LR		LR	02 59 37.5	
	comp=Z,343nm,18.3s,baz=34,slow=42							
PMSA	**Palmer Station**	**3.61**	**222**			**Pn**	**02 57 53.5**	**+0.9**
ORCD	**Orcadas**	**6.70**	**83**			**Pn**	**02 58 35.9**	**+0.9**
EFI	**East Falkland**	**10.57**	**1**	Pn		**Pn**	**02 59 28.4**	**+0.4**
MG02	**Cerro Sombrero**	**11.09**	**324**	Pn		**Pn**	**02 59 36.8**	**+1.7**
BELA	**Belgrano 2**	**17.43**	**163**	P		**Pn**	**03 00 59.9**	**+0.5**
VNA3	**Neumayer Olymp**	**20.62**	**136**	P		**P**	**03 01 36.5**	**+0.8**
	comp=Z,13nm,0.8s							
VNA1	**Neumayer--Stat**	**21.09**	**135**	P		**P**	**03 01 42.6**	**+1.9**
	comp=Z,18nm,0.9s							
VNA2	**Neumayer--Watz**	**21.37**	**135**	P		**P**	**03 01 45.1**	**+1.4**
	comp=Z,5.9nm,0.8s,baz=267,slow=10							
PLCA	**Paso Flores**	**22.73**	**336**	P		**P**	**03 01 58.4**	**-0.2**
	comp=Z,2.4nm,0.8s,baz=146,slow=7.9,SNR=6.6							
PLCA				LR		LR	03 10 26.6	
	comp=Z,194nm,20.0s,baz=170,slow=36							
	comp=Z,2.4nm,0.8s							
PLCA	**Paso Flores**	**22.73**	**336**	P		**P**	**03 01 56.9**	**-1.7**
SNAA	**Sanae**	**22.80**	**138**	P		**P**	**03 01 60.0**	**+0.9**
	comp=Z,240nm,1.0s							
SNAA	**Sanae**	**22.80**	**138**	P		**P**	**03 02 00.2**	**+1.2**
	comp=Z,21nm,1.2s,baz=261,slow=7.6,SNR=16							
SNAA				LR		LR	03 09 24.3	
	comp=Z,244nm,20.9s,baz=270,slow=33							
	comp=Z,21nm,1.2s							
SNAA	**Sanae**	**22.80**	**138**	P		**P**	**03 01 55.5**	**-3.5**
SNAA				IAmb		IAmb	03 02 02.6	
	comp=Z,32nm,1.2s							
GO06	**Curarrehue**	**24.02**	**335**	P		**P**	**03 02 10.8**	**-0.8**
GO06				IAmb		IAmb	03 02 17.2	
	comp=Z,8.8nm,1.0s							
TROLL	**Troll, Antarti**	**24.43**	**139**	P		**P**	**03 02 16.3**	**+1.2**
	comp=Z,246nm,1.0s							
QSPA	**South Pole Qui**	**28.01**	**180**	P		**P**	**03 02 48.8**	**+1.3**
	comp=Z,2.3nm,0.7s,baz=160,slow=1.5,SNR=11							
	comp=Z,2.3nm,0.7s							
QSPA	**South Pole Qui**	**28.01**	**180**	P		**P**	**03 02 49.0**	**+1.5**
QSPA				IAmb		IAmb	03 02 54.2	
	comp=Z,7.1nm,1.1s							
GO04	**Tololo Observa**	**33.06**	**340**	P		**P**	**03 03 33.6**	**+1.2**
GO04				IAmb		IAmb	03 03 38.1	
	comp=Z,10nm,0.9s							
CO01	**Juntas del Tor**	**33.14**	**341**	P		**P**	**03 03 35.5**	**+2.4**
CO01				IAmb		IAmb	03 03 46.4	
	comp=Z,7.3nm,1.0s							

CPUP	**Villa Florida**	**35.88**	**2**	P		**P**	**03 03 55.2**	**-1.3**
	comp=Z,0.5nm,0.6s,baz=185,slow=10,SNR=3.3							
CPUP				LR		LR	03 17 36.8	
	comp=Z,47nm,20.6s,baz=242,slow=35							
	comp=Z,0.5nm,0.6s							
CPUP	**Villa Florida**	**35.88**	**2**	P		**P**	**03 03 56.5**	**0.0**
CPUP				IAmb		IAmb	03 04 12.3	
	comp=Z,5.7nm,1.5s							
VNDA	**Vanda**	**38.33**	**193**	LR		LR	03 21 07.5	
	comp=Z,117nm,18.5s,baz=146,slow=38							
MAW	**Mawson**	**43.71**	**152**	P		**P**	**03 05 02.6**	**+1.4**
	comp=Z,3.2nm,1.0s,baz=235,slow=8.0,SNR=5.2							
MAW				LR		LR	03 23 11.4	
	comp=Z,260nm,19.2s,baz=220,slow=36							
	comp=Z,3.2nm,1.0s							
LPAZ	**La Paz**	**46.39**	**347**	P		**P**	**03 05 21.8**	**-1.9**
	comp=Z,0.6nm,1.0s,baz=166,slow=5.7,SNR=1.3							
LPAZ				LR		LR	03 25 21.7	
	comp=Z,89nm,18.3s,baz=169,slow=37							
	comp=Z,0.6nm,1.0s							
RPN	**Rapa Nui**	**48.41**	**292**	LR		LR	03 20 51.3	
	comp=Z,67nm,18.9s,baz=128,slow=30							
NNA	**Nana**	**51.88**	**337**	LR		LR	03 26 23.1	
	comp=Z,62nm,18.6s,baz=167,slow=34							
ATAH	**Atahualpa**	**56.91**	**336**	LR		LR	03 28 47.9	
	comp=Z,57nm,19.2s,baz=145,slow=34							
SUR	**Sutherland**	**56.97**	**98**	LR		LR	03 25 34.7	
	comp=Z,86nm,19.8s,baz=210,slow=30							
H10S3	**ASCENSION HYDR**	**61.89**	**51**	T		T	04 14 25.8	
	baz=202,slow=74,SNR=54							
H10S2	**ASCENSION HYDR**	**61.89**	**51**	T		T	04 14 25.8	
	baz=18,slow=74,SNR=46							
BOSA	**Boshof**	**62.19**	**99**	LR		LR	03 29 10.9	
	comp=Z,43nm,20.6s,baz=214,slow=31							
H10N3	**ASCENSION HYDR**	**62.98**	**50**	T		T	04 15 44.1	
	baz=202,slow=75,SNR=37							
H10N1	**ASCENSION HYDR**	**62.98**	**50**	T		T	04 15 44.2	
	baz=202,slow=75,SNR=34							
H10N2	**ASCENSION HYDR**	**62.99**	**50**	T		T	04 15 45.4	
	baz=202,slow=75,SNR=35							
BOAV	**Boa Vista**	**64.45**	**358**	P		**P**	**03 07 32.1**	**-1.0**
ROSC	**El Rosal**	**67.98**	**343**	LR		LR	03 38 27.8	
	comp=Z,113nm,18.5s,baz=205,slow=37							
RUSC	**La Rusia**	**68.85**	**344**	P		**P**	**03 08 01.0**	**-0.7**
ARCES	**ARCESS Array B**	**144.04**	**37**	PKP		**PKPdf**	**03 16 29.4**	**-1.2**
	comp=Z,3.0nm,0.7s,baz=241,slow=1.2,SNR=5.0							
BVAR	**Borovoye Array**	**151.80**	**85**	PKPbc		**PKPbc**	**03 16 49.0**	**-1.1**
	comp=Z,1.3nm,0.4s,baz=229,slow=1.6,SNR=4.9							
MKAR	**Makanchi Array**	**152.99**	**107**	PKPbc		**PKPbc**	**03 16 51.8**	**-1.3**
	comp=Z,1.1nm,0.9s,baz=317,slow=10.0,SNR=4.4							

*BJI **01** 03:13:00.1,26.97N×128.83E,h28km,mB4.8/5,mb4.5/25, Ms4.0/11,Ms7 3.9/13*

*NIED **01** 03:13:03.3,27.33N×128.84E,h31km,MW4.3,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr=1.77; Mθθ 0.78; Mφφ 0.99; Mrθ 0.58; Mθφ -0.28; Mrφ 2.25; Fault plane solution: M0 2.69000×10¹⁵ NP1: φs 341.00000°,δ 17.00000°,λ -116.00000°. NP2: φs 188.00000°,δ 75.00000°,λ -82.00000°.*

*JMA **01** 03:13:03.3±0.1,27.3N±0.5×128.8E±0.9,h31km±1km, MD4.2/11,MV4.1/11,NEAR OKINAWAJIMA ISLAND*

JMA Felt II J1 at NEAR OKINAWAJIMA ISLAND .

*IDC **01** 03:13:04.2±1.7,27.36N×128.89E,h40km±15km,mb3.9/22, mbtmp4.1/24,ML3.9/2,MS3.4/10,Error ellipse: s-maj=17.1km s-min=10.8km az=90.0*

*NEIC **01** 03:13:04.2±2.5,27.25N±0.03×128.87E±0.05,h35km±2km, mb4.6/38,Error ellipse: s-maj=8.1km s-min=4.9km az=87.0*

ISC 01 03:13:02.6±1.1,27°25N±0.03×128°93E±0.05,h26km±7km, n132,σ1§20/121,mb4.4/53,MS3.4/11,2D,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.34**	**289**	*i* P		**Pb**	**03 13 10.0**	**-0.3**
JOKE				A		A	03 13 10.0	
	comp=N,63nm,0.3s,comp=E,137nm,0.6s							
JOKE				eS		**Sb**	**03 13 14.6**	**-0.9**
JYRO	**Yoronjima**	**0.48**	**243**	*i* P		**Pb**	**03 13 13.0**	**+0.4**
JYRO				A		A	03 13 13.0	
	comp=N,23nm,0.5s,comp=E,15nm,0.6s							
JYRO				*e*S		**Sb**	**03 13 19.3**	**0.0**
JTK	**Tokunoshima**	**0.54**	**2**	P		**Pb**	**03 13 13.0**	**-0.4**
JTK				A		A	03 13 13.0	
	comp=N,21nm,0.8s,comp=E,23nm,0.7s							
JTK				S		**Sb**	**03 13 19.5**	**-1.3**
JOW	**Kunigami**	**0.72**	**235**	Pn		**Pb**	**03 13 16.6**	**+0.1**
	comp=E,2µm,0.3s,baz=332,slow=29,SNR=4278							
JOW				Sn		**Sb**	**03 13 26.3**	**+0.4**
	comp=E,2µm,0.3s,baz=140,slow=28,SNR=23							
JOW	**Kunigami**	**0.72**	**235**	P		**Pb**	**03 13 17.0**	**+0.5**
JOW	**Kunigami**	**0.72**	**235**	S		**Sb**	**03 13 26.4**	**+0.4**
JOW	**Kunigami**	**0.72**	**235**			**Pb**	**03 13 16.7**	**+0.2**
JOW	**Kunigami**	**0.72**	**235**	P		**Pb**	**03 13 16.7**	**+0.2**
JOW				A		A	03 13 16.7	
	comp=N,22nm,0.7s,comp=E,20nm,0.4s							
JOW				S		**Sb**	**03 13 26.0**	**0.0**
JIH	**Iheya**	**0.89**	**256**	P		**Pn**	**03 13 18.7**	**-0.6**
JIH				A		A	03 13 18.7	
	comp=N,16nm,1.1s,comp=E,18nm,1.2s							
JIH				S		**Sb**	**03 13 30.1**	**-0.6**
JAMN	**Amaminishikomi**	**1.01**	**12**	*i* P		**Pn**	**03 13 20.5**	**-0.6**
JAMN				S		**Sn**	**03 13 33.1**	**-1.4**
JNTH	**Nagotoyohara**	**1.09**	**228**	P		**Pn**	**03 13 22.6**	**+0.4**
JAM	**Amami Oshima**	**1.30**	**27**	P		**Pn**	**03 13 25.6**	**+0.5**
JAM				A		A	03 13 25.6	
	comp=N,5.0nm,0.9s,comp=E,4.0nm,2.1s							
JAM				S		**Sn**	**03 13 42.3**	**+0.7**
JZK	**Kikaishima**	**1.41**	**41**	P		**Pn**	**03 13 27.7**	**+1.2**
JZK				A		A	03 13 27.7	
	comp=N,17nm,1.0s,comp=E,18nm,1.5s							
JJT3	**Tamagusuku3**	**1.50**	**223**	A		A	03 13 29.1	
	comp=N,14nm,1.6s,comp=E,14nm,2.5s							
JAGN	**Agnijima**	**1.65**	**247**	A		A	03 13 30.4	
	comp=N,7.0nm,2.8s,comp=E,5.0nm,2.4s							
JMZ	**Minamidaito 2**	**2.50**	**124**	P		**Pn**	**03 13 41.3**	**-0.2**
JMZ	**Minamidaito 2**	**2.50**	**124**	S		**Sn**	**03 14 09.7**	**-1.5**
JMZ	**Minamidaito 2**	**2.50**	**124**			**Pn**	**03 13 41.6**	**+0.1**
JSU	**Suzuyama**	**4.45**	**17**	P		**Pn**	**03 14 09.6**	**+1.3**
JSU	**Suzuyama**	**4.45**	**17**	S		**Sn**	**03 15 00.5**	**+1.3**
JSU	**Suzuyama**	**4.45**	**17**			**Pn**	**03 14 08.6**	**+0.3**
JNU	**Nakatsue**	**6.09**	**16**	Pn		**Pn**	**03 14 32.4**	**+1.5**
	comp=E,5.8nm,0.3s,baz=336,slow=2.4,SNR=46							
JNU				Sn		**Sn**	**03 15 41.4**	**+1.6**
	comp=E,2.6nm,0.3s,baz=61,slow=21,SNR=14							
	comp=E,14nm,0.4s							
JNU				AML		AML		
TATO	**Taipei**	**7.06**	**253**	P		**Pn**	**03 14 43.2**	**-1.1**
YHNB	**Yeheng**	**7.27**	**251**			**Pn**	**03 14 48.2**	**+1.0**
NACB	**Ninganchiao**	**7.29**	**247**	P		**Pn**	**03 14 45.6**	**-1.8**
NACB	**Ninganchiao**	**7.29**	**247**			**Pn**	**03 14 45.2**	**-2.2**
JMN	**Monobe**	**7.74**	**32**	P		**Pn**	**03 14 54.4**	**+0.8**
YULB	**Yu-li**	**7.90**	**243**	P		**Pn**	**03 14 52.7**	**-3.1**
YULB	**Yu-li**	**7.90**	**243**			**Pn**	**03 14 52.7**	**-3.1**
SSLB	**Suanglung**	**7.99**	**246**	P		**Pn**	**03 14 55.4**	**-1.6**
SSLB	**Suanglung**	**7.99**	**246**			**Pn**	**03 14 55.1**	**-1.9**
TWGBT	**Beinan**	**8.38**	**240**	P		**Pn**	**03 14 59.8**	**-2.5**
TPUB	**Ta-pu**	**8.48**	**244**	P		**Pn**	**03 15 02.6**	**-1.1**
TPUB	**Ta-pu**	**8.48**	**244**			**Pn**	**03 15 02.7**	**-1.1**
NJ2	**Nanjing**	**9.99**	**301**	*e*P		**Pn**	**03 15 23.5**	**-0.8**
NJ2				pmax		pmax		
	comp=E,10.0nm,0.5s							
KSRS	**Korea Array**	**10.21**	**355**	Pn		**Pn**	**03 15 29.4**	**+2.0**
	comp=E,0.3nm,0.3s,baz=177,slow=15,SNR=9.1							
KSRS				LR		LR	03 19 41.1	
	comp=E,193nm,18.3s,baz=185,slow=39							
	comp=E,3.8nm,0.9s							
KSRS				AML		AML		
MJAR	**Matsushiro Arr**	**12.16**	**38**	LR		LR	03 20 50.8	
	comp=E,112nm,20.6s,baz=224,slow=39							
WHN	**Wuhan**	**13.19**	**288**	P		**Pn**	**03 16 10.3**	**+2.1**
HNS	**HongShan**	**15.70**	**314**	⇓P		**P**	**03 16 44.5**	**-1.2**
HNS				pmax		pmax		
	comp=E,13nm,0.9s							
HNS				L		L		
	comp=E,210nm,11.6s							
HNS				L		L		
	comp=E,310nm,13.1s							
HNS				L		L		
	comp=E,290nm,11.0s							
LYN	**LuoYang**	**15.88**	**301**	*e*P		**Pn**	**03 16 45.8**	**+1.4**
LYN				pmax		pmax		
	comp=E,13nm,0.6s							
LYN				L		L		
	comp=E,300nm,10.7s							
LYN				L		L		
	comp=E,380nm,12.4s							
LYN				L		L		
	comp=E,520nm,15.5s							
BJI2	**Beijing**	**16.56**	**323**	P		**Pn**	**03 16 54.3**	**+1.3**
BJI2				pP		**P**	**03 16 59.0**	**+3.7**
BJI2				S		**Sn**	**03 19 56.5**	**+0.4**
BJI2				pmax		pmax		
	comp=E,5.0nm,0.6s							
BJI2				pmax		pmax		
	comp=E,75nm,4.4s							
BJI2				L		L		
	comp=E,140nm,16.4s							
BJI2				L		L		
	comp=E,92nm,14.2s							
BJI2				L		L		
	comp=E,160nm,14.1s							
BJT	**Baijiatuau**	**16.56**	**323**			**Pn**	**03 16 54.0**	**+1.0**
CN2	**Changchun**	**16.75**	**351**	P		**P**	**03 16 57.8**	**+0.4**
CN2				pmax		pmax		
	comp=E,10.0nm,0.5s							
USRK	**Ussuriysk Ar.**	**17.09**	**8**	LR		LR	03 23 44.8	
	comp=E,80nm,19.2s,baz=176,slow=38							
XAN	**Xi'an**	**18.48**	**296**	P		**Pn**	**03 17 19.8**	**+2.9**
XAN				pmax		pmax		
	comp=E,18nm,0.8s							
XAN				L		L		
	comp=E,340nm,15.1s							
XAN				L		L		
	comp=E,440nm,13.1s							
XAN				L		L		
	comp=E,430nm,17.9s							
BNX	**BinXian**	**18.49**	**357**	⇓P		**Pn**	**03 17 19.7**	**+2.8**
BNX				pmax		pmax		
	comp=E,8.0nm,1.2s							
HHC	**Hu-ho-hao-te**	**19.73**	**318**	*e*P		**Pn**	**03 17 31.4**	**-0.5**
HHC				pmax		pmax		
	comp=E,9.0nm,0.6s							
HHC				pmax		pmax		
	comp=E,63nm,4.4s							
GUMO	**Guam**	**20.16**	**129**	LR		LR	03 24 00.1	
	comp=E,113nm,20.1s,baz=312,slow=32							
DAV	**Davao City (W)**	**20.32**	**190**	LR		LR	03 25 08.7	
	comp=E,64nm,21.4s,baz=352,slow=36							
BTO2	**Baotou**	**20.70**	**315**	*e*P		Pn	03 17 42.5	-0.8
BTO2				pP		sP	03 17 51.4	+0.2
BTO2				sP		pP	03 17 55.8	+7.9
BTO2				pmax		pmax		
	comp=E,21nm,0.7s							
BTO2				pmax		pmax		
	comp=E,240nm,5.5s							
BTO2				L		L		
	comp=E,300nm,20.3s							
BTO2				L		L		
	comp=E,300nm,15.2s							
BTO2				L		L		
	comp=E,500nm,14.6s							
LZDM	**Lanzhou Array**	**23.13**	**298**	P		**P**	**03 18 07.2**	**+0.2**
	comp=E,2.5nm,0.4s,baz=114,slow=9.9,SNR=4.2							
LZDM				LR		LR	03 27 55.1	
	comp=E,87nm,18.3s,baz=145,slow=39							
	comp=E,2.5nm,0.4s							
KMI2	**Kunming**	**23.57**	**271**	P		**P**	**03 18 12.1**	**+0.6**
KMI2				pmax		pmax		
	comp=E,14nm,1.0s							
KMI2				L		L		
	comp=E,300nm,13.8s							
SONM	**Songino Array**	**27.06**	**325**	P		**P**	**03 18 43.5**	**+0.6**
	comp=E,3.1nm,1.0s,baz=142,slow=10,SNR=7.7							
SONM				LR		LR	03 30 45.6	
	comp=E,77nm,18.4s,baz=81,slow=39							
	comp=E,3.1nm,1.0s							
SONM	**Songino Array**	**27.06**	**325**	IAmb		IAmb	03 18 47.8	
	comp=Z,3.7nm,1.1s							
GTA2	**Gaotai**	**27.12**	**304**	P		**P**	**03 18 43.0**	**-0.6**
GTA2				pP		pP	03 18 49.4	-1.7
GTA2				pmax		pmax		
	comp=Z,7.0nm,0.8s							
GTA2				L		L		
	comp=Z,120nm,13.7s							
GTA2				L		L		
	comp=Z,200nm,13.3s							
GTA2				L		L		
	comp=Z,310nm,14.9s							
CHTO	**Chiang Mai**	**28.79**	**259**			**P**	**03 18 59.2**	**+0.7**
CHTO				IAmb		IAmb	03 18 59.6	
	comp=Z,6.8nm,0.6s							
CMAR	**Chiang Mai Arr**	**28.93**	**259**	P		**P**	**03 18 60.0**	**+0.2**
	comp=Z,1.1nm,0.3s,baz=58,slow=7.8,SNR=11							
CMAR				LR		LR	03 31 48.4	
	comp=Z,78nm,18.6s,baz=75,slow=39							
	comp=Z,1.1nm,0.3s							
GOMU	**GeErMu**	**30.23**	**296**	P		**P**	**03 19 10.0**	**-1.6**
GOMU				pmax		pmax		
	comp=Z,1.0nm,0.5s							
YAK	**Yakutsk**	**34.78**	**1**	LR		LR	03 36 08.5	
	comp=Z,58nm,18.0s,baz=192,slow=40							
H11N1	**WAKE ISLAND Hy**	**35.51**	**94**	T		T	03 57 37.3	
	baz=290,slow=74,SNR=74							
H11N2	**WAKE ISLAND Hy**	**35.51**	**94**	T		T	03 57 42.2	
	baz=290,slow=74,SNR=112							
H11N3	**WAKE ISLAND Hy**	**35.53**	**94**	T		T	03 57 35.9	
	baz=290,slow=74,SNR=81							
H11S3	**WAKE ISLAND Hy**	**35.75**	**96**	T		T	03 58 05.1	
	baz=291,slow=75,SNR=36							
H11S1	**WAKE ISLAND Hy**	**35.76**	**96**	T		T	03 58 02.6	
	baz=291,slow=75,SNR=28							
H11S2	**WAKE ISLAND Hy**	**35.77**	**

AB31					IAmb	IAmb	03 22 41.5	
	comp=Z,3.9nm,0.7s							
ABKAR	**Akbulak array**	**56.41**	**313**	P	**P**	**P**	**03 22 40.4**	**-1.3**
ARTI	**Arti**	**57.09**	**321**	P	**P**	**P**	**03 22 44.5**	**-1.8**
ARTI					IAmb	IAmb	03 22 45.6	
	comp=Z,5.4nm,0.6s							
E19K	**Redstone River**	**58.95**	**26**	P	**P**	**P**	**03 22 59.6**	**+0.3**
E19K					IAmb	IAmb	03 23 10.5	
	comp=Z,5.5nm,0.8s							
D20K	**Etivluk River**	**59.26**	**24**	P	**P**	**P**	**03 23 02.2**	**+0.7**
D20K					IAmb	IAmb	03 23 20.8	
	comp=Z,7.5nm,1.1s							
STKA	**Stephens Creek**	**60.02**	**168**	P	**P**	**P**	**03 23 07.2**	**+0.2**
	comp=Z,0.8nm,0.6s,baz=44,slow=5.5,SNR=3.3							
	comp=Z,0.8nm,0.6s							
H22K	**Ishtalitna Cre**	**61.27**	**27**	P	**P**	**P**	**03 23 16.4**	**+1.2**
H22K					IAmb	IAmb	03 23 17.8	
	comp=Z,4.8nm,1.0s							
D24K	**Happy Valley**	**62.08**	**24**	P	**P**	**P**	**03 23 21.7**	**+1.1**
NEA2	**Nenana**	**62.33**	**29**	IAmb	IAmb		03 23 24.1	
	comp=Z,7.3nm,1.1s							
F24K	**Squaw Lake**	**62.55**	**25**	IAmb	IAmb		03 23 41.0	
	comp=Z,9.5nm,1.4s							
D25K	**Kavik River**	**62.94**	**23**	IAmb	IAmb		03 23 36.7	
	comp=Z,3.7nm,0.9s							
ILAR	**Eielson Array**	**63.25**	**29**	P	**P**	**P**	**03 23 28.0**	**-0.5**
	comp=Z,0.7nm,0.8s,baz=270,slow=6.2,SNR=7.4							
	comp=Z,0.7nm,0.8s							
HDA	**Harding Lake**	**63.27**	**29**	P	**P**	**P**	**03 23 28.6**	**0.0**
HDA					IAmb	IAmb	03 23 29.6	
	comp=Z,5.7nm,1.0s							
F26K	**Sheenjek River**	**63.95**	**25**	IAmb	IAmb		03 23 35.7	
	comp=Z,3.8nm,0.9s							
DOT	**Dot Lake**	**64.64**	**30**	IAmb	IAmb		03 23 39.5	
	comp=Z,4.4nm,1.0s							
KBZ	**Khabaz**	**69.00**	**309**	P	**P**	**P**	**03 24 05.3**	**-0.4**
	comp=Z,2.5nm,0.8s,baz=104,slow=8.1,SNR=4.8							
	comp=Z,2.5nm,0.8s							
ARCES	**ARCESS Array B**	**69.29**	**339**	P	**P**	**P**	**03 24 05.8**	**-1.3**
	comp=Z,4.7nm,0.8s,baz=53,slow=8.1,SNR=5.1							
	comp=Z,4.7nm,0.8s							
ARCES	**ARCESS Array B**	**69.29**	**339**	P	**P**	**P**	**03 24 06.8**	**-0.4**
ARCES					IAmb	IAmb	03 24 14.3	
	comp=Z,9.2nm,1.3s							
FIA1	**FINESS Array S**	**72.29**	**331**	P	**P**	**P**	**03 24 24.3**	**-1.1**
FINES	**FINESS Array B**	**72.29**	**331**	P	**P**	**P**	**03 24 24.5**	**-0.9**
	comp=Z,1.5nm,0.5s,baz=61,slow=5.7,SNR=26							
	comp=Z,1.5nm,0.5s							
FINES	**FINESS Array B**	**72.29**	**331**	P	**P**	**P**	**03 24 24.3**	**-1.1**
AKASG	**Malin Array Be**	**75.17**	**320**	P	**P**	**P**	**03 24 41.4**	**-1.1**
	comp=Z,2.3nm,0.5s,baz=58,slow=6.3,SNR=11							
	comp=Z,2.3nm,0.5s							
KIEV	**Kiev**	**75.18**	**320**	P	**P**	**P**	**03 24 41.1**	**-1.5**
KIEV					IAmb	IAmb	03 24 42.2	
	comp=Z,4.5nm,0.6s							
BR131	**Keskin Array S**	**76.90**	**308**	P	**P**	**P**	**03 24 52.5**	**-0.4**
BR131					IAmb	IAmb	03 25 18.0	
	comp=Z,9.6nm,1.4s							
BRTR	**Keskin Array B**	**76.90**	**308**	P	**P**	**P**	**03 24 52.2**	**-0.7**
	comp=Z,1.1nm,0.8s,baz=123,slow=3.6,SNR=7.0							
	comp=Z,1.1nm,0.8s							
BRTR	**Keskin Array B**	**76.90**	**308**	P	**P**	**P**	**03 24 52.3**	**-0.6**
HFS	**Hagfors**	**78.21**	**332**	P	**P**	**P**	**03 24 59.1**	**-0.5**
	comp=Z,1.5nm,0.5s,baz=74,slow=5.3,SNR=6.4							
	comp=Z,1.5nm,0.5s							
NB2	**NORSAR Subarra**	**78.68**	**334**	P	**P**	**P**	**03 25 01.1**	**-1.1**
	comp=Z,2.6nm,0.6s,baz=53,slow=5.9							
NOA	**NORSAR Array B**	**78.68**	**334**	P	**P**	**P**	**03 25 01.3**	**-0.9**
	comp=Z,1.1nm,0.5s,baz=52,slow=5.6,SNR=8.1							
	comp=Z,1.1nm,0.5s							
NC204	**NORSAR Array S**	**78.71**	**334**	P	**P**	**P**	**03 25 01.3**	**-1.1**
BUR08	**Bucovina Ar. S**	**78.89**	**318**	P	**P**	**P**	**03 25 04.0**	**+0.3**
BURAR	**Bucovina Array**	**78.90**	**318**	P	**P**	**P**	**03 25 04.0**	**+0.3**
CONA	**Conrad Observa**	**84.12**	**322**	*i* PcP	**P**	**P**	**03 25 33.1**	**+1.7**
	comp=Z,0.9nm,0.5s							
GERES	**GERESS Array B**	**84.77**	**323**	P	**P**	**P**	**03 25 34.3**	**-0.3**
	comp=Z,0.5nm,0.7s,baz=36,slow=5.0,SNR=4.7							
	comp=Z,0.5nm,0.7s							
SESA	**Seetaler Alpe,**	**85.31**	**321**	*e*P	**P**	**P**	**03 25 37.6**	**+0.1**
	comp=Z,0.5nm,0.2s							
WATA	**Walderalm**	**86.81**	**323**	*i* PcP	**P**	**P**	**03 25 46.3**	**+1.4**
	comp=Z,2.9nm,0.5s							
WTTA	**Wattenberg**	**86.82**	**323**	*e*PcP	**P**	**P**	**03 25 46.7**	**+1.7**
	comp=Z,1.0nm,0.7s							
MOTA	**Moosalm**	**87.06**	**323**	*e*PcP	**P**	**P**	**03 25 46.4**	**+0.3**
	comp=Z,1.0nm,0.5s							
SQTA	**Sankt Quirin**	**87.08**	**323**	*i* PcP	**P**	**P**	**03 25 46.7**	**+0.6**
	comp=Z,0.3nm,0.2s							
RETA	**Reutte**	**87.16**	**323**	*e*PcP	**P**	**P**	**03 25 47.0**	**+0.6**
	comp=Z,0.6nm,0.3s							
FETA	**Feichten**	**87.46**	**323**	*e*PcP	**P**	**P**	**03 25 48.4**	**+0.4**
	comp=Z,0.5nm,0.4s							
DAVA	**Damuels**	**87.75**	**323**	*e*PcP	**P**	**P**	**03 25 50.8**	**+1.4**
	comp=Z,1.8nm,0.5s							
FUORN	**Ofenpass-Fuorn**	**87.96**	**323**	IAmb	IAmb		03 25 52.4	
	comp=Z,3.8nm,0.8s							
PDAR	**Pinedale Array**	**91.98**	**39**	P	**P**	**P**	**03 26 09.3**	**-0.1**
	comp=Z,0.5nm,0.8s,baz=330,slow=2.1,SNR=4.4							
	comp=Z,0.5nm,0.8s							

*IDC **01** 03:15:39.9±1.8,21°.28S×169°.32E, h0km, mb3.8/3, mbtmp3.7/4, ML2.8/1, MS2.9/1, Error ellipse: s-maj=98.3km s-min=19.0km az=155.0*
*NOU **01** 03:15:43.2,21°.48S×168°.98E, h0km, MLv3.8/11, Loyalty Islands*
ISC 01 03:15:43.5±1.3,21°.7S±0°.1×169°.2E±0°.1, h29km, n15, σ1§82/15, mb3.8/3, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
					Op	ISC	h	m	s	ISC
MARNC	**Mare, Loyalty**	**1.09**	**279**	P	**Pn**	**Pn**	**03**	**16**	**00.9**	**-2.0**
PINNC	**Pines Island,**	**1.87**	**239**	P	**Pb**	**Pb**	**03**	**16**	**14.7**	**-2.4**
PINNC	**Pines Island,**	**1.87**	**239**	S	**Sb**	**Sb**	**03**	**16**	**39.4**	**-0.7**
YATNC	**Mamie plateau,**	**2.17**	**259**	P	**Pn**	**Pn**	**03**	**16**	**17.3**	**-0.4**
OUENC	**Ouen Island, N**	**2.30**	**250**	P	**Pb**	**Pb**	**03**	**16**	**22.0**	**-2.4**
DZM	**Mont Dzumac**	**2.58**	**260**	Pn	**Pn**	**Pn**	**03**	**16**	**24.2**	**+0.7**
	1.4nm,0.3s,baz=68,slow=17,SNR=50									
DZM					Sn	**Sn**	**03**	**16**	**56.0**	**+2.0**
	3.5nm,0.3s,baz=107,slow=23,SNR=9.7									
	7.8nm,0.4s									
DZM					AML	AML				
NOUC	**Port Laguerre**	**2.71**	**260**	P	**Pn**	**Pn**	**03**	**16**	**26.2**	**+1.0**
RTV	**Rentapao**	**3.91**	**349**	P	**Pn**	**Pn**	**03**	**16**	**41.0**	**-0.7**
DVP	**Devils Point**	**4.03**	**346**	P	**Pn**	**Pn**	**03**	**16**	**44.0**	**+0.7**
CTA	**Charters Tower**	**21.48**	**270**	LR	LR	LR	03	27	04.1	
	comp=Z,29nm,19.4s,baz=30,slow=32									
STKA	**Stephens Creek**	**26.59**	**242**	P	**P**	**P**	**03**	**21**	**22.3**	**+3.0**
	1.9nm,0.8s,baz=69,slow=7.8,SNR=4.4									
	1.9nm,0.8s									
WRA	**Warramunga Arr**	**32.58**	**267**	P	**P**	**P**	**03**	**22**	**15.1**	**+2.4**
	0.4nm,0.9s,baz=98,slow=7.9,SNR=2.3									
	0.4nm,0.9s									
NVAR	**Mina Array Bea**	**90.43**	**49**	P	**P**	**P**	**03**	**28**	**42.0**	**-0.7**
	1.0nm,0.8s,baz=224,slow=8.5,SNR=7.5									
	1.0nm,0.8s									
EKA	**Eskdalemuir Ar**	**145.89**	**352**	PKPbc		**PKPdf**	**03**	**35**	**18.5**	**-0.7**
	1.0nm,0.6s,baz=20,slow=2.7,SNR=4.3									
GERES	**GERESS Array B**	**146.57**	**330**	PKPbc		**PKPab**	**03**	**35**	**22.2**	**-1.1**
	0.4nm,0.5s,baz=48,slow=2.0,SNR=4.9									

*ISK **01** 03:16:27.9, 37°.83N×26°.85E, h2km, ML2.6/27*
*THE **01** 03:16:28.6, 37°.8N±0°.9×2°.7E±°, h2km±1km, M2.9/7, MLh2.9/7*
*AFAD **01** 03:16:28.1, 37°.83N×26°.81E, h7km±2km, ML2.6*
*ATH **01** 03:16:29.1, 37°.80N×26°.71E, h11km±1km, ML2.8/7, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 01 03:16:28.5±0.9, 37°.83N±0°.02×26°.82E±0°.02, h7km±7km, n57, σ0§60/84, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
					Op	ISC	h	m	s	ISC
KRL1	**Karlovasi Samo**	**0.10**	**248**	P	**Pg**	**Pg**	**03**	**16**	**30.6**	**-0.1**
KRL1				S	**Sg**	**Sg**	**03**	**16**	**32.4**	**+0.1**
KRL1					AML	AML				
DGB	**zmir**	**0.23**	**13**	P	**Pg**	**Pg**	**03**	**16**	**32.8**	**-0.2**
DGB				S	**Sg**	**Sg**	**03**	**16**	**36.6**	**+0.5**
DGB				IAML			03	16	37.0	
	comp=N,416nm,0.2s									
DGB				IAML			03	16	37.0	
	comp=E,798nm,0.3s									
GMLD	**Gumuldur**	**0.26**	**17**	Pg	**Pg**	**Pg**	**03**	**16**	**33.6**	**0.0**
GMLD				Sg	**Sg**	**Sg**	**03**	**16**	**38.0**	**+0.9**
GMLD				AML	AML					
GCAM	**G?zelcaml?**	**0.35**	**111**	P	**Pg**	**Pg**	**03**	**16**	**35.3**	**-0.1**
GCAM						IAML	03	16	41.0	
	comp=N,1μm,0.3s									
GCAM						IAML	03	16	41.0	
	comp=E,811nm,0.2s									
GCAM				S	**Sb**	**Sb**	**03**	**16**	**41.3**	**-1.6**
GCAM	**G?zelcaml?**	**0.35**	**111**	Pg	**Pg**	**Pg**	**03**	**16**	**35.3**	**-0.1**
GCAM				Sg	**Sg**	**Sg**	**03**	**16**	**40.8**	**+0.7**
GCAM				AML	AML					
BEYE	**izmir**	**0.41**	**12**	P	**Pg**	**Pg**	**03**	**16**	**35.9**	**-0.5**
BEYE				S	**Sg**	**Sg**	**03**	**16**	**42.1**	**+0.3**
BEYE				IAML			03	16	45.0	
	comp=N,350nm,0.4s									
BEYE				IAML			03	16	45.0	
	comp=E,314nm,0.2s									
ZEYE	**Izmir, Urla-Ze**	**0.48**	**329**	P	**Pg**	**Pg**	**03**	**16**	**37.3**	**-0.5**
ZEYE				S	**Sg**	**Sg**	**03**	**16**	**44.7**	**+0.6**
ZEYE				IAML			03	16	45.0	
	comp=N,2μm,0.2s									
ZEYE				IAML			03	16	47.0	
	comp=E,596nm,0.5s									
DDIM	**Aydin, Didim**	**0.50**	**138**	P	**Pg**	**Pg**	**03**	**16**	**38.0**	**-0.2**
DDIM				S	**Sg**	**Sg**	**03**	**16**	**45.7**	**+0.9**
DDIM				IAML			03	16	46.0	
	comp=N,483nm,0.5s									
DDIM				IAML			03	16	47.0	
	comp=E,480nm,0.6s									
BLCB	**Balcova**	**0.58**	**18**	P	**Pg**	**Pg**	**03**	**16**	**39.5**	**-0.3**
BLCB				S	**Sg**	**Sg**	**03**	**16**	**47.6**	**+0.2**
BLCB				AML	AML					
BLCB	**Balcova**	**0.58**	**18**	Pg	**Pg**	**Pg**	**03**	**16**	**39.8**	**0.0**
BLCB				AML	AML					
DUVT	**Torbali**	**0.63**	**52**	P	**Pg**	**Pg**	**03**	**16**	**40.2**	**-0.6**
DUVT				S	**Sg**	**Sg**	**03**	**16**	**49.2**	**+0.2**
DUVT				IAML			03	16	53.0	
	comp=E,655nm,0.6s									
CESE	**eme**	**0.65**	**321**	Pg	**Pg**	**Pg**	**03**	**16**	**41.5**	**+0.5**
CESE				AML	AML					
KRBN	**Karaburun**	**0.79**	**345**	Pg	**Pb**	**Pb**	**03**	**16**	**44.3**	**-0.3**
KRBN				Sg	**Sb**	**Sb**	**03**	**16**	**56.2**	**+0.7**
KRBN				AML	AML					
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**Pg**	**03**	**16**	**44.3**	**0.0**
CHOS				S	**Sg**	**Sg**	**03**	**16**	**56.0**	**+1.1**
CHOS				AML	AML					
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pb**	**Pb**	**03**	**16**	**45.1**	**-0.1**
CHOS				AML	AML					
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**Pg**	**03**	**16**	**44.2**	**0.0**
CHOS				S	**Sg**	**Sg**	**03**	**16**	**55.2**	**+0.3**
CHOS				AML	AML					
BAGT	**Foa**	**0.82**	**2**	P	**Pg**	**Pg**	**03**	**16**	**43.7**	**-0.7**
BAGT				S	**Sb**	**Sb**	**03**	**16**	**57.2**	**+0.7**
BAGT				IAML			03	16	59.0	
	comp=N,537nm,0.6s									
BAGT				IAML			03	17	01.0	
	comp=E,361nm,0.3s									
AYDB	**Zeytinkoy-Aydi**	**0.86**	**82**	Pg	**Pg**	**Pg**	**03**	**16**	**44.8**	**-0.2**
AYDB				AML	AML					
AYDN	**Tasoluk**	**0.86**	**101**	P	**Pg**	**Pg**	**03**	**16**	**44.9**	**-0.1**
AYDN				S	**Sb**	**Sb**	**03**	**16**	**57.1**	**-0.5**
AYDN				IAML			03	17	00.0	
	comp=E,216nm,0.5s									
AYDN				IAML			03	17	02.0	
	comp=N,151nm,0.4s									
BODT	**Bodrum**	**0.86**	**153**	P	**Pg**	**Pg**	**03**	**16**	**45.4**	**+0.3**
BODT				S	**Sb**	**Sb**	**03**	**16**	**57.7**	**+0.1**
BODT				AML	AML					
BODT	**Bodrum**	**0.86**	**153**	Pg	**Pg**	**Pg**	**03**	**16**	**44.9**	**-0.2**
BODT				Sg	**Sb**	**Sb**	**03**	**16**	**57.8**	**+0.2**
BODT				AML	AML					
KLNA	**Kalymnos**	**0.88**	**172**	P	**Pb**	**Pb**	**03**	**16**	**45.9**	**-0.2**
KLNA				S	**Sg**	**Sg**	**03**	**16**	**57.3**	**+0.5**
KLNA				AML	AML					
FOCM	**Foa**	**0.88**	**356**	Pg	**Pg**	**Pg**	**03**	**16**	**45.9**	**+0.4**
FOCM				AML	AML					
KARB	**zmir-Karabur**	**0.89**	**339**	P	**Pg**	**Pg**	**03**	**16**	**44.8**	**-0.8**
KARB				S	**Sb**	**Sb**	**03**	**16**	**58.5**	**0.0**
KARB				IAML			03	17	00.0	
	comp=N,392nm,0.4s									
KARB				IAML			03	17	00.0	
	comp=E,376nm,0.5s									
EAG2	**Marmaro, Chios**	**0.91**	**322**	P	**Pg**	**Pg**	**03**	**16**	**46.3**	**+0.4**
EAG2				S	**Sg**	**Sg**	**03**	**16**	**58.0**	**+0.2**
BDRM	**Kayabasi**	**0.91**	**147**	P	**Pg**	**Pg**	**03**	**16**	**46.3**	**+0.3**
BDRM				S	**Sb**	**Sb**	**03**	**16**	**58.5**	**-0.6**
BDRM				IAML			03	17	01.0	
	comp=N,299nm,0.8s									
BDRM				IAML			03	17	01.0	
	comp=E,206nm,0.4s									
MLSB	**Milas**	**0.93**	**125**	Pg	**Pg**	**Pg**	**03**	**16**	**46.5**	**+0.1**
MLSB				AML	AML					
IZMR	**zmir-demi**	**0.95**	**71**	P	**Pg**	**Pg**	**03**	**16**	**46.6**	**-0.1**
IZMR				S	**Sg**	**Sg**	**03**	**16**	**58.4**	**-0.6**
IZMR				IAML			03	17	01.0	
	comp=N,77nm,0.6s									
IZMR				IAML			03	17	04.0	
	comp=E,98nm,0.5s									
CAMT	**Merkez**	**1.00**	**23**	P	**Pg**	**Pg**	**03**	**16**	**47.7**	**0.0**
CAMT				S	**Sn**	**Sn**	**03**	**17**	**02.8**	**-0.5**
CAMT				IAML			03	17	04.0	
	comp=N,627nm,0.4s									
CAMT				IAML			03	17	04.0	
	comp=E,602nm,0.3s									
ZEDA	**zmir-Bergama**	**1.15**	**10**	P	**Pg**	**Pg**	**03**	**16**	**50.5**	**-0.2**
ZEDA				S	**Sn**	**Sn**	**03**	**17**	**07.5**	**+0.4**
ZEDA				IAML			03	17	10.0	
	comp=N,180nm,0.3s									
ZEDA				IAML			03	17	10.0	
	comp=E,208nm,0.2s									
NAZL	**Nazilli-Aydin**	**1.17**	**83**	Pn	**Pg**	**Pg**	**03**	**16**	**50.5**	**-0.6**
NAZL				AML	AML					
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn	**Pb**	**Pb**	**03**	**16**	**51.7**	**-0.4**
GOMA				AML	AML					
DKL	**Dikili**	**1.24**	**3**	Pn	**Pb**	**Pb**	**03**	**16**	**51.9**	**-0.4**
DKL				AML	AML					
DKL	**Dikili**	**1.24**	**3**	P	**Pg**	**Pg**	**03**	**16**	**52.7**	**+0.3**
DAT	**Datca**	**1.25**	**151**	P	**Pb**	**Pb**	**03**	**16**	**52.1**	**-0.5**
DAT				S	**Sn**	**Sn**	**03**	**17**	**10.3**	**+0.5**
DAT				AML	AML					
DAT	**Datca**	**1.25**	**151**	Pn	**Pb**	**Pb**	**03**	**16**	**52.6**	**0.0**
DAT				AML	AML					
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pg**	**Pg**	**03**	**16**	**53.8**	**+0.2**
AKS				AML	AML					
TNSA	**Tinos**	**1.34**	**258**	P	**Pn**	**Pn**	**03**	**16**	**51.9**	**-1.8**
TNSA				AML	AML					
YER	**Yerkesik**	**1.36**	**120**	P	**Pn**	**Pn**	**03**	**16**	**53.0**	**-0.9**
YER				S	**Sn**	**Sn**	**03**	**17**	**12.6**	**+0.4**
YER	**Yerkesik**	**1.36**	**120**	Pn	**Pg**	**Pg**	**03**	**16**	**54.6**	**0.0**
YER				AML	AML					
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pb**	**Pb**	**03**	**16**	**55.6**	**-0.1**
SOMA				AML	AML					
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**Pn**	**03**	**16**	**55.7**	**+0.1**
PRK				S	**Sg**	**Sg**	**03**	**17**	**16.4**	**+0.4**
PRK				AML	AML					
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**Pn**	**03**	**16**	**55.9**	**+0.4**
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pn**	**Pn**	**03**	**16**	**56.4**	**+0.2**
GORD				AML	AML					
TURN	**Turunc**	**1.55**	**132**	Pn	**Pb**	**Pb**	**03**	**16**	**57.0**	**-0.5**
DALY	**Dalyan (Mula)**	**1.78**	**124**	Pn	**Pn**	**Pn**	**03**	**17**	**00.4**	**+0.7**
DALY				AML	AML					
THR8	**Santorini-Mono**	**1.78**	**217**	P	**Pn**	**Pn**	**03**	**17**	**00.2**	**+0.6**
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn	**Pb**	**Pb**	**03**	**17**	**00.9**	**-0.7**
YAYO				AML	AML					
THERA	**Ancient Thera,**	**1.81**	**217**	P	**Pn**	**Pn**	**03**	**17**	**00.4**	**+0.3**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**Pn**	**03**	**17**	**01.8**	**+0.2**
ARG				AML	AML					
BALB	**Balikesir**	**1.99**	**24**	Pn	**Pb**	**Pb**	**03**	**17**	**03.9**	**-1.1**
BALB				AML	AML					
APMY	**Acipayam-Deniz**	**2.00**	**100**	Pn	**Pn**	**Pn**	**03**	**17**	**03.8**	**+0.9**
EZN	**Ezine**	**2.03**	**349**	Pn	**Pn**	**Pn**	**03**	**17**	**04.5**	**+1.4**
EZN				AML	AML					
SIMA	**Simav-Kutahya**	**2.11**	**53**	Pn	**Pn**	**Pn**	**03**	**17**	**05.1**	**+0.8**
SIMA				AML	AML					
CAME	**Cameli-Denizli**	**2.17**	**113**	Pn	**Pn**	**Pn**	**03**	**17**	**06.1**	**+0.9**
CANM	**Can-anakkale**	**2.19**	**5**	Pn	**Pb**	**Pb**	**03**	**17**	**06.9**	**-1.5**
DION	**Dionisos Attik**	**2.29**	**277**	P	**Pn**	**Pn**	**03**	**17**	**05.7**	**-1.1**

*IDC **01** 03:32:55.6±0.8, 5°.08S×102°.44E, h0km, mb4.6/21, mbtmp4.6/22, ML4.4/1, MS5.3/2, Error ellipse: s-maj=26.8km s-min=9.8km az=42.0*
*DJA **01** 03:32:58.0±0.2, 5°S±2°×10°2E±°, h10km, M4.8/45, mB5.3/14, mb4.9/19, MLv5.0/45, Mw(mB)4.8/14*

*NEIC **01** 03:32:59.6±1.3, 5°.22S±0°.06×102°.47E±0°.07, h26km±2km, mb4.8/36, Error ellipse: s-maj=10.1km s-min=7.8km az=121.0*
*GFZ **01** 03:33:01.5±0.2, 5°S±3°×10°2E±°, h43km, M4.8/24, mb4.8/24, confirmed*
ISC 01 03:33:01.2±0.4, 5°.22S±0°.06×102°.42E±0°.06, h44km, n170, σ1§34/163, mb4.8/71, 1D, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
					Op	ISC	h	m	s	ISC
MNAI	**Manna**	**1.01**	**32**			**Pn**	**03**	**33**	**18.1**	**-0.9**
MNAI					Sn	**Sn**	**03**	**33**	**30.2**	**-1.9**
MNAI	**Manna**	**1.01**	**32**	P		**Pn**	**03**	**33**	**18.2**	**-0.8**
MNAI				S		**Sn**	**03**	**33**	**32.2**	**+0.1**
MNAI				AML		AML				
MNAI	**Manna**	**1.01**	**32**	P		**Pn**	**03**	**33**	**18.2**	**-0.8**
UBSI	**University, Be**	**1.46**	**354**	P		**Pn**	**03**	**33**	**25.4**	**+0.3**
UBSI				AML		AML				
KSI	**Kapahiang**	**1.57**	**6**	P		**Pn**	**03**	**33**	**26.2**	**-0.5**
KSI				AML		AML				
LWLI	**Liwa**	**1.65**	**83**	P		**Pn**	**03**	**33**	**25.9**	**-1.9**
LWLI				S		**Sn**	**03**	**33**	**48.5**	**+0.6**
LWLI				AML		AML				
LHSI	**Lahat**	**1.77**	**39**	P		**Pn**	**03**	**33**	**29.0**	**-0.4**
MDSI	**Maura Dua**	**1.90**	**68**	P		**Pn**	**03**	**33**	**30.3**	**-0.9**
MDSI				AML		AML				
MASI	**Maura Aman, Be**	**2.07**	**355**	P		**Pn**	**03**	**33**	**33.9**	**+0.3**
MASI				AML		AML				
KASI	**Kota Agung**	**2.09**	**98**	P		**Pn**	**03**	**33**	**33.0**	**-0.8**
KASI				AML		AML				
KLI	**Kotabumi**	**2.46**	**82**	P		**Pn**	**03**	**33**	**38.7**	**-0.1**
KRJI	**Kerinci**	**3.25**	**343**	P		**Pn**	**03**	**33**	**51.4**	**+1.6**
PMBI	**Palembang**	**3.27**	**46**	P		**Pn**	**03**	**33**	**51.6**	**+1.6**
CGJI	**Cibinong**	**3.54**	**113**	P		**Pn**	**03**	**33**	**52.4**	**-1.3**
CGJI				AML		AML				
JMBI	**JAMBI**	**3.77**	**19**	P		**Pn**	**03**	**33**	**55.1**	**-1.8**
JMBI				AML		AML				
SBJI	**Serang**	**3.80**	**104**	P		**Pn**	**03**	**33**	**57.6**	**+0.3**
SBJI				AML		AML				
CBJI	**Citeko**	**4.57**	**105**	P		**Pn**	**03**	**34**	**10.4**	**+2.5**
CBJI				AML		AML				
PPBI	**Pangkal Pinang**	**4.80**	**51**	P		**Pn**	**03**	**34**	**11.3**	**+0.3**
CNJI	**Cibinong**	**5.12**	**114**	P		**Pn**	**03**	**34**	**13.0**	**-2.5**
	1.0nm4μm74nm,0.6s									
CNJI				AML		AML				
PPI	**Padang Panjang**	**5.14**	**337**	P		**Pn**	**03**	**34**	**16.3**	**+0.5**
	1.0nm2μm90nm,0.5s									
PPI				AML		AML				
DSRI	**Dabo**	**5.18**	**25**	P		**Pn**	**03**	**34**	**17.7**	**+1.4**
	0.7nm6μm118nm,0.5s									
DSRI				AML		AML				
LEM	**Lembang**	**5.41**	**107**	Pn		**Pn**	**03**	**34**	**20.9**	**+1.3**
	13nm,0.3s,baz=187,slow=12,SNR=8.0									
LEM				Sn		**Sn**	**03**	**35**	**22.8**	**+2.0**
	16nm,0.3s,baz=185,slow=20,SNR=3.5									
LEM				LR		LR	03	36	57.7	
	comp=Z,343nm,19.6s,baz=246,slow=44									
	40nm,0.4s									
LEM				AML		AML				
BBJI	**Bungbulang**	**5.66**	**113**			**Pn**	**03**	**34**	**21.0**	**-2.0**
BBJI	**Bungbulang**	**5.66**	**113**	P		**Pn**	**03**	**34**	**21.3**	**-1.6**
	38nm,0.4s									
BBJI	**Bungbulang**	**5.66**	**113**	P		**Pn**	**03**	**34**	**20.9**	**-2.0**

NJ2	**Nanjing**	**40.24**	**22**	*eP*	**P**		**03 40 35.9**	**+2.1**
NJ2				pmax	pmax			
	comp=Z,7.0nm,0.5s							
LYN	**LuoYang**	**40.68**	**13**	P	**P**		**03 40 37.2**	**-0.2**
LYN				sP	pwP		03 40 50.3	-0.8
LYN				pmax	pmax			
	comp=Z,31nm,0.7s							
GOMU	**GeErMu**	**41.81**	**351**	P	**P**		**03 40 48.2**	**+1.0**
GOMU				pP	pP		03 40 51.4	-7.5
GOMU				sP	pwP		03 40 55.4	-3.5
GOMU				pmax	pmax			
	comp=Z,5.0nm,0.5s							
MTSU	**Mount Surprise**	**42.87**	**111**	P	**P**		**03 40 55.6**	**-0.2**
	comp=Z,5.9nm,0.8s							
PMG	**Port Moresby**	**44.55**	**98**	P	**P**		**03 41 08.6**	**-0.7**
GTA2	**Gaotai**	**44.55**	**357**	*eP*	**P**		**03 41 08.9**	**-0.1**
GTA2				pmax	pmax			
	comp=Z,2.0nm,0.6s							
CTAO	**Charters Tower**	**45.09**	**113**	P	**P**		**03 41 13.4**	**0.0**
CTAO				IAmb	IAmb		03 41 14.3	
	comp=Z,6.7nm,0.8s							
CTAO	**Charters Tower**	**45.09**	**113**	P	**P**		**03 41 13.6**	**0.0**
	comp=Z,9.4nm,1.0s							
QLP	**Quilpie**	**45.18**	**123**	P	**P**		**03 41 15.2**	**+1.1**
	comp=Z,15nm,0.8s							
STKA	**Stephens Creek**	**45.23**	**131**	P	**P**		**03 41 15.2**	**+0.9**
	comp=Z,12nm,0.7s,baz=306,slow=7.2,SNR=30							
STKA				LR	LR		04 01 16.6	
	comp=Z,10µm,19.3s,baz=314,slow=38							
	comp=Z,12nm,0.7s							
STKA	**Stephens Creek**	**45.23**	**131**	P	**P**		**03 41 15.3**	**+0.9**
STKA	**Stephens Creek**	**45.23**	**131**	P	**P**		**03 41 15.4**	**+1.0**
	comp=Z,70nm,0.8s							
HHC	**Hu-ho-hao-te**	**46.61**	**10**	*eP*	**P**		**03 41 27.0**	**+1.8**
HHC				pmax	pmax			
	comp=Z,11nm,0.6s							
NIL	**Nilore**	**47.50**	**327**	P	**P**		**03 41 32.0**	**-0.2**
NIL				IAmb	IAmb		03 41 33.2	
	comp=Z,13nm,0.8s							
NIL	**Nilore**	**47.50**	**327**	P	**P**		**03 41 32.6**	**+0.4**
	comp=Z,14nm,0.6s							
CMSA	**Cobar Meteorol**	**48.23**	**128**	P	**P**		**03 41 39.2**	**+1.4**
	comp=Z,20nm,0.9s							
KSRS	**Korea Array**	**48.66**	**27**	P	**P**		**03 41 40.8**	**-0.2**
	comp=Z,2.7nm,0.5s,baz=228,slow=7.1,SNR=14							
	comp=Z,2.7nm,0.5s							
RMQ	**Roma**	**48.98**	**121**	P	**P**		**03 41 42.7**	**-1.1**
	comp=Z,16nm,0.7s							
JCJ	**Chichijima**	**50.10**	**48**	LR	LR		04 02 18.2	
	comp=Z,1µm,20.9s,baz=159,slow=35							
WMQ	**Urumqi**	**50.59**	**346**	*eP*	**P**		**03 41 57.2**	**+1.5**
WMQ				pP	pP		03 42 04.0	-3.6
WMQ				pmax	pmax			
	comp=Z,38nm,0.7s							
KSH2	**Kashi**	**50.65**	**333**	P	**P**		**03 41 56.5**	**+0.2**
KSH2				pP	pP		03 42 00.4	-7.9
KSH2				pmax	pmax			
	comp=Z,8.0nm,0.7s							
EIDS	**Eidsvold**	**50.69**	**119**	P	**P**		**03 41 56.8**	**+0.1**
EIDS				IAmb	IAmb		03 43 25.9	
	comp=Z,19nm,1.5s							
WUS	**Wushi**	**50.84**	**337**	IAmb	IAmb		03 42 11.8	
	comp=Z,9.4nm,0.7s							
WUS	**Wushi**	**50.84**	**337**	P	**P**		**03 41 58.5**	**+0.7**
	comp=Z,13nm,0.8s							
WUS				pP	**pP**		**03 42 11.1**	**+1.4**
ASAI	**AK-SAY(Kyrgyzs**	**51.69**	**335**	P	**P**		**03 42 04.5**	**+0.2**
	comp=Z,6.6nm,1.7s							
ASAI				pP	**pP**		**03 42 17.7**	**+1.4**
NRN	**Naryn**	**52.33**	**335**	IAmb	IAmb		03 42 10.4	
	comp=Z,15nm,1.5s							
SHLS	**Shalkode**	**52.45**	**339**	*eP*	**P**		**03 42 09.4**	**-0.3**
	comp=Z,4.0nm,0.4s							
PDGK	**Podgornoye**	**52.59**	**339**	P	**P**		**03 42 11.4**	**+0.7**
UZB	**Uzynbulak**	**52.60**	**339**	*eP*	**P**		**03 42 11.6**	**+0.7**
	comp=Z,4.0nm,0.4s							
DRK	**Karamyk**	**52.69**	**330**	IAmb	IAmb		03 42 27.1	
	comp=Z,8.6nm,0.7s							
SONM	**Songino Array**	**52.95**	**3**	P	**P**		**03 42 13.2**	**-0.1**
	comp=Z,14nm,0.7s,baz=183,slow=10,SNR=43							
SONM				PcP	**PcP**		**03 43 21.9**	**+0.2**
	comp=Z,1.2nm,0.4s,baz=197,slow=3.4,SNR=4.2							
	comp=Z,14nm,0.7s							
SONM	**Songino Array**	**52.95**	**3**	P	**P**		**03 42 13.8**	**+0.5**
KPKS	**Kokpek**	**53.00**	**338**	*eP*	**P**		**03 42 14.4**	**+0.7**
ULN	**Ulaanbaatar**	**53.02**	**4**	P	**P**		**03 42 15.0**	**+1.2**
	comp=Z,12nm,1.1s							
CN2	**Changchun**	**53.04**	**21**	P	**P**		**03 42 12.5**	**-1.4**
CN2				pmax	pmax			
	comp=Z,10.0nm,0.6s							
TNSS	**Tian-Shan**	**53.29**	**337**	*eP*	**P**		**03 42 16.6**	**+0.3**
MJAR	**Matsushiro Arr**	**53.35**	**36**	P	**P**		**03 42 14.3**	**-2.0**
	comp=Z,1.8nm,0.7s,baz=220,slow=7.3,SNR=7.8							
	comp=Z,1.8nm,0.7s							
MJAR	**Matsushiro Arr**	**53.35**	**36**	P	**P**		**03 42 15.0**	**-1.3**
MJAR				IAmb	IAmb		03 43 54.5	
	comp=Z,18nm,1.9s							
MDOK	**Medeo**	**53.36**	**337**	*eP*	**P**		**03 42 17.1**	**+0.7**
AAA	**Alma-Ata**	**53.45**	**337**	*eP*	**P**		**03 42 17.9**	**+0.9**
	comp=Z,6.7nm,0.6s							
BTK	**Batken**	**53.62**	**330**	IAmb	IAmb		03 42 20.7	
	comp=Z,13nm,1.4s							
BTK	**Batken**	**53.62**	**330**	P	**P**		**03 42 19.0**	**+0.7**
	comp=Z,6.5nm,0.7s							
AAK	**Ala-Archa**	**53.96**	**335**	P	**P**		**03 42 21.0**	**+0.1**
AAK	**Ala-Archa**	**53.96**	**335**	P	**P**		**03 42 21.6**	**+0.8**
	comp=Z,4.4nm,1.1s							
AAK				pP	**pP**		**03 42 34.2**	**+1.3**
TDK	**Taldyqorghan**	**54.43**	**339**	*eP*	**P**		**03 42 24.8**	**+0.8**
ZSN	**Zaisan**	**54.68**	**345**	*eP*	**P**		**03 42 26.8**	**+0.9**
	comp=Z,5.2nm,0.7s							
MKAR	**Makanchi Array**	**54.77**	**343**	P	**P**		**03 42 26.8**	**+0.3**
	comp=Z,8.1nm,0.4s,baz=150,slow=9.1,SNR=104							
	comp=Z,8.1nm,0.4s							
MKAR	**Makanchi Array**	**54.77**	**343**	P	**P**		**03 42 26.6**	**+0.1**
BNX	**BinXian**	**55.41**	**21**	||P	**P**		**03 42 31.0**	**-0.1**
BNX				pmax	pmax			
	comp=Z,28nm,0.9s							
DZA	**Taraz**	**55.56**	**333**	*eP*	**P**		**03 42 33.1**	**+0.7**
IUG	**luzhnay**	**55.60**	**331**	*eP*	**P**		**03 42 33.5**	**+0.8**
USRK	**Ussuriysk Ar.**	**55.93**	**25**	P	**P**		**03 42 34.1**	**-0.7**
	comp=Z,7.1nm,0.7s,baz=217,slow=5.3,SNR=11							
	comp=Z,7.1nm,0.7s							
CHM	**Chimkent**	**55.93**	**331**	*eP*	**P**		**03 42 35.9**	**+1.0**
BTLS	**Baital**	**56.11**	**336**	*eP*	**P**		**03 42 37.2**	**+1.0**
HILR	**Hailar Array B**	**56.60**	**13**	P	**P**		**03 42 39.5**	**-0.1**
	comp=Z,3.5nm,0.5s,baz=190,slow=11,SNR=3.7							
	comp=Z,3.5nm,0.5s							
KURBB	**Kurchatov Arra**	**59.31**	**343**	P	**P**		**03 42 58.3**	**-0.2**
	comp=Z,3.1nm,0.6s,baz=160,slow=6.6,SNR=22							
	comp=Z,3.1nm,0.6s							
HEH	**HeiHe**	**59.33**	**18**	*eP*	**P**		**03 42 57.8**	**-0.8**
HEH				pmax	pmax			
	comp=Z,11nm,1.1s							
KURK	**Kurchatov**	**59.37**	**343**	P	**P**		**03 42 59.1**	**+0.2**
KURK				IAmb	IAmb		03 43 12.3	
	comp=Z,6.6nm,0.8s							
KURK	**Kurchatov**	**59.37**	**343**	P	**P**		**03 42 58.9**	**0.0**
	comp=Z,9.0nm,1.0s							
KURK				pP	**pP**		**03 43 11.5**	**+0.5**
H04N2	**CROZET ISLANDS**	**59.72**	**218**	T	T		04 47 27.1	
	baz=64,slow=75,SNR=125							
H04N1	**CROZET ISLANDS**	**59.73**	**218**	T	T		04 47 27.5	
	baz=64,slow=75,SNR=127							
H04N3	**CROZET ISLANDS**	**59.74**	**218**	T	T		04 47 26.3	
	baz=64,slow=75,SNR=130							
H04S1	**CROZET ISLANDS**	**59.96**	**218**	T	T		04 47 37.2	
	baz=61,slow=75,SNR=11							
H04S3	**CROZET ISLANDS**	**59.98**	**218**	T	T		04 47 40.7	
	baz=61,slow=75,SNR=21							
H04S2	**CROZET ISLANDS**	**59.98**	**218**	T	T		04 47 40.1	
	baz=61,slow=75,SNR=11							
ZALV	**Zalesovo Beam**	**60.77**	**348**	P	**P**		**03 43 08.1**	**-0.3**
	comp=Z,16nm,0.4s,baz=158,slow=5.6,SNR=60							
	comp=Z,16nm,0.4s							
ZALV	**Zalesovo Beam**	**60.77**	**348**	P	**P**		**03 43 08.0**	**-0.5**
BVAR	**Borovoye Array**	**64.03**	**339**	P	**P**		**03 43 30.1**	**-0.1**
	comp=Z,8.7nm,0.5s,baz=144,slow=8.5,SNR=38							
	comp=Z,8.7nm,0.5s							
BORK	**Borovoye**	**64.07**	**339**	P	**P**		**03 43 30.3**	**-0.2**
AB31	**Akbulak array**	**65.61**	**331**	IAmb	IAmb		03 43 55.1	
	comp=Z,10nm,0.8s							
ABKAR	**Akbulak array**	**65.61**	**331**	P	**P**		**03 43 40.5**	**-0.1**
YAK	**Yakutsk**	**70.27**	**13**	P	**P**		**03 44 08.3**	**-1.3**
YAK	**Yakutsk**	**70.27**	**13**	P	**P**		**03 44 08.3**	**-1.3**
	comp=Z,37nm,1.0s							
YAK				pP	**pP**		**03 44 21.4**	**-0.6**

ARTI	**Arti**	**71.15**	**336**	P	**P**		**03 44 15.4**	**+0.3**
KBZ	**Khabaz**	**72.30**	**319**	P	**P**		**03 44 22.9**	**+0.6**
	comp=Z,4.5nm,0.8s,baz=101,slow=4.2,SNR=8.9							
	comp=Z,4.5nm,0.8s							
NRIK	**Noril'sk**	**75.10**	**355**	P	**P**		**03 44 37.3**	**-0.9**
	comp=Z,2.2nm,0.5s,baz=168,slow=6.3,SNR=4.2							
	comp=Z,2.2nm,0.5s							
NRIK	**Noril'sk**	**75.10**	**355**	IAmb	IAmb		03 44 38.6	
	comp=Z,9.4nm,1.1s							
BRTR	**Keskin Array B**	**77.26**	**313**	P	**P**		**03 44 51.7**	**+0.4**
	comp=Z,2.4nm,0.9s,baz=131,slow=8.4,SNR=11							
	comp=Z,2.4nm,0.9s							
TIXI	**Tiksi**	**78.66**	**8**	P	**P**		**03 44 56.9**	**-1.3**
TIXI				IAmb	IAmb		03 44 57.4	
	comp=Z,7.0nm,0.8s							
TIXI	**Tiksi**	**78.66**	**8**	P	**P**		**03 44 56.8**	**-1.4**
	comp=Z,11nm,1.1s							
AKASG	**Malin Array Be**	**83.49**	**322**	P	**P**		**03 45 24.8**	**+0.4**
	comp=Z,1.3nm,0.6s,baz=94,slow=4.4,SNR=6.5							
	comp=Z,1.3nm,0.6s							
MLR	**Muntele Rosu**	**84.28**	**317**	P	**P**		**03 45 30.3**	**+1.6**
	comp=Z,7.4nm,1.3s							
BURAR	**Bucovina Array**	**85.25**	**319**	P	**P**		**03 45 35.4**	**+1.9**
BURAR				IAmb	IAmb		03 45 36.3	
	comp=Z,3.4nm,0.7s							
BUR08	**Bucovina Ar. S**	**85.27**	**319**	P	**P**		**03 45 35.6**	**+2.0**
BUR08				IAmb	IAmb		03 45 36.8	
	comp=Z,5.5nm,1.1s							
TRPA	**Tarpa**	**87.12**	**319**	P	**P**		**03 45 43.9**	**+1.4**
	comp=Z,3.9nm,1.7s							
KOLS	**Kolonicke sedl**	**87.45**	**319**	*eP*	**P**		**03 45 46.6**	**+2.5**
KOLS	**Kolonicke sedl**	**87.45**	**319**	P	**P**		**03 45 46.7**	**+2.6**
	comp=Z,10nm,0.9s							
FINES	**FINESS Array B**	**88.06**	**332**	P	**P**		**03 45 47.6**	**+0.8**
	comp=Z,2.9nm,0.7s,baz=108,slow=5.1,SNR=20							
	comp=Z,2.9nm,0.7s							
ARCES	**ARCESS Array B**	**90.30**	**340**	P	**P**		**03 45 57.6**	**+0.5**
	comp=Z,3.2nm,1.0s,baz=108,slow=2.7,SNR=5.7							
	comp=Z,3.2nm,1.0s							
GERES	**GERESS Array B**	**93.04**	**319**	P	**P**		**03 46 11.0**	**+0.6**
	comp=Z,0.4nm,0.6s,baz=107,slow=4.5,SNR=5.1							
	comp=Z,0.4nm,0.6s							
NVAR	**Mina Array Bea**	**130.45**	**42**	PKP	**PKiKP**		**03 52 09.2**	**+0.5**
	comp=Z,0.3nm,0.6s,baz=311,slow=1.3,SNR=4.1							
PDAR	**Pinedale Array**	**133.10**	**32**	PKP	**PKPdf**		**03 52 12.8**	**+0.1**
	comp=Z,0.2nm,0.6s,baz=299,slow=2.9,SNR=2.7							
TXAR	**Lajitas Array**	**145.60**	**43**	PKPbc	**PKPab**		**03 52 36.4**	**+0.2**
	comp=Z,6.5nm,0.5s,baz=274,slow=1.1,SNR=65							

*AFAD **01** 03:40:53.5,37.85N×26.80E,h7km±2km,ML2.5*
*ISK **01** 03:40:53.4,37.84N×26.82E,h2km,ML2.6/16*
ISC 01 03:40:54.0±1.1,37.85N±0.03×26.82E±0.04,h12km±10km, n27,σ0.963/35,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.21**	**15**	P	**Pg**	**03 40 58.3**	**-0.2**
GMLD	**Gumuldur**	**0.24**	**19**	Pg	**Pg**	**03 40 59.0**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.36**	**114**	P	**Pg**	**03 41 00.9**	**-0.3**
GCAM				S	**Sg**	**03 41 06.7**	**+0.6**
GCAM				IAML		03 41 07.0	
	comp=N,680nm,0.3s						
GCAM	**G?zelcaml?**	**0.36**	**114**	Pg	**Pg**	**03 41 01.4**	**+0.2**
GCAM				Sg	**Sb**	**03 41 07.1**	**-0.9**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**88**	Pg	**Pg**	**03 41 01.3**	**-0.1**
KUSD				Sg	**Sb**	**03 41 07.4**	**-0.9**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**13**	P	**Pg**	**03 41 01.3**	**-0.4**
BEYE				S	**Sg**	**03 41 07.0**	**+0.1**
BEYE				IAML		03 41 09.0	
	comp=N,358nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**328**	P	**Pg**	**03 41 02.9**	**-0.2**
ZEYE				S	**Sg**	**03 41 08.9**	**-0.2**
ZEYE				IAML		03 41 11.0	
	comp=N,770nm,0.4s						
DDIM	**Aydin, Didim**	**0.52**	**139**	P	**Pb**	**03 41 04.4**	**-0.6**
DDIM				S	**Sg**	**03 41 11.2**	**+0.3**
DDIM				IAML		03 41 15.0	
	comp=N,244nm,0.4s						
BLCB	**Balcova**	**0.56**	**18**	Pg	**Pg**	**03 41 05.1**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.62**	**53**	P	**Pb**	**03 41 06.7**	**-0.1**
CESE	**eme**	**0.63**	**320**	Pg	**Pb**	**03 41 06.9**	**0.0**
CESE				AML	AML		
KRBN	**Karaburun**	**0.77**	**345**	Pg	**Pb**	**03 41 09.0**	**-0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.81**	**2**	P	**Pg**	**03 41 08.8**	**-0.7**
CHOS	**Chios island**	**0.81**	**312**	Pg	**Pb**	**03 41 10.1**	**+0.1**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.86**	**83**	Pg	**Pb**	**03 41 10.7**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.86**	**102**	P	**Pb**	**03 41 10.8**	**-0.2**
AYDN				S	**Sb**	**03 41 22.7**	**+0.2**
AYDN				IAML		03 41 25.0	
	comp=E,76nm,0.3s						
FOCM	**Foa**	**0.86**	**356**	Pg	**Pb**	**03 41 11.0**	**+0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.87**	**339**	P	**Pg**	**03 41 09.3**	**-1.6**
BODT	**Bodrum**	**0.88**	**153**	Pg	**Pb**	**03 41 10.9**	**-0.3**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.94**	**72**	P	**Pg**	**03 41 11.1**	**-1.0**
MLSB	**Milas**	**0.94**	**126**	Pg	**Pb**	**03 41 12.3**	**0.0**
MLSB				AML	AML		
CAMT	**Merkez**	**0.98**	**23**	P	**Pg**	**03 41 12.5**	**-0.4**
CAMT				S	**Sg**	**03 41 24.8**	**-0.8**
CAMT				IAML		03 41 28.0	
	comp=N,336nm,0.3s						
CAMT				IAML		03 41 28.0	
	comp=E,331nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.17**	**84**	Pn	**Pg**	**03 41 15.6**	**-0.9**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**45**	Pn	**Pn**	**03 41 18.0**	**+1.2**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**3**	Pn	**Pn**	**03 41 18.1**	**+1.2**
DKL				AML	AML		
SOMA	**Soma-Manisa**	**1.42**	**23**	Pn	**Pg**	**03 41 21.6**	**+0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**45**	Pn	**Pg**	**03 41 22.4**	**-0.5**
GORD				AML	AML		

*MOS **01** 03:43:17.7±0.9,7.01S×129.18E,h176km,mb5.7/66,Error ellipse: s-maj=7.5km s-min=4.4km az=115.4*
*BJI **01** 03:43:17.3,7.16S×129.42E,h192km,mB5.5/47,mb5.5/92*
*IPGP **01** 03:43:20.0,7.06S×129.25E,h189km,Mw5.8,Fault plane solution: NP1:φs44.00000°,δ55.00000°,λ58.00000°. NP2:φs271.00000°,δ46.00000°,λ127.00000°.*
*GFZ **01** 03:43:20.9,7.10S×129.23E,h185km,Mw5.7/155, Moment Tensor Solution. Moment tensor: Scale 10^17Nm; Mrr3.24; Mθθ-4.44; Mφφ 1.20; Mrθ0.70; Mrφ-2.11; Mθφ2.39; Fault plane solution: Mo5.14491×10^17 NP1:φs42.37843°, δ62.92995°,λ51.81070°. NP2:φs282.32797°,δ45.58344°, λ140.42224°. Principal axes: T 4.8581, Plg54.7531°, Azm263.1307°; N 0.5322, Plg33.4035°, Azm62.0745°; P -5.3903, Plg9.9677°, Azm158.7299°;*
*IDC **01** 03:43:20.6±0.8,7.10S×129.10E,h189km±6km,mb5.3/31, mbtmp5.8/35,MS4.7/28 Error ellipse: s-maj=9.7km s-min=6.3km az=85.0*
*NEIC **01** 03:43:20.3,7.07S×129.24E,h180km*
*NEIC **01** 03:43:20.6,7.08S×129.25E,h182km*
*PTWC **01** 03:43:20,7.30S×129.30E,h176km,Mwp5.8/6*
*DJA **01** 03:43:20.8±0.1,7°S±1°×12°9E±1°,h206km±2km,M5.7/199, mB6.2/176,mb6.0/199,MLv6.7/25,Mw5.8/181, Mw(mB)5.9/176,MwMwp5.5/117,Mwp5.6/117*
*NEIC **01** 03:43:20.3±2.2,7.07S±0.02×129.24E±0.06,h182km±1km, mb5.6/328,Mwb5.8/39,Mww5.7/40,Error ellipse: s-maj=9.9km s-min=3.1km az=75.0,Moment Tensor Solution. Moment tensor: Scale 10^17Nm; Mrr5.16; Mθθ-6.15; Mφφ 0.99; Mrθ-0.81; Mrφ-3.09; Mθφ1.99; Fault plane solution: Mo6.85000×10^17 NP1:φs274.32000°, δ51.45000°,λ126.18000°. NP2:φs44.76000°,δ50.86000°, λ53.47000°. Principal axes: T 6.2756, Plg63.0000°, Azm249.0000°; N 1.0235, Plg27.0000°, Azm70.0000°; P -7.2991, Plg0.0000°, Azm340.0000°;*
*GFZ **01** 03:43:21.2±0.3,7°S±2°×12°9E±1°,h198km±3km,M5.7/38, mb5.9/38*

*GCMT **01** 03:43:22.3±0.1,7.16S±0.01×129.27E±0.01,h192km, MW5.8/168,Moment Tensor Solution. s160,c331; s168,c386; Duration: 2s0 Moment tensor: Scale 10^17 Nm; Mrr4.86±.05; Mθθ-5.94±.06; Mφφ1.08±.06; Mrθ0.35±.05; Mθφ-3.43±.06; Mrφ3.28±.05; Best double couple: Mo7.23800×10^17 NP1:φs277.00000°,δ47.00000°, λ137.00000°. NP2:φs39.00000°,δ60.00000°,λ52.00000°. Principal axes: T 6.9280, Plg56.0000°, Azm257.0000°; N 0.6200, Plg32.0000°, Azm61.0000°; P -7.5480, Plg8.0000°, Azm156.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **01** 03:43:23.1,7.28S×129.35E,h190km,Moment Tensor Solution. Duration: 3s6 Moment tensor: Scale 10^17Nm; Mrr3.60; Mθθ-3.31; Mφφ-0.28; Mrθ0.51; Mrφ-2.47; Mθφ2.82; Fault plane solution: Mo5.13000×10^17 NP1: φs266.70000°,δ39.60000°,λ134.57000°. NP2: φs34.73000°,δ62.99000°,λ59.87000°. Principal axes: T 5.1475, Plg60.0000°, Azm260.0000°; N -0.0336, Plg27.0000°, Azm50.0000°; P -5.1139, Plg13.0000°, Azm146.0000°;*
ISC 01 03:43:20.5±0.2,7.06S±0.02×129.21E±0.03,h194km±1km, h195km:pP-P,n1361,σ1.962/1526,mb5.6/322,67C-30D, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**2.27**	**114**		**Pn**	**03 44 01.2**	**-0.1**
SAUI	**Saumlaki**	**2.27**	**114**	P	**Pn**	**03 44 01.3**	**-0.1**
SAUI	**Saumlaki**	**2.27**	**114**	P	**Pn**	**03 44 00.7**	**-0.7**
SAUI				AML	AML		
SAUI	**Saumlaki**	**2.27**	**114**	P	**Pn**	**03 44 01.4**	**-0.1**
BNDI	**Bandanaira**	**2.62**	**15**	P	**Pn**	**03 44 07.7**	**+2.3**
BNDI				AML	AML		
BNDI	**Bandanaira**	**2.62**	**15**	P	**Pn**	**03 44 07.9**	**+2.5**
MSAI	**Masohi**	**3.70**	**356**	P	**Pn**	**03 44 20.9**	**+2.5**
MSAI				AML	AML		
NLAI	**Namlea**	**4.34**	**331**	P	**Pn**	**03 44 30.4**	**+4.0**
NLAI				AML	AML		
FAKI	**Fak Fak**	**5.11**	**37**		**Pn**	**03 44 34.4**	**-1.8**
FAKI	**Fak Fak**	**5.11**	**37**	P	**Pn**	**03 44 34.6**	**-1.6**
FAKI	**Fak Fak**	**5.11**	**37**	P	**Pn**	**03 44 34.8**	**-1.4**
FAKI				AML	AML		
FAKI	**Fak Fak**	**5.11**	**37**	P	**Pn**	**03 44 34.7**	**-1.6**
	comp=Z,12µm,0.6s						
SOEI	**Soe**	**5.57**	**241**	P	**Pn**	**03 44 42.7**	**+0.4**
SOEI	**Soe**	**5.57**	**241**		**Pn**	**03 44 42.4**	**+0.1**
SOEI	**Soe**	**5.57**	**241**	P	**Pn**	**03 44 42.3**	**+0.1**
SOEI	**Soe**	**5.57**	**241**	P	**Pn**	**03 44 42.4**	**+0.1**
SOEI				AML	AML		
SOEI	**Soe**	**5.57**	**241**	P	**Pn**	**03 44 42.4**	**+0.1**
	comp=Z,16µm,0.9s						
DRS	**Darwin Rock St**	**5.59**	**163**	S	**Sn**	**03 45 42.1**	**-4.9**
DRS	**Darwin Rock St**	**5.59**	**163**	P	**Pn**	**03 44 40.0**	**-2.4**
KMPI	**Kaimana, Papua**	**5.61**	**53**	P	**Pn**	**03 44 41.9**	**-0.7**
SANI	**Sanana**	**5.92**	**327**	P	**Pn**	**03 44 50.2**	**+3.5**
SANI	**Sanana**	**5.92**	**327**	P	**Pn**	**03 44 49.5**	**+2.8**
	comp=Z,47nmcomp=Z,12µm,1.4s						
SANI				AML	AML		
SANI	**Sanana**	**5.92**	**327**	P	**Pn**	**03 44 50.0**	**+3.3**
	comp=Z,12µm,1.4s						
MTN	**Manton Dam**	**6.05**	**162**	P	**Pn**	**03 44 46.2**	**-2.1**
	comp=Z,4µm,0.4s,comp=Z,0.0nm						
MTN	**Manton Dam**	**6.05**	**162**	P	**Pn**	**03 44 46.4**	**-1.9**
MTN				S	**Sn**	**03 45 50.6**	**-7.2**
MTN				S		03 45 51.3	
MTN	**Manton Dam**	**6.05**	**162**	P	**Pn**	**03 44 46.3**	**-2.1**
MTN	**Manton Dam**	**6.05**	**162**	P	**Pn**	**03 44 46.4**	**-1.9**
MTN				S	**Sn**	**03 45 50.6**	**-7.2**
BATI	**Baumata**	**6.31**	**240**	P	**Pn**	**03 44 51.6**	**-0.1**
	comp=Z,12µm,1.0s,baz=114,slow=2.0,SNR=653						
BATI				S	**Sn**	**03 46 00.5**	**-3.4**
	comp=Z,12µm,0.6s,baz=108,slow=23,SNR=12						
BATI	**Baumata**	**6.31**	**240**	P	**Pn**	**03 44 51.3**	**-0.4**
BATI				AML	AML		
KDU	**Kakadu**	**6.45**	**150**	P	**Pn**	**03 44 51.3**	**-2.2**
SIJI	**Sorong**	**6.49**	**19**	P	**Pn**	**03 44 53.1**	**-1.0**
	comp=Z,818nm,0.3s,baz=203,slow=10.0,SNR=510						
SIJI				S	**Sn**	**03 46 03.3**	**-4.8**
	comp=Z,2µm,0.5s,baz=270,slow=7.1,SNR=4.7						
SIJI				LR	LR	03 47 39.5	
	comp=Z,19µm,19.1s,baz=192,slow=40						
SIJI	**Sorong**	**6.49**	**19**	P	**Pn**	**03 44 52.8**	**-1.3**
	comp=Z,39nmcomp=Z,16µmcomp=Z,1µm,0.6s						
SIJI				AML	AML		
BBSI	**Bau Bau**	**6.78**	**283**	P	**Pn**	**03 45 00.7**	**+2.8**
	comp=Z,14nmcomp=Z,22µmcomp=Z,40µmcomp=Z,5µm,1.0s						
BBSI				AML	AML		
MMRI	**Maumere**	**7.08**	**257**		**Pn**	**03 45 02.0**	**+0.2**
MMRI	**Maumere**	**7.08**	**257**	P	**Pn**	**03 45 02.2**	**+0.5**
MMRI	**Maumere**	**7.08**	**257**	P	**Pn**	**03 45 02.3**	**+0.5**
MM

	comp=Z,12µcomcomp=Z,1µm,0.6s								
GENI	Genyem	11.79	68	P		Pn	03 46 03.6	+0.7	
	comp=Z,1µm,1.1s								
JAY	Jayapura	12.31	69	P		Pn	03 46 08.2	-1.5	
	comp=Z,283nm,1.1s,baz=209,slow=5.0,SNR=28								
JAY	Jayapura	12.31	69	P		Pn	03 46 08.5	-1.2	
JAY	Jayapura	12.31	69	P		Pn	03 46 10.1	+0.4	
TWSI	Taliwang, Sumb	12.32	261	P		Pn	03 46 07.1	-2.6	
	comp=Z,22µcomcomp=Z,3µm,0.9s								
KHKI	Kahang-Kahang	13.54	264	P		Pn	03 46 23.6	-1.4	
	comp=Z,7µcomcomp=Z,700nm,0.7s								
BKB	Balikpapan	13.56	295	P		P	03 46 31.0	+3.2	
BKB	Balikpapan	13.56	295	P		P	03 46 29.9	+2.0	
	comp=Z,35µcomcomp=Z,1µm,0.7s								
BKB	Balikpapan	13.56	295	P		P	03 46 31.4	+3.5	
	comp=Z,1µm,0.8s								
SMKI	Samarinda	13.65	298	P		P	03 46 31.0	+2.1	
	comp=Z,19µcomcomp=Z,44µcomcomp=Z,4µm,1.3s								
I07AU	WARRAMUNGA INT	13.73	159	P		Pn	03 46 26.1	-1.2	
	baz=326,slow=12,SNR=1.5								
WRAB	Tennant Creek	13.73	159	*d i*	P	Pn	03 46 22.8	-4.6	
WRAB	Tennant Creek	13.73	159		P	Pn	03 46 22.9	-4.5	
WRAB	Tennant Creek	13.73	159		P	Pn	03 46 23.0	-4.5	
	comp=Z,2µm,0.9s								
WRA	Warramunga Arr	13.74	159		P	Pn	03 46 23.6	-3.9	
	comp=Z,308nm,0.4s,baz=337,slow=12,SNR=364								
WRA					S	Sn	03 48 46.7	-14	
	comp=Z,588nm,1.1s,baz=336,slow=21,SNR=8.2								
WRA					P3KPbc		04 22 12.2		
	comp=Z,1.7nm,0.9s,baz=147,slow=4.3,SNR=8.7								
WRA	Warramunga Arr	13.74	159		P	Pn	03 46 22.9	-4.6	
WR8	Warramunga Arr	13.81	159		P	Pn	03 46 23.6	-4.7	
SRBI	Singaraja	13.91	265		P	Pn	03 46 28.1	-1.5	
	comp=Z,9µcomcomp=Z,690nm,0.8s								
DNP	Denpasar	13.96	262		P	Pn	03 46 30.7	+0.5	
	comp=Z,89µcomcomp=Z,2µm,0.6s								
IGBI	Denpasar	14.04	262		P	Pn	03 46 28.4	-2.8	
	comp=Z,23µcomcomp=Z,2µm,0.7s								
DAV	Davao City (W)	14.50	345		P	Pn	03 46 36.9	0.0	
	comp=Z,191nm,0.4s,baz=79,slow=2.4,SNR=19								
DAV					LR	LR	03 52 28.5		
	comp=Z,5µm,20.7s,baz=124,slow=38								
DAV	Davao City (W)	14.50	345		P	Pn	03 46 37.0	+0.1	
DAV	Davao City (W)	14.50	345		P	Pn	03 46 37.5	+0.6	
DAV	Davao City (W)	14.50	345		P	P	03 46 40.2	+1.9	
	comp=Z,15µcomcomp=Z,36µcomcomp=Z,2µm,1.7s								
DAV	Davao City (W)	14.50	345		P	P	03 46 40.6	+2.3	
DAV	Davao City (W)	14.50	345		P	P	03 46 39.7	+1.4	
	comp=Z,2µm,1.7s								
BBKI	Banjar Baru	14.74	283		P	P	03 46 44.2	+3.1	
BYJI	Banyuwangi	14.77	265		P	Pn	03 46 38.4	-1.8	
	comp=Z,10µcomcomp=Z,19µcomcomp=Z,2µm,0.9s								
ABJI	Asem Bagus	14.87	266		P	Pn	03 46 40.5	-0.9	
	comp=Z,12µcomcomp=Z,833nm,1.0s								
JAGI	Jajag, Banyuwa	14.98	264		P	Pn	03 46 38.3	-4.6	
JAGI	Jajag, Banyuwa	14.98	264		P	Pn	03 46 39.5	-3.4	
	comp=Z,6µcomcomp=Z,12µcomcomp=Z,684nm,0.8s								
JAGI	Jajag, Banyuwa	14.98	264		P	Pn	03 46 39.9	-3.0	
	comp=Z,696nm,0.9s								
KMMI	Kalianget	15.13	269		P	P	03 46 46.9	+1.6	
	comp=Z,17µcomcomp=Z,23µcomcomp=Z,2µm,1.2s								
BLJI	Banyuglugur	15.50	267		P	Pn	03 46 48.5	-0.6	
	comp=Z,12µcomcomp=Z,1µm,0.9s								
TARAI	Tarakan	15.54	311		P	P	03 46 52.3	+2.5	
	comp=Z,15µcomcomp=Z,35µcomcomp=Z,3µm,1.3s								
PKKI	Palangkaraya	15.92	287		P	Pn	03 46 55.9	+1.6	
BWJI	Bawean	16.49	273		P	Pn	03 47 02.2	+1.1	
	comp=Z,35µcomcomp=Z,4µm,1.2s								
GRJI	Gresik	16.61	269		P	Pn	03 47 03.1	+0.6	
MBWA	Marble Bar	16.75	212		P	P	03 47 02.6	-0.4	
	comp=Z,1µm,1.3s,comp=Z,0.0nm								
MBWA	Marble Bar	16.75	212		P	P	03 47 02.7	-0.4	
MBWA	Marble Bar	16.75	212		S	S	03 50 09.3	+1.3	
MBWA	Marble Bar	16.75	212		P	P	03 46 58.8	-4.2	
MBWA	Marble Bar	16.75	212		P	P	03 47 02.5	-0.4	
MBWA	Marble Bar	16.75	212		P	P	03 47 02.6	-0.4	
MBWA	Marble Bar	16.75	212		P	P	03 47 02.7	-0.4	
	comp=Z,1µm,1.3s								
QIS	Mount Isa	16.78	144		P	P	03 47 02.9	-0.6	
	comp=Z,2µm,0.8s,comp=Z,0.0nm								
QIS	Mount Isa	16.78	144		P	P	03 47 03.2	-0.2	
QIS	Mount Isa	16.78	144		P	P	03 47 02.8	-0.6	
	comp=Z,2µm,0.8s								
AS15	Alice Springs	17.09	165		P	P	03 47 07.1	+0.3	
	comp=Z,4µm,0.8s								
AS31	Alice Springs	17.11	165		P	P	03 47 07.5	+0.3	
	comp=Z,15µm,1.0s,comp=Z,0.0nm								
AS31	Alice Springs	17.11	165		P	P	03 47 07.2	+0.1	
ASAR	Alice Springs	17.11	165		P	P	03 47 07.3	+0.2	
	comp=Z,3µm,0.6s,baz=338,slow=9.5,SNR=2110								
ASAR					S	S	03 50 11.8	-3.8	
	comp=Z,352nm,0.9s,baz=342,slow=20,SNR=9.1								
ASAR					ScP	ScP	03 54 57.8	-0.2	
	comp=Z,54nm,0.5s,baz=6.7,slow=2.0,SNR=4.9								
ASAR					P3KPbc		04 21 56.4		
	comp=Z,1.8nm,0.8s,baz=155,slow=4.1,SNR=12								
ASAR	Alice Springs	17.11	165		P	P	03 47 07.1	0.0	
AS01	Alice Springs	17.12	165		P	P	03 47 07.2	0.0	
	comp=Z,5µm,0.7s								
AS01	Alice Springs	17.12	165		P	P	03 47 07.2	0.0	
AUALC	St Philip's Co	17.13	165		P	P	03 47 07.0	-0.3	
	comp=Z,5µm,1.1s								
AS17	Alice Springs	17.14	165		P	P	03 47 07.6	+0.2	
	comp=Z,4µm,0.7s								
AS09	Alice Springs	17.16	165		P	P	03 47 07.8	+0.2	
	comp=Z,5µm,0.7s								
PWJI	Pagerwojo	17.28	266		P	P	03 47 09.2	+0.2	
	comp=Z,9µcomcomp=Z,16µcomcomp=Z,2µm,0.6s								
SJI	Sawahan	17.31	267		P	Pn	03 47 10.7	-0.2	
SNJI	Sawahan-Nganju	17.32	267		P	P	03 47 10.0	+0.4	
	comp=Z,8µcomcomp=Z,26µcomcomp=Z,3µm,0.6s								
NGJI	Ngawi	17.61	268		P	Pn	03 47 14.8	+0.4	
	comp=Z,25µcomcomp=Z,3µm,0.9s								
WRKA	Warakurna	17.89	183		P	P	03 47 15.7	+0.1	
	comp=Z,457nm,0.8s,comp=Z,0.0nm								
WRKA	Warakurna	17.89	183		P	P	03 47 15.0	-0.7	
WRKA	Warakurna	17.89	183		P	P	03 47 15.0	-0.7	
PCJI	Pacitan	17.91	265		P	P	03 47 15.8	0.0	
PMG	Port Moresby	17.92	99		P	P	03 47 15.9	0.0	
	comp=Z,760nm,0.6s,baz=261,slow=4.9,SNR=31								
PMG					S	S	03 50 28.4	-3.3	
	comp=Z,210nm,0.6s,baz=322,slow=23,SNR=7.2								
PMG					LR	LR	03 54 38.6		
	comp=Z,2µm,18.6s,baz=255,slow=38								
PMG	Port Moresby	17.92	99		P	P	03 47 16.2	+0.2	
PMG	Port Moresby	17.92	99		S	S	03 50 33.4	+1.7	
PMG	Port Moresby	17.92	99	*de*	P	P	03 47 15.8	-0.2	
PMG	Port Moresby	17.92	99		P	P	03 47 14.9	-1.1	
PMG	Port Moresby	17.92	99		P	P	03 47 16.2	+0.2	
	comp=Z,13µcomcomp=Z,2µm,0.8s								
PMG	Port Moresby	17.92	99		P	P	03 47 16.3	+0.3	
	comp=Z,2µm,0.8s								
WOJI	Wonogiri, Jawa	18.15	266		P	P	03 47 18.2	-0.2	
	comp=Z,7µcomcomp=Z,17µcomcomp=Z,2µm,0.9s								
KKM	Kota Kinabalu	18.37	315		P	P	03 47 22.1	+1.1	
KKM	Kota Kinabalu	18.37	315		S	S	03 50 42.9	+2.0	
KKM	Kota Kinabalu	18.37	315		P	Pn	03 47 22.4	-1.0	
KKM	Kota Kinabalu	18.37	315		P	Pn	03 47 22.8	-0.7	
	comp=Z,13µcomcomp=Z,1µm,1.4s								
KKM	Kota Kinabalu	18.37	315		P	Pn	03 47 22.7	-0.7	
	comp=Z,1µm,1.4s								
MTSU	Mount Surprise	18.38	128		P	P	03 47 21.3	+0.3	
	comp=Z,733nm,1.0s								
MTSU	Mount Surprise	18.38	128		P	P	03 47 20.8	-0.2	
MTSU	Mount Surprise	18.38	128		P	P	03 47 21.4	+0.4	
	comp=Z,733nm,1.0s								
UGM	Wanagama	18.55	266		P	P	03 47 23.6	+0.8	
UGM	Wanagama	18.55	266		P	P	03 47 23.1	+0.3	
	comp=Z,7µcomcomp=Z,10µcomcomp=Z,985nm,1.1s								
SMRI	Semarang	18.62	269		P	P	03 47 23.3	-0.4	
SMRI	Semarang	18.62	269		P	P	03 47 24.5	+0.8	
	comp=Z,10µcomcomp=Z,12µcomcomp=Z,1µm,1.1s								
SMRI	Semarang	18.62	269		P	Pn	03 47 27.9	+1.6	
	comp=Z,1µm,1.0s								
YOGI	Yogyakarta	18.77	267		P	Pn	03 47 26.8	-1.2	
	comp=Z,7µcomcomp=Z,10µcomcomp=Z,1µm,0.9s								
MANU	Manus Island	18.77	75		P	Pn	03 47 27.4	-0.7	
MANU					IAmb	IAmb	03 47 32.3		
	comp=Z,171nm,0.7s								
MANU	Manus Island	18.77	75		P	Pn	03 47 27.8	-0.2	
STKI	Sintang	19.05	291		P	P	03 47 28.8	+0.5	
SBUM	Sibu	19.41	299		P	P	03 47 33.3	+1.2	
SBUM	Sibu	19.41	299		S	S	03 51 04.9	+3.7	
SBUM	Sibu	19.41	299		P	P	03 47 33.5	+1.4	
SBUM					IAmb	IAmb	03 47 41.9		
	comp=Z,166nm,0.9s								
SBUM	Sibu	19.41	299		P	P	03 47 33.7	+1.6	
SBUM	Sibu	19.41	299		P	Pn	03 47 34.0	-1.6	
	comp=Z,161nm,0.7s								
CTJI	Waduk Cacaban	19.87	269		P	P	03 47 36.5	-0.6	
	comp=Z,8µcomcomp=Z,442nm,0.9s								
SCJI	Gunung Srandil	19.88	267		P	P	03 47 35.1	-2.1	
KPJI	Karang Pucung	20.12	268		P	P	03 47 38.9	-0.8	
	comp=Z,9µcomcomp=Z,7µcomcomp=Z,679nm,0.8s								
CMJI	Cimerak	20.60	267		P	P	03 47 41.8	-3.0	
	comp=Z,6µcomcomp=Z,562nm,0.6s								
JCJI	Jatiwangi	20.80	270		P	P	03 47 46.7	-0.3	
	comp=Z,10µcomcomp=Z,17µcomcomp=Z,574nm,0.8s								
CTA	Charters Tower	21.00	130		P	P	03 47 49.0	-0.1	
	comp=Z,245nm,1.1s								
CTA	Charters Tower	21.00	130		P	P	03 47 49.3	+0.3	
	comp=Z,318nm,0.8s,baz=305,slow=11,SNR=59								
CTA					S	S	03 51 30.7	-1.0	
	comp=Z,23nm,0.6s,baz=290,slow=18,SNR=3.0								
	comp=Z,318nm,0.8s								
CTA	Charters Tower	21.00	130		P	P	03 47 49.5	+0.5	
CTA	Charters Tower	21.00	130		S	S	03 51 34.4	+2.7	
CTAO	Charters Tower	21.00	130		P	P	03 47 49.5	+0.5	
CTAO	Charters Tower	21.00	130		S	S	03 51 34.8	+3.1	
CTAO	Charters Tower	21.00	130		P	P	03 47 48.8	-0.2	
CTAO					pmax	pmax			
	comp=Z,531nm,1.0s								
CTAO	Charters Tower	21.00	130		P	P	03 47 48.8	-0.2	
CTAO	Charters Tower	21.00	130		P	P	03 47 49.4	+0.3	
	comp=Z,621nm,1.1s								
GIRL	Giralia	21.17	221		P	P	03 47 52.0	+1.3	
	comp=Z,2µm,1.1s,comp=Z,0.0nm								
GIRL	Giralia	21.17	221		P	P	03 47 51.1	+0.4	
BBJI	Bungbulang	21.39	268		P	P	03 47 48.8	-4.5	
BBJI	Bungbulang	21.39	268		P	P	03 47 50.8	-2.5	
	comp=Z,356nm,0.6s								
BBJI	Bungbulang	21.39	268		P	P	03 47 50.6	-2.6	
	comp=Z,346nm,0.6s								
LEM	Lembang	21.43	269		P	P	03 47 52.4	-1.5	
	comp=Z,214nm,0.7s,baz=88,slow=7.3,SNR=32								
LEM					LR	LR	03 57 35.7		
	comp=Z,2µm,18.3s,baz=136,slow=40								
	comp=Z,214nm,0.7s								
LEM	Lembang	21.43	269		P	P	03 47 52.5	-1.3	
	comp=Z,7µcomcomp=Z,8µcomcomp=Z,493nm,0.7s								
AUAYR	Ayr State High	21.61	127		P	P	03 47 56.0	+0.6	
AUAYR	Ayr State High	21.61	127		S	S	03 51 45.7	+3.7	
TPI	Tanjungpandan	21.89	280		P	P	03 47 58.5	+0.2	
	comp=Z,11µcomcomp=Z,11µcomcomp=Z,466nm,1.0s								
CNJI	Cibinong	21.91	268		P	P	03 47 54.7	-3.7	
	comp=Z,13µcomcomp=Z,852nm,1.1s								
MEEK	Meekatharra	21.92	206		P	P	03 47 57.6	-0.9	
	comp=Z,285nm,0.7s,comp=Z,0.0nm								
MEEK	Meekatharra	21.92	206		P	P	03 47 58.1	-0.4	
MEEK	Meekatharra	21.92	206		S	S	03 51 50.4	+3.6	
MEEK	Meekatharra	21.92	206		P	P	03 47 57.7	-0.9	
	comp=Z,285nm,0.7s								
CBJI	Citeko	22.21	270		P	P	03 47 58.5	-2.9	
	comp=Z,1µm,0.9s								
SKJI	Sukabumi	22.48	269		P	P	03 48 00.9	-3.0	
	comp=Z,7µcomcomp=Z,13µcomcomp=Z,2µm,1.1s								
INKA	Innaminka	23.29	153		P	P	03 48 11.3	+0.2	
CGJI	Cibinong	23.35	270		P	P	03 48 08.9	-2.8	
	comp=Z,20µcomcomp=Z,1µm,0.6s								
PPBI	Pangkal Pinang	23.50	281		P	P	03 48 14.4	+1.3	
FORT	Forrest	23.62	182		P	P	03 48 13.1	-0.8	
	comp=Z,2µm,0.7s,comp=Z,0.0nm								
FORT	Forrest	23.62	182		P	P	03 48 13.6	-0.4	
QLP	Quilpie	24.11	145		P	P	03 48 18.2	-0.3	
	comp=Z,1µm,1.1s,comp=Z,0.0nm								
QLP	Quilpie	24.11	145		P	P	03 48 18.6	0.0	
QLP	Quilpie	24.11	145		P	P	03 48 18.5	0.0	
	comp=Z,1µm,1.1s								
KASI	Kota Agung	24.61	272		P	P	03 48 20.4	-2.8	
PMBI	Palembang	24.68	278		P	P	03 48 25.4	+1.6	
	comp=Z,7µcomcomp=Z,13µcomcomp=Z,2µm,1.0s								
PMBI	Palembang	24.68	278		P	P	03 48 26.8	+3.0	
	comp=Z,2µm,1.0s								
MDSI	Maura Dua	25.03	275		P	P	03 48 26.5	-0.5	
LWLI	Liwa	25.09	273		P	P	03 48 26.5	-1.2	
KMBL	Kambalda	25.13	195		P	P	03 48 27.1	-0.6	
	comp=Z,278nm,0.9s								
MORW	Morawa	25.17	208		P	P	03 48 28.1	0.0	
	comp=Z,396nm,0.9s,comp=Z,0.0nm								
MORW	Morawa	25.17	208		P	P	03 48 28.1	0.0	
MORW	Morawa	25.17	208		P	P	03 48 27.4	-0.7	
MORW	Morawa	25.17	208		P	P	03 48 27.6	-0.5	
	comp=Z,396nm,0.9s								
DSRI	Dabo	25.42	284		P	P	03 48 32.5	+2.0	
	comp=Z,5µcomcomp=Z,4µcomcomp=Z,387nm,0.9s								
GUMO	Guam	25.75	37		P	P	03 48 34.9	+1.5	
GUMO	Guam	25.75	37		P	P	03 48 33.7	+0.3	
GUMO					pmax	pmax			
	comp=Z,310nm,1.0s								
GUMO	Guam	25.75	37		P	P	03 48 33.7	+0.3	
GUMO	Guam	25.75	37		P	P	03 48 34.2	+0.8	
	comp=Z,348nm,1.1s								
LHSI	Lahat	25.77	276		P	P	03 48 35.0	+1.4	
	comp=Z,4µcomcomp=Z,4µcomcomp=Z,277nm,1.0s								
TPRI	Tanjung Pinang	25.87	287		P	P	03 48 37.3	+2.7	
	comp=Z,6µcomcomp=Z,7µcomcomp=Z,354nm,0.8s								
AUNRC	North Rockhamp	26.12	131		P	P	03 48 36.5	-0.2	
BLDU	Ballidu	26.20	205		P	P	03 48 36.4	-1.0	
	comp=Z,291nm,1.0s								
BLDU	Ballidu	26.20	205		P	P	03 48 36.9	-0.4	
BLDU	Ballidu	26.20	205		P	P	03 48 37.6	+0.3	
	comp=Z,291nm,1.0s								
BBOO	Buckleboo	26.40	167		P	P	03 48 37.8	-1.3	
	comp=Z,610nm,1.4s,comp=Z,0.0nm								
BBOO	Buckleboo	26.40	167		P	P	03 48 38.1	-1.0	
BBOO	Buckleboo	26.40	167		P	P	03 48 38.3	-0.8	
BBOO	Buckleboo	26.40	167		P	P	03 48 38.5	-0.6	
	comp=Z,610nm,1.4s								
KLBR	Kellerberrin	26.65	202		P	P	03 48 40.6	-0.7	
	comp=Z,1µm,1.0s								
KLBR	Kellerberrin	26.65	202		P	P	03 48 40.7	-0.7	
KLBR	Kellerberrin	26.65	202		P	P	03 48 41.1	-0.2	
	comp=Z,1µm,1.0s								
KSI	Kapahiang	26.71	276		P	P	03 48 43.9	+1.7	
	comp=Z,18µcomcomp=Z,227nm,1.0s								
BTDF	Bukit Timah Da	26.72	287		P	P	03 48 43.8	+1.6	
RMQ	Roma	26.82	138		P	P	03 48 43.4	+0.5	
	comp=Z,134nm,1.2s								
RMQ	Roma	26.82	138		P	P	03 48 44.0	+1.0	
RMQ	Roma	26.82	138		P	P	03 48 43.6	+0.6	
	comp=Z,134nm,1.2s								
GD1S	Gladstone Soft	26.88	131		P	P	03 48 44.7	+1.2	
MASI	Maura Aman, Be	27.14	277		P	P	03 48 46.0	0.0	
	comp=Z,5µcomcomp=Z,374nm,0.9s								
STKA	Stephens Creek	27.26	157		P	P	03 48 45.8	-1.0	
	comp=Z,2µm,0.8s								
STKA	Stephens Creek	27.26	157		P	P	03 48 46.4	-0.5	
	comp=Z,342nm,0.8s,baz=330,slow=8.6,SNR=190								
	comp=Z,342nm,0.8s								
STKA	Stephens Creek	27.26	157		P	P	03 48 46.0	-0.8	
STKA	Stephens Creek	27.26	157		P	P	03 48 46.3	-0.5	
STKA	Stephens Creek	27.26	157		P	P	03 48 46.5	-0.3	
	comp=Z,2µm,0.8s								
AUKUL	Kulin High Sch	27.48	201		P	P	03 48 48.3	-0.4	
EIDS	Eidsvold	27.71	134		P	P	03 48 50.0	-0.9	
	comp=Z,56nm,1.4s,comp=Z,0.0nm								
EIDS	Eidsvold	27.71	134		P	P	03 48 50.3	-0.6	
EIDS	Eidsvold	27.71	134		P	P	03 48 49.6	-1.3	
EIDS	Eidsvold	27.71	134		P	P	03 48 50.0	-0.9	
	comp=Z,56nm,1.4s								
AUCAS	Cummins Area S	27.73	168		P	P	03 48 50.6	-0.3	
HTT	Hallett	27.74	162		P	P	03 48 50.5	-0.6	
	comp=Z,134nm,1.2s								
HTT	Hallett	27.74	162		P	P	03 48 50.6	-0.6	
HTT	Hallett	27.74	162		P	P	03 48 50.4	-0.7	
DLV	Lat	27.95	312		P	P	03 48 54.8	+1.5	
DLV	Lat	27.95	312		IAmb	IAmb	03 49 41.2		
	comp=Z,83nm,1.0s								
DLV	Lat	27.95	312		P	P	03 48 54.1	+0.8	
	comp=Z,46nm,1.1s								
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.3	-0.4	
	comp=Z,499nm,1.3s,comp=Z,0.0nm								
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.4	-0.3	
	comp=Z,197nm,0.8s,baz=25,slow=6.5,SNR=67								
	comp=Z,197nm,0.8s								
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.9	+0.2	
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.5	-0.1	
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.3	-0.3	
NWAO					pmax	pmax			
	comp=Z,362nm,1.0s								
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.3	-0.3	
NWAO	Narrogin (SRO)	28.04	202		P	P	03 48 53.6	0.0	
	comp=Z,475nm,1.3s								
AULRC	Lightning Ridg	28.42	144		P	P	03 48 56.8	-0.3	
AUHAR	St Anne's Scho	28.70	204		P	P	03 49 00.9	+1.4	
CMSA	Cobar Meteorol	28.81	150		P	P	03 49 00.0	-0.5	
	comp=Z,365nm,1.1s,comp=Z,0.0nm								
CMSA	Cobar Meteorol	28.81	150		P	P	03 49 00.1	-0.5	
CMSA	Cobar Meteorol	28.81	150		P	P	03 49 00.6	+0.1	
	comp=Z,365nm,1.1s								
AUMAR	Marden Senior	29.02	164		P	P	03 49 02.3	-0.1	
BKNI	Bangkinang	29.04	283		P	P	03 49 02.5	-0.3	
BKNI	Bangkinang	29.04	283		P	P	03 49 02.2	-0.6	
BKNI	Bangkinang	29.04	283		P	P	03 49 04.1	+1.3	
	comp=Z,4µcomcomp=Z,7µcomcomp=Z,521nm,1.1s								
BKNI	Bangkinang	29.04	283		P	P	03 49 04.8	+2.0	
	comp=Z,526nm,1.1s								
GHSS	Government Hou	29.04	164		P	P	03 49 03.6	+1.1	
AUMBR	Murray Bridge	29.44	163		P	P	03 49 06.1	+0.1	
PPI	Padang Panjang	29.47	282		P	P	03 49 06.5	-0.1	
	comp=Z,3µcomcomp=Z,254nm,1.3s								
RKGY	Rocky Gully	29.64	201		P	P	03 49 08.4	+0.5	
	comp=Z,203nm,1.4s,comp=Z,0.0nm								
TW1H	Toowoomba 1 Ha	29.68	136		P	P	03 49 08.7	+0.3	
AUTOO	Toowoomba Stat	29.68	136		P	P	03 49 08.6	+0.2	
AUALB	St Joseph's Co	29.69	199		P	P	03 49 09.6	+1.4	
AUBSH	Beerwah State	29.95	134		P	P	03 49 10.1	-0.5	
TATA	Tatamba Isabel	30.34	95		P	P	03 49 13.8	-0.5	
SAVO	Savo Central	30.37	96		P	P	03 49 13.8	-0.7	
IPM	Ipoh	30.37	291		P	P	03 49 15.9	+1.3	
IPM	Ipoh	30.37	291		P	P	03 49 16.3	+1.7	
	comp=Z,4µcomcomp=Z,217nm,1.0s								
IPM	Ipoh	30.37	291		P	P	03 49 14.2	-0.4	
	comp=Z,217nm,1.0s								
HNR	Honiara	30.51	97		P	P	03 49 16.3	+0.6	
HNR	Honiara	30.51	97		P	P	03 49 15.5	-0.2	
HNR	Honiara	30.51	97		P	P	03 49 15.5	-0.2	
HNR	Honiara	30.51	97		P	P	03 49 15.4	-0.4	
HNR	Honiara	30.51	97		P	P	03 49 16.1	+0.4	
	comp=Z,612nm,1.2s								
HNR	Honiara	30.51	97		P	P	03 49 15.6	-0.1	
MNSI	Mandailing Nat	30.57	284		P	P	03 49 16.9	+0.6	
	comp=Z,7µcomcomp=Z,488nm,1.0s								
TWGBT	Beinan	30.74	345		P	P	03 49 17.1	-0.5	
NGOA	Tingoa Renbel	30.76	101		P	P	03 49 18.1	+0.1	
AUDCS	Dubbo College	30.89	147		P	P	03 49 18.9	0.0	
KULM	Kulim	31.03	293		P	P	03 49 21.7	+1.4	
KULM	Kulim	31.03	293		P	P	03 49 19.7	-0.6	
KULM	Kulim	31.03	293		P	P	03 49 21.1	+0.8	
	comp=Z,3µcomcomp=Z,307nm,1.3s								
GC1S	Gold Coast 1 S	31.13	135		P	P	03 49 22.4	+1.4	
YULB	Yu-li	31.24	346		P	P	03 49 21.0	-1.0	

GZH2 **Guangzhou** 34.10 334 P **P** 03 49 46.5 -0.3
GZH2 pP **pP** 03 50 27.4 +1.8
GZH2 sP **sP** 03 50 53.5 +6.2
GZH2 S **S** 03 55 01.3 +3.0
GZH2 pmax pmax
comp=Z,57nm,0.7s
SNSI Sinabang, Aceh 34.14 285 P **P** 03 49 48.2 +0.8
comp=Z,7µmcomp=Z,400nm,1.2s
AUSMG Snowy Mountain 34.18 152 P **P** 03 49 48.1 +0.6
AUUHS Ulladulla High 34.27 148 P **P** 03 49 49.7 +1.5
MLSI Meulaboh, Aceh 34.62 288 P **P** 03 49 51.4 -0.1
comp=Z,1µm,1.0s
AUSSC Sale College, 34.88 155 P **P** 03 49 55.0 +1.6
MILA Mila 34.95 152 P **P** 03 49 55.2 +1.1
comp=Z,82nm,1.3s
MILA Mila 34.95 152 P **P** 03 49 54.2 +0.1
BSI Banda Aceh 36.07 289 P **P** 03 50 01.9 -2.0
comp=Z,5µmcomp=Z,251nm,1.3s
AUBRN Burnie High Sc 36.95 159 P **P** 03 50 11.8 +0.9
GULI GuiLin 37.02 331 ⇑*i*P **P** 03 50 14.4 +2.7
GULI pP **pwP** 03 50 57.9 +0.4
GULI S **S** 03 55 43.7 +0.8
GULI pmax pmax
comp=Z,68nm,1.6s
GULI pmax pmax
comp=Z,310nm,5.2s
GULI L L
comp=Z,1µm,20.3s
GULI L L
comp=Z,1µm,18.4s
GULI L L
comp=Z,2µm,19.1s
SLVN Son La 37.59 319 P **P** 03 50 17.5 +0.8
SLVN Son La 37.59 319 IAmb IAmb 03 50 20.0
comp=Z,214nm,1.3s
GLAD Gladstone 37.71 156 P **P** 03 50 18.5 +1.2
CORO Coronation Par 37.78 158 P **P** 03 50 19.2 +1.3
SANVU Saraoutou 38.13 106 P **P** 03 50 21.6 +0.4
SANVU Saraoutou 38.13 106 P **P** 03 50 21.2 0.0
SANVU Saraoutou 38.13 106 P **P** 03 50 21.9 +0.7
SANVU pP **pP** 03 51 02.5 +1.0
JSU Suzuyama 38.37 2 P **P** 03 50 23.3 +0.4
JSU Suzuyama 38.37 2 P **P** 03 50 23.2 +0.2
JSU IAmb IAmb 03 50 24.6
comp=Z,173nm,0.9s
CNSH ChangSha 38.40 337 P **P** 03 50 23.7 +0.5
MOO Moorlands 38.66 159 P **P** 03 50 25.9 +0.6
comp=Z,345nm,1.2s
MOO Moorlands 38.66 159 P **P** 03 50 26.6 +1.4
MOO Moorlands 38.66 159 P **P** 03 50 26.0 +0.8
SSE Sheshan 38.71 349 P **P** 03 50 26.4 +0.7
SSE S **S** 03 56 08.3 +0.2
SSE pmax pmax
comp=Z,79nm,1.1s
SSE pmax pmax
comp=Z,220nm,3.5s
SSE L L
comp=Z,610nm,20.8s
SSE L L
comp=Z,310nm,21.0s
NOUC Port Laguerre 38.75 117 P **P** 03 50 26.5 +0.2
NOUC Port Laguerre 38.75 117 P **P** 03 50 25.6 -0.7
TAU Tasmania Unive 39.11 159 P **P** 03 50 30.3 +1.3
TAU Tasmania Unive 39.11 159 P **P** 03 50 30.1 +1.1
TAU pmax pmax
comp=Z,296nm,1.2s
TAU Tasmania Unive 39.11 159 P **P** 03 50 30.1 +1.1
TAU Tasmania Unive 39.11 159 P **P** 03 50 30.0 +1.0
TAU pP **pP** 03 51 10.5 +0.8
CM31 Chiang Mai Arr 39.17 311 P **P** 03 50 30.9 +1.1
SNR=48
CM31 Chiang Mai Arr 39.17 311 IAmb IAmb 03 50 33.4
comp=Z,352nm,1.5s
CMAR Chiang Mai Arr 39.17 311 P **P** 03 50 30.6 +0.8
comp=Z,53nm,0.7s,baz=140,slow=7.4,SNR=139
CMAR PcP **PcP** 03 52 34.5 -0.8
comp=Z,12nm,0.6s,baz=165,slow=3.2,SNR=5.0
CMAR ScP **ScP** 03 56 06.8 +1.3
comp=Z,10nm,0.7s,baz=153,slow=3.3,SNR=7.1
CMAR PKiKP **PKiKP** 03 59 47.1 -0.7
comp=Z,1.7nm,0.3s,baz=268,slow=2.2,SNR=4.3
CMAR P3KPbc 04 20 25.3
comp=Z,0.6nm,0.3s,baz=310,slow=5.8,SNR=7.4
comp=Z,53nm,0.7s
CMAR Chiang Mai Arr 39.17 311 P **P** 03 50 30.6 +0.7
YATNC Mamie plateau, 39.26 116 P **P** 03 50 30.7 +0.1
OUENC Ouen Island, N 39.32 117 P **P** 03 50 32.1 +1.1
OUENC Ouen Island, N 39.32 117 P **P** 03 50 31.5 +0.5
CHTO Chiang Mai 39.39 311 P **P** 03 50 31.8 +0.2
CHTO Chiang Mai 39.39 311 P **P** 03 50 32.3 +0.7
CHTO Chiang Mai 39.39 311 P **P** 03 50 32.3 +0.7
CHTO pmax pmax
comp=Z,497nm,1.5s
CHTO Chiang Mai 39.39 311 P **P** 03 50 32.3 +0.7
CHTO Chiang Mai 39.39 311 P **P** 03 50 32.0 +0.4
CHTO Chiang Mai 39.39 311 P **P** 03 50 32.3 +0.7
CHTO S **S** 03 56 17.4 -1.3
CHTO Chiang Mai 39.39 311 P **P** 03 50 32.2 +0.7
GYA Guiyang 39.86 328 ⇑P **P** 03 50 35.8 +0.3
GYA pP **pP** 03 51 18.2 +3.0
GYA PP **PnPn** 03 52 15.1 -1.7
GYA PcP **PcP** 03 52 39.3 +1.8
GYA ScP **ScP** 03 56 09.5 +1.4
GYA S **S** 03 56 24.0 -1.7
GYA ScS **ScS** 04 00 22.1 +0.2
GYA pmax pmax
comp=Z,80nm,0.8s
GYA L L
comp=Z,2µm,21.4s
GYA L L
comp=Z,2µm,23.9s
GYA L L
comp=Z,2µm,14.4s
PINNC Pines Island, 39.91 117 P **P** 03 50 37.1 +1.2
PINNC Pines Island, 39.91 117 P **P** 03 50 36.1 +0.2
JNU Nakatsue 39.99 2 LR LR 04 05 01.1
comp=Z,2µm,21.6s,baz=172,slow=32
WHN Wuhan 40.02 340 ⇑P **P** 03 50 37.4 +0.9
WHN pP **pwP** 03 51 19.7 -3.0
WHN sP **sP** 03 51 37.3 -0.4
WHN ScP **ScP** 03 56 09.5 +1.1
WHN S **S** 03 56 28.0 +0.4
WHN pmax pmax
comp=Z,630nm,1.2s
WHN pmax pmax
comp=Z,3µm,4.4s
MARNC Mare, Loyalty 40.12 115 P **P** 03 50 39.0 +1.4
MARNC Mare, Loyalty 40.12 115 P **P** 03 50 35.0 -2.7
NJ2 Nanjing 40.13 346 ⇑*i*P **P** 03 50 38.3 +0.8
NJ2 pP **pwP** 03 51 22.4 -1.3
NJ2 sP **sP** 03 51 40.8 +2.2
NJ2 ScP **ScP** 03 56 09.3 +0.5
NJ2 S **S** 03 56 29.3 0.0
NJ2 sS **sS** 03 57 40.9 -0.3
NJ2 pmax pmax
comp=Z,120nm,0.9s
JMN Monobe 40.81 6 P **P** 03 50 44.7 +1.6
JMN Monobe 40.81 6 P **P** 03 50 44.0 +0.9
JMN IAmb IAmb 03 50 45.1
comp=Z,157nm,1.0s
KMI2 Kunming 41.09 322 ⇑P **P** 03 50 47.0 +1.2
KMI2 pP **pwP** 03 51 31.0 -1.3
KMI2 sP **sP** 03 51 51.1 +4.1
KMI2 PcP **PcP** 03 52 44.3 +2.7
KMI2 ScP **ScP** 03 56 15.8 +2.7
KMI2 S **S** 03 56 42.8 -1.4
KMI2 sS **sS** 03 57 57.4 +1.1
KMI2 SS **SS** 03 59 50.0 -5.1
KMI2 ScS **ScS** 04 00 30.8 +1.2
KMI2 pmax pmax
comp=Z,120nm,1.5s
KMI2 L L
comp=Z,550nm,24.1s
KMI2 L L
comp=Z,1µm,20.6s
KMI2 L L
comp=Z,1µm,16.6s
JTU Tsushima 41.36 0 P **P** 03 50 48.7 +1.2
JTU Tsushima 41.36 0 IAmb IAmb 03 50 50.3
comp=Z,415nm,1.8s
ENH Enshi 41.67 334 P **P** 03 50 49.6 -0.5
NFK Norfolk Island 42.53 126 P **P** 03 50 57.6 +0.5
comp=Z,159nm,1.1s
NFK Norfolk Island 42.53 126 P **P** 03 50 56.7 -0.4

PZH PanZhiHua 42.70 322 P **P** 03 50 59.0 +0.4
PZH sP **sP** 03 52 01.4 +1.3
PZH PcP **PcP** 03 52 48.2 +1.4
PZH ScP **ScP** 03 56 20.4 +1.0
PZH S **S** 03 57 02.7 -4.9
PZH pmax pmax
comp=Z,700nm,0.9s
INU Inuyama 42.82 9 P **P** 03 50 59.7 +0.4
INU Inuyama 42.82 9 P **P** 03 50 59.4 +0.1
INU Inuyama 42.82 9 P **P** 03 50 59.6 +0.4
INU ScP **ScP** 03 56 19.0 -0.5
JGF Kuroka 43.12 10 P **P** 03 51 01.4 -0.4
JGF Kuroka 43.12 10 IAmb IAmb 03 51 02.9
comp=Z,378nm,2.0s
TJN Taejon 43.24 358 P **P** 03 51 03.5 +0.8
TJN Taejon 43.24 358 P **P** 03 51 03.8 +1.2
TJN pmax pmax
comp=Z,955nm,0.9s
TJN Taejon 43.24 358 P **P** 03 51 03.8 +1.2
TNCH TengChong 43.70 318 ⇑*i*P **P** 03 51 07.5 +0.7
TNCH pP **pwP** 03 51 50.8 -3.0
TNCH sP **sP** 03 52 08.1 -0.3
TNCH S **S** 03 57 17.9 -4.5
TNCH sS **sS** 03 58 34.5 -0.7
TNCH pmax pmax
comp=Z,160nm,1.5s
MAJO Matsushiro 44.19 10 P **P** 03 51 11.1 +0.9
MAJO Matsushiro 44.19 10 P **P** 03 51 09.5 -0.8
MAJO pmax pmax
comp=Z,143nm,0.8s
MAJO Matsushiro 44.19 10 P **P** 03 51 09.5 -0.8
MAJO IAmb IAmb 03 51 10.6
comp=Z,143nm,0.8s
MAJO Matsushiro 44.19 10 P **P** 03 51 09.5 -0.8
MAJO S **S** 03 57 25.5 -3.2
MAJO Matsushiro 44.19 10 P **P** 03 51 09.4 -0.8
MAJO pP **pP** 03 51 51.1 +0.3
MJAR Matsushiro Arr 44.19 10 P **P** 03 51 09.3 -0.9
comp=Z,99nm,0.9s,baz=188,slow=9.4,SNR=242
MJAR S **S** 03 57 25.3 -3.4
comp=Z,2.3nm,1.0s,baz=185,slow=10.0,SNR=4.4
MJAR LR LR 04 09 23.8
comp=Z,724nm,20.2s,baz=178,slow=35
MJAR PKPPKP **P'P'df** 04 22 43.0 -7.6
comp=Z,2.7nm,1.1s,baz=27,slow=0.8,SNR=4.5
comp=Z,99nm,0.9s
MJAR Matsushiro Arr 44.19 10 P **P** 03 51 09.7 -0.6
MJAR pmax pmax
comp=Z,96nm,0.9s
MJAR Matsushiro Arr 44.19 10 P **P** 03 51 09.7 -0.6
MJB9 Matsu-Tunnel 44.19 10 IAmb IAmb 03 51 12.0
comp=Z,145nm,0.8s
KSAR Wonju Array Be 44.29 358 P **P** 03 51 12.4 +1.4
KSAR Wonju Array Be 44.29 358 P **P** 03 51 12.4 +1.4
KSRS Korea Array 44.30 359 P **P** 03 51 12.1 +1.1
comp=Z,45nm,0.7s,baz=178,slow=9.9,SNR=124
KSRS ScP **ScP** 03 56 26.2 +0.7
comp=Z,7.8nm,0.8s,baz=184,slow=3.8,SNR=7.2
KSRS S **S** 03 57 34.1 +4.0
comp=Z,1.7nm,0.9s,baz=184,slow=15,SNR=4.2
comp=Z,45nm,0.7s
LYN LuoYang 44.31 340 P **P** 03 51 11.5 +0.3
LYN pP **pP** 03 51 54.2 +2.5
LYN sP **sP** 03 52 13.8 +0.9
LYN PP **PP** 03 52 58.1 -0.7
LYN ScP **ScP** 03 56 27.3 +1.7
LYN S **S** 03 57 26.8 -3.7
LYN sS **sS** 03 58 41.4 -2.0
LYN SS **ScS** 04 00 49.5 +0.8
LYN ScS **SS** 04 00 50.7 -4.5
LYN pmax pmax
comp=Z,140nm,1.6s
LYN pmax pmax
comp=Z,680nm,3.6s
INCN Inchon 44.38 357 P **P** 03 51 13.1 +1.4
INCN Inchon 44.38 357 P **P** 03 51 12.4 +0.7
INCN pmax pmax
comp=Z,121nm,1.1s
INCN Inchon 44.38 357 P **P** 03 51 12.4 +0.7
INCN Inchon 44.38 357 P **P** 03 51 12.5 +0.8
INCN pP **pP** 03 51 54.1 +1.7
TIA Tai'an 44.52 346 P **P** 03 51 12.6 -0.2
TIA PcP **PcP** 03 52 55.0 +2.4
TIA ScP **ScP** 03 56 27.4 +1.0
TIA S **S** 03 57 28.7 -4.7
TIA SS **ScS** 04 00 51.4 +1.4
TIA pmax pmax
comp=Z,70nm,1.6s
TIA pmax pmax
comp=Z,270nm,3.8s
TIA L L
comp=Z,910nm,17.0s
TIA L L
comp=Z,860nm,14.2s
TIA L L
comp=Z,1µm,16.9s
CD2 Chengdu 44.94 328 ⇑P **P** 03 51 16.1 -0.2
CD2 pP **pP** 03 51 54.9 -2.0
CD2 ScP **ScP** 03 56 30.5 +2.1
CD2 S **S** 03 57 36.6 -3.2
CD2 pmax pmax
comp=Z,110nm,0.6s
CD2 pmax pmax
comp=Z,670nm,3.5s
CD2 L L
comp=Z,1µm,14.6s
CD2 L L
comp=Z,1µm,12.1s
CD2 L L
comp=Z,2µm,13.3s
HJU Haeju 44.99 356 P **P** 03 51 15.8 -0.7
HJU S **S** 03 57 41.7 +1.6
HJU AmB
comp=Z,619nm,1.9s
XAN Xi'an 45.17 336 ⇑P **P** 03 51 17.6 -0.5
XAN pP **pwP** 03 52 02.3 -2.9
XAN sP **sP** 03 52 18.3 -1.6
XAN ScP **ScP** 03 56 31.3 +2.0
XAN S **S** 03 57 38.6 -4.4
XAN ScS **ScS** 04 00 54.4 0.0
XAN pmax pmax
comp=Z,130nm,1.2s
XAN pmax pmax
comp=Z,490nm,3.6s
WAKE Wake Island 45.23 54 P **P** 03 51 19.9 +1.2
WAKE IAmb IAmb 03 51 21.1
comp=Z,158nm,0.6s
PYAG Pyongyang 45.99 356 P **P** 03 51 23.8 -0.5
PYAG S **S** 03 57 55.9 +1.5
PYAG AmB
comp=Z,593nm,2.4s
HNS HongShan 46.26 344 ⇑P **P** 03 51 26.7 +0.2
HNS pP **pwP** 03 52 11.5 -2.2
HNS sP **sP** 03 52 30.1 +1.7
HNS ScP **ScP** 03 56 34.9 +1.3
HNS S **S** 03 57 54.9 -3.4
HNS pmax pmax
comp=Z,220nm,0.9s
HNS L L
comp=Z,1µm,16.7s
HNS L L
comp=Z,600nm,13.9s
HNS L L
comp=Z,830nm,14.2s
DL2 Dalian 46.27 352 P **P** 03 51 24.9 -1.6
DL2 S **S** 03 57 54.5 -3.9
DL2 pmax pmax
comp=Z,210nm,0.9s
DL2 pmax pmax
comp=Z,400nm,7.4s
HHU Hamhung 46.78 358 P **P** 03 51 31.1 +0.6
HHU pP **pP** 03 52 13.6 +2.1
HHU S **S** 03 58 06.8 +1.3
HHU AmB
comp=Z,340nm,0.9s
SUJ Sinuiju 47.13 355 P **P** 03 51 34.4 +1.2
TIY Taiyuan 47.22 342 *e*P **P** 03 51 34.3 +0.3
TIY PP **PP** 03 53 29.9 +3.0
TIY S **S** 03 58 07.7 -4.4
TIY sS **sS** 03 59 24.2 -1.6
TIY SS **SS** 04 01 37.5 -4.8
TIY pmax pmax
comp=Z,67nm,0.7s
BJI2 Beijing 48.37 347 P **P** 03 51 43.3 +0.6

BJI2 PP **PP** 03 53 36.4 -0.9
BJI2 S **S** 03 58 22.2 -5.9
BJI2 pmax pmax
comp=Z,140nm,1.4s
BJI2 L L
comp=Z,1µm,16.8s
BJI2 L L
comp=Z,420nm,11.0s
BJI2 L L
comp=Z,410nm,22.4s
BJT Baijiatuau 48.37 347 P **P** 03 51 43.6 +0.9
BJT Baijiatuau 48.37 347 IAmb IAmb 03 51 45.3
comp=Z,135nm,0.5s
BJT Baijiatuau 48.37 347 P **P** 03 51 43.2 +0.5
BJT pP **pwP** 03 52 27.0 -3.0
SHL Shillong 48.67 313 P **P** 03 51 45.3 -0.2
SNR=63
SHL Shillong 48.67 313 P **P** 03 51 45.3 -0.2
MSVF Nonsavu 48.74 107 P **P** 03 51 48.2 +2.2
MSVF Nonsavu 48.74 107 P **P** 03 51 47.7 +1.7
MSVF pmax pmax
comp=Z,86nm,1.0s
MSVF Nonsavu 48.74 107 P **P** 03 51 47.7 +1.7
JTM Tenmabayashi 48.85 12 P **P** 03 51 47.8 +1.5
JTM Tenmabayashi 48.85 12 IAmb IAmb 03 51 48.0
comp=Z,126nm,0.7s
LZDM Lanzhou Array 49.05 332 P **P** 03 51 49.0 +0.6
comp=Z,38nm,0.4s,baz=158,slow=9.6,SNR=34
LZDM ScP **ScP** 03 56 47.4 +1.5
comp=Z,4.9nm,0.5s,baz=107,slow=5.1,SNR=4.2
LZDM S **S** 03 58 37.4 -1.1
comp=Z,1.4nm,0.3s,baz=121,slow=14,SNR=1.6
comp=Z,38nm,0.4s
LZH Lanzhou 49.09 333 *e*P **P** 03 51 49.6 +1.1
LZH pP **pP** 03 52 29.4 -0.5
LZH sP **sP** 03 52 49.7 -1.1
LZH ScP **ScP** 03 56 48.0 +2.1
LZH S **S** 03 58 36.2 -2.5
LZH ScS **ScS** 04 01 22.1 +1.6
LZH pmax pmax
comp=Z,160nm,1.2s
LZH pmax pmax
comp=Z,660nm,4.5s
LZH L L
comp=Z,960nm,15.1s
LZH L L
comp=Z,1µm,14.4s
LZH L L
comp=Z,2µm,14.1s
OUZ Omahuta 49.40 131 P **P** 03 51 51.9 +1.3
MSHR Mys Shultsa 49.44 2 *e*P **P** 03 51 51.8 +1.1
MSHR pmax pmax
comp=Z,144nm,0.9s
FUNA Funafuti 49.52 95 P **P** 03 51 53.4 +1.5
VLA Vladivostok 50.00 3*d i*P **P** 03 51 56.0 +1.0
VLA pmax pmax
comp=Z,214nm,0.8s
DGTI Dogotuki 50.21 105 P **P** 03 51 58.2 +1.1
WCZ Waipu Caves 50.24 132 P **P** 03 51 59.0 +2.0
MSZ Milford Sound 50.35 145 P **P** 03 51 58.5 +0.9
HHC Hu-ho-hao-te 50.36 343 *e*P **P** 03 51 58.6 +0.7
HHC pP **pP** 03 52 38.8 -0.7
HHC S **S** 03 58 49.9 -6.1
HHC SS **SS** 04 02 27.5 -5.1
HHC pmax pmax
comp=Z,70nm,1.4s
HHC pmax pmax
comp=Z,290nm,6.0s
DCZ Deep Cove 50.39 146 IAmb IAmb 03 52 00.4
comp=Z,160nm,1.0s
DCZ Deep Cove 50.39 146 P **P** 03 51 58.2 +0.3
PALK Pallekele 50.43 285 *i* P **P** 03 51 57.8 -1.1
SNR=8.8
PALK Pallekele 50.43 285 P **P** 03 51 59.5 +0.7
PALK Pallekele 50.43 285 P **P** 03 51 58.5 -0.3
PALK pmax pmax
comp=Z,328nm,1.5s
PALK Pallekele 50.43 285 P **P** 03 51 58.5 -0.3
PALK IAmb IAmb 03 52 02.5
comp=Z,328nm,1.5s
PALK Pallekele 50.43 285 P **P** 03 51 59.7 +0.8
ERM Erimo 50.48 13 P **P** 03 52 00.0 +1.5
ERM Erimo 50.48 13 *c i*P **P** 03 51 59.5 +0.9
ERM pmax pmax
comp=Z,43nm,0.7s
ERM Erimo 50.48 13 P **P** 03 51 59.4 +0.9
ERM Erimo 50.48 13 P **P** 03 52 00.1 +1.5
ERM S **S** 03 58 57.8 +0.5
JEM Erimo 50.48 13 P **P** 03 52 00.1 +1.5
JCZ Jackson Bay 50.50 143 P **P** 03 51 59.7 +0.8
PYZ Puysegur Point 50.56 147 IAmb IAmb 03 52 01.7
comp=Z,138nm,0.8s
TAVE Taveuni 50.59 106 P **P** 03 52 01.3 +1.4
CN2 Changchun 50.74 356 P **P** 03 52 00.5 0.0
CN2 pP **pP** 03 52 41.6 -0.7
CN2 sP **sP** 03 53 03.4 +0.2
CN2 ScP **ScP** 03 56 53.0 +0.5
CN2 S **S** 03 58 58.5 -2.3
CN2 ScS **ScS** 04 01 31.4 +0.4
CN2 pmax pmax
comp=Z,40nm,0.5s
BTO2 Baotou 50.79 341 *e*P **P** 03 52 01.0 -0.1
BTO2 pP **pP** 03 52 43.6 +0.8
BTO2 sP **sP** 03 53 04.8 +1.1
BTO2 PP **PP** 03 54 00.8 +1.3
BTO2 S **S** 03 58 57.0 -4.9
BTO2 sS **sS** 04 00 16.4 -0.1
BTO2 SS **SS** 04 02 37.2 -2.2
BTO2 pmax pmax
comp=Z,65nm,1.5s
BTO2 pmax pmax
comp=Z,640nm,8.1s
BTO2 L L
comp=Z,2µm,21.2s
BTO2 L L
comp=Z,2µm,20.0s
BTO2 L L
comp=Z,2µm,19.7s
FOZ Fox Glacier 50.81 142 IAmb IAmb 03 52 03.8
comp=Z,220nm,0.9s
FOZ Fox Glacier 50.81 142 P **P** 03 52 01.2 +0.1
MLZ Mavora Lakes 50.87 145 IAmb IAmb 03 52 03.7
comp=Z,188nm,1.0s
MLZ Mavora Lakes 50.87 145 P **P** 03 52 01.8 +0.2
MALK Mahakanadarawa 50.89 287 P **P** 03 52 02.6 +0.5
WKZ Wanaka 51.07 144 IAmb IAmb 03 52 07.2
comp=Z,354nm,1.3s
WKZ Wanaka 51.07 144 P **P** 03 52 02.9 -0.2
USA0B Ussuriysk Arra 51.09 3 IAmb IAmb 03 52 05.0
comp=Z,124nm,0.8s
USRK Ussuriysk Ar. 51.09 3 P **P** 03 52 03.9 +0.8
comp=Z,107nm,0.7s,baz=185,slow=7.2,SNR=140
comp=Z,107nm,0.7s
USRK Ussuriysk Ar. 51.09 3 P **P** 03 52 04.1 +1.0
WHZ Wether Hill Ro 51.09 146 P **P** 03 52 02.6 -0.6
DSZ Denniston Nort 51.12 139 P **P** 03 52 04.0 +0.4
QRZ Quartz Range 51.13 138 IAmb IAmb 03 52 06.8
comp=Z,262nm,1.0s
QRZ Quartz Range 51.13 138 P **P** 03 52 04.7 +1.1
INZ Inchbonnie 51.39 141 IAmb IAmb 03 52 08.7
comp=Z,117nm,0.9s
INZ Inchbonnie 51.39 141 P **P** 03 52 04.9 -0.6
KHEZ Kahui Hut 51.43 136 P **P** 03 52 05.6 -0.3
MDJ Mudanjiang 51.44 0 P **P** 03 52 06.8 +1.0
MDJ Mudanjiang 51.44 0 P **P** 03 52 06.7 +1.0
MDJ S **S** 03 59 09.4 -1.0
MDJ SS **SS** 04 02 42.8 -6.5
MDJ pmax pmax
comp=Z,200nm,1.5s
MDJ pmax pmax
comp=Z,870nm,3.6s
MDJ Mudanjiang 51.44 0 IAmb IAmb 03 52 09.1
comp=Z,123nm,0.9s
EAZ Earnscleugh 51.47 144 P **P** 03 52 05.6 -0.5
LBZ Lake Benmore 51.51 143 P **P** 03 52 05.8 -0.6
RPZ Rata Peaks 51.67 142 LR LR 04 14 36.6
comp=Z,297nm,18.7s,baz=121,slow=36
RPZ Rata Peaks 51.67 142 P **P** 03 52 09.5 +1.9
RPZ Rata Peaks 51.67 142 P **P** 03 52 07.9 +0.3
HIZ Hauiti 51.68 134 IAmb IAmb 03 52 11.1
comp=Z,223nm,1.2s
APZ The Paps 51.68 147 P **P** 03 52 07.6 -0.1
LSA Lhasa 51.70 317 P **P** 03 52 09.8 +1.2
LSA Lhasa 51.70 317 P **P** 03 52 10.0 +1.5

LSA S **S** **03 59 20.9 +5.4**
LSA pmax pmax
comp=Z,110nm,0.7s
LSA L L
comp=Z,890nm,13.5s
LSA L L
comp=Z,450nm,6.5s
LSA L L
comp=Z,350nm,10.0s
LKBA Tubou, Lakemba 51.76 108 P **P** **03 52 09.8 +1.2**
TOZ Tahuroa Road 51.82 133 IAmb IAmb 03 52 12.2
comp=Z,229nm,1.2s
TOZ Tahuroa Road 51.82 133 P **P** **03 52 10.0 +1.2**
THZ Tophouse 51.84 139 IAmb IAmb 03 52 12.7
comp=Z,111nm,0.8s
THZ Tophouse 51.84 139 P **P** **03 52 09.4 +0.5**
VRZ Vera Road 51.87 135 P **P** **03 52 11.0 +1.9**
NNZ Nelson 51.89 138 P **P** **03 52 08.5 -0.7**
LTZ Lake Taylor 51.94 140 IAmb IAmb 03 52 14.0
comp=Z,88nm,0.8s
LTZ Lake Taylor 51.94 140 P **P** **03 52 10.4 +0.8**
TMZ Timaru 52.00 143 P **P** **03 52 09.2 -0.8**
OXZ Oxford 52.07 141 IAmb IAmb 03 52 14.3
comp=Z,108nm,0.7s
OXZ Oxford 52.07 141 P **P** **03 52 10.7 +0.2**
TUZ Tuapeka 52.08 145 P **P** **03 52 10.0 -0.5**
XLT XiLinHaoTe 52.10 348 *e*P **P** **03 52 11.5 +0.8**
XLT pP **pwP** **03 52 56.2 -2.6**
XLT PcP **sP** **03 53 14.5 +1.0**
XLT ScP **ScP** **03 56 59.2 +0.7**
XLT S **S** **03 59 15.9 -3.7**
XLT sS **sS** **04 00 34.3 -0.3**
XLT pmax pmax
comp=Z,160nm,1.1s
XLT L L
comp=Z,62nm,14.1s
XLT L L
comp=Z,380nm,19.2s
XLT L L
comp=Z,720nm,14.1s
ODZ Otahua Downs 52.15 144 IAmb IAmb 03 52 12.9
comp=Z,152nm,1.1s
ODZ Otahua Downs 52.15 144 P **P** **03 52 10.6 -0.5**
FUTU Fugatoga 52.16 103 P **P** **03 52 13.6 +2.0**
WAZ Wanganui 52.31 136 P **P** **03 52 14.0 +1.7**
ASAJ Asahikawa 52.36 12 P **P** **03 52 13.4 +0.9**
comp=Z,35nm,0.4s,baz=225,slow=10,SNR=70
ASAJ LR LR 04 12 30.5
comp=Z,557nm,20.9s,baz=226,slow=33
comp=Z,35nm,0.4s
JKA Kamikawa-asahi 52.36 12 IAmb IAmb 03 52 15.4
comp=Z,96nm,1.0s
NGZ Ngauruhoe 52.49 135 P **P** **03 52 15.4 +1.5**
GVZ Greta Valley S 52.52 140 P **P** **03 52 14.0 +0.2**
KHZ Kahutara 52.57 139 P **P** **03 52 13.9 -0.3**
BNX BinXian 52.59 358 ⇑P **P** **03 52 13.8 -0.4**
BNX pP **pP** **03 52 55.7 -0.5**
BNX sP **sP** **03 53 13.9 -3.2**
BNX S **S** **03 59 22.2 -3.8**
BNX SS **SS** **04 03 04.9 -2.4**
BNX pmax pmax
comp=Z,120nm,0.9s
BNX pmax pmax
comp=Z,180nm,3.8s
BNX L L
comp=Z,1μm,22.2s
BNX L L
comp=Z,850nm,15.7s
BNX L L
comp=Z,1μm,22.8s
HHSZ Highcliff Hill 52.59 144 P **P** **03 52 15.4 +1.1**
MQZ McQueen's Vall 52.65 141 IAmb IAmb 03 52 16.5
comp=Z,222nm,1.2s
MQZ McQueen's Vall 52.65 141 P **P** **03 52 14.6 -0.1**
SNZO South Karori 52.81 138 P **P** **03 52 16.3 +0.3**
SNZO South Karori 52.81 138 P **P** **03 52 15.7 -0.2**
SNZO IAmb IAmb 03 52 17.0
comp=Z,242nm,1.1s
SNZO South Karori 52.81 138 P **P** **03 52 16.2 +0.3**
SNZO South Karori 52.81 138 P **P** **03 52 15.2 -0.8**
MCQ Macquarie Isla 53.00 159 P **P** **03 52 18.8 +1.7**
comp=Z,205nm,1.1s
MCQ Macquarie Isla 53.00 159 IAmb IAmb 03 52 20.0
comp=Z,212nm,1.1s
YUK Yuzh-Kuril'sk 53.04 15 *ce*P **P** **03 52 17.9 +0.4**
MRZ Mangatainoka R 53.11 136 IAmb IAmb 03 52 21.1
comp=Z,188nm,1.3s
MRZ Mangatainoka R 53.11 136 P **P** **03 52 16.7 -1.5**
BKZ Black Stump Fm 53.11 134 P **P** **03 52 19.5 +1.2**
BKZ Black Stump Fm 53.11 134 P **P** **03 52 17.6 -0.7**
TSZ Takapari Road 53.12 136 P **P** **03 52 18.1 -0.2**
URZ Urewera 53.19 133 LR LR 04 14 56.2
comp=Z,1μm,19.3s,baz=316,slow=36
URZ Urewera 53.19 133 P **P** **03 52 17.9 -0.9**
RTZ Ruatahuna 53.24 134 P **P** **03 52 17.9 -1.4**
RTZ IAmb IAmb 03 52 25.6
comp=Z,162nm,0.9s
PLWZ Palliser 53.30 138 P **P** **03 52 19.0 -0.6**
HAZ Te Kaha 53.49 132 P **P** **03 52 20.9 0.0**
MWZ Matawai 53.52 133 P **P** **03 52 20.9 -0.4**
BFZ Birch Farm 53.58 136 P **P** **03 52 22.9 +1.3**
BFZ Birch Farm 53.58 136 IAmb IAmb 03 53 13.4
comp=Z,105nm,1.1s
PXZ Pawanui 53.73 135 P **P** **03 52 22.7 +0.1**
EVN Everest 53.74 312 IAmb IAmb 03 52 25.3
comp=Z,176nm,0.8s
GTA2 Gaotai 53.74 332 ⇑P **P** **03 52 23.8 +0.9**
GTA2 pP **pwP** **03 53 08.7 -2.7**
GTA2 ScP **ScP** **03 57 07.6 +1.7**
GTA2 S **S** **03 59 37.6 -4.5**
GTA2 sS **sS** **04 00 54.8 -2.1**
GTA2 ScS **ScS** **04 01 52.6 0.0**
GTA2 pmax pmax
comp=Z,110nm,0.6s
GTA2 pmax pmax
comp=Z,610nm,10.8s
GTA2 L L
comp=Z,1μm,17.5s
GTA2 L L
comp=Z,1μm,17.5s
GTA2 L L
comp=Z,2μm,17.8s
GOMU GeErMu 53.80 326 P **P** **03 52 24.0 +0.3**
GOMU pmax pmax
comp=Z,21nm,1.4s
MXZ Matakaoa Point 53.80 132 P **P** **03 52 23.0 -0.2**
KNZ Kokohu 53.90 134 P **P** **03 52 23.2 -0.7**
PUZ Puketiti 53.96 133 P **P** **03 52 23.8 -0.6**
RAO Raoul Island 54.35 121 LR LR 04 16 14.5
comp=Z,629nm,18.3s,baz=289,slow=36
YSS Yuzhno-Sakhali 55.11 11 P **P** **03 52 33.0 +0.5**
YSS Yuzhno-Sakhali 55.11 11 *ce*P **P** **03 52 32.9 +0.5**
YSS *e**PP **pP** **03 53 15.6 +0.8**
YSS *e**SP **sP** **03 53 36.5 +0.9**
YSS *e* 03 54 38.0
YSS *e*S **S** **03 59 58.3 -1.5**
YSS *e* 04 02 02.5
YSS *e*SS **SS** **04 03 53.0 +6.0**
YSS pmax pmax
comp=Z,400nm,2.0s
YSS pmax pmax
comp=Z,70nm,1.1s
YSS smax smax
comp=N,600nm,6.4s
YSS smax smax
comp=E,600nm,3.9s
YSS Yuzhno-Sakhali 55.11 11 P **P** **03 52 32.9 +0.5**
HYB Hyderabad 55.64 297 *e*P **P** **03 52 34.5 -2.3**
HYB IVmB_BB 03 52 40.2
comp=Z,2μm,1.4s
HYB *e*sP **sP** **03 53 37.8 -2.3**
HYB IVMs_BB IVMs_BB 03 57 15.8
comp=Z,410nm,3.8s
HYB *e*S **S** **04 00 01.0 -7.0**
HYB *e*ScS **ScS** **04 02 04.9 -2.0**
AIS Amsterdam Isla 55.77 229 P **P** **03 52 39.9 +2.5**
KLR Kul'dur 56.10 2 P **P** **03 52 40.3 +0.9**
comp=Z,70nm,0.8s,baz=205,slow=4.5,SNR=98
KLR S **S** **04 00 12.9 0.0**
comp=Z,4.6nm,1.1s,baz=318,slow=21,SNR=14
KLR LR LR 04 14 05.0
comp=Z,650nm,21.8s,baz=190,slow=33
comp=Z,70nm,0.8s
KLR Kul'dur 56.10 2 *c* iP **P** **03 52 40.0 +0.6**

KLR pmax pmax
comp=Z,199nm,1.1s
DGAR Diego Garcia 56.27 266 P **P** **03 52 44.2 +2.8**
DGAR Diego Garcia 56.27 266 P **P** **03 52 43.1 +1.8**
DGAR pmax pmax
comp=Z,170nm,1.1s
DGAR Diego Garcia 56.27 266 P **P** **03 52 43.1 +1.8**
DGAR IAmb IAmb 03 52 58.3
comp=Z,170nm,1.1s
KAAM Kaadhehdhoo 56.57 275 P **P** **03 52 45.7 +2.2**
HIA Hailar 56.70 353 P **P** **03 52 44.9 +1.2**
HIA Hailar 56.70 353 P **P** **03 52 44.6 +0.9**
HIA pP **pP** **03 53 29.0 +2.7**
HILR Hailar Array B 56.98 353 P **P** **03 52 46.9 +1.2**
comp=Z,42nm,0.5s,baz=162,slow=10,SNR=44
comp=Z,42nm,0.5s
HEH HeiHe 57.10 359 *e*P **P** **03 52 46.6 +0.2**
HEH pP **pP** **03 53 29.9 +0.7**
HEH PcP **PcP** **03 53 38.4 -0.5**
HEH ScP **ScP** **03 57 19.8 -0.4**
HEH S **S** **04 00 25.8 -0.2**
HEH pmax pmax
comp=Z,220nm,0.9s
GRNR Gornyy 57.93 5 ⇑*i* P **P** **03 52 53.4 +1.1**
GRNR pmax pmax
comp=Z,60nm,0.7s
ULN Ulaanbaatar 58.09 343 P **P** **03 52 54.2 +0.6**
ULN Ulaanbaatar 58.09 343 *c i* P **P** **03 52 55.1 +1.5**
ULN pmax pmax
comp=Z,297nm,2.0s
ULN Ulaanbaatar 58.09 343 P **P** **03 52 55.0 +1.4**
SONM Songino Array 58.26 342 P **P** **03 52 55.9 +1.2**
comp=Z,41nm,0.7s,baz=158,slow=8.8,SNR=103
SONM ScP **ScP** **03 57 26.8 +1.3**
comp=Z,4.9nm,0.7s,baz=174,slow=4.2,SNR=4.7
SONM PKPPKP **P'P'df** **04 22 33.2 +1.7**
comp=Z,3.0nm,1.0s,baz=301,slow=0.9,SNR=6.9
comp=Z,41nm,0.7s
SONM Songino Array 58.26 342 P **P** **03 52 55.7 +1.0**
SONM pmax pmax
comp=Z,55nm,0.8s
SONM Songino Array 58.26 342 P **P** **03 52 55.7 +1.0**
SONM IAmb IAmb 03 52 58.4
comp=Z,55nm,0.8s
TYV Tymovskoe 58.85 10 *e*P **P** **03 52 59.9 +1.3**
TYV *e*S **S** **04 00 52.0 +3.3**
TYV pmax pmax
comp=Z,47nm,1.0s
TYV pmax pmax
comp=Z,500nm,6.3s
TYV smax smax
comp=N,700nm,8.0s
TYV smax smax
comp=E,2μm,8.0s
CTZ Chatham Island 59.65 137 IAmb IAmb 03 53 07.0
comp=Z,151nm,1.1s
DRV Dumont d'Urvil 59.97 175 P **P** **03 53 05.8 -0.2**
DRV pP **PcP** **03 53 50.5 +0.4**
CIT Chita 60.36 349 *e*P **P** **03 53 10.1 +1.1**
CIT *e* 03 53 52.7
CIT *e* 03 54 09.0
CIT *e* 04 01 13.5
CIT *e* 04 02 42.0
CIT pmax pmax
comp=Z,273nm,1.7s
CASY Casey 60.52 189 P **P** **03 53 10.3 +0.6**
CASY Casey 60.52 189 P **P** **03 53 10.6 +0.8**
CASY PcP **pP** **03 53 53.2 -0.7**
ZEA Zeya 60.59 359 *e*P **P** **03 53 11.3 +0.9**
ZEA *e* 03 53 55.6
ZEA *e**SP **sP** **03 54 13.6 -0.7**
ZEA *e*S **S** **04 01 12.9 +2.1**
ZEA *e* 04 02 41.2
ZEA pmax pmax
comp=Z,300nm,2.3s
ZEA pmax pmax
comp=N,100nm,2.1s
ZEA pmax pmax
comp=E,20nm,0.8s
ZEA pmax pmax
comp=N,600nm,1.2s
ZEA pmax pmax
comp=Z,180nm,0.9s
ZEA smax smax
comp=E,300nm,3.5s
ZEA smax smax
comp=N,500nm,4.2s
ZAK Zakamensk 61.47 341 *e*P **P** **03 53 16.5 0.0**
ZAK *e* 03 54 01.7
ZAK pmax pmax
comp=Z,71nm,1.8s
IRK Irkutsk 62.80 343 *e*P **P** **03 53 25.5 +0.3**
IRK *e* 04 01 39.7
IRK pmax pmax
comp=Z,340nm,2.0s
WMQ Urumqi 63.02 327 ⇑P **P** **03 53 28.0 +1.1**
WMQ pP **pP** **03 54 13.5 +3.1**
WMQ sP **sP** **03 54 32.1 +1.3**
WMQ S **S** **04 01 40.0 -1.9**
WMQ sS **sS** **04 02 55.8 -4.7**
WMQ SS **SS** **04 05 48.0 -3.5**
WMQ pmax pmax
comp=Z,75nm,0.9s
WMQ pmax pmax
comp=Z,610nm,5.5s
WMQ L L
comp=Z,1μm,16.7s
WMQ L L
comp=Z,530nm,15.5s
WMQ L L
comp=Z,850nm,22.5s
MOY Mondy 63.31 341 *e*P **P** **03 53 30.4 +1.7**
MOY pmax pmax
comp=Z,292nm,1.7s
KNGR Kungurtug, Tuv 63.64 338 ⇓*i* P **P** **03 53 33.0 +2.1**
KNGR pmax pmax
comp=Z,50nm,0.9s
PEA0B Petropavlovsk- 64.63 19 *c i* P **P** **03 53 38.2 +1.0**
PEA0B Petropavlovsk- 64.63 19 IAmb IAmb 03 53 39.4
comp=Z,76nm,0.7s
PETK Petropavlovsk- 64.63 19 P **P** **03 53 38.3 +1.1**
comp=Z,61nm,0.7s,baz=201,slow=2.5,SNR=77
PETK LR LR 04 19 51.7
comp=Z,440nm,21.8s,baz=205,slow=34
PETK PKPPKP **P'P'df** **04 22 21.9 +0.7**
comp=Z,8.0nm,1.0s,baz=325,slow=2.3,SNR=3.8
comp=Z,61nm,0.7s
PET Petropavlovsk 64.86 19 *e*P **P** **03 53 39.6 +1.0**
PET *e**PP **pwP** **03 54 25.9 -1.3**
PET *e*S **S** **04 02 07.6 +3.6**
PET pmax pmax
comp=Z,81nm,1.2s
ROCAM Rodrigues Isla 64.93 252 P **P** **03 53 41.5 +1.7**
BOD Bodaibo 65.83 351 *e*P **P** **03 53 45.3 +0.5**
BOD pmax pmax
comp=Z,75nm,1.8s
NIL Nilore 66.66 311 P **P** **03 53 51.2 +0.5**
NIL Nilore 66.66 311 P **P** **03 53 51.4 +0.7**
NIL pmax pmax
comp=Z,75nm,0.6s
NIL Nilore 66.66 311 P **P** **03 53 51.4 +0.7**
NIL IAmb IAmb 03 53 59.2
comp=Z,75nm,0.6s
ZSN Zaisan 66.92 329 *e*P **P** **03 53 52.9 +1.0**
ZSN *e*S **S** **04 02 31.6 +2.4**
ZSN Zaisan 66.92 329 *e*P **P** **03 53 53.0 +1.0**
ZSN *e*S **S** **04 02 31.7 +2.5**
DGZ Jazzator, Alta 67.19 332 *c i* P **P** **03 53 54.8 +1.0**
DGZ pmax pmax
comp=Z,111nm,1.4s
SHLS Shalkode 67.29 323 *c i* P **P** **03 53 53.8 -0.7**
SHLS *e*S **S** **04 02 33.2 -0.8**
SHLS Shalkode 67.29 323 ⇑*i* P **P** **03 53 53.9 -0.7**
SHLS *e*S **S** **04 02 33.3 -0.8**
PDGK Podgornoye 67.37 323 P **P** **03 53 55.7 +0.7**
UZB Uzynbulak 67.55 323 *c i* P **P** **03 53 56.9 +0.8**
UZB *e*S **S** **04 02 39.4 +2.2**
UZB Uzynbulak 67.55 323 ⇑*i* P **P** **03 53 57.0 +0.8**
UZB *e*S **S** **04 02 39.5 +2.2**
KSH2 Kashi 67.62 317 P **P** **03 53 57.1 +0.4**
KSH2 PcP **PcP** **03 54 23.4 +1.1**
KSH2 sP **sP** **03 55 02.2 +1.2**
KSH2 S **S** **04 02 36.8 -1.4**
KSH2 ScS **SKiKP** **04 03 33.4 -0.8**

KSH2 pmax pmax
comp=Z,84nm,0.7s
KSH2 pmax pmax
comp=Z,750nm,4.4s
KSH2 L L
comp=Z,1μm,20.3s
KSH2 L L
comp=Z,970nm,22.3s
KSH2 L L
comp=Z,1μm,16.7s
MK31 Makanchi Array 67.85 327 *c i* P **P** **03 53 58.7 +0.9**
MKAR Makanchi Array 67.85 327 P **P** **03 53 58.7 +0.9**
comp=Z,58nm,0.5s,baz=115,slow=8.3,SNR=348
MKAR S **S** **04 02 41.4 +1.0**
comp=Z,9.3nm,1.1s,baz=128,slow=9.4,SNR=6.6
MKAR PKPPKP **P'P'df** **04 22 12.2 -4.3**
comp=Z,2.5nm,1.0s,baz=275,slow=2.9,SNR=6.2
comp=Z,58nm,0.5s
MKAR Makanchi Array 67.85 327 P **P** **03 53 58.9 +1.1**
SATY Saty 67.87 322 *c i* P **P** **03 53 59.0 +0.9**
SATY *e*S **S** **04 02 43.2 +2.2**
SATY Saty 67.87 322 ⇑*i* P **P** **03 53 59.0 +0.9**
SATY *e*S **S** **04 02 43.2 +2.2**
KPKS Kokpek 67.93 323 *e*P **P** **03 53 59.4 +0.9**
KPKS Kokpek 67.93 323 *e*P **P** **03 53 59.4 +0.9**
MAKZ Makanchi 68.03 327 P **P** **03 53 59.8 +0.9**
MAKZ pmax pmax
comp=Z,54nm,0.8s
MAKZ Makanchi 68.03 327 P **P** **03 53 59.8 +0.9**
MAKZ IAmb IAmb 03 54 00.3
comp=Z,54nm,0.8s
CCD Concordia, Ant 68.08 182 P **P** **03 53 59.7 +0.5**
CCD PcP **PcP** **03 54 25.4 +1.5**
MA2 Magadan 68.61 12 P **P** **03 54 03.2 +0.9**
comp=Z,43nm,0.8s,baz=165,slow=2.4,SNR=13
comp=Z,43nm,0.8s
MA2 Magadan 68.61 12 P **P** **03 54 04.1 +1.9**
MA2 Magadan 68.61 12 *c i* P **P** **03 54 03.3 +1.1**
MA2 pmax pmax
comp=Z,264nm,2.1s
MA2 Magadan 68.61 12 P **P** **03 54 03.0 +0.8**
MA2 IAmb IAmb 03 54 05.9
comp=Z,92nm,1.0s
MA2 Magadan 68.61 12 P **P** **03 54 03.3 +1.1**
MA2 pP **pP** **03 54 48.5 +1.7**
TNSS Tian-Shan 68.75 322 *e*P **P** **03 54 04.7 +0.7**
TNSS Tian-Shan 68.75 322 *e*P **P** **03 54 04.7 +0.7**
MDOK Medeo 68.76 322 *e*P **P** **03 54 04.6 +0.9**
MDOK *e*S **S** **04 02 53.7 +2.2**
MDOK Medeo 68.76 322 *e*P **P** **03 54 04.6 +0.9**
MDOK *e*S **S** **04 02 53.7 +2.2**
AAA Alma-Ata 68.87 322 *e*P **P** **03 54 05.2 +1.0**
AAA Alma-Ata 68.87 322 *e*P **P** **03 54 05.2 +1.0**
YAK Yakutsk 68.89 0 P **P** **03 54 04.5 +0.6**
comp=Z,168nm,0.3s,baz=157,slow=1.1,SNR=66
YAK S **S** **04 02 52.9 +1.0**
comp=Z,19nm,0.8s,baz=90,slow=23,SNR=22
YAK LR LR 04 23 47.3
comp=Z,502nm,21.3s,baz=174,slow=35
comp=Z,168nm,0.3s
YAK Yakutsk 68.89 0 *c i* P **P** **03 54 04.3 +0.5**
YAK *e* 03 54 23.8
YAK *e**PP **pP** **03 54 47.4 -0.8**
YAK *e* 03 56 37.6
YAK *e*PPP PPP 03 58 21.6
YAK *e*S **S** **04 02 52.0 +0.1**
YAK *e* 04 03 43.1
YAK *e*SS **SS** **04 07 17.6 -3.9**
YAK pmax pmax
comp=Z,251nm,1.0s
YAK pmax pmax
comp=N,66nm,1.2s
YAK pmax pmax
comp=E,21nm,1.0s
YAK pmax pmax
comp=Z,73nm,2.0s
YAK pmax pmax
comp=N,74nm,1.9s
YAK pmax pmax
comp=E,74nm,2.2s
YAK smax smax
comp=E,1μm,3.1s
YAK smax smax
comp=N,965nm,3.0s
YAK Yakutsk 68.89 0 P **P** **03 54 04.4 +0.6**
YAK Yakutsk 68.89 0 P **P** **03 54 04.5 +0.6**
YAK pP **pP** **03 54 49.7 +1.5**
TDK Taldyqorghan 68.97 324 *e*P **P** **03 54 05.8 +1.1**
TDK pmax pmax
comp=Z,59nm,0.7s
TDK Taldyqorghan 68.97 324 *e*P **P** **03 54 05.8 +1.1**
comp=Z,59nm,0.7s
RAR Rarotonga 69.81 110 P **P** **03 54 12.2 +1.8**
RAR Rarotonga 69.81 110 P **P** **03 54 11.9 +1.5**
RAR pmax pmax
comp=Z,259nm,1.3s
RAR Rarotonga 69.81 110 P **P** **03 54 11.9 +1.5**
AAK Ala-Archa 70.08 320 *i* P **P** **03 54 13.3 +1.5**
SNR=53
AAK Ala-Archa 70.08 320 P **P** **03 54 13.1 +1.3**
AAK Ala-Archa 70.08 320 *c i* P **P** **03 54 13.3 +1.5**
AAK pmax pmax
comp=Z,83nm,1.1s
AAK Ala-Archa 70.08 320 P **P** **03 54 13.4 +1.6**
AAK Ala-Archa 70.08 320 P **P** **03 54 13.3 +1.5**
KBL Kabul 70.20 310 P **P** **03 54 13.5 +0.7**
SNR=24
KBL Kabul 70.20 310 P **P** **03 54 13.8 +1.0**
KBL pmax pmax
comp=Z,88nm,1.3s
KBL Kabul 70.20 310 P **P** **03 54 13.8 +1.0**
KBL IAmb IAmb 03 54 15.5
comp=Z,88nm,1.2s
DRK Karamyk 70.34 316 IAmb IAmb 03 54 18.0
comp=Z,61nm,0.7s
ARSB Arslanbob 70.41 318 IAmb IAmb 03 54 18.2
comp=Z,86nm,0.8s
ZAA0 Zalesovo Array 71.29 334 IAmb IAmb 03 54 19.8
comp=Z,99nm,1.0s
ZALV Zalesovo Beam 71.29 334 P **P** **03 54 18.6 -0.1**
comp=Z,68nm,0.8s,baz=119,slow=4.4,SNR=242
ZALV S **S** **04 03 19.4 -0.7**
comp=Z,2.9nm,0.7s,baz=137,slow=13,SNR=7.3
ZALV PKPPKP **P'P'df** **04 22 07.1 -3.1**
comp=Z,7.4nm,1.1s,baz=305,slow=5.2,SNR=10.0
comp=Z,68nm,0.8s
BTLS Baital 71.59 322 *e*P **P** **03 54 19.4 -1.2**
BTLS pmax pmax
comp=Z,23nm,1.7s
BTLS Baital 71.59 322 *e*P **P** **03 54 21.5 +0.8**
SEY Seymchan 72.01 11 P **P** **03 54 24.2 +1.4**
comp=Z,88nm,0.7s,baz=211,slow=4.8,SNR=166
comp=Z,88nm,0.7s
KURBB Kurchatov Arra 72.15 329 P **P** **03 54 24.5 +0.7**
comp=Z,50nm,0.6s,baz=129,slow=4.9,SNR=220
KURBB S **S** **04 03 27.2 -2.9**
comp=Z,7.1nm,1.1s,baz=128,slow=11,SNR=7.7
KURBB PKPPKP **P'P'df** **04 22 05.2 -3.8**
comp=Z,1.0nm,0.9s,baz=292,slow=3.1,SNR=6.5
comp=Z,50nm,0.6s
KURK Kurchatov 72.16 329 P **P** **03 54 24.7 +0.8**
KURK Kurchatov 72.16 329 P **P** **03 54 24.7 +0.8**
KURK pmax pmax
comp=Z,237nm,1.3s
KURK Kurchatov 72.16 329 P **P** **03 54 24.7 +0.8**
KURK IAmb IAmb 03 54 29.8
comp=Z,237nm,1.3s
KURK Kurchatov 72.16 329 P **P** **03 54 24.4 +0.5**
KURK pP **pP** **03 55 10.1 +1.6**
DZA Taraz 72.24 319 *e*P **P** **03 54 25.4 +0.8**
DZA Taraz 72.24 319 *e*P **P** **03 54 25.4 +0.8**
VNDA Vanda 72.48 173 P **P** **03 54 25.2 -0.2**
comp=Z,49nm,0.9s,baz=322,slow=6.2,SNR=165
VNDA PKPPKP **P'P'df** **04 22 07.3 -1.1**
comp=Z,1.3nm,0.9s,baz=320,slow=2.2,SNR=5.0
VNDA LR LR 04 25 43.3
comp=Z,1μm,19.6s,baz=324,slow=35
comp=Z,49nm,0.9s
VNDA Vanda 72.48 173 P **P** **03 54 25.2 -0.2**
VNDA IAmb IAmb 03 54 26.6
comp=Z,82nm,1.0s
VNDA Vanda 72.48 173 P **P** **03 54 25.3 -0.1**
IUG Iuzhnay 72.75 318 *e*P **P** **03 54 28.9 +1.2**
IUG pmax pmax
comp=Z,71nm,1.0s

IUG Iuzhnay 72.75 318 *e*P P 03 54 28.9 +1.2
comp=Z,71nm,1.0s
KK31 Karatay Array 72.87 319 *i* P P 03 54 28.8 +0.5
KKAR Karatay Array 72.87 319 P P 03 54 29.0 +0.7
KKAR Karatay Array 72.87 319 P P 03 54 29.0 +0.7
BRLS Borolday 73.28 319 *e*P P 03 54 31.4 +0.7
BRLS Borolday 73.28 319 *e*P P 03 54 31.5 +0.7
MSEY Mahe Island 73.32 267 P P 03 54 33.8 +2.3
MSEY Mahe Island 73.32 267 P P 03 54 31.6 0.0
MSEY pmax pmax
comp=Z,170nm,1.4s
MSEY Mahe Island 73.32 267 P P 03 54 31.6 0.0
MSEY IAmb IAmb 03 54 34.4
comp=Z,170nm,1.4s
SBA Scott Base 73.38 172 P P 03 54 31.3 +0.6
SBA pmax pmax
comp=Z,128nm,1.1s
SBA Scott Base 73.38 172 P P 03 54 31.3 +0.6
SBA IAmb IAmb 03 54 33.0
comp=Z,128nm,1.1s
NGCH Negor - Chabah 73.54 299 P P 03 54 33.8 +1.3
SNR=8.5
XMAS Kiritimati 73.75 86 P P 03 54 35.6 +1.6
XMAS Kiritimati 73.75 86 P P 03 54 35.5 +1.6
JLN Jalan Bani Buh 74.22 295 P P 03 54 36.7 +0.2
SNR=12
KIWB Kanaga Island 74.39 31 IAmb IAmb 03 54 44.9
comp=Z,78nm,0.8s
MAW Mawson 74.61 201 P P 03 54 38.8 +0.8
comp=Z,51nm,1.4s
MAW Mawson 74.61 201 P P 03 54 38.6 +0.8
comp=Z,180nm,1.1s,baz=71,slow=6.9,SNR=210
MAW LR LR 04 24 29.2
comp=Z,390nm,19.8s,baz=68,slow=33
comp=Z,180nm,1.1s
MAW Mawson 74.61 201 P P 03 54 38.7 +0.8
MAW pmax pmax
comp=Z,68nm,1.3s
MAW Mawson 74.61 201 P P 03 54 38.7 +0.8
ADK Adak 74.64 31 P P 03 54 38.8 +0.4
WBK Wadi Bani Khal 74.73 296 P P 03 54 39.9 +0.4
SNR=20
WSAR Wadi Sarin 75.19 296 P P 03 54 42.7 +0.6
SNR=25
MHTO MHTO 75.24 294 P P 03 54 42.3 -0.1
SNR=12
DQM DQM 75.39 293 P P 03 54 43.5 +0.2
JMDO Jabal Madar 75.44 295 P P 03 54 43.9 +0.2
SNR=11
SMDO Samad 75.66 296 P P 03 54 45.3 +0.3
SNR=15
BIDO Bidbid 75.70 296 P P 03 54 45.6 +0.6
SNR=49
CRZF Crozet Islands 76.20 224 P P 03 54 48.9 +1.5
BSY Bisya 76.35 295 P P 03 54 48.9 +0.2
SNR=9.7
HOQ Hoqain 76.45 296 P P 03 54 49.7 +0.4
SNR=32
JASK Jask - Hormozg 76.52 299 P P 03 54 51.6 +1.9
SNR=16
SHAO Shalim 76.74 290 P P 03 54 52.2 +1.2
ARQ Araqi 77.09 296 P P 03 54 53.1 +0.2
SNR=14
SOHO SOHO 77.27 297 *i* P P 03 54 53.9 +0.1
SNR=20
SOHO SOHO 77.27 297 P P 03 54 54.1 +0.3
SNR=25
DMTO DMTO 77.31 290 P P 03 54 54.2 0.0
BVAR Borovoye Array 77.70 328 P P 03 54 55.8 +0.2
comp=Z,61nm,0.8s,baz=128,slow=8.1,SNR=79
BVAR S S 04 04 32.1 +0.7
comp=Z,2.4nm,0.9s,baz=186,slow=13,SNR=6.5
BVAR PKPPKP P'P'df 04 21 57.8 -1.4
comp=Z,1.0nm,0.7s,baz=333,slow=1.7,SNR=4.5
comp=Z,61nm,0.8s
BORK Borovoye 77.75 328 P P 03 54 56.3 +0.5
BORK pmax pmax
comp=Z,67nm,0.9s
BORK Borovoye 77.75 328 P P 03 54 56.3 +0.5
UOSS Minazif 77.75 297 *i* P P 03 54 56.3 -0.2
SNR=17
UOSS Minazif 77.75 297 P P 03 54 56.4 -0.2
UOSS Minazif 77.75 297 P P 03 54 56.0 -0.6
UOSS Minazif 77.75 297 P P 03 54 57.0 +0.5
UOSS S S 04 04 30.8 -2.2
MDH Madha 77.75 298 *i* P P 03 54 56.2 -0.3
SNR=10
MDH Madha 77.75 298 P P 03 54 56.2 -0.3
SNR=6.7
HATD Hatta, Dubai 77.79 297 *i* P P 03 54 56.9 +0.2
SNR=25
HATD Hatta, Dubai 77.79 297 P P 03 54 57.1 +0.4
SNR=21
ASHO Ashiyiah 77.82 297 *i* P P 03 54 57.0 +0.1
SNR=27
ASHO Ashiyiah 77.82 297 P P 03 54 57.2 +0.2
SNR=19
MSFE Esma-Masafi 77.89 298 *i* P P 03 54 57.6 +0.3
SNR=23
MASF Masafi 77.89 298 P P 03 54 57.9 +0.5
SNR=20
BANOM Banah 77.90 298 *i* P P 03 54 58.1 +0.7
SNR=20
BANOM Banah 77.90 298 P P 03 54 58.1 +0.7
SNR=11
ALNE Al Ain 77.95 296 *i* P P 03 54 58.0 +0.3
SNR=21
ALNE Al Ain 77.95 296 P P 03 54 57.9 +0.3
SNR=18
RBK Rabkut 77.96 290 P P 03 54 57.4 -0.5
SNR=5.7
KHLH Kahului Airpor 78.07 67 IAmb IAmb 03 55 01.9
comp=Z,231nm,1.2s
SHME Shamm 78.07 298 *i* P P 03 54 58.9 +0.7
SNR=34
SHME Shamm 78.07 298 P P 03 54 59.2 +1.0
SNR=23
UMZA Um Al Zommool 78.17 295 P P 03 54 58.5 -0.3
NAZ Nazwa, Dubai 78.24 297 *i* P P 03 54 59.3 +0.1
SNR=17
NAZ Nazwa, Dubai 78.24 297 P P 03 54 59.2 0.0
SNR=12
FAQ Al Faqa, Dubai 78.25 297 *i* P P 03 54 59.3 +0.1
SNR=12
FAQ Al Faqa, Dubai 78.25 297 P P 03 54 59.6 +0.4
SNR=14
DOK Doka 78.25 291 P P 03 54 59.3 -0.1
SNR=7.1
KHLU Kahalu`u 78.28 68 P P 03 55 01.5 +1.9
UMQ Umm Al-Quwin 78.36 298 *i* P P 03 55 00.9 +1.0
SNR=5.6
WHFO Wadi Hawf 78.45 290 P P 03 55 00.0 -0.5
SNR=6.8
ASUD Al Ashush, Dub 78.45 297 *i* P P 03 55 01.1 +0.8
SNR=7.4
ASUD Al Ashush, Dub 78.45 297 P P 03 55 01.1 +0.8
SNR=7.6
TIXI Tiksi 78.55 360 LR LR 04 29 31.2
comp=Z,785nm,20.9s,baz=194,slow=35
TIXI Tiksi 78.55 360 *c i* P P 03 54 59.5 -0.3
TIXI pmax pmax
comp=Z,63nm,0.6s
TIXI Tiksi 78.55 360 P P 03 54 59.2 -0.7
POHA Pohakuloa 78.65 68 P P 03 55 04.0 +2.2
HMH Humu'ula Sheep 78.67 68 P P 03 55 03.5 +1.5
AJN Ajban 78.74 297 *i* P P 03 55 01.9 0.0
SNR=11
AJN Ajban 78.74 297 P P 03 55 02.7 +0.8
SNR=6.1
ABTO Aybut 78.78 289 P P 03 55 02.3 -0.1
HATHI Halema'uma'u T 78.83 69 IAmb IAmb 03 56 08.1
comp=Z,129nm,1.2s
PUH Pauahi 78.86 69 IAmb IAmb 03 57 39.7
comp=Z,286nm,1.7s
STCH Steam Cracks 78.95 69 P P 03 55 05.2 +2.0
TBI Tubuai 79.30 112 *e*P P 03 55 06.6 +1.6
comp=Z,570nm,1.1s
TBI *e*S S 04 04 43.7 -5.9
comp=Z,4μm,41.5s
BILL Bilibino 79.36 13⇓ *e*P P 03 55 06.3 +2.0
BILL pmax pmax
comp=Z,38nm,2.3s
MZWR Madinat Zayed 79.55 296 P P 03 55 06.4 +0.1
PAE Paea 79.55 107 *e*P P 03 55 07.6 +1.2
comp=Z,534nm,1.3s
PAE *e*LR LR 04 20 10.4
comp=Z,2μm,29.1s

PPT2 Papeete2 79.56 107 *e*P P 03 55 08.2 +1.6
comp=Z,344nm,1.2s
PPT2 *e*S S 04 04 48.1 -4.5
comp=Z,430nm,24.8s
PPT2 *e*SS SS 04 10 01.8 -3.4
comp=Z,234nm,22.2s
PPT2 *e*LQ LQ 04 16 46.2
comp=Z,2μm,30.2s
PPT2 *e*LR LR 04 20 04.7
comp=Z,300nm,23.0s
PPT2 *e*LR LR 04 20 11.2
comp=Z,320nm,41.8s
PPT Papeete 79.56 107 P P 03 55 08.0 +1.5
comp=Z,206nm,0.9s,baz=330,slow=7.3,SNR=9.0
comp=Z,206nm,0.9s
PPTF Pamatai, Papee 79.57 107 P P 03 55 09.1 +2.4
MZR Muzera 79.75 295 *i* P P 03 55 07.8 +0.4
SNR=26
MZR Muzera 79.75 295 P P 03 55 08.1 +0.7
SNR=18
TIAR Tiarei 79.78 107 *e*P P 03 55 09.2 +1.5
comp=Z,2μm,1.3s
TVO Taravao 79.85 107 *e*P P 03 55 09.6 +1.4
comp=Z,399nm,1.2s
FOMA Nahampoana Res 80.03 246 IAmb IAmb 03 55 12.3
comp=Z,209nm,1.1s
FOMA Nahampoana Res 80.03 246 P P 03 55 11.2 +2.2
FOMA Nahampoana Res 80.03 246 P P 03 55 10.5 +1.6
ABPO Ambohimpanom 80.18 252 P P 03 55 11.3 +1.2
ABPO pmax pmax
comp=Z,216nm,1.5s
ABPO Ambohimpanom 80.18 252 P P 03 55 11.3 +1.2
ABPO IAmb IAmb 03 55 13.0
comp=Z,216nm,1.4s
ABPO Ambohimpanom 80.18 252 P P 03 55 11.8 +1.8
VOI Vohitsoka 80.39 249 P P 03 55 12.4 +1.4
SNR=16
VOI Vohitsoka 80.39 249 P P 03 55 11.8 +0.8
JRN Qaqah Island 80.72 297 P P 03 55 12.6 +0.1
PMOR Pomariorio Ree 81.37 104 *e*P P 03 55 17.6 +1.4
comp=Z,717nm,1.2s
NRIK Noril'sk 81.43 346 P P 03 55 16.4 +1.0
comp=Z,88nm,0.6s,baz=134,slow=5.3,SNR=75
NRIK S S 04 05 07.8 -2.1
comp=Z,5.3nm,0.5s,baz=37,slow=22,SNR=36
NRIK LR LR 04 34 15.2
comp=Z,604nm,19.5s,baz=144,slow=38
comp=Z,88nm,0.6s
NRIK Noril'sk 81.43 346 *c i* P P 03 55 16.2 +0.9
NRIK pmax pmax
comp=Z,206nm,1.2s
NRIK Noril'sk 81.43 346 IAmb IAmb 03 55 18.8
comp=Z,206nm,1.1s
VAH Vaihoa 81.61 104 *e*P P 03 55 19.2 +1.8
comp=Z,522nm,1.3s
AB31 Akbulak array 82.07 322 *i* P P 03 55 19.2 +0.1
AB31 Akbulak array 82.07 322 IAmb IAmb 03 55 23.3
comp=Z,160nm,1.4s
ABKAR Akbulak array 82.07 322 P P 03 55 19.4 +0.2
SKRH Sakahara 82.22 248 P P 03 55 21.7 +1.0
QSPA South Pole Qui 82.91 180 P P 03 55 22.8 -0.6
comp=Z,112nm,0.8s,baz=281,slow=0.4,SNR=338
QSPA S S 04 05 20.0 -5.5
comp=Z,6.3nm,1.0s,baz=194,slow=22,SNR=9.2
QSPA PKPPKP P'P'df 04 21 49.9 -0.1
comp=Z,3.6nm,1.1s,baz=306,slow=3.1,SNR=3.1
QSPA LR LR 04 33 55.3
comp=Z,598nm,19.1s,baz=347,slow=37
comp=Z,112nm,0.8s
QSPA South Pole Qui 82.91 180 P P 03 55 22.8 -0.6
QSPA IAmb IAmb 03 55 24.2
comp=Z,178nm,1.0s
QSPA South Pole Qui 82.91 180 P P 03 55 22.8 -0.6
SYO Syowa Base 83.32 201⇓ *e*P P 03 55 25.4 +0.2
SYO Syowa Base 83.32 201⇓ *i* P P 03 55 26.2 +1.0
AKTO Aktyubinsk 83.64 322 PKPPKP 04 21 49.0
comp=Z,0.6nm,0.4s,baz=30,slow=4.1,SNR=4.5
AKTO Aktyubinsk 83.64 322 P P 03 55 27.5 +0.3
S12K Black Hills 84.08 32 IAmb IAmb 03 55 31.4
comp=Z,122nm,0.8s
SVE Sverdlovsk 84.42 329 *de*P P 03 55 31.1 +0.2
SVE *e*S S 04 05 33.7 -6.8
SVE pmax pmax
comp=Z,192nm,1.4s
SDPT Sand Point 84.80 33 P P 03 55 34.8 +2.0
CNBA Chernabura Isl 85.10 33 IAmb IAmb 03 55 41.1
comp=Z,104nm,1.2s
M13K Dall Lake 85.25 27 IAmb IAmb 03 55 38.3
comp=Z,228nm,1.6s
K13K Kusilvak Mount 85.28 26 IAmb IAmb 03 55 38.5
comp=Z,128nm,1.0s
ARTI Arti 85.42 328 *c i* P P 03 55 36.0 0.0
ARTI pmax pmax
comp=Z,107nm,0.8s
ARTI Arti 85.42 328 P P 03 55 35.1 -0.8
ARTI Arti 85.42 328 P P 03 55 35.2 -0.8
O14K Tigyukauivet M 85.78 29 IAmb IAmb 03 55 40.4
comp=Z,92nm,1.0s
N14K Kuskokwak Cree 85.83 28 IAmb IAmb 03 55 40.5
comp=Z,144nm,1.3s
L14K Kuk Creek 85.91 27 IAmb IAmb 03 55 41.9
comp=Z,113nm,1.0s
J14K Nanvaranak Lak 86.08 25 IAmb IAmb 03 55 42.9
comp=Z,82nm,1.1s
CHGN Chignik 86.21 32 IAmb IAmb 03 55 41.6
comp=Z,94nm,1.1s
N15K Kwethluk River 86.66 28 IAmb IAmb 03 55 44.9
comp=Z,81nm,0.9s
K15K Wolf Creek Mou 86.77 26 IAmb IAmb 03 55 46.4
comp=Z,88nm,1.2s
RAYN Ar Rayn 87.05 294 *i* P P 03 55 45.2 +0.5
SNR=52
RAYN Ar Rayn 87.05 294 P P 03 55 45.3 +0.5
RAYN pmax pmax
comp=Z,66nm,0.9s
RAYN Ar Rayn 87.05 294 P P 03 55 45.3 +0.5
RAYN IAmb IAmb 03 55 47.3
comp=Z,66nm,0.9s
O16K Kokwok River B 87.42 29 IAmb IAmb 03 55 48.2
comp=Z,144nm,0.8s
M16K Timber Creek 87.48 28 IAmb IAmb 03 55 48.8
comp=Z,70nm,0.9s
J16K Anvik River 87.53 25 IAmb IAmb 03 55 49.3
comp=Z,68nm,0.8s
ATD Arta Tunnel 87.85 282 IAmb IAmb 03 55 52.9
comp=Z,142nm,1.3s
ELIB Princess Elisa 88.20 197 *d*P P 03 55 50.7 +1.4
comp=Z,98nm,1.3s
ELIB *d*pP **pwP** 03 56 40.8 -0.3
J17K VABM Dome 88.22 25 IAmb IAmb 03 55 53.0
comp=Z,66nm,0.8s
M17K Holitna River 88.30 27 IAmb IAmb 03 55 53.9
comp=Z,51nm,1.0s
K17K Iditarod 88.33 26 IAmb IAmb 03 55 52.7
comp=Z,63nm,0.9s
RDOG Red Dog Mine 88.44 20 IAmb IAmb 03 55 53.0
comp=Z,154nm,1.8s
MAK Makhachkala 88.73 313 *c i* P P 03 55 49.4 -2.7
MAK *e*SP **sP** 03 56 57.1 -1.6
MAK *e* 03 59 30.3
MAK *e*PPP PPP 04 01 28.9
MAK *e* 04 05 59.9
MAK *e*SS sS 04 07 25.1 -18
MAK *e*SS **SS** 04 12 12.8 -6.3
MAK pmax pmax
comp=Z,760nm,1.9s
OHAK Old Harbor 89.18 32 P P 03 55 55.8 +1.9
OHAK Old Harbor 89.18 32 IAmb IAmb 03 55 56.9
comp=Z,79nm,1.2s
TAOE Nuku Hiva Isla 89.56 99 *e*S S 04 06 27.8 -3.9
comp=Z,491nm,27.5s
TAOE *e*SS **SS** 04 12 25.8 -6.8
comp=Z,926nm,27.5s
TAOE *e*LR LR 04 24 47.2
comp=Z,301nm,23.9s
KDAK Kodiak Island 89.69 32 LR LR 04 31 26.4
comp=Z,427nm,21.5s,baz=237,slow=32
KDAK Kodiak Island 89.69 32 P P 03 55 56.8 +0.6
KDAK pmax pmax
comp=Z,57nm,1.0s
KDAK Kodiak Island 89.69 32 P P 03 55 56.8 +0.6
KDAK IAmb IAmb 03 55 59.4
comp=Z,57nm,1.0s
GNI Garni 90.29 310 *c i* P P 03 56 00.7 +1.0
GNI pmax pmax
comp=Z,26nm,0.9s

GNI Garni 90.29 310 P P 03 55 59.7 -0.1
BELG Belogornoye 90.43 323 *c i* P P 03 55 58.8 -1.0
BELG pmax pmax
comp=Z,11nm,0.9s
TBLG Delisi 90.54 312 P P 03 56 01.8 +1.1
KIRV Kirov 90.68 329 LR LR 04 40 24.8
comp=Z,287nm,19.6s,baz=120,slow=38
KIRV Kirov 90.68 329 *c i* P P 03 56 00.1 -0.7
KIBK Kibwezi 90.87 268 P P 03 56 02.8 -0.1
KIBK Kibwezi 90.87 268 P P 03 56 04.1 +1.2
SNR=11
KIBK Kibwezi 90.87 268 IAmb IAmb 03 56 06.0
comp=Z,88nm,1.2s
TRLG Trialeti 90.98 312 P P 03 56 04.1 +1.2
PPLA Purkeypile 91.07 27 IAmb IAmb 03 56 05.2
comp=Z,115nm,1.6s
GEVA Gevas 91.32 308 IAmb IAmb 03 56 07.5
comp=Z,90nm,1.4s
SLKM Skilak Lake 91.47 29 IAmb IAmb 03 56 06.5
comp=Z,56nm,1.0s
NCK Nalchik 91.63 313⇓ *i* P P 03 56 06.5 +0.8
NCK pmax pmax
comp=Z,41nm,1.3s
E21K Killik River 91.71 21 IAmb IAmb 03 56 55.0
comp=Z,66nm,1.7s
M22K Willow 91.77 28 IAmb IAmb 03 56 08.2
comp=Z,104nm,1.2s
KTH Kantishna Hill 91.78 26 IAmb IAmb 03 56 07.3
comp=Z,35nm,0.9s
KMBO Kilima Mbogo 91.80 269 P P 03 56 06.2 -1.3
baz=79,slow=5.5
KMBO LR LR 04 38 01.7
comp=Z,202nm,18.5s,baz=101,slow=36
BPAW Bear Paw Mtn. 91.87 26 IAmb IAmb 03 56 09.6
comp=Z,91nm,1.9s
TRF Thorofare Moun 92.04 26 IAmb IAmb 03 56 09.1
comp=Z,78nm,1.6s
NVL N'lazarevskaya 92.06 197 *e*P P 03 56 08.7 +1.6
NVL *e*PP **pwP** 03 56 56.6 -2.7
NVL *e*S **SKSac** 04 06 23.0 +1.7
NVL pmax pmax
comp=Z,41nm,0.9s
GURO Guroymak-BITLI 92.15 308 IAmb IAmb 03 56 11.5
comp=Z,52nm,1.1s
KBZ Khabaz 92.17 314 P P 03 56 08.0 -0.1
comp=Z,6.1nm,0.9s,baz=118,slow=2.8,SNR=9.9
KBZ PKKPbc PKKPbc 04 13 23.8 -0.8
comp=Z,3.0nm,0.9s,baz=270,slow=5.2,SNR=5.5
comp=Z,6.1nm,0.9s
KBZ Khabaz 92.17 314 *c i* P P 03 56 08.7 +0.6
KBZ pmax pmax
comp=Z,15nm,1.4s
PMR Palmer 92.20 28 P P 03 56 09.9 +2.1
PMR Palmer 92.20 28 IAmb IAmb 03 56 09.8
comp=Z,72nm,1.7s
NEUR Neytrino 92.25 313⇑ *e*P P 03 56 09.1 +0.3
NEUR pmax pmax
comp=Z,18nm,1.7s
D22K Ayikyak River 92.28 21 IAmb IAmb 03 56 57.9
comp=Z,60nm,1.6s
SHA1 Shidzhatmaz 92.34 314⇑ *e*P P 03 56 08.9 -0.3
KIV Kislovodsk 92.35 314 *e*P P 03 56 09.0 -0.1
KIV *e* 03 59 50.6
KIV *e* 04 06 23.6
KIV *e*SS SS 04 13 13.6 +2.1
KIV pmax pmax
comp=Z,10.0nm,1.1s
KIV MLR MLR
comp=Z,256nm,20.0s
KIV Kislovodsk 92.35 314 P P 03 56 10.2 +1.1
KNK Knik Glacier 92.49 28 IAmb IAmb 03 56 12.4
comp=Z,53nm,1.0s
SML Sawmill 92.62 28 IAmb IAmb 03 56 13.4
comp=Z,56nm,1.0s
MCK McKinley 92.69 26 IAmb IAmb 03 56 11.3
comp=Z,44nm,1.0s
G23K Bananza Creek 92.80 23 IAmb IAmb 03 56 25.9
comp=Z,28nm,0.9s
D23K Nanushuk River 93.00 21 IAmb IAmb 03 56 14.8
comp=Z,102nm,1.7s
SCM Sheep Creek Mo 93.09 28 IAmb IAmb 03 56 14.6
comp=Z,74nm,1.2s
WRH Wood River Hil 93.18 25 IAmb IAmb 03 56 13.9
comp=Z,68nm,1.1s
E23K Chandalar 93.21 22 IAmb IAmb 03 56 14.9
comp=Z,39nm,1.2s
CCB Clear Creek Bu 93.33 25 IAmb IAmb 03 56 14.3
comp=Z,63nm,1.1s
TOLK Toolik Lake Re 93.33 21 IAmb IAmb 03 57 02.8
comp=Z,105nm,1.9s
COLA College 93.35 25 P P 03 56 14.7 +1.7
COLA College 93.35 25 *d i* P P 03 56 12.5 -0.5
COLA pmax pmax
comp=Z,33nm,1.1s
COLA College 93.35 25 P P 03 56 12.1 -0.9
COLA IAmb IAmb 03 56 14.4
comp=Z,39nm,1.1s
COLA College 93.35 25 P P 03 56 13.2 +0.2
POGA Pongola 93.41 242 P P 03 56 15.6 +1.3
H24K Noodor Dome 93.49 24 IAmb IAmb 03 56 15.9
comp=Z,37nm,1.0s
KOPT Kop Dagi 93.50 310 IAmb IAmb 03 57 18.8
comp=Z,50nm,1.3s
HDA Harding Lake 93.66 26 IAmb IAmb 03 56 15.1
comp=Z,36nm,0.9s
D24K Happy Valley 93.69 21 IAmb IAmb 03 57 04.3
comp=Z,116nm,2.0s
DIV Divide 93.73 29 IAmb IAmb 03 56 17.1
comp=Z,58nm,0.9s
ILAR Eielson Array 93.74 25 P P 03 56 12.9 -1.9
comp=Z,14nm,1.0s,baz=276,slow=4.1,SNR=69
ILAR PP PP 04 00 01.2 -1.6
comp=Z,1.8nm,0.8s,baz=262,slow=6.8,SNR=4.3
ILAR PKKPbc PKKPdf 04 13 19.6 -0.2
comp=Z,2.6nm,0.7s,baz=34,slow=1.6,SNR=20
ILAR PKPPKP P'P'df 04 21 29.9 +0.7
comp=Z,1.4nm,1.1s,baz=354,slow=1.5,SNR=5.8
ILAR LR LR 04 35 14.0
comp=Z,136nm,20.1s,baz=262,slow=33
ILAR Eielson Array 93.74 25 P P 03 56 13.3 -1.6
ILAR Eielson Array 93.74 25 P P 03 56 13.3 -1.6
G24K Hadweenzic Riv 93.79 23 IAmb IAmb 03 56 18.1
comp=Z,47nm,1.3s
VRH Novokhopyorsk 93.87 321 *e*P P 03 56 14.2 -1.6
VRH pmax pmax
comp=Z,20nm,0.6s
TROLL Troll, Antarti 93.91 194 ⇑P P 03 56 16.8 +1.0
comp=Z,5μm,1.2s
TROLL ⇑SKSac **SKSac** 04 06 31.0 -0.8
comp=N,586nm,1.0s
TROLL PKKPbc PKKPdf 04 13 17.5 -1.3
comp=Z,96nm,0.8s
K24K Donnelly Dome 94.08 26 IAmb IAmb 03 56 18.1
comp=Z,46nm,1.0s
ERBR Yeremizino-Bor 94.11 315 *e*P P 03 56 13.8 -3.2
ERBR pmax pmax
comp=Z,37nm,0.5s
PAX Paxson 94.11 27 IAmb IAmb 03 56 19.3
comp=Z,46nm,1.0s
HARP HAARP 94.18 28 IAmb IAmb 03 56 31.7
comp=Z,60nm,1.1s
LODK Lodwar 94.23 273 P P 03 56 19.3 +1.0
BMRM Bremner River 94.27 29 IAmb IAmb 03 56 19.4
comp=Z,44nm,0.9s
SOC Sochi 94.44 313 *e*P P 03 56 17.9 -0.7
SOC *e*S **SKSac** 04 06 32.1 -3.2
RIDG Independent Ri 94.48 26 IAmb IAmb 03 56 20.0
comp=Z,51nm,1.0s
BERG Berg Lake 94.65 30 IAmb IAmb 03 56 21.1
comp=Z,36nm,0.8s
FYU Fort Yukon 94.66 24 IAmb IAmb 03 56 21.6
comp=Z,47nm,1.1s
GLB Gilahina Butte 94.70 29 IAmb IAmb 03 56 21.4
comp=Z,30nm,1.0s
DOT Dot Lake 94.82 27 IAmb IAmb 03 56 21.6
comp=Z,33nm,0.9s
MENT Mentasta 94.90 27 P P 03 56 21.0 +0.7
CRQM Cirque 94.96 30 IAmb IAmb 03 56 23.5
comp=Z,45nm,1.0s
BMAR Burnt Mountain 95.01 23 P P 03 56 21.3 +0.6
ARPR Arapgir-MALATY 95.08 309 IAmb IAmb 03 56 24.8
comp=Z,32nm,1.2s
MCARA McCarthy VSAT 95.08 29 IAmb IAmb 03 56 35.1
comp=Z,24nm,0.9s
TGL Tana Glacier 95.11 30 IAmb IAmb 03 56 23.6
comp=Z,47nm,1.0s
F26K Sheenjek River 95.21 22 IAmb IAmb 03 56 24.2

comp=Z,38nm,1.5s
G26K Porcupine Rive 95.27 23 IAmb IAmb 03 56 25.2
comp=Z,63nm,1.4s
I26K Coal Creek Min 95.37 25 IAmb IAmb 03 56 24.6
comp=Z,35nm,1.3s
VORD Divnogorie 95.38 321⇑ *i*P **P** **03 56 21.3 -1.3**
VORD pmax pmax
comp=Z,30nm,0.6s
SNAA Sanae 95.42 194⇑P **P** **03 56 23.3 +0.7**
comp=Z,1μm,1.2s
SNAA Sanae 95.42 194 P **P** **03 56 22.4 -0.2**
comp=Z,80nm,1.1s;baz=116,slow=3.4,SNR=48
comp=Z,80nm,1.1s
SNAA Sanae 95.42 194*c i*P **P** **03 56 23.4 +0.7**
SNAA pmax pmax
comp=Z,137nm,1.3s
VSR Storozhevoye 95.47 321 *e*P **P** **03 56 22.1 -1.0**
VSR pmax pmax
comp=Z,40nm,1.1s
VORR Voronezh 95.48 321 *e*P **P** **03 56 22.2 -0.9**
VORR pmax pmax
comp=Z,37nm,1.0s
C27K Jago River 95.55 21 IAmb IAmb 03 57 13.1
comp=Z,46nm,1.5s
GRNC Granite Creek 95.64 30 IAmb IAmb 03 56 26.2
comp=Z,39nm,1.0s
BARN Barnard Glacie 95.70 29 IAmb IAmb 03 56 31.2
comp=Z,58nm,1.4s
LPSR Galich'ya Gora 95.72 322 *e*P **P** **03 56 23.0 -1.2**
LPSR pmax pmax
comp=Z,30nm,1.0s
L27K Beaver Creek, 95.77 27 IAmb IAmb 03 56 26.7
comp=Z,34nm,0.8s
BCAR Beaver Creek A 95.79 27 P **P** **03 56 24.9 +0.5**
GAZ Gaziantep 95.80 307 IAmb IAmb 03 56 28.1
comp=Z,67nm,1.8s
KLMR Klimovskoe 95.96 331 *e*P **P** **03 56 22.2 -2.9**
KLMR S **SKSac** **04 06 40.1 -2.5**
KLMR pmax pmax
comp=Z,48nm,1.3s
I27K Kandik River 96.04 25 IAmb IAmb 03 56 28.7
comp=Z,37nm,1.0s
H27K Steamboat Moun 96.11 24 IAmb IAmb 03 56 29.3
comp=Z,47nm,1.4s
ANN Anapa 96.18 314 *e*P **P** **03 56 25.5 -0.9**
ANN *e**PP **pP** **03 57 14.3 +0.8**
ANN *e* 04 00 23.1
ANN pmax pmax
comp=Z,70nm,0.9s
E27K Coleen River 96.21 22 IAmb IAmb 03 57 15.6
comp=Z,68nm,1.8s
MOS Moscow 96.67 325 *e*P **P** **03 56 27.2 -1.2**
MOS *e**PP **pP** **03 57 12.4 -2.8**
MOS *e* 04 00 28.1
MOS *e* 04 06 46.5
MOS *e*S **S** **04 07 25.0 -7.6**
MOS pmax pmax
comp=Z,33nm,0.7s
GHAJ Ghor Haditha 96.72 301 IAmb IAmb 03 56 31.6
comp=Z,36nm,1.2s
I28M Miner Creek 96.73 25 IAmb IAmb 03 56 31.7
comp=Z,36nm,1.2s
F28M Old Crow 96.83 23 IAmb IAmb 03 57 18.4
comp=Z,31nm,1.4s
DAWY Dawson 96.91 26 IAmb IAmb 03 56 32.3
comp=Z,42nm,1.1s
MMAI Mount Meron Ar 96.98 302 P **P** **03 56 29.5 -1.0**
comp=Z,4.5nm,0.8s,baz=40,slow=16,SNR=4.1
comp=Z,4.5nm,0.8s
E28M Babbage River 96.98 22 IAmb IAmb 03 57 35.4
comp=Z,31nm,1.4s
VNA2 Neumayer--Watz 96.99 193⇑P **P** **03 56 30.2 +0.5**
comp=Z,18nm,0.6s,baz=126,slow=4.9
VNA2 ⇑SKSac **SKSac** **04 06 45.6 -2.3**
comp=N,20nm,1.0s
VNA2 PKKPbc **PKKPbc** **04 13 08.6 -4.1**
comp=Z,2.1nm,0.6s,baz=322,slow=3.9
EIL Elat 97.14 299 LR LR 04 44 60.0
comp=Z,235nm,21.7s,baz=96,slow=38
OBN Obninsk 97.25 325 LR LR 04 42 08.1
comp=Z,203nm,21.0s,baz=129,slow=36
OBN Obninsk 97.25 325*ce*P **P** **03 56 29.8 -1.2**
OBN *e**PP **pP** **03 57 16.7 -1.1**
OBN *e* 04 00 32.0
OBN *e*PPP PPP 04 02 35.7
OBN pmax pmax
comp=Z,68nm,1.7s
OBN Obninsk 97.25 325 P **P** **03 56 29.5 -1.5**
VNA3 Neumayer Olymp 97.25 192⇑P Pdif 03 56 31.0 +0.1
comp=Z,21nm,0.9s
VNA3 ⇑SKSac **SKSac** **04 06 46.6 -2.6**
comp=N,5.6nm,1.2s
VNA3 ⇑PKKPbc **PKKPbc** **04 13 08.4 -3.6**
comp=Z,2.5nm,0.8s
M29M Somme Creek 97.29 28 IAmb IAmb 03 56 33.8
comp=Z,16nm,0.9s
VNA1 Neumayer--Stat 97.39 193⇑P Pdif 03 56 32.3 +0.9
comp=Z,38nm,1.1s
H29M Whitestone 97.39 24 IAmb IAmb 03 58 41.2
comp=Z,83nm,2.0s
I29M Ogilvie Camp, 97.41 25 IAmb IAmb 03 56 34.2
comp=Z,29nm,1.1s
L29M L29M 97.46 27 IAmb IAmb 03 56 34.7
comp=Z,21nm,1.1s
G29M Pine Creek 97.54 23 IAmb IAmb 03 56 34.1
comp=Z,41nm,1.2s
K29M Barlow Dome 97.74 27 IAmb IAmb 03 56 36.4
comp=Z,32nm,1.2s
EPYK Eagle Plains 98.06 24 IAmb IAmb 03 56 36.9
comp=Z,39nm,1.4s
G30M tAoh Zraii Nji 98.25 23 IAmb IAmb 03 56 36.6
comp=Z,21nm,1.1s
MBAR Mbarara 98.33 268 LR LR 04 39 19.5
comp=Z,170nm,19.4s,baz=72,slow=34
MBAR Mbarara 98.33 268 P Pdif 03 56 38.0 +0.9
MBAR Mbarara 98.33 268 P Pdif 03 56 37.9 +0.8
MBAR pmax pmax
comp=Z,18nm,1.2s
MBAR Mbarara 98.33 268 P Pdif 03 56 37.9 +0.8
MBAR IAmb IAmb 03 56 39.3
comp=Z,18nm,1.2s
APA Apatity 98.70 337 *e*P **P** **03 56 34.8 -2.5**
APA pmax pmax
comp=Z,8.0nm,1.2s
APA MLR MLR
comp=Z,975nm,5.8s
BR131 Keskin Array S 98.74 309 P **P** **03 56 37.0 -1.3**
BR131 Keskin Array S 98.74 309⇑ *e*P **P** **03 56 37.2 -1.1**
BR131 Keskin Array S 98.74 309 IAmb IAmb 03 57 03.1
comp=Z,25nm,1.6s
BRTR Keskin Array B 98.74 309 P **P** **03 56 37.4 -1.0**
comp=Z,1.7nm,0.7s,baz=90,slow=2.5,SNR=8.4
BRTR PKiKP **PKiKP** **04 01 09.1 +0.4**
comp=Z,2.2nm,1.0s,baz=138,slow=2.6,SNR=5.1
BRTR PKKPbc **PKKPbc** **04 13 07.3 +0.3**
comp=Z,3.5nm,0.9s,baz=216,slow=4.0,SNR=10
BRTR LR LR 04 48 09.0
comp=Z,133nm,21.2s,baz=67,slow=39
comp=Z,1.7nm,0.7s
BOSA Boshof 98.75 240 P **P** **03 56 37.1 -1.5**
comp=Z,26nm,1.1s,baz=110,slow=4.2,SNR=14
comp=Z,26nm,1.1s
BOSA Boshof 98.75 240 P **P** **03 56 38.2 -0.5**
BOSA pmax pmax
comp=Z,54nm,1.4s
BOSA Boshof 98.75 240 P **P** **03 56 38.2 -0.5**
BOSA Boshof 98.75 240 P Pdif 03 56 39.2 +0.6
SKAG Skagway 98.82 31 IAmb IAmb 04 00 38.0
comp=Z,44nm,1.6s
WHY Whitehorse 99.01 30 IAmb IAmb 03 56 41.2
comp=Z,24nm,0.9s
H31M Peel River 99.05 24 IAmb IAmb 03 56 41.5
comp=Z,27nm,1.4s
LBTB Lobatse 99.24 243 P **Pdif** **03 56 41.5 +0.7**
LBTB PP **PP** **04 00 46.2 +0.1**
LPHEP Lephephe 99.35 245 P **Pdif** **03 56 41.9 +0.6**
LPHEP PP **PP** **04 00 47.4 +0.4**
MAKGR Makgori 99.77 242 P **Pdif** **03 56 43.6 +0.4**
VADS Vadso 99.95 340 *e*P **Pdif** **03 56 41.8 -1.0**
KDWAN Kaudwane 100.42 245 P **Pdif** **03 56 46.9 +0.7**
KDWAN PP **PP** **04 00 55.6 +0.5**
ARA0 ARCESS Array S 101.36 340 *e*P **Pdif** **03 56 48.8 -0.3**
ARCES ARCESS Array B 101.36 340 P **Pdif** **03 56 48.3 -0.9**
comp=Z,19nm,0.8s,baz=85,slow=5.2,SNR=39
ARCES PKiKP **PKiKP** **04 01 12.4 +0.1**
comp=Z,1.0nm,0.4s,baz=98,slow=1.7,SNR=12
ARCES PKKPbc **PKKPbc** **04 12 57.3 -3.2**
comp=Z,2.4nm,0.5s,baz=258,slow=3.0,SNR=17
ARCES ARCESS Array B 101.36 340 **Pdif** **03 56 48.7 -0.4**
SPA0 Spitsbergen Ar 101.47 349 *e*P **Pdif** **03 56 50.2 +0.7**
SPITS Spitsbergen Ar 101.47 349 P **Pdif** **03 56 49.7 +0.2**
comp=Z,3.4nm,0.4s,baz=97,slow=7.1,SNR=14
AK09 Malin Array Si 101.72 320 P **Pdif** **03 56 50.0 -1.1**
AK10 Malin Array Si 101.74 320 P **Pdif** **03 56 50.6 -0.6**
AKASG Malin Array Be 101.75 320 P **Pdif** **03 56 50.1 -1.1**
comp=Z,3.5nm,0.7s,baz=73,slow=4.6,SNR=10
AKASG PKiKP **PKiKP** **04 01 14.9 +1.4**
comp=Z,3.7nm,0.9s,baz=64,slow=2.5,SNR=4.2
AKBB Malin Array Si 101.75 320⇑ *i*P **Pdif** **03 56 49.9 -1.3**
AKBB pmax pmax
comp=Z,27nm,2.5s
AK07 Malin Array Si 101.77 320 P **Pdif** **03 56 50.7 -0.6**
KTK1 Kautokeino 102.26 339 *e*P **Pdif** **03 56 52.3 -0.8**
MNK Minsk 102.29 324 *i*P **Pdif** **03 56 53.2 -0.3**
MNK *i* 04 01 08.5
MNK *i*PPP PPP 04 03 23.4
MNK *i*S **SKSac** **04 07 14.1 -0.1**
MNK *i*PS **PS** **04 10 20.4 +1.5**
MNK *i*SS **SS** **04 15 33.5 +3.4**
MNK *i*SSS SSS 04 19 29.0
MNK pmax pmax
comp=Z,40nm,0.9s
MNK pmax pmax
comp=E,7.0nm,0.7s
MNK pmax pmax
comp=N,16nm,0.9s
MNK MLR MLR
comp=Z,293nm,19.0s
MNK MLR MLR
comp=E,422nm,19.0s
MNK MLR MLR
comp=N,183nm,18.0s
MNK Minsk 102.29 324 *i*P **Pdif** **03 56 53.2 -0.3**
comp=E,7.0nm,0.7s
MNK *i*P **Pdif** **03 56 53.2 -0.3**
comp=N,16nm,0.9s
MNK *i*P **Pdif** **03 56 53.2 -0.3**
comp=Z,40nm,0.9s,baz=85
MNK *i*pP **pPdif** **03 57 40.6 +0.3**
MNK *i*PP **PP** **04 01 08.6 +0.3**
MNK *i*PPP PPP 04 03 23.5
MNK *i*S **SKSac** **04 07 14.2 -0.1**
MNK *i*sS pS 04 08 41.5 -39
MNK *i*PS **PS** **04 10 20.4 +1.5**
MNK *i*SS **SS** **04 15 33.5 +3.4**
MNK *i*SSS SSS 04 19 29.1
MNK *i*LR LR 04 41 15.6
MNK *i*LRM MLR 04 43 01.3
comp=Z,293nm,18.5s
MNK *i*LRM MLR 04 43 21.6
comp=E,422nm,18.8s
MNK *i*LRM MLR 04 43 33.0
comp=N,183nm,17.9s
FINES FINESS Array B 102.44 331 P **Pdif** **03 56 53.2 -0.8**
comp=N,2.6nm,0.5s,baz=54,slow=4.9,SNR=28
FINES PKiKP **PKiKP** **04 01 15.0 +0.6**
comp=N,2.9nm,0.5s,baz=87,slow=2.9,SNR=9.6
FINES SKiKP **SKiKP** **04 04 32.2 +1.0**
comp=N,2.4nm,0.8s,baz=126,slow=2.6,SNR=4.7
FINES PKKPbc **PKKPbc** **04 12 54.6 -2.5**
comp=N,1.2nm,0.6s,baz=188,slow=1.6,SNR=5.7
VSU Vasula 102.51 328⇑ *e*P **Pdif** **03 56 52.6 -1.8**
VSU pmax pmax
comp=Z,29nm,1.4s
LUBAR Lubar, Ukraine 102.74 319 P **Pdif** **03 56 54.9 -0.8**
JETT Jettan, Norway 103.10 340 *e*P **Pdif** **03 56 56.4 -0.5**
TRO Tromso 103.58 340 *e*P **Pdif** **03 56 58.4 -0.5**
KMPD K-Podol'skiy 103.70 318 P **Pdif** **03 56 58.6 -1.3**
VRI Vrincioaia 103.72 315⇓P **PKiKP** **04 01 15.8 -1.5**
PLOR Plostina 103.78 315⇓P **PKiKP** **04 01 18.4 +1.0**
NEHR Nehoiu 104.06 315⇑P **PKiKP** **04 01 19.6 +1.6**
BIZ Bicaz 104.07 317⇑P **PKiKP** **04 01 18.6 +0.7**
BURAR Bucovina Array 104.61 317⇓P **PKiKP** **04 01 22.2 +3.2**
STEI Steigen 105.39 339 *e*P **Pdif** **03 57 06.6 -0.4**
FAUS Fauske 105.56 338 *e*P **Pdif** **03 57 07.4 -0.4**
IDI Anoyia 105.73 305 PKP **PKiKP** **04 01 22.1 +0.7**
MOR8 Moi Rana 106.29 337 *e*P **Pdif** **03 57 09.2 -2.0**
RAUS Rausandaksla 106.35 338 *e*P **Pdif** **03 57 10.7 -0.7**
DRGR 106.40 317⇓P **PKiKP** **04 01 20.5 -1.8**
BLKB Belogradchik 106.80 313⇓P **PKiKP** **04 01 24.5 +1.4**
SURR Surduc 106.94 316⇓P **PKiKP** **04 01 24.3 +1.1**
SIRR Siria 107.19 316⇑P **PKiKP** **04 01 23.8 +0.1**
BZS Buzias 107.31 316⇑P **PKiKP** **04 01 24.2 +0.3**
MDVR Moldovita 107.35 315⇓P **PKiKP** **04 01 25.2 +1.1**
YKA Yellowknife Ar 108.15 26 Pdiff **Pdif** **03 57 18.9 -0.5**
comp=Z,2.2nm,0.8s,baz=298,slow=5.0,SNR=5.1
YKA PKiKP **PKiKP** **04 01 24.6 -0.3**
comp=Z,4.5nm,0.9s,baz=296,slow=1.9,SNR=7.0
YKA PKKPbc **PKKPbc** **04 12 37.3 -2.4**
comp=Z,6.7nm,0.7s,baz=117,slow=3.6,SNR=14
FRGS Fruska Gora 108.64 315 *e*P **PKiKP** **04 01 26.5 0.0**
HFS Hagfors 108.64 332 Pdiff **Pdif** **03 57 21.4 -0.3**
comp=Z,1.8nm,0.5s,baz=104,slow=4.7,SNR=9.0
HFS PKKPbc **PKKPbc** **04 12 36.3 -1.8**
comp=Z,2.2nm,0.7s,baz=302,slow=3.2,SNR=4.2
OKC Ostrava-Krasne 108.91 320 *e*PKP **PKiKP** **04 01 33.0 +6.2**
TEKS Tekeris 108.93 315 *e*P **PKiKP** **04 01 26.5 -0.5**
BBLS Lazi&#263i 109.12 314 *e*P **PKiKP** **04 01 28.1 +0.6**
STEB Steborice 109.12 320 *e*PKP **PKiKP** **04 01 27.2 0.0**
MORH Mrgy, Hungar 109.27 316⇑P **PKiKP** **04 01 28.3 +0.7**
MORC Moravsky Berou 109.30 320 *e*PKiKP **PKiKP** **04 01 28.7 +1.1**
MORC Moravsky Berou 109.30 320⇑P **PKiKP** **04 01 28.8 +1.1**
JAVC Velka Javorina 109.41 319 *e*PKiKP **PKiKP** **04 01 29.0 +1.2**
NC602 NORSAR Array S 109.44 333 *e*P **Pdif** **03 57 26.4 +1.2**
NORES NORESS Array B 109.44 333 P **Pdif** **03 57 27.2 +2.0**
PDG Podgorica 109.44 312⇓P **PKiKP** **04 01 28.6 +0.6**
PDG Podgorica 109.44 312 *e*P **PKiKP** **04 01 28.1 +0.1**
NB2 NORSAR Subarra 109.48 333 PKPdif **PKiKP** **04 01 27.6 0.0**
comp=Z,7.3nm,1.2s,baz=68,slow=1.9
NB2 NORSAR Subarra 109.48 333 *e* **PKiKP** **04 01 27.0 -0.6**
NB2 AMP 04 01 27.0
NOA NORSAR Array B 109.48 333 Pdiff **Pdif** **03 57 24.6 -0.8**
comp=Z,1.9nm,0.8s,baz=64,slow=4.6,SNR=4.9
NOA PKiKP **PKiKP** **04 01 28.0 +0.4**
comp=Z,4.2nm,0.8s,baz=268,slow=3.2,SNR=10
NOA PKKPbc **PKKPbc** **04 12 32.8 -2.8**
comp=Z,2.9nm,0.9s,baz=64,slow=2.8,SNR=5.0
DRME Dracevica, Mon 109.53 312 *e*P **PKiKP** **04 01 28.7 +0.5**
MODS Modra-Piesok 109.77 319 *e*PKP **PKiKP** **04 01 30.5 +2.0**
MODS *e* 04 12 33.5
MODS *e* 04 12 45.8
BRY Bratogost 109.89 313 *e*P **PKiKP** **04 01 29.0 0.0**
DPC Dobruska-Polom 109.94 321 *e*PKP **PKiKP** **04 01 29.5 +0.7**
DPC *e*PKKP **PKKPbc** **04 12 35.0 +1.3**
DPC *ex* x 04 12 45.5
OSTC Ostas 109.96 321 *e*PKP **PKiKP** **04 01 29.3 +0.5**
OSTC *e*PKKP **PKKPbc** **04 12 34.4 +0.8**
OSTC *ex* x 04 12 45.3
VRAC Vranov 110.01 320 *e*PKiKP **PKiKP** **04 01 29.2 +0.3**
VRAC Vranov 110.01 320⇓P **PKiKP** **04 01 30.3 +1.4**
CHVC Chvalec 110.05 321 *e*PKP **PKiKP** **04 01 29.4 +0.4**
UPC Upice 110.10 321 *e*PKIKP **PKiKP** **04 01 29.5 +0.5**
UPC Upice 110.10 321 *e*PKP **PKiKP** **04 01 29.5 +0.5**
KRUC Moravsky 110.19 320 *e*PKIKP **PKiKP** **04 01 29.2 0.0**
BEHE Becsehely 110.49 317 *e*P **PKiKP** **04 01 30.6 +0.7**
BLY Banja Luka 110.54 315⇓P **PKiKP** **04 01 32.8 +2.7**
BLY Banja Luka 110.54 315 *e*P **PKiKP** **04 01 30.1 +0.1**
RONA Rosalia, Austr 110.55 318 *i* PKiKP **PKiKP** **04 01 30.1 +0.1**
comp=Z,1.0nm,0.5s
RONA *e*PKKP **PKKPbc** **04 12 31.4 -0.2**
comp=Z,1.8nm,0.6s
RONA *e*PKKP **PKKPab** **04 12 43.0 +1.9**
comp=Z,0.9nm,0.5s
WINA Alland / Wiene 110.61 319 *i* PKiKP **PKiKP** **04 01 30.6 +0.6**
comp=Z,0.7nm,0.4s
WINA *e*SKP 04 04 48.9
comp=Z,0.9nm,0.4s
WINA *e*PKKP **PKKPbc** **04 12 31.0 -0.4**
comp=Z,1.3nm,0.4s
WINA *e*PKKP **PKKPab** **04 12 42.6 +1.8**
comp=Z,4.1nm,0.9s
TREC Trest 110.72 320 *e*PKIKP **PKiKP** **04 01 30.7 +0.5**
TREC *e* 04 12 30.9
TREC Trest 110.72 320 *e*PKP **PKiKP** **04 01 30.7 +0.5**
TREC *e*PKKP **PKKPbc** **04 12 30.9 -0.3**
TREC *ex* x 04 12 42.0
CONA Conrad Observa 110.79 319 *e*PKiKP **PKiKP** **04 01 30.5 0.0**
comp=Z,1.0nm,0.5s
CONA *e*SKP 04 04 49.1
comp=Z,1.5nm,0.6s
CONA *i* PKKP **PKKPbc** **04 12 30.7 -0.3**
comp=Z,3.6nm,0.7s,SNR=7.7
CONA *e*PKKP **PKKPab** **04 12 42.2 +2.1**
comp=Z,5.1nm,1.0s
ABNA Allenstein Bun 110.90 320 *e*PKiKP **PKiKP** **04 01 31.6 +1.0**
comp=Z,1.9nm,0.4s
RUE Ruedersdorf 110.93 324 *e*PKPdf **PKiKP** **04 01 31.9 +1.4**
baz=73,slow=1.9
PVCC Panska Ves 110.98 322 *e*PKIKP **PKiKP** **04 01 31.1 +0.4**
PVCC Panska Ves 110.98 322 *e*PKP **PKiKP** **04 01 31.1 +0.4**
PRU Pruhonice 111.14 321 *e*PKIKP **PKiKP** **04 01 30.8 -0.2**
PRU Pruhonice 111.14 321 *e*PKP **PKiKP** **04 01 30.8 -0.2**
ARSA Arzberg 111.16 318 *i* PKiKP **PKiKP** **04 01 31.3 +0.1**
comp=Z,0.9nm,0.1s,SNR=5.2
ARSA *e*SKP 04 04 48.4
comp=Z,8.6nm,0.0s
ARSA *i* PKKP **PKKPbc** **04 12 29.3 -0.3**
comp=Z,3.2nm,0.8s,SNR=5.2
BRG Berggiesshubel 111.28 322 *e*PKPdf **PKiKP** **04 01 31.6 +0.4**
baz=73,slow=1.9
BRG Berggiesshubel 111.28 322 *e*PKiKP **PKiKP** **04 01 31.7 +0.4**
BRG Amp 04 01 33.0
comp=Z,5.8nm,1.0s
BRG PP **PP** **04 02 16.9 +2.9**
BRG Amp 04 02 18.3
comp=Z,4.2nm,1.1s
BRG Berggiesshubel 111.28 322 SP SP 04 11 24.0 -1.0
BRG Berggiesshubel 111.28 322 SS SS 04 17 42.0 +10
ZVC Zvikov 111.50 321 *e*PKP **PKiKP** **04 01 31.5 -0.2**
ZVC *e*PKKP **PKKPbc** **04 12 28.3 -0.3**
ZVC *ex* x 04 12 38.3
CKRC Cesky Krumlov 111.58 320 *e*PKIKP **PKiKP** **04 01 32.1 +0.2**
CKRC *e* 04 12 37.5
CKRC Cesky Krumlov 111.58 320 *e*PKP **PKiKP** **04 01 32.1 +0.2**
CKRC *e*PKKP **PKKPbc** **04 12 28.4 +0.1**
CKRC *ex* x 04 12 37.5
MATE Matera 111.61 311⇓P **PKiKP** **04 01 32.3 +0.1**
SOKA Soboth 111.62 317 *i* PKiKP **PKiKP** **04 01 32.1 -0.1**
comp=Z,5.4nm,0.9s,SNR=7.9
SOKA *e*SKP 04 04 49.2
comp=Z,4.1nm,0.9s
SOKA *e*PKKP **PKKPbc** **04 12 27.5 -0.7**
comp=Z,2.9nm,0.7s,SNR=5.9
CLL Collm 111.73 323 *i* PKiKP **PKiKP** **04 01 32.3 +0.3**
CLL *i* 04 12 36.9
CLL pmax pmax
comp=Z,7.0nm,0.8s
CLL Collm 111.73 323 *e*PKPdf **PKiKP** **04 01 31.9 -0.1**
baz=73,slow=1.9
CLL Collm 111.73 323 *i* PKiKP **PKiKP** **04 01 32.3 +0.3**
comp=Z,7.0nm,0.8s
CLL *ex* x 04 01 59.0
CLL *e*PP **PP** **04 02 22.0 +4.8**
CLL *e*SPP 04 03 23.0
CLL *e*PPP PPP 04 04 42.0
CLL *e*sPPP 04 05 39.0
CLL *e*PPPP 04 06 30.0
CLL *e*SKKSac SKKSac 04 09 00.0 +0.1
CLL *e*Sdif **Sdif** **04 09 42.0 +3.2**
CLL *ex* x 04 11 21.0
CLL *i* PKKPab **PKKPab** **04 12 36.9 +1.2**
comp=Z,11nm,1.2s
CLL *e*PPS PPS 04 12 48.0
CLL *e*SS **SS** **04 17 46.0 +8.3**
CLL *e*SSS SSS 04 21 54.0
CLL *ex* x 04 28 18.0
CLL LH 04 33 00.0
CLL LV 04 38 00.0
CLL AMS AMS 04 45 00.0
comp=N,500nm,35.5s
CLL AMS AMS 04 45 00.0
comp=E,800nm,34.3s
CLL AMS AMS 04 53 00.0
comp=N,300nm,19.5s
CLL AMS AMS 04 53 00.0
comp=E,400nm,23.3s
CLL AMS AMS 04 53 00.0
comp=Z,400nm,20.6s
BOJS Bojanci 111.73 316 *i* PKiKP **PKiKP** **04 01 32.6 +0.4**
BOJS *i* SKiKP **SKiKP** **04 04 49.9 +0.5**
TIP Timpagrande 111.80 309⇑P **PKiKP** **04 01 33.7 +1.0**
SESA Seetaler Alpe, 111.83 318 *i* PKiKP **PKiKP** **04 01 32.5 -0.2**
comp=Z,3.2nm,0.4s,SNR=7.5
SESA *e*SKP 04 04 50.1
comp=Z,1.8nm,0.5s
SESA *i* PKKP **PKKPbc** **04 12 27.0 -0.7**
comp=Z,2.3nm,0.6s,SNR=4.6
SESA *e*PKKP **PKKPab** **04 12 36.0 +0.4**
comp=Z,0.2nm,0.2s
MOA Molln 111.85 319 *i* PKiKP **PKiKP** **04 01 32.3 -0.2**
comp=Z,3.2nm,0.6s,SNR=4.4
MOA *i* PKKP **PKKPbc** **04 12 27.2 -0.2**
comp=Z,3.7nm,0.7s,SNR=5.1
MOA *e*PKKP **PKKPab** **04 12 37.0 +1.7**
comp=Z,3.3nm,0.6s
NVAR Mina Array Bea 111.95 51 Pdiff **Pdif** **03 57 39.1 +1.9**
comp=Z,1.6nm,0.8s,baz=258,slow=5.5,SNR=9.8
NVAR PKiKP **PKiKP** **04 01 34.2 +1.0**
comp=Z,2.3nm,0.7s,baz=264,slow=2.6,SNR=11
NVAR PP **PP** **04 02 17.6 -1.9**
comp=Z,1.2nm,0.7s,baz=274,slow=5.5,SNR=3.6
NVAR PKKPbc **PKKPbc** **04 12 28.1 +1.1**
comp=Z,1.5nm,0.6s,baz=72,slow=5.7,SNR=11
GEC2 GERESS Array S 111.96 320 *e*PKPdf **PKiKP** **04 01 32.7 -0.1**
baz=73,slow=1.9
GERES GERESS Array B 111.96 320 Pdiff **Pdif** **03 57 36.5 -0.3**
comp=Z,0.7nm,0.9s,baz=48,slow=7.9,SNR=4.1
GERES PKiKP **PKiKP** **04 01 32.8 0.0**
comp=Z,7.1nm,0.6s,baz=70,slow=1.6,SNR=46
GERES SKP 04 04 49.6
comp=Z,2.2nm,0.6s,baz=71,slow=1.7,SNR=6.8
GERES PKKPbc **PKKPbc** **04 12 26.7 -0.4**
comp=Z,1.0nm,0.7s,baz=245,slow=2.8,SNR=7.8
GERES SKKPbc SKKPbc 04 15 51.8 -2.0
comp=Z,0.6nm,0.8s,baz=236,slow=1.4,SNR=4.1
KHC Kasperske Hory 111.97 320⇑ *i* PKiKP **PKiKP** **04 01 32.1 -0.6**
KHC pmax pmax
comp=Z,11nm,1.3s
KHC Kasperske Hory 111.97 320 *e*PKP **PKiKP** **04 01 32.6 -0.1**
KHC *e*PKKP **PKKPbc** **04 12 26.9 -0.2**
KHC *ex* x 04 12 35.9
OBKA Obir 111.98 317 PKiKP **PKiKP** **04 01 33.3 +0.4**
comp=Z,1.2nm,0.5s
OBKA *i* PKKP **PKKPbc** **04 12 26.8 -0.2**
comp=Z,3.8nm,0.7s,SNR=6.0
OBKA *e*PKKP **PKKPab** **04 12 38.1 +3.3**
comp=Z,3.9nm,0.6s
LJU Ljubljana 112.10 317 *i* PKiKP **PKiKP** **04 01 33.3 +0.3**
LJU *i* SKiKP **SKiKP** **04 04 50.6 +0.5**
BIOA Bad Ischl, Aus 112.30 319 *i* PKiKP **PKiKP** **04 01 33.2 -0.1**
comp=Z,2.0nm,0.4s
BIOA *e*PKKP **PKKPbc** **04 12 26.0 +0.1**
comp=Z,5.0nm,0.7s
TANN Tannenbergstha 112.31 322 *e*PKPdf **PKiKP** **04 01 34.1 +0.8**
baz=73,slow=1.9
NKC Novy Kostel 112.37 322 *e*PKIKP **PKiKP** **04 01 33.4 0.0**
NKC Novy Kostel 112.37 322 *e*PKP **PKiKP** **04 01 33.4 0.0**
WET Wettzell 112.41 320 *e*PKPdf **PKiKP** **04 01 33.6 +0.1**
baz=73,slow=1.9
BSEG Bad Segeberg 112.46 326 *e*PKPdf **PKiKP** **04 01 34.8 +1.5**
baz=73,slow=1.9
FLTG Flechtingen 112.46 324 *e*PKPdf **PKiKP** **04 01 33.7 +0.3**
baz=73,slow=1.9
PLN Plauen 112.48 322 *e*PKPdf **PKiKP** **04 01 34.0 +0.4**
baz=73,slow=1.9
MYKA Terra Mystica 112.56 318 *i* PKiKP **PKiKP** **04 01 33.6 -0.4**
comp=Z,2.4nm,0.5s
MYKA *e*PKKP **PKKPbc** **04 12 25.2 +0.1**
comp=Z,6.7nm,0.9s
MYKA *e*PKKP **PKKPab** **04 12 34.4 +2.1**
comp=Z,4.0nm,0.5s
KBA Koelnbreinsper 112.65 318 *i* PKiKP **PKiKP** **04 01 33.4 -0.8**
comp=Z,1.9nm,0.6s
KBA *e*SKP 04 04 52.1
comp=Z,2.3nm,0.6s
KBA *e*PKKP **PKKPbc** **04 12 24.6 -0.3**
comp=Z,3.2nm,0.7s
KBA *e*PKKP **PKKPab** **04 12 33.3 +1.4**
comp=Z,3.7nm,0.6s
LESA Schwarzleotal 113.00 319 *i* PKiKP **PKiKP** **04 01 34.1 -0.6**
comp=Z,6.0nm,0.4s,SNR=14
LESA *e*SKP 04 04 51.4
comp=Z,2.6nm,0.5s
LESA *i* PKKP **PKKPbc** **04 12 23.6 -0.1**
comp=Z,6.4nm,0.9s,SNR=8.0
CLZ Clausthal 113.13 324 *e*PKPdf **PKiKP** **04 01 35.7 +0.9**

baz=73,slow=1.9
ABTA Abfaltersbach 113.28 318 *i* PKiKP **PKiKP 04 01 35.0 -0.3**
comp=Z,7.0nm,0.8s,SNR=20
ABTA *e*SKP 04 04 52.3
comp=Z,3.8nm,0.6s
ABTA *i* PKKP **PKKPbc 04 12 22.6 0.0**
comp=Z,4.1nm,0.8s,SNR=6.4
ABTA *e*PKKP **PKKPab 04 12 30.9 +1.9**
comp=Z,2.5nm,0.7s
GRF Grafenberg Arr 113.29 321 *e*PKPdf **PKiKP 04 01 35.5 +0.4**
baz=73,slow=1.9
RETH Rethem/Aller, 113.41 325 *e*PKPdf **PKiKP 04 01 36.4 +1.3**
baz=73,slow=1.9
FUR Furstenfeldbru 113.70 320 *e*PKPdf **PKiKP 04 01 36.0 0.0**
baz=73,slow=1.9
AQU L'Aquila 113.72 313 PKP **PKiKP 04 01 36.3 +0.1**
AQU L'Aquila 113.72 313 *e*P **PKiKP 04 01 36.7 +0.5**
WTTA Wattenberg 113.72 319 *e*PKP **PKiKP 04 01 36.3 +0.1**
comp=Z,17nm,0.4s,SNR=49
WTTA *e*SKP 04 04 53.1
comp=Z,1.7nm,0.4s
WTTA *e*PKKP **PKKPbc 04 12 22.0 +0.7**
comp=Z,6.9nm,1.0s,SNR=5.7
WTTA *e*PKKP **PKKPab 04 12 28.4 +1.2**
comp=Z,11nm,1.1s
WATA Walderalm 113.74 319 *i* PKP **PKiKP 04 01 36.1 -0.1**
comp=Z,13nm,0.5s,SNR=21
WATA *i* SKP 04 04 54.1
comp=Z,3.6nm,0.5s
WATA *e*PKKP **PKKPbc 04 12 21.8 +0.6**
comp=Z,2.9nm,0.8s,SNR=4.4
WATA *e*PKKP **PKKPab 04 12 28.9 +1.8**
comp=Z,7.4nm,1.2s
ELK Elko 113.87 49 PKKPbc PKKPbc 04 12 20.3 -0.3
comp=Z,1.0nm,0.6s,baz=122,slow=2.4,SNR=4.8
SQTA Sankt Quirin 114.02 319 *i* PKP **PKiKP 04 01 36.8 +0.1**
comp=Z,7.1nm,0.5s,SNR=8.5
SQTA *i* SKP 04 04 54.7
comp=Z,1.4nm,0.4s
SQTA *e*PKKP **PKKPbc 04 12 21.0 +0.8**
comp=Z,3.9nm,0.7s,SNR=5.3
SQTA *e*PKKP **PKKPab 04 12 27.3 +1.4**
comp=Z,12nm,1.0s
MOTA Moosalm 114.05 319 *i* PKP PKPdf 04 01 36.6 -0.2
comp=Z,13nm,0.6s,SNR=23
MOTA *i* SKP 04 04 54.8
comp=Z,4.0nm,0.5s
MOTA *e*PKKP **PKKPbc 04 12 20.1 -0.1**
comp=Z,4.8nm,1.0s,SNR=5.9
MOTA *e*PKKP **PKKPab 04 12 27.3 +1.5**
comp=Z,7.6nm,0.9s
SUMG Summit 114.11 356 PKP **PKiKP 04 01 37.3 +0.7**
PFO Pinyon Flats O 114.12 56 PKKPbc PKKPbc 04 12 20.2 +0.7
comp=Z,2.1nm,0.9s,baz=152,slow=2.2,SNR=3.9
RETA Reutte 114.23 319 *i* PKP PKPdf 04 01 36.8 -0.2
comp=Z,4.1nm,0.4s,SNR=12
RETA *i* SKP 04 04 55.0
comp=Z,1.7nm,0.6s
RETA *e*PKKP **PKKPbc 04 12 20.0 +0.5**
comp=Z,0.8nm,0.4s,SNR=5.0
RETA *e*PKKP **PKKPab 04 12 26.2 +1.4**
comp=Z,6.9nm,0.9s
FETA Feichten 114.39 319 *i* PKP **PKiKP 04 01 37.6 +0.1**
comp=Z,6.2nm,0.6s,SNR=11
FETA *e*SKP 04 04 55.8
comp=Z,2.8nm,0.6s
FETA *e*PKKP **PKKPbc 04 12 19.7 +0.6**
comp=Z,3.7nm,0.9s,SNR=6.7
FETA *i* PKKP **PKKPab 04 12 26.1 +1.8**
comp=Z,2.1nm,0.7s
IBBN Ibbenburen 114.48 325 *e*PKPdf **PKiKP 04 01 38.1 +0.9**
baz=73,slow=1.9
KASTN Kahler Asten 114.49 324 *e*PKPdf **PKiKP 04 01 38.6 +1.2**
baz=73,slow=1.9
UBR Ueberruh 114.59 320 *e*PKPdf PKPdf 04 01 37.6 -0.2
baz=73,slow=1.9
STU Stuttgart 114.84 321 *e*PKPdf **PKiKP 04 01 38.1 0.0**
baz=73,slow=1.9
DAVA Damuels 114.86 319 *i* PKP PKPdf 04 01 38.5 +0.1
comp=Z,23nm,0.5s,SNR=28
DAVA *e*SKP 04 04 55.7
comp=Z,5.6nm,0.5s
DAVA *e*PKKP **PKKPbc 04 12 17.8 +0.4**
comp=Z,2.7nm,0.6s,SNR=4.4
DAVA *i* PKKP **PKKPab 04 12 24.5 +2.4**
comp=Z,7.5nm,0.9s
BUG Bochum--Univer 115.08 324 *e*PKPdf **PKPdf 04 01 39.9 +1.5**
baz=73,slow=1.9
VLC Villacollemand 115.42 316 PKP **PKiKP 04 01 38.6 -0.8**
BFO Black Forest 115.52 321 *e*PKPdf **PKPdf 04 01 39.4 -0.1**
baz=73,slow=1.9
MEM Membach 116.13 324 *d*PKPdf **PKiKP 04 01 41.8 +1.3**
WLF Walferdange 116.40 323 *e*PKPdf **PKiKP 04 01 41.9 +0.9**
baz=73,slow=1.9
BCLA Clavier 116.62 324 *d*PKPdf **PKiKP 04 01 42.3 +0.8**
RCHB Rochefort 116.77 323 *d*PKPdf **PKiKP 04 01 42.7 +1.0**
BMRD Maredsous 116.98 324 *d*PKPdf **PKiKP 04 01 43.1 +0.9**
UCC Uccle 117.02 324 *d*PKPdf **PKiKP 04 01 43.2 +1.0**
DOU Dourbes 117.16 323 *d*PKPdf **PKPdf 04 01 41.0 -1.5**
BSKQ Steenkerk 117.24 324 *d*PKPdf **PKiKP 04 01 44.0 +1.4**
PDAR Pinedale Array 117.49 45 PKP **PKiKP 04 01 44.0 +0.3**
comp=Z,4.3nm,0.7s,baz=217,slow=1.3,SNR=33
PDAR SKP 04 05 01.6
comp=Z,2.8nm,0.8s,baz=242,slow=1.2,SNR=6.1
PDAR PKKPbc **PKKPbc 04 12 06.4 -1.8**
comp=Z,3.0nm,0.8s,baz=101,slow=7.7,SNR=5.3
PDAR SKKPbc SKKPbc 04 15 33.6 -3.2
comp=Z,0.6nm,0.7s,baz=108,slow=5.1,SNR=3.8
PDAR Pinedale Array 117.49 45 **PKiKP 04 01 43.9 +0.1**
KEST Kesra 118.23 307 PKP **PKiKP 04 01 45.6 +0.4**
comp=Z,20nm,0.6s,baz=333,slow=0.4,SNR=52
KEST PP **PP 04 03 00.4 -3.1**
comp=Z,19nm,1.0s,baz=61,slow=5.3,SNR=6.7
KEST PKKPbc **PKKPbc 04 12 06.0 +1.0**
comp=Z,3.8nm,0.8s,baz=182,slow=0.6,SNR=4.9
EKA Eskdalemuir Ar 118.84 331 PKP **PKiKP 04 01 45.6 0.0**
comp=Z,6.6nm,0.6s,baz=33,slow=2.7,SNR=21
EKA SKKPbc SKKPbc 04 15 31.2 -1.7
comp=Z,4.0nm,1.0s,baz=257,slow=3.3,SNR=3.7
DGMT Dagmar 119.01 38 **PKiKP 04 01 46.5 +0.3**
RSSD Black Hills 120.83 42 PKiKP **PKPdf 04 01 49.9 -0.2**
RSSD Black Hills 120.83 42 **PKPdf 04 01 49.9 -0.2**
MAHO Mahon 121.02 313 PKP **PKiKP 04 01 51.2 +0.8**
EJON La Jonquera 121.15 316 PKP **PKPdf 04 01 50.5 0.0**
EFI East Falkland 121.16 175 ⇓*i*PKiKP **PKiKP 04 01 51.3 +1.0**
EFI East Falkland 121.16 175 **PKPdf 04 01 50.2 0.0**
ANMO Albuquerque 121.97 53 PKKPbc PKKPbc 04 11 52.3 +0.9
comp=Z,3.1nm,0.9s,baz=100,slow=4.8,SNR=7.0
ETOS Mallorca 122.12 313 PKP **PKiKP 04 01 52.9 +0.3**
ULM Lac du Bonnet 122.93 33 PKP **PKPdf 04 01 52.3 -1.3**
comp=Z,14nm,0.8s,baz=252,slow=1.2,SNR=9.3
ULM PKKPbc **PKKPab 04 11 47.1 +0.6**
comp=Z,5.8nm,0.9s,baz=191,slow=2.9,SNR=3.9
EIBI Ibiza 123.44 313 PKP **PKiKP 04 01 56.2 +1.0**
ECHE Chera 124.91 314 PKP **PKiKP 04 01 58.9 +0.7**
TXAR Lajitas Array 125.63 59 PKP **PKiKP 04 02 00.1 +0.1**
comp=Z,7.7nm,0.8s,baz=227,slow=1.7,SNR=40
TXAR PKKPbc **PKKPbc 04 11 37.0 +0.1**
comp=Z,1.1nm,0.5s,baz=115,slow=5.0,SNR=32
TXAR SKKPbc SKKPbc 04 15 08.4 -1.1
comp=Z,2.6nm,1.2s,baz=123,slow=4.6,SNR=3.5
ETOB Tobarra 125.69 313 PKP **PKiKP 04 02 00.1 +0.4**
EMUR La Murta 125.76 312 PKP **PKPdf 04 01 59.6 +0.1**
TLOR Lorca, Murcia 126.16 312 PKP **PKiKP 04 02 01.0 +0.3**
UCM Universidad Co 126.23 316 PKP **PKiKP 04 02 01.1 +0.4**
ENIJ Nijar 126.80 311 PKP **PKiKP 04 02 01.8 -0.1**
ESDC Sonseca Array 127.00 315 PKP **PKPdf 04 02 01.6 -0.3**
comp=Z,20nm,1.3s,baz=30,slow=2.3,SNR=35
ESDC PP **PP 04 04 02.5 +0.3**
comp=Z,4.2nm,0.9s,baz=59,slow=7.1,SNR=9.8
ESDC SKKPbc SKKPbc 04 15 06.4 +1.1
comp=Z,3.8nm,1.1s,baz=253,slow=4.8,SNR=5.7
PAB San Pablo 127.32 315 ⇑PKiKP **PKiKP 04 02 04.3 +1.3**
TORD Torodi Ar. Bea 128.05 281 PKhKP PKPpre 04 01 51.9
comp=Z,0.7nm,0.4s,baz=112,slow=1.4,SNR=9.4
TORD PKP **PKiKP 04 02 04.9 -0.1**
comp=Z,36nm,0.8s,baz=62,slow=1.5,SNR=71
TORD SKPbc SKPbc 04 05 05.4
comp=Z,14nm,0.7s,baz=82,slow=3.4,SNR=9.2
TORD PKKPbc PKKPbc 04 11 26.9
comp=Z,2.8nm,1.0s,baz=255,slow=4.5,SNR=5.1
PVRL Vila Real 128.81 319 *e*PKPdf **PKiKP 04 02 07.6 +1.7**
PVRL *etx* tx 04 05 08.6
POLO Lamas de Olo 128.81 319 *e*PKPdf **PKiKP 04 02 07.0 +1.0**
POLO *etx* tx 04 05 08.7
PGAV Gavieira, Arco 128.82 320 *e*PKPdf **PKiKP 04 02 07.0 +1.1**
PLCA Paso Flores 129.08 161 PKhKP PKPpre 04 01 53.9
comp=Z,3.1nm,1.1s,baz=197,slow=4.5,SNR=3.7
PLCA PKP **PKiKP 04 02 07.1 +0.5**
comp=Z,46nm,1.0s,baz=208,slow=3.4,SNR=52
PLCA SKPbc SKPbc 04 05 08.7 +0.1
comp=Z,18nm,0.8s,baz=182,slow=3.6,SNR=10.0
PLCA Paso Flores 129.08 161 PKP **PKiKP 04 02 07.3 +0.8**
PLCA Paso Flores 129.08 161 *e*P **PKiKP 04 02 07.2 +0.5**
MTE Manteigas 129.12 318 *e*PKPdf **PKiKP 04 02 08.4 +1.8**
MTE *etx* tx 04 09.8
PVIS Viseu 129.20 318 *e*PKPdf **PKiKP 04 02 08.1 +1.4**
PVIS *etx* tx 04 05 10.0
PCBR Castelo Branco 129.34 317 *e*PKPdf **PKiKP 04 02 08.1 +1.1**
PCBR *etx* tx 04 05 10.4
PTO Porto 129.46 319 *e*PKPdf **PKiKP 04 02 09.0 +1.9**
PTO *etx* tx 04 05 11.1
PMRV Marv??o 129.48 316 *e*PKPdf **PKiKP 04 02 07.9 +0.6**
PMRV *etx* tx 04 05 10.9
PBAR Barrancos 129.81 315 *e*PKPdf **PKiKP 04 02 08.8 +0.8**
PBAR *etx* tx 04 05 12.2
PESTR Estremoz 129.88 316 *e*PKPdf **PKiKP 04 02 09.6 +1.6**
PESTR *etx* tx 04 05 12.3
PSARD Sardoal 129.92 317 *e*PKPdf **PKPdf 04 02 07.6 +0.2**
PSARD *etx* tx 04 05 12.9
PARRA Arraiolos 130.21 316 *e*PKPdf **PKiKP 04 02 09.7 +1.0**
PARRA *etx* tx 04 05 13.6
PMTG Montargil 130.22 316 *e*PKPdf **PKiKP 04 02 10.2 +1.5**
PMTG *etx* tx 04 05 12.6
MD01 Midelt array s 130.23 307 **PKiKP 04 02 10.1 +0.9**
EVO Evora 130.32 316 *e*PKPdf **PKiKP 04 02 10.5 +1.6**
EVO *etx* tx 04 05 14.0
PSBE So Bento 130.39 317 *e*PKPdf **PKiKP 04 02 10.7 +1.6**
PSBE *etx* tx 04 05 14.9
PBEJ Beja 130.46 315 *e*PKPdf **PKiKP 04 02 08.9 -0.3**
PBEJ *etx* tx 04 05 14.6
PVAQ Vaqueiros 130.63 314 *e*PKPdf **PKiKP 04 02 11.7 +2.0**
PVAQ *etx* tx 04 05 15.3
SCHQ Schefferville 130.66 12 PKP **PKiKP 04 02 09.7 +0.5**
comp=Z,3.0nm,0.4s,baz=17,slow=1.8,SNR=7.6
SCHQ SKPbc **SKPbc 04 05 13.7 -0.2**
comp=Z,32nm,0.9s,baz=24,slow=2.6,SNR=10
PCVE Castro Verde 130.76 315 *e*PKPdf **PKiKP 04 02 10.4 +0.5**
PCVE *etx* tx 04 05 15.6
MESJ Messejana 130.79 315 *e*PKPdf **PKiKP 04 02 09.7 -0.2**
MESJ *e*PX 04 05 16.1
MESJ Messejana 130.79 315 *e*PKPdf **PKiKP 04 02 10.1 +0.2**
MESJ *etx* tx 04 05 15.9
PLOUS Minas do Lousa 130.84 315 *e*PKPdf **PKiKP 04 02 10.7 +0.7**
PLOUS *etx* tx 04 05 16.1
PBDV Barranco-do-Ve 130.86 314 *e*PKPdf **PKiKP 04 02 11.4 +1.2**
PBDV *etx* tx 04 05 16.3
PMAFR Mafra 130.99 317 *etx* tx 04 05 16.6
LIS Lisbon 131.02 316 *e*PX 04 05 16.9
LIS Lisbon 131.02 316 *etx* tx 04 05 17.4
PTEO Sao Teotonio 131.28 315 *e*PKPdf **PKiKP 04 02 10.9 0.0**
PTEO *etx* tx 04 05 18.0
MORF Marmelete 131.34 315 *e*PKPdf **PKiKP 04 02 10.8 -0.4**
MORF *e*PX 04 05 18.2
MORF Marmelete 131.34 315 *e*PKPdf **PKiKP 04 02 12.0 +0.9**
MORF *etx* tx 04 05 18.2
PFVI Vila Bisbo 131.54 314 *e*PKPdf **PKiKP 04 02 12.6 +1.1**
PFVI *etx* tx 04 05 18.8
T42A Van Buren 132.77 45 **PKiKP 04 02 13.7 -0.2**
DBIC Dimbokro 134.41 272 PKhKP PKPpre 04 02 05.7
comp=Z,2.9nm,0.5s,baz=110,slow=2.8,SNR=13
DBIC PKP **PKiKP 04 02 17.5 -0.4**
comp=Z,36nm,0.4s,baz=106,slow=2.0,SNR=5.2
DBIC SKPbc **SKPbc 04 05 27.4 -0.8**
comp=Z,74nm,0.9s,baz=101,slow=3.9,SNR=22
DBIC Dimbokro 134.41 272 PKP **PKPdf 04 02 16.2 -0.2**
CFA Coronel Fontan 138.09 157 PKhKP PKPpre 04 02 14.7
comp=Z,13nm,0.6s,baz=239,slow=4.0,SNR=16
CFA PKP **PKiKP 04 02 24.2 -0.8**
comp=Z,7.6nm,0.8s,baz=296,slow=4.9,SNR=4.3
CFA SKPbc **SKPbc 04 05 37.8 -1.2**
comp=Z,17nm,0.6s,baz=220,slow=3.3,SNR=15
PMPST Porto Santo, M 138.89 314 *e*PKPdf **PKPdf 04 02 19.7 -4.6**
PMAR Madeira 139.49 314 *e*PKPdf **PKPdf 04 02 25.1 -0.5**
PMAR *etx* tx 04 05 44.6
CPSB Cacapava Do Su 142.66 176 PKP **PKPdf 04 02 29.1 -2.1**
ITQB Itaqui 143.05 172 PKP PKPbc 04 02 29.8 +0.6
CNLB Canela 143.83 180 PKP **PKPdf 04 02 32.5 -0.9**
CNLB Canela 143.83 180 *e*P PKPbc 04 02 32.3 +0.6
PB10 IPOC Station P 143.99 148 **PKPdf 04 02 33.1 -0.6**
DWPF Disney Wildern 144.25 50 PKPbc 04 02 33.0 +0.2
LCRUZ La Cruz 145.38 81 *e*P **PKPab 04 02 37.1 +0.1**
ALIBA Liberia Airpor 145.49 82 *e*P **PKPab 04 02 38.9 +1.5**
BUAI Buenos Aires 145.69 81 *e*P **PKPab 04 02 38.1 -0.1**
ACON Acoyapa 145.76 79 *e*P **PKPbc 04 02 38.0 +0.2**
BAGA Bagaces 145.78 82 *e*P **PKPab 04 02 39.3 +0.8**
CLARA Aguas Claras 145.85 81 *e*P **PKPbc 04 02 38.0 -0.1**
CUI Cuipilapa 145.86 81 *e*P **PKPbc 04 02 37.9 -0.2**
ITAB Concordia 145.88 178 **PKPab 04 02 38.7 +0.2**
ITAB Concordia 145.88 178 PKP **PKPab 04 02 38.2 -0.3**
ITAB Concordia 145.88 178 *e*P **PKPdf 04 02 35.8 -1.0**
VMAR Armenia, Volca 145.91 81 *e*P **PKPbc 04 02 38.0 -0.3**
CANAL Canalete 145.96 81 *e*P **PKPbc 04 02 37.9 -0.5**
JTS Las Juntas de 146.09 82 PKPbc **PKPbc 04 02 38.6 -0.2**
comp=Z,107nm,0.7s,baz=297,slow=3.4,SNR=68
JTS Las Juntas de 146.09 82 **PKPbc 04 02 39.1 +0.3**
CPUP Villa Florida 146.21 169 PKPbc **PKPbc 04 02 39.2 +0.5**
comp=Z,231nm,1.0s,baz=194,slow=2.3,SNR=226
CPUP SKPbc **SKPbc 04 05 59.0 -0.4**
comp=Z,20nm,0.6s,baz=165,slow=2.5,SNR=9.3
CPUP Villa Florida 146.21 169 PKP **PKPbc 04 02 38.6 -0.1**
CPUP Villa Florida 146.21 169 *e*P **PKPbc 04 02 38.6 -0.1**
CASO Castillo 146.30 82 *e*P **PKPbc 04 02 39.5 0.0**
ARE1 Arenal 1 146.31 82 *e*P **PKPbc 04 02 39.6 +0.1**
CEDE Laguna Cedeo 146.32 82 *e*P **PKPbc 04 02 39.3 -0.2**
ATEO Atenas 146.66 83 *e*P **PKPbc 04 02 40.6 +0.1**
ACOS Acosta 146.89 83 *e*P **PKPbc 04 02 41.7 +0.4**
HDC Heredia 146.93 83 *e*P **PKPbc 04 02 40.9 -0.4**
ECI Escuela Centro 146.99 83 *e*P **PKPbc 04 02 41.2 -0.3**
ABE2 San Pablo 147.00 83 *e*P **PKPbc 04 02 40.9 -0.8**
PCAYA Pacayas 147.23 83 *e*P **PKPab 04 02 44.6 +0.1**
CVTG V. Turrialba, 147.26 82 *e*P **PKPbc 04 02 41.0 -1.1**
CVTQ Turrialba Volc 147.27 83 *e*P **PKPbc 04 02 41.8 -0.8**
VTR0 Volcan Turrial 147.28 82 *e*P **PKPbc 04 02 41.6 -1.0**
CVTR Volcan Turrial 147.28 82 *e*P **PKPbc 04 02 41.7 -1.0**
CVTV Tajo 147.29 83 *e*P **PKPbc 04 02 41.7 -0.8**
ABRB Las Abras (San 147.32 83 *e*P **PKPbc 04 02 41.6 -0.9**
LCOCO El Coco 147.47 82 *e*P **PKPbc 04 02 42.2 -0.5**
SJPY San Joaquin 147.72 171 *e*P **PKPdf 04 02 40.7 +0.7**
NNA Nana 147.92 126 PKP **PKPdf 04 02 41.8 +1.2**
comp=Z,299nm,0.9s,baz=275,slow=2.8,SNR=54
NNA PKPbc **PKPbc 04 02 44.5 +0.6**
comp=Z,299nm,0.9s,baz=257,slow=6.7,SNR=68
NNA Nana 147.92 126*c i*PKiKP **PKPdf 04 02 41.6 +1.0**
NNA pmax pmax
comp=Z,2μm,1.7s
BRU2 Volcan 148.37 85 *e*P **PKPbc 04 02 43.5 -1.8**
PET01 Itanhaem-SP 148.65 186 PKP **PKPdf 04 02 41.9 +0.4**
PET01 Itanhaem-SP 148.65 186 *e*P **PKPdf 04 02 43.5 +2.0**
ATAH Atahualpa 149.07 117 PKP **PKPdf 04 02 44.6 +1.6**
comp=Z,194nm,1.0s,baz=275,slow=2.0,SNR=44
ATAH PKPbc **PKiKP 04 02 50.0 +1.5**
comp=Z,493nm,1.1s,baz=240,slow=1.1,SNR=91
SPB Sao Paulo 149.36 186 *e*P **PKPdf 04 02 44.3 +1.6**
PARB Paraibuna 149.37 189 PKP **PKPdf 04 02 43.9 +1.1**
PARB Paraibuna 149.37 189 *e*P **PKPdf 04 02 42.5 -0.4**
LDASE Londrina, Braz 149.73 179 *e*P **PKPdf 04 02 44.1 +0.7**
FRTB Fartura 149.76 182 PKP **PKPdf 04 02 45.0 +1.6**
FRTB Fartura 149.76 182 *e*P **PKPdf 04 02 44.7 +1.3**
VAO Valinhos 149.89 187 *e*P **PKPdf 04 02 44.7 +1.0**
VABB Valinhos 149.89 187 PKP **PKPdf 04 02 45.2 +1.5**
CAM01 Campos-RJ 149.93 197 *e*P **PKPbc 04 02 48.5 -0.1**
VAS01 Vassouras-RJ 149.96 194 *e*P **PKPdf 04 02 45.1 +1.4**
TRCB Terra Rica 150.27 177 *e*P **PKPdf 04 02 43.3 -0.9**
MURT Porto Murtinho 150.68 167 *e*P **PKPdf 04 02 45.3 +0.5**
LPAZ La Paz 151.14 144 PKP **PKPdf 04 02 48.2 +1.8**
comp=Z,55nm,1.0s,baz=286,slow=0.4,SNR=127
LPAZ PKPbc **PKiKP 04 02 54.0 +1.0**
comp=Z,189nm,1.0s,baz=51,slow=1.4,SNR=83
LPAZ La Paz 151.14 144 PKP **PKPdf 04 02 48.5 +2.1**
LPAZ La Paz 151.14 144 *e*P **PKPdf 04 02 47.5 +1.1**
BSCB Bom Sucesso 151.50 192 PKP **PKPdf 04 02 47.6 +1.4**
BSCB Bom Sucesso 151.50 192 *e*P **PKPdf 04 02 46.5 +0.3**
PCMB Pacaembu 151.50 179 PKP **PKPdf 04 02 47.7 +1.6**
PCMB Pacaembu 151.50 179 *e*P **PKPdf 04 02 47.4 +1.3**
OTAV Otavalo 151.59 103 PKiKP **PKPdf 04 02 49.0 +2.0**
OTAV Otavalo 151.59 103 PKP **PKPdf 04 02 48.8 +1.8**
OTAV Otavalo 151.59 103 *e*P **PKPdf 04 02 48.3 +1.2**
RIB01 Linhares ES 151.86 201 PKP **PKPdf 04 02 47.7 +1.0**
RIB01 Linhares ES 151.86 201 *e*P **PKPdf 04 02 46.9 +0.2**
BB19B Bebedouro 151.96 185 PKP **PKPdf 04 02 48.3 +1.5**
BB19B Bebedouro 151.96 185 *e*P **PKPdf 04 02 48.1 +1.2**
BDQN Bodoquena, MS 152.04 168 *e*P **PKPdf 04 02 47.7 +0.8**
AQDB Aquidauana 152.21 170 PKP **PKPdf 04 02 48.4 +1.3**
AQDB Aquidauana 152.21 170 *e*P **PKPdf 04 02 48.0 +0.8**
COIM Forte Coimbra 152.33 166 *e*P **PKPdf 04 02 47.8 +0.4**
BSFB Barra de Sao F 152.46 201 PKP **PKPdf 04 02 47.4 -0.2**
BSFB Barra de Sao F 152.46 201 *e*P **PKPdf 04 02 48.6 +1.1**
CANS Sao Roque de M 152.48 189 *e*P **PKPdf 04 02 49.3 +1.6**
SJMB Sao Joao De Ma 152.70 200 PKP **PKPdf 04 02 49.2 +1.2**
SJMB Sao Joao De Ma 152.70 200 *e*P **PKPdf 04 02 48.9 +1.0**
CZSB Cruzeiro do Su 153.67 124 PKP **PKPdf 04 02 50.5 +1.1**
CZSB Cruzeiro do Su 153.67 124 *e*P **PKPdf 04 02 50.5 +1.1**
DIAM Diamantina, MG 153.84 195 PKP **PKPdf 04 02 49.5 -0.2**
DIAM Diamantina, MG 153.84 195 *e*P **PKPdf 04 02 51.1 +1.4**
BBSD Serra de San D 154.02 158 *e*P **PKPdf 04 02 50.9 +1.0**
GUA01 Guaratinga, BA 154.11 205 PKP **PKPdf 04 02 51.5 +1.5**
GUA01 Guaratinga, BA 154.11 205 *e*P **PKPdf 04 02 51.4 +1.5**
PMNB Patos De Minas 154.20 190 PKP **PKPdf 04 02 51.5 +1.3**
PMNB Patos De Minas 154.20 190 *e*P **PKPdf 04 02 49.0 -1.2**
ARCA Araçuai, MG 154.69 200 *e*P **PKPdf 04 02 50.9 +0.1**
ITU3 Corumbazu 154.81 184 PKP **PKPdf 04 02 51.8 +0.9**
SIV San Ignacio 154.94 156 PKP **PKPdf 04 02 52.4 +1.3**
comp=Z,43nm,1.0s,baz=200,slow=1.9,SNR=20
SIV PKPbc **PKiKP 04 03 00.9 +0.8**
comp=Z,12nm,0.9s,baz=172,slow=4.1,SNR=6.7
SIV PKPab **PKPab 04 03 16.7 +0.7**
comp=Z,71nm,0.8s,baz=200,slow=4.8,SNR=26
SIV PP **PP 04 06 52.1 +0.9**
comp=Z,8.2nm,1.1s,baz=173,slow=8.4,SNR=3.1
IPMB Ipameri, GO 154.98 186 PKP **PKPdf 04 02 51.9 +0.7**
IPMB Ipameri, GO 154.98 186 *e*P **PKPdf 04 02 52.6 +1.4**
JQT1 Jequitai-MG 155.03 195 PKP **PKPdf 04 02 52.9 +1.6**
CMC01 Camacan, BA 155.08 207 PKP **PKPdf 04 02 53.0 +1.6**
CMC01 Camacan, BA 155.08 207 *e*P **PKPdf 04 02 52.4 +1.1**
PP1B Ponte de Pedra 155.16 171 *e*P **PKPdf 04 02 52.6 +1.2**
NBIT Itapeh - BA 155.42 207 PKP **PKPdf 04 02 53.8 +2.0**
NBIT Itapeh - BA 155.42 207 *e*P **PKPdf 04 02 53.4 +1.6**
PTLB Pontes e Lacer 156.16 160 PKP **PKPdf 04 02 53.9 +1.2**
PTLB Pontes e Lacer 156.16 160 *e*P **PKPdf 04 02 54.0 +1.3**
ROSC El Rosal 156.50 94 PKP **PKPdf 04 02 55.2 +1.4**
comp=Z,32nm,0.8s,baz=130,slow=1.2,SNR=23
ROSC PKPbc PKPbc 04 03 05.6
comp=Z,25nm,0.8s,baz=58,slow=23,SNR=6.3
ROSC PKPab **PKPab 04 03 25.6 +2.1**
comp=Z,63nm,0.9s,baz=95,slow=2.6,SNR=13
SALV Santo Antonio 156.67 168 PKP **PKPdf 04 02 54.8 +1.4**
SALV Santo Antonio 156.67 168 *e*P **PKPdf 04 02 55.0 +1.6**
BDFB Brasilia 157.28 187 PKP **PKPdf 04 02 55.0 +0.7**
comp=Z,20nm,0.8s,baz=65,slow=0.7,SNR=23
BDFB PKPab **PKPab 04 03 27.3 +1.3**
comp=Z,14nm,1.0s,baz=318,slow=1.7,SNR=5.4
BDFB PP **PP 04 07 04.8 +0.9**
comp=Z,25nm,1.2s,baz=191,slow=7.1,SNR=5.0
ARAG Araguaiana, MT 157.36 177 PKP **PKPdf 04 02 55.7 +1.4**
ARAG Araguaiana, MT 157.36 177 *e*P **PKPdf 04 02 55.2 +0.9**
NBAN Anadia - AL 157.97 221 PKP **PKPdf 04 02 55.4 +0.2**
VILB Vilhena 158.03 155 PKP **PKPdf 04 02 56.9 +1.7**
VILB Vilhena 158.03 155 *e*P **PKPdf 04 02 56.8 +1.6**
NBPN Ponto Novo - B 159.32 211 PKP **PKPdf 04 02 57.4 +0.7**
NBPN Ponto Novo - B 159.32 211 *e*P **PKPdf 04 02 55.2 -1.5**
NBPV Pedro Velho 159.54 229 PKP **PKPdf 04 02 58.4 +1.4**
NBPV Pedro Velho 159.54 229 *e*P **PKPdf 04 02 56.2 -0.8**
SDBA SAO DESIDERIO 159.79 197 PKP **PKPdf 04 02 57.6 +0.3**
SDBA SAO DESIDERIO 159.79 197 *e*P **PKPdf 04 02 56.4 -0.9**
CAN3 Cana Brava 159.82 187 PKP **PKPdf 04 02 58.4 +1.1**
NBLV Livramento - P 160.08 224 PKP **PKPdf 04 02 58.6 +0.9**
SDV Santo Domingo 160.27 83 PKP **PKPdf 04 02 58.8 +0.7**
comp=Z,89nm,1.2s,baz=256,slow=0.9,SNR=49
SDV PKPab **PKPab 04 03 40.9 +1.3**
comp=Z,13nm,1.0s,baz=295,slow=6.8,SNR=3.2
RCBR Riachuelo 160.38 230 PKP **PKPdf 04 02 59.1 +1.1**
comp=Z,3.7nm,0.8s,baz=96,slow=13,SNR=5.0
RCBR PKPab **PKPab 04 03 40.8 +1.0**
comp=Z,48nm,1.1s,baz=137,slow=12,SNR=24
RCBR Riachuelo 160.38 230 **PKPdf 04 02 59.3 +1.3**
RCBR Riachuelo 160.38 230 PKP **PKPdf 04 02 59.6 +1.6**
RCBR Riachuelo 160.38 230 *e*P **PKPdf 04 02 59.3 +1.3**
PDRB Porto dos Gac 160.53 162 PKP **PKPdf 04 02 59.0 +0.9**
PDRB Porto dos Gac 160.53 162 *e*P **PKPdf 04 02 58.9 +0.9**
SNDB Serra Nova Dou 161.08 178 PKP **PKPdf 04 02 59.7 +1.1**
SNDB Serra Nova Dou 161.08 178 *e*P **PKPdf 04 02 59.5 +0.8**
NBMA Muriti-CE 161.31 220 PKP **PKPdf 04 03 00.0 +1.1**
NBMA Muriti-CE 161.31 220 *e*P **PKPdf 04 03 00.1 +1.1**
SJG San Juan 161.44 52 PKP **PKPdf 04 02 59.0 +0.1**
comp=Z,23nm,0.8s,baz=189,slow=4.3,SNR=5.7
SJG PKPab **PKPab 04 03 44.6 +0.4**
comp=Z,57nm,1.0s,baz=11,slow=3.4,SNR=8.0
CLDB Colider 161.50 164 PKP **PKPdf 04 02 59.8 +0.7**
CLDB Colider 161.50 164 *e*P **PKPdf 04 02 59.7 +0.6**
NBPB Pedra_Branca-C 163.21 222 PKP **PKPdf 04 03 01.2 +0.4**
NBCL Cascavel-CE 163.22 228 PKP **PKPdf 04 03 01.5 +0.7**
SMTB Santa Maria do 163.86 191 PKP **PKPdf 04 03 02.2 +0.7**
SMTB Santa Maria do 163.86 191 *e*P **PKPdf 04 03 02.3 +0.8**
NBMO Morrinhos-CE 165.12 226 PKP **PKPdf 04 03 02.7 +0.2**
NBMO Morrinhos-CE 165.12 226 *e*P **PKPdf 04 03 03.2 +0.7**
NPGB Novo Progresso 165.26 162 PKP **PKPdf 04 03 03.8 +1.1**
NPGB Novo Progresso 165.26 162 *e*P **PKPdf 04 03 03.7 +1.0**
NBPS Pedro II - PI 165.28 220 PKP **PKPdf 04 03 03.0 +0.2**
NBPS Pedro II - PI 165.28 220 *e*P **PKPdf 04 03 02.0 -0.8**
ITTB Itaituba 167.62 156 PKP **PKPdf 04 03 05.2 +0.7**
ITTB Itaituba 167.62 156 *e*P **PKPdf 04 03 04.2 -0.3**
BOAV Boa Vista 169.25 115 **PKPdf 04 03 04.7 -0.9**
BOAV Boa Vista 169.25 115 PKP **PKPdf 04 03 05.5 -0.1**
BOAV Boa Vista 169.25 115 *e*P **PKPdf 04 03 05.2 -0.4**
ATM1 UHE Belo Monte 169.62 172 PKP **PKPdf 04 03 06.8 +1.0**
BMO1 UHE Belo Monte 169.81 175 PKP **PKPdf 04 03 06.3 +0.4**
MAL2 Monte Alegre, 170.37 159 PKP **PKPdf 04 03 06.7 +0.5**
MDP Montagnes des 177.32 137 PKP **PKPdf 04 03 08.6 -0.1**
comp=Z,65nm,1.1s,baz=48,slow=0.2,SNR=8.1
MDP PKPab PKPab 04 04 55.2 +0.6
comp=Z,36nm,1.2s,baz=284,slow=3.2,SNR=4.6

JMA 01 03:49:39.4±0.1, 35°4N±0.3×133°8E±0.1, h9km±1km,
MV0.1/7, EASTERN TOTTORI PREF, Western Honshu

| Code |

BEYE					S	Sg	03 53 53.3	+0.5
BEYE					IAML		03 53 55.0	
	comp=N,145nm,0.2s							
DDIM	**Aydin, Didim**	**0.41**	**161**		P	Pg	03 53 36.3	-12
DDIM					S	Sg	03 53 53.8	+0.5
DDIM					IAML		03 53 59.0	
	comp=N,154nm,0.4s							
DUVT	**Torbali**	**0.48**	**39**		P	Pb	03 53 50.2	-0.5
DUVT					S	Sg	03 53 55.2	-0.1
DUVT					IAML		03 53 59.0	
	comp=E,144nm,0.1s							
ZEYE	**Izmir, Urla-Ze**	**0.59**	**311**		P	Pg	03 53 51.7	+0.4
ZEYE					S	Sg	03 53 59.6	+0.5
ZEYE					IAML		03 54 00.0	
	comp=N,345nm,0.2s							
ZEYE					IAML		03 54 00.0	
	comp=E,175nm,0.1s							
IZMR	**zmir-demi**	**0.75**	**67**		P	Pg	03 53 48.4	-6.0
IZMR					S	Sb	03 54 05.4	-0.4
IZMR					IAML		03 54 09.0	
	comp=E,40nm,0.4s							
BDRM	**Kayabasi**	**0.84**	**159**		P	Pb	03 53 57.2	+0.4
BDRM					S	Sb	03 54 07.7	-0.5
BDRM					IAML		03 54 13.0	
	comp=N,60nm,0.6s							
ZEDA	**zmir-Bergama**	**1.12**	**0**		P	Pg	03 53 56.1	-5.2
ZEDA					S	Sb	03 54 16.4	+0.2
ZEDA					IAML		03 54 22.0	
	comp=N,27nm,0.5s							

*IDC **01** 04:34:51.0±1.0,54°59.N×159°32.82W,h0km,mb3.7/14, mbtmp3.8/17,ML4.1/3,Error ellipse: s-maj=24.6km s-min=13.7km az=171.0*
*NEIC **01** 04:34:53.4±1.8,54°38.N±0°06×159°69.W±0°08,h23km±6km, mb4.2/14,ML4.0/36,ML3.9(AEIC),Error ellipse: s-maj=8.6km s-min=6.6km az=154.0*
*AEIC **01** 04:34:54.9±2.0,54°38.N±0°06×159°67.W±0°05,h23km±5km, Error ellipse: s-maj=8.9km s-min=4.4km az=173.0*

ISC 01 04:34:53.9±1.5,54°42.N±0°06×159°64.W±0°04, h25km±10km,n147,σ1$02/141,mb3.9/18,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.40**	**5**		**Pb**	**04 35 03.3**	**+0.8**
CNBA					**Sn**	**04 35 10.3**	**-0.5**
CNBA				IAML		04 35 13.1	
	comp=N,11μm,0.5s						
CHNA	**Chernabura Isl**	**0.41**	**4**	P	**Pb**	**04 35 03.2**	**+0.6**
CHNA	**Chernabura Isl**	**0.41**	**4**	S	**Sn**	**04 35 10.6**	**-0.5**
SDPT	**Sand Point**	**1.04**	**333**	P	**Pn**	**04 35 12.3**	**-0.7**
SDPT	**Sand Point**	**1.04**	**333**	S	**Sn**	**04 35 27.0**	**+0.2**
SDPT	**Sand Point**	**1.04**	**333**		**Pn**	**04 35 12.4**	**-0.6**
SDPT				IAML		04 35 27.8	
	comp=N,7μm,0.6s						
SDPT				IAML		04 35 28.8	
	comp=E,4μm,0.7s						
SDPT	**Sand Point**	**1.04**	**333**		**Sb**	**04 35 26.5**	**-0.1**
DOL	**Dolgoi Island**	**1.48**	**300**		**Pn**	**04 35 18.2**	**-0.8**
DOL					**Sn**	**04 35 36.1**	**-1.3**
PVV	**Pavlof Volcano**	**1.56**	**308**		**Pn**	**04 35 20.1**	**0.0**
PS1A	**Pavlof South-1**	**1.57**	**310**		**Pn**	**04 35 20.2**	**0.0**
PS1A					**Sn**	**04 35 39.3**	**-0.4**
PS4A	**Pavlof South-4**	**1.58**	**307**		**Pn**	**04 35 20.3**	**0.0**
PS4A					**Sn**	**04 35 40.0**	**+0.1**
PS4A					**Sb**	**04 35 40.8**	**-1.0**
VNKR	**Veniaminof 5**	**1.62**	**6**		**Pn**	**04 35 21.7**	**+0.7**
DT1	**Dutton Round H**	**1.68**	**295**		**Pn**	**04 35 20.8**	**-0.8**
DT1					**Sn**	**04 35 41.1**	**-1.2**
VNSS	**Veniaminof 8**	**1.81**	**3**		**Pn**	**04 35 24.9**	**+1.2**
VNFG	**Fog Glacier, M**	**1.87**	**2**		**Pn**	**04 35 26.3**	**-1.0**
S12K	**Black Hills**	**1.89**	**314**		**Pn**	**04 35 24.9**	**+0.3**
CHGN	**Chignik**	**2.01**	**20**		**Pn**	**04 35 26.6**	**+0.4**
CHGN				IAML		04 36 01.9	
	comp=E,2μm,0.7s						
CHGN				IAML		04 36 04.8	
	comp=N,1μm,0.6s						
CHGN	**Chignik**	**2.01**	**20**		**Sn**	**04 35 51.3**	**+0.8**
BPBCA	**Veniaminof**	**2.27**	**17**		**Pn**	**04 35 30.5**	**+0.5**
ANPB	**Aniakchak Plen**	**2.51**	**17**		**Pn**	**04 35 33.7**	**+0.6**
ANPK	**Aniakchak Peak**	**2.57**	**19**		**Pn**	**04 35 34.6**	**+0.5**
CHIR	**Chirikof Islan**	**2.70**	**57**	P	**Pn**	**04 35 35.4**	**-0.3**
CHIR	**Chirikof Islan**	**2.70**	**57**		**Pn**	**04 35 35.6**	**-0.2**
CHIR				IAML		04 36 32.5	
	comp=E,484nm,0.9s						
WTUG	**Tugumak**	**2.79**	**281**		**Pn**	**04 35 36.8**	**-0.2**
WESN	**West Dahl Nort**	**2.88**	**275**		**Pn**	**04 35 38.8**	**+0.5**
WESN					**Sn**	**04 36 11.9**	**-0.3**
WESP	**Westdahl Peak**	**2.96**	**273**		**Pn**	**04 35 39.7**	**+0.2**
WESP					Pb	04 35 39.8	-6.2
WECS	**Westdahl Cape**	**3.00**	**274**		**Pn**	**04 35 40.3**	**+0.5**
WECS				IAML		04 36 49.0	
	comp=E,461nm,0.9s						
WECS				IAML		04 36 51.9	
	comp=N,666nm,0.7s						
R16K	**Pilot Point**	**3.36**	**19**	Pn	**Pn**	**04 35 45.5**	**+0.7**
R16K				IAML		04 36 58.7	
	comp=E,361nm,1.1s						
R16K				IAML		04 37 00.8	
	comp=N,344nm,0.9s						
AKUT	**Akutan**	**3.60**	**268**		**Pn**	**04 35 48.5**	**+0.4**
ZRO	**Akutan Zero**	**3.73**	**267**		**Pn**	**04 35 50.0**	**+0.1**
SII	**Sitkinak Islan**	**3.77**	**53**	P	**Pn**	**04 35 50.3**	**-0.2**
SII	**Sitkinak Islan**	**3.77**	**53**	S	**Sn**	**04 36 34.8**	**+0.8**
SII	**Sitkinak Islan**	**3.77**	**53**		**Pn**	**04 35 50.6**	**+0.2**
SII				IAML		04 37 14.4	
	comp=E,375nm,1.1s						
SII				IAML		04 37 25.4	
	comp=N,282nm,0.9s						
SII	**Sitkinak Islan**	**3.77**	**53**		**Sn**	**04 36 30.3**	**-3.7**
PLK1	**Peulik 1**	**3.79**	**25**		**Pn**	**04 35 51.6**	**+0.9**
PLK5	**Peulik 5**	**3.90**	**22**		**Pn**	**04 35 53.1**	**+0.9**
MNAT	**Makushin Natee**	**4.17**	**265**		**Pn**	**04 35 55.6**	**-0.4**
MSW	**Makushin Switc**	**4.23**	**266**		**Pn**	**04 35 56.4**	**-0.3**
MSW					**Sn**	**04 36 43.1**	**-2.1**
MGOD	**Makushin Gods**	**4.30**	**265**		**Pn**	**04 35 57.9**	**+0.1**
CAHL	**Cahill**	**4.37**	**32**		**Pn**	**04 35 59.3**	**+0.5**
Q17K	**Contact Creek**	**4.38**	**27**		**Pn**	**04 35 59.4**	**+0.5**
ANCK	**Angle Creek**	**4.43**	**30**		**Pn**	**04 36 00.3**	**+0.7**
ACHA	**Angle Creek He**	**4.49**	**31**		**Pn**	**04 36 01.0**	**+0.6**
OHAK	**Old Harbor**	**4.55**	**49**	P	**Pn**	**04 36 00.5**	**-0.6**
OHAK	**Old Harbor**	**4.55**	**49**		**Pn**	**04 36 00.8**	**-0.3**
P16K	**Nushagak River**	**4.71**	**10**		**Pn**	**04 36 04.0**	**+0.7**
O15K	**Ungalikthiuk R**	**4.77**	**359**		**Pn**	**04 36 04.3**	**+0.2**
O15K	**Ungalikthiuk R**	**4.77**	**359**	IAML		04 37 48.3	
	comp=N,76nm,1.0s						
O15K				IAML		04 37 50.0	
	comp=E,105nm,1.2s						
KAWH	**Katmai**	**4.80**	**32**		**Pn**	**04 36 04.5**	**0.0**
O14K	**Tigyukauivet M**	**4.92**	**350**		**Pn**	**04 36 06.7**	**+0.5**
O14K				IAML		04 37 15.3	
	comp=N,123nm,1.0s						
O14K				IAML		04 37 56.6	
	comp=E,93nm,1.1s						
Q18K	**Katmai Hardscr**	**4.95**	**29**		**Pn**	**04 36 07.3**	**+0.6**
KAHG	**Katmai Hook Gl**	**4.96**	**33**		**Pn**	**04 36 07.3**	**+0.5**
P17K	**Kvichak River**	**5.10**	**19**		**Pn**	**04 36 09.8**	**+1.2**
KDAK	**Kodiak Island**	**5.19**	**47**	Pn	**Pn**	**04 36 09.0**	**-0.9**
	comp=E,6.6nm,0.3s,baz=174,slow=1.3,SNR=95						
KDAK				Sn	**Sn**	**04 37 05.2**	**-3.7**
	comp=E,2.5nm,0.3s,baz=27,slow=20,SNR=2.0 comp=E,11nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.19**	**47**		**Pn**	**04 36 09.4**	**-0.5**
O16K	**Kokwok River B**	**5.25**	**9**		**Pn**	**04 36 10.7**	**0.0**
O16K				IAML		04 37 57.9	
	comp=N,48nm,0.7s						
O16K				IAML		04 38 05.0	
	comp=E,61nm,1.0s						
O17K	**Koliganek Bris**	**5.54**	**13**		**Pn**	**04 36 15.1**	**+0.4**
N14K	**Kuskokwak Cree**	**5.63**	**349**		**Pn**	**04 36 16.2**	**+0.4**
N15K	**Kwethluk River**	**5.77**	**358**		**Pn**	**04 36 18.9**	**+1.1**
AUI	**Augustine Isla**	**5.99**	**32**		**Pn**	**04 36 21.5**	**+0.7**
N16K	**Nishlik Lake**	**6.09**	**4**		**Pn**	**04 36 23.0**	**+0.7**
CLCO	**Concord Point,**	**6.22**	**259**		**Pn**	**04 36 24.1**	**0.0**
N17K	**Nushagak Hills**	**6.26**	**11**		**Pn**	**04 36 25.4**	**+0.8**
P19K	**Oil Pt**	**6.30**	**31**		**Pn**	**04 36 26.1**	**+0.9**
CLES	**Cleveland East**	**6.31**	**259**		**Pn**	**04 36 25.4**	**+0.2**
M15K	**Kasigluk River**	**6.31**	**355**		**Pn**	**04 36 25.7**	**+0.4**
M13K	**Dall Lake**	**6.33**	**343**		**Pn**	**04 36 26.2**	**+0.7**
O19K	**Port Alsworth**	**6.46**	**24**		**Pn**	**04 36 28.5**	**+1.1**
SPIA	**Saint Paul Isl**	**6.58**	**299**	P	**Pn**	**04 36 30.3**	**+1.3**
ILSW	**Iliamna Southw**	**6.60**	**30**	Pn	**Pn**	**04 36 30.0**	**+0.7**
M16K	**Timber Creek**	**6.63**	**3**		**Pn**	**04 36 30.6**	**+0.9**
CNPM	**China Poot**	**6.87**	**39**	Pn	**Pn**	**04 36 32.5**	**-0.5**
N19K	**Bonanza Creek**	**6.98**	**21**		**Pn**	**04 36 35.5**	**+1.0**
M17K	**Holitna River**	**7.09**	**9**		**Pn**	**04 36 36.3**	**+0.2**
L14K	**Kuka Creek**	**7.12**	**348**		**Pn**	**04 36 36.6**	**+0.2**
BRLK	**Bradley Lake**	**7.17**	**38**		**Pn**	**04 36 35.9**	**-1.1**
BRSE	**Bradley Lake S**	**7.20**	**39**		**Pn**	**04 36 36.7**	**-0.8**
L15K	**Ungalak Mounta**	**7.34**	**353**		**Pn**	**04 36 38.8**	**-0.6**
M18K	**Stony River**	**7.37**	**14**		**Pn**	**04 36 40.2**	**+0.3**
L17K	**Donlin**	**7.77**	**5**		**Pn**	**04 36 45.4**	**+0.2**
SEW	**Seward**	**7.93**	**40**		**Pn**	**04 36 46.0**	**-1.4**
SLKM	**Skilak Lake**	**7.93**	**36**		**Pn**	**04 36 46.6**	**-1.0**
K15K	**Wolf Creek Mou**	**7.96**	**354**		**Pn**	**04 36 47.9**	**+0.1**
L18K	**Granite Mounta**	**7.97**	**10**		**Pn**	**04 36 48.1**	**+0.1**
K13K	**Kusilvak Mount**	**7.98**	**343**		**Pn**	**04 36 48.6**	**+0.5**
M19K	**Big River Lodg**	**8.00**	**18**		**Pn**	**04 36 49.1**	**+0.7**
L19K	**White Mountain**	**8.18**	**16**		**Pn**	**04 36 50.9**	**0.0**
RC01	**Rabbit Creek A**	**8.52**	**34**		**Pn**	**04 36 55.1**	**-0.5**
J14K	**Nanvaranak Lak**	**8.60**	**348**		**Pn**	**04 36 56.4**	**-0.1**
P23K	**Montague Islan**	**8.67**	**45**		**Pn**	**04 36 57.4**	**-0.2**
PWL	**Port Wells**	**8.85**	**39**		**Pn**	**04 36 58.7**	**-1.3**
ATKA	**Atka Island**	**8.99**	**262**	P	**Pn**	**04 37 02.1**	**+0.1**
PMR	**Palmer**	**9.09**	**34**	P	**Pn**	**04 37 03.6**	**+0.3**
HIN	**Hinchinbrook I**	**9.27**	**44**		**Pn**	**04 37 04.7**	**-1.2**
EYAK	**Cordova Ski Ar**	**9.66**	**45**	P	**Pn**	**04 37 10.8**	**-0.4**
SCM	**Sheep Creek Mo**	**9.86**	**36**		**Pn**	**04 37 12.3**	**-1.7**
KLU	**Klutina**	**10.15**	**40**		**Pn**	**04 37 16.5**	**-1.4**
ADK	**Adak**	**10.54**	**263**	P	**Pn**	**04 37 23.4**	**+0.1**
HARP	**HAARP**	**11.00**	**38**		**Pn**	**04 37 30.0**	**+0.4**
PAX	**Paxson**	**11.28**	**35**		**Pn**	**04 37 32.5**	**-0.9**
GRNC	**Granite Creek**	**11.47**	**49**		**Pn**	**04 37 35.0**	**-1.1**
PNL	**Peninsula**	**12.19**	**56**	P	**Pn**	**04 37 46.4**	**+0.6**
ILAR	**Eielson Array**	**12.19**	**27**	Pn	**Pn**	**04 37 42.8**	**-3.0**
	comp=E,0.3nm,0.3s,baz=215,slow=13,SNR=19 comp=E,0.6nm,0.3s						
ILAR				AML	AML		
SIT	**Sitka**	**13.93**	**69**	P	**Pn**	**04 38 09.6**	**+0.2**
SKAG	**Skagway**	**14.15**	**59**	P	**Pn**	**04 38 12.9**	**+0.4**
SKAG	**Skagway**	**14.15**	**59**		**Pn**	**04 38 08.6**	**-4.0**
JIS	**Juneau Island**	**14.49**	**64**	P	**Pn**	**04 38 17.8**	**+0.7**
I29M	**Ogilvie Camp,**	**15.22**	**36**	IAmb	IAmb	04 38 34.7	
	comp=Z,14nm,0.8s						
J30M	**Hart River**	**15.50**	**40**	IAmb	IAmb	04 38 55.8	
	comp=Z,6.4nm,0.7s						
I30M	**Mount Dempster**	**15.82**	**38**	IAmb	IAmb	04 38 41.9	
	comp=Z,19nm,1.0s						
G29M	**Pine Creek**	**16.27**	**31**	IAmb	IAmb	04 39 08.6	
	comp=Z,28nm,1.4s						
DLBC	**Dease Lake**	**16.79**	**64**	Pn	**P**	**04 38 49.4**	**+0.3**
	comp=Z,0.5nm,0.3s,baz=286,slow=5.9,SNR=10						
MMPY	**Sheldon Lake,**	**16.81**	**49**	P	**Pn**	**04 38 48.6**	**+1.2**
MMPY				IAmb	IAmb	04 38 50.3	
	comp=Z,28nm,1.1s						
H31M	**Peel River**	**16.84**	**37**	IAmb	IAmb	04 39 03.6	
	comp=Z,20nm,1.2s						
G30M	**tAoh Zraii Nji**	**16.87**	**33**	IAmb	IAmb	04 38 52.5	
	comp=Z,9.3nm,0.5s						
INK	**Inuvik**	**18.49**	**31**	P	**P**	**04 39 07.2**	**-0.6**
	comp=Z,1.0nm,0.3s,baz=218,slow=15,SNR=10.0 comp=Z,3.5nm,0.4s						
INK				AML	AML		
YKA	**Yellowknife Ar**	**24.43**	**53**	P	**P**	**04 40 10.3**	**+0.1**
	comp=Z,0.8nm,0.6s,baz=266,slow=6.7,SNR=5.8 comp=Z,0.8nm,0.6s						
PEA0B	**Petropavlovsk-**	**24.97**	**285**	P	**P**	**04 40 14.3**	**-0.9**
PETK	**Petropavlovsk-**	**24.97**	**285**	P	**P**	**04 40 14.5**	**-0.7**
	comp=Z,2.3nm,0.6s,baz=74,slow=13,SNR=14 comp=Z,2.3nm,0.6s						
PETK	**Petropavlovsk-**	**24.97**	**285**	P	**P**	**04 40 14.3**	**-0.9**
NVAR	**Mina Array Bea**	**32.12**	**103**	P	**P**	**04 41 21.5**	**+2.2**
	comp=Z,0.2nm,0.5s,baz=316,slow=8.3,SNR=2.1 comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**34.40**	**89**	P	**P**	**04 41 40.4**	**+1.3**
	comp=Z,0.2nm,0.5s,baz=310,slow=6.2,SNR=4.4 comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**34.40**	**89**	P	**P**	**04 41 40.2**	**+1.1**
H11N2	**WAKE ISLAND Hy**	**42.98**	**230**	T	T	05 28 39.4	
	baz=28,slow=76,SNR=50						
H11N3	**WAKE ISLAND Hy**	**42.98**	**230**	T	T	05 28 36.0	
	baz=28,slow=76,SNR=44						
H11N1	**WAKE ISLAND Hy**	**43.00**	**230**	T	T	05 28 40.8	
	baz=28,slow=76,SNR=36						
H11S1	**WAKE ISLAND Hy**	**44.14**	**229**	T	T	05 30 06.3	
	baz=28,slow=76,SNR=43						
H11S2	**WAKE ISLAND Hy**	**44.16**	**229**	T	T	05 30 07.5	
	baz=28,slow=76,SNR=48						
H11S3	**WAKE ISLAND Hy**	**44.16**	**229**	T	T	05 30 06.5	
	baz=28,slow=76,SNR=31						
TXAR	**Lajitas Array**	**47.08**	**99**	P	**P**	**04 43 25.0**	**+1.4**
	comp=Z,0.7nm,0.9s,baz=302,slow=5.7,SNR=5.5 comp=Z,0.7nm,0.9s						
TXAR	**Lajitas Array**	**47.08**	**99**	P	**P**	**04 43 24.7**	**+1.1**
KSRS	**Korea Array**	**50.82**	**282**	P	**P**	**04 43 52.7**	**+0.7**
	comp=Z,0.5nm,0.6s,baz=47,slow=7.6,SNR=1.4 comp=Z,0.5nm,0.6s						
SONM	**Songino Array**	**55.08**	**305**	P	**P**	**04 44 23.3**	**-0.2**
	comp=Z,0.2nm,0.3s,baz=12,slow=7.5,SNR=1.8 comp=Z,0.2nm,0.3s						
HHC	**Hu-ho-hao-te**	**57.45**	**296**	*e*P	**P**	**04 44 41.7**	**+1.2**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,93nm,5.1s						
FINES	**FINESS Array B**	**64.39**	**357**	P	**P**	**04 45 26.9**	**-0.2**
	comp=Z,1.7nm,0.5s,baz=11,slow=7.4,SNR=21 comp=Z,1.7nm,0.5s						
KURK	**Kurchatov**	**64.47**	**323**	P	**P**	**04 45 27.5**	**-0.3**
KURK				IAmb	IAmb	04 45 29.1	
	comp=Z,1.2nm,0.6s						
GTA2	**Gaotai**	**64.48**	**303**	*e*P	**P**	**04 45 25.8**	**-2.5**
GTA2				pP	pP	04 45 28.7	-7.4
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.5s						
KURBB	**Kurchatov Arra**	**64.58**	**323**	P	**P**	**04 45 28.6**	**0.0**
	comp=Z,0.3nm,0.4s,baz=28,slow=6.8,SNR=7.1 comp=Z,0.3nm,0.4s						
BVAR	**Bovoye Array**	**65.17**	**329**	P	**P**	**04 45 32.7**	**+0.3**
	comp=Z,1.0nm,0.6s,baz=49,slow=6.7,SNR=4.2 comp=Z,1.0nm,0.6s						
HFS	**Hagfors**	**65.67**	**4**	P	**P**	**04 45 34.1**	**-1.4**
	comp=Z,2.1nm,0.7s,baz=57,slow=11,SNR=5.2 comp=Z,2.1nm,0.7s						
MKAR	**Makanchi Array**	**66.38**	**319**	P	**P**	**04 45 38.9**	**-1.4**
	comp=Z,0.6nm,0.6s,baz=43,slow=6.5,SNR=4.2 comp=Z,0.6nm,0.6s						
MKAR	**Makanchi Array**	**66.38**	**319**	P	**P**	**04 45 39.2**	**-1.1**
WMQ	**Urumqi**	**66.61**	**313**	*e*P	**P**	**04 45 43.6**	**+1.7**
WMQ				sP	sP	04 45 54.4	+1.7
WMQ				pmax	pmax		
	comp=Z,16nm,1.1s						
AKASG	**Malin Array Be**	**74.98**	**354**	P	**P**	**04 46 32.1**	**-0.4**
	comp=Z,0.5nm,0.3s,baz=13,slow=6.2,SNR=4.0 comp=Z,0.5nm,0.3s						
ESDC	**Sonseca Array**	**83.97**	**19**	P	**P**	**04 47 23.8**	**+2.0**
	comp=Z,0.2nm,0.6s,baz=329,slow=6.1,SNR=4.4 comp=Z,0.2nm,0.6s						
H03N2	**Juan Fernandez**	**111.48**	**118**	T	T	06 54 28.7	
	baz=316,slow=76,SNR=18						
H03N1	**Juan Fernandez**	**111.49**	**118**	T	T	06 54 29.7	
	baz=306,slow=76,SNR=20						

IDC 01 04:43:15.3±3.1,22°07S×147°86E,h0km,mbtmp3.2/4, ML3.2/4,Error ellipse: s-maj=33.5km s-min=18.2km az=80.0,Queensland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**2.48**	**323**	Pn	Pn	04 43 56.0	-0.9
	4.0nm,0.3s,baz=146,slow=17,SNR=28						
CTA				Lg	Lg	04 44 35.9	
	20nm,0.3s,baz=59,slow=16,SNR=17 9.8nm,0.3s						
CTA				AML	AML		
STKA	**Stephens Creek**	**11.25**	**208**	Pn	Pn	04 45 57.5	+0.2
	0.1nm,0.3s,baz=26,slow=16,SNR=2.9 0.7nm,0.5s						
STKA				AML	AML		
WRA	**Warramunga Arr**	**12.80**	**277**	Pn	Pn	04 46 15.2	-3.5
	0.1nm,0.3s,baz=96,slow=12,SNR=7.7						
WRA				Lg	Lg	04 49 58.4	
	0.2nm,0.3s,baz=102,slow=29,SNR=5.8 0.3nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**12.96**	**260**	Pn	Pn	04 46 17.8	-3.1
	0.1nm,0.3s,baz=81,slow=14,SNR=4.2						
ASAR				Lg	Lg	04 50 05.8	
	0.1nm,0.3s,baz=81,slow=27,SNR=4.6 0.2nm,0.3s						
ASAR				AML	AML		

*ISK **01** 04:48:08.9,37°83N×26°89E,h5km,ML2.5/14*
*AFAD **01** 04:48:09.5,37°83N×26°83E,h7km±1km,ML2.3*

ISC 01 04:48:09.7±1.1,37°83N±0°03×26°88E±0°03,h11km±9km, n26,σ0$54/38,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.22**	**2**	P	**Pg**	**04 48 14.1**	**-0.2**
GMLD	**Gumuldur**	**0.25**	**7**	Pg	**Pg**	**04 48 15.0**	**+0.2**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**115**	P	**Pg**	**04 48 16.4**	**+0.4**
GCAM				S	**Sb**	**04 48 22.0**	**-0.4**
GCAM				IAML		04 48 22.0	
	comp=N,406nm,0.1s						
GCAM	**G?zelcaml?**	**0.31**	**115**	Pg	**Pb**	**04 48 16.6**	**-0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**85**	Pg	**Pg**	**04 48 15.9**	**-0.4**
KUSD				Sg	**Sg**	**04 48 21.7**	**+1.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**6**	P	**Pg**	**04 48 17.5**	**-0.1**
BEYE				S	**Sg**	**04 48 23.1**	**+0.2**
DDIM	**Aydin, Didim**	**0.47**	**142**	P	**Pb**	**04 48 19.5**	**-0.5**
DDIM				S	**Sb**	**04 48 26.8**	**-0.2**
DDIM				IAML		04 48 28.0	
	comp=N,185nm,0.6s						
DDIM				IAML		04 48 28.0	
	comp=E,163nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**324**	P	**Pb**	**04 48 19.8**	**-0.7**
ZEYE				S	**Sg**	**04 48 26.2**	**0.0**
ZEYE				IAML		04 48 27.0	
	comp=N,338nm,0.4s						
BLCB	**Balcova**	**0.57**	**13**	Pg	**Pg**	**04 48 20.8**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.60**	**49**	P	**Pg**	**04 48 21.3**	**0.0**
DUVT				S	**Sg**	**04 48 28.8**	**-0.4**
DUVT				IAML		04 48 30.0	
	comp=E,244nm,0.1s						
CESE	**eme**	**0.67**	**318**	Pg	**Pb**	**04 48 23.3**	**-0.1**
CESE				AML	AML		
KRBN	**Karaburun**	**0.80**	**342**	Pg	**Pb**	**04 48 26.1**	**+0.5**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.81**	**82**	Pg	**Pb**	**04 48 26.2**	**+0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.81**	**102**	P	**Pb**	**04 48 25.6**	**-0.3**
AYDN				S	**Sg**	**04 48 34.8**	**-1.3**
AYDN				IAML		04 48 40.0	
	comp=E,60nm,0.4s						
BAGT	**Foa**	**0.82**	**359**	P	**Pb**	**04 48 25.7**	**-0.3**
BAGT				S	**Sb**	**04 48 37.5**	**+0.4**
BAGT				IAML		04 48 39.0	
	comp=E,103nm,0.4s						
BODT	**Bodrum**	**0.84**	**156**	Pg	**Pg**	**04 48 25.9**	**0.0**
BODT				Sg	**Sb**	**04 48 38.8**	**+1.2**
BODT				AML	AML		
CHOS	**Chios island**	**0.85**	**311**	Pg	**Pb**	**04 48 26.4**	**-0.1**
CHOS				AML	AML		
FOCM	**Foa**	**0.89**	**353**	Pg	**Pb**	**04 48 26.8**	**-0.3**
FOCM				AML	AML		
MLSB	**Milas**	**0.89**	**126**	Pg	**Pb**	**04 48 27.1**	**-0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.90**	**70**	P	**Pb**	**04 48 27.5**	**+0.1**
IZMR				S	**Sg**	**04 48 38.1**	**-0.8**
KARB	**zmir-Karabur**	**0.91**	**336**	P	**Pg**	**04 48 26.3**	**-0.9**
KARB				S	**Sg**	**04 48 38.7**	**-0.3**
KARB				IAML		04 48 41.0	
	comp=E,85nm,0.2s						
KARB				IAML		04 48 42.0	
	comp=N,138nm,0.2s						
CAMT	**Merkez**	**0.98**	**20**	P	**Pb**	**04 48 28.5**	**-0.2**
CAMT				S	**Sn**	**04 48 43.2**	**0.0**
CAMT				IAML		04 48 44.0	
	comp=E,114nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.13**	**83**	Pn	**Pg**	**04 48 30.9**	**-0.5**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.14**	**8**	P	**Pg**	**04 48 31.0**	**-0.7**
DKL	**Dikili**	**1.24**	**1**	Pn	**Pn**	**04 48 33.7**	**+0.8**
DKL				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**43**	Pn	**Pg**	**04 48 37.9**	**-0.3**
GORD				AML	AML		

*THE **01** 04:53:15.9,38°N±1°×2°6E±°,h3km±4km,M3.6/15, MLh3.6/15*
*AFAD **01** 04:53:15.5,37°84N×26°49E,h7km±2km,ML3.9*
*ISK **01** 04:53:15.8,37°86N×26°49E,h6km,ML3.8/35*
*ATH **01** 04:53:16.9±0.8,37°54N×26°64E,h0km,mb3.8/6, mbtmp3.7/13,ML3.2/5,MS3.9/3,Error ellipse: s-maj=14.7km s-min=11.8km az=

BODT	**Bodrum**	**1.01**	**140**	Pg	**Pb**	**04 53 36.2 +0.1**
BODT				Sg	**Sn**	**04 53 50.7 -1.2**
BODT				AML	AML	
BDRM	**Kayabasi**	**1.08**	**135**	P	**Pg**	**04 53 35.5 -1.0**
BDRM				S	**Sb**	**04 53 51.6 -0.3**
BDRM				IAML		04 53 55.0
	comp=N,2µm,0.6s					
BDRM	**Kayabasi**	**1.08**	**135**	⇓P	**Pn**	**04 53 37.6 -0.5**
TNSA	**Tinos**	**1.09**	**255**	P	**Pg**	**04 53 36.5 -0.2**
TNSA				S	**Sg**	**04 53 51.0 +0.2**
TNSA				AML	AML	
AYDB	**Zeytinkoy-Aydi**	**1.11**	**84**	Pn	**Pb**	**04 53 37.5 -0.4**
AYDB				AML	AML	
AYDN	**Tasoluk**	**1.12**	**99**	P	**Pg**	**04 53 36.9 -0.3**
CAMT	**Merkez**	**1.12**	**35**	P	**Pg**	**04 53 36.6 -0.6**
CAMT				S	**Sg**	**04 53 50.5 -1.2**
CAMT				IAML		04 53 54.0
	comp=N,7µm,0.6s					
CAMT				IAML		04 53 54.0
	comp=E,6µm,0.4s					
MLSB	**Milas**	**1.16**	**117**	Pn	**Pn**	**04 53 38.7 -0.4**
MLSB				AML	AML	
IZMR	**zmir-demi**	**1.20**	**75**	P	**Pg**	**04 53 37.7 -1.0**
IZMR				P	**Pb**	**04 53 38.0 -1.2**
IZMR				S	**Sg**	**04 53 51.6 -2.6**
IZMR				S	**Sb**	**04 53 52.4 -2.6**
IZMR				IAML		04 53 55.0
	comp=N,2µm,0.6s					
IZMR				IAML		04 53 55.0
	comp=N,2µm,0.6s					
ZEDA	**zmir-Bergama**	**1.22**	**22**	P	**Pg**	**04 53 37.1 -2.0**
DKL	**Dikili**	**1.27**	**15**	Pn	**Pb**	**04 53 40.2 -0.3**
DKL				AML	AML	
DKL	**Dikili**	**1.27**	**15**	P	**Pg**	**04 53 39.6 -0.6**
YAZI	**Mula-Dat§a-**	**1.39**	**146**	P	**Pn**	**04 53 41.0 -1.1**
DAT	**Datca**	**1.41**	**142**	Pn	**Pn**	**04 53 41.8 -0.8**
DAT				AML	AML	
PRK	**Paraskevi**	**1.42**	**353**	P	**Pn**	**04 53 41.6 -1.0**
PRK				S	**Sg**	**04 54 02.0 +0.7**
PRK				AML	AML	
PRK	**Paraskevi**	**1.42**	**353**	P	**Pn**	**04 53 41.4 -1.2**
GOMA	**Golmarmara-Man**	**1.42**	**52**	Pn	**Pb**	**04 53 42.6 -0.4**
GOMA				AML	AML	
NAZL	**Nazilli-Aydin**	**1.43**	**84**	Pn	**Pb**	**04 53 42.8 -0.4**
NAZL				AML	AML	
AKHS	**Akhisar**	**1.47**	**45**	P	**Pn**	**04 53 42.1 -1.2**
AKS	**Akhisar**	**1.47**	**45**	Pn	**Pb**	**04 53 43.5 -0.4**
AKS				AML	AML	
ESEN	**Aydn-Nazilli**	**1.47**	**91**	P	**Pn**	**04 53 41.0 -2.3**
AYVA	**Ayvalik**	**1.48**	**6**	P	**Pn**	**04 53 41.6 -1.8**
AYVA				S	**Sn**	**04 54 01.9 -1.5**
AYVA				IAML		04 54 11.0
	comp=N,2µm,0.6s					
KTTT	**Salihli**	**1.52**	**56**	P	**Pb**	**04 53 44.4 -0.4**
KTTT				S	**Sn**	**04 54 02.2 -2.4**
KTTT				IAML		04 54 06.0
	comp=N,2µm,0.4s					
KIRA	**zmir-Kiraz**	**1.55**	**76**	P	**Pg**	**04 53 46.0 +0.5**
KIRA				S	**Sn**	**04 54 03.3 -2.1**
SOMA	**Soma-Manisa**	**1.55**	**32**	Pn	**Pb**	**04 53 44.6 -0.7**
SOMA				AML	AML	
MULA	**Mugla, Merkez-**	**1.57**	**111**	P	**Pn**	**04 53 43.5 -1.2**
YER	**Yerkesik**	**1.59**	**116**	P	**Pn**	**04 53 44.7 -0.4**
YER				AML	AML	
YER	**Yerkesik**	**1.59**	**116**	Pn	**Pb**	**04 53 45.8 -0.1**
YER				AML	AML	
CMBO	**Columbo, Santo**	**1.61**	**213**	P	**Pn**	**04 53 44.2 -1.1**
CMBO				AML	AML	
CMBO	**Columbo, Santo**	**1.61**	**213**	P	**Pn**	**04 53 44.4 -0.9**
THR2	**Thira island,**	**1.62**	**212**	P	**Pn**	**04 53 44.5 -0.9**
KARY	**Karystos**	**1.63**	**277**	P	**Pn**	**04 53 44.4 -1.2**
KARY				AML	AML	
KARY	**Karystos**	**1.63**	**277**	P	**Pn**	**04 53 44.3 -1.3**
KARY				AML	AML	
THR8	**Santorini-Mono**	**1.64**	**210**	P	**Pn**	**04 53 44.4 -1.2**
THR8	**Santorini-Mono**	**1.64**	**210**	P	**Pn**	**04 53 44.6 -1.0**
SAP3	**Santorini-Thir**	**1.67**	**213**	P	**Pn**	**04 53 44.9 -1.2**
SAP3				AML	AML	
SAP3	**Santorini-Thir**	**1.67**	**213**	P	**Pn**	**04 53 45.0 -1.1**
THERA	**Ancient Thera,**	**1.68**	**209**	P	**Pn**	**04 53 45.3 -0.9**
THERA				AML	AML	
THERA	**Ancient Thera,**	**1.68**	**209**	P	**Pn**	**04 53 45.0 -1.1**
THERA				AML	AML	
SNT5	**Nea Kammeni, S**	**1.68**	**212**	P	**Pn**	**04 53 45.9 -0.3**
SNT5				AML	AML	
SNT5	**Nea Kammeni, S**	**1.68**	**212**	P	**Pn**	**04 53 45.1 -1.1**
KOCA	**Canakkale, Ayv**	**1.69**	**351**	P	**Pb**	**04 53 46.9 -0.7**
THR5	**Thira Island,**	**1.69**	**213**	P	**Pn**	**04 53 45.1 -1.2**
THR5	**Thira Island,**	**1.69**	**213**	P	**Pn**	**04 53 45.2 -1.0**
GORD	**Gordes-Manisa**	**1.71**	**51**	Pn	**Pb**	**04 53 46.9 -1.0**
GORD				AML	AML	
THR6	**Thira Island,**	**1.72**	**211**	P	**Pn**	**04 53 45.6 -1.1**
BUHA	**Balikesir, Bur**	**1.72**	**15**	P	**Pn**	**04 53 46.9 0.0**
BUHA				S	**Sb**	**04 54 10.0 -0.4**
BUHA				IAML		04 54 13.0
	comp=E,2µm,0.4s					
BUHA				IAML		04 54 16.0
	comp=N,1µm,0.5s					
TURN	**Turunc**	**1.76**	**127**	P	**Pn**	**04 53 46.0 -1.2**
TURN	**Turunc**	**1.76**	**127**	Pn	**Pb**	**04 53 47.9 -0.8**
TURN				AML	AML	
MANT	**Manisa**	**1.76**	**68**	P	**Pb**	**04 53 48.5 -0.4**
MANT				S	**Sn**	**04 54 10.2 -0.4**
STEP	**BALIKESIR_Sava**	**1.81**	**32**	P	**Pg**	**04 53 49.9 -0.6**
STEP				S	**Sg**	**04 54 13.0 -1.0**
STEP				IAML		04 54 31.0
	comp=N,1µm,0.8s					
SULTU	**Buldan**	**1.81**	**82**	P	**Pb**	**04 53 49.7 -0.2**
YAYO	**Edremit-Balk**	**1.83**	**14**	Pn	**Pn**	**04 53 48.1 -0.2**
YAYO				AML	AML	
SKY	**Skiros Island**	**1.84**	**305**	P	**Pn**	**04 53 47.1 -1.4**
SKY				AML	AML	
HARTU	**Esme**	**1.89**	**74**	P	**Pn**	**04 53 47.4 -1.8**
BAYC	**CANAKKALE_Bayr**	**1.90**	**1**	P	**Pn**	**04 53 48.5 -0.8**
TAVA	**DENIZLI_Tavas**	**1.96**	**100**	P	**Pn**	**04 53 49.4 -0.8**
TAVA	**DENIZLI_Tavas**	**1.96**	**100**	⇑P	**Pn**	**04 53 49.8 -0.4**
DALY	**Dalyan (Mula)**	**2.00**	**120**	Pn	**Pn**	**04 53 50.9 +0.2**
DALY				AML	AML	
MHLO	**Agia Marina, M**	**2.02**	**236**	P	**Pn**	**04 53 49.8 -1.1**
DION	**Dionisos Attik**	**2.03**	**278**	P	**Pn**	**04 53 50.1 -1.0**
DION				AML	AML	
DION	**Dionisos Attik**	**2.03**	**278**	P	**Pn**	**04 53 50.1 -1.0**
DION				AML	AML	
KYMI	**Kymi, Euboea I**	**2.04**	**294**	P	**Pn**	**04 53 50.2 -1.0**
KYMI				AML	AML	
KYMI	**Kymi, Euboea I**	**2.04**	**294**	P	**Pn**	**04 53 50.2 -1.0**
KYMI				AML	AML	
ARG	**Arkhangelos**	**2.08**	**140**	P	**Pn**	**04 53 51.4 -0.4**
ARG	**Arkhangelos**	**2.08**	**140**	Pn	**Pn**	**04 53 51.5 -0.2**
ARG				AML	AML	
ARG	**Arkhangelos**	**2.08**	**140**	P	**Pn**	**04 53 51.6 -0.2**
ARG				AML	AML	
PTL	**Penteli**	**2.08**	**277**	P	**Pn**	**04 53 50.9 -0.9**
PTL				AML	AML	
PTL	**Penteli**	**2.08**	**277**	P	**Pn**	**04 53 50.9 -0.9**
PTL				AML	AML	
BALB	**Balikesir**	**2.10**	**31**	Pn	**Pn**	**04 53 51.9 -0.1**
BALB				AML	AML	
VLY	**Voula,Athens**	**2.13**	**271**	P	**Pn**	**04 53 51.4 -1.0**
VLY				AML	AML	
VLY	**Voula,Athens**	**2.13**	**271**	P	**Pn**	**04 53 51.5 -1.0**
VLY				AML	AML	
ATHU	**Athens Univers**	**2.14**	**274**	P	**Pn**	**04 53 51.6 -1.0**
ATH	**Athens Observa**	**2.20**	**274**	P	**Pn**	**04 53 52.1 -1.2**
ATH				AML	AML	
APMY	**Acipayam-Deniz**	**2.26**	**98**	Pn	**Pn**	**04 53 54.6 +0.3**
APMY				AML	AML	
LIA	**Limnos Island**	**2.30**	**334**	P	**Pn**	**04 53 53.7 -1.0**
LIA				AML	AML	
SIMA	**Simav-Kutahya**	**2.32**	**57**	Pn	**Pn**	**04 53 55.6 +0.5**
SIMA				AML	AML	
SMAA	**Simav-Kutahya**	**2.33**	**56**	Pn	**Pn**	**04 53 55.6 +0.4**
SMAA				AML	AML	
KARP	**Karpathos**	**2.35**	**166**	P	**Pn**	**04 53 54.9 -0.5**
KARP				AML	AML	
FETY	**Fethiye**	**2.39**	**119**	Pn	**Pn**	**04 53 56.9 +0.8**
FETY				AML	AML	
CAME	**Cameli-Denizli**	**2.41**	**111**	Pn	**Pn**	**04 53 57.2 +0.8**
CAME				AML	AML	
DST	**Dursunbey**	**2.43**	**43**	Pn	**Pn**	**04 53 57.3 +0.7**
DST				AML	AML	
SHAP	**Saphane-Kutahy**	**2.45**	**60**	Pn	**Pn**	**04 53 57.5 +0.6**
SHAP				AML	AML	
VIL2	**Platees**	**2.57**	**279**	P	**Pn**	**04 53 57.1 -1.4**
VIL2				AML	AML	
GEDZ	**Gediz**	**2.59**	**61**	Pn	**Pn**	**04 53 59.4 +0.6**
GEDZ				AML	AML	
SMTH	**Samothraki Isl**	**2.73**	**344**	P	**Pn**	**04 53 59.7 -1.0**
SMTH				AML	AML	
LOUT	**Loutraki**	**2.78**	**274**	P	**Pn**	**04 54 00.8 -0.6**
BAND	**Balkesir-Ban**	**2.81**	**26**	⇑P	**Pb**	**04 54 07.6 +0.9**
BASM	**Basmaki-Afyon**	**2.82**	**87**	Pn	**Pn**	**04 54 02.3 +0.3**
BASM				AML	AML	
IDI	**Anoyia**	**2.85**	**207**	Pn	**Pn**	**04 54 02.0 -0.4**
	5.3nm,0.3s,baz=76,slow=4.0,SNR=31					
IDI				Sn	**Sn**	**04 54 34.0 -3.4**
	7.5nm,0.3s,baz=143,slow=22,SNR=6.2					
CAVK	**Edirne/Enez-Ca**	**2.86**	**355**	⇑P	**Pg**	**04 54 08.8 -1.8**
KEPZ	**Antalya-Kepez**	**4.18**	**101**	⇓P	**Pn**	**04 54 21.6 +0.9**
ELND	**Elena**	**5.11**	**355**	⇑P	**Pn**	**04 54 34.6 +1.2**
PLVB	**Pleven**	**5.72**	**346**	⇑P	**Pn**	**04 54 43.0 +1.2**
BRTR	**Keskin Array B**	**5.90**	**69**	Pn	**Pn**	**04 54 45.0 +0.7**
	0.3nm,0.3s,baz=249,slow=13,SNR=11					
	3.0nm,0.7s					
BRTR				AML	AML	
TLCR		**7.55**	**13**	⇑P	**Pn**	**04 55 08.7 +1.9**
MLR	**Muntele Rosu**	**7.66**	**357**	Pn	Pn	04 55 15.2 +6.7
	0.4nm,0.3s,baz=95,slow=22,SNR=3.5					
	2.1nm,0.5s					
MLR				AML	AML	
MLR	**Muntele Rosu**	**7.66**	**357**	⇓P	Pn	04 55 12.9 +4.4
TIP	**Timpagrande**	**7.75**	**283**	⇑P	**Pn**	**04 55 10.4 +0.7**
MDVR	**Moldovita**	**7.81**	**334**	⇑P	**Pn**	**04 55 12.3 +1.8**
LOT	**Lotru**	**7.87**	**346**	⇓P	**Pn**	**04 55 15.2 +3.8**
COVR	**Voineasa-Covas**	**8.01**	**359**	⇑P	Pn	04 55 17.8 +4.7
PLOR	**Plostina**	**8.01**	**1**	⇑P	**Pn**	**04 55 17.1 +3.9**
VRI	**Vrincioaia**	**8.02**	**1**	⇓P	**Pn**	**04 55 17.4 +4.0**
DOPR	**Dopca**	**8.16**	**355**	⇑P	**Pn**	**04 55 16.2 +0.9**
TURR	**Turia**	**8.22**	**358**	⇓P	**Pn**	**04 55 18.9 +2.8**
MMAI	**Mount Meron Ar**	**8.72**	**121**	Pn	**Pn**	**04 55 20.0 -3.1**
	2.7nm,0.3s,baz=335,slow=18,SNR=9.2					
SIRR	**Siria**	**9.15**	**338**	⇓P	**Pn**	**04 55 29.7 +0.8**
DRGR		**9.37**	**344**	⇓P	**Pn**	**04 55 35.7 +3.8**
ASF	**Jabal al Asfar**	**10.20**	**121**	Pn	**Pn**	**04 55 42.1 -1.7**
	0.4nm,0.3s,baz=133,slow=23,SNR=2.7					
	1.7nm,0.5s					
ASF				AML	AML	
EIL	**Elat**	**10.76**	**137**	Pn	**Pn**	**04 55 48.2 -2.8**
	0.7nm,0.3s,baz=340,slow=14,SNR=4.2					
	2.4nm,0.6s					
EIL				AML	AML	
GERES	**GERESS Array B**	**14.38**	**324**	Pn	**P**	**04 56 48.7 +1.0**
	baz=134,slow=7.6,SNR=4.1					
	0.1nm,0.3s					
ESDC	**Sonseca Array**	**23.77**	**284**	P	**P**	**04 58 32.8 +3.1**
	0.8nm,1.0s,baz=88,slow=9.1,SNR=4.6					
	0.8nm,1.0s					
TORD	**Torodi Ar. Bea**	**33.05**	**229**	P	**P**	**04 59 52.8 0.0**
	1.7nm,0.6s,baz=38,slow=9.3,SNR=11					
	1.7nm,0.6s					
KURBB	**Kurchatov Arra**	**38.64**	**54**	P	**P**	**05 00 43.0 +2.5**
	0.8nm,0.5s,baz=277,slow=8.8,SNR=6.5					
	0.8nm,0.5s					
MKAR	**Makanchi Array**	**41.45**	**59**	P	**P**	**05 01 05.3 +1.5**
	0.7nm,0.5s,baz=265,slow=10,SNR=5.0					
	0.7nm,0.5s					
DBIC	**Dimbokro**	**42.08**	**230**	P	**P**	**05 01 08.4 -0.9**
	1.3nm,0.5s,baz=45,slow=8.2,SNR=6.4					
	1.3nm,0.5s					
ZALV	**Zalesovo Beam**	**42.40**	**48**	P	**P**	**05 01 12.9 +1.4**
	0.6nm,0.5s,baz=297,slow=6.3,SNR=2.8					
	0.6nm,0.5s					
NRIK	**Noril'sk**	**45.01**	**26**	LR	LR	05 22 19.4
	comp=Z,56nm,18.4s,baz=22,slow=38					
YKA	**Yellowknife Ar**	**75.23**	**342**	LR	LR	05 40 46.3
	comp=Z,110nm,18.5s,baz=202,slow=38					
KDAK	**Kodiak Island**	**84.74**	**360**	LR	LR	05 46 33.0
	comp=Z,87nm,19.6s,baz=87,slow=38					

TAP 01 04:55:09.2, 24.63N×122.30E, h98km, ML2.6, D, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
EOS2	**EOS2**	**0.22**	**197**	P		Pn	04 55 22.9	-0.2
EOS2				S		Sn	04 55 33.6	+0.2
EOS3	**EOS3**	**0.34**	**178**	P		Pn	04 55 23.5	-0.1
EOS3				S		Sn	04 55 34.2	-0.1
TWC	**Suao**	**0.41**	**267**	*e*S		Sn	04 55 33.9	-1.5
EOS4	**EOS4**	**0.51**	**179**	*e*S		Sn	04 55 34.6	-1.2
EWUT	**Wuta**	**0.51**	**249**	*i* P		Pn	04 55 24.8	-0.1
EWUT				S		Sn	04 55 36.6	0.0
NDS	**Dongshan**	**0.54**	**271**	P		Pn	04 55 25.5	+0.4
NDS				S		Sn	04 55 36.5	-0.4
ENA	**Nanau**	**0.55**	**249**	*e*P		Pn	04 55 25.4	+0.3
ENA				*e*S		Sn	04 55 36.8	-0.3
TIPB	**Shuangxi**	**0.55**	**308**	P		Pn	04 55 25.3	0.0
TIPB				*e*S		Sn	04 55 35.2	-2.0
TWE	**Neicheng**	**0.59**	**279**	*i* P		Pn	04 55 25.8	+0.4
FUSB	**Fushanzhiwuyua**	**0.66**	**281**	*i* P		Pn	04 55 26.7	+0.5
FUSB				*i* S		Sn	04 55 38.7	-0.2
ENTT	**Nioudou**	**0.67**	**271**	P		Pn	04 55 27.1	+0.9
ENTT				S		Sn	04 55 39.6	+0.6
LATG	**Datong**	**0.71**	**263**	P		Pn	04 55 27.4	+0.7
LATG				*i* S		Sn	04 55 40.7	+0.9
NDT	**Datong Townshi**	**0.72**	**268**	*i* P		Pn	04 55 28.0	+1.3
NDT				S		Sn	04 55 40.9	+1.2
NWLT	**Wulai**	**0.74**	**282**	P		Pn	04 55 27.3	+0.5
NWLT				S		Sn	04 55 40.1	0.0
NACB	**Ninganchiao**	**0.79**	**235**	P		Pn	04 55 26.9	-0.4
NACB				S		Sn	04 55 40.6	-0.3
YM01	**YM01**	**0.84**	**308**	*e*S		Sn	04 55 41.9	0.0
YHNB	**Yeheng**	**0.85**	**273**	P		Pn	04 55 28.8	+0.9
YHNB				S		Sn	04 55 42.3	+0.2
ETLH	**Xiulin Townshi**	**0.86**	**241**	P		Pn	04 55 28.0	-0.1
LXIB	**Xiulin Townshi**	**1.01**	**233**	*i* P		Pn	04 55 29.6	-0.2
LXIB				S		Sn	04 55 44.3	-1.0
KSHI	**Guanxi Townshi**	**1.04**	**278**	*e*P		Pn	04 55 30.9	+1.0
WHF	**Hehuan Shan**	**1.06**	**243**	P		Pn	04 55 31.1	+0.4
NFF	**Wufeng Townshi**	**1.08**	**270**	*e*P		Pn	04 55 30.8	+0.3
NFF				S		Sn	04 55 47.5	+1.0
TDCB	**Techi**	**1.11**	**250**	*e*P		Pn	04 55 32.8	+1.9
ESL	**Shilin**	**1.14**	**225**	P		Pn	04 55 30.5	-0.6
LIOB	**Emei**	**1.17**	**271**	P		Pn	04 55 32.5	+1.1
LIOB				S		Sn	04 55 49.1	+0.9
OWD	**Renai**	**1.23**	**237**	*e*P		Pn	04 55 32.3	0.0
OWD				S		Sn	04 55 49.0	-0.6
WARBT	**Fenglin Townsh**	**1.24**	**223**	*i* P		Pn	04 55 31.6	-0.6
WARBT				S		Sn	04 55 47.8	-1.8
WUSB	**Renai**	**1.25**	**240**	P		Pn	04 55 33.4	+0.9
WUSB				S		Sn	04 55 49.9	-0.2
WHP	**Taichung City**	**1.29**	**254**	P		Pn	04 55 35.0	+2.2
VWDT	**VWDT**	**1.37**	**231**	P		Pn	04 55 34.5	+0.7
VWDT				S		Sn	04 55 52.0	-0.4
HGSD	**Ruisui**	**1.39**	**216**	*e*P		Pn	04 55 35.0	+0.9
HGSD				*e*S		Sn	04 55 53.9	+1.1
SSLB	**Suanglung**	**1.49**	**236**	P		Pn	04 55 37.1	+1.9
SSLB				S		Sn	04 55 54.3	-0.7
YULB	**Yu-li**	**1.54**	**217**	P		Pn	04 55 35.3	-0.6
YULB				S		Sn	04 55 53.8	-2.2
WHYT	**Xinyi Township**	**1.62**	**235**	*e*P		Pn	04 55 38.8	+2.0
WHYT				*e*S		Sn	04 55 59.3	+1.4

JMA 01 04:55:46.8±0.1, 24.1N±0.8×123.2E±0.5, h25km±3km, MV2.4/9, NEAR ISHIGAKIJIMA ISLAND, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.38**	**341**	P		Pb	04 55 55.0	-0.1
YOJ				S		Sb	04 56 00.5	-0.1
JYNG	**Yonagunijimaku**	**0.40**	**332**	P		Pb	04 55 55.1	-0.2
JYNG				S		Sb	04 56 00.7	-0.3
IRIF	**Iriomote-Funau**	**0.58**	**66**	P		Pb	04 55 58.2	-0.1
IRIF				S		Sb	04 56 06.2	0.0
HATJ	**Hateruma jima**	**0.60**	**94**	P		Pb	04 55 58.2	-0.5
JKRS	**Kuro-shima**	**0.80**	**80**	P		Pb	04 56 01.9	-0.1
JKRS				S		Sn	04 56 13.1	-0.4
JIJ	**Ishigaki jima**	**0.95**	**74**	P		Pn	04 56 03.6	-0.8
JIJ				S		Sb	04 56 16.4	-0.2
JISG	**Ishigakijimahi**	**1.17**	**65**	P		Pn	04 56 07.0	-0.5
JISG				S		Sn	04 56 22.5	-0.1

MOS ***01*** *05:01:07.8±1.0, 10.12N×84.10W, h79km, mb5.4/29, Error ellipse: s-maj=8.4km s-min=5.6km az=101.4*

IDC ***01*** *05:01:08.8±0.5, 10.18N×84.03W, h79km±5km, mb4.4/21, mbtmp4.8/26, MS4.0/35, Error ellipse: s-maj=15.0km s-min=6.9km az=30.0*

GFZ ***01*** *05:01:08.6±0.2, 10.1N±3.3×8.4W±.1, h80km±1km, M5.2/120, mb5.1/120, Error ellipse: s-maj=8.3km s-min=3.3km az=35.1, confirmed*

UCR ***01*** *05:01:08.7±0.9, 9.99N×84.08W, h76km±1km, MW5.6, Fault plane solution: NP1:ϕs120.12000°, δ75.92000°, λ5.24000°., Presumed earthquake*

GFZ ***01*** *05:01:08.7, 9.98N×84.03W, h79km, Mw5.2/22, Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr7.22; Mθθ-0.03; Mϕϕ-7.19; Mrθ1.41; Mθϕ2.45; Mϕr-0.11; Fault plane solution: M0 7.73807×10^16 NP1: ϕs152.04738°, δ48.02284°, λ75.12518°. NP2: ϕs353.70650°, δ44.06930°, λ105.92514°. Principal axes: T 7.4902, Plg78.8111°, Azm352.7452°; N 0.4740, Plg11.0018°, Azm162.1208°; P -7.9642, Plg2.0125°, Azm252.5122°;*

UPA ***01*** *05:01:09.6±2.3, 10.00N×84.09W, h70km, MW5.0, Presumed earthquake*

CATAC ***01*** *05:01:09.4±0.5, 10.1N±3.8×4.4W±., h62km±5km, M5.5/10, MLv5.5/10, Error ellipse: s-maj=8.5km s-min=4.6km az=56.9, confirmed*

NEIC ***01*** *05:01:09.0±1.9, 10.01N±0.06×84.06W±0.06, h72km±3km, mb5.1/634, Mwr5.1/31, Mww5.1/37, Error ellipse: s-maj=10.9km s-min=6.2km az=217.0, Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr1.39; Mθθ2.79; Mϕϕ-4.17; Mrθ2.20; Mθϕ2.85; Mϕr0.19; Fault plane solution: M0 5.15000×10^16 NP1:ϕs119.52000°, δ72.98000°, λ26.22000°. NP2:ϕs21.32000°, δ65.01000°, λ161.16000°. Principal axes: T 5.0593, Plg30.0000°, Azm342.0000°; N 0.1852, Plg59.0000°, Azm150.0000°; P -5.2445, Plg5.0000°, Azm249.0000°;*

NEIC ***01*** *05:01:09.3, 10.00N×84.07W, h74km*

GFZ ***01*** *05:01:09.2, 9.83N×84.19W, h93km, MW5.1, Moment Tensor Solution. s24 Moment tensor: Scale 10^16Nm; Mrr4.04; Mθθ1.24; Mϕϕ-5.28; Mrθ1.87; Mθϕ2.57; Mϕr0.48; Fault plane solution: NP1:ϕs133.00000°, δ53.00000°, λ49.00000°. NP2:ϕs8.00000°, δ52.00000°, λ131.00000°.*

PTWC ***01*** *05:01:10, 10.00N×84.00W, h50km, Mwp5.2/4*

GCMT ***01*** *05:01:13.0±0.3, 10.01N±0.02×84.12W±0.02, h75km±2km, MW5.2/106, Moment Tensor Solution. s45,c50; s106,c169; Duration: 1s0 Moment tensor: Scale 10^16 Nm; Mrr3.23±.25; Mθθ2.73±.20; Mϕϕ-5.96±.21; Mrθ2.95±.12; Mθϕ4.66±.18; Mϕr0.90±.18; Best double couple: M0 7.57600×10^16 NP1:ϕs15.00000°, δ63.00000°, λ152.00000°. NP2:ϕs118.00000°, δ66.00000°, λ30.00000°. Principal axes: T 7.1540, Plg38.0000°, Azm338.0000°; N 0.8440, Plg52.0000°, Azm154.0000°; P -7.9980, Plg2.0000°, Azm246.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

BGR ***01*** *05:01:14.8, 10.99N×83.54W, h77km, mb5.4*

ISC 01 05:01:08.2±0.3, 10.00N±0.03×84.05W±0.03, h78km±2km, h78km:pP-P, n1164, σ1§23/993, mb5.1/456, 93C-107D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
DOMI	**Santo Domingo**	**0.04**	**243**	*e*P		Pn	**05 01 20.0**	**+0.5**
DOMI				*e*S		Sn	**05 01 28.8**	**+0.9**
TIBA	**Tibas**	**0.04**	**206**	⇑*e*P		Pn	**05 01 19.9**	**+0.4**
TIBA				*e*S		Sn	**05 01 28.7**	**+0.8**
LUPE	**Guadalupe**	**0.05**	**183**	⇑*e*P		Pn	**05 01 20.0**	**+0.4**
LUPE				*e*S		Sn	**05 01 28.7**	**+0.8**
CORON	**Coronado**	**0.06**	**120**	⇑*e*P		Pn	**05 01 20.3**	**+0.7**
CORON				*e*S		Sn	**05 01 29.5**	**+1.5**
HDC	**Heredia**	**0.06**	**270**	Pn		Pn	**05 01 20.1**	**+0.5**
HDC				Sn		Sn	**05 01 28.5**	**+0.7**
HDC	**Heredia**	**0.06**	**270**	⇑P		Pn	**05 01 20.0**	**+0.5**
HDC				S		Sn	**05 01 28.6**	**+0.7**
SJS	**Escuela Geolog**	**0.06**	**181**	⇑*e*P		Pn	**05 01 20.0**	**+0.4**
SJS				*e*S		Sn	**05 01 28.6**	**+0.7**
SJS3	**Mercedes San J**	**0.06**	**180**	⇑*e*P		Pn	**05 01 20.1**	**+0.5**
SJS3				*e*S		Sn	**05 01 28.8**	**+0.9**
MEXI	**Barrio Mexico**	**0.07**	**209**	⇑*e*P		Pn	**05 01 20.0**	**+0.4**
MEXI				*e*S		Sn	**05 01 28.7**	**+0.8**
LUJA	**Lujan**	**0.08**	**194**	⇑*e*P		Pn	**05 01 19.9**	**+0.3**
LUJA				*e*S		Sn	**05 01 28.4**	**+0.5**
HEME	**Heredia, Merce**	**0.08**	**266**	⇓*e*P		Pn	**05 01 21.1**	**+1.5**
HEME				*e*S		Sn	**05 01 29.6**	**+1.7**
PAVB	**Pavas, San Jos**	**0.09**	**227**	⇑*e*P		Pn	**05 01 19.8**	**+0.2**
PAVB				*e*S		Sn	**05 01 28.2**	**+0.3**
CVIMO	**Finca Echandi**	**0.11**	**78**	⇓*e*P		Pn	**05 01 24.3**	**+4.5**
TRIO	**Tres Rios**	**0.11**	**149**	⇑*e*P		Pn	**05 01 19.9**	**+0.2**
VBV1	**V. Barva**	**0.12**	**337**	⇓*e*P		Pn	**05 01 20.1**	**+0.2**
BELE	**Belen**	**0.14**	**259**	⇓*e*P		Pn	**05 01 19.9**	**+0.2**
BELE				*e*S		Sn	**05 01 28.6**	**+0.5**
UELA	**Alajuela**	**0.16**	**276**	*e*P		Pn	**05 01 18.5**	**-1.2**
TAGO	**Cartago**	**0.18**	**137**	⇑*e*P		Pn

QUEP Quepos 0.58 191⇑eP Pn 05 01 22.3 -0.2
ARZA Esparza 0.61 269⇓eP Pn 05 01 23.0 +0.3
TRT2 Tortugero 0.63 29 S Sn 05 01 35.9 +1.8
TRT2 Tortugero 0.63 29 P Pn 05 01 23.0 -0.1
TRT2 Tortugero 0.63 29⇓eP Pn 05 01 23.9 +0.8
BITO Garabito Jaco 0.68 236⇓eP Pn 05 01 23.7 +0.2
TAAN Batan 0.70 83⇓eP Pn 05 01 24.9 +1.2
ZEDO Perez Zeledon 0.74 150 eP Pn 05 01 25.3 +1.1
ENAS Puntarenas 0.77 268⇓eP Pn 05 01 25.1 +0.6
VACR Volcan Arenal 0.77 307⇓eP Pn 05 01 25.5 +0.9
COVE Coope Vega, Sa 0.79 334 P Pn 05 01 25.6 +0.8
COVE S Sn 05 01 38.3 +1.3
CASO Castillo 0.80 303⇓eP Pn 05 01 25.7 +0.9
ARE1 Arenal 1 0.80 305⇓eP Pn 05 01 26.2 +1.4
VARE2 V. Arenal 0.80 305⇓eP Pn 05 01 25.9 +0.9
CEDE Laguna Cedeo 0.80 307⇓eP Pn 05 01 25.9 +0.9
REZ Monterrey de S 0.82 309 eP Pn 05 01 26.2 +1.0
MTEVE Monteverde 0.82 293⇓eP Pn 05 01 26.0 +0.7
SAJE San Jernim 0.84 140⇑eP Pn 05 01 25.4 -0.1
VERH Veragua Rainfo 0.85 95⇓eP Pn 05 01 26.2 +0.7
TABAC Tabacon 0.86 305⇓eP Pn 05 01 26.6 +1.0
PAQE Paquera 0.89 258⇓eP Pn 05 01 26.0 +0.2
JTS Las Juntas de 0.93 288 P Pn 05 01 27.0 +0.7
23µm,0.3s,baz=96,slow=6.9
JTS S Sn 05 01 40.9 +1.0
24µm,0.5s,baz=291,slow=20,SNR=16
JTS LR LR 05 01 59.7
comp=Z,3µm,21.8s,baz=251,slow=56
JTS Las Juntas de 0.93 288 P Pn 05 01 27.1 +0.7
JTS Las Juntas de 0.93 288⇓eP Pn 05 01 27.0 +0.7
JTS Las Juntas de 0.93 288 ⇓P Pn 05 01 27.0 +0.7
JTS S Sn 05 01 41.1 +1.2
JUNT Juntas 0.94 287⇓eP Pn 05 01 27.1 +0.7
EDPE Pejibaye, P 0.96 150⇑eP Pn 05 01 27.3 +0.6
OCHAL Ojochal 0.98 156 P Pn 05 01 27.4 +0.4
OCHAL S Sn 05 01 42.3 +1.4
TILA Tilaran 1.01 297⇓eP Pn 05 01 28.3 +0.9
LAES El Progreso Va 1.02 103⇓eP Pn 05 01 28.5 +1.1
QUEB Quebradon, Cot 1.03 307⇓eP Pn 05 01 28.2 +0.6
BURE Buenos Aires 1.08 139⇑eP Pn 05 01 28.4 +0.2
CAO2 Cobano, Puntar 1.08 253⇓eP Pn 05 01 28.0 -0.2
CNAS Canas 1.11 293 eP Pn 05 01 30.5 +2.0
TIMP Tierras Morena 1.11 301⇓eP Pn 05 01 29.5 +0.8
TENO El Achiote 1.15 308⇓eP Pn 05 01 28.9 +0.9
PANP Palmar Norte 1.19 150⇑eP Pn 05 01 29.7 +0.2
LCHIL Los Chiles 1.22 328⇑eP Pn 05 01 30.5 +0.7
FIMO Fila Mora 1.22 146⇑eP Pn 05 01 30.5 +0.4
CUI Cuipilapa 1.27 301⇓eP Pn 05 01 31.6 +1.0
UPAL Upala 1.30 313 P Pn 05 01 32.2 +1.4
UPAL S Sn 05 01 49.9 +2.0
UPAL Upala 1.30 313⇑eP Pn 05 01 31.7 +0.8
BAGA Bagaces 1.30 294⇓eP Pn 05 01 31.7 +0.8
EDP2 Potrero Grande 1.31 139⇑eP Pn 05 01 31.6 +0.6
COLC Colonia 1.31 300 eP Pn 05 01 32.1 +1.0
VMAR Armenia, Volca 1.32 308⇑eP Pn 05 01 32.2 +1.0
MESS Mesas 1.34 303⇓eP Pn 05 01 32.5 +1.0
CMARA Lajas Hojancha 1.35 271 P Pn 05 01 32.0 +0.4
CMARA Lajas Hojancha 1.35 271 eP Pn 05 01 31.6 0.0
CMARA Lajas Hojancha 1.35 271 ⇓iP Pn 05 01 31.7 0.0
CMARA eS Sn 05 01 49.8 +0.6
CLARA Aguas Claras 1.35 305⇓eP Pn 05 01 32.7 +1.1
NICO Nicoya 1.38 276⇓eP Pn 05 01 32.3 +0.4
INDI Punta indio, G 1.43 265 P Pn 05 01 32.2 -0.4
INDI S Sn 05 01 57.2 +6.1
JUD3 Juan Diaz 3 1.47 276 Pn 05 01 33.9 +0.7
JUD3 Juan Diaz 3 1.47 276⇓eP Pn 05 01 33.6 +0.4
GPS2 Hotel Rincn d 1.48 300 eP Pn 05 01 34.2 +0.9
RGM0 Gandoca 1.48 106 P Pn 05 01 34.9 +1.7
RGM0 S Sn 05 01 55.9 +3.8
RGM0 Gandoca 1.48 106 Pn 05 01 34.7 +1.5
RGM0 Gandoca 1.48 106 P Pn 05 01 34.8 +1.5
RGM0 Gandoca 1.48 106⇓eP Pn 05 01 34.7 +1.5
GPS3 Bodega del ICE 1.49 300 eP Pn 05 01 35.0 +1.5
VORI VORI 1.51 303⇓eP Pn 05 01 34.7 +0.9
VRLE La Escondida, 1.51 301⇓eP Pn 05 01 34.6 +0.9
PEJA Penjamo Buenos 1.52 306 eP Pn 05 01 34.6 +0.8
BUAI Buenos Aires 1.53 305 eP Pn 05 01 34.8 +0.8
SACU Santa Cruz 1.53 280⇓eP Pn 05 01 34.6 +0.7
LAPC Finca la Perla 1.56 299⇓eP Pn 05 01 34.8 +0.5
ALIBA Liberia Airpor 1.58 295⇓eP Pn 05 01 35.8 +1.2
VITO San Vito 1.59 138⇑eP Pn 05 01 35.7 +0.9
VITO San Vito 1.59 138⇑iP Pn 05 01 35.8 +1.1
VITO eS Sn 05 01 57.6 +2.8
FITO Golfito 1.63 147 eP Pn 05 01 34.4 -0.8
FITO Golfito 1.63 147⇓iP Pn 05 01 37.4 +2.2
FITO eS Sn 05 01 56.0 +0.4
SCLRA Santa Clara, W 1.71 133⇑iP Pn 05 01 37.3 +0.9
SCLRA eS Sn 05 02 00.3 +2.7
NELY Ciudad Neily 1.73 141⇑eP Pn 05 01 36.6 +0.1
NELY Ciudad Neily 1.73 141⇑iP Pn 05 01 36.7 +0.1
NELY eS Sn 05 01 59.2 +1.3
PIRO Carate, Puerto 1.74 156 Pn 05 01 37.3 +0.7
PIRO Carate, Puerto 1.74 156⇑eP Pn 05 01 37.3 +0.7
PIRO Carate, Puerto 1.74 156⇑iP Pn 05 01 38.1 +1.5
PIRO eS Sn 05 02 01.9 +3.7
BRU2 Volcan 1.80 132⇑eP Pn 05 01 38.2 +0.6
BRU2 Volcan 1.80 132⇑iP Pn 05 01 38.5 +0.9
BRU2 eS Sn 05 02 01.5 +1.6
CDITO Canoas 1.84 141 P Pn 05 01 37.9 0.0
CARN Rivas 1.86 309 P Pn 05 01 39.6 +1.3
CARN S Sn 05 02 03.8 +2.6
CARN Rivas 1.86 309 Pn 05 01 39.2 +0.9
LCRUZ La Cruz 1.89 305 eP Pn 05 01 39.7 +1.2
CLLRA Cordillera, 1.89 131⇑iP Pn 05 01 39.4 +0.6
BQTLY Boquete Panama 2.00 128⇑iP Pn 05 01 40.9 +0.7
BQTLY eS Sn 05 02 05.4 +0.8
BLUN Bluefields 2.01 8 P Pn 05 01 41.4 +1.2
PTPM Petroterminale 2.13 147 eP Pn 05 01 48.3 +6.5
PTPM eS Sn 05 02 12.1 +4.7
PTPA Petro Terminal 2.14 147⇑eP Pn 05 01 42.5 +0.6
RBALA Bur 2.18 121⇓iP Pn 05 01 43.1 +0.6
RBALA eS Sn 05 02 11.6 +2.8
DVD David 2.22 134 eS Sn 05 02 12.1 +2.5
LMNES Limones 2.23 148⇑iP Pn 05 01 44.8 +1.7
BGUAL Bijagual, Pana 2.25 131⇑iP Pn 05 01 44.0 +0.5
KKNTU Kakint⁸ 2.50 117⇓iP Pn 05 01 47.1 +0.3
BOAB BOACO BROADBAN 2.90 327 Pn 05 01 53.0 +0.8
BOAB BOACO BROADBAN 2.90 327 P Pn 05 01 53.1 +0.8
BOAB BOACO BROADBAN 2.90 327 ⇑P Pn 05 01 53.0 +0.8
BOAB S Sn 05 02 27.1 +0.9
MGAN Managua 3.03 315 Pn 05 01 54.7 +0.8
MGAN Managua 3.03 315 P Pn 05 01 55.2 +1.2
MGAN Managua 3.03 315 ⇑P Pn 05 01 54.9 +0.9
MGAN S Sn 05 02 31.3 +2.0
COPN Copaltepe 3.30 311⇑eP Pn 05 01 58.5 +0.8
GMAL Guarumal, Vera 3.56 128 P Pn 05 02 02.1 +0.8
GMAL Guarumal, Vera 3.56 128 P Pn 05 02 02.2 +0.9
GMAL Guarumal, Vera 3.56 128 eP Pn 05 02 01.5 +0.2
SIUN Universidad Ur 3.76 349 Pn 05 02 03.1 -0.8
PNME Penonome 3.97 112 P Pn 05 02 08.0 +1.2
PNME Penonome 3.97 112⇓iP Pn 05 02 07.8 +0.9
CRIN San Cristobal 3.98 313 Pn 05 02 08.2 +1.2
CRIN San Cristobal 3.98 313 P Pn 05 02 08.7 +1.8
CRIN San Cristobal 3.98 313 P Pn 05 02 09.1 +2.2
CRIN San Cristobal 3.98 313 ⇑P Pn 05 02 08.1 +1.1
CRIN S Sn 05 02 54.4 +2.0
BILN Bilwi Airport 4.08 9 Pn 05 02 10.2 +1.9
VTON El Valle, Cocl 4.13 109⇑eP Pn 05 02 10.4 +1.4
VTON eS Sn 05 02 58.9 +2.8
BCIP Isla Barro Col 4.24 101 P Pn 05 02 11.3 +0.9
BCIP Isla Barro Col 4.24 101 P Pn 05 02 11.4 +1.0
BCIP Isla Barro Col 4.24 101 ⇓P Pn 05 02 11.1 +0.7
BCIP S Sn 05 02 57.0 -1.7
ZANG Zanguenga, Cho 4.26 104⇓eP Pn 05 02 11.5 +0.8
ZANG Zanguenga, Cho 4.26 104 eP Pn 05 02 11.5 +0.8
AZU Azuero 4.33 120 P Pn 05 02 13.1 +1.5
AZU Azuero 4.33 120 P Pn 05 02 13.5 +1.8
AZU Azuero 4.33 120 eP Pn 05 02 13.2 +1.5
GAMB1 Gamboa 4.37 101 eP Pn 05 02 12.8 +0.5
UPA Univ. de Panam 4.57 102 P Pn 05 02 16.0 +1.0
UPA Univ. de Panam 4.57 102⇓iP Pn 05 02 15.7 +0.7
FLAM Flamenco Islan 4.58 103 eP Pn 05 02 16.5 +1.4
TGUH Tegucigalpa,Un 5.12 322 Pn 05 02 24.6 +2.1
TGUH Tegucigalpa,Un 5.12 322 P Pn 05 02 24.5 +2.0
TGUH Tegucigalpa,Un 5.12 322 P Pn 05 02 24.5 +2.0
11µm1µm,0.7s
TGUH AML AML
TGUH Tegucigalpa,Un 5.12 322 ⇑P Pn 05 02 24.1 +1.6
comp=Z,1µm,0.7s
CNTA3 Canitas, Panam 5.15 98 eP Pn 05 02 24.8 +1.9
CNTA3 eS Sn 05 03 21.6 +0.6
UPD2 Meteti 6.13 103 P Pn 05 02 38.3 +2.0
comp=Z,8µmcomp=Z,895nm,0.8s
UPD2 AML AML
ESQI Esquipulas 6.87 312 Pn 05 02 48.8 +2.3
LCBC Los crdobas, 7.67 98 Pn 05 02 59.9 +2.6
LCBC Los crdobas, 7.67 98 P Pn 05 03 00.6 +3.3
LCBC Los crdobas, 7.67 98 P Pn 05 03 01.5 +4.2
comp=Z,11µmcomp=Z,1µm,1.2s
LCBC Los crdobas, 7.67 98 P Pn 05 03 01.7 +4.4
LCBC P Pn 05 03 02.0 +4.7
LCBC P Pn 05 03 02.3 +5.0
APAC Apartado, Choc 7.67 105 P Pn 05 03 01.6 +4.3
comp=Z,5µmcomp=Z,483nm,0.8s
APAC Apartado, Choc 7.67 105 P Pn 05 03 02.8 +5.5
APAC P Pn 05 03 04.7 +7.4
APG El Apazote 7.99 309 P Pn 05 03 04.1 +2.2
comp=Z,7.0nm,0.6s,baz=138,slow=9.9,SNR=33
UREC San Jos de Ur 8.71 104 P Pn 05 03 13.9 +2.4
comp=Z,2µmcomp=Z,197nm,0.9s
UREC San Jos de Ur 8.71 104 P Pn 05 03 17.1 +5.6
UREC P Pn 05 03 17.9 +6.4
RTAL Retalhuleu 8.72 302 Pn 05 03 10.9 -0.7
SJCC San Jacinto, C 8.74 90 Pn 05 03 13.4 +1.3
SJCC San Jacinto, C 8.74 90 P Pn 05 03 13.3 +1.3
SJCC San Jacinto, C 8.74 90 P Pn 05 03 13.8 +1.8
comp=Z,7µmcomp=Z,881nm,0.8s
SJCC San Jacinto, C 8.74 90 P Pn 05 03 15.0 +3.0
SJCC P Pn 05 03 15.4 +3.4
SJCC P Pn 05 03 15.5 +3.4
PETF Flores 8.90 321 Pn 05 03 18.1 +4.0
HUEH Huehuetenango 8.99 307 Pn 05 03 18.6 +3.2
PATR El Naranjo 9.47 303 P Pn 05 03 25.2 +3.2
ARGC Ariguani, Magd 9.66 90 P Pn 05 03 26.1 +1.6
ARGC Ariguani, Magd 9.66 90 P Pn 05 03 26.6 +2.1
comp=Z,3µmcomp=Z,327nm,0.8s
FSCY Frank Sound, G 9.66 16 P Pn 05 03 27.7 +3.2
SMRC Santa Marta, M 9.73 82 Pn 05 03 24.9 -0.6
SMRC Santa Marta, M 9.73 82 P Pn 05 03 24.9 -0.6
GUY2C Guyana, Caldas 9.83 118 P Pn 05 03 30.8 +3.5
comp=Z,1µmcomp=Z,106nm,0.8s
CCIG Comitan 10.05 309 Pn 05 03 30.6 +0.7
PCJ Portland Cotta 10.20 40⇓iP Pn 05 03 35.4 +3.7
CVJ Coleyville 10.33 37⇓iP Pn 05 03 37.1 +3.4
BBAC Balboa, Cauca 10.42 139 P Pn 05 03 38.0 +2.9
comp=Z,992nmcomp=Z,117nm,1.1s
POPC Popayan, Colom 10.42 135 P Pn 05 03 37.9 +2.8
comp=Z,750nmcomp=Z,53nm,0.9s
PCIG 10.58 303 P Pn 05 03 39.6 +2.6
ORTC Ortega, Tolima 10.63 124 P Pn 05 03 41.9 +4.1
HOJ Hope 10.65 41 iP Pn 05 03 40.7 +2.8
STH Stony Hill 10.67 40 P Pn 05 03 41.2 +3.0
STH Stony Hill 10.67 40⇓iP Pn 05 03 42.0 +3.7
STH ⇑iP 05 03 42.1
GWJ Greenwich 10.72 41⇑iP Pn 05 03 42.9 +3.9
OCAC Ocana 10.74 99 P Pn 05 03 40.9 +1.5
comp=Z,3µmcomp=Z,283nm,0.7s
CMBC Cumbal 10.93 145 P Pn 05 03 48.1 +5.9
ROSC El Rosal 10.93 117 P Pn 05 03 44.6 +2.5
comp=Z,14nm,0.9s,baz=93,slow=5.1,SNR=8.8
ROSC LR LR 05 07 53.5
comp=Z,447nm,20.4s,baz=314,slow=37
ROSC El Rosal 10.93 117 Pn 05 03 43.2 +1.1
ROSC El Rosal 10.93 117 P Pn 05 03 46.3 +4.2
TEIG Tepich 10.95 339 Pn 05 03 43.5 +1.5
TEIG Tepich 10.95 339 P Pn 05 03 46.1 +4.0
TEIG Tepich 10.95 339 P Pn 05 03 44.2 +2.2
comp=Z,158nm,1.4s
CRJC Cerrejon, Guaj 11.03 84 P Pn 05 03 43.4 +0.1
CRJC Cerrejon, Guaj 11.03 84 P Pn 05 03 43.7 +0.4
comp=Z,2µmcomp=Z,148nm,0.8s
CUSE Cuicocha Este 11.15 149 P Pn 05 03 50.0 +4.7
comp=Z,1µmcomp=Z,81nm,0.9s
OTAV Otavalo 11.19 150 P Pn 05 03 47.5 +1.7
OTAV Otavalo 11.19 150 P Pn 05 03 47.5 +1.7
OTAV Otavalo 11.19 150 P Pn 05 03 50.0 +4.3
comp=Z,606nmcomp=Z,36nm,1.0s
OTAV Otavalo 11.19 150 P Pn 05 03 46.9 +1.2
comp=Z,40nm,1.3s
OTAV Otavalo 11.19 150 eP Pn 05 03 47.1 +1.4
CVER Cruz Verde, Cu 11.29 118 P Pn 05 03 52.6 +5.4
comp=Z,1µmcomp=Z,97nm,0.9s
VILC Villavicencio, 11.83 119 P Pn 05 03 59.0 +4.9
URIC Uribia, Colomb 11.97 81 Pn 05 03 55.4 -0.5
URIC Uribia, Colomb 11.97 81 P Pn 05 03 56.2 +0.3
comp=Z,1µmcomp=Z,92nm,1.1s
PIAT Ana Tenorio 12.35 152 P P 05 04 06.3 -4.4
CHIV Chivirico 12.36 36 Pn 05 04 02.7 +1.5
CMIG Matias Romero 12.67 305 P Pn 05 04 05.9 +0.4
comp=Z,41nm,0.4s,baz=118,slow=7.8,SNR=98
SOR Soroa 12.76 4 P Pn 05 04 09.9 +3.3
SOR Soroa 12.76 4 Pn 05 04 09.9 +3.3
GTBY Guantanamo Bay 13.11 40 iP P 05 04 15.5 -3.1
GTBY Guantanamo Bay 13.11 40 P Pn 05 04 13.3 +2.0
comp=Z,254nm,0.8s
CAIB Caibarien 13.17 19 Pn 05 04 12.9 +0.7
SDV Santo Domingo 13.29 94 P Pn 05 04 14.3 +0.5
comp=Z,148nm,0.7s,baz=284,slow=9.0,SNR=115
SDV S Sn 05 06 37.7 -2.3
comp=Z,37nm,0.8s,baz=299,slow=18,SNR=4.3
SDV LR LR 05 10 18.8
comp=Z,571nm,20.4s,baz=276,slow=41
SDV Santo Domingo 13.29 94 Pn 05 04 14.6 +0.7
SDV Santo Domingo 13.29 94 P Pn 05 04 15.4 +1.5
comp=Z,15µmcomp=Z,2µm,1.0s
SDV Santo Domingo 13.29 94 ⇓P Pn 05 04 14.4 +0.5
comp=Z,2µm,1.0s
GUVC San Jose del G 13.55 122 P P 05 04 21.3 -2.3
NMDO Nuevo Mundo 13.66 39 P P 05 04 22.2 -2.5
SDDR Presa de Saban 15.24 53 P P 05 04 45.0 +2.7
TLIG Tlapa 15.97 300 P P 05 04 50.0 -0.5
TLIG IAmb IAmb 05 04 56.9
comp=Z,111nm,0.9s
ATAH Atahualpa 17.93 161 P Pn 05 05 15.1 +2.2
comp=Z,5.1nm,0.8s,baz=352,slow=3.3,SNR=4.4
ATAH LR LR 05 11 22.0
comp=Z,591nm,19.8s,baz=352,slow=34
ECPR Experimental S 19.03 62 IAmb IAmb 05 05 54.3
comp=Z,73nm,1.0s
SJG San Juan 19.13 63 P Pn 05 05 26.7 -0.2
comp=Z,38nm,0.8s,baz=249,slow=5.8,SNR=9.5
SJG San Juan 19.13 63 P Pn 05 05 27.0 +0.1
SJG pmax pmax
comp=Z,91nm,1.0s
SJG San Juan 19.13 63 P Pn 05 05 27.0 +0.1
SJG IAmb IAmb 05 05 47.8
comp=Z,91nm,1.0s
SJG San Juan 19.13 63 P Pn 05 05 28.3 +1.4
SJG San Juan 19.13 63 P Pn 05 05 27.8 +0.9
comp=Z,108nm,1.1s
MOIG Morelia 19.14 302 Pn 05 05 28.9 +1.6
MOIG IAmb IAmb 05 05 32.8
comp=Z,218nm,1.1s
GCPR Guaynabo City 19.27 63 IAmb IAmb 05 05 38.6
comp=Z,68nm,1.0s
HUMP Col San Antoni 19.41 63 P Pn 05 05 29.8 -0.4
HUMP IAmb IAmb 05 05 34.1
comp=Z,67nm,1.0s
CZSB Cruzeiro do Su 20.93 147 P Pn 05 05 46.7 -1.4
CZSB IAmb IAmb 05 06 05.8
comp=Z,96nm,0.9s
CZSB Cruzeiro do Su 20.93 147 eP Pn 05 05 46.8 -1.3
ZAIG Zacatecas 21.80 308 P P 05 05 55.6 +1.3
ZAIG IAmb IAmb 05 05 59.7
comp=Z,70nm,0.9s
ZAIG Zacatecas 21.80 308 P P 05 05 56.0 +1.7
comp=Z,109nm,1.2s
250A Grady 21.96 355 P P 05 05 57.3 +1.6
441A DeRidder 22.33 339 P P 05 06 00.3 +0.7
152A Waverly Hall 22.57 359 P P 05 06 03.4 +1.2
HKT Hockley 22.69 333c iP P 05 06 03.5 +0.1
HKT pmax pmax
comp=Z,148nm,1.4s
HKT Hockley 22.69 333 P P 05 06 04.0 +0.6
HKT IAmb IAmb 05 06 05.4
comp=Z,125nm,1.3s
HKT Hockley 22.69 333 ⇑P P 05 06 03.6 +0.1
comp=Z,92nm,1.4s
735A Kenedy 22.76 327 P P 05 06 04.4 +0.2
735A IAmb IAmb 05 06 09.3
comp=Z,67nm,0.9s
VBMS Vicksburg 22.90 346 P P 05 06 06.2 +0.6
LRAL Lakeview Retre 23.08 354 P P 05 06 08.8 +1.4
MLDN Muldoon 23.14 330 P P 05 06 08.3 +0.4
MLDN IAmb IAmb 05 06 10.9
comp=Z,94nm,0.8s
HNVL Huntsville, TX 23.22 344 P P 05 06 09.3 +0.5
833A Chaparral WMA, 23.24 324 P P 05 06 09.1 +0.2
833A IAmb IAmb 05 06 12.0
comp=Z,72nm,1.2s
GOGA Godfrey 23.30 1 P P 05 06 11.0 +1.5
GOGA Godfrey 23.30 1 ⇑P P 05 06 10.9 +1.5
comp=Z,144nm,1.3s
SNAG San Augustine 23.38 338 P P 05 06 10.7 +0.5
SNAG IAmb IAmb 05 06 13.1
comp=Z,70nm,1.0s
Z47A Carrollton 23.38 351 P P 05 06 11.5 +1.3
143A Socs Landing, 23.59 344 P P 05 06 12.4 +0.3
NATX Nacogdoches 23.78 337 P P 05 06 14.1 +0.3
NATX IAmb IAmb 05 06 17.3
comp=Z,90nm,0.9s
Y49A Blount Mountai 23.84 355 P P 05 06 14.7 +0.4
Y49A IAmb IAmb 05 06 18.8
comp=Z,124nm,1.0s
HNDO Hondo 24.09 326 P P 05 06 15.9 -0.7
HNDO IAmb IAmb 05 06 20.3
comp=Z,49nm,0.9s
Y57A Sumter 24.14 7 IAmb IAmb 05 06 20.4
comp=Z,53nm,0.6s
FPAL Fort Paine 24.47 357 IAmb IAmb 05 06 24.1
comp=Z,64nm,1.1s
X48A Hartselle 24.49 354 IAmb IAmb 05 06 22.4
comp=Z,60nm,0.9s
BOAV Boa Vista 24.57 106 P P 05 06 22.8 +1.7
BOAV Boa Vista 24.57 106 eP P 05 06 20.9 -0.2
BIRD Birdtown, Kers 24.75 7 IAmb IAmb 05 06 26.8
comp=Z,99nm,0.9s
PAULI Pauline 24.79 4 IAmb IAmb 05 06 27.4
comp=Z,71nm,0.8s
X58A Rowland 24.82 9 IAmb IAmb 05 06 27.7
comp=Z,109nm,1.0s
W52A Murphy 24.98 0 IAmb IAmb 05 06 27.6
comp=Z,144nm,1.1s
JCT Junction City 25.11 326 P P 05 06 26.3 +0.4
JCT pmax pmax
comp=Z,31nm,0.8s
JCT Junction City 25.11 326 P P 05 06 26.3 +0.4
JCT IAmb IAmb 05 06 31.3
comp=Z,31nm,0.8s
KMSC Kings Mountain 25.15 5 P P 05 06 26.0 -0.2
KMSC IAmb IAmb 05 06 29.0
comp=Z,129nm,1.4s
WHTX Lake Whitney, 25.16 332 IAmb IAmb 05 06 29.0
comp=Z,53nm,0.7s
SWET Sewanee 25.16 356 P P 05 06 27.3 +1.0
Z38A Mt. Pleasant 25.24 338 IAmb IAmb 05 06 29.0
comp=Z,84nm,1.0s
BRDY Brady 25.32 329 IAmb IAmb 05 06 32.1
comp=Z,70nm,0.8s
CPCT Cooper Cave 25.34 359 IAmb IAmb 05 06 31.8
comp=Z,71nm,1.0s
FW13 Cleburne 25.45 333 IAmb IAmb 05 06 31.6
comp=Z,63nm,1.0s
TKL Tuckaleechee C 25.54 1 LR LR 05 16 39.9
comp=Z,254nm,20.4s,baz=158,slow=37
TKL Tuckaleechee C 25.54 1 IAmb IAmb 05 06 32.5
comp=Z,89nm,1.2s
V53A Saluda 25.58 2 IAmb IAmb 05 06 35.4
comp=Z,135nm,1.5s
X40A Basin Creek Fa 25.66 343 IAmb IAmb 05 06 32.2
comp=Z,55nm,1.5s
UALR University of 25.80 344 P P 05 06 32.5 +0.4
UALR IAmb IAmb 05 06 37.8
comp=Z,55nm,0.9s
V55A Taylorsville 25.86 5 IAmb IAmb 05 06 35.6
comp=Z,68nm,1.5s
MIAR Mount Ida 25.94 342 P P 05 06 33.8 +0.4
MIAR pmax pmax
comp=Z,51nm,0.8s
MIAR Mount Ida 25.94 342 P P 05 06 33.8 +0.4
MIAR IAmb IAmb 05 06 37.0
comp=Z,51nm,0.8s
MIAR Mount Ida 25.94 342 ⇑P P 05 06 33.0 -0.3
comp=Z,70nm,0.9s
CLTN Cedars of Leba 26.05 356 IAmb IAmb 05 06 40.1
comp=Z,53nm,1.1s
V58A Windy Hill, Pi 26.07 9 IAmb IAmb 05 06 37.8
comp=Z,72nm,0.7s
Z35A Perchaven, San 26.20 334 IAmb IAmb 05 06 38.0
comp=Z,79nm,0.8s
WVT Waverly 26.24 353 P P 05 06 36.1 +0.1
WVT pmax pmax
comp=Z,198nm,1.8s
WVT Waverly 26.24 353 P P 05 06 36.1 +0.1
WVT Waverly 26.24 353 ⇑P P 05 06 36.0 0.0
comp=Z,58nm,1.0s
WHAR Wooly Hollow 26.27 345 P P 05 06 36.4 +0.1
WHAR IAmb IAmb 05 06 38.2
comp=Z,56nm,0.8s
TZTN Tazewell 26.43 1 P P 05 06 38.6 +0.8
TZTN IAmb IAmb 05 06 40.5
comp=Z,74nm,1.2s
TZTN Tazewell 26.43 1 ⇑P P 05 06 39.0 +1.2
comp=Z,56nm,1.2s
U49A Red Boiling Sp 26.44 357 P P 05 06 38.4 +0.6
U49A IAmb IAmb 05 06 40.0
comp=Z,38nm,0.8s
HPIG 26.46 312 P P 05 06 38.2 -0.2
HPIG 26.46 312 P P 05 06 39.0 +0.6
comp=Z,23nm,1.1s
U54A Nelsons Funny 26.48 4 IAmb IAmb 05 06 41.1
comp=Z,162nm,1.8s
TX31 Lajitas Ar. Si 26.59 319 P P 05 06 40.4 +1.0
TXAR Lajitas Array 26.59 319 P P 05 06 38.9 -0.5
comp=Z,1.7nm,0.7s,baz=139,slow=8.9,SNR=62
TXAR PcP PcP 05 10 02.4 +0.4
comp=Z,4.5nm,0.8s,baz=143,slow=6.0,SNR=10
TXAR ScP ScP 05 13 34.2 -1.1
comp=Z,1.3nm,1.0s,baz=67,slow=1.5,SNR=5.0
comp=Z,1.7nm,0.7s
TXAR Lajitas Array 26.59 319 P P 05 06 39.3 0.0
ABTX Abilene, Hawle 26.72 330 IAmb IAmb 05 06 43.2
comp=Z,26nm,0.8s
LCAR Lake Charles 26.74 347 P P 05 06 40.4 -0.2
FCAR Ozark Folk Cen 26.80 345 IAmb IAmb 05 06 42.7
comp=Z,38nm,0.7s
T50A Nancy 26.91 359 IAmb IAmb 05 06 44.2
comp=Z,38nm,1.0s
WTFS Witchita Falls 27.11 333 IAmb IAmb 05 06 45.8
comp=Z,38nm,0.7s
PBMO Poplar Bluff 27.28 349 IAmb IAmb 05 06 46.8
comp=Z,61nm,1.0s
BLA Blacksburg 27.29 6 IAmb IAmb 05 06 49.3
comp=Z,71nm,1.4s
S51A Beattyville 27.52 1 IAmb IAmb 05 06 49.9
comp=Z,76nm,0.9s
APMT Aspermont 27.52 330 IAmb IAmb 05 06 50.3
comp=Z,31nm,0.9s
X34A Smith Ranch, M 27.54 335 IAmb IAmb 05 06 50.0
comp=Z,73nm,1.0s
W35A Tecumseh 27.64 337 IAmb IAmb 05 06 49.6
comp=Z,28nm,1.0s
S54A Dingess, Beckl 27.79 5 IAmb IAmb 05 06 52.5
comp=Z,43nm,1.1s
TUL3 Leonard 27.91 339 IAmb IAmb 05 06 51.7
comp=Z,48nm,0.9s
FNO Franklin 27.93 336 IAmb IAmb 05 06 53.2
comp=Z,50nm,0.8s
U38A Gravette 27.94 342 IAmb IAmb 05 07 05.6
comp=Z,33nm,1.2s
S44A Carbondale 27.97 351 IAmb IAmb 05 06 53.2
comp=Z,80nm,1.1s
S57A Dark Hollow, R 28.02 9 IAmb IAmb 05 06 54.5
comp=Z,25nm,0.6s
POST Post 28.02 328 P P 05 06 51.2 -0.9
WMOK Wichita Mounta 28.06 334 P P 05 06 51.9 -0.6
WMOK pmax pmax
comp=Z,27nm,0.9s
WMOK Wichita Mounta 28.06 334 P P 05 06 51.9 -0.6
WMOK IAmb IAmb 05 06 54.3
comp=Z,27nm,0.9s
WMOK Wichita Mounta 28.06 334 ⇓P P 05 06 51.8 -0.7
comp=Z,34nm,1.0s
OKCSW OKLAHOMA CITY 28.08 336 IAmb IAmb 05 07 49.4
comp=Z,60nm,1.1s
DEOK Depew 28.11 338 IAmb IAmb 05 06 53.7
comp=Z,58nm,0.9s
R50A Paris 28.16 360 IAmb IAmb 05 06 55.5
comp=Z,76nm,0.9s
WCI Wyandotte Cave 28.18 356 P P 05 06 53.9 +0.5
WCI pmax pmax

comp=Z,83nm,0.9s
WCI Wyandotte Cave 28.18 356 P P 05 06 53.9 +0.5
WCI Wyandotte Cave 28.18 356 ⇑P P 05 06 53.8 +0.4
comp=Z,96nm,0.9s
R49A Shelbyville 28.19 358 P P 05 06 54.2 +0.7
DKNS Dickens 28.20 329 IAmb IAmb 05 06 56.7
comp=Z,33nm,1.2s
R55A Marlinton 28.38 7 IAmb IAmb 05 06 58.5
comp=Z,121nm,1.7s
R58B Mineral 28.39 10 IAmb IAmb 05 06 58.7
comp=Z,20nm,0.8s
VHRN Van Horn 28.40 320 P P 05 06 55.4 -0.2
FVM French Village 28.45 349 IAmb IAmb 05 06 57.9
comp=Z,129nm,1.6s
CCM Cathedral Cave 28.67 348 P P 05 06 57.6 -0.2
CCM pmax pmax
comp=Z,112nm,0.7s
CCM Cathedral Cave 28.67 348 P P 05 06 57.6 -0.2
CCM Cathedral Cave 28.67 348 ⇑P P 05 06 57.4 -0.4
comp=Z,200nm,0.8s
LPIG La Paz 28.68 303 LR LR 05 17 50.8
comp=Z,190nm,21.8s,baz=118,slow=35
TPB28 28.70 322 IAmb IAmb 05 07 58.9
comp=Z,21nm,1.6s
CBN Corbin Frederi 28.72 11 IAmb IAmb 05 07 01.0
comp=Z,35nm,0.8s
OK048 Pawnee Station 28.78 338 IAmb IAmb 05 08 00.7
comp=Z,58nm,1.4s
S39A Bolivar 28.81 345 IAmb IAmb 05 07 00.1
comp=Z,114nm,1.6s
SMWD Samnorwood 29.03 332 IAmb IAmb 05 07 02.9
comp=Z,44nm,0.9s
T35A Sooner Cattle 29.07 339 IAmb IAmb 05 07 02.1
comp=Z,66nm,1.0s
R40A Maddies Statio 29.12 347 IAmb IAmb 05 07 04.7
comp=Z,23nm,0.7s
Q44A Meyer Farm, Va 29.12 352 IAmb IAmb 05 07 03.1
comp=Z,95nm,1.2s
Q56A Snyder Ridge, 29.24 8 IAmb IAmb 05 07 07.8
comp=Z,29nm,0.9s
MNTX Cornudas Mount 29.27 321 P P 05 07 01.6 -1.5
comp=Z,9.0nm,1.0s
P51A Williamsport 29.37 2 IAmb IAmb 05 07 06.0
comp=Z,79nm,1.0s
MSTX Muleshoe 29.39 327 IAmb IAmb 05 08 03.2
comp=Z,31nm,1.3s
OK038 West end E0370 29.53 336 IAmb IAmb 05 07 08.9
comp=Z,21nm,0.9s
P46A Rosedale 29.63 355 IAmb IAmb 05 07 07.4
comp=Z,53nm,0.8s
KAN01 Argonia South 29.73 338 IAmb IAmb 05 07 08.1
comp=Z,28nm,0.6s
MCWV Mont Chateau 29.77 7 IAmb IAmb 05 07 10.9
comp=Z,59nm,0.8s
KAN08 Anthony NE Sta 29.88 337 IAmb IAmb 05 07 09.9
comp=Z,45nm,0.8s
LPAZ La Paz 30.51 149 P P 05 07 16.7 +1.8
comp=Z,1.4nm,0.9s,baz=338,slow=8.8,SNR=5.6
LPAZ pP **pP 05 07 34.8 +1.1**
comp=Z,6.1nm,0.9s,baz=337,slow=8.6,SNR=13
LPAZ LR LR 05 19 37.1
comp=Z,321nm,21.5s,baz=325,slow=36
comp=Z,1.4nm,0.9s
LPAZ La Paz 30.51 149 P P 05 07 14.7 -0.2
LPAZ pmax pmax
comp=Z,7.0nm,0.9s
LPAZ La Paz 30.51 149 P P 05 07 14.7 -0.2
LPAZ La Paz 30.51 149 eP P 05 07 14.3 -0.6
MVL Millersville 30.65 12 P P 05 07 15.5 +0.3
MVL IAmb IAmb 05 07 18.2
comp=Z,108nm,1.9s
N47A Urbana 30.79 358 IAmb IAmb 05 07 18.0
comp=Z,36nm,0.9s
N53A Lisbon 30.81 5 IAmb IAmb 05 07 18.9
comp=Z,23nm,0.8s
SSPA Standing Stone 31.00 9 P P 05 07 19.1 +0.8
SSPA IAmb IAmb 05 07 21.7
comp=Z,34nm,0.8s
SSPA Standing Stone 31.00 9 P P 05 07 19.8 +1.5
comp=Z,48nm,0.8s
SSPA Standing Stone 31.00 9 P P 05 07 19.4 +1.1
SSPA PcP **PcP 05 10 12.6 -0.1**
KSU1 Kansas State U 31.08 341 P P 05 07 18.8 -0.3
M50A Fremont 31.29 1 IAmb IAmb 05 07 22.4
comp=Z,55nm,0.9s
RTBA Rita Blanca 31.30 330 IAmb IAmb 05 07 23.6
comp=Z,32nm,1.0s
N58A Sunbury 31.39 11 IAmb IAmb 05 07 25.4
comp=Z,27nm,0.9s
MDP Montagnes des 31.50 97 LR LR 05 23 12.6
comp=Z,414nm,19.7s,baz=220,slow=42
ITTB Itaituba 31.61 116 eP P 05 07 24.0 -0.1
319A Douglas 31.62 316 IAmb IAmb 05 08 03.0
comp=Z,19nm,1.0s
SRIG Santa Rosalia 31.66 307 ⇑P P 05 07 26.1 +1.9
comp=Z,93nm,1.0s
BRNJ Basking Ridge 31.69 14 IAmb IAmb 05 07 28.5
comp=Z,30nm,0.8s
CBKS Cedar Bluff 31.94 336 IAmb IAmb 05 07 28.5
comp=Z,39nm,0.8s
PAL Palisades 32.16 15 IAmb IAmb 05 07 31.2
comp=Z,44nm,1.1s
ALQ Albuquerque 32.17 324 IAmb IAmb 05 07 33.3
comp=Z,11nm,1.0s
ANMO Albuquerque 32.17 324 ⇓iP P 05 07 29.2 +0.3
ANMO pmax pmax
comp=Z,15nm,1.2s
ANMO Albuquerque 32.17 324 P P 05 07 28.8 -0.1
ANMO Albuquerque 32.17 324 P P 05 07 29.1 +0.2
comp=Z,11nm,1.0s
TASM ASL Pad, Albuq 32.17 324 P P 05 07 29.0 0.0
DUN6 Lazy B Ranch 32.21 318 IAmb IAmb 05 07 33.3
comp=Z,32nm,0.8s
KSPA Keystone Colle 32.27 12 IAmb IAmb 05 07 33.3
comp=Z,43nm,0.8s
WSPT Westport, CT 32.46 15 IAmb IAmb 05 07 33.7
comp=Z,25nm,1.0s
K50A Casco 32.67 2 IAmb IAmb 05 07 34.1
comp=Z,30nm,0.7s
T25A Trinidad 32.68 329 IAmb IAmb 05 07 40.3
comp=Z,22nm,1.2s
NPNY Mohonk Preserv 32.81 14 P P 05 07 34.9 +0.8
NPNY IAmb IAmb 05 07 36.9
comp=Z,33nm,0.9s
BINY Binghamton 32.84 11 P P 05 07 35.3 +0.8
BINY IAmb IAmb 05 07 38.1
comp=Z,53nm,1.1s
BINY Binghamton 32.84 11 P P 05 07 36.0 +1.5
comp=Z,60nm,1.0s
VILB Vilhena 32.88 133 eP P 05 07 35.2 +0.1
L59A Walton 33.02 12 IAmb IAmb 05 07 39.8
comp=Z,30nm,0.8s
J47A Sunmer 33.12 359 IAmb IAmb 05 07 37.4
comp=Z,37nm,0.7s
TUC Tucson 33.20 316 P P 05 07 38.0 +0.1
TUC pmax pmax
comp=Z,4.0nm,0.7s
TUC Tucson 33.20 316 P P 05 07 38.0 +0.1
TUC Tucson 33.20 316 P P 05 07 37.9 +0.1
comp=Z,7.4nm,1.3s
NPGB Novo Progresso 33.22 120 eP P 05 07 37.8 -0.3
JFWS Jewell Farm 33.23 352 P P 05 07 37.5 -0.4
JFWS pmax pmax
comp=Z,69nm,0.8s
JFWS Jewell Farm 33.23 352 P P 05 07 37.5 -0.4
K57A Scipio Center 33.26 10 IAmb IAmb 05 07 41.0
comp=Z,33nm,0.8s
SDCO Great Sand Dun 33.70 329 P P 05 07 42.7 +0.3
L61B Northampton 33.83 15 IAmb IAmb 05 07 45.3
comp=Z,19nm,1.0s
TRY Troy 33.85 14 IAmb IAmb 05 07 46.2
comp=Z,20nm,0.8s
W18A Petrified Fore 34.26 321 IAmb IAmb 05 07 51.4
comp=Z,43nm,1.2s
Q24A Divide 34.46 330 IAmb IAmb 05 07 51.8
comp=Z,14nm,1.0s
PDRB Porto dos Gac 34.62 128 eP P 05 07 49.1 -1.2
WCNY West Carthage 34.63 11 IAmb IAmb 05 07 52.7
comp=Z,34nm,0.9s
J61A Chester 34.70 15 IAmb IAmb 05 07 53.5
comp=Z,21nm,0.9s
SADO Sadowa 34.90 6 LR LR 05 23 00.0
comp=Z,338nm,18.8s,baz=180,slow=38
SADO Sadowa 34.90 6 IAmb IAmb 05 07 53.7
comp=Z,24nm,0.8s
X16A Lo Mia Camp, P 34.90 318 IAmb IAmb 05 07 57.1
comp=Z,9.9nm,0.7s

CFNY Clifton-Fine, 34.92 11 IAmb IAmb 05 07 55.2
comp=Z,21nm,1.0s
CLDB Colider 34.92 126 P P 05 07 52.5 -0.4
comp=Z,15nm,1.0s
CLDB pP **pP 05 08 10.7 -1.1**
CLDB Colider 34.92 126 eP P 05 07 52.3 -0.6
MVCO Mesa Verde 34.94 325 P P 05 07 52.6 -0.4
MVCO IAmb IAmb 05 07 56.9
comp=Z,33nm,1.1s
MVCO Mesa Verde 34.94 325 P P 05 07 53.1 +0.1
comp=Z,33nm,1.1s
HNH Hanover 35.10 15 IAmb IAmb 05 07 57.5
comp=Z,16nm,0.8s
MCVT Middlebury Col 35.16 14 IAmb IAmb 05 07 59.0
comp=Z,18nm,1.0s
PTLB Pontes e Lacer 35.34 135 eP P 05 07 57.2 +0.9
ECSD EROS Data Cent 35.34 344 P P 05 07 54.8 -1.3
comp=Z,72nm,0.9s
ISCO Idaho Springs 35.34 331 P P 05 07 56.4 -0.1
comp=Z,14nm,1.1s
LONY Lake Ozonia 35.45 12 IAmb IAmb 05 08 00.4
comp=Z,28nm,0.9s
113A Mohawk Valley, 35.54 314 IAmb IAmb 05 08 01.1
comp=Z,10nm,0.7s
WUAZ Wupatki 35.54 320 P P 05 07 58.1 0.0
WUAZ IAmb IAmb 05 08 03.6
comp=Z,21nm,1.1s
VT1 Waterbury 35.58 14 IAmb IAmb 05 08 02.0
comp=Z,15nm,1.0s
BBSD Sag de San D 35.59 139 eP P 05 07 58.4 -0.2
PV01 Paradox Valley 35.63 326 IAmb IAmb 05 08 04.1
comp=Z,32nm,1.4s
WBO Williamsburg 35.68 11 IAmb IAmb 05 08 02.2
comp=Z,20nm,1.0s
PV15 Paradox Valley 35.73 326 IAmb IAmb 05 08 04.0
comp=Z,38nm,1.1s
PV13 Radium Mtn., P 35.78 326 P P 05 08 00.4 +0.1
PV05 Paradox Valley 35.88 325 IAmb IAmb 05 08 04.0
comp=Z,37nm,1.0s
FLET Fletcher 35.90 14 IAmb IAmb 05 08 03.8
comp=Z,19nm,0.8s
PV20 West Nyswonger 35.99 326 IAmb IAmb 05 08 05.1
comp=Z,41nm,1.0s
PV04 Paradox Valley 36.00 326 IAmb IAmb 05 08 05.4
comp=Z,40nm,1.0s
PV22 Blue Mesa, Par 36.03 326 IAmb IAmb 05 08 06.1
comp=Z,35nm,1.1s
PV14 Lion Creek, Pa 36.05 326 IAmb IAmb 05 08 06.1
comp=Z,34nm,0.9s
PV10 Paradox Valley 36.06 326 IAmb IAmb 05 08 05.2
comp=Z,35nm,0.9s
PV23 Carpenter Ridg 36.10 326 IAmb IAmb 05 08 06.0
comp=Z,39nm,1.2s
PV21 Cone Mtn., Par 36.16 326 IAmb IAmb 05 08 06.5
comp=Z,16nm,1.0s
VTX Valle De La Tr 36.30 311 IAmb IAmb 05 08 08.3
comp=Z,26nm,0.9s
GLA Glamis 36.45 314 IAmb IAmb 05 08 09.1
comp=Z,29nm,0.8s
MNTQ Montreal, Queb 36.49 12 IAmb IAmb 05 08 09.3
comp=Z,17nm,0.9s
BLYC Blythe 36.61 315 IAmb IAmb 05 08 10.8
comp=Z,16nm,0.9s
HAYD Hayden 36.70 330 IAmb IAmb 05 08 11.5
comp=Z,17nm,1.2s
ESJX Sierra Juarez 36.73 311 IAmb IAmb 05 08 11.7
comp=Z,23nm,0.8s
HMU Henry Mountain 36.73 324 IAmb IAmb 05 08 12.8
comp=Z,27nm,1.4s
W13A Hualapai Mount 36.93 317 IAmb IAmb 05 08 14.2
comp=Z,10nm,0.8s
G62A West of Eustis 36.97 16 IAmb IAmb 05 08 14.6
comp=Z,34nm,1.5s
TRQ Mont Tremblant 37.00 11 IAmb IAmb 05 08 12.6
comp=Z,28nm,0.8s
YUH Yuha Desert 37.03 312 IAmb IAmb 05 08 14.0
comp=Z,16nm,0.9s
BC3 Big Chuckawall 37.21 314 IAmb IAmb 05 08 16.9
comp=Z,9.8nm,0.8s
PKCU Pink Cliffs 37.34 322 IAmb IAmb 05 08 18.6
comp=Z,50nm,1.4s
PKME Peaks-Kenny Pk 37.36 17 IAmb IAmb 05 08 17.4
comp=Z,29nm,0.8s
SRU San Rafael Swe 37.40 325 IAmb IAmb 05 08 17.5
comp=Z,25nm,0.9s
CBX Cerro Bola 37.41 311 IAmb IAmb 05 08 17.4
comp=Z,19nm,0.8s
Q16A Castle Valley 37.64 324 IAmb IAmb 05 08 20.2
comp=Z,29nm,1.8s
P17A Butcher Ranch, 37.77 325 IAmb IAmb 05 08 20.1
comp=Z,22nm,1.1s
BELC Belle Mtn. Jos 37.77 314 IAmb IAmb 05 08 20.2
comp=Z,14nm,0.8s
PMD Palm Desert 37.86 313 IAmb IAmb 05 08 20.7
comp=Z,20nm,0.8s
XPFO Pinon Flat 37.90 313 P P 05 08 20.1 +1.9
PFO Pinyon Flats O 37.90 313 LR LR 05 24 12.3
comp=Z,186nm,20.9s,baz=120,slow=37
PFO Pinyon Flats O 37.90 313 P P 05 08 18.8 +0.6
PFO pmax pmax
comp=Z,15nm,0.8s
PFO Pinyon Flats O 37.90 313 P P 05 08 18.8 +0.6
PFO IAmb IAmb 05 08 21.3
comp=Z,15nm,0.8s
PFO Pinyon Flats O 37.90 313 P P 05 08 19.2 +1.1
comp=Z,24nm,1.0s
RDMU Red Mountain 37.91 328 P P 05 08 18.1 -0.2
RDMU IAmb IAmb 05 08 20.9
comp=Z,13nm,1.0s
TMUT Trail Mountain 37.92 325 IAmb IAmb 05 08 22.2
comp=Z,18nm,1.4s
DPP Dos Picos Cty 37.95 312 IAmb IAmb 05 08 21.3
comp=Z,22nm,0.8s
K22A Casper 38.00 333 IAmb IAmb 05 08 21.5
comp=Z,21nm,0.8s
DNR Dunn Ranch,Anz 38.00 313 IAmb IAmb 05 08 22.9
comp=Z,28nm,0.9s
SALV Santo Antonio 38.09 132 eP P 05 08 19.7 0.0
RSSD Black Hills 38.15 337 P P 05 08 20.1 -0.1
RSSD pmax pmax
comp=Z,29nm,1.0s
RSSD Black Hills 38.15 337 P P 05 08 20.1 -0.1
RSSD IAmb IAmb 05 08 22.9
comp=Z,29nm,1.0s
RSSD Black Hills 38.15 337 P P 05 08 20.4 +0.1
comp=Z,33nm,1.1s
RSSD Black Hills 38.15 337 P P 05 08 21.8 +1.6
RSSD pP **pP 05 08 39.5 +0.6**
RSSD PcP **PcP 05 10 34.3 +0.7**
TCRU Three Creeks R 38.18 323 P P 05 08 21.1 +0.5
F64A Sherman 38.18 18 IAmb IAmb 05 08 22.9
comp=Z,30nm,1.0s
EYMN Ely 38.34 352 IAmb IAmb 05 08 20.7
comp=Z,29nm,0.9s
EYMN Ely 38.34 352 P P 05 08 19.8 -1.6
comp=Z,40nm,0.8s
BSUT Blindstream Ca 38.53 327 IAmb IAmb 05 08 26.7
comp=Z,15nm,0.9s
E62A Clayton Lake 38.53 16 IAmb IAmb 05 08 27.1
comp=Z,18nm,1.0s
ELS Elsinore Mount 38.62 313 IAmb IAmb 05 08 27.0
comp=Z,13nm,0.8s
SHOC Shoshone, Teco 38.99 317 IAmb IAmb 05 08 30.8
comp=Z,23nm,1.1s
D62A Allapoint, All 39.09 16 IAmb IAmb 05 08 31.4
comp=Z,20nm,0.8s
SNDB Serra Nova Dou 39.20 123 eP P 05 08 29.3 +0.3
TCUT Toone Canyon 39.28 327 IAmb IAmb 05 08 33.6
comp=Z,37nm,1.3s
LDAQ Lac Daran 39.35 14 IAmb IAmb 05 08 33.4
comp=Z,25nm,0.8s
MWC Mount Wilson 39.36 313 IAmb IAmb 05 08 33.4
comp=Z,20nm,1.3s
DUG Dugway, Tooele 39.44 325 P P 05 08 31.4 +0.4
comp=Z,9.3nm,1.2s
AGMN Agassiz Nation 39.44 348 P P 05 08 29.5 -1.2
comp=Z,87nm,1.1s
PDAR Pinedale Array 39.52 330 P P 05 08 31.1 -0.7
comp=Z,4.1nm,0.7s,baz=132,slow=9.2,SNR=26
PDAR PcP **PcP 05 10 38.6 +0.6**
comp=Z,1.4nm,0.7s,baz=141,slow=5.2,SNR=4.6
comp=Z,4.1nm,0.7s
PDAR Pinedale Array 39.52 330 P P 05 08 31.3 -0.4
CCCA Chr Cany lake 39.53 315 IAmb IAmb 05 08 35.6
comp=Z,66nm,1.5s
S11A Rachel 39.63 319 IAmb IAmb 05 08 37.3
comp=Z,34nm,1.2s

FURC Furnace Creek, 39.70 317 IAmb IAmb 05 08 37.0
comp=Z,23nm,1.0s
HWUT Hardware Ranch 39.71 327 IAmb IAmb 05 08 35.9
comp=Z,28nm,0.8s
HWUT Hardware Ranch 39.71 327 P P 05 08 32.8 -0.4
comp=Z,39nm,1.0s
LRMC Laurel Mtn Rad 39.73 315 IAmb IAmb 05 08 36.5
comp=Z,11nm,0.8s
TPO Tropico Hills 39.81 314 IAmb IAmb 05 08 37.5
comp=Z,57nm,1.6s
CLC China Lake 39.85 315 IAmb IAmb 05 08 37.7
comp=Z,21nm,1.4s
SPUT South Promonto 39.98 326 IAmb IAmb 05 08 38.5
comp=Z,13nm,1.0s
BGU Big Grassy Mou 40.05 325 IAmb IAmb 05 08 39.6
comp=Z,17nm,1.1s
BATG Bathurst New B 40.16 19 P P 05 08 37.6 +0.9
BATG IAmb IAmb 05 08 40.5
comp=Z,29nm,0.8s
AHID Auburn Hatcher 40.29 329 P P 05 08 37.5 -0.6
AHID Auburn Hatcher 40.29 329 P P 05 08 37.4 -0.6
comp=Z,14nm,1.1s
EPLO Experimental L 40.36 350 P P 05 08 37.0 -1.2
ISA Isabella, Lake 40.38 315 P P 05 08 39.4 +0.7
ISA pmax pmax
comp=Z,7.0nm,0.9s
ISA Isabella, Lake 40.38 315 P P 05 08 39.4 +0.7
CWC Cottonwood Cre 40.51 316 P P 05 08 40.2 +0.3
SNOW Snow King Moun 40.62 330 IAmb IAmb 05 08 43.5
comp=Z,17nm,0.8s
TPH Tonopah 40.83 319 IAmb IAmb 05 08 47.2
comp=Z,23nm,1.2s
SMTB Santa Maria do 40.85 116 eP P 05 08 42.6 -0.2
ARAG Araguaiana, MT 40.89 128 eP P 05 08 43.7 +0.7
VES Vestal, Richgr 40.90 315 IAmb IAmb 05 08 46.1
comp=Z,23nm,0.8s
TIN Tinemaha, Big 40.94 317 IAmb IAmb 05 08 47.2
comp=Z,19nm,1.2s
LAO LASA Array 41.14 337 IAmb IAmb 05 08 46.6
comp=Z,36nm,0.8s
RLMT Red Lodge 41.17 333 IAmb IAmb 05 08 47.3
comp=Z,19nm,0.8s
AQDB Aquidauana 41.17 137 P P 05 08 46.2 +0.9
AQDB Aquidauana 41.17 137 P P 05 08 46.0 +0.6
AQDB Aquidauana 41.17 137 eP P 05 08 45.6 +0.3
ELK Elko 41.20 323 LR LR 05 29 29.1
comp=Z,114nm,18.3s,baz=126,slow=41
ULM Lac du Bonnet 41.30 349 P P 05 08 44.8 -1.2
comp=Z,86nm,0.9s,baz=156,slow=8.1,SNR=33
ULM PcP **PcP 05 10 43.6 +0.4**
comp=Z,16nm,0.9s,baz=182,slow=1.2,SNR=3.9
comp=Z,86nm,0.9s
ULM Lac du Bonnet 41.30 349 P P 05 08 44.9 -1.1
ULM pmax pmax
comp=Z,164nm,1.2s
ULM Lac du Bonnet 41.30 349 P P 05 08 44.9 -1.1
YFT Old Faithful 41.39 331 IAmb IAmb 05 08 53.9
comp=Z,44nm,1.7s
NVAR Mina Array Bea 41.73 318 P P 05 08 50.3 +0.3
comp=Z,11nm,0.8s,baz=128,slow=7.8,SNR=48
NVAR LR LR 05 29 35.0
comp=Z,159nm,19.0s,baz=126,slow=41
comp=Z,11nm,0.8s
YHL Hebgen Lake 41.85 331 IAmb IAmb 05 08 54.9
comp=Z,14nm,0.8s
GO04 Tololo Observa 41.93 163 pP pP 05 09 08.9 -2.2
comp=Z,45nm,1.3s
QLMT Earthquake Lak 41.96 331 P P 05 08 52.4 +0.6
RYN Ryan 41.98 318 IAmb IAmb 05 08 58.6
comp=Z,16nm,1.0s
BMN Battle Mountai 42.20 322 IAmb IAmb 05 08 58.5
comp=Z,24nm,1.0s
WAKR Walker 42.52 318 P P 05 08 56.5 +0.1
HLID Hailey 42.58 327 P P 05 08 56.5 -0.3
HLID Hailey 42.58 327 P P 05 08 56.8 0.0
comp=Z,13nm,1.1s
BOZ Bozeman (W) 42.62 331 P P 05 08 56.5 -0.5
BOZ pmax pmax
comp=Z,14nm,0.9s
BOZ Bozeman (W) 42.62 331 P P 05 08 56.5 -0.5
MHC Mount Hamilton 43.42 315 IAmb IAmb 05 09 07.9
comp=Z,31nm,1.6s
EGMT Eagleton 43.64 335 IAmb IAmb 05 09 07.2
comp=Z,46nm,1.5s
BDFB Brasilia 43.85 125 P P 05 09 09.4 +2.1
comp=Z,4.7nm,0.8s,baz=238,slow=7.4,SNR=6.3
BDFB pP **pP 05 09 26.8 -0.1**
comp=Z,16nm,0.9s,baz=298,slow=9.8,SNR=9.1
BDFB LR LR 05 28 05.5
comp=Z,291nm,21.7s,baz=336,slow=37
comp=Z,4.7nm,0.8s
BDFB Brasilia 43.85 125 P P 05 09 07.9 +0.6
BDFB pmax pmax
comp=Z,15nm,0.9s
BDFB Brasilia 43.85 125 P P 05 09 07.9 +0.6
BDFB IAmb IAmb 05 09 29.6
comp=Z,15nm,0.9s
GBMT Granite Butte, 43.94 332 P P 05 09 07.3 -0.5
SJPY San Joaquin 44.19 142 eP P 05 09 10.8 +1.1
WVOR Wild Horse Val 44.25 323 P P 05 09 10.1 -0.1
WVOR pmax pmax
comp=Z,24nm,0.9s
WVOR Wild Horse Val 44.25 323 P P 05 09 10.1 -0.1
WVOR IAmb IAmb 05 09 10.9
comp=Z,24nm,0.9s
WVOR Wild Horse Val 44.25 323 P P 05 09 09.8 -0.3
comp=Z,31nm,1.5s
RPN Rapa Nui 44.31 213 LR LR 05 23 30.5
comp=Z,125nm,19.4s,baz=64,slow=30
VA03 San Esteban 44.44 164 P P 05 09 12.1 +0.4
VA03 IAmb IAmb 05 09 33.5
comp=Z,58nm,1.1s
SUTB Sutter Butte 44.46 317 IAmb IAmb 05 09 15.9
comp=Z,14nm,0.7s
CPUP Villa Florida 44.49 145 P P 05 09 13.8 +1.7
comp=Z,1.5nm,0.9s,baz=264,slow=10,SNR=2.9
CPUP pP **pP 05 09 32.3 +0.4**
comp=Z,1.4nm,0.8s,baz=331,slow=9.7,SNR=1.9
comp=Z,1.5nm,0.9s
CPUP Villa Florida 44.49 145 P P 05 09 12.6 +0.6
CPUP pmax pmax
comp=Z,15nm,1.5s
CPUP Villa Florida 44.49 145 P P 05 09 12.6 +0.6
CPUP Villa Florida 44.49 145 P P 05 09 13.4 +1.4
CPUP pP **pP 05 09 31.6 -0.3**
MCCM Marconi Confer 44.67 315 P 05 09 13.9 +0.5
SDBA SAO DESIDERIO 44.81 119 eP P 05 09 15.0 +0.1
PCMB Pacaembu 44.98 135 eP P 05 09 16.4 +0.4
IPMB Ipameri, GO 45.01 128 eP P 05 09 17.1 +0.7
HATC Hat Creek Radi 45.08 319 IAmb IAmb 05 09 19.8
comp=Z,16nm,0.9s
BO03 Pichilemu 45.72 166 P P 05 09 21.4 -0.2
comp=Z,2.7nm,0.8s
M03C McCloud 45.74 320 IAmb IAmb 05 09 26.6
comp=Z,46nm,1.7s
K05A Summer Lake 45.77 322 IAmb IAmb 05 09 34.9
comp=Z,18nm,1.3s
LDASE Londrina, Braz 46.26 136 eP P 05 09 26.9 +0.7
YBH Yreka Blue Hor 46.36 320 LR LR 05 31 56.3
comp=Z,114nm,20.9s,baz=130,slow=40
YBH Yreka Blue Hor 46.36 320 P P 05 09 25.6 -1.2
YBH pmax pmax
comp=Z,6.0nm,1.0s
YBH Yreka Blue Hor 46.36 320 P P 05 09 25.6 -1.2
L04D Klamath Falls 46.36 321 P P 05 09 26.8 -0.1
L04D IAmb IAmb 05 09 29.8
comp=Z,40nm,1.1s
LDM Libby Dam 46.43 332 IAmb IAmb 05 09 29.3
comp=Z,15nm,1.0s
BB19B Bebedouro 46.60 132 eP P 05 09 29.5 +0.6
YPT Yellepit 46.66 327 IAmb IAmb 05 09 30.2
comp=Z,13nm,0.9s
PMNB Patos De Minas 46.71 127 eP P 05 09 30.3 +0.5
SCHQ Schefferville 46.76 14 P P 05 09 28.9 -0.7
comp=Z,21nm,0.7s,baz=190,slow=8.2,SNR=23
comp=Z,21nm,0.7s
SCHQ Schefferville 46.76 14 IAmb IAmb 05 11 02.4
comp=Z,47nm,1.4s
J04A Umpqua Nationa 46.80 322 IAmb IAmb 05 09 34.2
comp=Z,38nm,0.9s
FFC Flin Flon 46.83 346 P P 05 09 30.3 +0.2
FFC pmax pmax
comp=Z,31nm,0.7s
FFC Flin Flon 46.83 346 P P 05 09 30.3 +0.2
FFC Flin Flon 46.83 346 P P 05 09 29.7 -0.4
comp=Z,62nm,0.8s

I05D	**Terrebonne, OR**	**46.96**	**324**	IAmb	IAmb	05 09 33.2		
	comp=Z,14nm,1.0s							
G06A	**Carlson Farm,**	**47.08**	**325**	IAmb	IAmb	05 09 35.3		
	comp=Z,46nm,1.8s							
WIFE	**Three Sisters-**	**47.08**	**323**	IAmb	IAmb	05 09 36.1		
	comp=Z,15nm,1.1s							
F07A	**Phinny Hill Vi**	**47.09**	**326**	IAmb	IAmb	05 09 35.8		
	comp=Z,20nm,1.0s							
NEW	**Newport**	**47.16**	**330**	LR	LR	05 31 19.3		
	comp=Z,107nm,19.2s,baz=127,slow=38							
NEW	**Newport**	**47.16**	**330**	P	**P**	**05 09 31.9**	**-1.1**	
NEW	**Newport**	**47.16**	**330**	P	**P**	**05 09 31.8**	**-1.1**	
	comp=Z,9.5nm,1.2s							
HAWA	**Hanford**	**47.18**	**327**	IAmb	IAmb	05 09 34.8		
	comp=Z,12nm,0.8s							
D08A	**Wollman Farm,**	**47.28**	**328**	IAmb	IAmb	05 09 40.0		
	comp=Z,43nm,2.0s							
I04A	**Tendick Farm,**	**47.29**	**322**	IAmb	IAmb	05 09 36.5		
	comp=Z,13nm,0.9s							
C09A	**Chrisman Ranch**	**47.43**	**329**	P	**P**	**05 09 34.2**	**-0.8**	
G05A	**Wamic**	**47.47**	**325**	IAmb	IAmb	05 09 36.3		
	comp=Z,41nm,1.2s							
ITQB	**Itaqui**	**47.48**	**147**	*e*P	**P**	**05 09 35.9**	**+0.4**	
MXC	**Moxie City**	**47.71**	**327**	IAmb	IAmb	05 09 40.5		
	comp=Z,45nm,1.6s							
PSAL	**Palomas, Salto**	**48.09**	**149**	*e*P	**P**	**05 09 41.3**	**+1.1**	
G04A	**Mulino**	**48.12**	**324**	IAmb	IAmb	05 09 42.0		
	comp=Z,31nm,0.9s							
NBPN	**Ponto Novo - B**	**48.28**	**114**	*e*P	**P**	**05 09 40.4**	**-1.6**	
LTY	**Liberty**	**48.33**	**327**	IAmb	IAmb	05 09 44.7		
	comp=Z,50nm,1.7s							
DIAM	**Diamantina, MG**	**48.77**	**125**	*e*P	**P**	**05 09 45.9**	**0.0**	
D05A	**Enumclaw**	**49.00**	**326**	IAmb	IAmb	05 09 47.3		
	comp=Z,17nm,1.0s							
CPSB	**Cacapava Do Su**	**49.80**	**145**	P	**P**	**05 09 53.6**	**+0.2**	
CPSB				IAmb	IAmb	05 10 22.9		
	comp=Z,36nm,1.4s							
SHUK	**Shuksan-Mt. Ba**	**49.85**	**328**	P	**P**	**05 09 53.2**	**-0.5**	
A05A	**Maple Falls**	**50.15**	**328**	IAmb	IAmb	05 09 57.0		
	comp=Z,30nm,1.0s							
NLWA	**Neilton Lookou**	**50.16**	**325**	IAmb	IAmb	05 09 59.1		
	comp=Z,19nm,1.1s							
B04A	**Port Angeles**	**50.34**	**326**	IAmb	IAmb	05 09 59.7		
	comp=Z,14nm,0.8s							
LLLB	**Lillooet**	**51.05**	**330**	IAmb	IAmb	05 10 04.5		
	comp=Z,20nm,1.0s							
PLCA	**Paso Flores**	**52.00**	**167**	P	**P**	**05 10 12.2**	**+2.4**	
	comp=Z,3.0nm,0.8s,baz=339,slow=7.2,SNR=8.0							
PLCA				pP	**pP**	**05 10 30.2**	**+0.4**	
	comp=Z,12nm,0.8s,baz=334,slow=7.6,SNR=15							
	comp=Z,3.0nm,0.8s							
PLCA	**Paso Flores**	**52.00**	**167**	P	**P**	**05 10 11.3**	**+1.5**	
PLCA				pmax	pmax			
	comp=Z,30nm,1.1s							
PLCA	**Paso Flores**	**52.00**	**167**	P	**P**	**05 10 11.3**	**+1.5**	
PLCA				IAmb	IAmb	05 10 32.0		
	comp=Z,30nm,1.1s							
PLCA	**Paso Flores**	**52.00**	**167**	*e*P	**P**	**05 10 11.7**	**+2.0**	
PLCA	**Paso Flores**	**52.00**	**167**	P	**P**	**05 10 12.1**	**+2.4**	
PLCA				pP	**pP**	**05 10 30.1**	**+0.3**	
PLCA				PcP	**PcP**	**05 11 21.7**	**+0.5**	
CAM01	**Campos-RJ**	**52.26**	**128**	*e*P	**P**	**05 10 12.1**	**+0.2**	
FRB	**Frobisher Bay**	**54.78**	**8**	LR	LR	05 33 42.6		
	comp=Z,228nm,19.9s,baz=197,slow=36							
BBB	**Bella Bella**	**55.13**	**329**	LR	LR	05 36 38.4		
	comp=Z,57nm,21.2s,baz=40,slow=39							
YKA	**Yellowknife Ar**	**56.86**	**344**	P	**P**	**05 10 42.9**	**-1.7**	
	comp=Z,32nm,0.8s,baz=141,slow=7.1,SNR=60							
	comp=Z,32nm,0.8s							
YKA	**Yellowknife Ar**	**56.86**	**344**	P	**P**	**05 10 44.0**	**-0.6**	
YKA	**Yellowknife Ar**	**56.86**	**344**	P	**P**	**05 10 44.0**	**-0.6**	
TAOE	**Nuku Hiva Isla**	**58.90**	**253**	*e*LR	LR	05 28 22.9		
	comp=Z,193nm,26.1s							
ILON	**Igloolik, Nuna**	**59.33**	**1**	P	**P**	**05 11 01.1**	**-0.6**	
DLBC	**Dease Lake**	**59.55**	**334**	LR	LR	05 41 16.9		
	comp=Z,162nm,18.2s,baz=96,slow=40							
SFJD	**Kangerlussuaq**	**61.20**	**14**	LR	LR	05 37 20.7		
	comp=Z,91nm,20.6s,baz=211,slow=36							
MMPY	**Sheldon Lake,**	**62.46**	**338**	P	**P**	**05 11 23.0**	**-0.1**	
POIN	**Pond Inlet**	**62.76**	**2**	P	**P**	**05 11 24.5**	**-0.4**	
M30M	**Minto, Yukon**	**64.59**	**336**	IAmb	IAmb	05 13 04.3		
	comp=Z,30nm,1.8s							
UPNV	**Upernavik**	**64.92**	**9**	*i* P	**P**	**05 11 41.3**	**+2.3**	
UPNV				IAmb	IAmb	05 11 42.6		
	comp=Z,44nm,0.9s							
RES	**Resolute Bay**	**64.95**	**357**	LR	LR	05 40 44.8		
	comp=Z,97nm,18.2s,baz=210,slow=37							
RES	**Resolute Bay**	**64.95**	**357**	P	**P**	**05 11 38.2**	**-1.0**	
RES				pmax	pmax			
	comp=Z,32nm,1.0s							
RES	**Resolute Bay**	**64.95**	**357**	P	**P**	**05 11 38.2**	**-1.0**	
	comp=Z,36nm,1.4s							
M29M	**Somme Creek**	**65.21**	**335**	IAmb	IAmb	05 11 42.2		
	comp=Z,19nm,1.1s							
H31M	**Peel River**	**65.38**	**340**	IAmb	IAmb	05 11 43.9		
	comp=Z,11nm,0.9s							
I30M	**Mount Dempster**	**65.78**	**339**	IAmb	IAmb	05 11 46.4		
	comp=Z,23nm,0.9s							
SOK	**Sop, Niakhar**	**66.02**	**79**	P	**P**	**05 11 48.9**	**+1.7**	
SOK				pP	**pP**	**05 12 08.4**	**+0.6**	
F31M	**Tsiigehtchic**	**66.11**	**341**	IAmb	IAmb	05 11 47.5		
	comp=Z,14nm,1.0s							
KULLO	**Kullorsuaq**	**66.33**	**8**	*i* P	**P**	**05 11 47.2**	**-0.9**	
KULLO				IAmb	IAmb	05 11 52.7		
	comp=Z,94nm,1.2s							
DAWY	**Dawson**	**66.34**	**337**	P	**P**	**05 11 47.6**	**-0.9**	
EPYK	**Eagle Plains**	**66.50**	**340**	P	**P**	**05 11 49.5**	**+0.1**	
EPYK				IAmb	IAmb	05 11 50.3		
	comp=Z,21nm,1.0s							
INK	**Inuvik**	**66.54**	**342**	LR	LR	05 42 52.1		
	comp=Z,100nm,18.9s,baz=4.0,slow=38							
INK	**Inuvik**	**66.54**	**342**	P	**P**	**05 11 49.4**	**-0.1**	
INK	**Inuvik**	**66.54**	**342**	IAmb	IAmb	05 11 51.3		
	comp=Z,22nm,0.8s							
INK	**Inuvik**	**66.54**	**342**	P	**P**	**05 11 49.1**	**-0.4**	
	comp=Z,28nm,0.9s							
M27K	**Edge Creek, AK**	**66.59**	**335**	IAmb	IAmb	05 12 53.0		
	comp=Z,43nm,2.0s							
MCARA	**McCarthy VSAT**	**66.69**	**333**	IAmb	IAmb	05 11 52.6		
	comp=Z,27nm,1.2s							
BCAR	**Beaver Creek A**	**66.85**	**335**	P	**P**	**05 11 51.4**	**-0.3**	
L27K	**Beaver Creek,**	**66.87**	**335**	IAmb	IAmb	05 11 52.8		
	comp=Z,16nm,1.1s							
H29M	**Whitestone**	**67.00**	**339**	IAmb	IAmb	05 11 53.5		
	comp=Z,18nm,1.1s							
GLB	**Gilahina Butte**	**67.06**	**333**	IAmb	IAmb	05 11 54.2		
	comp=Z,13nm,1.0s							
G29M	**Pine Creek**	**67.23**	**340**	IAmb	IAmb	05 11 56.5		
	comp=Z,42nm,1.0s							
E29M	**Blow River**	**67.94**	**341**	IAmb	IAmb	05 12 00.9		
	comp=Z,15nm,1.1s							
DOT	**Dot Lake**	**68.03**	**335**	IAmb	IAmb	05 12 00.1		
	comp=Z,23nm,1.1s							
H27K	**Steamboat Moun**	**68.14**	**338**	IAmb	IAmb	05 12 01.9		
	comp=Z,16nm,1.0s							
SUMG	**Summit**	**68.15**	**13**	P	**P**	**05 12 00.3**	**+0.1**	
SUMG	**Summit**	**68.15**	**13**	P	**P**	**05 11 59.5**	**-0.7**	
	comp=Z,18nm,1.0s							
SUMG	**Summit**	**68.15**	**13**	*i* P	**P**	**05 11 59.0**	**-1.2**	
SUMG				IAmb	IAmb	05 12 00.7		
	comp=Z,26nm,1.1s							
I26K	**Coal Creek Min**	**68.34**	**337**	IAmb	IAmb	05 12 02.3		
	comp=Z,17nm,1.0s							
RIDG	**Independent Ri**	**68.39**	**335**	IAmb	IAmb	05 12 04.1		
	comp=Z,24nm,1.0s							
K24K	**Donnelly Dome**	**68.80**	**335**	IAmb	IAmb	05 12 06.3		
	comp=Z,19nm,0.9s							
J25K	**Salcha River,**	**68.93**	**336**	IAmb	IAmb	05 12 07.3		
	comp=Z,12nm,0.9s							
KNK	**Knik Glacier**	**69.15**	**332**	IAmb	IAmb	05 12 06.7		
	comp=Z,26nm,1.0s							
GHO	**Glory Hole Cre**	**69.47**	**333**	IAmb	IAmb	05 12 09.1		
	comp=Z,14nm,0.9s							
HDA	**Harding Lake**	**69.49**	**336**	IAmb	IAmb	05 12 10.2		
	comp=Z,17nm,0.9s							
NEEM	**North Greenlan**	**69.57**	**7**	*i* P	**P**	**05 12 08.2**	**-0.6**	
NEEM				IAmb	IAmb	05 12 09.1		
	comp=Z,76nm,0.9s							
IL31		**69.60**	**336**	IAmb	IAmb	05 12 09.3		
	comp=Z,22nm,1.4s							
ILAR	**Eielson Array**	**69.60**	**336**	P	**P**	**05 12 08.0**	**-0.8**	
	comp=Z,5.6nm,0.8s,baz=113,slow=4.2,SNR=44							
ILAR				PP	**PP**	**05 14 41.6**	**-1.8**	
	comp=Z,2.0nm,1.0s,baz=103,slow=7.4,SNR=5.6							
ILAR				LR	LR	05 46 42.2		
	comp=Z,60nm,19.1s,baz=102,slow=39							
	comp=Z,5.6nm,0.8s							

ILAR	**Eielson Array**	**69.60**	**336**	P	**P**	**05 12 07.8**	**-1.0**	
BMAR	**Burnt Mountain**	**69.74**	**339**	P	**P**	**05 12 09.6**	**-0.2**	
RND	**Reindeer**	**69.95**	**334**	IAmb	IAmb	05 12 13.2		
	comp=Z,37nm,1.1s							
COLA	**College**	**70.02**	**336**	*e*P	**P**	**05 12 09.7**	**-1.6**	
COLA				pmax	pmax			
	comp=Z,21nm,2.3s							
MCK	**McKinley**	**70.09**	**335**	IAmb	IAmb	05 12 14.1		
	comp=Z,16nm,1.1s							
PPT	**Papeete**	**70.27**	**247**	LR	LR	05 34 46.6		
	comp=Z,165nm,18.9s,baz=93,slow=29							
PPT2	**Papeete2**	**70.28**	**247**	*e*S	**S**	**05 21 16.6**	**-3.7**	
	comp=Z,112nm,25.8s							
PPT2				*e*LR	LR	05 33 38.6		
	comp=Z,194nm,28.5s							
PPT2				*e*LR	LR	05 33 39.8		
	comp=Z,199nm,26.5s							
BWN	**Browne**	**70.45**	**335**	IAmb	IAmb	05 12 14.4		
	comp=Z,42nm,1.2s							
SKT	**Skwentna**	**70.72**	**332**	IAmb	IAmb	05 12 16.1		
	comp=Z,21nm,1.3s							
C26K	**Camden Bay**	**70.88**	**341**	IAmb	IAmb	05 12 18.2		
	comp=Z,15nm,0.9s							
D25K	**Kavik River**	**71.11**	**341**	IAmb	IAmb	05 12 19.7		
	comp=Z,19nm,0.9s							
MLY	**Manley**	**71.23**	**336**	IAmb	IAmb	05 12 20.8		
	comp=Z,12nm,0.6s							
CAST	**Castle Rocks**	**71.34**	**334**	IAmb	IAmb	05 12 21.4		
	comp=Z,18nm,1.3s							
M20K	**Styx River**	**71.42**	**332**	IAmb	IAmb	05 13 43.7		
	comp=Z,30nm,1.7s							
C24K	**Franklin Bluff**	**72.02**	**341**	IAmb	IAmb	05 12 26.4		
	comp=Z,18nm,1.2s							
PSBE	**So Bento**	**72.35**	**52**	*e*P	**P**	**05 12 27.9**	**+1.9**	
PTEO	**Sao Teotonio**	**72.36**	**54**	*e*P	**P**	**05 12 30.5**	**+4.4**	
MORF	**Marmelete**	**72.42**	**54**	*e*P	**P**	**05 12 27.8**	**+1.4**	
MORF				IAmb	IAmb	05 12 28.4		
	comp=Z,63nm,1.6s							
MORF	**Marmelete**	**72.42**	**54**	*e*P	**P**	**05 12 27.8**	**+1.4**	
MORF	**Marmelete**	**72.42**	**54**	*e*P	**P**	**05 12 27.7**	**+1.3**	
MORF				IAmb	IAmb	05 12 30.3		
	comp=Z,47nm,1.5s							
PLOUS	**Minas do Lousa**	**72.61**	**53**	*e*P	**P**	**05 12 29.1**	**+1.6**	
MESJ	**Messejana**	**72.77**	**53**	*e*P	**P**	**05 12 29.9**	**+1.5**	
MESJ				IAmb	IAmb	05 12 30.8		
	comp=Z,8.3nm,0.8s							
MESJ	**Messejana**	**72.77**	**53**	*e*P	**P**	**05 12 30.0**	**+1.5**	
MESJ	**Messejana**	**72.77**	**53**	*e*P	**P**	**05 12 29.4**	**+0.9**	
PMTG	**Montargil**	**72.78**	**52**	*e*P	**P**	**05 12 28.8**	**+0.3**	
PMTG				IAmb	IAmb	05 12 30.2		
	comp=Z,29nm,1.3s							
PSARD	**Sardoal**	**72.84**	**52**	*e*P	**P**	**05 12 30.1**	**+1.2**	
PCVE	**Castro Verde**	**72.91**	**54**	*e*P	**P**	**05 12 31.5**	**+2.2**	
PCVE				IAmb	IAmb	05 12 33.1		
	comp=Z,31nm,1.9s							
PARRA	**Arraiolos**	**72.92**	**52**	*e*P	**P**	**05 12 30.2**	**+0.8**	
EVO	**Evora**	**72.94**	**53**	*e*P	**P**	**05 12 30.5**	**+1.0**	
EVO				IAmb	IAmb	05 12 31.2		
	comp=Z,26nm,1.5s							
PBDV	**Barranco-do-Ve**	**72.99**	**54**	*e*P	**P**	**05 12 32.4**	**+2.6**	
ALE	**Alert**	**73.07**	**3**	P	**P**	**05 12 28.0**	**-1.5**	
ALE				PcP	**PcP**	**05 12 43.8**	**-2.0**	
PVIS	**Viseu**	**73.07**	**50**	*e*P	**P**	**05 12 30.7**	**+0.5**	
POLO	**Lamas de Olo**	**73.16**	**50**	*e*P	**P**	**05 12 31.8**	**+0.6**	
PVAQ	**Vaqueiros**	**73.16**	**54**	*e*P	**P**	**05 12 32.4**	**+1.6**	
PVRL	**Vila Real**	**73.22**	**50**	*e*P	**P**	**05 12 32.4**	**+1.3**	
PESTR	**Estremoz**	**73.27**	**52**	*e*P	**P**	**05 12 33.1**	**+1.6**	
PCBR	**Castelo Branco**	**73.37**	**51**	*e*P	**P**	**05 12 32.8**	**+0.8**	
PCBR				IAmb	IAmb	05 12 34.2		
	comp=Z,31nm,1.8s							
PMRV	**Marv??o**	**73.43**	**52**	*e*P	**P**	**05 12 32.7**	**+0.3**	
AVE	**Averroes**	**73.45**	**58**	IAmb	IAmb	05 12 34.8		
	comp=Z,30nm,1.0s							
AVE	**Averroes**	**73.45**	**58**	P	**P**	**05 12 32.6**	**0.0**	
	comp=Z,34nm,0.7s							
H19K	**Roundabout Mou**	**73.68**	**336**	IAmb	IAmb	05 14 32.0		
	comp=Z,36nm,1.9s							
PBAR	**Barrancos**	**73.70**	**53**	*e*P	**P**	**05 12 34.9**	**+0.9**	
PBAR				IAmb	IAmb	05 12 36.5		
	comp=Z,40nm,1.5s							
PBRG	**Braganca**	**73.96**	**49**	*e*P	**P**	**05 12 35.5**	**0.0**	
G19K	**Purcell Mounta**	**74.07**	**336**	IAmb	IAmb	05 13 07.2		
	comp=Z,25nm,1.7s							
DAG	**Danmarks Havn**	**74.79**	**13**	P	**P**	**05 12 38.2**	**-1.3**	
DAG	**Danmarks Havn**	**74.79**	**13**	P	**P**	**05 12 38.0**	**-1.6**	
	comp=Z,26nm,1.3s							
DAG	**Danmarks Havn**	**74.79**	**13**	*i* P	**P**	**05 12 38.0**	**-1.6**	
DAG				IAmb	IAmb	05 12 39.0		
	comp=Z,24nm,1.0s							
IFR	**Ifrane**	**75.35**	**58**	P	**P**	**05 12 44.5**	**+0.7**	
	comp=Z,4.1nm,1.1s							
MD01	**Midelt array s**	**75.69**	**59**	P	**P**	**05 12 46.7**	**+0.9**	
MD31	**MD31**	**75.69**	**59**	IAmb	IAmb	05 12 47.9		
	comp=Z,38nm,1.9s							
PAB	**San Pablo**	**75.79**	**52**	P	**P**	**05 12 46.7**	**+0.6**	
PAB				pmax	pmax			
	comp=Z,30nm,1.2s							
PAB	**San Pablo**	**75.79**	**52**	P	**P**	**05 12 46.7**	**+0.6**	
PAB				IAmb	IAmb	05 12 48.0		
	comp=Z,30nm,1.2s							
PAB	**San Pablo**	**75.79**	**52**	P	**P**	**05 12 46.6**	**+0.5**	
	comp=Z,26nm,1.4s							
PAB	**San Pablo**	**75.79**	**52**	P	**P**	**05 12 46.6**	**+0.5**	
EMAL	**Malaga-Limoner**	**75.80**	**55**	P	**P**	**05 12 47.7**	**+1.6**	
	comp=Z,14nm,1.6s							
ESDC	**Sonseca Array**	**76.08**	**52**	P	**P**	**05 12 48.4**	**+0.6**	
	comp=Z,22nm,0.9s,baz=280,slow=5.8,SNR=79							
	comp=Z,22nm,0.9s							
ESDC	**Sonseca Array**	**76.08**	**52**	P	**P**	**05 12 48.2**	**+0.5**	
ESBB	**Sonseca Array**	**76.08**	**52**	IAmb	IAmb	05 12 49.6		
	comp=Z,46nm,1.2s							
J14K	**Nanvaranak Lak**	**76.36**	**332**	IAmb	IAmb	05 13 29.6		
	comp=Z,73nm,1.9s							
UCM	**Universidad Co**	**76.61**	**51**	P	**P**	**05 12 51.8**	**+1.0**	
	comp=Z,55nm,1.2s							
ESK	**Eskdalemuir**	**76.64**	**35**	P	**P**	**05 12 50.2**	**-0.2**	
EKA	**Eskdalemuir Ar**	**76.66**	**35**	P	**P**	**05 12 50.2**	**-0.4**	
	comp=Z,12nm,0.7s,baz=262,slow=6.0,SNR=22							
	comp=Z,12nm,0.7s							
NOR	**Nord**	**76.91**	**8**	P	**P**	**05 12 51.4**	**-0.2**	
	comp=Z,18nm,2.0s							
NOR	**Nord**	**76.91**	**8**	*i* P	**P**	**05 12 50.5**	**-1.1**	
NOR				IAmb	IAmb	05 12 52.0		
	comp=Z,30nm,1.4s							
WMELI	**Melilla**	**77.06**	**56**	P	**P**	**05 12 53.4**	**+0.1**	
	comp=Z,20nm,1.4s							
LBWR	**Lakybower, Pea**	**77.47**	**37**	P	**P**	**05 12 55.4**	**+0.2**	
	comp=Z,101nm,2.1s							
DBIC	**Dimbokro**	**78.27**	**85**	P	**P**	**05 13 01.2**	**+0.9**	
	comp=Z,3.6nm,0.9s,baz=283,slow=5.8,SNR=3.9							
	comp=Z,3.6nm,0.9s							
EMUR	**La Murta**	**78.29**	**53**	⇑P	**P**	**05 12 59.8**	**-0.3**	
	comp=Z,11nm,1.0s							
MFF	**Saint Martin d**	**78.64**	**44**	P	**P**	**05 13 02.2**	**+0.4**	
	comp=Z,12nm,2.1s							
CEST	**Esterri de Car**	**79.87**	**48**	IAmb	IAmb	05 13 10.8		
	comp=Z,28nm,0.9s							
CORI	**Orista**	**80.51**	**49**	IAmb	IAmb	05 13 13.6		
	comp=Z,31nm,1.0s							
MTLF	**Montolieu**	**80.52**	**48**	⇑P	**P**	**05 13 12.0**	**-0.1**	
	comp=Z,32nm,1.1s							
RAR	**Rarotonga**	**80.53**	**246**	LR	LR	05 41 21.6		
	comp=Z,76nm,18.4s,baz=81,slow=30							
SJAF	**Saint Jean de**	**81.08**	**48**	⇑P	**P**	**05 13 15.4**	**+0.3**	
	comp=Z,41nm,1.0s							
EJON	**La Jonquera**	**81.09**	**48**	⇑P	**P**	**05 13 15.6**	**+0.4**	
	comp=Z,52nm,1.1s							
BSKQ	**Steenkerk**	**81.17**	**40**	*d*P	**P**	**05 13 14.9**	**-0.4**	
	comp=Z,16nm,0.8s							
LOR	**Lormes**	**81.33**	**44**	P	**P**	**05 13 15.9**	**-0.4**	
	comp=Z,35nm,2.5s							
UCC	**Uccle**	**81.33**	**40**	*d*P	**P**	**05 13 15.7**	**-0.5**	
	comp=Z,11nm,1.0s							
UCC	**Uccle**	**81.33**	**40**	P	**P**	**05 13 15.7**	**-0.5**	
	comp=Z,4.0nm,2.1s							
DOU	**Dourbes**	**81.55**	**41**	*d*P	**P**	**05 13 16.9**	**-0.6**	
	comp=Z,16nm,0.9s							
DOU				*d*pP	**pP**	**05 13 35.9**	**-2.5**	
BMRD	**Maredsous**	**81.64**	**40**	*d*P	**P**	**05 13 17.6**	**-0.3**	
	comp=Z,9.8nm,0.8s							
RCHB	**Rochefort**	**81.95**	**41**	*d*P	**P**	**05 13 19.0**	**-0.5**	
RCHB	**Rochefort**	**81.95**	**41**	P	**P**	**05 13 19.2**	**-0.3**	
	comp=Z,21nm,1.5s							
BCLA	**Clavier**	**81.97**	**40**	*d*P	**P**	**05 13 19.4**	**-0.2**	
	comp=Z,14nm,1.1s							
BCLA				*d*pP	**pP**	**05 13 36.6**	**-4.0**	

BCLA				*d*sP	**sP**	**05 13 46.3**	**-2.8**	
BCLA				*d*PP	**PP**	**05 16 23.3**	**-4.7**	
SSB	**Saint Sauveur**	**82.00**	**45**	P	**P**	**05 13 19.9**	**0.0**	
	comp=Z,21nm,1.3s							
SSB	**Saint Sauveur**	**82.00**	**45**	P	**P**	**05 13 19.8**	**-0.2**	
SSB				PcP	**PcP**	**05 13 24.8**	**-0.5**	
BOPT	**Opiter**	**82.11**	**40**	*d*P	**P**	**05 13 21.0**	**+0.8**	
HGN	**Heimansgroeve**	**82.33**	**40**	⇑P	**P**	**05 13 20.9**	**-0.6**	
	comp=Z,32nm,1.1s							
MEM	**Membach**	**82.40**	**40**	*d*P	**P**	**05 13 20.6**	**-1.2**	
	comp=Z,13nm,1.0s							
MEM	**Membach**	**82.40**	**40**	P	**P**	**05 13 22.0**	**+0.2**	
	comp=Z,26nm,1.1s							
SPITS	**Spitsbergen Ar**	**82.41**	**12**	LR	LR	05 50 28.8		
	comp=Z,117nm,20.4s,baz=269,slow=36							
WLF	**Walferdange**	**82.60**	**41**	IAmb	IAmb	05 13 24.6		
	comp=Z,46nm,1.1s							
WLF	**Walferdange**	**82.60**	**41**	*d*P	**P**	**05 13 23.2**	**+0.3**	
	comp=Z,24nm,1.0s							
WLF				*d*pP	**pP**	**05 13 42.1**	**-1.8**	
WLF	**Walferdange**	**82.60**	**41**	*e*P	**P**	**05 13 23.0**	**+0.1**	
	comp=Z,46nm,1.1s,baz=280,slow=5.1							
WLF	**Walferdange**	**82.60**	**41**	⇑P	**P**	**05 13 23.0**	**+0.1**	
	comp=Z,43nm,1.1s							
WTSB	**Winterswijk**	**82.73**	**39**	P	**P**	**05 13 23.4**	**-0.1**	
	comp=Z,72nm,1.1s							
RUSF	**Rustrel**	**82.81**	**47**	P	**P**	**05 13 25.0**	**+0.8**	
	comp=Z,16nm,1.1s							
ORIF	**Oris-en-Rattie**	**82.98**	**46**	P	**P**	**05 13 25.1**	**0.0**	
GIMEL	**St. Georges /**	**83.05**	**44**	P	**P**	**05 13 25.4**	**-0.1**	
BUG	**Bochum--Univer**	**83.09**	**39**	*e*P	**P**	**05 13 25.1**	**-0.3**	
	comp=Z,33nm,1.0s,baz=280,slow=5.1							
BUG	**Bochum--Univer**	**83.09**	**39**	P	**P**	**05 13 24.9**	**-0.5**	
	comp=Z,37nm,1.2s							
IBBN	**Ibbenburen**	**83.28**	**38**	*e*P	**P**	**05 13 26.3**	**0.0**	
	comp=Z,33nm,0.9s,baz=280,slow=5.1							
IBBN	**Ibbenburen**	**83.28**	**38**	P	**P**	**05 13 26.3**	**0.0**	
	comp=Z,38nm,1.0s							
ECH	**Echery**	**83.43**	**42**	P	**P**	**05 13 27.7**	**+0.4**	
ECH	**Echery**	**83.43**	**42**	IAmb	IAmb	05 13 28.2		
	comp=Z,21nm,0.9s							
ECH	**Echery**	**83.43**	**42**	P	**P**	**05 13 27.1**	**-0.2**	
	comp=Z,32nm,1.5s							
ECH	**Echery**	**83.43**	**42**	P	**P**	**05 13 26.9**	**-0.4**	
ECH				PcP	**PcP**	**05 13 30.5**	**-1.0**	
ECH				pP	**pP**	**05 13 46.4**	**-1.9**	
BOURR	**Bourrignon**	**83.59**	**43**	P	**P**	**05 13 28.1**	**-0.1**	
	comp=Z,35nm,0.9s							
TORD	**Torodi Ar. Bea**	**83.68**	**78**	P	**P**	**05 13 29.1**	**0.0**	
	comp=Z,3.0nm,0.8s,baz=269,slow=5.0,SNR=13							
	comp=Z,3.0nm,0.8s							
NAO01	**NORSAR Array S**	**83.75**	**29**	P	**P**	**05 13 29.0**	**+0.4**	
	comp=Z,11nm,2.0s							
SENIN	**Lac Senin/Sane**	**83.78**	**44**	IAmb	IAmb	05 13 30.7		
	comp=Z,16nm,1.1s							
KASTN	**Kahler Asten**	**83.83**	**39**	*e*P	**P**	**05 13 28.9**	**-0.4**	
	comp=Z,8.7nm,0.9s,baz=280,slow=5.1							
CALF	**Calern**	**83.87**	**47**	P	**P**	**05 13 29.5**	**-0.2**	
	comp=Z,11nm,1.2s							
NB2	**NORSAR Subarra**	**83.87**	**29**	P	**P**	**05 13 29.2**	**-0.1**	
	comp=Z,7.7nm,0.8s,baz=278,slow=5.3							
NOA	**NORSAR Array B**	**83.87**	**29**	P	**P**	**05 13 29.1**	**-0.1**	
	comp=Z,6.7nm,0.8s,baz=277,slow=5.0,SNR=16							
NOA				LR	LR	05 46 33.2		
	comp=Z,32nm,22.0s,baz=260,slow=32							
	comp=Z,6.7nm,0.8s							
ISO	**Isola**	**83.90**	**46**	P	**P**	**05 13 30.0**	**+0.2**	
	comp=Z,18nm,1.5s							
TNS	**Taunus Mts**	**83.99**	**40**	*e*P	**P**	**05 13 30.1**	**-0.1**	
	comp=Z,18nm,0.8s,baz=280,slow=5.1							
TNS	**Taunus Mts**	**83.99**	**40**	P	**P**	**05 13 29.6**	**-0.6**	
	comp=Z,29nm,1.4s							
NORES	**NORESS Array B**	**84.08**	**29**	P	**P**	**05 13 30.6**	**+0.3**	
ESCA	**l'Escarene**	**84.18**	**47**	P	**P

RETA Reutte 85.94 43 *i* P P 05 13 40.2 +0.2
comp=Z,33nm,1.1s,SNR=20
FETA Feichten 86.00 43 *i* P P 05 13 40.7 +0.2
comp=Z,37nm,1.0s,SNR=20
LUNU Lund 86.03 34 *i* P P 05 13 39.7 -0.4
DEL Delary 86.09 33 *i* P P 05 13 40.3 -0.1
GRC2 Grafenberg Arr 86.10 41 P P 05 13 40.3 -0.4
comp=Z,16nm,1.1s
GRB4 Grafenberg Arr 86.11 41 P P 05 13 40.7 0.0
comp=Z,42nm,1.1s
SALO Salr 86.11 45 P P 05 13 41.1 +0.3
GRC4 Grafenberg Arr 86.16 41 P P 05 13 40.8 -0.1
comp=Z,23nm,1.0s
FUR Furstenfeldbru 86.16 42 *e*P P 05 13 41.1 0.0
comp=Z,65nm,1.6s,baz=280,slow=5.1
GRC1 Grafenberg Arr 86.17 41 P P 05 13 40.8 -0.2
comp=Z,18nm,1.0s
GRB1 Grafenberg Arr 86.18 41 P P 05 13 41.3 +0.2
comp=Z,42nm,1.1s
MOTA Moosalm 86.20 43 *i* P P 05 13 41.2 -0.2
comp=Z,18nm,0.9s,SNR=15
GRB2 Grafenberg Arr 86.21 41 P P 05 13 41.2 -0.1
comp=Z,45nm,1.1s
GRC3 Grafenberg Arr 86.23 41 P P 05 13 40.7 -0.7
comp=Z,25nm,1.0s
GRB5 Grafenberg Arr 86.25 41 P P 05 13 41.4 -0.1
comp=Z,20nm,1.2s
VLC Villacollemand 86.28 46 P P 05 13 40.1 -1.5
comp=Z,24nm,0.9s
GRB3 Grafenberg Arr 86.29 41 P P 05 13 41.8 +0.2
comp=Z,32nm,1.2s
PLN Plauen 86.29 40 *e*P P 05 13 41.7 +0.1
comp=Z,11nm,0.9s,baz=280,slow=5.1
SQTA Sankt Quirin 86.29 43 *i* P P 05 13 41.8 0.0
comp=Z,24nm,1.1s,SNR=8.6
VSL Villasalto 86.35 51 P P 05 13 42.7 +0.6
comp=Z,68nm,1.1s
TANN Tannenbergstha 86.50 40 *e*P P 05 13 42.9 +0.3
comp=Z,33nm,0.9s,baz=280,slow=5.1
TANN Tannenbergstha 86.50 40 P P 05 13 42.6 0.0
comp=Z,78nm,1.1s
WATA Walderalm 86.52 43 *i* P P 05 13 42.8 -0.2
comp=Z,14nm,1.3s
NKC Novy Kostel 86.52 40 *e*P P 05 13 42.8 +0.1
NKC Novy Kostel 86.52 40 *e*P P 05 13 42.8 +0.1
NKC Novy Kostel 86.52 40 P P 05 13 42.4 -0.3
comp=Z,40nm,1.1s
WTTA Wattenberg 86.57 43 *i* P P 05 13 43.2 0.0
comp=Z,12nm,0.9s
WTTA Wattenberg 86.57 43 P P 05 13 43.0 -0.3
comp=Z,15nm,1.2s
CLL Collm 86.65 39⇑ *i*P P 05 13 43.3 0.0
CLL *e**PP pP 05 14 04.0 -0.5
CLL pmax pmax
comp=Z,27nm,1.0s
CLL Collm 86.65 39 P P 05 13 44.0 +0.7
CLL lAmb lAmb 05 13 44.4
comp=Z,26nm,0.9s
CLL Collm 86.65 39 *e*P P 05 13 43.3 0.0
comp=Z,24nm,0.9s,baz=280,slow=5.1
CLL *e*pP pP 05 14 03.9 -0.5
CLL Collm 86.65 39 P P 05 13 43.4 +0.1
comp=Z,33nm,1.1s
CLL Collm 86.65 39 P P 05 13 43.3 0.0
comp=Z,33nm,1.1s
CLL Collm 86.65 39⇑ *i*P P 05 13 43.3 0.0
comp=Z,27nm,1.0s
CLL *e*pP pP 05 14 04.0 -0.5
CTI Castel Tesino 86.81 44 lAmb lAmb 05 13 45.1
comp=Z,22nm,0.9s
RUE Ruedersdorf 86.88 37 *e*P P 05 13 44.7 +0.4
comp=Z,36nm,1.1s,baz=280,slow=5.1
RUE Ruedersdorf 86.88 37 P P 05 13 44.6 +0.3
comp=Z,20nm,1.4s
CGRP Cima Grappa 86.94 44 P P 05 13 44.8 -0.3
comp=Z,71nm,1.1s
TEOL Teolo 86.95 45 P P 05 13 45.8 +0.9
KEST Kesra 86.97 54 P P 05 13 46.4 +1.0
comp=Z,19nm,0.9s,baz=271,slow=1.7,SNR=20
comp=Z,19nm,0.9s
WET Wettzell 87.02 41 *e*P P 05 13 45.5 +0.3
comp=Z,41nm,1.1s,baz=280,slow=5.1
WET Wettzell 87.02 41 P P 05 13 45.5 +0.3
comp=Z,39nm,1.1s
HSKC Hora Svate Kat 87.06 39 *e*P P 05 13 45.4 +0.1
HSKC Hora Svate Kat 87.06 39 P P 05 13 45.5 +0.1
comp=Z,28nm,1.0s
BLEU Blekinge 87.18 33 *i* P P 05 13 43.0 -2.7
LESA Schwarzleotal 87.23 42 *i* P P 05 13 46.4 0.0
comp=Z,13nm,0.7s,SNR=8.7
RJOB Jochberg 87.25 42 P P 05 13 47.1 +0.7
comp=Z,19nm,1.6s
ABTA Abfaltersbach 87.26 43 *i* P P 05 13 46.6 +0.1
comp=Z,45nm,0.9s,SNR=20
BRG Berggiesshubel 87.32 39 *e*P P 05 13 46.8 +0.2
comp=Z,15nm,1.0s,baz=280,slow=5.1
BRG Berggiesshubel 87.32 39 P P 05 13 46.7 +0.1
comp=Z,20nm,1.5s
BRG Berggiesshubel 87.32 39 *i* P P 05 13 46.8 +0.2
BRG Amp 05 13 48.0
comp=Z,15nm,1.0s
ARCES ARCESS Array B 87.39 19 P P 05 13 45.6 -1.0
comp=Z,10nm,0.8s,baz=316,slow=2.1,SNR=14
comp=Z,10nm,0.8s
ARCES ARCESS Array B 87.39 19 P P 05 13 46.3 -0.2
ARCES pmax pmax
comp=Z,90nm,1.5s
ARCES ARCESS Array B 87.39 19 P P 05 13 46.3 -0.2
KHC Kasperske Hory 87.47 41*c* *i*P P 05 13 47.5 +0.1
KHC pmax pmax
comp=Z,28nm,1.2s
KHC Kasperske Hory 87.47 41 *e*P P 05 13 46.7 -0.7
KHC Kasperske Hory 87.47 41 P P 05 13 47.2 -0.1
comp=Z,24nm,1.5s
RICC Richard 87.49 39 *e*P P 05 13 48.3 +0.9
GEC2 GERESS Array S 87.61 41 lAmb lAmb 05 13 50.0
comp=Z,19nm,1.0s
GEC2 GERESS Array S 87.61 41 *e*P P 05 13 48.1 -0.1
comp=Z,45nm,1.5s,baz=280,slow=5.1
GEC2 GERESS Array S 87.61 41 P P 05 13 48.0 -0.1
comp=Z,20nm,1.3s
GERES GERESS Array B 87.61 41 P P 05 13 47.4 -0.7
comp=Z,6.4nm,0.8s,baz=270,slow=4.2,SNR=53
GERES LR LR 05 47 12.5
comp=Z,107nm,20.4s,baz=281,slow=32
comp=Z,6.4nm,0.8s
GERES GERESS Array B 87.61 41 P P 05 13 48.1 -0.1
KBA Koelnbreinsper 87.75 43 *i* P P 05 13 48.9 0.0
comp=Z,43nm,1.5s,SNR=13
KBA Koelnbreinsper 87.75 43 P P 05 13 48.8 -0.2
comp=Z,31nm,1.1s
PVCC Panska Ves 87.79 39 *e*P P 05 13 49.1 +0.3
PVCC Panska Ves 87.79 39 *e*P P 05 13 49.1 +0.3
PVCC Panska Ves 87.79 39 P P 05 13 48.8 0.0
comp=Z,25nm,1.3s
ZVC Zvikov 87.79 40 *e*P P 05 13 49.0 +0.1
BIOA Bad Ischl, Aus 87.81 42 *i* P P 05 13 48.8 -0.2
comp=Z,19nm,1.2s,SNR=8.0
PRU Pruhonice 87.89 40 *e*P P 05 13 48.6 -0.7
PRU Pruhonice 87.89 40 *e*P P 05 13 48.6 -0.7
PRU Pruhonice 87.89 40 P P 05 13 49.4 +0.1
comp=Z,13nm,1.4s
BILL Bilibino 87.99 339⇓ *e*P P 05 13 51.5 +2.1
BILL pmax pmax
comp=Z,13nm,1.6s
CKRC Cesky Krumlov 88.00 41 *e*P P 05 13 49.5 -0.4
CKRC Cesky Krumlov 88.00 41 *e*P P 05 13 49.5 -0.4
PRED Cave del Predi 88.03 43 P P 05 13 50.1 0.0
comp=Z,36nm,1.0s
MYKA Terra Mystica 88.04 43 *i* P P 05 13 50.1 -0.1
comp=Z,28nm,0.9s,SNR=9.9
DRE Drenchia 88.14 44 P P 05 13 50.5 -0.2
comp=Z,45nm,0.8s
SABO M.te Sabotino 88.15 44 lAmb lAmb 05 13 52.1
comp=Z,21nm,0.9s
MOA Molln 88.19 42 *i* P P 05 13 50.5 -0.3
comp=Z,14nm,0.8s,SNR=9.1
MOA Molln 88.19 42 P P 05 13 50.5 -0.3
comp=Z,24nm,1.0s
CADS Cadrg 88.19 43 *i* P P 05 13 50.9 0.0
TRI Trieste 88.33 44 lAmb lAmb 05 13 52.6
comp=Z,20nm,1.0s
FDMO Fiordimonte 88.42 47 lAmb lAmb 05 13 52.6
comp=Z,23nm,1.0s
NRCA Norcia 88.48 47 lAmb lAmb 05 13 52.6
comp=Z,7.0nm,0.9s
SESA Seetaler Alpe, 88.56 42 *i* P P 05 13 52.4 -0.4
comp=Z,10nm,0.8s,SNR=6.4
TREC Trest 88.65 40 *e*P P 05 13 53.1 +0.1
TREC Trest 88.65 40 *e*P P 05 13 53.1 +0.1
TREC Trest 88.65 40 P P 05 13 52.7 -0.3
comp=Z,15nm,1.5s
OBKA Obir 88.68 43 *i* P P 05 13 53.1 -0.1
comp=Z,9.6nm,0.9s,SNR=6.2
OBKA Obir 88.68 43 P P 05 13 52.6 -0.6
comp=Z,17nm,1.4s
UPC Upice 88.69 39 *e*P P 05 13 53.3 +0.2
UPC Upice 88.69 39 *e*P P 05 13 53.3 +0.2
UPC Upice 88.69 39 P P 05 13 53.4 +0.2
comp=Z,18nm,1.1s
CHVC Chvalec 88.70 39 *e*P P 05 13 53.3 +0.2
CHVC Chvalec 88.70 39 *e*P P 05 13 53.3 +0.2
ABNA Allensteig Bun 88.76 41 *i* P P 05 13 53.8 +0.3
comp=Z,15nm,1.1s
LJU Ljubljana 88.77 44 *i* P P 05 13 54.1 +0.5
KSP Ksiaz 88.78 39 *e*P P 05 13 53.5 0.0
AQU L'Aquila 88.79 47 P P 05 13 53.6 -0.2
comp=Z,12nm,1.1s
OSTC Ostas 88.80 39 *e*P P 05 13 53.9 +0.3
OSTC Ostas 88.80 39 *e*P P 05 13 53.9 +0.3
DPC Dobruska-Polom 88.92 39 *e*P P 05 13 54.4 +0.2
DPC Dobruska-Polom 88.92 39 *e*P P 05 13 54.4 +0.2
DPC Dobruska-Polom 88.92 39 P P 05 13 54.2 0.0
comp=Z,19nm,0.9s
DPC Dobruska-Polom 88.92 39 P P 05 13 54.7 +0.4
comp=Z,18nm,0.9s
SOKA Soboth 88.97 43 *i* P P 05 13 54.1 -0.4
comp=Z,8.7nm,0.8s,SNR=6.7
PERS Pernice 89.03 43 *i* P P 05 13 54.3 -0.5
ARSA Arzberg 89.16 42 lAmb lAmb 05 13 56.3
comp=Z,12nm,1.2s
ARSA Arzberg 89.16 42 *i* P P 05 13 55.2 -0.2
comp=Z,12nm,1.5s,SNR=5.6
ARSA Arzberg 89.16 42 P P 05 13 54.8 -0.6
comp=Z,11nm,1.5s
CONA Conrad Observa 89.22 41 *i* P P 05 13 56.0 +0.3
comp=Z,19nm,1.2s,SNR=6.7
INTR Introdacqua 89.23 48 lAmb lAmb 05 13 56.5
comp=Z,18nm,1.4s
KRUC Moravsky 89.28 40 *e*P P 05 13 55.8 -0.1
KRUC Moravsky 89.28 40 P P 05 13 56.0 +0.1
comp=Z,11nm,1.5s
WINA Alland / Wiene 89.31 41 *i* P P 05 13 56.5 +0.4
comp=Z,12nm,1.3s
VRAC Vranov 89.35 40 LR LR 05 49 13.9
comp=Z,102nm,19.7s,baz=289,slow=32
VRAC Vranov 89.35 40 ⇓P P 05 13 56.7 +0.5
VRAC Vranov 89.35 40 *e*P P 05 13 56.2 0.0
VRAC Vranov 89.35 40 ⇓P P 05 13 56.7 +0.5
VRAC Vranov 89.35 40 P P 05 13 56.2 0.0
comp=Z,3.6nm,1.5s
RONA Rosalia, Austr 89.56 42 *i* P P 05 13 57.4 +0.1
comp=Z,16nm,1.1s,SNR=7.4
SOP Sopron 89.73 42 P P 05 13 58.1 +0.1
comp=Z,15nm,1.3s
MORC Moravsky Berou 89.83 39 P P 05 13 59.0 +0.5
MORC pmax pmax
comp=Z,19nm,1.4s
MORC Moravsky Berou 89.83 39 P P 05 13 59.0 +0.5
MORC lAmb lAmb 05 14 00.2
comp=Z,19nm,1.4s
MORC Moravsky Berou 89.83 39 *e*P P 05 13 58.8 +0.3
MORC Moravsky Berou 89.83 39 P P 05 13 58.1 -0.3
comp=Z,12nm,1.3s
STEB Steborice 89.93 39 *e*P P 05 13 59.0 +0.1
MODS Modra-Piesok 90.03 41 *e*P P 05 14 00.2 +0.8
MODS Modra-Piesok 90.03 41 *e*P P 05 14 00.2 +0.8
MODS Modra-Piesok 90.03 41 P P 05 14 00.1 +0.7
comp=Z,34nm,1.3s
SMOL Smolenice 90.08 41 *e*P P 05 14 01.1 +1.4
JAVC Velka Javorina 90.15 40 *e*P P 05 14 01.0 +1.0
JAVC Velka Javorina 90.15 40 P P 05 14 01.0 +1.0
comp=Z,11nm,1.5s
BEHE Becsehely 90.18 43 lAmb lAmb 05 14 01.8
comp=Z,11nm,1.0s
BEHE Becsehely 90.18 43 *e*P P 05 14 00.5 +0.3
BEHE Becsehely 90.18 43 P P 05 14 00.7 +0.6
comp=Z,12nm,1.2s
AFI Afiamalu 90.19 256 LR LR 05 44 44.2
comp=Z,62nm,21.5s,baz=93,slow=29
OKC Ostrava-Krasne 90.19 39 *e*P P 05 14 00.7 +0.6
OKC Ostrava-Krasne 90.19 39 *e*P P 05 14 00.7 +0.6
OKC Ostrava-Krasne 90.19 39 P P 05 14 00.8 +0.6
comp=Z,12nm,1.1s
MPLH Magyarpolny 90.51 42 P P 05 14 01.8 +0.1
comp=Z,30nm,1.3s
MPLH Magyarpolny 90.51 42 P P 05 14 01.5 -0.2
comp=Z,12nm,1.2s
VAE Valguarnera 90.62 52 LR LR 05 49 32.4
comp=Z,118nm,19.2s,baz=332,slow=32
FINES FINESS Array B 90.66 27 P P 05 14 01.5 -0.5
comp=Z,4.2nm,0.6s,baz=252,slow=2.1,SNR=23
FINES LR LR 05 53 47.8
comp=Z,32nm,18.4s,baz=268,slow=35
comp=Z,4.2nm,0.6s
FINES FINESS Array B 90.66 27 P P 05 14 01.7 -0.3
SRO Srobarova 90.84 41 *e*P P 05 14 03.9 +0.8
SRO Srobarova 90.84 41 *e*P P 05 14 03.9 +0.8
SRO Srobarova 90.84 41 P P 05 14 04.0 +0.8
comp=Z,22nm,0.9s
APA Apatity 90.86 20 *e*P P 05 14 01.5 -1.3
APA pmax pmax
comp=Z,5.0nm,1.4s
APA MLR MLR
comp=Z,608nm,6.2s
BLY Banja Luka 90.90 44 lAmb lAmb 05 14 05.1
comp=Z,17nm,1.1s
BLY Banja Luka 90.90 44⇑ *i*P P 05 14 04.0 +0.4
BLY Banja Luka 90.90 44⇑ *i*P P 05 14 03.9 +0.4
BLY Banja Luka 90.90 44 P P 05 14 03.9 +0.4
comp=Z,16nm,1.1s
VYHS Vyhne 90.99 40 *e*P P 05 14 05.0 +1.1
VYHS Vyhne 90.99 40 *e*P P 05 14 05.0 +1.1
OJC Ojcow 91.10 39 *e*P P 05 14 04.3 0.0
OJC Ojcow 91.10 39 P P 05 14 05.1 +0.7
OJC Ojcow 91.10 39 P P 05 14 04.6 +0.2
comp=Z,10nm,2.7s
OJC pP pP 05 14 25.9 +0.3
LANS Liptovska Anna 91.21 40 *e*P P 05 14 06.3 +1.4
LANS Liptovska Anna 91.21 40 *e*P P 05 14 06.3 +1.4
BEL Belsk 91.22 37 P P 05 14 05.2 +0.4
comp=Z,3µm,0.9s
BUD Budapest 91.40 41 P P 05 14 04.9 -0.8
comp=Z,16nm,0.9s
MORH Mrgy, Hungar 91.50 43 ⇓P P 05 14 06.7 +0.4
MORH Mrgy, Hungar 91.50 43⇑ *i*P P 05 14 06.0 -0.2
MORH Mrgy, Hungar 91.50 43 P P 05 14 06.4 +0.2
MORH Mrgy, Hungar 91.50 43 P P 05 14 06.1 -0.2
comp=Z,12nm,1.0s
NIE Niedzica 91.65 39 *e*P P 05 14 08.6 +1.7
PSZ Piszkesteto 91.83 41 P P 05 14 08.5 +0.6
PSZ pmax pmax
comp=Z,22nm,1.2s
PSZ Piszkesteto 91.83 41 P P 05 14 08.5 +0.6
PSZ Piszkesteto 91.83 41 ⇓P P 05 14 09.3 +1.4
PSZ Piszkesteto 91.83 41 P P 05 14 08.7 +0.8
comp=Z,18nm,1.3s
SUW Suwalki 91.89 34 *e*P P 05 14 07.7 -0.2
KLINJ Klinje 92.30 46 *e*P P 05 14 10.4 +0.2
BRY Bratogost 92.33 46 *e*P P 05 14 10.2 -0.2
UPM Unac-Piva 92.51 46 *e*P P 05 14 11.5 +0.2
TEKS Tekeris 92.56 44⇑ *i*P P 05 14 11.5 +0.2
ABAH Abaujker 92.58 40 P P 05 14 11.8 +0.6
comp=Z,19nm,1.5s
FRGS Fruska Gora 92.58 43⇑ *i*P P 05 14 11.3 0.0
FRGS Fruska Gora 92.58 43 P P 05 14 11.9 +0.5
comp=Z,15nm,1.1s
BBLS Lazi&#263i 92.67 45 *e*P P 05 14 11.9 0.0
AMBH Ambrzfalva 92.84 42 P P 05 14 13.5 +1.1
comp=Z,49nm,1.1s
PDG Podgorica 92.97 46 *e*P P 05 14 13.5 +0.4
PDG Podgorica 92.97 46 P P 05 14 13.9 +0.8
comp=Z,14nm,1.1s
DRME Dracevica, Mon 92.99 46 *e*P P 05 14 13.6 +0.3
KOLS Kolonicke sedl 93.03 39 *e*P P 05 14 15.7 +2.4
KOLS Kolonicke sedl 93.03 39 *e*P P 05 14 15.7 +2.4
SJES Sjenica 93.24 45⇑ *i*P P 05 14 15.0 +0.5
PUL Pulkovo 93.26 27⇑ *e*P P 05 14 14.3 +0.2
TRPA Tarpa 93.46 40 P P 05 14 15.0 -0.2
comp=Z,6.0nm,1.2s
BZS Buzias 93.66 43 ⇑P P 05 14 16.5 +0.3
BZS Buzias 93.66 43 ⇑P P 05 14 16.5 +0.3
comp=Z,8.7nm,1.5s
SURR Surduc 93.95 42 ⇓P P 05 14 17.9 +0.3
DRGR 94.00 41 ⇑P P 05 14 17.7 -0.2
DRGR 94.00 41 ⇑P P 05 14 17.7 -0.2
DRGR 94.00 41 P P 05 14 17.6 -0.2
comp=Z,10nm,1.0s
PHP Peshkopia 94.03 47 P P 05 14 19.1 +1.0
comp=Z,18nm,1.4s
MNK Minsk 94.27 33 *i* P P 05 14 19.1 +0.3
MNK *i* *PP pP 05 14 38.4 -1.8
MNK *i* 05 18 05.6
MNK *i* PPP PPP 05 20 06.6
MNK *i* S SKSac 05 24 47.1 +0.1
MNK *i* *SS S 05 25 22.0 -1.9
MNK *i* PS PS 05 26 47.7 -1.0
MNK *i* SS SS 05 31 45.8 -0.1
MNK *i* SSS SSS 05 35 27.3
MNK pmax pmax
comp=Z,8.0nm,0.7s
MNK pmax pmax
comp=N,11nm,1.0s
MNK pmax pmax
comp=E,16nm,0.9s
MNK MLR MLR
comp=E,338nm,24.0s
MNK MLR MLR
comp=N,142nm,20.0s
MNK MLR MLR
comp=Z,111nm,17.0s
MNK Minsk 94.27 33 *i* P P 05 14 19.1 +0.3
comp=E,16nm,0.9s
MNK *i* P P 05 14 19.1 +0.3
comp=N,11nm,1.0s
MNK *i* P P 05 14 19.1 +0.3
comp=Z,8.0nm,0.7s,baz=293
MNK *i* pP pP 05 14 38.5 -1.8
MNK *i* PP PP 05 18 05.6 -0.6
MNK *i* PPP PPP 05 20 06.6
MNK *i* S SKSac 05 24 47.2 +0.1
MNK *i* sS S 05 25 22.0 -1.9
MNK *i* PS PS 05 26 47.8 -1.0
MNK *i* SS SS 05 31 45.8 -0.1
MNK *i* SSS SSS 05 35 27.4
MNK *i* LRM MLR 05 56 56.5
comp=Z,111nm,17.2s
MARR Marisel-Cluj 94.31 41 ⇓P P 05 14 18.7 -0.6
BOVS Bovan 94.33 44 ⇓P P 05 14 18.6 -0.8
BLKB Belogradchik 95.01 44 ⇑P P 05 14 21.9 -0.6
TIXI Tiksi 95.64 350 LR LR 05 58 51.6
comp=Z,48nm,21.8s,baz=18,slow=36
TIXI Tiksi 95.64 350⇑ *e*P P 05 14 23.6 -1.1
TIXI pmax pmax
comp=Z,4.0nm,0.8s
TIXI Tiksi 95.64 350 P P 05 14 24.9 +0.2
TIXI Tiksi 95.64 350 P P 05 14 24.4 -0.4
comp=Z,4.5nm,0.8s
GRG Griva 95.66 47 P P 05 14 26.1 +0.6
comp=Z,40nm,1.1s
ARR Arges 95.74 42 P P 05 14 26.2 +0.3
comp=Z,6.1nm,1.2s
VOIR 95.99 42 ⇓P P 05 14 26.6 -0.4
VOIR 95.99 42 ⇓P P 05 14 26.6 -0.4
MLR Muntele Rosu 96.56 42 ⇑P P 05 14 30.5 +0.8
MLR Muntele Rosu 96.56 42 ⇑P P 05 14 30.5 +0.8
MLR Muntele Rosu 96.56 42 P P 05 14 30.4 +0.6
comp=Z,20nm,1.4s
AKASG Malin Array Be 96.57 36 LR LR 05 53 53.8
comp=Z,70nm,19.6s,baz=256,slow=33
KLMR Klimovskoe 96.67 24 *e*P P 05 14 27.3 -2.3
KLMR *e* 05 18 21.2
KLMR pmax pmax
comp=Z,16nm,1.2s
MA2 Magadan 98.06 335 LR LR 06 03 20.2
comp=Z,44nm,21.1s,baz=52,slow=38
PEA0B Petropavlovsk- 98.25 328⇓ *e*P Pdif 05 14 38.4 +1.4
QSPA South Pole Qui 99.98 180 P Pdif 05 14 43.7 -0.7
comp=Z,0.7nm,0.7s,baz=203,slow=1.6,SNR=6.3
QSPA South Pole Qui 99.98 180 Pdif 05 14 44.1 -0.3
NVL N'lazarevskaya 101.32 160 *e*P Pdif 05 14 51.4 +1.3
NVL *e*S SKSac 05 25 20.6 -1.4
NVL pmax pmax
comp=Z,6.0nm,0.9s
BORK Borovoye 113.49 17⇓ *i*PKIKP PKiKP 05 19 40.3 +2.9
ZALV Zalesovo Beam 115.60 7 PKP PKiKP 05 19 40.8 -0.6
comp=Z,1.3nm,0.5s,baz=303,slow=4.4,SNR=6.8
ZALV PP PP 05 20 41.6 -1.9
comp=Z,3.7nm,0.9s,baz=325,slow=7.4,SNR=10
ZALV Zalesovo Beam 115.60 7 PKiKP 05 19 41.4 0.0
KURK Kurchatov 117.68 12 PKiKP PKPdf 05 19 44.8 -0.7
KURK Kurchatov 117.68 12 PKiKP PKiKP 05 19 45.9 +0.4
KURBB Kurchatov Arra 117.75 12 PKP PKPdf 05 19 44.8 -0.9
comp=Z,3.3nm,0.7s,baz=338,slow=2.3,SNR=19
KNGR Kungurtug, Tuv 119.63 359⇓ *i*PKIKP PKiKP 05 19 50.5 +1.0
DGZ Jazzator, Älta 120.08 6⇑ *i*PKIKP PKPdf 05 19 50.1 -0.3
ULN Ulaanbaatar 121.55 351⇓ *i*PKIKP PKPdf 05 19 52.4 -0.9
SONM Songino Array 121.68 352 PKP PKPdf 05 19 52.6 -0.8
comp=Z,2.4nm,0.6s,baz=335,slow=1.0,SNR=13
SONM Songino Array 121.68 352 PKiKP 05 19 53.8 +0.2
BRLS Borolday 122.09 22 *e*PKIKP PKiKP 05 19 55.2 +0.8
BRLS Borolday 122.09 22 *e*PKP PKiKP 05 19 55.2 +0.8
MKAR Makanchi Array 122.16 11 PKP PKPdf 05 19 53.0 -1.3
comp=Z,3.9nm,0.6s,baz=292,slow=3.5,SNR=12
MKAR Makanchi Array 122.16 11 PKPdf 05 19 54.1 -0.2
CHM Chimkent 122.61 23 *e*PKIKP PKiKP 05 19 55.9 +0.4
CHM Chimkent 122.61 23 *e*PKP PKiKP 05 19 55.9 +0.4
IUG Iuzhnay 122.92 23 *e*PKIKP PKiKP 05 19 56.5 +0.3
IUG Iuzhnay 122.92 23 *e*PKP PKiKP 05 19 56.6 +0.3
TDK Taldyqorghan 123.00 15 *e*PKIKP PKiKP 05 19 56.7 +0.5
TDK Taldyqorghan 123.00 15 *e*PKP PKiKP 05 19 56.7 +0.5
AAK Ala-Archa 124.06 19*c* *i*PKIKP PKiKP 05 19 59.5 +1.0
AAK pmax pmax
comp=Z,6.0nm,1.7s
AAK Ala-Archa 124.06 19 PKiKP 05 19 58.8 +0.3
KSRS Korea Array 124.09 329 PKP PKPdf 05 19 57.6 -0.5
comp=Z,8.1nm,0.7s,baz=14,slow=1.7,SNR=22
KSAR Wonju Array Be 124.12 329 PKiKP PKiKP 05 19 58.7 +0.2
KSAR Wonju Array Be 124.12 329 PKiKP 05 19 58.7 +0.2
AAA Alma-Ata 124.27 17 *e*PKIKP PKiKP 05 19 59.1 +0.3
AAA Alma-Ata 124.27 17 *e*PKP PKiKP 05 19 59.1 +0.3
MDOK Medeo 124.35 17 *e*PKIKP PKiKP 05 19 59.2 +0.2
MDOK *e* 05 21 44.3
MDOK Medeo 124.35 17 *e*PKP PKiKP 05 19 59.3 +0.2
MDOK *e*PP PP 05 21 44.4 +0.5
TNSS Tian-Shan 124.44 17 *e*PKIKP PKPdf 05 19 59.4 +0.2
TNSS Tian-Shan 124.44 17 *e*PKP PKPdf 05 19 59.5 +0.2
SATY Saty 124.82 16 *e*PKIKP PKiKP 05 20 00.1 +0.1
SATY Saty 124.82 16 *e*PKP PKiKP 05 20 00.1 +0.1
UZB Uzynbulak 124.90 15 *e*PKIKP PKiKP 05 20 00.3 +0.2
UZB Uzynbulak 124.90 15 *e*PKP PKiKP 05 20 00.3 +0.2
SHLS Shalkode 125.00 15 *e*PKIKP PKiKP 05 20 00.6 +0.3
SHLS *e* 05 21 49.4
SHLS Shalkode 125.00 15 *e*PKP PKiKP 05 20 00.7 +0.3
SHLS *e*PP PP 05 21 49.4 +1.3
TARG Taragay, Kyrgy 125.89 17 P PKiKP 05 20 02.5 -0.1
WMQ Urumqi 125.91 7 *e*PKP PKiKP 05 20 02.7 +0.7
WMQ LR LR
comp=Z,140nm,24.0s
HHC Hu-ho-hao-te 127.39 345 *e*P PKPdf 05 20 00.8 -3.8
KSH2 Kashi 127.55 20 PKP PKPdf 05 20 02.0 -3.0
UOSS Minazif 127.96 47 PKPdf 05 20 05.5 -0.5
GTA2 Gaotai 130.64 356 P PKPdf 05 20 11.3 +0.4
GTA2 pP PKiKP 05 20 15.2 +3.5
GTA2 pmax pmax
comp=Z,13nm,1.1s
MTSU Mount Surprise 132.50 255 P PKiKP 05 20 17.2 +1.3
STKA Stephens Creek 132.57 236 PKP PKiKP 05 20 15.7 +0.1
comp=Z,2.9nm,0.7s,baz=58,slow=2.8,SNR=5.7
NJ2 Nanjing 132.79 333 *e*P PKPdf 05 20 15.1 +0.2
NJ2 pmax pmax
comp=Z,5.0nm,0.5s
GOMU GeErMu 134.04 1 PKP PKiKP 05 20 18.6 -0.4
XAN Xi'an 134.50 345 *e*PKP PKiKP 05 20 20.3 +0.7
AS17 Alice Springs 141.27 245 P PKPdf 05 20 28.4 -2.5
AS09 Alice Springs 141.31 245 P PKPdf 05 20 28.1 -2.8
AS15 Alice Springs 141.35 245 P PKPdf 05 20 27.4 -3.6
ASAR Alice Springs 141.35 245 PKhKP PKPpre 05 20 24.4
comp=Z,4.1nm,0.8s,baz=114,slow=3.3,SNR=17
ASAR PKP PKPdf 05 20 29.3 -1.7
comp=Z,6.5nm,0.7s,baz=100,slow=2.3,SNR=21
WB0 Warramunga Arr 141.68 251 PKPdf 05 20 27.8 -3.8
WRAB Tennant Creek 141.69 251⇑ *e*PKIKP PKPdf 05 20 30.9 -0.8
WRA Warramunga Arr 141.70 251 PKhKP PKPpre 05 20 26.9

comp=Z,3.2nm,0.6s,baz=94,slow=3.1,SNR=39
WRA PKP **PKPdf 05 20 29.5 -2.2**
comp=Z,9.7nm,0.8s,baz=96,slow=2.4,SNR=29
FORT Forrest 143.70 231 P PKPbc 05 20 32.9 +0.3
KDU Kakadu 144.11 262 P **PKPdf 05 20 36.0 0.0**
SHL Shillong 144.43 6 PKIKP **PKPab 05 20 33.9 -0.9**
SHL Shillong 144.43 6 **PKPab 05 20 33.9 -0.9**
KMI2 Kunming 144.44 349 ⇑PKP PKPbc 05 20 35.2 -0.1
TNCH TengChong 145.09 356 PKP **PKPbc 05 20 36.9 -0.4**
TNCH pPKP pPKPab 05 20 55.7 -3.3
TNCH PP **PP 05 24 00.1 +5.1**
TNCH AMB AMB
comp=Z,140nm,10.7s
MTN Manton Dam 145.41 262 P **PKPab 05 20 40.3 +1.7**
WRKA Warakurna 145.84 240 P **PKPab 05 20 40.2 +0.2**
KNRA Kununurra 147.54 257 P **PKiKP 05 20 45.8 -0.8**
KNRA Kununurra 147.54 257 **PKPbc 05 20 45.5 +1.0**
FITZ Fitzroy Crossi 150.13 251 P **PKiKP 05 20 52.7 +0.8**
KLBR Kellerberrin 150.50 220 P **PKiKP 05 20 53.0 +0.6**
CHTO Chiang Mai 151.22 354 PKIKP **PKPdf 05 20 47.0 -0.7**
CHTO PKP **PKPab 05 21 01.4 -0.1**
CHTO Chiang Mai 151.22 354 **PKPdf 05 20 47.0 -0.7**
CHTO PKPbc **PKPbc 05 20 53.4 -0.3**
CHTO PKPab **PKPab 05 21 01.4 -0.1**
CM31 Chiang Mai Arr 151.57 354 PKPdf **PKPdf 05 20 48.6 +0.4**
CM31 **PKPbc 05 20 54.5 +0.1**
CM31 PKPab **PKPab 05 21 02.3 -0.7**
CMAR Chiang Mai Arr 151.57 354 PKP **PKPdf 05 20 49.1 +0.9**
comp=Z,6.0nm,0.8s,baz=312,slow=2.4,SNR=17
CMAR PKPbc **PKPbc 05 20 54.0 -0.5**
comp=Z,17nm,0.9s,baz=358,slow=2.6,SNR=12
CMAR Chiang Mai Arr 151.57 354 **PKPdf 05 20 48.8 +0.6**
CMAR PKPbc **PKPbc 05 20 54.7 +0.2**
CMAR PKPab **PKPab 05 21 03.0 0.0**

*IDC **01** 05:22:04.4±0.6,62°.19S×57°.80W,h0km,mb4.2/9, mbtmp4.2/10,ML3.7/1,MS3.9/10,Error ellipse: s-maj=24.5km s-min=14.7km az=89.0*
*NEIC **01** 05:22:06.9±1.1,62°.37S±0°.05×58°.4W±0°.1,h10km±1km, mb4.8/34,Error ellipse: s-maj=13.4km s-min=4.1km az=231.0*
*GFZ **01** 05:22:07.8±0.2,62°.S±4°×5°.8W±°,h10km,M4.7/30, mb4.7/30*
ISC 01 05:22:05.8±1.4,62°.32S±0°.04×58°.26W±0°.05,h7km±9km, n126,σ1°42/120,mb4.7/44,MS3.9/10,2C-3D,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
JUBA	**Jubany**	**0.20**	**292**	*i* P		**Pg**	**05 22 08.9**	**-0.9**
JUBA				*i* S		**Sg**	**05 22 11.5**	**-1.1**
JUBA				IAML			05 22 15.1	
	comp=Z,75μm,0.5s							
ESPZ	**Base Esperanza**	**1.23**	**153**	*i* P		**Pn**	**05 22 27.4**	**-2.0**
ESPZ				*i* S		**Sb**	**05 22 43.5**	**-2.0**
ESPZ	**Base Esperanza**	**1.23**	**153**			**Pn**	**05 22 27.3**	**-2.2**
ESPZ				Sg		**Sb**	**05 22 42.5**	**-3.0**
PMSA	**Palmer Station**	**3.58**	**224**	Pn		**Pn**	**05 23 01.6**	**-0.1**
	comp=Z,5.3nm,0.3s,baz=54,slow=9.5,SNR=17							
PMSA				Sn		**Sb**	**05 23 53.4**	**+0.5**
	comp=Z,27nm,0.3s,baz=129,slow=16,SNR=7.9							
	comp=Z,30nm,0.5s							
PMSA				AML		AML		
PMSA	**Palmer Station**	**3.58**	**224**	*i* P		**Pn**	**05 23 01.7**	**+0.1**
PMSA				*i* S		**Sn**	**05 23 43.1**	**-1.0**
PMSA				IAML			05 24 17.0	
	comp=Z,210nm,0.9s							
PMSA	**Palmer Station**	**3.58**	**224**	P		**Pn**	**05 23 01.8**	**+0.1**
ORCD	**Orcadas**	**6.66**	**82**	Pn		**Pn**	**05 23 43.9**	**0.0**
MG03	**Isla Dawson**	**10.65**	**317**	Pn		**Pn**	**05 24 39.1**	**+0.5**
EFI	**East Falkland**	**10.67**	**1**	*i* P		**Pn**	**05 24 41.3**	**+2.4**
EFI				*i* S		**Sn**	**05 26 34.0**	**-4.5**
EFI				IAML			05 27 12.8	
	comp=Z,28nm,1.9s							
EFI	**East Falkland**	**10.67**	**1**	Pn		**Pn**	**05 24 40.3**	**+1.4**
EFI	**East Falkland**	**10.67**	**1**	P		**Pn**	**05 24 40.7**	**+1.8**
	comp=Z,36nm,1.1s							
MG02	**Cerro Sombrero**	**11.21**	**324**	*i* P		**Pn**	**05 24 48.0**	**+1.8**
MG02				*i* S		**Sn**	**05 26 47.2**	**-4.5**
MG02				IAML			05 26 51.5	
	comp=Z,38nm,2.6s							
MG02	**Cerro Sombrero**	**11.21**	**324**	Pn		**Pn**	**05 24 46.9**	**+0.7**
MG02	**Cerro Sombrero**	**11.21**	**324**	P		**Pn**	**05 24 48.6**	**+2.4**
	comp=Z,76nm,2.8s							
GO10	**Punta Arenas**	**11.42**	**318**	Pn		**Pn**	**05 24 49.8**	**+0.6**
GO10	**Punta Arenas**	**11.42**	**318**	P		**Pn**	**05 24 51.0**	**+1.8**
HOPE	**Hope Point**	**13.93**	**65**	Pn		**Pn**	**05 25 24.8**	**+1.4**
GO08	**Villa O'Higgin**	**16.02**	**323**			**Pn**	**05 25 51.6**	**+0.2**
GO08	**Villa O'Higgin**	**16.02**	**323**	P		**Pn**	**05 25 53.7**	**+2.3**
	comp=Z,30nm,1.9s							
BELA	**Belgrano 2**	**17.31**	**163**	P		**Pn**	**05 26 08.3**	**+0.8**
COYC	**Coyhaique**	**18.57**	**328**	P		**Pn**	**05 26 24.6**	**+1.4**
	comp=Z,16nm,0.9s							
VNA3	**Neumayer Olymp**	**20.51**	**136**	⇓P		**P**	**05 26 45.7**	**+1.6**
	comp=Z,27nm,0.7s							
VNA3	**Neumayer Olymp**	**20.51**	**136**	P		**P**	**05 26 45.7**	**+1.6**
	comp=Z,51nm,0.8s							
LL02	**Futaleuf**	**20.76**	**331**			**P**	**05 26 47.8**	**+0.8**
LL02	**Futaleuf**	**20.76**	**331**	P		**P**	**05 26 48.3**	**+1.3**
	comp=Z,16nm,1.3s							
VNA1	**Neumayer--Stat**	**20.98**	**134**	P		Pn	05 26 51.2	-0.5
	comp=Z,42nm,1.0s							
VNA2	**Neumayer--Watz**	**21.25**	**135**	⇓P		**P**	**05 26 53.7**	**+1.6**
	comp=Z,18nm,0.7s,baz=263,slow=11							
VNA2	**Neumayer--Watz**	**21.25**	**135**	P		**P**	**05 26 53.9**	**+1.8**
	comp=Z,29nm,0.8s							
SNAA	**Sanae**	**22.68**	**138**	⇑P		**P**	**05 27 08.3**	**+0.8**
	comp=Z,443nm,1.0s							
SNAA	**Sanae**	**22.68**	**138**	P		**P**	**05 27 07.3**	**-0.1**
	comp=Z,19nm,0.9s,baz=259,slow=8.7,SNR=22							
SNAA				LR		LR	05 34 33.0	
	comp=Z,298nm,21.1s,baz=253,slow=33							
	comp=Z,19nm,0.9s							
SNAA	**Sanae**	**22.68**	**138**	P		**P**	**05 27 07.6**	**+0.1**
SNAA				IAmb		IAmb	05 27 11.1	
	comp=Z,35nm,1.0s							
SNAA	**Sanae**	**22.68**	**138**	P		**P**	**05 27 08.6**	**+1.1**
	comp=Z,36nm,1.4s							
LL05	**Los Muermos**	**22.83**	**329**	P		**P**	**05 27 09.4**	**+0.2**
LL05	**Los Muermos**	**22.83**	**329**	P		**P**	**05 27 11.5**	**+2.3**
	comp=Z,66nm,0.9s							
PLCA	**Paso Flores**	**22.85**	**335**	P		**P**	**05 27 09.2**	**-0.2**
	comp=Z,13nm,1.0s,baz=163,slow=6.8,SNR=19							
PLCA				LR		LR	05 34 51.5	
	comp=Z,248nm,20.4s,baz=158,slow=34							
	comp=Z,13nm,1.0s							
PLCA	**Paso Flores**	**22.85**	**335**			**P**	**05 27 09.9**	**+0.4**
PLCA				IAmb		IAmb	05 27 13.4	
	comp=Z,27nm,1.2s							
PLCA	**Paso Flores**	**22.85**	**335**	P		**P**	**05 27 10.7**	**+1.2**
	comp=Z,24nm,1.1s							
GO06	**Curarrehue**	**24.14**	**334**			**P**	**05 27 23.1**	**+0.8**
GO06	**Curarrehue**	**24.14**	**334**	P		**P**	**05 27 23.3**	**+1.0**
	comp=Z,41nm,1.1s							
TROLL	**Troll, Antarti**	**24.32**	**139**	⇑P		**P**	**05 27 24.9**	**+1.1**
	comp=Z,502nm,0.8s							
BI02	**San Fabin de**	**26.92**	**336**			**P**	**05 27 49.5**	**+1.9**
BI02	**San Fabin de**	**26.92**	**336**	P		**P**	**05 27 49.6**	**+2.1**
	comp=Z,12nm,0.8s							
QSPA	**South Pole Qui**	**27.91**	**180**	P		**P**	**05 27 57.3**	**+1.0**
	comp=Z,3.1nm,0.9s,baz=158,slow=2.7,SNR=14							
	comp=Z,3.1nm,0.9s							
QSPA	**South Pole Qui**	**27.91**	**180**	P		**P**	**05 27 56.1**	**-0.2**
GO05	**Hualane**	**28.65**	**336**			**P**	**05 28 02.8**	**-0.1**
GO05				IAmb		IAmb	05 28 05.7	
	comp=Z,20nm,0.9s							
GO05	**Hualane**	**28.65**	**336**	P		**P**	**05 28 04.3**	**+1.4**
	comp=Z,26nm,1.0s							
BO02	**Sierra Bellavi**	**28.66**	**338**	P		**P**	**05 28 03.7**	**+0.6**
BO02				IAmb		IAmb	05 28 10.1	
	comp=Z,17nm,1.1s							
BO02	**Sierra Bellavi**	**28.66**	**338**	P		**P**	**05 28 04.7**	**+1.7**
	comp=Z,15nm,1.1s							
BO01	**Tunca**	**29.10**	**338**	P		**P**	**05 28 07.5**	**+0.6**
BO01				IAmb		IAmb	05 28 21.8	
	comp=Z,18nm,1.4s							
BO01	**Tunca**	**29.10**	**338**	P		**P**	**05 28 08.2**	**+1.3**
	comp=Z,10nm,1.4s							
BO04	**La Punta**	**29.41**	**339**	P		**P**	**05 28 10.4**	**+0.7**
BO04				IAmb		IAmb	05 28 12.8	
	comp=Z,17nm,0.9s							
MT01	**Popeta**	**29.64**	**338**	P		**P**	**05 28 12.7**	**+1.0**
MT01				IAmb		IAmb	05 28 22.9	
	comp=Z,16nm,1.3s							
MT09	**Talagante**	**29.68**	**338**			**P**	**05 28 12.6**	**+0.4**
MT09				IAmb		IAmb	05 28 20.1	
	comp=Z,18nm,0.9s							
MT08	**Bocatoma Ro**	**29.84**	**340**			**P**	**05 28 15.6**	**+1.8**
MT08				IAmb		IAmb	05 28 17.7	
	comp=Z,13nm,0.8s							
MT16	**CCHEN**	**29.94**	**339**	P		**P**	**05 28 15.0**	**+0.6**
MT16				IAmb		IAmb	05 28 22.3	
	comp=Z,13nm,0.8s							
MT02	**Curacav**	**30.21**	**338**	P		**P**	**05 28 17.1**	**+0.4**
MT02				IAmb		IAmb	05 28 22.5	
	comp=Z,17nm,1.3s							
PEL	**Peldehue**	**30.25**	**339**	P		**P**	**05 28 18.6**	**+1.4**
	comp=Z,31nm,1.6s							
ELIB	**Princess Elisa**	**30.52**	**143**	*d*P		**P**	**05 28 20.2**	**+0.9**
	comp=Z,3.7nm,1.0s							
VA03	**San Esteban**	**30.60**	**339**	P		**P**	**05 28 22.5**	**+2.2**
VA03	**San Esteban**	**30.60**	**339**	P		**P**	**05 28 21.1**	**+0.9**
	comp=Z,40nm,1.1s							
CO04	**Los Peladeros**	**31.37**	**339**			**P**	**05 28 30.1**	**+2.8**
CO04				IAmb		IAmb	05 28 30.8	
	comp=Z,14nm,1.0s							
CO04	**Los Peladeros**	**31.37**	**339**	P		**P**	**05 28 28.4**	**+1.1**
	comp=Z,17nm,1.9s							
ZON	**Zonda**	**31.51**	**343**	P		**P**	**05 28 29.0**	**+0.8**
	comp=E,9.2nm,1.4s							
CO02	**Combarbal**	**32.20**	**339**	P		**P**	**05 28 36.5**	**+2.1**
	comp=Z,41nm,1.0s							
GO04	**Tololo Observa**	**33.17**	**340**			**P**	**05 28 42.5**	**-0.6**
GO04	**Tololo Observa**	**33.17**	**340**	P		**P**	**05 28 43.4**	**+0.3**
	comp=Z,22nm,0.8s							
CO01	**Juntas del Tor**	**33.26**	**341**	P		**P**	**05 28 44.4**	**+0.6**
CO01				IAmb		IAmb	05 28 48.5	
	comp=Z,11nm,0.8s							
CO01	**Juntas del Tor**	**33.26**	**341**	P		**P**	**05 28 45.2**	**+1.4**
	comp=Z,20nm,1.0s							
LCO	**Las Campanas**	**34.30**	**340**	P		**P**	**05 28 53.1**	**+0.2**
LCO				IAmb		IAmb	05 28 55.1	
	comp=Z,9.6nm,0.9s							
LCO	**Las Campanas**	**34.30**	**340**	P		**P**	**05 28 53.8**	**+0.9**
	comp=Z,16nm,1.6s							
AC05	**El Transito**	**34.40**	**341**	P		**P**	**05 28 54.8**	**+1.1**
	comp=Z,13nm,0.8s							
AC04	**Llanos de Chal**	**35.15**	**340**	P		**P**	**05 29 00.3**	**+0.4**
AC04	**Llanos de Chal**	**35.15**	**340**	P		**P**	**05 29 01.2**	**+1.3**
	comp=Z,36nm,1.1s							
GO03	**Copiapo**	**35.62**	**342**	P		**P**	**05 29 04.9**	**+0.9**
	comp=Z,9.1nm,1.7s							
CPUP	**Villa Florida**	**35.98**	**1**	P		**P**	**05 29 05.5**	**-1.6**
	comp=Z,0.9nm,0.6s,baz=170,slow=8.8,SNR=6.6							
	comp=Z,0.9nm,0.6s							
CPUP	**Villa Florida**	**35.98**	**1**	P		**P**	**05 29 07.2**	**+0.1**
CPUP	**Villa Florida**	**35.98**	**1**	P		**P**	**05 29 08.1**	**+1.1**
	comp=Z,6.2nm,2.0s							
AC02	**Maricunga**	**36.21**	**343**	P		**P**	**05 29 09.6**	**0.0**
AC02				IAmb		IAmb	05 29 20.7	
	comp=Z,12nm,1.2s							
AC02	**Maricunga**	**36.21**	**343**	P		**P**	**05 29 10.2**	**+0.6**
	comp=Z,7.8nm,1.3s							
SALTA		**38.47**	**348**	P		**P**	**05 29 30.5**	**+1.7**
	comp=Z,7.2nm,1.4s							
PB14	**IPOC Station P**	**38.56**	**342**	P		**P**	**05 29 30.4**	**+1.1**
	comp=Z,21nm,2.4s							
PB10	**IPOC Station P**	**39.67**	**342**	P		**P**	**05 29 40.3**	**+2.0**
	comp=Z,37nm,1.1s							
PB05	**IPOC Station P**	**40.27**	**343**	P		**P**	**05 29 44.3**	**+0.9**
PB05				IAmb		IAmb	05 29 56.8	
	comp=Z,33nm,1.4s							
PCMB	**Pacaembu**	**40.96**	**10**	P		**P**	**05 29 50.0**	**+1.0**
PB03	**IPOC Station P**	**41.01**	**344**	P		**P**	**05 29 50.4**	**+0.8**
	comp=Z,15nm,1.4s							
PB11	**IPOC Station P**	**43.25**	**344**	P		**P**	**05 30 09.2**	**+1.4**
	comp=Z,12nm,1.1s							
MAW	**Mawson**	**43.60**	**152**	P		**P**	**05 30 10.0**	**+0.1**
	comp=Z,5.4nm,0.9s,baz=237,slow=9.1,SNR=8.2							
MAW				LR		LR	05 48 19.6	
	comp=Z,270nm,18.5s,baz=208,slow=36							
	comp=Z,5.4nm,0.9s							
MAW	**Mawson**	**43.60**	**152**	P		**P**	**05 30 10.7**	**+0.8**
MAW	**Mawson**	**43.60**	**152**	P		**P**	**05 30 11.1**	**+1.2**
	comp=Z,1.3nm,0.9s							
PB16	**IPOC Station P**	**44.63**	**345**	P		**P**	**05 30 20.7**	**+1.3**
	comp=Z,8.3nm,1.9s							
LPAZ	**La Paz**	**46.50**	**347**	P		**P**	**05 30 33.7**	**-0.5**
	comp=Z,0.9nm,0.7s,baz=204,slow=8.0,SNR=5.8							
LPAZ				LR		LR	05 51 55.1	
	comp=Z,134nm,18.1s,baz=52,slow=39							
	comp=Z,0.9nm,0.7s							
LPAZ	**La Paz**	**46.50**	**347**	P		**P**	**05 30 35.0**	**+0.7**
	comp=Z,2.6nm,1.4s							
BDFB	**Brasilia**	**47.18**	**14**	P		**P**	**05 30 37.7**	**-1.3**
	comp=Z,2.2nm,0.7s,baz=115,slow=15,SNR=3.5							
	comp=Z,2.2nm,0.7s							
RPN	**Rapa Nui**	**48.50**	**292**	LR		LR	05 45 40.4	
	comp=Z,74nm,20.1s,baz=106,slow=29							
H10S2	**ASCENSION HYDR**	**61.91**	**51**	T		T	06 39 35.8	
	baz=18,slow=74,SNR=46							
H10S3	**ASCENSION HYDR**	**61.91**	**51**	T		T	06 39 33.5	
	baz=202,slow=74,SNR=63							
H10N3	**ASCENSION HYDR**	**62.99**	**50**	T		T	06 40 54.0	
	baz=202,slow=74,SNR=54							
H10N1	**ASCENSION HYDR**	**63.00**	**50**	T		T	06 40 53.0	
	baz=202,slow=74,SNR=56							
H10N2	**ASCENSION HYDR**	**63.01**	**50**	T		T	06 40 55.4	
	baz=202,slow=74,SNR=64							
OTAV	**Otavalo**	**64.23**	**337**	P		**P**	**05 32 42.4**	**+0.6**
OTAV				IAmb		IAmb	05 32 58.1	
	comp=Z,6.2nm,1.2s							
OTAV	**Otavalo**	**64.23**	**337**	P		**P**	**05 32 43.0**	**+1.2**
	comp=Z,5.4nm,1.3s							
LBTB	**Lobatse**	**65.34**	**97**	LR		LR	05 55 45.3	
	comp=Z,105nm,21.2s,baz=256,slow=31							
TSUM	**Tsumeb**	**66.61**	**87**	LR		LR	05 57 14.7	
	comp=Z,101nm,21.9s,baz=315,slow=32							
RUSC	**La Rusia**	**68.96**	**344**	P		**P**	**05 33 11.3**	**-0.8**
RUSC				IAmb		IAmb	05 33 31.0	
	comp=Z,8.1nm,1.1s							
VOI	**Vohitsoka**	**77.56**	**113**	P		**P**	**05 34 03.2**	**+0.7**
DBIC	**Dimbokro**	**79.95**	**54**	LR		LR	06 01 30.3	
	comp=Z,44nm,20.5s,baz=234,slow=30							
SJG	**San Juan**	**80.40**	**352**	LR		LR	06 11 13.4	
	comp=Z,56nm,19.9s,baz=108,slow=37							
STKA	**Stephens Creek**	**84.78**	**197**	LR		LR	06 10 09.1	
	comp=Z,59nm,18.7s,baz=197,slow=34							
QLP	**Quilpie**	**89.59**	**200**	P		**P**	**05 35 04.5**	**+0.6**
	comp=Z,19nm,1.9s							
ASAR	**Alice Springs**	**93.77**	**191**	P		**P**	**05 35 23.7**	**+0.3**
	comp=Z,0.9nm,0.9s,baz=166,slow=4.2,SNR=7.2							
	comp=Z,0.9nm,0.9s							
WRA	**Warramunga Arr**	**97.41**	**192**	P		**P**	**05 35 39.0**	**-1.0**
	comp=Z,0.5nm,0.8s,baz=180,slow=3.9,SNR=6.4							
	comp=Z,0.5nm,0.8s							
GERES	**GERESS Array B**	**124.63**	**50**	PKP		**PKPdf**	**05 41 03.3**	**-1.6**
	comp=Z,0.7nm,0.9s,baz=151,slow=3.0,SNR=5.3							
ARCES	**ARCESS Array B**	**144.09**	**37**	PKhKP		PKPpre	05 41 35.9	
	comp=Z,4.0nm,0.7s,baz=288,slow=1.2,SNR=6.9							
AKTO	**Aktyubinsk**	**144.29**	**79**	PKP		**PKPab**	**05 41 38.5**	**-0.8**
	comp=Z,1.2nm,0.5s,baz=296,slow=1.9,SNR=4.2							
AAK	**Ala-Archa**	**146.17**	**103**	PKPbc		**PKPdf**	**05 41 45.7**	**+0.7**
	comp=Z,2.8nm,0.7s,baz=231,slow=3.0,SNR=8.2							
GOMU	**GeFrMu**	**148.95**	**135**	PKPbc		**PKPbc**	**05 41 53.7**	**-0.4**
NJ2	**Nanjing**	**149.67**	**175**	*e*P		**PKPdf**	**05 41 51.3**	**+0.4**
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.5s							
XAN	**Xi'an**	**150.56**	**158**	*e*PKPbc		**PKPdf**	**05 41 50.0**	**-2.3**
LZDM	**Lanzhou Array**	**151.31**	**148**	PKPbc		**PKPbc**	**05 41 59.5**	**-0.2**
	comp=Z,2.0nm,0.3s,baz=122,slow=5.6,SNR=3.5							
LZH	**Lanzhou**	**151.47**	**149**	*e*PKPbc		**PKPdf**	**05 41 51.0**	**-2.8**
LZH				pPKP		PKPbc	05 41 59.4	-0.5
BVAR	**Borovoye Array**	**151.75**	**85**	PKPbc		**PKPbc**	**05 41 57.7**	**-2.1**
	comp=Z,4.2nm,0.7s,baz=264,slow=1.5,SNR=14							
MKAR	**Makanchi Array**	**152.91**	**107**	PKPbc		**PKPbc**	**05 42 00.5**	**-2.1**
	comp=Z,0.9nm,0.6s,baz=244,slow=3.1,SNR=5.1							
MKAR	**Makanchi Array**	**152.91**	**107**	PKPdf		**PKPdf**	**05 41 57.1**	**+1.7**
GTA2	**Gaotai**	**153.53**	**139**	*e*P		**PKiKP**	**05 42 06.0**	**+1.5**
GTA2				pP		sPKPbc	05 42 09.9	+2.9
GTA2				pmax		pmax		
	comp=Z,5.0nm,1.0s							
HHC	**Hu-ho-hao-te**	**157.65**	**159**	*e*P		**PKPdf**	**05 42 00.8**	**-1.3**
SONM	**Songino Array**	**163.11**	**142**	PKPab		**PKPab**	**05 42 57.2**	**-0.9**
	comp=Z,1.6nm,1.0s,baz=186,slow=5.7,SNR=4.7							

*IDC **01** 05:24:26.6±2.9,9°.65S×113°.03E,h0km,mb3.5/4, mbtmp3.5/4,Error ellipse: s-maj=133.5km s-min=23.9km az=50.0*
*DJA **01** 05:24:30.3±0.6,10°.S±6°×11°.3E±°,h10km,M3.8/25, MLv3.8/25*
ISC 01 05:24:32.1±1.0,9°.7S±0°.1×113°.04E±0°.06,h36km,n24, σ0°.95/24,mb3.5/4,South of Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
JAGI	**Jajag, Banyuwa**	**1.67**	**41**	P		**Pn**	**05 24 57.8**	**-1.0**
JAGI				AML		AML		
BYJI	**Banyuwangi**	**1.99**	**41**	P		**Pn**	**05 25 03.7**	**+0.4**
BYJI				AML		AML		
BLJI	**Banyuglugur**	**2.05**	**15**	P		**Pn**	**05 25 04.6**	**+0.5**
BLJI				AML		AML		
PWJI	**Pagerwojo**	**2.10**	**324**	P		**Pn**	**05 25 04.2**	**-0.5**
PWJI				AML		AML		
ABJI	**Asem Bagus**	**2.26**	**31**	P		**Pn**	**05 25 07.6**	**+0.6**
ABJI				AML		AML		
RTBI	**Rangdo, Negare**	**2.26**	**56**	P		**Pn**	**05 25 06.6**	**-0.5**
IGBI	**Denpasar**	**2.27**	**66**	P		**Pn**	**05 25 07.4**	**+0.3**
SNJI	**Sawahan-Nganju**	**2.32**	**327**	P		**Pn**	**05 25 08.7**	**+0.7**
SNJI				AML		AML		
DNP	**Denpasar**	**2.38**	**64**	P		**Pn**	**05 25 10.2**	**+1.5**
PCJI	**Pacitan**	**2.40**	**310**	P		**Pn**	**05 25 08.6**	**-0.3**
PCJI				AML		AML		
SRBI	**Singaraja**	**2.70**	**53**	P		**Pn**	**05 25 13.2**	**+0.2**
SRBI				AML		AML		
WOJI	**Wonogiri, Jawa**	**2.82**	**312**	P		**Pn**	**05 25 15.3**	**+0.6**
WOJI				AML		AML		
KMMI	**Kalianget**	**2.82**	**19**	P		**Pn**	**05 25 16.1**	**+1.4**
NGJI	**Ngawi**	**2.83**	**326**	P		**Pn**	**05 25 16.6**	**+1.8**
NGJI				AML		AML		
GRJI	**Gresik**	**2.86**	**349**	P		**Pn**	**05 25 16.2**	**+1.0**
GRJI				AML		AML		
KHKI	**Kahang-Kahang**	**2.88**	**62**	P		**Pn**	**05 25 16.7**	**+1.3**
UGM	**Wanagama**	**3.08**	**306**	P		**Pn**	**05 25 19.5**	**+1.2**
UGM				AML		AML		
TWSI	**Taliwang, Sumb**	**3.92**	**76**	P		**Pn**	**05 25 29.9**	**+0.1**
TWSI				AML		AML		
PLAI	**Plampang**	**4.76**	**79**	P		**Pn**	**05 25 42.9**	**+1.5**
FITZ	**Fitzroy Crossi**	**14.78**	**126**	Pn		**Pn**	**05 27 58.7**	**+0.1**
	0.1nm,0.3s,baz=299,slow=10,SNR=2.0							
WRA	**Warramunga Arr**	**22.92**	**119**	P		**P**	**05 29 32.7**	**-0.5**
	0.5nm,0.7s,baz=294,slow=11,SNR=7.3							
	0.5nm,0.7s							
ASAR	**Alice Springs**	**24.26**	**127**	P		**P**	**05 29 46.2**	**+0.1**
	0.7nm,0.8s,baz=300,slow=8.6,SNR=8.2							
	0.7nm,0.8s							
SONM	**Songino Array**	**57.62**	**355**	P		**P**	**05 34 18.5**	**-0.2**
	0.5nm,0.6s,baz=156,slow=7.6,SNR=2.5							
	0.5nm,0.6s							
MKAR	**Makanchi Array**	**62.61**	**337**	P		**P**	**05 34 51.9**	**-0.9**
	0.6nm,0.4s,baz=159,slow=7.3,SNR=5.3							
	0.6nm,0.4s							

*IDC **01** 05:27:04.3±1.1,37°.71N×26°.91E,h0km,mb3.8/5, mbtmp3.6/7,ML2.5/2,MS2.6/1,Error ellipse: s-maj=33.1km s-min=17.1km az=158.0*
*THE **01** 05:27:05.0,38°.N±2°×2°.7E±°,h7km±4km,M3.6/9,MLh3.6/9*
*AFAD **01** 05:27:05.2,37°.84N×26°.89E,h7km±2km,MW3.8*
*ISK **01** 05:27:05.4,37°.85N×26°.91E,h6km,ML3.9/35*
*ATH **01** 05:27:06.3,37°.79N×26°.78E,h14km,ML3.6/9,Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 01 05:27:05.6±0.9,37°.82N±0°.02×26°.89E±0°.02,h10km±6km, n112,σ1°.20/136,mb3.5/4,14C-5D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.15**	**260**	P		**Pg**	**05 27 09.1**	**+0.3**
KRL1				S		**Sg**	**05 27 11.4**	**+0.3**
DGB	**zmir**	**0.23**	**359**	P		**Pg**	**05 27 09.8**	**-0.5**
GMLD	**Gumuldur**	**0.26**	**5**	Pg		**Pg**	**05 27 10.5**	**-0.3**
GMLD				Sg		**Sg**	**05 27 14.3**	**0.0**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.30**	**114**	P		**Pg**	**05 27 11.6**	**+0.1**
GCAM				S		**Sb**	**05 27 16.4**	**-1.6**
GCAM				IAML			05 27 17.0	
	comp=N,3μm,0.2s							
GCAM	**G?zelcaml?**	**0.30**	**114**	Pg		**Pg**	**05 27 11.7**	**+0.1**
GCAM				Sg		**Sb**	**05 27 16.6**	**-1.5**
GCAM				AML		AML		
KUSD	**Kusadas

KARB				S	Sg	05 27 34.9	-0.4
KARB				IAML		05 27 36.0	
	comp=N,1μm,0.3s						
KARB				IAML		05 27 38.0	
	comp=E,6μm,0.5s						
EAG2	**Marmaro, Chios**	**0.95**	**320**	P	**Pb**	**05 27 24.3**	**+0.2**
EAG2				S	**Sb**	**05 27 36.8**	**0.0**
CAMT	**Merkez**	**0.98**	**20**	P	**Pb**	**05 27 24.3**	**-0.4**
CAMT				S	**Sg**	**05 27 36.7**	**-0.6**
CAMT				IAML		05 27 40.0	
	comp=N,5μm,0.8s						
NAZL	**Nazilli-Aydin**	**1.12**	**82**	Pn	**Pg**	**05 27 26.7**	**-0.4**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.15**	**7**	P	**Pg**	**05 27 26.2**	**-1.5**
ZEDA				S	**Sg**	**05 27 40.4**	**-2.4**
ZEDA				IAML		05 27 47.0	
	comp=N,2μm,1.2s						
ESEN	**Aydn-Nazilli**	**1.16**	**91**	P	**Pg**	**05 27 27.1**	**-0.7**
GOMA	**Golmarmara-Man**	**1.20**	**42**	Pn	**Pb**	**05 27 28.2**	**-0.2**
GOMA				AML	AML		
DAT	**Datca**	**1.22**	**153**	Pn	**Pn**	**05 27 29.1**	**+0.2**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.23**	**158**	P	**Pb**	**05 27 27.8**	**-1.0**
DKL	**Dikili**	**1.25**	**1**	Pn	**Pg**	**05 27 29.4**	**-0.1**
DKL				AML	AML		
KIRA	**zmir-Kiraz**	**1.25**	**72**	P	**Pg**	**05 27 28.3**	**-1.4**
MULA	**Mugla, Merkez-**	**1.27**	**116**	P	**Pn**	**05 27 28.8**	**-0.7**
AKHS	**Akhisar**	**1.28**	**34**	P	**Pn**	**05 27 28.9**	**-0.7**
AKHS				S	**Sb**	**05 27 45.1**	**-1.3**
AKHS				IAML		05 27 48.0	
	comp=N,1μm,0.9s						
AKS	**Akhisar**	**1.28**	**34**	Pn	**Pg**	**05 27 29.7**	**-0.5**
AKS				AML	AML		
KTTT	**Salihli**	**1.28**	**47**	P	**Pn**	**05 27 28.8**	**-0.8**
KTTT				S	**Sb**	**05 27 43.2**	**-3.3**
KTTT				IAML		05 27 48.0	
	comp=N,927nm,0.4s						
YER	**Yerkesik**	**1.30**	**121**	P	**Pn**	**05 27 29.5**	**-0.5**
YER				S	**Sn**	**05 27 47.5**	**0.0**
YER				AML	AML		
YER	**Yerkesik**	**1.30**	**121**	Pn	**Pg**	**05 27 30.3**	**-0.3**
YER				AML	AML		
ASTA	**Astypalaia**	**1.34**	**199**	P	**Pb**	**05 27 30.6**	**-0.3**
TNSA	**Tinos**	**1.40**	**259**	P	**Pn**	**05 27 29.8**	**-1.4**
TNSA				AML	AML		
SOMA	**Soma-Manisa**	**1.43**	**21**	Pn	**Pb**	**05 27 32.0**	**-0.3**
SOMA				AML	AML		
MANT	**Manisa**	**1.48**	**63**	P	**Pg**	**05 27 33.5**	**-0.4**
GORD	**Gordes-Manisa**	**1.48**	**43**	Pn	**Pb**	**05 27 32.9**	**-0.4**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.49**	**354**	P	**Pb**	**05 27 33.1**	**-0.4**
PRK	**Paraskevi**	**1.50**	**341**	P	**Pn**	**05 27 31.6**	**-1.0**
PRK				S	**Sn**	**05 27 52.2**	**-0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.50**	**341**	P	**Pn**	**05 27 32.6**	**-0.1**
TURN	**Turunc**	**1.50**	**134**	Pn	**Pg**	**05 27 33.7**	**-0.7**
TURN				AML	AML		
BUHA	**Balikesir, Bur**	**1.68**	**5**	P	**Pn**	**05 27 33.9**	**-1.2**
DALY	**Dalyan (Mula)**	**1.73**	**125**	Pn	**Pb**	**05 27 36.9**	**-0.5**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**5**	Pn	**Pn**	**05 27 37.4**	**+0.8**
YAYO				AML	AML		
THR8	**Santorini-Mono**	**1.81**	**219**	P	**Pn**	**05 27 35.4**	**-1.3**
THR8	**Santorini-Mono**	**1.81**	**219**	P	**Pn**	**05 27 36.1**	**-0.7**
THERA	**Ancient Thera,**	**1.84**	**218**	P	**Pn**	**05 27 36.9**	**-0.4**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.88**	**148**	Pn	**Pb**	**05 27 39.3**	**-0.8**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.88**	**148**	P	**Pb**	**05 27 39.1**	**-0.9**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.95**	**100**	Pn	**Pn**	**05 27 39.1**	**+0.3**
APMY				AML	AML		
KARY	**Karystos**	**1.95**	**277**	P	**Pn**	**05 27 36.4**	**-2.4**
KARY				AML	AML		
KARY	**Karystos**	**1.95**	**277**	P	**Pn**	**05 27 38.1**	**-0.7**
BALB	**Balikesir**	**1.97**	**23**	Pn	**Pn**	**05 27 39.8**	**+0.7**
BALB				AML	AML		
BALB	**Balikesir**	**1.97**	**23**	P	**Pb**	**05 27 40.9**	**-0.8**
EZN	**Ezine**	**2.05**	**348**	P	**Pn**	**05 27 39.8**	**-0.4**
EZN				AML	AML		
SIMA	**Simav-Kutahya**	**2.07**	**52**	Pn	**Pn**	**05 27 41.2**	**+0.6**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**2.08**	**52**	Pn	**Pn**	**05 27 41.6**	**+0.9**
SMAA				AML	AML		
CAME	**Cameli-Denizli**	**2.11**	**114**	Pn	**Pb**	**05 27 42.5**	**-1.6**
CAME				AML	AML		
FETY	**Fethiye**	**2.12**	**123**	Pn	**Pb**	**05 27 42.4**	**-1.7**
FETY				AML	AML		
SHAP	**Saphane-Kutahy**	**2.19**	**56**	Pn	**Pn**	**05 27 42.5**	**+0.3**
SHAP				AML	AML		
DST	**Dursunbey**	**2.24**	**37**	Pn	**Pn**	**05 27 43.5**	**+0.7**
DST				AML	AML		
KARP	**Karpathos**	**2.28**	**174**	P	**Pn**	**05 27 42.5**	**-0.9**
KARP				AML	AML		
KARP	**Karpathos**	**2.28**	**174**	P	**Pn**	**05 27 43.1**	**-0.3**
KARP				AML	AML		
GEDZ	**Gediz**	**2.33**	**58**	Pn	**Pn**	**05 27 44.8**	**+0.8**
GEDZ				AML	AML		
KYMI	**Kymi, Euboea I**	**2.34**	**291**	P	**Pn**	**05 27 43.7**	**-0.4**
KYMI				AML	AML		
DION	**Dionisos Attik**	**2.35**	**277**	P	**Pn**	**05 27 41.6**	**-2.7**
VLY	**Voula,Athens**	**2.45**	**272**	P	**Pn**	**05 27 45.1**	**-0.6**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.46**	**274**	P	**Pn**	**05 27 45.0**	**-0.8**
LIA	**Limnos Island**	**2.46**	**328**	P	**Pn**	**05 27 46.1**	**+0.2**
LIA				AML	AML		
BASM	**Basmaki-Afyon**	**2.50**	**87**	Pn	**Pn**	**05 27 47.3**	**+0.8**
BASM				AML	AML		
ATH	**Athens Observa**	**2.51**	**274**	P	**Pn**	**05 27 46.3**	**-0.2**
ATH				AML	AML		
KEPZ	**Antalya-Kepez**	**3.87**	**102**	↑P	**Pn**	**05 28 08.1**	**+2.9**
VAY	**Valandovo**	**4.83**	**318**	*i* Pn	**Pg**	**05 28 37.9**	**-0.3**
BRTR	**Keskin Array B**	**5.61**	**68**	Pn	**Pn**	**05 28 29.6**	**+0.5**
	0.4nm,0.3s,baz=247,slow=14,SNR=10						
BRTR				LR	LR	05 30 35.3	
	comp=Z,62nm,20.1s,baz=308,slow=37 1.7nm,0.5s						
BRTR				AML	AML		
PLVB	**Pleven**	**5.82**	**343**	↓P	**Pn**	**05 28 33.6**	**+1.6**
BLKB	**Belogradchik**	**6.62**	**332**	↑P	**Pn**	**05 28 43.2**	**+0.2**
BOVS	**Bovan**	**7.01**	**328**	↓P	**Pn**	**05 28 48.2**	**-0.1**
MLR	**Muntele Rosu**	**7.70**	**355**	↑P	**Pn**	**05 29 01.2**	**+3.4**
VOIR		**7.73**	**350**	↑P	**Pn**	**05 29 01.4**	**+3.1**
HERR	**Herculane**	**7.81**	**336**	↑P	**Pn**	**05 28 59.5**	**+0.2**
MDVR	**Moldovita**	**7.97**	**332**	↑P	**Pn**	**05 29 01.3**	**-0.2**
PLOR	**Plostina**	**8.03**	**359**	↑P	Pn	05 29 07.3	+5.0
COVR	**Voineasa-Covas**	**8.03**	**357**	↑P	**Pn**	**05 29 06.5**	**+4.2**
VRI	**Vrincioaia**	**8.04**	**359**	↑P	**Pn**	**05 29 06.6**	**+4.2**
TIP	**Timpagrande**	**8.06**	**283**	↓P	Pn	05 28 53.7	-9.1
TESR	**Tescani**	**8.69**	**359**	↓P	**Pn**	**05 29 14.8**	**+3.5**
BZS	**Buzias**	**8.73**	**335**	↑P	**Pn**	**05 29 12.5**	**+0.7**
BIZ	**Bicaz**	**9.13**	**357**	↑P	**Pn**	**05 29 20.2**	**+2.8**
MARR	**Marisel-Cluj**	**9.28**	**344**	↑P	**Pn**	**05 29 20.7**	**+1.3**
SIRR	**Siria**	**9.29**	**337**	↓P	**Pn**	**05 29 19.4**	**-0.2**
DRGR		**9.48**	**342**	↑P	**Pn**	**05 29 24.1**	**+1.9**
MORH	**Mrgy, Hungar**	**10.38**	**326**	↑P	**Pn**	**05 29 32.6**	**-1.9**
GERES	**GERESS Array B**	**14.59**	**323**	Pn	**Pn**	**05 30 34.5**	**+2.5**
	baz=123,slow=9.7,SNR=4.8 0.1nm,0.6s						
ESDC	**Sonseca Array**	**24.08**	**284**	P	**P**	**05 32 21.2**	**0.0**
	0.5nm,0.8s,baz=77,slow=9.6,SNR=5.3 0.5nm,0.8s						
TORD	**Torodi Ar. Bea**	**33.27**	**229**	P	**P**	**05 33 43.5**	**+0.2**
	2.3nm,0.8s,baz=40,slow=7.9,SNR=4.1 2.3nm,0.8s						
KURBB	**Kurchatov Arra**	**38.39**	**54**	P	**P**	**05 34 28.9**	**+1.9**
	0.5nm,0.8s,baz=280,slow=9.1,SNR=4.3 0.5nm,0.8s						
ZALV	**Zalesovo Beam**	**42.18**	**48**	P	**P**	**05 34 58.4**	**+0.2**
	0.7nm,0.5s,baz=284,slow=12,SNR=2.7 0.7nm,0.5s						
DBIC	**Dimbokro**	**42.32**	**231**	P	**P**	**05 34 59.1**	**-0.7**
	2.9nm,0.8s,baz=12,slow=7.3,SNR=3.1 2.9nm,0.8s						

ISK 01 05:35:09.9, 37°.87N×26°.54E, h14km, ML2.4/12, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMLD	**Gumuldur**	**0.36**	**56**	Pg	Pg	05 35 17.5	+0.2
GMLD				Sg	Sg	05 35 22.5	+0.2
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.58**	**107**	Pg	Pb	05 35 21.8	0.0
GCAM				Sg	Sb	05 35 30.4	+0.5
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.59**	**91**	Pg	Pg	05 35 21.7	+0.1
KUSD				AML	AML		
CHOS	**Chios island**	**0.64**	**324**	Pg	Pg	05 35 22.5	+0.1
CHOS				AML	AML		
BLCB	**Balcova**	**0.65**	**38**	Pg	Pb	05 35 23.3	+0.3
BLCB				Sg	Sb	05 35 31.9	-0.1
BLCB				AML	AML		
KRBN	**Karaburun**	**0.72**	**1**	Pg	Pb	05 35 24.5	+0.2
FOCM	**Foa**	**0.85**	**10**	Pg	Pn	05 35 27.4	-0.1
FOCM				AML	AML		
BODT	**Bodrum**	**1.02**	**142**	Pg	Pn	05 35 29.8	0.0
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.07**	**86**	Pg	Pn	05 35 31.0	+0.3
AYDB				AML	AML		
MLSB	**Milas**	**1.14**	**120**	Pn	Pg	05 35 32.1	+0.2
MLSB				AML	AML		
DKL	**Dikili**	**1.23**	**13**	Pn	Pg	05 35 33.4	-0.2
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.39**	**86**	Pn	Pb	05 35 35.4	-0.3
NAZL				AML	AML		

AFAD 01 05:35:50.0, 37°.90N×26°.66E, h7km±1km, ML2.1, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.24**	**49**	P	Pg	05 35 55.1	+0.4
ZEYE	**Izmir, Urla-Ze**	**0.36**	**340**	P	Pg	05 35 57.2	+0.2
ZEYE				S	Sg	05 36 02.9	+1.0
ZEYE				IAML		05 36 04.0	
	comp=N,131nm,0.2s						
BEYE	**izmir**	**0.39**	**33**	P	Pg	05 35 57.6	-0.1
BEYE				S	Sg	05 36 03.5	+0.7
GCAM	**G?zelcaml?**	**0.50**	**113**	P	Pg	05 35 59.5	-0.1
GCAM				S	Sb	05 36 07.4	-1.1
GCAM				IAML		05 36 08.0	
	comp=N,192nm,0.3s						
GCAM				IAML		05 36 08.0	
	comp=E,187nm,0.3s						
DDIM	**Aydin, Didim**	**0.64**	**133**	P	Pg	05 36 02.7	+0.4
DDIM				S	Sb	05 36 11.9	-0.7
DDIM				IAML		05 36 15.0	
	comp=N,144nm,0.5s						
DDIM				IAML		05 36 21.0	
	comp=E,135nm,0.3s						
DUVT	**Torbali**	**0.70**	**62**	P	Pg	05 36 03.6	+0.1
DUVT				S	Sg	05 36 12.9	+0.2
DUVT				IAML		05 36 16.0	
	comp=E,104nm,0.7s						
BAGT	**Foa**	**0.77**	**11**	P	Pn	05 36 06.6	-0.7
KARB	**zmir-Karabur**	**0.79**	**346**	P	Pg	05 36 04.2	-1.0
CAMT	**Merkez**	**0.99**	**31**	P	Pb	05 36 09.8	+0.3
CAMT				S	Sn	05 36 23.8	-0.9
AYDN	**Tasoluk**	**1.00**	**103**	P	Pn	05 36 10.1	-0.4

*AFAD **01** 05:39:51.5, 37°.80N×26°.66E, h7km±3km, ML2.2*
*THE **01** 05:39:52.3, 38°.N±5°×2°.7E±°, h5km±5km, M2.6/8, MLh2.6/8*
*ISK **01** 05:39:52.5, 37°.85N×26°.48E, h8km, ML2.8/17*
*ATH **01** 05:39:53.0, 37°.84N×26°.45E, h7km±2km, ML2.7/6, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 01 05:39:52.8±0.9, 37°.84N±0°.02×26°.55E±0°.02, h15km±6km, n44, σ1§53/58, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.13**	**109**	P	**Pg**	**05 39 57.7**	**+1.2**
KRL1				S	**Sg**	**05 40 00.1**	**+1.2**
DGB	**zmir**	**0.34**	**51**	P	**Pg**	**05 39 57.8**	**-2.0**
GMLD	**Gumuldur**	**0.37**	**50**	Pg	**Pg**	**05 40 00.7**	**+0.3**
GMLD				Sg	**Sb**	**05 40 06.7**	**0.0**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.40**	**355**	P	**Pg**	**05 40 00.0**	**-0.9**
ZEYE				IAML		05 40 06.0	
	comp=E,844nm,0.2s						
ZEYE				S	**Sg**	**05 40 06.3**	**-0.2**
ZEYE				IAML		05 40 08.0	
	comp=N,960nm,0.2s						
BEYE	**izmir**	**0.49**	**37**	P	**Pg**	**05 40 00.6**	**-1.9**
GCAM	**G?zelcaml?**	**0.56**	**104**	P	**Pg**	**05 39 59.1**	**-4.7**
GCAM				S	**Sg**	**05 40 04.1**	**-7.2**
GCAM				IAML		05 40 05.0	
	comp=N,105nm,0.4s						
GCAM				IAML		05 40 06.0	
	comp=E,106nm,0.1s						
GCAM	**G?zelcaml?**	**0.56**	**104**	Pg	**Pb**	**05 40 04.7**	**+0.5**
GCAM				Sg	**Sb**	**05 40 14.1**	**+2.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.58**	**88**	Pg	**Pb**	**05 40 05.2**	**+0.6**
KUSD				Sg	**Sb**	**05 40 14.3**	**+1.6**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.67**	**125**	P	**Pg**	**05 40 02.8**	**-3.1**
BLCB	**Balcova**	**0.67**	**35**	P	**Pg**	**05 40 04.8**	**-1.1**
BLCB				S	**Sg**	**05 40 14.3**	**-0.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.67**	**35**	Pg	**Pb**	**05 40 06.3**	**+0.2**
BLCB				AML	AML		
CHOS	**Chios island**	**0.67**	**325**	P	**Pg**	**05 40 05.3**	**-0.7**
CHOS				S	**Sg**	**05 40 14.3**	**-0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.67**	**325**	Pg	**Pg**	**05 40 05.1**	**-0.9**
CHOS				Sg	**Sb**	**05 40 14.6**	**-0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.67**	**325**	P	**Pg**	**05 40 05.4**	**-0.6**
CHOS				S	**Sg**	**05 40 13.9**	**-1.0**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.75**	**0**	Pg	**Pg**	**05 40 06.8**	**-0.7**
KRBN				AML	AML		
EAG2	**Marmaro, Chios**	**0.79**	**334**	P	**Pg**	**05 40 07.5**	**-0.6**
BAGT	**Foa**	**0.85**	**16**	P	**Pg**	**05 40 08.7**	**-0.6**
FOCM	**Foa**	**0.88**	**9**	Pg	**Pb**	**05 40 09.7**	**-0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.92**	**141**	Pg	**Pn**	**05 40 11.9**	**+0.8**
YKAV				AML	AML		
KLNA	**Kalymnos**	**0.94**	**159**	P	**Pn**	**05 40 12.0**	**+0.6**
KLNA				S	**Sb**	**05 40 24.7**	**+1.7**
BODT	**Bodrum**	**0.98**	**142**	P	**Pg**	**05 40 10.9**	**-0.9**
BODT				S	**Sn**	**05 40 26.9**	**+1.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.98**	**142**	Pg	**Pn**	**05 40 12.7**	**+0.7**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.07**	**84**	Pn	**Pn**	**05 40 14.1**	**+0.9**
AYDB				AML	AML		
MLSB	**Milas**	**1.11**	**119**	Pn	**Pn**	**05 40 15.5**	**+1.7**
MLSB				AML	AML		
TNSA	**Tinos**	**1.14**	**255**	P	**Pg**	**05 40 13.5**	**-1.3**
TNSA				AML	AML		
DKL	**Dikili**	**1.26**	**13**	Pn	**Pg**	**05 40 17.2**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.26**	**13**	P	**Pg**	**05 40 16.7**	**-0.4**
DAT	**Datca**	**1.38**	**143**	P	**Pn**	**05 40 18.0**	**+0.5**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.38**	**51**	Pn	**Pg**	**05 40 19.1**	**-0.3**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.38**	**84**	Pn	**Pg**	**05 40 19.6**	**+0.2**
NAZL				AML	AML		
PRK	**Paraskevi**	**1.42**	**351**	P	**Pn**	**05 40 18.3**	**+0.3**
PRK				S	**Sb**	**05 40 37.3**	**+0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**1.42**	**351**	P	**Pg**	**05 40 19.5**	**-0.6**
PRK				AML	AML		
AKS	**Akhisar**	**1.44**	**43**	Pn	**Pb**	**05 40 19.7**	**+0.5**
SOMA	**Soma-Manisa**	**1.52**	**30**	Pn	**Pb**	**05 40 20.9**	**+0.2**
SOMA				AML	AML		
YER	**Yerkesik**	**1.55**	**117**	P	**Pb**	**05 40 21.4**	**+0.3**
YER				S	**Sb**	**05 40 42.0**	**+1.5**
GORD	**Gordes-Manisa**	**1.67**	**50**	Pn	**Pb**	**05 40 23.4**	**+0.3**
GORD				AML	AML		
KARY	**Karystos**	**1.68**	**277**	P	**Pn**	**05 40 20.8**	**-0.8**
KARY				AML	AML		
KARY	**Karystos**	**1.68**	**277**	P	**Pn**	**05 40 21.1**	**-0.5**
THERA	**Ancient Thera,**	**1.70**	**211**	P	**Pg**	**05 40 25.7**	**+0.2**
THERA				AML	AML		
SNT5	**Nea Kammeni, S**	**1.70**	**213**	P	**Pb**	**05 40 24.2**	**+0.5**
DION	**Dionisos Attik**	**2.08**	**277**	P	**Pn**	**05 40 26.7**	**-0.4**
DION				AML	AML		
DION	**Dionisos Attik**	**2.08**	**277**	P	**Pn**	**05 40 26.8**	**-0.4**
DION				AML	AML		
PTL	**Penteli**	**2.13**	**276**	P	**Pn**	**05 40 27.3**	**-0.5**
LIA	**Limnos Island**	**2.32**	**333**	P	**Pn**	**05 40 31.3**	**+1.0**
LIA				AML	AML		

*AFAD **01** 06:00:31.8, 37°.87N×26°.46E, h7km±2km, ML2.5*
*ISK **01** 06:00:32.6, 37°.88N×26°.50E, h5km, ML2.7/17*
*THE **01** 06:00:32.6, 38°.N±3°×2°.6E±°, h0km±2km, M2.6/6, MLh2.6/6*
*ATH **01** 06:00:32.5, 37°.92N×26°.58E, h12km±2km, ML2.6/6, Latitude uncertainty: 0 km; Longitude uncertainty: 2 km*

ISC 01 06:00:32.1±1.1, 37°.90N±0°.02×26°.45E±0°.02, h5km±9km, n46, σ0§57/70, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.23**	**117**	P	**Pg**	**06 00 36.3**	**-0.2**
KRL1				S	**Sg**	**06 00 39.2**	**-0.2**
KRL1				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.34**	**7**	P	**Pg**	**06 00 39.0**	**+0.3**
ZEYE				S	**Sb**	**06 00 45.2**	**-1.2**
ZEYE				IAML		06 00 46.0	
	comp=E,511nm,0.2s						
ZEYE				IAML		06 00 47.0	
	comp=N,425nm,0.3s						
DGB	**zmir**	**0.38**	**66**	P	**Pg**	**06 00 39.3**	**0.0**
DGB				S	**Sg**	**06 00 45.0**	**+0.7**
DGB				IAML		06 00 45.0	
	comp=N,719nm,0.4s						
DGB				IAML		06 00 45.0	
	comp=E,722nm,0.3s						
GMLD	**Gumuldur**	**0.41**	**64**	Pg	**Pg**	**06 00 39.9**	**-0.1**
GMLD				Sg	**Sg**	**06 00 45.8**	**+0.5**
GMLD				AML	AML		
CESE	**eme**	**0.45**	**345**	Pg	**Pb**	**06 00 42.5**	**0.0**
CESE				Sg	**Sb**	**06 00 48.9**	**-0.6**
CESE				AML	AML		
BEYE	**izmir**	**0.50**	**49**	P	**Pg**	**06 00 41.6**	**0.0**
BEYE				S	**Sg**	**06 00 49.2**	**+1.0**
BEYE				IAML		06 00 50.0	
	comp=E,215nm,0.4s						
CHOS	**Chios island**	**0.58**	**328**	P	**Pb**	**06 00 43.6**	**-1.1**
CHOS				S	**Sb**	**06 00 53.1**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.58**	**328**	Pg	**Pb**	**06 00 45.4**	**+0.7**
CHOS				Sg	**Sb**	**06 00 54.2**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.58**	**328**	P	**Pb**	**06 00 44.0**	**-0.8**
CHOS				S	**Sb**	**06 00 53.2**	**-0.1**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.65**	**107**	P	**Pg**	**06 00 44.0**	**-0.5**
GCAM				IAML		06 00 54.0	
	comp=E,198nm,0.2s						
GCAM				IAML		06 00 56.0	
	comp=N,264nm,0.2s						
GCAM	**G?zelcaml?**	**0.65**	**107**	Pg	**Pg**	**06 00 44.1**	**-0.5**
GCAM				Sg	**Sg**	**06 00 53.4**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.66**	**93**	Pg	**Pg**	**06 00 45.3**	**+0.5**
KUSD				Sg	**Sg**	**06 00 54.1**	**+0.7**
KUSD				AML	AML		
BLCB	**Balcova**	**0.68**	**44**	P	**Pg**	**06 00 44.6**	**-0.4**
BLCB				S	**Sb**	**06 00 54.9**	**-1.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.68**	**44**	Pg	**Pb**	**06 00 45.7**	**-0.6**
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.70**	**337**	P	**Pb**	**06 00 46.1**	**-0.7**
EAG2				S	**Sb**	**06 00 56.3**	**-0.3**
KRBN	**Karaburun**	**0.70**	**7**	Pg	**Pb**	**06 00 46.9**	**+0.2**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.77**	**358**	P	**Pg**	**06 00 46.6**	**-0.2**
KARB				S	**Sb**	**06 00 58.7**	**+0.1**
KARB				IAML		06 01 00.0	
	comp=E,184nm,0.5s						
KARB				IAML		06 01 02.0	
	comp=N,132nm,0.2s						
DDIM	**Aydin, Didim**	**0.77**	**125**	P	**Pg**	**06 00 46.8**	**0.0**
DDIM				S	**Sb**	**06 00 58.3**	**-0.3**
DDIM				IAML		06 01 00.0	
	comp=E,341nm,0.4s						
DDIM				IAML		06 01 01.0	
	comp=N,340nm,0.3s						
BAGT	**Foa**	**0.82**	**23**	P	**Pg**	**06 00 47.7**	**-0.1**
BAGT				S	**Sb**	**06 01 00.6**	**+0.4**
BAGT				IAML		06 01 09.0	
	comp=N,165nm,1.1s						
BAGT				IAML		06 01 09.0	
	comp=E,204nm,0.7s						
FOCM	**Foa**	**0.84**	**15**	Pg	**Pn**	**06 00 49.9**	**-0.7**
FOCM				AML	AML		
DUVT	**Torbali**	**0.85**	**67**	P	**Pg**	**06 00 47.9**	**-0.5**
DUVT				IAML		06 01 03.0	
	comp=E,133nm,0.5s						
YKAV	**Yalikavak-Bodr**	**1.01**	**139**	Pg	**Pb**	**06 00 51.9**	**-0.2**
YKAV				AML	AML		
KLNA	**Kalymnos**	**1.03**	**156**	P	**Pb**	**06 00 52.1**	**-0.2**
KLNA				S	**Sb**	**06 01 05.6**	**-0.5**
KLNA				AML	AML		
BODT	**Bodrum**	**1.08**	**140**	P	**Pb**	**06 00 53.0**	**-0.2**
BODT				S	**Sn**	**06 01 08.7**	**-0.5**
BODT				AML	AML		
BODT	**Bodrum**	**1.08**	**140**	Pg	**Pg**	**06 00 52.8**	**+0.1**
BODT				Sg	**Sb**	**06 01 07.9**	**+0.3**
BODT				AML	AML		
CAMT	**Merkez**	**1.09**	**38**	P	**Pn**	**06 00 53.4**	**-0.6**
CAMT				S	**Sn**	**06 01 10.3**	**+0.9**
CAMT				IAML		06 01 17.0	
	comp=N,185nm,0.9s						
CAMT				IAML		06 01 17.0	
	comp=E,145nm,0.5s						
AYDB	**Zeytinkoy-Aydi**	**1.14**	**87**	Pn	**Pb**	**06 00 54.3**	**0.0**
AYDB				AML	AML		
BDRM	**Kayabasi**	**1.15**	**136**	P	**Pg**	**06 00 53.8**	**-0.2**
BDRM				S	**Sn**	**06 01 10.1**	**-0.8**
BDRM				IAML		06 01 12.0	
	comp=E,68nm,0.8s						
BDRM				IAML		06 01 13.0	
	comp=N,133nm,0.3s						
AYDN	**Tasoluk**	**1.16**	**101**	P	**Pg**	**06 00 53.8**	**-0.4**
AYDN				S

MLv3.9/30
ISC 01 06:04:24.7±0.9,**8°.5S**±0°.1×**107°.86E**±0°.06,**h55**km,**n28,**
σ0.86/22,mb3.9/6,Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMJI	**Cimerak**	**0.88**	**41**	P	**Pn**	**06 04 39.7**	**-1.4**
CMJI				AML	AML		
BBJI	**Bungbulang**	**1.01**	**348**	P	**Pn**	**06 04 42.1**	**-0.7**
CNJI	**Cibinong**	**1.35**	**327**	P	**Pn**	**06 04 46.7**	**-0.6**
CNJI				AML	AML		
SCJI	**Gunung Srandil**	**1.50**	**59**	P	**Pn**	**06 04 48.7**	**-0.7**
KPJI	**Karang Pucung**	**1.54**	**44**	P	**Pn**	**06 04 50.0**	**+0.2**
KPJI				AML	AML		
LEM	**Lembang**	**1.64**	**351**	P	**Pn**	**06 04 52.7**	**+1.3**
LEM				AML	AML		
SKJI	**Sukabumi**	**1.94**	**318**	P	**Pn**	**06 04 55.8**	**+0.5**
SKJI				AML	AML		
CTJI	**Waduk Cacaban**	**1.94**	**42**	P	**Pn**	**06 04 56.9**	**+1.5**
UGM	**Wanagama**	**2.69**	**79**	P	**Pn**	**06 05 05.4**	**-0.2**
UGM				AML	AML		
CGJI	**Cibinong**	**2.83**	**310**	P	**Pn**	**06 05 07.8**	**+0.4**
CGJI				AML	AML		
SBJI	**Serang**	**2.89**	**323**	P	**Pn**	**06 05 08.8**	**+0.5**
SBJI				AML	AML		
SMRI	**Semarang**	**2.91**	**61**	P	**Pn**	**06 05 09.9**	**+1.3**
SMRI				AML	AML		
WOJI	**Wonogiri, Jawa**	**3.09**	**79**	P	**Pn**	**06 05 12.0**	**+0.9**
PCJI	**Pacitan**	**3.29**	**86**	P	**Pn**	**06 05 13.7**	**-0.1**
PWJI	**Pagerwojo**	**3.92**	**84**	P	**Pn**	**06 05 22.2**	**-0.3**
FITZ	**Fitzroy Crossi**	**19.76**	**121**	P	**Pn**	**06 08 51.8**	**-0.4**
	0.1nm,0.3s,baz=310,slow=9.3,SNR=2.0 0.9nm,1.0s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**28.04**	**117**	P	**P**	**06 10 11.3**	**+0.2**
	0.2nm,0.5s,baz=290,slow=11,SNR=4.7 0.2nm,0.5s						
ASAR	**Alice Springs**	**29.16**	**124**	P	**P**	**06 10 21.0**	**0.0**
	0.2nm,0.4s,baz=294,slow=10,SNR=2.0 0.2nm,0.4s						
H08S2	**Diego Garcia H**	**35.02**	**269**	T	T	06 48 49.3	
	baz=93,slow=76,SNR=7.9						
H08S3	**Diego Garcia H**	**35.03**	**269**	T	T	06 48 50.6	
	baz=93,slow=76,SNR=13						
H08S1	**Diego Garcia H**	**35.04**	**269**	T	T	06 48 38.8	
	baz=93,slow=76,SNR=5.9						
STKA	**Stephens Creek**	**39.04**	**131**	P	**P**	**06 11 47.5**	**+1.2**
	0.6nm,0.3s,baz=320,slow=7.9,SNR=2.8 0.6nm,0.3s						
MKAR	**Makanchi Array**	**59.54**	**340**	P	**P**	**06 14 22.5**	**0.0**
	0.7nm,0.7s,baz=137,slow=9.7,SNR=3.2 0.7nm,0.7s						
H04N2	**CROZET ISLANDS**	**60.73**	**221**	T	T	07 21 28.6	
	baz=68,slow=75,SNR=12						
H04N1	**CROZET ISLANDS**	**60.75**	**221**	T	T	07 21 32.1	
	baz=68,slow=75,SNR=16						
H04N3	**CROZET ISLANDS**	**60.75**	**221**	T	T	07 21 30.9	
	baz=68,slow=75,SNR=16						
BVAR	**Borovoye Array**	**69.03**	**337**	P	**P**	**06 15 23.5**	**-1.0**
	1.1nm,0.6s,baz=131,slow=6.7,SNR=4.1 1.1nm,0.6s						
ARTI	**Arti**	**76.35**	**334**	P	**P**	**06 16 06.8**	**-1.0**
	2.7nm,0.5s,baz=112,slow=3.6,SNR=4.8 2.7nm,0.5s						

*IDC **01** 06:07:26.9±1.1,37°.70N×26°.99E,h0km,mb3.4/5,*
mbtmp3.4/8,ML2.8/2,Error ellipse: s-maj=23.9km
s-min=15.6km az=16.0
*AFAD **01** 06:07:27.9,37°.83N×27°.00E,h7km±2km,ML3.7*
*ISK **01** 06:07:27.5,37°.79N×26°.94E,h8km,ML3.7/29*
*THE **01** 06:07:28.3,38°.N±1°.×2°.7E±°,h3km±3km,M3.5/9,MLh3.5/9*
*ATH **01** 06:07:28.4,37°.79N×26°.96E,h13km±1km,ML3.4/12,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
ISC 01 06:07:28.2±0.8,**37°.80N**±0°.02×**26°.98E**±0°.02,**h14**km±6km,
n97,σ1.18,mb3.3/4,7C-3D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.22**	**269**	P	**Pg**	**06 07 32.9**	**-0.1**
KRL1				S	**Sg**	**06 07 35.9**	**-0.4**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.22**	**116**	Pg	**Pg**	**06 07 33.0**	**-0.1**
GCAM				Sg	**Sg**	**06 07 37.0**	**+0.6**
KUSD	**Kusadasi-Aydin**	**0.25**	**75**	Pg	**Pg**	**06 07 33.6**	**0.0**
KUSD				AML	AML		
DGB	**zmir**	**0.27**	**343**	P	**Pg**	**06 07 33.3**	**-0.5**
DGB				S	**Sg**	**06 07 36.5**	**-1.2**
GMLD	**Gumuldur**	**0.28**	**349**	Pg	**Pg**	**06 07 33.8**	**-0.3**
GMLD				AML	AML		
DDIM	**Aydin, Didim**	**0.40**	**149**	P	**Pb**	**06 07 36.6**	**-0.3**
DDIM				S	**Sb**	**06 07 42.7**	**-0.2**
DDIM				IAML		06 07 43.0	
	comp=N,1μm,0.3s						
DDIM				IAML		06 07 43.0	
	comp=E,1μm,0.2s						
DIDI	**Didim-Aydin**	**0.47**	**154**	Pg	**Pg**	**06 07 37.4**	**0.0**
DIDI				AML	AML		
DUVT	**Torbali**	**0.56**	**41**	P	**Pg**	**06 07 38.5**	**-0.7**
DUVT				S	**Sg**	**06 07 45.8**	**-0.8**
DUVT				IAML		06 07 50.0	
	comp=E,6μm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.58**	**320**	P	**Pg**	**06 07 38.9**	**-0.7**
ZEYE				IAML		06 07 47.0	
	comp=N,2μm,0.4s						
ZEYE				S	**Sg**	**06 07 47.6**	**+0.3**
ZEYE				IAML		06 07 49.0	
	comp=E,4μm,0.3s						
BLCB	**Balcova**	**0.59**	**5**	P	**Pg**	**06 07 39.1**	**-0.6**
BLCB				S	**Sg**	**06 07 46.8**	**-0.8**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**5**	Pg	**Pg**	**06 07 38.6**	**-1.1**
BLCB				AML	AML		
DAGE	**izmir**	**0.64**	**71**	P	**Pg**	**06 07 40.1**	**-0.6**
DAGE				S	**Sg**	**06 07 48.6**	**-0.7**
DAGE				IAML		06 07 52.0	
	comp=N,4μm,0.6s						
DAGE				IAML		06 07 53.0	
	comp=E,6μm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.73**	**78**	Pg	**Pb**	**06 07 42.8**	**0.0**
CESE	**eme**	**0.76**	**315**	Pg	**Pg**	**06 07 42.1**	**-0.8**
CESE				AML	AML		
BODT	**Bodrum**	**0.78**	**160**	P	**Pb**	**06 07 43.4**	**0.0**
BODT				S	**Sb**	**06 07 55.2**	**+1.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.78**	**160**	Pg	**Pb**	**06 07 43.2**	**-0.3**
MLSB	**Milas**	**0.81**	**128**	Pg	**Pb**	**06 07 44.3**	**+0.3**
IZMR	**zmir-demi**	**0.84**	**66**	P	**Pg**	**06 07 43.5**	**-0.9**
IZMR				S	**Sg**	**06 07 53.9**	**-1.6**
IZMR				IAML		06 07 56.0	
	comp=N,1μm,0.4s						
IZMR				IAML		06 07 56.0	
	comp=E,1μm,0.9s						
KLNA	**Kalymnos**	**0.84**	**180**	P	**Pb**	**06 07 44.3**	**-0.1**
KLNA				S	**Sb**	**06 07 55.9**	**+0.3**
KRBN	**Karaburun**	**0.86**	**337**	Pg	**Pg**	**06 07 44.4**	**-0.5**
KRBN				AML	AML		
FOCM	**Foa**	**0.94**	**348**	Pg	**Pg**	**06 07 45.9**	**-0.4**
FOCM				AML	AML		
CHOS	**Chios island**	**0.94**	**309**	P	**Pg**	**06 07 45.8**	**-0.5**
CHOS				S	**Sb**	**06 07 59.1**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.94**	**309**	Pg	**Pg**	**06 07 45.8**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.94**	**309**	P	**Pb**	**06 07 46.6**	**+0.4**
CHOS				S	**Sb**	**06 07 59.3**	**+0.7**
KARB	**zmir-Karabur**	**0.97**	**333**	P	**Pg**	**06 07 45.6**	**-1.4**
KARB				S	**Sg**	**06 07 59.4**	**-0.3**
KARB				IAML		06 08 01.0	
	comp=N,2μm,0.9s						
KARB				IAML		06 08 05.0	
	comp=E,2μm,0.7s						
CAMT	**Merkez**	**0.98**	**15**	P	**Pg**	**06 07 46.6**	**-0.6**
CAMT				S	**Sb**	**06 08 00.7**	**+0.8**
CAMT				IAML		06 08 07.0	
	comp=E,3μm,0.5s						
CAMT				IAML		06 08 09.0	
	comp=N,3μm,0.6s						
EAG2	**Marmaro, Chios**	**1.01**	**318**	P	**Pg**	**06 07 47.6**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.05**	**80**	Pn	**Pg**	**06 07 48.1**	**-0.3**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.08**	**90**	P	**Pg**	**06 07 48.7**	**-0.4**
ESEN				S	**Sb**	**06 08 03.3**	**+0.7**
DAT	**Datca**	**1.17**	**156**	Pn	**Pb**	**06 07 50.2**	**0.0**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**39**	Pn	**Pn**	**06 07 50.8**	**+0.7**
ZEDA	**zmir-Bergama**	**1.17**	**4**	P	**Pg**	**06 07 47.4**	**-3.3**
ZEDA				S	**Sb**	**06 08 06.2**	**+1.0**
YAZI	**Mula-Dat§a-**	**1.18**	**161**	P	**Pg**	**06 07 49.5**	**-1.3**
YAZI				S	**Sn**	**06 08 09.0**	**+3.0**
KIRA	**zmir-Kiraz**	**1.19**	**70**	P	**Pg**	**06 07 49.9**	**-1.2**
MULA	**Mugla, Merkez-**	**1.19**	**116**	P	**Pb**	**06 07 50.8**	**+0.2**
YER	**Yerkesik**	**1.23**	**122**	P	**Pn**	**06 07 51.4**	**+0.5**
YER				AML	AML		
YER	**Yerkesik**	**1.23**	**122**	Pn	**Pn**	**06 07 51.6**	**+0.7**
YER				AML	AML		
AKIS	**Akhisar**	**1.26**	**31**	Pn	**Pn**	**06 07 52.1**	**+0.7**
AKIS				AML	AML		
DKL	**Dikili**	**1.27**	**357**	Pn	**Pn**	**06 07 52.2**	**+0.7**
DKL				AML	AML		
DKL	**Dikili**	**1.27**	**357**	P	**Pn**	**06 07 51.3**	**-0.2**
MANT	**Manisa**	**1.42**	**60**	P	**Pb**	**06 07 54.8**	**+0.2**
MANT				S	**Sb**	**06 08 11.0**	**-1.6**
SOMA	**Soma-Manisa**	**1.43**	**18**	Pn	**Pb**	**06 07 54.7**	**+0.2**
SOMA				AML	AML		
TURN	**Turunc**	**1.43**	**135**	Pn	**Pn**	**06 07 54.1**	**+0.4**
TURN				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**40**	Pn	**Pg**	**06 07 55.7**	**-0.4**
GORD				AML	AML		
PRK	**Paraskevi**	**1.55**	**339**	P	**Pn**	**06 07 55.7**	**+0.4**
PRK				S	**Sb**	**06 08 17.0**	**+0.9**
PRK				AML	AML		
PRK	**Paraskevi**	**1.55**	**339**	P	**Pn**	**06 07 56.2**	**+0.9**
DALY	**Dalyan (Mula)**	**1.65**	**126**	Pn	**Pb**	**06 07 57.9**	**-0.5**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.81**	**2**	Pn	**Pn**	**06 08 00.4**	**+1.5**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.82**	**150**	Pn	**Pn**	**06 08 00.1**	**+1.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.82**	**150**	P	**Pn**	**06 07 59.6**	**+0.6**
ARG				AML	AML		
CMBO	**Columbo, Santo**	**1.83**	**224**	P	**Pn**	**06 08 00.3**	**+1.2**
THERA	**Ancient Thera,**	**1.87**	**221**	P	**Pn**	**06 07 59.8**	**+0.1**
THERA				AML	AML		
APMY	**Acipayam-Deniz**	**1.87**	**99**	Pn	**Pn**	**06 08 00.8**	**+1.0**
APMY				AML	AML		
THR3	**Thira Island,**	**1.88**	**223**	P	**Pn**	**06 08 01.1**	**+1.3**
THT1	**Athinios (Pele**	**1.88**	**222**	P	**Pn**	**06 08 00.9**	**+1.1**
THT1				AML	AML		
SNT5	**Nea Kammeni, S**	**1.88**	**223**	P	**Pb**	**06 08 01.9**	**-0.4**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.88**	**223**	P	**Pb**	**06 08 01.8**	**-0.4**
THR5	**Thira Island,**	**1.90**	**224**	P	**Pn**	**06 08 00.2**	**+0.1**
BALB	**Balikesir**	**1.97**	**21**	Pn	**Pn**	**06 08 02.5**	**+1.4**
BALB				AML	AML		
KARY	**Karystos**	**2.03**	**277**	P	**Pn**	**06 08 01.8**	**-0.1**
SIMA	**Simav-Kutahya**	**2.03**	**50**	Pn	**Pn**	**06 08 03.5**	**+1.5**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.04**	**114**	Pn	**Pn**	**06 08 03.5**	**+1.4**
CAME				AML	AML		
SMAA	**Simav-Kutahya**	**2.04**	**50**	Pn	**Pn**	**06 08 04.0**	**+1.9**
SMAA				AML	AML		
FETY	**Fethiye**	**2.04**	**124**	Pn	**Pn**	**06 08 03.3**	**+1.2**
FETY				AML	AML		
SHAP	**Saphane-Kutahy**	**2.14**	**54**	Pn	**Pn**	**06 08 05.2**	**+1.6**
SHAP				AML	AML		
DST	**Dursunbey**	**2.21**	**35**	Pn	**Pn**	**06 08 05.9**	**+1.4**
DST				AML	AML		
KARP	**Karpathos**	**2.25**	**176**	P	**Pn**	**06 08 05.2**	**+0.2**
KARP				AML	AML		
GEDZ	**Gediz**	**2.28**	**56**	Pn	**Pn**	**06 08 07.1**	**+1.7**
GEDZ				AML	AML		
DION	**Dionisos Attik**	**2.43**	**278**	P	**Pn**	**06 08 07.5**	**+0.1**
DION				AML	AML		
DION	**Dionisos Attik**	**2.43**	**278**	P	**Pn**	**06 08 07.4**	**+0.1**
DION				AML	AML		
BASM	**Basmaki-Afyon**	**2.43**	**86**	Pn	**Pn**	**06 08 08.9**	**+1.4**
BASM				AML	AML		
PTL	**Penteli**	**2.48**	**277**	P	**Pn**	**06 08 08.2**	**+0.1**
PTL				AML	AML		
LIA	**Limnos Island**	**2.52**	**327**	P	**Pn**	**06 08 08.8**	**+0.1**
LIA	**Limnos Island**	**2.52**	**327**	P	**Pn**	**06 08 09.1**	**+0.4**
LIA				AML	AML		
VLY	**Voula,Athens**	**2.52**	**272**	P	**Pn**	**06 08 09.5**	**+0.8**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.54**	**275**	P	**Pn**	**06 08 08.9**	**0.0**
ZKR	**Zakros**	**2.75**	**193**	P	**Pn**	**06 08 13.5**	**+1.7**
ZKR				AML	AML		
SMTH	**Samothraki Isl**	**2.90**	**338**	P	**Pn**	**06 08 14.7**	**+0.8**
SMTH				AML	AML		
CAVK	**Edirne/Enez-Ca**	**2.96**	**348**	⇑P	**Pn**	**06 08 17.0**	**+2.3**
VIL2	**Platees**	**2.96**	**279**	P	**Pn**	**06 08 14.8**	**0.0**
VIL2				AML	AML		
KEPZ	**Antalya-Kepez**	**3.79**	**102**	⇑P	**Pn**	**06 08 28.4**	**+2.3**
BRTR	**Keskin Array B**	**5.55**	**68**	Pn	**Pn**	**06 08 52.2**	**+1.8**
	1.0nm,0.3s,baz=246,slow=14,SNR=16 2.0nm,0.3s						
BRTR				AML	AML		
KIRS	**Kirsehir-Merke**	**5.60**	**74**	⇑P	**Pn**	**06 08 55.1**	**+4.0**
BLKB	**Belogradchik**	**6.67**	**332**	⇑P	**Pn**	**06 09 06.8**	**+1.0**
BOVS	**Bovan**	**7.07**	**327**	⇑P	**Pn**	**06 09 12.7**	**+1.5**
HERR	**Herculane**	**7.87**	**336**	⇓P	**Pn**	**06 09 22.8**	**+0.7**
MMVR	**Moldovita**	**8.02**	**332**	⇓P	**Pn**	**06 09 26.1**	**+1.8**
TIP	**Timpagrande**	**8.14**	**283**	⇓P	**Pn**	**06 09 26.5**	**+0.6**
DOPR	**Dopca**	**8.25**	**352**	⇑P	**Pn**	**06 09 29.5**	**+2.2**
MMAI	**Mount Meron Ar**	**8.37**	**122**	Pn	**Pn**	**06 09 28.5**	**-0.6**
	1.4nm,0.2s,baz=318,slow=15,SNR=5.6						
MMAI				Sn	**Sn**	**06 10 58.7**	**-4.6**
	7.4nm,0.3s,baz=309,slow=28,SNR=5.1						
BZS	**Buzias**	**8.78**	**335**	⇑P	**Pn**	**06 09 35.6**	**+1.0**
GERES	**GERESS Array B**	**14.65**	**323**	Pn	**P**	**06 10 59.1**	**-2.1**
	baz=123,slow=9.7,SNR=6.3 0.2nm,0.5s						
ESDC	**Sonseca Array**	**24.16**	**284**	P	**P**	**06 12 43.9**	**0.0**
	0.4nm,0.9s,baz=87,slow=10.0,SNR=4.0 0.4nm,0.9s						
TORD	**Torodi Ar. Bea**	**33.31**	**229**	P	**P**	**06 14 06.3**	**+0.8**
	0.7nm,0.6s,baz=34,slow=9.3,SNR=2.9 0.7nm,0.6s						
KURBB	**Kurchatov Arra**	**38.35**	**54**	P	**P**	**06 14 49.8**	**+1.4**
	0.3nm,0.5s,baz=274,slow=8.8,SNR=2.5 0.3nm,0.5s						
MKAR	**Makanchi Array**	**41.13**	**59**	P	**P**	**06 15 12.1**	**+0.4**
	0.2nm,0.4s,baz=275,slow=6.4,SNR=1.7 0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**42.14**	**48**	P	**P**	**06 15 20.5**	**+0.7**
	0.5nm,0.3s,baz=292,slow=8.7,SNR=1.7 0.5nm,0.3s						

*IDC **01** 06:15:24.0±1.7,39°.71N×20°.38E,h0km,mb3.4/4,*
mbtmp3.4/6,ML3.0/2,Error ellipse: s-maj=33.7km
s-min=25.3km az=109.0
*ATH **01** 06:15:25.3,39°.69N×20°.33E,h6km±1km,ML3.3/19,*
Latitude uncertainty: 0 km; Longitude uncertainty: 2 km
*PDG **01** 06:15:25.7±0.6,39°.66N×20°.31E,h4km±1km,ML3.3/12,*
Error ellipse: s-maj=0.6km s-min=1.1km az=0.0
*THE **01** 06:15:26.2,40°.N±1°.×20°.4E±1°.0,h0km±1km,M3.2/27,*
MLh3.2/27
*TIR **01** 06:15:26.0,39°.68N×20°.33E,h12km±2km,ML3.4,ML3.4,*
Presumed earthquake
ISC 01 06:15:25.8±0.8,**39°.64N**±0°.02×**20°.33E**±0°.02,**h15**km±5km,
n139,σ1.72/187,mb3.5/3,13C-10D,Greece-Albania
border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGT	**Igoumenitsa**	**0.11**	**178**	P	**Pg**	**06 15 29.4**	**+0.2**
IGT				S	**Sb**	**06 15 32.3**	**+0.1**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.11**	**178**	⇓Pg	**Pg**	**06 15 29.3**	**+0.2**
IGT				Sg	**Sb**	**06 15 32.6**	**+0.4**
IGT	**Igoumenitsa**	**0.11**	**178**	P	**Pg**	**06 15 28.8**	**-0.4**
IGT				S	**Sg**	**06 15 31.0**	**-0.4**
LFKM	**Lefkimmi**	**0.28**	**227**	P	**Pb**	**06 15 33.5**	**+0.9**
LFKM				S	**Sb**	**06 15 39.1**	**+1.9**
SRN	**Sarande**	**0.35**	**314**	P	**Pg**	**06 15 33.3**	**+0.3**
SRN				S	**Sb**	**06 15 39.5**	**+0.3**
SRN	**Sarande**	**0.35**	**314**	⇓Pg	**Pg**	**06 15 33.2**	**+0.3**
SRN				Sg	**Sb**	**06 15 39.4**	**+0.3**
PRGA	**Parga**	**0.36**	**171**	P	**Pg**	**06 15 33.8**	**+0.7**
JAN	**Janina**	**0.40**	**87**	P	**Pg**	**06 15 33.4**	**-0.6**
JAN				AML	AML		
JAN	**Janina**	**0.40**	**87**	P	**Pg**	**06 15 33.3**	**-0.7**
JAN				S	**Sg**	**06 15 39.9**	**+0.3**
JAN				AML	AML		
KEK	**Kerkira**	**0.42**	**280**	⇑Pg	**Pg**	**06 15 33.1**	**-1.2**
KEK				Sg	**Sg**	**06 15 40.4**	**+0.5**
KEK	**Kerkira**	**0.42**	**280**	P	**Pg**	**06 15 33.0**	**-1.2**
KEK				S	**Sg**	**06 15 38.7**	**-1.2**
KEK				AML	AML		
LSK	**Leskovik**	**0.55**	**22**	⇑Pg	**Pg**	**06 15 35.7**	**-1.1**
LSK				Sg	**Sg**	**06 15 43.6**	**-0.6**
PRMD	**Pramanda**	**0.60**	**100**	P	**Pg**	**06 15 37.6**	**-0.1**
PRMD				S	**Sg**	**06 15 46.3**	**+0.6**
PRMD				AML	AML		
PRMD	**Pramanda**	**0.60**	**100**	P	**Pg**	**06 15 37.4**	**-0.3**
PRMD				S	**Sg**	**06 15 46.4**	**+0.6**
PRMD				AML	AML		
MSVA	**Metsovo**	**0.67**	**78**	P	**Pg**	**06 15 38.6**	**-0.4**
MSVA				AML	AML		
ARTB	**Arta**	**0.70**	**134**	P	**Pg**	**06 15 39.5**	**+0.1**
ARTB				AML	AML		
ART2	**Arta**	**0.71**	**133**	P	**Pg**	**06 15 39.7**	**-0.1**
ART2				AML	AML		
TETR	**Tetrakomo, Epi**	**0.79**	**112**	P	**Pb**	**06 15 40.5**	**-0.9**
TETR				S	**Sg**	**06 15 52.0**	**+0.4**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**0.79**	**112**	P	**Pb**	**06 15 40.6**	**-0.7**
PENT	**Pentalofos**	**0.83**	**48**	P	**Pb**	**06 15 40.9**	**-1.2**
TSLK	**Tsoukalades, L**	**0.85**	**163**	P	**Pb**	**06 15 42.4**	**0.0**
TSLK				S	**Sn**	**06 15 56.2**	**+0.6**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**0.85**	**163**	P	**Pb**	**06 15 42.3**	**0.0**
KPRO	**Kipourio**	**0.86**	**68**	P	**Pb**	**06 15 41.3**	**-1.2**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.86**	**68**	P	**Pb**	**06 15 41.1**	**-1.4**
KPRO				AML	AML		
LKD2	**Lefkada island**	**0.89**	**163**	P	**Pb**	**06 15 42.9**	**0.0**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.89**	**163**	Pg	**Pb**	**06 15 43.0**	**0.0**
LKD2				Sg	**Sn**	**06 15 58.2**	**+1.8**
LKD2	**Lefkada island**	**0.89**	**163**	P	**Pb**	**06 15 42.8**	**-0.2**
LKD2				AML	AML		
NEST	**Nestorio**	**0.95**	**35**	P	**Pb**	**06 15 43.2**	**-1.0**
NEST				AML	AML		
NEST	**Nestorio**	**0.95**	**35**	Pg	**Pb**	**06 15 43.1**	**-1.0**
NEST	**Nestorio**	**0.95**	**35**	P	**Pb**	**06 15 43.1**	**-1.0**
NYDR	**Nydri-Lefkada**	**0.97**	**163**	P	**Pb**	**06 15 44.4**	**+0.1**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.97**	**163**	P	**Pb**	**06 15 44.6**	**+0.2**
DRAG	**Dragano-Lefkad**	**0.97**	**169**	P	**Pb**	**06 15 44.4**	**0.0**
DRAG				AML	AML		
DRAG	**Dragano-Lefkad**	**0.97**	**169**	P	**Pb**	**06 15 44.5**	**0.0**
AMPL	**Ampelaki**	**0.99**	**136**	P	**Pb**	**06 15 44.8**	**0.0**
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.99**	**136**	P	**Pb**	**06 15 45.2**	**+0.4**
AMPL				AML	AML		
KBN	**Korca**	**1.04**	**20**	P	**Pg**	**06 15 46.3**	**+0.2**
KBN				AML	AML		
KBN	**Korca**	**1.04**	**20**	⇑Pg	**Pb**	**06 15 45.4**	**-0.3**
KBN				Sg	**Sg**	**06 15 59.9**	**+0.2**
VLO	**Vlora**	**1.05**	**323**	P	**Pg**	**06 15 46.3**	**+0.3**
VLO				AML	AML		
VLO	**Vlora**	**1.05**	**323**	Pg	**Pg**	**06 15 48.8**	**+2.7**
VLO				Sg	**Sn**	**06 16 06.2**	**+5.8**
VLO				IAML		06 16 08.1	
	2μm,0.4s						
EVGI	**Lefkada island**	**1.05**	**166**	P	**Pb**	**06 15 45.8**	**0.0**
EVGI				AML	AML		
EVGI	**Lefkada island**	**1.05**	**166**	P	**Pn**	**06 15 46.2**	**+0.2**
EVGI				AML	AML		
BERA	**Berati**	**1.10**	**345**	⇑Pn	**Pb**	**06 15 46.6**	**0.0**
BERA				Sn	**Sg**	**06 16 06.9**	**+5.4**
BERA				IAML		06 16 07.5	
	1μm,0.3s						
PDO	**Prodromos**	**1.23**	**147**	P	**Pg**	**06 15 49.7**	**+0.1**
PDO				AML	AML		
PDO	**Prodromos**	**1.23**	**147**	P	**Pb**	**06 15 49.5**	**+0.6**
PDO				AML	AML		
KZN	**Kozani**	**1.29**	**59**	P	**Pn**	**06 15 49.5**	**0.0**
KZN				AML	AML		
KZN	**Kozani**	**1.29**	**59**	P	**Pn**	**06 15 49.5**	**0.0**
THL	**Klokotos Trika**	**1.30**	**93**	P	**Pb**	**06 15 50.2**	**+0.2**
THL				AML	AML		
THL	**Klokotos Trika**	**1.30**	**93**	Pg	**Pg**	**06 15 50.8**	**-0.1**
THL				Sg	**Sg**	**06 16 10.0**	**+2.1**
THL	**Klokotos Trika**	**1.30**	**93**	P	**Pb**	**06 15 50.3**	**+0.2**
THL				AML	AML		
EVR	**Evrytania**	**1.36**	**122**	P	**Pb**	**06 15 51.1**	**+0.1**
EVR				AML	AML		
EVR	**Evrytania**	**1.36**	**122**	P	**Pb**	**06 15 51.4**	**+0.4**
EVR				AML	AML		
PVO	**Paravola**	**1.38**	**137**	P	**Pg**	**06 15 52.5**	**+0.1**
PVO				AML	AML		
DMLN	**Damoulianata-K**	**1.40**	**179**	P	**Pb**	**06 15 52.4**	**+0.7**
DMLN				AML	AML		
DMLN	**Damoulianata-K**	**1.40**	**179**	P	**Pb**	**06 15 52.2**	**+0.5**
DMLN				AML	AML		
TYRN	**Tyrnavos**	**1.47**	**87**	P	**Pn**	**06 15 52.4**	**+0.5**
VLS	**Valsamata**	**1.47**	**172**	P	**Pb**	**06 15 53.1**	**+0.1**
VLS				AML	AML		
VLS	**Valsamata**	**1.47**	**172**	P	**Pn**	**06 15 52.6**	**+0.7**
VLS				AML	AML		
PLEV	**Plevrona-Mesol**	**1.49**	**145**	P	**Pb**	**06 15 53.9**	**+0.7**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**1.49**	**145**	P	**Pb**	**06 15 53.8**	**+0.6**
PLEV				AML	AML		
OHR	**Ohrid**	**1.51**	**14**	*i* Pn	**Pg**	**06 15 54.9**	**-0.1**
OHR				*i* Sn	**Sg**	**06 16 19.2**	**+4.6**
PSDA	**Pessada-Kefalo**	**1.54**	**172**	P	**Pb**

STON				Sn		**Sn**	**06 17 04.9**	**-3.1**
LSTV	**Lastovo**	**4.06**	**321**	*e*Pn		**Pn**	**06 16 26.6**	**-0.8**
LSTV				Sn		**Sn**	**06 17 10.9**	**-3.8**
BOVS	**Bovan**	**4.12**	**14**	⇓P		Pn	06 16 22.6	-5.7
BBLS	**Lazi&#263i**	**4.28**	**351**	*e*Pn		**Pb**	**06 16 43.8**	**+3.0**
BLKB	**Belogradchik**	**4.35**	**23**	⇑P		**Pn**	**06 16 33.7**	**+2.2**
MAKA	**Makarska**	**4.41**	**327**	*e*Pn		**Pn**	**06 16 31.1**	**-1.2**
MAKA				Sn		**Sn**	**06 17 19.4**	**-4.0**
RICI	**Ricice**	**4.54**	**329**	*e*Pn		**Pn**	**06 16 33.0**	**-1.0**
RICI				Sn		**Sn**	**06 17 24.1**	**-2.4**
HVAR	**Hvar**	**4.58**	**322**	*e*Pn		**Pn**	**06 16 33.2**	**-1.4**
HVAR				Sn		**Sn**	**06 17 24.1**	**-3.5**
TEKS	**Tekeris**	**4.94**	**353**	*e*Pn		**Pn**	**06 16 38.1**	**-1.5**
MDVR	**Moldovita**	**5.24**	**11**	⇑P		Pn	06 16 35.8	-7.9
KIJV	**Kijevo**	**5.25**	**327**	*e*Pn		**Pn**	**06 16 43.3**	**-0.6**
KIJV				Sn		**Sn**	**06 17 41.1**	**-3.1**
MORI	**Morici**	**5.46**	**322**	*e*Pn		**Pn**	**06 16 46.2**	**-0.4**
MORI				Sn		**Sn**	**06 17 45.3**	**-3.8**
FRGS	**Fruska Gora**	**5.53**	**356**	*e*Pn		**Pn**	**06 16 46.0**	**-1.6**
BLY	**Banja Luka**	**5.61**	**336**	*e*Pn		**Pn**	**06 16 49.8**	**+1.0**
DUGI	**Dugi Otok**	**5.87**	**320**	*e*Pn		**Pn**	**06 16 51.6**	**-0.7**
DUGI				Sn		**Sn**	**06 17 55.5**	**-3.7**
AQU	**L'Aquila**	**5.90**	**300**	*e*Pn		**Pn**	**06 16 52.3**	**-0.5**
UDBI	**Udbina**	**5.95**	**327**	*i* Pn		**Pn**	**06 16 53.2**	**-0.2**
UDBI				Sn		**Sn**	**06 17 58.3**	**-3.0**
BZS	**Buzias**	**6.05**	**9**	⇑P		**Pn**	**06 16 53.9**	**-0.9**
VIRC	**Vir**	**6.09**	**322**	*e*Pn		**Pn**	**06 16 55.0**	**-0.3**
VIRC				Sn		**Sn**	**06 18 00.9**	**-3.7**
PLIT	**Plitvice**	**6.29**	**328**	*e*Pn		**Pn**	**06 16 57.9**	**-0.2**
PLIT				Sn		**Sn**	**06 18 05.8**	**-4.0**
MOSL	**Moslavina**	**6.53**	**337**	*e*Pn		**Pn**	**06 17 00.1**	**-1.2**
MOSL				Sn		**Sn**	**06 18 11.7**	**-3.8**
MORH	**Mrgy, Hungar**	**6.69**	**350**	⇑P		**Pn**	**06 17 03.7**	**+0.2**
MORH	**Mrgy, Hungar**	**6.69**	**350**	*e*Pn		**Pn**	**06 17 03.9**	**+0.4**
OZLJ	**Ozalj**	**6.96**	**331**	*i* Pn		**Pn**	**06 17 06.7**	**-0.6**
OZLJ				Sn		**Sn**	**06 18 22.0**	**-4.2**
KALN	**Kalnik**	**7.08**	**338**	*e*Pn		**Pn**	**06 17 07.6**	**-1.4**
BEHE	**Becsehely**	**7.30**	**340**	*e*Pn		**Pn**	**06 17 11.9**	**-0.1**
SOKA	**Soboth**	**8.03**	**333**	*e*Pn		**Pn**	**06 17 21.9**	**-0.1**
	1.2nm,0.3s							
SOKA				*i* Sn		**Sn**	**06 18 49.5**	**-3.0**
	0.5nm,0.4s							
OBKA	**Obir**	**8.06**	**330**	*i* Pn		**Pn**	**06 17 22.7**	**+0.3**
	1.9nm,0.4s							
OBKA				*e*Sn		**Sn**	**06 18 55.3**	**+1.9**
	1.6nm,0.3s							
ARSA	**Arzberg**	**8.37**	**337**	*e*Pn		**Pn**	**06 17 26.7**	**0.0**
	0.7nm,0.3s							
SESA	**Seetaler Alpe,**	**8.56**	**333**	*e*Pn		**Pn**	**06 17 29.7**	**+0.2**
	1.5nm,0.4s							
KBA	**Koelnbreinsper**	**9.01**	**328**	*e*Pn		**Pn**	**06 17 36.5**	**+1.0**
	0.7nm,0.3s							
MOA	**Molln**	**9.30**	**334**	*e*Pn		**Pn**	**06 17 40.9**	**+1.5**
	0.9nm,0.3s							
BIOA	**Bad Ischl, Aus**	**9.39**	**331**	*e*Pn		**Pn**	**06 17 42.0**	**+1.3**
	2.1nm,0.3s							
LESA	**Schwarzleotal**	**9.56**	**327**	*e*Pn		**Pn**	**06 17 43.6**	**+0.7**
	0.1nm,0.1s							
LESA				*e*Sn		**Sn**	**06 19 33.8**	**+3.7**
	1.1nm,0.4s							
WTTA	**Wattenberg**	**9.89**	**323**	*e*Pn		**Pn**	**06 17 48.9**	**+1.2**
	1.8nm,0.4s							
WATA	**Walderalm**	**9.97**	**323**	*e*Pn		**Pn**	**06 17 50.0**	**+1.2**
	1.5nm,0.4s							
FETA	**Feichten**	**10.16**	**320**	*e*Pn		Pn	06 17 56.8	+5.5
	0.7nm,0.4s							
MOTA	**Moosalm**	**10.20**	**322**	*e*Pn		**Pn**	**06 17 52.6**	**+0.7**
	1.4nm,0.5s							
MOTA				*e*Sn		**Sn**	**06 19 46.1**	**0.0**
	1.4nm,0.5s							
GERES	**GERESS Array B**	**10.35**	**335**	Pn		**Pn**	**06 17 53.2**	**-0.6**
	baz=150,slow=14,SNR=5.8							
	0.3nm,0.3s							
KHC	**Kasperske Hory**	**10.64**	**335**	*e*PN		**Pn**	**06 17 59.4**	**+1.6**
KHC				*e*SN		**Sn**	**06 19 55.6**	**-1.0**
ESDC	**Sonseca Array**	**18.70**	**278**	P		**Pn**	**06 19 43.9**	**-0.1**
	baz=82,slow=12,SNR=4.0							
	0.5nm,0.8s							
FINES	**FINESS Array B**	**22.12**	**7**	P		**P**	**06 20 19.4**	**-1.0**
	1.3nm,0.7s,baz=188,slow=10,SNR=4.4							
	1.3nm,0.7s							
NOA	**NORSAR Array B**	**22.16**	**348**	P		**P**	**06 20 21.8**	**+0.8**
	0.6nm,0.8s,baz=156,slow=9.9,SNR=1.2							
	0.6nm,0.8s							
TORD	**Torodi Ar. Bea**	**31.09**	**217**	P		**P**	**06 21 44.8**	**+1.2**
	1.0nm,0.9s,baz=42,slow=14,SNR=3.6							
	1.0nm,0.9s							
MKAR	**Makanchi Array**	**44.68**	**60**	P		**P**	**06 23 37.7**	**-0.3**
	0.6nm,0.7s,baz=294,slow=8.0,SNR=2.5							
	0.6nm,0.7s							

*ISK **01** 06:29:06.8,37.˚83N×26.˚80E,h8km,ML2.6/19*
*AFAD **01** 06:29:07.7,37.˚86N×26.˚91E,h7km±5km,ML2.2*

ISC 01 06:29:07.3±1.1,37.˚85N±0.˚03×26.˚84E±0.˚04,h10km±8km, n31,σ0.˚71/44,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.21**	**9**	P	**Pg**	**06 29 11.3**	**-0.3**
DGB				IAML		06 29 15.0	
	comp=N,414nm,0.4s						
DGB				S	**Sg**	**06 29 15.4**	**+0.8**
DGB				IAML		06 29 16.0	
	comp=E,558nm,0.3s						
GMLD	**Gumuldur**	**0.23**	**14**	Pg	**Pg**	**06 29 12.1**	**-0.1**
GMLD				Sg	**Sg**	**06 29 16.1**	**+0.7**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**115**	P	**Pg**	**06 29 14.0**	**-0.1**
GCAM				S	**Sg**	**06 29 18.9**	**+0.2**
GCAM				IAML		06 29 22.0	
	comp=N,413nm,0.2s						
GCAM				IAML		06 29 22.0	
	comp=E,322nm,0.2s						
GCAM	**G?zelcaml?**	**0.34**	**115**	Pg	**Pg**	**06 29 14.6**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**88**	Pg	**Pb**	**06 29 14.8**	**-0.9**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**10**	P	**Pg**	**06 29 13.8**	**-1.1**
BEYE				IAML		06 29 21.0	
	comp=N,292nm,0.4s						
BEYE				S	**Sg**	**06 29 21.0**	**+1.0**
BEYE				IAML		06 29 24.0	
	comp=E,212nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**326**	P	**Pg**	**06 29 14.4**	**-2.2**
ZEYE				IAML		06 29 25.0	
	comp=N,409nm,0.1s						
ZEYE				S	**Sb**	**06 29 25.4**	**+0.6**
ZEYE				IAML		06 29 26.0	
	comp=E,296nm,0.2s						
BLCB	**Balcova**	**0.56**	**16**	Pg	**Pb**	**06 29 18.7**	**-0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**52**	P	**Pg**	**06 29 18.8**	**-0.3**
DUVT				S	**Sg**	**06 29 26.6**	**-0.4**
DUVT				IAML		06 29 33.0	
	comp=E,166nm,0.5s						
DAGE	**izmir**	**0.73**	**78**	P	**Pb**	**06 29 21.7**	**-0.5**
DAGE				S	**Sg**	**06 29 30.3**	**-0.8**
DAGE				IAML		06 29 36.0	
	comp=N,125nm,0.3s						
DAGE				IAML		06 29 36.0	
	comp=E,105nm,0.2s						
KRBN	**Karaburun**	**0.78**	**343**	Pg	**Pg**	**06 29 22.4**	**+0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	Pg	**Pg**	**06 29 22.7**	**-0.5**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**83**	Pg	**Pb**	**06 29 23.8**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.84**	**103**	P	**Pg**	**06 29 23.3**	**-0.3**
AYDN				S	**Sg**	**06 29 33.6**	**-0.9**
AYDN				IAML		06 29 39.0	
	comp=E,105nm,0.2s						
AYDN				IAML		06 29 42.0	
	comp=N,70nm,0.3s						
FOCM	**Foa**	**0.87**	**354**	Pg	**Pb**	**06 29 24.4**	**-0.1**
FOCM				AML	AML		
BODT	**Bodrum**	**0.87**	**154**	Pg	**Pg**	**06 29 24.0**	**-0.1**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**338**	P	**Pg**	**06 29 23.4**	**-0.9**
KARB				S	**Sb**	**06 29 36.8**	**+0.2**
KARB				IAML		06 29 37.0	
	comp=N,204nm,0.6s						
KARB				IAML		06 29 38.0	
	comp=E,177nm,0.6s						
BDRM	**Kayabasi**	**0.92**	**148**	P	**Pb**	**06 29 25.1**	**-0.2**
BDRM				S	**Sn**	**06 29 39.2**	**-0.3**
BDRM				IAML		06 29 41.0	
	comp=N,175nm,0.7s						
BDRM				IAML		06 29 42.0	
	comp=E,117nm,0.6s						
IZMR	**zmir-demi**	**0.92**	**72**	P	**Pg**	**06 29 24.4**	**-0.7**
IZMR				S	**Sg**	**06 29 35.4**	**-1.7**
MLSB	**Milas**	**0.93**	**126**	Pg	**Pb**	**06 29 25.3**	**-0.2**
MLSB				AML	AML		
CAMT	**Merkez**	**0.97**	**22**	P	**Pb**	**06 29 26.3**	**0.0**
CAMT				S	**Sn**	**06 29 40.6**	**-0.3**
CAMT				IAML		06 29 43.0	
	comp=N,329nm,0.4s						
CAMT				IAML		06 29 43.0	
	comp=E,297nm,0.6s						
ZEDA	**zmir-Bergama**	**1.13**	**9**	P	**Pg**	**06 29 28.2**	**-0.9**
ZEDA				S	**Sn**	**06 29 45.7**	**+0.8**
ZEDA				IAML		06 29 47.0	
	comp=N,50nm,0.2s						
ZEDA				IAML		06 29 47.0	
	comp=E,76nm,0.4s						
GOMA	**Golmarmara-Man**	**1.21**	**44**	Pn	**Pn**	**06 29 31.0**	**+0.8**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**2**	Pn	**Pg**	**06 29 30.8**	**0.0**
DKL				AML	AML		
DAT	**Datca**	**1.26**	**152**	Pn	**Pg**	**06 29 31.4**	**-0.2**
DAT				AML	AML		
AKS	**Akhisar**	**1.28**	**36**	Pn	**Pg**	**06 29 31.9**	**0.0**
YER	**Yerkesik**	**1.35**	**121**	Pn	**Pb**	**06 29 32.6**	**-0.1**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.41**	**22**	Pn	**Pg**	**06 29 34.1**	**-0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**44**	Pn	**Pb**	**06 29 35.2**	**0.0**
GORD				AML	AML		
TURN	**Turunc**	**1.55**	**133**	Pn	**Pn**	**06 29 35.4**	**+0.5**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.77**	**6**	Pn	**Pn**	**06 29 38.7**	**+0.7**
YAYO				AML	AML		

*NEIC **01** 06:31:15.9±1.7,17.˚9S±0.˚1×178.˚4W±0.˚1,h553km±8km, mb4.4/30,Error ellipse: s-maj=21.4km s-min=15.4km az=169.0*
*IDC **01** 06:31:17.1±1.5,17.˚86S×178.˚55W,h568km±16km,mb3.3/8, mbtmp4.3/10,Error ellipse: s-maj=27.2km s-min=12.4km az=151.0*

ISC 01 06:31:17.4±0.6,17.˚9S±0.˚1×178.˚5W±0.˚1,h579km,n58, σ0.˚93/58,mb4.4/25,1D,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.27**	**272**	P	**P**	**06 32 35.2**	**-1.4**
	401nm,0.7s,baz=118,slow=4.5,SNR=243						
FUTU	**Fugatoga**	**3.58**	**6**	P	**P**	**06 32 35.4**	**-3.2**
NIUE	**Niue**	**8.24**	**100**	P	P	06 33 14.0	-4.4
DZM	**Mont Dzumac**	**14.74**	**251**	P	**P**	**06 34 22.1**	**-1.8**
	13nm,0.6s,baz=129,slow=14,SNR=18						
KOUNC	**Koumac, New Ca**	**16.46**	**258**	P	**P**	**06 34 38.9**	**-1.1**
TCW	**Tory Channel**	**24.06**	**193**	P	**P**	**06 35 47.7**	**-0.5**
EIDS	**Eidsvold**	**29.18**	**250**	P	**P**	**06 36 33.0**	**-0.3**
EIDS				IAmb	IAmb	06 36 33.8	
	comp=Z,7.5nm,0.7s						
MLZ	**Mavora Lakes**	**29.59**	**199**	P	**P**	**06 36 34.1**	**-2.5**
ARMA	**Armidale**	**29.86**	**240**	P	**P**	**06 36 38.5**	**-0.8**
ARMA				IAmb	IAmb	06 36 50.6	
	comp=Z,21nm,1.4s						
CTAO	**Charters Tower**	**33.35**	**260**		**P**	**06 37 08.9**	**0.0**
CTAO				IAmb	IAmb	06 37 09.6	
	comp=Z,8.0nm,0.8s						
CAN	**Canberra**	**33.64**	**232**	P	**P**	**06 37 12.0**	**+0.8**
PMG	**Port Moresby**	**34.35**	**280**	P	**P**	**06 37 17.4**	**0.0**
PMG				IAmb	IAmb	06 37 25.4	
	comp=Z,13nm,0.8s						
TOO	**Toolangi**	**37.10**	**231**	P	**P**	**06 37 40.9**	**+1.0**
STKA	**Stephens Creek**	**38.55**	**241**	P	**P**	**06 37 52.5**	**+0.9**
	comp=Z,7.2nm,0.6s,baz=98,slow=9.8,SNR=17						
	comp=Z,7.2nm,0.6s						
STKA	**Stephens Creek**	**38.55**	**241**		**P**	**06 37 52.4**	**+0.7**
MGBR	**Mount Gambier**	**40.83**	**233**	P	**P**	**06 38 10.0**	**+0.2**
MGBR				IAmb	IAmb	06 38 36.1	
	comp=Z,17nm,1.4s						
BBOO	**Buckleboo**	**43.33**	**241**	P	**P**	**06 38 29.8**	**+0.4**
BBOO				IAmb	IAmb	06 38 30.4	
	comp=Z,17nm,0.8s						
WR8	**Warramunga Arr**	**44.38**	**260**		**P**	**06 38 37.2**	**-0.5**
WR8				IAmb	IAmb	06 38 38.1	
	comp=Z,12nm,1.2s						
WB0	**Warramunga Arr**	**44.50**	**260**		**P**	**06 38 38.0**	**-0.7**
WB0				IAmb	IAmb	06 38 38.9	
	comp=Z,7.9nm,0.8s						
WRAB	**Tennant Creek**	**44.52**	**260**	P	**P**	**06 38 38.2**	**-0.7**
WRAB				IAmb	IAmb	06 38 39.0	
	comp=Z,8.4nm,0.6s						
WRA	**Warramunga Arr**	**44.53**	**260**	P	**P**	**06 38 38.2**	**-0.7**
	comp=Z,6.8nm,0.5s,baz=93,slow=7.0,SNR=148						
	comp=Z,6.8nm,0.5s						
WRA	**Warramunga Arr**	**44.53**	**260**		**P**	**06 38 38.2**	**-0.7**
AS31	**Alice Springs**	**44.70**	**254**		**P**	**06 38 40.2**	**0.0**
ASAR	**Alice Springs**	**44.70**	**254**	P	**P**	**06 38 40.3**	**+0.1**
	comp=Z,78nm,0.5s,baz=89,slow=8.3,SNR=1681						
ASAR				S	**S**	**06 44 36.0**	**+0.4**
	comp=Z,1.1nm,0.9s,baz=85,slow=15,SNR=6.3						
FORT	**Forrest**	**49.92**	**245**	P	**P**	**06 39 18.9**	**-0.2**
FORT				IAmb	IAmb	06 39 19.6	
	comp=Z,8.8nm,0.6s						
KNRA	**Kununurra**	**50.39**	**264**	P	**P**	**06 39 23.0**	**+0.3**
KNRA				IAmb	IAmb	06 39 23.3	
	comp=Z,4.5nm,0.7s						
FITZ	**Fitzroy Crossi**	**52.93**	**261**	P	**P**	**06 39 41.6**	**+0.7**
SOEI	**Soe**	**55.97**	**270**		**P**	**06 40 04.1**	**+1.7**
SOEI				IAmb	IAmb	06 40 04.9	
	comp=Z,18nm,0.6s						
MBWA	**Marble Bar**	**57.98**	**256**	P	**P**	**06 40 16.0**	**+0.1**
MBWA				IAmb	IAmb	06 40 27.5	
	comp=Z,31nm,1.4s						
MORW	**Morawa**	**60.40**	**246**	P	**P**	**06 40 32.1**	**+0.2**
MORW				IAmb	IAmb	06 40 46.2	
	comp=Z,24nm,1.3s						
GIRL	**Giralia**	**62.80**	**253**	P	**P**	**06 40 48.4**	**+0.7**
SSLB	**Suanglung**	**72.14**	**303**	P	**P**	**06 41 44.2**	**-0.4**
SSLB				IAmb	IAmb	06 42 25.3	
	comp=Z,21nm,1.1s						
TPUB	**Ta-pu**	**72.16**	**302**	P	**P**	**06 41 44.4**	**-0.3**
QSPA	**South Pole Qui**	**72.17**	**180**	P	**P**	**06 41 44.6**	**+0.4**
	comp=Z,1.6nm,0.8s,baz=328,slow=0.8,SNR=9.9						
	comp=Z,1.6nm,0.8s						
QSPA	**South Pole Qui**	**72.17**	**180**	P	**P**	**06 41 44.5**	**+0.3**
BBJI	**Bungbulang**	**72.40**	**268**	P	**P**	**06 41 46.8**	**+0.5**
BBJI				IAmb	IAmb	06 41 47.0	
	comp=Z,11nm,0.8s						
PNTR	**Pine Nut**	**78.99**	**43**	P	**P**	**06 42 21.6**	**-0.9**
NVAR	**Mina Array Bea**	**79.48**	**44**	P	**P**	**06 42 25.6**	**+0.6**
	comp=Z,1.1nm,0.7s,baz=226,slow=8.0,SNR=13						
	comp=Z,1.1nm,0.7s						
KVN	**Kaiserville**	**79.95**	**43**	P	**P**	**06 42 27.5**	**+0.1**
U15A	**North Rim**	**82.58**	**48**	P	**P**	**06 42 42.1**	**+1.1**
ILAR	**Eielson Array**	**85.89**	**13**	P	**P**	**06 42 55.5**	**-0.7**
	comp=Z,0.3nm,0.4s,baz=220,slow=4.6,SNR=7.1						
	comp=Z,0.3nm,0.4s						
TXAR	**Lajitas Array**	**86.07**	**58**	P	**P**	**06 42 59.5**	**+1.4**
	comp=Z,1.8nm,0.8s,baz=219,slow=5.9,SNR=18						
	comp=Z,1.8nm,0.8s						
PDAR	**Pinedale Array**	**87.41**	**43**	P	**P**	**06 43 04.5**	**+0.2**
	comp=Z,0.6nm,0.6s,baz=232,slow=3.3,SNR=7.9						
	comp=Z,0.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**88.78**	**290**	P	**P**	**06 43 12.9**	**+2.1**
	comp=Z,0.7nm,0.4s,baz=100,slow=3.0,SNR=5.9						
	comp=Z,0.7nm,0.4s						
ELIB	**Princess Elisa**	**89.17**	**187**	*d*P	**P**	**06 43 12.0**	**+0.1**
BRTR	**Keskin Array B**	**144.69**	**315**	PKP	**PKPdf**	**06 49 50.1**	**+0.8**
	comp=Z,1.0nm,0.5s,baz=127,slow=1.7,SNR=6.2						
BRTR	**Keskin Array B**	**144.69**	**315**		**PKPdf**	**06 49 49.0**	**-0.3**
GERES	**GERESS Array B**	**147.56**	**345**	PKPbc	**PKPbc**	**06 49 57.5**	**+0.1**
	comp=Z,1.0nm,0.5s,baz=19,slow=2.8,SNR=14						
GERES	**GERESS Array B**	**147.56**	**345**		**PKPbc**	**06 49 58.1**	**+0.8**
CONA	**Conrad Observa**	**147.81**	**342**	*e*PKP	**PKPbc**	**06 49 59.0**	**+1.0**
	comp=Z,1.1nm,0.6s						
RONA	**Rosalia, Austr**	**147.88**	**341**	*e*PKP	**PKPbc**	**06 49 59.1**	**+1.0**
	comp=Z,1.0nm,0.4s						
SESA	**Seetaler Alpe,**	**148.92**	**343**	*i* PKP	**PKPbc**	**06 50 01.1**	**+0.2**
	comp=Z,0.7nm,0.4s						
LESA	**Schwarzleotal**	**149.13**	**345**	*e*PKP	**PKPbc**	**06 50 01.8**	**+0.5**
	comp=Z,0.9nm,0.3s						
WATA	**Walderalm**	**149.47**	**346**	*i* PKP	**PKPbc**	**06 50 02.5**	**+0.3**
	comp=Z,0.7nm,0.3s						
WTTA	**Wattenberg**	**149.53**	**346**	*i* PKP	**PKPbc**	**06 50 02.8**	**+0.5**
	comp=Z,1.2nm,0.4s						
MYKA	**Terra Mystica**	**149.62**	**343**	*e*PKP	**PKPbc**	**06 50 02.0**	**-0.5**
	comp=Z,1.3nm,0.5s						
SQTA	**Sankt Quirin**	**149.66**	**347**	*e*PKP	**PKPbc**	**06 50 03.0**	**+0.4**
	comp=Z,0.7nm,0.3s						
ABTA	**Abfaltersbach**	**149.81**	**345**	*i* PKP	**PKPbc**	**06 50 02.9**	**0.0**
	comp=Z,1.7nm,0.5s						

ATH 01 07:05:02.4,39.˚49N×20.˚65E,h18km±1km,ML1.5/7, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km,Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAN	**Janina**	**0.23**	**44**	P	Pb	07 05 07.7	-0.1
JAN				S	Sg	07 05 11.8	+0.3
JAN				AML	AML		
IGT	**Igoumenitsa**	**0.25**	**279**	P	Pb	07 05 08.2	0.0
IGT				S	Sb	07 05 12.2	+0.2
PRMD	**Pramanda**	**0.35**	**84**	P	Pg	07 05 09.4	-0.4
PRMD				S	Sb	07 05 15.2	-0.2
PRMD				AML	AML		
ART2	**Arta**	**0.44**	**142**	P	Pg	07 05 11.3	-0.1
ART2				S	Sg	07 05 17.5	+0.1
TETR	**Tetrakomo, Epi**	**0.51**	**107**	P	Pg	07 05 11.8	-0.9
TETR				S	Sb	07 05 19.9	+0.1
TETR				AML	AML		
TSLK	**Tsoukalades, L**	**0.67**	**179**	P	Pg	07 05 16.1	+0.6
LKD2	**Lefkada island**	**0.70**	**179**	P	Pg	07 05 16.3	+0.1
LKD2				AML	AML		
NYDR	**Nydri-Lefkada**	**0.78**	**177**	P	Pg	07 05 17.5	-0.1
DRAG	**Dragano-Lefkad**	**0.81**	**184**	P	Pn	07 05 18.8	-0.1
NEST	**Nestorio**	**0.97**	**18**	P	Pb	07 05 21.0	+0.2
NEST				AML	AML		

*IDC **01** 07:05:11.8±0.6,37.˚67N×27.˚09E,h0km,mb4.0/13, mbtmp4.0/24,ML3.8/9,MS3.4/20,Error ellipse: s-maj=10.8km s-min=8.8km az=31.0*
*ATH **01** 07:05:12.8,37.˚83N×27.˚03E,h16km±2km,ML4.2/16, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*MOS **01** 07:05:12.8±1.4,37.˚86N×27.˚09E,h19km,mb4.4/10,Error ellipse: s-maj=6.1km s-min=3.6km az=92.6*
*ISK **01** 07:05:12.4,37.˚81N×26.˚96E,h9km,ML4.5/54*
*THE **01** 07:05:13.1,38.˚8N±1.˚1×27.˚7E±.˚1,h10km±5km,M4.1/23, ML4.1/23*
*MCSM **01** 07:05:13.0±0.3,38.˚8N±3.˚1×27.˚7E±.˚1,h10km,mB4.7,mb4.6, MLv4.6,Mw(mB)4.0*
*AFAD **01** 07:05:13.0,37.˚85N×27.˚01E,h7km±2km,ML4.5*
*NEIC **01** 07:05:13.7±1.4,37.˚83N±0.˚03×27.˚04E±0.˚05,h10km±1km, mb4.2/12,Error ellipse: s-maj=7.2km s-min=5.1km az=72.0*
*GFZ **01** 07:05:14.4±0.1,38.˚8N±2.˚1×27.˚7E±.˚1,h10km,M4.3/25, mb4.6/25,Mw4.4/18*
*SOF **01** 07:05:14.8,38.˚1N±0.˚3×27.˚1E±0.˚1,h13km,MD4.5/7*
*CFUSG **01** 07:05:16.0,37.˚90N×27.˚10E,h10km,Mb3.3/2,MD3.6/1, MSH3.6/6*
*GII **01** 07:05:17.8±0.0,37.˚174N±0.˚004×26.˚856E±0.˚001,h0km, Mws3.4,confirmed*
*NAO **01** 07:05:45.7,40.˚23N×24.˚47E,h10km,MB3.7*

ISC 01 07:05:13.5±0.6,37.˚82N±0.˚02×27.˚03E±0.˚02,h15km±4km, n496,σ1.˚83/533,mb4.2/28,MS3.4/14,31C-18D,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.20**	**127**	P	**Pg**	**07 05 18.3**	**+0.1**
GCAM				S	**Sg**	**07 05 21.9**	**+0.6**
GCAM				IAML		07 05 22.0	
	comp=N,14μm,0.5s						
GCAM				IAML		07 05 22.0	
	comp=E,6μm,0.2s						
GCAM	**G?zelcaml?**	**0.20**	**127**	Pg	**Pg**	**07 05 17.8**	**-0.4**
GCAM				Sg	**Sg**	**07 05 21.9**	**+0.6**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.21**	**79**	Pg	**Pg**	**07 05 18.1**	**-0.2**
KUSD				AML	AML		
DGB	**zmir**	**0.26**	**333**	P	**Pg**	**07 05 18.3**	**-0.8**
DGB				S	**Sg**	**07 05 21.5**	**-1.4**
DGB				IAML		07 05 22.0	
	comp=N,6μm,0.2s						
DGB				IAML		07 05 23.0	
	comp=E,5μm,0.3s						
KRL1	**Karlovasi Samo**	**0.26**	**264**	P	**Pg**	**07 05 18.4**	**-0.6**
KRL1				S	**Sg**	**07 05 22.4**	**-0.5**
GMLD	**Gumuldur**	**0.27**	**341**	Pg	**Pg**	**07 05 18.4**	**-0.9**
GMLD				Sg	**Sg**	**07 05 22.3**	**-0.9**
GMLD				AML	AML		
DDIM	**Aydin, Didim**	**0.40**	**155**	P	**Pg**	**07 05 21.6**	**0.0**
DDIM				IAML		07 05 28.0	
	comp=N,2μm,0.7s						
DDIM				IAML		07 05 28.0	
	comp=E,5μm,0.7s						
DDIM				S	**Sb**	**07 05 28.4**	**+0.2**
BEYE	**izmir**	**0.41**	**349**	P	**Pg**	**07 05 21.0**

FOCM Sg **Sg** 07 05 43.8 +0.4
FOCM AML AML
CAMT Merkez 0.95 13 P **Pb** 07 05 30.7 -1.0
CAMT S **Sn** 07 05 45.8 +0.2
CAMT IAML 07 05 47.0
comp=E,3µm,0.5s
CAMT IAML 07 05 52.0
comp=N,2µm,0.4s
CHOS Chios island 0.95 307 P **Pb** 07 05 30.5 -1.2
CHOS S **Sb** 07 05 43.7 -0.6
CHOS AML AML
CHOS Chios island 0.95 307 P **Pb** 07 05 30.6 -1.2
CHOS Chios island 0.95 307 Pg **Pb** 07 05 30.6 -1.2
CHOS AML AML
CHOS Chios island 0.95 307 P **Pb** 07 05 31.4 -0.4
CHOS S **Sb** 07 05 44.4 +0.1
KARB zmir-Karabur 0.97 330 P **Pb** 07 05 30.7 -1.4
KARB S **Sg** 07 05 45.3 +0.3
KARB IAML 07 05 47.0
comp=N,2µm,0.8s
KARB IAML 07 05 47.0
comp=E,2µm,0.5s
NAZL Nazilli-Aydin 1.01 82 Pg **Pn** 07 05 33.3 +0.1
NAZL AML AML
EAG2 Marmaro, Chios 1.02 315 P **Pb** 07 05 32.1 -0.8
ESEN Aydn-Nazilli 1.04 91 P **Pb** 07 05 33.2 -0.1
ESEN S **Sn** 07 05 48.5 +0.5
GOMA Golmarmara-Man 1.13 38 Pn **Pg** 07 05 35.2 -0.1
GOMA AML AML
ZEDA zmir-Bergama 1.14 2 P **Pb** 07 05 34.0 -0.9
ZEDA S **Sg** 07 05 50.4 -0.1
KIRA zmir-Kiraz 1.15 71 P **Pn** 07 05 35.2 +0.1
KIRA S **Sb** 07 05 49.0 -0.8
DAT Datca 1.18 158 Pn **Pn** 07 05 35.3 -0.2
DAT AML AML
KTTT Salihli 1.20 44 P **Pn** 07 05 35.5 -0.4
KTTT S **Sg** 07 05 52.2 -0.2
YER Yerkesik 1.21 124 P **Pn** 07 05 36.0 -0.1
YER S **Sn** 07 05 52.4 +0.2
YER AML AML
YER Yerkesik 1.21 124 P **Pn** 07 05 35.9 -0.1
YER S **Sn** 07 05 52.3 +0.2
YER Yerkesik 1.21 124 Pn **Pn** 07 05 35.9 -0.1
YER AML AML
AKS Akhisar 1.22 30 Pn **Pn** 07 05 35.8 -0.3
AKS AML AML
DKL Dikili 1.25 356 Pn **Pb** 07 05 36.9 +0.1
DKL AML AML
DKL Dikili 1.25 356 P **Pn** 07 05 35.5 -0.9
MANT Manisa 1.38 61 **Pn** 07 05 38.4 -0.1
MANT Sn **Sn** 07 05 55.9 -0.6
SOMA Soma-Manisa 1.39 16 Pn **Pn** 07 05 38.6 +0.2
SOMA AML AML
GORD Gordes-Manisa 1.41 39 Pn **Pb** 07 05 39.4 -0.2
GORD AML AML
TURN Turunc 1.43 137 Pn **Pn** 07 05 39.3 +0.5
TURN AML AML
AYVA Ayvalik 1.51 350 P **Pb** 07 05 40.6 -0.6
AYVA S **Sg** 07 06 02.3 +0.2
TNSA Tinos 1.51 260 P **Pn** 07 05 38.8 -1.1
TNSA AML AML
TAVA DENIZLI_Tavas 1.54 103 ⇑P **Pn** 07 05 41.1 +0.6
PRK Paraskevi 1.54 338 P **Pn** 07 05 39.6 -0.8
PRK S **Sn** 07 05 59.7 -0.5
PRK AML AML
PRK Paraskevi 1.54 338 P **Pn** 07 05 39.6 -0.8
DALY Dalyan (Mula) 1.64 127 Pn **Pb** 07 05 42.8 -0.6
DALY AML AML
YAYO Edremit-Balk 1.79 1 Pn **Pn** 07 05 44.4 +0.6
YAYO AML AML
ARG Arkhangelos 1.83 151 P **Pn** 07 05 44.8 +0.4
07 06 07.7
ARG Arkhangelos 1.83 151 **Pn** 07 05 44.8 +0.4
ARG Sn **Sn** 07 06 07.7 +0.5
ARG Arkhangelos 1.83 151 P **Pn** 07 05 45.0 +0.6
ARG Arkhangelos 1.83 151 P **Pn** 07 05 44.5 +0.1
APMY Acipayam-Deniz 1.84 100 Pn **Pn** 07 05 45.7 +1.1
APMY AML AML
THR8 Santorini-Mono 1.88 222 P **Pn** 07 05 43.6 -1.4
THR8 Santorini-Mono 1.88 222 P **Pn** 07 05 44.2 -0.9
THERA Ancient Thera, 1.91 221 P **Pn** 07 05 44.2 -1.4
THERA AML AML
THERA Ancient Thera, 1.91 221 P **Pn** 07 05 44.7 -0.9
THERA Ancient Thera, 1.91 221 P **Pn** 07 05 44.4 -1.2
THERA AML AML
THR3 Thira Island, 1.92 223 P **Pn** 07 05 45.0 -0.6
SNT5 Nea Kammeni, S 1.93 223 P **Pn** 07 05 45.3 -0.4
SAP3 Santorini-Thir 1.93 225 P **Pn** 07 05 45.1 -0.7
BALB Balikesir 1.93 20 **Pn** 07 05 45.2 -0.7
BALB Sn **Sn** 07 06 10.1 +0.2
BALB Balikesir 1.93 20 Pn **Pn** 07 05 47.1 +1.3
BALB AML AML
BALB Balikesir 1.93 20 P **Pn** 07 05 45.0 -0.8
BALY Balya 1.97 13 P **Pn** 07 05 45.5 -0.9
SIMA Simav-Kutahya 1.98 50 Pn **Pb** 07 05 48.2 -1.2
SIMA AML AML
SMAA Simav-Kutahya 1.99 50 Pn **Pb** 07 05 48.4 -1.1
SMAA AML AML
EZNE Ezine-Canakkal 2.00 345 Pn **Pn** 07 05 47.3 +0.6
CAME Cameli-Denizli 2.01 115 Pn **Pn** 07 05 48.4 +1.3
CAME AML AML
FETY Fethiye 2.02 125 Pn **Pn** 07 05 48.3 +1.2
FETY AML AML
KARY Karystos 2.06 277 P **Pn** 07 05 46.6 -1.0
KARY AML AML
KARY Karystos 2.06 277 P **Pn** 07 05 46.6 -1.0
EZN Ezine 2.07 345 P **Pn** 07 05 48.8 +1.0
EZN Ezine 2.07 345 Pn **Pn** 07 05 47.0 -0.8
EZN AML AML
EZN Ezine 2.07 345 Pn **Pn** 07 05 48.2 +0.4
EZN AML AML
SHAP Saphane-Kutahy 2.10 54 Pn **Pn** 07 05 49.6 +1.4
SHAP AML AML
YENI Yenice-Canakka 2.12 4 Pn **Pn** 07 05 49.6 +1.2
BOZC Bozcaada 2.16 340 Pn **Pn** 07 05 49.8 +0.9
BOZC AML AML
DST Dursunbey 2.17 34 Pn **Pn** 07 05 50.2 +1.0
DST AML AML
CANM Can-anakkale 2.19 0 Pn **Pn** 07 05 50.0 +0.7
CANM AML AML
GEDZ Gediz 2.23 56 Pn **Pb** 07 05 51.9 -1.7
GEDZ AML AML
KARP Karpathos 2.27 177 P **Pn** 07 05 49.9 -0.6
KARP AML AML
KARP Karpathos 2.27 177 **Pn** 07 05 49.8 -0.8
KARP Karpathos 2.27 177 Pn **Pn** 07 05 50.3 -0.3
KARP AML AML
KARP Karpathos 2.27 177 P **Pn** 07 05 50.7 +0.1
KARP AML AML
KARP Karpathos 2.27 177 P **Pn** 07 05 50.5 -0.1
KARP Karpathos 2.27 177 Pn **Pn** 07 05 51.0 +0.4
KARP AML AML
KARP Karpathos 2.27 177 P **Pn** 07 05 50.3 -0.3
KARP AML AML
GONE Gonen-Balikesi 2.28 13 Pn **Pn** 07 05 51.5 +0.9
GONE AML AML
SUSR Susurluk-Balik 2.29 21 Pn **Pn** 07 05 51.9 +1.1
SUSR AML AML
MHLO Agia Marina, M 2.38 242 P **Pn** 07 05 52.7 +0.7
BASM Basmaki-Afyon 2.39 87 Pn **Pn** 07 05 52.9 +0.7
BASM AML AML
KYMI Kymi, Euboea I 2.44 290 P **Pn** 07 05 52.2 -0.7
BIGA Biga-Canakkale 2.46 2 Pn **Pn** 07 05 53.9 +0.9
DION Dionisos Attik 2.46 277 P **Pn** 07 05 52.4 -0.8
DION AML AML
DION Dionisos Attik 2.46 277 P **Pn** 07 05 52.5 -0.7
DION AML AML
TVSB Tavsanli 2.50 49 Pn **Pn** 07 05 55.4 +1.6
TVSB AML AML
PTL Penteli 2.51 276 P **Pn** 07 05 53.2 -0.7
PTL AML AML
PTL Penteli 2.51 276 P **Pn** 07 05 53.1 -0.7
PTL AML AML
GADA Gvkgeada 2.52 340 P **Pn** 07 05 53.4 -0.6
GADA AML AML
LIA Limnos Island 2.52 326 P **Pn** 07 05 53.5 -0.5
LIA AML AML
ELL Elmali 2.53 114 P **Pn** 07 05 54.6 +0.4
ELL Elmali 2.53 114 **Pn** 07 05 54.6 +0.4
ELL Elmali 2.53 114 Pn **Pn** 07 05 55.8 +1.6

ELL AML AML
LPK Lapseki 2.56 355 Pn **Pn** 07 05 55.4 +1.0
LPK AML AML
VLY Voula,Athens 2.56 272 P **Pn** 07 05 53.8 -0.8
VLY AML AML
VLY Voula,Athens 2.56 272 P **Pn** 07 05 53.7 -0.8
VLY AML AML
ATHU Athens Univers 2.57 274 P **Pn** 07 05 53.8 -0.8
ATHU AML AML
ATHU Athens Univers 2.57 274 P **Pn** 07 05 53.8 -0.8
KRBG Karabiga-Canak 2.58 5 Pn **Pn** 07 05 55.8 +1.1
KRBG AML AML
AKAS Kas 2.60 127 **Pn** 07 05 55.5 +0.4
AKAS Kas 2.60 127 P **Pn** 07 05 57.4 +2.2
AKAS Kas 2.60 127 Pn **Pn** 07 05 56.2 +1.0
AKAS AML AML
EDC Edincik 2.60 14 Pn **Pn** 07 05 56.2 +1.1
EDC AML AML
GELI Tayfur-Gelibol 2.61 351 Pn **Pn** 07 05 54.9 -0.2
GELI AML AML
ATH Athens Observa 2.62 274 P **Pn** 07 05 54.0 -1.3
ATH Athens Observa 2.62 274 P **Pn** 07 05 54.9 -0.4
ATH AML AML
KCTX Karacabey (Bur 2.65 23 Pn **Pn** 07 05 57.2 +1.5
KCTX AML AML
ORLT Orhaneli 2.66 33 Pn **Pn** 07 05 57.0 +1.2
ORLT AML AML
ALT Altintas 2.71 62 Pn **Pn** 07 05 58.3 +1.6
ALT AML AML
ISP Isparta 2.77 89 P **Pn** 07 05 57.8 +0.4
ISP Isparta 2.77 89 **Pn** 07 05 57.8 +0.4
ISP Isparta 2.77 89 Pn **Pn** 07 05 57.9 +0.5
ISP AML AML
KORT Korkueli 2.77 106 Pn **Pn** 07 05 58.9 +1.4
KORT AML AML
STFN Stefani 2.78 278 P **Pn** 07 05 57.2 -0.3
STFN AML AML
ZKR Zakros 2.78 194 P **Pn** 07 05 60.0 +2.4
ZKR Zakros 2.78 194 Pn **Pn** 07 05 57.7 +0.2
ZKR AML AML
NPS Neapolis 2.80 204 P **Pn** 07 05 57.1 -0.6
NPS AML AML
NPS Neapolis 2.80 204 P **Pn** 07 05 57.1 -0.6
NPS Neapolis 2.80 204 P **Pn** 07 05 57.0 -0.7
NPS AML AML
AOS2 Alonissos-2 2.83 299 P **Pn** 07 05 57.5 -0.6
AOS2 AML AML
BCK Bucak 2.85 96 Pn **Pn** 07 06 00.3 +1.8
BCK AML AML
SHUT Suhut-Afyon 2.87 74 Pn **Pn** 07 06 00.6 +1.8
SHUT AML AML
SMTH Samothraki Isl 2.89 337 P **Pn** 07 05 58.5 -0.6
SMTH AML AML
SMTH Samothraki Isl 2.89 337 P **Pn** 07 05 58.3 -0.7
SMTH AML AML
CAVK Edirne/Enez-Ca 2.94 347 ⇑P **Pn** 07 05 59.7 0.0
VILL Villia 2.96 278 P **Pn** 07 05 59.6 -0.4
VILL AML AML
ENEZ Enez 2.99 347 P **Pn** 07 06 00.2 -0.1
ENEZ AML AML
VIL2 Platees 3.00 279 P **Pn** 07 05 59.5 -1.0
VIL2 AML AML
IDI Anoyia 3.06 215 Pn **Pn** 07 06 00.7 -0.7
24nm,0.4s,baz=40,slow=12,SNR=36
IDI Sn **Sn** 07 06 35.1 -2.7
22nm,0.3s,baz=319,slow=12,SNR=4.6
IDI Anoyia 3.06 215 P **Pn** 07 06 00.5 -0.9
IDI AML AML
IDI Anoyia 3.06 215 P **Pn** 07 06 00.7 -0.7
EPID Epidavros 3.11 267 P **Pn** 07 06 01.6 -0.5
ALN Alexandroupoli 3.16 346 P **Pn** 07 06 02.2 -0.5
ALN AML AML
ALN Alexandroupoli 3.16 346 P **Pn** 07 06 02.1 -0.7
ALN Alexandroupoli 3.16 346 **Pn** 07 06 02.1 -0.7
ALN Alexandroupoli 3.16 346 P **Pn** 07 06 02.5 -0.2
LOUT Loutraki 3.21 274 P **Pn** 07 06 02.0 -1.4
LTK Loutraki 3.22 275 P **Pn** 07 06 03.1 -0.5
LTK AML AML
ATAL Atalanti 3.27 287 P **Pn** 07 06 03.9 -0.3
YLV Yalova 3.29 33 Pn **Pn** 07 06 03.2 -1.4
YLV AML AML
VLI Veliai 3.44 253 P **Pn** 07 06 06.3 -0.4
VLI AML AML
KEPZ Antalya-Kepez 3.76 103 ⇑P **Pn** 07 06 12.7 +1.7
KLYT Kilyos 3.76 24 Pn **Pn** 07 06 11.0 0.0
KLYT AML AML
CTYL Yalikoy Yolu 3.77 15 Pn **Pn** 07 06 10.9 -0.3
CTYL AML AML
GVD Gavdhos 3.81 219 P **Pn** 07 06 15.7 +4.1
KLV Kalavryta, Ach 3.86 275 P **Pn** 07 06 12.3 -0.1
AGG Agios Georgios 3.88 289 P **Pn** 07 06 13.7 +1.1
AGG Agios Georgios 3.88 289 P **Pn** 07 06 13.7 +1.1
SILT Sile 3.89 30 ⇓P **Pn** 07 06 12.4 -0.3
KDZ Kurdzhali 4.02 342 P **Pn** 07 06 14.4 -0.1
ITM Ithomi 4.11 263 **Pn** 07 06 16.7 +0.9
ITM Ithomi 4.11 263 P **Pn** 07 06 17.3 +1.6
SOH Sokhos 4.13 318 P **Pn** 07 06 17.7 +1.6
SOH Sokhos 4.13 318 P **Pn** 07 06 17.8 +1.6
MDUR Mudurnu 4.18 49 **Pn** 07 06 17.8 +0.9
SRS Serrai 4.23 322 P **Pn** 07 06 18.4 +0.9
RZN Rozhen 4.25 336 P **Pn** 07 06 17.9 0.0
DIM Dimitrovgrad 4.36 346 P **Pn** 07 06 19.3 +0.1
MMB Musomishta 4.50 327 P **Pn** 07 06 21.7 +0.5
KNT Kendrikon 4.62 318 P **Pn** 07 06 26.1 +3.3
PLD Plovdiv 4.66 339 P **Pn** 07 06 23.6 +0.3
JMB Yambol 4.68 355 P **Pn** 07 06 22.9 -0.7
GRG Griva 4.76 313 P **Pn** 07 06 26.4 +1.7
KKUL Konya-Kulu 4.81 72 P **Pn** 07 06 28.1 +2.6
VAY Valandovo 4.91 317 *i* Pn **Pn** 07 06 28.4 +1.7
KKB Krupnik 5.01 324 P **Pn** 07 06 29.3 +1.1
PEHC Pehcevo 5.07 322 *i* Pn **Pn** 07 06 30.8 +1.8
ELND Elena 5.18 351 ⇑P **Pn** 07 06 30.0 -0.4
PLNA Plana 5.41 330 P **Pn** 07 06 35.0 +1.3
NEF NEVSHA 5.44 2 P **Pn** 07 06 34.2 +0.2
BR105 Keskin Array S 5.49 68 Pn **Pn** 07 06 35.4 +0.6
0.3nm592nm81nm,1.0s
BR105 AML AML
BR106 Keskin Array S 5.49 68 Pn **Pn** 07 06 35.4 +0.5
0.2nm584nm58nm,0.8s
BR106 AML AML
SZH Strazhitsa 5.50 352 P **Pn** 07 06 35.4 +0.6
BR104 Keskin Array S 5.50 68 Pn **Pn** 07 06 35.5 +0.5
0.3nm592nm45nm,0.8s
BR104 AML AML
BR131 Keskin Array S 5.50 68 *i* P **Pn** 07 06 36.4 +1.3
BR131 Keskin Array S 5.50 68 **Pn** 07 06 35.6 +0.5
BRTR Keskin Array B 5.50 68 Pn **Pn** 07 06 36.6 +1.6
1.9nm,0.3s,baz=247,slow=14,SNR=39
6.8nm,0.4s
BRTR AML AML
BRTR Keskin Array B 5.50 68 **Pn** 07 06 36.1 +1.0
LOZB Loznitsa 5.55 357 ⇑P **Pn** 07 06 35.1 -0.5
KBN Korca 5.59 302 P **Pn** 07 06 38.9 +2.7
comp=Z,57nm,1.0s
VTS Vitosha 5.60 330 P **Pn** 07 06 37.1 +0.7
RAZG Razgrad 5.75 356 ⇓P **Pn** 07 06 38.2 -0.1
CSS Mathiatis 5.83 117 **Pn** 07 06 38.8 -0.6
CSS Mathiatis 5.83 117 Pn **Pn** 07 06 39.9 +0.5
comp=Z,0.2nmcomp=Z,512nmcomp=Z,62nm,0.8s
CSS AML AML
CSS Mathiatis 5.83 117 P **Pn** 07 06 40.6 +1.2
comp=Z,0.2nmcomp=Z,510nmcomp=Z,62nm,0.8s
CSS AML AML
CSS Mathiatis 5.83 117 P **Pn** 07 06 40.3 +0.9
comp=Z,62nm,0.8s
CSS Mathiatis 5.83 117 P **Pn** 07 06 39.9 +0.5
OHR Ohrid 5.83 306 *i* Pn **Pn** 07 06 44.0 +4.5
PLVB Pleven 5.85 343 ⇑P **Pn** 07 06 40.5 +0.8
KEK Kerkira 5.96 291 Pn **Pn** 07 06 41.0 -0.1
SKO Skopje 5.97 316 *i* Pn **Pn** 07 06 44.0 +2.6
ILGA Ilgaz 6.10 56 **Pn** 07 06 43.8 +0.5
ICOR Ion Corvin 6.32 5 ⇓P **Pn** 07 06 46.6 +0.6
CION Ciocanesti 6.37 360 ⇑P **Pn** 07 06 47.0 +0.3
PHP Peshkopia 6.37 309 P **Pn** 07 06 50.2 +3.2
PHP Peshkopia 6.37 309 P **Pn** 07 06 50.1 +3.2
comp=Z,16nm,0.8s
BLKB Belogradchik 6.67 332 ⇑P **Pn** 07 06 51.3 +0.3
TIRR Tirgusor 6.71 9 P **Pn** 07 06 51.5 0.0
TIRR Tirgusor 6.71 9 **Pn** 07 06 51.5 0.0
TIRR Tirgusor 6.71 9 Pn **Pn** 07 06 51.3 -0.2
comp=Z,0.2nmcomp=Z,42nm,1.5s

TIRR AML AML
BZK Bozkurt 6.77 50 **Pn** 07 06 53.5 +1.3
BZK Bozkurt 6.77 50 Pn **Pn** 07 06 51.3 -1.0
comp=Z,0.5nmcomp=Z,120nm,0.9s
BZK AML AML
HUMR Humele 6.88 348 ⇑P **Pn** 07 06 53.9 +0.2
HUMR Humele 6.88 348 P **Pn** 07 06 54.0 +0.2
comp=Z,97nm,0.7s
CY604 RAF Akrotiri, 6.98 118 **Pn** 07 06 55.1 +0.1
BNN Bunyan 7.01 79 Pn **Pn** 07 06 56.5 +0.8
BOVS Bovan 7.07 327 ⇑P **Pn** 07 06 57.3 +0.9
TPGR Topolog 7.11 8 ⇓P **Pn** 07 06 57.7 +0.8
ANDN Andirin 7.39 89 P **Pn** 07 07 05.2 +4.3
comp=Z,48nm,0.8s
CFR Carcaliu 7.40 6 P **Pn** 07 07 00.9 +0.1
CFR Carcaliu 7.40 6 ⇑P **Pn** 07 07 01.0 +0.1
TLCR 7.48 10 ⇓P **Pn** 07 07 02.3 +0.3
TLCR 7.48 10 P **Pn** 07 07 02.3 +0.3
TLCR 7.48 10 ⇓P **Pn** 07 07 02.3 +0.3
PDG Podgorica 7.53 310 **Pn** 07 07 03.4 +0.8
PDG Podgorica 7.53 310 ⇓P **Pn** 07 07 02.9 +0.2
PDG Podgorica 7.53 310 P **Pn** 07 07 02.3 -0.3
comp=Z,21nm,1.0s
MLR Muntele Rosu 7.71 354 Pn **Pn** 07 07 06.1 +0.8
comp=Z,1.3nm,0.3s,baz=276,slow=22,SNR=7.5
MLR LR LR 07 10 26.4
comp=Z,286nm,18.6s,baz=183,slow=40
comp=Z,4.8nm,0.4s
MLR AML AML
MLR Muntele Rosu 7.71 354 ⇓P **Pn** 07 07 06.2 +1.0
MLR Muntele Rosu 7.71 354 P **Pn** 07 07 06.2 +1.0
MLR Muntele Rosu 7.71 354 **Pn** 07 07 05.8 +0.5
MLR Muntele Rosu 7.71 354 ⇓P **Pn** 07 07 06.2 +1.0
MLR Muntele Rosu 7.71 354 Pn **Pn** 07 07 05.1 -0.2
comp=Z,0.3nmcomp=Z,66nm,0.9s
MLR AML AML
MLR Muntele Rosu 7.71 354 P **Pn** 07 07 06.3 +1.0
comp=Z,66nm,0.9s
ARR Arges 7.75 347 ⇓P **Pn** 07 07 05.2 -0.6
ARR Arges 7.75 347 P **Pn** 07 07 09.5 +3.7
comp=Z,17nm,0.9s
VOIR 7.75 350 P **Pn** 07 07 05.5 -0.3
VOIR 7.75 350 ⇑P **Pn** 07 07 05.5 -0.3
VOIR 7.75 350 Pn **Pn** 07 07 05.5 -0.3
comp=Z,0.1nmcomp=Z,19nm,0.8s
VOIR AML AML
VOIR 7.75 350 P **Pn** 07 07 05.8 -0.1
comp=Z,19nm,0.8s
HERR Herculane 7.86 335 ⇑P **Pn** 07 07 07.3 +0.1
SAHR Sahastru 7.90 358 ⇑P **Pn** 07 07 09.0 +1.1
LOT Lotru 8.00 343 ⇓P **Pn** 07 07 09.2 -0.1
LOT Lotru 8.00 343 P **Pn** 07 07 10.6 +1.3
comp=Z,31nm,0.7s
MDVR Moldovita 8.02 332 ⇓P **Pn** 07 07 09.6 +0.1
PLOR Plostina 8.03 358 P **Pn** 07 07 10.3 +0.7
PLOR Plostina 8.03 358 ⇓P **Pn** 07 07 10.3 +0.7
COVR Voineasa-Covas 8.04 356 ⇑P **Pn** 07 07 10.6 +0.9
VRI Vrincioaia 8.04 358 P **Pn** 07 07 09.8 +0.1
VRI Vrincioaia 8.04 358 ⇑P **Pn** 07 07 09.9 +0.1
VRI Vrincioaia 8.04 358 Pn **Pn** 07 07 09.4 -0.3
comp=Z,49nm,0.7s
VLDR Vladesti 8.05 5 ⇑P **Pn** 07 07 10.3 +0.5
GAZ Gaziantep 8.12 91 Pn **Pn** 07 07 10.7 -0.2
TIP Timpagrande 8.17 283 **Pn** 07 07 12.5 +1.0
TIP Timpagrande 8.17 283 ⇑P **Pn** 07 07 12.5 +1.0
TIP Timpagrande 8.17 283 Pn **Pn** 07 07 11.7 +0.1
comp=Z,429nmcomp=Z,39nm,1.0s
TIP Timpagrande 8.17 283 P **Pn** 07 07 13.1 +1.5
comp=Z,48nm,1.0s
TURR Turia 8.26 355 ⇓P **Pn** 07 07 13.8 +1.0
TURR Turia 8.26 355 ⇓P **Pn** 07 07 13.8 +1.0
BOSR Bodos 8.31 353 ⇑P **Pn** 07 07 14.3 +0.8
OZUR 8.32 354 P **Pn** 07 07 14.1 +0.5
OZUR 8.32 354 ⇑P **Pn** 07 07 14.1 +0.5
MMA0B Mount Meron ar 8.35 123 P **Pn** 07 07 12.8 -1.3
MMA0B S **Sn** 07 08 43.7 -4.5
MMAI Mount Meron Ar 8.35 123 Pn **Pn** 07 07 11.8 -2.2
comp=Z,8.6nm,0.4s,baz=334,slow=17,SNR=20
MMAI Sn **Sn** 07 08 42.5 -5.6
comp=Z,8.1nm,0.3s,baz=322,slow=33,SNR=7.1
MMAI LR LR 07 11 29.1
comp=Z,202nm,18.5s,baz=336,slow=46
SEV Sevastopol' 8.37 35 *e*P **Pn** 07 07 13.6 -0.7
SEV *e*S **Sn** 07 08 43.2 -5.3
SEV Sevastopol' 8.37 35 *e*P **Pn** 07 07 13.6 -0.7
SEV pmax pmax 07 07 36.7
comp=Z,12nm,0.6s
SEV *e*S **Sn** 07 08 43.2 -5.3
SEV smax smax 07 08 43.6
comp=N,12nm,0.7s
SEV smax smax 07 08 43.6
comp=E,12nm,0.5s
GEM Giv'at Ha'Em 8.41 121 P **Pn** 07 07 15.3 +0.5
GEM Giv'at Ha'Em 8.41 121 P **Pn** 07 07 14.3 -0.6
GEM S **Sn** 07 08 45.7 -3.8
NATI Neve Ativ 8.43 120 P **Pn** 07 07 14.3 -0.8
NATI S **Sn** 07 08 47.4 -2.6
MDB Medias 8.54 348 P **Pn** 07 07 17.3 +0.7
MDB Medias 8.54 348 ⇑P **Pn** 07 07 17.4 +0.7
YAL Yalta 8.55 37 *e*S **Sn** 07 08 47.3 -5.6
YAL smax smax 07 09 03.9
comp=N,32nm,0.9s
YAL smax smax 07 09 03.9
comp=E,21nm,0.4s
DEV Deva 8.62 340 P **Pn** 07 07 19.1 +1.4
comp=Z,27nm,0.7s
TESR Tescani 8.69 358 ⇑P **Pn** 07 07 18.5 -0.1
TESR Tescani 8.69 358 Pn **Pn** 07 07 18.4 -0.2
comp=Z,45nm,0.8s
TESR Tescani 8.69 358 P **Pn** 07 07 19.1 +0.5
comp=Z,45nm,0.8s
MMLI Mount Malkishu 8.72 126 P **Pn** 07 07 18.4 -0.7
MMLI S **Sn** 07 08 52.7 -4.5
SURR Surduc 8.73 337 ⇑P **Pn** 07 07 19.4 +0.2
BZS Buzias 8.77 334 P **Pn** 07 07 19.9 +0.1
BZS Buzias 8.77 334 ⇑P **Pn** 07 07 20.0 +0.1
BZS Buzias 8.77 334 P **Pn** 07 07 19.9 +0.1
comp=Z,19nm,0.8s
CEL Celeste 8.80 276 **Pn** 07 07 20.5 +0.3
CEL Celeste 8.80 276 Pn **Pn** 07 07 21.3 +1.1
comp=Z,26nm,1.0s
CEL Celeste 8.80 276 P **Pn** 07 07 16.4 -3.8
comp=Z,22nm,0.8s
ALU Alushta 8.82 37 *e*S **Sn** 07 08 52.8 -6.6
ALU smax smax 07 08 57.5
comp=N,21nm,0.5s
ALU smax smax 07 08 57.5
comp=E,8.0nm,0.4s
DNZ2 Donuzlav2 8.85 30 *e*P **Pn** 07 07 16.9 -3.9
DNZ2 pmax pmax 07 07 41.0
comp=Z,13nm,0.5s
DNZ2 *e*S **Sn** 07 08 56.4 -3.8
DNZ2 smax smax 07 09 06.6
comp=N,50nm,0.9s
DNZ2 smax smax 07 09 06.6
comp=E,47nm,0.9s
QRNJ Al-Qirein 8.89 125 P **Pn** 07 07 21.9 +0.6
comp=E,15nmcomp=E,41µmcomp=E,5µm,0.7s
QRNJ AML AML
SIM Simferopol' 8.89 35 *e*P **Pn** 07 07 23.2 +1.8
SIM *e*S **Sn** 07 09 03.0 +1.8
SIM MLR MLR
comp=Z,65nm,15.0s
SIM Simferopol' 8.89 35 *e*S **Sn** 07 08 57.0 -4.2
SIM smax smax 07 09 01.0
comp=N,26nm,0.4s
SIM smax smax 07 09 01.0
comp=E,25nm,0.5s
PURM Purcari 8.95 13 Pn **Pn** 07 07 22.3 +0.1
comp=E,4µmcomp=E,77nm,0.9s
ARPR Arapgir-MALATY 8.96 78 P **Pn** 07 07 27.1 +4.5
comp=Z,17nm,0.8s
RGMN Argaman 8.96 126 P **Pn** 07 07 21.1 -1.3
RGMN S **Sn** 07 08 58.1 -4.9
CUC Castrocucco 9.01 287 **Pn** 07 07 23.8 +0.8
CUC Castrocucco 9.01 287 P **Pn** 07 07 24.9 +1.8
comp=Z,22nm,0.9s
YITV Yitav 9.05 128 P **Pn** 07 07 22.2 -1.4
YITV S **Sn** 07 08 59.5 -5.7
MARCO Tramutola 9.07 289 P **Pn** 07 07 26.7 +2.7
comp=Z,37nm,1.1s
ACER Acerenza 9.09 292 **Pn** 07 07 24.5 +0.4
BIZ Bicaz 9.14 356 ⇑P **Pn** 07 07 24.7 0.0
KZIT Kziot 9.20 136 P **Pn** 07 07 25.5 -0.2

comp=Z,911nmcomp=Z,127nm,0.8s
KZIT **Kziot** 9.20 136 P Pn 07 07 25.0 -0.7
comp=Z,127nm,0.8s
KZIT **Kziot** 9.20 136 P Pn 07 07 23.3 -2.4
KZIT S Sn 07 09 01.1 -7.8
CJR **Cluj-Napoca** 9.24 345 P Pn 07 07 26.5 +0.3
CJR **Cluj-Napoca** 9.24 345 ⇓P Pn 07 07 26.6 +0.3
SUDU **Sudak** 9.26 38 *e*S Sn 07 09 08.3 -1.9
SUDU smax smax 07 09 17.0
comp=N,60nm,0.6s,comp=E,44nm,0.6s
SIRR **Siria** 9.33 336 ⇑P Pn 07 07 27.2 -0.2
MSBI **Mazada** 9.45 131 P Pn 07 07 26.7 -2.4
MSBI S Sn 07 09 07.9 -7.1
DRGR 9.51 342 P Pn 07 07 30.4 +0.4
DRGR 9.51 342 ⇓P Pn 07 07 30.5 +0.4
RMNI **Mount Ramon** 9.64 136 P Pn 07 07 29.7 -2.1
RMNI S Sn 07 09 11.2 -8.6
ASF **Jabal al Asfar** 9.83 122 Pn Pn 07 07 33.5 -1.4
comp=E,1.3nm,0.3s,baz=301,slow=15,SNR=7.5
comp=E,5.6nm,0.6s
ASF AML AML
BURAR **Bucovina Array** 9.88 353 P Pn 07 07 35.6 +0.7
BURAR **Bucovina Array** 9.88 353 Pn Pn 07 07 35.7 +0.7
BURAR **Bucovina Array** 9.88 353 ⇑P Pn 07 07 35.7 +0.7
BUR08 **Bucovina Ar. S** 9.91 353 Pn Pn 07 07 36.1 +0.6
PRNI **Paran** 9.96 136 P Pn 07 07 36.2 +0.1
comp=E,94nm,0.8s
VAE **Valguarnera** 10.01 272 Pn Pn 07 07 38.5 +1.7
comp=E,8.5nm,0.8s,baz=154,slow=3.1,SNR=3.6
RAFF **Raffo Rosso** 10.08 270 Pn 07 07 37.2 -0.5
BLY **Banja Luka** 10.13 316 Pn 07 07 40.0 +1.6
BLY **Banja Luka** 10.13 316 P Pn 07 07 40.7 +2.3
comp=Z,21nm,0.8s
PAOL **Paolisi** 10.16 292 Pn 07 07 38.9 0.0
BMR **Baia Mare** 10.18 346 P Pn 07 07 43.3 +4.2
comp=Z,29nm,0.6s
HRFI **Mount Harif** 10.22 137 P Pn 07 07 39.4 -0.3
comp=Z,28nm,0.7s
HRFI **Mount Harif** 10.22 137 P Pn 07 07 38.5 -1.3
comp=Z,28nm,0.7s
HRFI **Mount Harif** 10.22 137 P Pn 07 07 37.5 -2.2
HRFI S Sn 07 09 25.4 -8.7
SORM **Soroca** 10.35 5 Pn Pn 07 07 40.3 -1.1
comp=Z,14nm,0.8s
MORH **Mrgy, Hungar** 10.45 326 ⇑P Pn 07 07 43.0 +0.3
MORH **Mrgy, Hungar** 10.45 326 Pn Pn 07 07 42.8 +0.1
comp=Z,10nm,0.6s
MORH **Mrgy, Hungar** 10.45 326 P Pn 07 07 42.6 -0.1
comp=Z,12nm,0.6s
EIL **Elat** 10.46 139 Pn Pn 07 07 39.9 -3.2
comp=Z,2.0nm,0.3s,baz=308,slow=3.0,SNR=11
EIL Sn Sn 07 09 30.9 -9.1
comp=E,5.2nm,0.3s,baz=356,slow=18,SNR=6.8
comp=Z,8.5nm,0.4s
EIL AML AML
EIL **Elat** 10.46 139 P Pn 07 07 43.2 +0.2
EIL **Elat** 10.46 139 P Pn 07 07 44.5 +1.4
comp=Z,19nm,0.6s
EIL **Elat** 10.46 139 P Pn 07 07 39.1 -3.9
EIL S Sn 07 09 31.1 -8.9
KMPD **K-Podol'skiy** 10.74 358 Pn Pn 07 07 46.7 0.0
INTR **Introdacqua** 10.91 297 Pn 07 07 49.7 +0.6
CLTB **Caltabellotta** 10.95 273 P Pn 07 07 53.1 +3.4
comp=Z,37nm,0.9s
SOC **Sochi** 11.21 55 *e*P Pn 07 07 53.8 +0.6
SOC *e* 07 09 59.6
SOC MLR MLR
comp=Z,170nm,18.0s
PSZ **Piszkesteto** 11.36 335 P Pn 07 07 56.2 +0.9
PSZ **Piszkesteto** 11.36 335 Pn 07 07 56.2 +0.9
KOLS **Kolonicke sedl** 11.63 344 *e*P Pn 07 08 03.4 +4.5
KOLS **Kolonicke sedl** 11.63 344 *e*PN Pn 07 08 03.4 +4.5
KOLS **Kolonicke sedl** 11.63 344 P Pn 07 08 03.7 +4.8
comp=Z,5.9nm,0.7s
MPLH **Magyarpolny** 11.67 326 Pn Pn 07 07 59.5 +0.1
MPLH **Magyarpolny** 11.67 326 P Pn 07 08 03.0 +3.6
comp=Z,12nm,1.2s
NRCA **Norcia** 11.74 300 Pn 07 08 01.1 +0.6
FDMO **Fiordimonte** 11.83 300 Pn 07 08 01.4 -0.3
CESX **Cesi** 12.03 298 Pn 07 08 05.5 +1.0
LUBAR **Lubar, Ukraine** 12.11 2 Pn Pn 07 08 05.2 -0.2
VYHS **Vyhne** 12.22 333 *e*P Pn 07 08 11.1 +4.1
VYHS **Vyhne** 12.22 333 *e*PN Pn 07 08 11.1 +4.1
MURB **Monte Urbino** 12.29 301 07 08 09.2 +1.1
SOKA **Soboth** 12.53 319 *e*Pn Pn 07 08 13.4 +2.1
comp=Z,0.6nm,0.4s
RONA **Rosalia, Austr** 12.62 325 *e*Pn Pn 07 08 15.2 +2.7
comp=Z,0.9nm,0.4s
GEVA **Gevas** 12.65 83 Pn Pn 07 08 13.8 +0.8
OBKA **Obir** 12.68 317 *e*Pn Pn 07 08 18.0 +4.7
comp=Z,1.1nm,0.5s
AK07 **Malin Array Si** 12.82 6 Pn Pn 07 08 15.0 -0.1
AK06 **Malin Array Si** 12.85 6 Pn Pn 07 08 15.4 -0.2
AK10 **Malin Array Si** 12.87 6 Pn Pn 07 08 15.7 -0.1
AK05 **Malin Array Si** 12.89 6 Pn Pn 07 08 15.9 -0.1
SABO **M.te Sabotino** 12.89 313 Pn Pn 07 08 17.7 +1.5
AK09 **Malin Array Si** 12.89 6 Pn Pn 07 08 15.9 -0.2
AK14 **Malin Array Si** 12.89 6 Pn Pn 07 08 15.9 -0.2
AK08 **Malin Array Si** 12.91 6 Pn Pn 07 08 16.2 -0.1
AK12 **Malin Array Si** 12.91 6 Pn Pn 07 08 16.2 -0.1
AKASG **Malin Array Be** 12.97 6 Pn Pn 07 08 20.2 +3.0
comp=Z,0.6nm,0.3s,baz=194,slow=11,SNR=5.2
AKASG LR LR 07 13 04.4
comp=Z,120nm,19.8s,baz=231,slow=36
AKASG AML AML
AKBB **Malin Array Si** 12.97 6 *i* P Pn 07 08 15.8 -1.4
DRE **Drenchia** 12.98 314 P Pn 07 08 17.9 +0.5
comp=Z,4.7nm,0.8s
CONA **Conrad Observa** 12.99 325 *e*Pn Pn 07 08 20.4 +2.9
comp=Z,0.5nm,0.3s
SESA **Seetaler Alpe,** 13.05 319 *e*Pn Pn 07 08 23.1 +4.5
comp=Z,1.0nm,0.5s
NEUR **Neytrino** 13.09 61 *i* P Pn 07 08 20.1 +1.0
KIV **Kislovodsk** 13.33 58 *e*P Pn 07 08 21.4 -0.8
KIV pmax pmax
comp=Z,4.0nm,1.0s
KIV MLR MLR
comp=Z,91nm,13.0s
KBZ **Khabaz** 13.39 59 LR LR 07 14 22.8
comp=Z,140nm,19.7s,baz=210,slow=41
KBZ **Khabaz** 13.39 59 *i* P Pn 07 08 23.5 +0.6
RNPP5 **Staryi Chortor** 13.43 357 Pn Pn 07 08 23.4 0.0
KBA **Koelnbreinsper** 13.68 317 *e*Pn Pn 07 08 30.5 +3.5
comp=Z,1.0nm,0.5s
VRAC **Vranov** 13.73 330 Pn Pn 07 08 31.7 +4.1
comp=Z,0.4nm,0.3s,baz=147,slow=10,SNR=6.6
comp=Z,0.8nm,0.4s
VRAC AML AML
ABTA **Abfaltersbach** 13.95 314 *e*Pn P 07 08 39.4 +0.7
comp=Z,1.8nm,0.6s
GNI **Garni** 13.97 75 LR LR 07 13 54.8
comp=Z,182nm,18.8s,baz=294,slow=37
CTI **Castel Tesino** 14.07 311 P Pn 07 08 33.0 +0.6
CTI **Castel Tesino** 14.07 311 Pn 07 08 33.0 +0.6
KEST **Kesra** 14.33 267 Pn Pn 07 08 37.5 +1.6
comp=Z,0.4nm,0.3s,baz=76,slow=8.4,SNR=4.6
comp=Z,2.8nm,0.8s
KEST AML AML
CKRC **Cesky Krumlov** 14.35 324 *e*P P 07 08 44.7 +1.6
CKRC **Cesky Krumlov** 14.35 324 *e*P P 07 08 44.7 +1.6
GEC2 **GERESS Array S** 14.65 323 Pn Pn 07 08 40.4 +0.1
GERES **GERESS Array B** 14.65 323 Pn P 07 08 44.9 -1.7
baz=133,slow=12,SNR=18
comp=Z,1.2nm,0.6s
GERES **GERESS Array B** 14.65 323 Pn Pn 07 08 41.6 +1.3
DPC **Dobruska-Polom** 14.68 332 *e*P P 07 08 52.4 +5.7
DPC **Dobruska-Polom** 14.68 332 *e*P P 07 08 52.4 +5.7
WTTA **Wattenberg** 14.73 315 *e*Pn P 07 08 44.8 -2.7
comp=Z,1.9nm,0.4s
WATA **Walderalm** 14.81 315 *e*Pn P 07 08 46.7 -1.6
comp=Z,1.8nm,0.3s
ZVC **Zvikov** 14.85 326 *e*P P 07 08 49.9 +1.3
OSTC **Ostas** 14.88 332 *e*P P 07 08 53.1 +4.1
OSTC **Ostas** 14.88 332 *e*P P 07 08 53.1 +4.1
KHC **Kasperske Hory** 14.91 324 *e*P P 07 08 50.5 +1.2
KHC **Kasperske Hory** 14.91 324 Pn Pn 07 08 44.7 +1.0
KHC **Kasperske Hory** 14.91 324 *e*P P 07 08 50.5 +1.2
MOTA **Moosalm** 15.08 314 *i* Pn P 07 08 50.0 -1.3
comp=Z,1.5nm,0.5s
PRU **Pruhonice** 15.10 328 *e*P P 07 08 56.2 +4.8
PRU **Pruhonice** 15.10 328 *e*P P 07 08 56.2 +4.8
FETA **Feichten** 15.12 313 *e*Pn P 07 08 52.1 +0.3
comp=Z,0.8nm,0.5s
DAVOX **Davos/Dischmat** 15.50 311 Pn Pn 07 08 53.7 +2.0
comp=Z,0.1nm,0.3s,baz=156,slow=21,SNR=5.1
comp=Z,1.8nm,0.8s
DAVOX AML AML
PVCC **Panska Ves** 15.50 329 *e*P P 07 09 01.0 +5.2
PVCC **Panska Ves** 15.50 329 *e*P P 07 09 01.0 +5.2
DAVA **Damuels** 15.75 312 *i* Pn P 07 08 59.4 +0.6
comp=Z,2.4nm,0.5s
VORD **Divnogorie** 15.77 30 *e*P P 07 08 58.8 +0.1
VORD pmax pmax
comp=Z,5.0nm,0.5s
VSR **Storozhevoye** 15.91 29 *e*P Pn 07 08 55.7 -1.1
VSR pmax pmax
comp=Z,10.0nm,1.2s
BRG **Berggiesshubel** 16.02 329 *e*P P 07 09 07.3 +5.7
BRG Amp 07 09 08.0
comp=Z,4.7nm,0.9s
HSKC **Hora Svate Kat** 16.04 327 *e*P P 07 09 06.6 +4.8
NKC **Novy Kostel** 16.21 325 *e*P P 07 09 08.4 +4.7
NKC **Novy Kostel** 16.21 325 *e*P P 07 09 08.4 +4.7
VORR **Voronezh** 16.29 28 *e*P Pn 07 08 57.5 -4.1
VORR pmax pmax
comp=Z,30nm,0.4s
MAK **Makhachkala** 16.41 65 *c i*P Pn 07 08 59.5 -3.7
MAK *e*S Sn 07 11 59.1 -5.9
MAK pmax pmax
comp=Z,293nm,1.8s
MAK MLR MLR
comp=Z,127nm,13.0s
CLL **Collm** 16.74 328 *e*P Pn 07 09 08.0 +0.7
CLL **Collm** 16.74 328 *e*P Pn 07 09 08.0 +0.7
CLL *e*(PP) sP 07 09 15.0 -0.7
comp=Z,6.0nm,0.9s
CLL *ex* x 07 09 47.0
CLL *e*S S 07 12 24.0 +0.2
CLL LH 07 13 00.0
CLL AMS AMS 07 14 00.0
comp=N,200nm,23.1s
CLL AMS AMS 07 14 00.0
comp=E,300nm,18.8s
CLL AMS AMS 07 15 00.0
comp=Z,200nm,15.1s
BNI **Bardonecchia** 16.86 302 P Pn 07 09 09.8 +0.8
BNI pmax pmax
comp=Z,21nm,1.3s
BNI **Bardonecchia** 16.86 302 Pn Pn 07 09 09.8 +0.8
BNI IAmb IAmb 07 09 38.3
comp=Z,21nm,1.3s
SENIN **Lac Senin/Sane** 16.92 307 P 07 09 11.0 -0.8
VRH **Novokhopyorsk** 16.95 33 *e*P P 07 09 15.4 +3.6
VRH pmax pmax
comp=Z,8.0nm,0.8s
LPSR **Galich'ya Gora** 16.95 26 *e*P Pn 07 09 06.9 -3.1
LPSR pmax pmax
comp=Z,9.0nm,0.6s
NACGM **Naroch** 17.09 360 *e*P P 07 09 13.5 +0.1
comp=Z,10.0nm,0.9s,baz=179
OBN **Obninsk** 18.47 17 LR LR 07 16 06.0
comp=Z,100nm,19.8s,baz=60,slow=35
OBN **Obninsk** 18.47 17 ⇑*e*P P 07 09 26.3 -2.3
OBN *e*S Sn 07 12 53.5 -1.2
OBN pmax pmax
comp=Z,10.0nm,0.6s
OBN MLR MLR
comp=Z,93nm,18.0s
MOS **Moscow** 19.29 18 *e*P P 07 09 36.9 -0.7
MOS pmax pmax
comp=Z,22nm,0.8s
BELG **Belogornoye** 20.48 38 P P 07 09 50.5 0.0
comp=Z,20nm,1.0s,baz=313,slow=4.8,SNR=4.2
comp=Z,20nm,1.0s
BELG **Belogornoye** 20.48 38 *i* P P 07 09 47.7 -2.8
BELG pmax pmax
comp=Z,6.0nm,1.1s
RAYN **Ar Rayn** 21.29 127 P P 07 10 04.9 +5.3
comp=Z,6.9nm,1.1s
FINES **FINESS Array B** 23.65 359 P P 07 10 25.4 +1.4
comp=Z,1.8nm,0.8s,baz=158,slow=11,SNR=4.8
comp=Z,1.8nm,0.8s
FINES **FINESS Array B** 23.65 359 P P 07 10 24.9 +0.9
FIA1 **FINESS Array S** 23.65 359 P P 07 10 24.5 +0.5
HFS **Hagfors** 23.89 343 LR LR 07 20 28.8
comp=Z,222nm,18.9s,baz=165,slow=38
ESBB **Sonseca Array** 24.18 284 P P 07 10 28.8 -0.5
ESBB IAmb IAmb 07 11 07.1
comp=Z,11nm,1.4s
ESDC **Sonseca Array** 24.18 284 P P 07 10 29.0 -0.4
comp=Z,1.3nm,0.8s,baz=78,slow=11,SNR=9.6
ESDC LR LR 07 19 23.5
comp=Z,45nm,19.1s,baz=75,slow=35
comp=Z,1.3nm,0.8s
ESDC **Sonseca Array** 24.18 284 P P 07 10 28.9 -0.4
KLMR **Klimovskoe** 24.36 15 *e*P P 07 10 29.7 -0.9
KLMR pmax pmax
comp=Z,20nm,1.2s
PAB **San Pablo** 24.49 284 P P 07 10 32.6 +0.4
PAB pmax pmax
comp=Z,9.0nm,1.3s
PAB **San Pablo** 24.49 284 P P 07 10 32.6 +0.4
PAB IAmb IAmb 07 10 59.2
comp=Z,8.5nm,1.2s
NB2 **NORSAR Subarra** 25.27 342 P P 07 10 43.2 +4.2
comp=Z,2.5nm,0.7s,baz=153,slow=11
NOA **NORSAR Array B** 25.27 342 P P 07 10 40.8 +1.8
comp=Z,0.7nm,0.6s,baz=161,slow=11,SNR=5.8
NOA LR LR 07 21 29.1
comp=Z,95nm,18.6s,baz=160,slow=38
comp=Z,0.7nm,0.6s
KIRV **Kirov** 25.35 28 LR LR 07 21 56.7
comp=Z,88nm,21.6s,baz=231,slow=40
KIRV **Kirov** 25.35 28 *i* P P 07 10 39.8 +0.2
AKTO **Aktyubinsk** 25.36 50 LR LR 07 22 43.4
comp=Z,78nm,18.5s,baz=12,slow=41
MDT **Midelt** 26.22 269 LR LR 07 21 30.7
comp=Z,33nm,21.6s,baz=94,slow=37
AB31 **Akbulak array** 26.25 54 P P 07 10 48.3 +0.4
ABKAR **Akbulak array** 26.25 54 P P 07 10 49.0 +1.1
MD01 **Midelt array s** 26.32 269 P P 07 10 50.6 +1.7
EKA **Eskdalemuir Ar** 26.84 320 P P 07 10 55.2 +2.1
comp=Z,1.7nm,0.7s,baz=110,slow=12,SNR=4.1
comp=Z,1.7nm,0.7s
ARTI **Arti** 27.92 38 LR LR 07 24 11.7
comp=Z,39nm,19.3s,baz=256,slow=41
ARTI **Arti** 27.92 38 *i* P P 07 11 03.3 +0.4
ARTI pmax pmax
comp=Z,40nm,3.9s
ARTI **Arti** 27.92 38 P P 07 11 04.1 +1.2
ARCES **ARCESS Array B** 31.78 359 LR LR 07 24 31.0
comp=Z,117nm,19.1s,baz=212,slow=36
TORD **Torodi Ar. Bea** 33.36 229 P P 07 11 51.1 -0.1
comp=Z,2.1nm,0.7s,baz=34,slow=8.4,SNR=11
comp=Z,2.1nm,0.7s
BORK **Borovoye** 33.40 49 *i* P P 07 11 49.5 -1.8
BORK pmax pmax
comp=Z,2.0nm,0.8s
AAK **Ala-Archa** 36.18 67 LR LR 07 29 23.6
comp=Z,56nm,18.8s,baz=292,slow=40
AAK **Ala-Archa** 36.18 67 *i* P P 07 12 14.9 -0.7
AAK pmax pmax
comp=Z,5.0nm,1.2s
NIL **Nilore** 37.46 82 P P 07 12 26.9 +0.5
NIL pmax pmax
comp=Z,15nm,1.0s
NIL **Nilore** 37.46 82 P P 07 12 26.9 +0.5
NIL **Nilore** 37.46 82 P P 07 12 28.2 +1.8
comp=Z,16nm,0.5s
NRN **Naryn** 37.49 69 P P 07 12 27.3 +0.3
NRN pmax pmax
comp=Z,6.0nm,1.0s
NRN **Naryn** 37.49 69 P P 07 12 27.3 +0.3
NRN IAmb IAmb 07 12 34.2
comp=Z,6.3nm,1.0s
KSH2 **Kashi** 37.66 73 P P 07 12 30.2 +2.0
KSH2 pmax pmax
comp=Z,5.0nm,1.1s
KURBB **Kurchatov Arra** 38.30 54 P P 07 12 34.6 +1.4
comp=Z,3.0nm,0.7s,baz=278,slow=8.6,SNR=17
comp=Z,3.0nm,0.7s
KURK **Kurchatov** 38.36 53 P P 07 12 33.6 -0.1
KURK pmax pmax
comp=Z,2.0nm,0.9s
KURK **Kurchatov** 38.36 53 P P 07 12 33.6 -0.1
MBAR **Mbarara** 38.39 174 *i* P P 07 12 33.7 -0.8
MBAR pmax pmax
comp=Z,6.0nm,1.6s
MK31 **Makanchi Array** 41.09 59 *i* P P 07 12 58.2 +1.7
MKAR **Makanchi Array** 41.09 59 P P 07 12 57.4 +0.8
comp=Z,1.5nm,0.6s,baz=270,slow=8.5,SNR=4.3
comp=Z,1.5nm,0.6s
MKAR **Makanchi Array** 41.09 59 P P 07 12 57.2 +0.7
ZALV **Zalesovo Beam** 42.09 48 P P 07 13 05.6 +1.0
comp=Z,2.1nm,0.6s,baz=271,slow=9.8,SNR=11
ZALV LR LR 07 32 08.6
comp=Z,42nm,18.6s,baz=324,slow=38
comp=Z,2.1nm,0.6s
ZALV **Zalesovo Beam** 42.09 48 P P 07 13 05.3 +0.6
DBIC **Dimbokro** 42.41 231 P P 07 13 07.4 -0.2
comp=Z,3.5nm,0.8s,baz=51,slow=6.7,SNR=5.8
comp=Z,3.5nm,0.8s
DGZ **Jazzator, Alta** 44.08 54 *i* P P 07 13 22.9 +1.9
DGZ pmax pmax
comp=Z,3.0nm,0.6s
NRIK **Noril'sk** 44.83 26 LR LR 07 33 15.9
comp=Z,35nm,18.9s,baz=288,slow=38
EVN **Everest** 50.41 83 P P 07 14 10.6 -0.6
EVN IAmb IAmb 07 14 17.6
comp=Z,3.8nm,0.9s
EVN **Everest** 50.41 83 P P 07 14 12.0 +0.8
comp=Z,5.3nm,1.1s
GTA2 **Gaotai** 55.34 64 *e*P P 07 14 47.7 +0.8
GTA2 pP pP 07 14 51.9 +0.3
GTA2 pmax pmax
comp=Z,2.0nm,0.6s
TSUM **Tsumeb** 57.41 191 LR LR 07 40 49.1
comp=Z,52nm,19.9s,baz=344,slow=37
TIXI **Tiksi** 58.15 21 LR LR 07 43 42.8
comp=Z,42nm,19.6s,baz=14,slow=40
NPW **Naypyitaw** 61.88 86 P P 07 15 32.7 +0.2
comp=Z,7.6nm,0.8s
YAK **Yakutsk** 62.82 31 LR LR 07 48 30.6
comp=Z,60nm,18.2s,baz=5.0,slow=41
HHC **Hu-ho-hao-te** 62.93 58 *e*P P 07 15 40.1 +0.7
HHC pmax pmax
comp=Z,5.0nm,0.6s
HHC pmax pmax
comp=Z,110nm,5.7s
CMAR **Chiang Mai Arr** 64.82 86 P P 07 15 50.7 -1.3
comp=Z,0.8nm,0.4s,baz=302,slow=9.2,SNR=5.9
comp=Z,0.8nm,0.4s
CMAR **Chiang Mai Arr** 64.82 86 *i* P P 07 15 53.0 +1.0
CMAR pmax pmax
comp=Z,2.0nm,0.9s
BNX **BinXian** 70.37 47 ⇓P P 07 16 29.2 +2.6
BNX pmax pmax
comp=Z,7.0nm,1.2s
KSRS **Korea Array** 75.48 54 P P 07 16 57.5 +0.4
comp=Z,4.2nm,0.9s,baz=318,slow=4.7,SNR=6.0
comp=Z,4.2nm,0.9s
ILAR **Eielson Array** 77.63 357 P P 07 17 11.2 +2.4
comp=Z,0.4nm,0.7s,baz=329,slow=4.3,SNR=6.1
comp=Z,0.4nm,0.7s

NNC ***01*** *07:14:43.0±0.6, 49°.97N×78°.32E, h0km, mb2.8, mpv2.4, Error ellipse: s-maj=12.1km s-min=2.6km az=92.0, Suspected Mining explosion.*
IDC ***01*** *07:14:45.0±1.4, 50°.04N×78°.78E, h0km, mbtmp2.7/2, ML2.2/2, Error ellipse: s-maj=13.8km s-min=10.2km az=58.0*
ISC 01 07:14:45.1±1.1, 50°.00N±0°.06×78°.7E±0°.1, h0km, n17, σ0s91/28, 17C-8D, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KUR07	**Kurchatov Arra**	0.60	349	⇑P		Pg		07 14 55.4	-1.1
KUR07				⇑S		Sg		07 15 05.1	+0.8
KUR06	**Kurchatov Arra**	0.61	349	⇑P		Pg		07 14 55.8	-1.1
KUR06				⇑S		Sg		07 15 05.7	+0.8
KUR14	**Kurchatov Arra**	0.62	354	⇓P		Pg		07 14 55.9	-1.1
KUR14				⇓S		Sg		07 15 05.0	0.0
KUR15	**Kurchatov Arra**	0.63	352	⇑P		Pg		07 14 55.9	-1.1
KUR15				⇓S		Sg		07 15 06.0	+0.8
KURBB	**Kurchatov Arra**	0.63	350	Pg		Pg		07 14 56.1	-1.1
	1.3nm,0.3s,baz=166,slow=17,SNR=101								
KURBB				Lg		Lg		07 15 06.2	
	1.7nm,0.3s,baz=164,slow=40,SNR=18								
KURBB	**Kurchatov Arra**	0.63	350	⇑P		Pg		07 14 56.1	-1.1
	11nm,0.5s								
KURBB				⇑S		Sg		07 15 05.4	0.0
	45nm,0.8s								
KUR16	**Kurchatov Arra**	0.64	348	⇓P		Pg		07 14 56.3	-1.1
KUR16				⇓S		Sg		07 15 06.0	+0.3
KUR17	**Kurchatov Arra**	0.65	347	⇑P		Pg		07 14 56.5	-1.0
KUR17				⇑S		Sg		07 15 06.3	+0.3
KUR05	**Kurchatov Arra**	0.65	351	⇑P		Pg		07 14 56.3	-1.3
KUR05				⇑S		Sg		07 15 06.5	+0.5
KUR04	**Kurchatov Arra**	0.67	351	⇑P		Pg		07 14 56.7	-1.2
KUR04				⇑S		Sg		07 15 06.8	+0.2
KURK	**Kurchatov**	0.72	356	⇓P		Pg		07 14 57.5	-1.3
	2.1nm,0.5s								
KURK				⇓S		Sg		07 15 08.5	+0.4
	10nm,0.6s								
MAKZ	**Makanchi**	3.87	144	⇓Pg		Pg		07 15 57.7	-1.4
	1.1nm,0.6s								
MAKZ				⇑Lg		Lg		07 16 50.3	
	12nm,0.8s								
MK31	**Makanchi Array**	4.00	142	⇑Pn		Pn		07 15 48.1	+0.5
	0.1nm,0.2s,baz=321,slow=10.0,SNR=27								
MK31				⇑Pg		Pb		07 15 57.6	+1.1
	0.1nm,0.2s,baz=220,slow=54,SNR=9.0								
MK31				⇑Lg		Lg		07 16 54.3	
	2.5nm,0.6s,baz=330,slow=28,SNR=7.0								
MKAR	**Makanchi Array**	4.00	142	Pn		Pn		07 15 48.2	+0.5
	0.2nm,0.3s,baz=322,slow=10,SNR=19								
MKAR				Pg		Pb		07 15 56.4	0.0
	0.3nm,0.3s,baz=322,slow=13,SNR=6.7								
MKAR				Lg		Lg		07 16 51.0	
	1.1nm,0.3s,baz=332,slow=25,SNR=10.0								
	0.3nm,0.2s								
MKAR				AML		AML			
I46RU	**ZALESOVO INFRA**	5.47	41	I		I		07 47 18.2	
	baz=223,slow=324,SNR=6.1								
ZALV	**Zalesovo Beam**	5.47	41	Pn		Pn		07 16 08.1	+0.4
	0.3nm,0.3s,baz=230,slow=13,SNR=3.7								
	0.7nm,0.3s								
ZALV				AML		AML			
BVAR	**Borovoye Array**	6.01	303	Sn		Sn		07 17 24.7	+0.1
	baz=112,slow=22,SNR=5.5								
BVAR				Lg		Lg		07 17 58.1	
	baz=115,slow=24,SNR=4.6								

IDC ***01*** *07:27:09.3±0.6, 62°.19S×57°.73W, h0km, mb4.2/11, mbtmp4.1/12, ML3.3/1, MS3.9/15, Error ellipse: s-maj=25.2km s-min=13.9km az=86.0*
NEIC ***01*** *07:27:11.5±1.2, 62°.32S±0°.07×58°.1W±0°.2, h10km±1km, mb4.7/45, Error ellipse: s-maj=14.4km s-min=11.4km az=269.0*
GFZ ***01*** *07:27:13.6±0.2, 62°S±3°×5°8W±°, h10km, M4.6/31, mb4.6/31*
ISC 01 07:27:11.5±0.4, 62°.21S±0°.04×58°.01W±0°.06, h10km, n148, σ1s58/133, mb4.7/54, MS3.9/14, 2C-1D, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JUBA	**Jubany**	0.31	265	*i* P		Pg		07 27 14.5	-3.1
JUBA				*i* S		Sg		07 27 17.1	-4.6
JUBA				IAML				07 27 21.1	
	comp=Z,63μm,0.6s								
ESPZ	**Base Esperanza**	1.28	159	*i* P		Pn		07 27 33.1	-2.3
ESPZ				*i* S		Sb		07 27 49.1	-3.0
ESPZ	**Base Esperanza**	1.28	159			Pn		07 27 33.1	-2.3
PMSA	**Palmer Station**	3.73	224	Pn		Pn		07 28 07.4	-1.6
	comp=Z,2.0nm,0.3s,baz=52,slow=10,SNR=7.7								
PMSA				Sn		Sn		07 28 58.6	+5.6
	comp=Z,9.9nm,0.3s,baz=99,slow=6.3,SNR=3.8								
PMSA				LR		LR		07 29 25.9	
	comp=Z,1μm,19.7s,baz=58,slow=36								
	comp=Z,9.0nm,0.4s								
PMSA				AML		AML			
PMSA	**Palmer Station**	3.73	224	*i* P		Pn		07 28 07.5	-1.6
PMSA				*i* S		Sn		07 28 59.6	+6.5
PMSA	**Palmer Station**	3.73	224	P		Pn		07 28 14.6	+5.5
ORCD	**Orcadas**	6.53	83	*i* P		Pb		07 28 54.7	-10
ORCD				IAML				07 31 22.0	
	comp=Z,32nm,3.2s								
ORCD	**Orcadas**	6.53	83			Pn		07 28 48.7	+1.3
SMAI	**San Martin Ant**	7.06	209	*i* P		Pn		07 28 52.7	-2.0
EFI	**East Falkland**	10.56	360	*i* P		Pn		07 29 45.9	+3.1
EFI				*i* S		Sn		07 31 42.1	+1.1

EFI			IAML			07 32 32.5	
	comp=Z,30nm,2.4s						
EFI	**East Falkland**	**10.56 360**	Pn	**Pn**		**07 29 46.3**	**+3.5**
EFI	**East Falkland**	**10.56 360**	P	**Pn**		**07 29 41.8**	**-1.0**
	comp=Z,28nm,2.2s						
MG03	**Isla Dawson**	**10.65 316**	Pn	**Pn**		**07 29 44.8**	**+0.9**
MG02	**Cerro Sombrero**	**11.19 323**	*i* P	**Pn**		**07 29 53.2**	**+1.8**
MG02			IAML			07 33 44.7	
	comp=Z,38nm,4.5s						
MG02	**Cerro Sombrero**	**11.19 323**	Pn	**Pn**		**07 29 51.6**	**+0.3**
MG02	**Cerro Sombrero**	**11.19 323**	P	**Pn**		**07 29 52.7**	**+1.3**
	comp=Z,48nm,2.8s						
GO10	**Punta Arenas**	**11.42 317**	P	**Pn**		**07 29 55.5**	**+1.0**
GO08	**Villa O'Higgin**	**16.01 323**		**P**		**07 30 59.2**	**-0.8**
GO08	**Villa O'Higgin**	**16.01 323**	P	**Pn**		**07 30 58.5**	**+2.0**
	comp=Z,18nm,1.0s						
BELA	**Belgrano 2**	**17.38 164**		**Pn**		**07 31 13.8**	**+0.1**
COYC	**Coyhaique**	**18.54 328**	P	**P**		**07 31 28.2**	**+0.2**
COYC	**Coyhaique**	**18.54 328**	P	**Pn**		**07 31 30.2**	**+2.0**
	comp=Z,21nm,2.1s						
VNA3	**Neumayer Olymp**	**20.50 136**	P	Pn		07 31 52.1	+0.6
	comp=Z,16nm,0.8s						
VNA3	**Neumayer Olymp**	**20.50 136**	P	Pn		07 31 52.0	+0.5
	comp=Z,23nm,0.8s						
LL02	**Futaleuf**	**20.73 330**		**P**		**07 31 53.3**	**+1.4**
LL02	**Futaleuf**	**20.73 330**	P	**P**		**07 31 53.6**	**+1.7**
	comp=Z,17nm,1.8s						
VNA1	**Neumayer--Stat**	**20.97 135**	P	Pn		07 31 58.1	+1.3
	comp=Z,14nm,0.9s						
GO07	**Milladeo Hill,**	**21.24 327**	P	**P**		**07 31 58.0**	**+0.6**
	comp=Z,57nm,1.0s						
VNA2	**Neumayer--Watz**	**21.25 135**	P	**P**		**07 31 59.9**	**+2.6**
	comp=Z,9.2nm,0.8s,baz=263,slow=11						
VNA2	**Neumayer--Watz**	**21.25 135**	P	**P**		**07 32 00.9**	**+3.6**
	comp=Z,14nm,0.8s						
LL07	**Hotel Espejo d**	**21.46 328**	P	**P**		**07 32 02.2**	**+2.6**
	comp=Z,92nm,1.5s						
SNAA	**Sanae**	**22.68 138**	⇑P	**P**		**07 32 14.2**	**+1.5**
	comp=Z,253nm,0.8s						
SNAA	**Sanae**	**22.68 138**	P	**P**		**07 32 11.8**	**-0.8**
	comp=Z,3.9nm,0.8s,baz=278,slow=7.5,SNR=15						
SNAA			LR	LR		07 39 38.8	
	comp=Z,230nm,21.5s,baz=275,slow=33						
	comp=Z,3.9nm,0.8s						
SNAA	**Sanae**	**22.68 138**		**P**		**07 32 12.9**	**+0.2**
SNAA	**Sanae**	**22.68 138**	P	**P**		**07 32 15.3**	**+2.6**
	comp=Z,17nm,0.9s						
PLCA	**Paso Flores**	**22.80 335**	P	**P**		**07 32 14.1**	**-0.1**
	comp=Z,8.2nm,0.9s,baz=156,slow=7.8,SNR=16						
PLCA			LR	LR		07 40 51.1	
	comp=Z,220nm,18.4s,baz=180,slow=36						
	comp=Z,8.2nm,0.9s						
PLCA	**Paso Flores**	**22.80 335**		**P**		**07 32 14.4**	**+0.3**
PLCA			IAmb	IAmb		07 32 17.6	
	comp=Z,29nm,1.4s						
PLCA	**Paso Flores**	**22.80 335**	P	**P**		**07 32 15.7**	**+1.6**
	comp=Z,20nm,1.3s						
LL05	**Los Muermos**	**22.80 329**	P	**P**		**07 32 14.7**	**+0.6**
LL05	**Los Muermos**	**22.80 329**	P	**P**		**07 32 14.5**	**+0.4**
	comp=Z,64nm,2.6s						
GO06	**Curarrehue**	**24.09 334**		**P**		**07 32 26.6**	**-0.4**
GO06			IAmb	IAmb		07 32 29.6	
	comp=Z,34nm,1.1s						
GO06	**Curarrehue**	**24.09 334**	P	**P**		**07 32 27.6**	**+0.5**
	comp=Z,27nm,1.1s						
TROLL	**Troll, Antarti**	**24.32 139**	⇑P	**P**		**07 32 31.3**	**+2.4**
	comp=Z,293nm,0.9s						
BI02	**San Fabin de**	**26.88 336**		**P**		**07 32 53.1**	**+0.8**
BI02			IAmb	IAmb		07 32 56.0	
	comp=Z,9.9nm,0.9s						
BI02	**San Fabin de**	**26.88 336**	P	**P**		**07 32 53.4**	**+1.2**
	comp=Z,13nm,1.1s						
ML02	**Panimavida**	**27.78 336**	P	**P**		**07 33 00.5**	**+0.2**
ML02	**Panimavida**	**27.78 336**	P	**P**		**07 33 01.4**	**+1.2**
	comp=Z,29nm,1.2s						
QSPA	**South Pole Qui**	**28.02 180**	P	**P**		**07 33 02.6**	**+0.2**
	comp=Z,2.7nm,0.7s,baz=171,slow=2.0,SNR=18						
QSPA			LR	LR		07 43 52.5	
	comp=Z,209nm,18.5s,baz=160,slow=36						
	comp=Z,2.7nm,0.7s						
QSPA	**South Pole Qui**	**28.02 180**		**P**		**07 33 01.8**	**-0.6**
QSPA			IAmb	IAmb		07 33 29.4	
	comp=Z,11nm,1.1s						
BO02	**Sierra Bellavi**	**28.60 338**	P	**P**		**07 33 08.4**	**+0.7**
BO02			IAmb	IAmb		07 33 12.0	
	comp=Z,21nm,1.2s						
BO02	**Sierra Bellavi**	**28.60 338**	P	**P**		**07 33 08.2**	**+0.5**
	comp=Z,13nm,0.9s						
GO05	**Hualane**	**28.60 336**	P	**P**		**07 33 08.7**	**+1.1**
GO05			IAmb	IAmb		07 33 09.4	
	comp=Z,13nm,0.9s						
GO05	**Hualane**	**28.60 336**	P	**P**		**07 33 08.0**	**+0.3**
	comp=Z,21nm,1.3s						
BO01	**Tunca**	**29.05 337**		**P**		**07 33 11.5**	**-0.1**
BO01			IAmb	IAmb		07 33 17.6	
	comp=Z,11nm,1.1s						
BO01	**Tunca**	**29.05 337**	P	**P**		**07 33 11.8**	**+0.3**
	comp=Z,11nm,1.0s						
BO04	**La Punta**	**29.36 338**	P	**P**		**07 33 14.7**	**+0.3**
BO04			IAmb	IAmb		07 33 16.1	
	comp=Z,18nm,0.9s						
MT01	**Popeta**	**29.59 337**	P	**P**		**07 33 17.1**	**+0.7**
MT01			IAmb	IAmb		07 33 31.2	
	comp=Z,25nm,1.4s						
MT09	**Talagante**	**29.63 338**		**P**		**07 33 17.2**	**+0.3**
MT08	**Bocatoma Ro**	**29.79 340**		**P**		**07 33 19.4**	**+1.0**
MT08			IAmb	IAmb		07 33 21.0	
	comp=Z,16nm,0.9s						
MT03	**Universidad Ad**	**29.82 339**	P	**P**		**07 33 18.9**	**+0.4**
MT03			IAmb	IAmb		07 33 27.4	
	comp=Z,12nm,0.8s						
MT16	**CCHEN**	**29.89 339**	P	**P**		**07 33 19.7**	**+0.6**
MT02	**Curacav**	**30.16 338**	P	**P**		**07 33 21.9**	**+0.5**
MT02			IAmb	IAmb		07 33 29.2	
	comp=Z,17nm,1.1s						
PEL	**Peldehue**	**30.19 339**	P	**P**		**07 33 21.3**	**-0.5**
	comp=Z,24nm,1.6s						
ELIB	**Princess Elisa**	**30.54 143**	*d*P	**P**		**07 33 26.5**	**+1.9**
	comp=Z,2.3nm,1.1s						
VA03	**San Esteban**	**30.54 339**	P	**P**		**07 33 25.8**	**+0.8**
VA03	**San Esteban**	**30.54 339**	P	**P**		**07 33 26.7**	**+1.8**
	comp=Z,24nm,1.0s						
CO04	**Los Peladeros**	**31.32 338**	P	**P**		**07 33 32.7**	**+0.7**
CO04			IAmb	IAmb		07 33 34.0	
	comp=Z,16nm,1.0s						
CO04	**Los Peladeros**	**31.32 338**	P	**P**		**07 33 31.7**	**-0.2**
	comp=Z,23nm,1.0s						
CFA	**Coronel Fontan**	**31.32 343**	P	**P**		**07 33 30.6**	**-1.2**
	comp=Z,1.2nm,0.8s,baz=177,slow=7.6,SNR=4.1						
	comp=Z,1.2nm,0.8s						
ZON	**Zonda**	**31.44 342**		**P**		**07 33 32.9**	**0.0**
ZON			IAmb	IAmb		07 33 35.3	
	comp=Z,13nm,1.2s						
ZON	**Zonda**	**31.44 342**	P	**P**		**07 33 32.7**	**-0.1**
	comp=E,8.1nm,3.0s						
CO02	**Combarbal**	**32.14 339**	P	**P**		**07 33 39.4**	**+0.3**
CO02	**Combarbal**	**32.14 339**	P	**P**		**07 33 39.9**	**+0.9**
	comp=Z,29nm,0.9s						
GO04	**Tololo Observa**	**33.12 339**	P	**P**		**07 33 47.9**	**+0.2**
GO04	**Tololo Observa**	**33.12 339**	P	**P**		**07 33 48.0**	**+0.2**
	comp=Z,29nm,0.9s						
CO01	**Juntas del Tor**	**33.20 341**	P	**P**		**07 33 49.5**	**+1.1**
CO01	**Juntas del Tor**	**33.20 341**	P	**P**		**07 33 49.0**	**+0.5**
	comp=Z,22nm,1.0s						
LCO	**Las Campanas**	**34.24 340**	P	**P**		**07 33 57.7**	**+0.2**
LCO	**Las Campanas**	**34.24 340**	P	**P**		**07 33 57.3**	**-0.2**
	comp=Z,20nm,1.5s						
AC05	**El Transito**	**34.34 341**	P	**P**		**07 33 59.3**	**+1.0**
AC05			IAmb	IAmb		07 34 02.2	
	comp=Z,13nm,1.2s						
AC05	**El Transito**	**34.34 341**	P	**P**		**07 33 58.5**	**+0.2**
AC04	**Llanos de Chal**	**35.09 340**	P	**P**		**07 34 04.9**	**+0.3**
	comp=Z,23nm,1.0s						
GO03	**Copiapo**	**35.55 341**	P	**P**		**07 34 08.9**	**+0.2**
	comp=Z,16nm,1.6s						
CPUP	**Villa Florida**	**35.88 1**	P	**P**		**07 34 10.3**	**-1.0**
	comp=Z,1.6nm,0.9s,baz=186,slow=11,SNR=3.7						
	comp=Z,1.6nm,0.9s						
CPUP	**Villa Florida**	**35.88 1**	P	**P**		**07 34 11.9**	**+0.6**
AC02	**Maricunga**	**36.14 343**	P	**P**		**07 34 13.9**	**-0.3**
	comp=Z,12nm,2.7s						
AC01	**Pan de Azucar**	**37.03 341**	P	**P**		**07 34 22.3**	**+1.1**
	comp=Z,27nm,1.2s						
VNDA	**Vanda**	**38.38 193**	P	**P**		**07 34 36.4**	**+4.3**
SALTA		**38.39 348**	P	**P**		**07 34 33.4**	**+0.1**
	comp=Z,4.3nm,2.3s						
PB05	**IPOC Station P**	**40.21 342**	P	**P**		**07 34 48.9**	**+0.9**
	comp=Z,13nm,1.5s						
PCMB	**Pacaembu**	**40.84 10**	P	**P**		**07 34 51.7**	**-1.4**
PB03	**IPOC Station P**	**40.94 343**	P	**P**		**07 34 53.9**	**-0.2**
AQDB	**Aquidauana**	**41.73 3**	P	**P**		**07 35 00.5**	**0.0**
	comp=Z,11nm,2.4s						
PB11	**IPOC Station P**	**43.18 344**	P	**P**		**07 35 12.7**	**+0.3**
	comp=Z,18nm,1.0s						
MAW	**Mawson**	**43.63 152**	P	**P**		**07 35 14.3**	**-1.1**
	comp=Z,2.7nm,0.8s,baz=223,slow=9.5,SNR=8.1						
MAW			PcP	**PcP**		**07 37 02.3**	**-0.1**
	comp=Z,1.8nm,0.8s,baz=326,slow=3.6,SNR=4.4						
MAW			LR	LR		07 53 16.3	
	comp=Z,267nm,20.0s,baz=216,slow=36						
	comp=Z,2.7nm,0.8s						
MAW	**Mawson**	**43.63 152**	P	**P**		**07 35 15.4**	**0.0**
MAW	**Mawson**	**43.63 152**	P	**P**		**07 35 17.7**	**+2.3**
PB16	**IPOC Station P**	**44.56 344**	P	**P**		**07 35 24.4**	**+0.4**
PB16	**IPOC Station P**	**44.56 344**	P	**P**		**07 35 23.9**	**-0.2**
	comp=Z,7.6nm,2.5s						
LPAZ	**La Paz**	**46.42 347**	P	**P**		**07 35 38.5**	**-0.4**
	comp=Z,2.1nm,1.1s,baz=157,slow=4.5,SNR=4.5						
LPAZ			LR	LR		07 57 01.3	
	comp=Z,101nm,18.1s,baz=159,slow=39						
	comp=Z,2.1nm,1.1s						
LPAZ	**La Paz**	**46.42 347**	P	**P**		**07 35 38.7**	**-0.1**
PTLB	**Pontes e Lacer**	**46.71 359**	P	**P**		**07 35 40.9**	**+0.6**
BDFB	**Brasilia**	**47.05 13**	P	**P**		**07 35 43.5**	**+0.3**
	comp=Z,6.1nm,0.9s,baz=132,slow=6.2,SNR=7.1						
	comp=Z,6.1nm,0.9s						
BDFB	**Brasilia**	**47.05 13**	P	**P**		**07 35 43.4**	**+0.2**
BDFB			IAmb	IAmb		07 36 02.5	
	comp=Z,11nm,1.3s						
RPN	**Rapa Nui**	**48.57 292**	LR	LR		07 50 46.9	
	comp=Z,60nm,20.6s,baz=122,slow=29						
CLDB	**Colider**	**51.27 3**	P	**P**		**07 36 15.0**	**-0.4**
	comp=Z,6.3nm,1.3s						
SMTB	**Santa Maria do**	**53.79 13**	P	**P**		**07 36 33.8**	**-0.3**
H10S3	**ASCENSION HYDR**	**61.75 50**	T	T		08 44 42.6	
	baz=18,slow=74,SNR=20						
H10S2	**ASCENSION HYDR**	**61.75 50**	T	T		08 44 42.6	
	baz=202,slow=74,SNR=17						
BOSA	**Boshof**	**62.02 99**	P	**P**		**07 37 32.0**	**+0.1**
BOSA			IAmb	IAmb		07 37 51.6	
	comp=Z,5.0nm,1.2s						
H10N3	**ASCENSION HYDR**	**62.84 50**	T	T		08 46 00.3	
	baz=202,slow=75,SNR=14						
H10N1	**ASCENSION HYDR**	**62.84 50**	T	T		08 46 03.4	
	baz=202,slow=75,SNR=20						
H10N2	**ASCENSION HYDR**	**62.85 50**	T	T		08 46 01.6	
	baz=202,slow=75,SNR=14						
OTAV	**Otavalo**	**64.18 337**		**P**		**07 37 47.4**	**+0.8**
OTAV	**Otavalo**	**64.18 337**	P	**P**		**07 37 48.4**	**+1.8**
	comp=Z,8.4nm,1.7s						
BOAV	**Boa Vista**	**64.46 357**	P	**P**		**07 37 46.6**	**-1.3**
BOAV			IAmb	IAmb		07 37 58.9	
	comp=Z,11nm,1.5s						
LBTB	**Lobatse**	**65.24 97**	P	**P**		**07 37 53.7**	**+0.6**
LBTB			IAmb	IAmb		07 37 54.8	
	comp=Z,6.5nm,1.1s						
ROSC	**El Rosal**	**68.03 342**	LR	LR		08 08 45.5	
	comp=Z,134nm,20.5s,baz=124,slow=37						
ROSC	**El Rosal**	**68.03 342**	P	**P**		**07 38 11.4**	**+0.2**
ROSC			IAmb	IAmb		07 38 19.3	
	comp=Z,6.5nm,1.0s						
RUSC	**La Rusia**	**68.89 344**		**P**		**07 38 15.4**	**-1.3**
RUSC			IAmb	IAmb		07 38 18.3	
	comp=Z,9.1nm,1.1s						
SDV	**Santo Domingo**	**71.56 347**	LR	LR		08 12 10.4	
	comp=Z,66nm,19.9s,baz=106,slow=38						
PPT2	**Papeete2**	**75.34 260**	*e*LR	LR		08 01 59.4	
	comp=Z,48nm,21.8s						
PPT	**Papeete**	**75.36 260**	LR	LR		08 05 09.2	
	comp=Z,104nm,18.1s,baz=118,slow=30						
VOI	**Vohitsoka**	**77.50 113**	P	**P**		**07 39 07.3**	**+0.1**
VOI			IAmb	IAmb		07 39 12.7	
	comp=Z,10nm,1.0s						
SJG	**San Juan**	**80.31 352**	LR	LR		08 17 48.6	
	comp=Z,50nm,18.9s,baz=146,slow=38						
CMIG	**Matias Romero**	**84.23 325**	LR	LR		08 09 34.3	
	comp=Z,54nm,20.9s,baz=139,slow=30						
STKA	**Stephens Creek**	**84.92 197**	P	**P**		**07 39 44.7**	**-1.7**
	comp=Z,1.5nm,0.7s,baz=144,slow=16,SNR=3.0						
STKA			LR	LR		08 12 56.8	
	comp=Z,35nm,21.5s,baz=205,slow=32						
	comp=Z,1.5nm,0.7s						
INKA	**Innaminka**	**89.10 197**		**P**		**07 40 06.0**	**-0.7**
INKA			IAmb	IAmb		07 40 08.0	
	comp=Z,3.5nm,1.0s						
ASAR	**Alice Springs**	**93.89 191**	P	**P**		**07 40 28.4**	**-0.7**
	comp=Z,1.7nm,1.0s,baz=165,slow=5.1,SNR=8.0						
ASAR			LR	LR		08 23 21.4	
	comp=Z,61nm,19.1s,baz=290,slow=36						
	comp=Z,1.7nm,1.0s						
ASAR	**Alice Springs**	**93.89 191**	P	**P**		**07 40 27.6**	**-1.5**
WRA	**Warramunga Arr**	**97.54 192**	P	**P**		**07 40 43.5**	**-2.2**
	comp=Z,0.7nm,0.8s,baz=175,slow=4.1,SNR=6.4						
	comp=Z,0.7nm,0.8s						
WRA	**Warramunga Arr**	**97.54 192**	P	**P**		**07 40 43.9**	**-1.8**
FITZ	**Fitzroy Crossi**	**99.91 184**	LR	LR		08 27 32.0	
	comp=Z,65nm,19.4s,baz=199,slow=36						
GERES	**GERESS Array B**	**124.47 50**	PKP		**PKPdf**	**07 46 07.2**	**-2.5**
	comp=Z,0.2nm,0.3s,baz=186,slow=2.7,SNR=6.0						
GERES	**GERESS Array B**	**124.47 50**			**PKPdf**	**07 46 08.9**	**-0.8**
KSH2	**Kashi**	**143.77 108**	PKP		**PKPdf**	**07 46 45.5**	**-0.6**
ARCES	**ARCESS Array B**	**143.93 36**	PKP		PKPab	07 46 41.8	-0.7
	comp=Z,9.5nm,0.8s,baz=225,slow=1.5,SNR=9.9						
ARCES	**ARCESS Array B**	**143.93 36**			PKPab	07 46 42.0	-0.5
GOMU	**GeErMu**	**148.94 134**	PKPbc		**PKPdf**	**07 46 55.9**	**+0.7**
XAN	**Xi'an**	**150.61 158**	*e*PKPbc		**PKPdf**	**07 46 55.4**	**-2.1**
LZDM	**Lanzhou Array**	**151.34 148**	PKPbc		**PKPbc**	**07 47 04.1**	**-0.8**
	comp=Z,2.6nm,0.3s,baz=225,slow=4.0,SNR=4.9						
BVAR	**Borovoye Array**	**151.62 85**	PKPbc		**PKPbc**	**07 47 03.6**	**-1.0**
	comp=Z,7.1nm,0.8s,baz=240,slow=2.9,SNR=24						
MKAR	**Makanchi Array**	**152.82 106**	PKPbc		**PKPbc**	**07 47 06.4**	**-1.2**
	comp=Z,1.4nm,0.8s,baz=244,slow=2.7,SNR=5.7						
MKAR	**Makanchi Array**	**152.82 106**	PKPbc		**PKPbc**	**07 47 06.8**	**-0.8**
GTA2	**Gaotai**	**153.54 139**	PKPbc		**PKPdf**	**07 47 02.3**	**+0.5**
HHC	**Hu-ho-hao-te**	**157.70 159**	*e*P		**PKPdf**	**07 47 03.4**	**-3.9**
SONM	**Songino Array**	**163.12 141**	PKPab		**PKPab**	**07 48 02.5**	**-0.7**
	comp=Z,1.0nm,0.6s,baz=163,slow=1.5,SNR=3.8						
SONM	**Songino Array**	**163.12 141**	PKPab		**PKPab**	**07 48 03.6**	**+0.3**

*IDC **01** 07:33:06.7±0.6,37.°75N×26.°89E,h0km,mb4.1/13, mbtmp4.0/24,ML3.5/8,MS3.8/58,Error ellipse: s-maj=10.1km s-min=9.3km az=8.0*

*ATH **01** 07:33:07.9,37.°82N×26.°92E,h10km±1km,ML4.2/18, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

*THE **01** 07:33:07.7,38.°N±7.°×2.°7E±.°,h8km±2km,M4.1/60, MLh4.1/60*

*MOS **01** 07:33:07.0±1.0,37.°81N×26.°87E,h10km,mb4.4/13,Error ellipse: s-maj=6.2km s-min=3.7km az=88.2*

*AFAD **01** 07:33:07.6,37.°81N×26.°86E,h7km±3km,ML4.2*

*MED_RC **01** 07:33:07.0,37.°81N×26.°87E,h10km,Mw4.8,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr-1.07±.04; Mθθ 1.10±.03; Mϕϕ 0.00±.03; Mrθ 0.90±.11; Mθϕ-0.11±.03; Mϕr-0.97±.12; Fault plane solution: M0 1.70000×10¹⁶ NP1:ϕs77.00000°,δ26.00000°, λ-134.00000°. NP2:ϕs304.00000°,δ71.00000°, λ-71.00000°. Principal axes: T 1.5600, Plg24.0000°, Azm19.0000°; N 0.2700, Plg18.0000°, Azm118.0000°; P -1.8300, Plg59.0000°, Azm241.0000°;*

*ISK **01** 07:33:07.4,37.°81N×26.°88E,h11km,ML4.4/19*

*NEIC **01** 07:33:09.0±1.3,37.°79N±0.°05×26.°90E±0.°05,h10km±1km, mb4.2/19,Error ellipse: s-maj=8.1km s-min=6.0km az=196.0*

*MCSM **01** 07:33:08.9±0.3,38.°N±3.°×2.°7E±.°,h10km,mB4.7,mb4.4, MLv4.5,Mw(mB)4.0*

*GFZ **01** 07:33:09.7,37.°79N×26.°94E,h10km,Mw4.5/26,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr-6.94; Mθθ5.68; Mϕϕ 1.26; Mrθ 1.08; Mθϕ-3.09; Mϕr-0.19; Fault plane solution: M0 7.19269×10¹⁵ NP1: ϕs119.98133°,δ40.87597°,λ-85.85454°. NP2: ϕs294.50598°,δ49.25364°,λ-93.58008°. Principal axes: T 7.3451, Plg4.1936°, Azm27.0434°; N -0.3151, Plg2.7115°, Azm296.8445°; P -7.0300, Plg85.0035°, Azm174.0439°;*

*GFZ **01** 07:33:09.7±0.2,38.°N±2.°×2.°7E±.°,h10km,M4.4/30, mb4.4/30*

*CFUSG **01** 07:33:10.4,38.°00N×27.°20E,h10km,Mb2.7/1,MD3.6/1, MSH3.3/4*

*GCMT **01** 07:33:10.0±0.4,37.°81N±0.°03×27.°08E±0.°06,h17km±1km, MW4.8/76,Moment Tensor Solution. s7,c7; s76,c90; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-1.70±.17; Mθθ 1.25±.10; Mϕϕ 0.45±.09; Mrθ-0.22±.25; Mθϕ-0.10±.05; Mϕr-1.47±.37; Best double couple: M0 1.86400×10¹⁶ NP1:ϕs295.00000°,δ46.00000°,λ-52.00000°. NP2: ϕs66.00000°,δ55.00000°,λ-123.00000°. Principal axes: T 1.2660, Plg5.0000°, Azm179.0000°; N 1.1970, Plg27.0000°, Azm86.0000°; P -2.4610, Plg63.0000°, Azm278.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GII **01** 07:33:12.9±0.0,37.°532N±0.°003×27.°311E±0.°001,h0km, Mws4.1,confirmed*

ISC 01 07:33:08.6±0.8,37.°81N±0.°02×26.°90E±0.°02,h12km±5km, n551,σ1§49/566,mb4.2/30,MS3.9/43,26C-14D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.15**	**265**	P	**Pg**	**07 33 11.1**	**-1.1**
KRL1				S	**Sg**	**07 33 14.1**	**-0.7**
DGB	**zmir**	**0.24**	**356**	P	**Pg**	**07 33 12.1**	**-1.6**
DGB				S	**Sg**	**07 33 16.5**	**-0.7**
GMLD	**Gumuldur**	**0.27**	**2**	Pg	**Pg**	**07 33 13.1**	**-1.1**
GMLD				Sg	**Sg**	**07 33 17.6**	**-0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**112**	P	**Pg**	**07 33 13.8**	**-0.6**
GCAM				S	**Sb**	**07 33 19.1**	**-1.2**
GCAM				IAML		07 33 20.0	
	comp=N,4μm,0.4s						
GCAM				IAML		07 33 21.0	
	comp=E,2μm,0.3s						
GCAM	**G?zelcaml?**	**0.28**	**112**	Pg	**Pg**	**07 33 14.2**	**-0.2**
GCAM				Sg	**Sg**	**07 33 18.8**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**80**	Pg	**Pg**	**07 33 14.4**	**-0.5**
KUSD				Sg	**Sg**	**07 33 19.3**	**+0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**3**	P	**Pg**	**07 33 15.3**	**-1.6**
BEYE				S	**Sb**	**07 33 25.6**	**+1.4**
BEYE				IAML		07 33 27.0	
	comp=N,2μm,0.8s						
BEYE				IAML		07 33 28.0	
	comp=E,1μm,0.6s						
DDIM	**Aydin, Didim**	**0.44**	**142**	P	**Pg**	**07 33 16.6**	**-0.7**
DDIM				S	**Sb**	**07 33 24.7**	**-0.1**
DDIM				IAML		07 33 25.0	
	comp=N,1μm,0.4s						
DDIM				IAML		07 33 33.0	
	comp=E,1μm,1.0s						
DIDI	**Didim-Aydin**	**0.51**	**148**	Pg	**Pg**	**07 33 18.1**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.53**	**324**	P	**Pg**	**07 33 17.9**	**-1.2**
ZEYE				S	**Sg**	**07 33 25.7**	**-0.5**
ZEYE				IAML		07 33 29.0	
	comp=N,5μm,0.4s						
ZEYE				IAML		07 33 32.0	
	comp=E,3μm,0.4s						
BLCB	**Balcova**	**0.59**	**11**	P	**Pg**	**07 33 18.6**	**-1.4**
BLCB				S	**Sg**	**07 33 27.4**	**-0.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**11**	Pg	**Pg**	**07 33 19.1**	**-1.0**
BLCB				Sg	**Sg**	**07 33 27.3**	**-0.5**
DUVT	**Torbali**	**0.60**	**46**	P	**Pg**	**07 33 19.1**	**-1.1**
DUVT				S	**Sn**	**07 33 30.8**	**-1.7**
DUVT				IAML		07 33 32.0	
	comp=E,4μm,0.4s						
IZM	**Izmir**	**0.65**	**26**	*e*P	**Pn**	**07 33 24.7**	**+1.0**
IZM				*e*S	**Sn**	**07 33 35.7**	**+1.7**
CESE	**eme**	**0.71**	**318**	Pg	**Pg**	**07 33 21.5**	**-0.8**
CESE				Sg	**Sb**	**07 33 31.3**	**-1.2**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.74**	**156**	Pg	**Pg**	**07 33 22.5**	**-0.5**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.79**	**100**	P	**Pg**	**07 33 22.9**	**-0.9**
AYDN				S	**Sn**	**07 33 36.0**	**-1.3**
AYDN				IAML		07 33 38.0	
	comp=N,8μm,0.9s						
AYDN				IAML		07 33 40.0	
	comp=E,9μm,0.6s						
AYDN	**Tasoluk**	**0.79**	**100**	P	**Pg**	**07 33 23.0**	**-0.9**
AYDB	**Zeytinkoy-Aydi**	**0.80**	**80**	Pg	**Pg**	**07 33 23.5**	**-0.5**
BODT	**Bodrum**	**0.81**	**156**	P	**Pg**	**07 33 22.9**	**-1.4**
BODT				S	**Sb**	**07 33 35.9**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**156**	Pg	**Pg**	**07 33 23.2**	**-1.1**
BODT				AML	AML		
KRBN	**Karaburun**	**0.83**	**341**	Pg	**Pb**	**07 33 24.2**	**-0.8**
KRBN				Sg	**Sb**	**07 33 35.9**	**-0.2**
BAGT	**Foa**	**0.85**	**357**	P	**Pg**	**07 33 23.9**	**-1.1**
BAGT				S	**Sn**	**07 33 37.2**	**-1.4**
BAGT				IAML		07 33 39.0	
	comp=N,4μm,1.3s						
BAGT				IAML		07 33 39.0	
	comp=E,2μm,1.0s						
KLNA	**Kalymnos**	**0.85**

comp=E,2µm,0.7s
DKL Dikili 1.26 0 Pn **Pn** 07 33 31.4 -0.6
DKL AML AML
DKL Dikili 1.26 0 P **Pn** 07 33 30.8 -1.2
KTTT Salihli 1.29 46 S **Sg** 07 33 50.6 +0.5
AKHS Akhisar 1.29 34 P **Pn** 07 33 30.8 -1.6
AKHS S **Sg** 07 33 51.1 +1.0
AKHS IAML 07 33 52.0
comp=N,7µm,0.7s
AKS Akhisar 1.29 34 Pn **Pn** 07 33 31.8 -0.6
AKS AML AML
YER Yerkesik 1.29 121 P **Pn** 07 33 31.7 -0.7
YER S **Sg** 07 33 50.4 +0.3
YER Yerkesik 1.29 121 Pn **Pn** 07 33 32.1 -0.3
YER AML AML
ASTA Astypalaia 1.33 199 P **Pb** 07 33 32.9 -0.6
ASTA AML AML
TNSA Tinos 1.41 260 P **Pn** 07 33 32.6 -1.3
TNSA AML AML
SOMA Soma-Manisa 1.44 20 Pn **Pn** 07 33 33.9 -0.5
SOMA AML AML
MANT Manisa 1.47 62 **Pn** 07 33 34.7 -0.4
TURN Turunc 1.49 133 Pn **Pn** 07 33 34.4 -0.7
TURN AML AML
GORD Gordes-Manisa 1.49 42 Pn **Pb** 07 33 35.4 -0.8
GORD AML AML
AYVA Ayvalik 1.51 354 P **Pn** 07 33 34.6 -0.8
AYVA S **Sg** 07 33 57.3 +0.2
AYVA IAML 07 33 58.0
comp=N,8µm,1.0s
AYVA IAML 07 34 03.0
comp=E,4µm,0.7s
PRK Paraskevi 1.52 341 P **Pn** 07 33 34.2 -1.3
PRK S **Sn** 07 33 54.8 -0.4
PRK AML AML
PRK Paraskevi 1.52 341 P **Pn** 07 33 35.2 -0.3
TAVA DENIZLI_Tavas 1.63 101 ⇑P **Pn** 07 33 37.2 0.0
DNIZ Denizli-Tavas- 1.70 95 P **Pn** 07 33 37.2 -1.0
DNIZ S **Sg** 07 34 05.9 +2.4
DNIZ IAML 07 34 07.0
comp=E,3µm,0.4s
DNIZ IAML 07 34 09.0
comp=N,3µm,0.4s
CMBO Columbo, Santo 1.79 222 P **Pn** 07 33 39.5 +0.2
THR2 Thira island, 1.79 221 P **Pn** 07 33 39.4 +0.1
THR8 Santorini-Mono 1.80 220 P **Pn** 07 33 38.2 -1.3
THR8 Santorini-Mono 1.80 220 P **Pn** 07 33 39.3 -0.1
YAYO Edremit-Balk 1.81 4 Pn **Pn** 07 33 38.4 -1.1
YAYO AML AML
THERA Ancient Thera, 1.83 219 P **Pn** 07 33 38.1 -1.8
THERA AML AML
THERA Ancient Thera, 1.83 219 P **Pn** 07 33 39.9 0.0
THERA Ancient Thera, 1.83 219 P **Pn** 07 33 38.1 -1.8
THERA AML AML
THR3 Thira Island, 1.84 221 P **Pn** 07 33 39.4 -0.5
THR3 Thira Island, 1.84 221 P **Pb** 07 33 40.6 -1.5
THT1 Athinios (Pele 1.84 220 P **Pn** 07 33 39.7 -0.3
THT1 AML AML
SNT5 Nea Kammeni, S 1.85 221 P **Pn** 07 33 40.3 +0.2
SAP3 Santorini-Thir 1.85 223 P **Pn** 07 33 40.0 -0.1
THR5 Thira Island, 1.86 222 P **Pn** 07 33 40.5 +0.2
ARG Arkhangelos 1.87 148 P **Pn** 07 33 39.5 -0.9
ARG S **Sn** 07 34 03.9 +0.1
ARG AML AML
ARG Arkhangelos 1.87 148 P **Pn** 07 33 40.2 -0.1
ARG Arkhangelos 1.87 148 **Pn** 07 33 40.2 -0.1
ARG Arkhangelos 1.87 148 P **Pn** 07 33 40.3 -0.1
ARG Arkhangelos 1.87 148 P **Pn** 07 33 40.2 -0.1
ARG AML AML
THR6 Thira Island, 1.88 220 P **Pn** 07 33 40.0 -0.5
KARY Karystos 1.96 277 P **Pn** 07 33 40.3 -1.3
KARY AML AML
KARY Karystos 1.96 277 P **Pn** 07 33 40.7 -0.9
BALB Balikesir 1.98 22 **Pn** 07 33 41.2 -0.7
BALB Balikesir 1.98 22 Pn **Pn** 07 33 42.3 +0.4
BALB AML AML
EZNE Ezine-Canakkal 1.99 348 Pn **Pn** 07 33 41.9 -0.1
BALY Balya 2.01 16 P **Pn** 07 33 42.6 +0.2
EZN Ezine 2.06 348 P **Pn** 07 33 42.2 -0.9
EZN S **Sn** 07 34 08.4 -0.3
EZN AML AML
EZN Ezine 2.06 348 P **Pn** 07 33 42.3 -0.7
KARP Karpathos 2.27 175 P **Pn** 07 33 44.7 -1.1
KARP AML AML
KARP Karpathos 2.27 175 **Pn** 07 33 46.6 +0.8
KARP Karpathos 2.27 175 P **Pn** 07 33 46.7 +0.8
KARP AML AML
KARP Karpathos 2.27 175 P **Pb** 07 33 49.0 -0.4
KARP AML AML
KARP Karpathos 2.27 175 P **Pb** 07 33 49.6 +0.2
KARP Karpathos 2.27 175 P **Pn** 07 33 45.1 -0.7
MHLO Agia Marina, M 2.29 242 P **Pn** 07 33 45.2 -0.9
MHLO AML AML
KYMI Kymi, Euboea I 2.35 291 P **Pn** 07 33 46.4 -0.7
KYMI S **Sn** 07 34 14.9 -1.0
KYMI AML AML
KYMI Kymi, Euboea I 2.35 291 P **Pn** 07 33 46.6 -0.5
DION Dionisos Attik 2.36 277 P **Pn** 07 33 46.3 -0.9
DION AML AML
DION Dionisos Attik 2.36 277 P **Pn** 07 33 46.4 -0.7
PTL Penteli 2.41 277 P **Pn** 07 33 47.0 -0.8
PTL AML AML
PTL Penteli 2.41 277 P **Pn** 07 33 47.1 -0.8
PTL AML AML
VLY Voula,Athens 2.46 272 P **Pn** 07 33 47.6 -0.9
VLY AML AML
VLY Voula,Athens 2.46 272 P **Pn** 07 33 47.8 -0.8
VLY AML AML
ATHU Athens Univers 2.47 275 P **Pn** 07 33 47.7 -0.9
ATHU AML AML
ATHU Athens Univers 2.47 275 P **Pn** 07 33 47.8 -0.8
LIA Limnos Island 2.48 328 P **Pn** 07 33 48.2 -0.6
LIA AML AML
LIA Limnos Island 2.48 328 P **Pn** 07 33 48.4 -0.4
GADA Gvkgeada 2.50 342 P **Pn** 07 33 48.4 -0.7
GADA S **Sn** 07 34 19.0 -0.6
GADA AML AML
ATH Athens Observa 2.52 275 P **Pn** 07 33 48.6 -0.7
ATH AML AML
ATH Athens Observa 2.52 275 P **Pn** 07 33 48.6 -0.7
ATH Athens Observa 2.52 275 P **Pn** 07 33 48.7 -0.6
ATH AML AML
ELL Elmali 2.62 113 P **Pn** 07 33 52.1 +1.3
ELL Elmali 2.62 113 **Pn** 07 33 52.1 +1.3
AKAS Kas 2.67 125 **Pn** 07 33 52.6 +1.0
AKAS Kas 2.67 125 P **Pb** 07 33 53.7 -2.8
STFN Stefani 2.68 279 P **Pn** 07 33 51.1 -0.4
STFN AML AML
STFN Stefani 2.68 279 P **Pn** 07 33 51.3 -0.2
STFN AML AML
AOS Alonnisos 2.73 301 P **Pn** 07 33 51.8 -0.4
AOS AML AML
NPS Neapolis 2.74 203 P **Pn** 07 33 51.3 -1.1
NPS AML AML
NPS Neapolis 2.74 203 P **Pn** 07 33 51.5 -0.9
NPS AML AML
ZKR Zakros 2.74 192 P **Pb** 07 33 56.4 -1.2
ZKR Zakros 2.74 192 P **Pn** 07 33 51.9 -0.5
ZKR AML AML
AOS2 Alonissos-2 2.75 300 P **Pn** 07 33 52.3 -0.2
AOS2 AML AML
MET4 Agioi Theodoro 2.78 267 P **Pn** 07 33 52.8 -0.1
MET5 Makryloggos,Me 2.82 267 P **Pn** 07 33 53.6 +0.2
MET6 Megalochori,Me 2.82 267 P **Pn** 07 33 53.8 +0.4
MET2 Kameni Chora, 2.84 267 P **Pn** 07 33 53.6 -0.1
VILL Villia 2.86 278 P **Pn** 07 33 53.6 -0.4
VILL AML AML
SMTH Samothraki Isl 2.87 339 P **Pn** 07 33 53.1 -1.0
SMTH AML AML
SMTH Samothraki Isl 2.87 339 P **Pn** 07 33 53.2 -0.9
SMTH AML AML
ISP Isparta 2.87 89 P **Pn** 07 33 55.3 +1.1
ISP Isparta 2.87 89 **Pn** 07 33 55.2 +1.1
VIL2 Platees 2.90 279 P **Pn** 07 33 53.5 -1.0
VIL2 AML AML
MET3 Ano Fanari,Met 2.92 267 P **Pn** 07 33 54.2 -0.7
CAVK Edirne/Enez-Ca 2.94 349 ⇑P **Pn** 07 33 54.6 -0.4
ENEZ Enez 2.98 349 P **Pn** 07 33 55.3 -0.3
ENEZ AML AML
IDI Anoyia 2.99 213 Pn **Pn** 07 33 56.0 +0.2
20nm,0.7s,baz=30,slow=12,SNR=22
IDI Sn **Sn** 07 34 29.9 -1.8
25nm,0.3s,baz=291,slow=19,SNR=8.6
IDI LR LR 07 35 16.0
comp=Z,3µm,19.7s,baz=29,slow=44
IDI Anoyia 2.99 213 P **Pn** 07 33 55.2 -0.6
IDI AML AML
IDI Anoyia 2.99 213 **Pn** 07 33 56.4 +0.5
IDI Anoyia 2.99 213 P **Pn** 07 33 55.3 -0.5
IDI AML AML
EPID Epidavros 3.01 267 P **Pn** 07 33 55.3 -0.7
EPID AML AML
EPID Epidavros 3.01 267 P **Pn** 07 33 56.0 0.0
EPID AML AML
LOUT Loutraki 3.11 275 P **Pn** 07 33 57.2 -0.2
LTK Loutraki 3.12 275 P **Pn** 07 33 56.9 -0.6
LTK AML AML
LTK Loutraki 3.12 275 P **Pn** 07 33 57.3 -0.3
LTK AML AML
ALEX Alexandroupoli 3.14 346 P **Pn** 07 33 57.7 -0.1
ALN Alexandroupoli 3.16 348 P **Pn** 07 33 57.3 -0.8
ALN AML AML
ALN Alexandroupoli 3.16 348 P **Pn** 07 33 57.5 -0.6
ALN Alexandroupoli 3.16 348 **Pn** 07 33 57.5 -0.6
ALN Alexandroupoli 3.16 348 P **Pn** 07 33 57.6 -0.4
ALN Alexandroupoli 3.16 348 P **Pn** 07 33 57.4 -0.6
ALN AML AML
ATAL Atalanti 3.18 287 P **Pn** 07 33 58.0 -0.4
ATAL Atalanti 3.18 287 P **Pn** 07 33 58.4 0.0
ACOR Acrocorinthos 3.19 273 P **Pn** 07 33 58.1 -0.5
VAM Vamos 3.23 223 P **Pn** 07 33 59.2 +0.1
THAS Thassos island 3.27 329 P **Pn** 07 33 59.0 -0.6
THAS AML AML
THAS Thassos island 3.27 329 P **Pn** 07 33 59.6 +0.1
THAS AML AML
PAIG Paliouri 3.29 311 P **Pn** 07 33 59.6 -0.2
PAIG AML AML
XOR Xorichti 3.30 299 P **Pn** 07 33 59.5 -0.5
XOR AML AML
VLI Veliai 3.34 252 P **Pn** 07 33 59.5 -1.2
VLI S **Sn** 07 34 39.5 -0.7
VLI AML AML
YLV Yalova 3.36 34 P **Pn** 07 34 02.2 +1.3
YLV AML AML
OUR Ouranopolis 3.40 319 P **Pn** 07 34 00.8 -0.5
OUR AML AML
KTHA Kythira Island 3.44 244 P **Pn** 07 34 00.5 -1.5
KTHA AML AML
KTHA Kythira Island 3.44 244 P **Pb** 07 34 07.1 -2.3
ANKY Antikythira Is 3.48 237 P **Pn** 07 34 01.1 -1.3
ANKY AML AML
GUR Goura 3.61 273 P **Pn** 07 34 04.0 -0.4
GUR AML AML
VLX Vlachokerasia 3.62 264 P **Pn** 07 34 04.5 0.0
VLX AML AML
KAVA Kavala 3.68 331 P **Pn** 07 34 04.9 -0.4
KAVA AML AML
KLV Kalavryta, Ach 3.76 275 P **Pn** 07 34 06.2 -0.2
KLV AML AML
AGG Agios Georgios 3.79 290 P **Pn** 07 34 06.7 -0.1
AGG AML AML
AGG Agios Georgios 3.79 290 P **Pn** 07 34 07.0 +0.2
AGG Agios Georgios 3.79 290 P **Pn** 07 34 07.0 +0.2
KALE Kalithea 3.80 280 P **Pn** 07 34 07.0 0.0
KALE AML AML
CTYL Yalikoy Yolu 3.82 16 P **Pn** 07 34 07.4 +0.3
CTYL AML AML
KEPZ Antalya-Kepez 3.85 102 ⇓P **Pn** 07 34 08.9 +1.2
SERG Sergoula 3.87 280 P **Pn** 07 34 08.1 +0.2
SERG AML AML
LAKA Lakka 3.91 278 P **Pn** 07 34 08.2 -0.3
LAKA AML AML
EFP Efpalio 3.99 280 P **Pn** 07 34 09.6 +0.1
EFP AML AML
ANX Ano Chora 4.00 283 P **Pn** 07 34 10.1 +0.3
ANX AML AML
KDZ Kurdzhali 4.00 343 P **Pn** 07 34 09.0 -0.7
KDZ AML AML
KDZ Kurdzhali 4.00 343 P **Pn** 07 34 09.6 -0.1
ITM Ithomi 4.01 263 P **Pn** 07 34 09.7 -0.1
ITM AML AML
ITM Ithomi 4.01 263 **Pn** 07 34 10.5 +0.7
ITM Ithomi 4.01 263 P **Pn** 07 34 10.9 +1.1
SOH Sokhos 4.08 319 P **Pn** 07 34 11.2 +0.5
SOH Sokhos 4.08 319 P **Pn** 07 34 11.3 +0.5
DRO Drossia 4.11 274 P **Pn** 07 34 11.3 +0.2
DRO S **Sn** 07 34 59.4 +0.2
DRO AML AML
EVR Evrytania 4.15 287 P **Pn** 07 34 12.0 +0.2
EVR AML AML
SRS Serrai 4.18 323 P **Pn** 07 34 11.9 -0.3
SRS S **Sn** 07 35 00.8 -0.1
SRS AML AML
SRS Serrai 4.18 323 P **Pn** 07 34 12.3 +0.1
THL Klokotos Trika 4.21 296 P **Pn** 07 34 12.8 +0.3
THL AML AML
NVR Nevrokopi 4.25 327 P **Pn** 07 34 12.5 -0.5
NVR S **Sn** 07 35 03.0 +0.4
NVR AML AML
DIM Dimitrovgrad 4.35 347 P **Pn** 07 34 14.0 -0.5
DIM AML AML
DIM Dimitrovgrad 4.35 347 P **Pn** 07 34 14.4 -0.1
MMB Musomishta 4.46 328 P **Pn** 07 34 16.0 0.0
MMB S **Sn** 07 35 08.0 +0.3
MMB AML AML
MMB Musomishta 4.46 328 P **Pn** 07 34 16.5 +0.5
KNT Kendrikon 4.56 318 P **Pn** 07 34 17.9 +0.5
KNT AML AML
KNT Kendrikon 4.56 318 P **Pn** 07 34 20.2 +2.8
PLD Plovdiv 4.64 340 P **Pn** 07 34 18.2 -0.2
PLD S **Sn** 07 35 12.2 +0.1
PLD AML AML
PLD Plovdiv 4.64 340 P **Pn** 07 34 18.6 +0.2
TETR Tetrakomo, Epi 4.67 291 P **Pn** 07 34 19.2 +0.2
TETR AML AML
GRG Griva 4.70 313 P **Pn** 07 34 19.5 +0.3
VAY Valandovo 4.85 318 *i* Pn **Pn** 07 34 23.5 +2.2
KKUL Konya-Kulu 4.91 72 P **Pn** 07 34 24.8 +2.5
KKB Krupnik 4.97 325 P Pn 07 34 16.6 -6.4
PEHC Pehcevo 5.02 323 *i* Pn Pn 07 34 29.5 +5.7
NEF NEVSHA 5.46 3 P **Pn** 07 34 29.6 -0.1
KBN Korca 5.52 303 P **Pn** 07 34 33.3 +2.8
comp=Z,75nm,1.1s
VTS Vitosha 5.56 331 P **Pn** 07 34 31.0 -0.3
VTS S **Sn** 07 35 37.1 +1.9
VTS Vitosha 5.56 331 P **Pn** 07 34 31.9 +0.6
BR105 Keskin Array S 5.58 68 P **Pn** 07 34 32.7 +1.1
comp=Z,0.2nmcomp=Z,416nmcomp=Z,25nm,1.3s
BR105 AML AML
BR106 Keskin Array S 5.59 68 P **Pn** 07 34 32.8 +1.2
comp=Z,0.2nmcomp=Z,308nmcomp=Z,28nm,1.2s
BR106 AML AML
BR104 Keskin Array S 5.60 68 P **Pn** 07 34 32.8 +1.0
comp=Z,0.1nmcomp=Z,337nmcomp=Z,39nm,1.0s
BR104 AML AML
BR131 Keskin Array S 5.60 68 P **Pn** 07 34 32.7 +0.9
BR131 Keskin Array S 5.60 68 **Pn** 07 34 32.7 +0.9
BRTR Keskin Array B 5.60 68 Pn **Pn** 07 34 32.9 +1.1
comp=Z,1.5nm,0.3s,baz=244,slow=14,SNR=27
BRTR LR LR 07 36 39.1
comp=Z,337nm,21.1s,baz=248,slow=38
comp=Z,7.7nm,0.6s
BRTR AML AML
KIRS Kirsehir-Merke 5.66 74 ⇑P **Pn** 07 34 33.6 +1.0
OHR Ohrid 5.76 307 *i* Pn **Pn** 07 34 37.5 +3.6
RAZG Razgrad 5.76 357 ⇑P **Pn** 07 34 35.0 +1.1
PLVB Pleven 5.84 343 ⇑P **Pn** 07 34 35.1 +0.2
KEK Kerkira 5.87 291 Pn **Pn** 07 34 36.5 +1.1
CSS Mathiatis 5.91 117 **Pn** 07 34 35.6 -0.4
CSS Mathiatis 5.91 117 P **Pn** 07 34 36.4 +0.4
comp=Z,0.2nmcomp=Z,39nm,0.8s
CSS AML AML
CSS Mathiatis 5.91 117 P **Pn** 07 34 39.6 +3.6
comp=Z,0.2nmcomp=Z,348nmcomp=Z,39nm,0.8s
CSS AML AML
CSS Mathiatis 5.91 117 P **Pn** 07 34 33.1 -2.9
comp=Z,39nm,0.8s
CSS Mathiatis 5.91 117 P **Pn** 07 34 35.3 -0.7
CSS S **Sn** 07 35 38.6 -5.0
ILGA Ilgaz 6.19 56 Pn **Pn** 07 34 40.4 +0.5
PHP Peshkopia 6.31 310 P **Pn** 07 34 43.0 +1.6
comp=Z,19nm,1.0s
ICOR Ion Corvin 6.34 6 ⇑P **Pn** 07 34 41.8 +0.1
BLKB Belogradchik 6.64 332 ⇑P **Pn** 07 34 46.2 +0.3
TIRR Tirgusor 6.74 9 P **Pn** 07 34 47.4 +0.1
TIRR Tirgusor 6.74 9 **Pn** 07 34 47.4 +0.1
HUMR Humele 6.87 348 ⇑P **Pn** 07 34 49.4 +0.3
HUMR Humele 6.87 348 P **Pn** 07 34 50.0 +0.9
comp=Z,119nm,0.8s
BOVS Bovan 7.03 328 ⇑P **Pn** 07 34 52.2 +1.0
CY604 RAF Akrotiri, 7.07 117 **Pn** 07 34 50.6 -0.9
DRME Dracevica, Mon 7.36 309 *e*Pn **Pn** 07 34 58.8 +3.0
SRE Strehaia 7.39 339 P **Pn** 07 34 56.3 +0.1
SRE Strehaia 7.39 339 ⇓P **Pn** 07 34 56.4 +0.1
CFR Carcaliu 7.42 7 P **Pn** 07 34 58.7 +2.1
CFR Carcaliu 7.42 7 ⇓P **Pn** 07 34 58.7 +2.1
PDG Podgorica 7.46 311 **Pn** 07 34 57.5 +0.4
PDG Podgorica 7.46 311 *e*Pn **Pn** 07 34 56.4 -0.7
PDG Podgorica 7.46 311 P **Pn** 07 35 00.0 +2.9
comp=Z,20nm,0.9s
SJES Sjenica 7.58 318 *e*Pn **Pn** 07 35 00.4 +1.5
MLR Muntele Rosu 7.71 355 Pn **Pn** 07 35 00.6 -0.1
comp=Z,0.3nm,0.3s,baz=185,slow=6.6,SNR=8.9
MLR LR LR 07 38 31.6
comp=Z,1µm,20.2s,baz=188,slow=42
comp=Z,9.6nm,0.8s
MLR AML AML
MLR Muntele Rosu 7.71 355 P **Pn** 07 35 01.8 +1.1
MLR Muntele Rosu 7.71 355 **Pn** 07 35 01.4 +0.7
MLR Muntele Rosu 7.71 355 ⇓P **Pn** 07 35 01.8 +1.1
MLR Muntele Rosu 7.71 355 P **Pn** 07 35 00.9 +0.2
comp=Z,0.3nmcomp=Z,42nm,0.9s
MLR AML AML
MLR Muntele Rosu 7.71 355 P **Pn** 07 35 03.5 +2.8
comp=Z,42nm,1.0s
ARR Arges 7.74 348 ⇓P **Pn** 07 35 02.3 +1.2
ARR Arges 7.74 348 P **Pn** 07 35 02.6 +1.5
comp=Z,19nm,1.1s
VOIR 7.75 350 P **Pn** 07 35 02.5 +1.3
VOIR 7.75 350 ⇑P **Pn** 07 35 02.5 +1.3
VOIR 7.75 350 P **Pn** 07 35 02.2 +1.0
comp=Z,0.1nmcomp=Z,23nm,0.9s
VOIR AML AML
VOIR 7.75 350 P **Pn** 07 35 03.6 +2.4
comp=Z,23nm,1.0s
HERR Herculane 7.83 336 ⇑P **Pn** 07 35 02.5 +0.2
TOKA Tokat 7.86 68 **Pn** 07 35 02.9 +0.1
HCY Herceg Novi 7.93 308 *e*Pn **Pn** 07 35 05.3 +1.6
LOT Lotru 7.99 344 ⇑P **Pn** 07 35 04.8 +0.3
MDVR Moldovita 7.99 332 ⇑P **Pn** 07 35 04.0 -0.4
PLOR Plostina 8.04 359 P **Pn** 07 35 06.8 +1.7
PLOR Plostina 8.04 359 ⇓P **Pn** 07 35 06.9 +1.7
VRI Vrincioaia 8.05 359 P **Pn** 07 35 06.4 +1.1
VRI Vrincioaia 8.05 359 ⇑P **Pn** 07 35 06.4 +1.1
VRI Vrincioaia 8.05 359 P **Pn** 07 35 06.4 +1.1
comp=Z,1µmcomp=Z,56nm,0.9s
VRI Vrincioaia 8.05 359 P **Pn** 07 35 08.6 +3.2
comp=Z,56nm,0.9s
TIP Timpagrande 8.07 283 **Pn** 07 35 06.5 +0.8
TIP Timpagrande 8.07 283 ⇑P **Pn** 07 35 06.4 +0.8
TIP Timpagrande 8.07 283 P **Pn** 07 35 06.0 +0.4
comp=Z,421nmcomp=Z,45nm,1.2s
TIP Timpagrande 8.07 283 P **Pn** 07 35 06.7 +1.0
comp=Z,56nm,1.2s
UPM Unac-Piva 8.13 314 *e*Pn **Pn** 07 35 09.7 +3.1
BRY Bratogost 8.16 311 *e*Pn **Pn** 07 35 08.3 +1.4
TREB Trebinje 8.17 310 *e*Pn **Pn** 07 35 07.9 +1.0
DOPR Dopca 8.23 353 ⇑P **Pn** 07 35 08.1 +0.3
GHRR 8.26 2 P **Pn** 07 35 09.1 +1.0
GHRR 8.26 2 P Pn 07 35 12.5 +4.5
comp=Z,89nm,0.8s
TURR Turia 8.27 356 ⇑P **Pn** 07 35 09.4 +1.1
KLINJ Klinje 8.29 313 *e*Pn **Pn** 07 35 11.3 +2.6
BBLS Lazi&#263i 8.30 319 *e*Pn **Pn** 07 35 10.8 +2.1
OZUR 8.32 355 ⇑P **Pn** 07 35 09.9 +0.9
MMA0B Mount Meron ar 8.43 122 P **Pn** 07 35 09.3 -1.2
MMA0B S **Sn** 07 36 40.1 -5.5
MMAI Mount Meron Ar 8.43 122 Pn **Pn** 07 35 07.9 -2.7
comp=Z,3.0nm,0.3s,baz=309,slow=15,SNR=12
MMAI Sn **Sn** 07 36 40.7 -4.9
comp=Z,15nm,0.3s,baz=139,slow=31,SNR=3.4
MMAI LR LR 07 39 16.4
comp=Z,110nm,20.5s,baz=299,slow=44
SEV Sevastopol' 8.44 35 *e*P **Pn** 07 35 10.7 +0.1
SEV *e*S **Sn** 07 36 42.7 -3.1
SEV Sevastopol' 8.44 35 *e*P **Pn** 07 35 10.7 +0.1
SEV pmax pmax 07 35 31.1
comp=Z,4.0nm,0.6s
SEV *e*S **Sn** 07 36 42.7 -3.1
SEV smax smax 07 36 46.5
comp=N,3.0nm,0.3s
SEV smax smax 07 36 46.5
comp=E,5.0nm,0.6s
GEM Giv'at Ha'Em 8.49 120 P **Pn** 07 35 10.3 -1.0
GEM S **Sn** 07 36 41.1 -5.9
MDB Medias 8.54 348 P **Pn** 07 35 13.3 +1.4
MDB Medias 8.54 348 ⇓P **Pn** 07 35 13.3 +1.4
DEV Deva 8.60 341 P **Pn** 07 35 14.3 +1.4
comp=Z,28nm,1.3s
YAL Yalta 8.63 37 smax smax 07 36 46.5
comp=E,12nm,0.3s
YAL *e*S **Sn** 07 36 47.4 -2.9
YAL smax smax 07 36 47.9
comp=N,14nm,0.5s
CEL Celeste 8.70 276 **Pn** 07 35 13.8 -0.4
CEL Celeste 8.70 276 P **Pn** 07 35 14.5 +0.3
comp=N,26nm,0.9s
CEL Celeste 8.70 276 P **Pn** 07 35 14.8 +0.5
comp=Z,26nm,0.9s
TESR Tescani 8.70 359 ⇑P **Pn** 07 35 15.5 +1.3
TESR Tescani 8.70 359 P **Pn** 07 35 14.6 +0.4
comp=Z,35nm,1.1s
TESR Tescani 8.70 359 P **Pn** 07 35 17.2 +3.0
comp=Z,35nm,0.8s
SURR Surduc 8.70 337 ⇓P **Pn** 07 35 14.2 0.0
TEKS Tekeris 8.73 323 *e*Pn **Pn** 07 35 12.3 -2.3
BZS Buzias 8.74 335 P **Pn** 07 35 15.3 +0.6
BZS Buzias 8.74 335 ⇓P **Pn** 07 35 15.3 +0.6
BZS Buzias 8.74 335 P **Pn** 07 35 14.8 0.0
comp=Z,18nm,1.0s
MMLI Mount Malkishu 8.80 125 P **Pn** 07 35 14.1 -1.5
MMLI S **Sn** 07 36 48.7 -5.9
ALU Alushta 8.89 37 *e*S **Sn** 07 36 51.1 -5.7
ALU smax smax 07 36 53.5
comp=N,8.0nm,0.4s
ALU smax smax 07 36 53.5
comp=E,6.0nm,0.4s
CUC Castrocucco 8.91 288 **Pn** 07 35 17.1 -0.1
CUC Castrocucco 8.91 288 P **Pn** 07 35 18.6 +1.4
comp=Z,20nm,1.1s
QRNJ Al-Qirein 8.96 125 P **Pn** 07 35 21.7 +4.0
comp=Z,18nmcomp=Z,36µmcomp=Z,3µm,0.8s
QRNJ AML AML
MARCO Tramutola 8.98 289 P **Pn** 07 35 19.5 +1.4
comp=Z,42nm,1.4s
ACER Acerenza 9.00 293 **Pn** 07 35 18.5 +0.1
FRGS Fruska Gora 9.06 326 *e*Pn **Pn** 07 35 23.3 +4.1
BIZ Bicaz 9.14 357 ⇑P **Pn** 07 35 21.1 +0.8
KZIT Kziot 9.26 136 P **Pn** 07 35 22.2 +0.3
comp=Z,1µmcomp=Z,101nm,1.2s
KZIT Kziot 9.26 136 P **Pn** 07 35 20.9 -1.0
comp=Z,101nm,1.2s
KZIT Kziot 9.26 136 P **Pn** 07 35 20.9 -1.0
KZIT S **Sn** 07 37 00.6 -5.4
SIRR Siria 9.31 337 ⇑P **Pn** 07 35 22.8 +0.3
SUDU Sudak 9.33 38 *e*S **Sn** 07 37 05.5 -2.1
SUDU smax smax 07 37 08.3
comp=N,30nm,0.6s
SUDU smax smax 07 37 08.3
comp=E,24nm,0.6s
DRGR 9.50 342 P **Pn** 07 35 26.2 +1.0
DRGR 9.50 342 ⇑P **Pn** 07 35 26.2 +1.0
DRGR 9.50 342 P **Pn** 07 35 28.7 +3.5
comp=Z,15nm,1.0s
RMNI Mount Ramon 9.70 136 P **Pn** 07 35 26.8 -1.2
RMNI S **Sn** 07 37 11.5 -5.4
BURAR Bucovina Array 9.88 353 P **Pn** 07 35 32.4 +2.0
BURAR Bucovina Array 9.88 353 **Pn** 07 35 31.4 +1.0
BURAR Bucovina Array 9.88 353 ⇓P **Pn** 07 35 32.4 +2.0
ASF Jabal al Asfar 9.90 122 Pn **Pn** 07 35 30.0 -1.3
comp=Z,1.1nm,0.3s,baz=282,slow=10,SNR=6.3
ASF LR LR 07 40 26.9
comp=Z,88nm,20.4s,baz=290,slow=44
comp=Z,3.7nm,0.6s

ASF AML AML
BUR08 Bucovina Ar. S 9.91 353 Pn 07 35 31.7 +0.8
VAE Valguarnera 9.91 272 Pn **Pn 07 35 31.3 +0.5**
comp=Z,12nm,0.7s,baz=45,slow=10.0,SNR=3.7
VAE LR LR 07 38 45.0
comp=Z,182nm,20.3s,baz=114,slow=34
RAFF Raffo Rosso 9.98 270 Pn **Pn 07 35 32.8 +1.0**
PRNI Paran 10.02 136 P **Pn 07 35 33.2 +0.9**
comp=Z,51nm,0.8s
PAOL Paolisi 10.07 292 Pn 07 35 33.8 +0.7
BLY Banja Luka 10.07 317 Pn 07 35 34.1 +1.1
BLY Banja Luka 10.07 317 *e*Pn **Pn 07 35 33.4 +0.4**
BLY Banja Luka 10.07 317 P **Pn 07 35 35.2 +2.2**
comp=Z,19nm,1.0s
BMR Baia Mare 10.17 347 P **Pn 07 35 36.8 +2.5**
comp=Z,25nm,0.8s
HRFI Mount Harif 10.28 137 P **Pn 07 35 36.3 +0.4**
comp=Z,24nm,1.0s
HRFI Mount Harif 10.28 137 P **Pn 07 35 35.2 -0.6**
comp=Z,24nm,1.0s
HRFI Mount Harif 10.28 137 P **Pn 07 35 34.9 -1.0**
HRFI S **Sn 07 37 25.4 -5.7**
SORM Soroca 10.38 5 P **Pn 07 35 36.8 -0.3**
comp=Z,20nm,0.8s
MORH Mrgy, Hungar 10.40 326 ⇓P **Pn 07 35 37.7 +0.2**
MORH Mrgy, Hungar 10.40 326 *e*Pn **Pn 07 35 37.1 -0.4**
MORH Mrgy, Hungar 10.40 326 P **Pn 07 35 37.6 +0.2**
comp=Z,7.1nm,0.8s
MORH Mrgy, Hungar 10.40 326 P **Pn 07 35 38.3 +0.8**
comp=Z,7.8nm,2.1s
EIL Elat 10.52 138 Pn **Pn 07 35 37.5 -1.6**
comp=Z,1.6nm,0.3s,baz=301,slow=3.7,SNR=8.2
EIL Sn **Sn 07 37 29.9 -7.1**
comp=Z,2.1nm,0.3s,baz=109,slow=20,SNR=5.9
EIL LR LR 07 42 07.5
comp=Z,125nm,18.1s,baz=306,slow=52
comp=Z,6.2nm,0.4s
EIL AML AML
EIL Elat 10.52 138 P **Pn 07 35 42.0 +2.8**
EIL Elat 10.52 138 P **Pn 07 35 38.9 -0.3**
comp=Z,17nm,0.8s
EIL Elat 10.52 138 P **Pn 07 35 37.9 -1.3**
EIL S **Sn 07 37 31.5 -5.5**
KMPD K-Podol'skiy 10.76 358 P **Pn 07 35 41.8 -0.5**
INTR Introdacqua 10.83 297 Pn 07 35 43.0 -0.5
CLTB Caltabellotta 10.85 273 P **Pn 07 35 44.9 +1.2**
comp=Z,60nm,1.3s
AQU L'Aquila 11.29 298 P **Pn 07 35 50.1 +0.4**
AQU L'Aquila 11.29 298 Pn 07 35 50.1 +0.4
AQU L'Aquila 11.29 298 P **Pn 07 35 49.8 +0.1**
comp=Z,16nm,1.1s
AQU L'Aquila 11.29 298 P **Pn 07 35 51.2 +1.4**
comp=Z,16nm,1.2s
SOC Sochi 11.30 55 *e*P **Pn 07 35 50.0 +0.2**
SOC *e* 07 38 00.5
SOC pmax pmax
comp=Z,18nm,0.8s
SOC MLR MLR
comp=Z,329nm,13.0s
PSZ Piszkesteto 11.33 335 P **Pn 07 35 50.3 0.0**
PSZ Piszkesteto 11.33 335 Pn 07 35 50.3 0.0
PSZ Piszkesteto 11.33 335 P **Pn 07 35 50.8 +0.6**
comp=Z,12nm,1.2s
KOLS Kolonicke sedl 11.62 345 *e*P Pn 07 35 59.1 +5.0
KOLS Kolonicke sedl 11.62 345 *e*PN Pn 07 35 59.1 +5.0
MPLH Magyarpolny 11.62 327 P **Pn 07 35 54.6 +0.4**
comp=Z,49nm,1.1s
MPLH Magyarpolny 11.62 327 P **Pn 07 35 55.7 +1.5**
comp=Z,20nm,1.1s
LUBAR Lubar, Ukraine 12.12 3 P **Pn 07 36 00.2 -0.8**
VYHS Vyhne 12.19 334 *e*P **Pn 07 36 05.1 +3.2**
VYHS Vyhne 12.19 334 *e*PN **Pn 07 36 05.1 +3.2**
SOKA Soboth 12.47 319 *e*Pn **Pn 07 36 08.8 +2.9**
comp=Z,3.6nm,1.2s
NIE Niedzica 12.55 340 P **Pn 07 36 06.9 +0.1**
RONA Rosalia, Austr 12.57 325 *e*Pn **Pn 07 36 09.0 +1.8**
comp=Z,6.1nm,1.4s
ARSA Arzberg 12.62 322 Pn 07 36 07.6 -0.2
ARSA Arzberg 12.62 322 *e*Pn **Pn 07 36 09.0 +1.2**
comp=Z,7.3nm,1.3s
MODS Modra-Piesok 12.68 329 *e*P Pn 07 36 16.3 +7.7
MODS Modra-Piesok 12.68 329 *e*PN Pn 07 36 16.3 +7.7
AK13 Malin Array Si 12.89 6 P **Pn 07 36 11.8 +0.3**
AK12 Malin Array Si 12.93 6 P **Pn 07 36 12.3 +0.2**
AK11 Malin Array Si 12.97 6 P **Pn 07 36 13.9 +1.4**
AKASG Malin Array Be 13.00 7 Pn **Pn 07 36 14.3 +1.3**
comp=Z,0.4nm,0.3s,baz=202,slow=12,SNR=2.0
AKASG LR LR 07 41 56.5
comp=Z,441nm,19.4s,baz=198,slow=41
comp=Z,0.2nm,0.3s
AKASG AML AML
AKBB Malin Array Si 13.00 7 *i*P **Pn 07 36 13.2 +0.3**
SESA Seetaler Alpe, 13.00 320 *e*Pn Pn 07 36 20.1 +6.9
comp=Z,5.7nm,1.4s
MYKA Terra Mystica 13.19 316 *e*Pn **Pn 07 36 15.5 -0.1**
comp=Z,4.2nm,1.6s
KIV Kislovodsk 13.42 58 *e*P **Pn 07 36 19.8 +0.9**
KIV pmax pmax
comp=Z,7.0nm,1.1s
KIV MLR MLR
comp=Z,214nm,13.0s
KVAR Kislovodsk Arr 13.43 58 LR LR 07 42 28.5
comp=Z,287nm,19.9s,baz=86,slow=42
RNPP5 Staryi Chortor 13.44 357 P **Pn 07 36 19.3 +0.4**
KBZ Khabaz 13.48 59 LR LR 07 43 06.4
comp=Z,391nm,18.0s,baz=256,slow=44
KBZ Khabaz 13.48 59 *i*P **Pn 07 36 21.8 +2.2**
RNPP8 Varash 13.55 357 P **Pn 07 36 20.7 +0.3**
OKC Ostrava-Krasne 13.57 335 AMS AMS 07 41 40.0
comp=Z,900nm,7.9s
KBA Koelnbreinsper 13.62 317 *e*Pn **Pn 07 36 23.7 +2.0**
comp=Z,16nm,1.2s
RNPP9 Sopachiv 13.62 357 P **Pn 07 36 21.8 +0.4**
ABNA Allensteig Bun 13.68 326 *e*Pn **P 07 36 33.0 +1.8**
comp=Z,14nm,1.4s
VRAC Vranov 13.70 330 LR LR 07 42 08.2
comp=Z,320nm,19.9s,baz=142,slow=39
GNI Garni 14.08 75 LR LR 07 41 53.8
comp=Z,314nm,19.8s,baz=282,slow=37
GNI Garni 14.08 75 *i*P **Pn 07 36 28.5 +0.6**
TREC Trest 14.13 328 *e*P **P 07 36 38.4 +2.3**
TREC MLR MLR
comp=Z,600nm,15.5s
TREC Trest 14.13 328 *e*P **P 07 36 38.4 +2.3**
TREC AMS AMS 07 42 40.0
comp=Z,600nm,15.5s
KEST Kesra 14.23 267 Pn **Pn 07 36 30.8 +0.9**
comp=Z,0.1nm,0.3s,baz=102,slow=6.1,SNR=4.7
KEST LR LR 07 43 22.8
comp=Z,90nm,19.5s,baz=72,slow=43
comp=Z,4.0nm,0.9s
KEST AML AML
KEST Kesra 14.23 267 Pn 07 36 29.8 -0.1
CKRC Cesky Krumlov 14.30 324 *e*P **P 07 36 39.9 +1.9**
CKRC MLR MLR
comp=Z,600nm,12.1s
CKRC Cesky Krumlov 14.30 324 *e*P **P 07 36 39.9 +1.9**
CKRC AMS AMS 07 41 50.0
comp=Z,600nm,12.1s
GEC2 GERESS Array S 14.60 323 P **Pn 07 36 35.8 +0.8**
comp=Z,9.2nm,1.2s
GERES GERESS Array B 14.60 323 Pn **Pn 07 36 37.3 +2.3**
baz=148,slow=10,SNR=20
GERES LR LR 07 43 07.7
comp=Z,365nm,19.4s,baz=124,slow=41
comp=Z,0.9nm,0.9s
GERES GERESS Array B 14.60 323 Pn 07 36 35.1 +0.1
DPC Dobruska-Polom 14.64 332 *e*P **Pn 07 36 37.2 +1.7**
DPC MLR MLR
comp=Z,500nm,9.4s
DPC Dobruska-Polom 14.64 332 *e*P **Pn 07 36 37.2 +1.7**
DPC AMS AMS 07 42 20.0
comp=Z,500nm,9.4s
DPC Dobruska-Polom 14.64 332 P **Pn 07 36 37.9 +2.4**
comp=Z,5.8nm,1.2s
WATA Walderalm 14.75 315 Pn **P 07 36 40.7 -2.4**
comp=Z,15nm,1.3s
ZVC Zvikov 14.80 326 *e*P **P 07 36 44.5 +1.0**
ZVC AMS AMS 07 43 10.0
comp=Z,500nm,14.5s
OSTC Ostas 14.85 333 *e*P **P 07 36 45.4 +1.3**
OSTC MLR MLR
comp=Z,800nm,7.3s
OSTC Ostas 14.85 333 *e*P **P 07 36 45.4 +1.3**
OSTC AMS AMS 07 42 10.0
comp=Z,800nm,7.3s

KHC Kasperske Hory 14.86 324 *i*P **Pn 07 36 40.1 +1.6**
KHC Kasperske Hory 14.86 324 Pn 07 36 39.7 +1.3
KHC Kasperske Hory 14.86 324 *e*P **P 07 36 45.2 +1.0**
KHC AMS AMS 07 42 00.0
comp=Z,900nm,9.1s
KHC Kasperske Hory 14.86 324 P **P 07 36 44.1 -0.1**
comp=Z,12nm,1.4s
UPC Upice 14.89 332 *e*P **P 07 36 48.8 +4.3**
UPC MLR MLR
comp=Z,700nm,7.4s
UPC Upice 14.89 332 *e*P **P 07 36 48.8 +4.3**
UPC AMS AMS 07 43 20.0
comp=Z,700nm,7.4s
SQTA Sankt Quirin 14.89 314 *e*Pn **P 07 36 45.3 +0.7**
comp=Z,11nm,1.4s
CHVC Chvalec 14.94 332 AMS AMS 07 42 20.0
comp=Z,800nm,6.6s
MOTA Moosalm 15.02 314 *e*Pn **P 07 36 45.0 -1.1**
comp=Z,5.6nm,1.1s
FETA Feichten 15.06 313 Pn **Pn 07 36 41.1 -0.1**
comp=Z,11nm,1.1s
PRU Pruhonice 15.06 328 *e*P **P 07 36 47.5 +1.1**
PRU MLR MLR
comp=Z,500nm,14.3s
PRU Pruhonice 15.06 328 *e*P **P 07 36 47.5 +1.1**
PRU AMS AMS 07 43 20.0
comp=Z,500nm,14.3s
FUORN Ofenpass-Fuorn 15.13 311 Pn 07 36 43.9 +1.6
FUORN IAmb IAmb 07 36 51.4
comp=Z,13nm,1.1s
DAVOX Davos/Dischmat 15.44 311 Pn **Pn 07 36 45.7 -0.5**
comp=Z,0.2nm,0.3s,baz=127,slow=15,SNR=5.3
DAVOX LR LR 07 43 40.3
comp=Z,516nm,19.0s,baz=109,slow=41
comp=Z,1.3nm,0.8s
DAVOX AML AML
PVCC Panska Ves 15.46 329 *e*P **P 07 36 52.2 +1.4**
PVCC MLR MLR
comp=Z,600nm,13.1s
PVCC Panska Ves 15.46 329 *e*P **P 07 36 52.2 +1.4**
PVCC AMS AMS 07 43 50.0
comp=Z,600nm,13.1s
DAVA Damuels 15.69 313 Pn **Pn 07 36 50.1 +0.6**
comp=Z,8.5nm,1.6s
VORD Divnogorie 15.83 30 *e*P **Pn 07 36 51.8 +0.7**
VORD pmax pmax
comp=Z,6.0nm,0.7s
VSR Storozhevoye 15.98 29 *e*P **Pn 07 36 52.8 -0.2**
VSR pmax pmax
comp=Z,22nm,1.1s
BRG Berggiesshubel 15.98 329 P **P 07 36 58.2 +1.6**
BRG Berggiesshubel 15.98 329 P **P 07 36 58.2 +1.6**
comp=Z,8.4nm,1.9s
BRG Berggiesshubel 15.98 329 *e*P **P 07 36 57.9 +1.3**
BRG Amp 07 37 02.6
comp=Z,6.9nm,1.0s
HSKC Hora Svate Kat 16.00 327 AMS AMS 07 42 50.0
comp=Z,700nm,7.9s
NKC Novy Kostel 16.16 325 AMS AMS 07 43 00.0
comp=Z,600nm,14.4s
CALF Calern 16.24 298 P **P 07 36 58.1 -1.6**
comp=Z,22nm,1.5s
VORR Voronezh 16.36 28 P **P 07 37 01.2 +0.5**
VORR pmax pmax
comp=Z,6.0nm,0.6s
SUW Suwalki 16.41 352 P **Pn 07 36 58.9 +0.4**
SUW Suwalki 16.41 352 Pn 07 36 58.9 +0.4
MAK Makhachkala 16.51 65*c* *i*P **Pn 07 36 55.4 -4.4**
MAK *e*S **Sn 07 39 57.1 -5.8**
MAK pmax pmax
comp=Z,52nm,0.3s
MAK MLR MLR
comp=Z,206nm,14.0s
CLL Collm 16.70 328 *e*P **P 07 37 06.0 +1.5**
CLL pmax pmax
comp=Z,12nm,1.1s
CLL Collm 16.70 328 *es*P **P 07 37 06.0 +1.5**
comp=Z,12nm,1.1s
CLL *e*(sPP) 07 37 19.0
CLL *e*S **S 07 40 18.0 -0.6**
CLL L L 07 41 00.0
CLL AMS AMS 07 42 00.0
comp=N,400nm,18.8s
CLL AMS AMS 07 42 00.0
comp=E,500nm,17.4s
CLL AMS AMS 07 42 00.0
comp=Z,300nm,21.5s
CLL AMS AMS 07 43 00.0
comp=Z,300nm,17.7s
MNK Minsk 16.71 2 *i*P **Pn 07 37 01.8 -0.5**
MNK *i*S **Sn 07 40 08.1 +0.4**
MNK pmax pmax
comp=Z,34nm,0.7s
MNK pmax pmax
comp=N,7.0nm,0.6s
MNK pmax pmax
comp=E,25nm,0.9s
MNK MLR MLR
comp=E,328nm,16.0s
MNK MLR MLR
comp=N,116nm,16.0s
MNK MLR MLR
comp=Z,426nm,16.0s
MNK Minsk 16.71 2 *i*P **Pn 07 37 01.8 -0.5**
comp=E,25nm,0.9s
MNK *i*P **Pn 07 37 01.8 -0.5**
comp=N,7.0nm,0.6s
MNK *i*P **Pn 07 37 01.8 -0.5**
comp=Z,34nm,0.7s,baz=182
MNK *i*PP **PnPn 07 37 11.2 -0.5**
MNK *i*S **Sn 07 40 08.1 +0.4**
MNK *i*SS **SnSn 07 40 22.6 +1.7**
MNK *i*SSS SSS 07 40 35.4
MNK *i*LQ LQ 07 40 53.5
MNK *i*LR LR 07 42 29.7
MNK *i*LRM MLR 07 43 53.3
comp=E,328nm,16.0s
MNK *i*LRM MLR 07 43 55.9
comp=N,116nm,16.0s
MNK *i*LRM MLR 07 43 55.9
comp=Z,426nm,16.1s
SLE Schleitheim 16.74 312 P **P 07 37 03.8 -1.3**
comp=Z,9.0nm,1.1s
BNI Bardonecchia 16.78 302 P **P 07 37 09.2 +3.6**
BNI pmax pmax
comp=Z,23nm,1.5s
BNI Bardonecchia 16.78 302 P **P 07 37 09.2 +3.6**
BNI IAmb IAmb 07 37 18.8
comp=Z,23nm,1.5s
MOX Moxa 16.83 325 P **P 07 37 08.1 +2.1**
MOX Moxa 16.83 325 P **P 07 37 08.1 +2.1**
comp=Z,11nm,2.0s
SENIN Lac Senin/Sane 16.84 307 Pn 07 37 04.3 0.0
LPSR Galich'ya Gora 17.01 26 *e*P **Pn 07 37 05.3 -0.8**
LPSR pmax pmax
comp=Z,9.0nm,0.4s
VRH Novokhopyorsk 17.02 33 *e*P **P 07 37 11.5 +3.5**
VRH pmax pmax
comp=Z,10.0nm,1.2s
NACGM Naroch 17.10 360 *e*P **Pn 07 37 06.0 -1.2**
comp=Z,10.0nm,0.8s,baz=180
PABE Paberze 17.82 355 P **Pn 07 37 14.1 -2.0**
comp=Z,37nm,1.8s
OBN Obninsk 18.52 18 LR LR 07 45 23.3
comp=Z,396nm,18.2s,baz=200,slow=40
OBN Obninsk 18.52 18⇓ *e*P **Pn 07 37 24.5 -0.2**
OBN pmax pmax
comp=Z,8.0nm,0.4s
OBN MLR MLR
comp=Z,526nm,17.0s
MOS Moscow 19.34 19 *e*P **Pn 07 37 36.5 +1.8**
MOS pmax pmax
comp=Z,26nm,0.7s
CORI Orista 19.50 290 IAmb IAmb 07 37 36.7
comp=Z,29nm,1.4s
BELG Belogornoye 20.55 38 P **P 07 37 46.8 0.0**
comp=Z,15nm,1.0s,baz=194,slow=3.4,SNR=4.6
comp=Z,15nm,1.0s
BELG Belogornoye 20.55 38 *i*P Pn 07 37 48.1 -0.9
BELG pmax pmax
comp=Z,6.0nm,1.4s
RAYN Ar Rayn 21.36 127 P **P 07 38 01.4 +5.5**
comp=Z,6.5nm,1.4s
UCM Universidad Co 23.49 286 P **P 07 38 18.1 -0.1**
comp=Z,31nm,1.6s
FINES FINESS Array B 23.67 359 P **P 07 38 19.4 -0.2**
comp=Z,2.5nm,0.8s,baz=157,slow=10,SNR=3.7
FINES LR LR 07 47 46.4
comp=Z,334nm,18.4s,baz=193,slow=37
comp=Z,2.5nm,0.8s
FINES FINESS Array B 23.67 359 P **P 07 38 19.6 0.0**
TAM Tamanrasset 23.68 237 P **P 07 38 20.8 +0.5**
TAM Tamanrasset 23.68 237 P 07 38 20.8 +0.5
TAM Tamanrasset 23.68 237 P **P 07 38 22.1 +1.8**
comp=Z,13nm,1.6s
HFS Hagfors 23.88 344 LR LR 07 48 49.7
comp=Z,415nm,18.2s,baz=164,slow=39
ESDC Sonseca Array 24.09 284 P **P 07 38 23.0 -1.0**
comp=Z,4.3nm,1.1s,baz=81,slow=9.7,SNR=14
ESDC LR LR 07 47 48.5
comp=Z,60nm,19.9s,baz=88,slow=37
comp=Z,4.3nm,1.1s
ESDC Sonseca Array 24.09 284 P 07 38 23.4 -0.6
KLMR Klimovskoe 24.40 15 *e*P **P 07 38 24.4 -2.1**
KLMR pmax pmax
comp=Z,29nm,1.4s
NOA NORSAR Array B 25.26 342 P **P 07 38 34.4 +0.1**
comp=Z,6.0nm,1.2s,baz=159,slow=9.2,SNR=4.3
NOA LR LR 07 49 50.6
comp=Z,318nm,18.5s,baz=155,slow=40
comp=Z,6.0nm,1.2s
KIRV Kirov 25.41 28 LR LR 07 50 24.7
comp=Z,202nm,18.3s,baz=229,slow=41
KIRV Kirov 25.41 28 *i*P **P 07 38 35.4 -0.2**
MDT Midelt 26.12 269 LR LR 07 49 42.2
comp=Z,48nm,21.7s,baz=84,slow=38
MD01 Midelt array s 26.22 269 P 07 38 43.6 +0.2
MD31 MD31 26.22 269 P 07 38 43.1 -0.3
MD31 IAmb IAmb 07 38 47.2
comp=Z,7.3nm,1.1s
AB31 Akbulak array 26.34 54 P **P 07 38 44.9 +0.8**
ABKAR Akbulak array 26.34 54 P **P 07 38 44.9 +0.7**
EKA Eskdalemuir Ar 26.79 321 LR LR 07 51 30.1
comp=Z,174nm,19.9s,baz=178,slow=41
POLO Lamas de Olo 26.86 289 *e*P **P 07 38 49.6 +0.4**
PESTR Estremoz 26.98 283 *e*P **P 07 38 51.3 +1.1**
PESTR IAmb IAmb 07 39 01.6
comp=Z,25nm,1.9s
PBEJ Beja 27.34 281 *e*P **P 07 38 54.4 +1.1**
PVAQ Vaqueiros 27.34 280 *e*P **P 07 38 53.5 +0.2**
PVAQ IAmb IAmb 07 38 56.8
comp=Z,24nm,1.3s
PBDV Barranco-do-Ve 27.54 280 *e*P **P 07 38 56.1 +0.9**
PCVE Castro Verde 27.55 281 *e*P **P 07 38 54.5 -0.7**
MESJ Messejana 27.65 281 *e*P **P 07 38 55.4 -0.7**
MESJ IAmb IAmb 07 38 57.0
comp=Z,6.3nm,0.8s
MESJ Messejana 27.65 281 *e*P **P 07 38 55.4 -0.7**
MESJ Messejana 27.65 281 *e*P **P 07 38 56.5 +0.4**
ARTI Arti 28.00 38 LR LR 07 50 51.5
comp=Z,66nm,18.3s,baz=302,slow=38
ARTI Arti 28.00 38 *i*P **P 07 38 59.1 +0.1**
ARCES ARCESS Array B 31.80 359 LR LR 07 52 35.5
comp=Z,223nm,19.3s,baz=181,slow=37
TORD Torodi Ar. Bea 33.27 229 P **P 07 39 45.9 -0.1**
comp=Z,4.3nm,0.9s,baz=33,slow=8.8,SNR=15
comp=Z,4.3nm,0.9s
KK31 Karatay Array 33.31 67 P **P 07 39 46.5 +0.4**
KK31 pmax pmax
comp=Z,3.0nm,1.1s
KK31 Karatay Array 33.31 67 P **P 07 39 46.5 +0.4**
KK31 IAmb IAmb 07 39 49.0
comp=Z,2.5nm,1.1s
KKAR Karatay Array 33.31 67 P **P 07 39 45.7 -0.4**
KKAR Karatay Array 33.31 67 P **P 07 39 45.7 -0.4**
BORK Borovoye 33.49 49 *i*P **P 07 39 49.8 +2.3**
BORK pmax pmax
comp=Z,4.0nm,1.4s
AAK Ala-Archa 36.28 67 LR LR 07 56 34.1
comp=Z,72nm,20.2s,baz=294,slow=39
AAK Ala-Archa 36.28 67 *i*P **P 07 40 12.6 +0.7**
AAK pmax pmax
comp=Z,15nm,3.8s
NRN Naryn 37.59 69 IAmb IAmb 07 40 29.1
comp=Z,4.9nm,1.1s
KURBB Kurchatov Arra 38.39 54 P **P 07 40 30.2 +0.7**
comp=Z,0.6nm,0.2s,baz=277,slow=8.8,SNR=7.2
KURBB LR LR 08 00 13.7
comp=Z,142nm,20.6s,baz=200,slow=42
comp=Z,0.6nm,0.2s
KURK Kurchatov 38.45 53 P **P 07 40 30.8 +0.8**
KURK pmax pmax
comp=Z,4.0nm,1.1s
KURK Kurchatov 38.45 53 P **P 07 40 30.8 +0.8**
TARG Taragay, Kyrgy 38.86 68 P **P 07 40 34.5 +0.4**
TARG pmax pmax
comp=Z,3.0nm,1.0s
TARG Taragay, Kyrgy 38.86 68 P **P 07 40 34.5 +0.4**
BORG Borgarnes 38.94 329 LR LR 07 59 09.4
comp=Z,145nm,18.1s,baz=112,slow=40
SPITS Spitsbergen Ar 40.72 357 LR LR 07 58 42.8
comp=Z,145nm,19.3s,baz=169,slow=38
MK31 Makanchi Array 41.18 59*ce*P **P 07 40 53.9 +1.1**
MKAR Makanchi Array 41.18 59 P **P 07 40 53.0 +0.2**
comp=Z,1.8nm,0.9s,baz=280,slow=7.3,SNR=7.3
MKAR LR LR 07 59 49.5
comp=Z,72nm,19.3s,baz=264,slow=39
comp=Z,1.8nm,0.9s
MKAR Makanchi Array 41.18 59 P 07 40 53.6 +0.8
ZAA0 Zalesovo Array 42.18 48 P **P 07 41 01.4 +0.6**
ZAA0 IAmb IAmb 07 41 23.3
comp=Z,5.8nm,1.4s
ZALV Zalesovo Beam 42.18 48 P **P 07 41 01.5 +0.7**
comp=Z,1.2nm,0.6s,baz=270,slow=7.4,SNR=5.7
ZALV LR LR 08 01 29.3
comp=Z,61nm,20.0s,baz=290,slow=40
comp=Z,1.2nm,0.6s
ZALV Zalesovo Beam 42.18 48 *i*P **P 07 41 03.2 +2.4**
ZALV pmax pmax
comp=Z,1.0nm,0.6s
DBIC Dimbokro 42.32 231 P **P 07 41 01.1 -1.2**
comp=Z,7.1nm,0.9s,baz=45,slow=6.5,SNR=5.8
comp=Z,7.1nm,0.9s
DBIC Dimbokro 42.32 231 P **P 07 41 02.1 -0.3**
DBIC pmax pmax
comp=Z,11nm,1.1s
DBIC Dimbokro 42.32 231 P **P 07 41 02.1 -0.3**
DGZ Jazzator, Alta 44.17 54 *i*P **P 07 41 17.0 -0.2**
NRIK Noril'sk 44.89 26 LR LR 08 02 42.0
comp=Z,142nm,18.4s,baz=255,slow=40
WMQ Urumqi 45.50 62 *e*P **P 07 41 30.3 +2.5**
WMQ pP sP 07 41 33.7 +0.5
WMQ LR LR
comp=Z,81nm,18.5s
SUMG Summit 47.03 338 P **P 07 41 40.7 +0.9**
SUMG pmax pmax
comp=Z,2.0nm,0.7s
SUMG Summit 47.03 338 P **P 07 41 40.7 +0.9**
SUMG IAmb IAmb 07 41 43.8
comp=Z,1.6nm,0.7s
SFJD Kangerlussuaq 51.05 330 LR LR 08 03 12.3
comp=Z,113nm,21.8s,baz=98,slow=35
SONM Songino Array 56.74 52 P **P 07 42 52.3 0.0**
comp=Z,0.4nm,0.4s,baz=2.9,slow=5.9,SNR=4.5
SONM LR LR 08 11 29.7
comp=Z,84nm,18.3s,baz=284,slow=41
comp=Z,0.4nm,0.4s
ULN Ulaanbaatar 57.14 52*ce*P **P 07 42 57.7 +2.6**
ULN pmax pmax
comp=Z,4.0nm,1.3s
ULN Ulaanbaatar 57.14 52 P **P 07 42 55.4 +0.2**
TSUM Tsumeb 57.38 190 LR LR 08 08 30.2
comp=Z,142nm,21.2s,baz=337,slow=37
TIXI Tiksi 58.20 21 LR LR 08 12 15.9
comp=Z,98nm,18.0s,baz=7.5,slow=40
TIXI Tiksi 58.20 21 *i*P **P 07 43 02.3 +0.4**
TIXI pmax pmax
comp=Z,2.0nm,1.5s
FRB Frobisher Bay 59.12 329 LR LR 08 11 40.0
comp=Z,83nm,20.3s,baz=86,slow=39
RES Resolute Bay 61.47 345 LR LR 08 09 37.2
comp=Z,109nm,19.6s,baz=38,slow=36
YAK Yakutsk 62.89 31 LR LR 08 14 12.6
comp=Z,70nm,18.6s,baz=298,slow=39
HHC Hu-ho-hao-te 63.02 58 *e*P **P 07 43 36.0 +0.5**
HHC pmax pmax
comp=Z,16nm,0.6s
HHC pmax pmax
comp=Z,91nm,5.7s
CMAR Chiang Mai Arr 64.92 86 P **P 07 43 47.6 -0.6**
comp=Z,0.9nm,0.5s,baz=285,slow=7.9,SNR=4.9
CMAR LR LR 08 17 38.3

	comp=Z,28nm,19.8s,baz=310,slow=41						
	comp=Z,0.9nm,0.5s						
BOSA	**Boshof**	**66.09**	**182**	LR	LR	08 15 58.2	
	comp=Z,83nm,18.8s,baz=20,slow=39						
SUR	**Sutherland**	**70.06**	**185**	LR	LR	08 15 36.6	
	comp=Z,89nm,21.6s,baz=353,slow=36						
KLR	**Kul'dur**	**70.86**	**42**	LR	LR	08 18 32.1	
	comp=Z,51nm,18.1s,baz=310,slow=38						
KLR	**Kul'dur**	**70.86**	**42**	*ce*P	**P**	**07 44 27.7**	**+2.6**
KLR				pmax	pmax		
	comp=Z,11nm,2.5s						
MA2	**Magadan**	**72.49**	**26**	LR	LR	08 20 30.2	
	comp=Z,83nm,18.6s,baz=303,slow=39						
INK	**Inuvik**	**73.19**	**353**	LR	LR	08 18 11.1	
	comp=Z,53nm,20.3s,baz=355,slow=37						
USRK	**Ussuriysk Ar.**	**73.99**	**46**	LR	LR	08 23 57.3	
	comp=Z,45nm,18.4s,baz=279,slow=41						
YKA	**Yellowknife Ar**	**75.36**	**343**	LR	LR	08 19 25.3	
	comp=Z,71nm,18.2s,baz=32,slow=37						
KSRS	**Korea Array**	**75.57**	**54**	P	**P**	**07 44 53.3**	**+0.2**
	comp=Z,1.9nm,0.8s,baz=288,slow=6.7,SNR=4.7						
KSRS				LR	LR	08 24 55.5	
	comp=Z,21nm,19.9s,baz=315,slow=41						
	comp=Z,1.9nm,0.8s						
ULM	**Lac du Bonnet**	**78.89**	**327**	LR	LR	08 20 36.7	
	comp=Z,74nm,18.1s,baz=346,slow=36						
ASAJ	**Asahikawa**	**79.86**	**41**	LR	LR	08 24 51.5	
	comp=Z,61nm,19.0s,baz=259,slow=39						
PETK	**Petropavlovsk-**	**79.92**	**28**	LR	LR	08 24 40.8	
	comp=Z,76nm,19.7s,baz=315,slow=39						
JNU	**Nakatsue**	**80.13**	**56**	LR	LR	08 24 41.5	
	comp=Z,56nm,18.2s,baz=324,slow=39						
DLBC	**Dease Lake**	**82.19**	**348**	LR	LR	08 25 49.0	
	comp=Z,214nm,18.0s,baz=122,slow=38						
MJAR	**Matsushiro Arr**	**82.53**	**49**	LR	LR	08 27 10.7	
	comp=Z,60nm,18.2s,baz=322,slow=39						
BDFB	**Brasilia**	**87.99**	**249**	LR	LR	08 26 40.2	
	comp=Z,54nm,18.5s,baz=353,slow=36						
PDAR	**Pinedale Array**	**90.56**	**330**	LR	LR	08 31 04.6	
	comp=Z,35nm,19.6s,baz=342,slow=38						
YBH	**Yreka Blue Hor**	**96.12**	**338**	LR	LR	08 31 17.0	
	comp=Z,95nm,18.4s,baz=3.5,slow=36						
NVAR	**Mina Array Bea**	**97.64**	**333**	LR	LR	08 34 41.5	
	comp=Z,93nm,18.2s,baz=352,slow=38						
TXAR	**Lajitas Array**	**98.76**	**318**	P	**P**	**07 46 47.0**	**-1.4**
	comp=Z,0.4nm,0.9s,baz=31,slow=5.8,SNR=3.5						
	comp=Z,0.4nm,0.9s						
TXAR	**Lajitas Array**	**98.76**	**318**	P	**P**	**07 46 47.3**	**-1.1**

*TRN **01** 07:52:55.0, 10.°73N×61.°73W, h14 km, MD3.1, West of Monos Island, off North-west peninsula of Trinidad.*
*FUNV **01** 07:53:21.6, 10.°64N×61.°50W, h38 km, MW3.0, Presumed earthquake*
ISC 01 07:53:20.3±1.2, 10.°7N±0.°1×61.°8W±0.°1, h16 km±17 km, n12, σ0°81/21, 2D, Trinidad

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DMDM	**Guralp CMG5TDE**	**0.20**	**98**	⇓*i*P	**Pg**	**07 53 24.9**	**0.0**
DMDM				*e*S	**Sg**	**07 53 27.9**	**-0.2**
PSMG	**Mucurapo Girls**	**0.22**	**104**	*e*P	**Pg**	**07 53 25.2**	**-0.1**
PSMG				*e*S	**Sg**	**07 53 28.4**	**-0.3**
PSKH	**Kent House, Po**	**0.23**	**102**	*e*P	**Pg**	**07 53 25.4**	**-0.1**
PSKH				*e*S	**Sg**	**07 53 28.6**	**-0.3**
PSDM	**Port of Spain,**	**0.25**	**106**	*e*P	**Pg**	**07 53 25.7**	**-0.1**
PSDM				*e*S	**Sg**	**07 53 29.3**	**-0.2**
TRN	**Trinidad (W)**	**0.35**	**103**	*e*P	**Pg**	**07 53 27.7**	**+0.2**
TRN				*e*S	**Sg**	**07 53 32.6**	**+0.2**
TRN	**Trinidad (W)**	**0.35**	**103**	⇓*i*P	**Pg**	**07 53 27.6**	**+0.1**
TRN				*e*S	**Sg**	**07 53 32.4**	**-0.1**
GRGR	**Grenville**	**1.40**	**4**	*e*P	**Pn**	**07 53 45.2**	**-0.1**
GRGR				*e*S	**Sn**	**07 54 03.2**	**-0.3**
GRGR	**Grenville**	**1.40**	**4**	*e*P	**Pn**	**07 53 45.1**	**-0.1**
GRGR				*e*S	**Sb**	**07 54 04.8**	**+1.0**
PCRV	**Puerto La Cruz**	**2.89**	**259**	*e*P	**Pn**	**07 54 06.9**	**+1.1**
PCRV				*e*S	**Sn**	**07 54 39.5**	**-0.8**
TACV	**Tcata**	**5.22**	**264**	*e*P	**Pn**	**07 54 39.1**	**+1.2**
CACV	**CAICARA DEL OR**	**5.68**	**237**	*e*P	Pn	07 54 38.1	-6.0
CACV				*e*S	Sn	07 55 35.0	-14
BENV	**Beln**	**5.80**	**263**	*e*P	**Pn**	**07 54 46.4**	**+0.5**
BENV				*e*S	**Sn**	**07 55 49.8**	**-2.5**

*ISK **01** 07:58:11.6, 37.°87N×27.°01E, h12 km, ML2.8/13*
*AFAD **01** 07:58:12.0, 37.°86N×27.°05E, h6 km±19 km, ML2.6*
ISC 01 07:58:12.3±0.9, 37.°87N±0.°03×27.°03E±0.°03, h12 km±7 km, n24, σ1°10/39, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.20**	**91**	Pg	**Pg**	**07 58 16.6**	**-0.2**
KUSD				Sg	**Sg**	**07 58 20.0**	**+0.1**
KUSD				AML	AML		
DGB	**zmir**	**0.22**	**328**	P	**Pg**	**07 58 16.5**	**-0.5**
DGB				S	**Sg**	**07 58 20.0**	**-0.2**
DGB				IAML		07 58 20.0	
	comp=N,1μm,0.6s						
DGB				IAML		07 58 20.0	
	comp=E,2μm,0.2s						
GMLD	**Gumuldur**	**0.23**	**337**	Pg	**Pg**	**07 58 17.1**	**-0.1**
GMLD				Sg	**Sg**	**07 58 20.5**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**135**	P	**Pg**	**07 58 16.7**	**-0.5**
GCAM				IAML		07 58 20.0	
	comp=E,2μm,0.5s						
GCAM				S	**Sg**	**07 58 20.7**	**+0.1**
GCAM				IAML		07 58 21.0	
	comp=N,3μm,0.4s						
GCAM	**G?zelcaml?**	**0.23**	**135**	Pg	**Pg**	**07 58 17.1**	**-0.1**
GCAM				Sg	**Sg**	**07 58 21.0**	**+0.5**
GCAM				AML	AML		
DDIM	**Aydin, Didim**	**0.44**	**157**	P	**Pg**	**07 58 21.0**	**0.0**
DDIM				S	**Sg**	**07 58 27.2**	**+0.3**
DDIM				IAML		07 58 28.0	
	comp=E,443nm,0.2s						
DDIM				IAML		07 58 29.0	
	comp=N,319nm,0.4s						
DUVT	**Torbali**	**0.48**	**43**	P	**Pg**	**07 58 21.7**	**-0.2**
DUVT				S	**Sg**	**07 58 28.3**	**-0.1**
DUVT				IAML		07 58 30.0	
	comp=E,734nm,0.2s						
BLCB	**Balcova**	**0.52**	**1**	Pg	**Pg**	**07 58 22.4**	**-0.1**
BLCB				Sg	**Sb**	**07 58 30.0**	**-0.8**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**312**	P	**Pg**	**07 58 19.5**	**-3.7**
ZEYE				S	**Sg**	**07 58 30.9**	**+0.3**
DAGE	**izmir**	**0.59**	**76**	P	**Pb**	**07 58 23.8**	**-0.7**
DAGE				S	**Sg**	**07 58 31.2**	**-0.3**
DAGE				IAML		07 58 33.0	
	comp=N,447nm,0.2s						
DAGE				IAML		07 58 33.0	
	comp=E,674nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.69**	**83**	Pg	**Pb**	**07 58 25.7**	**-0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.70**	**107**	P	**Pb**	**07 58 25.8**	**-0.7**
AYDN				S	**Sb**	**07 58 35.3**	**-0.9**
AYDN				IAML		07 58 39.0	
	comp=N,173nm,0.4s						
AYDN				IAML		07 58 39.0	
	comp=E,283nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.77**	**165**	Pg	**Pb**	**07 58 27.1**	**-0.4**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.78**	**69**	P	**Pb**	**07 58 27.3**	**-0.4**
IZMR				S	**Sg**	**07 58 36.7**	**-0.8**
IZMR				IAML		07 58 39.0	
	comp=N,151nm,0.4s						
BAGT	**Foa**	**0.80**	**350**	P	**Pn**	**07 58 33.9**	**+4.5**
BAGT				S	**Sb**	**07 58 39.6**	**+0.7**
KRBN	**Karaburun**	**0.82**	**333**	Pg	**Pg**	**07 58 27.8**	**-0.3**
KRBN				AML	AML		
MLSB	**Milas**	**0.82**	**134**	Pg	**Pb**	**07 58 28.1**	**-0.4**
MLSB				AML	AML		
BODT	**Bodrum**	**0.83**	**164**	Pg	**Pb**	**07 58 28.2**	**-0.5**
BODT				AML	AML		
CAMT	**Merkez**	**0.91**	**14**	P	**Pb**	**07 58 30.1**	**+0.1**
CAMT				S	**Sn**	**07 58 43.4**	**-0.5**
CAMT				IAML		07 58 47.0	
	comp=E,239nm,0.4s						
CAMT				IAML		07 58 48.0	
	comp=N,192nm,0.4s						
CHOS	**Chios island**	**0.93**	**304**	Pg	**Pg**	**07 58 29.7**	**-0.5**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.93**	**329**	P	**Pn**	**07 58 32.6**	**+1.4**
KARB				S	**Sb**	**07 58 42.7**	**0.0**
KARB				IAML		07 58 50.0	
	comp=N,79nm,0.8s						
KARB				IAML		07 58 51.0	
	comp=E,84nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.00**	**84**	Pg	**Pb**	**07 58 31.7**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.09**	**40**	Pn	**Pn**	**07 58 33.3**	**-0.1**
GOMA				AML	AML		
AKS	**Akhisar**	**1.19**	**31**	Pn	**Pn**	**07 58 34.6**	**-0.1**

*AFAD **01** 08:07:19.7, 37.°86N×27.°00E, h7 km±1 km, ML1.9*
ISK 01 08:07:19.5, 37.°86N×27.°02E, h5 km, ML2.3/11, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.21**	**91**	Pg	Pg	08 07 24.2	+0.6
KUSD				AML	AML		
DGB	**zmir**	**0.22**	**329**	P	Pg	08 07 24.7	+0.9
DGB				IAML		08 07 28.0	
	comp=N,225nm,0.1s						
DGB				S	Sg	08 07 28.1	+1.4
DGB				IAML		08 07 29.0	
	comp=E,182nm,0.1s						
GMLD	**Gumuldur**	**0.23**	**338**	Pg	Pg	08 07 24.9	+0.9
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**135**	P	Pg	08 07 22.5	-1.5
GCAM				IAML		08 07 28.0	
	comp=N,514nm,0.5s						
GCAM				IAML		08 07 28.0	
	comp=E,300nm,0.5s						
GCAM				S	Sg	08 07 28.6	+1.5
GCAM	**G?zelcaml?**	**0.23**	**135**	Pg	Pg	08 07 24.6	+0.6
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**348**	P	Pg	08 07 27.5	+0.8
BEYE				S	Sg	08 07 33.0	+1.4
BEYE				IAML		08 07 33.0	
	comp=N,76nm,0.1s						
BEYE				IAML		08 07 33.0	
	comp=E,98nm,0.1s						
DUVT	**Torbali**	**0.49**	**43**	P	Pg	08 07 29.7	+0.8
DUVT				S	Sb	08 07 36.8	-1.3
DUVT				IAML		08 07 38.0	
	comp=E,100nm,0.1s						
BLCB	**Balcova**	**0.52**	**2**	Pg	Pg	08 07 30.2	+0.7
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**312**	P	Pg	08 07 30.5	+0.3
ZEYE				S	Sg	08 07 38.4	+0.9
ZEYE				IAML		08 07 39.0	
	comp=N,154nm,0.6s						
ZEYE				IAML		08 07 39.0	
	comp=E,79nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.69**	**83**	Pg	Pg	08 07 33.4	+0.6
AYDB				Sg	Sb	08 07 43.4	-0.6
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.71**	**106**	P	Pb	08 07 33.8	-0.6
AYDN				IAML		08 07 47.0	
	comp=E,31nm,0.7s						
KRBN	**Karaburun**	**0.82**	**333**	Pg	Pb	08 07 35.8	-0.4
KRBN				Sg	Sb	08 07 47.5	0.0
KRBN				AML	AML		
MLSB	**Milas**	**0.82**	**133**	Pg	Pb	08 07 36.1	-0.2
MLSB				AML	AML		
BODT	**Bodrum**	**0.83**	**164**	Pg	Pg	08 07 35.9	+0.4
BODT				AML	AML		
CHOS	**Chios island**	**0.93**	**305**	Pg	Pb	08 07 37.8	-0.3
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.01**	**84**	Pg	Pg	08 07 39.1	+0.3
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.10**	**40**	Pn	Pb	08 07 40.8	-0.2

PRE 01 08:07:39.8±0.9, 26.°83S×26.°68E, h2 km, ML1.8, Presumed earthquake, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**1.30**	**44**	*e*P	Pn	08 08 05.1	0.0
HRAO				*e*S	Sb	08 08 22.2	0.0
TSWA	**Tswaing Meteor**	**1.88**	**42**	IAML		08 08 40.3	
	comp=Z,3.4nm,0.3s						
TSWA	**Tswaing Meteor**	**1.88**	**42**	*e*P	Pn	08 08 13.9	+0.8
TSWA				*e*S	Sb	08 08 38.5	-0.5
TSWA				IAML		08 08 40.3	
	comp=Z,3.4nm,0.3s						
LBTB	**Lobatse**	**2.05**	**331**	IAML		08 08 47.9	
	comp=Z,4.1nm,0.3s						
LBTB	**Lobatse**	**2.05**	**331**	*e*P	Pn	08 08 16.1	+0.6
LBTB				*e*S	Sn	08 08 42.4	+0.7
LBTB				IAML		08 08 47.9	
	comp=Z,4.1nm,0.3s						
BOSA	**Boshof**	**2.18**	**215**	*e*S	Sn	08 08 45.8	+0.8
BOSA				IAML		08 08 56.9	
	comp=Z,1.1nm,0.3s						
BOSA	**Boshof**	**2.18**	**215**	*e*P	Pn	08 08 17.8	+0.5
BOSA				*e*S	Sn	08 08 45.8	+0.8
BOSA				IAML		08 08 56.9	
	comp=Z,1.1nm,0.3s						
CRAIL	**Swartwater, Li**	**4.25**	**20**	*e*P	Pn	08 08 47.4	+1.7
CRAIL				*e*S	Sn	08 09 35.9	-0.1
CRAIL				IAML		08 10 03.9	
	comp=Z,231nm,0.2s						

*AFAD **01** 08:08:03.1, 37.°83N×26.°71E, h7 km±3 km, ML1.8*
ISK 01 08:08:06.5, 37.°84N×27.°03E, h24 km, ML2.3/10, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.21**	**131**	P	Pb	08 08 12.3	+0.2
GCAM				IAML		08 08 21.0	
	comp=N,131nm,0.2s						
GCAM				IAML		08 08 21.0	
	comp=E,111nm,0.1s						
GCAM	**G?zelcaml?**	**0.21**	**131**	Pg	Pb	08 08 12.4	+0.3
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.26**	**339**	Pg	Pb	08 08 13.6	+0.8
GMLD				Sg	Sn	08 08 18.7	-1.4
GMLD				AML	AML		
DDIM	**Aydin, Didim**	**0.41**	**156**	S	Sb	08 08 21.9	+0.8
DUVT	**Torbali**	**0.50**	**41**	P	Pn	08 08 19.0	+0.8
DUVT				S	Sn	08 08 26.7	+0.5
DUVT				IAML		08 08 31.0	
	comp=E,77nm,0.5s						
BLCB	**Balcova**	**0.55**	**1**	Pg	Pn	08 08 18.3	-0.5
BLCB				Sg	Sn	08 08 26.6	-0.7
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.58**	**314**	P	Pb	08 08 11.8	-6.2
ZEYE				S	Sb	08 08 18.0	-7.9
ZEYE				IAML		08 08 19.0	
	comp=E,144nm,0.5s						
ZEYE				IAML		08 08 20.0	
	comp=N,145nm,0.7s						
AYDB	**Zeytinkoy-Aydi**	**0.69**	**81**	Pg	Pn	08 08 20.4	-0.5
AYDB				Sg	Sn	08 08 30.8	-0.1
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.69**	**104**	P	Pn	08 08 21.7	+0.8
AYDN				S	Sn	08 08 34.5	+3.5
AYDN				IAML		08 08 35.0	
	comp=N,36nm,0.3s						
AYDN				IAML		08 08 35.0	
	comp=E,54nm,0.5s						
MLSB	**Milas**	**0.80**	**132**	Pg	Pn	08 08 22.8	+0.5
MLSB				Sg	Sn	08 08 34.8	+1.3
MLSB				AML	AML		
BODT	**Bodrum**	**0.81**	**164**	Pg	Pn	08 08 22.3	-0.1
BODT				AML	AML		
KRBN	**Karaburun**	**0.84**	**334**	Pg	Pb	08 08 21.9	-0.6
KRBN				AML	AML		
FOCM	**Foa**	**0.91**	**345**	Pg	Pn	08 08 23.7	-0.1
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**330**	P	Pb	08 08 20.3	-4.1
KARB				IAML		08 08 35.0	
	comp=E,46nm,0.1s						
KARB				IAML		08 08 36.0	
	comp=N,33nm,0.5s						
ESEN	**Aydn-Nazilli**	**1.04**	**92**	P	Pb	08 08 29.5	+3.7
ESEN				IAML		08 08 49.0	
	comp=N,11nm,0.8s						
ESEN				IAML		08 08 50.0	
	comp=E,9.7nm,0.8s						
KIRA	**zmir-Kiraz**	**1.14**	**71**	P	Pb	08 08 31.9	+4.3
KIRA				IAML		08 08 53.0	
	comp=N,7.5nm,0.2s						
KIRA				IAML		08 08 53.0	
	comp=E,9.1nm,0.8s						
YER	**Yerkesik**	**1.22**	**125**	Pn	Pb	08 08 29.2	+0.3
DKL	**Dikili**	**1.24**	**355**	Pn	Pn	08 08 27.8	-0.5
DKL				AML	AML		

*KEA **01** 08:08:28.3, 40.°97N×123.°24E, h16 km, ML3.9/7*
*IDC **01** 08:08:28.6±2.4, 40.°98N×123.°14E, h0 km, mbtmp3.4/3, ML3.3/3, Error ellipse: s-maj=25.1km s-min=14.4km az=71.0*
ISC 01 08:08:25.9±1.3, 41.°21N±0.°05×123.°21E±0.°08, h10 km, n13, σ2°18/19, Northeastern China

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SUJ	**Sinuiju**	**1.48**	**138**	Pg	**Pb**	**08 08 53.3**	**-0.2**
SUJ				Sg	**Sn**	**08 09 11.1**	**-0.9**
SUJ				AML	AML		
	comp=N,8μm,0.6s						
SUJ				AML	AML		
	comp=E,4μm,0.3s						
SUJ				AML	AML		
	comp=Z,1μm,0.5s						
KGE	**Kanggye**	**2.59**	**95**	Pg	**Pg**	**08 09 15.6**	**+0.1**
KGE				Sg	**Sg**	**08 09 50.2**	**+1.0**
KGE				AML	AML		
	comp=N,503nm,0.3s						
KGE				AML	AML		
	comp=E,320nm,0.3s						
KGE				AML	AML		
	comp=Z,5.9nm,0.6s						
PYS	**Pyongsong**	**2.82**	**133**	Pg	**Pb**	**08 09 17.4**	**+1.0**
PYS				Sg	**Sb**	**08 09 52.7**	**+1.8**
PYS				AML	AML		
	comp=N,1μm,0.9s						
PYS				AML	AML		
	comp=E,1μm,0.5s						
PYS				AML	AML		
	comp=Z,698nm,0.6s						
PYAG	**Pyongyang**	**2.92**	**137**	Pg	**Pg**	**08 09 19.8**	**-2.0**
PYAG				Sg	**Sb**	**08 09 55.1**	**+1.4**
PYAG				AML	AML		
	comp=N,388nm,0.4s						
PYAG				AML	AML		
	comp=E,352nm,0.8s						
PYAG				AML	AML		
	comp=Z,413nm,0.5s						
SRW	**Sariwon**	**3.34**	**143**	Pg	**Pg**	**08 09 28.0**	**-2.0**
SRW				Sg	**Sb**	**08 10 09.2**	**+3.3**
SRW				AML	AML		
	comp=N,667nm,0.3s						
SRW				AML	AML		
	comp=E,1μm,0.8s						
SRW				AML	AML		
	comp=Z,466nm,0.3s						
HHU	**Hamhung**	**3.54**	**110**	Pg	**Pg**	**08 09 32.8**	**-0.9**
HHU				Sg	**Sg**	**08 10 16.8**	**-2.6**
HHU				AML	AML		
	comp=N,618nm,0.5s						
HHU				AML	AML		
	comp=E,336nm,0.4s						
HHU				AML	AML		
	comp=Z,240nm,0.7s						
HJU	**Haeju**	**3.72**	**148**	Pg	**Pb**	**08 09 33.3**	**+1.7**
HJU				Sg	**Sb**	**08 10 19.6**	**+2.9**
HJU				AML	AML		
	comp=N,233nm,0.4s						
HJU				AML	AML		
	comp=E,311nm,0.5s						
HJU				AML	AML		
	comp=Z,204nm,0.4s						
WOSN	**Wonsan**	**3.82**	**121**	Sg	**Sg**	**08 10 25.8**	**-2.9**
KSRS	**Korea Array**	**5.24**	**134**	Pn	**Pn**	**08 09 46.0**	**+1.7**
	comp=Z,0.7nm,0.3s,baz=317,slow=14,SNR=7.6						
KSRS				Pg	**Pg**	**08 10 02.5**	**-3.8**
	comp=Z,1.5nm,0.3s,baz=313,slow=18,SNR=12						
KSRS				Lg	Lg	08 11 07.8	
	comp=Z,9.2nm,0.3s,baz=313,slow=30,SNR=19						
	comp=Z,1.6nm,0.3s						
KSRS				AML	AML		
USRK	**Ussuriysk Ar.**	**7.12**	**62**	Pn	Pn	08 10 18.6	+8.5
	comp=Z,0.6nm,0.3s,baz=246,slow=13,SNR=4.7						
USRK				Pg	**Pg**	**08 10 40.0**	**-2.3**
	comp=Z,0.5nm,0.3s,baz=253,slow=14,SNR=4.3						
USRK				Lg	Lg	08 12 16.6	
	comp=Z,2.6nm,0.3s,baz=247,slow=27,SNR=9.2						
	comp=Z,1.1nm,0.3s						
USRK				AML	AML		
HILR	**Hailar Array B**	**8.69**	**345**	Pn	Pn	08 10 38.1	+6.5
	baz=153,slow=19						
HILR				Pg	**Pg**	**08 11 11.9**	**-0.3**
	baz=166,slow=19						
HILR				Lg	Lg	08 13 11.0	
	baz=160,slow=29						
	comp=Z,0.6nm,0.3s						
KLR	**Kul'dur**	**10.02**	**34**	Lg	Lg	08 13 49.2	
	comp=Z,0.4nm,0.3s,baz=141,slow=13,SNR=10.0						
JNU	**Nakatsue**	**10.13**	**140**	Lg	Lg	08 13 44.0	
	comp=Z,0.2nm,0.3s,baz=114,slow=18,SNR=3.8						

AFAD 01 08:15:42.8, 37.°87N×27.°02E, h7 km±3 km, ML1.3, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.21**	**330**	P	Pg	08 15 47.2	+0.2
DGB				S	Sg	08 15 50.8	+0.9
DGB				IAML		08 15 51.0	
	comp=N,50nm,0.4s						
DGB				IAML		08 15 51.0	
	comp=E,58nm,0.2s						
GCAM	**G?zelcaml?**	**0.24**	**135**	P	Pg	08 15 47.9	+0.4
GCAM				S	Sg	08 15 51.9	+1.1
GCAM				IAML		08 15 52.0	
	comp=N,78nm,0.2s						
GCAM				IAML		08 15 52.0	
	comp=E,57nm,0.2s						
BEYE	**izmir**	**0.36**	**349**	P	Pg	08 15 50.2	+0.3
BEYE				IAML		08 15 56.0	
	comp=N,30nm,0.2s						
BEYE				IAML		08 15 56.0	
	comp=E,38nm,0.2s						
BEYE				S	Sb	08 15 56.2	-1.3
DUVT	**Torbali**	**0.49**	**44**	P	Pg	08 15 52.8	+0.5
DUVT				S	Sg	08 15 58.9	+0.3
DUVT				IAML		08 16 03.0	
	comp=E,24nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.55**	**312**	P	Pb	08 15 54.8	0.0
ZEYE				S	Sg	08 16 01.5	+0.9
ZEYE				IAML		08 16 03.0	
	comp=E,24nm,0.2s						
ZEYE				IAML		08 16 05.0	
	comp=N,36nm,0.5s						

ISK 01 08:16:14.8, 37.°84N×26.°97E, h3 km±1 km, ML1.5/7, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GMLD	**Gumuldur**	**0.24**	**351**	Pg	Pg	08 16 20.7	+1.2
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**122**	Pg	Pg	08 16 19.9	+0.3
GCAM				Sg	Sb	08 16 24.9	-1.8
GCAM				AML	AML		
BLCB	**Balcova**	**0.55**	**6**	Pg	Pb	08 16 26.4	-0.7
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**81**	Pg	Pb	08 16 29.9	-0.5
AYDB				Sg	Sb	08 16 40.8	-0.1
BODT	**Bodrum**	**0.82**	**160**	Pg	Pb	08 16 31.8	+0.2
BODT				AML	AML		
KRBN	**Karaburun**	**0.82**	**337**	Pg	Pb	08 16 31.5	-0.3
KRBN				AML	AML		
MLSB	**Milas**	**0.84**	**130**	Pg	Pb	08 16 32.2	+0.2

*IDC **01** 08:16:22.8±1.9, 17.°91S×178.°25W, h633 km±20 km, mb3.1/7, mbtmp4.0/8, Error ellipse: s-maj=27.3km s-min=19.9km az=127.0*
**ISC 01 08:16:23.1±1.

MSVF	**Nonsavu**	**3.46**	**269**	P	**P**	**08**	**17**	**47.8 -1.2**
	52nm,0.5s,baz=130,slow=2.8,SNR=58							
WRA	**Warramunga Arr**	**44.76**	**259**	P	**P**	**08**	**23**	**42.5 +0.7**
	1.2nm,0.4s,baz=95,slow=7.0,SNR=50							
	1.2nm,0.4s							
ASAR	**Alice Springs**	**44.93**	**254**	P	**P**	**08**	**23**	**44.0 +0.9**
	3.1nm,0.6s,baz=89,slow=8.0,SNR=56							
ASAR				PcP	**PcP**	**08**	**25**	**11.0 +1.1**
	0.4nm,0.5s,baz=106,slow=3.7,SNR=7.3							
	3.1nm,0.6s							
MJAR	**Matsushiro Arr**	**67.78**	**323**	P	P	08	26	20.9 +2.4
	1.0nm,0.5s,baz=164,slow=5.8,SNR=7.3							
	1.0nm,0.5s							
QSPA	**South Pole Qui**	**72.37**	**180**	P	**P**	**08**	**26**	**44.8 -0.4**
	1.1nm,0.8s,baz=333,slow=1.3,SNR=5.6							
	1.1nm,0.8s							
PETK	**Petropavlovsk-**	**73.48**	**345**	P	P	08	26	53.6 +2.2
	2.7nm,0.9s,baz=119,slow=4.8,SNR=4.1							
	2.7nm,0.9s							
ILAR	**Eielson Array**	**85.65**	**13**	P	**P**	**08**	**27**	**56.0 +1.5**
	0.2nm,0.4s,baz=222,slow=5.0,SNR=9.0							
	0.2nm,0.4s							
TXAR	**Lajitas Array**	**85.80**	**58**	P	P	08	27	58.3 +2.1
	0.5nm,0.7s,baz=221,slow=6.6,SNR=5.8							
	0.5nm,0.7s							
GERES	**GERESS Array B**	**147.41**	**345**	PKPbc	**PKPab**	**08**	**34**	**57.6 -2.6**
	0.4nm,0.6s,baz=20,slow=4.3,SNR=3.6							

*SJA **01** 08:25:16.3±0.7,24°.28S×67°.20W,h192km±6km,ML3.4, MW3.5*
*GUC **01** 08:25:16.6±0.7,24°.33S×67°.26W,h186km±9km,ML3.7, Presumed earthquake*

ISC 01 08:25:17.6±1.3,24°30S±0'.04×67°28W±0'.05,h175km,n40, σ1§22/55,2C,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**0.86**	**85**	*eP*	Pn	08 25 39.2	-5.3
SALTA				*eP*		08 25 44.5	
AF01	**San Pedro de A**	**1.57**	**328**	*eP*	**Pn**	**08 25 51.9**	**+1.6**
AF01				*eS*	**Sn**	**08 26 20.4**	**+4.9**
AF01				IAML		08 26 28.8	
	comp=Z,94nm,0.2s						
AF01	**San Pedro de A**	**1.57**	**328**	*eP*	**Pn**	**08 25 51.4**	**+1.1**
SLA	**San Lorenzo**	**1.67**	**105**	*eP*	**Pn**	**08 25 51.4**	**+0.4**
SLA	**San Lorenzo**	**1.67**	**105**	*i* P	**Pn**	**08 25 51.2**	**+0.2**
HJA	**Humahuaca**	**2.02**	**58**	*eP*	**Pn**	**08 25 55.1**	**0.0**
FSA	**Cafayete**	**2.15**	**147**	*eP*	**Pn**	**08 25 56.7**	**+0.4**
PB06	**IPOC Station P**	**2.64**	**306**	*eP*	**Pn**	**08 26 02.6**	**+0.8**
PB06				*eS*	**Sn**	**08 26 36.6**	**+0.4**
PB06				IAML		08 26 37.3	
	comp=Z,156nm,0.1s						
PB06	**IPOC Station P**	**2.64**	**306**	⇑*iP*	**Pn**	**08 26 02.9**	**+1.0**
PB06				*eS*	**Sn**	**08 26 36.0**	**-0.2**
YJA	**Yavi**	**2.66**	**38**	*eP*	**Pn**	**08 26 03.1**	**+0.7**
PB14	**IPOC Station P**	**2.87**	**263**	*eP*	**Pn**	**08 26 05.8**	**+1.0**
PB14				*eS*	**Sn**	**08 26 42.8**	**+1.4**
PB14				IAML		08 26 47.6	
	comp=Z,83nm,0.6s						
PB14	**IPOC Station P**	**2.87**	**263**	*eP*	**Pn**	**08 26 05.6**	**+0.9**
PB14				IAML		08 26 46.1	
	comp=E,68nm,0.3s						
AC02	**Maricunga**	**3.03**	**213**	*eP*	**Pn**	**08 26 08.6**	**+1.7**
AC02				*eS*	Sn	08 26 35.7	-10
AC02	**Maricunga**	**3.03**	**213**	*eP*	**Pn**	**08 26 08.7**	**+1.7**
AHML	**Horco Molle**	**3.04**	**145**	*eP*	Pn	08 25 53.0	-14
AHML				*eS*	Sn	08 26 30.9	-14
AHML				IAML		08 27 06.7	
	comp=Z,48nm,2.7s						
PB05	**IPOC Station P**	**3.05**	**298**	*eP*	**Pn**	**08 26 07.4**	**+0.7**
PB05				*eS*	**Sn**	**08 26 44.6**	**-0.4**
PB05				IAML		08 26 45.5	
	comp=Z,42nm,0.1s						
PB05	**IPOC Station P**	**3.05**	**298**	*eP*	**Pn**	**08 26 07.3**	**+0.5**
PB05				IAML		08 26 46.6	
	comp=N,79nm,0.2s						
PB09	**IPOC Station P**	**3.08**	**324**	*eP*	**Pn**	**08 26 08.4**	**+1.2**
PB09				*eS*	**Sn**	**08 26 46.3**	**+0.5**
PB09				IAML		08 26 46.3	
	comp=Z,119nm,0.4s						
PB09	**IPOC Station P**	**3.08**	**324**	*eP*	**Pn**	**08 26 08.1**	**+0.9**
PB09				IAML		08 26 46.4	
	comp=N,159nm,0.4s						
PB10	**IPOC Station P**	**3.10**	**284**	*eP*	**Pn**	**08 26 08.4**	**+1.1**
PB10				*eS*	**Sn**	**08 26 46.8**	**+0.8**
PB10				IAML		08 26 50.7	
	comp=Z,44nm,0.3s						
PB10	**IPOC Station P**	**3.10**	**284**	*eP*	**Pn**	**08 26 08.3**	**+1.0**
PB10				IAML		08 26 49.3	
	comp=N,72nm,0.3s						
PB03	**IPOC Station P**	**3.19**	**314**	*eP*	**Pn**	**08 26 09.2**	**+0.5**
PB03				*eS*	**Sn**	**08 26 48.2**	**-0.1**
PB03				IAML		08 26 51.5	
	comp=Z,143nm,0.5s						
PB03	**IPOC Station P**	**3.19**	**314**	*i* P	**Pn**	**08 26 08.8**	**+0.2**
PB03				*eS*	**Sn**	**08 26 46.5**	**-1.8**
PB03				IAML		08 26 49.1	
	comp=N,174nm,0.2s						
PB07	**IPOC Station P**	**3.51**	**316**	*eP*	**Pn**	**08 26 12.8**	**+0.2**
PB07				*eS*	**Sn**	**08 26 54.1**	**-1.4**
PB07				IAML		08 26 55.0	
	comp=Z,158nm,0.5s						
PB07	**IPOC Station P**	**3.51**	**316**	⇑*iP*	**Pn**	**08 26 12.6**	**0.0**
AC01	**Pan de Azucar**	**3.53**	**238**	*eP*	**Pn**	**08 26 12.9**	**+0.3**
AC01				*eS*	**Sn**	**08 26 55.0**	**-0.6**
AC01				IAML		08 26 58.3	
	comp=Z,50nm,0.5s						
AC01	**Pan de Azucar**	**3.53**	**238**	*eP*	**Pn**	**08 26 12.8**	**+0.2**
PB02	**IPOC Station P**	**3.83**	**320**	*eP*	**Pn**	**08 26 16.3**	**-0.2**
PB02				*eS*	**Sn**	**08 27 01.5**	**-0.9**
PB02	**IPOC Station P**	**3.83**	**320**	*eP*	**Pn**	**08 26 15.9**	**-0.6**
AC06	**Mina Casimiro**	**4.12**	**222**	*eP*	**Pn**	**08 26 20.1**	**0.0**
GO03	**Copiapo**	**4.23**	**218**	*eP*	**Pn**	**08 26 21.8**	**+0.3**
GO03				*eS*	**Sn**	**08 27 11.1**	**-0.5**
GO03				IAML		08 27 14.3	
	comp=Z,53nm,0.3s						
GO03	**Copiapo**	**4.23**	**218**	*eP*	**Pn**	**08 26 21.5**	**-0.1**
PB08	**IPOC Station P**	**4.49**	**337**	*eP*	**Pn**	**08 26 25.2**	**0.0**
PB08				*eS*	**Sn**	**08 27 16.2**	**-1.9**
PB08				IAML		08 27 19.6	
	comp=Z,28nm,0.4s						
GO01	**Chusmiza**	**4.94**	**339**	*eP*	**Pn**	**08 26 30.9**	**-0.3**
GO01				*eS*	**Sn**	**08 27 27.8**	**-1.0**
GO01				IAML		08 27 30.0	
	comp=Z,18nm,0.1s						
PB11	**IPOC Station P**	**5.03**	**333**	*eP*	**Pn**	**08 26 30.6**	**-1.4**
PB11				*eS*	**Sn**	**08 27 28.3**	**-2.1**
PB11				IAML		08 27 28.4	
	comp=Z,32nm,0.5s						
ACLC	**CERRO LA CRUZ**	**5.12**	**177**	*eP*	**Pn**	**08 26 34.5**	**+1.4**
AC04	**Llanos de Chal**	**5.17**	**220**	*eP*	**Pn**	**08 26 33.0**	**-0.8**
AC04				*eS*	Sn	08 27 21.6	-12
AC04				IAML		08 27 33.7	
	comp=Z,18nm,0.4s						
AC04	**Llanos de Chal**	**5.17**	**220**	*eP*	**Pn**	**08 26 32.3**	**-1.4**
AC05	**El Transito**	**5.26**	**210**	*eP*	**Pn**	**08 26 35.2**	**+0.3**
AC05				*eS*	**Sn**	**08 27 33.3**	**-2.4**
AC05				IAML		08 27 39.0	
	comp=Z,10nm,0.4s						
PSGCX	**Pisagua**	**5.37**	**330**	*eP*	**Pn**	**08 26 35.0**	**-1.5**
PSGCX				*eS*	Sn	08 27 23.0	-15
PSGCX				IAML		08 27 35.9	
	comp=Z,28nm,0.3s						

*KRNET **01** 08:25:23.6±0.1,39°.04N×76°.11E,mb3.1*

ISC 01 08:25:22.7±3.6,39°0N±0'.2×76°2E±0'.1,h10km,n7, σ1§18/12,7C-7D,Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**2.35**	**297**	⇑*eP*	**Pn**	**08 26 02.5**	**+0.9**
SFK				⇑*eS*	**Sn**	**08 26 30.9**	**+0.3**
NRN	**Naryn**	**2.47**	**356**	⇑*eP*	**Pn**	**08 26 04.6**	**+1.3**
NRN				⇑*eS*	**Sn**	**08 26 34.3**	**+0.7**
SALK	**Salom-Alik**	**2.66**	**317**	⇓*eP*	**Pn**	**08 26 06.8**	**+1.0**
SALK				⇓*eS*	**Sn**	**08 26 38.3**	**+0.2**
OHH	**Osh**	**3.07**	**301**	⇓*eP*	**Pn**	**08 26 12.1**	**+0.7**
OHH				⇓*eS*	**Sn**	**08 26 48.2**	**0.0**
ARSB	**Arslanbob**	**3.42**	**314**	⇓*eP*	**Pn**	**08 26 17.6**	**+1.4**
ARSB				⇓*eS*	**Sn**	**08 26 56.3**	**-0.6**
PDGK	**Podgornoye**	**5.00**	**28**	⇑Pg	**Pg**	**08 26 57.7**	**-0.9**
	1.7nm,0.6s						
PDGK				⇑Lg	Lg	08 28 08.7	
	8.9nm,1.1s						
KK31	**Karatay Array**	**5.97**	**316**	⇓Pn	**Pn**	**08 26 49.0**	**-2.1**
	0.3nm,0.3s,baz=127,slow=14,SNR=4.7						
KK31				⇑Lg	Lg	08 28 20.5	
	6.0nm,1.1s,baz=136,slow=28,SNR=7.1						

*CATAC **01** 08:30:25.0±0.8,13°N±5°×8°7W±°,h174km±6km,M2.6/16, MLv2.6/16,Error ellipse: s-maj=11.5km s-min=6.2km az=24.4,confirmed*

ISC 01 08:30:25.4±1.8,12°75N±0'.07×87°00W±0'.06, h181km±10km,n42,σ1§29/53,Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRIN	**San Cristobal**	**0.07**	**225**	P	**Pn**	**08 30 48.1**	**-1.4**
CRIN				S	**Sn**	**08 31 10.9**	**+3.0**
PKGN	**Cerro Pekin**	**0.08**	**166**	P	**Pn**	**08 30 49.2**	**-0.2**
PKGN				S	**Sn**	**08 31 10.9**	**+3.1**
QUEN	**Al S del Volca**	**0.21**	**138**	P	**Pn**	**08 30 48.6**	**-1.0**
QUEN				S	**Sn**	**08 31 10.7**	**+2.5**
PLRN	**Geotermica Pol**	**0.28**	**127**	P	**Pn**	**08 30 48.6**	**-1.1**
PLRN				S	**Sn**	**08 31 10.3**	**+2.0**
MOM3	**MOM3**	**0.53**	**117**	P	**Pn**	**08 30 49.8**	**-0.7**
POTN	**Potosi Cosigui**	**0.55**	**296**	P	**Pn**	**08 30 49.3**	**-1.3**
MOMN	**Momotombo**	**0.56**	**127**	P	**Pn**	**08 30 49.7**	**-1.0**
MOMN				S	**Sn**	**08 31 09.1**	**-1.1**
MOM2	**El Cardon**	**0.59**	**122**	P	**Pn**	**08 30 50.3**	**-0.5**
CSGN	**Cosiguina Volc**	**0.59**	**292**	P	**Pn**	**08 30 50.1**	**-0.7**
CSGN				S	**Sn**	**08 31 11.7**	**+1.3**
COPN	**Copaltepe**	**0.69**	**145**	P	**Pn**	**08 30 50.2**	**-1.2**
COPN	**Copaltepe**	**0.69**	**145**	*eP*	**Pn**	**08 30 49.9**	**-1.4**
APQ2	**Apoyeque**	**0.86**	**130**	P	**Pn**	**08 30 51.1**	**-1.2**
TISN	**Laguna Tiscapa**	**0.93**	**130**	P	**Pn**	**08 30 49.7**	**-3.1**
MGAN	**Managua**	**0.95**	**129**	P	**Pn**	**08 30 52.0**	**-0.9**
WILN	**Americas 2**	**0.98**	**127**	P	**Pn**	**08 30 52.1**	**-1.1**
LCND	**La Caada**	**1.03**	**303**	P	**Pn**	**08 30 52.9**	**-0.6**
MATN	**Matagalpa**	**1.06**	**80**	P	**Pn**	**08 30 53.6**	**-0.2**
MATN				S	**Sn**	**08 31 14.8**	**-0.9**
RCVN	**Varillal2**	**1.14**	**43**	P	**Pn**	**08 30 54.3**	**-0.2**
RCVN				S	**Sn**	**08 31 16.5**	**-0.6**
NANN	**Nandasmo**	**1.18**	**133**	P	**Pn**	**08 30 54.5**	**-0.1**
TGUH	**Tegucigalpa,Un**	**1.32**	**348**	P	**Pn**	**08 30 55.9**	**-0.2**
BOAB	**BOACO BROADBAN**	**1.33**	**103**	P	**Pn**	**08 30 55.7**	**-0.3**
NADN	**Granada**	**1.37**	**136**	P	**Pn**	**08 30 55.4**	**-0.9**
NADN				S	**Sn**	**08 31 17.7**	**-2.5**
NADN	**Granada**	**1.37**	**136**	*eP*	**Pn**	**08 30 55.7**	**-0.6**
PACA	**Pacayal**	**1.48**	**299**	P	**Pn**	**08 30 55.7**	**-1.7**
PACA				S	**Sn**	**08 31 24.1**	**+1.9**
JAPN	**Al SSO del Vol**	**1.77**	**133**	*eP*	**Pn**	**08 30 60.0**	**-0.3**
CONN	**Concepcion**	**1.79**	**131**	P	**Pn**	**08 30 59.1**	**-1.3**
OMEN	**Al SSO del Vol**	**1.82**	**132**	P	**Pn**	**08 30 59.2**	**-1.5**
SCLA	**Alcaldia de Sa**	**1.93**	**299**	S	**Sn**	**08 31 29.9**	**-0.3**
LCRUZ	**La Cruz**	**2.13**	**141**	*eP*	**Pn**	**08 31 03.7**	**-0.4**
VRLE	**La Escondida,**	**2.52**	**141**	*eP*	**Pn**	**08 31 10.1**	**+1.5**
ALIBA	**Liberia Airpor**	**2.57**	**146**	*eP*	**Pn**	**08 31 09.3**	**+0.2**
CUI	**Cuipilapa**	**2.75**	**139**	*eP*	**Pn**	**08 31 11.9**	**+0.7**
BAGA	**Bagaces**	**2.79**	**142**	*eP*	**Pn**	**08 31 11.4**	**-0.2**
NUBE	**Las Nubes**	**2.94**	**293**	P	**Pn**	**08 31 13.3**	**-0.2**
NUBE				S	**Sn**	**08 31 50.6**	**-0.5**
JUD3	**Juan Diaz 3**	**2.94**	**151**	*eP*	**Pn**	**08 31 13.1**	**-0.5**
NICO	**Nicoya**	**3.01**	**150**	*eP*	**Pn**	**08 31 13.8**	**-0.6**
CMARA	**Lajas Hojancha**	**3.12**	**150**	*eP*	**Pn**	**08 31 15.3**	**-0.5**
JTS	**Las Juntas de**	**3.16**	**140**	*eP*	**Pn**	**08 31 16.2**	**+0.1**
JUNT	**Juntas**	**3.17**	**141**	*eP*	**Pn**	**08 31 16.8**	**+0.6**
CAO2	**Cobano, Puntar**	**3.56**	**148**	*eP*	**Pn**	**08 31 20.5**	**-0.6**
LAFE	**Finca La Fe, P**	**3.57**	**145**	*eP*	**Pn**	**08 31 20.8**	**-0.4**
BUS1	**Rivas**	**4.50**	**135**	*eP*	**Pn**	**08 31 34.2**	**+0.8**

*IDC **01** 08:33:05.2±1.9,33°.64N×86°.33E,h0km,mb3.5/4, mbtmp3.5/6,ML2.8/2,Error ellipse: s-maj=72.5km s-min=20.2km az=71.0*

ISC 01 08:33:10.4±2.0,33°7N±0'.2×86°4E±0'.4,h35km,n6,σ0§51/6, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**13.41**	**348**	Pn	**Pn**	**08 36 17.9**	**-0.2**
	baz=176,slow=14,SNR=2.4						
	0.5nm,0.8s						
KURBB	**Kurchatov Arra**	**17.83**	**344**	P	**Pn**	**08 37 15.0**	**-0.5**
	0.1nm,0.3s,baz=158,slow=12,SNR=6.0						
	0.5nm,0.2s						
KURBB				AML	AML		
ZALV	**Zalesovo Beam**	**20.24**	**357**	P	**P**	**08 37 43.0**	**+0.7**
	0.7nm,0.5s,baz=192,slow=9.2,SNR=4.4						
	0.7nm,0.5s						
SONM	**Songino Array**	**20.61**	**41**	P	**P**	**08 37 46.4**	**-0.2**
	0.8nm,0.6s,baz=215,slow=12,SNR=4.2						
	0.8nm,0.6s						
WRA	**Warramunga Arr**	**70.28**	**132**	P	**P**	**08 44 20.4**	**0.0**
	0.5nm,0.5s,baz=322,slow=6.3,SNR=13						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**72.83**	**135**	P	**P**	**08 44 35.6**	**0.0**
	0.5nm,0.6s,baz=312,slow=6.3,SNR=8.9						
	0.5nm,0.6s						

*THE **01** 08:33:12.3,38°N±2°×2°7E±°,h10km±9km,M3.8/25, MLh3.8/25*
*AFAD **01** 08:33:12.6,37°.81N×26°.82E,h7km±10km,ML3.8*
*ATH **01** 08:33:12.6,37°.88N×26°.95E,h8km±1km,ML3.7/13, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*IDC **01** 08:33:13.8±0.8,37°.68N×26°.94E,h0km,mb3.7/6, mbtmp3.7/12,ML3.3/4,MS3.0/10,Error ellipse: s-maj=14.9km s-min=12.0km az=141.0*
*ISK **01** 08:33:13.1,37°.81N×26°.88E,h1km,ML3.9/39*

ISC 01 08:33:12.9±1.1,37°81N±0'.01×26°88E±0'.02,h3km±8km, n154,σ1§36/190,mb3.4/5,MS3.3/3,16C-7D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.13**	**264**	P	**Pg**	**08 33 16.9**	**+1.4**
KRL1				S	**Sg**	**08 33 19.8**	**+2.5**
KRL1				AML	AML		
DGB	**zmir**	**0.24**	**1**	P	**Pg**	**08 33 15.8**	**-1.8**
DGB				S	**Sg**	**08 33 21.7**	**+0.9**
DGB				IAML		08 33 22.0	
	comp=N,1μm,0.4s						
DGB				IAML		08 33 22.0	
	comp=E,2μm,0.2s						
GMLD	**Gumuldur**	**0.27**	**7**	Pg	**Pb**	**08 33 19.3**	**-1.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**111**	P	**Pg**	**08 33 17.9**	**-0.8**
GCAM				S	**Sb**	**08 33 25.9**	**-0.4**
GCAM				IAML		08 33 27.0	
	comp=N,1μm,0.4s						
GCAM				IAML		08 33 27.0	
	comp=E,2μm,0.5s						
GCAM	**G?zelcaml?**	**0.30**	**111**	Pg	**Pb**	**08 33 20.2**	**-0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**81**	Pg	**Pb**	**08 33 20.6**	**-0.9**
KUSD				Sg	**Sb**	**08 33 25.9**	**-1.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**6**	P	**Pg**	**08 33 19.2**	**-1.8**
BEYE				S	**Sb**	**08 33 28.1**	**-1.7**
BEYE				IAML		08 33 30.0	
	comp=E,6μm,0.4s						
BEYE				IAML		08 33 32.0	
	comp=N,7μm,0.3s						
DDIM	**Aydin, Didim**	**0.46**	**140**	P	**Pg**	**08 33 20.7**	**-0.9**
DDIM				S	**Sb**	**08 33 31.3**	**+0.5**
DDIM				IAML		08 33 32.0	
	comp=N,1μm,0.6s						
DDIM				IAML		08 33 32.0	
	comp=E,7μm,0.5s						
DIDI	**Didim-Aydin**	**0.52**	**146**	Pg	**Pb**	**08 33 24.4**	**-0.3**
DIDI				Sg	**Sb**	**08 33 32.2**	**-0.4**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.52**	**326**	P	**Pg**	**08 33 23.1**	**+0.2**
ZEYE				IAML		08 33 31.0	
	comp=N,2μm,0.6s						
ZEYE				S	**Sb**	**08 33 31.0**	**-1.6**
ZEYE				IAML		08 33 37.0	
	comp=E,6μm,0.4s						
BLCB	**Balcova**	**0.59**	**13**	P	**Pg**	**08 33 22.4**	**-1.8**
BLCB				S	**Sg**	**08 33 31.5**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**13**	Pg	**Pb**	**08 33 25.6**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**48**	P	**Pb**	**08 33 25.0**	**-1.3**
DUVT				S	**Sb**	**08 33 34.7**	**-0.6**
DUVT				IAML		08 33 37.0	
	comp=E,9μm,0.5s						
CESE	**eme**	**0.69**	**319**	Pg	**Pb**	**08 33 27.2**	**-0.4**
CESE				AML	AML		
DAGE	**izmir**	**0.72**	**74**	P	**Pn**	**08 33 28.8**	**-1.3**
DAGE				S	**Sb**	**08 33 37.8**	**-0.6**
DAGE				IAML		08 33 41.0	
	comp=N,3μm,0.4s						
DAGE				IAML		08 33 42.0	
	comp=E,3μm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.76**	**155**	Pg	**Pn**	**08 33 28.9**	**-1.6**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.81**	**100**	P	**Pn**	**08 33 29.4**	**-1.9**
AYDN				S	**Sn**	**08 33 43.4**	**-0.5**
AYDN				IAML		08 33 47.0	
	comp=N,3μm,0.4s						
AYDN				IAML		08 33 48.0	
	comp=E,2μm,0.8s						
AYDB	**Zeytinkoy-Aydi**	**0.81**	**80**	Pg	**Pn**	**08 33 29.8**	**-1.6**
AYDB				AML	AML		
BODT	**Bodrum**	**0.82**	**155**	P	**Pg**	**08 33 27.5**	**-1.2**
BODT				S	**Sn**	**08 33 42.4**	**-1.7**
BODT	**Bodrum**	**0.82**	**155**	Pg	**Pn**	**08 33 29.8**	**-1.6**
BODT				AML	AML		
KRBN	**Karaburun**	**0.82**	**342**	Pg	**Pn**	**08 33 29.9**	**-1.5**
KRBN				AML	AML		
BAGT	**Foa**	**0.84**	**359**	P	**Pb**	**08 33 29.2**	**-1.0**
BAGT				S	**Sn**	**08 33 42.6**	**-2.0**
BAGT				IAML		08 33 44.0	
	comp=N,8μm,0.7s						
BAGT				IAML		08 33 45.0	
	comp=E,5μm,1.0s						
KLNA	**Kalymnos**	**0.85**	**175**	P	**Pn**	**08 33 30.3**	**-1.5**
KLNA				S	**Sn**	**08 33 42.6**	**-2.2**
CHOS	**Chios island**	**0.87**	**312**	P	**Pg**	**08 33 28.3**	**-1.2**
CHOS				S	**Sg**	**08 33 40.2**	**-0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**312**	Pg	**Pn**	**08 33 30.9**	**-1.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**312**	P	**Pg**	**08 33 28.6**	**-1.0**
CHOS				S	**Sg**	**08 33 40.9**	**+0.1**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.87**	**148**	P	**Pn**	**08 33 30.7**	**-1.4**
BDRM				S	**Sn**	**08 33 44.5**	**-0.8**
BDRM				IAML		08 33 47.0	
	comp=N,6μm,0.8s						
BDRM				IAML		08 33 47.0	
	comp=E,5μm,0.4s						
BDRM	**Kayabasi**	**0.87**	**148**	⇓P	**Pb**	**08 33 29.9**	**-0.8**
BDRM				⇑S	**Sn**	**08 33 42.9**	**-2.4**
MLSB	**Milas**	**0.88**	**125**	Pg	**Pn**	**08 33 30.8**	**-1.4**
MLSB				AML	AML		
FOCM	**Foa**	**0.91**	**353**	Pg	**Pn**	**08 33 31.8**	**-0.8**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.91**	**69**	P	**Pg**	**08 33 29.9**	**-0.5**
IZMR				S	**Sn**	**08 33 43.3**	**-3.0**
KARB	**zmir-Karabur**	**0.93**	**337**	P	**Pg**	**08 33 30.0**	**-0.7**
KARB				S	**Sn**	**08 33 44.4**	**-2.3**
KARB				IAML		08 33 46.0	
	comp=N,5μm,0.6s						
KARB				IAML		08 33 48.0	
	comp=E,6μm,0.7s						
EAG2	**Marmaro, Chios**	**0.95**	**321**	P	**Pg**	**08 33 30.7**	**-0.4**
EAG2				S	**Sg**	**08 33 43.7**	**+0.2**
CAMT	**Merkez**	**1.00**	**20**	P	**Pg**	**08 33 30.9**	**-1.2**
CAMT				S	**Sn**	**08 33 48.2**	**-0.2**
CAMT				IAML		08 33 52.0	
	comp=E,5μm,0.7s						
CAMT				IAML		08 33 53.0	
	comp=N,5μm,0.5s						
NAZL	**Nazilli-Aydin**	**1.13**	**82**	Pn	**Pn**	**08 33 35.8**	**+0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.17**	**90**	P	**Pb**	**08 33 34.6**	**-1.1**
ESEN				S	**Sn**	**08 33 54.2**	**+1.6**
ZEDA	**zmir-Bergama**	**1.17**	**8**	P	**Pn**	**08 33 34.9**	**-1.2**
ZEDA				S	**Sn**	**08 33 52.1**	**-0.5**
ZEDA				IAML		08 33 56.0	
	comp=N,2μm,0.8s						
DAT	**Datca**	**1.22**	**152**	P	**Pb**	**08 33 35.0**	**-1.6**
DAT				S	**Sb**	**08 33 51.2**	**-1.5**
DAT				AML	AML		
DAT	**Datca**	**1.22**	**152**	Pn	**Pg**	**08 33 36.9**	**+0.7**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**42**	Pn	**Pg**	**08 33 37.6**	**+1.4**
GOMA				AML	AML		
DKL	**Dikili**	**1.26**	**1**	Pn	**Pg**	**08 33 37.9**	**+0.8**
DKL				AML	AML		
DKL	**Dikili**	**1.26**	**1**	P	**Pn**	**08 33 35.6**	**-1.8**
KIRA	**zmir-Kiraz**	**1.27**	**72**	P	**Pn**	**08 33 35.0**	**-2.6**
KIRA				S	**Sn**	**08 33 55.4**	**+0.2**
MULA	**Mugla, Merkez-**	**1.27**	**115**	P	**Pg**	**08 33 37.4**	**0.0**
MULA				S	**Sn**	**08 33 55.4**	**0.0**
MULA				IAML		08 34 00.0	
	comp=E,1μm,0.7s						
AKHS	**Akhisar**	**1.30**	**34**	P	**Pg**	**08 33 37.9**	**+0.1**
AKHS				S	**Sg**	**08 33 56.4**	**+1.8**
AKHS				IAML		08 34 00.0	
	comp=N,2μm,0.3s						
AKS	**Akhisar**	**1.30**	**34**	Pn	**Pg**	**08 33 38.4**	**+0.6**
AKS				AML	AML		
KTTT	**Salihli**	**1.30**	**47**	P	**Pb**	**08 33 36.8**

ARG	**Arkhangelos**	**1.88**	**147**	S	**Sg**	**08 34 12.1**	**-1.1**
ARG				AML	AML			
ARG	**Arkhangelos**	**1.88**	**147**	P	**Pn**	**08 33 45.2**	**-0.8**
ARG				AML	AML			
KARY	**Karystos**	**1.94**	**277**	P	**Pn**	**08 33 44.7**	**-2.1**
KARY				S	**Sn**	**08 34 08.9**	**-2.8**
KARY				AML	AML			
KARY	**Karystos**	**1.94**	**277**	P	**Pn**	**08 33 46.4**	**-0.4**
APMY	**Acipayam-Deniz**	**1.96**	**99**	Pn	**Pb**	**08 33 48.6**	**-0.6**
APMY				AML	AML			
EZNE	**Ezine-Canakkal**	**1.98**	**349**	Pn	**Pb**	**08 33 48.6**	**-1.1**
BALB	**Balikesir**	**1.99**	**23**	Pn	**Pb**	**08 33 48.9**	**-0.9**
BALB				AML	AML			
EZN	**Ezine**	**2.06**	**348**	P	**Pn**	**08 33 45.9**	**-2.5**
EZN				S	**Sn**	**08 34 13.8**	**-0.8**
EZN				AML	AML			
EZN	**Ezine**	**2.06**	**348**	Pn	**Pb**	**08 33 49.8**	**-1.1**
EZN				AML	AML			
SIMA	**Simav-Kutahya**	**2.09**	**52**	Pn	**Pb**	**08 33 50.2**	**-1.3**
SIMA				AML	AML			
FETI	**Fethiye-Mugla**	**2.10**	**122**	Pn	**Pb**	**08 33 50.6**	**-0.9**
FETI				AML	AML			
FETY	**Fethiye**	**2.12**	**123**	Pn	**Pb**	**08 33 50.6**	**-1.3**
FETY				AML	AML			
CAME	**Cameli-Denizli**	**2.12**	**113**	Pn	**Pb**	**08 33 50.6**	**-1.4**
CAME				AML	AML			
BOZC	**Bozcaada**	**2.13**	**343**	Pn	**Pb**	**08 33 51.2**	**-0.9**
BOZC				AML	AML			
YENI	**Yenice-Canakka**	**2.14**	**8**	Pn	**Pb**	**08 33 50.9**	**-1.5**
CANM	**Can-anakkale**	**2.20**	**4**	Pn	**Pb**	**08 33 51.8**	**-1.6**
CANM				AML	AML			
SHAP	**Saphane-Kutahy**	**2.21**	**56**	Pn	**Pb**	**08 33 51.9**	**-1.6**
SHAP				AML	AML			
DST	**Dursunbey**	**2.25**	**37**	Pn	**Pb**	**08 33 52.6**	**-1.7**
DST				AML	AML			
MHLO	**Agia Marina, M**	**2.27**	**241**	P	**Pb**	**08 33 53.3**	**-1.2**
MHLO				S	**Sg**	**08 34 25.9**	**+0.2**
MHLO				AML	AML			
GONE	**Gonen-Balikesi**	**2.32**	**16**	Pn	**Pb**	**08 33 54.2**	**-1.2**
GONE				AML	AML			
KYMI	**Kymi, Euboea I**	**2.33**	**291**	P	**Pn**	**08 33 52.0**	**-0.2**
KYMI				AML	AML			
KYMI	**Kymi, Euboea I**	**2.33**	**291**	P	**Pn**	**08 33 51.9**	**-0.3**
KYMI				AML	AML			
DION	**Dionisos Attik**	**2.34**	**277**	P	**Pn**	**08 33 49.8**	**-2.5**
DION				S	**Sn**	**08 34 18.7**	**-2.9**
DION				AML	AML			
DION	**Dionisos Attik**	**2.34**	**277**	P	**Pn**	**08 33 52.0**	**-0.3**
DION				AML	AML			
GEDZ	**Gediz**	**2.34**	**57**	Pn	**Pb**	**08 33 54.2**	**-1.6**
GEDZ				AML	AML			
SUSR	**Susurluk-Balik**	**2.35**	**23**	Pn	**Pb**	**08 33 54.4**	**-1.5**
SUSR				AML	AML			
PTL	**Penteli**	**2.39**	**277**	P	**Pn**	**08 33 52.7**	**-0.3**
VLY	**Voula,Athens**	**2.44**	**272**	P	**Pn**	**08 33 52.7**	**-0.9**
VLY				S	**Sn**	**08 34 20.7**	**-3.3**
VLY				AML	AML			
VLY	**Voula,Athens**	**2.44**	**272**	P	**Pn**	**08 33 53.7**	**0.0**
VLY				AML	AML			
ATHU	**Athens Univers**	**2.45**	**275**	P	**Pn**	**08 33 53.6**	**-0.2**
LIA	**Limnos Island**	**2.47**	**328**	P	**Pn**	**08 33 53.6**	**-0.4**
LIA				AML	AML			
LIA	**Limnos Island**	**2.47**	**328**	P	**Pn**	**08 33 52.9**	**-1.2**
LIA				AML	AML			
GADA	**Gvkgeada**	**2.50**	**343**	P	**Pn**	**08 33 54.4**	**0.0**
GADA				AML	AML			
AOS	**Alonnisos**	**2.71**	**301**	P	**Pn**	**08 33 58.4**	**+1.0**
AOS				AML	AML			
BAND	**Balkesir-Ban**	**2.71**	**20**	⇑P	**Pn**	**08 33 57.4**	**-0.1**
AOS2	**Alonissos-2**	**2.73**	**300**	P	**Pn**	**08 33 57.9**	**+0.2**
AOS2				AML	AML			
NPS	**Neapolis**	**2.74**	**202**	P	**Pn**	**08 33 57.1**	**-0.7**
NPS				S	**Sn**	**08 34 29.7**	**-1.7**
NPS				AML	AML			
NPS	**Neapolis**	**2.74**	**202**	P	**Pn**	**08 33 57.9**	**+0.1**
NPS				AML	AML			
VILL	**Villia**	**2.84**	**278**	P	**Pn**	**08 33 58.0**	**-1.2**
VILL				AML	AML			
SMTH	**Samothraki Isl**	**2.86**	**339**	P	**Pn**	**08 33 57.3**	**-2.1**
SMTH				AML	AML			
SMTH	**Samothraki Isl**	**2.86**	**339**	P	**Pn**	**08 33 58.9**	**-0.5**
SMTH				AML	AML			
CAVK	**Edirne/Enez-Ca**	**2.93**	**349**	⇓P	**Pn**	**08 34 00.3**	**-0.1**
ENEZ	**Enez**	**2.98**	**349**	P	**Pn**	**08 33 59.5**	**-1.5**
ENEZ				AML	AML			
IDI	**Anoyia**	**2.98**	**213**	Pn	**Pn**	**08 34 02.3**	**+1.1**
	8.6nm,0.4s,baz=35,slow=12,SNR=9.1							
IDI				Sn	**Sn**	**08 34 36.3**	**-1.2**
	16nm,0.3s,baz=284,slow=19,SNR=12							
IDI	**Anoyia**	**2.98**	**213**	P	**Pn**	**08 34 02.5**	**+1.4**
IDI				AML	AML			
ALN	**Alexandroupoli**	**3.15**	**348**	P	**Pn**	**08 34 00.7**	**-2.7**
KEPZ	**Antalya-Kepez**	**3.88**	**102**	⇓P	**Pn**	**08 34 13.7**	**+0.3**
ELND	**Elena**	**5.17**	**352**	⇓P	**Pn**	**08 34 31.0**	**-0.2**
BRTR	**Keskin Array B**	**5.62**	**68**	Pn	**Pn**	**08 34 39.2**	**+1.7**
	0.3nm,0.3s,baz=247,slow=14,SNR=12							
BRTR				LR	LR	08 36 26.1		
	comp=Z,30nm,21.4s,baz=244,slow=34							
	1.5nm,0.4s							
BRTR				AML	AML			
PLVB	**Pleven**	**5.83**	**344**	⇑P	**Pn**	**08 34 41.2**	**+1.0**
ICOR	**Ion Corvin**	**6.34**	**6**	⇓P	**Pn**	**08 34 48.0**	**+0.8**
BLKB	**Belogradchik**	**6.62**	**333**	⇑P	**Pn**	**08 34 52.1**	**+0.9**
BOVS	**Bovan**	**7.02**	**328**	⇑P	**Pn**	**08 34 58.0**	**+1.5**
MLR	**Muntele Rosu**	**7.71**	**355**	Pn	**Pn**	**08 35 08.4**	**+2.2**
	0.7nm,0.3s,baz=268,slow=23,SNR=4.5							
MLR				LR	LR	08 38 47.1		
	comp=Z,119nm,20.0s,baz=187,slow=42							
	2.7nm,0.4s							
MLR				AML	AML			
MLR	**Muntele Rosu**	**7.71**	**355**	⇓P	**Pn**	**08 35 07.5**	**+1.3**
VOIR		**7.74**	**350**	⇑P	**Pn**	**08 35 07.3**	**+0.7**
HERR	**Herculane**	**7.82**	**336**	⇑P	**Pn**	**08 35 07.6**	**+0.1**
MDVR	**Moldovita**	**7.97**	**332**	⇑P	**Pn**	**08 35 10.4**	**+0.7**
COVR	**Voineasa-Covas**	**8.05**	**357**	⇑P	**Pn**	**08 35 11.6**	**+0.9**
TIP	**Timpagrande**	**8.05**	**283**	⇑P	**Pn**	**08 35 12.2**	**+1.4**
VRI	**Vrincioaia**	**8.05**	**359**	⇑P	**Pn**	**08 35 11.8**	**+1.0**
DOPR	**Dopca**	**8.23**	**353**	⇑P	**Pn**	**08 35 13.8**	**+0.7**
MMAI	**Mount Meron Ar**	**8.44**	**122**	Pn	**Pn**	**08 35 15.1**	**-1.1**
	1.7nm,0.3s,baz=303,slow=13,SNR=5.7							
SURR	**Surduc**	**8.69**	**337**	⇑P	**Pn**	**08 35 20.5**	**+0.9**
BZS	**Buzias**	**8.73**	**335**	⇑P	**Pn**	**08 35 20.5**	**+0.5**
SIRR	**Siria**	**9.30**	**337**	⇓P	**Pn**	**08 35 28.3**	**+0.5**
BURAR	**Bucovina Array**	**9.88**	**353**	⇑P	**Pn**	**08 35 37.2**	**+1.4**
ASF	**Jabal al Asfar**	**9.92**	**122**	Pn	**Pn**	**08 35 36.7**	**-0.3**
	1.2nm,0.3s,baz=32,slow=12,SNR=7.0							
	8.7nm,0.3s							
ASF				AML	AML			
EIL	**Elat**	**10.54**	**138**	LR	LR	08 42 19.1		
	comp=Z,26nm,19.0s,baz=279,slow=52							
AKASG	**Malin Array Be**	**13.00**	**7**	LR	LR	08 42 02.7		
	comp=Z,68nm,18.3s,baz=236,slow=40							
VRAC	**Vranov**	**13.68**	**330**	LR	LR	08 42 21.7		
	comp=Z,70nm,18.2s,baz=118,slow=40							
GERES	**GERESS Array B**	**14.59**	**323**	Pn	**P**	**08 36 44.3**	**-2.6**
	baz=139,slow=10,SNR=5.1							
GERES				LR	LR	08 43 06.7		
	comp=Z,55nm,21.3s,baz=250,slow=40							
	0.3nm,0.6s							
DAVOX	**Davos/Dischmat**	**15.42**	**311**	LR	LR	08 43 23.1		
	comp=Z,103nm,18.7s,baz=84,slow=39							
FINES	**FINESS Array B**	**23.66**	**359**	LR	LR	08 48 04.2		
	comp=Z,99nm,18.1s,baz=242,slow=37							
ESDC	**Sonseca Array**	**24.07**	**284**	P	**P**	**08 38 32.8**	**+3.2**
	0.8nm,0.9s,baz=88,slow=10,SNR=4.3							
	0.8nm,0.9s							
NOA	**NORSAR Array B**	**25.25**	**342**	P	**P**	**08 38 42.9**	**+2.9**
	0.6nm,0.9s,baz=159,slow=9.2,SNR=3.3							
NOA				LR	LR	08 51 12.3		
	comp=Z,25nm,18.4s,baz=280,slow=42							
	0.6nm,0.9s							
TORD	**Torodi Ar. Bea**	**33.26**	**229**	P	**P**	**08 39 52.2**	**+0.6**
	1.4nm,0.5s,baz=33,slow=8.5,SNR=13							
	1.4nm,0.5s							
KURBB	**Kurchatov Arra**	**38.41**	**54**	P	**P**	**08 40 37.6**	**+2.1**
	0.5nm,0.6s,baz=281,slow=8.4,SNR=5.7							
	0.5nm,0.6s							
MKAR	**Makanchi Array**	**41.20**	**59**	P	**P**	**08 41 00.3**	**+1.5**
	0.3nm,0.5s,baz=284,slow=6.0,SNR=4.1							
	0.3nm,0.5s							
DBIC	**Dimbokro**	**42.30**	**231**	P	**P**	**08 41 08.3**	**+0.2**
	4.9nm,0.8s,baz=53,slow=9.1,SNR=6.4							
	4.9nm,0.8s							

LBTB	**Lobatse**	**62.50**	**181**	LR	LR	09 12 48.8		
	comp=Z,32nm,19.1s,baz=60,slow=38							

*GCG **01** 08:33:34.9±1.4, 13.69°N×92.98°W, h15km±15km, MD4.5, Presumed earthquake*
*MEX **01** 08:33:36.0±0.8, 13.76°N×93.14°W, h10km±22km, MD4.1, Presumed earthquake*
ISC 01 08:33:29.5±2.1, 13.61°N±0.09×93.20°W±0.04, h16km±13km, n25, σ2.60/37, Off coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**1.58**	**35**	*eP*	**Pg**	**08 33 58.8**	**-1.0**
RTAL	**Retalhuleu**	**1.72**	**58**	*eP*	**Pb**	**08 34 01.1**	**+0.3**
RTAL				*eS*	**Sn**	**08 34 20.4**	**-0.1**
PATR	**El Naranjo**	**1.77**	**32**	*eP*	**Pb**	**08 34 01.0**	**-0.7**
PATR				*eS*	**Sn**	**08 34 21.2**	**-0.8**
CHUJ	**Union Juarez**	**1.81**	**35**	*eP*	**Pb**	**08 34 01.7**	**-0.8**
CHUJ				*eS*	**Sn**	**08 34 20.9**	**-2.2**
PAVE	**Pavencul**	**1.86**	**32**	*eP*	**Pn**	**08 34 02.1**	**+1.1**
PAVE				*eS*	**Sn**	**08 34 22.3**	**-2.0**
STG8	**El Palmar, Qui**	**1.98**	**65**	*eP*	**Pn**	**08 34 03.6**	**+1.0**
QUEO	**Labor Ovalle**	**2.06**	**52**	*eP*	**Pb**	**08 34 06.2**	**-0.5**
PCIG		**2.08**	**359**	*eP*	**Pb**	**08 34 06.0**	**-1.0**
PCIG				*eS*	**Sn**	**08 34 28.6**	**-0.9**
FG8	**Yepocapa, Chim**	**2.64**	**75**	*eP*	Pn	08 34 09.5	-2.1
FG8				*i S*	**Sn**	**08 34 37.1**	**-6.3**
CCIG	**Comitan**	**2.85**	**21**	*eP*	**Pb**	**08 34 19.7**	**-0.4**
CCIG				*eS*	**Sn**	**08 34 49.4**	**+0.8**
APG	**El Apazote**	**2.99**	**62**	*eP*	**Pn**	**08 34 19.8**	**+3.3**
TGIG		**3.15**	**1**	*eP*	**Pb**	**08 34 23.2**	**-2.0**
TGIG		**3.15**	**1**	*eP*	**Pb**	**08 34 23.0**	**-2.3**
TGIG				*eS*	**Sn**	**08 34 56.7**	**+0.7**
NUBE	**Las Nubes**	**3.33**	**85**	*eP*	**Pn**	**08 34 24.7**	**+3.5**
JUAM	**Asuncion Mita**	**3.46**	**78**	*eP*	**Pn**	**08 34 26.0**	**+3.1**
HUIG	**Huatulco**	**3.54**	**308**	*i P*	**Pn**	**08 34 27.3**	**+3.3**
HUIG				*eS*	**Sn**	**08 35 02.6**	**-2.9**
UXUV	**UXUV**	**3.80**	**346**	*eP*	**Pn**	**08 34 31.4**	**+3.9**
UXUV				*eS*	**Sn**	**08 35 11.5**	**-0.3**
MTO3	**Montecristo**	**3.81**	**78**	*eP*	**Pn**	**08 34 30.5**	**+2.8**
CMIG	**Matias Romero**	**3.83**	**335**	*eP*	**Pn**	**08 34 31.4**	**+3.6**
CMIG				*eS*	**Sn**	**08 35 11.4**	**-1.1**
PEIG	**Puerto Escondi**	**4.50**	**302**	*eP*	**Pn**	**08 34 40.3**	**+3.2**
PEIG				*eS*	**Sn**	**08 35 26.1**	**-3.1**
PETF	**Flores**	**4.60**	**44**	*eP*	**Pn**	**08 34 41.6**	**+3.2**
YOIG	**Yosondua**	**5.30**	**308**	*eP*	Pn	08 34 55.0	+6.7
YOIG				*eS*	**Sn**	**08 35 47.3**	**-1.9**
TXIG	**Tlaxiaco**	**5.71**	**310**	*eP*	Pn	08 35 00.7	+6.8
TXIG				*eS*	**Sn**	**08 35 56.6**	**-2.7**
TOIG	**Toxpalan**	**5.81**	**321**	*eP*	**Pn**	**08 34 58.8**	**+3.6**
TOIG				*eS*	**Sn**	**08 35 59.2**	**-2.4**
FTIG	**Fresnillo de T**	**6.39**	**313**	*eP*	Pn	08 35 08.6	+5.4
FTIG				*eS*	**Sn**	**08 36 13.3**	**-2.6**

*THE **01** 08:38:51.0, 38°N±3°×2°7E±°, h3km±6km, M2.9/5, MLh2.9/5*
*AFAD **01** 08:38:50.6, 37.83N×26.99E, h7km±3km, ML2.7*
*ISK **01** 08:38:50.4, 37.82N×26.99E, h5km, ML3.0/32*
ISC 01 08:38:51.0±0.9, 37.81N±0.02×26.98E±0.02, h11km±7km, n60, σ0.77/87, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.23**	**119**	P	**Pg**	**08 38 55.5**	**-0.2**
GCAM				IAML		08 38 59.0		
	comp=E,2μm,0.3s							
GCAM				S	**Sg**	**08 38 59.8**	**+0.8**
GCAM				IAML		08 39 00.0		
	comp=N,2μm,0.2s							
GCAM	**G?zelcaml?**	**0.23**	**119**	Pg	**Pg**	**08 38 55.6**	**-0.2**
GCAM				Sg	**Sg**	**08 38 59.3**	**+0.3**
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.25**	**79**	Pg	**Pg**	**08 38 55.9**	**-0.2**
KUSD				Sg	**Sg**	**08 38 59.1**	**-0.5**
KUSD				AML	AML			
DGB	**zmir**	**0.25**	**342**	P	**Pg**	**08 38 55.8**	**-0.4**
DGB				S	**Sg**	**08 38 59.4**	**-0.3**
GMLD	**Gumuldur**	**0.27**	**349**	Pg	**Pg**	**08 38 56.3**	**-0.2**
GMLD				Sg	**Sg**	**08 39 00.5**	**+0.3**
GMLD				AML	AML			
DDIM	**Aydin, Didim**	**0.41**	**149**	P	**Pg**	**08 38 58.8**	**-0.2**
DDIM				S	**Sb**	**08 39 05.5**	**-0.9**
DDIM				IAML		08 39 06.0		
	comp=N,1μm,0.3s							
DDIM				IAML		08 39 06.0		
	comp=E,652nm,0.4s							
BEYE	**izmir**	**0.42**	**354**	P	**Pg**	**08 38 59.0**	**-0.2**
BEYE				S	**Sg**	**08 39 05.1**	**+0.4**
DUVT	**Torbali**	**0.55**	**42**	P	**Pg**	**08 39 00.8**	**-0.9**
DUVT				S	**Sg**	**08 39 08.5**	**-0.5**
ZEYE	**Izmir, Urla-Ze**	**0.57**	**319**	P	**Pg**	**08 39 01.7**	**-0.3**
ZEYE				IAML		08 39 10.0		
	comp=N,2μm,0.2s							
ZEYE				S	**Sb**	**08 39 10.3**	**-0.7**
ZEYE				IAML		08 39 13.0		
	comp=E,825nm,0.4s							
BLCB	**Balcova**	**0.57**	**5**	P	**Pg**	**08 39 01.8**	**-0.4**
BLCB				S	**Sg**	**08 39 09.7**	**0.0**
BLCB	**Balcova**	**0.57**	**5**	Pg	**Pg**	**08 39 01.7**	**-0.4**
BLCB				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.73**	**161**	Pg	**Pg**	**08 39 04.9**	**-0.1**
YKAV				AML	AML			
AYDN	**Tasoluk**	**0.73**	**102**	P	**Pg**	**08 39 04.6**	**-0.5**
AYDN				S	**Sb**	**08 39 16.9**	**+1.2**
AYDN				IAML		08 39 18.0		
	comp=E,375nm,0.3s							
AYDN				IAML		08 39 19.0		
	comp=N,329nm,0.2s							
AYDB	**Zeytinkoy-Aydi**	**0.73**	**79**	Pg	**Pg**	**08 39 04.8**	**-0.4**
AYDB				Sg	**Sg**	**08 39 14.4**	**-0.4**
AYDB				AML	AML			
CESE	**eme**	**0.75**	**314**	Pg	**Pg**	**08 39 04.9**	**-0.5**
CESE				AML	AML			
BODT	**Bodrum**	**0.79**	**160**	P	**Pg**	**08 39 05.7**	**-0.6**
BODT				S	**Sb**	**08 39 18.0**	**+0.5**
BODT				AML	AML			
BODT	**Bodrum**	**0.79**	**160**	Pg	**Pg**	**08 39 05.9**	**-0.4**
BODT				AML	AML			
MLSB	**Milas**	**0.82**	**129**	Pg	**Pg**	**08 39 06.5**	**-0.2**
MLSB				Sg	**Sg**	**08 39 17.6**	**+0.2**
MLSB				AML	AML			
BDRM	**Kayabasi**	**0.83**	**153**	P	**Pg**	**08 39 05.4**	**-1.6**
BDRM				S	**Sb**	**08 39 18.7**	**+0.1**
BDRM				IAML		08 39 21.0		
	comp=N,232nm,0.3s							
BDRM				IAML		08 39 22.0		
	comp=E,285nm,0.3s							
IZMR	**zmir-demi**	**0.83**	**67**	P	**Pg**	**08 39 05.9**	**-1.2**
IZMR				S	**Sg**	**08 39 16.6**	**-1.3**
IZMR				IAML		08 39 21.0		
	comp=E,211nm,0.4s							
BAGT	**Foa**	**0.85**	**353**	P	**Pg**	**08 39 06.1**	**-1.2**
BAGT				S	**Sb**	**08 39 19.6**	**+0.5**
BAGT				IAML		08 39 21.0		
	comp=N,302nm,0.6s							
BAGT				IAML		08 39 23.0		
	comp=E,304nm,0.9s							
KRBN	**Karaburun**	**0.85**	**337**	Pg	**Pb**	**08 39 07.6**	**-0.1**
KRBN				Sg	**Sb**	**08 39 18.8**	**-0.3**
KRBN				AML	AML			
FOCM	**Foa**	**0.92**	**348**	Pg	**Pg**	**08 39 08.4**	**-0.3**
FOCM				AML	AML			
CHOS	**Chios island**	**0.93**	**308**	P	**Pb**	**08 39 09.2**	**+0.1**
CHOS				S	**Sb**	**08 39 22.1**	**+0.6**
CHOS				AML	AML			
CHOS	**Chios island**	**0.93**	**308**	Pg	**Pb**	**08 39 09.1**	**0.0**
CHOS				Sg	**Sb**	**08 39 21.9**	**+0.4**
CHOS				AML	AML			
KARB	**zmir-Karabur**	**0.96**	**332**	P	**Pg**	**08 39 08.8**	**-0.7**
KARB				S	**Sb**	**08 39 23.0**	**+0.7**
KARB				IAML		08 39 25.0		
	comp=N,255nm,0.8s							
KARB				IAML		08 39 25.0		
	comp=E,165nm,0.1s							
CAMT	**Merkez**	**0.97**	**16**	P	**Pg**	**08 39 09.2**	**-0.5**
CAMT				S	**Sn**	**08 39 24.2**	**-0.1**
CAMT				IAML		08 39 25.0		
	comp=N,337nm,0.6s							
CAMT				IAML		08 39 26.0		
	comp=E,359nm,0.3s							

NAZL	**Nazilli-Aydin**	**1.05**	**81**	Pg	**Pb**	**08 39 11.1**	**0.0**
NAZL				AML	AML			
ZEDA	**zmir-Bergama**	**1.16**	**4**	P	**Pg**	**08 39 12.2**	**-1.0**
ZEDA				S	**Sn**	**08 39 29.4**	**+0.6**
ZEDA				IAML		08 39 30.0		
	comp=N,131nm,0.4s							
ZEDA				IAML		08 39 31.0		
	comp=E,212nm,0.4s							
GOMA	**Golmarmara-Man**	**1.16**	**39**	Pn	**Pn**	**08 39 13.1**	**0.0**
GOMA				AML	AML			
DAT	**Datca**	**1.18**	**156**	P	**Pg**	**08 39 12.6**	**-1.1**
DAT				S	**Sg**	**08 39 28.3**	**-0.7**
DAT				AML	AML			
DAT	**Datca**	**1.18**	**156**	Pn	**Pb**	**08 39 13.6**	**+0.2**
DAT				AML	AML			
YER	**Yerkesik**	**1.24**	**123**	P	**Pg**	**08 39 14.0**	**-0.8**
YER				S	**Sg**	**08 39 30.4**	**-0.4**
YER	**Yerkesik**	**1.24**	**123**	Pn	**Pn**	**08 39 14.7**	**+0.5**
YER				AML	AML			
AKHS	**Akhisar**	**1.25**	**31**	P	**Pg**	**08 39 13.3**	**-1.8**
AKHS				S	**Sn**	**08 39 32.4**	**+1.2**
AKHS				IAML		08 39 34.0		
	comp=N,168nm,0.4s							
AKS	**Akhisar**	**1.25**	**31**	Pn	**Pn**	**08 39 14.6**	**+0.2**
AKS				AML	AML			
DKL	**Dikili**	**1.26**	**357**	Pn	**Pg**	**08 39 13.9**	**-1.3**
DKL				AML	AML			
SOMA	**Soma-Manisa**	**1.41**	**18**	Pn	**Pb**	**08 39 17.0**	**-0.3**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.44**	**40**	Pn	**Pg**	**08 39 18.1**	**-0.6**
GORD				AML	AML			
PRK	**Paraskevi**	**1.54**	**339**	P	**Pb**	**08 39 19.2**	**-0.2**
PRK				S	**Sg**	**08 39 39.6**	**-0.8**
PRK				AML	AML			
DALY	**Dalyan (Mula)**	**1.66**	**126**	Pn	**Pn**	**08 39 20.9**	**+0.9**
DALY				AML	AML			
YAYO	**Edremit-Balk**	**1.80**	**2**	Pn	**Pn**	**08 39 22.6**	**+0.7**
ARG	**Arkhangelos**	**1.84**	**150**	Pn	**Pb**	**08 39 23.9**	**-0.7**
ARG				AML	AML			
APMY	**Acipayam-Deniz**	**1.88**	**100**	Pn	**Pn**	**08 39 24.2**	**+1.2**
APMY				AML	AML			
THERA	**Ancient Thera,**	**1.88**	**220**	P	**Pn**	**08 39 22.8**	**-0.2**
THR3	**Thira Island,**	**1.89**	**223**	P	**Pg**	**08 39 26.4**	**-0.7**
SNT5	**Nea Kammeni, S**	**1.89**	**222**	P	**Pg**	**08 39 26.7**	**-0.6**
BALB	**Balikesir**	**1.96**	**21**	Pn	**Pn**	**08 39 24.7**	**+0.6**
BALB				AML	AML			
SIMA	**Simav-Kutahya**	**2.02**	**50**	Pn	**Pn**	**08 39 26.1**	**+1.1**
SIMA				AML	AML			
CAME	**Cameli-Denizli**	**2.04**	**114**	Pn	**Pn**	**08 39 26.2**	**+0.8**
CAME				AML	AML			
EZN	**Ezine**	**2.08**	**346**	P	**Pn**	**08 39 27.0**	**+1.3**
EZN	**Ezine**	**2.08**	**346**	Pn	**Pn**	**08 39 26.9**	**+1.2**
EZN				AML	AML			
BOZC	**Bozcaada**	**2.15**	**341**	Pn	**Pb**	**08 39 28.6**	**-1.3**
BOZC				AML	AML			
CANM	**Can-anakkale**	**2.20**	**1**	Pn	**Pn**	**08 39 28.5**	**+1.1**
CANM				AML	AML			
SUSR	**Susurluk-Balik**	**2.31**	**22**	Pn	**Pn**	**08 39 30.3**	**+1.3**
SUSR				AML	AML			
COMU	**Canakkale**	**2.32**	**350**	Pn	**Pn**	**08 39 30.7**	**+1.6**
COMU				AML	AML			
LIA	**Limnos Island**	**2.51**	**327**	P	**Pn**	**08 39 32.9**	**+1.3**
GADA	**Gvkgeada**	**2.52**	**341**	Pn	**Pn**	**08 39 33.0**	**+1.2**
GADA				AML	AML			
SMTH	**Samothraki Isl**	**2.88**	**337**	P	**Pn**	**08 39 36.9**	**0.0**
ALN	**Alexandroupoli**	**3.17**	**347**	P	**Pn**	**08 39 40.6**	**-0.1**

*AFAD **01** 08:39:42.9, 37.84N×26.86E, h7km±3km, ML3.5*
*ISK **01** 08:39:42.8, 37.85N×26.90E, h5km, ML3.7/42*
*ATH **01** 08:39:42.7, 37.84N×26.88E, h10km±1km, ML3.2/7, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*IDC **01** 08:39:43.1±1.2, 37.44N×27.14E, h0km, mb3.7/3, mbtmp3.4/6, ML2.7/2, Error ellipse: s-maj=30.3km s-min=14.8km az=133.0*
*THE **01** 08:39:43.1, 37.8N±0.9×27°7E±°, h5km±2km, M3.5/9, MLh3.5/9*
ISC 01 08:39:43.2±1.0, 37.83N±0.01×26.88E±0.02, h4km±8km, n95, σ1.17/127, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.14**	**255**	P	**Pg**	**08 39 46.1**	**+0.2**
KRL1				S	**Sg**	**08 39 48.8**	**+1.0**
DGB	**zmir**	**0.22**	**1**	P	**Pg**	**08 39 47.5**	**0.0**
DGB				S	**Sg**	**08 39 50.9**	**+0.6**
GMLD	**Gumuldur**	**0.25**	**7**	Pg	**Pg**	**08 39 48.0**	**0.0**
GMLD				Sg	**Sg**	**08 39 52.2**	**+1.0**
GMLD				AML	AML			
GCAM	**G?zelcaml?**	**0.31**	**115**	P	**Pg**	**08 39 49.6**	**+0.4**
GCAM				IAML		08 39 55.0		
	comp=N,1μm,0.4s							
GCAM				IAML		08 39 55.0		
	comp=E,10μm,0.3s							
GCAM				S	**Sb**	**08 39 55.2**	**-1.5**
GCAM	**G?zelcaml?**	**0.31**	**115**	Pg	**Pb**	**08 39 49.

CHOS	**Chios island**	**0.85**	**311**	Pg	**Pb**	**08 40 00.5**	**-0.1**
CHOS				AML	AML			
CHOS	**Chios island**	**0.85**	**311**	P	**Pg**	**08 39 59.2**	**-0.3**
CHOS				S	**Sg**	**08 40 10.8**	**+0.1**
KLNA	**Kalymnos**	**0.88**	**175**	P	**Pg**	**08 39 59.9**	**0.0**
KLNA				S	**Sg**	**08 40 11.9**	**+0.6**
BDRM	**Kayabasi**	**0.89**	**149**	P	**Pg**	**08 39 59.7**	**-0.5**
BDRM				S	**Sb**	**08 40 13.1**	**-0.2**
BDRM				IAML		08 40 16.0	
	comp=N,2μm,0.7s						
BDRM				IAML		08 40 17.0	
	comp=E,1μm,0.4s						
FOCM	**Foa**	**0.89**	**353**	Pg	**Pb**	**08 40 00.3**	**-0.9**
FOCM				AML	AML		
MLSB	**Milas**	**0.89**	**127**	Pg	**Pb**	**08 40 00.9**	**-0.3**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.90**	**70**	P	**Pg**	**08 40 00.1**	**-0.4**
IZMR				S	**Sg**	**08 40 11.3**	**-0.8**
KARB	**zmir-Karabur**	**0.91**	**336**	P	**Pg**	**08 40 00.0**	**-0.6**
KARB				S	**Sb**	**08 40 13.5**	**-0.5**
KARB				IAML		08 40 15.0	
	comp=N,2μm,0.6s						
KARB				IAML		08 40 17.0	
	comp=E,3μm,0.7s						
EAG2	**Marmaro, Chios**	**0.94**	**320**	P	**Pg**	**08 40 01.1**	**-0.1**
EAG2				S	**Sg**	**08 40 13.6**	**+0.3**
CAMT	**Merkez**	**0.98**	**20**	P	**Pg**	**08 40 01.6**	**-0.3**
CAMT				S	**Sb**	**08 40 15.8**	**-0.2**
CAMT				IAML		08 40 21.0	
	comp=E,3μm,0.9s						
CAMT				IAML		08 40 23.0	
	comp=N,2μm,0.5s						
NAZL	**Nazilli-Aydin**	**1.13**	**83**	Pn	**Pn**	**08 40 05.1**	**-0.7**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.15**	**8**	P	**Pg**	**08 40 04.1**	**-1.0**
ZEDA				S	**Sn**	**08 40 21.4**	**-0.8**
ZEDA				IAML		08 40 22.0	
	comp=E,1μm,0.5s						
ZEDA				IAML		08 40 24.0	
	comp=N,929nm,0.7s						
ESEN	**Aydn-Nazilli**	**1.17**	**91**	P	**Pg**	**08 40 04.7**	**-0.8**
ESEN				S	**Sn**	**08 40 22.7**	**+0.1**
GOMA	**Golmarmara-Man**	**1.20**	**43**	Pn	**Pn**	**08 40 06.1**	**-0.6**
GOMA				AML	AML		
DAT	**Datca**	**1.23**	**153**	P	**Pg**	**08 40 05.6**	**-1.2**
DAT				AML	AML		
DAT	**Datca**	**1.23**	**153**	Pn	**Pn**	**08 40 07.3**	**0.0**
DAT				AML	AML		
DKL	**Dikili**	**1.24**	**1**	Pn	**Pn**	**08 40 06.9**	**-0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**1**	P	**Pg**	**08 40 06.3**	**-0.6**
KIRA	**zmir-Kiraz**	**1.26**	**73**	P	**Pg**	**08 40 06.7**	**-0.6**
KIRA				S	**Sn**	**08 40 24.0**	**-1.1**
AKHS	**Akhisar**	**1.28**	**35**	P	**Pg**	**08 40 04.9**	**-2.8**
AKHS				S	**Sn**	**08 40 25.5**	**0.0**
AKHS				IAML		08 40 26.0	
	comp=N,1μm,0.6s						
AKS	**Akhisar**	**1.28**	**35**	Pn	**Pn**	**08 40 07.7**	**-0.2**
AKS				AML	AML		
KTTT	**Salihli**	**1.28**	**48**	P	**Pn**	**08 40 07.8**	**-0.1**
KTTT				S	**Sn**	**08 40 24.6**	**-1.1**
KTTT				IAML		08 40 27.0	
	comp=N,2μm,0.5s						
YER	**Yerkesik**	**1.32**	**121**	P	**Pn**	**08 40 07.0**	**-1.5**
YER				S	**Sn**	**08 40 26.2**	**-0.3**
YER	**Yerkesik**	**1.32**	**121**	Pn	**Pb**	**08 40 08.7**	**+0.2**
YER				AML	AML		
TNSA	**Tinos**	**1.39**	**258**	P	**Pn**	**08 40 08.5**	**-0.9**
TNSA				AML	AML		
SOMA	**Soma-Manisa**	**1.42**	**21**	Pn	**Pg**	**08 40 10.1**	**-0.3**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.48**	**354**	P	**Pn**	**08 40 09.7**	**-0.9**
AYVA				S	**Sg**	**08 40 31.7**	**+0.9**
AYVA				IAML		08 40 34.0	
	comp=N,899nm,0.5s						
AYVA				IAML		08 40 35.0	
	comp=E,722nm,0.5s						
GORD	**Gordes-Manisa**	**1.48**	**43**	Pn	**Pg**	**08 40 11.1**	**-0.5**
GORD				AML	AML		
PRK	**Paraskevi**	**1.49**	**342**	P	**Pn**	**08 40 09.5**	**-1.3**
PRK				S	**Sg**	**08 40 30.7**	**-0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**1.49**	**342**	P	**Pn**	**08 40 09.4**	**-1.3**
TURN	**Turunc**	**1.52**	**134**	Pn	**Pg**	**08 40 11.8**	**-0.4**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.74**	**125**	Pn	**Pb**	**08 40 15.6**	**-0.1**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**5**	Pn	**Pb**	**08 40 15.8**	**-0.7**
YAYO				AML	AML		
THR8	**Santorini-Mono**	**1.81**	**219**	P	**Pn**	**08 40 14.7**	**-0.4**
THERA	**Ancient Thera,**	**1.84**	**218**	P	**Pn**	**08 40 15.1**	**-0.5**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**218**	P	**Pn**	**08 40 14.6**	**-1.0**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.90**	**148**	P	**Pn**	**08 40 15.0**	**-1.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.90**	**148**	P	**Pn**	**08 40 15.4**	**-0.9**
KARY	**Karystos**	**1.94**	**277**	P	**Pn**	**08 40 16.2**	**-0.7**
BALB	**Balikesir**	**1.97**	**23**	Pn	**Pn**	**08 40 17.7**	**+0.4**
BALB				AML	AML		
EZN	**Ezine**	**2.04**	**348**	Pn	**Pb**	**08 40 19.7**	**-1.1**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.11**	**342**	Pn	**Pn**	**08 40 20.1**	**+0.8**
BOZC				AML	AML		
YENI	**Yenice-Canakka**	**2.12**	**8**	Pn	**Pb**	**08 40 20.8**	**-1.4**
CANM	**Can-anakkale**	**2.18**	**4**	Pn	**Pb**	**08 40 21.6**	**-1.6**
CANM				AML	AML		
DST	**Dursunbey**	**2.23**	**37**	Pn	**Pb**	**08 40 22.5**	**-1.7**
COMU	**Canakkale**	**2.29**	**352**	Pn	**Pn**	**08 40 22.8**	**+1.1**
COMU				AML	AML		
KARP	**Karpathos**	**2.29**	**174**	P	**Pn**	**08 40 22.1**	**+0.3**
KARP				AML	AML		
GONE	**Gonen-Balikesi**	**2.30**	**16**	Pn	**Pn**	**08 40 22.3**	**+0.4**
GONE				AML	AML		
SUSR	**Susurluk-Balik**	**2.33**	**23**	Pn	**Pb**	**08 40 23.5**	**-2.2**
SUSR				AML	AML		
KYMI	**Kymi, Euboea I**	**2.33**	**291**	P	**Pn**	**08 40 21.4**	**-0.9**
KYMI				AML	AML		
DION	**Dionisos Attik**	**2.34**	**277**	P	**Pn**	**08 40 21.8**	**-0.7**
DION				AML	AML		
DION	**Dionisos Attik**	**2.34**	**277**	P	**Pn**	**08 40 21.4**	**-1.0**
PTL	**Penteli**	**2.39**	**276**	P	**Pn**	**08 40 22.4**	**-0.8**
PTL				AML	AML		
LIA	**Limnos Island**	**2.45**	**328**	P	**Pn**	**08 40 22.8**	**-1.2**
LIA	**Limnos Island**	**2.45**	**328**	P	**Pn**	**08 40 23.1**	**-0.8**
LIA				AML	AML		
GADA	**Gvkgeada**	**2.48**	**342**	Pn	**Pn**	**08 40 25.5**	**+1.2**
GADA				AML	AML		
LPK	**Lapseki**	**2.54**	**358**	Pn	**Pn**	**08 40 26.5**	**+1.3**
LPK				AML	AML		
KRBG	**Karabiga-Canak**	**2.58**	**7**	Pn	**Pn**	**08 40 27.0**	**+1.3**
KRBG				AML	AML		
GELI	**Tayfur-Gelibol**	**2.58**	**353**	Pn	**Pn**	**08 40 27.4**	**+1.6**
GELI				AML	AML		
EDC	**Edincik**	**2.63**	**17**	Pn	**Pn**	**08 40 27.6**	**+1.2**
EDC				AML	AML		
KCTX	**Karacabey (Bur**	**2.69**	**25**	Pn	**Pn**	**08 40 28.7**	**+1.4**
KCTX				AML	AML		
ERIK	**Erikli-Kesan**	**2.85**	**354**	Pn	**Pn**	**08 40 30.8**	**+1.4**
ERIK				AML	AML		
GAZK	**Gazikoy-TEKIRD**	**2.93**	**7**	Pn	**Pn**	**08 40 32.3**	**+1.7**
GAZK				AML	AML		
ENEZ	**Enez**	**2.96**	**349**	Pn	**Pn**	**08 40 31.9**	**+1.0**
ENEZ				AML	AML		
IDI	**Anoyia**	**3.00**	**213**	Pn	**Pn**	**08 40 29.9**	**-1.7**
	11nm,0.6s,baz=303,slow=19,SNR=7.7						
IDI				Sn	**Sn**	**08 41 04.5**	**-3.5**
	7.7nm,0.3s,baz=289,slow=19,SNR=9.4						
ALN	**Alexandroupoli**	**3.13**	**348**	Pn	**Pn**	**08 40 35.1**	**+1.8**
ALN				AML	AML		
CTKS	**Kestanelik-??a**	**3.63**	**20**	Pn	**Pn**	**08 40 42.4**	**+2.3**
CTKS				AML	AML		
KDZ	**Kurdzhali**	**3.98**	**343**	Pn	**Pn**	**08 40 42.2**	**-2.7**
KDZ				AML	AML		
BRTR	**Keskin Array B**	**5.61**	**68**	Pn	**Pn**	**08 41 07.0**	**-0.6**
	0.2nm,0.3s,baz=246,slow=14,SNR=3.5 1.1nm,0.5s						
BRTR				AML	AML		
GERES	**GERESS Array B**	**14.57**	**323**	Pn	**P**	**08 43 15.9**	**-0.9**
	baz=143,slow=12,SNR=4.7 0.3nm,0.9s						
HFS	**Hagfors**	**23.85**	**344**	P	**P**	**08 45 03.1**	**+5.9**
	3.0nm,1.0s,baz=167,slow=7.4,SNR=3.6 3.0nm,1.0s						
TORD	**Torodi Ar. Bea**	**33.27**	**229**	P	**P**	**08 46 21.2**	**-0.6**
	0.7nm,0.4s,baz=30,slow=8.9,SNR=5.1 0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**38.40**	**54**	P	**P**	**08 47 07.8**	**+2.3**
	0.3nm,0.6s,baz=278,slow=8.8,SNR=3.0 0.3nm,0.6s						

*ISK **01** 08:45:14.9,37.89N×26.93E,h11km,ML2.6/16*
*AFAD **01** 08:45:15.3,37.88N×26.91E,h6km±2km,ML2.2*
ISC 01 08:45:15.5±1.0,**37.89N**±0.03×**26.92E**±0.03,**h12**km±7km,
n29,σ0°49/41,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**350**	P	**Pg**	**08 45 19.2**	**0.0**
DGB				IAML		08 45 22.0	
	comp=E,432nm,0.3s						
DGB				S	**Sg**	**08 45 22.2**	**+0.3**
DGB				IAML		08 45 23.0	
	comp=N,499nm,0.2s						
GMLD	**Gumuldur**	**0.19**	**359**	Pg	**Pg**	**08 45 19.3**	**-0.3**
GMLD				Sg	**Sg**	**08 45 22.9**	**+0.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**95**	Pg	**Pg**	**08 45 21.4**	**0.0**
KUSD				Sg	**Sg**	**08 45 25.6**	**+0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**127**	P	**Pg**	**08 45 21.4**	**-0.4**
GCAM				S	**Sb**	**08 45 27.0**	**-1.1**
GCAM	**G?zelcaml?**	**0.31**	**127**	Pg	**Pg**	**08 45 21.5**	**-0.3**
GCAM				Sg	**Sg**	**08 45 25.9**	**-0.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.34**	**1**	P	**Pg**	**08 45 22.5**	**+0.2**
BEYE				S	**Sb**	**08 45 27.8**	**-1.1**
BEYE				IAML		08 45 28.0	
	comp=N,220nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**317**	P	**Pg**	**08 45 24.7**	**-0.2**
ZEYE				IAML		08 45 32.0	
	comp=E,195nm,0.2s						
ZEYE				S	**Sb**	**08 45 32.2**	**-0.8**
ZEYE				IAML		08 45 33.0	
	comp=N,327nm,0.3s						
BLCB	**Balcova**	**0.51**	**11**	Pg	**Pg**	**08 45 24.9**	**-0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.53**	**51**	P	**Pg**	**08 45 26.0**	**+0.1**
DUVT				S	**Sg**	**08 45 33.3**	**+0.3**
DUVT				IAML		08 45 38.0	
	comp=E,212nm,0.5s						
KRBN	**Karaburun**	**0.76**	**338**	Pg	**Pg**	**08 45 30.2**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.77**	**356**	S	**Sn**	**08 45 43.7**	**0.0**
AYDB	**Zeytinkoy-Aydi**	**0.77**	**85**	Pg	**Pg**	**08 45 30.0**	**-0.4**
AYDB				Sg	**Sb**	**08 45 41.1**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.79**	**106**	P	**Pg**	**08 45 30.7**	**-0.1**
AYDN				IAML		08 45 44.0	
	comp=N,100nm,0.2s						
AYDN				IAML		08 45 45.0	
	comp=E,195nm,0.3s						
FOCM	**Foa**	**0.84**	**350**	Pg	**Pg**	**08 45 31.4**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.84**	**306**	Pg	**Pg**	**08 45 31.7**	**-0.1**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.85**	**73**	P	**Pn**	**08 45 32.8**	**-0.5**
KARB	**zmir-Karabur**	**0.87**	**333**	P	**Pb**	**08 45 32.3**	**-0.2**
KARB				S	**Sn**	**08 45 47.0**	**+0.8**
KARB				IAML		08 45 48.0	
	comp=E,132nm,0.5s						
KARB				IAML		08 45 55.0	
	comp=N,112nm,0.6s						
BODT	**Bodrum**	**0.88**	**159**	Pg	**Pg**	**08 45 32.2**	**-0.3**
BODT				Sg	**Sb**	**08 45 45.1**	**+0.6**
BODT				AML	AML		
MLSB	**Milas**	**0.90**	**131**	Pg	**Pg**	**08 45 32.5**	**-0.4**
MLSB				AML	AML		
CAMT	**Merkez**	**0.91**	**20**	P	**Pn**	**08 45 34.3**	**+0.1**
CAMT				S	**Sn**	**08 45 48.4**	**+1.1**
CAMT				IAML		08 45 57.0	
	comp=N,138nm,0.3s						
BDRM	**Kayabasi**	**0.92**	**153**	P	**Pb**	**08 45 33.3**	**-0.1**
BDRM				IAML		08 45 54.0	
	comp=E,56nm,0.2s						
BDRM				IAML		08 45 56.0	
	comp=N,100nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.09**	**86**	Pn	**Pb**	**08 45 36.2**	**-0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.13**	**44**	Pn	**Pg**	**08 45 36.9**	**-0.4**
ESEN	**Aydn-Nazilli**	**1.14**	**94**	P	**Pn**	**08 45 37.6**	**+0.4**
DKL	**Dikili**	**1.18**	**359**	Pn	**Pg**	**08 45 37.9**	**-0.3**
DKL				AML	AML		
KIRA	**zmir-Kiraz**	**1.21**	**75**	P	**Pn**	**08 45 39.4**	**+1.1**
AKS	**Akhisar**	**1.21**	**35**	Pn	**Pb**	**08 45 38.1**	**-0.3**
SOMA	**Soma-Manisa**	**1.35**	**21**	Pn	**Pn**	**08 45 40.3**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.42**	**44**	Pn	**Pn**	**08 45 41.5**	**+0.3**
GORD				AML	AML		

*FUNV **01** 09:04:30.3,9.87N×73.16W,h148km,MW3.5,Presumed earthquake*
*RSNC **01** 09:04:32.2±0.0,10°N±1°×7°3W±°,h123km±2km,M2.3,ML2.1*
ISC 01 09:04:29.5±1.3,**9.87N**±0.04×**73.16W**±0.03,**h134**km±10km,
n28,σ1°49/54,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCQV	**Machiques**	**0.64**	**74**	*i* P	**Pn**	**09 04 51.8**	**+1.9**
MCQV				*eS*	**Sn**	**09 05 07.0**	**+1.7**
LL8C	**La Loma 8 Chim**	**0.82**	**230**	P	**Pn**	**09 04 48.1**	**-3.2**
LL8C				S	**Sn**	**09 05 04.8**	**-3.0**
ARGC	**Ariguani, Magd**	**1.07**	**269**	P	**Pn**	**09 04 55.1**	**+1.6**
ARGC				S	**Sn**	**09 05 12.6**	**+0.9**
CRJC	**Cerrejon, Guaj**	**1.17**	**13**	P	**Pn**	**09 04 55.5**	**+0.9**
CRJC				S	**Sn**	**09 05 13.4**	**-0.3**
OCAC	**Ocana**	**1.63**	**186**	P	**Pn**	**09 05 00.0**	**+0.4**
OCAC				S	**Sn**	**09 05 21.7**	**-0.8**
SMRC	**Santa Marta, M**	**1.66**	**321**	P	**Pn**	**09 05 01.5**	**+1.8**
SMRC				S	**Sn**	**09 05 22.9**	**+0.1**
SJCC	**San Jacinto, C**	**1.99**	**271**	P	**Pn**	**09 05 04.4**	**+0.7**
SJCC				S	**Sn**	**09 05 29.6**	**-0.3**
SJCC	**San Jacinto, C**	**1.99**	**271**	*eP*	**Pn**	**09 05 04.3**	**+0.5**
SJCC				*eS*	**Sn**	**09 05 29.5**	**-0.4**
URIC	**Uribia, Colomb**	**2.15**	**32**	P	**Pn**	**09 05 06.3**	**+0.7**
URIC				S	**Sn**	**09 05 33.4**	**+0.2**
URIC	**Uribia, Colomb**	**2.15**	**32**	*eP*	**Pn**	**09 05 06.2**	**+0.6**
URIC				*eS*	**Sn**	**09 05 32.8**	**-0.4**
VMM07	**Puerto Wilches**	**2.59**	**195**	P	**Pn**	**09 05 12.4**	**+1.3**
VMM07				S	**Sn**	**09 05 44.3**	**+1.3**
SDV	**Santo Domingo**	**2.67**	**111**	P	**Pn**	**09 05 14.3**	**+2.0**
SDV				S	**Sn**	**09 05 45.7**	**+0.4**
SDV	**Santo Domingo**	**2.67**	**111**	*eP*	**Pn**	**09 05 12.8**	**+0.4**
SDV				*eS*	**Sn**	**09 05 44.3**	**-1.0**
VMM09	**Lebrija**	**2.73**	**183**	P	**Pn**	**09 05 14.7**	**+1.7**
VMM09				S	**Sn**	**09 05 47.4**	**+0.9**
BRJC	**Barrancabermej**	**2.94**	**191**	P	**Pn**	**09 05 16.7**	**+1.1**
BRJC				S	**Sn**	**09 05 51.6**	**+0.6**
VMM10	**El Carmen**	**3.14**	**190**	P	**Pn**	**09 05 18.9**	**+0.8**
VMM10				S	**Sn**	**09 05 55.2**	**-0.4**
UREC	**San Jos de Ur**	**3.15**	**228**	P	**Pn**	**09 05 18.4**	**0.0**
UREC				S	**Sn**	**09 05 53.7**	**-2.4**
BARC	**Barichara**	**3.26**	**180**	P	**Pn**	**09 05 21.3**	**+1.4**
BARC				S	**Sn**	**09 05 59.0**	**+0.2**
LCBC	**Los crdobas,**	**3.33**	**253**	P	**Pn**	**09 05 20.7**	**+0.1**
LCBC				S	**Sn**	**09 06 00.6**	**+0.6**
TEPV	**Terepaima**	**3.91**	**88**	*eP*	**Pn**	**09 05 28.3**	**0.0**
TEPV				*eS*	**Sn**	**09 06 10.7**	**-3.1**
APAC	**Apartado, Choc**	**3.91**	**240**	P	**Pn**	**09 05 29.4**	**+1.2**
APAC				S	**Sn**	**09 06 12.0**	**-1.7**
RUSC	**La Rusia**	**3.95**	**179**	P	**Pn**	**09 05 29.0**	**-0.3**
RUSC				S	**Sn**	**09 06 15.6**	**+0.1**
SPBC	**San Pablo de B**	**4.29**	**192**	P	**Pn**	**09 05 34.3**	**+0.9**
SPBC				S	**Sn**	**09 06 23.8**	**+0.9**
MAPV	**Macapo**	**4.63**	**90**	*eP*	**Pn**	**09 05 37.3**	**-0.5**
MAPV				*eS*	**Sn**	**09 06 26.6**	**-4.3**
CBOC	**Ciudad Bolivar**	**4.88**	**216**	P	**Pn**	**09 05 43.1**	**+1.7**
CBOC				S	**Sn**	**09 06 38.0**	**+0.8**
UPD2	**Meteti**	**4.97**	**255**	P	**Pn**	**09 05 41.1**	**-1.3**
UPD2				S	**Sn**	**09 06 35.8**	**-3.3**
GUY2C	**Guyana, Caldas**	**5.11**	**206**	P	**Pn**	**09 05 45.8**	**+1.1**
BENV	**Beln**	**5.48**	**89**	*eP*	**Pn**	**09 05 47.9**	**-1.3**

*IDC **01** 09:18:02.7±6.3,5.58N×124.82E,h81km±69km,mb3.2/4,mbtmp3.5/4,Error ellipse: s-maj=90.3km s-min=18.2km az=72.0*
*MAN **01** 09:18:04.0,6.58N×126.72E,h1km,MS3.6*
ISC 01 09:18:05.0±1.8,**6.3N**±0.1×**126.6E**±0.2,**h128**km±14km,**n11,**
σ0°92/13,mb3.5/4,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.89**	**255**	*eP*	**Pn**	**09 18 26.4**	**-0.3**
DDMP				*eS*	**Sn**	**09 18 42.9**	**-0.2**
DAV	**Davao City (W)**	**1.23**	**307**	P	**Pn**	**09 18 29.0**	**-1.1**
	263nm,0.5s,baz=140,slow=0.6,SNR=5.6						
DAV				S	**Sn**	**09 18 51.3**	**+2.2**
	158nm,0.3s,baz=62,slow=23,SNR=5.5						
CDOP	**Cateel, Davao**	**1.45**	**354**	*eP*	Pn	09 18 28.3	-4.1
CDOP				*eS*	Sn	09 18 45.4	-7.9
KCP	**Kidapawan**	**1.62**	**295**	*i* P	**Pn**	**09 18 34.5**	**0.0**
KCP				*i* S	**Sn**	**09 18 57.5**	**+0.6**
GSPH	**General Santos**	**1.64**	**262**	*i* P	**Pn**	**09 18 34.2**	**-0.5**
GSPH				*i* S	**Sn**	**09 18 57.1**	**-0.2**
BIPH	**Bislig**	**1.85**	**353**	*eP*	Pn	09 18 33.5	-3.7
BIPH				*eS*	Sn	09 18 53.0	-8.7
CGP	**Cagayan de Oro**	**2.82**	**319**	*eP*	Pn	09 18 55.9	+6.7
CGP				*eS*	**Sn**	**09 19 22.4**	**-0.9**
WRA	**Warramunga Arr**	**27.20**	**164**	P	**P**	**09 23 37.1**	**+0.2**
	0.3nm,0.7s,baz=342,slow=9.5,SNR=6.1 0.3nm,0.7s						
ASAR	**Alice Springs**	**30.66**	**167**	P	**P**	**09 24 07.8**	**+0.2**
	0.2nm,0.3s,baz=342,slow=7.2,SNR=11 0.2nm,0.3s						
MKAR	**Makanchi Array**	**55.36**	**324**	P	**P**	**09 27 25.9**	**+0.2**
	0.4nm,0.5s,baz=118,slow=8.8,SNR=4.7 0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**59.49**	**327**	P	**P**	**09 27 54.6**	**0.0**
	0.4nm,0.5s,baz=123,slow=6.7,SNR=5.5 0.4nm,0.5s						

*KRNET **01** 09:23:46.9±0.1,40.88N×69.34E,mb2.5*
*ISU **01** 09:23:48,41.02N×69.57E,h8km*
ISC 01 09:23:48.9±1.5,**41.00N**±0.04×**69.73E**±0.08,**h10**km,**n8,**
σ1°25/15,7C-7D,Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TVKS	**Tavaksay**	**0.58**	**354**	P	**Pg**	**09 23 59.6**	**-0.5**
TVKS				S	**Sb**	**09 24 09.1**	**-0.3**
BTK	**Batken**	**1.26**	**138**	⇓*eP*	**Pg**	**09 24 13.1**	**+0.1**
BTK				⇓*eS*	**Sn**	**09 24 32.1**	**+2.5**
KK31	**Karatay Array**	**2.18**	**15**	⇑Pn	**Pg**	**09 24 30.1**	**-0.5**
	1.4nm,0.6s,baz=199,slow=18,SNR=18						
KK31				⇑Sn	**Sg**	**09 24 59.4**	**+0.5**
	18nm,0.8s,baz=197,slow=25,SNR=23						
DRK	**Karamyk**	**2.20**	**133**	⇓*eP*	**Pb**	**09 24 28.0**	**-0.9**
DRK				⇓*eS*	**Sg**	**09 24 58.6**	**-0.9**
ARSB	**Arslanbob**	**2.48**	**81**	⇓*eP*	**Pb**	**09 24 34.3**	**+0.7**
ARSB				⇑*eS*	**Sg**	**09 25 08.9**	**+0.4**
MNAS	**Manas**	**2.55**	**54**	⇑*eP*	**Pb**	**09 24 35.8**	**+0.9**
MNAS				⇑*eS*	**Sg**	**09 25 11.1**	**+0.2**
SALK	**Salom-Alik**	**3.10**	**91**	⇓*eP*	**Pb**	**09 24 42.4**	**-1.9**
SALK				⇓*eS*	**Sb**	**09 25 23.3**	**+1.1**
AAK	**Ala-Archa**	**3.92**	**64**	⇓Pg	**Pg**	**09 25 02.0**	**-2.0**
	0.9nm,0.7s						
AAK				⇑Lg	Lg	09 25 58.2	
	1.0nm,0.7s						

*THE **01** 09:59:47.9,36°N±2°×2°5E±°,h9km±4km,M3.0/9,MLh3.0/9*
*ISK **01** 09:59:47.3,35.67N×25.16E,h8km,ML3.0/5*
*ATH **01** 09:59:48.0,35.67N×25.14E,h13km±2km,ML3.0/13,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*IDC **01** 09:59:49.3±6.5,35.88N×25.82E,h0km,mb3.6/3,mbtmp3.4/4,ML2.4/1,MS3.1/1,Error ellipse: s-maj=279.2km s-min=89.1km az=153.0*
ISC 01 09:59:47.7±1.0,**35.67N**±0.02×**25.13E**±0.03,**h16**km±9km,
n46,σ0°78/53,mb3.4/3,Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IDI	**Anoyia**	**0.43**	**208**	P	**Pg**	**09 59 55.8**	**-0.6**
IDI				S	**Sg**	**10 00 01.3**	**-1.1**
IDI	**Anoyia**	**0.43**	**208**	Pg	**Pg**	**09 59 56.3**	**-0.1**
IDI				AML	AML		
IDI	**Anoyia**	**0.43**	**208**	P	**Pg**	**09 59 56.3**	**-0.1**
IDI				S	**Sg**	**10 00 02.6**	**+0.3**
NPS	**Neapolis**	**0.56**	**136**	P	**Pg**	**09 59 58.7**	**-0.2**
NPS				S	**Sb**	**10 00 07.2**	**+0.2**
NPS				AML	AML		
NPS	**Neapolis**	**0.56**	**136**	P	**Pg**	**09 59 58.4**	**-0.5**
NPS				S	**Sb**	**10 00 07.6**	**+0.6**
RTHF	**Rethymno-Limin**	**0.61**	**240**	P	**Pb**	**10 00 00.7**	**+0.8**
RTHF				S	**Sg**	**10 00 08.8**	**+0.9**
AGNA	**Agios Nikolaos**	**0.68**	**135**	P	**Pg**	**10 00 01.0**	**0.0**
AGNA				S	**Sb**	**10 00 10.6**	**+0.4**
AGNA				AML	AML		
SIVA	**Sivas**	**0.70**	**202**	P	**Pg**	**10 00 00.1**	**-1.3**
SIVA				AML	AML		
SIVA	**Sivas**	**0.70**	**202**	P	**Pg**	**10 00 01.8**	**+0.3**
SIVA				AML	AML		
THR9	**Santorini-Faro**	**0.71**	**15**	P	**Pb**	**10 00 02.4**	**+0.7**
THR9	**Santorini-Faro**	**0.71**	**15**	P	**Pb**	**10 00 02.2**	**+0.6**
THERA	**Ancient Thera,**	**0.75**	**22**	P	**Pg**	**10 00 02.5**	**+0.2**
THERA				S	**Sb**	**10 00 13.0**	**+0.7**
THERA				AML	AML		
SNT5	**Nea Kammeni, S**	**0.76**	**16**	P	**Pb**	**10 00 03.0**

0.5nm,0.6s,baz=278,slow=8.7,SNR=5.8
0.5nm,0.6s
MKAR Makanchi Array 43.51 57 P **P** **10 07 50.1 -0.2**
0.3nm,0.5s,baz=286,slow=7.0,SNR=1.1
0.3nm,0.5s
ZALV Zalesovo Beam 44.67 47 P **P** **10 07 58.5 -0.9**
0.6nm,0.5s,baz=252,slow=7.4,SNR=2.0
0.6nm,0.5s

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*AEIC **01** 10:01:55.8±1.1,53.51N±0.05×165.05W±0.06, h26km±7km, Error ellipse: s-maj=7.3km s-min=4.4km az=155.0*
NEIC 01 10:01:56.5±1.6, 53.54N±0.07×165.09W±0.07, h45km±18km, mb3.7/9, ML3.7/16, **ML3.5**(AEIC), **Error ellipse: s-maj=10.5km s-min=5.2km az=156.0, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AHB	**Akutan Harbor**	**0.72**	**324**		Pn	10 02 10.2	-0.2
AHB					Sn	10 02 21.2	+0.8
AKUT	**Akutan**	**0.72**	**326**		Pn	10 02 09.8	-0.6
AKUT					Sn	10 02 20.4	0.0
AKUT				IAML		10 02 22.9	
	comp=E,2µm,0.4s						
AKBBA	**Akutan Broad B**	**0.76**	**319**		Pn	10 02 10.6	-0.2
AKBBA					Sn	10 02 22.0	+0.8
ZRO	**Akutan Zero**	**0.77**	**317**		Pn	10 02 10.9	-0.2
ZRO					Sn	10 02 21.9	+0.4
AKV	**Akutan Volcano**	**0.79**	**319**		Pn	10 02 11.1	-0.2
AKV					Sn	10 02 22.8	+0.7
AKLV	**Akutan Long Va**	**0.81**	**321**		Pn	10 02 11.2	-0.4
AKLV					Sn	10 02 23.4	+0.8
AKRB	**Akutan Reef Bi**	**0.83**	**316**		Pn	10 02 11.8	-0.1
LVA	**Lava Point**	**0.84**	**318**		Pn	10 02 11.5	-0.5
LVA				IAML		10 02 28.3	
	comp=N,3µm,0.6s						
AKGG	**Akutan Green G**	**0.85**	**321**		Pn	10 02 12.0	-0.1
AKGG					Sn	10 02 24.0	+0.4
WESP	**Westdahl Peak**	**0.98**	**12**		Pn	10 02 13.5	-0.4
MNAT	**Makushin Natee**	**1.01**	**291**		Pn	10 02 14.3	0.0
MNAT					Sn	10 02 28.1	+0.7
WECS	**Westdahl Cape**	**1.01**	**10**		Sn	10 02 28.3	+0.8
WECS	**Westdahl Cape**	**1.01**	**10**		Pn	10 02 14.0	-0.3
WECS	**Westdahl Cape**	**1.01**	**10**	IAML		10 02 34.6	
	comp=E,2µm,0.4s						
WECS				IAML		10 02 38.9	
	comp=N,3µm,0.4s						
WEBT	**Westdahl Beart**	**1.07**	**10**		Pn	10 02 15.0	-0.2
WESN	**West Dahl Nort**	**1.08**	**16**		Pn	10 02 15.1	-0.1
WESN					Sn	10 02 30.1	+1.1
MSW	**Makushin Switc**	**1.08**	**291**		Pn	10 02 15.2	0.0
MGOD	**Makushin Gods**	**1.09**	**284**		Pn	10 02 15.3	-0.2
MAPS	**Pakushin South**	**1.14**	**285**		Pn	10 02 16.0	0.0
MAPS					Sn	10 02 31.6	+1.2
SSLS	**Shishaldin Sou**	**1.34**	**28**		Pn	10 02 18.1	-0.7
SSBA	**Shishaldin**	**1.36**	**24**		Pn	10 02 18.6	-0.6
WTUG	**Tugumak**	**1.38**	**17**		Pn	10 02 19.2	-0.1
WTUG					Sn	10 02 38.3	+1.9
SSLN	**Shishaldin Nor**	**1.43**	**26**		Pn	10 02 19.7	-0.3
OKFG	**Magazine Ridge**	**1.69**	**267**		Pn	10 02 24.3	+0.8
OKTU	**Okmok Mt. Tuli**	**1.77**	**266**		Pn	10 02 25.0	+0.3
DT1	**Dutton Round H**	**2.27**	**45**		Pn	10 02 31.8	+0.2
DTNA	**Dutton South F**	**2.32**	**45**		Pn	10 02 32.3	+0.2
PS1A	**Pavlof South-1**	**2.71**	**45**		Pn	10 02 39.1	+1.5
S12K	**Black Hills**	**2.79**	**38**		Pn	10 02 38.2	-0.5
S12K				IAML		10 03 21.9	
	comp=E,148nm,0.6s						
CLCO	**Concord Point,**	**2.89**	**257**		Pn	10 02 41.3	+1.3
CLES	**Cleveland East**	**2.98**	**258**	Pn	Pn	10 02 41.0	-0.2
CLES				IAML		10 03 32.1	
	comp=N,365nm,0.5s						
SDPT	**Sand Point**	**3.25**	**54**		Pn	10 02 44.5	-0.4
SDPT				IAML		10 03 36.6	
	comp=E,130nm,1.1s						
SDPT				IAML		10 03 42.1	
	comp=N,142nm,0.7s						
CNBA	**Chernabura Isl**	**3.48**	**66**	Pn	Pn	10 02 47.9	-0.1
SPIA	**Saint Paul Isl**	**4.69**	**323**	Pn	Pn	10 03 03.7	-0.9
ATKA	**Atka Island**	**5.68**	**260**	Pn	Pn	10 03 18.3	+0.1
O14K	**Tigyukauivet M**	**6.11**	**19**	Pn	Pn	10 03 25.6	+1.5
O15K	**Ungalikthiuk R**	**6.36**	**25**	Pn	Pn	10 03 28.1	+0.5
N15K	**Kwethluk River**	**7.19**	**20**	Pn	Pn	10 03 40.0	+1.1
O16K	**Kokwok River B**	**7.19**	**30**	Pn	Pn	10 03 40.7	+1.7
ACHA	**Angle Creek He**	**7.21**	**46**	Pn	Pn	10 03 40.0	+0.6
L14K	**Kuka Creek**	**7.93**	**8**	Pn	Pn	10 03 50.6	+1.6
Q19K	**Cape Douglas,**	**8.35**	**45**	Pn	Pn	10 03 56.8	+2.0
K15K	**Wolf Creek Mou**	**8.98**	**11**	Pn	Pn	10 04 04.1	+0.7
L18K	**Granite Mounta**	**9.78**	**24**	Pn	Pn	10 04 14.8	+0.5
K17K	**Iditarod**	**9.87**	**19**	Pn	Pn	10 04 15.6	0.0
J17K	**VABM Dome**	**10.37**	**15**	Pn	Pn	10 04 24.1	+1.7
SLKM	**Skilak Lake**	**10.68**	**45**	Pn	Pn	10 04 26.6	0.0
K20K	**Telida**	**11.39**	**26**	Pn	Pn	10 04 37.9	+1.5
HIN	**Hinchinbrook I**	**12.22**	**48**	Pn	Pn	10 04 47.0	-0.7
KLU	**Klutina**	**12.98**	**45**	Pn	Pn	10 04 56.2	-1.9
GLB	**Gilahina Butte**	**13.86**	**47**	Pn	Pn	10 05 08.6	-1.4
GRNC	**Granite Creek**	**14.51**	**51**	Pn	Pn	10 05 18.1	-0.9
RIDG	**Independent Ri**	**14.60**	**38**	Pn	Pn	10 05 20.0	-0.1
M27K	**Edge Creek, AK**	**15.08**	**45**	Pn	Pn	10 05 25.5	-0.8
G23K	**Bananza Creek**	**15.13**	**23**	Pn	Pn	10 05 27.2	+0.3
D20K	**Etivluk River**	**15.74**	**11**	Pn	Pn	10 05 34.0	-0.8
O29M	**Mount Kennedy**	**15.90**	**54**	Pn	Pn	10 05 37.0	+0.1
O29M				IAmb	IAmb	10 05 51.6	
	comp=Z,11nm,1.2s						
I26K	**Coal Creek Min**	**16.12**	**34**	Pn	Pn	10 05 40.1	+0.5
I26K				IAmb	IAmb	10 05 55.1	
	comp=Z,5.8nm,1.2s						
M29M	**Somme Creek**	**16.58**	**47**	Pn	Pn	10 05 45.6	+0.1
M29M				IAmb	IAmb	10 06 09.6	
	comp=Z,11nm,1.5s						
DAWY	**Dawson**	**16.84**	**41**	Pn	Pn	10 05 48.2	-0.6
DAWY				IAmb	IAmb	10 06 02.7	
	comp=Z,8.8nm,1.5s						
L29M	**L29M**	**16.96**	**45**	Pn	Pn	10 05 49.2	-1.1
L29M				IAmb	IAmb	10 06 07.6	
	comp=Z,11nm,1.5s						
PEA0B	**Petropavlovsk-**	**22.07**	**284**	P	P	10 06 46.1	-1.2
PETK	**Petropavlovsk-**	**22.07**	**284**	P	P	10 06 46.2	-1.1

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*THE **01** 10:09:01.5,38.3°N±1.3×2.6°E±.°, h0km±3km, M3.0/5, MLh3.0/5*
*AFAD **01** 10:09:01.3,37.85N×26.52E, h7km±4km, ML2.8*
*ISK **01** 10:09:01.1,37.83N×26.46E, h5km, ML2.9/19*
*ATH **01** 10:09:01.0,37.84N×26.46E, h11km±1km, ML2.7/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 01 10:09:01.3±1.0, 37.85N±0.02×26.48E±0.02, h9km±8km, n50, σ0s59/78, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.18**	**106**	P	**Pg**	**10 09 05.3**	**+0.1**
KRL1				S	**Sg**	**10 09 08.3**	**+0.6**
KRL1				AML	AML		
DGB	**zmir**	**0.38**	**57**	P	**Pg**	**10 09 07.5**	**-1.2**
DGB				S	**Sg**	**10 09 13.9**	**+0.2**
DGB				IAML		10 09 14.0	
	comp=N,2µm,0.4s						
DGB				IAML		10 09 14.0	
	comp=E,1µm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.39**	**2**	P	**Pg**	**10 09 07.7**	**-1.3**
ZEYE				S	**Sg**	**10 09 15.2**	**+0.9**
ZEYE				IAML		10 09 20.0	
	comp=N,789nm,0.7s						
GMLD	**Gumuldur**	**0.41**	**56**	Pg	**Pg**	**10 09 09.6**	**+0.2**
GMLD				Sg	**Sg**	**10 09 15.5**	**+0.6**
GMLD				AML	AML		
CESE	**eme**	**0.51**	**343**	Pg	**Pb**	**10 09 11.9**	**-0.5**
CESE				AML	AML		
BEYE	**izmir**	**0.52**	**42**	P	**Pg**	**10 09 10.4**	**-1.0**
BEYE				IAML		10 09 18.0	
	comp=E,690nm,0.4s						
BEYE				S	**Sg**	**10 09 18.5**	**+0.2**
BEYE				IAML		10 09 20.0	
	comp=N,423nm,0.4s						
GCAM	**G?zelcaml?**	**0.61**	**103**	P	**Pg**	**10 09 12.9**	**-0.2**
GCAM				S	**Sb**	**10 09 24.4**	**+1.5**
GCAM				IAML		10 09 27.0	
	comp=N,491nm,0.3s						
GCAM	**G?zelcaml?**	**0.61**	**103**	Pg	**Pg**	**10 09 13.5**	**+0.3**
GCAM				Sg	**Sb**	**10 09 23.2**	**+0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.64**	**88**	Pg	**Pb**	**10 09 14.1**	**-0.5**
KUSD				Sg	**Sb**	**10 09 23.9**	**+0.3**
KUSD				AML	AML		
CHOS	**Chios island**	**0.64**	**328**	P	**Pg**	**10 09 13.6**	**-0.1**
CHOS				S	**Sg**	**10 09 22.7**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.64**	**328**	Pg	**Pg**	**10 09 13.9**	**+0.2**
CHOS				Sg	**Sb**	**10 09 23.3**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.64**	**328**	P	**Pg**	**10 09 13.7**	**0.0**
CHOS				S	**Sg**	**10 09 22.0**	**-0.1**
CHOS				AML	AML		
BLCB	**Balcova**	**0.70**	**39**	P	**Pg**	**10 09 14.2**	**-0.6**
BLCB				S	**Sg**	**10 09 24.3**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.70**	**39**	Pg	**Pb**	**10 09 15.6**	**-0.1**
BLCB				Sg	**Sb**	**10 09 24.8**	**-0.6**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.72**	**123**	P	**Pb**	**10 09 15.6**	**-0.4**
DDIM				S	**Sn**	**10 09 28.0**	**-0.7**
DDIM				IAML		10 09 28.0	
	comp=N,618nm,0.6s						
DDIM				IAML		10 09 34.0	
	comp=E,644nm,0.4s						
KRBN	**Karaburun**	**0.75**	**4**	Pg	**Pb**	**10 09 16.4**	**-0.2**
KRBN				Sg	**Sb**	**10 09 27.5**	**+0.6**
KRBN				AML	AML		
EAG2	**Marmaro, Chios**	**0.76**	**337**	P	**Pg**	**10 09 15.7**	**-0.3**
DIDI	**Didim-Aydin**	**0.76**	**128**	Pg	**Pg**	**10 09 16.2**	**+0.2**
DIDI				Sg	**Sb**	**10 09 27.4**	**+0.2**
DIDI				AML	AML		
KARB	**zmir-Karabur**	**0.82**	**356**	P	**Pg**	**10 09 16.4**	**-0.8**
KARB				S	**Sb**	**10 09 28.9**	**0.0**
KARB				IAML		10 09 35.0	
	comp=N,326nm,0.7s						
DUVT	**Torbali**	**0.85**	**64**	P	**Pg**	**10 09 16.8**	**-0.9**
DUVT				S	**Sg**	**10 09 28.3**	**-0.4**
DUVT				IAML		10 09 33.0	
	comp=E,324nm,0.7s						
BAGT	**Foa**	**0.86**	**20**	P	**Pg**	**10 09 17.5**	**-0.4**
BAGT				IAML		10 09 38.0	
	comp=N,495nm,0.6s						
BAGT				IAML		10 09 38.0	
	comp=E,350nm,0.8s						
FOCM	**Foa**	**0.89**	**13**	Pg	**Pb**	**10 09 19.2**	**+0.3**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.96**	**138**	Pg	**Pg**	**10 09 19.9**	**+0.2**
YKAV				AML	AML		
KLNA	**Kalymnos**	**0.97**	**156**	P	**Pg**	**10 09 19.7**	**-0.2**
DAGE	**izmir**	**1.01**	**81**	P	**Pg**	**10 09 19.8**	**-1.0**
DAGE				S	**Sg**	**10 09 33.3**	**-0.8**
DAGE				IAML		10 09 34.0	
	comp=N,353nm,0.3s						
DAGE				IAML		10 09 35.0	
	comp=E,325nm,0.2s						
BODT	**Bodrum**	**1.02**	**140**	P	**Pg**	**10 09 21.1**	**+0.1**
BODT				S	**Sn**	**10 09 36.5**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**1.02**	**140**	Pg	**Pg**	**10 09 21.0**	**+0.1**
BODT				AML	AML		
BDRM	**Kayabasi**	**1.09**	**135**	P	**Pg**	**10 09 21.2**	**-1.0**
BDRM				S	**Sn**	**10 09 38.5**	**+0.5**
BDRM				IAML		10 09 39.0	
	comp=N,419nm,0.7s						
BDRM				IAML		10 09 39.0	
	comp=E,237nm,0.8s						
TNSA	**Tinos**	**1.09**	**254**	P	**Pg**	**10 09 21.5**	**-0.7**
TNSA				AML	AML		
CAMT	**Merkez**	**1.11**	**36**	P	**Pb**	**10 09 22.8**	**0.0**
CAMT				S	**Sn**	**10 09 38.9**	**+0.3**
CAMT				IAML		10 09 46.0	
	comp=E,568nm,0.5s						
CAMT				IAML		10 09 48.0	
	comp=N,567nm,0.5s						
AYDB	**Zeytinkoy-Aydi**	**1.12**	**84**	Pn	**Pb**	**10 09 23.1**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.12**	**99**	P	**Pb**	**10 09 23.0**	**+0.1**
AYDN				S	**Sn**	**10 09 38.9**	**0.0**
MLSB	**Milas**	**1.17**	**118**	Pn	**Pb**	**10 09 23.8**	**+0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.20**	**75**	P	**Pg**	**10 09 23.0**	**-1.3**
IZMR				S	**Sg**	**10 09 38.6**	**-1.2**
ZEDA	**zmir-Bergama**	**1.21**	**22**	P	**Pn**	**10 09 25.1**	**+0.6**
ZEDA				S	**Sn**	**10 09 41.7**	**+0.7**
ZEDA				IAML		10 09 50.0	
	comp=N,141nm,0.4s						
DKL	**Dikili**	**1.27**	**15**	Pn	**Pg**	**10 09 26.2**	**+0.5**
DKL				AML	AML		
PRK	**Paraskevi**	**1.41**	**353**	P	**Pn**	**10 09 26.9**	**-0.3**
PRK				S	**Sg**	**10 09 47.8**	**+1.1**
PRK	**Paraskevi**	**1.41**	**353**	P	**Pn**	**10 09 26.7**	**-0.5**
GOMA	**Golmarmara-Man**	**1.42**	**52**	Pn	**Pg**	**10 09 28.7**	**+0.1**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.44**	**85**	Pn	**Pg**	**10 09 28.7**	**-0.2**
NAZL				AML	AML		
AKS	**Akhisar**	**1.47**	**45**	Pn	**Pg**	**10 09 29.3**	**-0.2**
AKS				AML	AML		
AKHS	**Akhisar**	**1.47**	**45**	P	**Pg**	**10 09 29.3**	**-0.2**
AKHS				S	**Sg**	**10 09 48.2**	**-0.4**
KTTT	**Salihli**	**1.52**	**56**	P	**Pb**	**10 09 29.6**	**-0.1**
KTTT				S	**Sg**	**10 09 49.5**	**-0.8**
SOMA	**Soma-Manisa**	**1.55**	**32**	Pn	**Pb**	**10 09 30.3**	**+0.1**
SOMA				AML	AML		
YER	**Yerkesik**	**1.60**	**116**	P	**Pn**	**10 09 29.7**	**-0.1**
THERA	**Ancient Thera,**	**1.68**	**209**	P	**Pn**	**10 09 30.2**	**-0.7**
GORD	**Gordes-Manisa**	**1.70**	**51**	Pn	**Pb**	**10 09 32.6**	**-0.3**
GORD				AML	AML		
DION	**Dionisos Attik**	**2.03**	**277**	P	**Pn**	**10 09 35.2**	**-0.5**
DION				AML	AML		
VLY	**Voula,Athens**	**2.13**	**271**	P	**Pn**	**10 09 36.5**	**-0.6**
VLY				AML	AML		
BRG	**Berggiesshubel**	**15.78**	**330**	*e*P	**Pn**	**10 12 44.6**	**+0.9**
BRG				Amp		10 12 46.4	
	comp=Z,9.8nm,1.4s						

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*SDD **01** 10:12:08.6±0.6, 18.12N×71.74W, h26km±3km, MD2.7, ML2.3, MW2.9, Presumed earthquake*
*OSPL **01** 10:12:13.0±1.6, 18.37N×71.62W, h12km±9km, ML2.0, Presumed earthquake*
ISC 01 10:12:10.6±1.1, 18.26N±0.05×71.64W±0.04, h16km±8km, n9, σ0s76/17, 7C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LODU1	**El Espartillar**	**0.18**	**59**	*i* P	**Pg**	**10 12 16.1**	**+1.0**
LODU1				*e*S	**Sb**	**10 12 18.4**	**-0.7**
LODU1				IAML		10 12 21.5	
	comp=Z,711nm,0.6s						
JIDR	**Jimani**	**0.31**	**319**	⇑*i*P	**Pg**	**10 12 16.3**	**-0.8**
JIDR				⇑*i*S	**Sg**	**10 12 21.9**	**+0.4**
JIDR				IAML		10 12 24.0	
	comp=N,230nm,0.5s						
NEDR	**Neiba UASD**	**0.31**	**43**	⇑*i*P	**Pg**	**10 12 17.6**	**+0.4**
NEDR				⇑*i*S	**Sb**	**10 12 23.4**	**+0.8**
NEDR				IAML		10 12 24.1	
	comp=N,264nm,0.4s						
PODR	**Polo**	**0.35**	**105**	⇑*i*P	**Pg**	**10 12 17.0**	**-1.1**
LONE3	**El Aguacate, B**	**0.39**	**27**	*i* P	**Pg**	**10 12 18.1**	**-0.4**
LONE3				*e*S	**Sg**	**10 12 23.7**	**-0.3**
LONE3				IAML		10 12 24.6	
	comp=Z,191nm,0.3s						
LOBH	**Bahia de las A**	**0.39**	**180**	*i* P	**Pn**	**10 12 21.5**	**-0.2**
LOBH				*e*S	**Sn**	**10 12 29.7**	**+0.8**
LOBH				IAML		10 12 36.8	
	comp=Z,84nm,1.3s						
LOVI	**El Cajuil, Ovi**	**0.53**	**150**	*i* P	**Pn**	**10 12 23.6**	**+0.1**
LOVI				*e*S	**Sn**	**10 12 33.1**	**+1.0**
LOVI				IAML		10 12 37.9	
	comp=Z,116nm,1.5s						
REDR	**Restauracion**	**0.93**	**14**	⇑*i*P	**Pb**	**10 12 27.8**	**-0.7**
REDR				⇑*i*S	**Sb**	**10 12 41.5**	**+0.9**
REDR				IAML		10 12 44.8	
	comp=N,77nm,0.2s						
LGNH	**Logne**	**0.95**	**285**	*i* P	**Pg**	**10 12 29.4**	**+0.3**
LGNH				*e*S	**Sn**	**10 12 42.8**	**+0.1**
LGNH				IAML		10 12 48.7	
	comp=Z,21nm,2.5s						

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*IDC **01** 10:31:11.0±5.8, 50.86N×73.52E, h0km, mbtmp2.9/2, ML2.3/2, Error ellipse: s-maj=66.7km s-min=26.0km az=62.0*
*NNC **01** 10:31:13.5±1.5, 51.13N×73.89E, h0km, mb3.3, mpv3.0, Error ellipse: s-maj=32.6km s-min=3.9km az=25.0, Suspected Mining explosion.*
ISC 01 10:31:16.2±1.4, 51.0N±0.1×74.08E±0.09, h0km, n7, σ1s02/7, 5C-2D, Central Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KURBB	**Kurchatov Arra**	**2.85**	**95**	⇓Pg	**Pb**	**10 32 07.9**	**+0.1**
	8.7nm,0.5s						
KURBB				⇓Lg	Lg	10 32 48.2	
	65nm,0.7s						
KURK	**Kurchatov**	**2.89**	**93**	⇑Pg	**Pb**	**10 32 08.3**	**-0.3**
	1.1nm,0.6s						
KURK				⇑Lg	Lg	10 32 50.3	
	15nm,0.8s						
BVA0	**Borovoye Array**	**3.09**	**314**	⇑Pg	**Pn**	**10 32 06.5**	**+0.3**
	baz=124,slow=14,SNR=5.7						
BVA0				⇑Lg	Lg	10 32 43.4	
	baz=135,slow=39,SNR=6.9						
MK31	**Makanchi Array**	**6.83**	**124**	⇑Lg	Lg	10 34 55.8	
	3.4nm,0.7s,baz=312,slow=24,SNR=5.2						
MKAR	**Makanchi Array**	**6.83**	**124**	Pn	**Pn**	**10 32 56.5**	**-1.0**
	0.1nm,0.3s,baz=293,slow=12,SNR=2.0						
MKAR				Pg	**Pb**	**10 33 17.3**	**+1.6**
	0.2nm,0.3s,baz=303,slow=14,SNR=5.5						
MKAR				Sn	**Sn**	**10 34 15.4**	**-0.5**
	0.1nm,0.3s,baz=338,slow=22,SNR=2.1						
MKAR				Lg	Lg	10 34 51.8	
	0.4nm,0.3s,baz=314,slow=26,SNR=8.4						
	0.3nm,0.6s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**7.22**	**61**	I	I	11 17 45.0	
	baz=249,slow=319,SNR=8.4						
ZALV	**Zalesovo Beam**	**7.22**	**61**	Pn	**Pn**	**10 33 03.2**	**+0.3**
	0.2nm,0.3s,baz=248,slow=15,SNR=3.0						
	0.8nm,0.5s						
ZALV				AML	AML		

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*IDC **01** 10:40:27.3±0.6, 35.61N×140.73E, h0km, mb4.0/17, mbtmp4.0/22, ML3.4/4, MS3.2/10, Error ellipse: s-maj=16.3km s-min=11.4km az=77.0*
*NIED **01** 10:40:34.1, 35.73N×140.62E, h51km, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^15 Nm; Mrr1.58; Mθθ-0.15; Mφφ-1.43; Mrθ-0.21; Mθφ0.19; Mφr2.05; Fault plane solution: M0 2.56000×10^15 NP1: φs170.00000°, δ18.00000°, λ87.00000°. NP2: φs354.00000°, δ72.00000°, λ91.00000°.*
*JMA **01** 10:40:34.1±0.1, 35.7N±0.4×140.6E±0.5, h51km±1km, MD4.0/39, MV3.5/39, NEAR CHOSHI CITY*
JMA Felt II J1 at NEAR CHOSHI CITY .
ISC 01 10:40:35.1±0.8, 35.72N±0.04×140.63E±0.06, h51km±6km, n57, σ1s21/51, mb4.0/17, MS3.2/6, 8D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSMT	**Sammumatsuo**	**0.16**	**243**	⇓*i*P	**Pn**	**10 40 42.6**	**-0.7**
JSMT				A	A	10 40 42.6	
	comp=N,68nm,0.3s,comp=E,121nm,2.6s						
JSMT				⇓S	**Sn**	**10 40 49.6**	**+0.4**
JCAJ	**Choshiashikaji**	**0.19**	**88**	A	A	10 40 42.5	
	comp=N,9.0nm,1.9s,comp=E,18nm,0.6s						
JIHU	**Itakohorinouch**	**0.26**	**342**	⇓*i*P	**Pn**	**10 40 43.3**	**-0.7**
JIHU				A	A	10 40 43.3	
	comp=N,28nm,1.0s,comp=E,64nm,0.6s						
JIHU				⇓S	**Sn**	**10 40 50.3**	**0.0**
JCCN	**Chibachonan**	**0.46**	**224**	⇓*i*P	**Pn**	**10 40 45.7**	**-0.2**
JCCN				A	A	10 40 45.7	
	comp=N,18nm,1.9s,comp=E,17nm,1.4s						
JCCN				⇓*e*S	**Sn**	**10 40 54.6**	**+0.9**
JYT	**Yasato**	**0.62**	**326**	⇓*i*P	**Pn**	**10 40 46.6**	**-1.3**
JYT				A	A	10 40 46.6	
	comp=N,12nm,0.5s,comp=E,11nm,0.4s						
JYT				⇓S	**Sn**	**10 40 55.9**	**-1.2**
TOK	**Tokyo**	**0.71**	**268**	A	A	10 40 48.0	
	comp=N,19nm,1.9s,comp=E,16nm,1.9s						
BSO4	**Boso 4**	**0.76**	**198**	*i* P	**Pn**	**10 40 48.9**	**-0.6**
JHO	**Hitachi**	**0.89**	**357**	P	**Pn**	**10 40 50.5**	**-1.0**
BSO3	**Boso 3**	**0.92**	**186**	P	**Pn**	**10 40 50.7**	**-0.7**
BSO3				*e*S	**Sn**	**10 41 04.0**	**+0.5**
BSO1	**Boso 1**	**1.10**	**165**	*e*P	**Pn**	**10 40 52.8**	**-0.8**
BSO1				*e*S	**Sn**	**10 41 09.0**	**+1.5**
JAG	**Ashikaga**	**1.19**	**307**	P	**Pn**	**10 40 54.3**	**-1.1**
JOD2	**Odawara 2**	**1.33**	**251**	*i* P	**Pn**	**10 40 56.6**	**-0.8**
JOD2				S	**Sn**	**10 41 12.6**	**-1.4**
JSB	**Shiboa**	**1.37**	**336**	A	A	10 40 57.2	
	comp=N,5.0nm,3.8s,comp=E,6.0nm,2.7s						
JIM2	**Oshima 3**	**1.40**	**225**	P	**Pn**	**10 40 56.4**	**-1.8**
JIM2				A	A	10 40 56.4	
	comp=N,7.0nm,0.6s,comp=E,6.0nm,1.8s						
JIM2				*e*S	**Sn**	**10 41 13.3**	**-2.2**
MJAR	**Matsushiro Arr**	**2.12**	**294**	Pn	**Pn**	**10 41 08.4**	**+0.3**
	comp=E,6.8nm,0.3s,baz=99,slow=14,SNR=282						
MJAR				Sn	**Sn**	**10 41 36.3**	**+3.0**
	comp=E,1.6nm,0.3s,baz=280,slow=24,SNR=2.3						
MJAR				LR	LR	10 42 10.3	
	comp=E,506nm,20.1s,baz=121,slow=46						
MAJO	**Matsushiro**	**2.13**	**294**	P	**Pn**	**10 41 09.0**	**+0.8**
JSG	**Sagara**	**2.25**	**243**	P	**Pn**	**10 41 11.4**	**+1.5**
JGF	**Kuroka**	**2.67**	**268**	P	**Pn**	**10 41 16.7**	**+1.1**
JHJ2	**Mitsune**	**2.68**	**195**	P	**Pn**	**10 41 15.4**	**-0.4**
INU	**Inuyama**	**2.97**	**264**	P	**Pn**	**10 41 19.9**	**+0.3**
JTM	**Tenmabayashi**	**5.08**	**4**	P	**Pn**	**10 41 49.2**	**+0.7**
JMN	**Monobe**	**5.90**	**252**	P	**Pn**	**10 42 01.4**	**+1.5**
JEM	**Erimo**	**6.59**	**17**	P	**Pn**	**10 42 11.0**	**+1.7**
JNU	**Nakatsue**	**8.46**	**255**	Pn	**Pn**	**10 42 36.4**	**+1.4**
	comp=E,0.5nm,0.3s,baz=86,slow=3.0,SNR=6.7						
	comp=E,11nm,0.9s						
JNU				AML	AML		
ASAJ	**Asahikawa**	**8.53**	**10**	Pn	**Pn**	**10 42 33.5**	**-2.3**
	comp=E,0.6nm,0.3s,baz=179,slow=15,SNR=8.9						
	comp=E,1.

MKAR	**Makanchi Array**	**44.29**	**303**	P	**P**	**10 48 39.4**	**-0.3**	
	comp=E,2.4nm,0.6s,baz=87,slow=9.9,SNR=22							
	comp=E,2.4nm,0.6s							
KURBB	**Kurchatov Arra**	**46.32**	**309**	P	**P**	**10 48 55.1**	**-0.6**	
	comp=E,5.3nm,0.8s,baz=84,slow=8.3,SNR=31							
	comp=E,5.3nm,0.8s							
ILAR	**Eielson Array**	**50.95**	**32**	P	**P**	**10 49 31.6**	**+0.7**	
	comp=E,0.3nm,0.6s,baz=264,slow=5.7,SNR=6.0							
	comp=E,0.3nm,0.6s							
BVAR	**Borovoye Array**	**51.00**	**313**	P	**P**	**10 49 31.8**	**+0.2**	
	comp=E,2.1nm,0.6s,baz=75,slow=6.3,SNR=5.5							
	comp=E,2.1nm,0.6s							
WRA	**Warramunga Arr**	**55.67**	**187**	P	**P**	**10 50 04.6**	**-1.6**	
	comp=E,2.0nm,0.8s,baz=1.4,slow=7.4,SNR=28							
	comp=E,2.0nm,0.8s							
ASAR	**Alice Springs**	**59.40**	**187**	P	**P**	**10 50 31.2**	**-1.1**	
	comp=E,0.9nm,0.8s,baz=18,slow=9.9,SNR=19							
	comp=E,0.9nm,0.8s							
KIRV	**Kirov**	**60.92**	**323**	LR	LR	11 17 49.3		
	comp=E,38nm,18.2s,baz=238,slow=37							
FINES	**FINESS Array B**	**69.68**	**332**	P	**P**	**10 51 38.5**	**-0.4**	
	comp=E,2.7nm,0.9s,baz=35,slow=7.2,SNR=7.3							
	comp=E,2.7nm,0.9s							
KBZ	**Khabaz**	**71.28**	**311**	P	**P**	**10 51 49.5**	**+0.5**	
	comp=E,2.4nm,0.8s,baz=71,slow=3.9,SNR=5.9							
	comp=E,2.4nm,0.8s							
AKASG	**Malin Array Be**	**74.95**	**322**	P	**P**	**10 52 10.2**	**-0.4**	
	comp=E,1.5nm,0.5s,baz=49,slow=6.0,SNR=8.8							
	comp=E,1.5nm,0.5s							
HFS	**Hagfors**	**75.02**	**336**	P	**P**	**10 52 10.6**	**-0.3**	
	comp=E,0.8nm,0.5s,baz=64,slow=6.7,SNR=1.2							
	comp=E,0.8nm,0.5s							
NOA	**NORSAR Array B**	**75.15**	**337**	P	**P**	**10 52 11.4**	**-0.2**	
	comp=E,1.3nm,0.7s,baz=41,slow=6.0,SNR=3.6							
	comp=E,1.3nm,0.7s							
PDAR	**Pinedale Array**	**79.04**	**45**	P	**P**	**10 52 34.0**	**0.0**	
	comp=E,0.7nm,1.0s,baz=304,slow=7.7,SNR=2.7							
	comp=E,0.7nm,1.0s							
BRTR	**Keskin Array B**	**79.25**	**311**	P	**P**	**10 52 35.3**	**+0.2**	
	comp=E,1.0nm,0.8s,baz=46,slow=4.2,SNR=3.3							
	comp=E,1.0nm,0.8s							
TXAR	**Lajitas Array**	**91.43**	**52**	P	**P**	**10 53 36.5**	**+0.4**	
	comp=E,0.3nm,0.7s,baz=323,slow=5.5,SNR=2.8							
	comp=E,0.3nm,0.7s							
LPAZ	**La Paz**	**147.90**	**60**	PKPbc	**PKPdf**	**11 00 15.1**	**+2.3**	
	comp=E,1.0nm,0.7s,baz=342,slow=3.2,SNR=3.7							

*NNC **01** 10:51:37.1±4.4, 42.°40N×81.°81E, h0km, mb3.0, mpv2.6,*
Error ellipse: s-maj=35.2km s-min=16.2km az=156.0
*SOME **01** 10:51:39.9, 42.°40N×81.°53E, h15km*
ISC 01 10:51:35.6±3.3, 42.°1N±0.°1×82.°0E±0.°1, h14km, n9, σ1s84/15, 4C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PDGK	**Podgornoye**	**2.19**	**305**	⇑Pg	**Pn**	**10 52 13.2**	**+1.4**
	3.1nm,0.5s						
PDGK				⇑Lg	Lg	10 52 38.3	
	25nm,0.6s						
UZB	**Uzynbulak**	**2.40**	**297**	*e*P	**Pb**	**10 52 16.9**	**-1.8**
	7.9nm,0.3s						
UZB				*e*S	**Sn**	**10 52 43.8**	**-0.2**
	28nm,0.3s						
DJR	**Jarkent**	**2.73**	**325**	*e*P	**Pb**	**10 52 23.9**	**-0.4**
	1.9nm,0.3s						
DJR				*e*S	**Sn**	**10 52 55.6**	**+3.5**
	24nm,0.3s						
KPKS	**Kokpek**	**2.77**	**301**	*e*P	**Pb**	**10 52 23.8**	**-1.1**
	0.4nm,0.2s						
KPKS				*e*S	**Sn**	**10 52 55.2**	**+2.4**
	30nm,0.3s						
SATY	**Saty**	**2.79**	**291**	*e*P	**Pb**	**10 52 25.3**	**0.0**
	6.0nm,0.2s						
SATY				*e*S	**Sb**	**10 52 57.8**	**-1.6**
	30nm,0.1s						
ARXS	**Arharly**	**3.68**	**306**	*e*P	**Pb**	**10 52 39.5**	**-1.0**
	1.6nm,0.3s						
ARXS				*e*S	**Sb**	**10 53 22.4**	**-2.6**
	8.7nm,0.3s						
KAPS	**Kapalarasan**	**3.70**	**330**	*e*P	**Pb**	**10 52 40.6**	**-0.1**
	2.3nm,0.1s						
KAPS				*e*S	**Sb**	**10 53 24.2**	**-1.3**
	23nm,0.2s						
MK31	**Makanchi Array**	**4.70**	**3**	⇑Pg	**Pb**	**10 52 55.8**	**-1.9**
	0.1nm,0.3s,baz=188,slow=13,SNR=9.3						
MK31				⇑Lg	Lg	10 54 00.1	
	1.1nm,0.6s,baz=189,slow=29,SNR=2.8						
MAKZ	**Makanchi**	**4.71**	**0**	⇓Pg	**Pb**	**10 52 57.1**	**-0.8**
	3.2nm,1.0s						
MAKZ				⇓Lg	Lg	10 53 59.2	
	2.9nm,1.1s						

*AFAD **01** 11:08:02.0, 37.°81N×26.°87E, h17km±15km, ML3.2*
*THE **01** 11:08:03.4, 38.°N±1.°×2.°7E±.°, h0km,2km, M3.2/10, ML3.2/10*
*ISK **01** 11:08:03.4, 37.°85N×26.°91E, h7km, ML3.3/18*
*ATH **01** 11:08:03.8, 37.°82N×26.°88E, h7km±1km, ML3.2/8, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
ISC 01 11:08:03.5±0.9, 37.°83N±0.°02×26.°91E±0.°02, h8km±8km, n60, σ0s60/86, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.16**	**259**	P	**Pg**	**11 08 06.3**	**-0.6**
KRL1				S	**Sg**	**11 08 08.9**	**-0.3**
KRL1				AML	AML		
DGB	**zmir**	**0.23**	**355**	P	**Pg**	**11 08 07.7**	**-0.4**
DGB				S	**Sg**	**11 08 12.4**	**+1.2**
GMLD	**Gumuldur**	**0.25**	**2**	Pg	**Pg**	**11 08 08.4**	**-0.1**
GMLD				Sg	**Sg**	**11 08 12.5**	**+0.6**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**116**	P	**Pg**	**11 08 08.4**	**-0.8**
GCAM				S	**Sb**	**11 08 15.0**	**-0.9**
GCAM				IAML		11 08 16.0	
	comp=N,3μm,0.2s						
GCAM				IAML		11 08 16.0	
	comp=E,2μm,0.5s						
GCAM	**G?zelcaml?**	**0.29**	**116**	Pg	**Pg**	**11 08 09.6**	**+0.3**
GCAM				Sg	**Sb**	**11 08 14.7**	**-1.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**84**	Pg	**Pg**	**11 08 09.7**	**+0.1**
KUSD				Sg	**Sg**	**11 08 13.9**	**+0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**2**	P	**Pg**	**11 08 10.6**	**-0.8**
BEYE				S	**Sg**	**11 08 17.6**	**+0.9**
BEYE				IAML		11 08 21.0	
	comp=N,2μm,0.2s						
DDIM	**Aydin, Didim**	**0.46**	**144**	P	**Pg**	**11 08 12.3**	**-0.1**
DDIM				S	**Sb**	**11 08 19.9**	**-0.8**
DDIM				IAML		11 08 36.0	
	comp=E,2μm,0.7s						
DDIM				IAML		11 08 38.0	
	comp=N,2μm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**0.52**	**322**	P	**Pg**	**11 08 12.7**	**-0.9**
ZEYE				S	**Sg**	**11 08 20.8**	**+0.4**
ZEYE				IAML		11 08 24.0	
	comp=N,4μm,0.5s						
ZEYE				IAML		11 08 24.0	
	comp=E,2μm,0.2s						
DIDI	**Didim-Aydin**	**0.52**	**149**	Pg	**Pb**	**11 08 14.3**	**-0.6**
DIDI				Sg	**Sb**	**11 08 21.9**	**-0.7**
DIDI				AML	AML		
BLCB	**Balcova**	**0.57**	**11**	P	**Pg**	**11 08 14.2**	**-0.3**
BLCB				S	**Sb**	**11 08 22.9**	**-1.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**11**	Pg	**Pg**	**11 08 14.7**	**+0.2**
BLCB				Sg	**Sb**	**11 08 22.8**	**-1.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.58**	**47**	P	**Pg**	**11 08 14.3**	**-0.5**
DUVT				S	**Sb**	**11 08 24.1**	**-0.2**
DUVT				IAML		11 08 26.0	
	comp=E,2μm,0.4s						
DAGE	**izmir**	**0.69**	**75**	P	**Pb**	**11 08 17.7**	**-0.1**
DAGE				S	**Sg**	**11 08 26.1**	**+0.2**
DAGE				IAML		11 08 29.0	
	comp=N,919nm,0.4s						
DAGE				IAML		11 08 29.0	
	comp=E,879nm,0.2s						
CESE	**eme**	**0.69**	**317**	Pg	**Pg**	**11 08 17.0**	**+0.1**
CESE				Sg	**Sb**	**11 08 26.9**	**-0.6**
YKAV	**Yalikavak-Bodr**	**0.76**	**157**	Pg	**Pb**	**11 08 19.5**	**+0.5**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**81**	Pg	**Pb**	**11 08 19.3**	**-0.2**
KRBN	**Karaburun**	**0.81**	**340**	Pg	**Pg**	**11 08 18.9**	**-0.3**
KRBN				Sg	**Sb**	**11 08 30.8**	**-0.2**
BAGT	**Foa**	**0.83**	**357**	P	**Pg**	**11 08 18.4**	**-1.0**
BAGT				S	**Sb**	**11 08 32.3**	**+0.9**
BAGT				IAML		11 08 34.0	
	comp=N,1μm,1.3s						
BAGT				IAML		11 08 49.0	
	comp=E,1μm,0.8s						
BODT	**Bodrum**	**0.83**	**157**	P	**Pg**	**11 08 18.5**	**-0.9**
BODT				S	**Sb**	**11 08 31.7**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**157**	Pg	**Pb**	**11 08 20.5**	**+0.4**
KLNA	**Kalymnos**	**0.87**	**176**	P	**Pb**	**11 08 20.6**	**-0.2**
KLNA				S	**Sg**	**11 08 32.0**	**+0.5**
KLNA				AML	AML		
MLSB	**Milas**	**0.87**	**127**	Pg	**Pb**	**11 08 21.3**	**+0.4**
CHOS	**Chios island**	**0.87**	**310**	P	**Pg**	**11 08 20.3**	**0.0**
CHOS				S	**Sb**	**11 08 32.6**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**310**	Pg	**Pg**	**11 08 20.4**	**0.0**
CHOS				Sg	**Sb**	**11 08 32.5**	**-0.3**
CHOS	**Chios island**	**0.87**	**310**	P	**Pg**	**11 08 20.2**	**-0.1**
CHOS				S	**Sg**	**11 08 32.0**	**+0.3**
CHOS				AML	AML		
FOCM	**Foa**	**0.90**	**351**	Pg	**Pg**	**11 08 20.7**	**0.0**
FOCM				Sg	**Sb**	**11 08 33.3**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.92**	**335**	P	**Pg**	**11 08 18.9**	**-2.4**
KARB				S	**Sb**	**11 08 34.6**	**+0.5**
KARB				IAML		11 08 35.0	
	comp=N,2μm,0.5s						
KARB				IAML		11 08 52.0	
	comp=E,2μm,0.5s						
EAG2	**Marmaro, Chios**	**0.95**	**319**	P	**Pg**	**11 08 21.9**	**+0.1**
EAG2				S	**Sg**	**11 08 34.4**	**+0.2**
NAZL	**Nazilli-Aydin**	**1.11**	**82**	Pn	**Pg**	**11 08 24.4**	**-0.4**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.19**	**42**	Pn	**Pn**	**11 08 26.3**	**-0.1**
GOMA				AML	AML		
DAT	**Datca**	**1.22**	**154**	P	**Pg**	**11 08 26.6**	**-0.4**
DAT				AML	AML		
DAT	**Datca**	**1.22**	**154**	Pn	**Pn**	**11 08 27.5**	**+0.6**
DAT				AML	AML		
DKL	**Dikili**	**1.24**	**0**	Pn	**Pn**	**11 08 26.7**	**-0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**0**	P	**Pg**	**11 08 27.3**	**-0.1**
AKS	**Akhisar**	**1.27**	**34**	Pn	**Pn**	**11 08 27.1**	**-0.4**
AKS				AML	AML		
YER	**Yerkesik**	**1.30**	**122**	P	**Pn**	**11 08 27.5**	**-0.4**
YER	**Yerkesik**	**1.30**	**122**	Pn	**Pg**	**11 08 28.7**	**+0.3**
YER				AML	AML		
ASTA	**Astypalaia**	**1.35**	**199**	P	**Pn**	**11 08 28.6**	**0.0**
ASTA				AML	AML		
TNSA	**Tinos**	**1.41**	**259**	P	**Pn**	**11 08 29.4**	**0.0**
TNSA				AML	AML		
SOMA	**Soma-Manisa**	**1.42**	**20**	Pn	**Pg**	**11 08 30.6**	**-0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.47**	**42**	Pn	**Pg**	**11 08 31.4**	**-0.4**
GORD				AML	AML		
TURN	**Turunc**	**1.50**	**134**	Pn	**Pn**	**11 08 30.9**	**+0.3**
TURN				AML	AML		
PRK	**Paraskevi**	**1.50**	**341**	P	**Pn**	**11 08 30.3**	**-0.4**
PRK	**Paraskevi**	**1.50**	**341**	P	**Pb**	**11 08 31.4**	**-0.1**
PRK				S	**Sb**	**11 08 51.0**	**+0.2**
YAYO	**Edremit-Balk**	**1.79**	**4**	Pn	**Pn**	**11 08 35.4**	**+0.8**
YAYO				AML	AML		
THERA	**Ancient Thera,**	**1.85**	**219**	P	**Pn**	**11 08 35.9**	**+0.4**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.88**	**148**	P	**Pn**	**11 08 36.0**	**+0.1**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.88**	**148**	P	**Pn**	**11 08 36.0**	**+0.1**
ARG				AML	AML		
KARY	**Karystos**	**1.96**	**277**	P	**Pn**	**11 08 37.1**	**0.0**
KARY	**Karystos**	**1.96**	**277**	P	**Pn**	**11 08 37.7**	**+0.7**
BALB	**Balikesir**	**1.96**	**23**	Pn	**Pn**	**11 08 37.8**	**+0.8**
BALB				AML	AML		
EZNE	**Ezine-Canakkal**	**1.97**	**348**	Pn	**Pn**	**11 08 37.4**	**+0.3**
KARP	**Karpathos**	**2.29**	**175**	P	**Pn**	**11 08 42.6**	**+1.1**
KARP				AML	AML		
MHLO	**Agia Marina, M**	**2.30**	**241**	P	**Pn**	**11 08 42.3**	**+0.6**
DION	**Dionisos Attik**	**2.36**	**277**	P	**Pn**	**11 08 43.3**	**+0.7**
PTL	**Penteli**	**2.41**	**276**	P	**Pn**	**11 08 43.9**	**+0.7**
PTL				AML	AML		
VLY	**Voula,Athens**	**2.46**	**272**	P	**Pn**	**11 08 43.3**	**-0.7**
VLY				AML	AML		
LIA	**Limnos Island**	**2.47**	**328**	P	**Pn**	**11 08 44.1**	**+0.2**
LIA				AML	AML		
GADA	**Gvkgeada**	**2.49**	**342**	P	**Pn**	**11 08 44.4**	**+0.2**

*AFAD **01** 11:12:36.0, 37.°89N×26.°77E, h18km±8km, ML2.5*
*ISK **01** 11:12:37.4, 37.°94N×26.°82E, h7km, ML2.6/18*
ISC 01 11:12:36.7±1.1, 37.°90N±0.°03×26.°78E±0.°04, h14km±8km, n25, σ0s40/34, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.17**	**27**	P	**Pg**	**11 12 40.8**	**0.0**
DGB				IAML		11 12 44.0	
	comp=N,2μm,0.5s						
DGB				IAML		11 12 44.0	
	comp=E,2μm,0.4s						
DGB				S	**Sg**	**11 12 44.1**	**+0.5**
GMLD	**Gumuldur**	**0.20**	**30**	Pg	**Pb**	**11 12 41.8**	**-0.4**
GMLD				AML	AML		
BEYE	**izmir**	**0.35**	**19**	P	**Pg**	**11 12 43.9**	**+0.1**
BEYE				S	**Sb**	**11 12 49.8**	**-0.2**
BEYE				IAML		11 12 51.0	
	comp=E,354nm,0.4s						
BEYE				IAML		11 12 52.0	
	comp=N,327nm,0.6s						
KUSD	**Kusadasi-Aydin**	**0.40**	**96**	Pg	**Pb**	**11 12 45.7**	**+0.1**
KUSD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.41**	**327**	P	**Pg**	**11 12 44.5**	**-0.3**
ZEYE				IAML		11 12 51.0	
	comp=N,512nm,0.1s						
ZEYE				IAML		11 12 51.0	
	comp=E,382nm,0.1s						
ZEYE				S	**Sb**	**11 12 51.3**	**-0.4**
GCAM	**G?zelcaml?**	**0.41**	**119**	P	**Pg**	**11 12 43.8**	**-1.1**
GCAM				S	**Sb**	**11 12 51.7**	**0.0**
GCAM	**G?zelcaml?**	**0.41**	**119**	Pg	**Pb**	**11 12 45.8**	**+0.1**
GCAM				Sg	**Sb**	**11 12 51.9**	**+0.2**
GCAM				AML	AML		
BLCB	**Balcova**	**0.53**	**23**	Pg	**Pb**	**11 12 47.3**	**-0.4**
BLCB				Sg	**Sg**	**11 12 54.1**	**0.0**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.57**	**140**	P	**Pg**	**11 12 47.4**	**-0.6**
DDIM				IAML		11 12 56.0	
	comp=N,172nm,0.4s						
DDIM				S	**Sb**	**11 12 56.9**	**+0.4**
DDIM				IAML		11 13 00.0	
	comp=E,360nm,0.4s						
CESE	**eme**	**0.57**	**319**	Pg	**Pb**	**11 12 48.9**	**+0.3**
CESE				AML	AML		
DUVT	**Torbali**	**0.61**	**58**	P	**Pg**	**11 12 48.4**	**-0.4**
DUVT				S	**Sb**	**11 12 58.1**	**+0.3**
DUVT				IAML		11 13 00.0	
	comp=E,257nm,0.2s						
KRBN	**Karaburun**	**0.72**	**345**	Pg	**Pb**	**11 12 51.2**	**+0.2**
KRBN				AML	AML		
CHOS	**Chios island**	**0.75**	**310**	Pg	**Pn**	**11 12 52.6**	**-0.4**
CHOS				AML	AML		
DAGE	**izmir**	**0.77**	**82**	P	**Pb**	**11 12 51.8**	**-0.1**
DAGE				S	**Sb**	**11 13 02.2**	**-0.1**
DAGE				IAML		11 13 04.0	
	comp=N,450nm,0.3s						
DAGE				IAML		11 13 05.0	
	comp=E,190nm,0.2s						
FOCM	**Foa**	**0.81**	**357**	Pg	**Pb**	**11 12 52.9**	**+0.3**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.87**	**153**	Pg	**Pn**	**11 12 54.8**	**+0.3**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.88**	**87**	Pg	**Pn**	**11 12 54.6**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.94**	**153**	Pg	**Pn**	**11 12 55.6**	**+0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.99**	**127**	Pg	**Pn**	**11 12 56.8**	**+0.6**
MLSB				AML	AML		
DKL	**Dikili**	**1.17**	**5**	Pn	**Pg**	**11 12 59.6**	**+0.2**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.19**	**86**	Pn	**Pg**	**11 13 00.3**	**+0.6**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**48**	Pn	**Pg**	**11 12 59.9**	**0.0**
GOMA				AML	AML		
AKS	**Akhisar**	**1.27**	**39**	Pn	**Pg**	**11 13 01.1**	**-0.1**
AKS				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**25**	Pn	**Pg**	**11 13 03.2**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**47**	Pn	**Pg**	**11 13 04.6**	**-0.7**

PRE 01 11:22:30.4±1.5, 26.°37S×27.°89E, h2km, ML1.4,
Presumed earthquake, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**0.51**	**339**	*e*P	Pb	**11 22 42.1**	**-0.1**
HRAO				*e*S	Sg	**11 22 48.1**	**+1.3**
HRAO	**HartRAO**	**0.51**	**339**	*e*P	Pg	**11 22 41.1**	**+0.9**
HRAO				*e*S	Sg	**11 22 48.1**	**+1.3**
TSWA	**Tswaing Meteor**	**0.96**	**10**	*e*P	Pg	**11 22 49.2**	**+0.4**
TSWA				*e*S	Sg	**11 23 01.3**	**0.0**
TSWA				IAML		11 23 10.7	
	comp=Z,5.9nm,0.7s						
TSWA	**Tswaing Meteor**	**0.96**	**10**	*e*P	Pn	**11 22 51.1**	**+0.1**
TSWA				*e*S	Sb	**11 23 02.2**	**-0.8**
LBTB	**Lobatse**	**2.47**	**303**	*e*P	Pn	**11 23 12.7**	**+0.9**
LBTB				*e*S	Sn	**11 23 42.4**	**-0.1**
LBTB				IAML		11 24 01.1	
	comp=Z,3.2nm,0.9s						
LBTB	**Lobatse**	**2.47**	**303**	*e*P	Pn	**11 23 13.3**	**+1.5**
LBTB				*e*S	Sn	**11 23 39.5**	**-3.1**
LEPH	**Lephalale, Lim**	**2.50**	**358**	*e*P	Pg	**11 23 21.4**	**+3.0**
LEPH				*e*S	Sn	**11 23 43.5**	**+0.1**
LEPH	**Lephalale, Lim**	**2.50**	**358**	*e*P	Pn	**11 23 13.5**	**+1.3**
LEPH				*e*S	Sn	**11 23 44.4**	**+1.1**
LEPH				IAML		11 23 51.2	
	comp=Z,2.4nm,0.4s						
BOSA	**Boshof**	**3.23**	**226**	*e*P	Pn	**11 23 22.4**	**0.0**
BOSA				*e*S	Sn	**11 24 01.7**	**+0.2**
BOSA				IAML		11 24 07.7	
	comp=Z,2.2nm,0.5s						
BOSA	**Boshof**	**3.23**	**226**	*e*P	Pn	**11 23 22.4**	**0.0**
MOPA	**Mopani**	**4.27**	**49**	*e*P	Pn	**11 23 36.5**	**0.0**
MOPA				*e*S	Sn	**11 24 31.9**	**+5.0**

AFAD 01 11:26:50.5, 37.°87N×26.°97E, h7km±2km, ML2.0,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**338**	P	Pg	**11 26 54.5**	**+0.1**
DGB				S	Sg	**11 26 57.2**	**+0.2**
DGB				IAML		11 26 58.0	
	comp=E,193nm,0.2s						
GCAM	**G?zelcaml?**	**0.27**	**130**	P	Pg	**11 26 56.3**	**+0.5**
GCAM				IAML		11 27 00.0	
	comp=N,455nm,0.3s						
GCAM				IAML		11 27 00.0	
	comp=E,229nm,0.3s						
GCAM				S	Sg	**11 27 00.4**	**+1.0**
BEYE	**izmir**	**0.35**	**354**	P	Pg	**11 26 57.8**	**+0.4**
BEYE				S	Sg	**11 27 03.1**	**+1.0**
BEYE				IAML		11 27 12.0	
	comp=N,113nm,0.3s						
BEYE				IAML		11 27 12.0	
	comp=E,78nm,0.3s						
DUVT	**Torbali**	**0.51**	**47**	P	Pg	**11 27 00.4**	**0.0**
DUVT				S	Sg	**11 27 07.8**	**+0.7**
ZEYE	**Izmir, Urla-Ze**	**0.52**	**315**	P	Pg	**11 27 01.1**	**+0.6**
ZEYE				SPECP		11 27 01.0	

*AFAD **01** 11:27:03.9, 37.°89N×26.°77E, h7km±4km, ML2.4*
ISK 01 11:27:01.7, 37.°86N×26.°85E, h5km, ML2.4/12,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**8**	P	Pg	**11 27 07.6**	**+2.1**
DGB				S	Sg	**11 27 10.7**	**+2.7**
DGB				IAML		11 27 11.0	
	comp=N,1μm,0.5s						
DGB				IAML		11 27 11.0	
	comp=E,2μm,0.4s						
GCAM	**G?zelcaml?**	**0.34**	**118**	Pg	Pg	**11 27 09.0**	**+0.6**
GCAM				Sg	Sg	**11 27 14.2**	**+1.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**90**	Pg	Pg	**11 27 09.0**	**+0.6**
KUSD				AML	AML		
BEYE	**izmir**	**0.37**	**10**	P	Pb	**11 27 10.5**	**-0.2**
BEYE				S	Sb	**11 27 16.3**	**-0.6**
BEYE				IAML		11 27 18.0	
	comp=E,372nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**324**	P	Pg	**11 27 08.3**	**-2.4**
ZEYE				S	Sg	**11 27 17.6**	**+0.9**
ZEYE				IAML		11 27 18.0	
	comp=E,267nm,0.4s						
ZEYE				IAML		11 27 19.0	
	comp=N,499nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**324**	IAML		**11 27 18.0**	
	comp=E,267nm,0.4s						
ZEYE				S	Pg	**11 27 08.1**	**-2.5**
DDIM	**Aydin, Didim**	**0.51**	**142**	P	Pn	**11 27 16.0**	**+0.3**
DDIM				S	Sn	**11 27 23.3**	**-1.5**
DDIM				IAML		11 27 25.0	
	comp=N,178nm,0.6s						
BLCB	**Balcova**	**0.54**	**16**	Pg	Pg	**11 27 12.6**	**+0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.59**	**53**	P	Pn	**11 27 16.1**	**-0.7**
DUVT				S	Sb	**11 27 24.6**	**+1.3**
DUVT				IAML		11 27 27.0	
	comp=E,255nm,0.6s						
KRBN	**Karaburun**	**0.77**	**342**	Pg	Pg	**11 27 16.5**	**+0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.79**	**0**	P	Pn	**11 27 19.6**	**+0.1**
BAGT				IAML		11 27 31.0	
	comp=N,181nm,0.9s						
BAGT				S	Sn	**11 27 32.0**	**+0.3**
CHOS	**Chios island**	**0.82**	**310**	Pg	Pb	**11 27 18.1**	**-0.3**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**84**	Pg	Pg	**11 27 18.1**	**+0.5**
AYDB				AML	AML		
FOCM	**Foa**	**0.85**	**354**	Pg	Pg	**11 27 18.1**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.87**	**337**	P	Pb	**11 27 19.4**	**+0.1**
KARB				S	Sb	**11 27 31.5**	**+0.2**
KARB				IAML		11 27 32.0	
	comp=E,136nm,0.4s						
BODT	**Bodrum**	**0.88**	**155**	Pg	Pb	**11 27 19.4**	**-0.

comp=Z,94nm,0.4s
PB07 IPOC Station P 3.53 281 eP Pn 11 34 19.0 +0.1
PB07 eS S 11 35 03.6 -2.2
PB07 IAML 11 35 04.2
comp=Z,67nm,0.1s
PB08 IPOC Station P 3.61 309 eP Pn 11 34 20.7 +0.6
PB08 eS S 11 35 07.8 -0.1
PB08 IAML 11 35 08.6
comp=Z,26nm,0.7s
PB02 IPOC Station P 3.65 287 eP Pn 11 34 20.4 +0.2
PB02 eS S 11 35 05.6 -2.5
PB02 IAML 11 35 07.5
comp=Z,122nm,0.1s
PB05 IPOC Station P 3.76 263 eP Pn 11 34 21.3 -0.1
PB05 eS S 11 35 07.8 -2.5
PB05 IAML 11 35 13.2
comp=Z,25nm,0.5s
GO01 Chusmiza 3.96 314 eP Pn 11 34 25.0 +0.8
GO01 eS S 11 35 16.8 +1.6
GO01 IAML 11 35 20.5
comp=Z,39nm,0.1s
TA01 Diego Aracena 4.19 296 eP Pn 11 34 26.1 -0.2
TA01 eS S 11 35 16.8 -2.3
TA01 IAML 11 35 17.8
comp=Z,29nm,0.5s
PB10 IPOC Station P 4.19 254 eP Pn 11 34 26.4 +0.1
PB10 eS S 11 35 16.2 -2.9
PB10 IAML 11 35 17.7
comp=Z,30nm,4.1s
PB11 IPOC Station P 4.22 309 eP Pn 11 34 26.1 -0.8
PB11 eP 11 34 26.3
PB11 eS S 11 35 17.1 -3.0
PB11 IAML 11 35 19.2
comp=Z,54nm,0.1s
TA02 Huaiquique 4.29 300 eP Pn 11 34 28.4 +0.9
TA02 eS S 11 35 17.3 -4.0
PB14 IPOC Station P 4.46 240 eP Pn 11 34 29.7 -0.1
PB14 eS S 11 35 22.2 -3.2
PB14 IAML 11 35 24.8
comp=Z,33nm,0.2s
PSGCX Pisagua 4.66 307 eP Pn 11 34 31.1 -0.9
PSGCX eS S 11 35 25.9 -3.7
PSGCX IAML 11 35 26.4
comp=Z,23nm,0.3s
PB16 IPOC Station P 5.16 322 eP Pn 11 34 39.0 +0.5
PB16 eS S 11 35 36.0 -5.1
PB16 IAML 11 35 43.0
comp=Z,11nm,3.0s
PB12 IPOC Station P 5.46 314 eP Pn 11 34 40.8 -0.9
PB12 eS S 11 35 42.2 -4.9
PB12 IAML 11 36 18.1
comp=Z,15nm,3.5s

*AFAD **01** 11:34:58.5,37°.82N×26°.39E,h7km±3km,ML2.3*
*ISK **01** 11:34:58.8,37°.87N×26°.40E,h2km,ML2.3/16*
*THE **01** 11:35:01.7,38°N±9°×2°.7E±1°.1,h14km±14km,M2.7/10, MLh2.7/10*

ISC 01 11:34:59.8±1.0,37°.88N±0°.02×26°.43E±0°.02,h14km±10km, n33,σ0°.85/49,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZEYE	**Izmir, Urla-Ze**	**0.37**	**9**	P	**Pg**	**11 35 06.7**	**-0.6**
ZEYE				S	**Sb**	**11 35 14.0**	**+0.2**
ZEYE				IAML		11 35 14.0	
	comp=E,610nm,0.2s						
ZEYE				IAML		11 35 15.0	
	comp=N,483nm,0.3s						
DGB	**zmir**	**0.40**	**64**	P	**Pg**	**11 35 07.8**	**-0.1**
DGB				S	**Sg**	**11 35 13.5**	**+0.2**
DGB				IAML		11 35 14.0	
	comp=E,151nm,0.2s						
GMLD	**Gumuldur**	**0.44**	**62**	Pg	**Pg**	**11 35 08.2**	**-0.3**
GMLD				Sg	**Sg**	**11 35 14.9**	**+0.5**
GMLD				AML	AML		
CESE	**eme**	**0.47**	**348**	Pg	**Pb**	**11 35 09.1**	**-0.7**
CESE				Sg	**Sb**	**11 35 16.1**	**-0.5**
CESE				AML	AML		
BEYE	**izmir**	**0.53**	**48**	P	**Pg**	**11 35 09.3**	**-1.0**
BEYE				S	**Sb**	**11 35 18.4**	**0.0**
BEYE				IAML		11 35 21.0	
	comp=E,107nm,0.2s						
CHOS	**Chios island**	**0.59**	**330**	P	**Pb**	**11 35 11.2**	**-0.8**
CHOS				S	**Sb**	**11 35 20.6**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.59**	**330**	Pg	**Pb**	**11 35 11.1**	**-0.9**
CHOS				Sg	**Sb**	**11 35 20.1**	**-0.1**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.66**	**105**	P	**Pg**	**11 35 12.1**	**-0.7**
GCAM				S	**Sb**	**11 35 22.0**	**-0.2**
GCAM				IAML		11 35 24.0	
	comp=N,137nm,0.3s						
GCAM				IAML		11 35 24.0	
	comp=E,140nm,0.7s						
GCAM	**G?zelcaml?**	**0.66**	**105**	Pg	**Pb**	**11 35 12.8**	**-0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.68**	**91**	Pg	**Pb**	**11 35 13.1**	**-0.4**
KUSD				AML	AML		
BLCB	**Balcova**	**0.70**	**43**	P	**Pg**	**11 35 13.2**	**-0.4**
BLCB				S	**Sb**	**11 35 24.2**	**+0.8**
BLCB				AML	AML		
BLCB	**Balcova**	**0.70**	**43**	Pg	**Pb**	**11 35 13.3**	**-0.6**
BLCB				AML	AML		
KRBN	**Karaburun**	**0.72**	**8**	Pg	**Pb**	**11 35 13.7**	**-0.5**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.79**	**359**	P	**Pg**	**11 35 14.0**	**-1.2**
KARB				S	**Sb**	**11 35 26.7**	**+0.9**
KARB				IAML		11 35 28.0	
	comp=N,198nm,0.8s						
KARB				IAML		11 35 28.0	
	comp=E,173nm,0.1s						
FOCM	**Foa**	**0.87**	**16**	Pg	**Pb**	**11 35 16.5**	**-0.2**
FOCM				AML	AML		
DUVT	**Torbali**	**0.88**	**67**	P	**Pb**	**11 35 16.6**	**-0.2**
DUVT				S	**Sg**	**11 35 27.9**	**-0.5**
DUVT				IAML		11 35 31.0	
	comp=E,69nm,0.2s						
BODT	**Bodrum**	**1.07**	**139**	P	**Pg**	**11 35 19.4**	**-1.1**
BODT				S	**Sb**	**11 35 34.4**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**1.07**	**139**	Pn	**Pn**	**11 35 20.3**	**-0.1**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.16**	**86**	Pn	**Pn**	**11 35 22.4**	**+0.7**
AYDB				AML	AML		
MLSB	**Milas**	**1.22**	**118**	Pn	**Pg**	**11 35 22.5**	**-0.8**
MLSB				AML	AML		
DKL	**Dikili**	**1.25**	**17**	Pn	**Pg**	**11 35 24.1**	**+0.1**
DKL				AML	AML		
PRK	**Paraskevi**	**1.38**	**355**	P	**Pg**	**11 35 26.2**	**-0.1**
PRK				S	**Sg**	**11 35 46.1**	**+1.9**
PRK				AML	AML		
GOMA	**Golmarmara-Man**	**1.44**	**54**	Pn	**Pg**	**11 35 27.5**	**0.0**
NAZL	**Nazilli-Aydin**	**1.48**	**86**	Pn	**Pg**	**11 35 27.6**	**-0.7**
NAZL				AML	AML		
SOMA	**Soma-Manisa**	**1.55**	**34**	Pn	**Pg**	**11 35 29.1**	**-0.5**
SOMA				AML	AML		
SAP3	**Santorini-Thir**	**1.68**	**211**	P	**Pg**	**11 35 31.7**	**-0.4**
SAP3				S	**Sg**	**11 35 55.9**	**+2.1**
SAP3				AML	AML		
THR3	**Thira Island,**	**1.68**	**210**	P	**Pg**	**11 35 30.7**	**-1.3**
SNT5	**Nea Kammeni, S**	**1.68**	**210**	P	**Pg**	**11 35 31.2**	**-1.0**
SNT5				S	**Sg**	**11 35 56.6**	**+2.5**
SNT5				AML	AML		
THERA	**Ancient Thera,**	**1.69**	**207**	P	**Pg**	**11 35 31.8**	**-0.4**
THERA				S	**Sg**	**11 35 55.3**	**+1.2**
THERA				AML	AML		
THR5	**Thira Island,**	**1.69**	**211**	P	**Pg**	**11 35 31.3**	**-1.1**
GORD	**Gordisa-Manisa**	**1.72**	**53**	Pn	**Pb**	**11 35 31.2**	**0.0**
GORD				AML	AML		
DION	**Dionisos Attik**	**1.98**	**277**	P	**Pn**	**11 35 32.5**	**-0.4**
DION				AML	AML		
PTL	**Penteli**	**2.03**	**276**	P	**Pn**	**11 35 33.2**	**-0.4**

*IDC **01** 11:44:43.0±0.5,65°.36N×168°.59W,h0km,mb4.1/24, mbtmp4.1/29,ML3.8/5,MS3.6/37,Error ellipse: s-maj=17.4km s-min=9.0km az=15.0*
*NERS **01** 11:44:42.5,65°.47N×168°.25W,h14km*
*NEIC **01** 11:44:43.7±1.4,65°.38N±0°.04×168°.67W±0°.06,h10km±1km, mb4.3/21,mb_Lg4.3/22,ML4.6(AEIC),Error ellipse:*
s-maj=7.4km s-min=3.6km az=339.0
*AEIC **01** 11:44:43.2±1.6,65°.39N±0°.05×168°.77W±0°.08,h20km±4km, Error ellipse: s-maj=8.1km s-min=4.1km az=164.0*

ISC 01 11:44:44.3±0.4,65°.35N±0°.05×168°.60W±0°.04,h10km, n245,σ0°.87/211,mb4.3/33,MS3.7/36,Bering Strait

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNA	**Tin City**	**0.35**	**54**		**Pg**	**11 44 51.7**	**+0.5**
TNA				Sg	**Sg**	**11 44 56.1**	**+0.2**
F14K	**Arctic Creek**	**0.96**	**82**		**Pg**	**11 45 02.0**	**-0.7**
F14K					**Pb**	**11 45 02.2**	**-0.8**
F14K					**Sg**	**11 45 15.1**	**-0.1**
ANM	**Nome**	**1.59**	**119**		**Pn**	**11 45 11.2**	**-1.2**
ANM	**Nome**	**1.59**	**119**		**Sn**	**11 45 33.2**	**+0.3**
ANM	**Nome**	**1.59**	**119**	IAmb_Lg		11 45 38.5	
	comp=Z,4μm,0.9s						
F15K	**North Star Dit**	**1.69**	**76**		**Pn**	**11 45 13.1**	**-0.6**
F15K	**North Star Dit**	**1.69**	**76**		**Sn**	**11 45 36.7**	**+1.3**
F15K	**North Star Dit**	**1.69**	**76**	IAmb_Lg		11 45 38.9	
	comp=Z,2μm,0.7s						
G15K	**Niukluk**	**1.96**	**99**		**Pn**	**11 45 15.8**	**-1.7**
G15K					**Sn**	**11 45 43.9**	**+1.7**
GAMB	**Gambell**	**2.07**	**222**		Pn	11 45 17.1	-1.9
GAMB					**Sn**	**11 45 43.8**	**-1.1**
GAMB	**Gambell**	**2.07**	**222**	IAmb_Lg		11 45 52.1	
	comp=Z,1μm,0.8s						
G16K	**Koyuk River**	**2.62**	**86**		**Pn**	**11 45 25.5**	**-1.0**
H16K	**Elim**	**2.80**	**102**		**Pn**	**11 45 27.4**	**-1.6**
C16K	**Lisburne Hills**	**3.20**	**22**		**Pn**	**11 45 33.4**	**-1.2**
F17K	**Baldwin Pennin**	**3.21**	**67**		**Pn**	**11 45 33.3**	**-1.3**
E17K	**Hotham Inlet**	**3.25**	**55**		**Pn**	**11 45 33.1**	**-2.1**
G17K	**Kiwalik Mounta**	**3.33**	**84**		**Pn**	**11 45 35.0**	**-1.2**
J14K	**Nanvaranak Lak**	**3.43**	**137**		**Pn**	**11 45 36.8**	**-0.8**
RDOG	**Red Dog Mine**	**3.53**	**37**		**Pn**	**11 45 37.9**	**-1.2**
RDOG	**Red Dog Mine**	**3.53**	**37**	IAmb_Lg		11 46 41.0	
	comp=Z,922nm,1.0s						
H17K	**Granite Mounta**	**3.69**	**93**		**Pn**	**11 45 40.3**	**-1.0**
H17K	**Granite Mounta**	**3.69**	**93**	IAmb_Lg		11 46 47.1	
	comp=Z,753nm,0.8s						
I17K	**Unalakleet**	**3.71**	**110**		**Pn**	**11 45 41.2**	**-0.4**
I17K				IAmb_Lg		11 46 51.8	
	comp=Z,918nm,0.8s						
E18K	**Tukpahlearik C**	**3.83**	**54**		**Pn**	**11 45 41.5**	**-1.6**
E18K	**Tukpahlearik C**	**3.83**	**54**	IAmb_Lg		11 46 52.6	
	comp=Z,923nm,0.8s						
K13K	**Kusilvak Mount**	**3.86**	**151**		**Pn**	**11 45 42.5**	**-1.1**
K13K				IAmb_Lg		11 46 58.0	
	comp=Z,960nm,0.7s						
J16K	**Anvik River**	**4.05**	**117**		**Pn**	**11 45 45.7**	**-0.6**
J16K	**Anvik River**	**4.05**	**117**	IAmb_Lg		11 46 56.1	
	comp=Z,907nm,0.8s						
G18K	**Tagagawik**	**4.16**	**78**		**Pn**	**11 45 46.2**	**-1.5**
H18K	**Honhosa River**	**4.31**	**88**		**Pn**	**11 45 48.9**	**-0.9**
K15K	**Wolf Creek Mou**	**4.39**	**131**		**Pn**	**11 45 50.4**	**-0.5**
K15K	**Wolf Creek Mou**	**4.39**	**131**	IAmb_Lg		11 47 08.9	
	comp=Z,431nm,0.7s						
C18K	**Utukok River**	**4.40**	**38**		**Pn**	**11 45 50.5**	**-0.6**
C18K	**Utukok River**	**4.40**	**38**	IAmb_Lg		11 47 10.1	
	comp=Z,458nm,1.0s						
J17K	**VABM Dome**	**4.58**	**111**		**Pn**	**11 45 53.2**	**-0.3**
B18K	**Kokolik River**	**4.81**	**30**		**Pn**	**11 45 56.8**	**+0.2**
L14K	**Kuka Creek**	**4.83**	**144**		**Pn**	**11 45 55.9**	**-1.0**
L15K	**Ungalak Mounta**	**4.87**	**136**		**Pn**	**11 45 57.0**	**-0.5**
GCSA	**Galena City Sc**	**5.00**	**92**		**Pn**	**11 45 59.0**	**-0.2**
E19K	**Redstone River**	**5.03**	**60**		**Pn**	**11 45 58.8**	**-0.9**
H19K	**Roundabout Mou**	**5.08**	**83**		**Pn**	**11 45 59.1**	**-1.2**
K17K	**Iditarod**	**5.24**	**116**		**Pn**	**11 46 02.7**	**+0.1**
F20K	**Avaraart Lake**	**5.49**	**66**		**Pn**	**11 46 05.0**	**-0.9**
J18K	**Innoko River**	**5.49**	**105**		**Pn**	**11 46 05.4**	**-0.6**
M13K	**Dall Lake**	**5.51**	**152**		**Pn**	**11 46 06.3**	**+0.1**
L17K	**Donlin**	**5.60**	**120**		**Pn**	**11 46 07.7**	**+0.2**
A19K	**Wainwright**	**5.64**	**27**		**Pn**	**11 46 08.2**	**+0.1**
E20K	**Nigu River**	**5.70**	**54**		**Pn**	**11 46 08.8**	**-0.2**
H20K	**Anoteneega Mo**	**5.73**	**82**		**Pn**	**11 46 08.6**	**-0.7**
J19K	**Poorman**	**5.74**	**98**		**Pn**	**11 46 08.4**	**-0.9**
D20K	**Etivluk River**	**5.78**	**49**		**Pn**	**11 46 09.6**	**-0.4**
M15K	**Kasigluk River**	**5.90**	**139**		**Pn**	**11 46 11.2**	**-0.4**
I20K	**Naaghedeneel**	**6.00**	**89**		**Pn**	**11 46 13.2**	**+0.2**
L18K	**Granite Mounta**	**6.14**	**115**		**Pn**	**11 46 15.7**	**+0.8**
M16K	**Timber Creek**	**6.16**	**130**		**Pn**	**11 46 15.4**	**+0.2**
IMAR	**Indian Mountai**	**6.17**	**77**	Pn	**Pn**	**11 46 14.5**	**-0.8**
IM05	**Indian Mountai**	**6.18**	**77**		**Pn**	**11 46 14.6**	**-0.9**
G21K	**Allakaket**	**6.28**	**72**		**Pn**	**11 46 15.5**	**-1.3**
J20K	**Nowinta River**	**6.29**	**94**		**Pn**	**11 46 16.7**	**-0.3**
N14K	**Kuskokwak Cree**	**6.31**	**147**		**Pn**	**11 46 16.9**	**-0.3**
N14K	**Kuskokwak Cree**	**6.31**	**147**	IAmb_Lg		11 48 19.7	
	comp=Z,301nm,0.8s						
F21K	**Alatna River**	**6.38**	**66**		**Pn**	**11 46 17.6**	**-0.6**
B20K	**Meade River**	**6.38**	**38**		**Pn**	**11 46 17.7**	**-0.5**
M17K	**Holitna River**	**6.39**	**123**		**Pn**	**11 46 19.1**	**+0.7**
N15K	**Kwethluk River**	**6.50**	**139**		**Pn**	**11 46 19.7**	**-0.2**
N15K				IAmb_Lg		11 48 10.3	
	comp=Z,275nm,0.9s						
E21K	**Killik River**	**6.53**	**55**		**Pn**	**11 46 19.8**	**-0.5**
C21K	**Knifeblade Rid**	**6.57**	**48**		**Pn**	**11 46 20.3**	**-0.4**
H21K	**Melozitna Rive**	**6.58**	**80**		**Pn**	**11 46 20.4**	**-0.6**
K20K	**Telida**	**6.62**	**101**		**Pn**	**11 46 21.2**	**-0.3**
N16K	**Nishlik Lake**	**6.64**	**133**		**Pn**	**11 46 22.0**	**+0.2**
L19K	**White Mountain**	**6.87**	**111**		**Pn**	**11 46 25.0**	**0.0**
M18K	**Stony River**	**6.92**	**118**		**Pn**	**11 46 25.9**	**+0.3**
F22K	**John River**	**6.93**	**64**		**Pn**	**11 46 25.6**	**-0.1**
I21K	**Tanana**	**6.97**	**84**		**Pn**	**11 46 26.0**	**-0.4**
O14K	**Tigyukauivet M**	**7.01**	**147**		**Pn**	**11 46 26.4**	**-0.4**
L20K	**Farewell, AK**	**7.10**	**107**		**Pn**	**11 46 28.1**	**0.0**
N17K	**Nushagak Hills**	**7.11**	**128**		**Pn**	**11 46 28.5**	**-0.4**
D22K	**Ayikyak River**	**7.13**	**53**		**Pn**	**11 46 28.3**	**-0.2**
H22K	**Ishtalitna Cre**	**7.15**	**78**		**Pn**	**11 46 28.7**	**0.0**
CHUM	**Lake Minchumin**	**7.15**	**94**		**Pn**	**11 46 28.7**	**0.0**
M19K	**Big River Lodg**	**7.21**	**112**		**Pn**	**11 46 30.0**	**+0.5**
CAST	**Castle Rocks**	**7.42**	**98**		**Pn**	**11 46 31.8**	**-0.6**
O15K	**Ungalikthiuk R**	**7.42**	**143**		**Pn**	**11 46 32.4**	**-0.1**
N18K	**Kilae Creek**	**7.44**	**123**		**Pn**	**11 46 33.7**	**+1.0**
MLY	**Manley**	**7.52**	**84**		**Pn**	**11 46 32.9**	**-1.0**
O16K	**Kokwok River B**	**7.55**	**135**		**Pn**	**11 46 34.0**	**-0.2**
PPLA	**Purkeypile**	**7.59**	**101**		**Pn**	**11 46 35.0**	**+0.1**
A22K	**Sinclair Lake**	**7.59**	**36**		**Pn**	**11 46 33.5**	**-1.3**
B22K	**Teshekpuk Lake**	**7.60**	**42**		**Pn**	**11 46 33.9**	**-0.9**
BPAW	**Bear Paw Mtn.**	**7.64**	**91**		**Pn**	**11 46 34.8**	**-0.7**
O17K	**Koliganek Bris**	**7.71**	**131**		**Pn**	**11 46 36.9**	**+0.5**
M20K	**Styx River**	**7.71**	**110**		**Pn**	**11 46 37.5**	**+0.9**
D23K	**Nanushuk River**	**7.84**	**55**		**Pn**	**11 46 37.9**	**-0.3**
KTH	**Kantishna Hill**	**7.85**	**95**		**Pn**	**11 46 38.5**	**+0.1**
N19K	**Bonanza Creek**	**7.85**	**119**		**Pn**	**11 46 39.2**	**+0.7**
H23K	**Yukon River**	**7.91**	**78**		**Pn**	**11 46 39.0**	**-0.1**
E23K	**Chandalar**	**7.99**	**62**		**Pn**	**11 46 40.6**	**+0.3**
P16K	**Nushagak River**	**8.04**	**137**		**Pn**	**11 46 41.5**	**+0.5**
TOLK	**Toolik Lake Re**	**8.13**	**58**		**Pn**	**11 46 42.3**	**0.0**
TRF	**Thorofare Moun**	**8.15**	**95**		**Pn**	**11 46 42.6**	**-0.1**
C23K	**Itkillik River**	**8.19**	**49**		**Pn**	**11 46 41.8**	**-1.1**
SPIA	**Saint Paul Isl**	**8.24**	**186**		**Pn**	**11 46 42.6**	**-1.1**
SPWE	**Spurr West**	**8.29**	**112**		**Pn**	**11 46 45.3**	**+0.8**
SKT	**Skwentna**	**8.30**	**106**		**Pn**	**11 46 45.0**	**+0.5**
NEA2	**Nenana**	**8.31**	**86**		**Pn**	**11 46 43.8**	**-0.9**
O19K	**Port Alsworth**	**8.33**	**122**		**Pn**	**11 46 45.8**	**+0.8**
SPBG	**Spurr Blockage**	**8.37**	**112**		**Pn**	**11 46 46.6**	**+1.1**
P17K	**Kvichak River**	**8.37**	**132**		**Pn**	**11 46 45.9**	**+0.4**
E24K	**Your Creek**	**8.41**	**62**		**Pn**	**11 46 45.8**	**-0.2**
CKL	**Chakachamna La**	**8.42**	**112**		**Pn**	**11 46 47.3**	**+1.0**
STLK	**Strandline Lak**	**8.44**	**109**		**Pn**	**11 46 47.7**	**+1.1**
H24K	**Noodor Dome**	**8.59**	**77**		**Pn**	**11 46 48.0**	**-0.4**
CUT	**Chulitna**	**8.60**	**102**		**Pn**	**11 46 48.5**	**-0.1**
P18K	**Big Mountain,**	**8.61**	**128**		**Pn**	**11 46 48.4**	**-0.4**
MCK	**McKinley**	**8.62**	**92**		**Pn**	**11 46 47.9**	**-1.0**
DFR	**Drift River**	**8.67**	**116**		**Pn**	**11 46 50.1**	**+0.5**
RED	**Redoubt Volcan**	**8.75**	**117**	Pn	**Pn**	**11 46 51.1**	**+0.4**
WRH	**Wood River Hil**	**8.75**	**86**		**Pn**	**11 46 50.0**	**-0.7**
COLA	**College**	**8.76**	**84**		**Pn**	**11 46 50.2**	**-0.5**
C24K	**Franklin Bluff**	**8.76**	**51**		**Pn**	**11 46 49.9**	**-0.8**
RND	**Reindeer**	**8.77**	**94**		**Pn**	**11 46 50.6**	**-0.3**
RDT	**Redoubt**	**8.78**	**116**		**Pn**	**11 46 52.1**	**+0.9**
CCB	**Clear Creek Bu**	**8.83**	**85**		**Pn**	**11 46 51.0**	**-0.7**
WAT7	**Susitna Watana**	**9.00**	**97**		**Pn**	**11 46 54.4**	**+0.2**
WAT1	**Susitna Watana**	**9.12**	**97**		**Pn**	**11 46 56.1**	**+0.3**
IL01		**9.18**	**84**		**Pn**	**11 46 55.4**	**-1.1**
IL31		**9.18**	**84**		**Pn**	**11 46 55.5**	**-1.0**
ILAR	**Eielson Array**	**9.18**	**84**	Pn	**Pn**	**11 46 56.1**	**-0.5**
	comp=Z,0.5nm,0.3s,baz=277,slow=13,SNR=14						
ILAR				Sn	**Sn**	**11 48 35.6**	**-4.2**
	comp=Z,0.6nm,0.3s,baz=260,slow=13,SNR=5.0						
	comp=Z,2.5nm,0.7s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**9.18**	**84**		**Pn**	**11 46 55.5**	**-1.1**
Q18K	**Katmai Hardscr**	**9.26**	**130**		**Pn**	**11 46 58.2**	**+0.4**
Q17K	**Contact Creek**	**9.30**	**134**		**Pn**	**11 46 58.3**	**0.0**
D25K	**Kavik River**	**9.42**	**55**		**Pn**	**11 46 58.8**	**-1.0**
F25K	**Christian Rive**	**9.43**	**66**		**Pn**	**11 46 59.5**	**-0.5**
GHO	**Glory Hole Cre**	**9.47**	**103**		**Pn**	**11 47 01.3**	**+0.8**
KARR	**Katmai Rainbow**	**9.48**	**130**		**Pn**	**11 47 01.3**	**+0.6**
DHY	**Denali Highway**	**9.51**	**94**		**Pn**	**11 47 01.6**	**+0.3**
ACHA	**Angle Creek He**	**9.51**	**133**		**Pn**	**11 47 01.0**	**-0.2**
KAHG	**Katmai Hook Gl**	**9.53**	**130**		**Pn**	**11 47 01.6**	**+0.1**
KAWH	**Katmai**	**9.54**	**131**		**Pn**	**11 47 01.8**	**+0.2**
KJL	**Kejulik**	**9.57**	**134**		**Pn**	**11 47 02.0**	**0.0**
WAT6	**Susitna Watana**	**9.57**	**97**		**Pn**	**11 47 01.9**	**-0.2**
PRP	**Porcupine Dome**	**9.60**	**79**		**Pn**	**11 47 02.1**	**-0.2**
SML	**Sawmill**	**9.69**	**102**		**Pn**	**11 47 04.6**	**+1.0**
BM03	**Burnt Mountain**	**9.82**	**67**		**Pn**	**11 47 03.9**	**-1.4**
K24K	**Donnelly Dome**	**9.92**	**89**		**Pn**	**11 47 05.7**	**-1.0**
BILL	**Bilibino**	**10.27**	**296**	eP	**Pn**	**11 47 11.4**	**-0.1**
BILL				Pmax		11 47 24.3	
	comp=Z,4.0nm,0.4s						
BILL				e		11 49 12.8	
BILL				eSg	Sn	11 50 08.2	+62
BILL				Sgmax		11 50 17.6	
	comp=Z,170nm,0.8s						
BILL				Sgmax		11 50 17.6	
	comp=Z,30nm,0.6s						
PAX	**Paxson**	**10.35**	**93**		**Pn**	**11 47 13.9**	**+1.2**
HARP	**HAARP**	**10.72**	**95**		**Pn**	**11 47 19.2**	**+1.5**
KDAK	**Kodiak Island**	**10.74**	**127**	Pn	**Pn**	**11 47 20.3**	**+2.5**
	comp=Z,5.2nm,0.3s,baz=331,slow=7.3,SNR=60						
KDAK				LR	LR	11 52 00.5	
	comp=Z,460nm,18.8s,baz=329,slow=41						
	comp=Z,23nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**10.74**	**127**		**Pn**	**11 47 19.5**	**+1.6**
MENT	**Mentasta**	**11.10**	**91**		**Pn**	**11 47 23.6**	**+0.8**
F28M	**Old Crow**	**11.64**	**66**		**Pn**	**11 47 29.8**	**-0.3**
GLB	**Gilahina Butte**	**11.74**	**98**		**Pn**	**11 47 32.2**	**+0.5**
E28M	**Babbage River**	**11.76**	**61**		**Pn**	**11 47 30.6**	**-1.3**
I29M	**Ogilvie Camp,**	**12.58**	**76**	Pn	**Pn**	**11 47 41.9**	**-1.2**
INK	**Inuvik**	**13.99**	**62**	Pn	**Pn**	**11 48 02.1**	**-0.1**
	comp=Z,0.2nm,0.3s,baz=293,slow=13,SNR=9.3						
	comp=Z,3.2nm,0.6s						
INK				AML	AML		
INK	**Inuvik**	**13.99**	**62**		**Pn**	**11 48 01.6**	**-0.6**
F31M	**Tsiigehtchic**	**14.00**	**66**	Pn	**Pn**	**11 48 02.3**	**0.0**
M30M	**Minto, Yukon**	**14.15**	**87**	Pn	**Pn**	**11 48 03.9**	**-0.7**
A36M	**Sachs Harbour**	**16.74**	**48**		**Pn**	**11 48 38.1**	**-0.3**
A36M				IAmb	IAmb	11 48 54.0	
	comp=Z,22nm,0.8s						
SEY	**Seymchan**	**17.00**	**280**	Pn	**Pn**	**11 48 42.1**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=82,slow=11,SNR=8.3						
SEY				Lg	Lg	11 53 43.3	
	baz=142,slow=12,SNR=1.9						
	comp=Z,2.1nm,0.6s						
SEY				AML	AML		
SEY	**Seymchan**	**17.00**	**280**	eP	**Pn**	**11 48 42.0**	**+0.3**
SEY				Pmax		11 49 02.0	
	comp=Z,3.0nm,0.8s						
SEY				eSg		11 53 46.6	
SEY				Sgmax		11 54 20.8	
	comp=Z,10.0nm,0.8s						
C36M	**Paulatuk**	**17.29**	**57**	P	**Pn**	**11 48 45.4**	**+0.1**
C36M				IAmb	IAmb	11 48 59.5	
	comp=Z,22nm,0.9s						
WTLY	**Watson Lake, Y**	**18.72**	**88**	P	**P**	**11 49 02.9**	**+0.2**
WTLY				IAmb	IAmb	11 49 12.8	
	comp=Z,34nm,1.0s						
DLBC	**Dease Lake**	**19.17**	**93**	P	**P**	**11 49 08.7**	**+1.0**
	comp=Z,0.1nm,0.3s,baz=256,slow=0.2,SNR=4.6						
	comp=Z,3.0nm,0.9s						
DLBC				AML	AML		
MA2	**Magadan**	**19.36**	**272**	LR	LR	11 57 01.3	
	comp=Z,52nm,19.9s,baz=55,slow=38						
MA2	**Magadan**	**19.36**	**272**	eP	**P**	**11 49 11.7**	**+2.1**
CRAG	**Craig**	**19.83**	**103**	P	**P**	**11 49 13.9**	**-0.8**
T35M	**Bob Quinn**	**20.00**	**97**	P	**P**	**11 49 17.2**	**+0.6**
T35M				IAmb	IAmb	11 49 17.5	
	comp=Z,18nm,1.5s						
PEA0B	**Petropavlovsk-**	**20.83**	**250**	P	**P**	**11 49 24.7**	**-1.0**
PEA0B				IAmb	IAmb	11 49 28.1	
	comp=Z,45nm,1.2s						
PETK	**Petropavlovsk-**	**20.83**	**250**	P	**P**	**11 49 26.3**	**+0.6**
	comp=Z,3.2nm,0.9s,baz=38,slow=10,SNR=2.0						
PETK				LR	LR	11 58 47.4	
	comp=Z,62nm,18.2s,baz=45,slow=40						
	comp=Z,3.2nm,0.9s						
PETK	**Petropavlovsk-**	**20.83**	**250**	P	**P**	**11 49 25

ZALV	**Zalesovo Beam**	**48.58**	**311**	P	**P**	**11 53 27.1**	**-0.2**
	comp=Z,8.6nm,0.6s,baz=36,slow=7.4,SNR=36						
ZALV				LR	LR	12 14 59.9	
	comp=Z,31nm,21.3s,baz=36,slow=37						
	comp=Z,8.6nm,0.6s						
ZALV	**Zalesovo Beam**	**48.58**	**311**	P	**P**	**11 53 26.9**	**-0.4**
HHC	**Hu-ho-hao-te**	**49.63**	**281**	*eP*	P	11 53 31.4	-4.2
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,5.5s						
FINES	**FINESS Array B**	**53.04**	**351**	P	**P**	**11 54 00.3**	**-0.4**
	comp=Z,3.1nm,0.4s,baz=32,slow=7.6,SNR=4.3						
FINES				LR	LR	12 18 57.5	
	comp=Z,63nm,18.1s,baz=40,slow=39						
	comp=Z,3.1nm,0.4s						
KIRV	**Kirov**	**53.11**	**336**	LR	LR	12 19 07.3	
	comp=Z,78nm,19.1s,baz=349,slow=39						
TXAR	**Lajitas Array**	**53.30**	**99**	P	**P**	**11 54 03.4**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=316,slow=5.5,SNR=17						
	comp=Z,0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**53.41**	**313**	P	**P**	**11 54 03.8**	**+0.2**
	comp=Z,6.3nm,0.7s,baz=30,slow=7.4,SNR=21						
	comp=Z,6.3nm,0.7s						
ARTI	**Arti**	**53.46**	**330**	LR	LR	12 21 45.9	
	comp=Z,95nm,18.0s,baz=36,slow=42						
ARTI	**Arti**	**53.46**	**330**	P	**P**	**11 54 03.0**	**-0.9**
BVAR	**Borovoye Array**	**53.63**	**320**	P	**P**	**11 54 05.0**	**-0.2**
	comp=Z,2.2nm,0.5s,baz=28,slow=7.4,SNR=8.2						
	comp=Z,2.2nm,0.5s						
NOA	**NORSAR Array B**	**53.91**	**0**	LR	LR	12 17 00.1	
	comp=Z,29nm,18.6s,baz=350,slow=36						
NJ2	**Nanjing**	**54.11**	**269**	*eP*	P	11 54 04.6	-4.3
NJ2				pmax	pmax		
	comp=Z,13nm,0.5s						
LPIG	**La Paz**	**55.25**	**109**	LR	LR	12 15 03.0	
	comp=Z,33nm,19.9s,baz=312,slow=33						
MKAR	**Makanchi Array**	**55.58**	**308**	P	**P**	**11 54 19.1**	**-0.3**
	comp=Z,1.5nm,0.6s,baz=50,slow=7.5,SNR=12						
	comp=Z,1.5nm,0.6s						
WMQ	**Urumqi**	**56.32**	**302**	*eP*	P	11 54 23.2	-1.7
WMQ				pmax	pmax		
	comp=Z,11nm,0.7s						
WMQ				LR	LR		
	comp=Z,58nm,15.1s						
EKA	**Eskdalemuir Ar**	**59.13**	**10**	P	**P**	**11 54 44.7**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=358,slow=6.8,SNR=3.4						
EKA				LR	LR	12 22 48.6	
	comp=Z,56nm,18.2s,baz=4.0,slow=39						
	comp=Z,0.9nm,0.5s						
BELG	**Belogornoye**	**59.33**	**335**	LR	LR	12 26 35.3	
	comp=Z,89nm,18.2s,baz=83,slow=42						
AB31	**Akbulak array**	**59.74**	**325**		**P**	**11 54 47.8**	**-0.9**
ABKAR	**Akbulak array**	**59.74**	**325**		**P**	**11 54 47.5**	**-1.1**
AAK	**Ala-Archa**	**61.79**	**312**	LR	LR	12 23 12.5	
	comp=Z,65nm,19.0s,baz=21,slow=37						
AKASG	**Malin Array Be**	**63.46**	**347**	P	**P**	**11 55 12.8**	**-0.9**
	comp=Z,0.7nm,0.4s,baz=15,slow=6.2,SNR=5.0						
AKASG				LR	LR	12 26 36.5	
	comp=Z,63nm,18.3s,baz=284,slow=40						
	comp=Z,0.7nm,0.4s						
KSH2	**Kashi**	**64.61**	**309**	P	**P**	**11 55 21.6**	**-0.1**
KSH2				pP	sP	11 55 29.6	+3.5
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GERES	**GERESS Array B**	**66.12**	**358**	P	**P**	**11 55 31.4**	**+0.1**
	comp=Z,0.3nm,0.5s,baz=17,slow=7.2,SNR=3.7						
	comp=Z,0.3nm,0.5s						
LESA	**Schwarzleotal**	**67.56**	**359**	*e*pP	**P**	**11 55 42.8**	**+2.5**
	comp=Z,4.8nm,1.4s						
WTTA	**Wattenberg**	**67.72**	**360**	*eP*	P	11 55 37.4	-4.2
	comp=Z,7.3nm,1.6s						
ABTA	**Abfaltersbach**	**68.23**	**359**	*eP*	P	11 55 40.3	-4.3
	comp=Z,4.9nm,1.6s						
OBKA	**Obir**	**68.45**	**358**	*eP*	**P**	**11 55 45.0**	**-0.9**
	comp=Z,4.5nm,0.7s						
KBZ	**Khabaz**	**68.52**	**336**	P	**P**	**11 55 48.5**	**+2.2**
	comp=Z,3.5nm,0.8s,baz=9.4,slow=5.7,SNR=7.0						
KBZ				LR	LR	12 30 49.7	
	comp=Z,46nm,18.2s,baz=13,slow=40						
	comp=Z,3.5nm,0.8s						
MLR	**Muntele Rosu**	**68.91**	**349**	LR	LR	12 27 42.7	
	comp=Z,48nm,19.2s,baz=0.0,slow=37						
APG	**El Apazote**	**71.53**	**94**	LR	LR	12 31 11.3	
	comp=Z,4.9nm,18.6s,baz=96,slow=39						
GNI	**Garni**	**71.67**	**334**	LR	LR	12 32 50.5	
	comp=Z,44nm,18.9s,baz=13,slow=40						
BRTR	**Keskin Array B**	**73.83**	**342**	LR	LR	12 31 59.0	
	comp=Z,29nm,19.6s,baz=316,slow=38						
CMAR	**Chiang Mai Arr**	**74.42**	**280**	P	**P**	**11 56 22.6**	**+0.3**
	comp=Z,0.6nm,0.6s,baz=8.7,slow=6.1,SNR=6.3						
CMAR				LR	LR	12 31 05.4	
	comp=Z,38nm,20.9s,baz=135,slow=37						
	comp=Z,0.6nm,0.6s						
ESDC	**Sonseca Array**	**74.62**	**12**	P	**P**	**11 56 22.6**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=344,slow=5.5,SNR=4.5						
ESDC				LR	LR	12 30 46.7	
	comp=Z,36nm,18.1s,baz=320,slow=37						
	comp=Z,0.7nm,0.8s						
TAOE	**Nuku Hiva Isla**	**76.97**	**151**	*e*LR	LR	12 20 19.2	
	comp=Z,98nm,23.1s						
MMAI	**Mount Meron Ar**	**80.18**	**340**	LR	LR	12 37 06.7	
	comp=Z,20nm,18.0s,baz=7.0,slow=39						
ASF	**Jabal al Asfar**	**80.79**	**338**	LR	LR	12 38 56.9	
	comp=Z,31nm,18.2s,baz=315,slow=40						
MDT	**Midelt**	**81.36**	**14**	LR	LR	12 34 53.3	
	comp=Z,37nm,18.4s,baz=38,slow=37						
PPT	**Papeete**	**83.93**	**162**	LR	LR	12 29 02.2	
	comp=Z,55nm,20.4s,baz=354,slow=32						
PPT2	**Papeete2**	**83.95**	**162**	*e*LR	LR	12 23 36.9	
	comp=Z,108nm,27.2s						
PPT2				*e*LR	LR	12 23 37.1	
	comp=Z,66nm,25.5s						
TBI	**Tubuai**	**89.64**	**162**	*e*LR	LR	12 26 11.7	
	comp=Z,861nm,34.2s						
WRA	**Warramunga Arr**	**95.35**	**232**	P	**P**	**11 58 07.4**	**-0.9**
	comp=Z,0.3nm,0.7s,baz=24,slow=5.4,SNR=2.0						
	comp=Z,0.3nm,0.7s						
ASAR	**Alice Springs**	**98.96**	**232**	P	**Pdif**	**11 58 24.5**	**0.0**
	comp=Z,0.2nm,0.9s,baz=18,slow=4.9,SNR=1.8						
	comp=Z,0.2nm,0.9s						
PLCA	**Paso Flores**	**129.40**	**103**	PKP	**PKPdf**	**12 03 51.2**	**-0.9**
	comp=Z,2.5nm,1.0s,baz=109,slow=3.5,SNR=3.6						
VNDA	**Vanda**	**143.78**	**190**	PKhKP	PKPpre	12 04 14.2	
	comp=Z,1.2nm,1.1s,baz=317,slow=7.2,SNR=4.1						

*IDC **01** 11:58:05.6±1.6,24˚.09S×66˚.75W,h181km±18km,mb3.5/3, mbtmp3.9/10,Error ellipse: s-maj=23.5km s-min=14.4km az=103.0*

*NEIC **01** 11:58:05.8±1.5,24˚.24S±0˚.06×66˚.9W±0˚.1,h193km±8km, mb4.4/9,ML3.8(GUC),Error ellipse: s-maj=18.8km s-min=8.0km az=98.0*

*SJA **01** 11:58:06.0±0.6,24˚.20S×66˚.94W,h204km±5km,ML3.6, MW3.5*

*GUC **01** 11:58:07.9±0.5,24˚.10S×67˚.27W,h232km±9km,ML3.7, Presumed earthquake*

ISC 01 11:58:05.5±0.6,**24˚.18S**±0˚.04×**66˚.93W**±0˚.04,**h200**km,**n83,** σ1§**53**/109,**mb4.2/4,9C-3D,Salta Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALTA		**0.54**	**95**	*eP*	**Pn**	**11 58 34.4**	**+1.0**
SLA	**San Lorenzo**	**1.41**	**113**	*eP*	**Pn**	**11 58 40.2**	**+1.6**
AF01	**San Pedro de A**	**1.67**	**316**	*eP*	**Pn**	**11 58 42.5**	**+1.3**
AF01	**San Pedro de A**	**1.67**	**316**	Pn	**Pn**	**11 58 41.9**	**+0.8**
HJA	**Humahuaca**	**1.69**	**56**	*eP*	**Pn**	**11 58 42.4**	**+1.0**
FSA	**Cafayete**	**2.11**	**156**	*eP*	**Pn**	**11 58 46.7**	**+1.3**
FSA				*e*S	**Sn**	**11 59 11.9**	**-4.6**
YJA	**Yavi**	**2.38**	**33**	*eP*	**Pn**	**11 58 52.3**	**+3.7**
YJA				*e*S	**Sn**	**11 59 17.5**	**-4.5**
PB06	**IPOC Station P**	**2.83**	**301**	*eP*	**Pn**	**11 58 54.7**	**+1.3**
PB06				*e*S	**Sn**	**11 59 30.8**	**0.0**
PB06				IAML		11 59 33.1	
	comp=Z,177nm,0.1s						
PB06	**IPOC Station P**	**2.83**	**301**		**Pn**	**11 58 54.1**	**+0.7**
PB06	**IPOC Station P**	**2.83**	**301**↑	*eP*	**Pn**	**11 58 54.7**	**+1.3**
PB06				*e*S	**Sn**	**11 59 29.8**	**-1.0**
AHML	**Horco Molle**	**2.97**	**151**	*eP*	Pn	11 58 42.5	-12
AHML				*e*S	Sn	11 59 19.6	-14
PB09	**IPOC Station P**	**3.19**	**318**	*eP*	**Pn**	**11 58 59.3**	**+1.7**
PB09				*e*S	**Sn**	**11 59 38.6**	**+0.3**
PB09				IAML		11 59 42.3	
	comp=Z,65nm,0.4s						
PB09	**IPOC Station P**	**3.19**	**318**		**Pn**	**11 58 59.0**	**+1.4**
PB09	**IPOC Station P**	**3.19**	**318**↑	*eP*	**Pn**	**11 58 59.1**	**+1.6**
PB14	**IPOC Station P**	**3.20**	**261**	*eP*	**Pn**	**11 58 59.0**	**+1.2**
PB14				*e*S	**Sn**	**11 59 38.1**	**-0.6**
PB14				IAML		11 59 40.0	
	comp=Z,119nm,0.3s						
PB14	**IPOC Station P**	**3.20**	**261**		**Pn**	**11 58 59.0**	**+1.2**
PB14	**IPOC Station P**	**3.20**	**261**	*eP*	**Pn**	**11 58 58.8**	**+1.0**
PB14				IAML		11 59 38.7	
	comp=E,88nm,0.3s						
PB05	**IPOC Station P**	**3.28**	**293**	*eP*	**Pn**	**11 58 59.8**	**+1.2**
PB05				*e*S	**Sn**	**11 59 38.6**	**-1.5**
PB05				IAML		11 59 42.2	
	comp=Z,40nm,0.4s						
PB05	**IPOC Station P**	**3.28**	**293**		**Pn**	**11 58 59.5**	**+1.0**
PB05	**IPOC Station P**	**3.28**	**293**↑	*iP*	**Pn**	**11 58 59.6**	**+1.0**
PB05				*e*S	**Sn**	**11 59 37.9**	**-2.2**
PB05				IAML		11 59 43.0	
	comp=E,93nm,0.3s						
AC02	**Maricunga**	**3.31**	**216**	*eP*	**Pn**	**11 59 01.5**	**+2.1**
AC02	**Maricunga**	**3.31**	**216**		**Pn**	**11 59 00.8**	**+1.5**
AC02	**Maricunga**	**3.31**	**216**↑	*eP*	**Pn**	**11 59 01.3**	**+2.0**
PB03	**IPOC Station P**	**3.35**	**309**	*eP*	**Pn**	**11 59 00.7**	**+1.2**
PB03				*e*S	**Sn**	**11 59 40.5**	**-1.2**
PB03				IAML		11 59 45.5	
	comp=Z,112nm,0.2s						
PB03	**IPOC Station P**	**3.35**	**309**		**Pn**	**11 59 00.3**	**+0.7**
PB03	**IPOC Station P**	**3.35**	**309**↑	*eP*	**Pn**	**11 59 00.4**	**+0.9**
PB03				*e*S	**Sn**	**11 59 39.5**	**-2.2**
PB10	**IPOC Station P**	**3.38**	**280**	*eP*	**Pn**	**11 59 01.0**	**+1.3**
PB10				*e*S	**Sn**	**11 59 41.6**	**-0.6**
PB10				IAML		11 59 45.5	
	comp=Z,68nm,0.4s						
PB10	**IPOC Station P**	**3.38**	**280**		**Pn**	**11 59 00.7**	**+1.0**
PB10	**IPOC Station P**	**3.38**	**280**↑	*eP*	**Pn**	**11 59 01.0**	**+1.3**
PB10				*e*S	**Sn**	**11 59 39.9**	**-2.3**
PB07	**IPOC Station P**	**3.66**	**311**	*eP*	**Pn**	**11 59 04.1**	**+0.8**
PB07				*e*S	**Sn**	**11 59 47.0**	**-1.4**
PB07				IAML		11 59 50.6	
	comp=Z,98nm,0.3s						
PB07	**IPOC Station P**	**3.66**	**311**		**Pn**	**11 59 03.7**	**+0.4**
PB07	**IPOC Station P**	**3.66**	**311**↑	*iP*	**Pn**	**11 59 03.9**	**+0.6**
PB07				*i* S	**Sn**	**11 59 45.9**	**-2.6**
AC01	**Pan de Azucar**	**3.86**	**239**	*eP*	**Pn**	**11 59 06.0**	**+0.4**
AC01				*e*S	**Sn**	**11 59 51.5**	**-1.3**
AC01				IAML		11 59 52.5	
	comp=Z,83nm,0.3s						
AC01	**Pan de Azucar**	**3.86**	**239**		**Pn**	**11 59 05.6**	**0.0**
AC01	**Pan de Azucar**	**3.86**	**239**↑	*iP*	**Pn**	**11 59 05.9**	**+0.3**
AC01				*i* S	**Sn**	**11 59 51.0**	**-1.7**
TINO	**Tinogasta**	**3.92**	**188**	*eP*	**Pn**	**11 59 08.8**	**+2.5**
PB02	**IPOC Station P**	**3.95**	**315**	*eP*	**Pn**	**11 59 07.5**	**+0.7**
PB02				*e*S	**Sn**	**11 59 52.8**	**-2.0**
PB02				IAML		11 59 56.8	
	comp=Z,149nm,0.2s						
PB02	**IPOC Station P**	**3.95**	**315**		**Pn**	**11 59 07.5**	**+0.7**
PB02	**IPOC Station P**	**3.95**	**315**↓	*iP*	**Pn**	**11 59 07.1**	**+0.3**
AC06	**Mina Casimiro**	**4.42**	**224**		**Pn**	**11 59 12.8**	**+0.2**
AC06	**Mina Casimiro**	**4.42**	**224**↑	*iP*	**Pn**	**11 59 12.9**	**+0.2**
AC06				*e*S	**Sn**	**12 00 03.9**	**-1.6**
PB08	**IPOC Station P**	**4.51**	**332**	*eP*	**Pn**	**11 59 15.6**	**+1.5**
PB08				*e*S	**Sn**	**12 00 08.2**	**+0.1**
PB08				IAML		12 00 11.9	
	comp=Z,21nm,0.5s						
PB08	**IPOC Station P**	**4.51**	**332**		**Pn**	**11 59 14.7**	**+0.5**
GO03	**Copiapo**	**4.52**	**220**	*eP*	**Pn**	**11 59 14.5**	**+0.6**
GO03				*e*S	**Sn**	**12 00 07.9**	**+0.1**
GO03				IAML		12 00 08.5	
	comp=Z,31nm,0.3s						
GO03	**Copiapo**	**4.52**	**220**		**Pn**	**11 59 13.6**	**-0.3**
GO03	**Copiapo**	**4.52**	**220**↓	*iP*	**Pn**	**11 59 14.2**	**+0.3**
GO03				*i* S	**Sn**	**12 00 06.7**	**-1.1**
VCA	**Vinchina**	**4.69**	**194**	*eP*	**Pn**	**11 59 19.0**	**+3.0**
GO01	**Chusmiza**	**4.95**	**334**	*eP*	**Pn**	**11 59 21.4**	**+1.6**
GO01				*e*S	**Sn**	**12 00 18.6**	**+0.3**
GO01				IAML		12 00 21.3	
	comp=Z,23nm,0.5s						
GO01	**Chusmiza**	**4.95**	**334**		**Pn**	**11 59 20.1**	**+0.3**
PB11	**IPOC Station P**	**5.07**	**330**	*eP*	**Pn**	**11 59 20.8**	**-0.2**
PB11				*e*S	**Sn**	**12 00 18.3**	**-2.2**
PB11				IAML		12 00 22.2	
	comp=Z,30nm,1.0s						
PB11	**IPOC Station P**	**5.07**	**330**		**Pn**	**11 59 20.6**	**-0.4**
ACLC	**CERRO LA CRUZ**	**5.23**	**180**	*eP*	**Pn**	**11 59 24.3**	**+1.3**
ACLC				*e*S	**Sn**	**12 00 24.8**	**+0.6**
PSGCX	**Pisagua**	**5.43**	**326**		**Pn**	**11 59 24.7**	**-1.0**
AC04	**Llanos de Chal**	**5.47**	**222**		**Pn**	**11 59 26.3**	**+0.3**
AC04	**Llanos de Chal**	**5.47**	**222**↓	*iP*	**Pn**	**11 59 25.4**	**-0.5**
AC04				*i* S	**Sn**	**12 00 27.3**	**-2.3**
AC05	**El Transito**	**5.53**	**212**		**Pn**	**11 59 26.6**	**-0.2**
LCO	**Las Campanas**	**5.88**	**214**		**Pn**	**11 59 30.9**	**-0.6**
PB16	**IPOC Station P**	**6.29**	**337**		**Pn**	**11 59 37.0**	**-0.2**
CO01	**Juntas del Tor**	**6.43**	**205**		**Pn**	**11 59 39.1**	**+0.6**
GO04	**Tololo Observa**	**6.90**	**209**		**Pn**	**11 59 43.5**	**-1.1**
CFA	**Coronel Fontan**	**7.49**	**189**	P	**Pn**	**11 59 52.6**	**+0.5**
	comp=Z,2.6nm,0.3s,baz=42,slow=17,SNR=34						
CFA				S	**Sn**	**12 01 11.2**	**-5.8**
	comp=Z,2.2nm,0.3s,baz=261,slow=17,SNR=7.6						
CO02	**Combarbal**	**7.88**	**206**	Pn	**Pn**	**11 59 56.3**	**-0.9**
LPAZ	**La Paz**	**7.93**	**352**	P	**Pn**	**11 59 58.2**	**-0.3**
	comp=Z,2.6nm,0.5s,baz=182,slow=10,SNR=14						
LPAZ				S	**Sn**	**12 01 27.1**	**-1.2**
	comp=Z,0.7nm,0.6s,baz=62,slow=18,SNR=3.2						
CO04	**Los Peladeros**	**8.61**	**204**	Pn	**Pn**	**12 00 05.4**	**-1.6**
CPUP	**Villa Florida**	**8.95**	**106**	P	**Pn**	**12 00 09.6**	**-1.6**
	comp=Z,0.3nm,0.3s,baz=262,slow=7.1,SNR=1.3						
VA03	**San Esteban**	**9.13**	**200**	Pn	**Pn**	**12 00 13.0**	**-0.5**
SIV	**San Ignacio**	**9.82**	**35**	P	**Pn**	**12 00 20.9**	**-1.7**
	comp=Z,3.6nm,0.6s,baz=210,slow=12,SNR=18						
MT01	**Popeta**	**10.37**	**200**	Pn	**Pn**	**12 00 28.0**	**-1.4**
NNA	**Nana**	**15.34**	**320**	P	**P**	**12 01 33.4**	**+1.0**
	comp=Z,3.1nm,0.3s,baz=141,slow=6.5,SNR=2.0						
NNA	**Nana**	**15.34**	**320**	P	**P**	**12 01 32.8**	**+0.5**
NNA				IAmb	IAmb	12 01 33.7	
	comp=Z,33nm,1.4s						
PLCA	**Paso Flores**	**16.79**	**190**	P	**Pn**	**12 01 51.2**	**+2.0**
	comp=Z,1.2nm,1.0s,baz=352,slow=10,SNR=7.2						
SPB	**Sao Paulo**	**17.84**	**92**	P	**P**	**12 01 59.3**	**-0.4**
VAO	**Valinhos**	**18.34**	**90**	P	**P**	**12 02 04.9**	**-0.3**
BDFB	**Brasilia**	**19.69**	**68**	P	**P**	**12 02 20.2**	**+0.4**
	comp=Z,9.7nm,0.8s,baz=238,slow=13,SNR=12						
BDFB	**Brasilia**	**19.69**	**68**	P	**P**	**12 02 20.3**	**+0.4**
BDFB				IAmb	IAmb	12 02 21.7	
	comp=Z,9.2nm,0.7s						
SMTB	**Santa Maria do**	**23.94**	**54**	P	**P**	**12 03 02.1**	**+0.5**
SMTB				IAmb	IAmb	12 03 04.7	
	comp=Z,7.9nm,0.9s						
GO08	**Villa O'Higgin**	**24.65**	**189**	P	**P**	**12 03 06.7**	**-0.9**
BOAV	**Boa Vista**	**27.14**	**14**	P	**P**	**12 03 30.4**	**+0.2**
BOAV				IAmb	IAmb	12 03 34.0	
	comp=Z,5.2nm,1.2s						
QSPA	**South Pole Qui**	**66.03**	**180**	P	**P**	**12 08 33.7**	**+3.1**
	comp=Z,0.6nm,0.5s,baz=323,slow=0.6,SNR=11						
	comp=Z,0.6nm,0.5s						
QSPA	**South Pole Qui**	**66.03**	**180**	P	**P**	**12 08 32.6**	**+2.1**
DBIC	**Dimbokro**	**67.80**	**71**	P	**P**	**12 08 42.7**	**+0.4**
	comp=Z,3.4nm,0.9s,baz=236,slow=7.3,SNR=2.7						
	comp=Z,3.4nm,0.9s						
DBIC	**Dimbokro**	**67.80**	**71**	P	**P**	**12 08 42.0**	**-0.3**
DBIC				IAmb	IAmb	12 09 03.2	
	comp=Z,13nm,1.4s						
TORD	**Torodi Ar. Bea**	**76.57**	**69**	P	**P**	**12 09 35.2**	**+0.9**
	comp=Z,0.5nm,0.6s,baz=255,slow=5.6,SNR=5.4						
	comp=Z,0.5nm,0.6s						

*THE **01** 12:09:14.8,38˚.N±6˚×2˚.7E±˚,h5km±38km,M2.9/10, MLh2.9/10*

*ISK **01** 12:09:14.9,37˚.83N×26˚.62E,h16km,ML2.8/17*

*ATH **01** 12:09:14.9,37˚.91N×26˚.75E,h7km±1km,ML2.9/3,Latitude uncertainty: 0 km; Longitude uncertainty: 3 km*

*AFAD **01** 12:09:15.2,37˚.84N×26˚.63E,h7km±3km,ML2.5*

ISC 01 12:09:14.9±0.9,**37˚.83N**±0˚.02×**26˚.61E**±0˚.02,**h12**km±6km, **n51,**σ0§**49**/66,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.08**	**114**	P	**Pg**	**12 09 17.5**	**0.0**
KRL1				S	**Sg**	**12 09 19.4**	**+0.1**
KRL1				AML	AML		
DGB	**zmir**	**0.31**	**44**	P	**Pg**	**12 09 20.0**	**-1.2**
DGB				IAML		12 09 25.0	
	comp=E,656nm,0.4s						
DGB				S	**Sg**	**12 09 25.4**	**0.0**
GMLD	**Gumuldur**	**0.34**	**44**	Pg	**Pg**	**12 09 22.1**	**+0.3**
GMLD				Sg	**Sb**	**12 09 27.2**	**-1.2**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.42**	**348**	P	**Pg**	**12 09 23.5**	**+0.3**
ZEYE				S	**Sb**	**12 09 30.3**	**-0.2**
ZEYE				IAML		12 09 33.0	
	comp=N,443nm,0.2s						
ZEYE				IAML		12 09 33.0	
	comp=E,511nm,0.2s						
BEYE	**izmir**	**0.47**	**32**	P	**Pg**	**12 09 23.5**	**-0.6**
BEYE				S	**Sg**	**12 09 30.6**	**+0.2**
BEYE				IAML		12 09 31.0	
	comp=N,356nm,0.5s						
BEYE				IAML		12 09 32.0	
	comp=E,267nm,0.5s						
GCAM	**G?zelcaml?**	**0.51**	**104**	P	**Pg**	**12 09 25.0**	**+0.1**
GCAM				IAML		12 09 33.0	
	comp=E,576nm,0.3s						
GCAM				S	**Sb**	**12 09 33.1**	**0.0**
GCAM				IAML		12 09 36.0	
	comp=N,469nm,0.4s						
GCAM	**G?zelcaml?**	**0.51**	**104**	Pg	**Pg**	**12 09 25.1**	**+0.3**
GCAM				Sg	**Sb**	**12 09 32.9**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.54**	**86**	Pg	**Pb**	**12 09 25.8**	**-0.4**
KUSD				Sg	**Sb**	**12 09 33.5**	**-0.4**
KUSD				AML	AML		
CESE	**eme**	**0.56**	**334**	Pg	**Pb**	**12 09 26.4**	**-0.2**
CESE				AML	AML		
DDIM	**Aydin, Didim**	**0.62**	**126**	P	**Pg**	**12 09 27.2**	**+0.2**
DDIM				IAML		12 09 40.0	
	comp=E,565nm,0.4s						
DDIM				IAML		12 09 41.0	
	comp=N,244nm,0.6s						
BLCB	**Balcova**	**0.65**	**31**	Pg	**Pb**	**12 09 28.1**	**-0.1**
BLCB				AML	AML		
CHOS	**Chios island**	**0.71**	**322**	P	**Pg**	**12 09 28.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.71**	**322**	Pg	**Pb**	**12 09 29.3**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.71**	**322**	P	**Pg**	**12 09 28.6**	**-0.1**
CHOS				S	**Sg**	**12 09 38.8**	**+0.7**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.77**	**357**	Pg	**Pb**	**12 09 30.3**	**+0.1**
KRBN				AML	AML		
EAG2	**Marmaro, Chios**	**0.82**	**331**	P	**Pg**	**12 09 30.8**	**+0.1**
EAG2				S	**Sb**	**12 09 42.0**	**0.0**
BAGT	**Foa**	**0.85**	**13**	S	**Sn**	**12 09 44.8**	**-0.2**
KARB	**zmir-Karabur**	**0.85**	**349**	P	**Pg**	**12 09 31.0**	**-0.3**
KARB				S	**Sb**	**12 09 42.9**	**0.0**
FOCM	**Foa**	**0.89**	**6**	Pg	**Pb**	**12 09 32.3**	**+0.1**
FOCM				AML	AML		
BODT	**Bodrum**	**0.95**	**144**	Pg	**Pb**	**12 09 33.6**	**+0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.02**	**83**	Pg	**Pb**	**12 09 34.9**	**+0.4**
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.02**	**99**	P	**Pn**	**12 09 35.1**	**+0.1**
AYDN				S	**Sn**	**12 09 49.2**	**-0.1**
AYDN				IAML		12 09 52.0	
	comp=N,145nm,0.2s						
AYDN				IAML		12 09 52.0	
	comp=E,182nm,0.2s						
MLSB	**Milas**	**1.07**	**120**	Pg	**Pb**	**12 09 35.6**	**+0.3**
MLSB				AML	AML		
CAMT	**Merkez**	**1.07**	**31**	P	**Pb**	**12 09 35.6**	**+0.2**
CAMT				S	**Sn**	**12 09 51.0**	**+0.4**
CAMT				IAML		12 09 52.0	
	comp=E,286nm,0.3s						
CAMT				IAML		12 09 58.0	
	comp=N,436nm,0.5s						
IZMR	**zmir-demi**	**1.10**	**73**	P	**Pb**	**12 09 36.0**	**+0.1**
IZMR				S	**Sn**	**12 09 52.0**	**+0.7**
IZMR				IAML		12 09 53.0	
	comp=E,103nm,0.5s						
DKL	**Dikili**	**1.26**	**10**	Pn	**Pn**	**12 09 38.5**	**+0.1**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.34**	**84**	Pn	**Pn**	**12 09 39.4**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.35**	**49**	Pn	**Pn**	**12 09 39.5**	**-0.1**
GOMA				AML	AML		
AKS	**Akhisar**	**1.41**	**42**	Pn	**Pn**	**12 09 40.3**	**-0.1**
AKS				AML	AML		
PRK	**Paraskevi**	**1.44**	**349**	P	**Pb**	**12 09 41.7**	**0.0**

EAG2	**Marmaro, Chios**	**0.70**	**343**	P	**Pg**	**12 12 19.4**	**+0.3**
EAG2				S	**Sg**	**12 12 29.6**	**+1.3**
KUSD	**Kusadasi-Aydin**	**0.72**	**90**	Pg	**Pb**	**12 12 20.8**	**-0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.73**	**45**	P	**Pg**	**12 12 19.3**	**-0.4**
BLCB				S	**Sb**	**12 12 30.1**	**-1.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.73**	**45**	Pg	**Pb**	**12 12 20.8**	**-0.3**
BLCB				Sg	**Sb**	**12 12 30.5**	**-1.1**
BLCB				AML	AML		
KRBN	**Karaburun**	**0.74**	**11**	Pg	**Pg**	**12 12 20.6**	**+0.9**
KRBN				Sg	**Sb**	**12 12 31.3**	**-0.3**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.79**	**2**	P	**Pg**	**12 12 20.6**	**-0.2**
KARB				S	**Sg**	**12 12 31.9**	**+0.8**
KARB				IAML		12 12 34.0	
	comp=N,400nm,0.2s						
KARB				IAML		12 12 34.0	
	comp=E,553nm,0.4s						
DDIM	**Aydin, Didim**	**0.80**	**121**	P	**Pg**	**12 12 21.0**	**0.0**
DDIM				S	**Sb**	**12 12 33.6**	**+0.1**
DDIM				IAML		12 12 34.0	
	comp=N,479nm,0.6s						
BAGT	**Foa**	**0.87**	**25**	P	**Pg**	**12 12 22.2**	**-0.1**
BAGT				S	**Sb**	**12 12 35.7**	**+0.3**
BAGT				IAML		12 12 37.0	
	comp=N,801nm,0.8s						
BAGT				IAML		12 12 37.0	
	comp=E,732nm,0.5s						
FOCM	**Foa**	**0.89**	**18**	Pg	**Pb**	**12 12 23.9**	**+0.2**
DUVT	**Torbali**	**0.92**	**67**	P	**Pg**	**12 12 22.9**	**-0.2**
DUVT				S	**Sg**	**12 12 35.0**	**0.0**
DUVT				IAML		12 12 36.0	
	comp=E,443nm,0.2s						
TNSA	**Tinos**	**1.02**	**251**	P	**Pg**	**12 12 24.2**	**-0.9**
TNSA				S	**Sg**	**12 12 37.1**	**-1.1**
TNSA				AML	AML		
DAGE	**izmir**	**1.10**	**83**	P	**Pb**	**12 12 27.4**	**+0.1**
DAGE				S	**Sg**	**12 12 41.0**	**+0.2**
DAGE				IAML		12 12 44.0	
	comp=E,354nm,0.2s						
DAGE				IAML		12 12 45.0	
	comp=N,298nm,0.2s						
BODT	**Bodrum**	**1.10**	**137**	P	**Pg**	**12 12 27.3**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**1.10**	**137**	Pn	**Pn**	**12 12 28.6**	**+0.6**
BODT				Sn	**Sn**	**12 12 43.9**	**+0.2**
BODT				AML	AML		
NAX1	**Naxos Island**	**1.11**	**226**	P	**Pg**	**12 12 25.6**	**-1.1**
NAX1				S	**Sg**	**12 12 39.4**	**-1.7**
NAX1				AML	AML		
CAMT	**Merkez**	**1.15**	**40**	P	**Pn**	**12 12 29.1**	**+0.5**
CAMT				S	**Sn**	**12 12 45.3**	**+0.4**
CAMT				IAML		12 12 48.0	
	comp=E,815nm,0.7s						
CAMT				IAML		12 12 49.0	
	comp=N,676nm,0.6s						
AYDB	**Zeytinkoy-Aydi**	**1.20**	**86**	Pn	**Pb**	**12 12 29.4**	**+0.3**
AYDB				Sn	**Sn**	**12 12 46.5**	**+0.1**
AYDB				AML	AML		
DKL	**Dikili**	**1.27**	**19**	Pn	**Pn**	**12 12 30.4**	**+0.1**
DKL				Sn	**Sn**	**12 12 48.0**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.27**	**19**	P	**Pg**	**12 12 28.1**	**-1.8**
DKL				S	**Sn**	**12 12 47.1**	**-0.8**
IZMR	**zmir-demi**	**1.27**	**77**	P	**Pg**	**12 12 30.1**	**+0.1**
IZMR				S	**Sb**	**12 12 46.5**	**-0.5**
IZMR				IAML		12 12 49.0	
	comp=N,160nm,0.5s						
IZMR				IAML		12 12 49.0	
	comp=E,190nm,0.4s						
PRK	**Paraskevi**	**1.38**	**357**	P	**Pn**	**12 12 32.0**	**+0.3**
PRK				S	**Sn**	**12 12 51.4**	**+0.9**
PRK				AML	AML		
PRK	**Paraskevi**	**1.38**	**357**	P	**Pn**	**12 12 29.9**	**-1.9**
PRK				S	**Sn**	**12 12 50.5**	**0.0**
PRK				AML	AML		
DAT	**Datca**	**1.49**	**140**	Pn	**Pg**	**12 12 35.3**	**+1.2**
DAT				AML	AML		
AKS	**Akhisar**	**1.51**	**48**	Pn	**Pg**	**12 12 35.1**	**+0.5**
AKS				Sn	**Sg**	**12 12 55.2**	**+1.0**
AKS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.52**	**86**	Pn	**Pg**	**12 12 35.3**	**+0.6**
NAZL				Sn	**Sg**	**12 12 54.9**	**+0.5**
NAZL				AML	AML		
KARY	**Karystos**	**1.54**	**277**	P	**Pn**	**12 12 32.1**	**-1.9**
SOMA	**Soma-Manisa**	**1.57**	**35**	Pn	**Pg**	**12 12 36.0**	**+0.2**
SOMA				Sn	**Sg**	**12 12 56.9**	**+0.7**
SOMA				AML	AML		
CMBO	**Columbo, Santo**	**1.60**	**209**	P	**Pn**	**12 12 36.4**	**+1.6**
CMBO	**Columbo, Santo**	**1.60**	**209**	P	**Pn**	**12 12 32.8**	**-2.0**
THR2	**Thira island,**	**1.61**	**208**	P	**Pn**	**12 12 36.4**	**+1.4**
THR2	**Thira island,**	**1.61**	**208**	P	**Pn**	**12 12 32.7**	**-2.2**
THR8	**Santorini-Mono**	**1.63**	**206**	P	**Pn**	**12 12 36.3**	**+1.1**
THR8	**Santorini-Mono**	**1.63**	**206**	P	**Pn**	**12 12 33.4**	**-1.8**
SFIR	**Foira Santorin**	**1.63**	**208**	P	**Pn**	**12 12 36.9**	**+1.6**
SAP3	**Santorini-Thir**	**1.65**	**210**	P	**Pn**	**12 12 37.2**	**+1.6**
SAP3				S	**Sg**	**12 13 01.3**	**+2.7**
SAP3	**Santorini-Thir**	**1.65**	**210**	P	**Pn**	**12 12 33.3**	**-2.3**
THR3	**Thira Island,**	**1.65**	**208**	P	**Pn**	**12 12 37.1**	**+1.5**
THR3	**Thira Island,**	**1.65**	**208**	P	**Pn**	**12 12 34.1**	**-1.5**
SNT5	**Nea Kammeni, S**	**1.66**	**208**	P	**Pn**	**12 12 37.4**	**+1.7**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.66**	**208**	P	**Pn**	**12 12 33.9**	**-1.7**
THT1	**Athinios (Pele**	**1.66**	**207**	P	**Pn**	**12 12 37.2**	**+1.5**
THT1				AML	AML		
THERA	**Ancient Thera,**	**1.66**	**206**	P	**Pn**	**12 12 37.1**	**+1.3**
THERA				S	**Sg**	**12 13 01.5**	**+2.5**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.66**	**206**	P	**Pn**	**12 12 33.3**	**-2.4**
THR5	**Thira Island,**	**1.67**	**210**	P	**Pn**	**12 12 37.3**	**+1.5**
THR5	**Thira Island,**	**1.67**	**210**	P	**Pn**	**12 12 33.9**	**-1.8**
YER	**Yerkesik**	**1.69**	**115**	Pn	**Pg**	**12 12 38.5**	**+0.6**
THR6	**Thira Island,**	**1.70**	**208**	P	**Pn**	**12 12 38.2**	**+2.0**
THR6	**Thira Island,**	**1.70**	**208**	P	**Pn**	**12 12 34.0**	**-2.3**
GORD	**Gordes-Manisa**	**1.75**	**53**	Pn	**Pb**	**12 12 38.5**	**0.0**
GORD				Sn	**Sg**	**12 13 01.2**	**-0.8**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.82**	**17**	Pn	**Pb**	**12 12 39.7**	**+0.1**
YAYO				AML	AML		
TURN	**Turunc**	**1.85**	**126**	Pn	**Pb**	**12 12 40.6**	**+0.6**
TURN				AML	AML		
DION	**Dionisos Attik**	**1.94**	**277**	P	**Pn**	**12 12 37.9**	**-1.6**
PTL	**Penteli**	**1.99**	**276**	P	**Pn**	**12 12 38.8**	**-1.5**
BALB	**Balikesir**	**2.12**	**33**	Pn	**Pb**	**12 12 43.9**	**-0.9**
BALB				AML	AML		
VILL	**Villia**	**2.44**	**278**	P	**Pn**	**12 12 48.4**	**+2.0**
VILL				AML	AML		
TYRN	**Tyrnavos**	**3.72**	**301**	P	**Pn**	**12 13 05.2**	**+1.2**

*AFAD **01** 12:17:17.7,37˚.87N×26˚.87E,h7km±2km,ML2.5*
*ISK **01** 12:17:17.8,37˚.88N×26˚.92E,h8km,ML2.8/17*
*ATH **01** 12:17:18.0,37˚.88N×26˚.90E,h11km±1km,ML2.9/5,*
Latitude uncertainty: 0 km; Longitude uncertainty: 2 km
*THE **01** 12:17:18.4,38˚.2˚×2˚.7E±˚,h11km±4km,M2.8/16,*
MLh2.8/16

ISC 01 12:17:18.0±0.9,**37˚.87N**±0˚.02×**26˚.92E**±0˚.02,**h10**km±7km,
n60,σ0**9**49/81,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.18**	**352**	P	**Pg**	**12 17 21.7**	**-0.2**
DGB				S	**Sg**	**12 17 24.9**	**+0.3**
KRL1	**Karlovasi Samo**	**0.18**	**245**	P	**Pg**	**12 17 21.4**	**-0.5**
KRL1				S	**Sg**	**12 17 24.3**	**-0.3**
KRL1				AML	AML		
GMLD	**Gumuldur**	**0.20**	**360**	Pg	**Pg**	**12 17 22.3**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**92**	Pg	**Pg**	**12 17 23.9**	**-0.1**
KUSD				Sg	**Sb**	**12 17 29.1**	**-1.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**124**	P	**Pg**	**12 17 24.4**	**+0.3**
GCAM				IAML		12 17 29.0	
	comp=E,756nm,0.3s						
GCAM				S	**Sb**	**12 17 29.5**	**-1.0**
GCAM				IAML		12 17 32.0	
	comp=N,576nm,0.4s						
GCAM	**G?zelcaml?**	**0.30**	**124**	Pg	**Pg**	**12 17 24.4**	**+0.3**
GCAM				Sg	**Sg**	**12 17 29.2**	**+1.0**
GCAM				AML	AML		

BEYE	**izmir**	**0.35**	**1**	P	**Pg**	**12 17 25.0**	**-0.1**
BEYE				S	**Sg**	**12 17 30.7**	**+0.8**
BEYE				IAML		12 17 35.0	
	comp=N,347nm,0.3s						
BEYE				IAML		12 17 36.0	
	comp=E,400nm,0.5s						
DDIM	**Aydin, Didim**	**0.49**	**148**	P	**Pg**	**12 17 27.7**	**+0.1**
DDIM				IAML		12 17 35.0	
	comp=N,427nm,0.4s						
DDIM				S	**Sb**	**12 17 35.7**	**-0.2**
DDIM				IAML		12 17 38.0	
	comp=E,364nm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**319**	P	**Pg**	**12 17 27.0**	**-0.6**
ZEYE				S	**Sg**	**12 17 34.4**	**+0.3**
ZEYE				IAML		12 17 35.0	
	comp=E,390nm,0.3s						
ZEYE				IAML		12 17 38.0	
	comp=N,721nm,0.5s						
BLCB	**Balcova**	**0.52**	**11**	P	**Pg**	**12 17 28.4**	**+0.1**
BLCB				S	**Sb**	**12 17 36.0**	**-0.9**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**11**	Pg	**Pg**	**12 17 28.2**	**0.0**
BLCB				S	AML		
DUVT	**Torbali**	**0.55**	**50**	P	**Pg**	**12 17 28.6**	**-0.1**
DUVT				IAML		12 17 41.0	
	comp=E,596nm,0.5s						
CESE	**eme**	**0.67**	**313**	Pg	**Pb**	**12 17 31.4**	**-0.4**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.78**	**84**	Pg	**Pg**	**12 17 32.9**	**-0.1**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.78**	**339**	Pg	**Pb**	**12 17 33.4**	**-0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**356**	P	**Pg**	**12 17 33.1**	**0.0**
BAGT				S	**Sn**	**12 17 46.2**	**-0.7**
BAGT				IAML		12 17 47.0	
	comp=E,317nm,0.6s						
AYDN	**Tasoluk**	**0.79**	**105**	P	**Pg**	**12 17 33.5**	**+0.2**
AYDN				S	**Sb**	**12 17 45.2**	**+0.5**
AYDN				IAML		12 17 48.0	
	comp=N,119nm,0.6s						
AYDN				IAML		12 17 49.0	
	comp=E,165nm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.80**	**159**	Pg	**Pg**	**12 17 32.8**	**-0.7**
YKAV				AML	AML		
CHOS	**Chios island**	**0.85**	**307**	P	**Pb**	**12 17 35.2**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**307**	Pg	**Pb**	**12 17 35.2**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**307**	P	**Pg**	**12 17 34.5**	**0.0**
CHOS				S	**Sg**	**12 17 45.8**	**+0.2**
CHOS				AML	AML		
FOCM	**Foa**	**0.85**	**350**	Pg	**Pg**	**12 17 34.5**	**0.0**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.86**	**72**	P	**Pb**	**12 17 35.3**	**+0.2**
IZMR				IAML		12 17 49.0	
	comp=N,96nm,0.6s						
BODT	**Bodrum**	**0.87**	**159**	P	**Pg**	**12 17 34.3**	**-0.5**
BODT				S	**Sb**	**12 17 47.4**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**159**	Pg	**Pg**	**12 17 34.7**	**0.0**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**334**	P	**Pg**	**12 17 34.4**	**-0.7**
KARB				S	**Sb**	**12 17 48.1**	**+0.8**
KARB				IAML		12 17 49.0	
	comp=N,272nm,0.4s						
KARB				IAML		12 17 50.0	
	comp=E,293nm,0.4s						
MLSB	**Milas**	**0.89**	**130**	Pg	**Pg**	**12 17 35.4**	**+0.2**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.91**	**177**	P	**Pb**	**12 17 36.0**	**+0.1**
KLNA				S	**Sb**	**12 17 48.1**	**0.0**
KLNA				AML	AML		
EAG2	**Marmaro, Chios**	**0.93**	**317**	P	**Pb**	**12 17 36.3**	**+0.2**
EAG2				S	**Sg**	**12 17 47.5**	**-0.4**
CAMT	**Merkez**	**0.93**	**20**	P	**Pb**	**12 17 36.5**	**+0.3**
CAMT				S	**Sn**	**12 17 51.4**	**+0.9**
CAMT				IAML		12 17 54.0	
	comp=E,253nm,0.7s						
NAZL	**Nazilli-Aydin**	**1.09**	**85**	Pn	**Pb**	**12 17 38.9**	**-0.1**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.10**	**7**	P	**Pn**	**12 17 39.3**	**-0.2**
ZEDA				S	**Sn**	**12 17 55.0**	**+0.3**
ZEDA				IAML		12 17 56.0	
	comp=E,119nm,0.5s						
ZEDA				IAML		12 17 59.0	
	comp=N,96nm,0.3s						
DKL	**Dikili**	**1.20**	**360**	Pn	**Pg**	**12 17 41.6**	**+0.6**
DKL				AML	AML		
DKL	**Dikili**	**1.20**	**360**	P	**Pb**	**12 17 40.3**	**-0.5**
DKL				S	**Sb**	**12 17 56.0**	**-0.3**
AKS	**Akhisar**	**1.23**	**35**	Pn	**Pg**	**12 17 41.7**	**+0.1**
AKS				AML	AML		
DAT	**Datca**	**1.26**	**155**	P	**Pn**	**12 17 41.0**	**-0.7**
DAT				S	**Sb**	**12 17 58.2**	**0.0**
YER	**Yerkesik**	**1.31**	**124**	P	**Pn**	**12 17 41.2**	**-1.2**
SOMA	**Soma-Manisa**	**1.37**	**21**	Pn	**Pb**	**12 17 43.9**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.43**	**43**	Pn	**Pb**	**12 17 44.4**	**-0.5**
GORD				AML	AML		
PRK	**Paraskevi**	**1.46**	**340**	P	**Pn**	**12 17 44.3**	**-0.2**
PRK				S	**Sn**	**12 18 03.5**	**-0.1**
THERA	**Ancient Thera,**	**1.89**	**218**	P	**Pn**	**12 17 50.6**	**+0.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.89**	**218**	P	**Pn**	**12 17 50.7**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.90**	**220**	P	**Pn**	**12 17 51.0**	**+0.5**
SNT5				AML	AML		
ARG	**Arkhangelos**	**1.92**	**149**	P	**Pn**	**12 17 50.2**	**-0.4**
ARG				AML	AML		
THR9	**Santorini-Faro**	**1.96**	**220**	P	**Pn**	**12 17 51.0**	**-0.3**
KARY	**Karystos**	**1.97**	**275**	P	**Pn**	**12 17 51.9**	**+0.6**
KARY	**Karystos**	**1.97**	**275**	P	**Pn**	**12 17 50.0**	**-1.4**
EZN	**Ezine**	**2.00**	**347**	P	**Pn**	**12 17 51.8**	**-0.1**
EZN				AML	AML		
DION	**Dionisos Attik**	**2.37**	**276**	P	**Pn**	**12 17 57.1**	**+0.2**
DION				AML	AML		
DION	**Dionisos Attik**	**2.37**	**276**	P	**Pn**	**12 17 56.3**	**-0.6**
LIA	**Limnos Island**	**2.43**	**327**	P	**Pn**	**12 17 58.1**	**+0.3**
LIA				AML	AML		
GADA	**Gvkgeada**	**2.45**	**341**	P	**Pn**	**12 17 57.9**	**-0.1**
GADA				AML	AML		
ATHU	**Athens Univers**	**2.48**	**273**	P	**Pn**	**12 17 58.9**	**+0.5**
SMTH	**Samothraki Isl**	**2.81**	**338**	P	**Pn**	**12 18 03.0**	**0.0**
SMTH				AML	AML		
VILL	**Villia**	**2.86**	**277**	P	**Pn**	**12 18 04.2**	**+0.5**
VILL				AML	AML		
IDI	**Anoyia**	**3.05**	**213**	P	**Pn**	**12 18 06.7**	**+0.3**
IDI				AML	AML		
ALN	**Alexandroupoli**	**3.10**	**348**	P	**Pn**	**12 18 06.7**	**-0.2**
LTK	**Loutraki**	**3.12**	**274**	P	**Pn**	**12 18 07.8**	**+0.5**
LTK				AML	AML		
VLI	**Veliai**	**3.38**	**251**	P	**Pn**	**12 18 11.3**	**+0.5**
VLI				AML	AML		
KLV	**Kalavryta, Ach**	**3.77**	**274**	P	**Pn**	**12 18 16.7**	**+0.5**

*IDC **01** 12:36:10.2±0.9,5˚.98S×153˚.98E,h0km,mb3.7/9,*
mbtmp3.7/10,ML3.8/1,MS3.0/2,Error ellipse:
s-maj=28.9km s-min=18.4km az=68.0
*NEIC **01** 12:36:11.5±1.3,5˚.94S±0˚.06×154˚.01E±0˚.09,h10km±1km,*
mb4.3/13,Error ellipse: s-maj=15.2km s-min=8.6km
az=66.0

ISC 01 12:36:15.8±0.6,**5˚.99S**±0˚.08×**154˚.00E**±0˚.08,**h48**km,**n34,**
σ1**9**40/33,**mb3.8**/11,**New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RABL	**Rabaul**	**2.55**	**314**	Pn	**Pn**	**12 36 52.1**	**-2.7**
KRVT	**Keravat (AS076**	**2.58**	**310**	Pn	**Pn**	**12 36 53.1**	**-2.0**
	17nm,0.3s,baz=194,slow=19,SNR=7.0						
KRVT				Sn	**Sn**	**12 37 23.5**	**-1.7**
	48nm,0.3s,baz=149,slow=24,SNR=7.5						
KRVT				LR	LR	12 38 01.7	
	comp=Z,189nm,18.2s,baz=90,slow=44						
	40nm,0.3s						
KRVT				AML	AML		
HNR	**Honiara**	**6.82**	**120**	Pn	**Pn**	**12 37 50.7**	**-2.7**
PMG	**Port Moresby**	**7.58**	**243**	Pn	**Pn**	**12 38 01.5**	**-2.3**
SANVU	**Saraoutou**	**16.01**	**127**	Pn	**Pn**	**12 39 57.0**	**-0.9**
SANVU				IAmb	IAmb	12 40 42.0	
	comp=Z,51nm,1.1s						
KOUNC	**Koumac, New Ca**	**17.59**	**146**		**Pn**	**12 40 17.5**	**-0.1**

KOUNC					IAmb	IAmb	12 40 42.3	
	comp=Z,30nm,1.0s							
TARA	**Tarawa**	**20.26**	**69**	P	**P**	**12 40 45.9**	**-1.5**
TARA					IAmb	IAmb	12 40 50.0	
	comp=Z,28nm,1.5s							
OUENC	**Ouen Island, N**	**20.51**	**144**	P	**P**	**12 40 50.5**	**+0.4**
PINNC	**Pines Island,**	**21.02**	**143**	P	**P**	**12 40 55.2**	**-0.4**
WR8	**Warramunga Arr**	**23.49**	**232**	P	**P**	**12 41 22.1**	**+0.6**
WR8					IAmb	IAmb	12 41 32.4	
	comp=Z,3.6nm,1.1s							
WRA	**Warramunga Arr**	**23.61**	**232**	P	**P**	**12 41 22.9**	**+0.3**
	comp=Z,0.4nm,0.9s,baz=55,slow=9.3,SNR=2.6							
WRA				PcP	**PcP**	**12 45 08.6**	**+1.9**	
	comp=Z,0.3nm,0.7s,baz=49,slow=2.5,SNR=5.2							
	comp=Z,0.4nm,0.9s							
WRA	**Warramunga Arr**	**23.61**	**232**	P	**P**	**12 41 23.5**	**+0.9**
INKA	**Innaminka**	**25.03**	**209**	P	**P**	**12 41 35.5**	**-0.1**
INKA					IAmb	IAmb	12 41 39.6	
	comp=Z,2.2nm,0.9s							
AS31	**Alice Springs**	**26.13**	**226**	P	**P**	**12 41 45.9**	**+0.3**
ASAR	**Alice Springs**	**26.13**	**226**	P	**P**	**12 41 46.0**	**+0.4**
	comp=Z,0.7nm,0.9s,baz=56,slow=9.3,SNR=8.0							
ASAR				PcP	**PcP**	**12 45 12.7**	**+0.4**	
	comp=Z,0.4nm,0.9s,baz=40,slow=2.4,SNR=4.1							
	comp=Z,0.7nm,0.9s							
ASAR	**Alice Springs**	**26.13**	**226**	P	**P**	**12 41 45.5**	**-0.2**
H11S3	**WAKE ISLAND Hy**	**27.36**	**27**	T	T	13 10 24.1		
	baz=206,slow=74							
H11S2	**WAKE ISLAND Hy**	**27.36**	**27**	T	T	13 10 22.2		
	baz=206,slow=74							
H11S1	**WAKE ISLAND Hy**	**27.38**	**27**	T	T	13 10 23.0		
	baz=206							
FITZ	**Fitzroy Crossi**	**30.17**	**244**	P	**P**	**12 42 21.4**	**-0.4**
DAV	**Davao City (W)**	**31.18**	**294**	LR	LR	12 53 40.1		
	comp=Z,35nm,20.3s,baz=185,slow=34							
FORT	**Forrest**	**34.66**	**221**	P	**P**	**12 43 00.4**	**-0.5**
KSRS	**Korea Array**	**49.59**	**333**	P	**P**	**12 45 01.7**	**-0.6**
	comp=Z,0.9nm,0.7s,baz=158,slow=8.3,SNR=4.3							
	comp=Z,0.9nm,0.7s							
SONM	**Songino Array**	**67.96**	**328**	P	**P**	**12 47 11.9**	**+2.0**	
	comp=Z,0.6nm,0.6s,baz=136,slow=5.5,SNR=3.0							
	comp=Z,0.6nm,0.6s							
SONM	**Songino Array**	**67.96**	**328**	P	**P**	**12 47 11.0**	**+1.1**	
SONM					IAmb	IAmb	12 47 27.0	
	comp=Z,3.2nm,1.3s							
MKAR	**Makanchi Array**	**82.00**	**319**	P	**P**	**12 48 32.0**	**+1.2**	
	comp=Z,0.3nm,0.5s,baz=95,slow=7.7,SNR=5.5							
	comp=Z,0.3nm,0.5s							
MKAR	**Makanchi Array**	**82.00**	**319**	P	**P**	**12 48 31.6**	**+0.8**	
ZALV	**Zalesovo Beam**	**82.79**	**326**	P	**P**	**12 48 35.5**	**+0.7**	
	comp=Z,1.0nm,0.7s,baz=93,slow=5.9,SNR=4.9							
	comp=Z,1.0nm,0.7s							
ZALV	**Zalesovo Beam**	**82.79**	**326**	P	**P**	**12 48 35.2**	**+0.4**	
ILAR	**Eielson Array**	**82.81**	**22**	P	**P**	**12 48 36.7**	**+2.0**	
	comp=Z,0.2nm,0.6s,baz=258,slow=6.0,SNR=5.3							
	comp=Z,0.2nm,0.6s							
QSPA	**South Pole Qui**	**83.98**	**180**	P	**P**	**12 48 42.9**	**+2.0**	
	comp=Z,1.0nm,0.7s,baz=288,slow=1.7,SNR=7.3							
	comp=Z,1.0nm,0.7s							
QSPA	**South Pole Qui**	**83.98**	**180**	P	**P**	**12 48 43.1**	**+2.2**	
QSPA					IAmb	IAmb	12 49 21.9	
	comp=Z,4.8nm,1.4s							
KURBB	**Kurchatov Arra**	**85.46**	**322**	P	**P**	**12 48 49.5**	**+1.0**	
	comp=Z,0.5nm,0.7s,baz=102,slow=4.2,SNR=5.7							
	comp=Z,0.5nm,0.7s							
TORD	**Torodi Ar. Bea**	**151.79**	**287**	PKPbc	**PKiKP**	**12 56 07.8**	**+1.0**	
	comp=Z,0.4nm,0.5s,baz=64,slow=2.0,SNR=2.1							

*CNRM **01** 12:50:14.8,36˚.52N×7˚.37W,h23km,ML2.9*
*SFS **01** 12:50:17.3,36˚.68N×7˚.23W,h32km,ML2.7/12,ML2.7/12,*
MLv2.5/12
*MDD **01** 12:50:17.3±0.5,36˚.73N×7˚.24W,h22km,mb_Lg2.6/17,*
Error ellipse: s-maj=5.3km s-min=2.6km az=13.0
*IGIL **01** 12:50:18.9,36˚.67N×7˚.25W,h31km,ML1.8*
*INMG **01** 12:50:18.2±1.3,36˚.69N×7˚.24W,h31km±7km,ML1.8,Error*
ellipse: s-maj=3.1km s-min=2.3km az=41.0,
#DIST_RANGE: LOCAL #IPMA_REGION: Golfo de Cadiz

ISC 01 12:50:15.5±1.2,**36˚.67N**±0˚.03×**7˚.22W**±0˚.02,**h33**km±7km,
n57,σ1**9**19/113,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBDV	**Barranco-do-Ve**	**0.81**	**315**	P	**Pb**	**12 50 31.9**	**+0.5**
PBDV				S	**Sb**	**12 50 41.9**	**-0.1**
PBDV	**Barranco-do-Ve**	**0.81**	**315**	eP	**Pb**	**12 50 31.8**	**+0.5**
PBDV				eS	**Sb**	**12 50 42.1**	**+0.1**
PBDV				IAML		12 50 42.4	
PBDV				IAML		12 50 42.8	
PBDV				IAML		12 50 43.0	
PVAQ	**Vaqueiros**	**0.84**	**332**	P	**Pb**	**12 50 32.3**	**+0.6**
PVAQ				S	**Sn**	**12 50 43.2**	**+0.9**
PVAQ	**Vaqueiros**	**0.84**	**332**	eP	**Pb**	**12 50 32.2**	**+0.5**
PVAQ				eS	**Sb**	**12 50 42.6**	**-0.1**
PVAQ				IAML		12 50 43.1	
PVAQ				IAML		12 50 43.3	
PVAQ				IAML		12 50 43.3	
EGRO	**El Granado**	**0.89**	**346**	P	**Pb**	**12 50 32.8**	**+0.2**
EGRO				S	**Sb**	**12 50 43.8**	**-0.4**
EGRO	**El Granado**	**0.89**	**346**	Pn	**Pb**	**12 50 33.0**	**+0.4**
EGRO				Sn	**Sb**	**12 50 43.6**	**-0.6**
EGRO				IVmb_Lg		12 50 45.0	
ESPR	**Espera**	**1.11**	**79**	P	**Pn**	**12 50 36.1**	**+1.3**
ESPR				S	**Sb**	**12 50 50.6**	**+0.2**
ESPR	**Espera**	**1.11**	**79**	Pn	**Pn**	**12 50 36.6**	**+1.8**
ESPR				Sn	**Sb**	**12 50 50.5**	**+0.2**
ESPR				IVmb_Lg		12 50

PLOUS					IAML			12 51 10.7			
PLOUS					IAML			12 51 12.4			
PLOUS					IAML			12 51 13.6			
EMIJ	**Mijas**	**1.97**	**92**		P		**Pn**	**12 50 47.3**	**+0.7**		
EMIJ					S		**Sn**	**12 51 11.1**	**+1.0**		
EMIJ	**Mijas**	**1.97**	**92**		Pn		**Pn**	**12 50 47.8**	**+1.2**		
EMIJ					Sn		**Sn**	**12 51 12.7**	**+2.5**		
EMIJ					IVmb_Lg			12 51 17.6			
EVO	**Evora**	**1.97**	**341**		P		**Pn**	**12 50 47.3**	**+0.7**		
EVO					S		**Sn**	**12 51 10.1**	**0.0**		
EVO	**Evora**	**1.97**	**341**	*eP*			**Pn**	**12 50 47.9**	**+1.3**		
EVO				*eS*			**Sn**	**12 51 09.5**	**-0.7**		
EVO					IAML			12 51 11.0			
EVO					IAML			12 51 11.0			
EVO					IAML			12 51 11.4			
ECAB	**El Cabril**	**2.01**	**45**		P		**Pn**	**12 50 48.0**	**+0.8**		
ECAB					S		**Sn**	**12 51 09.4**	**-1.8**		
ECAB	**El Cabril**	**2.01**	**45**		Pn		**Pn**	**12 50 47.9**	**+0.7**		
ECAB					Sn		**Sn**	**12 51 10.5**	**-0.7**		
ECAB					IVmb_Lg			12 51 12.5			
EBAD	**Badajoz**	**2.09**	**4**		P		**Pn**	**12 50 49.2**	**+0.9**		
EBAD					S		**Sn**	**12 51 12.4**	**-0.9**		
EBAD	**Badajoz**	**2.09**	**4**		Pn		**Pn**	**12 50 49.3**	**+0.9**		
EBAD					Sn		**Sn**	**12 51 12.4**	**-0.9**		
EBAD					IVmb_Lg			12 51 16.0			
PESTR	**Estremoz**	**2.22**	**352**		P		**Pn**	**12 50 50.7**	**+0.6**		
PESTR					S		**Sn**	**12 51 16.0**	**-0.3**		
PESTR	**Estremoz**	**2.22**	**352**		P		**Pn**	**12 50 51.9**	**+1.8**		
PESTR					S		**Sb**	**12 51 21.8**	**-0.3**		
PESTR	**Estremoz**	**2.22**	**352**	*eP*			**Pn**	**12 50 51.1**	**+1.1**		
PESTR				*eS*			**Sn**	**12 51 15.5**	**-0.9**		
PESTR					IAML			12 51 28.2			
PESTR					IAML			12 51 30.8			
PESTR					IAML			12 51 35.0			
PARRA	**Arraiolos**	**2.24**	**343**	*eP*			**Pn**	**12 50 51.5**	**+1.1**		
PARRA				*eS*			**Sn**	**12 51 16.1**	**-0.9**		
PARRA					IAML			12 51 17.6			
PARRA					IAML			12 51 17.7			
PARRA					IAML			12 51 18.0			
EGOR	**Sierra Gorda,**	**2.53**	**79**		S		**Sn**	**12 51 24.3**	**+0.1**		
EGOR	**Sierra Gorda,**	**2.53**	**79**		Pn		**Pn**	**12 50 56.0**	**+1.5**		
EGOR					Sn		**Sn**	**12 51 25.5**	**+1.3**		
EGOR					IVmb_Lg			12 51 27.7			
PMTG	**Montargil**	**2.53**	**342**	*eP*			**Pn**	**12 50 55.5**	**+1.2**		
PMTG				*eS*			**Sn**	**12 51 23.5**	**-0.5**		
PMTG					IAML			12 51 24.6			
PMTG					IAML			12 51 25.7			
PMTG					IAML			12 51 35.5			
EADA	**Adamuz**	**2.58**	**54**		P		**Pn**	**12 50 56.4**	**+1.4**		
EADA					S		**Sn**	**12 51 24.0**	**-1.3**		
EADA	**Adamuz**	**2.58**	**54**		Pn		**Pn**	**12 50 56.5**	**+1.4**		
EADA					Sn		**Sn**	**12 51 23.9**	**-1.3**		
EADA					IVmb_Lg			12 51 27.1			
PMRV	**Marv??o**	**2.76**	**357**	*eP*			**Pn**	**12 50 58.6**	**+1.1**		
PMRV				*eS*			**Sn**	**12 51 28.1**	**-1.6**		
PMRV					IAML			12 51 30.1			
PMRV					IAML			12 51 30.2			
PMRV					IAML			12 51 30.2			
PMAFR	**Mafra**	**2.81**	**325**		P		**Pn**	**12 50 59.5**	**+1.2**		
PMAFR					S		**Sn**	**12 51 30.9**	**0.0**		
PSARD	**Sardoal**	**3.02**	**346**	*eP*			**Pn**	**12 51 02.5**	**+1.4**		
PSARD				*eS*			**Sn**	**12 51 35.4**	**-0.8**		
PSARD					IAML			12 51 36.6			
PSARD					IAML			12 51 36.7			
PSARD					IAML			12 51 37.4			
PSBE	**So Bento**	**3.11**	**337**	*eP*			**Pn**	**12 51 04.0**	**+1.7**		
PSBE				*eS*			**Sn**	**12 51 37.2**	**-1.0**		
PCBR	**Castelo Branco**	**3.18**	**356**	*eP*			**Pn**	**12 51 04.4**	**+1.2**		
PCBR				*eS*			**Sn**	**12 51 38.1**	**-1.9**		
PCBR					IAML			12 51 39.7			
PCBR					IAML			12 51 40.4			
PCBR					IAML			12 51 40.5			
CIBOR	**Castaar de Ib**	**3.28**	**25**		Pn		**Pn**	**12 51 05.6**	**+0.9**		
CIBOR					Sn		**Sn**	**12 51 41.2**	**-1.4**		
EPLA	**Plasencia**	**3.51**	**14**		Pn		**Pn**	**12 51 09.3**	**+1.5**		
EPLA					Sn		**Sn**	**12 51 48.1**	**-0.1**		
EPLA					IVmb_Lg			12 51 48.8			
PAB	**San Pablo**	**3.66**	**37**		Pn		**Pn**	**12 51 11.3**	**+1.4**		
PAB					Sn		**Sn**	**12 51 49.0**	**-3.0**		
PAB					IVmb_Lg			12 51 49.5			
MD31	**MD31**	**4.29**	**151**		P		**Pn**	**12 51 18.8**	**+0.1**		
MD31					S		**Sn**	**12 52 07.8**	**+0.1**		
MDT	**Midelt**	**4.40**	**150**		P		**Pn**	**12 51 20.5**	**+0.3**		
MDT					S		**Sn**	**12 52 08.9**	**-1.4**		
UCM	**Universidad Co**	**4.79**	**39**		P		**Pn**	**12 51 27.0**	**+1.6**		
UCM					S		**Sn**	**12 52 18.8**	**-1.0**		
ETOB	**Tobarra**	**4.91**	**65**		Pn		**Pn**	**12 51 27.7**	**+0.6**		
ETOB					Sn		**Sn**	**12 52 21.0**	**-1.8**		
ETOB					IVmb_Lg			12 52 22.0			
OUK	**Oukaimeden**	**5.47**	**186**		P		**Pn**	**12 51 34.2**	**-0.8**		
OUK					S		**Sn**	**12 52 34.7**	**-2.3**		
TIO	**Tiouine**	**5.72**	**180**		P		**Pn**	**12 51 39.4**	**+1.1**		
TIO					S		**Sn**	**12 52 39.4**	**-3.6**		
TIO	**Tiouine**	**5.72**	**180**		P		**Pn**	**12 51 38.0**	**-0.3**		
TIO					S		**Sn**	**12 52 41.5**	**-1.5**		
OUZM	**OUZ**	**5.75**	**176**		P		**Pn**	**12 51 39.4**	**+0.6**		
OUZM					S		**Sn**	**12 52 43.2**	**-0.5**		
ETOR	**Torete**	**5.79**	**43**		Pn		**Pn**	**12 51 39.8**	**+0.6**		
ETOR					Sn		**Sn**	**12 52 42.4**	**-2.0**		
ETOR					IVmb_Lg			12 52 43.9			

*IDC **01** 12:57:02.2±0.5,37°.63N×27°.03E, h0km, mb4.0/12, mbtmp3.9/23, ML3.5/8, MS3.2/15, Error ellipse: s-maj=9.0km s-min=8.9km az=121.0*
*ATH **01** 12:57:02.9, 37°.84N×26°.83E, h13km±1km, ML3.8/25, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*ISK **01** 12:57:02.7, 37°.85N×26°.85E, h9km, ML4.1/25*
*MOS **01** 12:57:02.3±0.9, 37°.81N×26°.83E, h16km, mb4.4/11, Error ellipse: s-maj=7.4km s-min=4.5km az=91.9*
*NEIC **01** 12:57:03.8±1.1, 37°.80N±0°.04×26°.88E±0°.06, h10km±1km, mb4.4/14, Error ellipse: s-maj=8.7km s-min=7.1km az=88.0*
*THE **01** 12:57:03.1, 38°N±1°×2°7E±°, h7km±2km, M3.8/30, MLh3.8/30*
*AFAD **01** 12:57:03.0, 37°.85N×26°.86E, h7km±2km, ML4.2*
*GFZ **01** 12:57:04.8±0.2, 38°N±2°×2°7E±°, h10km, M4.3/15, mb4.3/15*

ISC 01 12:57:03.4±0.8,**37°.84N**±0°.01×**26°.84E**±0°.02,**h10**km±5km, **n360**,σ1š20/389,**mb4.2**/26,**MS3.4**/9,**24C-16D**,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res
KRL1	**Karlovasi Samo**	**0.11**	**249**	P	**Pg**	**12 57 06.0**	**-0.2**
KRL1				S	**Sg**	**12 57 08.0**	**-0.1**
KRL1				AML	AML		
DGB	**zmir**	**0.22**	**9**	P	**Pg**	**12 57 07.3**	**-0.6**
DGB				S	**Sg**	**12 57 11.4**	**+0.4**
GMLD	**Gumuldur**	**0.25**	**14**	Pg	**Pg**	**12 57 08.2**	**-0.3**
GMLD				Sg	**Sg**	**12 57 11.5**	**-0.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**114**	P	**Pg**	**12 57 10.2**	**0.0**
GCAM				S	**Sg**	**12 57 15.1**	**+0.4**
GCAM				IAML		12 57 16.0	
	comp=N,4μm,0.5s						
GCAM				IAML		12 57 16.0	
	comp=E,7μm,0.4s						
GCAM	**G?zelcaml?**	**0.34**	**114**	Pg	**Pg**	**12 57 09.9**	**-0.3**
GCAM				Sg	**Sb**	**12 57 15.5**	**-1.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**86**	Pg	**Pg**	**12 57 09.6**	**-0.8**
KUSD				Sg	**Sg**	**12 57 15.2**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**10**	P	**Pg**	**12 57 10.7**	**-0.6**
BEYE				S	**Sg**	**12 57 17.0**	**+0.5**
BEYE				IAML		12 57 21.0	
	comp=N,1μm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**327**	P	**Pg**	**12 57 11.9**	**-0.9**
ZEYE				S	**Sg**	**12 57 19.8**	**+0.6**
ZEYE				IAML		12 57 24.0	
	comp=N,1μm,0.3s						
DDIM	**Aydin, Didim**	**0.49**	**140**	P	**Pg**	**12 57 12.9**	**-0.2**
DDIM				S	**Sb**	**12 57 20.4**	**-1.0**
DDIM				IAML		12 57 21.0	
	comp=N,2μm,0.6s						
DDIM				IAML		12 57 21.0	
	comp=E,3μm,0.5s						
DIDI	**Didim-Aydin**	**0.56**	**145**	Pg	**Pb**	**12 57 14.6**	**-0.7**
DIDI				Sg	**Sb**	**12 57 23.1**	**-0.2**
DIDI				AML	AML		
BLCB	**Balcova**	**0.57**	**16**	P	**Pg**	**12 57 14.0**	**-0.5**
BLCB				S	**Sg**	**12 57 22.1**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**16**	Pg	**Pg**	**12 57 13.8**	**-0.7**
BLCB				Sg	**Sg**	**12 57 22.0**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**51**	P	**Pg**	**12 57 14.3**	**-1.0**
DUVT				S	**Sg**	**12 57 22.5**	**-0.9**
DUVT				IAML		12 57 26.0	
	comp=E,2μm,0.6s						
CESE	**eme**	**0.65**	**319**	Pg	**Pg**	**12 57 15.7**	**-0.3**
CESE				AML	AML		
DAGE	**izmir**	**0.74**	**77**	P	**Pg**	**12 57 17.1**	**-0.6**
DAGE				S	**Sb**	**12 57 27.3**	**-1.3**
DAGE				IAML		12 57 30.0	
	comp=E,1μm,0.3s						
DAGE				IAML		12 57 31.0	
	comp=N,9μm,0.2s						
KRBN	**Karaburun**	**0.79**	**343**	Pg	**Pg**	**12 57 17.9**	**-0.7**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**154**	Pg	**Pb**	**12 57 19.2**	**0.0**
YKAV				AML	AML		
BAGT	**Foa**	**0.82**	**1**	P	**Pg**	**12 57 18.4**	**-0.7**
BAGT				S	**Sn**	**12 57 32.2**	**-1.0**
BAGT				IAML		12 57 33.0	
	comp=N,2μm,0.7s						
BAGT				IAML		12 57 33.0	
	comp=E,2μm,0.7s						
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**12 57 18.6**	**-0.7**
CHOS				S	**Sb**	**12 57 30.6**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**12 57 19.2**	**-0.1**
CHOS	**Chios island**	**0.83**	**312**	Pg	**Pg**	**12 57 18.7**	**-0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**12 57 18.4**	**-0.9**
CHOS				S	**Sb**	**12 57 30.8**	**-0.4**
AYDB	**Zeytinkoy-Aydi**	**0.84**	**82**	Pg	**Pb**	**12 57 19.2**	**-0.9**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.84**	**102**	P	**Pg**	**12 57 19.1**	**-0.5**
AYDN				S	**Sn**	**12 57 32.7**	**-1.1**
AYDN				IAML		12 57 34.0	
	comp=N,8μm,0.6s						
AYDN				IAML		12 57 34.0	
	comp=E,1μm,0.3s						
AYDN	**Tasoluk**	**0.84**	**102**	P	**Pg**	**12 57 19.1**	**-0.5**
BODT	**Bodrum**	**0.86**	**154**	P	**Pg**	**12 57 19.4**	**-0.6**
BODT				S	**Sb**	**12 57 32.2**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**154**	Pg	**Pb**	**12 57 19.9**	**-0.5**
BODT				AML	AML		
FOCM	**Foa**	**0.88**	**354**	Pg	**Pg**	**12 57 19.3**	**-1.0**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.89**	**173**	P	**Pg**	**12 57 20.2**	**-0.3**
KLNA				S	**Sg**	**12 57 31.7**	**-0.2**
KARB	**zmir-Karabur**	**0.89**	**338**	P	**Pg**	**12 57 19.5**	**-1.1**
KARB				S	**Sn**	**12 57 33.8**	**-1.1**
KARB				IAML		12 57 35.0	
	comp=N,1μm,0.6s						
KARB				IAML		12 57 36.0	
	comp=E,7μm,1.1s						
BDRM	**Kayabasi**	**0.91**	**148**	P	**Pb**	**12 57 21.0**	**-0.2**
BDRM				S	**Sb**	**12 57 33.5**	**+0.1**
BDRM				IAML		12 57 36.0	
	comp=N,2μm,0.8s						
BDRM				IAML		12 57 36.0	
	comp=E,1μm,0.5s						
BDRM	**Kayabasi**	**0.91**	**148**	⇓P	**Pb**	**12 57 21.0**	**-0.2**
BDRM				⇑S	**Sb**	**12 57 32.8**	**-0.6**
EAG2	**Marmaro, Chios**	**0.91**	**321**	P	**Pg**	**12 57 20.1**	**-0.9**
EAG2				S	**Sg**	**12 57 31.8**	**-1.1**
MLSB	**Milas**	**0.92**	**126**	Pg	**Pg**	**12 57 19.9**	**-1.2**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.93**	**71**	P	**Pg**	**12 57 20.2**	**-1.1**
IZMR				S	**Sg**	**12 57 32.1**	**-1.2**
IZMR				IAML		12 57 35.0	
	comp=N,6μm,0.9s						
IZMR				IAML		12 57 36.0	
	comp=E,4μm,0.8s						
CAMT	**Merkez**	**0.98**	**22**	P	**Pb**	**12 57 21.9**	**-0.6**
CAMT				S	**Sn**	**12 57 36.7**	**-0.6**
CAMT				IAML		12 57 38.0	
	comp=E,2μm,0.6s						
CAMT				IAML		12 57 42.0	
	comp=N,2μm,1.3s						
ZEDA	**zmir-Bergama**	**1.14**	**9**	P	**Pb**	**12 57 23.7**	**-1.5**
ZEDA				S	**Sn**	**12 57 41.5**	**+0.4**
ZEDA				IAML		12 57 42.0	
	comp=E,6μm,0.7s						
ZEDA				IAML		12 57 44.0	
	comp=N,5μm,0.6s						
NAZL	**Nazilli-Aydin**	**1.16**	**83**	Pn	**Pb**	**12 57 24.8**	**-0.7**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.20**	**91**	P	**Pb**	**12 57 25.0**	**-1.1**
ESEN				S	**Sn**	**12 57 43.6**	**+1.2**
ESEN				IAML		12 57 44.0	
	comp=N,3μm,0.4s						
ESEN				IAML		12 57 47.0	
	comp=E,2μm,0.6s						
GOMA	**Golmarmara-Man**	**1.21**	**44**	Pn	**Pg**	**12 57 26.2**	**-0.5**
GOMA				AML	AML		
DKL	**Dikili**	**1.23**	**2**	Pn	**Pn**	**12 57 25.8**	**-0.9**
DKL				AML	AML		
DKL	**Dikili**	**1.23**	**2**	P	**Pn**	**12 57 25.8**	**-0.9**
DKL				S	**Sb**	**12 57 42.1**	**-0.7**
DAT	**Datca**	**1.25**	**152**	P	**Pn**	**12 57 26.3**	**-0.7**
DAT				AML	AML		
DAT	**Datca**	**1.25**	**152**	Pn	**Pb**	**12 57 26.7**	**-0.5**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.26**	**148**	Pn	**Pb**	**12 57 26.9**	**-0.3**
DATC				AML	AML		
KIRA	**zmir-Kiraz**	**1.28**	**73**	P	**Pn**	**12 57 26.9**	**-0.6**
KIRA				S	**Sg**	**12 57 43.8**	**-1.0**
KIRA				IAML		12 57 45.0	
	comp=N,2μm,0.7s						
KIRA				IAML		12 57 50.0	
	comp=E,2μm,0.6s						
AKS	**Akhisar**	**1.29**	**36**	Pn	**Pg**	**12 57 27.7**	**-0.5**
AKS				AML	AML		
AKHS	**Akhisar**	**1.29**	**36**	P	**Pn**	**12 57 26.4**	**-1.1**
AKHS				S	**Sg**	**12 57 46.8**	**+1.8**
AKHS				IAML		12 57 47.0	
	comp=N,6μm,0.6s						
KTTT	**Salihli**	**1.30**	**49**	P	**Pg**	**12 57 27.8**	**-0.6**
KTTT				S	**Sb**	**12 57 44.0**	**-0.8**
KTTT				IAML		12 57 46.0	
	comp=N,8μm,0.7s						
YER	**Yerkesik**	**1.34**	**121**	P	**Pn**	**12 57 27.6**	**-0.7**
YER				S	**Sg**	**12 57 46.3**	**-0.4**
YER				AML	AML		
YER	**Yerkesik**	**1.34**	**121**	Pn	**Pn**	**12 57 27.6**	**-0.7**
YER				AML	AML		
ASTA	**Astypalaia**	**1.35**	**197**	P	**Pb**	**12 57 28.7**	**0.0**
ASTA				S	**Sb**	**12 57 45.4**	**-0.6**
ASTA				AML	AML		
TNSA	**Tinos**	**1.36**	**258**	P	**Pn**	**12 57 26.6**	**-1.9**
TNSA				S	**Sb**	**12 57 44.3**	**-2.2**
NAX1	**Naxos Island**	**1.38**	**238**	P	**Pn**	**12 57 28.0**	**-0.6**
NAX1				S	**Sn**	**12 57 46.2**	**-0.8**
NAX1				AML	AML		
SOMA	**Soma-Manisa**	**1.43**	**22**	Pn	**Pb**	**12 57 29.8**	**-0.3**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.47**	**355**	P	**Pn**	**12 57 29.4**	**-0.6**
AYVA				S	**Sg**	**12 57 52.3**	**+1.4**
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**12 57 29.2**	**-0.9**
PRK				AML	AML		
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**12 57 28.9**	**-1.1**
PRK				S	**Sn**	**12 57 48.9**	**-0.4**
GORD	**Gordes-Manisa**	**1.50**	**44**	Pn	**Pb**	**12 57 30.4**	**-1.0**
GORD				AML	AML		
MANT	**Manisa**	**1.50**	**64**		**Pn**	**12 57 29.5**	**-1.1**
TURN	**Turunc**	**1.54**	**133**	Pn	**Pn**	**12 57 30.1**	**-0.8**
TURN				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.69**	**102**	⇓P	**Pn**	**12 57 32.6**	**-0.4**
TAVA				⇓S	**Sn**	**12 57 54.3**	**-0.4**
CMBO	**Columbo, Santo**	**1.78**	**220**	P	**Pn**	**12 57 34.7**	**+0.5**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.78**	**220**	P	**Pn**	**12 57 33.4**	**-0.8**
YAYO	**Edremit-Balk**	**1.78**	**6**	Pn	**Pn**	**12 57 34.2**	**0.0**
YAYO				AML	AML		
THR2	**Thira island,**	**1.79**	**219**	P	**Pn**	**12 57 34.3**	**0.0**
THR8	**Santorini-Mono**	**1.79**	**218**	P	**Pn**	**12 57 32.9**	**-1.5**
THERA	**Ancient Thera,**	**1.83**	**217**	P	**Pb**	**12 57 36.5**	**-0.4**
THERA	**Ancient Thera,**	**1.83**	**217**	P	**Pn**	**12 57 33.2**	**-1.6**
THERA				AML	AML		
THR3	**Thira Island,**	**1.83**	**219**	P	**Pn**	**12 57 33.8**	**-1.1**
SNT5	**Nea Kammeni, S**	**1.84**	**219**	P	**Pn**	**12 57 33.8**	**-1.2**
THR5	**Thira Island,**	**1.85**	**221**	P	**Pn**	**12 57 34.6**	**-0.6**
KARY	**Karystos**	**1.91**	**277**	P	**Pn**	**12 57 34.8**	**-1.2**
KARY	**Karystos**	**1.91**	**277**	P	**Pn**	**12 57 34.8**	**-1.2**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**12 57 35.6**	**-0.6**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**12 57 35.5**	**-0.6**
ARG	**Arkhangelos**	**1.92**	**147**		**Pn**	**12 57 35.5**	**-0.6**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**12 57 35.5**	**-0.6**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**12 57 35.1**	**-1.0**
EZNE	**Ezine-Canakkal**	**1.95**	**349**	Pn	**Pn**	**12 57 36.9**	**+0.3**
BALB	**Balikesir**	**1.98**	**24**		**Pn**	**12 57 36.9**	**0.0**
BALB	**Balikesir**	**1.98**	**24**	Pn	**Pn**	**12 57 37.3**	**+0.4**
BALB				AML	AML		
BALB	**Balikesir**	**1.98**	**24**	P	**Pn**	**12 57 37.5**	**+0.6**
BALY	**Balya**	**2.00**	**18**	P	**Pn**	**12 57 36.6**	**-0.6**
EZN	**Ezine**	**2.03**	**349**	P	**Pn**	**12 57 37.0**	**-0.6**
EZN				AML	AML		
EZN	**Ezine**	**2.03**	**349**	P	**Pn**	**12 57 38.5**	**+0.9**
MILOS	**Milos**	**2.21**	**241**	P	**Pn**	**12 57 39.0**	**-1.2**
EFSA	**Agios Efstrati**	**2.23**	**320**	P	**Pn**	**12 57 40.6**	**+0.1**
EFSA				AML	AML		
MHLO	**Agia Marina, M**	**2.26**	**240**	P	**Pn**	**12 57 39.7**	**-1.1**
KYMI	**Kymi, Euboea I**	**2.30**	**291**	P	**Pn**	**12 57 41.0**	**-0.4**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.30**	**291**	P	**Pn**	**12 57 40.7**	**-0.7**
KARP	**Karpathos**	**2.30**	**173**	P	**Pn**	**12 57 40.3**	**-1.1**
KARP				AML	AML		
KARP	**Karpathos**	**2.30**	**173**		**Pn**	**12 57 40.5**	**-0.9**
KARP	**Karpathos**	**2.30**	**173**	P	**Pb**	**12 57 45.0**	**0.0**
KARP				AML	AML		
KARP	**Karpathos**	**2.30**	**173**	P	**Pb**	**12 57 44.1**	**-0.9**
KARP	**Karpathos**	**2.30**	**173**	P	**Pn**	**12 57 40.3**	**-1.1**
KARP				AML	AML		
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**12 57 40.7**	**-0.9**
DION				AML	AML		
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**12 57 40.6**	**-0.9**
PTL	**Penteli**	**2.36**	**276**	P	**Pn**	**12 57 41.4**	**-0.9**
PTL				AML	AML		
PTL	**Penteli**	**2.36**	**276**	P	**Pn**	**12 57 41.3**	**-0.9**
VLY	**Voula,Athens**	**2.41**	**271**	P	**Pn**	**12 57 42.1**	**-0.9**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.41**	**271**	P	**Pn**	**12 57 42.0**	**-0.9**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.42**	**274**	P	**Pn**	**12 57 42.1**	**-1.0**
ATHU	**Athens Univers**	**2.42**	**274**	P	**Pn**	**12 57 42.0**	**-1.0**
ATHP	**Athens-Neo Psi**	**2.43**	**275**	P	**Pn**	**12 57 42.6**	**-0.5**
ATHP				AML	AML		
LIA	**Limnos Island**	**2.43**	**328**	P	**Pn**	**12 57 42.9**	**-0.3**
LIA				AML	AML		
LIA	**Limnos Island**	**2.43**	**328**	P	**Pn**	**12 57 42.6**	**-0.5**
LIA				AML	AML		
GADA	**Gvkgeada**	**2.46**	**343**	P	**Pn**	**12 57 43.4**	**-0.1**
GADA				AML	AML		
ATH	**Athens Observa**	**2.47**	**274**	P	**Pn**	**12 57 43.2**	**-0.6**
ATH				AML	AML		
ATH	**Athens Observa**	**2.47**	**274**	P	**Pn**	**12 57 43.1**	**-0.6**
ATH	**Athens Observa**	**2.47**	**274**	P	**Pn**	**12 57 43.1**	**-0.6**
ATH				AML	AML		
STFN	**Stefani**	**2.63**	**278**	P	**Pn**	**12 57 45.5**	**-0.4**
STFN				AML	AML		
STFN	**Stefani**	**2.63**	**278**	P	**Pn**	**12 57 45.0**	**-0.9**
STFN				AML	AML		
AOS	**Alonnisos**	**2.68**	**301**	P	**Pn**	**12 57 46.0**	**-0.6**
AOS				AML	AML		
ELL	**Elmali**	**2.68**	**113**	P	**Pn**	**12 57 47.3**	**+0.6**
ELL	**Elmali**	**2.68**	**113**		**Pn**	**12 57 47.3**	**+0.6**
ELL	**Elmali**	**2.68**	**113**	P	**Pn**	**12 57 46.2**	**-0.4**
AOS2	**Alonissos-2**	**2.69**	**300**	P	**Pn**	**12 57 46.2**	**-0.6**
AOS2				AML	AML		
BAND	**Balkesir-Ban**	**2.70**	**21**	⇑P	**Pn**	**12 57 47.9**	**+1.1**
AKAS	**Kas**	**2.73**	**125**		**Pn**	**12 57 47.9**	**+0.4**
AKAS	**Kas**	**2.73**	**125**	P	**Pn**	**12 57 48.9**	**+1.5**
MET4	**Agioi Theodoro**	**2.74**	**267**	P	**Pn**	**12 57 46.6**	**-0.7**
MET4				AML	AML		
MET1	**Methana Town,**	**2.75**	**266**	P	**Pn**	**12 57 46.8**	**-0.8**
MET1				AML	AML		
NPS	**Neapolis**	**2.75**	**201**	P	**Pn**	**12 57 46.7**	**-1.0**
NPS				AML	AML		
NPS	**Neapolis**	**2.75**	**201**	P	**Pn**	**12 57 46.6**	**-1.0**
NPS	**Neapolis**	**2.75**	**201**	P	**Pn**	**12 57 46.0**	**-1.6**
NPS				AML	AML		
ZKR	**Zakros**	**2.76**	**191**	P	**Pb**	**12 57 53.7**	**+0.8**
ZKR	**Zakros**	**2.76**	**191**	P	**Pn**	**12 57 46.4**	**-1.3**
MET5	**Makryloggos,Me**	**2.77**	**267**	P	**Pn**	**12 57 47.0**	**-0.8**
MET6	**Megalochori,Me**	**2.77**	**266**	P	**Pn**	**12 57 46.6**	**-1.3**
MET2	**Kameni Chora,**	**2.79**	**266**	P	**Pn**	**12 57 46.9**	**-1.3**
MET2				AML	AML		
VILL	**Villia**	**2.81**	**278**	P	**Pn**	**12 57 47.8**	**-0.5**
VILL				AML	AML		
SMTH	**Samothraki Isl**

SRS	Serrai	4.13	324	P		Pn	12 58 08.4	+1.9
RZN	Rozhen	4.18	338	P		Pn	12 58 07.2	-0.1
RZN	Rozhen	4.18	338	P		Pn	12 58 07.6	+0.2
DIM	Dimitrovgrad	4.31	347	P		Pn	12 58 09.3	+0.3
MMB	Musomishta	4.41	328	P		Pn	12 58 10.9	+0.6
GRG	Griva	4.64	314	P		Pn	12 58 14.9	+1.4
VAY	Valandovo	4.79	318	*i* Pn		Pg	12 58 32.5	-2.7
KKB	Krupnik	4.92	326	P		Pn	12 58 19.9	+2.6
ELND	Elena	5.14	352	⇑P		Pn	12 58 20.4	0.0
VTS	Vitosha	5.51	331	P		Pn	12 58 26.8	+1.1
LOZB	Loznitsa	5.53	358	⇓P		Pn	12 58 25.8	+0.1
BR131	Keskin Array S	5.64	68	*i* P		Pn	12 58 28.1	+0.8
BR131	Keskin Array S	5.64	68			Pn	12 58 27.3	-0.1
BRTR	Keskin Array B	5.64	68	Pn		Pn	12 58 28.2	+0.8
	1.0nm,0.3s,baz=252,slow=14,SNR=18 6.7nm,0.6s							
BRTR				AML		AML		
BRTR	Keskin Array B	5.64	68			Pn	12 58 27.3	-0.1
KIRS	Kirsehir-Merke	5.70	75	⇓P		Pn	12 58 28.1	-0.1
OHR	Ohrid	5.70	307	*i* Pn		Pn	12 58 24.6	-3.6
RAZG	Razgrad	5.73	358	⇑P		Pn	12 58 29.7	+1.2
PLVB	Pleven	5.79	344	⇓P		Pn	12 58 31.0	+1.6
CSS	Mathiatis	5.97	117			Pn	12 58 31.7	-0.1
CSS	Mathiatis	5.97	117	P		Pb	12 58 40.0	-7.5
	0.1nm30nm,0.7s							
CSS				AML		AML		
ILGA	Ilgaz	6.21	57			Pn	12 58 36.0	+0.6
PHP	Peshkopia	6.25	310	P		Pn	12 58 40.1	+4.4
	comp=Z,14nm,0.8s							
ICOR	Ion Corvin	6.32	6	⇑P		Pn	12 58 37.1	+0.5
BLKB	Belogradchik	6.59	333	⇑P		Pn	12 58 40.7	+0.3
HARR	Harsova	6.90	6	P		Pn	12 58 45.3	+0.9
HARR	Harsova	6.90	6	⇑P		Pn	12 58 45.4	+0.9
BOVS	Bovan	6.98	328	⇓P		Pn	12 58 47.4	+1.7
CY604	RAF Akrotiri,	7.12	117			Pn	12 58 46.7	-0.6
CFR	Carcaliu	7.40	7	P		Pn	12 58 52.9	+1.5
CFR	Carcaliu	7.40	7	⇑P		Pn	12 58 52.9	+1.5
PDG	Podgorica	7.40	311			Pn	12 58 52.0	+0.6
PDG	Podgorica	7.40	311	⇓P		Pn	12 58 52.7	+1.3
PDG	Podgorica	7.40	311	P		Pn	12 58 52.3	+0.8
	comp=Z,17nm,1.1s							
TLCR		7.49	11	P		Pn	12 58 53.1	+0.5
TLCR		7.49	11	⇑P		Pn	12 58 53.1	+0.5
NEHR	Nehoiu	7.59	357	⇑P		Pn	12 58 55.5	+1.4
MLR	Muntele Rosu	7.68	355	Pn		Pn	12 58 57.2	+1.9
	comp=Z,0.3nm,0.3s,baz=90,slow=20,SNR=17 comp=Z,11nm,0.7s							
MLR				AML		AML		
MLR	Muntele Rosu	7.68	355			Pn	12 58 56.5	+1.2
MLR	Muntele Rosu	7.68	355	⇑P		Pn	12 58 56.6	+1.2
MLR	Muntele Rosu	7.68	355	P		Pn	12 58 59.0	+3.6
	comp=Z,36nm,1.4s							
VOIR		7.71	351	P		Pn	12 58 56.2	+0.5
VOIR		7.71	351	⇑P		Pn	12 58 56.2	+0.5
VOIR		7.71	351	P		Pn	12 58 58.6	+2.8
	comp=Z,14nm,0.9s							
HERR	Herculane	7.78	336	⇑P		Pn	12 58 57.2	+0.5
MDVR	Moldovita	7.94	333	⇓P		Pn	12 58 59.5	+0.7
LOT	Lotru	7.94	344	⇓P		Pn	12 59 00.8	+1.8
PLOR	Plostina	8.01	359	P		Pn	12 59 01.4	+1.6
PLOR	Plostina	8.01	359	⇑P		Pn	12 59 01.4	+1.6
COVR	Voineasa-Covas	8.02	357	⇑P		Pn	12 59 01.7	+1.8
TIP	Timpagrande	8.02	283			Pn	12 59 01.4	+1.4
TIP	Timpagrande	8.02	283	⇓P		Pn	12 59 01.1	+1.1
TIP	Timpagrande	8.02	283	P		Pn	12 59 01.6	+1.6
	comp=Z,30nm,1.1s							
VRI	Vrincioaia	8.02	359	P		Pn	12 59 01.5	+1.5
VRI	Vrincioaia	8.02	359	⇑P		Pn	12 59 01.6	+1.5
DOPR	Dopca	8.20	353	⇑P		Pn	12 59 03.2	+0.8
TURR	Turia	8.23	356	⇓P		Pn	12 59 04.5	+1.6
OZUR		8.29	355	⇑P		Pn	12 59 04.8	+1.1
MMAI	Mount Meron Ar	8.48	122	Pn		Pn	12 59 02.6	-3.7
	comp=Z,2.2nm,0.3s,baz=334,slow=17,SNR=9.4							
MMAI				Sn		Sn	13 00 31.5	-11
	comp=Z,11nm,0.3s,baz=252,slow=27,SNR=8.7							
MDB	Medias	8.50	348	P		Pn	12 59 07.8	+1.3
MDB	Medias	8.50	348	⇓P		Pn	12 59 07.8	+1.3
DEV	Deva	8.56	341	P		Pn	12 59 07.8	+0.5
	comp=Z,38nm,1.0s							
CEL	Celeste	8.65	276			Pn	12 59 10.2	+1.6
CEL	Celeste	8.65	276	P		Pn	12 59 12.5	+3.9
	comp=Z,14nm,0.8s							
SURR	Surduc	8.66	338	⇑P		Pn	12 59 08.9	+0.2
TESR	Tescani	8.67	359	⇑P		Pn	12 59 09.9	+1.1
TESR	Tescani	8.67	359	P		Pn	12 59 09.3	+0.4
	comp=Z,25nm,0.7s							
BZS	Buzias	8.70	335	P		Pn	12 59 09.2	0.0
BZS	Buzias	8.70	335	⇑P		Pn	12 59 09.3	0.0
BZS	Buzias	8.70	335	P		Pn	12 59 12.0	+2.8
	comp=Z,19nm,1.0s							
CUC	Castrocucco	8.86	287			Pn	12 59 13.1	+1.6
CUC	Castrocucco	8.86	287	P		Pn	12 59 14.7	+3.2
	comp=Z,13nm,1.2s							
MARCO	Tramutola	8.93	289	P		Pn	12 59 16.5	+4.1
	comp=Z,12nm,0.7s							
ACER	Acerenza	8.95	293			Pn	12 59 15.0	+2.3
QRNJ	Al-Qirein	9.02	125	P		Pn	12 59 15.0	+1.4
	comp=Z,14nmcomp=Z,31μmcomp=Z,2μm,0.7s							
QRNJ				AML		AML		
BIZ	Bicaz	9.11	357	⇓P		Pn	12 59 15.7	+0.8
SIRR	Siria	9.26	337	⇓P		Pn	12 59 17.5	+0.6
KZIT	Kziot	9.31	136	P		Pn	12 59 19.2	+1.5
	comp=Z,91nm,0.8s							
KZIT	Kziot	9.31	136	P		Pn	12 59 16.2	-1.5
	comp=Z,92nm,0.8s							
BURAR	Bucovina Array	9.85	354	P		Pn	12 59 25.7	+0.7
BURAR	Bucovina Array	9.85	354	Pn		Pn	12 59 26.6	+1.5
BURAR	Bucovina Array	9.85	354	⇑P		Pn	12 59 25.8	+0.7
BUR08	Bucovina Ar. S	9.88	354			Pn	12 59 26.4	+0.9
ASF	Jabal al Asfar	9.96	122	Pn		Pn	12 59 23.2	-3.9
	comp=Z,0.7nm,0.3s,baz=285,slow=12,SNR=5.8							
ASF				Sn		Sn	13 01 09.4	-10
	comp=Z,0.3nm,0.3s,baz=114,slow=20,SNR=1.2							
ASF				LR		LR	13 03 52.9	
	comp=Z,67nm,19.4s,baz=273,slow=42 comp=Z,1.7nm,0.5s							
ASF				AML		AML		
PAOL	Paolisi	10.02	292			Pn	12 59 27.7	+0.4
BLY	Banja Luka	10.02	317			Pn	12 59 28.9	+1.6
BLY	Banja Luka	10.02	317	P		Pn	12 59 29.7	+2.4
	comp=Z,12nm,1.3s							
MORH	Mrgy, Hungar	10.35	327	P		Pn	12 59 33.9	+2.1
	comp=Z,7.6nm,2.2s							
EIL	Elat	10.57	138	Pn		Pn	12 59 30.1	-4.9
	comp=Z,1.5nm,0.3s,baz=344,slow=14,SNR=5.7							
EIL				Sn		Sn	13 01 20.1	-13
	comp=Z,0.4nm,0.3s,baz=343,slow=14,SNR=2.1							
EIL				LR		LR	13 05 54.2	
	comp=Z,73nm,19.8s,baz=280,slow=52 comp=Z,4.2nm,0.6s							
EIL				AML		AML		
EIL	Elat	10.57	138	P		Pn	12 59 35.6	+0.7
	comp=Z,16nm,0.7s							
AQU	L'Aquila	11.24	298	P		Pn	12 59 45.0	+0.9
AQU	L'Aquila	11.24	298	Pn		Pn	12 59 45.0	+0.9
PSZ	Piszkesteto	11.29	335	P		Pn	12 59 45.9	+1.2
PSZ	Piszkesteto	11.29	335			Pn	12 59 45.9	+1.2
PSZ	Piszkesteto	11.29	335	P		Pn	12 59 45.5	+0.8
	comp=Z,9.4nm,0.9s							
MPLH	Magyarpolny	11.57	327	P		Pn	12 59 51.4	+2.8
	comp=Z,12nm,1.1s							
NRCA	Norcia	11.60	300			Pn	12 59 50.0	+0.9
FDMO	Fiordimonte	11.69	301			Pn	12 59 50.4	+0.2
ARSA	Arzberg	12.56	322	Pn		Pn	13 00 02.8	+0.7
AKASG	Malin Array Be	12.97	7	Pn		Pn	13 00 10.9	+3.2
	comp=Z,0.2nm,0.3s,baz=197,slow=13,SNR=1.7							
AKASG				LR		LR	13 05 50.6	
	comp=Z,75nm,19.2s,baz=228,slow=40							
KIV	Kislovodsk	13.45	58	*eP*		Pn	13 00 15.3	+1.0
KIV				pmax		pmax		
	comp=Z,7.0nm,1.0s							
VRAC	Vranov	13.65	330	Pn		P	13 00 21.8	-4.0
	comp=Z,0.2nm,0.3s,baz=72,slow=4.3,SNR=1.5							
VRAC				LR		LR	13 05 40.9	
	comp=Z,76nm,19.2s,baz=144,slow=37 comp=Z,0.8nm,0.2s							
VRAC				AML		AML		
CTI	Castel Tesino	13.95	311	P		Pn	13 00 20.8	-0.4
CTI	Castel Tesino	13.95	311			Pn	13 00 20.8	-0.4
TREC	Trest	14.08	328	P		P	13 00 26.6	-4.1
	comp=Z,6.5nm,1.3s							
GNI	Garni	14.12	75	LR		LR	13 05 37.6	
	comp=Z,49nm,20.9s,baz=280,slow=37							
KEST	Kesra	14.18	267	Pn		Pn	13 00 27.1	+2.8
	comp=Z,0.2nm,0.3s,baz=25,slow=17,SNR=9.1 comp=Z,1.4nm,0.6s							
KEST				AML		AML		
KEST	Kesra	14.18	267	Pn		Pn	13 00 25.1	+0.8
CKRC	Cesky Krumlov	14.25	324	*eP*		P	13 00 37.9	+5.4
CKRC	Cesky Krumlov	14.25	324	*eP*		P	13 00 37.9	+5.4
GEC2	GERESS Array S	14.55	323	Pn		Pn	13 00 30.6	+1.3
GERES	GERESS Array B	14.55	323	Pn		P	13 00 34.4	-1.5
	baz=137,slow=11,SNR=13							
GERES				LR		LR	13 07 27.9	
	comp=Z,116nm,18.7s,baz=176,slow=42 comp=Z,0.3nm,0.5s							
GERES	GERESS Array B	14.55	323	Pn		Pn	13 00 30.0	+0.7
DPC	Dobruska-Polom	14.59	332	*eP*		P	13 00 41.2	+4.8
DPC	Dobruska-Polom	14.59	332	*eP*		P	13 00 41.2	+4.8
ZVC	Zvikov	14.75	326	*eP*		P	13 00 43.2	+5.1
KHC	Kasperske Hory	14.81	324	*eP*		P	13 00 38.5	-0.3
KHC	Kasperske Hory	14.81	324	*eP*		P	13 00 38.5	-0.3
PRU	Pruhonice	15.01	328	*eP*		P	13 00 42.4	+1.5
PRU	Pruhonice	15.01	328	*eP*		P	13 00 42.4	+1.5
FUORN	Ofenpass-Fuorn	15.07	311	Pn		Pn	13 00 37.3	+0.7
DAVOX	Davos/Dischmat	15.38	311	Pn		P	13 00 42.8	-2.5
	comp=Z,0.1nm,0.3s,baz=150,slow=18,SNR=2.8							
DAVOX				LR		LR	13 07 36.2	
	comp=Z,209nm,18.6s,baz=86,slow=41 comp=Z,1.2nm,0.7s							
DAVOX				AML		AML		
BRG	Berggiesshubel	15.93	329	*eP*		P	13 00 56.4	+5.2
BRG				Amp			13 00 59.3	
	comp=Z,6.6nm,1.2s							
SUW	Suwalki	16.37	352	P		Pn	13 00 53.7	+0.5
SUW	Suwalki	16.37	352	Pn		Pn	13 00 53.6	+0.5
CLL	Collm	16.65	328	*eP*		P	13 01 08.0	+8.9
CLL	Collm	16.65	328	*ePP*		P	13 01 08.0	+8.9
CLL				L		L	13 06 00.0	
MNK	Minsk	16.68	2	*i* P		Pn	13 00 57.3	+0.2
MNK				*i* S		Sn	13 04 03.7	+1.4
MNK				pmax		pmax		
	comp=E,17nm,0.7s							
MNK				pmax		pmax		
	comp=N,14nm,0.9s							
MNK				pmax		pmax		
	comp=Z,26nm,0.9s							
MNK				MLR		MLR		
	comp=Z,121nm,18.0s							
MNK				MLR		MLR		
	comp=N,53nm,14.0s							
MNK				MLR		MLR		
	comp=E,41nm,11.0s							
MNK	Minsk	16.68	2	*i* P		Pn	13 00 57.4	+0.2
	comp=E,17nm,0.7s							
MNK				*i* P		Pn	13 00 57.4	+0.2
	comp=N,14nm,0.9s							
MNK				*i* P		Pn	13 00 57.4	+0.2
	comp=Z,26nm,0.9s,baz=182							
MNK				*i* PP		PnPn	13 01 06.8	+0.5
MNK				*i* S		Sn	13 04 03.7	+1.4
MNK				*i* SS		SnSn	13 04 18.3	+2.8
MNK				*i* LQ		LQ	13 05 51.2	
MNK				*i* LR		LR	13 07 12.3	
MNK				*i* LRM		MLR	13 07 57.3	
	comp=Z,121nm,17.5s							
MNK				*i* LRM		MLR	13 08 00.4	
	comp=N,53nm,14.3s							
MNK				*i* LRM		MLR	13 08 46.0	
	comp=E,41nm,11.2s							
NACGM	Naroch	17.07	360	*eP*		P	13 01 05.3	+1.6
	comp=N,22nm,1.1s							
OBN	Obninsk	18.50	18	⇑*eP*		Pn	13 01 19.5	-0.1
OBN				pmax		pmax		
	comp=Z,33nm,1.8s							
OBN				MLR		MLR		
	comp=Z,101nm,16.0s							
FINES	FINESS Array B	23.64	359	P		P	13 02 17.1	+2.6
	comp=Z,3.7nm,0.9s,baz=156,slow=7.2,SNR=4.1							
FINES				LR		LR	13 11 50.4	
	comp=Z,68nm,20.9s,baz=248,slow=37 comp=Z,3.7nm,0.9s							
FIA1	FINESS Array S	23.64	359	P		P	13 02 14.9	+0.5
TAM	Tamanrasset	23.66	237	P		P	13 02 14.3	-0.9
TAM	Tamanrasset	23.66	237	P		P	13 02 14.2	-0.9
	comp=Z,3.5nm,1.0s							
HFS	Hagfors	23.83	344	LR		LR	13 14 05.1	
	comp=Z,82nm,20.5s,baz=169,slow=42							
ESDC	Sonseca Array	24.04	284	P		P	13 02 21.2	+2.6
	comp=Z,2.1nm,1.0s,baz=84,slow=10,SNR=7.3 comp=Z,2.1nm,1.0s							
KLMR	Klimovskoe	24.39	15	*eP*		P	13 02 22.4	+0.9
KLMR				pmax		pmax		
	comp=Z,11nm,1.6s							
NOA	NORSAR Array B	25.21	342	P		P	13 02 31.2	+2.1
	comp=Z,1.5nm,0.9s,baz=159,slow=9.9,SNR=3.3							
NOA				LR		LR	13 14 24.2	
	comp=Z,82nm,18.5s,baz=155,slow=41 comp=Z,1.5nm,0.9s							
MD01	Midelt array s	26.17	269	P		P	13 02 37.9	-0.3
MD31	MD31	26.17	269	P		P	13 02 37.8	-0.3
MD31				IAmb		IAmb	13 02 50.4	
	comp=Z,5.0nm,1.1s							
AB31	Akbulak array	26.36	54	P		P	13 02 39.0	-0.5
ARTI	Arti	28.00	38	*i* P		P	13 02 54.6	+0.4
ARTI				pmax		pmax		
	comp=Z,7.0nm,1.5s							
ARTI	Arti	28.00	38	P		P	13 02 53.8	-0.4
ARTI				IAmb		IAmb	13 02 57.6	
	comp=Z,3.6nm,0.9s							
ARCES	ARCESS Array B	31.77	359	LR		LR	13 16 18.4	
	comp=Z,70nm,18.9s,baz=206,slow=36							
TORD	Torodi Ar. Bea	33.26	229	P		P	13 03 41.0	+0.1
	comp=Z,5.9nm,1.1s,baz=36,slow=8.2,SNR=14 comp=Z,5.9nm,1.1s							
AAK	Ala-Archa	36.31	67	LR		LR	13 20 15.4	
	comp=Z,33nm,20.1s,baz=235,slow=38							
AAK	Ala-Archa	36.31	67	*i* P		P	13 04 07.6	+0.3
AAK				pmax		pmax		
	comp=Z,2.0nm,0.9s							
NIL	Nilore	37.60	82	P		P	13 04 18.3	0.0
NIL				pmax		pmax		
	comp=Z,13nm,1.2s							
NIL	Nilore	37.60	82	P		P	13 04 18.3	0.0
NIL				IAmb		IAmb	13 04 20.0	
	comp=Z,13nm,1.1s							
NRN	Naryn	37.62	69	P		P	13 04 18.4	-0.3
NRN				pmax		pmax		
	comp=Z,8.0nm,1.4s							
NRN	Naryn	37.62	69	P		P	13 04 18.4	-0.3
NRN				IAmb		IAmb	13 04 23.6	
	comp=Z,8.3nm,1.4s							
KURBB	Kurchatov Arra	38.41	54	P		P	13 04 25.1	+0.2
	comp=Z,1.3nm,0.8s,baz=280,slow=8.3,SNR=6.8 comp=Z,1.3nm,0.8s							
KURK	Kurchatov	38.47	53	*i* P		P	13 04 24.2	-1.1
KURK				pmax		pmax		
	comp=Z,4.0nm,1.0s							
MK31	Makanchi Array	41.21	59	*i* P		P	13 04 48.1	-0.1
MKAR	Makanchi Array	41.21	59	P		P	13 04 48.3	+0.1
	comp=Z,1.4nm,0.8s,baz=279,slow=6.6,SNR=8.7 comp=Z,1.4nm,0.8s							
MKAR	Makanchi Array	41.21	59	*i* P		P	13 04 48.5	+0.3
MKAR				pmax		pmax		
	comp=Z,1.0nm,0.8s							
MKAR	Makanchi Array	41.21	59	P		P	13 04 48.0	-0.2
ZALV	Zalesovo Beam	42.20	48	P		P	13 04 56.3	+0.2
	comp=Z,0.8nm,0.6s,baz=260,slow=8.3,SNR=4.5 comp=Z,0.8nm,0.6s							
ZALV	Zalesovo Beam	42.20	48	P		P	13 04 55.7	-0.4
DBIC	Dimbokro	42.30	231	P		P	13 04 57.1	-0.3
	comp=Z,3.4nm,0.6s,baz=53,slow=8.3,SNR=9.0 comp=Z,3.4nm,0.6s							
DBIC	Dimbokro	42.30	231	P		P	13 04 56.8	-0.5
DBIC				pmax		pmax		
	comp=Z,13nm,1.2s							
DBIC	Dimbokro	42.30	231	P		P	13 04 56.8	-0.5
DBIC				IAmb		IAmb	13 04 57.8	
	comp=Z,13nm,1.1s							
DGZ	Jazzator, Alta	44.19	54	*i* P		P	13 05 11.0	-1.5
DGZ				pmax		pmax		
	comp=Z,5.0nm,1.8s							
WMQ	Urumqi	45.53	62	*eP*		P	13 05 25.3	+2.2
WMQ				pmax		pmax		
	comp=Z,12nm,0.7s							
EVN	Everest	50.56	83	P		P	13 06 02.7	-0.3
EVN				IAmb		IAmb	13 06 03.4	
	comp=Z,2.7nm,0.7s							
SHL	Shillong	55.67	83	P		P	13 06 39.3	-0.9
SHL	Shillong	55.67	83	P		P	13 06 39.2	-0.9
TSUM	Tsumeb	57.40	190	LR		LR	13 31 46.6	
	comp=Z,34nm,19.6s,baz=337,slow=36							
MATP	Matopo	57.97	178	LR		LR	13 34 43.7	
	comp=Z,35nm,18.4s,baz=270,slow=39							
TIXI	Tiksi	58.19	21	*i* P		P	13 06 55.6	-1.4
TIXI				pmax		pmax		
	comp=Z,4.0nm,1.4s							
MORE	Moreh	58.24	83	P		P	13 06 58.8	+0.6
MORE				IAmb		IAmb	13 07 00.5	
	comp=Z,4.8nm,0.9s							
LBTB	Lobatse	62.53	181	LR		LR	13 36 05.2	
	comp=Z,27nm,20.7s,baz=338,slow=38							
HHC	Hu-ho-hao-te	63.05	58	*eP*		P	13 07 31.4	+0.5
HHC				pmax		pmax		
	comp=Z,18nm,0.6s							
HHC				pmax		pmax		
	comp=Z,100nm,5.7s							
XAN	Xi'an	64.47	66	*eP*		P	13 07 40.6	+0.3
CMAR	Chiang Mai Arr	64.97	86	P		P	13 07 43.5	-0.2
	comp=Z,2.0nm,0.8s,baz=300,slow=7.8,SNR=16 comp=Z,2.0nm,0.8s							
CMAR	Chiang Mai Arr	64.97	86	*i* P		P	13 07 43.7	+0.1
CMAR				pmax		pmax		
	comp=Z,2.0nm,0.8s							
BOSA	Boshof	66.12	182	P		P	13 07 50.9	0.0
	comp=Z,6.0nm,1.2s,baz=5.2,slow=11,SNR=3.2 comp=Z,6.0nm,1.2s							
KULM	Kulim	73.99	96	P		P	13 08 38.3	-1.2
E19K	Redstone River	74.98	2	P		P	13 08 45.2	+0.8
E19K				IAmb		IAmb	13 08 48.0	
	comp=Z,4.0nm,1.0s							
KSRS	Korea Array	75.59	54	P		P	13 08 47.7	-0.7
	comp=Z,1.2nm,0.8s,baz=311,slow=4.8,SNR=4.2 comp=Z,1.2nm,0.8s							
ILAR	Eielson Array	77.61	357	P		P	13 09 00.2	+0.8
	comp=Z,0.4nm,0.8s,baz=8.2,slow=7.5,SNR=4.2 comp=Z,0.4nm,0.8s							
DLBC	Dease Lake	82.15	348	LR		LR	13 48 28.8	
	comp=Z,202nm,18.9s,baz=118,slow=38							

AFAD ***01*** *13:05:34.9,37.83N,26.82E,h7km,3km, ML2.5*
ISK ***01*** *13:05:35.1,37.86N,26.88E,h3km, ML2.8/17*

ISC 01 13:05:35.4±1.1,37.85N±0.04,26.86E±0.04,h12km±8km,
n21,σ0.941/29,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	zmir	0.21	6	P	Pg	13 05 39.6	-0.3
DGB				S	Sg	13 05 42.7	-0.3
DGB				IAML		13 05 43.0	
	comp=E,928nm,0.6s						
GMLD	Gumuldur	0.24	12	Pg	Pg	13 05 40.3	-0.1
GMLD				Sg	Sg	13 05 44.2	+0.4
GMLD				AML	AML		
GCAM	G?zelcaml?	0.33	116	P	Pg	13 05 41.9	-0.2
GCAM				S	Sb	13 05 47.9	-0.6
GCAM				IAML		13 05 48.0	
	comp=N,886nm,0.2s						
GCAM				IAML		13 05 48.0	
	comp=E,1μm,0.4s						
GCAM	G?zelcaml?	0.33	116	Pg	Pg	13 05 42.1	0.0
GCAM				Sg	Sb	13 05 47.9	-0.6
GCAM				AML	AML		
KUSD	Kusadasi-Aydin	0.34	87	Pg	Pg	13 05 41.9	-0.4
KUSD				Sg	Sg	13 05 47.2	+0.3
KUSD				AML	AML		
BEYE	izmir	0.39	9	P	Pg	13 05 42.6	-0.5
BEYE				S	Sb	13 05 49.4	-0.7
BEYE				IAML		13 05 51.0	
	comp=E,337nm,0.3s						
BEYE				IAML		13 05 53.0	
	comp=N,335nm,0.6s						
ZEYE	Izmir, Urla-Ze	0.48	325	P	Pg	13 05 44.2	-0.6
ZEYE				S	Sg	13 05 51.9	+0.6
ZEYE				IAML		13 05 52.0	
	comp=E,219nm,0.4s						
ZEYE				IAML		13 05 55.0	
	comp=N,600nm,0.4s						
BLCB	Balcova	0.56	15	Pg	Pg	13 05 46.1	-0.2
BLCB				Sg	Sb	13 05 54.6	-0.5
BLCB				AML	AML		
CESE	eme	0.65	318	Pg	Pb	13 05 48.6	-0.1
CESE				AML	AML		
KRBN	Karaburun	0.78	342	Pg	Pb	13 05 50.9	0.0
KRBN				AML	AML		
AYDB	Zeytinkoy-Aydi	0.83	83	Pg	Pb	13 05 51.5	-0.2
AYDB				AML	AML		
CHOS	Chios island	0.83	311	Pg	Pb	13 05 52.1	+0.3
CHOS				AML	AML		
BODT	Bodrum	0.86	155	Pg	Pb	13 05 52.4	+0.1
BODT				AML	AML		
FOCM	Foa	0.87	354	Pg	Pb	13 05 52.7	+0.3
FOCM				AML	AML		
MLSB	Milas	0.92	127	Pg	Pg	13 05 52.7	-0.3
MLSB				AML	AML		
NAZL	Nazilli-Aydin	1.14	84	Pn	Pb	13 05 57.2	+0.1
NAZL				AML	AML		
GOMA	Golmarmara-Man	1.20	44	Pn	Pn	13 05 58.4	+0.4
GOMA				AML	AML		
DKL	Dikili	1.23	2	Pn	Pn	13 05 58.8	+0.5
DKL				AML	AML		
AKS	Akhisar	1.28	36	Pn	Pb	13 05 59.8	+0.4
AKS				AML	AML		
SOMA	Soma-Manisa	1.41	22	Pn	Pg	13 06 02.3	-0.2
SOMA				AML	AML		
GORD	Gordes-Manisa	1.49	44	Pn	P

KRBN					AML	AML			
YKAV	**Yalikavak-Bodr**	**0.83**	**148**		Pg	**Pb**	**13 09 38.9**	**-0.1**
YKAV					AML	AML			
FOCM	**Foa**	**0.88**	**0**		Pg	**Pb**	**13 09 39.7**	**-0.2**
FOCM					AML	AML			
BODT	**Bodrum**	**0.90**	**149**		Pg	**Pg**	**13 09 39.9**	**+0.2**
BODT					AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.93**	**82**		Pg	**Pg**	**13 09 40.3**	**0.0**
AYDB					AML	AML			
MLSB	**Milas**	**0.99**	**122**		Pg	**Pb**	**13 09 41.7**	**-0.1**
MLSB					AML	AML			
NAZL	**Nazilli-Aydin**	**1.24**	**83**		Pn	**Pg**	**13 09 46.1**	**-0.2**
NAZL					AML	AML			
DKL	**Dikili**	**1.25**	**6**		Pn	**Pn**	**13 09 46.8**	**+0.7**
DKL					AML	AML			
GOMA	**Golmarmara-Man**	**1.28**	**47**		Pn	**Pg**	**13 09 47.0**	**0.0**
GOMA					AML	AML			
AKS	**Akhisar**	**1.35**	**39**		Pn	**Pg**	**13 09 48.3**	**-0.1**
AKS					AML	AML			
SOMA	**Soma-Manisa**	**1.47**	**25**		Pn	**Pb**	**13 09 49.8**	**-0.1**
SOMA					AML	AML			
GORD	**Gordes-Manisa**	**1.57**	**46**		Pn	**Pb**	**13 09 51.8**	**+0.1**
GORD					AML	AML			

IDC ***01*** *13:15:40.2±0.5, 44˚.33N×15˚.51E, h0km, mb4.2/22, mbtmp4.2/36, ML3.9/13, MS3.5/28, Error ellipse: s-maj=10.3km s-min=8.9km az=35.0*

MOS ***01*** *13:15:40.8±0.9, 44˚.33N×15˚.40E, h16km, mb4.5/17, Error ellipse: s-maj=4.2km s-min=2.9km az=81.1*

RHSSO ***01*** *13:15:41.9±0.6, 44˚.41N×15˚.37E, h8km±3km, ML4.7/9*

NEIC ***01*** *13:15:41.9±1.4, 44˚.31N±0˚.03×15˚.46E±0˚.06, h10km±1km, mb4.6/43, Error ellipse: s-maj=7.6km s-min=4.7km az=259.0*

BGR ***01*** *13:15:41.9±1.0, 44˚.23N×15˚.65E, h10km, ML4.8/20, Error ellipse: s-maj=21.1km s-min=11.1km az=105.0*

MED_RC ***01*** *13:15:42.0, 44˚.36N×15˚.45E, h26km, Mw4.5, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr4.45±.92; Mθθ-3.15±.77; Mϕϕ0.00±.63; Mrθ-2.23±.66; Mθϕ4.58±.29; Mϕr0.33±.69; Fault plane solution: M06.23000×10¹⁵ NP1:ϕs152.00000°, δ40.00000°, λ125.00000°. NP2:ϕs290.00000°, δ58.00000°, λ64.00000°. Principal axes: T 5.2400, Plg66.0000°, Azm150.0000°; N 1.9900, Plg22.0000°, Azm304.0000°; P -7.2200, Plg10.0000°, Azm38.0000°;*

ROM ***01*** *13:15:42.2±0.1, 44˚.333N±0˚.003×15˚.50E±0˚.01, h12km, ML4.8/495 Error ellipse: s-maj=0.8km s-min=0.2km az=282.0*

GII ***01*** *13:15:42.8±0.0, 44˚.36N×15˚.45E, h0km, confirmed*

MCSM ***01*** *13:15:42.8±1.4, 44˚N±3˚×1˚5E±˚, h15km±13km, mB4.9, mb4.8, MLv4.8, Mw(mB)4.2*

BEO ***01*** *13:15:42.9±0.3, 44˚.37N×15˚.44E, h8km±2km, ML4.5/15*

PDG ***01*** *13:15:43.6±0.4, 44˚.14N×15˚.42E, h12km±1km, MD4.9/11, ML4.8/13, Error ellipse: s-maj=1.7km s-min=1.0km az=90.0*

LDG ***01*** *13:15:43.9±0.1, 44˚.31N×15˚.53E, h10km, Md4.3/6, Ml4.7/35, Error ellipse: s-maj=1.8km s-min=1.1km az=63.0*

GFZ ***01*** *13:15:43.5, 44˚.34N×15˚.50E, h26km, Mw4.3/20, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr2.78; Mθθ-2.26; Mϕϕ-0.52; Mrθ-1.23; Mθϕ2.62; Mϕr-1.27; Fault plane solution: M04.06039×10¹⁵ NP1: ϕs155.10066°, δ52.07403°, λ134.94832°. NP2: ϕs276.72345°, δ56.06358°, λ47.80294°. Principal axes: T 3.9592, Plg56.0347°, Azm128.4992°; N 0.1954, Plg33.8670°, Azm303.5701°; P -4.1546, Plg2.2844°, Azm35.1042°;*

GFZ ***01*** *13:15:43.5±0.4, 44˚N±1˚×1˚6E±˚, h16km±3km, M4.6/85, mb4.9/85 Error ellipse: s-maj=2.6km s-min=2.0km az=44.3, confirmed*

PRU ***01*** *13:15:44.4, 44˚.46N×15˚.40E, h10km, M4.6*

NAO ***01*** *13:15:44.4, 44˚.36N×15˚.45E, h10km, MB4.2*

TIR ***01*** *13:15:57.4, 43˚.74N×16˚.77E, h7km±31km, ML4.7, ML4.7, Presumed earthquake*

ISC 01 13:15:42.7±0.7, 44°30N±0°01×15°47E±0°01, h18km±3km, n902, σ1s70/1109, mb4.4/61, MS3.5/17, 53C-61D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res
VIRC	**Vir**	**0.30**	**269**	*i* Pg		**Pg**	**13 15 47.6**	**-1.6**
VIRC					Sg	**Sg**	**13 15 52.1**	**-1.4**
UDBI	**Udbina**	**0.31**	**43**	*e*Pg		**Pg**	**13 15 48.2**	**-1.3**
UDBI					Sg	**Sg**	**13 15 52.7**	**-1.4**
DUGI	**Dugi Otok**	**0.42**	**224**	*i* Pg		**Pg**	**13 15 50.6**	**-0.8**
DUGI					Sg	**Sg**	**13 15 57.1**	**-0.2**
MORI	**Morici**	**0.47**	**158**	*e*Pg		**Pg**	**13 15 51.6**	**-0.5**
MORI					Sg	**Sb**	**13 15 59.9**	**+1.0**
PLIT	**Plitvice**	**0.59**	**11**	*i* Pg		**Pg**	**13 15 52.4**	**-2.1**
PLIT					Sg	**Sg**	**13 16 00.1**	**-2.3**
RABC	**Rab**	**0.67**	**313**	*i* Pg		**Pg**	**13 15 53.4**	**-2.4**
RABC					Sg	**Sg**	**13 16 03.0**	**-1.8**
KIJV	**Kijevo**	**0.74**	**113**	*i* Pg		**Pb**	**13 15 56.3**	**-0.6**
KIJV					Sg	**Sb**	**13 16 07.5**	**+0.9**
BOJS	**Bojanci**	**1.22**	**353**	*i* Pn		**Pn**	**13 16 03.6**	**-1.2**
BOJS				*i*			13 16 05.9	
BOJS					Sn	**Sb**	**13 16 19.4**	**-1.2**
BOJS				*i*			13 16 22.5	
BOJS					IAML		13 16 23.6	
	comp=Z,8μm,0.4s							
BOJS	**Bojanci**	**1.22**	**353**	*e*Pg		**Pn**	**13 16 04.0**	**-0.8**
BOJS				*e*Sg		**Sb**	**13 16 19.9**	**-0.6**
BOJS	**Bojanci**	**1.22**	**353**	⇓P		**Pn**	**13 16 03.9**	**-0.8**
BOJS					S	**Sb**	**13 16 20.1**	**-0.4**
BOJS					AML	AML		
BOJS					AML	AML		
BOJS					AML	AML		
	comp=E,88050μm,0.5s							
RIY	**Rijeka**	**1.24**	**326**	*i* Pg		**Pn**	**13 16 04.8**	**-0.3**
RIY					Sg	**Sb**	**13 16 21.2**	**-0.1**
RIY	**Rijeka**	**1.24**	**326**	*e*Pg		**Pn**	**13 16 04.1**	**-1.1**
RIY				*e*Sg		**Sb**	**13 16 21.1**	**-0.1**
BLY	**Banja Luka**	**1.31**	**69**			**Pn**	**13 16 06.3**	**+0.3**
BLY	**Banja Luka**	**1.31**	**69**	*e*Pg		**Pn**	**13 16 06.4**	**+0.4**
BLY				*e*Sg		**Sg**	**13 16 24.7**	**-0.3**
BLY	**Banja Luka**	**1.31**	**69**	⇓P		**Pn**	**13 16 05.9**	**-0.2**
BLY					S	**Sg**	**13 16 25.3**	**+0.3**
BLY					AML	AML		
	comp=E,46200μm,0.6s							
BLY					AML	AML		
	comp=E,46150μm,0.6s							
BLY					AML	AML		
	comp=E,45300μm,0.6s							
BLY					AML	AML		
	comp=N,22350μm,0.5s							
BLY					AML	AML		
	comp=N,21850μm,0.5s							
BLY	**Banja Luka**	**1.31**	**69**	⇓P		**Pb**	**13 16 06.6**	**-0.1**
BLY	**Banja Luka**	**1.31**	**69**	⇓*i*Pg		**Pn**	**13 16 05.7**	**-0.3**
BLY				*e*Sg		**Sb**	**13 16 23.8**	**+0.6**
BLY	**Banja Luka**	**1.31**	**69**	P		**Pn**	**13 16 06.0**	**-0.1**
OZLJ	**Ozalj**	**1.32**	**0**	*i* Pn		**Pn**	**13 16 05.9**	**-0.2**
OZLJ					Sg	**Sb**	**13 16 23.4**	**0.0**
HVAR	**Hvar**	**1.33**	**147**	*e*Pn		**Pg**	**13 16 08.0**	**-0.2**
HVAR					Sg	**Sg**	**13 16 26.3**	**+0.7**
RICI	**Ricice**	**1.45**	**123**	*i* Pn		**Pb**	**13 16 09.9**	**+0.8**
RICI					Sn	**Sg**	**13 16 30.5**	**+1.0**
MAKA	**Makarska**	**1.51**	**131**	*i* Pn		**Pb**	**13 16 10.4**	**+0.2**
MAKA					Sn	**Sg**	**13 16 32.0**	**+0.6**
AOI	**Ancona**	**1.54**	**242**	⇓P		**Pn**	**13 16 09.7**	**+0.4**
AOI					S	**Sb**	**13 16 30.9**	**+1.0**
AOI					AML	AML		
	comp=N,30050μm,0.4s							
AOI					AML	AML		
	comp=E,19350μm,0.3s							
PCRO	**Pietralacroce**	**1.56**	**244**	P		**Pn**	**13 16 10.3**	**+0.9**
PCRO					S	**Sg**	**13 16 32.1**	**-0.9**
ZAG	**Zagreb**	**1.57**	**13**	*i* Pn		**Pb**	**13 16 10.6**	**-0.6**
ZAG					Sn	**Sb**	**13 16 30.4**	**-0.4**
ZAG	**Zagreb**	**1.57**	**13**	⇓P		**Pn**	**13 16 10.1**	**+0.4**
ZAG					S	**Sb**	**13 16 31.1**	**+0.3**
ZAG					AML	AML		
	comp=E,82600μm,1.2s							
ZAG					AML	AML		
ZAG	**Zagreb**	**1.57**	**13**	P		**Pn**	**13 16 10.2**	**+0.5**
MOSL	**Moslavina**	**1.60**	**34**	*i* Pn		**Pn**	**13 16 10.1**	**0.0**
MOSL					Sn	**Sn**	**13 16 30.8**	**+0.4**
CEY	**Cerknica**	**1.62**	**333**	*e*Pg		**Pn**	**13 16 10.9**	**+0.5**
CEY				*e*Sg		**Sb**	**13 16 32.5**	**+0.4**
SKDS	**Skadanscina**	**1.62**	**321**	*i* Pn		**Pn**	**13 16 10.2**	**-0.2**
SKDS	**Skadanscina**	**1.62**	**321**	*e*Pg		**Pn**	**13 16 10.4**	**0.0**
SKDS				*e*Sg		**Sb**	**13 16 32.0**	**-0.2**
PP3	**Marolino**	**1.63**	**236**	⇓P		**Pn**	**13 16 11.4**	**+1.0**
PP3					S	**Sg**	**13 16 34.3**	**-0.9**
CIMA	**Civitanova Mar**	**1.64**	**233**	P		**Pb**	**13 16 12.0**	**-0.3**
CIMA					S	**Sg**	**13 16 35.5**	**+0.1**
PTJ	**Puntijarka**	**1.65**	**12**	*i* Pn		**Pn**	**13 16 11.1**	**+0.3**
PTJ					Sn	**Sn**	**13 16 32.3**	**+0.7**
CADA	**Capodarco di F**	**1.66**	**229**	P		**Pb**	**13 16 12.1**	**-0.5**
CADA					S	**Sg**	**13 16 36.0**	**-0.1**
SENI	**Senigallia**	**1.72**	**251**	⇓P		**Pn**	**13 16 12.6**	**+0.9**
SENI					S	**Sb**	**13 16 36.0**	**+1.1**
SENI					AML	AML		
	comp=E,23700μm,1.1s							
SENI					AML	AML		
	comp=E,98800μm,0.9s							
SENI					AML	AML		
	comp=E,23700μm,0.9s							
SENI					AML	AML		
	comp=N,61250μm,0.3s							
SENI					AML	AML		
	comp=N,21650μm,0.5s							
PDKS	**Podkum**	**1.79**	**350**	*i* Pn		**Pn**	**13 16 13.5**	**+0.7**
PDKS				*e*Sn		**Sn**	**13 16 36.1**	**+1.0**
MNTT	**Montottone**	**1.83**	**228**	⇓P		**Pb**	**13 16 15.0**	**-0.7**
MNTT					AML	AML		
	comp=N,30600μm,0.5s							
MNTT					AML	AML		
	comp=E,32400μm,0.5s							
TRE1	**Treia**	**1.84**	**238**	P		**Pn**	**13 16 14.2**	**+0.8**
LSTV	**Lastovo**	**1.85**	**145**	*i* Pn		**Pb**	**13 16 15.3**	**-0.5**
LSTV					Sn	**Sb**	**13 16 40.3**	**+1.7**
MNTP	**Montappone**	**1.85**	**232**	⇓P		**Pn**	**13 16 14.7**	**+1.1**
MNTP					S	**Sb**	**13 16 39.4**	**+0.5**
MNTP					AML	AML		
	comp=N,25100μm,0.3s							
MNTP					AML	AML		
	comp=E,36100μm,0.3s							
TRI	**Trieste**	**1.86**	**320**	⇑*i*Pg		**Pn**	**13 16 13.2**	**-0.4**
TRI				*i* Sg		**Sb**	**13 16 38.6**	**-0.3**
TRI	**Trieste**	**1.86**	**320**	P		**Pn**	**13 16 13.2**	**-0.4**
TRI					S	**Sb**	**13 16 38.7**	**-0.3**
TRI	**Trieste**	**1.86**	**320**			**Pn**	**13 16 13.2**	**-0.4**
TRI	**Trieste**	**1.86**	**320**	P		**Pn**	**13 16 12.8**	**-0.8**
TRI					S	**Sb**	**13 16 38.1**	**-0.8**
TRI					AML	AML		
	comp=E,23850μm,0.7s							
TRI					AML	AML		
	comp=N,11900μm,0.6s							
LJU	**Ljubljana**	**1.87**	**339**	*i* Pn		**Pn**	**13 16 14.6**	**+0.8**
LJU				*i* Sn		**Sb**	**13 16 38.6**	**-0.7**
LJU					IAML		13 16 40.2	
	comp=Z,4μm,0.4s							
LJU	**Ljubljana**	**1.87**	**339**	*e*Pg		**Pn**	**13 16 14.6**	**+0.8**
LJU				*e*Sg		**Sb**	**13 16 38.8**	**-0.5**
LJU	**Ljubljana**	**1.87**	**339**	⇓P		**Pn**	**13 16 14.6**	**+0.8**
LJU					S	**Sb**	**13 16 38.5**	**-0.8**
LJU					AML	AML		
LJU					AML	AML		
LJU					AML	AML		
TRTR	**Tortoreto Alta**	**1.87**	**218**	⇓P		**Pb**	**13 16 15.7**	**-0.6**
TRTR					AML	AML		
	comp=E,43550μm,0.6s							
TRTR					AML	AML		
	comp=N,31800μm,0.4s							
TRTR					AML	AML		
	comp=N,31800μm,1.6s							
OFFI	**Offida**	**1.88**	**224**	⇓P		**Pb**	**13 16 15.5**	**-0.9**
CING	**Cingoli**	**1.88**	**242**	⇓P		**Pn**	**13 16 14.6**	**+0.6**
COR1	**Corinaldo**	**1.90**	**250**	P		**Pn**	**13 16 14.6**	**+0.4**
COR1					AML	AML		
	comp=E,18700μm,1.0s							
COR1					AML	AML		
	comp=N,15950μm,0.5s							
LOBO	**Lobor**	**1.91**	**13**	*i* Pn		**Pn**	**13 16 14.3**	**+0.1**
LOBO					Sn	**Sn**	**13 16 38.2**	**+0.4**
SAP2	**Sant'Angelo in**	**1.92**	**232**	⇓P		**Pn**	**13 16 15.5**	**+1.0**
SAP2					S	**Sb**	**13 16 41.8**	**+1.0**
SAP2					AML	AML		
	comp=E,17200μm,0.5s							
SAP2					AML	AML		
	comp=E,17200μm,1.5s							
SAP2					AML	AML		
	comp=N,85550μm,0.4s							
PESA	**Pesaro**	**1.93**	**260**	⇓P		**Pn**	**13 16 15.3**	**+0.8**
PESA					S	**Sb**	**13 16 40.9**	**0.0**
PESA					AML	AML		
	comp=E,23050μm,0.5s							
PESA					AML	AML		
	comp=N,20850μm,0.4s							
PESA					AML	AML		
	comp=N,20850μm,1.6s							
PESA					AML	AML		
	comp=E,23050μm,1.5s							
CRTC	**Cartoceto**	**1.94**	**255**	⇓P		**Pn**	**13 16 15.5**	**+0.9**
CRTC					S	**Sb**	**13 16 40.7**	**-0.6**
CRTC					AML	AML		
	comp=N,25400μm,1.2s							
CRTC					AML	AML		
	comp=N,25400μm,0.8s							
CRTC					AML	AML		
	comp=E,18950μm,0.6s							
CRTC					AML	AML		
	comp=E,18700μm,0.6s							
CRTC					AML	AML		
	comp=N,25100μm,0.6s							
MF5	**Montefalcone A**	**1.96**	**229**	⇓P		**Pn**	**13 16 16.0**	**+0.9**
MF5					AML	AML		
	comp=E,14900μm,0.4s							
MF5					AML	AML		
	comp=N,15700μm,0.6s							
KALN	**Kalnik**	**1.96**	**21**	*i* Pn		**Pn**	**13 16 15.0**	**-0.1**
KALN					Sn	**Sn**	**13 16 39.9**	**+0.6**
EL6	**Elcito**	**1.97**	**241**	⇓P		**Pn**	**13 16 15.8**	**+0.6**
EL6					S	**Sb**	**13 16 41.4**	**-0.8**
EL6					AML	AML		
	comp=E,16050μm,1.5s							
EL6					AML	AML		
	comp=N,18450μm,0.5s							
EL6					AML	AML		
	comp=E,16050μm,0.5s							
GUMA	**Gualdo di Mace**	**1.98**	**232**			**Pn**	**13 16 15.8**	**+0.5**
GUMA	**Gualdo di Mace**	**1.98**	**232**	⇓P		**Pn**	**13 16 16.2**	**+0.9**
GUMA					AML	AML		
	comp=E,31500μm,0.5s							
GUMA					AML	AML		
	comp=N,26800μm,0.9s							
GUMA					AML	AML		
	comp=E,33050μm,0.4s							
GUMA					AML	AML		
	comp=N,23300μm,0.4s							
GUMA					AML	AML		
	comp=E,33050μm,0.4s							
GUMA					AML	AML		
	comp=N,23300μm,1.6s							
GUMA					AML	AML		
	comp=N,26800μm,1.1s							
FCOR	**Fonte Corniale**	**1.98**	**255**	P		**Pn**	**13 16 16.3**	**+0.9**
ARVD	**Arcevia**	**1.99**	**247**	⇓P		**Pn**	**13 16 16.0**	**+0.5**
ARVD					AML	AML		
	comp=E,4100μm,0.4s							
ARVD					AML	AML		
	comp=E,4100μm,1.6s							
ARVD					AML	AML		
	comp=N,4670μm,0.7s							
CSP1	**Cessapalombo**	**2.04**	**234**	⇓P		**Pn**	**13 16 16.7**	**+0.5**
CSP1					S	**Sb**	**13 16 43.6**	**-0.6**
CSP1					AML	AML		
	comp=E,26450μm,0.6s							
CSP1					AML	AML		
	comp=N,25850μm,0.4s							
CSP1					AML	AML		
	comp=N,25850μm,1.6s							
MPAG	**Monte Paganucc**	**2.07**	**252**	⇓P		**Pn**	**13 16 17.2**	**+0.6**
MPAG					AML	AML		
	comp=N,6290μm,0.6s							
MPAG					AML	AML		
	comp=E,6605μm,0.4s							
MPAG					AML	AML		
	comp=N,6380μm,0.6s							
MPAG					AML	AML		
	comp=N,6290μm,1.4s							
MPAG					AML	AML		
	comp=E,6770μm,0.4s							
MCIF	**Montecalvo in**	**2.10**	**258**	P		**Pn**	**13 16 17.9**	**+1.0**
SNTG	**Esanatoglia**	**2.11**	**241**	⇓P		**Pn**	**13 16 17.6**	**+0.6**
SNTG					AML	AML		
	comp=E,7320μm,0.7s							
SNTG					AML	AML		
	comp=E,7380μm,0.7s							
SNTG					AML	AML		
	comp=N,6350μm,0.7s							
SNTG					AML	AML		
	comp=E,7380μm,1.3s							
SNTG					AML	AML		
	comp=N,6150μm,0.7s							
SNTG					AML	AML		
	comp=E,7320μm,1.3s							
SSFR	**Montelago di S**	**2.12**	**247**	⇓P		**Pn**	**13 16 17.9**	**+0.6**
SSFR					AML	AML		
	comp=E,16650μm,0.5s							
SSFR					AML	AML		
	comp=N,14700μm,0.4s							
SSFR					AML	AML		
	comp=E,16200μm,0.5s							
SSFR					AML	AML		
	comp=N,13650μm,0.4s							
FRON	**Frontone**	**2.13**	**249**	⇓P		**Pn**	**13 16 18.0**	**+0.6**
FRON					AML	AML		
	comp=E,6000μm,0.7s							
FRON					AML	AML		
	comp=N,7040μm,0.5s							
FRON					AML	AML		
	comp=E,6000μm,1.3s							
FDMO	**Fiordimonte**	**2.14**	**235**			**Pn**	**13 16 17.7**	**+0.3**
FDMO	**Fiordimonte**	**2.14**	**235**	⇓P		**Pn**	**13 16 17.9**	**+0.5**
FDMO					AML	AML		
	comp=E,6610μm,0.8s							
FDMO					AML	AML		
	comp=N,5260μm,0.6s							
FDMO					AML	AML		
	comp=E,6610μm,1.2s							
SABO	**M.te Sabotino**	**2.14**	**323**	⇑*i*Pg		**Pn**	**13 16 17.4**	**-0.1**
SABO				*i* Sg		**Sb**	**13 16 47.6**	**+0.5**
SABO	**M.te Sabotino**	**2.14**	**323**			**Pn**	**13 16 17.5**	**-0.1**
SABO	**M.te Sabotino**	**2.14**	**323**	P		**Pn**	**13 16 17.4**	**-0.1**
SABO					S	**Sn**	**13 16 44.6**	**+1.0**
SABO					AML	AML		
	comp=E,96800μm,0.6s							
SABO					AML	AML		
SABO					AML	AML		
	comp=N,29950μm,0.7s							
SABO					AML	AML		
	comp=N,29950μm,1.3s							
SABO					AML	AML		
SABO					AML	AML		
	comp=E,23550μm,0.6s							
MTRA	**Matera**	**2.15**	**225**	⇓P		**Pn**	**13 16 18.1**	**+0.4**
MTRA					AML	AML		
	comp=E,8145μm,0.4s							
MTRA					AML	AML		
	comp=N,9625μm,0.4s							
MTRA					AML	AML		
	comp=N,9605μm,0.4s							
MTRA					AML	AML		
	comp=E,8140μm,0.5s							
MTRA					AML	AML		
	comp=E,8145μm,1.6s							
TERO	**Teramo**	**2.15**	**220**	⇓P		**Pn**	**13 16 18.5**	**+0.8**
TERO					AML	AML		
	comp=E,5790μm,0.6s							
TERO					AML	AML		
	comp=N,7855μm,0.3s							
TERO					AML	AML		
	comp=E,4830μm,0.3s							
TERO					AML	AML		
	comp=N,8600μm,0.5s							
MC2	**Monte Cornacci**	**2.16**	**231**	⇓P		**Pn**	**13 16 18.3**	**+0.4**
BLLA	**Bellaria**	**2.16**	**267**	P		**Pn**	**13 16 19.4**	**+1.7**
BLLA					AML	AML		
	comp=E,8055μm,1.6s							
BLLA					AML	AML		
	comp=N,8635μm,1.4s							
BLLA					AML	AML		
	comp=E,8055μm,0.4s							
STON	**Ston**	**2.16**	**131**	*i* Pn		**Pb**	**13 16 19.8**	**-1.4**
STON					Sn	**Sb**	**13 16 48.0**	**+0.4**
STON	**Ston**	**2.16**	**131**	*e*Pn		**Pn**	**13 16 19.5**	**+1.8**
STON	**Ston**	**2.16**	**131**	⇑P		**Pb**	**13 16 19.8**	**-1.4**
STON					AML	AML		
	comp=E,15500μm,0.4s							
STON					AML	AML		
	comp=N,12200μm,0.4s							
STON					AML	AML		
	comp=N,12200μm,1.6s							
GROS	**Grobnik**	**2.16**	**1**	*i* Pn		**Pn**	**13 16 17.9**	**+0.1**
GROS				*e*Sn		**Sn**	**13 16 43.5**	**-0.8**
NARO	**Abbazia di Nar**	**2.19**	**253**	⇓P		**Pn**	**13 16 18.9**	**+0.7**
NARO					AML	AML		
	comp=N,4375μm,0.6s							
NARO					AML	AML		
	comp=E,4195μm,1.1s							
KOGS	**Kog**	**2.22**	**14**	*i* Pn		**Pn**	**13 16 18.5**	**0.0**
KOGS				*i*			13 16 23.1	
KOGS				*i*			13 16 27.1	
KOGS	**Kog**	**2.22**	**14**	⇓P		**Pn**	**13 16 18.6**	**0.0**
KOGS					AML	AML		
	comp=E,65250μm,1.2s							
KOGS					AML	AML		
	comp=N,61950μm,1.1s							
KOGS					AML	AML		
	comp=N,61950μm,0.9s							
NRCA	**Norcia**	**2.25**	**230**			**Pn**	**13 16 19.5**	**+0.4**
GORS	**Gorjuse**	**2.27**	**333**	*i* Pn		**Pn**	**13 16 19.6**	**+0.2**
DRE	**Drenchia**	**2.28**	**326**	⇑*i*Pg		**Pn**	**13 16 19.4**	**0.0**
DRE				*i* Sg		**Sb**	**13 16 50.9**	**-0.2**
DRE	**Drenchia**	**2.28**	**326**	P		**Pn**	**13 16 19.6**	**+0.2**
CADS	**Cadrg**	**2.29**	**328**	*i* Pn		**Pn**	**13 16 19.7**	**+0.2**
CADS				*i*			13 16 23.6	
CADS				*i* Sn		**Sb**	**13 16 52.2**	**+0.9**
CADS					IAML		13 16 55.4	
	comp=Z,5μm,0.4s							
OBKA	**Obir**	**2.30**	**344**			**Pn**	**13 16 20.0**	**+0.2**
OBKA						**Sb**	**13 16 52.2**	**+0.3**
OBKA	**Obir**	**2.30**	**344**	*e*Pn		**Pn**	**13 16 20.9**	**+1.0**
OBKA	**Obir**	**2.30**	**344**	*e*Pn		**Pn**	**13 16 20.0**	**+0.2**
	comp=Z,81nm,0.3s,SNR=930							
OBKA				*e*Sn		**Sb**	**13 16 52.2**	**+0.3**
	comp=Z,3μm,0.4s							
OBKA	**Obir**	**2.30**	**344**	P		**Pn**	**13 16 20.2**	**+0.4**
PERS	**Pernice**	**2.35**	**354**	*i* Pn		**Pn**	**13 16 20.8**	**+0.3**
BEHE	**Becsehely**	**2.36**	**23**			**Pn**	**13 16 20.7**	**+0.2**
BEHE	**Becsehely**	**2.36**	**23**	⇓*i*Pn		**Pn**	**13 16 20.7**	**+0.2**
BEHE				*e*Sn		**Sn**	**13 16 48.1**	**-0.9**
BEHE	**Becsehely**	**2.36**	**23**	P		**Pn**	**13 16 20.9**	**+0.4**
MURB	**Monte Urbino**	**2.37**	**245**			**Pn**	**13 16 21.4**	**+0.7**
SOKA	**Soboth**	**2.40**	**353**			**Pn**	**13 16 21.5**	**+0.4**
SOKA						**Sb**	**13 16 54.5**	**-0.2**
SOKA	**Soboth**	**2.40**	**353**	*e*Pn		**Pn**	**13 16 21.5**	**+0.4**
	comp=Z,908nm,0.3s,SNR=620							
SOKA				*e*Sn		**Sb**	**13 16 54.5**	**-0.2**
	comp=Z,455nm,0.4s							
AQU	**L'Aquila**	**2.46**	**219**	P		**Pn**	**13 16 22.6**	**+0.7**
AQU	**L'Aquila**	**2.46**	**219**			**Pn**	**13 16 22.6**	**+0.7**
AQU	**L'Aquila**	**2.46**	**219**	⇓*i*Pn		**Pn**	**13 16 22.8**	**+0.9**
AQU				*e*Sn		**Sn**	**13 16 53.3**	**+1.8**
AQU	**L'Aquila**	**2.46**	**219**	P		**Pn**	**13 16 22.4**	**+0.5**
AQU					AML	AML		
AQU	**L'Aquila**	**2.46**	**219**	P		**Pn**	**13 16 23.0**	**+1.0**
VINO	**Villanova**	**2.49**	**323**	⇑

BRY				*i* Sn		**Sb**	**13 16 59.6**	**-1.8**
ACOM	**Acomizza, Ital**	**2.64**	**329**	*i* Pg		**Pn**	**13 16 25.2**	**+0.7**
MYKA	**Terra Mystica**	**2.66**	**332**			**Pn**	**13 16 25.1**	**+0.4**
MYKA						**Sb**	**13 17 04.8**	**+2.6**
MYKA	**Terra Mystica**	**2.66**	**332**	*e*Pn		**Pn**	**13 16 25.1**	**+0.4**
	comp=Z,13nm,0.3s,SNR=172							
MYKA				*e*Sn		**Sb**	**13 17 04.8**	**+2.6**
	comp=Z,1µm,0.7s							
CESX	**Cesi**	**2.69**	**232**			**Pn**	**13 16 25.7**	**+0.6**
UPM	**Unac-Piva**	**2.72**	**113**	⇑*i* Pn		**Pn**	**13 16 28.0**	**+2.4**
UPM				*e*Sn		**Sb**	**13 17 01.6**	**-2.4**
UPM	**Unac-Piva**	**2.72**	**113**	⇑*i* Pn		**Pn**	**13 16 28.2**	**+2.6**
UPM				*i* Sn		**Sb**	**13 17 02.9**	**-1.1**
STAL	**STALIGIAL**	**2.76**	**316**			**Pn**	**13 16 25.7**	**-0.4**
BBLS	**Lazi&#263i**	**2.87**	**97**	*e*Pn		**Pn**	**13 16 29.8**	**+2.2**
BBLS				*e*Sn		**Sn**	**13 17 05.1**	**+3.4**
BBLS	**Lazi&#263i**	**2.87**	**97**	*e*Pn		**Pn**	**13 16 29.4**	**+1.8**
BBLS				*e*Sn		**Sn**	**13 17 04.1**	**+2.4**
BBLS	**Lazi&#263i**	**2.87**	**97**	P		**Pn**	**13 16 30.1**	**+2.5**
HCY	**Herceg Novi**	**2.88**	**129**	⇑*i* Pn		**Pn**	**13 16 29.2**	**+1.6**
HCY				*e*Sn		**Sb**	**13 17 05.8**	**-2.6**
HCY	**Herceg Novi**	**2.88**	**129**	⇑*i* Pn		**Pn**	**13 16 29.3**	**+1.6**
HCY				*i* Sn		**Sb**	**13 17 06.8**	**-1.6**
SESA	**Seetaler Alpe,**	**2.89**	**348**			**Pn**	**13 16 28.4**	**+0.5**
SESA						**Sn**	**13 17 01.6**	**-0.7**
SESA	**Seetaler Alpe,**	**2.89**	**348**	*e*Pn		**Pn**	**13 16 28.4**	**+0.5**
	comp=Z,59nm,0.3s,SNR=173							
SESA				*e*Sn		**Sn**	**13 17 01.6**	**-0.7**
	comp=Z,2µm,0.7s							
TEOL	**Teolo**	**2.90**	**293**			**Pn**	**13 16 27.6**	**-0.4**
TEKS	**Tekeris**	**2.92**	**84**	*e*Pn		**Pn**	**13 16 29.1**	**+0.9**
TEKS				*e*Sn		**Sn**	**13 17 05.8**	**+2.9**
TEKS	**Tekeris**	**2.92**	**84**	⇓*i* Pn		**Pn**	**13 16 29.1**	**+0.9**
TEKS				*e*Sn		**Sn**	**13 17 05.0**	**+2.1**
MORH	**Mrgy, Hungar**	**2.95**	**48**	⇓*i* Pn		**Pn**	**13 16 28.0**	**-0.6**
MORH				*e*Sn		**Sn**	**13 17 03.5**	**0.0**
MORH	**Mrgy, Hungar**	**2.95**	**48**	P		**Pn**	**13 16 27.8**	**-0.8**
MORH				AML	AML			
MORH	**Mrgy, Hungar**	**2.95**	**48**	P		**Pn**	**13 16 28.2**	**-0.4**
ARSA	**Arzberg**	**2.95**	**1**			**Pn**	**13 16 28.6**	**-0.1**
ARSA	**Arzberg**	**2.95**	**1**			**Sn**	**13 17 03.4**	**-0.3**
ARSA	**Arzberg**	**2.95**	**1**	*e*Pn		**Pn**	**13 16 28.8**	**+0.1**
ARSA				*e*Sn		**Sb**	**13 17 02.8**	**-0.9**
ARSA	**Arzberg**	**2.95**	**1**	*e*Pn		**Pn**	**13 16 32.3**	**+0.6**
ARSA	**Arzberg**	**2.95**	**1**	*i* Pn		**Pn**	**13 16 29.0**	**+0.3**
	comp=Z,480nm,0.3s,SNR=408							
ARSA				Sn		**Sn**	**13 17 03.4**	**-0.3**
	comp=Z,566nm,0.6s							
ARSA	**Arzberg**	**2.95**	**1**	P		**Pn**	**13 16 29.1**	**+0.3**
NKME	**Niksic**	**2.96**	**120**	⇑*i* Pn		**Pn**	**13 16 31.3**	**+2.5**
NKME				*i* Sn		**Sb**	**13 17 09.3**	**-1.5**
PLE	**Pljevlja**	**3.00**	**107**	*e*Pn		**Pn**	**13 16 31.7**	**+2.3**
PLE				*i* Sn		**Sb**	**13 17 09.7**	**-2.2**
CEME	**Cevo**	**3.06**	**124**	⇑*i* Pn		**Pn**	**13 16 32.2**	**+2.0**
CEME				*i* Sn		**Sb**	**13 17 10.5**	**-3.2**
MCI	**Monte Cassino**	**3.06**	**204**	⇑*e*Pn		**Pn**	**13 16 31.1**	**+0.9**
KBA	**Koelnbreinsper**	**3.15**	**333**	P		**Pn**	**13 16 32.2**	**+0.6**
KBA							13 17 16.1	
KBA	**Koelnbreinsper**	**3.15**	**333**			**Pn**	**13 16 32.2**	**+0.6**
KBA						**Sb**	**13 17 16.1**	**-0.3**
KBA	**Koelnbreinsper**	**3.15**	**333**	*e*Pn		**Pn**	**13 16 32.3**	**+0.6**
KBA	**Koelnbreinsper**	**3.15**	**333**	*i* Pn		**Pn**	**13 16 32.2**	**+0.6**
	comp=Z,24nm,0.3s,SNR=32							
KBA				*e*Sn		**Sb**	**13 17 16.1**	**-0.3**
	comp=Z,987nm,0.8s							
KBA	**Koelnbreinsper**	**3.15**	**333**	P		**Pn**	**13 16 32.5**	**+0.9**
BUM	**Brajici-Budva**	**3.20**	**127**	⇑*i* Pn		**Pn**	**13 16 34.1**	**+2.0**
BUM				*i* Sn		**Sn**	**13 17 12.8**	**+3.0**
ABTA	**Abfaltersbach**	**3.21**	**321**			**Pn**	**13 16 32.3**	**0.0**
ABTA						**Pb**	**13 16 41.1**	**+1.9**
ABTA						**Sg**	**13 17 23.6**	**-2.2**
ABTA	**Abfaltersbach**	**3.21**	**321**	*i* Pn		**Pn**	**13 16 32.3**	**0.0**
	comp=Z,24nm,0.2s,SNR=32							
ABTA				*e*Pg		**Pb**	**13 16 41.1**	**+1.9**
	comp=Z,269nm,0.5s							
ABTA				*e*Sg		**Sg**	**13 17 23.6**	**-2.2**
	comp=Z,1µm,0.6s							
FRGS	**Fruska Gora**	**3.21**	**73**	*e*Pn		**Pn**	**13 16 32.6**	**+0.3**
FRGS				*e*Sn		**Sn**	**13 17 12.3**	**+2.2**
FRGS	**Fruska Gora**	**3.21**	**73**	⇓*i* Pn		**Pn**	**13 16 32.5**	**+0.3**
FRGS				*e*Sn		**Sn**	**13 17 11.5**	**+1.4**
FRGS	**Fruska Gora**	**3.21**	**73**	P		**Pn**	**13 16 32.8**	**+0.5**
CTI	**Castel Tesino**	**3.22**	**304**	P		**Pn**	**13 16 31.9**	**-0.5**
CTI	**Castel Tesino**	**3.22**	**304**			**Pn**	**13 16 31.9**	**-0.5**
MPLH	**Magyarpolny**	**3.22**	**26**	P		**Pn**	**13 16 32.1**	**-0.2**
MPLH				AML	AML			
MPLH	**Magyarpolny**	**3.22**	**26**	P		**Pn**	**13 16 32.3**	**0.0**
DIVS	**Divibare**	**3.26**	**92**	*e*Pn		**Pn**	**13 16 34.1**	**+1.1**
DIVS				*e*Sn		**Sn**	**13 17 13.8**	**+2.5**
KOME	**Kolasin**	**3.28**	**115**	⇑*i* Pn		**Pn**	**13 16 36.2**	**+3.0**
KOME				*i* Sn		**Sb**	**13 17 16.5**	**-3.4**
PAOL	**Paolisi**	**3.33**	**192**			**Pn**	**13 16 34.3**	**+0.4**
PDG	**Podgorica**	**3.33**	**123**			**Pn**	**13 16 35.3**	**+1.4**
PDG	**Podgorica**	**3.33**	**123**	*e*Pn		**Pn**	**13 16 36.3**	**+2.4**
PDG				*e*Sn		**Sn**	**13 17 15.4**	**+2.4**
PDG	**Podgorica**	**3.33**	**123**	⇑P		**Pn**	**13 16 36.2**	**+2.4**
PDG	**Podgorica**	**3.33**	**123**	⇑*i* Pn		**Pn**	**13 16 36.0**	**+2.2**
PDG				*e*Sn		**Sn**	**13 17 16.5**	**+3.5**
PDG	**Podgorica**	**3.33**	**123**	Pn		**Pn**	**13 16 35.9**	**+2.0**
PDG				Sn		**Sb**	**13 17 20.6**	**-0.8**
PDG	**Podgorica**	**3.33**	**123**	P		**Pn**	**13 16 36.3**	**+2.4**
PDG	**Podgorica**	**3.33**	**123**	⇑*i* Pn		**Pn**	**13 16 36.1**	**+2.2**
PDG				*i* Sn		**Sn**	**13 17 16.5**	**+3.5**
CLT3	**Calitri**	**3.39**	**181**	AML	AML			
	comp=N,11550µm,0.3s							
CLT3				AML	AML			
	comp=E,6975µm,1.2s							
CLT3				AML	AML			
	comp=E,6975µm,0.8s							
PANI	**Panarotta**	**3.41**	**302**	*e*Pn		**Pn**	**13 16 34.8**	**-0.3**
SJES	**Sjenica**	**3.42**	**106**	*e*Pn		**Pn**	**13 16 37.6**	**+2.4**
SJES	**Sjenica**	**3.42**	**106**	⇑*i* Pn		**Pn**	**13 16 37.3**	**+2.1**
SJES				*e*Sn		**Sn**	**13 17 17.6**	**+2.2**
DRME	**Dracevica, Mon**	**3.44**	**127**	⇑*i* Pn		**Pn**	**13 16 37.5**	**+2.2**
DRME				*e*Sn		**Sn**	**13 17 18.3**	**+2.7**
DRME	**Dracevica, Mon**	**3.44**	**127**	⇑*i* Pn		**Pn**	**13 16 37.5**	**+2.2**
DRME				*i* Sn		**Sn**	**13 17 20.2**	**+4.6**
RONA	**Rosalia, Austr**	**3.45**	**9**			**Pn**	**13 16 35.9**	**+0.4**
RONA						**Sg**	**13 17 34.4**	**+0.8**
RONA	**Rosalia, Austr**	**3.45**	**9**	*i* Pn		**Pn**	**13 16 35.9**	**+0.4**
	comp=E,219nm,0.3s,SNR=259							
RONA				*e*Sg		**Sg**	**13 17 34.4**	**+0.8**
	comp=E,280nm,0.4s							
IVAS	**Ivanjica**	**3.46**	**100**	*e*Pn		**Pn**	**13 16 37.1**	**+1.4**
IVAS				*e*Sn		**Sn**	**13 17 17.9**	**+1.7**
SOP	**Sopron**	**3.47**	**12**	P		**Pn**	**13 16 36.1**	**+0.3**
IVA	**Berane**	**3.52**	**112**	⇑*i* Pn		**Pn**	**13 16 39.0**	**+2.5**
IVA				*i* Sn		**Sn**	**13 17 21.8**	**+4.1**
ACER	**Acerenza**	**3.53**	**174**			**Pn**	**13 16 36.9**	**+0.3**
TRUS	**Trudelj**	**3.55**	**89**	*e*Pn		**Pn**	**13 16 38.2**	**+1.3**
BEO	**Beograd**	**3.61**	**80**	P		**Pn**	**13 16 38.7**	**+1.0**
ULC	**Ulcinj**	**3.62**	**129**	⇑*i* Pn		**Pn**	**13 16 39.4**	**+1.6**
ULC				*i* Sn		**Sn**	**13 17 22.5**	**+2.5**
BIOA	**Bad Ischl, Aus**	**3.63**	**340**			**Pn**	**13 16 39.1**	**+1.2**
BIOA						**Sn**	**13 17 22.4**	**+2.1**
BIOA	**Bad Ischl, Aus**	**3.63**	**340**	*e*Pn		**Pn**	**13 16 39.1**	**+1.2**
	comp=E,62nm,0.3s,SNR=70							
BIOA				*e*Sn		**Sn**	**13 17 22.3**	**+2.1**
	comp=E,740nm,0.5s							
AVAS	**Avala Beograd**	**3.63**	**82**	*e*Pn		**Pn**	**13 16 39.2**	**+1.2**
AVAS				*e*Sn		**Sn**	**13 17 20.4**	**0.0**
CONA	**Conrad Observa**	**3.64**	**4**	*i* Pn		**Pn**	**13 16 38.8**	**+0.6**
	comp=E,631nm,0.3s,SNR=535							
CONA				*e*Sn		**Sn**	**13 17 20.7**	**0.0**
	comp=E,393nm,0.3s							
MOA	**Molln**	**3.65**	**347**			**Pn**	**13 16 39.0**	**+0.7**
MOA						**Sn**	**13 17 21.2**	**+0.3**
MOA	**Molln**	**3.65**	**347**	*e*Pn		**Pn**	**13 16 38.9**	**+0.7**
MOA				*e*Sn		**Sn**	**13 17 21.5**	**+0.7**
MOA	**Molln**	**3.65**	**347**	*e*Pn		**Pn**	**13 16 38.9**	**+0.7**
MOA				*e*Sn		**Sn**	**13 17 21.8**	**+1.0**
MOA	**Molln**	**3.65**	**347**	*i* Pn		**Pn**	**13 16 39.0**	**+0.7**
	comp=E,104nm,0.3s,SNR=168							
MOA				*i* Sn		**Sn**	**13 17 21.2**	**+0.3**
	comp=E,724nm,0.3s							
MOA	**Molln**	**3.65**	**347**	P		**Pn**	**13 16 39.5**	**+1.2**
VLC	**Villacollemand**	**3.65**	**270**	P		**Pn**	**13 16 40.3**	**+1.9**
LESA	**Schwarzleotal**	**3.69**	**329**			**Pn**	**13 16 39.6**	**+0.8**
LESA	**Schwarzleotal**	**3.69**	**329**	*e*Pn		**Pn**	**13 16 39.3**	**+0.5**
LESA	**Schwarzleotal**	**3.69**	**329**	*i* Pn		**Pn**	**13 16 39.6**	**+0.8**
	comp=E,136nm,0.4s,SNR=164							
PVY	**Plav**	**3.69**	**116**	⇓*i* Pn		**Pn**	**13 16 41.3**	**+2.4**
PVY				*i* Sn		**Sn**	**13 17 26.1**	**+4.2**
NOCI	**Noci**	**3.70**	**161**	Pn		**Pn**	**13 16 39.4**	**+0.5**
NOCI				Sn		**Sn**	**13 17 13.7**	**-8.3**
NOCI				IAML			13 17 24.3	
	comp=E,4µm,0.4s							
SDA	**Shkodra**	**3.71**	**126**	Pn		**Pn**	**13 16 40.9**	**+1.9**
SDA				Sn		**Sg**	**13 17 39.4**	**-2.2**
SDA				IAML			13 18 11.8	
	comp=E,3µm,0.9s							
SALO	**Salr**	**3.75**	**292**			**Pn**	**13 16 39.0**	**-0.6**
MATE	**Matera**	**3.76**	**165**	⇑P		**Pn**	**13 16 40.0**	**+0.3**
MATE	**Matera**	**3.76**	**165**	P		**Pn**	**13 16 40.2**	**+0.5**
GRUS	**Gruza**	**3.80**	**94**	*e*Pn		**Pn**	**13 16 42.1**	**+1.8**
WINA	**Alland / Wiene**	**3.83**	**6**			**Pn**	**13 16 41.3**	**+0.5**
WINA						**Sn**	**13 17 25.7**	**+0.3**
WINA	**Alland / Wiene**	**3.83**	**6**	*i* Pn		**Pn**	**13 16 41.3**	**+0.5**
	comp=E,408nm,0.4s,SNR=298							
WINA				*i* Sn		**Sn**	**13 17 25.7**	**+0.3**
	comp=E,448nm,0.4s							
RJOB	**Jochberg**	**3.91**	**333**	P		**Pn**	**13 16 43.3**	**+1.4**
GOCS	**Kraljevo Serbi**	**3.97**	**99**	*e*Pn		**Pn**	**13 16 44.5**	**+1.7**
GOCS				*e*Sn		**Sn**	**13 17 30.4**	**+1.5**
WTTA	**Wattenberg**	**4.00**	**319**			**Pn**	**13 16 44.1**	**+1.0**
WTTA						**Sb**	**13 17 43.1**	**+2.4**
WTTA	**Wattenberg**	**4.00**	**319**	*e*Pn		**Pn**	**13 16 44.3**	**+1.1**
WTTA	**Wattenberg**	**4.00**	**319**	*i* Pn		**Pn**	**13 16 44.1**	**+1.0**
	comp=E,26nm,0.2s,SNR=55							
WTTA				*e*Sn		**Sb**	**13 17 43.1**	**+2.4**
	comp=E,1µm,0.8s							
WTTA	**Wattenberg**	**4.00**	**319**	P		**Pn**	**13 16 45.3**	**+2.1**
MARCO	**Tramutola**	**4.01**	**176**	P		**Pn**	**13 16 43.6**	**+0.4**
SRO	**Srobarova**	**4.04**	**28**	*e*P		**Pn**	**13 16 43.9**	**+0.4**
SRO				*e*			13 17 30.8	
SRO	**Srobarova**	**4.04**	**28**	*e*PN		**Pn**	**13 16 43.9**	**+0.4**
SRO				*e*SG		**Sn**	**13 17 30.8**	**+0.5**
SRO	**Srobarova**	**4.04**	**28**	P		**Pn**	**13 16 44.0**	**+0.5**
BUD	**Budapest**	**4.04**	**37**	P		**Pn**	**13 16 42.9**	**-0.7**
ZST	**Bratislava**	**4.06**	**16**	*e*P		**Pn**	**13 16 44.7**	**+0.8**
ZST				*e*			13 17 40.5	
ZST	**Bratislava**	**4.06**	**16**	*e*PN		**Pn**	**13 16 44.7**	**+0.8**
ZST				*e*PG		**Pb**	**13 16 52.8**	**-0.8**
ZST				*e*SG		**Sb**	**13 17 40.5**	**-1.8**
ZST	**Bratislava**	**4.06**	**16**	P		**Pn**	**13 16 44.1**	**+0.2**
WATA	**Walderalm**	**4.08**	**320**	P		**Pn**	**13 16 45.7**	**+1.5**
WATA	**Walderalm**	**4.08**	**320**			**Pn**	**13 16 45.7**	**+1.5**
WATA	**Walderalm**	**4.08**	**320**	*i* Pn		**Pn**	**13 16 45.7**	**+1.5**
	comp=E,87nm,0.5s,SNR=57							
SVIS	**Svilajnac**	**4.13**	**88**	*e*Pn		**Pn**	**13 16 46.9**	**+2.1**
SQTA	**Sankt Quirin**	**4.17**	**316**	P		**Pn**	**13 16 47.0**	**+1.4**
SQTA	**Sankt Quirin**	**4.17**	**316**			**Pn**	**13 16 47.0**	**+1.4**
SQTA						**Sg**	**13 17 58.9**	**+2.2**
SQTA	**Sankt Quirin**	**4.17**	**316**	*i* Pn		**Pn**	**13 16 47.0**	**+1.4**
	comp=E,14nm,0.2s,SNR=25							
SQTA				*e*Sn		**Sg**	**13 17 58.9**	**+2.2**
	comp=E,566nm,0.5s							
SELS	**Selova**	**4.23**	**103**	*e*Pn		**Pn**	**13 16 48.2**	**+1.9**
AMBH	**Ambrzfalva**	**4.24**	**59**	P		**Pn**	**13 16 46.5**	**+0.2**
VRSS	**Vrsac**	**4.26**	**77**	*e*Pn		**Pn**	**13 16 47.0**	**+0.4**
MODS	**Modra-Piesok**	**4.27**	**16**	*e*P		**Pn**	**13 16 46.8**	**+0.1**
MODS	**Modra-Piesok**	**4.27**	**16**	*e*PN		**Pn**	**13 16 46.8**	**+0.1**
MODS	**Modra-Piesok**	**4.27**	**16**	P		**Pn**	**13 16 46.5**	**-0.2**
FETA	**Feichten**	**4.29**	**311**			**Pn**	**13 16 48.2**	**+0.9**
FETA	**Feichten**	**4.29**	**311**	*e*Pn		**Pn**	**13 16 48.1**	**+0.9**
FETA	**Feichten**	**4.29**	**311**	*e*Pn		**Pn**	**13 16 48.2**	**+0.9**
	comp=E,20nm,0.4s,SNR=33							
FETA				*e*Sg		**Sg**	**13 18 01.8**	**+1.2**
	comp=E,370nm,0.6s							
CUC	**Castrococco**	**4.31**	**176**			**Pn**	**13 16 47.8**	**+0.5**
CUC	**Castrococco**	**4.31**	**176**	Pn		**Pn**	**13 16 48.5**	**+1.2**
CUC	**Castrococco**	**4.31**	**176**	P		**Pn**	**13 16 48.5**	**+1.2**
MOTA	**Moosalm**	**4.31**	**317**	P		**Pn**	**13 16 48.5**	**+1.0**
MOTA	**Moosalm**	**4.31**	**317**			**Pn**	**13 16 48.5**	**+1.0**
MOTA	**Moosalm**	**4.31**	**317**	*e*Pn		**Pn**	**13 16 48.5**	**+1.0**
MOTA	**Moosalm**	**4.31**	**317**	*e*Pn		**Pn**	**13 16 48.5**	**+1.0**
	comp=E,47nm,0.3s,SNR=45							
MOTA				*e*Sg		**Sg**	**13 18 02.9**	**+1.8**
	comp=E,543nm,0.6s							
FUORN	**Ofenpass-Fuorn**	**4.33**	**304**	P		**Pn**	**13 16 49.1**	**+1.2**
ABNA	**Allensteig Bun**	**4.37**	**360**			**Pn**	**13 16 48.5**	**+0.3**
ABNA						**Sn**	**13 17 37.3**	**-1.4**
ABNA	**Allensteig Bun**	**4.37**	**360**	*i* Pn		**Pn**	**13 16 48.5**	**+0.3**
	comp=E,319nm,0.3s							
ABNA				*i* Sn		**Sn**	**13 17 37.3**	**-1.4**
	comp=E,400nm,0.3s							
TIR	**Tirane**	**4.38**	**131**	Pn		**Pn**	**13 16 49.8**	**+1.6**
TIR				Sn		**Sb**	**13 17 50.6**	**-0.8**
TIR				IAML			13 18 14.7	
	comp=E,929nm,0.6s							
PART	**Garmisch-Parte**	**4.41**	**318**	*e*Pn		**Pn**	**13 16 50.7**	**+2.0**
ZUGS	**Zugspitze, Sch**	**4.42**	**316**	*e*Pn		**Pn**	**13 16 50.3**	**+1.2**
SMOL	**Smolenice**	**4.43**	**17**	*e*P		**Pn**	**13 16 48.6**	**-0.4**
KUBS	**Kucevo**	**4.45**	**86**	*e*Pn		**Pn**	**13 16 49.3**	**0.0**
PHP	**Peshkopia**	**4.49**	**124**	P		**Pn**	**13 16 52.4**	**+2.6**
PHP	**Peshkopia**	**4.49**	**124**	P		**Pn**	**13 16 52.4**	**+2.6**
PHP	**Peshkopia**	**4.49**	**124**	Pn		**Pn**	**13 16 52.5**	**+2.6**
PHP				Sn		**Sb**	**13 17 52.8**	**-1.9**
PHP				IAML			13 18 22.8	
	comp=E,2µm,1.0s							
PHP	**Peshkopia**	**4.49**	**124**	P		**Pn**	**13 16 52.4**	**+2.6**
MDVR	**Moldovita**	**4.49**	**82**	*e*Pn		**Pn**	**13 16 50.9**	**+1.1**
MDVR	**Moldovita**	**4.49**	**82**	⇓P		**Pn**	**13 16 51.4**	**+1.5**
BOVS	**Bovan**	**4.55**	**96**	*e*Pn		**Pn**	**13 16 52.3**	**+1.7**
BOVS				*e*Sn		**Sn**	**13 17 43.4**	**+0.4**
BOVS	**Bovan**	**4.55**	**96**	⇓P		**Pn**	**13 16 52.5**	**+1.9**
BZS	**Buzias**	**4.56**	**71**	*e*Pn		**Pn**	**13 16 50.8**	**+0.1**
BZS	**Buzias**	**4.56**	**71**	Pn		**Pn**	**13 16 51.2**	**+0.5**
BZS	**Buzias**	**4.56**	**71**	P		**Pn**	**13 16 51.0**	**+0.2**
RETA	**Reutte**	**4.58**	**316**			**Pn**	**13 16 52.6**	**+1.5**
RETA						**Sn**	**13 17 47.1**	**+3.3**
RETA	**Reutte**	**4.58**	**316**	*e*Pn		**Pn**	**13 16 53.3**	**+2.3**
RETA	**Reutte**	**4.58**	**316**	*e*Pn		**Pn**	**13 16 52.6**	**+1.5**
	comp=E,27nm,0.2s							
RETA				*e*Sn		**Sn**	**13 17 47.1**	**+3.3**
	comp=E,129nm,0.4s							
CKRC	**Cesky Krumlov**	**4.59**	**350**	*e*P		**Pn**	**13 16 51.5**	**+0.3**
CKRC				*e*			13 17 42.4	
CKRC				MLR	MLR			
	comp=Z,2µm,7.0s							
CKRC	**Cesky Krumlov**	**4.59**	**350**	*e*PN		**Pn**	**13 16 51.5**	**+0.3**
CKRC				*e*SN		**Sn**	**13 17 42.4**	**-1.7**
CKRC				AMS	AMS		13 18 30.0	
	comp=Z,2µm,7.0s							
DAVOX	**Davos/Dischmat**	**4.64**	**304**	Pn		**Pn**	**13 16 53.1**	**+1.0**
	comp=Z,9.4nm,0.3s,baz=124,slow=12,SNR=95							
DAVOX				Sn		**Sn**	**13 17 47.6**	**+2.0**
	comp=Z,37nm,0.3s,baz=271,slow=22,SNR=5.5							
DAVOX				LR	LR		13 19 08.0	
	comp=Z,265nm,18.7s,baz=90,slow=45							
	comp=Z,39nm,0.4s							
DAVOX				AML	AML			
GEC2	**GERESS Array S**	**4.71**	**346**	*e*Sn		**Sn**	**13 17 46.1**	**-1.0**
GEC2	**GERESS Array S**	**4.71**	**346**	P		**Pn**	**13 16 53.1**	**+0.3**
GERES	**GERESS Array B**	**4.71**	**346**	Zavoj		**Pn**	**13 16 53.2**	**+0.3**
	comp=Z,4.0nm,0.3s,baz=161,slow=14,SNR=618							
GERES				Sn		**Sn**	**13 17 44.6**	**-2.4**
	comp=Z,12nm,0.3s,baz=157,slow=24,SNR=17							
GERES				LR	LR		13 19 13.8	
	comp=Z,436nm,20.2s,baz=197,slow=46							
	comp=Z,41nm,0.3s							
GERES				AML	AML			
GERES	**GERESS Array B**	**4.71**	**346**			**Pn**	**13 16 52.6**	**-0.2**
BORS2	**Bor- Borsko je**	**4.71**	**90**	*e*Pn		**Pn**	**13 16 53.2**	**+0.3**
BORS2				*e*Sn		**Sn**	**13 17 47.1**	**0.0**
PSZ	**Piszkesteto**	**4.75**	**39**	P		**Pn**	**13 16 52.4**	**-1.1**
PSZ	**Piszkesteto**	**4.75**	**39**			**Pn**	**13 16 52.4**	**-1.1**
PSZ	**Piszkesteto**	**4.75**	**39**	*e*P		**Pn**	**13 16 52.2**	**-1.3**
PSZ	**Piszkesteto**	**4.75**	**39**	P		**Pn**	**13 16 52.6**	**-0.9**
OBER	**Oberstdorf**	**4.77**	**313**	*e*Pn		**Pn**	**13 16 54.7**	**+1.0**
SIRR	**Siria**	**4.79**	**64**	*e*Pn		**Pn**	**13 16 53.6**	**-0.4**
VYHS	**Vyhne**	**4.80**	**28**	*e*P		**Pn**	**13 16 54.1**	**+0.1**
VYHS	**Vyhne**	**4.80**	**28**	*e*PN		**Pn**	**13 16 54.1**	**+0.1**
VYHS				*e*PG		**Pb**	**13 17 09.2**	**+3.0**
VYHS	**Vyhne**	**4.80**	**28**	P		**Pn**	**13 16 54.1**	**+0.1**
JAVC	**Velka Javorina**	**4.81**	**18**	*e*PN		**Pn**	**13 16 54.3**	**+0.1**
JAVC				*e*SN		**Sn**	**13 17 48.1**	**-1.4**
JAVC	**Velka Javorina**	**4.81**	**18**	P		**Pn**	**13 16 54.6**	**+0.4**
KRUC	**Moravsky**	**4.81**	**7**	*e*PN		**Pn**	**13 16 53.7**	**-0.4**
KRUC				*e*SN		**Sn**	**13 17 46.5**	**-2.9**
KRUC	**Moravsky**	**4.81**	**7**	P		**Pn**	**13 16 53.9**	**-0.3**
TUE	**Stuetta**	**4.83**	**299**	AML	AML			
	comp=E,658µm,0.6s							
TUE				AML	AML			
	comp=E,657µm,0.6s							
TUE				AML	AML			
	comp=N,576µm,0.7s							
TUE				AML	AML			
	comp=E,657µm,1.4s							
TUE				AML	AML			
	comp=E,658µm,1.4s							
TUE				AML	AML			
	comp=N,600µm,0.7s							
TUE	**Stuetta**	**4.83**	**299**	P		**Pn**	**13 16 55.2**	**+0.6**
TUE				AML	AML			
TUE	**Stuetta**	**4.83**	**299**	P		**Pn**	**13 16 55.9**	**+1.3**
BARS	**Barje**	**4.84**	**106**	*e*Pn		**Pn**	**13 16 56.2**	**+1.5**
VLO	**Vlora**	**4.85**	**141**	P		**Pn**	**13 16 56.5**	**+1.8**
VLO				S		**Sn**	**13 17 52.4**	**+2.0**
VLO	**Vlora**	**4.85**	**141**	P		**Pn**	**13 16 56.2**	**+1.5**
VLO	**Vlora**	**4.85**	**141**	P		**Pn**	**13 16 56.3**	**+1.5**
BERA	**Berati**	**4.89**	**136**	Pn		**Pn**	**13 16 55.7**	**+0.4**
BERA				IAML			13 18 00.4	
	comp=N,607nm,0.4s							
ZAGS	**Zajecar**	**4.90**	**93**	*e*Pn		**Pn**	**13 16 57.3**	**+1.9**
PIPA	**Pietrapaola**	**4.91**	**168**	AML	AML			
	comp=N,754µm,1.0s							
PIPA				AML	AML			
	comp=E,776µm,0.9s							
PIPA				AML	AML			
	comp=E,858µm,0.9s							
PIPA				AML	AML			
	comp=N,746µm,1.0s							
DAVA	**Damuels**	**4.92**	**309**			**Pn**	**13 16 56.8**	**+1.0**
DAVA						**Sn**	**13 17 54.4**	**+2.1**
DAVA	**Damuels**	**4.92**	**309**	*e*Pn		**Pn**	**13 16 57.7**	**+1.8**
DAVA	**Damuels**	**4.92**	**309**	*i* Pn		**Pn**	**13 16 56.8**	**+1.0**
	comp=N,19nm,0.3s,SNR=25		

BOSS *e*Sn **Sn** 13 18 05.9 +1.5
GRC1 Grafenberg Arr 5.43 331 P **Pn** 13 17 02.1 -0.6
comp=Z,183nm,0.7s
KECS Kecovo 5.44 38 *e*P **Pn** 13 17 03.3 +0.5
KECS Kecovo 5.44 38 *e*PN **Pn** 13 17 03.3 +0.5
KECS *e*PG **Pb** 13 17 21.7 +4.6
KECS Kecovo 5.44 38 P **Pn** 13 17 03.1 +0.3
comp=Z,74nm,0.5s
GRB5 Grafenberg Arr 5.47 333 P **Pn** 13 17 02.8 -0.5
comp=Z,135nm,0.8s
DEV Deva 5.50 71 P **Pn** 13 17 06.0 +2.4
DEV Deva 5.50 71 ⇑P **Pn** 13 17 06.1 +2.4
DEV Deva 5.50 71 P **Pn** 13 17 05.3 +1.6
comp=Z,106nm,0.4s
GRC4 Grafenberg Arr 5.50 332 P **Pn** 13 17 03.1 -0.6
comp=Z,165nm,0.6s
NORI Noerdlinger Ri 5.54 325 *e*Pn **Pn** 13 17 03.6 -0.6
SRE Strehaia 5.55 84 P **Pn** 13 17 06.9 +2.6
SRE Strehaia 5.55 84 ⇑P **Pn** 13 17 07.0 +2.6
SRN Sarande 5.55 141 P **Pn** 13 17 05.4 +1.0
SRN S **Sn** 13 18 07.6 -0.1
SRN Sarande 5.55 141 Pn **Pn** 13 17 05.4 +1.0
SRN Sarande 5.55 141 P **Pn** 13 17 05.5 +1.0
comp=Z,77nm,0.7s
BNALP Bannalp 5.57 300 P **Pn** 13 17 06.5 +1.7
comp=Z,63nm,0.8s
LANS Liptovska Anna 5.58 28 *e*P **Pn** 13 17 05.2 +0.4
LANS Liptovska Anna 5.58 28 *e*PN **Pn** 13 17 05.2 +0.4
KEK Kerkira 5.60 143 **Pn** 13 17 04.0 -1.1
KEK Kerkira 5.60 143 P **Pn** 13 17 04.2 -0.9
comp=Z,127nm,0.6s
GRB2 Grafenberg Arr 5.62 334 P **Pn** 13 17 06.9 +1.7
comp=Z,196nm,0.9s
LSK Leskovik 5.63 136 Pn **Pn** 13 17 07.0 +1.5
GRB3 Grafenberg Arr 5.64 335 P **Pn** 13 17 05.1 -0.5
comp=Z,98nm,0.5s
ABAH Abaujker 5.66 43 P **Pn** 13 17 06.6 +0.8
comp=Z,172nm,0.7s
MORC Moravsky Berou 5.66 14 P **Pn** 13 17 06.6 +0.7
MORC Moravsky Berou 5.66 14 *e*PN **Pn** 13 17 06.3 +0.4
MORC *e*SN **Sn** 13 18 08.3 -2.1
MORC Moravsky Berou 5.66 14 ⇓P **Pn** 13 17 06.6 +0.7
MORC Moravsky Berou 5.66 14 P **Pn** 13 17 06.8 +0.9
comp=Z,136nm,0.7s
DRGR 5.67 61 *e*P **Pn** 13 17 06.1 +0.1
DRGR 5.67 61 *e*Pn **Pn** 13 17 06.1 +0.1
DRGR 5.67 61 P **Pn** 13 17 06.9 +0.9
comp=Z,74nm,1.0s
NEST Nestorio 5.67 131 P **Pn** 13 17 08.3 +2.2
GRB1 Grafenberg Arr 5.73 334 P **Pn** 13 17 08.1 +1.3
comp=Z,172nm,0.9s
PRU Pruhonice 5.73 354 *e*P **Pn** 13 17 06.7 -0.1
PRU *e* 13 18 09.2
PRU MLR MLR
comp=Z,2µm,6.8s
PRU Pruhonice 5.73 354 *e*PN **Pn** 13 17 06.7 -0.1
PRU *e*SN **Sn** 13 18 09.2 -2.8
PRU AMS AMS 13 19 10.0
comp=Z,2µm,6.8s
PRU Pruhonice 5.73 354 P **Pn** 13 17 06.7 -0.1
comp=Z,288nm,0.8s
SBF Sospel 5.80 269 *e*Pn **Pn** 13 17 07.3 -0.6
SBF *e*Sn **Sn** 13 18 11.6 -2.4
comp=Z,303nm,0.5s
SBF AML AML
GRB4 Grafenberg Arr 5.82 334 P **Pn** 13 17 07.5 -0.6
comp=Z,147nm,0.9s
MON Monaco 5.83 267 P **Pn** 13 17 11.6 +3.5
comp=Z,180nm,0.9s
OKC Ostrava-Krasne 5.84 17 *e*P **Pn** 13 17 08.6 +0.3
OKC *e* 13 18 10.8
OKC MLR MLR
comp=Z,1µm,12.8s
OKC Ostrava-Krasne 5.84 17 *e*PN **Pn** 13 17 08.6 +0.3
OKC *e*SN **Sn** 13 18 10.8 -3.9
OKC AMS AMS 13 19 50.0
comp=Z,1µm,12.8s
OKC Ostrava-Krasne 5.84 17 P **Pn** 13 17 08.6 +0.3
comp=Z,178nm,0.6s
ESCA l'Escarene 5.85 268 P **Pn** 13 17 08.4 -0.1
comp=Z,190nm,0.8s
STEB Steborice 5.85 15 *e*PN **Pn** 13 17 09.2 +0.7
STEB *e*SN **Sn** 13 18 11.5 -3.6
BLSH Balsha 5.86 102 P **Pn** 13 17 12.3 +3.7
PENT Pentalofos 5.87 132 P **Pn** 13 17 10.7 +1.8
VTS Vitosha 5.90 104 P **Pn** 13 17 10.5 +1.3
VTS S **Sn** 13 18 18.0 +1.5
VTS Vitosha 5.90 104 P **Pn** 13 17 10.9 +1.6
VTS Vitosha 5.90 104 *e*Pn **Pn** 13 17 10.6 +1.3
ROTZ Rotzenmuhle 5.91 339 *e*Pn **Pn** 13 17 08.5 -0.8
ROTZ *e*Sn **Sn** 13 18 12.7 -3.7
LFKM Lefkimmi 5.94 143 P **Pn** 13 17 10.9 +1.2
LFKM S **Sn** 13 18 17.3 +0.2
MESR Meseseni 5.96 59 ⇑P **Pn** 13 17 12.5 +2.5
SLE Schleitheim 5.97 308 P **Pn** 13 17 09.6 -0.5
comp=Z,58nm,0.5s
IGT Igoumenitsa 5.99 141 P **Pn** 13 17 11.8 +1.4
IGT S **Sn** 13 18 17.9 -0.5
IGT Igoumenitsa 5.99 141 *e*Pn **Pn** 13 17 11.2 +0.9
PEHC Pehcevo 6.00 112 *i* Pn **Pn** 13 17 12.6 +2.0
VAY Valandovo 6.01 117 *i* Pn **Pn** 13 17 12.3 +1.6
LOT Lotru 6.01 76 ⇓P **Pn** 13 17 13.3 +2.5
LOT Lotru 6.01 76 P **Pn** 13 17 13.2 +2.5
comp=Z,61nm,0.7s
CEL Celeste 6.04 177 P **Pn** 13 17 11.2 0.0
comp=Z,0.3nmcomp=Z,801nmcomp=Z,77nm,0.8s
CEL AML AML
CEL Celeste 6.04 177 P **Pn** 13 17 12.3 +1.2
comp=Z,78nm,0.8s
ISO Isola 6.05 272 P **Pn** 13 17 12.0 +0.8
comp=Z,89nm,0.7s
GRA2 Grafenberg Arr 6.05 334 P **Pn** 13 17 12.3 +1.1
comp=Z,139nm,0.6s
MPEP Malo Peshtene 6.06 96 P **Pn** 13 17 14.1 +2.8
PLNA Plana 6.08 105 P **Pn** 13 17 14.3 +2.6
DPC Dobruska-Polom 6.08 5 *e*P **Pn** 13 17 12.1 +0.4
DPC *e* 13 18 17.5
DPC MLR MLR
comp=Z,900nm,10.0s
DPC Dobruska-Polom 6.08 5 *e*PN **Pn** 13 17 12.1 +0.4
DPC *e*SN **Sn** 13 18 17.5 -3.3
DPC AMS AMS 13 19 30.0
comp=Z,900nm,10.0s
DPC Dobruska-Polom 6.08 5 P **Pn** 13 17 11.4 -0.3
comp=Z,0.6nmcomp=Z,47nm,0.4s
DPC AML AML
DPC Dobruska-Polom 6.08 5 P **Pn** 13 17 12.3 +0.6
comp=Z,47nm,0.4s
NIE Niedzica 6.10 31 *e*P **Pn** 13 17 13.7 +1.8
NIE Niedzica 6.10 31 P **Pn** 13 17 12.4 +0.5
comp=Z,0.2nmcomp=Z,56nm,0.6s
NIE AML AML
GRG Griva 6.11 121 P **Pn** 13 17 13.3 +1.3
GRG Griva 6.11 121 P **Pn** 13 17 13.7 +1.6
comp=Z,250nm,0.5s
KKB Krupnik 6.12 111 P **Pn** 13 17 14.5 +2.2
KKB Krupnik 6.12 111 P **Pn** 13 17 14.9 +2.6
GRA1 Grafenberg Arr 6.13 333 P **Pn** 13 17 13.5 +1.2
comp=Z,75nm,0.7s
GRF Grafenberg Arr 6.13 333 *e*Pn **Pn** 13 17 13.3 +1.0
JAN Janina 6.13 137 P **Pn** 13 17 13.4 +1.1
JAN S **Sn** 13 18 22.0 0.0
KZN Kozani 6.14 128 P **Pn** 13 17 13.7 +1.1
GRA3 Grafenberg Arr 6.16 334 P **Pn** 13 17 13.8 +1.1
comp=Z,124nm,0.8s
KPRO Kipourio 6.17 133 P **Pn** 13 17 14.5 +1.6
CALF Calern 6.18 268 P **Pn** 13 17 14.7 +1.5
comp=Z,167nm,0.7s
CJR Cluj-Napoca 6.20 64 P **Pn** 13 17 16.2 +2.9
CJR Cluj-Napoca 6.20 64 ⇓P **Pn** 13 17 16.2 +2.9
STU Stuttgart 6.22 318 P **Pn** 13 17 12.6 -1.0
STU Stuttgart 6.22 318 **Pn** 13 17 12.6 -1.0
STU Stuttgart 6.22 318 *e*P **Pn** 13 17 14.2 +0.7
STU Stuttgart 6.22 318 *e*Pn **Pn** 13 17 14.0 +0.5
STU Stuttgart 6.22 318 P **Pn** 13 17 13.0 -0.5
comp=Z,97nm,0.6s
UPC Upice 6.22 3 *e*P **Pn** 13 17 13.8 +0.2
UPC *e* 13 18 20.7
UPC MLR MLR
comp=Z,1µm,9.6s
UPC Upice 6.22 3 *e*PN **Pn** 13 17 13.8 +0.2
UPC *e*SN **Sn** 13 18 20.7 -3.5
UPC AMS AMS 13 19 30.0
comp=Z,1µm,9.6s

UPC Upice 6.22 3 P **Pn** 13 17 13.9 +0.3
comp=Z,108nm,0.8s
TRPA Tarpa 6.23 50 P **Pn** 13 17 14.3 +0.8
comp=Z,74nm,0.7s
MBDF Montbardon 6.23 277 *e*Pn **Pn** 13 17 12.6 -1.3
MBDF *e*Sn **Sn** 13 18 21.9 -2.8
comp=Z,275nm,0.6s
MBDF AML AML
PVCC Panska Ves 6.26 355 *e*P **Pn** 13 17 14.4 +0.3
PVCC *e* 13 18 21.0
PVCC MLR MLR
comp=Z,1µm,8.8s
PVCC Panska Ves 6.26 355 *e*PN **Pn** 13 17 14.4 +0.3
PVCC *e*SN **Sn** 13 18 21.0 -4.2
PVCC AMS AMS 13 19 30.0
comp=Z,1µm,8.8s
PVCC Panska Ves 6.26 355 P **Pn** 13 17 14.0 -0.1
comp=Z,192nm,0.7s
KTI Kastanea 6.28 126 P **Pn** 13 17 15.3 +0.7
NKC Novy Kostel 6.28 342 *e*P **Pn** 13 17 13.8 -0.6
NKC *e* 13 18 21.7
NKC MLR MLR
comp=Z,1µm,8.4s
NKC Novy Kostel 6.28 342 *e*PN **Pn** 13 17 13.8 -0.6
NKC *e*SN **Sn** 13 18 21.7 -4.0
NKC AMS AMS 13 19 30.0
comp=Z,1µm,8.4s
NKC Novy Kostel 6.28 342 P **Pn** 13 17 14.1 -0.3
comp=Z,62nm,0.6s
OSTC Ostas 6.28 4 *e*P **Pn** 13 17 15.0 +0.6
OSTC *e* 13 18 23.2
OSTC MLR MLR
comp=Z,1µm,7.9s
OSTC Ostas 6.28 4 *e*PN **Pn** 13 17 15.0 +0.6
OSTC *e*SN **Sn** 13 18 23.2 -2.5
OSTC AMS AMS 13 19 30.0
comp=Z,1µm,7.9s
KNT Kendrikon 6.30 117 P **Pn** 13 17 16.1 +1.4
KNT Kendrikon 6.30 117 P **Pn** 13 17 16.4 +1.7
comp=Z,57nm,0.7s
LPG La Plagne 6.31 284 *e*Pn **Pn** 13 17 14.6 -0.4
LPG *e*Sn **Sn** 13 18 23.1 -3.6
comp=Z,379nm,0.7s
LPG AML AML
LPG La Plagne 6.31 284 P **Pn** 13 17 14.3 -0.7
CHVC Chvalec 6.31 3 *e*P **Pn** 13 17 14.6 -0.1
CHVC *e* 13 18 23.1
CHVC MLR MLR
comp=Z,1µm,8.3s
CHVC Chvalec 6.31 3 *e*PN **Pn** 13 17 14.6 -0.1
CHVC *e*SN **Sn** 13 18 23.1 -3.2
CHVC AMS AMS 13 19 30.0
comp=Z,1µm,8.3s
BNI Bardonecchia 6.31 280 P **Pn** 13 17 13.9 -1.0
BNI Bardonecchia 6.31 280 **Pn** 13 17 13.9 -1.0
BNI Bardonecchia 6.31 280 P **Pn** 13 17 15.4 +0.5
comp=Z,92nm,0.6s
RICC Richard 6.32 352 *e*PN **Pn** 13 17 14.0 -0.9
RICC *e*SN **Sn** 13 18 22.5 -4.0
LPL La Plagne 6.32 284 *e*Pn **Pn** 13 17 15.0 -0.1
LPL *e*P **Pn** 13 17 19.2 +4.1
LPL *e*Sn **Sn** 13 18 23.2 -3.8
comp=Z,218nm,0.5s
LPL AML AML
PRMD Pramanda 6.35 137 P **Pn** 13 17 17.5 +2.1
BFO Black Forest 6.38 312 P **Pn** 13 17 14.7 -1.0
BFO Black Forest 6.38 312 **Pn** 13 17 14.7 -1.0
BFO Black Forest 6.38 312 *e*Pn **Pn** 13 17 14.8 -0.9
TANN Tannenbergstha 6.45 343 P **Pn** 13 17 17.6 +0.9
comp=Z,92nm,0.8s
HSKC Hora Svate Kat 6.46 348 *e*PN **Pn** 13 17 16.0 -0.9
HSKC *e*SN **Sn** 13 18 25.9 -4.2
HSKC AMS AMS 13 19 30.0
comp=Z,2µm,7.3s
HSKC Hora Svate Kat 6.46 348 P **Pn** 13 17 17.5 +0.6
comp=Z,61nm,0.7s
BMR Baia Mare 6.53 56 P **Pn** 13 17 19.7 +1.9
comp=Z,89nm,0.8s
BOURR Bourrignon 6.53 301 P **Pn** 13 17 20.2 +2.3
comp=Z,142nm,0.8s
LMR La Mourre 6.55 265 *e*Pn **Pn** 13 17 17.9 -0.2
LMR *e*Sn **Sn** 13 18 29.6 -2.7
comp=Z,47nm,0.4s
LMR AML AML
KSP Ksiaz 6.57 5 *e*P **Pn** 13 17 18.4 0.0
KSP Ksiaz 6.57 5 P **Pn** 13 17 18.4 0.0
comp=Z,0.6nmcomp=Z,1µmcomp=Z,71nm,0.8s
KSP AML AML
TETR Tetrakomo, Epi 6.58 137 P **Pn** 13 17 19.9 +1.3
KOLS Kolonicke sedl 6.59 43 *e*P Pn 13 17 24.9 +6.3
KOLS Kolonicke sedl 6.59 43 *e*PN Pn 13 17 24.9 +6.3
KOLS *e*PG **Pg** 13 17 48.3 -0.5
KOLS *e*SN Sn 13 18 11.7 -22
KOLS Kolonicke sedl 6.59 43 P **Pn** 13 17 20.7 +2.0
comp=Z,56nm,0.6s
ARR Arges 6.61 77 ⇑P **Pn** 13 17 21.4 +2.5
VSL Villasalto 6.61 226 P **Pn** 13 17 20.7 +1.9
comp=Z,44nm,0.7s
OJC Ojcow 6.62 25 *e*P **Pn** 13 17 19.3 +0.3
OJC Ojcow 6.62 25 P **Pn** 13 17 18.6 -0.4
OJC Ojcow 6.62 25 P **Pn** 13 17 19.0 0.0
comp=Z,0.2nmcomp=Z,46nm,0.7s
OJC AML AML
OJC Ojcow 6.62 25 P **Pn** 13 17 19.2 +0.3
comp=Z,46nm,0.7s
THE Thessaloniki 6.64 121 P **Pn** 13 17 20.2 +0.9
THE Thessaloniki 6.64 121 P **Pn** 13 17 20.8 +1.5
THE Thessaloniki 6.64 121 P **Pn** 13 17 20.8 +1.5
comp=Z,125nm,0.6s
BRG Berggiesshubel 6.66 352 P **Pn** 13 17 19.2 -0.4
comp=Z,44nm,1.0s
BRG Berggiesshubel 6.66 352 Pn **Pn** 13 17 19.0 -0.5
BRG r 13 17 25.9
BRG Berggiesshubel 6.66 352 Pg Pb 13 17 32.1 -5.7
BRG Sn **Sn** 13 18 31.3 -3.6
BRG Sg **Sb** 13 18 59.0 +1.9
BRG Amp 13 19 04.8
comp=Z,175nm,0.7s
MMB Musomishta 6.67 111 P **Pn** 13 17 21.6 +1.8
MMB Musomishta 6.67 111 P **Pn** 13 17 22.2 +2.4
TSLK Tsoukalades, L 6.71 143 P **Pn** 13 17 21.0 +0.8
LKD2 Lefkada island 6.74 143 P **Pn** 13 17 20.7 -0.1
LKD2 Lefkada island 6.74 143 P **Pn** 13 17 21.4 +0.7
comp=Z,294nm,0.7s
SRS Serrai 6.78 115 P **Pn** 13 17 22.5 +1.3
SRS Serrai 6.78 115 *e*Pn **Pn** 13 17 23.1 +2.0
SRS Serrai 6.78 115 P **Pn** 13 17 23.2 +2.0
comp=Z,133nm,0.6s
SOH Sokhos 6.78 118 P **Pn** 13 17 22.7 +1.4
SOH Sokhos 6.78 118 P **Pn** 13 17 22.7 +1.4
SOH Sokhos 6.78 118 P **Pn** 13 17 22.8 +1.5
comp=Z,57nm,0.7s
DRAG Dragano-Lefkad 6.79 144 P **Pn** 13 17 21.5 +0.1
THL Klokotos Trika 6.79 132 P **Pn** 13 17 21.4 -0.1
TYRN Tyrnavos 6.81 130 P **Pn** 13 17 21.7 +0.1
ARCR ARCALIA 6.82 63 ⇑P **Pn** 13 17 24.0 +2.2
NYDR Nydri-Lefkada 6.82 143 P **Pn** 13 17 21.7 -0.1
NYDR S **Sn** 13 18 37.9 -1.0
NVR Nevrokopi 6.84 113 P **Pn** 13 17 23.6 +1.5
GIMEL St. Georges / 6.85 292 P **Pn** 13 17 22.9 +0.6
comp=Z,39nm,0.7s
VAE Valguarnera 6.86 187 Pn **Pn** 13 17 28.6 +6.2
comp=Z,4.1nm,0.3s,baz=352,slow=14,SNR=9.6
VAE LR LR 13 20 45.1
comp=Z,673nm,18.8s,baz=328,slow=44
MOX Moxa 6.87 339 P **Pn** 13 17 22.0 -0.3
MOX Moxa 6.87 339 *e*Pn **Pn** 13 17 21.7 -0.7
MOX Moxa 6.87 339 P **Pn** 13 17 22.1 -0.3
comp=Z,134nm,0.7s
ORIF Oris-en-Rattie 6.87 279 *e*Pn **Pn** 13 17 22.5 -0.1
ORIF *e*Sn **Sn** 13 18 40.2 -0.1
comp=Z,296nm,0.5s
ORIF AML AML
ORIF Oris-en-Rattie 6.87 279 P **Pn** 13 17 24.5 +1.9
comp=Z,130nm,0.6s
EVGI Lefkada island 6.88 144 P **Pn** 13 17 22.8 +0.2
AMPL Ampelaki 6.88 139 P **Pn** 13 17 23.1 +0.5
VOIR 6.91 77 P **Pn** 13 17 26.1 +3.1
VOIR 6.91 77 ⇑P **Pn** 13 17 26.1 +3.1
VOIR 6.91 77 P **Pn** 13 17 24.3 +1.3
comp=Z,0.2nmcomp=Z,36nm,0.7s
VOIR AML AML
HINF Hinteralfeld 6.95 303 *e*Pn **Pn** 13 17 23.2 -0.4
HINF *e*Sn **Sn** 13 18 39.3 -2.8
comp=Z,160nm,0.5s
HINF AML AML
ECH Echery 6.96 307 P **Pn** 13 17 23.1 -0.7
ECH Echery 6.96 307 P **Pn** 13 17 25.2 +1.5
comp=Z,24nm,0.5s
CABF La Chapelle 6.99 293 *e*Pn **Pn** 13 17 24.2 0.0
CABF *e*Sn **Sn** 13 18 40.4 -2.8
comp=Z,195nm,0.9s
CABF AML AML
CDF Champ du Feu 7.00 309 *e*Pn **Pn** 13 17 23.4 -1.0
CDF *e*Sn **Sn** 13 18 40.4 -3.1
comp=Z,190nm,0.8s
CDF AML AML
VSK1 VASILIKIADES 7.02 145 P **Pn** 13 17 24.6 +0.1
VSK1 S **Sn** 13 18 42.7 -1.2
DMLN Damoulianata-K 7.09 147 P **Pn** 13 17 25.5 -0.1
PLG Polygyros 7.09 121 P **Pn** 13 17 27.1 +1.5
SMRF Simiane la Rot 7.12 271 *e*Pn **Pn** 13 17 26.3 +0.3
SMRF *e*Sn **Sn** 13 18 43.3 -3.2
comp=Z,49nm,0.5s
SMRF AML AML
PDO Prodromos 7.13 141 P **Pn** 13 17 26.4 +0.4
PDO S **Sn** 13 18 46.4 -0.1
PVL Pavlikeni 7.13 96 P **Pn** 13 17 28.2 +2.2
AST1 Astakos 7.13 142 P **Pn** 13 17 26.3 +0.2
EVR Evrytania 7.17 136 P **Pn** 13 17 28.1 +1.4
CLL Collm 7.21 348 *e*P **Pn** 13 17 26.0 -1.1
CLL *i* 13 18 46.4
CLL Collm 7.21 348 **Pn** 13 17 26.2 -0.8
CLL Collm 7.21 348 P **Pn** 13 17 26.3 -0.8
CLL AML AML
CLL Collm 7.21 348 P **Pn** 13 17 26.0 -1.1
comp=Z,56nm,0.5s
CLL Collm 7.21 348 *e*Pn **Pn** 13 17 26.0 -1.1
CLL *i* x x 13 17 30.0
CLL *i* x x 13 17 32.7
CLL *e*Pg **Pg** 13 17 56.0 -4.5
CLL *ex* x 13 18 40.0
CLL *i* (Sn) **Sn** 13 18 46.4 -2.0
CLL *e*Sb **Sb** 13 19 18.0 +5.2
CLL *e*Sg Sg 13 19 26.0 -7.8
comp=Z,738nm,1.4s
CLL *e*AMS AMS 13 19 35.0
comp=Z,0.0nm,1.3s
CLL AMS AMS 13 19 42.0
comp=N,300nm,22.1s
CLL AMS AMS 13 19 42.0
comp=E,1µm,19.0s
CLL AMS AMS 13 20 00.0
comp=N,500nm,18.0s
CLL AMS AMS 13 20 00.0
comp=E,300nm,17.1s
CLL AMS AMS 13 20 00.0
comp=Z,500nm,17.2s
DOPR Dopca 7.21 73 ⇑P **Pn** 13 17 30.0 +2.8
VLS Valsamata 7.23 146 P **Pn** 13 17 27.2 -0.2
VLS S **Sn** 13 18 47.6 -1.4
PVO Paravola 7.27 139 P **Pn** 13 17 28.7 +0.7
KWP Kalwaria Pacla 7.28 40 *e*P **Pn** 13 17 30.2 +2.1
RZN Rozhen 7.28 108 P **Pn** 13 17 29.8 +1.5
RZN Rozhen 7.28 108 P **Pn** 13 17 31.4 +3.2
PSDA Pessada-Kefalo 7.28 146 P **Pn** 13 17 27.9 -0.2
HAU Haudompre 7.34 304 *e*Pn **Pn** 13 17 28.3 -0.6
HAU *e*Sn **Sn** 13 18 49.5 -2.2
comp=Z,232nm,0.6s
HAU AML AML
NEUB Neuenburg 7.35 342 P **Pn** 13 17 29.7 +0.8
comp=Z,118nm,0.8s
AGG Agios Georgios 7.36 133 P **Pn** 13 17 29.8 +0.6
AGG Agios Georgios 7.36 133 P **Pn** 13 17 30.1 +0.9
AGG Agios Georgios 7.36 133 P **Pn** 13 17 30.2 +0.9
comp=Z,66nm,0.6s
ARBF Arbois 7.37 267 P **Pn** 13 17 32.2 +2.9
comp=Z,58nm,0.5s
PLEV Plevrona-Mesol 7.38 141 P **Pn** 13 17 30.0 +0.5
RTZL Ratzakli, Kefa 7.39 145 P **Pn** 13 17 29.7 +0.1
KAVA Kavala 7.44 113 P **Pn** 13 17 32.3 +2.1
OUR Ouranopolis 7.45 119 P **Pn** 13 17 31.2 +0.8
ANX Ano Chora 7.48 137 P **Pn** 13 17 32.5 +1.5
PAIG Paliouri 7.50 123 P **Pn** 13 17 32.1 +0.9
PAIG Paliouri 7.50 123 P **Pn** 13 17 32.0 +0.8
comp=Z,32nm,0.7s
MLR Muntele Rosu 7.54 77 Pn **Pn** 13 17 34.1 +2.4
comp=Z,1.6nm,0.3s,baz=269,slow=23,SNR=8.5
MLR Sn **Sn** 13 18 55.7 -1.0
comp=Z,1.4nm,0.3s,baz=263,slow=19,SNR=3.2
MLR LR LR 13 20 34.7
comp=Z,328nm,18.3s,baz=358,slow=39
comp=Z,3.7nm,0.3s
MLR AML AML
MLR Muntele Rosu 7.54 77 P **Pn** 13 17 33.5 +1.8
MLR Muntele Rosu 7.54 77 ⇓P **Pn** 13 17 33.6 +1.8
AXS Araxos 7.55 142 P **Pn** 13 17 32.2 +0.5
BURAR Bucovina Array 7.56 61 P **Pn** 13 17 34.7 +2.7
BURAR Bucovina Array 7.56 61 Pn **Pn** 13 17 32.9 +0.9
BURAR Bucovina Array 7.56 61 ⇑P **Pn** 13 17 34.7 +2.7
BUR08 Bucovina Ar. S 7.56 60 **Pn** 13 17 32.6 +0.6
VVK Vomvokou 7.56 139 P **Pn** 13 17 32.9 +0.9
XOR Xorichti 7.58 128 P **Pn** 13 17 32.2 -0.1
XOR Xorichti 7.58 128 P **Pn** 13 17 32.4 +0.1
comp=Z,83nm,0.8s
EFP Efpalio 7.60 138 P **Pn** 13 17 33.4 +0.9
TNS Taunus Mts 7.61 324 *e*Pn **Pn** 13 17 32.8 +0.2
NEO Neokhori 7.64 128 P **Pn** 13 17 33.6 +0.5
TURR Turia 7.66 73 ⇓P **Pn** 13 17 35.9 +2.5
SZH Strazhitsa 7.68 94 P **Pn** 13 17 35.5 +2.0
ELND Elena 7.68 97 ⇑P **Pn** 13 17 35.4 +1.9
SERG Sergoula 7.69 138 P **Pn** 13 17 34.5 +0.7
RLS Riolos of Patr 7.70 142 P **Pn** 13 17 33.9 0.0
WIMM Wimmelburg 7.70 341 P **Pn** 13 17 34.6 +0.8
comp=Z,73nm,0.8s
KDZ Kurdzhali 7.72 107 P **Pn** 13 17 36.9 +2.8
AXAR Agios Charalam 7.72 133 P **Pn** 13 17 34.3 +0.2
VIVF Saint-Julien-l 7.73 278 *e*Pn **Pn** 13 17 33.2 -1.1
VIVF *e*Sn **Sn** 13 18 57.4 -3.9
comp=Z,114nm,0.6s
VIVF AML AML
LTHK Lithakia 7.73 147 P **Pn** 13 17 34.0 -0.3
KALE Kalithea 7.75 137 P **Pn** 13 17 35.3 +0.7
COVR Voineasa-Covas 7.76 75 ⇓P **Pn** 13 17 37.2 +2.6
THAS Thassos island 7.77 115 P **Pn** 13 17 36.7 +1.9
LAKA Lakka 7.79 139 P **Pn** 13 17 35.6 +0.5
SSB Saint Sauveur 7.83 281 P **Pn** 13 17 36.4 +0.7
comp=Z,32nm,0.6s
DRO Drossia 7.90 141 P **Pn** 13 17 37.1 +0.6
BIZ Bicaz 7.91 67 ⇑P **Pn** 13 17 38.9 +2.2
PAGF Fort de Pagny 7.96 306 *e*Pn **Pn** 13 17 37.5 +0.1
PAGF *e*Sn **Sn** 13 19 02.0 -5.0
comp=Z,1µm,1.6s
PAGF AML AML
KLV Kalavryta, Ach 8.03 139 P **Pn** 13 17 39.4 +1.0
PLOR Plostina 8.07 75 P **Pn** 13 17 41.4 +2.5
PLOR Plostina 8.07 75 ⇑P **Pn** 13 17 41.4 +2.5
VRI Vrincioaia 8.12 75 P **Pn** 13 17 42.1 +2.5
VRI Vrincioaia 8.12 75 ⇑P **Pn** 13 17 42.1 +2.5
TESR Tescani 8.18 70 ⇑P **Pn** 13 17 43.3 +3.0
GUR Goura 8.20 138 P **Pn** 13 17 40.8 -0.1
AMT Artemida-Makis 8.24 143 P **Pn** 13 17 42.0 +0.7
RUE Ruedersdorf 8.27 353 P **Pn** 13 17 42.0 +0.5
comp=Z,55nm,0.8s
THAL Thalero 8.28 137 P **Pn** 13 17 41.3 -0.4
WLF Walferdange 8.33 313 P **Pn** 13 17 46.5 +4.1
WLF Walferdange 8.33 313 *d*P **Pn** 13 17 45.0 +2.5
WLF Walferdange 8.33 313 *e*Pn **Pn** 13 17 44.9 +2.5
MEZF Maizieres J'vi 8.33 304 *e*Pn **Pn** 13 17 42.6 +0.1
MEZF *e*Sn **Sn** 13 19 12.0 -4.1
comp=Z,49nm,0.5s
MEZF AML AML
BEL Belsk 8.34 23 *e*P **Pn** 13 17 44.7 +2.1
BEL Belsk 8.34 23 P **Pn** 13 17 44.9 +2.4
comp=Z,13µm,0.5s
LASF Ste Croix 8.35 273 *e*Pn **Pn** 13 17 41.6 -1.2
LASF *e*Sn **Sn** 13 19 13.1 -3.4
comp=Z,42nm,0.6s
LASF AML AML
LTK Loutraki 8.44 135 P **Pn** 13 17 43.4 -0.6
SMF Signal de Mont 8.50 290 *e*Pn **Pn** 13 17 44.2 -0.6
SMF *e*Sn **Sn** 13 19 17.3 -3.0
comp=Z,110nm,0.5s
SMF AML AML
ALN Alexandroupoli 8.51 110 P **Pn** 13 17 46.3 +1.3
ALN Alexandroupoli 8.51 110 **Pn** 13 17 46.3 +1.3
ALN Alexandroupoli 8.51 110 P **Pn** 13 17 47.6 +2.6

comp=Z,38nm,0.6s
VILL Villia 8.51 133 P Pn 13 17 45.2 +0.2
STFN Stefani 8.62 132 P Pn 13 17 47.2 +0.6
ITM Ithomi 8.63 143 P Pn 13 17 46.7 0.0
ITM Ithomi 8.63 143 Pn 13 17 46.9 +0.2
ITM Ithomi 8.63 143 P Pn 13 17 47.9 +1.2
comp=Z,35nm,0.7s
LOR Lormes 8.64 294 *e*Pn Pn 13 17 46.4 -0.3
LOR Lormes 8.64 294 *e*Pn Pn 13 17 47.4 +0.7
LOR *e*Sn Sn 13 19 20.0 -3.7
comp=Z,82nm,0.3s
LOR AML AML
LOR Lormes 8.64 294 P Pn 13 17 49.0 +2.2
comp=Z,38nm,0.7s
VLX Vlachokerasia 8.68 141 P Pn 13 17 47.7 +0.3
KMPD K-Podol'skiy 8.71 57 P Pn 13 17 47.8 +0.2
SSF Saint Saulge 8.82 292 *e*Pn Pn 13 17 48.2 -1.0
SSF *e*Sn Sn 13 19 26.2 -1.8
comp=Z,70nm,0.7s
SSF AML AML
AVF Avril sur Loir 8.86 291 *e*Pn Pn 13 17 49.7 0.0
AVF *e*Sn Sn 13 19 27.5 -1.5
comp=Z,47nm,0.7s
AVF AML AML
MEM Membach 8.99 318 *d*P Pn 13 17 52.8 +1.3
MEM *d*S Sn 13 19 35.2 +3.0
BUG Bochum--Univer 9.02 325 P Pn 13 17 53.6 +1.8
comp=Z,30nm,0.9s
GKP Gorka Klasztor 9.05 7 *e*P Pn 13 17 54.2 +1.9
CFR Carcaliu 9.06 80 P Pn 13 17 54.6 +2.1
CFR Carcaliu 9.06 80 ⇑P Pn 13 17 54.6 +2.1
RCHB Rochefort 9.10 314 *d*P Pn 13 17 55.2 +2.2
RCHB *d*S Sn 13 19 34.5 -0.4
BGF Bois d'Agland 9.16 289 *e*Pn Pn 13 17 54.2 +0.4
BGF *e*Sn Sn 13 19 34.1 -2.3
comp=Z,94nm,0.4s
BGF AML AML
BCLA Clavier 9.22 315 *d*P Pn 13 17 56.9 +2.2
BCLA *d*S Sn 13 19 31.2 -6.6
LNIZ Loecknitz 9.24 355 P Pn 13 17 57.4 +2.5
comp=Z,89nm,0.8s
TPGR Topolog 9.26 82 ⇓P Pn 13 17 57.8 +2.5
GIVF Givet 9.28 312 *e*Pn Pn 13 17 56.5 +1.0
GIVF *e*Sn Sn 13 19 34.1 -5.2
comp=Z,282nm,1.4s
GIVF AML AML
SJAF Saint Jean de 9.34 263 P Pn 13 17 58.0 +1.7
comp=Z,28nm,0.8s
DOU Dourbes 9.40 312 *d*P Pn 13 18 08.5 +11
HYF Humbligny 9.44 293 *e*Pn Pn 13 17 58.8 +1.1
HYF *e*Sn Sn 13 19 41.4 -2.0
comp=Z,346nm,0.5s
HYF AML AML
TLCR 9.54 80 P Pn 13 18 01.1 +2.0
TLCR 9.54 80 ⇓P Pn 13 18 01.1 +2.0
TCF Toulx Ste Croi 9.55 287 *e*Pn Pn 13 17 59.5 +0.2
TCF *e*Sn Sn 13 19 41.2 -5.0
comp=Z,74nm,0.6s
TCF AML AML
CAF Calviac 9.58 278 *e*Pn Pn 13 17 59.9 +0.2
CAF *e*Sn Sn 13 19 40.8 -6.1
comp=Z,30nm,0.7s
CAF AML AML
CAF Calviac 9.58 278 P Pn 13 17 58.2 -1.5
BAIF Baives 9.59 311 *e*Pn Pn 13 18 00.6 +0.9
BAIF *e*Sn Sn 13 19 42.8 -4.0
comp=Z,82nm,1.1s
BAIF AML AML
MTLF Montolieu 9.63 269 *e*Pn Pn 13 18 01.7 +1.4
MTLF *e*Sn Sn 13 19 43.2 -4.7
comp=Z,31nm,0.9s
MTLF AML AML
MTLF Montolieu 9.63 269 P Pn 13 18 02.6 +2.3
comp=Z,40nm,0.9s
KEST Kesra 9.76 211 Pn Pn 13 18 07.1 +5.0
comp=Z,2.9nm,0.3s,baz=2.0,slow=2.3,SNR=18
KEST Sn Sn 13 19 51.6 +0.4
comp=Z,0.3nm,0.3s,baz=248,slow=17,SNR=1.3
KEST LR LR 13 22 29.1
comp=Z,422nm,18.2s,baz=48,slow=42
RNPP5 Staryi Chortor 9.86 42 P Pn 13 18 03.5 +0.1
KTHA Kythira Island 9.90 142 P Pn 13 18 05.6 +1.5
comp=Z,92nm,0.6s
RNPP8 Varash 9.91 41 P Pn 13 18 04.3 +0.2
RJF Les Rejaudoux 9.97 281 *e*Pn Pn 13 18 05.9 +0.9
RJF *e*Sn Sn 13 19 51.1 -5.2
comp=Z,44nm,0.8s
RJF AML AML
RNPP9 Sopachiv 9.98 41 P Pn 13 18 05.2 +0.2
CORI Orista 10.08 261 Pn 13 18 06.7 +0.2
LUBAR Lubar, Ukraine 10.09 52 P Pn 13 18 06.7 +0.2
BSEG Bad Segeberg 10.22 343 P Pn 13 18 09.2 +0.9
comp=Z,27nm,2.0s
CEST Esterri de Car 10.48 266 Pn 13 18 12.5 +0.5
LFF La Frestale 10.52 279 *e*Pn Pn 13 18 12.7 +0.2
LFF *e*Sn Sn 13 20 04.3 -5.5
comp=Z,43nm,0.7s
LFF AML AML
LFF La Frestale 10.52 279 P Pn 13 18 14.4 +1.9
BSD Bornholm Skovb 10.83 358 *e*P Pn 13 18 15.9 -0.7
BSD Bornholm Skovb 10.83 358 *i*P Pn 13 18 16.1 -0.6
BSD *i*S Sn 13 20 11.8 -5.5
BSD IAML 13 20 19.4
comp=Z,25nm,1.1s
SUW Suwalki 10.95 25 *e*P Pn 13 18 19.1 +0.8
SUW Suwalki 10.95 25 P Pn 13 18 18.7 +0.4
SUW Suwalki 10.95 25 Pn 13 18 18.7 +0.4
SUW Suwalki 10.95 25 *e*P Pn 13 18 16.5 -1.8
EPF Esparros 11.04 269 *e*Pn Pn 13 18 21.2 +1.6
AK13 Malin Array Si 11.15 51 P Pn 13 18 21.3 +0.2
AK19 Malin Array Si 11.18 50 P Pn 13 18 21.6 +0.1
AK17 Malin Array Si 11.19 50 P Pn 13 18 21.7 +0.1
AK14 Malin Array Si 11.19 51 P Pn 13 18 21.8 +0.2
AK20 Malin Array Si 11.19 50 P Pn 13 18 21.8 +0.2
AK07 Malin Array Si 11.20 51 P Pn 13 18 22.0 +0.2
AK16 Malin Array Si 11.21 51 P Pn 13 18 22.0 +0.2
MFF Saint Martin d 11.21 287 *e*Pn Pn 13 18 22.6 +0.7
MFF *e*Sn Sn 13 20 22.0 -4.7
comp=Z,58nm,1.0s
MFF AML AML
MFF Saint Martin d 11.21 287 P Pn 13 18 21.4 -0.5
AK18 Malin Array Si 11.21 50 P Pn 13 18 22.1 +0.2
AK06 Malin Array Si 11.22 51 P Pn 13 18 22.1 +0.1
KIEV Kiev 11.28 51 P Pn 13 18 23.5 +0.6
KIEV Kiev 11.28 51 P Pn 13 18 23.4 +0.6
KIEV Kiev 11.28 51 Pn 13 18 23.4 +0.6
AKASG Malin Array Be 11.29 51 Pn Pn 13 18 23.3 +0.4
comp=Z,2.1nm,0.3s,baz=247,slow=13,SNR=9.6
AKASG Sn Sn 13 20 24.5 -4.1
comp=Z,1.6nm,0.3s,baz=241,slow=24,SNR=2.1
AKASG LR LR 13 23 09.3
comp=Z,81nm,19.3s,baz=244,slow=40
comp=Z,1.2nm,0.4s
AKASG AML AML
AKBB Malin Array Si 11.29 51 *ce*P Pn 13 18 23.4 +0.5
AKBB Malin Array Si 11.29 51 P Pn 13 18 23.1 +0.2
MANT Manisa 11.41 116 Pn 13 18 25.4 +0.5
LUNU Lund 11.42 354 *i*P Pn 13 18 25.2 +0.5
IDI Anoyia 11.54 138 Pn Pn 13 18 24.8 -1.8
comp=Z,3.0nm,0.3s,baz=318,slow=16,SNR=15
IDI Sn Sn 13 20 30.0 -5.0
baz=90,slow=20
LDF La Druitiere 11.58 297 *e*Pn Pn 13 18 26.5 -0.4
LDF *e*Sn Sn 13 20 28.1 -7.6
ETSF Etsaut 11.71 269 *e*Pn Pn 13 18 29.6 +0.8
FLN La Foliniere 11.85 298 *e*Pn Pn 13 18 30.5 -0.2
FLN *e*Sn Sn 13 20 36.3 -6.1
comp=Z,402nm,1.9s
FLN AML AML
GRR Gorron 12.00 296 *e*Pn Pn 13 18 33.8 +1.1
GRR *e*Sn Sn 13 20 39.4 -6.5
comp=Z,130nm,1.4s
GRR AML AML
BLEU Blekinge 12.02 1 *i*P Pn 13 18 32.6 -0.3
BLEU *i*S Sn 13 20 41.3 -5.1
SJPF Ste Jean 12.14 270 *e*Pn Pn 13 18 34.9 +0.2
DEL Delary 12.23 356 *i*P Pn 13 18 34.8 -1.0
DEL *i*S Sn 13 20 43.5 -8.0
PABE Paberze 12.47 23 Pn 13 18 39.1 0.0
PABE Paberze 12.47 23 *e*P Pn 13 18 36.1 -3.0
PABE Paberze 12.47 23 P Pn 13 18 40.6 +1.5
comp=Z,65nm,1.1s
KARP Karpathos 12.52 130 *e*P Pn 13 18 40.8 +0.9

NACGM Naroch 12.88 31 *e*P Pn 13 18 46.0 +1.2
comp=Z,20nm,0.8s,baz=219
MNK Minsk 13.00 34 *i*P Pn 13 18 46.3 0.0
MNK *i*S Sn 13 21 10.6 +0.2
MNK pmax pmax
comp=Z,33nm,1.0s
MNK pmax pmax
comp=E,34nm,0.8s
MNK pmax pmax
comp=N,36nm,1.0s
MNK MLR MLR
comp=Z,343nm,14.0s
MNK MLR MLR
comp=E,198nm,14.0s
MNK MLR MLR
comp=N,137nm,17.0s
MNK Minsk 13.00 34 *i*P Pn 13 18 46.3 0.0
comp=E,34nm,0.8s
MNK *i*P Pn 13 18 46.3 0.0
comp=N,36nm,1.0s
MNK *i*P Pn 13 18 46.3 0.0
comp=Z,33nm,1.0s,baz=223
MNK *i*PP PnPn 13 18 54.2 +0.1
MNK *i*PPP PPP 13 19 01.9
MNK *i*S Sn 13 21 10.6 +0.2
MNK *i*SS SnSn 13 21 23.9 +1.4
MNK *i*SSS SSS 13 21 36.4
MNK *i*LQ LQ 13 22 44.3
MNK *i*LR LR 13 23 42.6
MNK *i*LRM MLR 13 24 39.6
comp=Z,343nm,14.3s
MNK *i*LRM MLR 13 24 44.0
comp=E,198nm,14.4s
MNK *i*LRM MLR 13 24 54.1
comp=N,137nm,17.4s
ISP Isparta 13.06 115 *ce*P Pn 13 18 48.3 +0.9
ISP pmax pmax
comp=Z,21nm,1.7s
SGMF Saint Gilles 13.08 294 *e*P Pn 13 18 51.8 +4.4
ELL Elmali 13.31 120 P Pn 13 18 51.4 +0.6
ELL Elmali 13.31 120 Pn 13 18 51.4 +0.6
QUIF Quistinic 13.42 292 *e*Pn Pn 13 18 52.6 +0.5
QUIF *e*Sn Sn 13 21 13.8 -6.9
comp=Z,213nm,1.4s
QUIF AML AML
AKAS Kas 13.46 122 P Pn 13 18 51.6 -1.2
comp=Z,440nm,0.8s
ROSF Rostrenen 13.56 294 *e*Pn Pn 13 18 54.6 +0.6
ROSF *e*Sn Sn 13 21 16.4 -7.8
comp=Z,366nm,1.7s
ROSF AML AML
BR131 Keskin Array S 14.26 102 *i*P Pn 13 19 05.6 +1.9
BRTR Keskin Array B 14.26 102 Pn Pn 13 19 04.3 +0.6
comp=Z,0.3nm,0.3s,baz=288,slow=10,SNR=6.2
comp=Z,0.8nm,0.9s
BRTR AML AML
KEPZ Antalya-Kepez 14.30 116 ⇑P Pn 13 19 06.9 +2.7
ESDC Sonseca Array 15.16 259 Pn Pn 13 19 17.0 +1.2
comp=Z,0.1nm,0.3s,baz=65,slow=13,SNR=12
comp=Z,5.5nm,1.0s
ESDC AML AML
ESDC Sonseca Array 15.16 259 IAmb IAmb 13 19 26.5
comp=Z,4.7nm,1.1s
MTSE Matsula 15.32 17 *e*P Pn 13 19 17.1 -0.6
PAB San Pablo 15.49 259 P P 13 19 24.4 -0.1
PAB pmax pmax
comp=Z,8.0nm,1.0s
PAB San Pablo 15.49 259 P 13 19 24.4 -0.1
ANN Anapa 15.67 80 *e*P P 13 19 27.9 +1.6
ANN pmax pmax
comp=Z,108nm,0.9s
VSU Vasula 15.80 22 *ce*P Pn 13 19 24.3 +0.4
VSU pmax pmax
comp=Z,34nm,1.7s
HFS Hagfors 15.90 357 Pn Pn 13 19 24.1 -1.1
comp=Z,0.2nm,0.3s,baz=160,slow=15,SNR=4.6
HFS LR LR 13 26 25.4
comp=Z,171nm,18.5s,baz=174,slow=41
comp=Z,3.0nm,0.9s
HFS AML AML
EKA Eskdalemuir Ar 16.27 319 Pn P 13 19 33.3 +0.4
baz=126,slow=14
ARBE Arbavere 16.46 19 *e*P P 13 19 34.2 -0.8
CSS Mathiatis 16.59 118 P P 13 19 37.1 +0.4
CSS IAmb IAmb 13 19 45.1
comp=Z,17nm,0.7s
CSS Mathiatis 16.59 118 P P 13 19 38.6 +1.9
comp=Z,28nm,0.8s
CSS Mathiatis 16.59 118 P P 13 19 37.5 +0.7
comp=Z,28nm,0.8s
CSS Mathiatis 16.59 118 P P 13 19 35.9 -0.9
MEF Metsahovi 16.83 16 *e*P P 13 19 39.3 +0.2
NB2 NORSAR Subarra 16.96 353 P P 13 19 40.1 -0.6
comp=Z,14nm,1.1s,baz=170,slow=11
NOA NORSAR Array B 16.96 353 Pn Pn 13 19 39.7 +0.9
baz=167,slow=11,SNR=9.2
NOA LR LR 13 26 51.9
comp=Z,169nm,20.2s,baz=175,slow=40
comp=Z,1.2nm,0.7s
RAF Rauma 17.17 10 *e*P Pn 13 19 42.0 +0.6
NC204 NORSAR Array S 17.24 352 P P 13 19 43.7 0.0
VSR Storozhevoye 17.33 58 *e*P Pn 13 19 42.3 -1.1
VSR pmax pmax
comp=Z,10.0nm,1.3s
OBN Obninsk 17.34 44 P P 13 19 44.6 -0.2
comp=Z,3.0nm,0.3s,baz=200,slow=15,SNR=3.2
comp=Z,15nm,0.5s
OBN AML AML
OBN Obninsk 17.34 44 ⇑*e*P P 13 19 45.8 +1.0
OBN pmax pmax
comp=Z,41nm,1.7s
OBN MLR MLR
comp=Z,110nm,12.0s
VORR Voronezh 17.47 57 *e*P Pn 13 19 44.3 -0.9
VORR pmax pmax
comp=Z,50nm,0.4s
LPSR Galich'ya Gora 17.58 54 *e*P P 13 19 48.3 +0.8
LPSR pmax pmax
comp=Z,20nm,0.6s
PMRV Marv??o 17.69 262 *e*P P 13 19 54.5 +5.7
ERBR Yeremizino-Bor 17.73 77 *e*P P 13 19 51.5 +2.3
ERBR *e*S S 13 23 11.2 -1.2
ERBR pmax pmax
comp=Z,29nm,1.0s
ERBR MLR MLR
comp=Z,88nm,9.0s
PBAR Barrancos 17.97 258 *e*P P 13 19 54.2 +2.3
LABN Labinsk 18.01 80 *e*P P 13 19 54.0 +1.6
LABN *e*S Sn 13 23 13.2 +0.8
LABN pmax pmax
comp=Z,39nm,0.7s
PESTR Estremoz 18.06 261 *e*P P 13 19 57.6 +4.7
MOS Moscow 18.18 43 *e*P Pn 13 19 53.3 -0.6
MOS pmax pmax
comp=Z,49nm,0.9s
FINES FINESS Array B 18.29 16 P Pn 13 19 54.5 -0.7
comp=Z,1.0nm,0.3s,baz=196,slow=10,SNR=25
FINES S Sn 13 23 16.4 -2.3
comp=Z,3.0nm,0.9s,baz=214,slow=25,SNR=2.2
FINES LR LR 13 27 52.8
comp=Z,219nm,19.2s,baz=218,slow=40
comp=Z,2.8nm,0.4s
FINES AML AML
FIA1 FINESS Array S 18.29 16 Pn 13 19 55.1 -0.1
FIA1 IAmb IAmb 13 20 12.6
comp=Z,48nm,1.0s
PARRA Arraiolos 18.40 261 *e*P Pn 13 20 02.6 +5.9
PVAQ Vaqueiros 18.81 257 *e*P Pn 13 20 06.8 +5.1
VRH Novokhopyorsk 18.89 59 *e*P Pn 13 20 02.5 -0.1
VRH pmax pmax
comp=Z,4.0nm,0.4s
PCVE Castro Verde 18.92 258 *e*P Pn 13 20 05.1 +2.0
PBDV Barranco-do-Ve 19.03 256 *e*P Pn 13 20 06.5 +2.1
MMA0B Mount Meron ar 19.16 119 P Pn 13 20 06.2 +0.1
MMAI Mount Meron Ar 19.16 119 P P 13 20 05.1 -0.1
comp=Z,3.6nm,0.3s,baz=333,slow=16,SNR=12
MMAI LR LR 13 28 58.9
comp=Z,86nm,18.2s,baz=318,slow=42
comp=Z,6.6nm,0.5s
MMAI AML AML
GEM Giv'at Ha'Em 19.20 118 P Pn 13 20 07.4 +1.0
GEM Giv'at Ha'Em 19.20 118 P Pn 13 20 06.4 0.0
MDT Midelt 19.39 241 P Pn 13 20 08.7 -0.1
comp=Z,0.3nm,0.3s,baz=53,slow=3.3,SNR=4.1
comp=Z,5.4nm,0.8s
MDT AML AML

MD01 Midelt array s 19.44 241 P 13 20 08.4 +0.1
KIV Kislovodsk 19.52 81 *e*P Pn 13 20 10.3 0.0
KIV pmax pmax
comp=Z,11nm,1.1s
KIV MLR MLR
comp=Z,25nm,14.0s
SHA1 Shidzhatmaz 19.54 82 *i*P Pn 13 20 12.4 +1.8
MMLI Mount Malkishu 19.56 120 P Pn 13 20 11.1 +0.2
comp=Z,31nm,1.1s
MMLI Mount Malkishu 19.56 120 P Pn 13 20 10.4 -0.4
KBZ Khabaz 19.71 82 P P 13 20 11.3 +0.4
comp=Z,0.2nm,0.3s,baz=310,slow=8.6,SNR=5.2
KBZ LR LR 13 28 13.3
comp=Z,48nm,20.1s,baz=262,slow=38
comp=Z,3.5nm,0.9s
KBZ AML AML
KBZ Khabaz 19.71 82 *i*P Pn 13 20 13.6 +1.2
KBZ pmax pmax
comp=Z,3.0nm,0.8s
KZIT Kziot 20.03 125 P P 13 20 15.3 +0.7
comp=Z,74nm,0.9s
RMNI Mount Ramon 20.47 125 P P 13 20 20.0 +0.6
ASF Jabal al Asfar 20.63 119 P P 13 20 22.4 +0.8
comp=Z,3.2nm,0.7s,baz=253,slow=4.8,SNR=5.3
ASF LR LR 13 29 19.1
comp=Z,78nm,20.3s,baz=308,slow=40
comp=Z,3.2nm,0.7s
PRNI Paran 20.79 125 P P 13 20 24.0 +1.2
comp=Z,105nm,0.8s
AVE Averroes 20.87 246 P P 13 20 23.9 +0.3
AVE IAmb IAmb 13 20 30.7
comp=Z,31nm,0.7s
DIGO Kars 20.94 91 P Pn 13 20 26.5 -0.7
comp=Z,46nm,1.1s
HRFI Mount Harif 21.04 126 P P 13 20 27.3 +1.8
comp=Z,23nm,0.7s
HRFI Mount Harif 21.04 126 P P 13 20 26.5 +1.0
EIL Elat 21.26 127 P P 13 20 28.6 +0.7
comp=Z,32nm,0.6s,baz=326,slow=11,SNR=12
comp=Z,32nm,0.6s
EIL Elat 21.26 127 P P 13 20 29.4 +1.5
comp=Z,46nm,0.8s
EIL Elat 21.26 127 P P 13 20 29.1 +1.1
comp=Z,46nm,0.8s
AQBJ Aqaba 21.28 127 P P 13 20 30.6 +2.6
comp=Z,255nm,0.7s
KLMR Klimovskoe 21.89 32 *e*P P 13 20 35.7 +1.3
KLMR *e* 13 24 33.0
KLMR pmax pmax
comp=Z,46nm,1.1s
GNI Garni 22.01 91 P P 13 20 36.3 +0.2
comp=Z,4.7nm,0.5s,baz=54,slow=15,SNR=3.9
comp=Z,4.7nm,0.5s
GNI Garni 22.01 91 *ce*P P 13 20 37.4 +1.3
GNI pmax pmax
comp=Z,17nm,1.7s
BELG Belogornoye 22.70 58 P P 13 20 42.7 -0.4
comp=Z,12nm,0.7s,baz=43,slow=6.5,SNR=3.9
comp=Z,12nm,0.7s
BELG Belogornoye 22.70 58 *i*P P 13 20 44.5 +1.4
BELG pmax pmax
comp=Z,7.0nm,1.0s
TAM Tamanrasset 22.96 204 P P 13 20 49.1 +2.9
TAM Tamanrasset 22.96 204 P P 13 20 49.1 +2.9
comp=Z,4.1nm,1.2s
MAK Makhachkala 23.16 82 *c*P P 13 20 44.9 -3.0
MAK *e*S S 13 24 54.7 -3.8
MAK pmax pmax
comp=Z,27nm,0.3s
MAK MLR MLR
comp=Z,114nm,15.0s
KIRV Kirov 25.20 43 *ce*P P 13 21 08.9 +2.1
APA Apatity 25.20 16 *e*P P 13 21 07.7 +0.9
APA *e* 13 21 41.9
APA *e* 13 24 34.2
APA pmax pmax
comp=Z,11nm,1.3s
APA MLR MLR
comp=Z,665nm,6.2s
LVZ Lovozero 25.73 17 *i*P P 13 21 13.5 +1.8
LVZ pmax pmax
comp=Z,58nm,1.4s
ARCES ARCESS Array B 25.82 8 P P 13 21 12.4 0.0
comp=Z,4.7nm,0.8s,baz=186,slow=9.6,SNR=5.8
ARCES LR LR 13 32 15.0
comp=Z,139nm,18.5s,baz=202,slow=39
comp=Z,4.7nm,0.8s
ARCES ARCESS Array B 25.82 8 IAmb IAmb 13 21 48.8
comp=Z,26nm,1.4s
BORG Borgarnes 28.91 328 LR LR 13 33 10.2
comp=Z,92nm,19.4s,baz=150,slow=36
ARTI Arti 29.44 50 LR LR 13 35 15.4
comp=Z,51nm,20.4s,baz=264,slow=40
ARTI Arti 29.44 50 *i*P P 13 21 44.3 -0.7
ARTI pmax pmax
comp=Z,5.0nm,0.8s
ARTI Arti 29.44 50 P P 13 21 45.2 +0.2
ARTI IAmb IAmb 13 21 56.4
comp=Z,6.7nm,0.9s
AB31 Akbulak array 30.52 65 P P 13 21 53.3 -1.3
ABKAR Akbulak array 30.52 65 P P 13 21 53.5 -1.1
SVE Sverdlovsk 30.72 50 *e*P P 13 21 57.6 +1.3
RAYN Ar Rayn 32.14 120 P P 13 22 10.8 +1.7
comp=Z,2.3nm,0.8s
TORD Torodi Ar. Bea 33.21 205 P P 13 22 19.0 +0.5
comp=Z,0.9nm,0.4s,baz=19,slow=8.9,SNR=5.8
comp=Z,0.9nm,0.4s
SPITS Spitsbergen Ar 34.00 0 P P 13 22 24.3 -0.5
comp=Z,9.2nm,0.9s,baz=212,slow=6.8,SNR=1.9
comp=Z,9.2nm,0.9s
BORK Borovoye 36.45 56 *i*P P 13 22 49.5 +3.3
BORK pmax pmax
comp=Z,4.0nm,0.8s
BORK Borovoye 36.45 56 P P 13 22 46.6 +0.4
BORK IAmb IAmb 13 22 53.8
comp=Z,3.6nm,0.6s
BVAR Borovoye Array 36.49 56 P P 13 22 46.4 -0.2
comp=Z,1.0nm,0.4s,baz=260,slow=5.7,SNR=6.8
comp=Z,1.0nm,0.4s
SHME Shamm 37.45 105 *i*P P 13 22 53.9 -1.1
SNR=5.8
BANOM Banah 37.64 105 P P 13 22 55.9 -0.7
NAZ Nazwa, Dubai 37.80 107 *i*P P 13 22 57.7 -0.3
SNR=7.3
ASUD Al Ashush, Dub 37.81 108 P P 13 22 58.3 +0.3
MSFE Esma-Masafi 37.90 106 *i*P P 13 22 58.2 -0.7
SNR=6.0
FAQ Al Faqa, Dubai 37.91 108 P P 13 22 58.2 -0.7
UOSS Minazif 38.20 107 *i*P P 13 23 00.5 -0.9
SNR=8.1
UOSS Minazif 38.20 107 P 13 23 00.5 -0.9
UOSS Minazif 38.20 107 P P 13 23 00.5 -0.9
comp=Z,14nm,0.9s
HATD Hatta, Dubai 38.23 107 *i*P P 13 23 01.0 -0.6
SNR=7.3
ASHO Ashiyiah 38.27 107 *i*P P 13 23 01.2 -0.8
SNR=20
ALNE Al Ain 38.48 108 *i*P P 13 23 03.3 -0.4
SNR=7.5
NOR Nord 38.94 353 P P 13 23 10.2 +3.3
comp=Z,5.8nm,1.3s
KK31 Karatay Array 39.18 72 P P 13 23 08.8 -0.6
KK31 pmax pmax
comp=Z,3.0nm,0.9s
KK31 Karatay Array 39.18 72 P 13 23 08.8 -0.6
KKAR Karatay Array 39.18 72 P P 13 23 08.9 -0.5
KKAR Karatay Array 39.18 72 P P 13 23 08.9 -0.5
TRKS Terek-Say 40.21 74 P P 13 23 18.3 +0.2
ARK Arkit 40.67 73 P P 13 23 23.3 +1.4
ARK Arkit 40.67 73 P P 13 23 23.3 +1.4
comp=Z,5.4nm,2.1s
SFJD Kangerlussuaq 41.03 327 LR LR 13 40 42.7
comp=Z,111nm,18.7s,baz=65,slow=37
DBIC Dimbokro 41.48 211 P P 13 23 28.7 +0.1
comp=Z,3.3nm,0.8s,baz=41,slow=7.5,SNR=4.6
DBIC LR LR 13 40 49.0
comp=Z,58nm,18.0s,baz=4.0,slow=36
comp=Z,3.3nm,0.8s
DBIC Dimbokro 41.48 211 P P 13 23 28.6 +0.1
DBIC pmax pmax
comp=Z,17nm,1.5s
DBIC Dimbokro 41.48 211 P P 13 23 28.6 +0.1
DBIC IAmb IAmb 13 24 02.8
comp=Z,17nm,1.4s
ARSB Arslanbob 41.56 73 P P 13 23 29.8 +0.6
ARSB pmax pmax
comp=Z,6.0nm,1.0s

ARSB	**Arslanbob**	**41.56**	**73**	P	**P**	**13 23 29.8**	**+0.6**
ARSB				IAmb	IAmb	13 23 36.9	
	comp=Z,5.8nm,1.0s						
OHH	**Osh**	**41.75**	**74**	P	**P**	**13 23 29.3**	**-1.5**
OHH	**Osh**	**41.75**	**74**	P	**P**	**13 23 29.3**	**-1.5**
	comp=Z,8.5nm,0.7s						
KURBB	**Kurchatov Arra**	**41.95**	**58**	P	**P**	**13 23 31.3**	**-0.8**
	comp=Z,0.7nm,0.5s,baz=287,slow=9.6,SNR=13						
	comp=Z,0.7nm,0.5s						
KURK	**Kurchatov**	**41.98**	**58**	*i* P	**P**	**13 23 31.8**	**-0.6**
KURK				pmax	pmax		
	comp=Z,6.0nm,1.9s						
KURK	**Kurchatov**	**41.98**	**58**	P	**P**	**13 23 31.3**	**-1.1**
AAK	**Ala-Archa**	**42.06**	**71**	*i* P	**P**	**13 23 34.1**	**+0.7**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s						
AAK	**Ala-Archa**	**42.06**	**71**	P	**P**	**13 23 33.7**	**+0.3**
AAK	**Ala-Archa**	**42.06**	**71**	P	**P**	**13 23 34.1**	**+0.7**
	comp=Z,3.0nm,1.1s						
NRIK	**Noril'sk**	**43.19**	**30**	LR	LR	13 43 51.8	
	comp=Z,72nm,18.0s,baz=268,slow=39						
NRIK	**Noril'sk**	**43.19**	**30**	*i* P	**P**	**13 23 41.4**	**-0.6**
NRIK				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ANVS	**Anan'yevo**	**44.15**	**69**	P	**P**	**13 23 50.7**	**+0.5**
ASAI	**AK-SAY(Kyrgyzs**	**44.15**	**72**	P	**P**	**13 23 51.5**	**+1.0**
	comp=Z,4.2nm,1.4s						
KSH2	**Kashi**	**44.28**	**75**	P	**P**	**13 23 52.4**	**+1.1**
KSH2				pP	pP	13 23 56.1	-1.0
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
LODK	**Lodwar**	**44.33**	**151**		**P**	**13 23 52.7**	**+0.9**
LODK				IAmb	IAmb	13 23 54.1	
	comp=Z,4.3nm,0.9s						
LODK	**Lodwar**	**44.33**	**151**	P	**P**	**13 23 53.2**	**+1.4**
	comp=Z,6.0nm,1.0s						
TARG	**Taragay, Kyrgy**	**44.68**	**71**	P	**P**	**13 23 56.2**	**+1.4**
TARG	**Taragay, Kyrgy**	**44.68**	**71**	IAmb	IAmb	13 24 02.0	
	comp=Z,5.8nm,0.9s						
TARG	**Taragay, Kyrgy**	**44.68**	**71**	P	**P**	**13 23 56.2**	**+1.4**
	comp=Z,6.1nm,0.8s						
ZALV	**Zalesovo Beam**	**44.68**	**52**	P	**P**	**13 23 53.6**	**-0.5**
	comp=Z,0.8nm,0.3s,baz=279,slow=8.4,SNR=5.7						
ZALV				LR	LR	13 43 39.4	
	comp=Z,29nm,19.2s,baz=324,slow=38						
	comp=Z,0.8nm,0.3s						
PDGK	**Podgornoye**	**45.14**	**68**	P	**P**	**13 23 57.8**	**-0.3**
PDGK	**Podgornoye**	**45.14**	**68**		**P**	**13 23 57.8**	**-0.3**
MK31	**Makanchi Array**	**45.58**	**62**	*i* P	**P**	**13 24 00.5**	**-1.0**
MKAR	**Makanchi Array**	**45.58**	**62**	P	**P**	**13 24 01.1**	**-0.4**
	comp=Z,1.6nm,0.7s,baz=283,slow=7.7,SNR=16						
MKAR				LR	LR	13 45 42.2	
	comp=Z,42nm,18.5s,baz=291,slow=40						
	comp=Z,1.6nm,0.7s						
MKAR	**Makanchi Array**	**45.58**	**62**		**P**	**13 24 01.2**	**-0.2**
DGZ	**Jazzator, Alta**	**47.65**	**57**	*i* P	**P**	**13 24 17.3**	**-0.5**
DGZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SCHQ	**Schefferville**	**51.44**	**313**	P	**P**	**13 24 45.5**	**-0.9**
	comp=Z,6.4nm,0.8s,baz=152,slow=2.1,SNR=6.3						
	comp=Z,6.4nm,0.8s						
BATG	**Bathurst New B**	**54.43**	**304**	P	**P**	**13 25 08.1**	**-0.4**
TIXI	**Tiksi**	**55.26**	**21**	*ce*P	**P**	**13 25 15.0**	**+0.8**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.3s						
G65A	**Princeton**	**56.37**	**303**	P	**P**	**13 25 22.1**	**-0.4**
EVN	**Everest**	**58.15**	**81**	P	**P**	**13 25 35.6**	**-0.6**
	comp=Z,4.6nm,1.4s						
EVN				pP	**pP**	**13 25 40.2**	**-1.9**
SONM	**Songino Array**	**59.57**	**51**	P	**P**	**13 25 45.1**	**0.0**
	comp=Z,1.2nm,0.7s,baz=274,slow=7.3,SNR=6.3						
SONM				LR	LR	13 53 20.9	
	comp=Z,37nm,21.0s,baz=345,slow=38						
	comp=Z,1.2nm,0.7s						
SONM	**Songino Array**	**59.57**	**51**	IAmb	IAmb	13 25 50.0	
	comp=Z,2.8nm,1.1s						
ULN	**Ulaanbaatar**	**59.92**	**51**	*i* P	**P**	**13 25 49.0**	**+1.4**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
LSA	**Lhasa**	**60.16**	**76**	P	**P**	**13 25 49.8**	**-0.1**
LSA	**Lhasa**	**60.16**	**76**	P	**P**	**13 25 49.8**	**-0.1**
	comp=Z,8.6nm,0.7s						
MSEY	**Mahe Island**	**60.54**	**133**	P	**P**	**13 25 51.9**	**-0.1**
MSEY	**Mahe Island**	**60.54**	**133**	P	**P**	**13 25 51.9**	**-0.1**
YAK	**Yakutsk**	**61.65**	**29**	*ce*P	**P**	**13 25 57.1**	**-1.7**
YAK				pmax	pmax		
	comp=Z,27nm,2.5s						
YAK	**Yakutsk**	**61.65**	**29**	P	**P**	**13 25 59.9**	**+1.0**
	comp=Z,15nm,0.8s						
YKA	**Yellowknife Ar**	**66.31**	**337**	P	**P**	**13 26 29.6**	**+0.1**
	comp=Z,2.4nm,0.9s,baz=40,slow=6.2,SNR=4.8						
	comp=Z,2.4nm,0.9s						
HHC	**Hu-ho-hao-te**	**66.70**	**55**	*e*P	**P**	**13 26 31.8**	**-0.7**
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
HHC				pmax	pmax		
	comp=Z,180nm,5.7s						
LPHEP	**Lephephe**	**68.00**	**170**	P	**P**	**13 26 41.5**	**+0.8**
ULM	**Lac du Bonnet**	**68.54**	**320**	P	**P**	**13 26 45.4**	**+1.5**
	comp=Z,3.3nm,0.8s,baz=13,slow=5.9,SNR=4.3						
	comp=Z,3.3nm,0.8s						
XAN	**Xi'an**	**69.40**	**62**	*e*P	**P**	**13 26 48.9**	**-0.6**
LBTB	**Lobatse**	**69.59**	**170**	P	**P**	**13 26 51.4**	**+0.8**
LBTB	**Lobatse**	**69.59**	**170**	P	**P**	**13 26 51.4**	**+0.8**
LBTB	**Lobatse**	**69.59**	**170**	P	**P**	**13 26 51.6**	**+0.9**
	comp=Z,13nm,2.9s						
IMAR	**Indian Mountai**	**69.74**	**355**	P	**P**	**13 26 51.5**	**+0.5**
NPW	**Naypyitaw**	**69.90**	**82**	P	**P**	**13 26 51.2**	**-1.4**
	comp=Z,12nm,0.7s						
MA2	**Magadan**	**70.16**	**22**	LR	LR	14 00 51.0	
	comp=Z,35nm,20.0s,baz=332,slow=39						
ILAR	**Eielson Array**	**70.39**	**352**	P	**P**	**13 26 56.0**	**+0.9**
	comp=Z,0.5nm,0.9s,baz=9.6,slow=5.2,SNR=5.3						
	comp=Z,0.5nm,0.9s						
ILAR	**Eielson Array**	**70.39**	**352**	P	**P**	**13 26 56.0**	**+0.9**
Y58A	**Scranton**	**70.55**	**299**	IAmb	IAmb	13 27 00.1	
	comp=Z,5.1nm,0.9s						
KLR	**Kul'dur**	**71.51**	**38**	LR	LR	14 00 24.8	
	comp=Z,44nm,18.2s,baz=321,slow=38						
DHY	**Denali Highway**	**72.10**	**352**	P	**P**	**13 27 05.5**	**0.0**
DHY				IAmb	IAmb	13 27 10.9	
	comp=Z,9.9nm,1.2s						
CHTO	**Chiang Mai**	**72.52**	**81**	P	**P**	**13 27 07.6**	**-1.0**
CHTO				pmax	pmax		
	comp=Z,4.0nm,1.1s						
CHTO	**Chiang Mai**	**72.52**	**81**	P	**P**	**13 27 07.6**	**-1.0**
CHTO				IAmb	IAmb	13 27 08.5	
	comp=Z,3.7nm,1.1s						
CHTO	**Chiang Mai**	**72.52**	**81**	P	**P**	**13 27 08.0**	**-0.6**
	comp=Z,3.6nm,0.8s						
CMAR	**Chiang Mai Arr**	**72.75**	**81**	P	**P**	**13 27 09.4**	**-0.6**
	comp=Z,1.1nm,0.6s,baz=307,slow=7.2,SNR=11						
	comp=Z,1.1nm,0.6s						
BOSA	**Boshof**	**73.11**	**171**	P	**P**	**13 27 12.2**	**+0.4**
	comp=Z,4.5nm,0.7s,baz=356,slow=6.2,SNR=12						
	comp=Z,4.5nm,0.7s						
BOSA	**Boshof**	**73.11**	**171**	P	**P**	**13 27 12.3**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BOSA	**Boshof**	**73.11**	**171**	P	**P**	**13 27 12.3**	**+0.5**
BOSA				IAmb	IAmb	13 27 12.7	
	comp=Z,5.5nm,0.8s						
BOSA	**Boshof**	**73.11**	**171**	P	**P**	**13 27 12.3**	**+0.5**
	comp=Z,17nm,1.8s						
CLTN	**Cedars of Leba**	**73.19**	**304**	P	**P**	**13 27 11.7**	**-0.6**
CLTN				IAmb	IAmb	13 27 38.5	
	comp=Z,5.9nm,1.4s						
R40A	**Maddies Statio**	**75.09**	**309**	P	**P**	**13 27 22.8**	**-0.5**
R40A				IAmb	IAmb	13 28 01.3	
	comp=Z,3.6nm,0.9s						
NJ2	**Nanjing**	**76.92**	**58**	*e*P	**P**	**13 27 33.1**	**-0.8**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
KSRS	**Korea Array**	**78.28**	**49**	LR	LR	14 05 59.8	
	comp=Z,18nm,19.2s,baz=285,slow=39						
PDAR	**Pinedale Array**	**80.36**	**322**	P	**P**	**13 27 53.2**	**+0.2**
	comp=Z,0.6nm,0.6s,baz=59,slow=5.4,SNR=6.3						
	comp=Z,0.6nm,0.6s						
HWUT	**Hardware Ranch**	**82.18**	**323**	P	**P**	**13 28 02.7**	**+0.1**
	comp=Z,3.5nm,0.8s						
PV22	**Blue Mesa, Par**	**83.41**	**319**	IAmb	IAmb	13 28 10.2	
	comp=Z,5.0nm,0.9s						
PV23	**Carpenter Ridg**	**83.58**	**319**	IAmb	IAmb	13 28 15.5	
	comp=Z,7.3nm,0.9s						
MJAR	**Matsushiro Arr**	**84.27**	**43**	P	**P**	**13 28 14.7**	**+1.4**
	comp=Z,1.4nm,0.8s,baz=323,slow=3.5,SNR=3.6						
MJAR				LR	LR	14 09 46.7	
	comp=Z,48nm,18.6s,baz=320,slow=38						
	comp=Z,1.4nm,0.8s						
MJAR	**Matsushiro Arr**	**84.27**	**43**	IAmb	IAmb	13 28 39.4	
	comp=Z,6.0nm,1.4s						
CLDB	**Colider**	**84.48**	**249**	P	**P**	**13 28 15.2**	**+0.7**
ANMO	**Albuquerque**	**85.13**	**316**	*ce*P	**P**	**13 28 16.7**	**-1.2**
ANMO				pmax	pmax		
	comp=Z,6.0nm,2.5s						
YBH	**Yreka Blue Hor**	**86.50**	**330**	LR	LR	14 10 18.0	
	comp=Z,74nm,21.3s,baz=351,slow=38						
MNTX	**Cornudas Mount**	**87.13**	**313**	P	**P**	**13 28 27.6**	**0.0**
NVAR	**Mina Array Bea**	**87.67**	**325**	P	**P**	**13 28 28.9**	**-1.4**
TXAR	**Lajitas Array**	**88.05**	**310**	P	**P**	**13 28 32.6**	**+0.4**
	comp=Z,0.8nm,0.7s,baz=73,slow=4.6,SNR=9.1						
	comp=Z,0.8nm,0.7s						
BOAB	**BOACO BROADBAN**	**89.22**	**287**	P	**P**	**13 28 36.9**	**-0.7**
PFO	**Pinyon Flats O**	**90.97**	**322**	LR	LR	14 10 08.9	
	comp=Z,69nm,18.0s,baz=39,slow=36						
ASAR	**Alice Springs**	**126.25**	**89**	PKP	**PKPdf**	**13 34 43.2**	**-1.0**
	comp=Z,0.3nm,0.5s,baz=309,slow=1.6,SNR=9.3						

*AFAD **01** 13:18:01.8, 37.85N×26.84E, h7km±2km, ML3.5*
*ISK **01** 13:18:01.3, 37.85N×26.84E, h5km, ML3.4/35*
*THE **01** 13:18:02.0, 38.1°×2.7E±, h7km±3km, M3.3/12, MLh3.3/12*

ISC 01 13:18:01.9±0.9, 37.85N±0.02×26.82E±0.02, h11km±8km, n73, σ0.65/89, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.21**	**14**	P		**Pg**	**13 18 06.3**	**-0.1**
DGB				S		**Sg**	**13 18 09.6**	**+0.1**
DGB				IAML			13 18 10.0	
	comp=N,7μm,0.4s							
DGB				IAML			13 18 10.0	
	comp=E,1μm,0.3s							
GMLD	**Gumuldur**	**0.24**	**19**	Pg		**Pg**	**13 18 06.9**	**-0.1**
GMLD				Sg		**Sg**	**13 18 10.9**	**+0.6**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.36**	**114**	P		**Pg**	**13 18 08.9**	**-0.2**
GCAM				IAML			13 18 14.0	
	comp=E,9μm,0.4s							
GCAM				S		**Sg**	**13 18 14.4**	**+0.5**
GCAM				IAML			13 18 15.0	
	comp=N,7μm,0.2s							
GCAM	**G?zelcaml?**	**0.36**	**114**	Pg		**Pg**	**13 18 08.9**	**-0.2**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**88**	Pg		**Pg**	**13 18 09.5**	**+0.2**
KUSD				AML		AML		
BEYE	**izmir**	**0.39**	**13**	P		**Pg**	**13 18 09.6**	**-0.1**
BEYE				S		**Sg**	**13 18 15.3**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.46**	**328**	P		**Pg**	**13 18 11.0**	**0.0**
ZEYE				S		**Sb**	**13 18 18.4**	**-0.6**
ZEYE				IAML			13 18 19.0	
	comp=E,3μm,0.2s							
ZEYE				IAML			13 18 22.0	
	comp=N,6μm,0.3s							
DDIM	**Aydin, Didim**	**0.51**	**139**	P		**Pg**	**13 18 11.8**	**-0.1**
DDIM				S		**Sb**	**13 18 19.5**	**-1.0**
DDIM				IAML			13 18 20.0	
	comp=E,5μm,0.6s							
DDIM				IAML			13 18 22.0	
	comp=N,4μm,0.5s							
BLCB	**Balcova**	**0.57**	**18**	P		**Pg**	**13 18 12.9**	**-0.1**
BLCB				S		**Sg**	**13 18 20.9**	**+0.4**
BLCB				AML		AML		
BLCB	**Balcova**	**0.57**	**18**	Pg		**Pg**	**13 18 12.9**	**-0.1**
BLCB				AML		AML		
DUVT	**Torbali**	**0.62**	**53**	P		**Pg**	**13 18 13.4**	**-0.7**
DUVT				S		**Sg**	**13 18 21.9**	**-0.4**
DUVT				IAML			13 18 25.0	
	comp=E,4μm,0.6s							
CESE	**eme**	**0.63**	**320**	Pg		**Pb**	**13 18 14.9**	**-0.1**
CESE				AML		AML		
KRBN	**Karaburun**	**0.78**	**345**	Pg		**Pg**	**13 18 16.8**	**-0.1**
KRBN				AML		AML		
CHOS	**Chios island**	**0.81**	**312**	P		**Pg**	**13 18 17.7**	**+0.1**
CHOS				S		**Sb**	**13 18 29.8**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.81**	**312**	Pg		**Pb**	**13 18 18.2**	**+0.1**
CHOS				AML		AML		
BAGT	**Foa**	**0.81**	**2**	P		**Pg**	**13 18 17.1**	**-0.5**
BAGT				S		**Sb**	**13 18 29.3**	**+0.3**
BAGT				IAML			13 18 31.0	
	comp=E,2μm,0.6s							
BAGT				IAML			13 18 32.0	
	comp=N,3μm,0.6s							
YKAV	**Yalikavak-Bodr**	**0.81**	**153**	Pg		**Pb**	**13 18 17.9**	**-0.1**
YKAV				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.85**	**83**	Pg		**Pb**	**13 18 19.0**	**+0.1**
AYDB				AML		AML		
AYDN	**Tasoluk**	**0.86**	**102**	P		**Pg**	**13 18 18.1**	**-0.5**
FOCM	**Foa**	**0.87**	**356**	Pg		**Pb**	**13 18 19.0**	**-0.1**
FOCM				AML		AML		
BODT	**Bodrum**	**0.88**	**153**	P		**Pg**	**13 18 18.3**	**-0.5**
BODT				S		**Sb**	**13 18 31.1**	**+0.2**
BODT				AML		AML		
BODT	**Bodrum**	**0.88**	**153**	Pg		**Pb**	**13 18 19.3**	**+0.1**
BODT				AML		AML		
KARB	**zmir-Karabur**	**0.88**	**339**	P		**Pg**	**13 18 18.2**	**-0.7**
KARB				S		**Sb**	**13 18 32.3**	**+1.4**
KARB				IAML			13 18 33.0	
	comp=N,1μm,0.5s							
KARB				IAML			13 18 36.0	
	comp=E,2μm,0.6s							
BDRM	**Kayabasi**	**0.93**	**147**	P		**Pg**	**13 18 19.4**	**-0.3**
BDRM				IAML			13 18 35.0	
	comp=E,2μm,0.5s							
MLSB	**Milas**	**0.94**	**125**	Pg		**Pb**	**13 18 20.3**	**0.0**
MLSB				AML		AML		
IZMR	**zmir-demi**	**0.94**	**72**	P		**Pg**	**13 18 19.3**	**-0.8**
IZMR				S		**Sg**	**13 18 31.5**	**-0.9**
CAMT	**Merkez**	**0.98**	**23**	P		**Pb**	**13 18 20.9**	**-0.1**
CAMT				S		**Sn**	**13 18 36.2**	**+0.6**
CAMT				IAML			13 18 39.0	
	comp=N,2μm,0.5s							
CAMT				IAML			13 18 41.0	
	comp=E,2μm,0.4s							
ZEDA	**zmir-Bergama**	**1.14**	**10**	P		**Pg**	**13 18 23.1**	**-0.8**
ZEDA				S		**Sn**	**13 18 39.4**	**0.0**
ZEDA				IAML			13 18 42.0	
	comp=N,1μm,0.7s							
NAZL	**Nazilli-Aydin**	**1.17**	**84**	Pn		**Pg**	**13 18 23.7**	**-0.8**
NAZL				AML		AML		
GOMA	**Golmarmara-Man**	**1.22**	**45**	Pn		**Pn**	**13 18 25.5**	**+0.5**
GOMA				AML		AML		
DKL	**Dikili**	**1.23**	**3**	Pn		**Pn**	**13 18 25.8**	**+0.8**
DKL				AML		AML		
DAT	**Datca**	**1.27**	**151**	P		**Pn**	**13 18 24.8**	**-1.0**
DAT				AML		AML		
DAT	**Datca**	**1.27**	**151**	Pn		**Pg**	**13 18 26.9**	**+0.6**
DAT				AML		AML		
AKHS	**Akhisar**	**1.29**	**37**	P		**Pb**	**13 18 26.3**	**-0.1**
AKHS				IAML			13 18 47.0	
	comp=N,638nm,0.4s							
AKS	**Akhisar**	**1.29**	**37**	Pn		**Pn**	**13 18 25.9**	**-0.1**
AKS				AML		AML		
KTTT	**Salihli**	**1.31**	**50**	P		**Pg**	**13 18 26.8**	**-0.3**
KTTT				IAML			13 18 46.0	
	comp=N,782nm,0.5s							
YER	**Yerkesik**	**1.36**	**121**	P		**Pn**	**13 18 26.5**	**-0.5**
YER	**Yerkesik**	**1.36**	**121**	Pn		**Pg**	**13 18 28.3**	**+0.1**
YER				AML		AML		
SOMA	**Soma-Manisa**	**1.42**	**23**	Pn		**Pg**	**13 18 29.1**	**-0.2**
SOMA				AML		AML		
PRK	**Paraskevi**	**1.46**	**343**	P		**Pn**	**13 18 28.6**	**+0.3**
PRK				S		**Sb**	**13 18 48.2**	**+0.4**
PRK				AML		AML		
GORD	**Gordes-Manisa**	**1.51**	**45**	Pn		**Pb**	**13 18 30.1**	**+0.1**
GORD				AML		AML		
TURN	**Turunc**	**1.56**	**133**	Pn		**Pb**	**13 18 31.1**	**+0.3**
TURN				AML		AML		
YAYO	**Edremit-Balk**	**1.77**	**6**	Pn		**Pb**	**13 18 34.4**	**-0.1**
YAYO				AML		AML		
CMBO	**Columbo, Santo**	**1.78**	**220**	P		**Pn**	**13 18 32.3**	**-0.3**
THR2	**Thira island,**	**1.78**	**219**	P		**Pn**	**13 18 32.3**	**-0.3**
DALY	**Dalyan (Mula)**	**1.79**	**124**	Pn		**Pb**	**13 18 34.4**	**-0.3**
DALY				AML		AML		
THR5	**Thira Island,**	**1.85**	**220**	Pn		**Pb**	**13 18 35.8**	**+0.1**
KARY	**Karystos**	**1.89**	**276**	P		**Pn**	**13 18 34.1**	**-0.1**
BALB	**Balikesir**	**1.98**	**25**	Pn		**Pb**	**13 18 36.9**	**-1.0**
BALB				AML		AML		
APMY	**Acipayam-Deniz**	**2.01**	**100**	Pn		**Pb**	**13 18 37.4**	**-1.1**
APMY				AML		AML		
EZN	**Ezine**	**2.01**	**349**	Pn		**Pb**	**13 18 37.8**	**-0.8**
EZN				AML		AML		
BOZC	**Bozcaada**	**2.08**	**344**	Pn		**Pb**	**13 18 38.8**	**-0.9**
BOZC				AML		AML		
SIMA	**Simav-Kutahya**	**2.10**	**53**	Pn		**Pb**	**13 18 39.1**	**-1.0**
SIMA				AML		AML		
YENI	**Yenice-Canakka**	**2.11**	**9**	Pn		**Pb**	**13 18 39.3**	**-1.0**
CANM	**Can-anakkale**	**2.17**	**5**	Pn		**Pb**	**13 18 40.3**	**-1.0**
CANM				AML		AML		
CAME	**Cameli-Denizli**	**2.17**	**114**	Pn		**Pn**	**13 18 39.2**	**+1.0**
CAME				AML		AML		
FETY	**Fethiye**	**2.17**	**123**	Pn		**Pn**	**13 18 39.4**	**+1.3**
FETY				AML		AML		
SHAP	**Saphane-Kutahy**	**2.23**	**57**	Pn		**Pn**	**13 18 40.5**	**+1.6**
SHAP				AML		AML		
DST	**Dursunbey**	**2.25**	**38**	Pn		**Pn**	**13 18 40.9**	**+1.7**
DST				AML		AML		
DION	**Dionisos Attik**	**2.29**	**277**	P		**Pn**	**13 18 40.1**	**+0.3**
GONE	**Gonen-Balikesi**	**2.30**	**17**	Pn		**Pb**	**13 18 42.1**	**-1.4**
GONE				AML		AML		
KARP	**Karpathos**	**2.31**	**173**	P		**Pn**	**13 18 40.1**	**0.0**
KARP				AML		AML		
SUSR	**Susurluk-Balik**	**2.33**	**25**	Pn		**Pb**	**13 18 42.3**	**-1.7**
SUSR				AML		AML		
PTL	**Penteli**	**2.34**	**276**	P		**Pn**	**13 18 40.5**	**+0.1**
PTL				AML		AML		
VLY	**Voula,Athens**	**2.39**	**271**	P		**Pn**	**13 18 41.0**	**-0.1**
VLY				AML		AML		
ATHU	**Athens Univers**	**2.40**	**274**	P		**Pn**	**13 18 41.2**	**-0.1**
LIA	**Limnos Island**	**2.41**	**329**	P		**Pn**	**13 18 41.5**	**+0.1**
LIA				AML		AML		
GADA	**Gvkgeada**	**2.45**	**343**	P		**Pn**	**13 18 42.6**	**+0.7**
GADA				AML		AML		
SMTH	**Samothraki Isl**	**2.81**	**340**	P		**Pn**	**13 18 47.0**	**+0.2**
SMTH				AML		AML		
ENEZ	**Enez**	**2.93**	**350**	P		**Pn**	**13 18 48.7**	**+0.2**
KZIT	**Kziot**	**9.33**	**136**	P		**Pn**	**13 20 16.6**	**+0.2**
	74nm,0.9s							
ASF	**Jabal al Asfar**	**9.98**	**122**	P		**Pn**	**13 20 27.3**	**+1.4**
	119nm,1.0s							
HRFI	**Mount Harif**	**10.35**	**136**	P		**Pn**	**13 20 29.6**	**-0.9**
	23nm,0.7s							

*THE **01** 13:28:57.7, 38.2°×2.7E±, h5km±4km, M3.1/5, MLh3.1/5*
*AFAD **01** 13:28:57.6, 37.90N×26.82E, h5km±1km, ML2.7*
*ISK **01** 13:28:57.8, 37.90N×26.85E, h6km, ML3.0/18*
*ATH **01** 13:28:57.4, 37.94N×26.87E, h7km±1km, ML3.1/4, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 01 13:28:57.9±0.8, 37.91N±0.02×26.83E±0.02, h12km±6km, n54, σ0.45/73, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.15**	**16**	P		**Pg**	**13 29 01.2**	**-0.3**
DGB				S		**Sg**	**13 29 03.4**	**-0.5**
DGB				IAML			13 29 04.0	
	comp=E,2μm,0.2s							
DGB				IAML			13 29 05.0	
	comp=N,2μm,0.7s							
KRL1	**Karlovasi Samo**	**0.15**	**220**	P		**Pg**	**13 29 01.3**	**-0.1**
KRL1				S		**Sg**	**13 29 04.2**	**+0.2**
KRL1				AML		AML		
GMLD	**Gumuldur**	**0.18**	**22**	Pg		**Pg**	**13 29 01.8**	**-0.1**
GMLD				Sg		**Sg**	**13 29 04.9**	**+0.2**
GMLD				AML		AML		
BEYE	**izmir**	**0.33**	**14**	P		**Pg**	**13 29 04.4**	**-0.1**
BEYE				IAML			13 29 09.0	
	comp=E,752nm,0.3s							
BEYE				S		**Sg**	**13 29 09.3**	**+0.3**
BEYE				IAML			13 29 14.0	
	comp=N,772nm,0.8s							
KUSD	**Kusadasi-Aydin**	**0.36**	**98**	Pg		**Pg**	**13 29 05.1**	**-0.2**
KUSD				Sg		**Sg**	**13 29 10.5**	**+0.4**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.38**	**123**	P		**Pg**	**13 29 05.3**	**-0.2**
GCAM				IAML			13 29 11.0	
	comp=N,913nm,0.2s							
GCAM				IAML			13 29 11.0	
	comp=E,1μm,0.4s							
GCAM				S		**Sb**	**13 29 11.4**	**-1.1**
GCAM	**G?zelcaml?**	**0.38**	**123**	Pg		**Pg**	**13 29 05.4**	**-0.2**
GCAM				Sg		**Sg**	**13 29 11.1**	**+0.4**
GCAM				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.42**	**322**	P		**Pg**	**13 29 06.0**	**-0.2**
ZEYE				IAML			13 29 12.0	
	comp=E,990nm,0.3s							
ZEYE				S		**Sg**	**13 29 12.5**	**+0.7**
BLCB	**Balcova**	**0.50**	**19**	P		**Pg**	**13 29 07.7**	**-0.1**
BLCB				S		**Sg**	**13 29 14.5**	**+0.1**
BLCB				AML		AML		
BLCB	**Balcova**	**0.50**	**19**	Pg		**Pg**	**13 29 08.0**	**+0.2**
BLCB				Sg		**Sb**	**13 29 15.6**	**-0.4**
BLCB				AML		AML		
DDIM	**Aydin, Didim**	**0.56**	**144**	P		**Pg**	**13 29 08.7**	**-0.2**
DDIM				IAML			13 29 17.0	
	comp=N,753nm,0.5s							
DDIM				IAML			13 29 17.0	
	comp=E,984nm,0.7s							
DUVT	**Torbali**	**0.58**	**58**	P		**Pg**	**13 29

DKL				AML	AML			
DKL	**Dikili**	**1.16**	**3**	P	**Pg**	**13 29 19.7**	**-0.6**
GOMA	**Golmarmara-Man**	**1.17**	**47**	Pn	**Pn**	**13 29 20.5**	**+0.4**
GOMA				AML	AML			
ESEN	**Aydn-Nazilli**	**1.21**	**95**	P	**Pn**	**13 29 21.3**	**+0.6**
AKS	**Akhisar**	**1.24**	**38**	Pn	**Pn**	**13 29 21.9**	**+0.8**
AKS				AML	AML			
KTTT	**Salihli**	**1.26**	**52**	P	**Pn**	**13 29 22.0**	**+0.6**
KTTT				IAML		13 29 41.0		
	comp=N,140nm,0.4s							
KIRA	**zmir-Kiraz**	**1.27**	**77**	P	**Pn**	**13 29 22.1**	**+0.5**
DAT	**Datca**	**1.32**	**153**	P	**Pn**	**13 29 21.9**	**-0.5**
SOMA	**Soma-Manisa**	**1.36**	**24**	Pn	**Pg**	**13 29 24.4**	**+0.3**
SOMA				AML	AML			
YER	**Yerkesik**	**1.39**	**123**	P	**Pn**	**13 29 23.0**	**-0.3**
PRK	**Paraskevi**	**1.40**	**342**	P	**Pn**	**13 29 23.4**	**0.0**
PRK				S	**Sb**	**13 29 41.9**	**-0.1**
PRK				AML	AML			
PRK	**Paraskevi**	**1.40**	**342**	P	**Pn**	**13 29 23.3**	**0.0**
PRK				S	**Sb**	**13 29 41.9**	**-0.1**
PRK				AML	AML			
NAX1	**Naxos Island**	**1.41**	**236**	P	**Pb**	**13 29 24.4**	**+0.2**
NAX1				S	**Sb**	**13 29 42.5**	**+0.4**
GORD	**Gordes-Manisa**	**1.45**	**46**	Pn	**Pg**	**13 29 25.2**	**-0.7**
GORD				AML	AML			
CMBO	**Columbo, Santo**	**1.83**	**219**	P	**Pn**	**13 29 29.7**	**+0.5**
THR2	**Thira island,**	**1.84**	**218**	P	**Pn**	**13 29 30.5**	**+1.1**
THR8	**Santorini-Mono**	**1.85**	**216**	P	**Pn**	**13 29 30.5**	**+1.0**
THR3	**Thira Island,**	**1.88**	**218**	P	**Pn**	**13 29 30.6**	**+0.7**
KARY	**Karystos**	**1.90**	**274**	P	**Pn**	**13 29 29.8**	**-0.4**
KARY	**Karystos**	**1.90**	**274**	P	**Pn**	**13 29 29.3**	**-0.8**
ARG	**Arkhangelos**	**1.98**	**148**	P	**Pn**	**13 29 32.0**	**+0.7**
DION	**Dionisos Attik**	**2.29**	**275**	P	**Pn**	**13 29 35.3**	**-0.3**

*VAO **01** 13:47:28.1±1.3,22°.52S×69°.71W,h10km,mb4.5, Presumed earthquake*
*IDC **01** 13:47:54.8±2.2,21°.86S×67°.91W,h110km±19km,mb4.0/3, mbtmp4.0/9,Error ellipse: s-maj=32.3km s-min=17.0km az=115.0*
*NEIC **01** 13:47:54.7±1.7,21°.81S±0°.03×68°.20W±0°.09,h126km±9km, mb4.3/8,ML3.7(GUC),Error ellipse: s-maj=12.2km s-min=3.5km az=94.0*
*SJA **01** 13:47:55.5±1.8,21°.71S×68°.25W,h110km,ML3.5,MW3.6*
*GUC **01** 13:47:56.1±0.8,21°.76S×68°.35W,h139km±4km,ML3.7, Presumed earthquake*

ISC 01 13:47:54.5±0.6,21°.76S±0°.03×68°.23W±0°.04,h135km±6km, n92,σ1°66/118,mb4.1/5,8C-1D,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.94**	**268**	*eP*	**Pn**	**13 48 18.1**	**+0.5**
PB09				*eS*	**Sn**	**13 48 38.3**	**+3.3**
PB09				IAML		13 48 39.7	
	comp=Z,404nm,0.2s						
PB09	**IPOC Station P**	**0.94**	**268**		**Pn**	**13 48 17.8**	**+0.3**
PB09	**IPOC Station P**	**0.94**	**268**	↑*iP*	**Pn**	**13 48 18.0**	**+0.5**
PB09				*i S*	**Sn**	**13 48 35.2**	**+0.3**
AF01	**San Pedro de A**	**1.19**	**178**	*eP*	**Pn**	**13 48 19.6**	**-0.4**
AF01	**San Pedro de A**	**1.19**	**178**	*eP*	**Pn**	**13 48 19.8**	**-0.2**
PB03	**IPOC Station P**	**1.45**	**258**	*eP*	**Pn**	**13 48 22.6**	**+0.1**
PB03				*eS*	**Sn**	**13 48 44.7**	**+0.9**
PB03				IAML		13 48 46.3	
	comp=Z,608nm,0.1s						
PB03	**IPOC Station P**	**1.45**	**258**		**Pn**	**13 48 22.5**	**-0.1**
PB03	**IPOC Station P**	**1.45**	**258**	↑*iP*	**Pn**	**13 48 22.4**	**-0.1**
PB03				*eS*	**Sn**	**13 48 42.8**	**-1.1**
PB03				IAML		13 48 43.4	
	comp=N,408nm,0.3s						
PB07	**IPOC Station P**	**1.54**	**271**	*eP*	**Pn**	**13 48 23.6**	**+0.1**
PB07				*eS*	**Sn**	**13 48 46.1**	**+0.3**
PB07				IAML		13 48 46.2	
	comp=Z,533nm,0.2s						
PB07	**IPOC Station P**	**1.54**	**271**		**Pn**	**13 48 23.5**	**-0.1**
PB07	**IPOC Station P**	**1.54**	**271**	↑*iP*	**Pn**	**13 48 23.5**	**-0.1**
PB07				*eS*	**Sn**	**13 48 44.9**	**-0.8**
PB07				IAML		13 48 46.2	
	comp=N,1μm,0.1s						
PB06	**IPOC Station P**	**1.56**	**233**	*eP*	**Pn**	**13 48 24.2**	**+0.4**
PB06				*eS*	**Sn**	**13 48 48.4**	**+2.3**
PB06				IAML		13 48 52.0	
	comp=Z,411nm,0.2s						
PB06	**IPOC Station P**	**1.56**	**233**		**Pn**	**13 48 23.7**	**-0.1**
PB06	**IPOC Station P**	**1.56**	**233**	↑*iP*	**Pn**	**13 48 24.2**	**+0.4**
PB06				*i S*	**Sn**	**13 48 46.1**	**0.0**
PB06				IAML		13 48 47.8	
	comp=E,630nm,0.2s						
PB02	**IPOC Station P**	**1.61**	**285**	*eP*	**Pn**	**13 48 24.5**	**+0.1**
PB02				*eS*	**Sn**	**13 48 47.4**	**+0.4**
PB02				IAML		13 48 52.3	
	comp=Z,1μm,0.4s						
PB02	**IPOC Station P**	**1.61**	**285**		**Pn**	**13 48 24.1**	**-0.2**
PB02	**IPOC Station P**	**1.61**	**285**	↑*iP*	**Pn**	**13 48 24.2**	**-0.2**
PB02				*eS*	**Sn**	**13 48 45.9**	**-1.2**
PB02				IAML		13 48 48.9	
	comp=N,2μm,0.2s						
PB08	**IPOC Station P**	**1.83**	**332**	*eP*	**Pn**	**13 48 28.4**	**+1.3**
PB08				*eS*	**Sn**	**13 48 53.8**	**+1.8**
PB08				IAML		13 48 54.5	
	comp=Z,273nm,0.6s						
PB08	**IPOC Station P**	**1.83**	**332**	↓*iP*	**Pn**	**13 48 28.6**	**+1.5**
PB08				*i S*	**Sn**	**13 48 52.7**	**+0.7**
PB08				IAML		13 48 55.5	
	comp=E,514nm,0.2s						
PB05	**IPOC Station P**	**2.13**	**239**	*eP*	**Pn**	**13 48 30.2**	**-0.2**
PB05				*eS*	**Sn**	**13 48 59.9**	**+2.0**
PB05				IAML		13 49 03.8	
	comp=Z,172nm,0.2s						
PB05	**IPOC Station P**	**2.13**	**239**		**Pn**	**13 48 29.9**	**-0.6**
PB05	**IPOC Station P**	**2.13**	**239**	↑*iP*	**Pn**	**13 48 30.2**	**-0.2**
PB05				*i S*	**Sn**	**13 48 56.9**	**-1.0**
PB05				IAML		13 49 02.9	
	comp=E,264nm,0.5s						
TA01	**Diego Aracena**	**2.17**	**303**	*eP*	**Pn**	**13 48 30.8**	**-0.1**
TA01				*eS*	**Sn**	**13 48 58.7**	**-0.1**
TA01				IAML		13 49 00.9	
	comp=Z,288nm,0.3s						
TA01	**Diego Aracena**	**2.17**	**303**		**Pn**	**13 48 30.5**	**-0.4**
TA01	**Diego Aracena**	**2.17**	**303**	↑*iP*	**Pn**	**13 48 30.5**	**-0.4**
TA01				*i S*	**Sn**	**13 48 56.7**	**-2.0**
TA01				IAML		13 49 03.7	
	comp=N,553nm,0.4s						
GO01	**Chusmiza**	**2.27**	**336**	*eP*	**Pn**	**13 48 34.1**	**+1.6**
GO01				*eS*	**Sn**	**13 49 04.3**	**+2.7**
GO01				IAML		13 49 06.0	
	comp=Z,200nm,0.1s						
GO01	**Chusmiza**	**2.27**	**336**		**Pn**	**13 48 33.0**	**+0.4**
GO01	**Chusmiza**	**2.27**	**336**	*eP*	**Pn**	**13 48 33.7**	**+1.2**
GO01				*eS*	**Sn**	**13 49 02.0**	**+0.4**
GO01				IAML		13 49 08.2	
	comp=N,677nm,0.2s						
TA02	**Huaiquique**	**2.31**	**309**	*eP*	**Pn**	**13 48 32.3**	**-0.3**
TA02				IAML		13 49 07.7	
	comp=Z,522nm,0.1s						
TA02	**Huaiquique**	**2.31**	**309**	*i* P	**Pn**	**13 48 31.7**	**-0.9**
TA02				*eS*	**Sn**	**13 48 59.2**	**-2.6**
PB11	**IPOC Station P**	**2.40**	**326**	*eP*	**Pn**	**13 48 34.1**	**+0.3**
PB11				*eS*	**Sn**	**13 49 03.9**	**0.0**
PB11				IAML		13 49 08.5	
	comp=Z,268nm,0.3s						
PB11	**IPOC Station P**	**2.40**	**326**		**Pn**	**13 48 34.1**	**+0.3**
PB11	**IPOC Station P**	**2.40**	**326**	*eP*	**Pn**	**13 48 34.1**	**+0.3**
PB11				*eS*	**Sn**	**13 49 03.2**	**-0.7**
PB11				IAML		13 49 05.4	
	comp=E,596nm,0.2s						
YJA	**Yavi**	**2.55**	**100**	*eP*	**Pn**	**13 48 39.3**	**+3.3**
YJA				*eS*	**Sn**	**13 49 06.0**	**-1.9**
PB10	**IPOC Station P**	**2.77**	**230**	*eP*	**Pn**	**13 48 37.9**	**-0.4**
PB10				*eS*	**Sn**	**13 49 14.0**	**+1.9**
PB10				IAML		13 49 22.4	
	comp=Z,105nm,0.5s						
PB10	**IPOC Station P**	**2.77**	**230**		**Pn**	**13 48 38.0**	**-0.3**
PB10	**IPOC Station P**	**2.77**	**230**	*eP*	**Pn**	**13 48 38.0**	**-0.3**
PB10				*eS*	**Sn**	**13 49 09.1**	**-3.0**
PB10				IAML		13 49 21.0	
	comp=N,150nm,0.4s						
PSGCX	**Pisagua**	**2.79**	**320**	*eP*	**Pn**	**13 48 37.9**	**-0.8**
PSGCX				*eP*		13 48 38.1	
PSGCX				*eS*	**Sn**	**13 49 12.1**	**-0.7**
PSGCX				IAML		13 49 15.3	
	comp=Z,251nm,0.4s						
PSGCX	**Pisagua**	**2.79**	**320**		**Pn**	**13 48 37.8**	**-0.8**
PSGCX	**Pisagua**	**2.79**	**320**	↑*iP*	**Pn**	**13 48 37.9**	**-0.8**
PSGCX				*eS*	**Sn**	**13 49 08.5**	**-4.2**
HJA	**Humahuaca**	**2.98**	**119**	*eP*	**Pn**	**13 48 44.2**	**+2.8**
HJA				IAML		13 49 48.9	
	comp=Z,204nm,2.8s						
PB14	**IPOC Station P**	**3.48**	**215**		**Pn**	**13 48 47.4**	**-0.5**
PB16	**IPOC Station P**	**3.61**	**340**	*eP*	**Pn**	**13 48 51.5**	**+1.6**
PB16				*eS*	**Sn**	**13 49 35.7**	**+3.1**
PB12	**IPOC Station P**	**3.70**	**327**	*eP*	**Pn**	**13 48 50.3**	**-0.3**
PB12				*eS*	**Sn**	**13 49 32.2**	**-1.7**
PB12				IAML		13 49 34.2	
	comp=Z,56nm,0.4s						
PB12	**IPOC Station P**	**3.70**	**327**		**Pn**	**13 48 49.6**	**-1.0**
FSA	**Cafayete**	**4.80**	**155**	*eP*	**Pn**	**13 49 07.6**	**+2.5**
FSA				*eS*	Sn	13 49 42.4	-18
AC01	**Pan de Azucar**	**4.88**	**206**		**Pn**	**13 49 04.5**	**-1.5**
AC02	**Maricunga**	**5.12**	**189**	*eP*	**Pn**	**13 49 10.2**	**+0.5**
AC02				*eS*	**Sn**	**13 50 05.0**	**-3.3**
AC02	**Maricunga**	**5.12**	**189**		**Pn**	**13 49 09.6**	**-0.2**
LPAZ	**La Paz**	**5.44**	**1**	P	**Pn**	**13 49 16.4**	**+2.1**
	comp=Z,2.0nm,0.3s,baz=172,slow=10,SNR=24						
LPAZ				S	**Sn**	**13 50 15.5**	**-0.7**
	comp=Z,3.5nm,0.8s,baz=281,slow=10,SNR=4.0						
LPAZ	**La Paz**	**5.44**	**1**	*eP*	Pn	13 49 04.2	-10
AC05	**El Transito**	**7.29**	**194**	Pn	**Pn**	**13 49 36.1**	**-2.4**
BBSD	**Serra de San D**	**8.50**	**59**	*eP*	**Pn**	**13 49 52.4**	**-2.4**
SIV	**San Ignacio**	**8.88**	**51**	P	**Pn**	**13 49 57.5**	**-2.4**
	comp=Z,24nm,0.3s,baz=230,slow=11,SNR=124						
CFA	**Coronel Fontan**	**9.81**	**180**	P	**Pn**	**13 50 09.8**	**-2.4**
	comp=Z,0.7nm,0.4s,baz=22,slow=16,SNR=6.6						
MURT	**Porto Murtinho**	**9.87**	**91**	*eP*	**Pn**	**13 50 09.9**	**-3.2**
COIM	**Forte Coimbra**	**9.94**	**81**	*eP*	**Pn**	**13 50 10.3**	**-3.6**
PTLB	**Pontes e Lacer**	**10.66**	**55**		**Pn**	**13 50 22.2**	**-1.5**
PTLB	**Pontes e Lacer**	**10.66**	**55**	*eP*	**Pn**	**13 50 22.4**	**-1.2**
BDQN	**Bodoquena, MS**	**10.79**	**85**	*eP*	**Pn**	**13 50 21.9**	**-3.6**
CPUP	**Vila Florida**	**10.95**	**117**	P	**Pn**	**13 50 25.6**	**-1.8**
	comp=Z,0.7nm,0.5s,baz=295,slow=14,SNR=1.8						
VILB	**Vilhena**	**11.63**	**42**		**Pn**	**13 50 35.9**	**-0.7**
VILB	**Vilhena**	**11.63**	**42**	*eP*	**Pn**	**13 50 35.8**	**-0.8**
PCMB	**Pacaembu**	**15.77**	**93**	*eP*	**Pn**	**13 51 28.8**	**-0.6**
LDASE	**Londrina, Braz**	**15.89**	**99**	*eP*	**Pn**	**13 51 28.5**	**-2.2**
CLDB	**Colider**	**16.10**	**50**	*eP*	**Pn**	**13 51 33.4**	**0.0**
GO06	**Curarrehue**	**17.98**	**188**	P	**P**	**13 51 53.7**	**-1.0**
BB19B	**Bebedouro**	**18.36**	**91**	*eP*	**P**	**13 51 58.3**	**-0.6**
SNDB	**Serra Nova Dou**	**18.89**	**62**	*eP*	**P**	**13 52 04.8**	**+0.2**
PLCA	**Paso Flores**	**19.02**	**185**	P	**Pn**	**13 52 07.3**	**-0.9**
	comp=Z,1.0nm,0.5s,baz=351,slow=9.5,SNR=7.1						
PLCA	**Paso Flores**	**19.02**	**185**		**P**	**13 52 06.3**	**+0.3**
IPMB	**Ipameri, GO**	**19.20**	**82**	*eP*	**P**	**13 52 08.8**	**+0.7**
NPGB	**Novo Progresso**	**19.20**	**42**	*eP*	**P**	**13 52 07.2**	**-0.9**
BDFB	**Brasilia**	**20.08**	**76**	P	**P**	**13 52 17.0**	**-0.7**
	comp=Z,1.0nm,0.3s,baz=241,slow=10,SNR=3.2						
BDFB	**Brasilia**	**20.08**	**76**	IAmb	IAmb	13 52 31.0	
	comp=Z,16nm,1.5s						
ITTB	**Itaituba**	**21.11**	**37**	*eP*	**P**	**13 52 28.2**	**-0.5**
SMTB	**Santa Maria do**	**23.64**	**60**	P	**P**	**13 52 54.4**	**+0.6**
SMTB				IAmb	IAmb	13 52 56.6	
	comp=Z,9.8nm,1.1s						
ALF01	**Guarapari-ES**	**25.66**	**93**	*eP*	**P**	**13 53 11.7**	**-0.2**
PMSA	**Palmer Station**	**43.09**	**177**	P	**P**	**13 55 40.6**	**-0.2**
VNA3	**Neumayer Olymp**	**59.63**	**161**	P	**P**	**13 57 46.5**	**+2.5**
	comp=Z,1.0nm,0.7s						
VNA2	**Neumayer--Watz**	**60.20**	**161**	P	**P**	**13 57 50.2**	**+2.4**
	comp=Z,0.9nm,0.5s,baz=286,slow=5.8						
TROLL	**Troll, Antarti**	**63.54**	**161**	P	**P**	**13 58 13.1**	**+2.7**
	comp=Z,52nm,0.4s						
DBIC	**Dimbokro**	**68.20**	**73**	P	**P**	**13 58 42.2**	**+1.3**
	comp=Z,3.2nm,0.4s,baz=246,slow=7.2,SNR=9.5						
	comp=Z,3.2nm,0.4s						
DBIC	**Dimbokro**	**68.20**	**73**	IAmb	IAmb	13 59 10.8	
	comp=Z,10nm,1.1s						
QSPA	**South Pole Qui**	**68.43**	**180**	P	**P**	**13 58 44.8**	**+3.1**
	comp=Z,0.8nm,0.5s,baz=228,slow=1.8,SNR=12						
	comp=Z,0.8nm,0.5s						
QSPA	**South Pole Qui**	**68.43**	**180**	IAmb	IAmb	13 59 07.6	
	comp=Z,8.7nm,1.5s						
TORD	**Torodi Ar. Bea**	**76.85**	**70**	P	**P**	**13 59 33.7**	**+1.6**
	comp=Z,2.4nm,0.5s,baz=255,slow=5.0,SNR=25						
	comp=Z,2.4nm,0.5s						
TORD	**Torodi Ar. Bea**	**76.85**	**70**	P	**P**	**13 59 32.2**	**+0.1**
ASAR	**Alice Springs**	**129.97**	**207**	PKP	**PKiKP**	**14 06 51.5**	**+1.7**
	comp=Z,0.2nm,0.5s,baz=142,slow=1.5,SNR=4.9						
WRA	**Warramunga Arr**	**133.05**	**210**	PKP	**PKiKP**	**14 06 57.9**	**+1.8**
	comp=Z,0.1nm,0.7s,baz=174,slow=2.0,SNR=5.4						
HHC	**Hu-ho-hao-te**	**160.97**	**0**	*eP*	**PKPdf**	**14 07 34.4**	**-4.6**
LZH	**Lanzhou**	**164.14**	**24**	*eP*	**PKPdf**	**14 07 37.8**	**-4.6**
LZH				sP	pPKPdf	14 07 46.3	-34
LZH				pmax	pmax		
	comp=Z,22nm,1.2s						

*NEIC **01** 14:05:51.5±0.6,55°.38N±0°.04×160°.19W±0°.06,h66km±5km, ML3.3/38,ML3.1(AEIC),Error ellipse: s-maj=6.1km s-min=4.6km az=153.0*
*AEIC **01** 14:05:52.4±1.0,55°.37N±0°.04×160°.20W±0°.06,h62km±7km, Error ellipse: s-maj=6.1km s-min=4.4km az=152.0*

ISC 01 14:05:52.1±1.3,55°.39N±0°.04×160°.18W±0°.03,h61km±8km, n90,σ1°00/91,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SDPT	**Sand Point**	**0.17**	**257**	P	**Pn**	**14 06 01.3**	**-0.3**
SDPT	**Sand Point**	**0.17**	**257**	S	**Sn**	**14 06 08.9**	**+0.5**
SDPT	**Sand Point**	**0.17**	**257**		**Pn**	**14 06 01.4**	**-0.2**
SDPT				IAML		14 06 09.4	
	comp=E,2μm,0.3s						
SDPT				IAML		14 06 09.6	
	comp=N,1μm,0.3s						
SDPT	**Sand Point**	**0.17**	**257**		**Sn**	**14 06 09.2**	**+0.7**
CHNA	**Chernabura Isl**	**0.65**	**149**	P	**Pn**	**14 06 05.1**	**-0.8**
CHNA	**Chernabura Isl**	**0.65**	**149**	S	**Sn**	**14 06 16.6**	**+0.7**
CNBA	**Chernabura Isl**	**0.66**	**149**		**Pn**	**14 06 05.3**	**-0.7**
CNBA				IAML		14 06 17.1	
	comp=E,2μm,0.5s						
CNBA				IAML		14 06 17.1	
	comp=N,2μm,0.4s						
CNBA	**Chernabura Isl**	**0.66**	**149**		**Sn**	**14 06 16.5**	**+0.3**
VNKR	**Veniaminof 5**	**0.79**	**35**		**Pn**	**14 06 07.4**	**-0.2**
VNKR					**Sn**	**14 06 19.4**	**+0.4**
VNWF	**Veniaminof 8**	**0.84**	**24**		**Pn**	**14 06 08.3**	**0.0**
PS1A	**Pavlof South-1**	**0.89**	**273**		**Pn**	**14 06 08.3**	**-0.5**
PS1A					**Sn**	**14 06 21.2**	**0.0**
VNSS	**Veniaminof 8**	**0.93**	**26**		**Pn**	**14 06 09.6**	**0.0**
PS4A	**Pavlof South-4**	**0.96**	**268**		**Pn**	**14 06 09.2**	**-0.5**
PS4A					**Sn**	**14 06 22.4**	**-0.2**
VNFG	**Fog Glacier, M**	**0.96**	**21**		**Pn**	**14 06 10.1**	**+0.2**
DOL	**Dolgoi Island**	**0.99**	**257**		**Pn**	**14 06 09.4**	**-0.8**
DOL					**Sn**	**14 06 22.8**	**-0.7**
VNHG	**Veniaminof 1**	**1.01**	**34**		**Pn**	**14 06 10.5**	**+0.1**
S12K	**Black Hills**	**1.11**	**287**		**Pn**	**14 06 11.1**	**-0.7**
S12K				IAML		14 06 26.9	
	comp=N,713nm,0.4s						
S12K	**Black Hills**	**1.11**	**287**		**Sn**	**14 06 25.8**	**-0.5**
DTNA	**Dutton South F**	**1.21**	**259**		**Pn**	**14 06 12.4**	**-0.6**
DT1	**Dutton Round H**	**1.24**	**258**		**Sn**	**14 06 28.6**	**-0.5**
CHGN	**Chignik**	**1.35**	**47**		**Pn**	**14 06 14.4**	**-0.4**
CHGN				IAML		14 06 38.0	
	comp=N,668nm,0.1s						
CHGN	**Chignik**	**1.35**	**47**		**Sn**	**14 06 32.3**	**+0.5**
BPBCA	**Veniaminof**	**1.54**	**38**		**Pn**	**14 06 17.2**	**-0.3**
ANPK	**Aniakchak Peak**	**1.85**	**37**		**Pn**	**14 06 21.5**	**-0.2**
SSLN	**Shishaldin Nor**	**2.27**	**257**		**Pn**	**14 06 26.6**	**-0.6**
SSBA	**Shishaldin**	**2.35**	**256**		**Pn**	**14 06 27.4**	**-1.0**
WTUG	**Tugumak**	**2.48**	**259**		**Pn**	**14 06 29.1**	**-0.9**
WTUG					**Sn**	**14 06 59.5**	**+0.3**
R16K	**Pilot Point**	**2.62**	**32**		**Pn**	**14 06 31.7**	**-0.2**
R16K				IAML		14 07 05.2	
	comp=N,142nm,1.2s						
R16K				IAML		14 07 30.8	
	comp=E,143nm,1.1s						
CHIR	**Chirikof Islan**	**2.62**	**79**	P	**Pn**	**14 06 32.7**	**+0.7**
CHIR	**Chirikof Islan**	**2.62**	**79**		**Pn**	**14 06 31.1**	**-0.9**
CHIR				IAML		14 07 15.7	
	comp=N,142nm,0.6s						
WESN	**West Dahl Nort**	**2.67**	**254**		**Pn**	**14 06 32.4**	**-0.3**
WESP	**Westdahl Peak**	**2.77**	**253**		**Pn**	**14 06 33.7**	**-0.5**
WECS	**Westdahl Cape**	**2.79**	**254**		**Pn**	**14 06 33.7**	**-0.6**
R17L	**Mt. Peulik Vol**	**3.09**	**42**		**Pn**	**14 06 38.8**	**+0.4**
PLK1	**Peulik 1**	**3.12**	**38**		**Pn**	**14 06 39.0**	**+0.2**
PLK5	**Peulik 5**	**3.19**	**33**		**Pn**	**14 06 39.9**	**+0.3**
AKUT	**Akutan**	**3.48**	**251**	P	**Pn**	**14 06 46.0**	**+2.3**
AKUT	**Akutan**	**3.48**	**251**	S	**Sn**	**14 07 28.8**	**+5.3**
SII	**Sitkinak Islan**	**3.57**	**68**	P	**Pn**	**14 06 43.6**	**-1.3**
SII	**Sitkinak Islan**	**3.57**	**68**		**Pn**	**14 06 43.8**	**-1.1**
KJL	**Kejulik**	**3.68**	**42**		**Pn**	**14 06 46.4**	**-0.2**
Q17K	**Contact Creek**	**3.72**	**38**		**Pn**	**14 06 47.0**	**-0.1**
O15K	**Ungalikthiuk R**	**3.80**	**3**		**Pn**	**14 06 47.3**	**-0.8**
ANCK	**Angle Creek**	**3.82**	**41**		**Pn**	**14 06 48.6**	**+0.2**
P16K	**Nushagak River**	**3.84**	**17**		**Pn**	**14 06 48.1**	**-0.6**
P16K				IAML		14 08 04.8	
	comp=N,32nm,1.0s						
P16K				IAML		14 08 31.7	
	comp=E,35nm,0.9s						
ACHA	**Angle Creek He**	**3.89**	**41**		**Pn**	**14 06 49.4**	**+0.1**
O14K	**Tigyukauivet M**	**3.92**	**352**		**Pn**	**14 06 49.2**	**-0.5**
KAWH	**Katmai**	**4.21**	**42**		**Pn**	**14 06 53.4**	**-0.3**
OHAK	**Old Harbor**	**4.25**	**62**	P	**Pn**	**14 06 52.9**	**-1.4**
OHAK	**Old Harbor**	**4.25**	**62**		**Pn**	**14 06 52.9**	**-1.4**
OHAK	**Old Harbor**	**4.25**	**62**	IAML		14 08 03.1	
	comp=N,30nm,1.0s						
OHAK				IAML		14 08 10.3	
	comp=E,29nm,1.0s						
Q18K	**Katmai Hardscr**	**4.32**	**39**		**Pn**	**14 06 55.4**	**+0.1**
P17K	**Kvichak River**	**4.32**	**26**		**Pn**	**14 06 54.7**	**-0.5**
KARR	**Katmai Rainbow**	**4.32**	**42**		**Pn**	**14 06 55.5**	**+0.2**
O16K	**Kokwok River B**	**4.36**	**14**		**Pn**	**14 06 54.9**	**-0.9**
N14K	**Kuskokwak Cree**	**4.62**	**351**		**Pn**	**14 06 58.6**	**-0.6**
N14K	**Kuskokwak Cree**	**4.62**	**351**	IAML		14 08 22.7	
	comp=N,19nm,1.1s						
N14K				IAML		14 08 26.1	
	comp=E,17nm,0.7s						
O17K	**Koliganek Bris**	**4.70**	**19**		**Pn**	**14 06 59.7**	**-0.7**
N15K	**Kwethluk River**	**4.79**	**1**		**Pn**	**14 07 01.0**	**-0.7**
N15K				IAML		14 08 40.5	
	comp=E,14nm,1.2s						
KDAK	**Kodiak Island**	**4.83**	**57**		**Pn**	**14 07 00.8**	**-1.4**
KDAK	**Kodiak Island**	**4.83**	**57**	IAML		14 08 17.4	
	comp=E,36nm,0.8s						
KDAK				IAML		14 08 19.6	
	comp=E,28nm,0.6s						
N16K	**Nishlik Lake**	**5.15**	**8**		**Pn**	**14 07 06.4**	**-0.3**
M13K	**Dall Lake**	**5.31**	**343**		**Pn**	**14 07 08.4**	**-0.4**
M13K	**Dall Lake**	**5.31**	**343**	IAML		14 08 17.9	
	comp=E,13nm,0.5s						
M13K				IAML		14 08 18.9	
	comp=N,14nm,1.0s						
M15K	**Kasigluk River**	**5.33**	**357**		**Pn**	**14 07 08.0**	**-1.0**
N17K	**Nushagak Hills**	**5.39**	**16**		**Pn**	**14 07 08.9**	**-0.9**
M16K	**Timber Creek**	**5.69**	**6**		**Pn**	**14 07 13.3**	**-0.6**
N18K	**Kilae Creek**	**5.77**	**21**		**Pn**	**14 07 14.9**	**-0.2**
SPIA	**Saint Paul Isl**	**5.89**	**292**	P	**Pn**	**14 07 17.5**	**+0.9**
	comp=N,83nm,1.6s						
SPIA				AML	AML		
IVE	**Iliamna Volcan**	**6.02**	**37**		**Pn**	**14 07 19.6**	**+1.0**
L14K	**Kuka Creek**	**6.11**	**349**		**Pn**	**14 07 19.1**	**-0.6**
M17K	**Holitna River**	**6.20**	**12**		**Pn**	**14 07 20.1**	**-0.8**
O20K	**Slope Mountain**	**6.20**	**38**		**Pn**	**14 07 22.8**	**+1.7**
N19K	**Bonanza Creek**	**6.22**	**27**		**Pn**	**14 07 21.9**	**+0.6**
L15K	**Ungalak Mounta**	**6.34**	**354**		**Pn**	**14 07 21.4**	**-1.5**
M18K	**Stony River**	**6.53**	**19**		**Pn**	**14 07 24.6**	**-0.8**
L17K	**Donlin**	**6.84**	**7**		**Pn**	**14 07 28.6**	**-1.0**
K15K	**Wolf Creek Mou**	**6.96**	**355**		**Pn**	**14 07 30.8**	**-0.5**
K13K	**Kusilvak Mount**	**6.96**	**342**		**Pn**	**14 07 30.9**	**-0.4**
L18K	**Granite Mounta**	**7.08**	**13**		**Pn**	**14 07 32.3**	**-0.7**
K17K	**Iditarod**	**7.41**	**7**		**Pn**	**14 07 36.5**	**-1.0**
SEW	**Seward**	**7.43**	**46**		**Pn**	**14 07 37.0**	**-0.

*AFAD **01** 14:24:51.9, 37°.84N×26°.69E, h7km±2km, ML2.1*
*ISK **01** 14:24:52.4, 37°.85N×26°.74E, h8km, ML2.6/15*
ISC 01 14:24:52.3±1.4, 37°.84N±0°.04×26°.70E±0°.05, h8km±12km, n23, σ0.39/29, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.25**	**35**	P	**Pg**	**14 24 57.1**	**-0.2**
DGB				IAML		14 25 01.0	
	comp=N,290nm,0.2s						
DGB				S	**Sg**	**14 25 01.1**	**+0.3**
GMLD	**Gumuldur**	**0.29**	**36**	Pg	**Pg**	**14 24 57.8**	**-0.2**
GMLD				Sg	**Sg**	**14 25 02.3**	**+0.4**
GMLD				AML	AML		
BEYE	**izmir**	**0.42**	**25**	P	**Pg**	**14 25 00.0**	**-0.6**
BEYE				S	**Sg**	**14 25 06.7**	**+0.6**
BEYE				IAML		14 25 07.0	
	comp=N,186nm,0.3s						
BEYE				IAML		14 25 07.0	
	comp=E,140nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.42**	**339**	P	**Pg**	**14 24 59.9**	**-0.7**
ZEYE				S	**Sg**	**14 25 06.8**	**+0.6**
ZEYE				IAML		14 25 07.0	
	comp=E,104nm,0.2s						
ZEYE				IAML		14 25 08.0	
	comp=N,187nm,0.5s						
GCAM	**G?zelcaml?**	**0.45**	**108**	Pg	**Pg**	**14 25 00.9**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.47**	**88**	Pg	**Pg**	**14 25 01.1**	**-0.2**
KUSD				AML	AML		
BLCB	**Balcova**	**0.60**	**26**	Pg	**Pb**	**14 25 04.3**	**-0.8**
BLCB				Sg	**Sg**	**14 25 12.4**	**+0.5**
BLCB				AML	AML		
CHOS	**Chios island**	**0.74**	**317**	Pg	**Pb**	**14 25 07.2**	**-0.3**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.76**	**351**	Pg	**Pb**	**14 25 07.8**	**+0.1**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.85**	**345**	P	**Pb**	**14 25 09.2**	**-0.1**
KARB				S	**Sb**	**14 25 20.9**	**0.0**
KARB				IAML		14 25 23.0	
	comp=N,112nm,0.8s						
KARB				IAML		14 25 23.0	
	comp=E,93nm,0.6s						
FOCM	**Foa**	**0.87**	**2**	Pg	**Pb**	**14 25 09.3**	**-0.3**
FOCM				AML	AML		
BODT	**Bodrum**	**0.92**	**148**	Pg	**Pb**	**14 25 10.5**	**+0.1**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.95**	**83**	Pg	**Pb**	**14 25 10.5**	**-0.5**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.95**	**101**	P	**Pb**	**14 25 10.8**	**-0.3**
AYDN				IAML		14 25 38.0	
	comp=N,69nm,0.3s						
AYDN				IAML		14 25 38.0	
	comp=E,80nm,0.5s						
BDRM	**Kayabasi**	**0.98**	**142**	P	**Pb**	**14 25 11.1**	**-0.4**
BDRM				IAML		14 25 26.0	
	comp=N,70nm,0.8s						
BDRM				IAML		14 25 27.0	
	comp=E,68nm,0.4s						
MLSB	**Milas**	**1.01**	**122**	Pg	**Pb**	**14 25 11.8**	**-0.3**
MLSB				AML	AML		
DKL	**Dikili**	**1.24**	**7**	Pn	**Pg**	**14 25 16.2**	**+0.2**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.27**	**84**	Pn	**Pg**	**14 25 16.3**	**-0.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.29**	**48**	Pn	**Pg**	**14 25 17.0**	**0.0**
GOMA				AML	AML		
AKHS	**Akhisar**	**1.35**	**40**	P	**Pg**	**14 25 18.3**	**0.0**
KTTT	**Salihli**	**1.38**	**52**	P	**Pg**	**14 25 18.7**	**-0.1**
KTTT				IAML		14 25 51.0	
	comp=N,53nm,0.4s						
SOMA	**Soma-Manisa**	**1.47**	**26**	Pn	**Pb**	**14 25 19.6**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.57**	**47**	Pn	**Pn**	**14 25 20.8**	**+0.2**
GORD				AML	AML		

*AFAD **01** 14:31:43.5, 37°.83N×26°.47E, h6km±3km, ML2.6*
*ISK **01** 14:31:45.8, 37°.91N×26°.58E, h4km, ML2.9/18*
*THE **01** 14:31:47.4, 38°N±1°×27°E±°, h8km±4km, M3.0/8, MLh3.0/8*
ISC 01 14:31:45.7±1.1, 37°.87N±0°.02×26°.59E±0°.03, h4km±11km, n34, σ0.66/48, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.30**	**52**	P	**Pg**	**14 31 50.9**	**-0.6**
DGB				IAML		14 31 57.0	
	comp=N,639nm,0.4s						
DGB				IAML		14 31 57.0	
	comp=E,761nm,0.5s						
DGB				S	**Sb**	**14 31 57.4**	**-1.5**
GMLD	**Gumuldur**	**0.33**	**51**	Pg	**Pg**	**14 31 52.1**	**-0.1**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**350**	P	**Pg**	**14 31 51.5**	**-1.4**
ZEYE				S	**Sg**	**14 31 58.3**	**+0.4**
ZEYE				IAML		14 31 59.0	
	comp=E,462nm,0.2s						
ZEYE				IAML		14 32 03.0	
	comp=N,378nm,0.3s						
BEYE	**izmir**	**0.45**	**37**	P	**Pg**	**14 31 53.6**	**-0.8**
BEYE				IAML		14 32 01.0	
	comp=E,273nm,0.4s						
BEYE				S	**Sg**	**14 32 01.3**	**+1.1**
BEYE				IAML		14 32 03.0	
	comp=N,250nm,0.4s						
CESE	**eme**	**0.51**	**334**	Pg	**Pg**	**14 31 55.8**	**+0.2**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.54**	**108**	P	**Pg**	**14 31 56.1**	**0.0**
GCAM				IAML		14 32 24.0	
	comp=N,249nm,0.4s						
GCAM	**G?zelcaml?**	**0.54**	**108**	Pg	**Pb**	**14 31 57.3**	**-0.4**
GCAM				Sg	**Sb**	**14 32 05.9**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.56**	**91**	Pg	**Pb**	**14 31 57.6**	**-0.4**
KUSD				Sg	**Sb**	**14 32 05.9**	**-0.4**
KUSD				AML	AML		
BLCB	**Balcova**	**0.63**	**35**	P	**Pg**	**14 31 57.6**	**-0.2**
BLCB				S	**Sg**	**14 32 07.1**	**+1.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.63**	**35**	Pg	**Pg**	**14 31 58.1**	**+0.3**
BLCB				Sg	**Sg**	**14 32 06.7**	**+0.7**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.66**	**128**	P	**Pb**	**14 32 00.6**	**+0.8**
DDIM				S	**Sn**	**14 32 11.8**	**-0.9**
DDIM				IAML		14 32 29.0	
	comp=E,847nm,0.4s						
DDIM				IAML		14 32 30.0	
	comp=N,574nm,0.5s						
CHOS	**Chios island**	**0.67**	**321**	P	**Pg**	**14 31 57.1**	**-1.4**
CHOS				S	**Sg**	**14 32 07.0**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.67**	**321**	Pg	**Pg**	**14 31 58.5**	**0.0**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.72**	**358**	Pg	**Pg**	**14 31 59.5**	**-0.1**
KRBN				AML	AML		
DUVT	**Torbali**	**0.77**	**62**	P	**Pg**	**14 31 58.8**	**-1.6**
DUVT				IAML		14 32 12.0	
	comp=E,167nm,0.3s						
DUVT				S	**Sb**	**14 32 13.0**	**+0.6**
FOCM	**Foa**	**0.85**	**8**	Pg	**Pg**	**14 32 01.9**	**-0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.93**	**143**	Pg	**Pn**	**14 32 05.3**	**-0.1**
YKAV				AML	AML		
DAGE	**izmir**	**0.93**	**81**	P	**Pg**	**14 32 03.6**	**+0.1**
DAGE				S	**Sb**	**14 32 17.3**	**+0.2**
DAGE				IAML		14 32 38.0	
	comp=N,261nm,0.2s						
DAGE				IAML		14 32 40.0	
	comp=E,276nm,0.3s						
BODT	**Bodrum**	**0.99**	**144**	P	**Pg**	**14 32 04.6**	**-0.1**
BODT				S	**Sb**	**14 32 18.6**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.99**	**144**	Pg	**Pb**	**14 32 05.8**	**+0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.03**	**85**	Pg	**Pb**	**14 32 06.2**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**1.10**	**121**	Pn	**Pn**	**14 32 07.9**	**-0.1**
MLSB				AML	AML		
DKL	**Dikili**	**1.23**	**12**	Pn	**Pg**	**14 32 09.1**	**-0.1**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.34**	**51**	Pn	**Pg**	**14 32 11.9**	**+0.5**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.35**	**85**	Pn	**Pg**	**14 32 12.0**	**+0.4**
NAZL				AML	AML		
AKS	**Akhisar**	**1.40**	**43**	Pn	**Pg**	**14 32 12.5**	**0.0**
AKS				AML	AML		
PRK	**Paraskevi**	**1.40**	**350**	P	**Pg**	**14 32 12.8**	**+0.3**
PRK				S	**Sn**	**14 32 31.2**	**+0.4**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.49**	**30**	Pn	**Pb**	**14 32 13.5**	**-0.4**
SOMA				AML	AML		
YER	**Yerkesik**	**1.54**	**118**	P	**Pn**	**14 32 13.1**	**-0.8**
GORD	**Gordes-Manisa**	**1.63**	**50**	Pn	**Pb**	**14 32 15.8**	**-0.5**
GORD				AML	AML		
THR3	**Thira Island,**	**1.74**	**213**	P	**Pb**	**14 32 17.9**	**-0.2**
THERA	**Ancient Thera,**	**1.74**	**211**	P	**Pn**	**14 32 17.2**	**+0.5**
THERA				S	**Sg**	**14 32 41.2**	**-0.4**
THERA				AML	AML		
SNT5	**Nea Kammeni, S**	**1.74**	**213**	P	**Pb**	**14 32 18.1**	**-0.1**
SNT5				AML	AML		
NEO	**Neokhori**	**3.00**	**300**	P	**Pn**	**14 32 35.3**	**+1.2**

*IDC **01** 14:34:09.6±0.8, 6°.80S×107°.96E, h0km, mb4.0/10, mbtmp4.0/10, MS3.6/14, Error ellipse: s-maj=23.4km s-min=12.6km az=17.0*
*DJA **01** 14:34:09.5±0.2, 7°S±2°×10°8E±°, h10km, M4.0/40, MLv4.0/40*
*NEIC **01** 14:34:11.0±2.3, 7°.15S±0°.05×107°.63E±0°.04, h10km±1km, mb4.3/16, Error ellipse: s-maj=10.0km s-min=5.7km az=220.0*
ISC 01 14:34:10.3±0.5, 7°.12S±0°.04×107°.64E±0°.03, h10km, n64, σ1.53/52, mb4.1/14, MS3.5/14, Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LEM	**Lembang**	**0.30**	**356**	Pg	**Pb**	**14 34 17.0**	**-0.8**
	2µm,0.3s,baz=348,slow=23,SNR=9						
LEM				Lg	Lg	14 34 22.9	
	2µm,0.3s,baz=103,slow=23,SNR=10						
LEM				LR	LR	14 34 43.2	
	comp=Z,5µm,19.4s,baz=104,slow=98						
LEM	**Lembang**	**0.30**	**356**	P	**Pb**	**14 34 16.7**	**-1.1**
BBJI	**Bungbulang**	**0.34**	**178**	Pg	**Pg**	**14 34 15.1**	**-1.9**
BBJI				Sg	**Sg**	**14 34 19.6**	**-1.9**
BBJI	**Bungbulang**	**0.34**	**178**	P	**Pg**	**14 34 14.4**	**-2.6**
CNJI	**Cibinong**	**0.54**	**250**	P	**Pg**	**14 34 18.8**	**-2.0**
CNJI				AML	AML		
JCJI	**Jatiwangi**	**0.89**	**45**	P	**Pg**	**14 34 24.5**	**-2.9**
JCJI				AML	AML		
CMJI	**Cimerak**	**1.04**	**129**	P	**Pb**	**14 34 28.1**	**-2.2**
SKJI	**Sukabumi**	**1.08**	**276**	P	**Pg**	**14 34 28.8**	**-2.3**
KPJI	**Karang Pucung**	**1.30**	**99**	P	**Pn**	**14 34 34.2**	**-0.3**
KPJI				AML	AML		
TNG	**Tangerang**	**1.37**	**314**	P	**Pb**	**14 34 34.6**	**-1.4**
TNG				P	**Pg**	**14 34 35.1**	**-1.5**
TNG				AML	AML		
CTJI	**Waduk Cacaban**	**1.54**	**86**	P	**Pn**	**14 34 37.9**	**+0.1**
CTJI				AML	AML		
SCJI	**Gunung Srandil**	**1.61**	**110**	P	**Pn**	**14 34 37.9**	**-1.0**
SBJI	**Serang**	**1.80**	**304**	P	**Pn**	**14 34 40.7**	**-0.7**
SBJI				AML	AML		
CGJI	**Cibinong**	**2.00**	**285**	P	**Pn**	**14 34 42.9**	**-1.2**
CGJI				AML	AML		
SMRI	**Semarang**	**2.78**	**89**	Pn	**Pn**	**14 34 55.5**	**+0.5**
SMRI	**Semarang**	**2.78**	**89**	P	**Pn**	**14 34 54.3**	**-0.6**
SMRI				AML	AML		
BLSI	**Bandar Lampung**	**2.95**	**306**	P	**Pn**	**14 34 56.2**	**-1.1**
BLSI				AML	AML		
WOJI	**Wonogiri, Jawa**	**3.33**	**102**	P	**Pn**	**14 35 01.8**	**-0.7**
WOJI				AML	AML		
KASI	**Kota Agung**	**3.50**	**297**	P	**Pn**	**14 35 03.4**	**-1.5**
KASI				AML	AML		
SJI	**Sawahan**	**4.14**	**99**	P	**Pn**	**14 35 15.7**	**+2.0**
SNJI	**Sawahan-Nganju**	**4.14**	**99**	P	**Pn**	**14 35 14.8**	**+1.1**
SNJI				AML	AML		
PWJI	**Pagerwojo**	**4.22**	**102**	P	**Pn**	**14 35 17.1**	**+2.3**
MDSI	**Maura Dua**	**4.33**	**307**	P	**Pn**	**14 35 18.2**	**+2.0**
MNAI	**Manna**	**5.41**	**300**	Pn	**Pn**	**14 35 32.4**	**+1.3**
BATI	**Baumata**	**16.13**	**102**	Pn	**Pn**	**14 37 58.5**	**+1.1**
	6.8nm,0.3s,baz=124,slow=16,SNR=3.7						
SOEI	**Soe**	**16.65**	**100**	P	**P**	**14 38 05.6**	**-0.9**
SOEI				IAmb	IAmb	14 38 17.1	
	comp=Z,19nm,0.6s						
FITZ	**Fitzroy Crossi**	**20.65**	**124**	P	**P**	**14 38 50.2**	**-0.2**
	comp=Z,7.9nm,0.9s,baz=260,slow=5.9,SNR=10						
FITZ				LR	LR	14 46 06.7	
	comp=Z,142nm,21.0s,baz=354,slow=35						
	comp=Z,7.9nm,0.9s						
FITZ	**Fitzroy Crossi**	**20.65**	**124**	P	**P**	**14 38 50.1**	**-0.2**
KNRA	**Kununurra**	**22.36**	**114**	P	**P**	**14 39 08.6**	**-0.2**
KNRA				IAmb	IAmb	14 39 14.9	
	comp=Z,6.7nm,1.1s						
MTN	**Manton Dam**	**23.82**	**106**	P	**P**	**14 39 23.1**	**-0.7**
MTN				IAmb	IAmb	14 40 05.1	
	comp=Z,11nm,1.4s						
CMAR	**Chiang Mai Arr**	**26.83**	**341**	P	**P**	**14 39 50.1**	**-1.0**
	comp=Z,0.4nm,0.3s,baz=183,slow=8.8,SNR=6.0						
CMAR				LR	LR	14 52 28.0	
	comp=Z,116nm,18.8s,baz=170,slow=41						
	comp=Z,0.4nm,0.3s						
NWAO	**Narrogin (SRO)**	**27.18**	**162**	LR	LR	14 49 41.3	
	comp=Z,88nm,21.1s,baz=311,slow=34						
WB0	**Warramunga Arr**	**28.84**	**118**	P	**P**	**14 40 10.5**	**+1.4**
WB0				IAmb	IAmb	14 40 16.4	
	comp=Z,5.3nm,1.2s						
WRA	**Warramunga Arr**	**28.86**	**119**	P	**P**	**14 40 08.9**	**-0.4**
	comp=Z,1.2nm,0.9s,baz=293,slow=9.7,SNR=7.5						
	comp=Z,1.2nm,0.9s						
WRA	**Warramunga Arr**	**28.86**	**119**	IAmb	IAmb	14 40 13.7	
	comp=Z,0.4nm,1.5s						
AS31	**Alice Springs**	**30.10**	**126**	P	**P**	**14 40 20.7**	**+0.4**
ASAR	**Alice Springs**	**30.10**	**126**	P	**P**	**14 40 20.6**	**+0.2**
	comp=Z,0.4nm,0.9s,baz=300,slow=9.7,SNR=2.8						
ASAR				LR	LR	14 52 03.8	
	comp=Z,80nm,20.9s,baz=291,slow=36						
	comp=Z,0.4nm,0.9s						
PALK	**Pallekele**	**30.44**	**297**	LR	LR	14 51 43.5	
	comp=Z,70nm,19.2s,baz=135,slow=34						
BRDH	**Bariadhala**	**33.50**	**333**	LR	LR	14 56 58.3	
	comp=Z,144nm,18.3s,baz=178,slow=41						
CTA	**Charters Tower**	**39.57**	**113**	LR	LR	14 59 47.1	
	comp=Z,62nm,18.7s,baz=249,slow=39						
STKA	**Stephens Creek**	**40.09**	**132**	P	**P**	**14 41 46.7**	**+0.5**
	comp=Z,8.5nm,0.8s,baz=301,slow=7.8,SNR=18						
STKA				LR	LR	15 00 32.9	
	comp=Z,68nm,18.3s,baz=226,slow=40						
	comp=Z,8.5nm,0.8s						
STKA	**Stephens Creek**	**40.09**	**132**	P	**P**	**14 41 47.1**	**+0.9**
KRVT	**Keravat (AS076**	**44.24**	**89**	LR	LR	15 04 48.1	
	comp=Z,31nm,18.4s,baz=228,slow=42						
ARSB	**Arslanbob**	**57.74**	**330**	P	**P**	**14 44 01.1**	**-0.6**
ARSB				IAmb	IAmb	14 44 02.6	
	comp=Z,3.5nm,1.2s						
KURBB	**Kurchatov Arra**	**62.79**	**340**	P	**P**	**14 44 35.0**	**-0.8**
	comp=Z,0.5nm,0.3s,baz=149,slow=7.6,SNR=2.7						
	comp=Z,0.5nm,0.3s						
KURK	**Kurchatov**	**62.83**	**340**	P	**P**	**14 44 35.0**	**-1.1**
KURK	**Kurchatov**	**62.83**	**340**	IAmb	IAmb	14 44 46.3	
	comp=Z,1.4nm,1.1s						
RPZ	**Rata Peaks**	**65.99**	**135**	LR	LR	15 15 09.3	
	comp=Z,16nm,18.1s,baz=263,slow=37						
MAW	**Mawson**	**67.43**	**197**	P	**P**	**14 45 07.8**	**+2.0**
	comp=Z,1.2nm,0.7s,baz=40,slow=7.9,SNR=2.7						
	comp=Z,1.2nm,0.7s						
MAW	**Mawson**	**67.43**	**197**	IAmb	IAmb	14 45 08.1	
	comp=Z,0.7nm,1.1s						
URZ	**Urewera**	**69.52**	**128**	LR	LR	15 16 47.4	
	comp=Z,71nm,19.1s,baz=276,slow=37						
AKTO	**Aktyubinsk**	**71.55**	**329**	LR	LR	15 21 35.4	
	comp=Z,45nm,18.5s,baz=134,slow=40						
RAO	**Raoul Island**	**72.99**	**118**	LR	LR	15 17 13.4	
	comp=Z,57nm,20.6s,baz=134,slow=36						
PET	**Petropavlovsk**	**73.80**	**29**	P	**P**	**14 45 43.7**	**-1.1**
ARTI	**Arti**	**75.06**	**334**	LR	LR	15 21 47.2	
	comp=Z,70nm,19.3s,baz=168,slow=38						
VNDA	**Vanda**	**75.73**	**170**	P	**P**	**14 45 58.4**	**+2.7**
	comp=Z,1.2nm,1.0s,baz=347,slow=7.2,SNR=5.8						
	comp=Z,1.2nm,1.0s						
VNDA	**Vanda**	**75.73**	**170**	P	**P**	**14 45 56.2**	**+0.5**
VNDA				IAmb	IAmb	14 46 22.9	
	comp=Z,3.3nm,1.4s						
SBA	**Scott Base**	**76.80**	**169**	P	**P**	**14 46 02.4**	**+0.6**
BRTR	**Keskin Array B**	**82.38**	**312**	P	**P**	**14 46 34.5**	**+1.5**
	comp=Z,1.0nm,0.7s,baz=122,slow=10,SNR=4.8						
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**82.38**	**312**	P	**P**	**14 46 32.1**	**-0.9**
QSPA	**South Pole Qui**	**82.86**	**180**	P	**P**	**14 46 39.0**	**+4.0**
	comp=Z,1.3nm,0.9s,baz=311,slow=6.3,SNR=3.8						
	comp=Z,1.3nm,0.9s						
QSPA	**South Pole Qui**	**82.86**	**180**	P	**P**	**14 46 36.9**	**+1.8**
QSPA				IAmb	IAmb	14 46 54.0	
	comp=Z,6.5nm,1.4s						
SNAA	**Sanae**	**89.60**	**197**	P	**P**	**14 47 09.2**	**+1.2**
BRG	**Berggiesshubel**	**97.81**	**320**	*eP*	Pdif	14 47 48.1	+2.1
BRG				Amp		14 47 49.2	
	comp=Z,3.8nm,1.0s						

*MEX **01** 14:44:55.1±0.4, 14°.41N×93°.83W, h10km, MD4.0, Presumed earthquake*
*GCG **01** 14:44:56.9±2.0, 14°.46N×93°.61W, h35km±999km, MD4.3, Presumed earthquake*
ISC 01 14:44:54.7±3.6, 14°.6N±0°.1×93°.71W±0°.06, h9km±18km, n12, σ1.55/20, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.24**	**22**	*i* P	**Pn**	**14 45 17.2**	**-1.0**
PCIG				*i* S	**Sg**	**14 45 34.6**	**-0.1**
PATR	**El Naranjo**	**1.53**	**68**	*eP*	**Pn**	**14 45 21.7**	**-0.7**
PATR				*i* S	**Sn**	**14 45 41.5**	**-1.1**
PAVE	**Pavencul**	**1.61**	**67**	*eP*	**Pn**	**14 45 22.5**	**-1.0**
PAVE				*eS*	**Sn**	**14 45 44.4**	**-0.2**
CHUJ	**Union Juarez**	**1.64**	**71**	*eP*	**Pn**	**14 45 23.1**	**-0.8**
CHUJ				*i* S	**Sn**	**14 45 45.2**	**-0.1**
TGIG		**2.28**	**14**	*eP*	**Pn**	**14 45 32.8**	**+0.2**
TGIG				*eS*	**Sn**	**14 46 01.4**	**+0.5**
TGIG		**2.28**	**14**	*eP*	**Pn**	**14 45 32.2**	**-0.4**
TGIG				*i* S	**Sn**	**14 46 02.0**	**+1.1**
STG8	**El Palmar, Qui**	**2.29**	**92**	*eP*	Pn	14 45 28.3	-4.5
STG8				*i* S	Sn	14 45 53.6	-7.6
CCIG	**Comitan**	**2.29**	**41**	*eP*	**Pn**	**14 45 34.7**	**+1.9**
CCIG	**Comitan**	**2.29**	**41**	*eP*	**Pn**	**14 45 34.6**	**+1.7**
CCIG				*i* S	**Sn**	**14 46 03.5**	**+2.2**
CMIG	**Matias Romero**	**2.76**	**336**	*eP*	**Pn**	**14 45 37.4**	**-1.8**
CMIG				*eS*	**Sn**	**14 46 09.2**	**-3.5**
UXUV	**UXUV**	**2.78**	**351**	*eP*	**Pn**	**14 45 39.0**	**-0.4**
UXUV				*eS*	**Sn**	**14 46 13.9**	**+0.8**
YOIG	**Yosondua**	**4.35**	**302**	*eP*	**Pn**	**14 46 03.4**	**+2.2**
YOIG				*i* S	Sn	14 46 43.6	-8.6

*NNC **01** 14:46:37.2±7.9, 40°.95N×82°.15E, h24km±42km, mb3.2, mpv2.8, Error ellipse: s-maj=51.7km s-min=38.4km az=118.0*
SOME 01 14:45:57.4, 40°.20N×84°.08E, h5km, 6C-4D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PDGK	**Podgornoye**	**4.64**	**314**	⇓Pn	Pg	14 47 25.5	-0.8
	2.4nm,0.5s						
PDGK				⇑Lg	Lg	14 48 16.1	
	14nm,0.8s						
UZB	**Uzynbulak**	**4.80**	**309**	*eP*	Pg	14 47 26.7	-2.6
	2.0nm,0.3s						
UZB				*eS*	Sg	14 48 30.8	-0.8
	9.9nm,0.3s						
SATY	**Saty**	**5.12**	**306**	*eP*	Pg	14 47 32.2	-3.3
	4.4nm,0.3s						
SATY				*eS*	Sg	14 48 40.8	-1.2
	11nm,0.5s						
KPKS	**Kokpek**	**5.19**	**311**	*eP*	Pg	14 47 33.3	-3.5
	0.3nm,0.2s						
KPKS				*eS*	Sg	14 48 42.4	-1.5
	21nm,0.3s						
DJR	**Jarkent**	**5.21**	**324**	*eP*	Pg	14 47 34.4	-2.9
	2.0nm,0.3s						
DJR				*eS*	Sg	14 48 44.3	-0.5
	2.5nm,0.4s						
MK31	**Makanchi Array**	**6.72**	**349**	⇑Pn	Pb	14 48 00.3	+5.6
	0.1nm,0.2s,baz=180,slow=12,SNR=24						
MK31				⇑Sn	Sb	14 49 10.2	-5.0
	0.6nm,0.4s,baz=191,slow=64,SNR=5.4						
MK31				⇑Lg	Lg	14 49 44.0	
	2.3nm,0.7s,baz=187,slow=28						
MAKZ	**Makanchi**	**6.78**	**348**	⇓Pn	Pb	14 47 59.3	+3.6
	1.2nm,0.6s						
MAKZ				⇓Sn	Sb	14 49 09.8	-7.2
	1.4nm,0.5s						
MAKZ				⇑Lg	Lg	14 49 41.0	
	3.7nm,1.1s						
AAK	**Ala-Archa**	**7.61**	**292**	⇑Pg	Pg	14 48 28.1	+5.1
	1.1nm,0.8s						
AAK				⇓Lg	Lg	14 49 47.5	
	2.1nm,0.8s						

*BJI **01** 14:49:49.1, 9°.14N×56°.71E, h10km, mB5.0/3, mb4.5/16, Ms7 4.0/1*
*IDC **01** 14:49:55.4±1.0, 9°.71N×57°.26E, h0km, mb4.1/20, mbtmp4.1/20, MS3.8/42, Error ellipse: s-maj=25.7km s-min=16.0km az=22.0*
*NEIC **01** 14:49:58.2±1.9, 9°.9N±0°.1×57°.4E±0°.1, h10km±1km, mb4.6/32, Error ellipse: s-maj=20.1km s-min=19.6km az=198.0*
*GFZ **01** 14:50:00.3±0.5, 10°N±7°×5°7E±°, h10km, M4.5/10, mb4.5/10, confirmed*
ISC 01 14:49:58.5±0.7, 9°.8N±0°.1×57°.38E±0°.07, h17km, n122, σ1.28/101, mb4.4/60, MS3.8/43, Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UOSS	**Minazif**	**15.11**	**356**		**Pn**	**14 53 29.1**	**-2.2**
UOSS				IAmb	IAmb	14 53 43.3	
	comp=Z,17nm,0.8s						
UOSS	**Minazif**	**15.11**	**356**	P	**Pn**	**14 53 29.1**	**-2.2**
	comp=Z,22nm,0.9s						
RAYN	**Ar Rayn**	**17.75**	**322**		**P**	**14 54 04.8**	**-0.9**
RAYN	**Ar Rayn**	**17.75**	**322**	P	**P**	**14 54 04.8**	**-0.9**
	comp=Z,21nm,0.8s						
HYB	**Hyderabad**	**21.92**	**68**	*eP*	**P**	**14 54 50.6**	**-0.6**
HYB				*eS*	**S**	**14 58 52.8**	**-0.1**
KIBK	**Kibwezi**	**22.72**	**239**	P	**P**	**14 55 00.7**	**+0.8**
KIBK	**Kibwezi**	**22.72**	**239**	P	**P**	**14 55 00.5**	**+0.6**
	comp=Z,11nm,1.1s						
LODK	**Lodwar**	**22.75**	**255**		**P**	**14 55 01.0**	**+0.7**
LODK				IAmb	IAmb	14 55 11.6	
	comp=Z,13nm,1.1s						
LODK	**Lodwar**

comp=Z,7.0nm,1.1s
AAK Ala-Archa 35.98 22 P **P** **14 57 01.5 +2.8**
comp=Z,6.5nm,1.2s
KBZ Khabaz 36.07 342 P **P** **14 57 00.0 +0.8**
KBZ LR LR 15 12 57.1
comp=Z,2.0nm,0.8s,baz=187,slow=5.4,SNR=4.0
comp=Z,160nm,21.3s,baz=156,slow=38
comp=Z,2.0nm,0.8s
KVAR Kislovodsk Arr 36.34 342 LR LR 15 12 34.9
comp=Z,158nm,20.5s,baz=67,slow=37
BRTR Keskin Array B 36.54 329 P **P** **14 57 03.6 +0.1**
comp=Z,0.3nm,0.5s,baz=124,slow=13,SNR=4.2
BRTR LR LR 15 12 34.5
comp=Z,87nm,19.8s,baz=142,slow=37
comp=Z,0.3nm,0.5s
TARG Taragay, Kyrgy 36.54 26 P **P** **14 57 02.4 -1.4**
TARG IAmb IAmb 14 57 13.8
comp=Z,11nm,1.3s
TARG Taragay, Kyrgy 36.54 26 P **P** **14 57 05.9 +2.1**
comp=Z,7.6nm,1.5s
AYDN Tasoluk 38.40 321 P **P** **14 57 17.8 -1.4**
comp=Z,193nm,1.1s
PDGK Podgornoye 38.56 26 P **P** **14 57 21.4 +0.8**
AB31 Akbulak array 39.39 3 P **P** **14 57 27.2 0.0**
ABKAR Akbulak array 39.39 3 P **P** **14 57 27.4 +0.2**
AKTO Aktyubinsk 40.52 1 P **P** **14 57 36.9 +0.3**
comp=Z,1.2nm,0.6s,baz=206,slow=6.3,SNR=7.6
comp=Z,1.2nm,0.6s
CMAR Chiang Mai Arr 41.14 73 P **P** **14 57 44.1 +1.9**
comp=Z,1.6nm,0.9s,baz=262,slow=9.7,SNR=13
CMAR LR LR 15 13 34.3
comp=Z,14nm,18.2s,baz=245,slow=34
comp=Z,1.6nm,0.9s
CMAR Chiang Mai Arr 41.14 73 P **P** **14 57 42.1 -0.1**
MATP Matopo 41.34 223 LR LR 15 12 47.3
comp=Z,136nm,19.0s,baz=55,slow=33
MAKZ Makanchi 42.40 25 P **P** **14 57 52.1 0.0**
MAKZ IAmb IAmb 14 58 01.4
comp=Z,23nm,1.4s
MAKZ Makanchi 42.40 25 P **P** **14 57 54.0 +1.8**
comp=Z,12nm,1.2s
MKAR Makanchi Array 42.52 25 P **P** **14 57 54.0 +0.8**
MKAR LR LR 15 16 18.7
comp=Z,133nm,19.9s,baz=210,slow=37
comp=Z,3.1nm,0.9s
MKAR Makanchi Array 42.52 25 P **P** **14 57 52.6 -0.6**
WMQ Urumqi 42.91 32 *eP* **P** **14 57 59.4 +3.0**
KURBB Kurchatov Arra 44.29 19 P **P** **14 58 08.1 +0.8**
comp=Z,3.1nm,0.9s,baz=217,slow=7.9,SNR=19
KURBB LR LR 15 17 33.8
comp=Z,219nm,20.8s,baz=170,slow=37
comp=Z,3.1nm,0.9s
KURK Kurchatov 44.40 19 P **P** **14 58 08.8 +0.6**
KURK IAmb IAmb 14 58 16.3
comp=Z,3.3nm,0.5s
MLR Muntele Rosu 44.62 329 LR LR 15 17 13.2
comp=Z,60nm,20.3s,baz=112,slow=37
BURAR Bucovina Array 46.45 330 P **P** **14 58 24.3 -0.3**
BUR08 Bucovina Ar. S 46.48 330 P **P** **14 58 24.8 0.0**
BUR08 IAmb IAmb 14 58 47.0
comp=Z,11nm,1.4s
AKASG Malin Array Be 46.91 336 P **P** **14 58 26.4 -1.7**
comp=Z,0.7nm,0.6s,baz=127,slow=7.1,SNR=5.5
comp=Z,0.7nm,0.6s
MARCO Tramutola 47.71 317 P **P** **14 58 36.0 +1.4**
comp=Z,15nm,1.6s
ACER Acerenza 47.85 317 P **P** **14 58 36.2 +0.6**
TSUM Tsumeb 48.67 234 LR LR 15 19 48.7
comp=Z,80nm,18.8s,baz=6.0,slow=37
KIRV Kirov 49.06 354 LR LR 15 23 23.9
comp=Z,75nm,18.4s,baz=187,slow=41
BLY Banja Luka 49.07 323 P **P** **14 58 44.1 -0.8**
BLY IAmb IAmb 14 58 53.9
comp=Z,6.0nm,1.0s
ZAA0 Zalesovo Array 49.20 21 P **P** **14 58 45.1 -0.6**
ZALV Zalesovo Beam 49.20 21 P **P** **14 58 45.6 -0.1**
comp=Z,8.3nm,0.7s,baz=222,slow=7.9,SNR=31
ZALV LR LR 15 20 39.7
comp=Z,60nm,18.3s,baz=218,slow=37
comp=Z,8.3nm,0.7s
ZALV Zalesovo Beam 49.20 21 P **P** **14 58 45.1 -0.6**
LZDM Lanzhou Array 49.38 51 LR LR 15 18 22.0
comp=Z,88nm,19.7s,baz=325,slow=34
INTR Introdacqua 49.77 318 P **P** **14 58 49.6 -0.8**
MNK Minsk 50.38 338 *iP* **P** **14 58 54.7 0.0**
comp=E,22nm,1.0s
MNK *iP* **P** **14 58 54.7 0.0**
comp=N,13nm,1.1s
MNK *iP* **P** **14 58 54.7 0.0**
comp=Z,6.0nm,0.8s,baz=141
MNK *i* PcP **PcP** **15 00 12.5 -0.5**
MNK *i* PP **PP** **15 00 50.5 +0.3**
MNK *i* PPP PPP 15 01 46.5
MNK *i* S **S** **15 06 09.4 +2.4**
MNK *i* ScS **ScS** **15 08 45.8 +0.9**
MNK *i* SS **SS** **15 09 44.9 +4.1**
MNK *i* SSS SSS 15 11 12.2
MNK *i* LQ LQ 15 16 41.1
MNK *i* LR LR 15 22 07.6
MNK *i* LRM MLR 15 23 45.7
comp=Z,107nm,17.5s
MNK *i* LRM MLR 15 24 11.7
comp=E,81nm,17.5s
MNK *i* LRM MLR 15 24 23.1
comp=N,88nm,16.1s
NRCA Norcia 50.67 318 P **P** **14 58 55.8 -1.4**
NRCA IAmb IAmb 14 59 05.2
comp=Z,8.8nm,1.0s
FDMO Fiordimonte 50.78 319 P **P** **14 58 56.5 -1.4**
NACGM Naroch 51.10 338 *eP* **P** **14 58 59.9 -0.1**
comp=Z,12nm,0.9s,baz=140
RONA Rosalia, Austr 51.21 325 *eP* **P** **14 59 00.4 -0.7**
comp=Z,1.1nm,0.5s
MURB Monte Urbino 51.25 319 P **P** **14 59 01.9 +0.4**
MURB IAmb IAmb 14 59 03.1
comp=Z,8.8nm,0.9s
SOKA Soboth 51.38 324 *iP* **P** **14 59 02.6 +0.2**
comp=Z,0.5nm,0.3s
ARSA Arzberg 51.40 324 *iP* **P** **14 59 02.1 -0.4**
comp=Z,0.6nm,0.4s
OBKA Obir 51.57 323 *iP* **P** **14 59 03.3 -0.6**
comp=Z,0.8nm,0.4s
CONA Conrad Observa 51.58 325 *eP* **P** **14 59 03.2 -0.7**
comp=Z,3.5nm,1.0s
SESA Seetaler Alpe, 51.88 324 *iP* **P** **14 59 05.8 -0.5**
comp=Z,2.6nm,0.7s
MYKA Terra Mystica 52.17 323 *eP* **P** **14 59 07.9 -0.4**
comp=Z,0.5nm,0.2s
MOA Molln 52.44 325 *eP* **P** **14 59 09.5 -0.7**
comp=Z,1.7nm,0.5s
STAL STALIGIAL 52.55 322 P **P** **14 59 09.9 -1.3**
STAL IAmb IAmb 14 59 10.9
comp=Z,6.2nm,1.0s
ABTA Abfaltersbach 52.90 323 *eP* **P** **14 59 13.0 -0.8**
comp=Z,0.8nm,0.4s
CTI Castel Tesino 53.09 321 P **P** **14 59 14.5 -0.8**
CTI IAmb IAmb 14 59 22.5
comp=Z,6.1nm,0.9s
LESA Schwarzleotal 53.14 323 *eP* **P** **14 59 14.1 -1.4**
comp=Z,1.5nm,0.5s
GERES GERESS Array B 53.28 325 P **P** **14 59 16.1 -0.5**
comp=Z,0.3nm,0.4s,baz=140,slow=7.0,SNR=5.5
comp=Z,0.3nm,0.4s
WTTA Wattenberg 53.68 323 *iP* **P** **14 59 18.3 -1.4**
comp=Z,2.4nm,0.6s
WATA Walderalm 53.75 323 *eP* **P** **14 59 18.4 -1.7**
comp=Z,2.2nm,0.4s
SQTA Sankt Quirin 53.91 323 *iP* **P** **14 59 19.9 -1.4**
comp=Z,2.4nm,0.4s
MOTA Moosalm 54.04 323 *eP* **P** **14 59 20.6 -1.6**
comp=Z,4.5nm,0.8s
FETA Feichten 54.11 322 *iP* **P** **14 59 21.4 -1.3**
comp=Z,0.9nm,0.4s
DAVOX Davos/Dischmat 54.52 322 LR LR 15 23 35.4
comp=Z,60nm,18.8s,baz=88,slow=37
SUR Sutherland 54.57 218 LR LR 15 19 47.7
comp=Z,154nm,21.9s,baz=2.0,slow=33
TORD Torodi Ar. Bea 54.58 279 P **P** **14 59 26.2 -0.3**
comp=Z,1.5nm,0.8s,baz=92,slow=6.8,SNR=8.4
comp=Z,1.5nm,0.8s
DAVA Damuels 54.75 322 *iP* **P** **14 59 25.7 -1.7**
comp=Z,2.8nm,0.5s
CLL Collm 54.98 328 *eP* **P** **14 59 27.0 -1.8**
SONM Songino Array 55.92 38 P **P** **14 59 36.5 +0.8**
comp=Z,1.9nm,0.9s,baz=227,slow=6.7,SNR=7.3
SONM LR LR 15 25 22.5
comp=Z,57nm,18.6s,baz=227,slow=38
comp=Z,1.9nm,0.9s
SONM Songino Array 55.92 38 P **P** **14 59 36.4 +0.6**
FINES FINESS Array B 56.43 343 P **P** **14 59 37.9 -1.1**
comp=Z,3.5nm,0.9s,baz=129,slow=7.9,SNR=5.3
FINES LR LR 15 24 31.9
comp=Z,76nm,19.1s,baz=155,slow=37
comp=Z,3.5nm,0.9s
HHC Hu-ho-hao-te 56.80 47 *eP* **P** **14 59 44.1 +2.0**
HHC pmax pmax
comp=Z,12nm,0.6s
HHC pmax pmax
comp=Z,97nm,5.0s
HFS Hagfors 59.79 336 P **P** **15 00 01.8 -0.8**
comp=Z,3.2nm,0.9s,baz=165,slow=6.0,SNR=2.1
HFS LR LR 15 28 03.0
comp=Z,63nm,18.1s,baz=140,slow=38
comp=Z,3.2nm,0.9s
NJ2 Nanjing 60.73 59 *eP* **P** **15 00 10.5 +1.0**
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
MDT Midelt 61.24 302 LR LR 15 28 05.3
comp=Z,43nm,18.0s,baz=72,slow=37
NOA NORSAR Array B 61.32 336 LR LR 15 29 23.7
comp=Z,57nm,19.2s,baz=120,slow=39
MD31 MD31 61.38 302 P **P** **15 00 14.4 +0.4**
MD31 IAmb IAmb 15 00 15.6
comp=Z,5.8nm,0.9s
MD01 Midelt array s 61.38 302 P **P** **15 00 14.6 +0.4**
ESBB Sonseca Array 61.81 310 P **P** **15 00 14.7 -2.2**
ESDC Sonseca Array 61.81 310 P **P** **15 00 16.5 -0.3**
comp=Z,6.6nm,0.9s,baz=87,slow=5.9,SNR=49
comp=Z,6.6nm,0.9s
ESDC Sonseca Array 61.81 310 P **P** **15 00 16.1 -0.8**
PAB San Pablo 62.08 310 P **P** **15 00 18.3 -0.4**
PAB IAmb IAmb 15 00 20.4
comp=Z,6.4nm,0.9s
NRIK Noril'sk 62.58 12 LR LR 15 30 46.6
comp=Z,65nm,19.8s,baz=212,slow=39
EKA Eskdalemuir Ar 65.43 327 P **P** **15 00 39.3 -1.0**
comp=Z,1.8nm,0.6s,baz=126,slow=7.9,SNR=3.6
EKA LR LR 15 35 25.0
comp=Z,178nm,18.7s,baz=8.5,slow=42
comp=Z,1.8nm,0.6s
KSRS Korea Array 68.68 54 P **P** **15 01 00.8 -0.5**
comp=Z,1.2nm,0.7s,baz=266,slow=7.1,SNR=4.7
KSRS LR LR 15 31 47.0
comp=Z,39nm,20.5s,baz=275,slow=36
comp=Z,1.2nm,0.7s
SPITS Spitsbergen Ar 71.41 352 LR LR 15 38 04.9
comp=Z,63nm,18.2s,baz=130,slow=40
KLR Kul'dur 72.44 41 P **P** **15 01 24.1 0.0**
comp=Z,2.0nm,0.8s,baz=272,slow=8.1,SNR=4.9
KLR LR LR 15 35 02.1
comp=Z,62nm,19.3s,baz=320,slow=37
comp=Z,2.0nm,0.8s
FITZ Fitzroy Crossi 72.85 112 P **P** **15 01 25.8 -1.2**
JMIC Jan Mayen 73.04 342 LR LR 15 34 40.5
comp=Z,212nm,20.7s,baz=76,slow=37
YAK Yakutsk 73.12 28 P **P** **15 01 27.0 -0.9**
TIXI Tiksi 74.96 18 LR LR 15 36 41.1
comp=Z,88nm,19.3s,baz=238,slow=37
BORG Borgarnes 76.38 334 LR LR 15 37 38.9
comp=Z,61nm,19.6s,baz=97,slow=38
MAW Mawson 77.30 178 LR LR 15 29 09.7
comp=Z,64nm,18.3s,baz=358,slow=30
ASAJ Asahikawa 79.84 47 LR LR 15 38 26.0
comp=Z,51nm,20.3s,baz=63,slow=36
WRA Warramunga Arr 81.27 112 P **P** **15 02 14.2 -0.3**
comp=Z,0.6nm,0.7s,baz=295,slow=4.4,SNR=6.4
comp=Z,0.6nm,0.7s
WRA Warramunga Arr 81.27 112 P **P** **15 02 13.4 -1.0**
ASAR Alice Springs 81.78 116 P **P** **15 02 16.8 -0.3**
comp=Z,0.6nm,0.6s,baz=286,slow=5.0,SNR=16
comp=Z,0.6nm,0.6s
MA2 Magadan 83.35 31 LR LR 15 43 53.1
comp=Z,25nm,18.4s,baz=300,slow=39
SFJD Kangerlussuaq 87.95 338 LR LR 15 46 52.2
comp=Z,38nm,19.3s,baz=34,slow=39
SNAA Sanae 90.31 196 LR LR 15 35 38.5
comp=Z,68nm,20.9s,baz=10,slow=30
RES Resolute Bay 93.95 353 LR LR 15 49 48.8
comp=Z,32nm,18.3s,baz=11,slow=38
QSPA South Pole Qui 99.73 180 LR LR 15 43 20.6
comp=Z,107nm,19.4s,baz=248,slow=32

*TEH **01** 15:10:36.4,26°.91N×53°.64E,h13km±10km,ML2.8, Presumed earthquake*
*OMAN **01** 15:10:37.2±0.1,27°.26N×53°.53E,h17km±2km,mb2.7/7, ml3.4/15,Error ellipse: s-maj=5.2km s-min=1.0km az=333.0*
ISC 01 15:10:36.6±0.8,**26°.89N**±0°.03×**53°.74E**±0°.04,**h10**km,**n33,**
σ2**80**/41,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LMD1	**Lamerd**	**0.69**	**312**	Pg	**Pg**	**15 10 48.2**	**-1.6**
KHL1	**Khalili_Fars**	**0.85**	**333**	Pg	**Pg**	**15 10 51.5**	**-1.4**
JHRM	**Jahrom**	**1.62**	**355**	Pg	**Pb**	**15 11 06.1**	**-0.5**
JRN	**Qarnain Island**	**2.10**	**203**	P	**Pb**	**15 11 13.6**	**-1.1**
JRN				S	**Sg**	**15 11 46.1**	**+2.1**
GENO	**Geno**	**2.23**	**76**	Pn	**Pb**	**15 11 16.0**	**-1.0**
SHME	**Shamm**	**2.31**	**111**	P	**Pb**	**15 11 18.6**	**+0.3**
SHME				S	**Sg**	**15 11 51.4**	**+0.7**
BANOM	**Banah**	**2.49**	**112**	P	**Pb**	**15 11 20.1**	**-1.3**
BANOM				S	**Sg**	**15 11 56.9**	**+0.4**
NAZ	**Nazwa, Dubai** SNR=7.2	**2.56**	**137**	P	**Pg**	**15 11 26.6**	**+0.9**
NAZ				S	**Sg**	**15 12 00.3**	**+1.5**
MASF	**Masafi**	**2.65**	**124**	P	**Pb**	**15 11 23.8**	**-0.3**
MASF				S	**Sg**	**15 12 01.0**	**-0.6**
ASUD	**Al Ashush, Dub**	**2.67**	**147**	P	**Pg**	**15 11 28.1**	**+0.4**
MDH	**Madha**	**2.79**	**124**	P	**Pb**	**15 11 25.5**	**-1.0**
MDH				S	**Sg**	**15 12 06.2**	**-0.1**
UOSS	**Minazif**	**2.94**	**131**	P	**Pb**	**15 11 29.7**	**+0.6**
UOSS				S	**Sb**	**15 12 07.5**	**+2.4**
HATD	**Hatta, Dubai**	**2.97**	**133**	P	**Pb**	**15 11 31.3**	**+1.7**
HATD				S	**Sg**	**15 12 09.9**	**-2.3**
ASHO	**Ashiyiah** SNR=8.2	**3.03**	**136**	P	**Pb**	**15 11 32.3**	**+1.7**
ASHO				S	**Sg**	**15 12 11.2**	**-2.6**
ALNE	**Al Ain**	**3.35**	**147**	P	**Pb**	**15 11 35.6**	**-0.6**
ALNE				S	**Sg**	**15 12 21.5**	**-2.8**
SOHO	**SOHO**	**3.72**	**137**	P	**Pb**	**15 11 40.7**	**-1.8**
SOHO				S	**Sb**	**15 12 28.7**	**+1.1**
MZR	**Muzera**	**3.87**	**184**	P	**Pb**	**15 11 44.9**	**-0.1**
ARQ	**Araqi** SNR=7.5	**4.34**	**144**	P	**Pb**	**15 11 48.8**	**-4.1**
ARQ				S	**Sb**	**15 12 43.9**	**-1.5**
UMZA	**Um Al Zommool**	**4.35**	**162**	P	**Pb**	**15 11 50.2**	**-2.9**
UMZA				S	**Sb**	**15 12 41.9**	**-3.8**
HOQ	**Hoqain**	**4.61**	**135**	P	**Pb**	**15 11 53.9**	**-3.7**
HOQ				S	**Sb**	**15 12 48.7**	**-4.5**
IBAF	**Bafgh**	**4.95**	**18**	Pn	**Pn**	**15 11 52.5**	**+1.3**
BSY	**Bisya** SNR=8.3	**5.18**	**142**	P	Pb	15 12 02.0	-5.4
BSY				S	**Sb**	**15 13 02.7**	**-7.0**
SQUM	**Sultan Qaboos**	**5.19**	**128**	P	**Pn**	**15 11 58.3**	**+4.0**
SMDO	**Samad**	**5.46**	**133**	P	Pn	15 12 04.5	+6.4
SMDO				S	**Sb**	**15 13 10.5**	**-7.2**
WSAR	**Wadi Sarin**	**5.73**	**128**	P	Pn	15 12 07.2	+5.4
JMDO	**Jabal Madar**	**6.00**	**138**	P	**Pn**	**15 12 09.9**	**+4.5**
WBK	**Wadi Bani Khal**	**6.38**	**131**	P	Pn	15 12 15.9	+5.2
WBK				S	Sn	15 13 33.4	+10
JLN	**Jalan Bani Buh**	**6.99**	**131**	P	**Pn**	**15 12 22.1**	**+3.0**
MHTO	**MHTO**	**7.03**	**146**	P	Pn	15 12 25.1	+5.5
DQM	**DQM**	**7.75**	**152**	P	Pn	15 12 36.0	+6.4
DOK	**Doka**	**8.24**	**177**	P	Pn	15 12 41.1	+4.9
WHFO	**Wadi Hawf**	**8.92**	**180**	P	**Pn**	**15 12 50.2**	**+4.5**
ABTO	**Aybut**	**9.49**	**183**	P	Pn	15 12 58.5	+5.0

*SNET **01** 15:32:07.2±4.9, 13°.45N×91°.01W,h23km,ML3.4, Presumed earthquake*
*GCG **01** 15:32:08.2±1.1, 13°.72N×91°.10W,h47km±29km,MD4.3, ML4.0,Presumed earthquake*
ISC 01 15:32:12.9±2.1,**13°.82N**±0°.10×**90°.85W**±0°.09,**h35**km,**n11,**
σ1**64**/14,**Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FG8	**Yepocapa, Chim**	**0.52**	**33**	*i* P	**Pn**	**15 32 22.6**	**-1.4**
FG16	**Alotenango, Sa**	**0.56**	**37**	*i* P	**Pn**	**15 32 23.7**	**-1.0**
PCG5	**San Vicente Pa**	**0.61**	**50**	*i* P	**Pn**	**15 32 23.4**	**-1.9**
PCG5				*i* S	**Sn**	**15 32 35.0**	**+1.1**
PCG5				IAML		15 32 36.8	
	comp=N,5μm,0.4s						
STG8	**El Palmar, Qui**	**0.79**	**322**	*i* P	**Pn**	**15 32 27.3**	**-0.5**
NUBE	**Las Nubes**	**1.05**	**86**	*i* P	**Pn**	**15 32 30.1**	**-1.1**
NUBE	**Las Nubes**	**1.05**	**86**	*eP*	**Pn**	**15 32 30.2**	**-1.1**
CEVE	**Cerro Verde**	**1.20**	**90**	*eP*	**Pn**	**15 32 32.6**	**-0.8**
CEVE				*eS*	**Sn**	**15 32 51.2**	**+2.6**
APG	**El Apazote**	**1.23**	**18**	*i* P	**Pn**	**15 32 32.2**	**-1.7**
APG				*i* S	**Sn**	**15 32 51.7**	**+2.3**
JAYA	**Jayaque - finc**	**1.38**	**97**	*eP*	**Pn**	**15 32 34.8**	**-1.0**
JAYA				*eS*	**Sn**	**15 32 53.8**	**+0.9**
BOQS	**Boqueron**	**1.53**	**93**	*eP*	**Pn**	**15 32 36.7**	**-1.3**
ESQI	**Esquipulas**	**1.64**	**63**	*eP*	Pn	15 32 33.1	-6.3

ISK 01 15:39:33.0,37°.89N×26°.83E,h18km±2km,ML1.9/5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GMLD	**Gumuldur**	**0.20**	**20**	Pg	Pg	15 39 38.6	+0.6
GMLD				Sg	Sg	15 39 41.9	+0.5
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.37**	**120**	Pg	Pg	15 39 40.9	+0.1
GCAM				AML	AML		
BLCB	**Balcova**	**0.53**	**19**	Pg	Pb	15 39 43.7	0.0
BLCB				Sg	Sb	15 39 51.9	+1.0
BLCB				AML	AML		
CHOS	**Chios island**	**0.79**	**310**	Pg	Pg	15 39 48.8	+0.4
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**86**	Pg	Pn	15 39 50.0	-0.1
AYDB				AML	AML		

AFAD 01 15:40:10.6,37°.81N×26°.92E,h7km±1km,ML1.9, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.24**	**353**	P	Pg	15 40 16.0	+0.5
DGB				S	Sg	15 40 19.6	+0.9
DGB				IAML		15 40 21.0	
	comp=E,120nm,0.2s						
GCAM	**G?zelcaml?**	**0.27**	**114**	P	Pg	15 40 16.4	+0.5
GCAM				S	Sg	15 40 20.7	+1.1
GCAM				IAML		15 40 21.0	
	comp=N,447nm,0.2s						
GCAM				IAML		15 40 21.0	
	comp=E,219nm,0.1s						
BEYE	**izmir**	**0.41**	**1**	P	Pg	15 40 18.8	+0.1
BEYE				S	Sg	15 40 25.1	+0.9
BEYE				IAML		15 40 28.0	
	comp=E,74nm,0.3s						
BEYE				IAML		15 40 30.0	
	comp=N,72nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**323**	P	Pg	15 40 21.3	+0.3
ZEYE				S	Sg	15 40 29.2	+1.1
ZEYE				IAML		15 40 30.0	
	comp=N,115nm,0.2s						
ZEYE				IAML		15 40 33.0	
	comp=E,83nm,0.5s						
DUVT	**Torbali**	**0.58**	**46**	P	Pg	15 40 21.9	0.0
DUVT				S	Sg	15 40 29.6	+0.1
DUVT				IAML		15 40 35.0	
	comp=E,97nm,0.4s						
KARB	**zmir-Karabur**	**0.94**	**335**	P	Pb	15 40 29.3	+0.1
KARB				S	Sb	15 40 42.2	+0.3
CAMT	**Merkez**	**0.99**	**18**	P	Pn	15 40 30.5	-0.3
CAMT				S	Sb	15 40 43.9	+0.7

*IDC **01** 15:40:10.9±0.6,57°.91S×25°.45W,h0km,mb4.2/9, mbtmp4.1/9,MS3.2/1,Error ellipse: s-maj=26.5km s-min=18.4km az=73.0*
*NEIC **01** 15:40:16.5±1.1,57°.94S±0°.06×25°.5W±0°.2,h35km±1km, mb4.5/28,Error ellipse: s-maj=18.2km s-min=5.3km az=60.0*
ISC 01 15:40:17.6±0.5,**57°.95S**±0°.08×**25°.53W**±0°.10,**h49**km,**n62,**
σ0**70**/54,**mb4.4**/18,**1C**,**South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HOPE	**Hope Point**	**7.14**	**296**	Pn	**Pn**	**15 41 59.5**	**+0.1**
VNA1	**Neumayer--Stat**	**14.69**	**157**	P	**Pn**	**15 43 40.7**	**-1.3**
	comp=Z,4.1nm,0.4s						
VNA3	**Neumayer Olymp**	**14.89**	**160**	P	**Pn**	**15 43 43.0**	**-1.7**
	comp=Z,2.7nm,0.2s						
VNA3				⇑S	Sn	15 46 11.4	-17
	comp=E,1.2nm,0.2s						
VNA2	**Neumayer--Watz**	**15.08**	**157**	P	**Pn**	**15 43 45.8**	**-1.4**
	comp=Z,2.7nm,0.2s,baz=327,slow=14						
SNAA	**Sanae**	**16.63**	**155**	P	**Pn**	**15 44 06.4**	**-0.5**
	comp=Z,61nm,0.3s						
SNAA	**Sanae**	**16.63**	**155**	Pn	**Pn**	**15 44 06.8**	**-0.1**
	comp=Z,1.0nm,0.3s,baz=330,slow=14,SNR=5.2						
SNAA	**Sanae**	**16.63**	**155**		**Pn**	**15 44 07.1**	**+0.1**
TROLL	**Troll, Antarti**	**18.14**	**152**	P	**Pn**	**15 44 27.2**	**+1.7**
	comp=Z,45nm,0.2s						
EFI	**East Falkland**	**19.63**	**275**	Pn	**Pn**	**15 44 44.6**	**+1.1**
EFI				IAmb	IAmb	15 45 14.0	
	comp=Z,25nm,1.1s						
BELA	**Belgrano 2**	**20.25**	**186**	P	**P**	**15 44 48.4**	**0.0**
MG02	**Cerro Sombrero**	**25.02**	**263**	P	**P**	**15 45 37.4**	**+0.9**
QSPA	**South Pole Qui**	**32.30**	**180**	P	**P**	**15 46 42.3**	**+0.9**
	comp=Z,2.3nm,0.5s,baz=226,slow=1.2,SNR=44						
QSPA				LR	LR	15 59 38.0	
	comp=Z,39nm,19.5s,baz=200,slow=36						
	comp=Z,2.3nm,0.5s						
QSPA	**South Pole Qui**	**32.30**	**180**	P	**P**	**15 46 41.8**	**+0.4**
QSPA				IAmb	IAmb	15 46 45.9	
	comp=Z,4.2nm,1.1s						
PLCA	**Paso Flores**	**33.25**	**281**	P	**P**	**15 46 50.0**	**+0.1**
	comp=Z,0.6nm,0.4s,baz=131,slow=7.8,SNR=8.4						
	comp=Z,0.6nm,0.4s						
PLCA	**Paso Flores**	**33.25**	**281**	P	**P**	**15 46 49.8**	**-0.2**
PLCA				IAmb	IAmb	15 47 12.0	
	comp=Z,3.2nm,1.2s						
GO06	**Curarrehue**	**34.57**	**282**	P	**P**	**15 47 01.2**	**-0.2**
GO06				IAmb	IAmb	15 47 41.2	
	comp=Z,6.9nm,1.4s						
ITAB	**Concordia**	**35.94**	**317**	P	**P**	**15 47 13.6**	**+0.4**
MAW	**Mawson**	**38.08**	**142**	P	**P**	**15 47 31.2**	**+0.3**
VAO	**Valinhos**	**38.19**	**327**	P	**P**	**15 47 32.9**	**+0.5**
VAO				IAmb	IAmb	15 47 54.5	
	comp=Z,15nm,1.2s						
GO05	**Hualane**	**38.28**	**286**	P	**P**	**15 47 32.9**	**-0.1**
GO05				IAmb	IAmb	15 48 09.8	
	comp=Z,13nm,1.2s						
CPUP	**Villa Florida**	**38.75**	**311**	P	**P**	**15 47 36.3**	**-0.6**
	comp=Z,0.6nm,0.4s,baz=144,slow=7.8,SNR=3.3						
	comp=Z,0.6nm,0.4s						
CPUP	**Villa Florida**	**38.75**	**311**	P	**P**	**15 47 35.9**	**-1.1**
MT09	**Talagante**	**38.77**	**289**	P	**P**	**15 47 36.6**	**-0.6**
MT09				IAmb	IAmb	15 47 38.1	
	comp=Z,12nm,1.4s						
MT01	**Popeta**	**38.84**	**288**	P	**P**	**15 47 37.8**	**+0.1**
MT01				IAmb	IAmb	15 48 11.4	
	comp=Z,16nm,1.4s						
MT02	**Curacav**	**39.26**	**289**	P	**P**	**15 47 40.8**	**-0.3**
MT02				IAmb	IAmb	15 48 11.4	
	comp=Z,21nm,1.5s						
CO06	**Fray Jorge**	**41.59**	**291**	P	**P**	**15 47 59.5**	**-0.9**
CO06				IAmb	IAmb	15 48 16.7	
	comp=Z,27nm,1.5s						
AC02	**Maricunga**	**43.54**	**297**	P	**P**	**15 48 15.6**	**-1.3**
AC02				IAmb	IAmb	15 48 40.0	
	comp=Z,6.7nm,1.4s						
VNDA	**Vanda**	**44.71**	**182**	P	**P**	**15 48 25.9**	**+0.9**
	comp=Z,2.0nm,0.7s,baz=184,slow=6.3,SNR=22						
	comp=Z,2.0nm,0.7s						
VNDA	**Vanda**	**44.71**	**182**	P	**P**	**15 48 25.9**	**+0.9**
BDFB	**Brasilia**	**45.47**	**329**	P	**P**	**15 48 32.7**	**+0.9**
	comp=Z,1.3nm,0.4s,baz=66,slow=10.0,SNR=3.5						
	comp=Z,1.3nm,0.4s						
BDFB	**Brasilia**	**45.47**	**329**	P	**P**	**15 48 31.5**	**-0.4**
BDFB				IAmb	IAmb	15 49 10.4	
	comp=Z,5.0nm,1.0s						
H04S2	**CROZET ISLANDS**	**45.97**	**111**	T	T	16 39 04.8	
	baz=224,slow=77,SNR=6.5						
H04S3	**CROZET ISLANDS**	**45.98**	**111**	T	T	16 39 06.0	
	baz=224,slow=77,SNR=5.8						
H04S1	**CROZET ISLANDS**	**45.99**	**111**	T	T	16 39 06.1	
	baz=224,slow=77,SNR=5.6						

H10S2	**ASCENSION HYDR**	**49.59**	**14**	T	T	16 43 31.0		
	baz=188,slow=74,SNR=47							
H10S3	**ASCENSION HYDR**	**49.60**	**14**	T	T	16 43 36.4		
	baz=32,slow=74,SNR=44							
KDWAN	**Kaudwane**	**49.64**	**68**	P	**P**	**15 49 04.5**	**+0.3**	
KDWAN				IAmb	IAmb	15 49 22.0		
	comp=Z,12nm,1.4s							
H10N1	**ASCENSION HYDR**	**50.71**	**14**	T	T	16 44 56.0		
	baz=190,slow=71,SNR=8.8							
H10N3	**ASCENSION HYDR**	**50.71**	**14**	T	T	16 45 04.3		
	baz=190,slow=71,SNR=22							
H10N2	**ASCENSION HYDR**	**50.73**	**14**	T	T	16 45 03.3		
	baz=190,slow=71,SNR=6.8							
LPAZ	**La Paz**	**52.21**	**305**	P	**P**	**15 49 23.7**	**-0.5**	
	comp=Z,0.7nm,0.3s,baz=153,slow=5.8,SNR=6.1							
	comp=Z,0.7nm,0.3s							
LPAZ	**La Paz**	**52.21**	**305**	P	**P**	**15 49 23.6**	**-0.6**	
BOAV	**Boa Vista**	**66.34**	**321**	P	**P**	**15 51 00.5**	**-0.5**	
DBIC	**Dimbokro**	**66.55**	**22**	P	**P**	**15 51 02.9**	**+0.6**	
	comp=Z,3.7nm,0.8s,baz=184,slow=6.7,SNR=3.2							
	comp=Z,3.7nm,0.8s							
DBIC	**Dimbokro**	**66.55**	**22**	P	**P**	**15 51 02.8**	**+0.6**	
DBIC				IAmb	IAmb	15 51 03.8		
	comp=Z,6.7nm,1.0s							
TORD	**Torodi Ar. Bea**	**74.29**	**28**	P	**P**	**15 51 50.3**	**+0.8**	
	comp=Z,1.8nm,0.6s,baz=198,slow=6.5,SNR=14							
	comp=Z,1.8nm,0.6s							
TORD	**Torodi Ar. Bea**	**74.29**	**28**	P	**P**	**15 51 50.0**	**+0.5**	
TORD				IAmb	IAmb	15 52 29.1		
	comp=Z,4.3nm,0.8s							
INZ	**Inchbonnie**	**78.69**	**193**	P	**P**	**15 52 14.9**	**+0.7**	
GDSD	**La Dsirade Is**	**79.60**	**325**	P	**P**	**15 52 19.5**	**+0.2**	
MRNZ	**Matariki Terra**	**79.84**	**194**	P	**P**	**15 52 20.4**	**0.0**	
CELP	**Cerrillos**	**83.02**	**321**	P	**P**	**15 52 36.7**	**-0.6**	
BBOO	**Buckleboo**	**88.27**	**165**	P	**P**	**15 53 03.0**	**-0.4**	
ASAR	**Alice Springs**	**96.89**	**161**	P	**P**	**15 53 43.0**	**-0.5**	
	comp=Z,0.5nm,0.7s,baz=183,slow=4.1,SNR=13							
	comp=Z,0.5nm,0.7s							
ASAR	**Alice Springs**	**96.89**	**161**	P	**P**	**15 53 43.0**	**-0.5**	
CMAR	**Chiang Mai Arr**	**123.55**	**110**	PKP	**PKPdf**	**15 59 08.7**	**-0.6**	
	comp=Z,0.2nm,0.3s,baz=238,slow=3.7,SNR=4.3							
FINES	**FINESS Array B**	**125.65**	**28**	PKP	**PKPdf**	**15 59 11.2**	**-0.6**	
	comp=Z,3.0nm,0.9s,baz=174,slow=1.9,SNR=11							
AAK	**Ala-Archa**	**129.75**	**71**	PKP	**PKPdf**	**15 59 20.4**	**-0.2**	
	comp=Z,0.3nm,0.3s,baz=243,slow=2.3,SNR=4.8							
ARCES	**ARCESS Array B**	**132.38**	**22**	PKP	**PKiKP**	**15 59 25.2**	**-0.4**	
	comp=Z,1.4nm,0.7s,baz=166,slow=0.5,SNR=3.7							
YKA	**Yellowknife Ar**	**138.19**	**316**	PKP	**PKPdf**	**15 59 35.4**	**-0.1**	
	comp=Z,1.5nm,0.6s,baz=133,slow=2.2,SNR=8.7							
SONM	**Songino Array**	**149.90**	**88**	PKPbc	**PKPbc**	**16 00 01.3**	**-0.1**	
	comp=Z,2.2nm,0.4s,baz=206,slow=3.7,SNR=12							
ILAR	**Eielson Array**	**152.04**	**309**	PKPbc	**PKPbc**	**16 00 05.7**	**0.0**	
	comp=Z,5.0nm,0.9s,baz=137,slow=3.8,SNR=47							
ILAR	**Eielson Array**	**152.04**	**309**		**PKiKP**	**16 00 05.8**	**-0.2**	

*ISK **01** 15:47:01.1, 37.87N×27.02E, h8km, ML3.2/16*
*THE **01** 15:47:01.5, 38.3N±3.2×27.7E±.6, h3km±6km, M3.0/6, MLh3.0/6*
*AFAD **01** 15:47:01.0, 37.84N×26.97E, h7km±1km, ML2.9*
*ATH **01** 15:47:01.3, 37.86N×27.02E, h6km±1km, ML3.1/7, Latitude uncertainty: 0 km; Longitude uncertainty: 2 km*

ISC 01 15:47:01.5±0.8, 37.86N±0.02×27.02E±0.02, h12km±6km, n52, σ0.53/82, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.21**	**89**	Pg	**Pg**	**15 47 05.9**	**-0.2**
KUSD				Sg	**Sg**	**15 47 09.4**	**+0.1**
KUSD				AML	AML		
DGB	**zmir**	**0.22**	**331**	P	**Pg**	**15 47 05.9**	**-0.4**
DGB				S	**Sg**	**15 47 08.7**	**-0.8**
GMLD	**Gumuldur**	**0.23**	**340**	Pg	**Pg**	**15 47 06.3**	**-0.2**
GMLD				Sg	**Sg**	**15 47 09.8**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**133**	P	**Pg**	**15 47 06.5**	**0.0**
GCAM				IAML		15 47 10.0	
	comp=N,4μm,0.2s						
GCAM				IAML		15 47 10.0	
	comp=E,4μm,0.1s						
GCAM				S	**Sg**	**15 47 10.2**	**+0.5**
GCAM	**G?zelcaml?**	**0.23**	**133**	Pg	**Pg**	**15 47 06.4**	**0.0**
GCAM				Sg	**Sg**	**15 47 10.3**	**+0.5**
GCAM				AML	AML		
KRL1	**Karlovasi Samo**	**0.25**	**256**	P	**Pg**	**15 47 06.3**	**-0.5**
KRL1				S	**Sg**	**15 47 10.2**	**-0.2**
KRL1				AML	AML		
BEYE	**izmir**	**0.38**	**349**	P	**Pg**	**15 47 08.9**	**-0.2**
BEYE				S	**Sg**	**15 47 14.7**	**+0.6**
BEYE				IAML		15 47 15.0	
	comp=N,1μm,0.4s						
BEYE				IAML		15 47 15.0	
	comp=E,1μm,0.4s						
DDIM	**Aydin, Didim**	**0.44**	**156**	P	**Pg**	**15 47 10.0**	**-0.2**
DDIM				S	**Sg**	**15 47 16.7**	**+0.7**
DDIM				IAML		15 47 17.0	
	comp=N,644nm,0.2s						
DDIM				IAML		15 47 19.0	
	comp=E,758nm,0.7s						
DUVT	**Torbali**	**0.50**	**43**	P	**Pg**	**15 47 11.3**	**0.0**
DUVT				S	**Sg**	**15 47 17.5**	**-0.4**
DUVT				IAML		15 47 20.0	
	comp=E,791nm,0.2s						
BLCB	**Balcova**	**0.53**	**2**	P	**Pg**	**15 47 11.5**	**-0.4**
BLCB				S	**Sg**	**15 47 19.2**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**2**	Pg	**Pg**	**15 47 11.5**	**-0.4**
BLCB				Sg	**Sb**	**15 47 19.5**	**-0.8**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**313**	P	**Pg**	**15 47 11.7**	**-0.7**
ZEYE				S	**Sg**	**15 47 19.6**	**-0.2**
ZEYE				IAML		15 47 20.0	
	comp=N,2μm,0.5s						
ZEYE				IAML		15 47 23.0	
	comp=E,832nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.70**	**82**	Pg	**Pg**	**15 47 15.1**	**0.0**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.71**	**106**	P	**Pg**	**15 47 15.4**	**+0.1**
AYDN				S	**Sb**	**15 47 25.8**	**+0.1**
AYDN				IAML		15 47 29.0	
	comp=N,325nm,0.4s						
AYDN				IAML		15 47 29.0	
	comp=E,382nm,0.3s						
CESE	**eme**	**0.74**	**310**	Pg	**Pg**	**15 47 15.7**	**-0.1**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**164**	Pg	**Pg**	**15 47 15.7**	**-0.6**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.79**	**69**	P	**Pb**	**15 47 16.9**	**-0.3**
IZMR				S	**Sg**	**15 47 25.5**	**-1.6**
BAGT	**Foa**	**0.81**	**351**	P	**Pg**	**15 47 16.8**	**-0.4**
BAGT				S	**Sb**	**15 47 28.0**	**-0.4**
BAGT				IAML		15 47 30.0	
	comp=N,695nm,0.9s						
BAGT				IAML		15 47 32.0	
	comp=E,502nm,0.4s						
KRBN	**Karaburun**	**0.82**	**334**	Pg	**Pb**	**15 47 17.4**	**-0.3**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**164**	P	**Pg**	**15 47 17.0**	**-0.5**
BODT				S	**Sb**	**15 47 29.1**	**+0.1**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.86**	**157**	P	**Pg**	**15 47 17.5**	**-0.7**
BDRM				S	**Sg**	**15 47 29.0**	**-0.4**
BDRM				IAML		15 47 33.0	
	comp=E,362nm,0.3s						
BDRM				IAML		15 47 34.0	
	comp=N,447nm,0.3s						
FOCM	**Foa**	**0.88**	**345**	Pg	**Pg**	**15 47 18.3**	**-0.3**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.90**	**182**	P	**Pg**	**15 47 18.1**	**-0.8**
KLNA				S	**Sg**	**15 47 30.8**	**+0.1**
KLNA				AML	AML		
CAMT	**Merkez**	**0.92**	**15**	P	**Pg**	**15 47 19.0**	**-0.3**
CAMT				S	**Sb**	**15 47 32.5**	**+0.9**
CAMT				IAML		15 47 34.0	
	comp=E,478nm,0.6s						
CAMT				IAML		15 47 37.0	
	comp=N,659nm,0.3s						
CHOS	**Chios island**	**0.92**	**305**	P	**Pb**	**15 47 19.5**	**-0.1**
CHOS				S	**Sb**	**15 47 32.3**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**305**	Pg	**Pb**	**15 47 19.6**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**305**	P	**Pb**	**15 47 19.4**	**-0.1**
CHOS				S	**Sg**	**15 47 31.5**	**0.0**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**330**	P	**Pg**	**15 47 18.9**	**-0.6**
KARB				S	**Sb**	**15 47 32.4**	**+0.3**
KARB				IAML		15 47 34.0	
	comp=N,476nm,0.2s						
KARB				IAML		15 47 34.0	
	comp=E,311nm,0.3s						
EAG2	**Marmaro, Chios**	**0.99**	**314**	P	**Pb**	**15 47 20.8**	**+0.2**
EAG2				S	**Sg**	**15 47 32.7**	**-0.9**
NAZL	**Nazilli-Aydin**	**1.01**	**84**	Pg	**Pg**	**15 47 20.9**	**-0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.10**	**40**	Pn	**Pg**	**15 47 22.4**	**-0.4**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.11**	**2**	P	**Pg**	**15 47 22.0**	**-0.9**
ZEDA				S	**Sb**	**15 47 37.7**	**+0.6**
ZEDA				IAML		15 47 39.0	
	comp=N,303nm,0.3s						
ZEDA				IAML		15 47 40.0	
	comp=E,530nm,0.5s						
KTTT	**Salihli**	**1.19**	**45**	P	**Pn**	**15 47 24.4**	**+0.4**
KTTT				S	**Sg**	**15 47 38.9**	**-0.8**
KTTT				IAML		15 47 44.0	
	comp=N,152nm,0.6s						
AKS	**Akhisar**	**1.20**	**31**	Pn	**Pg**	**15 47 23.8**	**-0.7**
AKS				AML	AML		
DKL	**Dikili**	**1.21**	**356**	Pn	**Pg**	**15 47 24.3**	**-0.6**
DKL				AML	AML		
DKL	**Dikili**	**1.21**	**356**	P	**Pn**	**15 47 24.8**	**+0.5**
DKL				S	**Sn**	**15 47 41.2**	**+0.5**
YER	**Yerkesik**	**1.24**	**125**	P	**Pb**	**15 47 24.7**	**-0.2**
YER				S	**Sb**	**15 47 41.3**	**+0.5**
SOMA	**Soma-Manisa**	**1.36**	**17**	Pn	**Pb**	**15 47 27.0**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.39**	**41**	Pn	**Pn**	**15 47 27.0**	**+0.2**
GORD				AML	AML		
ASTA	**Astypalaia**	**1.41**	**202**	P	**Pn**	**15 47 27.6**	**+0.5**
ASTA				S	**Sg**	**15 47 47.0**	**0.0**
PRK	**Paraskevi**	**1.50**	**337**	P	**Pb**	**15 47 29.7**	**+0.3**
PRK				S	**Sg**	**15 47 49.9**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.50**	**337**	P	**Pn**	**15 47 28.9**	**+0.6**
PRK				S	**Sn**	**15 47 48.1**	**+0.2**
ARG	**Arkhangelos**	**1.86**	**151**	P	**Pn**	**15 47 32.8**	**-0.4**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.86**	**151**	P	**Pn**	**15 47 32.9**	**-0.4**
ARG				AML	AML		
THR8	**Santorini-Mono**	**1.90**	**221**	P	**Pn**	**15 47 34.9**	**+1.1**
THERA	**Ancient Thera,**	**1.93**	**220**	P	**Pn**	**15 47 34.8**	**+0.6**
THERA	**Ancient Thera,**	**1.93**	**220**	P	**Pn**	**15 47 34.9**	**+0.6**
THR3	**Thira Island,**	**1.94**	**222**	P	**Pn**	**15 47 35.0**	**+0.7**
SNT5	**Nea Kammeni, S**	**1.95**	**222**	P	**Pb**	**15 47 36.2**	**-0.7**
THR5	**Thira Island,**	**1.96**	**223**	P	**Pn**	**15 47 35.4**	**+0.7**
THR6	**Thira Island,**	**1.98**	**221**	P	**Pn**	**15 47 36.1**	**+1.3**
KARP	**Karpathos**	**2.31**	**177**	P	**Pn**	**15 47 39.0**	**-0.4**

*SNET **01** 15:56:25.1±1.7, 13.64N×90.66W, h45km, ML3.3, Presumed earthquake*
*GCG **01** 15:56:25.0±0.9, 13.72N×90.67W, h62km±14km, MD4.1, Presumed earthquake*

ISC 01 15:56:27.3±2.5, 13.9N±0.1×90.35W±0.08, h90km±19km, n13, σ1.22/18, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCG5	**San Vicente Pa**	**0.34**	**355**	*i* P	**Pn**	**15 56 39.4**	**-1.8**
FG16	**Alotenango, Sa**	**0.42**	**338**	*i* P	**Pn**	**15 56 40.7**	**-1.1**
FG8	**Yepocapa, Chim**	**0.43**	**331**	*i* P	**Pn**	**15 56 40.8**	**-1.0**
NUBE	**Las Nubes**	**0.55**	**87**	*i* P	**Pn**	**15 56 41.5**	**-1.2**
NUBE	**Las Nubes**	**0.55**	**87**	*eP*	**Pn**	**15 56 41.3**	**-1.4**
LOAL	**Lomas de Alarc**	**0.56**	**78**	*eP*	**Pn**	**15 56 42.3**	**-0.3**
LOAL				*eS*	**Sn**	**15 56 55.4**	**+1.3**
CEVE	**Cerro Verde**	**0.70**	**94**	*eP*	**Pn**	**15 56 44.0**	**-0.1**
CEVE				*eS*	**Sn**	**15 56 58.5**	**+1.9**
JAYA	**Jayaque - finc**	**0.90**	**104**	*i* P	**Pn**	**15 56 45.6**	**-0.5**
JAYA	**Jayaque - finc**	**0.90**	**104**	*eP*	**Pn**	**15 56 45.4**	**-0.7**
JAYA				*eS*	**Sn**	**15 57 00.4**	**+0.3**
BOQS	**Boqueron**	**1.04**	**98**	*eP*	**Pn**	**15 56 47.9**	**+0.2**
APG	**El Apazote**	**1.12**	**354**	*i* P	**Pn**	**15 56 48.1**	**-0.6**
APG				*i* S	**Sn**	**15 57 05.5**	**+0.7**
STG8	**El Palmar, Qui**	**1.13**	**300**	*i* P	**Pn**	**15 56 48.6**	**-0.2**
STG8				*i* S	**Sn**	**15 57 06.1**	**+1.2**
LFRS	**El Faro**	**1.27**	**101**	*eP*	**Pn**	**15 56 48.5**	**-1.8**

*IDC **01** 15:58:43.6±1.8, 37.34N×69.67E, h0km, mb4.0/12, mbtmp4.0/17, ML3.5/6, Error ellipse: s-maj=34.7km s-min=12.7km az=146.0*
*NEIC **01** 15:58:49.7±1.9, 37.95N±0.03×69.3E±0.1, h10km±1km, mb4.6/17, Error ellipse: s-maj=16.3km s-min=3.3km az=102.0*
*NNC **01** 15:58:52.9±8.2, 37.98N×69.20E, h18km±41km, mb4.2, mpv3.6, Error ellipse: s-maj=44.4km s-min=26.0km az=33.0*

ISC 01 15:58:49.6±0.6, 37.88N±0.05×69.25E±0.06, h12km, n63, σ1.26/68, mb4.4/17, 3C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BTK	**Batken**	**2.50**	**29**		**Pn**	**15 59 29.6**	**-0.5**
DRK	**Karamyk**	**2.56**	**50**		**Pn**	**15 59 31.1**	**0.0**
KBL	**Kabul**	**3.33**	**183**		**Pn**	**15 59 43.2**	**+1.5**
KBL				Sn	**Sn**	**16 00 21.4**	**+0.1**
ARSB	**Arslanbob**	**4.49**	**39**		**Pn**	**15 59 58.1**	**+0.5**
KSH2	**Kashi**	**5.11**	**74**	Pn	**Pn**	**16 00 06.4**	**+0.3**
KSH2				Sn	**Sn**	**16 01 05.2**	**+0.1**
KSH2				smax	smax		
	comp=N,87nm,0.6s						
KSH2				smax	smax		
	comp=E,62nm,0.6s						
KK31	**Karatay Array**	**5.31**	**10**	Pn	**Pn**	**16 00 10.9**	**+2.2**
	comp=E,1.9nm,0.4s,baz=193,slow=13,SNR=30						
KK31				Lg	Lg	16 01 40.6	
	comp=E,56nm,0.8s,baz=190,slow=27,SNR=12						
KK31	**Karatay Array**	**5.31**	**10**		**Pn**	**16 00 09.1**	**+0.4**
KKAR	**Karatay Array**	**5.31**	**10**		**Pn**	**16 00 09.9**	**+1.2**
NIL	**Nilore**	**5.32**	**141**		**Pn**	**16 00 11.5**	**+2.6**
AAK	**Ala-Archa**	**6.22**	**38**	Pn	**Pn**	**16 00 21.8**	**+0.5**
	comp=E,5.1nm,0.3s,baz=209,slow=8.5,SNR=92						
AAK				Sn	**Sn**	**16 01 36.2**	**+3.8**
	comp=E,0.4nm,0.3s,baz=200,slow=14,SNR=1.4						
AAK				Lg	Lg	16 02 08.7	
	comp=E,2.6nm,0.3s,baz=21,slow=17,SNR=5.5						
	comp=E,17nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**6.22**	**38**	⇓Pn	**Pn**	**16 00 22.8**	**+1.5**
	comp=E,6.0nm,0.5s						
AAK				⇑Lg	Lg	16 02 04.5	
	comp=E,46nm,1.3s						
NRN	**Naryn**	**6.30**	**54**		**Pn**	**16 00 22.4**	**-0.2**
BOOM	**Boomskoye usch**	**6.89**	**46**		**Pn**	**16 00 30.9**	**+0.4**
TARG	**Taragay, Kyrgy**	**7.62**	**57**	Pn	**Pn**	**16 00 41.1**	**+0.3**
PDGK	**Podgornoye**	**9.50**	**52**		**Pn**	**16 01 05.6**	**-0.7**
MK31	**Makanchi Array**	**13.12**	**43**	Pn	**Pn**	**16 01 54.6**	**-1.0**
MKAR	**Makanchi Array**	**13.12**	**43**	Pn	**Pn**	**16 01 53.6**	**-2.0**
	comp=E,0.1nm,0.3s,baz=238,slow=14,SNR=8.4						
MKAR				Lg	Lg	16 05 40.1	
	baz=212,slow=38,SNR=2.0						
	comp=E,1.5nm,0.7s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**13.12**	**43**	Pn	**Pn**	**16 01 54.5**	**-1.2**
AB31	**Akbulak array**	**13.21**	**332**	P	**Pn**	**16 01 57.1**	**+0.2**
	comp=E,1.2nm,0.5s,baz=153,slow=12,SNR=47						
AB31				⇓S	**Sn**	**16 04 23.5**	**-0.2**
	comp=E,2.3nm,0.6s,baz=156,slow=22,SNR=6.8						
AB31	**Akbulak array**	**13.21**	**332**		**Pn**	**16 01 56.8**	**-0.1**
ABKAR	**Akbulak array**	**13.21**	**332**		**Pn**	**16 01 56.9**	**0.0**
KURBB	**Kurchatov Arra**	**14.36**	**24**	Pn	**Pn**	**16 02 10.6**	**-1.9**
	comp=E,0.1nm,0.3s,baz=213,slow=9.7,SNR=14						
KURBB				Lg	Lg	16 06 17.4	
	baz=219,slow=28,SNR=4.1						
KURBB				AML	AML		
KURK	**Kurchatov**	**14.47**	**24**		**Pn**	**16 02 10.6**	**-3.4**
AKTO	**Aktyubinsk**	**14.90**	**331**	Pn	**Pn**	**16 02 20.8**	**+0.8**
	comp=E,0.3nm,0.3s,baz=146,slow=12,SNR=7.6						
AKTO				Sn	**Sn**	**16 05 01.6**	**-3.2**
	comp=E,0.1nm,0.3s,baz=232,slow=16,SNR=1.3						
	comp=E,2.9nm,0.5s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**14.90**	**331**	⇑P	**Pn**	**16 02 20.6**	**+0.7**
	comp=E,15nm,0.7s						
AKTO				⇑S	**Sn**	**16 05 04.4**	**-0.4**
	comp=E,6.0nm,1.2s						
WMQ	**Urumqi**	**15.16**	**61**	*e*P	**Pn**	**16 02 24.2**	**+0.7**
BVAR	**Borovoye Array**	**15.17**	**3**	Pn	**Pn**	**16 02 23.8**	**+0.2**
	comp=E,0.1nm,0.3s,baz=152,slow=9.9,SNR=9.4						
	comp=E,1.5nm,0.5s						
BVAR				AML	AML		
ZAA0	**Zalesovo Array**	**19.31**	**29**		**P**	**16 03 12.5**	**-1.8**
ZALV	**Zalesovo Beam**	**19.31**	**29**	P	**P**	**16 03 12.7**	**-1.6**
	comp=E,0.6nm,0.3s,baz=218,slow=11,SNR=23						
	comp=E,4.9nm,0.7s						
ZALV				AML	AML		
ZALV	**Zalesovo Beam**	**19.31**	**29**		**P**	**16 03 12.6**	**-1.7**
ARTI	**Arti**	**19.90**	**342**	P	**P**	**16 03 22.8**	**+2.2**
	comp=E,3.7nm,0.5s,baz=166,slow=5.8,SNR=7.4						
	comp=E,3.7nm,0.5s						
ARTI	**Arti**	**19.90**	**342**	P	**P**	**16 03 19.4**	**-1.2**
KBZ	**Khabaz**	**20.75**	**295**	P	**P**	**16 03 31.4**	**+1.4**
	comp=E,2.3nm,0.8s,baz=101,slow=10,SNR=3.8						
	comp=E,2.3nm,0.8s						
BELG	**Belogornoye**	**20.95**	**321**	P	**P**	**16 03 34.1**	**+2.1**
	comp=E,37nm,0.9s,baz=108,slow=20,SNR=3.9						
	comp=E,37nm,0.9s						
RAYN	**Ar Rayn**	**24.84**	**242**		**P**	**16 04 11.3**	**-0.6**
HHC	**Hu-ho-hao-te**	**32.62**	**71**	*e*P	**P**	**16 05 22.1**	**+0.9**
HHC				pmax	pmax		
	comp=Z,26nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,5.0s						
FINES	**FINESS Array B**	**35.56**	**326**	P	**P**	**16 05 47.3**	**+1.0**
	comp=Z,6.1nm,1.1s,baz=163,slow=7.0,SNR=5.9						
	comp=Z,6.1nm,1.1s						
ARCES	**ARCESS Array B**	**39.34**	**337**	P	**P**	**16 06 19.0**	**+0.8**
	comp=Z,1.9nm,0.6s,baz=114,slow=8.4,SNR=5.5						
	comp=Z,1.9nm,0.6s						
ARCES	**ARCESS Array B**	**39.34**	**337**	P	**P**	**16 06 18.9**	**+0.6**
ARCES				IAmb	IAmb	16 06 29.1	
	comp=Z,20nm,1.4s						
NJ2	**Nanjing**	**40.68**	**83**	*e*P	**P**	**16 06 28.7**	**-1.1**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HFS	**Hagfors**	**41.12**	**321**	P	**P**	**16 06 34.2**	**+1.1**
	comp=Z,2.6nm,0.6s,baz=108,slow=8.4,SNR=8.5						
	comp=Z,2.6nm,0.6s						
NB201	**NORSAR Array S**	**42.41**	**322**	P	**P**	**16 06 43.6**	**0.0**
NB201				IAmb	IAmb	16 07 23.2	
	comp=Z,22nm,1.3s						
NB2	**NORSAR Subarra**	**42.44**	**322**	P	**P**	**16 06 44.6**	**+0.7**
	comp=Z,0.8nm,0.4s,baz=97,slow=8.6						
NOA	**NORSAR Array B**	**42.44**	**322**	P	**P**	**16 06 44.7**	**+0.7**
	comp=Z,0.5nm,0.4s,baz=96,slow=8.1,SNR=2.3						
	comp=Z,0.5nm,0.4s						
TIXI	**Tiksi**	**45.03**	**23**	P	**P**	**16 07 03.5**	**-1.0**
TIXI				IAmb	IAmb	16 07 04.4	
	comp=Z,4.2nm,0.8s						
ESDC	**Sonseca Array**	**55.59**	**296**	P	**P**	**16 08 25.3**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=56,slow=7.7,SNR=4.7						
	comp=Z,0.4nm,0.6s						
TORD	**Torodi Ar. Bea**	**64.38**	**267**	P	**P**	16 09 22.1	-3.5
	comp=Z,0.3nm,0.5s,baz=47,slow=6.0,SNR=2.1						
	comp=Z,0.3nm,0.5s						
D19K	**Kuna River**	**68.24**	**17**	P	**P**	**16 09 49.5**	**-0.2**
E18K	**Tukpahlearik C**	**68.47**	**19**	P	**P**	**16 09 50.7**	**-0.4**
E18K				IAmb	IAmb	16 10 27.4	
	comp=Z,11nm,1.3s						
E24K	**Your Creek**	**70.63**	**14**	P	**P**	**16 10 04.2**	**-0.3**
IMAR	**Indian Mountai**	**71.28**	**17**	P	**P**	**16 10 07.3**	**-1.1**
BMAR	**Burnt Mountain**	**71.93**	**13**	P	**P**	**16 10 12.9**	**+0.6**
C36M	**Paulatuk**	**72.64**	**5**	P	**P**	**16 10 15.6**	**-0.8**
C36M				IAmb	IAmb	16 10 42.8	
	comp=Z,7.0nm,1.3s						
INK	**Inuvik**	**72.77**	**9**	P	**P**	**16 10 16.5**	**-0.7**
	comp=Z,0.9nm,0.6s,baz=41,slow=6.6,SNR=3.8						
	comp=Z,0.9nm,0.6s						
INK	**Inuvik**	**72.77**	**9**	P	**P**	**16 10 17.1**	**-0.1**
INK				IAmb	IAmb	16 10 18.5	
	comp=Z,6.8nm,1.4s						
F31M	**Tsiigehtchic**	**73.56**	**9**	P	**P**	**16 10 21.7**	**-0.2**
F31M				IAmb	IAmb	16 10 49.6	
	comp=Z,8.8nm,1.4s						
ILAR	**Eielson Array**	**73.83**	**15**	P	**P**	**16 10 22.3**	**-1.2**
	comp=Z,0.5nm,0.8s,baz=331,slow=5.1,SNR=5.1						
	comp=Z,0.5nm,0.8s						
ILAR	**Eielson Array**	**73.83**	**15**	P	**P**	**16 10 22.6**	**-0.9**
PPLA	**Purkeypile**	**74.23**	**18**	P	**P**	**16 10 25.5**	**-0.6**
PPLA				IAmb	IAmb	16 10 51.5	
	comp=Z,18nm,1.4s						
SML	**Sawmill**	**76.10**	**17**	P	**P**	**16 10 36.1**	**-0.7**
SCM	**Sheep Creek Mo**	**76.31**	**17**	P	**P**	**16 10 37.4**	**-0.7**
K29M	**Barlow Dome**	**76.41**	**12**	P	**P**	**16 10 38.3**	**-0.3**
K29M				IAmb	IAmb	16 11 07.6	
	comp=Z,4.9nm,1.5s						
YKA	**Yellowknife Ar**	**79.93**	**2**	P	**P**	**16 10 57.6**	**-0.4**
	comp=Z,1.1nm,0.7s,baz=1.0,slow=5.3,SNR

*ISK **01** 16:02:29.5,37.80N×26.65E,h6km,ML2.8/16*
*THE **01** 16:02:29.5,38.N±2.×2.7E±.,h6km±3km,M2.5/8,MLh2.5/8*
*AFAD **01** 16:02:29.9,37.84N×26.68E,h7km±1km,ML2.6*

ISC 01 16:02:29.6±1.1,37.81N±0.03×26.66E±0.03,h10km±11km, n31,σ0.39/45,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.30**	**36**	P	**Pg**	**16 02 35.5**	**-0.1**
DGB				S	**Sg**	**16 02 39.7**	**0.0**
DGB				IAML		16 02 40.0	
	comp=N,847nm,0.3s						
DGB				IAML		16 02 40.0	
	comp=E,1μm,0.3s						
GMLD	**Gumuldur**	**0.34**	**37**	Pg	**Pg**	**16 02 36.4**	**+0.1**
GMLD				Sg	**Sg**	**16 02 41.5**	**+0.7**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.45**	**344**	P	**Pg**	**16 02 38.3**	**0.0**
ZEYE				S	**Sg**	**16 02 44.8**	**+0.6**
ZEYE				IAML		16 02 49.0	
	comp=N,529nm,0.6s						
BEYE	**izmir**	**0.47**	**27**	P	**Pg**	**16 02 38.6**	**-0.2**
BEYE				S	**Sg**	**16 02 44.8**	**-0.2**
BEYE				IAML		16 02 45.0	
	comp=N,566nm,0.4s						
BEYE				IAML		16 02 45.0	
	comp=E,568nm,0.2s						
GCAM	**G?zelcaml?**	**0.47**	**103**	P	**Pg**	**16 02 38.9**	**+0.1**
GCAM				IAML		16 02 46.0	
	comp=N,589nm,0.2s						
GCAM				IAML		16 02 46.0	
	comp=E,808nm,0.3s						
GCAM				S	**Sb**	**16 02 46.1**	**-0.8**
GCAM	**G?zelcaml?**	**0.47**	**103**	Pg	**Pg**	**16 02 38.7**	**-0.1**
GCAM				Sg	**Sb**	**16 02 46.6**	**-0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.50**	**84**	Pg	**Pg**	**16 02 38.8**	**-0.6**
KUSD				AML	AML		
BLCB	**Balcova**	**0.65**	**28**	P	**Pg**	**16 02 41.5**	**-0.8**
BLCB				S	**Sg**	**16 02 50.8**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**28**	Pg	**Pg**	**16 02 42.3**	**+0.1**
BLCB				AML	AML		
CHOS	**Chios island**	**0.75**	**321**	P	**Pg**	**16 02 43.9**	**-0.1**
CHOS				S	**Sb**	**16 02 55.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.75**	**321**	Pg	**Pb**	**16 02 44.5**	**-0.3**
CHOS				Sg	**Sb**	**16 02 55.4**	**+0.3**
CHOS				AML	AML		
DUVT	**Torbali**	**0.75**	**56**	P	**Pg**	**16 02 43.8**	**-0.3**
DUVT				S	**Sg**	**16 02 53.6**	**-0.3**
DUVT				IAML		16 02 58.0	
	comp=E,281nm,0.5s						
KRBN	**Karaburun**	**0.79**	**354**	Pg	**Pb**	**16 02 45.2**	**-0.2**
KRBN				Sg	**Sb**	**16 02 57.1**	**+0.9**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.84**	**144**	Pg	**Pg**	**16 02 45.7**	**-0.1**
YKAV				AML	AML		
BAGT	**Foa**	**0.86**	**10**	P	**Pb**	**16 02 47.1**	**+0.4**
BAGT				S	**Sb**	**16 02 58.5**	**+0.2**
BAGT				IAML		16 03 01.0	
	comp=N,446nm,0.6s						
BAGT				IAML		16 03 02.0	
	comp=E,282nm,0.7s						
FOCM	**Foa**	**0.91**	**4**	Pg	**Pg**	**16 02 47.0**	**0.0**
FOCM				AML	AML		
BODT	**Bodrum**	**0.91**	**145**	P	**Pg**	**16 02 47.1**	**0.0**
BODT				S	**Sb**	**16 03 00.2**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.91**	**145**	Pg	**Pb**	**16 02 47.8**	**+0.3**
BODT				Sg	**Sb**	**16 03 00.2**	**+0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.99**	**82**	Pg	**Pg**	**16 02 48.5**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**1.03**	**120**	Pg	**Pb**	**16 02 49.6**	**+0.1**
MLSB				AML	AML		
DKL	**Dikili**	**1.28**	**9**	Pn	**Pg**	**16 02 54.4**	**+0.3**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.30**	**83**	Pn	**Pg**	**16 02 55.1**	**+0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.34**	**47**	Pn	**Pg**	**16 02 55.6**	**+0.3**
GOMA				AML	AML		
YER	**Yerkesik**	**1.46**	**117**	P	**Pn**	**16 02 56.4**	**+0.3**
YER				AML	AML		
PRK	**Paraskevi**	**1.47**	**348**	P	**Pg**	**16 02 58.1**	**+0.3**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.51**	**27**	Pn	**Pb**	**16 02 57.4**	**-0.4**
GORD	**Gordes-Manisa**	**1.62**	**47**	Pn	**Pb**	**16 02 59.5**	**-0.2**
GORD				AML	AML		
THR3	**Thira Island,**	**1.72**	**216**	P	**Pg**	**16 03 02.5**	**0.0**
THERA	**Ancient Thera,**	**1.72**	**214**	P	**Pn**	**16 02 59.0**	**-0.6**
THERA				AML	AML		
KARY	**Karystos**	**1.77**	**278**	P	**Pn**	**16 02 59.8**	**-0.5**
KARY				AML	AML		
DION	**Dionisos Attik**	**2.17**	**278**	P	**Pn**	**16 03 05.6**	**-0.3**

SJA 01 16:07:30.7±0.7,18.13S×71.98W,h38km±17km,ML3.3, MW3.5,Off coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AP01	**Chacalluta**	**1.58**	**99**	*e*P	Pn	16 07 57.7	+1.6
AP01				*e*S	Sn	16 08 15.3	0.0
AP01				IAML		16 08 18.1	
	comp=Z,850nm,0.2s						
PB12	**IPOC Station P**	**1.64**	**107**	*e*P	Pn	16 07 57.9	+0.8
PB12				*e*S	Sn	16 08 19.7	+2.6
PB12				IAML		16 08 20.1	
	comp=Z,269nm,0.4s						
PSGCX	**Pisagua**	**2.29**	**130**	*e*P	Pn	16 08 08.3	+2.3
PB16	**IPOC Station P**	**2.36**	**95**	*e*P	Pn	16 08 09.6	+2.2
PB16				*e*S	Sn	16 08 39.1	+3.7
PB16				IAML		16 08 39.9	
	comp=Z,171nm,0.9s						
PB11	**IPOC Station P**	**2.74**	**127**	*e*P	Pn	16 08 14.7	+2.4
PB11				*e*S	Sn	16 08 49.2	+5.0
PB11				IAML		16 08 50.2	
	comp=Z,83nm,0.4s						
TA02	**Huaiquique**	**2.76**	**141**	*e*P	Pn	16 08 15.7	+3.3
TA02				IAML		16 08 55.5	
	comp=Z,83nm,0.2s						
TA01	**Diego Aracena**	**2.96**	**145**	*e*P	Pn	16 08 17.8	+2.6
GO01	**Chusmiza**	**3.05**	**121**	*e*P	Pn	16 08 21.0	+4.1
GO01				*e*P		16 08 22.8	
GO01				IAML		16 09 46.3	
	comp=Z,143nm,0.1s						
PB02	**IPOC Station P**	**3.73**	**149**	*e*P	Pn	16 08 29.1	+3.2
PB02				*e*S	Sn	16 09 11.8	+3.1
PB02				IAML		16 09 15.9	
	comp=Z,57nm,0.3s						
PB07	**IPOC Station P**	**4.09**	**152**	*e*P	Pn	16 08 22.8	-8.1
PB07				*e*S	Sn	16 09 19.6	+2.1
PB07				IAML		16 09 21.3	
	comp=Z,33nm,0.4s						
LPAZ	**La Paz**	**4.11**	**64**	*e*P	Pn	16 08 37.9	+6.3
PB03	**IPOC Station P**	**4.43**	**152**	*e*P	Pn	16 08 38.8	+3.3
PB03				IAML		16 09 28.1	
	comp=Z,31nm,0.5s						
PB03				*e*S	Sn	16 09 28.3	+2.4
PB05	**IPOC Station P**	**4.99**	**161**	*e*P	Pn	16 08 47.7	+4.5
PB05				*e*S	Sn	16 09 42.5	+2.8
PB06	**IPOC Station P**	**5.08**	**154**	*e*P	Pn	16 08 48.4	+3.8
PB06				*e*S	Sn	16 09 45.1	+3.0
PB06				IAML		16 09 50.7	
	comp=Z,20nm,0.7s						

*IDC **01** 16:24:52.3±1.4,6.12S×146.36E,h100km±13km,mb4.0/12, mbtmp4.5/17,MS2.7/2,Error ellipse: s-maj=18.8km s-min=10.2km az=80.0*
*NEIC **01** 16:24:53.8±2.0,6.14S±0.06×146.26E±0.08,h102km±6km, mb4.5/38,Error ellipse: s-maj=12.2km s-min=8.8km az=83.0*
*DJA **01** 16:24:56.1±0.4,6.S±4.×14.6E±.,h90km±6km,M4.8/21, mb4.6/21,mB5.1/5,MLv5.0/6,Mw(mB)4.4/5*

ISC 01 16:24:51.4±0.6,6.05S±0.07×146.29E±0.07,h100km,n100, σ1.9±41/71,mb4.5/28,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.45**	**166**	P	**Pn**	**16 25 44.7**	**+1.5**
	170nm,0.3s,baz=319,slow=7.9,SNR=482						
PMG				S	**Sn**	**16 26 21.4**	**-1.8**
	396nm,0.5s,baz=155,slow=22,SNR=19						
PMG	**Port Moresby**	**3.45**	**166**		**Pn**	**16 25 44.4**	**+1.2**
PMG				Sn	**Sn**	**16 26 22.3**	**-0.9**
PMG	**Port Moresby**	**3.45**	**166**	P	**Pn**	**16 25 44.2**	**+1.0**
PMG				AML	AML		
MANU	**Manus Island**	**4.12**	**15**		Pn	16 25 57.0	+4.7
KRVT	**Keravat (AS076**	**5.97**	**73**	P	Pn	16 26 19.6	+2.2
	22nm,0.4s,baz=114,slow=8.9,SNR=5.1						
KRVT				LR	LR	16 28 41.9	
	comp=Z,47nm,19.0s,baz=172,slow=39						
RABL	**Rabaul**	**6.14**	**73**		Pn	16 26 23.1	+3.5
MMPI	**Merauke**	**6.33**	**247**	P	**Pn**	**16 26 22.0**	**-0.2**
JAY	**Jayapura**	**6.58**	**302**	P	Pn	16 26 28.4	+2.7
	12nm,0.3s,baz=160,slow=7.4,SNR=38						
JAY	**Jayapura**	**6.58**	**302**	P	Pn	16 26 28.7	+3.0
	25nm,1.1s						
GENI	**Genyem**	**7.00**	**299**	P	Pn	16 26 34.2	+2.9
	0.3nm64nm,1.3s						
GENI				AML	AML		
BAKI	**Biak**	**11.24**	**295**	P	Pn	16 27 32.4	+3.3
	89nm,1.1s						
MTSU	**Mount Surprise**	**12.17**	**189**	P	P	16 27 44.3	-5.5
HNR	**Honiara**	**13.95**	**105**	P	**P**	**16 28 07.3**	**-2.2**
	42nm,0.9s,baz=198,slow=2.9,SNR=3.6						
HNR	**Honiara**	**13.95**	**105**	P	P	16 28 12.6	+3.0
CTA	**Charters Tower**	**13.96**	**180**	P	**P**	**16 28 09.6**	**-0.1**
	8.2nm,0.4s,baz=354,slow=14,SNR=69						
CTA				S	**Sn**	**16 30 36.6**	**-2.0**
	1.3nm,0.5s,baz=99,slow=22,SNR=1.9						
CTAO	**Charters Tower**	**13.96**	**180**		**P**	**16 28 10.3**	**+0.6**
FAKI	**Fak Fak**	**14.33**	**282**	Pn	**P**	**16 28 12.2**	**-1.7**
FAKI	**Fak Fak**	**14.33**	**282**	P	**P**	**16 28 13.4**	**-0.5**
	26nm,1.4s						
SAUI	**Saumlaki**	**15.00**	**262**	P	**P**	**16 28 20.4**	**-0.9**
QIS	**Mount Isa**	**15.81**	**204**	P	**P**	**16 28 30.5**	**+0.2**
SIJI	**Sorong**	**15.85**	**288**	P	**P**	**16 28 30.4**	**-0.2**
	46nm,0.5s,baz=93,slow=9.5,SNR=17						
SIJI				LR	LR	16 36 39.1	
	comp=Z,40nm,18.4s,baz=250,slow=44						
MTN	**Manton Dam**	**16.40**	**245**		**P**	**16 28 36.5**	**-0.2**
MTN				IAmb	IAmb	16 28 37.3	
	comp=Z,9.1nm,0.5s						
DRS	**Darwin Rock St**	**16.45**	**246**	P	**P**	**16 28 38.1**	**+0.7**
WB0	**Warramunga Arr**	**17.88**	**219**	P	**Pn**	**16 28 53.5**	**-0.3**
WR8	**Warramunga Arr**	**17.95**	**219**	P	**Pn**	**16 28 54.1**	**-0.6**
WR8				IAmb	IAmb	16 28 58.4	
	comp=Z,12nm,0.6s						
WRAB	**Tennant Creek**	**18.03**	**219**	P	**Pn**	**16 28 55.1**	**-0.5**
WRAB	**Tennant Creek**	**18.03**	**219**	P	**Pn**	**16 28 55.3**	**-0.3**
WRA	**Warramunga Arr**	**18.05**	**219**	P	**Pn**	**16 28 55.5**	**-0.3**
	comp=Z,9.0nm,0.4s,baz=41,slow=11,SNR=96						
NLAI	**Namlea**	**19.32**	**277**	P	**Pn**	**16 29 12.7**	**+1.7**
	comp=Z,24nm,0.8s						
KNRA	**Kununurra**	**19.67**	**239**		**Pn**	**16 29 12.7**	**-2.4**
KNRA				IAmb	IAmb	16 29 17.7	
	comp=Z,7.2nm,0.5s						
EIDS	**Eidsvold**	**19.75**	**167**	P	**Pn**	**16 29 15.3**	**-0.6**
EIDS	**Eidsvold**	**19.75**	**167**	P	**Pn**	**16 29 13.7**	**-2.2**
TNTI	**Ternate**	**20.07**	**289**		Pn	16 29 22.1	+2.4
TNTI				IAmb	IAmb	16 29 24.4	
	comp=Z,37nm,0.8s						
TNTI	**Ternate**	**20.07**	**289**	P	Pn	16 29 23.5	+3.8
	comp=Z,55nm,1.1s						
QLP	**Quilpie**	**20.52**	**185**	P	Pn	16 29 23.2	-1.6
AS01	**Alice Springs**	**21.16**	**213**	P	**P**	**16 29 29.5**	**+0.8**
AS31	**Alice Springs**	**21.18**	**213**	P	**P**	**16 29 30.0**	**+1.0**
ASAR	**Alice Springs**	**21.19**	**213**	P	**P**	**16 29 29.9**	**+0.9**
	comp=Z,11nm,0.6s,baz=40,slow=7.8,SNR=144						
	comp=Z,11nm,0.6s						
ASAR	**Alice Springs**	**21.19**	**213**	P	**P**	**16 29 29.8**	**+0.8**
SOEI	**Soe**	**22.11**	**259**	P	**P**	**16 29 40.6**	**+1.5**
SOEI				IAmb	IAmb	16 30 23.0	
	comp=Z,25nm,1.2s						
INKA	**Innaminka**	**22.21**	**193**		**P**	**16 29 40.4**	**+0.7**
INKA				IAmb	IAmb	16 29 42.5	
	comp=Z,16nm,0.6s						
FITZ	**Fitzroy Crossi**	**23.44**	**237**	P	**P**	**16 29 52.0**	**0.0**
	comp=Z,16nm,0.3s,baz=58,slow=11,SNR=97						
	comp=Z,16nm,0.3s						
FITZ	**Fitzroy Crossi**	**23.44**	**237**	P	**P**	**16 29 51.5**	**-0.5**
FITZ	**Fitzroy Crossi**	**23.44**	**237**	P	**P**	**16 29 51.4**	**-0.6**
LUWI	**Luwuk**	**23.98**	**281**		**P**	**16 29 59.2**	**+2.2**
ARMA	**Armidale**	**24.76**	**169**	P	**P**	**16 30 05.4**	**+1.5**
ARMA	**Armidale**	**24.76**	**169**	P	**P**	**16 30 04.8**	**+0.8**
ARMA				IAmb	IAmb	16 30 48.6	
	comp=Z,21nm,1.2s						
CMSA	**Cobar Meteorol**	**25.37**	**181**	P	**P**	**16 30 10.5**	**+1.2**
STKA	**Stephens Creek**	**26.07**	**189**	P	**P**	**16 30 16.1**	**+0.5**
	comp=Z,3.1nm,0.4s,baz=24,slow=9.4,SNR=12						
	comp=Z,3.1nm,0.4s						
STKA	**Stephens Creek**	**26.07**	**189**	P	**P**	**16 30 16.6**	**+0.9**
STKA	**Stephens Creek**	**26.07**	**189**	P	**P**	**16 30 16.3**	**+0.6**
STKA				IAmb	IAmb	16 30 19.1	
	comp=Z,25nm,0.9s						
HTT	**Hallett**	**28.09**	**193**	P	**P**	**16 30 34.7**	**+0.9**
BBOO	**Buckleboo**	**28.28**	**198**	P	**P**	**16 30 35.6**	**+0.1**
BBOO	**Buckleboo**	**28.28**	**198**	P	**P**	**16 30 35.8**	**+0.4**
BBOO				IAmb	IAmb	16 30 36.4	
	comp=Z,7.2nm,0.7s						
CAN	**Canberra**	**29.24**	**175**	P	**P**	**16 30 44.7**	**+0.7**
MBWA	**Marble Bar**	**29.79**	**237**	P	**P**	**16 30 49.8**	**+0.9**
MBWA	**Marble Bar**	**29.79**	**237**	P	**P**	**16 30 49.5**	**+0.6**
MBWA				IAmb	IAmb	16 30 49.6	
	comp=Z,26nm,1.3s						
FORT	**Forrest**	**29.97**	**213**	P	**P**	**16 30 50.7**	**+0.3**
FORT				IAmb	IAmb	16 31 19.9	
	comp=Z,11nm,0.9s						
TOO	**Toolangi**	**31.39**	**181**	P	**P**	**16 31 04.0**	**+1.1**
MEEK	**Meekatharra**	**33.38**	**229**	P	**P**	**16 31 21.4**	**+0.9**
MORW	**Morawa**	**36.61**	**228**	P	**P**	**16 31 49.1**	**+0.9**
KLBR	**Kellerberrin**	**36.85**	**223**	P	**P**	**16 31 50.6**	**+0.4**
BLDU	**Ballidu**	**37.00**	**225**	P	**P**	**16 31 52.1**	**+0.7**
NWAO	**Narrogin (SRO)**	**38.02**	**222**	P	P	16 32 01.7	+1.7
NWAO	**Narrogin (SRO)**	**38.02**	**222**	P	**P**	**16 32 01.4**	**+1.4**
BBJI	**Bungbulang**	**38.39**	**266**	P	**P**	**16 32 03.4**	**0.0**
JNU	**Nakatsue**	**41.61**	**340**	P	**P**	**16 32 30.8**	**+1.0**
	comp=Z,4.6nm,0.9s,baz=190,slow=6.1,SNR=2.1						
	comp=Z,4.6nm,0.9s						
MRNZ	**Matariki Terra**	**42.38**	**150**	P	**P**	**16 32 37.2**	**+1.3**
NNZ	**Nelson**	**42.55**	**149**	P	P	16 32 39.0	+1.7
TCW	**Tory Channel**	**43.01**	**149**	P	P	16 32 42.9	+1.9
MJAR	**Matsushiro Arr**	**43.04**	**350**	P	**P**	**16 32 41.8**	**+0.6**
	comp=Z,0.5nm,0.4s,baz=182,slow=8.2,SNR=6.8						
	comp=Z,0.5nm,0.4s						
NJ2	**Nanjing**	**46.03**	**327**	*e*P	P	16 33 10.6	+5.5
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KSRS	**Korea Array**	**46.55**	**340**	P	**P**	**16 33 10.3**	**+1.2**
	comp=Z,1.0nm,0.8s,baz=153,slow=8.8,SNR=3.6						
	comp=Z,1.0nm,0.8s						
KULM	**Kulim**	**46.93**	**283**	P	P	16 33 14.2	+1.7
KULM				IAmb	IAmb	16 33 30.4	
	comp=Z,12nm,1.2s						
USRK	**Ussuriysk Ar.**	**51.65**	**347**	P	P	16 33 49.3	+1.4
	comp=Z,1.4nm,0.6s,baz=150,slow=5.2,SNR=4.8						
	comp=Z,1.4nm,0.6s						
CM31	**Chiang Mai Arr**	**52.65**	**299**	P	P	16 33 58.4	+2.7
CM31				IAmb	IAmb	16 33 59.5	
	comp=Z,7.5nm,1.0s						
CMAR	**Chiang Mai Arr**	**52.65**	**299**	P	P	16 33 58.5	+2.8
	comp=Z,3.7nm,0.7s,baz=124,slow=6.0,SNR=38						
	comp=Z,3.7nm,0.7s						
CMAR	**Chiang Mai Arr**	**52.65**	**299**	P	P	16 33 58.1	+2.3
CHTO	**Chiang Mai**	**52.79**	**299**	P	P	16 33 59.1	+2.4
CHTO				IAmb	IAmb	16 34 00.2	
	comp=Z,6.0nm,1.1s						
XAN	**Xi'an**	**53.27**	**321**	P	P	16 34 05.0	+4.9
XAN				pmax	pmax		
	comp=Z,11nm,0.8s						
HHC	**Hu-ho-hao-te**	**56.50**	**329**	*e*P	P	16 34 29.6	+6.2
HHC				pmax	pmax		
	comp=Z,20nm,0.6s						
HHC				pmax	pmax		
	comp=Z,68nm,5.0s						
VNDA	**Vanda**	**71.91**	**176**	P	**P**	**16 36 04.6**	**+1.3**
	comp=Z,2.9nm,0.6s,baz=331,slow=6.6,SNR=34						
	comp=Z,2.9nm,0.6s						
VNDA	**Vanda**	**71.91**	**176**	P	**P**	**16 36 04.4**	**+1.1**
VNDA				IAmb	IAmb	16 36 05.4	
	comp=Z,2.9nm,0.7s						
SBA	**Scott Base**	**72.56**	**176**	P	P	16 36 09.1	+1.9
KSH2	**Kashi**	**79.07**	**312**	P	P	16 36 47.2	+2.0
MAW	**Mawson**	**81.93**	**203**	P	**P**	**16 37 00.1**	**+0.5**
	comp=Z,2.4nm,0.7s,baz=90,slow=7.2,SNR=15						
	comp=Z,2.4nm,0.7s						
MAW	**Mawson**	**81.93**	**203**	P	**P**	**16 37 00.5**	**+0.9**
F20K	**Avaraart Lake**	**83.66**	**20**	P	P	16 37 11.1	+2.6
F20K				IAmb	IAmb	16 37 11.2	
	comp=Z,8.2nm,1.4s						
QSPA	**South Pole Qui**	**83.92**	**180**	P	**P**	**16 37 10.6**	**+0.5**
	comp=Z,4.7nm,0.5s,baz=202,slow=1.0,SNR=49						
	comp=Z,4.7nm,0.5s						
QSPA	**South Pole Qui**	**83.92**	**180**	P	**P**	**16 37 10.5**	**+0.4**
QSPA				IAmb	IAmb	16 37 11.4	
	comp=Z,5.2nm,0.7s						
IL31		**85.80**	**23**	P	**P**	**16 37 19.6**	**+0.3**
IL31				IAmb	IAmb	16 37 31.1	
	comp=Z,6.1nm,1.4s						
ILAR	**Eielson Array**	**85.80**	**23**	P	**P**	**16 37 19.2**	**-0.2**
	comp=Z,0.9nm,0.5s,baz=251,slow=4.8,SNR=10						
	comp=Z,0.9nm,0.5s						
D23K	**Nanushuk River**	**86.26**	**19**	P	P	16 37 23.9	+2.3
O28M	**Mount Upton**	**87.29**	**28**	P	P	16 37 29.4	+2.2
G27K	**Doyon Strip**	**88.55**	**22**	P	P	16 37 34.6	+2.0
DAWY	**Dawson**	**88.61**	**25**	P	P	16 37 35.2	+2.2
DAWY				IAmb	IAmb	16 37 46.2	
	comp=Z,3.9nm,1.2s						
K29M	**Barlow Dome**	**89.35**	**25**	P	P	16 37 38.6	+2.0
K29M				IAmb	IAmb	16 38 11.6	
	comp=Z,4.7nm,1.2s						
TORD	**Torodi Ar. Bea**	**144.41**	**284**	PKP	**PKiKP**	**16 44 17.2**	**-3.5**
	comp=Z,2.2nm,0.7s,baz=65,slow=3.5,SNR=12						
DBIC	**Dimbokro**	**151.31**	**273**	PKPbc	**PKPab**	**16 44 35.7**	**-7.2**
	comp=Z,5.0nm,0.8s,baz=115,slow=4.0,SNR=5.1						
BDFB	**Brasilia**	**154.21**	**147**	PKPbc	**PKiKP**	**16 44 42.1**	**+1.1**
	comp=Z,1.7nm,0.4s,baz=225,slow=3.0,SNR=3.9						

*ISK **01** 16:33:43.9,37.83N×26.99E,h9km,ML3.1/19*
*THE **01** 16:33:44.5,38.N±1.×2.7E±.,h3km±3km,M3.0/7,MLh3.0/7*
*AFAD **01** 16:33:44.3,37.84N×26.99E,h7km±2km,ML3.1*
*ATH **01** 16:33:44.0,37.82N×27.02E,h10km±1km,ML3.1/6,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km

ISC 01 16:33:44.5±0.9,37.83N±0.02×26.99E±0.02,h11km±7km, n50,σ0.36/70,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.23**	**262**	P	**Pg**	**16 33 48.9**	**-0.4**
KRL1				S	**Sg**	**16 33 52.7**	**+0.2**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**123**	P	**Pg**	**16 33 49.5**	**+0.1**
GCAM				S	**Sg**	**16 33 53.0**	**+0.4**
GCAM				IAML		16 33 53.0	
	comp=N,5μm,0.2s						
GCAM				IAML		16 33 53.0	
	comp=E,4μm,0.2s						
GCAM	**G?zelcaml?**	**0.23**	**123**	Pg	**Pg**	**16 33 49.4**	**+0.1**
GCAM				Sg	**Sg**	**16 33 53.1**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**81**	Pg	**Pg**	**16 33 49.4**	**-0.1**
KUSD				Sg	**Sg**	**16 33 52.9**	**0.0**
KUSD				AML	AML		
DGB	**zmir**	**0.24**	**340**	P	**Pg**	**16 33 49.5**	**-0.1**
DGB				S	**Sg**	**16 33 52.6**	**-0.4**
GMLD	**Gumuldur**	**0.26**	**347**	Pg	**Pg**	**16 33 49.8**	**-0.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.40**	**353**	P	**Pg**	**16 33 52.5**	**0.0**
BEYE				S	**Sg**	**16 33 58.2**	**+0.2**
BEYE				IAML		16 33 59.0	
	comp=N,1μm,0.3s						
BEYE				IAML		16 33 59.0	
	comp=E,1μm,0.2s						
DDIM	**Aydin, Didim**	**0.42**	**151**	P	**Pg**	**16 33 52.9**	**+0.1**
DDIM				S	**Sg**	**16 33 58.5**	**+0.1**
DDIM				IAML		16 33 59.0	
	comp=N,2μm,0.3s						
DDIM				IAML		16 33 59.0	
	comp=E,2μm,0.5s						
DIDI	**Didim-Aydin**	**0.49**	**156**	Pg	**Pg**	**16 33 53.7**	**-0.4**
DIDI				AML	AML		
DUVT	**Torbali**	**0.54**	**43**	P	**Pg**	**16 33 54.8**	**-0.2**
DUVT				S	**Sg**	**16 34 02.0**	**-0.1**
DUVT				IAML		16 34 06.0	
	comp=E,1μm,0.4s						
BLCB	**Balcova**	**0.56**	**4**	P	**Pg**	**16 33 55.3**	**-0.2**
BLCB				S	**Sg**	**16 34 03.3**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**4**	Pg	**Pg**	**16 33 55.3**	**-0.2**
BLCB				Sg	**Sg**	**16 34 03.3**	**+0.4**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**317**	P	**Pg**	**16 33 55.4**	**-0.2**
ZEYE				IAML		16 34 03.0	
	comp=E,1μm,0.3s						
ZEYE				S	**Sg**	**16 34 03.2**	**+0.2**
AYDB	**Zeytinkoy-Aydi**	**0.72**	**80**	Pg	**Pg**	**16 33 58.2**	**-0.4**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.74**	**162**	Pg	**Pg**	**16 33 58.9**	**+0.1**
YKAV				AML	AML		
CESE	**eme**	**0.74**	**313**	Pg	**Pg**	**16 33 58.8**	**-0.1**
CESE				AML	AML		
BODT	**Bodrum**	**0.80**	**161**	P	**Pg**	**16 33 59.5**	**-0.6**
BODT				S	**Sb**	**16 34 11.8**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**161**	Pg	**Pg**	**16 33 59.7**	**-0.4**
BODT				AML	AML		
MLSB	**Milas**	**0.82**	**130**	Pg	**Pg**	**16 33 59.9**	**-0.5**
MLSB				AML	AML		
BAGT	**Foa**	**0.84**	**353**	P	**P

KARY	**Karystos**	**2.03**	**277**	P	**Pn**	**16 34 18.5 -0.1**
DION	**Dionisos Attik**	**2.43**	**277**	P	**Pn**	**16 34 24.2 0.0**
PTL	**Penteli**	**2.48**	**276**	P	**Pn**	**16 34 24.8 -0.1**
LIA	**Limnos Island**	**2.50**	**326**	P	**Pn**	**16 34 25.4 +0.2**
VLY	**Voula,Athens**	**2.53**	**272**	P	**Pn**	**16 34 25.3 -0.3**
VLY	**Voula,Athens**	**2.53**	**272**	P	**Pn**	**16 34 25.2 -0.3**
VLY				AML	AML	

*AFAD **01** 16:38:31.6, 37°.87N×26°.84E, h7km±2km, ML2.1*
*ISK **01** 16:38:31.7, 37°.87N×26°.89E, h10km, ML2.5/14*
ISC 01 16:38:31.8±1.1, 37°.87N±0°.04×26°.86E±0°.04, h12km±8km, n20, σ0°34/30, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
DGB	**zmir**	**0.19**	**5**	P		**Pg**	**16 38 35.7**	**-0.3**
DGB				S		**Sg**	**16 38 38.7**	**-0.1**
DGB				IAML			16 38 39.0	
	comp=E,977nm,0.2s							
GMLD	**Gumuldur**	**0.21**	**11**	Pg		**Pg**	**16 38 36.4**	**0.0**
GMLD				Sg		**Sg**	**16 38 40.1**	**+0.5**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**91**	Pg		**Pg**	**16 38 38.6**	**0.0**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.34**	**119**	P		**Pg**	**16 38 38.9**	**+0.3**
GCAM				S		**Sb**	**16 38 44.3**	**-0.8**
GCAM				IAML			16 38 45.0	
	comp=E,217nm,0.2s							
GCAM				IAML			16 38 46.0	
	comp=N,219nm,0.2s							
GCAM	**G?zelcaml?**	**0.34**	**119**	Pg		**Pg**	**16 38 38.8**	**+0.2**
GCAM				AML		AML		
BEYE	**izmir**	**0.36**	**8**	P		**Pg**	**16 38 39.2**	**+0.1**
BEYE				S		**Sg**	**16 38 43.7**	**-0.4**
BEYE				IAML			16 38 45.0	
	comp=N,220nm,0.4s							
BEYE				IAML			16 38 46.0	
	comp=E,191nm,0.3s							
ZEYE	**Izmir, Urla-Ze**	**0.47**	**323**	P		**Pg**	**16 38 40.6**	**-0.4**
ZEYE				S		**Sg**	**16 38 47.0**	**-0.2**
ZEYE				IAML			16 38 49.0	
	comp=N,220nm,0.4s							
ZEYE				IAML			16 38 51.0	
	comp=E,158nm,0.2s							
BLCB	**Balcova**	**0.54**	**15**	Pg		**Pg**	**16 38 42.4**	**0.0**
BLCB				Sg		**Sg**	**16 38 49.8**	**+0.3**
BLCB				AML		AML		
DUVT	**Torbali**	**0.58**	**52**	P		**Pg**	**16 38 43.2**	**0.0**
DUVT				S		**Sg**	**16 38 50.7**	**-0.2**
DUVT				IAML			16 38 52.0	
	comp=E,111nm,0.2s							
CESE	**eme**	**0.64**	**316**	Pg		**Pb**	**16 38 44.8**	**-0.2**
CESE				Sg		**Sb**	**16 38 54.1**	**+0.2**
CESE				AML		AML		
KRBN	**Karaburun**	**0.77**	**342**	Pg		**Pb**	**16 38 46.8**	**-0.3**
KRBN				Sg		**Sb**	**16 38 57.8**	**+0.3**
KRBN				AML		AML		
BAGT	**Foa**	**0.79**	**359**	P		**Pg**	**16 38 47.0**	**0.0**
BAGT				IAML			16 38 58.0	
	comp=N,123nm,0.7s							
BAGT				IAML			16 39 00.0	
	comp=E,100nm,0.4s							
AYDB	**Zeytinkoy-Aydi**	**0.82**	**84**	Pg		**Pg**	**16 38 47.7**	**0.0**
AYDB				AML		AML		
CHOS	**Chios island**	**0.82**	**309**	Pg		**Pb**	**16 38 48.4**	**+0.3**
CHOS				AML		AML		
FOCM	**Foa**	**0.85**	**353**	Pg		**Pb**	**16 38 48.3**	**-0.3**
FOCM				AML		AML		
BODT	**Bodrum**	**0.88**	**156**	Pg		**Pg**	**16 38 48.4**	**-0.4**
BODT				Sg		**Sb**	**16 39 01.4**	**+0.7**
BODT				AML		AML		
MLSB	**Milas**	**0.92**	**128**	Pg		**Pg**	**16 38 49.5**	**-0.1**
MLSB				AML		AML		
NAZL	**Nazilli-Aydin**	**1.14**	**85**	Pn		**Pg**	**16 38 53.2**	**-0.5**
NAZL				AML		AML		
DKL	**Dikili**	**1.20**	**2**	Pn		**Pg**	**16 38 54.9**	**-0.1**
DKL				AML		AML		
SOMA	**Soma-Manisa**	**1.39**	**22**	Pn		**Pn**	**16 38 57.4**	**+0.3**
SOMA				AML		AML		

*AFAD **01** 16:38:55.8, 37°.83N×26°.95E, h7km±2km, ML2.2*
*ISK **01** 16:38:55.0, 37°.83N×26°.90E, h5km, ML2.5/12*
ISC 01 16:38:55.6±1.0, 37°.83N±0°.03×26°.91E±0°.04, h14km±8km, n16, σ0°38/25, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
DGB	**zmir**	**0.22**	**355**	P		**Pg**	**16 39 00.6**	**+0.1**
DGB				IAML			16 39 04.0	
	comp=E,328nm,0.3s							
DGB				S		**Sg**	**16 39 04.1**	**+0.3**
GMLD	**Gumuldur**	**0.24**	**1**	Pg		**Pg**	**16 39 00.5**	**-0.4**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.29**	**117**	P		**Pg**	**16 39 01.3**	**-0.4**
GCAM				S		**Sg**	**16 39 05.6**	**-0.1**
GCAM				IAML			16 39 06.0	
	comp=E,444nm,0.7s							
GCAM				IAML			16 39 07.0	
	comp=N,509nm,0.3s							
GCAM	**G?zelcaml?**	**0.29**	**117**	Pg		**Pg**	**16 39 01.4**	**-0.2**
GCAM				Sg		**Sg**	**16 39 05.8**	**+0.1**
GCAM				AML		AML		
BEYE	**izmir**	**0.39**	**2**	P		**Pb**	**16 39 04.1**	**-0.3**
BEYE				S		**Sg**	**16 39 09.8**	**+0.8**
BEYE				IAML			16 39 10.0	
	comp=N,161nm,0.5s							
BEYE				IAML			16 39 15.0	
	comp=E,155nm,0.4s							
ZEYE	**Izmir, Urla-Ze**	**0.52**	**322**	P		**Pn**	**16 39 08.8**	**+0.2**
ZEYE				S		**Sb**	**16 39 14.1**	**+0.2**
ZEYE				IAML			16 39 19.0	
	comp=N,184nm,0.2s							
ZEYE				IAML			16 39 21.0	
	comp=E,240nm,0.3s							
BLCB	**Balcova**	**0.56**	**11**	Pg		**Pg**	**16 39 06.5**	**-0.2**
BLCB				Sg		**Sb**	**16 39 15.1**	**-0.1**
BLCB				AML		AML		
DUVT	**Torbali**	**0.58**	**48**	P		**Pg**	**16 39 06.7**	**-0.2**
DUVT				S		**Sg**	**16 39 14.2**	**-0.4**
DUVT				IAML			16 39 20.0	
	comp=E,200nm,0.6s							
CESE	**eme**	**0.69**	**316**	Pg		**Pg**	**16 39 08.9**	**-0.2**
CESE				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**81**	Pg		**Pb**	**16 39 10.9**	**-0.2**
AYDB				Sg		**Sb**	**16 39 21.8**	**+0.1**
AYDB				AML		AML		
KRBN	**Karaburun**	**0.81**	**340**	Pg		**Pg**	**16 39 11.0**	**-0.4**
KRBN				AML		AML		
BODT	**Bodrum**	**0.83**	**157**	Pg		**Pg**	**16 39 11.5**	**-0.3**
BODT				Sg		**Sb**	**16 39 23.5**	**+0.6**
BODT				AML		AML		
CHOS	**Chios island**	**0.87**	**310**	Pg		**Pg**	**16 39 11.9**	**-0.6**
CHOS				AML		AML		
MLSB	**Milas**	**0.87**	**128**	Pg		**Pg**	**16 39 12.2**	**-0.3**
MLSB				AML		AML		
FOCM	**Foa**	**0.89**	**351**	Pg		**Pg**	**16 39 12.6**	**-0.3**
FOCM				AML		AML		
NAZL	**Nazilli-Aydin**	**1.10**	**83**	Pn		**Pb**	**16 39 16.9**	**+0.4**
NAZL				AML		AML		

*IDC **01** 16:43:26.1±2.3, 22°.95S×171°.27E, h0km, mb3.5/3, mbtmp3.5/4, MS3.1/1, Error ellipse: s-maj=98.9km s-min=32.4km az=172.0*
ISC 01 16:43:33.6±1.6, 23°.0S±0°.6×170°.9E±0°.2, h31km, n7, σ0°84/7, mb3.4/3, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
DZM	**Mont Dzumac**	**4.18**	**282**	Pn		**Pn**	**16 44 35.9**	**+0.5**
	5.5nm,0.3s,baz=120,slow=14							
DZM				Sn		**Sn**	**16 45 22.9**	**-0.3**
	3.2nm,0.3s,baz=299,slow=22,SNR=9.0							
URZ	**Urewera**	**16.13**	**162**	LR		LR	16 52 15.8	
	comp=Z,65nm,20.0s,baz=5.0,slow=33							
ASAR	**Alice Springs**	**33.88**	**261**	P		**P**	**16 50 14.0**	**+0.2**
	0.4nm,0.8s,baz=87,slow=10,SNR=7.1							
	0.4nm,0.8s							
WRA	**Warramunga Arr**	**34.07**	**268**	P		**P**	**16 50 14.4**	**-0.9**
	0.2nm,0.4s,baz=97,slow=8.1,SNR=2.0							
	0.2nm,0.4s							

CMAR	**Chiang Mai Arr**	**81.42**	**294**	P	**P**	**16 55 48.3 +0.3**
	0.5nm,0.7s,baz=147,slow=4.3,SNR=5.9					
	0.5nm,0.7s					
EKA	**Eskdalemuir Ar**	**147.40**	**354**	PKPbc	**PKPdf**	**17 03 10.5 -1.0**
	2.1nm,0.8s,baz=21,slow=3.2,SNR=3.8					
GERES	**GERESS Array B**	**148.50**	**331**	PKPbc	**PKPdf**	**17 03 14.3 +0.7**
	1.9nm,1.1s,baz=125,slow=2.7,SNR=6.4					

*AFAD **01** 16:55:02.9, 37°.85N×26°.74E, h7km±1km, ML3.0*
*ISK **01** 16:55:02.9, 37°.86N×26°.74E, h6km, ML3.0/31*
*ATH **01** 16:55:02.4, 37°.82N×26°.70E, h10km±1km, ML2.8/10, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **01** 16:55:03.0, 38°.N±3°×2°.7E±°, h6km±11km, M2.8/13, MLh2.8/13*
ISC 01 16:55:02.7±0.8, 37°.84N±0°.02×26°.71E±0°.02, h8km±6km, n74, σ0°66/99, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
KRL1	**Karlovasi Samo**	**0.05**	**182**	P		**Pg**	**16 55 04.0**	**-0.3**
KRL1				S		**Sg**	**16 55 05.8**	**+0.3**
KRL1				AML		AML		
DGB	**zmir**	**0.25**	**33**	P		**Pg**	**16 55 07.7**	**0.0**
DGB				IAML			16 55 11.0	
	comp=N,3μm,0.2s							
DGB				IAML			16 55 11.0	
	comp=E,7μm,0.3s							
DGB				S		**Sg**	**16 55 11.3**	**+0.3**
GMLD	**Gumuldur**	**0.28**	**35**	Pg		**Pg**	**16 55 08.1**	**-0.2**
GMLD				Sg		**Sg**	**16 55 12.9**	**+0.8**
GMLD				AML		AML		
BEYE	**izmir**	**0.42**	**24**	P		**Pg**	**16 55 11.0**	**+0.1**
BEYE				S		**Sg**	**16 55 16.9**	**+0.5**
BEYE				IAML			16 55 17.0	
	comp=N,1μm,0.3s							
BEYE				IAML			16 55 18.0	
	comp=E,821nm,0.3s							
GCAM	**G?zelcaml?**	**0.44**	**109**	P		**Pg**	**16 55 11.2**	**0.0**
GCAM				S		**Sg**	**16 55 17.9**	**+0.9**
GCAM				IAML			16 55 18.0	
	comp=E,920nm,0.4s							
GCAM				IAML			16 55 19.0	
	comp=N,1μm,0.4s							
GCAM	**G?zelcaml?**	**0.44**	**109**	Pg		**Pg**	**16 55 11.2**	**0.0**
GCAM				Sg		**Sg**	**16 55 17.9**	**+0.9**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.46**	**88**	Pg		**Pg**	**16 55 11.4**	**-0.2**
KUSD				Sg		**Sb**	**16 55 18.6**	**-1.5**
KUSD				AML		AML		
DDIM	**Aydin, Didim**	**0.57**	**132**	P		**Pg**	**16 55 13.2**	**-0.5**
DDIM				S		**Sg**	**16 55 22.0**	**+0.8**
DDIM				IAML			16 55 26.0	
	comp=N,2μm,0.4s							
DDIM				IAML			16 55 27.0	
	comp=E,1μm,0.5s							
CESE	**eme**	**0.58**	**327**	Pg		**Pb**	**16 55 15.4**	**+0.2**
CESE				Sg		**Sb**	**16 55 23.2**	**-0.5**
CESE				AML		AML		
BLCB	**Balcova**	**0.60**	**26**	P		**Pg**	**16 55 14.4**	**0.0**
BLCB				S		**Sg**	**16 55 21.8**	**-0.4**
BLCB				AML		AML		
BLCB	**Balcova**	**0.60**	**26**	Pg		**Pg**	**16 55 14.3**	**0.0**
BLCB				AML		AML		
DUVT	**Torbali**	**0.69**	**57**	P		**Pg**	**16 55 16.0**	**-0.1**
DUVT				S		**Sb**	**16 55 25.4**	**-1.5**
DUVT				IAML			16 55 30.0	
	comp=E,684nm,0.4s							
CHOS	**Chios island**	**0.75**	**317**	P		**Pg**	**16 55 17.8**	**+0.6**
CHOS				S		**Sb**	**16 55 28.5**	**+0.1**
CHOS				AML		AML		
CHOS	**Chios island**	**0.75**	**317**	Pg		**Pb**	**16 55 18.4**	**+0.3**
CHOS				Sg		**Sb**	**16 55 28.6**	**+0.1**
CHOS				AML		AML		
CHOS	**Chios island**	**0.75**	**317**	P		**Pg**	**16 55 17.5**	**+0.3**
CHOS				S		**Sg**	**16 55 27.6**	**+0.7**
CHOS				AML		AML		
KRBN	**Karaburun**	**0.76**	**351**	Pg		**Pb**	**16 55 18.1**	**-0.1**
KRBN				AML		AML		
BAGT	**Foa**	**0.82**	**8**	P		**Pg**	**16 55 18.5**	**0.0**
BAGT				S		**Sb**	**16 55 30.6**	**+0.2**
BAGT				IAML			16 55 32.0	
	comp=E,610nm,0.7s							
BAGT				IAML			16 55 33.0	
	comp=N,918nm,0.5s							
EAG2	**Marmaro, Chios**	**0.84**	**326**	P		**Pg**	**16 55 19.1**	**+0.1**
EAG2				S		**Sg**	**16 55 30.3**	**+0.4**
YKAV	**Yalikavak-Bodr**	**0.85**	**148**	Pg		**Pb**	**16 55 20.6**	**+0.9**
YKAV				AML		AML		
KARB	**zmir-Karabur**	**0.85**	**344**	P		**Pg**	**16 55 19.4**	**+0.3**
KARB				S		**Sb**	**16 55 31.2**	**-0.2**
KARB				IAML			16 55 33.0	
	comp=N,1μm,0.8s							
KARB				IAML			16 55 33.0	
	comp=E,784nm,0.6s							
FOCM	**Foa**	**0.87**	**1**	Pg		**Pb**	**16 55 19.8**	**-0.3**
FOCM				AML		AML		
KLNA	**Kalymnos**	**0.91**	**167**	P		**Pg**	**16 55 20.0**	**-0.2**
KLNA				S		**Sg**	**16 55 32.2**	**+0.2**
BODT	**Bodrum**	**0.92**	**148**	P		**Pg**	**16 55 20.3**	**0.0**
BODT				S		**Sb**	**16 55 33.3**	**+0.1**
BODT				AML		AML		
BODT	**Bodrum**	**0.92**	**148**	Pg		**Pb**	**16 55 21.4**	**+0.5**
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.94**	**83**	Pg		**Pg**	**16 55 20.6**	**-0.2**
AYDB				AML		AML		
AYDN	**Tasoluk**	**0.95**	**101**	P		**Pg**	**16 55 20.5**	**-0.4**
AYDN				S		**Sg**	**16 55 32.5**	**-0.6**
AYDN				IAML			16 55 37.0	
	comp=N,197nm,0.3s							
AYDN				IAML			16 55 38.0	
	comp=E,245nm,0.6s							
BDRM	**Kayabasi**	**0.97**	**143**	P		**Pg**	**16 55 21.5**	**+0.1**
BDRM				S		**Sg**	**16 55 34.4**	**+0.4**
BDRM				IAML			16 55 37.0	
	comp=N,448nm,0.5s							
BDRM				IAML			16 55 38.0	
	comp=E,383nm,0.5s							
MLSB	**Milas**	**1.01**	**123**	Pg		**Pb**	**16 55 22.6**	**+0.1**
MLSB				AML		AML		
CAMT	**Merkez**	**1.02**	**28**	P		**Pb**	**16 55 22.8**	**+0.1**
CAMT				S		**Sb**	**16 55 36.2**	**0.0**
DKL	**Dikili**	**1.23**	**7**	Pn		**Pn**	**16 55 26.6**	**+0.3**
DKL				AML		AML		
DKL	**Dikili**	**1.23**	**7**	P		**Pb**	**16 55 26.0**	**-0.3**
NAZL	**Nazilli-Aydin**	**1.26**	**84**	Pn		**Pb**	**16 55 26.4**	**-0.3**
NAZL				AML		AML		
TNSA	**Tinos**	**1.26**	**257**	P		**Pn**	**16 55 25.6**	**-1.1**
TNSA				AML		AML		
GOMA	**Golmarmara-Man**	**1.28**	**47**	Pn		**Pg**	**16 55 27.0**	**-0.4**
GOMA				AML		AML		
ESEN	**Aydn-Nazilli**	**1.30**	**92**	P		**Pn**	**16 55 26.0**	**-1.2**
ESEN				S		**Sn**	**16 55 44.4**	**-0.3**
DAT	**Datca**	**1.31**	**148**	Pn		**Pn**	**16 55 27.6**	**+0.1**
DAT				AML		AML		
ASTA	**Astypalaia**	**1.33**	**192**	P		**Pn**	**16 55 26.1**	**-1.5**
ASTA				AML		AML		
AKS	**Akhisar**	**1.35**	**40**	Pn		**Pb**	**16 55 28.0**	**-0.3**
AKS				AML		AML		
KTTT	**Salihli**	**1.38**	**52**	P		**Pn**	**16 55 28.2**	**-0.1**
KTTT				S		**Sn**	**16 55 47.3**	**+0.5**
KTTT				IAML			16 55 50.0	
	comp=N,258nm,0.6s							
YER	**Yerkesik**	**1.44**	**119**	Pn		**Pg**	**16 55 30.1**	**-0.2**
YER				AML		AML		
PRK	**Paraskevi**	**1.44**	**346**	P		**Pn**	**16 55 29.4**	**+0.3**
PRK				S		**Sg**	**16 55 50.3**	**+1.3**
PRK				AML		AML		
PRK	**Paraskevi**	**1.44**	**346**	P		**Pn**	**16 55 28.4**	**-0.7**
SOMA	**Soma-Manisa**	**1.46**	**26**	Pn		**Pg**	**16 55 30.3**	**-0.5**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.57**	**47**	Pn		**Pb**	**16 55 31.6**	**-0.5**
GORD				AML		AML		
TURN	**Turunc**	**1.62**	**131**	Pn		**Pb**	**16 55 32.9**	**0.0**
TURN				AML		AML		
THR3	**Thira Island,**	**1.77**	**217**	P		**Pn**	**16 55 34.3**	**+0.6**
THERA	**Ancient Thera,**	**1.77**	**214**	P		**Pn**	**16 55 33.8**	**+0.1**
THERA				AML		AML		
THERA	**Ancient Thera,**	**1.77**	**214**	P		**Pn**	**16 55 32.9**	**-0.9**
THERA				AML		AML		
SNT5	**Nea Kammeni, S**	**1.78**	**217**	P		**Pn**	**16 55 35.0**	**+1.2**
SNT5				AML		AML		
YAYO	**Edremit-Balk**	**1.79**	**9**	Pn		**Pb**	**16 55 35.2**	**-0.5**
YAYO				AML		AML		
THR5	**Thira Island,**	**1.79**	**218**	P		**Pn**	**16 55 35.1**	**+1.1**
KARY	**Karystos**	**1.81**	**277**	P		**Pn**	**16 55 33.4**	**-0.8**
KARY				AML		AML		
KARY	**Karystos**	**1.81**	**277**	P		**Pn**	**16 55 33.4**	**-0.8**
DALY	**Dalyan (Mula)**	**1.86**	**123**	Pn		**Pb**	**16 55 36.3**	**-0.6**
DALY				AML		AML		
ARG	**Arkhangelos**	**1.98**	**145**	Pn		**Pn**	**16 55 37.9**	**+1.3**
ARG				AML		AML		
ARG	**Arkhangelos**	**1.98**	**145**	P		**Pn**	**16 55 36.4**	**-0.2**
ARG				AML		AML		
BALB	**Balikesir**	**2.01**	**27**	Pn		**Pn**	**16 55 38.1**	**+1.1**
BALB				AML		AML		
APMY	**Acipayam-Deniz**	**2.09**	**99**	Pn		**Pn**	**16 55 39.3**	**+1.1**
APMY				AML		AML		
SIMA	**Simav-Kutahya**	**2.17**	**55**	Pn		**Pn**	**16 55 40.2**	**+0.9**
SIMA				AML		AML		
SMAA	**Simav-Kutahya**	**2.18**	**54**	Pn		**Pn**	**16 55 40.2**	**+0.8**
SMAA				AML		AML		
DION	**Dionisos Attik**	**2.21**	**277**	P		**Pn**	**16 55 39.1**	**-0.6**
DION				AML		AML		
DION	**Dionisos Attik**	**2.21**	**277**	P		**Pn**	**16 55 39.1**	**-0.6**
DION				AML		AML		
FETY	**Fethiye**	**2.25**	**122**	Pn		**Pn**	**16 55 41.6**	**+1.3**
FETY				AML		AML		
CAME	**Cameli-Denizli**	**2.25**	**113**	Pn		**Pn**	**16 55 42.0**	**+1.5**
CAME				AML		AML		
PTL	**Penteli**	**2.26**	**276**	P		**Pn**	**16 55 39.6**	**-0.8**
PTL				AML		AML		
PTL	**Penteli**	**2.26**	**276**	P		**Pn**	**16 55 39.9**	**-0.6**
PTL				AML		AML		
VLY	**Voula,Athens**	**2.31**	**271**	P		**Pn**	**16 55 40.4**	**-0.6**
VLY				AML		AML		
VLY	**Voula,Athens**	**2.31**	**271**	P		**Pn**	**16 55 40.8**	**-0.3**
VLY				AML		AML		
KARP	**Karpathos**	**2.32**	**171**	P		**Pn**	**16 55 40.8**	**-0.6**
LIA	**Limnos Island**	**2.37**	**330**	P		**Pn**	**16 55 41.5**	**-0.5**
LIA				AML		AML		
LIA	**Limnos Island**	**2.37**	**330**	P		**Pn**	**16 55 41.5**	**-0.5**
LIA				AML		AML		
GADA	**Gvkgeada**	**2.43**	**345**	P		**Pn**	**16 55 42.1**	**-0.6**
GADA				AML		AML		
GEDZ	**Gediz**	**2.44**	**60**	Pn		**Pn**	**16 55 43.9**	**+1.0**
GEDZ				AML		AML		
SMTH	**Samothraki Isl**	**2.78**	**341**	P		**Pn**	**16 55 46.6**	**-1.0**

*NEIC **01** 17:13:50.0±1.3, 17°.83N±0°.02×66°.88W±0°.01, h10km±1km, ML3.2/34, Md3.2/20(RSPR), Error ellipse: s-maj=4.4km s-min=2.7km az=12.0*
*OSPL **01** 17:13:50.9±0.4, 17°.89N×66°.92W, h20km±4km, MD3.0, ML4.1, Presumed earthquake*
*RSPR **01** 17:13:51.6, 17°.94N×66°.90W, h13km, MD3.2/20*
ISC 01 17:13:50.5±1.2, 17°.92N±0°.05×66°.90W±0°.02, h19km±2km, n41, σ0°33/53, 7C-5D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
GBPR	**Guanica, Bosqu**	**0.06**	**16**			**Pg**	**17 13 54.2**	**+0.3**
GBPR						**Sg**	**17 13 56.2**	**-0.1**
GBPR	**Guanica, Bosqu**	**0.06**	**16**	*i*	P	**Pg**	**17 13 54.2**	**+0.3**
GBPR					*e*S	**Sg**	**17 13 56.2**	**-0.1**
MLPR	**Magueyes Islan**	**0.15**	**290**			**Pg**	**17 13 54.9**	**+0.1**
MLPR					Sg	**Sg**	**17 13 57.9**	**+0.1**
MLPR					IAML		17 13 58.0	
	8μm,0.3s							
MLPR	**Magueyes Islan**	**0.15**	**290**		*e*P	**Pg**	**17 13 55.1**	**+0.2**
CRPR	**Cabo Rojo, PR**	**0.22**	**294**			**Pg**	**17 13 55.9**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.22**	**294**		*e*P	**Pg**	**17 13 56.0**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.22**	**294**	*i*	P	**Pg**	**17 13 56.0**	**+0.1**
CRPR					*e*S	**Sb**	**17 13 59.4**	**+0.5**
LSP	**Las Mesas**	**0.31**	**325**			**Pg**	**17 13 57.6**	**+0.2**
LSP						**Sg**	**17 14 02.7**	**+0.6**
LSP	**Las Mesas**	**0.31**	**325**	*i*	P	**Pg**	**17 13 57.6**	**+0.2**
LSP					*e*S	**Sg**	**17 14 02.7**	**+0.6**
CELP	**Cerrillos**	**0.34**	**62**			**Pg**	**17 13 58.1**	**+0.3**
CELP						**Sb**	**17 14 03.6**	**+0.4**
CELP	**Cerrillos**	**0.34**	**62**	IAML			17 14 03.7	
	2μm,0.2s							
CELP				IAML			17 14 06.5	
	913nm,0.4s							
CELP	**Cerrillos**	**0.34**	**62**		*e*P	**Pg**	**17 13 58.1**	**+0.3**
PRSN	**Puerto Rico Se**	**0.38**	**322**			**Pg**	**17 13 58.3**	**-0.2**
PRSN	**Puerto Rico Se**	**0.38**	**322**			**Sg**	**17 14 04.1**	**+0.2**
PRSN	**Puerto Rico Se**	**0.38**	**322**	*i*	P	**Pg**	**17 13 58.6**	**+0.1**
AOPR	**Arecibo Observ**	**0.45**	**18**			**Pg**	**17 13 59.5**	**-0.3**
AOPR				IAML			17 14 07.8	
	2μm,0.4s							
AOPR	**Arecibo Observ**	**0.45**	**18**			**Sg**	**17 14 05.7**	**-0.2**
AOPR	**Arecibo Observ**	**0.45**	**18**		*e*P	**Pg**	**17 13 59.7**	**-0.1**
AGPR	**Aguadilla, PR**	**0.58**	**340**			**Pb**	**17 14 01.8**	**-0.3**
AGPR				IAML			17 14 10.1	
	464nm,0.5s							
AGPR				IAML			17 14 13.5	
	510nm,0.3s							
AGPR	**Aguadilla, PR**	**0.58**	**340**			**Sb**	**17 14 10.0**	**0.0**
AGPR	**Aguadilla, PR**	**0.58**	**340**		*i*P	**Pb**	**17 14 01.9**	**-0.2**
AGPR	**Aguadilla, PR**	**0.58**	**340**	*i*	P	**Pb**	**17 14 01.9**	**-0.3**
ECPR	**Experimental S**	**0.65**	**52**			**Pb**	**17 14 02.8**	**-0.4**
ECPR				IAML			17 14 13.0	
	2μm,0.2s							
ECPR				IAML			17 14 14.1	
	1μm,0.2s							
ECPR	**Experimental S**	**0.65**	**52**			**Sb**	**17 14 11.6**	**-0.2**
ECPR	**Experimental S**	**0.65**	**52**		*e*P	**Pb**	**17 14 02.9**	**-0.2**
EMPR	**Esperanza - Ma**	**0.66**	**32**			**Pb**	**17 14 03.7**	**+0.3**
EMPR						**Sb**	**17 14 12.7**	**+0.6**
EMPR	**Esperanza - Ma**	**0.66**	**32**		*e*P	**Pb**	**17 14 03.7**	**+0.3**
EMPR					*e*S	**Sb**	**17 14 12.7**	**+0.6**
IDE	**Isla Desecheo**	**0.72**	**310**			**Pb**	**17 14 04.3**	**-0.3**
IDE						**Sb**	**17 14 13.8**	**-0.3**
IDE	**Isla Desecheo**	**0.72**	**310**		*e*P	**Pb**	**17 14 04.3**	**-0.3**
IDE					*e*S	**Sb**	**17 14 13.8**	**-0.3**
SJG	**San Juan**	**0.74**	**75**			**Pb**	**17 14 04.4**	**-0.4**
SJG	**San Juan**	**0.74**	**75**		*e*P	**Pb**	**17 14 04.9**	**+0.1**
SJG	**San Juan**	**0.74**	**75**	*i*	P	**Pb**	**17 14 04.6**	**-0.2**

CMAR				LR	LR	17 53 16.4			
	comp=Z,36nm,18.0s,baz=295,slow=35 0.9nm,0.9s								
ASAR	**Alice Springs**	**57.65**	**103**	P	**P**	**17 32 31.9**	**-0.4**		
	0.6nm,0.7s,baz=249,slow=6.5,SNR=11 0.6nm,0.7s								
WRA	**Warramunga Arr**	**59.13**	**99**	P	**P**	**17 32 42.5**	**-0.2**		
	0.5nm,0.9s,baz=253,slow=7.2,SNR=3.0 0.5nm,0.9s								
QSPA	**South Pole Qui**	**64.62**	**180**	P	**P**	**17 33 19.2**	**+0.2**		
	3.1nm,1.1s,baz=263,slow=2.0,SNR=6.7 3.1nm,1.1s								
VNDA	**Vanda**	**65.69**	**166**	P	**P**	**17 33 25.6**	**0.0**		
	1.1nm,0.9s,baz=254,slow=6.6,SNR=5.1 1.1nm,0.9s								
MKAR	**Makanchi Array**	**72.83**	**9**	P	**P**	**17 34 09.5**	**-0.6**		
	0.7nm,0.8s,baz=188,slow=4.9,SNR=3.6 0.7nm,0.8s								
BVAR	**Borovoye Array**	**78.21**	**0**	P	P	17 34 47.8	+7.0		
	1.5nm,0.5s,baz=152,slow=6.7,SNR=9.6								
SONM	**Songino Array**	**80.02**	**24**	P	**P**	**17 34 51.1**	**+0.1**		
	0.8nm,0.9s,baz=235,slow=5.2,SNR=3.9 0.8nm,0.9s								

*JMA **01** 17:27:07.6±0.2,23°.7N±0°.8×122°.9E±0°.6,h51km,MV2.5/17, NEAR ISHIGAKIJIMA ISLAND*
*TAP **01** 17:27:08.5,23°.78N×122°.90E,h48km,ML3.3,D*
ISC 01 17:27:04.3±1.2,**23°.70N**±0°.02×**122°.91E**±0°.02,**h11**km±9km,
n120,σ1°04/227,1C-1D,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
EOS4	**EOS4**	**0.69**	**307**	*i* P	**Pn**	**17 27 21.2**	**+1.6**
EOS4				*i* S	**Sn**	**17 27 30.7**	**+0.7**
JYNG	**Yonagunijimaku**	**0.75**	**2**	P	**Pn**	**17 27 22.0**	**+1.2**
JYNG				*eS*	**Sn**	**17 27 31.4**	**-0.7**
YOJ	**Yonaguni jima**	**0.76**	**7**	P	**Pn**	**17 27 22.6**	**+1.6**
YOJ	**Yonaguni jima**	**0.76**	**7**	S	**Sn**	**17 27 31.6**	**-0.8**
YOJ	**Yonaguni jima**	**0.76**	**7**	*i* P	**Pn**	**17 27 22.3**	**+1.3**
YOJ				*i* S	**Sn**	**17 27 32.6**	**+0.2**
YOJ	**Yonaguni jima**	**0.76**	**7**	P	**Pn**	**17 27 22.2**	**+1.3**
YOJ				*eS*	**Sn**	**17 27 32.4**	**-0.1**
EOS3	**EOS3**	**0.80**	**317**	*i* P	**Pn**	**17 27 23.2**	**+1.9**
EOS3				*i* S	**Sn**	**17 27 34.2**	**+1.1**
HATJ	**Hateruma jima**	**0.89**	**66**	P	**Pn**	**17 27 24.1**	**+1.4**
HATJ				*eS*	**Sn**	**17 27 35.4**	**-0.1**
EOS2	**EOS2**	**0.95**	**319**	*i* P	**Pn**	**17 27 25.9**	**+2.5**
EOS2				*i* S	**Sn**	**17 27 38.7**	**+1.9**
IRIF	**Iriomote-Funau**	**0.98**	**50**	P	**Pn**	**17 27 25.3**	**+1.4**
IRIF				S	**Sn**	**17 27 37.7**	**0.0**
JKRS	**Kuro-shima**	**1.14**	**62**	P	**Pg**	**17 27 28.0**	**+1.9**
JKRS				S	**Sn**	**17 27 42.2**	**+0.6**
SHUL	**Shoufeng**	**1.24**	**274**	*i* P	**Pg**	**17 27 28.5**	**+0.4**
SHUL				S	**Sn**	**17 27 43.9**	**-0.4**
TWD	**Chiawan**	**1.26**	**288**	*i* P	**Pg**	**17 27 28.6**	**0.0**
TWD				*i* S	**Sb**	**17 27 43.6**	**-0.8**
ETL	**Fush Village**	**1.27**	**291**	P	**Pg**	**17 27 29.1**	**+0.5**
ETL				S	**Sb**	**17 27 44.0**	**-0.5**
ENA	**Nanau**	**1.29**	**304**	*i* P	**Pg**	**17 27 29.9**	**+0.8**
ENA				S	**Sg**	**17 27 45.6**	**-0.4**
NACB	**Ninganchiao**	**1.29**	**292**	P	**Pg**	**17 27 29.6**	**+0.4**
NACB	**Ninganchiao**	**1.29**	**292**	S	**Sb**	**17 27 43.4**	**-1.9**
NACB	**Ninganchiao**	**1.29**	**292**	*i* P	**Pg**	**17 27 29.1**	**-0.1**
NACB				S	**Sb**	**17 27 43.4**	**-1.9**
JIJ	**Ishigaki jima**	**1.30**	**59**	P	**Pg**	**17 27 29.6**	**+0.3**
JIJ				S	**Sn**	**17 27 45.3**	**-0.5**
ESAO	**Su ao**	**1.31**	**312**	*eP*	**Pg**	**17 27 30.9**	**+1.4**
ESAO				S	**Sg**	**17 27 47.3**	**+0.8**
ETM	**Tongmen**	**1.33**	**282**	*i* P	**Pb**	**17 27 29.4**	**+0.2**
ETM				S	**Sb**	**17 27 45.5**	**-0.7**
TWC	**Suao**	**1.33**	**313**	*i* P	**Pg**	**17 27 30.9**	**+1.1**
TWC				*i* S	**Sn**	**17 27 45.5**	**-0.9**
ESL	**Shilin**	**1.36**	**275**	*i* P	**Pb**	**17 27 29.8**	**0.0**
ESL				S	**Sn**	**17 27 45.4**	**-1.8**
EGFH	**Guangfu**	**1.36**	**269**	*eP*	**Pg**	**17 27 30.7**	**+0.2**
EGFH				*eS*	**Sg**	**17 27 48.2**	**-0.1**
HGSD	**Ruisui**	**1.38**	**262**	⇓*iP*	**Pb**	**17 27 30.4**	**+0.3**
HGSD				*i* S	**Sn**	**17 27 46.4**	**-1.4**
ECBN	**Changbin**	**1.40**	**254**	*eP*	**Pb**	**17 27 31.1**	**+0.7**
ECBN				S	**Sn**	**17 27 46.4**	**-1.7**
WARBT	**Fenglin Townsh**	**1.40**	**271**	*i* P	**Pb**	**17 27 30.3**	**-0.2**
WARBT				S	**Sn**	**17 27 47.0**	**-1.2**
ETLH	**Xiulin Townshi**	**1.40**	**291**	*i* P	**Pg**	**17 27 31.0**	**-0.3**
ETLH				*i* S	**Sn**	**17 27 47.5**	**-0.9**
LXIB	**Xiulin Townshi**	**1.41**	**283**	*i* P	**Pg**	**17 27 31.2**	**-0.2**
LXIB				S	**Sn**	**17 27 48.3**	**-0.4**
NDS	**Dongshan**	**1.43**	**311**	*i* P	**Pg**	**17 27 31.8**	**-0.1**
NDS				*i* S	**Sg**	**17 27 49.1**	**-1.4**
EHYH	**Wanrong**	**1.45**	**262**	*i* P	**Pb**	**17 27 32.1**	**+0.8**
EHYH				*i* S	**Sn**	**17 27 49.4**	**-0.2**
EHY	**Hungye**	**1.47**	**263**	*i* P	**Pb**	**17 27 32.2**	**+0.5**
EHY				*i* S	**Sn**	**17 27 48.9**	**-1.1**
LATG	**Datong**	**1.52**	**303**	*i* P	**Pg**	**17 27 33.1**	**-0.4**
LATG				S	**Sg**	**17 27 51.8**	**-1.3**
YULB	**Yu-li**	**1.52**	**259**	P	**Pb**	**17 27 33.3**	**+0.9**
YULB	**Yu-li**	**1.52**	**259**	S	**Sn**	**17 27 50.5**	**-0.6**
YULB	**Yu-li**	**1.52**	**259**	*i* P	**Pb**	**17 27 32.7**	**+0.3**
YULB				S	**Sn**	**17 27 50.5**	**-0.6**
TWF1	**Yuli**	**1.52**	**257**	⇑*iP*	**Pb**	**17 27 32.7**	**+0.2**
TWF1				*i* S	**Sn**	**17 27 50.5**	**-0.8**
TWE	**Neicheng**	**1.52**	**312**	*i* P	**Pg**	**17 27 33.3**	**-0.3**
TWE				S	**Sb**	**17 27 51.4**	**-0.5**
ENTT	**Nioudou**	**1.54**	**307**	*i* P	**Pg**	**17 27 33.5**	**-0.5**
ENTT				*i* S	**Sb**	**17 27 51.7**	**-0.8**
JISG	**Ishigakijimahi**	**1.55**	**55**	P	**Pb**	**17 27 32.8**	**-0.2**
JISG				S	**Sn**	**17 27 50.6**	**-1.3**
NDT	**Datong Townshi**	**1.56**	**305**	*eP*	**Pb**	**17 27 33.4**	**+0.1**
NDT				S	**Sb**	**17 27 52.1**	**-0.9**
FULB	**Fuli**	**1.57**	**252**	*i* P	**Pn**	**17 27 33.0**	**+0.9**
FULB				*i* S	**Sn**	**17 27 51.3**	**-1.1**
WHF	**Hehuan Shan**	**1.57**	**287**	*i* P	**Pb**	**17 27 33.7**	**+0.1**
WHF				*i* S	**Sn**	**17 27 52.7**	**-0.3**
NNSB	**Datong**	**1.57**	**298**	*i* P	**Pg**	**17 27 34.0**	**-0.6**
NNSB				S	**Sb**	**17 27 52.7**	**-0.8**
NNS	**Nan Shan**	**1.59**	**298**	*i* P	**Pg**	**17 27 34.2**	**-0.6**
NNS				*i* S	**Sb**	**17 27 53.1**	**-0.8**
FUSB	**Fushanzhiwuyua**	**1.60**	**311**	*i* P	**Pg**	**17 27 34.9**	**-0.3**
FUSB				S	**Sb**	**17 27 53.5**	**-0.8**
TIPB	**Shuangxi**	**1.61**	**322**	*i* P	**Pg**	**17 27 34.4**	**-0.8**
TIPB				S	**Sb**	**17 27 53.4**	**-0.9**
OWD	**Renai**	**1.61**	**279**	*i* P	**Pb**	**17 27 34.2**	**+0.1**
OWD				*i* S	**Sb**	**17 27 53.9**	**-0.6**
FUSS	**Fushou**	**1.62**	**290**	*i* P	**Pb**	**17 27 34.7**	**+0.3**
FUSS				*eS*	**Sn**	**17 27 53.7**	**-0.4**
EHD	**Haiduan**	**1.66**	**251**	*i* P	**Pb**	**17 27 34.7**	**-0.3**
EHD				*i* S	**Sn**	**17 27 53.9**	**-0.9**
ECS	**Chishang**	**1.67**	**249**	*i* P	**Pg**	**17 27 36.4**	**0.0**
ECS				S	**Sn**	**17 27 55.5**	**+0.6**
WUSB	**Renai**	**1.67**	**280**	*i* P	**Pb**	**17 27 35.4**	**+0.3**
WUSB				*i* S	**Sb**	**17 27 55.6**	**-0.6**
NWLT	**Wulai**	**1.68**	**310**	*i* P	**Pg**	**17 27 35.9**	**-0.6**
NWLT				*i* S	**Sb**	**17 27 55.5**	**-0.8**
SXI1	**Grass Mountain**	**1.68**	**326**	*i* P	**Pb**	**17 27 34.8**	**-0.5**
SXI1				S	**Sb**	**17 27 54.7**	**-1.7**
TWT	**Tachien**	**1.68**	**289**	P	**Pg**	**17 27 36.3**	**-0.3**
TWT				*eS*	**Sb**	**17 27 55.9**	**-0.7**
YHNB	**Yeheng**	**1.70**	**305**	P	**Pg**	**17 27 36.4**	**-0.6**
YHNB	**Yeheng**	**1.70**	**305**	*i* P	**Pg**	**17 27 36.1**	**-0.9**
YHNB				*eS*	**Sb**	**17 27 56.8**	**-0.4**
NSK	**Sanguang**	**1.72**	**305**	*i* P	**Pb**	**17 27 36.2**	**+0.3**
NSK				*i* S	**Sb**	**17 27 56.2**	**-1.0**
TWA	**Mucha**	**1.76**	**317**	*i* P	**Pg**	**17 27 37.1**	**-1.0**
TWA				S	**Sg**	**17 27 58.8**	**-2.1**
NHDH	**Xindian Distri**	**1.78**	**315**	*eP*	**Pg**	**17 27 37.8**	**-0.7**
NHDH				S	**Sb**	**17 27 58.8**	**-0.6**
SSLB	**Suanglung**	**1.80**	**273**	P	**Pb**	**17 27 37.4**	**+0.1**
SSLB	**Suanglung**	**1.80**	**273**	S	**Sb**	**17 28 00.3**	**+0.5**
SSLB	**Suanglung**	**1.80**	**273**	*i* P	**Pb**	**17 27 36.9**	**-0.3**
SSLB				*eS*	**Sb**	**17 27 59.1**	**-0.7**
YUS	**Yu-Shan**	**1.81**	**264**	*i* P	**Pb**	**17 27 37.9**	**+0.2**
YUS				S	**Sn**	**17 27 58.1**	**-1.0**
ELDTW	**Lidau**	**1.81**	**254**	*i* P	**Pn**	**17 27 36.9**	**+1.3**
ELDTW				S	**Sn**	**17 27 54.8**	**-3.8**
SMLT	**Sun Moon Lake**	**1.85**	**276**	*i* P	**Pb**	**17 27 38.0**	**-0.3**
SMLT				*eS*	**Sn**	**17 27 59.7**	**+0.1**
WCS	**Beigang Elemen**	**1.87**	**281**	*i* P	**Pb**	**17 27 38.4**	**-0.1**
WCS				*eS*	**Sb**	**17 28 01.0**	**-0.8**
JTJ	**Tarama**	**1.88**	**60**	*eP*	**Pb**	**17 27 38.3**	**-0.4**
JTJ				S	**Sn**	**17 28 00.1**	**0.0**
NFF	**Wufeng Townshi**	**1.88**	**300**	*i* P	**Pb**	**17 27 39.2**	**+0.4**
NFF				*i* S	**Sb**	**17 28 00.8**	**-1.5**
WHP	**Taichung City**	**1.89**	**288**	*i* P	**Pg**	**17 27 40.3**	**-0.2**
WHP				*i* S	**Sb**	**17 28 03.1**	**+0.6**
WHYT	**Xinyi Township**	**1.89**	**270**	*i* P	**Pb**	**17 27 39.0**	**+0.2**
WHYT				*eS*	**Sn**	**17 28 01.1**	**+0.8**
YM01	**YM01**	**1.89**	**320**	*i* P	**Pb**	**17 27 38.2**	**-0.6**
YM01				*eS*	**Sn**	**17 27 59.6**	**-0.7**
TYC	**Yuchr**	**1.89**	**276**	*i* P	**Pb**	**17 27 38.8**	**-0.1**
TYC				*eS*	**Sb**	**17 28 01.5**	**-1.1**
TWGBT	**Beinan**	**1.90**	**243**	P	**Pb**	**17 27 39.7**	**+0.7**
TWGBT	**Beinan**	**1.90**	**243**	*i* P	**Pn**	**17 27 38.4**	**+1.7**
TWGBT				S	**Sn**	**17 27 58.4**	**-2.2**
TWG	**Pinlang**	**1.91**	**243**	*i* P	**Pn**	**17 27 38.4**	**+1.7**
TWG				S	**Sn**	**17 27 58.4**	**-2.3**
KSHI	**Guanxi Townshi**	**1.91**	**304**	*i* P	**Pg**	**17 27 40.0**	**-1.1**
KSHI				*i* S	**Sb**	**17 28 02.6**	**-0.5**
ZUZH	**Zhuzihu**	**1.92**	**320**	*i* P	**Pb**	**17 27 39.2**	**-0.1**
ZUZH				S	**Sn**	**17 28 00.9**	**-0.1**
ALS	**Alishan**	**1.94**	**265**	*i* P	**Pb**	**17 27 40.0**	**+0.1**
ALS				*i* S	**Sn**	**17 28 02.7**	**+0.7**
TWS1	**Kuangyinshan**	**1.95**	**316**	*i* P	**Pb**	**17 27 39.1**	**-0.7**
TWS1				*i* S	**Sb**	**17 28 03.2**	**-0.9**
LIOB	**Emei**	**1.97**	**299**	*i* P	**Pb**	**17 27 40.9**	**+0.7**
LIOB				*i* S	**Sb**	**17 28 04.6**	**-0.2**
NSTT	**Nanjuang**	**1.98**	**298**	*i* P	**Pb**	**17 27 40.9**	**+0.6**
NSTT				*i* S	**Sb**	**17 28 04.1**	**-0.9**
WJS	**Zhushan**	**2.01**	**274**	*i* P	**Pb**	**17 27 40.9**	**+0.1**
WJS				S	**Sb**	**17 28 06.6**	**+0.8**
STYH	**Taoyuan**	**2.03**	**255**	*i* P	**Pb**	**17 27 40.9**	**-0.3**
STYH				*i* S	**Sn**	**17 28 03.5**	**-0.4**
WNT	**Mingjian**	**2.05**	**275**	*i* P	**Pb**	**17 27 42.1**	**+0.6**
WNT				*i* S	**Sb**	**17 28 06.5**	**-0.6**
CHN5	**Tsauling**	**2.05**	**268**	*i* P	**Pb**	**17 27 42.2**	**+0.6**
CHN5				*i* S	**Sb**	**17 28 07.5**	**+0.3**
TWQ1	**Liyutan**	**2.06**	**289**	*i* P	**Pb**	**17 27 42.2**	**+0.5**
TWQ1				*i* S	**Sb**	**17 28 07.7**	**+0.3**
LAY	**Lan-yu**	**2.08**	**217**	P	**Pn**	**17 27 39.6**	**+0.4**
LAY				*i* S	**Sn**	**17 28 03.0**	**-2.0**
LYUB	**Lan-yu**	**2.09**	**216**	*i* P	**Pn**	**17 27 40.2**	**+1.0**
LYUB				S	**Sn**	**17 28 02.8**	**-2.4**
TCU	**Taichung**	**2.10**	**283**	*i* P	**Pb**	**17 27 43.0**	**+0.7**
TCU				*i* S	**Sb**	**17 28 08.2**	**-0.1**
ECL	**Taimali**	**2.11**	**239**	*i* P	**Pn**	**17 27 41.0**	**+1.5**
ECL				S	**Sn**	**17 28 04.2**	**-1.6**
TPUB	**Ta-pu**	**2.13**	**260**	P	**Pb**	**17 27 42.3**	**-0.7**
TPUB	**Ta-pu**	**2.13**	**260**	S	**Sb**	**17 28 08.5**	**-1.0**
TPUB	**Ta-pu**	**2.13**	**260**	*i* P	**Pb**	**17 27 43.1**	**+0.1**
TPUB				S	**Sb**	**17 28 09.1**	**-0.5**
WCKO	**Fanlu**	**2.13**	**263**	*i* P	**Pb**	**17 27 43.6**	**+0.6**
WCKO				*i* S	**Sb**	**17 28 09.7**	**+0.2**
WGK	**Gukeng**	**2.16**	**270**	*i* P	**Pb**	**17 27 44.4**	**+1.1**
WGK				S	**Sb**	**17 28 10.3**	**+0.2**
CHN4	**Tsaushan**	**2.16**	**261**	*i* P	**Pb**	**17 27 43.9**	**+0.5**
CHN4				*i* S	**Sb**	**17 28 10.6**	**+0.4**
WTP	**Ta-pu**	**2.16**	**258**	*i* P	**Pb**	**17 27 43.8**	**+0.3**
WTP				*i* S	**Sb**	**17 28 09.2**	**-1.0**
WDLH	**Douliu**	**2.18**	**270**	*i* P	**Pb**	**17 27 44.4**	**+0.7**
WDLH				S	**Sb**	**17 28 10.8**	**+0.1**
WCHH	**Zhanghua**	**2.19**	**280**	*i* P	**Pb**	**17 27 44.2**	**+0.3**
WCHH				S	**Sb**	**17 28 11.1**	**+0.1**
SLGT	**Liugui**	**2.20**	**252**	*eP*	**Pb**	**17 27 43.9**	**-0.2**
SLGT				*i* S	**Sn**	**17 28 10.1**	**+2.1**
SGST	**Jiashian**	**2.23**	**254**	*i* P	**Pb**	**17 27 43.9**	**-0.7**
SGST				*i* S	**Sn**	**17 28 10.6**	**+1.9**
CHN1	**Nanshi**	**2.25**	**257**	*i* P	**Pb**	**17 27 45.3**	**+0.4**
CHN1				*i* S	**Sb**	**17 28 12.4**	**-0.4**
TWK	**Hsinying**	**2.27**	**259**	*i* P	**Pb**	**17 27 45.7**	**+0.4**
TWK				*i* S	**Sb**	**17 28 13.3**	**-0.1**
CHY	**Chiayi**	**2.29**	**265**	P	**Pb**	**17 27 45.9**	**+0.2**
CHY				*i* S	**Sb**	**17 28 13.2**	**-0.8**
SSD	**Sandimen**	**2.31**	**246**	*i* P	**Pn**	**17 27 44.1**	**+1.9**
SSD				*eS*	**Sn**	**17 28 10.1**	**-0.5**
EAST	**Anshuo**	**2.31**	**236**	*i* P	**Pn**	**17 27 44.1**	**+1.7**
EAST				S	**Sn**	**17 28 08.8**	**-2.0**
RLNB	**Erlin**	**2.35**	**275**	P	**Pb**	**17 27 46.0**	**-0.6**
RLNB				*i* S	**Sb**	**17 28 15.3**	**-0.3**
MASBT	**Mashibuluo**	**2.36**	**243**	*i* P	**Pn**	**17 27 45.5**	**+2.4**
MASBT				*eS*	**Sn**	**17 28 13.9**	**+1.9**
JIRJ	**Irabujima**	**2.37**	**61**	*eP*	**Pn**	**17 27 44.4**	**+1.4**
JIRJ				*eS*	**Sn**	**17 28 11.7**	**-0.4**
JMJ2	**Miyako jima3**	**2.43**	**64**	*eP*	**Pb**	**17 27 46.1**	**-2.0**
JMJ2				*eS*	**Sn**	**17 28 14.4**	**+0.7**
JIKM	**Ikemajima**	**2.45**	**60**	*eS*	**Sn**	**17 28 13.7**	**-0.4**
WSF	**Szhu**	**2.47**	**269**	*eP*	**Pb**	**17 27 49.0**	**+0.4**
WSF				*i* S	**Sb**	**17 28 16.5**	**-0.6**
WSL	**Shuilin Townsh**	**2.47**	**266**	*i* P	**Pb**	**17 27 47.9**	**-0.8**
WSL				*i* S	**Sn**	**17 28 16.9**	**+2.3**
SCZT	**Fangliau**	**2.49**	**238**	*i* P	**Pb**	**17 27 48.3**	**-0.8**
SCZT				*eS*	**Sn**	**17 28 15.5**	**+0.3**
HEN	**Hengchun**	**2.62**	**230**	*eP*	**Pn**	**17 27 49.0**	**+2.4**
HEN				*i* S	**Sn**	**17 28 19.6**	**+1.2**
TSCK	**Chigu Township**	**2.66**	**259**	*i* P	**Pb**	**17 27 50.8**	**-1.0**
TSCK				*i* S	**Sb**	**17 28 22.4**	**-2.1**
PHUB	**P'eng-hu**	**3.07**	**267**	P	**Pn**	**17 27 55.6**	**+2.8**
PHUB				S	**Sn**	**17 28 29.8**	**+0.3**
PTMZ	**Houxiangcun**	**3.71**	**292**	*i* P	**Pn**	**17 28 03.3**	**+1.8**
PTMZ				S	**Sn**	**17 28 43.0**	**-2.2**
KNMB	**Chin-men Tao**	**4.21**	**281**	P	**Pn**	**17 28 10.2**	**+1.9**
KNMB				S	**Sn**	**17 28 56.1**	**-1.4**

*IDC **01** 17:50:48.6±3.8,20°.30S×66°.98E,h0km,mb3.6/7, mbtmp3.6/7,MS3.4/5,Error ellipse: s-maj=112.7km s-min=30.8km az=56.0*
ISC 01 17:50:50.3±3.8,**20°.3S**±0°.5×**67°.0E**±0°.6,**h10**km,**n16,σ0°35/7,mb3.7/7,MS3.5/4,Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H08S1	**Diego Garcia H**	**13.65**	**24**	T	T	18 07 30.4	
	baz=201,slow=75,SNR=6.4						
H08S2	**Diego Garcia H**	**13.65**	**24**	T	T	18 07 34.2	
	baz=201,slow=75,SNR=5.2						
H08S3	**Diego Garcia H**	**13.67**	**24**	T	T	18 07 31.1	
	baz=201,slow=75,SNR=7.2						
OPO	**Ambohidratompo**	**18.77**	**272**	LR	LR	18 00 02.7	
	comp=Z,73nm,21.6s,baz=91,slow=30						
H04N2	**CROZET ISLANDS**	**28.66**	**202**	T	T	18 27 21.6	
	baz=32,slow=74,SNR=245						
H04N1	**CROZET ISLANDS**	**28.66**	**202**	T	T	18 27 23.0	
	baz=32,slow=74,SNR=211						
H04N3	**CROZET ISLANDS**	**28.68**	**202**	T	T	18 27 21.7	
	baz=32,slow=74,SNR=300						
PALK	**Pallekele**	**30.53**	**28**	LR	LR	18 06 17.0	
	comp=Z,69nm,20.2s,baz=150,slow=30						
CMAR	**Chiang Mai Arr**	**49.64**	**41**	P	**P**	**17 59 42.5**	**+0.1**
	0.4nm,0.5s,baz=233,slow=9.1,SNR=6.7						
CMAR				LR	LR	18 17 28.5	
	comp=Z,22nm,20.5s,baz=290,slow=32 0.4nm,0.5s						
ASAR	**Alice Springs**	**61.62**	**107**	P	**P**	**18 01 08.4**	**-0.3**
	0.3nm,0.7s,baz=270,slow=5.7,SNR=7.8						
ASAR				LR	LR	18 25 40.3	
	comp=Z,38nm,18.2s,baz=190,slow=34 0.3nm,0.7s						
WRA	**Warramunga Arr**	**62.80**	**103**	P	**P**	**18 01 16.9**	**+0.3**
	0.7nm,1.0s,baz=262,slow=9.1,SNR=3.9 0.7nm,1.0s						
AAK	**Ala-Archa**	**63.00**	**6**	LR	LR	18 24 12.1	
	comp=Z,68nm,18.2s,baz=336,slow=32						
MKAR	**Makanchi Array**	**68.19**	**11**	P	**P**	**18 01 50.5**	**-0.3**
	0.9nm,0.9s,baz=176,slow=8.1,SNR=3.9 0.9nm,0.9s						
KURBB	**Kurchatov Arra**	**71.33**	**8**	P	**P**	**18 02 10.0**	**0.0**
	0.4nm,0.5s,baz=210,slow=6.5,SNR=4.3 0.4nm,0.5s						
BVAR	**Borovoye Array**	**73.07**	**2**	P	**P**	**18 02 20.8**	**+0.4**
	0.5nm,0.7s,baz=157,slow=7.8,SNR=3.1 0.5nm,0.7s						
SONM	**Songino Array**	**76.47**	**26**	P	**P**	**18 02 40.3**	**0.0**
	0.6nm,0.8s,baz=190,slow=7.3,SNR=3.6 0.6nm,0.8s						

*IDC **01** 17:56:54.1±5.8,37°.21N×141°.58E,h0km,mb3.3/2, mbtmp3.3/3,ML2.8/1,Error ellipse: s-maj=115.0km s-min=34.0km az=20.0*
*JMA **01** 17:57:07.6±0.1,36°.5N±0°.3×140°.7E±0°.6,h54km,MV3.0/30, NORTHERN IBARAKI PREF*
JMA Felt I J1 at NORTHERN IBARAKI PREF .
ISC 01 17:57:06.3±1.5,**36°.55N**±0°.05×**140°.97E**±0°.09,**h33**km±3km,
n20,σ1°93/20,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHO	**Hitachi**	**0.33**	**281**	P	**Pn**	**17 57 16.1**	**+1.4**
JHO				S	**Sb**	**17 57 22.0**	**+2.0**
JHYU	**Hitachinakayam**	**0.37**	**236**	P	**Pn**	**17 57 16.5**	**+1.1**
JHYU				S	**Sn**	**17 57 22.6**	**+1.5**
ONAJ	**Iwakimizuishiy**	**0.57**	**347**	*i* P	**Pn**	**17 57 19.7**	**+1.6**
ONAJ				S	**Sn**	**17 57 28.4**	**+2.0**
JFK	**Kawauchi**	**0.82**	**355**	*i* P	**Pb**	**17 57 22.9**	**+0.6**
JFK				S	**Sb**	**17 57 33.9**	**+0.8**
JOTO	**OTAMA OYAMA**	**1.13**	**334**	P	**Pb**	**17 57 26.7**	**-0.7**
JAG	**Ashikaga**	**1.22**	**265**	*i* P	**Pn**	**17 57 25.7**	**-1.4**
JAG				S	**Sn**	**17 57 38.6**	**-3.9**
JFY	**Yanaizu**	**1.32**	**311**	*i* P	**Pn**	**17 57 28.4**	**-0.1**
MJAR	**Matsushiro Arr**	**2.22**	**271**	Pn	**Pn**	**17 57 39.7**	**-1.1**
	1.5nm,0.3s,baz=74,slow=18,SNR=131						
MJAR				Sn	**Sn**	**17 58 07.2**	**+0.1**
	0.6nm,0.3s,baz=230,slow=27,SNR=4.7 7.7nm,0.4s						
MJAR				AML	AML		
MAJO	**Matsushiro**	**2.22**	**271**	P	**Pn**	**17 57 40.2**	**-0.6**
JSG	**Sagara**	**2.94**	**231**	P	**Pb**	**17 57 59.4**	**+1.4**
JGF	**Kuroka**	**3.07**	**253**	P	**Pn**	**17 57 53.6**	**+1.0**
INU	**Inuyama**	**3.42**	**251**	P	**Pn**	**17 58 00.5**	**+3.2**
H11N2	**WAKE ISLAND Hy**	**28.22**	**119**	T	T	18 33 00.3	
	baz=313,slow=75,SNR=2.8						
H11N1	**WAKE ISLAND Hy**	**28.22**	**119**	T	T	18 32 55.8	
	baz=313,slow=75,SNR=3.9						
H11N3	**WAKE ISLAND Hy**	**28.23**	**119**	T	T	18 32 56.4	
	baz=313,slow=75,SNR=2.8						
H11S1	**WAKE ISLAND Hy**	**28.91**	**122**	T	T	18 33 51.1	
	baz=314,slow=75,SNR=4.3						
H11S3	**WAKE ISLAND Hy**	**28.91**	**122**	T	T	18 33 50.8	
	baz=314,slow=75,SNR=3.6						
H11S2	**WAKE ISLAND Hy**	**28.92**	**122**	T	T	18 33 55.5	
	baz=314,slow=75,SNR=5.5						
WRA	**Warramunga Arr**	**56.53**	**187**	P	**P**	**18 06 43.5**	**-1.9**
	0.5nm,1.1s,baz=5.8,slow=7.6,SNR=5.0 0.5nm,1.1s						
ASAR	**Alice Springs**	**60.26**	**187**	P	**P**	**18 07 09.0**	**-2.5**
	0.3nm,0.9s,baz=13,slow=8.1,SNR=2.4 0.3nm,0.9s						

*IDC **01** 18:05:01.5±1.1,42°.14N×78°.16E,h0km,mb3.4/4, mbtmp3.5/11,ML3.3/7,Error ellipse: s-maj=15.0km s-min=13.1km az=137.0*
*KRNET **01** 18:05:01.4±0.1,42°.17N×78°.04E,h17km,mb4.1*
*NNC **01** 18:05:03.0±0.7,42°.27N×78°.05E,h0km,mb4.4,mpv4.3, Error ellipse: s-maj=5.4km s-min=2.5km az=171.0*
*SOME **01** 18:05:02.0,42°.18N×78°.02E,h15km*
ISC 01 18:05:03.3±1.0,**42°.16N**±0°.03×**78°.07E**±0°.02,**h19**km±3km,
n70,σ1°78/123,mb3.5/3,34C-14D,Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PRZ	**Przheval'sk**	**0.41**	**37**	⇑*eP*	**Pg**	**18 05 10.3**	**-1.6**
PRZ				⇑*eS*	**Sg**	**18 05 15.7**	**-2.0**
TARG	**Taragay, Kyrgy**	**0.47**	**205**	⇑*iP*	**Pg**	**18 05 10.5**	**-2.7**
T

556nm,0.1s
ARXS Arharly 2.06 355 *e*P **Pb 18 05 38.9 -1.2**
261nm,0.3s
ARXS *e*S **Sb 18 06 05.7 +0.3**
556nm,0.1s
KUU Kurty 2.15 324 Pg **Pb 18 05 39.9 -1.7**
70nm,0.3s
KUU Lg Lg 18 06 07.5
486nm,0.2s
KUU Kurty 2.15 324 *e*P **Pb 18 05 39.9 -1.7**
70nm,0.3s
KUU *e*S **Sb 18 06 07.5 -0.3**
486nm,0.2s
KRBS Karabastau 2.33 312 Pg **Pb 18 05 44.0 -0.8**
186nm,0.3s
KRBS Lg Lg 18 06 13.8
424nm,0.3s
KRBS Karabastau 2.33 312 *e*P **Pb 18 05 44.0 -0.8**
186nm,0.3s
KRBS *e*S **Sb 18 06 13.8 +0.6**
424nm,0.3s
DJR Jarkent 2.51 30 Pg **Pb 18 05 46.4 -1.4**
60nm,0.2s
DJR Lg Lg 18 06 17.9
211nm,0.2s
DJR Jarkent 2.51 30 *e*P **Pb 18 05 46.4 -1.4**
60nm,0.2s
DJR *e*S **Sb 18 06 17.9 -0.4**
211nm,0.2s
FRU1 Bishkek 2.62 285⇑*i*P **Pn 18 05 45.6 +0.9**
FRU1 ⇑*i*S **Sn 18 06 17.8 +1.7**
AAK Ala-Arcba 2.69 281 Pn **Pb 18 05 48.9 -2.0**
21nm,0.3s,baz=120,slow=8.1,SNR=128
AAK Sn **Sb 18 06 25.1 +1.5**
12nm,0.3s,baz=227,slow=2.1,SNR=4.7
66nm,0.4s
AAK AML AML
AAK Ala-Arcba 2.69 281⇓Pn **Pb 18 05 49.0 -1.9**
201nm,0.4s
AAK ⇑Lg Lg 18 06 25.1
2µm,0.7s
KAPS Kapalarasan 3.26 16 Pg **Pb 18 06 00.3 -0.3**
15nm,0.1s
KAPS Lg Lg 18 06 42.1
156nm,0.1s
KAPS Kapalarasan 3.26 16 *e*P **Pb 18 06 00.3 -0.3**
15nm,0.1s
KAPS *e*S **Sb 18 06 42.1 +2.2**
156nm,0.1s
SALK Salom-Alik 3.43 250⇓*e*P **Pn 18 05 56.3 +0.4**
SALK ⇓*e*S **Sn 18 06 37.3 +1.1**
KSH2 Kashi 3.56 213 Pn **Pb 18 06 03.2 -2.6**
KSH2 Sn **Sb 18 06 49.5 +0.8**
KSH2 smax smax
comp=N,39nm,0.9s
KSH2 smax smax
comp=E,48nm,0.7s
MRKS Merke 3.63 281 Pg **Pb 18 06 07.9 +1.0**
comp=E,53nm,0.3s
MRKS Lg Lg 18 06 53.8
comp=E,286nm,0.2s
MRKS Merke 3.63 281 *e*P **Pb 18 06 07.9 +1.0**
comp=E,53nm,0.3s
MRKS *e*S **Sb 18 06 54.8 +4.2**
comp=E,286nm,0.2s
ARSB Arslanbob 3.90 259⇑*i*P **Pn 18 06 03.3 +1.0**
ARSB ⇑*e*S **Sn 18 06 48.1 +0.6**
SFK Sufi-Kurgan 4.06 240⇑*i*P **Pn 18 06 05.8 +1.2**
SFK ⇑*e*S **Sn 18 06 52.4 +0.6**
BTLS Baital 4.10 316 Pg **Pb 18 06 15.4 +0.5**
comp=E,23nm,0.4s
BTLS Lg Lg 18 07 07.2
comp=E,87nm,0.3s
BTLS Baital 4.10 316 *e*P **Pb 18 06 15.4 +0.5**
comp=E,23nm,0.4s
BTLS *e*S **Sb 18 07 07.2 +3.1**
comp=E,87nm,0.3s
MNAS Manas 4.14 276⇑*e*P **Pn 18 06 06.7 +1.1**
MNAS ⇑*e*S **Sn 18 06 54.0 +0.5**
ARK Arkit 4.56 267⇑*i*P **Pn 18 06 12.4 +1.0**
ARK ⇑*i*S **Sn 18 07 03.9 -0.1**
TRKS Terek-Say 5.21 265⇓*e*P **Pn 18 06 21.2 +0.8**
TRKS ⇓*e*S **Sn 18 07 19.2 -0.8**
MAKZ Makanchi 5.42 30⇓Pn **Pn 18 06 25.7 +2.6**
comp=E,3.1nm,0.4s
MAKZ ⇓Sn **Sn 18 07 27.7 +2.7**
comp=E,3.9nm,0.6s
MAKZ ⇑Lg Lg 18 07 52.0
comp=E,5.9nm,0.6s
DRK Karamyk 5.46 243⇑*i*P **Pn 18 06 24.7 +0.8**
DRK ⇑*e*S **Sn 18 07 25.6 -0.6**
MK31 Makanchi Array 5.53 32⇑Pn **Pn 18 06 26.3 +1.7**
comp=E,1.8nm,0.2s,baz=214,slow=14,SNR=158
MK31 ⇓Sn **Sn 18 07 30.2 +2.5**
comp=E,7.7nm,0.6s
MK31 ⇑Lg Lg 18 07 53.2
comp=E,2.4nm,0.3s
MKAR Makanchi Array 5.53 32 Pn **Pn 18 06 26.3 +1.7**
comp=E,2.3nm,0.3s,baz=216,slow=16,SNR=104
MKAR Sn **Sn 18 07 31.0 +3.4**
comp=E,1.7nm,0.3s,baz=209,slow=20,SNR=6.4
comp=E,2.5nm,0.3s
MKAR AML AML
KK31 Karatay Array 5.65 282⇓Pg **Pb 18 06 44.3 +3.0**
comp=E,3.6nm,0.4s,baz=94,slow=16,SNR=42
KK31 ⇑Lg Lg 18 07 56.4
comp=E,67nm,0.8s,baz=97,slow=26,SNR=22
BTK Batken 5.86 251⇑*i*P **Pn 18 06 30.0 +0.7**
BTK ⇑*e*S **Sn 18 07 35.0 -1.0**
KURBB Kurchatov Arra 8.47 2 Pn **Pn 18 07 05.8 +0.9**
comp=E,0.1nm,0.3s,baz=175,slow=9.8,SNR=5.2
KURBB Sn **Sn 18 08 39.1 -0.8**
comp=E,0.3nm,0.3s,baz=185,slow=23,SNR=6.0
KURBB Lg Lg 18 09 24.6
comp=E,0.4nm,0.3s,baz=172,slow=29,SNR=6.7
comp=E,0.3nm,0.3s
KURBB AML AML
KURBB Kurchatov Arra 8.47 2⇓Pn **Pn 18 07 05.5 +0.7**
comp=E,2.1nm,0.7s
KURBB ⇓Sn **Sn 18 08 44.1 +4.3**
comp=E,11nm,0.6s
KURBB ⇑Lg Lg 18 09 29.7
comp=E,38nm,0.7s
KURK Kurchatov 8.57 2⇓Pn **Pn 18 07 05.0 -1.2**
comp=E,0.6nm,0.7s
KURK ⇑Sn **Sn 18 08 43.4 +1.2**
comp=E,1.6nm,0.7s
KURK ⇑Lg Lg 18 09 31.2
comp=E,13nm,0.9s
BVAR Borovoye Array 12.03 337 Pn **Pn 18 07 54.6 +0.9**
comp=E,0.1nm,0.3s,baz=145,slow=15,SNR=7.3
BVAR Sn **Sn 18 10 02.7 -4.5**
comp=E,0.1nm,0.3s,baz=148,slow=21,SNR=6.9
BVAR Lg Lg 18 11 18.0
comp=E,0.1nm,0.3s,baz=141,slow=26,SNR=5.6
comp=E,0.4nm,0.3s
BVAR AML AML
ZALV Zalesovo Beam 12.62 19 Pn **Pn 18 08 02.7 +1.0**
comp=E,0.2nm,0.3s,baz=214,slow=15,SNR=6.6
ZALV Sn **Sn 18 10 18.7 -2.9**
comp=E,0.2nm,0.3s,baz=206,slow=22,SNR=3.0
ZALV Lg Lg 18 11 38.7
comp=E,0.1nm,0.3s,baz=218,slow=28,SNR=1.7
comp=E,0.6nm,0.3s
ZALV AML AML
AKTO Aktyubinsk 16.10 308 Pn **P 18 08 49.7 -2.0**
comp=E,0.1nm,0.3s,baz=111,slow=14,SNR=1.7
AKTO Lg Lg 18 13 39.1
baz=41,slow=20,SNR=4.6
comp=E,0.5nm,0.4s
AKTO AML AML
ARTI Arti 19.07 325 P **Pn 18 09 25.9 +0.6**
comp=E,0.2nm,0.3s,baz=158,slow=11,SNR=3.3
comp=E,2.2nm,0.8s
ARTI AML AML
SONM Songino Array 20.75 64 P Pn 18 09 44.0 -1.4
comp=E,0.9nm,0.7s,baz=255,slow=11,SNR=5.0
comp=E,0.9nm,0.7s
NOA NORSAR Array B 43.41 319 P **P 18 13 05.5 +1.1**
comp=E,0.4nm,0.5s,baz=84,slow=8.1,SNR=1.4
comp=E,0.4nm,0.5s
WRA Warramunga Arr 80.70 128 P **P 18 17 16.0 +0.9**
comp=E,0.2nm,0.8s,baz=340,slow=4.5,SNR=1.7
comp=E,0.2nm,0.8s
ASAR Alice Springs 83.34 130 P **P 18 17 29.8 +0.8**
comp=E,0.5nm,0.9s,baz=344,slow=4.1,SNR=3.7
comp=E,0.5nm,0.9s

*RSNC **01** 18:19:04.0±0.0, 12°N±2°×7°2W±°, h69km±4km, M3.0, mb3.8, ML2.9*
*FUNV **01** 18:19:04.3, 12°.04N×71°.60W, h61km, MW3.5, Presumed earthquake*
ISC 01 18:19:02.0±1.7,**12°.03N**±0°.09×**71°.59W**±0°.04,**h79**km±11km,
n22,σ1s**75**/42,**Near north coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
URIC	**Uribia, Colomb**	**0.51**	**230**	P		Pn		18 19 16.2	+0.4
URIC				S		Sn		18 19 24.9	-1.0
URIC	**Uribia, Colomb**	**0.51**	**230**	*e*P		Pn		18 19 16.5	+0.7
URIC				*e*S		Sn		18 19 24.8	-1.0
CRJC	**Cerrejon, Guaj**	**1.61**	**232**	P		Pn		18 19 29.7	+0.8
CRJC				S		Sn		18 19 48.8	-0.4
MCQV	**Machiques**	**2.17**	**205**	*e*P		Pn		18 19 36.9	+0.6
MCQV				*e*S		Sn		18 20 02.3	-0.1
SMRC	**Santa Marta, M**	**2.72**	**252**	P		Pn		18 19 43.3	-0.3
SMRC				S		Sn		18 20 14.1	-1.5
TEPV	**Terepaima**	**3.12**	**131**	*e*P		Pn		18 19 50.8	+1.7
TEPV				*e*S		Sn		18 20 24.6	-0.8
SDV	**Santo Domingo**	**3.26**	**163**	P		Pn		18 19 52.0	+0.9
SDV				S		Sn		18 20 27.7	-1.3
SDV	**Santo Domingo**	**3.26**	**163**	*e*P		Pn		18 19 52.0	+0.9
SDV				*e*S		Sn		18 20 27.3	-1.7
ARGC	**Ariguani, Magd**	**3.38**	**231**	P		Pn		18 19 53.3	+0.7
ARGC				S		Sn		18 20 32.9	+1.2
MAPV	**Macapo**	**3.77**	**125**	*e*P		Pn		18 19 59.1	+1.1
MAPV				*e*S		Sn		18 20 40.1	-1.2
TURV	**Turiamo**	**4.00**	**113**	*e*P		Pn		18 20 01.3	+0.3
TURV				*e*S		Sn		18 20 44.5	-2.2
SJCC	**San Jacinto, C**	**4.11**	**239**	P		Pn		18 20 05.0	+2.4
SJCC				S		Sn		18 20 48.6	-1.0
SJCC	**San Jacinto, C**	**4.11**	**239**	*e*P		Pn		18 20 03.9	+1.3
SJCC				*e*S		Sn		18 20 47.6	-1.9
OCAC	**Ocana**	**4.13**	**204**	P		Pn		18 20 02.8	-0.2
OCAC				S		Sn		18 20 48.1	-2.1
BENV	**Beln**	**4.42**	**117**	*e*P		Pn		18 20 07.7	+0.9
BENV				*e*S		Sn		18 20 55.8	-1.5
TACV	**Tcata**	**4.86**	**112**	*e*P		Pn		18 20 13.0	+0.2
TACV				*e*S		Sn		18 21 05.3	-2.5
TAMC	**Tame, Arauca**	**5.56**	**182**	P		Pn		18 20 22.6	+0.2
	18nm,0.5s								
TAMC				S		Sn		18 21 21.3	-3.7
	18nm,0.5s								
TAMC				AML		AML			
BARC	**Barichara**	**5.63**	**196**	P		Pn		18 20 25.0	+1.6
	7.4nm,1.2s								
BARC				S		Sn		18 21 25.9	-0.9
	7.4nm,1.2s								
BARC				AML		AML			
RUSC	**La Rusia**	**6.27**	**194**	P		Pn		18 20 33.2	+0.7
RUSC				S		Sn		18 21 40.7	-2.3
CACV	**CAICARA DEL OR**	**6.67**	**131**	*e*P		Pn		18 20 43.4	+6.0
CACV				*e*S		Sn		18 21 57.2	+5.2
HELC	**Santa Helena**	**6.98**	**214**	P		Pn		18 20 45.9	+3.8
HELC				S		Sn		18 22 00.4	+0.1
PCRV	**Puerto La Cruz**	**7.07**	**104**	*e*P		Pn		18 20 43.8	+0.8

*CNRM **01** 18:23:40.8, 34°.98N×2°.69W, h5km, ML1.6*
*SFS **01** 18:23:41.7, 34°.88N×2°.79W, h20km, ML2.5/7, ML2.5/7, MLv2.5/7*
*MDD **01** 18:23:43.8±1.4, 35°.02N×2°.95W, h32km±6km, mb_Lg2.1/9, Error ellipse: s-maj=11.9km s-min=9.6km az=158.0*
ISC 01 18:23:37.5±1.1,**35°.15N**±0°.02×**2°.41W**±0°.05,**h17**km±10km,
n22,σ1s**66**/41,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TAF	**Taforalt**	**0.34**	**181**	P		**Pb**		**18 23 45.6**	**+0.6**
TAF				S		**Sb**		**18 23 51.6**	**+1.4**
EMLI	**Melilla**	**0.47**	**288**	Pg		**Pn**		**18 23 49.9**	**+0.5**
EMLI				Sg		**Sb**		**18 23 56.0**	**+2.2**
EMEL	**Melilla**	**0.47**	**288**	Pg		**Pn**		**18 23 50.1**	**+0.7**
EMEL				Sg		**Sb**		**18 23 55.9**	**+1.9**
EMEL				IVmb_Lg				18 23 56.6	
WMELI	**Melilla**	**0.47**	**290**	Pg		**Pn**		**18 23 50.1**	**+0.7**
WMELI				Sg		**Sb**		**18 23 57.8**	**+3.8**
JBK	**JBK**	**0.83**	**189**	P		**Pg**		**18 23 53.2**	**-0.5**
JBK				S		**Sg**		**18 24 03.8**	**-0.8**
PALE	**Palemas**	**1.25**	**273**	P		**Pb**		**18 24 00.6**	**0.0**
PALE				S		**Sb**		**18 24 15.6**	**-0.9**
AKLM	**AKL**	**1.36**	**242**	P		**Pb**		**18 24 02.6**	**+0.2**
AKLM				S		**Sb**		**18 24 19.1**	**-0.4**
EBER	**Berja**	**1.78**	**348**	Pn		**Pg**		**18 24 14.4**	**+2.6**
EBER				Sn		**Sg**		**18 24 36.1**	**+1.0**
EBER	**Berja**	**1.78**	**348**	Pn		**Pg**		**18 24 13.2**	**+1.4**
EBER				IVmb_Lg				18 24 33.8	
EBER				Sn		**Sg**		**18 24 34.6**	**-0.5**
ELGU	**Los Guajares,**	**1.97**	**330**	Pn		**Pg**		**18 24 14.4**	**-1.0**
ELGU				Sn		**Sb**		**18 24 38.1**	**+0.8**
ELGU	**Los Guajares,**	**1.97**	**330**	Pn		**Pb**		**18 24 13.3**	**+0.3**
ELGU				Sn		**Sn**		**18 24 34.2**	**-0.3**
ELGU				IVmb_Lg				18 24 41.0	
EQTA	**Presa de Quent**	**2.21**	**338**	Sn		**Sg**		**18 24 47.1**	**-1.6**
EMIJ	**Mijas**	**2.38**	**307**	Pn		**Pn**		**18 24 17.8**	**+2.1**
EMIJ				Sn		**Sn**		**18 24 44.9**	**+0.5**
EMIJ	**Mijas**	**2.38**	**307**	Pn		**Pn**		**18 24 17.4**	**+1.7**
EMIJ				Sn		**Sn**		**18 24 40.5**	**-4.0**
EMIJ				IVmb_Lg				18 24 46.4	
EGOR	**Sierra Gorda,**	**2.39**	**325**	Pn		**Pb**		**18 24 20.5**	**+0.4**
EGOR				Sn		**Sb**		**18 24 48.4**	**-0.9**
EQES	**Quesada**	**2.70**	**349**	Pn		**Pb**		**18 24 26.1**	**+0.8**
EQES				Sn		**Sb**		**18 24 56.3**	**-1.8**
EQES				IVmb_Lg				18 25 07.0	
EMUR	**La Murta**	**2.84**	**19**	Pn		**Pb**		**18 24 29.3**	**+1.5**
EMUR				Sn		**Sg**		**18 25 06.4**	**-2.5**
EMUR	**La Murta**	**2.84**	**19**	Pn		**Pb**		**18 24 29.3**	**+1.5**
EMUR				IVmb_Lg				18 25 24.5	
MDT	**Midelt**	**2.96**	**219**	P		**Pn**		**18 24 24.8**	**+1.0**
MDT				S		**Sn**		**18 24 58.7**	**-0.2**
MD31	**MD31**	**3.00**	**221**	P		**Pn**		**18 24 26.1**	**+1.8**
MD31				S		**Sn**		**18 24 58.9**	**-1.0**
SFS	**San Fernando**	**3.35**	**294**	Sn		**Sn**		**18 25 05.2**	**-3.1**
ETOB	**Tobarra**	**3.55**	**11**	Pn		**Pb**		**18 24 39.4**	**-0.5**
ETOB				Sn		**Sb**		**18 25 20.7**	**-2.0**
ETOB				IVmb_Lg				18 25 45.6	

*SDD **01** 18:40:49.9±1.4, 17°.93N×71°.52W, h3km±55km, MD2.6, ML2.2, MW2.4, Presumed earthquake*
*OSPL **01** 18:40:50.6±1.3, 18°.16N×71°.47W, h31km±7km, ML2.3, Presumed earthquake*
ISC 01 18:40:51.0±1.0,**18°.12N**±0°.03×**71°.51W**±0°.04,**h13**km±6km,
n11,σ0s**78**/21,**6C-5D**,**Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.22**	**78**	⇑*e*Pg		**Pg**		**18 40 55.5**	**-0.3**
PODR				⇓*e*Sg		**Sb**		**18 41 00.3**	**-0.7**
PODR				IAML				18 41 03.6	
	comp=N,584nm,0.3s								
PODR	**Polo**	**0.22**	**78**	*i* P		**Pg**		**18 40 55.5**	**-0.3**
PODR				*e*S		**Sb**		**18 41 00.8**	**-0.1**
PODR				IAML				18 41 03.2	
	comp=Z,2µm,0.5s								
LODU1	**El Espartillar**	**0.23**	**7**	*i* P		**Pg**		**18 40 54.8**	**-1.2**
LODU1				*e*S		**Sg**		**18 40 59.0**	**-0.4**
LODU1				IAML				18 41 00.4	
	comp=Z,368nm,0.2s								
LOBH	**Bahia de las A**	**0.29**	**206**	*i* P		**Pb**		**18 40 57.3**	**-0.7**
LOBH				*e*S		**Sb**		**18 41 03.6**	**+0.9**
LOBH				IAML				18 41 06.4	
	comp=Z,150nm,0.3s								
LOVI	**El Cajuil, Ovi**	**0.35**	**158**	*i* P		**Pb**		**18 40 58.5**	**-0.5**
LOVI				*e*S		**Sb**		**18 41 05.0**	**+0.6**
LOVI				IAML				18 41 11.9	
	comp=Z,182nm,1.5s								
NEDR	**Neiba UASD**	**0.37**	**13**	⇑*e*Pg		**Pb**		**18 40 59.3**	**-0.2**
NEDR				⇓*e*Sg		**Sb**		**18 41 06.1**	**+0.9**
NEDR				IAML				18 41 07.8	
	comp=N,183nm,0.6s								
LONE3	**El Aguacate, B**	**0.48**	**5**	*i* P		**Pg**		**18 40 60.0**	**-0.6**
LONE3				*e*S		**Sg**		**18 41 06.7**	**-0.3**
LONE3				IAML				18 41 10.7	
	comp=Z,82nm,0.4s								
JIDR	**Jimani**	**0.49**	**318**	⇑*e*Pg		**Pb**		**18 41 01.3**	**-0.3**
JIDR				⇓*e*Sg		**Sn**		**18 41 10.8**	**-1.4**
JIDR				IAML				18 41 11.0	
	comp=N,53nm,0.8s								
SDDR	**Presa de Saban**	**0.88**	**13**	⇑*e*Pg		**Pn**		**18 41 09.4**	**+0.2**
ABDR	**Alto Bandera**	**1.08**	**50**	⇑*e*Pg		**Pb**		**18 41 11.4**	**-0.4**
ABDR				⇓*e*Sg		**Sn**		**18 41 28.3**	**+1.0**
ABDR				IAML				18 41 33.1	
	comp=N,40nm,4.2s								
BANI	**BANI**	**1.12**	**76**	⇑*e*Pg		**Pb**		**18 41 11.2**	**-1.1**
BANI				⇓*e*Sg		**Sg**		**18 41 27.8**	**+0.5**

*AFAD **01** 18:51:08.1, 37°.84N×26°.93E, h7km±2km, ML2.6*
*THE **01** 18:51:08.3, 38°N±1°×2°7E±°, h9km±2km, M2.6/13, MLh2.6/13*
*ISK **01** 18:51:08.4, 37°.87N×26°.97E, h8km, ML2.5/26*
*ATH **01** 18:51:09.8, 37°.80N×26°.77E, h14km±1km, ML2.8/4, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 01 18:51:08.3±0.8,**37°.83N**±0°.02×**26°.92E**±0°.02,**h12**km±6km,
n61,σ0s**77**/92,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.17**	**257**	P		**Pg**		**18 51 11.8**	**-0.4**
KRL1				S		**Sg**		**18 51 14.4**	**-0.6**
KRL1				AML		AML			
DGB	**zmir**	**0.22**	**353**	P		**Pg**		**18 51 12.7**	**-0.3**
DGB				S		**Sg**		**18 51 16.1**	**-0.2**
GMLD	**Gumuldur**	**0.24**	**359**	Pg		**Pg**		**18 51 13.3**	**-0.1**
GMLD				Sg		**Sg**		**18 51 16.9**	**0.0**
GMLD				AML		AML			
GCAM	**G?zelcaml?**	**0.28**	**118**	P		**Pg**		**18 51 14.1**	**0.0**
GCAM				S		**Sg**		**18 51 18.8**	**+0.8**
GCAM				IAML				18 51 19.0	
	comp=N,2µm,0.2s								
GCAM				IAML				18 51 19.0	
	comp=E,2µm,0.3s								
GCAM	**G?zelcaml?**	**0.28**	**118**	Pg		**Pg**		**18 51 14.2**	**+0.1**
GCAM				Sg		**Sg**		**18 51 18.9**	**+0.9**
GCAM				AML		AML			
KUSD	**Kusadasi-Aydin**	**0.29**	**85**	Pg		**Pg**		**18 51 13.7**	**-0.6**
KUSD				Sg		**Sg**		**18 51 18.5**	**+0.2**
KUSD				AML		AML			
BEYE	**izmir**	**0.39**	**1**	P		**Pg**		**18 51 15.9**	**-0.3**
BEYE				S		**Sg**		**18 51 21.7**	**+0.3**
BEYE				IAML				18 51 23.0	
	comp=N,286nm,0.3s								
BEYE				IAML				18 51 25.0	
	comp=E,386nm,0.4s								
DDIM	**Aydin, Didim**	**0.46**	**146**	P		**Pg**		**18 51 17.1**	**-0.1**
DDIM				S		**Sg**		**18 51 24.1**	**+0.8**
DDIM				IAML				18 51 25.0	
	comp=N,373nm,0.3s								
DDIM				IAML				18 51 28.0	
	comp=E,468nm,0.4s								
ZEYE	**İzmir, Urla-Ze**	**0.52**	**321**	P		**Pg**		**18 51 18.0**	**-0.5**
ZEYE				S		**Sg**		**18 51 26.0**	**+0.5**
ZEYE				IAML				18 51 26.0	
	comp=N,1µm,0.2s								
ZEYE				IAML				18 51 29.0	
	comp=E,504nm,0.2s								
BLCB	**Balcova**	**0.56**	**10**	P		**Pg**		**18 51 19.1**	**-0.2**
BLCB				S		**Sg**		**18 51 26.9**	**+0.2**
BLCB				AML		AML			
BLCB	**Balcova**	**0.56**	**10**	Pg		**Pg**		**18 51 18.7**	**-0.5**
BLCB				AML		AML			
DUVT	**Torbali**	**0.57**	**47**	P		**Pg**		**18 51 19.1**	**-0.3**
DUVT				S		**Sg**		**18 51 26.9**	**-0.1**
DUVT				IAML				18 51 31.0	
	comp=E,686nm,0.3s								
YKAV	**Yalikavak-Bodr**	**0.76**	**158**	Pg		**Pb**		**18 51 23.9**	**+0.4**
YKAV				AML		AML			
AYDB	**Zeytinkoy-Aydi**	**0.78**	**81**	Pg		**Pg**		**18 51 22.9**	**-0.5**
AYDB				AML		AML			
AYDN	**Tasoluk**	**0.78**	**102**	P		**Pg**		**18 51 23.3**	**-0.1**
AYDN				S		**Sg**		**18 51 33.6**	**0.0**
AYDN				IAML				18 51 37.0	
	comp=N,326nm,0.3s								
AYDN				IAML				18 51 38.0	
	comp=E,421nm,0.3s								
KRBN	**Karaburun**	**0.81**	**339**	Pg		**Pb**		**18 51 24.4**	**+0.1**
KRBN				AML		AML			
BAGT	**Foa**	**0.82**	**356**	P		**Pb**		**18 51 24.9**	**+0.4**
BAGT				S		**Sb**		**18 51 35.9**	**+0.4**
BODT	**Bodrum**	**0.83**	**158**	P		**Pg**		**18 51 23.9**	**-0.5**
BODT				S		**Sb**		**18 51 36.2**	**+0.4**
BODT				AML		AML			
BODT	**Bodrum**	**0.83**	**158**	Pg		**Pb**		**18 51 25.2**	**+0.6**
BODT				AML		AML			
MLSB	**Milas**	**0.87**	**128**	Pg		**Pg**		**18 51 25.2**	**+0.1**
MLSB				AML		AML			
IZMR	**zmir-demi**	**0.87**	**69**	P		**Pb**		**18 51 25.4**	**0.0**
IZMR				S		**Sg**		**18 51 35.7**	**-0.8**
BDRM	**Kayabasi**	**0.87**	**151**	P		**Pb**		**18 51 25.9**	**+0.5**
BDRM				S		**Sg**		**18 51 36.9**	**+0.3**
BDRM				IAML				18 51 40.0	
	comp=N,184nm,0.3s								
BDRM				IAML				18 51 41.0	
	comp=E,124nm,0.2s								
KLNA	**Kalymnos**	**0.88**	**177**	P		**Pb**		**18 51 26.4**	**+1.0**
KLNA				S		**Sb**		**18 51 38.1**	**+1.1**
CHOS	**Chios island**	**0.88**	**309**	P		**Pg**		**18 51 24.7**	**-0.5**
CHOS				S		**Sb**		**18 51 37.5**	**+0.4**
CHOS				AML		AML			
CHOS	**Chios island**	**0.88**	**309**	Pg		**Pb**		**18 51 26.0**	**+0.5**
CHOS				AML		AML			
CHOS	**Chios island**	**0.88**	**309**	P		**Pg**		**18 51 25.2**	**-0.1**
CHOS				S		**Sg**		**18 51 37.2**	**+0.4**
CHOS				AML		AML			
FOCM	**Foa**	**0.89**	**350**	Pg		**Pb**		**18 51 25.9**	**+0.2**
FOCM				AML		AML			
KARB	**zmir-Karabur**	**0.92**	**334**	P		**Pb**		**18 51 26.3**	**+0.1**
KARB				S		**Sb**		**18 51 39.0**	**+0.6**
KARB				IAML				18 51 40.0	
	comp=N,289nm,0.5s								
KARB				IAML				18 51 43.0	
	comp=E,164nm,0.7s								
EAG2	**Marmaro, Chios**	**0.95**	**318**	P		**Pb**		**18 51 27.4**	**+0.6**
EAG2				S		**Sg**		**18 51 39.3**	**+0.1**
CAMT	**Merkez**	**0.96**	**19**	P		**Pg**		**18 51 26.9**	**0.0**
CAMT				S		**Sn**		**18 51 41.1**	**-0.2**
CAMT				IAML				18 51 42.0	
	comp=N,403nm,0.3s								
CAMT				IAML				18 51 43.0	
	comp=E,361nm,0.4s								
NAZL	**Nazilli-Aydin**	**1.09**	**83**	Pg		**Pg**		**18 51 28.7**	**-0.7**
NAZL				AML		AML			
ESEN	**Aydn-Nazilli**	**1.13**	**91**	P		**Pg**		**18 51 29.4**	**-0.7**
ESEN				S		**Sg**		**18 51 44.7**	**-0.2**
ESEN				IAML				18 51 48.0	
	comp=E,69nm,0.3s								
ESEN				IAML				18 51 49.0	
	comp=N,80nm,0.3s								
GOMA	**Golmarmara-Man**	**1.17**	**42**	Pn		**Pb**		**18 51 29.8**	**-0.7**
DAT	**Datca**	**1.22**	**154**	Pn		**Pg**		**18 51 32.3**	**+0.5**
DAT				AML		AML			
KIRA	**zmir-Kiraz**	**1.23**	**72**	P		**Pb**		**18 51 30.7**	**-0.7**
KIRA				S		**Sb**		**18 51 46.2**	**-1.0**
KIRA				IAML				18 51 54.0	
	comp=N,68nm,0.7s								
DKL	**Dikili**	**1.24**	**360**	Pn		**Pn**		**18 51 30.8**	**-0.5**
DKL				AML		AML			
DKL	**Dikili**	**1.24**	**360**	P		**Pg**		**18 51 33.1**	**+1.1**
DKL				S		**Sn**		**18 51 50.0**	**+2.1**
AKS	**Akhisar**	**1.26**	**34**	Pn		**Pn**		**18 51 31.9**	**+0.2**
AKS				AML		AML			
YER	**Yerkesik**	**1.29**	**122**	P		**Pn**		**18 51 32.1**	**0.0**
YER				S		**Sb**		**18 51 47.7**	**-1.3**
YER				AML		AML			
YER	**Yerkesik**	**1.29**	**122**	Pn		**Pb**		**18 51 32.9**	**+0.4**
YER				AML		AML			
SOMA	**Soma-Manisa**	**1.41**	**20**	Pn		**Pg**		**18 51 35.0**	**-

DALY	**Dalyan (Mula)**	**1.71**	**126**	Pn	**Pb**	**18 51 39.5**	**-0.2**
YAYO	**Edremit-Balk**	**1.78**	**4**	Pn	**Pn**	**18 51 39.9**	**+1.1**
YAYO				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**219**	P	**Pb**	**18 51 41.7**	**-0.5**
THERA				S	**Sn**	**18 52 00.7**	**-2.7**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**219**	P	**Pn**	**18 51 39.8**	**-0.2**
THERA				AML	AML		
THR3	**Thira Island,**	**1.87**	**221**	P	**Pb**	**18 51 42.9**	**+0.6**
SNT5	**Nea Kammeni, S**	**1.88**	**221**	P	**Pb**	**18 51 42.2**	**-0.3**
SNT5				AML	AML		
ARG	**Arkhangelos**	**1.88**	**149**	Pn	**Pb**	**18 51 42.4**	**-0.1**
ARG				AML	AML		
THR5	**Thira Island,**	**1.89**	**222**	P	**Pg**	**18 51 44.7**	**+0.2**
APMY	**Acipayam-Deniz**	**1.93**	**100**	Pn	**Pn**	**18 51 42.2**	**+1.3**
BALB	**Balikesir**	**1.95**	**22**	Pn	**Pn**	**18 51 41.9**	**+0.7**
BALB				AML	AML		
KARY	**Karystos**	**1.97**	**277**	P	**Pn**	**18 51 40.9**	**-0.6**
KARY				AML	AML		
EZN	**Ezine**	**2.04**	**347**	P	**Pg**	**18 51 47.9**	**+0.4**
EZN				S	**Sb**	**18 52 12.0**	**+1.3**
EZN				AML	AML		
CAME	**Cameli-Denizli**	**2.10**	**114**	Pn	**Pn**	**18 51 44.4**	**+1.1**
DION	**Dionisos Attik**	**2.37**	**277**	P	**Pn**	**18 51 46.7**	**-0.3**
DION				AML	AML		
LIA	**Limnos Island**	**2.47**	**327**	P	**Pn**	**18 51 48.1**	**-0.1**
LIA				S	**Sn**	**18 52 14.6**	**-3.7**
LIA				AML	AML		
ALN	**Alexandroupoli**	**3.13**	**348**	P	**Pn**	**18 51 57.8**	**+0.4**

*IDC **01** 19:06:09.8±7.0,20°.37S×176°.59W, h0km, mb4.2/6, mbtmp4.2/6, Error ellipse: s-maj=173.4km s-min=29.5km az=33.0*
ISC 01 19:06:28.6±10.0,**20°S**±1°×**176°.1W**±0°.9,**h222**km,**n6,** σ0**s78/5,mb3.9/6,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**35.36**	**263**	P	**P**	**19 13 04.1**	**+0.8**
	1.5nm,0.4s,baz=104,slow=9.8,SNR=2.6 1.5nm,0.4s						
STKA	**Stephens Creek**	**39.71**	**244**	P	**P**	**19 13 39.5**	**-0.1**
	2.4nm,0.5s,baz=94,slow=8.9,SNR=7.7 2.4nm,0.5s						
ASAR	**Alice Springs**	**46.44**	**256**	P	**P**	**19 14 33.2**	**-0.4**
	5.7nm,0.8s,baz=93,slow=8.0,SNR=103 5.7nm,0.8s						
WRA	**Warramunga Arr**	**46.49**	**261**	P	**P**	**19 14 33.4**	**-0.7**
	1.1nm,0.3s,baz=98,slow=7.6,SNR=55 1.1nm,0.3s						
VNDA	**Vanda**	**58.75**	**185**	P	**P**	**19 16 02.9**	**+0.1**
	0.5nm,0.4s,baz=291,slow=8.6,SNR=10 0.5nm,0.4s						
QSPA	**South Pole Qui**	**70.25**	**180**	P	P	19 17 22.9	+5.4
	1.3nm,0.6s,baz=343,slow=3.4,SNR=12 1.3nm,0.6s						

*THE **01** 19:09:40.8,38°.N±2°.×2°.7E±°, h3km±3km, M3.0/7, MLh3.0/7*
*AFAD **01** 19:09:40.7,37°.88N×26°.96E, h7km±3km, ML2.7*
*ISK **01** 19:09:40.9,37°.88N×26°.99E, h5km, ML3.0/32*
*ATH **01** 19:09:40.2,37°.87N×27°.00E, h6km±1km, ML2.8/9, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
ISC 01 19:09:41.0±0.9,**37°.87N**±0°.02×**26°.97E**±0°.02,**h10**km±7km, **n57,** σ0**s54/77,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.20**	**339**	P	**Pg**	**19 09 44.8**	**-0.3**
DGB				S	**Sg**	**19 09 47.3**	**-0.6**
DGB				IAML		19 09 48.0	
	comp=E,1μm,0.5s						
DGB				IAML		19 09 49.0	
	comp=N,1μm,0.3s						
GMLD	**Gumuldur**	**0.21**	**348**	Pg	**Pg**	**19 09 45.4**	**0.0**
KRL1	**Karlovasi Samo**	**0.22**	**250**	P	**Pg**	**19 09 45.1**	**-0.5**
KRL1				S	**Sg**	**19 09 48.4**	**-0.2**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**92**	Pg	**Pg**	**19 09 46.2**	**+0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**129**	P	**Pg**	**19 09 46.8**	**+0.4**
GCAM				S	**Sg**	**19 09 51.0**	**+0.9**
GCAM				IAML		19 09 51.0	
	comp=N,4μm,0.5s						
GCAM				IAML		19 09 51.0	
	comp=E,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.27**	**129**	Pg	**Pg**	**19 09 46.5**	**+0.1**
GCAM				Sg	**Sg**	**19 09 50.8**	**+0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**355**	P	**Pg**	**19 09 48.0**	**-0.1**
BEYE				IAML		19 09 53.0	
	comp=E,780nm,0.3s						
BEYE				S	**Sg**	**19 09 53.2**	**+0.3**
BEYE				IAML		19 10 00.0	
	comp=N,640nm,0.4s						
DUVT	**Torbali**	**0.52**	**47**	P	**Pb**	**19 09 51.3**	**-0.8**
DUVT				S	**Sg**	**19 09 57.8**	**0.0**
DUVT				IAML		19 09 59.0	
	comp=E,663nm,0.3s						
BLCB	**Balcova**	**0.52**	**6**	P	**Pg**	**19 09 50.9**	**-0.2**
BLCB				S	**Sg**	**19 09 58.2**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**6**	Pg	**Pg**	**19 09 50.8**	**-0.3**
BLCB				Sg	**Sg**	**19 09 58.3**	**+0.4**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.52**	**315**	P	**Pg**	**19 09 50.9**	**-0.2**
ZEYE				S	**Sg**	**19 09 58.0**	**0.0**
ZEYE				IAML		19 09 58.0	
	comp=N,1μm,0.6s						
ZEYE				IAML		19 10 00.0	
	comp=E,715nm,0.5s						
DIDI	**Didim-Aydin**	**0.54**	**156**	Pg	**Pg**	**19 09 51.6**	**+0.2**
DIDI				Sg	**Sb**	**19 09 59.8**	**-0.5**
DIDI				AML	AML		
CESE	**eme**	**0.70**	**311**	Pg	**Pb**	**19 09 55.3**	**0.0**
CESE				Sg	**Sb**	**19 10 05.2**	**+0.2**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**84**	Pg	**Pb**	**19 09 55.2**	**-0.7**
AYDB				Sg	**Sb**	**19 10 05.5**	**-0.6**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**162**	Pg	**Pb**	**19 09 56.4**	**-0.3**
YKAV				AML	AML		
BAGT	**Foa**	**0.79**	**353**	P	**Pb**	**19 09 57.0**	**+0.2**
BAGT				S	**Sb**	**19 10 07.4**	**-0.2**
BAGT				IAML		19 10 10.0	
	comp=N,321nm,0.3s						
BAGT				IAML		19 10 10.0	
	comp=E,546nm,0.6s						
KRBN	**Karaburun**	**0.79**	**336**	Pg	**Pb**	**19 09 56.7**	**-0.2**
KRBN				AML	AML		
BODT	**Bodrum**	**0.85**	**161**	P	**Pg**	**19 09 56.8**	**-0.6**
BODT				S	**Sg**	**19 10 08.8**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**161**	Pg	**Pg**	**19 09 57.0**	**-0.4**
BODT				Sg	**Sb**	**19 10 09.9**	**+0.6**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**132**	Pg	**Pb**	**19 09 57.7**	**-0.3**
MLSB				AML	AML		
FOCM	**Foa**	**0.86**	**347**	Pg	**Pb**	**19 09 58.2**	**+0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.89**	**306**	P	**Pg**	**19 09 58.0**	**-0.1**
CHOS				S	**Sg**	**19 10 10.3**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**306**	Pg	**Pb**	**19 09 59.1**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**306**	P	**Pg**	**19 09 58.2**	**+0.1**
CHOS				S	**Sg**	**19 10 10.0**	**+0.3**
KLNA	**Kalymnos**	**0.91**	**180**	P	**Pg**	**19 09 57.9**	**-0.6**
KLNA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.05**	**84**	Pg	**Pb**	**19 10 01.0**	**-0.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.12**	**41**	Pn	**Pn**	**19 10 02.8**	**+0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.20**	**358**	Pn	**Pn**	**19 10 04.1**	**+0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.20**	**358**	P	**Pg**	**19 10 03.3**	**-0.8**
AKS	**Akhisar**	**1.21**	**33**	Pn	**Pn**	**19 10 04.6**	**+0.6**
AKS				AML	AML		
DAT	**Datca**	**1.24**	**157**	P	**Pg**	**19 10 03.5**	**-1.3**
DAT				AML	AML		
DAT	**Datca**	**1.24**	**157**	Pn	**Pn**	**19 10 04.8**	**+0.3**
DAT				AML	AML		
YER	**Yerkesik**	**1.28**	**125**	P	**Pg**	**19 10 04.8**	**-0.7**
YER				S	**Sb**	**19 10 21.8**	**+0.2**
YER	**Yerkesik**	**1.28**	**125**	Pn	**Pg**	**19 10 04.9**	**-0.6**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.36**	**19**	Pn	**Pg**	**19 10 07.5**	**+0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.41**	**42**	Pn	**Pg**	**19 10 07.9**	**-0.1**
GORD				AML	AML		
TNSA	**Tinos**	**1.47**	**258**	P	**Pn**	**19 10 07.8**	**+0.3**
TNSA				AML	AML		
PRK	**Paraskevi**	**1.48**	**339**	P	**Pn**	**19 10 08.0**	**+0.3**
PRK				S	**Sb**	**19 10 27.8**	**+0.3**
PRK				AML	AML		
PRK	**Paraskevi**	**1.48**	**339**	P	**Pn**	**19 10 07.3**	**-0.4**
PRK				S	**Sn**	**19 10 27.3**	**+0.3**
PRK				AML	AML		
TURN	**Turunc**	**1.49**	**137**	Pn	**Pb**	**19 10 08.9**	**+0.1**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.70**	**128**	Pn	**Pn**	**19 10 11.4**	**+0.7**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.74**	**3**	Pn	**Pb**	**19 10 12.7**	**-0.3**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.89**	**150**	Pn	**Pb**	**19 10 14.7**	**-0.9**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.89**	**101**	Pn	**Pn**	**19 10 13.9**	**+0.5**
APMY				AML	AML		
BALB	**Balikesir**	**1.91**	**22**	Pn	**Pb**	**19 10 15.1**	**-0.8**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**1.99**	**52**	Pn	**Pb**	**19 10 16.2**	**-1.2**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**2.00**	**51**	Pn	**Pb**	**19 10 16.2**	**-1.3**
SMAA				AML	AML		
KARY	**Karystos**	**2.01**	**275**	P	**Pn**	**19 10 15.2**	**+0.3**
EZN	**Ezine**	**2.02**	**346**	P	**Pn**	**19 10 15.4**	**+0.3**
CAME	**Cameli-Denizli**	**2.08**	**116**	Pn	**Pn**	**19 10 17.3**	**+1.3**
CAME				AML	AML		
FETY	**Fethiye**	**2.09**	**126**	Pn	**Pn**	**19 10 16.9**	**+0.8**
FETY				AML	AML		
GEDZ	**Gediz**	**2.25**	**58**	Pn	**Pn**	**19 10 19.3**	**+1.0**
GEDZ				AML	AML		
DION	**Dionisos Attik**	**2.41**	**276**	P	**Pn**	**19 10 20.1**	**-0.4**
DION				AML	AML		
BASM	**Basmaki-Afyon**	**2.44**	**88**	Pn	**Pn**	**19 10 21.7**	**+0.8**
BASM				AML	AML		
LIA	**Limnos Island**	**2.46**	**326**	P	**Pn**	**19 10 21.5**	**+0.3**
LIA				AML	AML		
SMTH	**Samothraki Isl**	**2.83**	**337**	P	**Pn**	**19 10 26.4**	**+0.1**
SMTH				AML	AML		
IDI	**Anoyia**	**3.07**	**214**	P	**Pn**	**19 10 30.1**	**+0.5**
IDI				AML	AML		

*IDC **01** 19:11:30.8±1.0,4°.87S×133°.29E, h0km, mb3.7/3, mbtmp3.8/9, ML3.7/6, MS3.1/7, Error ellipse: s-maj=18.1km s-min=14.1km az=98.0*
ISC 01 19:11:32.7±0.8,**5°.08S**±0°.06×**133°.31E**±0°.09,**h25**km,**n13,** σ2**s34/13,mb3.8/3,Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**4.65**	**334**	P	**Pn**	**19 12 41.0**	**-0.4**
	2.3nm,0.3s,baz=181,slow=21,SNR=11						
SIJI				Sn	**Sn**	**19 13 30.6**	**-4.1**
	1.9nm,0.3s,baz=254,slow=22,SNR=1.8						
SIJI				LR	LR	19 14 40.6	
	comp=Z,153nm,20.3s,baz=62,slow=43 5.0nm,0.3s						
SIJI				AML	AML		
JAY	**Jayapura**	**7.80**	**71**	Pn	**Pn**	**19 13 25.1**	**+0.3**
	0.5nm,0.3s,baz=286,slow=14,SNR=9.5 9.0nm,0.8s						
JAY				AML	AML		
BATI	**Baumata**	**10.83**	**241**	Pn	**Pn**	**19 14 09.1**	**+2.7**
	2.0nm,0.3s,baz=0.0,slow=7.1,SNR=1.7						
BATI				Sn	**Sn**	**19 16 07.4**	**+0.4**
	1.4nm,0.3s,baz=89,slow=8.5,SNR=1.7 6.9nm,0.4s						
BATI				AML	AML		
WRA	**Warramunga Arr**	**14.81**	**176**	Pn	**Pn**	**19 14 59.8**	**-0.9**
	0.2nm,0.3s,baz=354,slow=13,SNR=8.1						
WRA				Sn	Sn	19 17 34.0	-10
	0.2nm,0.3s,baz=242,slow=23,SNR=8.7 0.5nm,0.5s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**14.96**	**209**	Pn	**Pn**	**19 15 01.8**	**-0.8**
	0.4nm,0.3s,baz=26,slow=11,SNR=17						
FITZ				Sn	**Sn**	**19 17 43.4**	**-4.3**
	1.3nm,0.3s,baz=177,slow=14,SNR=13						
FITZ				LR	LR	19 21 32.5	
	comp=Z,71nm,21.6s,baz=6.0,slow=40 1.3nm,0.5s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**18.49**	**178**	Pn	**Pn**	**19 15 48.9**	**+1.5**
	0.3nm,0.3s,baz=359,slow=9.8,SNR=17						
ASAR				Sn	**Sn**	**19 19 11.3**	**-2.1**
	0.1nm,0.3s,baz=0.8,slow=28,SNR=4.6						
ASAR				LR	LR	19 24 13.7	
	comp=Z,118nm,20.8s,baz=358,slow=41 2.8nm,0.8s						
ASAR				AML	AML		
KRVT	**Keravat (AS076**	**18.67**	**88**	LR	LR	19 23 26.9	
	comp=Z,38nm,18.5s,baz=86,slow=38						
CTA	**Charters Tower**	**19.52**	**141**	LR	LR	19 24 37.8	
	comp=Z,77nm,21.0s,baz=346,slow=40						
GUMO	**Guam**	**21.81**	**32**	LR	LR	19 26 00.2	
	comp=Z,19nm,18.4s,baz=209,slow=40						
NWAO	**Narrogin (SRO)**	**31.51**	**206**	LR	LR	19 32 49.8	
	comp=Z,115nm,19.8s,baz=27,slow=40						
MKAR	**Makanchi Array**	**68.49**	**325**	P	**P**	**19 22 33.7**	**+0.7**
	0.6nm,0.6s,baz=116,slow=7.3,SNR=7.7 0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**72.66**	**327**	P	**P**	**19 22 58.6**	**+0.4**
	0.2nm,0.4s,baz=126,slow=5.0,SNR=6.7 0.2nm,0.4s						
BVAR	**Borovoye Array**	**78.24**	**327**	P	**P**	**19 23 32.0**	**+1.7**
	0.7nm,0.7s,baz=104,slow=6.1,SNR=4.1 0.7nm,0.7s						

*NOU **01** 19:12:06.5,38°.63S×176°.12E, h144km, MLv3.5/7, North Island, New Zealand*
*WEL **01** 19:12:06.7±0.6,38°.S±.3°×17°.6E±°, h133km±4km, M3.0/49, ML2.6/30, MLv3.0/49, Error ellipse: s-maj=4.4km s-min=3.5km az=150.9*
ISC 01 19:12:01.7±1.5,**38°.41S**±0°.04×**176°.13E**±0°.04,**h174**km±8km, **n136,** σ1**s57/167,North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GRRZ	**Galatos Road**	**0.06**	**344**	P	**Pn**	**19 12 25.7**	**+0.8**
GRRZ				AML	AML		
GRRZ				AML	AML		
HLRZ	**Highlands Stat**	**0.23**	**48**	P	**Pn**	**19 12 26.5**	**+1.4**
HLRZ				AML	AML		
HLRZ				AML	AML		
UTU	**Utuhina**	**0.24**	**12**	P	**Pn**	**19 12 26.0**	**+0.9**
UTU				AML	AML		
UTU				AML	AML		
NGRZ	**Ngongotaha**	**0.31**	**8**	P	**Pn**	**19 12 26.0**	**+0.7**
NGRZ				AML	AML		
NGRZ				AML	AML		
RRRZ	**Republican Roa**	**0.31**	**77**	P	**Pn**	**19 12 25.9**	**+0.6**
RRRZ				S	**Sn**	**19 12 42.0**	**-1.2**
RRRZ				AML	AML		
RRRZ				AML	AML		
TARZ	**Mount Tarawera**	**0.34**	**60**	P	**Pn**	**19 12 26.1**	**+0.7**
TARZ				AML	AML		
TARZ				AML	AML		
KARZ	**Kaharoa**	**0.40**	**13**	P	**Pn**	**19 12 26.1**	**+0.6**
KARZ				AML	AML		
KARZ				AML	AML		
WATZ	**Wairara**	**0.43**	**226**	P	**Pn**	**19 12 26.9**	**+1.3**
WATZ				S	**Sn**	**19 12 43.0**	**-1.1**
WATZ				AML	AML		
WATZ				AML	AML		
TLZ	**Tolley Road**	**0.47**	**279**	P	**Pn**	**19 12 26.8**	**+1.0**
TLZ				S	**Sn**	**19 12 43.3**	**-0.9**
TLZ				AML	AML		
TLZ				AML	AML		
MRHZ	**Matea Rd**	**0.48**	**152**	P	**Pn**	**19 12 26.7**	**+0.9**
MRHZ				S	**Sn**	**19 12 41.8**	**-2.7**
MRHZ				AML	AML		
MRHZ				AML	AML		
MUGZ	**Murupara**	**0.51**	**98**	P	**Pn**	**19 12 26.5**	**+0.6**
MUGZ				S	**Sn**	**19 12 43.0**	**-1.5**
MUGZ				AML	AML		
MUGZ				AML	AML		
RATZ	**Rangitukua**	**0.54**	**211**	P	**Pn**	**19 12 27.1**	**+1.1**
RATZ				S	**Sn**	**19 12 44.4**	**-0.5**
RATZ				AML	AML		
RATZ				AML	AML		
KMRZ	**Kaimai**	**0.58**	**345**	P	**Pn**	**19 12 27.0**	**+0.7**
KMRZ				AML	AML		
KMRZ				AML	AML		
RITZ	**Rihia Road**	**0.61**	**201**	P	**Pn**	**19 12 28.0**	**+1.6**
RITZ				AML	AML		
RITZ				AML	AML		
OPRZ	**Ohinepanea**	**0.65**	**31**	P	**Pn**	**19 12 27.2**	**+0.6**
OPRZ				AML	AML		
KATZ	**Kakaramea**	**0.66**	**211**	P	**Pn**	**19 12 28.2**	**+1.4**
KATZ				S	**Sn**	**19 12 45.3**	**-0.9**
KATZ				AML	AML		
KATZ				AML	AML		
TGRZ	**Tauranga**	**0.69**	**9**	P	**Pn**	**19 12 27.5**	**+0.7**
TGRZ				AML	AML		
TGRZ				AML	AML		
RTZ	**Ruatahuna**	**0.70**	**108**	P	**Pn**	**19 12 28.0**	**+1.1**
RTZ				S	**Sn**	**19 12 44.9**	**-1.4**
RTZ				AML	AML		
RTZ				AML	AML		
MTHZ	**Maungataniwha**	**0.71**	**129**	P	**Pn**	**19 12 28.3**	**+1.4**
MTHZ				S	**Sn**	**19 12 44.8**	**-1.6**
MTHZ				AML	AML		
NTVZ	**North Tongarir**	**0.78**	**207**	P	**Pn**	**19 12 28.9**	**+1.5**
NTVZ				AML	AML		
NTVZ				AML	AML		
TMVZ	**Te Maari**	**0.78**	**205**	P	**Pn**	**19 12 28.9**	**+1.4**
TMVZ				AML	AML		
TMVZ				AML	AML		
URZ	**Urewera**	**0.78**	**79**	P	**Pn**	**19 12 27.9**	**+0.5**
URZ				S	**Sn**	**19 12 44.3**	**-2.7**
URZ				AML	AML		
ETVZ	**East Tongariro**	**0.80**	**204**	P	**Pn**	**19 12 29.0**	**+1.4**
ETVZ				AML	AML		
ETVZ				AML	AML		
BKZ	**Black Stump Fm**	**0.81**	**160**	P	**Pn**	**19 12 28.8**	**+1.3**
BKZ	**Black Stump Fm**	**0.81**	**160**	S	**Sn**	**19 12 45.8**	**-1.8**
BKZ	**Black Stump Fm**	**0.81**	**160**	P	**Pn**	**19 12 28.9**	**+1.3**
BKZ				S	**Sn**	**19 12 45.7**	**-2.0**
BKZ				AML	AML		
BKZ				AML	AML		
WTVZ	**West Tongariro**	**0.82**	**211**	P	**Pn**	**19 12 29.1**	**+1.3**
WTVZ				AML	AML		
OTVZ	**Oturere**	**0.84**	**206**	P	**Pn**	**19 12 29.6**	**+1.7**
OTVZ				S	**Sn**	**19 12 47.5**	**-0.7**
OTVZ				AML	AML		
OTVZ				AML	AML		
TOZ	**Tahuroa Road**	**0.84**	**323**	P	**Pn**	**19 12 28.7**	**+1.0**
TOZ				AML	AML		
TOZ				AML	AML		
TWVZ	**Taurewa**	**0.86**	**219**	P	**Pn**	**19 12 29.3**	**+1.4**
TWVZ				AML	AML		
TWVZ				AML	AML		
NMHZ	**Naumai**	**0.87**	**143**	P	**Pn**	**19 12 30.4**	**+2.4**
NMHZ				S	**Sn**	**19 12 48.7**	**+0.4**
NMHZ				AML	AML		
NMHZ				AML	AML		
SNVZ	**South Ngauruho**	**0.87**	**206**	P	**Pn**	**19 12 29.7**	**+1.6**
SNVZ				AML	AML		
SNVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.87**	**208**	P	**Pn**	**19 12 29.4**	**+1.4**
NGZ				AML	AML		
NGZ				AML	AML		
RAHZ	**Arahi**	**0.90**	**124**	P	**Pn**	**19 12 30.4**	**+2.2**
RAHZ				S	**Sn**	**19 12 48.2**	**-0.4**
RAHZ				AML	AML		
RAHZ				AML	AML		
COVZ	**Chateau Observ**	**0.92**	**210**	P	**Pn**	**19 12 29.5**	**+1.2**
COVZ				AML	AML		
COVZ				AML	AML		
TUVZ	**Tukino**	**0.94**	**203**	P	**Pn**	**19 12 30.2**	**+1.6**
TUVZ				AML	AML		
FWVZ	**Far West T-bar**	**0.96**	**208**	P	**Pn**	**19 12 30.1**	**+1.3**
FWVZ				AML	AML		
FWVZ				AML	AML		
MAVZ	**Matarangi**	**0.97**	**207**	P	**Pn**	**19 12 30.3**	**+1.3**
MAVZ				AML	AML		
MAVZ				AML	AML		
WHVZ	**Whangaehu Hut**	**0.97**	**206**	P	**Pn**	**19 12 30.3**	**+1.4**
WHVZ				AML	AML		
WHVZ				AML	AML		
TRVZ	**Turoa**	**1.00**	**207**	P	**Pn**	**19 12 30.6**	**+1.5**
TRVZ				AML	AML		
TRVZ				AML	AML		
HIZ	**Hauiti**	**1.01**	**264**	P	**Pn**	**19 12 30.2**	**+1.3**
HIZ	**Hauiti**	**1.01**	**264**	S	**Sn**	**19 12 49.4**	**-0.4**
HIZ	**Hauiti**	**1.01**	**264**	P	**Pn**	**19 12 30.5**	**+1.6**
HIZ				S	**Sn**	**19 12 49.4**	**-0.4**
HIZ				AML	AML		
WNVZ	**Wahianoa**	**1.01**	**204**	P	**Pn**	**19 12 30.7**	**+1.6**
WNVZ				AML	AML		
WNVZ				AML	AML		
RAGZ	**Rawiri**	**1.01**	**95**	P	**Pn**	**19 12 30.7**	**+1.7**
RAGZ				S	**Sn**	**19 12 49.1**	**-0.9**
RAGZ				AML	AML		
RAGZ				AML	AML		
KWHZ	**Kaweka Forest**	**1.04**	**167**	P	**Pn**	**19 12 31.1**	**+1.9**
KWHZ				AML	AML		
MOVZ	**Moawhango**	**1.04**	**196**	P	**Pn**	**19 12 30.5**	**+1.3**
MOVZ				S	**Sn**	**19 12 48.7**	**-1.9**
MOVZ				AML	AML		
MOVZ				AML	AML		
PKVZ	**Pokaka**	**1.07**	**215**	P	**Pn**	**19 12 31.1**	**+1.6**
PKVZ				AML	AML		
BHHZ	**Black Hill Sta**	**1.08**	**183**	P	**Pn**	**19 12 31.0**	**+1.5**
BHHZ				S	**Sn**	**19 12 49.1**	**-2.1**
BHHZ				AML	AML		
ARHZ	**Aropaoanui**	**1.09**	**142**	P	**Pn**	**19 12 31.8**	**+2.3**
ARHZ				S	**Sn**	**19 12 50.8**	**-0.2**
ARHZ				AML	AML		
ARHZ				AML	AML		
WHHZ	**Waihua**	**1.09**	**128**	P	**Pn**	**19 12 32.1**	**+2.6**
WHHZ				AML	AML		
MWZ	**Matawai**	**1.10**	**87**	P	**Pn**	**19 12 30.9**	**+1.3**
MWZ				S	**Sn**	**19 12 49.8**	**-1.4**
MWZ				AML	AML		
MTVZ	**Mangateitei**	**1.10**	**208**	P	**Pn**	**19 12 31.4**	**+1.7**
MTVZ				AML	AML		
MTVZ				AML	AML		
MCHZ	**McNeill Hill**	**1.12**	**157**	P	**Pn**	**19 12 32.3**	**+2.5**
MCHZ				S	**Sn**	**19 12 51.8**	**+0.1**
MCHZ				AML	AML		
KRHZ	**Kereru**	**1.25**	**172**	P	**Pn**	**19 12 32.7**	**+1.9**
KRHZ				AML	AML		
VRZ	**Vera Road**	**1.29**	**236**	P	**Pn**	**19 12 33.3**	**+2.1**
VRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.30**	**71**	P	**Pn**	**19 12 31.8**	**+0.4**
RUGZ				S	**Sn**	**19 12 52.1**	**-2.2**
RUGZ				AML	AML		
RIGZ	**Rimuhau**	**1.31**	**104**	P	**Pn**	**19 12 33.8**	**+2.4**
RIGZ				AML	AML		
TKGZ	**Te Karaka**	**1.35**	**92**	P	**Pn**	**19 12 34.0**	**+2.3**
TKGZ				S	**Sn**	**19 12 53.5**	**-1.4**
TKGZ				AML	AML		
KNZ	**Kokohu**	**1.35**	**117**	P	**Pn**	**19 12 33.8**	**+2.1**
KNZ				AML	AML		
CKHZ	**Cape Kidnapper**	**1.45**	**150**	P	**Pn**	**19 12 35.1**	**+2.4**
CKHZ				S	**Sn**	**19 12 56.4**	**-0.4**
CKHZ				AML	AML		
HAZ	**Te Kaha**	**1.46**	**64**	P	**Pn**	**19 12 33.4**	**+0.7**
HAZ				S	**Sn**	**19 12 53.8**	**-2.9**
HAZ				AML	AML		
PRGZ	**Paritu Road**	**

MKAZ	**Moumakai**	**1.51**	**329**	P	**Pn**	**19 12 34.8**	**+1.5**
MKAZ				AML	AML		
MHGZ	**Mahia Peninsul**	**1.57**	**119**	P	**Pn**	**19 12 36.4**	**+2.5**
MHGZ				AML	AML		
WAZ	**Wanganui**	**1.61**	**213**	P	**Pn**	**19 12 36.4**	**+2.2**
PKGZ	**Pakihiroa**	**1.63**	**71**	P	**Pn**	**19 12 36.0**	**+1.5**
PKGZ				S	**Sn**	**19 12 58.2**	**-1.6**
CNGZ	**Carnagh Statio**	**1.63**	**93**	P	**Pn**	**19 12 36.9**	**+2.4**
TSZ	**Takapari Road**	**1.65**	**185**	P	**Pn**	**19 12 36.5**	**+1.8**
WPHZ	**Waipukurau**	**1.67**	**172**	P	**Pn**	**19 12 36.8**	**+2.0**
WPHZ				S	**Sn**	**19 12 59.7**	**-1.0**
PUZ	**Puketiti**	**1.71**	**79**	P	**Pn**	**19 12 36.8**	**+1.5**
PUZ				S	**Sn**	**19 12 59.6**	**-1.7**
LREZ	**Lake Rotokare**	**1.71**	**232**	P	**Pn**	**19 12 38.0**	**+2.7**
PXZ	**Pawanui**	**1.72**	**161**	P	**Pn**	**19 12 37.4**	**+2.1**
PXZ				S	**Sn**	**19 13 00.8**	**-0.7**
ETAZ	**East Tamaki Re**	**1.74**	**326**	P	**Pn**	**19 12 37.2**	**+1.6**
AWAZ	**Awhitu Peninsu**	**1.79**	**318**	P	**Pn**	**19 12 37.9**	**+1.8**
WIAZ	**Waiheke Island**	**1.80**	**334**	P	**Pn**	**19 12 37.9**	**+1.7**
PREZ	**Palmer Road**	**1.80**	**238**	P	**Pn**	**19 12 39.2**	**+3.0**
NEZ	**North Egmont**	**1.81**	**241**	P	**Pn**	**19 12 39.2**	**+2.9**
PKE	**Pukeiti**	**1.85**	**244**	P	**Pn**	**19 12 39.4**	**+2.6**
KHEZ	**Kahui Hut**	**1.88**	**241**	P	**Pn**	**19 12 39.5**	**+2.4**
KHEZ	**Kahui Hut**	**1.88**	**241**	P	**Pn**	**19 12 39.7**	**+2.6**
DVHZ	**Dannevirke**	**1.89**	**179**	P	**Pn**	**19 12 38.8**	**+1.7**
WMGZ	**Waiomatatini S**	**1.90**	**73**	P	**Pn**	**19 12 38.8**	**+1.6**
WMGZ				S	**Sn**	**19 13 03.9**	**-0.8**
PRHZ	**Porangahau**	**1.90**	**168**	P	**Pn**	**19 12 39.3**	**+2.1**
OHWZ	**Ohakea**	**1.90**	**199**	P	**Pn**	**19 12 38.7**	**+1.4**
MBAZ	**Motutapu North**	**1.91**	**329**	P	**Pn**	**19 12 39.0**	**+1.7**
MXZ	**Matakaoa Point**	**1.92**	**65**	P	**Pn**	**19 12 39.2**	**+1.8**
WTAZ	**Waiatarua**	**1.92**	**320**	P	**Pn**	**19 12 39.6**	**+2.0**
NBEZ	**Newall Road No**	**1.97**	**243**	P	**Pn**	**19 12 40.7**	**+2.8**
POWZ	**Post Office Ro**	**2.00**	**188**	P	**Pn**	**19 12 40.0**	**+1.6**
NMEZ	**Namu Road**	**2.02**	**240**	P	**Pn**	**19 12 41.2**	**+2.6**
ANWZ	**Angora Road**	**2.07**	**173**	P	**Pn**	**19 12 41.2**	**+2.1**
ABAZ	**Army Bay**	**2.08**	**330**	P	**Pn**	**19 12 41.3**	**+2.0**
PRWZ	**Pori Road**	**2.15**	**183**	P	**Pn**	**19 12 41.9**	**+1.9**
BFZ	**Birch Farm**	**2.27**	**178**	P	**Pn**	**19 12 42.8**	**+1.4**
BFZ	**Birch Farm**	**2.27**	**178**	P	**Pn**	**19 12 43.0**	**+1.6**
MRZ	**Mangatainoka R**	**2.29**	**191**	P	**Pn**	**19 12 43.0**	**+1.4**
TIWZ	**Tintock**	**2.37**	**185**	P	**Pn**	**19 12 44.1**	**+1.5**
CPWZ	**Castlepoint**	**2.50**	**179**	P	**Pn**	**19 12 46.1**	**+2.1**
OGWZ	**Otaki Gorge**	**2.52**	**197**	P	**Pn**	**19 12 45.6**	**+1.4**
HOWZ	**Holdsworth Sta**	**2.53**	**191**	P	**Pn**	**19 12 45.5**	**+1.1**
KIW	**Kapiti Island**	**2.62**	**201**	P	**Pn**	**19 12 46.5**	**+1.0**
TMWZ	**Te Maipa**	**2.70**	**184**	P	**Pn**	**19 12 47.7**	**+1.2**
MTW	**Mount Morrison**	**2.79**	**190**	P	**Pn**	**19 12 48.3**	**+0.9**
CAW	**Cannon Point**	**2.82**	**197**	P	**Pn**	**19 12 48.9**	**+1.1**
WCZ	**Waipu Caves**	**2.85**	**329**	P	**Pn**	**19 12 50.5**	**+2.2**
DUWZ	**D'Urville Isla**	**2.94**	**215**	P	**Pn**	**19 12 50.1**	**+0.8**
TRWZ	**Traveller**	**3.01**	**186**	P	**Pn**	**19 12 51.1**	**+1.0**
PAWZ	**Paruwai Farm**	**3.02**	**190**	P	**Pn**	**19 12 51.0**	**+0.7**
WEL	**Wellington**	**3.06**	**200**	P	**Pn**	**19 12 51.6**	**+0.9**
MSWZ	**Moikau Station**	**3.08**	**192**	P	**Pn**	**19 12 51.7**	**+0.6**
TCW	**Tory Channel**	**3.14**	**206**	P	**Pn**	**19 12 52.4**	**+0.6**
BHW	**Baring Head**	**3.15**	**198**	P	**Pn**	**19 12 52.4**	**+0.6**
PLWZ	**Palliser**	**3.23**	**192**	P	**Pn**	**19 12 53.4**	**+0.5**
TUWZ	**Tuamarina**	**3.46**	**208**	P	**Pn**	**19 12 56.4**	**+0.7**
NNZ	**Nelson**	**3.52**	**216**	P	**Pn**	**19 12 57.1**	**+0.6**
TKNZ	**Takaka Hill**	**3.58**	**222**	P	**Pn**	**19 12 57.9**	**+0.6**
CMWZ	**Cape Campbell**	**3.65**	**203**	P	**Pn**	**19 12 59.5**	**+1.4**
QRZ	**Quartz Range**	**3.68**	**228**	P	**Pn**	**19 12 58.8**	**+0.2**
BSWZ	**Blackbirch Sta**	**3.73**	**207**	P	**Pn**	**19 12 59.9**	**+0.8**
MRNZ	**Matariki Terra**	**3.96**	**220**	P	**Pn**	**19 13 02.4**	**+0.4**
THZ	**Tophouse**	**4.17**	**215**	P	**Pn**	**19 13 05.3**	**+0.5**
KHZ	**Kahutara**	**4.47**	**205**	P	**Pn**	**19 13 08.9**	**+0.4**
KHZ	**Kahutara**	**4.47**	**205**	P	**Pn**	**19 13 08.9**	**+0.4**
DSZ	**Denniston Nort**	**4.70**	**224**	P	**Pn**	**19 13 11.4**	**-0.2**
GVZ	**Greta Valley S**	**5.13**	**206**	P	**Pn**	**19 13 17.4**	**+0.3**
LTZ	**Lake Taylor**	**5.26**	**213**	P	**Pn**	**19 13 18.6**	**-0.4**
AMCZ	**Amberley**	**5.45**	**208**	P	**Pn**	**19 13 20.4**	**-0.9**
INZ	**Inchbonnie**	**5.60**	**218**	P	**Pn**	**19 13 22.5**	**-0.7**
OKCZ	**Okains Bay**	**5.79**	**203**	P	**Pn**	**19 13 25.9**	**+0.1**
OXZ	**Oxford**	**5.81**	**211**	P	**Pn**	**19 13 25.5**	**-0.6**
MQZ	**McQueen's Vall**	**5.91**	**205**	P	**Pn**	**19 13 26.3**	**-1.1**
AKCZ	**Akaroa Harbour**	**5.98**	**203**	P	**Pn**	**19 13 27.8**	**-0.4**

*IDC **01** 19:14:55.0±0.8, 10.°67N×40.°87W, h0km, mb4.0/12, mbtmp4.1/13, ML4.5/1, MS3.7/30, Error ellipse: s-maj=33.0km s-min=15.1km az=155.0*
*NEIC **01** 19:14:55.2±2.5, 10.°0N±0.°2×40.°9W±0.°1, h10km±1km, mb4.6/13, Error ellipse: s-maj=28.4km s-min=17.3km az=157.0*
ISC 01 19:14:54.7±0.6, 10.°2N±0.°1×40.°89W±0.°09, h10km, n60, σ1§44/30, mb4.3/16, MS3.7/29, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDP	**Montagnes des**	**12.69**	**247**	Pn	**Pn**	**19 17 56.5**	**+1.2**
	2.7nm,0.3s,baz=63,slow=14,SNR=74						
MDP				LR	LR	19 21 57.9	
	comp=Z,195nm,20.8s,baz=52,slow=33						
	27nm,0.6s						
MDP				AML	AML		
BBGH	**Gun Hill**	**18.51**	**281**	P	**P**	**19 19 10.0**	**-1.4**
GDSD	**La Dsirade Is**	**20.55**	**289**	P	**P**	**19 19 32.2**	**-1.4**
MAGL	**Barre de l'ile**	**20.66**	**288**	P	**P**	**19 19 34.6**	**-0.2**
BOAV	**Boa Vista**	**20.98**	**250**		**P**	**19 19 37.9**	**-0.4**
BOAV				IAmb	IAmb	19 19 45.3	
	comp=Z,8.9nm,0.9s						
SJG	**San Juan**	**25.70**	**291**	LR	LR	19 28 29.9	
	comp=Z,56nm,21.6s,baz=99,slow=32						
BDFB	**Brasilia**	**26.61**	**195**	LR	LR	19 30 45.9	
	comp=Z,210nm,20.1s,baz=352,slow=35						
BDFB	**Brasilia**	**26.61**	**195**	P	**P**	**19 20 31.3**	**-2.3**
BDFB				IAmb	IAmb	19 20 48.5	
	comp=Z,13nm,1.4s						
H10N3	**ASCENSION HYDR**	**31.80**	**123**	T	T	19 55 16.1	
	baz=304,slow=75,SNR=24						
H10N2	**ASCENSION HYDR**	**31.80**	**123**	T	T	19 55 16.4	
	baz=304,slow=75,SNR=21						
H10N1	**ASCENSION HYDR**	**31.82**	**123**	T	T	19 55 16.8	
	baz=304,slow=75,SNR=22						
H10S3	**ASCENSION HYDR**	**32.30**	**125**	T	T	19 55 58.8	
	baz=302,slow=74,SNR=35						
H10S2	**ASCENSION HYDR**	**32.32**	**125**	T	T	19 56 00.1	
	baz=278,slow=74,SNR=31						
ROSC	**El Rosal**	**33.55**	**263**	LR	LR	19 34 47.4	
	comp=Z,128nm,20.9s,baz=68,slow=36						
DBIC	**Dimbokro**	**35.81**	**93**	P	**P**	**19 21 54.6**	**0.0**
	comp=Z,4.4nm,0.8s,baz=247,slow=12,SNR=4.1						
	comp=Z,4.4nm,0.8s						
DBIC	**Dimbokro**	**35.81**	**93**	P	**P**	**19 21 54.0**	**-0.6**
DBIC				IAmb	IAmb	19 22 27.6	
	comp=Z,19nm,1.5s						
LPAZ	**La Paz**	**37.66**	**226**	P	**P**	**19 22 15.1**	**+4.0**
	comp=Z,1.6nm,0.8s,baz=50,slow=7.0,SNR=7.4						
LPAZ				LR	LR	19 37 29.3	
	comp=Z,122nm,21.6s,baz=37,slow=36						
	comp=Z,1.6nm,0.8s						
LPAZ	**La Paz**	**37.66**	**226**		**P**	**19 22 09.2**	**-1.9**
OTAV	**Otavalo**	**38.63**	**257**	P	**P**	**19 22 18.1**	**-1.1**
CPUP	**Villa Florida**	**39.66**	**203**	LR	LR	19 39 02.9	
	comp=Z,79nm,19.6s,baz=74,slow=36						
MD31	**MD31**	**40.18**	**50**	P	**P**	**19 22 31.1**	**-0.4**
MD01	**Midelt array s**	**40.18**	**50**	P	**P**	**19 22 30.3**	**-1.2**
MDT	**Midelt**	**40.27**	**50**	LR	LR	19 35 41.8	
	comp=Z,79nm,19.9s,baz=254,slow=31						
ATAH	**Atahualpa**	**41.12**	**247**	LR	LR	19 39 58.4	
	comp=Z,56nm,19.1s,baz=71,slow=36						
TORD	**Torodi Ar. Bea**	**41.78**	**82**	P	**P**	**19 22 46.0**	**+1.3**
	comp=Z,2.7nm,0.8s,baz=278,slow=8.3,SNR=10						
	comp=Z,2.7nm,0.8s						
JTS	**Las Juntas de**	**43.33**	**274**	LR	LR	19 41 45.0	
	comp=Z,37nm,18.9s,baz=195,slow=37						
ESDC	**Sonseca Array**	**44.02**	**42**	P	**P**	**19 23 01.4**	**-1.2**
	comp=Z,0.8nm,0.8s,baz=241,slow=8.4,SNR=6.1						
ESDC				LR	LR	19 37 30.9	
	comp=Z,133nm,20.2s,baz=272,slow=31						
	comp=Z,0.8nm,0.8s						
TKL	**Tuckaleechee C**	**46.41**	**310**	LR	LR	19 38 15.6	
	comp=Z,84nm,21.3s,baz=92,slow=30						
KEST	**Kesra**	**52.09**	**52**	P	**P**	**19 24 05.9**	**+0.7**
	comp=Z,6.0nm,0.9s,baz=278,slow=9.0,SNR=8.0						
KEST				LR	LR	19 44 51.0	
	comp=Z,104nm,19.6s,baz=306,slow=35						
	comp=Z,6.0nm,0.9s						
EKA	**Eskdalemuir Ar**	**53.91**	**26**	P	**P**	**19 24 16.6**	**-1.6**
	comp=Z,1.7nm,0.7s,baz=230,slow=5.5,SNR=3.8						
	comp=Z,1.7nm,0.7s						

DAVOX	**Davos/Dischmat**	**56.26**	**40**	LR	LR	19 45 52.2		
	comp=Z,160nm,18.5s,baz=270,slow=33							
PLCA	**Paso Flores**	**57.59**	**206**	LR	LR	19 49 11.6		
	comp=Z,83nm,19.3s,baz=22,slow=35							
GERES	**GERESS Array B**	**59.42**	**39**	P	**P**	**19 24 57.7**	**0.0**	
	comp=Z,0.2nm,0.5s,baz=261,slow=7.1,SNR=1.7							
	comp=Z,0.2nm,0.5s							
GERES	**GERESS Array B**	**59.42**	**39**	P	**P**	**19 24 59.7**	**+2.0**	
ULM	**Lac du Bonnet**	**60.17**	**323**	LR	LR	19 45 57.9		
	comp=Z,36nm,21.5s,baz=18,slow=31							
VRAC	**Vranov**	**61.37**	**39**	LR	LR	19 50 37.1		
	comp=Z,56nm,18.0s,baz=300,slow=35							
TXAR	**Lajitas Array**	**61.38**	**298**	P	**P**	**19 25 10.8**	**-0.7**	
	comp=Z,0.8nm,0.8s,baz=132,slow=9.0,SNR=8.3							
	comp=Z,0.8nm,0.8s							
TXAR	**Lajitas Array**	**61.38**	**298**	P	**P**	**19 25 13.1**	**+1.7**	
NOA	**NORSAR Array B**	**63.40**	**25**	LR	LR	19 47 32.2		
	comp=Z,28nm,20.4s,baz=255,slow=31							
SDCO	**Great Sand Dun**	**63.78**	**307**	P	**P**	**19 25 29.1**	**+1.6**	
SDCO				IAmb	IAmb	19 25 30.1		
	comp=Z,2.6nm,0.8s							
ANMO	**Albuquerque**	**64.23**	**304**	LR	LR	19 50 09.2		
	comp=Z,60nm,21.6s,baz=66,slow=33							
MLR	**Muntele Rosu**	**66.59**	**45**	LR	LR	19 53 00.8		
	comp=Z,73nm,19.2s,baz=179,slow=34							
PDAR	**Pinedale Array**	**67.50**	**312**	LR	LR	19 51 36.2		
	comp=Z,52nm,21.8s,baz=76,slow=33							
WUAZ	**Wupatki**	**68.29**	**304**	P	**P**	**19 25 57.6**	**+1.1**	
WUAZ				IAmb	IAmb	19 25 59.7		
	comp=Z,4.8nm,0.9s							
AKASG	**Malin Array Be**	**69.61**	**40**	P	**P**	**19 26 03.4**	**-0.7**	
	comp=Z,1.9nm,0.9s,baz=269,slow=4.6,SNR=4.3							
	comp=Z,1.9nm,0.9s							
BGU	**Big Grassy Mou**	**69.91**	**310**	P	**P**	**19 26 06.2**	**-0.2**	
BGU				IAmb	IAmb	19 26 14.9		
	comp=Z,4.0nm,0.9s							
ELK	**Elko**	**71.57**	**310**	LR	LR	19 54 19.0		
	comp=Z,62nm,20.4s,baz=358,slow=33							
BRTR	**Keskin Array B**	**71.68**	**52**	P	**P**	**19 26 18.2**	**+1.0**	
	comp=Z,0.9nm,0.9s,baz=260,slow=2.3,SNR=3.6							
BRTR				LR	LR	19 57 57.8		
	comp=Z,65nm,18.1s,baz=292,slow=36							
	comp=Z,0.9nm,0.9s							
BRTR	**Keskin Array B**	**71.68**	**52**	P	**P**	**19 26 17.4**	**+0.2**	
SUR	**Sutherland**	**72.47**	**129**	LR	LR	19 52 57.7		
	comp=Z,56nm,18.0s,baz=324,slow=31							
EIL	**Elat**	**72.78**	**62**	LR	LR	19 58 23.7		
	comp=Z,52nm,20.5s,baz=277,slow=36							
NEW	**Newport**	**73.30**	**317**	LR	LR	19 56 29.8		
	comp=Z,73nm,19.8s,baz=250,slow=34							
LBTB	**Lobatse**	**73.60**	**120**	LR	LR	19 52 44.2		
	comp=Z,38nm,19.9s,baz=294,slow=31							
NVAR	**Mina Array Bea**	**73.90**	**307**	LR	LR	19 59 26.3		
	comp=Z,40nm,18.1s,baz=270,slow=36							
BOSA	**Boshof**	**74.56**	**123**	LR	LR	19 52 29.7		
	comp=Z,50nm,18.4s,baz=358,slow=30							
YBH	**Yreka Blue Hor**	**77.21**	**311**	LR	LR	20 01 09.6		
	comp=Z,48nm,18.0s,baz=350,slow=36							
KBZ	**Khabaz**	**78.57**	**47**	P	**P**	**19 26 56.7**	**+0.1**	
	comp=Z,2.8nm,0.9s,baz=280,slow=6.1,SNR=4.0							
	comp=Z,2.8nm,0.9s							
E27K	**Coleen River**	**84.57**	**338**	P	**P**	**19 27 29.6**	**+1.6**	
E27K				IAmb	IAmb	19 27 38.4		
	comp=Z,7.5nm,1.2s							
ILAR	**Eielson Array**	**87.56**	**336**	P	**P**	**19 27 42.1**	**-0.7**	
	comp=Z,0.6nm,0.8s,baz=69,slow=6.0,SNR=7.2							
	comp=Z,0.6nm,0.8s							
NRIK	**Noril'sk**	**93.04**	**16**	LR	LR	20 07 22.6		
	comp=Z,28nm,18.8s,baz=356,slow=34							

*ISK **01** 19:31:52.9, 37.°85N×26.°92E, h1km, ML2.9/17*
*AFAD **01** 19:31:53.3, 37.°85N×26.°88E, h7km±2km, ML2.9*
*THE **01** 19:31:53.4, 37.°8N±1.°0×2.°7E±.°, h0km±2km, M3.0/7, MLh3.0/7*
ISC 01 19:31:53.7±1.0, 37.°84N±0.°02×26.°92E±0.°03, h8km±9km, n34, σ0§67/55, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.21**	**353**	P	**Pg**	**19 31 57.9**	**-0.2**
DGB				S	**Sg**	**19 32 00.8**	**-0.1**
GMLD	**Gumuldur**	**0.24**	**0**	Pg	**Pg**	**19 31 58.4**	**0.0**
GMLD				Sg	**Sg**	**19 32 02.7**	**+1.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**119**	P	**Pg**	**19 31 59.7**	**+0.4**
GCAM				S	**Sb**	**19 32 04.7**	**-1.4**
GCAM				IAML		19 32 05.0	
	comp=N,3µm,0.4s						
GCAM				IAML		19 32 05.0	
	comp=E,2µm,0.3s						
GCAM	**G?zelcaml?**	**0.29**	**119**	Pg	**Pg**	**19 31 59.7**	**+0.4**
GCAM				Sg	**Sb**	**19 32 04.6**	**-1.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**86**	Pg	**Pg**	**19 31 59.4**	**-0.1**
KUSD				Sg	**Sb**	**19 32 04.7**	**-1.6**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**1**	P	**Pg**	**19 32 01.1**	**-0.2**
DDIM	**Aydin, Didim**	**0.46**	**146**	P	**Pg**	**19 32 02.9**	**+0.3**
DDIM				S	**Sb**	**19 32 10.2**	**-0.8**
DDIM				IAML		19 32 11.0	
	comp=N,1µm,0.9s						
DDIM				IAML		19 32 13.0	
	comp=E,940nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.52**	**321**	P	**Pg**	**19 32 02.9**	**-0.7**
ZEYE				S	**Sg**	**19 32 10.5**	**0.0**
ZEYE				IAML		19 32 11.0	
	comp=N,1µm,0.3s						
ZEYE				IAML		19 32 17.0	
	comp=E,609nm,0.3s						
BLCB	**Balcova**	**0.56**	**10**	P	**Pg**	**19 32 04.3**	**-0.2**
BLCB				S	**Sb**	**19 32 12.5**	**-1.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**10**	Pg	**Pg**	**19 32 04.5**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**48**	P	**Pg**	**19 32 04.9**	**+0.2**
DUVT				S	**Sg**	**19 32 12.6**	**+0.5**
DUVT				IAML		19 32 17.0	
	comp=E,982nm,0.4s						
CESE	**eme**	**0.69**	**316**	Pg	**Pg**	**19 32 07.1**	**+0.1**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.77**	**158**	Pg	**Pb**	**19 32 08.9**	**-0.4**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.78**	**82**	Pg	**Pg**	**19 32 08.9**	**+0.2**
AYDB				Sg	**Sb**	**19 32 20.2**	**-0.2**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.81**	**339**	Pg	**Pg**	**19 32 09.1**	**-0.1**
KRBN				Sg	**Sb**	**19 32 21.2**	**+0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**357**	P	**Pb**	**19 32 09.8**	**-0.4**
BAGT				S	**Sb**	**19 32 21.5**	**+0.2**
BAGT				IAML		19 32 24.0	
	comp=N,517nm,0.7s						
BAGT				IAML		19 32 26.0	
	comp=E,355nm,0.3s						
BODT	**Bodrum**	**0.84**	**158**	P	**Pg**	**19 32 09.2**	**-0.5**
BODT				S	**Sb**	**19 32 21.8**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**158**	Pg	**Pg**	**19 32 09.9**	**+0.2**
BODT				AML	AML		
CHOS	**Chios island**	**0.87**	**309**	P	**Pg**	**19 32 10.0**	**-0.4**
CHOS				S	**Sb**	**19 32 22.4**	**-0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**309**	Pg	**Pb**	**19 32 10.7**	**-0.4**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.87**	**70**	P	**Pb**	**19 32 11.3**	**+0.2**
IZMR				S	**Sg**	**19 32 20.6**	**-1.2**
MLSB	**Milas**	**0.87**	**128**	Pg	**Pg**	**19 32 10.6**	**+0.1**
MLSB				AML	AML		
FOCM	**Foa**	**0.89**	**351**	Pg	**Pg**	**19 32 10.7**	**0.0**
FOCM				Sg	**Sb**	**19 32 23.8**	**+0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**334**	P	**Pg**	**19 32 10.6**	**-0.7**
KARB				S	**Sg**	**19 32 23.2**	**0.0**
KARB				IAML		19 32 25.0	
	comp=N,412nm,0.5s						
KARB				IAML		19 32 26.0	
	comp=E,514nm,0.4s						
CAMT	**Merkez**	**0.96**	**19**	P	**Pg**	**19 32 11.4**	**-0.8**
CAMT				S	**Sb**	**19 32 25.5**	**0.0**
CAMT				IAML		19 32 28.0	
	comp=N,300nm,0.3s						
CAMT				IAML		19 32 34.0	
	comp=E,342nm,0.6s						

NAZL	**Nazilli-Aydin**	**1.10**	**83**	Pn	**Pb**	**19 32 15.1**	**+0.2**	
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.17**	**42**	Pn	**Pg**	**19 32 15.9**	**-0.3**	
GOMA				AML	AML			
DAT	**Datca**	**1.23**	**154**	P	**Pg**	**19 32 16.6**	**-0.6**	
DAT				S	**Sb**	**19 32 34.3**	**+1.0**	
DAT				AML	AML			
DKL	**Dikili**	**1.23**	**360**	Pn	**Pb**	**19 32 17.3**	**+0.1**	
DKL				AML	AML			
YER	**Yerkesik**	**1.29**	**122**	P	**Pg**	**19 32 17.5**	**-1.0**	
YER				S	**Sn**	**19 32 37.1**	**+1.5**	
SOMA	**Soma-Manisa**	**1.40**	**20**	Pn	**Pb**	**19 32 20.4**	**+0.3**	
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.46**	**42**	Pn	**Pg**	**19 32 21.0**	**-0.7**	
GORD				AML	AML			
PRK	**Paraskevi**	**1.49**	**340**	P	**Pn**	**19 32 20.3**	**-0.5**	
PRK				S	**Sn**	**19 32 42.0**	**+1.5**	
PRK				AML	AML			
THERA	**Ancient Thera,**	**1.87**	**219**	P	**Pn**	**19 32 26.2**	**+0.3**	

*IDC **01** 19:35:52.5±0.7, 52.°89N×168.°47W, h0km, mb3.9/25, mbtmp3.9/27, ML3.6/2, MS3.0/1, Error ellipse: s-maj=21.5km s-min=12.2km az=172.0*
*NEIC **01** 19:35:58.0±2.0, 52.°77N±0.°06×168.°20W±0.°06, h42km±5km, mb4.2/64, ML4.2/18, ML3.9(AEIC), Error ellipse: s-maj=9.1km s-min=4.9km az=157.0*
*AEIC **01** 19:35:58.2±2.0, 52.°83N±0.°06×168.°19W±0.°07, h48km±6km, Error ellipse: s-maj=9.6km s-min=4.8km az=152.0*
ISC 01 19:35:58.1±1.2, 52.°77N±0.°09×168.°18W±0.°05, h44km±10km, n176, σ1§27/180, mb4.1/58, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKTU	**Okmok Mt. Tuli**	**0.62**	**8**		**Pn**	**19 36 10.7**	**+0.1**
OKFG	**Magazine Ridge**	**0.66**	**14**		**Pn**	**19 36 11.1**	**0.0**
OKFG					**Sn**	**19 36 20.5**	**0.0**
OKER	**Okmok East Rim**	**0.69**	**6**		**Pn**	**19 36 11.9**	**-0.4**
OKRE	**Okmok R'deer P**	**0.75**	**1**		**Pn**	**19 36 12.8**	**+0.5**
CLCO	**Concord Point,**	**0.94**	**272**		**Pn**	**19 36 15.4**	**+0.6**
CLCO					**Sn**	**19 36 27.3**	**+0.3**
CLES	**Cleveland East**	**1.04**	**274**		**Pn**	**19 36 16.6**	**+0.3**
CLES				Sn	**Sn**	**19 36 29.3**	**-0.3**
MAPS	**Pakushin South**	**1.28**	**35**		**Pn**	**19 36 19.4**	**0.0**
MAPS					**Sn**	**19 36 35.5**	**+0.1**
MGOD	**Makushin Gods**	**1.29**	**37**		**Pn**	**19 36 19.4**	**-0.3**
MGOD					**Sn**	**19 36 36.2**	**+0.4**
MSW	**Makushin Switc**	**1.42**	**36**		**Pn**	**19 36 21.4**	**0.0**
MNAT	**Makushin Natee**	**1.43**	**38**		**Pn**	**19 36 21.4**	**-0.1**
MNAT					**Sn**	**19 36 39.0**	**-0.2**
AKRB	**Akutan Reef Bi**	**1.86**	**42**		**Pn**	**19 36 28.2**	**+0.8**
ZRO	**Akutan Zero**	**1.87**	**44**		**Pn**	**19 36 27.9**	**+0.4**
ZRO					**Sn**	**19 36 50.6**	**+0.7**
AKBBA	**Akutan Broad B**	**1.89**	**44**		**Pn**	**19 36 28.4**	**+0.6**
LVA	**Lava Point**	**1.89**	**42**		**Pn**	**19 36 28.6**	**+0.7**
LVA				IAML		19 37 01.4	
	comp=E,4µm,0.5s						
LVA	**Lava Point**	**1.89**	**42**		**Sn**	**19 36 51.4**	**+0.9**
AKV	**Akutan Volcano**	**1.90**	**43**		**Pn**	**19 36 28.8**	**+0.8**
AKLV	**Akutan Long Va**	**1.93**	**43**		**Pn**	**19 36 29.0**	**+0.6**
AKGG	**Akutan Green G**	**1.94**	**42**		**Pn**	**19 36 29.0**	**+0.5**
AHB	**Akutan Harbor**	**1.95**	**45**		**Pn**	**19 36 28.8**	**+0.1**
AHB					**Sn**	**19 36 54.3**	**+2.3**
AKUT	**Akutan**	**1.98**	**46**		**Pn**	**19 36 29.4**	**+0.2**
AKUT				IAML		19 36 56.0	
	comp=E,1µm,0.3s						
WECS	**Westdahl Cape**	**2.69**	**48**		**Pn**	**19 36 39.6**	**+0.8**
WECS				IAML		19 37 25.8	
	comp=E,1µm,0.6s						
WESP	**Westdahl Peak**	**2.69**	**49**		**Pn**	**19 36 38.5**	**-0.3**
WESN	**West Dahl Nort**	**2.80**

DLBC Dease Lake 22.06 60 P **P** **19 40 50.8 +1.9**
comp=Z,1.9nm,1.0s,baz=314,slow=11,SNR=3.6
comp=Z,1.9nm,1.0s
INK Inuvik 22.61 33 P **P** **19 40 52.1 -2.4**
INK IAmb IAmb 19 40 57.6
comp=E,6.8nm,1.1s
C36M Paulatuk 26.19 34 P **P** **19 41 27.1 -0.9**
C36M IAmb IAmb 19 41 29.3
comp=E,6.0nm,1.2s
YKA Yellowknife Ar 29.43 49 P **P** **19 41 57.4 +0.4**
comp=Z,0.8nm,0.6s,baz=274,slow=7.8,SNR=5.1
comp=Z,0.8nm,0.6s
NVAR Mina Array Bea 36.95 92 P **P** **19 43 06.4 +3.4**
comp=Z,0.1nm,0.3s,baz=330,slow=7.2,SNR=1.5
NVAR PcP **PcP** **19 45 24.7 +1.2**
comp=Z,0.2nm,0.4s,baz=291,slow=2.9,SNR=2.3
comp=Z,0.1nm,0.3s
YHH Holmes Hill 37.70 79 P **P** **19 43 09.9 +0.5**
YHH IAmb IAmb 19 43 11.9
comp=Z,1.8nm,1.0s
H11N2 WAKE ISLAND Hy 38.22 220 T T 20 24 18.7
baz=24,slow=76,SNR=508
H11N3 WAKE ISLAND Hy 38.23 220 T T 20 24 19.0
baz=24,slow=76,SNR=424
H11N1 WAKE ISLAND Hy 38.24 220 T T 20 24 19.9
baz=24,slow=76,SNR=339
H11S1 WAKE ISLAND Hy 39.41 219 T T 20 25 12.1
baz=23,slow=76,SNR=857
H11S2 WAKE ISLAND Hy 39.42 219 T T 20 25 16.3
baz=23,slow=76,SNR=960
H11S3 WAKE ISLAND Hy 39.43 219 T T 20 25 16.5
baz=23,slow=76,SNR=432
BW06 Boulder Array 39.62 80 P **P** **19 43 25.4 0.0**
BW06 IAmb IAmb 19 43 25.6
comp=Z,3.0nm,1.2s
PD31 Pinedale Array 39.62 80 P **P** **19 43 24.4 -0.9**
PD31 IAmb IAmb 19 43 25.6
comp=Z,2.5nm,1.1s
PDAR Pinedale Array 39.62 80 P **P** **19 43 26.1 +0.7**
comp=Z,0.3nm,0.5s,baz=285,slow=2.7,SNR=4.8
comp=Z,0.3nm,0.5s
PDAR Pinedale Array 39.62 80 P **P** **19 43 25.4 0.0**
MJAR Matsushiro Arr 40.44 268 P **P** **19 43 30.5 -1.5**
comp=Z,0.9nm,0.6s,baz=37,slow=6.7,SNR=2.7
comp=Z,0.9nm,0.6s
PV18 Skein Mesa, Pa 42.77 85 P **P** **19 43 50.6 -0.7**
PV18 IAmb IAmb 19 44 30.8
comp=Z,11nm,1.5s
PV13 Radium Mtn., P 42.88 85 P **P** **19 43 52.4 +0.2**
PV13 IAmb IAmb 19 43 54.7
comp=Z,8.3nm,1.0s
ULM Lac du Bonnet 43.32 63 P **P** **19 43 55.9 +0.5**
comp=Z,2.1nm,0.8s,baz=0.0,slow=4.0,SNR=1.4
comp=Z,2.1nm,0.8s
KSRS Korea Array 46.08 277 P **P** **19 44 17.4 0.0**
comp=Z,0.5nm,0.4s,baz=58,slow=6.8,SNR=2.2
comp=Z,0.5nm,0.4s
JNU Nakatsue 47.19 271 LR LR 20 03 37.5
comp=Z,19nm,21.8s,baz=17,slow=35
SONM Songino Array 51.72 301 P **P** **19 45 00.0 -0.6**
comp=Z,0.5nm,0.6s,baz=48,slow=6.8,SNR=2.7
SONM PcP **PcP** **19 46 14.0 +0.5**
comp=Z,0.4nm,0.3s,baz=77,slow=2.7,SNR=4.4
comp=Z,0.5nm,0.6s
TX31 Lajitas Ar. Si 52.02 90 P **P** **19 45 03.6 +0.5**
TX31 IAmb IAmb 19 45 21.7
comp=Z,8.1nm,1.5s
TXAR Lajitas Array 52.02 90 P **P** **19 45 04.6 +1.5**
comp=Z,0.6nm,0.7s,baz=291,slow=6.5,SNR=8.4
comp=Z,0.6nm,0.7s
TXAR Lajitas Array 52.02 90 P **P** **19 45 03.9 +0.8**
ARCES ARCESS Array B 57.60 354 P **P** **19 45 42.6 -0.1**
comp=Z,2.3nm,0.8s,baz=9.6,slow=5.9,SNR=5.5
ARCES PcP **PcP** **19 46 35.7 +0.2**
comp=Z,1.6nm,0.8s,baz=23,slow=3.1,SNR=6.8
comp=Z,2.3nm,0.8s
ARCES ARCESS Array B 57.60 354 P **P** **19 45 42.2 -0.5**
ZALV Zalesovo Beam 57.61 318 P **P** **19 45 42.6 -0.5**
comp=Z,0.3nm,0.3s,baz=28,slow=6.5,SNR=2.0
ZALV PcP **PcP** **19 46 36.5 +0.7**
comp=Z,0.9nm,0.4s,baz=55,slow=5.6,SNR=5.7
comp=Z,0.3nm,0.3s
KURK Kurchatov 62.55 319 P **P** **19 46 16.9 -0.1**
KURK IAmb IAmb 19 46 17.6
comp=Z,1.1nm,0.7s
KURBB Kurchatov Arra 62.66 319 P **P** **19 46 16.9 -0.8**
comp=Z,0.4nm,0.4s,baz=32,slow=7.5,SNR=8.3
comp=Z,0.4nm,0.4s
BVAR Borovoye Array 63.80 325 P **P** **19 46 24.7 -0.5**
comp=Z,3.7nm,0.6s,baz=55,slow=7.1,SNR=25
comp=Z,3.7nm,0.6s
MKAR Makanchi Array 64.05 314 P **P** **19 46 26.1 -1.0**
comp=Z,0.4nm,0.6s,baz=42,slow=6.8,SNR=4.2
comp=Z,0.4nm,0.6s
MKAR Makanchi Array 64.05 314 P **P** **19 46 26.4 -0.6**
MAKZ Makanchi 64.18 314 P **P** **19 46 26.9 -0.9**
MAKZ IAmb IAmb 19 46 50.9
comp=Z,5.1nm,1.1s
ARTI Arti 64.67 333 P **P** **19 46 30.7 -0.1**
FIA1 FINESS Array S 65.57 353 P **P** **19 46 36.1 -0.5**
FINES FINESS Array B 65.57 353 P **P** **19 46 36.0 -0.6**
comp=Z,1.1nm,0.4s,baz=15,slow=7.0,SNR=17
comp=Z,1.1nm,0.4s
FINES FINESS Array B 65.57 353 P **P** **19 46 36.1 -0.5**
NC303 NORSAR Array S 66.35 0 P **P** **19 46 41.5 -0.2**
NC405 NORSAR Array S 66.47 0 P **P** **19 46 42.2 -0.1**
NOA NORSAR Array B 66.54 0 P **P** **19 46 42.4 -0.5**
comp=Z,0.3nm,0.3s,baz=360,slow=4.0,SNR=1.6
comp=Z,0.3nm,0.3s
HFS Hagfors 67.44 359 P **P** **19 46 48.1 -0.4**
comp=Z,3.1nm,0.3s,baz=29,slow=3.4,SNR=33
comp=Z,3.1nm,0.3s
TARG Taragay, Kyrgy 70.03 313 P **P** **19 47 04.6 -0.9**
TARG IAmb IAmb 19 47 32.0
comp=Z,1.9nm,1.0s
BOOM Boomskoye usch 70.22 315 P **P** **19 47 06.1 -0.3**
BOOM IAmb IAmb 19 47 28.4
comp=Z,2.8nm,0.9s
AB31 Akbulak array 70.47 329 P **P** **19 47 07.3 -0.2**
AB31 IAmb IAmb 19 47 08.3
comp=Z,1.4nm,0.7s
ABKAR Akbulak array 70.47 329 P **P** **19 47 07.2 -0.3**
PABE Paberze 71.62 353 P **P** **19 47 14.4 +0.1**
KKAR Karatay Array 71.97 319 P **P** **19 47 16.7 0.0**
ARSB Arslanbob 72.44 316 P **P** **19 47 20.0 +0.3**
ARSB IAmb IAmb 19 47 51.9
comp=Z,2.4nm,1.1s
BTK Batken 74.40 317 P **P** **19 47 31.3 +0.1**
BTK IAmb IAmb 19 47 52.6
comp=Z,4.0nm,1.5s
AKASG Malin Array Be 75.86 349 P **P** **19 47 38.3 -0.9**
comp=Z,2.0nm,0.5s,baz=17,slow=5.9,SNR=7.1
comp=Z,2.0nm,0.5s
CHVC Chvalec 76.95 357 *e*P **P** **19 47 46.1 +0.5**
OSTC Ostas 76.98 357 *e*P **P** **19 47 46.3 +0.6**
RICC Richard 77.04 359 *e*P **P** **19 47 47.4 +1.4**
PVCC Panska Ves 77.05 358 *e*P **P** **19 47 46.4 +0.4**
DPC Dobruska-Polom 77.18 357 *e*P **P** **19 47 47.1 +0.2**
CMAR Chiang Mai Arr 77.23 284 P **P** **19 47 48.0 +0.5**
comp=Z,3.4nm,0.8s,baz=26,slow=6.3,SNR=27
comp=Z,3.4nm,0.8s
STEB Steborice 77.55 356 *e*P **P** **19 47 49.2 +0.3**
ZVC Zvikov 78.15 358 *e*P **P** **19 47 52.7 +0.5**
KHC Kasperske Hory 78.46 359 P **P** **19 47 55.1 +1.1**
KHC IAmb IAmb 19 47 59.9
comp=Z,4.5nm,1.4s
KHC Kasperske Hory 78.46 359 *e*P **P** **19 47 54.6 +0.6**
GERES GERESS Array B 78.75 359 P **P** **19 47 55.7 +0.1**
comp=Z,0.6nm,0.6s,baz=0.0,slow=4.0,SNR=4.8
comp=Z,0.6nm,0.6s
BUR08 Bucovina Ar. S 79.31 351 P **P** **19 47 58.8 0.0**
BUR08 IAmb IAmb 19 48 41.1
comp=Z,7.2nm,1.4s
BURAR Bucovina Array 79.34 351 P **P** **19 47 58.8 -0.1**
BURAR IAmb IAmb 19 48 00.3
comp=Z,2.0nm,1.2s
CONA Conrad Observa 79.62 357 *i* P **P** **19 48 01.6 +1.2**
comp=Z,1.1nm,0.4s
RONA Rosalia, Austr 79.83 357 *i* P **P** **19 48 02.8 +1.3**
comp=Z,0.8nm,0.5s
LESA Schwarzleotal 80.18 359 *e*P **P** **19 48 04.5 +1.1**
comp=Z,0.7nm,0.5s
MOTA Moosalm 80.26 0 *i* P **P** **19 48 04.7 +0.8**
comp=Z,1.6nm,0.5s
WATA Walderalm 80.27 0 *i* P **P** **19 48 04.9 +0.9**
comp=Z,1.4nm,0.4s
ARSA Arzberg 80.31 357 P **P** **19 48 04.6 +0.6**
ARSA IAmb IAmb 19 48 05.9
comp=Z,3.8nm,1.3s
ARSA Arzberg 80.31 357 *i* P **P** **19 48 05.4 +1.3**
comp=Z,0.9nm,0.4s
WTTA Wattenberg 80.34 0 *e*P **P** **19 48 05.5 +1.0**
comp=Z,2.7nm,0.6s
SQTA Sankt Quirin 80.39 0 *e*P **P** **19 48 05.5 +0.9**
comp=Z,1.0nm,0.3s
KBA Koetnbreinsper 80.52 359 *e*P **P** **19 48 06.9 +1.5**
comp=Z,3.7nm,0.5s
FETA Feichten 80.58 1 *e*P **P** **19 48 06.9 +1.2**
comp=Z,0.8nm,0.4s
FUORN Ofenpass-Fuorn 80.98 1 P **P** **19 48 08.9 +1.0**
OBKA Obir 81.07 358 *e*P **P** **19 48 09.4 +1.2**
comp=Z,1.4nm,0.4s
TUE Stuetta 81.11 2 P **P** **19 48 09.3 +0.7**
TUE IAmb IAmb 19 48 41.7
comp=Z,6.0nm,1.5s
TEOL Teolo 82.25 0 P **P** **19 48 14.9 +0.6**
BNI Bardonecchia 82.45 4 P **P** **19 48 16.8 +1.2**
FDMO Fiordimonte 84.56 359 P **P** **19 48 27.2 +0.9**
CEST Esterri de Car 84.57 8 P **P** **19 48 27.3 +0.8**
NRCA Norcia 84.77 359 P **P** **19 48 28.1 +0.7**
NRCA IAmb IAmb 19 48 29.3
comp=Z,3.4nm,0.9s
INTR Introdacqua 85.58 358 P **P** **19 48 32.4 +1.0**
ALN Alexandroupoli 85.90 349 P **P** **19 48 33.0 0.0**
BR131 Keskin Array S 85.95 343 P **P** **19 48 34.2 +0.7**
BRTR Keskin Array B 85.95 343 P **P** **19 48 34.8 +1.3**
comp=Z,1.0nm,0.4s,baz=357,slow=4.1,SNR=8.6
comp=Z,1.0nm,0.4s
BRTR Keskin Array B 85.95 343 P **P** **19 48 34.0 +0.6**
ESBB Sonseca Array 86.92 12 P **P** **19 48 38.1 0.0**
ESDC Sonseca Array 86.92 12 P **P** **19 48 38.5 +0.5**
comp=Z,0.9nm,0.6s,baz=345,slow=4.9,SNR=21
comp=Z,0.9nm,0.6s
ESDC Sonseca Array 86.92 12 P **P** **19 48 37.7 -0.4**
WB0 Warramunga Arr 87.65 233 P **P** **19 48 41.5 -0.1**
WR8 Warramunga Arr 87.76 232 P **P** **19 48 41.8 -0.4**
WRA Warramunga Arr 87.82 233 P **P** **19 48 42.7 +0.2**
comp=Z,0.9nm,0.9s,baz=32,slow=5.8,SNR=7.4
comp=Z,0.9nm,0.9s
FITZ Fitzroy Crossi 90.68 240 P **P** **19 48 56.8 +1.0**
FITZ IAmb IAmb 19 49 02.8
comp=Z,1.6nm,1.4s
ASAR Alice Springs 91.21 231 P **P** **19 48 59.3 +1.0**
comp=Z,1.0nm,0.8s,baz=25,slow=4.5,SNR=9.4
comp=Z,1.0nm,0.8s
ASAR Alice Springs 91.21 231 P **P** **19 48 59.0 +0.7**
QSPA South Pole Qui 142.53 180 PKhKP PKPpre 19 55 22.0
comp=Z,0.6nm,0.8s,baz=170,slow=20,SNR=1.7
BOSA Boshof 153.89 332 PKPbc **PKPbc** **19 55 51.1 -1.3**
comp=Z,1.5nm,0.8s,baz=338,slow=1.5,SNR=5.7

*ISK **01** 19:44:01.5,37.81N×26.84E,h8km,ML2.6/13*
*AFAD **01** 19:44:02.3,37.83N×26.88E,h7km±2km,ML2.4*
ISC 01 19:44:02.0±1.1,**37.81N**±0.03×**26.86E**±0.04,**h14**km±8km,
n21,σ0.41/32,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.25**	**5**	P	**Pg**	**19 44 07.4**	**+0.1**
DGB				S	**Sg**	**19 44 10.3**	**-0.6**
GMLD	**Gumuldur**	**0.27**	**10**	Pg	**Pg**	**19 44 07.5**	**-0.3**
GMLD				Sg	**Sg**	**19 44 11.7**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcami?**	**0.32**	**110**	P	**Pg**	**19 44 08.6**	**+0.1**
GCAM				S	**Sg**	**19 44 13.7**	**+0.7**
GCAM				IAML		19 44 14.0	
	comp=N,392nm,0.5s						
GCAM	**G?zelcami?**	**0.32**	**110**	Pg	**Pg**	**19 44 08.4**	**-0.1**
GCAM				Sg	**Sb**	**19 44 13.9**	**-0.5**
GCAM				AML	AML		
BEYE	**izmir**	**0.42**	**8**	P	**Pg**	**19 44 10.4**	**0.0**
BEYE				S	**Sg**	**19 44 16.5**	**+0.3**
DDIM	**Aydin, Didim**	**0.46**	**139**	P	**Pb**	**19 44 11.8**	**-0.1**
DDIM				S	**Sb**	**19 44 18.6**	**0.0**
DDIM				IAML		19 44 19.0	
	comp=N,177nm,0.4s						
DDIM				IAML		19 44 19.0	
	comp=E,197nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**327**	P	**Pb**	**19 44 12.6**	**-0.2**
ZEYE				S	**Sb**	**19 44 19.9**	**-0.2**
ZEYE				IAML		19 44 20.0	
	comp=E,315nm,0.5s						
BLCB	**Balcova**	**0.60**	**14**	Pg	**Pg**	**19 44 13.5**	**-0.2**
BLCB				Sg	**Sb**	**19 44 22.1**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.62**	**48**	P	**Pg**	**19 44 13.8**	**-0.4**
DUVT				S	**Sg**	**19 44 21.4**	**-1.1**
DUVT				IAML		19 44 26.0	
	comp=E,348nm,0.4s						
CESE	**eme**	**0.68**	**320**	Pg	**Pg**	**19 44 14.9**	**-0.4**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**154**	Pg	**Pg**	**19 44 16.3**	**-0.4**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.82**	**343**	Pg	**Pg**	**19 44 17.7**	**-0.2**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**154**	Pg	**Pg**	**19 44 17.9**	**-0.1**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**80**	Pg	**Pb**	**19 44 18.4**	**+0.2**
AYDB				AML	AML		
BAGT	**Foa**	**0.85**	**360**	P	**Pn**	**19 44 19.6**	**+0.2**
BAGT				S	**Sb**	**19 44 30.1**	**+0.4**
BAGT				IAML		19 44 33.0	
	comp=N,188nm,0.7s						
BAGT				IAML		19 44 33.0	
	comp=E,125nm,0.8s						
CHOS	**Chios island**	**0.86**	**313**	Pg	**Pg**	**19 44 18.5**	**-0.1**
CHOS				AML	AML		
MLSB	**Milas**	**0.89**	**125**	Pg	**Pg**	**19 44 19.1**	**-0.1**
MLSB				AML	AML		
FOCM	**Foa**	**0.91**	**354**	Pg	**Pb**	**19 44 19.5**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.92**	**338**	P	**Pb**	**19 44 20.4**	**+0.7**
KARB				S	**Sb**	**19 44 32.4**	**+0.5**
KARB				IAML		19 44 35.0	
	comp=E,204nm,0.4s						
KARB				IAML		19 44 36.0	
	comp=N,171nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.15**	**82**	Pn	**Pb**	**19 44 24.1**	**+0.5**
NAZL				AML	AML		
DKL	**Dikili**	**1.26**	**2**	Pn	**Pg**	**19 44 26.0**	**-0.3**
DKL				AML	AML		

*ISK **01** 19:52:15.8,37.85N×26.87E,h1km,ML2.8/18*
*THE **01** 19:52:16.5,38.1°×2.7E±1°,h8km±2km,M2.7/8,MLh2.7/8*
*AFAD **01** 19:52:16.0,37.82N×26.80E,h7km±2km,ML2.7*
ISC 01 19:52:16.2±1.0,**37.82N**±0.02×**26.84E**±0.03,**h10**km±8km,
n40,σ0.41/65,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.24**	**8**	P	**Pg**	**19 52 21.0**	**-0.1**
DGB				S	**Sg**	**19 52 24.1**	**-0.3**
GMLD	**Gumuldur**	**0.27**	**13**	Pg	**Pg**	**19 52 21.5**	**-0.2**
GMLD				AML	AML		
GCAM	**G?zelcami?**	**0.33**	**110**	P	**Pg**	**19 52 23.3**	**+0.5**
GCAM				IAML		19 52 29.0	
	comp=E,713nm,0.2s						
GCAM				S	**Sb**	**19 52 29.3**	**-0.4**
GCAM				IAML		19 52 30.0	
	comp=N,886nm,0.2s						
GCAM	**G?zelcami?**	**0.33**	**110**	Pg	**Pg**	**19 52 23.3**	**+0.5**
GCAM				Sg	**Sb**	**19 52 29.0**	**-0.6**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**83**	Pg	**Pg**	**19 52 23.0**	**-0.3**
KUSD				Sg	**Sg**	**19 52 28.9**	**+0.8**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**9**	P	**Pg**	**19 52 24.4**	**-0.1**
BEYE				S	**Sg**	**19 52 30.4**	**+0.4**
DDIM	**Aydin, Didim**	**0.48**	**138**	P	**Pb**	**19 52 26.1**	**-0.6**
DDIM				S	**Sb**	**19 52 33.7**	**-0.1**
DDIM				IAML		19 52 34.0	
	comp=N,440nm,0.5s						
DDIM				IAML		19 52 35.0	
	comp=E,435nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**328**	P	**Pg**	**19 52 25.6**	**-0.3**
ZEYE				S	**Sg**	**19 52 32.7**	**+0.1**
ZEYE				IAML		19 52 33.0	
	comp=N,963nm,0.3s						
ZEYE				IAML		19 52 33.0	
	comp=E,422nm,0.2s						
BLCB	**Balcova**	**0.59**	**16**	P	**Pg**	**19 52 27.6**	**-0.2**
BLCB				S	**Sb**	**19 52 36.5**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**16**	Pg	**Pg**	**19 52 27.5**	**-0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.63**	**50**	P	**Pg**	**19 52 28.2**	**-0.2**
DUVT				S	**Sg**	**19 52 36.6**	**-0.1**
DUVT				IAML		19 52 41.0	
	comp=E,783nm,0.2s						
CESE	**eme**	**0.67**	**321**	Pg	**Pb**	**19 52 30.6**	**+0.6**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.77**	**153**	Pg	**Pb**	**19 52 31.8**	**0.0**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.81**	**344**	Pg	**Pg**	**19 52 31.6**	**-0.3**
KRBN				Sg	**Sb**	**19 52 44.2**	**+0.8**
KRBN				AML	AML		
AYDN	**Tasoluk**	**0.84**	**100**	P	**Pb**	**19 52 32.8**	**-0.2**
AYDN				S	**Sb**	**19 52 44.3**	**0.0**
AYDN				IAML		19 52 49.0	
	comp=E,188nm,0.3s						
BAGT	**Foa**	**0.84**	**1**	P	**Pg**	**19 52 32.1**	**-0.3**
BAGT				IAML		19 52 44.0	
	comp=N,411nm,1.6s						
BAGT				S	**Sb**	**19 52 44.5**	**+0.3**
BAGT				IAML		19 52 49.0	
	comp=E,388nm,0.7s						
BODT	**Bodrum**	**0.84**	**153**	P	**Pg**	**19 52 32.3**	**-0.1**
BODT				S	**Sb**	**19 52 44.8**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**153**	Pg	**Pn**	**19 52 33.7**	**-0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**81**	Pg	**Pb**	**19 52 32.8**	**-0.2**
AYDB				Sg	**Sb**	**19 52 44.8**	**+0.3**
AYDB				AML	AML		
CHOS	**Chios island**	**0.84**	**313**	P	**Pb**	**19 52 32.7**	**-0.3**
CHOS				S	**Sb**	**19 52 44.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**313**	Pg	**Pb**	**19 52 33.5**	**+0.5**
CHOS				Sg	**Sb**	**19 52 44.9**	**+0.5**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.89**	**147**	P	**Pb**	**19 52 34.0**	**+0.2**
BDRM				S	**Sb**	**19 52 46.4**	**+0.7**
BDRM				IAML		19 52 49.0	
	comp=E,209nm,0.5s						
BDRM				IAML		19 52 50.0	
	comp=N,235nm,0.7s						
FOCM	**Foa**	**0.90**	**355**	Pg	**Pg**	**19 52 33.5**	**-0.1**
FOCM				AML	AML		
MLSB	**Milas**	**0.91**	**125**	Pg	**Pb**	**19 52 34.1**	**0.0**
MLSB				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**338**	P	**Pg**	**19 52 33.0**	**-0.9**
KARB				S	**Sb**	**19 52 46.5**	**+0.1**
KARB				IAML		19 52 48.0	
	comp=N,320nm,0.4s						
KARB				IAML		19 52 48.0	
	comp=E,296nm,0.5s						
IZMR	**zmir-demi**	**0.94**	**70**	P	**Pb**	**19 52 34.6**	**0.0**
IZMR				S	**Sg**	**19 52 45.6**	**-0.8**
CAMT	**Merkez**	**1.00**	**22**	P	**Pb**	**19 52 35.9**	**+0.2**
CAMT				S	**Sn**	**19 52 50.8**	**+0.2**
CAMT				IAML		19 52 55.0	
	comp=N,388nm,0.5s						
CAMT				IAML		19 52 55.0	
	comp=E,311nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.16**	**82**	Pn	**Pg**	**19 52 38.3**	**-0.2**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.17**	**9**	P	**Pg**	**19 52 38.1**	**-0.6**
ZEDA				S	**Sn**	**19 52 54.5**	**-0.1**
ZEDA				IAML		19 52 57.0	
	comp=E,116nm,0.3s						
ZEDA				IAML		19 53 01.0	
	comp=N,121nm,0.3s						
ESEN	**Aydn-Nazilli**	**1.20**	**90**	P	**Pn**	**19 52 39.6**	**+0.6**
ESEN				S	**Sn**	**19 52 55.3**	**0.0**
GOMA	**Golmarmara-Man**	**1.23**	**43**	Pn	**Pn**	**19 52 39.6**	**+0.1**
GOMA				AML	AML		
DAT	**Datca**	**1.23**	**151**	P	**Pg**	**19 52 39.1**	**-0.8**
DAT				AML	AML		
DKL	**Dikili**	**1.26**	**2**	Pn	**Pg**	**19 52 40.4**	**0.0**
DKL				AML	AML		
AKS	**Akhisar**	**1.31**	**35**	Pn	**Pn**	**19 52 40.6**	**0.0**
AKS				AML	AML		
KTTT	**Salihli**	**1.32**	**48**	P	**Pg**	**19 52 41.2**	**-0.4**
KTTT				S	**Sb**	**19 52 58.2**	**+0.2**
KTTT				IAML		19 53 01.0	
	comp=N,119nm,0.4s						
YER	**Yerkesik**	**1.33**	**120**	P	**Pn**	**19 52 41.2**	**+0.2**
YER				S	**Sn**	**19 52 59.6**	**+0.8**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**22**	Pn	**Pg**	**19 52 43.7**	**-0.3**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.50**	**343**	P	**Pn**	**19 52 43.0**	**-0.2**
PRK				S	**Sb**	**19 53 03.5**	**+0.4**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.52**	**43**	Pn	**Pb**	**19 52 44.3**	**-0.2**
GORD				AML	AML		
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**19 52 54.0**	**-0.4**

*ATH **01** 19:54:17.7,37.70N×26.73E,h17km±1km,ML3.2/3,*
Latitude uncertainty: 2 km; Longitude uncertainty: 2 km
*THE **01** 19:54:18.9,38.1°×2.7E±1°,h0km,3km,M2.9/7,MLh2.9/7*
*AFAD **01** 19:54:18.3,37.82N×26.80E,h7km±1km,ML2.8*
*ISK **01** 19:54:18.7,37.83N×26.84E,h9km,ML2.9/17*
ISC 01 19:54:18.7±0.8,**37.83N**±0.02×**26.82E**±0.02,**h12**km±6km,
n46,σ0.66/73,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.09**	**251**	P	**Pg**	**19 54 21.3**	**-0.1**
KRL1				S	**Sg**	**19 54 23.3**	**0.0**
KRL1				AML	AML		
DGB	**zmir**	**0.23**	**13**	P	**Pg**	**19 54 23.4**	**-0.2**
DGB				S	**Sg**	**19 54 27.4**	**+0.4**
GMLD	**Gumuldur**	**0.26**	**17**	Pg	**Pg**	**19 54 24.0**	**-0.2**
GMLD				Sg	**Sb**	**19 54 28.9**	**-1.0**
GMLD				AML	AML		
GCAM	**G?zelcami?**	**0.35**	**110**	P	**Pg**	**19 54 25.7**	**-0.1**
GCAM				S	**Sg**	**19 54 31.2**	**+0.7**
GCAM				IAML		19 54 32.0	
	comp=N,1μm,0.2s						
GCAM				IAML		19 54 32.0	
	comp=E,1μm,0.2s						
KUSD	**Kusadasi-Aydin**	**0.38**	**84**	Pg	**Pg**	**19 54 25.9**	**-0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**12**	P	**Pg**	**19 54 26.7**	**-0.1**
BEYE				S	**Sg**	**19 54 32.7**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**329**	P	**Pg**	**19 54 27.9**	**-0.2**
ZEYE				S	**Sg**	**19 54 35.2**	**+0.6**
ZEYE				IAML		19 54 36.0	
	comp=N,1μm,0.3s						
ZEYE				IAML		19 54 36.0	
	comp=E,601nm,0.2s						
DDIM	**Aydin, Didim**	**0.50**	**137**	P	**Pg**	**19 54 28.4**	**0.0**
DDIM				S	**Sb**	**19 54 36.0**	**-0.7**
DDIM				IAML		19 54 37.0	
	comp=N,535nm,0.5s						
DDIM				IAML		19 54 37.0	
	comp=E,605nm,0.6s						
BLCB	**Balcova**	**0.59**	**18**	P	**Pg**	**19 54 29.9**	**-0.2**
BLCB				S	**Sg**	**19 54 38.3**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**18**	Pg	**Pg**	**19 54 29.8**	**-0.3**
BLCB				Sg	**Sb**	**19 54 38.5**	**-0.7**
BLCB				AML	AML		
DUVT	**Torbali**	**0.64**	**52**	P	**Pg**	**19 54 30.6**	**-0.4**
DUVT				S	**Sg**	**19 54 38.9**	**-0.6**
DUVT				IAML		19 54 43.0	
	comp=E,1μm,0.3s						
CESE	**eme**	**0.65**	**321**	Pg	**Pb**	**19 54 32.1**	**+0.2**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**152**	Pg	**Pb**	**19 54 34.4**	**0.0**
YKAV				Sg	**Sb**	**19 54 45.4**	**+0.4**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**345**	Pg	**Pb**	**19 54 34.6**	**+0.2**
KRBN				Sg	**Sb**	**19 54 46.2**	**+1.0**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**19 54 34.3**	**-0.3**
CHOS				S	**Sb**	**19 54 46.9**	**+0.9**

CHOS				AML	AML			
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pb**	**19 54 35.3**	**+0.4**	
CHOS				Sg	**Sb**	**19 54 46.9**	**+0.9**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**19 54 34.1**	**-0.5**	
CHOS				S	**Sb**	**19 54 46.0**	**0.0**	
CHOS				AML	AML			
BAGT	**Foa**	**0.83**	**2**	P	**Pg**	**19 54 34.3**	**-0.4**	
BAGT				S	**Sb**	**19 54 46.8**	**+0.6**	
BAGT				IAML		19 54 50.0		
	comp=N,581nm,0.8s							
BAGT				IAML		19 54 51.0		
	comp=E,454nm,0.3s							
BODT	**Bodrum**	**0.86**	**152**	P	**Pb**	**19 54 35.7**	**+0.2**	
BODT				S	**Sb**	**19 54 47.7**	**+0.7**	
BODT				AML	AML			
BODT	**Bodrum**	**0.86**	**152**	Pg	**Pb**	**19 54 36.2**	**+0.7**	
BODT				AML	AML			
AYDN	**Tasoluk**	**0.86**	**101**	P	**Pg**	**19 54 34.9**	**-0.3**	
AYDN				S	**Sg**	**19 54 46.2**	**-0.3**	
AYDB	**Zeytinkoy-Aydi**	**0.86**	**82**	Pg	**Pb**	**19 54 35.4**	**-0.2**	
AYDB				AML	AML			
FOCM	**Foa**	**0.89**	**356**	Pg	**Pb**	**19 54 36.5**	**+0.5**	
FOCM				AML	AML			
KARB	**zmir-Karabur**	**0.90**	**339**	P	**Pg**	**19 54 35.3**	**-0.7**	
KARB				S	**Sb**	**19 54 48.9**	**+0.8**	
KARB				IAML		19 54 50.0		
	comp=E,326nm,0.5s							
KARB				IAML		19 54 51.0		
	comp=N,414nm,0.5s							
BDRM	**Kayabasi**	**0.91**	**146**	P	**Pg**	**19 54 36.1**	**-0.1**	
BDRM				S	**Sg**	**19 54 48.2**	**+0.1**	
BDRM				IAML		19 54 51.0		
	comp=E,223nm,0.6s							
BDRM				IAML		19 54 52.0		
	comp=N,288nm,0.7s							
EAG2	**Marmaro, Chios**	**0.91**	**322**	P	**Pb**	**19 54 36.6**	**+0.2**	
EAG2				S	**Sb**	**19 54 48.6**	**+0.2**	
MLSB	**Milas**	**0.93**	**124**	Pg	**Pb**	**19 54 36.8**	**+0.1**	
MLSB				AML	AML			
IZMR	**zmir-demi**	**0.95**	**71**	P	**Pb**	**19 54 37.0**	**-0.1**	
IZMR				S	**Sg**	**19 54 47.9**	**-1.5**	
CAMT	**Merkez**	**1.00**	**23**	P	**Pb**	**19 54 38.0**	**0.0**	
CAMT				S	**Sb**	**19 54 52.0**	**+0.9**	
CAMT				IAML		19 54 57.0		
	comp=N,580nm,0.5s							
CAMT				IAML		19 54 58.0		
	comp=E,386nm,0.3s							
ZEDA	**zmir-Bergama**	**1.16**	**10**	P	**Pb**	**19 54 39.0**	**-1.7**	
ZEDA				S	**Sn**	**19 54 56.4**	**-0.1**	
NAZL	**Nazilli-Aydin**	**1.18**	**83**	Pn	**Pn**	**19 54 41.5**	**+0.5**	
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.24**	**44**	Pn	**Pg**	**19 54 42.6**	**+0.1**	
GOMA				AML	AML			
DKL	**Dikili**	**1.25**	**3**	Pn	**Pg**	**19 54 42.7**	**+0.1**	
DKL				AML	AML			
DKL	**Dikili**	**1.25**	**3**	P	**Pn**	**19 54 41.8**	**-0.1**	
DKL				S	**Sn**	**19 54 59.8**	**+1.1**	
DAT	**Datca**	**1.25**	**151**	P	**Pg**	**19 54 42.9**	**+0.1**	
DAT				AML	AML			
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pb**	**19 54 43.4**	**+0.1**	
AKS				AML	AML			
YER	**Yerkesik**	**1.36**	**120**	P	**Pn**	**19 54 43.6**	**+0.1**	
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pb**	**19 54 45.6**	**+0.1**	
SOMA				AML	AML			
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**19 54 45.9**	**+0.7**	
PRK				S	**Sg**	**19 55 07.4**	**+1.1**	
PRK				AML	AML			
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**19 54 45.1**	**-0.1**	
PRK				S	**Sb**	**19 55 05.3**	**+0.3**	
PRK				AML	AML			
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pb**	**19 54 46.6**	**-0.3**	
GORD				AML	AML			
THERA	**Ancient Thera,**	**1.81**	**217**	P	**Pb**	**19 54 51.8**	**+0.1**	
THR3	**Thira Island,**	**1.81**	**219**	P	**Pb**	**19 54 51.8**	**+0.1**	
KARY	**Karystos**	**1.89**	**277**	P	**Pn**	**19 54 50.6**	**-0.2**	
KARY	**Karystos**	**1.89**	**277**	P	**Pn**	**19 54 49.1**	**-1.7**	
DION	**Dionisos Attik**	**2.29**	**277**	P	**Pn**	**19 54 53.6**	**-2.7**	

*NEIC **01** 19:54:47.4±1.8,54.°17N±0.°05×159.°64W±0.°06, h25km±13km, ML3.3/22, ML3.2(AEIC), Error ellipse: s-maj=8.1km s-min=5.1km az=197.0*
*AEIC **01** 19:54:48.6±1.9,54.°20N±0.°03×159.°74W±0.°06, h15km±6km, Error ellipse: s-maj=6.7km s-min=2.8km az=129.0*
*IDC **01** 19:54:55.0±1.2,55.°06N×159.°30W, h0km, mb3.5/5, mbtmp3.4/8, ML3.2/3, Error ellipse: s-maj=27.2km s-min=17.3km az=167.0*

ISC 01 19:54:46.9±2.0,54.°16N±0.°08×159.°58W±0.°05, h29km±15km, n76, σ1°24/70, mb3.5/5, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.67**	**359**		**Pb**	**19 55 00.0**	**0.0**
CNBA				Sn	**Sn**	**19 55 11.3**	**+1.5**
CHNA	**Chernabura Isl**	**0.68**	**359**	P	**Pb**	**19 54 59.6**	**-0.6**
CHNA	**Chernabura Isl**	**0.68**	**359**	S	**Sn**	**19 55 11.3**	**+1.3**
SDPT	**Sand Point**	**1.30**	**337**	P	**Pn**	**19 55 08.5**	**-0.6**
SDPT	**Sand Point**	**1.30**	**337**		**Pn**	**19 55 08.8**	**-0.3**
SDPT				IAML		19 55 26.2	
	comp=N,619nm,0.7s						
SDPT				IAML		19 55 37.5	
	comp=E,474nm,0.8s						
SDPT	**Sand Point**	**1.30**	**337**		**Sn**	**19 55 23.5**	**-2.0**
DOL	**Dolgoi Island**	**1.66**	**308**		**Pn**	**19 55 13.7**	**-0.4**
DOL					**Sn**	**19 55 32.1**	**-2.2**
PS4A	**Pavlof South-4**	**1.78**	**313**		**Pn**	**19 55 15.6**	**-0.1**
PS4A					**Sn**	**19 55 36.6**	**-0.7**
PS1A	**Pavlof South-1**	**1.78**	**316**		**Pn**	**19 55 15.9**	**+0.2**
PS1A					**Sn**	**19 55 37.4**	**+0.1**
DT1	**Dutton Round H**	**1.84**	**302**		**Pn**	**19 55 15.9**	**-0.6**
DT1					**Sn**	**19 55 36.9**	**-1.8**
DTNA	**Dutton South F**	**1.85**	**304**		**Pn**	**19 55 16.4**	**-0.2**
VNKR	**Veniaminof 5**	**1.88**	**4**		**Pn**	**19 55 18.7**	**+1.6**
PN7A	**Pavlof North-7**	**1.90**	**313**		**Pn**	**19 55 18.2**	**+0.8**
VNWF	**Veniaminof 8**	**2.00**	**0**		**Pn**	**19 55 20.3**	**+1.5**
VNHG	**Veniaminof 1**	**2.08**	**6**		**Pn**	**19 55 21.4**	**+1.5**
S12K	**Black Hills**	**2.11**	**318**	Pn	**Pn**	**19 55 21.1**	**+0.9**
S12K	**Black Hills**	**2.11**	**318**		**Sn**	**19 55 47.3**	**+1.8**
S12K	**Black Hills**	**2.11**	**318**	IAML		19 55 48.3	
	comp=E,545nm,0.3s						
S12K				IAML		19 55 48.6	
	comp=N,339nm,0.3s						
BPBCA	**Veniaminof**	**2.52**	**14**		**Pn**	**19 55 26.7**	**+0.8**
SSLS	**Shishaldin Sou**	**2.64**	**284**		**Pn**	**19 55 28.5**	**+0.9**
SSLN	**Shishaldin Nor**	**2.66**	**286**		**Pn**	**19 55 28.8**	**+1.0**
CHIR	**Chirikof Islan**	**2.82**	**52**	P	**Pn**	**19 55 33.1**	**+3.1**
CHIR	**Chirikof Islan**	**2.82**	**52**	Pn	**Pn**	**19 55 30.1**	**+0.2**
CHIR				IAML		19 56 38.7	
	comp=E,120nm,0.9s						
CHIR				IAML		19 56 46.7	
	comp=N,103nm,1.1s						
WTUG	**Tugumak**	**2.89**	**286**		**Pn**	**19 55 31.7**	**+0.8**
WESN	**West Dahl Nort**	**2.96**	**280**		**Pn**	**19 55 32.9**	**+1.0**
WESP	**Westdahl Peak**	**3.03**	**278**		**Pn**	**19 55 33.2**	**+0.3**
WECS	**Westdahl Cape**	**3.07**	**279**	Pn	**Pn**	**19 55 34.5**	**+1.2**
WECS				IAML		19 55 58.3	
	comp=N,143nm,1.2s						
WECS				IAML		19 56 24.1	
	comp=E,85nm,0.7s						
AHB	**Akutan Harbor**	**3.67**	**272**		**Pn**	**19 55 42.1**	**+0.5**
AKBBA	**Akutan Broad B**	**3.74**	**272**		**Pn**	**19 55 43.0**	**+0.4**
ZRO	**Akutan Zero**	**3.77**	**272**		**Sn**	**19 56 25.2**	**-1.1**
SII	**Sitkinak Islan**	**3.91**	**50**	P	**Pn**	**19 55 45.2**	**+0.3**
SII	**Sitkinak Islan**	**3.91**	**50**	Pn	**Pn**	**19 55 45.3**	**+0.4**
R17L	**Mt. Peulik Vol**	**3.93**	**26**		**Pn**	**19 55 47.1**	**+1.9**
MSW	**Makushin Switc**	**4.26**	**270**		**Pn**	**19 55 50.1**	**+0.4**
MGOD	**Makushin Gods**	**4.32**	**268**		**Pn**	**19 55 50.9**	**+0.2**
CAHL	**Cahill**	**4.58**	**30**		**Pn**	**19 55 54.8**	**+0.7**
Q17K	**Contact Creek**	**4.60**	**25**		**Pn**	**19 55 55.5**	**+0.9**
ANCK	**Angle Creek**	**4.65**	**28**		**Pn**	**19 55 56.3**	**+1.1**
OHAK	**Old Harbor**	**4.70**	**47**	P	**Pn**	**19 55 55.9**	**+0.2**
OHAK	**Old Harbor**	**4.70**	**47**	Pn	**Pn**	**19 55 55.9**	**+0.2**
ACHA	**Angle Creek He**	**4.71**	**29**		**Pn**	**19 55 56.9**	**+1.0**
OKFG	**Magazine Ridge**	**5.00**	**265**		**Pn**	**19 56 00.5**	**+0.6**
KAWH	**Katmai**	**5.00**	**30**		**Pn**	**19 56 00.3**	**+0.3**
O15K	**Ungalikthiuk R**	**5.04**	**359**	Pn	**Pn**	**19 56 00.9**	**+0.5**
O15K				IAML		19 57 41.5	
	comp=E,16nm,0.9s						
O15K				IAML		19 58 00.4	
	comp=N,12nm,0.8s						
KARR	**Katmai Rainbow**	**5.13**	**30**		**Pn**	**19 56 02.4**	**+0.7**
Q18K	**Katmai Hardscr**	**5.17**	**28**		**Pn**	**19 56 03.0**	**+0.8**
KAHG	**Katmai Hook Gl**	**5.17**	**31**		**Pn**	**19 56 03.1**	**+0.8**
O14K	**Tigyukauivet M**	**5.19**	**350**	Pn	**Pn**	**19 56 03.2**	**+0.7**
O14K				IAML		19 57 45.2	
	comp=N,18nm,1.0s						
O14K				IAML		19 58 01.2	
	comp=E,13nm,1.0s						
KDAK	**Kodiak Island**	**5.35**	**44**	Pn	**Pn**	**19 56 04.7**	**0.0**
	comp=E,0.4nm,0.3s,baz=217,slow=2.5,SNR=24						
KDAK				Sn	**Sn**	**19 57 00.0**	**-5.2**
	comp=E,0.2nm,0.3s,baz=115,slow=18,SNR=1.4 comp=E,9.5nm,1.0s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.35**	**44**	Pn	**Pn**	**19 56 04.5**	**-0.2**
KDAK				IAML		19 57 05.5	
	comp=E,12nm,1.1s						
N14K	**Kuskokwak Cree**	**5.90**	**350**	Pn	**Pn**	**19 56 12.9**	**+0.8**
N15K	**Kwethluk River**	**6.04**	**358**	Pn	**Pn**	**19 56 15.4**	**+1.3**
M13K	**Dall Lake**	**6.60**	**343**	Pn	**Pn**	**19 56 22.3**	**+0.5**
ILSW	**Iliamna Southw**	**6.81**	**28**	Pn	**Pn**	**19 56 25.8**	**+1.0**
M16K	**Timber Creek**	**6.89**	**3**	Pn	**Pn**	**19 56 26.6**	**+0.8**
M17K	**Holitna River**	**7.36**	**8**	Pn	**Pn**	**19 56 32.3**	**+0.1**
L14K	**Kuka Creek**	**7.39**	**348**	Pn	**Pn**	**19 56 33.2**	**+0.5**
K13K	**Kusilvak Mount**	**8.25**	**343**	Pn	**Pn**	**19 56 45.0**	**+0.6**
PWL	**Port Wells**	**9.03**	**37**	Pn	**Pn**	**19 56 55.7**	**+0.6**
J16K	**Anvik River**	**9.17**	**357**	Pn	**Pn**	**19 56 58.3**	**+1.2**
KNK	**Knik Glacier**	**9.38**	**35**	Pn	**Pn**	**19 57 00.4**	**+0.5**
HIN	**Hinchinbrook I**	**9.44**	**43**	Pn	**Pn**	**19 57 01.4**	**+0.7**
PNL	**Peninsula**	**12.30**	**55**	P	**Pn**	**19 57 41.7**	**+1.8**
ILAR	**Eielson Array**	**12.41**	**26**	Pn	**Pn**	**19 57 39.1**	**-2.3**
	comp=E,0.1nm,0.3s,baz=215,slow=13,SNR=5.3 comp=E,0.2nm,0.6s						
ILAR				AML	AML		
INK	**Inuvik**	**18.70**	**31**	P	**P**	**19 59 03.7**	**+1.2**
	comp=E,0.2nm,0.3s,baz=228,slow=12,SNR=7.0 comp=E,0.4nm,0.3s						
INK				AML	AML		
PETK	**Petropavlovsk-**	**25.08**	**285**	P	P	20 00 19.4	+11
	comp=E,2.0nm,0.7s,baz=76,slow=11,SNR=6.6 comp=E,2.0nm,0.7s						
NVAR	**Mina Array Bea**	**32.03**	**102**	P	P	20 01 23.8	+13
	comp=E,0.3nm,0.5s,baz=312,slow=11,SNR=2.1 comp=E,0.3nm,0.5s						
PDAR	**Pinedale Array**	**34.37**	**88**	P	P	20 01 41.0	+10
	comp=E,0.1nm,0.4s,baz=317,slow=8.3,SNR=2.1 comp=E,0.1nm,0.4s						
H11N2	**WAKE ISLAND Hy**	**42.84**	**230**	T	T	20 48 50.9	
	baz=28,slow=76,SNR=39						
H11N3	**WAKE ISLAND Hy**	**42.84**	**230**	T	T	20 48 43.7	
	baz=28,slow=76,SNR=32						
H11N1	**WAKE ISLAND Hy**	**42.85**	**230**	T	T	20 48 52.2	
	baz=28,slow=76,SNR=29						
H11S1	**WAKE ISLAND Hy**	**44.00**	**229**	T	T	20 50 12.7	
	baz=28,slow=76,SNR=30						
H11S2	**WAKE ISLAND Hy**	**44.01**	**229**	T	T	20 50 18.9	
	baz=28,slow=76,SNR=28						
H11S3	**WAKE ISLAND Hy**	**44.01**	**229**	T	T	20 50 21.5	
	baz=28,slow=76,SNR=22						
TXAR	**Lajitas Array**	**47.00**	**99**	P	P	20 03 28.4	+13
	comp=E,0.3nm,0.5s,baz=298,slow=5.9,SNR=5.1 comp=E,0.3nm,0.5s						
MKAR	**Makanchi Array**	**66.60**	**319**	P	P	20 05 43.9	+10
	comp=E,0.4nm,0.8s,baz=31,slow=6.3,SNR=3.0 comp=E,0.4nm,0.8s						

IDC 01 20:21:10.1±3.6,15.°38S×172.°81W, h204km±94km, mb3.5/4, mbtmp4.0/4, MS2.4/1, Error ellipse: s-maj=143.8km s-min=30.4km az=31.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**1.77**	**35**	P	Pn	20 21 47.3	+0.6
	221nm,0.5s,baz=233,slow=10,SNR=46						
AFI				S	S	20 22 15.3	+0.5
	135nm,0.3s,baz=44,slow=23,SNR=7.1						
RPZ	**Rata Peaks**	**31.42**	**203**	LR	LR	20 39 33.5	
	comp=Z,7.0nm,20.8s,baz=249,slow=35						
STKA	**Stephens Creek**	**44.54**	**240**	P	P	20 29 01.4	-0.5
	1.3nm,0.7s,baz=100,slow=6.1,SNR=3.8 1.3nm,0.7s						
WRA	**Warramunga Arr**	**50.40**	**257**	P	P	20 29 46.9	-0.2
	0.9nm,0.7s,baz=94,slow=6.8,SNR=23 0.9nm,0.7s						
ASAR	**Alice Springs**	**50.66**	**252**	P	P	20 29 49.0	0.0
	1.8nm,0.3s,baz=89,slow=7.8,SNR=62 1.8nm,0.3s						
VNDA	**Vanda**	**63.46**	**186**	P	P	20 31 17.7	0.0
	0.7nm,0.4s,baz=69,slow=8.6,SNR=10 0.7nm,0.4s						

TRN 01 20:29:46.2,17.°09N×61.°32W, h31km, MD3.7, East of Antigua., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ANWB	**Willy Bob**	**0.73**	**323**	*eP*	Pb	20 30 00.9	+0.5
ANWB				*eS*	Sn	20 30 13.1	+2.6
DSDZ	**La Diserade, G**	**0.81**	**162**	*eP*	Pn	20 30 01.6	+0.1
DSDZ				*eS*	Sn	20 30 12.7	+0.2
DHSZ	**Broadband at M**	**0.91**	**208**	*eP*	Pb	20 30 04.0	+0.4
DHSZ				*eS*	Sb	20 30 16.4	+1.0
MAGL	**Barre de l'ile**	**1.13**	**178**	*eP*	Pb	20 30 07.6	+0.4
MAGL				*eS*	Sb	20 30 21.8	+0.2
SKI	**Saint Kitts**	**1.38**	**280**	*eP*	Pb	20 30 10.9	-0.5
SKI				*eS*	Sb	20 30 29.5	+0.9
DWS	**Wesley**	**1.51**	**180**	*eP*	Pb	20 30 13.0	-0.7
DWS				*eS*	Sb	20 30 31.8	-0.6
SEUS	**St. Eustatius**	**1.64**	**285**	*eP*	Pb	20 30 14.7	-1.1
SEUS				*eS*	Sb	20 30 34.6	-1.4
DSLB	**Salisbury**	**1.64**	**183**	*eP*	Pb	20 30 15.3	-0.6
DSLB				*eS*	Sb	20 30 35.8	-0.5
DLPL	**La Plaine**	**1.75**	**178**	*eP*	Pb	20 30 16.2	-1.4
DLPL				*eS*	Sb	20 30 39.1	-0.1
SABA	**Saba**	**1.91**	**286**	*eP*	Pb	20 30 18.9	-1.6
SMRT	**St. Maarten**	**1.93**	**300**	*eP*	Pb	20 30 19.3	-1.5
SMRT				*eS*	Sb	20 30 42.4	-2.0
SVN	**Savane Anatole**	**2.24**	**176**	*eP*	Pn	20 30 22.6	+1.3
ILAM	**Ilet Lapin Mar**	**2.34**	**169**	*eS*	Sn	20 30 50.1	-0.2
BIM	**Bigot**	**2.57**	**175**	*eP*	Pn	20 30 27.5	+1.7
BIM				*eS*	Sn	20 30 58.4	+2.4
SLBI	**Saint Lucia, B**	**3.06**	**174**	*eP*	Pn	20 30 34.3	+1.8
SLBI				*eS*	Sn	20 31 10.3	+2.1
MCLT	**Moule a Chique**	**3.38**	**174**	*eS*	Sn	20 31 17.4	+1.5
SVB	**Belmont**	**3.79**	**179**	*eP*	Pn	20 30 45.0	+2.3

ATH 01 20:47:36.0,38.°27N×25.°50E, h19km±2km, ML2.5/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHOS	**Chios island**	**0.45**	**75**	P	Pb	20 47 45.5	-0.1
CHOS				S	Sg	20 47 51.7	+0.1
CHOS				AML	AML		
EAG2	**Marmaro, Chios**	**0.55**	**60**	P	Pg	20 47 47.1	+0.1
EAG2				S	Sb	20 47 54.4	-0.1
TNSA	**Tinos**	**0.77**	**200**	P	Pb	20 47 50.9	+0.1
KARY	**Karystos**	**0.87**	**255**	P	Pb	20 47 52.4	-0.1
KARY				AML	AML		
SKY	**Skiros Island**	**0.96**	**310**	P	Pn	20 47 54.5	-0.1
SKY				AML	AML		
PRK	**Paraskevi**	**1.15**	**32**	P	Pn	20 47 56.8	-0.3
PRK				AML	AML		
KYMI	**Kymi, Euboea I**	**1.16**	**289**	P	Pn	20 47 57.3	+0.1
APE	**Apeiranthos**	**1.20**	**179**	P	Pb	20 47 58.2	+0.1
DION	**Dionisos Attik**	**1.25**	**262**	P	Pn	20 47 58.5	0.0
DION				AML	AML		
PTL	**Penteli**	**1.31**	**261**	P	Pn	20 47 59.5	+0.2
DKL	**Dikili**	**1.36**	**54**	P	Pn	20 47 60.0	0.0
VLY	**Voula,Athens**	**1.41**	**253**	P	Pn	20 48 00.8	+0.1
VLY				AML	AML		

*MEX **01** 20:48:20.7±0.9, 14.°92N×92.°44W, h96km±6km, MD4.1, Presumed earthquake*
*GCG **01** 20:48:22.8±1.1, 15.°01N×92.°28W, h71km±16km, MD4.3, Presumed earthquake*

ISC 01 20:48:16.9±1.4,14.°82N±0.°06×92.°51W±0.°04, h106km±8km, n23, σ2°50/43, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**0.25**	**69**	*eP*	**Pn**	**20 48 32.9**	**+0.9**
THIG		**0.25**	**69**	*eP*	**Pn**	**20 48 32.9**	**+0.9**
THIG				*eS*	**Sn**	**20 48 42.6**	**-0.6**
PATR	**El Naranjo**	**0.40**	**42**	*eP*	**Pn**	**20 48 33.1**	**+0.1**
PATR				*eS*	**Sn**	**20 48 43.2**	**-1.8**
CHUJ	**Union Juarez**	**0.47**	**55**	*eP*	**Pn**	**20 48 33.9**	**+0.4**
CHUJ				*eS*	**Sn**	**20 48 44.6**	**-1.2**
PAVE	**Pavencul**	**0.49**	**41**	*eP*	**Pn**	**20 48 33.9**	**+0.3**
PAVE				*eS*	**Sn**	**20 48 45.0**	**-1.0**
RTAL	**Retalhuleu**	**0.84**	**110**	*eP*	**Pn**	**20 48 37.9**	**+1.7**
RTAL				*eS*	**Sn**	**20 48 50.6**	**0.0**
HUEH	**Huehuetenango**	**1.09**	**63**	*eP*	**Pn**	**20 48 40.6**	**+1.5**
HUEH	**Huehuetenango**	**1.09**	**63**	*eP*	**Pn**	**20 48 39.0**	**0.0**
HUEH				*eS*	**Sn**	**20 48 56.0**	**+0.3**
PCIG		**1.12**	**322**	*eP*	**Pn**	**20 48 40.8**	**+1.8**
PCIG				*eS*	**Sn**	**20 48 56.8**	**+1.0**
STG8	**El Palmar, Qui**	**1.18**	**108**	*eP*	**Pn**	**20 48 38.7**	**-1.3**
CCIG	**Comitan**	**1.50**	**14**	*eP*	**Pn**	**20 48 45.5**	**+1.8**
CCIG				*eS*	**Sn**	**20 49 04.2**	**+0.3**
APG	**El Apazote**	**1.98**	**84**	*i* P	**Pn**	**20 48 51.7**	**+1.9**
APG				*eS*	**Sn**	**20 49 14.3**	**-0.6**
TGIG		**2.04**	**343**	*eP*	**Pn**	**20 48 51.3**	**+1.0**
TGIG				*eS*	**Sn**	**20 49 14.5**	**-1.3**
UXUV	**UXUV**	**2.94**	**328**	*eP*	**Pn**	**20 49 04.9**	**+2.8**
UXUV				*eS*	**Sn**	**20 49 33.9**	**-3.0**
CMIG	**Matias Romero**	**3.21**	**315**	*eP*	**Pn**	**20 49 09.0**	**+3.3**
CMIG				*eS*	**Sn**	**20 49 37.2**	**-6.1**
PETF	**Flores**	**3.29**	**50**	*eP*	**Pn**	**20 49 07.4**	**+0.7**
PETF				*eS*	**Sn**	**20 49 42.3**	**-2.8**
HUIG	**Huatulco**	**3.60**	**286**	*eP*	**Pn**	**20 49 12.5**	**+1.6**
HUIG				*eS*	**Sn**	**20 49 47.5**	**-5.1**
SCIG	**Sabancuy**	**4.32**	**17**	*eP*	**Pn**	**20 49 21.5**	**+1.0**
SCIG				*eS*	**Sn**	**20 50 07.8**	**-2.0**
PEIG	**Puerto Escondi**	**4.62**	**285**	*eP*	**Pn**	**20 49 26.9**	**+2.2**
PEIG				*eS*	**Sn**	**20 50 12.9**	**-4.5**
YOIG	**Yosondua**	**5.25**	**293**	*eP*	**Pn**	**20 49 38.2**	**+4.7**
YOIG				*eS*	**Sn**	**20 50 30.0**	**-3.0**
TOIG	**Toxpalan**	**5.45**	**307**	*eP*	**Pn**	**20 49 37.7**	**+1.7**
TOIG				*eS*	**Sn**	**20 50 34.9**	**-2.6**
TXIG	**Tlaxiaco**	**5.61**	**296**	*eP*	**Pn**	**20 49 43.0**	**+4.7**
TXIG				*eS*	**Sn**	**20 50 39.8**	**-1.7**
PNIG	**Pinotepa**	**5.64**	**287**	*eP*	**Pn**	**20 49 41.6**	**+3.2**
PNIG				*eS*	**Sn**	**20 50 39.5**	**-2.4**

*ISK **01** 20:48:31.1,37.°92N×26.°98E, h4km, ML2.5/24*
*AFAD **01** 20:48:31.0,37.°92N×27.°01E, h7km±4km, ML2.3*

ISC 01 20:48:31.2±0.9,37.°92N±0.°02×26.°98E±0.°03, h9km±8km, n40, σ0°71/57, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.15**	**330**	P	**Pg**	**20 48 34.0**	**-0.5**
DGB				IAML		20 48 38.0	
	comp=N,568nm,0.3s						
DGB				IAML		20 48 39.0	
	comp=E,472nm,0.1s						
GMLD	**Gumuldur**	**0.16**	**342**	Pg	**Pg**	**20 48 34.6**	**-0.1**
GMLD				Sg	**Sg**	**20 48 38.2**	**+1.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**104**	Pg	**Pg**	**20 48 36.6**	**+0.3**
GCAM	**G?zelcaml?**	**0.30**	**137**	P	**Pg**	**20 48 37.1**	**0.0**
GCAM				S	**Sg**	**20 48 40.5**	**-0.7**
GCAM				IAML		20 48 42.0	
	comp=N,1μm,0.4s						
GCAM				IAML		20 48 47.0	
	comp=E,887nm,0.3s						
GCAM	**G?zelcaml?**	**0.30**	**137**	Pg	**Pg**	**20 48 37.1**	**0.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.31**	**353**	P	**Pg**	**20 48 37.0**	**-0.4**
BEYE				S	**Sg**	**20 48 42.1**	**+0.6**
BEYE				IAML		20 48 43.0	
	comp=N,307nm,0.3s						
BEYE				IAML		20 48 45.0	
	comp=E,276nm,0.3s						
BLCB	**Balcova**	**0.47**	**6**	Pg	**Pb**	**20 48 40.9**	**-0.7**
BLCB				Sg	**Sb**	**20 48 47.8**	**-0.8**
BLCB				AML	AML		
DUVT	**Torbali**	**0.48**	**51**	P	**Pg**	**20 48 40.2**	**-0.3**
DUVT				S	**Sg**	**20 48 45.8**	**-1.0**
DUVT				IAML		20 48 51.0	
	comp=E,270nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**310**	P	**Pg**	**20 48 38.4**	**-2.3**
DDIM	**Aydin, Didim**	**0.51**	**156**	P	**Pg**	**20 48 41.3**	**+0.3**
DDIM				S	**Sb**	**20 48 48.7**	**-1.1**
DDIM				IAML		20 48 54.0	
	comp=N,335nm,0.6s						
DDIM				IAML		20 48 54.0	
	comp=E,227nm,0.4s						
DAGE	**izmir**	**0.62**	**82**	P	**Pb**	**20 48 44.2**	**+0.1**
DAGE				S	**Sg**	**20 48 49.6**	**-1.6**
AYDB	**Zeytinkoy-Aydi**	**0.72**	**88**	Pg	**Pb**	**20 48 45.9**	**-0.1**
AYDB				AML	AML		
BAGT	**Foa**	**0.74**	**352**	P	**Pg**	**

YER				AML	AML				
SOMA	**Soma-Manisa**	**1.31**	**19**	Pn	**Pg**	**20 48 56.6**	**+0.3**		
SOMA				AML	AML				
GORD	**Gordes-Manisa**	**1.36**	**43**	Pn	**Pg**	**20 48 57.6**	**+0.2**		
GORD				AML	AML				
TURN	**Turunc**	**1.53**	**138**	Pn	**Pg**	**20 49 00.1**	**-0.3**		
TURN				AML	AML				
YAYO	**Edremit-Balk**	**1.69**	**2**	Pn	**Pb**	**20 49 02.3**	**-0.1**		
YAYO				AML	AML				
DALY	**Dalyan (Mula)**	**1.73**	**129**	Pn	**Pb**	**20 49 02.7**	**-0.4**		
DALY				AML	AML				
BALB	**Balikesir**	**1.85**	**22**	Pn	**Pb**	**20 49 04.8**	**-0.4**		
BALB				AML	AML				
APMY	**Acipayam-Deniz**	**1.90**	**103**	Pn	**Pn**	**20 49 04.8**	**+1.0**		
SIMA	**Simav-Kutahya**	**1.95**	**53**	Pn	**Pb**	**20 49 06.2**	**-0.8**		
SIMA				AML	AML				
CAME	**Cameli-Denizli**	**2.09**	**117**	Pn	**Pn**	**20 49 07.9**	**+1.4**		

*OSPL **01** 20:49:38.6±1.5, 18°.77N×69°.41W, h91km±7km, ML3.0, Presumed earthquake*
*SDD **01** 20:49:40.1±2.3, 18°.82N×69°.51W, h95km±11km, MD3.3, ML3.1, MW3.5, Presumed earthquake*
ISC 01 20:49:38.6±1.4, **18°.80N**±0°.05×**69°.50W**±0°.03, **h92**km±10km, **n29**, σ1s73/42, **15C-7D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SDD	**Santo Domingo**	**0.51**	**229**	*i* P	**Pn**	**20 49 52.6**	**-1.1**
SDD				*e*S	**Sn**	**20 50 03.5**	**-1.3**
SDD				IAML		20 50 04.7	
	comp=Z,201nm,0.1s						
SMDR	**Samana, DR**	**0.58**	**31**	⇑*e*Pg	**Pn**	**20 49 55.3**	**+1.1**
SMDR				⇑*e*Sg	**Sn**	**20 50 06.2**	**+0.4**
SMDR				IAML		20 50 09.5	
	comp=N,804nm,0.2s						
LOSC1	**San Cristbal**	**0.69**	**236**	*i* P	**Pn**	**20 49 54.7**	**-0.5**
LOSC1				*e*S	**Sn**	**20 50 07.1**	**-0.5**
LOSC1				IAML		20 50 08.7	
	comp=Z,1μm,1.4s						
BANI	**BANI**	**0.90**	**244**	⇑*e*Pg	**Pn**	**20 49 57.6**	**+0.1**
BANI				⇓*e*Sg	**Sn**	**20 50 12.0**	**+0.3**
BANI				IAML		20 50 16.5	
	comp=N,484nm,0.2s						
SADR	**Isla Saona**	**0.91**	**131**	⇑*e*Pg	**Pn**	**20 49 58.4**	**+0.9**
SADR				⇑*e*Sg	**Sn**	**20 50 11.4**	**-0.2**
SADR				IAML		20 50 18.5	
	comp=N,193nm,1.1s						
ABDR	**Alto Bandera**	**1.06**	**271**	⇑*e*Pg	**Pn**	**20 49 59.3**	**-0.2**
ABDR				⇓*e*Sg	**Sn**	**20 50 15.7**	**+0.4**
ABDR				IAML		20 50 17.4	
	comp=N,514nm,0.2s						
PCDR	**Punta Cana, DR**	**1.10**	**105**	⇓*e*Pg	**Pn**	**20 49 59.0**	**-0.5**
PCDR				⇓*e*Sg	**Sn**	**20 50 15.8**	**+0.5**
PCDR				IAML		20 50 16.6	
	comp=N,257nm,0.8s						
PCDR	**Punta Cana, DR**	**1.10**	**105**	*i* P	**Pn**	**20 49 58.0**	**-1.6**
PCDR				IAML		20 50 18.7	
	comp=Z,110nm,0.5s						
SC01	**Santiago de lo**	**1.32**	**299**	⇑*e*Pg	**Pn**	**20 50 03.2**	**+0.9**
SC01				IAML		20 50 24.6	
	comp=N,272nm,0.2s						
SC01	**Santiago de lo**	**1.32**	**299**	*i* P	**Pn**	**20 50 02.9**	**+0.7**
SC01				IAML		20 50 27.0	
	comp=Z,139nm,0.5s						
SDDR	**Presa de Saban**	**1.70**	**277**	⇑*e*Pg	**Pn**	**20 50 08.2**	**+1.1**
SDDR				IAML		20 50 34.1	
	comp=N,203nm,0.6s						
SDDR	**Presa de Saban**	**1.70**	**277**	*i* P	**Pn**	**20 50 07.7**	**+0.6**
SDDR				*e*S	**Sn**	**20 50 28.8**	**+0.1**
SDDR				IAML		20 50 33.5	
	comp=Z,70nm,0.6s						
PODR	**Polo**	**1.80**	**250**	⇓*e*Pg	**Pn**	**20 50 08.3**	**-0.2**
PODR				IAML		20 50 38.7	
	comp=N,102nm,0.7s						
PODR	**Polo**	**1.80**	**250**	*i* P	**Pn**	**20 50 07.9**	**-0.6**
PODR				IAML		20 50 34.5	
	comp=Z,481nm,0.5s						
REDR	**Restauracion**	**1.83**	**282**	⇑*e*Pg	**Pn**	**20 50 12.3**	**+3.6**
REDR				⇓*e*Sg	**Sn**	**20 50 38.6**	**+7.2**
REDR				IAML		20 50 42.2	
	comp=N,263nm,0.1s						
NEDR	**Neiba UASD**	**1.84**	**261**	⇓*e*Pg	**Pn**	**20 50 08.6**	**-0.2**
NEDR				⇑*e*Sg	**Sn**	**20 50 32.0**	**+0.2**
NEDR				IAML		20 50 39.0	
	comp=N,41nm,1.1s						
LONE3	**El Aguacate, B**	**1.86**	**264**	*i* P	**Pn**	**20 50 09.5**	**+0.2**
LONE3				IAML		20 50 39.1	
	comp=Z,41nm,2.3s						
LODU1	**El Espartillar**	**1.92**	**257**	*i* P	**Pn**	**20 50 10.6**	**+0.7**
LODU1				IAML		20 50 37.7	
	comp=Z,64nm,1.2s						
LOVI	**El Cajuil, Ovi**	**2.03**	**241**	*i* P	**Pn**	**20 50 10.4**	**-0.8**
LOVI				*e*S	**Sn**	**20 50 34.5**	**-1.7**
LOVI				IAML		20 50 36.2	
	comp=Z,98nm,2.0s						
LOBH	**Bahia de las A**	**2.23**	**246**	*i* P	**Pn**	**20 50 14.2**	**+0.2**
LOBH				*e*S	**Sn**	**20 50 38.6**	**-2.3**
LOBH				IAML		20 50 44.1	
	comp=Z,56nm,1.4s						
JIDR	**Jimani**	**2.25**	**263**	*e*Pg	**Pn**	**20 50 14.4**	**+0.3**
JIDR				IAML		20 51 27.0	
	comp=N,70nm,1.5s						
AGPR	**Aguadilla, PR**	**2.29**	**98**	⇑*e*Pg	**Pn**	**20 50 14.2**	**-0.5**
AGPR				IAML		20 50 53.9	
	comp=N,82nm,1.0s						
PRSN	**Puerto Rico Se**	**2.31**	**104**	⇑*e*Pg	**Pn**	**20 50 15.4**	**+0.4**
PRSN				IAML		20 50 52.2	
	comp=N,146nm,0.2s						
CRPR	**Cabo Rojo, PR**	**2.40**	**109**	⇑*e*Pg	**Pn**	**20 50 18.4**	**+2.2**
CRPR				IAML		20 51 15.2	
	comp=N,52nm,3.6s						
AOPR	**Arecibo Observ**	**2.65**	**99**	*e*Pg	**Pn**	**20 50 19.6**	**+0.1**
AOPR				IAML		20 50 59.5	
	comp=N,134nm,0.2s						
CELP	**Cerrillos**	**2.87**	**104**	⇑*e*Pg	**Pn**	**20 50 23.4**	**+1.0**
CELP				IAML		20 51 02.9	
	comp=N,34nm,0.3s						
GRTK	**Grand Turk**	**3.11**	**331**	*e*Pg	**Pn**	**20 50 23.6**	**-2.0**
GRTK				IAML		20 51 26.0	
	comp=N,86nm,2.5s						
GRTK	**Grand Turk**	**3.11**	**331**	*i* P	**Pn**	**20 50 23.6**	**-2.0**
GRTK				*e*S	**Sn**	**20 50 58.4**	**-3.4**
GRTK				IAML		20 51 00.7	
	comp=Z,61nm,1.4s						
SJG	**San Juan**	**3.25**	**102**	⇑*e*Pg	**Pn**	**20 50 28.5**	**+0.9**

*KRSC **01** 20:53:31.4±1.0, 56°.28N×163°.03E, h22km±7km, Ml4.6, Felt [IV] at Krutoberegovo, Ust-Kamchatsk.*
*MOS **01** 20:53:34.0±1.5, 56°.34N×162°.89E, h41km, mb4.5/2, Error ellipse: s-maj=9.2km s-min=4.7km az=62.7*
*IDC **01** 20:53:37.9±2.8, 56°.35N×162°.48E, h59km±27km, mb3.4/12, mbtmp3.8/14, ML3.1/2, MS3.1/7, Error ellipse: s-maj=21.0km s-min=14.2km az=134.0*
ISC 01 20:53:32.6±0.9, **56°.34N**±0°.03×**162°.92E**±0°.03, **h17**km±5km, **n104**, σ1s52/133, **mb3.7**/11, **MS3.1**/3, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	**Krutoberegovo**	**0.14**	**203**	PN	**Pb**	**20 53 37.1**	**+0.3**
KBTR	**Krutoberegovo**	**0.14**	**203**	*e*P	**Pb**	**20 53 37.2**	**+0.3**
KBG	**Krutoberegovo**	**0.15**	**235**	PN	**Pg**	**20 53 36.9**	**+0.3**
KBG	**Krutoberegovo**	**0.15**	**235**	*e*P	**Pg**	**20 53 36.9**	**+0.3**
KBG				*e*S	**Sg**	**20 53 40.5**	**+1.1**
SMKR	**Semkarok**	**0.84**	**287**	PN	**Pg**	**20 53 48.0**	**-1.0**
SMKR				S	**Sb**	**20 54 01.4**	**+1.5**
SMKR	**Semkarok**	**0.84**	**287**	*e*P	**Pg**	**20 53 48.0**	**-1.0**
SMKR				*e*S	**Sb**	**20 54 01.4**	**+1.5**
BDR	**Baidarnaya**	**0.98**	**284**	PN	**Pb**	**20 53 50.5**	**-0.6**
BDR				S	**Sg**	**20 54 04.4**	**0.0**
BDR	**Baidarnaya**	**0.98**	**284**	*e*P	**Pb**	**20 53 50.6**	**-0.6**
BDR				*e*S	**Sg**	**20 54 04.4**	**0.0**
SRKR	**Sorokina**	**1.02**	**289**	PN	**Pb**	**20 53 51.1**	**-0.8**
SRKR				S	**Sb**	**20 54 05.3**	**+0.3**
SRKR	**Sorokina**	**1.02**	**289**	*e*P	**Pb**	**20 53 51.2**	**-0.8**
SRKR				*e*S	**Sb**	**20 54 05.3**	**+0.3**
CIRR	**Tsirk**	**1.23**	**260**	PN	**Pn**	**20 53 55.2**	**0.0**
CIRR	**Tsirk**	**1.23**	**260**	*e*P	**Pn**	**20 53 55.2**	**0.0**
KLY	**Klyuchi**	**1.26**	**270**	PN	**Pn**	**20 53 53.0**	**-2.5**
KLY				S	**Sb**	**20 54 08.5**	**-3.4**
KLY	**Klyuchi**	**1.26**	**270**	*e*P	**Pn**	**20 53 53.1**	**-2.5**
KLY				*e*S	**Sb**	**20 54 08.5**	**-3.4**
LGNR	**Loginova**	**1.27**	**259**	PN	**Pn**	**20 53 55.9**	**0.0**
LGNR	**Loginova**	**1.27**	**259**	*e*P	**Pn**	**20 53 55.9**	**0.0**
BZGR	**Bezymyannyi-Gr**	**1.31**	**253**	PN	**Pn**	**20 53 56.0**	**-0.2**
BZGR	**Bezymyannyi-Gr**	**1.31**	**253**	*e*P	**Pn**	**20 53 56.0**	**-0.2**
KRSR	**Krestovskiy**	**1.32**	**266**	PN	**Pn**	**20 53 56.0**	**-0.4**
KRSR				S	**Sn**	**20 54 13.8**	**+0.2**
KRSR	**Krestovskiy**	**1.32**	**266**	*e*P	**Pn**	**20 53 56.0**	**-0.4**
KRSR				*e*S	**Sn**	**20 54 13.9**	**+0.2**
BZWR	**Bezymyannyi-We**	**1.41**	**256**	PN	**Pn**	**20 53 57.7**	**+0.1**
BZWR	**Bezymyannyi-We**	**1.41**	**256**	*e*P	**Pn**	**20 53 57.7**	**+0.1**
BZMR	**Bezymyannaya**	**1.42**	**254**	PN	**Pn**	**20 53 58.1**	**+0.3**
BZMR	**Bezymyannaya**	**1.42**	**254**	*e*P	**Pn**	**20 53 58.2**	**+0.3**
KIRR	**Kirishev**	**1.49**	**256**	PN	**Pn**	**20 53 59.0**	**+0.2**
KIRR				S	**Sn**	**20 54 20.1**	**+2.2**
KIRR	**Kirishev**	**1.49**	**256**	*e*P	**Pn**	**20 53 59.0**	**+0.2**
KIRR				*e*S	**Sn**	**20 54 20.2**	**+2.2**
KPT	**Kopyto**	**1.56**	**257**	PN	**Pn**	**20 53 59.9**	**+0.3**
KPT	**Kopyto**	**1.56**	**257**	*e*P	**Pn**	**20 53 59.9**	**+0.3**
KMNR	**Kamenistaya**	**1.61**	**250**	PN	**Pn**	**20 54 01.1**	**+0.7**
KMNR				S	**Sn**	**20 54 22.7**	**+1.8**
KMNR	**Kamenistaya**	**1.61**	**250**	*e*P	**Pn**	**20 54 01.2**	**+0.7**
KMNR				*e*S	**Sn**	**20 54 22.7**	**+1.8**
KOZ	**Kozyrevsk**	**1.73**	**262**	PN	**Pn**	**20 54 02.9**	**+1.0**
KOZ				S	**Sn**	**20 54 26.2**	**+2.7**
KOZ	**Kozyrevsk**	**1.73**	**262**	*e*P	**Pn**	**20 54 02.9**	**+1.0**
KOZ				*e*S	**Sn**	**20 54 26.2**	**+2.7**
SRDR	**Sredinnyy**	**1.78**	**271**	PN	**Pn**	**20 54 03.6**	**+0.9**
SRDR				S	**Sn**	**20 54 26.7**	**+1.7**
SRDR	**Sredinnyy**	**1.78**	**271**	*e*P	**Pn**	**20 54 03.7**	**+0.9**
SRDR				*e*S	**Sn**	**20 54 26.7**	**+1.7**
TUMD	**Tumrok D**	**1.82**	**232**	PN	**Pn**	**20 54 03.5**	**+0.3**
TUMD				S	**Sn**	**20 54 26.4**	**+0.5**
TUMD	**Tumrok D**	**1.82**	**232**	*e*P	**Pn**	**20 54 03.5**	**+0.3**
TUMD				*e*S	**Sn**	**20 54 26.4**	**+0.5**
TUMR	**Tumrok**	**1.89**	**237**	PN	**Pn**	**20 54 05.3**	**+1.1**
TUMR				S	**Sn**	**20 54 29.7**	**+2.0**
TUMR	**Tumrok**	**1.89**	**237**	*e*P	**Pn**	**20 54 05.3**	**+1.1**
TUMR				*e*S	**Sn**	**20 54 29.7**	**+2.0**
KZV	**Kizimen**	**1.93**	**231**	PN	**Pn**	**20 54 05.1**	**+0.4**
KZV	**Kizimen**	**1.93**	**231**	*e*P	**Pn**	**20 54 05.2**	**+0.4**
BKI	**Bering**	**2.07**	**122**	PN	**Pn**	**20 54 06.1**	**-0.4**
BKI				S	**Sn**	**20 54 31.3**	**-0.5**
BKI	**Bering**	**2.07**	**122**	*e*P	**Pn**	**20 54 06.2**	**-0.4**
BKI				*e*S	**Sn**	**20 54 31.4**	**-0.5**
ESO	**Esso**	**2.40**	**262**	PN	**Pn**	**20 54 12.5**	**+1.4**
ESO				S	**Sn**	**20 54 42.0**	**+1.9**
ESO	**Esso**	**2.40**	**262**	*e*P	**Pn**	**20 54 12.5**	**+1.4**
ESO				*e*S	**Sn**	**20 54 42.1**	**+1.9**
TIGL	**Tigil**	**2.73**	**303**	PN	**Pn**	**20 54 18.8**	**+3.2**
TIGL				S	**Sb**	**20 54 53.6**	**-0.3**
TIGL	**Tigil**	**2.73**	**303**	*e*P	**Pn**	**20 54 18.8**	**+3.2**
TIGL				*e*S	**Sb**	**20 54 53.7**	**-0.3**
OSSR	**Ossora**	**2.92**	**1**	PN	**Pn**	**20 54 19.1**	**+0.9**
OSSR	**Ossora**	**2.92**	**1**	*e*P	**Pn**	**20 54 19.2**	**+0.9**
PALN	**Palana**	**3.18**	**331**	PN	**Pn**	**20 54 22.9**	**+1.1**
PALN	**Palana**	**3.18**	**331**	*e*P	**Pn**	**20 54 22.9**	**+1.1**
SPN	**Mys Shipunski**	**3.66**	**209**	PN	**Pn**	**20 54 28.7**	**+0.3**
SPN				S	**Sn**	**20 55 10.7**	**-0.3**
SPN	**Mys Shipunski**	**3.66**	**209**	*e*P	**Pn**	**20 54 28.7**	**+0.3**
SPN				*e*S	**Sn**	**20 55 10.8**	**-0.3**
NLC	**Nalytchevo**	**3.79**	**215**	PN	**Pn**	**20 54 31.7**	**+1.6**
NLC				S	**Sn**	**20 55 15.7**	**+1.4**
NLC	**Nalytchevo**	**3.79**	**215**	*e*P	**Pn**	**20 54 31.8**	**+1.6**
NLC				*e*S	**Sn**	**20 55 15.8**	**+1.4**
KRX	**Arik**	**3.87**	**221**	PN	**Pn**	**20 54 33.5**	**+2.0**
KRX	**Arik**	**3.87**	**221**	*e*P	**Pn**	**20 54 33.6**	**+2.0**
KRER	**Koryakskii**	**3.88**	**220**	PN	**Pn**	**20 54 33.5**	**+1.8**
KRER	**Koryakskii**	**3.88**	**220**	*e*P	**Pn**	**20 54 33.5**	**+1.8**
SMAR	**Somma**	**3.90**	**219**	PN	**Pn**	**20 54 33.4**	**+1.5**
SMAR	**Somma**	**3.90**	**219**	*e*P	**Pn**	**20 54 33.4**	**+1.5**
AVH	**Avacha**	**3.92**	**220**	PN	**Pn**	**20 54 34.3**	**+2.3**
AVH	**Avacha**	**3.92**	**220**	*e*P	**Pn**	**20 54 34.3**	**+2.3**
KOK	**Koryaka**	**3.93**	**221**	PN	**Pn**	**20 54 34.3**	**+2.0**
KOK	**Koryaka**	**3.93**	**221**	*e*P	**Pn**	**20 54 34.3**	**+2.0**
UGLR	**Uglovaya**	**3.93**	**219**	PN	**Pn**	**20 54 33.9**	**+1.6**
UGLR	**Uglovaya**	**3.93**	**219**	*e*P	**Pn**	**20 54 33.9**	**+1.6**
DALK	**Dalny**	**4.10**	**218**	PN	**Pn**	**20 54 35.7**	**+1.2**
DALK				S	**Sn**	**20 55 23.1**	**+1.1**
DALK	**Dalny**	**4.10**	**218**	*e*P	**Pn**	**20 54 35.7**	**+1.2**
DALK				*e*S	**Sn**	**20 55 23.1**	**+1.1**
PET	**Petropavlovsk**	**4.14**	**218**	*e*PN	**Pn**	**20 54 36.9**	**+1.9**
PET				*e*S	**Sn**	**20 55 24.8**	**+1.8**
PET				pmax	pmax		
	comp=Z,57nm,0.6s						
PET				smax	smax		
	comp=E,185nm,0.6s						
PET				smax	smax		
	comp=N,209nm,0.7s						
PEA0B	**Petropavlovsk-**	**4.43**	**225**	*i* PN	**Pn**	**20 54 40.4**	**+1.4**
PETK	**Petropavlovsk-**	**4.43**	**225**	P	**Pn**	**20 54 40.4**	**+1.4**
	comp=N,2.4nm,0.3s,baz=56,slow=16,SNR=35						
PETK				S	**Sn**	**20 55 29.6**	**-0.6**
	comp=N,7.8nm,0.6s,baz=101,slow=21,SNR=1.6						
PETK				LR	LR	20 56 34.4	
	comp=N,216nm,21.9s,baz=340,slow=41						
	comp=N,9.9nm,0.7s						
PETK				AML	AML		
TILK	**Tilichiki**	**4.45**	**21**	PN	**Pn**	**20 54 41.7**	**+2.4**
TILK	**Tilichiki**	**4.45**	**21**	*e*P	**Pn**	**20 54 41.7**	**+2.4**
KRMR	**Karymshinskiy**	**4.49**	**220**	PN	**Pn**	**20 54 41.5**	**+1.8**
KRMR	**Karymshinskiy**	**4.49**	**220**	*e*P	**Pn**	**20 54 41.6**	**+1.8**
GRL	**Gorelyy**	**4.73**	**219**	PN	**Pn**	**20 54 46.8**	**+3.6**
GRL	**Gorelyy**	**4.73**	**219**	*e*P	**Pn**	**20 54 46.9**	**+3.6**
APC	**Apacha**	**4.79**	**227**	PN	**Pn**	**20 54 46.1**	**+2.3**
APC	**Apacha**	**4.79**	**227**	*e*P	**Pn**	**20 54 46.2**	**+2.3**
ASAK	**Asacha**	**4.93**	**219**	PN	**Pn**	**20 54 48.2**	**+2.2**
ASAK	**Asacha**	**4.93**	**219**	*e*P	**Pn**	**20 54 48.2**	**+2.2**
MA2	**Magadan**	**7.23**	**302**	LR	LR	20 58 19.2	
	comp=N,98nm,19.2s,baz=124,slow=40						
ASAJ	**Asahikawa**	**17.77**	**235**	P	**Pn**	**20 57 38.2**	**-0.8**
	comp=N,0.2nm,0.3s,baz=45,slow=13,SNR=1.5						
ASAJ				LR	LR	21 04 54.1	
	comp=N,73nm,19.8s,baz=302,slow=38						
	comp=N,7.7nm,1.1s						
ASAJ				AML	AML		
YAK	**Yakutsk**	**17.81**	**302**	LR	LR	21 04 51.0	
	comp=N,48nm,19.5s,baz=100,slow=38						
TIXI	**Tiksi**	**20.94**	**330**	P	**P**	**20 58 15.3**	**+1.2**
	comp=N,2.5nm,0.5s,baz=129,slow=12,SNR=14						
TIXI				LR	LR	21 07 17.0	
	comp=N,68nm,18.9s,baz=174,slow=39						
	comp=N,2.5nm,0.5s						
ILAR	**Eielson Array**	**25.41**	**50**	P	**P**	**20 59 00.0**	**+1.1**
	comp=N,3.0nm,0.9s,baz=260,slow=8.3,SNR=31						
	comp=N,3.0nm,0.9s						
MJAR	**Matsushiro Art**	**25.87**	**230**	P	**P**	**20 59 01.7**	**-1.5**
	comp=N,0.4nm,0.5s,baz=31,slow=8.2,SNR=1.3						
MJAR				LR	LR	21 11 15.2	
	comp=N,56nm,19.0s,baz=27,slow=41						
	comp=N,0.4nm,0.5s						
SONM	**Songino Array**	**34.84**	**280**	P	**P**	**21 00 20.2**	**-2.4**
	comp=N,0.3nm,0.6s,baz=65,slow=8.2,SNR=2.2						
SONM				LR	LR	21 14 17.4	
	comp=N,50nm,18.3s,baz=22,slow=36						
	comp=N,0.3nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**36.67**	**174**	T	T	21 39 24.7	
	baz=356,slow=76,SNR=365						
H11N3	**WAKE ISLAND Hy**	**36.69**	**174**	T	T	21 39 25.6	
	baz=356,slow=76,SNR=281						
H11N1	**WAKE ISLAND Hy**	**36.69**	**174**	T	T	21 39 27.1	
	baz=356,slow=76,SNR=338						
H11S1	**WAKE ISLAND Hy**	**37.88**	**174**	T	T	21 41 00.9	
	baz=36,slow=74,SNR=14						
H11S3	**WAKE ISLAND Hy**	**37.89**	**174**	T	T	21 41 03.1	
	baz=36,slow=74,SNR=9.3						
H11S2	**WAKE ISLAND Hy**	**37.89**	**174**	T	T	21 41 18.5	
	baz=36,slow=74,SNR=13						
YKA	**Yellowknife Ar**	**39.69**	**46**	P	**P**	**21 01 04.6**	**+1.3**
	comp=N,1.0nm,0.6s,baz=299,slow=8.7,SNR=2.7						
	comp=N,1.0nm,0.6s						
MKAR	**Makanchi Array**	**48.26**	**295**	P	**P**	**21 02 10.7**	**-1.7**
	comp=N,0.2nm,0.4s,baz=56,slow=5.7,SNR=4.7						
	comp=N,0.2nm,0.4s						
PDAR	**Pinedale Array**	**54.57**	**65**	P	**P**	**21 03 01.7**	**+1.8**
	comp=N,0.3nm,0.4s,baz=352,slow=2.9,SNR=8.6						
	comp=N,0.3nm,0.4s						
FINES	**FINESS Array B**	**57.77**	**337**	P	**P**	**21 03 21.5**	**-0.7**
	comp=N,4.4nm,1.1s,baz=60,slow=5.6,SNR=6.8						
	comp=N,4.4nm,1.1s						
AKASG	**Malin Array Be**	**66.65**	**330**	P	**P**	**21 04 20.9**	**-0.9**
	comp=N,0.4nm,0.3s,baz=26,slow=7.0,SNR=3.1						
	comp=N,0.4nm,0.3s						
TXAR	**Lajitas Array**	**67.92**	**70**	P	**P**	**21 04 32.9**	**+2.5**
	comp=N,0.5nm,0.6s,baz=295,slow=5.0,SNR=7.6						
	comp=N,0.5nm,0.6s						
WRA	**Warramunga Arr**	**79.72**	**207**	P	**P**	**21 05 38.2**	**-1.0**
	comp=N,0.4nm,0.7s,baz=16,slow=5.8,SNR=3.5						
	comp=N,0.4nm,0.7s						
ASAR	**Alice Springs**	**83.40**	**207**	P	**P**	**21 05 58.5**	**-0.2**
	comp=N,0.4nm,0.7s,baz=22,slow=5.3,SNR=5.4						
	comp=N,0.4nm,0.7s						
ASAR	**Alice Springs**	**83.40**	**207**	*e*P	**P**	**21 05 59.3**	**+0.6**
QSPA	**South Pole Qui**	**146.09**	**180**	PKPbc	**PKPdf**	**21 13 08.9**	**-0.3**
	comp=N,1.0nm,0.5s,baz=354,slow=0.9,SNR=8.5						

*KRNET **01** 21:10:27.6±0.1, 40°.67N×77°.50E, h16km, mb2.6*
*SOME **01** 21:10:30.4, 40°.77N×77°.55E, h5km*
*NNC **01** 21:10:31.1±0.9, 40°.78N×77°.55E, h0km, mb3.0, mpv2.7, Error ellipse: s-maj=6.5km s-min=3.9km az=167.0*
ISC 01 21:10:29.4±2.6, **40°.8N**±0°.1×**77°.52E**±0°.05, **h13**km±14km, **n25**, σ0s98/39, **5C-9D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TARG	**Taragay, Kyrgy**	**0.97**	**13**	⇓*i* P	**Pb**	**21 10 48.4**	**0.0**
TARG				⇓*i* S	**Sn**	**21 11 03.4**	**+0.4**
NRN	**Naryn**	**1.32**	**300**	⇓*i* P	**Pn**	**21 10 53.7**	**-0.1**
NRN				⇓*i* S	**Sg**	**21 11 12.9**	**+0.8**
PRZ	**Przheval'sk**	**1.83**	**21**	⇓*i* P	**Pg**	**21 11 03.7**	**-0.8**
PRZ				⇓*i* S	**Sg**	**21 11 30.3**	**+2.1**
ANVS	**Anan'yevo**	**2.01**	**3**	⇑*e*P	**Pg**	**21 11 07.0**	**-0.9**
ANVS				⇑*e*S	**Sg**	**21 11 34.5**	**+0.5**
BOOM	**Boomskoye usch**	**2.08**	**326**	⇓*e*P	**Pg**	**21 11 06.9**	**-0.2**
BOOM				⇓*e*S	**Sg**	**21 11 35.5**	**-0.8**
TNSS	**Tian-Shan**	**2.30**	**349**	Pg	**Pg**	**21 11 13.4**	**-0.1**
	2.9nm,0.4s						
TNSS				Lg	Lg	21 11 46.2	
	2.9nm,0.6s						
TNSS	**Tian-Shan**	**2.30**	**349**	*e*P	**Pg**	**21 11 13.4**	**-0.1**
	2.9nm,0.4s						
TNSS				*e*S	**Sg**	**21 11 44.2**	**+0.9**
	2.9nm,0.6s						
SATY	**Saty**	**2.37**	**16**	Pg	**Pg**	**21 11 14.3**	**-0.6**
	1.0nm,0.3s						
SATY				Lg	Lg	21 11 46.7	
	6.6nm,0.3s						
SATY	**Saty**	**2.37**	**16**	*e*P	**Pg**	**21 11 14.3**	**-0.6**
	1.0nm,0.3s						
SATY				*e*S	**Sg**	**21 11 45.8**	**+0.1**
	6.6nm,0.3s						
MDOK	**Medeo**	**2.41**	**352**	Pg	**Pg**	**21 11 15.1**	**-0.5**
	7.7nm,0.4s						
MDOK				Lg	Lg	21 11 47.4	
	13nm,0.5s						
MDOK	**Medeo**	**2.41**	**352**	*e*P	**Pg**	**21 11 15.1**	**-0.5**
	7.7nm,0.4s						
MDOK				*e*S	**Sg**	**21 11 47.4**	**+0.5**
	13nm,0.5s						
KST	**Kastek**	**2.54**	**333**	Pg	**Pg**	**21 11 18.2**	**0.0**
	0.8nm,0.2s						
KST				Lg	Lg	21 11 53.0	
	3.3nm,0.4s						
KST	**Kastek**	**2.54**	**333**	*e*P	**Pg**	**21 11 18.2**	**0.0**
	0.8nm,0.2s						
KST				*e*S	**Sg**	**21 11 52.4**	**+1.2**
	3.3nm,0.4s						
UZB	**Uzynbulak**	**2.62**	**25**	Pg	**Pg**	**21 11 19.1**	**-0.5**
	1.8nm,0.1s						
UZB				Lg	Lg	21 11 54.2	
	5.6nm,0.6s						
UZB	**Uzynbulak**	**2.62**	**25**	*e*P	**Pg**	**21 11 19.1**	**-0.5**
	1.8nm,0.1s						
UZB				*e*S	**Sg**	**21 11 54.2**	**+0.7**
	5.6nm,0.6s						
KURS	**Kuram**	**2.75**	**10**	Pg	**Pg**	**21 11 21.8**	**-0.3**
	0.8nm,0.2s						
KURS				Lg	Lg	21 11 58

comp=Z,33nm,1.5s
SDV Santo Domingo 28.35 244 P **P** **21 25 34.3 +0.9**
comp=Z,66nm,1.5s
RCBR Riachuelo 30.24 162 LR LR 21 34 36.3
comp=Z,175nm,20.8s,baz=11,slow=30
SMTB Santa Maria do 32.00 185 P **P** **21 26 05.9 +0.4**
SMTB IAmb IAmb 21 26 13.2
comp=Z,43nm,1.6s
RUSC La Rusia 32.04 242 **P** **21 26 05.6 -0.7**
ROSC El Rosal 33.65 242 LR LR 21 40 27.8
comp=Z,506nm,20.5s,baz=27,slow=37
SADO Sadowa 35.12 316 LR LR 21 38 08.0
comp=Z,595nm,21.3s,baz=154,slow=32
SCHQ Schefferville 35.49 338 LR LR 21 40 04.3
comp=Z,296nm,19.7s,baz=141,slow=35
TKL Tuckaleechee C 35.70 299 LR LR 21 38 10.8
comp=Z,832nm,21.9s,baz=102,slow=31
MDT Midelt 36.77 66 LR LR 21 38 37.3
comp=Z,408nm,20.7s,baz=276,slow=31
ESDC Sonseca Array 38.32 55 P **P** **21 27 00.0 +0.2**
comp=Z,0.9nm,1.1s,baz=266,slow=6.7,SNR=2.9
ESDC LR LR 21 39 24.6
comp=Z,356nm,20.7s,baz=253,slow=31
comp=Z,0.9nm,1.1s
ESDC Sonseca Array 38.32 55 P **P** **21 26 59.7 -0.1**
BDFB Brasilia 38.75 185 P **P** **21 27 05.4 +1.8**
comp=Z,1.8nm,0.7s,baz=22,slow=11,SNR=6.0
BDFB LR LR 21 41 48.1
comp=Z,319nm,19.5s,baz=9.3,slow=34
comp=Z,1.8nm,0.7s
BDFB Brasilia 38.75 185 P **P** **21 27 04.8 +1.3**
OTAV Otavalo 39.69 240 **P** **21 27 11.9 0.0**
OTAV IAmb IAmb 21 27 32.0
comp=Z,34nm,1.9s
OTAV Otavalo 39.69 240 P **P** **21 27 11.9 0.0**
comp=Z,9.4nm,1.6s
JTS Las Juntas de 40.17 258 LR LR 21 41 57.0
comp=Z,243nm,21.6s,baz=49,slow=33
PTLB Pontes e Lacer 40.84 201 P **P** **21 27 20.8 -0.1**
DBIC Dimbokro 42.00 107 P **P** **21 27 29.7 -0.7**
comp=Z,2.7nm,0.8s,baz=286,slow=7.4,SNR=2.0
DBIC LR LR 21 41 43.3
comp=Z,947nm,21.6s,baz=291,slow=32
comp=Z,2.7nm,0.8s
DBIC Dimbokro 42.00 107 P **P** **21 27 30.1 -0.4**
DBIC IAmb IAmb 21 28 41.6
comp=Z,34nm,1.6s
H10N2 ASCENSION HYDR 42.98 132 T T 22 13 20.4
baz=316,slow=75,SNR=636
H10N3 ASCENSION HYDR 42.98 132 T T 22 13 20.4
baz=316,slow=75,SNR=494
H10N1 ASCENSION HYDR 42.99 132 T T 22 13 11.7
baz=316,slow=75,SNR=522
FRB Frobisher Bay 43.40 345 LR LR 21 43 32.6
comp=Z,335nm,21.6s,baz=130,slow=33
H10S3 ASCENSION HYDR 43.68 134 T T 22 14 06.2
baz=315,slow=74,SNR=823
H10S2 ASCENSION HYDR 43.69 134 T T 22 14 06.3
baz=265,slow=74,SNR=1247
BORG Borgarnes 44.31 14 LR LR 21 41 47.8
comp=Z,150nm,19.0s,baz=196,slow=30
ATAH Atahualpa 44.43 231 LR LR 21 46 49.0
comp=Z,232nm,21.9s,baz=28,slow=37
LPAZ La Paz 45.31 212 P **P** **21 27 57.2 -0.5**
comp=Z,13nm,1.2s,baz=22,slow=9.7,SNR=16
LPAZ LR LR 21 46 24.5
comp=Z,340nm,19.6s,baz=20,slow=35
comp=Z,13nm,1.2s
LPAZ La Paz 45.31 212 **P** **21 27 57.5 -0.2**
LPAZ IAmb IAmb 21 28 08.1
comp=Z,16nm,1.2s
LPAZ La Paz 45.31 212 P **P** **21 27 58.5 +0.8**
comp=Z,12nm,1.3s
TORD Torodi Ar. Bea 45.36 94 P **P** **21 27 55.6 -2.0**
comp=Z,1.9nm,0.9s,baz=296,slow=9.2,SNR=6.6
comp=Z,1.9nm,0.9s
TAM Tamanrasset 46.35 80 P **P** **21 28 06.1 +0.5**
TAM Tamanrasset 46.35 80 P **P** **21 28 07.5 +2.0**
comp=Z,5.9nm,1.6s
CMIG Matias Romero 47.00 272 LR LR 21 45 51.7
comp=Z,401nm,21.4s,baz=76,slow=34
ULM Lac du Bonnet 47.63 318 LR LR 21 46 39.5
comp=Z,442nm,19.3s,baz=87,slow=34
BRDY Brady 48.23 292 P **P** **21 28 20.4 +0.5**
KEST Kesra 48.41 62 P **P** **21 28 21.1 -0.2**
comp=Z,3.1nm,0.9s,baz=277,slow=6.4,SNR=4.0
KEST LR LR 21 46 28.2
comp=Z,203nm,20.9s,baz=253,slow=33
comp=Z,3.1nm,0.9s
KEST Kesra 48.41 62 P **P** **21 28 20.9 -0.4**
KEST IAmb IAmb 21 28 35.4
comp=Z,11nm,1.2s
PB11 IPOC Station P 49.02 211 P **P** **21 28 26.0 -0.1**
PB11 IPOC Station P 49.02 211 P **P** **21 28 24.9 -1.2**
APMT Aspermont 49.04 295 P **P** **21 28 27.3 +1.2**
APMT IAmb IAmb 21 28 41.4
comp=Z,41nm,2.0s
PB08 IPOC Station P 49.11 210 P **P** **21 28 26.3 -0.8**
comp=Z,14nm,1.4s
DAVOX Davos/Dischmat 49.59 48 LR LR 21 46 03.9
comp=Z,393nm,18.9s,baz=264,slow=32
POST Post 50.21 294 P **P** **21 28 36.0 +0.9**
POST IAmb IAmb 21 28 50.4
comp=Z,52nm,2.0s
CPUP Villa Florida 50.69 194 LR LR 21 50 51.6
comp=Z,106nm,18.0s,baz=54,slow=37
CTI Castel Tesino 50.71 49 **P** **21 28 39.2 +0.5**
CTI IAmb IAmb 21 28 52.0
comp=Z,24nm,1.8s
CLL Collm 52.34 42 *eP* **P** **21 28 52.0 +1.3**
CLL *eS* S 21 36 25.0 +10
CLL *eSS* SS 21 39 42.0 -11
CLL LV 21 44 00.0
CLL AMS AMS 21 48 00.0
comp=Z,300nm,20.3s
GERES GERESS Array B 52.43 45 LR LR 21 49 14.0
comp=Z,135nm,18.1s,baz=273,slow=34
TXAR Lajitas Array 52.45 290 P **P** **21 28 51.6 -0.4**
comp=Z,0.5nm,0.7s,baz=98,slow=9.0,SNR=4.9
TXAR LR LR 21 49 53.1
comp=Z,303nm,21.7s,baz=69,slow=35
comp=Z,0.5nm,0.7s
TXAR Lajitas Array 52.45 290 P **P** **21 28 51.7 -0.2**
VAE Valguarnera 52.45 60 LR LR 21 49 33.3
comp=Z,191nm,18.4s,baz=320,slow=34
BLKN Baker Lake 52.73 335 P **P** **21 28 55.5 +2.2**
NOA NORSAR Array B 53.75 30 P **P** **21 29 01.0 0.0**
comp=Z,0.8nm,0.8s,baz=262,slow=8.8,SNR=1.5
NOA LR LR 21 48 15.4
comp=Z,233nm,18.6s,baz=255,slow=32
comp=Z,0.8nm,0.8s
ANMO Albuquerque 54.17 297 LR LR 21 49 55.9
comp=Z,327nm,21.8s,baz=90,slow=34
ANMO Albuquerque 54.17 297 P **P** **21 29 06.5 +1.8**
VRAC Vranov 54.37 45 LR LR 21 48 00.1
comp=Z,130nm,19.8s,baz=258,slow=31
HFS Hagfors 54.65 32 P **P** **21 29 06.9 -0.6**
comp=Z,3.4nm,0.8s,baz=270,slow=4.4,SNR=5.7
HFS LR LR 21 48 10.9
comp=Z,267nm,18.9s,baz=265,slow=31
comp=Z,3.4nm,0.8s
BW06 Boulder Array 56.15 307 P **P** **21 29 19.6 +0.7**
PD31 Pinedale Array 56.15 307 **P** **21 29 18.6 -0.3**
PDAR Pinedale Array 56.15 307 P **P** **21 29 18.1 -0.8**
comp=Z,2.1nm,0.9s,baz=93,slow=8.9,SNR=11
PDAR LR LR 21 51 27.4
comp=Z,255nm,20.2s,baz=82,slow=34
comp=Z,2.1nm,0.9s
PDAR Pinedale Array 56.15 307 P **P** **21 29 18.1 -0.8**
PDAR PcP **PcP** **21 30 14.5 -2.2**
P18A Preston Nutter 56.82 303 P **P** **21 29 24.1 +0.3**
P18A IAmb IAmb 21 29 35.9
comp=Z,17nm,1.6s
SRU San Rafael Swe 57.07 303 P **P** **21 29 26.4 +0.9**
RES Resolute Bay 57.60 346 LR LR 21 53 24.1
comp=Z,129nm,19.2s,baz=37,slow=35
BZS Buzias 57.65 50 P **P** **21 29 31.0 +1.8**
comp=Z,5.4nm,1.8s
TUC Tucson 58.07 295 P **P** **21 29 34.2 +1.7**
comp=Z,4.3nm,2.8s
DUG Dugway, Tooele 58.74 304 P **P** **21 29 37.7 +0.6**
DUG IAmb IAmb 21 29 48.0
comp=Z,24nm,2.0s
DUG Dugway, Tooele 58.74 304 P **P** **21 29 38.5 +1.4**
comp=Z,4.4nm,1.0s
BGU Big Grassy Mou 58.84 305 **P** **21 29 37.3 -0.5**
BGU IAmb IAmb 21 29 39.3
comp=Z,10nm,1.4s
LPIG La Paz 59.26 285 LR LR 21 56 47.2
comp=Z,148nm,19.0s,baz=55,slow=38
PABE Paberze 59.34 38 P **P** **21 29 44.9 +4.2**
CCUT Cedar City 59.45 301 **P** **21 29 42.9 +0.7**
BURAR Bucovina Array 60.07 47 **P** **21 29 47.6 +1.5**
YKA Yellowknife Ar 60.22 330 P **P** **21 29 45.7 -1.0**
comp=Z,2.6nm,0.9s,baz=54,slow=8.5,SNR=2.8
comp=Z,2.6nm,0.9s
YKA Yellowknife Ar 60.22 330 P **P** **21 29 47.1 +0.4**
ELK Elko 60.53 305 LR LR 21 53 33.7
comp=Z,325nm,21.8s,baz=83,slow=34
ELK Elko 60.53 305 P **P** **21 29 48.9 -0.6**
PLID Pearl Lake 60.69 310 **P** **21 29 51.1 +0.6**
MLR Muntele Rosu 60.69 50 P **P** **21 29 50.6 +0.2**
comp=Z,4.6nm,0.8s,baz=273,slow=22,SNR=3.6
MLR LR LR 21 52 53.6
comp=Z,198nm,21.9s,baz=181,slow=33
comp=Z,4.6nm,0.8s
MLR Muntele Rosu 60.69 50 **P** **21 29 51.0 +0.6**
MLR Muntele Rosu 60.69 50 P **P** **21 29 51.5 +1.1**
comp=Z,13nm,1.4s
FINES FINESS Array B 60.85 31 P **P** **21 29 50.8 -0.3**
comp=Z,2.7nm,0.8s,baz=246,slow=7.5,SNR=7.4
comp=Z,2.7nm,0.8s
FINES FINESS Array B 60.85 31 P **P** **21 29 50.6 -0.4**
NEW Newport 61.24 314 LR LR 21 54 11.2
comp=Z,515nm,20.9s,baz=84,slow=34
NEW Newport 61.24 314 **P** **21 29 54.4 +0.4**
NEW IAmb IAmb 21 30 01.9
comp=Z,31nm,1.9s
NEW Newport 61.24 314 P **P** **21 29 55.0 +0.9**
comp=Z,5.7nm,1.3s
ARCES ARCESS Array B 61.64 22 P **P** **21 29 55.0 -1.2**
comp=Z,2.9nm,0.9s,baz=267,slow=7.9,SNR=3.8
ARCES LR LR 21 52 04.3
comp=Z,92nm,20.1s,baz=232,slow=32
comp=Z,2.9nm,0.9s
ARCES ARCESS Array B 61.64 22 P **P** **21 29 55.8 -0.5**
MT09 Talagante 61.84 204 P **P** **21 29 58.0 -0.3**
BO04 La Punta 61.89 204 P **P** **21 29 58.7 +0.3**
BO04 PcP **PcP** **21 30 39.8 +0.7**
E09A Wood Farm, Sta 62.06 312 **P** **21 30 00.1 +0.6**
WCT Wildcat Mounta 62.14 301 P **P** **21 30 00.7 +0.4**
WCT IAmb IAmb 21 30 09.9
comp=Z,12nm,1.6s
LNOR Lincton Mounta 62.22 311 **P** **21 30 01.7 +1.0**
LNOR IAmb IAmb 21 30 04.1
comp=Z,31nm,2.0s
BO01 Tunca 62.43 204 **P** **21 30 02.0 +0.1**
BO01 Tunca 62.43 204 P **P** **21 30 02.0 +0.1**
comp=Z,8.2nm,1.9s
AKASG Malin Array Be 62.53 44 P **P** **21 30 00.9 -1.6**
comp=Z,0.9nm,0.6s,baz=280,slow=5.9,SNR=5.7
AKASG LR LR 21 53 31.9
comp=Z,162nm,19.0s,baz=282,slow=33
comp=Z,0.9nm,0.6s
D08A Wollman Farm, 62.55 312 P **P** **21 30 03.2 +0.5**
D08A IAmb IAmb 21 30 04.3
comp=Z,12nm,1.3s
PFO Pinyon Flats O 62.55 297 LR LR 21 54 40.4
comp=Z,173nm,21.4s,baz=66,slow=34
BO02 Sierra Bellavi 62.67 204 **P** **21 30 03.9 +0.3**
BO02 Sierra Bellavi 62.67 204 P **P** **21 30 04.4 +0.7**
comp=Z,11nm,2.3s
EPH Ephrata 62.98 313 P **P** **21 30 06.0 +0.3**
EPH IAmb IAmb 21 30 06.8
comp=Z,7.3nm,1.1s
HAWA Hanford 63.03 312 P **P** **21 30 06.5 +0.6**
HAWA IAmb IAmb 21 30 14.6
comp=Z,16nm,1.6s
NVAR Mina Array Bea 63.19 303 LR LR 21 55 19.2
comp=Z,691nm,21.7s,baz=93,slow=34
CWC Cottonwood Cre 63.35 300 **P** **21 30 09.4 +1.0**
CWC IAmb IAmb 21 30 18.0
comp=Z,17nm,1.9s
G06A Carlson Farm, 63.93 310 P **P** **21 30 12.1 +0.1**
K05A Summer Lake 64.47 308 **P** **21 30 16.6 +0.9**
K05A IAmb IAmb 21 30 28.2
comp=Z,24nm,1.4s
BI02 San Fabin de 64.52 203 P **P** **21 30 16.1 +0.3**
BI02 IAmb IAmb 21 30 17.0
comp=Z,7.7nm,0.9s
BI02 San Fabin de 64.52 203 P **P** **21 30 16.4 +0.6**
comp=Z,12nm,1.3s
YBH Yreka Blue Hor 65.96 307 LR LR 21 57 28.4
comp=Z,350nm,20.6s,baz=69,slow=34
OBN Obninsk 66.54 38 LR LR 21 56 46.7
comp=Z,321nm,18.9s,baz=325,slow=34
BRTR Keskin Array B 67.12 55 P **P** **21 30 33.4 +0.6**
comp=Z,1.2nm,0.9s,baz=308,slow=7.2,SNR=3.9
BRTR LR LR 21 59 15.0
comp=Z,85nm,18.5s,baz=278,slow=36
comp=Z,1.2nm,0.9s
BRTR Keskin Array B 67.12 55 P **P** **21 30 32.2 -0.6**
BBB Bella Bella 67.82 319 LR LR 21 58 20.0
comp=Z,304nm,20.0s,baz=86,slow=34
DLBC Dease Lake 67.91 326 LR LR 21 58 37.1
comp=Z,166nm,20.4s,baz=63,slow=34
PLCA Paso Flores 67.92 201 P **P** **21 30 37.6 0.0**
comp=Z,2.7nm,1.0s,baz=14,slow=7.5,SNR=4.7
PLCA LR LR 22 00 10.8
comp=Z,127nm,21.4s,baz=16,slow=36
comp=Z,2.7nm,1.0s
PLCA Paso Flores 67.92 201 P **P** **21 30 37.3 -0.2**
PLCA IAmb IAmb 21 30 38.8
comp=Z,8.4nm,1.2s
INK Inuvik 68.08 336 P **P** **21 30 37.1 -1.0**
comp=Z,2.3nm,0.8s,baz=69,slow=5.9,SNR=7.4
INK LR LR 21 58 57.4
comp=Z,235nm,20.6s,baz=50,slow=35
comp=Z,2.3nm,0.8s
INK Inuvik 68.08 336 P **P** **21 30 37.4 -0.8**
INK IAmb IAmb 21 30 38.5
comp=Z,7.1nm,1.2s
ANDN Andirin 69.66 57 P **P** **21 30 48.6 -0.1**
comp=Z,32nm,1.7s
MMAI Mount Meron Ar 70.07 62 LR LR 22 02 16.0
comp=Z,29nm,18.1s,baz=273,slow=36
F28M Old Crow 70.56 336 P **P** **21 30 53.7 +0.1**
F28M IAmb IAmb 21 30 55.0
comp=Z,8.2nm,1.0s
EIL Elat 70.60 65 LR LR 22 02 20.8
comp=Z,241nm,19.9s,baz=276,slow=36
KIRV Kirov 72.74 33 LR LR 21 58 34.6
comp=Z,190nm,21.1s,baz=291,slow=32
KBZ Khabaz 72.90 49 P **P** **21 31 08.2 +0.2**
comp=Z,1.8nm,0.9s,baz=243,slow=6.8,SNR=2.4
comp=Z,1.8nm,0.9s
DOT Dot Lake 73.33 333 P **P** **21 31 12.0 +1.7**
DOT IAmb IAmb 21 31 31.1
comp=Z,39nm,1.9s
G24K Hadweenzic Riv 73.67 336 P **P** **21 31 12.8 +0.7**
G24K IAmb IAmb 21 31 22.4
comp=Z,22nm,1.7s
GURO Guroymak-BITLI 73.73 55 P **P** **21 31 14.3 +1.0**
GURO IAmb IAmb 21 31 28.9
comp=Z,19nm,1.7s
IL31 74.12 334 **P** **21 31 15.0 +0.2**
IL31 IAmb IAmb 21 31 16.1
comp=Z,7.7nm,0.9s
ILAR Eielson Array 74.12 334 P **P** **21 31 14.5 -0.4**
comp=Z,3.6nm,0.8s,baz=75,slow=4.6,SNR=32
ILAR LR LR 22 04 07.9
comp=Z,329nm,18.1s,baz=72,slow=36
comp=Z,3.6nm,0.8s
ILAR Eielson Array 74.12 334 P **P** **21 31 15.3 +0.4**
PAX Paxson 74.16 332 **P** **21 31 15.7 +0.5**
DIGO Kars 74.18 52 P **P** **21 31 16.2 +0.2**
comp=Z,30nm,2.0s
TSUM Tsumeb 74.26 119 LR LR 21 56 38.3
comp=Z,261nm,21.5s,baz=332,slow=30
CCB Clear Creek Bu 74.53 334 P **P** **21 31 17.4 +0.2**
G23K Bananza Creek 74.60 337 **P** **21 31 18.2 +0.5**
GNI Garni 75.25 52 P **P** **21 31 23.6 +1.4**
GNI IAmb IAmb 21 31 37.5
comp=Z,30nm,1.6s
GNI Garni 75.25 52 P **P** **21 31 22.6 +0.4**
comp=Z,11nm,1.6s
MBAR Mbarara 77.19 96 LR LR 22 04 23.3
comp=Z,356nm,19.6s,baz=296,slow=35
ARTI Arti 78.04 34 LR LR 22 03 27.9
comp=Z,130nm,18.2s,baz=292,slow=34
KDAK Kodiak Island 79.46 329 LR LR 22 06 54.9
comp=Z,205nm,19.7s,baz=59,slow=36
RPN Rapa Nui 79.76 235 LR LR 22 06 27.3
comp=Z,28nm,21.5s,baz=148,slow=35
AKTO Aktyubinsk 80.29 39 LR LR 22 04 17.3
comp=Z,261nm,20.7s,baz=272,slow=33
NRIK Noril'sk 81.62 15 LR LR 22 07 40.5
comp=Z,33nm,18.2s,baz=288,slow=35
ABKAR Akbulak array 81.93 40 P **P** **21 31 58.6 +0.2**
KMBO Kilima Mbogo 83.37 94 LR LR 22 08 54.4
comp=Z,307nm,19.0s,baz=300,slow=36
LBTB Lobatse 83.60 121 LR LR 22 03 32.2
comp=Z,329nm,20.0s,baz=308,slow=32
ATD Arta Tunnel 83.63 80 LR LR 22 10 07.0
comp=Z,8.0nm,18.0s,baz=319,slow=36
SUR Sutherland 83.73 129 LR LR 22 03 14.3
comp=Z,207nm,18.2s,baz=323,slow=31
MATP Matopo 83.79 115 LR LR 22 04 47.5
comp=Z,175nm,19.0s,baz=282,slow=32
BOSA Boshof 85.09 124 LR LR 22 06 46.3
comp=Z,140nm,18.0s,baz=345,slow=33
TIXI Tiksi 85.27 2 P **P** **21 32 15.2 -0.1**
TIXI IAmb IAmb 21 32 16.8
comp=Z,7.8nm,1.1s
TIXI Tiksi 85.27 2 P **P** **21 32 14.8 -0.4**
comp=Z,8.5nm,1.8s
BORK Borovoye 85.71 33 **P** **21 32 18.2 +0.5**
BVAR Borovoye Array 85.76 33 P **P** **21 32 17.4 -0.6**
comp=Z,2.4nm,0.8s,baz=308,slow=3.6,SNR=11
comp=Z,2.4nm,0.8s
KURK Kurchatov 91.22 32 P **P** **21 32 43.6 -0.4**
KURBB Kurchatov Arra 91.24 32 P **P** **21 32 43.4 -0.8**
comp=Z,1.6nm,0.8s,baz=309,slow=4.9,SNR=17
KURBB LR LR 22 11 26.0
comp=Z,125nm,19.2s,baz=254,slow=34
comp=Z,1.6nm,0.8s
ZALV Zalesovo Beam 91.84 27 P **P** **21 32 45.3 -1.5**
comp=Z,0.8nm,0.7s,baz=310,slow=3.4,SNR=4.8
ZALV LR LR 22 11 51.6
comp=Z,103nm,20.1s,baz=284,slow=34
comp=Z,0.8nm,0.7s
ZALV Zalesovo Beam 91.84 27 P **P** **21 32 47.4 +0.6**
AAK Ala-Archa 94.01 40 LR LR 22 12 45.3
comp=Z,78nm,20.6s,baz=314,slow=34
YAK Yakutsk 94.92 2 LR LR 22 15 05.5
comp=Z,23nm,18.2s,baz=360,slow=35
MKAR Makanchi Array 95.64 33 LR LR 22 14 06.9
comp=Z,185nm,20.4s,baz=283,slow=34
MA2 Magadan 96.47 352 LR LR 22 20 25.8
comp=Z,14nm,18.4s,baz=38,slow=38
SHEM Shemya Is, Ala 97.03 337 LR LR 22 16 07.0
comp=Z,129nm,21.0s,baz=14,slow=35
OPO Ambohidratompo 99.11 106 LR LR 22 14 49.3
comp=Z,105nm,20.2s,baz=84,slow=33
WMQ Urumqi 100.44 33 *eP* **PdiF** **21 33 30.1 +3.9**
WMQ LR LR
comp=Z,170nm,23.9s
PPT2 Papeete2 109.75 259 *e*LR LR 22 10 25.6
comp=Z,164nm,27.0s
PPT2 *e*LR LR 22 10 28.4
comp=Z,149nm,32.0s
HHC Hu-ho-hao-te 112.63 19 *eP* **PKiKP** **21 38 12.3 -3.4**
MJAR Matsushiro Arr 120.46 357 PKPdf **PKiKP** **21 38 30.7 -0.1**
NJ2 Nanjing 122.91 16 *eP* **PKiKP** **21 38 35.6 -0.1**
NJ2 pmax pmax
comp=Z,6.0nm,0.5s

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*IDC **01** 21:45:49.5±1.4, 20.29S×70.89W, h0km, mb3.9/4, mbtmp3.7/8, ML3.4/4, Error ellipse: s-maj=30.8km s-min=14.8km az=110.0*
*SJA **01** 21:45:49.8±0.6, 19.95S×71.17W, h22km±2km, ML4.1, MW4.3*
*VAO **01** 21:45:50.1±1.3, 20.08S×70.85W, h13km, mb4.2, Presumed earthquake*
*NEIC **01** 21:45:51.5±1.1, 19.95S±0.03×71.08W±0.04, h11km±4km, mb4.2/12, Mwr4.1/29, ML4.2(GUC), Error ellipse: s-maj=6.1km s-min=4.3km az=104.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}=1.37; $M_{\theta\theta}$=0.11; $M_{\phi\phi}$=-1.48; $M_{r\theta}$=0.14; $M_{r\phi}$=0.31; $M_{\theta\phi}$=-0.69; Fault plane solution: $M_0$1.63000×10^{15} NP1:ϕ_s349.53000°, δ32.04000°, λ90.38000°. NP2:ϕ_s169.08000°, δ57.96000°, λ89.76000°. Principal axes: T 1.5323, Plg77.0000°, Azm78.0000°; N 0.1738, Plg0.0000°, Azm169.0000°; P -1.7061, Plg13.0000°, Azm259.0000°;*
*NEIC **01** 21:45:51.7, 19.96S×71.07W, h11km*
*GUC **01** 21:45:53.3±0.6, 19.91S×71.13W, h38km±3km, ML4.2, Presumed earthquake*

ISC 01 21:45:49.7±1.0, 19.97S±0.02×71.10W±0.04, h11km±5km, n95,σ1s55/122, mb4.4/5, 4C-2D, Off coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TA02	**Huaiquique**	**0.96**	**109**	*eP*	**Pn**	**21 46 10.4**	**+1.3**
TA02				*eS*	**Sn**	**21 46 24.9**	**+2.1**
TA02				IAML		21 46 28.0	
	comp=Z,3μm,0.6s						
TA02	**Huaiquique**	**0.96**	**109**	*eP*	**Pn**	**21 46 10.4**	**+1.3**
TA02				*i* S	**Sn**	**21 46 23.5**	**+0.7**
TA02				IAML		21 46 24.9	
	comp=N,8μm,0.5s						
PSGCX	**Pisagua**	**0.99**	**68**	*eP*	**Pn**	**21 46 09.9**	**+0.3**
PSGCX				*eS*	**Sn**	**21 46 23.9**	**+0.2**
PSGCX				IAML		21 46 24.9	
	comp=Z,3μm,0.3s						
PSGCX	**Pisagua**	**0.99**	**68**	Pg	**Pn**	**21 46 09.7**	**0.0**
PSGCX				Sg	**Sn**	**21 46 22.7**	**-1.0**
PSGCX	**Pisagua**	**0.99**	**68**	*ip*	**Pn**	**21 46 09.8**	**+0.2**
PSGCX				*i* S	**Sn**	**21 46 23.1**	**-0.6**
TA01	**Diego Aracena**	**1.05**	**125**	*eP*	**Pn**	**21 46 12.3**	**+1.8**
TA01				*eS*	**Sn**	**21 46 26.8**	**+1.8**
TA01				IAML		21 46 28.2	
	comp=Z,4μm,0.6s						
TA01	**Diego Aracena**	**1.05**	**125**		**Pn**	**21 46 11.7**	**+1.3**
TA01				Sg	**Sn**	**21 46 25.0**	**0.0**
TA01	**Diego Aracena**	**1.05**	**125**	*ip*	**Pn**	**21 46 12.2**	**+1.8**
TA01				*i* S	**Sn**	**21 46 25.8**	**+0.8**
PB11	**IPOC Station P**	**1.37**	**82**	*eP*	**Pg**	**21 46 16.5**	**+0.3**
PB11				*eS*	**Sg**	**21 46 35.5**	**+1.5**
PB11				IAML		21 46 35.8	
	comp=Z,5μm,1.1s						
PB11	**IPOC Station P**	**1.37**	**82**		**Pg**	**21 46 16.1**	**0.0**
PB11				Sn	**Sg**	**21 46 33.6**	**-0.4**
PB11	**IPOC Station P**	**1.37**	**82**	*ip*	**Pg**	**21 46 16.4**	**+0.3**
PB11				*i* S	**Sg**	**21 46 34.4**	**+0.4**
PB11				IAML		21 46 36.6	
	comp=N,9μm,0.3s						
PB12	**IPOC Station P**	**1.53**	**29**	*eP*	**Pb**	**21 46 18.1**	**-0.2**
PB12				*eS*	**Sg**	**21 46 39.4**	**+0.4**
PB12				IAML		21 46 46.9	
	comp=Z,2μm,0.6s						
PB12	**IPOC Station P**	**1.53**	**29**		**Pb**	**21 46 17.8**	**-0.5**
PB12	**IPOC Station P**	**1.53**	**29**	*ep*	**Pb**	**21 46 17.9**	**-0.3**
PB12				*i* S	**Sg**	**21 46 39.2**	**+0.2**
PB12				IAML		21 46 46.5	
	comp=N,2μm,0.6s						
AP01	**Chacalluta**	**1.74**	**24**	*eP*	**Pg**	**21 46 22.4**	**-0.8**
AP01				*eS*	**Sg**	**21 46 47.1**	**+1.3**
AP01				IAML		21 46 54.4	
	comp=Z,2μm,0.6s						
AP01	**Chacalluta**	**1.74**	**24**		**Pb**	**21 46 21.4**	**-0.4**
AP01	**Chacalluta**	**1.74**	**24**	*eP*	**Pb**	**21 46 21.9**	**+0.1**
PB02	**IPOC Station P**	**1.75**	**140**	*eP*	**Pb**	**21 46 22.5**	**+0.4**
PB02				*eS*	**Sg**	**21 46 45.7**	**-0.6**
PB02				IAML		21 46 56.4	
	comp=Z,4μm,0.7s						
PB02	**IPOC Station P**	**1.75**	**140**		**Pb**	**21 46 22.2**	**+0.1**
PB02	**IPOC Station P**	**1.75**	**140**	*ep*	**Pb**	**21 46 22.5**	**+0.4**
GO01	**Chusmiza**	**1.82**	**81**	*eP*	**Pb**	**21 46 23.5**	**+0.1**
GO01				*eS*	**Sg**	**21 46 48.4**	**+0.1**
GO01				IAML		21 46 50.1	
	comp=Z,2μm,0.4s						
GO01	**Chusmiza**	**1.82**	**81**		**Pb**	**21 46 23.1**	**-0.3**
GO01	**Chusmiza**	**1.82**	**81**	*eP*	**Pb**	**21 46 23.2**	**-0.1**
GO01				*i* S	**Sb**	**21 46 46.4**	**+0.1**
GO01				IAML		21 46 51.4	
	comp=N,5μm,0.2s						
PB08	**IPOC Station P**	**1.84**	**96**	*eP*	**Pb**	**21 46 23.9**	**+0.3**
PB08				*eS*	**Sg**	**21 46 48.8**	**-0.1**
PB08				IAML		21 46 52.8	
	comp=Z,1μm,0.5s						
PB08	**IPOC Station P**	**1.84**	**96**		**Pb**	**21 46 23.1**	**-0.5**
PB08	**IPOC Station P**	**1.84**	**96**	*ep*	**Pb**	**21 46 23.4**	**-0.2**
PB08				*i* S	**Sg**	**21 46 47.7**	**-1.2**
PB08				IAML		21 46 52.0	

comp=N,2µm,0.6s
PB07 IPOC Station P 2.09 147 *e*P **Pb 21 46 26.9 -0.8**
PB07 IAML 21 47 08.0
comp=Z,1µm,0.5s
PB07 IPOC Station P 2.09 147 Pb 21 46 26.6 -1.1
PB07 IPOC Station P 2.09 147 *e*P **Pb 21 46 26.6 -1.1**
PB07 IAML 21 47 14.8
comp=E,2µm,0.7s
PB16 IPOC Station P 2.21 43 *e*P **Pb 21 46 28.7 -1.4**
PB16 *e*S **Sg 21 47 01.1 +0.2**
PB16 IAML 21 47 02.5
comp=Z,2µm,0.4s
PB16 IPOC Station P 2.21 43 Pn 21 46 28.2 +1.3
PB16 IPOC Station P 2.21 43 *e*P **Pb 21 46 28.5 -1.6**
PB16 *i* S **Sb 21 46 56.2 -1.5**
PB16 IAML 21 47 07.0
comp=N,2µm,0.5s
PB03 IPOC Station P 2.42 149 *e*P **Pn 21 46 31.7 +2.2**
PB03 *e*S **Sn 21 46 59.9 +0.7**
PB03 IAML 21 47 19.5
comp=Z,737nm,1.3s
PB03 IPOC Station P 2.42 149 Pn 21 46 31.5 +2.0
PB03 IPOC Station P 2.42 149 *e*P **Pb 21 46 31.8 -1.7**
PB09 IPOC Station P 2.52 137 *e*P **Pb 21 46 34.2 -0.9**
PB09 *e*S **Sb 21 47 06.0 -0.1**
PB09 IAML 21 47 21.7
comp=Z,2µm,0.6s
PB09 IPOC Station P 2.52 137 Pn 21 46 32.7 +1.9
PB09 IPOC Station P 2.52 137 *e*P **Pb 21 46 34.1 -0.9**
PB18 Visviri 2.82 33 Pn **Pn 21 46 36.7 +1.5**
PB18 Visviri 2.82 33 *e*P **Pb 21 46 39.8 -0.7**
PB05 IPOC Station P 2.99 164 *e*P **Pn 21 46 34.2 -3.1**
PB05 *e*P **Pb 21 46 39.2 -3.9**
PB05 *e*S **Sg 21 47 28.2 +2.3**
PB05 IAML 21 47 42.3
comp=Z,256nm,0.6s
PB05 IPOC Station P 2.99 164 Pn 21 46 39.0 +1.7
PB05 IPOC Station P 2.99 164 *e*P **Pn 21 46 39.0 +1.7**
PB06 IPOC Station P 3.07 153 *e*P **Pn 21 46 40.9 +2.4**
PB06 *e*S **Sb 21 47 19.0 -3.2**
PB06 IAML 21 47 39.0
comp=Z,739nm,0.8s
PB06 IPOC Station P 3.07 153 Pn 21 46 40.4 +1.9
PB06 IPOC Station P 3.07 153 *e*P **Pn 21 46 40.3 +1.9**
PB10 IPOC Station P 3.56 172 *e*P **Pn 21 46 47.1 +2.0**
AF01 San Pedro de A 4.03 138 Pn **Pn 21 46 53.5 +1.8**
AF01 San Pedro de A 4.03 138 *e*P **Pn 21 46 56.3 +4.6**
LPAZ La Paz 4.62 38 Pn **Pn 21 47 04.5 +4.3**
comp=Z,0.2nm,0.3s,baz=140,slow=5.9,SNR=21
LPAZ Sn **Sb 21 48 07.3 +0.1**
comp=Z,1.8nm,0.3s,baz=297,slow=7.1,SNR=3.5
LPAZ Lg Lg 21 48 21.9
comp=Z,2.1nm,0.3s,baz=311,slow=12,SNR=1.9
comp=Z,5.2nm,0.5s
LPAZ AML AML
LPAZ La Paz 4.62 38 Pn 21 47 00.9 +0.7
LPAZ La Paz 4.62 38 *e*P **Pn 21 46 59.4 -0.8**
PB14 IPOC Station P 4.68 172 Pn **Pn 21 47 01.9 +1.2**
AC02 Maricunga 7.07 166 Pn **Pn 21 47 34.4 +0.7**
AC06 Mina Casimiro 7.39 175 Pn **Pn 21 47 38.6 +1.0**
BBSD Serra de San D 10.32 76 *e*P **Pn 21 48 14.2 -3.8**
SIV San Ignacio 10.33 69 Pn **Pn 21 48 16.8 -1.2**
comp=Z,0.2nm,0.3s,baz=255,slow=11,SNR=30
comp=Z,1.2nm,0.5s
SIV AML AML
CFA Coronel Fontan 11.87 168 Pn Pn 21 48 31.2 -7.8
comp=Z,0.1nm,0.3s,baz=299,slow=11,SNR=1.6
comp=Z,0.2nm,0.3s
CFA AML AML
PTLB Pontes e Lacer 12.25 70 Pn 21 48 45.5 +1.2
PTLB Pontes e Lacer 12.25 70 *e*P **Pn 21 48 43.0 -1.2**
VILB Vilhena 12.56 58 Pn 21 48 49.9 +1.3
VILB Vilhena 12.56 58 *e*P **Pn 21 48 46.4 -2.2**
MURT Porto Murtinho 12.73 100 *e*P **Pn 21 48 46.5 -4.3**
CPUP Villa Florida 14.15 119 Pn **Pn 21 49 07.2 -3.1**
comp=Z,0.1nm,0.3s,baz=318,slow=15,SNR=3.9
comp=Z,0.4nm,0.3s
CPUP AML AML
CPUP Villa Florida 14.15 119 Pn 21 49 09.4 -0.8
BI02 San Fabin de 16.64 180 Pn **P 21 49 44.6 -0.8**
ITAB Concordia 18.82 116 P **Pn 21 50 10.3 +0.3**
ITAB IAmb IAmb 21 50 27.0
comp=Z,6.5nm,1.1s
CPSB Cacapava Do Su 19.04 127 P **Pn 21 50 13.3 +0.6**
CPSB IAmb IAmb 21 50 16.6
comp=Z,13nm,1.1s
SNDB Serra Nova Dou 20.62 70 *e*P **P 21 50 28.0 -1.3**
PLCA Paso Flores 20.70 179 P **P 21 50 28.8 -1.3**
comp=Z,1.0nm,1.1s,baz=347,slow=11,SNR=3.0
comp=Z,1.0nm,1.1s
PLCA Paso Flores 20.70 179 P **P 21 50 31.3 +1.2**
PLCA IAmb IAmb 21 50 35.2
comp=Z,1.6nm,1.0s
ITTB Itaituba 21.55 46 *e*P **P 21 50 37.6 -1.7**
IPMB Ipameri, GO 21.73 89 *e*P **P 21 50 39.6 -1.7**
BDFB Brasilia 22.39 83 P **P 21 50 46.3 -2.2**
comp=Z,1.3nm,0.5s,baz=264,slow=10,SNR=3.1
comp=Z,1.3nm,0.5s
BDFB Brasilia 22.39 83 P **P 21 50 49.5 +1.1**
BDFB IAmb IAmb 21 51 03.1
comp=Z,8.6nm,1.0s
BOAV Boa Vista 24.53 26 P **P 21 51 10.2 +0.7**
BOAV IAmb IAmb 21 51 11.6
comp=Z,6.3nm,0.8s
BOAV Boa Vista 24.53 26 *e*P **P 21 51 08.9 -0.7**
ROSC El Rosal 24.85 352 P **P 21 51 12.8 -0.1**
ROSC IAmb IAmb 21 51 17.7
comp=Z,5.6nm,0.6s
SMTB Santa Maria do 25.27 67 *e*P **P 21 51 15.8 -0.5**
RUSC La Rusia 25.77 355 P **P 21 51 21.2 -0.1**
RUSC IAmb IAmb 21 51 36.3
comp=Z,9.1nm,1.0s
RCBR Riachuelo 36.97 72 P **P 21 52 59.8 +0.4**
553A Crawfordville 51.49 345 P **P 21 54 56.4 +1.0**
QSPA South Pole Qui 70.22 180 P **P 21 57 03.8 +1.2**
DBIC Dimbokro 70.29 75 P **P 21 57 03.5 -0.3**
comp=Z,5.8nm,1.0s,baz=233,slow=10,SNR=3.3
comp=Z,5.8nm,1.0s
DBIC Dimbokro 70.29 75 P **P 21 57 04.0 +0.2**
TORD Torodi Ar. Bea 78.79 72 P **P 21 57 54.2 +1.0**
comp=Z,2.1nm,0.6s,baz=253,slow=5.1,SNR=12
comp=Z,2.1nm,0.6s
ZALV Zalesovo Beam 141.39 23 PKP **PKPdf 22 05 21.6 +1.0**
comp=Z,0.7nm,0.6s,baz=349,slow=1.5,SNR=3.7
ZALV Zalesovo Beam 141.39 23 PKiKP 22 05 22.3 -1.0
MKAR Makanchi Array 145.53 33 PKPbc **PKPab 22 05 29.8 +1.3**
comp=Z,1.6nm,1.1s,baz=338,slow=3.2,SNR=4.4
MKAR Makanchi Array 145.53 33 PKPab 22 05 29.2 +0.7
KSH2 Kashi 145.54 49 PKPbc **PKiKP 22 05 32.3 -0.3**
WMQ Urumqi 150.34 32 *e*PKPbc **PKPdf 22 05 37.7 +1.5**
WMQ PKPab **sPKPab 22 05 51.8 +1.5**
WMQ LR LR
comp=Z,240nm,24.9s
SONM Songino Array 152.13 4 PKPbc **PKiKP 22 05 48.5 +2.7**
comp=Z,0.6nm,0.6s,baz=8.1,slow=2.0,SNR=3.7
SONM Songino Array 152.13 4 PKPdf **PKPdf 22 05 39.6 +0.7**
HHC Hu-ho-hao-te 159.06 354 *e*P **PKPdf 22 05 44.2 -4.2**

AFAD ***01*** *21:55:23.8, 37.76N×26.82E, h7km±5km, ML2.3*
THE ***01*** *21:55:24.9, 38°N±1.2×27E±°, h6km±2km, M2.4/9, MLh2.4/9*
ISK ***01*** *21:55:24.5, 37.79N×26.93E, h9km, ML2.5/15*
ATH ***01*** *21:55:25.6, 37.79N×26.73E, h8km±2km, ML2.6/4, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 01 21:55:24.5±1.0, 37.79N±0.02×26.89E±0.02, h8km±8km, n43, σ0°61/67, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.26**	**360**	P	**Pg**	**21 55 29.3**	**-0.4**
DGB				S	**Sb**	**21 55 35.1**	**-0.9**
GMLD	**Gumuldur**	**0.28**	**5**	Pg	**Pg**	**21 55 30.6**	**+0.4**
GMLD				Sg	**Sg**	**21 55 35.3**	**+1.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**108**	P	**Pg**	**21 55 30.2**	**-0.1**
GCAM				S	**Sg**	**21 55 34.4**	**+0.3**
GCAM				IAML		21 55 35.0	
	comp=N,360nm,0.4s						
GCAM	**G?zelcaml?**	**0.29**	**108**	Pg	**Pg**	**21 55 30.2**	**-0.1**
GCAM				Sg	**Sg**	**21 55 34.4**	**+0.3**
GCAM				AML	AML		
BEYE	**izmir**	**0.43**	**4**	P	**Pg**	**21 55 33.0**	**0.0**
BEYE				S	**Sb**	**21 55 40.6**	**-0.6**
BEYE				IAML		21 55 44.0	
	comp=N,193nm,0.3s						
BEYE				IAML		21 55 44.0	
	comp=E,174nm,0.5s						
DDIM	**Aydin, Didim**	**0.44**	**140**	P	**Pg**	**21 55 33.2**	**+0.2**
DDIM				S	**Sb**	**21 55 40.3**	**-0.8**
DDIM				IAML		21 55 52.0	
	comp=N,192nm,0.5s						
DDIM				IAML		21 55 52.0	
	comp=E,267nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**326**	P	**Pg**	**21 55 35.0**	**0.0**
ZEYE				S	**Sg**	**21 55 41.5**	**-0.5**
ZEYE				IAML		21 55 47.0	
	comp=N,356nm,0.6s						
ZEYE				IAML		21 55 47.0	
	comp=E,234nm,0.4s						
BLCB	**Balcova**	**0.60**	**12**	P	**Pg**	**21 55 36.1**	**-0.1**
BLCB				S	**Sb**	**21 55 45.7**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**12**	Pg	**Pg**	**21 55 36.5**	**+0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.62**	**46**	P	**Pg**	**21 55 35.8**	**-0.6**
DUVT				S	**Sn**	**21 55 48.7**	**-1.0**
DUVT				IAML		21 55 49.0	
	comp=E,118nm,0.2s						
CESE	**eme**	**0.71**	**319**	Pg	**Pg**	**21 55 39.0**	**+0.8**
CESE				AML	AML		
BODT	**Bodrum**	**0.80**	**155**	P	**Pg**	**21 55 40.3**	**+0.3**
BODT				S	**Sb**	**21 55 51.7**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**155**	Pg	**Pg**	**21 55 40.1**	**+0.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.81**	**79**	Pg	**Pg**	**21 55 40.1**	**0.0**
AYDB				AML	AML		
KLNA	**Kalymnos**	**0.84**	**175**	P	**Pg**	**21 55 40.8**	**+0.3**
KLNA				S	**Sb**	**21 55 53.3**	**+0.7**
KLNA				AML	AML		
KRBN	**Karaburun**	**0.84**	**342**	Pg	**Pg**	**21 55 41.4**	**+0.7**
KRBN				Sg	**Sb**	**21 55 53.5**	**+0.7**
KRBN				AML	AML		
BAGT	**Foa**	**0.86**	**358**	P	**Pn**	**21 55 42.9**	**0.0**
BAGT				S	**Sn**	**21 55 55.5**	**-0.2**
MLSB	**Milas**	**0.86**	**125**	Pg	**Pg**	**21 55 41.1**	**0.0**
MLSB				AML	AML		
CHOS	**Chios island**	**0.88**	**312**	P	**Pg**	**21 55 42.2**	**+0.7**
CHOS				S	**Sg**	**21 55 52.3**	**-0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**312**	Pg	**Pg**	**21 55 42.3**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**312**	P	**Pg**	**21 55 41.6**	**+0.1**
CHOS				S	**Sg**	**21 55 51.8**	**-1.2**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.91**	**67**	P	**Pg**	**21 55 41.3**	**-0.7**
IZMR				S	**Sg**	**21 55 54.0**	**+0.2**
FOCM	**Foa**	**0.93**	**353**	Pg	**Pg**	**21 55 42.8**	**+0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.95**	**337**	P	**Pg**	**21 55 43.0**	**+0.3**
KARB				S	**Sg**	**21 55 55.2**	**+0.2**
KARB				IAML		21 56 01.0	
	comp=E,107nm,0.8s						
KARB				IAML		21 56 03.0	
	comp=N,111nm,0.9s						
EAG2	**Marmaro, Chios**	**0.97**	**321**	P	**Pg**	**21 55 42.6**	**-0.5**
EAG2				S	**Sg**	**21 55 54.6**	**-1.1**
CAMT	**Merkez**	**1.01**	**19**	P	**Pg**	**21 55 44.4**	**+0.5**
CAMT				S	**Sn**	**21 56 00.4**	**+0.9**
CAMT				IAML		21 56 04.0	
	comp=N,201nm,0.3s						
CAMT				IAML		21 56 06.0	
	comp=E,124nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.13**	**81**	Pn	**Pg**	**21 55 45.9**	**-0.2**
NAZL				AML	AML		
DAT	**Datca**	**1.20**	**152**	P	**Pg**	**21 55 47.2**	**-0.3**
DAT				S	**Sb**	**21 56 03.7**	**+0.6**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**41**	Pn	**Pb**	**21 55 47.7**	**-0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.28**	**1**	Pn	**Pn**	**21 55 49.1**	**+0.5**
DKL				AML	AML		
YER	**Yerkesik**	**1.29**	**120**	P	**Pn**	**21 55 48.8**	**0.0**
YER				S	**Sn**	**21 56 06.7**	**+0.3**
APE	**Apeiranthos**	**1.30**	**237**	P	**Pn**	**21 55 49.0**	**+0.1**
APE				S	**Sn**	**21 56 08.1**	**+1.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.30**	**237**	P	**Pn**	**21 55 48.7**	**-0.3**
APE				S	**Sb**	**21 56 04.3**	**-1.7**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**20**	Pn	**Pn**	**21 55 51.4**	**+0.3**
GORD	**Gordes-Manisa**	**1.51**	**42**	Pn	**Pn**	**21 55 51.9**	**0.0**
GORD				AML	AML		
PRK	**Paraskevi**	**1.53**	**342**	P	**Pn**	**21 55 52.8**	**+0.8**
PRK				S	**Sg**	**21 56 13.8**	**+0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**1.53**	**342**	P	**Pn**	**21 55 53.0**	**+0.9**
PRK				AML	AML		
KARY	**Karystos**	**1.95**	**278**	P	**Pn**	**21 55 58.0**	**+0.1**
KARY				AML	AML		
KARY	**Karystos**	**1.95**	**278**	P	**Pn**	**21 55 57.8**	**-0.1**
DION	**Dionisos Attik**	**2.35**	**278**	P	**Pn**	**21 56 03.3**	**-0.1**
DION	**Dionisos Attik**	**2.35**	**278**	P	**Pn**	**21 56 03.0**	**-0.4**
VLY	**Voula,Athens**	**2.45**	**272**	P	**Pn**	**21 56 03.8**	**-0.9**
LIA	**Limnos Island**	**2.49**	**328**	P	**Pn**	**21 56 05.1**	**-0.1**

IDC ***01*** *22:02:29.2±1.9, 23°.24N×44°.87W, h0km, mb4.1/12, mbtmp4.1/12, Error ellipse: s-maj=60.3km s-min=21.3km az=19.0*
NEIC ***01*** *22:02:31.1±1.3, 23°.34N±0°.10×44°.9W±0°.1, h10km±2km, mb4.7/12, Error ellipse: s-maj=23.9km s-min=10.9km az=124.0*

ISC 01 22:02:32.0±1.3, 23°.2N±0°.3×44°.9W±0°.1, h21km, n31, σ0°76/26, mb4.4/15, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBIC	**Dimbokro**	**41.86**	**107**	P	**P**	**22 10 20.9**	**+0.1**
	5.6nm,1.0s,baz=340,slow=12,SNR=3.3						
	5.6nm,1.0s						
DBIC	**Dimbokro**	**41.86**	**107**	P	**P**	**22 10 20.7**	**-0.1**
H10N2	**ASCENSION HYDR**	**42.87**	**133**	T	T	22 56 04.7	
	baz=316,slow=75,SNR=91						
H10N3	**ASCENSION HYDR**	**42.87**	**133**	T	T	22 56 05.8	
	baz=316,slow=75,SNR=78						
H10N1	**ASCENSION HYDR**	**42.88**	**133**	T	T	22 56 07.7	
	baz=316,slow=75,SNR=90						
CORI	**Orista**	**43.15**	**53**	P	**P**	**22 10 30.4**	**-0.7**
H10S3	**ASCENSION HYDR**	**43.57**	**134**	T	T	22 57 00.9	
	baz=265,slow=74,SNR=130						
H10S2	**ASCENSION HYDR**	**43.59**	**134**	T	T	22 56 56.9	
	baz=315,slow=74,SNR=109						
TORD	**Torodi Ar. Bea**	**45.22**	**94**	P	**P**	**22 10 48.0**	**0.0**
	3.1nm,0.9s,baz=302,slow=7.6,SNR=6.2						
	3.1nm,0.9s						
TAM	**Tamanrasset**	**46.22**	**80**	P	**P**	**22 10 56.0**	**0.0**
QUOK	**Quay**	**46.32**	**298**	P	**P**	**22 10 55.2**	**-1.2**
ULM	**Lac du Bonnet**	**47.73**	**318**	P	**P**	**22 11 07.5**	**+0.3**
	5.1nm,0.9s,baz=76,slow=8.3,SNR=3.1						
	5.1nm,0.9s						
ULM	**Lac du Bonnet**	**47.73**	**318**	P	**P**	**22 11 07.5**	**+0.3**
ULM				IAmb	IAmb	22 11 09.2	
	comp=Z,8.5nm,1.0s						
KEST	**Kesra**	**48.29**	**62**	P	**P**	**22 11 11.4**	**-0.5**
	comp=Z,3.5nm,1.0s,baz=313,slow=3.5,SNR=4.3						
	comp=Z,3.5nm,1.0s						
KEST	**Kesra**	**48.29**	**62**	P	**P**	**22 11 12.3**	**+0.4**
GERES	**GERESS Array B**	**52.33**	**45**	P	**P**	**22 11 41.0**	**-1.4**
	comp=Z,1.3nm,1.1s,baz=266,slow=7.6,SNR=3.7						
	comp=Z,1.3nm,1.1s						
GERES	**GERESS Array B**	**52.33**	**45**	P	**P**	**22 11 42.0**	**-0.3**
PDAR	**Pinedale Array**	**56.27**	**307**	P	**P**	**22 12 11.3**	**+0.1**
	comp=Z,1.2nm,1.0s,baz=90,slow=12,SNR=4.6						
	comp=Z,1.2nm,1.0s						
MLR	**Muntele Rosu**	**60.59**	**50**	P	**P**	**22 12 41.0**	**-0.2**
MLR				IAmb	IAmb	22 12 45.0	
	comp=Z,7.8nm,1.0s						
AKASG	**Malin Array Be**	**62.44**	**44**	P	**P**	**22 12 54.0**	**+0.5**
	comp=Z,0.4nm,0.5s,baz=269,slow=6.1,SNR=4.7						
	comp=Z,0.4nm,0.5s						
BR131	**Keskin Array S**	**67.00**	**55**	P	**P**	**22 13 23.0**	**-0.7**
BR131				IAmb	IAmb	22 13 35.8	
	comp=Z,4.0nm,1.1s						
BRTR	**Keskin Array B**	**67.00**	**55**	P	**P**	**22 13 25.1**	**+1.5**
	comp=Z,2.2nm,0.9s,baz=262,slow=3.8,SNR=6.4						
	comp=Z,2.2nm,0.9s						
KCPM	**Cahto Peak**	**67.12**	**305**	P	**P**	**22 13 24.6**	**+0.2**
KCPM				IAmb	IAmb	22 13 25.1	
	comp=Z,7.0nm,1.1s						
ILAR	**Eielson Array**	**74.19**	**334**	P	**P**	**22 14 07.8**	**+1.0**
	comp=Z,1.1nm,0.8s,baz=65,slow=4.5,SNR=12						
	comp=Z,1.1nm,0.8s						
ILAR	**Eielson Array**	**74.19**	**334**	P	**P**	**22 14 07.0**	**+0.2**
GNI	**Garni**	**75.15**	**52**	P	**P**	**22 14 12.3**	**-0.7**
GNI				IAmb	IAmb	22 14 15.7	
	comp=Z,6.7nm,1.1s						
BVAR	**Borovoye Array**	**85.68**	**33**	P	**P**	**22 15 11.0**	**+1.8**
	comp=Z,3.3nm,1.0s,baz=298,slow=4.4,SNR=11						
	comp=Z,3.3nm,1.0s						
KURK	**Kurchatov**	**91.15**	**32**	P	**P**	**22 15 35.5**	**+0.2**
KURK				IAmb	IAmb	22 15 37.2	
	comp=Z,4.0nm,1.1s						
KURBB	**Kurchatov Arra**	**91.17**	**32**	P	**P**	**22 15 36.2**	**+0.9**
	comp=Z,1.8nm,0.9s,baz=311,slow=5.2,SNR=14						
	comp=Z,1.8nm,0.9s						
ZALV	**Zalesovo Beam**	**91.78**	**27**	P	**P**	**22 15 38.8**	**+0.7**
	comp=Z,0.4nm,0.3s,baz=292,slow=7.8,SNR=5.8						
	comp=Z,0.4nm,0.3s						
ZALV	**Zalesovo Beam**	**91.78**	**27**	P	**P**	**22 15 38.2**	**+0.1**

UCR 01 22:04:41.3±0.8, 5°.34N×83°.09W, h0km±207km, MW3.7, Presumed earthquake, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EDPE	**Pejibaye, P**	**3.83**	**353**	*e*P	Pn	22 05 41.2	-0.4
PICV	**PH. Pirrs**	**4.40**	**346**	*e*P	Pn	22 05 49.5	0.0
ABE2	**San Pablo**	**4.44**	**348**	*e*P	Pn	22 05 50.2	-0.1
ABE2				*e*S	Sn	22 06 44.8	+1.9
LCR2	**La Lucha 2**	**4.47**	**348**	*e*P	Pn	22 05 50.6	+0.1
VERH	**Veragua Rainfo**	**4.56**	**359**	*e*P	Pn	22 05 52.3	+0.6
VTCV	**VTCV, Calle Va**	**4.66**	**352**	*e*P	Pn	22 05 53.5	+0.3
VICA	**Volcano Irazu**	**4.68**	**351**	*e*P	Pn	22 05 54.2	+0.6
ABRB	**Las Abras (San**	**4.68**	**352**	*e*P	Pn	22 05 54.2	+0.7
CVTV	**Tajo**	**4.68**	**352**	*e*P	Pn	22 05 54.0	+0.4
CVTR	**Volcan Turrial**	**4.70**	**352**	*e*P	Pn	22 05 54.7	+0.8
LAFE	**Finca La Fe, P**	**4.79**	**338**	*e*P	Pn	22 05 55.4	+0.5
VBV1	**V. Barva**	**4.85**	**348**	*e*P	Pn	22 05 56.5	+0.6
JTS	**Las Juntas de**	**5.26**	**340**	*e*P	Pn	22 06 02.1	+0.9

IDC ***01*** *22:11:41.7±0.6, 23°.21N×44°.85W, h0km, mb4.1/22, mbtmp4.0/22, MS4.2/32, Error ellipse: s-maj=20.2km s-min=14.4km az=134.0*
NEIC ***01*** *22:11:44.4±1.0, 23°.2N±0°.1×44°.9W±0°.1, h10km±1km, mb4.7/38, Error ellipse: s-maj=20.1km s-min=17.7km az=148.0*
GCMT ***01*** *22:11:45.4±0.2, 23°.32N±0°.02×44°.82W±0°.01, h12km, MW5.0/132, Moment Tensor Solution. s40,c43; s132,c196; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=4.52±.09; Mθθ 0.11±.10; Mϕϕ 4.41±.08; Mrθ -1.10±.42; Mθϕ 0.26±.08; Mϕr -0.81±.32; Best double couple: Mo 4.66900×10¹⁶ NP1:ϕs172.00000°, δ41.00000°, λ-108.00000°. NP2:ϕs15.00000°, δ52.00000°, λ-75.00000°. Principal axes: T 4.5120, Plg6.0000°, Azm95.0000°; N 0.3160, Plg12.0000°, Azm186.0000°; P -4.8270, Plg77.0000°, Azm340.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 01 22:11:45.3±0.4, 23°.20N±0°.09×44°.82W±0°.08, h21km, n93, σ0°78/68, mb4.5/36, MS4.2/31, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDP	**Montagnes des**	**19.51**	**204**	LR	LR	22 22 01.4	
	comp=Z,238nm,20.0s,baz=29,slow=32						
SJG	**San Juan**	**20.58**	**260**	LR	LR	22 22 43.6	
	comp=Z,701nm,21.6s,baz=84,slow=32						
SDV	**Santo Domingo**	**28.52**	**244**	LR	LR	22 27 56.1	
	comp=Z,448nm,20.9s,baz=60,slow=34						
RCBR	**Riachuelo**	**30.14**	**162**	LR	LR	22 27 01.4	
	comp=Z,141nm,19.8s,baz=350,slow=30						
RUSC	**La Rusia**	**32.20**	**242**		P	**22 18 12.8**	**+0.1**
U56A	**King**	**33.34**	**301**	P	P	**22 18 20.9**	**-1.0**
ROSC	**El Rosal**	**33.81**	**242**	LR	LR	22 32 14.5	
	comp=Z,487nm,21.8s,baz=26,slow=36						
SADO	**Sadowa**	**35.29**	**316**	LR	LR	22 30 53.6	
	comp=Z,634nm,22.0s,baz=142,slow=33						
SCHQ	**Schefferville**	**35.61**	**338**	LR	LR	22 31 48.6	
	comp=Z,256nm,21.1s,baz=134,slow=34						
TKL	**Tuckaleechee C**	**35.90**	**299**	LR	LR	22 32 13.3	
	comp=Z,803nm,19.7s,baz=106,slow=34						
BDFB	**Brasilia**	**38.73**	**185**	P	P	**22 19 08.4**	**+0.2**
	1.2nm,0.6s,baz=3.9,slow=11,SNR=1.5						
BDFB				LR	LR	22 33 53.3	
	comp=Z,328nm,19.6s,baz=349,slow=34						
	1.2nm,0.6s						
BDFB	**Brasilia**	**38.73**	**185**	P	P	**22 19 09.3**	**+1.1**
BDFB				IAmb	IAmb	22 19 25.0	
	comp=Z,29nm,1.4s						
JTS	**Las Juntas de**	**40.37**	**258**	LR	LR	22 35 39.8	
	comp=Z,227nm,19.4s,baz=55,slow=36						
DBIC	**Dimbokro**	**41.78**	**107**	P	P	**22 19 32.0**	**-1.5**
	comp=Z,7.2nm,1.1s,baz=297,slow=8.9,SNR=3.8						
DBIC				LR	LR	22 34 18.4	
	comp=Z,920nm,20.9s,baz=294,slow=32						
	comp=Z,7.2nm,1.1s						
DBIC	**Dimbokro**	**41.78**	**107**	P	P	**22 19 32.2**	**-1.3**
DBIC				IAmb	IAmb	22 19 35.4	
	comp=Z,35nm,1.5s						
H10N2	**ASCENSION HYDR**	**42.79**	**133**	T	T	23 05 15.5	
	baz=316,slow=75						
H10N3	**ASCENSION HYDR**	**42.79**	**133**	T	T	23 05 21.4	
	baz=316,slow=75						
H10N1	**ASCENSION HYDR**	**42.81**	**133**	T	T	23 05 19.3	
	baz=316,slow=75						
H10S3	**ASCENSION HYDR**	**43.50**	**134**	T	T	23 06 11.3	
	baz=315,slow=74,SNR=586						
H10S2	**ASCENSION HYDR**	**43.51**	**134**	T	T	23 06 12.5	
	baz=265,slow=74,SNR=576						
APG	**El Apazote**	**43.75**	**268**	P	P	**22 19 48.1**	**-1.7**
	comp=Z,0.4nm,0.7s,baz=32,slow=9.5,SNR=2.8						
	comp=Z,0.4nm,0.7s						
SFJD	**Kangerlussuaq**	**43.95**	**357**	LR	LR	22 35 43.5	
	comp=Z,129nm,18.3s,baz=164,slow=33						
BORG	**Borgarnes**	**44.29**	**14**	LR	LR	22 33 44.6	
	comp=Z,121nm,19.4s,baz=185,slow=30						
TORD	**Torodi Ar. Bea**	**45.15**	**94**	P	P	**22 20 00.1**	**-0.6**
	comp=Z,2.6nm,0.9s,baz=270,slow=6.4,SNR=6.3						
TORD				LR	LR	22 36 53.6	
	comp=Z,880nm,21.6s,baz=305,slow=34						
	comp=Z,2.6nm,0.9s						
LPAZ	**La Paz**	**45.38**	**212**	P	P	**22 20 04.3**	**+1.2**
	comp=Z,7.7nm,1.2s,baz=19,slow=10,SNR=11						
LPAZ				LR	LR	22 38 32.0	
	comp=Z,364nm,20.4s,baz=14,slow=36						
	comp=Z,7.7nm,1.2s						
LPAZ	**La Paz**	**45.38**	**212**		P	**22 20 03.6**	**+0.4**
LPAZ				IAmb	IAmb	22 20 06.

comp=Z,0.8nm,0.8s
GERES **GERESS Array B** 52.31 45 P P 22 20 55.4 0.0
TXAR **Lajitas Array** 52.66 290 P P 22 20 57.3 -1.1
comp=Z,0.3nm,0.6s,baz=98,slow=7.2,SNR=3.8
TXAR LR LR 22 41 59.4
comp=Z,267nm,21.8s,baz=68,slow=34
comp=Z,0.3nm,0.6s
TXAR **Lajitas Array** 52.66 290 P P 22 20 57.8 -0.6
NOA **NORSAR Array B** 53.68 30 P P 22 21 04.7 -0.6
comp=Z,1.4nm,0.8s,baz=266,slow=6.6,SNR=2.3
NOA LR LR 22 41 22.1
comp=Z,334nm,18.8s,baz=250,slow=33
comp=Z,1.4nm,0.8s
VRAC **Vranov** 54.25 45 LR LR 22 41 29.8
comp=Z,122nm,18.7s,baz=252,slow=33
ANMO **Albuquerque** 54.38 297 LR LR 22 43 34.9
comp=Z,280nm,20.8s,baz=89,slow=35
HFS **Hagfors** 54.58 32 P P 22 21 11.8 0.0
comp=Z,1.8nm,0.7s,baz=272,slow=5.6,SNR=1.8
HFS LR LR 22 39 55.8
comp=Z,266nm,19.7s,baz=254,slow=31
comp=Z,1.8nm,0.7s
PV22 **Blue Mesa, Par** 55.96 302 P 22 21 23.8 +1.4
PV22 IAmb IAmb 22 21 26.3
comp=Z,5.0nm,0.7s
PDAR **Pinedale Array** 56.35 307 P P 22 21 24.0 -1.1
comp=Z,0.8nm,0.7s,baz=83,slow=4.9,SNR=1.0
PDAR LR LR 22 43 33.9
comp=Z,260nm,21.2s,baz=84,slow=34
comp=Z,0.8nm,0.7s
PDAR **Pinedale Array** 56.35 307 P P 22 21 24.5 -0.6
SPUT **South Promonto** 58.57 305 P P 22 21 40.6 -0.2
SPUT IAmb IAmb 22 21 44.3
comp=Z,14nm,1.5s
EDM **Edmonton** 58.97 319 P P 22 21 43.2 0.0
EDM IAmb IAmb 22 22 01.5
comp=Z,7.7nm,0.9s
BGU **Big Grassy Mou** 59.04 305 P 22 21 43.6 -0.5
BGU IAmb IAmb 22 22 12.2
comp=Z,6.4nm,1.4s
YKA **Yellowknife Ar** 60.36 330 LR LR 22 47 10.0
comp=Z,233nm,20.4s,baz=58,slow=35
MLR **Muntele Rosu** 60.56 50 P 22 21 54.7 +0.4
FINES **FINESS Array B** 60.78 31 P P 22 21 57.0 +1.6
comp=Z,2.2nm,1.0s,baz=242,slow=3.0,SNR=3.9
comp=Z,2.2nm,1.0s
FINES **FINESS Array B** 60.78 31 P P 22 21 56.1 +0.7
PLID **Pearl Lake** 60.87 310 P P 22 21 56.3 -0.3
MT09 **Talagante** 61.89 205 P P 22 22 04.1 +0.7
BO04 **La Punta** 61.94 204 P P 22 22 04.1 +0.5
AKASG **Malin Array Be** 62.41 44 P P 22 22 06.3 -0.3
comp=Z,1.3nm,0.8s,baz=275,slow=5.0,SNR=5.7
AKASG LR LR 22 46 51.6
comp=Z,126nm,18.9s,baz=266,slow=34
comp=Z,1.3nm,0.8s
QSM **Queen of Sheba** 62.67 300 P P 22 22 09.2 +0.6
QSM IAmb IAmb 22 22 24.9
comp=Z,5.8nm,1.4s
BO02 **Sierra Bellavi** 62.72 204 P 22 22 09.3 +0.5
BO02 IAmb IAmb 22 22 28.8
comp=Z,10nm,1.3s
D08A **Wollman Farm,** 62.73 312 P 22 22 09.3 +0.5
D08A IAmb IAmb 22 22 10.2
comp=Z,12nm,1.5s
PFO **Pinyon Flats O** 62.76 297 LR LR 22 49 04.8
comp=Z,150nm,19.2s,baz=62,slow=36
CWC **Cottonwood Cre** 63.55 300 P 22 22 14.6 -0.1
CWC IAmb IAmb 22 22 16.8
comp=Z,6.8nm,1.5s
BRTR **Keskin Array B** 66.97 55 P P 22 22 35.6 -1.2
comp=Z,2.6nm,1.0s,baz=284,slow=5.0,SNR=5.8
comp=Z,2.6nm,1.0s
BRTR **Keskin Array B** 66.97 55 P P 22 22 35.9 -0.8
PLCA **Paso Flores** 67.96 201 P P 22 22 41.5 -1.2
comp=Z,2.4nm,1.1s,baz=38,slow=6.9,SNR=4.5
comp=Z,2.4nm,1.1s
PLCA **Paso Flores** 67.96 201 P P 22 22 43.0 +0.3
PLCA IAmb IAmb 22 22 52.0
comp=Z,2.4nm,0.9s
D27M **Malcolm River** 70.68 338 P P 22 23 00.0 +0.8
D27M IAmb IAmb 22 23 01.4
comp=Z,15nm,1.5s
E27K **Coleen River** 71.17 337 P 22 23 02.9 +0.7
C27K **Jago River** 71.51 339 P P 22 23 04.4 +0.2
C27K IAmb IAmb 22 23 07.4
comp=Z,6.5nm,1.1s
F26K **Sheenjek River** 72.23 337 P P 22 23 08.3 -0.3
F26K IAmb IAmb 22 23 29.4
comp=Z,6.6nm,1.4s
KBZ **Khabaz** 72.76 49 P P 22 23 12.7 +0.6
comp=Z,2.8nm,0.9s,baz=45,slow=3.6,SNR=3.8
KBZ LR LR 22 54 53.4
comp=Z,96nm,18.3s,baz=294,slow=36
comp=Z,2.8nm,0.9s
F25K **Christian Rive** 72.81 337 P P 22 23 12.4 +0.4
GURO **Guroymak-BITLI** 73.58 55 P P 22 23 18.3 +1.0
GURO IAmb IAmb 22 23 34.7
comp=Z,11nm,1.3s
F24K **Squaw Lake** 73.65 337 P P 22 23 18.0 +1.0
IL31 **74.25 334** P 22 23 21.1 +0.7
ILAR **Eielson Array** 74.25 334 P P 22 23 19.9 -0.5
comp=Z,1.8nm,0.8s,baz=72,slow=4.5,SNR=23
comp=Z,1.8nm,0.8s
ILAR **Eielson Array** 74.25 334 P P 22 23 20.6 +0.1
CCB **Clear Creek Bu** 74.66 334 P P 22 23 22.6 -0.2
I23K **Minto, Yukon-K** 75.09 335 P P 22 23 25.8 +0.5
GNI **Garni** 75.11 52 P P 22 23 26.4 +0.2
ABKAR **Akbulak array** 81.82 40 P 22 24 03.5 +0.7
TIXI **Tiksi** 85.31 2 P 22 24 21.5 +1.2
TIXI IAmb IAmb 22 24 41.4
comp=Z,8.1nm,1.1s
BORK **Borovoye** 85.63 33 P 22 24 22.9 +0.7
BORK IAmb IAmb 22 24 24.4
comp=Z,6.0nm,1.2s
BVAR **Borovoye Array** 85.68 33 P P 22 24 23.8 +1.3
comp=Z,2.1nm,0.7s,baz=298,slow=3.2,SNR=7.8
comp=Z,2.1nm,0.7s
UOSS **Minazif** 89.74 63 P P 22 24 42.5 -0.1
KURK **Kurchatov** 91.15 32 P 22 24 49.0 +0.4
KURK IAmb IAmb 22 24 51.6
comp=Z,6.0nm,1.1s
KURBB **Kurchatov Arra** 91.16 32 P P 22 24 49.1 +0.5
comp=Z,2.1nm,0.8s,baz=307,slow=5.1,SNR=14
comp=Z,2.1nm,0.8s
ZALV **Zalesovo Beam** 91.78 27 P P 22 24 52.0 +0.6
comp=Z,0.9nm,0.7s,baz=300,slow=6.5,SNR=4.8
comp=Z,0.9nm,0.7s
ZALV **Zalesovo Beam** 91.78 27 P 22 24 51.3 -0.2
MKAR **Makanchi Array** 95.56 33 P P 22 25 07.5 -1.6
comp=Z,0.4nm,0.8s,baz=283,slow=7.2,SNR=2.4
comp=Z,0.4nm,0.8s
MKAR **Makanchi Array** 95.56 33 P P 22 25 08.2 -0.8
SNAA **Sanae** 98.93 168 LR LR 23 00 13.0
comp=Z,47nm,19.9s,baz=11,slow=29

*IDC **01** 22:13:38.3±0.6,23°.31N×44°.78W,h0km,mb4.3/21, mbtmp4.3/21,MS3.7/1, Error ellipse: s-maj=19.6km s-min=14.8km az=155.0*

*NEIC **01** 22:13:41.1±1.5,23°.3N±0°.1×44°.8W±0°.1,h10km±1km, mb4.9/47, Error ellipse: s-maj=20.4km s-min=16.2km az=140.0*

ISC 01 22:13:41.7±0.5,23°.23N±0°.10×44°.78W±0°.09,h21km,n99, σ1°24/93,mb4.6/59,MS3.7/3,Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESDC	**Sonseca Array**	38.13	55	P	P	22 20 58.3	-1.1
	1.6nm,1.1s,baz=264,slow=6.8,SNR=5.7						
	1.6nm,1.1s						
ESDC	**Sonseca Array**	38.13	55	P	P	22 21 00.7	+1.3
BDFB	**Brasilia**	38.76	185	P	P	22 21 04.0	-0.9
	1.8nm,0.6s,baz=66,slow=18,SNR=1.8						
	1.8nm,0.6s						
BDFB	**Brasilia**	38.76	185	P	P	22 21 04.5	-0.3
DBIC	**Dimbokro**	41.76	107	P	P	22 21 28.8	-0.9
	9.4nm,1.0s,baz=294,slow=9.1,SNR=4.8						
	9.4nm,1.0s						
DBIC	**Dimbokro**	41.76	107	P	P	22 21 31.1	+1.3
H10N2	**ASCENSION HYDR**	42.79	133	T	T	23 07 14.1	
	baz=316,slow=75						
H10N3	**ASCENSION HYDR**	42.79	133	T	T	23 07 12.2	
	baz=316,slow=75						
H10N1	**ASCENSION HYDR**	42.80	133	T	T	23 07 15.3	
	baz=316,slow=75						
H10S3	**ASCENSION HYDR**	43.49	134	T	T	23 08 09.1	
	baz=264,slow=74,SNR=16						
H10S2	**ASCENSION HYDR**	43.51	134	T	T	23 08 08.0	
	baz=316,slow=74,SNR=17						
APG	**El Apazote**	43.78	268	P	P	22 21 46.9	+0.4
	0.6nm,0.8s,baz=125,slow=12,SNR=3.6						
APG				LR	LR	22 38 37.2	
	comp=Z,26nm,18.8s,baz=70,slow=34						
	0.6nm,0.8s						
TORD	**Torodi Ar. Bea**	45.11	94	P	P	22 21 57.6	+0.8
	6.4nm,0.9s,baz=298,slow=6.7,SNR=11						
	6.4nm,0.9s						
LPAZ	**La Paz**	45.43	212	P	P	22 22 01.0	+1.1
	4.5nm,1.1s,baz=13,slow=8.0,SNR=4.2						
	4.5nm,1.1s						
LPAZ	**La Paz**	45.43	212		P	22 21 60.0	+0.1
TAM	**Tamanrasset**	46.11	80		P	22 22 05.3	+0.5
KEST	**Kesra**	48.20	62	P	P	22 22 18.9	-2.0
	6.4nm,1.1s,baz=259,slow=1.9,SNR=6.7						
	6.4nm,1.1s						
KEST	**Kesra**	48.20	62		P	22 22 22.3	+1.4
KEST				IAmb	IAmb	22 22 24.2	
	comp=Z,17nm,1.3s						
VSL	**Villasalto**	48.30	57		P	22 22 22.7	+1.1
VSL				IAmb	IAmb	22 22 26.2	
	comp=Z,13nm,1.1s						
DAVA	**Damuels**	49.50	47	*eP*	P	22 22 32.9	+2.1
	comp=Z,16nm,1.3s						
FETA	**Feichten**	50.03	47	*eP*	P	22 22 37.1	+2.2
	comp=Z,7.2nm,1.2s						
RETA	**Reutte**	50.12	47	*eP*	P	22 22 37.5	+2.1
	comp=Z,5.2nm,1.2s						
MOTA	**Moosalm**	50.33	47	*eP*	P	22 22 38.5	+1.4
	comp=Z,12nm,1.4s						
SQTA	**Sankt Quirin**	50.38	47	*eP*	P	22 22 39.4	+2.0
	comp=Z,9.6nm,1.2s						
CTI	**Castel Tesino**	50.53	49		P	22 22 39.3	+0.7
CTI				IAmb	IAmb	22 22 41.0	
	comp=Z,18nm,1.4s						
WATA	**Walderalm**	50.65	47	*eP*	P	22 22 41.4	+1.9
	comp=Z,8.2nm,1.2s						
WTTA	**Wattenberg**	50.68	47	*eP*	P	22 22 41.7	+1.9
	comp=Z,12nm,1.4s						
CPUP	**Villa Florida**	50.74	195	P	P	22 22 37.9	-2.2
	comp=Z,1.7nm,0.9s,baz=343,slow=7.1,SNR=2.9						
CPUP	**Villa Florida**	50.74	195	P	P	22 22 40.0	-0.1
CPUP				IAmb	IAmb	22 22 53.8	
	comp=Z,27nm,1.9s						
ABTA	**Abfaltersbach**	51.21	48	*i* P	P	22 22 44.9	+1.3
	comp=Z,8.4nm,1.4s						
LESA	**Schwarzleotal**	51.40	47	*i* P	P	22 22 46.7	+1.6
	comp=Z,8.0nm,1.4s						
AQU	**L'Aquila**	51.49	54	P	P	22 22 46.6	+0.9
AQU				IAmb	IAmb	22 22 50.4	
	comp=Z,15nm,1.2s						
SABO	**M.te Sabotino**	51.88	49		P	22 22 49.3	+0.7
SABO				IAmb	IAmb	22 22 50.7	
	comp=Z,36nm,1.7s						
MYKA	**Terra Mystica**	51.97	48	*eP*	P	22 22 50.7	+1.4
	comp=Z,3.8nm,1.1s						
BIOA	**Bad Ischl, Aus**	52.08	47	*i* P	P	22 22 51.5	+1.4
	comp=Z,6.4nm,1.5s						
CLL	**Collm**	52.19	42	*eP*	P	22 22 52.0	+1.2
CLL				LV		22 36 00.0	
CLL				AMS	AMS	22 38 00.0	
	comp=Z,300nm,22.3s						
GERES	**GERESS Array B**	52.26	45	P	P	22 22 47.8	-3.7
	comp=Z,2.1nm,1.1s,baz=248,slow=4.9,SNR=5.1						
OBKA	**Obir**	52.58	48	*i* P	P	22 22 53.8	-0.1
	comp=Z,10nm,1.8s						
SESA	**Seetaler Alpe,**	52.65	48	*eP*	P	22 22 54.8	+0.3
	comp=Z,8.6nm,1.9s						
TXAR	**Lajitas Array**	52.68	290	P	P	22 22 53.2	-1.7
	comp=Z,0.6nm,0.7s,baz=106,slow=8.2,SNR=4.8						
	comp=Z,0.6nm,0.7s						
TXAR	**Lajitas Array**	52.68	290	P	P	22 22 56.0	+1.1
ARSA	**Arzberg**	53.31	48	*i* P	P	22 23 00.1	+0.9
	comp=Z,8.7nm,1.4s						
CONA	**Conrad Observa**	53.59	47	*eP*	P	22 23 02.3	+1.0
	comp=Z,9.8nm,1.6s						
NOA	**NORSAR Array B**	53.63	30	P	P	22 22 59.1	-2.3
	comp=Z,4.8nm,1.0s,baz=251,slow=7.4,SNR=3.5						
	comp=Z,4.8nm,1.0s						
WINA	**Allard / Wiene**	53.75	47	*i* P	P	22 23 04.1	+1.7
	comp=Z,8.9nm,1.4s						
RONA	**Rosalia, Austr**	53.87	47	*eP*	P	22 23 04.6	+1.3
	comp=Z,6.5nm,1.3s						
HFS	**Hagfors**	54.53	32	P	P	22 23 06.8	-1.0
	comp=Z,17nm,1.2s,baz=226,slow=5.8,SNR=3.9						
	comp=Z,17nm,1.2s						
PDAR	**Pinedale Array**	56.36	307	P	P	22 23 20.3	-1.3
	comp=Z,2.2nm,1.0s,baz=87,slow=9.1,SNR=4.7						
	comp=Z,2.2nm,1.0s						
PDAR	**Pinedale Array**	56.36	307	P	P	22 23 20.7	-0.9
SPUT	**South Promonto**	58.58	305	P	P	22 23 38.3	+1.0
SPUT				IAmb	IAmb	22 23 51.3	
	comp=Z,13nm,1.4s						
EDM	**Edmonton**	58.97	319	P	P	22 23 39.8	+0.2
BGU	**Big Grassy Mou**	59.05	305		P	22 23 40.4	-0.1
BGU				IAmb	IAmb	22 23 42.8	
	comp=Z,12nm,1.6s						
CCUT	**Cedar City**	59.67	301		P	22 23 45.0	+0.1
MLR	**Muntele Rosu**	60.51	50		P	22 23 51.1	+0.7
MLR				IAmb	IAmb	22 23 54.1	
	comp=Z,20nm,1.1s						
IDI	**Anoyia**	60.86	61	LR	LR	22 48 29.6	
	comp=Z,64nm,21.2s,baz=284,slow=34						
NEW	**Newport**	61.43	314		P	22 23 58.1	+1.6
NEW				IAmb	IAmb	22 25 42.7	
	comp=Z,12nm,0.8s						
ARCES	**ARCESS Array B**	61.56	22	P	P	22 23 54.8	-2.2
	comp=Z,6.9nm,1.0s,baz=274,slow=7.7,SNR=4.5						
	comp=Z,6.9nm,1.0s						
ARCES	**ARCESS Array B**	61.56	22	P	P	22 23 55.2	-1.8
MT09	**Talagante**	61.94	205	P	P	22 24 00.6	+0.5
E09A	**Wood Farm, Sta**	62.26	312	P	P	22 24 03.3	+1.3
AKASG	**Malin Array Be**	62.37	44	P	P	22 24 01.8	-0.9
	comp=Z,2.0nm,0.7s,baz=270,slow=6.0,SNR=8.1						
	comp=Z,2.0nm,0.7s						
FURC	**Furnace Creek,**	62.60	300	P	P	22 24 03.7	-0.7
D08A	**Wollman Farm,**	62.73	312	P	P	22 24 06.4	+1.1
D08A				IAmb	IAmb	22 24 07.8	
	comp=Z,17nm,1.5s						
NVAR	**Mina Array Bea**	63.40	303	P	P	22 24 10.3	+0.2
	comp=Z,0.0nm,0.3s,baz=107,slow=3.8,SNR=2.2						
	comp=Z,0.0nm,0.3s						
NVAR	**Mina Array Bea**	63.40	303	P	P	22 24 10.6	+0.4
G06A	**Carlson Farm,**	64.13	310	P	P	22 24 14.9	+0.4
ELL	**Elmali**	64.62	59		P	22 24 18.6	+0.6
ELL				IAmb	IAmb	22 24 22.7	
	comp=Z,16nm,1.0s						
K05A	**Summer Lake**	64.67	308		P	22 24 18.9	+0.5
JRO	**Jston Ridge Ob**	65.08	312	P	P	22 24 21.7	+0.8
BRTR	**Keskin Array B**	66.92	55	P	P	22 24 33.0	+0.1
	comp=Z,3.2nm,0.9s,baz=254,slow=4.4,SNR=8.2						
	comp=Z,3.2nm,0.9s						
BRTR	**Keskin Array B**	66.92	55	P	P	22 24 34.4	+1.6
PLCA	**Paso Flores**	68.00	201	P	P	22 24 40.2	+0.9
	comp=Z,2.0nm,0.9s,baz=27,slow=4.5,SNR=4.1						
	comp=Z,2.0nm,0.9s						
BNN	**Bunyan**	68.78	56		P	22 24 45.0	+0.5
BNN				IAmb	IAmb	22 24 49.2	
	comp=Z,27nm,1.6s						
D27M	**Malcolm River**	70.66	338	P	P	22 24 56.4	+0.9
D27M				IAmb	IAmb	22 25 03.8	
	comp=Z,10nm,1.2s						
C27K	**Jago River**	71.50	339	P	P	22 25 00.9	+0.5
F26K	**Sheenjek River**	72.22	337	P	P	22 25 06.0	+1.1
KIV	**Kislovodsk**	72.51	49		P	22 25 07.3	+0.2
KBZ	**Khabaz**	72.72	49	P	P	22 25 09.6	+1.4
	comp=Z,4.5nm,1.0s,baz=261,slow=8.2,SNR=5.2						
	comp=Z,4.5nm,1.0s						
F25K	**Christian Rive**	72.80	337	P	P	22 25 09.2	+0.9
F25K				IAmb	IAmb	22 25 39.5	
	comp=Z,20nm,1.8s						
GURO	**Guroymak-BITLI**	73.53	55	P	P	22 25 14.4	+1.0
GURO				IAmb	IAmb	22 25 17.1	
	comp=Z,14nm,1.2s						
F24K	**Squaw Lake**	73.63	337	P	P	22 25 13.8	+0.6
IL31		74.24	334		P	22 25 16.8	+0.1
ILAR	**Eielson Array**	74.24	334	P	P	22 25 17.2	+0.5
	comp=Z,2.3nm,0.8s,baz=69,slow=4.1,SNR=13						
	comp=Z,2.3nm,0.8s						
ILAR	**Eielson Array**	74.24	334	P	P	22 25 16.4	-0.4
GNI	**Garni**	75.06	52		P	22 25 22.8	+0.5
ARTI	**Arti**	77.91	34		P	22 25 39.2	+1.3
ARTI				IAmb	IAmb	22 25 40.6	
	comp=Z,13nm,1.2s						
AB31	**Akbulak array**	81.78	40		P	22 26 00.0	+1.1
AB31				IAmb	IAmb	22 26 02.1	
	comp=Z,10nm,1.3s						
ABKAR	**Akbulak array**	81.78	40		P	22 26 00.1	+1.2
BORK	**Borovoye**	85.58	33		P	22 26 17.5	-0.9
BORK				IAmb	IAmb	22 26 28.0	
	comp=Z,7.0nm,1.1s						
BVAR	**Borovoye Array**	85.63	33	P	P	22 26 20.0	+1.3
	comp=Z,5.6nm,1.0s,baz=299,slow=4.2,SNR=12						
	comp=Z,5.6nm,1.0s						
UOSS	**Minazif**	89.69	63		P	22 26 38.2	-0.5
UOSS				IAmb	IAmb	22 26 41.9	
	comp=Z,6.2nm,1.0s						
KURK	**Kurchatov**	91.10	32		P	22 26 44.0	-0.7
KURK				IAmb	IAmb	22 26 47.0	
	comp=Z,5.2nm,1.1s						
KURBB	**Kurchatov Arra**	91.12	32	P	P	22 26 46.1	+1.3
	comp=Z,4.8nm,1.0s,baz=312,slow=5.2,SNR=21						
	comp=Z,4.8nm,1.0s						
ZALV	**Zalesovo Beam**	91.73	27	P	P	22 26 48.9	+1.3
	comp=Z,2.4nm,0.9s,baz=306,slow=5.1,SNR=8.3						
	comp=Z,2.4nm,0.9s						
ZALV	**Zalesovo Beam**	91.73	27		P	22 26 47.9	+0.3
ARSB	**Arslanbob**	93.72	42	P	P	22 26 56.7	-0.5
ARSB				IAmb	IAmb	22 27 00.4	
	comp=Z,7.1nm,1.2s						
DRK	**Karamyk**	94.03	44	P	P	22 26 57.5	-1.4
CMAR	**Chiang Mai Arr**	125.49	44	PKP	PKPdf	22 32 39.9	-2.2
	comp=Z,0.4nm,0.3s,baz=280,slow=2.6,SNR=4.2						
CMAR	**Chiang Mai Arr**	125.49	44		PKPdf	22 32 41.0	-1.0

*BGR **01** 22:16:51.6,20°.95S×168°.29E,h33km*

*IDC **01** 22:16:53.8±0.6,17°.97S×168°.51E,h0km,mb4.3/19, mbtmp4.3/22,ML4.8/2,MS3.4/8, Error ellipse: s-maj=16.1km s-min=12.6km az=77.0*

*NEIC **01** 22:16:56.7±1.9,18°.10S±0°.05×168°.38E±0°.07,h10km±1km, mb4.8/36, Error ellipse: s-maj=11.6km s-min=9.3km az=82.0*

*BJI **01** 22:16:58.2,17°.68S×168°.67E,h31km,mB5.1/4,mb4.9/28, Ms4.8/1,Ms7 4.7/3*

*NOU **01** 22:17:01.0,18°.25S×168°.40E,h25km,MLv5.1/24, Vanuatu Islands*

ISC 01 22:16:59.8±0.4,18°.20S±0°.03×168°.30E±0°.06,h35km,n166, σ1°57/155,mb4.8/44,MS3.5/5,1C-2D,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	0.42	17	P	Pn	22 17 12.3	+3.0
RTV	**Rentapao**	0.42	17	S	Sn	22 17 19.3	+3.4
DVP	**Devils Point**	0.48	347	P	Pn	22 17 13.6	+3.4
DVP	**Devils Point**	0.48	347	S	Sn	22 17 22.1	+4.7
SANVU	**Saraoutou**	2.93	339	Pn	Pn	22 17 43.6	-0.2
SANVU				Sn	Sn	22 18 15.7	-2.2
MARNC	**Mare, Loyalty**	3.28	184	P	Pn	22 17 49.4	+0.7
MARNC	**Mare, Loyalty**	3.28	184		Pn	22 17 49.4	+0.7
YATNC	**Mamie plateau,**	4.06	199	P	Pn	22 18 00.5	+1.0
DZM	**Mont Dzumac**	4.23	204	Pn	Pn	22 18 03.6	+1.7
	11nm,0.3s,baz=104,slow=21,SNR=67						
DZM				Sn	Sn	22 18 48.4	-1.7
	20nm,0.3s,baz=38,slow=16,SNR=6.0						
DZM				LR	LR	22 19 26.8	
	comp=Z,268nm,19.2s,baz=322,slow=34						
	33nm,0.4s						
DZM				AML	AML		
NOUC	**Port Laguerre**	4.31	205	P	Pn	22 18 05.5	+2.6
OUENC	**Ouen Island, N**	4.42	198	P	Pn	22 18 07.2	+2.9
OUENC	**Ouen Island, N**	4.42	198	S	Sn	22 18 57.5	+2.9
OUENC	**Ouen Island, N**	4.42	198		Pn	22 18 06.5	+2.2
KOUNC	**Koumac, New Ca**	4.45	238	P	Pn	22 18 08.3	+3.5
KOUNC	**Koumac, New Ca**	4.45	238		Pn	22 18 06.6	+1.7
PINNC	**Pines Island,**	4.46	190	P	Pn	22 18 07.4	+2.4
PINNC	**Pines Island,**	4.46	190	S	Sn	22 18 58.0	+2.3
PINNC	**Pines Island,**	4.46	190		Pn	22 18 07.4	+2.4
MSVF	**Nonsavu**	9.29	89	Pn	Pn	22 19 07.7	-3.8
	2.1nm,0.6s,baz=171,slow=23,SNR=1.5						
MSVF				LR	LR	22 22 12.8	
	comp=Z,328nm,21.9s,baz=159,slow=35						
MSVF	**Nonsavu**	9.29	89	P	Pn	22 19 12.8	+1.4
MSVF	**Nonsavu**	9.29	89	Pn	Pn	22 19 09.8	-1.7
HURO	**Huro Makira**	9.87	320	P	Pn	22 19 22.0	+2.7
NGOA	**Tingoa Renbel**	10.34	309	P	Pn	22 19 27.9	+2.2
TAVE	**Taveuni**	11.36	84	P	Pn	22 19 39.6	0.0
HNR	**Honiara**	11.90	316	Pn	Pn	22 19 43.9	-3.1
	20nm,0.3s,baz=193,slow=5.4,SNR=4.3						
HNR				Sn	Sn	22 21 53.1	-5.5
	23nm,0.3s,baz=271,slow=7.0,SNR=2.3						
HNR				LR	LR	22 23 36.2	
	comp=Z,107nm,21.9s,baz=212,slow=34						
	83nm,0.5s						
HNR				AML	AML		
HNR	**Honiara**	11.90	316	P	Pn	22 19 52.0	+4.9
HNR	**Honiara**	11.90	316		Pn	22 19 46.4	-0.7
SAVO	**Savo Central**	12.20	316	P	Pn	22 19 54.5	+3.3
TATA	**Tatamba Isabel**	12.78	319	P	Pn	22 20 03.2	+4.1
AFI	**Afiamalu**	19.61	80	LR	LR	22 26 51.9	
	comp=Z,49nm,21.8s,baz=24,slow=31						
TOZ	**Tahuroa Road**	20.46	163	P	P	22 21 34.7	+0.4
TOZ				IAmb	IAmb	22 21 41.2	
	comp=Z,26nm,0.8s						
CTA	**Charters Tower**	20.91	261	P	P	22 21 40.3	+0.9
	comp=Z,1.6nm,0.4s,baz=63,slow=14,SNR=4.1						
CTA				LR	LR	22 28 25.5	
	comp=Z,122nm,21.2s,baz=45,slow=33						
	comp=Z,1.6nm,0.4s						
URZ	**Urewera**	21.42	161	P	P	22 21 46.1	+1.4
	comp=Z,17nm,0.7s,baz=324,slow=4.4,SNR=14						
	comp=Z,17nm,0.7s						
RTZ	**Ruatahuna**	21.71	161		P	22 21 48.8	+0.9
RTZ				IAmb	IAmb	22 21 53.9	
	comp=Z,23nm,0.9s						
QRZ	**Quartz Range**	22.84	172	P	P	22 22 02.4	+2.5
MRZ	**Mangatainoka R**	23.25	166	P	P	22 22 05.3	+1.3
BFZ	**Birch Farm**	23.43	165	P	P	22 22 06.5	+0.7
BFZ				IAmb	IAmb	22 22 11.5	
	comp=Z,28nm,0.9s						
TUWZ	**Tuamarina**	23.66	169	P	P	22 22 09.7	+1.8
SNZO	**South Karori**	23.68	168	P	P	22 22 08.2	0.0
BHW	**Baring Head**	23.81	168	P	P	22 22 10.8	+1.4
THZ	**Tophouse**	23.82	171	P	P	22 22 10.9	+1.3
THZ				IAmb	IAmb	22 22 24.4	
	comp=Z,31nm,1.0s						
MSWZ	**Moikau Station**	23.90	167	P	P	22 22 11.5	+1.2
BSWZ	**Blackbirch Sta**	23.92	170	P	P	22 22 11.7	+1.3
CMWZ	**Cape Campbell**	24.01	169	P	P	22 22 11.4	+0.1
PLWZ	**Palliser**	24.04	167	P	P	22 22 12.8	+1.2
INZ	**Inchbonnie**	24.59	174		P	22 22 17.9	+1.3
INZ				IAmb	IAmb	22 22 22.7	
	comp=Z,30nm,0.9s						
LTZ	**Lake Taylor**	24.74	173		P	22 22 19.0	+1.1
LTZ				IAmb	IAmb	22 22 22.8	
	comp=Z,21nm,0.7s						
GVZ	**Greta Valley S**	25.02

PPT2					*e*LR	LR	22 35 35.3			
	comp=Z,86nm,39.5s									
PPT	**Papeete**	**40.03**	**96**	LR	LR	22 39 28.8				
	comp=Z,64nm,18.5s,baz=32,slow=34									
SIJI	**Sorong**	**40.23**	**291**	P	**P**	**22 24 33.4**	**-0.1**			
	comp=Z,5.6nm,0.5s,baz=164,slow=18,SNR=2.1									
	comp=Z,5.6nm,0.5s									
FITZ	**Fitzroy Crossi**	**40.47**	**263**	P	**P**	**22 24 36.0**	**+0.6**			
BATI	**Baumata**	**43.90**	**274**	P	**P**	**22 25 04.2**	**+0.7**			
	comp=Z,19nm,0.6s,baz=31,slow=1.6,SNR=3.3									
	comp=Z,19nm,0.6s									
MBWA	**Marble Bar**	**45.69**	**258**	P	**P**	**22 25 17.9**	**+0.3**			
MBWA				IAmb	IAmb	22 25 19.1				
	comp=Z,21nm,1.1s									
NWAO	**Narrogin (SRO)**	**47.91**	**242**	P	**P**	**22 25 35.2**	**+0.3**			
MORW	**Morawa**	**48.74**	**247**	P	**P**	**22 25 41.2**	**-0.2**			
TOLI2	**Tolitoli**	**50.51**	**287**	P	**P**	**22 25 54.6**	**-0.4**			
TAOE	**Nuku Hiva Isla**	**50.83**	**87**	*e*LR	LR	22 40 28.5				
	comp=Z,206nm,30.6s									
VNDA	**Vanda**	**59.44**	**182**	P	**P**	**22 26 58.8**	**+0.2**			
	comp=Z,0.3nm,0.5s,baz=348,slow=7.9,SNR=5.3									
VNDA				LR	LR	22 48 28.6				
	comp=Z,34nm,20.8s,baz=353,slow=32									
	comp=Z,0.3nm,0.5s									
VNDA	**Vanda**	**59.44**	**182**	P	**P**	**22 26 59.0**	**+0.5**			
CASY	**Casey**	**60.72**	**203**	P	**P**	**22 27 07.8**	**+0.3**			
MJAR	**Matsushiro Arr**	**61.42**	**333**	P	**P**	**22 27 11.3**	**-1.4**			
	comp=Z,1.0nm,0.4s,baz=164,slow=7.6,SNR=4.6									
	comp=Z,1.0nm,0.4s									
MJAR	**Matsushiro Arr**	**61.42**	**333**	P	**P**	**22 27 11.7**	**-0.9**			
MJAR				IAmb	IAmb	22 28 36.0				
	comp=Z,16nm,1.8s									
JNU	**Nakatsue**	**62.31**	**325**	P	**P**	**22 27 17.1**	**-1.6**			
	comp=Z,7.5nm,0.9s,baz=158,slow=9.5,SNR=3.6									
	comp=Z,7.5nm,0.9s									
KSRS	**Korea Array**	**67.15**	**326**	P	**P**	**22 27 49.6**	**-0.5**			
	comp=Z,1.7nm,0.7s,baz=141,slow=7.3,SNR=5.4									
	comp=Z,1.7nm,0.7s									
NJ2	**Nanjing**	**68.84**	**316**	*e*P	**P**	**22 28 03.0**	**+2.1**			
NJ2				pmax	pmax					
	comp=Z,5.0nm,0.5s									
USRK	**Ussuriysk Ar.**	**70.41**	**333**	P	**P**	**22 28 09.8**	**-0.5**			
	comp=Z,4.2nm,0.8s,baz=120,slow=6.4,SNR=7.8									
	comp=Z,4.2nm,0.8s									
USRK	**Ussuriysk Ar.**	**70.41**	**333**	P	**P**	**22 28 09.3**	**-1.0**			
WHN	**Wuhan**	**70.99**	**112**	P	**P**	**22 28 15.1**	**+1.0**			
PETK	**Petropavlovsk-**	**71.60**	**353**	P	**P**	**22 28 16.6**	**-0.7**			
	comp=Z,2.5nm,0.8s,baz=179,slow=6.8,SNR=2.0									
	comp=Z,2.5nm,0.8s									
PETK	**Petropavlovsk-**	**71.60**	**353**	P	**P**	**22 28 16.4**	**-0.9**			
QSPA	**South Pole Qui**	**71.85**	**180**	P	**P**	**22 28 19.3**	**+0.3**			
	comp=Z,1.1nm,0.7s,baz=62,slow=3.5,SNR=6.2									
	comp=Z,1.1nm,0.7s									
QSPA	**South Pole Qui**	**71.85**	**180**	P	**P**	**22 28 19.1**	**+0.1**			
QSPA				IAmb	IAmb	22 28 36.9				
	comp=Z,10nm,0.9s									
CN2	**Changchun**	**73.11**	**329**	P	**P**	**22 28 26.4**	**-0.1**			
CN2				pmax	pmax					
	comp=Z,10.0nm,0.7s									
BNX	**BinXian**	**73.64**	**331**	⇓P	**P**	**22 28 28.6**	**-1.0**			
BNX				pmax	pmax					
	comp=Z,11nm,0.7s									
KLR	**Kul'dur**	**74.56**	**336**	P	**P**	**22 28 34.4**	**-0.5**			
	comp=Z,4.3nm,0.9s,baz=131,slow=3.2,SNR=8.9									
	comp=Z,4.3nm,0.9s									
LYN	**LuoYang**	**74.61**	**315**	P	**P**	**22 28 35.8**	**+0.3**			
LYN				pmax	pmax					
	comp=Z,18nm,0.9s									
HNS	**HongShan**	**74.83**	**318**	⇑P	**P**	**22 28 37.3**	**+0.6**			
HNS				pmax	pmax					
	comp=Z,13nm,1.0s									
BJI2	**Beijing**	**75.56**	**321**	P	**P**	**22 28 41.3**	**+0.4**			
BJI2				pmax	pmax					
	comp=Z,8.0nm,0.6s									
XAN	**Xi'an**	**76.75**	**313**	*e*P	**P**	**22 28 48.7**	**+0.8**			
KMI2	**Kunming**	**76.97**	**302**	P	**P**	**22 28 50.6**	**+1.1**			
KMI2				pmax	pmax					
	comp=Z,9.0nm,0.9s									
CMAR	**Chiang Mai Arr**	**77.27**	**294**	P	**P**	**22 28 52.0**	**+1.0**			
	comp=Z,2.1nm,0.7s,baz=131,slow=4.3,SNR=17									
	comp=Z,2.1nm,0.7s									
CMAR	**Chiang Mai Arr**	**77.27**	**294**		**P**	**22 28 50.7**	**-0.3**			
CHTO	**Chiang Mai**	**77.41**	**295**		**P**	**22 28 51.5**	**-0.4**			
HHC	**Hu-ho-hao-te**	**78.85**	**320**	*e*P	**P**	**22 29 02.3**	**+2.8**			
HHC				pmax	pmax					
	comp=Z,8.0nm,0.6s									
HHC				pmax	pmax					
	comp=Z,130nm,5.3s									
LZH	**Lanzhou**	**81.37**	**312**	*e*P	**P**	**22 29 14.5**	**+1.2**			
LZH				pP	PcP	22 29 23.8	+4.5			
LZH				pmax	pmax					
	comp=Z,22nm,1.2s									
LZDM	**Lanzhou Array**	**81.41**	**312**	P	**P**	**22 29 13.6**	**-0.1**			
	comp=Z,0.8nm,0.2s,baz=140,slow=5.0,SNR=4.8									
	comp=Z,0.8nm,0.2s									
MORE	**Moreh**	**83.54**	**298**		**P**	**22 29 23.7**	**-1.0**			
MORE				IAmb	IAmb	22 29 24.2				
	comp=Z,5.3nm,1.0s									
ULN	**Ulaanbaatar**	**85.50**	**324**		**P**	**22 29 33.7**	**-0.5**			
ULN				IAmb	IAmb	22 29 34.8				
	comp=Z,7.2nm,1.1s									
GTA2	**Gaotai**	**85.84**	**314**	P	**P**	**22 29 36.5**	**+0.4**			
GTA2				pP	sP	22 29 51.8	+1.5			
GTA2				pmax	pmax					
	comp=Z,14nm,1.0s									
SONM	**Songino Array**	**85.86**	**323**	P	**P**	**22 29 35.5**	**-0.4**			
	comp=Z,1.7nm,0.5s,baz=144,slow=6.7,SNR=14									
	comp=Z,1.7nm,0.5s									
SONM	**Songino Array**	**85.86**	**323**	P	**P**	**22 29 35.1**	**-0.9**			
AFDM	**Forest Hills D**	**87.12**	**47**		**P**	**22 29 42.2**	**0.0**			
AFDM				IAmb	IAmb	22 29 42.7				
	comp=Z,3.9nm,0.9s									
CMB	**Columbia Colle**	**87.13**	**49**		**P**	**22 29 42.5**	**+0.1**			
CMB				IAmb	IAmb	22 29 43.2				
	comp=Z,3.3nm,0.6s									
TROLL	**Troll, Antarti**	**89.50**	**184**	P	**P**	**22 29 52.9**	**-0.3**			
	comp=Z,197nm,0.6s									
ILAR	**Eielson Array**	**89.51**	**18**	P	P	22 29 50.5	-2.5			
	comp=Z,0.7nm,0.9s,baz=236,slow=5.1,SNR=4.4									
	comp=Z,0.7nm,0.9s									
ILAR	**Eielson Array**	**89.51**	**18**	P	**P**	**22 29 51.2**	**-1.7**			
VNA3	**Neumayer Olymp**	**90.78**	**181**	P	**P**	**22 29 57.9**	**-1.1**			
	comp=Z,3.8nm,0.6s									
VNA2	**Neumayer--Watz**	**91.06**	**181**	P	**P**	**22 29 59.8**	**-0.5**			
	comp=Z,2.4nm,0.7s,baz=185,slow=3.4									
G08A	**Pilot Rock**	**91.19**	**42**		**P**	**22 30 01.1**	**-0.3**			
WMQ	**Urumqi**	**95.84**	**314**	*e*P	**P**	**22 30 24.8**	**+2.0**			
WMQ				L	L					
	comp=Z,230nm,22.5s									
MKAR	**Makanchi Array**	**100.37**	**316**	P	**Pdif**	**22 30 42.3**	**-0.7**			
	comp=Z,0.6nm,0.5s,baz=93,slow=6.6,SNR=12									
MKAR	**Makanchi Array**	**100.37**	**316**		**Pdif**	**22 30 41.2**	**-1.8**			
ARCES	**ARCESS Array B**	**123.84**	**345**	PKP	**PKPdf**	**22 35 51.5**	**-2.0**			
	comp=Z,4.8nm,1.0s,baz=75,slow=1.4,SNR=9.0									
ARCES	**ARCESS Array B**	**123.84**	**345**		**PKPdf**	**22 35 52.0**	**-1.5**			
FINES	**FINESS Array B**	**129.29**	**338**	PKP	**PKPdf**	**22 36 02.5**	**-1.5**			
	comp=Z,5.8nm,1.1s,baz=46,slow=4.0,SNR=4.8									
AKASG	**Malin Array Be**	**134.13**	**325**	PKP	**PKPdf**	**22 36 12.3**	**-1.2**			
	comp=Z,2.0nm,0.4s,baz=61,slow=1.9,SNR=4.1									
BRTR	**Keskin Array B**	**135.47**	**309**	PKP	**PKPdf**	**22 36 15.5**	**-1.1**			
	comp=Z,0.8nm,0.8s,baz=92,slow=5.0,SNR=2.9									
BRTR	**Keskin Array B**	**135.47**	**309**		**PKPdf**	**22 36 15.3**	**-1.3**			
ZVC	**Zvikov**	**142.50**	**332**	*e*PKP	PKPdf	22 36 23.9	-5.0			
MULD	**Muldenberg**	**142.53**	**335**	*e*PKPbc	**PKPdf**	**22 36 24.2**	**-4.8**			
	baz=41,slow=3.1									
WERD	**Werda**	**142.55**	**335**	*e*PKPbc	PKPdf	22 36 24.1	-4.9			
	baz=41,slow=3.1									
CONA	**Conrad Observa**	**142.79**	**329**	*e*PKP	**PKPdf**	**22 36 26.4**	**-3.2**			
	comp=Z,0.5nm,0.3s									
CKRC	**Cesky Krumlov**	**142.90**	**331**	*e*PKP	**PKPdf**	**22 36 25.1**	**-4.6**			
KHC	**Kasperske Hory**	**143.00**	**332**	*e*PKP	**PKPdf**	**22 36 29.2**	**-0.7**			
ROTZ	**Rotzenmuhle**	**143.11**	**334**	*e*PKPbc	PKPab	22 36 25.6	+0.1			
	baz=41,slow=3.1									
GERES	**GERESS Array B**	**143.16**	**332**	PKhKP	PKPpre	22 36 26.0				
	comp=Z,0.6nm,0.5s,baz=21,slow=1.4,SNR=6.9									
MOA	**Molln**	**143.62**	**330**	*i* PKP	PKPab	22 36 28.0	+0.4			
	comp=Z,1.7nm,0.4s									
SESA	**Seetaler Alpe,**	**143.99**	**329**	*i* PKP	PKPab	22 36 28.9	-0.4			
	comp=Z,6.4nm,0.5s,SNR=15									
SOKA	**Soboth**	**144.06**	**328**	*i* PKP	**PKPab**	**22 36 28.8**	**-0.6**			
	comp=Z,3.7nm,0.5s									
TNS	**Taunus Mts**	**144.21**	**338**	*e*PKPbc	**PKPab**	**22 36 29.6**	**-0.1**			
	baz=41,slow=3.1									
OBKA	**Obir**	**144.42**	**328**	*e*PKPbc	**PKPab**	**22 36 29.9**	**-0.9**			
	baz=41,slow=3.1									
OBKA	**Obir**	**144.42**	**328**	*e*PKP	**PKPab**	**22 36 30.1**	**-0.6**			
	comp=Z,3.2nm,0.7s									

KBA	**Koelnbreinsper**	**144.61**	**330**	*e*PKPbc	**PKPab**	**22 36 30.4**	**-1.2**			
	baz=41,slow=3.1									
KBA	**Koelnbreinsper**	**144.61**	**330**	*i* PKP	**PKPab**	**22 36 30.3**	**-1.2**			
	comp=Z,4.0nm,0.5s,SNR=5.3									
LESA	**Schwarzleotal**	**144.67**	**331**	*e*PKPbc	**PKPab**	**22 36 30.6**	**-1.0**			
	baz=41,slow=3.1									
LESA	**Schwarzleotal**	**144.67**	**331**	*e*PKP	**PKPab**	**22 36 30.6**	**-1.0**			
	comp=Z,12nm,0.5s,SNR=22									
FUR	**Furstenfeldbru**	**144.73**	**333**	*e*PKPbc	**PKPab**	**22 36 31.6**	**-0.1**			
	baz=41,slow=3.1									
MYKA	**Terra Mystica**	**144.78**	**329**	*i* PKP	**PKPab**	**22 36 30.4**	**-1.6**			
	comp=Z,7.4nm,0.5s,SNR=10									
STU	**Stuttgart**	**145.11**	**336**	*e*PKPbc	**PKPbc**	**22 36 32.8**	**-0.3**			
	baz=41,slow=3.1									
WATA	**Walderalm**	**145.23**	**332**	*e*PKP	**PKPbc**	**22 36 32.5**	**-1.1**			
	comp=Z,5.5nm,0.5s,SNR=10									
ABTA	**Abfaltersbach**	**145.24**	**330**	*i* PKP	**PKPbc**	**22 36 31.9**	**-1.7**			
	comp=Z,17nm,0.6s,SNR=13									
WTTA	**Wattenberg**	**145.26**	**332**	*e*PKPbc	**PKPbc**	**22 36 32.6**	**-1.2**			
	baz=41,slow=3.1									
WTTA	**Wattenberg**	**145.26**	**332**	*i* PKP	**PKPbc**	**22 36 32.8**	**-1.0**			
	comp=Z,5.5nm,0.4s,SNR=5.1									
BMRD	**Maredsous**	**145.36**	**341**	*d*PKP	**PKPbc**	**22 36 33.8**	**0.0**			
MOTA	**Moosalm**	**145.44**	**332**	*e*PKPbc	**PKPbc**	**22 36 33.1**	**-1.3**			
	baz=41,slow=3.1									
MOTA	**Moosalm**	**145.44**	**332**	*i* PKP	**PKPbc**	**22 36 33.3**	**-1.0**			
	comp=Z,20nm,0.9s,SNR=9.8									
WLF	**Walferdange**	**145.47**	**339**	*e*PKPbc	**PKPbc**	**22 36 33.8**	**-0.4**			
	baz=41,slow=3.1									
RETA	**Reutte**	**145.48**	**333**	*e*PKPbc	**PKPbc**	**22 36 33.2**	**-1.1**			
	baz=41,slow=3.1									
RETA	**Reutte**	**145.48**	**333**	*i* PKP	**PKPbc**	**22 36 33.4**	**-1.0**			
	comp=Z,4.5nm,0.6s									
SQTA	**Sankt Quirin**	**145.48**	**332**	*e*PKPbc	**PKPdf**	**22 36 33.4**	**-1.0**			
	baz=41,slow=3.1									
SQTA	**Sankt Quirin**	**145.48**	**332**	*e*PKP	**PKPdf**	**22 36 33.5**	**-0.8**			
	comp=Z,24nm,0.7s,SNR=22									
UBR	**Ueberruh**	**145.61**	**334**	*e*PKPbc	**PKPdf**	**22 36 33.8**	**-0.8**			
	baz=41,slow=3.1									
BFO	**Black Forest**	**145.81**	**336**	*e*PKPbc	**PKPdf**	**22 36 34.4**	**-0.4**			
	baz=41,slow=3.1									
FETA	**Feichten**	**145.85**	**332**	*e*PKPbc	**PKPdf**	**22 36 34.6**	**-0.5**			
	baz=41,slow=3.1									
FETA	**Feichten**	**145.85**	**332**	*i* PKP	**PKPdf**	**22 36 34.8**	**-0.3**			
	comp=Z,6.6nm,0.6s,SNR=20									
DAVA	**Damuels**	**146.01**	**333**	*e*PKPbc	**PKPdf**	**22 36 35.0**	**-0.3**			
	baz=41,slow=3.1									
DAVA	**Damuels**	**146.01**	**333**	*i* PKP	**PKPdf**	**22 36 35.0**	**-0.3**			
	comp=Z,6.7nm,0.6s									
SLE	**Schleitheim**	**146.20**	**335**	*e*PKPbc	**PKPdf**	**22 36 35.4**	**-0.1**			
	baz=41,slow=3.1									
PLONS	**Plons/SG**	**146.41**	**334**	*e*PKPbc	**PKPdf**	**22 36 35.9**	**0.0**			
	baz=41,slow=3.1									
SULZ	**Cheisacher**	**146.55**	**335**	*e*PKPbc	**PKPdf**	**22 36 36.2**	**+0.1**			
	baz=41,slow=3.1									
BALST	**Balsthal**	**146.87**	**336**	*e*PKPbc	**PKPdf**	**22 36 37.1**	**+0.5**			
	baz=41,slow=3.1									
ESDC	**Sonseca Array**	**157.57**	**344**	PKPab	**PKPab**	**22 37 23.6**	**-1.0**			
	comp=Z,1.1nm,0.9s,baz=13,slow=4.0,SNR=6.3									
ESDC	**Sonseca Array**	**157.57**	**344**		**PKPab**	**22 37 23.8**	**-0.8**			

*IDC **01** 22:18:10.3±0.7, 6°.94N×72°.88W, h184km±8km, mb3.4/4, mbtmp3.9/6, Error ellipse: s-maj=22.4km s-min=7.5km az=129.0*
*NEIC **01** 22:18:10.6±1.5, 7°.02N±0°.06×72°.99W±0°.07, h171km±7km, mb4.4/6, Error ellipse: s-maj=10.8km s-min=8.3km az=110.0*
*RSNC **01** 22:18:10.7±0.0, 7°.N±3°×7°.3W±°, h171km±6km, M3.5, mB4.5, mb3.6, ML3.2, Mw(mB)3.7*
*FUNV **01** 22:18:11.4, 6°.98N×72°.97W, h185km, MW3.8, Presumed earthquake*

ISC 01 22:18:09.9±0.7, 6°.96N±0°.03×72°.96W±0°.03, h184km±5km, n71, σ1§72/112, mb3.9/5, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m s	ISC
BARC	**Barichara**	**0.43**	**211**	P	**Pn**	**22 18 35.4**		**+0.2**
BARC				S	**Sn**	**22 18 52.4**		**-2.2**
BRJC	**Barrancabermej**	**0.78**	**271**	P	**Pn**	**22 18 37.0**		**+0.5**
BRJC				S	**Sn**	**22 18 57.1**		**+0.2**
RUSC	**La Rusia**	**1.07**	**186**	P	**Pn**	**22 18 39.2**		**+0.1**
RUSC				Sn	**Sn**	**22 19 00.0**		**-1.7**
RUSC	**La Rusia**	**1.07**	**186**	P	**Pn**	**22 18 39.2**		**+0.1**
RUSC				*S*	**Sn**	**22 19 00.4**		**-1.3**
RUSC	**La Rusia**	**1.07**	**186**	*e*P	**Pn**	**22 18 39.6**		**+0.5**
RUSC				*e*S	**Sn**	**22 19 00.8**		**-0.9**
CAPV	**Capacho**	**1.10**	**36**	*e*P	**Pn**	**22 18 40.1**		**+1.1**
TAMC	**Tame, Arauca**	**1.28**	**114**	P	**Pn**	**22 18 41.1**		**+0.9**
TAMC				S	**Sn**	**22 19 03.8**		**+0.2**
OCAC	**Ocana**	**1.31**	**344**	P	**Pn**	**22 18 41.4**		**+0.7**
OCAC				S	**Sn**	**22 19 05.2**		**+0.6**
PTBC	**PUERTO BERRIO,**	**1.54**	**254**	P	**Pn**	**22 18 42.4**		**-0.2**
PTBC				S	**Sn**	**22 19 06.3**		**-1.6**
SPBC	**San Pablo de B**	**1.71**	**220**	P	**Pn**	**22 18 44.5**		**+0.2**
SPBC				S	**Sn**	**22 19 09.9**		**-1.1**
NORC	**Norcasia**	**2.35**	**234**	P	**Pn**	**22 18 51.6**		**+0.4**
NORC				S	**Sn**	**22 19 21.3**		**-2.0**
CHIC	**Chingaza**	**2.44**	**198**	P	**Pn**	**22 18 52.8**		**+0.2**
CHIC				S	**Sn**	**22 19 24.8**		**-1.0**
ROSC	**El Rosal**	**2.50**	**213**	P	**Pn**	**22 18 55.2**		**+2.0**
	51nm,0.3s,baz=292,slow=13,SNR=21							
ROSC				S	**Sn**	**22 19 28.1**		**+1.1**
	102nm,0.3s,baz=4.3,slow=23,SNR=23							
ROSC	**El Rosal**	**2.50**	**213**		**Pn**	**22 18 54.2**		**+0.9**
ROSC				Sn	**Sn**	**22 19 27.8**		**+0.8**
HELC	**Santa Helena**	**2.66**	**253**		**Pn**	**22 18 54.3**		**-0.8**
HELC	**Santa Helena**	**2.66**	**253**	P	**Pn**	**22 18 55.3**		**+0.2**
HELC				S	**Sn**	**22 19 29.1**		**-1.1**
HELC	**Santa Helena**	**2.66**	**253**	*e*P	**Pn**	**22 18 56.4**		**+1.3**
HELC				*e*S	**Sn**	**22 19 27.7**		**-2.4**
CVER	**Cruz Verde, Cu**	**2.67**	**205**	P	**Pn**	**22 18 56.0**		**+0.8**
CVER				S	**Sn**	**22 19 30.1**		**-0.4**
UREC	**San Jos de Ur**	**2.67**	**287**	P	**Pn**	**22 18 54.2**		**-0.6**
UREC				S	**Sn**	**22 19 27.7**		**-2.0**
PTGC	**Puerto Gaitan,**	**2.87**	**163**	P	**Pn**	**22 18 56.7**		**-0.5**
PTGC				S	**Sn**	**22 19 31.1**		**-3.0**
VILC	**Villavicencio,**	**2.92**	**194**	P	**Pn**	**22 18 57.7**		**-0.3**
VILC				S	**Sn**	**22 19 30.1**		**-5.4**
GUY2C	**Guyana, Caldas**	**2.95**	**234**	P	**Pn**	**22 18 59.6**		**+1.0**
GUY2C				S	**Sn**	**22 19 35.9**		**-0.6**
SDV	**Santo Domingo**	**3.00**	**50**	P	**Pn**	**22 19 00.1**		**+1.2**
	27nm,0.3s,baz=230,slow=10.0,SNR=26							
SDV				S	**Sn**	**22 19 36.3**		**-0.7**
	51nm,0.4s,baz=247,slow=21,SNR=22							
SDV	**Santo Domingo**	**3.00**	**50**		**Pn**	**22 18 58.4**		**-0.4**
SDV	**Santo Domingo**	**3.00**	**50**	P	**Pn**	**22 18 59.6**		**+0.8**
SDV				S	**Sn**	**22 19 35.7**		**-1.3**
SDV	**Santo Domingo**	**3.00**	**50**	*e*P	**Pn**	**22 18 59.9**		**+1.0**
SDV				*e*S	**Sn**	**22 19 35.0**		**-2.1**
NIZA	**Niza - Manizal**	**3.13**	**233**	P	**Pn**	**22 19 02.4**		**+1.8**
NIZA				S	**Sn**	**22 19 40.9**		**+0.7**
ARGC	**Ariguani, Magd**	**3.14**	**336**	P	**Pn**	**22 19 02.8**		**+2.3**
ARGC				S	**Sn**	**22 19 40.0**		**-0.1**
CBOC	**Ciudad Bolivar**	**3.22**	**250**	P	**Pn**	**22 19 03.0**		**+1.4**
CBOC				S	**Sn**	**22 19 41.2**		**-0.7**
SJCC	**San Jacinto, C**	**3.65**	**323**		**Pn**	**22 19 06.6**		**-0.2**
SJCC	**San Jacinto, C**	**3.65**	**323**	P	**Pn**	**22 19 06.8**		**+0.1**
SJCC				S	**Sn**	**22 19 49.1**		**-2.2**
SJCC	**San Jacinto, C**	**3.65**	**323**	*e*P	**Pn**	**22 19 07.1**		**+0.3**
APAC	**Apartado, Choc**	**3.71**	**285**	P	**Pn**	**22 19 08.2**		**+0.8**
APAC				S	**Sn**	**22 19 52.6**		**+0.2**
PRAC	**Prado**	**3.75**	**211**	P	**Pn**	**22 19 08.2**		**+0.1**
PRAC				S	**Sn**	**22 19 51.6**		**-2.1**
ORTC	**Ortega, Tolima**	**3.79**	**217**	P	**Pn**	**22 19 09.2**		**+0.6**
ORTC				S	**Sn**	**22 19 52.2**		**-2.3**
LCBC	**Los crdobas,**	**3.86**	**299**	Pn	**Pn**	**22 19 08.9**		**-0.5**
LCBC	**Los crdobas,**	**3.86**	**299**	P	**Pn**	**22 19 08.8**		**-0.5**
LCBC				S	**Sn**	**22 19 53.3**		**-2.7**
URMC	**La Uribe, Meta**	**3.95**	**201**	P	**Pn**	**22 19 10.3**		**-0.3**
URMC				S	**Sn**	**22 19 56.4**		**-1.8**
CRJC	**Cerrejon, Guaj**	**4.03**	**1**	P	**Pn**	**22 19 11.1**		**-0.5**
CRJC				S	**Sn**	**22 19 55.5**		**-4.6**
SMRC	**Santa Marta, M**	**4.36**	**343**	Pn	**Pn**	**22 19 15.4**		**-0.2**
SMRC	**Santa Marta, M**	**4.36**	**343**	P	**Pn**	**22 19 16.3**		**+0.6**
SMRC				S	**Sn**	**22 20 03.7**		**-3.6**
GUVC	**San Jose del G**	**4.40**	**176**	P	**Pn**	**22 19 16.2**		**-0.1**
YOTC	**Yotoco, Valle**	**4.48**	**229**	P	**Pn**	**22 19 17.2**		**-0.2**
YOTC				S	**Sn**	**22 20 04.9**		**-5.5**
TEPV	**Terepaima**	**4.77**	**51**	*e*P	**Pn**	**22 19 21.4**		**+0.3**
TEPV				*e*S	**Sn**	**22 20 11.8**		**-5.2**
URIC	**Uribia, Colomb**	**4.80**	**11**	Pn	**Pn**	**22 19 20.5**		**-0.9**
URIC	**Uribia, Colomb**	**4.80**	**11**	P	**Pn**	**22 19 20.5**		**-0.9**
URIC				S	**Sn**	**22 20 13.9**		**-3.8**
URIC	**Uribia, Colomb**	**4.80**	**11**	*e*P	**Pn**	**22 19 21.0**		**-0.4**
MACC	**Macarena, Meta**	**4.87**	**190**	P	**Pn**	**22 19 20.5**		**-1.8**
MACC				S	**Sn**	**22 20 13.5**		**-5.7**
JAMC	**Jamundi, Valle**	**5.25**	**225**	P	**Pn**	**22 19 27.1**		**-0.3**
	6.7nm,1.3s							
JAMC				S	**Sn**	**22 20 25.1**		**-3.2**
	6.7nm,1.3s							
JAMC				AML	AML			
UPD2	**Meteti**	**5.25**	**288**	P	**Pn**	**22 19 27.3**		**+0.1**
	44nm,0.8s							
UPD2				S	**Sn**	**22 20 26.4**		**-1.5**
	44nm,0.8s							
UPD2				AML	AML			
MAPV	**Macapo**	**5.29**	**57**	*e*P	**Pn**	**22 19 27.3**		**-0.4**
MAPV				*e*S	**Sn**	**22 20 24.5**		**-4.5**
POPC	**Popayan, Colom**	**5.75**	**220**	P	**Pn**	**22 19 34.0**		**+0.1**
	4.8nm,0.6s							
POPC				AML	AML			
BENV	**Beln**	**6.08**	**60**	*e*P	**Pn**	**22 19 37.5**		**-0.6**
BBAC	**Balboa, Cauca**	**6.51**	**221**	P	**Pn**	**22 19 45.2**		**+1.4**
BOAV	**Boa Vista**	**13.20**	**110**	Pn	**Pn**	**22 21 11.4**		**+0.9**
TGUH	**Tegucigalpa,Un**	**15.73**	**298**		**Pn**	**22 21 41.5**		**-0.5**
TGUH				IAmb	IAmb	22 22 23.8		
	comp=Z,34nm,1.3s							
SOR	**Soroa**	**18.47**	**329**	P	**P**	**22 22 11.3**		**-0.7**
SOR				IAmb	IAmb	22 22 53.5		
	comp=Z,18nm,1.2s							
VILB	**Vilhena**	**23.50**	**147**	P	**P**	**22 23 05.1**		**+1.7**
VILB				IAmb	IAmb	22 23 05.2		
	comp=Z,7.5nm,0.8s							
LPAZ	**La Paz**	**23.59**	**168**	P	**P**	**22 23 05.2**		**+0.3**
	comp=Z,1.3nm,0.5s,baz=13,slow=8.2,SNR=6.5							
	comp=Z,1.3nm,0.5s							
LPAZ	**La Paz**	**23.59**	**168**	P	**P**	**22 23 05.3**		**+0.5**
GOGA	**Godfrey**	**28.06**	**341**	P	**P**	**22 23

S12K	**Black Hills**	1.77	311	Pn		**Pb**	22 39 56.3	-2.0
S12K	**Black Hills**	1.77	311	IAML			22 40 29.6	
	comp=N,9μm,0.6s							
S12K				IAML			22 40 29.6	
	comp=E,12μm,0.6s							
CHGN	**Chignik**	1.88	22			**Pb**	22 39 57.6	-2.5
CHGN				IAML			22 40 30.6	
	comp=E,3μm,0.5s							
BPBCA	**Veniaminof**	2.14	19			**Pb**	22 40 01.9	-2.7
ANPB	**Aniakchak Plen**	2.37	19			**Pn**	22 40 05.1	+1.6
SSLN	**Shishaldin Nor**	2.51	277			**Pn**	22 40 06.6	+1.1
CHIR	**Chirikof Isla**	2.65	60	P		**Pn**	22 40 07.6	+0.3
CHIR	**Chirikof Islan**	2.65	60	Pn		**Pn**	22 40 07.8	+0.5
CHIR				IAML			22 41 12.0	
	comp=E,938nm,1.0s							
WESN	**West Dahl Nort**	2.85	272			**Pn**	22 40 10.9	+0.8
WECS	**Westdahl Cape**	2.96	271			**Pn**	22 40 12.7	+1.0
WECS				IAML			22 41 06.1	
	comp=N,839nm,0.6s							
R16K	**Pilot Point**	3.23	21			**Pn**	22 40 16.9	+1.7
R16K	**Pilot Point**	3.23	21	IAML			22 41 23.7	
	comp=N,580nm,1.1s							
R16K				IAML			22 41 25.0	
	comp=E,682nm,1.3s							
AKUT	**Akutan**	3.58	265	P		**Pn**	22 40 21.0	+0.8
AKUT	**Akutan**	3.58	265			**Pn**	22 40 21.3	+1.1
R17L	**Mt. Peulik Vol**	3.59	30			**Pn**	22 40 22.3	+2.1
AHB	**Akutan Harbor**	3.61	265			**Pn**	22 40 21.5	+0.8
PLK1	**Peulik 1**	3.66	27			**Pn**	22 40 23.0	+1.7
AKLV	**Akutan Long Va**	3.69	266			**Pn**	22 40 22.6	+0.9
AKV	**Akutan Volcano**	3.70	266			**Pn**	22 40 22.8	+1.0
AKGG	**Akutan Green G**	3.70	267			**Pn**	22 40 23.0	+1.1
SII	**Sitkinak Islan**	3.71	55	P		**Pn**	22 40 22.2	+0.3
SII	**Sitkinak Islan**	3.71	55			**Pn**	22 40 22.4	+0.5
SII				IAML			22 42 41.0	
	comp=N,1μm,0.6s							
ZRO	**Akutan Zero**	3.71	265			**Pn**	22 40 22.3	+0.3
LVA	**Lava Point**	3.73	266			**Pn**	22 40 23.2	+0.9
LVA				IAML			22 41 48.2	
	comp=N,387nm,0.7s							
MSW	**Makushin Switc**	4.21	264			**Pn**	22 40 29.0	+0.1
MSW						**Sn**	22 41 16.3	-0.8
CAHL	**Cahill**	4.26	33			**Pn**	22 40 30.8	+1.3
Q17K	**Contact Creek**	4.26	28			**Pn**	22 40 30.8	+1.3
MGOD	**Makushin Gods**	4.29	262			**Pn**	22 40 30.4	+0.5
MGOD						**Sn**	22 41 17.3	-1.7
ACHA	**Angle Creek He**	4.38	32			**Pn**	22 40 32.3	+1.1
OHAK	**Old Harbor**	4.47	51	P		**Pn**	22 40 32.4	0.0
OHAK	**Old Harbor**	4.47	51			**Pn**	22 40 32.6	+0.2
OHAK				IAML			22 43 29.9	
	comp=N,510nm,1.0s							
OHAK				IAML			22 43 36.1	
	comp=E,349nm,1.0s							
P16K	**Nushagak River**	4.56	11	Pn		**Pn**	22 40 34.7	+1.0
O15K	**Ungalikthiuk R**	4.61	359			**Pn**	22 40 35.3	+1.0
O15K				IAML			22 42 00.1	
	comp=E,223nm,0.9s							
O14K	**Tigyukauivet M**	4.77	350			**Pn**	22 40 37.4	+1.0
O14K				IAML			22 41 44.1	
	comp=N,345nm,1.1s							
O14K				IAML			22 42 15.3	
	comp=E,172nm,1.2s							
P17K	**Kvichak River**	4.96	20			**Pn**	22 40 40.2	+1.1
OKTU	**Okmok Mt. Tuli**	5.07	260			**Pn**	22 40 41.3	+0.6
OKNC	**Okmok New Cone**	5.10	261			**Pn**	22 40 41.5	+0.5
OKNC	**Okmok New Cone**	5.10	261	IAML			22 42 01.3	
	comp=E,158nm,2.0s							
OKNC				IAML			22 42 25.4	
	comp=N,174nm,2.1s							
O16K	**Kokwok River B**	5.11	9			**Pn**	22 40 41.2	+0.2
O16K				IAML			22 43 56.0	
	comp=E,213nm,1.4s							
O16K				IAML			22 44 06.7	
	comp=N,181nm,1.0s							
KDAK	**Kodiak Island**	5.11	48	Pn		**Pn**	22 40 41.2	+0.2
	comp=N,7.7nm,0.3s,baz=117,slow=1.0,SNR=121							
KDAK				Sn		**Sn**	22 41 35.2	-3.8
	baz=244,slow=8.4 comp=N,16nm,0.3s							
KDAK				AML	AML			
KDAK	**Kodiak Island**	5.11	48			**Pn**	22 40 41.3	+0.2
KDAK				IAML			22 43 51.9	
	comp=N,356nm,0.8s							
KDAK				IAML			22 44 02.4	
	comp=N,365nm,1.2s							
O17K	**Koliganek Bris**	5.40	14			**Pn**	22 40 46.5	+1.4
P18K	**Big Mountain,**	5.41	25			**Pn**	22 40 46.5	+1.3
N14K	**Kuskokwak Cree**	5.47	349	Pn		**Pn**	22 40 47.4	+1.3
Q19K	**Cape Douglas,**	5.49	35			**Pn**	22 40 47.4	+1.0
N15K	**Kwethluk River**	5.61	358			**Pn**	22 40 49.2	+1.1
N17K	**Nushagak Hills**	6.12	12			**Pn**	22 40 55.7	+0.7
M15K	**Kasigluk River**	6.16	355			**Pn**	22 40 56.7	+1.2
M13K	**Dall Lake**	6.18	343	Pn		**Pn**	22 40 57.2	+1.5
CLCO	**Concord Point,**	6.22	257			**Pn**	22 40 57.1	+0.6
CLES	**Cleveland East**	6.31	258	Pn		**Pn**	22 40 58.8	+1.0
O19K	**Port Alsworth**	6.34	25			**Pn**	22 40 59.2	+1.3
N18K	**Kilae Creek**	6.45	17	Pn		**Pn**	22 40 59.8	+0.2
M16K	**Timber Creek**	6.48	3			**Pn**	22 41 01.2	+1.3
ILSW	**Iliamna Southw**	6.48	31			**Pn**	22 41 01.3	+1.3
ILS	**Iliamna Low So**	6.48	31			**Pn**	22 41 01.1	+1.1
SPIA	**Saint Paul Isl**	6.49	298	P		**Pn**	22 41 02.1	+2.1
SPIA	**Saint Paul Isl**	6.49	298	Pn		**Pn**	22 41 01.1	+1.1
IVE	**Iliamna Volcan**	6.54	31			**Pn**	22 41 02.1	+1.2
O20K	**Slope Mountain**	6.71	32			**Pn**	22 41 04.6	+1.4
CNPM	**China Poot**	6.77	39			**Pn**	22 41 04.3	+0.4
N19K	**Bonanza Creek**	6.85	22			**Pn**	22 41 06.4	+1.3
RED	**Redoubt Volcan**	6.94	30			**Pn**	22 41 06.8	+0.5
M17K	**Holitna River**	6.95	9			**Pn**	22 41 07.2	+0.9
L14K	**Kuka Creek**	6.97	348			**Pn**	22 41 07.7	+1.1
NCT	**North Crescent**	7.01	28			**Pn**	22 41 08.6	+1.2
BRSE	**Bradley Lake S**	7.10	40			**Pn**	22 41 08.2	-0.3
L15K	**Ungalak Mounta**	7.19	353			**Pn**	22 41 10.0	+0.4
L17K	**Donlin**	7.62	5			**Pn**	22 41 16.4	+0.9
K15K	**Wolf Creek Mou**	7.80	354	Pn		**Pn**	22 41 19.1	+1.0
SLKM	**Skilak Lake**	7.83	37			**Pn**	22 41 18.3	-0.1
K13K	**Kusilvak Mount**	7.83	343			**Pn**	22 41 19.4	+1.1
L18K	**Granite Mounta**	7.83	10			**Pn**	22 41 19.2	+0.8
SEW	**Seward**	7.83	41	Pn		**Pn**	22 41 17.9	-0.5
K17K	**Iditarod**	8.20	4			**Pn**	22 41 24.5	+1.0
RC01	**Rabbit Creek A**	8.41	35	Pn		**Pn**	22 41 26.1	-0.2
J14K	**Nanvaranak Lak**	8.44	348			**Pn**	22 41 28.0	+1.2
PWL	**Port Wells**	8.74	39			**Pn**	22 41 29.9	-1.1
J16K	**Anvik River**	8.75	357			**Pn**	22 41 31.8	+0.8
J17K	**VABM Dome**	8.85	2			**Pn**	22 41 32.9	+0.4
PMR	**Palmer**	8.98	34	P		**Pn**	22 41 35.6	+1.5
EYAK	**Cordova Ski Ar**	9.58	46	P		**Pn**	22 41 43.0	+0.7
BMRM	**Bremner River**	10.28	45			**Pn**	22 41 51.4	-0.6
H17K	**Granite Mounta**	10.40	359			**Pn**	22 41 53.9	+0.3
ADK	**Adak**	10.54	262	P		**Pn**	22 41 56.6	+1.1
ADK	**Adak**	10.54	262	Pn		**Pn**	22 41 55.2	-0.3
GLB	**Gilahina Butte**	10.86	44			**Pn**	22 41 59.5	-0.5
VRDI	**Verde Repeater**	10.89	46			**Pn**	22 42 01.6	+1.0
MLY	**Manley**	11.40	20			**Pn**	22 42 07.1	-0.2
H22K	**Ishtalitna Cre**	12.07	17			**Pn**	22 42 16.9	+0.5
ILAR	**Eielson Array**	12.07	27	Pn		**Pn**	22 42 14.6	-1.8
	comp=N,0.3nm,0.3s,baz=217,slow=13,SNR=19 comp=N,1.0nm,0.4s							
ILAR				AML	AML			
ILAR	**Eielson Array**	12.07	27			**Pn**	22 42 14.4	-2.0
PNL	**Peninsula**	12.13	57	P		**Pn**	22 42 18.5	+1.2
SCRK	**Sand Creek**	12.34	34			**Pn**	22 42 19.2	-1.0
SIT	**Sitka**	13.90	70	P		**Pn**	22 42 42.6	+1.2
SKAG	**Skagway**	14.10	60	P		**Pn**	22 42 44.9	+0.8
JIS	**Juneau Island**	14.46	65	P		**Pn**	22 42 59.4	+1.5
I28M	**Miner Creek**	14.62	34			**Pn**	22 42 51.0	-0.3
D23K	**Nanushuk River**	15.03	13	Pn		**Pn**	22 42 56.4	-0.2
M31M	**Drury Creek, Y**	15.22	50	IAmb	IAmb		22 43 18.8	
	comp=Z,9.9nm,0.8s							
J30M	**Hart River**	15.40	40	IAmb	IAmb		22 43 27.3	
	comp=Z,16nm,0.8s							
D24K	**Happy Valley**	15.46	15	IAmb	IAmb		22 43 08.0	
	comp=Z,9.5nm,0.8s							
P33M	**Teslin, Yukon**	15.48	58	IAmb	IAmb		22 43 20.3	
	comp=Z,20nm,1.0s							
Q32M	**Nakina River**	15.60	63	Pn		**Pn**	22 43 04.9	+0.5
H29M	**Whitestone**	15.61	33	IAmb	IAmb		22 43 12.5	
	comp=Z,16nm,0.7s							
I30M	**Mount Dempster**	15.71	38	IAmb	IAmb		22 43 14.0	
	comp=Z,37nm,0.8s							
E27K	**Coleen River**	16.06	25	Pn		**Pn**	22 43 10.3	+0.2
F28M	**Old Crow**	16.09	28	Pn		**Pn**	22 43 09.8	-0.6
G29M	**Pine Creek**	16.15	32	IAmb	IAmb		22 43 16.5	
	comp=Z,17nm,0.7s							

R33M	**Jennings River**	16.30	61	Pn		**Pn**	22 43 14.2	+0.9
MMPY	**Sheldon Lake,**	16.74	50	IAmb	IAmb		22 43 22.1	
	comp=Z,28nm,0.9s							
H31M	**Peel River**	16.74	38	Pn		**Pn**	22 43 16.4	-2.3
H31M				IAmb	IAmb		22 43 25.8	
	comp=Z,14nm,0.7s							
DLBC	**Dease Lake**	16.75	65	Pn		**P**	22 43 20.2	-0.7
	comp=Z,1.0nm,0.3s,baz=287,slow=9.6,SNR=4.5							
DLBC	comp=Z,2.6nm,0.4s			AML	AML			
G30M	**tAoh Zraii Nji**	16.75	33	Pn		**Pn**	22 43 16.1	-2.9
G30M				IAmb	IAmb		22 43 23.6	
	comp=Z,38nm,1.1s							
C26K	**Camden Bay**	16.77	18	Pn		**P**	22 43 19.7	-1.4
D27M	**Malcolm River**	17.02	23	Pn		**Pn**	22 43 21.8	-0.5
E29M	**Blow River**	17.17	28			**P**	22 43 25.3	-0.1
F30M	**Barrier River**	17.27	32	Pn		**Pn**	22 43 23.8	-1.5
F30M				IAmb	IAmb		22 43 30.4	
	comp=Z,15nm,0.6s							
F31M	**Tsiigehtchic**	17.81	34			**P**	22 43 32.2	-0.3
INK	**Inuvik**	18.37	31	P		**P**	22 43 37.8	-0.8
	comp=Z,1.3nm,0.3s,baz=223,slow=13,SNR=46 comp=Z,6.7nm,0.4s							
INK				AML	AML			
INK	**Inuvik**	18.37	31	P		**P**	22 43 38.1	-0.6
INK				IAmb	IAmb		22 43 41.9	
	comp=Z,9.1nm,0.7s							
C36M	**Paulatuk**	21.87	34			**P**	22 44 16.4	-0.1
A36M	**Sachs Harbour**	22.77	27	P		**P**	22 44 25.9	-0.4
A36M				IAmb	IAmb		22 44 29.0	
	comp=Z,9.2nm,0.7s							
YKA	**Yellowknife Ar**	24.36	53	P		**P**	22 44 43.1	+1.3
	comp=Z,1.1nm,0.6s,baz=269,slow=6.4,SNR=6.0 comp=Z,1.1nm,0.6s							
YKA	**Yellowknife Ar**	24.36	53	P		**P**	22 44 41.6	-0.2
PEA0B	**Petropavlovsk-**	24.91	284	P		**P**	22 44 46.1	-0.7
PETK	**Petropavlovsk-**	24.91	284	P		**P**	22 44 46.3	-0.5
	comp=Z,4.6nm,0.4s,baz=74,slow=12,SNR=9.1 comp=Z,4.6nm,0.4s							
RES	**Resolute Bay**	31.82	27	P		**P**	22 45 48.6	+0.4
RES				IAmb	IAmb		22 45 57.0	
	comp=Z,10nm,1.4s							
NVAR	**Mina Array Bea**	32.19	103	P		**P**	22 45 54.7	+2.6
	comp=Z,0.3nm,0.5s,baz=296,slow=8.4,SNR=6.5 comp=Z,0.3nm,0.5s							
NVAR	**Mina Array Bea**	32.19	103	P		**P**	22 45 52.0	0.0
YHH	**Holmes Hill**	32.47	87			**P**	22 45 55.3	+0.7
YHH				IAmb	IAmb		22 46 06.9	
	comp=Z,3.5nm,0.8s							
TIXI	**Tiksi**	33.91	327			**P**	22 46 07.1	+0.5
TIXI				IAmb	IAmb		22 46 07.8	
	comp=Z,3.5nm,0.8s							
PD31	**Pinedale Array**	34.42	89	P		**P**	22 46 12.1	+0.5
PD31				IAmb	IAmb		22 46 23.4	
	comp=Z,1.5nm,0.7s							
PDAR	**Pinedale Array**	34.42	89	P		**P**	22 46 13.6	+2.0
	comp=Z,0.5nm,0.6s,baz=292,slow=5.5,SNR=5.0 comp=Z,0.5nm,0.6s							
PDAR	**Pinedale Array**	34.42	89	P		**P**	22 46 11.4	-0.1
YAK	**Yakutsk**	36.09	311			**P**	22 46 24.0	-1.4
ILON	**Igloolik, Nuna**	36.52	36	P		**P**	22 46 29.6	+0.6
O20A	**White River Ci**	36.85	91	P		**P**	22 46 32.0	-0.4
O20A				IAmb	IAmb		22 46 44.5	
	comp=Z,5.8nm,0.7s							
PV01	**Paradox Valley**	37.99	94			**P**	22 46 41.8	-0.3
PV01				IAmb	IAmb		22 46 52.1	
	comp=Z,4.3nm,0.7s							
GLA	**Glamis**	38.01	106	P		**P**	22 46 42.8	+0.8
Q24A	**Divide**	39.42	90	P		**P**	22 46 53.2	-0.9
Q24A				IAmb	IAmb		22 47 01.3	
	comp=Z,3.8nm,1.0s							
EPLO	**Experimental L**	39.45	69	P		**P**	22 46 54.5	+0.5
EPLO				IAmb	IAmb		22 47 22.3	
	comp=Z,19nm,1.3s							
H11N2	**WAKE ISLAND Hy**	43.06	229	T		T	23 33 14.1	
	baz=28,slow=76,SNR=226							
H11N3	**WAKE ISLAND Hy**	43.06	229	T		T	23 33 16.7	
	baz=28,slow=76,SNR=240							
H11N1	**WAKE ISLAND Hy**	43.08	229	T		T	23 33 17.6	
	baz=28,slow=76,SNR=176							
H11S1	**WAKE ISLAND Hy**	44.22	229	T		T	23 34 41.6	
	baz=28,slow=76,SNR=145							
H11S2	**WAKE ISLAND Hy**	44.23	229	T		T	23 34 45.4	
	baz=28,slow=76,SNR=126							
H11S3	**WAKE ISLAND Hy**	44.24	229	T		T	23 34 45.4	
	baz=28,slow=76,SNR=78							
MJAR	**Matsushiro Arr**	45.46	273	P		**P**	22 47 43.0	0.0
	comp=Z,2.6nm,0.6s,baz=33,slow=7.1,SNR=7.2 comp=Z,2.6nm,0.6s							
MJAR	**Matsushiro Arr**	45.46	273	P		**P**	22 47 42.0	-0.9
TXAR	**Lajitas Array**	47.13	99	P		**P**	22 47 59.0	+2.8
	comp=Z,0.3nm,0.5s,baz=289,slow=4.6,SNR=5.0 comp=Z,0.3nm,0.5s							
TXAR	**Lajitas Array**	47.13	99	P		**P**	22 47 56.8	+0.6
NRIK	**Noril'sk**	47.14	333	P		**P**	22 47 55.4	-0.3
	comp=Z,3.3nm,0.6s,baz=64,slow=8.6,SNR=5.3 comp=Z,3.3nm,0.6s							
NRIK	**Noril'sk**	47.14	333	P		**P**	22 47 55.1	-0.6
NRIK				IAmb	IAmb		22 47 56.5	
	comp=Z,3.6nm,0.7s							
KSRS	**Korea Array**	50.76	282	P		**P**	22 48 23.4	-0.4
	comp=Z,4.2nm,1.1s,baz=55,slow=5.5,SNR=5.8 comp=Z,4.2nm,1.1s							
ULN	**Ulaanbaatar**	54.63	304			**P**	22 48 52.8	+0.3
ULN				IAmb	IAmb		22 48 53.0	
	comp=Z,3.4nm,0.8s							
SONM	**Songino Array**	54.97	305	P		**P**	22 48 55.1	+0.2
	comp=Z,4.1nm,0.7s,baz=53,slow=6.9,SNR=33 comp=Z,4.1nm,0.7s							
SONM	**Songino Array**	54.97	305	P		**P**	22 48 54.7	-0.2
SONM				IAmb	IAmb		22 48 55.8	
	comp=Z,3.5nm,0.7s							
ARCES	**ARCESS Array B**	56.14	358	P		**P**	22 49 03.3	+0.4
	comp=Z,3.0nm,0.9s,baz=13,slow=6.2,SNR=1.8 comp=Z,3.0nm,0.9s							
ARCES	**ARCESS Array B**	56.14	358	P		**P**	22 49 02.5	-0.4
HHC	**Hu-ho-hao-te**	57.36	296	*eP*		**P**	22 49 14.1	+2.1
HHC				pmax	pmax			
	comp=Z,9.0nm,0.5s							
HHC				pmax	pmax			
	comp=Z,150nm,4.9s							
HNS	**HongShan**	58.18	291	P		**P**	22 49 18.4	+0.7
ZALV	**Zalesovo Beam**	59.49	322	P		**P**	22 49 26.4	-0.1
	comp=Z,1.3nm,0.5s,baz=16,slow=6.0,SNR=5.7 comp=Z,1.3nm,0.5s							
ZALV	**Zalesovo Beam**	59.49	322	P		**P**	22 49 26.2	-0.3
XAN	**Xi'an**	63.81	292	*eP*		**P**	22 49 55.9	-0.2
FINES	**FINESS Array B**	64.23	357	P		**P**	22 49 58.4	+0.1
	comp=Z,1.3nm,0.4s,baz=2.0,slow=6.7,SNR=10 comp=Z,1.3nm,0.4s							
FINES	**FINESS Array B**	64.23	357	P		**P**	22 49 57.8	-0.5
NC204	**NORSAR Array S**	64.25	5	P		**P**	22 49 58.0	-0.4
KURK	**Kurchatov**	64.33	323			**P**	22 49 59.3	+0.2
GTA2	**Gaotai**	64.38	302	*eP*		**P**	22 49 59.4	-0.4
GTA2				pP	pP		22 50 05.3	-3.3
GTA2				pmax	pmax			
	comp=Z,7.0nm,0.8s							
KURBB	**Kurchatov Arra**	64.44	323	P		**P**	22 50 00.1	+0.3
	comp=Z,0.8nm,0.5s,baz=16,slow=7.4,SNR=10 comp=Z,0.8nm,0.5s							
NOA	**NORSAR Array B**	64.50	5	P		**P**	22 50 00.8	+0.7
	comp=Z,1.1nm,0.7s,baz=356,slow=6.3,SNR=2.2 comp=Z,1.1nm,0.7s							
LZH	**Lanzhou**	64.93	297	*eP*		**P**	22 50 04.0	+0.5
LZH				pP	pP		22 50 10.5	-1.8
LZH				pmax	pmax			
	comp=Z,18nm,1.3s							
BVAR	**Borovoye Array**	65.02	329	P		**P**	22 50 03.9	+0.3
	comp=Z,6.1nm,0.8s,baz=34,slow=6.8,SNR=23 comp=Z,6.1nm,0.8s							
LZDM	**Lanzhou Array**	65.11	297	P		**P**	22 50 05.3	+0.5
	comp=Z,3.3nm,0.5s,baz=85,slow=4.8,SNR=6.1 comp=Z,3.3nm,0.5s							
ARTI	**Arti**	65.11	338			**P**	22 50 03.8	-0.4
HFS	**Hagfors**	65.52	4	P		**P**	22 50 06.6	-0.1
	comp=Z,1.3nm,0.4s,baz=41,slow=12,SNR=4.4 comp=Z,1.3nm,0.4s							
MKAR	**Makanchi Array**	66.24	318	P		**P**	22 50 11.1	-0.5
	comp=Z,1.9nm,0.4s,baz=48,slow=6.4,SNR=52 comp=Z,1.9nm,0.4s							
GOMU	**GeErMu**	69.37	304	P		**P**	22 50 31.7	-0.2
GOMU				pP	pP		22 50 34.9	-5.9
GOMU				sP	sP		22 50 39.0	-5.1
GOMU				pmax	pmax			
	comp=Z,2.0nm,0.3s							
ABKAR	**Akbulak array**	71.31	334			**P**	22 50 43.5	+0.5
AKASG	**Malin Array Be**	74.83	354	P		**P**	22 51 03.7	-0.1

	comp=Z,2.2nm,0.4s,baz=10.0,slow=5.9,SNR=18 comp=Z,2.2nm,0.4s							
KSH2	**Kashi**	75.33	319	P		**P**	22 51 08.3	+1.1
KSH2				pmax	pmax			
	comp=Z,7.0nm,0.8s							
CMAR	**Chiang Mai Arr**	81.55	290	P		**P**	22 51 41.2	-0.3
	comp=Z,2.0nm,0.7s,baz=18,slow=5.2,SNR=16 comp=Z,2.0nm,0.7s							
CMAR	**Chiang Mai Arr**	81.55	290	P		**P**	22 51 40.7	-0.8
ESDC	**Sonseca Array**	83.84	19	P		**P**	22 51 53.9	+0.7
	comp=Z,0.8nm,0.6s,baz=342,slow=5.7,SNR=12 comp=Z,0.8nm,0.6s							
ESDC	**Sonseca Array**	83.84	19	P		**P**	22 51 53.4	+0.2
VNDA	**Vanda**	133.98	191	PKP		**PKiKP**	22 58 40.2	-0.3
	comp=Z,0.7nm,0.3s,baz=19,slow=7.0,SNR=9.1							
VNDA	**Vanda**	133.98	191			**PKiKP**	22 58 40.6	+0.1
QSPA	**South Pole Qui**	144.35	180	PKP		**PKPab**	22 58 56.8	+0.2
	comp=Z,1.7nm,0.6s,baz=273,slow=0.3,SNR=20							
QSPA	**South Pole Qui**	144.35	180			**PKPab**	22 58 56.6	0.0
BOSA	**Boshof**	153.81	350	PKPbc		**PKPbc**	22 59 22.5	-0.3
	comp=Z,1.0nm,0.5s,baz=26,slow=3.4,SNR=5.1							
BOSA	**Boshof**	153.81	350			**PKPbc**	22 59 21.8	-0.9

*IDC **01** 22:41:42.5±0.7,55°.59N×158°.52W,h0km,mb4.0/25, mbtmp4.0/29,ML4.2/4,MS3.8/13,Error ellipse: s-maj=19.6km s-min=12.2km az=3.0*
*AEIC **01** 22:41:45.4±1.3,55°.47N±0°.04×158°.23W±0°.05,h12km±4km, Error ellipse: s-maj=5.4km s-min=4.3km az=174.0*
*NEIC **01** 22:41:45.6,55°.32N×158°.38W,h35km*
*NEIC **01** 22:41:47.5±1.3,55°.53N±0°.04×158°.32W±0°.06,h34km±4km, mb4.5/91,ML4.4/28,Mwr4.4/24,ML4.2(AEIC),Error ellipse: s-maj=6.4km s-min=4.2km az=210.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=1.52; Mθθ=3.64; Mφφ=5.16; Mrθ=1.61; Mrφ=-0.15; Mθφ=-0.98; Fault plane solution: M₀=4.96000×10¹⁵ NP1:φs=318.08000°, δ=76.49000°,λ=-152.57000°. NP2:φs=221.17000°, δ=63.39000°,λ=-15.14000°. Principal axes: T 5.3120, Plg9.0000°, Azm87.0000°; N -0.7981, Plg60.0000°, Azm342.0000°; P -4.5138, Plg29.0000°, Azm182.0000°;*

ISC 01 22:41:46.9±0.5,55°.52N±0°.05×158°.24W±0°.03,h32km, n227,σ1§01/155,mb4.5/78,MS3.7/11,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
VNSG	**Veniaminof 6**	0.77	322			**Pn**	22 42 01.0	-0.6
CHGN	**Chignik**	0.79	353			**Sn**	22 42 11.8	-0.6
CHGN	**Chignik**	0.79	353	Pn		**Pn**	22 42 01.0	-0.8
CHGN				IAML			22 42 12.7	
	comp=E,18μm,0.1s							
CHGN				IAML			22 42 14.8	
	comp=N,10μm,0.8s							
VNKR	**Veniaminof 5**	0.82	309			**Pn**	22 42 01.8	-0.4
VNSW	**Veniaminof 7**	0.93	307			**Pn**	22 42 04.0	+0.2
VNWF	**Veniaminof 8**	0.98	311			**Pn**	22 42 04.7	+0.3
VNSS	**Veniaminof 8**	0.99	316			**Pn**	22 42 04.8	+0.1
CNBA	**Chernabura Isl**	1.05	228			**Sn**	22 42 19.1	+0.4
CNBA	**Chernabura Isl**	1.05	228	Pn		**Pn**	22 42 03.4	-1.9
VNFG	**Fog Glacier, M**	1.07	317			**Pb**	22 42 06.4	-0.4
BPBCA	**Veniaminof**	1.08	354			**Pn**	22 42 05.9	+0.1
ANPB	**Aniakchak Plen**	1.29	359			**Pn**	22 42 09.0	+0.4
SDPT	**Sand Point**	1.29	263			**Pn**	22 42 07.5	-1.0
SDPT						**Sb**	22 42 26.2	-0.4
SDPT	**Sand Point**	1.29	263	IAML			22 42 40.4	
	comp=N,6μm,1.0s							
ANPK	**Aniakchak Peak**	1.33	3			**Pn**	22 42 09.8	+0

G16K	Koyuk River	10.11	350			Pn		22 44 09.7	+0.1
GRNC	Granite Creek	10.15	52			Pn		22 44 10.0	-0.4
I21K	Tanana	10.17	15			Pn		22 44 10.9	+0.6
MLY	Manley	10.23	18			Pn		22 44 11.9	+0.6
F15K	North Star Dit	10.69	346			Pn		22 44 18.9	+1.4
COLA	College	10.69	25			Pn		22 44 18.4	+0.8
IMAR	Indian Mountai	10.72	10			Pn		22 44 19.0	+1.0
ILAR	Eielson Array	10.85	27	Pn		Pn		22 44 17.9	-1.8
	comp=E,0.5nm,0.3s,baz=220,slow=13,SNR=15								
	comp=E,8.0nm,0.8s								
ILAR					AML	AML			
ILAR	Eielson Array	10.85	27			Pn		22 44 17.9	-1.7
O28M	Mount Upton	10.87	54			Pn		22 44 20.9	+0.6
H22K	Ishtalitna Cre	10.93	15			Pn		22 44 21.7	+1.0
F17K	Baldwin Pennin	11.05	354			Pn		22 44 23.7	+1.3
BCAR	Beaver Creek A	11.28	41			Pn		22 44 26.1	+0.4
P33M	Teslin, Yukon	14.27	60	Pn		Pn		22 45 08.1	+1.6
EPYK	Eagle Plains	14.98	35	Pn		Pn		22 45 16.5	+0.5
G30M	tAoh Zraii Nji	15.50	33	IAmb		IAmb		22 45 28.4	
	comp=Z,30nm,1.0s								
DLBC	Dease Lake	15.60	68	Pn		Pn		22 45 24.8	+0.6
	comp=Z,1.0nm,0.3s,baz=191,slow=3.0,SNR=3.7								
	comp=Z,2.0nm,0.6s								
DLBC					AML	AML			
WTLY	Watson Lake, Y	16.26	62	IAmb		IAmb		22 45 49.9	
	comp=Z,60nm,1.2s								
SHEM	Shemya Is, Ala	16.41	272	LR		LR		22 51 13.6	
	comp=Z,250nm,21.5s,baz=59,slow=35								
INK	Inuvik	17.13	32	P		Pn		22 45 42.5	-0.9
	comp=Z,0.9nm,0.3s,baz=215,slow=16,SNR=6.9								
	comp=Z,6.3nm,0.7s								
INK					AML	AML			
WRGLY	Wrigley	19.11	52			P		22 46 06.8	+0.1
C36M	Paulatuk	20.61	34			P		22 46 23.2	+0.3
C36M				IAmb		IAmb		22 46 27.9	
	comp=Z,23nm,0.9s								
NLWA	Neilton Lookou	22.71	97	IAmb		IAmb		22 46 50.9	
	comp=Z,24nm,1.1s								
A05A	Maple Falls	22.87	91	IAmb		IAmb		22 47 03.2	
	comp=Z,18nm,1.2s								
YKA	Yellowknife Ar	23.13	55	P		P		22 46 50.5	+0.6
	comp=Z,1.7nm,0.8s,baz=271,slow=9.9,SNR=4.6								
YKA					LR	LR		22 56 44.9	
	comp=Z,279nm,21.8s,baz=241,slow=39								
	comp=Z,1.7nm,0.8s								
EPH	Ephrata	25.15	93	P		P		22 47 08.1	-0.8
E07A	Sunnyside	25.45	94	IAmb		IAmb		22 47 34.1	
	comp=Z,16nm,1.4s								
PETK	Petropavlovsk-	25.50	283	P		P		22 47 11.2	-0.7
	comp=Z,3.4nm,0.8s,baz=64,slow=11,SNR=3.5								
	comp=Z,3.4nm,0.8s								
D08A	Wollman Farm,	25.70	93			P		22 47 13.6	-0.2
HAWA	Hanford	25.73	94	IAmb		IAmb		22 47 17.6	
	comp=Z,13nm,1.1s								
WIFE	Three Sisters-	25.85	101	IAmb		IAmb		22 47 30.6	
	comp=Z,14nm,1.1s								
EDM	Edmonton	25.91	76			P		22 47 15.4	-0.2
EDM				IAmb		IAmb		22 47 30.4	
	comp=Z,16nm,0.8s								
E09A	Wood Farm, Sta	26.45	93			P		22 47 20.2	-0.4
E09A				IAmb		IAmb		22 47 23.7	
	comp=Z,13nm,1.2s								
J08A	Circle Bar Ran	28.17	99	P		P		22 47 36.3	+0.1
WVOR	Wild Horse Val	28.67	100	IAmb		IAmb		22 47 55.7	
	comp=Z,12nm,1.2s								
GBMT	Granite Butte,	29.49	88	IAmb		IAmb		22 47 50.7	
	comp=Z,9.8nm,1.0s								
MFID	Camas Ranch	29.62	96	IAmb		IAmb		22 47 52.2	
	comp=Z,5.4nm,0.9s								
AFDM	Forest Hills D	29.79	108	P		P		22 47 50.4	0.0
PAHR	Pah Rah Range	30.11	105	P		P		22 47 52.7	-0.8
PAHR				IAmb		IAmb		22 47 56.7	
	comp=Z,8.1nm,1.1s								
HLID	Hailey	30.33	95	IAmb		IAmb		22 47 58.7	
	comp=Z,6.7nm,1.2s								
MCMT	McKenzie Canyo	30.44	91	P		P		22 47 55.4	-1.1
RES	Resolute Bay	30.59	28	LR		LR		23 00 25.0	
	comp=Z,58nm,20.9s,baz=312,slow=37								
KVN	Kaiserville	31.28	105			P		22 48 04.6	+0.7
KVN				IAmb		IAmb		22 48 07.2	
	comp=Z,8.5nm,1.3s								
YHL	Hebgen Lake	31.38	90			P		22 48 04.9	+0.1
YHL				IAmb		IAmb		22 48 07.9	
	comp=Z,7.8nm,1.0s								
YHB	Horse Butte	31.43	90	IAmb		IAmb		22 48 08.3	
	comp=Z,5.8nm,1.1s								
YHH	Holmes Hill	31.60	90			P		22 48 07.1	+0.3
YHH				IAmb		IAmb		22 48 10.3	
	comp=Z,11nm,1.0s								
NVAR	Mina Array Bea	31.61	106	P		P		22 48 09.3	+2.5
	comp=Z,2.9nm,0.9s,baz=298,slow=8.8,SNR=14								
NVAR					LR	LR		22 58 23.9	
	comp=Z,180nm,21.0s,baz=313,slow=31								
	comp=Z,2.9nm,0.9s								
NVAR	Mina Array Bea	31.61	106	P		P		22 48 07.0	+0.3
YMR	Madison River	31.61	90	IAmb		IAmb		22 48 09.9	
	comp=Z,4.0nm,0.6s								
ELK	Elko	31.70	100	LR		LR		22 58 54.2	
	comp=Z,371nm,21.8s,baz=212,slow=32								
ELK	Elko	31.70	100	IAmb		IAmb		22 48 11.0	
	comp=Z,7.1nm,1.1s								
YNE	Yellowstone No	31.95	89	IAmb		IAmb		22 48 13.2	
	comp=Z,6.8nm,0.9s								
RLMT	Red Lodge	32.30	88			P		22 48 12.5	-0.4
RLMT				IAmb		IAmb		22 48 16.9	
	comp=Z,8.5nm,1.1s								
BGU	Big Grassy Mou	32.82	97	IAmb		IAmb		22 48 20.7	
	comp=Z,9.4nm,1.3s								
HWUT	Hardware Ranch	33.20	95	IAmb		IAmb		22 48 24.2	
	comp=Z,12nm,1.4s								
DUG	Dugway, Tooele	33.43	98	IAmb		IAmb		22 48 26.0	
	comp=Z,9.2nm,1.1s								
PDAR	Pinedale Array	33.59	92	P		P		22 48 25.6	+1.5
	comp=Z,2.2nm,0.8s,baz=319,slow=4.6,SNR=14								
	comp=Z,2.2nm,0.8s								
PDAR	Pinedale Array	33.59	92			P		22 48 23.7	-0.4
NLU	North Lily Min	34.01	98	IAmb		IAmb		22 48 42.5	
	comp=Z,5.2nm,1.0s								
RSSD	Black Hills	35.88	85	P		P		22 48 44.1	+0.2
RSSD				IAmb		IAmb		22 48 46.4	
	comp=Z,7.0nm,0.9s								
U15A	North Rim	36.37	102	IAmb		IAmb		22 48 51.5	
	comp=Z,6.2nm,1.1s								
W13A	Hualapai Mount	36.46	105	IAmb		IAmb		22 49 03.8	
	comp=Z,5.5nm,1.0s								
ULM	Lac du Bonnet	36.87	71	P		P		22 48 52.6	+0.7
	comp=Z,4.8nm,1.0s,baz=315,slow=10.0,SNR=2.2								
	comp=Z,4.8nm,1.0s								
PV04	Paradox Valley	36.87	97	IAmb		IAmb		22 49 07.7	
	comp=Z,9.8nm,0.9s								
PV19	Morning Glory	36.89	97	IAmb		IAmb		22 48 56.8	
	comp=Z,9.2nm,1.0s								
PV18	Skein Mesa, Pa	36.97	97	IAmb		IAmb		22 48 57.3	
	comp=Z,10nm,0.9s								
PV05	Paradox Valley	36.98	97	P		P		22 48 54.1	+0.8
PV03	Paradox Valley	37.00	97	IAmb		IAmb		22 49 09.0	
	comp=Z,7.0nm,0.8s								
PV13	Radium Mtn., P	37.09	97	P		P		22 48 54.2	+0.1
BLYC	Blythe	37.12	107	IAmb		IAmb		22 49 09.2	
	comp=Z,6.3nm,0.9s								
WUAZ	Wupatki	37.54	102	IAmb		IAmb		22 49 01.8	
	comp=Z,9.2nm,1.1s								
MVCO	Mesa Verde	37.93	98	IAmb		IAmb		22 49 04.0	
	comp=Z,5.7nm,0.9s								
SDCO	Great Sand Dun	39.25	94	IAmb		IAmb		22 49 15.4	
	comp=Z,6.5nm,1.1s								
Y22A	Socorro	41.16	100	IAmb		IAmb		22 49 31.5	
	comp=Z,9.1nm,1.1s								
FRB	Frobisher Bay	42.43	41	LR		LR		23 08 47.1	
	comp=Z,308nm,18.7s,baz=289,slow=38								
USRK	Ussuriysk Ar.	44.53	286	LR		LR		23 09 25.3	
	comp=Z,80nm,19.6s,baz=41,slow=38								
VHRN	Van Horn	44.62	101	IAmb		IAmb		22 49 59.3	
	comp=Z,7.1nm,1.0s								
128A	Castleberry Fa	44.65	97	IAmb		IAmb		22 49 58.5	
	comp=Z,8.5nm,1.0s								
WMOK	Wichita Mounta	45.20	92	IAmb		IAmb		22 50 14.7	
	comp=Z,6.5nm,1.1s								
MJAR	Matsushiro Arr	46.24	273	P		P		22 50 07.9	-1.0
	comp=Z,0.4nm,0.2s,baz=24,slow=6.6,SNR=1.1								
	comp=Z,0.4nm,0.2s								
TX31	Lajitas Ar. Si	46.47	101			P		22 50 11.6	+0.8
TX31				IAmb		IAmb		22 50 13.8	
	comp=Z,7.7nm,1.2s								
TXAR	Lajitas Array	46.47	101	P		P		22 50 12.3	+1.6
	comp=Z,2.3nm,0.8s,baz=316,slow=5.2,SNR=12								
	comp=Z,2.3nm,0.8s								

TXAR	Lajitas Array	46.47	101	P		P		22 50 11.6	+0.8
NRIK	Noril'sk	46.67	334	P		P		22 50 10.7	-1.0
	comp=Z,0.7nm,0.4s,baz=28,slow=14,SNR=1.4								
	comp=Z,0.7nm,0.4s								
NRIK	Noril'sk	46.67	334	IAmb		IAmb		22 50 22.4	
	comp=Z,5.3nm,0.7s								
JCT	Junction City	47.77	97	P		P		22 50 20.8	0.0
SADO	Sadowa	49.16	68	LR		LR		23 10 04.7	
	comp=Z,84nm,19.4s,baz=330,slow=34								
JCJ	Chichijima	51.00	262	LR		LR		23 13 05.2	
	comp=Z,54nm,19.8s,baz=128,slow=37								
CLTN	Cedars of Leba	51.28	81	P		P		22 50 48.4	+0.9
CLTN				IAmb		IAmb		22 50 48.9	
	comp=Z,8.8nm,1.1s								
KSRS	Korea Array	51.39	282	P		P		22 50 47.6	-0.6
	comp=Z,1.0nm,0.6s,baz=45,slow=7.0,SNR=3.5								
KSRS					LR	LR		23 13 11.4	
	comp=Z,26nm,19.4s,baz=65,slow=37								
	comp=Z,1.0nm,0.6s								
TKL	Tuckaleechee C	53.03	79	LR		LR		23 14 05.7	
	comp=Z,110nm,18.3s,baz=296,slow=36								
SONM	Songino Array	55.11	305	P		P		22 51 15.2	-0.5
	comp=Z,0.8nm,0.7s,baz=52,slow=6.8,SNR=4.1								
SONM					LR	LR		23 16 06.3	
	comp=Z,135nm,18.7s,baz=4.5,slow=38								
	comp=Z,0.8nm,0.7s								
SONM	Songino Array	55.11	305	IAmb		IAmb		22 51 25.8	
	comp=Z,2.8nm,0.8s								
ARCES	ARCESS Array B	55.22	358	P		P		22 51 14.2	-1.8
	comp=Z,2.9nm,0.9s,baz=8.3,slow=11,SNR=1.2								
	comp=Z,2.9nm,0.9s								
HHC	Hu-ho-hao-te	57.69	296	eP		P		22 51 32.9	-1.2
HHC					pmax	pmax			
	comp=Z,11nm,0.6s								
HHC					pmax	pmax			
	comp=Z,96nm,4.9s								
ZALV	Zalesovo Beam	59.26	322	P		P		22 51 44.0	-0.7
	comp=Z,0.4nm,0.4s,baz=27,slow=7.1,SNR=2.4								
	comp=Z,0.4nm,0.4s								
FINES	FINESS Array B	63.33	358	P		P		22 52 11.4	-0.7
	comp=Z,4.9nm,0.9s,baz=350,slow=7.3,SNR=2.7								
	comp=Z,4.9nm,0.9s								
NB2	NORSAR Subarra	63.48	6	P		pP		22 52 22.6	-0.4
	comp=Z,30nm,1.7s,baz=354,slow=6.9								
NB2	NORSAR Subarra	63.48	6	P		pP		22 52 22.0	-1.0
NB2				AMP				22 52 22.0	
NOA	NORSAR Array B	63.48	6	P		P		22 52 13.8	+0.6
	comp=Z,2.1nm,1.0s,baz=353,slow=6.6,SNR=6.8								
	comp=Z,2.1nm,1.0s								
KURK	Kurchatov	64.07	324	P		P		22 52 17.6	+0.5
KURBB	Kurchatov Arra	64.18	324	P		P		22 52 17.6	-0.2
	comp=Z,0.2nm,0.3s,baz=23,slow=6.3,SNR=15								
	comp=Z,0.2nm,0.3s								
HFS	Hagfors	64.51	4	P		P		22 52 20.7	+0.8
	comp=Z,4.1nm,1.0s,baz=349,slow=6.8,SNR=3.8								
	comp=Z,4.1nm,1.0s								
ARTI	Arti	64.55	338			P		22 52 21.4	+1.2
ZSN	Zaisan	64.56	318	eP		pP		22 52 30.2	-0.2
	comp=Z,9.4nm,1.0s								
GTA2	Gaotai	64.57	303	P		P		22 52 30.2	+9.4
GTA2				pP		sP		22 52 33.4	-0.9
GTA2					pmax	pmax			
	comp=Z,16nm,1.1s								
BVAR	Borovoye Array	64.63	330	P		P		22 52 21.6	+0.8
	comp=Z,0.6nm,0.5s,baz=42,slow=6.8,SNR=21								
	comp=Z,0.6nm,0.5s								
MKAR	Makanchi Array	66.08	319	P		P		22 52 29.2	-1.1
	comp=Z,0.8nm,0.9s,baz=71,slow=8.3,SNR=3.7								
	comp=Z,0.8nm,0.9s								
EKA	Eskdalemuir Ar	67.64	15	P		P		22 52 40.8	+0.8
	comp=Z,0.9nm,0.6s,baz=347,slow=7.0,SNR=1.3								
	comp=Z,0.9nm,0.6s								
TDK	Taldyqorghan	69.03	321	eP		pP		22 52 58.6	-0.2
	comp=Z,7.3nm,0.9s								
GOMU	GeErMu	69.54	304	P		P		22 52 53.4	+0.7
GOMU				pP		pP		22 52 56.5	-6.1
GOMU				sP		sP		22 53 00.5	-5.8
GOMU					pmax	pmax			
	comp=Z,3.0nm,0.3s								
SHLS	Shalkode	70.23	319	eP		pP		22 53 05.5	-0.9
	comp=Z,8.3nm,0.7s								
KPKS	Kokpek	70.25	320	eP		pP		22 53 06.3	-0.3
UZB	Uzynbulak	70.40	319	eP		pP		22 53 07.2	-0.4
	comp=Z,5.9nm,0.9s								
BTLS	Baital	70.52	323	eP		pP		22 53 07.5	-0.5
SATY	Saty	70.71	320	eP		pP		22 53 08.8	-0.6
MDOK	Medeo	71.11	321	eP		pP		22 53 11.2	-0.6
AAA	Alma-Ata	71.12	321	eP		pP		22 53 11.3	-0.5
	comp=Z,8.8nm,1.1s								
TNSS	Tian-Shan	71.26	321	eP		pP		22 53 12.1	-1.0
CLL	Collm	73.29	6	epP		pP		22 53 25.0	+0.5
DZA	Taraz	73.34	324	eP		pP		22 53 24.5	-0.5
BRLS	Borolday	73.70	325	eP		pP		22 53 28.0	+0.8
AKASG	Malin Array Be	73.97	355	P		P		22 53 17.6	-1.0
	comp=Z,0.8nm,0.4s,baz=9.3,slow=5.9,SNR=6.3								
	comp=Z,0.8nm,0.4s								
AKBB	Malin Array Si	73.97	355	P		pP		22 53 27.9	-0.6
KIEV	Kiev	73.97	355	P		pP		22 53 27.9	-0.6
	comp=Z,48nm,1.1s								
HSKC	Hora Svate Kat	74.01	6	epP		pP		22 53 24.7	-4.2
AK08	Malin Array Si	74.03	355	P		pP		22 53 27.7	-1.2
PVCC	Panska Ves	74.15	5	epP		pP		22 53 30.7	+1.1
CHVC	Chvalec	74.15	4	epP		pP		22 53 30.7	+1.0
OSTC	Ostas	74.19	4	epP		pP		22 53 30.4	+0.5
DPC	Dobruska-Polom	74.40	4	epP		pP		22 53 30.6	-0.6
IUG	Iuzhnay	74.43	325	eP		pP		22 53 31.2	-0.4
	comp=Z,5.3nm,0.7s								
PRU	Pruhonice	74.69	5	epP		pP		22 53 34.0	+1.2
LUBAR	Lubar, Ukraine	74.81	356	P		pP		22 53 32.2	-1.3
STEB	Steborice	74.86	3	epP		pP		22 53 34.5	+0.7
KSH2	Kashi	75.17	320	P		pP		22 53 36.0	+0.1
KSH2					pmax	pmax			
	comp=Z,9.0nm,0.9s								
ZVC	Zvikov	75.22	5	epP		pP		22 53 36.8	+0.9
KHC	Kasperske Hory	75.49	6	epP		pP		22 53 37.2	-0.3
GERES	GERESS Array B	75.79	5	P		P		22 53 30.2	+0.9
	comp=Z,0.2nm,0.3s,baz=360,slow=7.0,SNR=1.8								
	comp=Z,0.2nm,0.3s								
CKRC	Cesky Krumlov	75.84	5	epP		pP		22 53 40.3	+0.8
KMPD	K-Podol'skiy	76.21	357	P		pP		22 53 39.4	-2.1
UZHM	Uzhgorod	76.22	360	P		pP		22 53 39.0	-2.6
SORM	Soroca	76.57	355	P		pP		22 53 43.0	-0.5
	comp=Z,7.7nm,0.4s								
GHRR		78.68	356	P		pP		22 53 53.1	-2.3
KBZ	Khabaz	79.51	345	P		P		22 53 50.3	+0.4
	comp=Z,2.2nm,0.9s,baz=63,slow=2.3,SNR=3.0								
	comp=Z,2.2nm,0.9s								
CMAR	Chiang Mai Arr	82.01	291	P		P		22 54 03.4	-0.3
	comp=Z,0.5nm,0.3s,baz=8.1,slow=4.7,SNR=4.5								
	comp=Z,0.5nm,0.3s								
ESDC	Sonseca Array	82.67	20	P		P		22 54 07.5	+0.6
	comp=Z,1.1nm,1.0s,baz=349,slow=4.8,SNR=4.6								
	comp=Z,1.1nm,1.0s								
BRTR	Keskin Array B	84.58	351	P		P		22 54 17.1	+0.2
	comp=Z,1.8nm,1.0s,baz=2.9,slow=2.9,SNR=3.9								
	comp=Z,1.8nm,1.0s								
QSPA	South Pole Qui	145.30	180	PKPbc		PKPbc		23 01 18.7	-0.9
	comp=Z,9.1nm,1.0s,baz=13,slow=1.2,SNR=12								
BOSA	Boshof	152.99	353	PKPbc		PKiKP		23 01 41.9	+1.0
	comp=Z,1.7nm,0.6s,baz=352,slow=2.4,SNR=4.2								

*ZUR **01** 22:56:15.0, 46°.91N×9°.14E, h2km, MLh1.3/15, Error ellipse: s-maj=1089.2km s-min=631.4km az=330.0*
*LDG **01** 22:56:15.3±0.1, 46°.88N×9°.14E, h2km, Md2.7/3, Ml1.8/3, Error ellipse: s-maj=1.9km s-min=1.7km az=33.0*
*VIE **01** 22:56:15.3±0.6, 46°.90N×9°.09E, h2km, mb1.9/4, ml1.9/7, Error ellipse: s-maj=4.3km s-min=3.3km az=152.0 24 km SSE of Glarus*

ISC 01 22:56:15.7±0.9, 46°.91N±0°.03×9°.09E±0°.02, h3km±8km, n23, σ0°.98/36, 4C-2D, Switzerland

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SLTM2	Linthal, Matt	0.06	283	⇓P	g	Pg		22 56 17.2	+0.1
SLTM2				S	g	Sg		22 56 18.7	+0.7
SLTM2				AML		AML			
LLS	Linth-Limmern	0.08	221	Sg		Sg		22 56 19.0	+0.3
LLS				AML		AML			
PANIX	Pigniu (Panix)	0.09	170	⇑P	g	Pg		22 56 16.9	-0.6
PANIX				Sg		Sg		22 56 18.3	-0.5
PANIX				AML		AML			
PLONS	Plons/SG	0.24	55	⇑P	g	Pg		22 56 19.4	-1.1
PLONS				Sg		Sg		22 56 22.6	-1.1
PLONS				AML		AML			
SMELS	Mels Schulhaus	0.27	59	Sg		Sg		22 56 23.6	-0.8
SMELS				AML		AML			
NALPS	Val Nalps	0.39	217	⇑Pg	g	Pg		22 56 23.2	-0.1
NALPS				AML		AML			
BRIZ2	Brienz, Instab	0.42	124	⇓Pg	g	Pg		22 56 23.0	-0.7
BRIZ2				AML		AML			
BNALP	Bannalp	0.46	265	⇑Pg	g	Pg		22 56 24.7	+0.2
BNALP				Sg	g	Sg		22 56 31.3	+0.8
BNALP				AML		AML			
TUE	Stuetta	0.47	158	Sg	g	Sg		22 56 29.9	-1.0
TUE				AML		AML			
DAVOX	Davos/Dischmat	0.56	103	Pg	g	Pg		22 56 25.2	-1.3
DAVOX				Sg	g	Sg		22 56 32.6	-1.1
DAVOX				AML		AML			
DAVA	Damuels	0.66	55	ePg	g	Pg		22 56 27.7	-0.6
	0.6nm,0.1s								
DAVA				eSg	g	Sg		22 56 36.9	-0.1
	7.5nm,0.2s								
FETA	Feichten	1.13	84	ePg	g	Pn		22 56 39.2	+0.7
	0.3nm,0.1s								
FETA				eSg	g	Sn		22 56 53.8	-0.8
	1.4nm,0.3s								
RETA	Reutte	1.28	63	ePg	g	Pg		22 56 41.1	+0.9
	0.4nm,0.1s								
RETA				eSg	g	Sn		22 56 58.3	+0.1
	1.1nm,0.1s								
MOTA	Moosalm	1.44	72	ePg	g	Pg		22 56 43.4	0.0
	0.2nm,0.1s								
MOTA				eSg	g	Sg		22 57 03.3	+1.3
	1.5nm,0.1s								
SQTA	Sankt Quirin	1.48	77	ePg	g	Pg		22 56 44.4	+0.3
	1.1nm,0.2s								
SQTA				eSg	g	Sg		22 57 05.6	+2.3
	1.7nm,0.2s								
WATA	Walderalm	1.75	75	eSg	g	Sg		22 57 13.7	+1.8
	1.8nm,0.2s								
HINF	Hinteralfeld	1.77	302	ePg	g	Pb		22 56 48.9	+0.1
HINF				eSg	g	Sg		22 57 12.4	-0.2
	1.7nm,0.3s								
HINF				AML		AML			
CABF	La Chapelle	2.08	263	ePg	g	Pg		22 56 54.9	-0.8
CABF				eSg	g	Sb		22 57 21.1	+0.6
	0.6nm,0.3s								
CABF				AML		AML			
LPL	La Plagne	2.15	230	ePg	g	Pb		22 56 55.8	+0.4
HAU	Haudompre	2.16	302	eP	g	Pn		22 56 52.3	-0.2
HAU				eSg	g	Sg		22 57 24.5	-0.5
	1.5nm,0.2s								
HAU				AML		AML			
MBDF	Montbardon	2.72	217	ePg	g	Pb		22 57 05.8	+0.8
ORIF	Oris-en-Rattie	3.00	230	ePg	g	Pb		22 57 11.2	+1.5
SFTF	Sexfontaines	3.03	297	ePn	g	Pn		22 57 02.3	-2.2

*NAO **01** 23:09:22.8, 37°.45N×22°.45E, h33km, MB4.7*
*ATH **01** 23:09:33.0, 38°.87N×21°.57E, h17km, ML4.4/13, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*MED_RC **01** 23:09:33.0, 38°.87N×21°.57E, h20km, Mw4.3, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.45±.50; $M_{\theta\theta}$2.51±.34; $M_{\phi\phi}$0.00±.24; $M_{r\theta}$1.63±.30; $M_{\theta\phi}$-0.05±.18; $M_{\phi r}$-1.11±.29; Fault plane solution: M_o3.16000×10^{15} NP1:ϕ_s75.00000°, δ30.00000°, λ-121.00000°. NP2:ϕ_s290.00000°, δ64.00000°, λ-73.00000°. Principal axes: T 3.0400, Plg18.0000°, Azm8.0000°; N 0.2400, Plg15.0000°, Azm103.0000°; P -3.2800, Plg66.0000°, Azm231.0000°;*
*MOS **01** 23:09:33.6±0.9, 38°.89N×21°.49E, h15km, mb4.8/30 Error ellipse: s-maj=4.9km s-min=2.7km az=83.0*
*THE **01** 23:09:34.1, 38°.9N±0°.8×21°.6E±0°.9, h11km±3km, M4.4/13, MLh4.4/13*
*TIR **01** 23:09:34.0, 38°.85N×21°.63E, h18km±4km, ML4.7, ML4.7, Presumed earthquake*
*SOF **01** 23:09:35.7, 38°.90N±0°.03×21°.69E±0°.04, h20km, MD4.7/5*
*NEIC **01** 23:09:35.3±1.8, 38°.94N±0°.06×21°.51E±0°.07, h10km±1km, mb4.8/110, Error ellipse: s-maj=9.6km s-min=8.8km az=204.0*
*PDG **01** 23:09:36.7±1.3, 39°.05N×21°.47E, h11km±4km, ML4.6/13, Error ellipse: s-maj=2.1km s-min=2.6km az=0.0*
*MCSM **01** 23:09:36.4±0.4, 39°N±3°×2°2E±°, h12km±2km, mb4.7, mB4.8, MLv4.8, Mw(mB)4.1*
*GFZ **01** 23:09:36.8±0.1, 39°N±2°×2°2E±°, h10km, M4.6/54, mb4.7/54*
*IDC **01** 23:09:38.0±1.3, 38°.92N×21°.64E, h32km±10km, mb4.2/28, m

LKD2	Lefkada island	0.74	265	P	Pg	23 09 48.5	-0.7
LKD2	Lefkada island	0.74	265	P	Pg	23 09 48.4	-0.9
AIOA	Agios Ioannis,	0.75	151	P	Pg	23 09 48.6	-0.8
EVGI	Lefkada island	0.78	253	P	Pg	23 09 48.7	-1.2
EVGI				AML	AML		
EVGI	Lefkada island	0.78	253	P	Pg	23 09 48.7	-1.2
THL	Klokotos Trika	0.78	24	P	Pg	23 09 48.6	-1.4
THL	Klokotos Trika	0.78	24	Pg	Pg	23 09 49.0	-1.0
THL				Sg	Sb	23 10 01.1	+0.5
THL	Klokotos Trika	0.78	24	P	Pg	23 09 48.6	-1.4
DLFA	Delphi	0.79	118	P	Pg	23 09 48.7	-1.5
RLS	Riolos of Patr	0.80	188	P	Pg	23 09 49.9	-0.4
AXAR	Agios Charalam	0.83	96	P	Pg	23 09 49.9	-1.0
AXAR	Agios Charalam	0.83	96	P	Pg	23 09 49.9	-1.0
KLV	Kalavryta, Ach	0.91	152	P	Pb	23 09 51.1	-1.4
KLV	Kalavryta, Ach	0.91	152	Pg	Pb	23 09 52.3	-0.1
KLV				Sg	Sb	23 10 03.7	-0.8
KLV	Kalavryta, Ach	0.91	152	P	Pb	23 09 51.3	-1.2
MSVA	Metsovo	0.97	341	P	Pb	23 09 51.7	-1.8
TYRN	Tyrnavos	0.99	29	P	Pb	23 09 52.1	-1.6
JAN	Janina	0.99	324	P	Pb	23 09 52.5	-1.3
JAN	Janina	0.99	324	P	Pb	23 09 51.0	-2.8
JAN	Janina	0.99	324	P	Pb	23 09 51.9	-1.9
RTZL	Ratzakli, Kefa	1.01	220	P	Pb	23 09 52.8	-1.3
RTZL				AML	AML		
GINA	Giannouli	1.02	37	P	Pb	23 09 52.8	-1.4
CLEM	Kyllini,Ilia,G	1.03	201	P	Pb	23 09 53.8	-0.6
VLS	Valsamata	1.04	230	P	Pb	23 09 53.0	-1.6
VLS	Valsamata	1.04	230	P	Pb	23 09 53.1	-1.5
VLS				AML	AML		
GUR	Goura	1.08	147	P	Pb	23 09 54.2	-1.2
GUR				AML	AML		
PSDA	Pessada-Kefalo	1.09	228	P	Pb	23 09 53.8	-1.6
KPRO	Kipourio	1.12	350	P	Pb	23 09 53.8	-2.2
KPRO				AML	AML		
DMLN	Damoulianata-K	1.14	238	P	Pb	23 09 54.6	-1.7
THAL	Thalero	1.16	134	P	Pn	23 09 56.3	-0.4
IGT	Igoumenitsa	1.20	305	Pg	Pb	23 09 57.3	0.0
IGT				Sg	Sg	23 10 16.8	+3.2
IGT	Igoumenitsa	1.20	305	P	Pn	23 09 55.9	-1.2
KYPS	Kipseli, Zakin	1.20	211	P	Pn	23 09 56.5	-0.7
LTHK	Lithakia	1.29	208	P	Pn	23 09 57.5	-0.9
XOR	Xorichti	1.34	67	P	Pn	23 09 59.4	+0.3
XOR	Xorichti	1.34	67	P	Pn	23 09 58.6	-0.5
NEO	Neokhori	1.34	70	P	Pn	23 09 59.1	0.0
LTK	Loutraki	1.35	127	P	Pb	23 09 59.7	-0.2
ZARO	Zacharo	1.36	178	P	Pb	23 10 00.2	+0.1
LOUT	Loutraki	1.38	128	P	Pb	23 10 00.3	-0.1
ACOR	Acrocorinthos	1.38	134	P	Pb	23 10 00.4	-0.1
ACOR				AML	AML		
PENT	Pentalofos	1.39	345	P	Pn	23 09 59.5	-0.4
VIL2	Platees	1.45	116	P	Pg	23 10 02.4	-0.3
KZN	Kozani	1.46	5	P	Pn	23 10 00.0	-0.8
KZN	Kozani	1.46	5	P	Pn	23 10 00.1	-0.7
KZN				AML	AML		
LSK	Leskovik	1.51	329	Pn	Pn	23 10 02.0	+0.4
LSK				Sn	Sg	23 10 26.9	+3.3
SRN	Sarande	1.61	310	Pn	Pb	23 10 04.4	+0.1
SRN				Sn	Sg	23 10 27.1	+0.4
SRN	Sarande	1.61	310	P	Pb	23 10 04.8	+0.5
NEST	Nestorio	1.62	345	Pn	Pb	23 10 04.8	+0.3
NEST	Nestorio	1.62	345	P	Pn	23 10 03.7	+0.7
NEST				AML	AML		
KEK	Kerkira	1.64	302		Pn	23 10 03.4	+0.1
KEK	Kerkira	1.64	302	P	Pn	23 10 03.5	+0.3
KEK				S	Sg	23 10 28.1	+0.4
STFN	Stefani	1.66	113	P	Pb	23 10 04.8	-0.5
ITM	Ithomi	1.69	171		Pb	23 10 05.8	+0.1
ITM	Ithomi	1.69	171	P	Pb	23 10 05.8	+0.1
ITM	Ithomi	1.69	171	P	Pb	23 10 06.3	+0.6
VALY	Valyra	1.71	170	P	Pb	23 10 06.4	+0.3
EPID	Epidavros	1.72	136	P	Pb	23 10 05.4	-0.7
ELFA	Athens-Elefsin	1.72	117	P	Pb	23 10 05.5	-0.6
ELFA				AML	AML		
KBN	Korca	1.88	341	Pn	Pb	23 10 08.5	-0.5
KBN				Sn	Sg	23 10 34.6	-0.7
KBN	Korca	1.88	341	P	Pb	23 10 08.4	-0.5
PAIG	Paliouri	1.93	56	P	Pn	23 10 07.2	0.0
THE	Thessaloniki	2.06	30	P	Pn	23 10 08.8	-0.2
THE	Thessaloniki	2.06	30	P	Pn	23 10 08.8	-0.2
GRG	Griva	2.19	16	P	Pn	23 10 11.0	+0.2
BERA	Berati	2.25	326	Pn	Pb	23 10 14.5	-0.7
BERA				Sn	Sg	23 10 47.3	+0.3
BERA				IAML		23 10 57.7	
	4µm,0.8s						
VLO	Vlora	2.29	315	Pn	Pb	23 10 14.9	-1.0
VLO				Sn	Sg	23 10 50.4	+1.8
VLO				IAML		23 10 54.1	
	12µm,0.6s						
VLO	Vlora	2.29	315	P	Pb	23 10 15.1	-0.8
OHR	Ohrid	2.34	345	*i* Pn	Pb	23 10 16.5	-0.3
SOH	Sokhos	2.38	34	P	Pn	23 10 13.9	+0.4
KNT	Kendrikon	2.51	23	P	Pn	23 10 15.9	+0.7
VAY	Valandovo	2.58	16	*i* Pn	Pn	23 10 16.5	+0.5
SRS	Serrai	2.73	33	P	Pn	23 10 18.7	+0.4
TIR	Tirane	2.83	332	Pn	Pb	23 10 22.5	-2.6
TIR				Sn	Sb	23 10 57.6	-1.9
TIR				IAML		23 10 59.5	
	2µm,0.6s						
KTHA	Kythira Island	2.84	155	P	Pb	23 10 23.9	-1.3
PHP	Peshkopia	2.97	343	P	Pn	23 10 24.3	+2.8
PEHC	Pehcevo	3.09	18	*i* Pn	Pn	23 10 24.0	+0.8
SKO	Skopje	3.12	358	*i* Pn	Pn	23 10 25.0	+1.4
MMB	Musomishta	3.15	31	*i* P	Pn	23 10 25.0	+0.9
MMB				S	Sn	23 11 02.1	+0.6
KKB	Krupnik	3.21	21	P	Pn	23 10 25.8	+1.0
KKB				S	Sn	23 11 02.5	-0.3
CHOS	Chios island	3.52	96	P	Pn	23 10 32.7	+3.6
APE	Apeiranthos	3.58	119	P	Pn	23 10 31.7	+1.8
APE	Apeiranthos	3.58	119	⇑P	Pn	23 10 32.8	+3.0
APE				⇑S	Sb	23 11 17.7	-3.5
APE	Apeiranthos	3.58	119	P	Pb	23 10 35.1	-2.8
SDA	Shkodra	3.58	334	Pn	Pn	23 10 31.7	+1.9
BOZC	Bozcaada	3.59	73	P	Pn	23 10 31.1	+1.1
BOZC				S	Sn	23 11 06.7	-5.4
ULC	Ulcinj	3.59	331	⇑*i* Pn	Sn	23 10 31.3	+1.2
ULC				*i* Sn	Sn	23 11 12.4	+0.1
RZN	Rozhen	3.72	39	*i* P	Pn	23 10 32.5	+0.6
RZN				S	Sn	23 11 16.7	+1.1
EZN	Ezine	3.79	74	P	Pn	23 10 33.6	+0.9
TIP	Timpagrande	3.79	276		Pn	23 10 32.9	+0.1
TIP	Timpagrande	3.79	276	⇑P	Pn	23 10 34.1	+1.3
TIP				⇓S	Sn	23 11 19.7	+2.5
TIP	Timpagrande	3.79	276	Pn	Pn	23 10 33.5	+0.7
TIP				AML	AML		
TIP	Timpagrande	3.79	276	P	Pn	23 10 33.8	+1.0
DRME	Dracevica, Mon	3.81	332	⇓*i* Pn	Pn	23 10 33.6	+0.6
DRME				*i* Sn	Sn	23 11 18.1	+0.5
PLNA	Plana	3.88	20	P	Pn	23 10 38.2	+4.1
CNKL	anakkale-Mer	3.90	70	P	Pn	23 10 35.2	+1.0
CNKL				S	Sn	23 11 15.2	-4.5
BAYC	CANAKKALE_Bayr	3.94	75	P	Pn	23 10 35.9	+1.1
BAYC				S	Sn	23 11 18.5	-2.2
PVY	Plav	3.94	342	⇑*i* Pn	Pn	23 10 39.0	+4.0
PVY				*i* Sn	Sn	23 11 20.7	-0.4
THERA	Ancient Thera,	3.95	128	P	Pn	23 10 37.5	+2.6
VTS	Vitosha	3.96	18	P	Pn	23 10 36.4	+1.1
VTS				S	Sn	23 11 22.2	+0.6
CAVK	Edirne/Enez-Ca	3.97	61	P	Pn	23 10 36.1	+0.9
CAVK	Edirne/Enez-Ca	3.97	61	⇓P	Pn	23 10 36.8	+1.6
CAVK				⇑S	Sn	23 11 25.2	+3.7
ALN	Alexandroupoli	3.98	58	P	Pn	23 10 35.4	0.0
ALN	Alexandroupoli	3.98	58		Pn	23 10 35.4	0.0
ALN	Alexandroupoli	3.98	58	P	Pn	23 10 35.5	+0.2
KDZ	Kurdzhali	3.98	45	P	Pn	23 10 36.4	+1.0
KDZ				P	Pn	23 10 36.8	+1.4
PDG	Podgorica	4.00	334		Pn	23 10 34.9	-0.7
PDG	Podgorica	4.00	334	⇑P	Pn	23 10 37.3	+1.7
PDG				⇑S	Sn	23 11 23.6	+1.5
PDG	Podgorica	4.00	334	P	Pn	23 10 37.5	+1.9
PDG	Podgorica	4.00	334	*e*Pn	Pn	23 10 36.7	+1.1
PDG				*i* Sn	Sn	23 11 22.2	0.0
BUM	Brajici-Budva	4.02	330	⇑*i* Pn	Pn	23 10 36.9	+1.0
BUM				*i* Sn	Sn	23 11 23.0	+0.2
TRAN	Tran	4.06	11	P	Pn	23 10 37.2	+0.7
PGB	Panagyurishte	4.15	27	P	Pn	23 10 38.8	+1.1
MATE	Matera	4.18	297	*e*P	Pn	23 10 40.1	+2.0
MATE	Matera	4.18	297	⇓P	Pn	23 10 39.4	+1.3
MATE				⇓S	Sn	23 11 28.1	+1.3
MATE	Matera	4.18	297	P	Pn	23 10 39.4	+1.3
CEME	Cevo	4.22	332	⇑*i* Pn	Pn	23 10 39.5	+0.8
CEME				*i* Sn	Sn	23 11 26.4	-1.4
IVA	Berane	4.22	343	⇑*i* Pn	Pn	23 10 41.7	+2.9
IVA				*i* Sn	Sn	23 11 27.0	-0.9
GOKT	Kean, EDRN	4.27	63	P	Pn	23 10 39.3	-0.1
GOKT				S	Sn	23 11 24.5	-4.5
LAPS	Lapseki, ANA	4.28	69	P	Pn	23 10 40.4	+0.9
LAPS				S	Sn	23 11 22.5	-6.7
KOME	Kolasin	4.30	339	⇓*i* Pn	Pn	23 10 41.6	+1.8
KOME				*i* Sn	Sn	23 11 28.7	-1.1
HCY	Herceg Novi	4.30	328	⇑*i* Pn	Pn	23 10 40.0	+0.2
HCY				*i* Sn	Sn	23 11 27.9	-1.8
BUHA	Balikesir, Bur	4.30	80	P	Pn	23 10 41.9	+2.1
KESN	Edirne-Kesan	4.38	62	P	Pn	23 10 41.0	-0.1
KESN				S	Sn	23 11 28.4	-3.7
NKME	Niksic	4.40	334	⇑*i* Pn	Pn	23 10 42.4	+1.2
NKME				*i* Sn	Sn	23 11 31.5	-0.7
DIM	Dimitrovgrad	4.40	42	P	Pn	23 10 41.6	+0.5
IDI	Anoyia	4.42	143	Pn	Pn	23 10 44.0	+2.5
	16nm,0.5s,baz=345,slow=8.3,SNR=13						
IDI				Sn	Sn	23 11 29.2	-3.7
	8.4nm,0.3s,baz=347,slow=17,SNR=3.6						
IDI	Anoyia	4.42	143		Pn	23 10 43.8	+2.3
GVD	Gavdhos	4.47	153	P	Pb	23 10 49.0	-4.1
CEL	Celeste	4.51	264		Pn	23 10 43.3	+0.5
CEL	Celeste	4.51	264	Pn	Pn	23 10 43.3	+0.5
CEL				AML	AML		
CEL	Celeste	4.51	264	P	Pn	23 10 44.0	+1.2
CUC	Castrocucco	4.62	286		Pn	23 10 44.9	+0.6
CUC	Castrocucco	4.62	286	P	Pn	23 10 47.3	+3.0
DBRK	Dubrovnik	4.63	327	*i* Pn	Pn	23 10 44.1	-0.2
DBRK				Sn	Sn	23 11 35.4	-2.4
BRY	Bratogost	4.67	331	⇑*i* Pn	Pn	23 10 46.1	+1.2
BRY				*i* Sn	Sn	23 11 38.3	-0.6
MARCO	Tramutola	4.71	290	P	Pn	23 10 47.8	+2.4
BALY	Balya	4.75	77	P	Pn	23 10 47.3	+1.3
BALY	Balya	4.75	77	P	Pn	23 10 48.3	+2.3
ACER	Acerenza	4.77	296		Pn	23 10 45.9	-0.3
ATIT	Gnen	4.77	73	P	Pn	23 10 48.2	+1.9
ATIT				S	Sn	23 11 37.5	-3.9
PLE	Pljevlja	4.78	340	⇑*i* Pn	Pn	23 10 48.3	+1.9
PLE				*i* Sn	Sn	23 11 41.1	-0.5
BOVS	Bovan	4.78	1	⇑P	Pn	23 10 47.5	+1.2
MPEP	Malo Peshtene	4.78	19	P	Pn	23 10 47.5	+1.1
UPM	Unac-Piva	4.80	336	⇑*i* Pn	Pn	23 10 48.5	+1.6
UPM				*i* Sn	Sn	23 11 40.8	-1.6
BLKB	Belogradchik	4.83	9	⇓P	Pn	23 10 48.9	+1.7
MADA	Marmara adas	4.91	67	P	Pn	23 10 48.8	+0.7
BALB	Balikesir	4.94	79		Pn	23 10 49.5	+1.0
BDRM	Kayabasi	4.95	109	⇓P	Pn	23 10 51.9	+3.2
STON	Ston	4.99	325	*e*Pn	Pn	23 10 48.7	-0.5
STON				Sn	Sn	23 11 43.4	-3.2
CMHT	Manyas	5.06	75	P	Pn	23 10 51.8	+1.5
CMHT				S	Sn	23 11 47.2	-1.4
MURA	Muratl, TEK	5.07	61	P	Pn	23 10 51.0	+0.7
PLVB	Pleven	5.07	26	⇑P	Pn	23 10 51.4	+1.0
AYDN	Tasoluk	5.08	102	P	Pn	23 10 55.5	+4.9
	comp=Z,128nm,0.7s						
KIRK	Kirklareli	5.12	53	P	Pn	23 10 52.0	+1.0
ELND	Elena	5.20	37	⇓P	Pn	23 10 52.9	+0.7
BAND	Balkesir-Ban	5.24	71	P	Pn	23 10 54.2	+1.5
BAND	Balkesir-Ban	5.24	71	⇓P	Pn	23 10 54.5	+1.8
LSTV	Lastovo	5.30	319	*e*Pn	Pn	23 10 53.2	-0.3
LSTV				Sn	Sn	23 11 50.2	-4.1
BAIL	Bailesti	5.33	14	⇓P	Pn	23 10 54.9	+1.1
ARMN	Kirklareli, Me	5.37	54	P	Pn	23 10 54.6	+0.1
MANT	Manisa	5.45	92		Pn	23 10 58.5	+2.7
VIZE	Kirklareli, Vi	5.50	58	P	Pn	23 10 56.3	+0.1
PUNG	Punghina	5.51	10	⇑P	Pn	23 10 58.7	+2.3
KARP	Karpathos	5.53	125		Pn	23 10 59.7	+3.0
KARP	Karpathos	5.53	125	*e*P	Pn	23 10 59.1	+2.4
KARP	Karpathos	5.53	125	Pn	Pn	23 10 59.9	+3.2
	comp=Z,0.9nmcomp=Z,246nm,0.8s						
KARP				AML	AML		
KARP	Karpathos	5.53	125	P	Pb	23 11 07.8	-3.3
	comp=Z,0.9nmcomp=Z,246nm,0.8s						
KARP				AML	AML		
VLAD	Vladila	5.56	21	⇓P	Pn	23 10 58.2	+1.2
ZIMR		5.58	29	P	Pn	23 10 59.0	+1.8
ZIMR		5.58	29	⇓P	Pn	23 10 59.0	+1.8
MAKA	Makarska	5.62	323	*i* Pn	Pn	23 10 57.8	-0.1
MAKA				Sn	Sn	23 11 59.9	-2.4
RICI	Ricice	5.74	325	*i* Pn	Pn	23 10 59.4	-0.1
RICI				Sn	Sn	23 12 02.8	-2.3
ARG	Arkhangelos	5.81	115	P	Pn	23 11 02.6	+2.1
ARG	Arkhangelos	5.81	115		Pn	23 11 02.6	+2.1
HVAR	Hvar	5.82	320	*i* Pn	Pn	23 10 59.9	-0.7
HVAR				Sn	Sn	23 12 03.5	-3.7
PAOL	Paolisi	5.83	294		Pn	23 11 01.0	+0.1
VAE	Valguarnera	5.83	259	Pn	Pn	23 11 03.0	+2.2
	comp=Z,21nm,0.4s,baz=359,slow=8,SNR=16						
VAE				Sn	Sn	23 12 08.9	+1.4
	comp=Z,13nm,0.3s,baz=14,slow=15,SNR=5.3						
RMGR	Halanga-Turnu	5.86	8	⇓P	Pn	23 11 02.1	+0.8
LOZB	Loznitsa	5.88	38	⇑P	Pn	23 11 02.9	+1.5
TAVA	DENIZLI_Tavas	5.92	101	⇑P	Pn	23 11 05.2	+3.0
MDVR	Moldovita	5.93	1	⇑P	Pn	23 11 04.5	+2.3
SRE	Strehaia	5.93	11	P	Pn	23 11 03.3	+1.2
SRE	Strehaia	5.93	11	⇓P	Pn	23 11 03.4	+1.2
COPA	Copaceanca	5.93	26	⇑P	Pn	23 11 04.8	+2.6
RAFF	Raffo Rosso	5.94	256		Pn	23 11 01.8	-0.6
RAZG	Razgrad	5.99	37	⇑P	Pn	23 11 04.3	+1.3
HERR	Herculane	6.05	5	⇑P	Pn	23 11 04.8	+0.9
HUMR	Humele	6.21	23	⇑P	Pn	23 11 07.5	+1.5
HUMR	Humele	6.21	23	P	Pn	23 11 07.2	+1.2
	comp=Z,294nm,0.7s						
YLV	Yalova	6.23	72	Pn	Pn	23 11 08.5	+2.1
	comp=Z,0.2nmcomp=Z,47nm,0.8s						
YLV				AML	AML		
SGRR	Singureni	6.29	30	⇓P	Pn	23 11 08.7	+1.6
WDD	Wied Dalam	6.39	244		Pn	23 11 08.0	-0.5
WDD	Wied Dalam	6.39	244	P	Pn	23 11 08.4	-0.1
	comp=Z,424nm,0.8s						
KIJV	Kijevo	6.46	324	*e*Pn	Pn	23 11 09.7	+0.2
KIJV				Sn	Sn	23 12 20.0	-3.0
STFAR	Stefanesti-Arg	6.51	22	⇑P	Pn	23 11 12.4	+2.3
BANR	Banloc	6.54	357	⇑P	Pn	23 11 12.4	+2.0
INTR	Introdacqua	6.67	301		Pn	23 11 13.8	+1.4
MORI	Morici	6.69	320	*i* Pn	Pn	23 11 13.0	+0.4
MORI				Sn	Sn	23 12 25.4	-3.2
CLTB	Caltabellotta	6.73	262	P	Pn	23 11 14.5	+1.3
	comp=Z,117nm,0.5s						
BLY	Banja Luka	6.75	332		Pn	23 11 13.6	+0.1
BLY	Banja Luka	6.75	332	⇑P	Pn	23 11 15.1	+1.6
BLY	Banja Luka	6.75	332	P	Pn	23 11 14.3	+0.8
	comp=Z,81nm,0.6s						
BZS	Buzias	6.76	0	P	Pn	23 11 15.2	+1.6
BZS	Buzias	6.76	0	⇑P	Pn	23 11 14.5	+0.9
BZS	Buzias	6.76	0	P	Pn	23 11 15.3	+1.8
	comp=Z,38nm,0.9s						
SULR		6.78	29	⇑P	Pn	23 11 15.9	+2.0
SULR		6.78	29	P	Pn	23 11 15.8	+2.0
	comp=Z,137nm,0.8s						
LOT	Lotru	6.79	13	⇑P	Pn	23 11 15.1	+1.1
LOT	Lotru	6.79	13	P	Pn	23 11 15.1	+1.1
	comp=Z,63nm,0.7s						
AKAS	Kas	6.87	110		Pn	23 11 19.5	+4.2
ARR	Arges	6.89	18	⇑P	Pn	23 11 16.6	+1.2
ARR	Arges	6.89	18	P	Pn	23 11 16.5	+1.1
	comp=Z,32nm,0.5s						
ELL	Elmali	6.90	105	P	Pn	23 11 20.8	+5.1
ELL	Elmali	6.90	105		Pn	23 11 20.8	+5.1
SURR	Surduc	6.91	3	⇓P	Pn	23 11 16.8	+1.2
ICOR	Ion Corvin	7.02	39	⇑P	Pn	23 11 19.5	+2.4
VOIR		7.06	20	P	Pn	23 11 18.8	+1.0
VOIR		7.06	20	⇓P	Pn	23 11 18.8	+1.0
VOIR		7.06	20	Pn	Pn	23 11 18.7	+1.0
	comp=Z,0.4nmcomp=Z,1µmcomp=Z,78nm,0.7s						
VOIR				AML	AML		
VOIR		7.06	20	P	Pn	23 11 19.2	+1.4
	comp=Z,78nm,0.7s						
TNR	Turnu Rosu	7.08	15	P	Pn	23 11 20.1	+2.2
TNR	Turnu Rosu	7.08	15	⇓P	Pn	23 11 20.2	+2.2
ISP	Isparta	7.08	96	P	Pn	23 11 21.6	+3.4
ISP	Isparta	7.08	96		Pn	23 11 21.6	+3.4
DEV	Deva	7.09	7	P	Pn	23 11 21.2	+3.1
DEV	Deva	7.09	7	⇓P	Pn	23 11 20.0	+1.9
DEV	Deva	7.09	7	P	Pn	23 11 21.1	+3.0
	comp=Z,51nm,1.0s						
DUGI	Dugi Otok	7.11	318	*i* Pn	Pn	23 11 18.8	+0.5
DUGI				Sn	Sn	23 12 35.7	-3.2
AQU	L'Aquila	7.15	302	P	Pn	23 11 19.5	+0.5
AQU	L'Aquila	7.15	302		Pn	23 11 19.5	+0.5
AQU	L'Aquila	7.15	302	Pn	Pn	23 11 20.8	+1.8
	comp=Z,0.3nmcomp=Z,637nmcomp=Z,80nm,0.8s						
AQU				AML	AML		
AQU	L'Aquila	7.15	302	P	Pn	23 11 21.5	+2.5
	comp=Z,99nm,0.8s						
UDBI	Udbina	7.16	324	*i* Pn	Pn	23 11 20.2	+1.1
UDBI				Sn	Sn	23 12 36.9	-3.3
ISR	Istrita	7.26	29	P	Pn	23 11 22.9	+2.4
ISR	Istrita	7.26	29	⇓P	Pn	23 11 21.9	+1.5
ISR	Istrita	7.26	29	Pn	Pn	23 11 22.5	+2.0
	comp=Z,0.7nmcomp=Z,178nm,0.8s						
ISR				AML	AML		
VIRC	Vir	7.32	320	*e*Pn	Pn	23 11 21.8	+0.6
VIRC				Sn	Sn	23 12 40.5	-3.6
MLR	Muntele Rosu	7.38	25	Pn	Pn	23 11 22.4	+0.3
	comp=Z,4.2nm,0.3s,baz=160,slow=22,SNR=51						
MLR				Sn	Sn	23 12 44.5	-1.1
	baz=298,slow=21						
MLR				LR	LR	23 14 49.8	
	comp=Z,435nm,19.9s,baz=182,slow=43						
	comp=Z,25nm,0.6s						
MLR				AML	AML		
MLR	Muntele Rosu	7.38	25		Pn	23 11 23.4	+1.3
MLR	Muntele Rosu	7.38	25	⇑P	Pn	23 11 24.6	+2.4
MLR	Muntele Rosu	7.38	25	Pn	Pn	23 11 24.1	+2.0
	comp=Z,0.7nmcomp=Z,2µmcomp=Z,236nm,0.9s						
MLR				AML	AML		
MLR	Muntele Rosu	7.38	25	P	Pn	23 11 24.5	+2.4
	comp=Z,239nm,1.0s						
SIRR	Siria	7.41	0	⇑P	Pn	23 11 24.7	+2.2
TLBR	Topalu	7.45	38	⇓P	Pn	23 11 25.9	+2.8
PLIT	Plitvice	7.49	325	*i* Pn	Pn	23 11 23.4	-0.2
PLIT				Sn	Sn	23 12 45.0	-3.4
HARR	Harsova	7.51	37	P	Pn	23 11 25.9	+2.1
HARR	Harsova	7.51	37	⇑P	Pn	23 11 25.9	+2.1
AMBH	Ambrzfalva	7.52	355	⇑P	Pn	23 11 25.8	+1.8
AMBH	Ambrzfalva	7.52	355	P	Pn	23 11 26.3	+2.3
	comp=Z,158nm,0.7s						
GUMA	Gualdo di Mace	7.54	307		Pn	23 11 24.5	+0.2
NRCA	Norcia	7.56	304		Pn	23 11 25.0	+0.3
MDB	Medias	7.57	15	P	Pn	23 11 26.5	+1.9
MDB	Medias	7.57	15	⇑P	Pn	23 11 26.6	+1.9
TIRR	Tirgusor	7.57	40	P	Pn	23 11 26.5	+1.9
TIRR	Tirgusor	7.57	40		Pn	23 11 26.3	+1.6
TIRR	Tirgusor	7.57	40	⇓P	Pn	23 11 26.6	+1.9
MDUB	Mudurnu	7.58	75		Pn	23 11 25.6	+0.8
NVLJ	Novalja	7.61	321	*i* Pn	Pn	23 11 25.5	+0.3
NVLJ				Sn	Sn	23 12 47.1	-4.1
DOPR	Dopca	7.64	20	⇓P	Pn	23 11 27.9	+2.3
GRER		7.65	30	⇑P	Pn	23 11 28.3	+2.6
MOSL	Moslavina	7.65	334	*e*Pn	Pn	23 11 26.1	+0.2
MOSL				Sn	Sn	23 12 49.2	-3.1
MORH	Mrgy, Hungar	7.68	344	⇑P	Pn	23 11 27.1	+1.0
MORH	Mrgy, Hungar	7.68	344	Pn	Pn	23 11 26.1	0.0
	comp=Z,0.1nmcomp=Z,26nm,1.0s						
MORH				AML	AML		
MORH	Mrgy, Hungar	7.68	344	P	Pn	23 11 26.4	+0.3
	comp=Z,30nm,0.9s						
FDMO	Fiordimonte	7.68	306		Pn	23 11 26.4	+0.1
COVR	Voineasa-Covas	7.77	24	⇑P	Pn	23 11 30.3	+2.8
RABC	Rab	7.79	321	*e*Pn	Pn	23 11 27.1	-0.5
RABC				Sn	Sn	23 12 52.6	-3.0
CESX	Cesi	7

OBKA **Obir** 9.24 328 P Pn 23 11 49.2 +1.4
comp=Z,40nm,0.7s
SABO **M.te Sabotino** 9.26 323 Pn 23 11 47.0 -0.8
TRPA **Tarpa** 9.30 4 P Pn 23 11 51.2 +2.8
comp=Z,21nm,0.9s
BR105 **Keskin Array S** 9.36 81 Pn Pn 23 11 52.4 +3.1
comp=Z,136nmcomp=Z,14nm,0.9s
BR106 **Keskin Array S** 9.36 81 Pn Pn 23 11 52.2 +2.9
comp=Z,104nmcomp=Z,9.1nm,0.7s
BR131 **Keskin Array S** 9.37 81 *i* P Pn 23 11 52.1 +2.5
BR131 **Keskin Array S** 9.37 81 Pn 23 11 52.0 +2.5
BRTR **Keskin Array B** 9.37 81 Pn Pn 23 11 52.5 +2.9
comp=Z,1.6nm,0.3s,baz=263,slow=12,SNR=84
BRTR Sn Sn 23 13 32.2 -2.6
comp=Z,0.1nm,0.3s,baz=266,slow=24,SNR=3.1
BRTR LR LR 23 15 52.0
comp=Z,146nm,19.5s,baz=246,slow=40
comp=Z,5.7nm,0.5s
BRTR AML AML
BRTR **Keskin Array B** 9.37 81 Pn 23 11 51.9 +2.3
BR104 **Keskin Array S** 9.37 81 Pn Pn 23 11 52.3 +2.7
comp=Z,168nmcomp=Z,14nm,0.7s
DRE **Drenchia** 9.38 324 P Pn 23 11 48.4 -1.2
comp=Z,39nm,0.7s
ABAH **Abaujker** 9.45 359 P Pn 23 11 52.6 +2.3
comp=Z,22nm,1.3s
ARSA **Arzberg** 9.50 334 Pn 23 11 50.3 -0.8
ARSA **Arzberg** 9.50 334 *e*Pn Pn 23 11 51.3 +0.2
ARSA **Arzberg** 9.50 334 *e*Pn Pn 23 11 51.6 +0.4
comp=Z,9.2nm,0.4s,SNR=6.9
ARSA *e*Sn Sn 23 13 34.9 -2.7
comp=Z,3.7nm,0.5s
ARSA **Arzberg** 9.50 334 P Pn 23 11 52.8 +1.6
comp=Z,28nm,0.7s
VSL **Villasalto** 9.52 278 Pn 23 11 51.5 +0.1
VSL **Villasalto** 9.52 278 P Pn 23 11 54.0 +2.5
comp=Z,12nm,1.0s
SOP **Sopron** 9.56 339 P Pn 23 11 53.9 +2.0
comp=Z,16nm,0.7s
KIRS **Kirsehir-Merke** 9.59 84 ⇑P Pn 23 11 55.5 +3.0
PRED **Cave del Predi** 9.62 325 Pn 23 11 51.5 -1.3
PRED **Cave del Predi** 9.62 325 P Pn 23 11 54.5 +1.6
comp=Z,13nm,0.6s
RONA **Rosalia, Austr** 9.65 338 *e*Pn Pn 23 11 53.4 +0.2
comp=Z,3.1nm,0.4s
KECS **Kecovo** 9.66 356 *e*P Pn 23 12 05.3 +12
KECS **Kecovo** 9.66 356 *e*PN Pn 23 12 05.3 +12
ZCCA **Zocca** 9.67 308 Pn 23 11 52.2 -1.3
MYKA **Terra Mystica** 9.73 326 *i* Pn Pn 23 11 55.1 +0.8
comp=Z,7.4nm,0.6s
MYKA *e*Sn Sn 23 13 43.9 +0.6
comp=Z,9.0nm,0.7s
SESA **Seetaler Alpe,** 9.73 330 *e*Pn Pn 23 11 54.4 0.0
comp=Z,7.1nm,0.4s,SNR=22
SESA *e*Sn Sn 23 13 43.9 +0.3
comp=Z,9.3nm,0.5s
UZHM **Uzhgorod** 9.79 3 Pn Pn 23 11 58.0 +3.0
PURM **Purcari** 9.79 36 Pn Pn 23 11 58.1 +3.1
comp=Z,48nm,1.1s
TEOL **Teolo** 9.83 315 Pn 23 11 54.3 -1.4
VYHS **Vyhne** 9.84 349 *e*P Pn 23 11 57.9 +2.0
VYHS **Vyhne** 9.84 349 *e*PN Pn 23 11 57.9 +2.0
VYHS *e*PG 23 12 26.9
VYHS **Vyhne** 9.84 349 P Pn 23 11 57.3 +1.5
comp=Z,4.9nm,1.2s
STAL **STALIGIAL** 9.89 321 Pn 23 11 55.1 -1.3
CONA **Conrad Observa** 9.98 337 *e*Pn Pn 23 11 59.7 +1.8
comp=Z,3.9nm,0.7s
MODS **Modra-Piesok** 10.02 343 *e*P Pn 23 11 59.1 +0.8
MODS **Modra-Piesok** 10.02 343 *e*PN Pn 23 11 59.1 +0.8
MODS *e*PG 23 12 39.8
MODS **Modra-Piesok** 10.02 343 P Pn 23 11 59.6 +1.3
comp=Z,64nm,1.1s
WINA **Alland / Wiene** 10.08 338 *e*Pn Pn 23 12 01.6 +2.5
comp=Z,5.9nm,0.5s
KOLS **Kolonicke sedl** 10.09 3 *e*P Pn 23 12 03.4 +4.2
KOLS **Kolonicke sedl** 10.09 3 P Pn 23 12 03.2 +4.0
comp=Z,18nm,0.6s
SMOL **Smolenice** 10.12 344 *e*P Pn 23 12 01.2 +1.6
CSS **Mathiatis** 10.16 109 Pn 23 12 03.1 +2.9
CSS **Mathiatis** 10.16 109 P Pn 23 12 12.0 +12
comp=Z,21nm,0.9s
CSS **Mathiatis** 10.16 109 P Pn 23 12 07.9 +7.7
KBA **Koelnbreinsper** 10.20 326 *e*Sn Sn 23 13 53.8 -1.4
KBA **Koelnbreinsper** 10.20 326 *i* Pn Pn 23 12 02.8 +1.9
comp=Z,7.8nm,0.5s
KBA **Koelnbreinsper** 10.20 326 P Pn 23 12 01.8 +0.9
comp=Z,29nm,1.0s
KEST **Kesra** 10.25 256 Pn Pn 23 12 04.6 +3.1
comp=Z,1.1nm,0.3s,baz=57,slow=4.4,SNR=32
KEST Sn Sn 23 13 49.5 -6.8
baz=18,slow=20,SNR=1.3
KEST LR LR 23 16 07.4
comp=Z,104nm,20.9s,baz=13,slow=38
comp=Z,18nm,0.7s
KEST AML AML
KEST **Kesra** 10.25 256 Pn 23 12 02.4 +0.8
CTI **Castel Tesino** 10.28 318 P Pn 23 12 00.9 -1.0
CTI **Castel Tesino** 10.28 318 Pn 23 12 00.9 -1.0
KMPD **K-Podol'skiy** 10.32 18 Pn Pn 23 12 04.7 +2.4
ABTA **Abfaltersbach** 10.33 323 *i* Pn Pn 23 12 02.5 -0.2
comp=Z,12nm,0.5s,SNR=28
ABTA *e*Sn Sn 23 13 55.3 -2.9
comp=Z,27nm,0.6s
JAVC **Velka Javorina** 10.40 345 *e*PN Pn 23 12 04.2 +0.7
LANS **Liptovska Anna** 10.41 352 *e*P Pn 23 12 09.9 +6.3
MOA **Molln** 10.46 332 *e*Sn Sn 23 14 02.1 +1.0
MOA **Molln** 10.46 332 *e*Pn Pn 23 12 04.9 +0.7
comp=Z,5.5nm,0.3s,SNR=13
MOA *e*Sn Sn 23 14 01.3 +0.1
comp=Z,10.0nm,0.6s
MOA **Molln** 10.46 332 P Pn 23 12 06.3 +2.1
comp=Z,28nm,1.5s
SORM **Soroca** 10.49 26 P Pn 23 12 05.7 +1.1
SORM **Soroca** 10.49 26 ⇓P Pn 23 12 05.7 +1.1
BIOA **Bad Ischl, Aus** 10.57 329 *e*Pn Pn 23 12 05.4 -0.4
BIOA **Bad Ischl, Aus** 10.57 329 *i* Pn Pn 23 12 06.0 +0.3
comp=Z,6.3nm,0.3s,SNR=7.7
BIOA *e*Sn Sn 23 14 04.1 +0.2
comp=Z,11nm,0.6s
NIE **Niedzica** 10.61 355 *e*P Pn 23 12 09.8 +3.6
SALO **Salr** 10.63 313 Pn 23 12 05.4 -1.3
LESA **Schwarzleotal** 10.76 326 *e*Pn Pn 23 12 08.5 +0.1
LESA *e*Sn Sn 23 14 07.7 -1.0
LESA **Schwarzleotal** 10.76 326 *i* Pn Pn 23 12 09.1 +0.7
comp=Z,12nm,0.4s,SNR=11
LESA *e*Sn Sn 23 14 05.2 -3.5
comp=Z,24nm,0.8s
ABNA **Allensteig Bun** 10.78 338 Pn Pn 23 12 11.1 +2.4
comp=Z,8.2nm,1.3s
KWP **Kalwaria Pacla** 10.81 4 *e*P Pn 23 12 13.3 +4.3
KRUC **Moravsky** 10.87 342 *e*PN Pn 23 12 10.4 +0.5
KRUC **Moravsky** 10.87 342 P Pn 23 12 08.1 -1.8
comp=Z,11nm,1.2s
RJOB **Jochberg** 10.95 327 P Pn 23 12 11.6 +0.6
comp=Z,14nm,0.9s
VRAC **Vranov** 11.05 343 Pn Pn 23 12 13.4 +1.0
comp=Z,0.5nm,0.3s,baz=168,slow=13,SNR=33
VRAC LR LR 23 17 49.5
comp=Z,140nm,20.6s,baz=178,slow=45
comp=Z,21nm,0.9s
VRAC AML AML
VRAC **Vranov** 11.05 343 *e*PN Pn 23 12 13.4 +1.0
VRAC **Vranov** 11.05 343 ⇓P Pn 23 12 13.3 +0.9
VRAC **Vranov** 11.05 343 P Pn 23 12 13.6 +1.2
comp=Z,8.2nm,1.0s
WTTA **Wattenberg** 11.12 322 *e*Pn Pn 23 12 13.5 0.0
WTTA *e*Sn Sn 23 14 12.8 -4.8
WTTA **Wattenberg** 11.12 322 *i* Pn Pn 23 12 13.7 +0.2
comp=Z,13nm,0.6s,SNR=15
WTTA *e*Sn Sn 23 14 16.1 -1.5
comp=Z,42nm,0.6s
WTTA **Wattenberg** 11.12 322 P Pn 23 12 14.7 +1.2
comp=Z,22nm,0.8s
WATA **Walderalm** 11.20 322 *i* Pn Pn 23 12 15.1 +0.6
comp=Z,20nm,0.5s,SNR=24
WATA *e*Sn Sn 23 14 15.5 -4.0
comp=Z,39nm,1.0s
OKC **Ostrava-Krasne** 11.26 348 *e*SN Sn 23 14 21.5 +0.8
CKRC **Cesky Krumlov** 11.26 335 *e*P Pn 23 12 15.4 +0.1
CKRC **Cesky Krumlov** 11.26 335 *e*PN Pn 23 12 15.4 +0.1
SQTA **Sankt Quirin** 11.30 321 *e*Pn Pn 23 12 15.7 -0.2
SQTA *e*Sn Sn 23 14 18.0 -3.9
SQTA **Sankt Quirin** 11.30 321 *e*Pn Pn 23 12 16.6 +0.8
comp=Z,9.4nm,0.3s,SNR=7.7
SQTA *e*Sn Sn 23 14 18.2 -3.6
comp=Z,12nm,0.5s
MORC **Moravsky Berou** 11.30 346 P Pn 23 12 16.3 +0.5
MORC **Moravsky Berou** 11.30 346 Pn 23 12 16.3 +0.5
MORC **Moravsky Berou** 11.30 346 *e*PN Pn 23 12 16.0 +0.2
MORC **Moravsky Berou** 11.30 346 P Pn 23 12 13.2 -2.6
comp=Z,8.9nm,1.1s
CY604 **RAF Akrotiri,** 11.31 110 Pn 23 12 19.4 +3.7
TREC **Trest** 11.32 339 *e*P Pn 23 12 17.0 +0.9
TREC **Trest** 11.32 339 *e*PN Pn 23 12 17.0 +0.9
TREC **Trest** 11.32 339 P Pn 23 12 17.1 +0.9
comp=Z,15nm,1.2s
FUORN **Ofenpass-Fuorn** 11.38 317 Pn 23 12 17.3 +0.1
FUORN **Ofenpass-Fuorn** 11.38 317 P Pn 23 12 18.7 +1.6
comp=Z,20nm,0.7s
FETA **Feichten** 11.40 319 *e*Pn Pn 23 12 18.7 +1.4
comp=Z,6.9nm,0.5s
STEB **Steborice** 11.41 347 *e*PN Pn 23 12 17.9 +0.6
STEB *e*SN Sn 23 14 24.6 +0.1
MOTA **Moosalm** 11.44 321 *e*Pn Pn 23 12 17.7 -0.1
MOTA *e*Sn Sn 23 14 21.9 -3.4
MOTA **Moosalm** 11.44 321 *e*Pn Pn 23 12 17.8 +0.1
comp=Z,22nm,0.5s,SNR=14
MOTA *e*Sn Sn 23 14 22.5 -2.8
comp=Z,17nm,0.5s
OJC **Ojcow** 11.44 354 *e*P Pn 23 12 20.3 +2.6
GEC2 **GERESS Array S** 11.50 333 Pn 23 12 18.6 +0.1
GEC2 **GERESS Array S** 11.50 333 *e*Pn Pn 23 12 21.9 +3.4
GEC2 *e*Sn Sn 23 14 25.2 -1.5
GEC2 **GERESS Array S** 11.50 333 P Pn 23 12 23.5 +5.0
comp=Z,8.2nm,0.9s
GERES **GERESS Array B** 11.50 333 Pn Pn 23 12 19.9 +1.4
comp=Z,0.1nm,0.3s,baz=159,slow=14,SNR=15
GERES Sn Sn 23 14 18.9 -7.8
baz=152,slow=24
GERES LR LR 23 17 47.3
comp=Z,471nm,19.8s,baz=124,slow=43
GERES ScP ScP 23 21 41.5 -0.9
comp=Z,0.6nm,0.8s,baz=224,slow=2.6,SNR=3.7
comp=Z,1.2nm,0.4s
GERES AML AML
GERES **GERESS Array B** 11.50 333 Pn Pn 23 12 17.3 -1.3
DAVOX **Davos/Dischmat** 11.69 316 Pn Pn 23 12 23.0 +1.7
comp=Z,1.6nm,0.3s,baz=105,slow=18,SNR=21
DAVOX Sn Sn 23 14 27.3 -4.4
comp=Z,1.1nm,0.3s,baz=333,slow=19,SNR=6.8
comp=Z,4.1nm,0.4s
DAVOX AML AML
DAVOX **Davos/Dischmat** 11.69 316 P Pn 23 12 23.0 +1.7
RETA **Reutte** 11.70 321 *i* Pn Pn 23 12 21.1 -0.2
comp=Z,5.9nm,0.6s
RETA *e*Sn Sn 23 14 29.0 -2.7
comp=Z,18nm,0.6s
KHC **Kasperske Hory** 11.78 333 *e*P Pn 23 12 21.8 -0.6
KHC *e* 23 14 33.5
KHC **Kasperske Hory** 11.78 333 Pn 23 12 22.1 -0.3
KHC **Kasperske Hory** 11.78 333 *e*PN Pn 23 12 21.8 -0.6
KHC *e*SN Sn 23 14 33.5 -0.1
KHC **Kasperske Hory** 11.78 333 P Pn 23 12 26.4 +4.0
comp=Z,8.7nm,1.2s
TUE **Stuetta** 11.80 314 Pn 23 12 22.8 0.0
TUE **Stuetta** 11.80 314 Pn Pn 23 12 24.4 +1.6
comp=Z,66nm,1.1s
TUE **Stuetta** 11.80 314 P Pn 23 12 25.5 +2.8
comp=Z,22nm,0.8s
ZVC **Zvikov** 11.84 336 *e*PN Pn 23 12 22.9 -0.2
LUBAR **Lubar, Ukraine** 11.90 20 Pn Pn 23 12 25.2 +1.2
DAVA **Damuels** 12.01 318 *e*Pn Pn 23 12 26.5 +0.8
comp=Z,9.0nm,0.4s
DAVA *e*Sn Sn 23 14 35.6 -3.8
comp=Z,14nm,0.5s
DAVA **Damuels** 12.01 318 P Pn 23 12 28.6 +3.0
comp=Z,29nm,2.1s
DPC **Dobruska-Polom** 12.09 344 *e*P Pn 23 12 27.5 +0.9
DPC *e* 23 14 40.1
DPC **Dobruska-Polom** 12.09 344 *e*PN Pn 23 12 27.5 +0.9
DPC *e*SN Sn 23 14 40.1 -1.1
UBR **Ueberruh** 12.16 320 P Pn 23 12 24.9 -2.7
comp=Z,27nm,1.0s
PRU **Pruhonice** 12.22 338 *e*P Pn 23 12 28.5 +0.2
PRU **Pruhonice** 12.22 338 *e*PN Pn 23 12 28.5 +0.2
PRU **Pruhonice** 12.22 338 P Pn 23 12 29.8 +1.5
comp=Z,8.2nm,1.9s
UPC **Upice** 12.31 343 *e*P Pn 23 12 29.8 +0.2
UPC **Upice** 12.31 343 *e*PN Pn 23 12 29.8 +0.2
OSTC **Ostas** 12.31 344 *e*P Pn 23 12 30.9 +1.3
OSTC **Ostas** 12.31 344 *e*PN Pn 23 12 30.9 +1.3
CHVC **Chvalec** 12.38 343 *e*P Pn 23 12 31.5 +1.0
CHVC **Chvalec** 12.38 343 *e*PN Pn 23 12 31.5 +1.0
BNALP **Bannalp** 12.55 314 P Pn 23 12 38.3 +5.4
comp=Z,15nm,1.2s
MMA0B **Mount Meron ar** 12.60 113 P Pn 23 12 37.6 +3.9
MMA0B S Sn 23 14 54.1 +0.2
MMAI **Mount Meron Ar** 12.60 113 Pn Pn 23 12 36.2 +2.5
comp=Z,2.1nm,0.3s,baz=332,slow=14,SNR=9.7
MMAI Sn Sn 23 14 51.4 -2.5
comp=Z,0.7nm,0.3s,baz=320,slow=31,SNR=2.3
comp=Z,1.4nm,0.4s
MMAI AML AML
GEM **Giv'at Ha'Em** 12.69 112 P Pn 23 12 39.9 +5.1
PVCC **Panska Ves** 12.69 339 *e*P Pn 23 12 35.8 +1.0
PVCC **Panska Ves** 12.69 339 *e*PN Pn 23 12 35.8 +1.0
PVCC **Panska Ves** 12.69 339 P Pn 23 12 35.9 +1.1
comp=Z,14nm,0.9s
RNPP8 **Varash** 12.84 12 Pn Pn 23 12 39.7 +3.0
AK07 **Malin Array Si** 12.88 22 Pn Pn 23 12 39.0 +1.7
AK06 **Malin Array Si** 12.90 22 Pn Pn 23 12 39.4 +1.7
AK14 **Malin Array Si** 12.92 22 Pn Pn 23 12 39.7 +1.9
SENIN **Lac Senin/Sane** 12.93 310 Pn 23 12 39.0 +0.8
MMLI **Mount Malkishu** 12.93 115 P Pn 23 12 40.5 +2.4
AK10 **Malin Array Si** 12.93 22 Pn Pn 23 12 39.6 +1.6
AK05 **Malin Array Si** 12.94 22 Pn Pn 23 12 39.1 +1.0
AK12 **Malin Array Si** 12.94 22 Pn Pn 23 12 39.1 +0.9
AK17 **Malin Array Si** 12.95 22 Pn Pn 23 12 38.8 +0.5
AK09 **Malin Array Si** 12.96 22 Pn Pn 23 12 39.4 +1.0
AK08 **Malin Array Si** 12.96 22 Pn Pn 23 12 39.4 +0.9
AK02 **Malin Array Si** 12.97 22 Pn Pn 23 12 39.2 +0.6
SALP **Salfit** 12.97 117 P Pn 23 12 43.5 +4.8
comp=Z,25nm,0.8s
AK19 **Malin Array Si** 12.97 21 Pn Pn 23 12 39.6 +1.0
AK15 **Malin Array Si** 12.98 22 Pn Pn 23 12 40.7 +2.0
AK01 **Malin Array Si** 13.00 22 Pn Pn 23 12 39.8 +0.8
KIEV **Kiev** 13.01 22 *i* P Pn 23 12 40.2 +1.2
SNR=9.8
KIEV **Kiev** 13.01 22 P Pn 23 12 39.1 +0.1
KIEV **Kiev** 13.01 22 Pn 23 12 39.1 +0.1
KIEV **Kiev** 13.01 22 Pn Pn 23 12 39.8 +0.8
comp=Z,67nm,1.1s
KIEV **Kiev** 13.01 22 P Pn 23 12 40.4 +1.4
comp=Z,17nm,1.1s
AKASG **Malin Array Be** 13.02 22 Pn Pn 23 12 40.2 +1.0
comp=Z,0.8nm,0.3s,baz=210,slow=12,SNR=15
AKASG LR LR 23 18 54.0
comp=Z,428nm,19.7s,baz=210,slow=43
comp=Z,5.1nm,0.6s
AKASG AML AML
AKBB **Malin Array Si** 13.02 22 *i* P Pn 23 12 39.8 +0.6
AKBB **Malin Array Si** 13.02 22 Pn Pn 23 12 39.7 +0.6
AK04 **Malin Array Si** 13.02 22 Pn Pn 23 12 40.9 +1.7
AK22 **Malin Array Si** 13.02 21 Pn Pn 23 12 40.2 +0.9
AMAZ **Amatzia** 13.10 120 P Pn 23 12 44.9 +4.4
comp=Z,36nm,0.8s
AMAZ **Amatzia** 13.10 120 P Pn 23 12 42.0 +1.5
AMAZ S Sn 23 15 02.4 -3.5
NKC **Novy Kostel** 13.11 333 *e*P Pn 23 12 40.3 -0.2
NKC **Novy Kostel** 13.11 333 *e*PN Pn 23 12 40.3 -0.2
KZIT **Kziot** 13.15 123 P Pn 23 12 42.7 +1.6
KZIT **Kziot** 13.15 123 P Pn 23 12 43.3 +2.2
comp=Z,27nm,0.8s
KZIT **Kziot** 13.15 123 P Pn 23 12 40.8 -0.3
KZIT S Sn 23 15 01.8 -5.3
BRG **Berggiesshubel** 13.18 338 *e*P Pn 23 12 42.1 +0.7
BRG Amp 23 12 44.0
comp=Z,5.3nm,1.1s
YITV **Yitav** 13.20 117 P Pn 23 12 44.0 +2.1
ALMO **Almog** 13.32 118 P Pn 23 12 45.3 +1.9
STU **Stuttgart** 13.35 322 P Pn 23 12 42.1 -1.6
STU **Stuttgart** 13.35 322 Pn 23 12 42.7 -1.0
STU **Stuttgart** 13.35 322 P Pn 23 12 42.2 -1.6
comp=Z,28nm,1.0s
MZS **Mizpe Shalem** 13.41 119 P Pn 23 12 45.6 +0.9
BFO **Black Forest** 13.48 319 P Pn 23 12 44.8 -0.8
BFO **Black Forest** 13.48 319 Pn 23 12 44.8 -0.8
MSBI **Mazada** 13.53 120 P Pn 23 12 46.2 -0.1
MSBI S Sn 23 15 12.6 -3.8
RMNI **Mount Ramon** 13.59 123 P Pn 23 12 46.5 -0.7
RMNI S Sn 23 15 13.0 -5.0
LISJ **El Lisan** 13.66 120 P Pn 23 12 52.0 +4.0
comp=Z,6µmcomp=Z,19nm,0.6s
GHAJ **Ghor Haditha** 13.68 119 Pn 23 12 52.5 +4.2
GHAJ **Ghor Haditha** 13.68 119 P P 23 12 52.7 -4.4
GHAJ **Ghor Haditha** 13.68 119 P Pn 23 12 45.6 -2.8
MOX **Moxa** 13.75 332 *e*Pn Pn 23 12 51.8 +2.6
IDAN **Idan** 13.77 121 P Pn 23 12 49.9 +0.3
CLL **Collm** 13.84 337 P Pn 23 12 49.6 -0.9
CLL **Collm** 13.84 337 Pn Pn 23 12 49.6 -0.9
CLL **Collm** 13.84 337 *e*Pn P 23 13 00.2 +1.4
CLL **Collm** 13.84 337 *e*P Pn 23 12 50.0 -0.5
CLL *e*(PP) PnPn 23 12 56.0 -2.4
CLL *i* sPP 23 13 00.6
comp=Z,15nm,0.6s
CLL *i* x x 23 13 04.2
CLL AMS AMS 23 18 00.0
comp=N,500nm,15.3s
CLL AMS AMS 23 18 00.0
comp=Z,800nm,15.5s
PRNI **Paran** 13.91 124 P P 23 12 55.9 -3.7
comp=Z,96nm,0.8s
ASF **Jabal al Asfar** 14.08 114 Pn Pn 23 12 56.2 +1.8
comp=Z,0.3nm,0.3s,baz=32,slow=6.2,SNR=6.2
comp=Z,1.8nm,0.7s
ASF AML AML
ASF **Jabal al Asfar** 14.08 114 P P 23 13 01.5 -0.6
comp=Z,56nm,0.9s
HRFI **Mount Harif** 14.13 124 P Pn 23 12 55.6 +1.0
comp=Z,37nm,1.1s
HRFI **Mount Harif** 14.13 124 P P 23 12 59.1 -3.1
comp=Z,37nm,1.1s
HRFI **Mount Harif** 14.13 124 P Pn 23 12 53.2 -1.4
HRFI S Sn 23 15 22.9 -8.4
NEUB **Neuenburg** 14.16 334 *e*Pn P 23 13 04.2 +2.0
EIL **Elat** 14.33 126 Pn Pn 23 12 57.1 -0.1
comp=Z,1.1nm,0.3s,baz=317,slow=3.5,SNR=11
EIL Sn Sn 23 15 32.2 -3.7
comp=Z,1.2nm,0.3s,baz=27,slow=12,SNR=4.4
comp=Z,2.6nm,0.3s
EIL AML AML
EIL **Elat** 14.33 126 P P 23 13 01.9 -2.4
comp=Z,18nm,0.8s
EIL **Elat** 14.33 126 P Pn 23 12 54.9 -2.3
EIL S Sn 23 15 27.6 -8.3
AQBJ **Aqaba** 14.35 125 P Pn 23 12 59.8 +2.3
comp=Z,103nm,0.7s
HSNJ **Maan** 14.41 122 P P 23 13 09.1 +3.7
RUE **Ruedersdorf** 14.67 341 *e*Pn P 23 13 08.9 +0.9
CLZ **Clausthal** 14.67 333 *e*P P 23 13 14.4 +0.8
comp=Z,12nm,0.8s
SUW **Suwalki** 15.20 4 *e*P P 23 13 12.9 -1.0
SUW **Suwalki** 15.20 4 P Pn 23 13 09.8 +0.9
SUW **Suwalki** 15.20 4 Pn 23 13 09.8 +0.9
SUW **Suwalki** 15.20 4 *e*P Pn 23 13 09.5 +0.6
FLTG **Flechtingen** 15.29 335 *e*P P 23 13 15.6 +0.8
comp=Z,14nm,0.8s
LABN **Labinsk** 15.39 62 *e*P P 23 13 18.9 +2.9
LABN pmax pmax
comp=Z,47nm,1.1s
ERBR **Yeremizino-Bor** 15.55 58 *e*P P 23 13 19.7 +1.9
ERBR *e*S S 23 16 17.1 -3.8
ERBR pmax pmax
comp=Z,65nm,0.7s
GURO **Guroymak-BITLI** 15.95 85 P 23 13 21.7 -0.8
MNK **Minsk** 16.23 13 *i* P Pn 23 13 20.9 -1.2
MNK *i* S Sn 23 16 23.5 +1.7
MNK pmax pmax
comp=Z,16nm,0.8s
MNK pmax pmax
comp=E,14nm,0.9s
MNK pmax pmax
comp=N,11nm,0.9s
MNK MLR MLR
comp=N,120nm,16.0s
MNK MLR MLR
comp=E,138nm,16.0s
MNK MLR MLR
comp=Z,244nm,16.0s
MNK **Minsk** 16.23 13 *i* P Pn 23 13 21.0 -1.2
comp=E,14nm,0.9s
MNK *i* P Pn 23 13 21.0 -1.2
comp=N,11nm,0.9s
MNK *i* P Pn 23 13 21.0 -1.2
comp=Z,16nm,0.8s,baz=199
MNK *i* PP pP 23 13 30.0 +0.6
MNK *i* PPP PPP 23 13 37.6
MNK *i* S Sn 23 16 23.5 +1.7
MNK *i* SS SnSn 23 16 40.4 +5.5
MNK *i* SSS SSS 23 16 50.6
MNK *i* LQ LQ 23 17 44.9
MNK *i* LR LR 23 19 25.6
MNK *i* LRM MLR 23 20 04.9
comp=N,120nm,16.3s
MNK *i* LRM MLR 23 20 32.3
comp=E,138nm,16.5s
MNK *i* LRM MLR 23 20 32.3
comp=Z,244nm,16.3s
NACGM **Naroch** 16.44 11⇑ *i*P Pn 23 13 24.5 -0.3
comp=Z,30nm,0.9s,baz=195
NEUR **Neytrino** 16.50 68 *i* P P 23 13 31.0 +2.4
SHA1 **Shidzhatmaz** 16.55 66 *ce*P P 23 13 30.3 +1.2
KIV **Kislovodsk** 16.61 65 *i* P P 23 13 33.2 +3.6
SNR=5.9
KIV **Kislovodsk** 16.61 65 *e*P P 23 13 30.8 +1.2
KIV pmax pmax
comp=Z,19nm,1.1s
KIV **Kislovodsk** 16.61 65 P P 23 13 29.6 0.0
KIV **Kislovodsk** 16.61 65 pP pP 23 13 32.9 -1.0
comp=Z,17nm,1.1s
KIV **Kislovodsk** 16.61 65 P P 23 13 33.6 +3.9
comp=Z,21nm,1.1s
KBZ **Khabaz** 16.72 66 Pn P 23 13 30.9 +0.2
comp=Z,0.2nm,0.3s,baz=302,slow=7.5,SNR=13
comp=Z,9.0nm,0.9s
KBZ AML AML
KBZ **Khabaz** 16.72 66 *ce*P P 23 13 32.4 +1.7
KBZ pmax pmax
comp=Z,13nm,1.0s
PABE **Paberze** 16.74 5 Pn 23 13 28.3 -0.3
PABE IAmb IAmb 23 13 32.1
comp=Z,76nm,0.9s
PABE **Paberze** 16.74 5 *e*P Pn 23 13 28.6 -0.1
PABE **Paberze** 16.74 5 P Pn 23 13 29.3 +0.7
comp=Z,90nm,1.8s
GEVA **Gevas** 16.79 85 P 23 13 32.3 +0.6
BSEG **Bad Segeberg** 16.94 337 *e*P P 23 13 33.5 +0.4
comp=Z,54nm,1.5s
BSEG **Bad Segeberg** 16.94 337 P Pn 23 13 27.2 -4.0
comp=Z,23nm,1.3s
NCK **Nalchik** 17.18 67 *i* P P 23 13 38.4 +2.5
VORD **Divnogorie** 17.37 40 *e*P P 23 13 39.0 +1.1
VORD pmax pmax
comp=Z,10.0nm,1.0s
HAKT **HAKKARI** 17.42 87 P P 23 13 43.9 +5.1
comp=Z,83nm,0.8s
VSR **Storozhevoye** 17.46 39 *e*P P 23 13 41.3 +2.4
VSR pmax pmax
comp=Z,5.0nm,0.4s
VORR **Voronezh** 17.77 38 *e*P P 23 13 41.9 -0.4
VORR pmax pmax
comp=Z,20nm,0.4s
BLEU **Blekinge** 17.88 349 *i* P Pn 23 13 41.2 -1.7
GNI **Garni** 17.90 79 P P 23 13 45.8 +1.8
comp=Z,0.6nm,0.3s,baz=308,slow=0.7,SNR=6.7
comp=Z,1.2nm,0.5s
GNI AML AML
GNI **Garni** 17.90 79 P 23 13 45.0 +0.9
LPSR **Galich'ya Gora** 18.24 35 *e*P Pn 23 13 46.3 -1.1
LPSR pmax pmax
comp=Z,23nm,0.9s
DEL **Delary** 18.36 346 *i* P Pn 23 13 47.7 -1.1
VRH **Novokhopyorsk** 18.76 42 *e*P Pn 23 13 53.6 0.0
VRH pmax pmax
comp=Z,17nm,0.9s
OBN **Obninsk** 19.14 27 P Pn 23 13 57.9 -0.3
comp=Z,4.6nm,0.3s,baz=191,slow=9.3,SNR=5.2
OBN LR LR 23 22 29.8
comp=Z,197nm,18.7s,baz=180,slow=40
comp=Z,12nm,0.4s
OBN AML AML
OBN **Obninsk** 19.14 27⇑ *e*P Pn 23 13 58.0 -0.2
OBN *e*S Sn 23 17 25.8 -6.4

OBN pmax pmax
comp=Z,93nm,2.5s
OBN MLR MLR
comp=Z,242nm,14.0s
OBN Obninsk 19.14 27 P **P** **23 13 57.0 -0.3**
OBN Obninsk 19.14 27 P **Pn** **23 13 59.0 +0.8**
comp=Z,37nm,1.5s
OBN pP **pP** **23 14 02.2 +0.7**
comp=Z,37nm,1.5s
OBN Obninsk 19.14 27 P **Pn** **23 13 58.5 +0.3**
comp=Z,37nm,1.6s
UCM Universidad Co 19.20 282 P **Pn** **23 14 00.4 +1.3**
comp=Z,37nm,0.6s
ESBB Sonseca Array 19.80 280 P **P** **23 14 05.0 +0.3**
ESDC Sonseca Array 19.80 280 P **Pn** **23 14 06.4 0.0**
comp=Z,5.3nm,0.6s,baz=73,slow=11,SNR=133
ESDC Sonseca Array 19.80 280 P **P** **23 14 04.7 -0.1**
VSU Vasula 19.91 8*ce*P **Pn** **23 14 07.3 0.0**
VSU pmax pmax
comp=Z,44nm,0.6s
VSU Vasula 19.91 8 *e*P **P** **23 14 03.8 -1.9**
VSU Vasula 19.91 8 P **P** **23 14 06.0 +0.3**
comp=Z,59nm,0.7s
MTSE Matsula 19.93 3 *e*P **P** **23 14 05.0 -0.9**
MAK Makhachkala 19.97 70*c i*P **P** **23 14 06.3 -0.2**
MAK *e*S **Sn** **23 17 53.6 +1.1**
MAK pmax pmax
comp=Z,64nm,1.0s
MAK MLR MLR
comp=Z,160nm,14.0s
MOS Moscow 20.00 27 *e*P **P** **23 14 06.7 0.0**
MOS *e* 23 14 30.1
MOS pmax pmax
comp=Z,46nm,1.1s
PAB San Pablo 20.11 280 P **P** **23 14 07.8 -0.4**
PAB pmax pmax
comp=Z,25nm,1.5s
PAB San Pablo 20.11 280 P **P** **23 14 07.8 -0.4**
EMAL Malaga-Limoner 20.66 272 P Pn 23 14 16.2 -0.1
comp=Z,3.8nm,1.0s
TAM Tamanrasset 21.09 225 P **P** **23 14 20.0 +1.0**
TAM pmax pmax
comp=Z,28nm,1.0s
TAM Tamanrasset 21.09 225 P **P** **23 14 20.0 +1.0**
TAM IAmb IAmb 23 14 25.1
comp=Z,28nm,1.0s
TAM Tamanrasset 21.09 225 P **P** **23 14 21.4 +2.4**
comp=Z,13nm,1.3s
STRU Stroemstad 21.28 345 *e*P **P** **23 14 20.0 -0.5**
STRU Stroemstad 21.28 345 *i* P **P** **23 14 20.1 -0.5**
MEF Metsahovi 21.46 4 *e*P **P** **23 14 21.2 -1.2**
PUL Pulkovo 21.66 12*ce*P **P** **23 14 27.6 +3.0**
PUL pmax pmax
comp=Z,82nm,0.8s
PBRG Braganca 21.77 287 *e*P **P** **23 14 28.7 +2.7**
HFS Hagfors 21.88 349 P **P** **23 14 27.3 +0.2**
comp=Z,10nm,0.5s,baz=150,slow=12,SNR=27
HFS LR LR 23 23 32.1
comp=Z,149nm,21.2s,baz=232,slow=38
comp=Z,10nm,0.5s
MDT Midelt 22.05 262 P **P** **23 14 29.6 +0.4**
comp=Z,3.3nm,0.7s,baz=73,slow=11,SNR=7.0
comp=Z,3.3nm,0.7s
MD01 Midelt array s 22.14 262 P **P** **23 14 30.3 +0.1**
MD31 MD31 22.15 262 P **P** **23 14 30.2 0.0**
KONO Kongsberg 22.17 344 *e*P **P** **23 14 31.1 +0.9**
IFR Ifrane 22.18 264 P **P** **23 14 35.2 +4.5**
comp=Z,4.0nm,0.9s
RAF Rauma 22.20 0 *e*P **P** **23 14 29.3 -1.0**
OSL Oslo 22.20 345 *e*P **P** **23 14 29.8 -0.6**
PBAR Barrancos 22.39 277 *e*P **P** **23 14 32.4 -0.3**
PBAR IAmb IAmb 23 14 46.5
comp=Z,18nm,1.8s
PMRV Marv??o 22.46 281 *e*P **P** **23 14 33.4 -0.1**
MTE Manteigas 22.46 283 *e*P **P** **23 14 35.3 +1.7**
BELG Belogornoye 22.53 45 *i* P **P** **23 14 34.9 +0.9**
BELG pmax pmax
comp=Z,15nm,0.9s
PESTR Estremoz 22.70 279 P **P** **23 14 34.8 -1.2**
PESTR Estremoz 22.70 279 *e*P **P** **23 14 35.5 -0.5**
BLS5 Blasjo 22.74 340 *e*P **P** **23 14 35.9 -0.4**
FINES FINESS Array B 22.79 6 P **P** **23 14 35.6 -1.0**
comp=Z,9.2nm,0.6s,baz=174,slow=10,SNR=44
FINES PcP **PcP** **23 18 28.2 +0.6**
comp=Z,1.8nm,0.8s,baz=171,slow=2.4,SNR=7.4
FINES LR LR 23 24 23.9
comp=Z,366nm,19.0s,baz=238,slow=39
comp=Z,9.2nm,0.6s
FINES FINESS Array B 22.79 6 *i* P **P** **23 14 35.5 -1.2**
FINES pmax pmax
comp=Z,9.0nm,0.6s
FINES FINESS Array B 22.79 6 P **P** **23 14 36.1 -0.6**
FIA1 FINESS Array S 22.79 6 P **P** **23 14 36.1 -0.6**
NC602 NORSAR Array S 22.80 347 P **P** **23 14 35.5 -1.3**
NC602 NORSAR Array S 22.80 347 *e*P **P** **23 14 35.9 -0.9**
NORES NORESS Array B 22.80 347 P **P** **23 14 36.2 -0.6**
NORES pmax pmax
comp=Z,3.0nm,0.3s
NAO01 NORSAR Array S 23.01 347 P **P** **23 14 38.0 -1.0**
PSARD Sardoal 23.03 281 *e*P **P** **23 14 40.8 +1.4**
PARRA Arraiolos 23.05 279 *e*P **P** **23 14 39.5 -0.1**
PBEJ Beja 23.06 277 *e*P **P** **23 14 39.2 -0.5**
PBEJ IAmb IAmb 23 14 59.9
comp=Z,18nm,2.2s
PVAQ Vaqueiros 23.07 276 *e*P **P** **23 14 39.3 -0.6**
PVAQ IAmb IAmb 23 14 44.4
comp=Z,24nm,1.5s
EVO Evora 23.08 279 *e*P **P** **23 14 39.6 -0.3**
NC405 NORSAR Array S 23.12 348 P **P** **23 14 39.5 -0.7**
NC405 IAmb IAmb 23 14 42.4
comp=Z,24nm,0.7s
NB201 NORSAR Array S 23.13 347 P **P** **23 14 39.2 -1.1**
NB2 NORSAR Subarra 23.14 347 P **P** **23 14 39.5 -0.9**
comp=Z,12nm,0.5s,baz=158,slow=10
NB2 NORSAR Subarra 23.14 347 P **P** **23 14 39.0 -1.4**
NB2 AMP 23 14 39.0
NOA NORSAR Array B 23.14 347 P **P** **23 14 39.5 -0.9**
comp=Z,6.1nm,0.5s,baz=158,slow=9.3,SNR=44
NOA LR LR 23 23 30.1
comp=Z,72nm,21.2s,baz=170,slow=36
comp=Z,6.1nm,0.5s
PMTG Montargil 23.15 280 *e*P **P** **23 14 39.9 -0.8**
NBO00 NORSAR Array S 23.21 347 P **P** **23 14 40.6 -0.5**
PBDV Barranco-do-Ve 23.27 275 *e*P **P** **23 14 41.9 0.0**
NC303 NORSAR Array S 23.29 347 P **P** **23 14 40.8 -1.0**
NC303 IAmb IAmb 23 14 49.4
comp=Z,26nm,0.6s
MESJ Messejana 23.37 277 *e*P **P** **23 14 42.0 -0.9**
MESJ IAmb IAmb 23 14 44.2
comp=Z,33nm,1.9s
MESJ Messejana 23.37 277 *e*P **P** **23 14 42.1 -0.7**
MESJ IAmb IAmb 23 14 56.3
comp=Z,16nm,2.0s
EKA Eskdalemuir Ar 23.39 323 P **P** **23 14 42.1 -0.7**
comp=Z,3.8nm,0.5s,baz=123,slow=9.4,SNR=11
comp=Z,3.8nm,0.5s
SKAR Skarslia 23.39 343 *e*P **P** **23 14 42.3 -0.6**
KEF Keuruu 23.43 4 *e*P **P** **23 14 41.5 -1.8**
NC204 NORSAR Array S 23.44 347 P **P** **23 14 42.9 -0.5**
PLOUS Minas do Lousa 23.49 277 *e*P **P** **23 14 44.0 0.0**
PLOUS IAmb IAmb 23 15 09.6
comp=Z,21nm,1.4s
PTEO Sao Teotonio 23.82 276 *e*P **P** **23 14 47.4 +0.1**
PTEO IAmb IAmb 23 15 04.4
comp=Z,44nm,1.5s
SUF Sumiainen 24.06 5 *e*P **P** **23 14 48.3 -0.9**
VAF Ylistaro 24.23 1 *e*P **P** **23 14 50.4 -0.5**
HYA Hoyanger 24.31 342 *e*P **P** **23 14 49.4 -2.1**
DOMB Dombas 24.46 346 *e*P **P** **23 14 53.1 0.0**
KLMR Klimovskoe 24.70 21 *e*P **P** **23 14 53.6 -1.6**
KLMR pmax pmax
comp=Z,25nm,0.8s
JOF Joensuu 24.81 11 *e*P **P** **23 14 55.6 -0.4**
MOL Molde 25.25 345 *e*P **P** **23 15 00.2 +0.2**
RAYN Ar Rayn 25.42 120 *i* P **P** **23 15 02.9 +0.9**
SNR=11
RAYN Ar Rayn 25.42 120 P **P** **23 15 04.6 +2.5**
RAYN Ar Rayn 25.42 120 P **P** **23 15 04.4 +2.3**
RAYN pmax pmax
comp=Z,7.0nm,0.9s
RAYN Ar Rayn 25.42 120 P **P** **23 15 04.4 +2.3**
NSS Namsos 26.34 351 *e*P **P** **23 15 10.0 0.0**
KIRV Kirov 26.63 33 LR LR 23 25 48.5
comp=Z,121nm,21.6s,baz=300,slow=37
KIRV Kirov 26.63 33 *i* P **P** **23 15 14.8 +2.2**

SJUU Sjulsmark 26.70 0 *e*P **P** **23 15 12.2 -0.9**
MOR8 Moi Rana 27.67 354 *e*P **P** **23 15 22.2 +0.2**
FAUS Fauske 28.80 355 *e*P **P** **23 15 30.2 -1.8**
AB31 Akbulak array 29.16 57 P **P** **23 15 35.5 +0.2**
ABKAR Akbulak array 29.16 57 P **P** **23 15 35.3 -0.1**
SLWR Sila 29.43 111 P **P** **23 15 34.6 -3.4**
JRN Qarnain Island 29.77 108 P **P** **23 15 39.7 -1.3**
ARTI Arti 29.89 42*c i*P **P** **23 15 42.1 +0.4**
ARTI 23 16 36.5
ARTI S **S** **23 20 45.2 +7.0**
ARTI SS **SnSn** **23 22 17.0 +8.1**
ARTI pmax pmax
comp=Z,10.0nm,0.8s
ARTI Arti 29.89 42 P **P** **23 15 41.3 -0.4**
KTK1 Kautokeino 30.23 1 *e*P **P** **23 15 43.9 -0.7**
GHWR Ruwais 30.36 110 P **P** **23 15 43.9 -2.3**
ARA0 ARCESS Array S 30.82 3 *e*P **P** **23 15 49.1 -0.7**
ARCES ARCESS Array B 30.82 3 P **P** **23 15 49.4 -0.4**
comp=Z,3.0nm,0.4s,baz=188,slow=10.0,SNR=38
ARCES PcP **PcP** **23 18 46.4 -0.2**
comp=Z,4.2nm,1.1s,baz=207,slow=1.4,SNR=3.7
comp=Z,3.0nm,0.4s
ARCES ARCESS Array B 30.82 3 P **P** **23 15 48.9 -0.9**
ARCES pmax pmax
comp=Z,20nm,1.4s
ARCES ARCESS Array B 30.82 3 P **P** **23 15 48.9 -0.9**
ARCES IAmb IAmb 23 15 49.0
comp=Z,20nm,1.4s
TRO Tromso 30.88 358 *e*P **P** **23 15 50.4 +0.2**
TORD Torodi Ar. Bea 31.09 220 P **P** **23 15 53.6 +0.9**
comp=Z,8.9nm,0.5s,baz=30,slow=9.1,SNR=48
TORD PcP **PcP** **23 18 48.9 +0.8**
comp=Z,0.7nm,0.8s,baz=355,slow=1.6,SNR=2.8
comp=Z,8.9nm,0.5s
SVE Sverdlovsk 31.21 42 *e*P **P** **23 15 54.1 +0.7**
SVE pmax pmax
comp=Z,16nm,0.8s
MZWR Madinat Zayed 31.22 109 P **P** **23 15 53.7 -0.1**
MZR Muzera 31.38 111 P **P** **23 15 55.3 0.0**
MZR Muzera 31.38 111 P **P** **23 15 55.3 0.0**
VADS Vadso 31.60 5 *e*P **P** **23 15 56.4 -0.2**
SHME Shamm 31.63 103 P **P** **23 15 57.3 -0.1**
SHME Shamm 31.63 103 P **P** **23 15 57.9 +0.5**
ASUD Al Ashush, Dub 31.80 106 P **P** **23 15 59.4 +0.5**
BANOM Banah 31.81 104 P **P** **23 15 59.6 +0.5**
BANOM Banah 31.81 104 P **P** **23 16 00.2 +1.1**
NAZ Nazwa, Dubai 31.84 106 *i* P **P** **23 15 59.8 +0.5**
SNR=11
NAZ Nazwa, Dubai 31.84 106 P **P** **23 15 60.0 +0.7**
SNR=11
FAQ Al Faqa, Dubai 31.93 106 P **P** **23 16 00.8 +0.8**
MASF Masafi 32.01 105 P **P** **23 16 02.1 +1.3**
MDH Madha 32.15 104 P **P** **23 16 02.9 +0.9**
UOSS Minazif 32.27 105 P **P** **23 16 02.8 -0.3**
UOSS Minazif 32.27 105 P **P** **23 16 03.7 +0.6**
UOSS Minazif 32.27 105 P **P** **23 16 02.7 -0.4**
UOSS IAmb IAmb 23 16 09.8
comp=Z,8.2nm,0.8s
HATD Hatta, Dubai 32.29 105 P **P** **23 16 03.2 0.0**
HATD Hatta, Dubai 32.29 105 P **P** **23 16 03.7 +0.5**
ASHO Ashiyiah 32.31 106 *i* P **P** **23 16 03.4 0.0**
SNR=8.4
ASHO Ashiyiah 32.31 106 P **P** **23 16 04.0 +0.6**
SNR=8.0
ALNE Al Ain 32.44 107 *i* P **P** **23 16 05.2 +0.7**
SNR=6.6
ALNE Al Ain 32.44 107 P **P** **23 16 05.3 +0.7**
HRA Herat 32.73 85 P **P** **23 16 07.1 -0.1**
UMZA Um Al Zommool 32.79 110 P **P** **23 16 08.0 +0.5**
SOHO SOHO 32.98 106 *i* P **P** **23 16 09.2 0.0**
SNR=9.5
SOHO SOHO 32.98 106 P **P** **23 16 10.2 +1.0**
SNR=7.5
JASK Jask - Hormozg 33.04 102 P **P** **23 16 12.2 +2.4**
ARQ Araqi 33.43 107 P **P** **23 16 14.0 +0.7**
SNR=31
HOQ Hoqain 33.88 106 P **P** **23 16 18.4 +1.3**
BSY Bisya 34.28 107 P **P** **23 16 21.4 +0.7**
DOK Doka 34.66 116 P **P** **23 16 25.3 +1.5**
SNR=7.0
SMDO Samad 34.73 106 P **P** **23 16 25.2 +0.6**
SNR=8.2
WHFO Wadi Hawf 34.88 118 P **P** **23 16 27.0 +1.1**
SNR=11
ABTO Aybut 34.94 119 P **P** **23 16 28.5 +2.1**
SNR=6.8
JMDO Jabal Madar 35.17 107 P **P** **23 16 28.9 +0.6**
RBK Rabkut 35.46 118 P **P** **23 16 32.9 +2.0**
WBK Wadi Bani Khal 35.68 106 P **P** **23 16 34.1 +1.4**
SNR=7.3
NGCH Negor - Chabah 35.81 100 P **P** **23 16 38.0 +4.2**
DMTO DMTO 35.84 117 P **P** **23 16 34.6 +0.6**
SNR=18
MHTO MHTO 35.90 109 P **P** **23 16 35.4 +0.8**
BORG Borgarnes 35.94 330 LR LR 23 33 54.2
comp=Z,167nm,21.5s,baz=116,slow=41
BORK Borovoye 35.99 51 *i* P **P** **23 16 35.3 +0.2**
BORK pmax pmax
comp=Z,8.0nm,1.4s
BORK Borovoye 35.99 51 P **P** **23 16 35.1 0.0**
BVAR Borovoye Array 36.03 51 P **P** **23 16 36.5 +1.0**
comp=Z,3.1nm,0.6s,baz=274,slow=5.3,SNR=24
BVAR PcP **PcP** **23 19 01.6 +0.1**
comp=Z,0.7nm,0.5s,baz=301,slow=2.4,SNR=2.3
comp=Z,3.1nm,0.6s
SHAO Shalim 36.10 115 P **P** **23 16 38.6 +2.2**
DQM DQM 36.24 111 P **P** **23 16 37.5 0.0**
JLN Jalan Bani Buh 36.28 106 P **P** **23 16 38.9 +1.0**
KK31 Karatay Array 36.75 67 P **P** **23 16 42.2 +0.5**
KK31 pmax pmax
comp=Z,11nm,0.6s
KK31 Karatay Array 36.75 67 P **P** **23 16 42.2 +0.5**
KK31 IAmb IAmb 23 16 44.1
comp=Z,11nm,0.6s
KKAR Karatay Array 36.75 67 P **P** **23 16 41.7 0.0**
KKAR Karatay Array 36.75 67 P **P** **23 16 41.7 0.0**
KBL Kabul 37.95 81 P **P** **23 16 53.1 +0.9**
KBL pmax pmax
comp=Z,7.0nm,0.6s
KBL Kabul 37.95 81 P **P** **23 16 53.1 +0.9**
KBL IAmb IAmb 23 16 54.4
comp=Z,6.5nm,0.6s
DRK Karamyk 38.51 73 P **P** **23 16 57.6 +0.7**
DRK pmax pmax
comp=Z,10.0nm,0.5s
DRK Karamyk 38.51 73 P **P** **23 16 57.6 +0.7**
DRK IAmb IAmb 23 17 06.0
comp=Z,9.5nm,0.5s
SPB2 Spitsbergen Ar 39.49 358 P **P** **23 17 04.1 -0.2**
SPA0 Spitsbergen Ar 39.50 358 *e*P **P** **23 17 04.4 0.0**
SPITS Spitsbergen Ar 39.50 358 P **P** **23 17 04.8 +0.4**
comp=Z,2.5nm,0.4s,baz=155,slow=11,SNR=12
comp=Z,2.5nm,0.4s
AAK Ala-Archa 39.71 67 *i* P **P** **23 17 08.0 +1.2**
SNR=10
AAK Ala-Archa 39.71 67 P **P** **23 17 08.5 +1.7**
AAK Ala-Archa 39.71 67*ce*P **P** **23 17 08.4 +1.6**
AAK pmax pmax
comp=Z,15nm,2.5s
AAK Ala-Archa 39.71 67 P **P** **23 17 07.0 +0.2**
FRU1 Bishkek 39.77 67 P **P** **23 17 07.7 +0.5**
FRU1 pmax pmax
comp=Z,13nm,0.7s
FRU1 Bishkek 39.77 67 P **P** **23 17 07.7 +0.5**
FRU1 IAmb IAmb 23 17 14.1
comp=Z,13nm,0.7s
DBIC Dimbokro 39.96 224 P **P** **23 17 09.0 +0.1**
comp=Z,7.1nm,0.7s,baz=29,slow=9.5,SNR=16
DBIC LR LR 23 34 28.9
comp=Z,71nm,18.4s,baz=31,slow=37
comp=Z,7.1nm,0.7s
DBIC Dimbokro 39.96 224 P **P** **23 17 08.1 -0.8**
DBIC pmax pmax
comp=Z,19nm,1.3s
DBIC Dimbokro 39.96 224 P **P** **23 17 08.1 -0.8**
DBIC IAmb IAmb 23 17 09.9
comp=Z,19nm,1.2s
BOOM Boomskoye usch 40.78 67 P **P** **23 17 16.8 +1.1**
BOOM pmax pmax
comp=Z,6.0nm,0.6s
BOOM Boomskoye usch 40.78 67 P **P** **23 17 16.8 +1.1**
NRN Naryn 41.09 68 P **P** **23 17 19.4 +1.0**
NRN pmax pmax
comp=Z,8.0nm,1.1s
NRN Naryn 41.09 68 P **P** **23 17 19.4 +1.0**

KURBB Kurchatov Arra 41.15 54 P **P** **23 17 18.4 0.0**
comp=Z,3.4nm,0.8s,baz=284,slow=9.2,SNR=15
KURBB PcP **PcP** **23 19 18.1 +0.7**
comp=Z,1.3nm,0.7s,baz=279,slow=3.5,SNR=4.3
KURBB ScP **ScP** **23 23 05.0 -1.8**
comp=Z,0.2nm,0.5s,baz=279,slow=4.6,SNR=4.2
comp=Z,3.4nm,0.8s
KURK Kurchatov 41.19 54*ce*P **P** **23 17 20.3 +1.6**
KURK pmax pmax
comp=Z,8.0nm,1.7s
KURK Kurchatov 41.19 54 P **P** **23 17 19.1 +0.4**
KSH2 Kashi 41.41 72 P **P** **23 17 22.3 +1.4**
KSH2 sP sP 23 17 29.6 +2.2
KSH2 pmax pmax
comp=Z,6.0nm,0.4s
NIL Nilore 41.52 81 P **P** **23 17 23.4 +1.7**
NIL Nilore 41.52 81 P **P** **23 17 22.8 +1.1**
NIL pmax pmax
comp=Z,22nm,0.6s
NIL Nilore 41.52 81 P **P** **23 17 22.8 +1.1**
TARG Taragay, Kyrgy 42.32 68 P **P** **23 17 29.8 +1.2**
TARG pmax pmax
comp=Z,4.0nm,0.7s
TARG Taragay, Kyrgy 42.32 68 P **P** **23 17 29.8 +1.2**
PRZ Przheval'sk 42.55 66 P **P** **23 17 31.2 +1.0**
PRZ pmax pmax
comp=Z,10.0nm,1.1s
PRZ Przheval'sk 42.55 66 P **P** **23 17 31.2 +1.0**
PDGK Podgornoye 43.11 65 P **P** **23 17 35.0 +0.3**
PDGK Podgornoye 43.11 65 P **P** **23 17 35.0 +0.3**
WUS Wushi 43.49 68 P **P** **23 17 38.4 +0.6**
WUS IAmb IAmb 23 17 39.7
comp=Z,9.8nm,0.8s
MAKZ Makanchi 44.01 59 P **P** **23 17 42.1 +0.4**
MAKZ pmax pmax
comp=Z,6.0nm,0.9s
MAKZ Makanchi 44.01 59 P **P** **23 17 42.1 +0.4**
MK31 Makanchi Array 44.23 59*ce*P **P** **23 17 44.4 +0.9**
MKAR Makanchi Array 44.23 59 P **P** **23 17 43.7 +0.3**
comp=Z,6.4nm,0.6s,baz=276,slow=7.4,SNR=109
MKAR PcP **PcP** **23 19 27.7 -0.2**
comp=Z,1.2nm,0.5s,baz=271,slow=3.7,SNR=5.0
MKAR ScP **ScP** **23 23 18.6 -0.7**
comp=Z,1.5nm,0.8s,baz=264,slow=2.4,SNR=6.6
comp=Z,6.4nm,0.6s
MKAR Makanchi Array 44.23 59 P **P** **23 17 43.5 +0.1**
MKAR **ScP** **23 23 20.4 +1.0**
ZAA0 Zalesovo Array 44.61 49 P **P** **23 17 46.3 -0.1**
ZALV Zalesovo Beam 44.61 49 P **P** **23 17 46.5 +0.2**
comp=Z,14nm,0.6s,baz=277,slow=8.7,SNR=60
comp=Z,14nm,0.6s
ZALV Zalesovo Beam 44.61 49 **P** **23 17 46.4 +0.1**
NRIK Noril'sk 45.81 27 P **P** **23 17 56.4 +0.7**
comp=Z,1.4nm,0.4s,baz=5.4,slow=3.1,SNR=5.5
NRIK LR LR 23 39 17.2
comp=Z,95nm,18.2s,baz=285,slow=39
comp=Z,1.4nm,0.4s
NRIK Noril'sk 45.81 27 P **P** **23 17 56.0 +0.3**
NRIK pmax pmax
comp=Z,5.0nm,0.9s
NRIK Noril'sk 45.81 27 P **P** **23 17 56.0 +0.3**
WMQ Urumqi 48.69 62 *e*P **P** **23 18 22.6 +4.0**
WMQ pmax pmax
comp=Z,12nm,0.7s
EVN Everest 54.48 81 P **P** **23 19 02.4 -0.4**
EVN IAmb IAmb 23 19 04.0
comp=Z,8.1nm,0.8s
GOMU GeErMu 56.65 68 P **P** **23 19 18.1 +0.1**
GOMU pP pP 23 19 21.7 -1.1
GOMU sP sP 23 19 25.3 +0.7
GOMU pmax pmax
comp=Z,3.0nm,0.7s
SCHQ Schefferville 58.54 317 P **P** **23 19 31.0 +0.5**
comp=Z,3.3nm,0.6s,baz=64,slow=3.0,SNR=5.7
comp=Z,3.3nm,0.6s
GTA2 Gaotai 58.69 62 *e*P **P** **23 19 32.3 +0.3**
GTA2 pP pP 23 19 36.3 -0.5
GTA2 pmax pmax
comp=Z,9.0nm,0.8s
MATP Matopo 59.32 172 LR LR 23 48 25.5
comp=Z,61nm,19.0s,baz=104,slow=39
SONM Songino Array 59.37 51 P **P** **23 19 36.9 +0.3**
comp=Z,1.3nm,0.6s,baz=279,slow=7.8,SNR=10
SONM LR LR 23 46 52.9
comp=Z,58nm,18.2s,baz=300,slow=38
comp=Z,1.3nm,0.6s
SONM Songino Array 59.37 51 P **P** **23 19 36.1 -0.5**
SONM pmax pmax
comp=Z,5.0nm,1.4s
SONM Songino Array 59.37 51 P **P** **23 19 36.1 -0.5**
SHL Shillong 59.59 80 P **P** **23 19 37.5 -1.0**
SHL pmax pmax
comp=Z,15nm,1.3s
SHL Shillong 59.59 80 P **P** **23 19 37.5 -1.0**
SHL IAmb IAmb 23 19 39.4
comp=Z,15nm,1.3s
ULN Ulaanbaatar 59.76 51 P **P** **23 19 38.8 -0.5**
KOOLE Kule 61.53 181 P **P** **23 19 52.6 +1.1**
KOOLE IAmb IAmb 23 20 01.3
comp=Z,8.3nm,0.8s
LPHEP Lephephe 62.02 176 P **P** **23 19 56.1 +1.5**
LZDM Lanzhou Array 63.10 64 P **P** **23 20 02.0 -0.3**
comp=Z,1.1nm,0.3s,baz=345,slow=5.2,SNR=4.1
comp=Z,1.1nm,0.3s
LZH Lanzhou 63.14 64 *e*P **P** **23 20 02.8 +0.4**
LZH pmax pmax
comp=Z,19nm,1.4s
LBTB Lobatse 63.64 176 LR LR 23 50 08.9
comp=Z,63nm,18.6s,baz=2.0,slow=38
YAK Yakutsk 64.10 30 LR LR 23 49 55.1
comp=Z,70nm,18.5s,baz=332,slow=38
HHC Hu-ho-hao-te 65.95 56 *e*P **P** **23 20 22.3 +1.7**
HHC pmax pmax
comp=Z,9.0nm,0.7s
HHC pmax pmax
comp=Z,180nm,5.5s
BOSA Boshof 67.20 177 P **P** **23 20 30.2 +1.8**
comp=Z,3.2nm,0.4s,baz=359,slow=6.7,SNR=35
comp=Z,3.2nm,0.4s
XAN Xi'an 67.76 64 *e*P **P** **23 20 32.8 +0.7**
CMAR Chiang Mai Arr 68.96 83 P **P** **23 20 39.3 -0.5**
comp=Z,2.1nm,0.7s,baz=307,slow=7.6,SNR=15
comp=Z,2.1nm,0.7s
CMAR Chiang Mai Arr 68.96 83 P **P** **23 20 39.0 -0.7**
HEH HeiHe 69.97 41 *e*P **P** **23 20 45.8 +0.3**
HEH pmax pmax
comp=Z,10.0nm,0.9s
SUR Sutherland 70.87 181 LR LR 23 55 05.0
comp=Z,86nm,18.1s,baz=320,slow=38
C27K Jago River 71.30 355 **P** **23 20 54.6 +1.3**
C27K IAmb IAmb 23 20 55.8
comp=Z,5.6nm,0.7s
E29M Blow River 71.98 352 **P** **23 20 58.3 +0.9**
D23K Nanushuk River 72.35 357 P **P** **23 21 00.4 +0.8**
F31M Tsiigehtchic 72.39 350 P **P** **23 20 59.8 -0.1**
F31M IAmb IAmb 23 21 01.5
comp=Z,12nm,0.9s
E27K Coleen River 72.54 353 **P** **23 21 01.8 +0.9**
D20K Etivluk River 72.75 359 P **P** **23 21 02.8 +0.7**
F28M Old Crow 72.93 353 P **P** **23 21 03.6 +0.5**
F28M IAmb IAmb 23 21 07.1
comp=Z,8.3nm,1.1s
D19K Kuna River 72.97 360 P **P** **23 21 04.0 +0.6**
D19K IAmb IAmb 23 21 05.7
comp=Z,9.3nm,0.8s
YKA Yellowknife Ar 73.05 340 P **P** **23 21 04.5 +0.7**
comp=Z,1.4nm,0.4s,baz=34,slow=5.2,SNR=9.8
comp=Z,1.4nm,0.4s
G30M tAoh Zraii Nji 73.14 351 IAmb IAmb 23 21 12.3
comp=Z,4.7nm,0.8s
MA2 Magadan 73.33 24 LR LR 23 56 15.1
comp=Z,48nm,18.4s,baz=338,slow=38
F24K Squaw Lake 73.65 356 IAmb IAmb 23 21 10.3
comp=Z,7.7nm,0.9s
G27K Doyon Strip 73.89 353 IAmb IAmb 23 21 11.2
comp=Z,3.6nm,0.6s
G26K Porcupine Rive 73.93 354 P **P** **23 21 10.3 +1.3**
G26K IAmb IAmb 23 21 11.9
comp=Z,6.5nm,0.8s
E19K Redstone River 74.01 360 P **P** **23 21 09.3 -0.2**
E18K Tukpahlearik C 74.04 1 P **P** **23 21 10.5 +0.9**
F21K Alatna River 74.19 358 P **P** **23 21 11.4 +0.9**
F19K Shaleruckik Mo 74.64 360 IAmb IAmb 23 21 15.3
comp=Z,11nm,1.1s
I30M Mount Dempster 74.84 351 IAmb IAmb 23 21 16.2
comp=Z,7.2nm,0.7s

F17K	**Baldwin Pennin**	**75.01**	**1**	IAmb	IAmb	23 21 17.2	
	comp=Z,7.0nm,0.6s						
G19K	**Purcell Mounta**	**75.33**	**359**	IAmb	IAmb	23 21 19.6	
	comp=Z,4.7nm,0.8s						
IMAR	**Indian Mountai**	**75.43**	**358**	P	**P**	**23 21 19.1**	**+1.4**
H22K	**Ishtalitna Cre**	**75.44**	**357**	P	**P**	**23 21 19.3**	**+1.5**
H22K				IAmb	IAmb	23 21 31.8	
	comp=Z,5.3nm,0.9s						
J30M	**Hart River**	**75.45**	**350**	IAmb	IAmb	23 21 20.4	
	comp=Z,8.5nm,0.8s						
I26K	**Coal Creek Min**	**75.49**	**353**	P	**P**	**23 21 19.3**	**+1.2**
G18K	**Tagagawik**	**75.58**	**0**	P	**P**	**23 21 19.7**	**+1.1**
G18K				IAmb	IAmb	23 21 20.8	
	comp=Z,6.5nm,0.8s						
ULM	**Lac du Bonnet**	**75.66**	**324**	P	**P**	**23 21 19.7**	**+0.4**
	comp=Z,2.4nm,0.6s,baz=63,slow=5.9,SNR=5.5						
	comp=Z,2.4nm,0.6s						
ULM	**Lac du Bonnet**	**75.66**	**324**	IAmb	IAmb	23 21 26.9	
	comp=Z,9.6nm,1.1s						
F15K	**North Star Dit**	**75.66**	**3**	P	**P**	**23 21 19.5**	**+0.5**
F15K				IAmb	IAmb	23 21 37.1	
	comp=Z,14nm,1.3s						
H21K	**Melozitna Rive**	**75.73**	**358**	P	**P**	**23 21 20.6**	**+1.1**
H21K				IAmb	IAmb	23 21 22.6	
	comp=Z,9.6nm,0.7s						
NJ2	**Nanjing**	**75.74**	**60**	*eP*	**P**	**23 21 20.0**	**-0.1**
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
I21K	**Tanana**	**76.18**	**357**	P	**P**	**23 21 23.0**	**+1.0**
I21K				IAmb	IAmb	23 21 31.9	
	comp=Z,8.6nm,1.0s						
USRK	**Ussuriysk Ar.**	**76.21**	**44**	P	**P**	**23 21 21.9**	**-0.6**
	comp=Z,4.1nm,0.8s,baz=298,slow=4.9,SNR=5.2						
	comp=Z,4.1nm,0.8s						
USRK	**Ussuriysk Ar.**	**76.21**	**44**	P	**P**	**23 21 22.0**	**-0.6**
MLY	**Manley**	**76.28**	**357**	P	**P**	**23 21 23.2**	**+0.6**
K29M	**Barlow Dome**	**76.31**	**351**	IAmb	IAmb	23 21 26.6	
	comp=Z,8.4nm,1.2s						
ILAR	**Eielson Array**	**76.32**	**355**	P	**P**	**23 21 23.9**	**+1.2**
	comp=Z,1.2nm,0.6s,baz=345,slow=2.8,SNR=21						
	comp=Z,1.2nm,0.6s						
ILAR	**Eielson Array**	**76.32**	**355**	P	**P**	**23 21 24.0**	**+1.2**
ILAR	**Eielson Array**	**76.32**	**355**	P	**P**	**23 21 22.6**	**-0.2**
DAWY	**Dawson**	**76.32**	**352**	P	**P**	**23 21 23.7**	**+0.8**
DAWY				IAmb	IAmb	23 21 25.1	
	comp=Z,6.8nm,0.8s						
HDA	**Harding Lake**	**76.68**	**355**	P	**P**	**23 21 24.7**	**-0.2**
HDA				IAmb	IAmb	23 21 26.4	
	comp=Z,7.0nm,0.6s						
WRH	**Wood River Hil**	**76.69**	**355**	P	**P**	**23 21 25.1**	**+0.2**
WRH				IAmb	IAmb	23 21 27.0	
	comp=Z,6.7nm,0.7s						
DOT	**Dot Lake**	**77.20**	**353**	P	**P**	**23 21 28.0**	**+0.1**
DOT				IAmb	IAmb	23 21 36.2	
	comp=Z,5.7nm,0.8s						
BPAW	**Bear Paw Mtn.**	**77.22**	**357**	P	**P**	**23 21 27.8**	**-0.1**
BPAW				IAmb	IAmb	23 21 29.3	
	comp=Z,5.2nm,0.6s						
J19K	**Poorman**	**77.47**	**359**	P	**P**	**23 21 29.4**	**+0.1**
J19K				IAmb	IAmb	23 21 42.7	
	comp=Z,6.9nm,1.0s						
MCK	**McKinley**	**77.48**	**356**	P	**P**	**23 21 29.7**	**+0.3**
MCK				pmax	pmax		
	comp=Z,17nm,1.3s						
MCK	**McKinley**	**77.48**	**356**	P	**P**	**23 21 29.6**	**+0.3**
MCK				IAmb	IAmb	23 21 37.3	
	comp=Z,17nm,1.3s						
BCAR	**Beaver Creek A**	**77.56**	**352**	P	**P**	**23 21 30.9**	**+1.0**
CAST	**Castle Rocks**	**77.95**	**357**	P	**P**	**23 21 32.1**	**+0.1**
CAST				IAmb	IAmb	23 21 34.4	
	comp=Z,6.0nm,0.7s						
DHY	**Denali Highway**	**78.03**	**355**	P	**P**	**23 21 32.4**	**-0.3**
KSRS	**Korea Array**	**78.25**	**51**	P	**P**	**23 21 33.8**	**-0.3**
	comp=Z,1.8nm,0.5s,baz=309,slow=4.5,SNR=4.8						
	comp=Z,1.8nm,0.5s						
STLK	**Strandline Lak**	**79.86**	**357**	P	**P**	**23 21 42.6**	**0.0**
STLK				IAmb	IAmb	23 21 51.3	
	comp=Z,8.0nm,1.0s						
X51A	**Calhoun**	**80.20**	**307**	P	**P**	**23 21 42.6**	**-2.2**
M16K	**Timber Creek**	**80.48**	**0**	P	**P**	**23 21 45.2**	**-0.6**
M16K				IAmb	IAmb	23 21 49.0	
	comp=Z,8.9nm,1.0s						
PETK	**Petropavlovsk-**	**80.83**	**25**	P	**P**	**23 21 46.2**	**-1.7**
	comp=Z,0.7nm,0.5s,baz=341,slow=7.6,SNR=1.3						
	comp=Z,0.7nm,0.5s						
PETK	**Petropavlovsk-**	**80.83**	**25**	P	**P**	**23 21 46.8**	**-1.2**
CCM	**Cathedral Cave**	**81.71**	**313**	P	**P**	**23 21 53.3**	**+0.4**
CCM				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CCM	**Cathedral Cave**	**81.71**	**313**	P	**P**	**23 21 53.3**	**+0.4**
CCM				IAmb	IAmb	23 21 54.8	
	comp=Z,5.2nm,0.6s						
MJAR	**Matsushiro Arr**	**84.91**	**46**	P	**P**	**23 22 09.1**	**-0.3**
	comp=Z,1.3nm,0.4s,baz=333,slow=5.1,SNR=5.1						
	comp=Z,1.3nm,0.4s						
PDAR	**Pinedale Array**	**87.47**	**326**	P	**P**	**23 22 22.4**	**+0.2**
	comp=Z,0.3nm,0.6s,baz=76,slow=4.6,SNR=4.2						
	comp=Z,0.3nm,0.6s						
PV22	**Blue Mesa, Par**	**90.53**	**323**	P	**P**	**23 22 37.4**	**+0.7**
PV22				IAmb	IAmb	23 22 44.5	
	comp=Z,7.6nm,1.0s						
PV15	**Paradox Valley**	**90.54**	**323**	P	**P**	**23 22 36.9**	**+0.2**
PV15				IAmb	IAmb	23 22 43.5	
	comp=Z,7.2nm,1.0s						
PV07	**Paradox Valley**	**90.54**	**323**	P	**P**	**23 22 36.6**	**-0.1**
PV07				IAmb	IAmb	23 22 43.8	
	comp=Z,8.1nm,1.2s						
PV04	**Paradox Valley**	**90.70**	**323**	P	**P**	**23 22 37.5**	**+0.1**
PV04				IAmb	IAmb	23 22 39.6	
	comp=Z,12nm,1.3s						
PV23	**Carpenter Ridg**	**90.70**	**323**	P	**P**	**23 22 37.9**	**+0.4**
PV12	**Saucer Basin,**	**90.71**	**323**	P	**P**	**23 22 38.2**	**+0.7**
PV16	**Nyswonger Mesa**	**90.77**	**323**	P	**P**	**23 22 38.0**	**+0.2**
PV20	**West Nyswonger**	**90.77**	**323**	P	**P**	**23 22 37.9**	**+0.1**
PV20				IAmb	IAmb	23 22 44.6	
	comp=Z,7.7nm,1.0s						
PV10	**Paradox Valley**	**90.77**	**323**	P	**P**	**23 22 38.9**	**+1.0**
PV17	**East Wray Mesa**	**90.81**	**323**	P	**P**	**23 22 38.3**	**+0.4**
SRU	**San Rafael Swe**	**90.86**	**325**	P	**P**	**23 22 38.5**	**+0.4**
SRU				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SRU	**San Rafael Swe**	**90.86**	**325**	P	**P**	**23 22 38.5**	**+0.4**
SRU				IAmb	IAmb	23 22 45.4	
	comp=Z,3.1nm,1.0s						
BRDY	**Brady**	**91.00**	**313**	P	**P**	**23 22 39.2**	**+0.5**
BRDY				IAmb	IAmb	23 22 46.5	
	comp=Z,4.5nm,1.2s						
ROSC	**El Rosal**	**91.60**	**277**	LR	LR	23 58 21.1	
	comp=Z,60nm,19.6s,baz=60,slow=32						
TXAR	**Lajitas Array**	**95.12**	**314**	P	**P**	**23 22 57.4**	**-0.5**
	comp=Z,0.5nm,0.8s,baz=72,slow=4.1,SNR=6.2						
	comp=Z,0.5nm,0.8s						
WRA	**Warramunga Arr**	**119.72**	**92**	PKP	**PKPdf**	**23 28 24.1**	**-0.6**
	comp=Z,0.4nm,0.5s,baz=321,slow=2.4,SNR=4.7						
ASAR	**Alice Springs**	**121.40**	**96**	PKP	**PKPdf**	**23 28 27.3**	**-0.6**
	comp=Z,0.9nm,0.3s,baz=304,slow=1.6,SNR=15						

*IDC **01** 23:17:14.7±3.0, 6°13S×129°67E, h107km×39km, mb3.2/2, mbtmp3.6/6, Error ellipse: s-maj=71.8km s-min=21.1km az=89.0*
*DJA **01** 23:17:20.6±0.5, 6°S±3°×13°0E±°, h179km×11km, M3.8/15, mB4.7/4, mb3.5/5, MLv3.9/15, Mw(mB)3.9/4*
ISC 01 23:17:16.7±0.9, **6°34S**±0°06×**130°29E**±0°09, **h150**km, **n13, σ2s12/16, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
BNDI	**Bandanaira**	**1.84**	**348**	P		**Pn**	**23 17 52.9**	**+2.8**
BNDI				AML		AML		
SAUI	**Saumlaki**	**1.92**	**148**	P		Pn	23 18 00.6	+10
SAUI				AML		AML		
MSAI	**Masohi**	**3.27**	**335**	P		**Pn**	**23 18 08.1**	**+0.5**
MSAI				S		**Sn**	**23 18 45.6**	**-1.3**
MSAI				AML		AML		
FAKI	**Fak Fak**	**3.92**	**30**	P		**Pn**	**23 18 17.7**	**+1.7**
FAKI				AML		AML		
NLAI	**Namlea**	**4.42**	**314**	P		**Pn**	**23 18 23.1**	**+0.5**
NLAI				AML		AML		
SIJI	**Sorong**	**5.52**	**10**	P		**Pn**	**23 18 33.8**	**-3.4**
	6.3nm,0.3s,baz=180,slow=19,SNR=34							
SIJI				S		Sn	23 19 32.5	-7.5
	23nm,0.3s,baz=225,slow=23,SNR=15							
SIJI	**Sorong**	**5.52**	**10**	P		**Pn**	**23 18 37.3**	**+0.1**
SANI	**Sanana**	**6.04**	**315**	P		**Pn**	**23 18 45.6**	**+1.5**
	0.1nm718nm6.9nm,1.4s							
SANI				AML		AML		
FITZ	**Fitzroy Crossi**	**12.54**	**201**	P		**Pn**	**23 20 10.4**	**+0.4**
	1.2nm,0.9s,baz=24,slow=7.0,SNR=15							
FITZ				S		Sn	23 22 25.4	-3.3
	1.2nm,0.3s,baz=314,slow=23,SNR=7.5							
WRA	**Warramunga Arr**	**14.08**	**164**	P		**P**	**23 20 32.5**	**-0.4**
	0.2nm,0.5s,baz=341,slow=12,SNR=13							
WRA				S		Sn	23 23 04.2	-1.8
	0.7nm,0.4s,baz=320,slow=27,SNR=10							
ASAR	**Alice Springs**	**17.58**	**169**	P		**Pn**	**23 21 16.4**	**+3.8**
	1.6nm,0.4s,baz=350,slow=10.0,SNR=15							
ASAR				S		Sn	23 24 29.2	-0.6
	0.6nm,0.7s,baz=351,slow=22,SNR=4.8							
MKAR	**Makanchi Array**	**67.83**	**327**	P		**P**	**23 27 59.0**	**+0.3**
	0.4nm,0.5s,baz=135,slow=6.4,SNR=7.0							
	0.4nm,0.5s							
KURBB	**Kurchatov Arra**	**72.10**	**328**	P		**P**	**23 28 23.2**	**-1.4**
	0.2nm,0.5s,baz=130,slow=5.8,SNR=2.8							
	0.2nm,0.5s							

*ISK **01** 23:49:28.7, 37°87N×26°85E, h8km, ML2.6/10*
*AFAD **01** 23:49:28.8, 37°87N×26°85E, h7km±1km, ML1.9*
*THE **01** 23:49:29.6, 38°N±12°×2°7E±°, h3km±8km, M2.3/5, MLh2.3/5*
ISC 01 23:49:29.2±1.0, **37°88N**±0°03×**26°86E**±0°03, **h12**km±8km, **n22, σ0s35/34, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DGB	**zmir**	**0.17**	**6**	P		**Pg**	**23 49 33.0**	**-0.1**
DGB				S		**Sg**	**23 49 35.7**	**-0.1**
DGB				IAML			23 49 36.0	
	comp=N,346nm,0.2s							
DGB				IAML			23 49 36.0	
	comp=E,315nm,0.1s							
GMLD	**Gumuldur**	**0.20**	**12**	Pg		**Pg**	**23 49 33.4**	**-0.2**
GMLD				Sg		**Sg**	**23 49 36.9**	**+0.4**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.35**	**121**	P		**Pg**	**23 49 36.2**	**0.0**
GCAM				S		**Sg**	**23 49 41.2**	**+0.4**
GCAM				IAML			23 49 42.0	
	comp=N,151nm,0.3s							
GCAM				IAML			23 49 42.0	
	comp=E,127nm,0.2s							
GCAM	**G?zelcaml?**	**0.35**	**121**	Pg		**Pg**	**23 49 36.1**	**0.0**
GCAM				Sg		**Sb**	**23 49 41.7**	**-1.1**
GCAM				AML		AML		
BEYE	**İzmir**	**0.35**	**9**	P		**Pg**	**23 49 36.0**	**-0.3**
BEYE				S		**Sg**	**23 49 40.8**	**-0.2**
BEYE				IAML			23 49 42.0	
	comp=N,90nm,0.3s							
BEYE				IAML			23 49 44.0	
	comp=E,82nm,0.1s							
ZEYE	**İzmir, Urla-Ze**	**0.46**	**322**	P		**Pg**	**23 49 37.9**	**-0.3**
ZEYE				IAML			23 49 47.0	
	comp=N,175nm,0.5s							
ZEYE				IAML			23 49 48.0	
	comp=E,149nm,0.2s							
DDIM	**Aydin, Didim**	**0.52**	**144**	P		**Pg**	**23 49 39.1**	**-0.3**
DDIM				S		**Sg**	**23 49 46.5**	**+0.2**
DDIM				IAML			23 49 48.0	
	comp=N,73nm,0.5s							
DDIM				IAML			23 49 51.0	
	comp=E,72nm,0.6s							
BLCB	**Balcova**	**0.52**	**16**	P		**Pg**	**23 49 39.1**	**-0.3**
BLCB				S		**Sg**	**23 49 46.4**	**0.0**
BLCB				AML		AML		
BLCB	**Balcova**	**0.52**	**16**	Pg		**Pg**	**23 49 39.3**	**-0.2**
BLCB				AML		AML		
DUVT	**Torbali**	**0.57**	**54**	P		**Pg**	**23 49 40.3**	**-0.2**
DUVT				S		**Sg**	**23 49 47.5**	**-0.5**
DUVT				IAML			23 49 51.0	
	comp=E,93nm,0.3s							
BAGT	**Foa**	**0.77**	**359**	P		**Pg**	**23 49 44.0**	**-0.2**
BAGT				S		**Sb**	**23 49 55.0**	**-0.1**
BAGT				IAML			23 49 57.0	
	comp=E,89nm,0.5s							
CHOS	**Chios island**	**0.81**	**309**	P		**Pb**	**23 49 45.2**	**-0.2**
CHOS				S		**Sb**	**23 49 56.3**	**0.0**
CHOS				AML		AML		
CHOS	**Chios island**	**0.81**	**309**	Pg		**Pg**	**23 49 44.7**	**-0.2**
CHOS				Sg		**Sb**	**23 49 56.8**	**+0.5**
CHOS				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**85**	Pg		**Pg**	**23 49 45.1**	**+0.1**
AYDB				AML		AML		
FOCM	**Foa**	**0.84**	**353**	Pg		**Pb**	**23 49 45.6**	**-0.1**
FOCM				AML		AML		
KARB	**zmir-Karabur**	**0.86**	**336**	P		**Pg**	**23 49 45.2**	**-0.6**
KARB				S		**Sb**	**23 49 57.8**	**+0.2**
KARB				IAML			23 49 59.0	
	comp=N,51nm,0.7s							
KARB				IAML			23 50 14.0	
	comp=E,56nm,1.6s							
BODT	**Bodrum**	**0.89**	**156**	P		**Pb**	**23 49 46.9**	**+0.3**
BODT				AML		AML		
BODT	**Bodrum**	**0.89**	**156**	Pg		**Pg**	**23 49 45.9**	**-0.6**
BODT				AML		AML		
NAZL	**Nazilli-Aydin**	**1.13**	**85**	Pn		**Pb**	**23 49 51.0**	**+0.2**
NAZL				AML		AML		
DKL	**Dikili**	**1.19**	**2**	Pn		**Pn**	**23 49 52.1**	**+0.4**
DKL				AML		AML		
PRK	**Paraskevi**	**1.44**	**341**	P		**Pb**	**23 49 56.2**	**+0.3**
GORD	**Gordes-Manisa**	**1.46**	**45**	Pn		**Pb**	**23 49 56.3**	**0.0**
GORD				AML		AML		

*CATAC **01** 23:50:15.3±0.3, 10°N±2°×8°5W±°, h4km±1km, M3.3/14, MLv3.3/14, Error ellipse: s-maj=4.5km s-min=2.5km az=25.0, confirmed*
*UCR **01** 23:50:15.9±0.8, 9°66N×84°78W, h21km±2km, MW3.6, Presumed earthquake*
ISC 01 23:50:15.5±1.1, **9°62N**±0°04×**84°79W**±0°02, **h21**km±1km, **n84, σ0s82**/106, **Costa Rica**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
BITO	**Garabito Jaco**	**0.16**	**91**	*eP*		**Pb**	**23 50 20.3**	**-1.0**
BITO				*eS*		**Sb**	**23 50 24.0**	**-1.3**
LAFE	**Finca La Fe, P**	**0.22**	**326**	*eP*		**Pb**	**23 50 21.7**	**+0.3**
LAFE				*eS*		**Sb**	**23 50 26.4**	**+0.9**
PAQE	**Paquera**	**0.24**	**323**	*eP*		**Pb**	**23 50 21.6**	**0.0**
PAQE				*eS*		**Sb**	**23 50 26.3**	**+0.6**
CAO2	**Cobano, Puntar**	**0.32**	**282**	*eP*		**Pb**	**23 50 22.7**	**+0.1**
ARZA	**Esparza**	**0.38**	**18**	*eP*		**Pb**	**23 50 23.3**	**-0.2**
ARZA				*eS*		**Sb**	**23 50 29.2**	**+0.2**
TRB2	**Turrubares**	**0.44**	**49**	P		**Pb**	**23 50 23.6**	**-1.0**
TRB2				S		**Sb**	**23 50 30.1**	**-0.6**
ATEO	**Atenas**	**0.53**	**48**	*eP*		**Pb**	**23 50 25.7**	**-0.5**
ATEO				*eS*		**Sb**	**23 50 33.5**	**0.0**
SRA1	**San Ramn**	**0.55**	**33**	*eP*		**Pb**	**23 50 25.9**	**-0.7**
SRA1				*eS*		**Sb**	**23 50 33.7**	**-0.4**
PALD	**Palmares**	**0.55**	**39**	*eP*		**Pb**	**23 50 25.9**	**-0.7**
PALD				*eS*		**Sb**	**23 50 34.0**	**-0.2**
RAMO	**San Ramon**	**0.56**	**34**	*eP*		**Pb**	**23 50 26.2**	**-0.6**
PICV	**PH. Pirrs**	**0.58**	**90**	*eP*		**Pb**	**23 50 27.0**	**-0.2**
TCS1	**Tacares**	**0.64**	**49**	P		**Pb**	**23 50 27.9**	**-0.2**
TCS1	**Tacares**	**0.64**	**49**	*eP*		**Pb**	**23 50 27.9**	**-0.2**
ACOS	**Acosta**	**0.64**	**74**	*eP*		**Pb**	**23 50 26.9**	**-1.2**
QUEP	**Quepos**	**0.64**	**107**	P		**Pb**	**23 50 26.8**	**-1.3**
QUEP				S		**Sb**	**23 50 35.6**	**-1.1**
JUNT	**Juntas**	**0.68**	**345**	*eP*		**Pb**	**23 50 27.8**	**-0.9**
ZARE	**Zarcero**	**0.68**	**35**	*eP*		**Pb**	**23 50 28.8**	**-0.1**
JTS	**Las Juntas de**	**0.68**	**346**	P		**Pb**	**23 50 28.2**	**-0.7**
JTS				S		**Sb**	**23 50 37.7**	**-0.2**
JTS	**Las Juntas de**	**0.68**	**346**	*eP*		**Pb**	**23 50 28.1**	**-0.7**
BELE	**Belen**	**0.69**	**59**	*eP*		**Pb**	**23 50 28.2**	**-0.7**
MTEVE	**Monteverde**	**0.69**	**357**	*eP*		**Pb**	**23 50 28.3**	**-0.8**
ABE2	**San Pablo**	**0.73**	**84**	*eP*		**Pb**	**23 50 28.8**	**-0.8**
CMARA	**Lajas Hojancha**	**0.74**	**302**	P		**Pb**	**23 50 29.7**	**-0.1**
CMARA				S		**Sn**	**23 50 41.2**	**-0.4**
CMARA	**Lajas Hojancha**	**0.74**	**302**	*eP*		**Pb**	**23 50 29.5**	**-0.3**
INDI	**Punta indio, G**	**0.75**	**289**	P		**Pb**	**23 50 30.4**	**+0.6**
INDI				S		**Sn**	**23 50 41.7**	**+0.1**
PITB	**Pirrs, San**	**0.75**	**87**	*eP*		**Pb**	**23 50 30.1**	**0.0**
VPL1	**V. Platanar**	**0.75**	**33**	*eP*		**Pb**	**23 50 29.5**	**-0.5**
HDC	**Heredia**	**0.76**	**60**	P		**Pb**	**23 50 29.9**	**-0.3**
HDC				S		**Sb**	**23 50 39.2**	**-0.9**
VPS8	**V Poas**	**0.77**	**44**	*eP*		**Pb**	**23 50 30.2**	**-0.2**
LCR2	**La Lucha 2**	**0.78**	**81**	P		**Pb**	**23 50 29.6**	**-0.9**
LCR2				S		**Sb**	**23 50 40.3**	**-0.4**
LCR2	**La Lucha 2**	**0.78**	**81**	*eP*		**Pb**	**23 50 29.5**	**-1.0**
VPL2	**V. Platanar**	**0.79**	**30**	*eP*		**Pb**	**23 50 30.3**	**-0.3**
CASO	**Castillo**	**0.81**	**4**	*eP*		**Pb**	**23 50 30.5**	**-0.4**
CHIK	**Chiripa**	**0.82**	**352**	*eP*		**Pb**	**23 50 30.9**	**-0.3**
NICO	**Nicoya**	**0.83**	**308**	*eP*		**Pb**	**23 50 31.2**	**0.0**
VBV1	**V. Barva**	**0.83**	**54**	*eP*		**Pb**	**23 50 31.0**	**-0.5**
VARE2	**V. Arenal**	**0.84**	**4**	*eP*		**Pb**	**23 50 31.3**	**-0.1**
VACR	**Volcan Arenal**	**0.85**	**7**	*eP*		**Pb**	**23 50 31.3**	**-0.4**
VPL3	**V. Platanar**	**0.86**	**33**	*eP*		**Pb**	**23 50 31.5**	**-0.3**
CEDE	**Laguna Cedeo**	**0.86**	**5**	*eP*		**Pb**	**23 50 31.7**	**-0.1**
TABAC	**Tabacon**	**0.87**	**1**	*eP*		**Pb**	**23 50 32.0**	**-0.1**
REZ	**Monterrey de S**	**0.90**	**5**	*eP*		**Pn**	**23 50 32.7**	**-0.4**
JUD3	**Juan Diaz 3**	**0.92**	**306**	*eP*		**Pb**	**23 50 32.5**	**-0.3**
CVIMO	**Finca Echandi**	**0.92**	**64**	*eP*		**Pn**	**23 50 33.7**	**+3.2**
COTE	**Lago Cote**	**0.96**	**352**	*eP*		**Pb**	**23 50 33.2**	**-0.3**
TIMP	**Tierras Morena**	**0.98**	**346**	*eP*		**Pb**	**23 50 33.1**	**-0.8**
VICA	**Volcano Irazu**	**0.99**	**69**	*eP*		**Pb**	**23 50 34.2**	**-0.1**
QUEB	**Quebradon, Cot**	**1.00**	**354**	*eP*		**Pb**	**23 50 33.7**	**-0.5**
PCAYA	**Pacayas**	**1.00**	**73**	*eP*		**Pb**	**23 50 33.8**	**-0.5**
BAGA	**Bagaces**	**1.01**	**333**	*eP*		**Pb**	**23 50 33.7**	**-0.7**
CVTQ	**Turrialba Volc**	**1.07**	**69**	*eP*		**Pb**	**23 50 35.5**	**-0.1**
VTR0	**Volcan Turrial**	**1.08**	**69**	*eP*		**Pn**	**23 50 36.2**	**+0.3**
CVTR	**Volcan Turrial**	**1.09**	**69**	*eP*		**Pn**	**23 50 36.0**	**+0.1**
CVTV	**Tajo**	**1.09**	**70**	*eP*		**Pn**	**23 50 36.2**	**+0.3**
TENO	**El Achiote**	**1.09**	**350**	*eP*		**Pn**	**23 50 34.5**	**-1.2**
CUI	**Cuipilapa**	**1.09**	**340**	*eP*		**Pn**	**23 50 35.2**	**-0.6**
VTCV	**VTCV, Calle Va**	**1.10**	**71**	*eP*		**Pb**	**23 50 36.1**	**+0.1**
ABRB	**Las Abras (San**	**1.12**	**70**	*eP*		**Pb**	**23 50 36.8**	**+0.5**
CVTG	**V. Turrialba,**	**1.12**	**62**	*eP*		**Pb**	**23 50 36.7**	**+0.4**
COVE	**Coope Vega, Sa**	**1.15**	**19**	P		**Pn**	**23 50 36.0**	**-0.5**
COVE				S		**Sn**	**23 50 52.2**	**+0.6**
MESS	**Mesas**	**1.18**	**340**	*eP*		**Pn**	**23 50 36.5**	**-0.4**
RESJ	**San Isidro (Tu**	**1.20**	**70**	*eP*		**Pn**	**23 50 37.3**	**+0.2**
CLARA	**Aguas Claras**	**1.22**	**342**	*eP*		**Pn**	**23 50 37.1**	**-0.3**
ALIBA	**Liberia Airpor**	**1.22**	**322**	*eP*		**Pn**	**23 50 37.5**	**+0.1**
VMAR	**Armenia, Volca**	**1.23**	**345**	*eP*		**Pn**	**23 50 37.4**	**-0.1**
CANAL	**Canalete**	**1.23**	**348**	*eP*		**Pn**	**23 50 37.7**	**+0.1**
OCHAL	**Ojochal**	**1.24**	**115**	P		**Pn**	**23 50 37.7**	**+0.1**
OCHAL				S		**Sn**	**23 50 54.1**	**+0.3**
UPAL	**Upala**	**1.29**	**350**	P		**Pb**	**23 50 39.6**	**+0.6**
UPAL				S		**Sb**	**23 50 57.1**	**+2.0**
SAJE	**San Jernim**	**1.29**	**102**	*eP*		**Pn**	**23 50 38.8**	**+0.3**
VRLE	**La Escondida,**	**1.29**	**334**	*eP*		**Pn**	**23 50 38.0**	**-0.5**
LAPC	**Finca la Perla**	**1.30**	**331**	*eP*		**Pn**	**23 50 38.1**	**-0.5**
BUAI	**Buenos Aires**	**1.36**	**337**	*eP*		**Pb**	**23 50 40.0**	**-0.2**
TRT2	**Tortugero**	**1.39**	**48**	P		**Pb**	**23 50 40.8**	**0.0**
TRT2				S		**Sb**	**23 50 58.8**	**+0.7**
TRT2	**Tortugero**	**1.39**	**48**	*eP*		**Pb**	**23 50 40.8**	**0.0**
DRKO	**Durika**	**1.56**	**103**	*eP*		**Pn**	23 50 26.0	-16
VERH	**Veragua Rainfo**	**1.60**	**79**	*eP*		**Pn**	**23 50 43.5**	**+0.9**
LCRUZ	**La Cruz**	**1.67**	**330**	*eP*		**Pb**	**23 50 44.6**	**-1.0**
CARN	**Rivas**	**1.72**	**335**	P		**Pb**	**23 50 46.4**	**0.0**
CARN				S		**Sb**	**23 51 09.2**	**+1.7**
LAES	**El Progreso Va**	**1.72**	**85**	*eP*		**Pb**	**23 50 45.7**	**-0.7**
CEUA	**Cerro Uatsi, L**	**1.82**	**90**	*eP*		**Pb**	**23 50 48.8**	**+0.7**
OMEN	**Al SSO del Vol**	**2.05**	**336**	P		**Pb**	**23 50 50.6**	**-1.5**
OMEN				S		**Sb**	**23 51 17.3**	**+0.2**
CONN	**Concepcion**	**2.10**	**337**	P		**Pb**	**23 50 51.4**	**-1.5**
CONN				S		**Sb**	**23 51 18.8**	**+0.2**
ACON	**Acoyapa**	**2.36**	**351**	P		**Pn**	**23 50 54.5**	**+1.4**
ACON				S		**Sb**	**23 51 25.6**	**-0.5**
BOAB	**BOACO BROADBAN**	**2.94**	**343**	P		**Pn**	**23 51 03.2**	**+2.2**
BOAB				S		**Sb**	**23 51 39.5**	**-3.3**

*ISK **01** 23:56:41.5, 37°99N×27°03E, h8km, ML1.9/7*
AFAD 01 23:56:38.3, 37°93N×26°61E, h7km±1km, **ML1.6, Dodecanese Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID |

AKV	**Akutan Volcano**	**1.95**	**43**		Pn	23 57 25.4	+0.3
AKLV	**Akutan Long Va**	**1.98**	**42**		Pn	23 57 26.0	+0.6
AKGG	**Akutan Green G**	**1.99**	**41**		Pn	23 57 26.0	+0.4
AKGG					Sn	23 57 51.1	+1.9
AKUT	**Akutan**	**2.03**	**45**	Pn	Pn	23 57 26.2	0.0
AKUT				IAML		23 58 01.3	
	comp=E,184nm,0.5s						
WECS	**Westdahl Cape**	**2.73**	**47**		Pn	23 57 36.6	+0.7
WECS				IAML		23 58 20.5	
	comp=E,182nm,0.7s						
WECS				IAML		23 58 23.6	
	comp=N,227nm,0.9s						
WESP	**Westdahl Peak**	**2.73**	**48**		Pn	23 57 36.2	+0.3
WESP					Sn	23 58 06.9	-0.9

*THE **02** 00:14:41.8,38°N±1°×2°7E±°, h10km±2km, M2.5/8, MLh2.5/8*
*AFAD **02** 00:14:41.5,37°.84N×26°.92E, h7km±3km, ML2.5*
*ISK **02** 00:14:41.5,37°.82N×26°.91E, h7km, ML2.7/20*
*ATH **02** 00:14:41.2,37°.82N×26°.94E, h13km±5km, ML2.8/4, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 00:14:41.6±0.9, 37°.83N±0°.02×26°.92E±0°.02, h13km±7km, n50, σ0°.46/68, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.17**	**260**	P	**Pg**	**00 14 45.4**	**-0.1**
KRL1				S	**Sg**	**00 14 48.5**	**+0.2**
KRL1				AML	AML		
DGB	**zmir**	**0.23**	**353**	S	**Sg**	**00 14 49.3**	**-0.6**
GMLD	**Gumuldur**	**0.25**	**359**	Pg	**Pg**	**00 14 46.9**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**116**	P	**Pb**	**00 14 47.9**	**-0.5**
GCAM				S	**Sb**	**00 14 52.6**	**-0.4**
GCAM				IAML		00 14 53.0	
	comp=N,706nm,0.3s						
GCAM				IAML		00 14 54.0	
	comp=E,616nm,0.3s						
GCAM	**G?zelcaml?**	**0.28**	**116**	Pg	**Pg**	**00 14 47.7**	**+0.3**
GCAM				Sg	**Sb**	**00 14 52.2**	**-0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**83**	Pg	**Pg**	**00 14 47.9**	**+0.2**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**1**	P	**Pg**	**00 14 49.7**	**0.0**
BEYE				S	**Sg**	**00 14 54.6**	**-0.5**
DDIM	**Aydin, Didim**	**0.45**	**145**	P	**Pg**	**00 14 50.8**	**+0.4**
DDIM				S	**Sb**	**00 14 57.5**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.53**	**322**	P	**Pg**	**00 14 51.9**	**-0.1**
ZEYE				S	**Sg**	**00 14 57.9**	**-1.1**
ZEYE				IAML		00 14 59.0	
	comp=N,584nm,0.2s						
ZEYE				IAML		00 14 59.0	
	comp=E,319nm,0.6s						
BLCB	**Balcova**	**0.57**	**10**	P	**Pg**	**00 14 52.7**	**0.0**
BLCB				S	**Sg**	**00 15 00.7**	**+0.5**
BLCB	**Balcova**	**0.57**	**10**	Pg	**Pg**	**00 14 52.7**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**47**	P	**Pg**	**00 14 52.8**	**-0.1**
AYDB	**Zeytinkoy-Aydi**	**0.78**	**81**	Pg	**Pb**	**00 14 57.2**	**+0.1**
AYDB				Sg	**Sb**	**00 15 08.4**	**+0.8**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.78**	**102**	P	**Pg**	**00 14 56.2**	**-0.5**
KRBN	**Karaburun**	**0.82**	**340**	Pg	**Pb**	**00 14 58.2**	**+0.5**
KRBN				AML	AML		
BODT	**Bodrum**	**0.82**	**158**	P	**Pg**	**00 14 57.3**	**-0.3**
BODT				S	**Sb**	**00 15 09.3**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**158**	Pg	**Pb**	**00 14 57.9**	**+0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**128**	Pg	**Pb**	**00 14 58.8**	**+0.4**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.87**	**177**	P	**Pg**	**00 14 58.4**	**+0.1**
KLNA				S	**Sg**	**00 15 09.8**	**+0.2**
KLNA				AML	AML		
IZMR	**zmir-demi**	**0.87**	**69**	P	**Pg**	**00 14 57.8**	**-0.6**
CHOS	**Chios island**	**0.88**	**310**	P	**Pb**	**00 14 59.0**	**+0.2**
CHOS				S	**Sb**	**00 15 10.8**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**310**	Pg	**Pb**	**00 14 59.1**	**+0.3**
CHOS				Sg	**Sb**	**00 15 11.6**	**+1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**310**	P	**Pn**	**00 14 59.6**	**-0.2**
CHOS				S	**Sb**	**00 15 11.1**	**+0.5**
CHOS				AML	AML		
FOCM	**Foa**	**0.90**	**351**	Pg	**Pb**	**00 14 59.5**	**+0.5**
FOCM				AML	AML		
EAG2	**Marmaro, Chios**	**0.96**	**319**	P	**Pb**	**00 15 00.5**	**+0.4**
EAG2				S	**Sb**	**00 15 13.5**	**+0.8**
NAZL	**Nazilli-Aydin**	**1.09**	**82**	Pn	**Pb**	**00 15 02.4**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.18**	**41**	Pn	**Pg**	**00 15 04.7**	**+0.4**
GOMA				AML	AML		
DAT	**Datca**	**1.21**	**154**	Pn	**Pg**	**00 15 04.8**	**-0.1**
DAT				AML	AML		
DKL	**Dikili**	**1.25**	**359**	Pn	**Pg**	**00 15 05.5**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**359**	P	**Pn**	**00 15 04.4**	**-0.3**
DKL				S	**Sb**	**00 15 20.8**	**-0.1**
YER	**Yerkesik**	**1.28**	**122**	P	**Pn**	**00 15 05.6**	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.28**	**122**	Pn	**Pg**	**00 15 06.2**	**-0.1**
YER				AML	AML		
APE	**Apeiranthos**	**1.34**	**236**	P	**Pn**	**00 15 05.0**	**-1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.34**	**236**	Pn	**Pb**	**00 15 06.7**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.34**	**236**	P	**Pn**	**00 15 05.0**	**-1.0**
APE				S	**Sb**	**00 15 24.0**	**+0.4**
SOMA	**Soma-Manisa**	**1.41**	**20**	Pn	**Pg**	**00 15 08.4**	**-0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.47**	**42**	Pn	**Pg**	**00 15 09.9**	**+0.1**
GORD				AML	AML		
TURN	**Turunc**	**1.49**	**134**	Pn	**Pn**	**00 15 08.3**	**+0.3**
TURN				AML	AML		
PRK	**Paraskevi**	**1.51**	**341**	P	**Pn**	**00 15 08.1**	**-0.2**
PRK				S	**Sn**	**00 15 27.5**	**-0.3**
PRK				AML	AML		
PRK	**Paraskevi**	**1.51**	**341**	P	**Pn**	**00 15 08.4**	**+0.1**
PRK				S	**Sn**	**00 15 27.6**	**-0.2**
PRK				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**4**	Pn	**Pb**	**00 15 14.1**	**-0.1**
YAYO				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**219**	P	**Pn**	**00 15 13.9**	**+0.7**
ARG	**Arkhangelos**	**1.87**	**149**	P	**Pn**	**00 15 13.9**	**+0.5**
KARY	**Karystos**	**1.97**	**277**	P	**Pn**	**00 15 14.2**	**-0.5**
DION	**Dionisos Attik**	**2.37**	**277**	P	**Pn**	**00 15 20.2**	**-0.1**
DION				AML	AML		
DION	**Dionisos Attik**	**2.37**	**277**	P	**Pn**	**00 15 19.6**	**-0.6**
LIA	**Limnos Island**	**2.48**	**327**	P	**Pn**	**00 15 21.4**	**-0.2**
LIA	**Limnos Island**	**2.48**	**327**	P	**Pn**	**00 15 21.4**	**-0.2**
ENEZ	**Enez**	**2.97**	**349**	P	**Pn**	**00 15 28.9**	**+0.5**
ALN	**Alexandroupoli**	**3.14**	**348**	P	**Pn**	**00 15 30.8**	**0.0**

*THE **02** 00:22:40.5,38°N±2°×2°7E±°, h5km±4km, M2.6/10, MLh2.6/10*
*AFAD **02** 00:22:40.3,37°.88N×27°.13E, h7km±4km, ML2.8*
*ISK **02** 00:22:40.4,37°.88N×27°.14E, h6km, ML3.1/12*

ISC 02 00:22:40.7±0.9, 37°.87N±0°.02×27°.12E±0°.03, h11km±7km, n39, σ0°.55/57, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.13**	**95**	Pg	**Pg**	**00 22 43.4**	**-0.4**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.19**	**153**	P	**Pg**	**00 22 45.0**	**+0.3**
GCAM				S	**Sg**	**00 22 47.6**	**+0.1**
GCAM				IAML		00 22 48.0	
	comp=E,2μm,0.4s						
GCAM				IAML		00 22 52.0	
	comp=N,2μm,0.6s						
GCAM	**G?zelcaml?**	**0.19**	**153**	Pg	**Pg**	**00 22 44.7**	**0.0**
GCAM				Sg	**Sg**	**00 22 47.8**	**+0.3**
GCAM				AML	AML		
DGB	**zmir**	**0.26**	**314**	P	**Pg**	**00 22 46.2**	**+0.2**
DGB				S	**Sg**	**00 22 49.6**	**0.0**
GMLD	**Gumuldur**	**0.26**	**321**	Pg	**Pg**	**00 22 46.4**	**+0.4**
BEYE	**izmir**	**0.39**	**336**	P	**Pg**	**00 22 48.6**	**+0.2**
BEYE				S	**Sg**	**00 22 53.1**	**-0.4**
DDIM	**Aydin, Didim**	**0.42**	**167**	P	**Pg**	**00 22 48.8**	**-0.2**
DDIM				IAML		00 22 55.0	
	comp=E,607nm,0.3s						
DDIM				S	**Sg**	**00 22 55.7**	**+1.1**
DDIM				IAML		00 22 56.0	
	comp=N,754nm,0.3s						
DUVT	**Torbali**	**0.43**	**36**	P	**Pg**	**00 22 49.1**	**-0.1**
DUVT				S	**Sg**	**00 22 54.2**	**-0.7**
DUVT				IAML		00 22 56.0	
	comp=E,973nm,0.2s						
BLCB	**Balcova**	**0.52**	**353**	P	**Pg**	**00 22 50.6**	**-0.2**
BLCB				S	**Sg**	**00 22 57.9**	**+0.3**
BLCB	**Balcova**	**0.52**	**353**	Pg	**Pg**	**00 22 50.7**	**-0.1**
BLCB				Sg	**Sb**	**00 22 58.6**	**-0.7**
AYDB	**Zeytinkoy-Aydi**	**0.61**	**83**	Pg	**Pb**	**00 22 52.8**	**-0.7**
AYDB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.61**	**307**	P	**Pb**	**00 22 53.0**	**-0.4**
ZEYE				S	**Sg**	**00 23 00.8**	**+0.2**
ZEYE				IAML		00 23 05.0	
	comp=E,380nm,0.2s						
ZEYE				IAML		00 23 08.0	
	comp=N,542nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.76**	**170**	Pg	**Pb**	**00 22 55.6**	**-0.2**
MLSB	**Milas**	**0.77**	**138**	Pg	**Pg**	**00 22 55.7**	**+0.1**
BAGT	**Foa**	**0.81**	**345**	P	**Pb**	**00 22 56.6**	**-0.2**
BAGT				S	**Sb**	**00 23 07.3**	**-0.5**
BAGT				IAML		00 23 10.0	
	comp=E,564nm,0.6s						
BAGT				IAML		00 23 16.0	
	comp=N,459nm,0.8s						
BODT	**Bodrum**	**0.82**	**170**	P	**Pg**	**00 22 56.1**	**-0.4**
BODT				S	**Sg**	**00 23 07.5**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**170**	Pg	**Pb**	**00 22 56.8**	**-0.2**
BODT				AML	AML		
KRBN	**Karaburun**	**0.85**	**328**	Pg	**Pb**	**00 22 57.3**	**-0.2**
KRBN				AML	AML		
FOCM	**Foa**	**0.90**	**340**	Pg	**Pg**	**00 22 57.9**	**0.0**
NAZL	**Nazilli-Aydin**	**0.93**	**84**	Pg	**Pg**	**00 22 58.2**	**-0.4**
NAZL				AML	AML		
KARB	**zmir-Karabur**	**0.97**	**325**	P	**Pb**	**00 22 59.9**	**+0.4**
KARB				S	**Sb**	**00 23 12.3**	**0.0**
KARB				IAML		00 23 20.0	
	comp=N,281nm,0.7s						
KARB				IAML		00 23 21.0	
	comp=E,292nm,0.6s						
CHOS	**Chios island**	**0.99**	**302**	P	**Pb**	**00 23 00.0**	**+0.1**
CHOS				S	**Sb**	**00 23 13.7**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.99**	**302**	Pg	**Pb**	**00 22 59.9**	**0.0**
CHOS				AML	AML		
GOMA	**Golmarmara-Man**	**1.04**	**37**	Pg	**Pb**	**00 23 00.7**	**-0.1**
GOMA				AML	AML		
AKS	**Akhisar**	**1.14**	**28**	Pn	**Pg**	**00 23 02.2**	**-0.4**
AKS				AML	AML		
YER	**Yerkesik**	**1.18**	**128**	P	**Pg**	**00 23 03.0**	**-0.3**
YER				AML	AML		
DKL	**Dikili**	**1.21**	**352**	Pn	**Pg**	**00 23 03.4**	**-0.5**
DKL				AML	AML		
SOMA	**Soma-Manisa**	**1.32**	**14**	Pn	**Pg**	**00 23 05.9**	**-0.2**
SOMA				Sn	**Sn**	**00 23 24.4**	**+1.6**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.33**	**38**	Pn	**Pg**	**00 23 05.9**	**-0.2**
GORD				Sn	**Sn**	**00 23 24.3**	**+1.3**
GORD				AML	AML		
APE	**Apeiranthos**	**1.50**	**238**	P	**Pn**	**00 23 06.5**	**-1.1**
APE				S	**Sn**	**00 23 27.4**	**+0.2**
APE				AML	AML		
PRK	**Paraskevi**	**1.53**	**334**	P	**Pg**	**00 23 09.4**	**-0.5**
PRK				S	**Sg**	**00 23 29.5**	**-0.3**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.84**	**154**	P	**Pn**	**00 23 13.1**	**+0.9**
ARG				AML	AML		
THRA	**Thira**	**1.98**	**223**	P	**Pn**	**00 23 13.4**	**-0.8**
THERA	**Ancient Thera,**	**2.00**	**222**	P	**Pn**	**00 23 13.2**	**-1.2**
THERA				S	**Sn**	**00 23 39.6**	**+0.2**
THERA				AML	AML		
THT1	**Athinios (Pele**	**2.01**	**223**	P	**Pn**	**00 23 13.8**	**-0.7**
SNT5	**Nea Kammeni, S**	**2.01**	**224**	P	**Pn**	**00 23 13.9**	**-0.7**
SNT5				AML	AML		
GADA	**Gvkgeada**	**2.50**	**338**	P	**Pn**	**00 23 21.6**	**+0.2**
GADA				AML	AML		
LIA	**Limnos Island**	**2.53**	**324**	P	**Pn**	**00 23 21.8**	**+0.1**
DION	**Dionisos Attik**	**2.53**	**276**	P	**Pn**	**00 23 21.5**	**-0.3**

*IDC **02** 00:29:54.4±1.4, 39°.28N×75°.79E, h0km, mb3.8/5, mbtmp3.5/8, ML2.5/3, Error ellipse: s-maj=30.1km s-min=15.9km az=118.0*
*KRNET **02** 00:29:54.5±0.1, 39°.07N×75°.96E, mb3.8*
*SOME **02** 00:29:57.8, 39°.32N×75°.93E, h15km*
*NNC **02** 00:30:00.9±2.3, 39°.45N×76°.04E, h3km±11km, mb3.9, mpv3.4, Error ellipse: s-maj=15.5km s-min=10.9km az=175.0*

ISC 02 00:29:55.1±0.9, 39°.28N±0°.05×75°.99E±0°.03, h10km, n50, σ2s06/78, mb3.8/4, 18C-13D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SFK	**Sufi-Kurgan**	**2.06**	**292**	⇑*eP*	**Pg**	**00 30 33.3**	**-1.3**
SFK				⇑*iS*	**Sg**	**00 31 01.5**	**+0.3**
NRN	**Naryn**	**2.15**	**0**	⇑*iP*	**Pg**	**00 30 36.2**	**-0.2**
NRN				⇑*iS*	**Sg**	**00 31 06.9**	**+2.5**
SALK	**Salom-Alik**	**2.31**	**315**	⇓*eP*	**Pg**	**00 30 37.8**	**-1.6**
SALK				⇓*eS*	**Sg**	**00 31 09.3**	**-0.1**
OHH	**Osh**	**2.76**	**298**	⇑*iP*	**Pb**	**00 30 43.0**	**-1.6**
OHH				⇑*iS*	**Sb**	**00 31 18.5**	**0.0**
TARG	**Taragay, Kyrgy**	**2.81**	**29**	⇓*iP*	**Pb**	**00 30 45.9**	**+0.2**
TARG				⇓*iS*	**Sg**	**00 31 23.1**	**-2.4**
ARSB	**Arslanbob**	**3.08**	**313**	⇑*iP*	**Pb**	**00 30 47.4**	**-2.6**
ARSB				⇑*iS*	**Sb**	**00 31 27.4**	**-0.3**
DRK	**Karamyk**	**3.25**	**275**	⇓*iP*	**Pb**	**00 30 49.1**	**-4.0**
DRK				⇓*iS*	**Sb**	**00 31 29.6**	**-3.3**
AAK	**Ala-Archa**	**3.54**	**342**	⇑*Pn*	**Pb**	**00 30 55.6**	**-2.4**
AAK	13nm,0.6s			⇑*Pg*	**Pg**	**00 31 04.0**	**+1.0**
AAK	13nm,0.6s			⇓*Lg*	Lg	00 31 48.4	
	52nm,0.9s						
FRU1	**Bishkek**	**3.67**	**344**	⇑*eP*	**Pb**	**00 30 57.6**	**-2.6**
FRU1				⇑*eS*	**Sb**	**00 31 43.3**	**-1.5**
PRZ	**Przheval'sk**	**3.69**	**29**	⇓*eP*	**Pb**	**00 30 57.9**	**-2.6**
PRZ				⇓*eS*	**Sb**	**00 31 43.7**	**-1.6**
ANVS	**Anan'yevo**	**3.72**	**19**	⇑*eP*	**Pb**	**00 30 58.6**	**-2.5**
ANVS				⇑*eS*	**Sb**	**00 31 44.7**	**-1.7**
KST	**Kastek**	**3.76**	**360**	Pg	**Pg**	**00 31 06.3**	**-0.9**
KST	2.3nm,0.4s			Lg	Lg	00 31 56.1	
	42nm,0.7s						
KST	**Kastek**	**3.76**	**360**	*eP*	**Pg**	**00 31 06.3**	**-0.9**
KST	5.8nm,0.5s			*eS*	**Sg**	**00 31 56.1**	**+0.2**
	42nm,0.7s						
TNSS	**Tian-Shan**	**3.82**	**11**	Pg	**Pg**	**00 31 07.7**	**-0.7**
TNSS	2.1nm,0.4s			Lg	Lg	00 31 58.7	
	8.3nm,0.5s						
TNSS	**Tian-Shan**	**3.82**	**11**	*eP*	**Pg**	**00 31 07.7**	**-0.7**
TNSS	2.1nm,0.4s			*eS*	**Sg**	**00 31 58.7**	**+0.7**
	8.3nm,0.5s						
MTBS	**Maitube**	**3.86**	**5**	Pg	**Pg**	**00 31 08.8**	**-0.3**
MTBS	8.6nm,0.3s			Lg	Lg	00 32 00.2	
	26nm,0.5s						
MTBS	**Maitube**	**3.86**	**5**	*eP*	**Pg**	**00 31 08.8**	**-0.3**
MTBS	8.6nm,0.3s			*eS*	**Sg**	**00 32 00.2**	**+1.0**
	26nm,0.5s						
MDOK	**Medeo**	**3.96**	**11**	Pg	**Pg**	**00 31 10.3**	**-0.8**
MDOK	7.8nm,0.4s			Lg	Lg	00 32 02.7	
	80nm,1.0s						
MDOK	**Medeo**	**3.96**	**11**	*eP*	**Pg**	**00 31 10.3**	**-0.8**
MDOK	7.8nm,0.4s			*eS*	**Sg**	**00 32 02.7**	**+0.3**
	80nm,1.0s						
MRKS	**Merke**	**4.04**	**330**	Pg	**Pg**	**00 31 10.2**	**-2.4**
MRKS	7.1nm,0.3s			Lg	Lg	00 32 03.1	
	21nm,0.5s						
MRKS	**Merke**	**4.04**	**330**	*eP*	**Pg**	**00 31 10.2**	**-2.4**
MRKS	7.1nm,0.3s			*eS*	**Sg**	**00 32 03.1**	**-1.9**
MNAS	**Manas**	**4.15**	**322**	⇓*eP*	Pb	00 31 03.3	-5.1
MNAS	21nm,0.5s			⇓*eS*	**Sb**	**00 31 53.4**	**-5.3**
SATY	**Saty**	**4.19**	**25**	Pg	**Pg**	**00 31 13.9**	**-1.6**
SATY	7.6nm,0.5s			Lg	Lg	00 32 08.9	
	26nm,0.6s						
SATY	**Saty**	**4.19**	**25**	*eP*	**Pg**	**00 31 13.9**	**-1.6**
SATY	7.6nm,0.5s			*eS*	**Sg**	**00 32 08.9**	**-0.9**
	26nm,0.6s						
KRBS	**Karabastau**	**4.42**	**357**	Pg	**Pg**	**00 31 17.9**	**-1.9**
KRBS	4.3nm,0.4s			Lg	Lg	00 32 16.2	
	38nm,1.1s						
KRBS	**Karabastau**	**4.42**	**357**	*eP*	**Pg**	**00 31 17.6**	**-2.2**
KRBS	4.3nm,0.4s			*eS*	**Sg**	**00 32 15.6**	**-1.4**
	38nm,1.1s						
KTBS	**Karatobe**	**4.46**	**6**	Pg	**Pg**	**00 31 18.8**	**-1.7**
KTBS	0.1nm,0.2s			Lg	Lg	00 32 17.6	
	35nm,0.7s						
KTBS	**Karatobe**	**4.46**	**6**	*eP*	**Pg**	**00 31 18.8**	**-1.7**
KTBS	0.1nm,0.2s			*eS*	**Sg**	**00 32 17.6**	**-0.8**
	35nm,0.7s						
UZB	**Uzynbulak**	**4.49**	**30**	Pg	**Pg**	**00 31 19.2**	**-1.9**
UZB	3.9nm,0.3s			Lg	Lg	00 32 18.0	
	9.8nm,0.7s						
UZB	**Uzynbulak**	**4.49**	**30**	*eP*	**Pg**	**00 31 19.2**	**-1.9**
UZB	3.9nm,0.3s			*eS*	**Sg**	**00 32 18.0**	**-1.3**
	9.8nm,0.7s						
KUU	**Kurty**	**4.62**	**3**	Pg	**Pg**	**00 31 22.2**	**-1.3**
KUU	3.8nm,0.0s			Lg	Lg	00 32 23.2	
	6.6nm,0.2s						
KUU	**Kurty**	**4.62**	**3**	*eP*	**Pg**	**00 31 22.2**	**-1.3**
KUU	3.8nm,0.0s			*eS*	**Sg**	**00 32 23.2**	**-0.2**
	6.6nm,0.2s						
KPKS	**Kokpek**	**4.65**	**25**	Pg	**Pg**	**00 31 22.3**	**-1.9**
KPKS	0.3nm,0.1s			Lg	Lg	00 32 23.8	
	28nm,0.7s						
KPKS	**Kokpek**	**4.65**	**25**	*eP*	**Pg**	**00 31 22.3**	**-1.9**
KPKS	0.3nm,0.1s			*eS*	**Sg**	**00 32 23.8**	**-0.6**
	28nm,0.7s						
PDGK	**Podgornoye**	**4.83**	**32**	⇓Pn	Pn	00 31 12.7	+4.7
PDGK	2.2nm,0.7s			⇑*Pg*	**Pg**	**00 31 25.3**	**-2.3**
PDGK	5.9nm,0.7s			⇑*Lg*	Lg	00 32 29.3	
	42nm,1.1s						
ARXS	**Arharly**	**5.12**	**15**	Pg	**Pg**	**00 31 30.6**	**-2.6**
ARXS	4.0nm,0.7s			Lg	Lg	00 32 38.0	
	18nm,0.8s						
ARXS	**Arharly**	**5.12**	**15**	*eP*	**Pg**	**00 31 30.6**	**-2.6**
ARXS	4.0nm,0.7s			*eS*	**Sg**	**00 32 38.0**	**-1.4**
	18nm,0.8s						
KK31	**Karatay Array**	**5.63**	**315**	Pn	**Pn**	**00 31 20.7**	**+1.8**
KK31	1.2nm,0.3s,baz=126,slow=12,SNR=18			⇑*Pg*	**Pg**	**00 31 40.9**	**-2.0**
	1.6nm,0.5s			⇑*Sn*	**Sn**	**00 32 30.4**	**+6.9**
KK31	3.2nm,0.6s,baz=124,slow=21			⇓*Lg*	Lg	00 32 54.1	
	2.7nm,0.5s,baz=123,slow=30						
DJR	**Jarkent**	**5.79**	**28**	Pg	**Pg**	**00 31 43.0**	**-3.1**
DJR	1.1nm,0.2s			Lg	Lg	00 32 58.2	
	4.1nm,0.6s						
DJR	**Jarkent**	**5.79**	**28**	*eP*	**Pg**	**00 31 43.0**	**-3.1**
DJR	1.1nm,0.2s			*eS*	**Sg**	**00 32 58.2**	**-2.8**
	4.1nm,0.6s						
BTLS	**Baital**	**5.94**	**347**	Pg	**Pg**	**00 31 46.6**	**-2.2**
BTLS	0.6nm,0.1s			Lg	Lg	00 33 05.2	
	6.3nm,0.6s						
BTLS	**Baital**	**5.94**	**347**	*eP*	**Pg**	**00 31 46.6**	**-2.2**
BTLS	0.6nm,0.1s			*eS*	**Sg**	**00 33 05.2**	**-0.4**
	6.3nm,0.6s						
MKAR	**Makanchi Array**	**8.81**	**29**	Pn	**Pn**	**00 32 05.8**	**+3.2**
MKAR	baz=214,slow=16,SNR=2.6			Lg	Lg	00 34 34.1	
	0.1nm,0.3s,baz=207,slow=34,SNR=2.8						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**11.48**	**8**	Pn	**Pn**	**00 32 41.5**	**+2.4**
KURBB	baz=196,slow=13,SNR=1.8			Sn	**Sn**	**00 34 47.1**	**-0.2**
	baz=183,slow=29,SNR=2.0			Lg	Lg	00 35 53.1	
	baz=195,slow=28,SNR=1.7						
	0.1nm,0.3s						
ZALV	**Zalesovo Beam**	**15.86**	**19**	Pn	**Pn**	**00 33 38.2**	**0.0**
	0.2nm,0.3s,baz=219,slow=11,SNR=4.7						
	0.3nm,0.3s						
ZALV				AML	AML		
FINES	**FINESS Array B**	**37.52**	**323**	P	**P**	**00 37 09.2**	**+0.3**
	2.4nm,0.9s,baz=103,slow=8.2,SNR=4.5						
	2.4nm,0.9s						
GERES	**GERESS Array B**	**44.62**	**304**	P	**P**	**00 38 08.9**	**+1.3**
	0.6nm,0.6s,baz=77,slow=7.8,SNR=4.6						
	0.6nm,0.6s						
TORD	**Torodi Ar. Bea**	**69.69**	**271**	P	**P**	**00 41 03.6**	**-1.7**
	0.3nm,0.6s,baz=58,slow=4.6,SNR=1.3						
	0.3nm,0.6s						
YKA	**Yellowknife Ar**	**78.22**	**5**	P	**P**	**00 41 54.8**	**+0.3**
	1.6nm,0.8s,baz=350,slow=5.7,SNR=2.3						
	1.6nm,0.8s						
WRA	**Warramunga Arr**	**80.25**	**126**	P	**P**	**00 42 08.5**	**+2.3**
	0.3nm,0.7s,baz=320,slow=5.4,SNR=1.9						
	0.3nm,0.7s						

*ISK **02** 00:40:10.7, 37°.81N×26°.49E, h5km, ML2.6/11*
*THE **02** 00:40:12.0, 38°N±3°×2°6E±°, h6km±5km, M2.4/5, MLh2.4/5*
*ATH **02** 00:40:11.7, 37°.81N×26°.49E, h17km±2km, ML2.6/3, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*AFAD **02** 00:40:13.4, 37°.88N×26°.57E, h7km±4km, ML2.1*

ISC 02 00:40:11.7±0.9, 37°.82N±0°.02×26°.48E±0°.02, h13km±8km, n34, σ0°.71/50, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.18**	**98**	P	**Pg**	**00 40 16.3**	**+0.4**
KRL1				S	**Sg**	**00 40 19.2**	**+0.4**
KRL1				AML	AML		
DGB	**zmir**	**0.40**	**54**	P	**Pg**	**00 40 19.4**	**-0.3**
DGB				IAML		00 40 24.0	
	comp=N,208nm,0.3s						
DGB				IAML		00 40 24.0	
	comp=E,310nm,0.3s						
DGB				S	**Sg**	**00 40 24.

CHOS					AML	AML		
CHOS	**Chios island**	**0.66**	**330**		Pg	**Pg**	**00 40 24.9**	**+0.3**
CHOS					AML	AML		
BLCB	**Balcova**	**0.72**	**38**		Pg	**Pg**	**00 40 26.1**	**+0.4**
BLCB					AML	AML		
EAG2	**Marmaro, Chios**	**0.78**	**338**		P	**Pg**	**00 40 27.0**	**+0.2**
EAG2					S	**Sg**	**00 40 37.8**	**+0.8**
DUVT	**Torbali**	**0.86**	**62**		P	**Pg**	**00 40 28.6**	**+0.2**
DUVT					S	**Sg**	**00 40 38.1**	**-1.7**
DUVT					IAML		00 40 43.0	
	comp=E,86nm,0.3s							
BAGT	**Foa**	**0.88**	**19**		P	**Pg**	**00 40 28.6**	**-0.3**
BAGT					S	**Sg**	**00 40 38.8**	**-1.6**
BAGT					IAML		00 40 46.0	
	comp=N,73nm,1.2s							
BAGT					IAML		00 40 46.0	
	comp=E,88nm,1.0s							
KLNA	**Kalymnos**	**0.95**	**155**		P	**Pg**	**00 40 29.4**	**-0.6**
KLNA					AML	AML		
BODT	**Bodrum**	**1.01**	**139**		P	**Pg**	**00 40 31.0**	**-0.2**
BODT					S	**Sb**	**00 40 45.2**	**+1.0**
BODT					AML	AML		
BODT	**Bodrum**	**1.01**	**139**		Pg	**Pg**	**00 40 30.8**	**-0.4**
BODT					AML	AML		
APE	**Apeiranthos**	**1.06**	**225**		P	**Pg**	**00 40 31.7**	**-0.5**
APE					S	**Sb**	**00 40 47.5**	**+1.7**
APE					AML	AML		
APE	**Apeiranthos**	**1.06**	**225**		P	**Pg**	**00 40 31.8**	**-0.5**
APE					S	**Sg**	**00 40 45.8**	**-0.4**
APE					AML	AML		
TNSA	**Tinos**	**1.08**	**255**		P	**Pg**	**00 40 31.8**	**-0.8**
AYDB	**Zeytinkoy-Aydi**	**1.12**	**83**		Pn	**Pg**	**00 40 33.0**	**-0.4**
AYDB					AML	AML		
MLSB	**Milas**	**1.16**	**117**		Pn	**Pg**	**00 40 33.4**	**-0.6**
MLSB					AML	AML		
DKL	**Dikili**	**1.29**	**15**		Pn	**Pg**	**00 40 36.7**	**+0.1**
DKL					AML	AML		
PRK	**Paraskevi**	**1.43**	**354**		P	**Pn**	**00 40 37.9**	**+0.6**
PRK					S	**Sg**	**00 40 58.4**	**+0.5**
NAZL	**Nazilli-Aydin**	**1.44**	**84**		Pn	**Pb**	**00 40 38.9**	**+0.4**
NAZL					AML	AML		
KARY	**Karystos**	**1.63**	**278**		P	**Pn**	**00 40 39.1**	**-1.0**
KARY	**Karystos**	**1.63**	**278**		P	**Pn**	**00 40 39.3**	**-0.8**
THERA	**Ancient Thera,**	**1.66**	**209**		P	**Pn**	**00 40 41.1**	**+0.6**
GORD	**Gordes-Manisa**	**1.72**	**50**		Pn	**Pb**	**00 40 43.3**	**+0.1**
GORD					Sn	**Sg**	**00 41 07.1**	**0.0**
GORD					AML	AML		
DION	**Dionisos Attik**	**2.03**	**278**		P	**Pn**	**00 40 45.5**	**-0.1**
DION	**Dionisos Attik**	**2.03**	**278**		P	**Pn**	**00 40 44.4**	**-1.1**
ARG	**Arkhangelos**	**2.08**	**140**		P	**Pn**	**00 40 45.4**	**-0.8**
VLY	**Voula,Athens**	**2.12**	**272**		P	**Pn**	**00 40 46.7**	**-0.2**
VLY	**Voula,Athens**	**2.12**	**272**		P	**Pn**	**00 40 46.5**	**-0.4**

*TRN **02** 01:09:19.1, 11.11N×61.86W, h121km, MD2.9, North-west of Trinidad.*
*FUNV **02** 01:09:20.7, 11.09N×62.28W, h24km, MW3.1, Presumed earthquake*
ISC 02 01:09:18.7±1.0, 11.14N±0.04×62.35W±0.05, h10km, n12, σ0878/21, Windward Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.90**	**119**			*eP*	**Pn**	**01 09 37.5**	**+0.1**
DMDM						*eS*	**Sn**	**01 09 50.9**	**+0.3**
PSMG	**Mucurapo Girls**	**0.93**	**120**			*eP*	**Pb**	**01 09 37.8**	**+0.8**
PSMG						*eS*	**Sn**	**01 09 50.8**	**-0.5**
PSKH	**Kent House, Po**	**0.93**	**119**			*eP*	**Pb**	**01 09 37.8**	**+0.8**
PSKH						*eS*	**Sn**	**01 09 51.2**	**-0.1**
PSDM	**Port of Spain,**	**0.96**	**120**			*eP*	**Pb**	**01 09 37.9**	**+0.5**
PSDM						*eS*	**Sn**	**01 09 51.2**	**-0.8**
TRN	**Trinidad (W)**	**1.05**	**118**			*eP*	**Pg**	**01 09 38.7**	**-0.3**
TRN						*eS*	**Sb**	**01 09 52.1**	**-0.7**
TRN	**Trinidad (W)**	**1.05**	**118**			*eP*	**Pg**	**01 09 38.6**	**-0.4**
TRN						*eS*	**Sb**	**01 09 52.1**	**-0.7**
TRN						x	x	01 09 59.3	
GRGR	**Grenville**	**1.20**	**35**			*eP*	**Pb**	**01 09 41.3**	**-0.2**
GRGR						*eS*	**Sb**	**01 09 57.8**	**+0.7**
GRGR	**Grenville**	**1.20**	**35**			*eP*	**Pb**	**01 09 40.8**	**+0.7**
GRGR						*eS*	**Sb**	**01 09 57.8**	**+0.7**
GRW	**Mount Saint Ca**	**1.22**	**34**			*eP*	**Pn**	**01 09 41.9**	**0.0**
GRW						*eS*	**Sb**	**01 09 59.6**	**+1.9**
GRSS	**Sisters**	**1.36**	**32**			*eS*	**Sb**	**01 10 01.4**	**-0.3**
PCRV	**Puerto La Cruz**	**2.44**	**247**			*eP*	**Pn**	**01 09 59.5**	**+0.8**
PCRV						*eS*	**Sn**	**01 10 27.5**	**-1.2**
CACV	**CAICARA DEL OR**	**5.45**	**230**			*eP*	Pn	01 10 32.8	-7.3
CACV						*eS*	Sn	01 11 28.4	-15

*NEIC **02** 01:10:43.5±1.7, 31.52N±0.03×115.69W±0.02, h10km±2km, ML2.4/36, ML2.7/63(PAS), Error ellipse: s-maj=4.8km s-min=3.0km az=175.0*
*PAS **02** 01:10:44.3±2.0, 31.53N±0.02×115.66W±0.02, h8km±5km, Error ellipse: s-maj=3.4km s-min=2.3km az=148.0*
*ECX **02** 01:10:44.7±0.5, 31.53N×115.67W, h4km±2km, MD2.4, ML2.6*
*MEX **02** 01:10:46.1±0.5, 31.51N×115.68W, h15km±5km, MD3.5, Presumed earthquake*
ISC 02 01:10:43.9±0.9, 31.53N±0.02×115.68W±0.03, h13km±7km, n48, σ1905/69, 7C-3D, Baja California

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
VTX	**Valle De La Tr**	**0.16**	**214**	⇑	*iP*		**Pg**	**01 10 48.0**	**+0.2**
VTX						*eS*	**Sg**	**01 10 50.7**	**+0.3**
VTX					IAML			01 10 51.6	
	comp=N,738nm,0.1s								
VTX				*e*				01 10 51.6	
VTX	**Valle De La Tr**	**0.16**	**214**				**Pg**	**01 10 47.9**	**+0.2**
VTX							**Sg**	**01 10 50.4**	**-0.1**
VTX					IAML			01 10 51.6	
	comp=N,735nm,0.1s								
VTX					IAML			01 10 52.1	
	comp=E,901nm,0.2s								
SJX	**San Joaquin**	**0.34**	**315**	⇓	*iP*		**Pn**	**01 10 54.2**	**-0.3**
SJX						*eS*	**Sb**	**01 11 01.4**	**+4.4**
SJX				⇑	*e*			01 11 02.0	
SJX					IAML			01 11 02.0	
	comp=N,333nm,0.1s								
ALAMX	**Rancho Alamar**	**0.48**	**357**	⇓	*iP*		**Pg**	**01 10 53.3**	**-0.1**
ALAMX					IAML			01 11 00.2	
	comp=N,595nm,0.2s								
ALAMX				*e*				01 11 00.2	
SV2X	**San Vicente**	**0.51**	**249**	⇑	*iP*		**Pb**	**01 10 54.1**	**-0.7**
SV2X						*eS*	**Sb**	**01 11 01.3**	**-0.8**
SV2X				⇑	*e*			01 11 01.5	
SV2X					IAML			01 11 01.5	
	comp=N,196nm,0.2s								
ESJX	**Sierra Juarez**	**0.53**	**334**		Pg		**Pg**	**01 10 54.1**	**-0.3**
ESJX					Sg		**Sg**	**01 11 01.1**	**-0.4**
ESJX					IAML			01 11 02.0	
	comp=N,312nm,0.1s								
ESJX					IAML			01 11 02.4	
	comp=E,347nm,0.1s								
RHX	**Rio Hardy**	**0.69**	**29**			*eP*	**Pg**	**01 10 57.0**	**-0.4**
RHX						*eS*	**Sg**	**01 11 06.0**	**-0.6**
RITX	**Riito Sonora**	**0.88**	**43**				**Pg**	**01 11 00.2**	**-0.7**
RITX							**Sg**	**01 11 12.1**	**-0.4**
CCX	**Cicese**	**0.91**	**292**		Pg		**Pg**	**01 11 00.7**	**-0.7**
CCX					Sg		**Sg**	**01 11 13.1**	**-0.2**
CCX					IAML			01 11 15.4	
	comp=N,188nm,0.4s								
CCX					IAML			01 11 16.0	
	comp=E,166nm,0.4s								
PBX	**Punta Banda**	**0.92**	**284**			*eP*	**Pg**	**01 11 01.2**	**-0.4**
PBX						*eS*	**Sb**	**01 11 13.8**	**0.0**
CPBX	**Cerro Prieto**	**0.95**	**19**		Pg		**Pg**	**01 11 01.4**	**-0.8**
SQX	**San Quintin**	**0.96**	**190**	⇑	*eP*		**Pg**	**01 11 01.9**	**-0.5**
SQX					*eS*		**Sg**	**01 11 14.7**	**-0.3**
SQX				⇑	*e*			01 11 15.5	
SQX					IAML			01 11 15.5	
	comp=N,309nm,0.2s								
SQX	**San Quintin**	**0.96**	**190**		*iP*		**Pg**	**01 11 01.9**	**-0.5**
SQX						*eS*	**Sb**	**01 11 14.9**	**-0.1**
MBIG	**Mexicali**	**0.97**	**25**			*eP*	**Pb**	**01 11 03.3**	**+0.7**
MBIG						*eS*	**Sg**	**01 11 15.7**	**+0.4**
SGL	**Mount Signal**	**1.12**	**358**				**Pg**	**01 11 05.0**	**-0.5**
SGL							**Sg**	**01 11 19.3**	**-0.8**
RMX	**La Rumorosa**	**1.13**	**343**				**Pg**	**01 11 03.8**	**-1.8**
RMX							**Sg**	**01 11 17.3**	**-3.0**
YUH2	**Yuha Desert**	**1.14**	**350**			*eP*	**Pg**	**01 11 04.8**	**-1.0**
YUH	**Yuha Desert**	**1.14**	**350**				**Pg**	**01 11 05.0**	**-0.9**
YUH							**Sg**	**01 11 19.4**	**-1.2**
YUH	**Yuha Desert**	**1.14**	**350**		Pg		**Pg**	**01 11 04.8**	**-1.1**
YUH					IAML			01 11 21.7	
	comp=N,45nm,0.2s								
YUH					IAML			01 11 22.2	
	comp=E,90nm,0.3s								
CBX	**Cerro Bola**	**1.15**	**313**			*eP*	**Pg**	**01 11 05.4**	**-0.7**
CBX						*eS*	**Sg**	**01 11 20.4**	**-0.6**
CBX				⇑	*e*			01 11 22.4	
CBX					IAML			01 11 22.4	
	comp=E,221nm,0.2s								
CBX	**Cerro Bola**	**1.15**	**313**		Pg		**Pg**	**01 11 05.0**	**-1.0**
CBX					Sg		**Sg**	**01 11 20.1**	**-0.9**
CBX	**Cerro Bola**	**1.15**	**313**			*eP*	**Pg**	**01 11 05.4**	**-0.7**
CBX						*eS*	**Sg**	**01 11 20.3**	**-0.7**
IKP	**In-Ko-Pah, Jac**	**1.18**	**342**				**Pg**	**01 11 05.8**	**-0.8**
IKP							**Sg**	**01 11 21.2**	**-0.8**
TJIG	**Tijuana**	**1.24**	**317**			*eP*	**Pg**	**01 11 06.5**	**-1.3**
TJIG						*eS*	**Sg**	**01 11 22.8**	**-1.2**
TJIG				⇓	*e*			01 11 23.4	
TJIG					IAML			01 11 23.4	
	comp=N,154nm,0.2s								
TJIG	**Tijuana**	**1.24**	**317**			*eP*	**Pg**	**01 11 06.7**	**-1.1**
TJIG						*eS*	**Sg**	**01 11 22.7**	**-1.2**
TKX	**Tecate**	**1.31**	**323**				**Sg**	**01 11 24.6**	**-1.5**
IMPE	**Imperial**	**1.38**	**4**				**Pn**	**01 11 09.6**	**+0.8**
IMPE							**Sn**	**01 11 29.4**	**+2.6**
CRR	**Carrizo Plain**	**1.38**	**350**				**Pn**	**01 11 09.6**	**+0.8**
CRR							**Sb**	**01 11 27.4**	**+0.3**
DUZA	**Dulzura**	**1.43**	**319**				**Pn**	**01 11 09.8**	**+0.3**
BAR	**Barrett**	**1.43**	**324**				**Pn**	**01 11 09.6**	**+0.1**
BAR	**Barrett**	**1.43**	**324**				**Pn**	**01 11 09.4**	**-0.1**
BAR	**Barrett**	**1.43**	**324**		IAML			01 11 30.0	
	comp=E,89nm,0.2s								
GLA	**Glamis**	**1.68**	**25**		Pn		**Pn**	**01 11 13.8**	**+0.7**
GLA					IAML			01 11 38.0	
	comp=E,48nm,0.5s								
GLA					IAML			01 11 38.5	
	comp=N,25nm,0.6s								
DPP	**Dos Picos Cty**	**1.82**	**324**		Pn		**Pn**	**01 11 16.1**	**+1.1**
DPP					IAML			01 11 41.1	
	comp=N,45nm,0.1s								
MATG	**Mataguay Scout**	**1.86**	**334**				**Pn**	**01 11 16.2**	**+0.6**
PIX	**Pinacate**	**1.89**	**88**		Pn		**Pn**	**01 11 14.6**	**-1.3**
113A	**Mohawk Valley,**	**2.04**	**52**		Pn		**Pn**	**01 11 16.9**	**-1.1**
PLM	**Palomar**	**2.08**	**332**				**Pn**	**01 11 19.8**	**+1.1**
BC3	**Big Chuckawall**	**2.13**	**5**		Pn		**Pn**	**01 11 18.9**	**-0.4**
BZNA	**Buzz No.'s Pla**	**2.13**	**337**				**Pn**	**01 11 19.8**	**+0.5**
PFO	**Pinyon Flats O**	**2.18**	**343**		Pn		**Pn**	**01 11 19.8**	**-0.2**
DNR	**Dunn Ranch,Anz**	**2.19**	**339**		Pn		**Pn**	**01 11 20.2**	**+0.1**
PMD	**Palm Desert**	**2.20**	**345**		Pn		**Pn**	**01 11 20.1**	**0.0**
PMD					IAML			01 11 54.6	
	comp=E,16nm,0.4s								
CRY	**Cary Ranch**	**2.22**	**337**				**Pn**	**01 11 21.1**	**+0.5**
ELS	**Elsinore Mount**	**2.58**	**326**		Pn		**Pn**	**01 11 26.4**	**+1.0**
ELS					IAML			01 12 08.0	
	comp=N,12nm,0.7s								
ELS					IAML			01 12 08.6	
	comp=E,18nm,0.5s								
BFSC	**Mount Baldy Ra**	**3.18**	**329**		Pn		**Pn**	**01 11 32.6**	**-1.1**
PASC	**Pasadena Art C**	**3.38**	**322**		IAML			01 13 04.3	
	comp=N,7.8nm,4.6s								
PASC					IAML			01 13 44.2	
	comp=E,8.3nm,4.0s								
X16A	**Lo Mia Camp, P**	**4.58**	**50**		Pn		**Pn**	**01 11 53.1**	**0.0**

*SDD **02** 01:12:31.5±1.7, 18.26N×71.49W, h12km±5km, MD2.5, ML2.0, MW2.3, Presumed earthquake*
*OSPL **02** 01:12:31.5±0.5, 18.36N×71.26W, h16km±3km, ML2.0, Presumed earthquake*
ISC 02 01:12:31.1±1.0, 18.34N±0.04×71.29W±0.05, h18km±5km, n11, σ1963/16, 9C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.17**	**178**	⇑	*iP*		**Pg**	**01 12 35.7**	**-0.2**
PODR				⇑	*iS*		**Sg**	**01 12 39.4**	**+0.3**
PODR					IAML			01 12 40.4	
	comp=N,263nm,0.2s								
PODR	**Polo**	**0.17**	**178**		*iP*		**Pg**	**01 12 35.7**	**-0.2**
PODR						*eS*	**Sg**	**01 12 39.3**	**+0.3**
PODR					IAML			01 12 39.9	
	comp=Z,4μm,0.2s								
LODU1	**El Espartillar**	**0.18**	**274**		*iP*		**Pg**	**01 12 35.8**	**+0.1**
LODU1						*eS*	**Sg**	**01 12 39.3**	**+0.4**
LODU1					IAML			01 12 39.9	
	comp=Z,228nm,0.6s								
NEDR	**Neiba UASD**	**0.19**	**319**	⇑	*iS*		**Sg**	**01 12 39.8**	**+0.7**
LONE3	**El Aguacate, B**	**0.31**	**328**		*iP*		**Pg**	**01 12 37.8**	**-0.1**
LONE3					IAML			01 12 44.7	
	comp=Z,22nm,0.7s								
LOVI	**El Cajuil, Ovi**	**0.55**	**188**		*iP*		**Pg**	**01 12 41.9**	**-0.1**
JIDR	**Jimani**	**0.56**	**286**	⇑	*iS*		**Sg**	**01 12 45.8**	**-3.9**
LOBH	**Bahia de las A**	**0.58**	**215**		*iP*		**Pg**	**01 12 42.6**	**-0.1**
LOBH					IAML			01 12 56.3	
	comp=Z,47nm,1.2s								
SDDR	**Presa de Saban**	**0.64**	**360**	⇑	*iS*		**Sn**	**01 12 54.2**	**-0.8**
REDR	**Restauracion**	**0.83**	**353**	⇑	*iP*		**Pn**	**01 12 48.3**	**+0.4**
REDR				⇑	*iS*		**Sn**	**01 13 03.0**	**+3.5**
HATOM	**Hato Mayor del**	**1.86**	**76**	⇑	*iP*		**Pb**	**01 13 04.1**	**-0.5**
HATOM				⇑	*iS*		**Sg**	**01 13 29.5**	**-1.7**

*TAP **02** 01:14:09.8, 22.52N×121.14E, h33km, ML3.7, B*
ISC 02 01:14:08.1±1.1, 22.48N±0.02×121.20E±0.02, h14km±9km, n120, σ1914/182, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ECL	**Taimali**	**0.25**	**298**		*iP*		**Pn**	**01 14 16.1**	**-1.3**
ECL					*iS*		**Sb**	**01 14 20.6**	**+1.9**
TTN	**Taitung**	**0.28**	**351**		*eP*		**Pn**	**01 14 17.1**	**-0.6**
TAW	**Tawu**	**0.30**	**247**		*iP*		**Pn**	**01 14 17.2**	**-0.9**
TAW						S	**Sb**	**01 14 22.4**	**+2.3**
TAWH	**Dawu Township**	**0.32**	**244**		*iP*		**Pn**	**01 14 17.3**	**-1.0**
TAWH					*iS*		**Sb**	**01 14 22.4**	**+1.9**
LDUT	**Ludao**	**0.32**	**53**		*iP*		**Pn**	**01 14 18.0**	**-0.3**
LDUT					*iS*		**Sb**	**01 14 24.4**	**+3.8**
EAST	**Anshuo**	**0.34**	**254**		*iP*		**Pn**	**01 14 17.5**	**-1.1**
EAST						S	**Sb**	**01 14 23.0**	**+1.9**
TWGBT	**Beinan**	**0.35**	**342**			P	**Pb**	**01 14 16.9**	**+0.7**
TWGBT	**Beinan**	**0.35**	**342**			S	**Sb**	**01 14 21.3**	**-0.3**
TWGBT	**Beinan**	**0.35**	**342**			P	**Pb**	**01 14 17.2**	**+1.1**
TWGBT	**Beinan**	**0.35**	**342**			S	**Sb**	**01 14 22.5**	**+0.9**
TWGBT	**Beinan**	**0.35**	**342**		*iP*		**Pb**	**01 14 17.3**	**+1.1**
TWGBT					*iS*		**Sb**	**01 14 22.6**	**+0.9**
TWG	**Pinlang**	**0.36**	**342**		*iP*		**Pb**	**01 14 17.3**	**+1.0**
TWG					*iS*		**Sb**	**01 14 22.6**	**+0.8**
LONT	**Longtian**	**0.43**	**352**		P		**Pb**	**01 14 18.5**	**+1.0**
LONT					*iS*		**Sb**	**01 14 24.4**	**+0.6**
SLIU	**Shizi**	**0.45**	**235**		P		**Pn**	**01 14 19.0**	**-1.2**
EDH	**Donghe**	**0.50**	**12**		*iP*		**Pb**	**01 14 19.7**	**+1.0**
EDH					*iS*		**Sb**	**01 14 26.9**	**+1.0**
MASBT	**Mashibuluo**	**0.54**	**284**		*iP*		**Pn**	**01 14 20.5**	**-0.9**
MASBT						S	**Sb**	**01 14 27.8**	**+0.9**
SCZT	**Fangliau**	**0.54**	**259**		P		**Pn**	**01 14 21.6**	**+0.2**
SCZT						S	**Sb**	**01 14 28.2**	**+1.2**
LAY	**Lan-yu**	**0.55**	**143**		*eP*		**Pn**	**01 14 21.1**	**-0.4**
LAY					*eS*		**Sb**	**01 14 28.1**	**+0.9**
SMST	**Manzhou Townsh**	**0.56**	**216**		P		**Pn**	**01 14 20.9**	**-0.7**
SMST					*eS*		**Sb**	**01 14 28.5**	**+0.9**
SSPT	**Xinbi**	**0.58**	**271**		P		**Pn**	**01 14 21.3**	**-0.6**
SSD	**Sandimen**	**0.58**	**297**		P		**Pn**	**01 14 21.0**	**+0.9**
SSD					S		**Sb**	**01 14 29.2**	**+0.9**
LYUB	**Lan-yu**	**0.60**	**143**		*iP*		**Pb**	**01 14 20.6**	**+0.3**
LYUB					*iS*		**Sb**	**01 14 28.6**	**0.0**
ECS	**Chishang**	**0.61**	**2**		S		**Sb**	**01 14 29.9**	**+0.8**
HEN	**Hengchun**	**0.63**	**222**		*eP*		**Pn**	**01 14 22.5**	**-0.2**
HEN					*eS*		**Sn**	**01 14 31.9**	**-0.6**
CHKT	**Chengkung**	**0.64**	**14**		P		**Pb**	**01 14 21.6**	**+0.6**
CHKT					S		**Sb**	**01 14 30.6**	**+0.9**
TWKBT	**Hengchun**	**0.64**	**214**		*eP*		**Pn**	**01 14 22.3**	**-0.5**
TWK1	**Hengchun**	**0.64**	**214**		*eP*		**Pn**	**01 14 22.2**	**-0.6**
EHD	**Haiduan**	**0.67**	**1**		*eP*		**Pb**	**01 14 21.6**	**+0.1**
EHD					*eS*		**Sg**	**01 14 29.7**	**-0.2**
TSPT	**Pingtung City**	**0.68**	**287**		S		**Sb**	**01 14 32.0**	**+1.1**
SGLT	**Jiouru**	**0.69**	**291**		*eS*		**Sn**	**01 14 34.4**	**+0.3**
SLGT	**Liugui**	**0.72**	**315**		P		**Pn**	**01 14 24.0**	**+0.1**
SLGT					S		**Sb**	**01 14 33.9**	**+1.7**
FULB	**Fuli**	**0.72**	**7**		P		**Pb**	**01 14 22.7**	**+0.2**
FULB					*eS*		**Sb**	**01 14 33.0**	**+0.7**
ELDTW	**Lidau**	**0.73**	**347**		*eP*		**Pn**	**01 14 24.1**	**+0.1**
CHKH	**Chenggong**	**0.73**	**15**		*eP*		**Pb**	**01 14 22.8**	**+0.2**
CHKH					S		**Sg**	**01 14 32.5**	**+0.5**
SCST	**Cishan**	**0.76**	**302**		P		**Pn**	**01 14 25.1**	**+0.7**
TWP	**Hsiaoliuchiu**	**0.78**	**260**		*eS*		**Sn**	**01 14 38.9**	**+2.7**
STYH	**Taoyuan**	**0.79**	**331**		P		**Pn**	**01 14 25.3**	**+0.5**
STYH					*eS*		**Sb**	**01 14 34.8**	**+0.6**
STYT	**Tauyuan**	**0.79**	**329**		*eP*		**Pn**	**01 14 24.8**	**-0.1**
TWM1	**Shoushan**	**0.79**	**296**		P		**Pn**	**01 14 25.9**	**+1.0**
TWM1					*eS*		**Sn**	**01 14 37.5**	**+0.9**
SGST	**Jiashian**	**0.82**	**317**		*eP*		**Pn**	**01 14 25.1**	**-0.2**
SGST					*eS*		**Sn**	**01 14 36.8**	**-0.5**
ECBN	**Changbin**	**0.87**	**16**		*eS*		**Sg**	**01 14 36.1**	**-0.1**
EYUL	**Yuli**	**0.87**	**8**		P		**Pb**	**01 14 25.6**	**+0.5**
EYUL					*eS*		**Sg**	**01 14 36.9**	**+0.4**
TWF1	**Yuli**	**0.87**	**6**		*eP*		**Pg**	**01 14 24.4**	**-0.6**
WSSB	**Gushan**	**0.88**	**281**		P		**Pn**	**01 14 27.9**	**+1.9**
YULB	**Yu-li**	**0.91**	**6**		P		**Pb**	**01 14 26.1**	**+0.3**
YULB	**Yu-li**	**0.91**	**6**		P		**Pb**	**01 14 26.2**	**+0.4**
YULB	**Yu-li**	**0.91**	**6**		*eP*		**Pg**	**01 14 24.4**	**-1.4**
WTP	**Ta-pu**	**0.93**	**325**		*eP*		**Pn**	**01 14 27.4**	**+0.6**
WTP						S	**Sn**	**01 14 40.5**	**+0.5**
CHN1	**Nanshi**	**0.93**	**319**		*iP*		**Pn**	**01 14 27.8**	**+0.9**
CHN1						S	**Sn**	**01 14 40.4**	**+0.4**
CHN3	**Shinhua**	**0.97**	**308**		*eS*		**Sn**	**01 14 42.9**	**+2.0**
TPUB	**Ta-pu**	**0.97**	**328**		P		**Pn**	**01 14 27.8**	**+0.5**
TPUB	**Ta-pu**	**0.97**	**328**		S		**Sb**	**01 14 40.2**	**+0.8**
TPUB	**Ta-pu**	**0.97**	**328**		P		**Pn**	**01 14 27.5**	**+0.2**
TPUB	**Ta-pu**	**0.97**	**328**		S		**Sg**	**01 14 39.0**	**-0.6**
TPUB	**Ta-pu**	**0.97**	**328**		P		**Pn**	**01 14 27.8**	**+0.5**
TPUB					S		**Sn**	**01 14 41.0**	**0.0**
EHYH	**Wanrong**	**1.02**	**8**		*eP*		**Pb**	**01 14 26.7**	**-0.9**
TWK	**Hsinying**	**1.02**	**320**		P		**Pn**	**01 14 28.6**	**+0.5**
TWK					*eS*		**Sn**	**01 14 42.2**	**0.0**
EHY	**Hungye**	**1.03**	**6**		*eP*		**Pn**	**01 14 28.7**	**+0.6**
HGSD	**Ruisui**	**1.03**	**12**		*eP*		**Pb**	**01 14 27.5**	**-0.2**
YUS	**Yu-Shan**	**1.03**	**347**		*eP*		**Pn**	**01 14 29.2**	**+0.6**
CHN4	**Tsaushan**	**1.03**	**328**		*eP*		**Pn**	**01 14 29.0**	**+0.8**
CHN4					*eS*		**Sn**	**01 14 43.2**	**+0.8**
ALS	**Alishan**	**1.09**	**341**		*eP*		**Pn**	**01 14 30.1**	**+0.9**
ALS					*eS*		**Sb**	**01 14 43.6**	**+0.6**
WCKO	**Fanlu**	**1.10**	**330**		*eP*		**Pn**	**01 14 30.1**	**+1.0**
WCKO					S		**Sn**	**01 14 44.7**	**+0.6**
SCLT	**Jiali**	**1.16**	**307**		*eS*		**Sn**	**01 14 47.2**	**+1.8**
CHN5	**Tsauling**	**1.21**	**337**		*eP*		**Pg**	**01 14 31.5**	**+0.1**
CHN5					S		**Sn**	**01 14 48.0**	**+1.1**
TSCK	**Chigu Township**	**1.22**	**303**		*eP*		**Pn**	**01 14 31.4**	**-0.2**
TSCK					*eS*		**Sg**	**01 14 47.6**	**+0.1**
CHY	**Chiayi**	**1.24**	**325**		*eP*		**Pb**	**01 14 31.6**	**+0.4**
CHY					*eS*		**Sb**	**01 14 46.9**	**-0.2**
WARBT	**Fenglin Townsh**	**1.25**	**8**		*eP*		**Pn**	**01 14 29.4**	**-1.7**
WHYT	**Xinyi Township**	**1.25**	**345**		P		**Pg**	**01 14 32.4**	**+0.2**
WHYT					*eS*		**Sg**	**01 14 48.8**	**+0.2**
SSLB	**Suanglung**	**1.32**	**350**		P		**Pb**	**01 14 33.2**	**+0.5**
SSLB	**Suanglung**	**1.32**	**350**		P		**Pn**	**01 14 32.6**	**+0.4**
SSLB	**Suanglung**	**1.32**	**350**		S		**Sb**	**01 14 48.4**	**-1.1**
SSLB	**Suanglung**	**1.32**	**350**		*eP*		**Pb**	**01 14 32.9**	**+0.2**
SSLB					*eS*		**Sg**	**01 14 51.6**	**+0.8**
WGK	**Gukeng**	**1.34**	**334**		*eS*

BIDO	Bidbid	7.83	260	P		Pn	01 19 04.8	+1.8
	SNR=7.7							
JASK	Jask - Hormozg	7.87	277	P		Pn	01 19 05.5	+2.1
JASK				S		Sn	01 20 31.1	-1.5
SMDO	Samad	8.02	257	P		Pn	01 19 06.7	+1.0
	SNR=5.8							
SMDO				S		Sn	01 20 34.9	-1.7
JMDO	Jabal Madar	8.19	252	P		Pn	01 19 10.2	+2.2
	SNR=81							
JMDO				S		Sn	01 20 37.9	-2.8
HOQ	Hoqain	8.55	262	P		Pn	01 19 14.9	+2.0
BSY	Bisya	8.86	256	P		Pn	01 19 19.0	+1.8
	SNR=16							
SOHO	SOHO	9.15	266	P		Pn	01 19 21.9	+0.8
SOHO	SOHO	9.15	266	P		Pn	01 19 21.9	+0.8
SOHO				S		Sn	01 20 59.3	-4.9
MDH	Madha	9.27	273	P		Pn	01 19 21.6	-1.1
MDH	Madha	9.27	273	P		Pn	01 19 23.6	+0.9
MDH				S		Sn	01 20 59.2	-8.0
BANOM	Banah	9.28	277	P		Pn	01 19 24.3	+1.4
BANOM	Banah	9.28	277	P		Pn	01 19 26.5	+3.6
ARQ	Araqi	9.31	261	P		Pn	01 19 26.1	+2.8
	SNR=15							
ARQ				S		Sn	01 21 06.6	-1.6
UOSS	Minazif	9.37	271	*i* P		Pn	01 19 22.8	-1.3
	SNR=7.1							
UOSS	Minazif	9.37	271	P		Pn	01 19 25.5	+1.4
UOSS				S		Sn	01 21 01.6	-8.0
UOSS	Minazif	9.37	271			Pn	01 19 23.7	-0.4
MSFE	Esma-Masafi	9.39	274	P		Pn	01 19 26.2	+1.7
MASF	Masafi	9.39	274	P		Pn	01 19 27.8	+3.3
MASF				S		Sn	01 21 01.3	-9.0
SHME	Shamm	9.43	278	*i* P		Pn	01 19 25.8	+0.9
	SNR=15							
SHME	Shamm	9.43	278	P		Pn	01 19 26.7	+1.9
HATD	Hatta, Dubai	9.44	270	*i* P		Pn	01 19 25.5	+0.4
	SNR=13							
HATD	Hatta, Dubai	9.44	270	P		Pn	01 19 28.3	+3.2
ASHO	Ashiyiah	9.52	270	*i* P		Pn	01 19 28.6	+2.3
	SNR=16							
ASHO	Ashiyiah	9.52	270	P		Pn	01 19 28.5	+2.3
KBL	Kabul	9.63	12	P		Pn	01 19 26.8	-1.1
KBL	Kabul	9.63	12	Pn		Pn	01 19 26.8	-1.1
NAZ	Nazwa, Dubai	9.86	272	P		Pn	01 19 33.9	+3.1
NAZ	Nazwa, Dubai	9.86	272	P		Pn	01 19 34.1	+3.3
	SNR=5.8							
ALNE	Al Ain	9.87	266	P		Pn	01 19 33.3	+2.3
ALNE	Al Ain	9.87	266	P		Pn	01 19 33.7	+2.7
	SNR=7.2							
ALNE				S		Sn	01 21 19.8	-2.1
FAQ	Al Faqa, Dubai	9.94	270	P		Pn	01 19 35.3	+3.4
FAQ	Al Faqa, Dubai	9.94	270	P		Pn	01 19 35.0	+3.1
FAQ				S		Sn	01 21 22.1	-1.5
ASUD	Al Ashush, Dub	10.19	270	P		Pn	01 19 37.9	+2.6
ASUD	Al Ashush, Dub	10.19	270	P		Pn	01 19 38.8	+3.5
ASUD				S		Sn	01 21 27.8	-1.8
NIL	Nilore	10.31	33	P		Pn	01 19 35.4	-1.7
NIL	Nilore	10.31	33	Pn		Pn	01 19 35.4	-1.7
UMZA	Um Al Zommool	10.68	259	P		Pn	01 19 43.9	+1.9
UMZA				S		Sn	01 21 39.4	-2.3
MZR	Muzera	12.11	263	P		Pn	01 20 03.5	+1.7
MZR	Muzera	12.11	263	P		Pn	01 20 03.7	+2.0
BTK	Batken	15.32	13	P		Pn	01 20 43.6	-1.7
BTK				pmax		pmax		
	comp=Z,19nm,0.4s							
BTK	Batken	15.32	13	Pn		Pn	01 20 43.6	-1.7
KSH2	Kashi	15.92	26	P		Pn	01 20 53.5	+0.2
ARSB	Arslanbob	17.02	17	P		Pn	01 21 05.2	-2.1
ARSB				pmax		pmax		
	comp=Z,23nm,0.7s							
ARSB	Arslanbob	17.02	17	Pn		Pn	01 21 05.2	-2.1
ARSB				IAmb		IAmb	01 21 11.4	
	comp=Z,23nm,0.7s							
NRN	Naryn	18.07	24	P		Pn	01 21 18.2	-2.2
NRN				pmax		pmax		
	comp=Z,16nm,1.0s							
NRN	Naryn	18.07	24			Pn	01 21 18.2	-2.2
KK31	Karatay Array	18.23	9	P		Pn	01 21 21.1	-1.1
	comp=Z,4.3nm,0.6s,baz=195,slow=12,SNR=36							
KK31	Karatay Array	18.23	9	P		Pn	01 21 21.0	-1.1
KK31				pmax		pmax		
	comp=Z,6.0nm,0.6s							
KK31	Karatay Array	18.23	9	P		Pn	01 21 21.0	-1.1
KKAR	Karatay Array	18.23	9	P		Pn	01 21 17.7	-4.4
KKAR	Karatay Array	18.23	9	Pn		Pn	01 21 17.7	-4.4
EVN	Everest	18.37	77	Pn		P	01 21 24.5	-0.1
AAK	Ala-Archa	18.66	19	P		P	01 21 26.4	-0.8
	comp=Z,0.6nm,0.3s,baz=208,slow=13,SNR=16							
AAK				Sn		Sn	01 24 39.2	-17
	baz=189,slow=13							
AAK				LR		LR	01 29 54.9	
	comp=Z,193nm,20.3s,baz=221,slow=42							
	comp=Z,3.8nm,0.7s							
AAK				AML		AML		
AAK	Ala-Archa	18.66	19	⇑P		P	01 21 26.5	-0.8
	comp=Z,43nm,1.8s							
AAK	Ala-Archa	18.66	19	*i* P		P	01 21 25.7	-1.5
	SNR=16							
AAK	Ala-Archa	18.66	19	P		P	01 21 26.2	-1.0
AAK				pmax		pmax		
	comp=Z,19nm,1.3s							
AAK	Ala-Archa	18.66	19	P		P	01 21 26.1	-1.0
BOOM	Boomskoye usch	18.98	22	P		P	01 21 29.2	-1.5
BOOM				pmax		pmax		
	comp=Z,21nm,1.3s							
BOOM	Boomskoye usch	18.98	22	P		P	01 21 29.2	-1.5
BOOM				IAmb		IAmb	01 21 35.1	
	comp=Z,21nm,1.3s							
TARG	Taragay, Kyrgy	19.02	27	P		P	01 21 29.8	-1.6
TARG				pmax		pmax		
	comp=Z,10.0nm,1.0s							
TARG	Taragay, Kyrgy	19.02	27	P		P	01 21 29.8	-1.6
WUS	Wushi	19.19	30	P		P	01 21 31.5	-1.5
RAYN	Ar Rayn	19.23	270	P		Pn	01 21 34.8	+0.3
RAYN	Ar Rayn	19.23	270	P		P	01 21 32.4	-1.1
RAYN				pmax		pmax		
	comp=Z,3.0nm,0.8s							
RAYN	Ar Rayn	19.23	270	P		P	01 21 32.4	-1.1
PRZ	Przheval'sk	19.89	27	P		P	01 21 40.2	-0.5
PRZ				pmax		pmax		
	comp=Z,14nm,0.9s							
PRZ	Przheval'sk	19.89	27	P		P	01 21 40.2	-0.5
PRZ				IAmb		IAmb	01 22 09.2	
	comp=Z,14nm,0.9s							
LKRN	Lenkeran, Azer	20.21	316	P		P	01 21 44.0	0.0
PDGK	Podgornoye	21.04	27	P		P	01 21 50.5	-2.6
PDGK	Podgornoye	21.04	27	P		P	01 21 50.5	-2.6
PALK	Pallekele	22.33	140	LR		LR	01 30 55.9	
	comp=Z,96nm,18.6s,baz=328,slow=37							
MNGR	Mingechevir, A	22.50	319	P		P	01 22 08.6	-0.1
NAX	Nakhchivan	22.59	313	P		P	01 22 09.5	-0.2
SEKA	Sheki	22.71	320	P		P	01 22 10.1	-0.8
GANJ	Ganja	22.89	317	P		P	01 22 12.7	-0.1
SHL	Shillong	22.91	83	P		P	01 22 10.3	-3.1
SHL				pmax		pmax		
	comp=Z,10.0nm,0.3s							
SHL	Shillong	22.91	83	P		P	01 22 10.2	-3.1
BRDH	Bariadhala	23.08	91	LR		LR	01 32 13.0	
	comp=Z,174nm,18.2s,baz=341,slow=39							
GNI	Garni	23.60	315	*i* P		P	01 22 20.0	-0.2
AB31	Akbulak array	24.63	350	*e*P		P	01 22 30.3	+0.8
AB31	Akbulak array	24.63	350	P		P	01 22 29.4	-0.1
ABKAR	Akbulak array	24.63	350	P		P	01 22 28.7	-0.8
MAKZ	Makanchi	24.90	26	P		P	01 22 31.9	-0.1
MAKZ				pmax		pmax		
	comp=Z,10.0nm,0.7s							
MAKZ	Makanchi	24.90	26	P		P	01 22 31.9	-0.1
MAKZ				IAmb		IAmb	01 22 33.7	
	comp=Z,9.9nm,0.7s							
MK31	Makanchi Array	25.01	26	*i* P		P	01 22 33.4	+0.4
MKAR	Makanchi Array	25.01	26	P		P	01 22 33.4	+0.3
	comp=Z,5.1nm,0.8s,baz=209,slow=7.8,SNR=28							
	comp=Z,5.1nm,0.8s							
MKAR	Makanchi Array	25.01	26	*ce*P		P	01 22 33.9	+0.9
MKAR				pmax		pmax		
	comp=Z,5.0nm,0.8s							
MKAR	Makanchi Array	25.01	26	P		P	01 22 32.2	-0.9
WMQ	Urumqi	25.41	38	*e*P		P	01 22 37.1	+0.3
WMQ				LR		LR		
	comp=Z,120nm,24.1s							
AKTO	Aktyubinsk	26.11	348	P		P	01 22 43.7	+0.8
KBZ	Khabaz	26.76	320	P		P	01 22 51.2	+2.3
	comp=Z,2.5nm,0.7s,baz=114,slow=16,SNR=7.3							
	comp=Z,2.5nm,0.7s							
KBZ	Khabaz	26.76	320	*i* P		P	01 22 49.0	+0.1
KBZ				pmax		pmax		
	comp=Z,5.0nm,0.9s							
ASF	Jabal al Asfar	26.88	292	LR		LR	01 35 27.6	
	comp=Z,52nm,18.9s,baz=106,slow=41							
SHA1	Shidzhatmaz	26.91	320	*e*P		P	01 22 52.1	+1.6
KIV	Kislovodsk	27.02	320	*e*P		P	01 22 52.1	+0.8
KIV				pmax		pmax		
	comp=Z,6.0nm,1.1s							
KURBB	Kurchatov Arra	27.09	17	P		P	01 22 52.4	+0.7
	comp=Z,6.9nm,0.6s,baz=210,slow=9.0,SNR=19							
KURBB				LR		LR	01 35 16.4	
	comp=Z,149nm,21.3s,baz=186,slow=40							
	comp=Z,6.9nm,0.6s							
KURBB	Kurchatov Arra	27.09	17	P		P	01 22 52.7	+1.0
KURK	Kurchatov	27.20	17	*ce*P		P	01 22 54.4	+1.7
KURK				pmax		pmax		
	comp=Z,23nm,1.7s							
KURK	Kurchatov	27.20	17	P		P	01 22 49.8	-2.8
KURK				IAmb		IAmb	01 22 56.5	
	comp=Z,8.8nm,0.7s							
BVAR	Borovoye Array	28.01	5	P		P	01 23 00.8	+0.8
	comp=Z,2.0nm,0.5s,baz=183,slow=12,SNR=11							
	comp=Z,2.0nm,0.5s							
BORK	Borovoye	28.03	5	*i* P		P	01 23 00.8	+0.7
BORK				pmax		pmax		
	comp=Z,22nm,3.2s							
BORK	Borovoye	28.03	5	P		P	01 22 58.8	-1.3
BORK				IAmb		IAmb	01 23 06.6	
	comp=Z,17nm,1.5s							
PBA	Port Blair	28.18	114	P		P	01 22 57.5	-4.3
MMAI	Mount Meron Ar	28.25	293	LR		LR	01 37 40.7	
	comp=Z,110nm,18.3s,baz=105,slow=44							
EIL	Elat	28.35	286	LR		LR	01 37 33.2	
	comp=Z,95nm,18.1s,baz=69,slow=43							
DGZ	Jazzator, Alta	29.42	28	*i* P		P	01 23 12.9	+0.1
DGZ				pmax		pmax		
	comp=Z,5.0nm,1.5s							
CMAR	Chiang Mai Arr	30.77	96	LR		LR	01 37 05.3	
	comp=Z,70nm,18.6s,baz=285,slow=39							
CMAR	Chiang Mai Arr	30.77	96	*ce*P		P	01 23 24.1	-0.7
CMAR				pmax		pmax		
	comp=Z,2.0nm,0.3s							
GTA2	Gaotai	31.32	55	*e*P		P	01 23 31.9	+2.2
GTA2				pP		sP	01 23 34.9	+0.9
GTA2				pmax		pmax		
	comp=Z,2.0nm,1.1s							
ARTI	Arti	31.79	351	LR		LR	01 38 28.9	
	comp=Z,82nm,18.7s,baz=201,slow=40							
ZAA0	Zalesovo Array	31.86	21	P		P	01 23 32.0	-2.0
ZAA0				IAmb		IAmb	01 23 35.3	
	comp=Z,3.5nm,0.8s							
ZALV	Zalesovo Beam	31.86	21	P		P	01 23 33.9	-0.1
	comp=Z,2.9nm,0.7s,baz=215,slow=10,SNR=14							
ZALV				PcP		PcP	01 26 28.5	+3.9
	comp=Z,0.5nm,0.5s,baz=191,slow=1.5,SNR=1.9							
ZALV				LR		LR	01 38 20.8	
	comp=Z,91nm,18.4s,baz=229,slow=40							
	comp=Z,2.9nm,0.7s							
ZALV	Zalesovo Beam	31.86	21	*i* P		P	01 23 34.5	+0.5
ZALV				pmax		pmax		
	comp=Z,3.0nm,0.7s							
ZALV	Zalesovo Beam	31.86	21	P		P	01 23 32.6	-1.4
KNGR	Kungurtug, Tuv	34.85	35	*i* P		P	01 24 01.1	+0.8
KNGR				pmax		pmax		
	comp=Z,6.0nm,1.1s							
KIRV	Kirov	35.56	345	*i* P		P	01 24 07.1	+1.0
IDI	Anoyia	37.15	296	LR		LR	01 42 36.8	
	comp=Z,71nm,19.1s,baz=88,slow=41							
AKASG	Malin Array Be	38.34	322	P		P	01 24 30.1	+0.3
	comp=Z,0.8nm,0.5s,baz=118,slow=7.6,SNR=4.6							
	comp=Z,0.8nm,0.5s							
AKASG	Malin Array Be	38.34	322	*i* P		P	01 24 31.2	+1.3
AKASG				pmax		pmax		
	comp=Z,1.0nm,0.4s							
KIEV	Kiev	38.34	322	P		P	01 24 30.5	+0.6
KIEV				pmax		pmax		
	comp=Z,9.0nm,1.4s							
KIEV	Kiev	38.34	322	P		P	01 24 30.5	+0.6
KIEV				IAmb		IAmb	01 24 46.5	
	comp=Z,8.5nm,1.4s							
SONM	Songino Array	38.66	44	P		P	01 24 34.2	+1.4
	comp=Z,1.4nm,0.5s,baz=241,slow=9.2,SNR=6.4							
SONM				LR		LR	01 42 30.3	
	comp=Z,67nm,19.1s,baz=198,slow=40							
	comp=Z,1.4nm,0.5s							
SONM	Songino Array	38.66	44	P		P	01 24 33.0	+0.2
SONM				pmax		pmax		
	comp=Z,6.0nm,1.4s							
SONM	Songino Array	38.66	44	P		P	01 24 33.0	+0.2
BURAR	Bucovina Array	39.50	315	P		P	01 24 38.3	-1.5
BURAR				pmax		pmax		
	comp=Z,3.0nm,0.9s							
BURAR	Bucovina Array	39.50	315	P		P	01 24 38.4	-1.5
BUR08	Bucovina Ar. S	39.52	315	P		P	01 24 41.4	+1.4
BUR08				IAmb		IAmb	01 25 00.1	
	comp=Z,6.9nm,1.2s							
HHC	Hu-ho-hao-te	40.44	56	*e*P		P	01 24 47.2	-0.5
HHC				pmax		pmax		
	comp=Z,8.0nm,0.6s							
KOLS	Kolonicke sedl	41.79	316	*e*P		P	01 25 10.4	+12
KOLS				pmax		pmax		
	comp=Z,2.0nm,1.3s							
KOLS	Kolonicke sedl	41.79	316	*e*P		P	01 25 10.4	+12
FINES	FINESS Array B	45.43	334	P		P	01 25 28.0	+0.2
	comp=Z,3.1nm,0.8s,baz=127,slow=8.2,SNR=6.2							
	comp=Z,3.1nm,0.8s							
FINES	FINESS Array B	45.43	334	*i* P		P	01 25 28.3	+0.6
FINES				pmax		pmax		
	comp=Z,4.0nm,0.9s							
FINES	FINESS Array B	45.43	334	P		P	01 25 27.0	-0.7
NRIK	Noril'sk	45.97	10	P		P	01 25 31.8	-0.1
	comp=Z,2.8nm,0.6s,baz=191,slow=7.5,SNR=7.6							
NRIK				LR		LR	01 47 12.1	
	comp=Z,70nm,21.5s,baz=270,slow=39							
	comp=Z,2.8nm,0.6s							
NRIK	Noril'sk	45.97	10	*i* P		P	01 25 32.5	+0.6
NRIK				pmax		pmax		
	comp=Z,5.0nm,0.9s							
ABNA	Allensteig Bun	46.09	314	*i* pP		P	01 25 35.1	+1.9
	comp=Z,3.2nm,0.8s							
NJ2	Nanjing	46.09	69	*e*P		P	01 25 32.0	-1.4
NJ2				pmax		pmax		
	comp=Z,12nm,0.5s							
SABO	M.te Sabotino	46.87	310	P		P	01 25 39.3	-0.1
SABO				IAmb		IAmb	01 25 49.1	
	comp=Z,6.5nm,1.5s							
GERES	GERESS Array B	47.25	314	P		P	01 25 43.3	+0.9
	comp=Z,0.4nm,0.6s,baz=95,slow=7.8,SNR=2.3							
	comp=Z,0.4nm,0.6s							
GERES	GERESS Array B	47.25	314	P		P	01 25 41.9	-0.5
LESA	Schwarzleotal	47.70	312	*e*pP		P	01 25 46.9	+1.0
	comp=Z,3.6nm,0.8s							
ABTA	Abfaltersbach	47.72	311	*i* pP		P	01 25 47.0	+0.9
	comp=Z,2.8nm,0.9s							
WTTA	Wattenberg	48.38	312	*e*pP		P	01 25 51.9	+0.7
	comp=Z,6.9nm,1.6s							
RETA	Reutte	48.99	312	*i* pP		P	01 25 56.5	+0.7
	comp=Z,6.2nm,1.6s							
FUORN	Ofenpass-Fuorn	49.24	311	P		P	01 25 57.2	-0.7
FUORN				IAmb		IAmb	01 26 33.3	
	comp=Z,4.8nm,1.3s							
TUE	Stuetta	49.86	311	P		P	01 26 01.6	-1.0
TUE				IAmb		IAmb	01 26 05.6	
	comp=Z,3.4nm,0.8s							
HFS	Hagfors	50.23	329	LR		LR	01 50 33.4	
	comp=Z,125nm,19.8s,baz=264,slow=40							
ARCES	ARCESS Array B	50.52	343	P		P	01 26 07.2	+0.1
	comp=Z,1.6nm,0.7s,baz=134,slow=8.1,SNR=7.9							
	comp=Z,1.6nm,0.7s							
ARCES	ARCESS Array B	50.52	343	P		P	01 26 07.5	+0.4
ARCES				pmax		pmax		
	comp=Z,26nm,1.5s							
ARCES	ARCESS Array B	50.52	343	P		P	01 26 07.5	+0.4
SENIN	Lac Senin/Sane	51.26	310	P		P	01 26 12.8	-0.5
SENIN				IAmb		IAmb	01 26 18.9	
	comp=Z,9.4nm,1.3s							
BNI	Bardonecchia	51.64	309	P		P	01 26 15.5	-0.5
BNI				pmax		pmax		
	comp=Z,7.0nm,1.4s							
BNI	Bardonecchia	51.64	309	P		P	01 26 15.5	-0.5
BNI				IAmb		IAmb	01 26 30.9	
	comp=Z,7.5nm,1.4s							
NOA	NORSAR Array B	51.69	329	P		P	01 26 15.9	0.0
	comp=Z,2.3nm,1.1s,baz=115,slow=10,SNR=1.6							
	comp=Z,2.3nm,1.1s							
KSRS	Korea Array	53.05	61	P		P	01 26 26.5	+0.1
	comp=Z,1.2nm,0.5s,baz=271,slow=6.9,SNR=5.1							
KSRS				LR		LR	01 51 25.8	
	comp=Z,36nm,19.5s,baz=10.0,slow=39							
	comp=Z,1.2nm,0.5s							
KLR	Kul'dur	55.39	46	*i* P		P	01 26 42.7	-0.6
KLR				pmax		pmax		
	comp=Z,11nm,1.8s							
YAK	Yakutsk	55.57	31	LR		LR	01 54 00.1	
	comp=Z,45nm,18.5s,baz=254,slow=40							
TIXI	Tiksi	57.73	19	LR		LR	01 54 39.0	
	comp=Z,88nm,18.2s,baz=175,slow=39							
TIXI	Tiksi	57.73	19	*ce*P		P	01 26 57.9	-1.7
TIXI				pmax		pmax		
	comp=Z,7.0nm,2.5s							
EKA	Eskdalemuir Ar	58.24	321	P		P	01 27 03.9	+0.4
	comp=Z,8.0nm,1.1s,baz=100,slow=7.6,SNR=2.4							
	comp=Z,8.0nm,1.1s							
ESDC	Sonseca Array	59.86	303	P		P	01 27 15.5	+0.5
	comp=Z,0.4nm,0.6s,baz=77,slow=7.0,SNR=9.3							
	comp=Z,0.4nm,0.6s							
ESDC	Sonseca Array	59.86	303	P		P	01 27 15.2	+0.1
PAB	San Pablo	60.17	303	P		P	01 27 17.3	+0.1
PAB				pmax		pmax		
	comp=Z,7.0nm,1.2s							
PAB	San Pablo	60.17	303	P		P	01 27 17.3	+0.1
MJAR	Matsushiro Arr	61.33	61	LR		LR	01 54 01.9	
	comp=Z,37nm,21.1s,baz=307,slow=36							
TORD	Torodi Ar. Bea	61.91	272	P		P	01 27 31.1	+1.9
	comp=Z,2.5nm,0.9s,baz=66,slow=3.9,SNR=6.8							
	comp=Z,2.5nm,0.9s							
LBTB	Lobatse	63.66	222	LR		LR	01 54 48.0	
	comp=Z,28nm,18.8s,baz=0.5,slow=35							
TSUM	Tsumeb	64.88	232	LR		LR	01 57 59.6	
	comp=Z,40nm,18.0s,baz=289,slow=38							
MA2	Magadan	65.81	34	LR		LR	02 00 14.6	
	comp=Z,27nm,19.3s,baz=272,slow=39							
SEY	Seymchan	66.08	30	*ce*P		P	01 27 58.3	+2.4
SEY				pmax		pmax		
	comp=Z,17nm,2.5s							
BORG	Borgarnes	66.67	332	LR		LR	01 58 22.7	
	comp=Z,75nm,18.2s,baz=81,slow=37							
SUR	Sutherland	71.92	220	LR		LR	01 59 12.4	
	comp=Z,14nm,19.2s,baz=56,slow=35							
WRA	Warramunga Arr	79.69	118	P		P	01 29 19.7	+2.4
	comp=Z,0.7nm,0.8s,baz=302,slow=5.6,SNR=5.9							
	comp=Z,0.7nm,0.8s							
D20K	Etivluk River	81.28	15	P		P	01 29 25.2	+0.1
D20K				IAmb		IAmb	01 29 52.6	
	comp=Z,7.3nm,1.3s							
ASAR	Alice Springs	81.30	121	P		P	01 29 29.5	+3.6
	comp=Z,0.5nm,0.4s,baz=307,slow=4.8,SNR=6.0							
	comp=Z,0.5nm,0.4s							
E19K	Redstone River	82.11	16	P		P	01 29 28.7	-0.8
E19K				IAmb		IAmb	01 29 53.5	
	comp=Z,6.2nm,1.2s							
D23K	Nanushuk River	82.35	13	P		P	01 29 32.4	+1.7
D23K				IAmb		IAmb	01 30 05.5	
	comp=Z,6.2nm,1.2s							
TOLK	Toolik Lake Re	82.84	13	P		P	01 29 33.6	+0.3
D25K	Kavik River	82.85	11	P		P	01 29 34.3	+0.9
G19K	Purcell Mounta	83.17	16	P		P	01 29 34.7	-0.3
G19K				IAmb		IAmb	01 29 41.4	
	comp=Z,3.0nm,0.9s							
J16K	Anvik River	84.38	19	P		P	01 29 42.7	+1.5
J19K	Poorman	85.25	17	P		P	01 29 47.2	+1.5
J19K				IAmb		IAmb	01 30 19.4	
	comp=Z,5.5nm,1.2s							
INK	Inuvik	85.67	7	P		P	01 29 49.2	+1.6
INK				pmax		pmax		
	comp=Z,2.0nm,0.7s							
INK	Inuvik	85.67	7	P		P	01 29 49.2	+1.6
INK				IAmb		IAmb	01 29 50.1	
	comp=Z,2.0nm,0.7s							
ILAR	Eielson Array	86.72	14	P		P	01 29 52.7	-0.2
	comp=Z,0.4nm,0.8s,baz=335,slow=5.2,SNR=4.2							
	comp=Z,0.4nm,0.8s							
ILAR	Eielson Array	86.72	14	P		P	01 29 53.9	+1.0
H29M	Whitestone	86.99	10	P		P	01 29 55.8	+1.6
I28M	Miner Creek	87.44	11	P		P	01 29 57.8	+1.3
I28M				IAmb		IAmb	01 30 25.4	
	comp=Z,5.3nm,1.5s							
I30M	Mount Dempster	88.22	9	P		P	01 30 01.9	+1.6
K29M	Barlow Dome	89.33	10	P		P	01 30 07.7	+2.2

THE **02** *01:31:38.8,38°N±1°×2°7E±°, h13km±2km, M2.5/6, MLh2.5/6*
ISK **02** *01:31:38.5,37.89N×26.61E, h6km, ML2.7/15*
AFAD **02** *01:31:39.5,37.92N×26.67E, h7km±3km, ML2.3*
ISC 02 01:31:38.5±1.0,**37.89N**±0.02×**26.60E**±0.02,**h13**km±9km,
n33,σ0852/51,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
DGB	zmir	0.28	53	P	Pg	Pg	01 31 44.2	0.0
DGB				S	Sg	Sg	01 31 47.6	-0.4
DGB				IAML			01 31 48.0	
	comp=N,756nm,0.6s							
DGB				IAML			01 31 48.0	
	comp=E,599nm,0.4s							
GMLD	Gumuldur	0.31	53	Pg		Pg	01 31 44.7	-0.1
GMLD				Sg		Sg	01 31 48.8	-0.3
GMLD				AML		AML		
ZEYE	Izmir, Urla-Ze	0.36	348	P		Pg	01 31 46.3	+0.6
ZEYE				S		Sg	01 31 51.3	+0.7
ZEYE				IAML			01 31 52.0	
	comp=E,518nm,0.1s							
BEYE	izmir

CAMT	**Merkez**	**1.02**	**33**	P	**Pb**	**01 31 58.5**	**+0.4**
CAMT				S	**Sb**	**01 32 12.1**	**+0.5**
CAMT				IAML		01 32 13.0	
	comp=N,160nm,0.5s						
CAMT				IAML		01 32 14.0	
	comp=E,193nm,0.2s						
IZMR	**zmir-demi**	**1.09**	**76**	P	**Pg**	**01 31 59.4**	**-0.2**
IZMR				S	**Sg**	**01 32 12.9**	**-1.0**
IZMR				IAML		01 32 17.0	
	comp=E,60nm,0.4s						
MLSB	**Milas**	**1.10**	**122**	Pn	**Pg**	**01 31 59.8**	**0.0**
MLSB				AML	AML		
APE	**Apeiranthos**	**1.18**	**227**	P	**Pg**	**01 32 00.3**	**-0.8**
APE				S	**Sg**	**01 32 16.5**	**-0.1**
APE				AML	AML		
DKL	**Dikili**	**1.21**	**11**	Pn	**Pn**	**01 32 01.7**	**+0.6**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.32**	**51**	Pn	**Pg**	**01 32 03.8**	**0.0**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.34**	**86**	Pn	**Pb**	**01 32 04.1**	**+0.6**
NAZL				AML	AML		
PRK	**Paraskevi**	**1.38**	**349**	P	**Pn**	**01 32 03.8**	**+0.4**
PRK				S	**Sb**	**01 32 20.4**	**-1.3**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.46**	**30**	Pn	**Pb**	**01 32 05.8**	**+0.2**
SOMA				AML	AML		
YER	**Yerkesik**	**1.53**	**119**	P	**Pn**	**01 32 05.5**	**-0.1**
GORD	**Gordes-Manisa**	**1.60**	**50**	Pn	**Pb**	**01 32 08.3**	**+0.3**
GORD				AML	AML		
DION	**Dionisos Attik**	**2.12**	**276**	P	**Pn**	**01 32 13.5**	**-0.2**
LIA	**Limnos Island**	**2.29**	**332**	P	**Pn**	**01 32 14.9**	**-1.1**

IDC ***02*** *01:38:37.0±1.5,29.°04N×51.°34E,h0km,mb3.7/12, mbtmp3.7/14,ML3.0/2,MS2.9/1,Error ellipse: s-maj=38.4km s-min=14.2km az=169.0*
TEH ***02*** *01:38:37.8,28.°87N×51.°29E,h12km±16km,ML3.5, Presumed earthquake*
DSN ***02*** *01:38:42.5±1.1,28.°52N×51.°44E,h10km,ML3.8/12,Error ellipse: s-maj=11.1km s-min=9.3km az=177.0*
OMAN ***02*** *01:38:42.2±0.1,28.°72N×51.°61E,h10km,mb3.2/15, ml3.7/9,Error ellipse: s-maj=1.2km s-min=0.9km az=357.0*

ISC 02 01:38:38.9±0.5,28.°82N±0.°04×51.°34E±0.°04,h17km,n78,
σ1s56/104,mb3.6/11,Southern Iran

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DSBU	**Dashti - Bushe**	**0.46**	**189**	Pg		**Pg**	**01 38 48.9**	**+0.7**
KAZ2	**Kazeron-Fars-I**	**0.84**	**20**	Pg		**Pb**	**01 38 53.9**	**-1.2**
SHI	**Shiraz**	**1.31**	**51**	Pg		**Pb**	**01 39 04.0**	**+0.8**
SHI				Sg		**Sg**	**01 39 23.3**	**+1.8**
JHRM	**Jahrom**	**1.99**	**98**	Pn		**Pb**	**01 39 15.4**	**+0.6**
KHL1	**Khalili_Fars**	**2.09**	**124**	Pn		**Pb**	**01 39 16.7**	**+0.2**
KLNJ	**Kolanjah**	**2.19**	**6**	Pn		**Pn**	**01 39 16.7**	**+1.8**
SAKB	**Bahrain**	**2.92**	**194**	P		**Pb**	**01 39 28.7**	**-1.8**
SAKB				S		**Sb**	**01 40 04.3**	**-1.6**
IBRJ	**Brojen**	**3.08**	**359**	Pn		**Pn**	**01 39 29.2**	**+2.2**
AMIS	**Naft Sefid**	**3.35**	**328**	Pn		**Pn**	**01 39 32.1**	**+1.6**
JHBN	**Jahan bin**	**3.45**	**350**	Pn		**Pn**	**01 39 34.0**	**+1.8**
IBAF	**Bafgh**	**4.58**	**52**	Pn		**Pn**	**01 39 50.2**	**+2.5**
KHGB	**Koh Gabri**	**4.74**	**70**	Pn		**Pn**	**01 39 52.1**	**+2.3**
SLWR	**Sila**	**4.74**	**176**	P		**Pn**	**01 39 53.3**	**+3.7**
SLWR				S		**Sn**	**01 40 47.7**	**+3.4**
ANAR	**Anarak**	**4.81**	**25**	Pn		**Pn**	**01 39 52.8**	**+2.0**
SHME	**Shamm**	**5.08**	**122**	P		**Pn**	**01 39 55.2**	**+0.9**
SHME	**Shamm**	**5.08**	**122**	P		**Pn**	**01 39 54.7**	**+0.4**
SHME				S		**Sn**	**01 40 52.8**	**+0.2**
BANOM	**Banah**	**5.27**	**122**	P		**Pn**	**01 39 58.0**	**+1.0**
BANOM				S		**Sn**	**01 40 56.6**	**-0.7**
AJN	**Ajban**	**5.35**	**142**	P		**Pn**	**01 40 00.1**	**+2.1**
AJN				S		**Sn**	**01 41 00.5**	**+1.2**
NAZ	**Nazwa, Dubai** SNR=9.4	**5.43**	**134**	*i* P		**Pn**	**01 40 01.2**	**+2.1**
NAZ	**Nazwa, Dubai** SNR=9.5	**5.43**	**134**	P		**Pn**	**01 40 00.9**	**+1.8**
NAZ				S		**Sn**	**01 41 01.1**	**-0.1**
ASUD	**Al Ashush, Dub** SNR=14	**5.49**	**139**	*i* P		**Pn**	**01 40 02.6**	**+2.6**
ASUD	**Al Ashush, Dub** SNR=14	**5.49**	**139**	P		**Pn**	**01 40 01.5**	**+1.6**
ASUD				S		**Sn**	**01 41 03.7**	**+0.9**
MASF	**Masafi** SNR=11	**5.50**	**128**	P		**Pn**	**01 40 01.4**	**+1.3**
MASF				S		**Sn**	**01 41 03.1**	**+0.1**
MSFE	**Esma-Masafi**	**5.51**	**128**	P		**Pn**	**01 40 00.9**	**+0.7**
CHMN	**Cheshme madani**	**5.51**	**78**	Pn		**Pn**	**01 40 02.7**	**+2.1**
MZWR	**Madinat Zayed**	**5.53**	**155**	P		**Pn**	**01 40 02.6**	**+2.1**
MZWR				S		**Sn**	**01 41 05.6**	**+1.9**
IKFM	**Kafar-mosalman**	**5.56**	**328**	Pn		**Pn**	**01 40 02.8**	**+1.9**
MDH	**Madha** SNR=6.6	**5.64**	**127**	*i* P		**Pn**	**01 40 03.0**	**+0.9**
MDH	**Madha**	**5.64**	**127**	P		**Pn**	**01 40 03.0**	**+0.9**
MDH				S		**Sn**	**01 41 06.5**	**0.0**
KHNJ	**Kahnooj**	**5.67**	**97**	Pn		**Pn**	**01 40 05.1**	**+2.6**
UOSS	**Minazif**	**5.81**	**130**	P		**Pn**	**01 40 04.9**	**+0.5**
UOSS	**Minazif**	**5.81**	**130**	P		**Pn**	**01 40 05.3**	**+1.0**
UOSS				S		**Sn**	**01 41 08.8**	**-1.8**
HATD	**Hatta, Dubai** SNR=9.2	**5.84**	**132**	*i* P		**Pn**	**01 40 06.2**	**+1.4**
HATD	**Hatta, Dubai**	**5.84**	**132**	P		**Pn**	**01 40 06.4**	**+1.5**
HATD				S		**Sn**	**01 41 10.9**	**-0.6**
ASHO	**Ashiyiah** SNR=20	**5.89**	**133**	*i* P		**Pn**	**01 40 06.7**	**+1.1**
ASHO				S		**Sn**	**01 41 11.2**	**-1.6**
ASHO	**Ashiyiah** SNR=20	**5.89**	**133**	P		**Pn**	**01 40 06.8**	**+1.3**
ASHO				S		**Sn**	**01 41 13.0**	**+0.2**
MZR	**Muzera** SNR=28	**6.10**	**161**	*i* P		**Pn**	**01 40 10.3**	**+1.9**
MZR				S		**Sn**	**01 41 16.4**	**-1.5**
MZR	**Muzera**	**6.10**	**161**	P		**Pn**	**01 40 11.1**	**+2.7**
MZR				S		**Sn**	**01 41 19.7**	**+1.8**
ALNE	**Al Ain**	**6.17**	**139**	P		**Pn**	**01 40 11.0**	**+1.6**
ALNE				S		**Sn**	**01 41 20.7**	**+1.0**
KBAM	**BAM**	**6.24**	**85**	Pn		**Pn**	**01 40 12.9**	**+2.6**
ILBA	**Ilam Banvizeh**	**6.50**	**319**	Pn		**Pn**	**01 40 14.6**	**+0.7**
JASK	**Jask - Hormozg**	**6.51**	**115**	P		**Pn**	**01 40 14.8**	**+0.9**
JASK				S		**Sn**	**01 41 27.0**	**-0.8**
KCHF	**Cheshme Sefid,**	**6.56**	**327**	Pn		**Pn**	**01 40 16.3**	**+1.5**
SOHO	**SOHO**	**6.59**	**134**	P		**Pn**	**01 40 15.6**	**+0.6**
SOHO	**SOHO** SNR=9.4	**6.59**	**134**	P		**Pn**	**01 40 16.2**	**+1.1**
SOHO				S		**Sn**	**01 41 29.8**	**0.0**
IGHG	**Ghaleghazi**	**6.84**	**325**	Pn		**Pn**	**01 40 20.0**	**+1.3**
UMZA	**Um Al Zommool**	**6.99**	**150**	P		**Pn**	**01 40 22.1**	**+1.6**
UMZA				S		**Sn**	**01 41 39.4**	**-0.2**
ARQ	**Araqi** SNR=44	**7.18**	**138**	P		**Pn**	**01 40 24.2**	**+1.1**
ARQ				S		**Sn**	**01 41 44.2**	**-0.2**
RAYN	**Ar Rayn** SNR=12	**7.44**	**226**	*i* P		**Pn**	**01 40 27.1**	**+0.4**
HOQ	**Hoqain**	**7.48**	**133**	P		**Pn**	**01 40 28.0**	**+0.7**
HOQ				S		**Sn**	**01 41 51.3**	**-0.5**
BSY	**Bisya** SNR=5.3	**8.03**	**138**	P		**Pn**	**01 40 35.8**	**+0.9**
BSY				S		**Sn**	**01 42 04.4**	**-1.0**
SMDO	**Samad**	**8.33**	**132**	P		**Pn**	**01 40 39.0**	**0.0**
SMDO				S		**Sn**	**01 42 11.9**	**-0.9**
WSAR	**Wadi Sarin**	**8.59**	**129**	P		**Pn**	**01 40 42.6**	**0.0**
WSAR				S		**Sn**	**01 42 16.4**	**-2.8**
JMDO	**Jabal Madar**	**8.86**	**135**	P		**Pn**	**01 40 46.6**	**+0.4**
WBK	**Wadi Bani Khal**	**9.25**	**130**	P		**Pn**	**01 40 50.6**	**-1.0**
WBK				S		**Sn**	**01 42 31.9**	**-3.4**
MHTO	**MHTO**	**9.85**	**141**	P		**Pn**	**01 41 00.3**	**+0.5**
MHTO				S		**Sn**	**01 42 46.0**	**-4.0**
JLN	**Jalan Bani Buh**	**9.86**	**131**	P		**Pn**	**01 40 59.1**	**-0.8**
DOK	**Doka** SNR=6.9	**10.47**	**165**	P		**Pn**	**01 41 09.1**	**+0.7**
DQM	**DQM**	**10.50**	**146**	P		**Pn**	**01 41 08.6**	**-0.1**
WHFO	**Wadi Hawf** SNR=12	**11.08**	**168**	P		**Pn**	**01 41 17.0**	**+0.3**
DMTO	**DMTO** SNR=17	**11.54**	**163**	P		**Pn**	**01 41 22.8**	**-0.1**
ABTO	**Aybut**	**11.55**	**171**	P		**Pn**	**01 41 24.3**	**+1.0**
ASF	**Jabal al Asfar** 0.2nm,0.3s,baz=119,slow=2.4,SNR=1.7	**12.94**	**289**	Pn		**Pn**	**01 41 40.6**	**-1.0**
ASF	0.2nm,0.3s,baz=149,slow=5.9,SNR=2.1			Sn		Sn	01 43 56.5	-8.2
ASF	baz=104,slow=4.2,SNR=1.1 0.5nm,0.3s			Lg		Lg	01 45 39.0	

ASF						AML	AML	
MMAI	**Mount Meron Ar**	**14.30**	**291**	LR		LR	01 48 60.0	
	comp=Z,54nm,20.9s,baz=91,slow=44							
EIL	**Elat**	**14.34**	**277**	Lg		Lg	01 46 28.0	
	0.1nm,0.3s,baz=21,slow=17,SNR=1.9							
BRTR	**Keskin Array B**	**18.20**	**311**	P		**Pn**	**01 42 47.6**	**-3.3**
	baz=131,slow=11,SNR=2.8 0.3nm,0.8s							
IDI	**Anoyia**	**23.29**	**293**	P		**P**	**01 43 46.1**	**+0.2**
	9.5nm,0.9s,baz=101,slow=16,SNR=1.9 9.5nm,0.9s							
BVAR	**Borovoye Array**	**27.97**	**25**	P		**P**	**01 44 25.9**	**-2.5**
	1.0nm,0.6s,baz=224,slow=8.1,SNR=4.3 1.0nm,0.6s							
KURBB	**Kurchatov Arra**	**29.90**	**36**	P		**P**	**01 44 45.7**	**0.0**
	0.7nm,1.1s,baz=234,slow=8.5,SNR=2.0 0.7nm,1.1s							
MKAR	**Makanchi Array**	**30.06**	**45**	P		**P**	**01 44 47.5**	**+0.3**
	0.1nm,0.4s,baz=253,slow=6.1,SNR=2.5 0.1nm,0.4s							
ZALV	**Zalesovo Beam**	**34.97**	**35**	P		**P**	**01 45 27.6**	**-2.4**
	0.3nm,0.3s,baz=249,slow=12,SNR=2.1 0.3nm,0.3s							
KEST	**Kesra**	**35.96**	**292**	P		**P**	**01 45 40.5**	**+1.6**
	0.6nm,0.5s,baz=283,slow=7.9,SNR=5.1 0.6nm,0.5s							
FINES	**FINESS Array B**	**36.69**	**340**	P		**P**	**01 45 44.5**	**-0.1**
	5.2nm,1.1s,baz=133,slow=7.5,SNR=3.7 5.2nm,1.1s							
SONM	**Songino Array**	**46.13**	**50**	P		**P**	**01 47 02.1**	**-0.4**
	0.2nm,0.4s,baz=258,slow=7.2,SNR=2.0 0.2nm,0.4s							
ESDC	**Sonseca Array**	**46.33**	**299**	P		**P**	**01 47 04.7**	**+0.6**
	0.2nm,0.4s,baz=81,slow=8.0,SNR=8.8 0.2nm,0.4s							
TORD	**Torodi Ar. Bea**	**48.55**	**262**	P		**P**	**01 47 21.4**	**-0.2**
	0.5nm,0.7s,baz=68,slow=3.9,SNR=2.3 0.5nm,0.7s							
DBIC	**Dimbokro**	**57.30**	**259**	P		**P**	**01 48 26.8**	**+0.6**
	3.5nm,0.9s,baz=60,slow=6.9,SNR=4.3 3.5nm,0.9s							
ILAR	**Eielson Array**	**85.64**	**8**	P		**P**	**01 51 15.0**	**-1.3**
	0.3nm,0.7s,baz=334,slow=6.5,SNR=4.6 0.3nm,0.7s							

SJA ***02*** *01:48:26.0±0.7,22.°08S×68.°66W,h126km±4km,ML3.8, MW3.8*
GUC ***02*** *01:48:27.9±0.6,22.°07S×68.°58W,h106km±5km,ML3.8, Presumed earthquake*
IDC ***02*** *01:48:28.8±2.8,21.°92S×68.°46W,h124km±28km,mb3.5/6, mbtmp3.8/8,Error ellipse: s-maj=30.9km s-min=19.4km az=97.0*

ISC 02 01:48:27.2±0.7,22.°10S±0.°03×68.°64W±0.°04,h120km±6km,
n50,σ1s63/77,mb4.2/6,6C-3D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.64**	**298**	*e*P		**Pn**	**01 48 45.8**	**-0.5**
PB09				*e*S		**Sn**	**01 48 58.1**	**-2.5**
PB09				IAML			01 49 02.7	
	comp=Z,3μm,0.3s							
PB09	**IPOC Station P**	**0.64**	**298**	⇑*e*P		**Pn**	**01 48 46.0**	**-0.3**
PB09				*e*S		**Sn**	**01 48 59.6**	**-1.1**
PB09				IAML			01 49 00.5	
	comp=N,2μm,0.4s							
AF01	**San Pedro de A**	**0.94**	**154**	*e*P		**Pn**	**01 48 49.1**	**+0.1**
AF01				*e*S		**Sn**	**01 49 06.6**	**+1.1**
AF01				IAML			01 49 28.3	
	comp=Z,2μm,0.8s							
PB03	**IPOC Station P**	**1.04**	**273**	*e*P		**Pn**	**01 48 49.5**	**-0.3**
PB03				*e*S		**Sn**	**01 49 07.0**	**+0.2**
PB03				IAML			01 49 09.5	
	comp=Z,1μm,0.2s							
PB03	**IPOC Station P**	**1.04**	**273**	⇑*e*P		**Pn**	**01 48 49.4**	**-0.3**
PB03				*e*S		**Sn**	**01 49 06.2**	**-0.6**
PB03				IAML			01 49 10.0	
	comp=N,2μm,0.2s							
PB06	**IPOC Station P**	**1.05**	**235**	*e*P		**Pn**	**01 48 49.9**	**-0.1**
PB06				*e*S		**Sn**	**01 49 08.0**	**+0.9**
PB06				IAML			01 49 10.1	
	comp=Z,2μm,0.3s							
PB06	**IPOC Station P**	**1.05**	**235**	⇑*e*P		**Pn**	**01 48 50.0**	**+0.1**
PB06				*e*S		**Sn**	**01 49 07.0**	**0.0**
PB06				IAML			01 49 08.2	
	comp=N,3μm,0.2s							
PB07	**IPOC Station P**	**1.22**	**288**	*e*P		**Pn**	**01 48 51.3**	**-0.3**
PB07				*e*S		**Sn**	**01 49 10.2**	**+0.1**
PB07				IAML			01 49 11.1	
	comp=Z,2μm,0.3s							
PB07	**IPOC Station P**	**1.22**	**288**	⇑*e*P		**Pn**	**01 48 51.4**	**-0.3**
PB07				*e*S		**Sn**	**01 49 09.7**	**-0.5**
PB07				IAML			01 49 11.2	
	comp=E,3μm,0.3s							
PB02	**IPOC Station P**	**1.41**	**303**	*e*P		**Pn**	**01 48 53.5**	**-0.2**
PB02				*e*S		**Sn**	**01 49 13.5**	**-0.2**
PB02				IAML			01 49 14.3	
	comp=Z,3μm,0.4s							
PB02	**IPOC Station P**	**1.41**	**303**	⇓*i*P		**Pn**	**01 48 53.2**	**-0.5**
PB02				*e*S		**Sn**	**01 49 12.8**	**-0.9**
PB02				IAML			01 49 19.1	
	comp=E,2μm,0.5s							
PB05	**IPOC Station P**	**1.63**	**242**	*e*P		**Pn**	**01 48 56.4**	**+0.1**
PB05				*e*S		**Sn**	**01 49 18.4**	**+0.1**
PB05				IAML			01 49 26.2	
	comp=Z,777nm,0.5s							
PB05	**IPOC Station P**	**1.63**	**242**	⇑*e*P		**Pn**	**01 48 56.2**	**-0.1**
PB05				IAML			01 49 25.5	
	comp=E,815nm,0.3s							
PB08	**IPOC Station P**	**2.01**	**346**	*e*P		**Pn**	**01 49 01.6**	**+0.4**
PB08				*e*S		**Sn**	**01 49 29.1**	**+2.0**
PB08				IAML			01 49 30.6	
	comp=Z,258nm,0.2s							
PB08	**IPOC Station P**	**2.01**	**346**	⇓*e*P		**Pn**	**01 49 01.8**	**+0.6**
PB08				*e*S		**Sn**	**01 49 27.7**	**+0.6**
PB08				IAML			01 49 31.3	
	comp=E,526nm,0.2s							
TA01	**Diego Aracena**	**2.10**	**316**	*e*P		**Pn**	**01 49 01.6**	**-0.3**
TA01				*e*S		**Sn**	**01 49 28.8**	**+0.3**
TA01				IAML			01 49 34.1	
	comp=Z,350nm,0.3s							
TA01	**Diego Aracena**	**2.10**	**316**	*e*P		**Pn**	**01 49 01.1**	**-0.9**
TA01				*e*S		**Sn**	**01 49 27.6**	**-0.9**
TA01				IAML			01 49 34.1	
	comp=E,798nm,0.4s							
PB10	**IPOC Station P**	**2.26**	**231**	*e*P		**Pn**	**01 49 04.6**	**+0.7**
PB10				*e*S		**Sn**	**01 49 25.5**	**-6.6**
PB10				IAML			01 49 40.8	
	comp=Z,196nm,0.4s							
PB10	**IPOC Station P**	**2.26**	**231**	*e*P		**Pn**	**01 49 06.1**	**+2.2**
PB10				IAML			01 49 39.8	
	comp=E,453nm,0.3s							
TA02	**Huaiquique**	**2.30**	**322**	*e*P		**Pn**	**01 49 03.7**	**-0.7**
TA02				*e*S		**Sn**	**01 49 37.4**	**+4.5**
TA02				IAML			01 49 37.5	
	comp=Z,447nm,0.1s							
TA02	**Huaiquique**	**2.30**	**322**	⇑*e*P		**Pn**	**01 49 03.4**	**-1.0**
GO01	**Chusmiza**	**2.48**	**348**	*e*P		**Pn**	**01 49 07.5**	**+0.3**
GO01				*e*S		**Sn**	**01 49 39.8**	**+1.9**
GO01				IAML			01 49 40.4	
	comp=Z,360nm,0.7s							
GO01	**Chusmiza**	**2.48**	**348**	*e*P		**Pn**	**01 49 07.3**	**+0.1**
GO01				*e*S		**Sn**	**01 49 38.5**	**+0.7**
PB11	**IPOC Station P**	**2.52**	**338**	*e*P		**Pn**	**01 49 06.7**	**-0.7**
PB11				*e*S		**Sn**	**01 49 38.2**	**0.0**
PB11				IAML			01 49 44.3	
	comp=Z,304nm,0.2s							
PB11	**IPOC Station P**	**2.52**	**338**	⇓*i*P		**Pn**	**01 49 06.7**	**-0.7**
PB11				*e*S		**Sn**	**01 49 37.8**	**-0.5**
PSGCX	**Pisagua**	**2.85**	**331**	*e*P		**Pn**	**01 49 10.1**	**-1.6**
PSGCX				*e*S		**Sn**	**01 49 44.7**	**-1.2**
PSGCX				IAML			01 49 57.4	
	comp=Z,197nm,0.2s							
PSGCX	**Pisagua**	**2.85**	**331**	*i* P		**Pn**	**01 49 09.8**	**-2.0**
YJA	**Yavi**	**2.89**	**92**	*e*P		**Pn**	**01 49 10.9**	**-1.7**
YJA				*e*S		**Sn**	**01 49 48.9**	**+1.5**
SALTA		**2.99**	**135**	*e*P		**Pn**	**01 49 09.6**	**-4.2**
SALTA				*e*P			01 49 11.3	
SALTA				*e*P			01 49 16.1	
PB14	**IPOC Station P**	**2.99**	**213**	*e*P		**Pn**	**01 49 13.9**	**+0.2**
PB14				*e*S		Sn	01 49 59.3	+10
PB14				IAML			01 49 60.0	
	comp=Z,380nm,0.7s							
PB14	**IPOC Station P**	**2.99**	**213**	*i* P		**Pn**	**01 49 13.2**	**-0.4**
HJA	**Humahuaca**	**3.18**	**111**	*e*P		**Pn**	**01 49 18.2**	**+2.0**

PB12	**IPOC Station P**	**3.82**	**335**	*e*P		**Pn**	**01 49 22.7**	**-1.7**
PB12				*e*S		**Sn**	**01 50 05.2**	**-3.6**
PB12				IAML			01 50 18.6	
	comp=Z,229nm,0.5s							
PB12	**IPOC Station P**	**3.82**	**335**	*i* P		**Pn**	**01 49 22.1**	**-2.3**
PB16	**IPOC Station P**	**3.84**	**348**	*e*P		**Pn**	**01 49 25.6**	**+0.5**
PB16				*e*S		**Sn**	**01 50 08.6**	**-1.3**
PB16				IAML			01 50 21.0	
	comp=Z,99nm,0.5s							
PB16	**IPOC Station P**	**3.84**	**348**	*e*P		**Pn**	**01 49 25.5**	**+0.3**
PB16				*e*S		**Sn**	**01 50 10.0**	**+0.1**
FSA	**Cafayete**	**4.67**	**149**	*e*P		**Pn**	**01 49 32.5**	**-3.4**
FSA				*e*S		Sn	01 50 13.3	-16
AC02	**Maricunga**	**4.73**	**185**	*e*P		**Pn**	**01 49 37.1**	**+0.1**
LPAZ	**La Paz**	**5.80**	**5**	P		**Pn**	**01 49 52.0**	**+0.4**
	comp=Z,5.7nm,0.4s,baz=212,slow=3.2,SNR=48							
LPAZ				S		**Sn**	**01 50 55.0**	**-2.3**
	comp=Z,1.4nm,0.5s,baz=280,slow=11,SNR=1.4							
PLCA	**Paso Flores**	**18.64**	**185**	P		**Pn**	**01 52 38.0**	**+0.6**
	comp=Z,0.9nm,0.7s,baz=6.7,slow=17,SNR=3.6							
BDFB	**Brasilia**	**20.53**	**75**	P		**P**	**01 52 53.7**	**-2.7**
	comp=Z,1.1nm,0.5s,baz=216,slow=19,SNR=3.3 comp=Z,1.1nm,0.5s							
VNA3	**Neumayer Olymp**	**59.42**	**161**	P		P	01 58 12.3	-4.6
	comp=Z,4.1nm,0.7s							
VNA2	**Neumayer--Watz**	**60.00**	**161**	P		**P**	**01 58 20.3**	**-0.5**
	comp=Z,1.8nm,0.6s,baz=268,slow=9.8							
TXAR	**Lajitas Array**	**61.27**	**325**	P		**P**	**01 58 29.2**	**-0.9**
	comp=Z,0.1nm,0.5s,baz=124,slow=7.2,SNR=2.9 comp=Z,0.1nm,0.5s							
SNAA	**Sanae**	**61.63**	**161**	P		**P**	**01 58 34.1**	**+2.2**
	comp=Z,2.2nm,0.8s,baz=274,slow=13,SNR=1.8 comp=Z,2.2nm,0.8s							
TROLL	**Troll, Antarti**	**63.34**	**161**	P		**P**	**01 58 45.2**	**+1.9**
	comp=Z,32nm,0.4s							
QSPA	**South Pole Qui**	**68.09**	**180**	P		**P**	**01 59 16.5**	**+2.6**
	comp=Z,1.4nm,0.6s,baz=181,slow=0.6,SNR=5.3 comp=Z,1.4nm,0.6s							
DBIC	**Dimbokro**	**68.66**	**73**	P		**P**	**01 59 17.9**	**-0.3**
	comp=Z,4.4nm,0.9s,baz=252,slow=6.4,SNR=3.8 comp=Z,4.4nm,0.9s							
TORD	**Torodi Ar. Bea**	**77.32**	**70**	P		**P**	**02 00 09.1**	**-0.1**
	comp=Z,0.4nm,0.3s,baz=248,slow=5.4,SNR=4.8 comp=Z,0.4nm,0.3s							
MKAR	**Makanchi Array**	**145.97**	**37**	PKPbc		**PKPab**	**02 07 54.0**	**+0.4**
	comp=Z,0.3nm,0.6s,baz=336,slow=3.2,SNR=2.7							

LDG 02 02:33:32.6±0.1,42.°91N×0.°20E,h2km,Md1.6/2,Error ellipse: s-maj=1.8km s-min=0.7km az=158.0,Pyrenees

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
EPF	**Esparros**	**0.16**	**40**	*e*Pg		Pg	02 33 35.8	+0.2
EPF	**Esparros**	**0.16**	**40**	*e*Pg		Pg	02 33 35.9	+0.3
EPF				*e*Sg		Sg	02 33 38.1	+0.4
EPF				*e*Sg		Sg	02 33 38.3	+0.6
	15nm,0.2s							
ETSF	**Etsaut**	**0.56**	**269**	*e*Pg		Pb	02 33 44.5	-0.7
ETSF				*e*Sg		Sg	02 33 50.6	0.0
	2.2nm,0.2s							

CNRM ***02*** *02:34:01.8,36.°58N×10.°97W,h81km*
MDD ***02*** *02:34:01.2±0.8,36.°81N×10.°97W,h0km±20km, mb_Lg2.7/13,Error ellipse: s-maj=25.8km s-min=6.3km az=55.0*
INMG ***02*** *02:34:02.6±1.3,36.°64N×11.°13W,h29km,ML2.0,Error ellipse: s-maj=5.1km s-min=3.8km az=79.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
IGIL ***02*** *02:34:02.2,36.°68N×11.°05W,h17km,ML1.8*

ISC 02 02:33:58.8±2.1,36.°63N±0.°05×11.°2W±0.°1,h35km,n71,
σ1s58/125,1C-1D,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.97**	**74**	P		**Pn**	**02 34 31.2**	**+1.5**
PFVI				S		**Sn**	**02 34 52.9**	**-0.3**
PFVI	**Vila Bisbo**	**1.97**	**74**	P		**Pn**	**02 34 31.4**	**+1.6**
PFVI				S		**Sn**	**02 34 53.6**	**+0.4**
PFVI	**Vila Bisbo**	**1.97**	**74**	⇑*i*P		**Pn**	**02 34 31.4**	**+1.6**
PFVI				*e*S		**Sn**	**02 34 53.0**	**-0.2**
PFVI				IAML			02 34 53.9	
PFVI				IAML			02 34 53.9	
PFVI				IAML			02 34 54.1	
PALJ	**Aljezur**	**2.05**	**70**	*e*P		**Pn**	**02 34 32.7**	**+1.9**
PALJ				*e*S		**Sn**	**02 34 55.4**	**+0.4**
PALJ				IAML			02 34 56.0	
PALJ				IAML			02 34 56.7	
PALJ				IAML			02 34 57.4	
MORF	**Marmelete**	**2.15**	**71**	*e*P		**Pn**	**02 34 34.0**	**+1.8**
MORF				*e*S		**Sn**	**02 34 57.0**	**-0.7**
MORF				IAML			02 34 59.5	
	comp=E,13nm,0.1s							
MORF	**Marmelete**	**2.15**	**71**	*e*P		**Pn**	**02 34 34.2**

EVO				IAML		02 35 24.3		
EVO				IAML		02 35 24.4		
EVO				IAML		02 35 24.9		
PARRA	**Arraiolos**	**3.33**	**48**	*eP*	**Pn**	**02 34 50.1**	**+1.7**	
PARRA				*eS*	**Sn**	**02 35 25.5**	**-1.2**	
PARRA				IAML		02 35 26.9		
PARRA				IAML		02 35 27.8		
PARRA				IAML		02 35 28.2		
PMTG	**Montargil**	**3.39**	**43**	*eP*	**Pn**	**02 34 50.3**	**+1.1**	
PMTG				*eS*	**Sn**	**02 35 27.3**	**-0.9**	
PMTG				IAML		02 35 27.8		
PMTG				IAML		02 35 29.8		
PMTG				IAML		02 35 31.8		
PSBE	**So Bento**	**3.45**	**33**	*eP*	**Pn**	**02 34 51.7**	**+1.6**	
PSBE				*eS*	**Sn**	**02 35 29.8**	**0.0**	
PSBE				IAML		02 35 32.0		
PSBE				IAML		02 35 35.6		
PSBE				IAML		02 35 40.8		
PESTR	**Estremoz**	**3.63**	**51**	P	**Pn**	**02 34 53.7**	**+1.1**	
PESTR				S	**Sn**	**02 35 33.9**	**-0.3**	
PESTR	**Estremoz**	**3.63**	**51**	P	**Pn**	**02 34 53.2**	**+0.6**	
PESTR				S	**Sn**	**02 35 35.2**	**+0.9**	
PESTR	**Estremoz**	**3.63**	**51**	*eS*	**Sn**	**02 35 33.5**	**-0.8**	
PESTR				IAML		02 35 35.1		
PESTR				IAML		02 35 36.7		
PESTR				IAML		02 35 36.9		
PBAR	**Barrancos**	**3.66**	**64**	P	**Pn**	**02 34 54.7**	**+1.8**	
PBAR				S	**Sn**	**02 35 33.2**	**-1.7**	
PBAR	**Barrancos**	**3.66**	**64**	*eP*	**Pn**	**02 34 55.0**	**+2.1**	
PBAR				*eS*	**Sn**	**02 35 33.5**	**-1.3**	
PBAR				IAML		02 35 35.2		
PBAR				IAML		02 35 36.0		
PBAR				IAML		02 35 37.4		
EMIN	**Mina Concepcio**	**3.79**	**71**	P	**Pn**	**02 34 56.2**	**+1.4**	
EMIN				S	**Sn**	**02 35 37.1**	**-1.0**	
EMIN	**Mina Concepcio**	**3.79**	**71**	Pn	**Pn**	**02 34 56.7**	**+1.9**	
EMIN				Sn	**Sn**	**02 35 36.9**	**-1.2**	
EMIN				IVmb_Lg		02 35 38.6		
PSARD	**Sardoal**	**3.82**	**38**	*eP*	**Pn**	**02 34 57.1**	**+2.0**	
PSARD				*eS*	**Sn**	**02 35 37.8**	**-1.0**	
PSARD				IAML		02 35 39.6		
PSARD				IAML		02 35 40.7		
PSARD				IAML		02 35 42.0		
EBAD	**Badajoz**	**3.94**	**56**	P	**Pn**	**02 34 58.2**	**+1.3**	
EBAD				S	**Sn**	**02 35 40.3**	**-1.6**	
EBAD	**Badajoz**	**3.94**	**56**	Pn	**Pn**	**02 34 58.0**	**+1.1**	
EBAD				Sn	**Sn**	**02 35 40.4**	**-1.5**	
EBAD				IVmb_Lg		02 35 42.0		
PMRV	**Marv??o**	**4.11**	**46**	*eP*	**Pn**	**02 35 00.1**	**+1.0**	
PMRV				*eS*	**Sn**	**02 35 43.8**	**-2.2**	
PMRV				IAML		02 35 45.7		
PMRV				IAML		02 35 45.8		
PMRV				IAML		02 35 47.3		
ESPR	**Espera**	**4.30**	**85**	P	**Pn**	**02 35 02.6**	**+0.9**	
ESPR				S	**Sn**	**02 35 50.1**	**-0.6**	
ESPR	**Espera**	**4.30**	**85**	Pn	**Pn**	**02 35 03.7**	**+2.0**	
ESPR				Sn	**Sn**	**02 35 49.8**	**-0.9**	
ESPR				IVmb_Lg		02 35 51.7		
PCBR	**Castelo Branco**	**4.35**	**41**	*eP*	**Pn**	**02 35 03.9**	**+1.5**	
PCBR				*eS*	**Sn**	**02 35 50.7**	**-1.1**	
PCBR				IAML		02 35 52.7		
PCBR				IAML		02 35 54.9		
PCBR				IAML		02 35 55.0		
MTE	**Manteigas**	**4.74**	**36**	*eP*	**Pn**	**02 35 09.5**	**+1.7**	
MTE				*eS*	**Sn**	**02 36 00.4**	**-1.1**	
MTE				IAML		02 36 02.8		
MTE				IAML		02 36 02.8		
MTE				IAML		02 36 03.3		
ECAB	**El Cabril**	**4.83**	**71**	S	**Sn**	**02 36 01.4**	**-2.4**	
ECAB	**El Cabril**	**4.83**	**71**	Pn	**Pn**	**02 35 10.5**	**+1.5**	
ECAB				Sn	**Sn**	**02 36 01.5**	**-2.4**	
ECAB				IVmb_Lg		02 36 04.4		
ECAB	**El Cabril**	**4.83**	**71**	P	**Pn**	**02 35 10.1**	**+1.0**	
PVIS	**Viseu**	**4.83**	**31**	*eP*	**Pn**	**02 35 10.4**	**+1.3**	
PVIS				*eS*	**Sn**	**02 36 02.2**	**-1.7**	
EMIJ	**Mijas**	**5.17**	**89**	S	**Sn**	**02 36 12.7**	**+0.4**	
EPLA	**Plasencia**	**5.29**	**48**	Pn	**Pn**	**02 35 16.5**	**+1.1**	
EPLA				Sn	**Sn**	**02 36 11.6**	**-3.5**	
EPLA				IVmb_Lg		02 36 15.4		
PVRL	**Vila Real**	**5.38**	**29**	*eS*	**Sn**	**02 36 15.3**	**-2.0**	
PVRL				IAML		02 36 17.7		
PVRL				IAML		02 36 17.7		
PVRL				IAML		02 36 17.8		
POLO	**Lamas de Olo**	**5.43**	**28**	*eS*	**Sn**	**02 36 16.5**	**-2.2**	
CIBOR	**Castaar de Ib**	**5.46**	**55**	Pn	**Pn**	**02 36 10.4**	**+1.8**	
CIBOR				Sn	**Sn**	**02 36 16.2**	**-3.0**	
EADA	**Adamuz**	**5.50**	**72**	S	**Sn**	**02 36 18.1**	**-2.1**	
EADA	**Adamuz**	**5.50**	**72**	Pn	**Pn**	**02 35 19.8**	**+1.6**	
EADA				Sn	**Sn**	**02 36 18.0**	**-2.2**	
EADA				IVmb_Lg		02 36 20.9		
EADA	**Adamuz**	**5.50**	**72**	P	**Pn**	**02 35 19.4**	**+1.2**	
EGOR	**Sierra Gorda,**	**5.71**	**83**	S	**Sn**	**02 36 25.5**	**-0.1**	
EGOR	**Sierra Gorda,**	**5.71**	**83**	Sn	**Sn**	**02 36 25.5**	**-0.1**	
EGOR				IVmb_Lg		02 36 30.7		
ELOB	**Lobios**	**5.77**	**24**	Pn	**Pn**	**02 35 23.2**	**+1.1**	
ELOB				Sn	**Sn**	**02 36 23.8**	**-3.3**	
PGAV	**Gavieira, Arco**	**5.80**	**22**	*eS*	**Sn**	**02 36 25.4**	**-2.2**	
LCRM	**LCR**	**5.97**	**118**	P	**Pn**	**02 35 25.8**	**+1.0**	
LCRM				S	**Sn**	**02 36 29.9**	**-2.1**	
PALE	**Palemas**	**6.06**	**101**	P	**Pn**	**02 35 24.6**	**-1.4**	
PALE				S	**Sn**	**02 36 31.9**	**-2.2**	
OUK	**Oukaimeden**	**6.08**	**152**	P	**Pn**	**02 35 27.8**	**+1.3**	
OUK				S	**Sn**	**02 36 35.4**	**+0.5**	
ELGU	**Los Guajares,**	**6.09**	**85**	S	**Sn**	**02 36 34.8**	**-0.1**	
PAB	**San Pablo**	**6.14**	**60**	Pn	**Pn**	**02 35 28.8**	**+1.7**	
PAB				Sn	**Sn**	**02 36 32.4**	**-3.8**	
PAB				IVmb_Lg		02 36 34.0		
PBRG	**Braganca**	**6.22**	**32**	*eS*	**Sn**	**02 36 35.4**	**-2.7**	
ECAL	**Calabor**	**6.34**	**32**	S	**Sn**	**02 36 38.7**	**-2.2**	
AKLM	**AKL**	**6.34**	**107**	P	Pn	02 35 27.7	-2.2	
AKLM				S	**Sn**	**02 36 38.0**	**-3.2**	
ESDC	**Sonseca Array**	**6.47**	**60**	Pn	**Pn**	**02 35 33.2**	**+1.7**	
ESDC				Sn	**Sn**	**02 36 41.6**	**-2.5**	
ESDC				IVmb_Lg		02 36 46.8		
MD31	**MD31**	**6.50**	**123**	P	**Pn**	**02 35 33.5**	**+1.5**	
MD31				S	**Sn**	**02 36 44.4**	**-0.5**	
EQES	**Quesada**	**6.59**	**77**	Pn	**Pn**	**02 35 35.7**	**+2.3**	
EQES				Sn	**Sn**	**02 36 45.4**	**-2.0**	
EQES				IVmb_Lg		02 36 49.2		
MDT	**Midelt**	**6.63**	**123**		**Pn**	**02 35 34.8**	**+1.0**	
MDT				S	**Sn**	**02 36 46.4**	**-1.8**	
OUZM	**OUZ**	**6.80**	**146**	P	**Pn**	**02 35 37.4**	**+1.2**	
OUZM				S	**Sn**	**02 36 51.7**	**-0.7**	

*THE **02** 02:54:45.3, 38˚N±2˚×2˚7E±˚, h8km±3km, M2.8/5, MLh2.8/5*
*AFAD **02** 02:54:45.1, 37˚.84N×26˚.75E, h7km±2km, ML2.7*
*ISK **02** 02:54:45.3, 37˚.84N×26˚.78E, h6km, ML2.7/29*
*ATH **02** 02:54:45.2, 37˚.81N×26˚.72E, h12km±1km, ML2.6/10,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km

ISC 02 02:54:45.2±0.8, 37.83N±0.02×26.73E±0.02, h11km±6km, n63, σ0.957/88, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.04**	**209**	P	**Pg**	**02 54 47.2**	**-0.1**
KRL1				S	**Sg**	**02 54 49.1**	**+0.3**
KRL1				AML	AML		
DGB	**zmir**	**0.25**	**28**	P	**Pg**	**02 54 50.0**	**-0.3**
DGB				S	**Sg**	**02 54 52.8**	**-1.0**
GMLD	**Gumuldur**	**0.28**	**31**	Pg	**Pg**	**02 54 50.8**	**-0.2**
GMLD				Sg	**Sg**	**02 54 55.2**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.42**	**108**	P	**Pg**	**02 54 53.3**	**-0.1**
GCAM				S	**Sg**	**02 54 59.8**	**+0.8**
GCAM				IAML		02 55 00.0	
	comp=N,850nm,0.5s						
GCAM				IAML		02 55 00.0	
	comp=E,812nm,0.4s						
GCAM	**G?zelcaml?**	**0.42**	**108**	Pg	**Pg**	**02 54 53.4**	**-0.1**
GCAM				Sg	**Sg**	**02 54 59.3**	**+0.3**
GCAM				AML	AML		
BEYE	**izmir**	**0.42**	**21**	P	**Pg**	**02 54 53.2**	**-0.4**
BEYE				S	**Sg**	**02 54 59.0**	**-0.2**
BEYE				IAML		02 55 00.0	
	comp=E,536nm,0.3s						
KUSD	**Kusadasi-Aydin**	**0.44**	**86**	Pg	**Pg**	**02 54 53.5**	**-0.4**
KUSD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.44**	**336**	P	**Pg**	**02 54 53.8**	**-0.1**
ZEYE				S	**Sg**	**02 55 00.6**	**+0.7**
ZEYE				IAML		02 55 01.0	
	comp=N,859nm,0.2s						
ZEYE				IAML		02 55 01.0	
	comp=E,848nm,0.2s						
DDIM	**Aydin, Didim**	**0.55**	**133**	P	**Pg**	**02 54 55.5**	**-0.4**
DDIM				S	**Sb**	**02 55 04.5**	**-0.3**
DDIM				IAML		02 55 05.0	
	comp=N,484nm,0.7s						
DDIM				IAML		02 55 05.0	
	comp=E,454nm,0.6s						
BLCB	**Balcova**	**0.60**	**24**	P	**Pg**	**02 54 56.6**	**-0.3**
BLCB				S	**Sg**	**02 55 04.5**	**-0.4**
BLCB	**Balcova**	**0.60**	**24**	Pg	**Pg**	**02 54 56.7**	**-0.3**
BLCB				AML	AML		
DIDI	**Didim-Aydin**	**0.61**	**138**	Pg	**Pb**	**02 54 57.5**	**-0.3**
DIDI				AML	AML		
DUVT	**Torbali**	**0.69**	**55**	P	**Pg**	**02 54 58.0**	**-0.5**
DUVT				S	**Sg**	**02 55 06.4**	**-1.1**
DUVT				IAML		02 55 10.0	
	comp=E,377nm,0.3s						
CHOS	**Chios island**	**0.77**	**316**	P	**Pg**	**02 54 59.9**	**-0.2**
CHOS				S	**Sb**	**02 55 11.6**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**316**	Pg	**Pb**	**02 55 00.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**316**	P	**Pg**	**02 55 00.4**	**+0.3**
CHOS				S	**Sb**	**02 55 11.1**	**0.0**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.77**	**350**	Pg	**Pb**	**02 55 00.6**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**6**	P	**Pg**	**02 55 00.8**	**-0.4**
BAGT				S	**Sb**	**02 55 13.5**	**+0.8**
BAGT				IAML		02 55 15.0	
	comp=E,851nm,0.5s						
BAGT				IAML		02 55 16.0	
	comp=N,324nm,0.6s						
YKAV	**Yalikavak-Bodr**	**0.83**	**148**	Pg	**Pg**	**02 55 01.3**	**+0.1**
YKAV				AML	AML		
EAG2	**Marmaro, Chios**	**0.86**	**325**	P	**Pb**	**02 55 02.5**	**+0.3**
EAG2				S	**Sb**	**02 55 14.3**	**+0.5**
KARB	**zmir-Karabur**	**0.87**	**343**	P	**Pg**	**02 55 01.1**	**-0.8**
KARB				S	**Sb**	**02 55 13.9**	**0.0**
KARB				IAML		02 55 16.0	
	comp=N,426nm,0.7s						
KARB				IAML		02 55 16.0	
	comp=E,281nm,0.3s						
FOCM	**Foa**	**0.88**	**360**	Pg	**Pb**	**02 55 02.6**	**+0.1**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.90**	**168**	P	**Pg**	**02 55 02.5**	**+0.1**
KLNA				S	**Sg**	**02 55 14.3**	**+0.2**
KLNA				AML	AML		
BODT	**Bodrum**	**0.90**	**149**	P	**Pg**	**02 55 02.2**	**-0.3**
BODT				S	**Sb**	**02 55 15.1**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.90**	**149**	Pg	**Pg**	**02 55 02.6**	**+0.1**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.92**	**83**	Pg	**Pg**	**02 55 02.8**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.93**	**100**	P	**Pg**	**02 55 02.2**	**-0.8**
AYDN				S	**Sg**	**02 55 14.6**	**-0.5**
BDRM	**Kayabasi**	**0.95**	**143**	P	**Pb**	**02 55 03.9**	**+0.1**
BDRM				S	**Sb**	**02 55 16.5**	**+0.1**
BDRM				IAML		02 55 19.0	
	comp=N,243nm,0.4s						
BDRM				IAML		02 55 19.0	
	comp=E,186nm,0.4s						
MLSB	**Milas**	**0.99**	**123**	Pg	**Pg**	**02 55 04.1**	**-0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.01**	**72**	P	**Pg**	**02 55 03.9**	**-0.8**
IZMR				S	**Sg**	**02 55 15.7**	**-2.2**
CAMT	**Merkez**	**1.02**	**26**	P	**Pb**	**02 55 05.1**	**+0.2**
CAMT				S	**Sb**	**02 55 18.4**	**0.0**
ZEDA	**zmir-Bergama**	**1.16**	**13**	P	**Pb**	**02 55 06.9**	**-0.4**
ZEDA				S	**Sb**	**02 55 22.9**	**+0.4**
ZEDA				IAML		02 55 26.0	
	comp=E,169nm,0.3s						
ZEDA				IAML		02 55 27.0	
	comp=N,175nm,0.3s						
APE	**Apeiranthos**	**1.22**	**232**	S	**Sb**	**02 55 24.8**	**+0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.22**	**232**	P	**Pn**	**02 55 07.8**	**-0.5**
APE				S	**Sb**	**02 55 23.8**	**-0.4**
APE				AML	AML		
NAZL	**Nazilli-Aydin**	**1.24**	**83**	Pn	**Pn**	**02 55 08.8**	**+0.3**
NAZL				AML	AML		
DKL	**Dikili**	**1.24**	**6**	Pn	**Pg**	**02 55 09.3**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**6**	P	**Pn**	**02 55 08.4**	**-0.1**
GOMA	**Golmarmara-Man**	**1.28**	**47**	Pn	**Pg**	**02 55 09.5**	**-0.3**
GOMA				AML	AML		
TNSA	**Tinos**	**1.28**	**257**	P	**Pn**	**02 55 08.5**	**-0.5**
TNSA				AML	AML		
DAT	**Datca**	**1.29**	**148**	Pn	**Pg**	**02 55 10.3**	**+0.3**
DAT				AML	AML		
AKIS	**Akhisar**	**1.35**	**39**	Pn	**Pg**	**02 55 10.8**	**-0.3**
YER	**Yerkesik**	**1.42**	**119**	P	**Pn**	**02 55 10.8**	**-0.2**
YER				S	**Sb**	**02 55 29.5**	**-0.2**
YER	**Yerkesik**	**1.42**	**119**	Pn	**Pn**	**02 55 11.5**	**+0.5**
YER				AML	AML		
PRK	**Paraskevi**	**1.46**	**346**	P	**Pn**	**02 55 11.2**	**-0.2**
PRK				S	**Sg**	**02 55 32.3**	**+0.2**
PRK	**Paraskevi**	**1.46**	**346**	P	**Pn**	**02 55 11.6**	**+0.1**
SOMA	**Soma-Manisa**	**1.46**	**25**	Pn	**Pb**	**02 55 12.7**	**+0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.56**	**46**	Pn	**Pb**	**02 55 14.4**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.60**	**131**	Pn	**Pb**	**02 55 14.7**	**-0.1**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.80**	**8**	Pn	**Pb**	**02 55 17.6**	**-0.5**
YAYO				AML	AML		
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**02 55 16.4**	**-0.2**
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**02 55 15.9**	**-0.7**
DALY	**Dalyan (Mula)**	**1.84**	**123**	Pn	**Pn**	**02 55 17.8**	**+1.1**
DALY				AML	AML		
ARG	**Arkhangelos**	**1.96**	**145**	Pn	**Pb**	**02 55 20.1**	**-0.8**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.96**	**145**	P	**Pn**	**02 55 18.6**	**+0.2**
ARG				AML	AML		
BALB	**Balikesir**	**2.02**	**26**	Pn	**Pn**	**02 55 20.4**	**+1.3**
BALB				AML	AML		
APMY	**Acipayam-Deniz**	**2.07**	**99**	Pn	**Pn**	**02 55 21.2**	**+1.2**
SIMA	**Simav-Kutahya**	**2.16**	**54**	Pn	**Pn**	**02 55 22.7**	**+1.4**
SIMA				AML	AML		
FETY	**Fethiye**	**2.23**	**122**	Pn	**Pn**	**02 55 23.4**	**+1.3**
FETY				AML	AML		
DION	**Dionisos Attik**	**2.23**	**277**	P	**Pn**	**02 55 22.1**	**+0.1**
DION				AML	AML		
CAME	**Cameli-Denizli**	**2.23**	**113**	Pn	**Pn**	**02 55 23.2**	**+0.9**
PTL	**Penteli**	**2.28**	**276**	P	**Pn**	**02 55 23.0**	**+0.2**
PTL				AML	AML		
KARP	**Karpathos**	**2.31**	**171**	P	**Pn**	**02 55 23.1**	**-0.2**
KARP				AML	AML		
LIA	**Limnos Island**	**2.39**	**330**	P	**Pn**	**02 55 24.2**	**-0.1**
LIA				AML	AML		

IDC 02 02:55:47.5±5.3, 47.68N×47.60E, h0km, mbtmp3.7/3, ML2.9/3, Error ellipse: s-maj=95.9km s-min=23.2km az=111.0, Ukraine-Moldova-Southwestern Russia region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBZ	**Khabaz**	**5.14**	**222**	Pn	Pn	02 57 06.1	+0.4
	0.6nm,0.3s,baz=42,slow=12,SNR=33						
KBZ				Lg	Lg	02 58 31.2	
	0.6nm,0.3s,baz=137,slow=19,SNR=7.5						
	2.0nm,0.2s						
KBZ				AML	AML		
BRTR	**Keskin Array B**	**12.84**	**237**	Pn	Pn	02 58 50.2	-1.2
	baz=43,slow=11,SNR=2.6						
	1.0nm,1.0s						
FINES	**FINESS Array B**	**18.47**	**326**	P	Pn	03 00 05.3	+0.7
	0.2nm,0.3s,baz=129,slow=13,SNR=11						
	3.2nm,0.8s						
FINES				AML	AML		

*IDC **02** 03:01:49.2±1.2,5.˚88N×125.˚10E, h0km, mb3.5/4,*
mbtmp3.5/4, Error ellipse: s-maj=38.1km s-min=17.1km

az=92.0
*MAN **02** 03:01:54.0,5.˚98N×125.˚24E, h27km, MS3.6*
MAN INTENSITY III - MALAPATAN SARANGANI.

ISC 02 03:01:53.6±1.9,5.93N±0.09×125.2E±0.1, h29km±13km, n8, σ0.880/11, mb3.4/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**0.33**	**299**	*i* P	**Pb**	**03 02 01.3**	**-0.2**
GSPH				*i* S	**Sb**	**03 02 06.9**	**+0.1**
DMPH	**Davao City--Mi**	**1.18**	**13**	*eP*	**Pn**	**03 02 14.9**	**+0.7**
DMPH				*i* S	**Sb**	**03 02 30.4**	**+0.1**
DAV	**Davao City (W)**	**1.19**	**17**	Pg	**Pn**	**03 02 14.6**	**+0.4**
	100nm,0.3s,baz=207,slow=2.3,SNR=3.4						
DAV				LR	LR	03 02 20.8	
	comp=Z,42nm,21.9s,baz=164,slow=25						
DAV				Lg	Lg	03 02 29.6	
	212nm,0.3s,baz=198,slow=20,SNR=15						
CGP	**Cagayan de Oro**	**2.57**	**348**	*eP*	**Pn**	**03 02 34.5**	**+1.3**
CGP				*eS*	**Sb**	**03 03 09.0**	**-1.2**
WRA	**Warramunga Arr**	**27.22**	**161**	P	**P**	**03 07 34.7**	**-0.5**
	0.4nm,0.9s,baz=341,slow=9.9,SNR=6.6						
	0.4nm,0.9s						
ASAR	**Alice Springs**	**30.61**	**164**	P	**P**	**03 08 05.4**	**+0.1**
	0.1nm,0.3s,baz=341,slow=8.9,SNR=4.5						
	0.1nm,0.3s						
MKAR	**Makanchi Array**	**54.91**	**325**	P	**P**	**03 11 21.7**	**0.0**
	0.6nm,0.6s,baz=110,slow=6.4,SNR=4.3						
	0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**59.10**	**327**	P	**P**	**03 11 50.5**	**-0.7**
	0.3nm,0.7s,baz=115,slow=8.3,SNR=2.9						
	0.3nm,0.7s						

*ISK **02** 03:14:08.6, 37.˚79N×26.˚64E, h9km, ML2.8/19*
*ATH **02** 03:14:08.9, 37.˚80N×26.˚71E, h9km, ML2.6/8, Latitude*
uncertainty: 0 km; Longitude uncertainty: 1 km
*THE **02** 03:14:09.3, 38˚N±1˚×2˚7E±˚, h7km±1km, M2.5/7, MLh2.5/7*
*AFAD **02** 03:14:09.2, 37.˚82N×26.˚65E, h7km±1km, ML2.5*

ISC 02 03:14:09.1±0.8, 37.80N±0.02×26.68E±0.02, h9km±5km, n48, σ0.941/68, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.02**	**95**	P	**Pg**	**03 14 10.7**	**-0.1**
KRL1				S	**Sg**	**03 14 11.8**	**-0.1**
KRL1				AML	AML		
DGB	**zmir**	**0.30**	**33**	P	**Pg**	**03 14 15.4**	**+0.3**
DGB				S	**Sg**	**03 14 19.5**	**+0.4**
DGB				IAML		03 14 20.0	
	comp=N,556nm,0.4s						
GMLD	**Gumuldur**	**0.34**	**34**	Pg	**Pg**	**03 14 16.1**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.45**	**102**	P	**Pb**	**03 14 18.6**	**-0.6**
GCAM				IAML		03 14 26.0	
	comp=N,441nm,0.2s						
GCAM				IAML		03 14 26.0	
	comp=E,524nm,0.3s						
GCAM				S	**Sb**	**03 14 26.1**	**0.0**
GCAM	**G?zelcaml?**	**0.45**	**102**	Pg	**Pg**	**03 14 18.2**	**+0.3**
GCAM				Sg	**Sb**	**03 14 25.9**	**-0.2**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.46**	**343**	P	**Pg**	**03 14 18.0**	**-0.1**
ZEYE				S	**Sb**	**03 14 25.4**	**-1.0**
ZEYE				IAML		03 14 27.0	
	comp=N,374nm,0.5s						
BEYE	**izmir**	**0.47**	**25**	P	**Pg**	**03 14 18.3**	**-0.1**
BEYE				S	**Sg**	**03 14 25.1**	**+0.5**
BEYE				IAML		03 14 26.0	
	comp=N,461nm,0.3s						
BEYE				IAML		03 14 26.0	
	comp=E,343nm,0.3s						
KUSD	**Kusadasi-Aydin**	**0.49**	**82**	Pg	**Pg**	**03 14 18.8**	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.56**	**127**	P	**Pb**	**03 14 20.6**	**-0.5**
DDIM				S	**Sb**	**03 14 29.8**	**+0.6**
DDIM				IAML		03 14 31.0	
	comp=E,427nm,0.5s						
DDIM				IAML		03 14 34.0	
	comp=N,390nm,0.3s						
BLCB	**Balcova**	**0.65**	**26**	P	**Pg**	**03 14 21.8**	**0.0**
BLCB				S	**Sg**	**03 14 30.5**	**+0.2**
BLCB	**Balcova**	**0.65**	**26**	Pg	**Pg**	**03 14 21.9**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.74**	**55**	P	**Pg**	**03 14 23.7**	**+0.3**
DUVT				S	**Sg**	**03 14 33.5**	**+0.4**
DUVT				IAML		03 14 41.0	
	comp=E,183nm,0.6s						
CHOS	**Chios island**	**0.77**	**320**	P	**Pg**	**03 14 24.1**	**+0.2**
CHOS				S	**Sb**	**03 14 35.0**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**320**	Pg	**Pg**	**03 14 23.9**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**320**	P	**Pg**	**03 14 24.2**	**+0.4**
CHOS				S	**Sb**	**03 14 34.8**	**-0.4**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.80**	**353**	Pg	**Pg**	**03 14 24.6**	**+0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.87**	**9**	P	**Pb**	**03 14 26.1**	**-0.2**
BAGT				S	**Sn**	**03 14 40.3**	**0.0**
BAGT				IAML		03 14 45.0	
	comp=N,361nm,0.9s						
BAGT				IAML		03 14 52.0	
	comp=E,193nm,0.9s						
EAG2	**Marmaro, Chios**	**0.87**	**329**	P	**Pb**	**03 14 26.2**	**-0.1**
EAG2				S	**Sg**	**03 14 37.5**	**+0.4**
KARB	**zmir-Karabur**	**0.89**	**347**	P	**Pg**	**03 14 25.8**	**-0.5**
KARB				S	**Sb**	**03 14 39.7**	**+1.0**
KARB				IAML		03 14 43.0	
	comp=N,143nm,1.0s						
KARB				IAML		03 14 49.0	
	comp=E,148nm,0.8s						
BODT	**Bodrum**	**0.89**	**145**	P	**Pg**	**03 14 26.3**	**+0.1**
BODT				S	**Sg**	**03 14 38.2**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**145**	Pg	**Pb**	**03 14 27.3**	**+0.6**
BODT				AML	AML		
FOCM	**Foa**	**0.92**	**3**	Pg	**Pg**	**03 14 26.5**	**-0.2**
FOCM				AML	AML		
AYDN	**Tasoluk**	**0.96**	**98**	P	**Pn**	**03 14 28.4**	**-0.4**

GORD				AML	AML			
THERA	**Ancient Thera,**	**1.72**	**214**	P	**Pn**	**03 14 39.8**	**+0.5**
THERA				AML	AML			
KARY	**Karystos**	**1.79**	**278**	P	**Pn**	**03 14 39.8**	**-0.3**
YAYO	**Edremit-Balk**	**1.84**	**10**	Pn	**Pn**	**03 14 41.8**	**+1.0**
YAYO				AML	AML			
ARG	**Arkhangelos**	**1.96**	**143**	P	**Pn**	**03 14 42.6**	**+0.2**
ARG				AML	AML			
DION	**Dionisos Attik**	**2.19**	**278**	P	**Pn**	**03 14 45.8**	**+0.2**
DION				AML	AML			
PTL	**Penteli**	**2.24**	**277**	P	**Pn**	**03 14 46.6**	**+0.2**
LIA	**Limnos Island**	**2.40**	**331**	P	**Pn**	**03 14 48.8**	**+0.2**
LIA				AML	AML			
SMTH	**Samothraki Isl**	**2.81**	**342**	P	**Pn**	**03 14 54.4**	**+0.1**
SMTH				AML	AML			

KRNET ***02*** *03:18:35.3±0.1, 40°.45N×72°.63E, h12km, mb2.7*
ISU ***02*** *03:18:37, 40°.48N×72°.63E, h6km*
ISC 02 03:18:35.7±1.3, 40°.44N±0°.04×72°.62E±0°.03, h2km±11km, n15, σ1§67/27, 11C-9D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
OHH	**Osh**	**0.15**	**57**	⇓*i*P			**Pg**	**03 18 38.1**	**-0.5**
OHH				⇓*i*S			**Sg**	**03 18 40.1**	**-0.5**
TSTA	**Tashata**	**0.17**	**320**	P			**Pg**	**03 18 38.6**	**-0.5**
TSTA				S			**Sg**	**03 18 40.8**	**-0.6**
FRG	**Fergana**	**0.64**	**264**	P			**Pn**	**03 18 51.1**	**-0.8**
FRG				S			**Sn**	**03 19 01.2**	**-1.4**
SFK	**Sufi-Kurgan**	**0.80**	**122**	⇓*i*P			**Pg**	**03 18 50.6**	**-0.4**
SFK				⇓*i*S			**Sg**	**03 19 01.6**	**+0.2**
ARSB	**Arslanbob**	**0.92**	**17**	⇑*i*P			**Pg**	**03 18 52.9**	**-0.4**
ARSB				⇑*i*S			**Sg**	**03 19 05.6**	**+0.3**
SALK	**Salom-Alik**	**1.01**	**64**	⇑*e*P			**Pg**	**03 18 54.6**	**-0.5**
SALK				⇑*i*S			**Sg**	**03 19 08.6**	**+0.4**
ARK	**Arkit**	**1.44**	**340**	⇓*i*P			**Pn**	**03 19 02.5**	**-0.4**
ARK				⇓*i*S			**Sg**	**03 19 22.4**	**+0.4**
TRKS	**Terek-Say**	**1.56**	**315**	⇓*i*P			**Pn**	**03 19 03.6**	**-1.0**
TRKS				⇓*i*S			**Sn**	**03 19 24.2**	**-1.3**
MNAS	**Manas**	**2.04**	**358**	⇑*e*P			**Pb**	**03 19 13.2**	**-0.4**
MNAS				⇑*e*S			**Sg**	**03 19 40.7**	**-0.6**
PSK	**Pskem**	**2.25**	**312**	P			**Pg**	**03 19 18.6**	**-0.3**
PSK				S			**Sg**	**03 19 49.8**	**+1.7**
CHMG	**Chimgan**	**2.27**	**300**	S			**Sg**	**03 19 55.3**	**+6.8**
TVKS	**Tavaksay**	**2.52**	**298**	S			**Sg**	**03 19 57.2**	**+0.7**
AAK	**Ala-Archa** 2.4nm,0.5s	**2.60**	**32**	⇑Pn			**Pg**	**03 19 25.4**	**-0.1**
AAK	3.7nm,0.6s			⇑Sn			**Sb**	**03 19 56.5**	**+0.9**
NRN	**Naryn**	**2.74**	**68**	⇑*e*P			**Pn**	**03 19 22.5**	**+1.5**
NRN				⇑*e*S			**Sn**	**03 19 56.4**	**+1.5**
KK31	**Karatay Array** 0.5nm,0.5s,baz=138,slow=13,SNR=4.3	**3.09**	**330**	⇓Pn			**Pb**	**03 19 30.7**	**-0.7**
KK31	1.9nm,0.5s,baz=139,slow=28			⇑Lg			Lg	03 20 11.6	

IDC ***02*** *03:21:34.8±2.6, 23°.69S×69°.06W, h84km±22km, mb3.9/3, mbtmp4.0/8, Error ellipse: s-maj=39.4km s-min=19.0km az=112.0*
SJA ***02*** *03:21:35.6±0.6, 23°.73S×69°.23W, h113km±6km, ML3.9, MW3.9*
NEIC ***02*** *03:21:36.8±1.8, 23°.73S±0°.06×69°.23W±0°.07, h99km±5km, mb4.1/5, ML4.1(GUC), Error ellipse: s-maj=10.8km s-min=7.3km az=135.0*
GUC ***02*** *03:21:36.9±0.9, 23°.70S×69°.20W, h108km±5km, ML4.1, Presumed earthquake*
ISC 02 03:21:36.0±0.7, 23°.75S±0°.04×69°.21W±0°.04, h103km±9km, n90, σ1§48/93, mb4.3/4, 3C-4D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB06	**IPOC Station P**	**1.09**	**342**	*i* P			**Pn**	**03 21 58.8**	**+0.9**
PB06				*i* S			**Sn**	**03 22 15.9**	**+1.7**
PB06	**IPOC Station P**	**1.09**	**342**	Pn			**Pn**	**03 21 58.1**	**+0.2**
PB06	**IPOC Station P**	**1.09**	**342**	*i* P			**Pn**	**03 21 58.7**	**+0.9**
PB06				*e*S			**Sn**	**03 22 14.6**	**+0.3**
PB06	comp=E,7μm,0.2s			IAML				03 22 16.0	
AF01	**San Pedro de A**	**1.23**	**50**	*i* P			**Pn**	**03 22 00.6**	**+1.0**
AF01	comp=Z,5μm,0.1s			IAML				03 22 19.8	
AF01	**San Pedro de A**	**1.23**	**50**				**Pn**	**03 22 00.3**	**+0.7**
AF01	**San Pedro de A**	**1.23**	**50**	⇑*i*P			**Pn**	**03 22 00.6**	**+1.0**
AF01				*e*S			**Sn**	**03 22 17.8**	**+0.4**
AF01	comp=E,9μm,0.6s			IAML				03 22 24.9	
PB10	**IPOC Station P**	**1.25**	**280**	*i* P			**Pn**	**03 22 00.6**	**+1.1**
PB10				*i* S			**Sn**	**03 22 18.6**	**+1.3**
PB10	**IPOC Station P**	**1.25**	**280**	Pn			**Pn**	**03 22 00.8**	**+1.3**
PB10	**IPOC Station P**	**1.25**	**280**	⇓*i*P			**Pn**	**03 22 00.9**	**+1.4**
PB10				*e*S			**Sn**	**03 22 19.0**	**+0.9**
PB05	**IPOC Station P**	**1.27**	**314**	*i* P			**Pn**	**03 22 00.8**	**+1.0**
PB05				*i* S			**Sn**	**03 22 19.0**	**+1.1**
PB05	**IPOC Station P**	**1.27**	**314**	Pn			**Pn**	**03 21 59.8**	**-0.1**
PB05	**IPOC Station P**	**1.27**	**314**	*i* P			**Pn**	**03 22 00.9**	**+1.0**
PB05				*e*S			**Sn**	**03 22 18.4**	**+0.5**
PB05	comp=N,2μm,0.3s			IAML				03 22 20.3	
PB14	**IPOC Station P**	**1.40**	**231**	*i* P			**Pn**	**03 22 02.8**	**+1.2**
PB14				*i* S			**Sn**	**03 22 22.3**	**+1.5**
PB14	**IPOC Station P**	**1.40**	**231**	Pn			**Pn**	**03 22 02.7**	**+1.2**
PB14	**IPOC Station P**	**1.40**	**231**	⇑*i*P			**Pn**	**03 22 03.1**	**+1.6**
PB03	**IPOC Station P**	**1.76**	**343**	*i* P			**Pn**	**03 22 06.3**	**+0.4**
PB03				*i* S			**Sn**	**03 22 29.6**	**+1.0**
PB03	**IPOC Station P**	**1.76**	**343**	Pn			**Pn**	**03 22 06.0**	**+0.1**
PB03	**IPOC Station P**	**1.76**	**343**	⇓*i*P			**Pn**	**03 22 06.3**	**+0.4**
PB03	comp=E,2μm,0.3s			IAML				03 22 29.4	
PB09	**IPOC Station P**	**1.94**	**359**	*i* P			**Pn**	**03 22 09.2**	**+1.0**
PB09				*i* S			**Sn**	**03 22 33.6**	**+1.0**
PB09	**IPOC Station P**	**1.94**	**359**	Pn			**Pn**	**03 22 09.2**	**+1.0**
PB09	**IPOC Station P**	**1.94**	**359**	*i* P			**Pn**	**03 22 09.3**	**+1.0**
PB09	comp=N,1μm,0.3s			IAML				03 22 35.1	
PB07	**IPOC Station P**	**2.11**	**343**	*i* P			**Pn**	**03 22 10.6**	**+0.3**
PB07				*i* S			**Sn**	**03 22 37.3**	**+0.8**
PB07	**IPOC Station P**	**2.11**	**343**	Pn			**Pn**	**03 22 09.8**	**-0.5**
PB07	**IPOC Station P**	**2.11**	**343**	*i* P			**Pn**	**03 22 10.4**	**+0.1**
PB07	comp=E,1μm,0.3s			IAML				03 22 41.8	
PB02	**IPOC Station P**	**2.50**	**345**	Pn			**Pn**	**03 22 14.8**	**-0.6**
PB02	**IPOC Station P**	**2.50**	**345**	*e*P			**Pn**	**03 22 15.2**	**-0.1**
PB02	comp=E,1μm,0.2s			IAML				03 22 51.0	
SALTA		**2.67**	**101**	*i* P			**Pn**	**03 22 19.1**	**+1.2**
AC01	**Pan de Azucar**	**2.70**	**208**	*i* P			**Pn**	**03 22 18.4**	**+0.5**
AC01	comp=Z,266nm,0.8s			IAML				03 22 55.0	
AC01	**Pan de Azucar**	**2.70**	**208**	Pn			**Pn**	**03 22 17.5**	**-0.4**
AC01	**Pan de Azucar**	**2.70**	**208**	⇑*i*P			**Pn**	**03 22 18.3**	**+0.5**
AC02	**Maricunga**	**3.08**	**179**	*i* P			**Pn**	**03 22 24.9**	**+1.5**
AC02	comp=Z,200nm,0.7s			IAML				03 23 28.9	
AC02	**Maricunga**	**3.08**	**179**	Pn			**Pn**	**03 22 25.2**	**+1.9**
AC02	**Maricunga**	**3.08**	**179**	*i* P			**Pn**	**03 22 25.3**	**+2.0**
AC02	comp=N,322nm,0.3s			IAML				03 23 08.6	
TA01	**Diego Aracena**	**3.29**	**344**	*i* P			**Pn**	**03 22 24.3**	**-1.4**
TA01	comp=Z,177nm,0.5s			IAML				03 23 14.4	
TA01	**Diego Aracena**	**3.29**	**344**	Pn			**Pn**	**03 22 24.2**	**-1.6**
TA01	**Diego Aracena**	**3.29**	**344**	*e*P			**Pn**	**03 22 24.3**	**-1.4**
HJA	**Humahuaca**	**3.53**	**82**	*i* P			**Pn**	**03 22 31.3**	**+2.0**
TA02	**Huaiquique** comp=Z,216nm,0.1s	**3.56**	**346**	IAML				03 23 14.7	
PB08	**IPOC Station P**	**3.59**	**1**	Pn			**Pn**	**03 22 29.3**	**-0.8**
PB08	**IPOC Station P**	**3.59**	**1**	*e*P			**Pn**	**03 22 29.7**	**-0.4**
AC06	**Mina Casimiro**	**3.74**	**196**	Pn			**Pn**	**03 22 30.7**	**-1.1**
AC06	**Mina Casimiro**	**3.74**	**196**	*e*P			**Pn**	**03 22 31.2**	**-0.6**
FSA	**Cafayete**	**3.76**	**129**	*i* P			**Pn**	**03 22 33.7**	**+1.5**
GO03	**Copiapo** comp=Z,172nm,0.2s	**3.94**	**193**	IAML				03 23 20.8	
GO03	**Copiapo**	**3.94**	**193**	Pn			**Pn**	**03 22 34.4**	**-0.1**
GO03	**Copiapo**	**3.94**	**193**	*e*P			**Pn**	**03 22 34.2**	**-0.3**
PB11	**IPOC Station P**	**3.99**	**354**	Pn			**Pn**	**03 22 33.4**	**-1.9**
PB11	**IPOC Station P**	**3.99**	**354**	*e*P			**Pn**	**03 22 33.8**	**-1.5**
GO01	**Chusmiza** comp=Z,130nm,0.7s	**4.06**	**0**	IAML				03 23 52.6	
GO01	**Chusmiza**	**4.06**	**0**	Pn			**Pn**	**03 22 35.2**	**-1.3**
GO01	**Chusmiza**	**4.06**	**0**	*e*P			**Pn**	**03 22 35.7**	**-0.9**
PSGCX	**Pisagua**	**4.22**	**348**	Pn			**Pn**	**03 22 36.0**	**-2.3**
PSGCX	**Pisagua**	**4.22**	**348**	*e*P			**Pn**	**03 22 35.8**	**-2.5**
TINO	**Tinogasta**	**4.54**	**161**	*i* P			**Pn**	**03 22 43.9**	**+1.1**
AC04	**Llanos de Chal**	**4.75**	**200**	Pn			**Pn**	**03 22 43.0**	**-2.3**
AC04	**Llanos de Chal**	**4.75**	**200**	*e*P			**Pn**	**03 22 43.3**	**-2.0**
VCA	**Vinchina**	**5.05**	**170**	*i* P			**Pn**	**03 22 50.8**	**+1.2**
AC05	**El Transito**	**5.16**	**190**	Pn			**Pn**	**03 22 49.8**	**-1.2**
PB12	**IPOC Station P**	**5.21**	**348**	Pn			**Pn**	**03 22 48.6**	**-3.2**
PB16	**IPOC Station P**	**5.39**	**357**	Pn			**Pn**	**03 22 54.3**	**-0.4**
LCO	**Las Campanas**	**5.41**	**194**	Pn			**Pn**	**03 22 52.8**	**-1.7**
CO01	**Juntas del Tor**	**6.25**	**187**	Pn			**Pn**	**03 23 05.3**	**-0.7**
GO04	**Tololo Observa**	**6.55**	**192**	Pn			**Pn**	**03 23 08.4**	**-1.7**
CO06	**Fray Jorge**	**7.23**	**197**	Pn			**Pn**	03 23 15.4	-3.6
LPAZ	**La Paz** comp=Z,2.3nm,0.4s,baz=176,slow=8.9,SNR=37	**7.49**	**8**	P			**Pn**	**03 23 21.9**	**-1.3**
LPAZ	**La Paz**	**7.49**	**8**	Pn			**Pn**	**03 23 23.1**	**-0.1**
CO02	**Combarbal**	**7.59**	**192**	Pn			Pn	03 23 20.5	-3.6
ZON	**Zonda**	**7.78**	**177**	Pn			**Pn**	**03 23 25.6**	**-1.0**
CFA	**Coronel Fontan** comp=Z,6.1nm,0.3s,baz=1.4,slow=14,SNR=125	**7.87**	**174**	*e*P			**Pn**	**03 23 26.8**	**-1.0**
CFA	comp=Z,2.3nm,0.3s,baz=261,slow=19,SNR=6.2			S			**Sn**	**03 24 49.5**	**-5.8**
CO04	**Los Peladeros**	**8.41**	**190**	Pn			Pn	03 23 31.8	-3.5
MT09	**Talagante**	**10.11**	**188**	Pn			Pn	03 23 54.1	-4.2
MT01	**Popeta**	**10.24**	**190**	Pn			Pn	03 23 55.2	-4.6
SIV	**San Ignacio** comp=Z,6.3nm,0.3s,baz=237,slow=14,SNR=54	**10.87**	**46**	P			Pn	03 24 04.0	-4.6
SIV	comp=Z,1.0nm,0.4s,baz=175,slow=15,SNR=1.6			S			Sn	03 25 55.0	-13
CPUP	**Villa Florida** comp=Z,0.4nm,0.6s,baz=287,slow=16,SNR=1.6	**11.07**	**106**	P			**Pn**	**03 24 08.5**	**-2.8**
CPUP	**Villa Florida**	**11.07**	**106**				**Pn**	**03 24 11.9**	**+0.6**
PTLB	**Pontes e Lacer**	**12.57**	**51**	Pn			**Pn**	**03 24 26.9**	**-4.3**
VILB	**Vilhena**	**13.72**	**40**	Pn			**Pn**	**03 24 43.6**	**-2.7**
PLCA	**Paso Flores** comp=Z,1.6nm,0.7s,baz=1.0,slow=14,SNR=6.8	**16.97**	**183**	P			**Pn**	**03 25 27.4**	**+0.3**
PLCA	**Paso Flores**	**16.97**	**183**	P			**Pn**	**03 25 27.8**	**+0.7**
VAO	**Valinhos**	**20.43**	**92**	P			**P**	**03 26 06.3**	**+1.0**
VAO	comp=Z,18nm,1.2s			IAmb		IAmb		03 26 09.4	
BDFB	**Brasilia** comp=Z,7.8nm,0.8s,baz=237,slow=11,SNR=12	**21.50**	**72**	P			**P**	**03 26 17.1**	**+0.3**
BDFB	comp=Z,7.8nm,0.8s			IAmb		IAmb		03 26 17.9	
BDFB	**Brasilia** comp=Z,7.0nm,0.7s	**21.50**	**72**	P			**P**	**03 26 16.7**	**-0.1**
SMTB	**Santa Maria do**	**25.43**	**58**	P			**P**	**03 26 55.9**	**+1.6**
VNA3	**Neumayer Olymp** comp=Z,3.4nm,0.8s	**58.05**	**161**	⇓P			**P**	**03 31 19.0**	**+1.1**
VNA2	**Neumayer--Watz** comp=Z,4.0nm,0.9s,baz=282,slow=7.6	**58.64**	**160**	⇓P			**P**	**03 31 23.1**	**+1.1**
TROLL	**Troll, Antarti** comp=Z,88nm,0.7s	**61.98**	**160**	P			**P**	**03 31 45.7**	**+0.8**
QSPA	**South Pole Qui** comp=Z,1.3nm,0.4s,baz=161,slow=14,SNR=19	**66.45**	**180**	P			**P**	**03 32 15.8**	**+1.6**
QSPA	**South Pole Qui** comp=Z,1.3nm,0.4s	**66.45**	**180**	P			**P**	**03 32 15.7**	**+1.5**
QSPA	comp=Z,1.4nm,0.7s			IAmb		IAmb		03 32 54.3	
TORD	**Torodi Ar. Bea** comp=Z,0.9nm,0.4s,baz=246,slow=7.2,SNR=5.3 comp=Z,0.9nm,0.4s	**78.38**	**70**	P			**P**	**03 33 24.8**	**-0.8**
WRA	**Warramunga Arr** comp=Z,0.2nm,0.4s,baz=147,slow=1.9,SNR=4.6	**130.88**	**210**	PKP			**PKiKP**	**03 40 37.1**	**+0.1**

UCR ***02*** *03:22:23.2±0.9, 11°.22N×85°.77W, h173km±7km, MW3.5, Presumed earthquake*
CATAC ***02*** *03:22:25.2±0.4, 11°.N±2°.×8°.6W±°., h160km±3km, M2.8/22, MLv2.8/22, Error ellipse: s-maj=7.8km s-min=3.2km az=58.1, confirmed*
ISC 02 03:22:24.1±2.0, 11°.25N±0°.06×85°.62W±0°.08, h173km±12km, n56, σ0§51/74, Nicaragua

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CARN	**Rivas**	**0.12**	**123**	P			**Pn**	**03 22 47.2**	**+0.2**
CARN				S			**Sn**	**03 23 03.7**	**-0.8**
CARN	**Rivas**	**0.12**	**123**	*e*P			**Pn**	**03 22 47.2**	**+0.2**
CARN				*e*S			**Sn**	**03 23 05.4**	**+0.9**
LCRUZ	**La Cruz**	**0.17**	**182**	*e*P			**Pn**	**03 22 47.0**	**-0.2**
LCRUZ				*e*S			**Sn**	**03 23 05.3**	**+0.5**
OMEN	**Al SSO del Vol**	**0.26**	**359**	P			**Pn**	**03 22 46.8**	**-0.5**
OMEN				S			**Sn**	**03 23 05.1**	**-0.1**
JAPN	**Al SSO del Vol**	**0.28**	**349**	P			**Pn**	**03 22 47.8**	**+0.5**
MORN	**Al O del Volca**	**0.29**	**355**	P			**Pn**	**03 22 47.5**	**+0.1**
CONN	**Concepcion**	**0.31**	**360**	P			**Pn**	**03 22 47.2**	**-0.2**
CONN				S			**Sn**	**03 23 05.7**	**+0.3**
VORI	**VORI**	**0.51**	**148**	*e*P			**Pn**	**03 22 49.2**	**+0.8**
LAPC	**Finca la Perla**	**0.52**	**159**	*e*P			**Pn**	**03 22 48.0**	**-0.2**
GPS3	**Bodega del ICE**	**0.56**	**153**	*e*P			**Pn**	**03 22 49.2**	**+0.7**
GPS2	**Hotel Rincn d**	**0.56**	**152**	*e*P			**Pn**	**03 22 48.4**	**-0.1**
CLARA	**Aguas Claras**	**0.64**	**137**	*e*P			**Pn**	**03 22 49.1**	**+0.3**
ALIBA	**Liberia Airpor**	**0.66**	**173**	*e*P			**Pn**	**03 22 49.0**	**+0.2**
MESS	**Mesas**	**0.66**	**140**	*e*P			**Pn**	**03 22 49.2**	**+0.3**
VMAR	**Armenia, Volca**	**0.67**	**131**	*e*P			**Pn**	**03 22 48.9**	**0.0**
UPAL	**Upala**	**0.70**	**120**	P			**Pn**	**03 22 49.0**	**0.0**
BAGA	**Bagaces**	**0.80**	**154**	*e*P			**Pn**	**03 22 49.9**	**+0.2**
ACON	**Acoyapa**	**0.84**	**32**	P			**Pn**	**03 22 49.8**	**-0.1**
ACON				S			**Sn**	**03 23 09.2**	**-0.7**
TENO	**El Achiote**	**0.84**	**131**	*e*P			**Pn**	**03 22 50.7**	**+0.6**
NANN	**Nandasmo**	**0.84**	**325**	P			**Pn**	**03 22 51.2**	**+1.3**
NANN				S			**Sn**	**03 23 09.9**	**0.0**
TIMP	**Tierras Morena**	**0.89**	**138**	*e*P			**Pn**	**03 22 50.7**	**+0.3**
QUEB	**Quebradon, Cot**	**0.95**	**131**	*e*P			**Pn**	**03 22 51.0**	**+0.3**
COTE	**Lago Cote**	**0.97**	**134**	*e*P			**Pn**	**03 22 51.7**	**+0.8**
TILA	**Tilaran**	**1.01**	**140**	*e*P			**Pn**	**03 22 51.7**	**+0.4**
WILN	**Americas 2**	**1.06**	**329**	P			**Pn**	**03 22 51.4**	**-0.1**
MGAN	**Managua**	**1.08**	**326**	P			**Pn**	**03 22 51.7**	**0.0**
MGAN				S			**Sn**	**03 23 13.2**	**+0.2**
JUD3	**Juan Diaz 3**	**1.08**	**176**	*e*P			**Pn**	**03 22 52.0**	**+0.1**
NICO	**Nicoya**	**1.12**	**171**	*e*P			**Pn**	**03 22 52.3**	**+0.2**
TABAC	**Tabacon**	**1.13**	**132**	*e*P			**Pn**	**03 22 53.0**	**+0.8**
JTS	**Las Juntas de**	**1.16**	**145**	P			**Pn**	**03 22 52.5**	**0.0**
JTS				S			**Sn**	**03 23 13.4**	**-0.8**
JTS	**Las Juntas de**	**1.16**	**145**	*e*P			**Pn**	**03 22 52.4**	**0.0**
APQ2	**Apoyeque**	**1.16**	**324**	P			**Pn**	**03 22 52.7**	**+0.3**
APQ2				S			**Sn**	**03 23 14.3**	**0.0**
CEDE	**Laguna Cedeo**	**1.18**	**130**	*e*P			**Pn**	**03 22 53.4**	**+0.7**
VARE2	**V. Arenal**	**1.19**	**131**	*e*P			**Pn**	**03 22 53.6**	**+0.9**
SAPS	**Ciudad Sandino**	**1.19**	**320**	P			**Pn**	**03 22 52.9**	**+0.2**
SAPS				S			**Sn**	**03 23 14.6**	**-0.1**
BOAB	**BOACO BROADBAN**	**1.19**	**358**	P			**Pn**	**03 22 52.7**	**0.0**
BOAB				S			**Sn**	**03 23 13.9**	**-0.8**
CASO	**Castillo**	**1.19**	**133**	*e*P			**Pn**	**03 22 53.4**	**+0.7**
MTEVE	**Monteverde**	**1.21**	**140**	*e*P			**Pn**	**03 22 53.3**	**+0.3**
CMARA	**Lajas Hojancha**	**1.24**	**171**	P			**Pn**	**03 22 53.3**	**+0.1**
CMARA				S			**Sn**	**03 23 15.0**	**-0.6**
CMARA	**Lajas Hojancha**	**1.24**	**171**	*e*P			**Pn**	**03 22 53.3**	**+0.1**
COVE	**Coope Vega, Sa**	**1.31**	**114**	P			**Pn**	**03 22 54.1**	**+0.4**
COPN	**Copaltepe**	**1.32**	**314**	*e*P			**Pn**	**03 22 53.3**	**-0.5**
INDI	**Punta indio, G**	**1.38**	**175**	P			**Pn**	**03 22 54.4**	**0.0**
INDI				S			**Sn**	**03 23 17.5**	**-0.3**
MOM2	**El Cardon**	**1.45**	**325**	P			**Pn**	**03 22 55.1**	**+0.2**
MOM2				S			**Sn**	**03 23 18.9**	**+0.1**
MOMN	**Momotombo**	**1.46**	**322**	P			**Pn**	**03 22 55.1**	**0.0**
MOMN				S			**Sn**	**03 23 19.0**	**0.0**
VPL1	**V. Platanar**	**1.58**	**129**	*e*P			**Pn**	**03 22 57.7**	**+1.2**
SRA1	**San Ramn**	**1.62**	**136**	*e*P			**Pn**	**03 22 57.6**	**+0.8**
ATEO	**Atenas**	**1.76**	**136**	*e*P			**Pn**	**03 22 58.3**	**+0.1**
TRB2	**Turrubares**	**1.76**	**139**	P			**Pn**	**03 22 58.2**	**0.0**
TCS1	**Tacares**	**1.77**	**133**	P			**Pn**	**03 22 59.2**	**+0.8**
PKGN	**Cerro Pekin**	**1.93**	**317**	P			**Pn**	**03 23 00.1**	**+0.2**
HDC	**Heredia**	**1.94**	**130**	P			**Pn**	**03 22 59.5**	**-0.6**
ACOS	**Acosta**	**2.04**	**135**	*e*P			**Pn**	**03 23 01.7**	**+0.5**
ACOS				*e*S			**Sn**	**03 23 29.5**	**-0.5**
PICV	**PH. Pirrs**	**2.14**	**139**	*e*P			**Pn**	**03 23 02.8**	**+0.5**
LCR2	**La Lucha 2**	**2.19**	**133**	P			**Pn**	**03 23 03.8**	**+0.8**
LCR2				S			**Sn**	**03 23 32.2**	**-1.0**
LCR2	**La Lucha 2**	**2.19**	**133**	*e*P			**Pn**	**03 23 03.6**	**+0.6**

IDC ***02*** *03:26:42.0±1.9, 17°.51N×101°.28W, h0km, mb3.9/5, mbtmp3.8/9, ML3.1/5, MS3.1/3, Error ellipse: s-maj=36.0km s-min=10.0km az=26.0*
NEIC ***02*** *03:26:43.9±2.0, 17°.4N±0°.1×101°.46W±0°.07, h10km±2km, mb4.2/68, Error ellipse: s-maj=21.3km s-min=5.8km az=208.0*
MEX ***02*** *03:26:45.8±2.6, 17°.31N×101°.67W, h13km±52km, MD4.6, Presumed earthquake*
ISC 02 03:26:42.2±1.3, 17°.24N±0°.04×101°.58W±0°.03, h14km±8km, n143, σ1§87/208, mb4.2/20, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	**0.38**	**17**	*i* P			**Pb**	**03 26 51.1**	**+0.4**
ZIIG				*e*S			**Sb**	**03 26 56.1**	**-0.4**
PET2	**Petatlan**	**0.42**	**46**	*e*P			**Pb**	**03 26 52.4**	**+0.9**
PET2				*e*S			**Sb**	**03 26 58.7**	**+1.0**
UON	**La Union**	**0.76**	**343**	*e*P			**Pg**	**03 26 56.8**	**-0.1**
UON				*e*S			**Sg**	**03 27 06.3**	**-0.5**
ATYC	**Atoyac**	**1.10**	**91**	*e*P			**Pg**	**03 27 04.6**	**+1.2**
ATYC				*e*S			**Sb**	**03 27 17.0**	**-0.3**
CAIG	**El Cayaco**	**1.27**	**99**	*e*P			**Pg**	**03 27 06.9**	**+0.2**
CAIG				*e*S			**Sg**	**03 27 25.0**	**+1.8**
ARIG	**Puente Sto Nin**	**1.57**	**49**	*e*P			**Pn**	**03 27 10.3**	**+0.6**
ARIG				*e*S			**Sn**	**03 27 29.1**	**-0.7**
DAIG	**Los Arroyos**	**1.86**	**96**	*e*P			**Pn**	**03 27 14.6**	**+0.9**
DAIG				*e*S			**Sn**	**03 27 36.6**	**-0.4**
MMIG	**Aquila**	**1.98**	**302**	*e*P			**Pn**	**03 27 13.2**	**-2.1**
MMIG				*e*S			Sn	03 27 33.8	-6.1
MEIG	**Mezcala**	**1.99**	**70**	*e*P			**Pn**	**03 27 16.8**	**+1.2**
MEIG				*e*S			**Sg**	**03 27 44.7**	**-1.6**
PLIG	**Platanillo**	**2.29**	**60**	*e*P			**Pb**	**03 27 22.4**	**-0.9**
PLIG				*e*S			**Sb**	**03 27 49.5**	**-2.1**
CRIG	**Cruz Grande**	**2.40**	**102**	*e*P			**Pn**	**03 27 22.0**	**+0.9**
CRIG				*e*S			**Sn**	**03 27 52.3**	**+1.9**
MOIG	**Morelia**	**2.45**	**9**				**Pn**	**03 27 21.1**	**-0.9**
MOIG	**Morelia**	**2.45**	**9**	*e*P			**Pn**	**03 27 22.2**	**+0.2**
MOIG				*e*S			**Sn**	**03 27 50.4**	**-1.5**
MAVM	**Malinalco, Edo**	**2.62**	**49**	*e*P			**Pn**	**03 27 25.6**	**+1.3**
MAVM				*e*S			**Sb**	**03 28 00.7**	**-0.6**
TOVM	**TOLUCA**	**2.72**	**41**	*e*P			**Pb**	**03 27 30.5**	**-0.4**
TOVM				*e*S			**Sn**	**03 28 00.3**	**+1.6**
MGIG	**Malinaltepec**	**2.82**	**90**	*e*P			**Pn**	**03 27 29.7**	**+2.7**
MGIG				*e*S			**Sn**	**03 28 00.9**	**0.0**
YAIG	**Yautepec**	**2.88**	**56**	*e*P			**Pn**	**03 27 28.9**	**+1.0**
YAIG				*e*S			**Sb**	**03 27 56.7**	**-1.4**
TLIG	**Tlapa**	**2.90**	**83**	Pn			**Pn**	**03 27 30.7**	**+2.6**
TLIG	**Tlapa**	**2.90**	**83**	*e*P			**Pn**	**03 27 30.6**	**+2.6**
TLIG				*e*S			**Sn**	**03 28 03.8**	**+1.0**
ACAM	**Acambaro**	**2.91**	**16**	*e*P			**Pb**	**03 27 33.0**	**-1.0**
ACAM				*e*S			**Sn**	**03 28 03.5**	**+0.4**
INVM	**La Marquesa**	**2.92**	**45**	*e*P			**Pn**	**03 27 29.7**	**

TXAR				Lg	Lg	03 33 00.4		
	0.1nm,0.3s,baz=184,slow=18,SNR=4.0							
	0.5nm,0.9s							
TXAR				AML	AML			
TXAR	**Lajitas Array**	**12.19**	**351**	Pn	**Pn**	**03 29 34.4**	**-1.2**	
TEIG	**Tepich**	**12.95**	**75**	Pn	**Pn**	**03 29 43.4**	**-2.5**	
	baz=219,slow=20							
BRDY	**Brady**	**14.18**	**9**		**P**	**03 30 09.4**	**-0.8**	
PECS	**Pecos**	**14.22**	**352**	P	**P**	**03 30 11.7**	**+1.0**	
HNVL	**Huntsville, TX**	**14.56**	**21**	P	**P**	**03 30 14.3**	**-0.1**	
229A	**Bryant Ranch,**	**14.66**	**359**	P	**P**	**03 30 16.3**	**+0.6**	
GDL2	**Guadalupe Moun**	**15.11**	**351**	P	**P**	**03 30 18.8**	**-1.8**	
129A	**Stewart Farms,**	**15.32**	**359**	P	**P**	**03 30 23.5**	**+0.5**	
129A				IAmb	IAmb	03 30 24.5		
	comp=Z,13nm,1.3s							
128A	**Castleberry Fa**	**15.34**	**357**	Pn	**Pn**	**03 30 19.1**	**+0.7**	
128A				IAmb	IAmb	03 30 24.8		
	comp=Z,7.1nm,1.1s							
POST	**Post**	**15.76**	**0**	P	**P**	**03 30 27.4**	**-0.3**	
POST				IAmb	IAmb	03 30 29.2		
	comp=Z,25nm,1.1s							
NATX	**Nacogdoches**	**15.76**	**22**	P	**P**	**03 30 28.1**	**+0.4**	
PLPT	**Palo Pinto**	**15.78**	**10**	Pn	**Pn**	**03 30 24.6**	**+0.5**	
PLPT				IAmb	IAmb	03 30 29.6		
	comp=Z,19nm,0.9s							
APMT	**Aspermont**	**16.07**	**4**	P	**P**	**03 30 31.2**	**0.0**	
LENM	**Lemitar**	**17.53**	**345**		**P**	**03 30 48.0**	**+0.4**	
JTS	**Las Juntas de**	**17.56**	**111**	Pn	**P**	**03 30 48.4**	**+0.6**	
	comp=Z,0.2nm,0.3s,baz=300,slow=14,SNR=2.0							
	comp=Z,2.2nm,0.5s							
JTS				AML	AML			
Z41A	**Richland Creek**	**17.80**	**25**		**P**	**03 30 50.6**	**+0.3**	
Z41A				IAmb	IAmb	03 30 53.7		
	comp=Z,9.2nm,0.8s							
ANMO	**Albuquerque**	**18.16**	**347**	P	**P**	**03 30 55.1**	**+0.6**	
	baz=152,slow=14,SNR=6.0							
ANMO				LR	LR	03 38 35.5		
	comp=Z,141nm,20.2s,baz=150,slow=40							
	comp=Z,1.0nm,0.7s							
ANMO	**Albuquerque**	**18.16**	**347**	P	**Pn**	**03 30 54.5**	**+0.2**	
W35A	**Tecumseh**	**18.33**	**12**		**Pn**	**03 30 54.4**	**-1.7**	
W35A				IAmb	IAmb	03 30 56.0		
	comp=Z,7.0nm,0.5s							
MIAR	**Mount Ida**	**18.66**	**21**	P	**P**	**03 30 58.8**	**-1.1**	
TUL3	**Leonard**	**19.29**	**14**	P	**P**	**03 31 05.4**	**-1.3**	
TUL3				IAmb	IAmb	03 31 06.8		
	comp=Z,12nm,1.1s							
Y45A	**Yeager Farm, C**	**19.77**	**31**	P	**P**	**03 31 12.2**	**+0.3**	
WHAR	**Wooly Hollow**	**19.79**	**23**	P	**P**	**03 31 11.5**	**-0.7**	
WHAR				IAmb	IAmb	03 31 12.7		
	comp=Z,6.5nm,0.6s							
T25A	**Trinidad**	**19.98**	**353**	P	**P**	**03 31 15.2**	**+0.7**	
HHAR	**Hobbs**	**20.14**	**18**	P	**P**	**03 31 14.7**	**-1.3**	
HHAR				IAmb	IAmb	03 31 16.0		
	comp=Z,15nm,1.1s							
FCAR	**Ozark Folk Cen**	**20.39**	**23**	P	**P**	**03 31 17.9**	**-0.7**	
FCAR				IAmb	IAmb	03 31 18.9		
	comp=Z,11nm,0.8s							
LRAL	**Lakeview Retre**	**20.50**	**37**	P	**P**	**03 31 19.2**	**-0.7**	
SDCO	**Great Sand Dun**	**20.71**	**351**	P	**P**	**03 31 22.8**	**+0.3**	
IRM	**Iron Mountain**	**20.77**	**327**	P	**P**	**03 31 24.4**	**+1.5**	
MVCO	**Mesa Verde**	**20.81**	**344**	P	**P**	**03 31 24.2**	**+0.7**	
MVCO				IAmb	IAmb	03 31 28.8		
	comp=Z,8.0nm,1.1s							
PFO	**Pinyon Flats O**	**21.08**	**323**	P	**P**	**03 31 28.7**	**+2.3**	
	comp=Z,2.5nm,0.9s,baz=143,slow=12,SNR=5.4							
	comp=Z,2.5nm,0.9s							
PFO	**Pinyon Flats O**	**21.08**	**323**	P	**P**	**03 31 28.0**	**+1.6**	
S39A	**Bolivar**	**21.63**	**18**	P	**P**	**03 31 30.4**	**-1.7**	
S39A				IAmb	IAmb	03 31 31.9		
	comp=Z,8.0nm,0.6s							
PV15	**Paradox Valley**	**21.87**	**345**	P	**P**	**03 31 34.7**	**-0.3**	
PV15				IAmb	IAmb	03 31 47.1		
	comp=Z,9.9nm,0.9s							
PV03	**Paradox Valley**	**21.88**	**345**	P	**P**	**03 31 35.8**	**+0.7**	
PV03				IAmb	IAmb	03 31 41.5		
	comp=Z,9.3nm,1.3s							
PV04	**Paradox Valley**	**22.03**	**345**	P	**P**	**03 31 37.4**	**+0.8**	
PV04				IAmb	IAmb	03 31 40.5		
	comp=Z,6.1nm,0.8s							
PV22	**Blue Mesa, Par**	**22.13**	**345**	P	**P**	**03 31 37.7**	**0.0**	
PV22				IAmb	IAmb	03 31 41.0		
	comp=Z,6.0nm,0.8s							
HMU	**Henry Mountain**	**22.13**	**340**	P	**P**	**03 31 38.7**	**+1.0**	
HMU				IAmb	IAmb	03 31 41.8		
	comp=Z,7.2nm,0.8s							
WVT	**Waverly**	**22.42**	**30**	P	**P**	**03 31 39.5**	**-1.0**	
WVT				IAmb	IAmb	03 31 42.2		
	comp=Z,13nm,1.4s							
R40A	**Maddies Statio**	**22.50**	**19**	P	**P**	**03 31 39.7**	**-1.8**	
R40A				IAmb	IAmb	03 31 40.5		
	comp=Z,6.3nm,0.6s							
ISCO	**Idaho Springs**	**22.75**	**352**	P	**P**	**03 31 43.7**	**-0.7**	
ISCO				IAmb	IAmb	03 31 47.5		
	comp=Z,6.3nm,0.9s							
TPNV	**Topopah Spring**	**23.52**	**329**	P	**P**	**03 31 52.6**	**+0.5**	
TPNV				IAmb	IAmb	03 31 55.1		
	comp=Z,5.3nm,1.1s							
TKL	**Tuckaleechee C**	**24.23**	**37**	P	**P**	**03 31 57.2**	**-1.5**	
T50A	**Nancy**	**24.63**	**34**	P	**P**	**03 32 01.0**	**-1.3**	
T50A				IAmb	IAmb	03 32 02.7		
	comp=Z,4.5nm,0.7s							
TZTN	**Tazewell**	**24.98**	**36**	P	**P**	**03 32 04.8**	**-0.8**	
NVAR	**Mina Array Bea**	**25.69**	**329**	P	**P**	**03 32 13.5**	**+1.3**	
	comp=Z,3.3nm,0.9s,baz=146,slow=8.0,SNR=18							
	comp=Z,3.3nm,0.9s							
NVAR	**Mina Array Bea**	**25.69**	**329**	P	**P**	**03 32 12.0**	**-0.2**	
KVN	**Kaiserville**	**26.07**	**330**	P	**P**	**03 32 17.1**	**+1.5**	
KVN				IAmb	IAmb	03 32 21.0		
	comp=Z,5.7nm,0.9s							
PDAR	**Pinedale Array**	**26.34**	**347**	P	**P**	**03 32 17.4**	**-0.6**	
	comp=Z,2.2nm,0.9s,baz=156,slow=7.8,SNR=14							
	comp=Z,2.2nm,0.9s							
PDAR	**Pinedale Array**	**26.34**	**347**	P	**P**	**03 32 18.6**	**+0.6**	
ECSD	**EROS Data Cent**	**26.74**	**8**	P	**P**	**03 32 21.8**	**+0.5**	
PLID	**Pearl Lake**	**30.28**	**340**	P	**P**	**03 32 53.7**	**+0.5**	
WIFE	**Three Sisters-**	**31.73**	**332**	P	**P**	**03 33 06.8**	**+0.9**	
WIFE				IAmb	IAmb	03 33 08.6		
	comp=Z,4.4nm,0.9s							
J01E	**Myrtle Point**	**32.06**	**328**	P	**P**	**03 33 10.6**	**+2.0**	
I02E	**Swisshome, OR**	**32.71**	**330**	P	**P**	**03 33 16.6**	**+2.4**	
ULM	**Lac du Bonnet**	**33.25**	**7**	P	**P**	**03 33 17.3**	**-1.5**	
	comp=Z,3.7nm,0.9s,baz=192,slow=14,SNR=2.1							
	comp=Z,3.7nm,0.9s							
I30M	**Mount Dempster**	**53.28**	**343**	P	**P**	**03 36 00.3**	**-0.2**	
I30M				IAmb	IAmb	03 36 13.1		
	comp=Z,3.0nm,1.1s							
EPYK	**Eagle Plains**	**54.22**	**343**	P	**P**	**03 36 08.4**	**+1.1**	
H29M	**Whitestone**	**54.58**	**343**	P	**P**	**03 36 10.9**	**+1.1**	
RIDG	**Independent Ri**	**55.01**	**338**	P	**P**	**03 36 14.6**	**+1.5**	
G27K	**Doyon Strip**	**55.94**	**342**	P	**P**	**03 36 20.5**	**+0.9**	
G27K				IAmb	IAmb	03 36 21.2		
	comp=Z,5.3nm,1.4s							
ILAR	**Eielson Array**	**56.34**	**339**	P	**P**	**03 36 23.2**	**+0.7**	
	comp=Z,1.2nm,0.8s,baz=128,slow=7.6,SNR=14							
	comp=Z,1.2nm,0.8s							
ILAR	**Eielson Array**	**56.34**	**339**	P	**P**	**03 36 23.7**	**+1.2**	
M20K	**Styx River**	**57.25**	**334**	P	**P**	**03 36 30.0**	**+0.8**	
CAST	**Castle Rocks**	**57.55**	**336**	P	**P**	**03 36 32.0**	**+0.9**	
N18K	**Kilae Creek**	**57.94**	**332**	P	**P**	**03 36 34.3**	**+0.4**	
J20K	**Nowinta River**	**58.72**	**336**	P	**P**	**03 36 40.5**	**+1.3**	
J19K	**Poorman**	**59.22**	**335**	P	**P**	**03 36 43.3**	**+0.6**	
KIWB	**Kanaga Island**	**67.74**	**320**	P	**P**	**03 37 40.6**	**+1.3**	

*IDC **02** 03:40:20.8±0.8, 19°.50N×108°.75W, h0km, mb4.1/11, mbtmp4.1/16, ML3.8/5, MS4.0/38, Error ellipse: s-maj=20.8km s-min=11.4km az=64.0*

*MEX **02** 03:40:21.1±0.8, 18°.94N×108°.76W, h10km, MD4.3, Presumed earthquake*

*GCMT **02** 03:40:23.9±0.3, 19°.61N±0°.02×108°.81W±0°.02, h18km±1km, MW4.9/108, Moment Tensor Solution. s33,c39; s108,c161; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.97±.12; Mθθ-2.11±.09; Mϕϕ3.09±.10; Mrθ0.52±.22; Mθϕ-1.42±.08; Mϕr0.75±.20; Best double couple: Ms3.14200×10^16 NP1:ϕs302.00000°, δ69.00000°, λ-170.00000°. NP2:ϕs208.00000°, δ80.00000°, λ-21.00000°. Principal axes: T 3.5320, Plg8.0000°, Azm257.0000°; N -0.7760, Plg67.0000°, Azm5.0000°; P -2.7510, Plg22.0000°, Azm163.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

2020 NOV

*NEIC **02** 03:40:24.9±2.7, 19°.63N±0°.10×108°.75W±0°.09, h10km, mb4.4/266 Error ellipse: s-maj=18.3km s-min=11.3km az=215.0*

*GFZ **02** 03:40:24.7±0.3,20°N±4°×10°9W±°, h10km, M4.4/19, mb4.4/19, confirmed*

ISC 02 03:40:21.7±0.5, 19°.36N±0°.07×108°.84W±0°.04, h10km, n261, σ1°82/136, mb4.4/65, MS3.9/34, Revilla Gigedo Islands region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
H06N	**Isla Socorro**	**2.10**	**257**	*eP*	**Pn**	**ISC**	**03 40 53.1**	**-3.9**
H06N				*eS*	**Sn**		**03 41 18.4**	**-4.7**
H06S		**2.11**	**253**	*eP*	**Pn**		**03 40 53.1**	**-4.0**
H06S				*eS*	**Sn**		**03 41 17.3**	**-6.0**
CJM	**Chamela**	**3.58**	**87**	*i P*	**Pn**		**03 41 14.4**	**-2.9**
CJM				*eS*	**Sn**		**03 41 52.4**	**-7.3**
CIHU	**Emiliano Zapat**	**3.87**	**91**	*eP*	**Pn**		**03 41 18.6**	**-2.8**
CIHU				*eS*	**Sn**		**03 41 59.8**	**-7.2**
ESTA	**Talpa de Allen**	**3.89**	**74**	*eP*	**Pn**		**03 41 20.0**	**-1.7**
ESTA				*eS*	**Sn**		**03 42 02.8**	**-4.7**
CEGR	**Campo Tres**	**4.70**	**89**	*eP*	**Pn**		**03 41 31.5**	**-1.4**
CEGR				*eS*	**Sn**		**03 42 24.4**	**-3.2**
LPIG	**La Paz**	**4.91**	**344**	Pn	Pn		03 41 32.9	-2.8
	11nm,0.3s,baz=171,slow=7.2,SNR=16							
LPIG				LR	LR		03 43 03.8	
	comp=Z,2μm,19.5s,baz=142,slow=34							
	87nm,0.6s							
LPIG				AML	AML			
LPIG	**La Paz**	**4.91**	**344**	*eP*	Pn		03 41 32.6	-3.0
LPIG				*eS*	Sn		03 42 28.0	-4.5
INCO	**Volcan de Coli**	**4.94**	**87**	*eP*	**Pn**		**03 41 35.1**	**-1.3**
INCO				*eS*	**Sn**		**03 42 28.4**	**-5.4**
MMIG	**Aquila**	**5.31**	**101**	*eP*	Pn		03 41 36.0	-5.1
ZAIG	**Zacatecas**	**6.76**	**59**		**Pn**		**03 42 00.6**	**-0.8**
ZAIG	**Zacatecas**	**6.76**	**59**	P	**Pn**		**03 42 01.1**	**-0.3**
	comp=Z,70nm,0.8s							
MOIG	**Morelia**	**7.22**	**86**	Pn	**Pn**		**03 42 07.6**	**0.0**
HPIG		**8.08**	**21**	Pn	Pn		03 42 17.9	-1.5
HPIG		**8.08**	**21**	P	**Pn**		**03 42 19.4**	**0.0**
	comp=Z,14nm,0.6s							
HSIG		**9.80**	**349**	Pn	Pn		03 42 43.3	+0.5
TLIG	**Tlapa**	**9.91**	**99**	Pn	**Pn**		**03 42 46.1**	**+1.6**
TX31	**Lajitas Ar. Si**	**10.98**	**24**	Pn	Pn		03 42 57.9	-1.2
TXAR	**Lajitas Array**	**10.98**	**24**	Pn	Pn		03 42 57.4	-1.7
	comp=Z,0.5nm,0.3s,baz=214,slow=12,SNR=65							
TXAR				Lg	Lg		03 46 02.3	
	baz=192,slow=32							
TXAR				LR	LR		03 46 43.7	
	comp=Z,516nm,20.1s,baz=204,slow=35							
	comp=Z,5.7nm,0.7s							
TXAR				AML	AML			
TXAR	**Lajitas Array**	**10.98**	**24**	Pn	Pn		03 42 58.0	-1.1
VHRN	**Van Horn**	**11.89**	**16**	Pn	Pn		03 43 11.2	-0.3
ALPN	**Alpine**	**11.93**	**22**	Pn	Pn		03 43 10.8	-1.3
319A	**Douglas**	**11.97**	**358**	Pn	**Pn**		**03 43 13.9**	**+1.3**
TPB01	**Permian Basin**	**12.40**	**21**	Pn	Pn		03 43 18.0	-0.5
833A	**Chaparral WMA,**	**12.41**	**42**	Pn	**Pn**		**03 43 18.8**	**+0.3**
EPT	**El Paso**	**12.53**	**9**	Pn	Pn		03 43 20.2	0.0
TPB05	**Hovey Rd**	**12.54**	**22**	Pn	**Pn**		**03 43 21.6**	**+1.3**
MNTX	**Cornudas Mount**	**12.67**	**14**	Pn	**Pn**		**03 43 23.8**	**+1.7**
MNTX	**Cornudas Mount**	**12.67**	**14**	P	**Pn**		**03 43 24.5**	**+2.4**
	comp=Z,8.4nm,1.7s							
PECS	**Pecos**	**12.77**	**20**	Pn	**Pn**		**03 43 23.3**	**-0.2**
PIX	**Pinacate**	**12.84**	**342**		**Pn**		**03 43 25.1**	**+0.8**
TUC	**Tucson**	**13.01**	**353**	Pn	**Pn**		**03 43 27.7**	**+0.9**
TUC	**Tucson**	**13.01**	**353**	P	**Pn**		**03 43 28.3**	**+1.5**
	comp=Z,21nm,2.0s							
TPB07	**Mentone**	**13.02**	**20**	Pn	**Pn**		**03 43 28.1**	**+1.1**
MNHN	**Monahans**	**13.12**	**23**	Pn	**Pn**		**03 43 28.4**	**+0.1**
121A	**Cookes Peak, D**	**13.15**	**4**	Pn	Pn		03 43 28.8	0.0
HNDO	**Hondo**	**13.34**	**39**	Pn	**Pn**		**03 43 31.5**	**+0.3**
CMIG	**Matias Romero**	**13.45**	**97**	Pn	**Pn**		**03 43 33.7**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=284,slow=12,SNR=13							
CMIG				Lg	Lg		03 47 22.4	
	comp=Z,0.1nm,0.3s,baz=315,slow=16,SNR=1.5							
	comp=Z,11nm,0.7s							
CMIG				AML	AML			
CLNB	**Carlsbad**	**13.60**	**18**	Pn	**Pn**		**03 43 36.4**	**+1.6**
735A	**Kenedy**	**13.80**	**45**	Pn	**Pn**		**03 43 37.6**	**+0.1**
SGCY	**Sterling City**	**14.29**	**28**	Pn	**Pn**		**03 43 44.4**	**+0.1**
128A	**Castleberry Fa**	**14.38**	**22**	Pn	**Pn**		**03 43 45.4**	**-0.1**
129A	**Stewart Farms,**	**14.61**	**24**	Pn	**Pn**		**03 43 48.8**	**0.0**
SBM	**South Baldy**	**14.63**	**5**	Pn	**Pn**		**03 43 50.0**	**+0.8**
LENM	**Lemitar**	**14.84**	**6**	Pn	**Pn**		**03 43 52.3**	**+0.5**
SN07	**Snyder 07**	**15.41**	**26**	IAmb	IAmb		03 44 14.9	
	comp=Z,14nm,0.9s							
BORC	**Borrego Spring**	**15.42**	**335**	IAmb	IAmb		03 44 08.5	
	comp=Z,17nm,1.3s							
MSTX	**Muleshoe**	**15.52**	**19**	Pn	**Pn**		**03 44 00.6**	**-0.2**
ALQ	**Albuquerque**	**15.66**	**7**	Pn	**Pn**		**03 44 02.6**	**-0.2**
ANMO	**Albuquerque**	**15.66**	**7**	Pn	**Pn**		**03 44 02.1**	**-0.7**
	comp=Z,0.1nm,0.3s,baz=182,slow=13,SNR=4.4							
ANMO				LR	LR		03 49 00.5	
	comp=Z,464nm,19.4s,baz=188,slow=34							
	comp=Z,0.5nm,0.6s							
ANMO				AML	AML			
ANMO	**Albuquerque**	**15.66**	**7**	Pn	**Pn**		**03 44 02.6**	**-0.2**
ANMO	**Albuquerque**	**15.66**	**7**	P	**Pn**		**03 44 02.8**	**0.0**
	comp=Z,7.9nm,1.3s							
PFO	**Pinyon Flats O**	**15.74**	**336**	Pn	**Pn**		**03 44 03.7**	**0.0**
	comp=Z,0.1nm,0.3s,baz=155,slow=13,SNR=5.1							
PFO				LR	LR		03 49 09.1	
	comp=Z,1μm,21.2s,baz=154,slow=34							
	comp=Z,3.1nm,1.1s							
PFO				AML	AML			
PFO	**Pinyon Flats O**	**15.74**	**336**	Pn	**Pn**		**03 44 03.4**	**-0.2**
PFO	**Pinyon Flats O**	**15.74**	**336**	P	**Pn**		**03 44 04.2**	**+0.5**
	comp=Z,13nm,1.0s							
DNR	**Dunn Ranch,Anz**	**15.76**	**335**	IAmb	IAmb		03 44 22.0	
	comp=Z,28nm,1.1s							
IRM	**Iron Mountain**	**15.77**	**340**	IAmb	IAmb		03 44 24.7	
	comp=Z,37nm,1.4s							
HKT	**Hockley**	**15.82**	**46**	Pn	**Pn**		**03 44 04.0**	**-0.6**
HKT				IAmb	IAmb		03 44 15.5	
	comp=Z,31nm,1.4s							
HKT	**Hockley**	**15.82**	**46**	P	**Pn**		**03 44 04.6**	**0.0**
	comp=Z,22nm,1.7s							
DKNS	**Dickens**	**15.90**	**25**	IAmb	IAmb		03 44 20.8	
	comp=Z,21nm,1.0s							
BELC	**Belle Mtn. Jos**	**15.91**	**338**	IAmb	IAmb		03 44 14.0	
	comp=Z,38nm,1.1s							
APMT	**Aspermont**	**15.94**	**28**	IAmb	IAmb		03 44 44.7	
	comp=Z,20nm,1.2s							
WHTX	**Lake Whitney,**	**16.21**	**37**	IAmb	IAmb		03 44 13.9	
	comp=Z,31nm,1.0s							
PLPT	**Palo Pinto**	**16.37**	**33**	IAmb	IAmb		03 44 15.3	
	comp=Z,51nm,1.2s							
FW13	**Cleburne**	**16.49**	**36**	Pn	**Pn**		**03 44 11.8**	**-1.5**
FW13				IAmb	IAmb		03 44 16.7	
	comp=Z,39nm,1.1s							
FW06	**Azle**	**16.90**	**34**	IAmb	IAmb		03 44 22.0	
	comp=Z,31nm,1.1s							
MWC	**Mount Wilson**	**16.92**	**333**		**Pn**		**03 44 20.4**	**+1.5**
WTFS	**Witchita Falls**	**17.06**	**31**	IAmb	IAmb		03 44 34.0	
	comp=Z,32nm,1.0s							
U15A	**North Rim**	**17.27**	**351**		**Pn**		**03 44 23.4**	**+0.1**
U15A				IAmb	IAmb		03 44 39.7	
	comp=Z,45nm,1.5s							
Z35A	**Perchaven, San**	**17.34**	**34**	IAmb	IAmb		03 44 26.6	
	comp=Z,25nm,0.9s							
TPO	**Tropico Hills**	**17.55**	**334**	IAmb	IAmb		03 44 51.8	
	comp=Z,31nm,1.4s							
WMOK	**Wichita Mounta**	**17.72**	**28**	P	**Pn**		**03 44 27.1**	**-1.6**
	comp=Z,13nm,1.4s							
SHOC	**Shoshone, Teco**	**17.73**	**340**	IAmb	IAmb		03 44 34.9	
	comp=Z,31nm,1.2s							
NATX	**Nacogdoches**	**17.75**	**43**	Pn	**Pn**		**03 44 27.8**	**-1.3**
NATX				IAmb	IAmb		03 44 34.9	
	comp=Z,41nm,1.1s							
CCCA	**Chr Cany lake**	**17.77**	**337**	IAmb	IAmb		03 44 43.4	
	comp=Z,44nm,1.5s							
MVCO	**Mesa Verde**	**17.78**	**1**	IAmb	IAmb		03 44 45.1	
	comp=Z,49nm,1.4s							
MVCO	**Mesa Verde**	**17.78**	**1**	P	**Pn**		**03 44 30.1**	**+0.5**
	comp=Z,26nm,1.7s							
SNAG	**San Augustine**	**17.91**	**45**	Pn	**Pn**		**03 44 29.8**	**-1.2**
SNAG				IAmb	IAmb		03 44 33.7	
	comp=Z,24nm,0.8s							
QSM	**Queen of Sheba**	**17.99**	**338**	IAmb	IAmb		03 44 37.0	
	comp=Z,29nm,1.2s							
LCMT	**Little Creek M**	**18.00**	**349**		**P**		**03 44 32.1**	**-0.7**
APG	**El Apazote**	**18.08**	**101**	LR	LR		03 51 13.0	
	comp=Z,19nm,19.2s,baz=251,slow=36							
CLC	**China Lake**	**18.12**	**337**		**P**		**03 44 34.2**	**+0.2**
PETF	**Flores**	**18.19**	**95**		**P**		**03 44 36.1**	**+1.3**
Z38A	**Mt. Pleasant**	**18.56**	**39**	IAmb	IAmb		03 44 41.5	
	comp=Z,31nm,1.1s							
PV05	**Paradox Valley**	**18.65**	**359**	IAmb	IAmb		03 45 02.7	
	comp=Z,29nm,1.1s							
PV01	**Paradox Valley**	**18.70**	**1**	P	**P**		**03 44 40.2**	**-0.4**
PV01				IAmb	IAmb		03 44 44.3	
	comp=Z,34nm,1.3s							
PV13	**Radium Mtn., P**	**18.73**	**0**	IAmb	IAmb		03 44 45.4	
	comp=Z,27nm,1.2s							
VES	**Vestal, Richgr**	**18.74**	**333**	IAmb	IAmb		03 44 45.8	
	comp=Z,37nm,1.3s							
PV02	**Paradox Valley**	**18.78**	**0**	IAmb	IAmb		03 45 20.0	
	comp=Z,34nm,1.3s							
PV18	**Skein Mesa, Pa**	**18.82**	**360**	P	**P**		**03 44 41.7**	**-0.1**
PV18				IAmb	IAmb		03 44 44.5	
	comp=Z,22nm,1.0s							
PV03	**Paradox Valley**	**18.82**	**360**	IAmb	IAmb		03 45 10.5	
	comp=Z,34nm,1.4s							
CWC	**Cottonwood Cre**	**18.85**	**336**	P	**P**		**03 44 43.9**	**+1.7**
PV11	**David Mesa, Pa**	**18.87**	**360**	P	**P**		**03 44 43.0**	**+0.6**
PV11				IAmb	IAmb		03 44 52.8	
	comp=Z,22nm,1.0s							
PV12	**Saucer Basin,**	**18.89**	**0**	IAmb	IAmb		03 44 51.5	
	comp=Z,35nm,1.1s							
PV20	**West Nyswonger**	**18.91**	**360**	IAmb	IAmb		03 45 18.9	
	comp=Z,31nm,1.2s							
PV15	**Paradox Valley**	**18.91**	**1**	IAmb	IAmb		03 44 46.2	
	comp=Z,26nm,1.0s							
PV14	**Lion Creek, Pa**	**18.94**	**360**	IAmb	IAmb		03 44 48.8	
	comp=Z,29nm,1.2s							
PV10	**Paradox Valley**	**18.95**	**360**	IAmb	IAmb		03 45 08.8	
	comp=Z,22nm,1.1s							
PV04	**Paradox Valley**	**18.96**	**360**	IAmb	IAmb		03 45 08.4	
	comp=Z,48nm,1.3s							
PV07	**Paradox Valley**	**19.01**	**0**	IAmb	IAmb		03 44 54.1	
	comp=Z,22nm,1.0s							
PV23	**Carpenter Ridg**	**19.02**	**360**	IAmb	IAmb		03 45 05.1	
	comp=Z,29nm,1.2s							
GRAC	**Grapevine Rang**	**19.09**	**339**	P	**P**		**03 44 45.9**	**+1.2**
GRAC				IAmb	IAmb		03 44 49.1	
	comp=Z,36nm,1.5s							
PV21	**Cone Mtn., Par**	**19.13**	**360**	IAmb	IAmb		03 45 01.1	
	comp=Z,43nm,1.3s							
TCRU	**Three Creeks R**	**19.43**	**351**	P	**P**		**03 44 49.8**	**+1.2**
TCRU				IAmb	IAmb		03 45 20.6	
	comp=Z,23nm,1.3s							
PSUT	**Pine Spring**	**19.59**	**348**	IAmb	IAmb		03 45 11.4	
	comp=Z,31nm,1.2s							
OK052	**Battle Ridge R**	**19.67**	**30**	IAmb	IAmb		03 45 01.9	
	comp=Z,36nm,1.1s							
DEOK	**Depew**	**19.69**	**31**	IAmb	IAmb		03 45 15.1	
	comp=Z,21nm,1.1s							
SRU	**San Rafael Swe**	**19.73**	**356**	IAmb	IAmb		03 44 55.3	
	comp=Z,17nm,1.2s							
MZP	**Montezuma Peak**	**19.73**	**340**	P	**P**		**03 44 52.7**	**+0.8**
MZP				IAmb	IAmb		03 44 59.3	
	comp=Z,26nm,1.3s							
OK048	**Pawnee Station**	**19.95**	**29**	IAmb	IAmb		03 45 12.7	
	comp=Z,32nm,1.3s							
WLAR	**White Oak Lake**	**20.00**	**41**	IAmb	IAmb		03 44 55.9	
	comp=Z,30nm,1.1s							
TPH	**Tonopah**	**20.02**	**340**	IAmb	IAmb		03 45 05.3	
	comp=Z,22nm,1.3s							
TUL3	**Leonard**	**20.09**	**32**	IAmb	IAmb		03 45 00.8	
	comp=Z,28nm,1.1s							
P17A	**Butcher Ranch,**	**20.11**	**356**	IAmb	IAmb		03 44 59.7	
	comp=Z,22nm,1.3s							
P18A	**Preston Nutter**	**20.23**	**357**	IAmb	IAmb		03 45 05.3	
	comp=Z,23nm,1.1s							
MDPB	**Devils Postpil**	**20.28**	**336**	IAmb	IAmb		03 45 09.4	
	comp=Z,14nm,1.0s							
MIAR	**Mount Ida**	**20.30**	**39**	P	**P**		**03 44 56.2**	**-1.6**

CCM				IAmb	IAmb	03 45 55.6
	comp=Z,11nm,1.1s					
KMRM	**Mail Ridge**	**24.40**	**332**	IAmb	IAmb	03 46 02.1
	comp=Z,15nm,1.0s					
WVOR	**Wild Horse Val**	**24.45**	**342**	P	**P**	**03 45 44.6 +3.6**
	comp=Z,11nm,1.0s					
X48A	**Hartselle**	**24.49**	**48**	P	**P**	**03 45 39.7 -1.5**
KHBM	**Hayfork Bally**	**24.54**	**333**	IAmb	IAmb	03 46 03.4
	comp=Z,8.4nm,1.0s					
HLID	**Hailey**	**24.58**	**350**	P	**P**	**03 45 42.1 -0.1**
	comp=Z,8.9nm,0.9s					
Y49A	**Blount Mountai**	**24.63**	**50**	P	**P**	**03 45 42.3 -0.2**
MFID	**Camas Ranch**	**24.69**	**348**	IAmb	IAmb	03 46 01.7
	comp=Z,8.5nm,1.1s					
JTS	**Las Juntas de**	**24.76**	**108**	LR	LR	03 53 13.1
	comp=Z,244nm,21.1s,baz=287,slow=31					
YPP	**Pitchstone Pla**	**24.89**	**357**	P	**P**	**03 45 47.0 +1.9**
YPP				IAmb	IAmb	03 46 29.6
	comp=Z,9.4nm,1.3s					
T45A	**Paducah**	**24.93**	**41**	P	**P**	**03 45 44.9 -0.2**
LKWY	**Lake**	**25.16**	**357**	P	**P**	**03 45 48.3 +0.8**
LKWY				IAmb	IAmb	03 46 00.3
	comp=Z,8.9nm,1.1s					
YBH	**Yreka Blue Hor**	**25.23**	**335**	LR	LR	03 54 59.6
	comp=Z,283nm,19.5s,baz=160,slow=35					
YMR	**Madison River**	**25.29**	**356**	P	**P**	**03 45 49.5 +0.9**
L04D	**Klamath Falls**	**25.49**	**336**	IAmb	IAmb	03 46 09.1
	comp=Z,6.1nm,0.9s					
QLMT	**Earthquake Lak**	**25.49**	**356**	P	**P**	**03 45 50.7 +0.3**
YHL	**Hebgen Lake**	**25.49**	**356**	IAmb	IAmb	03 45 53.7
	comp=Z,11nm,1.2s					
YNE	**Yellowstone No**	**25.59**	**358**	IAmb	IAmb	03 46 05.0
	comp=Z,11nm,1.1s					
RLMT	**Red Lodge**	**25.69**	**359**	P	**P**	**03 45 53.5 +1.3**
RLMT				IAmb	IAmb	03 45 56.7
	comp=Z,14nm,1.4s					
W50A	**Signal Mountai**	**26.09**	**48**	P	**P**	**03 45 55.1 -0.7**
BOZ	**Bozeman (W)**	**26.26**	**356**	P	**P**	**03 45 57.9 +0.5**
GCMT	**Greycliff**	**26.36**	**359**	P	**P**	**03 45 56.8 -1.4**
BMO	**Blue Mountains**	**26.38**	**346**	P	**P**	**03 45 58.4 +0.1**
PINE	**Pine Mountain**	**26.39**	**340**	IAmb	IAmb	03 46 16.0
	comp=Z,15nm,1.4s					
K02D	**Willamette Mer**	**26.42**	**335**	IAmb	IAmb	03 46 08.3
	comp=Z,9.9nm,0.9s					
WIFE	**Three Sisters-**	**26.92**	**339**	IAmb	IAmb	03 46 33.6
	comp=Z,11nm,1.2s					
I05D	**Terrebonne, OR**	**27.01**	**340**	IAmb	IAmb	03 46 20.2
	comp=Z,6.3nm,1.0s					
F10A	**Beach Ranch, E**	**27.43**	**347**	IAmb	IAmb	03 46 31.9
	comp=Z,6.6nm,1.2s					
GBMT	**Granite Butte,**	**27.58**	**355**	IAmb	IAmb	03 46 11.8
	comp=Z,7.8nm,1.3s					
LON	**Longmire**	**29.32**	**342**	P	**P**	**03 46 27.0 +2.5**
LON				IAmb	IAmb	03 46 42.2
	comp=Z,8.3nm,1.2s					
NEW	**Newport**	**29.60**	**349**	LR	LR	03 58 51.5
	comp=Z,195nm,21.6s,baz=166,slow=38					
ULM	**Lac du Bonnet**	**32.50**	**16**	P	P	03 46 50.4 -2.1
	comp=Z,3.3nm,0.8s,baz=185,slow=11,SNR=2.0					
ULM				LR	LR	04 00 12.4
	comp=Z,240nm,19.4s,baz=201,slow=37					
	comp=Z,3.3nm,0.8s					
ROSC	**El Rosal**	**36.60**	**109**	P	**P**	**03 47 29.8 +0.9**
	comp=Z,3.2nm,0.5s,baz=127,slow=20,SNR=1.9					
	comp=Z,3.2nm,0.5s					
RUSC	**La Rusia**	**37.27**	**106**	P	**P**	**03 47 36.4 +1.8**
SDV	**Santo Domingo**	**38.40**	**100**	LR	LR	04 03 37.9
	comp=Z,170nm,21.6s,baz=296,slow=36					
SDV	**Santo Domingo**	**38.40**	**100**	P	**P**	**03 47 45.2 +1.3**
SDV				IAmb	IAmb	03 47 48.8
	comp=Z,11nm,1.1s					
SDV	**Santo Domingo**	**38.40**	**100**	P	**P**	**03 47 46.8 +2.9**
	comp=Z,43nm,0.9s					
SJG	**San Juan**	**40.37**	**85**	LR	LR	04 05 36.1
	comp=Z,130nm,19.2s,baz=265,slow=38					
TAOE	**Nuku Hiva Isla**	**41.69**	**231**	eLR	LR	03 59 36.7
	comp=Z,539nm,26.0s					
DLBC	**Dease Lake**	**41.98**	**343**	LR	LR	04 06 50.5
	comp=Z,363nm,19.0s,baz=154,slow=38					
YKA	**Yellowknife Ar**	**43.28**	**356**	LR	LR	04 06 41.7
	comp=Z,329nm,18.6s,baz=139,slow=37					
BYL	**Byron's Ledge**	**43.69**	**278**	P	P	03 48 33.6 +6.3
HATHI	**Halema'uma'u T**	**43.69**	**278**	P	P	03 48 33.4 +6.1
CPK	**Cone Peak**	**43.75**	**278**	P	P	03 48 33.8 +5.9
NNA	**Nana**	**44.32**	**132**	LR	LR	04 02 53.8
	comp=Z,167nm,19.3s,baz=327,slow=30					
CZSB	**Cruzeiro do Su**	**44.63**	**124**	P	P	03 48 37.3 +2.5
SCHQ	**Schefferville**	**47.56**	**32**	LR	LR	04 10 06.3
	comp=Z,109nm,18.1s,baz=304,slow=38					
L29M	**L29M**	**48.09**	**343**	P	**P**	**03 49 03.0 +1.5**
I27K	**Kandik River**	**50.99**	**343**	P	**P**	**03 49 24.0 +0.5**
I27K				IAmb	IAmb	03 49 24.9
	comp=Z,6.0nm,1.1s					
INK	**Inuvik**	**51.33**	**349**	P	**P**	**03 49 25.7 -0.2**
INK				IAmb	IAmb	03 49 28.2
	comp=Z,5.0nm,0.8s					
INK	**Inuvik**	**51.33**	**349**	P	**P**	**03 49 26.1 +0.3**
	comp=Z,8.9nm,0.8s					
H27K	**Steamboat Moun**	**51.44**	**344**	P	**P**	**03 49 26.6 -0.3**
H27K				IAmb	IAmb	03 49 46.2
	comp=Z,8.3nm,1.2s					
IL31		**51.95**	**340**	IAmb	IAmb	03 49 36.9
	comp=Z,4.3nm,0.9s					
ILAR	**Eielson Array**	**51.95**	**340**	P	**P**	**03 49 29.7 -0.9**
	comp=Z,1.6nm,0.6s,baz=129,slow=7.6,SNR=24					
	comp=Z,1.6nm,0.6s					
ILAR	**Eielson Array**	**51.95**	**340**	P	**P**	**03 49 30.5 -0.1**
E29M	**Blow River**	**52.28**	**347**	IAmb	IAmb	03 49 43.6
	comp=Z,6.8nm,1.1s					
NEA2	**Nenana**	**52.53**	**339**	IAmb	IAmb	03 49 46.9
	comp=Z,6.8nm,1.0s					
G26K	**Porcupine Rive**	**52.58**	**343**	IAmb	IAmb	03 49 47.1
	comp=Z,4.8nm,0.8s					
E27K	**Coleen River**	**52.95**	**345**	P	**P**	**03 49 37.7 -0.4**
E27K				IAmb	IAmb	03 49 39.1
	comp=Z,4.5nm,0.9s					
F26K	**Sheenjek River**	**53.22**	**344**	IAmb	IAmb	03 49 54.1
	comp=Z,3.6nm,1.1s					
LPAZ	**La Paz**	**53.45**	**129**	P	**P**	**03 49 44.4 +1.3**
	comp=Z,2.1nm,0.9s,baz=326,slow=9.2,SNR=7.8					
LPAZ				LR	LR	04 11 17.7
	comp=Z,94nm,18.0s,baz=296,slow=35					
	comp=Z,2.1nm,0.9s					
LPAZ	**La Paz**	**53.45**	**129**	P	P	03 49 45.9 +2.8
LPAZ	**La Paz**	**53.45**	**129**	P	P	03 49 45.6 +2.5
	comp=Z,4.3nm,1.1s					
F25K	**Christian Rive**	**53.54**	**343**	P	**P**	**03 49 42.6 +0.1**
F25K				IAmb	IAmb	03 50 08.2
	comp=Z,6.8nm,1.2s					
PB16	**IPOC Station P**	**53.80**	**132**	P	P	03 49 49.1 +3.6
	comp=Z,6.9nm,1.6s					
PPT	**Papeete**	**54.30**	**230**	LR	LR	04 07 10.3
	comp=Z,143nm,18.9s,baz=44,slow=30					
PPT2	**Papeete2**	**54.32**	**230**	eS	S	03 57 33.8 +6.8
	comp=Z,75nm,28.5s					
PPT2				eSS	SS	04 01 19.0 +10
	comp=Z,144nm,26.0s					
PPT2				eLR	LR	04 05 20.9
	comp=Z,312nm,26.0s					
PPT2				eLR	LR	04 05 28.4
	comp=Z,290nm,23.8s					
PB11	**IPOC Station P**	**54.65**	**133**	P	P	03 49 53.5 +2.2
RES	**Resolute Bay**	**55.86**	**4**	LR	LR	04 13 34.4
	comp=Z,140nm,21.7s,baz=170,slow=36					
MDP	**Montagnes des**	**56.47**	**97**	LR	LR	04 14 58.6
	comp=Z,105nm,21.5s,baz=276,slow=37					
TBI	**Tubuai**	**58.08**	**225**	eLR	LR	04 07 12.0
	comp=Z,3μm,32.0s					
PTLB	**Pontes e Lacer**	**59.89**	**122**	P	**P**	**03 50 29.2 +1.0**
PTLB				IAmb	IAmb	03 50 32.9
	comp=Z,3.4nm,0.9s					
SALTA		**59.93**	**135**	P	P	03 50 32.0 +3.1
	comp=Z,4.2nm,1.3s					
CLDB	**Colider**	**60.27**	**115**	P	**P**	**03 50 31.5 +0.6**
	comp=Z,13nm,1.4s					
AC05	**El Transito**	**60.69**	**141**	P	P	03 50 36.6 +3.0
RAR	**Rarotonga**	**64.12**	**234**	LR	LR	04 10 49.0
	comp=Z,159nm,21.3s,baz=60,slow=28					
MT08	**Bocatoma Ro**	**64.26**	**144**	P	P	03 51 00.6 +3.0
BO02	**Sierra Bellavi**	**64.87**	**146**	P	P	03 51 04.3 +3.0
	comp=Z,11nm,1.2s					
CPUP	**Villa Florida**	**67.54**	**131**	P	**P**	**03 51 19.6 +1.1**
	comp=Z,2.6nm,0.8s,baz=312,slow=12,SNR=9.8					
CPUP				LR	LR	04 19 50.1
	comp=Z,51nm,18.1s,baz=250,slow=35					
	comp=Z,2.6nm,0.8s					
CPUP	**Villa Florida**	**67.54**	**131**	P	**P**	**03 51 20.3 +1.8**
BDFB	**Brasilia**	**69.20**	**116**	P	**P**	**03 51 28.6 -0.7**
	comp=Z,1.8nm,0.7s,baz=309,slow=6.5,SNR=4.1					
	comp=Z,1.8nm,0.7s					
BDFB	**Brasilia**	**69.20**	**116**	P	**P**	**03 51 30.4 +1.1**
PLCA	**Paso Flores**	**69.58**	**150**	P	P	03 51 33.2 +2.1
	comp=Z,3.1nm,1.0s,baz=308,slow=12,SNR=4.5					
PLCA				LR	LR	04 15 32.9
	comp=Z,117nm,19.5s,baz=304,slow=30					
	comp=Z,3.1nm,1.0s					
CPSB	**Cacapava Do Su**	**72.71**	**132**	P	**P**	**03 51 51.3 +1.1**
MSVF	**Nonsavu**	**80.70**	**248**	LR	LR	04 21 26.1
	comp=Z,233nm,18.3s,baz=61,slow=30					
EKA	**Eskdalemuir Ar**	**82.83**	**34**	LR	LR	04 26 41.7
	comp=Z,78nm,18.1s,baz=354,slow=34					
ARCES	**ARCESS Array B**	**85.61**	**15**	P	**P**	**03 53 00.2 0.0**
	comp=Z,3.9nm,1.0s,baz=335,slow=4.1,SNR=5.7					
	comp=Z,3.9nm,1.0s					
NOA	**NORSAR Array B**	**86.69**	**25**	LR	LR	04 31 25.4
	comp=Z,46nm,18.6s,baz=295,slow=35					
HFS	**Hagfors**	**88.21**	**25**	LR	LR	04 32 43.0
	comp=Z,98nm,19.4s,baz=315,slow=36					
ESDC	**Sonseca Array**	**88.71**	**48**	LR	LR	04 32 40.1
	comp=Z,44nm,18.3s,baz=290,slow=35					
URZ	**Urewera**	**89.95**	**229**	LR	LR	04 24 14.8
	comp=Z,139nm,20.7s,baz=59,slow=29					
MDT	**Midelt**	**91.01**	**55**	LR	LR	04 29 43.3
	comp=Z,37nm,21.1s,baz=312,slow=33					
FINES	**FINESS Array B**	**91.79**	**20**	LR	LR	04 34 07.2
	comp=Z,75nm,19.3s,baz=289,slow=35					
DAVOX	**Davos/Dischmat**	**94.15**	**37**	LR	LR	04 33 45.5
	comp=Z,141nm,21.8s,baz=286,slow=34					
HNR	**Honiara**	**94.21**	**262**	LR	LR	04 26 47.1
	comp=Z,110nm,21.3s,baz=146,slow=30					
GERES	**GERESS Array B**	**95.05**	**34**	LR	LR	04 35 25.1
	comp=Z,114nm,18.5s,baz=279,slow=35					
VRAC	**Vranov**	**96.26**	**32**	LR	LR	04 34 48.7
	comp=Z,49nm,21.8s,baz=310,slow=34					
RPZ	**Rata Peaks**	**96.28**	**226**	LR	LR	04 28 57.5
	comp=Z,20nm,20.2s,baz=318,slow=30					
KEST	**Kesra**	**99.85**	**47**	LR	LR	04 39 39.1
	comp=Z,34nm,18.6s,baz=295,slow=36					
LTVH	**Ltavrtes, Hu**	**100.19**	**32**	P	**Pdif**	**03 54 10.9 +2.8**
WRA	**Warramunga Arr**	**120.84**	**258**	PKP	**PKiKP**	**03 59 14.7 -0.5**
	comp=Z,0.5nm,0.8s,baz=78,slow=2.2,SNR=5.7					
WRA	**Warramunga Arr**	**120.84**	**258**	PKP	**PKPdf**	**03 59 13.6 -1.5**
ASAR	**Alice Springs**	**121.88**	**254**	PKP	**PKPdf**	**03 59 15.9 -1.2**
	comp=Z,0.6nm,0.9s,baz=101,slow=1.9,SNR=2.7					

*AFAD **02** 03:45:50.9, 37.89N×26.94E, h7km±2km, ML3.0*
*ISK **02** 03:45:50.6, 37.86N×26.91E, h11km, ML3.2/19*
*THE **02** 03:45:51.3, 38°±2.2°×2.7E±°, h3km±2km, M2.6/8, MLh2.6/8*
*ATH **02** 03:45:51.1, 37.90N×26.98E, h6km±1km, ML2.8/10,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km
ISC 02 03:45:51.3±0.9, 37.89N±0.02×26.94E±0.02, h10km±7km, n58, σ0.954/80, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.17**	**345**	P	**Pg**	**03 45 54.8**	**-0.2**
DGB				S	**Sg**	**03 45 57.0**	**-0.7**
GMLD	**Gumuldur**	**0.19**	**354**	Pg	**Pg**	**03 45 55.2**	**-0.2**
GMLD				AML	AML		
KRL1	**Karlovasi Samo**	**0.21**	**244**	P	**Pg**	**03 45 55.5**	**-0.1**
KRL1				S	**Sg**	**03 45 59.0**	**+0.5**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**95**	Pg	**Pg**	**03 45 57.0**	**+0.1**
GCAM	**G?zelcaml?**	**0.30**	**128**	P	**Pg**	**03 45 57.5**	**+0.2**
GCAM				S	**Sg**	**03 46 01.9**	**+0.6**
GCAM				IAML		03 46 02.0	
	comp=N,2μm,0.2s						
GCAM				IAML		03 46 02.0	
	comp=E,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.30**	**128**	Pg	**Pg**	**03 45 57.3**	**0.0**
GCAM				Sg	**Sg**	**03 46 02.1**	**+0.8**
GCAM				AML	AML		
BEYE	**izmir**	**0.34**	**358**	P	**Pg**	**03 45 57.9**	**-0.3**
BEYE				S	**Sg**	**03 46 02.8**	**+0.1**
DDIM	**Aydin, Didim**	**0.49**	**151**	P	**Pg**	**03 46 00.9**	**+0.1**
DDIM				S	**Sg**	**03 46 07.9**	**+0.5**
DDIM				IAML		03 46 09.0	
	comp=N,920nm,0.4s						
DDIM				IAML		03 46 12.0	
	comp=E,850nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**316**	P	**Pg**	**03 46 00.6**	**-0.4**
ZEYE				S	**Sg**	**03 46 07.9**	**+0.4**
BLCB	**Balcova**	**0.51**	**9**	P	**Pg**	**03 46 01.0**	**-0.2**
BLCB				S	**Sg**	**03 46 07.8**	**-0.1**
BLCB	**Balcova**	**0.51**	**9**	Pg	**Pg**	**03 46 01.1**	**-0.1**
DUVT	**Torbali**	**0.52**	**50**	P	**Pg**	**03 46 01.3**	**-0.2**
DUVT				S	**Sg**	**03 46 08.3**	**-0.1**
CESE	**eme**	**0.67**	**312**	Pg	**Pg**	**03 46 04.2**	**-0.2**
AYDB	**Zeytinkoy-Aydi**	**0.76**	**85**	Pg	**Pb**	**03 46 06.3**	**-0.3**
KRBN	**Karaburun**	**0.77**	**337**	Pg	**Pg**	**03 46 05.8**	**-0.4**
KRBN				Sg	**Sb**	**03 46 17.4**	**+0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.77**	**355**	P	**Pg**	**03 46 05.9**	**-0.3**
BAGT				S	**Sb**	**03 46 16.8**	**-0.6**
BAGT				IAML		03 46 20.0	
	comp=N,552nm,0.9s						
BAGT				IAML		03 46 20.0	
	comp=E,591nm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.81**	**160**	Pg	**Pg**	**03 46 06.4**	**-0.5**
YKAV				AML	AML		
FOCM	**Foa**	**0.84**	**349**	Pg	**Pg**	**03 46 07.6**	**0.0**
CHOS	**Chios island**	**0.86**	**306**	P	**Pg**	**03 46 07.8**	**0.0**
CHOS				S	**Sb**	**03 46 20.4**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**306**	Pg	**Pg**	**03 46 07.9**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**306**	P	**Pb**	**03 46 08.3**	**-0.1**
CHOS				S	**Sb**	**03 46 19.9**	**0.0**
CHOS				AML	AML		
BODT	**Bodrum**	**0.87**	**160**	P	**Pg**	**03 46 07.6**	**-0.6**
BODT				S	**Sb**	**03 46 20.1**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**160**	Pg	**Pg**	**03 46 07.6**	**-0.6**
BODT				Sg	**Sb**	**03 46 20.1**	**-0.2**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**332**	P	**Pg**	**03 46 07.4**	**-0.9**
KARB				S	**Sb**	**03 46 20.1**	**-0.5**
KARB				IAML		03 46 23.0	
	comp=N,432nm,0.2s						
KARB				IAML		03 46 23.0	
	comp=E,371nm,0.5s						
MLSB	**Milas**	**0.89**	**131**	Pg	**Pg**	**03 46 08.2**	**-0.3**
MLSB				AML	AML		
CAMT	**Merkez**	**0.91**	**19**	P	**Pg**	**03 46 08.0**	**-0.9**
CAMT				S	**Sb**	**03 46 22.0**	**+0.6**
CAMT				IAML		03 46 24.0	
	comp=E,709nm,0.6s						
CAMT				IAML		03 46 27.0	
	comp=N,918nm,0.4s						
EAG2	**Marmaro, Chios**	**0.93**	**315**	P	**Pg**	**03 46 09.0**	**-0.2**
EAG2				S	**Sb**	**03 46 21.9**	**+0.1**
KLNA	**Kalymnos**	**0.93**	**178**	P	**Pg**	**03 46 09.2**	**0.0**
KLNA				S	**Sb**	**03 46 22.0**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.07**	**85**	Pn	**Pb**	**03 46 11.9**	**-0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.12**	**43**	Pn	**Pn**	**03 46 13.2**	**+0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.18**	**359**	Pn	**Pg**	**03 46 13.7**	**-0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.18**	**359**	P	**Pg**	**03 46 13.7**	**-0.4**
AKS	**Akhisar**	**1.21**	**34**	Pn	**Pb**	**03 46 14.2**	**-0.1**
AKS				AML	AML		
DAT	**Datca**	**1.26**	**156**	Pn	**Pn**	**03 46 14.1**	**-1.0**
DAT				AML	AML		
YER	**Yerkesik**	**1.30**	**125**	P	**Pn**	**03 46 15.5**	**-0.2**
YER				AML	AML		
YER	**Yerkesik**	**1.30**	**125**	Pn	**Pn**	**03 46 15.4**	**-0.2**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.35**	**20**	Pn	**Pg**	**03 46 16.8**	**-0.5**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**234**	P	**Pn**	**03 46 15.4**	**-1.4**
APE				S	**Sg**	**03 46 36.2**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.39**	**234**	Pn	**Pn**	**03 46 15.3**	**-1.4**
APE				AML	AML		
APE	**Apeiranthos**	**1.39**	**234**	P	**Pn**	**03 46 16.0**	**-0.8**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.41**	**43**	Pn	**Pn**	**03 46 17.3**	**+0.2**
GORD				AML	AML		
PRK	**Paraskevi**	**1.46**	**339**	P	**Pn**	**03 46 17.8**	**+0.1**
PRK				S	**Sg**	**03 46 39.1**	**+0.9**
PRK				AML	AML		
PRK	**Paraskevi**	**1.46**	**339**	P	**Pn**	**03 46 17.8**	**+0.1**
TURN	**Turunc**	**1.52**	**136**	Pn	**Pn**	**03 46 18.2**	**-0.3**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.73**	**3**	Pn	**Pb**	**03 46 22.3**	**-0.8**
YAYO				AML	AML		
BALB	**Balikesir**	**1.90**	**22**	Pn	**Pn**	**03 46 24.8**	**+1.0**
BALB				AML	AML		
THERA	**Ancient Thera,**	**1.92**	**218**	P	**Pn**	**03 46 25.2**	**+1.2**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.92**	**150**	P	**Pn**	**03 46 23.8**	**-0.3**
ARG				S	**Sn**	**03 46 48.5**	**+0.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.92**	**150**	P	**Pn**	**03 46 24.0**	**0.0**
ARG				AML	AML		
THR5	**Thira Island,**	**1.94**	**221**	P	**Pn**	**03 46 24.0**	**-0.4**
KARY	**Karystos**	**1.98**	**275**	P	**Pn**	**03 46 24.8**	**-0.1**
KARY				AML	AML		
KARY	**Karystos**	**1.98**	**275**	P	**Pn**	**03 46 25.3**	**+0.4**
EZN	**Ezine**	**2.00**	**346**	P	**Pn**	**03 46 26.0**	**+0.9**
DION	**Dionisos Attik**	**2.38**	**276**	P	**Pn**	**03 46 30.9**	**+0.4**
LIA	**Limnos Island**	**2.43**	**326**	P	**Pn**	**03 46 31.8**	**+0.7**
LIA				AML	AML		
SMTH	**Samothraki Isl**	**2.80**	**337**	P	**Pn**	**03 46 36.5**	**+0.2**
SMTH				AML	AML		
IDI	**Anoyia**	**3.07**	**213**	P	**Pn**	**03 46 41.4**	**+1.4**
IDI				AML	AML		
ALN	**Alexandroupoli**	**3.09**	**347**	P	**Pn**	**03 46 40.6**	**+0.5**
ALN				AML	AML		

*IDC **02** 03:46:57.7±2.2, 20°±3.2S×178°±2.2W, h560km±22km, mb2.8/6, mbtmp3.7/7, Error ellipse: s-maj=36.8km s-min=20.6km az=141.0*
ISC 02 03:46:56.5±0.9, 20°3S±0°2×178°1W±0°2, h550km, n11, σ1§16/11, mb3.3/6, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.42**	**304**	P	**P**	**03 48 22.9**	**+1.1**
	12nm,0.3s,baz=193,slow=14,SNR=19						
ASAR	**Alice Springs**	**44.47**	**257**	P	**P**	**03 54 19.4**	**0.0**
	0.5nm,0.5s,baz=89,slow=7.6,SNR=5.1						
	0.5nm,0.5s						
WRA	**Warramunga Arr**	**44.53**	**262**	P	**P**	**03 54 19.1**	**-0.8**
	0.6nm,0.6s,baz=98,slow=8.3,SNR=11						
	0.6nm,0.6s						
VNDA	**Vanda**	**58.13**	**185**	P	**P**	**03 55 57.7**	**+0.5**
	0.2nm,0.5s,baz=6.5,slow=4.4,SNR=1.2						
	0.2nm,0.5s						
NVAR	**Mina Array Bea**	**80.93**	**43**	P	**P**	**03 58 15.2**	**+1.1**
	0.8nm,0.9s,baz=235,slow=5.2,SNR=4.8						
	0.8nm,0.9s						
ILAR	**Eielson Array**	**88.12**	**13**	P	**P**	**03 58 47.7**	**-0.7**
	0.4nm,0.5s,baz=207,slow=5.0,SNR=12						
	0.4nm,0.5s						
PDAR	**Pinedale Array**	**88.87**	**43**	P	**P**	**03 58 52.8**	**+0.1**
	0.3nm,0.6s,baz=273,slow=2.3,SNR=3.9						
	0.3nm,0.6s						
AKASG	**Malin Array Be**	**142.76**	**331**	PKP	**PKPdf**	**04 05 24.7**	**-2.6**
	1.2nm,0.5s,baz=45,slow=4.1,SNR=11						
EKA	**Eskdalemuir Ar**	**144.79**	**5**	PKP	**PKPdf**	**04 05 30.7**	**+0.1**
	1.8nm,1.0s,baz=343,slow=4.0,SNR=3.8						
BRTR	**Keskin Array B**	**146.61**	**312**	PKPbc	**PKPbc**	**04 05 37.3**	**+0.2**
	0.4nm,0.5s,baz=72,slow=5.0,SNR=3.4						
GERES	**GERESS Array B**	**149.95**	**344**	PKPbc	**PKPbc**	**04 05 45.4**	**+0.3**
	0.2nm,0.3s,baz=26,slow=4.3,SNR=1.7						

*GFZ **02** 03:56:06.1±0.2, 54°N±4°×15°9W±°, h43km, M4.8/31, mb4.8/31*
*BJI **02** 03:56:07.0, 55.00N×160.40W, h40km, mB5.3/5, mb4.9/29*
*IDC **02** 03:56:11.4±2.3, 55.19N×160.63W, h39km±19km, mb4.2/37, mbtmp4.4/41, ML4.0/4, MS3.6/28, Error ellipse: s-maj=13.8km s-min=9.8km az=2.0*
*NEIC **02** 03:56:11.7±2.4, 54.98N±0.07×160.27W±0.06, h41km±5km, mb4.7/82, ML4.6/44, Mwr4.4/15, ML4.3(AEIC), Error ellipse: s-maj=10.6km s-min=4.7km az=181.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.48; $M_{\theta\theta}$-2.72; $M_{\phi\phi}$0.24; $M_{r\theta}$3.16; $M_{\theta\phi}$-0.06; $M_{r\phi}$2.38; Fault plane solution: $M_{\phi\phi}$4.74000×10^{15} NP1:φs60.76000°, δ74.75000°, λ73.61000°. NP2:φs288.96000°, δ22.24000°, λ135.99000°. Principal axes: T 4.9560, Plg57.0000°, Azm309.0000°; N -0.4738, Plg16.0000°, Azm65.0000°; P -4.4822, Plg28.0000°, Azm164.0000°;*
*NEIC **02** 03:56:12.1, 54.98N×160.38W, h49km*
*AEIC **02** 03:56:12.8±3.8, 54.92N±0.06×160.33W±0.06, h24km±4km, Error ellipse: s-maj=8.4km s-min=4.9km az=199.0*
ISC 02 03:56:11.4±0.6, 55.00N±0.05×160.32W±0.03, h44km±4km, h44km:pP-P, n404, σ1§25/402, mb4.7/124, MS3.7/27, 13C-4D, Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SDPT	**Sand Point**	**0.36**	**345**	Pn	**Pn**	**03 56 21.2**	**+0.6**
SDPT				Sn	**Sn**	**03 56 28.8**	**+1.7**
SDPT				IAML		03 56 29.3	
	comp=E,44μm,0.8s						
CNBA	**Chernabura Isl**	**0.46**	**113**		**Pn**	**03 56 20.8**	**-0.9**
CNBA					**Sn

comp=N,1µm,0.8s
MNAT Makushin Natee 3.88 256 Pn Pn 03 57 09.1 +0.6
MGOD Makushin Gods 4.02 255 Pn Pn 03 57 11.2 +0.8
MAPS Pakushin South 4.05 256 Pn Pn 03 57 11.3 +0.5
Q17K Contact Creek 4.08 35 Pn Pn 03 57 13.4 +2.1
CAHL Cahill 4.13 40 Pn Pn 03 57 14.1 +2.1
O15K Ungalikthiuk R 4.19 3 Pn Pn 03 57 13.8 +1.1
P16K Nushagak River 4.23 17 Pn **Pn 03 57 14.8 +1.5**
P16K IAML 03 58 39.6
comp=N,938nm,1.0s
P16K IAML 03 58 47.6
comp=E,887nm,0.8s
ACHA Angle Creek He 4.24 39 Pn **Pn 03 57 15.5 +2.1**
O14K Tigyukauivet M 4.29 354 Pn Pn 03 57 15.6 +1.5
O14K IAML 03 58 06.3
comp=N,386nm,0.9s
OHAK Old Harbor 4.52 58 Pn **Pn 03 57 18.3 +1.1**
KARR Katmai Rainbow 4.67 39 Pn Pn 03 57 21.8 +2.4
P17K Kvichak River 4.71 25 Pn **Pn 03 57 22.2 +2.5**
KAHG Katmai Hook Gl 4.73 40 Pn Pn 03 57 22.8 +2.7
O16K Kokwok River B 4.76 14 Pn Pn 03 57 22.3 +1.8
OKTU Okmok Mt. Tuli 4.82 253 Pn Pn 03 57 22.4 +1.1
OKNC Okmok New Cone 4.83 255 Pn Pn 03 57 22.4 +0.8
OKNC Okmok New Cone 4.83 255 IAML 03 58 52.6
comp=N,326nm,1.1s
OKNC IAML 03 58 55.9
comp=E,344nm,1.5s
N14K Kuskokwak Cree 4.99 352 Pn **Pn 03 57 24.9 +1.3**
N14K IAML 03 59 03.2
comp=N,487nm,1.2s
O17K Koliganek Bris 5.09 19 Pn Pn 03 57 26.9 +1.8
KDAK Kodiak Island 5.12 54 Pn **Pn 03 57 26.2 +0.7**
comp=N,3.4nm,0.3s,baz=238,slow=7.6,SNR=20
KDAK Sn **Sn 03 58 24.2 +1.1**
comp=N,9.5nm,0.3s,baz=248,slow=11,SNR=3.6
KDAK Lg Lg 03 58 41.8
comp=N,22nm,0.3s,baz=358,slow=19,SNR=4.0
KDAK LR LR 03 59 31.3
comp=N,247nm,20.5s,baz=224,slow=39
comp=N,20nm,0.5s
KDAK AML AML
KDAK Kodiak Island 5.12 54 Pn **Pn 03 57 26.5 +1.0**
KDAK IAML 03 58 52.2
comp=N,278nm,0.9s
KDAK IAML 03 58 52.5
comp=N,336nm,0.7s
KDAK Kodiak Island 5.12 54 P **Pn 03 57 23.5 -2.0**
comp=Z,157nm,0.7s
N15K Kwethluk River 5.18 1 IAML 03 59 02.6
comp=E,307nm,0.6s
N15K IAML 03 59 16.4
comp=N,313nm,0.9s
P18K Big Mountain, 5.20 30 Pn 03 57 28.6 +2.1
Q19K Cape Douglas, 5.37 40 Pn Pn 03 57 31.0 +2.1
M13K Dall Lake 5.66 345 Pn Pn 03 57 34.6 +1.8
M15K Kasigluk River 5.71 358 Pn 03 57 34.7 +1.1
N17K Nushagak Hills 5.79 16 Pn 03 57 36.2 +1.6
SPIA Saint Paul Isl 5.97 295 Pn Pn 03 57 38.4 +1.3
O19K Port Alsworth 6.12 29 Pn Pn 03 57 41.2 +2.0
N18K Kilae Creek 6.16 21 Pn 03 57 41.6 +1.8
ILSW Iliamna Southw 6.31 35 Pn Pn 03 57 44.8 +2.9
ILS Iliamna Low So 6.32 35 Pn 03 57 44.6 +2.6
IVE Iliamna Volcan 6.38 35 Pn 03 57 45.1 +2.2
L14K Kuka Creek 6.48 350 Pn 03 57 45.5 +1.5
M17K Holitna River 6.59 12 Pn 03 57 47.1 +1.4
N19K Bonanza Creek 6.60 26 Pn 03 57 48.5 +2.6
CNPM China Poot 6.69 44 Pn Pn 03 57 50.0 +3.0
L15K Ungalak Mounta 6.72 355 Pn 03 57 48.0 +0.6
RED Redoubt Volcan 6.77 34 Pn Pn 03 57 51.6 +3.5
NCT North Crescent 6.83 32 Pn 03 57 51.2 +2.3
M18K Stony River 6.92 18 Pn 03 57 52.0 +1.8
DFR Drift River 6.93 33 Pn 03 57 53.0 +2.6
RDT Redoubt 7.00 34 Pn 03 57 53.1 +1.8
BRSE Bradley Lake S 7.02 44 Pn 03 57 52.9 +1.3
K13K Kusilvak Mount 7.31 344 Pn Pn 03 57 56.9 +1.5
K15K Wolf Creek Mou 7.34 356 Pn 03 57 57.7 +1.9
L18K Granite Mounta 7.48 13 Pn 03 57 59.1 +1.3
M19K Big River Lodg 7.58 22 Pn 03 58 01.9 +2.7
SLKM Skilak Lake 7.72 40 Pn 03 58 02.8 +1.8
L19K White Mountain 7.74 19 Pn 03 58 03.0 +1.6
SEW Seward 7.76 44 Pn 03 58 03.0 +1.4
K17K Iditarod 7.81 7 Pn 03 58 03.5 +1.2
J14K Nanvaranak Lak 7.95 349 Pn 03 58 05.3 +1.2
L20K Farewell, AK 8.21 21 Pn 03 58 10.0 +2.2
J16K Anvik River 8.31 359 Pn 03 58 10.2 +1.1
PWL Port Wells 8.66 42 Pn 03 58 14.7 +0.8
J18K Innoko River 8.69 11 Pn 03 58 15.5 +1.2
ATKA Atka Island 8.72 257 Pn 03 58 14.0 -0.7
I17K Unalakleet 8.91 359 Pn 03 58 18.6 +1.3
KNK Knik Glacier 8.96 39 Pn Pn 03 58 19.7 +1.7
K20K Telida 8.97 18 Pn 03 58 19.3 +1.1
HIN Hinchinbrook I 9.15 48 Pn 03 58 21.5 +0.8
GLI Glacier Island 9.16 45 Pn 03 58 21.3 +0.5
J19K Poorman 9.33 13 Pn 03 58 24.3 +1.2
FID Port Fidalgo 9.34 46 Pn 03 58 23.1 -0.2
CAST Castle Rocks 9.43 23 Pn 03 58 26.1 +1.6
SCM Sheep Creek Mo 9.64 40 Pn 03 58 27.9 +0.4
J20K Nowinta River 9.71 16 Pn 03 58 28.9 +0.5
H16K Elim 9.71 355 Pn 03 58 29.4 +1.1
TRF Thorofare Moun 9.89 27 Pn 03 58 32.4 +1.5
ANM Nome 9.92 347 Pn **Pn 03 58 32.4 +1.2**
ADK Adak 10.25 259 P **Pn 03 58 36.9 +1.2**
comp=Z,95nm,1.1s
G16K Koyuk River 10.47 355 Pn 03 58 40.4 +1.7
GLB Gilahina Butte 10.81 47 Pn Pn 03 58 45.0 +1.5
VRDI Verde Repeater 10.86 48 Pn Pn 03 58 45.9 +1.6
F15K North Star Dit 10.95 351 Pn Pn 03 58 46.6 +1.4
TNA Tin City 11.23 344 Pn Pn 03 58 51.1 +2.0
IMAR Indian Mountai 11.47 14 Pn Pn 03 58 53.9 +1.5
BARN Barnard Glacie 11.58 51 Pn Pn 03 58 55.6 +1.6
COLA College 11.68 27 P **Pn 03 58 58.0 +2.9**
comp=Z,33nm,1.0s
LOGN Logan Glacier 11.78 53 Pn Pn 03 58 58.5 +1.7
ILAR Eielson Array 11.86 29 Pn Pn 03 58 55.1 -2.5
comp=Z,0.6nm,0.3s,baz=225,slow=14,SNR=20
ILAR Sn **Sn 04 01 05.0 -3.4**
comp=Z,0.5nm,0.3s,baz=220,slow=21,SNR=4.2
comp=Z,1.1nm,0.4s
ILAR AML AML
ILAR Eielson Array 11.86 29 Pn Pn 03 58 58.0 +0.4
BCAR Beaver Creek A 12.46 42 Pn Pn 03 59 06.9 +1.0
DAWY Dawson 13.90 41 Pn Pn 03 59 26.4 +0.9
E24K Your Creek 14.23 18 Pn Pn 03 59 31.0 +1.0
N31M Braeburn, Yuko 14.40 53 Pn Pn 03 59 33.2 +1.0
J29N Klondike Camp 14.54 41 P P 03 59 43.2 +3.3
TOLK Toolik Lake Re 14.56 16 Pn Pn 03 59 35.3 +1.0
WHY Whitehorse 14.63 57 P Pn 03 59 31.6 -3.7
comp=Z,38nm,1.0s
D24K Happy Valley 15.14 16 IAmb IAmb 04 00 04.0
comp=Z,24nm,0.6s
M31M Drury Creek, Y 15.23 51 Pn Pn 03 59 44.4 +1.2
M31M IAmb IAmb 04 00 01.3
comp=Z,28nm,0.9s
J30M Hart River 15.31 42 IAmb IAmb 03 59 55.6
comp=Z,47nm,0.8s
H29M Whitestone 15.46 35 IAmb IAmb 04 00 08.1
comp=Z,27nm,0.8s
P33M Teslin, Yukon 15.56 59 P P 03 59 53.9 +2.7
C24K Franklin Bluff 15.67 15 IAmb IAmb 04 00 08.6
comp=Z,50nm,1.1s
G29M Pine Creek 15.98 33 IAmb IAmb 04 00 12.6
comp=Z,49nm,0.7s
EPYK Eagle Plains 16.09 36 Pn **Pn 03 59 55.5 +1.2**
EPYK IAmb IAmb 04 00 09.8
comp=Z,39nm,0.6s
H31M Peel River 16.63 39 IAmb IAmb 04 00 21.2
comp=Z,71nm,1.0s
DLBC Dease Lake 16.90 66 Pn **P 04 00 06.1 +0.1**
comp=Z,0.3nm,0.3s,baz=257,slow=14,SNR=4.1
comp=Z,2.9nm,0.9s
DLBC AML AML
F31M Tsiigehtchic 17.66 35 Pn **Pn 04 00 12.7 -1.0**
INK Inuvik 18.20 32 P **P 04 00 18.7 -1.5**
comp=Z,0.9nm,0.3s,baz=228,slow=9.9,SNR=31
INK S **Sn 04 03 40.6 -1.6**
comp=Z,2.1nm,1.1s,baz=233,slow=20,SNR=1.5
INK PcP **PcP 04 04 50.8 -0.1**
comp=Z,1.7nm,0.8s,baz=228,slow=1.5,SNR=1.9
comp=Z,4.4nm,0.5s
INK AML AML
INK Inuvik 18.20 32 P **P 04 00 19.3 -0.9**
INK Inuvik 18.20 32 P **P 04 00 19.2 -0.9**
comp=Z,20nm,0.8s

BILI Bilibino, Chuk 20.19 323 P Pn 04 00 49.1 +5.0
comp=Z,31nm,1.2s
WRGLY Wrigley 20.36 51 Pn Pn 04 00 46.9 +0.7
C36M Paulatuk 21.71 35 P **P 04 00 57.2 -1.1**
C36M IAmb IAmb 04 01 13.4
comp=Z,24nm,0.7s
PET Petropavlovsk 23.95 282 P **P 04 01 20.4 -0.7**
PET IAmb IAmb 04 01 22.8
comp=Z,32nm,0.8s
PET Petropavlovsk 23.95 282 P **P 04 01 20.6 -0.5**
comp=Z,45nm,1.1s
YKA Yellowknife Ar 24.40 54 P **P 04 01 24.6 -0.6**
comp=Z,2.1nm,0.6s,baz=275,slow=8.3,SNR=9.3
YKA PcP **PcP 04 05 02.7 -0.3**
comp=Z,2.2nm,0.8s,baz=263,slow=1.9,SNR=5.9
comp=Z,2.1nm,0.6s
YKA Yellowknife Ar 24.40 54 P **P 04 01 25.0 -0.2**
PEA0B Petropavlovsk- 24.45 283 P **P 04 01 25.1 -0.6**
PEA0B IAmb IAmb 04 01 27.2
comp=Z,50nm,1.2s
PETK Petropavlovsk- 24.45 283 P **P 04 01 25.0 -0.7**
comp=Z,17nm,0.4s,baz=70,slow=12,SNR=130
comp=Z,17nm,0.4s
PETK Petropavlovsk- 24.45 283 P **P 04 01 24.6 -1.2**
SEY Seymchan 25.10 308 P **P 04 01 27.9 -3.7**
comp=Z,2.5nm,0.2s,baz=15,slow=20,SNR=5.1
SEY LR LR 04 12 35.0
comp=Z,244nm,20.7s,baz=144,slow=40
comp=Z,2.5nm,0.2s
COR Corvallis 25.77 98 P **P 04 01 28.1 -10**
comp=Z,4.4nm,1.5s
NEW Newport 27.28 86 P **P 04 01 53.5 +2.0**
comp=Z,1.4nm,0.8s,baz=280,slow=11,SNR=2.3
NEW LR LR 04 10 43.8
comp=Z,106nm,20.4s,baz=236,slow=32
comp=Z,1.4nm,0.8s
NEW Newport 27.28 86 P P 04 01 42.2 -9.3
comp=Z,6.4nm,1.1s
YBH Yreka Blue Hor 27.91 103 P **P 04 02 00.9 +3.7**
comp=Z,0.9nm,0.8s,baz=270,slow=9.1,SNR=1.7
YBH LR LR 04 10 48.8
comp=Z,75nm,20.1s,baz=318,slow=31
comp=Z,0.9nm,0.8s
MOD Modoc Plateau 29.16 100 P **P 04 02 08.8 +0.4**
PNTR Pine Nut 31.45 103 P **P 04 02 31.1 +2.4**
PNTR IAmb IAmb 04 02 42.8
comp=Z,5.4nm,0.8s
HLID Hailey 31.49 92 P P 04 02 18.5 -10
comp=Z,3.0nm,1.6s
RES Resolute Bay 31.61 27 P **P 04 02 28.8 -0.6**
comp=Z,1.4nm,0.6s,baz=255,slow=14,SNR=5.3
comp=Z,1.4nm,0.6s
RES Resolute Bay 31.61 27 P **P 04 02 28.4 -1.0**
RES Resolute Bay 31.61 27 P **P 04 02 29.3 -0.1**
comp=Z,5.9nm,2.5s
BLKN Baker Lake 32.38 47 P **P 04 02 36.8 +0.5**
NVAR Mina Array Bea 32.63 103 P **P 04 02 41.1 +2.0**
comp=Z,0.1nm,0.2s,baz=314,slow=6.7,SNR=1.7
NVAR PcP **PcP 04 05 24.5 +0.3**
comp=Z,0.9nm,0.7s,baz=333,slow=4.0,SNR=7.1
NVAR LR LR 04 12 58.8
comp=Z,163nm,20.9s,baz=318,slow=31
comp=Z,0.1nm,0.2s
ELK Elko 32.80 97 P **P 04 02 43.6 +3.1**
comp=Z,0.8nm,0.7s,baz=315,slow=8.6,SNR=4.5
ELK LR LR 04 13 17.2
comp=Z,131nm,19.7s,baz=314,slow=31
comp=Z,0.8nm,0.7s
YHH Holmes Hill 32.81 87 P **P 04 02 43.1 +2.4**
TIXI Tiksi 33.36 327 P **P 04 02 43.6 -1.1**
DGMT Dagmar 34.53 77 P **P 04 02 53.9 -1.4**
DGMT IAmb IAmb 04 03 08.8
comp=Z,17nm,1.4s
PDAR Pinedale Array 34.78 89 P **P 04 02 59.8 +2.1**
comp=Z,0.4nm,0.6s,baz=307,slow=7.5,SNR=4.5
PDAR LR LR 04 15 06.7
comp=Z,36nm,21.9s,baz=5.0,slow=32
PDAR Pinedale Array 34.78 89 P **P 04 02 57.1 -0.6**
TPNV Topopah Spring 34.83 103 P **P 04 02 57.3 -0.8**
TPNV IAmb IAmb 04 03 14.0
comp=Z,6.2nm,1.1s
POHA Pohakuloa 35.38 172 P P 04 02 47.9 -15
YAK Yakutsk 35.54 310 LR LR 04 18 11.9
comp=Z,133nm,20.6s,baz=78,slow=37
MLOA Mauna Loa Obse 35.59 172 P P 04 02 49.0 -16
ILON Igloolik, Nuna 36.39 36 P **P 04 03 11.6 +0.7**
POIN Pond Inlet 36.60 30 P **P 04 03 13.4 +0.8**
POIN IAmb IAmb 04 03 17.2
comp=Z,6.7nm,1.1s
PFO Pinyon Flats O 37.15 107 LR LR 04 15 10.0
comp=Z,92nm,18.3s,baz=314,slow=30
PV21 Cone Mtn., Par 37.86 94 P **P 04 03 25.3 +1.3**
ULM Lac du Bonnet 38.16 70 P **P 04 03 27.1 +0.9**
comp=Z,3.3nm,0.8s,baz=307,slow=10,SNR=4.7
ULM LR LR 04 18 22.6
comp=Z,106nm,18.9s,baz=26,slow=35
comp=Z,3.3nm,0.8s
ULM Lac du Bonnet 38.16 70 IAmb IAmb 04 03 28.4
comp=Z,10nm,1.1s
PV13 Radium Mtn., P 38.22 94 P **P 04 03 27.9 +0.8**
KLR Kul'dur 40.61 291 LR LR 04 19 54.3
comp=Z,57nm,21.7s,baz=43,slow=35
NEEM North Greenlan 40.89 18 *i* P **P 04 03 48.8 0.0**
NEEM IAmb IAmb 04 03 50.8
comp=Z,10nm,0.8s
ANMO Albuquerque 41.83 96 LR LR 04 18 39.7
comp=Z,38nm,20.5s,baz=328,slow=32
EYMN Ely 41.84 70 P **P 04 03 57.7 +1.1**
EYMN IAmb IAmb 04 04 09.7
comp=Z,26nm,1.3s
NOR Nord 42.25 7 P **P 04 04 00.8 +1.2**
comp=Z,16nm,2.7s
USRK Ussuriysk Ar. 43.52 285 P **P 04 04 08.0 -2.2**
comp=Z,2.5nm,0.8s,baz=21,slow=5.9,SNR=1.9
USRK LR LR 04 21 37.4
comp=Z,49nm,21.7s,baz=47,slow=35
comp=Z,2.5nm,0.8s
FRB Frobisher Bay 43.60 40 P **P 04 04 11.5 +0.9**
comp=Z,16nm,0.7s,baz=309,slow=10,SNR=9.4
comp=Z,16nm,0.7s
G40A Rib Lake 44.19 72 P **P 04 04 16.1 +0.4**
G40A IAmb IAmb 04 04 52.3
comp=Z,16nm,1.1s
MJAR Matsushiro Arr 45.08 272 P **P 04 04 22.0 -0.9**
comp=Z,3.7nm,0.5s,baz=37,slow=7.0,SNR=12
comp=Z,3.7nm,0.5s
MJAR Matsushiro Arr 45.08 272 P **P 04 04 22.6 -0.3**
MJB9 Matsu-Tunnel 45.08 272 P **P 04 04 23.1 +0.2**
MAJO Matsushiro 45.08 272 P **P 04 04 22.3 -0.6**
MAJO IAmb IAmb 04 04 24.2
comp=Z,22nm,1.0s
MAJO Matsushiro 45.08 272 P **P 04 04 22.8 -0.1**
comp=Z,26nm,1.2s
JGF Kuroka 46.23 272 P **P 04 04 31.7 -0.3**
JGF IAmb IAmb 04 04 33.8
comp=Z,13nm,0.8s
DAG Danmarks Havn 46.27 11 P **P 04 04 31.8 +0.1**
comp=Z,26nm,0.9s
DAG Danmarks Havn 46.27 11 *i* P **P 04 04 31.7 +0.1**
DAG IAmb IAmb 04 04 33.1
comp=Z,14nm,0.8s
SUMG Summit 46.55 21 *i* P **P 04 04 35.9 +1.4**
NRIK Noril'sk 46.59 333 P **P 04 04 34.4 0.0**
comp=Z,5.1nm,0.5s,baz=50,slow=6.3,SNR=7.6
NRIK LR LR 04 26 49.0
comp=Z,86nm,20.0s,baz=45,slow=40
comp=Z,5.1nm,0.5s
NRIK Noril'sk 46.59 333 P **P 04 04 34.8 +0.4**
NRIK IAmb IAmb 04 04 35.7
comp=Z,5.8nm,0.6s
HILR Hailar Array B 46.70 298 LR LR 04 24 47.4
comp=Z,34nm,20.0s,baz=70,slow=37
SPITS Spitsbergen Ar 47.06 1 P **P 04 04 36.0 -1.9**
comp=Z,7.3nm,0.8s,baz=352,slow=8.7,SNR=5.6
comp=Z,7.3nm,0.8s
CN2 Changchun 47.38 289 *e*P **P 04 04 38.5 -2.3**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
SFJD Kangerlussuaq 47.52 30 P **P 04 04 42.1 +0.5**
SFJD IAmb IAmb 04 04 43.4
comp=Z,12nm,0.7s
SFJD Kangerlussuaq 47.52 30 *i* P **P 04 04 42.5 +0.9**
SFJD IAmb IAmb 04 04 43.6
comp=Z,12nm,0.7s
TXAR Lajitas Array 47.55 99 P **P 04 04 44.1 +1.7**
comp=Z,0.6nm,0.8s,baz=324,slow=7.2,SNR=5.9
TXAR PcP **PcP 04 06 12.5 +0.6**
comp=Z,0.6nm,0.7s,baz=329,slow=2.6,SNR=3.9
TXAR LR LR 04 23 29.4
comp=Z,132nm,18.1s,baz=262,slow=34
comp=Z,0.6nm,0.8s
N47A Urbana 49.55 74 P **P 04 04 57.2 -0.4**
SCHQ Schefferville 49.73 49 P **P 04 04 58.8 +0.1**
comp=Z,2.2nm,0.7s,baz=340,slow=12,SNR=1.6
comp=Z,2.2nm,0.7s
KSRS Korea Array 50.32 281 P **P 04 05 03.3 -0.1**
comp=Z,6.1nm,1.0s,baz=59,slow=7.6,SNR=9.9
comp=Z,6.1nm,1.0s
WVT Waverly 51.67 80 P **P 04 05 13.9 +0.2**
WVT IAmb IAmb 04 05 25.9
comp=Z,9.4nm,0.8s
Q51A Peebles 52.14 74 P **P 04 05 16.8 -0.3**
XLT XiLinHaoTe 52.32 295 *e*P **P 04 05 18.8 +0.3**
XLT pP pP 04 05 31.3 +0.4
XLT ScS ScS 04 15 01.0 -3.3
XLT pmax pmax
comp=Z,18nm,0.8s
DL2 Dalian 52.82 287 *e*P P 04 05 16.7 -5.4
DL2 pmax pmax
comp=Z,21nm,1.0s
L56A Greenwood 53.10 67 P **P 04 05 24.2 0.0**
J59A Piesco 53.78 64 P **P 04 05 28.9 -0.2**
J59A IAmb IAmb 04 06 05.5
comp=Z,18nm,1.1s
M57A Sunshine Farm, 53.90 68 P **P 04 05 29.9 0.0**
TKL Tuckaleechee C 54.30 77 LR LR 04 28 27.9
comp=Z,7nm,19.6s,baz=336,slow=36
SONM Songino Array 54.43 304 P **P 04 05 33.4 -0.5**
comp=Z,4.3nm,0.6s,baz=47,slow=5.8,SNR=20
SONM PcP **PcP 04 06 36.5 -0.6**
comp=Z,2.6nm,0.7s,baz=77,slow=2.2,SNR=5.4
comp=Z,4.3nm,0.6s
SONM Songino Array 54.43 304 P **P 04 05 33.4 -0.5**
SONM IAmb IAmb 04 05 34.5
comp=Z,4.0nm,0.7s
NPNY Mohonk Preserv 55.18 65 P **P 04 05 39.6 +0.4**
KEV Kevo 55.43 357 P **P 04 05 39.7 -1.0**
ARCES ARCESS Array B 55.70 358 P **P 04 05 41.4 -1.2**
comp=Z,2.1nm,0.4s,baz=353,slow=6.4,SNR=19
comp=Z,2.1nm,0.4s
T59A Double "B" Far 56.80 72 P **P 04 05 50.7 -0.2**
HHC Hu-ho-hao-te 56.84 295 *e*P **P 04 05 51.6 +0.3**
HHC pmax pmax
comp=Z,7.0nm,0.6s
ZALV Zalesovo Beam 58.93 321 P **P 04 06 03.5 -2.1**
comp=Z,0.9nm,0.5s,baz=35,slow=5.3,SNR=4.0
ZALV LR LR 04 33 17.8
comp=Z,116nm,18.6s,baz=31,slow=38
comp=Z,0.9nm,0.5s
LYN LuoYang 61.02 290 P **P 04 06 20.4 +0.2**
LYN pmax pmax
comp=Z,28nm,0.7s
XAN Xi'an 63.31 292 P **P 04 06 35.4 -0.3**
XAN pP pP 04 06 48.3 0.0
XAN pmax pmax
comp=Z,7.0nm,1.2s
KURK Kurchatov 63.77 323 P **P 04 06 37.8 -0.5**
KURK IAmb IAmb 04 06 39.4
comp=Z,3.6nm,0.5s
KURK Kurchatov 63.77 323 P **P 04 06 38.2 -0.1**
comp=Z,5.6nm,0.9s
FIA1 FINESS Array S 63.78 357 P **P 04 06 37.3 -0.9**
FINES FINESS Array B 63.79 357 P **P 04 06 37.1 -1.2**
comp=Z,7.4nm,0.5s,baz=8.8,slow=6.0,SNR=91
comp=Z,7.4nm,0.5s
FINES FINESS Array B 63.79 357 P **P 04 06 37.6 -0.6**
GTA2 Gaotai 63.84 302 *e*P **P 04 06 38.8 -0.4**
GTA2 sP sP 04 06 55.2 -1.7
GTA2 pmax pmax
comp=Z,10.0nm,1.0s
KURBB Kurchatov Arra 63.88 323 P **P 04 06 37.2 -1.9**
comp=Z,0.7nm,0.3s,baz=24,slow=6.5,SNR=9.2
comp=Z,0.7nm,0.3s
NB2 NORSAR Subarra 64.11 5 P **P 04 06 40.3 -0.1**
comp=Z,2.5nm,0.8s,baz=355,slow=6.5
NOA NORSAR Array B 64.11 5 P **P 04 06 39.6 -0.8**
comp=Z,4.0nm,0.8s,baz=354,slow=6.5,SNR=9.5
comp=Z,4.0nm,0.8s
ZSN Zaisan 64.14 317 *e*P **P 04 06 41.3 +0.5**
comp=Z,6.4nm,0.7s
KIRV Kirov 64.26 343 LR LR 04 40 08.2
comp=Z,57nm,18.0s,baz=346,slow=41
BVAR Borovoye Array 64.47 329 P **P 04 06 42.5 -0.4**
comp=Z,9.6nm,0.6s,baz=36,slow=6.3,SNR=34
comp=Z,9.6nm,0.6s
BORK Borovoye 64.47 329 P **P 04 06 42.1 -0.8**
BORK IAmb IAmb 04 06 43.6
comp=Z,5.5nm,0.6s
LZDM Lanzhou Array 64.59 297 P **P 04 06 43.6 -0.8**
comp=Z,1.1nm,0.3s,baz=19,slow=9.2,SNR=3.9
comp=Z,1.1nm,0.3s
HFS Hagfors 65.11 3 P **P 04 06 46.5 -0.4**
comp=Z,9.0nm,0.7s,baz=329,slow=1.7,SNR=13
comp=Z,9.0nm,0.7s
MKAR Makanchi Array 65.68 318 P **P 04 06 49.1 -1.8**
comp=Z,1.1nm,0.4s,baz=39,slow=7.4,SNR=13
MKAR LR LR 04 37 34.7
comp=Z,80nm,19.6s,baz=36,slow=38
comp=Z,1.1nm,0.4s
MAKZ Makanchi 65.79 318 P **P 04 06 50.7 -0.9**
MAKZ IAmb IAmb 04 07 22.4
comp=Z,4.0nm,1.0s
EKA Eskdalemuir Ar 68.44 14 P **P 04 07 08.8 +0.6**
comp=Z,5.1nm,0.6s,baz=352,slow=6.3,SNR=19
comp=Z,5.1nm,0.6s
GOMU GeErMu 68.83 303 P **P 04 07 10.6 -0.8**
GOMU pmax pmax
comp=Z,6.0nm,0.4s
PDGK Podgornoye 69.67 318 P **P 04 07 16.2 0.0**
SHLS Shalkode 69.83 318 *e*P **P 04 07 16.6 -0.5**
comp=Z,9.0nm,0.9s
UZB Uzunbulak 70.00 318 *e*P **P 04 07 18.6 +0.3**
comp=Z,5.0nm,1.1s
BTLS Baital 70.22 322 *e*P **P 04 07 20.0 +0.6**
SATY Saty 70.31 318 *e*P **P 04 07 20.7 +0.5**
MDOK Medeo 70.74 319 *e*P **P 04 07 23.0 +0.2**
AAA Alma-Ata 70.75 319 *e*P **P 04 07 23.2 +0.5**
ABKAR Akbulak array 70.77 333 P **P 04 07 22.5 -0.1**
TNSS Tian-Shan 70.89 319 *e*P **P 04 07 24.1 +0.1**
TARG Taragay, Kyrgy 71.68 318 P **P 04 07 29.8 +0.9**
ASAI AK-SAY(Kyrgyzs 72.87 318 P **P 04 07 36.2 +0.4**
comp=Z,6.9nm,1.1s
PPT2 Papeete2 72.88 169 *e*LR LR 04 29 44.6
comp=Z,47nm,22.8s
PPT2 *e*LR LR 04 29 52.9
comp=Z,98nm,27.0s
DZA Taraz 73.05 323 *e*P **P 04 07 36.9 +0.5**
KK31 Karatay Array 73.14 324 P **P 04 07 37.1 +0.1**
KK31 IAmb IAmb 04 07 37.7
comp=Z,7.5nm,0.8s
KKAR Karatay Array 73.14 324 P **P 04 07 36.7 -0.3**
RNPP9 Sopachiv 73.83 356 P **P 04 07 40.0 -0.8**
RNPP8 Varash 73.90 356 P **P 04 07 40.4 -0.9**
CLL Collm 73.91 4 P **P 04 07 40.9 -0.4**
comp=Z,7.6nm,1.4s
CLL Collm 73.91 4 *i* P **P 04 07 41.7 +0.4**
comp=Z,5.0nm,1.0s
CLL *e*pP **pP 04 07 53.0 -1.2**
CLL *e*(sP) **PcP 04 07 57.0 +0.4**
RNPP5 Staryi Chortor 74.01 356 P **P 04 07 41.2 -0.7**
IUG Iuzhnay 74.15 323 *e*P **P 04 07 43.5 +0.5**
comp=Z,4.5nm,0.7s
AK21 Malin Array Si 74.30 354 P **P 04 07 42.8 -0.8**
AK22 Malin Array Si 74.31 354 P **P 04 07 42.9 -0.8**
AKASG Malin Array Be 74.36 354 P **P 04 07 43.3 -0.7**
comp=Z,6.6nm,0.5s,baz=9.6,slow=6.5,SNR=50
AKASG LR LR 04 42 58.7
comp=Z,43nm,19.5s,baz=336,slow=38
comp=Z,6.6nm,0.5s
AKBB Malin Array Si 74.36 354 P **P 04 07 43.2 -0.8**
KIEV Kiev 74.37 354 P **P 04 07 43.3 -0.8**
KIEV Kiev 74.37 354 ||P **P 04 07 43.3 -0.8**
KIEV Kiev 74.37 354 P **P 04 07 43.2 -0.8**
comp=Z,79nm,0.7s
KIEV Kiev 74.37 354 P **P 04 07 43.6 -0.4**
comp=Z,20nm,0.7s
BRG Berggiesshubel 74.38 4 *e*P **P 04 07 44.2 +0.1**
BRG Amp 04 07 45.6
comp=Z,5.2nm,0.9s
AK11 Malin Array Si 74.39 354 P **P 04 07 43.3 -0.8**
AK17 Malin Array Si 74.39 354 P **P 04 07 43.4 -0.7**
KSP Ksiaz 74.49 2 P **P 04 07 44.6 -0.1**
comp=Z,7.0nm,0.9s

HSKC	Hora Svate Kat	74.63	4	*e*P		P	04 07 45.5	-0.1
HSKC	Hora Svate Kat	74.63	4	P		P	04 07 46.7	+1.1
	comp=Z,11nm,1.5s							
CHVC	Chvalec	74.73	2	*e*P		P	04 07 46.4	+0.2
PVCC	Panska Ves	74.75	3	*e*P		P	04 07 46.7	+0.5
OSTC	Ostas	74.77	2	*e*P		P	04 07 46.8	+0.4
KSH2	Kashi	74.77	318	P		P	04 07 47.3	+0.5
KSH2					pmax	pmax		
	comp=Z,18nm,0.9s							
DPC	Dobruska-Polom	74.98	2	*e*P		P	04 07 48.0	+0.4
DPC	Dobruska-Polom	74.98	2	P		P	04 07 47.8	+0.2
	comp=Z,7.8nm,1.1s							
DPC	Dobruska-Polom	74.98	2	P		P	04 07 48.6	+0.9
	comp=Z,8.0nm,1.1s							
LUBAR	Lubar, Ukraine	75.23	355	P		P	04 07 48.3	-0.7
STEB	Steborice	75.42	1	*e*P		P	04 07 50.2	+0.1
MORC	Moravsky Berou	75.58	1	P		P	04 07 51.3	+0.2
MORC	Moravsky Berou	75.58	1	*e*P		P	04 07 50.6	-0.5
KWP	Kalwaria Pacla	75.70	358	P		P	04 07 52.2	+0.4
	comp=Z,19nm,1.0s							
ZVC	Zvikov	75.83	4	*e*P		P	04 07 52.6	+0.2
SLVN	Son La	76.02	287	P		P	04 07 53.4	-0.6
SLVN					IAmb	IAmb	04 07 55.1	
	comp=Z,9.5nm,0.8s							
SLVN	Son La	76.02	287	P		P	04 07 54.3	+0.2
	comp=Z,14nm,1.0s							
SLVN					pP	PcP	04 08 06.3	+0.1
VRAC	Vranov	76.03	2	*e*P		P	04 07 54.0	+0.4
VRAC	Vranov	76.03	2	⇑P		P	04 07 54.1	+0.5
KHC	Kasperske Hory	76.11	4	*e*P		P	04 07 54.5	+0.4
LANS	Liptovska Anna	76.22	0	*e*P		P	04 07 55.9	+1.2
KRUC	Moravsky	76.27	2	*e*P		P	04 07 55.4	+0.4
GERES	GERESS Array B	76.40	4	P		P	04 07 55.5	-0.3
	comp=Z,2.6nm,0.9s,baz=357,slow=5.2,SNR=10.0							
	comp=Z,2.6nm,0.9s							
GERES	GERESS Array B	76.40	4	P		P	04 07 55.7	-0.2
KOLS	Kolonicke sedl	76.41	358	*e*P		P	04 07 57.1	+1.3
KOLS	Kolonicke sedl	76.41	358	P		P	04 07 56.9	+1.1
	comp=Z,7.9nm,0.7s							
CKRC	Cesky Krumlov	76.45	4	*e*P		P	04 07 56.3	+0.3
JAVC	Velka Javorina	76.50	1	*e*P		P	04 07 57.6	+1.3
JAVC	Velka Javorina	76.50	1	P		P	04 07 56.9	+0.6
	comp=Z,13nm,0.9s							
ABNA	Allensteig Bun	76.64	3	*i* sP		sP	04 08 14.1	-0.9
	comp=Z,8.1nm,1.3s							
KMPD	K-Podol'skiy	76.65	355	P		P	04 07 55.6	-1.5
VYHS	Vyhne	76.87	1	*e*P		P	04 07 58.6	+0.2
MODS	Modra-Piesok	76.97	2	*e*P		P	04 08 00.5	+1.5
MODS	Modra-Piesok	76.97	2	P		P	04 07 59.9	+0.9
SORM	Soroca	76.97	354	⇓P		P	04 07 58.1	-0.9
SORM	Soroca	76.97	354	P		P	04 07 58.2	-0.7
	comp=Z,19nm,0.8s							
TRPA	Tarpa	77.21	358	P		P	04 08 01.0	+0.7
	comp=Z,16nm,0.8s							
WINA	Alland / Wiene	77.22	2	*i* P		P	04 08 01.9	+1.5
	comp=Z,9.8nm,1.2s							
CONA	Conrad Observa	77.39	3	*i* P		P	04 08 02.3	+0.9
	comp=Z,5.6nm,0.7s,SNR=6.0							
MOA	Molln	77.42	4	*i* P		P	04 08 02.8	+1.3
	comp=Z,4.9nm,1.4s							
MOA				*i* sP		sP	04 08 17.9	-1.5
	comp=Z,6.4nm,1.6s							
PSZ	Piszkesteto	77.45	360	⇑P		P	04 08 02.3	+0.5
PSZ	Piszkesteto	77.45	360	P		P	04 08 01.3	-0.4
	comp=Z,8.1nm,0.9s							
RJOB	Jochberg	77.47	5	P		P	04 08 02.2	+0.4
	comp=Z,9.1nm,1.3s							
SRO	Srobarova	77.55	1	*e*P		P	04 08 01.5	-0.7
BUR08	Bucovina Ar. S	77.62	356	P		P	04 08 02.9	+0.2
BUR08					IAmb	IAmb	04 08 04.0	
	comp=Z,5.0nm,0.9s							
RONA	Rosalia, Austr	77.63	2	*i* P		P	04 08 03.7	+1.0
	comp=Z,4.1nm,1.1s							
RONA				*i* sP		sP	04 08 19.8	-0.9
	comp=Z,2.8nm,0.8s							
BURAR	Bucovina Array	77.65	356	P		P	04 08 02.9	+0.1
BURAR					IAmb	IAmb	04 08 04.4	
	comp=Z,3.8nm,0.8s							
BURAR	Bucovina Array	77.65	356	⇓P		P	04 08 03.0	+0.1
MOTA	Moosalm	77.77	6	*i* P		P	04 08 05.0	+1.4
	comp=Z,5.3nm,1.1s							
MOTA				*i* sP		sP	04 08 21.3	-0.3
	comp=Z,7.8nm,1.0s							
LESA	Schwarzleotal	77.77	5	*e*P		P	04 08 04.1	+0.6
	comp=Z,3.2nm,1.0s							
LESA				*i* sP		sP	04 08 21.2	-0.4
	comp=Z,3.8nm,0.8s							
WATA	Walderalm	77.81	6	*i* P		P	04 08 04.4	+0.6
	comp=Z,9.0nm,1.1s							
WATA				*i* sP		sP	04 08 21.4	-0.3
	comp=Z,2.9nm,0.6s							
WTTA	Wattenberg	77.88	6	*i* P		P	04 08 05.1	+0.8
	comp=Z,6.7nm,1.0s							
SQTA	Sankt Quirin	77.90	6	*i* P		P	04 08 05.2	+0.9
	comp=Z,10nm,1.0s							
SQTA				*i* sP		sP	04 08 22.2	-0.1
	comp=Z,5.0nm,0.7s							
ARSA	Arzberg	78.06	3	*i* P		P	04 08 05.5	+0.4
	comp=Z,8.4nm,1.2s							
FETA	Feichten	78.07	6	*i* P		P	04 08 05.8	+0.5
	comp=Z,7.6nm,1.2s,SNR=5.9							
FETA				*i* sP		sP	04 08 23.2	-0.1
	comp=Z,3.5nm,0.9s							
KBA	Koelnbreinsper	78.15	4	*i* P		P	04 08 06.8	+1.0
	comp=Z,10.0nm,1.2s							
KBA	Koelnbreinsper	78.15	4	P		P	04 08 07.3	+1.5
	comp=Z,11nm,1.0s							
SESA	Seetaler Alpe,	78.17	4	*i* P		P	04 08 06.7	+0.8
	comp=Z,3.5nm,0.9s							
BIZ	Bicaz	78.29	356	⇑P		P	04 08 05.5	-0.8
FUORN	Ofenpass-Fuorn	78.44	7	P		P	04 08 08.2	+0.8
FUORN					IAmb	IAmb	04 08 09.0	
	comp=Z,10nm,1.3s							
ABTA	Abfaltersbach	78.44	5	*i* P		P	04 08 08.6	+1.3
	comp=Z,5.9nm,1.1s							
ABTA				*i* sP		sP	04 08 24.7	-0.6
	comp=Z,6.9nm,1.2s							
SIJI	Sorong	78.49	252	LR		LR	04 38 48.6	
	comp=Z,60nm,19.3s,baz=91,slow=33							
DRGR		78.55	358	⇑P		P	04 08 08.2	+0.4
DRGR		78.55	358	P		P	04 08 08.5	+0.7
	comp=Z,6.0nm,1.0s							
MYKA	Terra Mystica	78.61	4	*i* P		P	04 08 08.6	+0.5
	comp=Z,2.8nm,1.3s							
SOKA	Soboth	78.62	3	*e*P		P	04 08 09.3	+1.1
	comp=Z,5.0nm,0.6s,SNR=11							
SOKA				*i* sP		sP	04 08 26.2	0.0
	comp=Z,4.6nm,1.2s							
PERS	Pernice	78.66	3	*e*P		P	04 08 09.2	+0.8
OBKA	Obir	78.77	4	*e*P		P	04 08 09.8	+0.7
	comp=Z,10nm,0.5s,SNR=16							
OBKA				*i* sP		sP	04 08 26.8	-0.2
	comp=Z,5.4nm,0.7s							
OBKA	Obir	78.77	4	P		P	04 08 08.3	-0.8
	comp=Z,21nm,0.8s							
GROS	Grobnik	78.85	3	*i* P		P	04 08 09.9	+0.4
ROBS	Robic	78.99	4	*i* P		P	04 08 09.9	-0.2
GHRR		79.10	355	P		P	04 08 10.7	0.0
SJCC	San Jacinto, C	79.18	88	P		P	04 08 11.6	-0.1
SJCC					IAmb	IAmb	04 08 41.0	
	comp=Z,24nm,1.3s							
DOPR	Dopca	79.29	356	⇑P		P	04 08 12.9	+1.1
COVR	Voineasa-Covas	79.37	355	⇑P		P	04 08 13.0	+0.7
EVN	Everest	79.45	304	P		P	04 08 13.8	+0.1
EVN					IAmb	IAmb	04 08 14.8	
	comp=Z,20nm,1.1s							
EVN	Everest	79.45	304	P		P	04 08 14.0	+0.2
	comp=Z,19nm,0.9s							
SURR	Surduc	79.59	358	⇑P		P	04 08 13.7	+0.3
KBZ	Khabaz	79.68	343	P		P	04 08 13.9	0.0
	comp=Z,9.7nm,0.9s,baz=0.0,slow=5.1,SNR=15							
KBZ					LR	LR	04 46 47.4	
	comp=Z,32nm,18.8s,baz=330,slow=38							
	comp=Z,9.7nm,0.9s							
BNI	Bardonecchia	79.71	9	P		P	04 08 15.8	+1.5
BNI					IAmb	IAmb	04 08 39.6	
	comp=Z,6.0nm,1.0s							
BZS	Buzias	79.74	359	P		P	04 08 14.7	+0.4
	comp=Z,6.6nm,2.0s							
VOIR		79.83	356	⇓P		P	04 08 14.9	+0.1
ARR	Arges	79.91	356	⇑P		P	04 08 15.9	+0.6
ARR	Arges	79.91	356	⇑P		P	04 08 15.9	+0.6
ARR	Arges	79.91	356	P		P	04 08 15.7	+0.3
	comp=Z,7.1nm,0.8s							
HERR	Herculane	80.46	358	⇑P		P	04 08 18.1	-0.1
HERR	Herculane	80.46	358	⇑P		P	04 08 18.1	-0.1
NIL	Nilore	80.48	317	P		P	04 08 18.4	-0.1
	comp=Z,46nm,0.8s							
TIRR	Tirgusor	80.63	354	P		P	04 08 19.4	+0.3
CMAR	Chiang Mai Arr	81.06	289	P		P	04 08 20.8	-1.0
	comp=Z,15nm,0.9s,baz=33,slow=5.1,SNR=52							
CMAR					LR	LR	04 47 50.5	
	comp=Z,18nm,18.1s,baz=55,slow=38							
	comp=Z,15nm,0.9s							
CMAR	Chiang Mai Arr	81.06	289	P		P	04 08 21.9	+0.1
KBL	Kabul	81.28	321	P		P	04 08 21.6	-1.4
KBL					IAmb	IAmb	04 08 22.5	
	comp=Z,7.7nm,0.6s							
KBL	Kabul	81.28	321	P		P	04 08 22.2	-0.8
	comp=Z,12nm,0.7s							
BLKB	Belogradchik	81.71	358	⇑P		P	04 08 24.7	-0.2
BOVS	Bovan	81.72	359	⇑P		P	04 08 24.8	-0.1
NRCA	Norcia	82.38	5	P		P	04 08 28.5	+0.1
NRCA					IAmb	IAmb	04 08 49.2	
	comp=Z,10nm,1.5s							
GNI	Garni	82.82	341	LR		LR	04 50 05.0	
	comp=Z,34nm,18.8s,baz=337,slow=39							
ESDC	Sonseca Array	83.54	18	P		P	04 08 35.3	+0.8
	comp=Z,4.9nm,0.7s,baz=346,slow=4.9,SNR=60							
	comp=Z,4.9nm,0.7s							
ESDC	Sonseca Array	83.54	18			P	04 08 35.1	+0.6
RUSC	La Rusia	83.63	89	P		P	04 08 35.7	-0.1
RUSC					IAmb	IAmb	04 08 56.3	
	comp=Z,12nm,1.2s							
PHP	Peshkopia	83.68	359	P		P	04 08 35.8	+0.6
	comp=Z,9.8nm,1.6s							
KNT	Kendrikon	84.17	358	P		P	04 08 37.5	-0.2
	comp=Z,9.8nm,1.6s							
ALN	Alexandroupoli	84.32	355	P		P	04 08 38.5	+0.1
	comp=Z,14nm,1.0s							
BRTR	Keskin Array B	84.89	349	P		P	04 08 41.4	-0.1
	comp=Z,2.6nm,0.8s,baz=2.2,slow=2.7,SNR=11							
	comp=Z,2.6nm,0.8s							
BRTR	Keskin Array B	84.89	349	P		P	04 08 41.2	-0.3
VSL	Villasalto	85.46	8	P		P	04 08 44.5	+0.3
VSL					IAmb	IAmb	04 08 58.1	
	comp=Z,4.8nm,0.8s							
TIP	Timpagrande	86.15	2	P		P	04 08 47.6	0.0
TIP					IAmb	IAmb	04 09 01.6	
	comp=Z,4.9nm,0.7s							
KEST	Kesra	89.19	8	P		P	04 09 02.7	+0.4
	comp=Z,2.0nm,0.8s,baz=328,slow=9.5,SNR=1.7							
	comp=Z,2.0nm,0.8s							
KEST	Kesra	89.19	8	IAmb		IAmb	04 09 20.4	
	comp=Z,3.8nm,1.0s							
BATI	Baumata	90.39	253	LR		LR	04 53 01.7	
	comp=Z,117nm,18.0s,baz=304,slow=38							
ASF	Jabal al Asfar	91.92	345	LR		LR	04 54 41.2	
	comp=Z,25nm,18.9s,baz=310,slow=38							
WRA	Warramunga Arr	92.92	239	P		P	04 09 18.3	-1.3
	comp=Z,1.0nm,1.0s,baz=30,slow=5.2,SNR=6.2							
	comp=Z,1.0nm,1.0s							
FITZ	Fitzroy Crossi	95.84	247	LR		LR	04 47 50.1	
	comp=Z,51nm,21.1s,baz=38,slow=32							
ASAR	Alice Springs	96.29	237	P		P	04 09 33.9	-1.0
	comp=Z,0.2nm,0.3s,baz=32,slow=3.7,SNR=2.0							
	comp=Z,0.2nm,0.3s							
QSPA	South Pole Qui	144.78	180	PKP		PKPab	04 15 40.5	-0.4
	comp=Z,9.0nm,0.7s,baz=25,slow=1.1,SNR=64							
QSPA	South Pole Qui	144.78	180			PKPab	04 15 40.1	-0.8
CRAIL	Swartwater, Li	147.21	345	*e*P		PKPab	04 15 50.9	-0.6
MOPA	Mopani	147.37	340	*e*P		PKPbc	04 15 49.7	-0.3
LEPH	Lephalale, Lim	148.31	346	*e*P		PKPbc	04 15 52.5	-0.1
PILG	Pilgrimsrest,	148.88	340	*e*P		PKPbc	04 15 54.8	+0.6
LBTB	Lobatse	149.73	349	*e*P		PKiKP	04 15 57.6	+0.5
TSWA	Tswaing Meteor	149.81	345	*e*P		PKPbc	04 15 54.2	-2.1
HRAO	HartRAO	150.33	345	*e*P		PKPbc	04 15 57.0	-0.6
POGA	Pongola	151.01	338	*e*P		PKPbc	04 15 58.2	-0.9
ARMS	Ukamas	153.06	360	*e*P		PKPbc	04 16 01.7	-2.1
BOSA	Boshof	153.32	349	PKPbc		PKPbc	04 16 03.2	-1.2
	comp=Z,1.4nm,0.5s,baz=5.5,slow=4.0,SNR=5.6							
BOSA	Boshof	153.32	349			PKPbc	04 16 03.6	-0.8
BOSA	Boshof	153.32	349	*e*P		PKPdf	04 15 58.7	+1.9
BFON	Badsfontein, M	156.63	351	*e*P		PKPdf	04 16 05.5	+4.2

ISK 02 04:06:04.2, 37.78N×26.69E, h6km, ML1.7/7, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMLD	Gumuldur	0.34	31	Pg	Pg	04 06 11.4	+0.5
GMLD				AML	AML		
GCAM	G?zelcaml?	0.44	101	Pg	Pg	04 06 13.4	+0.7
GCAM				Sg	Sg	04 06 19.7	+1.3
GCAM				AML	AML		
BLCB	Balcova	0.66	25	Pg	Pg	04 06 17.5	+0.5
BLCB				AML	AML		
CHOS	Chios island	0.78	320	Pg	Pg	04 06 19.4	+0.1
CHOS				AML	AML		
BODT	Bodrum	0.87	145	Pg	Pb	04 06 21.5	-0.3
AYDB	Zeytinkoy-Aydi	0.96	80	Pg	Pg	04 06 22.8	+0.1
DKL	Dikili	1.30	7	Pn	Pg	04 06 29.5	+0.4

*AFAD **02** 04:08:10.7, 37.90N×26.95E, h7km±2km, ML2.6*
*ISK **02** 04:08:10.5, 37.90N×26.95E, h10km±1km, ML2.6/6*
ISC 02 04:08:10.7±1.7, 37.90N±0.05×26.93E±0.08, h14km±10km, n10, σ0.30/19, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	zmir	0.16	346	P	Pg	04 08 14.4	-0.2
DGB				S	Sg	04 08 16.9	-0.3
GMLD	Gumuldur	0.18	356	Pg	Pg	04 08 14.9	0.0
GMLD				Sg	Sg	04 08 18.0	+0.3
GMLD				AML	AML		
KUSD	Kusadasi-Aydin	0.28	98	Pg	Pg	04 08 16.4	-0.2
KUSD				Sg	Sg	04 08 20.7	+0.1
KUSD				AML	AML		
GCAM	G?zelcaml?	0.31	130	P	Pg	04 08 16.9	-0.2
GCAM				S	Sg	04 08 21.5	+0.1
GCAM				IAML		04 08 22.0	
	comp=N,727nm,0.4s						
GCAM				IAML		04 08 22.0	
	comp=E,929nm,0.3s						
GCAM	G?zelcaml?	0.31	130	Pg	Pg	04 08 17.1	+0.1
GCAM				Sg	Sg	04 08 21.6	+0.2
GCAM				AML	AML		
BEYE	izmir	0.33	359	P	Pg	04 08 17.4	0.0
BEYE				S	Sb	04 08 22.8	-0.7
BLCB	Balcova	0.49	10	Pg	Pg	04 08 20.6	+0.2
BLCB				Sg	Sg	04 08 27.6	+0.5
BLCB				AML	AML		
DUVT	Torbali	0.52	52	P	Pg	04 08 21.0	+0.1
DUVT				S	Sg	04 08 27.6	-0.3
AYDB	Zeytinkoy-Aydi	0.76	86	Pg	Pg	04 08 25.2	-0.2
AYDB				Sg	Sb	04 08 35.9	-0.1
AYDB				AML	AML		
NAZL	Nazilli-Aydin	1.08	86	Pg	Pb	04 08 31.4	+0.3
NAZL				AML	AML		

*ISK **02** 04:24:39.3, 37.82N×26.68E, h10km, ML2.5/14*
*AFAD **02** 04:24:40.4, 37.87N×26.74E, h7km±1km, ML2.3*
*THE **02** 04:24:41.6, 38°N±49°×27°E±3°9, h32km±22km, MLh2.3/3*
ISC 02 04:24:40.3±1.0, 37.86N±0.03×26.73E±0.03, h13km±8km, n25, σ0.53/38, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	zmir	0.23	32	P	Pg	04 24 45.0	-0.2
DGB				S	Sg	04 24 48.1	-0.6
GMLD	Gumuldur	0.27	34	Pg	Pg	04 24 45.7	-0.2
GMLD				Sg	Sg	04 24 50.6	+1.0
GMLD				AML	AML		
BEYE	izmir	0.40	23	P	Pg	04 24 48.1	-0.3
BEYE				S	Sg	04 24 53.5	-0.3
ZEYE	Izmir, Urla-Ze	0.42	335	P	Pg	04 24 48.6	0.0
ZEYE				S	Sg	04 24 54.7	+0.4
ZEYE				IAML		04 24 57.0	
	comp=N,223nm,0.2s						
GCAM	G?zelcaml?	0.43	111	P	Pg	04 24 48.9	0.0
GCAM				IAML		04 24 55.0	
	comp=E,334nm,0.3s						
GCAM				S	Sg	04 24 55.3	+0.7
GCAM				IAML		04 24 56.0	
	comp=N,254nm,0.2s						
GCAM	G?zelcaml?	0.43	111	Pg	Pg	04 24 48.6	-0.2
GCAM				Sg	Sb	04 24 55.5	-0.7
GCAM				AML	AML		
KUSD	Kusadasi-Aydin	0.44	89	Pg	Pg	04 24 48.9	-0.2
KUSD				AML	AML		
DDIM	Aydin, Didim	0.57	134	P	Pg	04 24 51.6	+0.2
DDIM				S	Sb	04 25 00.2	0.0
DDIM				IAML		04 25 03.0	
	comp=N,172nm,0.5s						
DDIM				IAML		04 25 05.0	
	comp=E,158nm,0.6s						
BLCB	Balcova	0.58	25	P	Pg	04 24 51.5	-0.2
BLCB				S	Sg	04 24 58.9	-0.6
BLCB	Balcova	0.58	25	Pg	Pg	04 24 51.5	-0.2
BLCB				AML	AML		
DUVT	Torbali	0.68	57	P	Pg	04 24 53.2	-0.3
DUVT				S	Sg	04 25 01.6	-0.8
DUVT				IAML		04 25 05.0	
	comp=E,208nm,0.3s						
CHOS	Chios island	0.75	315	P	Pb	04 24 55.2	-0.1
CHOS				S	Sb	04 25 06.3	+0.8
CHOS				AML	AML		
BAGT	Foa	0.81	7	P	Pb	04 24 55.9	-0.3
BAGT				IAML		04 25 07.0	
	comp=N,359nm,1.9s						
BAGT				S	Sn	04 25 08.7	-0.6
BAGT				IAML		04 25 09.0	
	comp=E,250nm,0.5s						
FOCM	Foa	0.86	0	Pg	Pb	04 24 57.2	+0.1
FOCM				AML	AML		
BODT	Bodrum	0.92	149	P	Pb	04 24 58.5	+0.3
BODT				S	Sb	04 25 11.0	+0.8
BODT				AML	AML		
BODT	Bodrum	0.92	149	Pg	Pg	04 24 57.4	-0.6
BODT				AML	AML		
AYDB	Zeytinkoy-Aydi	0.93	84	Pg	Pb	04 24 58.2	-0.1
AYDB				AML	AML		
MLSB	Milas	1.00	124	Pg	Pg	04 24 59.0	-0.7
MLSB				Sg	Sb	04 25 13.9	+1.1
MLSB				AML	AML		
APE	Apeiranthos	1.23	231	P	Pn	04 25 02.7	-0.6
NAZL	Nazilli-Aydin	1.24	85	Pn	Pg	04 25 03.9	-0.3
NAZL				AML	AML		
GOMA	Golmarmara-Man	1.27	47	Pn	Pb	04 25 04.1	+0.1
GOMA				AML	AML		
YER	Yerkesik	1.43	120	Pn	Pn	04 25 06.2	+0.1
YER				AML	AML		
SOMA	Soma-Manisa	1.45	26	Pn	Pb	04 25 06.9	-0.2
SOMA				AML	AML		
GORD	Gordes-Manisa	1.55	47	Pn	Pn	04 25 08.3	+0.6
GORD				AML	AML		
YAYO	Edremit-Balk	1.77	9	Pn	Pn	04 25 11.5	+0.8
YAYO				AML	AML		

*IDC **02** 04:30:07.1±0.9, 37.70N×26.83E, h0km, mb3.7/5, mbtmp3.6/10, ML3.5/4, Error ellipse: s-maj=17.2km s-min=12.2km az=150.0*
*AFAD **02** 04:30:07.8, 37.83N×26.69E, h7km±1km, MW3.7*
*ISK **02** 04:30:07.9, 37.81N×26.72E, h9km, ML3.6/33*
*ATH **02** 04:30:07.2, 37.79N×26.73E, h11km, ML3.2/10, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **02** 04:30:08.3, 38°N±1°×2°7E±°, h10km±3km, M3.1/36, MLh3.1/36*
ISC 02 04:30:07.9±0.8, 37.81N±0.02×26.71E±0.02, h11km±5km, n109, σ1.9/103/141, mb3.6/4, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	Karlovasi Samo	0.01	192	P	Pg	04 30 09.4	-0.5
KRL1				S	Sg	04 30 10.8	-0.5
KRL1				AML	AML		
DGB	zmir	0.28	29	P	Pg	04 30 13.5	-0.2
DGB				S	Sg	04 30 17.8	+0.2
GMLD	Gumuldur	0.32	31	Pg	Pg	04 30 14.2	-0.1
GMLD				Sg	Sg	04 30 18.9	+0.3
GMLD				AML	AML		
GCAM	G?zelcaml?	0.43	104	P	Pg	04 30 16.8	+0.4
GCAM				S	Sb	04 30 23.4	-0.5
GCAM	G?zelcaml?	0.43	104	Pg	Pg	04 30 16.8	+0.4
GCAM				Sg	Sb	04 30 23.3	-0.6
GCAM				AML	AML		
BEYE	izmir	0.45	22	P	Pg	04 30 16.3	-0.6
BEYE				S	Sg	04 30 23.1	+0.2
KUSD	Kusadasi-Aydin	0.46	83	Pg	Pg	04 30 17.2	+0.2
KUSD				AML	AML		
ZEYE	Izmir, Urla-Ze	0.46	339	P	Pg	04 30 16.5	-0.5
ZEYE				S	Sg	04 30 23.3	+0.2
DDIM	Aydin, Didim	0.55	129	P	Pb	04 30 19.4	-0.1
DDIM				S	Sb	04 30 27.6	+0.2
CESE	eme	0.62	328	Pg	Pb	04 30 20.3	-0.4
CESE				Sg	Sb	04 30 29.3	0.0
CESE				AML	AML		
BLCB	Balcova	0.64	24	P	Pg	04 30 19.7	-0.5
BLCB				S	Sg	04 30 28.9	+0.2
BLCB				AML	AML		
BLCB	Balcova	0.64	24	Pg	Pb	04 30 20.6	-0.4
BLCB				Sg	Sb	04 30 29.7	-0.2
BLCB				AML	AML		
DUVT	Torbali	0.72	54	P	Pg	04 30 21.4	-0.4
DUVT				S	Sb	04 30 31.9	-0.3
CHOS	Chios island	0.78	319	P	Pg	04 30 22.9	-0.1
CHOS				S	Sb	04 30 34.1	0.0
CHOS				AML	AML		
CHOS	Chios island	0.78	319	Pg	Pb	04 30 23.4	-0.1
CHOS				AML	AML		
CHOS	Chios island	0.78	319	P	Pg	04 30 23.0	0.0
CHOS				S	Sb	04 30 34.0	-0.1
CHOS				AML	AML		
KRBN	Karaburun	0.80	351	Pg	Pb	04 30 23.8	0.0
KRBN				AML	AML		
YKAV	Yalikavak-Bodr	0.82	146	Pg	Pb	04 30 24.3	+0.2
YKAV				AML	AML		
BAGT	Foa	0.86	8	P	Pb	04 30 24.5	-0.3
BAGT				S	Sg	04 30 35.6	0.0
KLNA	Kalymnos	0.87	166	P	Pg	04 30 23.8	-0.9
KLNA				AML	AML		
EAG2	Marm

YER				S	**Sb**	**04 30 52.4**	**-0.1**
YER				AML	AML		
YER	**Yerkesik**		**1.42 118**	Pn	**Pb**	**04 30 34.7**	**+0.3**
YER				AML	AML		
PRK	**Paraskevi**		**1.48 347**	P	**Pn**	**04 30 34.2**	**-0.2**
PRK				S	**Sn**	**04 30 53.1**	**-0.6**
PRK				AML	AML		
PRK	**Paraskevi**		**1.48 347**	P	**Pn**	**04 30 34.0**	**-0.4**
SOMA	**Soma-Manisa**		**1.50 25**	Pn	**Pb**	**04 30 35.5**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**		**1.59 46**	Pn	**Pb**	**04 30 37.3**	**-0.1**
GORD				AML	AML		
TURN	**Turunc**		**1.60 130**	Pn	**Pb**	**04 30 36.9**	**-0.5**
TURN				AML	AML		
THERA	**Ancient Thera,**		**1.74 215**	P	**Pn**	**04 30 38.0**	**-0.1**
THERA				AML	AML		
THERA	**Ancient Thera,**		**1.74 215**	P	**Pn**	**04 30 37.6**	**-0.5**
THERA				AML	AML		
THR3	**Thira Island,**		**1.74 217**	P	**Pg**	**04 30 41.5**	**+0.1**
THT1	**Athinios (Pele**		**1.75 216**	P	Pn	04 30 33.5	-4.6
THT1				S	**Sb**	**04 31 03.3**	**+1.4**
THT1				AML	AML		
SAP3	**Santorini-Thir**		**1.75 219**	P	**Pg**	**04 30 41.9**	**+0.4**
SAP3				S	**Sb**	**04 31 02.7**	**+0.8**
SAP3				AML	AML		
THR6	**Thira Island,**		**1.79 216**	P	**Pn**	**04 30 39.3**	**+0.7**
KARY	**Karystos**		**1.81 278**	P	**Pn**	**04 30 38.6**	**-0.4**
KARY				S	**Sn**	**04 30 59.4**	**-2.6**
KARY				AML	AML		
KARY	**Karystos**		**1.81 278**	P	**Pn**	**04 30 38.6**	**-0.4**
KARY				AML	AML		
YAYO	**Edremit-Balk**		**1.82 9**	Pn	**Pn**	**04 30 40.1**	**+0.9**
YAYO				AML	AML		
DALY	**Dalyan (Mula)**		**1.84 122**	Pn	**Pb**	**04 30 40.9**	**-0.6**
DALY				AML	AML		
ARG	**Arkhangelos**		**1.95 144**	P	**Pn**	**04 30 41.4**	**+0.5**
ARG				S	**Sb**	**04 31 07.0**	**-0.7**
ARG				AML	AML		
ARG	**Arkhangelos**		**1.95 144**	Pn	**Pn**	**04 30 42.2**	**+1.3**
ARG				AML	AML		
EZN	**Ezine**		**2.04 352**	P	**Pn**	**04 30 40.4**	**-1.8**
EZN				S	**Sb**	**04 31 10.5**	**+0.3**
EZN				AML	AML		
BALB	**Balikesir**		**2.05 26**	Pn	**Pn**	**04 30 43.5**	**+1.3**
BALB				AML	AML		
APMY	**Acipayam-Deniz**		**2.08 98**	Pn	**Pn**	**04 30 43.7**	**+0.8**
APMY				AML	AML		
SIMA	**Simav-Kutahya**		**2.19 54**	Pn	**Pn**	**04 30 45.6**	**+1.2**
SIMA				AML	AML		
DION	**Dionisos Attik**		**2.21 278**	P	**Pn**	**04 30 44.4**	**-0.1**
DION				AML	AML		
DION	**Dionisos Attik**		**2.21 278**	P	**Pn**	**04 30 44.5**	**-0.1**
DION				AML	AML		
KYMI	**Kymi, Euboea I**		**2.21 293**	P	**Pn**	**04 30 44.3**	**-0.2**
KYMI				AML	AML		
FETY	**Fethiye**		**2.23 121**	Pn	**Pn**	**04 30 46.1**	**+1.4**
FETY				AML	AML		
CAME	**Cameli-Denizli**		**2.24 112**	Pn	**Pn**	**04 30 46.1**	**+1.1**
CAME				AML	AML		
PTL	**Penteli**		**2.26 277**	P	**Pn**	**04 30 44.9**	**-0.3**
PTL				AML	AML		
PTL	**Penteli**		**2.26 277**	P	**Pn**	**04 30 45.3**	**+0.1**
PTL				AML	AML		
KARP	**Karpathos**		**2.28 171**	P	**Pn**	**04 30 45.7**	**+0.2**
KARP				AML	AML		
KARP	**Karpathos**		**2.28 171**	P	**Pn**	**04 30 45.2**	**-0.3**
KARP				AML	AML		
SHAP	**Saphane-Kutahy**		**2.32 58**	Pn	**Pn**	**04 30 47.2**	**+1.1**
SHAP				AML	AML		
ATHU	**Athens Univers**		**2.32 275**	P	**Pn**	**04 30 46.2**	**+0.2**
DST	**Dursunbey**		**2.34 39**	Pn	**Pn**	**04 30 48.1**	**+1.8**
DST				AML	AML		
LIA	**Limnos Island**		**2.41 331**	P	**Pn**	**04 30 47.1**	**-0.1**
LIA				AML	AML		
GEDZ	**Gediz**		**2.46 59**	Pn	**Pn**	**04 30 49.8**	**+1.9**
GEDZ				AML	AML		
GADA	**Gvkgeada**		**2.46 345**	P	**Pn**	**04 30 47.8**	**-0.2**
GADA				AML	AML		
AOS	**Alonnisos**		**2.60 302**	P	**Pn**	**04 30 50.2**	**+0.3**
AOS				AML	AML		
BASM	**Basmaki-Afyon**		**2.65 87**	Pn	**Pn**	**04 30 51.5**	**+0.9**
BASM				AML	AML		
VILL	**Villia**		**2.71 279**	P	**Pn**	**04 30 50.7**	**-0.6**
VILL				AML	AML		
SMTH	**Samothraki Isl**		**2.81 341**	P	**Pn**	**04 30 52.5**	**-0.3**
SMTH				AML	AML		
IDI	**Anoyia**		**2.91 211**	Pn	**Pn**	**04 30 55.4**	**+1.2**
	4.0nm,0.4s,baz=22,slow=11,SNR=6.0						
IDI				Sn	**Sn**	**04 31 28.8**	**-0.3**
	3.1nm,0.3s,baz=289,slow=20,SNR=6.9						
IDI	**Anoyia**		**2.91 211**	P	**Pn**	**04 30 54.3**	**+0.2**
IDI				AML	AML		
ENEZ	**Enez**		**2.96 352**	P	**Pn**	**04 30 55.2**	**+0.5**
ENEZ				AML	AML		
LTK	**Loutraki**		**2.97 275**	P	**Pn**	**04 30 54.9**	**0.0**
LTK				AML	AML		
ALN	**Alexandroupoli**		**3.13 351**	P	**Pn**	**04 30 57.0**	**-0.1**
ALN				AML	AML		
XOR	**Xorichti**		**3.17 301**	P	**Pn**	**04 30 57.6**	**-0.1**
XOR				AML	AML		
THAS	**Thassos island**		**3.19 332**	P	**Pn**	**04 30 57.6**	**-0.4**
THAS				AML	AML		
VLI	**Veliai**		**3.20 251**	P	**Pn**	**04 30 58.0**	**-0.1**
VLI				AML	AML		
OUR	**Ouranopolis**		**3.30 321**	P	**Pn**	**04 30 59.6**	**+0.1**
OUR				AML	AML		
ANKY	**Antikythira Is**		**3.35 236**	P	**Pn**	**04 31 00.8**	**+0.7**
ANKY				AML	AML		
KLV	**Kalavryta, Ach**		**3.61 275**	P	**Pn**	**04 31 04.1**	**+0.3**
KLV				AML	AML		
AGG	**Agios Georgios**		**3.65 291**	P	**Pn**	**04 31 05.0**	**+0.7**
AGG				AML	AML		
EFP	**Efpalio**		**3.84 281**	P	**Pn**	**04 31 08.4**	**+1.5**
EFP				AML	AML		
ANX	**Ano Chora**		**3.85 283**	P	**Pn**	**04 31 08.3**	**+1.1**
ANX				AML	AML		
ITM	**Ithomi**		**3.85 262**	Pn	**Pn**	**04 31 08.9**	**+1.8**
ITM				AML	AML		
SRS	**Serrai**		**4.09 325**	P	**Pn**	**04 31 10.8**	**+0.5**
BRTR	**Keskin Array B**		**5.75 68**	Pn	**Pn**	**04 31 33.8**	**+0.6**
	0.3nm,0.3s,baz=250,slow=13,SNR=13						
	2.4nm,0.7s						
BRTR				AML	AML		
MLR	**Muntele Rosu**		**7.70 356**	Pn	**Pn**	**04 32 03.1**	**+3.0**
	0.2nm,0.3s,baz=153,slow=11,SNR=3.0						
	2.7nm,0.7s						
MLR				AML	AML		
MMAI	**Mount Meron Ar**		**8.55 121**	Pn	**Pn**	**04 32 09.1**	**-2.6**
	1.3nm,0.3s,baz=324,slow=14,SNR=2.2						
MMAI				Sn	**Sn**	**04 33 42.7**	**-5.6**
	2.7nm,0.3s,baz=309,slow=29,SNR=4.4						
	0.7nm,0.3s						
MMAI				AML	AML		
EIL	**Elat**		**10.62 137**	Sn	**Sn**	**04 34 33.7**	**-5.2**
	0.6nm,0.3s,baz=34,slow=12,SNR=4.8						
KEST	**Kesra**		**14.07 267**	Pn	**Pn**	**04 33 28.0**	**+0.7**
	0.2nm,0.3s,baz=96,slow=20,SNR=2.5						
	1.4nm,0.7s						
KEST				AML	AML		
ESDC	**Sonseca Array**		**23.94 284**	P	**P**	**04 35 25.2**	**+3.1**
	0.7nm,1.0s,baz=91,slow=10,SNR=4.1						
	0.7nm,1.0s						
TORD	**Torodi Ar. Bea**		**33.16 229**	P	**P**	**04 36 45.7**	**+1.3**
	0.4nm,0.6s,baz=34,slow=8.7,SNR=2.5						
	0.4nm,0.6s						
KURBB	**Kurchatov Arra**		**38.52 54**	P	**P**	**04 37 29.9**	**-0.2**
	1.5nm,0.2s,baz=276,slow=8.5,SNR=1.6						
	1.5nm,0.2s						
MKAR	**Makanchi Array**		**41.31 59**	P	**P**	**04 37 54.1**	**+0.7**
	1.0nm,0.7s,baz=279,slow=6.9,SNR=5.3						
	1.0nm,0.7s						
ZALV	**Zalesovo Beam**		**42.29 48**	P	**P**	**04 38 01.8**	**+0.6**
	0.4nm,0.3s,baz=263,slow=10.0,SNR=4.0						
	0.4nm,0.3s						

*SJA **02** 04:48:43.4±0.7,22.07S×68.56W,h126km±4km, ML3.6, MW3.6*
*GUC **02** 04:48:46.8±0.9,21.96S×68.70W,h121km±5km, ML3.6, Presumed earthquake*
ISC 02 04:48:43.7±1.4,**22.02S**±0.03×**68.59W**±0.05,**h134**km±9km,
n34,σ1**9**/58,**7C-3D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.64**	**290**	*eP*			**Pn**	**04 49 04.9**	**+0.6**
PB09				*eS*			**Sn**	**04 49 19.5**	**-0.4**
PB09				*eS*				04 49 20.4	
PB09				IAML				04 49 20.4	
	comp=Z,792nm,0.1s								
PB09	**IPOC Station P**	**0.64**	**290**	⇑*eP*			**Pn**	**04 49 04.8**	**+0.6**
PB09				*eS*			**Sn**	**04 49 19.0**	**-0.8**
AF01	**San Pedro de A**	**1.00**	**158**	*eP*			**Pn**	**04 49 06.6**	**-0.7**
AF01				*eS*			**Sn**	**04 49 23.1**	**-2.2**
AF01				IAML				04 49 45.6	
	comp=Z,565nm,0.5s								
AF01	**San Pedro de A**	**1.00**	**158**	⇑*eP*			**Pn**	**04 49 09.8**	**+2.4**
AF01				IAML				04 49 44.9	
	comp=N,918nm,0.4s								
PB03	**IPOC Station P**	**1.08**	**268**	*eP*			**Pn**	**04 49 08.1**	**+0.3**
PB03				*eS*			**Sn**	**04 49 25.8**	**-0.5**
PB03				IAML				04 49 27.2	
	comp=Z,1μm,0.1s								
PB03	**IPOC Station P**	**1.08**	**268**	⇑*eP*			**Pn**	**04 49 08.3**	**+0.5**
PB03				*eS*			**Sn**	**04 49 25.3**	**-1.0**
PB03				IAML				04 49 27.3	
	comp=E,2μm,0.1s								
PB06	**IPOC Station P**	**1.14**	**233**	*eP*			**Pn**	**04 49 09.5**	**+1.0**
PB06				*eS*			**Sn**	**04 49 28.0**	**+0.8**
PB06				IAML				04 49 29.7	
	comp=Z,935nm,0.1s								
PB06	**IPOC Station P**	**1.14**	**233**	⇑*eP*			**Pn**	**04 49 09.7**	**+1.3**
PB06				*eS*			**Sn**	**04 49 27.2**	**-0.1**
PB06				IAML				04 49 28.7	
	comp=E,2μm,0.1s								
PB07	**IPOC Station P**	**1.24**	**283**	*eP*			**Pn**	**04 49 09.8**	**+0.3**
PB07				*eS*			**Sn**	**04 49 29.1**	**+0.1**
PB07				IAML				04 49 29.4	
	comp=Z,2μm,0.1s								
PB07	**IPOC Station P**	**1.24**	**283**	⇑*eP*			**Pn**	**04 49 09.9**	**+0.5**
PB07				*eS*			**Sn**	**04 49 27.8**	**-1.3**
PB07				IAML				04 49 29.8	
	comp=N,1μm,0.1s								
PB02	**IPOC Station P**	**1.40**	**300**	*eP*			**Pn**	**04 49 11.5**	**+0.4**
PB02				*eS*			**Sn**	**04 49 30.3**	**-1.6**
PB02				IAML				04 49 31.4	
	comp=Z,2μm,0.3s								
PB02	**IPOC Station P**	**1.40**	**300**	⇑*eP*			**Pn**	**04 49 11.3**	**+0.2**
PB02				*eS*			**Sn**	**04 49 30.0**	**-1.9**
PB02				IAML				04 49 30.7	
	comp=N,2μm,0.4s								
PB05	**IPOC Station P**	**1.71**	**241**	*eP*			**Pn**	**04 49 15.6**	**+1.0**
PB05				*eS*			**Sn**	**04 49 37.7**	**-0.4**
PB05				IAML				04 49 39.2	
	comp=Z,568nm,0.3s								
PB05	**IPOC Station P**	**1.71**	**241**	⇑*eP*			**Pn**	**04 49 15.6**	**+1.0**
PB05				*eS*			**Sn**	**04 49 37.4**	**-0.7**
PB05				IAML				04 49 38.3	
	comp=N,522nm,0.2s								
PB08	**IPOC Station P**	**1.94**	**344**	*eP*			**Pn**	**04 49 18.8**	**+1.2**
PB08				*eS*			**Sn**	**04 49 44.6**	**+1.2**
PB08				IAML				04 49 45.0	
	comp=Z,293nm,0.1s								
PB08	**IPOC Station P**	**1.94**	**344**	⇓*eP*			**Pn**	**04 49 18.8**	**+1.2**
PB08				*eS*			**Sn**	**04 49 43.9**	**+0.5**
PB08				IAML				04 49 45.3	
	comp=E,601nm,0.2s								
TA01	**Diego Aracena**	**2.07**	**314**	*eP*			**Pn**	**04 49 19.4**	**+0.7**
TA01				IAML				04 49 48.9	
	comp=Z,146nm,0.3s								
TA01	**Diego Aracena**	**2.07**	**314**	*eP*			**Pn**	**04 49 18.5**	**-0.3**
TA01				*eS*			**Sn**	**04 49 43.5**	**-2.1**
TA01				IAML				04 49 45.7	
	comp=N,440nm,0.4s								
TA02	**Huaiquique**	**2.26**	**320**	*eP*			**Pn**	**04 49 24.2**	**+3.1**
TA02				IAML				04 49 59.0	
	comp=Z,314nm,0.1s								
TA02	**Huaiquique**	**2.26**	**320**	*eP*			**Pn**	**04 49 21.7**	**+0.7**
PB10	**IPOC Station P**	**2.34**	**230**	*eP*			**Pn**	**04 49 23.7**	**+1.6**
PB10				*eS*			**Sn**	**04 49 50.4**	**-1.3**
PB10				IAML				04 49 53.2	
	comp=Z,116nm,0.3s								
PB10	**IPOC Station P**	**2.34**	**230**	*eP*			**Pn**	**04 49 23.2**	**+1.1**
PB10				IAML				04 49 52.8	
	comp=E,165nm,0.3s								
GO01	**Chusmiza**	**2.41**	**346**	*eP*			**Pn**	**04 49 24.3**	**+0.9**
GO01				*eS*			**Sn**	**04 49 55.0**	**+1.2**
GO01				IAML				04 49 55.8	
	comp=Z,346nm,0.3s								
GO01	**Chusmiza**	**2.41**	**346**	⇓*eP*			**Pn**	**04 49 24.2**	**+0.9**
GO01				*eS*			**Sn**	**04 49 54.2**	**+0.5**
PB11	**IPOC Station P**	**2.46**	**336**	*eP*			**Pn**	**04 49 23.9**	**+0.2**
PB11				*eS*			**Sn**	**04 49 54.1**	**-0.3**
PB11				IAML				04 49 54.9	
	comp=Z,220nm,0.2s								
PB11	**IPOC Station P**	**2.46**	**336**	⇓*eP*			**Pn**	**04 49 23.7**	**-0.1**
PB11				*eS*			**Sn**	**04 49 52.6**	**-1.8**
PSGCX	**Pisagua**	**2.80**	**329**	*eP*			**Pn**	**04 49 27.9**	**-0.1**
PSGCX				*eS*			**Sn**	**04 50 01.4**	**-0.8**
PSGCX				IAML				04 50 07.5	
	comp=Z,114nm,0.2s								
SALTA		**3.02**	**137**	*eP*			Pn	04 49 12.1	-19
SALTA				*eP*				04 49 49.5	
SALTA				*eS*			Sn	04 50 20.4	+13
PB14	**IPOC Station P**	**3.08**	**212**	*eP*			**Pn**	**04 49 33.9**	**+2.0**
PB14				*eS*			**Sn**	**04 50 09.2**	**+0.2**
PB14				IAML				04 50 11.5	
	comp=Z,123nm,0.3s								
HJA	**Humahuaca**	**3.17**	**113**	*eP*			**Pn**	**04 49 33.3**	**+0.3**
PB12	**IPOC Station P**	**3.76**	**334**	*eP*			**Pn**	**04 49 40.1**	**-0.4**
PB12				*eS*			**Sn**	**04 50 22.4**	**-2.1**
PB12				IAML				04 50 47.4	
	comp=Z,38nm,0.4s								
PB16	**IPOC Station P**	**3.76**	**347**	*eP*			**Pn**	**04 49 42.1**	**+1.0**
PB16				*eS*			Sn	04 50 12.9	-12
PB16				IAML				04 50 54.0	
	comp=Z,25nm,0.7s								
AC01	**Pan de Azucar**	**4.50**	**204**	*eP*			**Pn**	**04 49 50.6**	**+0.4**
AC01				*eS*			**Sn**	**04 50 40.6**	**-1.4**
AC01				IAML				04 50 41.0	
	comp=Z,34nm,0.2s								
AC02	**Maricunga**	**4.82**	**186**	*eP*			Pn	04 49 43.0	-12
AC02				*eS*			**Sn**	**04 50 48.3**	**-2.0**
AC02				IAML				04 51 24.8	
	comp=Z,22nm,0.3s								

*TAP **02** 04:53:42.8,22.34N×120.99E,h12km,ML3.6,B*
ISC 02 04:53:42.9±0.9,**22.33N**±0.02×**121.02E**±0.02,**h11**km±6km,
n99,σ1**9**02/130,**2C-9D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TAW	**Tawu**	**0.12**	**281**	⇓*iP*			**Pg**	**04 53 46.1**	**+0.3**
TAW				*iS*			**Sg**	**04 53 48.2**	**+0.2**
TAWH	**Dawu Township**	**0.12**	**272**	⇓*iP*			**Pg**	**04 53 46.3**	**+0.3**
TAWH				*iS*			**Sg**	**04 53 48.5**	**+0.3**
EAST	**Anshuo**	**0.17**	**287**	⇓*iP*			**Pg**	**04 53 46.9**	**+0.2**
EAST				*iS*			**Sg**	**04 53 49.4**	**0.0**
SLIU	**Shizi**	**0.24**	**240**	⇑*iP*			**Pb**	**04 53 48.2**	**-1.0**
SLIU				*iS*			**Sg**	**04 53 51.6**	**+0.4**
ECL	**Taimali**	**0.27**	**347**	⇓*iP*			**Pg**	**04 53 48.5**	**0.0**
ECL				S			**Sb**	**04 53 53.5**	**-0.9**
SMST	**Manzhou Townsh**	**0.36**	**209**	*iP*			**Pb**	**04 53 50.6**	**-0.6**
SMST				*eS*			**Sb**	**04 53 55.9**	**-0.9**
SCZT	**Fangliau**	**0.37**	**276**	⇓*iP*			**Pb**	**04 53 50.5**	**-1.1**
SCZT				S			**Sb**	**04 53 55.5**	**-1.9**
HEN	**Hengchun**	**0.42**	**219**	P			**Pb**	**04 53 52.3**	**-0.1**
HEN				S			**Sb**	**04 53 58.7**	**+0.1**
TWKBT	**Hengchun**	**0.44**	**206**	*eP*			**Pb**	**04 53 52.3**	**-0.3**
TWKBT				*eS*			**Sb**	**04 53 59.4**	**+0.2**
TWK1	**Hengchun**	**0.44**	**207**	*eP*			**Pb**	**04 53 52.5**	**-0.2**
TWK1				*eS*			**Sb**	**04 53 59.4**	**+0.2**
SSPT	**Xinbi**	**0.45**	**290**	⇓*iP*			**Pb**	**04 53 52.5**	**-0.3**
TSEB	**Hengchuen, Pin**	**0.45**	**195**	*iP*			**Pb**	**04 53 53.2**	**+0.4**
TSEB				*eS*			**Sb**	**04 54 00.7**	**+1.3**
MASBT	**Mashibuluo**	**0.45**	**308**	⇓*iP*			**Pg**	**04 53 51.8**	**0.0**
MASBT				S			**Sb**	**04 53 58.0**	**-1.7**
TWGBT	**Beinan**	**0.48**	**6**	P			**Pg**	**04 53 52.3**	**-0.1**
TWGBT	**Beinan**	**0.48**	**6**	S			**Sb**	**04 54 01.1**	**+0.5**
TWGBT	**Beinan**	**0.48**	**6**	*iP*			**Pg**	**04 53 52.3**	**-0.1**
TWGBT				*eS*			**Sb**	**04 53 59.6**	**-1.0**
TWG	**Pinlang**	**0.49**	**5**	⇑*eP*			**Pg**	**04 53 52.4**	**-0.1**
TWG				S			**Sb**	**04 53 59.9**	**-0.7**
LDUT	**Ludao**	**0.53**	**51**	*iP*			**Pg**	**04 53 54.0**	**+0.7**
LDUT				S			**Sb**	**04 54 02.6**	**+0.7**
SSD	**Sandimen**	**0.55**	**319**	⇓*iP*			**Pg**	**04 53 53.3**	**-0.3**
SSD				*iS*			**Sb**	**04 54 00.8**	**-1.5**
LAY	**Lan-yu**	**0.57**	**121**	*eP*			**Pg**	**04 53 54.0**	**-0.1**
LAY				*eS*			**Sg**	**04 54 02.3**	**+0.7**
LONT	**Longtian**	**0.58**	**10**	*iP*			**Pg**	**04 53 53.8**	**-0.3**
TWP	**Hsiaoliuchiu**	**0.61**	**271**	*eP*			**Pn**	**04 53 56.4**	**-1.1**
LYUB	**Lan-yu**	**0.62**	**122**	*eP*			**Pg**	**04 53 53.5**	**-1.4**
SGLT	**Jiouru**	**0.63**	**308**	*eP*			**Pb**	**04 53 56.0**	**+0.2**
SGLT				*eS*			**Sn**	**04 54 05.5**	**-2.2**
TWM1	**Shoushan**	**0.74**	**311**	*eP*			**Pn**	**04 53 58.5**	**-0.7**
SLGT	**Liugui**	**0.74**	**332**	P			**Pg**	**04 53 57.0**	**-0.3**
WSSB	**Gushan**	**0.77**	**294**	*eP*			**Pn**	**04 53 60.0**	**+0.3**
ECS	**Chishang**	**0.78**	**14**	*eP*			**Pg**	**04 53 56.8**	**-1.2**
EHD	**Haiduan**	**0.83**	**12**	*eP*			**Pg**	**04 53 57.3**	**-1.6**
SGST	**Jiashian**	**0.85**	**332**	⇓*iP*			**Pg**	**04 53 58.8**	**-0.5**
SGST				*eS*			**Sb**	**04 54 11.5**	**+0.4**
ELDTW	**Lidau**	**0.85**	**360**	*eP*			**Pg**	**04 53 58.3**	**-1.1**
ELDTW				*eS*			**Sg**	**04 54 10.5**	**0.0**
STYH	**Taoyuan**	**0.86**	**345**	*eP*			**Pb**	**04 53 59.9**	**+0.1**
FULB	**Fuli**	**0.90**	**16**	*eP*			**Pg**	**04 53 59.4**	**-0.8**
CHKH	**Chenggong**	**0.92**	**22**	*eP*			**Pg**	**04 54 00.0**	**-0.7**
CHKH				S			**Sg**	**04 54 11.8**	**-0.8**
CHN3	**Shinhua**	**0.95**	**321**	*eP*			**Pn**	**04 54 03.6**	**+1.4**
CHN1	**Nanshi**	**0.96**	**332**	*iP*			**Pn**	**04 54 03.0**	**+0.6**
CHN1				*iS*			**Sn**	**04 54 17.8**	**+1.7**
WTP	**Ta-pu**	**0.98**	**338**	P			**Pn**	**04 54 02.5**	**-0.2**
WTP				*eS*			**Sn**	**04 54 17.0**	**+0.4**
TPUB	**Ta-pu**	**1.03**	**339**	P			**Pn**	**04 54 03.6**	**+0.3**
TPUB	**Ta-pu**	**1.03**	**339**	S			**Sn**	**04 54 19.7**	**+2.0**
TPUB	**Ta-pu**	**1.03**	**339**	*iP*			**Pn**	**04 54 03.5**	**+0.3**
TPUB				*eS*			**Sn**	**04 54 19.6**	**+1.9**
TWF1	**Yuli**	**1.04**	**14**	*eP*			**Pb**	**04 54 01.8**	**-1.2**
TWK	**Hsinying**	**1.05**	**332**	*eP*			**Pn**	**04 54 04.2**	**+0.6**
TWK				*eS*			**Sn**	**04 54 21.5**	**+3.2**
YULB	**Yu-li**	**1.08**	**14**	P			**Pb**	**04 54 01.6**	**-2.1**
YULB	**Yu-li**	**1.08**	**14**	S			**Sn**	**04 54 20.5**	**+1.5**
YULB	**Yu-li**	**1.08**	**14**	*eP*			**Pb**	**04 54 02.4**	**-1.3**
CHN4	**Tsaushan**	**1.09**	**339**	*eP*			**Pn**	**04 54 04.7**	**+0.7**
WCKO	**Fanlu**	**1.16**	**341**	P			**Pg**	**04 54 06.3**	**+1.0**
ALS	**Alishan**	**1.19**	**350**	P			**Pg**	**04 54 06.7**	**+0.9**
ALS				*eS*			**Sn**	**04 54 24.5**	**+2.5**
HGSD	**Ruisui**	**1.21**	**18**	*eP*			**Pg**	**04 54 06.7**	**+0.5**
CHN5	**Tsauling**	**1.30**	**346**	*eP*			**Pg**	**04 54 08.2**	**+0.4**
WHYT	**Xinyi Township**	**1.36**	**354**	*eP*			**Pg**	**04 54 09.1**	**0.0**
WSL	**Shuilin Townsh**	**1.39**	**328**	*eP*			**Pb**	**04 54 08.6**	**-0.3**
WSL				S			**Sg**	**04 54 29.1**	**+1.3**
WGK	**Gukeng**	**1.41**	**343**	*eP*			**Pg**	**04 54 09.5**	**-0.5**
WARBT	**Fenglin Townsh**	**1.42**	**14**	*eP*			**Pn**	**04 54 07.9**	**-0.8**
SSLB	**Suanglung**	**1.45**	**358**	P			**Pb**	**04 54 10.0**	**+0.1**
SSLB	**Suanglung**	**1.45**	**358**	S			**Sg**	**04 54 32.2**	**+2.7**
SSLB	**Suanglung**	**1.45**	**358**	*eP*			**Pb**	**04 54 09.7**	**-0.2**
SSLB				*eS*			**Sg**	**04 54 30.9**	**+1.3**
WSF	**Szhu**	**1.49**	**331**	*eP*			**Pb**	**04 54 10.5**	**-0.1**
ESL	**Shilin**	**1.52**	**14**	*eP*			**Pn**	**04 54 10.0**	**0.0**
SHUL	**Shoufeng**	**1.53**	**19**	*eP*			**Pn**	**04 54 08.8**	**-1.3**
SMLT	**Sun Moon Lake**	**1.54**	**356**	*eP*			**Pg**	**04 54 12.2**	**-0.4**
WNT	**Mingjian**	**1.57**	**349**	*eP*			**Pn**	**04 54 10.1**	**-0.6**
TYC	**Yuchr**	**1.57**	**354**	P			**Pg**	**04 54 12.7**	**-0.4**
TYC				S			**Sg**	**04 54 35.4**	**+2.0**
OWD	**Renai**	**1.62**	**5**	*eP*			**Pb**	**04 54 13.2**	**+0.3**
WUSB	**Renai**	**1.65**	**3**	*eP*			**Pb**	**04 54 13.8**	**+0.3**
ETM	**Tongmen**	**1.68**	**15**	*eP*			**Pn**	**04 54 12.8**	**+0.5**
VCHM	**Qimei**	**1.71**	**301**	*eP*			**Pn**	**04 54 11.5**	**-1.1**
LXIB	**Xiulin Townshi**	**1.72**	**12**	*eP*			**Pn**	**04 54 13.2**	**+0.3**
WCS	**Beigang Elemen**	**1.72**	**357**	P			**Pb**	**04 54 14.8**	**+0.3**
WCS				*iS*			**Sg**	**04 54 38.0**	**-0.1**
PHUB	**P'eng-hu**	**1.78**	**312**	*eP*			**Sn**	**04 54 12.1**	**-1.4**
PHUB				*eS*			**Sn**	**04 54 35.9**	**-0.2**
TWD	**Chiawan**	**1.82**	**17**	*eP*			**Pn**	**04 54 14.9**	**+0.8**
WHF	**Hehuan Shan**	**1.82**	**7**	*eP*			**Pg**	**04 54 17.2**	**-0.6**
PNG	**Penghu**	**1.83**	**313**

GO04	**Tololo Observa**	**33.28**	**340**	P	**P**	**05 05 28.3**	**-1.4**
CO01	**Juntas del Tor**	**33.36**	**341**	P	**P**	**05 05 29.4**	**-1.1**
AC04	**Llanos de Chal**	**35.25**	**340**	P	**P**	**05 05 45.9**	**-0.7**
CPUP	**Villa Florida**	**36.07**	**1**	P	**P**	**05 05 55.0**	**+1.4**
	comp=Z,0.7nm,0.6s,baz=180,slow=8.1,SNR=4.3						
	comp=Z,0.7nm,0.6s						
VNDA	**Vanda**	**38.17**	**193**	LR	LR	05 20 51.7	
	comp=Z,40nm,19.2s,baz=149,slow=34						
PB11	**IPOC Station P**	**43.35**	**344**	P	**P**	**05 06 54.3**	**-0.1**
PB11				IAmb	IAmb	05 06 59.9	
	comp=Z,13nm,1.1s						
MAW	**Mawson**	**43.49**	**152**	LR	LR	05 24 33.5	
	comp=Z,76nm,19.6s,baz=249,slow=35						
PB16	**IPOC Station P**	**44.74**	**345**	P	**P**	**05 07 04.8**	**-1.2**
PB16				IAmb	IAmb	05 07 12.7	
	comp=Z,11nm,1.5s						
LPAZ	**La Paz**	**46.60**	**347**	P	**P**	**05 07 23.6**	**+2.8**
	comp=Z,0.3nm,0.4s,baz=166,slow=4.2,SNR=3.7						
	comp=Z,0.3nm,0.4s						
H10S3	**ASCENSION HYDR**	**61.93**	**50**	T	T	06 16 23.0	
	baz=202,slow=74,SNR=25						
H10S2	**ASCENSION HYDR**	**61.93**	**50**	T	T	06 16 23.0	
	baz=18,slow=74,SNR=26						
H10N3	**ASCENSION HYDR**	**63.02**	**50**	T	T	06 17 46.9	
	baz=202,slow=75,SNR=21						
H10N1	**ASCENSION HYDR**	**63.02**	**50**	T	T	06 17 43.9	
	baz=202,slow=75,SNR=20						
H10N2	**ASCENSION HYDR**	**63.03**	**50**	T	T	06 17 43.0	
	baz=202,slow=75,SNR=22						
ARCES	**ARCESS Array B**	**144.13**	**37**	PKP	**PKPdf**	**05 18 25.1**	**-1.0**
	comp=Z,2.6nm,0.8s,baz=235,slow=3.2,SNR=3.7						
E24K	**Your Creek**	**145.21**	**319**	PKPbc	**PKPbc**	**05 18 25.9**	**-1.9**
D19K	**Kuna River**	**148.46**	**316**	PKPbc	**PKPbc**	**05 18 36.0**	**-1.2**
BVAR	**Borovoye Array**	**151.71**	**85**	PKPbc	**PKiKP**	**05 18 44.8**	**-1.0**
	comp=Z,1.1nm,0.6s,baz=279,slow=2.8,SNR=3.8						
MKAR	**Makanchi Array**	**152.84**	**107**	PKPbc	**PKiKP**	**05 18 50.0**	**+1.6**
	comp=Z,0.3nm,0.6s,baz=212,slow=5.1,SNR=3.2						
MKAR	**Makanchi Array**	**152.84**	**107**	PKPbc	**PKPbc**	**05 18 46.1**	**-2.1**

IDC ***02*** *05:01:03.5±0.4, 8.˚78N×40.˚17W, h0km, mb4.2/28, mbtmp4.2/30, ML4.4/2, MS3.9/63, Error ellipse: s-maj=14.4km s-min=10.6km az=136.0*

NEIC ***02*** *05:01:05.5±1.7, 8.˚7N±0.˚1×40.˚1W±0.˚1, h10km±1km, mb4.8/128, Error ellipse: s-maj=17.8km s-min=16.8km az=131.0*

GFZ ***02*** *05:01:05.6±0.2, 9.˚N±4.˚×4.˚0W±.˚, h10km, M4.7/30, mb4.7/30, confirmed*

GCMT ***02*** *05:01:07.5±0.2, 8.˚86N±0.˚02×40.˚13W±0.˚01, h19km±1km, MW4.9/104, Moment Tensor Solution. s33,c36; s104,c157; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=0.94±.13; Mθθ 0.10±.11; Mϕϕ 0.83±.10; Mrθ 0.50±.21; Mθϕ -2.99±.10; Mϕr -0.20±.21; Best double couple: M₀ 3.05700×10¹⁶ NP1:ϕs 184.00000°, δ 79.00000°, λ -2.00000° NP2:ϕs 274.00000°, δ 88.00000°, λ -169.00000°. Principal axes: T 3.5350, Plg 6.0000°, Azm 48.0000°; N -0.9570, Plg 79.0000°, Azm 283.0000°; P -2.5790, Plg 9.0000°, Azm 139.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 05:01:05.0±0.3, 8.74N±0.˚06×40.14W±0.˚06, h10km, n268, σ 1.9 16/182, mb 4.8/132, MS 4.0/63, 2C-4D, Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
NBMO	**Morrinhos-CE**	**11.97**	**180**	*eP*		**Pn**	**05 03 54.2**	**-1.7**
MDP	**Montagnes des**	**12.92**	**255**	Pn		Pn	05 04 04.7	-4.2
	4.8nm,0.3s,baz=66,slow=14,SNR=70							
MDP				Sn		Sn	05 06 13.0	-20
	5.8nm,0.3s,baz=322,slow=12,SNR=8.5							
MDP				LR		LR	05 08 21.2	
	comp=Z,503nm,21.0s,baz=56,slow=34							
	20nm,0.5s							
MDP				AML		AML		
NBPS	**Pedro II - PI**	**13.11**	**186**	*eP*		**Pn**	**05 04 11.9**	**+0.4**
RCBR	**Riachuelo**	**15.08**	**164**	Pn		Pn	05 04 35.9	-2.4
	0.6nm,0.3s,baz=348,slow=19,SNR=10.0							
RCBR				Sn		Sn	05 07 14.9	-11
	0.1nm,0.3s,baz=235,slow=23,SNR=1.9							
	5.9nm,0.7s							
RCBR				AML		AML		
RCBR	**Riachuelo**	**15.08**	**164**	Pn		**Pn**	**05 04 37.7**	**-0.6**
RCBR	**Riachuelo**	**15.08**	**164**	P		**Pn**	**05 04 38.3**	**0.0**
	comp=Z,30nm,0.9s							
NBMA	**Muriti-CE**	**16.06**	**175**	*eP*		**Pn**	**05 04 51.4**	**+0.2**
SACV	**Santiago Islan**	**17.32**	**68**	Pn		**Pn**	**05 05 02.2**	**-4.9**
SMTB	**Santa Maria do**	**19.00**	**203**	P		**P**	**05 05 26.7**	**-0.3**
SMTB	**Santa Maria do**	**19.00**	**203**	*eP*		**P**	**05 05 27.0**	**0.0**
ITTB	**Itaituba**	**20.28**	**231**	*eP*		**P**	**05 05 40.5**	**-0.5**
H05S1	**Guadeloupe/Mar**	**21.04**	**287**	T		T	05 27 14.5	
	SNR=48							
BOAV	**Boa Vista**	**21.23**	**254**	P		**P**	**05 05 51.0**	**-0.4**
BOAV	**Boa Vista**	**21.23**	**254**	*eP*		**P**	**05 05 50.7**	**-0.7**
SDBA	**SAO DESIDERIO**	**21.54**	**193**	*eP*		**P**	**05 05 55.0**	**+0.3**
H05N1	**Guadeloupe/Mar**	**21.75**	**292**	T		T	05 28 12.5	
	SNR=14							
NPGB	**Novo Progresso**	**21.82**	**225**	*eP*		**P**	**05 05 57.0**	**-0.6**
SNDB	**Serra Nova Dou**	**23.38**	**208**	*eP*		**P**	**05 06 14.4**	**+0.3**
CLDB	**Colider**	**24.95**	**219**	P		**P**	**05 06 29.2**	**+0.4**
	comp=Z,36nm,0.9s							
CLDB	**Colider**	**24.95**	**219**	*eP*		**P**	**05 06 28.8**	**0.0**
BDFB	**Brasilia**	**25.45**	**198**	P		**P**	**05 06 32.4**	**-1.0**
	comp=Z,3.7nm,0.6s,baz=29,slow=11,SNR=7.4							
BDFB				LR		LR	05 16 18.5	
	comp=Z,352nm,18.5s,baz=346,slow=36							
	comp=Z,3.7nm,0.6s							
BDFB	**Brasilia**	**25.45**	**198**	P		**P**	**05 06 33.5**	**+0.1**
BDFB				IAmb		IAmb	05 06 48.3	
	comp=Z,59nm,1.8s							
PDRB	**Porto dos Gac**	**26.09**	**219**	*eP*		**P**	**05 06 39.2**	**0.0**
SJG	**San Juan**	**26.92**	**293**	LR		LR	05 15 08.7	
	comp=Z,101nm,20.7s,baz=103,slow=31							
ECPR	**Experimental S**	**27.18**	**293**	P		**P**	**05 06 47.6**	**-1.4**
ECPR				IAmb		IAmb	05 07 06.7	
	comp=Z,35nm,1.1s							
CELP	**Cerrillos**	**27.30**	**293**	P		**P**	**05 06 49.1**	**-1.0**
SALV	**Santo Antonio**	**28.93**	**212**	*eP*		**P**	**05 07 04.8**	**+0.3**
VILB	**Vilhena**	**29.35**	**223**	P		**P**	**05 07 07.9**	**-0.5**
VILB	**Vilhena**	**29.35**	**223**	*eP*		**P**	**05 07 09.4**	**+1.0**
SDV	**Santo Domingo**	**30.13**	**273**	LR		LR	05 18 55.8	
	comp=Z,132nm,20.2s,baz=72,slow=36							
SDV	**Santo Domingo**	**30.13**	**273**	P		**P**	**05 07 14.8**	**-0.7**
SDV	**Santo Domingo**	**30.13**	**273**	P		**P**	**05 07 15.3**	**-0.3**
	comp=Z,70nm,0.8s							
H10N3	**ASCENSION HYDR**	**30.40**	**122**	T		T	05 39 18.4	
	baz=302,slow=75,SNR=195							
H10N2	**ASCENSION HYDR**	**30.41**	**122**	T		T	05 39 18.2	
	baz=302,slow=75,SNR=218							
H10N1	**ASCENSION HYDR**	**30.42**	**122**	T		T	05 39 19.5	
	baz=302,slow=75,SNR=224							
PTLB	**Pontes e Lacer**	**30.53**	**218**	P		**P**	**05 07 19.3**	**+0.5**
PTLB	**Pontes e Lacer**	**30.53**	**218**	*eP*		**P**	**05 07 19.4**	**+0.7**
H10S3	**ASCENSION HYDR**	**30.87**	**124**	T		T	05 39 57.3	
	baz=279,slow=74,SNR=255							
H10S2	**ASCENSION HYDR**	**30.89**	**124**	T		T	05 39 56.0	
	baz=301,slow=74,SNR=182							
URIC	**Uribia, Colomb**	**31.47**	**278**	P		**P**	**05 07 25.9**	**-1.3**
PMOZ	**Porto Moniz, M**	**32.01**	**38**	*eT*		T	05 40 41.5	
FUL	**Funchal**	**32.08**	**39**	*eT*		T	05 40 47.4	
PMAR	**Madeira**	**32.12**	**39**	*eP*		**P**	**05 07 33.9**	**+1.0**
PMAR				IAmb		IAmb	05 07 36.6	
	comp=Z,59nm,1.5s							
PMAR				*eT*		T	05 40 44.5	
LODA1	**ITESIL, Dajabo**	**32.37**	**293**	P		**P**	**05 07 36.1**	**+1.0**
BBSD	**Serra de San D**	**32.76**	**218**	*eP*		**P**	**05 07 39.6**	**+1.2**
RUSC	**La Rusia**	**32.79**	**267**	P		**P**	**05 07 38.6**	**-0.7**
RUSC				IAmb		IAmb	05 07 52.0	
	comp=Z,13nm,0.8s							
ROSC	**El Rosal**	**34.15**	**266**	P		**P**	**05 07 50.9**	**-0.2**
	comp=Z,18nm,0.6s,baz=80,slow=8.1,SNR=19							
ROSC				LR		LR	05 21 50.0	
	comp=Z,396nm,18.5s,baz=90,slow=36							
	comp=Z,18nm,0.6s							
ROSC	**El Rosal**	**34.15**	**266**	P		**P**	**05 07 51.8**	**+0.7**
SJCC	**San Jacinto, C**	**34.58**	**275**	P		**P**	**05 07 52.8**	**-1.7**
SJCC				IAmb		IAmb	05 08 01.7	
	comp=Z,15nm,0.9s							
DBIC	**Dimbokro**	**35.02**	**91**	P		**P**	**05 07 58.0**	**-0.2**
	comp=Z,4.9nm,0.7s,baz=288,slow=8.7,SNR=9.1							
DBIC				LR		LR	05 19 52.4	
	comp=Z,72nm,21.7s,baz=264,slow=32							
	comp=Z,4.9nm,0.7s							
DBIC	**Dimbokro**	**35.02**	**91**	P		**P**	**05 07 57.5**	**-0.7**
DBIC				IAmb		IAmb	05 08 09.7	
	comp=Z,10nm,0.8s							
DBIC	**Dimbokro**	**35.02**	**91**	P		**P**	**05 07 57.9**	**-0.2**
	comp=Z,14nm,0.9s							
CZSB	**Cruzeiro do Su**	**36.34**	**244**	P		**P**	**05 08 08.1**	**-1.5**
CZSB				IAmb		IAmb	05 08 09.9	
	comp=Z,24nm,0.8s							
CZSB	**Cruzeiro do Su**	**36.34**	**244**	*eP*		**P**	**05 08 08.2**	**-1.3**
LPAZ	**La Paz**	**37.23**	**228**	P		**P**	**05 08 18.0**	**+0.3**
	comp=Z,7.9nm,0.7s,baz=51,slow=5.0,SNR=33							
LPAZ				LR		LR	05 23 38.2	
	comp=Z,228nm,18.4s,baz=60,slow=36							
	comp=Z,7.9nm,0.7s							
LPAZ	**La Paz**	**37.23**	**228**	P		**P**	**05 08 17.6**	**-0.1**
LPAZ	**La Paz**	**37.23**	**228**	P		**P**	**05 08 18.9**	**+1.1**
	comp=Z,13nm,0.8s							
LPAZ	**La Paz**	**37.23**	**228**	*eP*		**P**	**05 08 18.0**	**+0.3**
TIO	**Tiouine**	**37.76**	**50**	P		**P**	**05 08 23.4**	**+1.9**
	comp=Z,32nm,1.5s							
CPUP	**Villa Florida**	**38.66**	**205**	P		**P**	**05 08 28.9**	**0.0**
	comp=Z,0.5nm,0.7s,baz=20,slow=11,SNR=3.3							
CPUP				LR		LR	05 24 30.0	
	comp=Z,432nm,18.7s,baz=50,slow=36							
	comp=Z,0.5nm,0.7s							
OTAV	**Otavalo**	**39.08**	**260**	P		**P**	**05 08 33.6**	**+0.4**
OTAV	**Otavalo**	**39.08**	**260**	P		**P**	**05 08 34.6**	**+1.3**
	comp=Z,9.0nm,0.7s							
OTAV	**Otavalo**	**39.08**	**260**	*eP*		**P**	**05 08 33.9**	**+0.6**
GO01	**Chusmiza**	**40.20**	**225**	P		**P**	**05 08 40.8**	**-1.7**
	comp=Z,4.2nm,1.2s							
MD31	**MD31**	**40.55**	**49**	P		**P**	**05 08 43.7**	**-1.2**
MD01	**Midelt array s**	**40.55**	**49**	P		**P**	**05 08 44.1**	**-0.9**
PB11	**IPOC Station P**	**40.58**	**225**	P		**P**	**05 08 45.0**	**-0.3**
PB11				IAmb		IAmb	05 08 53.0	
	comp=Z,19nm,1.1s							
MDT	**Midelt**	**40.64**	**49**	LR		LR	05 22 30.7	
	comp=Z,223nm,19.3s,baz=252,slow=32							
PSGCX	**Pisagua**	**40.80**	**226**	P		**P**	**05 08 45.0**	**-2.1**
	comp=Z,16nm,1.4s							
PCVE	**Castro Verde**	**40.83**	**40**	*eP*		**P**	**05 08 48.6**	**+1.6**
MESJ	**Messejana**	**40.84**	**40**	*eP*		**P**	**05 08 48.6**	**+1.6**
PVAQ	**Vaqueiros**	**40.91**	**41**	*eP*		**P**	**05 08 48.5**	**+0.9**
PBEJ	**Beja**	**41.18**	**40**	*eP*		**P**	**05 08 51.2**	**+1.4**
PBEJ				IAmb		IAmb	05 09 01.2	
	comp=Z,25nm,1.9s							
ATAH	**Atahualpa**	**41.26**	**249**	LR		LR	05 27 44.0	
	comp=Z,202nm,19.4s,baz=70,slow=39							
TORD	**Torodi Ar. Bea**	**41.27**	**80**	P		**P**	**05 08 50.8**	**-0.1**
	comp=Z,3.8nm,0.9s,baz=277,slow=7.6,SNR=12							
	comp=Z,3.8nm,0.9s							
TORD	**Torodi Ar. Bea**	**41.27**	**80**	P		**P**	**05 08 51.0**	**0.0**
EVO	**Evora**	**41.39**	**39**	*eP*		**P**	**05 08 52.6**	**+1.1**
EVO				IAmb		IAmb	05 09 22.1	
	comp=Z,26nm,1.9s							
EVO	**Evora**	**41.39**	**39**	P		**P**	**05 08 52.4**	**+0.9**
	comp=Z,4.5nm,1.1s							
PARRA	**Arraiolos**	**41.55**	**39**	*eP*		**P**	**05 08 53.7**	**+0.8**
PARRA				IAmb		IAmb	05 09 37.9	
	comp=Z,24nm,1.9s							
PMTG	**Montargil**	**41.59**	**38**	*eP*		**P**	**05 08 50.0**	**-3.2**
PBAR	**Barrancos**	**41.79**	**40**	*eP*		**P**	**05 08 54.9**	**0.0**
PBAR				IAmb		IAmb	05 09 06.2	
	comp=Z,22nm,1.9s							
PSARD	**Sardoal**	**41.95**	**38**	*eP*		**P**	**05 08 57.3**	**+1.1**
PMRV	**Marv??o**	**42.32**	**38**	*eP*		**P**	**05 09 00.6**	**+1.4**
PMRV				IAmb		IAmb	05 09 10.7	
	comp=Z,31nm,1.6s							
EMAL	**Malaga-Limoner**	**42.73**	**44**	P		**P**	**05 09 04.8**	**+2.2**
	comp=Z,8.8nm,1.8s							
PVIS	**Viseu**	**42.81**	**37**	*eP*		**P**	**05 09 04.6**	**+1.4**
MTE	**Manteigas**	**42.82**	**37**	*eP*		**P**	**05 09 04.2**	**+0.9**
PSAL	**Palomas, Salto**	**42.99**	**202**	*eP*		**P**	**05 09 05.3**	**+0.7**
PVRL	**Vila Real**	**43.27**	**36**	*eP*		**P**	**05 09 07.1**	**+0.2**
PAB	**San Pablo**	**44.30**	**40**	P		**P**	**05 09 14.5**	**-0.8**
PAB				IAmb		IAmb	05 10 59.7	
	comp=Z,35nm,1.9s							
ESDC	**Sonseca Array**	**44.62**	**40**	P		**P**	**05 09 18.2**	**+0.5**
	comp=Z,1.8nm,0.9s,baz=244,slow=8.6,SNR=9.6							
ESDC				LR		LR	05 24 17.8	
	comp=Z,282nm,20.1s,baz=238,slow=31							
	comp=Z,1.8nm,0.9s							
TAM	**Tamanrasset**	**45.92**	**67**			**P**	**05 09 29.0**	**+0.5**
TAM	**Tamanrasset**	**45.92**	**67**	P		**P**	**05 09 30.6**	**+2.2**
	comp=Z,4.7nm,2.7s							
PECO	**Prince Edward**	**47.48**	**324**	P		**P**	**05 09 39.9**	**-0.3**
TKL	**Tuckaleechee C**	**47.91**	**311**	LR		LR	05 25 49.3	
	comp=Z,79nm,22.0s,baz=120,slow=31							
CFA	**Coronel Fontan**	**48.29**	**213**	P		**P**	**05 09 46.6**	**-0.1**
	comp=Z,4.2nm,0.8s,baz=50,slow=6.4,SNR=17							
CFA				LR		LR	05 31 13.2	
	comp=Z,131nm,19.2s,baz=208,slow=38							
	comp=Z,4.2nm,0.8s							
GO04	**Tololo Observa**	**48.63**	**216**	P		**P**	**05 09 48.9**	**-0.6**
	comp=Z,19nm,1.0s							
SADO	**Sadowa**	**49.22**	**324**	LR		LR	05 26 28.3	
	comp=Z,93nm,21.7s,baz=178,slow=31							
SCHQ	**Schefferville**	**50.64**	**340**	LR		LR	05 27 53.6	
	comp=Z,118nm,21.7s,baz=146,slow=32							
WVT	**Waverly**	**51.14**	**310**	P		**P**	**05 10 09.9**	**+1.6**
	comp=Z,12nm,1.8s							
BO02	**Sierra Bellavi**	**52.10**	**212**			**P**	**05 10 14.7**	**-0.9**
BO02	**Sierra Bellavi**	**52.10**	**212**	P		**P**	**05 10 14.9**	**-0.6**
	comp=Z,8.5nm,0.9s							
KEST	**Kesra**	**52.39**	**51**	P		**P**	**05 10 17.3**	**-0.5**
	comp=Z,3.7nm,0.8s,baz=252,slow=9.1,SNR=5.8							
KEST				LR		LR	05 31 50.0	
	comp=Z,186nm,19.9s,baz=298,slow=35							
	comp=Z,3.7nm,0.8s							
KEST	**Kesra**	**52.39**	**51**			**P**	**05 10 17.2**	**-0.7**
KEST				IAmb		IAmb	05 10 46.0	
	comp=Z,22nm,1.6s							
ML02	**Panimavida**	**53.18**	**212**	P		**P**	**05 10 23.7**	**+0.3**
	comp=Z,23nm,1.0s							
CALF	**Calern**	**53.70**	**41**	P		**P**	**05 10 28.8**	**+1.4**
	comp=Z,14nm,1.9s							
BI02	**San Fabin de**	**53.80**	**211**	P		**P**	**05 10 27.8**	**-0.3**
	comp=Z,7.0nm,1.1s							
SAOF	**Saorge**	**54.22**	**41**	P		**P**	**05 10 32.3**	**+1.2**
EKA	**Eskdalemuir Ar**	**54.89**	**25**	P		**P**	**05 10 35.4**	**-0.3**
	comp=Z,1.5nm,0.7s,baz=223,slow=6.8,SNR=1.7							
EKA				LR		LR	05 29 31.4	
	comp=Z,161nm,19.8s,baz=200,slow=31							
	comp=Z,1.5nm,0.7s							
GO06	**Curarrehue**	**56.17**	**209**	P		**P**	**05 10 44.9**	**-0.3**
GO06	**Curarrehue**	**56.17**	**209**	P		**P**	**05 10 44.6**	**-0.6**
	comp=Z,9.3nm,0.9s							
PLCA	**Paso Flores**	**56.65**	**207**	P		**P**	**05 10 47.5**	**-1.1**
	comp=Z,4.4nm,0.8s,baz=24,slow=7.7,SNR=12							
PLCA				LR		LR	05 36 08.1	
	comp=Z,293nm,18.1s,baz=39,slow=37							
	comp=Z,4.4nm,0.8s							
PLCA	**Paso Flores**	**56.65**	**207**			**P**	**05 10 48.5**	**-0.1**
PLCA	**Paso Flores**	**56.65**	**207**	P		**P**	**05 10 47.9**	**-0.7**
	comp=Z,12nm,2.2s							
PLCA	**Paso Flores**	**56.65**	**207**	*eP*		**P**	**05 10 48.5**	**-0.1**
VAE	**Valguarnera**	**56.80**	**51**	LR		LR	05 34 24.6	
	comp=Z,154nm,20.1s,baz=281,slow=35							
DAVOX	**Davos/Dischmat**	**56.90**	**39**	LR		LR	05 31 45.6	
	comp=Z,217nm,20.4s,baz=244,slow=32							
BORG	**Borgarnes**	**57.47**	**9**	LR		LR	05 30 12.2	
	comp=Z,148nm,19.6s,baz=196,slow=30							
FETA	**Feichten**	**57.53**	**39**	*eP*		**P**	**05 10 55.3**	**+0.4**
	comp=Z,5.5nm,1.1s							
CTI	**Castel Tesino**	**57.71**	**40**			**P**	**05 10 55.5**	**-0.7**
CTI				IAmb		IAmb	05 10 57.7	
	comp=Z,7.8nm,0.9s							
MOTA	**Moosalm**	**57.89**	**39**	*eP*		**P**	**05 10 56.8**	**-0.6**
	comp=Z,8.7nm,1.7s							
SQTA	**Sankt Quirin**	**57.91**	**39**	*eP*		**P**	**05 10 57.9**	**+0.4**
	comp=Z,6.7nm,0.7s							
T35A	**Sooner Cattle**	**58.06**	**308**			**P**	**05 10 59.3**	**+0.7**
T35A				IAmb		IAmb	05 11 06.9	
	comp=Z,10nm,0.9s							
WATA	**Walderalm**	**58.18**	**39**	*i* P		**P**	**05 10 59.7**	**+0.3**
	comp=Z,3.8nm,0.8s							
WTTA	**Wattenberg**	**58.19**	**39**	*i* P		**P**	**05 10 59.8**	**+0.2**
	comp=Z,5.8nm,0.7s							
FRB	**Frobisher Bay**	**58.54**	**346**	LR		LR	05 31 51.0	
	comp=Z,158nm,22.0s,baz=124,slow=32							
PLPT	**Palo Pinto**	**58.64**	**303**	IAmb		IAmb	05 11 11.4	
	comp=Z,8.2nm,0.9s							
LESA	**Schwarzleotal**	**58.90**	**39**	*eP*		**P**	**05 11 04.9**	**+0.5**
	comp=Z,6.3nm,0.7s							
SABO	**M.te Sabotino**	**58.94**	**41**	IAmb		IAmb	05 11 06.4	
	comp=Z,7.2nm,0.9s							
BRDY	**Brady**	**58.95**	**301**	IAmb		IAmb	05 11 13.1	
	comp=Z,8.4nm,0.9s							
DRE	**Drenchia**	**59.04**	**41**	P		**P**	**05 11 05.4**	**0.0**
	comp=Z,7.0nm,0.9s							
KBA	**Koelnbreinsper**	**59.19**	**40**	*eP*		**P**	**05 11 06.7**	**+0.2**
	comp=Z,12nm,1.8s							
MYKA	**Terra Mystica**	**59.21**	**40**	*eP*		**P**	**05 11 07.4**	**+0.9**
	comp=Z,8.3nm,0.9s							
WMOK	**Wichita Mounta**	**59.38**	**305**	IAmb		IAmb	05 11 16.9	
	comp=Z,6.8nm,0.9s							
WMOK	**Wichita Mounta**	**59.38**	**305**	P		**P**	**05 11 08.0**	**+0.1**
	comp=Z,7.9nm,0.9s							
JCT	**Junction City**	**59.52**	**300**	IAmb		IAmb	05 11 17.7	
	comp=Z,7.2nm,0.8s							
BIOA	**Bad Ischl, Aus**	**59.61**	**39**	*eP*		**P**	**05 11 09.2**	**-0.1**
	comp=Z,7.6nm,1.3s							
ABTX	**Abilene, Hawle**	**59.71**	**303**	IAmb		IAmb	05 11 18.4	
	comp=Z,9.1nm,1.0s							
OBKA	**Obir**	**59.75**	**41**	*i* P		**P**	**05 11 10.8**	**+0.5**
	comp=Z,8.2nm,1.0s							
OBKA	**Obir**	**59.75**	**41**	P		**P**	**05 11 11.0**	**+0.7**
	comp=Z,10nm,1.2s							
MOA	**Molln**	**60.06**	**39**	*i* P		**P**	**05 11 12.6**	**+0.2**
	comp=Z,13nm,1.2s							
MOA	**Molln**	**60.06**	**39**	P		**P**	**05 11 14.5**	**+2.2**
	comp=Z,12nm,1.5s							
GERES	**GERESS Array B**	**60.09**	**38**	P		**P**	**05 11 11.4**	**-1.2**
	comp=Z,0.4nm,0.7s,baz=96,slow=39,SNR=2.5							
GERES				LR		LR	05 36 55.5	
	comp=Z,80nm,18.0s,baz=310,slow=36							
	comp=Z,0.4nm,0.7s							
GERES	**GERESS Array B**	**60.09**	**38**	P		**P**	**05 11 11.3**	**-1.3**
SOKA	**Soboth**	**60.12**	**41**	*i* P		**P**	**05 11 13.2**	**+0.4**
	comp=Z,3.9nm,1.3s							
KHC	**Kasperske Hory**	**60.13**	**38**	*eP*		**P**	**05 11 13.0**	**+0.2**
	comp=Z,0.4nm,0.3s							
APMT	**Aspermont**	**60.22**	**303**	IAmb		IAmb	05 11 22.0	
	comp=Z,9.4nm,0.8s							
ZVC	**Zvikov**	**60.62**	**37**	*eP*		**P**	**05 11 13.7**	**-2.4**
ARSA	**Arzberg**	**60.64**	**40**	*i* P		**P**	**05 11 17.4**	**+1.1**
	comp=Z,5.6nm,1.1s							
CLL	**Collm**	**60.68**	**35**	LV			05 29 00.0	
CLL				AMS		AMS	05 34 00.0	
	comp=Z,200nm,18.6s							
OZNA	**Ozona**	**60.71**	**300**			**P**	**05 11 17.6**	**+0.5**
OZNA				IAmb		IAmb	05 11 26.9	
	comp=Z,6.0nm,0.9s							
DKNS	**Dickens**	**60.94**	**304**	IAmb		IAmb	05 11 27.1	
	comp=Z,11nm,0.9s							
PRU	**Pruhonice**	**61.04**	**37**	P		**P**	**05 11 19.4**	**+0.4**
	comp=Z,5.6nm,1.8s							
CONA	**Conrad Observa**	**61.09**	**40**	*eP*		**P**	**05 11 20.0**	**+0.6**
	comp=Z,11nm,1.7s							
RONA	**Rosalia, Austr**	**61.28**	**40**	*i* P		**P**	**05 11 21.3**	**+0.6**
	comp=Z,8.9nm,1.1s							
WINA	**Allard / Wiene**	**61.28**	**39**	*i* P		**P**	**05 11 21.6**	**+1.0**
	comp=Z,11nm,1.5s							
POST	**Post**	**61.32**	**303**	IAmb		IAmb	05 11 31.2	
	comp=Z,9.7nm,1.0s							
TREC	**Trest**	**61.35**	**38**	P		**P**	**05 11 21.9**	**+0.8**
	comp=Z,5.0nm,1.3s							
229A	**Bryant Ranch,**	**61.43**	**302**	IAmb		IAmb	05 11 31.5	
	comp=Z,7.1nm,0.7s							
SAND	**Sanderson**	**61.44**	**299**	IAmb		IAmb	05 11 31.4	
	comp=Z,5.2nm,0.8s							
TMB01	**Midkiff**	**61.62**	**301**	IAmb		IAmb	05 11 32.0	
	comp=Z,6.5nm,1.0s							
ULM	**Lac du Bonnet**	**61.76**	**323**	P		**P**	**05 11 22.0**	**-1.

FINES	**FINES Array B**	71.10	28	P		**P**	05 12 22.4	-1.0
DUG	**Dugway, Tooele**	71.18	309	P		**P**	05 12 24.5	0.0
	comp=Z,5.0nm,1.9s							
MBAR	**Mbarara**	71.20	94	LR		LR	05 42 54.8	
	comp=Z,56nm,18.0s,baz=292,slow=35							
BGU	**Big Grassy Mou**	71.40	310	IAmb		IAmb	05 12 35.1	
	comp=Z,7.0nm,0.8s							
DLMT	**Dillon**	71.51	315	IAmb		IAmb	05 12 48.6	
	comp=Z,9.3nm,1.1s							
BRTR	**Keskin Array B**	72.00	51	P		**P**	05 12 29.9	+0.4
	comp=Z,1.3nm,0.9s,baz=268,slow=8.7,SNR=4.6							
BRTR				LR		LR	05 45 11.5	
	comp=Z,31nm,19.8s,baz=266,slow=37							
	comp=Z,1.3nm,0.9s							
BLYC	**Blythe**	72.23	303	IAmb		IAmb	05 12 41.0	
	comp=Z,5.8nm,0.8s							
LBTB	**Lobatse**	72.24	120	LR		LR	05 39 04.1	
	comp=Z,118nm,19.0s,baz=278,slow=32							
HLID	**Hailey**	72.63	313	P		**P**	05 12 35.5	+2.3
	comp=Z,4.2nm,2.3s							
RES	**Resolute Bay**	72.71	347	LR		LR	05 40 43.8	
	comp=Z,81nm,20.7s,baz=13,slow=33							
EIL	**Elat**	72.80	62	LR		LR	05 45 51.6	
	comp=Z,203nm,19.4s,baz=276,slow=37							
ELK	**Elko**	73.06	310	LR		LR	05 41 10.3	
	comp=Z,77nm,21.0s,baz=84,slow=33							
BOSA	**Boshof**	73.15	123	P		**P**	05 12 36.5	+0.1
	comp=Z,2.2nm,0.8s,baz=327,slow=3.0,SNR=5.1							
BOSA				LR		LR	05 38 09.8	
	comp=Z,87nm,19.6s,baz=353,slow=30							
	comp=Z,2.2nm,0.8s							
BOSA	**Boshof**	73.15	123	P		**P**	05 12 35.4	-1.0
MMAI	**Mount Meron Ar**	73.19	58	LR		LR	05 44 28.4	
	comp=Z,58nm,21.2s,baz=271,slow=36							
MATP	**Matopo**	73.42	114	LR		LR	05 40 16.3	
	comp=Z,51nm,18.3s,baz=333,slow=32							
ARCES	**ARCESS Array B**	73.46	20	P		**P**	05 12 38.3	+0.9
	comp=Z,5.4nm,1.1s,baz=240,slow=4.1,SNR=4.0							
ARCES				LR		LR	05 39 20.2	
	comp=Z,57nm,20.6s,baz=188,slow=31							
	comp=Z,5.4nm,1.1s							
ARCES	**ARCESS Array B**	73.46	20	P		**P**	05 12 37.6	+0.2
LDM	**Libby Dam**	73.68	318	IAmb		IAmb	05 12 48.5	
	comp=Z,10nm,0.8s							
PFO	**Pinyon Flats O**	73.84	302	LR		LR	05 45 25.0	
	comp=Z,27nm,18.6s,baz=344,slow=36							
FURC	**Furnace Creek,**	74.19	305	P		**P**	05 12 44.5	+2.2
ASF	**Jabal al Asfar**	74.45	59	LR		LR	05 46 56.5	
	comp=Z,41nm,19.7s,baz=276,slow=37							
NEW	**Newport**	74.86	318	P		**P**	05 12 46.5	+0.5
	comp=Z,1.6nm,0.9s,baz=80,slow=7.2,SNR=5.7							
NEW				LR		LR	05 41 37.5	
	comp=Z,157nm,21.9s,baz=106,slow=32							
	comp=Z,1.6nm,0.9s							
SPITS	**Spitsbergen Ar**	74.92	10	LR		LR	05 38 29.6	
	comp=Z,50nm,18.8s,baz=236,slow=30							
YKA	**Yellowknife Ar**	75.13	332	P		**P**	05 12 47.1	-0.1
	comp=Z,1.6nm,0.7s,baz=101,slow=5.0,SNR=4.3							
YKA				LR		LR	05 42 10.3	
	comp=Z,55nm,21.2s,baz=346,slow=33							
	comp=Z,1.6nm,0.7s							
NVAR	**Mina Array Bea**	75.36	307	P		**P**	05 12 49.3	0.0
	comp=Z,0.2nm,0.5s,baz=103,slow=5.2,SNR=4.6							
NVAR				LR		LR	05 45 16.4	
	comp=Z,48nm,18.1s,baz=79,slow=35							
	comp=Z,0.2nm,0.5s							
NVAR	**Mina Array Bea**	75.36	307	P		**P**	05 12 49.8	+0.4
RPN	**Rapa Nui**	75.85	239	LR		LR	05 42 59.2	
	comp=Z,100nm,20.4s,baz=66,slow=33							
MOD	**Modoc Plateau**	76.90	311	IAmb		IAmb	05 13 07.8	
	comp=Z,5.9nm,0.8s							
YBH	**Yreka Blue Hor**	78.71	311	LR		LR	05 48 47.2	
	comp=Z,50nm,18.4s,baz=30,slow=36							
KBZ	**Khabaz**	79.00	47	P		**P**	05 13 11.4	+2.0
	comp=Z,2.0nm,0.9s,baz=243,slow=2.3,SNR=5.7							
KBZ				LR		LR	05 49 14.2	
	comp=Z,20nm,19.4s,baz=288,slow=37							
	comp=Z,2.0nm,0.9s							
KSXB	**Camp Six Broad**	79.57	311	IAmb		IAmb	05 13 22.8	
	comp=Z,12nm,0.9s							
GNI	**Garni**	80.53	51	LR		LR	05 50 42.0	
	comp=Z,29nm,20.4s,baz=292,slow=37							
BBB	**Bella Bella**	81.92	322	LR		LR	05 47 04.1	
	comp=Z,79nm,19.5s,baz=88,slow=34							
VNA1	**Neumayer--Stat**	82.10	170	P		**P**	05 13 27.0	+1.7
VNA1					⇑pP	**pwP**	05 13 34.9	+3.2
	comp=Z,8.7nm,0.9s							
VNA3	**Neumayer Olymp**	82.37	170	⇓P		**P**	05 13 27.5	+0.7
	comp=Z,9.6nm,0.8s							
VNA3					⇑pP	**pwP**	05 13 36.0	+2.9
	comp=Z,9.6nm,0.8s							
KIRV	**Kirov**	82.38	32	LR		LR	05 47 12.4	
	comp=Z,112nm,19.3s,baz=274,slow=34							
VNA2	**Neumayer--Watz**	82.49	170	⇓P		**P**	05 13 28.6	+1.2
	comp=Z,1.8nm,0.4s,baz=348,slow=4.3							
VNA2					⇓pP	**pwP**	05 13 36.9	+3.1
	comp=Z,1.8nm,0.4s,baz=352,slow=15							
VNA2	**Neumayer--Watz**	82.49	170	P		**P**	05 13 28.2	+0.8
	comp=Z,6.2nm,1.8s							
DLBC	**Dease Lake**	82.56	328	LR		LR	05 47 37.5	
	comp=Z,56nm,18.4s,baz=76,slow=34							
INK	**Inuvik**	83.19	338	LR		LR	05 48 26.9	
	comp=Z,85nm,18.2s,baz=29,slow=34							
INK	**Inuvik**	83.19	338	IAmb		IAmb	05 13 40.9	
	comp=Z,8.1nm,0.8s							
INK	**Inuvik**	83.19	338	P		**P**	05 13 32.1	+0.9
	comp=Z,11nm,1.0s							
SNAA	**Sanae**	83.94	169	P		**P**	05 13 36.0	+1.1
	comp=Z,1.2nm,0.4s,baz=291,slow=16,SNR=1.5							
SNAA				LR		LR	05 44 58.3	
	comp=Z,69nm,18.0s,baz=12,slow=31							
	comp=Z,1.2nm,0.4s							
SNAA	**Sanae**	83.94	169	P		**P**	05 13 33.8	-1.2
SNAA				IAmb		IAmb	05 13 44.8	
	comp=Z,4.0nm,0.8s							
TROLL	**Troll, Antarti**	85.28	168	P		**P**	05 13 42.4	+0.6
	comp=Z,103nm,0.7s							
H29M	**Whitestone**	85.37	336	P		**P**	05 13 43.5	+1.1
D27M	**Malcolm River**	85.70	339			**P**	05 13 44.2	+0.2
D27M				IAmb		IAmb	05 13 54.4	
	comp=Z,5.5nm,0.8s							
E27K	**Coleen River**	86.18	338			**P**	05 13 47.3	+1.0
E27K				IAmb		IAmb	05 13 56.2	
	comp=Z,9.7nm,0.8s							
G27K	**Doyon Strip**	86.53	337	IAmb		IAmb	05 13 57.8	
	comp=Z,5.8nm,1.1s							
BELA	**Belgrano 2**	86.54	179	P		**P**	05 13 48.7	+0.9
H27K	**Steamboat Moun**	86.62	337	IAmb		IAmb	05 13 58.3	
	comp=Z,7.0nm,0.9s							
I27K	**Kandik River**	86.81	336	IAmb		IAmb	05 14 00.1	
	comp=Z,9.9nm,1.1s							
G26K	**Porcupine Rive**	87.31	337	IAmb		IAmb	05 14 02.2	
	comp=Z,11nm,1.3s							
ARTI	**Arti**	87.48	33	LR		LR	05 53 13.0	
	comp=Z,144nm,18.1s,baz=287,slow=36							
AKTO	**Aktyubinsk**	88.49	39	LR		LR	05 53 46.0	
	comp=Z,57nm,18.6s,baz=98,slow=36							
ILAR	**Eielson Array**	89.18	336	P		**P**	05 14 00.6	-0.2
	comp=Z,0.8nm,0.7s,baz=65,slow=3.7,SNR=5.7							
	comp=Z,0.8nm,0.7s							
AB31	**Akbulak array**	89.96	40			**P**	05 14 05.3	+0.5
AB31				IAmb		IAmb	05 14 15.7	
	comp=Z,5.5nm,1.0s							
ABKAR	**Akbulak array**	89.96	40			**P**	05 14 05.5	+0.7
ELIB	**Princess Elisa**	90.34	164	*d*P		**P**	05 14 07.6	+1.5
NRIK	**Norilʹsk**	94.21	16	LR		LR	05 53 51.0	
	comp=Z,32nm,19.5s,baz=310,slow=34							
KDAK	**Kodiak Island**	94.28	330	LR		LR	05 55 42.4	
	comp=Z,104nm,18.7s,baz=74,slow=35							
HHC	**Hu-ho-hao-te**	124.19	26	*e*P		**PKPdf**	05 20 00.1	-4.5
XAN	**Xiʾan**	128.31	33	*e*PKP		**PKiKP**	05 20 13.6	+0.4
NJ2	**Nanjing**	134.74	25	*e*P		**PKPdf**	05 20 23.7	-1.0
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.6s							

GFZ ***02*** *05:10:45.6±0.3,32.2°S×2.6°W±, h124km±8km, M4.9/19, mb4.9/19*

SJA ***02*** *05:10:46.4±0.8,31.82S×67.14W, h130km±4km, ML4.5, MW4.3*

NEIC ***02*** *05:10:46.4±1.9,31.87S±0.06×67.0W±0.1, h117km±6km, mb4.6/20, Error ellipse: s-maj=12.5km s-min=9.3km az=95.0*

VAO ***02*** *05:10:46.4±0.4,31.92S×67.00W, h126km±3km, mb4.5, Presumed earthquake*

IDC ***02*** *05:10:47.0±0.4,31.79S×67.21W, h131km±4km, mb4.1/9, mbtmp4.5/12, Error ellipse: s-maj=13.6km s-min=10.5km az=153.0*

ISC 02 05:10:46.6±0.5, **31.86S**±0.04×**67.09W**±0.04, **h128**km±4km, **n182**, σ1.3 **30**/214, **mb4.5**/18, **3D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ACAN	**Cantantal**	**0.42**	**192**	*e*P	**Pn**	**05 11 06.5**	**+1.4**
ACAN				IAML		05 11 26.6	
	comp=Z,9μm,0.2s						
CFA	**Coronel Fontan**	**1.01**	**284**	P	**Pn**	**05 11 09.2**	**-0.3**
	comp=Z,2μm,0.2s,baz=104,slow=12,SNR=9710						
CFA				S	**Sn**	**05 11 26.1**	**-0.7**
	comp=Z,4μm,0.3s,baz=322,slow=22,SNR=77						
CFA	**Coronel Fontan**	**1.01**	**284**	*e*P	**Pn**	**05 11 09.4**	**-0.1**
CFA				*e*S	**Sn**	**05 11 26.5**	**-0.2**
CFA				IAML		05 11 26.9	
	comp=Z,6μm,0.3s						
MRA	**San Martin**	**1.29**	**116**	*e*P	Pn	05 11 06.7	-5.6
SJA	**San Juan**	**1.30**	**284**	*e*P	**Pn**	**05 11 12.6**	**+0.2**
SJA				*e*S	**Sn**	**05 11 31.9**	**0.0**
SJA				IAML		05 11 34.4	
	comp=Z,3μm,0.2s						
ZON	**Zonda**	**1.39**	**283**	*e*P	**Pn**	**05 11 13.3**	**-0.1**
ZON				*e*S	**Sn**	**05 11 33.9**	**+0.2**
ZON				IAML		05 11 34.2	
	comp=Z,3μm,0.2s						
ZON	**Zonda**	**1.39**	**283**		**Pn**	**05 11 13.2**	**-0.1**
ZON	**Zonda**	**1.39**	**283**	P	**Pn**	**05 11 13.3**	**-0.1**
RTLS	**Leoncito**	**1.88**	**271**	*e*P	**Pn**	**05 11 19.6**	**+0.3**
RTLS				*e*S	**Sn**	**05 11 45.2**	**+1.0**
RTLS				IAML		05 11 45.9	
	comp=Z,5μm,0.7s						
AAGR	**Agrelo**	**1.91**	**230**	*e*P	Pn	05 11 10.2	-9.3
AVIZ	**Vizcacheras**	**2.01**	**217**	*e*P	**Pn**	**05 11 21.8**	**+1.2**
AVIZ				*e*S	**Sn**	**05 11 40.3**	**-6.4**
ACCO	**Cerro Coronel**	**2.12**	**306**	*e*P	**Pn**	**05 11 22.6**	**+0.4**
ACCO				*e*S	**Sn**	**05 11 49.6**	**+0.2**
ACCO				IAML		05 11 50.7	
	comp=Z,3μm,0.3s						
TCA	**Tanti**	**2.19**	**77**	*e*P	**Pn**	**05 11 24.2**	**+1.3**
TCA				*e*S	**Sn**	**05 11 50.8**	**+0.2**
TCA				IAML		05 11 53.2	
	comp=Z,3μm,0.8s						
ACDV	**Cuesta del Vie**	**2.43**	**313**	*e*P	**Pn**	**05 11 26.2**	**+0.3**
ACDV				*e*S	**Sn**	**05 11 56.2**	**+0.2**
ACDV				IAML		05 11 56.8	
	comp=Z,1μm,0.3s						
ACLC	**CERRO LA CRUZ**	**2.43**	**3**	*e*P	**Pn**	**05 11 26.2**	**+0.2**
ACLC				*e*S	**Sn**	**05 11 56.4**	**+0.2**
AROD	**Rodeo**	**2.66**	**309**	*e*P	**Pn**	**05 11 29.3**	**+0.3**
AROD				*e*S	**Sn**	**05 12 00.7**	**-0.8**
PIL	**Pilar**	**2.73**	**87**	*e*P	**Pn**	**05 11 31.4**	**+1.8**
MT08	**Bocatoma Ro**	**2.93**	**237**	*e*P	**Pn**	**05 11 33.8**	**+1.4**
MT08	**Bocatoma Ro**	**2.93**	**237**		**Pn**	**05 11 33.3**	**+0.9**
MT04	**Ro Olivares**	**3.00**	**238**	*e*P	**Pn**	**05 11 34.4**	**+1.1**
VA03	**San Esteban**	**3.07**	**252**	*e*P	**Pn**	**05 11 34.6**	**+0.5**
VA03				*e*S	**Sn**	**05 12 06.8**	**-3.9**
VA03				*e*S		05 12 07.3	
VA03				IAML		05 12 18.3	
	comp=Z,2μm,0.5s						
VA03	**San Esteban**	**3.07**	**252**		**Pn**	**05 11 34.6**	**+0.5**
VA03	**San Esteban**	**3.07**	**252**	P	**Pn**	**05 11 34.7**	**+0.7**
RFA	**San Rafael**	**3.12**	**201**	*e*P	**Pn**	**05 11 34.7**	**0.0**
RFA				*e*S	Sn	05 12 02.3	-10
CO01	**Juntas del Tor**	**3.19**	**305**	*e*P	**Pn**	**05 11 37.0**	**+1.1**
CO01				*e*S	**Sn**	**05 12 13.9**	**0.0**
CO01				IAML		05 12 16.7	
	comp=Z,786nm,0.5s						
CO01	**Juntas del Tor**	**3.19**	**305**		**Pn**	**05 11 36.8**	**+1.0**
CO01	**Juntas del Tor**	**3.19**	**305**	P	**Pn**	**05 11 37.0**	**+1.1**
VCA	**Vinchina**	**3.26**	**342**	*e*P	**Pn**	**05 11 37.3**	**+0.6**
VCA				*e*S	Sn	05 12 02.8	-13
VCA				IAML		05 12 20.9	
	comp=Z,2μm,1.2s						
MT13	**San Alfonso**	**3.28**	**234**	*e*P	**Pn**	**05 11 38.4**	**+1.5**
MT13	**San Alfonso**	**3.28**	**234**		**Pn**	**05 11 38.2**	**+1.3**
MT16	**CCHEN**	**3.29**	**241**		**Pn**	**05 11 37.4**	**+0.5**
PEL	**Peldehue**	**3.30**	**246**		**Pn**	**05 11 37.0**	**0.0**
PEL	**Peldehue**	**3.30**	**246**	P	**Pn**	**05 11 37.2**	**+0.2**
CO04	**Los Peladeros**	**3.31**	**266**		**Pn**	**05 11 36.8**	**-0.6**
CO04	**Los Peladeros**	**3.31**	**266**	P	**Pn**	**05 11 36.9**	**-0.5**
MT03	**Universidad Ad**	**3.31**	**240**	*e*P	**Pn**	**05 11 38.1**	**+0.9**
MT03	**Universidad Ad**	**3.31**	**240**		**Pn**	**05 11 37.9**	**+0.6**
CO02	**Combarbal**	**3.41**	**280**	*e*P	**Pn**	**05 11 38.7**	**+0.2**
CO02				*e*S	Sn	05 12 06.8	-12
CO02				IAML		05 12 12.5	
	comp=Z,1μm,0.9s						
CO02	**Combarbal**	**3.41**	**280**		**Pn**	**05 11 38.5**	**0.0**
CO02	**Combarbal**	**3.41**	**280**	P	**Pn**	**05 11 38.6**	**+0.1**
MT05	**Renca**	**3.44**	**243**	*e*P	**Pn**	**05 11 39.4**	**+0.5**
MT05	**Renca**	**3.44**	**243**		**Pn**	**05 11 39.1**	**+0.2**
CYA	**Choya**	**3.58**	**18**	*e*P	**Pn**	**05 11 40.4**	**-0.5**
GO04	**Tololo Observa**	**3.60**	**297**	*e*P	**Pn**	**05 11 41.3**	**0.0**
GO04				*e*S	**Sn**	**05 12 22.8**	**-0.7**
GO04				IAML		05 12 27.3	
	comp=Z,838nm,0.3s						
GO04	**Tololo Observa**	**3.60**	**297**		**Pn**	**05 11 41.1**	**-0.2**
GO04	**Tololo Observa**	**3.60**	**297**	P	**Pn**	**05 11 41.2**	**0.0**
BO04	**La Punta**	**3.64**	**233**		**Pn**	**05 11 41.9**	**+0.3**
MT02	**Curacav**	**3.69**	**247**	*e*P	**Pn**	**05 11 41.5**	**-0.7**
MT02	**Curacav**	**3.69**	**247**		**Pn**	**05 11 41.1**	**-1.1**
MT09	**Talagante**	**3.80**	**239**		**Pn**	**05 11 43.2**	**-0.5**
VA01	**Torpederas**	**4.03**	**252**		**Pn**	**05 11 45.0**	**-1.5**
VA01	**Torpederas**	**4.03**	**252**	P	**Pn**	**05 11 44.8**	**-1.8**
MT01	**Popeta**	**4.03**	**239**		**Pn**	**05 11 45.4**	**-1.3**
AC05	**El Transito**	**4.08**	**317**		**Pn**	**05 11 48.2**	**+0.8**
AC05	**El Transito**	**4.08**	**317**	P	**Pn**	**05 11 48.3**	**+0.8**
BO01	**Tunca**	**4.20**	**232**		**Pn**	**05 11 48.0**	**-0.9**
BO01	**Tunca**	**4.20**	**232**	P	**Pn**	**05 11 48.2**	**-0.6**
LCO	**Las Campanas**	**4.22**	**311**		**Pn**	**05 11 49.2**	**-0.3**
BO02	**Sierra Bellavi**	**4.26**	**226**		**Pn**	**05 11 49.9**	**+0.2**
BO02	**Sierra Bellavi**	**4.26**	**226**	P	**Pn**	**05 11 50.1**	**+0.4**
AC04	**Llanos de Chal**	**5.02**	**315**	P	**Pn**	**05 11 59.7**	**-0.2**
	comp=Z,253nm,0.7s						
GO03	**Copiapo**	**5.06**	**326**		**Pn**	**05 11 59.9**	**-0.5**
GO03	**Copiapo**	**5.06**	**326**	P	**Pn**	**05 12 00.1**	**-0.4**
	comp=Z,106nm,0.7s						
GO05	**Hualane**	**5.12**	**231**	P	**Pn**	**05 11 59.0**	**-2.2**
	comp=Z,42nm,0.8s						
ML02	**Panimavida**	**5.30**	**222**	P	**Pn**	**05 12 02.6**	**-1.1**
	comp=Z,235nm,0.5s						
AC02	**Maricunga**	**5.32**	**340**		**Pn**	**05 12 05.3**	**+1.0**
AC02	**Maricunga**	**5.32**	**340**	P	**Pn**	**05 12 05.3**	**+1.0**
	comp=Z,161nm,0.9s						
BI02	**San Fabin de**	**5.91**	**215**	P	**Pn**	**05 12 11.4**	**-0.5**
	comp=Z,83nm,0.5s						
AC01	**Pan de Azucar**	**6.47**	**331**		**Pn**	**05 12 18.0**	**-1.4**
AC01	**Pan de Azucar**	**6.47**	**331**	P	**Pn**	**05 12 19.1**	**-0.4**
	comp=Z,56nm,0.6s						
SALTA		**7.64**	**5**	P	**Pn**	**05 12 36.7**	**+1.1**
	comp=Z,36nm,2.3s						
ANCO	**Parque Anchore**	**8.03**	**110**	*e*P	**Pn**	**05 12 40.2**	**-0.1**
ANCO				*e*S	**Sn**	**05 14 07.6**	**-1.8**
PSAL	**Palomas, Salto**	**8.13**	**87**	*e*P	**Pn**	**05 12 41.2**	**-0.5**
GO06	**Curarrehue**	**8.49**	**204**	P	**Pn**	**05 12 45.4**	**-1.3**
	comp=Z,109nm,0.6s						
ITQB	**Itaqui**	**9.26**	**79**	*e*P	**Pn**	**05 12 55.7**	**-1.3**
ITQB				*e*S	**Sn**	**05 14 37.5**	**-1.9**
PLCA	**Paso Flores**	**9.28**	**197**	P	**Pn**	**05 12 56.7**	**-0.6**
	comp=Z,9.3nm,0.7s,baz=11,slow=12,SNR=31						
PLCA	**Paso Flores**	**9.28**	**197**		**Pn**	**05 12 56.2**	**-1.0**
PLCA	**Paso Flores**	**9.28**	**197**	P	**Pn**	**05 12 56.6**	**-0.6**
	comp=Z,41nm,1.0s						
PLCA	**Paso Flores**	**9.28**	**197**	*e*P	**Pn**	**05 12 56.2**	**-1.0**
PLCA				*e*S	**Sn**	**05 14 39.2**	**-0.8**
PB06	**IPOC Station P**	**9.38**	**346**	P	**Pn**	**05 12 56.6**	**-2.2**
	comp=Z,91nm,0.7s						
PB05	**IPOC Station P**	**9.39**	**342**		**Pn**	**05 12 55.8**	**-3.1**
PB05	**IPOC Station P**	**9.39**	**342**	P	**Pn**	**05 12 57.4**	**-1.5**
	comp=Z,68nm,0.6s						
PB03	**IPOC Station P**	**10.06**	**346**		**Pn**	**05 13 04.5**	**-3.4**
PB03	**IPOC Station P**	**10.06**	**346**	P	**Pn**	**05 13 04.9**	**-3.0**
	comp=Z,53nm,0.6s						
H03N1	**Juan Fernandez**	**10.09**	**258**	P	**Pn**	**05 13 06.9**	**-1.0**
	baz=21,slow=28,SNR=10						
H03N2	**Juan Fernandez**	**10.11**	**258**	P	**Pn**	**05 13 07.1**	**-1.0**
	baz=21,slow=28,SNR=9.8						
H03S1	**Juan Fernandez**	**10.14**	**256**	P	**Pn**	**05 13 06.4**	**-2.1**
H03S3	**Juan Fernandez**	**10.14**	**256**	P	**Pn**	**05 13 06.5**	**-1.9**
H03S2	**Juan Fernandez**	**10.15**	**256**	P	**Pn**	**05 13 06.4**	**-2.3**
SNR=6.0							

CPUP	**Villa Florida**	**10.16**	**60**	P		**Pn**	**05 13 06.8**	**-2.2**
	comp=Z,6.5nm,1.1s,baz=231,slow=12,SNR=13							
CPUP				S		**Sn**	**05 14 58.3**	**-2.8**
	comp=Z,15nm,0.8s,baz=260,slow=9.6,SNR=3.3							
CPUP	**Villa Florida**	**10.16**	**60**	P		**Pn**	**05 13 07.1**	**-1.9**
CPUP	**Villa Florida**	**10.16**	**60**	*e*P		**Pn**	**05 13 06.9**	**-2.2**
CPUP				*e*S		**Sn**	**05 15 00.7**	**-0.4**
LL03	**Petrohue**	**10.20**	**203**			**Pn**	**05 13 05.8**	**-3.6**
LL03	**Petrohue**	**10.20**	**203**	P		**Pn**	**05 13 06.0**	**-3.4**
	comp=Z,292nm,0.7s							
PB09	**IPOC Station P**	**10.21**	**349**			**Pn**	**05 13 08.0**	**-1.9**
PB09	**IPOC Station P**	**10.21**	**349**	P		**Pn**	**05 13 09.4**	**-0.5**
	comp=Z,21nm,0.6s							
PB07	**IPOC Station P**	**10.40**	**345**			**Pn**	**05 13 08.7**	**-3.8**
PB07	**IPOC Station P**	**10.40**	**345**	P		**Pn**	**05 13 08.9**	**-3.5**
	comp=Z,40nm,0.6s							
PB02	**IPOC Station P**	**10.79**	**346**	P		**Pn**	**05 13 14.2**	**-3.6**
LL05	**Los Muermos**	**10.81**	**206**			Pn	05 13 11.2	-6.5
CPSB	**Cacapava Do Su**	**11.78**	**86**			**Pn**	**05 13 28.1**	**-2.5**
CPSB	**Cacapava Do Su**	**11.78**	**86**	P		**Pn**	**05 13 28.5**	**-2.1**
	comp=Z,18nm,0.7s							
CPSB	**Cacapava Do Su**	**11.78**	**86**	*e*P		**Pn**	**05 13 28.2**	**-2.5**
CPSB				*e*S		**Sn**	**05 15 39.0**	**-1.5**
SJPY	**San Joaquin**	**11.84**	**57**	*e*P		**Pn**	**05 13 31.3**	**-0.1**
GO07	**Milladeo Hill,**	**12.38**	**203**	P		**Pn**	**05 13 36.6**	**-1.7**
	comp=Z,80nm,0.6s							
MURT	**Porto Murtinho**	**13.22**	**42**	*e*P		**Pn**	**05 13 49.5**	**+0.2**
ITAB	**Concordia**	**13.81**	**74**	Pn		**Pn**	**05 13 57.9**	**+1.0**
ITAB	**Concordia**	**13.81**	**74**	*e*P		**Pn**	**05 13 56.6**	**-0.3**
ITAB				*e*S		**Sn**	**05 16 28.7**	**-0.7**
CNLB	**Canela**	**14.21**	**84**	*e*P		**Pn**	**05 14 01.2**	**-0.9**
COYC	**Coyhaique**	**14.23**	**194**			**Pn**	**05 14 00.8**	**-1.4**
COYC	**Coyhaique**	**14.23**	**194**	P		**Pn**	**05 14 03.0**	**+0.9**
	comp=Z,34nm,0.8s							
COIM	**Forte Coimbra**	**14.54**	**37**	*e*P		**Pn**	**05 14 05.9**	**-0.4**
COIM				*e*S		**Sn**	**05 16 47.7**	**+0.6**
BDQN	**Bodoquena, MS**	**14.66**	**42**	*e*P		**Pn**	**05 14 07.8**	**0.0**
BDQN				*e*S		**Sn**	**05 16 50.2**	**+0.2**
AQDB	**Aquidauana**	**15.25**	**45**	*e*P		**Pn**	**05 14 15.4**	**+0.2**
AQDB				*e*S		**Sn**	**05 17 04.5**	**+0.2**
LPAZ	**La Paz**	**15.53**	**356**	P		**Pn**	**05 14 18.5**	**-0.8**
	comp=Z,5.1nm,0.4s,baz=152,slow=5.3,SNR=34							
LPAZ	**La Paz**	**15.53**	**356**			**Pn**	**05 14 19.0**	**-0.3**
LPAZ				IAmb		IAmb	05 14 28.8	
	comp=Z,19nm,0.5s							
LPAZ	**La Paz**	**15.53**	**356**	P		**Pn**	**05 14 20.1**	**+0.8**
	comp=Z,33nm,0.7s							
LPAZ	**La Paz**	**15.53**	**356**	*e*P		**Pn**	**05 14 18.9**	**-0.4**
BBSD	**Serra de San D**	**15.75**	**23**	*e*P		**Pn**	**05 14 21.0**	**-0.4**
LDASE	**Londrina, Braz**	**16.46**	**63**	*e*P		**Pn**	**05 14 28.6**	**-1.5**
LDASE				*e*S		**Sn**	**05 17 32.7**	**-0.7**
SIV	**San Ignacio**	**16.72**	**21**	P		**Pn**	**05 14 32.3**	**-1.0**
	comp=Z,11nm,0.8s,baz=203,slow=11,SNR=27							
GO08	**Villa O'Higgin**	**17.09**	**192**			**P**	**05 14 36.2**	**-1.1**
GO08				IAmb		IAmb	05 14 39.2	
	comp=Z,30nm,1.0s							
GO08	**Villa O'Higgin**	**17.09**	**192**	P		**P**	**05 14 36.8**	**-0.5**
	comp=Z,39nm,0.9s							
PCMB	**Pacaembu**	**17.42**	**58**	*e*P		**P**	**05 14 40.5**	**-0.6**
PCMB				*e*S		**S**	**05 17 54.8

	comp=Z,0.6nm,0.5s,baz=144,slow=1.7,SNR=6.3							
WRA	**Warramunga Arr**	**124.55**	**205**	PKP	**PKPdf**	**05 29 30.8**	**-0.5**
	comp=Z,1.2nm,0.4s,baz=158,slow=1.7,SNR=20							
KURBB	**Kurchatov Arra**	**148.46**	**43**	PKPbc	**PKPbc**	**05 30 18.4**	**+0.7**
	comp=Z,2.4nm,0.5s,baz=298,slow=3.4,SNR=9.9							
KURBB				pPKPbc	**pPKPbc**	**05 30 52.8**	**+0.9**
	comp=Z,2.7nm,0.7s,baz=293,slow=3.7,SNR=5.4							
KSH2	**Kashi**	**148.90**	**66**	PKPbc	**PKiKP**	**05 30 20.5**	**-0.2**
ZALV	**Zalesovo Beam**	**150.16**	**34**	PKPbc	**PKPbc**	**05 30 21.9**	**+0.1**
	comp=Z,1.3nm,0.4s,baz=324,slow=1.9,SNR=7.7							
ZALV				pPKPbc	**pPKPbc**	**05 30 56.8**	**+0.7**
	comp=Z,1.9nm,0.5s,baz=305,slow=3.2,SNR=5.5							
MKAR	**Makanchi Array**	**152.22**	**49**	PKPbc	**PKPbc**	**05 30 25.8**	**-1.1**
	comp=Z,1.2nm,0.7s,baz=289,slow=2.5,SNR=5.9							
MKAR				pPKPbc	**pPKPbc**	**05 31 01.8**	**+0.5**
	comp=Z,0.9nm,0.5s,baz=297,slow=2.7,SNR=4.3							
HHC	**Hu-ho-hao-te**	**170.96**	**7**	*e*P	**PKPdf**	**05 30 42.3**	**+2.7**
NJ2	**Nanjing**	**174.95**	**274**	*e*P	**PKPdf**	**05 30 41.8**	**+0.5**
NJ2				pmax	pmax			
	comp=Z,16nm,0.6s							

ASRS ***02*** *05:15:23.0±1.3,54.°30N×86.°17E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 02 05:15:23.6±3.6, 54.°34N×86.°34E, h0km, mbtmp2.9/2, ML2.8/2, Error ellipse: s-maj=27.1km s-min=14.8km az=61.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.97**	**247**	I	I	05 21 20.0	
	baz=66,slow=336,SNR=3.2						
ZALV	**Zalesovo Beam**	**0.97**	**247**	Pg	Pg	05 15 41.1	-1.2
	0.9nm,0.3s,baz=63,slow=16,SNR=9.9						
ZALV				Lg	Lg	05 15 55.0	
	3.0nm,0.3s,baz=66,slow=28,SNR=11						
KURBB	**Kurchatov Arra**	**6.04**	**235**	Pn	Pn	05 16 55.8	+1.6
	0.1nm,0.3s,baz=51,slow=14,SNR=11						
KURBB				Lg	Lg	05 18 35.7	
	baz=51,slow=30,SNR=6.7						
	0.4nm,0.5s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.98**	**200**	Pn	Pn	05 17 21.5	+0.7
	0.2nm,0.3s,baz=24,slow=13,SNR=5.7						
	0.3nm,0.3s						
MKAR				AML	AML		

THE ***02*** *05:21:60.0,38.°N±1.°×2.°6E±.°, h13km±8km, M3.2/28, MLh3.2/28*
ISK ***02*** *05:21:59.4,37.°78N×26.°45E, h8km, ML3.3/22*
ATH ***02*** *05:21:59.7,37.°76N×26.°42E, h12km±2km, ML3.2/16, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
AFAD ***02*** *05:22:00.6,37.°80N×26.°47E, h7km±2km, MW3.5*

ISC 02 05:21:59.8±0.9, 37.°78N±0.°02×26.°43E±0.°02, h12km±8km, n93, σ0s52/115, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.22**	**86**	P	**Pg**	**05 22 04.6**	**+0.1**
KRL1				S	**Sg**	**05 22 08.1**	**+0.3**
KRL1				AML	AML		
DGB	**zmir**	**0.45**	**53**	P	**Pg**	**05 22 08.8**	**+0.1**
DGB				S	**Sg**	**05 22 14.6**	**-0.1**
DGB				IAML		05 22 15.0	
	comp=E,5μm,0.3s						
DGB				IAML		05 22 16.0	
	comp=N,3μm,0.8s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**8**	P	**Pg**	**05 22 08.8**	**-0.1**
ZEYE				S	**Sb**	**05 22 16.3**	**-0.4**
ZEYE				IAML		05 22 17.0	
	comp=E,4μm,0.5s						
ZEYE				IAML		05 22 18.0	
	comp=N,5μm,0.3s						
GMLD	**Gumuldur**	**0.49**	**53**	Pg	**Pg**	**05 22 08.3**	**-1.1**
GMLD				Sg	**Sg**	**05 22 15.4**	**-0.5**
GMLD				AML	AML		
CESE	**eme**	**0.56**	**350**	Pg	**Pg**	**05 22 10.5**	**-0.2**
CESE				Sg	**Sg**	**05 22 18.9**	**+0.8**
CESE				AML	AML		
BEYE	**izmir**	**0.60**	**42**	P	**Pg**	**05 22 11.3**	**-0.2**
BEYE				S	**Sg**	**05 22 19.5**	**+0.2**
BEYE				IAML		05 22 20.0	
	comp=E,2μm,0.5s						
BEYE				IAML		05 22 21.0	
	comp=N,2μm,0.4s						
GCAM	**G?zelcaml?**	**0.65**	**97**	P	**Pg**	**05 22 12.4**	**0.0**
GCAM				S	**Sb**	**05 22 21.6**	**-0.4**
GCAM				IAML		05 22 22.0	
	comp=E,1μm,0.5s						
GCAM				IAML		05 22 28.0	
	comp=N,738nm,0.2s						
GCAM	**G?zelcaml?**	**0.65**	**97**	Pg	**Pg**	**05 22 12.1**	**-0.3**
GCAM				AML	AML		
CHOS	**Chios island**	**0.67**	**334**	P	**Pg**	**05 22 13.0**	**+0.1**
CHOS				S	**Sb**	**05 22 23.3**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.67**	**334**	Pg	**Pg**	**05 22 13.3**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.67**	**334**	P	**Pg**	**05 22 13.4**	**+0.5**
CHOS				S	**Sb**	**05 22 23.1**	**+0.2**
KUSD	**Kusadasi-Aydin**	**0.69**	**83**	Pg	**Pg**	**05 22 12.7**	**-0.4**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.72**	**116**	P	**Pn**	**05 22 15.8**	**0.0**
DDIM				S	**Sb**	**05 22 25.0**	**+0.8**
DDIM				IAML		05 22 27.0	
	comp=N,2μm,0.5s						
DDIM				IAML		05 22 33.0	
	comp=E,2μm,0.8s						
BLCB	**Balcova**	**0.78**	**39**	P	**Pg**	**05 22 14.2**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.78**	**39**	Pg	**Pg**	**05 22 14.8**	**0.0**
BLCB				Sg	**Sb**	**05 22 25.7**	**0.0**
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.80**	**342**	P	**Pb**	**05 22 15.8**	**+0.1**
EAG2				S	**Sb**	**05 22 27.1**	**+0.6**
KRBN	**Karaburun**	**0.82**	**7**	Pg	**Pg**	**05 22 15.2**	**-0.4**
KARB	**zmir-Karabur**	**0.88**	**359**	P	**Pg**	**05 22 17.0**	**+0.1**
KARB				S	**Sb**	**05 22 29.2**	**+0.4**
KARB				IAML		05 22 31.0	
	comp=E,2μm,0.4s						
KARB				IAML		05 22 32.0	
	comp=N,2μm,0.4s						
DUVT	**Torbali**	**0.92**	**61**	P	**Pb**	**05 22 17.7**	**0.0**
DUVT				S	**Sb**	**05 22 29.6**	**-0.3**
DUVT				IAML		05 22 31.0	
	comp=E,1μm,0.5s						
DUVT				IAML		05 22 46.0	
	comp=N,0.3nm,0.4s						
KLNA	**Kalymnos**	**0.93**	**152**	P	**Pb**	**05 22 18.2**	**+0.3**
KLNA				AML	AML		
BAGT	**Foa**	**0.94**	**21**	P	**Pb**	**05 22 18.2**	**+0.3**
BAGT				S	**Sn**	**05 22 31.3**	**-0.8**
BAGT				IAML		05 22 33.0	
	comp=N,4μm,1.0s						
BAGT				IAML		05 22 33.0	
	comp=E,3μm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.94**	**134**	Pg	**Pg**	**05 22 17.8**	**-0.2**
FOCM	**Foa**	**0.96**	**14**	Pg	**Pg**	**05 22 17.3**	**-1.1**
FOCM				AML	AML		
APE	**Apeiranthos**	**1.01**	**225**	P	**Pb**	**05 22 18.9**	**-0.2**
APE				S	**Sg**	**05 22 31.7**	**-0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.01**	**225**	Pg	**Pb**	**05 22 19.4**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.01**	**225**	P	**Pb**	**05 22 19.0**	**-0.2**
APE				AML	AML		
BODT	**Bodrum**	**1.01**	**135**	P	**Pg**	**05 22 19.2**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**1.01**	**135**	Pg	**Pg**	**05 22 19.2**	**0.0**
BODT				AML	AML		
TNSA	**Tinos**	**1.03**	**257**	P	**Pb**	**05 22 19.3**	**-0.3**
TNSA				AML	AML		
BDRM	**Kayabasi**	**1.08**	**131**	P	**Pn**	**05 22 21.5**	**+0.7**
BDRM				S	**Sn**	**05 22 36.7**	**+1.0**
BDRM				IAML		05 22 37.0	
	comp=N,546nm,0.5s						
BDRM				IAML		05 22 37.0	
	comp=E,662nm,0.4s						
AYDN	**Tasoluk**	**1.16**	**95**	P	**Pb**	**05 22 21.3**	**-0.5**
AYDN				S	**Sg**	**05 22 36.9**	**-0.3**
AYDN				IAML		05 22 44.0	
	comp=E,452nm,0.8s						
AYDN				IAML		05 22 46.0	
	comp=N,261nm,0.4s						
AYDB	**Zeytinkoy-Aydi**	**1.17**	**81**	Pn	**Pn**	**05 22 22.1**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**1.18**	**114**	Pn	**Pb**	**05 22 21.9**	**-0.2**
MLSB				AML	AML		
CAMT	**Merkez**	**1.19**	**36**	P	**Pg**	**05 22 23.7**	**+1.0**
CAMT				S	**Sn**	**05 22 39.0**	**+0.6**
CAMT				IAML		05 22 41.0	
	comp=N,3μm,0.5s						
CAMT				IAML		05 22 41.0	
	comp=E,4μm,0.6s						
ASTA	**Astypalaia**	**1.23**	**183**	P	**Pn**	**05 22 22.8**	**-0.1**
ASTA				AML	AML		
IZMR	**zmir-demi**	**1.26**	**73**	P	**Pn**	**05 22 23.1**	**-0.1**
IZMR				S	**Sn**	**05 22 39.9**	**-0.2**
IZMR				IAML		05 22 43.0	
	comp=E,414nm,0.6s						
IZMR				IAML		05 22 44.0	
	comp=N,319nm,0.4s						
ZEDA	**zmir-Bergama**	**1.29**	**23**	P	**Pn**	**05 22 23.3**	**-0.3**
ZEDA				S	**Sg**	**05 22 42.9**	**+1.5**
ZEDA				IAML		05 22 45.0	
	comp=E,583nm,0.6s						
ZEDA				IAML		05 22 52.0	
	comp=N,535nm,0.7s						
DKL	**Dikili**	**1.34**	**16**	P	**Pn**	**05 22 23.6**	**-0.8**
DAT	**Datca**	**1.40**	**138**	Pn	**Pn**	**05 22 25.2**	**0.0**
DAT				AML	AML		
PRK	**Paraskevi**	**1.47**	**355**	P	**Pn**	**05 22 25.1**	**-1.0**
PRK				S	**Sn**	**05 22 45.1**	**-0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.47**	**355**	P	**Pn**	**05 22 25.7**	**-0.4**
NAZL	**Nazilli-Aydin**	**1.49**	**82**	Pn	**Pn**	**05 22 26.3**	**-0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.50**	**51**	Pn	**Pb**	**05 22 27.2**	**-0.3**
GOMA				AML	AML		
THR8	**Santorini-Mono**	**1.57**	**209**	P	**Pn**	**05 22 26.6**	**-0.8**
KARY	**Karystos**	**1.59**	**280**	P	**Pn**	**05 22 27.6**	**-0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.59**	**280**	P	**Pn**	**05 22 27.6**	**-0.2**
KARY				AML	AML		
THR3	**Thira Island,**	**1.59**	**211**	P	**Pn**	**05 22 27.9**	**+0.1**
SAP3	**Santorini-Thir**	**1.60**	**213**	P	**Pn**	**05 22 27.8**	**0.0**
SNT5	**Nea Kammeni, S**	**1.60**	**211**	P	**Pn**	**05 22 27.9**	**0.0**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.60**	**211**	P	**Pn**	**05 22 28.1**	**+0.2**
THERA	**Ancient Thera,**	**1.60**	**209**	P	**Pn**	**05 22 26.9**	**-1.1**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.60**	**209**	P	**Pn**	**05 22 27.5**	**-0.5**
THERA				AML	AML		
THT1	**Athinios (Pele**	**1.60**	**210**	P	**Pn**	**05 22 27.3**	**-0.6**
THT1				AML	AML		
THR5	**Thira Island,**	**1.61**	**213**	P	**Pn**	**05 22 27.5**	**-0.5**
YER	**Yerkesik**	**1.61**	**113**	Pn	**Pn**	**05 22 28.3**	**+0.2**
YER				AML	AML		
THR6	**Thira Island,**	**1.64**	**210**	P	**Pn**	**05 22 28.5**	**0.0**
TURN	**Turunc**	**1.76**	**124**	Pn	**Pn**	**05 22 30.5**	**+0.4**
TURN				AML	AML		
SKY	**Skiros Island**	**1.84**	**307**	P	**Pn**	**05 22 31.7**	**+0.5**
SKY				AML	AML		
DION	**Dionisos Attik**	**1.99**	**279**	P	**Pn**	**05 22 33.4**	**+0.1**
DION				AML	AML		
DION	**Dionisos Attik**	**1.99**	**279**	P	**Pn**	**05 22 33.4**	**+0.1**
DION				AML	AML		
KYMI	**Kymi, Euboea I**	**2.02**	**296**	P	**Pn**	**05 22 33.6**	**-0.1**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.02**	**296**	P	**Pn**	**05 22 33.8**	**+0.1**
DALY	**Dalyan (Mula)**	**2.02**	**118**	Pn	**Pb**	**05 22 35.1**	**-1.3**
DALY				AML	AML		
EZN	**Ezine**	**2.04**	**358**	P	**Pn**	**05 22 33.5**	**-0.5**
EZN				AML	AML		
PTL	**Penteli**	**2.04**	**278**	P	**Pn**	**05 22 34.0**	**0.0**
PTL				AML	AML		
PTL	**Penteli**	**2.04**	**278**	P	**Pn**	**05 22 34.4**	**+0.3**
PTL				AML	AML		
ARG	**Arkhangelos**	**2.07**	**138**	Pn	**Pn**	**05 22 34.9**	**+0.5**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.07**	**138**	P	**Pn**	**05 22 34.6**	**+0.2**
ARG				AML	AML		
VLY	**Voula,Athens**	**2.08**	**273**	P	**Pn**	**05 22 34.0**	**-0.6**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.08**	**273**	P	**Pn**	**05 22 34.7**	**+0.2**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.10**	**276**	P	**Pn**	**05 22 34.4**	**-0.3**
ATHU				AML	AML		
ATHU	**Athens Univers**	**2.10**	**276**	P	**Pn**	**05 22 35.1**	**+0.3**
ATH	**Athens Observa**	**2.15**	**276**	P	**Pn**	**05 22 36.1**	**+0.6**
ATH				AML	AML		
APMY	**Acipayam-Deniz**	**2.31**	**97**	Pn	**Pn**	**05 22 38.4**	**+0.7**
APMY				AML	AML		
KARP	**Karpathos**	**2.31**	**165**	Pn	**Pn**	**05 22 38.9**	**+1.2**
KARP				AML	AML		
KARP	**Karpathos**	**2.31**	**165**	P	**Pn**	**05 22 37.6**	**-0.1**
KARP				AML	AML		
LIA	**Limnos Island**	**2.33**	**336**	P	**Pn**	**05 22 37.7**	**-0.1**
LIA				AML	AML		
LIA	**Limnos Island**	**2.33**	**336**	P	**Pn**	**05 22 37.8**	**-0.1**
LIA				AML	AML		
FETY	**Fethiye**	**2.41**	**118**	Pn	**Pn**	**05 22 40.3**	**+1.2**
FETY				AML	AML		
AOS	**Alonnisos**	**2.43**	**306**	P	**Pn**	**05 22 39.5**	**+0.1**
AOS				AML	AML		
CAME	**Cameli-Denizli**	**2.44**	**109**	Pn	**Pn**	**05 22 40.9**	**+1.3**
CAME				AML	AML		
VILL	**Villia**	**2.49**	**280**	P	**Pn**	**05 22 40.1**	**-0.1**
VILL				AML	AML		
LTK	**Loutraki**	**2.75**	**276**	P	**Pn**	**05 22 43.7**	**0.0**
LTK				AML	AML		
SMTH	**Samothraki Isl**	**2.77**	**346**	P	**Pn**	**05 22 43.4**	**-0.6**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**2.77**	**346**	P	**Pn**	**05 22 43.6**	**-0.5**
SMTH				AML	AML		
IDI	**Anoyia**	**2.78**	**207**	P	**Pn**	**05 22 43.3**	**-0.9**
IDI				AML	AML		
NEO	**Neokhori**	**2.94**	**302**	P	**Pn**	**05 22 46.5**	**+0.1**
NEO				AML	AML		
VAM	**Vamos**	**2.97**	**218**	P	**Pn**	**05 22 45.9**	**-0.8**
VAM				AML	AML		
VLI	**Veliai**	**2.98**	**250**	P	**Pn**	**05 22 46.3**	**-0.6**
VLI				AML	AML		
ALN	**Alexandroupoli**	**3.13**	**355**	P	**Pn**	**05 22 48.4**	**-0.5**
ALN				AML	AML		
ANKY	**Antikythira Is**	**3.15**	**234**	P	**Pn**	**05 22 48.6**	**-0.6**
ANKY				AML	AML		
GUR	**Goura**	**3.23**	**274**	P	**Pn**	**05 22 50.6**	**+0.1**
GUR				AML	AML		
SERG	**Sergoula**	**3.50**	**282**	P	**Pn**	**05 22 54.2**	**+0.1**

SNET ***02*** *06:00:27.5±3.1,14.°10N×91.°65W, h64km, ML3.9, Presumed earthquake*
IDC ***02*** *06:00:27.8±2.8,13.°93N×91.°59W, h58km±21km, mb3.4/2, mbtmp3.6/5, ML3.6/3, MS2.9/4, Error ellipse: s-maj=25.7km s-min=11.9km az=5.0*
CATAC ***02*** *06:00:29.4±0.4,14.°N±3.°×9.°1W±.°, h18km±3km, M4.0/24, MLv4.0/24, Error ellipse: s-maj=7.3km s-min=2.7km az=37.9, confirmed*
GCG ***02*** *06:00:29.3±1.2,14.°16N×91.°54W, h48km±10km, MD4.2, ML4.3, MW3.6, Presumed earthquake*

ISC 02 06:00:28.5±1.1, 14.°05N±0.°06×91.°57W±0.°05, h53km±8km, n52, σ1s95/72, MS2.9/3, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STG8	**El Palmar, Qui**	**0.45**	**28**	*i* P	**Pn**	**06 00 41.9**	**+2.2**
STG8				*i* S	**Sn**	**06 00 51.5**	**+3.7**
STG8				IAML		06 00 52.7	
	comp=N,21μm,0.2s						
RTAL	**Retalhuleu**	**0.49**	**346**	P	**Pn**	**06 00 39.9**	**+0.1**
RTAL				S	**Sn**	**06 00 48.0**	**0.0**
RTAL	**Retalhuleu**	**0.49**	**346**	*i* P	**Pn**	**06 00 40.0**	**+0.1**
RTAL				*e*S	**Sn**	**06 00 48.5**	**+0.5**
QUEO	**Labor Ovalle**	**0.82**	**4**	*i* P	**Pn**	**06 00 44.2**	**-0.1**
QUEO				*i* S	**Sn**	**06 00 55.1**	**-0.6**
QUEO				IAML		06 01 07.7	
	comp=E,9μm,0.6s						
FG8	**Yepocapa, Chim**	**1.00**	**78**	*i* P	**Pn**	**06 00 42.6**	**-3.8**
FG8				*i* S	**Sn**	**06 00 53.0**	**-6.7**
FG16	**Alotenango, Sa**	**1.05**	**78**	*i* P	**Pn**	**06 00 43.8**	**-3.4**
FG16				*i* S	**Sn**	**06 00 55.5**	**-5.6**
THIG		**1.08**	**322**	*i* P	**Pn**	**06 00 47.4**	**-0.1**
THIG				*i* S	**Sn**	**06 01 00.6**	**-0.9**
ESSJ	**San Jos, E**	**1.15**	**115**	*i* P	**Pn**	**06 00 44.1**	**-4.2**
HUEH	**Huehuetenango**	**1.26**	**3**	P	**Pn**	**06 00 50.3**	**+0.2**
HUEH	**Huehuetenango**	**1.26**	**3**	*i* P	**Pn**	**06 00 50.1**	**0.0**
HUEH				*i* S	**Sn**	**06 01 06.7**	**+0.6**
HUEH				IAML		06 01 19.3	
	comp=N,6μm,0.7s						
HUEH	**Huehuetenango**	**1.26**	**3**	*i* P	**Pn**	**06 00 50.5**	**+0.5**
HUEH				*e*S	**Sn**	**06 01 07.2**	**+1.1**
APG	**El Apazote**	**1.43**	**48**	P	**Pn**	**06 00 51.9**	**-0.4**
	comp=N,13nm,0.5s,baz=207,slow=15,SNR=114						
APG				S	**Sn**	**06 01 12.0**	**+1.8**
	comp=N,24nm,0.5s,baz=187,slow=12,SNR=16						
APG	**El Apazote**	**1.43**	**48**	*i* P	**Pn**	**06 00 52.2**	**-0.2**
FAME	**Alcaldia de Sa**	**1.53**	**98**	P	**Pn**	**06 00 53.9**	**+0.5**
FAME				S	**Sn**	**06 01 11.2**	**-1.0**
SLOZ	**Alcaldia de Sa**	**1.74**	**91**	P	**Pn**	**06 00 57.1**	**+0.8**
SLOZ	**Alcaldia de Sa**	**1.74**	**91**	*i* P	**Pn**	**06 00 57.4**	**+1.1**
SLOZ				*e*S	**Sn**	**06 01 19.6**	**+2.3**
LOAL	**Lomas de Alarc**	**1.74**	**91**	P	**Pn**	**06 00 57.4**	**+1.0**
LOAL				S	**Sn**	**06 01 19.1**	**+1.6**
NUBE	**Las Nubes**	**1.75**	**95**	P	**Pn**	**06 00 57.1**	**+0.6**
NUBE				S	**Sn**	**06 01 18.2**	**+0.4**
NUBE	**Las Nubes**	**1.75**	**95**	*i* P	**Pn**	**06 00 57.1**	**+0.6**
NUBE				*i* S	**Sn**	**06 01 17.0**	**-0.8**
AVCB	**Coban**	**1.81**	**38**	*i* P	**Pn**	**06 00 57.9**	**+0.5**
JUAM	**Asuncion Mita**	**1.83**	**81**	*i* P	**Pn**	**06 00 57.6**	**0.0**
UNIC	**Universidad Ca**	**1.97**	**92**	P	**Pn**	**06 00 59.9**	**+0.5**
UNIC				S	**Sn**	**06 01 24.1**	**+1.0**
JAYA	**Jayaque - finc**	**2.10**	**101**	P	**Pn**	**06 01 02.4**	**+1.0**
JAYA	**Jayaque - finc**	**2.10**	**101**	*i* P	**Pn**	**06 01 01.9**	**+0.5**
CEDA	**San Andres**	**2.13**	**96**	P	**Pn**	**06 01 02.8**	**+1.1**
PMON	**Piamonte**	**2.22**	**98**	P	**Pn**	**06 01 04.4**	**+1.4**
PMON				S	**Sn**	**06 01 31.4**	**+2.1**
ESQI	**Esquipulas**	**2.22**	**77**	P	**Pn**	**06 01 05.3**	**+2.2**
LALI	**Alcalda de L**	**2.26**	**104**	P	**Pn**	**06 01 05.0**	**+1.6**
LALI				S	**Sn**	**06 01 31.6**	**+1.5**
LALI	**Alcalda de L**	**2.26**	**104**	*i* P	**Pn**	**06 01 04.3**	**+0.9**
CCIG	**Comitan**	**2.29**	**346**	*i* P	**Pn**	**06 01 04.8**	**+0.8**
LOMA	**Loma Larga**	**2.37**	**100**	P	**Pn**	**06 01 08.3**	**+3.3**
LLGN	**La Laguna**	**2.55**	**87**	P	**Pn**	**06 01 08.8**	**+1.2**
PAVA	**Las Pavas**	**2.58**	**97**	P	**Pn**	**06 01 08.7**	**+0.8**
TECO	**Alcaldia de Te**	**2.76**	**100**	P	**Pn**	**06 01 11.1**	**+0.8**
TECO				S	**Sn**	**06 01 44.2**	**+1.7**
SCLA	**Alcaldia de Sa**	**2.78**	**97**	P	**Pn**	**06 01 12.1**	**+1.4**
SARH	**Santa Rosa de**	**2.82**	**75**	P	**Pn**	**06 01 12.1**	**+0.9**
ALJI	**Alcalda de J**	**3.00**	**103**	P	**Pn**	**06 01 15.6**	**+2.0**
ALJI				S	**Sn**	**06 01 49.8**	**+1.4**
TGIG		**3.10**	**331**	*i* P	**Pn**	**06 01 14.5**	**-0.4**
PACA	**Pacayal**	**3.21**	**100**	P	**Pn**	**06 01 19.8**	**+3.3**
PETF	**Flores**	**3.29**	**30**	P	**Pn**	**06 01 18.5**	**+1.0**
TGUH	**Tegucigalpa,Un**	**4.17**	**89**	P	**Pn**	**06 01 33.3**	**+3.5**
CMIG	**Matias Romero**	**4.40**	**314**	P	**Pn**	**06 01 33.4**	**+0.7**
	comp=N,4.2nm,0.3s,baz=131,slow=8.4,SNR=56						
CMIG				S	**Sn**	**06 02 23.8**	**+1.1**
	comp=N,52nm,0.5s,baz=225,slow=20,SNR=6.8						
CMIG				LR	LR	06 02 49.4	
	comp=N,35nm,18.4s,baz=174,slow=32						
	comp=N,12nm,0.3s						
CMIG				AML	AML		
CRIN	**San Cristobal**	**4.60**	**106**	P	**Pn**	**06 01 39.2**	**+3.5**
QUEN	**Al S del Volca**	**4.82**	**107**	P	**Pn**	**06 01 41.0**	**+2.4**
QUEN				S	**Sn**	**06 02 34.8**	**+1.7**
JTS	**Las Juntas de**	**7.47**	**119**	P	**Pn**	**06 02 15.2**	**+0.2**
	comp=N,0.6nm,0.3s,baz=317,slow=18,SNR=1.8						
	comp=N,0.9nm,0.3s						
JTS				AML	AML		
TXAR	**Lajitas Array**	**18.89**	**326**	P	**P**	**06 04 45.2**	**+0.5**
	baz=136,slow=10,SNR=5.9						
	comp=N,0.4nm,0.6s						
TKL	**Tuckaleechee C**	**22.63**	**17**	LR	LR	06 16 40.3	
	comp=N,45nm,18.0s,baz=190,slow=43						
SJG	**San Juan**	**24.75**	**77**	LR	LR	06 15 13.0	
	comp=N,31nm,20.1s,baz=202,slow=36						
PDAR	**Pinedale Array**	**32.55**	**335**	LR	LR	06 21 19.8	
	comp=N,29nm,18.3s,baz=320,slow=38						
NVAR	**Mina Array Bea**	**33.89**	**321**	P	**P**	**06 07 06.5**	**-0.1**
	comp=N,1.4nm,0.8s,baz=128,slow=7.6,SNR=9.8						
NVAR				PcP	**PcP**	**06 09 44.2**	**-0.1**
	comp=N,0.3nm,0.6s,baz=132,slow=2.5,SNR=4.1						
	comp=N,1.4nm,0.8s						
ILAR	**Eielson Array**	**62.96**	**337**	P	**P**	**06 10 47.3**	**-2.0**
	comp=N,0.4nm,0.7s,baz=115,slow=6.5,SNR=4.4						
	comp=N,0.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**146.08**	**342**	PKPbc	**PKPdf**	**06 20 01.7**	**-0.9**
	comp=N,1.5nm,0.3s,baz=338,slow=3.1,SNR=9.3						

THE 02 06:22:13.9, 38.°N±11.°×2.°7E±1.°7, h3km±14km, M3.2/6, MLh3.2/6, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BLCB	**Balcova**	**0.61**	**27**	P	Pg	06 22 25.4	-0.3
BLCB				AML	AML		
CHOS	**Chios island**	**0.74**	**318**	P	Pg	06 22 28.2	0.0
CHOS				S	Sb	06 22 39.2	-1.0
CHOS				AML	AML		
BODT	**Bodrum**	**0.92**	**147**	P	Pg	06 22 31.6	+0.1
BODT				AML	AML		
APE	**Apeiranthos**	**1.20**	**231**	S	Sb	06 22 53.6	+0.3
APE				AML	AML		
PRK	**Paraskevi**	**1.45**	**347**	P	Pn	06 22 40.0	-1.0
PRK				S	Sn	06 23 00.8	+0.2
YER	**Yerkesik**	**1.45**	**118**	P	Pn	06 22 40.5	-0.6
YER				AML	AML		

ISK ***02*** *06:22:18.7,38.°37N×27.°65E, h8km, ML3.7/33*
ATH ***02*** *06:22:18.4,38.°37N×27

SOMA	**Soma-Manisa**	**0.77**	**351**	Pg	**Pg**	**06 22 34.3**	**+0.3**
SOMA				AML	AML		
GCAM	**G?zelcaml?**	**0.78**	**207**	P	**Pg**	**06 22 33.5**	**-0.7**
GCAM				S	**Sg**	**06 22 44.8**	**+0.3**
GCAM	**G?zelcaml?**	**0.78**	**207**	Pg	**Pg**	**06 22 33.7**	**-0.6**
GCAM				AML	AML		
ESEN	**Aydn-Nazilli**	**0.79**	**139**	P	**Pb**	**06 22 34.7**	**-0.4**
ESEN				S	**Sg**	**06 22 43.6**	**-1.2**
FOCM	**Foa**	**0.81**	**293**	Pg	**Pg**	**06 22 34.4**	**-0.5**
FOCM				AML	AML		
HARTU	**Esme**	**0.88**	**93**	P	**Pg**	**06 22 36.2**	**+0.2**
HARTU				S	**Sg**	**06 22 46.3**	**-1.2**
DKL	**Dikili**	**0.91**	**318**	Pg	**Pb**	**06 22 37.1**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**0.91**	**318**	P	**Pb**	**06 22 37.4**	**+0.3**
DKL				S	**Sb**	**06 22 49.7**	**+0.4**
KRBN	**Karaburun**	**0.91**	**283**	Pg	**Pg**	**06 22 36.5**	**-0.2**
KRBN				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.95**	**261**	P	**Pb**	**06 22 37.6**	**-0.1**
ZEYE				S	**Sb**	**06 22 50.4**	**+0.1**
STEP	**BALIKESIR_Sava**	**0.98**	**1**	P	**Pg**	**06 22 37.9**	**-0.2**
STEP				S	**Sb**	**06 22 51.6**	**+0.3**
KRL1	**Karlovasi Samo**	**0.98**	**232**	P	**Pb**	**06 22 38.2**	**0.0**
KRL1				S	**Sg**	**06 22 50.7**	**-0.1**
DEMI	**Demirci**	**1.03**	**51**	P	**Pb**	**06 22 39.5**	**+0.3**
DEMI				S	**Sg**	**06 22 52.0**	**-0.5**
KARB	**zmir-Karabur**	**1.04**	**285**	P	**Pg**	**06 22 39.1**	**0.0**
KARB				S	**Sb**	**06 22 53.2**	**+0.3**
USAK	**Uak-Merkez**	**1.09**	**73**	P	**Pb**	**06 22 40.1**	**0.0**
USAK				S	**Sg**	**06 22 54.3**	**0.0**
CESE	**eme**	**1.09**	**267**	Pg	**Pg**	**06 22 39.4**	**-0.8**
CESE				AML	AML		
MLSB	**Milas**	**1.10**	**176**	Pg	**Pg**	**06 22 39.7**	**-0.7**
MLSB				AML	AML		
AYVA	**Ayvalik**	**1.20**	**320**	P	**Pg**	**06 22 42.1**	**0.0**
AYVA				S	**Sn**	**06 22 58.6**	**+0.3**
BUHA	**Balikesir, Bur**	**1.20**	**337**	P	**Pb**	**06 22 42.0**	**0.0**
BUHA				S	**Sb**	**06 22 57.6**	**0.0**
SIMA	**Simav-Kutahya**	**1.22**	**56**	Pn	**Pg**	**06 22 43.2**	**+0.5**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**1.23**	**55**	Pn	**Pg**	**06 22 43.4**	**+0.6**
SMAA				AML	AML		
MULA	**Mugla, Merkez-**	**1.24**	**156**	P	**Pn**	**06 22 41.6**	**-1.1**
MULA				S	**Sb**	**06 22 58.2**	**-0.8**
EAG2	**Marmaro, Chios**	**1.25**	**277**	P	**Pb**	**06 22 42.9**	**0.0**
EAG2				S	**Sn**	**06 23 00.9**	**+1.3**
BALB	**Balikesir**	**1.25**	**7**	Pn	**Pg**	**06 22 43.6**	**+0.4**
BALB				AML	AML		
BALB	**Balikesir**	**1.25**	**7**	P	Pn	**06 22 42.4**	**-0.3**
SIMV	**Simav**	**1.26**	**55**	P	**Pg**	**06 22 43.6**	**+0.1**
SIMV				S	**Sb**	**06 22 59.1**	**-0.4**
CHOS	**Chios island**	**1.28**	**270**	Pn	**Pn**	**06 22 43.4**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.28**	**270**	P	**Pg**	**06 22 43.8**	**0.0**
CHOS				S	**Sn**	**06 23 02.0**	**+1.4**
CHOS				AML	AML		
YAYO	**Edremit-Balk**	**1.30**	**339**	Pn	**Pn**	**06 22 43.3**	**-0.2**
YAYO				AML	AML		
YKAV	**Yalikavak-Bodr**	**1.31**	**194**	Pn	**Pn**	**06 22 43.6**	**0.0**
YKAV				AML	AML		
DNIZ	**Denizli-Tavas-**	**1.31**	**125**	P	**Pb**	**06 22 44.1**	**+0.1**
DNIZ				S	**Sg**	**06 23 01.8**	**+0.3**
BALY	**Balya**	**1.34**	**358**	P	**Pn**	**06 22 43.9**	**-0.1**
BALY				S	**Sb**	**06 23 01.3**	**-0.5**
TAVA	**DENIZLI_Tavas**	**1.34**	**133**	P	**Pn**	**06 22 44.1**	**0.0**
TAVA				S	**Sn**	**06 23 02.0**	**-0.1**
YER	**Yerkesik**	**1.35**	**159**	Pn	**Pb**	**06 22 44.5**	**0.0**
YER				AML	AML		
BKES	**Balkesir-Mer**	**1.35**	**8**	P	**Pn**	**06 22 43.5**	**-0.6**
BKES				S	**Sb**	**06 23 01.3**	**-0.6**
DURS	**Dursunbey**	**1.35**	**27**	P	**Pn**	**06 22 42.8**	**-1.4**
DURS				S	**Sb**	**06 23 01.5**	**-0.5**
SHAP	**Saphane-Kutahy**	**1.35**	**62**	Pn	**Pg**	**06 22 45.1**	**-0.1**
SHAP				AML	AML		
BODT	**Bodrum**	**1.37**	**193**	Pn	**Pn**	**06 22 44.1**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**1.37**	**193**	S	**Pg**	**06 22 43.8**	**-1.6**
PRK	**Paraskevi**	**1.39**	**308**	P	**Pn**	**06 22 44.8**	**+0.1**
PRK				S	**Sg**	**06 23 04.8**	**+0.7**
DST	**Dursunbey**	**1.41**	**31**	Pn	**Pg**	**06 22 45.9**	**-0.3**
DST				AML	AML		
PASA	**Karahalli, USA**	**1.42**	**91**	P	**Pb**	**06 22 45.6**	**-0.1**
PASA				S	**Sn**	**06 23 02.1**	**-1.7**
GEDZ	**Gediz**	**1.49**	**64**	Pn	**Pg**	**06 22 48.4**	**+0.5**
GEDZ				AML	AML		
KLNA	**Kalymnos**	**1.55**	**202**	P	**Pn**	**06 22 45.7**	**-1.1**
KLNA				AML	AML		
GDZ	**Gediz**	**1.56**	**63**	P	**Pg**	**06 22 48.8**	**-0.3**
GDZ				S	**Sb**	**06 23 07.9**	**-0.3**
APMY	**Acipayam-Deniz**	**1.57**	**125**	Pn	**Pb**	**06 22 47.9**	**-0.6**
APMY				AML	AML		
BAYC	**CANAKKALE_Bayr**	**1.61**	**327**	P	**Pb**	**06 22 49.0**	**0.0**
BAYC				S	**Sg**	**06 23 10.4**	**-0.5**
CMHT	**Manyas**	**1.63**	**8**	P	**Pn**	**06 22 46.8**	**-1.2**
CMHT				S	**Sn**	**06 23 07.9**	**-1.1**
KOCA	**Canakkale, Ayv**	**1.64**	**313**	P	**Pn**	**06 22 47.4**	**-0.6**
KOCA				S	**Sg**	**06 23 12.3**	**+0.4**
INCE	**Denizli-Bozkur**	**1.64**	**114**	P	**Pb**	**06 22 49.0**	**-0.5**
INCE				S	**Sg**	**06 23 13.2**	**+1.2**
DAT	**Datca**	**1.67**	**183**	Pn	**Pn**	**06 22 48.7**	**+0.1**
DAT				AML	AML		
TURN	**Turunc**	**1.68**	**165**	P	**Pn**	**06 22 47.7**	**-0.9**
TURN				S	**Sg**	**06 23 13.0**	**-0.1**
TURN	**Turunc**	**1.68**	**165**	Pn	**Pn**	**06 22 48.1**	**-0.5**
TURN				AML	AML		
YAZI	**Mula-Dat§a-**	**1.72**	**186**	P	**Pb**	**06 22 51.4**	**+0.5**
YAZI				S	**Sg**	**06 23 17.1**	**+2.5**
DALY	**Dalyan (Mula)**	**1.75**	**154**	P	**Pb**	**06 22 52.0**	**+0.5**
DALY				S	**Sg**	**06 23 17.9**	**+2.3**
DALY	**Dalyan (Mula)**	**1.75**	**154**	Pn	**Pn**	**06 22 50.1**	**+0.5**
DALY				AML	AML		
CAEL	**Denizli, Camel**	**1.81**	**134**	P	**Pg**	**06 22 54.1**	**+0.1**
CAEL				S	**Sg**	**06 23 20.8**	**+3.3**
BASM	**Basmaki-Afyon**	**1.92**	**104**	Pn	**Pn**	**06 22 52.8**	**+0.8**
BASM				AML	AML		
CAME	**Cameli-Denizli**	**1.94**	**138**	Pn	**Pn**	**06 22 52.9**	**+0.6**
CAME				AML	AML		
FETY	**Fethiye**	**2.08**	**147**	Pn	**Pn**	**06 22 54.9**	**+0.7**
FETY				AML	AML		
ARG	**Arkhangelos**	**2.21**	**171**	Pn	**Pn**	**06 22 56.2**	**+0.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.21**	**171**	P	**Pn**	**06 22 55.1**	**-0.8**
ARG				AML	AML		
LIA	**Limnos Island**	**2.46**	**308**	P	**Pn**	**06 22 59.8**	**+0.4**
LIA				AML	AML		
SMTH	**Samothraki Isl**	**2.66**	**322**	P	**Pn**	**06 23 02.8**	**+0.6**
ALN	**Alexandroupoli**	**2.80**	**334**	P	**Pn**	**06 23 04.7**	**+0.7**

NNC 02 06:24:46.9±2.1, 36.06N×68.75E, h0km, mb3.8, mpv3.5, 3C-1D, Error ellipse: s-maj=18.8km s-min=15.6km az=140.0, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**7.17**	**10**	P	Pn	06 26 33.9	+0.9
	0.4nm,0.2s,baz=198,slow=17,SNR=18						
KK31				⇑S	Sn	06 27 56.5	+1.5
	1.3nm,0.3s,baz=192,slow=19						
AAK	**Ala-Archa**	**7.94**	**32**	⇑P	Pn	06 26 43.4	-0.2
	3.2nm,0.7s						
AAK				⇓S	Sn	06 28 14.8	+0.6
	5.9nm,0.7s						
AB31	**Akbulak array**	**14.68**	**337**	P	Pn	06 28 14.4	-1.3
	1.0nm,0.7s,baz=150,slow=13,SNR=8.1						
MK31	**Makanchi Array**	**14.75**	**39**	⇑P	Pn	06 28 16.7	-0.1
	2.2nm,0.9s,baz=219,slow=9.0,SNR=5.8						

CNRM ***02*** *06:26:09.2, 36.15N×6.76W, h15km*
SFS ***02*** *06:26:12.7, 35.98N×7.55W, h11km, ML2.7/6, ML2.7/6, MLv2.7/6*
MDD ***02*** *06:26:13.7±1.6, 36.11N×7.47W, h0km, mb_Lg2.1/5, Error ellipse: s-maj=12.6km s-min=7.5km az=27.0*
INMG ***02*** *06:26:15.2±1.8, 36.05N×7.74W, h8km, ML1.2, Error ellipse: s-maj=14.3km s-min=13.4km az=61.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Golfo de Cadiz*
ISC 02 06:26:13.3±2.5, 36.1N±0.1×7.48W±0.06, h13km±11km, n27, σ0≤90/43, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBDV	**Barranco-do-Ve**	**1.21**	**342**	P	**Pb**	**06 26 36.2**	**+0.1**
PBDV				S	**Sg**	**06 26 52.1**	**-0.3**
PBDV	**Barranco-do-Ve**	**1.21**	**342**	*e*P	**Pg**	**06 26 36.6**	**-0.1**
PBDV				*e*S	**Sn**	**06 26 52.6**	**+0.4**
PBDV				IAML		06 26 55.7	
PBDV				IAML		06 26 56.7	
PBDV				IAML		06 27 04.9	
PVAQ	**Vaqueiros**	**1.33**	**352**	P	**Pn**	**06 26 33.7**	**-3.8**
PVAQ				S	**Sg**	**06 26 56.5**	**+0.3**
PVAQ	**Vaqueiros**	**1.33**	**352**	*e*P	**Pb**	**06 26 38.3**	**+0.3**
PVAQ				*e*S	**Sn**	**06 26 55.6**	**+0.5**
PVAQ				IAML		06 26 56.6	
PVAQ				IAML		06 26 57.1	
PVAQ				IAML		06 26 57.4	
EGRO	**El Granado**	**1.44**	**360**	P	**Pn**	**06 26 39.5**	**+0.3**
EGRO				S	**Sb**	**06 26 58.9**	**+0.6**
EGRO	**El Granado**	**1.44**	**360**	Pn	**Pn**	**06 26 38.2**	**-0.9**
EGRO				Sn	**Sb**	**06 26 58.4**	**+0.1**
EGRO				IVmb_Lg		06 27 00.2	
ESPR	**Espera**	**1.52**	**59**	S	**Sb**	**06 27 00.6**	**+0.1**
ESPR	**Espera**	**1.52**	**59**	Pn	**Pn**	**06 26 39.7**	**-0.4**
ESPR				IVmb_Lg		06 26 59.5	
ESPR				Sn	**Sb**	**06 27 00.8**	**+0.3**
PCVE	**Castro Verde**	**1.61**	**344**	P	**Pn**	**06 26 40.6**	**-0.8**
PCVE				S	**Sn**	**06 27 01.6**	**-0.4**
PCVE	**Castro Verde**	**1.61**	**344**	*e*P	**Pn**	**06 26 42.3**	**+0.9**
PCVE				*e*S	**Sn**	**06 27 02.5**	**+0.6**
PCVE				IAML		06 27 03.4	
PCVE				IAML		06 27 03.8	
PCVE				IAML		06 27 04.5	
EMIN	**Mina Concepcio**	**1.79**	**21**	P	**Pn**	**06 26 43.5**	**-0.4**
EMIN				S	**Sb**	**06 27 08.1**	**-0.3**
EMIN	**Mina Concepcio**	**1.79**	**21**	Pn	**Pn**	**06 26 43.7**	**-0.3**
EMIN				Sn	**Sn**	**06 27 07.0**	**+0.4**
PBAR	**Barrancos**	**2.11**	**9**	P	**Pn**	**06 26 48.4**	**+0.1**
PBAR				S	**Sn**	**06 27 14.8**	**+0.4**
PBAR	**Barrancos**	**2.11**	**9**	*e*S	**Sb**	**06 27 16.7**	**-0.9**
PBAR				IAML		06 27 19.2	
PBAR				IAML		06 27 19.7	
PBAR				IAML		06 27 21.2	
EMIJ	**Mijas**	**2.23**	**77**	S	**Sn**	**06 27 17.4**	**-0.1**
EVO	**Evora**	**2.48**	**350**	S	**Sn**	**06 27 23.7**	**+0.3**
ECAB	**El Cabril**	**2.58**	**39**	P	**Pn**	**06 26 54.8**	**0.0**
ECAB				S	**Sn**	**06 27 25.7**	**-0.2**
ECAB	**El Cabril**	**2.58**	**39**	Pn	**Pn**	**06 26 56.3**	**+1.6**
ECAB				Sn	**Sn**	**06 27 26.4**	**+0.5**
ECAB				IVmb_Lg		06 27 27.4	
EBAD	**Badajoz**	**2.69**	**8**	P	**Pn**	**06 26 56.3**	**+0.1**
EBAD				S	**Sn**	**06 27 29.3**	**+0.6**
EBAD	**Badajoz**	**2.69**	**8**	Pn	**Pn**	**06 26 56.7**	**+0.5**
EBAD				Sn	**Sn**	**06 27 29.4**	**+0.8**
EBAD				IVmb_Lg		06 27 35.6	
PARRA	**Arraiolos**	**2.76**	**351**	*e*P	**Pn**	**06 26 58.2**	**+1.0**
PARRA				*e*S	**Sn**	**06 27 30.9**	**+0.5**
PARRA				IAML		06 27 34.4	
PARRA				IAML		06 27 37.8	
EADA	**Adamuz**	**3.11**	**47**	P	**Pn**	**06 27 02.2**	**+0.1**
EADA				S	**Sn**	**06 27 38.8**	**-0.3**
EADA	**Adamuz**	**3.11**	**47**	Pn	**Pn**	**06 27 02.4**	**+0.3**
EADA				Sn	**Sn**	**06 27 38.1**	**-1.0**
EADA				IVmb_Lg		06 27 43.2	
AKLM	**AKL**	**3.35**	**117**	P	Pn	06 26 51.3	-14
AKLM				S	Sn	06 27 25.5	-18
CIBOR	**Castaar de Ib**	**3.90**	**24**	Sn	**Sn**	**06 27 56.3**	**-2.2**
MD31	**MD31**	**3.92**	**144**	P	Pn	06 27 06.0	-7.2
MD31				S	Sn	06 27 49.0	-10
MDT	**Midelt**	**4.04**	**143**	P	Pn	06 27 08.5	-8.4
MDT				S	Sn	06 27 53.3	-8.7

IDC ***02*** *06:28:58.6±0.6, 8.73N×122.12E, h0km, mb4.0/18, mbtmp4.0/18, MS3.2/9, Error ellipse: s-maj=41.5km s-min=13.4km az=63.0*
NEIC ***02*** *06:29:00.7±1.5, 8.6N±0.1×122.0E±0.1, h10km±1km, mb4.6/19, Error ellipse: s-maj=21.8km s-min=15.7km az=64.0*
MAN ***02*** *06:29:01.0, 8.69N×121.95E, h46km, MS3.9*
ISC 02 06:29:01.0±1.7, 8.67N±0.05×121.98E±0.05, h16km±11km, n66, σ0≤92/71, mb4.3/29, MS3.1/8, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DCPH	**Dipolog City**	**1.36**	**93**	*i* P	**Pn**	**06 29 24.6**	**-0.7**
DCPH				*i* S	**Pg**	**06 29 28.4**	**+1.1**
SNPH	**Sibulan**	**1.41**	**61**	*i* P	**Pn**	**06 29 25.5**	**-0.6**
SNPH				*i* S	**Sn**	**06 29 43.4**	**-1.0**
ZCP	**Zamboanga City**	**1.73**	**177**	*i* P	**Pb**	**06 29 32.5**	**+0.2**
ZCP				*i* S	**Sn**	**06 29 50.7**	**-1.4**
TBP	**Tagbilaran**	**2.12**	**61**	*e*P	**Pn**	**06 29 35.0**	**-0.8**
TBP				*i* S	**Sn**	**06 30 01.2**	**-0.6**
LLP	**Lapu-Lapu**	**2.56**	**50**	*i* P	**Pn**	**06 29 41.9**	**+0.1**
LLP				*e*S	**Sn**	**06 30 11.2**	**-1.3**
CGP	**Cagayan de Oro**	**2.69**	**94**	*e*P	**Pg**	**06 29 51.3**	**-1.4**
CGP				*e*S	**Sn**	**06 30 17.2**	**+1.2**
PPR	**Puerto Princes**	**3.39**	**289**	*e*P	**Pn**	**06 29 51.9**	**-1.4**
PLP	**Palo**	**3.86**	**50**	*e*P	**Pn**	**06 29 59.4**	**-0.4**
PLP				*e*S	**Sn**	**06 30 43.1**	**-1.6**
DAV	**Davao City (W)**	**3.90**	**114**	LR	LR	06 31 39.9	
	comp=Z,422nm,18.3s,baz=327,slow=42						
KKM	**Kota Kinabalu**	**6.28**	**246**	Pn	**Pn**	**06 30 32.7**	**-0.5**
TOLI2	**Tolitoli**	**7.60**	**189**	Pn	**Pn**	**06 30 51.3**	**+0.1**
GUMO	**Guam**	**22.98**	**76**	LR	LR	06 42 35.4	
	comp=Z,28nm,20.2s,baz=38,slow=36						
RPSI	**Rantau Prapat**	**23.69**	**257**	P	**P**	**06 34 11.5**	**-0.7**
RPSI				IAmb	IAmb	06 34 25.1	
	comp=Z,20nm,1.3s						
CMAR	**Chiang Mai Arr**	**24.39**	**296**	P	**P**	**06 34 20.1**	**+1.3**
	comp=Z,1.2nm,0.3s,baz=111,slow=9.0,SNR=11						
CMAR				LR	LR	06 42 54.6	
	comp=Z,59nm,21.7s,baz=90,slow=34						
	comp=Z,1.2nm,0.3s						
CMAR	**Chiang Mai Arr**	**24.39**	**296**	P	**P**	**06 34 18.1**	**-0.6**
WRA	**Warramunga Arr**	**30.92**	**157**	P	**P**	**06 35 16.9**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=337,slow=9.7,SNR=8.5						
WRA				PcP	**PcP**	**06 38 13.3**	**-0.5**
	comp=Z,0.4nm,0.6s,baz=330,slow=2.5,SNR=2.3						
	comp=Z,0.4nm,0.5s						
WRA	**Warramunga Arr**	**30.92**	**157**	P	**P**	**06 35 14.8**	**-2.5**
BRDH	**Bariadhala**	**32.27**	**299**	LR	LR	06 47 46.6	
	comp=Z,59nm,21.2s,baz=83,slow=35						
KRVT	**Keravat (AS076**	**32.62**	**112**	LR	LR	06 48 36.0	
	comp=Z,20nm,18.4s,baz=274,slow=36						
ASAR	**Alice Springs**	**34.18**	**160**	P	**P**	**06 35 46.7**	**+0.9**
	comp=Z,0.5nm,0.5s,baz=339,slow=6.8,SNR=11						
ASAR				PcP	**PcP**	**06 38 22.4**	**-0.3**
	comp=Z,0.4nm,0.4s,baz=353,slow=2.5,SNR=5.1						
	comp=Z,0.5nm,0.5s						
ASAR	**Alice Springs**	**34.18**	**160**	P	**P**	**06 35 45.4**	**-0.4**
ASAR					**PcP**	**06 38 20.7**	**-2.0**
EVN	**Everest**	**38.29**	**305**		**P**	**06 36 21.7**	**0.0**
EVN				IAmb	IAmb	06 36 34.6	
	comp=Z,6.0nm,0.8s						
HILR	**Hailar Array B**	**40.80**	**358**	P	**P**	**06 36 40.8**	**-0.8**
	comp=Z,1.3nm,0.4s,baz=197,slow=9.0,SNR=1.9						
	comp=Z,1.3nm,0.4s						
SONM	**Songino Array**	**41.21**	**344**	P	**P**	**06 36 44.7**	**-0.4**
	comp=Z,0.6nm,0.5s,baz=161,slow=9.2,SNR=2.8						
SONM				LR	LR	06 54 16.5	
	comp=Z,21nm,19.4s,baz=50,slow=37						
	comp=Z,0.6nm,0.5s						
SONM	**Songino Array**	**41.21**	**344**	P	**P**	**06 36 45.3**	**+0.2**
STKA	**Stephens Creek**	**44.46**	**156**	P	**P**	**06 37 12.6**	**+1.1**
	comp=Z,0.8nm,0.4s,baz=337,slow=11,SNR=3.3						
	comp=Z,0.8nm,0.4s						
STKA	**Stephens Creek**	**44.46**	**156**	P	**P**	**06 37 12.2**	**+0.7**
MKAR	**Makanchi Array**	**50.84**	**326**	P	**P**	**06 38 01.7**	**+0.8**
	comp=Z,1.7nm,0.7s,baz=130,slow=7.5,SNR=16						
MKAR				PcP	**PcP**	**06 39 16.9**	**-0.7**
	comp=Z,1.0nm,0.8s,baz=122,slow=3.2,SNR=5.0						
MKAR				LR	LR	07 00 09.7	
	comp=Z,45nm,19.5s,baz=5.5,slow=37						
	comp=Z,1.7nm,0.7s						
MKAR	**Makanchi Array**	**50.84**	**326**	P	**P**	**06 38 02.2**	**+1.2**
MKAR					**PcP**	**06 39 17.4**	**-0.2**
NIL	**Nilore**	**51.20**	**306**	P	**P**	**06 38 04.7**	**+0.8**
NIL				IAmb	IAmb	06 38 06.4	
	comp=Z,14nm,1.0s						
ZALV	**Zalesovo Beam**	**54.09**	**334**	P	**P**	**06 38 25.4**	**+0.6**
	comp=Z,0.6nm,0.3s,baz=141,slow=7.3,SNR=3.3						
	comp=Z,0.6nm,0.3s						
ZALV	**Zalesovo Beam**	**54.09**	**334**	P	**P**	**06 38 25.2**	**+0.3**
KURBB	**Kurchatov Arra**	**55.07**	**328**	P	**P**	**06 38 33.1**	**+1.1**
	comp=Z,1.5nm,0.7s,baz=129,slow=6.5,SNR=11						
	comp=Z,1.5nm,0.7s						
KURK	**Kurchatov**	**55.07**	**328**		**P**	**06 38 33.2**	**+1.2**
KURK				IAmb	IAmb	06 38 35.6	
	comp=Z,5.0nm,1.1s						
KK31	**Karatay Array**	**56.42**	**317**		**P**	**06 38 41.7**	**-0.2**
KKAR	**Karatay Array**	**56.42**	**317**		**P**	**06 38 42.1**	**+0.1**
BVAR	**Borovoye Array**	**60.64**	**327**	P	**P**	**06 39 11.9**	**+0.7**
	comp=Z,1.1nm,0.5s,baz=111,slow=7.1,SNR=5.1						
	comp=Z,1.1nm,0.5s						
TIXI	**Tiksi**	**63.07**	**2**	P	**P**	**06 39 26.7**	**-0.5**
TIXI				IAmb	IAmb	06 39 27.7	
	comp=Z,3.8nm,0.8s						
AB31	**Akbulak array**	**65.36**	**320**	IAmb	IAmb	06 39 44.5	
	comp=Z,2.5nm,0.8s						
ABKAR	**Akbulak array**	**65.36**	**320**	P	**P**	**06 39 43.2**	**+0.6**
AKTO	**Aktyubinsk**	**66.88**	**321**	P	**P**	**06 39 52.6**	**+0.2**
	comp=Z,2.2nm,0.5s,baz=88,slow=3.9,SNR=6.0						
	comp=Z,2.2nm,0.5s						
ARTI	**Arti**	**68.35**	**328**	P	**P**	**06 40 01.9**	**+0.4**
	comp=Z,2.2nm,0.5s,baz=162,slow=4.6,SNR=4.3						
	comp=Z,2.2nm,0.5s						
ARTI	**Arti**	**68.35**	**328**	P	**P**	**06 40 01.9**	**+0.4**
URZ	**Urewera**	**69.35**	**136**	LR	LR	07 13 28.2	
	comp=Z,24nm,18.5s,baz=284,slow=38						
AFI	**Afiamalu**	**69.45**	**108**	LR	LR	07 08 00.9	
	comp=Z,27nm,18.5s,baz=102,slow=34						
KBZ	**Khabaz**	**76.18**	**313**	P	**P**	**06 40 49.7**	**+1.2**
	comp=Z,2.1nm,0.8s,baz=269,slow=2.2,SNR=4.0						
	comp=Z,2.1nm,0.8s						
IMAR	**Indian Mountai**	**79.81**	**24**	P	**P**	**06 41 09.5**	**+1.2**
G21K	**Allakaket**	**79.92**	**24**	P	**P**	**06 41 10.2**	**+1.3**
G21K				IAmb	IAmb	06 41 24.3	
	comp=Z,5.2nm,1.1s						
IL31		**82.71**	**26**	P	**P**	**06 41 23.0**	**-0.7**
IL31				IAmb	IAmb	06 41 58.6	
	comp=Z,5.0nm,1.4s						
ILAR	**Eielson Array**	**82.71**	**26**	P	**P**	**06 41 23.8**	**0.0**
	comp=Z,0.3nm,0.7s,baz=258,slow=5.8,SNR=3.6						
	comp=Z,0.3nm,0.7s						
ILAR	**Eielson Array**	**82.71**	**26**	P	**P**	**06 41 23.4**	**-0.3**
BRTR	**Keskin Array B**	**83.26**	**309**	P	**P**	**06 41 27.9**	**+0.6**
	comp=Z,1.4nm,0.7s,baz=117,slow=5.3,SNR=5.1						
	comp=Z,1.4nm,0.7s						
BRTR	**Keskin Array B**	**83.26**	**309**	P	**P**	**06 41 26.6**	**-0.7**
BMAR	**Burnt Mountain**	**83.39**	**23**	P	**P**	**06 41 28.9**	**+1.6**
C27K	**Jago River**	**83.44**	**21**	P	**P**	**06 41 28.8**	**+1.3**
E28M	**Babbage River**	**85.08**	**21**	P	**P**	**06 41 37.1**	**+1.3**
E28M				IAmb	IAmb	06 41 49.7	
	comp=Z,7.5nm,1.1s						
AKASG	**Malin Array Be**	**85.11**	**320**	P	**P**	**06 41 35.9**	**-0.4**
	comp=Z,0.5nm,0.5s,baz=72,slow=3.6,SNR=7.0						
	comp=Z,0.5nm,0.5s						
BCAR	**Beaver Creek A**	**85.16**	**27**	P	**P**	**06 41 36.9**	**+0.5**
FINES	**FINESS Array B**	**85.27**	**331**	P	**P**	**06 41 36.6**	**-0.2**
	comp=Z,2.7nm,0.8s,baz=46,slow=8.4,SNR=2.0						
	comp=Z,2.7nm,0.8s						
FINES	**FINESS Array B**	**85.27**	**331**	P	**P**	**06 41 37.2**	**+0.3**
H29M	**Whitestone**	**86.01**	**24**	P	**P**	**06 41 41.7**	**+1.3**
H29M				IAmb	IAmb	06 41 53.3	
	comp=Z,4.5nm,0.8s						
INK	**Inuvik**	**87.31**	**21**	P	**P**	**06 41 47.4**	**+0.7**
INK				IAmb	IAmb	06 42 01.6	
	comp=Z,6.0nm,1.4s						
VNDA	**Vanda**	**88.91**	**172**	P	**P**	**06 41 53.5**	**-0.6**
	comp=Z,0.9nm,0.9s,baz=274,slow=6.5,SNR=4.0						
	comp=Z,0.9nm,0.9s						
VNDA	**Vanda**	**88.91**	**172**	P	**P**	**06 41 54.4**	**+0.3**
TXAR	**Lajitas Array**	**122.05**	**47**	PKP	**PKiKP**	**06 47 56.3**	**+0.5**
	comp=Z,0.5nm,0.9s,baz=296,slow=1.3,SNR=3.6						
PLCA	**Paso Flores**	**146.18**	**163**	PKPbc	**PKPbc**	**06 48 41.3**	**+0.3**
	comp=Z,0.9nm,0.6s,baz=273,slow=2.7,SNR=4.7						

ISK ***02*** *07:09:20.3, 38.90N×26.01E, h8km, ML2.7/18*
THE ***02*** *07:09:21.2, 39.N±3.×2.6E±., h0km±6km, M2.5/6, MLh2.5/6*
AFAD ***02*** *07:09:21.9, 38.85N×26.03E, h7km±5km, ML2.2*
ATH ***02*** *07:09:21.3, 38.88N×26.15E, h17km±3km, ML2.6/6, Latitude uncertainty: 1 km; Longitude uncertainty: 3 km*
**ISC 02 07:09:21.1±1.1, 38.90N±0.02×26.04E±0.03, h6km±10

SOMA	**Soma-Manisa**	**1.19**	**77**	Pn	**Pb**	**07 09 44.1**	**+0.1**
SOMA				AML	AML		
LIA	**Limnos Island**	**1.20**	**327**	P	**Pb**	**07 09 43.3**	**-0.8**
LIA				S	**Sn**	**07 10 00.7**	**-0.2**
LIA				AML	AML		
LIA	**Limnos Island**	**1.20**	**327**	P	**Pn**	**07 09 44.3**	**0.0**
LIA				S	**Sn**	**07 10 01.2**	**+0.4**
COMU	**Canakkale**	**1.24**	**15**	Pn	**Pn**	**07 09 44.7**	**-0.3**
COMU				AML	AML		
GADA	**Gvkgeada**	**1.29**	**355**	Pn	**Pn**	**07 09 45.2**	**-0.4**
GADA				AML	AML		
CANM	**Can-anakkale**	**1.36**	**35**	Pn	**Pn**	**07 09 46.3**	**-0.2**
CANM				AML	AML		
YENI	**Yenice-Canakka**	**1.39**	**42**	Pn	**Pn**	**07 09 46.9**	**-0.1**
GELI	**Tayfur-Gelibol**	**1.53**	**12**	Pn	**Pn**	**07 09 48.5**	**-0.4**
GELI				AML	AML		
LPK	**Lapseki**	**1.57**	**20**	Pn	**Pn**	**07 09 49.2**	**-0.3**
LPK				AML	AML		
BALB	**Balikesir**	**1.61**	**62**	Pn	**Pn**	**07 09 49.8**	**-0.1**
BALB				AML	AML		
SMTH	**Samothraki Isl**	**1.62**	**346**	P	**Pn**	**07 09 50.1**	**0.0**
SMTH				S	**Sb**	**07 10 12.5**	**+0.5**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.62**	**346**	P	**Pn**	**07 09 49.5**	**-0.6**
BIGA	**Biga-Canakkale**	**1.62**	**31**	Pn	**Pn**	**07 09 50.1**	**-0.1**
AOS	**Alonnisos**	**1.71**	**280**	P	**Pn**	**07 09 51.7**	**+0.4**
GONE	**Gonen-Balikesi**	**1.71**	**47**	Pn	**Pn**	**07 09 51.4**	**0.0**
GONE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.74**	**123**	Pn	**Pn**	**07 09 52.1**	**+0.3**
AYDB				AML	AML		
KRBG	**Karabiga-Canak**	**1.78**	**33**	Pn	**Pn**	**07 09 52.1**	**-0.2**
KRBG				AML	AML		
EDC	**Edincik**	**2.02**	**44**	Pn	**Pn**	**07 09 55.7**	**+0.1**

NNC 02 07:29:04.5±6.0, 37°26N×70°73E, h0km, mb3.9, mpv3.6, 3C-1D, Error ellipse: s-maj=48.5km s-min=38.1km az=159.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**5.84**	**358**	P	Pn	07 30 32.9	+0.6
	5.6nm,0.4s,baz=180,slow=13,SNR=40						
KK31				⇓S	Sn	07 31 41.3	+1.4
	6.3nm,0.5s,baz=180,slow=18						
AAK	**Ala-Archa**	**6.10**	**27**	⇑P	Pn	07 30 35.7	-0.4
	1.2nm,0.4s						
AAK				⇑S	Sn	07 31 47.3	+0.7
	4.3nm,0.5s						
AB31	**Akbulak array**	**14.31**	**330**	⇑P	Pn	07 32 28.1	-0.2
	0.4nm,0.3s,baz=165,slow=12,SNR=30						

*IDC **02** 07:50:11.7±5.7, 36°34N×70°42E, h222km±54km, mb2.9/4, mbtmp3.7/8, Error ellipse: s-maj=44.4km s-min=32.2km az=10.0*

ISC 02 07:50:10.0±1.2, 36°3N±0°1×70°3E±0°2, h204km, n15, σ1°29/16, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UCH	**Uchtor**	**6.78**	**27**	P	**Pn**	**07 51 49.2**	**+1.5**
	SNR=28						
EKS2	**Erkin-Say**	**6.92**	**22**	P	**Pn**	**07 51 50.5**	**+1.3**
	SNR=39						
AAK	**Ala-Archa**	**7.13**	**26**	P	**Pn**	**07 51 53.1**	**+1.1**
	23nm,0.3s,baz=182,slow=5.8,SNR=61						
AAK				S	**S**	**07 53 11.6**	**-1.4**
	6.8nm,0.8s,baz=23,slow=20,SNR=3.8						
AAK	**Ala-Archa**	**7.13**	**26**	P	**Pn**	**07 51 53.6**	**+1.6**
	SNR=18						
KBK	**Karagaybulak**	**7.31**	**28**	P	**Pn**	**07 51 55.8**	**+1.4**
	SNR=8.4						
ULHL	**Ulahol**	**7.53**	**36**	P	**Pn**	**07 51 59.4**	**+2.1**
	SNR=10						
USP	**Ospenovka**	**7.69**	**23**	P	**Pn**	**07 52 00.4**	**+1.3**
	SNR=9.0						
TKM2	**Tokmak 2**	**7.79**	**30**	P	**Pn**	**07 52 01.9**	**+1.2**
	SNR=8.1						
MKAR	**Makanchi Array**	**13.80**	**37**	P	**P**	**07 53 18.4**	**-0.8**
	1.9nm,0.8s,baz=223,slow=14,SNR=14						
KURBB	**Kurchatov Arra**	**15.52**	**20**	P	**P**	**07 53 37.3**	**-0.8**
	0.7nm,0.7s,baz=211,slow=11,SNR=4.4						
BVAR	**Borovoye Array**	**16.75**	**0**	P	**P**	**07 53 51.0**	**-0.7**
	1.6nm,0.5s,baz=171,slow=11,SNR=7.3						
ZALV	**Zalesovo Beam**	**20.35**	**25**	P	**P**	**07 54 30.4**	**-0.2**
	1.0nm,0.5s,baz=209,slow=10,SNR=3.7						
	1.0nm,0.5s						
TORD	**Torodi Ar. Bea**	**65.16**	**268**	P	**P**	**08 00 29.8**	**+0.3**
	0.3nm,0.6s,baz=34,slow=3.7,SNR=1.7						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**82.34**	**121**	P	**P**	**08 02 08.6**	**-0.5**
	0.1nm,0.4s,baz=313,slow=5.6,SNR=1.5						
	0.1nm,0.4s						
ASAR	**Alice Springs**	**84.57**	**124**	P	**P**	**08 02 20.0**	**-0.5**
	0.2nm,0.6s,baz=304,slow=5.1,SNR=5.6						
	0.2nm,0.6s						

*IDC **02** 07:54:51.3±0.7, 81°53N×18°23W, h0km, mb3.7/15, mbtmp3.8/19, ML4.0/4, MS3.4/6, Error ellipse: s-maj=24.0km s-min=10.5km az=13.0*

*NEIC **02** 07:54:52.1±0.9, 81°5N±0°1×18°4W±0°3, h10km±1km, mb4.3/55, Error ellipse: s-maj=18.2km s-min=4.8km az=20.0*

*BER **02** 07:54:52.7±2.7, 81°70N×18°67W, h0km±17km, Confirmed Earthquake*

*DNK **02** 07:54:52.0±4.5, 81°82N×17°24W, h19km±17km, ML3.1, Presumed earthquake*

ISC 02 07:54:51.6±0.4, 81°52N±0°06×18°14W±0°04, h10km, n115, σ1°50/119, mb4.2/38, MS3.8/5, 1C, Near north coast of Kalaallit Nunaat

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NOR	**Nord**	**0.23**	**70**	*e*P	**Pg**	**07 54 56.1**	**-0.1**
NOR	**Nord**	**0.23**	**70**	⇑*i*P	**Pg**	**07 54 57.1**	**+0.9**
NOR				*i* S	**Sg**	**07 54 58.8**	**-0.6**
NOR				IAML		07 55 00.3	
	comp=Z,7μm,0.3s						
DAG	**Danmarks Havn**	**4.78**	**181**	*e*P	**Pn**	**07 56 07.0**	**+3.5**
DAG				*e*S	**Sn**	**07 57 01.6**	**+2.7**
DAG	**Danmarks Havn**	**4.78**	**181**	*i* P	**Pn**	**07 56 07.7**	**+4.2**
DAG				*i* S	**Sn**	**07 57 01.6**	**+2.7**
DAG				IAML		07 57 28.9	
	comp=Z,82nm,0.9s						
BRBB	**Barentsburg B**	**6.58**	**104**	*e*P	**Pn**	**07 56 29.4**	**+1.2**
BRBB				*e*S	**Sn**	**07 57 41.9**	**-1.3**
BRBA	**Barentsburg A**	**6.61**	**105**	*e*P	**Pn**	**07 56 30.1**	**+1.6**
BRBA				IAMLHF		07 56 33.3	
	comp=Z,2.3nm,0.1s						
BRBA				*e*S	**Sn**	**07 57 41.3**	**-2.5**
SPA0	**Spitsbergen Ar**	**6.84**	**101**	*e*P	**Pn**	**07 56 32.4**	**+0.8**
SPA0				IAMLHF		07 56 34.0	
	comp=Z,4.2nm,0.2s						
SPA0				*e*S	**Sn**	**07 57 48.4**	**-1.0**
SPITS	**Spitsbergen Ar**	**6.84**	**101**	Pn	**Pn**	**07 56 31.7**	**+0.1**
	baz=320,slow=7.6						
SPITS				Sn	**Sn**	**07 57 45.4**	**-4.0**
	baz=319,slow=11						
	comp=Z,13nm,0.4s						
SPB2	**Spitsbergen Ar**	**6.84**	**101**	Pn	**Pn**	**07 56 32.4**	**+0.7**
NEEM	**North Greenlan**	**7.15**	**253**	*i* P	**Pn**	**07 56 37.6**	**+1.4**
NEEM				*i* S	**Sn**	**07 57 54.8**	**-2.7**
NEEM				IAML		07 58 04.1	
	comp=Z,46nm,0.3s						
DBG	**Daneborg**	**7.27**	**184**	*e*P	**Pn**	**07 56 39.2**	**+1.6**
DBG				*e*S	**Sn**	**07 57 56.6**	**-3.5**
DBG	**Daneborg**	**7.27**	**184**	*i* P	**Pn**	**07 56 39.6**	**+2.0**
DBG				*i* S	**Sn**	**07 57 56.5**	**-3.6**
DBG				IAML		07 58 12.9	
	comp=Z,27nm,0.7s						
SUMG	**Summit**	**9.97**	**217**	Pn	**Pn**	**07 57 14.3**	**-0.6**
SUMG	**Summit**	**9.97**	**217**	*i* P	**Pn**	**07 57 15.1**	**+0.2**
SUMG				*i* S	**Sn**	**07 59 02.6**	**-4.1**
SUMG				IAML		07 59 23.7	
	comp=Z,20nm,0.6s						
KULLO	**Kullorsuaq**	**10.36**	**250**	*i* P	**Pn**	**07 57 20.8**	**+0.9**
KULLO				*i* S	Sn	07 59 07.1	-8.7
KULLO				IAML		07 59 34.2	
	comp=Z,39nm,0.8s						
TULEG	**Thule**	**10.44**	**269**	Pn	**Pn**	**07 57 20.5**	**-0.5**
TULEG	**Thule**	**10.44**	**269**	*i* P	**Pn**	**07 57 22.1**	**+1.1**
TULEG				*i* S	Sn	07 59 07.1	-11
TULEG				IAML		07 59 31.4	
	comp=Z,23nm,0.6s						
SCO	**Scoresbysund**	**11.14**	**187**	Pn	**Pn**	**07 57 29.6**	**-0.9**
UPNV	**Upernavik**	**11.80**	**244**	*i* P	**Pn**	**07 57 38.7**	**-0.8**
UPNV				*i* S	Sn	07 59 40.4	-11
UPNV				IAML		08 00 03.8	
	comp=Z,50nm,1.2s						
NUUG	**Nuugaatsiaq**	**12.55**	**237**	*e*P	**Pn**	**07 57 46.7**	**-3.1**
NUUG				*e*S	Sn	07 59 58.3	-11
NUUG				IAML		08 00 11.4	
	comp=Z,26nm,0.7s						
SAATT	**Saattut**	**13.04**	**234**	*i* P	**Pn**	**07 57 56.2**	**-0.2**
SAATT				*i* S	Sn	08 00 09.5	-12
SAATT				IAML		08 00 37.9	
	comp=Z,21nm,0.8s						
SAQQ	**Saqqaq**	**13.83**	**233**	*i* S	Sn	08 00 29.5	-11
ILULI	**Ilulissat**	**14.49**	**231**	Pn	**Pn**	**07 58 15.3**	**-0.9**
ILULI	**Ilulissat**	**14.49**	**231**	*i* S	Sn	08 00 43.5	-13
GDH	**Godhavn**	**14.74**	**234**	*i* S	Sn	08 00 54.1	-8.5
POIN	**Pond Inlet**	**14.99**	**268**	Pn	**Pn**	**07 58 20.2**	**-2.8**
ARCES	**ARCESS Array B**	**15.53**	**115**	Pn	**Pn**	**07 58 31.5**	**+1.4**
	comp=Z,0.2nm,0.3s,baz=338,slow=9.2,SNR=6.3						
ARCES				LR	LR	08 03 52.5	
	comp=Z,44nm,19.2s,baz=143,slow=35						
	comp=Z,4.0nm,0.9s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**15.53**	**115**		**Pn**	**07 58 28.8**	**-1.4**
ARCES				IAmb	IAmb	07 59 09.2	
	comp=Z,22nm,1.5s						
KEV	**Kevo**	**15.53**	**113**	Pn	**Pn**	**07 58 29.6**	**-0.5**
RES	**Resolute Bay**	**15.76**	**288**	Pn	**Pn**	**07 58 29.4**	**-3.7**
	comp=Z,0.4nm,0.3s,baz=42,slow=13,SNR=12						
RES				Sn	Sn	08 01 13.2	-14
	comp=Z,0.7nm,0.3s,baz=139,slow=19,SNR=6.0						
	comp=Z,2.8nm,0.7s						
RES				AML	AML		
SFJD	**Kangerlussuaq**	**16.55**	**228**	Pn	**Pn**	**07 58 40.6**	**-2.7**
	comp=Z,0.7nm,0.3s,baz=26,slow=12,SNR=6.2						
SFJD				Sn	Sn	08 01 34.2	-13
	comp=Z,1.5nm,0.3s,baz=281,slow=22,SNR=6.4						
	comp=Z,5.5nm,0.8s						
SFJD				AML	AML		
SFJD	**Kangerlussuaq**	**16.55**	**228**		**Pn**	**07 58 40.7**	**-2.6**
SFJD				IAmb	IAmb	07 59 12.1	
	comp=Z,38nm,1.4s						
SFJD	**Kangerlussuaq**	**16.55**	**228**	*i* P	**Pn**	**07 58 43.2**	**-0.1**
SFJD				*i* S	Sn	08 01 37.3	-9.5
FRB	**Frobisher Bay**	**21.90**	**247**	LR	LR	08 07 27.6	
	comp=Z,62nn,18.3s,baz=63,slow=34						
NBO00	**NORSAR Array S**	**22.02**	**141**	P	**P**	**07 59 45.4**	**-0.2**
NBO00				IAmb	IAmb	08 00 28.6	
	comp=Z,21nm,1.1s						
NC405	**NORSAR Array S**	**22.03**	**140**	P	**P**	**07 59 45.7**	**+0.1**
NC405				IAmb	IAmb	07 59 50.5	
	comp=Z,19nm,1.1s						
NOA	**NORSAR Array B**	**22.05**	**141**	P	**P**	**07 59 48.5**	**+2.6**
	comp=Z,0.2nm,0.3s,baz=335,slow=8.7,SNR=1.1						
NOA				LR	LR	08 08 21.6	
	comp=Z,33nm,20.5s,baz=285,slow=37						
	comp=Z,0.2nm,0.3s						
NAO01	**NORSAR Array S**	**22.21**	**141**	P	**P**	**07 59 47.5**	**-0.2**
HFS	**Hagfors**	**23.18**	**138**	P	**P**	**07 59 59.3**	**+1.4**
	comp=Z,3.8nm,0.9s,baz=352,slow=10,SNR=2.8						
	comp=Z,3.8nm,0.9s						
FINES	**FINESS Array B**	**23.31**	**122**	P	**P**	**07 59 59.8**	**+0.7**
	comp=Z,3.2nm,0.8s,baz=337,slow=14,SNR=4.7						
	comp=Z,3.2nm,0.8s						
C27K	**Jago River**	**26.35**	**320**	P	**P**	**08 00 27.9**	**+0.8**
INK	**Inuvik**	**26.57**	**311**	P	**P**	**08 00 30.3**	**+1.3**
INK				IAmb	IAmb	08 00 36.9	
	comp=Z,3.6nm,0.9s						
EKA	**Eskdalemuir Ar**	**26.68**	**161**	P	**P**	**08 00 30.2**	**0.0**
	comp=Z,1.5nm,0.8s,baz=354,slow=14,SNR=1.6						
	comp=Z,1.5nm,0.8s						
E28M	**Babbage River**	**26.93**	**316**	P	**P**	**08 00 33.6**	**+1.3**
E29M	**Blow River**	**26.96**	**315**	P	**P**	**08 00 33.2**	**+0.5**
D24K	**Happy Valley**	**27.28**	**324**	P	**P**	**08 00 36.7**	**+1.2**
D24K				IAmb	IAmb	08 00 40.1	
	comp=Z,4.8nm,1.3s						
F30M	**Barrier River**	**27.49**	**313**	P	**P**	**08 00 37.9**	**+0.5**
F30M				IAmb	IAmb	08 00 48.9	
	comp=Z,10nm,1.4s						
E27K	**Coleen River**	**27.54**	**318**	P	**P**	**08 00 39.3**	**+1.4**
D23K	**Nanushuk River**	**27.62**	**325**	P	**P**	**08 00 40.0**	**+1.4**
D23K				IAmb	IAmb	08 00 42.5	
	comp=Z,7.0nm,1.4s						
TOLK	**Toolik Lake Re**	**27.84**	**324**	P	**P**	**08 00 41.2**	**+0.6**
TOLK				IAmb	IAmb	08 01 07.3	
	comp=Z,6.3nm,1.4s						
D20K	**Etivluk River**	**28.35**	**329**	P	**P**	**08 00 46.5**	**+1.4**
D20K				IAmb	IAmb	08 01 30.4	
	comp=Z,7.8nm,1.2s						
BMAR	**Burnt Mountain**	**28.57**	**319**	P	**P**	**08 00 47.3**	**+0.2**
EPYK	**Eagle Plains**	**28.79**	**313**	P	**P**	**08 00 49.9**	**+0.9**
H29M	**Whitestone**	**29.11**	**314**	P	**P**	**08 00 51.2**	**-0.6**
F21K	**Alatna River**	**29.57**	**326**	P	**P**	**08 00 55.3**	**-0.6**
F21K				IAmb	IAmb	08 01 23.3	
	comp=Z,2.1nm,0.7s						
YKAW3	**Yellowknife Wh**	**29.69**	**292**	P	**P**	**08 00 57.2**	**+0.3**
YKA	**Yellowknife Ar**	**29.76**	**292**	P	**P**	**08 00 56.7**	**-0.8**
I30M	**Mount Dempster**	**29.86**	**312**	P	**P**	**08 00 59.4**	**+0.8**
F20K	**Avaraart Lake**	**29.92**	**328**	P	**P**	**08 00 58.9**	**0.0**
F20K				IAmb	IAmb	08 01 37.6	
	comp=Z,3.5nm,1.3s						
I29M	**Ogilvie Camp,**	**29.94**	**313**	P	**P**	**08 00 59.9**	**+0.7**
I29M				IAmb	IAmb	08 01 04.1	
	comp=Z,7.3nm,1.3s						
I28M	**Miner Creek**	**30.02**	**315**	P	**P**	**08 01 00.8**	**+0.8**
I28M				IAmb	IAmb	08 01 23.0	
	comp=Z,4.2nm,1.4s						
I27K	**Kandik River**	**30.05**	**316**	P	**P**	**08 01 00.9**	**+0.8**
I27K				IAmb	IAmb	08 01 31.5	
	comp=Z,7.7nm,1.3s						
J30M	**Hart River**	**30.48**	**311**	P	**P**	**08 01 04.7**	**+0.6**
I26K	**Coal Creek Min**	**30.49**	**317**	P	**P**	**08 01 05.4**	**+1.4**
I26K				IAmb	IAmb	08 01 08.8	
	comp=Z,4.8nm,1.2s						
IMAR	**Indian Mountai**	**30.80**	**326**	P	**P**	**08 01 07.5**	**+0.7**
G19K	**Purcell Mounta**	**30.91**	**329**	P	**P**	**08 01 08.1**	**+0.3**
G19K				IAmb	IAmb	08 01 45.7	
	comp=Z,6.3nm,1.3s						
DAWY	**Dawson**	**31.31**	**314**	P	**P**	**08 01 12.3**	**+1.0**
DAWY				IAmb	IAmb	08 01 32.8	
	comp=Z,6.2nm,1.4s						
ILAR	**Eielson Array**	**31.38**	**320**	P	**P**	**08 01 13.5**	**+1.6**
	comp=Z,0.4nm,0.7s,baz=15,slow=8.5,SNR=3.1						
	comp=Z,0.4nm,0.7s						
ILAR	**Eielson Array**	**31.38**	**320**	P	**P**	**08 01 12.9**	**+1.0**
K27K	**Chicken**	**31.63**	**316**	P	**P**	**08 01 14.8**	**+0.8**
K27K				IAmb	IAmb	08 01 39.0	
	comp=Z,4.7nm,1.4s						
CLL	**Collm**	**31.84**	**142**	*e*P	**P**	**08 01 15.0**	**-1.0**
H18K	**Honhosa River**	**31.99**	**329**	P	**P**	**08 01 17.8**	**+0.5**
BCAR	**Beaver Creek A**	**32.54**	**315**	P	**P**	**08 01 23.3**	**+1.2**
ARTI	**Arti**	**32.74**	**91**	P	**P**	**08 01 23.4**	**-0.4**
	comp=Z,1.5nm,0.5s,baz=333,slow=9.9,SNR=2.0						
	comp=Z,1.5nm,0.5s						
ARTI	**Arti**	**32.74**	**91**	P	**P**	**08 01 23.8**	**-0.1**
ARTI				IAmb	IAmb	08 01 33.1	
	comp=Z,4.2nm,0.6s						
PAX	**Paxson**	**33.01**	**318**	P	**P**	**08 01 27.2**	**+0.9**
PAX				IAmb	IAmb	08 01 39.0	
	comp=Z,4.4nm,1.2s						
OJC	**Ojcow**	**33.59**	**134**	P	**P**	**08 01 31.7**	**+0.4**
AKASG	**Malin Array Be**	**34.20**	**124**	P	**P**	**08 01 39.0**	**+2.5**
	comp=Z,0.2nm,0.3s,baz=340,slow=9.0,SNR=2.5						
	comp=Z,0.2nm,0.3s						
L20K	**Farewell, AK**	**34.27**	**325**	P	**P**	**08 01 38.4**	**+1.3**
L20K				IAmb	IAmb	08 01 46.3	
	comp=Z,8.0nm,1.2s						
Q32M	**Nakina River**	**35.47**	**305**	P	**P**	**08 01 48.3**	**+0.5**
DLBC	**Dease Lake**	**35.71**	**303**	LR	LR	08 18 08.7	
	comp=Z,146nm,18.2s,baz=118,slow=39						
N18K	**Kilae Creek**	**36.22**	**326**	P	**P**	**08 01 54.8**	**+0.9**
P17K	**Kvichak River**	**37.73**	**326**	P	**P**	**08 02 08.2**	**+1.5**
BVAR	**Borovoye Array**	**37.77**	**80**	P	**P**	**08 02 07.1**	**-0.1**
	comp=Z,0.8nm,0.5s,baz=351,slow=8.9,SNR=1.9						
	comp=Z,0.8nm,0.5s						
ULM	**Lac du Bonnet**	**38.88**	**268**	P	**P**	**08 02 16.4**	**-0.1**
	comp=Z,1.4nm,0.6s,baz=4.8,slow=12,SNR=1.5						
	comp=Z,1.4nm,0.6s						
ULM	**Lac du Bonnet**	**38.88**	**268**	P	**P**	**08 02 16.7**	**+0.3**
ULM				IAmb	IAmb	08 02 17.5	
	comp=Z,7.0nm,1.2s						
LMN	**Caledonia Moun**	**38.88**	**234**	P	**P**	**08 02 16.4**	**-0.2**
KURBB	**Kurchatov Arra**	**41.29**	**73**	P	**P**	**08 02 37.3**	**+0.8**
	comp=Z,1.2nm,0.2s,baz=345,slow=6.9,SNR=4.4						
	comp=Z,1.2nm,0.2s						
MSO	**Missoula**	**44.87**	**284**	P	**P**	**08 03 06.2**	**+0.6**
MSO				IAmb	IAmb	08 03 08.7	
	comp=Z,2.6nm,0.9s						
CPNY	**Central Park**	**45.02**	**243**	P	**P**	**08 03 06.7**	**0.0**
ECSD	**EROS Data Cent**	**45.35**	**267**	P	**P**	**08 03 09.6**	**+0.2**
ECSD				IAmb	IAmb	08 03 15.5	
	comp=Z,5.3nm,0.9s						
BR131	**Keskin Array S**	**45.55**	**122**	P	**P**	**08 03 11.3**	**+0.2**
BR131				IAmb	IAmb	08 03 27.0	
	comp=Z,4.8nm,1.2s						
BRTR	**Keskin Array B**	**45.55**	**122**	P	**P**	**08 03 11.4**	**+0.3**
	comp=Z,0.4nm,0.5s,baz=46,slow=6.2,SNR=1.6						
	comp=Z,0.4nm,0.5s						
BRTR	**Keskin Array B**	**45.55**	**122**	P	**P**	**08 03 11.0**	**-0.1**
MK31	**Makanchi Array**	**45.57**	**71**	P	**P**	**08 03 11.4**	**+0.4**
MKAR	**Makanchi Array**	**45.57**	**71**	P	**P**	**08 03 12.9**	**+1.9**
	comp=Z,0.2nm,0.5s,baz=358,slow=11,SNR=2.3						
	comp=Z,0.2nm,0.5s						
MKAR	**Makanchi Array**	**45.57**	**71**	P	**P**	**08 03 11.7**	**+0.7**
YHH	**Holmes Hill**	**46.42**	**281**	P	**P**	**08 03 18.1**	**-0.1**
HDIL	**Hopedale**	**47.39**	**258**	P	**P**	**08 03 25.9**	**+0.5**
PDAR	**Pinedale Array**	**48.21**	**279**	P	**P**	**08 03 34.1**	**+2.1**
	comp=Z,0.2nm,0.5s,baz=6.4,SNR=2.3						
	comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**48.21**	**279**	P	**P**	**08 03 32.1**	**+0.1**
J05D	**Fort Rock, OR**	**49.38**	**290**	P	**P**	**08 03 41.1**	**+0.2**
TZTN	**Tazewell**	**50.50**	**252**	P	**P**	**08 03 50.1**	**+0.8**
ISCO	**Idaho Springs**	**50.54**	**275**	P	**P**	**08 03 51.1**	**+1.2**
BSUT	**Blindstream Ca**	**50.57**	**280**	P	**P**	**08 03 51.0**	**+0.7**
BSUT				IAmb	IAmb	08 04 03.5	
	comp=Z,6.9nm,1.4s						
ELK	**Elko**	**51.02**	**284**	LR	LR	08 27 55.9	
	comp=Z,79nm,19.1s,baz=359,slow=39						
YBH	**Yreka Blue Hor**	**51.11**	**291**	LR	LR	08 26 24.7	
	comp=Z,80nm,19.4s,baz=340,slow=37						
PV21	**Cone Mtn., Par**	**52.25**	**278**	P	**P**	**08 04 03.0**	**+0.3**
PV21				IAmb	IAmb	08 04 08.7	
	comp=Z,5.7nm,0.7s						
SDCO	**Great Sand Dun**	**52.54**	**274**	P	**P**	**08 04 06.0**	**+1.1**
PV18	**Skein Mesa, Pa**	**52.55**	**277**	P	**P**	**08 04 06.0**	**+1.2**
KVN	**Kaiserville**	**53.09**	**286**	P	**P**	**08 04 10.1**	**+1.3**
NVAR	**Mina Array Bea**	**53.73**	**286**	P	**P**	**08 04 15.1**	**+1.6**
	comp=Z,0.6nm,0.8s,baz=23,slow=6.2,SNR=5.8						
	comp=Z,0.6nm,0.8s						
NVAR	**Mina Array Bea**	**53.73**	**286**	P	**P**	**08 04 14.2**	**+0.7**
TXAR	**Lajitas Array**	**60.52**	**270**	P	**P**	**08 05 03.4**	**+1.9**
	comp=Z,0.9nm,0.7s,baz=47,slow=4.6,SNR=11						
	comp=Z,0.9nm,0.7s						
TXAR	**Lajitas Array**	**60.52**	**270**	P	**P**	**08 05 02.6**	**+1.1**

*NEIC **02** 07:56:21.6±1.1, 14°5S±0°1×167°5E±0°1, h162km±6km, mb4.3/18, Error ellipse: s-maj=20.5km s-min=7.2km az=137.0*

*IDC **02** 07:56:22.9±3.9, 14°58S×167°39E, h174km±32km, mb3.7/8, mbtmp4.1/9, MS3.2/2, Error ellipse: s-maj=25.7km s-min=22.6km az=52.0*

*NOU **02** 07:56:26.8, 14°82S×167°26E, h123km, MLv4.8/19, Vanuatu Islands*

ISC 02 07:56:22.0±0.6, 14°52S±0°07×167°5E±0°1, h170km, n47, σ0°88/47, mb4.1/15, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**0.96**	**196**	P	**Pn**	**07 56 47.9**	**-0.5**
SANVU	**Saraoutou**	**0.96**	**196**		**Pn**	**07 56 47.5**	**-0.9**
SANVU				Sn	**Sn**	**07 57 07.0**	**-1.9**
DVP	**Devils Point**	**3.25**	**168**	P	**Pn**	**07 57 13.6**	**+0.3**
INH	**Isangel**	**5.28**	**161**	P	**Pn**	**07 57 39.9**	**+0.5**
KOUNC	**Koumac, New Ca**	**6.73**	**207**	Pn	**Pn**	**07 57 57.2**	**-1.2**
KOUNC				Sn	**Sn**	**07 59 14.5**	**+0.1**
HURO	**Huro Makira**	**6.78**	**306**	P	Pn	07 58 04.5	+5.3
YATNC	**Mamie plateau,**	**7.52**	**184**	P	**Pn**	**07 58 08.9**	**0.0**
DZM	**Mont Dzumac**	**7.57**	**187**	P	**Pn**	**07 58 10.6**	**+0.8**
	7.4nm,0.6s,baz=30,slow=20,SNR=20						
DZM				S	**Sn**	**07 59 33.2**	**-1.6**
	2.9nm,0.6s,baz=97,slow=23,SNR=1.7						
NOUC	**Port Laguerre**	**7.62**	**188**	P	**Pn**	**07 58 11.1**	**+0.8**
NGOA	**Tingoa Renbel**	**7.81**	**291**	P	**Pn**	**07 58 15.2**	**+2.3**
OUENC	**Ouen Island, N**	**7.88**	**184**	P	**Pn**	**07 58 15.1**	**+1.4**
PINNC	**Pines Island,**	**8.05**	**180**	Pn	**Pn**	**07 58 16.5**	**+0.6**
SAVO	**Savo Central**	**9.21**	**305**	P	Pn	07 58 36.7	+5.3
TATA	**Tatamba Isabel**	**9.69**	**308**	P	Pn	07 58 43.8	+6.2
PMG	**Port Moresby**	**20.52**	**282**	LR	LR	08 07 41.8	
	comp=Z,86nn,18.1s,baz=133,slow=33						
**STKA

VIE 02 07:56:30.4±0.2, 48°21N×15°14E, h0km, ml1.5/3, ml1.4/3, Error ellipse: s-maj=1.5km s-min=1.0km az=132.0 2 km SSW of Maria Taferl Suspected Mining explosion., Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABNA	**Allensteig Bun**	**0.50**	**22**	*i* Pg	Pg	07 56 40.3	+0.3
	3.2nm,0.1s						
ABNA				*i* Sg	Sg	07 56 47.3	+0.8
	7.1nm,0.1s						
MOA	**Molln**	**0.69**	**239**	*i* Pg	Pg	07 56 43.7	+0.2
	0.2nm,0.1s						
MOA				*e*Sg	Sg	07 56 52.9	+0.5
	0.7nm,0.2s						
KRUC	**Moravsky**	**1.19**	**44**	*e*PG	Pg	07 56 53.0	-0.2
KRUC				*e*SG	Sg	07 57 08.0	-0.7

*THE **02** 07:57:05.0, 38°N±2°×2°7E±°, h6km±12km, M3.4/14, MLh3.4/14*
*ISK **02** 07:57:05.8, 38°16N×27°33E, h5km, ML3.8/41*
*AFAD **02** 07:57:06.4, 38°15N×27°34E, h7km±1km, MW3.7*
*ATH **02** 07:57:06.1, 38°16N×27°40E, h12km±2km, ML3.5/8, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 02 07:57:05.9±0.8, 38°14N±0°02×27°36E±0°02, h13km±6km, n86, σ0962/109, 3C-1D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DUVT	**Torbali**	**0.10**	**43**	P	**Pg**	**07 57 09.0**	**+0.1**
DUVT				S	**Sg**	**07 57 11.0**	**-0.1**
KUSD	**Kusadasi-Aydin**	**0.29**	**191**	Pg	**Pb**	**07 57 12.5**	**-0.4**
KUSD				Sg	**Sb**	**07 57 17.2**	**-0.5**
KUSD				AML	AML		
BLCB	**Balcova**	**0.35**	**314**	P	**Pg**	**07 57 11.9**	**-1.0**
BLCB				S	**Sg**	**07 57 17.5**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.35**	**314**	Pg	**Pg**	**07 57 12.9**	**0.0**
BLCB				Sg	**Sg**	**07 57 17.9**	**+0.3**
BLCB				AML	AML		
BEYE	**izmir**	**0.35**	**284**	P	**Pb**	**07 57 13.6**	**-0.4**
BEYE				S	**Sg**	**07 57 18.2**	**+0.5**
GMLD	**Gumuldur**	**0.35**	**259**	Pg	**Pb**	**07 57 13.9**	**-0.2**
GMLD				Sg	**Sb**	**07 57 19.1**	**-0.5**
GMLD				AML	AML		
DGB	**zmir**	**0.39**	**256**	P	**Pb**	**07 57 14.5**	**0.0**
DGB				S	**Sg**	**07 57 19.4**	**+0.6**
GCAM	**G?zelcaml?**	**0.45**	**193**	P	**Pb**	**07 57 15.4**	**-0.3**
GCAM				S	**Sb**	**07 57 22.5**	**+0.1**
GCAM	**G?zelcaml?**	**0.45**	**193**	Pg	**Pb**	**07 57 15.4**	**-0.3**
GCAM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.47**	**115**	Pg	**Pb**	**07 57 16.2**	**+0.2**
AYDB				AML	AML		
KRL1	**Karlovasi Samo**	**0.62**	**236**	P	**Pb**	**07 57 19.0**	**+0.4**
KRL1				S	**Sb**	**07 57 27.7**	**+0.4**
BAGT	**Foa**	**0.65**	**322**	P	**Pb**	**07 57 19.2**	**+0.2**
BAGT				S	**Sb**	**07 57 27.7**	**-0.3**
ZEYE	**Izmir, Urla-Ze**	**0.68**	**278**	P	**Pg**	**07 57 19.3**	**+0.2**
ZEYE				S	**Sb**	**07 57 29.2**	**+0.3**
DDIM	**Aydin, Didim**	**0.69**	**188**	P	**Pb**	**07 57 20.1**	**+0.3**
DDIM				S	**Sn**	**07 57 31.2**	**-0.8**
GOMA	**Golmarmara-Man**	**0.71**	**38**	Pg	**Pb**	**07 57 20.5**	**+0.3**
GOMA				AML	AML		
FOCM	**Foa**	**0.75**	**319**	Pg	**Pg**	**07 57 20.3**	**-0.2**
FOCM				Sg	**Sg**	**07 57 30.3**	**-0.1**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**0.76**	**103**	Pg	**Pb**	**07 57 21.3**	**+0.3**
NAZL				AML	AML		
DIDI	**Didim-Aydin**	**0.77**	**187**	Pg	**Pb**	**07 57 21.6**	**+0.4**
DIDI				AML	AML		
KRBN	**Karaburun**	**0.78**	**306**	Pg	**Pg**	**07 57 20.8**	**-0.1**
KRBN				AML	AML		
AKS	**Akhisar**	**0.82**	**26**	Pg	**Pg**	**07 57 21.7**	**0.0**
AKS				AML	AML		
CESE	**eme**	**0.85**	**283**	Pg	**Pb**	**07 57 22.5**	**-0.1**
CESE				Sg	**Sb**	**07 57 34.4**	**+0.5**
CESE				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**305**	P	**Pb**	**07 57 23.7**	**+0.2**
KARB				S	**Sn**	**07 57 36.6**	**-0.7**
MLSB	**Milas**	**0.91**	**158**	Pg	**Pn**	**07 57 24.1**	**-0.3**
MLSB				AML	AML		
DKL	**Dikili**	**0.99**	**339**	Pg	**Pg**	**07 57 25.2**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**0.99**	**339**	P	**Pg**	**07 57 25.1**	**+0.1**
DKL				S	**Sg**	**07 57 38.4**	**+0.4**
GORD	**Gordes-Manisa**	**1.00**	**40**	Pg	**Pn**	**07 57 25.6**	**-0.1**
GORD				AML	AML		
YKAV	**Yalikavak-Bodr**	**1.02**	**183**	Pg	**Pn**	**07 57 25.7**	**-0.2**
YKAV				AML	AML		
SOMA	**Soma-Manisa**	**1.02**	**8**	Pg	**Pb**	**07 57 25.5**	**+0.1**
SOMA				AML	AML		
CHOS	**Chios island**	**1.05**	**284**	P	**Pg**	**07 57 26.3**	**0.0**
CHOS				S	**Sn**	**07 57 41.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.05**	**284**	Pg	**Pg**	**07 57 26.2**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**1.05**	**284**	P	**Pn**	**07 57 26.4**	**0.0**
CHOS				S	**Sn**	**07 57 41.2**	**+0.1**
EAG2	**Marmaro, Chios**	**1.06**	**292**	P	**Pn**	**07 57 26.7**	**+0.3**
EAG2				S	**Sn**	**07 57 41.3**	**+0.2**
BODT	**Bodrum**	**1.08**	**182**	P	**Pb**	**07 57 25.5**	**-1.0**
BODT				AML	AML		
BODT	**Bodrum**	**1.08**	**182**	Pn	**Pg**	**07 57 26.5**	**-0.2**
BODT				AML	AML		
KLNA	**Kalymnos**	**1.22**	**195**	P	**Pg**	**07 57 29.6**	**+0.1**
KLNA				AML	AML		
YER	**Yerkesik**	**1.25**	**144**	P	**Pn**	**07 57 27.8**	**-1.3**
YER				AML	AML		
YER	**Yerkesik**	**1.25**	**144**	Pn	**Pg**	**07 57 30.5**	**+0.6**
YER				AML	AML		
PRK	**Paraskevi**	**1.39**	**323**	P	**Pn**	**07 57 30.5**	**-0.5**
PRK				S	**Sn**	**07 57 49.4**	**+0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.39**	**323**	P	**Pn**	**07 57 30.8**	**-0.2**
PRK				S	**Sb**	**07 57 50.1**	**+0.7**
TAVA	**DENIZLI_Tavas**	**1.41**	**118**	⇑P	**Pb**	**07 57 31.5**	**-0.5**
YAYO	**Edremit-Balk**	**1.48**	**351**	Pn	**Pb**	**07 57 33.8**	**+0.5**
YAYO				AML	AML		
BALB	**Balikesir**	**1.55**	**15**	Pn	**Pb**	**07 57 34.6**	**+0.2**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**1.58**	**53**	Pn	**Pb**	**07 57 35.6**	**+0.5**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**1.59**	**53**	Pn	**Pg**	**07 57 36.1**	**-0.3**
SMAA				AML	AML		
DALY	**Dalyan (Mula)**	**1.68**	**142**	Pn	**Pg**	**07 57 37.5**	**-0.6**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.68**	**113**	Pn	**Pb**	**07 57 37.1**	**+0.4**
APMY				AML	AML		
SHAP	**Saphane-Kutahy**	**1.70**	**58**	Pn	**Pb**	**07 57 37.3**	**+0.1**
SHAP				AML	AML		
DST	**Dursunbey**	**1.76**	**34**	Pn	**Pb**	**07 57 38.0**	**-0.1**
DST				AML	AML		
EZNE	**Ezine-Canakkal**	**1.79**	**335**	Pn	**Pb**	**07 57 38.0**	**-0.5**
YENI	**Yenice-Canakka**	**1.79**	**357**	Pn	**Pb**	**07 57 38.2**	**-0.4**
APE	**Apeiranthos**	**1.81**	**234**	P	**Pn**	**07 57 36.2**	**-0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.81**	**234**	⇑P	**Pg**	**07 57 40.9**	**+0.4**
APE				⇑S	**Sg**	**07 58 05.0**	**+1.1**
APE	**Apeiranthos**	**1.81**	**234**	Pn	**Pb**	**07 57 38.8**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.81**	**234**	P	**Pn**	**07 57 37.1**	**+0.3**
APE				AML	AML		
TNSA	**Tinos**	**1.84**	**252**	P	**Pb**	**07 57 38.3**	**-1.0**
GEDZ	**Gediz**	**1.84**	**60**	Pn	**Pg**	**07 57 40.5**	**-0.8**
GEDZ				AML	AML		
EZN	**Ezine**	**1.86**	**335**	P	**Pn**	**07 57 35.3**	**-2.2**
EZN				S	**Sb**	**07 58 03.2**	**+0.2**
EZN				AML	AML		
EZN	**Ezine**	**1.86**	**335**	Pn	**Pb**	**07 57 39.2**	**-0.6**
EZN				AML	AML		
CANM	**Can-anakkale**	**1.88**	**353**	Pn	**Pb**	**07 57 39.4**	**-0.7**
CANM				AML	AML		
SUSR	**Susurluk-Balik**	**1.90**	**17**	Pn	**Pn**	**07 57 38.4**	**+0.3**
SUSR				AML	AML		
GONE	**Gonen-Balikesi**	**1.92**	**8**	Pn	**Pb**	**07 57 39.9**	**-0.8**
GONE				AML	AML		
CAME	**Cameli-Denizli**	**1.96**	**127**	Pn	**Pb**	**07 57 40.3**	**-1.2**
CAME				AML	AML		
BOZC	**Bozcaada**	**1.98**	**329**	Pn	**Pn**	**07 57 40.1**	**+1.0**
BOZC				AML	AML		
ARG	**Arkhangelos**	**2.02**	**162**	P	**Pn**	**07 57 40.5**	**+0.9**
ARG				AML	AML		
COMU	**Canakkale**	**2.07**	**341**	Pn	**Pn**	**07 57 41.5**	**+1.1**
COMU				AML	AML		
TVSB	**Tavsanli**	**2.10**	**51**	Pn	**Pb**	**07 57 43.2**	**-0.7**
TVSB				AML	AML		
BIGA	**Biga-Canakkale**	**2.14**	**356**	Pn	**Pb**	**07 57 43.0**	**-1.5**
ORLT	**Orhaneli**	**2.25**	**32**	Pn	**Pb**	**07 57 44.9**	**-1.4**
ORLT				AML	AML		
KCTX	**Karacabey (Bur**	**2.26**	**20**	Pn	**Pn**	**07 57 44.6**	**+1.6**
KCTX				AML	AML		
KARY	**Karystos**	**2.31**	**268**	P	**Pn**	**07 57 43.6**	**0.0**
KARY				AML	AML		
KARY	**Karystos**	**2.31**	**268**	P	**Pn**	**07 57 44.1**	**+0.5**
THERA	**Ancient Thera,**	**2.32**	**221**	P	**Pn**	**07 57 45.1**	**+1.3**
THERA				AML	AML		
THR3	**Thira Island,**	**2.33**	**223**	P	**Pn**	**07 57 43.5**	**-0.4**
GADA	**Gvkgeada**	**2.34**	**331**	Pn	**Pn**	**07 57 44.2**	**+0.2**
GADA				AML	AML		
SNT5	**Nea Kammeni, S**	**2.34**	**223**	P	**Pn**	**07 57 42.4**	**-1.7**
SNT5				AML	AML		
LIA	**Limnos Island**	**2.44**	**317**	P	**Pn**	**07 57 45.4**	**0.0**
LIA				AML	AML		
LIA	**Limnos Island**	**2.44**	**317**	P	**Pn**	**07 57 45.7**	**+0.3**
LIA				AML	AML		
KARP	**Karpathos**	**2.60**	**184**	P	**Pn**	**07 57 48.1**	**+0.4**
KARP				AML	AML		
SMTH	**Samothraki Isl**	**2.72**	**329**	P	**Pn**	**07 57 49.2**	**-0.1**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**2.72**	**329**	P	**Pn**	**07 57 49.4**	**+0.1**
SMTH				AML	AML		
ENEZ	**Enez**	**2.75**	**341**	P	**Pn**	**07 57 49.7**	**0.0**
ENEZ				AML	AML		
ALN	**Alexandroupoli**	**2.93**	**340**	P	**Pn**	**07 57 52.1**	**-0.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**2.93**	**340**	P	**Pn**	**07 57 52.3**	**+0.1**
ALN				AML	AML		
THAS	**Thassos island**	**3.20**	**321**	P	**Pn**	**07 57 55.4**	**-0.4**
THAS	**Thassos island**	**3.20**	**321**	P	**Pn**	**07 57 55.8**	**0.0**
KEPZ	**Antalya-Kepez**	**3.60**	**109**	⇓P	**Pn**	**07 58 02.9**	**+1.5**

IDC 02 08:07:08.1±31.0, 23°10S×176°47W, h0km, mb4.3/4, mbtmp4.3/4, Error ellipse: s-maj=590.6km s-min=159.0km az=91.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**38.02**	**247**	P	P	08 14 27.4	-0.8
	1.9nm,0.5s,baz=90,slow=9.1,SNR=2.9						
	1.9nm,0.5s						
ASAR	**Alice Springs**	**45.37**	**259**	P	P	08 15 28.6	+0.1
	2.4nm,0.5s,baz=102,slow=8.2,SNR=31						
	2.4nm,0.5s						
WRA	**Warramunga Arr**	**45.70**	**264**	P	P	08 15 31.0	-0.2
	2.3nm,0.3s,baz=101,slow=8.1,SNR=9.5						
	2.3nm,0.3s						
FITZ	**Fitzroy Crossi**	**54.13**	**264**	P	P	08 16 35.5	+0.2
	1.6nm,0.4s,baz=108,slow=8.4,SNR=1.6						
	1.6nm,0.4s						

*SJA **02** 08:09:33.0±0.6, 32°.85S×72°.18W, h11km±2km, ML3.8, MW3.8*
*IDC **02** 08:09:34.8±0.9, 32°.84S×72°.29W, h0km, mb3.6/4, mbtmp3.6/9, ML3.8/5, Error ellipse: s-maj=21.0km s-min=17.5km az=155.0*
*NEIC **02** 08:09:34.7±2.2, 32°.84S±0°.03×72°.13W±0°.06, h10km±1km, mb4.2/9, Mwr3.8/34, Error ellipse: s-maj=8.8km s-min=4.0km az=64.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}5.21; $M_{\theta\theta}$-3.17; $M_{\phi\phi}$-2.04; $M_{r\theta}$1.84; $M_{\theta\phi}$2.47; $M_{\phi r}$-0.89; Fault plane solution: M_o5.56000×10^{14} NP1:ϕ_s313.06000°, δ34.65000°, λ97.50000°. NP2:ϕ_s123.97000°, δ55.69000°, λ84.85000°. Principal axes: T 5.6152, Plg79.0000°, Azm15.0000°; N -0.1018, Plg4.0000°, Azm127.0000°; P -5.5134, Plg11.0000°, Azm218.0000°;*
*NEIC **02** 08:09:34.7, 32°.83S×72°.13W, h10km*
*GUC **02** 08:09:37.4±0.9, 32°.87S×71°.96W, h29km±3km, ML3.9, Presumed earthquake*

ISC 02 08:09:32.5±1.3, 32°84S±0°02×72°15W±0°03, h2km±8km, n120, σ1955/161, mb4.0/7, 10C-4D, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VA01	**Torpederas**	**0.46**	**113**	*e*P	**Pn**	**08 09 44.1**	**-2.0**
VA01	**Torpederas**	**0.46**	**113**		**Pb**	**08 09 43.8**	**+0.5**
VA01	**Torpederas**	**0.46**	**113**	⇑eP	**Pb**	**08 09 43.8**	**+0.5**
VA01				*e*S	**Sb**	**08 09 49.1**	**-1.4**
MT02	**Curacav**	**0.94**	**116**	*e*P	Pg	08 09 33.6	-17
MT02				*e*S	**Sb**	**08 10 03.5**	**-1.1**
MT02				IAML		08 10 09.6	
	comp=Z,2μm,0.6s						
MT02	**Curacav**	**0.94**	**116**		**Pn**	**08 09 52.0**	**-0.9**
MT02	**Curacav**	**0.94**	**116**	⇑eP	**Pn**	**08 09 51.9**	**-0.9**
MT02				*e*S	**Sg**	**08 10 02.7**	**-0.2**
ROCH	**El Roble**	**0.96**	**98**	⇑eP	**Pn**	**08 09 52.2**	**-1.2**
ROCH				*e*P	**Pn**	**08 09 52.1**	**-1.2**
ROCH				*e*S	**Sg**	**08 10 03.2**	**-0.4**
ROCH				*e*S	**Sb**	**08 10 03.4**	**-2.0**
ROCH				IAML		08 10 05.8	
	comp=N,6μm,0.2s						
MT01	**Popeta**	**1.27**	**144**	*e*P	**Pg**	**08 09 57.5**	**+0.7**
MT01				*e*S	**Sn**	**08 10 13.6**	**-1.3**
MT01				IAML		08 10 15.7	
	comp=Z,2μm,0.4s						
MT01	**Popeta**	**1.27**	**144**		**Pg**	**08 09 57.4**	**+0.7**
MT01	**Popeta**	**1.27**	**144**	⇓eP	**Pg**	**08 09 57.4**	**+0.6**
MT01				*e*S	**Sb**	**08 10 12.9**	**-0.9**
MT01				IAML		08 10 16.5	
	comp=E,3μm,0.3s						
PEL	**Peldehue**	**1.27**	**104**	*e*P	**Pg**	**08 09 57.5**	**+0.8**
PEL				*e*S	**Sn**	**08 10 17.4**	**+2.5**
PEL				IAML		08 10 20.6	
	comp=Z,2μm,0.9s						
PEL	**Peldehue**	**1.27**	**104**		**Pg**	**08 09 57.5**	**+0.8**
PEL	**Peldehue**	**1.27**	**104**	*e*P	**Pg**	**08 09 56.9**	**+0.1**
PEL				*e*S	**Sb**	**08 10 11.9**	**-2.0**
PEL				IAML		08 10 17.6	
	comp=E,5μm,0.2s						
CO04	**Los Peladeros**	**1.27**	**52**		**Pg**	**08 09 57.7**	**+0.7**
CO04	**Los Peladeros**	**1.27**	**52**	*e*P	**Pg**	**08 09 57.8**	**+0.9**
CO04				*e*S	**Sg**	**08 10 13.9**	**+0.5**
CO04				IAML		08 10 17.7	
	comp=N,9μm,0.3s						
MT05	**Renca**	**1.30**	**115**	*e*P	**Pg**	**08 09 58.6**	**+1.1**
MT05				*e*S	**Sg**	**08 10 18.1**	**+3.7**
MT05				IAML		08 10 23.4	
	comp=Z,972nm,0.8s						
MT05	**Renca**	**1.30**	**115**		**Pg**	**08 09 58.5**	**+1.0**
MT05	**Renca**	**1.30**	**115**	*e*P	**Pg**	**08 09 58.3**	**+0.8**
MT05				*e*S	**Sb**	**08 10 13.3**	**-1.7**
MT05				IAML		08 10 18.5	
	comp=E,6μm,0.4s						
MT09	**Talagante**	**1.34**	**134**		**Pg**	**08 09 58.6**	**+0.3**
MT09	**Talagante**	**1.34**	**134**	⇓eP	**Pg**	**08 09 58.7**	**+0.4**
MT09				*e*S	**Sb**	**08 10 15.0**	**-1.3**
MT09				IAML		08 10 19.4	
	comp=N,5μm,0.3s						
VA03	**San Esteban**	**1.35**	**87**	*e*P	**Pg**	**08 09 58.6**	**+0.2**
VA03				*e*S	**Sn**	**08 10 15.6**	**-1.4**
VA03				IAML		08 10 15.7	
	comp=Z,4μm,0.5s						
VA03	**San Esteban**	**1.35**	**87**		**Pg**	**08 09 58.5**	**+0.1**
VA03	**San Esteban**	**1.35**	**87**	⇑eP	**Pg**	**08 09 58.4**	**+0.1**
VA03				*e*S	**Sb**	**08 10 14.0**	**-2.3**
VA03				IAML		08 10 15.7	
	comp=N,10μm,0.4s						
MT10	**Hacienda Santa**	**1.42**	**108**	*e*P	**Pg**	**08 10 00.0**	**+0.3**
MT10				*e*S	**Sn**	**08 10 15.9**	**-2.9**
MT10				IAML		08 10 23.9	
	comp=E,6μm,0.6s						
MT14	**Cerro Cal¡n**	**1.46**	**113**	⇑eP	**Pg**	**08 10 00.9**	**+0.4**
MT14				*e*S	**Sn**	**08 10 18.3**	**-1.4**
MT14				IAML		08 10 23.1	
	comp=N,6μm,0.6s						
MT16	**CCHEN**	**1.48**	**114**		**Pg**	**08 10 01.3**	**+0.3**
MT16	**CCHEN**	**1.48**	**114**	⇑eP	**Pg**	**08 10 01.2**	**+0.3**
MT16				*e*S	**Sn**	**08 10 18.2**	**-2.1**
MT16				IAML		08 10 21.1	
	comp=E,2μm,0.5s						
MT03	**Universidad Ad**	**1.52**	**116**	*e*P	**Pg**	**08 10 02.1**	**+0.5**
MT03				*e*S	**Sg**	**08 10 21.5**	**+0.2**
MT03				IAML		08 10 27.3	
	comp=Z,2μm,0.6s						
MT03	**Universidad Ad**	**1.52**	**116**		**Pg**	**08 10 01.9**	**+0.2**
MT03	**Universidad Ad**	**1.52**	**116**	IAML		08 10 28.4	
	comp=E,6μm,0.4s						
MT15	**Las Vizcachas**	**1.57**	**119**	*e*P	**Pg**	**08 10 02.5**	**-0.1**
MT15				*e*S	**Sb**	**08 10 21.7**	**-0.9**
MT15				IAML		08 10 27.5	
	comp=N,6μm,0.5s						
MT12	**Pirque**	**1.61**	**124**	*e*P	**Pb**	**08 10 02.8**	**-0.1**
MT12				*e*S	**Sn**	**08 10 21.2**	**-2.2**
MT12				IAML		08 10 31.8	
	comp=E,7μm,0.6s						
FCH	**Farellones**	**1.63**	**108**	*e*P	**Pb**	**08 10 03.4**	**-0.1**
FCH				*e*S	**Sn**	**08 10 23.1**	**-1.3**
FCH				IAML		08 10 29.0	
	comp=N,2μm,0.5s						
BO04	**La Punta**	**1.72**	**132**		**Pb**	**08 10 04.7**	**-0.2**
BO04	**La Punta**	**1.72**	**132**	⇑eP	**Pb**	**08 10 05.0**	**+0.1**
BO04				*e*S	**Sn**	**08 10 25.1**	**-1.1**
BO04				IAML		08 10 30.6	
	comp=E,2μm,0.6s						
MT04	**Ro Olivares**	**1.78**	**109**	*e*P	**Pb**	**08 10 06.0**	**0.0**
MT04				*e*S	**Sg**	**08 10 30.7**	**+1.0**
MT04				IAML		08 10 35.4	
	comp=Z,820nm,0.5s						
MT04	**Ro Olivares**	**1.78**	**109**	*e*P	**Pb**	**08 10 05.5**	**-0.4**
MT04				*e*S	**Sn**	**08 10 26.1**	**-1.7**
MT04				IAML		08 10 32.6	
	comp=E,2μm,0.5s						
BO01	**Tunca**	**1.78**	**150**	*e*P	**Pb**	**08 10 05.8**	**-0.1**
BO01				*e*S	**Sg**	**08 10 28.9**	**-0.8**
BO01				IAML		08 10 31.3	
	comp=Z,479nm,0.5s						
BO01	**Tunca**	**1.78**	**150**		**Pb**	**08 10 05.3**	**-0.6**
BO01	**Tunca**	**1.78**	**150**	⇑eP	**Pb**	**08 10 05.6**	**-0.3**
BO01				*e*S	**Sb**	**08 10 27.4**	**-1.3**
BO01				IAML		08 10 31.4	
	comp=E,493nm,0.6s						
MT13	**San Alfonso**	**1.80**	**120**	*e*P	**Pg**	**08 10 06.6**	**-0.4**
MT13				*e*S	**Sg**	**08 10 31.8**	**+1.4**
MT13				IAML		08 10 34.6	
	comp=Z,1μm,0.4s						
MT13	**San Alfonso**	**1.80**	**120**		**Pg**	**08 10 06.5**	**-0.6**
MT13	**San Alfonso**	**1.80**	**120**	*e*P	**Pg**	**08 10 06.6**	**-0.4**
MT13				*e*S	**Sn**	**08 10 26.8**	**-1.5**
MT13				IAML		08 10 33.3	
	comp=E,4μm,0.6s						
MT08	**Bocatoma Ro**	**1.89**	**109**	*e*P	**Pb**	**08 10 08.0**	**+0.2**
MT08				*e*S	**Sg**	**08 10 33.8**	**+0.7**
MT08				IAML		08 10 35.5	
	comp=Z,1μm,0.5s						
MT08	**Bocatoma Ro**	**1.89**	**109**		**Pb**	**08 10 07.7**	**-0.1**
MT08	**Bocatoma Ro**	**1.89**	**109**	*e*P	**Pb**	**08 10 07.6**	**-0.3**
MT08				*e*S	**Sb**	**08 10 30.9**	**-1.0**
MT08				IAML		08 10 36.2	
	comp=N,2μm,0.6s						
CO02	**Combarbal**	**1.90**	**31**	*e*P	**Pb**	**08 10 08.0**	**-0.1**
CO02				*e*S	**Sg**	**08 10 34.0**	**+0.3**
CO02				IAML		08 10 37.3	
	comp=Z,1μm,0.3s						
CO02	**Combarbal**	**1.90**	**31**		**Pb**	**08 10 08.0**	**-0.1**
CO02	**Combarbal**	**1.90**	**31**	⇑eP	**Pb**	**08 10 07.9**	**-0.1**
CO02				*e*S	**Sb**	**08 10 32.7**	**+0.4**
CO02				IAML		08 10 39.6	
	comp=E,5μm,0.5s						
LMEL	**Las Melosas**	**1.91**	**122**	*i* P	**Pb**	**08 10 08.1**	**-0.1**
LMEL				*i* S	**Sb**	**08 10 30.9**	**-1.8**
LMEL				IAML		08 10 36.4	
	comp=N,2μm,0.4s						
GO05	**Hualane**	**2.17**	**175**	*e*P	**Pb**	**08 10 11.1**	**-1.5**
GO05				*e*S	**Sn**	**08 10 31.4**	**-5.7**
GO05				IAML		08 10 48.1	
	comp=Z,349nm,0.8s						
GO05	**Hualane**	**2.17**	**175**		**Pb**	**08 10 11.1**	**-1.5**
GO05	**Hualane**	**2.17**	**175**	⇓eP	**Pb**	**08 10 11.0**	**-1.5**
GO05				*e*S	**Sb**	**08 10 39.6**	**-0.3**
GO05				IAML		08 10 50.1	
	comp=E,402nm,0.7s						
CO06	**Fray Jorge**	**2.21**	**12**		**Pb**	**08 10 11.3**	**-1.8**
CO06	**Fray Jorge**	**2.21**	**12**	⇑eP	**Pb**	**08 10 11.3**	**-1.8**
CO06				*e*S	**Sn**	**08 10 38.2**	**+0.2**
CO06				IAML		08 10 54.7	
	comp=E,432nm,0.4s						
BO02	**Sierra Bellavi**	**2.25**	**150**	*e*P	**Pb**	**08 10 13.6**	**-0.4**
BO02				*e*S	**Sn**	**08 10 38.4**	**-1.0**
BO02				IAML		08 10 44.5	
	comp=Z,545nm,0.5s						
BO02	**Sierra Bellavi**	**2.25**	**150**		**Pb**	**08 10 13.0**	**-1.0**
BO02	**Sierra Bellavi**	**2.25**	**150**	⇓eP	**Pb**	**08 10 13.2**	**-0.8**
BO02				*e*S	**Sb**	**08 10 41.2**	**-1.2**
BO02				IAML		08 10 50.1	
	comp=E,1μm,0.3s						
RTLS	**Leoncito**	**2.63**	**67**	*e*P	**Pb**	**08 10 20.8**	**+0.3**
RTLS				*e*S	**Sb**	**08 10 51.3**	**-2.0**
ARCO	**CERRO ARCO**	**2.71**	**91**	*e*P	**Pn**	**08 10 17.1**	**-0.2**
ARCO				*e*S	**Sb**	**08 10 52.1**	**-3.5**
ARCO				IAML		08 11 00.0	
	comp=Z,558nm,1.0s						
AAGR	**Agrelo**	**2.80**	**96**	*e*P	**Pb**	**08 10 23.9**	**+0.5**
AAGR				IAML		08 11 06.3	
	comp=Z,254nm,0.5s						
GO04	**Tololo Observa**	**2.90**	**24**	*e*P	**Pn**	**08 10 21.9**	**+2.0**
GO04				*e*S	**Sn**	**08 10 54.4**	**-1.2**
GO04				IAML		08 11 15.1	
	comp=Z,498nm,0.8s						
GO04	**Tololo Observa**	**2.90**	**24**		**Pn**	**08 10 21.8**	**+1.8**
GO04	**Tololo Observa**	**2.90**	**24**	*i* P	**Pn**	**08 10 21.6**	**+1.7**
GO04				*e*S	**Sb**	**08 10 57.6**	**-3.5**
GO04				IAML		08 11 08.8	
	comp=E,3μm,0.7s						
ML02	**Panimavida**	**2.97**	**168**

PLCA **Paso Flores** 7.98 171 Pn **Pn** **08 11 32.2 +2.6**
PSGCX **Pisagua** 13.32 8 Pn **Pn** **08 12 43.2 +0.4**
CPUP **Villa Florida** 14.43 67 Pn **P** **08 13 01.1 -3.8**
comp=Z,0.2nm,0.3s,baz=244,slow=18,SNR=5.4
comp=Z,0.3nm,0.3s
CPUP AML AML
CPUP Villa Florida 14.43 67 Pn 08 12 58.3 +0.5
AP01 Chacalluta 14.50 7 Pn Pn 08 12 58.7 -0.2
LPAZ La Paz 16.88 13 Pn P 08 13 32.4 -0.4
comp=Z,0.1nm,0.3s,baz=195,slow=8.4,SNR=4.2
comp=Z,2.4nm,0.8s
LPAZ AML AML
LPAZ La Paz 16.88 13 Pn Pn 08 13 30.7 0.0
SIV San Ignacio 19.55 34 P Pn 08 14 03.0 +0.1
baz=205,slow=12,SNR=2.6
comp=Z,0.6nm,0.5s
MG02 Cerro Sombrero 20.04 175 P Pn 08 14 07.9 -0.5
MG02 IAmb IAmb 08 14 20.7
comp=Z,5.0nm,0.8s
BOAV Boa Vista 36.73 20 P P 08 16 42.9 +1.6
BOAV IAmb IAmb 08 16 55.8
comp=Z,4.9nm,1.1s
URIC Uribia, Colomb 44.29 0 P P 08 17 44.3 +0.5
URIC IAmb IAmb 08 17 58.2
comp=Z,7.5nm,1.1s
SNAA Sanae 52.69 158 P P 08 18 49.0 +0.9
SNAA IAmb IAmb 08 18 57.0
comp=Z,2.0nm,1.1s
QSPA South Pole Qui 57.39 180 P P 08 19 22.9 +0.7
QSPA IAmb IAmb 08 19 37.0
comp=Z,3.5nm,1.1s
TXAR Lajitas Array 68.68 331 P P 08 20 40.6 +3.0
comp=Z,0.3nm,0.6s,baz=152,slow=8.4,SNR=4.1
comp=Z,0.3nm,0.6s
TXAR Lajitas Array 68.68 331 P P 08 20 37.3 -0.3
WHTX Lake Whitney, 68.77 337 P P 08 20 38.2 +0.2
PD31 Pinedale Array 82.69 333 P P 08 21 57.3 -0.4
PDAR Pinedale Array 82.69 333 P P 08 22 00.2 +2.4
comp=Z,0.1nm,0.3s,baz=207,slow=4.1,SNR=1.7
comp=Z,0.1nm,0.3s
PDAR Pinedale Array 82.69 333 P P 08 21 58.0 +0.3
NVAR Mina Array Bea 82.89 325 P P 08 22 02.3 +3.4
comp=Z,0.2nm,0.5s,baz=148,slow=5.9,SNR=3.1
comp=Z,0.2nm,0.5s
NVAR Mina Array Bea 82.89 325 P P 08 21 58.9 +0.1
TORD Torodi Ar. Bea 83.90 70 P P 08 22 06.0 +1.7
comp=Z,1.2nm,0.7s,baz=251,slow=5.3,SNR=4.5
comp=Z,1.2nm,0.7s
LPHEP Lephephe 83.97 114 P P 08 22 04.4 -0.4
BKB Balikpapan 145.02 196 PKPbc PKPbc 08 29 10.6 -0.9
TOLI2 Tolitoli 146.17 204 PKPdf PKPdf 08 29 13.4 -0.8
BORK Borovoye 146.44 42 PKPdf PKPbc 08 29 13.8 -0.9
BVAR Borovoye Array 146.49 42 PKPbc PKiKP 08 29 17.2 -0.7
comp=Z,1.0nm,0.5s,baz=305,slow=5.1,SNR=3.2
KURBB **Kurchatov Arra 152.08 42 PKPbc PKiKP 08 29 30.8 +1.4**
comp=Z,0.9nm,0.2s,baz=296,slow=2.9,SNR=4.4
ZALV Zalesovo Beam 153.29 31 PKPbc PKiKP 08 29 33.6 +1.8
comp=Z,1.0nm,0.6s,baz=326,slow=2.0,SNR=3.8

IDC ***02*** *08:09:51.8±0.4,2˚.43N×126˚.57E, h0km, mb4.4/25, mbtmp4.4/27, ML4.2/2, MS3.4/15, Error ellipse: s-maj=20.5km s-min=9.7km az=68.0*
GFZ ***02*** *08:09:52.9±0.2,2˚N±2˚×12˚7E±˚, h10km, M4.6/31, mb4.8/31, Error ellipse: s-maj=5.9km s-min=5.0km az=83.7, confirmed*
NEIC ***02*** *08:09:53.2±1.2,2˚.44N±0˚.07×126˚.84E±0˚.07, h10km±1km, mb4.6/59, Error ellipse: s-maj=14.0km s-min=10.1km az=46.0*
DJA ***02*** *08:09:56.6±0.6,2˚N±7˚×12˚7E±˚, h10km, M4.5/14, mB5.1/4, mb4.8/6, MLv4.5/14, Mw(mB)4.5/4*
ISC 02 08:09:52.7±1.0,2˚.44N±0˚.04×126˚.80E±0˚.05,h10km±6km, n181,σ1§20/179,mb4.6/78,MS3.4/14,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.75**	**161**		**Pn**	**08 10 23.0**	**-0.2**
TNTI	**Ternate**	**1.75**	**161**	P	**Pg**	**08 10 26.5**	**+0.1**
MNI	**Manado**	**2.19**	**243**	P	**Pg**	**08 10 34.9**	**+0.1**
MNI				AML	AML		
KMSI	**Cibinong**	**3.37**	**237**	P	**Pb**	**08 10 51.7**	**-0.9**
KMSI	**Cibinong**	**3.37**	**237**	P	**Pn**	**08 10 46.5**	**+1.1**
GTOI	**Gorontalo**	**4.19**	**245**	P	**Pb**	**08 11 02.8**	**-3.7**
GTOI				AML	AML		
SANI	**Sanana**	**4.54**	**190**	P	**Pn**	**08 11 04.9**	**+3.5**
SANI				AML	AML		
SANI	**Sanana**	**4.54**	**190**	P	**Pn**	**08 11 02.6**	**+1.1**
KCP	**Kidapawan**	**4.84**	**340**	*eP*	**Pb**	**08 11 14.0**	**-3.7**
KCP				*i* S	**Sb**	**08 12 11.8**	**-4.3**
LUWI	**Luwuk**	**5.31**	**229**	Pn	**Pn**	**08 11 12.0**	**0.0**
LUWI	**Luwuk**	**5.31**	**229**	P	Pn	08 11 18.1	+6.1
LUWI				AML	AML		
SIJI	**Sorong**	**5.55**	**126**	Pn	Pn	08 11 20.8	+5.4
	5.4nm,0.3s,baz=306,slow=14,SNR=10						
SIJI				LR	LR	08 13 52.2	
	comp=Z,565nm,21.6s,baz=280,slow=42						
	20nm,0.4s						
SIJI				AML	AML		
SIJI	**Sorong**	**5.55**	**126**	P	**Pn**	**08 11 18.6**	**+3.2**
	0.2nm42nm,0.9s						
SIJI				AML	AML		
SIJI	**Sorong**	**5.55**	**126**	P	**Pn**	**08 11 15.7**	**+0.3**
	comp=Z,39nm,0.9s						
APSI	**Ampana**	**6.13**	**237**	P	Pn	08 11 29.1	+5.7
	comp=Z,0.5nmcomp=Z,2µmcomp=Z,155nm,1.4s						
APSI				AML	AML		
APSI	**Ampana**	**6.13**	**237**	P	**Pn**	**08 11 24.1**	**+0.8**
	comp=Z,120nm,0.7s						
TOLI2	**Tolitoli**	**6.16**	**258**		**Pn**	**08 11 23.8**	**0.0**
TOLI2	**Tolitoli**	**6.16**	**258**	P	**Pn**	**08 11 25.4**	**+1.7**
	comp=Z,41nm,0.8s						
MPSI	**Mapaga**	**7.21**	**253**	P	**Pn**	**08 11 38.5**	**+0.3**
	comp=Z,24nm,0.6s						
FAKI	**Fak Fak**	**7.62**	**134**	Pn	**Pn**	**08 11 43.3**	**-0.6**
TTSI	**Tana Toraja**	**8.85**	**232**	P	**Pn**	**08 12 01.0**	**+0.2**
	comp=Z,23nm,1.0s						
KKM	**Kota Kinabalu**	**11.14**	**289**	Pn	**Pn**	**08 12 32.2**	**-0.1**
SAUI	**Saumlaki**	**11.29**	**157**	Pn	**Pn**	**08 12 33.3**	**-0.8**
SBUM	**Sibu**	**14.56**	**270**	Pn	**Pn**	**08 13 19.1**	**+0.1**
JAY	**Jayapura**	**14.75**	**109**	Pn	**P**	**08 13 26.2**	**-1.5**
	comp=Z,1.4nm,0.3s,baz=266,slow=10,SNR=7.0						
	comp=Z,6.3nm,0.6s						
JAY				AML	AML		
MTN	**Manton Dam**	**15.79**	**164**	Pn	**Pn**	**08 13 34.3**	**-0.9**
JAGI	**Jajag, Banyuwa**	**16.63**	**229**	Pn	**Pn**	**08 13 46.0**	**0.0**
KNRA	**Kununurra**	**18.11**	**174**		**Pn**	**08 14 03.5**	**-1.0**
KPJI	**Karang Pucung**	**20.30**	**241**	P	**P**	**08 14 29.1**	**+0.2**
	comp=Z,17nm,0.9s						
FITZ	**Fitzroy Crossi**	**20.44**	**183**	P	**P**	**08 14 31.7**	**+1.3**
	comp=Z,4.1nm,0.4s,baz=15,slow=9.5,SNR=41						
FITZ				S	**S**	**08 18 14.1**	**-5.3**
	comp=Z,2.1nm,0.9s,baz=356,slow=19,SNR=2.1						
	comp=Z,4.1nm,0.4s						
FITZ	**Fitzroy Crossi**	**20.44**	**183**		**P**	**08 14 31.0**	**+0.6**
FITZ	**Fitzroy Crossi**	**20.44**	**183**	P	**P**	**08 14 31.1**	**+0.6**
	comp=Z,4.1nm,0.6s						
TWG	**Pinlang**	**21.00**	**345**	P	**P**	**08 14 36.2**	**-0.3**
TWG	**Pinlang**	**21.00**	**345**	P	**P**	**08 14 36.6**	**+0.2**
	comp=Z,67nm,2.5s						
GUMO	**Guam**	**21.02**	**57**	LR	LR	08 22 34.2	
	comp=Z,43nm,19.2s,baz=258,slow=36						
BBJI	**Bungbulang**	**21.49**	**243**	P	**P**	**08 14 42.0**	**+0.1**
BBJI				IAmb	IAmb	08 15 08.7	
	comp=Z,22nm,1.2s						
YULB	**Yu-li**	**21.50**	**346**	P	**P**	**08 14 41.7**	**-0.1**
YULB				IAmb	IAmb	08 14 56.2	
	comp=Z,25nm,1.1s						
TPUB	**Ta-pu**	**21.58**	**344**	P	**P**	**08 14 41.9**	**-0.7**
	comp=Z,58nm,2.2s						
YOJ	**Yonaguni jima**	**22.19**	**351**	P	**P**	**08 14 48.9**	**-0.3**
WB0	**Warramunga Arr**	**23.30**	**162**	P	**P**	**08 15 01.3**	**+0.4**
WB0				IAmb	IAmb	08 15 11.9	
	comp=Z,22nm,0.9s						
WRAB	**Tennant Creek**	**23.44**	**162**	P	**P**	**08 15 02.5**	**+0.2**
WRAB				IAmb	IAmb	08 15 13.5	
	comp=Z,13nm,0.8s						
WRAB	**Tennant Creek**	**23.44**	**162**	P	**P**	**08 15 02.7**	**+0.3**
	comp=Z,16nm,0.7s						
WRA	**Warramunga Arr**	**23.45**	**162**	P	**P**	**08 15 02.3**	**-0.1**
	comp=Z,3.9nm,0.4s,baz=340,slow=11,SNR=97						
WRA				PcP	**PcP**	**08 18 49.5**	**+0.7**
	comp=Z,0.5nm,0.5s,baz=330,slow=2.2,SNR=5.6						
WRA				S	**S**	**08 19 13.0**	**-3.0**
	comp=Z,2.2nm,0.9s,baz=339,slow=19,SNR=6.2						
	comp=Z,3.9nm,0.4s						
WRA	**Warramunga Arr**	**23.45**	**162**	P	**P**	**08 15 01.0**	**-1.4**
WB2	**Warramunga Arr**	**23.45**	**162**	P	**P**	**08 15 02.7**	**+0.3**
WB2				IAmb	IAmb	08 15 13.6	
	comp=Z,17nm,0.8s						
PMG	**Port Moresby**	**23.46**	**120**	LR	LR	08 26 48.4	
	comp=Z,145nm,18.1s,baz=317,slow=43						
WR8	**Warramunga Arr**	**23.51**	**162**		**P**	**08 15 03.2**	**+0.2**
WR8				IAmb	IAmb	08 15 24.9	
	comp=Z,10nm,0.7s						
MDSI	**Maura Dua**	**23.62**	**253**	P	**P**	**08 15 05.3**	**+1.1**
	comp=Z,18nm,0.9s						
KASI	**Kota Agung**	**23.64**	**250**	P	**P**	**08 15 05.7**	**+1.4**
	comp=Z,32nm,1.0s						
MBWA	**Marble Bar**	**24.45**	**196**	P	**P**	**08 15 10.8**	**-1.2**
MBWA				IAmb	IAmb	08 15 22.2	
	comp=Z,16nm,1.1s						
QIS	**Mount Isa**	**26.08**	**152**	P	**P**	**08 15 27.4**	**+0.7**
	comp=Z,13nm,0.8s						
KRVT	**Keravat (AS076**	**26.09**	**105**	LR	LR	08 24 49.7	
	comp=Z,62nm,21.8s,baz=150,slow=34						
KULM	**Kulim**	**26.24**	**277**	P	**P**	**08 15 27.8**	**-0.4**
KULM				IAmb	IAmb	08 15 43.3	
	comp=Z,11nm,1.0s						
ASAR	**Alice Springs**	**26.86**	**165**	P	**P**	**08 15 34.3**	**+0.6**
	comp=Z,1.6nm,0.5s,baz=348,slow=8.6,SNR=14						
ASAR				PcP	**PcP**	**08 18 57.2**	**+0.9**
	comp=Z,1.9nm,0.4s,baz=328,slow=2.4,SNR=11						
ASAR				S	**S**	**08 20 08.9**	**-1.5**
	comp=Z,0.7nm,0.8s,baz=355,slow=23,SNR=4.9						
	comp=Z,1.6nm,0.5s						
ASAR	**Alice Springs**	**26.86**	**165**	P	**P**	**08 15 33.4**	**-0.4**
RPSI	**Rantau Prapat**	**27.84**	**271**	P	**P**	**08 15 43.0**	**+0.3**
	comp=Z,6.5nm,0.7s						
CTA	**Charters Tower**	**29.43**	**140**	LR	LR	08 28 05.9	
	comp=Z,92nm,21.4s,baz=26,slow=37						
NJ2	**Nanjing**	**30.39**	**347**	*eP*	**P**	**08 16 07.5**	**+2.5**
NJ2				pmax	pmax		
	comp=Z,16nm,0.6s						
CM31	**Chiang Mai Arr**	**31.59**	**302**	P	**P**	**08 16 15.3**	**-0.6**
CM31				IAmb	IAmb	08 16 19.8	
	comp=Z,8.7nm,0.9s						
CMAR	**Chiang Mai Arr**	**31.59**	**302**	P	**P**	**08 16 16.0**	**+0.1**
	comp=Z,5.4nm,0.9s,baz=117,slow=6.9,SNR=21						
CMAR				LR	LR	08 30 27.8	
	comp=Z,17nm,18.3s,baz=95,slow=39						
	comp=Z,5.4nm,0.9s						
CMAR	**Chiang Mai Arr**	**31.59**	**302**		**P**	**08 16 15.7**	**-0.2**
CHTO	**Chiang Mai**	**31.75**	**303**		**P**	**08 16 17.5**	**+0.3**
CHTO				IAmb	IAmb	08 16 20.4	
	comp=Z,7.0nm,0.8s						
CHTO	**Chiang Mai**	**31.75**	**303**	P	**P**	**08 16 17.6**	**+0.3**
	comp=Z,9.8nm,0.8s						
JHJ2	**Mitsune**	**32.86**	**20**	P	**P**	**08 16 26.5**	**-0.3**
INKA	**Innaminka**	**32.88**	**157**	P	**P**	**08 16 27.0**	**0.0**
FORT	**Forrest**	**33.06**	**178**		**P**	**08 16 28.1**	**-0.5**
FORT				IAmb	IAmb	08 16 35.2	
	comp=Z,12nm,0.9s						
QLP	**Quilpie**	**33.41**	**151**	P	**P**	**08 16 31.9**	**+0.2**
	comp=Z,9.3nm,1.1s						
JSG	**Sagara**	**33.78**	**17**	P	**P**	**08 16 34.7**	**-0.1**
	comp=Z,135nm,1.7s						
BLDU	**Ballidu**	**34.25**	**196**	P	**P**	**08 16 39.8**	**+0.9**
	comp=Z,22nm,1.7s						
JGF	**Kuroka**	**34.42**	**15**	P	**P**	**08 16 40.2**	**-0.2**
JGF	**Kuroka**	**34.42**	**15**	P	**P**	**08 16 41.4**	**+1.0**
NPW	**Naypyitaw**	**34.55**	**302**	P	**P**	**08 16 42.0**	**+0.3**
	comp=Z,9.5nm,0.4s						
KSAR	**Wonju Array Be**	**34.84**	**2**	P	**P**	**08 16 44.5**	**+0.5**
KSRS	**Korea Array**	**34.86**	**2**	P	**P**	**08 16 46.0**	**+1.9**
	comp=Z,2.6nm,0.5s,baz=180,slow=9.4,SNR=11						
	comp=Z,2.6nm,0.5s						
INCN	**Inchon**	**34.87**	**360**	P	**P**	**08 16 44.1**	**-0.1**
INCN				IAmb	IAmb	08 16 49.1	
	comp=Z,13nm,0.8s						
KLBR	**Kellerberrin**	**34.92**	**194**	P	**P**	**08 16 45.9**	**+1.1**
	comp=Z,20nm,0.9s						
HNR	**Honiara**	**35.07**	**110**	LR	LR	08 32 13.3	
	comp=Z,22nm,18.9s,baz=353,slow=38						
MJAR	**Matsushiro Arr**	**35.53**	**16**	P	**P**	**08 16 50.4**	**+0.4**
	comp=Z,1.8nm,0.5s,baz=187,slow=9.4,SNR=6.5						
MJAR				PcP	**PcP**	**08 19 18.9**	**-0.3**
	comp=Z,1.5nm,0.7s,baz=204,slow=2.3,SNR=2.6						
	comp=Z,1.8nm,0.5s						
MJAR	**Matsushiro Arr**	**35.53**	**16**	P	**P**	**08 16 50.1**	**+0.2**
MJAR					**PcP**	**08 19 17.2**	**-2.0**
MAJO	**Matsushiro**	**35.53**	**16**	P	**P**	**08 16 49.0**	**-0.9**
	comp=Z,9.7nm,0.9s						
MJB9	**Matsu-Tunnel**	**35.53**	**16**	P	**P**	**08 16 50.0**	**0.0**
MJB9				IAmb	IAmb	08 16 57.0	
	comp=Z,23nm,1.5s						
XAN	**Xi'an**	**35.59**	**334**	*eP*	**P**	**08 16 49.8**	**-0.7**
CD2	**Chengdu**	**35.72**	**325**	*eP*	**P**	**08 16 52.3**	**+0.6**
BBOO	**Buckleboo**	**36.14**	**167**	P	**P**	**08 16 55.8**	**+0.6**
BBOO				IAmb	IAmb	08 17 00.8	
	comp=Z,11nm,1.2s						
NWAO	**Narrogin (SRO)**	**36.32**	**194**	P	**P**	**08 16 56.5**	**-0.2**
STKA	**Stephens Creek**	**36.91**	**159**	P	**P**	**08 17 02.1**	**+0.3**
	comp=Z,12nm,0.8s,baz=344,slow=7.3,SNR=19						
STKA				PcP	**PcP**	**08 19 24.4**	**+1.0**
	comp=Z,1.4nm,0.6s,baz=356,slow=5.4,SNR=3.1						
	comp=Z,12nm,0.8s						
STKA	**Stephens Creek**	**36.91**	**159**		**P**	**08 17 01.2**	**-0.6**
STKA					**PcP**	**08 19 24.2**	**+0.8**
STKA	**Stephens Creek**	**36.91**	**159**	P	**P**	**08 17 02.2**	**+0.3**
	comp=Z,61nm,0.8s						
MORE	**Moreh**	**38.13**	**307**	P	**P**	**08 17 12.1**	**-0.2**
CMSA	**Cobar Meteorol**	**38.27**	**153**	P	**P**	**08 17 13.5**	**+0.2**
	comp=Z,6.7nm,2.1s						
BJI2	**Beijing**	**38.63**	**347**	P	**P**	**08 17 17.4**	**+1.2**
BJI2				sP	**pwP**	**08 17 23.1**	**+1.5**
BJI2				S	**S**	**08 23 16.2**	**+3.6**
BJI2				pmax	pmax		
	comp=Z,5.0nm,1.4s						
BJI2				pmax	pmax		
	comp=Z,27nm,3.4s						
BJI2				L	L		
	comp=Z,110nm,5.7s						
BJI2				L	L		
	comp=Z,120nm,4.5s						
JTM	**Tenmabayashi**	**40.29**	**17**	P	**P**	**08 17 29.8**	**-0.3**
JTM				IAmb	IAmb	08 17 57.1	
	comp=Z,32nm,1.1s						
JTM	**Tenmabayashi**	**40.29**	**17**	P	**P**	**08 17 29.8**	**-0.3**
	comp=Z,34nm,1.6s						
ARMA	**Armidale**	**40.37**	**146**	P	**P**	**08 17 30.6**	**-0.4**
ARMA				IAmb	IAmb	08 17 49.6	
	comp=Z,20nm,1.1s						
ARMA	**Armidale**	**40.37**	**146**	P	**P**	**08 17 31.2**	**+0.2**
	comp=Z,19nm,0.9s						
HHC	**Hu-ho-hao-te**	**40.63**	**342**	*eP*	**P**	**08 17 35.4**	**+2.3**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
SHL	**Shillong**	**40.70**	**308**		**P**	**08 17 33.1**	**-0.8**
SHL				IAmb	IAmb	08 17 47.6	
	comp=Z,6.2nm,0.7s						
CN2	**Changchun**	**41.20**	**359**	*eP*	**P**	**08 17 40.0**	**+2.5**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
USA0B	**Ussuriysk Arra**	**41.84**	**6**	P	**P**	**08 17 42.7**	**0.0**
USA0B				IAmb	IAmb	08 17 47.3	
	comp=Z,9.2nm,0.9s						
USRK	**Ussuriysk Ar.**	**41.84**	**6**	P	**P**	**08 17 44.7**	**+2.0**
	comp=Z,9.4nm,0.9s,baz=181,slow=5.8,SNR=9.2						
	comp=Z,9.4nm,0.9s						
USRK	**Ussuriysk Ar.**	**41.84**	**6**		**P**	**08 17 42.4**	**-0.4**
XLT	**XiLinHaoTe**	**42.36**	**348**	*eP*	**P**	**08 17 48.8**	**+1.6**
XLT				pmax	pmax		
	comp=Z,15nm,0.6s						
TOO	**Toolangi**	**43.43**	**158**	P	**P**	**08 17 55.4**	**-0.4**
JKA	**Kamikawa-asahi**	**43.80**	**16**	P	**P**	**08 17 58.6**	**-0.1**
EVN	**Everest**	**45.81**	**308**		**P**	**08 18 15.8**	**0.0**
EVN				IAmb	IAmb	08 18 17.5	
	comp=Z,11nm,0.8s						
EVN	**Everest**	**45.81**	**308**	P	**P**	**08 18 15.4**	**-0.4**
	comp=Z,16nm,1.0s						
TARA	**Tarawa**	**46.11**	**90**	P	**P**	**08 18 16.9**	**-0.7**
TARA				IAmb	IAmb	08 18 17.8	
	comp=Z,7.4nm,0.7s						
HILR	**Hailar Array B**	**47.32**	**354**	P	**P**	**08 18 27.4**	**+0.8**
	comp=Z,1.1nm,0.3s,baz=166,slow=7.1,SNR=1.8						
	comp=Z,1.1nm,0.3s						
HEH	**HeiHe**	**47.64**	**1**	*eP*	**P**	**08 18 30.2**	**+1.3**
HEH				pmax	pmax		
	comp=Z,6.0nm,1.1s						
SONM	**Songino Array**	**48.53**	**342**	P	**P**	**08 18 36.9**	**+0.8**
	comp=Z,3.0nm,0.8s,baz=166,slow=8.8,SNR=12						
SONM				LR	LR	08 40 55.0	
	comp=Z,66nm,18.8s,baz=162,slow=38						
	comp=Z,3.0nm,0.8s						
SONM	**Songino Array**	**48.53**	**342**	P	**P**	**08 18 36.3**	**+0.3**
WMQ	**Urumqi**	**53.81**	**326**	*eP*	**P**	**08 19 20.2**	**+4.4**
WMQ				sP	pwP	08 19 25.8	+4.5
WMQ				pmax	pmax		
	comp=Z,26nm,0.9s						
DGAR	**Diego Garcia**	**55.10**	**259**	P	**P**	**08 19 25.1**	**-0.4**
PETK	**Petropavlovsk-**	**56.59**	**22**	P	**P**	**08 19 37.3**	**+1.7**
	comp=Z,2.1nm,0.8s,baz=202,slow=3.2,SNR=4.2						
	comp=Z,2.1nm,0.8s						
PETK	**Petropavlovsk-**	**56.59**	**22**	P	**P**	**08 19 35.3**	**-0.3**
PDGK	**Podgornoye**	**58.45**	**321**		**P**	**08 19 48.5**	**-0.4**
MKAR	**Makanchi Array**	**58.65**	**326**	P	**P**	**08 19 50.4**	**+0.2**
	comp=Z,2.9nm,0.4s,baz=124,slow=8.9,SNR=15						
MKAR				LR	LR	08 46 46.0	
	comp=Z,50nm,21.2s,baz=82,slow=38						
	comp=Z,2.9nm,0.4s						
MKAR	**Makanchi Array**	**58.65**	**326**		**P**	**08 19 50.6**	**+0.4**
MAKZ	**Makanchi**	**58.83**	**326**		**P**	**08 19 51.6**	**+0.1**
MAKZ	**Makanchi**	**58.83**	**326**	P	**P**	**08 19 51.4**	**-0.1**
	comp=Z,6.4nm,0.9s						
KSH2	**Kashi**	**59.13**	**315**	P	**P**	**08 19 56.2**	**+2.3**
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**59.23**	**317**	P	**P**	**08 19 54.0**	**-0.8**
	comp=Z,3.1nm,0.9s						
ANVS	**Anan'yevo**	**59.34**	**320**	P	**P**	**08 19 55.4**	**+0.1**
	comp=Z,11nm,1.0s						
YAK	**Yakutsk**	**59.48**	**2**	LR	LR	08 48 39.8	
	comp=Z,20nm,18.3s,baz=189,slow=39						
YAK	**Yakutsk**	**59.48**	**2**	P	**P**	**08 19 56.7**	**+1.0**
YAK	**Yakutsk**	**59.48**	**2**	P	**P**	**08 19 55.8**	**+0.2**
	comp=Z,37nm,0.8s						
NRN	**Naryn**	**59.82**	**318**	P	**P**	**08 19 58.1**	**-0.6**
NRN				IAmb	IAmb	08 20 02.4	
	comp=Z,4.5nm,1.0s						
URZ	**Urewera**	**61.57**	**136**	LR	LR	08 50 04.1	
	comp=Z,42nm,18.1s,baz=304,slow=39						
OHH	**Osh**	**61.64**	**316**	P	**P**	**08 20 10.7**	**-0.3**
	comp=Z,5.5nm,0.4s						
RTZ	**Ruatahuna**	**61.65**	**137**	P	**P**	**08 20 09.4**	**-1.5**
ZALV	**Zalesovo Beam**	**61.76**	**333**	P	**P**	**08 20 11.4**	**0.0**
	comp=Z,3.8nm,0.4s,baz=150,slow=5.7,SNR=9.0						
ZALV				LR	LR	08 46 55.0	
	comp=Z,33nm,19.3s,baz=60,slow=36						
	comp=Z,3.8nm,0.4s						
DRK	**Karamyk**	**61.94**	**314**	P	**P**	**08 20 13.3**	**0.0**
BFZ	**Birch Farm**	**62.20**	**139**	P	**P**	**08 20 14.3**	**-0.2**
	comp=Z,43nm,1.5s						
KBL	**Kabul**	**62.36**	**308**	P	**P**	**08 20 15.5**	**-0.5**
	comp=Z,6.1nm,0.7s						
ARK	**Arkit**	**62.72**	**317**	P	**P**	**08 20 18.0**	**-0.2**
	comp=Z,20nm,0.8s						
KURBB	**Kurchatov Arra**	**62.85**	**328**	P	**P**	**08 20 18.8**	**0.0**
	comp=Z,7.9nm,0.6s,baz=131,slow=6.5,SNR=33						
	comp=Z,7.9nm,0.6s						
KURK	**Kurchatov**	**62.86**	**328**		**P**	**08 20 18.6**	**-0.2**
KURK	**Kurchatov**	**62.86**	**328**	P	**P**	**08 20 18.5**	**-0.2**
	comp=Z,16nm,0.7s						
SHEM	**Shemya Is, Ala**	**63.54**	**30**	LR	LR	08 52 55.5	
	comp=Z,8.5nm,18.0s,baz=26,slow=41						
KK31	**Karatay Array**	**64.22**	**317**		**P**	**08 20 28.2**	**+0.2**
KK31				IAmb	IAmb	08 20 30.1	
	comp=Z,4.3nm,0.9s						
KKAR	**Karatay Array**	**64.22**	**317**		**P**	**08 20 27.9**	**0.0**
BVAR	**Borovoye Array**	**64.43**	**327**	P	**P**	**08 20 54.5**	**-0.2**
	comp=Z,2.5nm,0.7s,baz=131,slow=7.9,SNR=8.6						
	comp=Z,2.5nm,0.7s						
BORK	**Borovoye**	**68.48**	**327**		**P**	**08 20 55.3**	**+0.3**
TIXI	**Tiksi**	**69.12**	**1**		**P**	**08 20 59.1**	**+0.4**
NRIK	**Noril'sk**	**71.69**	**346**	P	**P**	**08 21 14.8**	**+0.4**
	comp=Z,4.7nm,0.6s,baz=125,slow=6.8,SNR=8.0						
	comp=Z,4.7nm,0.6s						
NRIK	**Noril'sk**	**71.69**	**346**	P	**P**	**08 21 15.7**	**+1.3**
NRIK				IAmb	IAmb	08 21 16.1	
	comp=Z,6.0nm,0.8s						
AB31	**Akbulak array**	**73.18**	**321**		**P**	**08 21 24.2**	**+0.5**
ABKAR	**Akbulak array**	**73.18**	**321**		**P**	**08 21 24.1**	**+0.4**
AKTO	**Aktyubinsk**	**74.70**	**322**	LR	LR	08 58 47.5	
	comp=Z,38nm,18.9s,baz=95,slow=39						
ARTI	**Arti**	**76.14**	**328**		**P**	**08 21 41.1**	**+0.4**
RAYN	**Ar Rayn**	**81.05**	**293**		**P**	**08 22 07.8**	**-0.7**
VOI	**Vohitsoka**	**81.64**	**248**	P	**P**	**08 22 11.0**	**-0.9**
VNDA	**Vanda**	**82.15**	**173**	P	**P**	**08 22 14.1**	**+0.9**
	comp=Z,1.3nm,0.4s,baz=323,slow=6.3,SNR=16						
	comp=Z,1.3nm,0.4s						
VNDA	**Vanda**	**82.15**	**173**		**P**	**08 22 13.7**	**+0.5**
MAW	**Mawson**	**82.58**	**200**	P	**P**	**08 22 16.8**	**+1.2**
	comp=Z,4.2nm,0.6s,baz=71,slow=7.8,SNR=10.0						
	comp=Z,4.2nm,0.6s						
MAW	**Mawson**	**82.58**	**200**		**P**	**08 22 17.1**	**+1.5**
KDAK	**Kodiak Island**	**82.94**	**32**	P	**P**	**08 22 17.3**	**

MNAI	**Manna**	**1.35**	**102**	P	**Pn**	**08 10 33.2**	**-0.6**
MNAI				S	**Sn**	**08 10 45.2**	**-5.4**
MNAI				AML	AML		
LHSI	**Lahat**	**1.91**	**82**	P	**Pn**	**08 10 41.6**	**+0.2**
LHSI				AML	AML		
KRJI	**Kerinci**	**1.99**	**355**	P	Pb	08 10 50.9	+3.9
KRJI				AML	AML		
MDSI	**Maura Dua**	**2.57**	**99**	P	**Pn**	**08 10 49.9**	**-0.7**
PDSI	**Padang**	**3.36**	**340**	P	**Pb**	**08 11 10.5**	**+0.2**
DSRI	**Dabo**	**4.63**	**40**	P	**Pn**	**08 11 19.5**	**+0.5**
DSRI				AML	AML		
GSI	**Gunungsitoli**	**6.71**	**323**	Pn	**Pn**	**08 11 46.5**	**-1.1**
BBJI	**Bungbulang**	**6.87**	**120**	Pn	**Pn**	**08 11 50.3**	**+0.6**
KULM	**Kulim**	**9.36**	**354**	Pn	**Pn**	**08 12 21.8**	**-2.2**
CMAR	**Chiang Mai Arr**	**22.55**	**353**	P	**P**	**08 15 12.3**	**+3.6**
	0.6nm,0.3s,baz=180,slow=7.9,SNR=4.5						
	0.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**22.55**	**353**	P	**P**	**08 15 07.6**	**-1.1**
CHTO	**Chiang Mai**	**22.91**	**353**	P	**P**	**08 15 12.1**	**-0.4**
MORW	**Morawa**	**28.36**	**153**	IAmb	IAmb	08 16 03.1	
	comp=Z,15nm,1.1s						
MORW				P	**P**	**08 16 03.5**	**+1.1**
H08S2	**Diego Garcia H**	**29.19**	**262**	T	T	08 46 29.7	
	baz=85,slow=75,SNR=21						
H08S3	**Diego Garcia H**	**29.20**	**262**	T	T	08 46 14.7	
	baz=85,slow=75,SNR=34						
H08S1	**Diego Garcia H**	**29.21**	**262**	T	T	08 46 27.2	
	baz=85,slow=75,SNR=12						
EVN	**Everest**	**34.91**	**337**	P	**P**	**08 16 59.7**	**-1.0**
EVN				IAmb	IAmb	08 17 08.5	
	comp=Z,4.2nm,0.7s						
WRA	**Warramunga Arr**	**35.55**	**119**	P	P	08 17 10.8	+5.1
	comp=Z,0.4nm,0.4s,baz=296,slow=7.5,SNR=1.2						
	comp=Z,0.4nm,0.4s						
WRA	**Warramunga Arr**	**35.55**	**119**	P	**P**	**08 17 06.2**	**+0.5**
WB2	**Warramunga Arr**	**35.56**	**119**	P	**P**	**08 17 06.2**	**+0.4**
WB2				IAmb	IAmb	08 17 34.0	
	comp=Z,9.7nm,1.4s						
AS31	**Alice Springs**	**36.72**	**125**	P	**P**	**08 17 15.8**	**+0.1**
ASAR	**Alice Springs**	**36.72**	**125**	P	**P**	**08 17 20.1**	**+4.4**
	comp=Z,0.6nm,0.3s,baz=300,slow=8.0,SNR=2.2						
	comp=Z,0.6nm,0.3s						
ASAR	**Alice Springs**	**36.72**	**125**	P	**P**	**08 17 15.3**	**-0.4**
BBOO	**Buckleboo**	**43.03**	**136**	P	**P**	**08 18 08.4**	**+0.5**
BBOO				IAmb	IAmb	08 18 10.3	
	comp=Z,18nm,1.4s						
PMG	**Port Moresby**	**45.49**	**99**	P	**P**	**08 18 27.7**	**-0.1**
MKAR	**Makanchi Array**	**53.47**	**344**	P	**P**	**08 19 31.8**	**+3.5**
	comp=Z,2.6nm,0.5s,baz=147,slow=6.9,SNR=9.0						
	comp=Z,2.6nm,0.5s						
MKAR	**Makanchi Array**	**53.47**	**344**	P	**P**	**08 19 27.9**	**-0.3**
MAKZ	**Makanchi**	**53.57**	**343**	P	**P**	**08 19 27.9**	**-1.1**
MAKZ				IAmb	IAmb	08 19 54.9	
	comp=Z,4.2nm,0.6s						
KK31	**Karatay Array**	**54.74**	**332**	P	**P**	**08 19 37.1**	**-0.5**
KKAR	**Karatay Array**	**54.74**	**332**	P	**P**	**08 19 36.6**	**-0.9**
USA0B	**Ussuriysk Arra**	**55.26**	**26**	P	**P**	**08 19 40.1**	**-1.1**
USA0B				IAmb	IAmb	08 19 44.6	
	comp=Z,9.2nm,0.8s						
KURBB	**Kurchatov Arra**	**58.00**	**343**	P	**P**	**08 20 04.1**	**+3.5**
	comp=Z,1.2nm,0.3s,baz=158,slow=6.8,SNR=1.6						
	comp=Z,1.2nm,0.3s						
KURK	**Kurchatov**	**58.06**	**343**	P	**P**	**08 20 00.2**	**-0.8**
ZAA0	**Zalesovo Array**	**59.51**	**349**	P	**P**	**08 20 10.3**	**-0.7**
ZAA0				IAmb	IAmb	08 20 15.0	
	comp=Z,4.2nm,0.5s						
ZALV	**Zalesovo Beam**	**59.51**	**349**	P	**P**	**08 20 10.6**	**-0.5**
H04N2	**CROZET ISLANDS**	**60.13**	**218**	T	T	09 25 13.5	
	baz=62,slow=74,SNR=58						
H04N1	**CROZET ISLANDS**	**60.14**	**218**	T	T	09 25 13.0	
	baz=62,slow=74,SNR=48						
H04N3	**CROZET ISLANDS**	**60.15**	**218**	T	T	09 25 11.6	
	baz=62,slow=74,SNR=57						
H04S1	**CROZET ISLANDS**	**60.38**	**217**	T	T	09 25 19.9	
	baz=63						
H04S3	**CROZET ISLANDS**	**60.40**	**217**	T	T	09 25 16.1	
	baz=63						
H04S2	**CROZET ISLANDS**	**60.40**	**217**	T	T	09 25 19.7	
	baz=63						
BVAR	**Borovoye Array**	**62.69**	**339**	P	**P**	**08 20 35.8**	**+3.1**
	comp=Z,0.9nm,0.4s,baz=146,slow=8.4,SNR=4.3						
	comp=Z,0.9nm,0.4s						
BORK	**Borovoye**	**62.73**	**339**	P	**P**	**08 20 32.6**	**-0.4**
BORK				IAmb	IAmb	08 20 59.8	
	comp=Z,3.0nm,0.7s						
AB31	**Akbulak array**	**64.24**	**331**	P	**P**	**08 20 42.5**	**-0.4**
AB31				IAmb	IAmb	08 21 01.2	
	comp=Z,1.4nm,0.7s						
ABKAR	**Akbulak array**	**64.24**	**331**	P	**P**	**08 20 42.6**	**-0.3**
MCQ	**Macquarie Isla**	**68.19**	**148**	P	**P**	**08 21 10.2**	**+2.0**
ARTI	**Arti**	**69.80**	**336**	P	**P**	**08 21 18.9**	**+0.7**
TIXI	**Tiksi**	**77.65**	**9**	P	**P**	**08 22 03.6**	**-0.3**
TIXI				IAmb	IAmb	08 22 23.5	
	comp=Z,8.9nm,1.4s						

*SJA **02** 08:10:21.2±0.6,21.˚15S×69.˚01W,h129km±3km, ML3.4, MW3.5*
*GUC **02** 08:10:22.9±0.8,21.˚16S×68.˚91W,h115km±3km, ML3.4, Presumed earthquake*
*IDC **02** 08:10:32.3±4.9,20.˚61S×67.˚85W,h98km±38km, mbtmp3.7/4, Error ellipse: s-maj=63.6km s-min=22.5km az=56.0*

ISC 02 08:10:23.3±1.0,**21.˚15S**±0.˚03×**69.˚02W**±0.˚05,**h118**km±8km, **n37**,σ1°**43**/67,**7C-4D**,**Northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PB09	**IPOC Station P**	**0.68**	**198**	*e*P		**Pn**	**08 10 41.9**	**-0.6**
PB09				*e*S		**Sn**	**08 10 57.6**	**+0.7**
PB09				IAML			08 10 59.0	
	comp=Z,798nm,0.2s							
PB09	**IPOC Station P**	**0.68**	**198**↑	*e*P		**Pn**	**08 10 41.7**	**-0.8**
PB09				*e*S		**Sn**	**08 10 56.8**	**-0.1**
PB09				IAML			08 10 57.8	
	comp=N,716nm,0.1s							
PB02	**IPOC Station P**	**0.84**	**258**	*e*P		**Pn**	**08 10 43.4**	**-0.3**
PB02				*e*S		**Sn**	**08 10 59.9**	**+0.8**
PB02	**IPOC Station P**	**0.84**	**258**↑	*e*P		**Pn**	**08 10 43.7**	**0.0**
PB02				*e*S		**Sn**	**08 10 59.3**	**+0.2**
PB02				IAML			08 11 00.1	
	comp=N,4μm,0.3s							
PB07	**IPOC Station P**	**0.99**	**234**	*e*P		**Pn**	**08 10 44.7**	**-0.5**
PB07				*e*S		**Sn**	**08 11 03.1**	**+1.2**
PB07				IAML			08 11 04.7	
	comp=Z,720nm,0.1s							
PB07	**IPOC Station P**	**0.99**	**234**↑	*e*P		**Pn**	**08 10 45.0**	**-0.3**
PB07				*e*S		**Sn**	**08 11 02.1**	**+0.3**
PB07				IAML			08 11 04.9	
	comp=E,995nm,0.2s							
PB08	**IPOC Station P**	**1.01**	**353**	*e*P		**Pn**	**08 10 45.1**	**-0.7**
PB08				*e*S		**Sn**	**08 11 02.9**	**+0.3**
PB08				IAML			08 11 03.4	
	comp=Z,338nm,0.1s							
PB08	**IPOC Station P**	**1.01**	**353**↓	*e*P		**Pn**	**08 10 45.0**	**-0.7**
PB08				*e*S		**Sn**	**08 11 02.0**	**-0.6**
PB08				IAML			08 11 03.4	
	comp=N,512nm,0.2s							
PB08				IAML			08 11 04.0	
	comp=E,772nm,0.2s							
PB03	**IPOC Station P**	**1.13**	**217**	*e*P		**Pn**	**08 10 46.3**	**-0.3**
PB03				*e*S		**Sn**	**08 11 04.2**	**-0.1**
PB03				IAML			08 11 06.0	
	comp=Z,936nm,0.2s							
PB03	**IPOC Station P**	**1.13**	**217**↑	*e*P		**Pn**	**08 10 46.2**	**-0.3**
PB03				*e*S		**Sn**	**08 11 03.9**	**-0.4**
PB03				IAML			08 11 04.7	
	comp=E,1μm,0.2s							
TA01	**Diego Aracena**	**1.23**	**298**	*e*P		**Pn**	**08 10 47.5**	**0.0**
TA01				*e*S		**Sn**	**08 11 06.7**	**+0.7**
TA01				IAML			08 11 07.6	
	comp=Z,475nm,0.1s							
TA01	**Diego Aracena**	**1.23**	**298**	*e*P		**Pn**	**08 10 47.2**	**-0.3**
TA01				*e*S		**Sn**	**08 11 05.8**	**-0.2**
TA01				IAML			08 11 06.9	
	comp=N,2μm,0.2s							
TA02	**Huaiquique**	**1.36**	**310**	*e*P		**Pn**	**08 10 48.8**	**-0.2**
TA02				IAML			08 11 12.0	
	comp=Z,548nm,0.1s							
TA02	**Huaiquique**	**1.36**	**310**↑	*e*P		**Pn**	**08 10 48.7**	**-0.3**
TA02				*e*S		**Sn**	**08 11 08.0**	**-0.5**
GO01	**Chusmiza**	**1.48**	**354**	*e*P		**Pn**	**08 10 50.2**	**-0.7**
GO01				*e*S		**Sn**	**08 11 12.5**	**+0.7**
GO01				IAML			08 11 15.4	
	comp=Z,194nm,0.3s							
GO01	**Chusmiza**	**1.48**	**354**↓	*e*P		**Pn**	**08 10 50.0**	**-0.9**
GO01				*e*S		**Sn**	**08 11 11.7**	**-0.1**
GO01				IAML			08 11 14.5	
	comp=N,994nm,0.1s							
PB11	**IPOC Station P**	**1.50**	**336**	*e*P		**Pn**	**08 10 50.1**	**-0.7**
PB11				*e*S		**Sn**	**08 11 11.9**	**+0.2**
PB11				IAML			08 11 13.1	
	comp=Z,348nm,0.3s							
PB11	**IPOC Station P**	**1.50**	**336**↓	*e*P		**Pn**	**08 10 50.0**	**-0.8**
PB11				*e*S		**Sn**	**08 11 11.1**	**-0.6**
PB11				IAML			08 11 12.9	
	comp=E,960nm,0.1s							
PB06	**IPOC Station P**	**1.63**	**198**	*e*P		**Pn**	**08 10 51.8**	**-0.5**
PB06				*e*S		**Sn**	**08 11 14.6**	**+0.2**
PB06				IAML			08 11 18.6	
	comp=Z,563nm,0.3s							
PB06	**IPOC Station P**	**1.63**	**198**↑	*e*P		**Pn**	**08 10 51.9**	**-0.4**
PB06				*e*S		**Sn**	**08 11 13.8**	**-0.6**
PB06				IAML			08 11 15.9	
	comp=E,932nm,0.2s							
PSGCX	**Pisagua**	**1.86**	**326**	*e*P		**Pn**	**08 10 54.2**	**-0.9**
PSGCX				*e*S		**Sn**	**08 11 19.1**	**-0.1**
PSGCX				IAML			08 11 19.4	
	comp=Z,135nm,0.2s							
PSGCX	**Pisagua**	**1.86**	**326**↓	*e*P		**Pn**	**08 10 54.0**	**-1.1**
PSGCX				*e*S		**Sn**	**08 11 18.2**	**-1.0**
AF01	**San Pedro de A**	**1.96**	**157**	*e*P		**Pn**	**08 10 56.1**	**-0.3**
AF01				*e*S		**Sn**	**08 11 20.0**	**-1.6**
AF01				IAML			08 11 45.1	
	comp=Z,224nm,0.8s							
AF01	**San Pedro de A**	**1.96**	**157**	*e*P		**Pn**	**08 10 55.0**	**-1.4**
AF01				*e*S		**Sn**	**08 11 19.7**	**-2.0**
AF01				IAML			08 11 38.0	
	comp=N,328nm,0.3s							
AF01				IAML			08 11 45.0	
	comp=E,322nm,0.5s							
PB05	**IPOC Station P**	**2.02**	**213**	*e*P		**Pn**	**08 10 56.5**	**-0.6**
PB05				*e*S		**Sn**	**08 11 22.4**	**-0.5**
PB05				IAML			08 11 29.0	
	comp=Z,109nm,0.2s							
PB05	**IPOC Station P**	**2.02**	**213**↑	*e*P		**Pn**	**08 10 56.5**	**-0.6**
PB05				*e*S		**Sn**	**08 11 21.8**	**-1.0**
PB05				IAML			08 11 23.7	
	comp=E,168nm,0.2s							
PB10	**IPOC Station P**	**2.75**	**211**	*e*P		**Pn**	**08 11 05.7**	**-0.6**
PB10				*e*S		**Sn**	**08 11 37.7**	**-1.6**
PB10				IAML			08 11 37.8	
	comp=Z,52nm,0.7s							
PB10	**IPOC Station P**	**2.75**	**211**	*e*P		**Pn**	**08 11 05.0**	**-1.2**
PB10				*e*S		**Sn**	**08 11 36.4**	**-2.9**
PB10				IAML			08 11 39.9	
	comp=E,62nm,0.3s							
PB16	**IPOC Station P**	**2.84**	**351**	*e*P		**Pn**	**08 11 07.6**	**-0.4**
PB16				*e*S		**Sn**	**08 11 43.4**	**+1.2**
PB16	**IPOC Station P**	**2.84**	**351**	*e*P		**Pn**	**08 11 07.6**	**-0.4**
PB16				*e*S		**Sn**	**08 11 42.2**	**0.0**
PB16				IAML			08 11 45.5	
	comp=E,47nm,0.3s							
HJA	**Humahuaca**	**3.92**	**122**	*e*P		**Pn**	**08 11 21.7**	**-0.4**
HJA				*e*S		**Sn**	**08 12 12.0**	**+4.4**
SALTA		**3.94**	**142**	*e*P		**Pn**	**08 11 22.1**	**-0.3**
SALTA				*e*P			08 11 23.5	
LPAZ	**La Paz**	**4.91**	**10**	P		**Pn**	**08 11 35.9**	**+0.2**
	comp=E,1.7nm,0.4s,baz=192,slow=6.2,SNR=26							
LPAZ				S		**Sn**	**08 12 26.2**	**-5.5**
	comp=E,1.1nm,0.5s,baz=170,slow=13,SNR=1.3							
SIV	**San Ignacio**	**9.11**	**57**	P		Pn	08 12 25.9	-6.0
	comp=E,4.9nm,0.3s,baz=242,slow=13,SNR=85							
CPUP	**Villa Florida**	**11.88**	**118**	P		**Pn**	**08 13 09.1**	**+0.1**
	comp=E,1.1nm,0.6s,baz=307,slow=2.9,SNR=3.4							
BDFB	**Brasilia**	**20.66**	**78**	P		**P**	**08 14 51.0**	**-3.0**
	comp=E,1.4nm,0.4s,baz=263,slow=10,SNR=5.7							
MKAR	**Makanchi Array**	**145.41**	**36**	PKP		**PKiKP**	**08 29 56.9**	**+5.5**
	comp=E,0.8nm,0.6s,baz=326,slow=2.0,SNR=8.5							

*NOU **02** 08:27:30.5,37.˚20S×176.˚43E,h409km, MLv3.7/17, North Island, New Zealand*
*WEL **02** 08:27:31.8±0.8,37°S±6˚×17˚6E±˚, h407km±6km, M3.1/60, MLv3.1/60, Error ellipse: s-maj=10.4km s-min=8.1km az=75.7*

ISC 02 08:27:28.2±2.2,**37.˚19S**±0.˚09×**176.˚49E**±0.˚09, **h433**km±13km,**n127**,σ**19**/139,**North Island**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
MARZ	**Manawahe**	**0.81**	**169**	P		**P**	**08 28 22.1**	**+0.1**
MARZ				S		**S**	**08 29 06.2**	**+0.3**
MARZ				AML		AML		
TOZ	**Tahuroa Road**	**0.95**	**235**	P		**P**	**08 28 24.2**	**+1.7**
MKAZ	**Moumakai**	**1.06**	**274**	P		**P**	**08 28 24.4**	**+1.6**
MKAZ				AML		AML		
URZ	**Urewera**	**1.17**	**155**	P		**P**	**08 28 23.1**	**0.0**
URZ	**Urewera**	**1.17**	**155**	S		**S**	**08 29 05.4**	**-2.4**
URZ	**Urewera**	**1.17**	**155**	P		**P**	**08 28 23.3**	**+0.2**
URZ				S		**S**	**08 29 05.4**	**-2.4**
URZ				AML		AML		
HAZ	**Te Kaha**	**1.18**	**119**	P		**P**	**08 28 23.3**	**+0.1**
RUGZ	**Raukumara Rang**	**1.22**	**130**	P		**P**	**08 28 23.2**	**-0.3**
GRZ	**Great Barrier**	**1.25**	**318**	P		**P**	**08 28 24.2**	**+0.5**
GRZ				AML		AML		
MUGZ	**Murupara**	**1.30**	**170**	P		**P**	**08 28 24.2**	**+0.5**
MUGZ				S		**S**	**08 29 06.6**	**-2.1**
MUGZ				AML		AML		
PRRZ	**Plateau Road**	**1.31**	**183**	P		**P**	**08 28 24.7**	**+1.0**
PRRZ				AML		AML		
WPRZ	**Whakapapatarin**	**1.35**	**191**	P		**P**	**08 28 25.0**	**+1.2**
WPRZ				AML		AML		
TLZ	**Tolley Road**	**1.36**	**213**	P		**P**	**08 28 25.6**	**+1.6**
TLZ				AML		AML		
ALRZ	**Allen Road**	**1.37**	**185**	P		**P**	**08 28 25.0**	**+1.1**
ALRZ				AML		AML		
MWZ	**Matawai**	**1.41**	**144**	P		**P**	**08 28 24.8**	**+0.7**
MWZ				S		**S**	**08 29 08.3**	**-1.3**
MWZ				AML		AML		
PKGZ	**Pakihiroa**	**1.44**	**118**	P		**P**	**08 28 24.8**	**+0.5**
PKGZ				AML		AML		
ABAZ	**Army Bay**	**1.45**	**294**	P		**P**	**08 28 26.0**	**+1.6**
ABAZ				AML		AML		
RTZ	**Ruatahuna**	**1.47**	**165**	P		**P**	**08 28 25.1**	**+0.7**
RTZ				AML		AML		
AWAZ	**Awhitu Peninsu**	**1.48**	**274**	P		**P**	**08 28 26.5**	**+2.1**
RAGZ	**Rawiri**	**1.49**	**151**	P		**P**	**08 28 25.7**	**+1.1**
RAGZ				S		**S**	**08 29 09.8**	**-0.6**
RAGZ				AML		AML		
MXZ	**Matakaoa Point**	**1.50**	**105**	P		**P**	**08 28 24.5**	**0.0**
MXZ	**Matakaoa Point**	**1.50**	**105**	S		**S**	**08 29 08.7**	**-1.5**
MXZ	**Matakaoa Point**	**1.50**	**105**	P		**P**	**08 28 24.5**	**0.0**
MXZ				S		**S**	**08 29 08.4**	**-1.7**
TWGZ	**Tauwhareparae**	**1.54**	**130**	P		**P**	**08 28 25.7**	**+0.9**
TWGZ				S		**S**	**08 29 11.0**	**+0.3**
TWGZ				AML		AML		
MRHZ	**Matea Rd**	**1.64**	**182**	P		**P**	**08 28 26.0**	**+0.8**
MRHZ				S		**S**	**08 29 09.0**	**-2.5**
MRHZ				AML		AML		
TKGZ	**Te Karaka**	**1.65**	**139**	P		**P**	**08 28 26.0**	**+0.9**
TKGZ				S		**S**	**08 29 10.9**	**-0.5**
TKGZ				AML		AML		
WMGZ	**Waiomatatini S**	**1.66**	**113**	P		**P**	**08 28 25.6**	**+0.3**
WMGZ				S		**S**	**08 29 11.3**	**-0.3**
WMGZ				AML		AML		
PUZ	**Puketiti**	**1.66**	**122**	P		**P**	**08 28 25.6**	**+0.3**
PUZ				AML		AML		
MTHZ	**Maungataniwha**	**1.68**	**170**	P		**P**	**08 28 26.3**	**+0.9**
MTHZ				AML		AML		
RATZ	**Rangitukua**	**1.76**	**198**	P		**P**	**08 28 26.6**	**+0.9**
RATZ				AML		AML		
RAHZ	**Arahi**	**1.79**	**165**	P		**P**	**08 28 27.7**	**+1.9**
RAHZ				S		**S**	**08 29 11.4**	**-1.4**
RAHZ				AML		AML		
RIGZ	**Rimuhau**	**1.82**	**147**	P		**P**	**08 28 27.4**	**+1.3**
RIGZ				S		**S**	**08 29 11.1**	**-2.0**
RIGZ				AML		AML		
CNGZ	**Carnagh Statio**	**1.88**	**134**	P		**P**	**08 28 28.1**	**+1.7**
CNGZ				AML		AML		
KATZ	**Kakaramea**	**1.89**	**199**	P		**P**	**08 28 27.7**	**+1.1**
KATZ				AML		AML		
NMHZ	**Naumai**	**1.92**	**173**	P		**P**	**08 28 28.4**	**+1.7**
NMHZ				AML		AML		
BKZ	**Black Stump Fm**	**1.97**	**180**	P		**P**	**08 28 27.7**	**+0.8**
BKZ	**Black Stump Fm**	**1.97**	**180**	S		**S**	**08 29 13.5**	**-1.2**
BKZ	**Black Stump Fm**	**1.97**	**180**	P		**P**	**08 28 27.8**	**+0.8**
BKZ				AML		AML		
WHHZ	**Waihua**	**1.97**	**163**	P		**P**	**08 28 28.5**	**+1.7**
WHHZ				AML		AML		
NTVZ	**North Tongarir**	**2.01**	**198**	P		**P**	**08 28 28.5**	**+1.3**
NTVZ				AML		AML		
KRVZ	**Karewarewa**	**2.01**	**199**	P		**P**	**08 28 28.5**	**+1.2**
KRVZ				AML		AML		
TMVZ	**Te Maari**	**2.02**	**198**	P		**P**	**08 28 28.4**	**+1.2**
TMVZ				AML		AML		
ETVZ	**East Tongariro**	**2.03**	**197**	P		**P**	**08 28 28.4**	**+1.0**
ETVZ				AML		AML		
WTVZ	**West Tongariro**	**2.04**	**200**	P		**P**	**08 28 28.5**	**+1.1**
WTVZ				AML		AML		
PRGZ	**Paritu Road**	**2.05**	**148**	P		**P**	**08 28 27.7**	**+0.4**
PRGZ				AML		AML		
TWVZ	**Taurewa**	**2.05**	**203**	P		**P**	**08 28 28.3**	**+0.9**
TWVZ				AML		AML		
KNZ	**Kokohu**	**2.05**	**153**	P		**P**	**08 28 28.6**	**+1.3**
KNZ				AML		AML		
OTVZ	**Oturere**	**2.07**	**198**	P		**P**	**08 28 28.8**	**+1.2**
OTVZ				AML		AML		
NGZ	**Ngauruhoe**	**2.10**	**199**	P		**P**	**08 28 28.9**	**+1.2**
NGZ				AML		AML		
SNVZ	**South Ngauruho**	**2.10**	**198**	P		**P**	**08 28 28.9**	**+1.1**
SNVZ				AML		AML		
ARHZ	**Aropaoanui**	**2.11**	**169**	P		**P**	**08 28 29.3**	**+1.7**
ARHZ				AML		AML		
WCZ	**Waipu Caves**	**2.13**	**305**	P		**P**	**08 28 29.0**	**+1.0**
WCZ				AML		AML		
TUVZ	**Tukino**	**2.17**	**197**	P		**P**	**08 28 29.2**	**+1.0**
TUVZ				AML		AML		
FWVZ	**Far West T-bar**	**2.19**	**199**	P		**P**	**08 28 29.3**	**+0.9**
FWVZ				AML		AML		
WHVZ	**Whangaehu Hut**	**2.20**	**198**	P		**P**	**08 28 29.7**	**+1.2**
WHVZ				AML		AML		
KWHZ	**Kaweka Forest**	**2.23**	**181**	P		**P**	**08 28 29.7**	**+1.3**
KWHZ				AML		AML		
TRVZ	**Turoa**	**2.23**	**199**	P		**P**	**08 28 29.7**	**+1.0**
TRVZ				AML		AML		
WNVZ	**Wahianoa**	**2.24**	**198**	P		**P**	**08 28 29.5**	**+0.9**
WNVZ				AML		AML		
MCHZ	**McNeill Hill**	**2.25**	**176**	P		**P**	**08 28 30.3**	**+1.8**
MCHZ				AML		AML		
MHGZ	**Mahia Peninsul**	**2.25**	**151**	P		**P**	**08 28 30.4**	**+1.9**
MHGZ				AML		AML		
PKVZ	**Pokaka**	**2.28**	**203**	P		**P**	**08 28 29.6**	**+0.8**
PKVZ				AML		AML		
MOVZ	**Moawhango**	**2.28**	**194**	P		**P**	**08 28 29.5**	**+0.7**
MOVZ				AML		AML		
BHHZ	**Black Hill Sta**	**2.32**	**188**	P		**P**	**08 28 30.0**	**+1.0**
BHHZ				AML		AML		
MTVZ	**Mangateitei**	**2.33**	**200**	P		**P**	**08 28 30.1**	**+1.0**
MTVZ				AML		AML		
VRZ	**Vera Road**	**2.36**	**215**	P		**P**	**08 28 30.6**	**+1.4**
VRZ				AML		AML		
KRHZ	**Kereru**	**2.45**	**182**	P		**P**	**08 28 31.0**	**+1.2**
KRHZ				AML		AML		
CKHZ	**Cape Kidnapper**	**2.50**	**169**	P		**P**	**08 28 32.1**	**+1.9**
CKHZ				AML		AML		
KAHZ	**Kahuranaki**	**2.62**	**173**	P		**P**	**08 28 32.9**	**+1.9**
KAHZ				AML		AML		
PNHZ	**Pukenui**	**2.73**	**185**	P		**P**	**08 28 32.8**	**+1.1**
PNHZ				AML		AML		
WAZ	**Wanganui**	**2.82**	**204**	P		**P**	**08 28 33.4**	**+1.0**
WAZ				AML		AML		
PXZ	**Pawanui**	**2.85**	**174**	P		**P**	**08 28 34.4**	**+1.9**
PXZ				AML		AML		
WPHZ	**Waipukurau**	**2.87**	**181**	P		**P**	**08 28 34.6**	**+1.9**
WPHZ				AML		AML		
TSZ	**Takapari Road**	**2.89**	**188**	P		**P**	**08 28 34.2**	**+1.3**
TSZ				AML		AML		
OUZ	**Omahuta**	**3.06**	**309**	P		**P**	**08 28 34.8**	**+0.5**
OUZ	**Omahuta**	**3.06**	**309**	P		**P**	**08 28 34.9**	**+0.5**
OUZ				AML		AML		
PRHZ	**Porangahau**	**3.07**	**178**	P		**P**	**08 28 36.1**	**+1.9**
PRHZ				AML		AML		
DVHZ	**Dannevirke**	**3.11**	**185**	P		**P**	**08 28 35.8**	**+1.2**
DVHZ				AML		AML		
POWZ	**Post Office Ro**	**3.24**	**190**	P		**P**	**08 28 36.7**	**+1.1**
POWZ				AML		AML		
PRWZ	**Pori Road**	**3.38**	**187**	P		**P**	**08 28 38.4**	**+1.7**
PRWZ				AML		AML		
BFZ	**Birch Farm**	**3.49**	**183**	P		**P**	**08 28 38.5**	**+0.9**
BFZ	**Birch Farm**	**3.49**	**183**	S		**S**	**08 29 34.1**	**-0.2**
BFZ	**Birch Farm**	**3.49**	**183**	P		**P**	**08 28 39.1**	**+1.5**
BFZ				AML		AML		
MRZ	**Mangatainoka R**	**3.53**	**191**	P		**P**	**08 28 38.9**	**+0.9**
MRZ				AML		AML		
OGWZ	**Otaki Gorge**	**3.76**	**195**	P		**P**	**08 28 40.9**	**+1.0**
OGWZ				AML		AML		
HOWZ	**Holdsworth Sta**	**3.78**	**191**	P		**P**	**08 28 41.0**	**+0.9**
HOWZ				AML		AML		
KIW	**Kapiti Island**	**3.86**	**198**	P		**P**	**08 28 41.4**	**+0.6**
KIW				AML		AML		
TMWZ	**Te Maipa**	**3.94**	**187**	P		**P**	**08 28 42.1**	**+0.5**
TMWZ				AML		AML		
MTW	**Mount Morrison**	**4.03**	**191**	P		**P**	**08 28

GMLD	**Gumuldur**	**0.27**	**26**	Pg	**Pb**	**08 31 25.9**	**-1.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.39**	**109**	P	**Pg**	**08 31 27.6**	**+0.2**
GCAM				S	**Sg**	**08 31 33.3**	**+0.9**
GCAM				IAML		08 31 34.0	
	comp=N,620nm,0.4s						
GCAM				IAML		08 31 34.0	
	comp=E,386nm,0.3s						
GCAM	**G?zelcaml?**	**0.39**	**109**	Pg	**Pg**	**08 31 27.5**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.41**	**86**	Pg	**Pg**	**08 31 27.9**	**+0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**18**	P	**Pg**	**08 31 27.7**	**-0.2**
BEYE				S	**Sg**	**08 31 33.4**	**+0.1**
BEYE				IAML		08 31 34.0	
	comp=N,382nm,0.3s						
BEYE				IAML		08 31 35.0	
	comp=E,356nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**333**	P	**Pg**	**08 31 28.8**	**+0.1**
ZEYE				S	**Sg**	**08 31 35.5**	**+0.9**
ZEYE				IAML		08 31 36.0	
	comp=N,1μm,0.3s						
ZEYE				IAML		08 31 36.0	
	comp=E,673nm,0.6s						
BLCB	**Balcova**	**0.59**	**21**	Pg	**Pg**	**08 31 31.2**	**0.0**
BLCB				AML	AML		
CESE	**eme**	**0.62**	**324**	Pg	**Pb**	**08 31 32.6**	**-0.6**
CESE				AML	AML		
DUVT	**Torbali**	**0.67**	**54**	P	**Pg**	**08 31 32.1**	**-0.4**
DUVT				S	**Sg**	**08 31 40.2**	**-1.1**
DUVT				IAML		08 31 45.0	
	comp=E,299nm,0.4s						
KRBN	**Karaburun**	**0.78**	**348**	Pg	**Pb**	**08 31 35.7**	**-0.2**
KRBN				AML	AML		
CHOS	**Chios island**	**0.79**	**315**	Pg	**Pb**	**08 31 35.6**	**-0.5**
CHOS				Sg	**Sb**	**08 31 47.0**	**-0.2**
CHOS				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.81**	**150**	Pg	**Pg**	**08 31 35.5**	**+0.1**
YKAV				Sg	**Sb**	**08 31 47.4**	**-0.4**
YKAV				AML	AML		
BAGT	**Foa**	**0.83**	**5**	P	**Pn**	**08 31 38.7**	**+0.5**
BAGT				S	**Sb**	**08 31 49.0**	**+0.9**
BAGT				IAML		08 31 54.0	
	comp=E,301nm,0.6s						
BAGT				IAML		08 31 58.0	
	comp=N,217nm,0.8s						
BODT	**Bodrum**	**0.88**	**150**	Pg	**Pg**	**08 31 36.9**	**+0.2**
BODT				Sg	**Sb**	**08 31 49.7**	**0.0**
BODT				AML	AML		
FOCM	**Foa**	**0.88**	**358**	Pg	**Pb**	**08 31 37.4**	**-0.2**
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.90**	**82**	Pg	**Pb**	**08 31 37.9**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**0.96**	**123**	Pg	**Pb**	**08 31 38.7**	**-0.4**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.22**	**83**	Pn	**Pn**	**08 31 43.8**	**+0.2**
NAZL				AML	AML		
APE	**Apeiranthos**	**1.24**	**233**	Pn	**Pg**	**08 31 43.3**	**-0.3**
APE				AML	AML		
DKL	**Dikili**	**1.24**	**5**	Pn	**Pn**	**08 31 44.5**	**+0.6**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.26**	**46**	Pn	**Pn**	**08 31 44.4**	**+0.3**
GOMA				AML	AML		
DAT	**Datca**	**1.28**	**149**	Pn	**Pn**	**08 31 44.4**	**-0.1**
DAT				AML	AML		
AKS	**Akhisar**	**1.33**	**38**	Pn	**Pg**	**08 31 45.9**	**+0.6**
AKS				AML	AML		
YER	**Yerkesik**	**1.39**	**119**	Pn	**Pg**	**08 31 46.7**	**+0.2**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.46**	**24**	Pn	**Pg**	**08 31 47.9**	**+0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.55**	**45**	Pn	**Pg**	**08 31 49.2**	**-0.2**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**8**	Pn	**Pb**	**08 31 52.9**	**-0.3**
YAYO				AML	AML		

*ASRS **02** 08:35:40.0±0.7,54.°62N×83.°70E,h0km,M2.3(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 02 08:35:40.9±1.9,54.°60N×83.°68E,h0km,mbtmp3.2/3, ML2.7/3,Error ellipse: s-maj=16.9km s-min=12.0km az=160.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.94**	**134**	I	I	08 41 07.1	
	baz=318,slow=324,SNR=1.1						
ZALV	**Zalesovo Beam**	**0.94**	**134**	Pg	Pg	08 35 58.5	-0.4
	2.6nm,0.3s,baz=316,slow=20,SNR=18						
ZALV				Lg	Lg	08 36 11.4	
	10.0nm,0.3s,baz=311,slow=31,SNR=14						
KURBB	**Kurchatov Arra**	**5.07**	**220**	Pn	Pn	08 36 58.4	+0.3
	0.2nm,0.3s,baz=39,slow=13,SNR=2.2						
KURBB				Lg	Lg	08 38 20.5	
	0.1nm,0.3s,baz=42,slow=32,SNR=1.8						
	0.8nm,0.2s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.87**	**187**	Pn	Pn	08 37 36.6	+0.1
	0.2nm,0.3s,baz=9.7,slow=14,SNR=6.8						
MKAR				Lg	Lg	08 39 49.6	
	0.1nm,0.3s,baz=11,slow=25,SNR=2.6						
	0.3nm,0.4s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**8.02**	**264**	Pn	Pn	08 37 38.6	0.0
	0.1nm,0.3s,baz=68,slow=15,SNR=6.0						
	0.9nm,0.3s						
BVAR				AML	AML		

IDC 02 08:44:11.0±9.0,20.°11S×178.°70W,h0km,mb3.4/3, mbtmp3.4/3,Error ellipse: s-maj=395.3km s-min=43.4km az=145.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**43.97**	**256**	P	P	08 52 20.2	-0.1
	0.3nm,0.5s,baz=90,slow=8.6,SNR=7.4						
	0.3nm,0.5s						
WRA	**Warramunga Arr**	**44.00**	**262**	P	P	08 52 20.4	-0.2
	0.1nm,0.3s,baz=97,slow=8.1,SNR=1.4						
	0.1nm,0.3s						
ILAR	**Eielson Array**	**88.08**	**13**	P	P	08 57 02.9	0.0
	0.4nm,0.8s,baz=198,slow=5.7,SNR=2.1						
	0.4nm,0.8s						

*SOME **02** 08:44:25.9,38.°23N×70.°22E,h10km*
*NNC **02** 08:44:36.3±5.9,39.°39N×70.°24E,h0km,mb4.4,mpv4.0, Error ellipse: s-maj=47.0km s-min=27.1km az=11.0*

ISC 02 08:44:33.8±3.7,38.°8N±0.°2×70.°6E±0.°1,h17km,n16, σ1°34/21,4C,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IUG	**luzhnay**	**3.34**	**353**	Pg	**Pn**	**08 45 27.9**	**+2.5**
	102nm,0.4s						
IUG				Lg	Lg	08 46 11.7	
	124nm,0.5s						
IUG	**luzhnay**	**3.34**	**353**	*e*P	**Pn**	**08 45 27.9**	**+2.5**
	102nm,0.4s						
IUG				*e*S	**Sb**	**08 46 11.7**	**-1.3**
	124nm,0.5s						
BRLS	**Borolday**	**4.24**	**353**	Pg	**Pn**	**08 45 36.3**	**-1.2**
	19nm,0.3s						
BRLS				Lg	Lg	08 46 26.3	
	11nm,0.3s						
BRLS	**Borolday**	**4.24**	**353**	*e*P	**Pn**	**08 45 36.3**	**-1.2**
	19nm,0.3s						
BRLS				*e*S	**Sn**	**08 46 26.3**	**-0.3**
	11nm,0.3s						
KK31	**Karatay Array**	**4.27**	**360**	⇑Pn	**Pn**	**08 45 36.6**	**-1.4**
	16nm,0.4s,baz=187,slow=13,SNR=170						
KK31				⇑Lg	Lg	08 46 35.0	
	9.8nm,0.4s,baz=188,slow=32						
MRKS	**Merke**	**4.41**	**26**	Pg	**Pn**	**08 45 40.5**	**+0.6**
	11nm,0.5s						
MRKS				Lg	Lg	08 46 33.5	
	72nm,0.7s						
MRKS	**Merke**	**4.41**	**26**	*e*P	**Pn**	**08 45 40.5**	**+0.6**
	11nm,0.5s						
MRKS				*e*S	**Sn**	**08 46 33.5**	**+2.6**
	72nm,0.7s						
UCH	**Uchtor**	**4.54**	**40**	P	**Pn**	**08 45 41.0**	**-1.2**
	SNR=27						
EKS2	**Erkin-Say**	**4.54**	**32**	P	**Pn**	**08 45 42.9**	**+1.0**
	SNR=5.3						
AAK	**Ala-Archa**	**4.84**	**37**	P	**Pn**	**08 45 46.2**	**+0.3**
	SNR=15						
AAK	**Ala-Archa**	**4.84**	**37**	⇑Pn	**Pn**	**08 45 46.9**	**+0.9**
	5.8nm,0.5s						
AAK				⇑Sn	**Sn**	**08 46 41.3**	**-0.4**
	14nm,0.6s						
CHMS	**Chumysh**	**5.24**	**36**	P	**Pn**	**08 45 52.2**	**+0.8**
	SNR=9.1						
USP	**Ospenovka**	**5.34**	**33**	P	**Pn**	**08 45 52.7**	**-0.1**
	SNR=11						
TKM2	**Tokmak 2**	**5.59**	**41**	P	**Pn**	**08 45 55.4**	**-1.0**
	SNR=23						
KST	**Kastek**	**5.87**	**42**	Pg	**Pb**	**08 46 15.6**	**-0.2**
KST				Lg	Lg	08 47 33.2	
KST	**Kastek**	**5.87**	**42**	*e*P	**Pn**	**08 46 00.3**	**+0.2**
KST				*e*S	**Sn**	**08 47 07.2**	**+0.1**
	14nm,0.8s						

TRN 02 08:48:45.0,12.°20N×59.°30W,h65km,MD3.8,South-east of Barbados.,Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BBGH	**Gun Hill**	**0.97**	**345**	*e*P	Pn	08 49 12.3	+9.4
BBGH				*e*S	Sn	08 49 26.1	+10
SVB	**Belmont**	**2.19**	**299**	*e*P	Pn	08 49 29.4	+10
SVB				*e*S	Sn	08 49 55.6	+10
MCLT	**Moule a Chique**	**2.20**	**313**	*e*P	Pn	08 49 28.8	+10
MCLT				*e*S	Sn	08 49 54.8	+9.4
GRSS	**Sisters**	**2.27**	**273**	*e*P	Pn	08 49 29.6	+9.4
GRSS				*e*S	Sn	08 49 56.3	+9.2
GRGR	**Grenville**	**2.31**	**269**	*e*P	Pn	08 49 30.7	+10
GRGR				*e*S	Sn	08 49 57.4	+9.3
GRW	**Mount Saint Ca**	**2.31**	**269**	*e*P	Pn	08 49 30.4	+9.5
GRW				*e*S	Sn	08 49 58.5	+10
SLBI	**Saint Lucia, B**	**2.44**	**318**	*e*P	Pn	08 49 33.3	+11
SLBI				*e*S	Sn	08 50 01.2	+10
SLCP	**Castries, St.**	**2.44**	**318**	*e*P	Pn	08 49 32.6	+10
SLCP				*e*S	Sn	08 50 01.6	+10
TRN	**Trinidad (W)**	**2.58**	**233**	*e*P	Pn	08 49 35.2	+11
TRN				*e*S	Sn	08 50 04.5	+10
DMDM	**Guralp CMG5TDE**	**2.67**	**236**	*e*P	Pn	08 49 35.2	+10
DMDM				*e*S	Sn	08 50 05.8	+8.9
BIM	**Bigot**	**2.88**	**323**	*e*P	Pn	08 49 39.5	+11
BIM				*e*S	Sn	08 50 11.6	+10
DSLB	**Salisbury**	**3.82**	**328**	*e*P	Pn	08 49 51.3	+10
DSLB				*e*S	Sn	08 50 33.1	+7.9
MAGL	**Barre de l'ile**	**4.20**	**333**	*e*P	Pn	08 49 56.4	+10
MAGL				*e*S	Sn	08 50 42.4	+8.1
DSDZ	**La Diserade, G**	**4.43**	**337**	*e*P	Pn	08 49 59.5	+10

WEL 02 08:58:12.6±1.0,36.°5S×18.°0E±1.°1,h121km±22km, M3.5/17,ML3.4/18,MLv3.5/17,Error ellipse: s-maj=14.1km s-min=10.2km az=82.4,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**1.89**	**213**	P	Pn	08 58 43.3	-1.4
MXZ				S	Sn	08 59 09.0	-0.3
WMGZ	**Waiomatatini S**	**2.07**	**208**	P	Pn	08 58 46.9	0.0
WMGZ				S	Sn	08 59 14.1	+0.9
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**2.25**	**213**	P	Pn	08 58 49.0	-0.2
PKGZ				S	Sn	08 59 17.4	+0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**2.30**	**219**	P	Pn	08 58 49.3	-0.5
HAZ				S	Sn	08 59 21.1	+2.7
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**2.35**	**207**	P	Pn	08 58 50.7	+0.2
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**2.52**	**218**	P	Pn	08 58 52.9	+0.2
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**2.55**	**210**	P	Pn	08 58 53.5	+0.5
TWGZ				S	Sn	08 59 25.8	+1.6
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.74**	**204**	P	Pn	08 58 55.2	-0.2
CNGZ				S	Sn	08 59 29.1	+0.7
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**2.83**	**210**	P	Pn	08 58 58.2	+1.6
TKGZ				S	Sn	08 59 30.1	-0.4
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**2.88**	**215**	P	Pn	08 58 57.3	0.0
MWZ				S	Sn	08 59 32.7	+0.9
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**3.03**	**221**	P	Pn	08 58 59.1	-0.1
URZ				S	Sn	08 59 34.5	-0.7
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**3.06**	**214**	P	Pn	08 59 00.2	+0.5
RAGZ				S	Sn	08 59 36.4	+0.3
RAGZ				AML	AML		
RAGZ				AML	AML		
OPRZ	**Ohinepanea**	**3.08**	**232**	P	Pn	08 59 00.4	+0.5
OPRZ				AML	AML		
RIGZ	**Rimuhau**	**3.09**	**208**	P	Pn	08 58 60.0	-0.1
RIGZ				S	Sn	08 59 36.0	-0.8
RIGZ				AML	AML		
RIGZ				AML	AML		
TGRZ	**Tauranga**	**3.21**	**236**	P	Pn	08 59 01.4	-0.1
TGRZ				AML	AML		
TGRZ				AML	AML		
PRGZ	**Paritu Road**	**3.24**	**205**	P	Pn	08 59 02.2	+0.1
PRGZ				S	Sn	08 59 40.0	-0.3
PRGZ				AML	AML		
PRGZ				AML	AML		
RTZ	**Ruatahuna**	**3.36**	**218**	P	Pn	08 59 01.4	-2.3
MUGZ	**Murupara**	**3.37**	**222**	P	Pn	08 59 03.2	-0.5
MUGZ				AML	AML		
MUGZ				AML	AML		
KNZ	**Kokohu**	**3.40**	**207**	P	Pn	08 59 03.4	-0.7
KNZ				AML	AML		
MHGZ	**Mahia Peninsul**	**3.44**	**203**	P	Pn	08 59 04.3	-0.4
MHGZ				S	Sn	08 59 45.9	+1.0
MHGZ				AML	AML		
MHGZ				AML	AML		
KMRZ	**Kaimai**	**3.48**	**237**	P	Pn	08 59 05.4	+0.2
KMRZ				AML	AML		
KMRZ				AML	AML		
RAHZ	**Arahi**	**3.55**	**214**	P	Pn	08 59 07.1	+0.9
RAHZ				S	Sn	08 59 48.0	+0.4
RAHZ				AML	AML		
RAHZ				AML	AML		
TOZ	**Tahuroa Road**	**3.73**	**241**	P	Pn	08 59 08.9	+0.4
TOZ				AML	AML		
TOZ				AML	AML		
MRHZ	**Matea Rd**	**3.82**	**221**	P	Pn	08 59 09.9	+0.2
MRHZ				AML	AML		
MRHZ				AML	AML		
WCZ	**Waipu Caves**	**4.28**	**269**	P	Pn	08 59 15.7	-0.2
WCZ				AML	AML		
OUZ	**Omahuta**	**4.97**	**277**	P	Pn	08 59 24.7	-0.4

*NEIC **02** 08:58:12.9±1.6,14.°72S±0.°08×167.°50E±0.°09,h143km±6km, mb4.4/22,Error ellipse: s-maj=15.6km s-min=7.1km az=136.0*
*IDC **02** 08:58:13.4±3.7,14.°76S×167.°33E,h145km±30km,mb3.7/9, mbtmp4.1/10,Error ellipse: s-maj=25.4km s-min=17.9km az=59.0*
*NOU **02** 08:58:13.9,14.°54S×167.°14E,h117km,MLv5.3/9, Vanuatu Islands*

ISC 02 08:58:13.1±0.5,14.°75S±0.°07×167.°47E±0.°08,h150km,n50, σ0°98/51,mb4.3/18,3C,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.74**	**201**	P	**Pn**	**08 58 35.3**	**-0.6**
SANVU	**Saraoutou**	**0.74**	**201**	S	**Sn**	**08 58 51.6**	**-1.7**
SANVU	**Saraoutou**	**0.74**	**201**		**Pn**	**08 58 35.0**	**-0.9**
KOUNC	**Koumac, New Ca**	**6.52**	**207**	Pn	**Pn**	**08 58 46.8**	**0.0**
MARNC	**Mare, Loyalty**	**6.71**	**176**	Pn	**Pn**	**08 59 48.9**	**-0.4**
DZM	**Mont Dzumac**	**7.34**	**187**	P	**Pn**	**08 59 58.9**	**+1.0**
	7.4nm,0.3s,baz=9.9,slow=13,SNR=68						
DZM				S	**Sn**	**09 01 18.6**	**-1.5**
	1.7nm,0.3s,baz=309,slow=21,SNR=1.0						
OUENC	**Ouen Island, N**	**7.65**	**184**	Pn	**Pn**	**09 00 00.6**	**-1.2**
PINNC	**Pines Island,**	**7.82**	**180**	Pn	**Pn**	**09 00 03.4**	**-0.7**
HNR	**Honiara**	**9.06**	**305**	Pn	**Pn**	**09 00 19.7**	**-1.1**
FUTU	**Fugatoga**	**13.96**	**90**	Pn	**Pn**	**09 01 23.4**	**-1.2**
KRVT	**Keravat (AS076**	**18.42**	**303**	P	**P**	**09 02 16.5**	**-0.6**
	341nm,0.4s,baz=118,slow=4.4,SNR=5.8						
EIDS	**Eidsvold**	**18.65**	**233**		**Pn**	**09 02 21.5**	**-0.1**
EIDS				IAmb	IAmb	09 02 22.5	
	comp=Z,15nm,0.7s						
CTA	**Charters Tower**	**20.92**	**252**	P	**P**	**09 02 44.2**	**+0.1**
	comp=Z,5.1nm,0.8s,baz=84,slow=8.8,SNR=4.9						
	comp=Z,5.1nm,0.8s						
CTAO	**Charters Tower**	**20.92**	**252**	P	**P**	**09 02 44.6**	**+0.5**
CTAO				IAmb	IAmb	09 02 45.2	
	comp=Z,7.2nm,0.9s						
INKA	**Innaminka**	**27.99**	**238**	P	**P**	**09 03 51.2**	**+1.3**
STKA	**Stephens Creek**	**29.13**	**230**	P	**P**	**09 04 01.1**	**+1.0**
	comp=Z,2.5nm,0.4s,baz=49,slow=8.4,SNR=19						
	comp=Z,2.5nm,0.4s						
STKA	**Stephens Creek**	**29.13**	**230**	P	**P**	**09 04 01.5**	**+1.5**
WR8	**Warramunga Arr**	**31.86**	**256**	P	**P**	**09 04 23.1**	**-1.2**
WR8				IAmb	IAmb	09 04 52.8	
	comp=Z,4.8nm,1.2s						
WRA	**Warramunga Arr**	**32.01**	**256**	P	**P**	**09 04 23.8**	**-1.8**
	comp=Z,0.9nm,0.4s,baz=85,slow=8.9,SNR=23						
	comp=Z,0.9nm,0.4s						
WRA	**Warramunga Arr**	**32.01**	**256**	P	**P**	**09 04 23.9**	**-1.6**
AS31	**Alice Springs**	**32.85**	**249**	P	**P**	**09 04 31.9**	**-1.0**
ASAR	**Alice Springs**	**32.85**	**249**	P	**P**	**09 04 31.7**	**-1.1**
	comp=Z,2.4nm,0.4s,baz=75,slow=9.4,SNR=68						
ASAR				PcP	**PcP**	**09 07 14.4**	**+0.1**
	comp=Z,0.7nm,1.0s,baz=94,slow=2.7,SNR=2.8						
	comp=Z,2.4nm,0.4s						
ASAR	**Alice Springs**	**32.85**	**249**	P	**P**	**09 04 32.1**	**-0.8**
ASAR					**PcP**	**09 07 12.6**	**-1.7**
BBOO	**Buckleboo**	**33.72**	**232**	P	**P**	**09 04 41.3**	**+1.0**
BBOO				IAmb	IAmb	09 04 58.5	
	comp=Z,26nm,1.5s						
KNRA	**Kununurra**	**37.33**	**263**	P	**P**	**09 05 11.2**	**-0.1**
KNRA				IAmb	IAmb	09 05 11.3	
	comp=Z,4.6nm,1.1s						
FORT	**Forrest**	**39.45**	**239**	P	**P**	**09 05 29.4**	**+0.5**
FORT				IAmb	IAmb	09 05 43.7	
	comp=Z,9.5nm,1.1s						
FITZ	**Fitzroy Crossi**	**40.20**	**259**	P	**P**	**09 05 35.7**	**+0.5**
MBWA	**Marble Bar**	**45.73**	**255**	P	**P**	**09 06 20.1**	**+0.5**
MBWA				IAmb	IAmb	09 06 57.5	
	comp=Z,19nm,1.3s						
YULB	**Yu-li**	**58.96**	**309**	P	**P**	**09 07 57.1**	**-0.1**
VNDA	**Vanda**	**62.84**	**181**	P	**P**	**09 08 23.3**	**+0.8**
	comp=Z,1.0nm,0.5s,baz=355,slow=7.5,SNR=16						
	comp=Z,1.0nm,0.5s						
VNDA	**Vanda**	**62.84**	**181**	P	**P**	**09 08 24.0**	**+1.6**
SBA	**Scott Base**	**63.11**	**180**	P	**P**	**09 08 25.2**	**+1.0**
SBA				IAmb	IAmb	09 08 27.4	
	comp=Z,6.3nm,0.9s						
PETK	**Petropavlovsk-**	**68.11**	**354**	P	**P**	**09 08 58.0**	**+1.4**
ATKA	**Atka Island**	**68.55**	**12**	P	**P**	**09 08 58.8**	**-0.5**
KULM	**Kulim**	**69.15**	**282**	P	**P**	**09 09 02.4**	**-1.5**
KULM				IAmb	IAmb	09 09 16.0	
	comp=Z,23nm,1.5s						
QSPA	**South Pole Qui**	**75.28**	**180**	P	**P**	**09 09 40.2**	**+0.8**
	comp=Z,3.3nm,0.9s,baz=14,slow=2.3,SNR=15						
	comp=Z,3.3nm,0.9s						
QSPA	**South Pole Qui**	**75.28**	**180**	P	**P**	**09 09 40.7**	**+1.2**
QSPA				IAmb	IAmb	09 09 41.4	
	comp=Z,4.0nm,1.0s						
Q15K	**Ungalikthiuk R**	**78.33**	**17**	P	**P**	**09 09 57.2**	**+0.8**
SONM	**Songino Array**	**82.63**	**324**	P	**P**	**09 10 20.3**	**+0.6**
	comp=Z,0.2nm,0.4s,baz=124,slow=8.2,SNR=1.9						
	comp=Z,0.2nm,0.4s						
P23K	**Montague Islan**	**82.86**	**21**	P	**P**	**09 10 21.2**	**+0.8**
J20K	**Nowinta River**	**83.99**	**16**	P	**P**	**09 10 25.6**	**-0.5**
J20K				IAmb	IAmb	09 10 40.6	
	comp=Z,6.3nm,1.5s						
ILAR	**Eielson Array**	**86.49**	**18**	P	**P**	**09 10 39.0**	**+0.4**
	comp=Z,0.8nm,0.8s,baz=236,slow=5.3,SNR=8.4						
	comp=Z,0.8nm,0.8s						
ILAR	**Eielson Array**	**86.49**	**18**	P	**P**	**09 10 39.4**	**+0.8**
H23K	**Yukon River**	**86.51**	**16**	P	**P**	**09 10 38.7**	**0.0**
H23K				IAmb	IAmb	09 10 41.3	
	comp=Z,5.7nm,1.3s						
TROLL	**Troll, Antarti**	**92.86**	**185**	⇑P	**P**	**09 11 09.2**	**+0.5**
	comp=Z,115nm,0.5s						
VNA3	**Neumayer Olymp**	**94.19**	**181**	⇑P	**P**	**09 11 14.4**	**-0.3**
	comp=Z,1.4nm,0.3s						
VNA2	**Neumayer-Watz**	**94.46**	**182**	⇑P	**P**	**09 11 15.7**	**-0.1**
	comp=Z,3.3nm,0.6s,baz=189,slow=4.2						
MKAR	**Makanchi Array**	**97.36**	**316**	P	Pdif	09 11 31.6	+2.2
	comp=Z,0.3nm,0.7s,baz=97,slow=4.6,SNR=2.1						
	comp=Z,0.3nm,0.7s						
MKAR	**Makanchi Array**	**97.36**	**316**	P	Pdif	09 11 29.9	+0.4
ARCES	**ARCESS Array B**	**120.32**	**345**	PKP	**PKiKP**	**09 16 46.5**	**+0.5**
	comp=Z,1.0nm,0.5s,baz=45,slow=1.9,SNR=7.9						

*ATH **02** 08:58:36.7,37.°89N×26.°89E,h6km±1km,ML3.0/6,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **02** 08:58:37.4,38.°N±1.°×2.°7E±.°,h13km±1km,M2.9/6, MLh2.9/6*
*AFAD **02** 08:58:37.1,37.°84N×26.°80E,h7km±2km,ML2.8*
*ISK **02** 08:58:37.1,37.°84N×26.°86E,h2km,ML3.0/28*

ISC 02 08:58:37.4±0.8,37.°85N±0.°02×26.°83E±0.°02,h13km±6km, n47,σ0°971/65,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.11**	**242**	P	**Pg**	**08 58 40.3**	**-0.2**
KRL1				S	**Sg**	**08 58 42.6**	**-0.1**
DGB	**zmir**	**0.21**	**11**	P	**Pg**	**08 58 41.8**	**-0.2**
DGB				S	**Sg**	**08 58 45.8**	**+0.7**
DGB				IAML		08 58 46.0	
	comp=N,1μm,0.2s						
GMLD	**Gumuldur**	**0.24**	**16**	Pg	**Pg**	**08 58 42.5**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**114**	P	**Pb**	**08 58 44.6**	**-0.9**
GCAM				S	**Sb**	**08 58 50.5**	**-0.5**
GCAM				IAML		08 58 51.0	
	comp=N,1μm,0.5s						
GCAM				IAML		08 58 51.0	
	comp=E,1μm,0.3s						
GCAM	**G?zelcaml?**	**0.35**	**114**	Pg	**Pb**	**08 58 44.6**	**-0.9**
GCAM				Sg	**Sb**	**08 58 50.4**	**-0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**88**	Pg	**Pb**	**08 58 44.8**	**-0.9**
KUSD				Sg	**Sb**	**08 58 50.2**	**-1.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**11**	P	**Pg**	**08 58 45.1**	**-0.1**
BEYE				S	**Sg**	**08 58 50.6**	**+0.2**
BEYE				IAML		08 58 52.0	
	comp=E,748nm,0.4s						
BEYE			

comp=E,911nm,0.5s
CHOS Chios island 0.81 312 P **Pg** 08 58 52.5 -0.7
CHOS S **Sg** 08 59 03.9 0.0
CHOS AML AML
CHOS Chios island 0.81 312 Pg **Pb** 08 58 53.9 +0.4
CHOS AML AML
CHOS Chios island 0.81 312 P **Pg** 08 58 52.8 -0.4
CHOS S **Sg** 08 59 03.9 0.0
CHOS AML AML
AYDB Zeytinkoy-Aydi 0.84 83 Pg **Pb** 08 58 54.0 0.0
AYDB Sg **Sb** 08 59 06.2 +0.9
AYDB AML AML
FOCM Foa 0.87 355 Pg **Pn** 08 58 55.1 -0.2
FOCM AML AML
BODT Bodrum 0.87 154 P **Pg** 08 58 53.8 -0.5
BODT S **Sb** 08 59 07.1 +1.1
BODT AML AML
BODT Bodrum 0.87 154 Pg **Pb** 08 58 54.5 +0.1
BODT AML AML
KLNA Kalymnos 0.90 173 P **Pg** 08 58 54.7 0.0
KLNA S **Sb** 08 59 07.1 +0.5
KLNA AML AML
MLSB Milas 0.93 126 Pg **Pb** 08 58 55.6 +0.2
MLSB AML AML
NAZL Nazilli-Aydin 1.16 84 Pn **Pb** 08 58 59.2 -0.2
NAZL AML AML
GOMA Golmarmara-Man 1.21 45 Pn **Pn** 08 59 01.4 +1.4
GOMA AML AML
DKL Dikili 1.22 3 Pn **Pn** 08 59 01.8 +1.6
DKL AML AML
DKL Dikili 1.22 3 P **Pb** 08 58 59.4 -1.0
DKL S **Sg** 08 59 15.0 -1.9
AKS Akhisar 1.29 37 Pn **Pg** 08 59 02.9 +0.7
AKS AML AML
APE Apeiranthos 1.29 234 P **Pn** 08 58 59.4 -1.8
APE S **Sb** 08 59 18.1 0.0
APE AML AML
APE Apeiranthos 1.29 234 Pn **Pg** 08 59 02.7 +0.4
APE AML AML
APE Apeiranthos 1.29 234 P **Pg** 08 59 02.6 +0.4
APE AML AML
YER Yerkesik 1.36 121 P **Pn** 08 59 01.9 -0.2
YER AML AML
YER Yerkesik 1.36 121 Pn **Pg** 08 59 03.8 +0.3
YER AML AML
SOMA Soma-Manisa 1.42 23 Pn **Pg** 08 59 05.2 +0.5
SOMA AML AML
PRK Paraskevi 1.47 343 P **Pn** 08 59 03.3 -0.2
PRK S **Sn** 08 59 21.4 -1.1
PRK Paraskevi 1.47 343 P **Pn** 08 59 03.1 -0.4
PRK AML AML
GORD Gordes-Manisa 1.50 45 Pn **Pg** 08 59 06.2 0.0
GORD AML AML
YAYO Edremit-Balk 1.77 6 Pn **Pb** 08 59 09.9 +0.2
YAYO AML AML
DALY Dalyan (Mula) 1.78 125 Pn **Pb** 08 59 10.1 +0.3
DALY AML AML
KARY Karystos 1.90 276 P **Pn** 08 59 10.4 +0.9
EZNE Ezine-Canakkal 1.94 349 Pn **Pb** 08 59 12.8 +0.2
BALB Balikesir 1.97 24 Pn **Pb** 08 59 13.1 0.0
BALB AML AML
APMY Acipayam-Deniz 2.00 100 Pn **Pb** 08 59 13.1 -0.5
APMY AML AML
SIMA Simav-Kutahya 2.09 53 Pn **Pb** 08 59 14.7 -0.6
SIMA AML AML
SMAA Simav-Kutahya 2.10 53 Pn **Pb** 08 59 14.5 -0.9
CAME Cameli-Denizli 2.17 114 Pn **Pn** 08 59 14.9 +1.6
CAME AML AML

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*BJI **02** 09:04:49.3, 13˚.405×167˚.38E, h201km, mB5.0/2, mb4.7/31*
*NEIC **02** 09:04:50.3±1.6, 13˚.24S±0˚.08×167˚.2E±0˚.1, h181km±5km, mb4.9/73, Error ellipse: s-maj=15.4km s-min=10.5km az=69.0*
*GFZ **02** 09:04:52.0±0.2, 13˚.S±4˚×167˚.7E±˚, h192km, M4.6/35, mb4.7/35, confirmed*
*IDC **02** 09:04:51.3±1.2, 13˚.31S×166˚.97E, h193km±10km, mb4.2/21, mbtmp4.7/25, MS3.8/13, Error ellipse: s-maj=10.5km s-min=8.7km az=90.0*
*NOU **02** 09:04:52.1, 13˚.29S×166˚.96E, h176km, mb4.8/84, Vanuatu Islands*
*GCMT **02** 09:04:52.3±0.2, 13˚.26S±0˚.02×166˚.87E±0˚.01, h185km±1km, MW5.1/121, Moment Tensor Solution. s53,c70; s121,c182; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr4.85±.11; Mθθ0.92±.11; Mϕϕ-5.77±.12; Mrθ-1.51±.11; Mθϕ0.39±.13; Mϕr-0.18±.12; Best double couple: Mo5.58200×10¹⁶ NP1:ϕs339.00000°, δ48.00000°, λ64.00000°. NP2:ϕs195.00000°, δ48.00000°, λ116.00000°. Principal axes: T 5.3710, Plg71.0000°, Azm175.0000°; N 0.4230, Plg19.0000°, Azm357.0000°; P -5.7940, Plg0.0000°, Azm267.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 09:04:50.2±0.5, 13˚.26S±0˚.05×167˚.15E±0˚.04, h186km±4km, n383, σ1§20/379, mb4.8/110, **2C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**2.17**	**179**	P	**Pn**	**09 05 30.6**	**+1.1**
SANVU	**Saraoutou**	**2.17**	**179**	P	**Sn**	**09 05 59.5**	**-0.8**
SANVU	**Saraoutou**	**2.17**	**179**		**Pn**	**09 05 29.5**	**0.0**
SANVU	**Saraoutou**	**2.17**	**179**	P	**Pn**	**09 05 29.7**	**+0.3**
SANVU				S	**Sn**	**09 05 59.6**	**-0.6**
SANVU				AML	AML		
SANVU				AML	AML		
SANVU	**Saraoutou**	**2.17**	**179**	P	**Pn**	**09 05 29.8**	**+0.3**
HURO	**Huro Makira**	**5.84**	**298**	P	**Pn**	**09 06 15.0**	**-0.2**
HURO	**Huro Makira**	**5.84**	**298**	S	**Sn**	**09 07 19.5**	**-2.7**
NGOA	**Tingoa Renbel**	**7.13**	**283**	P	**Pn**	**09 06 32.2**	**+0.1**
NGOA	**Tingoa Renbel**	**7.13**	**283**	S	**Sn**	**09 07 50.7**	**-2.0**
KOUNC	**Koumac, New Ca**	**7.75**	**200**	Pn	**Pn**	**09 06 39.9**	**-0.3**
HNR	**Honiara**	**8.02**	**298**	P	**Pn**	**09 06 43.4**	**-0.4**
	82nm,0.8s,baz=123,slow=2.2,SNR=5.8						
HNR				S	**Sn**	**09 08 12.5**	**-1.4**
	101nm,0.8s,baz=357,slow=16,SNR=1.7						
HNR				LR	LR	09 09 34.4	
	comp=Z,498nm,21.2s,baz=218,slow=36						
HNR	**Honiara**	**8.02**	**298**	Pn	**Pn**	**09 06 43.6**	**-0.2**
HNR	**Honiara**	**8.02**	**298**	P	**Pn**	**09 06 43.1**	**-0.7**
HNR				S	**Sn**	**09 08 10.3**	**-3.7**
HNR				AML	AML		
HNR	**Honiara**	**8.02**	**298**	P	**Pn**	**09 06 43.7**	**-0.1**
	comp=Z,193nm,0.8s						
MARNC	**Mare, Loyalty**	**8.22**	**174**	P	**Pn**	**09 06 47.1**	**+0.8**
MARNC	**Mare, Loyalty**	**8.22**	**174**		**Pn**	**09 06 45.8**	**-0.5**
SAVO	**Savo Central**	**8.28**	**299**	P	**Pn**	**09 06 48.0**	**+0.8**
TATA	**Tatamba Isabel**	**8.69**	**303**	P	**Pn**	**09 06 52.9**	**+0.3**
YATNC	**Mamie plateau,**	**8.75**	**182**	P	**Pn**	**09 06 55.9**	**+2.5**
DZM	**Mont Dzumac**	**8.79**	**184**	P	**Pn**	**09 06 53.8**	**-0.1**
	comp=Z,16nm,0.7s,baz=18,slow=16,SNR=56						
DZM				S	**Sn**	**09 08 33.5**	**+1.2**
	comp=Z,20nm,0.6s,baz=332,slow=23,SNR=1.9						
NOUC	**Port Laguerre**	**8.83**	**185**	P	**Pn**	**09 06 55.2**	**+0.9**
NOUC	**Port Laguerre**	**8.83**	**185**	S	**Sn**	**09 08 33.6**	**+0.5**
NOUC	**Port Laguerre**	**8.83**	**185**	P	**Pn**	**09 06 55.3**	**+0.9**
NOUC				S	**Sn**	**09 08 33.1**	**0.0**
OUENC	**Ouen Island, N**	**9.11**	**182**	P	**Pn**	**09 06 59.1**	**+1.1**
OUENC	**Ouen Island, N**	**9.11**	**182**		**Pn**	**09 06 58.0**	**-0.1**
PINNC	**Pines Island,**	**9.31**	**178**		**Pn**	**09 06 59.4**	**-1.2**
MSVF	**Nonsavu**	**11.41**	**114**	P	**P**	**09 07 32.5**	**-1.8**
	comp=Z,82nm,1.2s,baz=290,slow=8.6,SNR=12						
MSVF	**Nonsavu**	**11.41**	**114**	P	**P**	**09 07 32.1**	**-2.2**
MSVF	**Nonsavu**	**11.41**	**114**		**Pn**	**09 07 30.2**	**+2.2**
MSVF	**Nonsavu**	**11.41**	**114**	P	**Pn**	**09 07 30.4**	**+2.4**
MSVF	**Nonsavu**	**11.41**	**114**	P	**P**	**09 07 33.6**	**-0.7**
	comp=Z,120nm,1.3s						
DGTI	**Dogotuki**	**12.54**	**105**	P	**P**	**09 07 46.5**	**-0.3**
TAVE	**Taveuni**	**12.97**	**107**	P	**P**	**09 07 51.8**	**+0.3**
LKBA	**Tubou, Lakemba**	**14.38**	**112**	P	**P**	**09 08 09.7**	**+2.5**
GD1S	**Gladstone Soft**	**18.43**	**233**	P	**Pn**	**09 08 53.1**	**-0.9**
AUNRC	**North Rockhamp**	**18.68**	**235**	P	**P**	**09 08 55.7**	**+1.3**
AUBSH	**Beerwah State**	**18.97**	**222**	P	**Pn**	**09 08 59.3**	**-1.1**
KAVG	**Kavieng**	**19.34**	**302**	P	**P**	**09 09 02.2**	**+0.6**
EIDS	**Eidsvold**	**19.34**	**229**	P	**P**	**09 09 02.0**	**+0.5**
	comp=Z,44nm,1.1s						
EIDS	**Eidsvold**	**19.34**	**229**	P	**P**	**09 09 03.0**	**+1.4**
EIDS	**Eidsvold**	**19.34**	**229**		**P**	**09 09 02.9**	**+1.4**
EIDS				AMb	AMb	09 09 06.4	
	comp=Z,74nm,1.3s						
EIDS	**Eidsvold**	**19.34**	**229**	P	**Pn**	**09 09 03.3**	**-1.5**
	comp=Z,44nm,1.1s						
PMG	**Port Moresby**	**19.97**	**279**	P	**P**	**09 09 08.8**	**+0.4**
	comp=Z,25nm,0.9s,baz=74,slow=5.5,SNR=5.8						
PMG	**Port Moresby**	**19.97**	**279**	P	**P**	**09 09 09.7**	**+1.3**
PMG	**Port Moresby**	**19.97**	**279**	P	**P**	**09 09 09.4**	**+1.0**
PMG	**Port Moresby**	**19.97**	**279**		**P**	**09 09 08.8**	**+0.4**
PMG				IAmb	IAmb	09 09 11.7	
	comp=Z,48nm,1.1s						
PMG	**Port Moresby**	**19.97**	**279**	P	**P**	**09 09 09.1**	**+0.7**
	comp=Z,41nm,1.2s						
PMG	**Port Moresby**	**19.97**	**279**	P	**P**	**09 09 09.1**	**+0.7**
	comp=Z,42nm,1.2s						
TW1H	**Toowoomba 1 Ha**	**20.08**	**223**	P	**P**	**09 09 10.7**	**+1.2**
AUTOO	**Toowoomba Stat**	**20.08**	**223**	P	Pn	09 09 11.8	-2.0
CTA	**Charters Tower**	**21.12**	**248**	P	**P**	**09 09 22.3**	**+1.7**
	comp=Z,14nm,1.4s						
CTA	**Charters Tower**	**21.12**	**248**	P	**P**	**09 09 21.1**	**+0.4**
	comp=Z,13nm,0.8s,baz=59,slow=12,SNR=14						
CTA				LR	LR	09 17 08.9	
	comp=Z,327nm,19.9s,baz=48,slow=35						
	comp=Z,13nm,0.8s						
CTA	**Charters Tower**	**21.12**	**248**	P	**P**	**09 09 21.5**	**+0.8**
CTAO	**Charters Tower**	**21.12**	**248**	P	**P**	**09 09 21.7**	**+1.0**
CTAO	**Charters Tower**	**21.12**	**248**		**P**	**09 09 21.4**	**+0.8**
CTAO				IAmb	IAmb	09 09 23.4	
	comp=Z,82nm,1.5s						
CTAO	**Charters Tower**	**21.12**	**248**	P	**P**	**09 09 22.4**	**+1.7**
	comp=Z,34nm,1.4s						
RMQ	**Roma**	**21.69**	**230**	P	**P**	**09 09 27.9**	**+1.3**
	comp=Z,66nm,1.4s						
RMQ	**Roma**	**21.69**	**230**	P	**P**	**09 09 28.2**	**+1.6**
RMQ	**Roma**	**21.69**	**230**	P	**P**	**09 09 27.9**	**+1.3**
	comp=Z,66nm,1.4s						
ARMA	**Armidale**	**22.29**	**218**	P	**P**	**09 09 33.5**	**+1.0**
	comp=Z,99nm,1.6s						
ARMA	**Armidale**	**22.29**	**218**	P	**P**	**09 09 32.8**	**+0.3**
	comp=Z,100nm,1.6s						
ARMA	**Armidale**	**22.29**	**218**	P	**P**	**09 09 33.2**	**+0.7**
ARMA	**Armidale**	**22.29**	**218**		**P**	**09 09 33.2**	**+0.7**
ARMA	**Armidale**	**22.29**	**218**	P	**P**	**09 09 33.5**	**+1.0**
	comp=Z,99nm,1.6s						
MTSU	**Mount Surprise**	**22.50**	**255**	P	**P**	**09 09 35.4**	**+0.9**
	comp=Z,22nm,1.2s						
MTSU	**Mount Surprise**	**22.50**	**255**	P	**P**	**09 09 33.9**	**-0.6**
	comp=Z,22nm,1.2s						
MTSU	**Mount Surprise**	**22.50**	**255**	P	**P**	**09 09 35.5**	**+0.9**
MTSU	**Mount Surprise**	**22.50**	**255**	P	**P**	**09 09 35.4**	**+0.9**
	comp=Z,22nm,1.2s						
OUZ	**Omahuta**	**22.63**	**166**	P	**P**	**09 09 36.9**	**+1.6**
OUZ	**Omahuta**	**22.63**	**166**	P	**P**	**09 09 36.7**	**+1.4**
	comp=Z,47nm,1.5s						
NIUE	**Niue**	**22.75**	**108**	P	**P**	**09 09 38.9**	**+2.2**
	comp=Z,274nm,1.3s						
AUPHS	**Peel High Scho**	**23.23**	**218**	P	**P**	**09 09 42.6**	**+1.7**
WCZ	**Waipu Caves**	**23.49**	**165**	P	**P**	**09 09 45.2**	**+2.0**
AULRC	**Lightning Ridg**	**23.98**	**225**	P	**P**	**09 09 49.1**	**+1.4**
MGCD	**Mangrove Creek**	**24.67**	**214**	P	**P**	**09 09 55.4**	**+1.5**
	comp=Z,71nm,1.1s						
MGCD	**Mangrove Creek**	**24.67**	**214**	P	**P**	**09 09 55.8**	**+1.9**
MKAZ	**Moumakai**	**24.80**	**165**	P	**P**	**09 09 56.7**	**+1.6**
QLP	**Quilpie**	**25.24**	**235**	P	**P**	**09 09 59.6**	**+0.5**
	comp=Z,69nm,1.2s						
QLP	**Quilpie**	**25.24**	**235**	P	**P**	**09 10 00.7**	**+1.5**
QLP	**Quilpie**	**25.24**	**235**	P	**P**	**09 09 59.3**	**+0.1**
	comp=Z,69nm,1.2s						
AUDCS	**Dubbo College**	**25.38**	**219**	P	**P**	**09 10 02.5**	**+2.1**
TOZ	**Tahuroa Road**	**25.48**	**164**		**P**	**09 10 02.2**	**+0.9**
TOZ				IAmb	IAmb	09 10 04.1	
	comp=Z,43nm,1.1s						
TOZ	**Tahuroa Road**	**25.48**	**164**	P	**P**	**09 10 02.5**	**+1.3**
HIZ	**Hauiti**	**26.07**	**166**	P	**P**	**09 10 08.5**	**+2.0**
MXZ	**Matakaoa Point**	**26.17**	**160**	P	**P**	**09 10 08.0**	**+0.6**
HAZ	**Te Kaha**	**26.17**	**161**	P	**P**	**09 10 07.9**	**+0.5**
RUGZ	**Raukumara Rang**	**26.33**	**161**	P	**P**	**09 10 08.7**	**-0.3**
PKGZ	**Pakihiroa**	**26.37**	**160**	P	**P**	**09 10 09.7**	**+0.4**
URZ	**Urewera**	**26.43**	**162**	P	**P**	**09 10 09.5**	**-0.1**
	comp=Z,2.8nm,0.3s,baz=356,slow=7.7,SNR=17						
	comp=Z,2.8nm,0.3s						
URZ	**Urewera**	**26.43**	**162**	P	**P**	**09 10 12.2**	**+2.5**
URZ	**Urewera**	**26.43**	**162**	P	**P**	**09 10 10.0**	**+0.3**
URZ	**Urewera**	**26.43**	**162**	P	**P**	**09 10 09.8**	**+0.1**
	comp=Z,12nm,1.3s						
WMGZ	**Waiomatatini S**	**26.44**	**160**	P	**P**	**09 10 09.5**	**-0.3**
MUGZ	**Murupara**	**26.53**	**163**	P	**P**	**09 10 11.8**	**+1.1**
PUZ	**Puketiti**	**26.61**	**160**	P	**P**	**09 10 11.3**	**-0.2**
TWGZ	**Tauwhareparae**	**26.62**	**161**	P	**P**	**09 10 11.6**	**+0.1**
MWZ	**Matawai**	**26.62**	**162**	P	**P**	**09 10 11.6**	**+0.1**
VRZ	**Vera Road**	**26.63**	**167**	P	**P**	**09 10 13.5**	**+2.0**
AUUHS	**Ulladulla High**	**26.66**	**212**	P	**P**	**09 10 13.0**	**+1.2**
RTZ	**Ruatahuna**	**26.72**	**163**		**P**	**09 10 12.5**	**+0.1**
RTZ				IAmb	IAmb	09 10 15.2	
	comp=Z,34nm,1.1s						
RAGZ	**Rawiri**	**26.74**	**162**	P	**P**	**09 10 13.3**	**+0.7**
CMSA	**Cobar Meteorol**	**26.82**	**224**	P	**P**	**09 10 13.1**	**-0.2**
	comp=Z,32nm,1.3s						
CMSA	**Cobar Meteorol**	**26.82**	**224**	P	**P**	**09 10 13.4**	**0.0**
CMSA	**Cobar Meteorol**	**26.82**	**224**	P	**P**	**09 10 13.4**	**0.0**
	comp=Z,32nm,1.3s						
ETVZ	**East Tongariro**	**26.86**	**165**	P	**P**	**09 10 16.6**	**+2.9**
NGZ	**Ngauruhoe**	**26.87**	**165**	P	**P**	**09 10 16.5**	**+2.6**
MTHZ	**Maungataniwha**	**26.90**	**163**	P	**P**	**09 10 14.7**	**+0.7**
WNVZ	**Wahianoa**	**27.02**	**165**	P	**P**	**09 10 17.9**	**+2.7**
RAHZ	**Arahi**	**27.03**	**163**	P	**P**	**09 10 15.6**	**+0.5**
BKZ	**Black Stump Fm**	**27.09**	**164**	P	**P**	**09 10 18.2**	**+2.5**
BKZ	**Black Stump Fm**	**27.09**	**164**	P	**P**	**09 10 16.0**	**+0.3**
CNB	**Canberra Magne**	**27.20**	**213**	P	**P**	**09 10 17.6**	**+0.8**
	comp=Z,67nm,1.2s						
AUDAR	**Daramalan Coll**	**27.27**	**214**	P	**P**	**09 10 18.8**	**+1.4**
BHHZ	**Black Hill Sta**	**27.29**	**165**	P	**P**	**09 10 18.3**	**+0.9**
KNZ	**Kokohu**	**27.30**	**162**	P	**P**	**09 10 16.8**	**-0.6**
QIS	**Mount Isa**	**27.31**	**251**	P	**P**	**09 10 17.5**	**-0.3**
	comp=Z,7.5nm,1.1s						
QIS	**Mount Isa**	**27.31**	**251**	P	**P**	**09 10 18.8**	**+0.9**
	comp=Z,7.5nm,1.1s						
QIS	**Mount Isa**	**27.31**	**251**	P	**P**	**09 10 17.0**	**-0.8**
	comp=Z,7.6nm,1.1s						
KWHZ	**Kaweka Forest**	**27.32**	**164**	P	**P**	**09 10 18.5**	**+0.7**
ARHZ	**Aropaoanui**	**27.32**	**163**	P	**P**	**09 10 18.1**	**+0.4**
AUMTS	**Mt Stromlo**	**27.40**	**214**	P	**P**	**09 10 20.2**	**+1.7**
CAN	**Canberra**	**27.40**	**214**	P	**P**	**09 10 19.1**	**+0.6**
	comp=Z,29nm,1.8s						
CAN	**Canberra**	**27.40**	**214**	P	**P**	**09 10 19.9**	**+1.4**
CAN	**Canberra**	**27.40**	**214**	P	**P**	**09 10 18.7**	**+0.1**
CAN				IAmb	IAmb	09 10 22.2	
	comp=Z,43nm,1.2s						
CAN	**Canberra**	**27.40**	**214**	P	**P**	**09 10 19.2**	**+0.7**
	comp=Z,26nm,1.8s						
QRZ	**Quartz Range**	**27.86**	**171**	P	**P**	**09 10 24.5**	**+2.0**
MRZ	**Mangatainoka R**	**28.28**	**166**		**P**	**09 10 26.2**	**0.0**
MRZ				IAmb	IAmb	09 10 29.0	
	comp=Z,30nm,0.9s						
MRZ	**Mangatainoka R**	**28.28**	**166**	P	**P**	**09 10 25.9**	**-0.3**
NNZ	**Nelson**	**28.38**	**170**	P	**P**	**09 10 29.1**	**+2.1**
BFZ	**Birch Farm**	**28.46**	**165**	P	**P**	**09 10 27.1**	**-0.6**
BFZ	**Birch Farm**	**28.46**	**165**	P	**P**	**09 10 29.2**	**+1.4**
	comp=Z,47nm,2.0s						
INKA	**Innaminka**	**28.54**	**236**	P	**P**	**09 10 27.8**	**-0.9**
INKA				IAmb	IAmb	09 10 29.9	
	comp=Z,30nm,1.4s						
MILA	**Mila**	**28.65**	**211**	P	**P**	**09 10 30.1**	**+0.6**
	comp=Z,16nm,1.3s						
MILA	**Mila**	**28.65**	**211**	P	**P**	**09 10 29.2**	**-0.3**
THZ	**Tophouse**	**28.84**	**171**		**P**	**09 10 31.9**	**+0.8**
BHW	**Baring Head**	**28.84**	**168**	P	**P**	**09 10 31.1**	**-0.1**
MSWZ	**Mikau Station**	**28.93**	**167**	P	**P**	**09 10 31.8**	**-0.1**
KHZ	**Kahutara**	**29.57**	**170**	P	**P**	**09 10 38.5**	**+0.9**
	comp=Z,39nm,1.1s						
LTZ	**Lake Taylor**	**29.75**	**172**		**P**	**09 10 39.8**	**+0.6**
STKA	**Stephens Creek**	**29.87**	**227**	P	**P**	**09 10 40.2**	**-0.2**
	comp=Z,27nm,0.5s,baz=50,slow=7.9,SNR=112						
STKA				PcP	**PcP**	**09 13 38.2**	**-0.6**
	comp=Z,6.3nm,0.6s,baz=65,slow=3.9,SNR=8.2						
	comp=Z,27nm,0.5s						
STKA	**Stephens Creek**	**29.87**	**227**	P	**P**	**09 10 40.9**	**+0.4**
	comp=Z,213nm,1.4s						
RPZ	**Rata Peaks**	**30.53**	**174**	LR	LR	09 22 14.3	
	comp=Z,9.8nm,18.9s,baz=308,slow=34						
RPZ	**Rata Peaks**	**30.53**	**174**	P	**P**	**09 10 48.6**	**+2.5**
JCZ	**Jackson Bay**	**30.74**	**178**	P	**P**	**09 10 50.8**	**+2.8**
TOO	**Toolangi**	**30.97**	**215**	P	**P**	**09 10 50.6**	**+0.6**
	comp=Z,19nm,1.2s						
TOO	**Toolangi**	**30.97**	**215**	P	**P**	**09 10 50.7**	**+0.6**
TOO				IAmb	IAmb	09 10 51.8	
	comp=Z,34nm,1.4s						
ODZ	**Otahua Downs**	**31.82**	**175**	P	**P**	**09 11 00.0**	**+2.7**
BRAT	**Ballarat**	**31.84**	**216**	P	**P**	**09 10 59.3**	**+1.7**
AUMTC	**Mt Clear Colle**	**31.91**	**216**	P	**P**	**09 11 00.1**	**+1.9**
WR8	**Warramunga Arr**	**31.95**	**254**		**P**	**09 10 57.6**	**-1.2**
WB0	**Warramunga Arr**	**32.03**	**254**	IAmb	IAmb	09 10 59.5	
	comp=Z,45nm,1.4s						
WB6	**Warramunga Arr**	**32.06**	**254**	P	**P**	**09 10 59.4**	**-0.4**
WB5	**Warramunga Arr**	**32.06**	**254**	P	**P**	**09 10 59.4**	**-0.5**
WB2	**Warramunga Arr**	**32.09**	**254**	P	**P**	**09 11 01.2**	**+1.2**
WRAB	**Tennant Creek**	**32.09**	**254**	P	**P**	**09 11 00.6**	**+0.6**
WRAB	**Tennant Creek**	**32.09**	**254**	P	**P**	**09 10 59.2**	**-0.8**
	comp=Z,14nm,2.5s						
WRAB	**Tennant Creek**	**32.09**	**254**	P	**P**	**09 10 58.6**	**-1.4**
WRA	**Warramunga Arr**	**32.10**	**254**	P	**P**	**09 10 58.7**	**-1.4**
	comp=Z,5.2nm,0.8s,baz=85,slow=9.1,SNR=48						
WRA				PcP	**PcP**	**09 13 42.1**	**-2.9**
	comp=Z,2.8nm,1.2s,baz=88,slow=3.8,SNR=4.8						
WRA				S	**S**	**09 15 54.5**	**-4.2**
	comp=Z,1.9nm,1.2s,baz=90,slow=14,SNR=6.1						
WRA				ScP	**ScP**	**09 17 11.7**	**+0.5**
	comp=Z,1.4nm,1.0s,baz=89,slow=3.2,SNR=5.2						
WRA				PKiKP	**PKiKP**	**09 21 11.9**	**-1.0**
	comp=Z,0.2nm,0.5s,baz=13,slow=0.4,SNR=6.9						
	comp=Z,5.2nm,0.8s						
WRA	**Warramunga Arr**	**32.10**	**254**	P	**P**	**09 10 58.4**	**-1.7**
WRA					**PcP**	**09 13 45.1**	**+0.1**
GLAD	**Gladstone**	**32.30**	**208**	P	**P**	**09 11 03.1**	**+1.6**
ARPS	**Mount Arapiles**	**32.58**	**220**	P	**P**	**09 11 04.8**	**+0.7**
	comp=Z,7.1nm,1.6s						
ARPS	**Mount Arapiles**	**32.58**	**220**	P	**P**	**09 11 03.6**	**-0.5**
	comp=Z,7.2nm,1.6s						
HTT	**Hallett**	**32.61**	**227**	P	**P**	**09 11 04.7**	**+0.3**
	comp=Z,20nm,1.3s						
HTT	**Hallett**	**32.61**	**227**	P	**P**	**09 11 04.7**	**+0.3**
TUZ	**Tuapeka**	**32.65**	**177**	P	**P**	**09 11 05.5**	**+0.9**
AS17	**Alice Springs**	**33.03**	**247**	P	**P**	**09 11 07.2**	**-1.0**
	comp=Z,20nm,1.2s						
CORO	**Coronation Par**	**33.06**	**208**	P	**P**	**09 11 10.1**	**+2.0**
AS01	**Alice Springs**	**33.07**	**247**	P	**P**	**09 11 08.8**	**+0.2**
AS09	**Alice Springs**	**33.09**	**247**	P	**P**	**09 11 07.8**	**-0.9**
	comp=Z,29nm,0.6s						
AS15	**Alice Springs**	**33.10**	**247**	P	**P**	**09 11 07.8**	**-1.0**
	comp=Z,13nm,0.8s						
AS31	**Alice Springs**	**33.11**	**247**	P	**P**	**09 11 07.9**	**-1.0**
	comp=Z,8.1nm,0.5s						
AS31	**Alice Springs**	**33.11**	**247**	P	**P**	**09 11 07.9**	**-1.0**
	comp=Z,8.1nm,0.5s						
ASAR	**Alice Springs**	**33.11**	**247**	P	**P**	**09 11 07.5**	**-1.4**
	comp=Z,11nm,0.5s,baz=76,slow=9.0,SNR=239						
ASAR				PcP	**PcP**	**09 13 47.4**	**-0.5**
	comp=Z,2.3nm,0.8s,baz=78,slow=2.4,SNR=7.0						
ASAR				S	**S**	**09 16 11.1**	**-3.4**
	comp=Z,2.1nm,1.0s,baz=75,slow=17,SNR=8.2						
ASAR				ScP	**ScP**	**09 17 15.2**	**+0.6**
	comp=Z,3.0nm,0.9s,baz=78,slow=3.2,SNR=9.8						
ASAR				PKiKP	**PKiKP**	**09 21 12.2**	**-1.5**
	comp=Z,0.2nm,0.6s,baz=98,slow=1.9,SNR=5.7						
ASAR				LR	LR	09 24 16.3	
	comp=Z,298nm,19.2s,baz=37,slow=35						
	comp=Z,11nm,0.5s						
ASAR	**Alice Springs**	**33.11**	**247**		**P**	**09 11 08.0**	**-0.9**
ASAR					**PcP**	**09 13 47.8**	**-0.1**
AUHPC	**Hawkesdale P12**	**33.16**	**217**	P	**P**	**09 11 10.7**	**+1.7**
AUMBR	**Murray Bridge**	**33.27**	**224**	P	**P**	**09 11 10.1**	**+0.1**
AUBRN	**Burnie High Sc**	**33.34**	**210**	P	**P**	**09 11 11.9**	**+1.3**
AUMAR	**Marden Senior**	**33.58**	**225**	P	**P**	**09 11 13.8**	**+1.1**
KDU	**Kakadu**	**33.78**	**267**	P	**P**	**09 11 14.9**	**+0.2**
	comp=Z,9.3nm,1.3s						
KDU	**Kakadu**	**33.78**	**267**	P	**P**	**09 11 14.5**	**-0.2**
	comp=Z,9.3nm,1.3s						
MOO	**Moorlands**	**33.83**	**207**	P	**P**	**09 11 14.6**	**-0.2**
	comp=Z,63nm,1.3s						
MOO	**Moorlands**	**33.83**	**207**	P	**P**	**09 11 16.9**	**+2.1**
MOO	**Moorlands**	**33.83**	**207**	P	**P**	**09 11 14.7**	**-0.1**
	comp=Z,63nm,1.3s						
MGBR	**Mount Gambier**	**33.97**	**219**	IAmb	IAmb	09 11 18.3	
	comp=Z,31nm,1.2s						
BBOO	**Buckleboo**	**34.40**	**230**	P	**P**	**09 11 19.8**	**-0.1**
	comp=Z,41nm,1.1s						
BBOO	**Buckleboo**	**34.40**	**230**	P	**P**	**09 11 19.7**	**-0.1**
	comp=Z,41nm,1.1s						
BBOO	**Buckleboo**	**34.40**	**230**	P	**P**	**09 11 20.2**	**+0.3**
BBOO	**Buckleboo**	**34.40**	**230**	P	**P**	**09 11 19.7**	**-0.1**
	comp=Z,41nm,1.1s						
MTN	**Manton Dam**	**35.07**	**266**	P	**P**	**09 11 25.7**	**-0.1**
	comp=Z,7.6nm,1.4s

comp=Z,170nm,21.1s,baz=104,slow=35
NWAO Narrogin (SRO) 49.41 238 P **P** 09 13 22.2 +0.8
NWAO Narrogin (SRO) 49.41 238 P **P** 09 13 20.7 -0.6
NWAO IAmb IAmb 09 13 21.7
comp=Z,31nm,0.9s
NWAO Narrogin (SRO) 49.41 238 P **P** 09 13 20.4 -1.0
comp=Z,43nm,1.1s
NWAO Narrogin (SRO) 49.41 238 P **P** 09 13 20.4 -1.0
NWAO pP **pP** 09 14 00.7 0.0
BLDU Ballidu 49.45 241 P **P** 09 13 21.3 -0.4
comp=Z,19nm,1.9s
MORW Morawa 49.81 243 P **P** 09 13 24.6 +0.1
comp=Z,39nm,1.3s
MORW Morawa 49.81 243 P **P** 09 13 24.8 +0.4
comp=Z,39nm,1.3s
MORW Morawa 49.81 243 P **P** 09 13 24.6 +0.1
MORW Morawa 49.81 243 P **P** 09 13 24.0 -0.5
MORW IAmb IAmb 09 13 25.2
comp=Z,80nm,1.6s
MORW Morawa 49.81 243 P **P** 09 13 23.9 -0.5
comp=Z,39nm,2.3s
SNJI Sawahan-Nganju 54.64 270 P **P** 09 14 01.8 +1.3
comp=Z,44nm,1.4s
JGF Kuroka 56.19 331 P **P** 09 14 11.0 +0.1
DRV Dumont d'Urvil 56.34 193 P **P** 09 14 11.3 -0.1
JMN Monobe 56.46 327 P **P** 09 14 13.4 +0.5
JMN Monobe 56.46 327 P **P** 09 14 13.8 +0.9
comp=Z,20nm,1.0s
MJAR Matsushiro Arr 56.56 332 P **P** 09 14 12.6 -0.9
comp=Z,5.1nm,1.1s,baz=138,slow=9.8,SNR=7.4
comp=Z,5.1nm,1.1s
MJAR Matsushiro Arr 56.56 332 P **P** 09 14 13.9 +0.4
MAJO Matsushiro 56.56 332 P **P** 09 14 12.8 -0.7
MAJO IAmb IAmb 09 16 05.3
comp=Z,24nm,1.5s
MAJO Matsushiro 56.56 332 P **P** 09 14 13.4 -0.1
comp=Z,11nm,2.5s
MAJO Matsushiro 56.56 332 P **P** 09 14 13.0 -0.5
MJB9 Matsu-Tunnel 56.56 332 P **P** 09 14 14.0 +0.5
MJB9 IAmb IAmb 09 16 06.3
comp=Z,26nm,1.5s
JKA Kamikawa-asahi 61.33 340 P **P** 09 14 47.9 +1.8
KSRS Korea Array 62.47 325 P **P** 09 14 52.8 -1.1
comp=Z,1.2nm,0.8s,baz=153,slow=8.4,SNR=4.1
KSRS LR LR 09 41 31.9
comp=Z,28nm,18.5s,baz=145,slow=35
comp=Z,1.2nm,0.8s
VNDA Vanda 64.32 181 P **P** 09 15 05.5 +0.2
comp=Z,2.1nm,0.7s,baz=350,slow=7.6,SNR=17
comp=Z,2.1nm,0.7s
VNDA Vanda 64.32 181 P **P** 09 15 06.2 +0.8
VNDA IAmb IAmb 09 15 07.6
comp=Z,47nm,1.8s
VNDA Vanda 64.32 181 P **P** 09 15 06.0 +0.6
comp=Z,14nm,2.0s
VNDA Vanda 64.32 181 P **P** 09 15 05.9 +0.6
NJ2 Nanjing 64.55 315 *eP* **P** 09 15 09.8 +2.2
NJ2 pmax pmax
comp=Z,13nm,0.5s
SBA Scott Base 64.60 180 P **P** 09 15 08.4 +1.2
SBA IAmb IAmb 09 15 09.5
comp=Z,29nm,1.1s
SBA Scott Base 64.60 180 P **P** 09 15 09.1 +1.9
comp=Z,30nm,2.0s
SBA Scott Base 64.60 180 P **P** 09 15 08.6 +1.4
CASY Casey 64.84 202 P **P** 09 15 08.9 0.0
CASY Casey 64.84 202 P **P** 09 15 08.5 -0.4
comp=Z,21nm,1.7s
USRK Ussuriysk Ar. 65.53 333 P **P** 09 15 13.4 -0.3
comp=Z,3.2nm,0.7s,baz=140,slow=6.7,SNR=5.9
comp=Z,3.2nm,0.7s
CCD Concordia, Ant 66.31 191 P **P** 09 15 18.9 +0.2
PEA0B Petropavlovsk- 66.60 354 P **P** 09 15 21.8 +1.5
PETK Petropavlovsk- 66.60 354 P **P** 09 15 21.3 +1.0
comp=Z,6.8nm,0.8s,baz=178,slow=6.4,SNR=14
comp=Z,6.8nm,0.8s
IPM Ipoh 67.96 280 P **P** 09 15 30.9 +1.2
comp=Z,31nm,1.3s
IPM Ipoh 67.96 280 P **P** 09 15 29.8 +0.1
comp=Z,31nm,1.3s
IPM Ipoh 67.96 280 P **P** 09 15 30.0 +0.3
comp=Z,31nm,1.3s
CN2 Changchun 68.34 329 *eP* **P** 09 15 33.2 +1.8
CN2 pmax pmax
comp=Z,10.0nm,0.6s
KLR Kul'dur 69.62 336 P **P** 09 15 40.4 +1.2
comp=Z,2.4nm,0.7s,baz=97,slow=3.6,SNR=3.9
comp=Z,2.4nm,0.7s
LYN LuoYang 70.37 314 P **P** 09 15 45.6 +1.5
LYN pmax pmax
comp=Z,25nm,1.0s
KCSI Kotacane, Aceh 70.83 278 P **P** 09 15 45.8 -1.5
comp=Z,13nm,1.2s
XAN Xi'an 72.62 312 *eP* **P** 09 15 53.5 -4.1
KMI2 Kunming 73.44 301 P **P** 09 16 03.9 +1.0
KMI2 pmax pmax
comp=Z,20nm,1.4s
XLT XiLinHaoTe 73.45 324 *eP* **P** 09 16 04.4 +2.1
XLT pmax pmax
comp=Z,14nm,1.0s
CMAR Chiang Mai Arr 74.25 294 P **P** 09 16 07.8 +0.3
comp=Z,4.1nm,0.8s,baz=122,slow=4.2,SNR=22
comp=Z,4.1nm,0.8s
CHTO Chiang Mai 74.37 294 P **P** 09 16 09.4 +1.3
CHTO Chiang Mai 74.37 294 P **P** 09 16 08.4 +0.3
comp=Z,14nm,1.5s
CHTO Chiang Mai 74.37 294 P **P** 09 16 08.8 +0.7
comp=Z,14nm,1.5s
HHC Hu-ho-hao-te 74.40 319 *eP* **P** 09 16 11.5 +3.6
HHC pmax pmax
comp=Z,9.0nm,0.6s
QSPA South Pole Qui 76.76 180 P **P** 09 16 21.0 0.0
comp=Z,57nm,1.1s,baz=13,slow=4.0,SNR=72
comp=Z,57nm,1.1s
QSPA South Pole Qui 76.76 180 **P** 09 16 21.4 +0.5
QSPA South Pole Qui 76.76 180 P **P** 09 16 21.6 +0.6
comp=Z,55nm,1.1s
QSPA South Pole Qui 76.76 180 P **P** 09 16 21.3 +0.3
QSPA pP **pP** 09 17 03.8 -1.4
NPW Naypyitaw 77.19 294 P **P** 09 16 25.4 +1.4
comp=Z,17nm,0.5s
LZH Lanzhou 77.25 312 *eP* **P** 09 16 27.2 +2.9
LZH pP pP 09 17 09.5 +0.7
LZH pmax pmax
comp=Z,37nm,1.3s
LZDM Lanzhou Array 77.30 312 P **P** 09 16 25.9 +1.2
comp=Z,1.8nm,0.3s,baz=115,slow=6.0,SNR=1.3
comp=Z,1.8nm,0.3s
KDAK Kodiak Island 78.14 21 LR LR 09 48 03.7
comp=Z,86nm,18.4s,baz=201,slow=33
K15K Wolf Creek Mou 79.21 14 IAmb IAmb 09 16 37.6
comp=Z,54nm,1.6s
YAK Yakutsk 80.60 343 P **P** 09 16 41.9 +0.3
comp=Z,15nm,0.6s,baz=141,slow=5.1,SNR=4.9
comp=Z,15nm,0.6s
YAK Yakutsk 80.60 343 IAmb IAmb 09 16 43.8
comp=Z,17nm,0.7s
ULN Ulaanbaatar 80.89 324 P **P** 09 16 44.0 +0.2
ULN IAmb IAmb 09 16 45.8
comp=Z,41nm,1.9s
ULN Ulaanbaatar 80.89 324 P **P** 09 16 44.2 +0.5
comp=Z,1µmcomp=Z,34nm,2.2s
ULN Ulaanbaatar 80.89 324 P **P** 09 16 44.2 +0.5
comp=Z,8.7nm,2.2s
BILI Bilibino, Chuk 81.10 360 P **P** 09 16 45.2 +1.0
comp=Z,18nm,1.4s
SONM Songino Array 81.25 324 P **P** 09 16 45.4 -0.2
comp=Z,1.0nm,0.6s,baz=112,slow=4.6,SNR=9.8
comp=Z,1.0nm,0.6s
SONM Songino Array 81.25 324 **P** 09 16 45.7 0.0
GTA2 Gaotai 81.64 314 *eP* **P** 09 16 48.9 +1.0
GTA2 pmax pmax
comp=Z,10.0nm,1.3s
CAST Castle Rocks 82.63 17 **P** 09 16 51.7 -0.6
MAW Mawson 83.19 202 P **P** 09 16 55.9 +0.6
MAW Mawson 83.19 202 P **P** 09 16 55.4 +0.2
comp=Z,11nm,0.8s,baz=110,slow=7.1,SNR=12
comp=Z,11nm,0.8s
MAW Mawson 83.19 202 **P** 09 16 54.8 -0.5
MAW Mawson 83.19 202 P **P** 09 16 55.7 +0.4
comp=Z,4.4nm,1.1s
GOMU GeErMu 83.97 309 P **P** 09 16 58.8 -1.5
GOMU pmax pmax
comp=Z,2.0nm,0.4s
NEA2 Nenana 84.40 17 IAmb IAmb 09 17 02.4
comp=Z,40nm,1.8s
E19K Redstone River 84.56 13 IAmb IAmb 09 17 04.8
comp=Z,29nm,1.7s
H22K Ishtalitna Cre 84.73 16 IAmb IAmb 09 17 05.4
comp=Z,37nm,1.7s
CCB Clear Creek Bu 84.81 18 IAmb IAmb 09 17 04.3
comp=Z,46nm,1.8s
HDA Harding Lake 84.90 18 IAmb IAmb 09 17 52.8
comp=Z,23nm,1.0s
COLA College 84.96 18 P **P** **09 17 04.3 +0.2**
COLA PcP **PcP** **09 17 07.5 +0.6**
COLA pP **pP** **09 17 48.9 -0.3**
COLA sP **sP** **09 18 07.2 -1.1**
IL31 85.17 18 **P** **09 17 04.4 -0.7**
IL31 IAmb IAmb 09 17 53.8
comp=Z,63nm,1.9s
ILAR Eielson Array 85.17 18 P **P** **09 17 05.0 -0.2**
comp=Z,4.9nm,0.5s,baz=220,slow=4.5,SNR=74
ILAR LR LR 09 50 59.8
comp=Z,49nm,19.0s,baz=178,slow=32
comp=Z,4.9nm,0.5s
ILAR Eielson Array 85.17 18 P **P** **09 17 04.6 -0.5**
H23K Yukon River 85.18 16 IAmb IAmb 09 17 55.8
comp=Z,22nm,1.4s
J25K Salcha River, 85.53 19 IAmb IAmb 09 17 56.3
comp=Z,14nm,1.0s
G23K Bananza Creek 85.71 16 IAmb IAmb 09 17 10.4
comp=Z,31nm,1.8s
E21K Killik River 86.08 13 **P** **09 17 10.0 +0.4**
PFO Pinyon Flats O 86.24 54 LR LR 09 53 25.5
comp=Z,71nm,18.3s,baz=280,slow=34
G24K Hadweenzic Riv 86.39 16 IAmb IAmb 09 18 00.8
comp=Z,17nm,1.2s
D22K Ayikyak River 86.72 14 IAmb IAmb 09 18 04.4
comp=Z,26nm,1.3s
D23K Nanushuk River 87.25 14 IAmb IAmb 09 18 06.0
comp=Z,18nm,1.2s
G26K Porcupine Rive 87.61 17 IAmb IAmb 09 18 12.4
comp=Z,36nm,2.0s
EVN Everest 87.80 299 **P** **09 17 19.6 +0.1**
EVN IAmb IAmb 09 17 20.9
comp=Z,31nm,1.6s
EVN Everest 87.80 299 P **P** **09 17 19.6 +0.1**
comp=Z,10nm,1.3s
BELA Belgrano 2 88.19 176 P **P** **09 17 18.5 -1.2**
BELA IAmb IAmb 09 17 20.5
comp=Z,35nm,1.2s
TIXI Tiksi 88.52 349 LR LR 09 55 35.3
comp=Z,22nm,19.0s,baz=193,slow=34
WMQ Urumqi 91.62 315 *eP* **P** **09 17 38.3 +2.0**
ELIB Princess Elisa 91.63 191 *dP* **P** **09 17 35.2 -0.7**
comp=Z,5.9nm,1.3s
PMSA Palmer Station 93.18 160 LR LR 09 56 40.7
comp=Z,105nm,20.1s,baz=21,slow=33
PDAR Pinedale Array 94.04 47 LR LR 09 58 06.9
comp=Z,26nm,18.6s,baz=298,slow=34
TROLL Troll, Antarti 94.31 185 P **P** **09 17 47.8 -0.5**
comp=Z,554nm,1.1s
ANMO Albuquerque 94.57 55 LR LR 09 55 51.8
comp=Z,54nm,18.1s,baz=242,slow=32
SNAA Sanae 95.00 183 P **P** **09 17 51.2 -0.2**
comp=Z,22nm,0.3s
SNAA Sanae 95.00 183 P **P** **09 17 50.5 -0.8**
comp=Z,3.8nm,0.9s,baz=168,slow=4.9,SNR=5.4
comp=Z,3.8nm,0.9s
SNAA Sanae 95.00 183 IAmb IAmb 09 17 52.0
comp=Z,11nm,1.2s
SNAA Sanae 95.00 183 P **P** **09 17 50.7 -0.7**
comp=Z,8.0nm,1.2s
VNA3 Neumayer Olymp 95.67 181 ⇑P **P** **09 17 53.4 -1.0**
comp=Z,2.6nm,0.4s
VNA2 Neumayer--Watz 95.94 182 ⇑P **P** **09 17 54.8 -0.8**
comp=Z,3.5nm,0.6s,baz=172,slow=3.4
MKAR Makanchi Array 96.07 317 P **P** **09 17 56.5 -0.1**
comp=Z,2.3nm,0.6s,baz=93,slow=6.5,SNR=10
comp=Z,2.3nm,0.6s
MKAR Makanchi Array 96.07 317 **P** **09 17 56.7 +0.1**
ZALV Zalesovo Beam 96.14 324 P **P** **09 17 55.5 -1.2**
comp=Z,1.4nm,0.7s,baz=99,slow=2.5,SNR=6.2
comp=Z,1.4nm,0.7s
MAKZ Makanchi 96.28 316 **P** **09 17 57.2 -0.4**
MAKZ IAmb IAmb 09 17 58.7
comp=Z,10.0nm,1.4s
MAKZ Makanchi 96.28 316 P **P** **09 17 57.9 +0.4**
comp=Z,6.2nm,1.6s
ARCES ARCESS Array B 118.81 346 PKP **PKPdf** **09 23 15.4 -0.4**
comp=Z,4.1nm,0.3s,baz=54,slow=2.5,SNR=44
RAYN Ar Rayn 124.01 289 **PKPdf** **09 23 27.2 +0.1**
FINES FINESS Array B 124.32 339 PKP **PKPdf** **09 23 25.8 -0.8**
comp=Z,2.6nm,0.5s,baz=48,slow=2.3,SNR=18
BOSA Boshof 124.40 221 PKP **PKPdf** **09 23 27.8 -0.2**
comp=Z,6.2nm,1.0s,baz=118,slow=2.4,SNR=6.1
KDWAN Kaudwane 128.30 225 **PKPdf** **09 23 35.2 -0.3**
NB2 NORSAR Subarra 129.18 345 PKP **PKiKP** **09 23 36.5 -0.2**
comp=Z,1.0nm,0.6s,baz=37,slow=2.7
NOA NORSAR Array B 129.18 345 PKP **PKPdf** **09 23 35.3 -0.7**
comp=Z,0.9nm,0.7s,baz=39,slow=2.5,SNR=3.9
HFS Hagfors 129.29 343 PKP **PKPdf** **09 23 36.1 0.0**
comp=Z,3.3nm,0.8s,baz=45,slow=2.4,SNR=1.4
AKASG Malin Array Be 129.46 327 PKP **PKPdf** **09 23 37.1 +0.4**
comp=Z,1.2nm,0.6s,baz=59,slow=1.4,SNR=8.6
AKBB Malin Array Si 129.46 327 PKP **PKPdf** **09 23 36.7 0.0**
KIEV Kiev 129.47 327 PKP **PKPdf** **09 23 36.6 -0.1**
AK04 Malin Array Si 129.48 327 PKP **PKPdf** **09 23 36.6 -0.1**
AK02 Malin Array Si 129.49 326 PKP **PKPdf** **09 23 36.8 0.0**
AK15 Malin Array Si 129.51 327 PKP **PKPdf** **09 23 37.2 +0.4**
AK21 Malin Array Si 129.51 327 PKP **PKPdf** **09 23 36.7 -0.1**
AK14 Malin Array Si 129.56 326 PKP **PKPdf** **09 23 36.8 -0.1**
LUBAR Lubar, Ukraine 130.67 326 PKP **PKPdf** **09 23 39.2 +0.2**
RNPPR Varash 130.85 329 PKP **PKPdf** **09 23 39.8 +0.5**
KSANE Kasane 131.42 231 **PKPdf** **09 23 41.9 +0.3**
BRTR Keskin Array B 131.46 312 PKP **PKPdf** **09 23 39.4 -1.7**
comp=Z,0.4nm,0.6s,baz=48,slow=2.1,SNR=1.8
KMPD K-Podol'skiy 132.13 325 PKP **PKPdf** **09 23 42.0 +0.2**
BRG Berggiesshubel 136.64 335 ||*e*PKPdf **PKiKP** **09 23 51.7 -0.3**
BRG Amp 09 23 53.9
comp=Z,4.0nm,0.8s
EKA Eskdalemuir Ar 137.35 352 PKP **PKiKP** **09 23 52.5 -0.8**
comp=Z,0.4nm,0.4s,baz=27,slow=2.0,SNR=1.5
GERES GERESS Array B 138.29 334 PKP **PKPdf** **09 23 54.5 +1.0**
comp=Z,1.3nm,0.8s,baz=53,slow=2.4,SNR=5.9
GERES SKPbc **SKPbc** **09 27 11.3 +0.8**
comp=Z,1.6nm,0.7s,baz=9.7,slow=4.4,SNR=7.2
TUE Stuetta 141.98 335 **PKPdf** **09 24 00.8 +0.5**
BNI Bardonecchia 144.22 336 PKPbc 09 24 02.9 -0.1
CEL Celeste 144.35 319 **PKPab** **09 24 02.9 -0.3**
SSB Saint Sauveur 144.83 339 PKPbc PKPbc 09 24 04.7 0.0
KEST Kesra 150.00 322 PKPbc **PKPbc** **09 24 19.6 +0.4**
comp=Z,6.5nm,0.5s,baz=43,slow=2.7,SNR=10
PBRG Braganca 151.07 351 *e*PKPbc **PKiKP** **09 24 22.0 0.0**
PGAV Gavieira, Arco 151.12 353 *e*PKPbc **PKiKP** **09 24 22.6 +0.4**
PCAB Cabril 151.35 352 *e*PKPbc **PKiKP** **09 24 22.8 +0.2**
POLO Lamas de Olo 151.65 352 *e*PKPbc **PKiKP** **09 24 23.8 +0.5**
PVRL Vila Real 151.73 352 *e*PKPbc **PKiKP** **09 24 24.1 +0.7**
PVIS Viseu 152.31 352 *e*PKPbc **PKiKP** **09 24 24.6 0.0**
ESDC Sonseca Array 152.55 345 PKPbc **PKPbc** **09 24 24.7 -0.2**
comp=Z,2.9nm,0.8s,baz=12,slow=2.8,SNR=14
ESDC PKPab **PKPab** **09 24 36.4 +0.5**
comp=Z,1.9nm,0.7s,baz=20,slow=3.8,SNR=7.0
MTE Manteigas 152.57 351 *e*PKPbc **PKiKP** **09 24 25.7 +0.5**
PCBR Castelo Branco 153.10 351 *e*PKPbc **PKiKP** **09 24 26.9 +0.7**
PSARD Sardoal 153.44 352 *e*PKPbc **PKiKP** **09 24 27.8 +0.9**
PMRV Marv??o 153.49 350 *e*PKPbc **PKiKP** **09 24 27.7 +0.7**
PMTG Montargil 153.97 352 *e*PKPbc **PKiKP** **09 24 28.2 +0.2**

AFAD 02 09:08:40.4,37.82N×26.71E,h7km±1km,ML1.3,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.27**	**30**	P	Pg	09 08 46.0	+0.4
DGB				IAML		09 08 50.0	
	comp=N,56nm,0.5s						
DGB				S	Sg	09 08 50.1	+0.9
DGB				IAML		09 08 51.0	
	comp=E,34nm,0.1s						
BEYE	**izmir**	**0.44**	**23**	P	Pg	09 08 49.1	+0.2
BEYE				S	Sg	09 08 55.2	+0.5
BEYE				IAML		09 08 56.0	
	comp=E,28nm,0.3s						
BEYE				IAML		09 08 57.0	
	comp=N,21nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.45**	**338**	P	Pg	09 08 49.2	+0.1
ZEYE				S	Sg	09 08 56.2	+1.2
ZEYE				IAML		09 08 58.0	
	comp=N,49nm,0.3s						
ZEYE				IAML		09 08 58.0	
	comp=E,25nm,0.3s						

*NEIC **02** 09:08:45.8±1.8,60.71N±0.02×141.29W±0.01,h5km±2km, ML2.6/56, ML2.3(AEIC), Error ellipse: s-maj=3.2km s-min=3.0km az=185.0*
*AEIC **02** 09:08:45.9±1.9,60.71N±0.02×141.31W±0.02,h4km±6km, Error ellipse: s-maj=2.9km s-min=1.1km az=193.0*
*PGC **02** 09:08:46.3,60.69N×141.27W,h2km, ML2.5/18, ML2.3(AEIC), 143km southwest of Burwash Landing, Yt Southeastern Alaska*

ISC 02 09:08:45.3±0.9, 60.73N±0.02×141.31W±0.01, h16km±8km, n79, σ0.983/110, Southeastern Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LOGN	**Logan Glacier**	**0.18**	**56**		**Pb**	**09 08 49.7**	**-0.8**
LOGN	**Logan Glacier**	**0.18**	**56**	P	**Pb**	**09 08 49.7**	**-0.8**
GRNC	**Granite Creek**	**0.22**	**272**		**Pb**	**09 08 50.8**	**-0.3**
GRNC				Sg	**Sb**	**09 08 54.4**	**-0.5**
GRNC				IAML		09 08 55.5	
	comp=E,762nm,0.3s						
GRNC	**Granite Creek**	**0.22**	**272**	P	**Pb**	**09 08 50.8**	**-0.3**
GRNC				S	**Sb**	**09 08 54.0**	**-1.0**
BARN	**Barnard Glacie**	**0.38**	**333**		**Pb**	**09 08 53.7**	**-0.1**
BARN				Sg	**Sb**	**09 08 59.2**	**-0.4**
BARN				IAML		09 08 59.7	
	comp=N,783nm,0.2s						
YAH	**Yahtse**	**0.42**	**211**		**Pg**	**09 08 54.1**	**+0.2**
YAH	**Yahtse**	**0.42**	**211**	IAML		09 09 00.5	
	comp=N,212nm,0.3s						
YAH				IAML		09 09 00.7	
	comp=E,211nm,0.3s						
KIAG	**Kiagna River**	**0.55**	**292**		**Pg**	**09 08 56.5**	**+0.2**
KIAG					**Sb**	**09 09 04.7**	**+0.2**
KIAG	**Kiagna River**	**0.55**	**292**	P	**Pg**	**09 08 56.5**	**+0.2**
KIAG				S	**Sb**	**09 09 04.4**	**-0.1**
O28M	**Mount Upton**	**0.55**	**85**		**Pg**	**09 08 55.8**	**-0.6**
O28M				Sg	**Sg**	**09 09 03.3**	**-0.5**
O28M				IAML		09 09 03.4	
	comp=N,514nm,0.6s						
O28M				IAML		09 09 03.7	
	comp=E,303nm,0.5s						
O28M	**Mount Upton**	**0.55**	**85**	P	**Pg**	**09 08 55.7**	**-0.7**
O28M				S	**Sg**	**09 09 03.2**	**-0.5**
BALM	**Baldy**	**0.59**	**302**		**Pb**	**09 08 57.2**	**-0.3**
BALM					**Sb**	**09 09 06.0**	**+0.3**
BALM	**Baldy**	**0.59**	**302**	P	**Pb**	**09 08 57.2**	**-0.3**
BALM				S	**Sb**	**09 09 05.7**	**0.0**
SAMH	**Samovar Hills**	**0.65**	**156**		**Pb**	**09 08 58.0**	**-0.4**
SAMH	**Samovar Hills**	**0.65**	**156**	P	**Pb**	**09 08 57.9**	**-0.5**
BARK	**Barkley Ridge**	**0.67**	**242**		**Pb**	**09 08 58.5**	**-0.1**
BARK					**Sb**	**09 09 07.8**	**+0.1**
CHX	**Chaix Hills**	**0.67**	**172**		**Pb**	**09 08 58.9**	**+0.2**
PTPK	**Patty Peak**	**0.73**	**310**		**Pg**	**09 08 59.9**	**+0.3**
PTPK					**Sg**	**09 09 10.4**	**+1.1**
PTPK	**Patty Peak**	**0.73**	**310**	P	**Pb**	**09 08 59.7**	**-0.2**
PTPK				S	**Sg**	**09 09 10.2**	**+0.9**
TGL	**Tana Glacier**	**0.75**	**273**		**Pb**	**09 08 59.9**	**-0.2**
TGL				Sg	**Sb**	**09 09 10.2**	**+0.1**
TGL				IAML		09 09 13.0	
	comp=E,304nm,0.5s						
PCA	**Pinnacle**	**0.82**	**140**		**Pb**	**09 09 00.9**	**-0.3**
PCA				IAML		09 09 13.6	
	comp=E,217nm,0.4s						
PCA				IAML		09 09 18.2	
	comp=N,241nm,0.6s						
PCA	**Pinnacle**	**0.82**	**140**	P	**Pb**	**09 09 00.9**	**-0.3**
CRQM	**Cirque**	**0.90**	**273**		**Pb**	**09 09 02.1**	**-0.6**
CRQM				Sg	**Sb**	**09 09 13.8**	**-0.7**
YUK8	**Steele Glacier**	**0.94**	**53**		**Sn**	**09 09 16.8**	**-0.6**
YUK8	**Steele Glacier**	**0.94**	**53**	P	**Pb**	**09 09 03.0**	**-0.4**
MCARA	**McCarthy VSAT**	**1.06**	**309**		**Pb**	**09 09 05.4**	**-0.1**
MCARA					**Sg**	**09 09 20.7**	**+0.9**
MCARA	**McCarthy VSAT**	**1.06**	**309**	P	**Pb**	**09 09 05.3**	**-0.1**
MCARA				S	**Sg**	**09 09 20.5**	**+0.7**
YUK2	**White River**	**1.09**	**12**		**Pg**	**09 09 06.2**	**-0.2**
YUK2	**White River**	**1.09**	**12**	P	**Pg**	**09 09 06.2**	**-0.2**
YUK2				S	**Sg**	**09 09 20.7**	**+0.1**
YUK3	**Moose Creek**	**1.13**	**21**		**Pg**	**09 09 06.9**	**-0.3**
YUK3					**Sg**	**09 09 23.6**	**+1.6**
YUK3	**Moose Creek**	**1.13**	**21**	P	**Pg**	**09 09 06.8**	**-0.3**
YUK3				S	**Sg**	**09 09 22.5**	**+0.4**
VRDI	**Verde Repeater**	**1.16**	**297**		**Pn**	**09 09 06.8**	**-0.3**
VRDI					**Sn**	**09 09 22.6**	**-0.2**
BERG	**Berg Lake**	**1.23**	**255**		**Pg**	**09 09 09.0**	**+0.1**
BERG				IAML		09 09 33.3	
	comp=E,163nm,0.4s						
BERG				IAML		09 09 34.4	
	comp=N,115nm,0.6s						
BRWY	**Burwash Landin**	**1.28**	**59**		**Pb**	**09 09 09.3**	**+0.2**
BRWY	**Burwash Landin**	**1.28**	**59**	P	**Pb**	**09 09 09.3**	**+0.2**
GLB	**Gilahina Butte**	**1.41**	**302**		**Pb**	**09 09 10.9**	**-0.4**
GLB				Sn	**Sg**	**09 09 30.0**	**-0.8**
GLB				IAML		09 09 32.3	
	comp=N,49nm,0.4s						
O29M	**Mount Kennedy**	**1.42**	**106**		**Pn**	**09 09 10.1**	**-0.5**
O29M				Sn	**Sb**	**09 09 29.1**	**-0.3**
O29M				IAML		09 09 32.8	
	comp=N,75nm,0.5s						
O29M				IAML		09 09 33.2	
	comp=E,81nm,0.3s						
O29M	**Mount Kennedy**	**1.42**	**106**	P	**Pn**	**09 09 10.1**	**-0.5**
O29M				S	**Sn**	**09 09 28.8**	**-0.2**
YUK4	**Talbot Arm**	**1.44**	**63**	P	**Pg**	**09 09 13.4**	**+0.4**
YUK6	**Outpost Mounta**	**1.46**	**80**		**Pb**	**09 09 12.1**	**-0.1**
YUK6	**Outpost Mounta**	**1.46**	**80**	P	**Pb**	**09 09 12.2**	**-0.1**
YUK6				S	**Sb**	**09 09 31.2**	**+0.5**
YUK7	**Dusty Glacier**	**1.57**	**96**		**Pb**	**09 09 13.6**	**-0.6**
YUK7	**Dusty Glacier**	**1.57**	**96**	Pn	**Pb**	**09 09 13.5**	**-0.7**
YUK7				Sn	**Sb**	**09 09 33.8**	**-0.2**
BMRM	**Bremner River**	**1.63**	**280**		**Pb**	**09 09 15.0**	**-0.1**
M27K	**Edge Creek, AK**	**1.66**	**351**		**Pg**	**09 09 16.9**	**-0.4**
M27K				Sn	**Sg**	**09 09 38.6**	**-0.2**
M27K				IAML		09 09 39.7	
	comp=E,47nm,0.3s						
M27K				IAML		09 09 43.2	
	comp=N,46nm,0.7s						
RAGM	**Ragged Mountai**	**1.70**	**260**		**Pb**	**09 09 16.6**	**+0.4**
BVCY	**Beaver Creek**	**1.71**	**7**		**Pb**	**09 09 16.5**	**+0.1**
BVCY	**Beaver Creek**	**1.71**	**7**	Pg	**Pg**	**09 09 17.6**	**-0.6**
BVCY				Sn	**Sg**	**09 09 40.1**	**-0.2**
YUK5	**Granite Creek**	**1.73**	**75**		**Pb**	**09 09 17.3**	**+0.5**
YUK5					**Sg**	**09 09 39.8**	**-1.4**
YUK5	**Granite Creek**	**1.73**	**75**	Pg	**Pb**	**09 09 17.4**	**+0.5**
YUK5				Sn	**Sb**	**09 09 39.3**	**+0.8**
KAIM	**Kayak Island**	**1.74**	**244**		**Pb**	**09 09 16.7**	**-0.2**
KAIM	**Kayak Island**	**1.74**	**244**	IAML		09 09 45.6	
	comp=E,75nm,1.1s						
KAIM				IAML		09 09 57.5	
	comp=N,48nm,1.4s						
N25K	**Chitina, Valde**	**1.82**	**300**		**Pb**	**09 09 17.5**	**-0.9**
WASW	**Wrangell South**	**1.83**	**312**		**Pb**	**09 09 18.4**	**-0.2**
M26K	**Nabesna, AK**	**1.87**	**335**		**Pb**	**09 09 19.8**	**+0.7**
M26K				IAML		09 09 52.7	
	comp=N,35nm,0.6s						
HYT	**Haines Junctio**	**1.87**	**85**		**Pb**	**09 09 19.6**	**+0.3**
HYT	**Haines Junctio**	**1.87**	**85**		**Sb**	**09 09 42.9**	**+0.5**
HYT	**Haines Junctio**	**1.87**	**85**	Pg	**Pb**	**09 09 19.5**	**+0.3**
HYT				Sn	**Sb**	**09 09 43.5**	**+1.1**
WACK	**Wrangell Chich**	**1.93**	**312**		**Pb**	**09 09 20.1**	**-0.1**
WACK					**Sg**	**09 09 46.0**	**-1.3**
PS12	**TAPS Pump St12**	**2.01**	**294**		**Pb**	**09 09 20.0**	**-1.5**
N30M	**Aishikik Lake**	**2.18**	**68**		**Pb**	**09 09 24.3**	**-0.1**
N30M				IAML		09 09 55.9	
	comp=E,27nm,0.8s						
N30M				IAML		09 09 56.0	
	comp=N,44nm,0.8s						
N30M	**Aishikik Lake**	**2.18**	**68**	Pg	**Pb**	**09 09 25.0**	**+0.6**
N30M				Sn	**Sb**	**09 09 51.5**	**+0.3**
EYAK	**Cordova Ski Ar**	**2.19**	**267**	Pn	**Pb**	**09 09 24.6**	**0.0**
EYAK				IAML		09 09 58.0	
	comp=N,36nm,1.4s						
EYAK				IAML		09 09 59.5	
	comp=E,34nm,1.5s						
M29M	**Somme Creek**	**2.20**	**37**		**Pb**	**09 09 24.4**	**-0.4**
M29M	**Somme Creek**	**2.20**	**37**	Pn	**Pb**	**09 09 23.2**	**-1.5**
P30M	**Million Dollar**	**2.24**	**104**	Pn	**Pn**	**09 09 23.1**	**+1.3**
L27K	**Beaver Creek,**	**2.36**	**354**	Pn	**Pb**	**09 09 26.2**	**-1.2**
L27K				Sn	**Sb**	**09 09 56.1**	**-0.2**
BC01	**Beaver Creek

BCAR	**Beaver Creek A**	**2.36**	**355**	Pg	**Pb**	**09 09 28.8**	**+1.3**
KLU	**Klutina**	**2.37**	**291**		**Pb**	**09 09 27.2**	**-0.4**
KLU				IAML		09 10 03.0	
	comp=E,29nm,0.4s						
KLU				IAML		09 10 03.2	
	comp=N,32nm,0.4s						
FID	**Port Fidalgo**	**2.54**	**273**	Pn	**Pb**	**09 09 30.8**	**+0.3**
FID				IAML		09 10 14.6	
	comp=E,32nm,1.4s						
FID				IAML		09 10 16.4	
	comp=N,30nm,1.3s						
O30N	**Mendenhall**	**2.56**	**87**		**Pb**	**09 09 28.5**	**-2.4**
O30N				IAML		09 10 07.0	
	comp=N,23nm,0.7s						
O30N				IAML		09 10 09.2	
	comp=E,15nm,1.1s						
O30N	**Mendenhall**	**2.56**	**87**	Pn	**Pn**	**09 09 27.9**	**+1.7**
HIN	**Hinchinbrook I**	**2.58**	**265**	Pn	**Pb**	**09 09 30.6**	**-0.7**
N31M	**Braeburn, Yuko**	**2.79**	**72**	Pg	**Pb**	**09 09 35.6**	**+0.8**
L29M	**L29M**	**2.83**	**31**	Pn	**Pb**	**09 09 34.1**	**-1.3**
L29M				IAML		09 10 21.4	
	comp=E,23nm,0.5s						
M30M	**Minto, Yukon**	**2.84**	**47**	Pg	**Pb**	**09 09 37.5**	**+1.7**
SCRK	**Sand Creek**	**3.49**	**340**	Pn	**Pb**	**09 09 43.0**	**-3.9**
J30M	**Hart River**	**4.50**	**29**	Pn	**Pn**	**09 09 55.4**	**+2.5**

ISK 02 09:09:12.3, 37.6̄9N×27.0̄2E, h5km, ML1.9/8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.17**	**88**	Pg	Pg	09 09 16.5	+0.9
GCAM				Sg	Sg	09 09 19.2	+1.3
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**52**	Pg	Pg	09 09 18.4	+0.9
KUSD				Sg	Sg	09 09 22.5	+1.4
GMLD	**Gumuldur**	**0.39**	**348**	Pg	Pg	09 09 20.5	+0.6
GMLD				Sg	Sb	09 09 26.9	-1.2
GMLD				AML	AML		
BODT	**Bodrum**	**0.67**	**160**	Pg	Pg	09 09 25.8	+0.6
BODT				Sg	Sb	09 09 36.2	0.0
BODT				AML	AML		
BLCB	**Balcova**	**0.69**	**1**	Pg	Pg	09 09 26.2	+0.6
BLCB				AML	AML		
MLSB	**Milas**	**0.72**	**123**	Pg	Pg	09 09 26.5	+0.4
MLSB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**70**	Pg	Pg	09 09 27.0	+0.6
AYDB				Sg	Sb	09 09 37.9	-0.2
AYDB				AML	AML		
CHOS	**Chios island**	**1.03**	**313**	Pg	Pb	09 09 32.7	0.0
CHOS				AML	AML		

*IDC **02** 09:10:37.6±0.8, 43.2̄0S×170.9̄6E, h0km, mb3.7/2, mbtmp3.8/3, ML3.8/1, MS3.4/1, Error ellipse: s-maj=19.6km s-min=12.9km az=94.0*

*WEL **02** 09:10:39.1, 43.3̄16S×170.8̄4E, ML4.6, Mw4.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; M_{rr}0.46; $M_{\theta\theta}$0.16; $M_{\phi\phi}$-1.43; $M_{r\theta}$0.04; $M_{r\phi}$-0.85; $M_{\theta\phi}$-0.32; Fault plane solution: $M_0$1.40000×10¹⁵ NP1: ϕ_s168.00000°, δ67.00000°, λ37.00000°. NP2: ϕ_s62.00000°, δ56.00000°, λ152.00000°. Principal axes: T 0.9470, Plg42.0000°, Azm29.0000°; N 0.6129, Plg47.0000°, Azm195.0000°; P -1.5599, Plg7.0000°, Azm293.0000°; Stations used: CVZ DSZ FOZ GVZ INZ JCZ KHZ LBZ LTZ MQZ MSZ ODZ OBLIQUE-REVERSE FAULTING*

*NEIC **02** 09:10:39.4±0.7, 43.1̄7S±0.0̄2×170.8̄7E±0.0̄2, h12km±5km, ML3.9/14 Error ellipse: s-maj=2.8km s-min=1.7km az=172.0*

*WEL **02** 09:10:39.2±0.3, 43°S±2°×17°1E±°, h5km±2km, M4.4/21, ML4.3/21, MLv4.4/21, Error ellipse: s-maj=3.1km s-min=2.6km az=123.9*

ISC 02 09:10:39.2±0.9, 43.1̄7S±0.0̄2×170.8̄8E±0.0̄3, h10km±6km, n164, σ1§30/174, South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WVZ	**Waitaha Valley**	**0.14**	**314**	P	**Pg**	**09 10 42.1**	**-0.3**
WVZ				S	**Sg**	**09 10 43.9**	**-0.7**
WVZ				AML	AML		
WVZ				AML	AML		
RPZ	**Rata Peaks**	**0.56**	**167**	Pg	**Pg**	**09 10 46.3**	**-3.7**
	89nm,0.3s,baz=357,slow=13,SNR=73						
RPZ				Lg	Lg	09 10 57.7	
	581nm,0.3s,baz=324,slow=9.1,SNR=50						
RPZ	**Rata Peaks**	**0.56**	**167**	Pg	**Pg**	**09 10 50.4**	**+0.4**
RPZ				Sg	**Sg**	**09 10 57.7**	**+0.3**
RPZ	**Rata Peaks**	**0.56**	**167**	P	**Pg**	**09 10 50.7**	**+0.7**
RPZ				S	**Sg**	**09 10 58.3**	**+0.9**
RPZ				AML	AML		
RPZ				AML	AML		
INZ	**Inchbonnie**	**0.61**	**43**	Pg	**Pg**	**09 10 50.5**	**-0.6**
INZ				Sg	**Sg**	**09 10 59.7**	**+0.6**
INZ				IAML		09 11 01.6	
	comp=N,6μm,0.7s						
INZ				IAML		09 11 01.6	
	comp=E,4μm,0.6s						
INZ	**Inchbonnie**	**0.61**	**43**	P	**Pg**	**09 10 50.6**	**-0.4**
INZ				S	**Sg**	**09 11 00.1**	**+1.0**
INZ				AML	AML		
INZ				AML	AML		
MHCZ	**Mount Hutt**	**0.62**	**126**	P	**Pb**	**09 10 52.0**	**-0.1**
MHCZ				AML	AML		
MHCZ				AML	AML		
ARCZ	**Arundel**	**0.80**	**164**	P	**Pg**	**09 10 55.2**	**+0.5**
ARCZ				S	**Sg**	**09 11 05.6**	**+0.4**
ARCZ				AML	AML		
ARCZ				AML	AML		
FOZ	**Fox Glacier**	**0.85**	**245**	Pg	**Pg**	**09 10 55.0**	**-0.7**
FOZ				Sg	**Sg**	**09 11 07.0**	**+0.2**
FOZ	**Fox Glacier**	**0.85**	**245**	P	**Pg**	**09 10 55.3**	**-0.3**
FOZ				S	**Sb**	**09 11 07.5**	**-0.1**
FOZ				AML	AML		
FOZ				AML	AML		
OXZ	**Oxford**	**0.86**	**101**	Pg	**Pb**	**09 10 56.3**	**+0.1**
OXZ				Sg	**Sg**	**09 11 07.8**	**+0.8**
OXZ	**Oxford**	**0.86**	**101**	P	**Pb**	**09 10 56.7**	**+0.4**
OXZ				AML	AML		
OXZ				AML	AML		
WACZ	**Wakanui South**	**1.04**	**138**	P	**Pb**	**09 11 00.1**	**+0.9**
WACZ				S	**Sn**	**09 11 14.7**	**+0.3**
WACZ				AML	AML		
WACZ				AML	AML		
RACZ	**Rakaia**	**1.07**	**121**	P	**Pn**	**09 11 00.8**	**+0.5**
RACZ				AML	AML		
RACZ				AML	AML		
LTZ	**Lake Taylor**	**1.09**	**70**		**Pg**	**09 11 00.2**	**0.0**
LTZ				Sg	**Sg**	**09 11 14.7**	**+0.2**
LTZ	**Lake Taylor**	**1.09**	**70**	P	**Pb**	**09 11 00.6**	**+0.4**
LTZ				S	**Sb**	**09 11 15.8**	**+1.2**
LTZ				AML	AML		
LTZ				AML	AML		
TMZ	**Timaru**	**1.21**	**176**	P	**Pb**	**09 11 02.7**	**+0.4**
TMZ				S	**Sg**	**09 11 18.3**	**+0.1**
TMZ				AML	AML		
TMZ				AML	AML		
AMCZ	**Amberley**	**1.30**	**91**	Pn	**Pn**	**09 11 03.6**	**+0.2**
AMCZ	**Amberley**	**1.30**	**91**	P	**Pn**	**09 11 04.1**	**+0.7**
AMCZ				AML	AML		
AMCZ				AML	AML		
LBZ	**Lake Benmore**	**1.31**	**202**	Pn	**Pn**	**09 11 02.9**	**-0.7**
LBZ	**Lake Benmore**	**1.31**	**202**	P	**Pn**	**09 11 03.5**	**-0.1**
LBZ				S	**Sn**	**09 11 22.5**	**+1.3**
LBZ				AML	AML		
LBZ				AML	AML		
MQZ	**McQueen's Vall**	**1.40**	**113**	Pn	**Pn**	**09 11 04.5**	**-0.3**
MQZ	**McQueen's Vall**	**1.40**	**113**	P	**Pn**	**09 11 04.9**	**+0.2**
MQZ				AML	AML		
MQZ				AML	AML		
DSZ	**Denniston Nort**	**1.58**	**26**	Pn	**Pn**	**09 11 06.8**	**-0.6**
DSZ	**Denniston Nort**	**1.58**	**26**	P	**Pn**	**09 11 07.3**	**-0.1**
DSZ				AML	AML		
DSZ				AML	AML		
GVZ	**Greta Valley S**	**1.59**	**83**	Pn	**Pn**	**09 11 07.5**	**+0.1**
GVZ	**Greta Valley S**	**1.59**	**83**	P	**Pn**	**09 11 08.0**	**+0.5**
AKCZ	**Akaroa Harbour**	**1.63**	**116**	P	**Pn**	**09 11 08.1**	**0.0**
AKCZ				AML	AML		
AKCZ				AML	AML		
OKCZ	**Okains Bay**	**1.68**	**110**	P	**Pn**	**09 11 09.4**	**+0.7**
OKCZ				AML	AML		
OKCZ				AML	AML		
JCZ	**Jackson Bay**	**1.77**	**239**	P	**Pn**	**09 11 09.8**	**-0.1**
JCZ				AML	AML		
JCZ				AML	AML		
ODZ	**Otahua Downs**	**1.88**	**185**	Pn	**Pn**	**09 11 11.5**	**+0.1**
ODZ				IAML		09 11 36.2	
	comp=N,710nm,0.7s						
ODZ	**Otahua Downs**	**1.88**	**185**	P	**Pn**	**09 11 12.1**	**+0.7**
ODZ				AML	AML		
ODZ				AML	AML		
THZ	**Tophouse**	**2.06**	**47**	Pn	**Pn**	**09 11 14.3**	**+0.4**
THZ	**Tophouse**	**2.06**	**47**	P	**Pn**	**09 11 15.0**	**+1.1**
THZ				AML	AML		
THZ				AML	AML		
KHZ	**Kahutara**	**2.10**	**70**	Pn	**Pn**	**09 11 14.5**	**+0.1**
KHZ	**Kahutara**	**2.10**	**70**	P	**Pn**	**09 11 15.0**	**+0.6**
KHZ				AML	AML		
KHZ				AML	AML		
WKZ	**Wanaka**	**2.13**	**218**	Pn	**Pn**	**09 11 15.0**	**+0.1**
WKZ	**Wanaka**	**2.13**	**218**	P	**Pn**	**09 11 15.0**	**+0.1**
WKZ				AML	AML		
WKZ				AML	AML		
MRNZ	**Matariki Terra**	**2.26**	**39**	Pn	**Pn**	**09 11 15.7**	**-0.9**
MRNZ	**Matariki Terra**	**2.26**	**39**	P	**Pn**	**09 11 17.2**	**+0.6**
MRNZ				AML	AML		
MRNZ				AML	AML		
EAZ	**Earnscleugh**	**2.35**	**208**	P	**Pn**	**09 11 17.2**	**-0.7**
EAZ				AML	AML		
EAZ				AML	AML		
MSZ	**Milford Sound**	**2.61**	**234**	P	**Pn**	**09 11 22.2**	**+0.8**
TKNZ	**Takaka Hill**	**2.64**	**37**	P	**Pn**	**09 11 22.4**	**+0.5**
TKNZ				AML	AML		
TKNZ				AML	AML		
QRZ	**Quartz Range**	**2.65**	**28**	Pn	**Pn**	**09 11 21.7**	**-0.3**
QRZ	**Quartz Range**	**2.65**	**28**	P	**Pn**	**09 11 22.2**	**+0.3**
QRZ				AML	AML		
QRZ				AML	AML		
BSWZ	**Blackbirch Sta**	**2.66**	**58**	IAML		09 12 16.7	
	comp=N,537nm,0.7s						
BSWZ				IAML		09 12 22.0	
	comp=E,511nm,1.1s						
BSWZ	**Blackbirch Sta**	**2.66**	**58**	P	**Pn**	**09 11 23.4**	**+1.4**
NNZ	**Nelson**	**2.70**	**44**	Pn	**Pn**	**09 11 23.0**	**+0.4**
NNZ	**Nelson**	**2.70**	**44**	P	**Pn**	**09 11 23.9**	**+1.3**
HHSZ	**Highcliff Hill**	**2.72**	**184**	P	**Pn**	**09 11 24.2**	**+1.3**
CMWZ	**Cape Campbell**	**2.85**	**61**	P	**Pn**	**09 11 27.1**	**+2.4**
TUWZ	**Tuamarina**	**2.87**	**54**	P	**Pn**	**09 11 26.4**	**+1.5**
MLZ	**Mavora Lakes**	**2.96**	**221**	Pn	**Pn**	**09 11 25.5**	**-0.7**
MLZ	**Mavora Lakes**	**2.96**	**221**	P	**Pn**	**09 11 26.3**	**+0.1**
TCW	**Tory Channel**	**3.20**	**53**	P	**Pn**	**09 11 30.5**	**+1.0**
DUWZ	**D'Urville Isla**	**3.28**	**45**	P	**Pn**	**09 11 32.3**	**+1.6**
SNZO	**South Karori**	**3.40**	**58**	Pn	**Pn**	**09 11 32.5**	**+0.2**
SNZO				IAML		09 12 36.6	
	comp=E,234nm,1.3s						
SNZO				IAML		09 12 42.9	
	comp=E,266nm,0.8s						
WHZ	**Wether Hill Ro**	**3.43**	**217**	P	**Pn**	**09 11 32.0**	**-0.7**
BHW	**Baring Head**	**3.45**	**61**	P	**Pn**	**09 11 33.0**	**+0.1**
DCZ	**Deep Cove**	**3.52**	**228**	Pn	**Pn**	**09 11 33.7**	**-0.2**
DCZ	**Deep Cove**	**3.52**	**228**	P	**Pn**	**09 11 34.0**	**+0.1**
SYZ	**Scrubby Hill**	**3.58**	**200**	P	**Pn**	**09 11 34.4**	**-0.3**
PLWZ	**Palliser**	**3.62**	**65**	IAML		09 12 21.1	
	comp=E,226nm,1.3s						
PLWZ				IAML		09 12 52.8	
	comp=N,177nm,2.5s						
PLWZ	**Palliser**	**3.62**	**65**	P	**Pn**	**09 11 35.2**	**-0.1**
MSWZ	**Moikau Station**	**3.69**	**63**	P	**Pn**	**09 11 35.6**	**-0.7**
CAW	**Cannon Point**	**3.74**	**58**	P	**Pn**	**09 11 36.7**	**-0.2**
KIW	**Kapiti Island**	**3.79**	**54**	P	**Pn**	**09 11 37.9**	**+0.2**
PAWZ	**Paruwai Farm**	**3.82**	**64**	P	**Pn**	**09 11 37.7**	**-0.5**
OGWZ	**Otaki Gorge**	**3.97**	**55**	P	**Pn**	**09 11 40.4**	**+0.2**
MTW	**Mount Morrison**	**3.98**	**61**	P	**Pn**	**09 11 39.3**	**-1.0**
TRWZ	**Traveller**	**3.98**	**65**	P	**Pn**	**09 11 40.0**	**-0.3**
HOWZ	**Holdsworth Sta**	**4.13**	**58**	P	**Pn**	**09 11 42.1**	**-0.3**
APZ	**The Paps**	**4.19**	**208**	P	**Pn**	**09 11 42.5**	**-0.7**
TMWZ	**Te Maipa**	**4.26**	**63**	P	**Pn**	**09 11 42.8**	**-1.3**
MRZ	**Mangatainoka R**	**4.31**	**56**	Pn	**Pn**	**09 11 43.4**	**-1.4**
MRZ	**Mangatainoka R**	**4.31**	**56**	P	**Pn**	**09 11 44.1**	**-0.7**
NMEZ	**Namu Road**	**4.38**	**32**	P	**Pn**	**09 11 47.8**	**+2.0**
NBEZ	**Newall Road No**	**4.51**	**31**	P	**Pn**	**09 11 49.1**	**+1.6**
KHEZ	**Kahui Hut**	**4.54**	**32**	P	**Pn**	**09 11 49.9**	**+1.8**
PREZ	**Palmer Road**	**4.56**	**34**	P	**Pn**	**09 11 50.1**	**+1.9**
LREZ	**Lake Rotokare**	**4.56**	**37**	P	**Pn**	**09 11 50.8**	**+2.6**
POWZ	**Post Office Ro**	**4.59**	**54**	P	Pb	09 11 55.0	-4.8
NEZ	**North Egmont**	**4.59**	**33**	P	**Pn**	**09 11 50.6**	**+1.8**
WAZ	**Wanganui**	**4.60**	**43**	P	**Pn**	**09 11 51.3**	**+2.5**
PKE	**Pukeiti**	**4.62**	**32**	P	**Pn**	**09 11 50.9**	**+1.8**
PRWZ	**Pori Road**	**4.62**	**57**	P	**Pn**	**09 11 42.2**	**-0.8**
DRZ	**Durham Road**	**4.70**	**33**	P	**Pn**	**09 11 51.8**	**+1.6**
BFZ	**Birch Farm**	**4.71**	**60**	P	**Pn**	**09 11 48.8**	**-1.6**
MHEZ	**Mangahewa**	**4.85**	**34**	P	**Pn**	**09 11 55.4**	**+3.2**
DVHZ	**Dannevirke**	**4.89**	**56**	P	**Pn**	**09 11 53.0**	**+0.2**
TSZ	**Takapari Road**	**4.92**	**52**	P	Pn	09 11 58.5	+5.3
VRZ	**Vera Road**	**4.99**	**37**	P	**Pn**	**09 11 55.7**	**+1.5**
MTVZ	**Mangateitei**	**5.13**	**44**	P	**Pn**	**09 12 00.1**	**+4.0**
PKVZ	**Pokaka**	**5.14**	**42**	P	**Pn**	**09 11 58.4**	**+2.1**
PNHZ	**Pukenui**	**5.15**	**53**	P	**Pn**	**09 11 55.2**	**-1.2**
WPHZ	**Waipukurau**	**5.20**	**55**	P	**Pn**	**09 11 58.5**	**+1.4**
TRVZ	**Turoa**	**5.23**	**44**	P	**Pn**	**09 11 59.3**	**+1.6**
WNVZ	**Wahianoa**	**5.24**	**44**	P	**Pn**	**09 11 58.5**	**+0.8**
MOVZ	**Moawhango**	**5.26**	**46**	P	**Pn**	**09 11 58.8**	**+0.9**
MAVZ	**Matarangi**	**5.26**	**44**	P	**Pn**	**09 12 01.3**	**+3.1**
WHVZ	**Whangaehu Hut**	**5.26**	**44**	P	**Pn**	**09 11 59.8**	**+1.7**
FWVZ	**Far West T-bar**	**5.27**	**44**	P	**Pn**	**09 12 00.1**	**+1.9**
COVZ	**Chateau Observ**	**5.30**	**43**	P	**Pn**	**09 12 00.9**	**+2.3**
TUVZ	**Tukino**	**5.31**	**44**	P	**Pn**	**09 12 00.1**	**+1.4**
NGZ	**Ngauruhoe**	**5.35**	**43**	P	**Pn**	**09 12 01.5**	**+2.2**
TWVZ	**Taurewa**	**5.35**	**42**	P	**Pn**	**09 12 01.9**	**+2.6**
BHHZ	**Black Hill Sta**	**5.36**	**48**	P	**Pn**	**09 11 58.9**	**-0.4**
SNVZ	**South Ngauruho**	**5.36**	**44**	P	**Pn**	**09 12 01.3**	**+1.9**
WTVZ	**West Tongariro**	**5.39**	**43**	P	**Pn**	**09 12 02.0**	**+2.2**
OTVZ	**Oturere**	**5.39**	**44**	P	**Pn**	**09 12 00.9**	**+1.0**
KRHZ	**Kereru**	**5.43**	**51**	P	**Pn**	**09 12 00.2**	**0.0**
KRVZ	**Karewarewa**	**5.43**	**43**	P	**Pn**	**09 12 03.1**	**+2.7**
ETVZ	**East Tongariro**	**5.44**	**44**	P	**Pn**	**09 12 02.3**	**+1.9**
NTVZ	**North Tongarir**	**5.45**	**43**	P	**Pn**	**09 12 03.0**	**+2.4**
TMVZ	**Te Maari**	**5.45**	**44**	P	**Pn**	**09 12 02.7**	**+2.1**
PXZ	**Pawanui**	**5.47**	**57**	P	**Pn**	**09 11 59.1**	**-1.7**
HIZ	**Hauiti**	**5.55**	**34**	Pn	**Pn**	**09 12 01.6**	**-0.2**
HIZ	**Hauiti**	**5.55**	**34**	P	**Pn**	**09 12 02.4**	**+0.6**
KATZ	**Kakaramea**	**5.55**	**43**	P	**Pn**	**09 12 05.2**	**+3.2**
KWHZ	**Kaweka Forest**	**5.61**	**50**	P	**Pn**	**09 12 03.0**	**+0.3**
KAHZ	**Kahuranaki**	**5.63**	**55**	P	**Pn**	**09 12 01.5**	**-1.5**
RITZ	**Rihia Road**	**5.63**	**44**	P	Pn	09 12 08.7	+5.7
RATZ	**Rangitukua**	**5.67**	**42**	P	**Pn**	**09 12 06.5**	**+2.9**
MCHZ	**McNeill Hill**	**5.75**	**52**	P	**Pn**	**09 12 05.5**	**+0.9**
BKZ	**Black Stump Fm**	**5.83**	**48**	P	**Pn**	**09 12 05.9**	**+0.2**
WHTZ	**Whakaora**	**5.92**	**42**	P	Pn	09 12 14.1	+7.1
TLZ	**Tolley Road**	**5.99**	**38**	P	**Pn**	**09 12 08.7**	**+0.7**
NMHZ	**Naumai**	**6.05**	**50**	P	**Pn**	**09 12 08.2**	**-0.6**
MTHZ	**Maungataniwha**	**6.24**	**48**	P	**Pn**	**09 12 10.8**	**-0.6**
RAHZ	**Arahi**	**6.33**	**50**	P	**Pn**	**09 12 13.0**	**+0.4**
NGRZ	**Ngongotaha**	**6.48**	**40**	P	**Pn**	**09 12 17.5**	**+2.8**
TOZ	**Tahuroa Road**	**6.48**	**35**	Pn	**Pn**	**09 12 14.5**	**-0.1**
TOZ	**Tahuroa Road**	**6.48**	**35**	P	**Pn**	**09 12 15.1**	**+0.6**
KMRZ	**Kaimai**	**6.57**	**38**	P	**Pn**	**09 12 14.2**	**-1.7**
MHGZ	**Mahia Peninsul**	**6.65**	**55**	P	**Pn**	**09 12 16.5**	**-0.5**
AWAZ	**Awhitu Peninsu**	**6.75**	**27**	P	**Pn**	**09 12 19.3**	**+1.0**
PRGZ	**Paritu Road**	**6.79**	**54**	P	**Pn**	**09 12 18.0**	**-0.8**
RAGZ	**Rawiri**	**6.81**	**49**	P	**Pn**	**09 12 19.3**	**+0.1**
URZ	**Urewera**	**6.82**	**46**	Pn	**Pn**	**09 12 16.4**	**-2.8**
	comp=N,1.8nm,0.3s,baz=228,slow=6.0,SNR=10.0						
URZ				Sn	**Sn**	**09 13 32.8**	**-4.1**
	comp=N,6.7nm,0.3s,baz=89,slow=18,SNR=11						
	comp=N,3.7nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**6.82**	**46**	P	**Pn**	**09 12 19.0**	**-0.2**
WTAZ	**Waiatarua**	**6.85**	**26**	P	**Pn**	**09 12 20.9**	**+1.2**
RIGZ	**Rimuhau**	**6.86**	**52**	P	**Pn**	**09 12 18.8**	**-1.1**
MKAZ	**Moumakai**	**6.89**	**30**	P	**Pn**	**09 12 21.2**	**+1.0**
ETAZ	**East Tamaki Re**	**6.95**	**28**	P	**Pn**	**09 12 22.3**	**+1.3**
MWZ	**Matawai**	**6.99**	**48**	P	**Pn**	**09 12 20.2**	**-1.4**
RVAZ	**Riverhead Bore**	**7.00**	**25**	P	**Pn**	**09 12 22.8**	**+1.1**
MBAZ	**Motutapu North**	**7.10**	**27**	P	**Pn**	**09 12 24.3**	**+1.2**
WIAZ	**Waiheke Island**	**7.16**	**29**	P	**Pn**	**09 12 25.8**	**+1.8**
RUGZ	**Raukumara Rang**	**7.34**	**47**	P	**Pn**	**09 12 27.1**	**+0.7**
TWGZ	**Tauwhareparae**	**7.35**	**50**	P	**Pn**	**09 12 25.9**	**-0.7**
HAZ	**Te Kaha**	**7.55**	**47**	P	**Pn**	**09 12 29.5**	**+0.2**
PKGZ	**Pakihiroa**	**7.63**	**48**	P	**Pn**	**09 12 30.1**	**-0.2**
WCZ	**Waipu Caves**	**7.71**	**21**	P	**Pn**	**09 12 31.9**	**+0.5**
GRZ	**Great Barrier**	**7.76**	**29**	P	**Pn**	**09 12 33.4**	**+1.3**
MXZ	**Matakaoa Point**	**7.97**	**48**	Pn	**Pn**	**09 12 33.8**	**-1.3**
MXZ	**Matakaoa Point**	**7.97**	**48**	P	**Pn**	**09 12 34.3**	**-0.8**
OUZ	**Omahuta**	**8.22**	**16**	P	**Pn**	**09 12 39.0**	**+0.6**
VNDA	**Vanda**	**34.65**	**183**	LR	LR	09 29 33.6	
	comp=N,58nm,18.7s,baz=24,slow=33						
ASAR	**Alice Springs**	**36.10**	**291**	P	**P**	**09 17 41.0**	**-0.3**
	comp=N,0.7nm,0.6s,baz=130,slow=7.5,SNR=11						
ASAR				PcP	**PcP**	**09 20 07.1**	**-0.1**
	comp=N,0.5nm,0.8s,baz=123,slow=3.4,SNR=4.4						
	comp=N,0.7nm,0.6s						
WRA	**Warramunga Arr**	**38.36**	**296**	P	**P**	**09 18 00.1**	**-0.4**
	comp=N,0.7nm,0.6s,baz=135,slow=7.6,SNR=9.7						
WRA				PcP	**PcP**	**09 20 13.8**	**-0.3**
	comp=N,0.5nm,0.9s,baz=141,slow=3.2,SNR=3.0						
	comp=N,0.7nm,0.6s						
BRTR	**Keskin Array B**	**148.02**	**279**	PKPbc	**PKPbc**	**09 30 24.1**	**-0.6**
	comp=N,1.5nm,0.6s,baz=121,slow=4.6,SNR=6.9						
ARCES	**ARCESS Array B**	**148.20**	**338**	PKPbc	**PKiKP**	**09 30 26.0**	**+0.1**
	comp=N,1.1nm,0.5s,baz=47,slow=2.5,SNR=6.5						
TORD	**Torodi Ar. Bea**	**148.66**	**201**	PKPbc	**PKPbc**	**09 30 27.7**	**+0.8**
	comp=N,2.5nm,0.8s,baz=146,slow=2.0,SNR=12						
FINES	**FINESS Array B**	**152.27**	**323**	PKPbc	**PKPbc**	**09 30 33.8**	**-0.3**
	comp=N,7.1nm,1.1s,baz=83,slow=2.7,SNR=4.3						

*IDC **02** 09:26:19.8±1.6, 36.9̄3N×142.3̄5E, h0km, mb3.5/4, mbtmp3.5/6, ML3.0/2, Error ellipse: s-maj=26.8km s-min=21.1km az=128.0*

*JMA **02** 09:26:24.4±0.1, 37.0̄N±0.1×142.0̄5E±0.0̄4, h24km±1km, MV3.4/39, E OFF FUKUSHIMA PREF*

ISC 02 09:26:23.6±1.4, 37.0̄N±0.1×142.0̄5E±0.0̄9, h19km, n15, σ1§68/11, mb3.5/4, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JFK	**Kawauchi**	**1.00**	**289**	P	**Pn**	**09 26 41.3**	**-1.4**
JFK				*eS*	**Sb**	**09 26 53.7**	**-1.4**
ONAJ	**Iwakimizuishiy**	**1.01**	**274**	P	**Pn**	**09 26 41.2**	**-1.5**
JFFD	**Fukushimafurud**	**1.20**	**273**	P	**Pn**	**09 26 44.0**	**-1.4**
MJAR	**Matsushiro Arr**	**3.13**	**262**	Pn	**Pn**	**09 27 12.9**	**+1.0**
	0.6nm,0.3s,baz=86,slow=16,SNR=22						
MJAR				Sn	**Sn**	**09 27 52.0**	**+3.3**
	0.4nm,0.3s,baz=55,slow=24,SNR=6.1						
	4.5nm,0.3s						
MJAR				AML	AML		
ASAJ	**Asahikawa**	**7.08**	**3**	Pn	**Pn**	**09 28 06.5**	**+0.3**
	0.4nm,0.3s,baz=180,slow=13,SNR=6.1						
	1.6nm,0.3s						
ASAJ				AML	AML		
H11N2	**WAKE ISLAND Hy**	**27.71**	**122**	T	T	10 01 12.0	
	baz=314,slow=75,SNR=12						
H11N1	**WAKE ISLAND Hy**	**27.72**	**122**	T	T	10 01 32.9	
	baz=314,slow=75,SNR=9.4						
H11N3	**WAKE ISLAND Hy**	**27.73**	**122**	T	T	10 01 32.7	
	baz=314,slow=75,SNR=9.9						
H11S1	**WAKE ISLAND Hy**	**28.43**	**124**	T	T	10 02 14.4	
	baz=316,slow=76,SNR=9.7						
H11S3	**WAKE ISLAND Hy**	**28.44**	**124**	T	T	10 02 20.3	
	baz=316,slow=76,SNR=8.5						
H11S2	**WAKE ISLAND Hy**	**28.45**	**124**	T	T	10 02 26.1	
	baz=316,slow=76,SNR=7.3						
ZALV	**Zalesovo Beam**	**42.29**	**312**	P	**P**	**09 34 16.9**	**+1.2**
	0.8nm,0.7s,baz=75,slow=6.6,SNR=2.0						
	0.8nm,0.7s						
MKAR	**Makanchi Array**	**44.55**	**302**	P	**P**	**09 34 34.4**	**+0.2**
	0.5nm,0.7s,baz=81,slow=10.0,SNR=3.8						
	0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**46.40**	**308**	P	**P**	**09 34 48.5**	**-0.2**
	0.3nm,0.4s,baz=82,slow=8.3,SNR=2.8						
	0.3nm,0.4s						
WRA	**Warramunga Arr**	**57.14**	**189**	P	**P**	**09 36 08.1**	**-1.0**
	0.3nm,0.7s,baz=5.6,slow=6.7,SNR=6.3						
	0.3nm,0.7s						

*AFAD **02** 09:35:08.8, 37.8̄8N×26.7̄7E, h7km±1km, ML2.2*

*ISK **02** 09:35:08.9,

EZN					AML	AML		
BOZC	**Bozcaada**	**2.06**	**344**		Pn	**Pn**	**09 35 45.1**	**+1.0**
BOZC					AML	AML		

*AFAD **02** 09:39:29.7, 37°.84N×26°.91E, h7km±4km, ML2.3*
*ISK **02** 09:39:29.9, 37°.85N×26°.93E, h9km, ML2.6/19*
ISC 02 09:39:30.0±1.0, 37°.85N±0°.03×26°.92E±0°.03, h13km±8km, n25, σ0°.46/34, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.21**	**352**	P	**Pg**	**09 39 33.8**	**-0.7**
DGB				S	**Sg**	**09 39 37.2**	**-0.4**
GMLD	**Gumuldur**	**0.23**	**359**	Pg	**Pg**	**09 39 35.4**	**+0.5**
GMLD				Sg	**Sg**	**09 39 38.8**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**120**	P	**Pg**	**09 39 35.7**	**-0.3**
GCAM				IAML		09 39 40.0	
	comp=N,523nm,0.2s						
GCAM				S	**Sb**	**09 39 40.7**	**-1.1**
GCAM				IAML		09 39 41.0	
	comp=E,606nm,0.6s						
GCAM	**G?zelcaml?**	**0.29**	**120**	Pg	**Pg**	**09 39 35.7**	**-0.3**
GCAM				Sg	**Sg**	**09 39 40.6**	**+0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**87**	Pg	**Pg**	**09 39 35.8**	**-0.2**
KUSD				Sg	**Sg**	**09 39 40.4**	**+0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**1**	P	**Pg**	**09 39 37.2**	**-0.4**
BEYE				S	**Sb**	**09 39 43.9**	**-0.7**
BEYE				IAML		09 39 44.0	
	comp=N,207nm,0.3s						
BEYE				IAML		09 39 48.0	
	comp=E,149nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**320**	P	**Pg**	**09 39 39.4**	**-0.7**
ZEYE				IAML		09 39 47.0	
	comp=N,586nm,0.2s						
ZEYE				IAML		09 39 47.0	
	comp=E,156nm,0.3s						
ZEYE				S	**Sg**	**09 39 47.3**	**+0.5**
BLCB	**Balcova**	**0.55**	**10**	Pg	**Pg**	**09 39 40.5**	**-0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**48**	P	**Pg**	**09 39 40.7**	**-0.3**
DUVT				S	**Sg**	**09 39 48.1**	**-0.4**
DUVT				IAML		09 39 53.0	
	comp=E,452nm,0.4s						
CESE	**eme**	**0.69**	**315**	Pg	**Pb**	**09 39 43.8**	**-0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.78**	**82**	Pg	**Pb**	**09 39 45.3**	**-0.2**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**158**	Pg	**Pb**	**09 39 45.5**	**+0.1**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**339**	Pg	**Pb**	**09 39 46.1**	**+0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.81**	**356**	P	**Pb**	**09 39 46.2**	**+0.2**
BAGT				S	**Sb**	**09 39 57.9**	**+1.1**
BAGT				IAML		09 40 00.0	
	comp=N,134nm,0.7s						
BAGT				IAML		09 40 00.0	
	comp=E,114nm,0.6s						
BODT	**Bodrum**	**0.84**	**158**	Pg	**Pg**	**09 39 46.2**	**-0.1**
BODT				AML	AML		
CHOS	**Chios island**	**0.87**	**309**	Pg	**Pb**	**09 39 47.1**	**0.0**
CHOS				AML	AML		
MLSB	**Milas**	**0.88**	**129**	Pg	**Pb**	**09 39 47.3**	**+0.2**
MLSB				AML	AML		
FOCM	**Foa**	**0.88**	**350**	Pg	**Pb**	**09 39 47.5**	**+0.3**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.09**	**83**	Pn	**Pn**	**09 39 51.2**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**42**	Pn	**Pn**	**09 39 52.3**	**+0.2**
GOMA				AML	AML		
DAT	**Datca**	**1.23**	**155**	Pn	**Pg**	**09 39 53.7**	**0.0**
DAT				AML	AML		
AKS	**Akhisar**	**1.25**	**34**	Pn	**Pg**	**09 39 53.8**	**-0.2**
YER	**Yerkesik**	**1.30**	**123**	Pn	**Pg**	**09 39 54.8**	**-0.1**
YER				AML	AML		
APE	**Apeiranthos**	**1.35**	**235**	Pn	**Pb**	**09 39 55.3**	**+0.1**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**20**	Pn	**Pg**	**09 39 56.6**	**-0.2**
SOMA				AML	AML		

*THE **02** 09:48:10.8, 38°N±5°×2°.7E±°, h8km±16km, M2.6/6, MLh2.6/6*
*ISK **02** 09:48:10.2, 37°.58N×26°.87E, h3km, ML3.2/28*
*ATH **02** 09:48:10.3, 37°.62N×26°.92E, h10km±1km, ML3.0/7, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*AFAD **02** 09:48:11.6, 37°.62N×26°.89E, h7km±3km, ML2.8*
ISC 02 09:48:10.8±1.0, 37°.61N±0°.02×26°.89E±0°.02, h9km±9km, n53, σ0°.58/73, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.23**	**322**	P	**Pg**	**09 48 15.8**	**+0.2**
KRL1				S	**Sg**	**09 48 18.7**	**-0.1**
GCAM	**G?zelcaml?**	**0.29**	**72**	P	**Pb**	**09 48 17.7**	**-0.4**
GCAM				IAML		09 48 22.0	
	comp=E,2μm,0.5s						
GCAM				S	**Sb**	**09 48 22.0**	**-1.0**
GCAM				IAML		09 48 24.0	
	comp=N,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.29**	**72**	Pg	**Pb**	**09 48 17.4**	**-0.7**
GCAM				Sg	**Sb**	**09 48 22.5**	**-0.5**
GCAM				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**118**	P	**Pg**	**09 48 17.8**	**+0.6**
DDIM				S	**Sb**	**09 48 23.9**	**0.0**
DDIM				IAML		09 48 28.0	
	comp=N,668nm,0.4s						
DDIM				IAML		09 48 28.0	
	comp=E,741nm,1.0s						
DIDI	**Didim-Aydin**	**0.36**	**130**	Pg	**Pg**	**09 48 18.3**	**+0.3**
DIDI				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.40**	**52**	Pg	**Pb**	**09 48 19.4**	**-0.7**
KUSD				Sg	**Sb**	**09 48 25.7**	**-0.7**
KUSD				AML	AML		
DGB	**zmir**	**0.44**	**359**	P	**Pg**	**09 48 19.8**	**+0.3**
DGB				S	**Sb**	**09 48 27.2**	**-0.3**
DGB				IAML		09 48 29.0	
	comp=E,490nm,0.3s						
DGB				IAML		09 48 31.0	
	comp=N,514nm,0.7s						
GMLD	**Gumuldur**	**0.47**	**3**	Pg	**Pb**	**09 48 20.7**	**-0.4**
GMLD				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.58**	**147**	Pg	**Pg**	**09 48 21.9**	**-0.1**
YKAV				AML	AML		
BEYE	**izmir**	**0.62**	**3**	P	**Pg**	**09 48 22.8**	**+0.1**
BEYE				S	**Sb**	**09 48 33.6**	**+1.1**
BEYE				IAML		09 48 35.0	
	comp=N,1μm,0.3s						
BEYE				IAML		09 48 36.0	
	comp=E,810nm,0.3s						
BODT	**Bodrum**	**0.64**	**148**	P	**Pg**	**09 48 23.1**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.64**	**148**	Pg	**Pg**	**09 48 23.2**	**0.0**
BODT				Sg	**Sb**	**09 48 33.0**	**-0.2**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.66**	**174**	P	**Pg**	**09 48 23.2**	**-0.2**
KLNA				S	**Sg**	**09 48 32.2**	**+0.2**
KLNA				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.70**	**334**	P	**Pb**	**09 48 25.3**	**+0.2**
ZEYE				S	**Sb**	**09 48 34.8**	**0.0**
ZEYE				IAML		09 48 37.0	
	comp=E,576nm,0.3s						
ZEYE				IAML		09 48 38.0	
	comp=N,1μm,0.5s						
DUVT	**Torbali**	**0.75**	**36**	P	**Pb**	**09 48 25.6**	**-0.5**
DUVT				S	**Sb**	**09 48 36.1**	**-0.3**
DUVT				IAML		09 48 42.0	
	comp=E,418nm,0.5s						
MLSB	**Milas**	**0.77**	**114**	Pg	**Pg**	**09 48 25.8**	**+0.1**
MLSB				AML	AML		
BLCB	**Balcova**	**0.78**	**9**	P	**Pg**	**09 48 25.9**	**0.0**
BLCB				S	**Sb**	**09 48 38.1**	**+0.8**
BLCB	**Balcova**	**0.78**	**9**	Pg	**Pg**	**09 48 26.0**	**+0.1**
BLCB				AML	AML		
CESE	**eme**	**0.86**	**327**	Pg	**Pb**	**09 48 27.5**	**-0.3**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.86**	**67**	Pg	**Pb**	**09 48 28.4**	**+0.4**
AYDB				AML	AML		
CHOS	**Chios island**	**1.02**	**320**	P	**Pg**	**09 48 29.9**	**-0.4**
CHOS				S	**Sb**	**09 48 44.6**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**320**	Pg	**Pb**	**09 48 30.8**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**320**	P	**Pg**	**09 48 30.1**	**-0.2**
CHOS				S	**Sb**	**09 48 44.3**	**+0.2**
CHOS				AML	AML		
KRBN	**Karaburun**	**1.02**	**345**	Pg	**Pb**	**09 48 30.6**	**+0.1**
KRBN				AML	AML		
DAT	**Datca**	**1.04**	**148**	Pg	**Pg**	**09 48 30.4**	**-0.3**
DAT				AML	AML		
BAGT	**Foa**	**1.04**	**358**	P	**Pn**	**09 48 32.0**	**+0.5**
BAGT				S	**Sn**	**09 48 46.9**	**+0.6**
BAGT				IAML		09 48 49.0	
	comp=E,366nm,0.7s						
BAGT				IAML		09 48 51.0	
	comp=N,299nm,0.8s						
FOCM	**Foa**	**1.11**	**354**	Pn	**Pn**	**09 48 33.1**	**+0.7**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**1.12**	**341**	P	**Pb**	**09 48 32.2**	**0.0**
KARB				S	**Sn**	**09 48 48.8**	**+0.7**
KARB				IAML		09 48 50.0	
	comp=N,204nm,0.4s						
KARB				IAML		09 48 51.0	
	comp=E,193nm,0.4s						
ASTA	**Astypalaia**	**1.15**	**202**	P	**Pg**	**09 48 32.3**	**-0.5**
ASTA				S	**Sb**	**09 48 48.4**	**+0.8**
ASTA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.17**	**72**	Pn	**Pn**	**09 48 33.3**	**0.0**
NAZL				AML	AML		
YER	**Yerkesik**	**1.21**	**113**	P	**Pb**	**09 48 33.5**	**-0.3**
YER				S	**Sn**	**09 48 50.7**	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.21**	**113**	Pn	**Pb**	**09 48 33.8**	**0.0**
YER				AML	AML		
APE	**Apeiranthos**	**1.21**	**244**	P	**Pb**	**09 48 33.1**	**-0.7**
APE				S	**Sg**	**09 48 49.6**	**-0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.21**	**244**	Pn	**Pb**	**09 48 33.7**	**-0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.21**	**244**	P	**Pb**	**09 48 33.3**	**-0.5**
APE				S	**Sb**	**09 48 50.3**	**+0.7**
GOMA	**Golmarmara-Man**	**1.36**	**36**	Pn	**Pg**	**09 48 37.9**	**+0.9**
GOMA				AML	AML		
TURN	**Turunc**	**1.37**	**127**	Pn	**Pn**	**09 48 35.8**	**-0.2**
TURN				AML	AML		
DKL	**Dikili**	**1.46**	**1**	Pn	**Pg**	**09 48 38.7**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.46**	**1**	P	**Pn**	**09 48 36.6**	**-0.6**
AKS	**Akhisar**	**1.46**	**30**	Pn	**Pb**	**09 48 38.3**	**+0.2**
AKS				AML	AML		
DALY	**Dalyan (Mula)**	**1.62**	**119**	Pn	**Pn**	**09 48 40.2**	**+0.8**
DALY				AML	AML		
SOMA	**Soma-Manisa**	**1.63**	**18**	Pn	**Pb**	**09 48 40.9**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.65**	**38**	Pn	**Pg**	**09 48 41.8**	**-0.6**
GORD				AML	AML		
THERA	**Ancient Thera,**	**1.68**	**223**	P	**Pn**	**09 48 40.9**	**+0.6**
THERA				AML	AML		
PRK	**Paraskevi**	**1.70**	**344**	P	**Pn**	**09 48 40.5**	**-0.2**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.71**	**144**	P	**Pn**	**09 48 40.5**	**-0.1**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.71**	**144**	P	**Pn**	**09 48 40.6**	**-0.1**
ARG				AML	AML		
KARY	**Karystos**	**1.99**	**283**	P	**Pn**	**09 48 42.8**	**-1.7**
YAYO	**Edremit-Balk**	**2.00**	**4**	Pn	**Pb**	**09 48 46.2**	**-1.2**
YAYO				AML	AML		
FETY	**Fethiye**	**2.01**	**118**	Pn	**Pn**	**09 48 46.1**	**+1.3**
FETY				AML	AML		
BALB	**Balikesir**	**2.17**	**21**	Pn	**Pb**	**09 48 48.8**	**-1.4**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.21**	**48**	Pn	**Pb**	**09 48 49.6**	**-1.3**
SIMA				AML	AML		
DION	**Dionisos Attik**	**2.38**	**282**	P	**Pn**	**09 48 50.0**	**0.0**
DION				AML	AML		

IGQ 02 09:58:01.9±1.1, 0°N±5°×8°3W±°, h10km, M3.9/8, mb4.1/2, Mjma4.0/7, MLv3.8/8, Ms(BB)3.9/8, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ISPT	**Isla de la Pla**	**2.78**	**123**	P	Pn	09 58 44.8	-1.6
ISPT				S	Sn	09 59 21.1	+1.0
PPLP	**Puerto Lpez**	**3.18**	**125**	P	Pn	09 58 50.6	-7.9
PPLP				P	Pn	09 58 50.4	-1.7
PPLP				S	Sn	09 59 31.0	+0.9
ATON	**Ecuador-Tonsup**	**3.63**	**80**	P	Pn	09 58 56.7	-1.4
RVRD	**Rio Verde**	**4.08**	**79**	P	Pn	09 59 03.4	-0.9
RVRD				S	Sn	09 59 52.5	+0.3
ISPG	**Isla Puna-Puer**	**4.56**	**135**	P	Pn	09 59 11.7	+0.7
PAC1	**Pacto, Paraso**	**4.60**	**90**	P	Pn	09 59 11.0	-0.7
GGPT	**Toaza - Volcan**	**4.80**	**96**	P	Pn	09 59 15.2	+0.6
TERV	**Terraza Guagua**	**4.81**	**95**	P	Pn	09 59 15.6	+0.8
JUA2	**San Juan 2**	**4.81**	**96**	P	Pn	09 59 15.6	+0.8
YANA	**Yana**	**4.83**	**95**	P	Pn	09 59 16.0	+0.8
PULU	**Pululahua**	**4.89**	**93**	P	Pn	09 59 17.6	+1.6
PITA	**Cotopaxi Volc**	**5.03**	**100**	P	Pn	09 59 20.2	+2.4
CUIC	**Cuicocha-Domo**	**5.03**	**90**	P	Pn	09 59 18.0	+0.2
LITE1	**Lita**	**5.05**	**84**	P	Pn	09 59 15.8	-2.1
VCES	**Cotopaxi**	**5.11**	**102**	P	Pn	09 59 21.9	+2.9
ZUMB	**Zumba**	**6.64**	**140**	P	Pn	09 59 34.6	-5.2

*VAO **02** 10:05:50.0±1.7, 24°.10S×67°.66W, h159km±13km, mb4.3, Presumed earthquake*
*IDC **02** 10:05:51.7±1.8, 24°.31S×67°.18W, h140km±17km, mb3.4/5, mbtmp3.7/11, Error ellipse: s-maj=23.3km s-min=12.5km az=102.0*
*SJA **02** 10:05:53.1±0.7, 24°.30S×67°.27W, h192km±4km, ML3.5, MW3.6*
*NEIC **02** 10:05:54.4±0.9, 24°.32S±0°.06×67°.3W±0°.2, h176km±13km, mb4.3/7, ML4.1(GUC), Error ellipse: s-maj=20.6km s-min=8.5km az=102.0*
*GUC **02** 10:05:54.7±0.7, 24°.24S×67°.31W, h182km±9km, ML4.1, Presumed earthquake*
ISC 02 10:05:53.9±0.7, 24°.28S±0°.04×67°.30W±0°.04, h172km±7km, n95, σ1°.38/121, mb4.0/7, 10C-1D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		**0.88**	**86**	*i* P	**Pn**	**10 06 21.4**	**+0.8**
SALTA				IAML		10 06 47.9	
	comp=Z,66nm,0.7s						
AF01	**San Pedro de A**	**1.55**	**329**	*i* P	**Pn**	**10 06 27.4**	**+1.3**
AF01				*i* S	**Sn**	**10 06 53.3**	**+2.5**
AF01				IAML		10 07 08.0	
	comp=Z,361nm,1.0s						
AF01	**San Pedro de A**	**1.55**	**329**		**Pn**	**10 06 27.2**	**+1.2**
AF01	**San Pedro de A**	**1.55**	**329**	*eP*	**Pn**	**10 06 27.3**	**+1.2**
SLA	**San Lorenzo**	**1.69**	**105**	*i* P	**Pn**	**10 06 28.4**	**+1.1**
SLA				*eS*	**Sn**	**10 06 55.0**	**+1.9**
SLA				IAML		10 06 55.2	
	comp=Z,98nm,0.8s						
SLA	**San Lorenzo**	**1.69**	**105**	*eP*	**Pn**	**10 06 28.6**	**+1.3**
HJA	**Humahuaca**	**2.04**	**59**	*eP*	**Pn**	**10 06 33.0**	**+1.7**
HJA				IAML		10 07 04.0	
	comp=Z,18nm,1.0s						
FSA	**Cafayete**	**2.18**	**147**	*i* P	**Pn**	**10 06 33.5**	**+0.9**
PB06	**IPOC Station P**	**2.61**	**307**	*eP*	**Pn**	**10 06 39.1**	**+1.5**
PB06				*eS*	**Sn**	**10 07 12.8**	**+1.2**
PB06				IAML		10 07 16.1	
	comp=Z,456nm,0.2s						
PB06	**IPOC Station P**	**2.61**	**307**		**Pn**	**10 06 39.2**	**+1.5**
PB06	**IPOC Station P**	**2.61**	**307**	*eP*	**Pn**	**10 06 38.9**	**+1.2**
PB06				*eS*	**Sn**	**10 07 11.6**	**0.0**
PB06				IAML		10 07 16.1	
	comp=N,651nm,0.1s						
YJA	**Yavi**	**2.66**	**38**	*eP*	**Pn**	**10 06 40.6**	**+2.0**
YJA				*i* S	**Sn**	**10 07 14.7**	**+1.5**
YJA				IAML		10 07 14.7	
	comp=Z,6.3nm,0.7s						
PB14	**IPOC Station P**	**2.85**	**262**	*eP*	**Pn**	**10 06 41.9**	**+1.2**
PB14				*i* S	**Sn**	**10 07 18.1**	**+1.1**
PB14				IAML		10 07 19.6	
	comp=Z,196nm,0.4s						
PB14	**IPOC Station P**	**2.85**	**262**		**Pn**	**10 06 41.0**	**+0.3**
PB14	**IPOC Station P**	**2.85**	**262**	*eP*	**Pn**	**10 06 41.4**	**+0.8**
PB05	**IPOC Station P**	**3.02**	**298**	*eP*	**Pn**	**10 06 43.8**	**+1.2**
PB05				*i* S	**Sn**	**10 07 20.9**	**+0.6**
PB05				IAML		10 07 23.7	
	comp=Z,180nm,0.5s						
PB05	**IPOC Station P**	**3.02**	**298**		**Pn**	**10 06 43.1**	**+0.6**
PB05	**IPOC Station P**	**3.02**	**298**	*eP*	**Pn**	**10 06 43.5**	**+1.0**
PB05				*eS*	**Sn**	**10 07 19.3**	**-1.1**
PB05				IAML		10 07 22.8	
	comp=N,241nm,0.4s						
AC02	**Maricunga**	**3.03**	**213**	*i* P	**Pn**	**10 06 43.7**	**+0.7**
AC02				*i* S	**Sn**	**10 07 22.0**	**+0.7**
AC02				IAML		10 07 30.6	
	comp=Z,52nm,0.3s						
AC02	**Maricunga**	**3.03**	**213**		**Pn**	**10 06 44.3**	**+1.2**
AC02	**Maricunga**	**3.03**	**213**	*eP*	**Pn**	**10 06 44.7**	**+1.7**
PB09	**IPOC Station P**	**3.05**	**324**	*eP*	**Pn**	**10 06 44.8**	**+1.7**
PB09				*i* S	**Sn**	**10 07 21.8**	**+0.6**
PB09				IAML		10 07 22.8	
	comp=Z,274nm,0.8s						
PB09	**IPOC Station P**	**3.05**	**324**		**Pn**	**10 06 44.6**	**+1.5**
PB09	**IPOC Station P**	**3.05**	**324**	*eP*	**Pn**	**10 06 44.7**	**+1.7**
PB09				*eS*	**Sn**	**10 07 21.6**	**+0.4**
PB09				IAML		10 07 23.9	
	comp=N,250nm,0.4s						
AHML	**Horco Molle**	**3.06**	**145**	*eP*	Pn	10 06 29.6	-13
AHML				*eS*	Sn	10 07 06.6	-15
AHML				IAML		10 07 13.6	
	comp=Z,32nm,0.8s						
PB10	**IPOC Station P**	**3.08**	**284**	*i* P	**Pn**	**10 06 44.5**	**+1.4**
PB10				*i* S	**Sn**	**10 07 22.1**	**+0.7**
PB10				IAML		10 07 27.7	
	comp=Z,163nm,0.3s						
PB10	**IPOC Station P**	**3.08**	**284**		**Pn**	**10 06 44.3**	**+1.2**
PB10	**IPOC Station P**	**3.08**	**284**	*eP*	**Pn**	**10 06 44.3**	**+1.2**
PB10				*eS*	**Sn**	**10 07 21.4**	**0.0**
PB10				IAML		10 07 25.9	
	comp=E,198nm,0.2s						
PB03	**IPOC Station P**	**3.17**	**314**	*eP*	**Pn**	**10 06 45.5**	**+1.0**
PB03				*i* S	**Sn**	**10 07 24.4**	**+0.6**
PB03				IAML		10 07 26.6	
	comp=Z,448nm,0.2s						
PB03	**IPOC Station P**	**3.17**	**314**		**Pn**	**10 06 45.2**	**+0.8**
PB03	**IPOC Station P**	**3.17**	**314**	*eP*	**Pn**	**10 06 45.4**	**+1.0**
PB03				*eS*	**Sn**	**10 07 22.5**	**-1.3**
PB03				IAML		10 07 24.0	
	comp=E,429nm,0.2s						
PB07	**IPOC Station P**	**3.48**	**316**	*eP*	**Pn**	**10 06 49.5**	**+1.1**
PB07				*i* S	**Sn**	**10 07 30.8**	**-0.1**
PB07				IAML		10 07 31.0	
	comp=Z,378nm,0.4s						
PB07	**IPOC Station P**	**3.48**	**316**		**Pn**	**10 06 49.1**	**+0.7**
PB07	**IPOC Station P**	**3.48**	**316**	*eP*	**Pn**	**10 06 49.2**	**+0.7**
PB07				*eS*	**Sn**	**10 07 28.8**	**-2.1**
AC01	**Pan de Azucar**	**3.52**	**237**	*eP*	**Pn**	**10 06 48.9**	**+0.2**
AC01				*eS*	**Sn**	**10 07 31.0**	**-0.4**
AC01				IAML		10 07 31.4	
	comp=Z,131nm,0.5s						
AC01	**Pan de Azucar**	**3.52**	**237**		**Pn**	**10 06 48.9**	**+0.2**
AC01	**Pan de Azucar**	**3.52**	**237**	*eP*	**Pn**	**10 06 48.8**	**+0.2**
TINO	**Tinogasta**	**3.77**	**184**	*i* P	**Pn**	**10 06 52.7**	**+0.7**
TINO				IAML		10 07 51.7	
	comp=Z,7.3nm,1.1s						
PB02	**IPOC Station P**	**3.80**	**320**	*eP*	**Pn**	**10 06 53.1**	**+0.8**
PB02				*i* S	**Sn**	**10 07 37.8**	**-0.1**
PB02				IAML		10 07 39.9	
	comp=Z,398nm,0.4s						
PB02	**IPOC Station P**	**3.80**	**320**		**Pn**	**10 06 52.6**	**+0.3**
PB02	**IPOC Station P**	**3.80**	**320**	*eP*	**Pn**	**10 06 52.6**	**+0.3**
PB02				*eS*	**Sn**	**10 07 35.3**	**-2.6**
AC06	**Mina Casimiro**	**4.12**	**221**		**Pn**	**10 06 56.0**	**-0.3**
AC06	**Mina Casimiro**	**4.12**	**221**	*eP*	**Pn**	**10 06 56.0**	**-0.3**
GO03	**Copiapo**	**4.22**	**218**	*eP*	**Pn**	**10 06 57.9**	**+0.2**
GO03				*i* S	**Sn**	**10 07 46.5**	**-1.2**
GO03				IAML		10 07 49.4	
	comp=Z,125nm,0.3s						
GO03	**Copiapo**	**4.22**	**218**		**Pn**	**10 06 57.5**	**-0.2**
GO03	**Copiapo**	**4.22**	**218**	*eP*	**Pn**	**10 06 57.5**	**-0.2**
PB08	**IPOC Station P**	**4.46**	**337**	*eP*	**Pn**	**10 07 02.2**	**+1.0**
PB08				*eS*	**Sn**	**10 07 53.2**	**-0.5**
PB08				IAML		10 07 56.8	
	comp=Z,28nm,0.3s						
PB08	**IPOC Station P**	**4.46**	**337**		**Pn**	**10 07 02.1**	**+0.9**
TA01	**Diego Aracena**	**4.56**	**324**	*eP*	**Pn**	**10 07 02.5**	**+0.5**
TA01				*eS*	**Sn**	**10 07 54.1**	**-1.2**
TA01				IAML		10 08 07.6	
	comp=Z,44nm,0.8s						
TA01	**Diego Aracena**	**4.56**	**324**		**Pn**	**10 07 02.0**	**0.0**
GO01	**Chusmiza**	**4.92**	**339**		**Pn**	**10 07 08.2**	**+1.0**
PB11	**IPOC Station P**	**5.00**	**334**	*eP*	**Pn**	**10 07 07.4**	**-0.6**
PB11				*i* S	**Sn**	**10 08 03.9**	**-2.0**
PB11				IAML		10 08 07.2	
	comp=Z,50nm,0.3s						
ACLC	**CERRO LA CRUZ**	**5.13**	**177**	*i* P	**Pn**	**10 07 09.7**	**+0.2**
ACLC				IAML		10 08 42.3	
	comp=Z,2.6nm,1.5s						
AC04	**Llanos de Chal**	**5.17**	**220**	*eP*	**Pn**	**10 07 09.2**	**-0.8**
AC04				*eS*	**Sn**	**10 08 07.3**	**-2.2**
AC04				IAML		10 08 11.8	
	comp=Z,42nm,0.8s						
AC04	**Llanos de Chal**	**5.17**	**220**		**Pn**	**10 07 08.9**	**-1.1**
AC04	**Llanos de Chal**	**5.17**	**220**	*eP*	**Pn**	**10 07 08.8**	**-1.1**
AC05	**El Transito**	**5.26**	**210**	*eS*	**Sn**	**10 08 09.7**	**-2.1**
AC05				IAML		10 08 14.1	
	comp=Z,42nm,0.6s						
AC05	**El Transito**	**5.26**	**210**		**Pn**	**10 07 10.9**	**-0.3**
LCO	**Las Campanas**	**5.61**	**212**		**Pn**	**10 07 14.9**	**-1.0**
PB16	**IPOC Station P**	**6.26**	**340**		**Pn**	**10 07 24.6**	**-0.3**
GO04	**Tololo Observa**	**6.64**	**207**		**Pn**	**10 07 28.2**	**-1.2**
CFA	**Coronel Fontan**	**7.34**	**186**	P	Pn	10 07 34.7	-3.8
	comp=Z,0.6nm,0.3s,baz=238,slow=17,SNR=1.6						
CFA				S	**Sn**	**10 08 56.7**	**-4.4**
	comp=Z,0.9nm,0.3s,baz=122,slow=23,SNR=9.3						
LPAZ	**La Paz**	**7.99**	**354**	P	**Pn**	**10 07 47.8**	**+0.1**
	comp=Z,1.2nm,0.4s,baz=165,slow=4.1,SNR=19						
LPAZ				S	**Sn**	**10 09 12.7**	**-5.0**
	comp=Z,0.8nm,0.5s,baz=326,slow=4.6,SNR=2.1						
LPAZ	**La Paz**	**7.99**	**354**		**Pn**	**10 07 48.4**	**+0.6**
CPUP	**Villa Florida**	**9.25**	**105**	P	**Pn**	**10 08 00.6**	**-3.2**
	comp=Z,1.

comp=Z,0.4nm,0.4s
PDAR Pinedale Array 77.25 329 P P 10 17 30.6 +1.4
comp=Z,0.2nm,0.5s,baz=143,slow=8.2,SNR=2.1
comp=Z,0.2nm,0.5s
BOSA Boshof 80.85 117 P P 10 17 50.3 +1.1
comp=Z,2.7nm,0.9s,baz=248,slow=5.0,SNR=3.0
comp=Z,2.7nm,0.9s
ASAR Alice Springs 128.09 205 PKP PKPdf 10 24 40.0 -0.2
comp=Z,0.3nm,0.7s,baz=124,slow=5.3,SNR=4.1
WRA Warramunga Arr 131.25 207 PKP PKiKP 10 24 47.3 0.0
comp=Z,0.3nm,0.5s,baz=162,slow=1.6,SNR=5.1
MKAR Makanchi Array 146.92 40 PKPbc PKPbc 10 25 15.6 -0.4
comp=Z,0.7nm,0.5s,baz=316,slow=2.8,SNR=8.1

*NOU **02** 10:13:51.2, 17.76S×172.36W, h0km, mb4.7/15, Tonga Islands Region*
*NEIC **02** 10:15:38.2±2.2, 22.77S±0.09×179.5W±0.1, h560km±9km, mb4.3/26, Error ellipse: s-maj=18.0km s-min=12.8km az=102.0*
*IDC **02** 10:15:40.0±1.1, 22.57S×179.77W, h580km±13km, mb3.1/9, mbtmp4.1/10, Error ellipse: s-maj=16.6km s-min=12.9km az=169.0*

ISC 02 10:15:37.6±0.5, 22.85S±0.06×179.60W±0.07, h550km, n118, σ1.89/128, mb4.0/19, 2D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MSVF	**Nonsavu**	**5.55**	**336**	P		**P**	**10 17 13.3**	**+0.8**
	30nm,0.4s,baz=202,slow=8.8,SNR=49							
MSVF				S		**S**	**10 18 31.7**	**+2.0**
	8.3nm,0.8s,baz=143,slow=23,SNR=1.2							
MSVF	**Nonsavu**	**5.55**	**336**	P		**P**	**10 17 13.9**	**+1.4**
MSVF	**Nonsavu**	**5.55**	**336**	P		**P**	**10 17 13.8**	**+1.4**
MSVF				AML		AML		
GLKZ	**Green Lake**	**6.56**	**167**	P		**P**	**10 17 23.6**	**+2.3**
GLKZ				S		**S**	**10 18 45.8**	**-0.4**
GLKZ				AML		AML		
NIUE	**Niue**	**9.78**	**69**	P		P	10 18 02.6	+9.2
NIUE				S		**S**	**10 19 50.4**	**+5.4**
MARNC	**Mare, Loyalty**	**11.55**	**274**	P		**P**	**10 18 12.7**	**+1.2**
MARNC	**Mare, Loyalty**	**11.55**	**274**	P		**P**	**10 18 12.7**	**+1.2**
AFI	**Afiamalu**	**11.58**	**41**	P		**P**	**10 18 08.8**	**-3.2**
	12nm,0.3s,baz=209,slow=19,SNR=8.4							
PINNC	**Pines Island,**	**11.96**	**269**	P		**P**	**10 18 20.1**	**+4.3**
PINNC	**Pines Island,**	**11.96**	**269**	P		**P**	**10 18 17.7**	**+1.9**
DZM	**Mont Dzumac**	**12.93**	**271**	P		**P**	**10 18 23.4**	**-2.5**
	5.0nm,0.8s,baz=114,slow=18,SNR=7.1							
OUZ	**Omahuta**	**13.68**	**204**	P		P	10 18 40.2	+6.8
OUZ	**Omahuta**	**13.68**	**204**	P		**P**	**10 18 37.4**	**+4.0**
GRZ	**Great Barrier**	**14.03**	**197**	P		**P**	**10 18 39.2**	**+2.3**
WCZ	**Waipu Caves**	**14.06**	**201**	P		**P**	**10 18 40.9**	**+3.6**
MBAZ	**Motutapu North**	**14.66**	**198**	P		**P**	**10 18 46.3**	**+2.8**
MXZ	**Matakaoa Point**	**14.77**	**187**	P		P	10 18 39.7	-4.9
MXZ	**Matakaoa Point**	**14.77**	**187**	P		**P**	**10 18 44.6**	**+0.1**
ETAZ	**East Tamaki Re**	**14.83**	**197**	P		**P**	**10 18 48.3**	**+3.2**
MKAZ	**Moumakai**	**14.91**	**196**	P		**P**	**10 18 48.5**	**+2.5**
WMGZ	**Waiomatatini S**	**15.02**	**186**	P		**P**	**10 18 47.3**	**+0.2**
WMGZ				S		**S**	**10 21 21.7**	**-1.4**
HAZ	**Te Kaha**	**15.03**	**188**	P		**P**	**10 18 47.1**	**-0.1**
HAZ				S		**S**	**10 21 21.8**	**-1.4**
PKGZ	**Pakihiroa**	**15.10**	**187**	P		**P**	**10 18 49.6**	**+1.7**
PKGZ				S		**S**	**10 21 22.9**	**-1.6**
RUGZ	**Raukumara Rang**	**15.24**	**188**	P		**P**	**10 18 49.4**	**-0.2**
TGRZ	**Tauranga**	**15.25**	**193**	P		**P**	**10 18 52.3**	**+2.8**
PUZ	**Puketiti**	**15.28**	**186**	P		**P**	**10 18 49.5**	**-0.3**
OPRZ	**Ohinepanea**	**15.31**	**192**	P		**P**	**10 18 51.7**	**+1.6**
TWGZ	**Tauwhareparae**	**15.42**	**187**	P		**P**	**10 18 52.3**	**+1.1**
TWGZ				S		**S**	**10 21 28.1**	**-2.0**
TOZ	**Tahuroa Road**	**15.42**	**195**			**P**	**10 18 53.3**	**+2.1**
TOZ				IAmb		IAmb	10 18 55.0	
	comp=Z,19nm,1.1s							
TOZ	**Tahuroa Road**	**15.42**	**195**	P		**P**	**10 18 53.5**	**+2.3**
MARZ	**Manawahe**	**15.42**	**191**	P		**P**	**10 18 52.6**	**+1.3**
KMRZ	**Kaimai**	**15.43**	**193**	P		**P**	**10 18 53.6**	**+2.2**
URZ	**Urewera**	**15.62**	**190**	P		**P**	**10 18 50.9**	**-2.2**
	comp=Z,15nm,0.4s,baz=247,slow=3.8,SNR=42							
URZ				S		**S**	**10 21 28.6**	**-4.7**
	comp=Z,2.9nm,0.4s,baz=205,slow=22,SNR=7.9							
URZ	**Urewera**	**15.62**	**190**	P		**P**	**10 18 51.4**	**-1.8**
URZ	**Urewera**	**15.62**	**190**	P		**P**	**10 18 51.9**	**-1.3**
URZ				S		**S**	**10 21 27.7**	**-5.7**
MWZ	**Matawai**	**15.63**	**188**	P		**P**	**10 18 52.4**	**-1.0**
MWZ				S		**S**	**10 21 31.1**	**-2.6**
TKGZ	**Te Karaka**	**15.69**	**187**	P		**P**	**10 18 54.7**	**+0.8**
CNGZ	**Carnagh Statio**	**15.70**	**186**	P		**P**	**10 18 55.1**	**+1.1**
RRRZ	**Republican Roa**	**15.79**	**191**	P		**P**	**10 18 56.1**	**+1.1**
RAGZ	**Rawiri**	**15.80**	**189**	P		**P**	**10 18 55.1**	**-0.1**
MUGZ	**Murupara**	**15.88**	**190**	P		**P**	**10 18 54.2**	**-1.6**
MUGZ				S		**S**	**10 21 35.4**	**-2.5**
RIGZ	**Rimuhau**	**15.96**	**188**	P		**P**	**10 18 56.4**	**-0.3**
RIGZ				S		**S**	**10 21 37.1**	**-2.2**
PRRZ	**Plateau Road**	**15.97**	**192**	P		**P**	**10 18 57.1**	**+0.4**
TLZ	**Tolley Road**	**15.98**	**194**	P		**P**	**10 18 58.7**	**+1.8**
RTZ	**Ruatahuna**	**15.98**	**190**			**P**	**10 18 55.9**	**-1.0**
RTZ				IAmb		IAmb	10 18 57.2	
	comp=Z,21nm,1.2s							
RTZ	**Ruatahuna**	**15.98**	**190**	P		**P**	**10 18 56.1**	**-0.9**
PRGZ	**Paritu Road**	**16.16**	**187**	P		**P**	**10 18 59.7**	**+1.1**
MTHZ	**Maungataniwha**	**16.24**	**190**	P		**P**	**10 18 59.1**	**-0.2**
RAHZ	**Arahi**	**16.26**	**189**	P		**P**	**10 18 58.9**	**-0.6**
MRHZ	**Matea Rd**	**16.29**	**191**	P		**P**	**10 18 59.2**	**-0.6**
HIZ	**Hauiti**	**16.32**	**196**	P		**P**	**10 19 03.7**	**+3.7**
HIZ	**Hauiti**	**16.32**	**196**	P		**P**	**10 19 02.1**	**+2.1**
MHGZ	**Mahia Peninsul**	**16.39**	**187**	P		**P**	**10 19 01.2**	**+0.5**
RATZ	**Rangitukua**	**16.45**	**193**	P		**P**	**10 18 59.9**	**-1.4**
NMHZ	**Naumai**	**16.48**	**190**	P		**P**	**10 19 01.3**	**-0.3**
BKZ	**Black Stump Fm**	**16.60**	**191**	P		**P**	**10 19 01.4**	**-1.2**
BKZ	**Black Stump Fm**	**16.60**	**191**	P		**P**	**10 19 01.0**	**-1.6**
ARHZ	**Arapoaanui**	**16.62**	**189**	P		**P**	**10 19 02.2**	**-0.5**
NTVZ	**North Tongarir**	**16.69**	**193**	P		**P**	**10 19 05.1**	**+1.6**
TMVZ	**Te Maari**	**16.70**	**193**	P		**P**	**10 19 03.9**	**+0.3**
TWVZ	**Taurewa**	**16.71**	**194**	P		**P**	**10 19 04.6**	**+0.9**
ETVZ	**East Tongariro**	**16.72**	**193**	P		**P**	**10 19 03.3**	**-0.5**
WTVZ	**West Tongariro**	**16.73**	**193**	P		**P**	**10 19 04.1**	**+0.2**
OTVZ	**Oturere**	**16.75**	**193**	P		**P**	**10 19 03.1**	**-1.1**
NGZ	**Ngauruhoe**	**16.78**	**193**	P		**P**	**10 19 05.3**	**+0.9**
SNVZ	**South Ngauruho**	**16.78**	**193**	P		**P**	**10 19 04.4**	**0.0**
MCHZ	**McNeill Hill**	**16.84**	**190**	P		**P**	**10 19 04.1**	**-0.6**
TUVZ	**Tukino**	**16.86**	**193**	P		**P**	**10 19 05.8**	**+0.7**
KWHZ	**Kaweka Forest**	**16.86**	**191**	P		**P**	**10 19 04.0**	**-1.1**
VRZ	**Vera Road**	**16.92**	**195**	P		**P**	**10 19 08.4**	**+2.9**
WNVZ	**Wahianoa**	**16.93**	**193**	P		**P**	**10 19 04.8**	**-0.9**
PKVZ	**Pokaka**	**16.94**	**194**	P		**P**	**10 19 05.2**	**-0.5**
MOVZ	**Moawhango**	**16.97**	**192**	P		**P**	**10 19 05.5**	**-0.5**
BFZ	**Birch Farm**	**18.12**	**190**	P		**P**	**10 19 15.7**	**-0.7**
BFZ	**Birch Farm**	**18.12**	**190**	P		**P**	**10 19 16.8**	**+0.4**
LUES	**Luesalemba Tem**	**18.40**	**309**	P		P	10 18 48.9	-30
TCW	**Tory Channel**	**19.02**	**194**	P		**P**	**10 19 25.8**	**+1.2**
SNZO	**South Karori**	**19.02**	**193**	P		**P**	**10 19 25.9**	**+1.3**
QRZ	**Quartz Range**	**19.11**	**199**	P		**P**	**10 19 28.1**	**+2.6**
TKNZ	**Takaka Hill**	**19.18**	**197**	P		**P**	**10 19 26.9**	**+0.8**
TUWZ	**Tuamarina**	**19.30**	**195**	P		**P**	**10 19 28.6**	**+1.5**
KHZ	**Kahutara**	**20.33**	**195**	P		**P**	**10 19 37.3**	**+0.8**
GVZ	**Greta Valley S**	**20.98**	**195**	P		**P**	**10 19 42.4**	**0.0**
LTZ	**Lake Taylor**	**21.00**	**197**			**P**	**10 19 42.1**	**-0.5**
OXZ	**Oxford**	**21.57**	**197**	P		**P**	**10 19 47.8**	**+0.1**
RPZ	**Rata Peaks**	**22.20**	**198**	P		**P**	**10 19 57.4**	**+4.1**
ODZ	**Otahua Downs**	**23.54**	**198**	P		**P**	**10 20 07.6**	**+2.4**
ARMA	**Armidale**	**26.75**	**247**	P		**P**	**10 20 34.7**	**+0.7**
ARMA				IAmb		IAmb	10 20 52.8	
	comp=Z,20nm,1.2s							
CAN	**Canberra**	**30.00**	**238**	P		**P**	**10 21 03.8**	**+1.7**
CTAO	**Charters Tower**	**31.86**	**268**	P		**P**	**10 21 18.6**	**+0.3**
CTAO				IAmb		IAmb	10 21 28.2	
	comp=Z,13nm,1.2s							
TOO	**Toolangi**	**33.33**	**236**	P		**P**	**10 21 31.6**	**+1.1**
TOO				IAmb		IAmb	10 21 32.7	
	comp=Z,2.2nm,0.7s							
TAU	**Tasmania Unive**	**33.92**	**226**	P		**P**	**10 21 36.6**	**+1.3**
STKA	**Stephens Creek**	**35.47**	**247**	P		**P**	**10 21 49.1**	**+0.8**
	comp=Z,2.0nm,0.4s,baz=90,slow=4.0,SNR=6.8							
	comp=Z,2.0nm,0.4s							
STKA	**Stephens Creek**	**35.47**	**247**	IAmb		IAmb	10 21 50.1	
	comp=Z,8.8nm,0.7s							
INKA	**Innaminka**	**36.08**	**254**	P		**P**	**10 21 54.3**	**+0.9**
BBOO	**Buckleboo**	**40.20**	**246**	P		**P**	**10 22 27.1**	**+0.2**
BBOO				IAmb		IAmb	10 23 02.2	
	comp=Z,27nm,1.5s							
AS31	**Alice Springs**	**42.58**	**259**	P		**P**	**10 22 46.1**	**+0.2**
ASAR	**Alice Springs**	**42.58**	**259**	P		**P**	**10 22 45.5**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=104,slow=7.5,SNR=21							
ASAR				ScP		**ScP**	**10 27 22.8**	**-1.4**
	comp=Z,0.5nm,1.1s,baz=96,slow=3.6,SNR=2.4							
ASAR				S		**S**	**10 28 26.4**	**-2.8**
	comp=Z,0.8nm,0.8s,baz=101,slow=15,SNR=7.2							
	comp=Z,1.0nm,0.7s							
WR8	**Warramunga Arr**	**42.71**	**265**	P		**P**	**10 22 45.9**	**-1.0**
WR8				IAmb		IAmb	10 23 15.7	
	comp=Z,8.9nm,1.4s							
WB0	**Warramunga Arr**	**42.85**	**265**	P		**P**	**10 22 47.2**	**-0.8**
WB0				IAmb		IAmb	10 23 09.1	
	comp=Z,5.2nm,1.2s							
WRAB	**Tennant Creek**	**42.85**	**265**	P		**P**	**10 22 45.1**	**-2.9**
WRAB				IAmb		IAmb	10 23 04.7	
	comp=Z,6.3nm,1.3s							
WRA	**Warramunga Arr**	**42.86**	**265**	P		**P**	**10 22 46.9**	**-1.2**
	comp=Z,1.1nm,0.6s,baz=96,slow=8.7,SNR=29							
WRA				ScP		**ScP**	**10 27 23.7**	**-1.7**
	comp=Z,0.6nm,1.0s,baz=92,slow=3.3,SNR=4.8							
WRA				S		**S**	**10 28 28.3**	**-4.9**
	comp=Z,0.8nm,1.1s,baz=99,slow=16,SNR=3.2							
	comp=Z,1.1nm,0.6s							
WRA	**Warramunga Arr**	**42.86**	**265**	IAmb		IAmb	10 22 48.1	
	comp=Z,0.1nm,0.7s							
FORT	**Forrest**	**47.03**	**249**	P		**P**	**10 23 19.8**	**-0.1**
FORT				IAmb		IAmb	10 23 57.2	
	comp=Z,9.3nm,1.0s							
KNRA	**Kununurra**	**49.07**	**269**	P		**P**	**10 23 35.2**	**-0.1**
FITZ	**Fitzroy Crossi**	**51.29**	**265**	P		**P**	**10 23 51.2**	**-0.2**
VNDA	**Vanda**	**55.45**	**185**	P		**P**	**10 24 22.1**	**+2.1**
	comp=Z,2.4nm,0.7s,baz=2.6,slow=7.1,SNR=18							
	comp=Z,2.4nm,0.7s							
VNDA	**Vanda**	**55.45**	**185**			**P**	**10 24 22.6**	**+2.6**
MBWA	**Marble Bar**	**55.92**	**259**	P		**P**	**10 24 22.8**	**-1.4**
MBWA				IAmb		IAmb	10 24 30.8	
	comp=Z,26nm,1.5s							
QSPA	**South Pole Qui**	**67.23**	**180**	P		**P**	**10 25 38.5**	**+1.2**
	comp=Z,5.6nm,0.6s,baz=46,slow=1.8,SNR=58							
	comp=Z,5.6nm,0.6s							
QSPA	**South Pole Qui**	**67.23**	**180**			**P**	**10 25 38.6**	**+1.3**
QSPA				IAmb		IAmb	10 25 39.6	
	comp=Z,6.4nm,0.8s							
BELA	**Belgrano 2**	**77.42**	**173**	P		**P**	**10 26 35.7**	**-0.1**
BELA				IAmb		IAmb	10 26 36.4	
	comp=Z,3.1nm,0.5s							
NVAR	**Mina Array Bea**	**83.74**	**44**	P		**P**	**10 27 08.4**	**-1.1**
	comp=Z,0.8nm,0.8s,baz=221,slow=9.2,SNR=7.0							
	comp=Z,0.8nm,0.8s							
ELIB	**Princess Elisa**	**84.14**	**187**	*d*P		**P**	**10 27 10.5**	**-0.3**
TROLL	**Troll, Antarti**	**85.38**	**181**	⇓P		**P**	**10 27 16.4**	**-0.5**
	comp=Z,127nm,0.3s							
TXAR	**Lajitas Array**	**89.56**	**58**	P		**P**	**10 27 37.0**	**-0.1**
	comp=Z,0.7nm,0.9s,baz=225,slow=5.3,SNR=6.5							
	comp=Z,0.7nm,0.9s							
ILAR	**Eielson Array**	**90.93**	**13**	P		**P**	**10 27 40.2**	**-2.3**
	comp=Z,0.3nm,0.7s,baz=231,slow=11,SNR=4.3							
	comp=Z,0.3nm,0.7s							
PDAR	**Pinedale Array**	**91.68**	**44**	P		**P**	**10 27 44.7**	**-2.1**
	comp=Z,0.3nm,0.7s,baz=225,slow=4.5,SNR=2.7							
	comp=Z,0.3nm,0.7s							

IDC 02 10:23:12.3±2.0, 19.24S×173.12W, h0km, mb3.6/3, mbtmp3.8/5, ML3.6/2, Error ellipse: s-maj=57.9km s-min=18.0km az=127.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
AFI	**Afiamalu**	**5.46**	**14**	Pn		Pn	10 24 31.0	-4.0
	1.4nm,0.3s,baz=219,slow=13,SNR=1.7							
AFI				Sn		Sn	10 25 26.4	-12
	5.7nm,0.3s,baz=326,slow=23,SNR=4.8							
	32nm,1.0s							
AFI				AML		AML		
DZM	**Mont Dzumac**	**19.33**	**258**	P		Pn	10 27 40.5	+0.1
	0.2nm,0.3s,baz=84,slow=11,SNR=3.6							
	4.3nm,0.8s							
DZM				AML		AML		
ASAR	**Alice Springs**	**49.27**	**255**	P		P	10 32 03.2	-0.1
	0.9nm,0.7s,baz=96,slow=7.1,SNR=18							
	0.9nm,0.7s							
WRA	**Warramunga Arr**	**49.33**	**260**	P		P	10 32 02.9	-0.9
	0.3nm,0.6s,baz=97,slow=7.7,SNR=5.3							
	0.3nm,0.6s							
NVAR	**Mina Array Bea**	**77.01**	**41**	P		P	10 35 07.2	-0.3
	0.3nm,0.7s,baz=261,slow=5.5,SNR=3.8							
	0.3nm,0.7s							

*IDC **02** 10:32:09.6±3.4, 13.87N×124.38E, h0km, mb3.5/3, mbtmp3.5/3, Error ellipse: s-maj=262.7km s-min=29.2km az=64.0*

MAN 02 10:31:10.0, 20.69N×121.55E, h4km, MS2.1, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
PIP	**Pasuquin**	**2.51**	**201**	*e*P		Pn	10 31 50.0	-1.7
PIP				*e*S		Sn	10 32 18.9	-3.8
CVP	**Callao Caves**	**2.98**	**175**	*e*P		Pb	10 32 01.3	-2.4
CVP				*e*S		Sn	10 32 36.4	+2.1
WRA	**Warramunga Arr**	**42.28**	**162**	P		P	10 39 04.6	-0.3
	0.7nm,0.5s,baz=343,slow=9.1,SNR=9.8							
	0.7nm,0.5s							
ASAR	**Alice Springs**	**45.70**	**164**	P		P	10 39 32.7	+0.4
	0.4nm,0.5s,baz=349,slow=7.4,SNR=9.9							
	0.4nm,0.5s							

*AFAD **02** 10:37:56.5, 37.83N×26.81E, h7km±2km, ML2.2*
*THE **02** 10:37:57.7, 38°N±7°×2°7E±°, h20km±11km, MLh2.5/3*
*ISK **02** 10:37:57.2, 37.86N×26.86E, h7km, ML2.5/23*

ISC 02 10:37:57.4±1.0, 37.86N±0.02×26.84E±0.03, h10km±8km, n33, σ0.54/48, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
DGB	**zmir**	**0.20**	**10**	P		**Pg**	**10 38 01.2**	**-0.2**
DGB				S		**Sg**	**10 38 04.7**	**+0.4**
DGB				IAML			10 38 05.0	
	comp=E,444nm,0.4s							
DGB				IAML			10 38 08.0	
	comp=N,290nm,0.3s							
GMLD	**Gumuldur**	**0.23**	**15**	Pg		**Pg**	**10 38 01.8**	**-0.2**
GMLD				Sg		**Sg**	**10 38 05.5**	**+0.3**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.35**	**117**	P		**Pg**	**10 38 04.0**	**-0.3**
GCAM				S		**Sg**	**10 38 09.4**	**+0.5**
GCAM				IAML			10 38 10.0	
	comp=E,290nm,0.4s							
GCAM				IAML			10 38 11.0	
	comp=N,208nm,0.3s							
GCAM	**G?zelcaml?**	**0.35**	**117**	Pg		**Pg**	**10 38 03.9**	**-0.4**
GCAM				Sg		**Sg**	**10 38 09.5**	**+0.6**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**89**	Pg		**Pg**	**10 38 03.9**	**-0.5**
KUSD				Sg		**Sg**	**10 38 09.3**	**+0.2**
KUSD				AML		AML		
BEYE	**izmir**	**0.38**	**11**	P		**Pg**	**10 38 04.5**	**-0.3**
BEYE				S		**Sb**	**10 38 10.8**	**-1.3**
BEYE				IAML			10 38 13.0	
	comp=E,227nm,0.3s							
BEYE				IAML			10 38 14.0	
	comp=N,197nm,0.5s							
ZEYE	**Izmir, Urla-Ze**	**0.46**	**325**	P		**Pg**	**10 38 06.0**	**-0.4**
ZEYE				S		**Sg**	**10 38 12.7**	**+0.1**
ZEYE				IAML			10 38 13.0	
	comp=N,565nm,0.3s							
ZEYE				IAML			10 38 17.0	
	comp=E,239nm,0.4s							
BLCB	**Balcova**	**0.55**	**17**	P		**Pg**	**10 38 07.7**	**-0.4**
BLCB				S		**Sg**	**10 38 15.4**	**0.0**
BLCB	**Balcova**	**0.55**	**17**	Pg		**Pg**	**10 38 07.7**	**-0.4**
BLCB				AML		AML		
CESE	**eme**	**0.64**	**318**	Pg		**Pg**	**10 38 10.1**	**+0.4**
CESE				AML		AML		
KRBN	**Karaburun**	**0.77**	**343**	Pg		**Pb**	**10 38 12.9**	**0.0**
KRBN				Sg		**Sb**	**10 38 23.6**	**+0.2**
KRBN				AML		AML		
BAGT	**Foa**	**0.80**	**1**	P		**Pg**	**10 38 11.6**	**-1.1**
BAGT				S		**Sb**	**10 38 25.5**	**+1.3**
BAGT				IAML			10 38 26.0	
	comp=E,203nm,0.7s							
BAGT				IAML			10 38 42.0	
	comp=N,176nm,0.9s							
YKAV	**Yalikavak-Bodr**	**0.81**	**154**	Pg		**Pg**	**10 38 13.1**	**+0.1**
YKAV				AML		AML		
CHOS	**Chios island**	**0.81**	**311**	P		**Pg**	**10 38 13.4**	**+0.3**
CHOS				S		**Sb**	**10 38 24.8**	**0.0**
CHOS				AML		AML		
CHOS	**Chios island**	**0.81**	**311**	Pg		**Pb**	**10 38 13.6**	**-0.1**
CHOS				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**84**	Pg		**Pb**	**10 38 13.6**	**-0.5**
AYDB				Sg		**Sb**	**10 38 24.9**	**-0.6**
AYDB				AML		AML		
FOCM	**Foa**	**0.86**	**354**	Pg		**Pb**	**10 38 14.9**	**+0.5**
FOCM				AML		AML		
BODT	**Bodrum**	**0.88**	**155**	P		**Pg**	**10 38 14.2**	**0.0**
BODT				S		**Sb**	**10 38 26.9**	**+0.4**
BODT				AML		AML		
BODT	**Bodrum**	**0.88**	**155**	Pg		**Pb**	**10 38 14.6**	**-0.1**
BODT				AML		AML		
MLSB	**Milas**	**0.93**	**127**	Pg		**Pb**	**10 38 15.5**	**-0.2**
MLSB				AML		AML		
NAZL	**Nazilli-Aydin**	**1.15**	**84**	Pn		**Pn**	**10 38 19.7**	**+0.1**
NAZL				AML		AML		
GOMA	**Golmarmara-Man**	**1.20**	**45**	Pn		**Pn**	**10 38 20.6**	**+0.4**
DKL	**Dikili**	**1.21**	**2**	Pn		**Pn**	**10 38 20.8**	**+0.4**
DKL				AML		AML		
AKS	**Akhisar**	**1.27**	**37**	Pn		**Pg**	**10 38 21.7**	**-0.1**
AKS				AML		AML		
APE	**Apeiranthos**	**1.31**	**233**	P		**Pn**	**10 38 20.6**	**-1.1**
APE				S		**Sb**	**10 38 38.6**	**-0.3**
APE	**Apeiranthos**	**1.31**	**233**	Pn		**Pn**	**10 38 21.9**	**+0.2**
APE				AML		AML		
YER	**Yerkesik**	**1.36**	**122**	Pn		**Pg**	**10 38 23.7**	**+0.3**
SOMA	**Soma-Manisa**	**1.41**	**23**	Pn		**Pb**	**10 38 23.5**	**-0.2**
SOMA				AML		AML		
PRK	**Paraskevi**	**1.46**	**342**	P		**Pn**	**10 38 22.6**	**-1.2**
PRK				S		**Sn**	**10 38 42.9**	**0.0**
GORD	**Gordes-Manisa**	**1.48**	**45**	Pn		**Pg**	**10 38 25.7**	**-0.2**
GORD				AML		AML		
YAYO	**Edremit-Balk**	**1.76**	**6**	Pn		**Pn**	**10 38 28.6**	**+0.7**
YAYO				AML		AML		
BALB	**Balikesir**	**1.96**	**24**	Pn		**Pn**	**10 38 31.7**	**+1.1**
BALB				AML		AML		
BOZC	**Bozcaada**	**2.07**	**343**	Pn		**Pg**	**10 38 36.9**	**-0.2**
BOZC				AML		AML		

*NEIC **02** 11:09:16.3±1.7, 31.38N±0.04×115.62W±0.02, h10km±2km, ML2.9/40, ML3.2/133(PAS), Error ellipse: s-maj=7.1km s-min=3.2km az=171.0*
*ECX **02** 11:09:17.9±0.5, 31.53N×115.66W, h3km±2km, MD2.2, ML2.9*
*MEX **02** 11:09:19.5±1.5, 31.48N×115.61W, h22km±10km, MD3.7, Presumed earthquake*
*PAS **02** 11:09:19.8±1.9, 31.53N±0.02×115.70W±0.01, h8km±2km, Error ellipse: s-maj=3.1km s-min=2.8km az=161.0*

ISC 02 11:09:17.0±0.9, 31.49N±0.02×115.67W±0.02, h14km±7km, n50, σ0.75/73, 4C-2D, Baja California

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
VTX	**Valle De La Tr**	**0.14**	**227**	⇑*e*P		**Pb**	**11 09 21.3**	**-0.1**
VTX				*e*S		**Sb**	**11 09 24.2**	**-0.2**
VTX				⇓*e*			11 09 26.6	
VTX				IAML			11 09 26.6	
	comp=N,2μm,0.1s							
VTX	**Valle De La Tr**	**0.14**	**227**			**Pb**	**11 09 21.3**	**-0.1**
VTX				Sg		**Sg**	**11 09 23.2**	**+0.1**
VTX				IAML			11 09 26.6	
	comp=N,2μm,0.1s							
SJX	**San Joaquin**	**0.37**	**318**	⇓*e*P		**Pn**	**11 09 27.5**	**-0.4**
SJX				*e*S		**Sn**	**11 09 35.0**	**0.0**
SJX				⇑*e*			11 09 37.0	
SJX				IAML			11 09 37.0	
	comp=N,944nm,0.2s							
SV2X	**San Vicente**	**0.51**	**254**	⇑*e*P		**Pg**	**11 09 27.4**	**+0.4**
SV2X				*e*S		**Sb**	**11 09 35.3**	**+0.3**
ALAMX	**Rancho Alamar**	**0.52**	**356**	*e*P		**Pg**	**11 09 26.4**	**-0.9**
ALAMX				*e*S		**Sg**	**11 09 33.2**	**-1.1**
ECBX	**El Chinero**	**0.53**	**91**	*e*P		**Pg**	**11 09 27.3**	**0.0**
ECBX				*e*S		**Sg**	**11 09 34.5**	**+0.2**
ECBX	**El Chinero**	**0.53**	**91**	*e*P		**Pb**	**11 09 27.7**	**-0.3**
ECBX				*e*S		**Sb**	**11 09 34.6**	**-0.8**
ESJX	**Sierra Juarez**	**0.57**	**335**	Pg		**Pb**	**11 09 29.4**	**+0.5**
ESJX				Sg		**Sb**	**11 09 36.6**	**-0.3**

BLYC					IAML			11 10 42.0	
	comp=E,16nm,0.8s								
BELC	**Belle Mtn. Jos**	**2.52**	**354**			**Pn**	**Pn**	**11 09 59.2**	**+1.5**
BELC					IAML			11 10 52.1	
	comp=E,16nm,1.9s								
ELS	**Elsinore Mount**	**2.62**	**326**		Pn	**Pn**	**Pn**	**11 10 00.1**	**+1.1**
ELS					IAML			11 10 41.2	
	comp=E,60nm,0.4s								
ELS					IAML			11 10 41.3	
	comp=N,54nm,0.6s								
IRM	**Iron Mountain**	**2.70**	**9**		Pn	**Pn**	**Pn**	**11 10 00.3**	**+0.2**
BAHB	**Baha de los**	**3.12**	**144**		*e*	**Pg**	**Pn**	**11 10 17.9**	**+1.1**
BAHB					*e*			11 10 56.1	
BFSC	**Mount Baldy Ra**	**3.22**	**329**		Pn	**Pn**	**Pn**	**11 10 06.8**	**-0.5**
MWC	**Mount Wilson**	**3.39**	**324**		Pn	**Pn**	**Pn**	**11 10 09.1**	**-0.6**
MWC					IAML			11 11 05.3	
	comp=E,35nm,0.6s								
MWC					IAML			11 11 07.6	
	comp=N,28nm,0.7s								

NEIC ***02*** *11:09:39.0±1.0,31°.55N±0°.02×115°.67W±0°.03,h10km±2km, ML2.7/42,ML3.0/29(PAS),Error ellipse: s-maj=4.0km s-min=3.1km az=119.0*

PAS ***02*** *11:09:41.2±2.4,31°.52N±0°.02×115°.72W±0°.02,h8km±2km, Error ellipse: s-maj=3.8km s-min=2.8km az=163.0*

ECX 02 11:09:40.6±0.4,31°.52N×115°.64W,h3km±2km,MD2.0, ML2.5,1C-1D,Baja California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VTX	**Valle De La Tr**	**0.18**	**224**	*e*P	Pg	11 09 44.4	+0.2
VTX				*e*S	Sg	11 09 46.9	+0.4
VTX				IAML		11 09 47.9	
	comp=N,893nm,0.1s						
VTX				⇑*e*		11 09 47.9	
VTX	**Valle De La Tr**	**0.18**	**224**		Pg	11 09 42.8	-1.3
VTX				Sg	Sg	11 09 46.7	+0.2
VTX				IAML		11 09 48.0	
	comp=E,1μm,0.1s						
SJX	**San Joaquin**	**0.36**	**311**	*i* P	Pb	11 09 50.7	+1.0
SJX				*e*S	Sb	11 09 58.1	+2.3
SJX				IAML		11 09 58.3	
	comp=N,387nm,0.1s						
ALAMX	**Rancho Alamar**	**0.49**	**353**	⇓*i* P	Pg	11 09 49.5	-0.5
ECBX	**El Chinero**	**0.50**	**95**	*e*P	Pg	11 09 49.6	-0.7
ECBX				*e*S	Sg	11 09 56.7	-0.1
SV2X	**San Vicente**	**0.55**	**251**	*e*P	Pg	11 09 50.6	-0.4
SV2X				*e*S	Sg	11 09 58.2	+0.1
ESJX	**Sierra Juarez**	**0.55**	**331**		Pg	11 09 50.0	-1.1
ESJX				Sg	Sg	11 09 56.5	-1.9
ESJX				IAML		11 09 58.9	
	comp=E,496nm,0.1s						
ESJX				IAML		11 09 59.7	
	comp=N,368nm,0.1s						
RHX	**Rio Hardy**	**0.68**	**26**	*e*P	Pg	11 09 52.9	-0.8
RITX	**Riito Sonora**	**0.86**	**42**		Pb	11 09 57.7	-0.5
RITX					Sb	11 10 09.9	-0.2
GUVIX	**Guadalupe Vict**	**0.91**	**31**		Sb	11 10 11.9	+0.3
CPBX	**Cerro Prieto**	**0.94**	**17**	Pg	Pg	11 09 57.5	-1.1
CCX	**Cicese**	**0.94**	**292**	Pg	Pg	11 09 57.2	-1.4
CCX				IAML		11 10 11.7	
	comp=N,154nm,0.3s						
CCX				IAML		11 10 21.9	
	comp=E,180nm,0.1s						
SQX	**San Quintin**	**0.96**	**192**	*e*P	Pg	11 09 57.6	-1.5
SQX				*e*S	Sg	11 10 10.5	-1.1
SQX				IAML		11 10 11.5	
	comp=E,221nm,0.3s						
SQX				*e*		11 10 11.5	
SQX				IAML		11 10 13.8	
	comp=N,175nm,0.2s						
SQX				*e*		11 10 13.8	
YUH	**Yuha Desert**	**1.15**	**348**		Sg	11 10 16.4	-1.1
YUH	**Yuha Desert**	**1.15**	**348**		Pg	11 10 01.6	-1.1
YUH				IAML		11 10 04.3	
	comp=N,65nm,0.4s						
YUH				IAML		11 10 18.3	
	comp=E,98nm,0.4s						
BAR	**Barrett**	**1.45**	**323**		Sb	11 10 25.2	-1.9
BAR	**Barrett**	**1.45**	**323**	Pn	Pn	11 10 05.8	-2.0
BAR				IAML		11 10 26.0	
	comp=N,203nm,0.2s						
BAR				IAML		11 10 27.1	
	comp=E,112nm,0.2s						
TJX	**Tijuana**	**1.56**	**310**	Pn	Pn	11 10 07.5	-1.7
GLA	**Glamis**	**1.67**	**24**	Pn	Pn	11 10 09.2	-1.6
GLA				IAML		11 10 20.1	
	comp=N,54nm,0.5s						
GLA				IAML		11 10 34.1	
	comp=E,64nm,0.5s						
DPP	**Dos Picos Cty**	**1.84**	**323**	Pn	Pn	11 10 11.4	-1.8
DPP				IAML		11 10 21.3	
	comp=E,97nm,0.5s						
DPP				IAML		11 10 22.9	
	comp=N,75nm,0.5s						
PIX	**Pinacate**	**1.86**	**88**	Pn	Pn	11 10 11.6	-1.7
BORC	**Borrego Spring**	**1.86**	**339**	Pn	Pn	11 10 11.5	-1.9
BORC				IAML		11 10 23.2	
	comp=E,70nm,0.7s						
BORC				IAML		11 10 28.1	
	comp=N,42nm,0.7s						
113A	**Mohawk Valley,**	**2.02**	**51**	Pn	Pn	11 10 13.9	-1.5
BC3	**Big Chuckawall**	**2.13**	**4**	Pn	Pn	11 10 14.4	-2.8
PFO	**Pinyon Flats O**	**2.20**	**342**	Pn	Pn	11 10 15.7	-2.4
PFO				IAML		11 10 32.9	
	comp=N,29nm,0.8s						
DNR	**Dunn Ranch,Anz**	**2.21**	**338**	Pn	Pn	11 10 14.6	-3.6
PMD	**Palm Desert**	**2.21**	**344**	Pn	Pn	11 10 14.8	-3.4
PMD				IAML		11 10 30.6	
	comp=E,47nm,0.5s						
ELS	**Elsinore Mount**	**2.60**	**325**	Pn	Pn	11 10 19.9	-3.7
IRM	**Iron Mountain**	**2.66**	**9**	Pn	Pn	11 10 21.3	-3.1
BFSC	**Mount Baldy Ra**	**3.20**	**328**	Pn	Pn	11 10 28.1	-3.7
MWC	**Mount Wilson**	**3.38**	**324**	Pn	Pn	11 10 30.4	-4.0
PASC	**Pasadena Art C**	**3.40**	**322**	Pn	Pn	11 10 31.3	-3.3
PASC				IAML		11 11 04.2	
	comp=N,27nm,0.5s						
PASC				IAML		11 11 07.5	
	comp=E,21nm,1.1s						
W13A	**Hualapai Mount**	**3.86**	**22**	Pn	Pn	11 10 38.5	-2.5
MTPC	**Mountain Pass**	**3.95**	**1**	Pn	Pn	11 10 40.5	-1.8
TPO	**Tropico Hills**	**3.99**	**328**	Pn	Pn	11 10 39.1	-3.6
OSI	**Osito Audit: C**	**4.03**	**321**	Pn	Pn	11 10 39.9	-3.3
OSI				IAML		11 11 34.7	
	comp=N,14nm,1.1s						
CCCA	**Chr Cany lake**	**4.25**	**341**	Pn	Pn	11 10 42.4	-3.8
GWY	**Greenwater Val**	**4.73**	**350**	Pn	Pn	11 10 51.0	-2.0
FURC	**Furnace Creek,**	**5.04**	**349**		Pn	11 10 53.8	-3.2
CWC	**Cottonwood Cre**	**5.31**	**338**	Pn	Pn	11 10 57.4	-3.5

ISK ***02*** *11:35:46.5,37°.89N×26°.63E,h6km,ML2.6/18*

AFAD ***02*** *11:35:47.2,37°.93N×26°.65E,h7km±2km,ML2.4*

ISC 02 11:35:46.8±1.2,37°.90N±0°.03×26°.62E±0°.03,h6km±12km, n23,σθ51/32,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.26**	**52**	P	**Pg**	**11 35 51.5**	**-0.4**
DGB				IAML		11 35 55.0	
	comp=N,578nm,0.3s						
DGB				IAML		11 35 55.0	
	comp=E,821nm,0.2s						
DGB				S	**Sg**	**11 35 55.3**	**0.0**
GMLD	**Gumuldur**	**0.29**	**52**	Pg	**Pg**	**11 35 52.2**	**-0.3**
GMLD				Sg	**Sg**	**11 35 56.6**	**+0.2**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.36**	**344**	P	**Pg**	**11 35 53.5**	**-0.3**
ZEYE				S	**Sg**	**11 35 59.1**	**+0.7**
ZEYE				IAML		11 36 00.0	
	comp=E,331nm,0.2s						
ZEYE				IAML		11 36 06.0	
	comp=N,637nm,0.4s						
BEYE	**izmir**	**0.41**	**36**	P	**Pg**	**11 35 54.6**	**-0.2**
BEYE				S	**Sg**	**11 35 59.8**	**-0.3**
BEYE				IAML		11 36 00.0	
	comp=E,319nm,0.2s						
BEYE				IAML		11 36 02.0	
	comp=N,309nm,0.3s						
CESE	**eme**	**0.50**	**330**	Pg	**Pg**	**11 35 57.0**	**+0.4**
CESE				Sg	**Sg**	**11 36 04.0**	**+0.9**
CESE				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.53**	**94**	Pg	**Pg**	**11 35 57.0**	**+0.1**
KUSD				Sg	**Sg**	**11 36 04.5**	**+0.7**
KUSD				AML	AML		
BLCB	**Balcova**	**0.59**	**34**	Pg	**Pg**	**11 35 58.2**	**0.0**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.66**	**132**	P	**Pb**	**11 36 00.8**	**+0.1**
DDIM				S	**Sb**	**11 36 09.7**	**-0.4**
DDIM				IAML		11 36 11.0	
	comp=N,349nm,0.8s						
DDIM				IAML		11 36 12.0	
	comp=E,401nm,0.6s						
CHOS	**Chios island**	**0.67**	**318**	Pg	**Pb**	**11 36 00.3**	**-0.6**
CHOS				Sg	**Sb**	**11 36 09.8**	**-0.7**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.70**	**355**	Pg	**Pg**	**11 35 59.9**	**-0.4**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**13**	P	**Pn**	**11 36 05.9**	**+1.4**
BAGT				S	**Sb**	**11 36 14.0**	**+0.3**
BAGT				IAML		11 36 19.0	
	comp=N,308nm,1.4s						
BAGT				IAML		11 36 22.0	
	comp=E,239nm,0.5s						
FOCM	**Foa**	**0.82**	**6**	Pg	**Pb**	**11 36 02.9**	**-0.6**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.93**	**146**	Pg	**Pg**	**11 36 04.7**	**0.0**
YKAV				AML	AML		
BODT	**Bodrum**	**0.99**	**147**	Pg	**Pg**	**11 36 06.1**	**+0.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.00**	**87**	Pg	**Pb**	**11 36 06.3**	**-0.4**
AYDB				AML	AML		
MLSB	**Milas**	**1.09**	**123**	Pn	**Pg**	**11 36 07.4**	**-0.4**
MLSB				AML	AML		
APE	**Apeiranthos**	**1.20**	**227**	Pn	**Pg**	**11 36 09.3**	**-0.5**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.30**	**51**	Pn	**Pg**	**11 36 12.1**	**+0.3**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.32**	**87**	Pn	**Pg**	**11 36 12.0**	**-0.2**
NAZL				AML	AML		
AKS	**Akhisar**	**1.35**	**43**	Pn	**Pn**	**11 36 12.0**	**-0.4**
AKS				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**29**	Pn	**Pg**	**11 36 14.3**	**-0.3**
SOMA				AML	AML		
YER	**Yerkesik**	**1.52**	**119**	Pn	**Pb**	**11 36 15.2**	**-0.3**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.58**	**50**	Pn	**Pn**	**11 36 15.7**	**+0.1**
GORD				AML	AML		

IDC ***02*** *11:47:49.5±14.0,19°.30N×155°.61W,h0km,mb3.4/4, mbtmp3.4/4,MS3.4/2,Error ellipse: s-maj=292.6km s-min=59.3km az=33.0*

NEIC ***02*** *11:47:51.9±0.8,19°.25N±0°.05×155°.41W±0°.01,h35km±2km, mb4.1/1,ML4.1/38,ML4.1/35(HVO),Error ellipse: s-maj=7.7km s-min=3.0km az=175.0*

HVO ***02*** *11:47:53.2±0.9,19°.22N±0°.04×155°.40W±0°.05,h31km±2km, Error ellipse: s-maj=7.5km s-min=4.8km az=130.0*

ISC 02 11:47:52.3±0.8,19°.27N±0°.03×155°.42W±0°.02,h32km±5km, n69,σθ08/85,mb3.6/5,Hawaiian Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HTC	**Hot Caves**	**0.04**	**138**		**Pb**	**11 47 58.3**	**+0.6**
WOH	**Wood Valley**	**0.07**	**259**		**Pb**	**11 47 58.4**	**+0.5**
PPL	**Puu Pili**	**0.11**	**200**		**Pn**	**11 47 58.2**	**+0.4**
KNE	**Kipuka Nene**	**0.14**	**61**		**Pn**	**11 47 58.6**	**+0.2**
CPK	**Cone Peak**	**0.16**	**35**		**Pn**	**11 47 58.9**	**+0.3**
SDHHI	**Sand Hill**	**0.17**	**45**		**Pn**	**11 47 59.0**	**+0.2**
SDHHI					**Sn**	**11 48 03.1**	**+0.2**
KHU	**Kahuku**	**0.18**	**264**		**Pn**	**11 47 59.1**	**+0.1**
KHU					**Sn**	**11 48 03.4**	**+0.2**
OUT	**Outlet**	**0.18**	**47**		**Pn**	**11 47 59.0**	**0.0**
WRMHI	**West Rim**	**0.18**	**40**		**Pn**	**11 47 59.0**	**+0.1**
WRMHI					**Sn**	**11 48 03.4**	**+0.3**
AHA	**Ahua**	**0.18**	**54**		**Pn**	**11 47 59.0**	**+0.1**
AHA					**Sn**	**11 48 03.4**	**+0.2**
AHA	**Ahua**	**0.18**	**54**		**Pn**	**11 47 59.2**	**+0.2**
AHA					**Sn**	**11 48 03.5**	**+0.4**
PWH	**Poliokeawe Pal**	**0.19**	**84**	Pg	**Pn**	**11 47 59.1**	**+0.2**
TRH	**Trail**	**0.19**	**322**		**Pn**	**11 47 59.7**	**+0.4**
RIM	**Rim**	**0.19**	**48**		**Pn**	**11 47 59.1**	**0.0**
RIM					**Sn**	**11 48 03.2**	**-0.1**
UWE	**Uwekahuna**	**0.20**	**39**		**Pn**	**11 47 59.2**	**0.0**
UWE					**Sn**	**11 48 03.6**	**+0.1**
KKO	**Keanakako'i**	**0.20**	**48**		**Pn**	**11 47 59.2**	**0.0**
KKO					**Sn**	**11 48 03.6**	**+0.1**
OBL	**Observatory Le**	**0.20**	**41**		**Pn**	**11 47 59.2**	**0.0**
OBL					**Sn**	**11 48 03.6**	**+0.1**
BYL	**Byron's Ledge**	**0.21**	**47**		**Pn**	**11 47 59.2**	**-0.1**
BYL					**Sn**	**11 48 03.8**	**0.0**
BYL				IAML		11 48 04.6	
	comp=E,26μm,0.8s						
BYL				IAML		11 48 08.8	
	comp=N,30μm,0.7s						
SBLHI	**Steaming Bluff**	**0.22**	**42**		**Pn**	**11 47 59.2**	**-0.2**
SBLHI					**Sb**	**11 48 03.5**	**-0.2**
HATHI	**Halema'uma'u T**	**0.22**	**44**		**Pn**	**11 47 59.3**	**-0.2**
HATHI				IAML		11 48 10.1	
	comp=N,22μm,0.7s						
PUH	**Pauahi**	**0.22**	**61**		**Pn**	**11 47 59.2**	**-0.3**
ESR	**Escape Road**	**0.23**	**50**		**Pn**	**11 47 59.3**	**-0.2**
ESR					**Sn**	**11 48 03.9**	**-0.3**
MLH	**Mauna Loa**	**0.23**	**9**		**Pn**	**11 47 59.9**	**+0.2**
MLH				IAML		11 48 10.7	
	comp=E,26μm,0.5s						
MLH				IAML		11 48 10.8	
	comp=N,34μm,0.7s						
RCO	**Red Cone**	**0.24**	**306**		**Pb**	**11 47 59.8**	**+0.1**
RSD	**Rainshed**	**0.24**	**35**		**Pn**	**11 47 59.5**	**-0.3**
WIH	**Wilkes Camp**	**0.25**	**323**		**Pn**	**11 48 00.1**	**-0.1**
WIH					**Sn**	**11 48 06.2**	**+0.8**
SWH	**Southwest Rift**	**0.25**	**318**		**Pb**	**11 48 00.0**	**+0.1**
KNHH	**Kane Nui o Ham**	**0.27**	**65**		**Pn**	**11 47 59.7**	**-0.4**
PLL	**Puu Ulaula**	**0.27**	**353**		**Pn**	**11 48 00.3**	**0.0**
MWH	**Mokuaweoweo**	**0.27**	**323**		**Pn**	**11 48 00.4**	**-0.2**
MWH					**Sn**	**11 48 06.0**	**+0.1**
MWH				IAML		11 48 11.3	
	comp=N,20μm,0.6s						
MLOA	**Mauna Loa Obse**	**0.30**	**332**		**Pn**	**11 48 00.8**	**-0.2**
STCH	**Steam Cracks**	**0.31**	**67**		**Pn**	**11 47 60.0**	**-0.6**
STCH					**Sb**	**11 48 05.1**	**-0.4**
STCH				IAML		11 48 05.9	
	comp=N,29μm,0.5s						
NPOC	**North of Pu'u**	**0.32**	**67**		**Pn**	**11 48 00.2**	**-0.6**
NPOC					**Sb**	**11 48 05.4**	**-0.4**
JCUZ	**Jacuzzi**	**0.33**	**69**		**Pn**	**11 48 00.2**	**-0.7**
JCUZ					**Sb**	**11 48 05.5**	**-0.4**
HMH	**Humu'ula Sheep**	**0.34**	**351**		**Pn**	**11 48 01.4**	**+0.1**
HMH					**Sn**	**11 48 07.3**	**+0.1**
HMH				IAML		11 48 08.0	
	comp=N,14μm,0.3s						
HMH				IAML		11 48 08.2	
	comp=E,11μm,0.5s						
OVEH	**Oceanview Est**	**0.34**	**251**		**Pb**	**11 48 00.3**	**-0.3**
OVEH					**Sb**	**11 48 05.5**	**-0.8**
OVEH				IAML		11 48 05.7	
	comp=E,24μm,0.4s						
OVEH				IAML		11 48 06.5	
	comp=N,24μm,0.8s						
ALEP	**Alea Permanent**	**0.34**	**323**		**Pb**	**11 48 00.9**	**+0.1**
ALEP					**Sn**	**11 48 07.4**	**0.0**
KLCH	**Kalalua Cone**	**0.36**	**67**		**Pb**	**11 48 00.5**	**-0.4**
SPT	**South Point**	**0.37**	**220**		**Pb**	**11 48 00.3**	**-0.6**
SPT					**Sb**	**11 48 05.4**	**-1.3**
KUH	**Kaapuna**	**0.42**	**270**		**Pb**	**11 48 01.5**	**-0.2**
JOKA	**Jonika Flow**	**0.43**	**67**		**Pb**	**11 48 01.4**	**-0.4**
JOKA					**Sb**	**11 48 07.3**	**-1.0**
JOKA				IAML		11 48 07.8	
	comp=E,23μm,0.4s						
POHA	**Pohakuloa**	**0.50**	**348**		**Pb**	**11 48 02.8**	**-0.2**
POHA					**Sb**	**11 48 10.2**	**-0.2**
PKL	**Puu Kaliu**	**0.51**	**68**		**Pb**	**11 48 02.4**	**-0.7**
HPU	**Hale Pohaku**	**0.51**	**356**		**Pb**	**11 48 03.3**	**-0.1**
CPH	**Captain Cook**	**0.52**	**296**		**Pb**	**11 48 02.6**	**-0.5**
KLK	**Kealakekua**	**0.53**	**299**		**Pb**	**11 48 02.9**	**-0.5**
KLK					**Sb**	**11 48 09.8**	**-1.2**
KHLU	**Kahalu`u**	**0.55**	**306**		**Pb**	**11 48 03.4**	**-0.3**
KHLU				IAML		11 48 11.0	
	comp=E,7μm,0.7s						
KHLU				IAML		11 48 20.1	
	comp=N,8μm,0.7s						
HUH	**Hualalai**	**0.57**	**317**		**Pb**	**11 48 04.1**	**-0.1**
HUH				IAML		11 48 22.2	
	comp=N,7μm,0.3s						
HUH				IAML		11 48 28.1	
	comp=E,8μm,0.6s						
KKU	**Keanakolu**	**0.63**	**7**		**Pb**	**11 48 05.0**	**-0.1**
KOH	**Kohala**	**0.92**	**339**		**Pn**	**11 48 08.1**	**-1.1**
H11N3	**WAKE ISLAND Hy**	**35.46**	**277**	T	T	12 31 50.9	
	baz=84,slow=75,SNR=116						
H11N2	**WAKE ISLAND Hy**	**35.48**	**277**	T	T	12 31 51.8	
	baz=84,slow=75,SNR=95						
H11N1	**WAKE ISLAND Hy**	**35.48**	**277**	T	T	12 31 52.3	
	baz=84,slow=75,SNR=102						
H11S2	**WAKE ISLAND Hy**	**35.80**	**275**	T	T	12 32 21.0	
	baz=83,slow=75,SNR=54						
H11S1	**WAKE ISLAND Hy**	**35.80**	**275**	T	T	12 32 21.9	
	baz=83,slow=75,SNR=71						
H11S3	**WAKE ISLAND Hy**	**35.81**	**275**	T	T	12 32 22.3	
	baz=83,slow=75,SNR=54						
NVAR	**Mina Array Bea**	**37.38**	**51**	P	**P**	**11 55 05.7**	**+3.3**
	comp=E,0.6nm,0.8s,baz=235,slow=11,SNR=4.1						
	comp=E,0.6nm,0.8s						
PFO	**Pinyon Flats O**	**37.47**	**60**	LR	LR	12 06 16.4	
	comp=E,36nm,19.5s,baz=284,slow=29						
KDAK	**Kodiak Island**	**38.52**	**2**	LR	LR	12 08 10.0	
	comp=E,78nm,19.0s,baz=105,slow=32						
PD31	**Pinedale Array**	**45.06**	**48**	P	**P**	**11 56 03.1**	**-2.4**
PD31				IAmb	IAmb	11 56 14.2	
	comp=Z,4.4nm,1.4s						
PDAR	**Pinedale Array**	**45.06**	**48**	P	**P**	**11 56 07.8**	**+2.3**
	comp=Z,0.5nm,0.8s,baz=223,slow=8.6,SNR=4.4						
	comp=Z,0.5nm,0.8s						
PDAR	**Pinedale Array**	**45.06**	**48**	P	**P**	**11 56 03.1**	**-2.4**
ILAR	**Eielson Array**	**45.84**	**5**	P	**P**	**11 56 12.8**	**+1.8**
	comp=Z,0.5nm,0.7s,baz=193,slow=7.2,SNR=5.8						
	comp=Z,0.5nm,0.7s						
ILAR	**Eielson Array**	**45.84**	**5**	P	**P**	**11 56 08.5**	**-2.5**
TXAR	**Lajitas Array**	**47.90**	**68**	P	**P**	**11 56 30.9**	**+3.2**
	comp=Z,0.3nm,0.7s,baz=248,slow=6.6,SNR=4.1						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**47.90**	**68**	P	**P**	**11 56 25.8**	**-2.0**
HHC	**Hu-ho-hao-te**	**79.86**	**310**	*e*P	**P**	**11 59 59.5**	**+1.4**
HHC				pmax	pmax		
	comp=Z,20nm,0.8s						
AB31	**Akbulak array**	**104.89**	**337**	Pdif	**Pdif**	**12 01 52.3**	**-3.8**
ABKAR	**Akbulak array**	**104.89**	**337**	Pdif	**Pdif**	**12 01 52.3**	**-3.8**

SOF ***02*** *11:57:52.9,37°.N±1°.×27°.3E±0°.4,h2km,MD4.3/4*

IDC ***02*** *11:58:02.8±0.6,37°.76N×27°.05E,h0km,mb4.0/8, mbtmp3.9/16,ML3.5/6,MS3.0/8,Error ellipse: s-maj=10.4km s-min=9.4km az=162.0*

AFAD ***02*** *11:58:03.7,37°.88N×26°.92E,h6km±1km,MW4.1*

MCSM ***02*** *11:58:03.3±0.5,38°N±3°×27°E±°,h11km±4km,mb4.2, mB4.2,MLv4.3,Mw(mB)3.3*

ATH ***02*** *11:58:03.5,37°.88N×26°.93E,h17km±1km,ML4.0/20, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

THE ***02*** *11:58:03.8,38°N±2°×27°E±°,h7km±3km,M4.1/17, MLh4.1/17*

NEIC ***02*** *11:58:03.1±1.7,37°.82N±0°.04×26°.92E±0°.06,h10km±1km, mb4.3/15,Error ellipse: s-maj=8.6km s-min=4.5km az=236.0*

ISK ***02*** *11:58:03.2,37°.87N×26°.91E,h8km,ML4.4/36*

ISC 02 11:58:03.5±0.8,37°.87N±0°.02×26°.92E±0°.02,h16km±5km, n252,σθ05/277,mb4.1/12,MS3.9/4,23C-7D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.18**	**351**	P	**Pg**	**11 58 07.8**	**-0.2**
DGB				S	**Sg**	**11 58 10.2**	**-0.8**
KRL1	**Karlovasi Samo**	**0.19**	**246**	P	**Pg**	**11 58 08.2**	**+0.3**
KRL1				S	**Sb**	**11 58 12.0**	**+0.1**
GMLD	**Gumuldur**	**0.21**	**359**	Pg	**Pg**	**11 58 08.4**	**+0.1**
GMLD				Sg	**Sg**	**11 58 11.2**	**-0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**92**	Pg	**Pg**	**11 58 09.6**	**-0.1**
KUSD				Sg	**Sg**	**11 58 14.1**	**+0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**124**	Pg	**Pg**	**11 58 09.9**	**+0.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**1**	P	**Pg**	**11 58 11.0**	**+0.1**
BEYE				S	**Sg**	**11 58 15.6**	**-0.3**
DDIM	**Aydin, Didim**	**0.48**	**148**	P	**Pg**	**11 58 13.6**	**+0.4**
DDIM				S	**Sb**	**11 58 21.1**	**+0.6**
ZEYE	**Izmir, Urla-Ze**	**0.49**	**318**	P	**Pg**	**11 58 13.5**	**+0.1**
ZEYE				S	**Sb**	**11 58 20.5**	**-0.3**
BLCB	**Balcova**	**0.52**	**10**	P	**Pg**	**11 58 14.0**	**+0.1**
BLCB				S	**Sg**	**11 58 20.6**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**10**	Pg	**Pg**	**11 58 14.0**	**+0.1**
BLCB				Sg	**Sg**	**11 58 21.1**	**+0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.54**	**50**	P	**Pg**	**11 58 14.3**	**0.0**
DUVT				S	**Sg**	**11 58 21.8**	**+0.2**
DIDI	**Didim-Aydin**	**0.55**	**153**	Pg	**Pb**	**11 58 14.9**	**0.0**
DIDI				AML	AML		
DAGE	**izmir**	**0.67**	**78**	P	**Pb**	**11 58 16.9**	**+0.1**
DAGE				S	**Sg**	**11 58 25.3**	**-0.2**
CESE	**eme**	**0.67**	**313**	Pg	**Pg**	**11 58 16.6**	**-0.1**
CESE				Sg	**Sb**	**11 58 26.1**	**+0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.77**	**84**	Pg	**Pb**	**11 58 18.7**	**0.0**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.78**	**338**	Pg	**Pb**	**11 58 18.7**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.79**	**356**	P	**Pb**	**11 58 18.8**	**-0.1**
BAGT				S	**Sn**	**11 58 30.5**	**-0.9**
AYDN	**Tasoluk**	**0.79**	**105**	P	**Pg**	**11 58 19.1**	**+0.2**
AYDN				S	**Sb**	**11 58 29.6**	**+0.3**
YKAV	**Yalikavak-Bodr**	**0.80**	**159**	Pg	**Pb**	**11 58 18.8**	**-0.2**
YKAV				AML	AML		
FOCM	**Foa**	**0.85**	**350**	Pg	**Pb**	**11 58 19.8**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.86**	**307**	P	**Pb**	**11 58 19.9

APE	**Apeiranthos**	**1.36 235**	Pn	**Pb**	**11 58 28.8**	**+0.1**
APE			AML	AML		
APE	**Apeiranthos**	**1.36 235**	P	**Pn**	**11 58 27.6**	**-0.4**
APE			S	**Sb**	**11 58 47.0**	**+1.0**
APE			AML	AML		
SOMA	**Soma-Manisa**	**1.37 20**	Pn	**Pb**	**11 58 29.4**	**+0.6**
SOMA			AML	AML		
ASTA	**Astypalaia**	**1.40 199**	P	**Pn**	**11 58 28.9**	**+0.5**
ASTA			AML	AML		
GORD	**Gordes-Manisa**	**1.43 43**	Pn	**Pb**	**11 58 30.4**	**+0.5**
GORD			AML	AML		
MANT	**Manisa**	**1.43 64**		**Pn**	**11 58 29.1**	**+0.1**
TNSA	**Tinos**	**1.43 257**	P	**Pn**	**11 58 28.0**	**-0.8**
TNSA			S	**Sn**	**11 58 46.1**	**-1.2**
PRK	**Paraskevi**	**1.47 340**	P	**Pn**	**11 58 29.5**	**+0.2**
PRK			AML	AML		
PRK	**Paraskevi**	**1.47 340**	P	**Pn**	**11 58 29.3**	**0.0**
TAVA	**DENIZLI_Tavas**	**1.63 104**	⇑P	**Pn**	**11 58 32.5**	**+0.8**
YAYO	**Edremit-Balk**	**1.74 4**	Pn	**Pb**	**11 58 34.9**	**-0.2**
YAYO			AML	AML		
CMBO	**Columbo, Santo**	**1.85 221**	P	**Pb**	**11 58 36.7**	**-0.2**
CMBO			AML	AML		
CMBO	**Columbo, Santo**	**1.85 221**	P	**Pn**	**11 58 34.2**	**-0.4**
THR8	**Santorini-Mono**	**1.86 219**	P	**Pn**	**11 58 34.7**	**-0.1**
THERA	**Ancient Thera,**	**1.89 218**	P	**Pn**	**11 58 34.7**	**-0.5**
THERA			AML	AML		
THERA	**Ancient Thera,**	**1.89 218**	P	**Pn**	**11 58 35.2**	**0.0**
THERA			AML	AML		
THR3	**Thira Island,**	**1.90 220**	P	**Pn**	**11 58 36.7**	**+1.4**
SNT5	**Nea Kammeni, S**	**1.91 220**	P	**Pn**	**11 58 36.1**	**+0.8**
SAP3	**Santorini-Thir**	**1.91 222**	P	**Pn**	**11 58 36.0**	**+0.6**
SAP3			S	**Sn**	**11 58 59.7**	**+0.6**
SAP3			AML	AML		
SAP3	**Santorini-Thir**	**1.91 222**	P	**Pn**	**11 58 35.9**	**+0.6**
ARG	**Arkhangelos**	**1.91 149**	P	**Pn**	**11 58 36.2**	**+0.7**
ARG			AML	AML		
ARG	**Arkhangelos**	**1.91 149**		**Pn**	**11 58 35.8**	**+0.3**
ARG	**Arkhangelos**	**1.91 149**	P	**Pn**	**11 58 35.8**	**+0.3**
ARG			AML	AML		
THR5	**Thira Island,**	**1.92 221**	P	**Pn**	**11 58 35.6**	**0.0**
BALB	**Balikesir**	**1.92 23**		**Pn**	**11 58 36.4**	**+0.9**
BALB	**Balikesir**	**1.92 23**	Pn	**Pb**	**11 58 37.7**	**-0.5**
BALB			AML	AML		
BALB	**Balikesir**	**1.92 23**	P	**Pn**	**11 58 36.8**	**+1.2**
EZNE	**Ezine-Canakkal**	**1.93 347**	Pn	**Pb**	**11 58 37.4**	**-1.0**
THR6	**Thira Island,**	**1.94 219**	P	**Pn**	**11 58 36.5**	**+0.6**
THR9	**Santorini-Faro**	**1.96 220**	P	**Pn**	**11 58 37.1**	**+1.0**
THR9	**Santorini-Faro**	**1.96 220**	P	**Pn**	**11 58 37.2**	**+1.1**
KARY	**Karystos**	**1.97 275**	P	**Pn**	**11 58 36.5**	**+0.2**
KARY			AML	AML		
KARY	**Karystos**	**1.97 275**	P	**Pn**	**11 58 35.5**	**-0.8**
EZN	**Ezine**	**2.01 347**	P	**Pn**	**11 58 36.7**	**-0.1**
EZN			AML	AML		
EZN	**Ezine**	**2.01 347**	Pn	**Pn**	**11 58 36.7**	**-0.1**
EZN			AML	AML		
EZN	**Ezine**	**2.01 347**	Pn	**Pn**	**11 58 38.2**	**+1.4**
EZN			AML	AML		
YENI	**Yenice-Canakka**	**2.08 7**	Pn	**Pn**	**11 58 39.3**	**+1.5**
BOZC	**Bozcaada**	**2.08 341**	Pn	**Pn**	**11 58 38.9**	**+1.1**
BOZC			AML	AML		
SKY	**Skiros Island**	**2.12 299**	P	**Pn**	**11 58 38.9**	**+0.5**
SKY			AML	AML		
CANM	**Can-anakkale**	**2.14 3**	Pn	**Pn**	**11 58 39.8**	**+1.2**
CANM			AML	AML		
DST	**Dursunbey**	**2.18 37**	Pn	**Pb**	**11 58 41.4**	**-1.3**
DST			AML	AML		
EFSA	**Agios Efstrati**	**2.25 318**	P	**Pn**	**11 58 40.8**	**+0.7**
EFSA			AML	AML		
COMU	**Canakkale**	**2.25 351**	Pn	**Pn**	**11 58 41.8**	**+1.6**
COMU			AML	AML		
GONE	**Gonen-Balikesi**	**2.25 15**	Pn	**Pn**	**11 58 41.1**	**+0.9**
GONE			AML	AML		
SUSR	**Susurluk-Balik**	**2.28 23**	Pn	**Pb**	**11 58 42.5**	**-1.8**
SUSR			AML	AML		
MILOS	**Milos**	**2.28 241**	P	**Pn**	**11 58 41.0**	**+0.4**
KARP	**Karpathos**	**2.33 175**		**Pn**	**11 58 39.2**	**-2.0**
KARP	**Karpathos**	**2.33 175**	Pn	**Pn**	**11 58 41.4**	**+0.2**
KARP			AML	AML		
MHLO	**Agia Marina, M**	**2.33 240**	P	**Pb**	**11 58 43.6**	**-1.5**
MHLO			AML	AML		
MHLO	**Agia Marina, M**	**2.33 240**	P	**Pn**	**11 58 41.4**	**+0.2**
KYMI	**Kymi, Euboea I**	**2.35 290**	P	**Pn**	**11 58 42.0**	**+0.5**
KYMI			AML	AML		
KYMI	**Kymi, Euboea I**	**2.35 290**	P	**Pn**	**11 58 41.3**	**-0.2**
DION	**Dionisos Attik**	**2.37 276**	P	**Pn**	**11 58 42.3**	**+0.5**
DION			AML	AML		
DION	**Dionisos Attik**	**2.37 276**	P	**Pn**	**11 58 41.9**	**+0.1**
DION			AML	AML		
BIGA	**Biga-Canakkale**	**2.41 4**	Pn	**Pn**	**11 58 43.8**	**+1.4**
PTL	**Penteli**	**2.42 275**	P	**Pn**	**11 58 43.0**	**+0.5**
PTL			AML	AML		
PTL	**Penteli**	**2.42 275**	P	**Pn**	**11 58 42.5**	**0.0**
LIA	**Limnos Island**	**2.44 327**	P	**Pn**	**11 58 43.2**	**+0.6**
LIA	**Limnos Island**	**2.44 327**	P	**Pn**	**11 58 42.3**	**-0.4**
LIA			AML	AML		
GADA	**Gvkgeada**	**2.45 341**	Pn	**Pn**	**11 58 44.4**	**+1.5**
GADA			AML	AML		
VLY	**Voula,Athens**	**2.48 271**	P	**Pn**	**11 58 43.3**	**+0.1**
VLY			AML	AML		
ATHU	**Athens Univers**	**2.48 273**	P	**Pn**	**11 58 43.2**	**-0.1**
ATHP	**Athens-Neo Psi**	**2.49 274**	P	**Pn**	**11 58 44.0**	**+0.6**
ATHP			AML	AML		
LPK	**Lapseki**	**2.50 357**	Pn	**Pn**	**11 58 44.4**	**+0.8**
LPK			AML	AML		
ATH	**Athens Observa**	**2.54 273**	P	**Pn**	**11 58 44.0**	**0.0**
ATH			AML	AML		
KRBG	**Karabiga-Canak**	**2.54 7**	Pn	**Pn**	**11 58 44.4**	**+0.4**
KRBG			AML	AML		
GELI	**Tayfur-Gelibol**	**2.55 352**	Pn	**Pn**	**11 58 44.9**	**+0.7**
GELI			AML	AML		
EDC	**Edincik**	**2.58 16**	Pn	**Pn**	**11 58 46.4**	**+1.7**
EDC			AML	AML		
ELL	**Elmali**	**2.63 114**	Pn	**Pn**	**11 58 44.2**	**-1.3**
ELL	**Elmali**	**2.63 114**	P	**Pn**	**11 58 46.3**	**+0.8**
ELL			AML	AML		
KCTX	**Karacabey (Bur**	**2.64 25**	Pn	**Pn**	**11 58 47.1**	**+1.6**
KCTX			AML	AML		
BAND	**Balkesir-Ban**	**2.65 20**	⇑P	**Pn**	**11 58 46.5**	**+0.9**
STFN	**Stefani**	**2.68 278**	P	**Pn**	**11 58 46.2**	**+0.1**
STFN			AML	AML		
AKAS	**Kas**	**2.70 126**	Pn	**Pn**	**11 58 45.5**	**-0.9**
AOS2	**Alonissos-2**	**2.73 299**	P	**Pn**	**11 58 46.3**	**-0.4**
MET4	**Agioi Theodoro**	**2.80 266**	P	**Pn**	**11 58 47.7**	**0.0**
MET4			AML	AML		
NPS	**Neapolis**	**2.81 202**	P	**Pn**	**11 58 47.6**	**-0.2**
ZKR	**Zakros**	**2.81 192**	P	**Pn**	**11 58 48.4**	**+0.6**
ZKR			AML	AML		
SMTH	**Samothraki Isl**	**2.81 338**	P	**Pn**	**11 58 48.1**	**+0.2**
MET5	**Makryloggos,Me**	**2.83 266**	P	**Pn**	**11 58 46.8**	**-1.4**
MET6	**Megalochori,Me**	**2.84 265**	P	**Pn**	**11 58 48.9**	**+0.7**
MET6			AML	AML		
ISP	**Isparta**	**2.85 90**	Pn	**Pn**	**11 58 49.4**	**+1.0**
MET2	**Kameni Chora,**	**2.86 266**	P	**Pn**	**11 58 48.7**	**+0.2**
MET2			AML	AML		
CAVK	**Edirne/Enez-Ca**	**2.88 349**	⇓P	**Pn**	**11 58 49.8**	**+1.0**
VIL2	**Platees**	**2.90 278**	P	**Pn**	**11 58 49.0**	**-0.1**
VIL2			AML	AML		
MET3	**Ano Fanari,Met**	**2.94 265**	P	**Pn**	**11 58 50.4**	**+0.7**
EPID	**Epidavros**	**3.02 266**	P	**Pn**	**11 58 51.9**	**+1.1**
IDI	**Anoyia**	**3.05 213**	Pn	**Pn**	**11 58 51.6**	**+0.4**
	12nm,0.5s,baz=20,slow=12,SNR=15					
IDI			Lg	Lg	11 59 41.3	
	16nm,0.3s,baz=44,slow=7.6,SNR=4.9					
IDI	**Anoyia**	**3.05 213**		**Pn**	**11 58 51.8**	**+0.6**
IDI	**Anoyia**	**3.05 213**	P	**Pn**	**11 58 50.8**	**-0.4**
ALN	**Alexandroupoli**	**3.10 348**		**Pn**	**11 58 52.3**	**+0.6**
ALN	**Alexandroupoli**	**3.10 348**	P	**Pn**	**11 58 52.1**	**+0.3**
ALN			AML	AML		
YLV	**Yalova**	**3.30 35**	Pn	**Pn**	**11 58 54.8**	**+0.2**
YLV			AML	AML		
CTYL	**Yalikoy Yolu**	**3.75 16**	Pn	**Pn**	**11 59 00.9**	**+0.2**
CTYL			AML	AML		
KLYT	**Kilyos**	**3.75 25**	Pn	**Pn**	**11 59 01.0**	**+0.2**
KLYT			AML	AML		
KEPZ	**Antalya-Kepez**	**3.85 103**	⇑P	**Pn**	**11 59 04.3**	**+2.1**
KDZ	**Kurdzhali**	**3.95 343**	P	**Pn**	**11 59 04.7**	**+1.2**
ITM	**Ithomi**	**4.03 262**		**Pn**	**11 59 05.5**	**+0.9**
RZN	**Rozhen**	**4.17 337**	P	**Pn**	**11 59 07.9**	**+1.2**
MDUB	**Mudurnu**	**4.22 51**	Pn	**Pn**	**11 59 06.4**	**-0.9**

MMB	**Musomishta**	**4.41 327**	P	**Pn**	**11 59 11.0**	**+1.1**
ELND	**Elena**	**5.12 351**	⇓P	**Pn**	**11 59 20.1**	**+0.6**
PLNA	**Plana**	**5.32 331**	P	**Pn**	**11 59 24.7**	**+2.2**
NEF	**NEVSHA**	**5.39 3**	P	**Pn**	**11 59 23.6**	**+0.3**
VTS	**Vitosha**	**5.52 330**	P	**Pn**	**11 59 27.2**	**+2.0**
BR105	**Keskin Array S**	**5.55 69**	Pn	**Pn**	**11 59 25.7**	**+0.1**
	0.1nm220nm19nm,0.8s					
BR105			AML	AML		
BR106	**Keskin Array S**	**5.55 68**	Pn	**Pn**	**11 59 25.8**	**+0.2**
	0.1nm179nm17nm,0.9s					
BR106			AML	AML		
BR104	**Keskin Array S**	**5.56 69**	Pn	**Pn**	**11 59 26.8**	**+1.0**
	0.1nm224nm19nm,0.9s					
BR104			AML	AML		
BR131	**Keskin Array S**	**5.56 68**		**Pn**	**11 59 27.6**	**+1.8**
BRTR	**Keskin Array B**	**5.56 68**	Pn	**Pn**	**11 59 27.6**	**+1.8**
	1.0nm,0.3s,baz=245,slow=14,SNR=25					
BRTR			Sn	**Sn**	**12 00 29.3**	**-0.2**
	0.4nm,0.3s,baz=318,slow=42,SNR=2.0					
BRTR			LR	LR	12 01 14.5	
	comp=Z,38nm,19.3s,baz=254,slow=35 4.3nm,0.5s					
BRTR			AML	AML		
BRTR	**Keskin Array B**	**5.56 68**		**Pn**	**11 59 27.5**	**+1.7**
KIRS	**Kirsehir-Merke**	**5.63 75**	⇓P	**Pn**	**11 59 28.8**	**+2.1**
KEK	**Kerkira**	**5.86 290**	Pn	**Pn**	**11 59 30.6**	**+0.8**
CSS	**Mathiatis**	**5.93 117**	Pn	**Pn**	**11 59 29.9**	**-0.8**
CSS	**Mathiatis**	**5.93 117**	Pn	**Pn**	**11 59 30.8**	**+0.1**
	0.1nm25nm,0.8s					
CSS			AML	AML		
MPEP	**Malo Peshtene**	**5.99 337**	P	**Pn**	**11 59 34.6**	**+3.1**
ILGA	**Ilgaz**	**6.14 57**	Pn	**Pn**	**11 59 34.8**	**+1.0**
ICOR	**Ion Corvin**	**6.28 6**	⇑P	**Pn**	**11 59 36.0**	**+0.6**
BLKB	**Belogradchik**	**6.59 332**	⇓P	**Pn**	**11 59 41.4**	**+1.6**
TIRR	**Tirgusor**	**6.68 9**	Pn	**Pn**	**11 59 42.1**	**+1.2**
TIRR	**Tirgusor**	**6.68 9**	⇑P	**Pn**	**11 59 42.8**	**+1.9**
TIRR	**Tirgusor**	**6.68 9**	Pn	**Pn**	**11 59 40.9**	**0.0**
	0.1nm7.8nm,0.8s					
TIRR			AML	AML		
TLBR	**Topalu**	**6.72 7**	⇑P	**Pn**	**11 59 42.7**	**+1.2**
HARR	**Harsova**	**6.86 6**	⇑P	**Pn**	**11 59 44.2**	**+0.8**
BOVS	**Bovan**	**6.99 327**	⇑P	**Pn**	**11 59 46.6**	**+1.4**
TPGR	**Topolog**	**7.07 9**	⇓P	**Pn**	**11 59 47.8**	**+1.4**
CY601	**RAF Akrotiri,**	**7.08 118**	Pn	**Pn**	**11 59 46.7**	**+0.5**
CY603	**RAF Akrotiri,**	**7.08 118**	Pn	**Pn**	**11 59 46.6**	**+0.4**
BNN	**Bunyan**	**7.08 79**	Pn	**Pn**	**11 59 47.2**	**+0.6**
CY602	**RAF Akrotiri,**	**7.08 117**	Pn	**Pn**	**11 59 46.5**	**+0.3**
CY604	**RAF Akrotiri,**	**7.08 118**		**Pn**	**11 59 45.7**	**-0.5**
CY606	**RAF Akrotiri,**	**7.09 118**	Pn	**Pn**	**11 59 46.9**	**+0.5**
CFR	**Carcaliu**	**7.36 7**	⇓P	**Pn**	**11 59 50.9**	**+0.6**
PDG	**Podgorica**	**7.43 310**	Pn	**Pn**	**11 59 51.4**	**+0.1**
MLR	**Muntele Rosu**	**7.65 355**	Pn	**Pn**	**11 59 56.8**	**+2.4**
	0.5nm,0.3s,baz=267,slow=23,SNR=3.8					
MLR			Lg	Lg	12 02 11.6	
	0.5nm,0.3s,baz=269,slow=23,SNR=3.1					
MLR			LR	LR	12 03 16.6	
	comp=Z,112nm,18.7s,baz=354,slow=40 4.0nm,0.6s					
MLR			AML	AML		
MLR	**Muntele Rosu**	**7.65 355**	Pn	**Pn**	**11 59 54.9**	**+0.5**
MLR	**Muntele Rosu**	**7.65 355**	⇓P	**Pn**	**11 59 55.8**	**+1.4**
MLR	**Muntele Rosu**	**7.65 355**	Pn	**Pn**	**11 59 54.3**	**-0.1**
	0.1nm19nm,0.7s					
MLR			AML	AML		
VOIR		**7.69 350**	⇑P	**Pn**	**11 59 55.7**	**+0.8**
VOIR		**7.69 350**	Pn	**Pn**	**11 59 54.7**	**-0.2**
	0.0nm8.4nm,0.7s					
VOIR			AML	AML		
HERR	**Herculane**	**7.78 336**	⇑P	**Pn**	**11 59 57.5**	**+1.5**
MDVR	**Moldovita**	**7.94 332**	⇑P	**Pn**	**11 59 59.8**	**+1.5**
PLOR	**Plostina**	**7.98 359**	⇑P	**Pn**	**12 00 00.2**	**+1.4**
COVR	**Voineasa-Covas**	**7.99 356**	⇑P	**Pn**	**12 00 00.9**	**+1.9**
VRI	**Vrincioaia**	**7.99 359**	⇑P	**Pn**	**12 00 00.7**	**+1.7**
VRI	**Vrincioaia**	**7.99 359**	Pn	**Pn**	**11 59 59.2**	**+0.2**
	0.1nm15nm,0.6s					
VRI			AML	AML		
TIP	**Timpagrande**	**8.07 282**	Pn	**Pn**	**12 00 00.2**	**0.0**
TIP	**Timpagrande**	**8.07 282**	⇑P	**Pn**	**12 00 01.8**	**+1.7**
TIP	**Timpagrande**	**8.07 282**	Pn	**Pn**	**12 00 00.2**	**0.0**
	13nm,0.6s					
DOPR	**Dopca**	**8.17 352**	⇑P	**Pn**	**12 00 02.2**	**+0.7**
TURR	**Turia**	**8.21 356**	⇑P	**Pn**	**12 00 04.1**	**+2.2**
MMAI	**Mount Meron Ar**	**8.45 122**	Pn	**Pn**	**12 00 04.2**	**-1.2**
	3.3nm,0.4s,baz=313,slow=15,SNR=7.7					
MMAI			Sn	**Sn**	**12 01 34.5**	**-5.9**
	5.1nm,0.3s,baz=309,slow=25,SNR=2.2					
MMAI			LR	LR	12 04 12.7	
	comp=Z,100nm,18.2s,baz=310,slow=45					
TESR	**Tescani**	**8.64 359**	⇑P	**Pn**	**12 00 08.5**	**+0.7**
TESR	**Tescani**	**8.64 359**	Pn	**Pn**	**12 00 08.0**	**+0.2**
	19nm,0.7s					
SURR	**Surduc**	**8.65 337**	⇑P	**Pn**	**12 00 10.0**	**+2.0**
BZS	**Buzias**	**8.69 335**	⇑P	**Pn**	**12 00 09.9**	**+1.3**
CUC	**Castrocucco**	**8.91 287**	Pn	**Pn**	**12 00 11.8**	**+0.1**
ACER	**Acerenza**	**8.99 292**	Pn	**Pn**	**12 00 13.4**	**+0.6**
SIRR	**Siria**	**9.26 337**	⇑P	**Pn**	**12 00 18.1**	**+1.8**
BURAR	**Bucovina Array**	**9.82 353**	Pn	**Pn**	**12 00 25.0**	**+0.9**
BUR08	**Bucovina Ar. S**	**9.85 353**	Pn	**Pn**	**12 00 25.4**	**+0.9**
ASF	**Jabal al Asfar**	**9.92 122**	Pn	**Pn**	**12 00 25.8**	**-0.3**
	0.5nm,0.3s,baz=308,slow=14,SNR=4.0					
ASF			Sn	**Sn**	**12 02 12.0**	**-5.6**
	0.1nm,0.3s,baz=87,slow=19,SNR=0.9 2.2nm,0.4s					
ASF			AML	AML		
RAFF	**Raffo Rosso**	**9.99 270**	Pn	**Pn**	**12 00 27.3**	**+0.9**
MORH	**Mrgy, Hungar**	**10.36 326**	Pn	**Pn**	**12 00 32.2**	**+0.8**
	3.3nm,0.6s					
EIL	**Elat**	**10.56 138**	Pn	**Pn**	**12 00 33.3**	**-0.9**
	1.2nm,0.3s,baz=324,slow=14,SNR=4.6					
EIL			Sn	Sn	12 02 23.0	-9.1
	0.6nm,0.3s,baz=212,slow=24,SNR=1.5 3.5nm,0.5s					
EIL			AML	AML		
KMPD	**K-Podol'skiy**	**10.69 358**	Pn	**Pn**	**12 00 36.1**	**+0.1**
KOPT	**Kop Dagi**	**10.79 74**	Pn	**Pn**	**12 00 37.5**	**-0.1**
LUBAR	**Lubar, Ukraine**	**12.06 3**	Pn	**Pn**	**12 00 54.7**	**0.0**
KBZ	**Khabaz**	**13.44 59**	LR	LR	12 07 24.2	
	comp=Z,101nm,20.7s,baz=266,slow=42					
CTI	**Castel Tesino**	**13.98 311**	Pn	**Pn**	**12 01 20.7**	**-0.3**
GNI	**Garni**	**14.04 75**	LR	LR	12 07 28.0	
	comp=Z,96nm,21.2s,baz=276,slow=40					
KEST	**Kesra**	**14.24 267**	Pn	**Pn**	**12 01 28.2**	**+3.5**
	0.2nm,0.3s,baz=132,slow=15,SNR=12 1.3nm,0.6s					
KEST			AML	AML		
KEST	**Kesra**	**14.24 267**		**Pn**	**12 01 23.2**	**-1.5**
GERES	**GERESS Array B**	**14.56 323**	Pn	**P**	**12 01 34.8**	**-0.6**
	baz=130,slow=12,SNR=6.1 0.3nm,0.5s					
GERES	**GERESS Array B**	**14.56 323**	Pn	**Pn**	**12 01 29.3**	**+0.4**
DAVOX	**Davos/Dischmat**	**15.41 311**	LR	LR	12 08 08.3	
	comp=Z,72nm,19.7s,baz=79,slow=39					
CLL	**Collm**	**16.66 328**	P	**Pn**	**12 01 55.9**	**-0.2**
	12nm,0.8s					
WLF	**Walferdange**	**19.01 315**	P	**Pn**	**12 02 24.9**	**-0.3**
WLF			IAmb	IAmb	12 02 27.6	
	comp=Z,13nm,0.7s					
CORI	**Orista**	**19.49 290**	P	**P**	**12 02 28.5**	**-1.3**
CORI			IAmb	IAmb	12 02 53.1	
	comp=Z,20nm,1.3s					
CEST	**Esterri de Car**	**20.12 292**	IAmb	IAmb	12 02 36.1	
	comp=Z,15nm,1.3s					
CEST			P	**P**	**12 02 36.2**	**-0.7**
ESBB	**Sonseca Array**	**24.09 284**	P	**P**	**12 03 17.5**	**-0.9**
ESBB			IAmb	IAmb	12 03 22.1	
	comp=Z,6.7nm,1.2s					
ESDC	**Sonseca Array**	**24.09 284**	P	**P**	**12 03 22.4**	**+4.0**
	comp=Z,0.7nm,0.7s,baz=83,slow=11,SNR=5.0 comp=Z,0.7nm,0.7s					
ESDC	**Sonseca Array**	**24.09 284**	P	**P**	**12 03 17.6**	**-0.8**
NC602	**NORSAR Array S**	**24.86 342**	P	**P**	**12 03 25.7**	**+0.6**
NC602			IAmb	IAmb	12 03 29.7	
	comp=Z,22nm,1.2s					
NC405	**NORSAR Array S**	**25.15 343**	P	**P**	**12 03 27.7**	**0.0**
NOA	**NORSAR Array B**	**25.20 342**	LR	LR	12 14 26.6	
	comp=Z,42nm,20.5s,baz=295,slow=39					
MD01	**Midelt array s**	**26.24 269**	P	**P**	**12 03 37.3**	**-0.7**
MD31	**MD31**	**26.24 269**	P	**P**	**12 03 37.0**	**-1.0**
MD31			IAmb	IAmb	12 03 46.8	
	comp=Z,3.9nm,1.1s					
AB31	**Akbulak array**	**26.29 54**	P	**P**	**12 03 39.2**	**+1.0**
ABKAR	**Akbulak array**	**26.29 54**	P	**P**	**12 03 39.2**	**+1.0**
SFS	**San Fernando**	**26.36 277**	P	**P**	**12 03 39.8**	**+0.9**
TORD	**Torodi Ar. Bea**	**33.33 229**	P	**P**	**12 04 41.6**	**+0.7**

	comp=Z,7.1nm,0.4s,baz=44,slow=6.4,SNR=6.2 comp=Z,7.1nm,0.4s					
AAK	**Ala-Archa**	**36.24 67**	LR	LR	12 21 32.4	
	comp=Z,40nm,18.1s,baz=320,slow=39					
KURBB	**Kurchatov Arra**	**38.34 54**	P	**P**	**12 05 25.0**	**+1.5**
	comp=Z,0.9nm,0.2s,baz=279,slow=8.8,SNR=4.3 comp=Z,0.9nm,0.2s					
KURK	**Kurchatov**	**38.40 53**	P	**P**	**12 05 24.7**	**+0.7**
MK31	**Makanchi Array**	**41.13 59**	P	**P**	**12 05 48.3**	**+1.4**
MKAR	**Makanchi Array**	**41.13 59**	P	**P**	**12 05 48.0**	**+1.1**
	comp=Z,0.8nm,0.6s,baz=265,slow=9.5,SNR=10 comp=Z,0.8nm,0.6s					
MKAR	**Makanchi Array**	**41.13 59**	P	**P**	**12 05 47.5**	**+0.7**
ZAA0	**Zalesovo Array**	**42.12 48**	P	**P**	**12 05 54.0**	**-0.8**
ZAA0			IAmb	IAmb	12 06 04.1	
	comp=Z,1.6nm,0.6s					
ZALV	**Zalesovo Beam**	**42.12 48**	P	**P**	**12 05 55.6**	**+0.8**
	comp=Z,1.1nm,0.8s,baz=268,slow=10,SNR=5.1 comp=Z,1.1nm,0.8s					
ZALV	**Zalesovo Beam**	**42.12 48**	P	**P**	**12 05 56.0**	**+1.2**
DBIC	**Dimbokro**	**42.37 231**	P	**P**	**12 05 58.1**	**+0.9**
	comp=Z,2.5nm,0.6s,baz=36,slow=11,SNR=4.0 comp=Z,2.5nm,0.6s					
DBIC	**Dimbokro**	**42.37 231**	P	**P**	**12 05 56.9**	**-0.3**
DBIC			IAmb	IAmb	12 06 14.8	
	comp=Z,29nm,1.5s					
ANGG	**Ammassalik, Gr**	**45.79 328**	P	**P**	**12 06 24.4**	**+0.4**
EVN	**Everest**	**50.49 83**	P	**P**	**12 07 01.3**	**-0.4**
EVN			IAmb	IAmb	12 07 03.5	
	comp=Z,2.2nm,0.7s					
CMAR	**Chiang Mai Arr**	**64.90 86**	P	**P**	**12 08 43.5**	**+1.1**
	comp=Z,0.8nm,0.6s,baz=302,slow=8.5,SNR=9.0 comp=Z,0.8nm,0.6s					
CMAR	**Chiang Mai Arr**	**64.90 86**	P	**P**	**12 08 42.0**	**-0.4**
KSRS	**Korea Array**	**75.52 54**	P	**P**	**12 09 48.5**	**+1.3**
	comp=Z,1.6nm,0.8s,baz=308,slow=4.2,SNR=4.6 comp=Z,1.6nm,0.8s					
ULM	**Lac du Bonnet**	**78.84 327**	LR	LR	12 47 19.4	
	comp=Z,247nm,21.6s,baz=158,slow=37					
NEW	**Newport**	**88.47 337**	LR	LR	12 51 53.8	
	comp=Z,347nm,18.4s,baz=136,slow=36					

HEL 02 12:05:55.3±0.2, 63°.44N×22°.32E, h0km, ML0.9, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VAF	**Ylistaro**	**0.43**	**158**	PG	Pg	12 06 02.8	-0.7
	baz=332						
VAF				SG	Sg	12 06 08.4	-0.6
VAF				MSG		12 06 09.3	
	comp=Z,1.0nm,0.2s						
UMAU	**Umeaa**	**0.86**	**302**	PG	Pg	12 06 10.5	-1.2
BURU	**Burvik**	**1.22**	**341**	SN	Sn	12 06 37.2	+0.4
OBF0	**Syolatti, Pyha**	**1.36**	**38**	PN	Pn	12 06 21.4	-0.1
	baz=215						
OBF0				MSG		12 06 36.3	
	comp=Z,2.0nm,0.2s						
OBF0				SN	Sn	12 06 41.6	+1.4
OUF	**Merijarvi**	**1.42**	**48**	PN	Pn	12 06 21.4	-0.8
	baz=235						
OUF				MSG		12 06 37.8	
	comp=Z,0.8nm,0.2s						

KOLA ***02*** *12:06:04.4, 68°.09N×33°.06E, h0km, ML2.0, Error ellipse: s-maj=2.1km s-min=1.4km az=80.0, Olenegorsk City, Mines*

HEL 02 12:06:04.3±0.2, 68°.09N×32°.94E, h0km, ML1.7, Suspected explosion, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APA0	**Apatity Array**	**0.48**	**178**	P	Pg	12 06 12.2	-1.3
APA0				S	Sg	12 06 19.5	-0.2
APA	**Apatity**	**0.55**	**161**	P	Pg	12 06 14.0	-0.8
APA				S	Sg	12 06 21.7	-0.1
LVZ	**Lovozero**	**0.67**	**106**	P	Pg	12 06 15.7	-1.5
LVZ				S	Sg	12 06 24.2	-1.7
LVZ	**Lovozero**	**0.67**	**106**	PG	Pg	12 06 16.2	-0.9
LVZ				SG	Sg	12 06 24.6	-1.2
VRF	**Varrio**	**1.30**	**256**	PG	Pg	12 06 27.9	-1.4
VRF				MSG		12 06 43.7	
	comp=Z,8.9nm,0.2s						
VRF				SN	Sg	12 06 46.4	+0.3
TERR	**Teriberka**	**1.37**	**34**	P	Pg	12 06 28.2	-2.4
TERR				S	Sg	12 06 45.3	-3.1
KVDA	**Kovda**	**1.40**	**181**	P	Pn	12 06 29.1	-1.9

KARP				AML	AML				
KARP	**Karpathos**	**0.62**	**229**	P	**Pn**	**12 12 06.1**	**+2.3**		
KARP				S	**Sn**	**12 12 16.8**	**+0.6**		
DAT	**Datca**	**0.78**	**351**	Pg	**Pn**	**12 12 06.5**	**+1.1**		
DAT				Sg	**Sn**	**12 12 17.6**	**-1.3**		
DAT				AML	AML				
DATC	**Datca-Mugla**	**0.80**	**356**	Pg	**Pn**	**12 12 06.7**	**+1.2**		
DATC				Sg	**Sn**	**12 12 18.1**	**-1.0**		
DATC				AML	AML				
TURN	**Turunc**	**0.91**	**27**	Pg	**Pn**	**12 12 09.1**	**+2.5**		
TURN				Sg	**Sn**	**12 12 21.5**	**+0.4**		
TURN				AML	AML				
DALY	**Dalyan (Mula)**	**1.13**	**41**	Pn	**Pn**	**12 12 11.9**	**+2.9**		
DALY				AML	AML				
BODT	**Bodrum**	**1.15**	**343**	P	**Pn**	**12 12 11.2**	**+1.8**		
BODT				S	**Sn**	**12 12 25.3**	**-0.6**		
BODT				AML	AML				
BODT	**Bodrum**	**1.15**	**343**	Pg	**Pn**	**12 12 11.1**	**+1.8**		
BODT				Sg	**Sn**	**12 12 25.7**	**-0.2**		
BODT				AML	AML				
KLNA	**Kalymnos**	**1.17**	**329**	P	**Pn**	**12 12 11.2**	**+1.7**		
KLNA				S	**Sn**	**12 12 25.0**	**-1.2**		
KLNA				AML	AML				
YKAV	**Yalikavak-Bodr**	**1.22**	**343**	Pn	**Pn**	**12 12 11.6**	**+1.5**		
YKAV				AML	AML				
YER	**Yerkesik**	**1.25**	**20**	P	**Pn**	**12 12 13.4**	**+2.9**		
YER				S	**Sn**	**12 12 29.4**	**+1.3**		
YER				AML	AML				
YER	**Yerkesik**	**1.25**	**20**	Pn	**Pn**	**12 12 13.4**	**+2.9**		
YER				AML	AML				
ASTA	**Astypalaia**	**1.26**	**298**	P	**Pn**	**12 12 12.4**	**+1.9**		
ASTA				AML	AML				
FETY	**Fethiye**	**1.28**	**58**	Pn	**Pn**	**12 12 13.9**	**+3.1**		
FETY				AML	AML				
MLSB	**Milas**	**1.34**	**1**	Pn	**Pn**	**12 12 13.9**	**+2.4**		
MLSB				AML	AML				
DIDI	**Didim-Aydin**	**1.47**	**344**	Pn	**Pn**	**12 12 15.8**	**+2.7**		
DIDI				AML	AML				
ZKR	**Zakros**	**1.50**	**236**	P	**Pn**	**12 12 17.3**	**+3.9**		
ZKR	**Zakros**	**1.50**	**236**	Pn	**Pn**	**12 12 17.3**	**+3.9**		
ZKR				AML	AML				
ZKR	**Zakros**	**1.50**	**236**	P	**Pn**	**12 12 17.4**	**+3.9**		
ZKR				AML	AML				
AKAS	**Kas**	**1.54**	**79**	Pn	**Pn**	**12 12 17.8**	**+3.7**		
AKAS				AML	AML				
CAME	**Cameli-Denizli**	**1.60**	**52**	Pn	**Pn**	**12 12 18.5**	**+3.6**		
CAME				AML	AML				
AYDN	**Tasoluk**	**1.70**	**4**	P	**Pn**	**12 12 18.9**	**+2.8**		
AYDN				S	**Sn**	**12 12 38.4**	**+0.5**		
AYDN				IAML		12 12 39.0			
	comp=N,399nm,0.3s								
AYDN				IAML		12 12 40.0			
	comp=E,267nm,0.5s								
GCAM	**G?zelcaml?**	**1.79**	**347**	Pn	**Pn**	**12 12 19.7**	**+2.7**		
GCAM				AML	AML				
AGNA	**Agios Nikolaos**	**1.81**	**246**	P	**Pn**	**12 12 20.9**	**+3.6**		
AGNA				AML	AML				
NPS	**Neapolis**	**1.86**	**249**	P	**Pn**	**12 12 21.0**	**+2.9**		
NPS				S	**Sn**	**12 12 42.3**	**+0.8**		
NPS				AML	AML				
NPS	**Neapolis**	**1.86**	**249**	P	**Pn**	**12 12 21.0**	**+2.9**		
NPS				AML	AML				
THERA	**Ancient Thera,**	**1.87**	**283**	P	**Pn**	**12 12 20.7**	**+2.5**		
THERA				S	**Sn**	**12 12 41.1**	**-0.5**		
THERA				AML	AML				
THERA	**Ancient Thera,**	**1.87**	**283**	P	**Pn**	**12 12 20.7**	**+2.5**		
THERA				AML	AML				
THR8	**Santorini-Mono**	**1.88**	**284**	P	**Pn**	**12 12 20.9**	**+2.7**		
ESEN	**Aydn-Nazilli**	**1.90**	**15**	P	**Pn**	**12 12 21.4**	**+2.9**		
ESEN				S	**Sn**	**12 12 43.1**	**+0.8**		
ESEN				IAML		12 12 44.0			
	comp=N,76nm,0.3s								
ESEN				IAML		12 12 49.0			
	comp=E,87nm,0.4s								
THR6	**Thira Island,**	**1.93**	**283**	P	**Pn**	**12 12 21.8**	**+2.9**		
THR3	**Thira Island,**	**1.94**	**284**	P	**Pn**	**12 12 21.8**	**+2.8**		
SNT5	**Nea Kammeni, S**	**1.94**	**284**	P	**Pn**	**12 12 21.9**	**+2.8**		
SNT5				AML	AML				
CMBO	**Columbo, Santo**	**1.95**	**286**	P	**Pn**	**12 12 22.0**	**+2.9**		
CMBO				AML	AML				
THR9	**Santorini-Faro**	**1.96**	**282**	P	**Pn**	**12 12 22.3**	**+3.0**		
THR5	**Thira Island,**	**1.98**	**284**	P	**Pn**	**12 12 22.4**	**+2.8**		
DAGE	**izmir**	**2.04**	**0**	P	**Pn**	**12 12 22.7**	**+2.3**		
DAGE				S	**Sn**	**12 12 45.9**	**+0.3**		
DAGE				IAML		12 12 50.0			
	comp=N,175nm,0.2s								
DAGE				IAML		12 12 50.0			
	comp=E,182nm,0.2s								
APE	**Apeiranthos**	**2.09**	**303**	P	**Pn**	**12 12 23.8**	**+2.7**		
APE				S	**Sn**	**12 12 46.5**	**-0.3**		
APE				AML	AML				
APE	**Apeiranthos**	**2.09**	**303**	Pn	**Pn**	**12 12 24.0**	**+3.0**		
APE				AML	AML				
APE	**Apeiranthos**	**2.09**	**303**	P	**Pn**	**12 12 23.7**	**+2.7**		
APE				AML	AML				
IZMR	**zmir-demi**	**2.18**	**5**	P	**Pn**	**12 12 25.0**	**+2.8**		
IZMR				S	**Sn**	**12 12 48.6**	**-0.2**		
IZMR				IAML		12 12 52.0			
	comp=N,65nm,0.6s								
IZMR				IAML		12 12 52.0			
	comp=E,55nm,0.6s								
SULTU	**Buldan**	**2.25**	**21**	P	**Pn**	**12 12 26.4**	**+3.2**		
SULTU				S	**Sn**	**12 12 52.6**	**+2.0**		
SULTU				IAML		12 12 54.0			
	comp=E,157nm,0.6s								
SULTU				IAML		12 12 57.0			
	comp=N,61nm,0.5s								
DUVT	**Torbali**	**2.27**	**354**	P	**Pn**	**12 12 26.0**	**+2.6**		
DUVT				S	**Sn**	**12 12 50.8**	**-0.1**		
DUVT				IAML		12 12 51.0			
	comp=E,65nm,0.4s								
KIRA	**zmir-Kiraz**	**2.30**	**13**	P	**Pn**	**12 12 26.9**	**+3.1**		
KIRA				S	**Sn**	**12 12 50.9**	**-0.8**		
KIRA				IAML		12 12 53.0			
	comp=E,65nm,0.5s								
KIRA				IAML		12 12 54.0			
	comp=N,45nm,0.5s								
IDI	**Anoyia**	**2.41**	**255**	P	**Pn**	**12 12 28.1**	**+2.8**		
IDI				S	**Sn**	**12 12 54.9**	**+0.6**		
IDI				AML	AML				
IDI	**Anoyia**	**2.41**	**255**	Pn	**Pn**	**12 12 28.4**	**+3.2**		
IDI				AML	AML				
IDI	**Anoyia**	**2.41**	**255**	P	**Pn**	**12 12 27.9**	**+2.7**		
IDI				AML	AML				
SIVA	**Sivas**	**2.56**	**249**	P	**Pn**	**12 12 31.5**	**+4.4**		
SIVA				AML	AML				
SIVA	**Sivas**	**2.56**	**249**	P	**Pn**	**12 12 31.7**	**+4.5**		
SIVA				AML	AML				
MANT	**Manisa**	**2.61**	**14**	P	**Pn**	**12 12 30.5**	**+2.4**		
MANT				S	**Sn**	**12 12 58.9**	**-0.4**		
MANT				IAML		12 13 00.0			
	comp=N,38nm,0.4s								
KTTT	**Salihli**	**2.74**	**6**	P	**Pn**	**12 12 32.0**	**+2.4**		
KTTT				S	**Sn**	**12 13 01.0**	**-1.1**		
KTTT				IAML		12 13 03.0			
	comp=N,64nm,0.9s								
CHOS	**Chios island**	**2.77**	**332**	P	**Pn**	**12 12 32.7**	**+2.7**		
CHOS	**Chios island**	**2.77**	**332**	P	**Pn**	**12 12 32.7**	**+2.7**		
GVD	**Gavdhos**	**3.18**	**251**	P	**Pn**	**12 12 39.6**	**+4.2**		
GVDS	**Gavdos**	**3.20**	**251**	P	**Pn**	**12 12 39.9**	**+4.2**		
GVDS				AML	AML				
GVDS	**Gavdos**	**3.20**	**251**	P	**Pn**	**12 12 39.9**	**+4.2**		
GVDS				AML	AML				
ANKY	**Antikythira Is**	**3.60**	**270**	P	**Pn**	**12 12 44.4**	**+3.4**		
ANKY	**Antikythira Is**	**3.60**	**270**	P	**Pn**	**12 12 45.3**	**+4.2**		
ANKY				AML	AML				
DION	**Dionisos Attik**	**3.71**	**306**	P	**Pn**	**12 12 46.2**	**+3.7**		
PTL	**Penteli**	**3.73**	**305**	P	**Pn**	**12 12 47.2**	**+4.3**		
KTHA	**Kythira Island**	**3.79**	**276**	P	**Pn**	**12 12 47.0**	**+3.3**		
KTHA				AML	AML				
VLI	**Veliai**	**3.95**	**283**	P	**Pn**	**12 12 49.4**	**+3.7**		
VLI	**Veliai**	**3.95**	**283**	P	**Pn**	**12 12 49.1**	**+3.4**		
VLI				AML	AML				
CSS	**Mathiatis**	**4.67**	**101**	P	**Pn**	**12 12 56.8**	**+1.2**		
CSS				S	**Sn**	**12 13 49.1**	**+0.4**		
HNTI	**Hanita**	**6.78**	**113**	P	**Pn**	**12 13 24.1**	**-0.1**		
HNTI				S	**Sn**	**12 14 40.0**	**+0.1**		
ZRT	**Zar'it**	**6.86**	**112**	P	**Pn**	**12 13 25.0**	**-0.3**		
ZRT				S	**Sn**	**12 14 42.3**	**+0.4**		
OFRI	**`Ofer**	**6.86**	**117**	P	**Pn**	**12 13 24.7**	**-0.7**		
OFRI				S	**Sn**	**12 14 41.4**	**-0.5**		

HWQ	**Hawqa**	**6.94**	**102**	*e*P	**Pn**	**12 13 29.0**	**+2.6**		
MMA0B	**Mount Meron ar**	**6.98**	**113**	P	**Pn**	**12 13 27.0**	**0.0**		
MMA0B				S	**Sn**	**12 14 45.4**	**+0.5**		
BEIL	**Beino**	**7.06**	**99**	*e*P	**Pn**	**12 13 30.5**	**+2.5**		
GEM	**Giv'at Ha'Em**	**7.09**	**110**	P	**Pn**	**12 13 28.4**	**0.0**		
GEM				S	**Sn**	**12 14 46.2**	**-1.2**		
SHBL	**Chebaa**	**7.09**	**109**	*e*P	**Pn**	**12 13 31.7**	**+3.1**		
SLTI	**Sal'it**	**7.10**	**119**	P	**Pn**	**12 13 27.8**	**-0.8**		
SLTI				S	**Sn**	**12 14 46.8**	**-1.0**		
RCY	**Rachaya**	**7.11**	**108**	*e*P	**Pn**	**12 13 31.8**	**+3.0**		
NATI	**Neve Ativ**	**7.12**	**110**	P	**Pn**	**12 13 29.2**	**+0.4**		
NATI				S	**Sn**	**12 14 49.1**	**+0.8**		
KNHM	**Kefar Nahum**	**7.17**	**113**	P	**Pn**	**12 13 28.9**	**-0.6**		
KNHM				S	**Sn**	**12 14 50.2**	**+0.8**		
MMLI	**Mount Malkishu**	**7.27**	**117**	P	**Pn**	**12 13 30.4**	**-0.6**		
MMLI				S	**Sn**	**12 14 51.4**	**-0.6**		
ARIL	**Ariel Universi**	**7.30**	**120**	P	**Pn**	**12 13 30.4**	**-1.0**		
ARIL				S	**Sn**	**12 14 52.2**	**-0.4**		
SALP	**Salfit**	**7.30**	**120**	P	Pn	12 13 38.6	+7.2		
	0.3nm25nm,1.0s								
SALP				AML	AML				
AMAZ	**Amatzia**	**7.43**	**124**	P	**Pn**	**12 13 32.1**	**-1.0**		
AMAZ				S	**Sn**	**12 14 53.9**	**-1.9**		
RGMN	**Argaman**	**7.49**	**118**	P	**Pn**	**12 13 33.5**	**-0.3**		
RGMN				S	**Sn**	**12 14 57.0**	**0.0**		
KZIT	**Kziot**	**7.51**	**130**	P	**Pn**	**12 13 37.7**	**+3.6**		
	0.4nm3µm26nm,0.4s								
KZIT				AML	AML				
KZIT	**Kziot**	**7.51**	**130**	P	**Pn**	**12 13 31.5**	**-2.6**		
KZIT				S	**Sn**	**12 14 54.5**	**-3.2**		
YITV	**Yitav**	**7.54**	**120**	P	**Pn**	**12 13 33.2**	**-1.3**		
YITV				S	**Sn**	**12 14 56.8**	**-1.5**		
ALMO	**Almog**	**7.65**	**121**	P	**Pn**	**12 13 35.5**	**-0.6**		
ALMO				S	**Sn**	**12 15 00.4**	**-0.7**		
MSBI	**Mazada**	**7.86**	**124**	P	**Pn**	**12 13 37.2**	**-1.7**		
MSBI				S	**Sn**	**12 15 04.7**	**-1.6**		
RMNI	**Mount Ramon**	**7.95**	**130**	P	**Pn**	**12 13 38.6**	**-1.6**		
RMNI				S	**Sn**	**12 15 05.8**	**-2.7**		
LISJ	**El Lisan**	**7.99**	**124**	P	Pn	12 13 46.2	+5.6		
	0.1nm3µm18nm,0.6s								
LISJ				AML	AML				
ZFRI	**Zfri**	**8.24**	**129**	P	**Pn**	**12 13 42.3**	**-1.7**		
ZFRI				S	**Sn**	**12 15 12.7**	**-2.7**		
PRNI	**Paran**	**8.27**	**130**	P	**Pn**	**12 13 47.4**	**+2.9**		
PRNI				AML	AML				
HRFI	**Mount Harif**	**8.51**	**132**	P	**Pn**	**12 13 51.2**	**+3.4**		
	0.1nm7.0nm,0.4s								
HRFI				AML	AML				
HRFI	**Mount Harif**	**8.51**	**132**	P	**Pn**	**12 13 45.7**	**-2.1**		
HRFI				S	**Sn**	**12 15 18.9**	**-3.2**		
EIL	**Elat**	**8.73**	**134**	P	Pn	12 13 56.5	+5.8		
EIL				AML	AML				
EIL	**Elat**	**8.73**	**134**	P	**Pn**	**12 13 48.0**	**-2.7**		
EIL				S	**Sn**	**12 15 23.7**	**-3.7**		
STON	**Ston**	**10.38**	**315**	*e*Pn	**Pn**	**12 14 15.0**	**+1.9**		
STON				Sn	**Sn**	**12 16 03.6**	**-3.9**		
LSTV	**Lastovo**	**10.80**	**312**	*e*Pn	**Pn**	**12 14 20.2**	**+1.4**		
LSTV				Sn	**Sn**	**12 16 11.6**	**-6.0**		
MAKA	**Makarska**	**11.03**	**315**	*e*Pn	**Pn**	**12 14 23.7**	**+1.8**		
MAKA				Sn	**Sn**	**12 16 20.3**	**-3.0**		
HVAR	**Hvar**	**11.30**	**313**	*i* Pn	**Pn**	**12 14 26.8**	**+1.2**		
HVAR				Sn	**Sn**	**12 16 23.8**	**-6.0**		
KIJV	**Kijevo**	**11.83**	**316**	*e*Pn	**Pn**	**12 14 35.5**	**+2.8**		
MORI	**Morici**	**12.14**	**314**	*i* Pn	**Pn**	**12 14 39.0**	**+2.2**		
DUGI	**Dugi Otok**	**12.60**	**313**	*i* Pn	**Pn**	**12 14 44.4**	**+1.5**		

IDC ***02*** *12:16:24.9±1.2, 10°.51N×86°.66W, h0km, mb3.7/5, mbtmp3.7/6, ML3.0/2, Error ellipse: s-maj=39.1km s-min=17.4km az=41.0*
UCR ***02*** *12:16:26.8±0.6, 10°.49N×86°.72W, h40km±10km, MW4.6, Presumed earthquake*
ISC 02 12:16:28.2±0.8,**10°.53N**±0°.10×**86°.54W**±0°.08,**h23**km,**n20,**
σ0°.72/21,mb3.7/5,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GPS3	**Bodega del ICE**	**1.17**	**79**	*e*P		**Pb**		**12 16 50.4**	**+0.5**
CMARA	**Lajas Hojancha**	**1.21**	**115**	*e*P		**Pn**		**12 16 49.6**	**-0.3**
CMARA				*e*S		**Sn**		**12 17 05.3**	**-0.2**
PEJA	**Penjamo Buenos**	**1.26**	**73**	*e*P		**Pb**		**12 16 51.4**	**+0.1**
NADN	**Granada**	**1.31**	**22**	*e*P		**Pn**		**12 16 51.1**	**0.0**
COLC	**Colonia**	**1.32**	**84**	*e*P		**Pn**		**12 16 51.9**	**+0.6**
CLARA	**Aguas Claras**	**1.36**	**79**	*e*P		**Pb**		**12 16 52.8**	**-0.3**
TIMP	**Tierras Morena**	**1.49**	**88**	*e*P		**Pn**		**12 16 54.2**	**+0.4**
JUNT	**Juntas**	**1.57**	**99**	*e*P		**Pn**		**12 16 55.4**	**+0.6**
JTS	**Las Juntas de**	**1.58**	**99**	Pn		**Pn**		**12 16 55.4**	**+0.6**
	14nm,0.3s,baz=293,slow=8.7,SNR=50								
JTS	**Las Juntas de**	**1.58**	**99**	*e*P		**Pn**		**12 16 55.3**	**+0.5**
APG	**El Apazote**	**5.87**	**320**	Pn		**Pn**		**12 17 55.1**	**+1.1**
	0.1nm,0.3s,baz=103,slow=14,SNR=2.1								
APG				AML		AML			
CMIG	**Matias Romero**	**10.40**	**310**	Pn		**Pn**		**12 18 56.9**	**+0.8**
	0.8nm,0.3s,baz=136,slow=11,SNR=9.3								
	2.1nm,0.4s								
CMIG				AML		AML			
TXAR	**Lajitas Array**	**24.62**	**322**	P		**P**		**12 21 48.1**	**+0.9**
	1.3nm,0.7s,baz=143,slow=9.4,SNR=20								
	1.3nm,0.7s								
TKL	**Tuckaleechee C**	**25.14**	**5**	P		**P**		**12 21 51.7**	**0.0**
	5.7nm,1.0s,baz=176,slow=8.7,SNR=1.9								
	5.7nm,1.0s								
PDAR	**Pinedale Array**	**37.88**	**332**	P		**P**		**12 23 42.7**	**-1.1**
	0.4nm,0.7s,baz=120,slow=8.8,SNR=4.0								
	0.4nm,0.7s								
PLCA	**Paso Flores**	**53.11**	**165**	P		**P**		**12 25 44.0**	**-0.1**
	0.9nm,0.9s,baz=332,slow=3.6,SNR=3.3								
	0.9nm,0.9s								
ILAR	**Eielson Array**	**68.12**	**336**	P		**P**		**12 27 24.5**	**-1.6**
	0.2nm,0.6s,baz=118,slow=4.1,SNR=4.5								
	0.2nm,0.6s								
ASAR	**Alice Springs**	**139.35**	**246**	PKP		**PKPdf**		**12 35 55.2**	**+0.7**
	0.2nm,0.5s,baz=108,slow=1.6,SNR=6.7								
WRA	**Warramunga Arr**	**139.56**	**252**	PKP		**PKPdf**		**12 35 55.1**	**+0.2**
	0.3nm,0.6s,baz=94,slow=2.4,SNR=6.8								
CMAR	**Chiang Mai Arr**	**150.69**	**349**	PKPbc		**PKPbc**		**12 36 20.1**	**+0.6**
	0.6nm,0.3s,baz=330,slow=3.1,SNR=4.9								

ISK ***02*** *12:17:20.8, 37°.81N×26°.79E, h8km, ML3.1/22*
THE ***02*** *12:17:21.2, 38°.N±11°×27°.E±1°.9, h3km±15km, M3.0/6, MLh3.0/6*
AFAD ***02*** *12:17:21.0, 37°.82N×26°.76E, h7km±2km, ML2.9*
ATH ***02*** *12:17:22.4, 37°.82N×26°.73E, h12km±1km, ML2.9/6, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 02 12:17:21.6±0.8,**37°.82N**±0°.02×**26°.79E**±0°.02,**h13**km±6km,
n45,σ0°52/61,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.07**	**246**	P		**Pg**		**12 17 24.2**	**-0.1**
KRL1				S		**Sg**		**12 17 26.3**	**+0.2**
KRL1				AML		AML			
DGB	**zmir**	**0.24**	**18**	P		**Pg**		**12 17 26.0**	**-0.8**
DGB				S		**Sg**		**12 17 29.0**	**-1.2**
GMLD	**Gumuldur**	**0.27**	**22**	Pg		**Pg**		**12 17 26.7**	**-0.6**
GMLD				AML		AML			
GCAM	**G?zelcaml?**	**0.37**	**109**	P		**Pg**		**12 17 28.9**	**-0.2**
GCAM				IAML		**S**		**12 17 35.0**	**+0.8**
	comp=N,1µm,0.3s								
GCAM				IAML		**S**		**12 17 35.0**	**+0.8**
	comp=E,1µm,0.3s								
GCAM				S		**S**		**12 17 35.0**	**+0.8**
GCAM	**G?zelcaml?**	**0.37**	**109**	Pg		**Pg**		**12 17 28.6**	**-0.5**
GCAM				Sg		**Sg**		**12 17 33.9**	**-0.3**
GCAM				AML		AML			
KUSD	**Kusadasi-Aydin**	**0.40**	**85**	Pg		**Pg**		**12 17 28.9**	**-0.7**
KUSD				AML		AML			
BEYE	**izmir**	**0.42**	**15**	P		**Pg**		**12 17 29.2**	**-0.7**
BEYE				IAML				12 17 35.0	
	comp=E,959nm,0.2s								
BEYE				S		**Sg**		**12 17 35.5**	**0.0**
BEYE				IAML				12 17 37.0	
	comp=N,745nm,0.3s								
ZEYE	**Izmir, Urla-Ze**	**0.47**	**332**	P		**Pg**		**12 17 30.4**	**-0.5**
ZEYE				IAML				12 17 37.0	
	comp=N,2µm,0.3s								
ZEYE				S		**Sg**		**12 17 37.2**	**0.0**
ZEYE				IAML				12 17 41.0	
	comp=E,816nm,0.2s								
BLCB	**Balcova**	**0.59**	**20**	P		**Pg**		**12 17 32.5**	**-0.8**
BLCB				S		**Sg**		**12 17 40.2**	**-0.9**
BLCB				AML		AML			
BLCB	**Balcova**	**0.59**	**20**	Pg		**Pg**		**12 17 32.6**	**-0.7**
BLCB				AML		AML			
CESE	**eme**	**0.64**	**323**	Pg		**Pb**		**12 17 34.2**	**-0.4**
CESE				AML		AML			
KRBN	**Karaburun**	**0.79**	**347**	Pg		**Pg**		**12 17 36.6**	**-0.4**
KRBN				AML		AML			
YKAV	**Yalikavak-Bodr**	**0.80**	**151**	Pg		**Pg**		**12 17 36.8**	**-0.3**
YKAV				AML		AML			
CHOS	**Chios island**	**0.81**	**314**	P		**Pg**		**12 17 36.8**	**-0.5**
CHOS				S		**Sg**		**12 17 47.3**	**-0.5**
CHOS				AML		AML			
CHOS	**Chios island**	**0.81**	**314**	Pg		**Pb**		**12 17 37.3**	**-0.3**
CHOS				Sg		**Sb**		**12 17 48.8**	**+0.4**
CHOS				AML		AML			
CHOS	**Chios island**	**0.81**	**314**	P		**Pb**		**12 17 37.5**	**-0.1**
CHOS				S		**Sb**		**12 17 48.5**	**+0.1**
CHOS				AML		AML			
BAGT	**Foa**	**0.83**	**3**	P		**Pb**		**12 17 38.2**	**+0.3**
BAGT				S		**Sb**		**12 17 49.7**	**+0.6**
BAGT				IAML				12 17 51.0	
	comp=E,778nm,0.6s								
BAGT				IAML				12 17 52.0	
	comp=N,972nm,0.7s								
BODT	**Bodrum**	**0.87**	**151**	P		**Pg**		**12 17 37.7**	**-0.7**
BODT				AML		AML			
BODT	**Bodrum**	**0.87**	**151**	Pg		**Pg**		**12 17 37.9**	**-0.5**
BODT				AML		AML			
KLNA	**Kalymnos**	**0.88**	**170**	P		**Pn**		**12 17 39.5**	**-0.2**
KLNA				S		**Sb**		**12 17 51.3**	**+0.9**
AYDB	**Zeytinkoy-Aydi**	**0.88**	**82**	Pg		**Pg**		**12 17 38.6**	**-0.1**
AYDB				AML		AML			
FOCM	**Foa**	**0.89**	**357**	Pg		**Pb**		**12 17 38.8**	**-0.1**
FOCM				AML		AML			
EAG2	**Marmaro, Chios**	**0.90**	**324**	P		**Pb**		**12 17 39.5**	**+0.4**
EAG2				S		**Sb**		**12 17 51.1**	**+0.1**
MLSB	**Milas**	**0.95**	**124**	Pg		**Pg**		**12 17 39.0**	**-0.9**
MLSB				AML		AML			
NAZL	**Nazilli-Aydin**	**1.20**	**83**	Pn		**Pb**		**12 17 43.9**	**-0.3**
NAZL				AML		AML			
DKL	**Dikili**	**1.25**	**4**	Pn		**Pg**		**12 17 45.4**	**-0.3**
DKL				AML		AML			
DKL	**Dikili**	**1.25**	**4**	P		**Pg**		**12 17 46.0**	**+0.3**
APE	**Apeiranthos**	**1.25**	**233**	P		**Pn**		**12 17 44.2**	**-0.7**
APE				AML		AML			
APE	**Apeiranthos**	**1.25**	**233**	Pn		**Pn**		**12 17 44.8**	**-0.1**
APE				AML		AML			
APE	**Apeiranthos**	**1.25**	**233**	P		**Pn**		**12 17 44.6**	**-0.3**
APE				AML		AML			
GOMA	**Golmarmara-Man**	**1.25**	**45**	Pn		**Pg**		**12 17 45.9**	**+0.2**
GOMA				AML		AML			
DAT	**Datca**	**1.26**	**150**	Pn		**Pn**		**12 17 44.6**	**-0.5**
DAT				AML		AML			
ASTA	**Astypalaia**	**1.32**	**195**	P		**Pg**		**12 17 46.9**	**-0.2**
ASTA				AML		AML			
AKS	**Akhisar**	**1.33**	**37**	Pn		**Pn**		**12 17 46.3**	**+0.4**
AKS				AML		AML			
YER	**Yerkesik**	**1.37**	**120**	P		**Pn**		**12 17 46.5**	**-0.1**
YER	**Yerkesik**	**1.37**	**120**	Pn		**Pn**		**12 17 46.5**	**-0.1**
YER				AML		AML			
SOMA	**Soma-Manisa**	**1.45**	**24**	Pn		**Pb**		**12 17 48.5**	**-0.1**
SOMA				AML		AML			
PRK	**Paraskevi**	**1.48**	**344**	P		**Pb**		**12 17 48.5**	**-0.4**
PRK				S		**Sb**		**12 18 08.2**	**+0.6**
PRK				AML		AML			
PRK	**Paraskevi**	**1.48**	**344**	P		**Pb**		**12 17 48.6**	**-0.4**
GORD	**Gordes-Manisa**	**1.54**	**45**	Pn		**Pb**		**12 17 49.8**	**-0.3**
GORD				AML		AML			
THERA	**Ancient Thera,**	**1.79**	**216**	P		**Pn**		**12 17 52.9**	**+0.6**
THERA				AML		AML			
YAYO	**Edremit-Balk**	**1.80**	**7**	Pn		**Pn**		**12 17 53.1**	**+0.7**
YAYO				AML		AML			
KARY	**Karystos**	**1.87**	**277**	P		**Pn**		**12 17 52.9**	**-0.4**
DION	**Dionisos Attik**	**2.27**	**277**	P		**Pn**		**12 17 58.9**	**0.0**
DION				AML		AML			
SMTH	**Samothraki Isl**	**2.82**	**340**	P		**Pn**		**12 18 06.9**	**+0.4**

IDC ***02*** *12:17:27.5±0.5, 10°.99N×86°.25W, h0km, mb4.3/16, mbtmp4.4/20, ML3.3/5, MS4.7/17, Error ellipse: s-maj=21.3km s-min=9.2km az=44.0*
CATAC ***02*** *12:17:29.8±0.2, 11°.N±1°×8°.7W±°, h10km, M5.0/42, mb4.9/1, mB5.0/1, MLv5.0/42, Mw(mB)4.3/1, Error ellipse: s-maj=3.6km s-min=2.0km az=42.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr4.31;

JTS S Sg 12 18 20.4 0.0
JTS Las Juntas de 1.56 102 Pn Pn 12 17 57.2 +0.5
JTS Sn Sn 12 18 17.8 +1.3
JTS Las Juntas de 1.56 102 P Pn 12 17 56.5 -0.2
APQ2 Apoyeque 1.57 6 P Pb 12 17 57.7 -0.6
APQ2 S Sg 12 18 20.5 0.0
LEVN Ruinas Leon Vi 1.76 356 P Pb 12 18 00.6 -1.0
MOMN Momotombo 1.77 359 P Pn 12 17 60.0 +0.4
MOMN S Sg 12 18 24.7 -2.2
MOM2 El Cardon 1.80 1 P Pn 12 18 01.0 +1.1
ACON Acoyapa 1.86 44 P Pg 12 18 04.5 -1.1
ACON S Sg 12 18 28.7 -1.2
QUEN Al S del Volca 1.98 350 P Pn 12 18 03.7 +1.3
BOAB BOACO BROADBAN.98 24 P Pb 12 18 03.9 -1.5
BOAB S Sg 12 18 31.4 -2.4
BOAB BOACO BROADBAN.98 24 Pn Pn 12 18 01.7 -0.8
BOAB BOACO BROADBAN.98 24 P Pb 12 18 04.9 -0.6
COVE Coope Vega, Sa 2.07 87 P Pb 12 18 07.1 +0.2
COVE S Sg 12 18 34.6 -1.9
PKGN Cerro Pekin 2.08 347 P Pb 12 18 05.8 -1.2
CRIN San Cristobal 2.12 345 P Pn 12 18 05.3 +0.8
CRIN S Sb 12 18 34.1 +0.2
CRIN San Cristobal 2.12 345 Pn Pn 12 18 03.6 -0.9
CRIN San Cristobal 2.12 345 P Pn 12 18 03.8 -0.7
CRIN San Cristobal 2.12 345 P Pn 12 18 05.8 +1.3
TRB2 Turrubares 2.15 109 P Pn 12 18 06.7 +2.0
TCS1 Tacares 2.25 105 P Pb 12 18 09.2 -0.8
HDC Heredia 2.43 105 P Pb 12 18 11.9 -1.3
HDC S Sb 12 18 42.6 -0.3
HDC Heredia 2.43 105 Pn Pn 12 18 08.7 -0.1
HDC Heredia 2.43 105 P Pb 12 18 12.3 -0.9
HDC Heredia 2.43 105 eP Pn 12 18 09.3 +0.4
CSGN Cosiguina Volc 2.55 336 P Pn 12 18 11.2 +0.9
CSGN S Sn 12 18 43.5 +2.5
POTN Potosi Cosigui 2.55 337 S Sn 12 18 43.4 +2.5
LCR2 La Lucha 2 2.61 110 S Sn 12 18 46.2 +3.5
LCR2 La Lucha 2 2.61 110 Pn Pn 12 18 12.0 +0.6
TRT2 Tortugero 2.72 91 P Pn 12 18 15.0 +2.3
TRT2 S Sb 12 18 50.5 -0.6
RAFA San Farael, Vo 2.73 104 Pn Pn 12 18 13.5 +0.4
EGUB Earth Gujpi 2.90 98 Pn Pn 12 18 15.4 +0.3
RCPN Sur Rio San Ju 2.91 8 P Pn 12 18 17.2 +1.9
RCVN Varillal2 2.95 6 P Pn 12 18 18.2 +2.2
OCON Estacion meteo 2.98 1 P Pn 12 18 18.1 +1.8
BLUN Bluefields 3.01 63 P Pn 12 18 19.0 +2.4
BLUN S Sb 12 18 56.6 -2.6
BLUN Bluefields 3.01 63 P Pn 12 18 15.5 -1.1
OCHAL Ojochal 3.20 118 P Pn 12 18 21.0 +1.7
OCHAL S Sn 12 18 59.7 +2.7
RANC El Ranchito 3.29 328 P Pn 12 18 21.8 +1.2
RANC S Sn 12 19 01.1 +1.8
PACA Pacayal 3.33 328 P Pn 12 18 22.0 +0.7
PACA S Sn 12 19 03.2 +2.7
ALJI Alcalda de J 3.36 323 P Pn 12 18 22.8 +1.4
ALJI S Sn 12 19 03.5 +2.7
TGUH Tegucigalpa,Un 3.49 348 P Pn 12 18 24.5 +1.2
TGUH S Sn 12 19 07.9 +3.6
TGUH Tegucigalpa,Un 3.49 348 Pn Pn 12 18 23.6 +0.3
TGUH Tegucigalpa,Un 3.49 348 P Pn 12 18 23.9 +0.6
TGUH Tegucigalpa,Un 3.49 348 P Pn 12 18 24.9 +1.6
SIUN Universidad Ur 3.50 29 P Pn 12 18 26.8 +3.4
SIUN S Sb 12 19 09.4 -4.2
SIUN Universidad Ur 3.50 29 Pn Pn 12 18 23.1 -0.3
PIRO Carate, Puerto 3.83 125 P Pn 12 18 29.0 +1.1
PIRO Carate, Puerto 3.83 125 Pn Pn 12 18 29.0 +1.1
RGM0 Gandoca 3.97 105 Pn Pn 12 18 30.7 +0.8
PMON Piamonte 4.12 318 P Pn 12 18 33.1 +1.2
CDITO Canoas 4.12 119 P Pn 12 18 33.9 +2.0
CDITO S Sn 12 19 22.7 +2.9
NUBE Las Nubes 4.56 316 P Pn 12 18 38.9 +0.8
BILN Bilwi Airport 4.57 42 P Pn 12 18 40.7 +2.6
BILN Bilwi Airport 4.57 42 Pn Pn 12 18 38.9 +0.8
MTO3 Montecristo 4.67 324 Pn 12 18 39.8 +0.2
FAME Alcaldia de Sa 4.69 313 P Pn 12 18 40.2 +0.5
ESQI Esquipulas 4.79 325 Pn Pn 12 18 40.4 -0.8
APG El Apazote 5.81 319 Pn Pn 12 18 55.4 0.0
0.2nm,0.3s,baz=132,slow=12,SNR=9.3
APG AML AML
GMAL Guarumal, Vera 5.93 118 P Pn 12 19 00.0 +3.2
GMAL AML AML
RTAL Retalhuleu 6.38 308 Pn 12 19 02.1 -0.8
BCIP Isla Barro Col 6.73 102 P Pn 12 19 10.0 +2.2
BCIP Isla Barro Col 6.73 102 P Pn 12 19 10.4 +2.6
1µm80nm,0.8s
BCIP Isla Barro Col 6.73 102 P Pn 12 19 11.7 +4.0
comp=Z,82nm,0.8s
HUEH Huehuetenango 6.74 314 Pn Pn 12 19 11.3 +3.1
AZU Azuero 6.77 114 P Pn 12 19 13.3 +5.0
comp=Z,2µmcomp=Z,66nm,1.6s
UPA Univ. de Panam 7.06 103 P Pn 12 19 17.3 +4.9
comp=Z,974nmcomp=Z,39nm,1.4s
CCIG Comitan 7.85 316 Pn 12 19 26.1 +2.8
TEIG Tepich 9.69 350 P Pn 12 19 48.3 -0.1
comp=Z,3µmcomp=Z,47nm,1.0s
LCBC Los crdobas, 10.15 99 Pn Pn 12 19 58.0 +3.3
LCBC Los crdobas, 10.15 99 P Pn 12 19 52.8 -1.9
comp=Z,112nm,1.3s
APAC Apartado, Choc 10.16 105 P Pn 12 19 59.5 +4.6
comp=Z,120nm,1.1s
CMIG Matias Romero 10.36 309 Pn Pn 12 19 58.7 +1.0
comp=Z,1.4nm,0.3s,baz=118,slow=9.7,SNR=16
comp=Z,19nm,0.6s
CMIG AML AML
SJCC San Jacinto, C 11.17 93 Pn 12 20 13.1 +4.3
MTDJ Mount Denham 11.51 48 P Pn 12 20 17.6 +4.2
comp=Z,104nm,1.8s
YOTC Yotoco, Valle 12.04 123 P Pn 12 20 22.9 +2.1
comp=Z,551nmcomp=Z,15nm,1.0s
JAMC Jamundi, Valle 12.22 126 P Pn 12 20 25.9 +2.6
comp=Z,869nmcomp=Z,12nm,1.0s
GUY2C Guyana, Caldas 12.27 115 P Pn 12 20 28.0 +3.8
comp=Z,724nmcomp=Z,29nm,1.2s
RECRC Villamaria, Ca 12.40 116 P Pn 12 20 27.7 +1.7
SOR Soroa 12.55 15 Pn 12 20 31.0 +3.5
NORC Norcasia 12.57 113 P Pn 12 20 34.4 +6.5
comp=Z,11nm,1.1s
POPC Popayan, Colom 12.64 129 P Pn 12 20 30.2 +1.1
comp=Z,780nmcomp=Z,21nm,1.0s
FLF1 Flavio Alfaro- 12.77 148 P Pn 12 20 30.8 +0.2
ORTC Ortega, Tolima 13.01 120 P Pn 12 20 36.4 +2.5
comp=Z,1µmcomp=Z,35nm,1.0s
OTAV Otavalo 13.07 142 P Pn 12 20 38.6 +3.5
comp=Z,13nm,1.0s
OCAC Ocana 13.22 99 P Pn 12 20 38.5 +1.6
comp=Z,3µmcomp=Z,61nm,0.9s
ROSC El Rosal 13.37 115 Pn Pn 12 20 42.2 +3.0
comp=Z,1.7nm,0.3s,baz=85,slow=23,SNR=1.7
comp=Z,3.9nm,0.3s
ROSC AML AML
ROSC El Rosal 13.37 115 Pn Pn 12 20 40.4 +1.2
CRJC Cerrejon, Guaj 13.39 87 P Pn 12 20 40.3 +1.2
comp=Z,2µmcomp=Z,31nm,1.1s
PRAC Prado 13.41 120 P Pn 12 20 41.3 +1.8
TLIG Tlapa 13.57 302 Pn 12 20 41.7 +0.1
CAIB Caibarien 13.58 29 Pn Pn 12 20 43.7 +2.1
RUSC La Rusia 14.09 108 P Pn 12 20 51.2 +2.1
RUSC La Rusia 14.09 108 Pn 12 20 49.9 +0.8
URIC Uribia, Colomb 14.28 84 Pn Pn 12 20 53.3 +2.0
NMDO Nuevo Mundo 14.84 47 Pn Pn 12 20 59.5 +0.6
SDV Santo Domingo 15.74 95 Pn Pn 12 21 11.0 +0.1
comp=Z,1.0nm,0.3s,baz=262,slow=5.6,SNR=25
comp=Z,2.4nm,0.2s
SDV AML AML
SDV Santo Domingo 15.74 95 Pn Pn 12 21 11.1 +0.2
SDV IAmb IAmb 12 21 19.3
comp=Z,38nm,0.9s
MOIG Morelia 16.77 304 Pn Pn 12 21 24.9 +0.7
SDD Santo Domingo 17.84 62 Pn Pn 12 21 36.3 -0.9
656A Willston 19.01 11 P P 12 21 51.2 +0.6
656A IAmb IAmb 12 21 58.0
comp=Z,105nm,1.2s
ATAH Atahualpa 19.41 155 P Pn 12 22 00.0 +3.2
comp=Z,0.2nm,0.3s,baz=332,slow=4.6,SNR=4.0
ATAH LR LR 12 28 30.9
comp=Z,2µm,19.5s,baz=336,slow=34
comp=Z,4.6nm,0.8s
ATAH AML AML
ZAIG Zacatecas 19.53 310 P P 12 21 56.9 +0.1
MLPR Magueyes Islan 20.21 67 P P 12 22 03.5 -0.3
456A Hilliard 20.43 11 P P 12 22 05.4 -0.7
AOPR Arecibo Observ 20.59 66 P P 12 22 07.9 -0.1
AOPR IAmb IAmb 12 22 13.2
comp=Z,34nm,0.8s
OBIP Obispado Ponce 20.63 67 P P 12 22 08.2 -0.2
OBIP IAmb IAmb 12 22 22.5
comp=Z,74nm,1.4s
CELP Cerrillos 20.66 67 P P 12 22 08.8 0.0
CELP IAmb IAmb 12 22 14.7
comp=Z,41nm,0.9s
352A Blakely 20.80 4 P P 12 22 11.0 +0.8
TIGA Tifton 20.88 7 P P 12 22 12.1 +1.1
ECPR Experimental S 20.93 66 P P 12 22 11.4 -0.3
ECPR IAmb IAmb 12 22 16.3
comp=Z,32nm,0.9s
735A Kenedy 21.00 331 P P 12 22 12.5 +0.2
735A IAmb IAmb 12 22 21.0
comp=Z,72nm,1.1s
SJG San Juan 21.06 67 P P 12 22 11.3 -1.8
comp=Z,5.4nm,0.3s,baz=342,slow=23,SNR=1.2
comp=Z,5.4nm,0.3s
SJG San Juan 21.06 67 P P 12 22 12.4 -0.7
SJG IAmb IAmb 12 22 27.0
comp=Z,35nm,0.9s
HKT Hockley 21.10 337 P P 12 22 13.3 0.0
HKT IAmb IAmb 12 22 29.5
comp=Z,80nm,1.5s
HKT Hockley 21.10 337 P P 12 22 14.2 +0.9
comp=Z,30nm,1.9s
PDPR Patillas Dam, 21.15 67 P P 12 22 13.5 -0.5
PDPR IAmb IAmb 12 22 30.4
comp=Z,36nm,1.1s
GCPR Guaynabo City 21.18 67 P P 12 22 15.0 +0.6
GCPR IAmb IAmb 12 22 21.3
comp=Z,38nm,1.2s
250A Grady 21.25 1 P P 12 22 14.0 -1.0
833A Chaparral WMA, 21.36 327 P 12 22 16.2 0.0
833A IAmb IAmb 12 22 21.5
comp=Z,36nm,1.2s
MLDN Muldoon 21.45 334 P P 12 22 17.7 +0.5
MLDN IAmb IAmb 12 22 22.2
comp=Z,52nm,1.0s
VBMS Vicksburg 21.80 351 P P 12 22 20.9 -0.1
VBMS IAmb IAmb 12 22 26.0
comp=Z,75nm,1.1s
SNAG San Augustine 21.97 342 P P 12 22 22.9 +0.2
152A Waverly Hall 22.00 4 P P 12 22 23.3 +0.3
152A IAmb IAmb 12 22 31.0
comp=Z,75nm,1.1s
146A Union 22.03 354 P P 12 22 22.8 -0.6
146A IAmb IAmb 12 22 32.5
comp=Z,55nm,1.0s
HNDO Hondo 22.27 329 P 12 22 26.0 0.0
LRAL Lakeview Retre 22.30 359 P 12 22 26.2 -0.1
LRAL IAmb IAmb 12 22 30.4
comp=Z,52nm,1.2s
NATX Nacogdoches 22.34 341 P P 12 22 26.7 0.0
NATX IAmb IAmb 12 22 48.8
comp=Z,47nm,1.0s
Z47A Carrollton 22.51 357 P P 12 22 28.5 0.0
Z47A IAmb IAmb 12 22 37.2
comp=Z,53nm,1.1s
435B Jarrell 22.54 334 P 12 22 28.9 0.0
435B IAmb IAmb 12 22 36.3
comp=Z,47nm,0.9s
GOGA Godfrey 22.84 7 P P 12 22 32.7 +0.6
GOGA Godfrey 22.84 7 P P 12 22 33.0 +0.9
comp=Z,53nm,1.1s
Y52A Lilburn 23.23 5 P 12 22 36.3 +0.2
Z41A Richland Creek 23.25 347 IAmb IAmb 12 22 41.5
comp=Z,40nm,1.1s
Y45A Yeager Farm, C 23.29 354 P 12 22 37.0 +0.3
JCT Junction City 23.30 330 IAmb IAmb 12 22 40.8
comp=Z,53nm,1.6s
WHTX Lake Whitney, 23.55 336 IAmb IAmb 12 23 06.0
comp=Z,60nm,1.2s
BRDY Brady 23.59 332 P 12 22 39.8 +0.1
CCAR Cane Creek 23.68 349 P P 12 22 40.0 -0.5
CCAR IAmb IAmb 12 23 00.1
comp=Z,49nm,1.2s
TREL Terrell 23.70 340 P P 12 22 40.7 0.0
X48A Hartselle 23.72 359 IAmb IAmb 12 22 51.7
comp=Z,64nm,1.7s
WLAR White Oak Lake 23.74 346 P 12 22 41.6 +0.6
WLAR IAmb IAmb 12 22 46.4
comp=Z,37nm,1.1s
HODGE Hodges 23.81 9 IAmb IAmb 12 22 46.0
comp=Z,36nm,0.9s
FPAL Fort Paine 23.81 2 P 12 22 42.2 +0.4
FPAL IAmb IAmb 12 22 44.3
comp=Z,25nm,1.2s
Z38A Mt. Pleasant 23.83 342 P P 12 22 41.9 0.0
Z38A IAmb IAmb 12 22 44.3
comp=Z,37nm,1.0s
SMRT St. Maarten 23.85 69 P P 12 22 41.5 -0.8
SMRT St. Maarten 23.85 69 P P 12 22 41.3 -1.0
comp=Z,95nm,1.0s
FW13 Cleburne 23.85 337 P P 12 22 42.2 0.0
FW13 IAmb IAmb 12 22 46.6
comp=Z,33nm,1.0s
X51A Calhoun 23.87 3 IAmb IAmb 12 22 46.2
comp=Z,26nm,0.8s
JSC Jenkinsville 24.03 11 P P 12 22 44.2 +0.4
HPIG 24.27 315 P P 12 22 47.0 +0.6
HPIG IAmb IAmb 12 22 56.7
comp=Z,17nm,1.0s
OZNA Ozona 24.33 328 IAmb IAmb 12 22 49.7
comp=Z,27nm,1.1s
FW06 Azle 24.45 337 IAmb IAmb 12 22 51.7
comp=Z,24nm,0.8s
W52A Murphy 24.46 5 IAmb IAmb 12 22 51.7
comp=Z,36nm,1.0s
TXAR Lajitas Array 24.56 322 P P 12 22 48.9 0.0
comp=Z,9.1nm,0.8s,baz=139,slow=7.7,SNR=28
TXAR PcP PcP 12 26 29.2 +2.3
comp=Z,3.8nm,1.0s,baz=128,slow=2.3,SNR=6.4
TXAR LR LR 12 34 22.3
comp=Z,872nm,18.9s,baz=116,slow=42
comp=Z,9.1nm,0.8s
TXAR Lajitas Array 24.56 322 P 12 22 49.4 +0.5
TXAR PcP 12 26 26.9 0.0
TX31 Lajitas Ar. Si 24.57 322 P 12 22 49.4 +0.5
TX31 IAmb IAmb 12 23 08.8
comp=Z,14nm,0.8s
PLPT Palo Pinto 24.61 336 P 12 22 49.7 +0.5
PLPT IAmb IAmb 12 22 53.4
comp=Z,31nm,1.0s
UALR University of 24.62 348 P P 12 22 49.6 +0.4
UALR IAmb IAmb 12 22 59.3
comp=Z,21nm,0.8s
MIAR Mount Ida 24.67 346 P 12 22 50.8 +1.1
MIAR IAmb IAmb 12 22 56.2
comp=Z,21nm,1.0s
X58A Rowland 24.70 14 P P 12 22 51.3 +1.4
CPCT Cooper Cave 24.77 4 P 12 22 52.0 +1.4
CPCT IAmb IAmb 12 22 55.6
comp=Z,41nm,1.0s
KMSC Kings Mountain 24.85 10 P P 12 22 51.9 +0.6
V48A Smith Brothers 25.00 359 P P 12 22 53.7 +1.0
V48A IAmb IAmb 12 23 00.3
comp=Z,24nm,1.1s
ABTX Abilene, Hawle 25.02 333 P P 12 22 53.1 +0.3
ABTX IAmb IAmb 12 22 56.9
comp=Z,36nm,1.2s
TKL Tuckaleechee C 25.04 5 P P 12 22 51.8 -1.2
comp=Z,32nm,1.0s,baz=179,slow=12,SNR=9.5
comp=Z,32nm,1.0s
TKL Tuckaleechee C 25.04 5 P 12 22 54.4 +1.4
WHAR Wooly Hollow 25.11 349 P 12 22 53.8 +0.2
WHAR IAmb IAmb 12 23 01.4
comp=Z,27nm,1.0s
SGCY Sterling City 25.13 330 IAmb IAmb 12 23 25.8
comp=Z,16nm,0.9s
CLTN Cedars of Leba 25.35 0 P 12 22 56.8 +1.0
CLTN IAmb IAmb 12 23 09.4
comp=Z,38nm,1.6s
TMB01 Midkiff 25.42 328 P P 12 22 57.9 +1.3
TMB01 IAmb IAmb 12 23 01.5
comp=Z,16nm,0.9s
WTFS Witchita Falls 25.51 336 IAmb IAmb 12 23 01.5
comp=Z,26nm,1.0s
229A Bryant Ranch, 25.52 329 IAmb IAmb 12 23 00.9
comp=Z,12nm,0.8s
MNHN Monahans 25.53 326 IAmb IAmb 12 23 25.2
comp=Z,21nm,0.9s
LCAR Lake Charles 25.68 351 P 12 22 58.8 0.0
LCAR IAmb IAmb 12 23 08.0
comp=Z,13nm,0.8s
U49A Red Boiling Sp 25.78 1 IAmb IAmb 12 23 22.8
comp=Z,63nm,1.6s
TPB01 Permian Basin 25.80 324 IAmb IAmb 12 23 35.9
comp=Z,45nm,1.7s
APMT Aspermont 25.82 333 IAmb IAmb 12 23 05.8
comp=Z,28nm,0.8s
X34A Smith Ranch, M 26.01 338 IAmb IAmb 12 23 11.3
comp=Z,40nm,1.1s
TPB06 Permian Basin 26.01 326 IAmb IAmb 12 23 19.6
comp=Z,13nm,0.6s
129A Stewart Farms, 26.07 329 P P 12 23 03.5 +1.0
129A IAmb IAmb 12 23 07.0
comp=Z,29nm,1.0s
PECS Pecos 26.17 325 P P 12 23 03.4 0.0
W35A Tecumseh 26.18 340 IAmb IAmb 12 23 34.0
comp=Z,18nm,0.9s
POST Post 26.25 331 IAmb IAmb 12 23 31.7
comp=Z,21nm,0.9s
PBMO Poplar Bluff 26.27 353 IAmb IAmb 12 23 23.8
comp=Z,34nm,1.5s
LPIG La Paz 26.32 304 LR LR 12 31 59.4
comp=Z,450nm,20.7s,baz=114,slow=33
128A Castleberry Fa 26.38 328 IAmb IAmb 12 23 10.7
comp=Z,35nm,1.4s
HHAR Hobbs 26.41 346 P 12 23 06.2 +0.7
FNO Franklin 26.45 340 IAmb IAmb 12 23 27.5
comp=Z,24nm,0.8s
DKNS Dickens 26.47 332 IAmb IAmb 12 23 13.3
comp=Z,21nm,0.9s
WMOK Wichita Mounta 26.48 337 P P 12 23 07.7 +1.5
comp=Z,55nm,1.1s
TUL3 Leonard 26.54 343 IAmb IAmb 12 23 12.8
comp=Z,25nm,1.1s
T42A Van Buren 26.61 352 IAmb IAmb 12 23 17.1
comp=Z,12nm,0.8s
U38A Gravette 26.67 346 IAmb IAmb 12 23 14.0
comp=Z,24nm,1.2s
DEOK Depew 26.69 342 IAmb IAmb 12 23 50.4
comp=Z,26nm,1.2s
TPB28 26.75 324 IAmb IAmb 12 23 44.0
comp=Z,14nm,1.3s
OK052 Battle Ridge R 26.92 341 IAmb IAmb 12 23 12.4
comp=Z,34nm,1.1s
S51A Beattyville 27.02 5 IAmb IAmb 12 23 14.6
comp=Z,22nm,0.9s
BLA Blacksburg 27.03 11 IAmb IAmb 12 23 12.9
comp=Z,39nm,1.1s
BOAV Boa Vista 27.06 106 P 12 23 12.8 +1.2
BOAV Boa Vista 27.06 106 eP P 12 23 12.2 +0.6
S44A Carbondale 27.06 355 IAmb IAmb 12 23 21.3
comp=Z,17nm,0.9s
MNTX Cornudas Mount 27.29 323 P P 12 23 14.1 +0.7
comp=Z,6.9nm,1.6s
SMWD Samnorwood 27.39 335 IAmb IAmb 12 23 27.4
comp=Z,17nm,0.7s
WCI Wyandotte Cave 27.48 0 P 12 23 15.5 +0.5
WCI Wyandotte Cave 27.48 0 P P 12 23 15.6 +0.5
comp=Z,31nm,1.1s
MSTX Muleshoe 27.60 330 IAmb IAmb 12 23 23.1
comp=Z,47nm,1.4s
R50A Paris 27.60 4 IAmb IAmb 12 23 18.8
comp=Z,15nm,1.0s
S39A Bolivar 27.63 348 IAmb IAmb 12 23 19.7
comp=Z,36nm,1.4s
CCM Cathedral Cave 27.64 352 P 12 23 16.3 -0.2
CCM IAmb IAmb 12 23 23.4
comp=Z,15nm,0.9s
CCM Cathedral Cave 27.64 352 P P 12 23 16.5 +0.1
comp=Z,15nm,1.0s
T35A Sooner Cattle 27.69 343 IAmb IAmb 12 23 33.2
comp=Z,13nm,1.0s
S57A Dark Hollow, R 27.85 13 P P 12 23 19.5 +1.1
R40A Maddies Statio 28.02 350 IAmb IAmb 12 23 23.5
comp=Z,15nm,1.2s
121A Cookes Peak, D 29.32 321 P 12 23 32.7 +0.9
319A Douglas 29.52 318 P P 12 23 33.7 +0.3
319A IAmb IAmb 12 23 49.6
comp=Z,13nm,1.0s
O48B Farmland 29.53 2 IAmb IAmb 12 23 35.0
comp=Z,27nm,1.0s
P38A Dawn 29.55 349 IAmb IAmb 12 23 42.8
comp=Z,12nm,0.7s
P57A Homestead Farm 29.71 13 P P 12 23 35.8 +0.9
KSU1 Kansas State U 29.75 344 IAmb IAmb 12 23 39.4
comp=Z,17nm,1.0s
Y22A Socorro 29.82 324 P 12 23 36.6 +0.5
ALQ Albuquerque 30.27 326 P 12 23 40.4 +0.2
ALQ Albuquerque 30.27 326 P 12 23 40.7 +0.5
ALQ IAmb IAmb 12 23 46.5
comp=Z,6.3nm,0.9s
ANMO Albuquerque 30.27 326 P 12 23 40.6 +0.4
ANMO Albuquerque 30.27 326 P P 12 23 40.4 +0.2
comp=Z,7.3nm,1.1s
SSPA Standing Stone 30.84 13 P 12 23 44.8 0.0
SSPA Standing Stone 30.84 13 P P 12 23 44.6 -0.2
comp=Z,48nm,1.1s
TUC Tucson 31.10 318 P 12 23 47.3 0.0
TUC Tucson 31.10 318 P P 12 23 49.4 +2.0
comp=Z,5.9nm,1.1s
L42A Oliver, Polo 31.38 355 P 12 23 49.8 +0.3
SDCO Great Sand Dun 31.94 331 P P 12 23 56.7 +1.7
LPAZ La Paz 32.34 146 P P 12 24 02.1 +3.1
comp=Z,1.3nm,0.6s,baz=328,slow=8.7,SNR=7.2
LPAZ LR LR 12 37 31.8
comp=Z,1µm,18.2s,baz=324,slow=37
comp=Z,1.3nm,0.6s
LPAZ La Paz 32.34 146 IAmb IAmb 12 24 21.4
comp=Z,22nm,1.9s
LPAZ La Paz 32.34 146 P P 12 24 00.3 +1.3
comp=Z,3.8nm,1.0s
LPAZ La Paz 32.34 146 eP P 12 23 57.0 -2.0
MVCO Mesa Verde 33.06 327 P 12 24 06.0 +1.3
MVCO IAmb IAmb 12 24 47.6
comp=Z,44nm,2.0s
MVCO Mesa Verde 33.06 327 P P 12 24 04.5 -0.2
comp=Z,8.0nm,1.0s
PB16 IPOC Station P 33.31 150 P 12 24 08.7 +1.2
PB16 IPOC Station P 33.31 150 P P 12 24 10.5 +3.1
comp=Z,9.5nm,0.8s
WUAZ Wupatki 33.53 322 P 12 24 09.7 +1.0
WUAZ IAmb IAmb 12 24 50.4
comp=Z,8.5nm,0.9s
PV01 Paradox Valley 33.78 328 IAmb IAmb 12 24 15.7
comp=Z,9.8nm,1.1s
PV15 Paradox Valley 33.89 328 IAmb IAmb 12 24 57.9
comp=Z,10nm,1.0s
PV02 Paradox Valley 33.93 328 IAmb IAmb 12 24 16.4
comp=Z,30nm,1.5s
PV13 Radium Mtn., P 33.93 328 IAmb IAmb 12 24 18.0
comp=Z,12nm,1.0s
MDP Montagnes des 33.97 97 LR LR 12 39 00.8
comp=Z,2µm,19.3s,baz=282,slow=38
PV05 Paradox Valley 34.02 327 IAmb IAmb 12 24 43.6
comp=Z,10nm,0.8s
PV12 Saucer Basin, 34.04 328 IAmb IAmb 12 24 38.6
comp=Z,20nm,0.9s
PV07 Paradox Valley 34.05 328 IAmb IAmb 12 24 19.1
comp=Z,18nm,1.3s
PV11 David Mesa, Pa 34.06 328 IAmb IAmb 12 24 18.9
comp=Z,18nm,0.9s
ITTB Itaituba 34.07 114 eP P 12 24 12.2 -1.2
PV17 East Wray Mesa 34.10 328 IAmb IAmb 12 24 19.1
comp=Z,17nm,0.8s
ECSD EROS Data Cent 34.13 347 IAmb IAmb 12 24 19.7
comp=Z,21nm,1.2s
ECSD EROS Data Cent 34.13 347 P P 12 24 13.8 +0.2
comp=Z,16nm,1.0s
PV19 Morning Glory 34.13 328 IAmb IAmb 12 24 22.2
comp=Z,12nm,0.7s
PV20 West Nyswonger 34.15 328 IAmb IAmb 12 24 19.4
comp=Z,11nm,0.8s
PV22 Blue Mesa, Par 34.20 328 IAmb IAmb 12 24 18.4
comp=Z,15nm,1.2s
PV10 Paradox Valley 34.21 328 IAmb IAmb 12 24 35.0
comp=Z,13nm,0.8s
PV23 Carpenter Ridg 34.25 328 IAmb IAmb 12 24 40.5
comp=Z,13nm,1.0s
PB11 IPOC Station P 34.46 151 P P 12 24 17.6 +0.7
comp=Z,20nm,2.5s
ESJX Sierra Juarez 34.51 313 IAmb IAmb 12 24 22.3
comp=Z,11nm,1.3s
GO01 Chusmiza 34.60 150 P P 12 24 19.7 +1.2
GO01 IAmb IAmb 12 24 47.2
comp=Z,17nm,1.2s
U15A North Rim 34.69 322 IAmb IAmb 12 24 56.2
comp=Z,23nm,1.8s
HMU Henry Mountain 34.82 325 IAmb IAmb 12 24 26.3
comp=Z,25nm,1.3s

W13A	**Hualapai Mount**	**34.85 319**	P	**P**	**12 24 20.0**	**-0.2**
SPMN	**Marine on St.**	**34.89 352**	IAmb	IAmb	12 24 24.4	
	comp=Z,24nm,1.0s					
HAYD	**Hayden**	**34.98 332**	P	**P**	**12 24 22.0**	**+0.7**
HAYD			IAmb	IAmb	12 24 43.6	
	comp=Z,18nm,1.7s					
BC3	**Big Chuckawall**	**35.05 315**	IAmb	IAmb	12 24 30.7	
	comp=Z,27nm,1.6s					
VILB	**Vilhena**	**35.08 131**	*e*P	**P**	**12 24 21.9**	**-0.4**
IRM	**Iron Mountain**	**35.13 316**		**P**	**12 24 22.0**	**-0.5**
IRM			IAmb	IAmb	12 24 31.3	
	comp=Z,13nm,1.5s					
O20A	**White River Ci**	**35.14 330**	IAmb	IAmb	12 24 30.0	
	comp=Z,23nm,1.5s					
CBX	**Cerro Bola**	**35.19 312**		**P**	**12 24 22.8**	**-0.3**
CBX			IAmb	IAmb	12 24 27.5	
	comp=Z,19nm,1.4s					
SRU	**San Rafael Swe**	**35.54 327**	IAmb	IAmb	12 24 36.1	
	comp=Z,16nm,1.1s					
BELC	**Belle Mtn. Jos**	**35.62 315**	IAmb	IAmb	12 24 33.0	
	comp=Z,14nm,1.3s					
NPGB	**Novo Progresso**	**35.63 118**	*e*P	**P**	**12 24 26.7**	**-0.3**
PMD	**Palm Desert**	**35.69 315**	IAmb	IAmb	12 24 33.4	
	comp=Z,9.8nm,1.0s					
PFO	**Pinyon Flats O**	**35.73 314**	P	**P**	**12 24 27.2**	**-0.5**
PFO	**Pinyon Flats O**	**35.73 314**	P	**P**	**12 24 30.1**	**+2.3**
	comp=Z,8.0nm,1.0s					
Q16A	**Castle Valley**	**35.75 326**	IAmb	IAmb	12 25 14.9	
	comp=Z,18nm,1.6s					
P18A	**Preston Nutter**	**35.77 328**	IAmb	IAmb	12 24 34.2	
	comp=Z,11nm,1.1s					
DNR	**Dunn Ranch,Anz**	**35.83 314**	IAmb	IAmb	12 24 35.0	
	comp=Z,16nm,1.1s					
P17A	**Butcher Ranch,**	**35.91 327**	IAmb	IAmb	12 24 34.8	
	comp=Z,15nm,1.0s					
TMUT	**Trail Mountain**	**36.04 327**	IAmb	IAmb	12 24 35.8	
	comp=Z,13nm,1.3s					
F33A	**5 Mile Ranch,**	**36.07 348**	IAmb	IAmb	12 24 34.4	
	comp=Z,14nm,0.9s					
TCRU	**Three Creeks R**	**36.25 325**	IAmb	IAmb	12 24 52.1	
	comp=Z,10nm,1.0s					
PDRB	**Porto dos Gac**	**36.93 126**	*e*P	**P**	**12 24 36.5**	**-1.6**
CLDB	**Colider**	**37.26 124**	P	**P**	**12 24 41.6**	**+0.8**
	comp=Z,14nm,0.9s					
CLDB	**Colider**	**37.26 124**	*e*P	**P**	**12 24 41.0**	**+0.1**
TCUT	**Toone Canyon**	**37.46 328**	IAmb	IAmb	12 24 51.1	
	comp=Z,46nm,1.9s					
PTLB	**Pontes e Lacer**	**37.50 133**		**P**	**12 24 42.7**	**-0.1**
PTLB	**Pontes e Lacer**	**37.50 133**	*e*P	**P**	**12 24 42.8**	**-0.1**
DUG	**Dugway, Tooele**	**37.55 326**		**P**	**12 24 43.5**	**+0.3**
DUG	**Dugway, Tooele**	**37.55 326**	P	**P**	**12 24 45.4**	**+2.2**
	comp=Z,4.6nm,1.8s					
S11A	**Rachel**	**37.59 321**	P	**P**	**12 24 44.1**	**+0.4**
S11A			IAmb	IAmb	12 25 08.9	
	comp=Z,47nm,1.8s					
TPO	**Tropico Hills**	**37.65 315**	IAmb	IAmb	12 24 50.5	
	comp=Z,19nm,1.4s					
BBSD	**Serra de San D**	**37.67 137**	*e*P	**P**	**12 24 41.3**	**-3.0**
BW06	**Boulder Array**	**37.80 332**	P	**P**	**12 24 45.6**	**+0.2**
PD31	**Pinedale Array**	**37.80 332**		**P**	**12 24 45.3**	**-0.2**
PDAR	**Pinedale Array**	**37.80 332**	P	**P**	**12 24 44.2**	**-1.2**
	comp=Z,2.2nm,0.9s,baz=132,slow=8.9,SNR=10					
PDAR			PcP	**PcP**	**12 27 03.6**	**+1.7**
	comp=Z,1.9nm,1.1s,baz=129,slow=4.1,SNR=3.7					
	comp=Z,2.2nm,0.9s					
PDAR	**Pinedale Array**	**37.80 332**	P	**P**	**12 24 44.6**	**-0.8**
PDAR				**PcP**	**12 27 02.5**	**+0.6**
HWUT	**Hardware Ranch**	**37.90 329**	P	**P**	**12 24 47.9**	**+1.7**
	comp=Z,15nm,0.9s					
AGMN	**Agassiz Nation**	**38.36 350**	IAmb	IAmb	12 24 52.5	
	comp=Z,27nm,1.2s					
AGMN	**Agassiz Nation**	**38.36 350**	P	**P**	**12 24 49.4**	**-0.4**
	comp=Z,16nm,1.1s					
AHID	**Auburn Hatcher**	**38.53 331**	P	**P**	**12 24 51.6**	**+0.1**
	comp=Z,7.8nm,2.4s					
VES	**Vestal, Richgr**	**38.75 316**	IAmb	IAmb	12 24 58.1	
	comp=Z,21nm,1.1s					
SNOW	**Snow King Moun**	**38.90 332**	IAmb	IAmb	12 24 58.4	
	comp=Z,16nm,1.2s					
ELK	**Elko**	**39.28 325**	LR	LR	12 44 57.2	
	comp=Z,657nm,18.7s,baz=130,slow=42					
NVAR	**Mina Array Bea**	**39.68 320**	P	**P**	**12 25 02.1**	**+0.9**
	comp=Z,5.1nm,0.9s,baz=134,slow=7.0,SNR=18					
NVAR			PcP	**PcP**	**12 27 09.7**	**+1.7**
	comp=Z,6.2nm,1.0s,baz=119,slow=3.1,SNR=7.7					
NVAR			LR	LR	12 44 55.6	
	comp=Z,707nm,19.0s,baz=132,slow=42					
	comp=Z,5.1nm,0.9s					
NVAR	**Mina Array Bea**	**39.68 320**	P	**P**	**12 25 02.2**	**+0.9**
NVAR				**PcP**	**12 27 08.4**	**+0.5**
LHV	**Little Huntoon**	**39.70 319**	P	**P**	**12 25 00.3**	**-0.8**
YNE	**Yellowstone No**	**39.76 334**	P	**P**	**12 25 01.6**	**-0.3**
BMN	**Battle Mountai**	**40.23 323**	P	**P**	**12 25 06.0**	**+0.4**
ULM	**Lac du Bonnet**	**40.25 351**	P	**P**	**12 25 02.5**	**-3.1**
	comp=Z,3.3nm,0.6s,baz=165,slow=8.8,SNR=5.7					
ULM			PcP	**PcP**	**12 27 10.6**	**+1.4**
	comp=Z,5.7nm,0.9s,baz=159,slow=3.2,SNR=3.4					
	comp=Z,3.3nm,0.6s					
ULM	**Lac du Bonnet**	**40.25 351**		**PcP**	**12 27 09.8**	**+0.6**
SALV	**Santo Antonio**	**40.31 130**	*e*P	**P**	**12 25 03.5**	**-2.9**
WAKR	**Walker**	**40.45 119**		**P**	**12 25 08.2**	**+0.6**
YERR	**Yerington**	**40.60 320**	P	**P**	**12 25 09.5**	**+0.7**
HLID	**Hailey**	**40.77 329**		**P**	**12 25 11.1**	**+1.0**
HLID	**Hailey**	**40.77 329**	P	**P**	**12 25 11.3**	**+1.2**
CMB	**Columbia Colle**	**40.81 318**		**P**	**12 25 12.0**	**+1.6**
AC02	**Maricunga**	**40.89 156**	P	**P**	**12 25 12.8**	**+1.2**
AC02			IAmb	IAmb	12 25 46.9	
	comp=Z,19nm,1.4s					
AC02	**Maricunga**	**40.89 156**	P	**P**	**12 25 13.3**	**+1.7**
	comp=Z,6.8nm,0.8s					
AC02			pP	**sP**	**12 25 21.2**	**+2.0**
MCMT	**McKenzie Canyo**	**40.92 331**	P	**P**	**12 25 11.8**	**+0.4**
MPK	**Martis Peak**	**41.28 319**	IAmb	IAmb	12 25 21.3	
	comp=Z,19nm,1.1s					
SNDB	**Serra Nova Dou**	**41.57 122**	*e*P	**P**	**12 25 16.2**	**-0.6**
WVOR	**Wild Horse Val**	**42.31 324**	P	**P**	**12 25 23.1**	**+0.3**
	comp=Z,8.1nm,1.1s					
HATC	**Hat Creek Radi**	**43.04 320**	IAmb	IAmb	12 25 34.5	
	comp=Z,21nm,1.2s					
ARAG	**Araguaiana, MT**	**43.18 127**	*e*P	**P**	**12 25 29.7**	**-0.2**
AQDB	**Aquidauana**	**43.29 136**	P	**P**	**12 25 31.9**	**+1.1**
	comp=Z,11nm,2.0s					
AQDB	**Aquidauana**	**43.29 136**	*e*P	**P**	**12 25 29.7**	**-1.1**
SMTB	**Santa Maria do**	**43.30 115**	P	**P**	**12 25 32.2**	**+1.3**
SMTB			IAmb	IAmb	12 25 33.4	
	comp=Z,25nm,1.0s					
SMTB	**Santa Maria do**	**43.30 115**	*e*P	**P**	**12 25 29.7**	**-1.3**
KCPM	**Cahto Peak**	**43.80 318**	IAmb	IAmb	12 25 49.6	
	comp=Z,18nm,1.0s					
PINE	**Pine Mountain**	**44.48 324**	IAmb	IAmb	12 25 45.0	
	comp=Z,16nm,1.4s					
KHMM	**Horse Mountain**	**44.52 319**	IAmb	IAmb	12 25 58.9	
	comp=Z,8.6nm,0.8s					
I05D	**Terrebonne, OR**	**45.04 325**	IAmb	IAmb	12 25 49.5	
	comp=Z,9.8nm,1.1s					
WIFE	**Three Sisters-**	**45.14 324**	IAmb	IAmb	12 26 04.7	
	comp=Z,22nm,1.6s					
I04A	**Tendick Farm,**	**45.33 323**	IAmb	IAmb	12 25 54.3	
	comp=Z,6.9nm,0.8s					
WAH2	**Wahluke Slope**	**45.61 328**	IAmb	IAmb	12 25 58.1	
	comp=Z,12nm,1.2s					
E07A	**Sunnyside**	**45.63 328**	IAmb	IAmb	12 26 01.1	
	comp=Z,9.9nm,0.8s					
VA03	**San Esteban**	**45.76 161**	P	**P**	**12 25 51.8**	**+1.4**
	comp=Z,19nm,0.9s					
MXC	**Moxie City**	**45.87 328**	IAmb	IAmb	12 26 00.1	
	comp=Z,15nm,1.1s					
SJPY	**San Joaquin**	**46.18 140**	*e*P	**P**	**12 25 51.8**	**-2.0**
BDFB	**Brasilia**	**46.19 124**	P	**P**	**12 25 54.1**	**-0.1**
	comp=Z,7.4nm,0.8s,baz=281,slow=5.9,SNR=7.9					
	comp=Z,7.4nm,0.8s					
BDFB	**Brasilia**	**46.19 124**	P	**P**	**12 25 55.5**	**+1.4**
CPUP	**Villa Florida**	**46.41 143**	P	**P**	**12 25 56.0**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=321,slow=9.0,SNR=6.7					
	comp=Z,0.4nm,0.3s					
CPUP	**Villa Florida**	**46.41 143**	*e*P	**P**	12 25 52.0	-3.6
LTY	**Liberty**	**46.51 328**	P	**P**	**12 25 57.3**	**+1.1**
LTY			IAmb	IAmb	12 26 25.5	
	comp=Z,18nm,1.7s					
MT08	**Bocatoma Ro**	**46.56 161**	P	**P**	**12 25 56.5**	**-0.4**
MT08			IAmb	IAmb	12 26 26.4	
	comp=Z,12nm,0.9s					
MT09	**Talagante**	**46.56 162**	P	**P**	**12 25 57.8**	**+1.0**
SCHQ	**Schefferville**	**46.76 16**	P	**P**	**12 25 54.5**	**-3.5**
	comp=Z,17nm,1.0s,baz=225,slow=7.9,SNR=6.5					
	comp=Z,17nm,1.0s					

SCHQ	**Schefferville**	**46.76 16**	P	**P**	**12 25 57.2**	**-0.7**
LON	**Longmire**	**46.79 327**	P	**P**	**12 25 58.4**	**+0.1**
PCMB	**Pacaembu**	**47.15 133**	*e*P	**P**	**12 25 59.8**	**-1.7**
SDBA	**SAO DESIDERIO**	**47.23 118**	*e*P	**P**	**12 26 02.0**	**-0.3**
BO02	**Sierra Bellavi**	**47.57 162**	P	**P**	**12 26 05.3**	**+0.8**
BO02			IAmb	IAmb	12 26 23.8	
	comp=Z,8.7nm,1.0s					
BO02	**Sierra Bellavi**	**47.57 162**	P	**P**	**12 26 06.3**	**+1.8**
	comp=Z,7.7nm,0.9s					
EDM	**Edmonton**	**47.63 338**	P	**P**	**12 26 05.9**	**+1.1**
GNW	**Green Mountain**	**47.84 327**	P	**P**	**12 26 07.2**	**+0.8**
GNW			IAmb	IAmb	12 26 09.8	
	comp=Z,12nm,1.2s					
NLWA	**Neilton Lookou**	**48.29 326**	P	**P**	**12 26 10.5**	**+0.5**
NLWA			IAmb	IAmb	12 26 15.4	
	comp=Z,16nm,1.1s					
B04A	**Port Angeles**	**48.50 327**	P	**P**	**12 26 12.5**	**+0.9**
B04A			IAmb	IAmb	12 26 16.7	
	comp=Z,6.2nm,0.9s					
BI02	**San Fabin de**	**49.18 164**	P	**P**	**12 26 19.2**	**+2.3**
	comp=Z,9.7nm,1.5s					
LLLB	**Lillooet**	**49.31 331**	P	**P**	**12 26 18.9**	**+1.1**
LLLB			IAmb	IAmb	12 26 23.4	
	comp=Z,10nm,1.0s					
ITQB	**Itaqui**	**49.34 145**	*e*P	**P**	**12 26 16.9**	**-1.3**
PSAL	**Palomas, Salto**	**49.89 147**	*e*P	**P**	**12 26 20.4**	**-1.9**
ITAB	**Concordia**	**50.28 139**	*e*P	**P**	**12 26 24.9**	**-0.5**
DIAM	**Diamantina, MG**	**51.12 124**	*e*P	**P**	**12 26 30.7**	**-1.4**
CPSB	**Cacapava Do Su**	**51.72 143**	P	**P**	**12 26 34.4**	**-1.8**
	comp=Z,15nm,1.0s					
CPSB	**Cacapava Do Su**	**51.72 143**	*e*P	**P**	**12 26 34.8**	**-1.4**
ARCA	**Araçuai, MG**	**51.82 121**	*e*P	**P**	**12 26 35.9**	**-1.3**
ANCO	**Parque Anchore**	**52.24 150**	*e*P	**P**	**12 26 37.3**	**-2.6**
PLCA	**Paso Flores**	**53.19 165**	P	**P**	**12 26 47.7**	**+0.7**
	comp=Z,3.0nm,1.0s,baz=332,slow=9.6,SNR=7.6					
	comp=Z,3.0nm,1.0s					
PLCA	**Paso Flores**	**53.19 165**	IAmb	IAmb	12 27 07.0	
	comp=Z,8.3nm,1.0s					
PLCA	**Paso Flores**	**53.19 165**	P	**P**	**12 26 46.6**	**-0.4**
	comp=Z,13nm,1.1s					
PLCA	**Paso Flores**	**53.19 165**	*e*P	**P**	**12 26 44.3**	**-2.7**
CMC01	**Camacan, BA**	**53.22 118**	*e*P	**P**	**12 26 47.4**	**-0.1**
BSFB	**Barra de Sao F**	**53.70 123**	P	**P**	**12 26 53.0**	**+1.9**
	comp=Z,9.0nm,1.9s					
BSFB	**Barra de Sao F**	**53.70 123**	*e*P	**P**	**12 26 49.2**	**-1.9**
YKA	**Yellowknife Ar**	**55.60 345**	P	**P**	**12 27 02.3**	**-1.9**
	comp=Z,2.3nm,0.9s,baz=132,slow=8.2,SNR=4.8					
	comp=Z,2.3nm,0.9s					
YKA	**Yellowknife Ar**	**55.60 345**	P	**P**	**12 27 05.0**	**+0.9**
TAOE	**Nuku Hiva Isla**	**56.78 252**	*e*S	S	12 34 59.2	-7.0
	comp=Z,385nm,24.9s					
TAOE			*e*LR	LR	12 43 40.1	
	comp=Z,789nm,22.3s					
DLBC	**Dease Lake**	**57.94 335**	LR	LR	12 56 39.3	
	comp=Z,346nm,18.3s,baz=105,slow=41					
M29M	**Somme Creek**	**63.64 336**	IAmb	IAmb	12 28 40.9	
	comp=Z,8.8nm,1.1s					
INK	**Inuvik**	**65.21 343**	IAmb	IAmb	12 28 14.1	
	comp=Z,15nm,1.6s					
G29M	**Pine Creek**	**65.81 340**	IAmb	IAmb	12 28 18.3	
	comp=Z,12nm,1.1s					
H27K	**Steamboat Moun**	**66.67 339**	IAmb	IAmb	12 28 29.5	
	comp=Z,13nm,1.4s					
F28M	**Old Crow**	**66.80 340**	IAmb	IAmb	12 28 24.5	
	comp=Z,8.9nm,1.2s					
ILAR	**Eielson Array**	**68.05 336**	P	**P**	**12 28 26.8**	**-1.2**
	comp=Z,4.3nm,1.1s,baz=112,slow=4.6,SNR=14					
	comp=Z,4.3nm,1.1s					
ILAR	**Eielson Array**	**68.05 336**	P	**P**	**12 28 28.0**	**0.0**
PPT	**Papeete**	**68.30 246**	LR	LR	12 49 58.9	
	comp=Z,441nm,18.8s,baz=60,slow=28					
PPT2	**Papeete2**	**68.31 246**	*e*P	**P**	**12 28 30.9**	**+0.4**
PPT2	comp=Z,42nm,23.5s		*e*S	**S**	**12 37 26.2**	**-4.9**
PPT2	comp=Z,209nm,23.8s		*e*SS	**SS**	**12 41 54.9**	**+0.1**
PPT2	comp=Z,83nm,30.0s		*e*LQ	LQ	12 45 38.7	
PPT2	comp=Z,251nm,29.5s		*e*LR	LR	12 49 00.8	
PPT2	comp=Z,548nm,25.0s		*e*LR	LR	12 49 06.6	
	comp=Z,970nm,25.8s					
BPAW	**Bear Paw Mtn.**	**69.47 335**	IAmb	IAmb	12 28 39.5	
	comp=Z,11nm,1.2s					
MLY	**Manley**	**69.68 336**	IAmb	IAmb	12 28 51.3	
	comp=Z,5.5nm,0.9s					
D25K	**Kavik River**	**69.72 341**	IAmb	IAmb	12 28 45.4	
	comp=Z,6.0nm,1.0s					
G23K	**Bananza Creek**	**69.97 338**	IAmb	IAmb	12 28 50.3	
	comp=Z,12nm,1.4s					
TBI	**Tubuai**	**70.21 240**	*e*S	S	12 37 47.3	-5.9
	comp=Z,1μm,29.8s					
TBI			*e*LR	LR	12 50 02.3	
	comp=Z,2μm,24.8s					
I21K	**Tanana**	**70.22 336**	IAmb	IAmb	12 28 44.8	
	comp=Z,14nm,1.3s					
G21K	**Allakaket**	**71.23 337**	IAmb	IAmb	12 28 53.0	
	comp=Z,12nm,1.2s					
J19K	**Poorman**	**71.40 334**	IAmb	IAmb	12 28 51.8	
	comp=Z,7.2nm,1.0s					
F21K	**Alatna River**	**71.43 338**	IAmb	IAmb	12 28 53.3	
	comp=Z,16nm,1.4s					
H19K	**Roundabout Mou**	**72.12 336**	IAmb	IAmb	12 28 56.7	
	comp=Z,8.2nm,0.9s					
G19K	**Purcell Mounta**	**72.52 336**	IAmb	IAmb	12 28 56.7	
	comp=Z,8.7nm,1.3s					
J17K	**VABM Dome**	**72.77 333**	IAmb	IAmb	12 29 00.9	
	comp=Z,14nm,1.2s					
H18K	**Honhosa Rier**	**72.82 335**	IAmb	IAmb	12 29 02.2	
	comp=Z,17nm,1.3s					
G18K	**Tagagawik**	**73.09 336**	IAmb	IAmb	12 29 02.0	
	comp=Z,12nm,1.2s					
MDT	**Midelt**	**77.55 59**	LR	LR	12 58 32.9	
	comp=Z,471nm,21.7s,baz=304,slow=32					
EKA	**Eskdalemuir Ar**	**77.56 36**	P	**P**	**12 29 22.0**	**-2.6**
	comp=Z,1.4nm,0.8s,baz=266,slow=5.5,SNR=1.7					
	comp=Z,1.4nm,0.8s					
ESDC	**Sonseca Array**	**77.58 52**	P	**P**	**12 29 22.7**	**-2.4**
	comp=Z,2.2nm,0.9s,baz=285,slow=5.6,SNR=8.6					
	comp=Z,2.2nm,0.9s					
DBIC	**Dimbokro**	**80.62 85**	P	**P**	**12 29 40.1**	**-2.1**
	comp=Z,5.1nm,0.9s,baz=280,slow=6.1,SNR=3.2					
	comp=Z,5.1nm,0.9s					
DBIC	**Dimbokro**	**80.62 85**	P	**P**	**12 29 41.6**	**-0.5**
DBIC			IAmb	IAmb	12 30 08.3	
	comp=Z,20nm,1.4s					
SPITS	**Spitsbergen Ar**	**82.29 12**	LR	LR	13 08 22.0	
	comp=Z,464nm,18.1s,baz=278,slow=37					
DAVOX	**Davos/Dischmat**	**86.67 43**	LR	LR	13 02 56.9	
	comp=Z,533nm,20.9s,baz=262,slow=32					
CLL	**Collm**	**87.66 38**	*e*SKSac	**SKSac**	**12 40 46.0**	**+1.5**
CLL			*e*S	**S**	**12 41 01.0**	**+2.5**
CLL			*e*PS		12 42 01.0	
CLL			*e*SS	SS	12 47 12.0	+28
CLL			L	L	12 58 00.0	
CLL			AMS	AMS	13 05 00.0	
	comp=Z,400nm,20.4s					
GERES	**GERESS Array B**	**88.71 41**	LR	LR	13 07 01.7	
	comp=Z,408nm,19.5s,baz=238,slow=34					
FINES	**FINESS Array B**	**91.18 26**	LR	LR	13 07 30.6	
	comp=Z,381nm,22.0s,baz=240,slow=33					
VAE	**Valguarnera**	**92.12 51**	LR	LR	13 09 36.2	
	comp=Z,365nm,19.0s,baz=259,slow=34					
TIXI	**Tiksi**	**94.59 349**	P	**P**	**12 30 49.4**	**+0.3**
TIXI			IAmb	IAmb	12 30 50.6	
	comp=Z,4.7nm,1.1s					
MLR	**Muntele Rosu**	**97.69 41**	LR	LR	13 12 09.1	
	comp=Z,448nm,20.3s,baz=0.0,slow=34					
MSVF	**Nonsavu**	**98.30 254**	LR	LR	13 05 44.4	
	comp=Z,391nm,20.0s,baz=165,slow=29					
BOSA	**Boshof**	**114.06 117**	PKP	PKPdf	12 36 09.1	+0.3
	comp=Z,4.5nm,0.9s,baz=280,slow=2.6,SNR=4.4					
ZALV	**Zalesovo Beam**	**115.25 6**	PKP	**PKiKP**	**12 36 10.2**	**0.0**
	comp=Z,0.5nm,0.5s,baz=336,slow=3.2,SNR=3.5					
KURK	**Kurchatov**	**117.55 11**		**PKPdf**	**12 36 14.3**	**-0.4**
KURBB	**Kurchatov Arra**	**117.62 11**	PKP	**PKPdf**	**12 36 14.3**	**-0.6**
	comp=Z,0.5nm,0.3s,baz=334,slow=2.0,SNR=1.9					
MKAR	**Makanchi Array**	**121.96 9**	PKP	**PKPdf**	**12 36 22.1**	**-1.3**
	comp=Z,0.2nm,0.5s,baz=2.7,slow=3.0,SNR=2.5					
KSRS	**Korea Array**	**122.30 328**	PKP	**PKPdf**	**12 36 24.4**	**+0.2**
	comp=Z,2.1nm,0.7s,baz=27,slow=1.6,SNR=5.0					
WMQ	**Urumqi**	**125.55 5**	*e*PKP	**PKPdf**	**12 36 31.9**	**+1.5**
WMQ			LR	LR		
	comp=Z,260nm,24.1s					
HHC	**Hu-ho-hao-te**	**126.13 343**	*e*P	**PKPdf**	**12 36 27.4**	**-4.3**
KSH2	**Kashi**	**127.74 18**	PKP	**PKPdf**	**12 36 35.6**	**+0.7**
STKA	**Stephens Creek**	**130.91 237**	PKP	**PKPdf**	**12 36 42.2**	**+1.4**
	comp=Z,1.1nm,0.5s,baz=98,slow=2.0,SNR=3.3					
NJ2	**Nanjing**	**131.11 331**	*e*P	**PKPdf**	**12 36 40.6**	**-0.6**
NJ2			pmax	pmax		
	comp=Z,14nm,0.5s					
GOMU	**GeErMu**	**133.41 359**	PKP	**PKPdf**	**12 36 45.9**	**-0.1**
ASAR	**Alice Springs**	**139.42 246**	PKhKP	PKPpre	12 36 49.5	
	comp=Z,0.7nm,0.7s,baz=110,slow=2.2,SNR=6.5					
ASAR			PKP	**PKPdf**	**12 36 57.0**	**0.0**
	comp=Z,1.0nm,0.6s,baz=106,slow=1.9,SNR=15					
WRA	**Warramunga Arr**	**139.62 252**	PKhKP	PKPpre	12 36 48.1	
	comp=Z,0.7nm,0.9s,baz=110,slow=2.7,SNR=5.5					
WRA			PKP	**PKPdf**	**12 36 57.6**	**+0.2**
	comp=Z,1.2nm,0.6s,baz=94,slow=2.6,SNR=9.2					
WRA	**Warramunga Arr**	**139.62 252**		**PKPdf**	**12 36 56.2**	**-1.2**
KNRA	**Kununurra**	**145.32 258**	PKPbc	**PKPbc**	**12 37 06.9**	**-0.4**
MORE	**Moreh**	**145.34 359**	PKPbc	**PKPbc**	**12 37 07.0**	**-0.1**
SLVN	**Son La**	**146.63 342**	PKPdf	**PKPdf**	**12 37 09.1**	**-0.8**
CMAR	**Chiang Mai Arr**	**150.60 349**	PKP	**PKPdf**	**12 37 15.8**	**-0.4**
	comp=Z,0.7nm,0.4s,baz=33,slow=2.0,SNR=1.9					
CMAR			PKPbc	**sPKPdf**	**12 37 21.8**	**-2.2**
	comp=Z,5.1nm,1.0s,baz=310,slow=2.1,SNR=8.4					

KRSC 02 12:24:09.4±1.4, 49°.40N×158°.75E, h42km±25km, MI3.9, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**2.13**	**308**	*e*P		Pn 12 24 43.6	+1.1
SKR				*e*S		Sn 12 25 08.7	+1.0
PAU	**Pauzhetka**	**2.42**	**330**	*e*P		Pn 12 24 49.5	+3.1
PAU				*e*S		Sn 12 25 18.2	+3.5
KDTR	**Khodutka, Kamc**	**2.46**	**350**	*e*P		Pn 12 24 50.0	+3.1
KDTR				*e*S		Sn 12 25 18.6	+2.9
ASAK	**Asacha**	**3.04**	**350**	*e*P		Pn 12 24 59.1	+4.1
RUS	**Russkaya**	**3.05**	**357**	*e*P		Pn 12 24 58.5	+3.5
RUS				*e*S		Sn 12 25 34.1	+3.9
MTVR	**Mutnovka**	**3.11**	**354**	*e*P		Pn 12 24 59.9	+3.8
MTVR				*e*S		Sn 12 25 36.0	+3.9
MIPR	**Malaya Ipel'ka**	**3.15**	**337**	*e*P		Pn 12 25 00.7	+4.2
MIPR				*e*S		Sn 12 25 38.7	+5.9
GRL	**Gorelyy**	**3.19**	**353**	*e*P		Pn 12 25 01.3	+4.2
KRMR	**Karymshinskiy**	**3.46**	**354**	*e*P		Pn 12 25 04.7	+4.0
KRMR				*e*S		Sn 12 25 45.9	+5.4
PET	**Petropavlovsk**	**3.63**	**359**	*e*P		Pn 12 25 06.2	+3.1
PET				*e*S		Sn 12 25 48.3	+3.6
DALK	**Dalny**	**3.64**	**0**	*e*P		Pn 12 25 07.0	+3.9
INSR	**Institute**	**3.68**	**359**	*e*P		Pn 12 25 07.5	+3.8
SPN	**Mys Shipunski**	**3.79**	**12**	*e*P		Pn 12 25 10.2	+5.0
SPN				*e*S		Sn 12 25 54.4	+5.8
UGLR	**Uglovaya**	**3.82**	**1**	*e*P		Pn 12 25 09.8	+4.0
SMAR	**Somma**	**3.87**	**0**	*e*P		Pn 12 25 10.3	+3.7
AVH	**Avacha**	**3.88**	**360**	*e*P		Pn 12 25 10.8	+4.3
SDLR	**Sedlovina**	**3.89**	**1**	*e*P		Pn 12 25 10.2	+3.5
KOK	**Koryaka**	**3.90**	**359**	*e*P		Pn 12 25 11.5	+4.6
KRER	**Koryakskii**	**3.92**	**360**	*e*P		Pn 12 25 10.9	+3.8
KRX	**Arik**	**3.97**	**359**	*e*P		Pn 12 25 12.0	+4.1
GNL	**Ganaly**	**4.34**	**354**	*e*P		Pn 12 25 17.6	+4.7
KZV	**Kizimen**	**5.80**	**9**	*e*P		Pn 12 25 38.3	+5.3
TUMD	**Tumrok D**	**5.91**	**9**	*e*P		Pn 12 25 38.7	+4.4
KBTR	**Krutoberegovo**	**7.25**	**18**	*e*P		Pn 12 25 56.9	+4.2

ISK ***02*** *12:30:39.9, 37°.83N×26°.71E, h9km, ML3.8/26*
NEIC ***02*** *12:30:39.9±1.6, 38°.04N±0°.05×26°.73E±0°.03, h10km±1km, mb4.4/25, Error ellipse: s-maj=8.2km s-min=4.0km az=346.0*
IDC ***02*** *12:30:40.1±1.2, 38°.34N×26°.48E, h0km, mb3.9/5, mbtmp3.8/8, ML3.7/2, MS3.5/2, Error ellipse: s-maj=29.4km s-min=11.9km az=143.0*
AFAD ***02*** *12:30:40.6, 37°.85N×26°.73E, h7km±1km, MW3.6*
THE ***02*** *12:30:40.5, 38°N±1°×2°7E±1°, h4km±3km, M3.5/10, MLh3.5/10*
ATH ***02*** *12:30:40.1, 37°.86N×26°.73E, h

APE					AML	AML			
APE	**Apeiranthos**	**1.24**	**231**		Pn	**Pn**	**12 31 02.9**	**-0.4**	
APE					AML	AML			
APE	**Apeiranthos**	**1.24**	**231**		P	**Pn**	**12 31 02.9**	**-0.4**	
APE					S	**Sn**	**12 31 20.2**	**+0.2**	
APE					AML	AML			
GOMA	**Golmarmara-Man**	**1.26**	**47**		Pn	**Pg**	**12 31 05.0**	**+0.7**	
GOMA					AML	AML			
TNSA	**Tinos**	**1.28**	**256**		P	**Pn**	**12 31 02.6**	**-1.3**	
TNSA					S	**Sb**	**12 31 19.4**	**-1.3**	
TNSA					AML	AML			
DAT	**Datca**	**1.32**	**149**		Pn	**Pb**	**12 31 05.1**	**+0.3**	
DAT					AML	AML			
AKS	**Akhisar**	**1.33**	**40**		Pn	**Pg**	**12 31 05.9**	**+0.3**	
AKS					AML	AML			
ASTA	**Astypalaia**	**1.35**	**193**		P	**Pn**	**12 31 05.1**	**+0.4**	
ASTA					S	**Sg**	**12 31 23.4**	**-0.1**	
ASTA					AML	AML			
PRK	**Paraskevi**	**1.43**	**346**		P	**Pn**	**12 31 06.4**	**+0.5**	
PRK					S	**Sg**	**12 31 26.1**	**-0.1**	
PRK					AML	AML			
PRK	**Paraskevi**	**1.43**	**346**		P	**Pn**	**12 31 05.9**	**0.0**	
PRK					S	**Sn**	**12 31 25.0**	**+0.4**	
YER	**Yerkesik**	**1.43**	**120**		P	**Pn**	**12 31 06.6**	**+0.6**	
YER	**Yerkesik**	**1.43**	**120**		Pn	**Pb**	**12 31 06.7**	**-0.1**	
YER					AML	AML			
SOMA	**Soma-Manisa**	**1.44**	**26**		Pn	**Pg**	**12 31 07.8**	**0.0**	
SOMA					AML	AML			
GORD	**Gordes-Manisa**	**1.54**	**47**		Pn	**Pb**	**12 31 09.1**	**+0.4**	
GORD					AML	AML			
MANT	**Manisa**	**1.57**	**66**		Pn	**Pn**	**12 31 08.0**	**0.0**	
TURN	**Turunc**	**1.62**	**131**		Pn	**Pn**	**12 31 08.8**	**+0.3**	
TURN					AML	AML			
THR8	**Santorini-Mono**	**1.76**	**215**		P	**Pn**	**12 31 10.1**	**-0.4**	
YAYO	**Edremit-Balk**	**1.77**	**9**		Pn	**Pn**	**12 31 11.8**	**+1.2**	
YAYO					AML	AML			
THR3	**Thira Island,**	**1.80**	**217**		P	**Pn**	**12 31 10.5**	**-0.4**	
SAP3	**Santorini-Thir**	**1.80**	**218**		P	**Pn**	**12 31 11.2**	**+0.1**	
THR5	**Thira Island,**	**1.82**	**218**		P	**Pn**	**12 31 10.6**	**-0.6**	
KARY	**Karystos**	**1.82**	**276**		P	**Pn**	**12 31 11.3**	**+0.1**	
KARY	**Karystos**	**1.82**	**276**		P	**Pn**	**12 31 11.4**	**+0.1**	
THR6	**Thira Island,**	**1.84**	**216**		P	**Pn**	**12 31 11.3**	**-0.3**	
EZNE	**Ezine-Canakkal**	**1.91**	**352**		Pn	**Pn**	**12 31 14.0**	**+1.5**	
ARG	**Arkhangelos**	**1.98**	**145**		P	**Pn**	**12 31 14.1**	**+0.6**	
ARG					AML	AML			
ARG	**Arkhangelos**	**1.98**	**145**		Pn	**Pn**	**12 31 14.1**	**+0.6**	
ARG	**Arkhangelos**	**1.98**	**145**		P	**Pn**	**12 31 13.9**	**+0.4**	
ARG					AML	AML			
BALB	**Balikesir**	**1.99**	**26**		Pn	**Pn**	**12 31 11.5**	**-2.1**	
BALB	**Balikesir**	**1.99**	**26**		Pn	**Pb**	**12 31 15.6**	**-0.7**	
BALB					AML	AML			
SKY	**Skiros Island**	**1.99**	**301**		P	**Pn**	**12 31 13.7**	**0.0**	
SKY					AML	AML			
MILOS	**Milos**	**2.15**	**239**		P	**Pn**	**12 31 16.5**	**+0.7**	
MILOS					AML	AML			
MHLO	**Agia Marina, M**	**2.19**	**239**		P	**Pn**	**12 31 16.8**	**+0.4**	
DION	**Dionisos Attik**	**2.22**	**276**		P	**Pn**	**12 31 17.3**	**+0.5**	
DION					AML	AML			
DION	**Dionisos Attik**	**2.22**	**276**		P	**Pn**	**12 31 17.1**	**+0.3**	
DION					AML	AML			
PTL	**Penteli**	**2.27**	**276**		P	**Pn**	**12 31 18.1**	**+0.6**	
PTL					AML	AML			
PTL	**Penteli**	**2.27**	**276**		P	**Pn**	**12 31 17.7**	**+0.2**	
PTL					AML	AML			
VLY	**Voula,Athens**	**2.33**	**271**		P	**Pn**	**12 31 18.9**	**+0.7**	
VLY					AML	AML			
VLY	**Voula,Athens**	**2.33**	**271**		P	**Pn**	**12 31 18.5**	**+0.3**	
VLY					AML	AML			
ATHU	**Athens Univers**	**2.33**	**274**		P	**Pn**	**12 31 18.3**	**0.0**	
KARP	**Karpathos**	**2.33**	**171**		Pn	**Pn**	**12 31 19.8**	**+1.4**	
KARP	**Karpathos**	**2.33**	**171**		P	**Pn**	**12 31 19.0**	**+0.7**	
LIA	**Limnos Island**	**2.37**	**330**		P	**Pn**	**12 31 19.7**	**+0.9**	
LIA	**Limnos Island**	**2.37**	**330**		P	**Pn**	**12 31 18.7**	**-0.1**	
LIA					AML	AML			
AOS2	**Alonissos-2**	**2.60**	**300**		P	**Pn**	**12 31 22.9**	**+0.8**	
AOS2					AML	AML			
MET4	**Agioi Theodoro**	**2.65**	**266**		P	**Pn**	**12 31 23.0**	**+0.3**	
MET5	**Makryloggos,Me**	**2.69**	**266**		P	**Pn**	**12 31 23.4**	**+0.3**	
MET6	**Megalochori,Me**	**2.69**	**265**		P	**Pn**	**12 31 23.8**	**+0.5**	
MET2	**Kameni Chora,**	**2.71**	**266**		P	**Pn**	**12 31 23.6**	**+0.1**	
VIL2	**Platees**	**2.76**	**278**		P	**Pn**	**12 31 23.5**	**-0.7**	
ELL	**Elmali**	**2.77**	**113**		Pn	**Pn**	**12 31 25.1**	**+0.7**	
ELL	**Elmali**	**2.77**	**113**		P	**Pn**	**12 31 24.2**	**-0.2**	
ELL					AML	AML			
SMTH	**Samothraki Isl**	**2.77**	**341**		P	**Pn**	**12 31 24.8**	**+0.4**	
SMTH					AML	AML			
ZKR	**Zakros**	**2.77**	**189**		P	**Pn**	**12 31 25.0**	**+0.6**	
MET3	**Ano Fanari,Met**	**2.79**	**265**		P	**Pn**	**12 31 24.8**	**+0.2**	
AKAS	**Kas**	**2.81**	**124**			**Pn**	**12 31 25.6**	**+0.5**	
IDI	**Anoyia**	**2.96**	**211**		Pn	**Pb**	**12 31 34.4**	**+1.5**	
	12nm,0.3s,baz=27,slow=14,SNR=0.9								
IDI					Sn	**Sg**	**12 32 14.0**	**-1.4**	
	8.2nm,0.3s,baz=312,slow=15,SNR=3.7								
IDI	**Anoyia**	**2.96**	**211**			**Pn**	**12 31 28.6**	**+1.6**	
LTK	**Loutraki**	**2.98**	**274**		P	**Pn**	**12 31 27.7**	**+0.5**	
LTK					AML	AML			
ALN	**Alexandroupoli**	**3.08**	**350**			**Pn**	**12 31 24.7**	**-3.8**	
ITM	**Ithomi**	**3.88**	**261**			**Pn**	**12 31 40.1**	**+0.5**	
MDUB	**Mudurnu**	**4.34**	**52**		Pn	**Pn**	**12 31 44.7**	**-1.4**	
BRTR	**Keskin Array B**	**5.71**	**69**		Pn	**Pn**	**12 32 07.2**	**+2.3**	
	0.6nm,0.3s,baz=257,slow=13,SNR=18								
BRTR					Lg	Lg	12 33 45.4		
	baz=220,slow=44								
	1.1nm,0.3s								
BRTR					AML	AML			
BRTR	**Keskin Array B**	**5.71**	**69**			**Pn**	**12 32 03.7**	**-1.1**	
BR131	**Keskin Array S**	**5.71**	**69**			**Pn**	**12 32 03.3**	**-1.6**	
CSS	**Mathiatis**	**6.06**	**117**		Pn	**Pn**	**12 32 10.4**	**+0.9**	
TIRR	**Tirgusor**	**6.71**	**10**		Pn	**Pn**	**12 32 16.4**	**-2.1**	
BNN	**Bunyan**	**7.23**	**79**		Pn	**Pn**	**12 32 25.0**	**-0.7**	
MLR	**Muntele Rosu**	**7.65**	**356**		LR	LR	12 35 00.1		
	comp=Z,79nm,18.4s,baz=0.0,slow=36								
MLR	**Muntele Rosu**	**7.65**	**356**		Pn	**Pn**	**12 32 28.1**	**-3.3**	
TIP	**Timpagrande**	**7.93**	**283**			**Pn**	**12 32 34.2**	**-1.1**	
TOKA	**Tokat**	**7.97**	**69**		Pn	**Pn**	**12 32 33.5**	**-2.3**	
MMAI	**Mount Meron Ar**	**8.57**	**122**		Pn	Pn	12 32 51.4	+7.4	
	2.9nm,0.3s,baz=314,slow=12,SNR=2.1								
	1.9nm,0.4s								
MMAI					AML	AML			
CUC	**Castrocucco**	**8.77**	**287**		Pn	**Pn**	**12 32 45.9**	**-0.9**	
BURAR	**Bucovina Array**	**9.81**	**354**		Pn	**Pn**	**12 32 57.5**	**-3.6**	
BUR08	**Bucovina Ar. S**	**9.84**	**354**		Pn	**Pn**	**12 32 58.9**	**-2.6**	
WDD	**Wied Dalam**	**9.99**	**262**		Pn	**Pn**	**12 33 03.6**	**+0.2**	
NRCA	**Norcia**	**11.51**	**300**		Pn	**Pn**	**12 33 22.6**	**-1.7**	
ARSA	**Arzberg**	**12.49**	**322**		Pn	**Pn**	**12 33 34.4**	**-3.2**	
SABO	**M.te Sabotino**	**12.69**	**314**		Pn	**Pn**	**12 33 37.1**	**-3.3**	
PRED	**Cave del Predi**	**12.98**	**315**		Pn	**Pn**	**12 33 41.1**	**-3.3**	
STAL	**STALIGIAL**	**13.36**	**313**		Pn	**Pn**	**12 33 46.4**	**-3.2**	
TEOL	**Teolo**	**13.52**	**308**		Pn	**Pn**	**12 33 48.9**	**-2.8**	
KEST	**Kesra**	**14.10**	**267**		Pn	**Pn**	**12 33 58.4**	**-1.3**	
KHC	**Kasperske Hory**	**14.74**	**324**		Pn	**Pn**	**12 34 06.5**	**-1.9**	
FUORN	**Ofenpass-Fuorn**	**14.99**	**311**		Pn	**Pn**	**12 34 10.7**	**-1.3**	
TUE	**Stuetta**	**15.47**	**309**		Pn	**Pn**	**12 34 16.1**	**-2.2**	
GRA1	**Grafenberg Arr**	**16.25**	**322**		Pn	**Pn**	**12 34 25.4**	**-2.8**	
GRA1					IAmb	IAmb	12 34 35.5		
	comp=Z,9.7nm,0.8s								
CLL	**Collm**	**16.59**	**329**	*e*(PP)		**P**	**12 34 38.0**	**+3.2**	
CLL					L	L	12 41 00.0		
CART	**Cartagena**	**21.91**	**278**		P	**P**	**12 35 33.0**	**-0.2**	
CART					IAmb	IAmb	12 35 34.8		
	comp=Z,6.3nm,0.5s								
MD31	**MD31**	**26.09**	**269**		P	**P**	**12 36 13.4**	**-0.4**	
MD31					IAmb	IAmb	12 36 21.5		
	comp=Z,5.2nm,1.3s								
AB31	**Akbulak array**	**26.42**	**54**		P	**P**	**12 36 15.0**	**-1.4**	
PFVI	**Vila Bisbo**	**28.12**	**280**		P	**P**	**12 36 31.4**	**-0.5**	
UOSS	**Minazif**	**28.13**	**109**		P	**P**	**12 36 31.9**	**-0.2**	
UOSS					IAmb	IAmb	12 36 40.3		
	comp=Z,12nm,1.4s								
TORD	**Torodi Ar. Bea**	**33.21**	**229**		P	**P**	**12 37 18.7**	**+1.7**	
	comp=Z,0.6nm,0.4s,baz=34,slow=9.2,SNR=3.1								
	comp=Z,0.6nm,0.4s								
KBL	**Kabul**	**34.09**	**82**		P	**P**	**12 37 25.0**	**+0.2**	
KBL					IAmb	IAmb	12 37 35.0		
	comp=Z,3.9nm,0.5s								
BOOM	**Boomskoye usch**	**37.46**	**67**		P	**P**	**12 37 52.7**	**-0.8**	
KURBB	**Kurchatov Arra**	**38.47**	**54**		P	**P**	**12 38 02.9**	**+1.1**	
	comp=Z,0.6nm,0.2s,baz=273,slow=8.2,SNR=3.0								
	comp=Z,0.6nm,0.2s								
KURK	**Kurchatov**	**38.53**	**53**		P	**P**	**12 38 02.0**	**-0.2**	
KURK					IAmb	IAmb	12 38 13.4		
	comp=Z,3.2nm,1.2s								
TARG	**Taragay, Kyrgy**	**38.97**	**68**		P	**P**	**12 38 05.4**	**-1.1**	
CMLA	**Cha da Macela**	**40.83**	**287**		P	**P**	**12 38 22.0**	**+0.5**	
MK31	**Makanchi Array**	**41.27**	**59**		P	**P**	**12 38 23.4**	**-1.8**	
MKAR	**Makanchi Array**	**41.27**	**59**		P	**P**	**12 38 26.8**	**+1.7**	
	comp=Z,0.7nm,0.6s,baz=289,slow=6.4,SNR=7.9								
	comp=Z,0.7nm,0.6s								
MKAR	**Makanchi Array**	**41.27**	**59**		P	**P**	**12 38 24.5**	**-0.6**	
ZALV	**Zalesovo Beam**	**42.24**	**48**		P	**P**	**12 38 33.7**	**+0.7**	
	comp=Z,0.5nm,0.5s,baz=280,slow=8.3,SNR=3.7								
	comp=Z,0.5nm,0.5s								
ZALV	**Zalesovo Beam**	**42.24**	**48**		P	**P**	**12 38 32.6**	**-0.4**	
DBIC	**Dimbokro**	**42.25**	**231**		P	**P**	**12 38 36.2**	**+2.8**	
	comp=Z,1.1nm,0.3s,baz=45,slow=9.8,SNR=4.6								
	comp=Z,1.1nm,0.3s								
DBIC	**Dimbokro**	**42.25**	**231**		P	**P**	**12 38 34.8**	**+1.4**	
DBIC					IAmb	IAmb	12 39 01.5		
	comp=Z,22nm,1.5s								
EVN	**Everest**	**50.64**	**83**		P	**P**	**12 39 39.6**	**-0.4**	
EVN					IAmb	IAmb	12 39 41.3		
	comp=Z,6.2nm,1.5s								
ILULI	**Ilulissat**	**50.92**	**333**		P	**P**	**12 39 39.6**	**-1.1**	
KDWAN	**Kaudwane**	**60.95**	**182**		P	**P**	**12 40 54.9**	**+1.8**	
SHEL	**Horse Pasture**	**61.62**	**216**		P	**P**	**12 40 59.0**	**+1.2**	
YAK	**Yakutsk**	**62.91**	**31**		P	**P**	**12 41 05.8**	**0.0**	
D22K	**Ayikyak River**	**73.58**	**360**		P	**P**	**12 42 12.8**	**+0.2**	
D22K					IAmb	IAmb	12 42 31.1		
	comp=Z,9.2nm,1.3s								
F30M	**Barrier River**	**74.02**	**353**		P	**P**	**12 42 14.2**	**-1.0**	
IPM	**Ipoh**	**74.87**	**96**		P	**P**	**12 42 20.2**	**-0.8**	
E19K	**Redstone River**	**74.96**	**2**		P	**P**	**12 42 19.6**	**-1.1**	
E19K					IAmb	IAmb	12 42 22.7		
	comp=Z,9.9nm,1.3s								
I30M	**Mount Dempster**	**76.40**	**353**		P	**P**	**12 42 28.5**	**-0.7**	
I30M					IAmb	IAmb	12 42 31.0		
	comp=Z,2.2nm,1.0s								
IMAR	**Indian Mountai**	**76.48**	**0**		P	**P**	**12 42 29.1**	**-0.3**	
MCK	**McKinley**	**78.69**	**358**		P	**P**	**12 42 41.7**	**-0.1**	
MCK					IAmb	IAmb	12 42 52.0		
	comp=Z,7.1nm,1.4s								
BCAR	**Beaver Creek A**	**79.00**	**355**		P	**P**	**12 42 43.6**	**0.0**	
DAV	**Davao City (W)**	**92.64**	**79**		LR	LR	13 31 25.2		
	comp=Z,94nm,21.1s,baz=74,slow=39								

HEL 02 12:31:43.7±0.1, 63.97N×28.10E, h0km, ML2.0, Suspected explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
NIF	**Nilsia**	**0.60**	**193**	PG		Pg	12 31 54.6	-0.5
NIF				SG		Sg	12 32 02.4	-0.4
NIF				MSG			12 32 02.6	
	comp=Z,17nm,0.2s							
RMF	**Romuvaara**	**0.84**	**72**	PG		Pg	12 31 59.5	-0.4
RMF				MSG			12 32 09.9	
	comp=Z,33nm,0.2s							
RMF				SG		Sg	12 32 10.1	-0.6
OUL	**Oulu**	**1.47**	**321**	PG		Pn	12 32 10.4	-1.0
OUL				SN		Sg	12 32 29.9	-1.0
OUF	**Merijarvi**	**1.53**	**287**	PG		Pn	12 32 11.2	-1.0
OUF				MSG			12 32 29.6	
	comp=Z,8.8nm,0.2s							
OUF				SN		Sg	12 32 31.6	-1.1
SUF	**Sumiainen**	**1.53**	**216**	*e*P		Pn	12 32 11.6	-0.6
SUF	**Sumiainen**	**1.53**	**216**	PN		Pn	12 32 11.5	-0.7
	baz=32							
SUF				MSG			12 32 29.6	
	comp=Z,7.1nm,0.2s							
OBF4	**Vikkela, Lumij**	**1.55**	**304**	PG		Pn	12 32 12.1	-0.4
OBF4				MSG			12 32 30.4	
	comp=Z,12nm,0.2s							
OBF4				SN		Sg	12 32 34.9	+1.3
KU1	**Kurvinen**	**1.72**	**21**	PG		Pn	12 32 14.5	-0.3
	baz=204							
KU1				SN		Sn	12 32 37.4	-0.1
KU2	**Taivalkoski**	**1.75**	**2**	PG		Pn	12 32 14.9	-0.3
KU2				SG		Sg	12 32 39.6	-0.2
OBF0	**Syolatti, Pyha**	**1.77**	**289**	PG		Pn	12 32 15.5	0.0
OBF0				MSG			12 32 36.6	
	comp=Z,13nm,0.2s							
OBF0				SG		Sn	12 32 38.7	0.0
JOF	**Joensuu**	**1.79**	**125**	*e*P		Pn	12 32 16.3	+0.5
JOF	**Joensuu**	**1.79**	**125**	PG		Pn	12 32 15.8	0.0
	baz=311							
JOF				SN		Sn	12 32 39.0	-0.2
MSF	**Maaselka**	**1.99**	**11**	PG		Pn	12 32 18.7	+0.2
	baz=194							
MSF				SG		Sn	12 32 44.6	+0.5
KAF	**Kangasniemi**	**2.04**	**204**	PG		Pn	12 32 20.0	+0.8
	baz=20							
KAF				MSG			12 32 44.1	
	comp=Z,13nm,0.2s							
KAF				SG		Sb	12 32 46.6	-0.8
OBF8	**Ulkokalla**	**2.07**	**282**	PG		Pn	12 32 20.8	+1.1
OBF8				MSG			12 32 45.1	
	comp=Z,11nm,0.2s							
RANF	**Ranua**	**2.13**	**345**	PG		Pn	12 32 21.4	+1.0
	baz=167							
RANF				SG		Sb	12 32 48.8	-1.2
KU6	**Riekki**	**2.20**	**19**	PG		Pn	12 32 22.7	+1.2
	baz=197							
KU6				MSG			12 32 48.8	
	comp=Z,4.0nm,0.2s							
KU6				SB		Sn	12 32 50.3	+1.0
KEF	**Keuruu**	**2.33**	**221**	*e*P		Pn	12 32 24.6	+1.4
KEF	**Keuruu**	**2.33**	**221**	PG		Pn	12 32 24.8	+1.6
KEF				MSG			12 32 52.6	
	comp=Z,14nm,0.2s							
KEF				SG		Sb	12 32 55.1	-0.8
OLKF	**Oulanka, Finla**	**2.42**	**13**	PB		Pn	12 32 26.3	+1.8
	baz=197							
OLKF				MSG			12 32 55.2	
	comp=Z,10nm,0.2s							
OLKF				SB		Sb	12 32 57.0	-1.5
RUF	**Ruokolahti**	**2.59**	**171**	PG		Pn	12 32 28.8	+2.1
	baz=347							
RUF				MSG			12 32 59.9	
	comp=Z,9.3nm,0.2s							
RUF				SG		Sb	12 33 02.2	-1.0
VAF	**Ylistaro**	**2.61**	**251**	*e*P		Pn	12 32 28.9	+1.9
VAF	**Ylistaro**	**2.61**	**251**	PG		Pn	12 32 28.9	+1.9
	baz=71							
VAF				MSG			12 33 00.7	
	comp=Z,6.8nm,0.2s							
VAF				SG		Sb	12 33 03.0	-0.7
TOF	**Tornio**	**2.66**	**325**	PN		Pn	12 32 28.1	+0.4
TOF				SN		Sn	12 33 00.3	-0.2
TOF				MSG			12 33 02.0	
	comp=Z,2.8nm,0.2s							
RNF	**Rovaniemi**	**2.79**	**343**	PB		Pn	12 32 31.1	+1.5
RNF				SB		Sb	12 33 07.8	-1.2
RNF	**Rovaniemi**	**2.79**	**343**	PB		Sb	12 33 07.8	-1.2
BURU	**Burvik**	**3.00**	**285**	PN		Pn	12 32 32.3	-0.1
	baz=102							
BURU				SG		Sb	12 33 15.5	+0.6
BURU	**Burvik**	**3.00**	**285**	PN		Sb	12 33 15.5	+0.6
UMAU	**Umeaa**	**3.28**	**272**	PN		Pn	12 32 35.6	-0.6
VJF	**Virojoki**	**3.46**	**184**	SG		Sb	12 33 27.2	-0.9
KPF	**Kankaanpaa**	**3.49**	**235**	PB		Pn	12 32 41.2	+2.0
ERTU	**Ertsjaerv**	**3.59**	**319**	PN		Pn	12 32 41.4	+0.9
ERTU				SN		Sn	12 33 24.4	+0.8
KLF	**Kolari**	**3.70**	**334**	PN		Pn	12 32 42.6	+0.5
PAJU	**Pajala**	**3.70**	**328**	PN		Pn	12 32 42.8	+0.7
VRF	**Varrio**	**3.84**	**9**	PN		Pn	12 32 42.5	-1.7
LAUT	**Lauttasaari He**	**4.12**	**203**	SB		Sb	12 33 45.7	-1.7
MEF	**Metsahovi**	**4.15**	**206**	*e*P		Pn	12 32 49.5	+1.3
RAJF	**Raja-Jooseppi**	**4.53**	**1**	PN		Pn	12 32 54.4	+1.1
RAJF				SN		Sn	12 33 46.4	-0.2
HEMU	**Hemsoen**	**4.72**	**259**	PN		Pn	12 32 56.1	+0.1

HEL 02 12:32:25.0±0.4, 67.82N×20.37E, h0km, ML1.3, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
LANU	**Lannavaara**	**0.66**	**69**	PG		Pg	12 32 37.2	-0.3
LANU				SG		Sg	12 32 45.4	-0.6
PAJU	**Pajala**	**1.33**	**126**	PG		Pg	12 32 49.0	-1.5
	baz=307							
PAJU				SN		Sb	12 33 08.3	0.0
HEF	**Hetta**	**1.37**	**63**	PG		Pg	12 32 49.2	-1.9
HEF				MSG			12 33 06.2	
	comp=Z,1.9nm,0.2s							
HEF				SG		Sg	12 33 08.2	-0.7
ERTU	**Ertsjaerv**	**1.46**	**150**	PN		Pn	12 32 52.6	+0.1
ERTU				SN		Sn	12 33 12.8	+0.5
KLF	**Kolari**	**1.50**	**111**	PG		Pn	12 32 51.8	-1.4
KLF				MSG			12 33 10.1	
	comp=Z,2.0nm,0.2s							
KLF				SN		Sn	12 33 14.1	+0.7
KTK1	**Kautokeino**	**1.60**	**40**	PG		Pn	12 32 53.5	-1.0
KTK1				SN		Sn	12 33 15.9	+0.1
TRO	**Tromso**	**1.89**	**345**	SG		Sn	12 33 23.2	+0.2
TOF	**Tornio**	**2.34**	**136**	PN		Pn	12 33 03.9	-0.7
TOF				MSG			12 33 34.5	
	comp=Z,1.3nm,0.2s							
RNF	**Rovaniemi**	**2.51**	**116**	SG		Sb	12 33 43.4	+1.0
ARA0	**ARCESS Array S**	**2.55**	**45**	PB		Pn	12 33 08.9	+1.4
ARA0				SB		Sn	12 33 41.1	+1.9
KEV	**Kevo**	**3.10**	**48**	SN		Sn	12 33 53.1	+0.4
UMAU	**Umeaa**	**3.96**	**178**	PG		Pb	12 33 35.0	-0.5
	baz=359							

JSO 02 12:47:32.6±0.8, 30.1N±4.4×3.6E±.1, h10km, M2.4/9, MLv2.4/9 GII 02 12:47:21.6±0.0, 29.582N±0.003×36.412E±0.001, h0km, confirmed, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
HSNJ	**Maan**	**0.92**	**317**	P		Pg	12 47 38.5	-0.7
HSNJ				AML		AML		
AQBJ	**Aqaba**	**1.20**	**277**	P		Pn	12 47 46.8	+1.2
AQBJ				AML		AML		
EIL	**Elat**	**1.27**	**274**	P		Pn	12 47 48.3	+1.6
EIL				AML		AML		
EIL	**Elat**	**1.27**	**274**	P		Pn	12 47 46.6	-0.1
EIL				S		Sn	12 48 05.1	+0.6
HRFI	**Mount Harif**	**1.28**	**291**	P		Pn	12 47 47.1	+0.4
HRFI				AML		AML		
HRFI	**Mount Harif**	**1.28**	**291**	P		Pb	12 47 46.4	-0.2
HRFI				S		Sn	12 48 05.1	+0.5
PRNI	**Paran**	**1.44**	**302**	P		Pn	12 47 48.7	-0.3
PRNI				AML		AML		
IDAN	**Idan**	**1.59**	**322**	P		Pn	12 47 50.2	-0.8
IDAN				S		Sg	12 48 12.6	-0.1
RMNI	**Mount Ramon**	**1.75**	**306**	P		Pn	12 47 53.5	+0.2
RMNI				S		Sb	12 48 16.9	-0.3
LISJ	**El Lisan**	**1.84**	**334**	P		Pg	12 47 57.3	+0.5
LISJ				AML		AML		
MSBI	**Mazada**	**1.95**	**332**	P		Pn	12 47 55.8	-0.1
MSBI				S		Sn	12 48 21.2	+0.2
KZIT	**Kziot**	**2.19**	**308**	P		Pn	12 47 59.7	+0.5
KZIT				S		Sn	12 48 27.7	+0.7
ASF	**Jabal al Asfar**	**2.61**	**8**	P		Pg	12 48 13.0	+1.3

TAP 02 13:10:48.0, 22.99N×120.78E, h6km, ML1.9, C, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SLGT	**Liugui**	**0.13**	**271**	*i* P		Pg	13 10 51.3	+0.7
SLGT				*i* S		Sg	13 10 53.5	+1.1
STYT	**Tauyuan**	**0.17**	**352**	*i* P		Pg	13 10 52.0	+0.5
STYT				*i* S		Sg	13 10 54.5	+0.7
STYH	**Taoyuan**	**0.18**	**358**	*i* P		Pg	13 10 52.1	+0.6
STYH				*i* S		Sg	13 10 54.9	+1.0
SGST	**Jiashian**	**0.21**	**296**	P		Pg	13 10 52.6	+0.6
SGST				*e*S		Sg	13 10 56.3	+1.5
SSD	**Sandimen**	**0.28**	**210**	*i* P		Pg	13 10 54.0	+0.5
SSD				S		Sg	13 10 57.6	+0.3
SCST	**Cishan**	**0.29**	**248**	P		Pb	13 10 54.8	-0.8
ELDTW	**Lidau**	**0.29**	**48**	*e*P		Pg	13 10 54.2	+0.5
ELDTW				*e*S		Sg	13 10 58.1	+0.6
WTP	**Ta-pu**	**0.30**	**328**	*e*P		Pg	13 10 53.6	-0.2
WTP				*e*S		Sb	13 10 59.6	-1.3
CHN1	**Nanshi**	**0.30**	**309**	P		Pb	13 10 55.7	-0.1
CHN1				S		Sb	13 11 00.7	-0.5
TSMG	**Majia**	**0.31**	**204**	*i* P		Pg	13 10 54.6	+0.5

ELDTW	**Lidau**	**0.77**	**26**	*eP*	Pb	13 11 16.6	+0.1
ELDTW				S	Sn	13 11 28.4	+1.3
TWK	**Hsinying**	**0.78**	**349**	*eS*	Sn	13 11 29.7	+2.5
TPUB	**Ta-pu**	**0.80**	**359**	*eP*	Pb	13 11 17.0	+0.1
TPUB				S	Sn	13 11 29.4	+1.7
CHN4	**Tsaushan**	**0.85**	**357**	*eP*	Pn	13 11 17.6	+0.2
CHN4				*eS*	Sb	13 11 31.1	+2.2

*SJA **02** 13:12:11.7±0.7,29.°74S×71.°55W,h15km±2km, ML3.5, MW3.5*
*GUC **02** 13:12:12.1±0.7,29.°82S×71.°61W,h39km±2km, ML3.6, Presumed earthquake*
ISC 02 13:12:09.1±1.9,**29.°81S**±0.°02×**71.°68W**±0.°04,**h3**km±14km, **n40,**σ1§**70**/70,**1C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
CO05	**La Serena**	**0.40**	**106**	*eP*		**Pb**	**13 12 20.4**	**+1.5**
CO05				*eS*		**Sb**	**13 12 25.7**	**+0.3**
GO04	**Tololo Observa**	**0.85**	**115**	*eP*		**Pb**	**13 12 27.2**	**+0.7**
GO04				*eS*		**Sb**	**13 12 38.6**	**+0.1**
GO04	**Tololo Observa**	**0.85**	**115**	*i* P		**Pb**	**13 12 27.3**	**+0.7**
GO04				*eS*		**Sb**	**13 12 38.2**	**-0.3**
CO06	**Fray Jorge**	**0.86**	**177**	⇑*iP*		**Pb**	**13 12 28.1**	**+1.4**
CO06				*eS*		**Sg**	**13 12 39.5**	**+2.7**
CO06				IAML			13 12 40.1	
	comp=E,4μm,0.3s							
LCO	**Las Campanas**	**1.17**	**47**	*eP*		**Pb**	**13 12 32.1**	**0.0**
LCO				*eS*		**Sn**	**13 12 49.0**	**-0.2**
LCO				IAML			13 12 50.1	
	comp=Z,4μm,0.4s							
LCO	**Las Campanas**	**1.17**	**47**	*eP*		**Pb**	**13 12 32.3**	**+0.1**
LCO				*eS*		**Sb**	**13 12 46.9**	**-0.9**
CO01	**Juntas del Tor**	**1.39**	**97**	*eP*		**Pn**	**13 12 35.9**	**+0.3**
CO01				*eS*		**Sn**	**13 12 53.6**	**-1.0**
CO01				IAML			13 12 54.0	
	comp=Z,2μm,0.3s							
CO01	**Juntas del Tor**	**1.39**	**97**	⇓*iP*		**Pn**	**13 12 35.9**	**+0.3**
CO01				*eS*		**Sn**	**13 12 53.2**	**-1.4**
CO01				IAML			13 12 54.0	
	comp=E,2μm,0.3s							
AC05	**El Transito**	**1.57**	**52**	*eP*		**Pn**	**13 12 38.6**	**+0.7**
AC05				*eS*		**Sb**	**13 12 58.7**	**-0.4**
AC05				IAML			13 13 00.0	
	comp=Z,692nm,0.9s							
AC05	**El Transito**	**1.57**	**52**	⇓*iP*		**Pn**	**13 12 38.6**	**+0.7**
AC05				*eS*		**Sb**	**13 12 58.5**	**-0.6**
AC05				IAML			13 13 00.6	
	comp=N,2μm,0.4s							
AC04	**Llanos de Chal**	**1.69**	**19**	*eP*		**Pn**	**13 12 39.7**	**+0.2**
AC04				*eS*		**Sn**	**13 12 59.0**	**-2.6**
AC04				IAML			13 13 07.2	
	comp=Z,379nm,0.6s							
AC04	**Llanos de Chal**	**1.69**	**19**	*eP*		**Pn**	**13 12 39.7**	**+0.2**
AC04				IAML			13 13 08.3	
	comp=E,904nm,0.5s							
AROD	**Rodeo**	**1.95**	**101**	*eP*		**Pb**	**13 12 45.6**	**+0.1**
AROD				*eS*		**Sb**	**13 13 10.4**	**+0.1**
ACDV	**Cuesta del Vie**	**2.25**	**100**	*eP*		**Pb**	**13 12 49.9**	**-0.6**
ACDV				*eS*		**Sg**	**13 13 20.7**	**-0.8**
ACDV				IAML			13 13 21.0	
	comp=Z,277nm,0.5s							
CO04	**Los Peladeros**	**2.31**	**165**	*eP*		**Pn**	**13 12 50.2**	**+1.9**
CO04				*eS*		**Sn**	**13 13 17.6**	**+0.4**
CO04				IAML			13 13 26.1	
	comp=E,675nm,0.8s							
ACCO	**Cerro Coronel**	**2.40**	**109**	*eP*		**Pb**	**13 12 52.9**	**-0.2**
ACCO				*eS*		**Sg**	**13 13 24.8**	**-1.4**
ACCO				IAML			13 13 25.0	
	comp=Z,210nm,1.0s							
GO03	**Copiapo**	**2.55**	**30**	*eP*		**Pn**	**13 12 52.3**	**+0.8**
GO03				*eS*		**Sn**	**13 13 23.2**	**+0.3**
GO03				IAML			13 13 32.1	
	comp=Z,190nm,0.4s							
GO03	**Copiapo**	**2.55**	**30**	*eP*		**Pn**	**13 12 52.2**	**+0.8**
GO03				⇓*eS*		**Sb**	**13 13 27.9**	**+0.6**
GO03				IAML			13 13 39.1	
	comp=E,221nm,0.3s							
AC06	**Mina Casimiro**	**2.71**	**26**	*i* P		**Pn**	**13 12 54.0**	**+0.4**
AC06				IAML			13 13 39.9	
	comp=E,149nm,0.2s							
RTLS	**Leoncito**	**2.85**	**135**	*eP*		**Pb**	**13 12 59.6**	**-1.2**
RTLS				*eS*		**Sb**	**13 13 35.3**	**-1.0**
RTLS				IAML			13 13 54.5	
	comp=Z,254nm,1.1s							
VA03	**San Esteban**	**3.10**	**162**	*eP*		**Pn**	**13 12 59.6**	**+0.6**
VA03				*eS*		**Sn**	**13 13 37.8**	**+1.3**
VA03				IAML			13 13 55.5	
	comp=Z,140nm,0.3s							
VA03	**San Esteban**	**3.10**	**162**	*eS*		**Sn**	**13 13 36.5**	**-0.1**
VA03				IAML			13 13 57.0	
	comp=E,284nm,0.7s							
ZON	**Zonda**	**3.11**	**124**	*eP*		Pn	13 12 51.7	-7.5
ZON				IAML			13 13 58.9	
	comp=Z,58nm,0.5s							
ROCH	**El Roble**	**3.20**	**170**	*eP*		**Pn**	**13 13 01.8**	**+1.2**
ROCH				*eS*		**Sn**	**13 13 39.0**	**-0.3**
ROCH				IAML			13 13 55.9	
	comp=N,270nm,0.4s							
VCA	**Vinchina**	**3.22**	**71**	*eP*		**Pb**	**13 13 05.8**	**-1.3**
VCA				*eS*		**Sn**	**13 13 40.8**	**+1.1**
VCA				IAML			13 13 55.6	
	comp=Z,170nm,0.6s							
PEL	**Peldehue**	**3.43**	**166**	*eP*		**Pn**	**13 13 07.5**	**+4.0**
PEL				*eS*		**Sb**	**13 13 50.3**	**-2.3**
PEL				IAML			13 14 04.3	
	comp=Z,87nm,0.4s							
CFA	**Coronel Fontan**	**3.46**	**122**	*eP*		**Pn**	**13 13 07.0**	**+3.0**
CFA				*eS*		**Sb**	**13 13 52.5**	**-1.1**
CFA				IAML			13 13 59.9	
	comp=Z,47nm,0.6s							
MT02	**Curacav**	**3.47**	**172**	*eP*		**Pn**	**13 13 05.9**	**+1.9**
MT02				*eS*		**Sb**	**13 13 50.9**	**-2.8**
MT02				IAML			13 14 02.0	
	comp=Z,77nm,0.4s							
AC02	**Maricunga**	**3.72**	**38**	*eP*		**Pn**	**13 13 09.4**	**+1.5**
AC02				*eS*		**Sg**	**13 14 08.0**	**-0.8**
AC02				IAML			13 14 13.5	
	comp=Z,123nm,0.9s							
AC02	**Maricunga**	**3.72**	**38**	*eP*		**Pn**	**13 13 09.0**	**+1.0**
AC02				*eS*		**Sn**	**13 13 51.9**	**-0.7**
AC01	**Pan de Azucar**	**3.77**	**15**	*eP*		**Pn**	**13 13 07.1**	**-1.1**
AC01				*eS*		**Sb**	**13 14 07.4**	**+4.9**
AC01				IAML			13 14 13.5	
	comp=Z,64nm,0.5s							
AC01	**Pan de Azucar**	**3.77**	**15**	*eP*		**Pn**	**13 13 07.0**	**-1.2**
MT04	**Ro Olivares**	**3.82**	**160**	*eP*		**Pn**	**13 13 12.9**	**+3.9**
MT04				*eS*		**Sb**	**13 13 59.4**	**-4.6**
MT04				IAML			13 14 11.5	
	comp=Z,48nm,0.5s							
ARCO	**CERRO ARCO**	**3.83**	**143**	*eP*		**Pb**	**13 13 14.2**	**-3.2**
ARCO				*eS*		**Sb**	**13 14 05.9**	**+1.7**
ARCO				IAML			13 14 20.6	
	comp=Z,64nm,0.8s							
MT08	**Bocatoma Ro**	**3.89**	**159**	*eP*		**Pn**	**13 13 10.4**	**+0.4**
MT08				*eP*		**Pb**	**13 13 14.9**	**-3.6**
MT08				IAML			13 14 14.7	
	comp=Z,53nm,0.9s							
TINO	**Tinogasta**	**4.00**	**65**	*eP*		**Pn**	**13 13 13.9**	**+2.5**
TINO				IAML			13 14 27.9	
	comp=Z,39nm,0.8s							
MT01	**Popeta**	**4.06**	**175**	IAML			13 14 16.3	
	comp=Z,44nm,0.5s							
ACLC	**CERRO LA CRUZ**	**4.14**	**86**	*eP*		**Pn**	**13 13 15.6**	**+2.2**

*NORS **02** 13:12:31.8,41.°63N×44.°12E,h5km,MPVA3.4*
*AFAD **02** 13:12:33.6,41.°35N×43.°73E,h7km±4km,ML1.9*
ISC 02 13:12:34.6±1.5,**41.°52N**±0.°07×**43.°89E**±0.°05,**h23**km±5km, **n10,**σ1§**33**/20,**Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
LACR	**Lac**	**1.34**	**13**	*ePg*		**Pn**	**13 12 56.6**	**-1.5**
LACR				*eSg*		**Sn**	**13 13 15.1**	**-0.2**
DIGR	**Digorskoe uzhe**	**1.40**	**351**	*ePg*		**Pn**	**13 12 58.4**	**-0.5**
DIGR				*eSg*		**Sb**	**13 13 19.0**	**+1.3**
DAGI	**Agillar**	**1.55**	**254**	P		**Pn**	**13 13 00.8**	**-0.1**
DAGI				S		**Sn**	**13 13 20.9**	**+0.5**
DAGI				IAML			13 13 23.0	
	comp=N,14nm,0.9s							
DAGI				IAML			13 13 23.0	
	comp=E,14nm,0.3s							
KORR	**Kora**	**1.57**	**5**	*ePg*		**Pn**	**13 13 01.7**	**+0.5**
KORR				*eSg*		**Sb**	**13 13 24.9**	**+2.3**
DBOC	**Borcka**	**1.68**	**265**	P		**Pn**	**13 13 02.3**	**-0.3**
DBOC				S		**Sn**	**13 13 24.2**	**+0.8**
DBOC				IAML			13 13 25.0	
	comp=E,21nm,0.6s							
DBAD	**Bademkaya**	**1.73**	**254**	P		**Pn**	**13 13 03.9**	**+0.6**
DBAD				S		**Sn**	**13 13 25.5**	**+0.8**
DBAD				IAML			13 13 28.0	
	comp=N,16nm,0.5s							
DBAD				IAML			13 13 28.0	
	comp=E,36nm,0.6s							
DDEM	**Demirkent**	**1.73**	**250**	P		**Pn**	**13 13 03.1**	**-0.3**
DDEM				S		**Sn**	**13 13 26.1**	**+1.3**
DDEM				IAML			13 13 28.0	
	comp=E,40nm,0.3s							
DDEM				IAML			13 13 29.0	
	comp=N,44nm,0.3s							
LSNR	**Lesken**	**1.76**	**359**	*ePg*		**Pb**	**13 13 05.5**	**-0.7**
LSNR				*eSg*		**Sb**	**13 13 30.6**	**+2.7**
BTLR	**Botlikh**	**2.08**	**56**	*ePg*		**Pn**	**13 13 09.2**	**+1.0**
BTLR				*eSg*		**Sn**	**13 13 35.6**	**+2.2**
GNBR	**Gunib**	**2.45**	**68**	*ePn*		**Pn**	**13 13 13.9**	**+0.6**
GNBR				*eSn*		**Sb**	**13 13 46.8**	**-1.0**

*NNC **02** 13:13:55.2±1.7,41.°09N×73.°10E,h0km,mb3.8,mpv3.5, Error ellipse: s-maj=14.3km s-min=5.8km az=175.0*
*KRNET **02** 13:13:55.2±0.1,41.°10N×73.°04E,h16km,mb3.4*
*SOME **02** 13:13:55.6,41.°18N×73.°00E,h15km*
*ISU **02** 13:13:56,41.°15N×73.°09E,h21km*
*KNET **02** 13:13:58.2±0.5,41.°27N×73.°09E,h11km±3km,ml2.8, Error ellipse: s-maj=5.2km s-min=3.3km az=105.0*
ISC 02 13:13:55.1±1.0,**41.°13N**±0.°02×**73.°09E**±0.°02,**h7**km±9km, **n71,**σ1§**54**/123,**45C-20D,Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
ARSB	**Arslanbob**	**0.21**	**337**	⇑*iP*		**Pg**	**13 14 00.2**	**+0.8**
ARSB				⇑*iS*		**Sg**	**13 14 03.3**	**+1.0**
SALK	**Salom-Alik**	**0.60**	**114**	⇑*iP*		**Pg**	**13 14 07.4**	**+0.7**
SALK				⇑*iS*		**Sg**	**13 14 15.8**	**+1.2**
OHH	**Osh**	**0.65**	**201**	⇑*iP*		**Pg**	**13 14 06.7**	**-0.9**
OHH				⇑*iS*		**Sg**	**13 14 15.3**	**-0.7**
TSTA	**Tashata**	**0.72**	**221**	P		**Pg**	**13 14 09.5**	**+0.5**
TSTA				S		**Sb**	**13 14 20.1**	**-0.1**
ARK	**Arkit**	**1.08**	**309**	⇓*iP*		**Pb**	**13 14 15.1**	**-1.1**
ARK				⇓*iS*		**Sb**	**13 14 29.7**	**-0.9**
SFK	**Sufi-Kurgan**	**1.16**	**164**	⇑*iP*		**Pn**	**13 14 16.6**	**-1.4**
SFK				⇑*iS*		**Sb**	**13 14 32.1**	**-0.8**
FRG	**Fergana**	**1.25**	**233**	P		**Pg**	**13 14 19.9**	**+0.9**
FRG				S		**Sg**	**13 14 37.6**	**+2.4**
MNAS	**Manas**	**1.43**	**342**	⇑*eP*		**Pb**	**13 14 21.8**	**-0.4**
MNAS				⇑*eS*		**Sg**	**13 14 41.2**	**+0.2**
TRKS	**Terek-Say**	**1.52**	**286**	⇑*iP*		**Pn**	**13 14 22.2**	**-0.8**
TRKS				⇑*iS*		**Sn**	**13 14 41.8**	**-1.4**
UCH	**Uchtor**	**1.53**	**44**	⇑P		**Pg**	**13 14 24.4**	**0.0**
	21nm,0.1s,SNR=44							
UCH				⇓S		**Sg**	**13 14 45.7**	**+1.4**
	73nm,0.3s							
UCH	**Uchtor**	**1.53**	**44**	⇑*iP*		**Pg**	**13 14 24.3**	**-0.1**
UCH				⇑*iS*		**Sg**	**13 14 45.4**	**+1.1**
EKS2	**Erkin-Say**	**1.61**	**18**	P		**Pg**	**13 14 25.7**	**-0.4**
	14nm,0.2s,SNR=11							
EKS2				⇑S		**Sg**	**13 14 47.0**	**0.0**
	19nm,0.1s							
EKS2	**Erkin-Say**	**1.61**	**18**	⇑*iP*		**Pg**	**13 14 25.6**	**-0.4**
EKS2				⇑*iS*		**Sg**	**13 14 47.7**	**+0.7**
MRKS	**Merke**	**1.62**	**3**	P		**Pg**	**13 14 25.7**	**-0.4**
	35nm,0.3s							
MRKS				S		**Sg**	**13 14 47.2**	**+0.1**
	194nm,0.3s							
MRKS	**Merke**	**1.62**	**3**	*eP*		**Pg**	**13 14 25.8**	**-0.4**
	35nm,0.3s							
MRKS				*eS*		**Sg**	**13 14 47.2**	**+0.1**
	194nm,0.3s							
AAK	**Ala-Archa**	**1.83**	**34**	⇓P		**Pg**	**13 14 30.1**	**-0.2**
	62nm,0.3s,SNR=95							
AAK				⇑S		**Sg**	**13 14 55.1**	**+1.0**
	127nm,0.3s							
AAK	**Ala-Archa**	**1.83**	**34**	⇑Pn		**Pb**	**13 14 28.8**	**-0.3**
	7.6nm,0.4s							
AAK				⇓Sn		**Sg**	**13 14 54.1**	**+0.1**
	20nm,0.4s							
AAK	**Ala-Archa**	**1.83**	**34**	⇑*iP*		**Pb**	**13 14 29.4**	**+0.3**
AAK				⇑*iS*		**Sg**	**13 14 54.2**	**+0.1**
DRK	**Karamyk**	**1.92**	**211**	⇓*iP*		**Pb**	**13 14 29.6**	**-1.1**
DRK				⇓*iS*		**Sb**	**13 14 54.4**	**-0.6**
FRU1	**Bishkek**	**2.03**	**34**	⇑*iP*		**Pb**	**13 14 32.4**	**-0.1**
FRU1				⇑*iS*		**Sg**	**13 14 59.4**	**-1.0**
BTK	**Batken**	**2.04**	**239**	⇓*iP*		**Pn**	**13 14 30.9**	**+1.0**
BTK				⇓*iS*		**Sb**	**13 14 56.9**	**-1.2**
KBK	**Karagaybulak**	**2.06**	**42**	⇑P		**Pg**	**13 14 34.5**	**-0.1**
	26nm,0.3s,SNR=19							
KBK				⇑S		**Sg**	**13 15 02.0**	**+0.7**
	184nm,0.4s							
KBK	**Karagaybulak**	**2.06**	**42**	⇑*iP*		**Pb**	**13 14 32.7**	**-0.3**
KBK				⇑*iS*		**Sg**	**13 14 59.8**	**-1.5**
PSK	**Pskem**	**2.19**	**292**	P		**Pb**	**13 14 35.5**	**+0.3**
PSK				S		**Sg**	**13 15 05.1**	**-0.4**
DZA	**Taraz**	**2.20**	**324**	Pg		**Pg**	**13 14 36.9**	**-0.3**
	125nm,0.1s							
DZA				Lg	Lg		13 15 06.2	
	453nm,0.4s							
DZA	**Taraz**	**2.20**	**324**	*eP*		**Pg**	**13 14 36.9**	**-0.3**
	125nm,0.1s							
DZA				*eS*		**Sg**	**13 15 06.2**	**+0.5**
	453nm,0.4s							
NRN	**Naryn**	**2.21**	**81**	⇓*iP*		**Pb**	**13 14 34.3**	**-1.3**
NRN				⇓*iS*		**Sb**	**13 15 02.7**	**-0.7**
CHMS	**Chumysh**	**2.24**	**33**	⇑P		**Pb**	**13 14 36.7**	**+0.7**
	15nm,0.2s,SNR=8.6							
CHMS				⇓S		**Sg**	**13 15 06.6**	**-0.5**
	26nm,0.3s							
CHMS	**Chumysh**	**2.24**	**33**	⇓*iP*		**Pb**	**13 14 34.9**	**-1.0**
CHMS				⇓*iS*		**Sb**	**13 15 03.8**	**-0.1**
USP	**Ospenovka**	**2.38**	**26**	⇑P		**Pb**	**13 14 38.2**	**-0.1**
	12nm,0.2s,SNR=19							
USP				⇑S		**Sg**	**13 15 09.5**	**-2.0**
	54nm,0.3s							
USP	**Ospenovka**	**2.38**	**26**	⇑*iP*		**Pb**	**13 14 36.7**	**-1.6**
USP				⇑*iS*		**Sb**	**13 15 07.0**	**-0.9**
CHRV	**Charvak**	**2.42**	**283**	S		**Sb**	**13 15 07.7**	**-1.4**
IUG	**Iuzhnay**	**2.51**	**295**	Pg		**Pb**	**13 14 39.1**	**-1.5**
	130nm,0.3s							
IUG				Lg	Lg		13 15 10.2	
	370nm,0.5s							
IUG	**Iuzhnay**	**2.51**	**295**	*eP*		**Pb**	**13 14 39.1**	**-1.5**
	130nm,0.3s							
IUG				*eS*		**Sb**	**13 15 10.2**	**-1.5**
	370nm,0.5s							
BOOM	**Boomskoye usch**	**2.52**	**56**	⇑*iP*		**Pb**	**13 14 39.1**	**-1.8**
BOOM				⇑*iS*		**Sb**	**13 15 11.0**	**-1.3**
TKM2	**Tokmak 2**	**2.58**	**45**	⇑P		**Pb**	**13 14 41.6**	**-0.3**
	27nm,0.3s,SNR=32							
TKM2				⇑S		**Sb**	**13 15 15.4**	**+1.4**
	77nm,0.5s							
TKM2	**Tokmak 2**	**2.58**	**45**	⇑*iP*		**Pb**	**13 14 39.8**	**-2.1**
TKM2				⇑*iS*		**Sb**	**13 15 12.4**	**-1.6**
ULHL	**Ulahol**	**2.61**	**64**	⇓P		**Pb**	**13 14 42.8**	**+0.5**
	17nm,0.4s,SNR=11							
ULHL				⇓S		**Sg**	**13 15 17.1**	**-1.8**
	19nm,0.3s							
ULHL	**Ulahol**	**2.61**	**64**	⇑*iP*		**Pb**	**13 14 40.3**	**-2.0**
ULHL				⇑*iS*		**Sb**	**13 15 13.1**	**-1.6**
KK31	**Karatay Array**	**2.75**	**317**	⇓Pn		**Pb**	**13 14 41.7**	**-3.0**
	7.9nm,0.2s,baz=131,slow=12,SNR=134							
KK31				⇓Sn		**Sb**	**13 15 19.6**	**+0.9**
	25nm,0.3s,baz=141,slow=24							
KST	**Kastek**	**2.87**	**47**	Pg		**Pb**	**13 14 47.6**	**+0.9**
	3.1nm,0.4s							
KST				Lg	Lg		13 15 24.7	
	43nm,0.6s							
KST	**Kastek**	**2.87**	**47**	*eP*		**Pb**	**13 14 47.6**	**+0.9**
	3.1nm,0.4s							
KST				*eS*		**Sg**	**13 15 24.7**	**-2.4**
	43nm,0.6s							
TAS	**Tashkent**	**2.87**	**275**	S		**Sg**	**13 15 27.1**	**-0.2**
NZBK	**Nazarbek**	**3.00**	**273**	S		**Sg**	**13 15 32.5**	**+1.0**
BRLS	**Borolday**	**3.08**	**309**	Pg		**Pb**	**13 14 50.7**	**+0.4**
	10nm,0.4s							
BRLS				Lg	Lg		13 15 30.0	
	50nm,0.7s							
BRLS	**Borolday**	**3.08**	**309**	*eP*		**Pb**	**13 14 50.7**	**+0.4**
	10nm,0.4s							
BRLS				*eS*		**Sb**	**13 15 30.0**	**+1.9**
	50nm,0.7s							
KRBS	**Karabastau**	**3.20**	**36**	Pg		**Pb**	**13 14 53.9**	**+1.5**
	4.5nm,0.4s							
KRBS				Lg	Lg		13 15 35.1	
	17nm,0.4s							
KRBS	**Karabastau**	**3.20**	**36**	*eP*		**Pb**	**13 14 53.9**	**+1.5**
	4.5nm,0.4s							
KRBS				*eS*		**Sg**	**13 15 35.1**	**-2.8**
	17nm,0.4s							
IZV	**Izvestkoviy**	**3.24**	**53**	Pg		**Pb**	**13 14 54.8**	**+1.7**
	2.9nm,0.3s							
IZV				Lg	Lg		13 15 36.8	
	20nm,0.5s							
IZV	**Izvestkoviy**	**3.24**	**53**	*eP*		**Pb**	**13 14 54.8**	**+1.7**
	2.9nm,0.3s							
IZV				*eS*		**Sg**	**13 15 36.8**	**-2.3**
	20nm,0.5s							
TNSS	**Tian-Shan**	**3.44**	**55**	Pg		**Pg**	**13 14 59.5**	**-1.6**
	1.0nm,0.4s							
TNSS				Lg	Lg		13 15 44.9	
	6.2nm,0.7s							
TNSS	**Tian-Shan**	**3.44**	**55**	*eP*		**Pg**	**13 14 59.5**	**-1.6**
	1.0nm,0.4s							
TNSS				*eS*		**Sg**	**13 15 45.0**	**-0.8**
	6.2nm,0.7s							
MDOK	**Medeo**	**3.57**	**54**	Pg		**Pb**	**13 15 00.9**	**+2.1**
	4.2nm,0.1s							
MDOK				Lg	Lg		13 15 47.2	
	18nm,0.8s							
MDOK	**Medeo**	**3.57**	**54**	*eP*		**Pb**	**13 15 00.9**	**+2.1**
	4.2nm,0.1s							
MDOK				*eS*		**Sg**	**13 15 47.2**	**-2.7**
	18nm,0.8s							
TARG	**Taragay, Kyrgy**	**3.59**	**79**	⇓*eP*		**Pn**	**13 14 54.0**	**+2.4**
TARG				⇓*iS*		**Sn**	**13 15 36.8**	**+2.2**
KOTS	**Kotyrbulak**	**3.65**	**54**	Pg		**Pb**	**13 15 02.3**	**+2.2**
	4.0nm,0.4s							
KOTS				Lg	Lg		13 15 50.3	
	32nm,0.7s							
KOTS	**Kotyrbulak**	**3.65**	**54**	*eP*		**Pb**	**13 15 02.3**	**+2.2**
	4.0nm,0.4s							
KOTS				*eS*		**Sg**	**13 15 50.3**	**-2.1**
	32nm,0.7s							
KTBS	**Karatobe**	**3.70**	**45**	Pg		**Pb**	**13 15 02.8**	**+1.9**
	0.1nm,0.1s							
KTBS				Lg	Lg		13 15 50.5	
	28nm,0.7s							
KTBS	**Karatobe**	**3.70**	**45**	*eP*		**Pb**	**13 15 02.8**	**+1.9**
	0.1nm,0.1s							
KTBS				*eS*		**Sg**	**13 15 50.5**	**-3.5**
	28nm,0.7s							
ANVS	**Anan'yevo**	**3.79**	**63**	⇑*iP*		**Pn**	**13 14 56.7**	**+2.6**
ANVS				⇑*iS*		**Sn**	**13 15 41.3**	**+2.2**
BTLS	**Baital**	**3.97**	**10**	Pg		**Pb**	**13 15 07.2**	**+1.8**
	0.7nm,0.2s							
BTLS				Lg	Lg		13 15 58.3	
	9.2nm,0.5s							
BTLS	**Baital**	**3.97**	**10**	*eP*		**Pb**	**13 15 07.2**	**+1.8**
	0.7nm,0.2s							
BTLS				*eS*		**Sg**	**13 15 58.4**	**-4.3**
	9.2nm,0.5s							
PRZ	**Przheval'sk**	**4.19**	**69**	⇑*iP*		**Pn**	**13 15 02.2**	**+2.5**
PRZ				⇑*iS*		**Sn**	**13 15 51.1**	**+2.1**
SATY	**Saty**	**4.40**	**62**	Pg		**Pg**	**13 15 18.0**	**-1.4**
	1.5nm,0.3s							
SATY				Lg	Lg		13 16 16.6	
	20nm,0.7s							
SATY	**Saty**	**4.40**	**62**	*eP*		**Pg**	**13 15 18.0**	**-1.4**
	1.5nm,0.3s							
SATY				*eS*		**Sg**	**13 16 16.6**	**+0.3**
	20nm,0.7s							
ARXS	**Arharly**	**4.66**	**47**	Pg		**Pg**	**13 15 21.3**	**-2.9**
	2.9nm,0.5s							
ARXS				Lg	Lg		13 16 22.6	
	13nm,0.6s							
ARXS	**Arharly**	**4.66**	**47**	*eP*		**Pg**	**13 15 21.3**	**-2.9**
	2.9nm,0.5s							
ARXS				*eS*		**Sg**	**13 16 22.6**	**-2.0**
	13nm,0.6s							
KPKS	**Kokpek**	**4.76**	**59**	Pg		**Pg**	**13 15 23.4**	**-2.8**
	0.2nm,0.1s							
KPKS				Lg	Lg		13 16 26.1	
	13nm,0.6s							
KPKS	**Kokpek**	**4.76**	**59**	*eP*		**Pg**	**13 15 23.4**	**-2.8**
	0.2nm,0.1s							
KPKS				*eS*		**Sg**	**13 16 26.1**	**-1.7**
	13nm,0.6s							
AGL	**Agalyk**	**5.01**	**253**	S		**Sg**	**13 16 36.2**	**+0.1**
SHLS	**Shalkode**	**5.15**	**65**	Pg		**Pg**	**13 15 35.1**	**+1.4**
	3.2nm,0.2s							
SHLS				Lg	Lg		13 16 46.9	
	11nm,0.6s							

*IDC **02** 13:24:50.5±2.1,33.°70N×139.°54E,h101km±18km, mb3.6/16, mbtmp4.0/21, MS4.1/2, Error ellipse: s-maj=17.8km s-min=11.9km az=74.0*
*NEIC **02** 13:24:55.8±1.9,33.°77N±0.°06×139.°58E±0.°08, h149km±5km, mb4.2/30, Error ellipse: s-maj=10.8km s-min=6.8km az=51.0*
*JMA **02** 13:24:56.6±0.1,33.°9N±0.°4×139.°7E±0.°5, h

JMN	**Monobe**	**4.78**	**270**	Pn		**Pn**	**13 26 06.9**	**+1.1**
JTM	**Tenmabayashi**	**7.04**	**9**	P		**Pn**	**13 26 34.2**	**-1.6**
JTM	**Tenmabayashi**	**7.04**	**9**	S		**Sn**	**13 27 50.9**	**-3.7**
JCJ	**Chichijima**	**7.07**	**161**	P		Pn	13 26 30.6	-5.7
	52nm,0.5s,baz=8.8,slow=19,SNR=13							
JCJ				S		Sn	13 27 44.5	-11
	35nm,0.3s,baz=279,slow=22,SNR=8.4							
JNU	**Nakatsue**	**7.33**	**267**	P		Pn	13 26 34.0	-5.8
	13nm,1.3s,baz=314,slow=22,SNR=1.1							
ERM	**Erimo**	**8.63**	**18**	Pn		**Pn**	**13 26 54.2**	**-2.8**
JEM	**Erimo**	**8.63**	**18**	P		**Pn**	**13 26 54.7**	**-2.4**
KSRS	**Korea Array**	**10.18**	**294**	P		Pn	13 27 13.6	-4.0
	0.8nm,0.8s,baz=102,slow=11,SNR=2.6							
ASAJ	**Asahikawa**	**10.53**	**12**	P		**Pn**	**13 27 18.3**	**-3.9**
	7.4nm,0.4s,baz=214,slow=13,SNR=24							
ASAJ				S		Sn	13 29 08.1	-10
	11nm,0.8s,baz=43,slow=33,SNR=4.8							
JKA	**Kamikawa-asahi**	**10.53**	**12**			**Pn**	**13 27 18.2**	**-4.0**
JKA	**Kamikawa-asahi**	**10.53**	**12**			Sn	13 29 08.1	-10
JOW	**Kunigami**	**12.02**	**238**	P		**Pn**	**13 27 38.3**	**-3.6**
	26nm,0.9s,baz=49,slow=18,SNR=2.4							
SZP	**Santa**	**23.62**	**231**	P		**P**	**13 29 51.7**	**-1.2**
MA2	**Magadan**	**26.79**	**13**	P		**P**	**13 30 22.8**	**+1.7**
H11N2	**WAKE ISLAND Hy**	**28.01**	**113**	T		T	13 59 47.9	
	baz=306,slow=75,SNR=26							
H11N1	**WAKE ISLAND Hy**	**28.01**	**113**	T		T	13 59 50.0	
	baz=306,slow=75,SNR=25							
H11N3	**WAKE ISLAND Hy**	**28.02**	**113**	T		T	13 59 50.9	
	baz=306,slow=75,SNR=22							
SONM	**Songino Array**	**28.52**	**309**	P		**P**	**13 30 36.5**	**-0.3**
	0.4nm,0.4s,baz=123,slow=10,SNR=2.9							
	0.4nm,0.4s							
H11S3	**WAKE ISLAND Hy**	**28.58**	**115**	T		T	14 00 36.1	
	baz=306							
H11S1	**WAKE ISLAND Hy**	**28.58**	**115**	T		T	14 00 37.9	
	baz=306							
H11S2	**WAKE ISLAND Hy**	**28.60**	**115**	T		T	14 00 34.7	
	baz=306							
SIJI	**Sorong**	**35.40**	**195**	LR		LR	13 42 10.1	
	comp=Z,287nm,21.0s,baz=92,slow=30							
TIXI	**Tiksi**	**38.31**	**355**	P		**P**	**13 32 01.0**	**+0.1**
TIXI				IAmb		IAmb	13 32 20.4	
	comp=Z,2.0nm,0.8s							
CMAR	**Chiang Mai Arr**	**39.32**	**258**	P		**P**	**13 32 08.3**	**-1.7**
	comp=Z,0.2nm,0.3s,baz=85,slow=13,SNR=1.2							
	comp=Z,0.2nm,0.3s							
ZALV	**Zalesovo Beam**	**43.06**	**315**	P		**P**	**13 32 40.6**	**+0.5**
	comp=Z,0.8nm,0.3s,baz=112,slow=8.2,SNR=5.1							
	comp=Z,0.8nm,0.3s							
ZALV	**Zalesovo Beam**	**43.06**	**315**	P		**P**	**13 32 39.7**	**-0.4**
PMG	**Port Moresby**	**43.59**	**169**	P		**P**	**13 32 43.2**	**-1.6**
MKAR	**Makanchi Array**	**44.65**	**305**	P		**P**	**13 32 53.6**	**+0.6**
	comp=Z,0.9nm,0.6s,baz=92,slow=8.7,SNR=12							
	comp=Z,0.9nm,0.6s							
MKAR	**Makanchi Array**	**44.65**	**305**	P		**P**	**13 32 52.9**	**0.0**
MAKZ	**Makanchi**	**44.86**	**305**	P		**P**	**13 32 55.0**	**+0.4**
KURK	**Kurchatov**	**46.81**	**310**	P		**P**	**13 33 10.1**	**+0.3**
KURK				IAmb		IAmb	13 33 11.0	
	comp=Z,3.4nm,0.7s							
KURBB	**Kurchatov Arra**	**46.88**	**310**	P		**P**	**13 33 10.6**	**+0.3**
	comp=Z,2.0nm,0.3s,baz=83,slow=7.0,SNR=6.8							
	comp=Z,2.0nm,0.3s							
PDGK	**Podgornoye**	**47.04**	**300**	P		**P**	**13 33 12.4**	**+0.5**
L18K	**Granite Mounta**	**48.52**	**34**	P		**P**	**13 33 24.5**	**+1.8**
L18K				IAmb		IAmb	13 34 08.3	
	comp=Z,9.1nm,1.4s							
D20K	**Etivluk River**	**49.44**	**26**	P		**P**	**13 33 31.9**	**+2.1**
KNRA	**Kununurra**	**50.31**	**194**	P		**P**	**13 33 36.0**	**-0.8**
KNRA				IAmb		IAmb	13 33 57.8	
	comp=Z,4.0nm,1.2s							
D22K	**Ayikyak River**	**50.88**	**26**	P		**P**	**13 33 43.0**	**+2.4**
D22K				IAmb		IAmb	13 34 00.1	
	comp=Z,7.8nm,1.3s							
BVAR	**Borovoye Array**	**51.69**	**314**	P		**P**	**13 33 47.8**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=95,slow=9.1,SNR=6.4							
	comp=Z,0.7nm,0.3s							
ILAR	**Eielson Array**	**52.98**	**31**	P		**P**	**13 33 57.9**	**+1.7**
	comp=Z,0.2nm,0.8s,baz=297,slow=4.0,SNR=2.8							
	comp=Z,0.2nm,0.8s							
D25K	**Kavik River**	**53.17**	**25**	P		**P**	**13 33 59.6**	**+2.1**
D25K				IAmb		IAmb	13 34 39.7	
	comp=Z,3.7nm,1.3s							
FITZ	**Fitzroy Crossi**	**53.33**	**197**	P		**P**	**13 33 57.3**	**-1.9**
WRAB	**Tennant Creek**	**53.70**	**186**	P		**P**	**13 34 00.7**	**-1.2**
WRAB				IAmb		IAmb	13 34 06.5	
	comp=Z,3.8nm,1.1s							
WR8	**Warramunga Arr**	**53.71**	**186**	P		**P**	**13 34 01.4**	**-0.5**
WR8				IAmb		IAmb	13 34 41.7	
	comp=Z,10nm,1.5s							
WRA	**Warramunga Arr**	**53.71**	**186**	P		**P**	**13 34 01.2**	**-0.7**
	comp=Z,1.4nm,0.5s,baz=1.9,slow=7.6,SNR=38							
WRA				PcP		**PcP**	**13 35 06.0**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=4.9,slow=7.6,SNR=2.6							
	comp=Z,1.4nm,0.5s							
WRA	**Warramunga Arr**	**53.71**	**186**	P		**P**	**13 33 59.5**	**-2.5**
F26K	**Sheenjek River**	**54.00**	**27**	P		**P**	**13 34 06.0**	**+2.4**
C27K	**Jago River**	**54.11**	**25**	P		**P**	**13 34 06.2**	**+1.9**
I28M	**Miner Creek**	**55.86**	**30**	P		**P**	**13 34 18.3**	**+1.2**
I28M				IAmb		IAmb	13 34 31.6	
	comp=Z,5.1nm,1.5s							
G30M	**tAoh Zraii Nji**	**57.12**	**28**	P		**P**	**13 34 27.6**	**+1.7**
G30M				IAmb		IAmb	13 34 36.5	
	comp=Z,6.5nm,1.4s							
I30M	**Mount Dempster**	**57.37**	**30**	P		**P**	**13 34 29.6**	**+1.9**
I30M				IAmb		IAmb	13 34 31.9	
	comp=Z,6.2nm,1.4s							
AS31	**Alice Springs**	**57.44**	**186**	P		**P**	**13 34 28.0**	**-0.5**
ASAR	**Alice Springs**	**57.44**	**186**	P		**P**	**13 34 27.5**	**-1.0**
	comp=Z,0.6nm,0.7s,baz=23,slow=11,SNR=27							
ASAR				PcP		**PcP**	**13 35 21.0**	**+0.4**
	comp=Z,0.8nm,0.8s,baz=356,slow=3.8,SNR=4.9							
	comp=Z,0.6nm,0.7s							
ARTI	**Arti**	**57.92**	**320**	P		**P**	**13 34 31.8**	**+0.3**
ARTI				IAmb		IAmb	13 34 32.1	
	comp=Z,3.0nm,0.7s							
H31M	**Peel River**	**58.09**	**29**	P		**P**	**13 34 34.5**	**+1.9**
H31M				IAmb		IAmb	13 35 17.2	
	comp=Z,7.3nm,1.5s							
AB31	**Akbulak array**	**58.91**	**311**			**P**	**13 34 38.8**	**+0.3**
AB31				IAmb		IAmb	13 34 40.0	
	comp=Z,1.1nm,0.7s							
ABKAR	**Akbulak array**	**58.91**	**311**	P		**P**	**13 34 38.8**	**+0.3**
PALK	**Pallekele**	**60.26**	**258**	LR		LR	14 01 38.1	
	comp=Z,187nm,19.6s,baz=161,slow=37							
SPITS	**Spitsbergen Ar**	**63.37**	**349**	P		**P**	**13 35 09.9**	**+1.7**
	comp=Z,9.6nm,1.0s,baz=69,slow=8.0,SNR=1.1							
FORT	**Forrest**	**65.19**	**191**	P		**P**	**13 35 21.1**	**+0.7**
STKA	**Stephens Creek**	**65.39**	**178**	P		**P**	**13 35 20.6**	**-1.1**
	comp=Z,1.4nm,0.6s,baz=78,slow=8.1,SNR=3.3							
	comp=Z,1.4nm,0.6s							
FINES	**FINESS Array B**	**70.96**	**332**	P		**P**	**13 35 56.8**	**+0.7**
	comp=Z,3.1nm,0.9s,baz=64,slow=5.5,SNR=8.8							
	comp=Z,3.1nm,0.9s							
FINES	**FINESS Array B**	**70.96**	**332**	P		**P**	**13 35 56.7**	**+0.5**
PINE	**Pine Mountain**	**73.54**	**48**	P		**P**	**13 36 12.1**	**-0.1**
PINE				IAmb		IAmb	13 36 37.8	
	comp=Z,3.0nm,1.1s							
AKASG	**Malin Array Be**	**75.92**	**322**	P		**P**	**13 36 25.6**	**+0.3**
	comp=Z,0.9nm,0.4s,baz=50,slow=5.8,SNR=5.7							
	comp=Z,0.9nm,0.4s							
NVAR	**Mina Array Bea**	**78.10**	**52**	P		**P**	**13 36 39.8**	**+1.7**
	comp=Z,0.4nm,0.5s,baz=286,slow=6.4,SNR=4.5							
	comp=Z,0.4nm,0.5s							
PDAR	**Pinedale Array**	**80.97**	**44**	P		**P**	**13 36 54.7**	**+1.1**
	comp=Z,0.1nm,0.5s,baz=314,slow=6.5,SNR=1.4							
	comp=Z,0.1nm,0.5s							
PDAR	**Pinedale Array**	**80.97**	**44**	P		**P**	**13 36 53.7**	**+0.2**
GVZ	**Greta Valley S**	**82.32**	**156**	P		**P**	**13 37 00.1**	**+0.1**
MMAI	**Mount Meron Ar**	**82.80**	**305**	P		**P**	**13 37 02.5**	**+0.4**
	comp=Z,0.9nm,0.2s,baz=352,slow=5.0,SNR=2.1							
	comp=Z,0.8nm,0.2s							
PV05	**Paradox Valley**	**84.15**	**48**	P		**P**	**13 37 10.4**	**+0.3**
PV05				IAmb		IAmb	13 37 12.7	
	comp=Z,5.7nm,0.9s							
TXAR	**Lajitas Array**	**93.25**	**51**	P		**P**	**13 37 55.3**	**+2.0**
	comp=Z,0.6nm,0.8s,baz=316,slow=1.4,SNR=5.9							
	comp=Z,0.6nm,0.8s							
QSPA	**South Pole Qui**	**123.58**	**180**	PKP		**PKiKP**	**13 43 34.5**	**+0.1**
	comp=Z,0.5nm,0.7s,baz=254,slow=1.1,SNR=5.8							

AFAD ***02*** *13:33:46.8,37.˚83N×26.˚69E,h7km±1km,ML2.6*
ISK ***02*** *13:33:46.9,37.˚83N×26.˚76E,h5km,ML2.7/24*
ISC 02 13:33:47.4±1.1**,37.84N**±0.˚03×**26.72E**±0.˚03**,h13**km±8km**,**
n31,σ**52/43,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.25**	**32**	P	**Pg**	**13 33 52.3**	**-0.3**
DGB				S	**Sg**	**13 33 56.6**	**+0.3**
DGB				IAML		13 33 57.0	
	comp=N,1μm,0.2s						
DGB				IAML		13 33 57.0	
	comp=E,1μm,0.3s						
GMLD	**Gumuldur**	**0.28**	**33**	Pg	**Pg**	**13 33 53.5**	**+0.2**
GMLD				Sg	**Sb**	**13 33 58.0**	**-1.0**
GMLD				AML	AML		
BEYE	**izmir**	**0.42**	**23**	P	**Pg**	**13 33 55.5**	**-0.3**
BEYE				S	**Sg**	**13 34 01.8**	**+0.3**
BEYE				IAML		13 34 02.0	
	comp=E,469nm,0.5s						
BEYE				IAML		13 34 04.0	
	comp=N,356nm,0.4s						
GCAM	**G?zelcaml?**	**0.43**	**108**	P	**Pg**	**13 33 55.6**	**-0.4**
GCAM				S	**Sb**	**13 34 02.8**	**-0.4**
GCAM				IAML		13 34 03.0	
	comp=N,532nm,0.2s						
GCAM				IAML		13 34 04.0	
	comp=E,447nm,0.4s						
GCAM	**G?zelcaml?**	**0.43**	**108**	Pg	**Pg**	**13 33 55.8**	**-0.1**
GCAM				Sg	**Sb**	**13 34 02.8**	**-0.4**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.43**	**337**	P	**Pg**	**13 33 55.6**	**-0.4**
ZEYE				S	**Sg**	**13 34 02.1**	**+0.3**
ZEYE				IAML		13 34 04.0	
	comp=N,596nm,0.3s						
ZEYE				IAML		13 34 04.0	
	comp=E,388nm,0.3s						
KUSD	**Kusadasi-Aydin**	**0.45**	**87**	Pg	**Pg**	**13 33 56.1**	**-0.2**
KUSD				Sg	**Sb**	**13 34 03.1**	**-0.7**
KUSD				AML	AML		
CESE	**eme**	**0.59**	**326**	Pg	**Pb**	**13 33 59.4**	**-0.1**
CESE				AML	AML		
BLCB	**Balcova**	**0.60**	**25**	Pg	**Pg**	**13 33 59.2**	**0.0**
BLCB				AML	AML		
DIDI	**Didim-Aydin**	**0.62**	**138**	Pg	**Pb**	**13 33 59.7**	**-0.3**
DIDI				AML	AML		
DUVT	**Torbali**	**0.69**	**56**	P	**Pg**	**13 34 00.3**	**-0.5**
DUVT				S	**Sg**	**13 34 10.1**	**+0.1**
DUVT				IAML		13 34 15.0	
	comp=E,240nm,0.4s						
KRBN	**Karaburun**	**0.77**	**350**	Pg	**Pb**	**13 34 03.3**	**+0.8**
KRBN				Sg	**Sn**	**13 34 15.1**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**7**	P	**Pn**	**13 34 05.0**	**+0.4**
BAGT				S	**Sn**	**13 34 16.9**	**+0.3**
BAGT				IAML		13 34 18.0	
	comp=E,207nm,0.7s						
BAGT				IAML		13 34 38.0	
	comp=N,441nm,1.1s						
FOCM	**Foa**	**0.87**	**1**	Pg	**Pn**	**13 34 05.9**	**+0.6**
FOCM				AML	AML		
BODT	**Bodrum**	**0.91**	**148**	Pg	**Pb**	**13 34 05.3**	**+0.4**
BODT				Sg	**Sb**	**13 34 18.1**	**+1.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.94**	**83**	Pg	**Pb**	**13 34 05.7**	**+0.2**
AYDB				Sg	**Sn**	**13 34 19.3**	**-0.3**
AYDB				AML	AML		
MLSB	**Milas**	**1.00**	**122**	Pg	**Pb**	**13 34 06.8**	**+0.3**
MLSB				AML	AML		
APE	**Apeiranthos**	**1.22**	**231**	Pn	**Pg**	**13 34 10.0**	**-0.8**
APE				AML	AML		
NAZL	**Nazilli-Aydin**	**1.25**	**84**	Pn	**Pn**	**13 34 10.9**	**+0.4**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.28**	**47**	Pn	**Pg**	**13 34 12.2**	**+0.2**
GOMA				AML	AML		
AKS	**Akhisar**	**1.35**	**39**	Pn	**Pg**	**13 34 13.9**	**+0.6**
AKS				AML	AML		
YER	**Yerkesik**	**1.43**	**119**	Pn	**Pg**	**13 34 14.5**	**-0.3**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.57**	**47**	Pn	**Pg**	**13 34 17.2**	**-0.3**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**9**	Pn	**Pb**	**13 34 20.6**	**+0.6**
YAYO				AML	AML		
DALY	**Dalyan (Mula)**	**1.85**	**123**	Pn	**Pb**	**13 34 21.0**	**0.0**
DALY				AML	AML		
EZN	**Ezine**	**2.01**	**351**	Pn	**Pb**	**13 34 23.6**	**-0.1**
EZN				AML	AML		
BALB	**Balikesir**	**2.02**	**26**	Pn	**Pb**	**13 34 23.7**	**-0.1**
BALB				AML	AML		
BOZC	**Bozcaada**	**2.07**	**346**	Pn	**Pb**	**13 34 24.3**	**-0.4**
BOZC				AML	AML		
YENI	**Yenice-Canakka**	**2.13**	**11**	Pn	**Pb**	**13 34 25.5**	**-0.4**
SIMA	**Simav-Kutahya**	**2.17**	**54**	Pn	**Pb**	**13 34 25.7**	**-0.8**
SIMA				AML	AML		
SUSR	**Susurluk-Balik**	**2.37**	**26**	Pn	**Pb**	**13 34 28.6**	**-1.3**
SUSR				AML	AML		

NOU ***02*** *13:37:49.7,39.˚15S×174.˚32E,h20km,MLv3.6/16,North Island, New Zealand*
WEL ***02*** *13:37:49.1±0.2,39˚S±3˚×17˚4E±˚,h16km±3km,M3.3/36, ML3.3/37,MLv3.3/36,Error ellipse: s-maj=3.9km s-min=3.0km az=155.2*
ISC 02 13:37:49.6±0.9**,39.21S**±0.˚02×**174.42E**±0.˚02**,h18**km±2km**,**
n116,σ**0.96/125,North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MHEZ	**Mangahewa**	**0.16**	**332**	P	**Pg**	**13 37 55.5**	**+1.5**
MHEZ				S	**Sg**	**13 38 00.1**	**+3.2**
MHEZ				AML	AML		
MHEZ				AML	AML		
DREZ	**Durham Road**	**0.17**	**278**	P	**Pg**	**13 37 55.1**	**+0.9**
DREZ				AML	AML		
DREZ				AML	AML		
PREZ	**Palmer Road**	**0.24**	**237**	P	**Pb**	**13 37 55.6**	**+0.4**
PREZ				S	**Sg**	**13 38 00.8**	**+1.8**
PREZ				AML	AML		
PREZ				AML	AML		
LREZ	**Lake Rotokare**	**0.25**	**183**	P	**Pg**	**13 37 54.9**	**-0.4**
LREZ				S	**Sb**	**13 38 00.3**	**+1.1**
LREZ				AML	AML		
LREZ				AML	AML		
NEZ	**North Egmont**	**0.26**	**257**	P	**Pb**	**13 37 56.2**	**+0.5**
NEZ				AML	AML		
NEZ				AML	AML		
VRZ	**Vera Road**	**0.28**	**71**	P	**Pb**	**13 37 56.4**	**+0.4**
VRZ				S	**Sb**	**13 38 01.8**	**+1.5**
VRZ				AML	AML		
VRZ				AML	AML		
KHEZ	**Kahui Hut**	**0.32**	**255**	P	**Pb**	**13 37 57.2**	**+0.3**
KHEZ	**Kahui Hut**	**0.32**	**255**	S	**Sn**	**13 38 03.5**	**-2.3**
KHEZ	**Kahui Hut**	**0.32**	**255**	P	**Pb**	**13 37 57.3**	**+0.3**
KHEZ				AML	AML		
KHEZ				AML	AML		
PKE	**Pukeiti**	**0.34**	**273**	P	**Pb**	**13 37 57.5**	**+0.4**
PKE				S	**Sn**	**13 38 03.5**	**-2.5**
PKE				AML	AML		
PKE				AML	AML		
NBEZ	**Newall Road No**	**0.43**	**263**	P	**Pb**	**13 37 58.8**	**+0.1**
NBEZ				S	**Sn**	**13 38 06.1**	**-2.2**
NBEZ				AML	AML		
NBEZ				AML	AML		
NMEZ	**Namu Road**	**0.46**	**244**	P	**Pb**	**13 37 59.1**	**-0.2**
NMEZ				S	**Sb**	**13 38 06.6**	**+0.8**
NMEZ				AML	AML		
NMEZ				AML	AML		
WAZ	**Wanganui**	**0.70**	**141**	P	**Pb**	**13 38 02.7**	**-0.4**
WAZ				AML	AML		
WAZ				AML	AML		
PKVZ	**Pokaka**	**0.72**	**96**	P	**Pb**	**13 38 03.0**	**-0.7**
PKVZ				AML	AML		
PKVZ				AML	AML		
HIZ	**Hauiti**	**0.78**	**26**	P	**Pb**	**13 38 04.2**	**-0.4**
HIZ	**Hauiti**	**0.78**	**26**	S	**Sg**	**13 38 15.5**	**+0.3**
HIZ	**Hauiti**	**0.78**	**26**	P	**Pb**	**13 38 04.3**	**-0.3**
HIZ				S	**Sg**	**13 38 15.6**	**+0.4**
HIZ				AML	AML		
HIZ				AML	AML		
TWVZ	**Taurewa**	**0.81**	**80**	P	**Pb**	**13 38 04.4**	**-0.7**
TWVZ				AML	AML		
TWVZ				AML	AML		
MTVZ	**Mangateitei**	**0.83**	**102**	P	**Pb**	**13 38 04.5**	**-1.1**
MTVZ				AML	AML		
MTVZ				AML	AML		

COVZ	**Chateau Observ**	**0.87**	**89**	P		**Pb**	**13 38 05.4**	**-0.8**
COVZ				AML		AML		
COVZ				AML		AML		
TRVZ	**Turoa**	**0.88**	**96**	P		**Pb**	**13 38 05.7**	**-0.8**
TRVZ				AML		AML		
TRVZ				AML		AML		
FWVZ	**Far West T-bar**	**0.88**	**93**	P		**Pb**	**13 38 05.6**	**-0.9**
FWVZ				S		**Sb**	**13 38 18.2**	**+0.1**
FWVZ				AML		AML		
FWVZ				AML		AML		
MAVZ	**Matarangi**	**0.89**	**94**	P		**Pb**	**13 38 05.9**	**-0.7**
MAVZ				AML		AML		
MAVZ				AML		AML		
WHVZ	**Whangaehu Hut**	**0.91**	**95**	P		**Pb**	**13 38 06.4**	**-0.6**
WHVZ				AML		AML		
WHVZ				AML		AML		
WTVZ	**West Tongariro**	**0.92**	**84**	P		**Pb**	**13 38 06.4**	**-0.7**
WTVZ				AML		AML		
WTVZ				AML		AML		
NGZ	**Ngauruhoe**	**0.92**	**88**	P		**Pb**	**13 38 06.3**	**-0.8**
NGZ				AML		AML		
NGZ				AML		AML		
WNVZ	**Wahianoa**	**0.92**	**97**	P		**Pb**	**13 38 06.4**	**-0.7**
WNVZ				AML		AML		
WNVZ				AML		AML		
SNVZ	**South Ngauruho**	**0.95**	**89**	P		**Pb**	**13 38 06.9**	**-0.7**
SNVZ				AML		AML		
SNVZ				AML		AML		
KRVZ	**Karewarewa**	**0.96**	**83**	P		**Pb**	**13 38 07.0**	**-0.7**
KRVZ				AML		AML		
KRVZ				AML		AML		
TUVZ	**Tukino**	**0.96**	**94**	P		**Pb**	**13 38 07.5**	**-0.3**
TUVZ				AML		AML		
TUVZ				AML		AML		
OTVZ	**Oturere**	**0.97**	**87**	P		**Pb**	**13 38 07.2**	**-0.7**
OTVZ				AML		AML		
OTVZ				AML		AML		
NTVZ	**North Tongarir**	**0.98**	**84**	P		**Pb**	**13 38 07.5**	**-0.7**
NTVZ				AML		AML		
NTVZ				AML		AML		
TMVZ	**Te Maari**	**1.00**	**85**	P		**Pb**	**13 38 07.9**	**-0.6**
TMVZ				AML		AML		
TMVZ				AML		AML		
ETVZ	**East Tongariro**	**1.01**	**86**	P		**Pb**	**13 38 08.0**	**-0.6**
ETVZ				AML		AML		
ETVZ				AML		AML		
KATZ	**Kakaramea**	**1.02**	**77**	P		**Pb**	**13 38 08.4**	**-0.5**
KATZ				AML		AML		
KATZ				AML		AML		
MOVZ	**Moawhango**	**1.05**	**101**	P		**Pb**	**13 38 08.5**	**-0.9**
MOVZ				AML		AML		
MOVZ				AML		AML		
RATZ	**Rangitukua**	**1.11**	**72**	P		**Pn**	**13 38 09.8**	**-0.5**
RATZ				AML		AML		
RATZ				AML		AML		
WATZ	**Wairara**	**1.14**	**64**	P		**Pn**	**13 38 10.2**	**-0.6**
WATZ				AML		AML		
WATZ				AML		AML		
RITZ	**Rihia Road**	**1.15**	**79**	P		**Pn**	**13 38 10.5**	**-0.3**
RITZ				AML		AML		
RITZ				AML		AML		
OHWZ	**Ohakea**	**1.21**	**145**	P		**Pn**	**13 38 11.3**	**-0.2**
OHWZ				AML		AML		
TLZ	**Tolley Road**	**1.24**	**45**	P		**Pn**	**13 38 11.5**	**-0.7**
TLZ				AML		AML		
TLZ				AML		AML		
BHHZ	**Black Hill Sta**	**1.30**	**103**	P		**Pn**	**13 38 12.0**	**-1.0**
BHHZ				AML		AML		
BHHZ				AML		AML		
KUTZ	**Kaahu Road**	**1.31**	**57**	P		**Pn**	**13 38 12.8**	**-0.3**
KUTZ				AML		AML		
KUTZ				AML		AML		
WHTZ	**Whakaora**	**1.32**	**66**	P		**Pn**	**13 38 13.2**	**0.0**
WHTZ				AML		AML		
WHTZ				AML		AML		
TSZ	**Takapari Road**	**1.46**	**126**	P		**Pn**	**13 38 15.9**	**+0.8**
WPRZ	**Whakapapatarin**	**1.53**	**64**	P		**Pn**	**13 38 15.6**	**-0.4**
WPRZ				AML		AML		
WPRZ				AML		AML		
PNHZ	**Pukenui**	**1.54**	**117**	P		**Pn**	**13 38 15.8**	**-0.4**
PNHZ				AML		AML		
PNHZ				AML		AML		
KWHZ	**Kaweka Forest**	**1.57**	**98**	P		**Pn**	**13 38 16.4**	**-0.2**
KWHZ				AML		AML		
KWHZ				AML		AML		
POWZ	**Post Office Ro**	**1.57**	**139**	P		**Pn**	**13 38 16.9**	**+0.4**
KRHZ	**Kereru**	**1.57**	**106**	P		**Pn**	**13 38 16.4**	**-0.2**
KRHZ				AML		AML		
KRHZ				AML		AML		
GRRZ	**Galatos Road**	**1.58**	**57**	P		**Pn**	**13 38 16.4**	**-0.3**
GRRZ				AML		AML		
GRRZ				AML		AML		
MRHZ	**Matea Rd**	**1.60**	**77**	P		**Pn**	**13 38 16.6**	**-0.5**
MRHZ				AML		AML		
MRHZ				AML		AML		
BKZ	**Black Stump Fm**	**1.61**	**89**	P		**Pn**	**13 38 17.0**	**-0.2**
BKZ	**Black Stump Fm**	**1.61**	**89**	S		**Sb**	**13 38 40.3**	**+1.4**
BKZ	**Black Stump Fm**	**1.61**	**89**	P		**Pn**	**13 38 17.0**	**-0.2**
BKZ				AML		AML		
BKZ				AML		AML		
DUWZ	**D'Urville Isla**	**1.63**	**193**	P		**Pn**	**13 38 17.0**	**-0.4**
DUWZ				AML		AML		
DUWZ				AML		AML		
KIW	**Kapiti Island**	**1.69**	**167**	P		**Pn**	**13 38 18.0**	**-0.2**
MRZ	**Mangatainoka R**	**1.70**	**149**	P		**Pn**	**13 38 18.7**	**+0.4**
OGWZ	**Otaki Gorge**	**1.70**	**160**	P		**Pn**	**13 38 18.4**	**0.0**
TOZ	**Tahuroa Road**	**1.71**	**30**	P		**Pn**	**13 38 17.7**	**-0.7**
DVHZ	**Dannevirke**	**1.73**	**129**	P		**Pn**	**13 38 19.9**	**+1.1**
UTU	**Utuhina**	**1.73**	**54**	P		**Pn**	**13 38 18.7**	**-0.1**
NGRZ	**Ngongotaha**	**1.77**	**52**	P		**Pn**	**13 38 19.2**	**-0.3**
WPHZ	**Waipukurau**	**1

MXZ	**Matakaoa Point**	**3.47**	**63**	P		**Pn**	**13 38 44.3**	**+1.6**
OUZ	**Omahuta**	**4.04**	**350**	P		**Pn**	**13 38 49.5**	**-1.0**
JCZ	**Jackson Bay**	**6.43**	**219**	P		**Pn**	**13 39 23.1**	**-0.3**
ODZ	**Otahua Downs**	**6.46**	**204**	P		**Pn**	**13 39 24.4**	**+0.6**

*SJA **02** 13:38:33.3±0.6,20.°15S×71.°01W,h24km±2km,ML3.1, MW3.5*
*GUC **02** 13:38:36.0±0.9,20.°19S×70.°99W,h36km±4km,ML3.1, Presumed earthquake*

ISC 02 13:38:34.2±1.7,**20.°16S**±0.°03×**71.°00W**±0.°07,**h23**km±15km, **n26**,σ0°**91**/45,**1C**,**Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
TA02	**Huaiquique**	**0.82**	**98**	*eP*		**Pn**	**13 38 49.6**	**-0.8**
TA02				*eS*		**Sn**	**13 39 01.8**	**-0.1**
TA02				IAML			13 39 01.9	
	comp=Z,986nm,0.6s							
TA02	**Huaiquique**	**0.82**	**98**	*eP*		**Pn**	**13 38 50.0**	**-0.4**
TA02				*i* S		**Sb**	**13 39 00.9**	**+0.3**
TA01	**Diego Aracena**	**0.87**	**118**	*eP*		**Pn**	**13 38 50.7**	**-0.3**
TA01				*eS*		**Sb**	**13 39 03.5**	**+1.6**
TA01				IAML			13 39 04.8	
	comp=Z,285nm,0.9s							
TA01	**Diego Aracena**	**0.87**	**118**	*eP*		**Pn**	**13 38 50.5**	**-0.5**
TA01				*i* S		**Sn**	**13 39 02.4**	**-0.6**
PSGCX	**Pisagua**	**0.99**	**56**	*eP*		**Pn**	**13 38 52.6**	**-0.2**
PSGCX				*eS*		**Sb**	**13 39 07.1**	**+1.5**
PSGCX				IAML			13 39 07.4	
	comp=Z,336nm,0.3s							
PSGCX	**Pisagua**	**0.99**	**56**	*eP*		**Pn**	**13 38 52.4**	**-0.4**
PSGCX				*i* S		**Sn**	**13 39 05.7**	**-0.6**
PB11	**IPOC Station P**	**1.32**	**73**	*eP*		**Pn**	**13 38 58.1**	**+0.6**
PB11	**IPOC Station P**	**1.32**	**73**	*eP*		**Pn**	**13 38 57.7**	**+0.3**
PB11				*i* S		**Sb**	**13 39 16.3**	**+1.2**
PB11				IAML			13 39 20.1	
	comp=N,590nm,0.5s							
PB02	**IPOC Station P**	**1.55**	**138**	*eP*		**Pb**	**13 39 02.0**	**-0.3**
PB02				*eS*		**Sb**	**13 39 21.8**	**+0.2**
PB02				IAML			13 39 27.2	
	comp=Z,571nm,0.2s							
PB02	**IPOC Station P**	**1.55**	**138**	*eP*		**Pn**	**13 39 01.3**	**+0.8**
PB02				*i* S		**Sn**	**13 39 20.4**	**+0.4**
PB02				IAML			13 39 26.4	
	comp=E,575nm,0.1s							
PB12	**IPOC Station P**	**1.66**	**23**	*eP*		**Pb**	**13 39 04.3**	**+0.1**
PB12	**IPOC Station P**	**1.66**	**23**	*eP*		**Pb**	**13 39 03.8**	**-0.3**
PB12				*i* S		**Sb**	**13 39 24.6**	**-0.1**
PB08	**IPOC Station P**	**1.73**	**90**	*eP*		**Pb**	**13 39 04.9**	**-0.7**
PB08	**IPOC Station P**	**1.73**	**90**	*eP*		**Pn**	**13 39 04.5**	**+1.2**
PB08				*i* S		**Sb**	**13 39 26.6**	**-0.5**
GO01	**Chusmiza**	**1.77**	**74**	*eP*		**Pn**	**13 39 05.1**	**+1.3**
GO01				*eS*		**Sb**	**13 39 29.0**	**+0.8**
GO01				IAML			13 39 29.9	
	comp=Z,195nm,0.2s							
GO01	**Chusmiza**	**1.77**	**74**	*eP*		**Pn**	**13 39 04.7**	**+0.9**
GO01				*i* S		**Sb**	**13 39 27.9**	**-0.3**
PB07	**IPOC Station P**	**1.88**	**147**	*iP*		**Pn**	**13 39 05.8**	**+0.7**
PB07				*i* S		**Sn**	**13 39 27.9**	**-0.2**
PB07				IAML			13 39 42.1	
	comp=E,157nm,0.5s							
PB03	**IPOC Station P**	**2.21**	**148**	*eP*		**Pn**	**13 39 10.4**	**+0.7**
PB03				*i* S		**Sn**	**13 39 36.8**	**+0.3**
PB03				IAML			13 39 53.0	
	comp=E,104nm,0.4s							
PB16	**IPOC Station P**	**2.29**	**38**	*eP*		**Pb**	**13 39 13.9**	**-1.4**
PB16				*eS*		**Sn**	**13 39 39.8**	**+0.8**
PB16				IAML			13 39 49.2	
	comp=Z,92nm,0.4s							
PB16	**IPOC Station P**	**2.29**	**38**	*eP*		**Pb**	**13 39 14.6**	**-0.7**
PB16				*i* S		**Sb**	**13 39 42.0**	**-1.4**
PB16				IAML			13 39 54.1	
	comp=N,309nm,1.1s							
PB09	**IPOC Station P**	**2.32**	**135**	*eP*		**Pb**	**13 39 13.8**	**-1.6**
PB09	**IPOC Station P**	**2.32**	**135**	*eP*		**Pn**	**13 39 13.1**	**+2.0**
PB09				*i* S		**Sb**	**13 39 44.8**	**+1.2**
PB09				IAML			13 39 52.4	
	comp=E,203nm,0.5s							
PB05	**IPOC Station P**	**2.79**	**165**	*eP*		**Pn**	**13 39 18.6**	**+1.1**
PB05	**IPOC Station P**	**2.79**	**165**	*eP*		**Pn**	**13 39 17.7**	**+0.2**
PB06	**IPOC Station P**	**2.87**	**153**	*eP*		**Pn**	**13 39 17.7**	**-1.0**
PB06				*eS*		**Sn**	**13 39 51.1**	**-1.4**
PB18	**Visviri**	**2.93**	**30**	*eP*		**Pb**	**13 39 26.4**	**+0.3**

*GFZ **02** 13:42:18.1±0.2,13.°S±3.°×7.°7W±.°,h30km,M4.5/16, mb4.5/16,confirmed*
*IDC **02** 13:42:19.1±1.9,13.°02S×76.°88W,h43km±16km,mb3.9/15, mbtmp4.1/19,ML3.6/4,MS3.6/12,Error ellipse: s-maj=28.7km s-min=10.4km az=67.0*
*NEIC **02** 13:42:19.3±1.5,13.°10S±0.°06×76.°9W±0.°1,h37km±5km, mb4.7/75,Error ellipse: s-maj=15.7km s-min=8.0km az=75.0*

ISC 02 13:42:19.3±0.4,**13.°06S**±0.°05×**76.°87W**±0.°09,**h45**km,**n139**, σ0°**79**/109,**mb4.6**/52,**MS3.4**/10,**Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
NNA	**Nana**	**1.07**	**2**	P		**Pn**	**13 42 36.9**	**-1.1**
	786nm,0.3s,baz=204,slow=9.9,SNR=220							
NNA				S		**Sn**	**13 42 50.7**	**-1.0**
	3μm,0.4s,baz=69,slow=20,SNR=7.8							
NNA	**Nana**	**1.07**	**2**			**Pn**	**13 42 37.0**	**-1.0**
NNA					Sn	**Sn**	**13 42 51.5**	**-0.2**
NNA	**Nana**	**1.07**	**2**	P		**Pn**	**13 42 37.0**	**-1.0**
NNA				S		**Sn**	**13 42 51.8**	**+0.1**
ATAH	**Atahualpa**	**6.08**	**346**	P		**Pn**	**13 43 47.5**	**+0.4**
	12nm,0.3s,baz=120,slow=3.8,SNR=46							
ATAH				S		**Sn**	**13 44 53.9**	**-1.7**
	54nm,0.6s,baz=338,slow=23,SNR=1.6 27nm,0.3s							
ATAH				AML		AML		
CZSB	**Cruzeiro do Su**	**6.70**	**38**			**Pn**	**13 43 55.7**	**+0.5**
PB12	**IPOC Station P**	**8.37**	**132**			**Pn**	**13 44 16.7**	**-1.6**
PB12	**IPOC Station P**	**8.37**	**132**	P		**Pn**	**13 44 16.3**	**-2.0**
	comp=Z,62nm,0.6s							
PB16	**IPOC Station P**	**8.82**	**127**			**Pn**	**13 44 24.4**	**-0.4**
PB16	**IPOC Station P**	**8.82**	**127**	P		**Pn**	**13 44 24.9**	**+0.1**
	comp=Z,27nm,0.7s							
LPAZ	**La Paz**	**9.05**	**112**	P		**Pn**	**13 44 28.9**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=291,slow=9.6,SNR=11							
LPAZ				LR		LR	13 48 30.3	
	comp=Z,235nm,18.9s,baz=266,slow=41 comp=Z,0.5nm,0.4s							
LPAZ				AML		AML		
LPAZ	**La Paz**	**9.05**	**112**			**Pn**	**13 44 27.4**	**-0.6**
PSGCX	**Pisagua**	**9.18**	**136**			**Pn**	**13 44 27.9**	**-1.4**
PB11	**IPOC Station P**	**9.61**	**135**	P		**Pn**	**13 44 33.4**	**-1.9**
	comp=Z,23nm,0.8s							
GO01	**Chusmiza**	**9.87**	**133**			**Pn**	**13 44 37.3**	**-1.8**
GO01	**Chusmiza**	**9.87**	**133**	P		**Pn**	**13 44 37.7**	**-1.5**
	comp=Z,19nm,0.6s							
PB08	**IPOC Station P**	**10.21**	**135**			**Pn**	**13 44 41.6**	**-2.1**
PB08	**IPOC Station P**	**10.21**	**135**	P		**Pn**	**13 44 43.0**	**-0.8**
	comp=Z,11nm,0.8s							
PB02	**IPOC Station P**	**10.57**	**142**	P		**Pn**	**13 44 47.2**	**-1.2**
	comp=Z,19nm,0.6s							
PB07	**IPOC Station P**	**10.89**	**143**			**Pn**	**13 44 51.4**	**-1.5**
AC01	**Pan de Azucar**	**14.29**	**157**	Pn		**Pn**	**13 45 39.2**	**+0.2**
SIV	**San Ignacio**	**15.57**	**103**	P		**Pn**	**13 45 56.2**	**+0.2**
	baz=272,slow=12,SNR=4.5 comp=Z,0.3nm,0.3s							
ROSC	**El Rosal**	**17.96**	**8**	P		**Pn**	**13 46 26.1**	**-0.2**
	comp=Z,0.5nm,0.3s,baz=162,slow=20,SNR=1.2							
ROSC				LR		LR	13 54 50.1	
	comp=Z,358nm,18.2s,baz=231,slow=42 comp=Z,4.8nm,0.3s							
ROSC				AML		AML		
CO01	**Juntas del Tor**	**17.97**	**161**			**Pn**	**13 46 25.3**	**-0.8**
CFA	**Coronel Fontan**	**20.09**	**158**	P		**P**	**13 46 50.1**	**+0.8**
	comp=Z,1.9nm,0.6s,baz=344,slow=6.7,SNR=7.6 comp=Z,1.9nm,0.6s							
H03N1	**Juan Fernandez**	**20.37**	**185**	T		T	14 07 42.2	
	baz=5.2,slow=74,SNR=93							
H03N2	**Juan Fernandez**	**20.37**	**185**	T		T	14 07 41.4	
	baz=257,slow=74,SNR=100							
CLDB	**Colider**	**20.73**	**86**	P		**P**	**13 46 56.8**	**+0.4**
	comp=Z,9.3nm,0.9s							
CPUP	**Villa Florida**	**22.60**	**129**	P		**P**	**13 47 16.3**	**0.0**
	comp=Z,0.9nm,0.7s,baz=313,slow=12,SNR=3.0							
CPUP				LR		LR	13 56 50.6	
	comp=Z,89nm,19.0s,baz=262,slow=38							
CPUP	**Villa Florida**	**22.60**	**129**	P		**P**	**13 47 15.9**	**-0.4**
SDV	**Santo Domingo**	**22.67**	**16**	LR		LR	13 58 32.1	
	comp=Z,98nm,19.8s,baz=260,slow=43							
SDV	**Santo Domingo**	**22.67**	**16**			**P**	**13 47 18.4**	**+1.1**
SDV					IAmb	IAmb	13 47 19.3	
	comp=Z,17nm,0.9s							
SDV	**Santo Domingo**	**22.67**	**16**	P		**P**	**13 47 18.0**	**+0.7**
	comp=Z,117nm,0.9s							
SJCC	**San Jacinto, C**	**22.87**	**4**			**P**	**13 47 20.7**	**+1.5**
JTS	**Las Juntas de**	**24.55**	**341**	LR		LR	13 56 14.2	
	comp=Z,119nm,18.8s,baz=159,slow=34							
URIC	**Uribia, Colomb**	**25.07**	**11**	P		**P**	**13 47 38.9**	**-0.9**
BDFB	**Brasilia**	**28.07**	**99**	LR		LR	14 00 02.6	
	comp=Z,116nm,20.2s,baz=190,slow=38							
PLCA	**Paso Flores**	**28.12**	**170**	P		**P**	**13 48 06.8**	**-0.3**
	comp=Z,1.5nm,0.9s,baz=344,slow=15,SNR=4.5							
PLCA				LR		LR	13 56 31.7	
	comp=Z,77nm,20.5s,baz=5.5,slow=30 comp=Z,1.5nm,0.9s							
PLCA	**Paso Flores**	**28.12**	**170**	P		**P**	**13 48 06.7**	**-0.5**
PLCA					IAmb	IAmb	13 48 21.8	
	comp=Z,5.7nm,1.3s							
HNDO	**Hondo**	**47.54**	**333**			**P**	**13 50 51.2**	**+0.7**
TKL	**Tuckaleechee C**	**48.89**	**353**	P		**P**	**13 51 01.7**	**+0.9**
TKL					IAmb	IAmb	13 51 23.1	
	comp=Z,9.8nm,1.1s							
BRDY	**Brady**	**48.95**	**335**	P		**P**	**13 51 01.4**	**+0.1**
TXAR	**Lajitas Array**	**49.45**	**329**	P		**P**	**13 51 05.6**	**+0.3**
	comp=Z,1.8nm,0.9s,baz=150,slow=9.2,SNR=16 comp=Z,1.8nm,0.9s							
TX31	**Lajitas Ar. Si**	**49.45**	**329**			**P**	**13 51 05.5**	**+0.2**
OZNA	**Ozona**	**49.56**	**332**	P		**P**	**13 51 06.2**	**+0.1**
OZNA					IAmb	IAmb	13 51 07.0	
	comp=Z,6.2nm,0.6s							
MIAR	**Mount Ida**	**49.93**	**342**	P		**P**	**13 51 09.3**	**+0.6**
MIAR					IAmb	IAmb	13 51 24.6	
	comp=Z,16nm,1.5s							
MIAR	**Mount Ida**	**49.93**	**342**	P		**P**	**13 51 08.5**	**-0.2**
	comp=Z,8.9nm,1.6s							
ABTX	**Abilene, Hawle**	**50.38**	**335**	P		**P**	**13 51 12.5**	**+0.3**
TPB05	**Hovey Rd**	**50.58**	**330**		IAmb	IAmb	13 51 15.3	
	comp=Z,5.3nm,0.8s							
MNHN	**Monahans**	**50.66**	**331**			**P**	**13 51 14.7**	**+0.3**
MNHN					IAmb	IAmb	13 51 15.7	
	comp=Z,11nm,0.9s							
TPB01	**Permian Basin**	**50.82**	**330**		IAmb	IAmb	13 51 17.1	
	comp=Z,7.7nm,1.0s							
APMT	**Aspermont**	**51.18**	**335**			**P**	**13 51 18.9**	**+0.7**
VHRN	**Van Horn**	**51.30**	**329**		IAmb	IAmb	13 51 20.2	
	comp=Z,6.0nm,0.9s							
POST	**Post**	**51.55**	**333**		IAmb	IAmb	13 51 21.9	
	comp=Z,14nm,0.9s							
TPB28		**51.77**	**330**		IAmb	IAmb	13 51 24.7	
	comp=Z,7.2nm,1.0s							
DKNS	**Dickens**	**51.81**	**334**		IAmb	IAmb	13 51 24.0	
	comp=Z,10nm,0.8s							
MNTX	**Cornudas Mount**	**52.23**	**329**	P		**P**	**13 51 26.2**	**+0.1**
	comp=Z,4.9nm,1.9s							
SMWD	**Samnorwood**	**52.78**	**336**			**P**	**13 51 29.9**	**-0.2**
SMWD					IAmb	IAmb	13 51 30.8	
	comp=Z,12nm,0.8s							
S39A	**Bolivar**	**52.79**	**344**			**P**	**13 51 29.9**	**-0.2**
R40A	**Maddies Statio**	**53.08**	**345**		IAmb	IAmb	13 51 32.1	
	comp=Z,8.7nm,0.7s							
121A	**Cookes Peak, D**	**54.12**	**328**		IAmb	IAmb	13 51 42.3	
	comp=Z,16nm,1.4s							
BINY	**Binghamton**	**54.99**	**1**	P		**P**	**13 51 46.8**	**+0.7**
	comp=Z,43nm,2.7s							
ALQ	**Albuquerque**	**55.38**	**330**			**P**	**13 51 49.8**	**+0.5**
ALQ					IAmb	IAmb	13 51 50.8	
	comp=Z,4.9nm,1.0s							
ANMO	**Albuquerque**	**55.38**	**330**			**P**	**13 51 49.7**	**+0.4**
ANMO	**Albuquerque**	**55.38**	**330**	P		**P**	**13 51 50.3**	**+1.0**
	comp=Z,7.0nm,2.8s							
TASM	**ASL Pad, Albuq**	**55.38**	**330**		IAmb	IAmb	13 51 50.8	
	comp=Z,4.8nm,1.0s							
TASM	**ASL Pad, Albuq**	**55.38**	**330**		IAmb	IAmb	13 51 50.8	
	comp=Z,5.2nm,1.0s							
TUC	**Tucson**	**55.57**	**325**	P		**P**	**13 51 50.8**	**+0.3**
SDCO	**Great Sand Dun**	**57.24**	**333**	P		**P**	**13 52 02.6**	**+0.1**
SDCO					IAmb	IAmb	13 52 03.8	
	comp=Z,4.5nm,0.9s							
SADO	**Sadowa**	**57.59**	**358**	LR		LR	14 18 20.5	
	comp=Z,24nm,19.2s,baz=48,slow=38							
MVCO	**Mesa Verde**	**58.18**	**330**	P		**P**	**13 52 09.2**	**0.0**
	comp=Z,7.3nm,2.7s							
WUAZ	**Wupatki**	**58.31**	**327**		IAmb	IAmb	13 52 12.1	
	comp=Z,7.5nm,1.2s							
PV02	**Paradox Valley**	**59.09**	**331**	P		**P**	**13 52 15.8**	**+0.4**
PV02					IAmb	IAmb	13 52 16.9	
	comp=Z,15nm,1.4s							
PV13	**Radium Mtn., P**	**59.09**	**331**		IAmb	IAmb	13 52 17.0	
	comp=Z,15nm,1.3s							
PV17	**East Wray Mesa**	**59.26**	**331**	P		**P**	**13 52 17.1**	**+0.5**
PV17					IAmb	IAmb	13 52 20.6	
	comp=Z,12nm,1.5s							
IRM	**Iron Mountain**	**59.41**	**323**		IAmb	IAmb	13 52 19.5	
	comp=Z,6.9nm,1.2s							
E62A	**Clayton Lake**	**59.77**	**6**	P		**P**	**13 52 21.0**	**+1.4**
PFO	**Pinon Flats O**	**59.80**	**322**	P		**P**	**13 52 20.3**	**0.0**
BSUT	**Blindstream Ca**	**61.89**	**331**	P		**P**	**13 52 35.2**	**+0.5**
BSUT					IAmb	IAmb	13 52 36.6	
	comp=Z,8.9nm,1.4s							
DUG	**Dugway, Tooele**	**62.62**	**330**	P		**P**	**13 52 40.3**	**+1.0**
	comp=Z,6.6nm,1.1s							
HWUT	**Hardware Ranch**	**63.11**	**331**			**P**	**13 52 42.4**	**-0.2**
HWUT					IAmb	IAmb	13 52 43.5	
	comp=Z,6.5nm,1.0s							
HWUT	**Hardware Ranch**	**63.11**	**331**	P		**P**	**13 52 42.1**	**-0.5**
	comp=Z,6.9nm,2.6s							
PDAR	**Pinedale Array**	**63.13**	**334**	P		**P**	**13 52 42.1**	**-0.6**
	comp=Z,0.7nm,0.7s,baz=135,slow=8.3,SNR=7.2 comp=Z,0.7nm,0.7s							
HVU	**Hansel Valley**	**63.81**	**331**		IAmb	IAmb	13 52 48.1	
	comp=Z,3.7nm,0.9s							
NVAR	**Mina Array Bea**	**64.23**	**325**	P		**P**	**13 52 49.8**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=139,slow=6.5,SNR=11 comp=Z,1.0nm,0.7s							
KVN	**Kaiserville**	**64.55**	**325**	P		**P**	**13 52 52.5**	**+0.4**
YNE	**Yellowstone No**	**65.13**	**335**		IAmb	IAmb	13 52 57.0	
	comp=Z,4.4nm,1.0s							
ULM	**Lac du Bonnet**	**65.21**	**347**	P		**P**	**13 52 54.7**	**-1.2**
	comp=Z,8.7nm,0.8s,baz=165,slow=7.5,SNR=8.0 comp=Z,8.7nm,0.8s							
ULM	**Lac du Bonnet**	**65.21**	**347**			**P**	**13 52 55.1**	**-0.8**
ULM					IAmb	IAmb	13 52 55.9	
	comp=Z,7.2nm,0.9s							
YHL	**Hebgen Lake**	**65.50**	**334**		IAmb	IAmb	13 53 01.0	
	comp=Z,5.4nm,0.9s							
MFID	**Camas Ranch**	**66.52**	**330**		IAmb	IAmb	13 53 06.5	
	comp=Z,7.5nm,1.1s							
SCHQ	**Schefferville**	**68.16**	**6**	LR		LR	14 26 32.1	
	comp=Z,19nm,18.1s,baz=124,slow=39							
SCHQ	**Schefferville**	**68.16**	**6**	P		**P**	**13 53 14.1**	**-0.5**
YBH	**Yreka Blue Hor**	**68.95**	**325**	LR		LR	14 22 12.3	
	comp=Z,50nm,19.9s,baz=90,slow=35							
L04D	**Klamath Falls**	**69.05**	**325**	P		**P**	**13 53 20.5**	**-0.1**
L04D					IAmb	IAmb	13 53 36.5	
	comp=Z,8.5nm,1.3s							
VNA3	**Neumayer Olymp**	**70.45**	**162**	P		**P**	**13 53 28.9**	**+0.2**
	comp=Z,4.5nm,2.4s							
VNA2	**Neumayer--Watz**	**71.07**	**161**	P		**P**	**13 53 32.2**	**-0.2**
	comp=Z,1.8nm,0.6s,baz=285,slow=6.1							
VNA2	**Neumayer--Watz**	**71.07**	**161**	P		**P**	**13 53 32.3**	**-0.2**
	comp=Z,2.9nm,0.6s							
SNAA	**Sanae**	**72.67**	**161**	P		**P**	**13 53 42.3**	**+0.1**
	comp=Z,53nm,0.5s							
SNAA	**Sanae**	**72.67**	**161**	P		**P**	**13 53 41.6**	**-0.6**
	comp=Z,1.7nm,0.5s,baz=274,slow=8.4,SNR=4.8 comp=Z,1.7nm,0.5s							
SNAA	**Sanae**	**72.67**	**161**	P		**P**	**13 53 42.0**	**-0.1**
TROLL	**Troll, Antarti**	**74.39**	**162**	P		**P**	**13 53 52.7**	**+0.4**
	comp=Z,30nm,0.4s							
QSPA	**South Pole Qui**	**77.08**	**180**	P		**P**	**13 54 08.1**	**+0.3**
	comp=Z,1.8nm,1.1s,baz=129,slow=4.8,SNR=2.8 comp=Z,1.8nm,1.1s							
QSPA	**South Pole Qui**	**77.08**	**180**	P		**P**	**13 54 08.7**	**+1.0**
NRS	**Narsarsuaq**	**78.07**	**15**	P		**P**	**13 54 12.8**	**-0.2**
	comp=Z,50nm,3.0s							
BBB	**Bella Bella**	**78.54**	**331**	P		**P**	**13 54 16.6**	**+0.8**
	comp=Z,37nm,1.1s,baz=135,slow=13,SNR=3.3							
YKA	**Yellowknife Ar**	**80.86**	**343**	P		**P**	**13 54 27.9**	**-0.2**
	comp=Z,3.2nm,0.9s,baz=142,slow=4.7,SNR=6.5 comp=Z,3.2nm,0.9s							
TORD	**Torodi Ar. Bea**	**82.10**	**75**	P		**P**	**13 54 35.7**	**-0.2**
	comp=Z,5.1nm,0.8s,baz=268,slow=5.3,SNR=34 comp=Z,5.1nm,0.8s							
DLBC	**Dease Lake**	**83.32**	**335**	P		**P**	**13 54 41.1**	**-0.1**
	comp=Z,4.2nm,1.0s,baz=83,slow=8.1,SNR=3.1 comp=Z,4.2nm,1.0s							
VNDA	**Vanda**	**83.73**	**191**	P		**P**	**13 54 44.2**	**+1.1**
M30M	**Minto, Yukon**	**88.45**	**336**	P		**P**	**13 55 07.5**	**+1.0**
M30M					IAmb	IAmb	13 55 20.3	
	comp=Z,4.1nm,1.2s							
SUMG	**Summit**	**89.09**	**11**	P		**P**	**13 55 10.4**	**+0.7**
L29M	**L29M**	**89.25**	**337**	P		**P**	**13 55 10.9**	**+0.6**
INK	**Inuvik**	**90.53**	**342**	P		**P**	**13 55 15.7**	**-0.4**
	comp=Z,2.9nm,1.1s,baz=94,slow=6.8,SNR=4.0 comp=Z,2.9nm,1.1s							
INK	**Inuvik**	**90.53**	**342**	IAmb		IAmb	13 55 18.1	
	comp=Z,7.2nm,1.4s							
EKA	**Eskdalemuir Ar**	**91.61**	**33**	P		**P**	**13 55 21.6**	**+0.2**
	comp=Z,1.1nm,0.7s,baz=349,slow=5.5,SNR=0.8 comp=Z,1.1nm,0.7s							
KLU	**Klutina**	**91.71**	**333**			**P**	**13 55 22.1**	**+0.3**
ILAR	**Eielson Array**	**93.45**	**336**	P		**P**	**13 55 28.9**	**-0.7**
	comp=Z,0.6nm,0.8s,baz=154,slow=3.1,SNR=6.1 comp=Z,0.6nm,0.8s							
BOSA	**Boshof**	**94.19**	**120**	LR		LR	14 35 23.6	
	comp=Z,36nm,20.8s,baz=178,slow=34							
MSVF	**Nonsavu**	**100.00**	**249**	LR		LR	14 30 12.5	
	comp=Z,67nm,19.0s,baz=160,slow=29							
H11N3	**WAKE ISLAND Hyl**	**18.74**	**285**	T		T	16 10 42.0	
	baz=96,slow=74,SNR=18							
H11N2	**WAKE ISLAND Hyl**	**18.76**	**285**	T		T	16 10 40.8	
	baz=96,slow=74,SNR=28							
H11N1	**WAKE ISLAND Hyl**	**18.76**	**285**	T		T	16 10 38.6	
	baz=96,slow=74,SNR=14							
H11S2	**WAKE ISLAND Hyl**	**18.83**	**284**	T		T	16 10 44.7	
	baz=92							
H11S1	**WAKE ISLAND Hyl**	**18.84**	**284**	T		T	16 10 43.7	
	baz=92							
H11S3	**WAKE ISLAND Hyl**	**18.85**	**284**	T		T	16 10 42.5	
	baz=92							
ASAR	**Alice Springs**	**132.69**	**220**	PKP		**PKPdf**	**14 01 29.4**	**-0.8**
	comp=Z,1.3nm,1.1s,baz=113,slow=2.3,SNR=5.4							
WRA	**Warramunga Arr**	**135.06**	**224**	PKP		**PKPdf**	**14 01 34.1**	**-0.6**
	comp=Z,1.1nm,0.7s,baz=139,slow=1.5,SNR=9.3							
WRA	**Warramunga Arr**	**135.06**	**224**			**PKPdf**	**14 01 34.7**	**0.0**
ZALV	**Zalesovo Beam**	**136.72**	**16**	PKP		**PKPdf**	**14 01 36.8**	**+0.1**
	comp=Z,1.5nm,0.6s,baz=318,slow=2.0,SNR=8.1							
ZALV	**Zalesovo Beam**	**136.72**	**16**			**PKPdf**	**14 01 37.0**	**+0.3**
KURK	**Kurchatov**	**137.48**	**23**			**PKPdf**	**14 01 38.1**	**0.0**
KURBB	**Kurchatov Arra**	**137.52**	**23**	PKP		**PKPdf**	**14 01 38.1**	**-0.1**
	comp=Z,1.2nm,0.8s,baz=314,slow=2.4,SNR=8.5							
MKAR	**Makanchi Array**	**142.08**	**23**	PKP		**PKPdf**	**14 01 45.1**	**-1.6**
	comp=Z,0.6nm,0.8s,baz=323,slow=1.8,SNR=5.6							
KSH2	**Kashi**	**144.39**	**38**	P		**PKPdf**	**14 01 51.1**	**-0.1**
KSH2				pmax		pmax		
	comp=Z,5.0nm,1.0s							
SONM	**Songino Array**	**145.23**	**356**	PKPbc		**PKPdf**	**14 01 52.4**	**0.0**
	comp=Z,7.6nm,0.7s,baz=342,slow=1.0,SNR=37							
KSRS	**Korea Array**	**147.14**	**322**	PKPbc		**PKPdf**	**14 01 56.3**	**+0.6**
	comp=Z,0.9nm,0.5s,baz=45,slow=2.4,SNR=3.4							
HHC	**Hu-ho-hao-te**	**151.35**	**347**	*eP*		**PKPdf**	**14 02 02.7**	**+0.2**
NJ2	**Nanjing**	**156.22**	**325**	*eP*		**PKPdf**	**14 02 10.6**	**+1.1**
NJ2				pmax		pmax		
	comp=Z,13nm,0.5s							
CMAR	**Chiang Mai Arr**	**173.29**	**36**	PKPab		**PKPab**	**14 03 51.6**	**-1.1**
	comp=Z,0.3nm,0.3s,baz=321,slow=4.3,SNR=4.1							

AFAD 02 13:59:31.0,37.°76N×27.°00E,h7km±1km,**ML1.5,Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.20**	**111**	P		Pg	13 59 35.6	+0.7
GCAM				S		Sg	13 59 38.6	+1.1
GCAM				IAML			13 59 39.0	

	comp=N,1μm,0.5s							
DUVT	**Torbali**	**0.59**	**33**	P	**Pg**	**14 12 30.3**	**-0.6**
DUVT				S	**Sg**	**14 12 38.8**	**0.0**
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg	**Pg**	**14 12 31.7**	**+0.2**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**0**	P	**Pg**	**14 12 31.5**	**-0.6**
BLCB				S	**Sb**	**14 12 41.8**	**0.0**
BLCB	**Balcova**	**0.66**	**0**	Pg	**Pg**	**14 12 31.9**	**-0.2**
BLCB				Sg	**Sb**	**14 12 41.7**	**-0.1**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.67**	**321**	P	**Pg**	**14 12 31.6**	**-0.6**
ZEYE				S	**Sg**	**14 12 41.4**	**+0.4**
ZEYE				IAML		14 12 46.0	
	comp=E,974nm,0.7s						
ZEYE				IAML		14 12 47.0	
	comp=N,2μm,0.6s						
AYDN	**Tasoluk**	**0.67**	**95**	P	**Pg**	**14 12 32.3**	**0.0**
AYDN				S	**Sb**	**14 12 42.4**	**+0.3**
AYDN				IAML		14 12 46.0	
	comp=E,904nm,0.5s						
BODT	**Bodrum**	**0.69**	**162**	P	**Pg**	**14 12 32.8**	**0.0**
BODT				S	**Sg**	**14 12 42.5**	**+0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**71**	Pg	**Pg**	**14 12 33.0**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**126**	Pg	**Pg**	**14 12 33.1**	**-0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.73**	**153**	P	**Pg**	**14 12 32.4**	**-1.1**
BDRM				S	**Sg**	**14 12 43.1**	**0.0**
BDRM				IAML		14 12 48.0	
	comp=N,1μm,0.6s						
KLNA	**Kalymnos**	**0.77**	**184**	P	**Pg**	**14 12 33.8**	**-0.3**
KLNA				S	**Sg**	**14 12 44.0**	**-0.1**
IZMR	**zmir-demi**	**0.83**	**60**	P	**Pg**	**14 12 35.0**	**-0.4**
IZMR				S	**Sg**	**14 12 44.7**	**-1.7**
CESE	**eme**	**0.84**	**316**	Pg	**Pb**	**14 12 35.9**	**+0.2**
CESE				AML	AML		
BAGT	**Foa**	**0.94**	**351**	P	**Pb**	**14 12 37.6**	**+0.2**
BAGT				S	**Sb**	**14 12 50.4**	**+0.6**
BAGT				IAML		14 12 55.0	
	comp=E,988nm,0.7s						
BAGT				IAML		14 12 59.0	
	comp=N,867nm,0.7s						
KRBN	**Karaburun**	**0.95**	**337**	Pg	**Pb**	**14 12 37.9**	**+0.3**
KRBN				AML	AML		
FOCM	**Foa**	**1.02**	**346**	Pg	**Pb**	**14 12 38.9**	**+0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**14 12 38.7**	**-0.1**
CHOS				S	**Sb**	**14 12 52.7**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	Pg	**Pb**	**14 12 39.2**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**14 12 38.8**	**-0.1**
CHOS				S	**Sb**	**14 12 53.2**	**+1.0**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg	**Pb**	**14 12 38.9**	**0.0**
NAZL				AML	AML		
CAMT	**Merkez**	**1.05**	**12**	P	**Pg**	**14 12 38.9**	**-0.5**
CAMT				S	**Sn**	**14 12 55.3**	**+1.2**
CAMT				IAML		14 12 56.0	
	comp=E,919nm,0.6s						
CAMT				IAML		14 12 59.0	
	comp=N,1μm,0.7s						
KARB	**zmir-Karabur**	**1.06**	**333**	P	**Pg**	**14 12 39.1**	**-0.6**
KARB				S	**Sb**	**14 12 53.8**	**+0.5**
KARB				IAML		14 12 56.0	
	comp=E,819nm,0.6s						
KARB				IAML		14 12 57.0	
	comp=N,617nm,0.5s						
EAG2	**Marmaro, Chios**	**1.10**	**319**	P	**Pb**	**14 12 39.5**	**-0.7**
EAG2				S	**Sg**	**14 12 53.8**	**-0.9**
YER	**Yerkesik**	**1.15**	**120**	P	**Pb**	**14 12 41.0**	**-0.1**
YER				S	**Sb**	**14 12 55.0**	**-1.0**
YER	**Yerkesik**	**1.15**	**120**	Pn	**Pb**	**14 12 40.9**	**-0.2**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.18**	**66**	P	**Pn**	**14 12 42.0**	**+0.4**
KIRA				S	**Sn**	**14 12 58.3**	**+0.7**
KIRA				IAML		14 13 01.0	
	comp=N,372nm,0.7s						
KIRA				IAML		14 13 05.0	
	comp=E,202nm,0.8s						
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pg**	**14 12 42.4**	**0.0**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.24**	**2**	P	**Pn**	**14 12 41.9**	**-0.5**
ZEDA				S	**Sn**	**14 12 59.8**	**+0.9**
ZEDA				IAML		14 13 04.0	
	comp=E,548nm,0.6s						
ZEDA				IAML		14 13 04.0	
	comp=N,452nm,0.5s						
KTTT	**Salihli**	**1.27**	**41**	P	**Pg**	**14 12 43.8**	**0.0**
KTTT				S	**Sb**	**14 12 57.9**	**-1.5**
ASTA	**Astypalaia**	**1.30**	**205**	P	**Pn**	**14 12 43.1**	**+0.1**
ASTA				AML	AML		
AKS	**Akhisar**	**1.31**	**28**	Pn	**Pg**	**14 12 44.5**	**+0.1**
AKS				AML	AML		
DKL	**Dikili**	**1.35**	**356**	Pn	**Pg**	**14 12 45.3**	**+0.1**
DKL				AML	AML		
APE	**Apeiranthos**	**1.36**	**242**	P	**Pn**	**14 12 43.6**	**-0.5**
APE				S	**Sg**	**14 13 03.2**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.36**	**242**	P	**Pn**	**14 12 43.5**	**-0.5**
APE				AML	AML		
NAX1	**Naxos Island**	**1.46**	**245**	P	**Pn**	**14 12 45.9**	**+0.5**
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pb**	**14 12 46.6**	**-0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	**Pb**	**14 12 46.8**	**0.0**
GORD				AML	AML		
TNSA	**Tinos**	**1.50**	**264**	P	**Pn**	**14 12 45.1**	**-0.7**
AYVA	**Ayvalik**	**1.61**	**350**	P	**Pg**	**14 12 50.5**	**+0.4**
AYVA				S	**Sg**	**14 13 12.4**	**+1.5**
AYVA				IAML		14 13 14.0	
	comp=N,320nm,0.7s						
AYVA				IAML		14 13 15.0	
	comp=E,301nm,0.7s						
PRK	**Paraskevi**	**1.64**	**339**	P	**Pb**	**14 12 49.4**	**+0.1**
PRK				S	**Sn**	**14 13 08.1**	**-0.5**
PRK				AML	AML		
PRK	**Paraskevi**	**1.64**	**339**	P	**Pn**	**14 12 46.4**	**-1.3**
PRK				AML	AML		
BUHA	**Balikesir, Bur**	**1.78**	**1**	P	**Pn**	**14 12 49.1**	**-0.6**
BUHA				S	**Sg**	**14 13 17.7**	**+1.4**
BUHA				IAML		14 13 26.0	
	comp=N,176nm,0.9s						
BUHA				IAML		14 13 28.0	
	comp=E,267nm,0.7s						
THR8	**Santorini-Mono**	**1.81**	**224**	P	**Pn**	**14 12 50.5**	**+0.4**
THERA	**Ancient Thera,**	**1.84**	**223**	P	**Pb**	**14 12 53.0**	**+0.2**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**223**	P	**Pn**	**14 12 49.6**	**-1.0**
THERA				AML	AML		
THR3	**Thira Island,**	**1.85**	**225**	P	**Pn**	**14 12 51.0**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.86**	**225**	P	**Pn**	**14 12 51.2**	**+0.4**
THR5	**Thira Island,**	**1.88**	**227**	P	**Pg**	**14 12 54.9**	**-0.3**
THR5	**Thira Island,**	**1.88**	**227**	P	**Pn**	**14 12 50.0**	**-1.0**
YAYO	**Edremit-Balk**	**1.89**	**1**	Pn	**Pb**	**14 12 52.6**	**-0.9**
YAYO				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pb**	**14 12 54.9**	**-1.0**
BALB				AML	AML		
KARY	**Karystos**	**2.08**	**279**	P	**Pn**	**14 12 53.5**	**-0.3**
EZN	**Ezine**	**2.17**	**345**	Pn	**Pb**	**14 12 57.1**	**-1.3**
EZN				AML	AML		
YENI	**Yenice-Canakka**	**2.22**	**4**	Pn	**Pn**	**14 12 57.1**	**+1.4**
BOZC	**Bozcaada**	**2.25**	**340**	Pn	**Pb**	**14 12 58.2**	**-1.6**
BOZC				AML	AML		
SUSR	**Susurluk-Balik**	**2.38**	**20**	Pn	**Pn**	**14 12 59.5**	**+1.5**
SUSR				AML	AML		
DION	**Dionisos Attik**	**2.48**	**279**	P	**Pn**	**14 12 59.3**	**-0.1**
DION				AML	AML		
VLY	**Voula,Athens**	**2.57**	**274**	P	**Pn**	**14 13 00.8**	**+0.2**
VLY				AML	AML		
LIA	**Limnos Island**	**2.61**	**327**	P	**Pn**	**14 13 01.5**	**+0.4**
NPS	**Neapolis**	**2.71**	**205**	P	**Pn**	**14 13 02.2**	**-0.3**

*IDC **02** 14:34:32.2±1.5,53°.47N×159°.84W, h0km, mb3.8/5, mbtmp3.7/8, ML3.5/3, MS3.5/1, Error ellipse: s-maj=31.0km s-min=16.8km az=150.0*
*NEIC **02** 14:34:36.5±1.5,53°.75N±0°.04×159°.91W±0°.07, h15km±2km, mb3.9/18, ML3.4/20, ML3.4(AEIC), Error ellipse: s-maj=5.8km s-min=5.0km az=67.0*

*AEIC **02** 14:34:36.8±2.6,53°.57N±0°.07×159°.67W±0°.08, h3km±4km, Error ellipse: s-maj=10.4km s-min=6.9km az=165.0*
ISC 02 14:34:33.9±3.0,**53°.71N**±0°.06×**159°.87W**±0°.04,**h5**km±19km, **n89,σ1§36/93,mb4.1/8,South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**1.13**	**8**		**Pb**	**14 34 56.5**	**+0.7**
CNBA					**Sn**	**14 35 13.4**	**+1.2**
SDPT	**Sand Point**	**1.68**	**348**		**Sb**	**14 35 27.1**	**+0.3**
SDPT	**Sand Point**	**1.68**	**348**	Pn	**Pn**	**14 35 04.7**	**+0.7**
SDPT	**Sand Point**	**1.68**	**348**	IAML		14 35 28.0	
	comp=N,248nm,0.6s						
SDPT				IAML		14 35 32.6	
	comp=E,200nm,0.5s						
DOL	**Dolgoi Island**	**1.86**	**322**		**Pn**	**14 35 06.8**	**+0.3**
DOL					**Sn**	**14 35 30.5**	**+0.3**
DT1	**Dutton Round H**	**1.99**	**316**		**Pn**	**14 35 08.7**	**+0.5**
DT1					**Sn**	**14 35 33.6**	**+0.1**
DTNA	**Dutton South F**	**2.01**	**317**		**Pn**	**14 35 09.2**	**+0.8**
DTNA					**Sb**	**14 35 35.3**	**-0.9**
PS4A	**Pavlof South-4**	**2.01**	**326**		**Pn**	**14 35 09.7**	**+1.1**
PS4A					**Sb**	**14 35 35.6**	**-0.6**
PS4A					**Sn**	**14 35 35.9**	**+1.9**
PVV	**Pavlof Volcano**	**2.01**	**327**		**Pn**	**14 35 09.6**	**+1.1**
PS1A	**Pavlof South-1**	**2.04**	**328**		**Pn**	**14 35 10.0**	**+1.2**
PS1A					**Sb**	**14 35 36.5**	**-0.5**
PS1A					**Sn**	**14 35 36.8**	**+2.1**
PN7A	**Pavlof North-7**	**2.13**	**325**		**Pn**	**14 35 11.4**	**+1.2**
S12K	**Black Hills**	**2.37**	**328**		**Pn**	**14 35 14.6**	**+1.1**
S12K	**Black Hills**	**2.37**	**328**		**Sb**	**14 35 45.2**	**-1.5**
ISNN	**Isanotski Nort**	**2.56**	**298**		**Pn**	**14 35 17.1**	**+1.1**
ISNN					**Sn**	**14 35 48.3**	**+0.8**
SSLS	**Shishaldin Sou**	**2.63**	**294**		**Pn**	**14 35 17.5**	**+0.5**
SSLN	**Shishaldin Nor**	**2.66**	**296**		**Pn**	**14 35 18.4**	**+0.9**
SSLN					**Pb**	**14 35 18.5**	**-3.6**
SSBA	**Shishaldin**	**2.72**	**295**		**Pn**	**14 35 18.9**	**+0.6**
SSBA					**Sn**	**14 35 51.8**	**+0.2**
CHGN	**Chignik**	**2.73**	**17**	Pn	**Pn**	**14 35 19.0**	**+0.6**
CHGN				IAML		14 35 55.4	
	comp=E,383nm,0.1s						
CHGN				IAML		14 35 56.2	
	comp=N,244nm,0.1s						
WTUG	**Tugumak**	**2.89**	**295**		**Pn**	**14 35 21.2**	**+0.7**
WTUG					**Sn**	**14 35 56.9**	**+1.3**
WESN	**West Dahl Nort**	**2.91**	**289**		**Pn**	**14 35 21.3**	**+0.5**
WESP	**Westdahl Peak**	**2.96**	**287**		**Pn**	**14 35 21.7**	**0.0**
WECS	**Westdahl Cape**	**3.01**	**288**	Pn	**Pn**	**14 35 22.3**	**+0.1**
CHIR	**Chirikof Islan**	**3.25**	**48**	Pn	**Pn**	**14 35 24.9**	**-0.6**
CHIR				IAML		14 36 03.6	
	comp=E,80nm,1.2s						
CHIR				IAML		14 37 18.9	
	comp=N,69nm,1.2s						
AKUT	**Akutan**	**3.52**	**279**	Pn	**Pn**	**14 35 29.1**	**0.0**
AKUT				IAML		14 36 11.5	
	comp=N,101nm,0.9s						
AKUT				IAML		14 36 12.4	
	comp=E,91nm,0.4s						
AHB	**Akutan Harbor**	**3.54**	**279**		**Pn**	**14 35 29.8**	**+0.2**
AKBBA	**Akutan Broad B**	**3.61**	**279**		**Pn**	**14 35 30.6**	**+0.1**
AKV	**Akutan Volcano**	**3.63**	**279**		**Pn**	**14 35 31.5**	**+0.7**
ZRO	**Akutan Zero**	**3.64**	**279**		**Pn**	**14 35 31.3**	**+0.4**
AKGG	**Akutan Green G**	**3.65**	**280**		**Pn**	**14 35 31.6**	**+0.5**
AKMO	**Akutan Morgan**	**3.66**	**279**		**Pn**	**14 35 31.5**	**+0.4**
LVA	**Lava Point**	**3.67**	**280**	Pn	**Pn**	**14 35 32.1**	**+0.7**
LVA				IAML		14 36 17.4	
	comp=E,137nm,0.8s						
MNAT	**Makushin Natee**	**4.05**	**275**		**Pn**	**14 35 36.0**	**-0.4**
MSW	**Makushin Switc**	**4.11**	**276**		**Pn**	**14 35 37.1**	**-0.2**
MGOD	**Makushin Gods**	**4.16**	**274**		**Pn**	**14 35 37.9**	**-0.2**
MAPS	**Pakushin South**	**4.20**	**274**		**Pn**	**14 35 38.3**	**-0.3**
PLK5	**Peulik 5**	**4.62**	**20**		**Pn**	**14 35 44.9**	**+0.7**
OKTU	**Okmok Mt. Tuli**	**4.89**	**269**		**Pn**	**14 35 47.8**	**-0.2**
CAHL	**Cahill**	**5.06**	**29**		**Pn**	**14 35 50.4**	**0.0**
ANCK	**Angle Creek**	**5.13**	**27**		**Pn**	**14 35 51.8**	**+0.5**
OHAK	**Old Harbor**	**5.14**	**44**	Pn	**Pn**	**14 35 50.9**	**-0.5**
OHAK				IAML		14 36 49.5	
	comp=N,13nm,0.7s						
ACHA	**Angle Creek He**	**5.18**	**28**	Pn	**Pn**	**14 35 53.0**	**+0.8**
KAWH	**Katmai**	**5.48**	**29**		**Pn**	**14 35 56.1**	**-0.1**
O15K	**Ungalikthiuk R**	**5.48**	**0**	Pn	**Pn**	**14 35 57.1**	**+0.9**
Q18K	**Katmai Hardscr**	**5.65**	**27**		**Pn**	**14 35 58.4**	**-0.1**
KDAK	**Kodiak Island**	**5.79**	**42**	Pn	**Pn**	**14 35 59.3**	**-1.1**
	comp=N,0.8nm,0.3s,baz=230,slow=9.0,SNR=18						
KDAK				Sn	**Sn**	**14 37 02.5**	**-4.7**
	comp=N,1.0nm,0.3s,baz=211,slow=5.9,SNR=5.6						
	comp=N,2.8nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.79**	**42**		**Pn**	**14 35 59.9**	**-0.6**
Q19K	**Cape Douglas,**	**6.27**	**31**	Pn	**Pn**	**14 36 07.6**	**+0.5**
ILSW	**Iliamna Southw**	**7.29**	**28**	Pn	**Pn**	**14 36 22.0**	**+1.0**
N19K	**Bonanza Creek**	**7.70**	**20**	Pn	**Pn**	**14 36 27.9**	**+1.3**
ATKA	**Atka Island**	**8.78**	**266**	Pn	**Pn**	**14 36 41.8**	**+0.4**
HIN	**Hinchinbrook I**	**9.88**	**42**	Pn	**Pn**	**14 36 56.9**	**+0.4**
VRDI	**Verde Repeater**	**11.59**	**43**	Pn	**Pn**	**14 37 21.0**	**+1.0**
O28M	**Mount Upton**	**12.75**	**48**	Pn	**Pn**	**14 37 37.0**	**+1.0**
ILAR	**Eielson Array**	**12.89**	**26**	Pn	**Pn**	**14 37 35.6**	**-2.0**
	comp=N,0.1nm,0.3s,baz=218,slow=14,SNR=6.5						
ILAR				Sn	**Sn**	**14 39 53.2**	**-8.1**
	comp=N,0.1nm,0.3s,baz=215,slow=26,SNR=3.4						
	comp=N,0.3nm,0.5s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**12.89**	**26**		**Pn**	**14 37 37.2**	**-0.4**
O29M	**Mount Kennedy**	**13.31**	**52**	Pn	**Pn**	**14 37 44.7**	**+1.2**
G26K	**Porcupine Rive**	**15.41**	**24**	P	**P**	**14 38 17.2**	**+0.8**
I30M	**Mount Dempster**	**16.47**	**36**	Pn	**Pn**	**14 38 26.8**	**+1.2**
F28M	**Old Crow**	**16.91**	**27**	P	**P**	**14 38 34.3**	**+1.2**
EPYK	**Eagle Plains**	**17.02**	**33**	IAmb	IAmb	14 38 52.0	
	comp=Z,10nm,0.8s						
G30M	**tAoh Zraii Nji**	**17.55**	**32**		**Pn**	**14 38 40.0**	**+1.0**
G30M				IAmb	IAmb	14 38 57.3	
	comp=Z,5.8nm,0.7s						
F30M	**Barrier River**	**18.07**	**30**	IAmb	IAmb	14 38 51.8	
	comp=Z,8.9nm,1.1s						
G31M	**Satah River**	**18.13**	**33**	P	**P**	**14 38 47.4**	**+0.9**
G31M				IAmb	IAmb	14 39 02.5	
	comp=Z,5.7nm,0.9s						
F31M	**Tsiigehtchic**	**18.60**	**32**	P	**Pn**	**14 38 53.1**	**+1.3**
INK	**Inuvik**	**19.17**	**30**	P	**Pn**	**14 39 00.0**	**+1.3**
	comp=Z,0.4nm,0.3s,baz=246,slow=12,SNR=11						
	comp=Z,1.2nm,0.5s						
INK				AML	AML		
INK	**Inuvik**	**19.17**	**30**	Pn	**Pn**	**14 38 59.9**	**+1.2**
INK				IAmb	IAmb	14 39 11.7	
	comp=Z,5.2nm,1.1s						
PEA0B	**Petropavlovsk-**	**25.03**	**286**	P	**P**	**14 39 59.4**	**+0.8**
PETK	**Petropavlovsk-**	**25.03**	**286**	P	**P**	**14 39 58.2**	**-0.4**
	comp=Z,1.0nm,0.5s,baz=72,slow=11,SNR=6.4						
	comp=Z,1.0nm,0.5s						
PETK	**Petropavlovsk-**	**25.03**	**286**	P	**P**	**14 39 59.3**	**+0.7**
YKAW1	**Yellowknife Wh**	**25.04**	**51**	P	**P**	**14 39 59.0**	**+0.4**
YAK	**Yakutsk**	**36.59**	**312**	P	**P**	**14 41 40.4**	**0.0**
PV13	**Radium Mtn., P**	**37.87**	**93**	P	**P**	**14 41 51.9**	**0.0**
PV13				IAmb	IAmb	14 42 02.6	
	comp=Z,7.5nm,1.3s						
H11N2	**WAKE ISLAND Hy**	**42.42**	**230**	T	T	15 28 40.6	
	baz=28,slow=74						
H11N3	**WAKE ISLAND Hy**	**42.42**	**230**	T	T	15 28 38.9	
	baz=28,slow=74						
H11N1	**WAKE ISLAND Hy**	**42.43**	**230**	T	T	15 28 41.8	
	baz=28						
H11S1	**WAKE ISLAND Hy**	**43.57**	**229**	T	T	15 30 05.0	
	baz=27						
H11S2	**WAKE ISLAND Hy**	**43.59**	**229**	T	T	15 30 04.4	
	baz=27						
H11S3	**WAKE ISLAND Hy**	**43.59**	**229**	T	T	15 30 05.5	
	baz=27						
JGF	**Kuroka**	**46.56**	**274**	P	**P**	**14 43 03.1**	**+0.7**
TXAR	**Lajitas Array**	**47.10**	**98**	P	**P**	**14 43 04.8**	**-2.0**
	comp=Z,0.5nm,0.7s,baz=313,slow=5.1,SNR=5.5						
	comp=Z,0.5nm,0.7s						
TXAR	**Lajitas Array**	**47.10**	**98**	P	**P**	**14 43 06.7**	**-0.1**
JOW	**Kunigami**	**58.24**	**273**	LR	LR	15 08 33.7	
	comp=Z,39nm,20.6s,baz=42,slow=35						
BVAR	**Borovoye Array**	**65.72**	**329**	P	**P**	**14 45 19.9**	**+0.9**
	comp=Z,1.3nm,0.5s,baz=37,slow=7.4,SNR=8.3						
	comp=Z,1.3nm,0.5s						
ARTI	**Arti**	**65.88**	**338**	P	**P**	**14 45 20.3**	**+0.2**
	comp=Z,2.2nm,0.5s,baz=4.4,slow=13,SNR=3.8						
	comp=Z,2.2nm,0.5s						
MKAR	**Makanchi Array**	**66.83**	**319**	P	**P**	**14 45 25.9**	**-0.4**
	comp=Z,0.1nm,0.4s,baz=55,slow=5.5,SNR=2.5						
	comp=Z,0.1nm,0.4s						
AB31	**Akbulak array**	**72.05**	**334**	P	**P**	**14 45 58.9**	**+0.4**
AB31				IAmb	IAmb	14 46 10.4	
	comp=Z,1.6nm,0.9s						
ABKAR	**Akbulak array**	**72.05**	**334**	P	**P**	**14 45 59.1**	**+0.6**
BURAR	**Bucovina Array**	**78.96**	**356**	P	**P**	**14 46 39.0**	**+0.7**
BURAR				IAmb	IAmb	14 47 17.6	
	comp=Z,2.5nm,1.4s						
URIC	**Uribia, Colomb**	**79.42**	**85**	P	**P**	**14 46 42.3**	**+1.1**

*IDC **02** 14:38:14.3±1.2,53°.48N×160°.51W, h0km, mb3.8/5, mbtmp3.7/8, ML3.4/3, Error ellipse: s-maj=23.6km s-min=17.6km az=146.0*
*NEIC **02** 14:38:16.1±1.2,53°.56N±0°.07×160°.3W±0°.1, h10km±1km, mb3.9/18, ML3.3/8, ML3.3(AEIC), Error ellipse: s-maj=16.3km s-min=9.1km az=129.0*
*AEIC **02** 14:38:18.8±3.6,53°.3N±0°.1×159°.97W±0°.09, h12km±5km, Error ellipse: s-maj=0.0km s-min=0.0km az=65.0*
ISC 02 14:38:15.7±0.8,**53°.62N**±0°.09×**160°.36W**±0°.08,**h10**km,**n48,σ1§45/44,mb3.9/7,South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**1.29**	**20**	Pn	**Pb**	**14 38 41.2**	**+1.2**
SDPT	**Sand Point**	**1.74**	**358**	Pn	**Pn**	**14 38 47.4**	**+1.5**
CHGN	**Chignik**	**2.92**	**22**	Pn	**Pn**	**14 39 05.6**	**+3.5**
CHGN				IAML		14 39 47.2	
	comp=N,78nm,0.6s						
CHGN				IAML		14 39 50.1	
	comp=E,94nm,0.6s						
CHIR	**Chirikof Islan**	**3.53**	**49**	Pn	**Pn**	**14 39 10.9**	**+0.4**
CHIR				IAML		14 40 45.1	
	comp=E,71nm,1.2s						
CHIR				IAML		14 41 25.9	
	comp=N,86nm,1.1s						
SII	**Sitkinak Islan**	**4.62**	**48**	Pn	**Pn**	**14 39 26.1**	**+0.7**
ACHA	**Angle Creek He**	**5.41**	**30**	Pn	**Pn**	**14 39 36.9**	**+0.6**
OHAK	**Old Harbor**	**5.41**	**45**	Pn	**Pn**	**14 39 37.0**	**+0.7**
CLES	**Cleveland East**	**5.78**	**266**	Pn	**Pn**	**14 39 42.5**	**+1.1**
KDAK	**Kodiak Island**	**6.06**	**43**	Pn	**Pn**	**14 39 45.4**	**+0.2**
	comp=N,1.3nm,0.3s,baz=201,slow=4.4,SNR=6.7						
KDAK				Sn	**Sn**	**14 40 50.0**	**-4.6**
	comp=N,0.6nm,0.3s,baz=134,slow=12,SNR=1.6						
	comp=N,5.7nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**6.06**	**43**		**Pn**	**14 39 45.3**	**0.0**
N17K	**Nushagak Hills**	**7.14**	**13**	Pn	**Pn**	**14 40 01.1**	**+1.0**
RC01	**Rabbit Creek A**	**9.43**	**33**	Pn	**Pn**	**14 40 32.6**	**+1.2**
HIN	**Hinchinbrook I**	**10.15**	**42**	Pn	**Pn**	**14 40 42.4**	**+1.2**
EYAK	**Cordova Ski Ar**	**10.54**	**43**	Pn	**Pn**	**14 40 47.1**	**+0.5**
SCM	**Sheep Creek Mo**	**10.77**	**35**	Pn	**Pn**	**14 40 50.6**	**+0.8**
GLB	**Gilahina Butte**	**11.83**	**42**	Pn	**Pn**	**14 41 05.4**	**+1.1**
ILAR	**Eielson Array**	**13.11**	**26**	Pn	**Pn**	**14 41 18.9**	**-2.7**
	comp=N,0.1nm,0.3s,baz=216,slow=13,SNR=4.5						
ILAR				Sn	**Sn**	**14 43 42.9**	**-4.4**
	comp=N,0.1nm,0.3s,baz=231,slow=11,SNR=3.5						
	comp=N,0.5nm,0.7s						
ILAR				AML	AML		
S32K	**Killisnoo**	**15.06**	**65**	P	**P**	**14 41 53.3**	**-0.3**
G26K	**Porcupine Rive**	**15.61**	**25**	P	**P**	**14 42 01.1**	**+1.5**
I28M	**Miner Creek**	**15.64**	**33**	Pn	**Pn**	**14 41 57.0**	**+1.0**
I30M	**Mount Dempster**	**16.72**	**37**	P	**P**	**14 42 12.4**	**+0.3**
I30M				IAmb	IAmb	14 42 30.0	
	comp=Z,5.7nm,0.8s						
H31M	**Peel River**	**17.75**	**36**		**Pn**	**14 42 22.8**	**+0.3**
H31M				IAmb	IAmb	14 42 39.6	
	comp=Z,16nm,1.5s						
INK	**Inuvik**	**19.40**	**30**	P	**Pn**	**14 42 44.7**	**+2.1**
	comp=Z,0.2nm,0.3s,baz=247,slow=12,SNR=5.6						
	comp=Z,2.8nm,0.8s						
INK				AML	AML		
INK	**Inuvik**	**19.40**	**30**	P	**P**	**14 42 41.8**	**+0.3**
INK				IAmb	IAmb	14 43 02.6	
	comp=Z,7.0nm,1.4s						
PETK	**Petropavlovsk-**	**24.77**	**286**	P	**P**	**14 43 36.6**	**-0.6**
	comp=Z,1.5nm,0.8s,baz=76,slow=12,SNR=4.8						
	comp=Z,1.5nm,0.8s						
GBMT	**Granite Butte,**	**30.88**	**83**	P	**P**	**14 44 32.9**	**+0.7**
NVAR	**Mina Array Bea**	**32.38**	**101**	P	**P**	**14 44 46.5**	**+1.0**
	comp=Z,0.9nm,0.6s,baz=300,slow=9.1,SNR=8.1						
	comp=Z,0.9nm,0.6s						
BW06	**Boulder Array**	**34.85**	**87**	P	**P**	**14 45 07.6**	**+0.7**
BW06				IAmb	IAmb	14 45 08.3	
	comp=Z,1.9nm,1.1s						
PDAR	**Pinedale Array**	**34.85**	**87**	P	**P**	**14 45 07.8**	**+0.8**
	comp=Z,0.5nm,0.5s,baz=309,slow=3.8,SNR=6.1						
	comp=Z,0.5nm,0.5s						
HMU	**Henry Mountain**	**37.17**	**94**	P	**P**	**14 45 27.0**	**+0.1**
HMU				IAmb	IAmb	14 45 30.9	
	comp=Z,2.7nm,0.9s						

MEF				*e*S	Sb	14 45 27.4	-0.2
MEF				AML	AML	14 45 30.3	
	comp=E,12nm,0.2s						
MEF				AML	AML	14 45 30.6	
	comp=N,10nm,0.4s						
MEF				AML	AML	14 45 31.1	
	comp=Z,14nm,0.5s						
MEF	**Metsahovi**	**2.10**	**181**	PG	Pn	14 44 59.6	+1.2
MEF				MSG		14 45 24.6	
	comp=Z,3.9nm,0.2s						
MEF				SG	Sb	14 45 27.4	-0.3
OBF0	**Syolatti, Pyha**	**2.20**	**357**	PG	Pn	14 45 00.8	+1.0
OBF0				MSG		14 45 27.1	
	comp=Z,3.0nm,0.2s						
OBF0				SG	Sb	14 45 30.0	-0.4
VJF	**Virojoki**	**2.31**	**139**	PG	Pn	14 45 02.6	+1.3
VJF				MSG		14 45 30.2	
	comp=Z,3.1nm,0.2s						
VJF				SG	Sb	14 45 33.7	+0.2
RMF	**Romuvaara**	**3.11**	**50**	MSG		14 45 53.6	
	comp=Z,1.0nm,0.2s						
RMF				SB	Sb	14 45 54.1	-2.6
JOF	**Joensuu**	**3.21**	**76**	SB	Sb	14 45 56.0	-3.4
RANF	**Ranua**	**3.85**	**14**	SG	Sg	14 46 23.1	-2.6
KU1	**Kurvinen**	**3.96**	**32**	SN	Sn	14 46 11.3	+0.3
VSU	**Vasula**	**4.02**	**163**	*e*S	Sn	14 46 01.8	-11
VSU				AML	AML	14 46 03.6	
	comp=N,15nm,0.7s						
VSU				AML	AML	14 46 07.2	
	comp=E,18nm,0.2s						
VSU				AML	AML	14 46 07.4	
	comp=Z,14nm,0.2s						
KU6	**Riekki**	**4.41**	**30**	PB	Pb	14 45 38.5	-1.9
SLIT	**Slitere, Latvi**	**4.83**	**194**	SN	Sn	14 46 30.1	-2.3

*THE **02** 14:53:10.7,38˚N±10˝×2˝7E±˚, h6km±13km, M3.0/6, MLh3.0/6*
*AFAD **02** 14:53:10.4,37˚.74N×27˚.03E, h7km±1km, ML3.2*
*ISK **02** 14:53:10.5,37˚.74N×27˚.04E, h6km, ML3.3/19*
*ATH **02** 14:53:10.1,37˚.74N×27˚.09E, h10km±1km, ML3.4/6, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 02 14:53:10.8±0.8, 37.73N±0˝.02×27.05E±0˝.02, h14km±6km, n59, σ0.44/77, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
GCAM	**G?zelcami?**	**0.15**	**102**	P		**Pg**	**14 53 14.3**	**-0.2**
GCAM				S		**Sg**	**14 53 17.2**	**+0.1**
GCAM				IAML			14 53 18.0	
	comp=N,8μm,0.3s							
GCAM				IAML			14 53 18.0	
	comp=E,9μm,0.4s							
GCAM	**G?zelcami?**	**0.15**	**102**	Pg		**Pg**	**14 53 14.3**	**-0.2**
GCAM				Sg		**Sg**	**14 53 17.1**	**0.0**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**56**	Pg		**Pg**	**14 53 15.4**	**-0.4**
KUSD				Sg		**Sg**	**14 53 19.2**	**0.0**
KUSD				AML		AML		
KRL1	**Karlovasi Samo**	**0.28**	**283**	P		**Pg**	**14 53 15.9**	**-0.6**
KRL1				S		**Sg**	**14 53 20.5**	**+0.1**
KRL1				AML		AML		
DDIM	**Aydin, Didim**	**0.32**	**150**	P		**Pg**	**14 53 17.3**	**0.0**
DDIM				IAML			14 53 22.0	
	comp=E,3μm,0.2s							
DDIM				S		**Sg**	**14 53 22.1**	**+0.4**
DDIM				IAML			14 53 23.0	
	comp=N,4μm,0.4s							
DGB	**zmir**	**0.34**	**338**	P		**Pg**	**14 53 17.5**	**-0.3**
DGB				S		**Sg**	**14 53 22.3**	**-0.2**
DGB				IAML			14 53 23.0	
	comp=E,2μm,0.3s							
GMLD	**Gumuldur**	**0.36**	**343**	Pg		**Pg**	**14 53 18.3**	**+0.3**
GMLD				Sg		**Sb**	**14 53 23.6**	**-0.8**
GMLD				AML		AML		
DIDI	**Didim-Aydin**	**0.39**	**156**	Pg		**Pg**	**14 53 18.7**	**+0.1**
DIDI				Sg		**Sb**	**14 53 24.9**	**-0.4**
DIDI				AML		AML		
BEYE	**izmir**	**0.50**	**349**	P		**Pg**	**14 53 20.4**	**-0.2**
BEYE				S		**Sg**	**14 53 27.6**	**+0.2**
BEYE				IAML			14 53 32.0	
	comp=N,1μm,0.5s							
BEYE				IAML			14 53 32.0	
	comp=E,1μm,0.3s							
DUVT	**Torbali**	**0.58**	**33**	P		**Pg**	**14 53 21.9**	**-0.2**
DUVT				S		**Sb**	**14 53 30.2**	**-0.7**
DUVT				IAML			14 53 35.0	
	comp=E,1μm,0.5s							
YKAV	**Yalikavak-Bodr**	**0.64**	**163**	Pg		**Pg**	**14 53 23.0**	**-0.2**
YKAV				AML		AML		
BLCB	**Balcova**	**0.65**	**360**	P		**Pg**	**14 53 23.1**	**-0.4**
BLCB				S		**Sg**	**14 53 31.9**	**-0.2**
BLCB				AML		AML		
BLCB	**Balcova**	**0.65**	**360**	Pg		**Pg**	**14 53 23.2**	**-0.3**
BLCB				AML		AML		
AYDN	**Tasoluk**	**0.67**	**96**	P		**Pg**	**14 53 23.6**	**-0.2**
AYDN				S		**Sg**	**14 53 32.5**	**-0.1**
AYDN				IAML			14 53 37.0	
	comp=N,2μm,0.3s							
AYDN				IAML			14 53 37.0	
	comp=E,2μm,0.6s							
AYDB	**Zeytinkoy-Aydi**	**0.70**	**72**	Pg		**Pg**	**14 53 24.3**	**-0.2**
AYDB				AML		AML		
BODT	**Bodrum**	**0.70**	**162**	P		**Pg**	**14 53 23.9**	**-0.6**
BODT				S		**Sg**	**14 53 33.7**	**0.0**
BODT				AML		AML		
BODT	**Bodrum**	**0.70**	**162**	Pg		**Pg**	**14 53 24.1**	**-0.3**
BODT				AML		AML		
MLSB	**Milas**	**0.73**	**127**	Pg		**Pg**	**14 53 24.7**	**-0.2**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.74**	**154**	P		**Pg**	**14 53 24.5**	**-0.6**
BDRM				IAML			14 53 36.0	
	comp=E,1μm,0.5s							
BDRM				IAML			14 53 39.0	
	comp=N,2μm,0.6s							
KLNA	**Kalymnos**	**0.78**	**184**	P		**Pg**	**14 53 25.0**	**-0.8**
KLNA				S		**Sg**	**14 53 35.9**	**-0.1**
KLNA				AML		AML		
CESE	**eme**	**0.84**	**316**	Pg		**Pg**	**14 53 26.9**	**-0.1**
CESE				AML		AML		
KRBN	**Karaburun**	**0.94**	**336**	Pg		**Pb**	**14 53 29.2**	**+0.3**
KRBN				AML		AML		
FOCM	**Foa**	**1.01**	**346**	Pg		**Pg**	**14 53 29.9**	**-0.3**
FOCM				AML		AML		
NAZL	**Nazilli-Aydin**	**1.01**	**76**	Pg		**Pb**	**14 53 30.0**	**-0.1**
NAZL				AML		AML		
CHOS	**Chios island**	**1.02**	**310**	P		**Pg**	**14 53 30.2**	**-0.3**
CHOS				S		**Sb**	**14 53 44.1**	**+0.6**
CHOS				AML		AML		
CHOS	**Chios island**	**1.02**	**310**	Pg		**Pb**	**14 53 30.5**	**+0.3**
CHOS				AML		AML		
CHOS	**Chios island**	**1.02**	**310**	P		**Pg**	**14 53 30.1**	**-0.3**
CHOS				S		**Sb**	**14 53 44.5**	**+0.9**
CHOS				AML		AML		
EAG2	**Marmaro, Chios**	**1.10**	**318**	P		**Pb**	**14 53 31.8**	**+0.3**
EAG2				S		**Sb**	**14 53 46.2**	**+0.6**
YER	**Yerkesik**	**1.15**	**121**	P		**Pg**	**14 53 32.3**	**-0.7**
YER				S		**Sb**	**14 53 48.2**	**+0.9**
YER				AML		AML		
GOMA	**Golmarmara-Man**	**1.19**	**35**	Pn		**Pn**	**14 53 33.6**	**+0.6**
GOMA				AML		AML		
AKS	**Akhisar**	**1.29**	**28**	Pn		**Pg**	**14 53 35.5**	**-0.2**
AKS				AML		AML		
ASTA	**Astypalaia**	**1.31**	**205**	P		**Pn**	**14 53 34.1**	**-0.6**
ASTA				AML		AML		
DKL	**Dikili**	**1.34**	**355**	Pn		**Pg**	**14 53 36.3**	**-0.2**
DKL				AML		AML		
DKL	**Dikili**	**1.34**	**355**	P		**Pn**	**14 53 35.1**	**0.0**
APE	**Apeiranthos**	**1.38**	**242**	P		**Pn**	**14 53 35.8**	**+0.2**
APE				AML		AML		
APE	**Apeiranthos**	**1.38**	**242**	P		**Pn**	**14 53 34.7**	**-1.0**
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn		**Pb**	**14 53 38.1**	**+0.2**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.47**	**37**	Pn		**Pb**	**14 53 38.3**	**+0.3**
GORD				AML		AML		
PRK	**Paraskevi**	**1.63**	**338**	P		**Pn**	**14 53 39.2**	**+0.1**
CMBO	**Columbo, Santo**	**1.82**	**227**	P		**Pn**	**14 53 42.1**	**+0.4**
THR8	**Santorini-Mono**	**1.82**	**224**	P		**Pg**	**14 53 45.1**	**-0.7**
THR8	**Santorini-Mono**	**1.82**	**224**	P		**Pn**	**14 53 42.6**	**+0.9**
THERA	**Ancient Thera,**	**1.85**	**223**	P		**Pn**	**14 53 42.4**	**+0.3**
THR3	**Thira Island,**	**1.86**	**225**	P		**Pb**	**14 53 45.1**	**+0.5**
THR3	**Thira Island,**	**1.86**	**225**	P		**Pn**	**14 53 42.0**	**-0.3**
SNT5	**Nea Kammeni, S**	**1.87**	**225**	P		**Pn**	**14 53 42.9**	**+0.5**
THR5	**Thira Island,**	**1.89**	**226**	P		**Pn**	**14 53 42.9**	**+0.2**
THR6	**Thira Island,**	**1.91**	**224**	P		**Pn**	**14 53 42.8**	**0.0**
THR9	**Santorini-Faro**	**1.93**	**225**	P		**Pn**	**14 53 43.6**	**+0.5**
BALB	**Balikesir**	**2.01**	**19**	P		**Pn**	**14 53 43.7**	**-0.6**
KARY	**Karystos**	**2.08**	**279**	P		**Pn**	**14 53 45.2**	**-0.1**
KARY	**Karystos**	**2.08**	**279**	P		**Pn**	**14 53 45.3**	**0.0**
KARP	**Karpathos**	**2.18**	**178**	P		**Pn**	**14 53 46.8**	**+0.1**
MHLO	**Agia Marina, M**	**2.35**	**245**	P		**Pn**	**14 53 49.8**	**+0.8**
DION	**Dionisos Attik**	**2.49**	**279**	P		**Pn**	**14 53 50.4**	**-0.4**
DION	**Dionisos Attik**	**2.49**	**279**	P		**Pn**	**14 53 50.4**	**-0.4**
KYMI	**Kymi, Euboea I**	**2.49**	**292**	P		**Pn**	**14 53 50.1**	**-0.8**
PTL	**Penteli**	**2.54**	**278**	P		**Pn**	**14 53 51.5**	**0.0**
VLY	**Voula,Athens**	**2.58**	**274**	P		**Pn**	**14 53 52.2**	**+0.1**

*THE **02** 14:54:03.9,38˚N±6˝×2˝7E±˚, h12km±7km, M3.9/4, MLh3.9/4*
*ISK **02** 14:54:03.6,37˚.73N×27˚.03E, h7km, ML3.4/18*
*AFAD **02** 14:54:04.0,37˚.74N×27˚.04E, h7km±1km, MW3.5*
*ATH **02** 14:54:04.8,37˚.73N×26˚.99E, h6km±1km, ML3.8/7, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 02 14:54:04.3±0.8, 37.73N±0˝.02×27.04E±0˝.02, h11km±7km, n41, σ0.44/62, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
GCAM	**G?zelcami?**	**0.16**	**99**	P		**Pg**	**14 54 07.8**	**0.0**
GCAM				S		**Sg**	**14 54 10.3**	**+0.1**
GCAM				IAML			14 54 11.0	
	comp=N,2μm,0.3s							
GCAM				IAML			14 54 11.0	
	comp=E,1μm,0.3s							
GCAM				IAML			14 54 11.0	
	comp=Z,1μm,0.8s							
GCAM	**G?zelcami?**	**0.16**	**99**	Pg		**Pg**	**14 54 07.7**	**0.0**
GCAM				Sg		**Sg**	**14 54 10.3**	**+0.1**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**55**	Pg		**Pg**	**14 54 08.9**	**-0.3**
KUSD				Sg		**Sg**	**14 54 12.6**	**0.0**
KUSD				AML		AML		
KRL1	**Karlovasi Samo**	**0.27**	**285**	P		**Pg**	**14 54 09.4**	**-0.4**
KRL1				S		**Sg**	**14 54 13.0**	**-0.5**
KRL1				AML		AML		
DDIM	**Aydin, Didim**	**0.31**	**149**	P		**Pg**	**14 54 10.7**	**+0.2**
DDIM				S		**Sg**	**14 54 15.6**	**+0.9**
DDIM				IAML			14 54 16.0	
	comp=N,8μm,0.6s							
DDIM				IAML			14 54 17.0	
	comp=Z,4μm,0.7s							
DDIM				IAML			14 54 17.0	
	comp=E,8μm,0.8s							
DGB	**zmir**	**0.35**	**339**	P		**Pg**	**14 54 11.1**	**-0.2**
DGB				S		**Sg**	**14 54 15.5**	**-0.4**
DGB				IAML			14 54 17.0	
	comp=E,4μm,0.7s							
DGB				IAML			14 54 18.0	
	comp=N,5μm,0.6s							
GMLD	**Gumuldur**	**0.36**	**345**	Pg		**Pg**	**14 54 11.5**	**0.0**
GMLD				Sg		**Sg**	**14 54 16.9**	**+0.5**
GMLD				AML		AML		
DIDI	**Didim-Aydin**	**0.38**	**155**	Pg		**Pg**	**14 54 11.4**	**-0.4**
DIDI				Sg		**Sb**	**14 54 18.0**	**-1.0**
DIDI				AML		AML		
BEYE	**izmir**	**0.51**	**350**	P		**Pg**	**14 54 13.9**	**-0.3**
BEYE				S		**Sg**	**14 54 20.9**	**0.0**
BEYE				IAML			14 54 25.0	
	comp=N,4μm,0.2s							
BEYE				IAML			14 54 25.0	
	comp=E,3μm,0.7s							
DUVT	**Torbali**	**0.59**	**33**	P		**Pg**	**14 54 15.2**	**-0.6**
DUVT				S		**Sg**	**14 54 23.5**	**-0.1**
DUVT				IAML			14 54 27.0	
	comp=E,3μm,0.6s							
DUVT				IAML			14 54 28.0	
	comp=Z,2μm,0.4s							
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg		**Pg**	**14 54 16.2**	**-0.3**
YKAV				Sg		**Sb**	**14 54 25.5**	**-0.6**
YKAV				AML		AML		
BLCB	**Balcova**	**0.66**	**0**	P		**Pg**	**14 54 16.5**	**-0.6**
BLCB				AML		AML		
BLCB	**Balcova**	**0.66**	**0**	Pg		**Pg**	**14 54 16.8**	**-0.3**
BLCB				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.67**	**321**	P		**Pg**	**14 54 16.7**	**-0.5**
ZEYE				IAML			14 54 26.0	
	comp=Z,3μm,0.6s							
ZEYE				S		**Sb**	**14 54 26.4**	**-0.8**
ZEYE				IAML			14 54 27.0	
	comp=N,4μm,0.5s							
ZEYE				IAML			14 54 29.0	
	comp=E,2μm,0.5s							
AYDN	**Tasoluk**	**0.67**	**95**	P		**Pg**	**14 54 17.0**	**-0.3**
AYDN				S		**Sg**	**14 54 25.8**	**-0.3**
AYDN				IAML			14 54 30.0	
	comp=Z,2μm,0.3s							
AYDN				IAML			14 54 30.0	
	comp=N,4μm,0.3s							
AYDN				IAML			14 54 30.0	
	comp=E,5μm,0.3s							
BODT	**Bodrum**	**0.70**	**162**	P		**Pg**	**14 54 17.2**	**-0.5**
BODT				S		**Sg**	**14 54 27.3**	**+0.4**
BODT				AML		AML		
BODT	**Bodrum**	**0.70**	**162**	Pg		**Pg**	**14 54 17.4**	**-0.3**
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg		**Pg**	**14 54 17.7**	**-0.3**
AYDB				AML		AML		
MLSB	**Milas**	**0.73**	**126**	Pg		**Pg**	**14 54 17.9**	**-0.4**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.73**	**154**	P		**Pg**	**14 54 17.9**	**-0.5**
BDRM				IAML			14 54 30.0	
	comp=E,3μm,0.7s							
BDRM				IAML			14 54 32.0	
	comp=N,4μm,0.5s							
BDRM				IAML			14 54 33.0	
	comp=Z,1μm,0.5s							
KLNA	**Kalymnos**	**0.77**	**184**	P		**Pb**	**14 54 19.7**	**+0.1**
KLNA				S		**Sb**	**14 54 30.0**	**-0.1**
KLNA				AML		AML		
CESE	**eme**	**0.84**	**316**	Pg		**Pg**	**14 54 20.3**	**-0.2**
CESE				AML		AML		
KRBN	**Karaburun**	**0.95**	**336**	Pg		**Pb**	**14 54 22.5**	**-0.2**
KRBN				AML		AML		
FOCM	**Foa**	**1.02**	**346**	Pg		**Pb**	**14 54 23.9**	**0.0**
FOCM				AML		AML		
CHOS	**Chios island**	**1.02**	**311**	P		**Pg**	**14 54 23.5**	**-0.4**
CHOS				S		**Sb**	**14 54 38.0**	**+0.5**
CHOS	**Chios island**	**1.02**	**311**	Pg		**Pg**	**14 54 23.6**	**-0.3**
CHOS				AML		AML		
CHOS	**Chios island**	**1.02**	**311**	P		**Pg**	**14 54 23.5**	**-0.4**
CHOS				S		**Sb**	**14 54 37.3**	**-0.2**
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg		**Pg**	**14 54 23.7**	**-0.2**
NAZL				AML		AML		
EAG2	**Marmaro, Chios**	**1.10**	**318**	P		**Pb**	**14 54 25.2**	**-0.1**
EAG2				S		**Sb**	**14 54 39.9**	**+0.3**
YER	**Yerkesik**	**1.15**	**120**	P		**Pb**	**14 54 26.4**	**+0.1**
YER				S		**Sg**	**14 54 40.3**	**-1.1**
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn		**Pn**	**14 54 27.3**	**+0.3**
GOMA				AML		AML		
ASTA	**Astypalaia**	**1.30**	**205**	P		**Pn**	**14 54 28.4**	**0.0**
ASTA				S		**Sn**	**14 54 46.5**	**+0.8**
ASTA				AML		AML		
AKS	**Akhisar**	**1.30**	**28**	Pn		**Pb**	**14 54 28.8**	**0.0**
AKS				AML		AML		
APE	**Apeiranthos**	**1.37**	**242**	P		**Pn**	**14 54 29.6**	**+0.2**
APE				S		**Sb**	**14 54 47.9**	**+0.5**
APE				AML		AML		
NAX1	**Naxos Island**	**1.46**	**245**	P		**Pb**	**14 54 31.4**	**-0.1**
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn		**Pn**	**14 54 31.1**	**+0.2**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn		**Pn**	**14 54 31.4**	**+0.4**
GORD				AML		AML		
TNSA	**Tinos**	**1.50**	**263**	P		**Pn**	**14 54 31.8**	**+0.6**
PRK	**Paraskevi**	**1.63**	**339**	P		**Pn**	**14 54 33.6**	**+0.7**
ARG	**Arkhangelos**	**1.74**	**150**	P		**Pb**	**14 54 36.4**	**+0.2**
ARG				AML		AML		
THERA	**Ancient Thera,**	**1.84**	**223**	P		**Pb**	**14 54 37.3**	**-0.7**

*AFAD **02** 14:57:10.9,37˚.86N×26˚.99E, h7km±1km, ML2.5*

*ISK **02** 14:57:10.6,37˚.86N×27˚.00E, h8km, ML2.7/18*
*THE **02** 14:57:11.1,38˚N±14˝×2˝7E±1˚3, h3km±23km, M3.0/4, MLh3.0/4*

ISC 02 14:57:11.1±0.9, 37.85N±0˝.02×26.99E±0˝.03, h12km±7km, n33, σ0.41/48, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
DGB	**zmir**	**0.22**	**337**	P		**Pg**	**14 57 15.6**	**-0.2**
DGB				S		**Sg**	**14 57 18.6**	**-0.4**
DGB				IAML			14 57 19.0	
	comp=N,627nm,0.1s							
DGB				IAML			14 57 21.0	
	comp=E,776nm,0.1s							
GMLD	**Gumuldur**	**0.23**	**346**	Pg		**Pg**	**14 57 15.9**	**-0.2**
GMLD				Sg		**Sg**	**14 57 19.7**	**+0.3**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**88**	Pg		**Pg**	**14 57 15.9**	**-0.3**
KUSD				Sg		**Sg**	**14 57 19.3**	**-0.3**
KUSD				AML		AML		
GCAM	**G?zelcami?**	**0.25**	**128**	P		**Pg**	**14 57 16.2**	**-0.1**
GCAM				IAML			14 57 20.0	
	comp=N,3μm,0.1s							
GCAM				IAML			14 57 20.0	
	comp=E,2μm,0.2s							
GCAM				S		**Sg**	**14 57 20.2**	**+0.3**
GCAM	**G?zelcami?**	**0.25**	**128**	Pg		**Pg**	**14 57 16.1**	**-0.2**
GCAM				Sg		**Sg**	**14 57 20.1**	**+0.3**
GCAM				AML		AML		
BEYE	**izmir**	**0.38**	**353**	P		**Pg**	**14 57 18.5**	**-0.2**
BEYE				S		**Sg**	**14 57 24.0**	**+0.2**
BEYE				IAML			14 57 25.0	
	comp=N,831nm,0.2s							
BEYE				IAML			14 57 25.0	
	comp=E,865nm,0.1s							
DDIM	**Aydin, Didim**	**0.44**	**153**	P		**Pg**	**14 57 19.9**	**0.0**
DDIM				S		**Sb**	**14 57 27.1**	**-0.3**
DDIM				IAML			14 57 31.0	
	comp=E,281nm,0.2s							
DDIM				IAML			14 57 32.0	
	comp=N,294nm,0.4s							
DUVT	**Torbali**	**0.52**	**45**	P		**Pg**	**14 57 21.0**	**-0.3**
DUVT				S		**Sg**	**14 57 28.2**	**0.0**
DUVT				IAML			14 57 29.0	
	comp=E,542nm,0.3s							
BLCB	**Balcova**	**0.53**	**5**	P		**Pg**	**14 57 21.3**	**-0.3**
BLCB				S		**Sg**	**14 57 28.1**	**-0.6**
BLCB				AML		AML		
BLCB	**Balcova**	**0.53**	**5**	Pg		**Pg**	**14 57 21.2**	**-0.3**
BLCB				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**315**	P		**Pg**	**14 57 21.3**	**-0.5**
ZEYE				IAML			14 57 29.0	
	comp=N,1μm,0.3s							
ZEYE				S		**Sb**	**14 57 29.6**	**-0.7**
ZEYE				IAML			14 57 32.0	
	comp=E,791nm,0.2s							
AYDB	**Zeytinkoy-Aydi**	**0.72**	**82**	Pg		**Pg**	**14 57 24.8**	**-0.3**
AYDB				AML		AML		
CESE	**eme**	**0.72**	**311**	Pg		**Pg**	**14 57 24.8**	**-0.4**
CESE				AML		AML		
AYDN	**Tasoluk**	**0.73**	**105**	P		**Pg**	**14 57 25.2**	**-0.2**
AYDN				IAML			14 57 39.0	
	comp=N,255nm,0.5s							
AYDN				IAML			14 57 39.0	
	comp=E,320nm,0.5s							
YKAV	**Yalikavak-Bodr**	**0.76**	**162**	Pg		**Pg**	**14 57 25.6**	**-0.3**
YKAV				AML		AML		
KRBN	**Karaburun**	**0.81**	**335**	Pg		**Pg**	**14 57 26.8**	**-0.1**
KRBN				AML		AML		
BODT	**Bodrum**	**0.83**	**162**	P		**Pg**	**14 57 26.5**	**-0.7**
BODT				S		**Sb**	**14 57 38.8**	**+0.2**
BODT				AML		AML		
BODT	**Bodrum**	**0.83**	**162**	Pg		**Pg**	**14 57 27.3**	**+0.1**
BODT				AML		AML		
MLSB	**Milas**	**0.84**	**131**	Pg		**Pb**	**14 57 27.5**	**-0.1**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.87**	**155**	P		**Pg**	**14 57 27.2**	**-0.7**
BDRM				IAML			14 57 42.0	
	comp=N,270nm,0.5s							
BDRM				IAML			14 57 44.0	
	comp=E,241nm,0.5s							
FOCM	**Foa**	**0.88**	**347**	Pg		**Pg**	**14 57 27.7**	**-0.5**
FOCM				AML		AML		
CHOS	**Chios island**	**0.91**	**306**	P		**Pg**	**14 57 28.6**	**-0.1**
CHOS				S		**Sb**	**14 57 41.4**	**+0.5**
CHOS				AML		AML		
CHOS	**Chios island**	**0.91**	**306**	Pg		**Pg**	**14 57 28.6**	**-0.1**
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.04**	**83**	Pg		**Pg**	**14 57 30.5**	**-0.6**
NAZL				AML		AML		
ESEN	**Aydn-Nazilli**	**1.08**	**92**	P		**Pb**	**14 57 31.8**	**+0.1**
ESEN				S		**Sb**	**14 57 46.6**	**+0.9**
ESEN				IAML			14 57 50.0	
	comp=N,47nm,0.4s							
ESEN				IAML			14 57 50.0	
	comp=E,44nm,0.5s							
GOMA	**Golmarmara-Man**	**1.12**	**40**	Pn		**Pg**	**14 57 32.3**	**-0.5**
GOMA				AML		AML		
AKS	**Akhisar**	**1.21**	**32**	Pn		**Pg**	**14 57 33.9**	**-0.6**
AKS				AML		AML		
MULA	**Mugla, Merkez-**	**1.22**	**119**	P		**Pg**	**14 57 34.2**	**-0.3**
MULA				S		**Sb**	**14 57 50.1**	**+0.3**
MULA				IAML			14 57 55.0	
	comp=N,60nm,0.7s							
MULA				IAML			14 57 55.0	
	comp=E,91nm,0.6s							
DKL	**Dikili**	**1.22**	**357**	Pn		**Pn**	**14 57 34.2**	**+0.3**
DKL				AML		AML		
YER	**Yerkesik**	**1.25**	**124**	P		**Pn**	**14 57 34.4**	**-0.1**
YER				S		**Sg**	**14 57 50.8**	**-0.8**
SOMA	**Soma-Manisa**	**1.37**	**18**	Pn		**Pn**	**14 57 36.5**	**+0.5**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.41**	**41**	Pn		**Pn**	**14 57 37.1**	**+0.5**
GORD				AML		AML		
PRK	**Paraskevi**	**1.50**	**338**	P		**Pn**	**14 57 38.2**	**+0.4**

*SOME **02** 15:00:58.2,42˚.22N×81˚.12E, h5km*
*NNC **02** 15:01:13.2±5.5,42˚.41N×80˚.61E, h0km, mb2.7, mpv2.5, Error ellipse: s-maj=44.8km s-min=23.3km az=9.0*

ISC 02 15:00:58.0±3.9, 42˚.2N±0˝.2×81˚.20E±0˝.09, h10km, n5, σ2.62/8, 3C-1D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
PDGK	**Podgornoye**	**1.70**	**313**	⇑P		Pg	15 01 36.8	+6.3
	0.5nm,0.3s							
PDGK				⇑S		**Sg**	**15 01 53.4**	**+0.8**
	3.9nm,0.7s							
SATY	**Saty**	**2.23**	**294**	*e*P		**Pg**	**15 01 39.7**	**-1.1**
	1.3nm,0

DBG	**Daneborg**	**5.73**	**309**	Pn	**Pn**	**15 10 31.4**	**+4.6**
DBG	**Daneborg**	**5.73**	**309**	*e*P	Pn	15 10 18.6	-8.2
DBG				*e*S	Sn	15 11 17.0	-15
LOF	**Lofoten**	**6.77**	**110**	Pn	**Pn**	**15 10 42.8**	**+1.7**
LOF	**Lofoten**	**6.77**	**110**	*e*P	**Pn**	**15 10 41.9**	**+0.8**
LOF				*e*S	Sn	15 11 52.5	-5.6
STEI	**Steigen**	**7.40**	**108**	Pn	**Pn**	**15 10 50.5**	**+0.7**
STEI	**Steigen**	**7.40**	**108**	*e*P	**Pn**	**15 10 50.4**	**+0.7**
STEI				*e*S	Sn	15 12 08.2	-5.5
STEI				IAML		15 12 13.3	
	comp=Z,6.0nm,0.5s						
VAGH	**Vaagaholmen**	**7.61**	**119**	Pn	**Pn**	**15 10 53.8**	**+1.2**
VAGH	**Vaagaholmen**	**7.61**	**119**	*e*P	**Pn**	**15 10 53.0**	**+0.3**
VAGH				*e*S	Sn	15 12 12.8	-5.9
VAGH				IAML		15 12 15.6	
	comp=Z,3.2nm,0.7s						
TRO	**Tromso**	**7.72**	**92**	Pn	**Pn**	**15 10 53.1**	**-1.1**
TRO	**Tromso**	**7.72**	**92**	*e*P	**Pn**	**15 10 54.4**	**+0.3**
KONS	**Konsvik**	**7.73**	**121**	*e*P	**Pn**	**15 10 55.0**	**+0.7**
KONS				IAML		15 12 14.2	
	comp=Z,5.2nm,0.7s						
FAUS	**Fauske**	**7.75**	**112**	Pn	**Pn**	**15 10 55.1**	**+0.5**
FAUS	**Fauske**	**7.75**	**112**	*e*P	**Pn**	**15 10 55.3**	**+0.6**
FAUS				*e*S	**Sn**	**15 12 17.9**	**-4.5**
FAUS				IAML		15 12 24.5	
	comp=Z,3.7nm,0.6s						
STOK	**Stokkvaagen**	**7.83**	**122**	Pn	**Pn**	**15 10 57.1**	**+1.5**
STOK	**Stokkvaagen**	**7.83**	**122**	*e*P	**Pn**	**15 10 56.5**	**+0.9**
STOK				*e*S	Sn	15 12 17.0	-7.1
STOK				IAML		15 12 31.6	
	comp=Z,6.1nm,1.0s						
LEIR	**Leirfjorden**	**8.02**	**123**	Pn	**Pn**	**15 10 59.4**	**+1.1**
LEIR	**Leirfjorden**	**8.02**	**123**	*e*P	**Pn**	**15 10 59.0**	**+0.8**
LEIR				*e*S	Sn	15 12 19.1	-10
LEIR				IAML		15 12 30.9	
	comp=Z,7.4nm,0.7s						
RAUS	**Rausandaksla**	**8.04**	**119**	*e*P	**Pn**	**15 10 57.8**	**-0.7**
RAUS				*e*S	Sn	15 12 22.4	-6.9
JETT	**Jettan, Norway**	**8.23**	**91**	Pn	**Pn**	15 10 58.3	-2.9
MOR8	**Moi Rana**	**8.34**	**120**	*e*P	**Pn**	**15 11 02.0**	**-0.7**
SPA0	**Spitsbergen Ar** baz=221,slow=16	**8.57**	**28**	Pn	**Pn**	**15 11 06.1**	**+0.3**
SPA0	**Spitsbergen Ar**	**8.57**	**28**	Pn	**Pn**	**15 11 06.1**	**+0.3**
SPITS	**Spitsbergen Ar** baz=213,slow=15	**8.57**	**28**	Pn	**Pn**	**15 11 06.1**	**+0.3**
	comp=Z,3.1nm,0.4s						
SALU	**Saltoluokta**	**8.73**	**106**	*e*P	**Pn**	**15 11 07.2**	**-0.9**
KOVU	**Salmi**	**8.78**	**99**	*e*P	**Pn**	**15 11 08.7**	**+0.1**
NSS	**Namsos**	**8.98**	**132**	Pn	**Pn**	**15 11 13.6**	**+2.1**
NSS	**Namsos**	**8.98**	**132**	*e*P	**Pn**	**15 11 11.8**	**+0.3**
KTK1	**Kautokeino**	**9.37**	**91**	*e*P	**Pn**	**15 11 16.5**	**-0.3**
LANU	**Lannavaara**	**9.45**	**98**	*e*P	**Pn**	**15 11 17.3**	**-0.6**
HEF	**Hetta**	**9.80**	**94**	*e*P	**Pn**	**15 11 21.9**	**-0.7**
ARA0	**ARCESS Array S** baz=288,slow=12	**9.88**	**87**	Pn	**Pn**	**15 11 23.3**	**-0.4**
ARA0	**ARCESS Array S**	**9.88**	**87**	Pn	**Pn**	**15 11 23.3**	**-0.4**
ARCES	**ARCESS Array B**	**9.88**	**87**	Pn	**Pn**	**15 11 22.9**	**-0.9**
	comp=Z,0.5nm,0.3s,baz=286,slow=12,SNR=17						
	comp=Z,1.5nm,0.4s						
ARCES				AML	AML		
AKN	**Aaknes**	**10.10**	**150**	P	**Pn**	**15 11 29.9**	**+3.1**
AKN				S	Sn	15 13 14.4	-5.6
AKN	**Aaknes**	**10.10**	**150**	P	**Pn**	**15 11 31.2**	**+4.5**
KEV	**Kevo**	**10.27**	**84**	*e*P	**Pn**	**15 11 27.6**	**-1.5**
NOR	**Nord**	**10.69**	**350**	*e*P	**Pn**	**15 11 32.9**	**-1.9**
NOA	**NORSAR Array B** baz=348,slow=12,SNR=1.4	**11.91**	**143**	Pn	Pn	15 11 49.0	-2.6
NOA				LR	LR	15 16 28.7	
	comp=Z,164nm,19.2s,baz=330,slow=38						
	comp=Z,1.5nm,1.0s						
HFS	**Hagfors**	**13.24**	**139**	Pn	Pn	15 12 07.8	-1.8
	comp=Z,0.4nm,0.3s,baz=347,slow=12,SNR=6.3						
HFS				LR	LR	15 17 00.4	
	comp=Z,230nm,19.6s,baz=334,slow=36						
	comp=Z,1.1nm,0.6s						
HFS				AML	AML		
HFS	**Hagfors** baz=338,slow=14	**13.24**	**139**	Pn	**Pn**	**15 12 12.2**	**+2.5**
HFS	**Hagfors**	**13.24**	**139**	Pn	**Pn**	**15 12 12.2**	**+2.5**
FINES	**FINESS Array B**	**15.28**	**115**	Pn	**Pn**	**15 12 35.9**	**-1.4**
	comp=Z,0.2nm,0.3s,baz=288,slow=7.8,SNR=5.3						
FINES				LR	LR	15 17 55.8	
	comp=Z,197nm,18.2s,baz=216,slow=35						
	comp=Z,4.7nm,1.0s						
FINES				AML	AML		
EKA	**Eskdalemuir Ar** baz=357,slow=10	**16.08**	**179**	Pn	**Pn**	**15 12 47.8**	**0.0**
GERES	**GERESS Array B**	**23.98**	**151**	P	**P**	**15 14 16.4**	**+0.2**
	comp=Z,0.2nm,0.3s,baz=344,slow=9.0,SNR=4.4						
GERES				LR	LR	15 22 09.7	
	comp=Z,87nm,18.1s,baz=231,slow=33						
	comp=Z,0.2nm,0.3s						
VRAC	**Vranov**	**24.02**	**146**	P	**P**	**15 14 17.0**	**+0.5**
	comp=Z,1.6nm,0.5s,baz=309,slow=7.1,SNR=3.5						
VRAC				LR	LR	15 23 18.9	
	comp=Z,82nm,20.6s,baz=342,slow=36						
	comp=Z,1.6nm,0.5s						
RES	**Resolute Bay**	**24.37**	**320**	LR	LR	15 23 13.6	
	comp=Z,101nm,20.9s,baz=15,slow=35						
DAVOX	**Davos/Dischmat**	**25.47**	**158**	LR	LR	15 24 31.3	
	comp=Z,35nm,19.4s,baz=299,slow=37						
AKASG	**Malin Array Be**	**25.50**	**127**	P	**P**	**15 14 30.8**	**+0.8**
	comp=Z,1.2nm,0.6s,baz=336,slow=9.9,SNR=7.1						
	comp=Z,1.2nm,0.6s						
MLR	**Muntele Rosu**	**29.57**	**135**	LR	LR	15 26 47.7	
	comp=Z,152nm,19.2s,baz=1.0,slow=36						
SCHQ	**Schefferville**	**31.11**	**272**	LR	LR	15 26 54.6	
	comp=Z,81nm,18.0s,baz=153,slow=35						
AKTO	**Aktyubinsk**	**34.35**	**94**	LR	LR	15 29 27.3	
	comp=Z,95nm,18.1s,baz=202,slow=36						
BAND	**Balkesir-Ban**	**34.94**	**135**	⇓P	**P**	**15 15 53.3**	**-0.1**
KBZ	**Khabaz**	**35.64**	**115**	P	**P**	**15 15 59.3**	**-0.2**
	comp=Z,0.4nm,0.5s,baz=334,slow=7.6,SNR=5.1						
	comp=Z,0.4nm,0.5s						
BVAR	**Borovoye Array**	**36.09**	**80**	P	**P**	**15 16 03.4**	**+0.1**
	comp=Z,0.4nm,0.5s,baz=324,slow=7.3,SNR=3.5						
	comp=Z,0.4nm,0.5s						
BRTR	**Keskin Array B**	**36.85**	**129**	P	**P**	**15 16 10.6**	**+0.5**
	comp=Z,0.5nm,0.8s,baz=359,slow=7.4,SNR=4.9						
BRTR				LR	LR	15 31 11.8	
	comp=Z,24nm,20.5s,baz=358,slow=36						
	comp=Z,0.5nm,0.8s						
YKA	**Yellowknife Ar**	**38.27**	**316**	LR	LR	15 33 42.1	
	comp=Z,34nm,19.9s,baz=92,slow=39						
IDI	**Anoyia**	**39.13**	**142**	P	**P**	**15 16 29.6**	**+0.4**
	comp=Z,13nm,0.5s,baz=277,slow=17,SNR=3.2						
GNI	**Garni**	**39.47**	**116**	LR	LR	15 32 02.2	
	comp=Z,56nm,19.2s,baz=250,slow=35						
ILAR	**Eielson Array**	**41.84**	**337**	P	**P**	**15 16 51.5**	**+0.2**
	comp=Z,0.3nm,0.9s,baz=10,slow=8.7,SNR=4.4						
ILAR				LR	LR	15 35 42.1	
	comp=Z,39nm,18.5s,baz=288,slow=38						
	comp=Z,0.3nm,0.9s						
SADO	**Sadowa**	**43.79**	**275**	LR	LR	15 34 49.9	
	comp=Z,20nm,19.7s,baz=126,slow=36						
DLBC	**Dease Lake**	**45.18**	**323**	LR	LR	15 36 08.1	
	comp=Z,98nm,18.5s,baz=25,slow=36						
EIL	**Elat**	**46.75**	**132**	LR	LR	15 37 38.6	
	comp=Z,26nm,20.1s,baz=280,slow=37						
KDAK	**Kodiak Island**	**49.32**	**339**	LR	LR	15 42 00.6	
	comp=Z,35nm,19.1s,baz=36,slow=40						
SONM	**Songino Array**	**51.28**	**54**	P	**P**	**15 18 08.2**	**+2.6**
	comp=Z,0.2nm,0.3s,baz=16,slow=1.6,SNR=1.5						
	comp=Z,0.2nm,0.3s						
NEW	**Newport**	**51.77**	**309**	LR	LR	15 40 08.2	
	comp=Z,71nm,19.7s,baz=27,slow=36						
PDAR	**Pinedale Array**	**54.86**	**300**	LR	LR	15 42 14.3	
	comp=Z,56nm,18.8s,baz=16,slow=36						
YBH	**Yreka Blue Hor**	**59.28**	**310**	LR	LR	15 43 49.3	
	comp=Z,71nm,18.1s,baz=37,slow=35						
ANMO	**Albuquerque**	**61.23**	**294**	LR	LR	15 46 58.8	
	comp=Z,33nm,20.4s,baz=40,slow=37						
PFO	**Pinyon Flats O**	**65.32**	**302**	LR	LR	15 50 27.1	
	comp=Z,73nm,20.3s,baz=312,slow=38						
TXAR	**Lajitas Array**	**65.64**	**289**	P	**P**	**15 19 45.2**	**-0.7**
	comp=Z,0.3nm,0.6s,baz=57,slow=4.6,SNR=3.5						
	comp=Z,0.3nm,0.6s						
LPIG	**La Paz**	**72.53**	**293**	LR	LR	15 53 06.7	
	comp=Z,47nm,19.7s,baz=90,slow=36						
ASAR	**Alice Springs**	**126.55**	**50**	PKP	**PKPdf**	**15 28 04.7**	**+0.1**
	comp=Z,0.2nm,0.6s,baz=0.1,slow=1.9,SNR=6.6						

*IDC **02** 15:09:03.6±0.6,37°.46N×27°.03E,h0km,mb3.6/10, mbtmp3.6/19,ML3.3/7,MS3.2/8,Error ellipse: s-maj=10.6km s-min=8.8km az=152.0*

*AFAD **02** 15:09:06.9,37°.72N×27°.06E,h10km±1km,ML3.5*
*ISK **02** 15:09:06.7,37°.74N×27°.03E,h8km,ML3.8/41*
*ATH **02** 15:09:06.9,37°.79N×27°.09E,h14km±1km,ML3.8/13, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **02** 15:09:07.3,38°.N±5°×2°.7E±1°.5,h9km±19km,M3.8/10, ML3.8/10*
*GII **02** 15:09:13.4±0.0,37°.795N±0°.002×27°.945E±0°.001, h0km,Mws3.9,confirmed*

ISC 02 15:09:07.0±0.7,37.72N±0°.01×27.06E±0°.02,h17km±4km, n150,σ1§27/193,mb3.5/9,MS3.4/4,5C-3D,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.14**	**99**	P	**Pg**	**15 09 10.8**	**-0.1**
GCAM				S	**Sg**	**15 09 12.7**	**-0.8**
GCAM				IAML		15 09 14.0	
	comp=E,2μm,0.5s						
GCAM				IAML		15 09 19.0	
	comp=N,1μm,0.5s						
GCAM	**G?zelcaml?**	**0.14**	**99**	Pg	**Pg**	**15 09 10.9**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**52**	Pg	**Pg**	**15 09 12.3**	**+0.1**
KUSD				Sg	**Sg**	**15 09 15.3**	**-0.4**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.29**	**285**	P	**Pg**	**15 09 13.2**	**-0.1**
KRL1				S	**Sg**	**15 09 17.7**	**+0.2**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.30**	**152**	P	**Pg**	**15 09 13.7**	**+0.4**
DDIM				S	**Sg**	**15 09 18.3**	**+0.5**
DDIM				IAML		15 09 19.0	
	comp=E,8μm,0.5s						
DDIM				IAML		15 09 24.0	
	comp=N,7μm,0.4s						
DGB	**zmir**	**0.36**	**337**	P	**Pg**	**15 09 14.3**	**-0.1**
DGB				S	**Sg**	**15 09 19.1**	**-0.4**
DGB				IAML		15 09 20.0	
	comp=E,7μm,0.3s						
DGB				IAML		15 09 20.0	
	comp=N,5μm,0.6s						
DIDI	**Didim-Aydin**	**0.37**	**158**	Pg	**Pg**	**15 09 15.1**	**+0.5**
DIDI				AML	AML		
GMLD	**Gumuldur**	**0.37**	**342**	Pg	**Pg**	**15 09 14.7**	**0.0**
GMLD				Sg	**Sg**	**15 09 20.1**	**+0.2**
GMLD				AML	AML		
BEYE	**izmir**	**0.52**	**348**	P	**Pg**	**15 09 17.2**	**-0.1**
BEYE				S	**Sg**	**15 09 23.8**	**-0.4**
BEYE				IAML		15 09 26.0	
	comp=N,6μm,0.5s						
BEYE				IAML		15 09 28.0	
	comp=E,7μm,0.6s						
DUVT	**Torbali**	**0.58**	**31**	P	**Pb**	**15 09 18.7**	**-0.1**
DUVT				S	**Sb**	**15 09 26.6**	**-0.2**
DUVT				IAML		15 09 31.0	
	comp=E,6μm,0.7s						
DAGE	**izmir**	**0.61**	**62**	P	**Pb**	**15 09 20.2**	**+0.9**
DAGE				S	**Sg**	**15 09 27.4**	**+0.1**
DAGE				IAML		15 09 31.0	
	comp=E,4μm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.62**	**164**	Pg	**Pg**	**15 09 19.6**	**+0.4**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.65**	**95**	P	**Pg**	**15 09 19.6**	**-0.2**
AYDN				S	**Sg**	**15 09 27.2**	**-1.3**
AYDN				IAML		15 09 33.0	
	comp=N,2μm,0.6s						
AYDN				IAML		15 09 34.0	
	comp=E,2μm,0.3s						
BLCB	**Balcova**	**0.66**	**359**	P	**Pg**	**15 09 19.8**	**-0.3**
BLCB				S	**Sg**	**15 09 28.7**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**359**	Pg	**Pg**	**15 09 18.9**	**-1.1**
BLCB				Sg	**Sb**	**15 09 29.4**	**+0.3**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.68**	**320**	P	**Pg**	**15 09 20.5**	**+0.1**
ZEYE				S	**Sb**	**15 09 29.7**	**+0.2**
ZEYE				IAML		15 09 31.0	
	comp=N,7μm,0.5s						
ZEYE				IAML		15 09 32.0	
	comp=E,8μm,0.6s						
BODT	**Bodrum**	**0.69**	**163**	P	**Pb**	**15 09 20.4**	**-0.1**
BODT				S	**Sg**	**15 09 29.5**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.69**	**163**	Pg	**Pg**	**15 09 21.0**	**+0.5**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.69**	**71**	Pg	**Pb**	**15 09 21.1**	**+0.4**
AYDB				AML	AML		
MLSB	**Milas**	**0.71**	**127**	Pg	**Pg**	**15 09 21.5**	**+0.6**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.72**	**155**	P	**Pb**	**15 09 20.9**	**-0.2**
BDRM				IAML		15 09 31.0	
	comp=E,3μm,0.3s						
BDRM				S	**Sb**	**15 09 31.2**	**+0.4**
BDRM				IAML		15 09 34.0	
	comp=N,3μm,0.4s						
BDRM	**Kayabasi**	**0.72**	**155**	⇓P	**Pb**	**15 09 21.0**	**-0.2**
KLNA	**Kalymnos**	**0.77**	**185**	P	**Pb**	**15 09 22.1**	**+0.2**
KLNA				S	**Sn**	**15 09 34.4**	**+0.2**
IZMR	**zmir-demi**	**0.82**	**59**	P	**Pb**	**15 09 22.8**	**0.0**
IZMR				P	**Pn**	**15 09 23.8**	**0.0**
IZMR				S	**Sb**	**15 09 32.5**	**-0.9**
IZMR				IAML		15 09 36.0	
	comp=N,2μm,0.6s						
IZMR				IAML		15 09 36.0	
	comp=E,2μm,0.4s						
CESE	**eme**	**0.86**	**316**	Pg	**Pb**	**15 09 22.5**	**-0.9**
CESE				AML	AML		
BAGT	**Foa**	**0.95**	**350**	P	**Pg**	**15 09 25.3**	**-0.1**
BAGT				S	**Sn**	**15 09 39.0**	**+0.3**
BAGT				IAML		15 09 41.0	
	comp=N,1μm,1.4s						
BAGT				IAML		15 09 45.0	
	comp=E,6μm,0.9s						
KRBN	**Karaburun**	**0.96**	**335**	Pg	**Pb**	**15 09 24.9**	**-0.3**
KRBN				AML	AML		
NAZL	**Nazilli-Aydin**	**1.00**	**76**	Pg	**Pg**	**15 09 26.6**	**+0.2**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.02**	**85**	P	**Pn**	**15 09 26.8**	**+0.2**
ESEN				S	**Sg**	**15 09 40.3**	**+0.2**
ESEN				IAML		15 09 44.0	
	comp=E,633nm,0.3s						
ESEN				IAML		15 09 45.0	
	comp=N,647nm,0.3s						
FOCM	**Foa**	**1.02**	**345**	Pg	**Pb**	**15 09 25.5**	**-0.8**
FOCM				AML	AML		
CHOS	**Chios island**	**1.04**	**310**	P	**Pg**	**15 09 27.5**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.04**	**310**	Pg	**Pb**	**15 09 26.3**	**-0.2**
CHOS				AML	AML		
CAMT	**Merkez**	**1.04**	**11**	P	**Pg**	**15 09 27.3**	**+0.1**
CAMT				S	**Sn**	**15 09 41.3**	**+0.2**
CAMT				IAML		15 09 44.0	
	comp=E,6μm,0.6s						
CAMT				IAML		15 09 46.0	
	comp=N,6μm,0.7s						
KARB	**zmir-Karabur**	**1.07**	**332**	P	**Pn**	**15 09 27.4**	**+0.2**
KARB				S	**Sn**	**15 09 41.4**	**-0.4**
KARB				IAML		15 09 44.0	
	comp=E,3μm,0.7s						
KARB				IAML		15 09 48.0	
	comp=N,2μm,0.6s						
DAT	**Datca**	**1.07**	**157**	P	**Pg**	**15 09 28.0**	**+0.3**
DAT				S	**Sn**	**15 09 42.2**	**+0.3**
DAT	**Datca**	**1.07**	**157**	Pn	**Pg**	**15 09 28.0**	**+0.3**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.08**	**163**	P	**Pb**	**15 09 27.4**	**+0.1**
YAZI				S	**Sb**	**15 09 41.7**	**+0.6**
YAZI				IAML		15 09 45.0	
	comp=E,809nm,0.5s						
YAZI				IAML		15 09 46.0	
	comp=N,623nm,0.4s						
MULA	**Mugla, Merkez-**	**1.10**	**115**	P	**Pn**	**15 09 28.2**	**+0.4**
MULA				S	**Sb**	**15 09 42.4**	**+0.6**
MULA				IAML		15 09 48.0	
	comp=N,643nm,0.8s						
MULA				IAML		15 09 49.0	
	comp=E,1μm,1.0s						
EAG2	**Marmaro, Chios**	**1.11**	**318**	P	**Pb**	**15 09 27.5**	**-0.3**
EAG2				S	**Sb**	**15 09 41.6**	**-0.4**
YER	**Yerkesik**	**1.14**	**121**	Pn	**Pg**	**15 09 29.7**	**+0.8**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.16**	**65**	P	**Pb**	**15 09 28.9**	**+0.2**
KIRA				S	**Sb**	**15 09 43.3**	**-0.1**
KIRA				IAML		15 09 48.0	
	comp=N,1μm,0.4s						
KIRA				IAML		15 09 51.0	
	comp=E,549nm,0.8s						
GOMA	**Golmarmara-Man**	**1.19**	**34**	Pn	**Pg**	**15 09 30.1**	**+0.1**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.24**	**1**	P	**Pb**	**15 09 30.1**	**+0.1**
ZEDA				S	**Sg**	**15 09 46.9**	**-0.3**
ZEDA				IAML		15 09 49.0	
	comp=N,3μm,0.6s						
ZEDA				IAML		15 09 54.0	
	comp=E,2μm,0.5s						
KTTT	**Salihli**	**1.26**	**40**	P	**Pg**	**15 09 32.0**	**+0.7**
KTTT				S	**Sb**	**15 09 46.0**	**-0.3**
KTTT				IAML		15 09 50.0	
	comp=N,862nm,0.5s						
AKHS	**Akhisar**	**1.30**	**27**	P	**Pg**	**15 09 32.1**	**+0.1**
AKS	**Akhisar**	**1.30**	**27**	Pn	**Pb**	**15 09 31.3**	**+0.3**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.30**	**206**	P	**Pb**	**15 09 31.7**	**+0.7**
ASTA				S	**Sg**	**15 09 50.3**	**+1.2**
ASTA				AML	AML		
TURN	**Turunc**	**1.33**	**135**	P	**Pb**	**15 09 32.1**	**+0.5**
TURN				S	**Sb**	**15 09 49.1**	**+0.7**
TURN				IAML		15 09 55.0	
	comp=N,760nm,0.4s						
TURN				IAML		15 09 56.0	
	comp=E,792nm,0.8s						
TURN	**Turunc**	**1.33**	**135**	Pn	**Pg**	**15 09 32.9**	**+0.2**
TURN				AML	AML		
DKL	**Dikili**	**1.35**	**355**	Pn	**Pb**	**15 09 31.7**	**-0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.35**	**355**	P	**Pn**	**15 09 30.5**	**-0.6**
DKL				S	**Sn**	**15 09 47.8**	**-0.9**
APE	**Apeiranthos**	**1.38**	**242**	P	**Pb**	**15 09 33.0**	**+0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.38**	**242**	⇑P	**Pb**	**15 09 33.4**	**+0.9**
APE	**Apeiranthos**	**1.38**	**242**	Pn	**Pb**	**15 09 32.8**	**+0.3**
APE				AML	AML		
APE	**Apeiranthos**	**1.38**	**242**	P	**Pb**	**15 09 32.7**	**+0.3**
APE				S	**Sg**	**15 09 51.6**	**0.0**
APE				AML	AML		
SULTU	**Buldan**	**1.39**	**76**	P	**Pb**	**15 09 32.5**	**-0.1**
SULTU				S	**Sb**	**15 09 50.8**	**+0.7**
SULTU				IAML		15 09 59.0	
	comp=E,610nm,0.9s						
SULTU				IAML		15 10 03.0	
	comp=N,528nm,0.5s						
MANT	**Manisa**	**1.41**	**56**	P	**Pg**	**15 09 33.9**	**-0.2**
MANT				S	**Sb**	**15 09 50.5**	**-0.3**
MANT				IAML		15 09 53.0	
	comp=N,593nm,0.6s						
MANT				IAML		15 09 54.0	
	comp=E,620nm,0.4s						
GORD	**Gordes-Manisa**	**1.48**	**36**	Pn	**Pb**	**15 09 33.6**	**-0.4**
GORD				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**14**	Pn	**Pb**	**15 09 33.9**	**-0.2**
SOMA				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.49**	**99**	⇑P	**Pg**	**15 09 36.5**	**+0.8**
HARTU	**Esme**	**1.50**	**65**	P	**Pg**	**15 09 35.4**	**-0.5**
HARTU				S	**Sn**	**15 09 51.3**	**-1.2**
HARTU				IAML		15 09 57.0	
	comp=N,293nm,0.4s						
HARTU				IAML		15 10 04.0	
	comp=E,253nm,0.9s						
TNSA	**Tinos**	**1.52**	**264**	P	**Pn**	**15 09 33.5**	**+0.1**
TNSA				S	**Sb**	**15 09 53.8**	**+0.1**
TNSA				AML	AML		
DALY	**Dalyan (Mula)**	**1.56**	**125**	Pn	**Pg**	**15 09 36.5**	**-0.4**
DALY				AML	AML		
AYVA	**Ayvalik**	**1.61**	**350**	P	**Pg**	**15 09 37.3**	**-0.7**
AYVA				S	**Sb**	**15 09 57.2**	**+0.9**
AYVA				IAML		15 10 03.0	
	comp=E,1μm,0.6s						
AYVA				IAML		15 10 03.0	
	comp=N,2μm,0.6s						
PRK	**Paraskevi**	**1.64**	**338**	P	**Pb**	**15 09 36.6**	**-0.2**
PRK				S	**Sb**	**15 09 56.7**	**-0.6**
PRK				AML	AML		
PRK	**Paraskevi**	**1.64**	**338**	P	**Pn**	**15 09 35.2**	**+0.1**
ARG	**Arkhangelos**	**1.73**	**150**	Pn	**Pb**	**15 09 37.9**	**-0.4**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.73**	**150**	P	**Pn**	**15 09 37.2**	**+1.0**
ARG				AML	AML		
STEP	**BALIKESIR_Sava**	**1.73**	**17**	P	**Pg**	**15 09 39.4**	**-0.9**
STEP				S	**Sg**	**15 10 01.6**	**-1.2**
STEP				IAML		15 10 07.0	
	comp=E,1μm,0.3s						
STEP				IAML		15 10 09.0	
	comp=N,2μm,0.6s						
BUHA	**Balikesir, Bur**	**1.78**	**0**	P	**Pn**	**15 09 38.0**	**+1.1**
BUHA				S	**Sb**	**15 10 02.2**	**+1.0**
BUHA				IAML		15 10 10.0	
	comp=N,1μm,0.9s						
BUHA				IAML		15 10 14.0	
	comp=E,2μm,0.7s						
APMY	**Acipayam-Deniz**	**1.80**	**97**	Pn	**Pb**	**15 09 39.1**	**-0.4**
APMY				AML	AML		
CMBO	**Columbo, Santo**	**1.82**	**227**	P	**Pn**	**15 09 37.8**	**+0.3**
THR2	**Thira island,**	**1.82**	**226**	P	**Pn**	**15 09 39.0**	**+1.5**
THR8	**Santorini-Mono**	**1.82**	**224**	P	**Pn**	**15 09 38.0**	**+0.4**
THR8	**Santorini-Mono**	**1.82**	**224**	P	**Pn**	**15 09 38.0**	**+0.4**
THERA	**Ancient Thera,**	**1.85**	**224**	P	**Pb**	**15 09 40.4**	**0.0**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.85**	**224**	P	**Pn**	**15 09 38.5**	**+0.5**
THERA				AML	AML		
THR3	**Thira Island,**	**1.87**	**226**	P	**Pb**	**15 09 40.0**	**-0.6**
SNT5	**Nea Kammeni, S**	**1.87**	**226**	P	**Pn**	**15 09 39.5**	**+1.2**
SAP3	**Santorini-Thir**	**1.88**	**227**	P	**Pn**	**15 09 40.0**	**+1.6**
YAYO	**Edremit-Balk**	**1.89**	**0**	Pn	**Pn**	**15 09 39.5**	**+1.0**
YAYO				AML	AML		
THR5	**

PTL					AML	AML			
BIGA	**Biga-Canakkale**	**2.56**	**2**		Pn	**Pn**	**15 09 49.2**	**+1.5**	
VLY	**Voula,Athens**	**2.59**	**274**		P	**Pn**	**15 09 49.1**	**+0.9**	
VLY					AML	AML			
VLY	**Voula,Athens**	**2.59**	**274**		P	**Pn**	**15 09 48.5**	**+0.3**	
VLY					AML	AML			
LIA	**Limnos Island**	**2.62**	**327**		P	**Pn**	**15 09 49.5**	**+0.9**	
LIA	**Limnos Island**	**2.62**	**327**		P	**Pn**	**15 09 48.2**	**-0.3**	
LIA					AML	AML			
GADA	**Gvkgeada**	**2.63**	**340**		Pn	**Pn**	**15 09 49.6**	**+1.0**	
GADA					AML	AML			
BAND	**Balkesir-Ban**	**2.75**	**17**	⇓	P	**Pn**	**15 09 52.9**	**+2.6**	
IDI	**Anoyia**	**2.99**	**216**		Pn	**Pn**	**15 09 49.7**	**-4.1**	
	19nm,0.8s,baz=12,slow=11,SNR=11								
IDI					Sn	**Sn**	**15 10 24.0**	**-5.3**	
	12nm,0.3s,baz=272,slow=22,SNR=5.7								
IDI					Lg	Lg	15 10 34.0		
	10nm,0.3s,baz=104,slow=21,SNR=2.3								
CAVK	**Edirne/Enez-Ca**	**3.05**	**347**	⇑	P	**Pn**	**15 09 56.2**	**+1.8**	
KEPZ	**Antalya-Kepez**	**3.71**	**101**	⇑	P	**Pn**	**15 10 06.1**	**+2.5**	
SILT	**Sile**	**3.97**	**29**	⇑	P	**Pn**	**15 10 09.3**	**+2.2**	
BRTR	**Keskin Array B**	**5.52**	**67**		Pn	**Pn**	**15 10 29.7**	**+1.2**	
	1.0nm,0.3s,baz=242,slow=15,SNR=11								
BRTR					Lg	Lg	15 12 05.5		
	baz=274,slow=22								
BRTR					LR	LR	15 13 04.3		
	comp=Z,176nm,18.5s,baz=254,slow=43 1.5nm,0.4s								
BRTR					AML	AML			
KIRS	**Kirsehir-Merke**	**5.56**	**73**	⇓	P	**Pn**	**15 10 32.5**	**+3.5**	
CSS	**Mathiatis**	**5.76**	**117**		P	**Pn**	**15 10 32.6**	**+0.8**	
CSS					S	**Sn**	**15 11 33.6**	**-3.8**	
MLR	**Muntele Rosu**	**7.81**	**354**		Pn	**Pn**	**15 11 02.8**	**+2.9**	
	0.4nm,0.3s,baz=175,slow=11,SNR=1.9								
MLR					Lg	Lg	15 13 17.4		
	0.4nm,0.3s,baz=246,slow=20,SNR=3.3								
MLR					LR	LR	15 14 33.6		
	comp=Z,211nm,18.6s,baz=178,slow=41 2.3nm,0.6s								
MLR					AML	AML			
MMA0B	**Mount Meron ar**	**8.27**	**122**		P	**Pn**	**15 11 07.9**	**+1.6**	
MMA0B					S	**Sn**	**15 12 36.7**	**-2.7**	
MMAI	**Mount Meron Ar**	**8.27**	**122**		Pn	**Pn**	**15 11 03.1**	**-3.2**	
	0.6nm,0.3s,baz=320,slow=13,SNR=8.0								
MMAI					Sn	Sn	15 12 29.8	-10	
	0.1nm,0.3s,baz=349,slow=41,SNR=1.5								
GEM	**Giv'at Ha'Em**	**8.33**	**120**		P	**Pn**	**15 11 08.1**	**+1.0**	
GEM					S	**Sn**	**15 12 37.4**	**-3.4**	
MMLI	**Mount Malkishu**	**8.64**	**125**		P	**Pn**	**15 11 12.9**	**+1.5**	
MMLI					S	**Sn**	**15 12 45.7**	**-2.8**	
KZIT	**Kziot**	**9.11**	**136**		P	**Pn**	**15 11 20.9**	**+3.2**	
KZIT					S	**Sn**	**15 13 00.2**	**+0.3**	
ASF	**Jabal al Asfar**	**9.75**	**122**		Pn	**Pn**	**15 11 22.8**	**-4.2**	
	0.4nm,0.3s,baz=62,slow=5.4,SNR=2.1 0.7nm,0.4s								
ASF					AML	AML			
VAE	**Valguarnera**	**10.04**	**272**		Pn	**Pn**	**15 11 28.1**	**-2.4**	
	1.4nm,0.3s,baz=247,slow=20,SNR=1.4 4.9nm,0.3s								
VAE					AML	AML			
EIL	**Elat**	**10.37**	**138**		Pn	**Pn**	**15 11 30.6**	**-4.4**	
	0.4nm,0.3s,baz=27,slow=20,SNR=1.4								
EIL					Sn	Sn	15 13 15.9	-15	
	baz=262,slow=23 1.4nm,0.4s								
EIL					AML	AML			
KBZ	**Khabaz**	**13.42**	**58**		LR	LR	15 18 54.7		
	comp=Z,96nm,19.0s,baz=258,slow=44								
GNI	**Garni**	**13.98**	**75**		LR	LR	15 19 01.4		
	comp=Z,61nm,19.7s,baz=298,slow=42								
KEST	**Kesra**	**14.35**	**267**		Pn	**Pn**	**15 12 28.9**	**-0.5**	
	0.2nm,0.3s,baz=48,slow=12,SNR=1.7 0.8nm,0.4s								
KEST					AML	AML			
GERES	**GERESS Array B**	**14.75**	**323**		Pn	**Pn**	**15 12 37.2**	**+2.4**	
	baz=134,slow=9.5,SNR=5.5 0.2nm,0.2s								
ESDC	**Sonseca Array**	**24.23**	**284**		P	**P**	**15 14 23.3**	**+0.2**	
	0.5nm,0.6s,baz=89,slow=11,SNR=2.3 0.5nm,0.6s								
NOA	**NORSAR Array B**	**25.38**	**342**		P	**P**	**15 14 34.1**	**+1.0**	
	1.4nm,0.9s,baz=100,slow=11,SNR=2.4								
NOA					LR	LR	15 25 52.2		
	comp=Z,39nm,18.6s,baz=155,slow=39 1.4nm,0.9s								
TORD	**Torodi Ar. Bea**	**33.31**	**229**		P	**P**	**15 15 40.6**	**-3.4**	
	0.8nm,0.6s,baz=39,slow=8.5,SNR=5.3 0.8nm,0.6s								
BVAR	**Borovoye Array**	**33.49**	**49**		P	**P**	**15 15 46.5**	**+1.3**	
	0.1nm,0.3s,baz=192,slow=2.8,SNR=2.7 0.1nm,0.3s								
KURBB	**Kurchatov Arra**	**38.34**	**53**		P	**P**	**15 16 27.2**	**+0.4**	
	0.4nm,0.7s,baz=280,slow=8.0,SNR=4.5 0.4nm,0.7s								
MKAR	**Makanchi Array**	**41.11**	**59**		P	**P**	**15 16 49.8**	**-0.2**	
	0.4nm,0.5s,baz=267,slow=10,SNR=6.2 0.4nm,0.5s								
ZALV	**Zalesovo Beam**	**42.14**	**48**		P	**P**	**15 16 59.2**	**+1.0**	
	0.3nm,0.3s,baz=298,slow=6.2,SNR=1.7 0.3nm,0.3s								
SONM	**Songino Array**	**56.69**	**52**		P	**P**	**15 18 50.2**	**+0.6**	
	0.3nm,0.3s,baz=299,slow=3.0,SNR=2.3 0.3nm,0.3s								
TIXI	**Tiksi**	**58.23**	**21**		LR	LR	15 47 34.1		
	comp=Z,29nm,18.8s,baz=349,slow=40								
YAK	**Yakutsk**	**62.90**	**31**		LR	LR	15 49 55.0		
	comp=Z,39nm,18.3s,baz=334,slow=39								
CMAR	**Chiang Mai Arr**	**64.80**	**86**		P	**P**	**15 19 45.5**	**+0.5**	
	0.3nm,0.3s,baz=298,slow=7.0,SNR=4.2 0.3nm,0.3s								
MA2	**Magadan**	**72.51**	**26**		LR	LR	15 53 53.9		
	comp=Z,17nm,18.1s,baz=48,slow=37								
KSRS	**Korea Array**	**75.52**	**54**		P	**P**	**15 20 52.0**	**+1.6**	
	1.8nm,0.9s,baz=305,slow=3.3,SNR=4.4 1.8nm,0.9s								

*ISK **02** 15:15:05.6,37°.71N×27°.02E,h11km,ML3.2/18*
*ATH **02** 15:15:05.7,37°.74N×27°.10E,h10km±1km,ML3.4/13,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
*THE **02** 15:15:06.2,38°.N±3°×2°.7E±°,h3km±6km,M3.4/8,MLh3.4/8*
*AFAD **02** 15:15:06.2,37°.73N×27°.04E,h7km±2km,ML3.2*
ISC 02 15:15:06.4±0.8,37°.73N±0°.02×27°.04E±0°.02,h13km±6km,
n67,σ0°50/90,5C,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.16**	**101**	P	**Pg**	**15 15 10.0**	**-0.2**
GCAM				S	**Sg**	**15 15 12.9**	**+0.2**
GCAM				IAML		15 15 14.0	
	comp=N,8μm,0.5s						
GCAM				IAML		15 15 14.0	
	comp=E,6μm,0.6s						
GCAM	**G?zelcaml?**	**0.16**	**101**	Pg	**Pg**	**15 15 09.9**	**-0.2**
GCAM				Sg	**Sg**	**15 15 13.0**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**56**	Pg	**Pg**	**15 15 11.4**	**-0.1**
KUSD				Sg	**Sg**	**15 15 14.9**	**0.0**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**284**	P	**Pg**	**15 15 11.4**	**-0.7**
KRL1				S	**Sg**	**15 15 16.3**	**+0.5**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**149**	P	**Pg**	**15 15 12.9**	**0.0**
DDIM				S	**Sg**	**15 15 17.7**	**+0.5**
DDIM				IAML		15 15 18.0	
	comp=E,3μm,0.3s						
DDIM				IAML		15 15 21.0	
	comp=N,3μm,0.4s						
DGB	**zmir**	**0.34**	**339**	P	**Pg**	**15 15 13.2**	**-0.1**
DGB				S	**Sg**	**15 15 17.7**	**-0.3**
DGB				IAML		15 15 18.0	
	comp=N,2μm,0.3s						
DGB				IAML		15 15 18.0	
	comp=E,2μm,0.2s						
GMLD	**Gumuldur**	**0.36**	**344**	Pg	**Pg**	**15 15 13.7**	**0.0**
GMLD				Sg	**Sb**	**15 15 19.5**	**-0.8**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**350**	P	**Pg**	**15 15 16.1**	**-0.2**
BEYE				S	**Sb**	**15 15 23.9**	**-0.6**
BEYE				IAML		15 15 27.0	
	comp=N,2μm,0.2s						
BEYE				IAML		15 15 27.0	
	comp=E,2μm,0.3s						
DUVT	**Torbali**	**0.59**	**33**	P	**Pg**	**15 15 17.3**	**-0.6**
DUVT				S	**Sg**	**15 15 25.8**	**+0.1**
DUVT				IAML		15 15 30.0	
	comp=E,2μm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg	**Pg**	**15 15 17.8**	**-1.0**
YKAV				Sg	**Sg**	**15 15 27.1**	**0.0**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**0**	P	**Pg**	**15 15 18.5**	**-0.7**
BLCB				S	**Sg**	**15 15 27.8**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**0**	Pg	**Pg**	**15 15 18.8**	**-0.4**
BLCB				Sg	**Sb**	**15 15 29.1**	**+0.3**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.67**	**96**	P	**Pg**	**15 15 19.3**	**-0.2**
AYDN				S	**Sg**	**15 15 28.1**	**-0.2**
AYDN				IAML		15 15 33.0	
	comp=N,1μm,0.4s						
AYDN				IAML		15 15 33.0	
	comp=E,2μm,0.3s						
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**15 15 19.4**	**-0.6**
BODT				S	**Sg**	**15 15 29.4**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pg**	**15 15 19.3**	**-0.7**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pg**	**15 15 20.0**	**-0.2**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**126**	Pg	**Pg**	**15 15 19.9**	**-0.7**
MLSB				Sg	**Sg**	**15 15 30.4**	**+0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**15 15 20.1**	**-0.6**
BDRM				S	**Sg**	**15 15 30.6**	**+0.2**
BDRM				IAML		15 15 32.0	
	comp=E,2μm,0.4s						
BDRM				IAML		15 15 34.0	
	comp=N,2μm,0.6s						
BDRM	**Kayabasi**	**0.74**	**154**	⇑P	**Pb**	**15 15 21.0**	**-0.1**
KLNA	**Kalymnos**	**0.77**	**184**	P	**Pg**	**15 15 20.6**	**-0.8**
KLNA				S	**Sg**	**15 15 31.4**	**-0.1**
IZMR	**zmir-demi**	**0.83**	**60**	P	**Pg**	**15 15 22.2**	**-0.2**
IZMR				S	**Sg**	**15 15 32.0**	**-1.3**
IZMR				IAML		15 15 35.0	
	comp=N,1μm,0.6s						
IZMR				IAML		15 15 35.0	
	comp=E,723nm,0.6s						
CESE	**eme**	**0.84**	**316**	Pg	**Pg**	**15 15 22.2**	**-0.4**
CESE				AML	AML		
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**15 15 24.5**	**-0.2**
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**346**	Pg	**Pb**	**15 15 25.7**	**-0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**15 15 25.7**	**-0.4**
CHOS				S	**Sb**	**15 15 39.9**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	Pg	**Pg**	**15 15 25.8**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**15 15 25.9**	**-0.2**
CHOS				S	**Sb**	**15 15 40.1**	**+0.9**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg	**Pb**	**15 15 26.0**	**0.0**
NAZL				AML	AML		
EAG2	**Marmaro, Chios**	**1.09**	**318**	P	**Pg**	**15 15 27.3**	**-0.2**
EAG2				S	**Sb**	**15 15 42.0**	**+0.6**
YER	**Yerkesik**	**1.16**	**121**	P	**Pb**	**15 15 27.9**	**-0.4**
YER				S	**Sn**	**15 15 45.2**	**+1.1**
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pg**	**15 15 29.2**	**-0.3**
GOMA				AML	AML		
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pb**	**15 15 30.6**	**-0.1**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.30**	**205**	P	**Pn**	**15 15 30.0**	**-0.3**
ASTA				S	**Sn**	**15 15 47.9**	**+0.2**
ASTA				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pn**	**15 15 31.1**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.34**	**356**	P	**Pn**	**15 15 30.5**	**-0.4**
APE	**Apeiranthos**	**1.37**	**242**	P	**Pb**	**15 15 31.7**	**-0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.37**	**242**	⇑P	**Pg**	**15 15 33.5**	**+0.8**
APE	**Apeiranthos**	**1.37**	**242**	P	**Pn**	**15 15 31.4**	**+0.1**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pn**	**15 15 33.1**	**+0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pn**	**15 15 33.3**	**+0.4**
GORD				AML	AML		
TNSA	**Tinos**	**1.50**	**263**	P	**Pb**	**15 15 34.0**	**-0.1**
TAVA	**DENIZLI_Tavas**	**1.51**	**99**	⇑P	**Pg**	**15 15 35.4**	**-0.1**
PRK	**Paraskevi**	**1.63**	**339**	P	**Pb**	**15 15 36.2**	**-0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**15 15 34.1**	**-0.7**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.74**	**150**	P	**Pn**	**15 15 36.4**	**0.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.74**	**150**	P	**Pn**	**15 15 35.8**	**-0.7**
ARG				AML	AML		
CMBO	**Columbo, Santo**	**1.81**	**227**	P	**Pn**	**15 15 37.7**	**+0.4**
THR8	**Santorini-Mono**	**1.82**	**224**	P	**Pn**	**15 15 38.4**	**+1.0**
THERA	**Ancient Thera,**	**1.85**	**223**	P	**Pn**	**15 15 37.4**	**-0.5**
THERA				AML	AML		
THR3	**Thira Island,**	**1.86**	**225**	P	**Pg**	**15 15 41.2**	**-0.9**
THR3	**Thira Island,**	**1.86**	**225**	P	**Pn**	**15 15 38.6**	**+0.6**
SNT5	**Nea Kammeni, S**	**1.86**	**225**	P	**Pb**	**15 15 39.9**	**-0.5**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.86**	**225**	P	**Pn**	**15 15 37.6**	**-0.5**
THR5	**Thira Island,**	**1.88**	**226**	P	**Pn**	**15 15 38.3**	**-0.1**
THR6	**Thira Island,**	**1.90**	**224**	P	**Pn**	**15 15 39.1**	**+0.6**
THR9	**Santorini-Faro**	**1.92**	**225**	P	**Pn**	**15 15 39.3**	**+0.5**
KARY	**Karystos**	**2.08**	**279**	P	**Pn**	**15 15 40.5**	**-0.5**
KARP	**Karpathos**	**2.18**	**177**	P	**Pn**	**15 15 43.5**	**+1.0**
KARP	**Karpathos**	**2.18**	**177**	P	**Pn**	**15 15 43.1**	**+0.6**
MHLO	**Agia Marina, M**	**2.35**	**245**	P	**Pn**	**15 15 44.7**	**0.0**
MHLO				AML	AML		
DION	**Dionisos Attik**	**2.48**	**279**	P	**Pn**	**15 15 46.3**	**-0.2**
DION	**Dionisos Attik**	**2.48**	**279**	P	**Pn**	**15 15 46.0**	**-0.6**
DION				AML	AML		
PTL	**Penteli**	**2.53**	**278**	P	**Pn**	**15 15 46.7**	**-0.6**
VLY	**Voula,Athens**	**2.57**	**274**	P	**Pn**	**15 15 47.7**	**-0.2**
VLY				AML	AML		
LIA	**Limnos Island**	**2.60**	**327**	P	**Pn**	**15 15 48.9**	**+0.7**
LIA				AML	AML		
SAHE	**Sakarya_HENDEK**	**4.30**	**42**	⇑P	**Pg**	**15 16 28.1**	**-0.6**
ELND	**Elena**	**5.27**	**351**	⇑P	**Pn**	**15 16 25.7**	**+0.8**

*MEX **02** 15:18:44.9±1.0,14°.78N×92°.20W,h100km±4km,MD4.3,*
Presumed earthquake
*GCG **02** 15:18:44.6±1.3,14°.77N×92°.14W,h87km±7km,MD4.2,*
ML4.2,Presumed earthquake
ISC 02 15:18:39.2±1.4,14°.54N±0°.06×92°.18W±0°.04,h117km±7km,
n28,σ2°52/52,Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**0.38**	**347**	*i* P	**Pn**	**15 18 57.4**	**+1.3**
THIG				*i* S	**Sn**	**15 19 07.0**	**-1.9**
THIG		**0.38**	**347**	*eP*	**Pn**	**15 18 57.6**	**+1.5**
THIG				*eS*	**Sn**	**15 19 08.0**	**-0.9**
RTAL	**Retalhuleu**	**0.47**	**92**	*eP*	**Pn**	**15 18 59.7**	**+3.1**
RTAL				*eS*	**Sn**	**15 19 11.0**	**+1.3**
CHUJ	**Union Juarez**	**0.56**	**7**	*eP*	**Pn**	**15 18 58.1**	**+0.7**
CHUJ				*eS*	**Sn**	**15 19 09.1**	**-2.1**
PATR	**El Naranjo**	**0.58**	**355**	*i* P	**Pn**	**15 18 58.1**	**+0.5**
PATR				*eS*	**Sn**	**15 19 08.9**	**-2.6**
PAVE	**Pavencul**	**0.65**	**0**	*eP*	**Pn**	**15 18 58.9**	**+0.8**
PAVE				*eS*	**Sn**	**15 19 10.3**	**-2.1**
QUEO	**Labor Ovalle**	**0.72**	**63**	*i* P	**Pn**	**15 19 01.5**	**+2.8**
STG8	**El Palmar, Qui**	**0.81**	**96**	*i* P	**Pn**	**15 18 59.6**	**+0.2**
STG8				*i* S	**Sn**	**15 19 12.0**	**-2.6**
STG8				IAML		15 19 14.8	
	comp=E,7μm,0.2s						
HUEH	**Huehuetenango**	**1.01**	**40**	*i* P	**Pn**	**15 19 03.4**	**+2.1**
HUEH				*i* S	**Sn**	**15 19 17.8**	**-0.3**
HUEH				IAML		15 19 23.5	
	comp=E,5μm,0.6s						
HUEH	**Huehuetenango**	**1.01**	**40**	*eP*	**Pn**	**15 19 03.4**	**+2.1**
HUEH				*eS*	**Sn**	**15 19 16.2**	**-1.8**
PCIG		**1.53**	**319**	*eP*	**Pn**	**15 19 08.5**	**+1.8**
PCIG				*eS*	**Sn**	**15 19 27.2**	**-0.6**
FG9	**Yepocapa, Chim**	**1.59**	**100**	*i* P	**Pn**	**15 19 07.4**	**-0.2**
FG8				*i* S	**Sn**	**15 19 24.7**	**-4.5**
FG16	**Alotenango, Sa**	**1.64**	**99**	*i* S	**Sn**	**15 19 27.3**	**-3.1**
APG	**El Apazote**	**1.72**	**74**	*i* P	**Pn**	**15 19 13.1**	**+3.8**
CCIG	**Comitan**	**1.73**	**1**	*i* P	**Pn**	**15 19 11.6**	**+2.2**
CCIG				*i* S	**Sn**	**15 19 31.4**	**-1.0**
CCIG	**Comitan**	**1.73**	**1**	*eP*	**Pn**	**15 19 11.6**	**+2.2**
CCIG				*eS*	**Sn**	**15 19 31.7**	**-0.7**
TGIG		**2.40**	**338**	*i* P	**Pn**	**15 19 18.7**	**+1.0**
TGIG		**2.40**	**338**	*eP*	**Pn**	**15 19 18.7**	**+1.0**
TGIG				*eS*	**Sn**	**15 19 43.9**	**-3.4**
PETF	**Flores**	**3.25**	**43**	*eP*	**Pn**	**15 19 31.4**	**+2.8**
PETF				*eS*	**Sn**	**15 20 04.8**	**-2.1**
CMIG	**Matias Romero**	**3.63**	**315**	*eP*	**Pn**	**15 19 36.5**	**+2.7**
CMIG				*eS*	**Sn**	**15 20 13.4**	**-2.7**
HUIG	**Huatulco**	**3.99**	**288**	*eP*	**Pn**	**15 19 40.9**	**+2.4**
HUIG				*eS*	**Sn**	**15 20 21.6**	**-2.9**
SCIG	**Sabancuy**	**4.50**	**12**	*eP*	**Pn**	**15 19 46.9**	**+1.5**
SCIG				*eS*	**Sn**	**15 20 33.6**	**-3.3**
NEUV	**Arroyo Zacate**	**4.70**	**313**	*eP*	**Pn**	**15 19 49.4**	**+1.4**
NEUV				*eS*	**Sn**	**15 20 39.1**	**-2.5**
YOIG	**Yosondua**	**5.66**	**295**	*eP*	**Pn**	**15 20 01.7**	**+0.5**
YOIG				*eS*	**Sn**	**15 21 00.1**	**-5.1**
TOIG	**Toxpalan**	**5.87**	**308**	*eP*	**Pn**	**15 20 07.6**	**+3.7**
TOIG				*eS*	**Sn**	**15 21 08.0**	**-2.1**
TXIG	**Tlaxiaco**	**6.02**	**297**	*eP*	**Pn**	**15 20 10.7**	**+4.6**
TXIG				*eS*	**Sn**	**15 21 13.2**	**-0.7**
PNIG	**Pinotepa**	**6.02**	**289**	*eP*	**Pn**	**15 20 09.8**	**+3.8**
PNIG				*eS*	**Sn**	**15 21 13.6**	**-0.1**
FTIG	**Fresnillo de T**	**6.63**	**301**	*eP*	**Pn**	**15 20 15.4**	**+1.2**
FTIG				*eS*	**Sn**	**15 21 23.4**	**-5.0**

*BER **02** 15:33:50.9±2.2,71°.54N×3°.13W,h19km±53km,Mw4.1,*
ML3.2(NAO),Confirmed Earthquake
*NAO **02** 15:33:51.9±1.8,71°.53N×2°.27W,h10km,ML3.2*
ISC 02 15:33:47.3±1.3,71°.5N±0°.1×3°.1W±0°.1,h10km,n31,
σ0°62/27,Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DBG	**Daneborg**	**5.75**	**307**	*eP*	**Pn**	**15 35 12.1**	**-0.5**
LOF	**Lofoten**	**6.68**	**112**	Pn	**Pn**	**15 35 25.1**	**-0.2**
LOF	**Lofoten**	**6.68**	**112**	*eP*	**Pn**	**15 35 25.0**	**-0.3**
STEI	**Steigen**	**7.31**	**110**	Pn	**Pn**	**15 35 34.3**	**+0.4**
STEI	**Steigen**	**7.31**	**110**	*eP*	**Pn**	**15 35 33.4**	**-0.5**
STEI				IAML		15 35 39.1	
	comp=Z,11nm,0.4s						
STEI				*eS*	Sn	15 36 51.5	-5.2
VAGH	**Vaagaholmen**	**7.55**	**121**	*eP*	**Pn**	**15 35 37.0**	**-0.2**
VAGH				IAML		15 35 37.5	
	comp=Z,3.4nm,0.7s						
TRO	**Tromso**	**7.57**	**94**	Pn	**Pn**	**15 35 36.5**	**-1.0**
TRO	**Tromso**	**7.57**	**94**	*eP*	**Pn**	**15 35 36.7**	**-0.8**
TRO				IAML		15 35 39.2	
	comp=Z,4.2nm,0.6s						
FAUS	**Fauske**	**7.67**	**114**	Pn	**Pn**	**15 35 38.9**	**0.0**
FAUS	**Fauske**	**7.67**	**114**	*eP*	**Pn**	**15 35 38.9**	**0.0**
KONS	**Konsvik**	**7.68**	**123**	*eP*	**Pn**	**15 35 38.6**	**-0.4**
KONS				IAML		15 35 44.8	
	comp=Z,5.0nm,0.6s						
STOK	**Stokkvaagen**	**7.78**	**124**	Pn	**Pn**	**15 35 40.7**	**+0.3**
STOK	**Stokkvaagen**	**7.78**	**124**	*eP*	**Pn**	**15 35 40.4**	**0.0**
LEIR	**Leirfjorden**	**7.97**	**125**	Pn	**Pn**	**15 35 43.0**	**0.1**
LEIR	**Leirfjorden**	**7.97**	**125**	*eP*	Pn	15 35 42.0	-1.0
LEIR				IAML		15 35 43.5	
	comp=Z,6.0nm,0.5s						
LEIR				*eS*	Sn	15 36 59.3	-14
RAUS	**Rausandaksla**	**7.98**	**121**	*eP*	Pn	15 35 41.9	-1.2
SPA0	**Spitsbergen Ar**	**8.36**	**28**	Pn	**Pn**	**15 35 49.4**	**+1.1**
	baz=220,slow=14						
SPA0	**Spitsbergen Ar**	**8.36**	**28**	Pn	**Pn**	**15 35 49.4**	**+1.1**
SALU	**Saltoluokta**	**8.63**	**108**	*eP*	**Pn**	**15 35 51.8**	**-0.2**
KOVU	**Salmi**	**8.65**	**101**	*eP*	**Pn**	**15 35 52.0**	**-0.3**
NSS	**Namsos**	**8.98**	**134**	*eP*	**Pn**	**15 35 57.0**	**+0.2**
KTK1	**Kautokeino**	**9.22**	**93**	*eP*	Pn	15 35 57.7	-2.5
KTK1				IAML		15 36 01.3	
	comp=Z,3.3nm,0.5s						
LANU	**Lannavaara**	**9.32**	**100**	*eP*	**Pn**	**15 36 01.0**	**-0.5**
HEF	**Hetta**	**9.65**	**96**	*eP*	**Pn**	**15 36 05.0**	**-1.1**
ARA0	**ARCESS Array S**	**9.71**	**88**	Pn	**Pn**	**15 36 06.5**	**-0.3**
	baz=290,slow=11						
ARA0	**ARCESS Array S**	**9.71**	**88**	Pn	**Pn**	**15 36 06.5**	**-0.3**
KEV	**Kevo**	**10.10**	**85**	*eP*	Pn	15 36 10.6	-1.5
HFS	**Hagfors**	**13.26**	**141**	Pn	**Pn**	**15 36 55.7**	**+0.4**
	baz=342,slow=11						
HFS	**Hagfors**	**13.26**	**141**	Pn	**Pn**	**15 36 55.7**	**+0.4**
FIA0	**FINESS Array S**	**15.21**	**117**	Pn	**Pn**	**15 37 20.9**	**-0.9**
	baz=335,slow=12						
FIA0	**FINESS Array S**	**15.21**	**117**	Pn	**Pn**	**15 37 20.9**	**-0.9**

*IDC **02** 15:37:01.1±4.8,3°.48S×103°.23E,h0km,mb3.6/4,*
mbtmp3.6/4,MS3.1/1,Error ellipse: s-maj=256.2km
s-min=23.0km az=52.0
*DJA **02** 15:37:04.2±0.6,4°.S±2°×10°.2E±°,h20km±4km,M3.8/18,*
mb3.7/1,MLv3.9/18
ISC 02 15:37:01.7±2.3,4°.52S±0°.08×101°.97E±0°.10,h28km±14km,
n23,σ1°20/19,mb3.6/4,Southern Sumatera

| Code |

	comp=N,7μm,0.5s								
GCAM				IAML		15 37 40.0			
	comp=E,5μm,0.6s								
GCAM	**G?zelcaml?**	**0.20**	**76**	Pg	**Pb**	**15 37 35.2**	**-0.8**		
GCAM				Sg	**Sg**	**15 37 38.8**	**+0.7**		
GCAM				AML	AML				
KRL1	**Karlovasi Samo**	**0.26**	**303**	P	**Pg**	**15 37 35.6**	**-0.5**		
KRL1				S	**Sg**	**15 37 40.1**	**+0.2**		
KRL1				AML	AML				
DDIM	**Aydin, Didim**	**0.28**	**133**	P	**Pb**	**15 37 36.8**	**-0.5**		
DDIM				S	**Sb**	**15 37 41.3**	**-0.6**		
DDIM				IAML		15 37 42.0			
	comp=E,8μm,0.3s								
DDIM				IAML		15 37 42.0			
	comp=N,1μm,0.5s								
KUSD	**Kusadasi-Aydin**	**0.32**	**49**	Pg	**Pb**	**15 37 37.3**	**-0.7**		
KUSD				Sg	**Sb**	**15 37 41.9**	**-1.1**		
KUSD				AML	AML				
DIDI	**Didim-Aydin**	**0.34**	**143**	Pg	**Pg**	**15 37 37.5**	**+0.1**		
DIDI				Sg	**Sb**	**15 37 43.4**	**-0.2**		
DIDI				AML	AML				
DGB	**zmir**	**0.41**	**349**	P	**Pg**	**15 37 38.4**	**-0.2**		
DGB				S	**Sg**	**15 37 43.9**	**-0.3**		
DGB				IAML		15 37 47.0			
	comp=E,560nm,0.2s								
DGB				IAML		15 37 50.0			
	comp=N,539nm,0.3s								
GMLD	**Gumuldur**	**0.43**	**353**	Pg	**Pg**	**15 37 38.9**	**-0.1**		
GMLD				Sg	**Sb**	**15 37 46.1**	**-0.1**		
GMLD				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.57**	**156**	Pg	**Pg**	**15 37 41.5**	**-0.2**		
YKAV				AML	AML				
BEYE	**izmir**	**0.58**	**355**	P	**Pg**	**15 37 41.7**	**-0.2**		
BEYE				S	**Sb**	**15 37 50.1**	**-0.4**		
BEYE				IAML		15 37 53.0			
	comp=E,981nm,0.5s								
BEYE				IAML		15 37 54.0			
	comp=N,905nm,0.5s								
BODT	**Bodrum**	**0.64**	**156**	P	**Pg**	**15 37 42.7**	**-0.3**		
BODT				S	**Sb**	**15 37 52.2**	**-0.1**		
BODT				AML	AML				
BODT	**Bodrum**	**0.64**	**156**	Pg	**Pg**	**15 37 43.0**	**0.0**		
BODT				Sg	**Sb**	**15 37 52.1**	**-0.1**		
BODT				AML	AML				
DUVT	**Torbali**	**0.68**	**33**	P	**Pg**	**15 37 43.6**	**-0.1**		
DUVT				S	**Sg**	**15 37 52.4**	**-0.2**		
DUVT				IAML		15 37 57.0			
	comp=E,2μm,0.5s								
BDRM	**Kayabasi**	**0.69**	**148**	P	**Pg**	**15 37 43.8**	**-0.1**		
BDRM				S	**Sg**	**15 37 53.3**	**+0.3**		
BDRM				IAML		15 37 55.0			
	comp=E,2μm,0.4s								
BDRM				IAML		15 37 57.0			
	comp=N,3μm,0.4s								
KLNA	**Kalymnos**	**0.69**	**181**	P	**Pg**	**15 37 43.4**	**-0.5**		
KLNA				S	**Sb**	**15 37 54.0**	**+0.3**		
ZEYE	**Izmir, Urla-Ze**	**0.70**	**327**	P	**Pb**	**15 37 45.5**	**+1.0**		
ZEYE				S	**Sb**	**15 37 54.5**	**+0.5**		
ZEYE				IAML		15 37 56.0			
	comp=E,2μm,0.6s								
ZEYE				IAML		15 37 56.0			
	comp=N,2μm,0.6s								
DAGE	**izmir**	**0.70**	**60**	P	**Pb**	**15 37 45.1**	**+0.5**		
DAGE				S	**Sg**	**15 37 53.3**	**-0.1**		
DAGE				IAML		15 37 56.0			
	comp=E,936nm,0.2s								
AYDN	**Tasoluk**	**0.71**	**89**	P	**Pb**	**15 37 44.3**	**-0.3**		
AYDN				S	**Sg**	**15 37 53.4**	**-0.3**		
AYDN				IAML		15 37 58.0			
	comp=E,2μm,0.4s								
AYDN				IAML		15 37 58.0			
	comp=N,1μm,0.3s								
MLSB	**Milas**	**0.72**	**119**	Pg	**Pg**	**15 37 44.3**	**-0.2**		
MLSB				AML	AML				
BLCB	**Balcova**	**0.74**	**4**	P	**Pg**	**15 37 44.5**	**-0.3**		
BLCB				S	**Sg**	**15 37 54.5**	**0.0**		
BLCB	**Balcova**	**0.74**	**4**	Pg	**Pg**	**15 37 44.5**	**-0.3**		
BLCB				AML	AML				
AYDB	**Zeytinkoy-Aydi**	**0.78**	**67**	Pg	**Pb**	**15 37 46.1**	**+0.3**		
AYDB				AML	AML				
CESE	**eme**	**0.87**	**322**	Pg	**Pg**	**15 37 47.5**	**+0.2**		
CESE				AML	AML				
IZMR	**zmir-demi**	**0.91**	**57**	P	**Pb**	**15 37 47.9**	**-0.1**		
IZMR				P	**Pn**	**15 37 48.8**	**0.0**		
IZMR				S	**Sg**	**15 37 58.6**	**-1.2**		
IZMR				IAML		15 38 03.0			
	comp=E,682nm,0.6s								
IZMR				IAML		15 38 04.0			
	comp=N,544nm,0.6s								
KRBN	**Karaburun**	**1.00**	**340**	Pg	**Pg**	**15 37 49.6**	**-0.2**		
KRBN				AML	AML				
BAGT	**Foa**	**1.01**	**354**	P	**Pn**	**15 37 50.2**	**0.0**		
BAGT				S	**Sn**	**15 38 04.2**	**0.0**		
BAGT				IAML		15 38 05.0			
	comp=E,642nm,1.2s								
BAGT				IAML		15 38 09.0			
	comp=N,569nm,0.5s								
DAT	**Datca**	**1.03**	**153**	P	**Pn**	**15 37 51.6**	**+1.0**		
DAT				S	**Sn**	**15 38 05.0**	**0.0**		
DAT				IAML		15 38 09.0			
	comp=E,522nm,0.6s								
DAT	**Datca**	**1.03**	**153**	Pg	**Pb**	**15 37 50.5**	**+0.3**		
DAT				AML	AML				
YAZI	**Mula-Dat§a-**	**1.04**	**159**	P	**Pg**	**15 37 50.4**	**-0.1**		
YAZI				S	**Sg**	**15 38 02.3**	**-1.6**		
YAZI				IAML		15 38 07.0			
	comp=N,586nm,0.3s								
YAZI				IAML		15 38 08.0			
	comp=E,635nm,0.4s								
CHOS	**Chios island**	**1.04**	**315**	P	**Pg**	**15 37 50.4**	**-0.1**		
CHOS				S	**Sb**	**15 38 04.5**	**+0.7**		
CHOS				AML	AML				
CHOS	**Chios island**	**1.04**	**315**	Pg	**Pg**	**15 37 50.5**	**-0.1**		
CHOS				AML	AML				
CHOS	**Chios island**	**1.04**	**315**	P	**Pg**	**15 37 49.6**	**-0.9**		
CHOS				S	**Sg**	**15 38 03.8**	**-0.4**		
CHOS				AML	AML				
FOCM	**Foa**	**1.08**	**349**	Pn	**Pb**	**15 37 50.9**	**0.0**		
FOCM				AML	AML				
NAZL	**Nazilli-Aydin**	**1.08**	**73**	Pn	**Pn**	**15 37 51.7**	**+0.4**		
NAZL				AML	AML				
ESEN	**Aydn-Nazilli**	**1.09**	**82**	P	**Pn**	**15 37 51.3**	**0.0**		
ESEN				S	**Sb**	**15 38 05.6**	**+0.4**		
ESEN				IAML		15 38 10.0			
	comp=N,217nm,0.7s								
ESEN				IAML		15 38 11.0			
	comp=E,260nm,0.6s								
KARB	**zmir-Karabur**	**1.11**	**336**	P	**Pb**	**15 37 51.1**	**-0.3**		
KARB				S	**Sg**	**15 38 06.4**	**+0.1**		
KARB				IAML		15 38 08.0			
	comp=E,489nm,0.8s								
KARB				IAML		15 38 09.0			
	comp=N,704nm,0.4s								
CAMT	**Merkez**	**1.13**	**13**	P	**Pn**	**15 37 52.1**	**+0.3**		
CAMT				S	**Sn**	**15 38 08.3**	**+1.1**		
CAMT				IAML		15 38 10.0			
	comp=E,725nm,0.5s								
CAMT				IAML		15 38 16.0			
	comp=N,726nm,0.5s								
EAG2	**Marmaro, Chios**	**1.13**	**322**	P	**Pb**	**15 37 50.5**	**-1.2**		
EAG2				S	**Sb**	**15 38 04.7**	**-1.7**		
MULA	**Mugla, Merkez-**	**1.13**	**110**	P	**Pn**	**15 37 52.1**	**+0.1**		
MULA				S	**Sb**	**15 38 06.4**	**-0.1**		
MULA				IAML		15 38 11.0			
	comp=N,393nm,0.5s								
MULA				IAML		15 38 15.0			
	comp=E,476nm,0.5s								
YER	**Yerkesik**	**1.16**	**116**	P	**Pb**	**15 37 52.3**	**+0.1**		
YER				S	**Sg**	**15 38 07.5**	**-0.3**		
YER				AML	AML				
YER	**Yerkesik**	**1.16**	**116**	Pn	**Pb**	**15 37 52.3**	**+0.1**		
YER				AML	AML				
ASTA	**Astypalaia**	**1.21**	**205**	P	**Pn**	**15 37 52.3**	**-0.7**		
ASTA				AML	AML				
KIRA	**zmir-Kiraz**	**1.25**	**64**	P	**Pb**	**15 37 53.8**	**0.0**		
KIRA				S	**Sb**	**15 38 08.5**	**-1.3**		
KIRA				IAML		15 38 15.0			
	comp=N,368nm,0.6s								
KIRA				IAML		15 38 18.0			
	comp=E,234nm,0.9s								
GOMA	**Golmarmara-Man**	**1.29**	**35**	Pn	**Pg**	**15 37 54.9**	**-0.3**		
GOMA				AML	AML				
APE	**Apeiranthos**	**1.30**	**244**	P	**Pn**	**15 37 53.8**	**-0.4**		
APE				AML	AML				
APE	**Apeiranthos**	**1.30**	**244**	Pn	**Pn**	**15 37 54.8**	**+0.6**		
APE				AML	AML				
APE	**Apeiranthos**	**1.30**	**244**	P	**Pn**	**15 37 53.8**	**-0.4**		
APE				AML	AML				
ZEDA	**zmir-Bergama**	**1.32**	**3**	P	**Pb**	**15 37 55.2**	**+0.2**		
ZEDA				S	**Sg**	**15 38 13.7**	**+0.7**		
ZEDA				IAML		15 38 17.0			
	comp=N,242nm,0.8s								
ZEDA				IAML		15 38 18.0			
	comp=E,289nm,0.5s								
TURN	**Turunc**	**1.33**	**131**	P	**Pg**	**15 37 56.1**	**+0.1**		
TURN				S	**Sb**	**15 38 11.8**	**-0.3**		
TURN				IAML		15 38 17.0			
	comp=N,691nm,0.4s								
TURN				IAML		15 38 18.0			
	comp=E,572nm,0.3s								
TURN	**Turunc**	**1.33**	**131**	Pn	**Pg**	**15 37 55.9**	**-0.2**		
TURN				AML	AML				
KTTT	**Salihli**	**1.36**	**40**	P	**Pg**	**15 37 56.7**	**+0.2**		
KTTT				S	**Sn**	**15 38 13.1**	**+0.2**		
KTTT				IAML		15 38 17.0			
	comp=N,344nm,0.5s								
AKHS	**Akhisar**	**1.39**	**28**	P	**Pg**	**15 37 57.0**	**-0.2**		
AKHS				S	**Sg**	**15 38 16.9**	**+1.6**		
AKHS				IAML		15 38 18.0			
	comp=N,722nm,0.6s								
AKS	**Akhisar**	**1.39**	**28**	Pn	**Pg**	**15 37 56.8**	**-0.4**		
AKS				AML	AML				
DKL	**Dikili**	**1.42**	**358**	Pn	**Pg**	**15 37 57.3**	**-0.5**		
DKL				AML	AML				
SULTU	**Buldan**	**1.47**	**74**	P	**Pb**	**15 37 57.2**	**-0.4**		
SULTU				S	**Sg**	**15 38 19.3**	**+1.5**		
SULTU				IAML		15 38 29.0			
	comp=E,324nm,0.6s								
SULTU				IAML		15 38 30.0			
	comp=N,346nm,0.7s								
MANT	**Manisa**	**1.50**	**55**	P	**Pg**	**15 37 59.2**	**-0.1**		
MANT				S	**Sn**	**15 38 15.9**	**-0.7**		
MANT				IAML		15 38 22.0			
	comp=N,166nm,0.6s								
MANT				IAML		15 38 23.0			
	comp=E,202nm,0.5s								
TAVA	**DENIZLI_Tavas**	**1.54**	**96**	P	**Pb**	**15 37 59.2**	**+0.3**		
TAVA				S	**Sb**	**15 38 18.4**	**0.0**		
TAVA				IAML		15 38 33.0			
	comp=E,76nm,0.7s								
TAVA				IAML		15 38 33.0			
	comp=N,75nm,0.7s								
SOMA	**Soma-Manisa**	**1.56**	**16**	Pn	**Pb**	**15 37 59.3**	**+0.1**		
SOMA				AML	AML				
GORD	**Gordes-Manisa**	**1.57**	**36**	Pn	**Pb**	**15 37 59.3**	**0.0**		
GORD				AML	AML				
HARTU	**Esme**	**1.59**	**64**	P	**Pg**	**15 38 02.2**	**+1.2**		
HARTU				S	**Sn**	**15 38 18.3**	**-0.5**		
HARTU				IAML		15 38 23.0			
	comp=N,87nm,0.6s								
HARTU				IAML		15 38 26.0			
	comp=E,115nm,0.5s								
PRK	**Paraskevi**	**1.69**	**341**	P	**Pb**	**15 38 01.9**	**+0.6**		
PRK				AML	AML				
ARG	**Arkhangelos**	**1.70**	**147**	P	**Pn**	**15 38 00.3**	**+0.7**		
ARG				AML	AML				
ARG	**Arkhangelos**	**1.70**	**147**	P	**Pn**	**15 37 58.9**	**-0.8**		
ARG				AML	AML				
THR2	**Thira island,**	**1.73**	**226**	P	**Pn**	**15 38 00.7**	**+0.6**		
THR8	**Santorini-Mono**	**1.73**	**225**	P	**Pb**	**15 38 01.9**	**-0.1**		
THR8	**Santorini-Mono**	**1.73**	**225**	P	**Pn**	**15 38 00.9**	**+0.8**		
THERA	**Ancient Thera,**	**1.76**	**224**	P	**Pn**	**15 38 01.0**	**+0.5**		
THERA				AML	AML				
THERA	**Ancient Thera,**	**1.76**	**224**	P	**Pn**	**15 38 00.3**	**-0.2**		
THERA				AML	AML				
THR3	**Thira Island,**	**1.77**	**226**	P	**Pb**	**15 38 03.7**	**+1.0**		
THR3	**Thira Island,**	**1.77**	**226**	P	**Pn**	**15 38 00.9**	**+0.2**		
SNT5	**Nea Kammeni, S**	**1.78**	**226**	P	**Pn**	**15 38 01.5**	**+0.7**		
SAP3	**Santorini-Thir**	**1.79**	**228**	P	**Pn**	**15 38 01.7**	**+0.8**		
THR5	**Thira Island,**	**1.80**	**227**	P	**Pg**	**15 38 04.7**	**-0.2**		
THR5	**Thira Island,**	**1.80**	**227**	P	**Pn**	**15 38 01.6**	**+0.6**		
THR6	**Thira Island,**	**1.81**	**225**	P	**Pn**	**15 38 01.9**	**+0.7**		
STEP	**BALIKESIR_Sava**	**1.82**	**18**	P	**Pg**	**15 38 04.5**	**-0.8**		
STEP				S	**Sg**	**15 38 29.5**	**+0.6**		
STEP				IAML		15 38 37.0			
	comp=E,198nm,0.9s								
STEP				IAML		15 38 39.0			
	comp=N,223nm,0.7s								
BUHA	**Balikesir, Bur**	**1.85**	**2**	P	**Pb**	**15 38 04.2**	**+0.2**		
BUHA				S	**Sg**	**15 38 31.2**	**+1.3**		
BUHA				IAML		15 38 34.0			
	comp=N,203nm,0.8s								
BUHA				IAML		15 38 34.0			
	comp=E,190nm,0.5s								
DEMI	**Demirci**	**1.95**	**44**	P	**Pg**	**15 38 08.3**	**+0.5**		
DEMI				S	**Sb**	**15 38 30.6**	**+0.7**		
DEMI				IAML		15 38 38.0			
	comp=E,169nm,1.0s								
DEMI				IAML		15 38 47.0			
	comp=N,107nm,0.8s								
YAYO	**Edremit-Balk**	**1.96**	**2**	Pn	**Pb**	**15 38 05.2**	**-0.7**		
YAYO				AML	AML				
KOCA	**Canakkale, Ayv**	**1.96**	**341**	P	**Pg**	**15 38 09.4**	**+1.2**		
KOCA				S	**Sg**	**15 38 33.8**	**+0.1**		
KOCA				IAML		15 38 37.0			
	comp=E,249nm,0.6s								
KOCA				IAML		15 38 37.0			
	comp=N,230nm,0.7s								
KARY	**Karystos**	**2.05**	**281**	P	**Pn**	**15 38 04.7**	**+0.2**		
KARY	**Karystos**	**2.05**	**281**	P	**Pn**	**15 38 04.5**	**0.0**		
KARP	**Karpathos**	**2.10**	**176**	P	**Pn**	**15 38 05.5**	**+0.2**		
KARP				AML	AML				
KARP	**Karpathos**	**2.10**	**176**	P	**Pn**	**15 38 05.6**	**+0.2**		
BALB	**Balikesir**	**2.11**	**19**	Pn	**Pb**	**15 38 07.5**	**-0.9**		
BALB				AML	AML				
BAYC	**CANAKKALE_Bayr**	**2.12**	**351**	P	**Pn**	**15 38 05.2**	**-0.2**		
BAYC				S	**Sg**	**15 38 36.8**	**-1.7**		
MHLO	**Agia Marina, M**	**2.27**	**246**	P	**Pn**	**15 38 08.1**	**+0.5**		
DION	**Dionisos Attik**	**2.45**	**281**	P	**Pn**	**15 38 10.3**	**+0.2**		
DION	**Dionisos Attik**	**2.45**	**281**	P	**Pn**	**15 38 10.0**	**-0.1**		
PTL	**Penteli**	**2.50**	**280**	P	**Pn**	**15 38 10.8**	**0.0**		
VLY	**Voula,Athens**	**2.54**	**276**	P	**Pn**	**15 38 11.3**	**+0.1**		

AFAD ***02*** *15:46:49.3,37°.84N×26°.84E,h7km±2km,ML2.3*
ISK ***02*** *15:46:49.4,37°.86N×26°.86E,h12km,ML2.7/13*
ISC 02 15:46:49.6±1.1,37°.85N±0°.03×26°.85E±0°.04,h14km±8km, n20,σ0§43/29,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.21**	**7**	P	**Pg**	**15 46 53.8**	**-0.4**
DGB				S	**Sg**	**15 46 57.3**	**-0.1**
DGB				IAML		15 46 59.0	
	comp=N,227nm,0.2s						
DGB				IAML		15 46 59.0	
	comp=E,377nm,0.2s						
GMLD	**Gumuldur**	**0.23**	**13**	Pg	**Pg**	**15 46 54.4**	**-0.3**
GMLD				Sg	**Sg**	**15 46 59.1**	**+1.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**116**	P	**Pg**	**15 46 56.1**	**-0.4**
GCAM				IAML		15 47 02.0	
	comp=N,540nm,0.2s						
GCAM				IAML		15 47 02.0	
	comp=E,742nm,0.4s						
GCAM				S	**Sb**	**15 47 02.0**	**-0.6**
GCAM	**G?zelcaml?**	**0.34**	**116**	Pg	**Pg**	**15 46 56.2**	**-0.3**
GCAM				Sg	**Sb**	**15 47 01.9**	**-0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**88**	Pg	**Pg**	**15 46 56.3**	**-0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**9**	P	**Pg**	**15 46 57.1**	**-0.2**
BEYE				S	**Sb**	**15 47 03.4**	**-0.6**
BEYE				IAML		15 47 07.0	
	comp=N,240nm,0.3s						
BEYE				IAML		15 47 07.0	
	comp=E,177nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**325**	P	**Pg**	**15 46 58.9**	**-0.2**
ZEYE				S	**Sb**	**15 47 06.2**	**-0.4**
ZEYE				IAML		15 47 10.0	
	comp=E,416nm,0.2s						
DDIM	**Aydin, Didim**	**0.50**	**141**	P	**Pg**	**15 46 59.0**	**-0.4**
DDIM				S	**Sb**	**15 47 06.8**	**-0.5**
DDIM				IAML		15 47 07.0	
	comp=N,348nm,0.5s						
DDIM				IAML		15 47 07.0	
	comp=E,288nm,0.4s						
BLCB	**Balcova**	**0.56**	**16**	Pg	**Pg**	**15 47 00.3**	**-0.2**
BLCB				Sg	**Sg**	**15 47 08.3**	**+0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.60**	**52**	P	**Pg**	**15 47 01.0**	**-0.4**
DUVT				S	**Sg**	**15 47 09.1**	**-0.2**
DUVT				IAML		15 47 13.0	
	comp=E,216nm,0.4s						
CESE	**eme**	**0.65**	**318**	Pg	**Pb**	**15 47 02.4**	**-0.3**
CESE				AML	AML		
KRBN	**Karaburun**	**0.78**	**343**	Pg	**Pb**	**15 47 04.8**	**-0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**0.83**	**311**	Pg	**Pb**	**15 47 05.7**	**-0.1**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**83**	Pg	**Pb**	**15 47 05.7**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.84**	**103**	P	**Pb**	**15 47 06.1**	**+0.2**
AYDN				IAML		15 47 21.0	
	comp=E,97nm,0.3s						
AYDN				IAML		15 47 22.0	
	comp=N,96nm,0.6s						
BODT	**Bodrum**	**0.86**	**155**	Pg	**Pg**	**15 47 06.2**	**-0.1**
BODT				AML	AML		
FOCM	**Foa**	**0.87**	**354**	Pg	**Pb**	**15 47 06.8**	**+0.3**
FOCM				AML	AML		
MLSB	**Milas**	**0.92**	**127**	Pg	**Pb**	**15 47 07.7**	**+0.4**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.15**	**84**	Pn	**Pn**	**15 47 12.0**	**+0.7**
NAZL				AML	AML		
DKL	**Dikili**	**1.22**	**2**	Pn	**Pg**	**15 47 13.0**	**-0.1**
DKL				AML	AML		

AFAD ***02*** *16:00:42.3,37°.89N×26°.49E,h7km±3km,ML1.3*
ISK 02 16:00:40.2,37°.84N×27°.09E,h10km,ML1.8/6,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.16**	**84**	Pg	Pg	16 00 43.9	+0.2
KUSD				Sg	Sg	16 00 46.9	+0.8
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.18**	**141**	Pg	Pg	16 00 44.4	+0.3
GCAM				Sg	Sg	16 00 47.6	+0.8
GCAM				AML	AML		
DGB	**zmir**	**0.26**	**322**	P	Pn	16 00 49.1	-1.1
DGB				S	Sb	16 00 54.5	+2.9
DGB				IAML		16 00 56.0	
	comp=E,40nm,0.2s						
DGB				IAML		16 01 00.0	
	comp=N,20nm,0.5s						
BEYE	**izmir**	**0.40**	**342**	P	Pn	16 00 51.5	-0.6
BEYE				S	Sb	16 00 58.6	+2.9
BEYE				IAML		16 01 03.0	
	comp=N,29nm,0.5s						
BEYE				IAML		16 01 03.0	
	comp=E,21nm,0.1s						
ZEYE	**Izmir, Urla-Ze**	**0.61**	**311**	P	Pg	16 00 50.1	-1.9
ZEYE				S	Sg	16 00 56.0	-4.0
ZEYE				IAML		16 00 57.0	
	comp=N,167nm,0.2s						
ZEYE				IAML		16 00 57.0	
	comp=E,119nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.64**	**81**	Pg	Pb	16 00 53.3	-0.3
AYDB				Sg	Sb	16 01 02.3	-0.4
KRBN	**Karaburun**	**0.86**	**331**	Pg	Pb	16 00 57.1	-0.1
KRBN				Sg	Sb	16 01 09.2	+0.4
KRBN				AML	AML		
FOCM	**Foa**	**0.91**	**342**	Pg	Pb	16 00 58.4	+0.3
FOCM				Sg	Sb	16 01 11.1	+0.8
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.98**	**327**	P	Pg	16 00 56.5	-2.5
KARB				S	Sg	16 01 08.0	-3.7
KARB				IAML		16 01 10.0	
	comp=N,17nm,0.3s						
KARB				IAML		16 01 12.0	
	comp=E,21nm,0.1s						
DKL	**Dikili**	**1.23**	**353**	Pn	Pg	16 01 04.2	+0.3
DKL				Sn	Sn	16 01 21.4	+1.2
DKL				AML	AML		

IDC ***02*** *16:02:06.8±0.9,34°.53N×32°.05E,h0km,mb3.9/2, mbtmp3.7/9,ML3.6/6,Error ellipse: s-maj=18.7km s-min=9.3km az=43.0*
ISK ***02*** *16:02:08.6,34°.10N×32°.33E,h85km,ML3.2/20*
GII ***02*** *16:02:08.7±0.0,34°.475N±0°.002×32°.120E±0°.001,h0km, Mws3.4,confirmed*
NIC ***02*** *16:02:10.9,34°.45N×32°.07E,h26km,Ml3.3/11*
ISC 02 16:02:10.5±1.1,34°.45N±0°.03×32°.03E±0°.04,h35km±3km, n83,σ1§39/127,5C-1D,Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NATA	**Nata**	**0.55**	**54**	iP	**Pn**	**16 02 22.2**	**+0.2**
NATA				S	**Sn**	**16 02 30.6**	**+0.7**
NATA				AML	AML	16 02 34.3	
	6.7nm,0.4s						
NATA				AML	AML	16 02 35.5	
	10nm,0.3s						
AKMS	**Akamas**	**0.62**	**24**	eP	**Pb**	**16 02 23.3**	**+0.2**
AKMS				S	**Sn**	**16 02 33.0**	**+1.4**
AKMS				AML	AML	16 02 33.8	
	9.3nm,0.4s						
AKMS				AML	AML	16 02 34.2	
	9.8nm,0.6s						
APOL	**The Sanctuary**	**0.72**	**72**	eP	**Pb**	**16 02 24.2**	**-0.6**
APOL				S	**Sb**	**16 02 35.3**	**+0.8**
APOL				AML	AML	16 02 36.5	
	3.4nm,0.3s						
APOL				AML	AML	16 02 41.3	
	3.4nm,0.3s						
ALFC	**Alefka**	**0.85**	**34**	eP	**Pb**	**16 02 26.5**	**-0.4**
ALFC				S	**Sb**	**16 02 38.7**	**+0.7**
ALFC				AML	AML	16 02 40.2	
	5.4nm,0.3s						
ALFC				AML	AML	16 02 40.4	
	6.0nm,0.2s						
TROD	**Troodos**	**0.85**	**54**	iP	**Pn**	**16 02 26.0**	**-0.2**
TROD				S	**Sb**	**16 02 38.9**	**+0.7**
TROD				AML	AML	16 02 42.8	
	3.1nm,0.5s						
TROD				AML	AML	16 02 44.3	
	2.4nm,0.4s						
XYLS	**Xyliatos**	**1.01**	**56**	P	**Pn**	**16 02 28.4**	**+0.1**
XYLS				S	**Sb**	**16 02 43.4**	**+0.7**
XYLS				AML	AML	16 02 44.0	
	3.7nm,0.3s						
XYLS				AML	AML	16 02 44.0	
	4.9nm,0.3s						
ASGA	**Asgata**	**1.06**	**71**	P	**Pn**	**16 02 28.9**	**0.0**
ASGA				S	**Sb**	**16 02 43.6**	**-0.4**
ASGA				AML	AML	16 02 44.7	
	2.8nm,0.5s						
ASGA				AML	AML	16 02 46.6	
	2.4nm,0.3s						
OSC1	**CSNet OBS 1**	**1.14**	**214**	P	**Pb**	**16 02 31.0**	**-0.6**
OSC1				S	**Sb**	**16 02 46.7**	**+0.6**

MVOU					AML	AML	16 02 56.4	
	0.6nm,0.8s							
MVOU					AML	AML	16 02 57.1	
	0.9nm,0.4s							
LFK	**Lefkose**	**1.49**	**56**		Pn	**Pb**	**16 02 36.5**	**-1.1**
LFK					AML	AML		
PARAL	**Paralimni**	**1.74**	**71**		P	**Pb**	**16 02 41.1**	**-0.8**
PARAL					S	**Sb**	**16 03 07.9**	**+4.5**
PARAL					AML	AML	16 03 09.7	
	0.6nm,1.1s							
PARAL					AML	AML	16 03 15.9	
	0.6nm,0.7s							
GAZI	**Gazipasa**	**1.80**	**7**		Pn	**Pb**	**16 02 41.3**	**-1.5**
GAZI					AML	AML		
BOZY	**Bozyazi-Mersin**	**1.83**	**25**		Pn	**Pb**	**16 02 42.9**	**-0.4**
BOZY					AML	AML		
TEKE	**Tekeli-Mersin**	**1.91**	**27**		Pn	**Pb**	**16 02 43.4**	**-1.3**
TEKE					AML	AML		
YORU	**Yoruktepe-Mers**	**2.04**	**33**		Pn	**Pb**	**16 02 44.9**	**-2.0**
YORU					AML	AML		
EREN	**Erenkoy**	**2.06**	**58**		Pn	**Pn**	**16 02 43.2**	**+0.5**
EREN					AML	AML		
AKK1	**Akkuyu-Mersin**	**2.09**	**36**		Pn	**Pb**	**16 02 45.6**	**-2.2**
ALAN	**Alanya-ANTALYA**	**2.10**	**0**		Pn	**Pb**	**16 02 48.4**	**+0.4**
ALAN					AML	AML		
BERE	**Bereket-Mersin**	**2.13**	**27**		Pn	**Pb**	**16 02 46.8**	**-1.7**
BERE					AML	AML		
TISA	**Tisan-Mersin**	**2.18**	**38**		Pn	**Pb**	**16 02 46.5**	**-2.7**
TISA					AML	AML		
YESI	**Yesilovacik-Me**	**2.19**	**37**		Pn	**Pn**	**16 02 46.5**	**+2.2**
KARG	**Kargicak-Mersi**	**2.22**	**38**		Pn	**Pb**	**16 02 47.3**	**-2.7**
IKL	**Isikli**	**2.24**	**37**		Pn	**Pb**	**16 02 47.8**	**-2.5**
IKL					AML	AML		
TEVE	**Tevekalti-Mers**	**2.29**	**30**		Pn	**Pb**	**16 02 48.9**	**-2.4**
TEVE					AML	AML		
KEBE	**Keben-Mersin**	**2.42**	**34**		Pn	**Pb**	**16 02 50.3**	**-3.1**
KEBE					AML	AML		
SILI	**Silifke-Mersin**	**2.46**	**38**		Pn	**Pn**	**16 02 50.4**	**+2.3**
SILI					AML	AML		
HDMB	**Hadim**	**2.54**	**8**		Pn	**Pb**	**16 02 53.7**	**-1.8**
HDMB					AML	AML		
KIZK	**Mersin**	**2.66**	**40**		Pn	**Pn**	**16 02 53.1**	**+2.2**
KIZK					AML	AML		
OFRI	**`Ofer**	**3.07**	**126**		P	**Pn**	**16 02 56.2**	**-0.4**
OFRI					S	**Sn**	**16 03 32.2**	**+0.1**
MMA0B	**Mount Meron ar**	**3.15**	**116**		P	**Pn**	**16 02 57.3**	**-0.5**
MMA0B					S	**Sn**	**16 03 34.1**	**-0.2**
MMAI	**Mount Meron Ar**	**3.15**	**116**		Pn	**Pn**	**16 02 57.9**	**+0.1**
	8.6nm,0.3s,baz=298,slow=12,SNR=13							
MMAI					Sn	**Sn**	**16 03 34.2**	**-0.1**
	22nm,0.3s,baz=295,slow=31,SNR=3.3							
	2.8nm,0.3s							
MMAI					AML	AML		
KIRY	**Kiryat Shemona**	**3.20**	**112**		P	**Pn**	**16 02 57.8**	**-0.5**
KIRY					S	**Sn**	**16 03 35.4**	**+0.2**
GEM	**Giv'at Ha'Em**	**3.27**	**111**		P	**Pn**	**16 03 03.1**	**+3.8**
GEM	**Giv'at Ha'Em**	**3.27**	**111**		AML	AML		
NATI	**Neve Ativ**	**3.31**	**110**		P	**Pn**	**16 02 59.4**	**-0.3**
NATI					S	**Sn**	**16 03 38.1**	**+0.3**
KNHM	**Kefar Nahum**	**3.35**	**117**		P	**Pn**	**16 02 60.0**	**-0.4**
KNHM					S	**Sn**	**16 03 39.1**	**+0.2**
SLTI	**Sal'it**	**3.35**	**130**		P	**Pn**	**16 03 00.1**	**-0.3**
SLTI					S	**Sn**	**16 03 39.0**	**+0.1**
RMOT	**Ramot**	**3.43**	**117**		P	**Pn**	**16 03 01.4**	**0.0**
RMOT					S	**Sn**	**16 03 41.5**	**+0.7**
MMLI	**Mount Malkishu**	**3.48**	**124**		P	**Pn**	**16 03 02.1**	**0.0**
MMLI					S	**Sn**	**16 03 42.8**	**+0.7**
KSHT	**Keshet**	**3.48**	**114**		P	**Pn**	**16 03 01.7**	**-0.5**
KSHT					S	**Sn**	**16 03 42.1**	**0.0**
ARIL	**Ariel Universi**	**3.55**	**130**		P	**Pn**	**16 03 03.6**	**+0.4**
ARIL					S	**Sn**	**16 03 45.1**	**+1.2**
SALP	**Salfit**	**3.56**	**131**		P	**Pn**	**16 03 05.3**	**+2.0**
SALP					AML	AML		
ROII	**Roi**	**3.63**	**126**		P	**Pn**	**16 03 04.1**	**-0.1**
ROII					S	**Sn**	**16 03 46.6**	**+0.6**
QRNJ	**Al-Qirein**	**3.64**	**124**		P	**Pn**	**16 03 06.6**	**+2.3**
QRNJ					AML	AML		
RGMN	**Argaman**	**3.71**	**127**		P	**Pn**	**16 03 05.3**	**0.0**
RGMN					S	**Sn**	**16 03 48.5**	**+0.8**
JER	**Jerusalem**	**3.77**	**134**		P	**Pn**	**16 03 06.8**	**+0.5**
JER					S	**Sn**	**16 03 50.8**	**+1.4**
YITV	**Yitav**	**3.79**	**130**		P	**Pn**	**16 03 06.1**	**-0.2**
YITV					S	**Sn**	**16 03 50.5**	**+0.8**
AMAZ	**Amatzia**	**3.79**	**139**		P	**Pn**	**16 03 06.8**	**+0.3**
AMAZ					S	**Sn**	**16 03 51.1**	**+1.3**
UJAP	**Al Uja**	**3.81**	**130**		P	**Pn**	**16 03 06.8**	**+0.1**
UJAP					S	**Sn**	**16 03 50.5**	**+0.3**
ALMO	**Almog**	**3.92**	**132**		P	**Pn**	**16 03 08.4**	**+0.3**
ALMO					S	**Sn**	**16 03 53.1**	**+0.2**
MZS	**Mizpe Shalem**	**4.03**	**134**		P	**Pn**	**16 03 09.8**	**0.0**
MZS					S	**Sn**	**16 03 56.6**	**+0.8**
KZIT	**Kziot**	**4.06**	**150**		P	**Pn**	**16 03 12.5**	**+2.4**
KZIT					AML	AML		
KZIT	**Kziot**	**4.06**	**150**		P	**Pn**	**16 03 10.4**	**+0.3**
KZIT					S	**Sn**	**16 03 58.1**	**+1.7**
MSBI	**Mazada**	**4.20**	**137**		P	**Pn**	**16 03 12.4**	**+0.4**
MSBI					S	**Sn**	**16 04 00.8**	**+1.0**
LISJ	**El Lisan**	**4.32**	**137**		P	**Pn**	**16 03 15.5**	**+1.8**
	0.1nm15nm,0.6s							
LISJ					AML	AML		
GHAJ	**Ghor Haditha**	**4.33**	**136**		P	**Pn**	**16 03 16.1**	**+2.3**
	0.4nm2µm23nm,0.4s							
GHAJ					AML	AML		
GHAJ	**Ghor Haditha**	**4.33**	**136**		P	**Pn**	**16 03 12.8**	**-1.0**
GHAJ					S	**Sn**	**16 04 04.1**	**+1.2**
RMNI	**Mount Ramon**	**4.48**	**148**		P	**Pn**	**16 03 16.8**	**+0.7**
RMNI					S	**Sn**	**16 04 08.1**	**+1.1**
IDAN	**Idan**	**4.53**	**142**		P	**Pn**	**16 03 16.4**	**-0.1**
IDAN					S	**Sn**	**16 04 08.8**	**+0.8**
ASF	**Jabal al Asfar**	**4.63**	**118**		Pn	**Pn**	**16 03 18.8**	**+0.2**
	2.3nm,0.3s,baz=305,slow=4.2,SNR=10							
ASF					Sn	**Sn**	**16 04 12.5**	**+0.9**
	0.9nm,0.3s,baz=45,slow=5.7,SNR=1.4							
	4.5nm,0.3s							
ASF					AML	AML		
ASF	**Jabal al Asfar**	**4.63**	**118**		P	**Pn**	**16 03 21.8**	**+3.2**
	0.5nm58nm,0.6s							
ASF					AML	AML		
PRNI	**Paran**	**4.80**	**148**		P	**Pn**	**16 03 23.8**	**+3.5**
	0.5nm32nm,0.7s							
PRNI					AML	AML		
HRFI	**Mount Harif**	**5.09**	**149**		P	**Pn**	**16 03 26.3**	**+2.0**
	0.2nm429nm16nm,0.9s							
HRFI					AML	AML		
HRFI	**Mount Harif**	**5.09**	**149**		P	**Pn**	**16 03 24.4**	**+0.2**
HRFI					S	**Sn**	**16 04 23.0**	**+1.1**
YTVT	**Yotvata**	**5.22**	**150**		P	**Pn**	**16 03 26.5**	**+0.4**
YTVT					S	**Sn**	**16 04 26.0**	**+0.9**
EIL	**Elat**	**5.37**	**152**		Pn	**Pn**	**16 03 29.2**	**+1.0**
	2.2nm,0.3s,baz=326,slow=7.3,SNR=23							
EIL					Sn	**Sn**	**16 04 27.4**	**-1.5**
	7.7nm,0.3s,baz=30,slow=8.1,SNR=10.0							
	7.8nm,0.4s							
EIL					AML	AML		
EIL	**Elat**	**5.37**	**152**		P	**Pn**	**16 03 29.9**	**+1.7**
EIL					AML	AML		
EIL	**Elat**	**5.37**	**152**		P	**Pn**	**16 03 28.8**	**+0.6**
EIL					S	**Sn**	**16 04 30.2**	**+1.3**
BRTR	**Keskin Array B**	**5.42**	**13**		Pn	**Pn**	**16 03 29.4**	**+0.5**
	0.1nm,0.3s,baz=190,slow=15,SNR=4.7							
IDI	**Anoyia**	**5.93**	**280**		Pn	**Pn**	**16 03 36.7**	**+0.9**
	2.6nm,0.3s,baz=100,slow=11,SNR=7.4							
IDI					Sn	**Sn**	**16 04 38.9**	**-3.7**
	0.8nm,0.3s,baz=270,slow=20,SNR=1.9							
MLR	**Muntele Rosu**	**11.97**	**339**		Pn	**Pn**	**16 04 58.0**	**-0.7**
	0.1nm,0.3s,baz=118,slow=8.1,SNR=3.2							
	0.8nm,0.3s							
MLR					AML	AML		
AKASG	**Malin Array Be**	**16.37**	**354**		Pn	**Pn**	**16 05 56.1**	**-1.4**
	0.8nm,0.3s,baz=175,slow=11,SNR=5.7							
	0.2nm,0.3s							
AKASG					AML	AML		
GERES	**GERESS Array B**	**19.79**	**322**		Pn	**P**	**16 06 38.4**	**+0.7**
	baz=128,slow=10,SNR=6.3							
	0.9nm,0.6s							
DAVOX	**Davos/Dischmat**	**20.76**	**313**		P	**P**	**16 06 48.3**	**-0.1**
	0.9nm,0.3s,baz=118,slow=8.9,SNR=3.6							
	0.9nm,0.3s							
FINES	**FINESS Array B**	**27.28**	**354**		P	**P**	**16 07 50.2**	**-1.1**
	2.0nm,0.6s,baz=160,slow=13,SNR=5.5							
	2.0nm,0.6s							

*UCR **02** 16:18:58.9±0.5, 10°.54N×86°.52W, h16km±6km, MW4.0, Presumed earthquake*
*CATAC **02** 16:19:00.5±0.5, 11°N±2°×8°6W±°, h23km±3km, M3.2/14, MLv3.2/14, Error ellipse: s-maj=4.8km s-min=2.4km az=48.3, confirmed*
ISC 02 16:18:60.0±1.3, **10°.63N**±0°.05×**86°.48W**±0°.05, **h23km**, **n54, σ0s49/77, 7C, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALIBA	**Liberia Airpor**	**0.92**	**92**	*eP*	**Pn**	**16 19 17.6**	**+0.2**
LCRUZ	**La Cruz**	**0.94**	**62**	*eP*	**Pn**	**16 19 17.8**	**+0.3**
JUD3	**Juan Diaz 3**	**1.03**	**117**	*eP*	**Pn**	**16 19 17.8**	**-1.3**
JUD3				*eS*	**Sb**	**16 19 31.7**	**-0.6**
LAPC	**Finca la Perla**	**1.03**	**82**	*iP*	**Pn**	**16 19 19.0**	**-0.1**
CARN	**Rivas**	**1.09**	**59**	P	**Pn**	**16 19 19.0**	**-0.8**
CARN				S	**Sb**	**16 19 33.5**	**-0.4**
CARN	**Rivas**	**1.09**	**59**	*eP*	**Pn**	**16 19 20.1**	**+0.3**
VRLE	**La Escondida,**	**1.10**	**82**	*iP*	**Pn**	**16 19 20.1**	**0.0**
GPS2	**Hotel Rincn d**	**1.11**	**84**	*eP*	**Pn**	**16 19 20.5**	**+0.3**
VORI	**VORI**	**1.12**	**80**	*iP*	**Pn**	**16 19 20.7**	**+0.2**
JAPN	**Al SSO del Vol**	**1.19**	**41**	P	**Pb**	**16 19 22.2**	**+0.3**
JAPN	**Al SSO del Vol**	**1.19**	**41**	*eP*	**Pb**	**16 19 22.1**	**+0.3**
NADN	**Granada**	**1.19**	**21**	P	**Pn**	**16 19 21.4**	**+0.1**
NADN				S	**Sn**	**16 19 36.4**	**-0.4**
CMARA	**Lajas Hojancha**	**1.20**	**120**	P	**Pn**	**16 19 21.3**	**-0.1**
CMARA				S	**Sn**	**16 19 36.4**	**-0.6**
CMARA	**Lajas Hojancha**	**1.20**	**120**	*eP*	**Pn**	**16 19 19.8**	**-1.6**
MORN	**Al O del Volca**	**1.22**	**42**	P	**Pn**	**16 19 22.1**	**+0.4**
MORN				S	**Sn**	**16 19 36.2**	**-1.3**
INDI	**Punta indio, G**	**1.22**	**128**	P	**Pn**	**16 19 21.9**	**+0.2**
CONN	**Concepcion**	**1.25**	**42**	P	**Pn**	**16 19 21.8**	**-0.2**
CONN				S	**Sn**	**16 19 37.5**	**-0.7**
COLC	**Colonia**	**1.25**	**88**	*eP*	**Pn**	**16 19 22.1**	**0.0**
MESS	**Mesas**	**1.26**	**85**	*iP*	**Pn**	**16 19 22.8**	**+0.5**
HORNC	**Hornillas**	**1.28**	**86**	*eP*	**Pn**	**16 19 22.8**	**+0.3**
CUI	**Cuipilapa**	**1.29**	**89**	*iP*	**Pn**	**16 19 23.0**	**+0.3**
NANN	**Nandasmo**	**1.35**	**15**	P	**Pn**	**16 19 23.3**	**-0.1**
NANN				S	**Sn**	**16 19 40.4**	**-0.2**
VMAR	**Armenia, Volca**	**1.35**	**82**	*eP*	**Pn**	**16 19 23.4**	**-0.1**
MASN	**Masaya**	**1.39**	**13**	S	**Sn**	**16 19 41.0**	**-0.6**
MAS3	**Al N del Volca**	**1.42**	**12**	P	**Pn**	**16 19 24.1**	**-0.3**
MAS3				S	**Sn**	**16 19 42.3**	**-0.1**
TIMP	**Tierras Morena**	**1.43**	**92**	*iP*	**Pn**	**16 19 24.5**	**-0.1**
UPAL	**Upala**	**1.46**	**79**	S	**Sn**	**16 19 43.4**	**0.0**
TENO	**El Achiote**	**1.47**	**87**	*eP*	**Pn**	**16 19 25.4**	**+0.2**
MGAN	**Managua**	**1.52**	**8**	P	**Pn**	**16 19 25.6**	**-0.2**
MGAN				S	**Sn**	**16 19 45.3**	**+0.4**
SAPS	**Ciudad Sandino**	**1.53**	**3**	S	**Sn**	**16 19 45.4**	**+0.2**
JTS	**Las Juntas de**	**1.54**	**103**	P	**Pn**	**16 19 26.1**	**+0.1**
JTS				S	**Sn**	**16 19 45.6**	**+0.4**
JTS	**Las Juntas de**	**1.54**	**103**	*eP*	**Pn**	**16 19 25.8**	**-0.2**
COPN	**Copaltepe**	**1.54**	**356**	P	**Pn**	**16 19 25.4**	**-0.7**
WILN	**Americas 2**	**1.55**	**10**	P	**Pn**	**16 19 26.4**	**+0.3**
WILN				S	**Sn**	**16 19 46.0**	**+0.5**
CHIK	**Chiripa**	**1.55**	**97**	*eP*	**Pn**	**16 19 26.6**	**+0.3**
QUEB	**Quebradon, Cot**	**1.55**	**90**	*eP*	**Pn**	**16 19 27.1**	**+0.9**
APQ2	**Apoyeque**	**1.56**	**5**	P	**Pn**	**16 19 26.5**	**+0.1**
APQ2				S	**Sn**	**16 19 46.1**	**+0.1**
MTEVE	**Monteverde**	**1.65**	**101**	*eP*	**Pn**	**16 19 28.4**	**+0.7**
MOMN	**Momotombo**	**1.77**	**358**	P	**Pn**	**16 19 28.7**	**-0.5**
MOMN				S	**Sn**	**16 19 50.6**	**-0.4**
MOM2	**El Cardon**	**1.80**	**360**	P	**Pn**	**16 19 29.2**	**-0.3**
MOM2				S	**Sn**	**16 19 51.1**	**-0.5**
ACON	**Acoyapa**	**1.84**	**44**	P	**Pn**	**16 19 30.5**	**+0.2**
ACON				S	**Sn**	**16 19 52.9**	**+0.1**
MOM3	**MOM3**	**1.87**	**359**	P	**Pn**	**16 19 30.4**	**-0.2**
MOM3				S	**Sn**	**16 19 54.0**	**+0.4**
ILCN	**San Idelfonso**	**1.95**	**354**	P	**Pn**	**16 19 31.7**	**0.0**
ILCN				S	**Sn**	**16 19 55.8**	**+0.3**
PLRN	**Geotermica Pol**	**1.96**	**352**	P	**Pn**	**16 19 31.9**	**0.0**
PLRN				S	**Sn**	**16 19 56.4**	**+0.6**
BOAB	**BOACO BROADBAN**	**1.97**	**24**	P	**Pn**	**16 19 32.0**	**0.0**
BOAB				S	**Sn**	**16 19 55.6**	**-0.5**
COVE	**Coope Vega, Sa**	**2.04**	**87**	P	**Pn**	**16 19 32.7**	**-0.3**
COVE				S	**Sn**	**16 19 58.0**	**+0.3**
PKGN	**Cerro Pekin**	**2.09**	**346**	P	**Pn**	**16 19 33.8**	**+0.2**
PKGN				S	**Sn**	**16 19 59.7**	**+0.9**
CRIN	**San Cristobal**	**2.13**	**345**	P	**Pn**	**16 19 33.9**	**-0.4**
CRIN				S	**Sn**	**16 20 00.6**	**+0.5**
CSGN	**Cosiguina Volc**	**2.56**	**336**	P	**Pn**	**16 19 40.1**	**-0.1**
LCR2	**La Lucha 2**	**2.59**	**110**	P	**Pn**	**16 19 41.1**	**+0.4**
LCR2				S	**Sn**	**16 20 12.4**	**+0.9**
RCPN	**Sur Rio San Ju**	**2.90**	**7**	P	**Pn**	**16 19 45.1**	**+0.2**
CNCH	**Conchagua**	**2.95**	**333**	P	**Pn**	**16 19 45.0**	**-0.5**
OCHAL	**Ojochal**	**3.18**	**118**	S	**Sn**	**16 20 26.5**	**+0.7**
PACA	**Pacayal**	**3.35**	**328**	P	**Pn**	**16 19 51.2**	**+0.1**

*GII **02** 16:24:18.4±0.0, 37°.557N±0°.004×35°.327E±0°.001, h0km, Mws2.9, confirmed*
*AFAD **02** 16:24:20.2, 37°.04N×36°.12E, h7km±3km, ML2.9*
ISC 02 16:24:18.2±1.4, **37°.08N**±0°.05×**36°.03E**±0°.04, **h14**km±10km, **n16, σ1s83/30, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HASA	**Hatay-Hassa-Ha**	**0.50**	**132**	P	**Pb**	**16 24 28.5**	**-0.2**
HASA				IAML		16 24 34.0	
	comp=N,2µm,0.4s						
HASA				S	**Sg**	**16 24 34.4**	**-0.3**
HASA				IAML		16 24 36.0	
	comp=E,1µm,0.2s						
KAMA	**Osmaniye**	**0.52**	**79**	P	**Pb**	**16 24 28.9**	**-0.4**
KAMA				S	**Sb**	**16 24 35.0**	**-1.7**
CAYT	**Sariam**	**0.57**	**279**	P	**Pn**	**16 24 32.6**	**+0.7**
CAYT				IAML		16 24 48.0	
	comp=E,562nm,0.4s						
KAHM	**Kahramanmaras,**	**0.88**	**60**	P	**Pn**	**16 24 36.7**	**+0.5**
KAHM				S	**Sn**	**16 24 48.3**	**-0.5**
KUZU	**Kuzuini**	**0.89**	**110**	P	**Pn**	**16 24 36.1**	**-0.3**
KUZU				IAML		16 24 49.0	
	comp=N,1µm,0.3s						
KUZU				IAML		16 24 49.0	
	comp=E,1µm,0.4s						
RHAN	**Hatay/Reyhanl**	**0.94**	**151**	P	**Pn**	**16 24 37.7**	**+0.6**
RHAN				S	**Sn**	**16 24 50.4**	**+0.1**
RHAN				IAML		16 24 51.0	
	comp=N,736nm,0.5s						
RHAN				IAML		16 24 51.0	
	comp=E,738nm,0.4s						
KHMN	**Narli-Kahraman**	**0.95**	**71**	P	**Pn**	**16 24 38.0**	**+0.8**
KHMN				S	**Sn**	**16 24 50.7**	**+0.1**
KHMN				IAML		16 24 52.0	
	comp=N,257nm,0.7s						
KHMN				IAML		16 24 53.0	
	comp=E,302nm,0.3s						
YAYL	**Yayladag**	**1.05**	**176**	P	**Pg**	**16 24 39.6**	**+1.1**
YAYL				S	**Sn**	**16 24 54.0**	**+1.0**
YAYL				IAML		16 24 55.0	
	comp=N,537nm,0.8s						
YAYL				IAML		16 24 55.0	
	comp=E,525nm,0.4s						
GZT	**Gaziantep**	**1.26**	**77**	P	**Pg**	**16 24 43.3**	**+0.8**
GZT				S	**Sg**	**16 24 59.0**	**+0.1**
GZT				IAML		16 25 04.0	
	comp=N,134nm,0.5s						
GZT				IAML		16 25 10.0	
	comp=E,137nm,0.3s						
NZIP	**Nizip/Gaziante**	**1.32**	**91**	P	**Pg**	**16 24 44.5**	**+0.9**
NZIP				S	**Sg**	**16 25 00.8**	**0.0**
NZIP				IAML		16 25 03.0	
	comp=N,212nm,0.3s						
NZIP				IAML		16 25 04.0	
	comp=E,122nm,0.3s						
CSS	**Mathiatis**	**3.04**	**227**	P	**Pn**	**16 25 07.4**	**+1.4**
CSS				S	**Sn**	**16 25 43.4**	**+1.2**
NATI	**Neve Ativ**	**3.82**	**184**	P	**Pb**	**16 25 24.1**	**-1.3**
NATI				S	**Sb**	**16 26 14.7**	**+3.2**
GEM	**Giv'at Ha'Em**	**3.88**	**185**	P	**Pb**	**16 25 24.8**	**-1.6**
GEM				S	**Sb**	**16 26 16.2**	**+3.0**
MMA0B	**Mount Meron ar**	**4.09**	**187**	P	**Pb**	**16 25 27.4**	**-2.7**
MMA0B				S	**Sb**	**16 26 20.4**	**+1.0**
OFRI	**`Ofer**	**4.53**	**191**	P	**Pb**	**16 25 33.1**	**-4.5**
OFRI				S	**Sb**	**16 26 30.7**	**-1.4**
MMLI	**Mount Malkishu**	**4.66**	**186**	P	**Pb**	**16 25 35.4**	**-4.4**
MMLI				S	**Sb**	**16 26 34.7**	**-1.1**

*ISK **02** 16:32:00.7, 37°.72N×27°.02E, h13km, ML3.1/15*

*THE **02** 16:32:01.5, 38°N±8°×2°7E±°, h9km±12km, M3.0/4, MLh3.0/4*
*AFAD **02** 16:32:01.2, 37°.74N×27°.04E, h11km±2km, ML2.8*
*ATH **02** 16:32:01.2, 37°.73N×27°.04E, h8km±1km, ML3.2/5, Latitude uncertainty: 0 km; Longitude uncertainty: 2 km*
ISC 02 16:32:01.4±0.8, **37.73N**±0°.02×**27°.03E**±0°.02, **h15**km±6km, **n47, σ0s48/71, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.16**	**100**	P	**Pg**	**16 32 05.4**	**0.0**
GCAM				S	**Sg**	**16 32 08.1**	**+0.1**
GCAM				IAML		16 32 09.0	
	comp=E,5µm,0.2s						
GCAM				IAML		16 32 09.0	
	comp=N,6µm,0.4s						
GCAM	**G?zelcaml?**	**0.16**	**100**	Pg	**Pg**	**16 32 05.2**	**-0.2**
GCAM				Sg	**Sg**	**16 32 08.3**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**57**	Pg	**Pg**	**16 32 06.5**	**-0.2**
KUSD				Sg	**Sg**	**16 32 10.6**	**+0.3**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**285**	P	**Pg**	**16 32 06.6**	**-0.5**
KRL1				S	**Sg**	**16 32 10.8**	**-0.2**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**148**	P	**Pg**	**16 32 08.1**	**+0.2**
DDIM				S	**Sb**	**16 32 12.9**	**-0.8**
DDIM				IAML		16 32 13.0	
	comp=E,1µm,0.4s						
DDIM				IAML		16 32 13.0	
	comp=N,1µm,0.4s						
DGB	**zmir**	**0.34**	**340**	P	**Pg**	**16 32 08.3**	**-0.2**
DGB				S	**Sg**	**16 32 12.7**	**-0.6**
DGB				IAML		16 32 13.0	
	comp=N,1µm,0.3s						
DGB				IAML		16 32 13.0	
	comp=E,1µm,0.3s						
GMLD	**Gumuldur**	**0.36**	**345**	Pg	**Pg**	**16 32 08.6**	**-0.2**
GMLD				Sg	**Sb**	**16 32 14.4**	**-0.6**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**155**	Pg	**Pg**	**16 32 08.8**	**-0.4**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**351**	P	**Pg**	**16 32 11.5**	**+0.1**
BEYE				IAML		16 32 18.0	
	comp=E,518nm,0.3s						
BEYE				S	**Sg**	**16 32 18.4**	**+0.1**
BEYE				IAML		16 32 23.0	
	comp=N,680nm,0.4s						
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**16 32 12.8**	**-0.3**
DUVT				S	**Sg**	**16 32 20.7**	**-0.3**
DUVT				IAML		16 32 26.0	
	comp=E,549nm,0.3s						
DAGE	**izmir**	**0.63**	**64**	P	**Pb**	**16 32 14.8**	**+0.6**
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg	**Pg**	**16 32 13.3**	**-0.5**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**1**	P	**Pg**	**16 32 14.0**	**-0.2**
BLCB				S	**Sg**	**16 32 23.1**	**+0.1**
BLCB	**Balcova**	**0.66**	**1**	Pg	**Pg**	**16 32 14.1**	**-0.2**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**321**	P	**Pg**	**16 32 13.8**	**-0.5**
ZEYE				S	**Sg**	**16 32 23.1**	**0.0**
ZEYE				IAML		16 32 26.0	
	comp=N,634nm,0.8s						
ZEYE				IAML		16 32 26.0	
	comp=E,342nm,0.4s						
AYDN	**Tasoluk**	**0.68**	**95**	P	**Pb**	**16 32 14.7**	**-0.3**
AYDN				S	**Sg**	**16 32 22.9**	**-0.7**
AYDN				IAML		16 32 28.0	
	comp=N,736nm,0.2s						
AYDN				IAML		16 32 28.0	
	comp=E,877nm,0.2s						
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**16 32 14.7**	**-0.4**
BODT				S	**Sb**	**16 32 25.0**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pg**	**16 32 14.9**	**-0.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pb**	**16 32 15.5**	**-0.2**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**126**	Pg	**Pg**	**16 32 15.4**	**-0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**16 32 15.4**	**-0.4**
BDRM				S	**Sg**	**16 32 25.2**	**-0.3**
BDRM				IAML		16 32 27.0	
	comp=E,510nm,0.3s						
BDRM				IAML		16 32 30.0	
	comp=N,918nm,0.5s						
KLNA	**Kalymnos**	**0.77**	**184**	P	**Pg**	**16 32 16.3**	**-0.1**
KLNA				S	**Sb**	**16 32 26.7**	**-0.1**
IZMR	**zmir-demi**	**0.83**	**60**	P	**Pg**	**16 32 17.4**	**-0.2**
IZMR				S	**Sg**	**16 32 28.2**	**-0.3**
IZMR				IAML		16 32 31.0	
	comp=E,288nm,0.6s						
IZMR				IAML		16 32 31.0	
	comp=N,341nm,0.6s						
CESE

n22,σ0ᵍ68/36, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcami?**	**0.12**	**123**	P	**Pb**	**16 38 52.6**	**+0.8**
GCAM				S	**Sb**	**16 38 55.4**	**+1.0**
GCAM				IAML		16 38 56.0	
	comp=E,3μm,0.1s						
GCAM				IAML		16 38 57.0	
	comp=N,3μm,0.7s						
GCAM	**G?zelcami?**	**0.12**	**123**	Pg	**Pb**	**16 38 52.3**	**+0.5**
GCAM				Sg	**Sb**	**16 38 54.9**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.17**	**56**	Pg	**Pb**	**16 38 53.7**	**+1.0**
KUSD				Sg	**Sb**	**16 38 57.2**	**+1.3**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.32**	**275**	P	**Pg**	**16 38 54.7**	**0.0**
KRL1				S	**Sg**	**16 38 59.0**	**-0.2**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.33**	**161**	P	**Pb**	**16 38 55.7**	**+0.4**
DDIM				IAML		16 39 00.0	
	comp=E,1μm,0.2s						
DDIM				S	**Sb**	**16 39 00.4**	**0.0**
DDIM				IAML		16 39 01.0	
	comp=N,1μm,0.5s						
DGB	**zmir**	**0.34**	**328**	P	**Pb**	**16 38 55.9**	**+0.4**
DGB				S	**Sb**	**16 39 00.4**	**-0.3**
DGB				IAML		16 39 01.0	
	comp=E,538nm,0.3s						
DGB				IAML		16 39 03.0	
	comp=N,408nm,0.1s						
GMLD	**Gumuldur**	**0.35**	**334**	Pg	**Pb**	**16 38 56.1**	**+0.4**
GMLD				Sg	**Sb**	**16 39 01.6**	**+0.6**
GMLD				AML	AML		
BEYE	**izmir**	**0.48**	**343**	P	**Pn**	**16 38 58.9**	**-1.3**
BEYE				S	**Sb**	**16 39 06.0**	**+1.0**
BEYE				IAML		16 39 10.0	
	comp=N,719nm,0.2s						
BEYE				IAML		16 39 10.0	
	comp=E,878nm,0.3s						
BLCB	**Balcova**	**0.62**	**355**	P	**Pn**	**16 39 01.3**	**-0.7**
BLCB				S	**Sn**	**16 39 10.6**	**-1.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.62**	**355**	Pg	**Pn**	**16 39 01.4**	**-0.7**
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.65**	**74**	Pg	**Pn**	**16 39 02.1**	**-0.5**
AYDB				AML	AML		
MLSB	**Milas**	**0.71**	**131**	Pg	**Pn**	**16 39 02.7**	**-0.6**
MLSB				Sg	**Sn**	**16 39 13.3**	**-0.6**
MLSB				AML	AML		
BODT	**Bodrum**	**0.72**	**167**	P	**Pg**	**16 39 01.7**	**-0.3**
BODT				S	**Sb**	**16 39 11.7**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.72**	**167**	Pg	**Pb**	**16 39 02.5**	**+0.4**
BODT				Sg	**Sb**	**16 39 12.9**	**+1.1**
KLNA	**Kalymnos**	**0.81**	**188**	P	**Pb**	**16 39 03.8**	**+0.1**
KLNA				S	**Sb**	**16 39 15.0**	**+0.5**
KLNA				AML	AML		
CHOS	**Chios island**	**1.04**	**307**	P	**Pn**	**16 39 07.8**	**-0.1**
CHOS	**Chios island**	**1.04**	**307**	Pg	**Pn**	**16 39 08.2**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.04**	**307**	P	**Pn**	**16 39 08.1**	**+0.3**
CHOS				S	**Sn**	**16 39 22.7**	**+0.6**
CHOS				AML	AML		
DKL	**Dikili**	**1.31**	**353**	Pn	**Pg**	**16 39 13.1**	**-0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.31**	**353**	P	**Pg**	**16 39 12.6**	**-0.7**
APE	**Apeiranthos**	**1.44**	**241**	P	**Pb**	**16 39 14.9**	**+0.5**
APE	**Apeiranthos**	**1.44**	**241**	P	**Pb**	**16 39 14.9**	**+0.5**

*ATH **02** 16:39:12.8, 37.˚79N×27.˚10E, h8km±3km, ML3.8/5, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*THE **02** 16:39:13.6, 38.˚N±1 ×2.˚7E±.˚, h0km±1km, M3.8/6, MLh3.8/6*
*AFAD **02** 16:39:13.7, 37.˚75N×27.˚06E, h11km±2km, ML3.4*
*ISK **02** 16:39:13.6, 37.˚74N×27.˚03E, h11km, ML3.5/20*

ISC 02 16:39:13.4±0.8, 37.˚73N±0.˚02×27.˚04E±0.˚02, h16km±6km, n50, σ0ᵍ68/80, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcami?**	**0.16**	**101**	P	**Pg**	**16 39 17.5**	**0.0**
GCAM				S	**Sb**	**16 39 20.5**	**-0.5**
GCAM				IAML		16 39 21.0	
	comp=E,1μm,0.2s						
GCAM				IAML		16 39 21.0	
	comp=N,1μm,0.6s						
GCAM	**G?zelcami?**	**0.16**	**101**	Pg	**Pg**	**16 39 17.5**	**0.0**
GCAM				Sg	**Sb**	**16 39 20.8**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**57**	Pg	**Pb**	**16 39 18.9**	**-0.4**
KUSD				Sg	**Sb**	**16 39 22.6**	**-0.7**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**284**	P	**Pg**	**16 39 19.1**	**-0.1**
KRL1				S	**Sg**	**16 39 23.2**	**0.0**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**149**	P	**Pb**	**16 39 20.5**	**-0.2**
DDIM				S	**Sg**	**16 39 25.0**	**+0.4**
DDIM				IAML		16 39 26.0	
	comp=E,6μm,0.7s						
DDIM				IAML		16 39 26.0	
	comp=N,5μm,0.3s						
DGB	**zmir**	**0.34**	**339**	P	**Pg**	**16 39 20.7**	**+0.3**
DGB				S	**Sg**	**16 39 25.2**	**-0.1**
DGB				IAML		16 39 26.0	
	comp=N,4μm,0.6s						
DGB				IAML		16 39 26.0	
	comp=E,4μm,0.5s						
GMLD	**Gumuldur**	**0.36**	**344**	Pg	**Pg**	**16 39 20.9**	**+0.2**
GMLD				Sg	**Sb**	**16 39 26.7**	**-0.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**350**	P	**Pb**	**16 39 23.9**	**+0.1**
BEYE				S	**Sb**	**16 39 30.8**	**-0.2**
BEYE				IAML		16 39 35.0	
	comp=E,3μm,0.3s						
BEYE				IAML		16 39 35.0	
	comp=N,3μm,0.5s						
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**16 39 24.8**	**-0.1**
DUVT				S	**Sb**	**16 39 33.0**	**-0.3**
DUVT				IAML		16 39 37.0	
	comp=E,2μm,0.6s						
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pn**	**16 39 26.9**	**-0.8**
YKAV				AML	AML		
BLCB	**Balcova**	**0.65**	**0**	P	**Pb**	**16 39 26.2**	**-0.2**
BLCB				S	**Sb**	**16 39 36.2**	**+1.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**0**	Pg	**Pb**	**16 39 26.2**	**-0.2**
BLCB				Sg	**Sn**	**16 39 36.5**	**-1.5**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**320**	P	**Pn**	**16 39 27.8**	**-0.3**
ZEYE				S	**Sb**	**16 39 35.8**	**+0.3**
ZEYE				IAML		16 39 36.0	
	comp=N,3μm,0.3s						
ZEYE				IAML		16 39 41.0	
	comp=E,2μm,0.6s						
AYDN	**Tasoluk**	**0.67**	**96**	P	**Pb**	**16 39 26.6**	**-0.1**
AYDN				S	**Sb**	**16 39 35.6**	**-0.3**
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**16 39 27.0**	**-0.1**
BODT				S	**Sb**	**16 39 37.4**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pb**	**16 39 27.8**	**+0.5**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pn**	**16 39 28.0**	**-0.9**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**126**	Pg	**Pb**	**16 39 27.5**	**-0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**16 39 28.4**	**+0.6**
BDRM				S	**Sb**	**16 39 37.5**	**-0.3**
BDRM				IAML		16 39 41.0	
	comp=E,2μm,1.1s						
BDRM				IAML		16 39 42.0	
	comp=N,4μm,0.5s						
KLNA	**Kalymnos**	**0.78**	**184**	P	**Pg**	**16 39 28.9**	**+0.5**
KLNA				S	**Sn**	**16 39 40.2**	**-0.8**
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pn**	**16 39 30.8**	**+0.4**
IZMR				S	**Sb**	**16 39 39.8**	**-0.5**
IZMR				IAML		16 39 43.0	
	comp=E,1μm,0.7s						
IZMR				IAML		16 39 43.0	
	comp=N,1μm,0.5s						
CESE	**eme**	**0.83**	**316**	Pg	**Pn**	**16 39 30.4**	**-0.1**
CESE				AML	AML		
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pn**	**16 39 32.1**	**+0.2**
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**346**	Pg	**Pg**	**16 39 33.7**	**+0.8**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pg**	**16 39 33.1**	**+0.1**
CHOS				S	**Sn**	**16 39 47.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	Pg	**Pg**	**16 39 33.3**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pb**	**16 39 32.7**	**+0.1**
CHOS				S	**Sg**	**16 39 46.4**	**0.0**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg	**Pg**	**16 39 34.1**	**+1.0**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.04**	**86**	P	**Pg**	**16 39 35.0**	**+1.5**
ESEN				S	**Sn**	**16 39 48.6**	**+1.0**
ESEN				IAML		16 39 50.0	
	comp=N,802nm,1.0s						
ESEN				IAML		16 39 52.0	
	comp=E,768nm,0.8s						
EAG2	**Marmaro, Chios**	**1.09**	**318**	P	**Pb**	**16 39 33.8**	**-0.1**
YER	**Yerkesik**	**1.16**	**121**	P	**Pg**	**16 39 35.5**	**-0.2**
YER				S	**Sg**	**16 39 51.6**	**+0.8**
KIRA	**zmir-Kiraz**	**1.17**	**66**	P	**Pg**	**16 39 37.7**	**+1.7**
KIRA				S	**Sg**	**16 39 50.9**	**-0.5**
KIRA				IAML		16 39 56.0	
	comp=N,1μm,0.4s						
KIRA				IAML		16 39 56.0	
	comp=E,647nm,0.7s						
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pg**	**16 39 36.9**	**+0.5**
GOMA				AML	AML		
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**16 39 38.2**	**-0.2**
AKS				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**16 39 39.1**	**-0.1**
DKL				AML	AML		
TURN	**Turunc**	**1.36**	**134**	P	**Pn**	**16 39 34.5**	**-3.1**
TURN				S	**Sg**	**16 39 57.8**	**+0.7**
SULTU	**Buldan**	**1.41**	**76**	P	**Pg**	**16 39 41.3**	**+0.8**
SULTU				S	**Sb**	**16 39 57.5**	**+0.4**
SULTU				IAML		16 40 03.0	
	comp=E,699nm,0.7s						
SULTU				IAML		16 40 05.0	
	comp=N,923nm,0.7s						
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pb**	**16 39 40.4**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**16 39 40.5**	**0.0**
GORD				AML	AML		
HARTU	**Esme**	**1.52**	**66**	P	**Pg**	**16 39 43.7**	**+1.1**
HARTU				S	**Sn**	**16 39 59.3**	**-0.2**
HARTU				IAML		16 40 06.0	
	comp=N,265nm,0.7s						
HARTU				IAML		16 40 08.0	
	comp=E,185nm,1.2s						
AYVA	**Ayvalik**	**1.60**	**350**	P	**Pg**	**16 39 44.0**	**-0.1**
AYVA				S	**Sg**	**16 40 05.2**	**+0.4**
AYVA				IAML		16 40 08.0	
	comp=E,851nm,1.2s						
AYVA				IAML		16 40 09.0	
	comp=N,899nm,0.7s						
PRK	**Paraskevi**	**1.63**	**339**	P	**Pb**	**16 39 43.4**	**+0.4**
PRK				S	**Sg**	**16 40 05.5**	**-0.3**
PRK				AML	AML		
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**16 39 41.4**	**0.0**
PRK				AML	AML		
STEP	**BALIKESIR_Sava**	**1.73**	**18**	P	**Pg**	**16 39 45.8**	**-0.8**
STEP				S	**Sg**	**16 40 09.7**	**+0.7**
STEP				IAML		16 40 16.0	
	comp=N,592nm,0.5s						
STEP				IAML		16 40 27.0	
	comp=E,512nm,0.7s						
ARG	**Arkhangelos**	**1.75**	**150**	P	**Pb**	**16 39 45.0**	**-0.1**
ARG	**Arkhangelos**	**1.75**	**150**	P	**Pn**	**16 39 43.8**	**+0.8**
BUHA	**Balikesir, Bur**	**1.77**	**1**	P	**Pg**	**16 39 46.3**	**-1.0**
BUHA				S	**Sg**	**16 40 11.3**	**+1.0**
BUHA				IAML		16 40 16.0	
	comp=N,387nm,0.7s						
BUHA				IAML		16 40 17.0	
	comp=E,496nm,0.4s						
CMBO	**Columbo, Santo**	**1.81**	**227**	P	**Pb**	**16 39 46.6**	**+0.5**
THR8	**Santorini-Mono**	**1.82**	**224**	P	**Pb**	**16 39 46.3**	**0.0**
KOCA	**Canakkale, Ayv**	**1.90**	**339**	P	**Pb**	**16 39 48.3**	**+0.6**
KOCA				S	**Sg**	**16 40 15.0**	**+0.4**
KOCA				IAML		16 40 17.0	
	comp=N,438nm,0.6s						
KOCA				IAML		16 40 17.0	
	comp=E,515nm,0.7s						

*SOME **02** 16:58:24.4, 42.˚25N×82.˚57E, h15km*
*NNC **02** 16:58:34.2±6.6, 42.˚63N×82.˚11E, h0km, mb2.9, mpv2.5, Error ellipse: s-maj=65.5km s-min=29.2km az=159.0*

ISC 02 16:58:26.0±4.9, 42.˚3N±0.˚2×82.˚5E±0.˚2, h10km, n6, σ1ᵍ57/8, 3C-3D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PDGK	**Podgornoye**	**2.42**	**296**	⇑P	**Pb**	**16 59 09.4**	**-0.4**
	2.4nm,0.9s						
PDGK				⇓S	**Sb**	**16 59 39.0**	**-0.8**
	7.7nm,0.6s						
UZB	**Uzynbulak**	**2.68**	**289**	*e*P	**Pb**	**16 59 13.8**	**-0.4**
	1.9nm,0.1s						
UZB				*e*S	**Sb**	**16 59 49.6**	**+2.3**
	5.6nm,0.5s						
DJR	**Jarkent**	**2.81**	**316**	*e*P	**Pb**	**16 59 17.2**	**+0.8**
	0.9nm,0.4s						
DJR				*e*S	**Sg**	**16 59 54.9**	**-1.4**
	0.7nm,0.2s						
KPKS	**Kokpek**	**3.02**	**294**	*e*P	**Pb**	**16 59 19.2**	**-0.8**
	1.2nm,0.5s						
KPKS				*e*S	**Sb**	**16 59 58.5**	**+1.6**
	3.6nm,0.3s						
MK31	**Makanchi Array**	**4.47**	**358**	⇑Pn	Pn	16 59 38.2	+4.4
	baz=185,slow=12,SNR=10						
MK31				⇑Lg	Lg	17 00 46.3	
	0.5nm,0.6s,baz=188,slow=28						
MAKZ	**Makanchi**	**4.50**	**356**	⇓Pn	Pb	16 59 39.3	-5.8
	2.7nm,1.9s						
MAKZ				⇓Lg	Lg	17 00 47.4	
	1.5nm,1.4s						

*SJA **02** 17:02:01.5±0.7, 22.˚61S×70.˚20W, h53km±3km, ML3.3, MW3.6*
*GUC **02** 17:02:03.4±0.8, 22.˚61S×70.˚12W, h45km±1km, ML3.4, Presumed earthquake*

ISC 02 17:02:03.7±1.2, 22.˚59S±0.˚02×70.˚15W±0.˚05, h30km±12km, n26, σ1ᵍ28/44, 4C-1D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB05	**IPOC Station P**	**0.27**	**191**	*e*P	**Pn**	**17 02 11.2**	**-0.6**
PB05				*e*S	**Sn**	**17 02 18.5**	**+1.5**
PB05				IAML		17 02 18.6	
	comp=Z,3μm,0.1s						
PB05	**IPOC Station P**	**0.27**	**191**	⇑*i*P	**Pn**	**17 02 11.9**	**+0.1**
PB05				*e*S	**Sn**	**17 02 18.2**	**+1.3**
PB05				IAML		17 02 18.7	
	comp=E,12μm,0.2s						
PB06	**IPOC Station P**	**0.54**	**103**	*e*P	**Pb**	**17 02 15.0**	**-0.1**
PB06				*e*S	**Sn**	**17 02 23.6**	**-0.1**
PB06				IAML		17 02 23.7	
	comp=Z,2μm,0.3s						
PB06	**IPOC Station P**	**0.54**	**103**	*i* P	**Pb**	**17 02 14.9**	**-0.1**
PB06				*e*S	**Sn**	**17 02 23.6**	**-0.2**
PB06				IAML		17 02 23.8	
	comp=E,4μm,0.3s						
PB03	**IPOC Station P**	**0.65**	**34**	*e*P	**Pb**	**17 02 16.8**	**+0.1**
PB03				*e*S	**Sn**	**17 02 26.9**	**+0.6**
PB03				IAML		17 02 27.6	
	comp=Z,2μm,0.3s						
PB03	**IPOC Station P**	**0.65**	**34**	⇑*i*P	**Pb**	**17 02 16.9**	**+0.1**
PB03				*e*S	**Sn**	**17 02 26.8**	**+0.4**
PB03				IAML		17 02 27.6	
	comp=E,3μm,0.1s						
PB07	**IPOC Station P**	**0.89**	**16**	*e*P	**Pn**	**17 02 20.0**	**-0.4**
PB07				*e*S	**Sb**	**17 02 32.9**	**+0.5**
PB07				IAML		17 02 34.3	
	comp=Z,1μm,0.3s						
PB07	**IPOC Station P**	**0.89**	**16**	⇑*i*P	**Pn**	**17 02 20.1**	**-0.4**
PB07				*e*S	**Sb**	**17 02 32.7**	**+0.3**
PB07				IAML		17 02 34.9	
	comp=E,2μm,0.3s						
PB09	**IPOC Station P**	**1.15**	**47**	*e*P	**Pn**	**17 02 24.2**	**+0.3**
PB09				*e*S	**Sb**	**17 02 39.7**	**-0.1**
PB09				IAML		17 02 40.7	
	comp=Z,920nm,0.2s						
PB09	**IPOC Station P**	**1.15**	**47**	*i* P	**Pn**	**17 02 24.2**	**+0.3**
PB09				*e*S	**Sb**	**17 02 39.9**	**+0.1**
PB09				IAML		17 02 43.1	
	comp=E,937nm,0.4s						
PB02	**IPOC Station P**	**1.28**	**11**	*e*P	**Pn**	**17 02 25.1**	**-0.7**
PB02				*e*S	**Sn**	**17 02 41.7**	**-0.3**
PB02				IAML		17 02 45.3	
	comp=Z,1μm,0.3s						
PB02	**IPOC Station P**	**1.28**	**11**	⇑*i*P	**Pn**	**17 02 25.1**	**-0.7**
PB02				*e*S	**Sb**	**17 02 43.6**	**+0.1**
PB02				IAML		17 02 45.8	
	comp=E,1μm,0.5s						
AF01	**San Pedro de A**	**1.85**	**102**	*e*P	**Pn**	**17 02 33.4**	**-0.4**
AF01				*e*S	**Sb**	**17 02 58.0**	**-2.0**
AF01				IAML		17 03 11.2	
	comp=Z,1μm,0.7s						
AF01	**San Pedro de A**	**1.85**	**102**	⇓*i*P	**Pb**	**17 02 36.0**	**-1.1**
AF01				*e*S	**Sb**	**17 03 01.1**	**+1.1**
TA01	**Diego Aracena**	**2.01**	**359**	*e*P	**Pn**	**17 02 34.5**	**-1.2**
TA01				IAML		17 03 06.0	
	comp=Z,128nm,0.5s						
PB14	**IPOC Station P**	**2.04**	**187**	*e*P	**Pn**	**17 02 34.4**	**-1.9**
PB14				IAML		17 03 10.4	
	comp=Z,129nm,0.6s						
PB14	**IPOC Station P**	**2.04**	**187**	*e*P	**Pn**	**17 02 34.3**	**-2.0**
PB11	**IPOC Station P**	**2.85**	**9**	*e*P	**Pn**	**17 02 46.0**	**-1.4**
PB11				*e*S	**Sn**	**17 03 23.1**	**+2.4**
PB11				IAML		17 03 47.3	
	comp=Z,59nm,0.8s						
PB11	**IPOC Station P**	**2.85**	**9**	*e*P	**Pn**	**17 02 46.0**	**-1.4**
PSGCX	**Pisagua**	**2.98**	**0**	*e*P	**Pn**	**17 02 47.5**	**-1.6**
PSGCX				*e*S	Sn	17 03 12.0	-12
PSGCX				IAML		17 03 46.4	
	comp=Z,47nm,0.4s						
GO01	**Chusmiza**	**3.04**	**17**	*e*P	**Pn**	**17 02 49.8**	**-0.5**
GO01				IAML		17 03 41.5	
	comp=Z,122nm,1.0s						
GO01	**Chusmiza**	**3.04**	**17**	*e*P	**Pn**	**17 02 51.9**	**+1.7**
AC01	**Pan de Azucar**	**3.57**	**187**	*e*P	**Pn**	**17 02 54.1**	**-3.0**
AC01				IAML		17 03 58.4	
	comp=Z,29nm,0.5s						
PB12	**IPOC Station P**	**3.96**	**358**	*e*P	**Pn**	**17 03 01.6**	**-1.0**
PB12				*e*S	**Sn**	**17 03 48.4**	**+0.4**
PB12				IAML		17 04 18.8	
	comp=Z,29nm,0.8s						
PB16	**IPOC Station P**	**4.27**	**8**	*e*P	**Pn**	**17 03 07.5**	**+0.2**
PB16				*e*S	**Sb**	**17 04 10.0**	**+0.1**
PB16				IAML		17 04 21.1	
	comp=Z,18nm,0.4s						
AC02	**Maricunga**	**4.33**	**168**	*e*P	**Pn**	**17 03 07.8**	**-0.2**
AC02				*e*S	**Sb**	**17 04 15.7**	**+4.3**
AC02				IAML		17 04 22.3	
	comp=Z,35nm,0.6s						

*IDC **02** 17:02:29.5±1.2, 30.˚67S×178.˚68W, h0km, mb4.2/4, mbtmp4.2/5, ML3.6/1, Error ellipse: s-maj=32.4km s-min=30.3km az=100.0*
*NEIC **02** 17:02:42.8±1.0, 31.˚05S±0.˚1×179.˚0W±0.˚2, h94km±7km, mb4.3/12, Error ellipse: s-maj=25.2km s-min=13.3km az=55.0*
*WEL **02** 17:02:46.1±0.6, 32.˚5S±22.˚×17.˚9W±6.˚1, h12km, M4.3/8, mB4.8/7, ML4.6/10, MLv4.5/8, Mw(mB)4.1/7, Error ellipse: s-maj=84.6km s-min=4.6km az=110.1*

ISC 02 17:02:42.8±0.8, 31.˚07S±0.˚07×179.˚1W±0.˚1, h100km, n46, σ1ᵍ55/46, mb4.2/10, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**2.07**	**30**	P	Pn	17 03 27.2	+11
GLKZ				S	Sn	17 03 56.7	+15
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**2.08**	**30**	Sn	**Sn**	**17 03 38.5**	**-3.7**
MXZ	**Matakaoa Point**	**6.82**	**198**	Pn	**Pn**	**17 04 19.9**	**-0.3**
MXZ	**Matakaoa Point**	**6.82**	**198**	S	**Sn**	**17 05 34.7**	**-1.6**
WMGZ	**Waiomatatini S**	**7.04**	**196**	P	**Pn**	**17 04 23.5**	**+0.3**
WMGZ				S	**Sn**	**17 05 38.5**	**-3.1**
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**7.15**	**200**	P	**Pn**	**17 04 25.4**	**+0.7**
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**7.17**	**198**	P	**Pn**	**17 04 24.7**	**-0.3**
PKGZ				AML	AML		
PKGZ				AML	AML		
WCZ	**Waipu Caves**	**7.31**	**227**	P	Pn	17 04 33.1	+6.2
PUZ	**Puketiti**	**7.32**	**197**	S	**Sn**	**17 05 45.1**	**-3.3**
RUGZ	**Raukumara Rang**	**7.37**	**200**	P	**Pn**	**17 04 28.1**	**+0.3**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**7.49**	**198**	P	**Pn**	**17 04 29.0**	**-0.3**
TWGZ				S	**Sn**	**17 05 50.5**	**-2.0**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**7.72**	**196**	P	**Pn**	**17 04 32.8**	**+0.3**
CNGZ				AML	AML		
CNGZ				AML	AML		
EDRZ	**Edgecumbe**	**7.81**	**205**	P	**Pn**	**17 04 35.8**	**+2.0**
EDRZ				AML	AML		
EDRZ				AML	AML		
URZ	**Urewera**	**7.82**	**202**	Pn	**Pn**	**17 04 32.5**	**-1.3**
	0.8nm,0.3s,baz=273,slow=4.6,SNR=12						
URZ				Sn	**Sn**	**17 05 57.6**	**-3.0**
	2.3nm,0.3s,baz=165,slow=23,SNR=8.1						
	9.6nm,1.0s						
URZ				AML	AML		
URZ	**Urewera**	**7.82**	**202**	P	**Pn**	**17 04 34.3**	**+0.5**
URZ				AML	AML		
MUGZ	**Murupara**	**8.13**	**204**	P	**Pn**	**17 04 38.0**	**0.0**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**8.19**	**202**	Pn	**Pn**	**17 04 37.2**	**-1.7**
RTZ	**Ruatahuna**	**8.19**	**202**	P	**Pn**	**17 04 38.0**	**-0.9**
RTZ				AML	AML		
RTZ				AML	AML		
MTHZ	**Maungataniwha**	**8.45**	**202**	P	**Pn**	**17 04 41.9**	**-0.5**
MTHZ				AML	AML		
MTHZ				AML	AML		
ARHZ	**Aropaoanui**	**8.77**	**200**	P	**Pn**	**17 04 44.1**	**-2.7**
MRZ	**Mangatainoka R**	**10.49**	**203**	Pn	**Pn**	**17 05 07.8**	**-2.4**
CTZ	**Chatham Island**	**12.80**	**172**	P	**Pn**	**17 05 43.8**	**+2.9**
STKA	**Stephens Creek**	**33.40**	**258**	P	**P**	**17 09 13.9**	**+2.0**
	0.8nm,0.2s,baz=135,slow=10.0,SNR=7.8						
	0.8nm,0.2s						
STKA	**Stephens Creek**	**33.40**	**258**	P	**P**	**17 09 12.9**	**+1.0**
INKA	**Innaminka**	**35.00**	**265**	P	**P**	**17 09 26.5**	**+0.8**
INKA				IAmb	IAmb	17 10 02.3	
	comp=Z,2.5nm,1.2s						
BBOO	**Buckleboo**	**37.87**	**255**	P	**P**	**17 09 50.1**	**0.0**
AS31	**Alice Springs**	**42.13**	**268**	P	**P**	**17 10 26.3**	**+0.8**
ASAR	**Alice Springs**	**42.13**	**268**	P	**P**	**17 10 26.5**	**+1.0**
	comp=Z,1.3nm,0.5s,baz=105,slow=7.5,SNR=63						
	comp=Z,1.3nm,0.5s						
ASAR	**Alice

comp=Z,6.2nm,1.5s
GEVA Gevas 144.82 294 PKPbc 17 22 06.4 -1.2
FIA1 FINESS Array S 145.43 339 PKPdf PKPbc 17 22 08.4 -0.1
FINES FINESS Array B 145.43 339 PKPbc PKPdf 17 22 08.1 -0.2
comp=Z,4.9nm,0.8s,baz=51,slow=4.4,SNR=14
NOA NORSAR Array B 149.26 350 PKPbc PKPbc 17 22 18.6 -0.5
comp=Z,0.4nm,0.5s,baz=15,slow=2.5,SNR=1.6
HFS Hagfors 149.70 347 PKPbc PKPbc 17 22 18.9 -1.3
comp=Z,2.0nm,0.7s,baz=344,slow=4.8,SNR=4.9
BRTR Keskin Array B 152.06 297 PKPbc PKPbc 17 22 26.0 -0.6
comp=Z,0.4nm,0.4s,baz=139,slow=4.5,SNR=2.6
BRTR Keskin Array B 152.06 297 PKPbc 17 22 25.3 -1.3

*IDC **02** 17:05:41.7±1.4,37.76N×26.82E,h0km,mb3.6/3, mbtmp3.4/6,ML0.7/1,Error ellipse: s-maj=27.5km s-min=13.8km az=145.0*
*THE **02** 17:05:43.2,38.N±2.×2.7E±.,h6km±4km,M3.1/13, MLh3.1/13*
*AFAD **02** 17:05:43.3,37.86N×26.85E,h11km±2km,ML3.1*
*ISK **02** 17:05:43.0,37.83N×26.83E,h5km,ML3.6/19*
*ATH **02** 17:05:45.6,37.81N×26.77E,h32km±9km,ML3.2/11, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 02 17:05:43.1±0.9,37.82N±0.01×26.81E±0.02,h11km±7km, n111,σ0s82/162,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	zmir	0.24	13	P	Pg	17 05 47.9	-0.1
DGB				S	Sg	17 05 51.0	-0.4
DGB				IAML		17 05 52.0	
	comp=E,3μm,0.3s						
DGB				IAML		17 05 52.0	
	comp=N,3μm,0.5s						
GMLD	Gumuldur	0.27	18	Pg	Pg	17 05 48.5	-0.1
GMLD				Sg	Sg	17 05 52.4	+0.2
GMLD				AML	AML		
GCAM	G?zelcaml?	0.35	110	P	Pg	17 05 50.5	+0.4
GCAM				IAML		17 05 56.0	
	comp=N,7μm,0.4s						
GCAM				S	Sb	17 05 56.3	-0.7
GCAM				IAML		17 05 57.0	
	comp=E,5μm,0.2s						
GCAM	G?zelcaml?	0.35	110	Pg	Pg	17 05 50.5	+0.4
GCAM				Sg	Sb	17 05 56.2	-0.7
GCAM				AML	AML		
KUSD	Kusadasi-Aydin	0.38	84	Pg	Pg	17 05 50.6	0.0
KUSD				Sg	Sg	17 05 55.9	+0.3
KUSD				AML	AML		
BEYE	izmir	0.42	13	P	Pg	17 05 51.2	-0.1
BEYE				S	Sg	17 05 55.5	-1.4
BEYE				IAML		17 05 57.0	
	comp=E,2μm,0.3s						
BEYE				IAML		17 05 58.0	
	comp=N,3μm,0.5s						
ZEYE	Izmir, Urla-Ze	0.48	330	P	Pg	17 05 52.5	-0.1
ZEYE				S	Sg	17 05 59.4	+0.4
ZEYE				IAML		17 06 00.0	
	comp=N,7μm,0.4s						
ZEYE				IAML		17 06 00.0	
	comp=E,2μm,0.2s						
DDIM	Aydin, Didim	0.50	137	P	Pg	17 05 53.4	+0.6
DDIM				S	Sb	17 06 01.0	-0.1
DDIM				IAML		17 06 01.0	
	comp=E,3μm,0.3s						
DDIM				IAML		17 06 02.0	
	comp=N,3μm,0.6s						
DIDI	Didim-Aydin	0.56	142	Pg	Pg	17 05 54.3	+0.4
DIDI				AML	AML		
BLCB	Balcova	0.59	18	P	Pg	17 05 54.5	-0.1
BLCB				S	Sg	17 06 02.5	0.0
BLCB	Balcova	0.59	18	Pg	Pg	17 05 54.5	-0.1
BLCB				AML	AML		
DUVT	Torbali	0.64	51	P	Pg	17 05 55.2	-0.3
DUVT				S	Sg	17 06 02.7	-1.3
DUVT				IAML		17 06 08.0	
	comp=E,4μm,0.5s						
CESE	eme	0.65	322	Pg	Pb	17 05 56.5	0.0
CESE				AML	AML		
DAGE	izmir	0.76	76	P	Pg	17 05 57.9	+0.1
DAGE				S	Sg	17 06 05.6	-2.3
DAGE				IAML		17 06 10.0	
	comp=E,1μm,0.3s						
YKAV	Yalikavak-Bodr	0.79	152	Pg	Pg	17 05 58.8	+0.5
YKAV				AML	AML		
KRBN	Karaburun	0.80	345	Pg	Pg	17 05 58.9	+0.4
KRBN				AML	AML		
CHOS	Chios island	0.82	314	P	Pg	17 05 58.7	-0.2
CHOS				S	Sb	17 06 10.8	+0.3
CHOS				AML	AML		
CHOS	Chios island	0.82	314	Pg	Pg	17 05 58.9	-0.1
CHOS				AML	AML		
BAGT	Foa	0.83	2	P	Pg	17 05 58.8	-0.4
BAGT				S	Sg	17 06 10.6	+0.6
BAGT				IAML		17 06 13.0	
	comp=E,3μm,0.8s						
BAGT				IAML		17 06 13.0	
	comp=N,4μm,0.7s						
BODT	Bodrum	0.85	152	P	Pg	17 05 59.5	0.0
BODT				S	Sb	17 06 11.7	+0.3
BODT				AML	AML		
BODT	Bodrum	0.85	152	Pg	Pg	17 05 59.8	+0.3
BODT				AML	AML		
AYDN	Tasoluk	0.86	100	P	Pg	17 05 59.7	0.0
AYDN				S	Sg	17 06 10.7	-0.2
AYDN				IAML		17 06 15.0	
	comp=N,1μm,0.4s						
AYDN				IAML		17 06 15.0	
	comp=E,2μm,0.3s						
AYDB	Zeytinkoy-Aydi	0.86	81	Pg	Pg	17 05 59.7	0.0
AYDB				AML	AML		
KLNA	Kalymnos	0.87	172	P	Pb	17 06 00.5	+0.3
KLNA				S	Sb	17 06 13.4	+1.6
FOCM	Foa	0.89	356	Pg	Pg	17 06 00.6	+0.3
FOCM				AML	AML		
KARB	zmir-Karabur	0.90	340	P	Pg	17 05 59.8	-0.6
KARB				S	Sg	17 06 11.7	-0.4
KARB				IAML		17 06 15.0	
	comp=N,2μm,0.6s						
KARB				IAML		17 06 16.0	
	comp=E,2μm,0.4s						
BDRM	Kayabasi	0.91	146	P	Pb	17 06 01.3	+0.5
BDRM				S	Sb	17 06 13.3	+0.5
BDRM				IAML		17 06 16.0	
	comp=E,2μm,0.4s						
BDRM				IAML		17 06 17.0	
	comp=N,3μm,0.7s						
MLSB	Milas	0.93	124	Pg	Pg	17 06 01.0	+0.1
MLSB				AML	AML		
IZMR	zmir-demi	0.95	70	P	Pg	17 06 01.0	-0.4
IZMR				P	Pb	17 06 01.9	+0.3
IZMR				S	Sg	17 06 12.4	-1.5
IZMR				IAML		17 06 15.0	
	comp=N,523nm,0.8s						
IZMR				IAML		17 06 17.0	
	comp=E,596nm,0.5s						
CAMT	Merkez	1.01	23	P	Pg	17 06 02.6	+0.2
CAMT				S	Sb	17 06 16.4	+0.6
CAMT				IAML		17 06 18.0	
	comp=N,4μm,0.5s						
CAMT				IAML		17 06 19.0	
	comp=E,4μm,0.6s						
ZEDA	zmir-Bergama	1.16	10	P	Pg	17 06 04.5	-0.9
ZEDA				S	Sg	17 06 19.6	-1.0
ZEDA				IAML		17 06 23.0	
	comp=E,1μm,0.9s						
ZEDA				IAML		17 06 28.0	
	comp=N,879nm,0.6s						
NAZL	Nazilli-Aydin	1.18	83	Pn	Pg	17 06 05.6	-0.1
NAZL				AML	AML		
ESEN	Aydn-Nazilli	1.22	91	P	Pg	17 06 05.7	-0.8
ESEN				S	Sg	17 06 22.2	0.0
ESEN				IAML		17 06 25.0	
	comp=N,246nm,0.3s						
ESEN				IAML		17 06 28.0	
	comp=E,290nm,0.4s						
GOMA	Golmarmara-Man	1.24	44	Pn	Pb	17 06 06.9	+0.4
GOMA				AML	AML		
YAZI	Mula-Dat§a-	1.25	156	P	Pb	17 06 06.3	-0.3
YAZI				S	Sb	17 06 23.7	+1.0
YAZI				IAML		17 06 26.0	
	comp=E,277nm,0.4s						
YAZI				IAML		17 06 30.0	
	comp=N,432nm,0.3s						
DAT	Datca	1.25	150	P	Pg	17 06 06.5	-0.6
DAT				S	Sg	17 06 22.4	-0.8
DAT				IAML		17 06 34.0	
	comp=E,374nm,0.8s						
DKL	Dikili	1.25	3	Pn	Pg	17 06 07.2	+0.1
DKL				AML	AML		
APE	Apeiranthos	1.27	234	P	Pn	17 06 06.1	-0.7
APE				AML	AML		
APE	Apeiranthos	1.27	234	P	Pn	17 06 06.1	-0.7
APE				S	Sg	17 06 22.5	-1.3
APE				AML	AML		
KIRA	zmir-Kiraz	1.31	73	P	Pn	17 06 07.9	+0.5
KIRA				S	Sg	17 06 21.6	-3.7
KIRA				IAML		17 06 25.0	
	comp=N,286nm,0.7s						
KIRA				IAML		17 06 31.0	
	comp=E,247nm,0.5s						
AKHS	Akhisar	1.32	36	P	Pn	17 06 07.8	+0.4
AKHS				S	Sn	17 06 25.8	+0.7
AKHS				IAML		17 06 27.0	
	comp=N,1μm,0.6s						
AKS	Akhisar	1.32	36	Pn	Pg	17 06 08.7	+0.3
AKS				AML	AML		
MULA	Mugla, Merkez-	1.32	115	P	Pn	17 06 07.7	+0.1
MULA				S	Sb	17 06 24.1	-0.9
MULA				IAML		17 06 29.0	
	comp=N,278nm,0.5s						
MULA				IAML		17 06 36.0	
	comp=E,400nm,0.6s						
KTTT	Salihli	1.33	49	P	Pn	17 06 08.1	+0.5
KTTT				S	Sb	17 06 24.2	-0.9
KTTT				IAML		17 06 27.0	
	comp=N,1μm,0.6s						
TNSA	Tinos	1.34	258	P	Pn	17 06 07.0	-0.7
TNSA				S	Sb	17 06 23.7	-1.6
TNSA				AML	AML		
YER	Yerkesik	1.35	120	P	Pn	17 06 08.2	+0.2
SOMA	Soma-Manisa	1.45	23	Pn	Pb	17 06 10.4	+0.3
SOMA				AML	AML		
PRK	Paraskevi	1.49	344	P	Pn	17 06 09.4	-0.4
PRK				AML	AML		
PRK	Paraskevi	1.49	344	P	Pn	17 06 09.2	-0.5
PRK				S	Sn	17 06 29.2	0.0
AYVA	Ayvalik	1.49	356	P	Pb	17 06 11.2	+0.5
AYVA				S	Sg	17 06 30.9	-0.1
AYVA				IAML		17 06 33.0	
	comp=E,590nm,0.8s						
AYVA				IAML		17 06 34.0	
	comp=N,684nm,0.4s						
GORD	Gordes-Manisa	1.53	44	Pn	Pb	17 06 11.5	+0.1
GORD				AML	AML		
MANT	Manisa	1.53	64	P	Pg	17 06 12.3	-0.1
MANT				S	Sn	17 06 28.9	-1.7
MANT				IAML		17 06 33.0	
	comp=N,492nm,0.3s						
MANT				IAML		17 06 33.0	
	comp=E,402nm,0.4s						
TURN	Turunc	1.55	132	P	Pn	17 06 10.0	-0.5
TURN				S	Sn	17 06 29.2	-1.4
TURN				IAML		17 06 40.0	
	comp=E,318nm,0.6s						
TURN				IAML		17 06 43.0	
	comp=N,248nm,0.7s						
SULTU	Buldan	1.56	81	P	Pb	17 06 12.6	+0.5
SULTU				S	Sn	17 06 30.7	-0.6
SULTU				IAML		17 06 46.0	
	comp=N,282nm,0.7s						
SULTU				IAML		17 06 49.0	
	comp=E,258nm,0.9s						
HARTU	Esme	1.65	71	P	Pn	17 06 12.5	+0.4
HARTU				S	Sn	17 06 32.4	-0.9
HARTU				IAML		17 06 36.0	
	comp=N,141nm,0.4s						
HARTU				IAML		17 06 43.0	
	comp=E,121nm,0.6s						
BUHA	Balikesir, Bur	1.69	7	P	Pb	17 06 14.0	-0.2
BUHA				S	Sb	17 06 35.9	+0.4
BUHA				IAML		17 06 42.0	
	comp=N,497nm,0.3s						
BUHA				IAML		17 06 43.0	
	comp=E,719nm,0.4s						
TAVA	DENIZLI_Tavas	1.71	101	P	Pn	17 06 13.0	+0.1
TAVA				S	Sg	17 06 37.5	-0.3
TAVA				IAML		17 06 47.0	
	comp=N,138nm,1.1s						
TAVA				IAML		17 06 51.0	
	comp=E,128nm,0.6s						
STEP	BALIKESIR_Sava	1.71	24	P	Pb	17 06 15.1	+0.5
STEP				S	Sn	17 06 35.9	+1.2
STEP				IAML		17 06 41.0	
	comp=N,572nm,0.5s						
STEP				IAML		17 06 46.0	
	comp=E,752nm,0.6s						
DNIZ	Denizli-Tavas-	1.78	96	P	Pn	17 06 14.3	+0.5
DNIZ				S	Sg	17 06 40.5	+0.4
DNIZ				IAML		17 06 47.0	
	comp=N,257nm,0.7s						
DALY	Dalyan (Mula)	1.78	124	P	Pb	17 06 16.5	+0.9
DALY				S	Sg	17 06 40.7	+0.5
DALY				IAML		17 06 50.0	
	comp=N,234nm,1.0s						
DALY				IAML		17 06 52.0	
	comp=E,166nm,0.8s						
THERA	Ancient Thera,	1.80	217	P	Pn	17 06 13.6	-0.4
THERA				AML	AML		
THERA	Ancient Thera,	1.80	217	P	Pn	17 06 13.7	-0.4
THERA				AML	AML		
THR3	Thira Island,	1.81	219	P	Pb	17 06 16.9	+0.8
KARY	Karystos	1.89	277	P	Pn	17 06 15.1	-0.2
KARY	Karystos	1.89	277	P	Pn	17 06 15.0	-0.3
DEMI	Demirci	1.93	50	P	Pg	17 06 20.0	-0.1
DEMI				S	Sn	17 06 41.6	+1.3
DEMI				IAML		17 06 46.0	
	comp=E,302nm,0.4s						
DEMI				IAML		17 06 51.0	
	comp=N,298nm,0.8s						
USAK	Uak-Merkez	1.95	62	P	Pb	17 06 19.7	+1.0
USAK				S	Sn	17 06 42.3	+1.6
USAK				IAML		17 06 52.0	
	comp=N,189nm,1.7s						
USAK				IAML		17 06 53.0	
	comp=E,98nm,0.5s						
SABU	Mula-Dalaman	1.99	119	P	Pn	17 06 17.4	+0.8
SABU				S	Sn	17 06 41.0	-0.5
SABU				IAML		17 06 54.0	
	comp=N,118nm,0.6s						
SABU				IAML		17 06 59.0	
	comp=E,100nm,0.7s						
SKY	Skiros Island	2.07	301	P	Pn	17 06 18.2	+0.5
FETY	Fethiye	2.16	122	P	Pn	17 06 21.1	+2.0
FETY				S	Sb	17 06 49.8	+0.6
PASA	Karahalli, USA	2.18	75	P	Pb	17 06 23.1	+0.6
PASA				S	Sn	17 06 46.4	+0.1
PASA				IAML		17 07 00.0	
	comp=E,67nm,0.8s						
INCE	Denizli-Bozkur	2.19	92	P	Pn	17 06 19.6	+0.1
INCE				S	Sg	17 06 53.1	-0.5
INCE				IAML		17 07 04.0	
	comp=N,93nm,0.9s						
INCE				IAML		17 07 10.0	
	comp=E,78nm,0.9s						
MHLO	Agia Marina, M	2.23	240	P	Pn	17 06 20.1	+0.1
GOLH	Golhisar	2.26	104	P	Pn	17 06 21.8	+1.3
GOLH				S	Sg	17 06 56.4	+0.7
GOLH				IAML		17 07 09.0	
	comp=N,75nm,0.8s						
KARP	Karpathos	2.29	173	P	Pn	17 06 20.8	0.0
DION	Dionisos Attik	2.29	277	P	Pn	17 06 20.7	-0.1
DION				AML	AML		
DION	Dionisos Attik	2.29	277	P	Pn	17 06 20.7	-0.1
DION				AML	AML		
PTL	Penteli	2.34	277	P	Pn	17 06 21.5	0.0
PTL				AML	AML		
VLY	Voula,Athens	2.39	272	P	Pn	17 06 22.2	0.0
VLY				AML	AML		
VLY	Voula,Athens	2.39	272	P	Pn	17 06 22.1	0.0
VLY				AML	AML		
ATHU	Athens Univers	2.40	274	P	Pn	17 06 22.3	0.0
ATHU				AML	AML		
ATHU	Athens Univers	2.40	274	P	Pn	17 06 22.1	-0.2
LIA	Limnos Island	2.43	329	P	Pn	17 06 22.8	0.0
LIA				AML	AML		
LIA	Limnos Island	2.43	329	P	Pn	17 06 22.6	-0.2
LIA				AML	AML		
STFN	Stefani	2.61	279	P	Pn	17 06 25.4	+0.2
STFN				AML	AML		
AOS	Alonnisos	2.67	301	P	Pn	17 06 26.2	+0.3
AOS				AML	AML		
ELL	Elmali	2.69	112	P	Pn	17 06 27.3	+0.9
ZKR	Zakros	2.74	190	P	Pn	17 06 27.4	+0.4
VILL	Villia	2.79	278	P	Pn	17 06 28.2	+0.5
VILL				AML	AML		
VIL2	Platees	2.83	279	P	Pn	17 06 27.9	-0.3
SMTH	Samothraki Isl	2.83	340	P	Pn	17 06 28.0	-0.3
SMTH	Samothraki Isl	2.83	340	P	Pn	17 06 27.7	-0.5
IDI	Anoyia	2.96	212	Pn	Pn	17 06 30.6	+0.5
	0.5nm,0.3s,baz=350,slow=8.8,SNR=9.0						
IDI				Sn	Sn	17 07 04.8	-0.9
	3.5nm,0.3s,baz=302,slow=10,SNR=7.2 6.9nm,0.8s						
IDI				AML	AML		
IDI	Anoyia	2.96	212	P	Pn	17 06 30.3	+0.1
LTK	Loutraki	3.05	275	P	Pn	17 06 31.6	+0.4
ATAL	Atalanti	3.11	287	P	Pn	17 06 32.3	+0.2
ACOR	Acrocorinthos	3.12	272	P	Pn	17 06 32.2	-0.1
VLI	Veliai	3.28	252	P	Pn	17 06 34.1	-0.3
AXAR	Agios Charalam	3.40	287	P	Pn	17 06 36.9	+0.8
ANKY	Antikythira Is	3.42	236	P	Pn	17 06 36.1	-0.3
GUR	Goura	3.54	273	P	Pn	17 06 38.2	+0.2
KLV	Kalavryta, Ach	3.69	275	P	Pn	17 06 40.5	+0.4
LAKA	Lakka	3.84	278	P	Pn	17 06 42.2	0.0
EFP	Efpalio	3.92	280	P	Pn	17 06 43.4	+0.2
ANX	Ano Chora	3.93	283	P	Pn	17 06 43.6	+0.2
DRO	Drossia	4.04	273	P	Pn	17 06 45.1	+0.2
BRTR	Keskin Array B	5.66	68	Pn	Pn	17 07 08.0	+0.7
	0.5nm,0.2s,baz=246,slow=14,SNR=9.5						
MMAI	Mount Meron Ar	8.49	122	Pn	Pn	17 07 44.9	-1.1
	0.7nm,0.3s,baz=316,slow=14,SNR=6.4						
MMAI				Sn	Sn	17 09 16.9	-5.1
	1.8nm,0.3s,baz~309,slow=30,SNR=1.7						
TORD	Torodi Ar. Bea	33.23	229	P	P	17 12 19.8	-0.5
	0.8nm,0.6s,baz=31,slow=9.7,SNR=4.0 0.8nm,0.6s						
MKAR	Makanchi Array	41.23	59	P	P	17 13 29.2	+1.2
	0.3nm,0.7s,baz=289,slow=7.4,SNR=4.0 0.3nm,0.7s						
CMAR	Chiang Mai Arr	64.99	85	P	P	17 16 23.3	0.0
	0.5nm,0.7s,baz=298,slow=7.7,SNR=5.5 0.5nm,0.7s						

*IDC **02** 17:09:42.2±0.9,22.83N×93.10E,h0km,mb3.5/5, mbtmp3.4/6,ML3.4/1,Error ellipse: s-maj=23.1km s-min=15.5km az=29.0*
ISC 02 17:09:45.7±2.2,23.02N±0.06×92.91E±0.06,h24km±18km, n15,σ2s48/22,mb3.5/5,India-Bangladesh border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AZL	Aizawl	0.75	345	*i* P	Pn	17 10 04.4	+3.5
AZL				*i* S	Sn	17 10 14.2	+2.7
AZL				IAML		17 10 22.4	
	comp=N,617nm,0.4s						
BRDH	Bariadhala	1.21	254	Pg	Pn	17 10 08.7	+1.6
	comp=N,39nm,0.3s,baz=257,slow=23,SNR=4.1						
BRDH				Lg	Lg	17 10 30.9	
	comp=N,154nm,0.3s,baz=298,slow=22,SNR=20						
AGT	Agartala	1.75	300	*i* P	Pn	17 10 16.4	+1.8
AGT				*i* S	Sn	17 10 35.3	-0.9
AGT				IAML		17 11 10.9	
	comp=N,577nm,0.3s						
SILR	SILCHAR	1.76	357	*i* P	Pn	17 10 15.9	+1.2
SILR				*i* S	Sn	17 10 34.2	-2.1
SILR				AMP		17 10 58.1	
	comp=N,5μm,0.7s						
IMP	Imphal	2.04	28	*i* P	Pb	17 10 21.4	-0.7
IMP				*i* S	Sn	17 10 43.8	+0.4
SHL	Shillong	2.71	340	*i* P	Pn	17 10 26.4	-1.5
SHL				*i* S	Sn	17 10 55.1	-4.8
TEZP	TEZPUR	3.59	358	*i* P	Pn	17 10 39.2	-0.7
TEZP				*i* S	Sn	17 11 16.3	-5.1
MOKO	MOKOCHONG	3.60	24	*i* P	Pn	17 10 42.2	+2.1
MOKO				*i* S	Sn	17 11 21.9	-0.1
DHUB	DHUBRI	4.00	319	*i* P	Pn	17 10 45.5	0.0
CMAR	Chiang Mai Arr	7.24	128	Pn	Pn	17 11 28.4	-1.7
	comp=N,0.2nm,0.3s,baz=302,slow=13,SNR=6.1 comp=N,0.4nm,0.4s						
CMAR				AML	AML		
MKAR	Makanchi Array	25.22	343	P	P	17 15 12.4	+2.8
	comp=N,0.9nm,0.7s,baz=158,slow=10,SNR=7.7 comp=N,0.9nm,0.7s						
SONM	Songino Array	27.01	20	P	P	17 15 26.9	+1.0
	comp=N,0.3nm,0.6s,baz=194,slow=10,SNR=1.9 comp=N,0.3nm,0.6s						
ZALV	Zalesovo Beam	31.49	351	P	P	17 16 07.3	+1.9
	comp=N,0.4nm,0.5s,baz=155,slow=14,SNR=2.0 comp=N,0.4nm,0.5s						
WRA	Warramunga Arr	58.80	133	P	P	17 19 40.5	-1.8
	comp=N,0.2nm,0.5s,baz=320,slow=7.4,SNR=9.6 comp=N,0.2nm,0.5s						
ASAR	Alice Springs	61.16	137	P	P	17 19 56.8	-1.7
	comp=N,0.4nm,0.6s,baz=317,slow=6.8,SNR=16 comp=N,0.4nm,0.6s						

*HLW **02** 17:13:37.5,28.70N×34.87E,h5km±1km,Ml3.1*
*GII **02** 17:13:39.9±0.0,28.847N±0.003×34.818E±0.001, h0km,Mws3.0,confirmed*
ISC 02 17:13:39.1±1.5,28.76N±0.05×34.74E±0.08,h11km±9km, n19,σ0s87/26,Egypt

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HDHB	Dhahab	0.11	249	P	Pg	17 13 42.8	+0.8
NUB	Nuweibaa	0.28	343	P	Pg	17 13 43.9	-0.9
HBST	Basata	0.45	359	P	Pg	17 13 48.1	+0.1
HKAT	Jabal Katrina	0.70	250	PG	Pg	17 13 52.2	-0.4
EIL	Elat	0.92	11	P	Pg	17 13 56.1	-0.8
EIL				S	Sb	17 14 09.3	-0.2
TR1	Tor 1	1.02	223	PN	Pg	17 13 58.1	-0.7
YTVT	Yotvata	1.16	14	P	Pg	17 14 00.3	-1.1
YTVT				S	Sn	17 14 16.9	-0.3
HRDS	Abu Rudays	1.27	268	PN	Pn	17 14 02.5	-0.3
HRFI	Mount Harif	1.29	11	P	Pg	17 14 02.6	-1.4
HRFI				S	Sg	17 14 19.7	-1.1
ZNM	Zenema	1.74	291	PN	Pn	17 14 09.8	+0.4
ZFRI	Zfri	1.82	12	P	Pn	17 14 11.5	+1.0
ZFRI				S	Sn	17 14 34.6	+1.0
RMNI	Mount Ramon	1.83	1	P	Pn	17 14 11.7	+1.1
RMNI				S	Sn	17 14 35.0	+1.2
HHNG	Al Ghardaqah	1.85	214	PN	Pn	17 14 10.7	-0.2
SUZ	Suez	1.98	303	PN	Pn	17 14 12.8	+0.2
ZAF	Zafarana	1.99	286	⇑PN	Pn	17 14 12.1	-0.6
IDAN	Idan	2.11	13	P	Pn	17 14 15.0	+0.5
IDAN				S	Sn	17 14 41.9	+1.1
KZIT	Kziot	2.16	352	P	Pn	17 14 15.8	+0.8
KZIT				S	Sb	17 14 45.5	+0.5
MSBI	Mazada	2.60	12	P	Pn	17 14 21.2	+0.2
GHAJ	Ghor Haditha	2.63	16	P	Pn	17 14 22.7	+1.1

*GII **02** 17:15:31.9±0.0,28.784N±0.003×34.86E,h0km,Mws2.6, confirmed*
*SGS **02** 17:15:32.8,28.79N×34.75E,h14km,Ml1.7*
*HLW **02** 17:15:32.1,28.76N×34.77E,h4km±2km,Ml2.5*
ISC 02 17:15:32.5±1.1,28.77N±0.02×34.75E±0.03,h12km±9km, n28,σ0s82/44,Egypt

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HDHB	Dhahab	0.13	247	P	Pg	17 15 35.9	+0.1
NUB	Nuweibaa	0.27	340	P	Pg	17 15 37.0	-1.2
HAQS	Haql	0.31	28	P	Pg	17 15 38.9	-0.1
HAQS				S	Sb	17 15 43.7	-1.4
HBST	Basata	0.44	358	P	Pg	17 15 41.2	-0.1
BDAS	Al Bad`	0.46	138	P	Pg	17 15 41.8	+0.2
BDAS				S	Sb	17 15 48.6	-0.7
RSHS		0.47	175	P	Pg	17 15 42.2	+0.3
RSHS				S	Sb	17 15 49.5	-0.2
HQLS		0.59	27	P	Pg	17 15 43.7	-0.5
HQLS				S	Sb	17 15 52.4	-0.8
JLOS		0.65	93	P	Pg	17 15 44.8	-0.5
JLOS				S	Sb	17 15 54.2	-0.7
HKAT	Jabal Katrina	0.71	250	P	Pg	17 15 46.0	-0.5

HKAT				S	Sg	17 15 55.5	-0.3	
AYUS	**`Aynunah**	**0.74**	**142**	P	Pg	17 15 46.7	-0.2	
AYUS				S	Sb	17 15 57.3	-0.1	
KRABS	**KRABS**	**0.80**	**146**	P	Pg	17 15 47.8	-0.3	
KRABS				S	Sb	17 15 59.2	0.0	
EIL	**Elat**	**0.91**	**11**	P	Pg	17 15 49.8	-0.4	
EIL				AML	AML			
EIL				AML	AML			
EIL	**Elat**	**0.91**	**11**	P	Pg	17 15 49.3	-0.8	
EIL				S	Sb	17 16 02.5	+0.2	
TR2	**Tor 2**	**0.98**	**247**	P	Pg	17 15 50.8	-0.8	
AQBJ	**Aqaba**	**0.99**	**15**	P	Pg	17 15 50.7	-0.9	
AQBJ				S	Sb	17 16 04.8	+0.3	
AQBJ				AML	AML			
AQBJ				AML	AML			
TR1	**Tor 1**	**1.04**	**223**	P	Pg	17 15 51.8	-0.8	
YTVT	**Yotvata**	**1.15**	**13**	P	Pg	17 15 54.0	-0.6	
YTVT				S	Sb	17 16 10.0	+0.9	
MWLHS	**Almuwaylih**	**1.22**	**146**	P	Pg	17 15 54.3	-1.8	
HRDS	**Abu Rudays**	**1.28**	**268**	P	Pg	17 15 56.1	-1.1	
HRFI	**Mount Harif**	**1.28**	**11**	P	Pg	17 15 55.7	-1.5	
HRFI				S	Sb	17 16 13.8	+0.7	
HRFI				AML	AML			
HRFI				AML	AML			
HRFI	**Mount Harif**	**1.28**	**11**	P	Pg	17 15 56.0	-1.3	
HRFI				S	Sb	17 16 13.8	+0.7	
PRNI	**Paran**	**1.59**	**8**	P	Pn	17 16 01.1	+0.6	
PRNI				AML	AML			
PRNI				AML	AML			
HSNJ	**Maan**	**1.69**	**29**	P	Pn	17 16 02.8	+0.9	
HSNJ				AML	AML			
HSNJ				AML	AML			
ZFRI	**Zfri**	**1.81**	**12**	P	Pn	17 16 04.3	+0.8	
ZFRI				S	Sb	17 16 28.2	-0.1	
RMNI	**Mount Ramon**	**1.82**	**0**	P	Pn	17 16 04.5	+0.8	
RMNI				S	Sb	17 16 28.7	+0.2	
SUZ	**Suez**	**1.99**	**303**	P	Pn	17 16 06.5	+0.6	
KZIT	**Kziot**	**2.15**	**352**	P	Pn	17 16 09.9	+1.7	
KZIT				AML	AML			
KZIT				AML	AML			
KZIT	**Kziot**	**2.15**	**352**	P	Pn	17 16 09.0	+0.8	
KZIT				S	Sb	17 16 38.7	+0.7	

IDC ***02*** *17:21:24.0±2.0, 22°.66S×171°.53E, h0km, mb3.6/5, mbtmp3.6/6, ML3.6/1, MS2.3/1, Error ellipse: s-maj=87.1km s-min=22.8km az=174.0*

ISC 02 17:21:38.2±1.9, 22°.5S±0°.6×171°.0E±0°.1, h100km, n7, σ2.9 39/7, mb3.6/5, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**4.20**	**274**	Pn		**Pn**	**17 22 37.6**	**-2.5**
	2.8nm,0.3s,baz=129,slow=13,SNR=93							
DZM				Sn		**Sn**	**17 23 28.2**	**0.0**
	2.4nm,0.3s,baz=257,slow=20,SNR=3.6 5.5nm,0.3s							
DZM				AML		AML		
RPZ	**Rata Peaks**	**21.20**	**180**	LR		LR	17 32 15.3	
	comp=Z,7.8nm,18.5s,baz=281,slow=31							
ASAR	**Alice Springs**	**34.05**	**261**	P		**P**	**17 28 14.0**	**+0.9**
	0.8nm,0.8s,baz=85,slow=9.2,SNR=7.1 0.8nm,0.8s							
WRA	**Warramunga Arr**	**34.18**	**267**	P		**P**	**17 28 14.6**	**+0.4**
	0.2nm,0.4s,baz=98,slow=8.1,SNR=2.1 0.2nm,0.4s							
CMAR	**Chiang Mai Arr**	**81.28**	**294**	P		**P**	**17 33 46.0**	**+2.3**
	0.4nm,0.5s,baz=124,slow=3.7,SNR=4.9 0.4nm,0.5s							
NVAR	**Mina Array Bea**	**89.74**	**48**	P		**P**	**17 34 23.0**	**-2.6**
	0.2nm,0.4s,baz=246,slow=6.9,SNR=2.1 0.2nm,0.4s							
SONM	**Songino Array**	**90.74**	**323**	P		**P**	**17 34 31.9**	**+2.0**
	0.2nm,0.3s,baz=113,slow=3.7,SNR=2.1 0.2nm,0.3s							

IDC 02 17:25:16.6±1.6, 27°.48N×103°.97E, h0km, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=350.6km s-min=29.1km az=55.0, Yunnan

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**25.74**	**324**	P		P	17 30 48.8	0.0
	0.3nm,0.6s,baz=128,slow=9.3,SNR=2.3 0.3nm,0.6s							
WRA	**Warramunga Arr**	**55.57**	**145**	P		P	17 34 53.5	-0.6
	0.2nm,0.6s,baz=336,slow=7.4,SNR=8.2 0.2nm,0.6s							
ASAR	**Alice Springs**	**58.49**	**148**	P		P	17 35 15.1	+0.3
	0.2nm,0.4s,baz=328,slow=7.0,SNR=16 0.2nm,0.4s							

ATH ***02*** *17:30:29.9, 37°.76N×27°.11E, h12km±3km, ML3.1/3, Latitude uncertainty: 2 km; Longitude uncertainty: 4 km*
AFAD ***02*** *17:30:30.8, 37°.72N×27°.02E, h10km±3km, ML2.4*
ISK ***02*** *17:30:30.7, 37°.72N×27°.01E, h8km, ML2.5/18*
THE ***02*** *17:30:31.1, 38°.N×17°×2°.7E×2°.0, h7km±19km, MLh2.6/3*

ISC 02 17:30:31.0±0.8, 37°.72N±0°.02×27°.01E±0°.02, h14km±6km, n59, σ0.58/95, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.18**	**95**	P		**Pg**	**17 30 35.0**	**-0.2**
GCAM				IAML			17 30 38.0	
	comp=E,2μm,0.2s							
GCAM				S		**Sg**	**17 30 38.1**	**+0.1**
GCAM				IAML			17 30 39.0	
	comp=N,2μm,0.3s							
GCAM	**G?zelcaml?**	**0.18**	**95**	Pg		**Pg**	**17 30 34.9**	**-0.2**
GCAM				Sg		**Sg**	**17 30 38.1**	**+0.1**
GCAM				AML		AML		
KRL1	**Karlovasi Samo**	**0.25**	**288**	P		**Pg**	**17 30 36.4**	**0.0**
KRL1				S		**Sg**	**17 30 40.6**	**+0.6**
KRL1				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**57**	Pg		**Pg**	**17 30 36.3**	**-0.3**
KUSD				Sg		**Sg**	**17 30 40.5**	**+0.1**
KUSD				AML		AML		
DDIM	**Aydin, Didim**	**0.32**	**144**	P		**Pg**	**17 30 37.8**	**+0.2**
DDIM				S		**Sb**	**17 30 42.7**	**-0.8**
DDIM				IAML			17 30 43.0	
	comp=E,670nm,0.2s							
DDIM				IAML			17 30 43.0	
	comp=N,507nm,0.4s							
DGB	**zmir**	**0.35**	**343**	P		**Pg**	**17 30 38.0**	**-0.2**
DGB				S		**Sg**	**17 30 42.4**	**-0.6**
DGB				IAML			17 30 43.0	
	comp=N,733nm,0.3s							
DGB				IAML			17 30 43.0	
	comp=E,679nm,0.2s							
GMLD	**Gumuldur**	**0.37**	**348**	Pg		**Pb**	**17 30 38.9**	**-0.4**
GMLD				Sg		**Sb**	**17 30 44.1**	**-0.8**
GMLD				AML		AML		
BEYE	**izmir**	**0.52**	**353**	P		**Pg**	**17 30 41.1**	**-0.1**
BEYE				S		**Sg**	**17 30 48.2**	**+0.1**
BEYE				IAML			17 30 52.0	
	comp=E,428nm,0.2s							
BEYE				IAML			17 30 52.0	
	comp=N,516nm,0.2s							
DUVT	**Torbali**	**0.61**	**34**	P		**Pg**	**17 30 42.6**	**-0.4**
DUVT				S		**Sg**	**17 30 50.7**	**-0.4**
DUVT				IAML			17 30 55.0	
	comp=E,234nm,0.4s							
YKAV	**Yalikavak-Bodr**	**0.63**	**160**	Pg		**Pg**	**17 30 43.1**	**-0.2**
YKAV				Sg		**Sb**	**17 30 52.7**	**+0.3**
YKAV				AML		AML		
DAGE	**izmir**	**0.65**	**64**	P		**Pb**	**17 30 44.6**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.66**	**323**	P		**Pg**	**17 30 43.5**	**-0.3**
ZEYE				S		**Sb**	**17 30 52.9**	**-0.4**
ZEYE				IAML			17 30 55.0	
	comp=N,481nm,0.3s							
ZEYE				IAML			17 30 57.0	
	comp=E,380nm,0.2s							
BLCB	**Balcova**	**0.67**	**2**	P		**Pg**	**17 30 43.7**	**-0.4**
BLCB				S		**Sg**	**17 30 52.8**	**-0.1**
BLCB	**Balcova**	**0.67**	**2**	Pg		**Pg**	**17 30 43.8**	**-0.3**
BLCB				AML		AML		
AYDN	**Tasoluk**	**0.69**	**94**	P		**Pg**	**17 30 44.3**	**-0.2**
AYDN				S		**Sg**	**17 30 52.4**	**-1.2**
AYDN				IAML			17 30 58.0	
	comp=N,263nm,0.2s							
AYDN				IAML			17 30 58.0	
	comp=E,378nm,0.3s							
BODT	**Bodrum**	**0.69**	**160**	P		**Pg**	**17 30 44.4**	**-0.1**
BODT				S		**Sb**	**17 30 54.6**	**+0.2**
BODT				AML		AML		
BODT	**Bodrum**	**0.69**	**160**	Pg		**Pg**	**17 30 44.4**	**-0.1**
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**71**	Pg		**Pb**	**17 30 46.1**	**+0.4**
AYDB				AML		AML		
BDRM	**Kayabasi**	**0.74**	**152**	P		**Pg**	**17 30 45.0**	**-0.3**
BDRM				S		**Sg**	**17 30 55.0**	**0.0**
BDRM				IAML			17 30 57.0	
	comp=E,214nm,0.3s							
BDRM				IAML			17 30 59.0	
	comp=N,377nm,0.7s							
MLSB	**Milas**	**0.74**	**124**	Pg		**Pg**	**17 30 45.0**	**-0.4**
MLSB				AML		AML		
KLNA	**Kalymnos**	**0.76**	**182**	P		**Pg**	**17 30 45.1**	**-0.6**
KLNA				S		**Sb**	**17 30 56.1**	**0.0**
KLNA				AML		AML		
CESE	**eme**	**0.83**	**318**	Pg		**Pb**	**17 30 47.2**	**0.0**
CESE				AML		AML		
IZMR	**zmir-demi**	**0.86**	**60**	P		**Pn**	**17 30 48.2**	**-0.4**
IZMR				S		**Sg**	**17 30 57.2**	**-1.6**
IZMR				IAML			17 31 00.0	
	comp=E,90nm,0.4s							
IZMR				IAML			17 31 00.0	
	comp=N,106nm,0.5s							
BAGT	**Foa**	**0.95**	**353**	P		**Pb**	**17 30 49.4**	**+0.2**
BAGT				S		**Sb**	**17 31 02.1**	**+0.5**
BAGT				IAML			17 31 03.0	
	comp=E,294nm,0.6s							
BAGT				IAML			17 31 05.0	
	comp=N,342nm,0.6s							
KRBN	**Karaburun**	**0.95**	**338**	Pg		**Pn**	**17 30 49.8**	**-0.1**
KRBN				AML		AML		
CHOS	**Chios island**	**1.01**	**312**	P		**Pg**	**17 30 50.2**	**-0.3**
CHOS				S		**Sn**	**17 31 04.9**	**0.0**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**312**	Pg		**Pg**	**17 30 50.2**	**-0.3**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**312**	P		**Pg**	**17 30 50.0**	**-0.5**
CHOS				S		**Sb**	**17 31 04.0**	**+0.6**
CHOS				AML		AML		
FOCM	**Foa**	**1.02**	**348**	Pg		**Pb**	**17 30 50.7**	**+0.3**
FOCM				AML		AML		
NAZL	**Nazilli-Aydin**	**1.05**	**76**	Pg		**Pn**	**17 30 51.6**	**+0.3**
NAZL				AML		AML		
KARB	**zmir-Karabur**	**1.06**	**334**	P		**Pn**	**17 30 52.4**	**+1.0**
KARB				S		**Sb**	**17 31 05.5**	**+0.8**
KARB				IAML			17 31 08.0	
	comp=N,147nm,0.5s							
KARB				IAML			17 31 09.0	
	comp=E,214nm,0.5s							
CAMT	**Merkez**	**1.06**	**13**	P		**Pb**	**17 30 51.2**	**0.0**
CAMT				S		**Sn**	**17 31 07.8**	**+1.8**
CAMT				IAML			17 31 11.0	
	comp=N,259nm,0.8s							
CAMT				IAML			17 31 12.0	
	comp=E,221nm,0.4s							
ESEN	**Aydn-Nazilli**	**1.06**	**85**	P		**Pb**	**17 30 51.2**	**+0.1**
ESEN				S		**Sg**	**17 31 03.7**	**-1.7**
ESEN				IAML			17 31 08.0	
	comp=N,89nm,0.5s							
ESEN				IAML			17 31 09.0	
	comp=E,106nm,0.3s							
DAT	**Datca**	**1.08**	**155**	P		**Pn**	**17 30 52.7**	**+0.8**
DAT				S		**Sn**	**17 31 06.9**	**+0.2**
DAT				IAML			17 31 10.0	
	comp=E,68nm,0.3s							
EAG2	**Marmaro, Chios**	**1.09**	**320**	P		**Pb**	**17 30 50.5**	**-1.2**
EAG2				S		**Sb**	**17 31 06.3**	**+0.6**
YAZI	**Mula-Dat§a-**	**1.09**	**161**	P		**Pn**	**17 30 53.1**	**+1.2**
YAZI				S		**Sg**	**17 31 06.1**	**-0.2**
YAZI				IAML			17 31 11.0	
	comp=N,57nm,0.4s							
YAZI				IAML			17 31 13.0	
	comp=E,58nm,0.5s							
MULA	**Mugla, Merkez-**	**1.14**	**113**	P		**Pn**	**17 30 53.2**	**+0.5**
MULA				S		**Sb**	**17 31 07.2**	**-0.1**
MULA				IAML			17 31 11.0	
	comp=N,93nm,0.6s							
MULA				IAML			17 31 12.0	
	comp=E,102nm,0.4s							
YER	**Yerkesik**	**1.17**	**119**	P		**Pn**	**17 30 53.1**	**+0.1**
KIRA	**zmir-Kiraz**	**1.20**	**66**	P		**Pg**	**17 30 54.6**	**+0.4**
KIRA				S		**Sn**	**17 31 09.5**	**-0.1**
KIRA				IAML			17 31 12.0	
	comp=N,121nm,0.5s							
KIRA				IAML			17 31 13.0	
	comp=E,68nm,0.8s							
GOMA	**Golmarmara-Man**	**1.22**	**36**	Pn		**Pg**	**17 30 54.4**	**-0.1**
GOMA				AML		AML		
KTTT	**Salihli**	**1.29**	**41**	P		**Pn**	**17 30 54.8**	**+0.1**
KTTT				S		**Sg**	**17 31 12.1**	**-0.7**
KTTT				IAML			17 31 17.0	
	comp=N,41nm,0.5s							
AKS	**Akhisar**	**1.32**	**28**	Pn		**Pg**	**17 30 55.9**	**-0.6**
AKS				AML		AML		
APE	**Apeiranthos**	**1.34**	**242**	P		**Pn**	**17 30 55.4**	**0.0**
APE	**Apeiranthos**	**1.34**	**242**	P		**Pn**	**17 30 55.0**	**-0.4**
DKL	**Dikili**	**1.36**	**357**	Pn		**Pg**	**17 30 56.5**	**-0.6**
DKL				AML		AML		
DKL	**Dikili**	**1.36**	**357**	P		**Pn**	**17 30 55.3**	**-0.2**
TURN	**Turunc**	**1.36**	**133**	P		**Pn**	**17 30 55.5**	**-0.1**
TURN				S		**Sb**	**17 31 12.2**	**-1.2**
TURN				IAML			17 31 22.0	
	comp=N,36nm,0.3s							
TURN				IAML			17 31 23.0	
	comp=E,41nm,0.5s							
SULTU	**Buldan**	**1.43**	**76**	P		**Pg**	**17 30 58.5**	**0.0**
SULTU				S		**Sn**	**17 31 15.4**	**0.0**
SULTU				IAML			17 31 20.0	
	comp=E,59nm,0.6s							
SULTU				IAML			17 31 23.0	
	comp=N,84nm,0.8s							
SOMA	**Soma-Manisa**	**1.50**	**16**	Pn		**Pb**	**17 30 58.8**	**+0.2**
GORD	**Gordes-Manisa**	**1.50**	**37**	Pn		**Pn**	**17 30 58.1**	**+0.5**
GORD				AML		AML		
DALY	**Dalyan (Mula)**	**1.59**	**124**	P		**Pg**	**17 31 01.6**	**+0.1**
DALY				S		**Sg**	**17 31 22.7**	**+0.5**
DALY				IAML			17 31 30.0	
	comp=N,36nm,0.4s							
DALY				IAML			17 31 40.0	
	comp=E,18nm,0.6s							
DNIZ	**Denizli-Tavas-**	**1.61**	**93**	P		**Pb**	**17 31 01.0**	**+0.4**
DNIZ				S		**Sg**	**17 31 21.9**	**-1.1**
DNIZ				IAML			17 31 27.0	
	comp=N,114nm,0.4s							
DNIZ				IAML			17 31 28.0	
	comp=E,129nm,0.3s							
STEP	**BALIKESIR_Sava**	**1.75**	**18**	P		**Pb**	**17 31 03.5**	**+0.5**
STEP				S		**Sg**	**17 31 26.7**	**-0.6**
STEP				IAML			17 31 37.0	
	comp=N,43nm,0.5s							
STEP				IAML			17 31 40.0	
	comp=E,42nm,0.3s							
SABU	**Mula-Dalaman**	**1.80**	**119**	P		**Pb**	**17 31 02.9**	**-0.9**
SABU				S		**Sb**	**17 31 26.6**	**+0.4**
SABU				IAML			17 31 34.0	
	comp=E,16nm,1.2s							
SABU				IAML			17 31 36.0	
	comp=N,22nm,0.8s							
THERA	**Ancient Thera,**	**1.82**	**223**	P		**Pn**	**17 31 02.4**	**+0.5**
USAK	**Uak-Merkez**	**1.87**	**57**	P		**Pb**	**17 31 05.6**	**+0.6**
USAK				IAML			17 31 28.0	
	comp=N,12nm,1.2s							
USAK				S		**Sb**	**17 31 29.2**	**+1.0**
USAK				IAML			17 31 35.0	
	comp=E,13nm,0.9s							
KARY	**Karystos**	**2.06**	**280**	P		**Pn**	**17 31 05.2**	**0.0**
DION	**Dionisos Attik**	**2.46**	**279**	P		**Pn**	**17 31 10.9**	**+0.2**
VLY	**Voula,Athens**	**2.55**	**274**	P		**Pn**	**17 31 12.1**	**+0.2**

ISK ***02*** *17:56:23.9, 37°.50N×30°.41E, h5km, ML2.9/13*
AFAD ***02*** *17:56:24.5, 37°.51N×30°.39E, h7km±1km, ML2.5*
IDC ***02*** *17:56:32.8±1.5, 37°.48N×31°.80E, h0km, mb3.4/3, mbtmp3.3/6, ML3.0/3, MS3.2/1, Error ellipse: s-maj=28.5km s-min=14.1km az=107.0*

ISC 02 17:56:24.9±1.1, 37°.52N±0°.02×30°.41E±0°.03, h6km±9km, n31, σ0.63/38, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
BCK	**Bucak**	**0.15**	**111**	Pg		**Pg**	**17 56 27.8**	**-0.3**
BCK				Sg		**Sg**	**17 56 30.2**	**0.0**
BCK				AML		AML		
BUCA	**Burdur, Bucak-**	**0.22**	**147**	P		**Pg**	**17 56 28.8**	**-0.6**
BUCA				S		**Sg**	**17 56 33.2**	**+0.9**
BUCA				IAML			17 56 35.0	
	comp=N,1μm,0.3s							
BUCA				IAML			17 56 36.0	
	comp=E,2μm,0.4s							
ISP	**Isparta**	**0.32**	**17**	Pg		**Pg**	**17 56 31.6**	**+0.4**
ISP				Sg		**Sb**	**17 56 37.2**	**-1.4**
ISP				AML		AML		
BRDR	**BURDUR-Merkez**	**0.33**	**303**	P		**Pg**	**17 56 31.3**	**0.0**
BRDR				S		**Sb**	**17 56 37.9**	**-0.9**
BRDR				IAML			17 56 38.0	
	comp=N,1μm,0.6s							
BRDR				IAML			17 56 38.0	
	comp=E,1μm,0.7s							
BASM	**Basmaki-Afyon**	**0.49**	**325**	Pg		**Pg**	**17 56 34.4**	**0.0**
BASM				Sg		**Sb**	**17 56 43.2**	**-0.3**
BASM				AML		AML		
KORT	**Korkueli**	**0.52**	**185**	P		**Pg**	**17 56 34.5**	**-0.4**
KORT				S		**Sb**	**17 56 44.0**	**-0.2**
KORT				IAML			17 56 46.0	
	comp=E,986nm,0.5s							
KORT				IAML			17 56 47.0	
	comp=N,640nm,0.4s							
KORT	**Korkueli**	**0.52**	**185**	Pg		**Pg**	**17 56 34.7**	**-0.2**
KORT				AML		AML		
BAGO	**Egridir - ISPA**	**0.56**	**32**	P		**Pg**	**17 56 35.5**	**-0.3**
BAGO				S		**Sb**	**17 56 45.7**	**+0.1**
BAGO				IAML			17 56 48.0	
	comp=E,278nm,0.4s							
BAGO				IAML			17 56 51.0	
	comp=N,186nm,0.5s							
ANTB	**Antalya**	**0.65**	**162**	Pg		**Pg**	**17 56 37.2**	**-0.1**
ANTB				AML		AML		
INCE	**Denizli-Bozkur**	**0.69**	**287**	P		**Pg**	**17 56 37.5**	**-0.6**
INCE				IAML			17 56 58.0	
	comp=N,213nm,0.5s							
INCE				IAML			17 57 01.0	
	comp=E,204nm,1.0s							
GOLH	**Golhisar**	**0.73**	**248**	P		**Pg**	**17 56 38.5**	**-0.4**
GOLH				IAML			17 56 57.0	
	comp=E,335nm,0.5s							
GOLH				IAML			17 57 02.0	
	comp=N,315nm,0.4s							
KZIL	**AFYON_Kizioren**	**0.77**	**344**	P		**Pg**	**17 56 39.6**	**-0.1**
KZIL				S		**Sn**	**17 56 53.5**	**-0.9**
KZIL				IAML			17 56 57.0	
	comp=E,160nm,0.6s							
KZIL				IAML			17 57 03.0	
	comp=N,125nm,0.7s							
ELL	**Elmali**	**0.86**	**208**	Pg		**Pb**	**17 56 41.8**	**-0.6**
ELL				AML		AML		
APMY	**Acipayam-Deniz**	**0.88**	**267**	Pg		**Pb**	**17 56 42.3**	**-0.3**
APMY				AML		AML		
KEMT	**Kemer-ANTALYA**	**0.92**	**172**	Pg		**Pb**	**17 56 42.6**	**-0.6**
KEMT				AML		AML		
YVAC	**Isparta, Yalva**	**1.00**	**41**	P		**Pg**	**17 56 44.0**	**-0.1**
YVAC				IAML			17 57 07.0	
	comp=N,65nm,1.1s							
YVAC				IAML			17 57 11.0	
	comp=E,72nm,0.6s							
SDAG	**Sultandagi-AFY**	**1.01**	**23**	Pg		**Pb**	**17 56 44.8**	**0.0**
SDAG				Sg		**Sn**	**17 57 00.1**	**-0.1**
SDAG				AML		AML		
SHUT	**Suhut-Afyon**	**1.04**	**6**	Pg		**Pb**	**17 56 45.2**	**-0.2**
SHUT				AML		AML		
CAME	**Cameli-Denizli**	**1.05**	**237**	Pg		**Pb**	**17 56 45.4**	**-0.2**
CAME				AML		AML		
SEDI	**Konya, Seydise**	**1.07**	**93**	P		**Pb**	**17 56 45.5**	**-0.5**
SEDI				IAML			17 57 12.0	
	comp=N,127nm,0.6s							
SEDI				IAML			17 57 12.0	
	comp=E,126nm,0.6s							
KEPZ	**Antalya-Kepez**	**1.14**	**122**	P		**Pn**	**17 56 47.1**	**-0.3**
KEPZ				IAML			17 57 13.0	
	comp=N,92nm,0.6s							
KEPZ				IAML			17 57 15.0	
	comp=E,108nm,0.9s							
SEYD	**Seydisehir-KON**	**1.14**	**95**	Pn		**Pg**	**17 56 46.3**	**-0.6**
SEYD				AML		AML		
DOGA	**KONYA_Doganhis**	**1.16**	**59**	P		**Pn**	**17 56 47.4**	**-0.4**
DOGA				IAML			17 57 11.0	
	comp=N,169nm,0.5s							
DOGA				IAML			17 57 11.0	
	comp=E,179nm,0.7s							
AKUM	**Antalya-Kumluc**	**1.19**	**182**	P		**Pn**	**17 56 49.3**	**+1.3**
BRTR	**Keskin Array B**	**3.36**	**48**	Pn		**Pn**	**17 57 19.5**	**+1.5**
	0.4nm,0.3s,baz=212,slow=15,SNR=10							
BRTR				Lg		Lg	17 57 57.3	
	0.4nm,0.3s,baz=212,slow=24,SNR=5.7 1.0nm,0.3s							
BRTR				AML		AML		
MMAI	**Mount Meron Ar**	**6.07**	**136**	Pn		**Pn**	**17 57 56.0**	**+0.7**
	1.1nm,0.3s,baz=346,slow=16,SNR=4.9 0.5nm,0.3s							
MMAI				AML		AML		
EIL	**Elat**	**8.69**	**153**	Pn		**Pn**	**17 58 32.0**	**+0.8**
	0.7nm,0.3s,baz=338,slow=14,SNR=2.3 3.0nm,0.6s							
EIL				AML		AML		
OBN	**Obninsk**	**18.10**	**11**	LR		LR	18 07 39.5	
	comp=Z,64nm,18.4s,baz=192,slow=37							
TORD	**Torodi Ar. Bea**	**35.27**	**234**	P		P	18 03 36.7	+16
	0.3nm,0.5s,baz=36,slow=12,SNR=1.6 0.3nm,0.5s							
KURBB	**Kurchatov Arra**	**36.34**	**53**	P		**P**	**18 03 30.2**	**+0.8**
	0.4nm,0.6s,baz=275,slow=8.6,SNR=4.9 0.4nm,0.6s							
MKAR	**Makanchi Array**	**38.94**	**59**	P		**P**	**18 03 51.7**	**+0.2**
	0.3nm,0.6s,baz=290,slow=7.2,SNR=3.6 0.3nm,0.6s							

NDI 02 18:01:30.9, 23°.42N×95°.23E, h127km, mb4.9, ML2.8, MW3.1, Presumed earthquake, Myanmar

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
IMP	**Imphal**	**1.83**	**320**	*i* P		Pn	18 02 01.9	-0.8
IMP				*i* S		Sn	18 02 26.4	-0.8
IMP				IAML			18 02 27.6	
	comp=N,50nm,0.6s							
AZL	**Aizawl**	**2.35**	**278**	*i* P		Pn	18 02 09.1	-0.1
AZL				*i* S		Sn	18 02 37.1	-1.5
AZL				IAML			18 02 37.7	
	comp=N,64nm,0.3s							
TEZP	**TEZPUR**	**3.88**	**326**	*i* P		Pn	18 02 29.6	+0.7
TEZP				*i* S		Sn	18 03 10.5	-3.4
TEZP				IAML			18 03 12.9	
	comp=N,31nm,0.2s							
SMLA	**Simla**	**17.79**	**299**	IAmb		IAmb	18 12 34.7	
	comp=Z,60nm,0.9s							

BJI ***02*** *18:01:55.7, 3°.67S×131°.37E, h23km, mB5.4/46, mb5.1/86, Ms5.0/81, Ms7 4.7/80*
IDC ***02*** *18:01:56.6±0.4, 3°.43S×131°.15E, h0km, mb5.0/25, mbtmp5.0/31, ML4.8/5, MS4.6/53, Error ellipse: s-maj=13.2km s-min=8.7km az=88.0*
MOS ***02*** *18:01:56.6±0.9, 3°.47S×131°.16E, h13km, mb5.4/49, MS4.7/7, Error ellipse: s-maj=9.3km s-min=5.2km az=115.8*
GFZ ***02*** *18:01:59.0, 3°.41S×131°.13E, h10km, Mw5.2/71, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}6.34; $M_{\

s129,c208; Duration: 1ˢ3 Moment tensor: Scale 10^{17} Nm; M_{rr}0.92±.02; M_{tt}0.49±.02; M_{pp}-0.42±.02; M_{rt}-0.84±.06; M_{rp}0.76±.01; M_{tp}1.05±.07; Best double couple: $M_0$1.71800×10^{17} NP1:ϕ_s123.00000°,δ20.00000°, λ73.00000°. NP2:ϕ_s321.00000°,δ71.00000°,λ96.00000°. Principal axes: T 1.5750, Pl64.0000°, Azm240.0000°; N 0.2870, Plg6.0000°, Azm139.0000°; P -1.8620, Plg26.0000°, Azm46.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

DJA ***02*** *18:02:00.5±0.4,3˚S±1˚×13˚1E±˚, h16km±3km, M5.2/67, mb5.7/61, mb5.4/67, MLv5.5/20, Mw5.3/37, Mw(mB)5.2/61, MwMwp5.2/48, Mwp5.4/48*

GFZ ***02*** *18:02:02.4±0.5,3˚S±3˚×13˚1E±˚, h38km±4km, M5.2/37, mb5.3/37*

ISC 02 18:01:59.6±0.5,3˚49S±0˙03×131˚14E±0˙03, h24km±2km**, h24**km**:pP-P,n658,**σ1ˢ94/581**, mb5.3**/218**, MS4.7**/89**, 34C-13D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
FAKI	**Fak Fak**	**1.24**	**63**	P	**Pb**		**18 02 22.2**	**-0.2**
FAKI	**Fak Fak**	**1.24**	**63**	S	**Sb**		**18 02 41.7**	**+3.7**
FAKI	**Fak Fak**	**1.24**	**63**		**Pn**		**18 02 21.8**	**+0.3**
FAKI	**Fak Fak**	**1.24**	**63**	P	**Pn**		**18 02 21.4**	**-0.1**
FAKI				S	**Sb**		**18 02 38.5**	**+0.5**
FAKI				AML	AML			
FAKI	**Fak Fak**	**1.24**	**63**	P	**Pb**		**18 02 22.1**	**-0.2**
BNDI	**Bandanaira**	**1.61**	**230**	P	**Pb**		**18 02 27.9**	**-0.8**
BNDI	**Bandanaira**	**1.61**	**230**	P	**Pb**		**18 02 30.6**	**+1.9**
BNDI				S	**Sb**		**18 02 53.1**	**+4.6**
BNDI				AML	AML			
BNDI	**Bandanaira**	**1.61**	**230**	P	**Pb**		**18 02 29.6**	**+0.9**
SIJI	**Sorong**	**2.60**	**3**	Pn	**Pn**		**18 02 39.0**	**-1.3**
	146nm,0.3s,baz=249,slow=22,SNR=336							
SIJI				Sn	**Sn**		**18 03 09.8**	**-1.5**
	458nm,0.3s,baz=215,slow=22,SNR=5.2							
SIJI				LR	LR		18 03 54.8	
	comp=Z,18μm,19.3s,baz=233,slow=46							
	326nm,0.3s							
SIJI				AML	AML			
SIJI	**Sorong**	**2.60**	**3**	P	**Pn**		**18 02 39.7**	**-0.6**
SIJI				S	**Sn**		**18 03 10.2**	**-1.0**
SIJI				AML	AML			
MWPI	**Manokwari, Pap**	**3.85**	**49**	P	**Pn**		**18 02 59.6**	**+2.1**
MWPI				S	**Sn**		**18 03 43.9**	**+1.9**
NLAI	**Namlea**	**4.04**	**273**	P	**Pn**		**18 03 02.7**	**+2.6**
NLAI				S	**Sn**		**18 03 50.7**	**+3.9**
NLAI				AML	AML			
SAUI	**Saumlaki**	**4.47**	**178**	P	**Pn**		**18 03 08.4**	**+2.4**
SAUI	**Saumlaki**	**4.47**	**178**		**Pn**		**18 03 08.0**	**+2.0**
SAUI	**Saumlaki**	**4.47**	**178**	P	**Pn**		**18 03 08.8**	**+2.8**
SAUI				S	**Sb**		**18 04 05.9**	**-5.0**
SAUI				AML	AML			
SAUI	**Saumlaki**	**4.47**	**178**	P	**Pn**		**18 03 09.0**	**+3.0**
SANI	**Sanana**	**5.34**	**285**	P	**Pn**		**18 03 18.0**	**0.0**
SANI	**Sanana**	**5.34**	**285**	P	**Pn**		**18 03 18.0**	**0.0**
	2.6nm6μm4μm368nm,0.7s							
SANI				AML	AML			
SANI	**Sanana**	**5.34**	**285**	P	**Pn**		**18 03 18.1**	**+0.1**
	comp=Z,364nm,0.8s							
BAKI	**Biak**	**5.46**	**65**	P	**Pn**		**18 03 21.2**	**+1.6**
BAKI				AML	AML			
TNTI	**Ternate**	**5.67**	**318**	P	**Pn**		**18 03 23.1**	**+0.6**
TNTI	**Ternate**	**5.67**	**318**		**Pn**		**18 03 22.4**	**-0.1**
TNTI	**Ternate**	**5.67**	**318**	P	**Pn**		**18 03 23.5**	**+1.0**
	comp=Z,3μmcomp=Z,293nm,1.1s							
TNTI				S	**Sn**		**18 04 27.1**	**+0.2**
	comp=Z,3μmcomp=Z,293nm,1.1s							
TNTI	**Ternate**	**5.67**	**318**	P	**Pn**		**18 03 23.2**	**+0.7**
	comp=Z,290nm,1.2s							
MNI	**Manado**	**7.98**	**308**	P	**Pn**		**18 03 54.7**	**+0.5**
KMSI	**Cibinong**	**8.22**	**299**	P	**Pn**		**18 03 57.4**	**-0.1**
KDI	**Kendari**	**8.52**	**267**	P	**Pn**		**18 04 05.6**	**+4.0**
	comp=Z,12μmcomp=Z,2μmcomp=Z,97nm,0.7s							
LUWI	**Luwuk**	**8.71**	**286**	P	**Pn**		**18 04 04.6**	**+0.4**
LUWI	**Luwuk**	**8.71**	**286**	S	**Sn**		**18 05 41.1**	**-0.7**
LUWI	**Luwuk**	**8.71**	**286**		**Pn**		**18 04 03.7**	**-0.5**
LUWI	**Luwuk**	**8.71**	**286**	P	**Pn**		**18 04 03.9**	**-0.3**
	comp=Z,7μmcomp=Z,5μmcomp=Z,373nm,0.8s							
LUWI	**Luwuk**	**8.71**	**286**	P	**Pn**		**18 04 04.1**	**-0.2**
	comp=Z,370nm,0.9s							
BBSI	**Bau Bau**	**8.77**	**257**	P	Pn		18 04 11.1	+6.0
DRS	**Darwin Rock St**	**8.89**	**182**	P	**Pn**		**18 04 08.1**	**+1.4**
GENI	**Genyem**	**9.06**	**85**	P	**Pn**		**18 04 11.2**	**+2.2**
GENI	**Genyem**	**9.06**	**85**	P	**Pn**		**18 04 10.2**	**+1.2**
	comp=Z,12μmcomp=Z,4μmcomp=Z,222nm,1.0s							
GENI	**Genyem**	**9.06**	**85**	P	**Pn**		**18 04 10.7**	**+1.7**
	comp=Z,224nm,1.0s							
GTOI	**Gorontalo**	**9.10**	**297**	P	**Pn**		**18 04 12.4**	**+2.8**
	comp=Z,3μmcomp=Z,3μmcomp=Z,298nm,0.7s							
KDU	**Kakadu**	**9.23**	**172**	P	**Pn**		**18 04 10.9**	**-0.5**
SOEI	**Soe**	**9.24**	**227**	P	**Pn**		**18 04 13.3**	**+1.7**
SOEI	**Soe**	**9.24**	**227**	P	**Pn**		**18 04 16.4**	**+4.8**
	comp=Z,645nm,1.5s							
SOEI	**Soe**	**9.24**	**227**	P	Pn		18 04 16.6	+4.9
	comp=Z,647nm,1.5s							
MTN	**Manton Dam**	**9.30**	**180**	P	**Pn**		**18 04 12.1**	**-0.1**
	comp=Z,137nm,0.9s,comp=Z,0.0nm							
MTN	**Manton Dam**	**9.30**	**180**		**Pn**		**18 04 11.9**	**-0.3**
KKSI	**Kolaka, Sulawe**	**9.49**	**266**	P	**Pn**		**18 04 17.5**	**+2.5**
	comp=Z,9μmcomp=Z,2μmcomp=Z,68nm,0.8s							
JAY	**Jayapura**	**9.60**	**84**	Pn	**Pn**		**18 04 15.3**	**-1.1**
	comp=Z,2.2nm,0.3s,baz=236,slow=12,SNR=9.8							
	comp=Z,24nm,1.0s							
JAY				AML	AML			
JAY	**Jayapura**	**9.60**	**84**	P	**Pn**		**18 04 17.3**	**+0.8**
APSI	**Ampana**	**9.83**	**285**	P	**Pn**		**18 04 20.5**	**+0.9**
BATI	**Baumata**	**9.98**	**228**	Pn	**Pn**		**18 04 26.0**	**+4.3**
	comp=Z,30nm,0.3s,baz=107,slow=0.8,SNR=40							
BATI				LR	LR		18 08 31.4	
	comp=Z,8μm,19.9s,baz=52,slow=39							
	comp=Z,454nm,0.9s							
BATI				AML	AML			
BATI	**Baumata**	**9.98**	**228**	P	**Pn**		**18 04 25.6**	**+3.9**
MMRI	**Maumere**	**10.22**	**240**		**Pn**		**18 04 25.2**	**+0.2**
MMRI	**Maumere**	**10.22**	**240**	P	**Pn**		**18 04 28.2**	**+3.2**
	comp=Z,5μmcomp=Z,303nm,1.3s							
MMRI	**Maumere**	**10.22**	**240**	P	Pn		18 04 30.3	+5.3
	comp=Z,302nm,1.9s							
EDFI	**Ende, Flores**	**10.75**	**240**	P	**Pn**		**18 04 35.4**	**+3.0**
	comp=Z,3μmcomp=Z,87nm,0.8s							
BSSI	**Bau Bau, Buton**	**10.94**	**256**	P	**Pn**		**18 04 37.4**	**+2.6**
	comp=Z,9μmcomp=Z,229nm,1.3s							
BKSI	**Bulukumba**	**11.14**	**260**	P	**Pn**		**18 04 39.9**	**+2.4**
	comp=Z,8μmcomp=Z,4μmcomp=Z,211nm,1.5s							
TTSI	**Tana Toraja**	**11.31**	**272**	P	**Pn**		**18 04 42.4**	**+2.4**
	comp=Z,8μmcomp=Z,3μmcomp=Z,93nm,1.0s							
TOLI2	**Tolitoli**	**11.32**	**294**	P	**Pn**		**18 04 40.1**	**+0.1**
TOLI2	**Tolitoli**	**11.32**	**294**	S	**Sn**		**18 06 45.6**	**-0.3**
TOLI2	**Tolitoli**	**11.32**	**294**		**Pn**		**18 04 39.5**	**-0.6**
TOLI2	**Tolitoli**	**11.32**	**294**	P	**Pn**		**18 04 39.6**	**-0.4**
	comp=Z,165nm,1.0s							
GSPH	**General Santos**	**11.35**	**327**	*i* P	**Pn**		**18 04 41.1**	**+0.6**
PCI	**Palu**	**11.59**	**283**	P	**Pn**		**18 04 45.3**	**+1.6**
	comp=Z,2μmcomp=Z,165nm,0.8s							
MKS	**Makassar**	**11.77**	**261**	P	**Pn**		**18 04 49.7**	**+3.6**
	comp=Z,8μmcomp=Z,3μmcomp=Z,129nm,1.1s							
DAV	**Davao City (W)**	**11.87**	**332**	P	**Pn**		**18 04 49.0**	**+1.5**
DAV				S	Sn		18 07 11.6	+12
KCP	**Kidapawan**	**12.05**	**330**	*i* P	**Pn**		**18 04 52.4**	**+2.3**
LBFI	**Labuhan Bajo,**	**12.24**	**246**	P	**Pn**		**18 04 55.5**	**+2.9**
MMSI	**Mamuju**	**12.24**	**273**	P	**Pn**		**18 04 56.2**	**+3.5**
KNRA	**Kununurra**	**12.34**	**191**	P	**Pn**		**18 04 51.2**	**-2.8**
KNRA	**Kununurra**	**12.34**	**191**	P	**Pn**		**18 04 51.4**	**-2.6**
	comp=Z,49nm,0.4s,comp=Z,0.0nm							
KNRA	**Kununurra**	**12.34**	**191**		**Pn**		**18 04 51.3**	**-2.6**
WSI	**Waingapu**	**12.40**	**240**	P	**Pn**		**18 04 59.2**	**+4.4**
DBNI	**Kabupaten Domp**	**13.70**	**248**	P	**Pn**		**18 05 15.1**	**+2.6**
	comp=Z,4μmcomp=Z,135nm,1.6s							
PLAI	**Plampang**	**14.31**	**248**	P	**Pn**		**18 05 22.0**	**+1.1**
PLAI	**Plampang**	**14.31**	**248**	P	**Pn**		**18 05 21.9**	**+1.1**
	comp=Z,6μmcomp=Z,2μmcomp=Z,198nm,0.9s							
PLAI	**Plampang**	**14.31**	**248**	P	**Pn**		**18 05 22.2**	**+1.3**
	comp=Z,197nm,0.9s							
TBP	**Tagbilaran**	**14.97**	**331**	*e*P	**Pn**		**18 05 27.4**	**-2.4**
TWSI	**Taliwang, Sumb**	**15.11**	**249**	P	**Pn**		**18 05 33.0**	**+1.3**
	comp=Z,5μmcomp=Z,2μmcomp=Z,107nm,0.8s							
LLP	**Lapu-Lapu**	**15.46**	**333**	*e*P	**Pn**		**18 05 36.2**	**-0.2**
LLP				*e*S	**S**		**18 08 42.5**	**-0.2**
FITZ	**Fitzroy Crossi**	**15.49**	**200**	Pn	**Pn**		**18 05 32.2**	**-4.5**
	comp=Z,7.6nm,0.3s,baz=33,slow=13,SNR=87							
FITZ				Sn	Sn		18 08 15.9	-12
	comp=Z,2.4nm,0.3s,baz=272,slow=13,SNR=2.2							
	comp=Z,18nm,0.4s							
FITZ				AML	AML			
FITZ	**Fitzroy Crossi**	**15.49**	**200**		**Pn**		**18 05 32.6**	**-4.1**
PLP	**Palo**	**15.80**	**337**	*e*P	**Pn**		**18 05 40.6**	**-0.1**
KHKI	**Kahang-Kahang**	**16.19**	**252**	P	**Pn**		**18 05 46.9**	**+1.1**
	comp=Z,7μmcomp=Z,2μmcomp=Z,109nm,1.0s							
SRBI	**Singaraja**	**16.49**	**253**	P	**Pn**		**18 05 50.2**	**+0.6**
	comp=Z,7μmcomp=Z,3μmcomp=Z,177nm,1.1s							
WRAB	**Tennant Creek**	**16.64**	**169**	*ce*P	**Pn**		**18 05 49.3**	**-2.2**
WRAB				pmax	pmax			
	comp=Z,70nm,1.8s							
WRAB	**Tennant Creek**	**16.64**	**169**	P	**Pn**		**18 05 47.0**	**-4.5**
WRA	**Warramunga Arr**	**16.65**	**169**	Pn	**Pn**		**18 05 45.2**	**-6.4**
	comp=Z,1.7nm,0.3s,baz=350,slow=13,SNR=58							
WRA				Sn	Sn		18 08 40.2	-16
	comp=Z,6.1nm,0.3s,baz=357,slow=24,SNR=8.6							
	comp=Z,6.0nm,0.4s							
WRA				AML	AML			
WRA	**Warramunga Arr**	**16.65**	**169**	P	**Pn**		**18 05 47.3**	**-4.3**
WRA				pmax	pmax			
	comp=Z,14nm,1.4s							
WRA	**Warramunga Arr**	**16.65**	**169**		**Pn**		**18 05 47.3**	**-4.3**
PMG	**Port Moresby**	**16.96**	**111**	Pn	**Pn**		**18 05 56.2**	**+0.7**
	comp=Z,37nm,0.9s,baz=345,slow=5.5,SNR=8.2							
PMG	**Port Moresby**	**16.96**	**111**	P	**P**		**18 05 59.0**	**+1.6**
PMG	**Port Moresby**	**16.96**	**111**	P	**P**		**18 05 58.9**	**+1.6**
PMG	**Port Moresby**	**16.96**	**111**	Pn	**Pn**		**18 05 55.5**	**0.0**
PMG				IAmb	IAmb		18 06 05.3	
	comp=Z,413nm,1.8s							
PMG	**Port Moresby**	**16.96**	**111**	P	**P**		**18 05 57.7**	**+0.4**
	comp=Z,2μmcomp=Z,144nm,1.0s							
PMG	**Port Moresby**	**16.96**	**111**	P	**P**		**18 05 58.3**	**+1.0**
	comp=Z,148nm,1.0s							
ABJI	**Asem Bagus**	**17.36**	**255**	P	**P**		**18 06 01.2**	**-0.5**
	comp=Z,6μmcomp=Z,4μmcomp=Z,181nm,1.2s							
JAGI	**Jajag, Banyuwa**	**17.60**	**253**	P	**Pn**		**18 06 03.3**	**-0.3**
JAGI	**Jajag, Banyuwa**	**17.60**	**253**	Pn	**Pn**		**18 06 02.9**	**-0.6**
JAGI	**Jajag, Banyuwa**	**17.60**	**253**	P	**Pn**		**18 06 03.2**	**-0.3**
JAGI	**Jajag, Banyuwa**	**17.60**	**253**	P	**Pn**		**18 06 03.4**	**-0.2**
	comp=Z,90nm,1.3s							
IBAJ	**Ibajay, Aklan**	**17.63**	**330**	*e*P	Pn		18 05 39.9	-24
KKM	**Kota Kinabalu**	**17.66**	**302**		**Pn**		**18 06 03.5**	**-0.9**
KKM	**Kota Kinabalu**	**17.66**	**302**	P	**P**		**18 06 04.9**	**-0.3**
	comp=Z,275nm,1.1s							
BLJI	**Banyuglugur**	**17.96**	**256**	P	**P**		**18 06 09.2**	**+0.8**
	comp=Z,5μmcomp=Z,4μmcomp=Z,224nm,1.3s							
QIS	**Mount Isa**	**18.86**	**155**	P	**P**		**18 06 18.2**	**-0.1**
	comp=Z,89nm,0.8s,comp=Z,0.0nm							
QIS	**Mount Isa**	**18.86**	**155**	P	**Pn**		**18 06 19.8**	**+0.8**
QIS	**Mount Isa**	**18.86**	**155**	P	**P**		**18 06 17.8**	**-0.5**
	comp=Z,89nm,0.8s							
GRJI	**Gresik**	**18.89**	**259**	P	**Pn**		**18 06 19.2**	**-0.1**
	comp=Z,5μmcomp=Z,4μmcomp=Z,259nm,0.9s							
GQP	**Guinayangan**	**19.31**	**334**	*e*P	**Pn**		**18 06 24.0**	**-0.4**
MTSU	**Mount Surprise**	**19.45**	**139**	P	**Pn**		**18 06 26.2**	**+0.1**
	comp=Z,87nm,1.0s							
MTSU	**Mount Surprise**	**19.45**	**139**	P	**Pn**		**18 06 27.6**	**+1.5**
MTSU	**Mount Surprise**	**19.45**	**139**	P	**Pn**		**18 06 27.0**	**+1.0**
	comp=Z,86nm,1.0s							
TBJI	**Tambak Boyo**	**19.50**	**259**	P	**P**		**18 06 25.7**	**+0.4**
	comp=Z,3μmcomp=Z,4μmcomp=Z,365nm,1.1s							
SJI	**Sawahan**	**19.74**	**257**	P	**P**		**18 06 28.6**	**+0.6**
	comp=Z,5μmcomp=Z,185nm,0.8s							
SNJI	**Sawahan-Nganju**	**19.75**	**257**	P	**P**		**18 06 28.8**	**+0.6**
PWJI	**Pagerwojo**	**19.76**	**256**	P	**P**		**18 06 28.4**	**+0.3**
SBUM	**Sibu**	**19.81**	**287**	P	**Pn**		**18 06 30.4**	**0.0**
SBUM	**Sibu**	**19.81**	**287**		**Pn**		**18 06 30.1**	**-0.3**
SBUM	**Sibu**	**19.81**	**287**	P	**Pn**		**18 06 31.4**	**+1.0**
	comp=Z,35nm,1.1s							
AS15	**Alice Springs**	**20.21**	**173**	P	Pn		18 06 34.4	-0.6
	comp=Z,146nm,0.8s							
AS31	**Alice Springs**	**20.24**	**173**	P	Pn		18 06 34.6	-0.8
ASAR	**Alice Springs**	**20.24**	**173**	P	Pn		18 06 34.4	-1.0
	comp=Z,30nm,0.4s,baz=352,slow=11,SNR=628							
ASAR				S	**S**		**18 10 09.0**	**-10**
	comp=Z,20nm,1.0s,baz=358,slow=28,SNR=4.8							
	comp=Z,30nm,0.4s							
AS01	**Alice Springs**	**20.24**	**173**	P	**P**		**18 06 34.1**	**+0.8**
	comp=Z,148nm,1.0s							
AS01	**Alice Springs**	**20.24**	**173**	P	**P**		**18 06 34.0**	**+0.6**
AS17	**Alice Springs**	**20.25**	**172**	P	Pn		18 06 34.7	-0.8
	comp=Z,179nm,0.9s							
AS09	**Alice Springs**	**20.27**	**173**	P	Pn		18 06 35.3	-0.5
	comp=Z,193nm,0.9s							
MBWA	**Marble Bar**	**20.78**	**211**	P	**P**		**18 06 37.6**	**-1.6**
	comp=Z,64nm,1.5s,comp=Z,0.0nm							
MBWA	**Marble Bar**	**20.78**	**211**	P	**P**		**18 06 38.6**	**-0.6**
MBWA	**Marble Bar**	**20.78**	**211**	P	**P**		**18 06 38.3**	**-0.9**
MBWA	**Marble Bar**	**20.78**	**211**	P	**P**		**18 06 37.7**	**-1.6**
MBWA	**Marble Bar**	**20.78**	**211**	P	**P**		**18 06 38.4**	**-0.8**
	comp=Z,64nm,1.5s							
KRVT	**Keravat (AS076**	**20.85**	**93**	P	Pn		18 06 41.5	-1.0
	comp=Z,38nm,0.4s,baz=108,slow=6.4,SNR=19							
KRVT				LR	LR		18 17 07.8	
	comp=Z,3μm,19.7s,baz=277,slow=44							
	comp=Z,38nm,0.4s							
SMRI	**Semarang**	**20.91**	**259**	P	**P**		**18 06 39.9**	**-0.8**
SMRI				IAmb	IAmb		18 06 56.7	
	comp=Z,126nm,0.9s							
SMRI	**Semarang**	**20.91**	**259**	P	**P**		**18 06 40.1**	**-0.6**
	comp=Z,162nm,1.0s							
SMRI	**Semarang**	**20.91**	**259**	P	**P**		**18 06 40.6**	**-0.1**
	comp=Z,162nm,0.9s							
RABL	**Rabaul**	**20.98**	**93**	P	**P**		**18 06 42.0**	**+0.5**
RABL				IAmb	IAmb		18 06 59.5	
	comp=Z,208nm,1.0s							
WRKA	**Warakurna**	**21.60**	**187**	P	**P**		**18 06 48.0**	**0.0**
	comp=Z,70nm,0.9s,comp=Z,0.0nm							
GUMO	**Guam**	**21.76**	**38**	P	**P**		**18 06 50.9**	**+1.2**
	comp=Z,299nm,1.1s,baz=170,slow=3.6,SNR=4.5							
GUMO				LR	LR		18 15 26.2	
	comp=Z,2μm,19.9s,baz=212,slow=37							
	comp=Z,299nm,1.1s							
GUMO	**Guam**	**21.76**	**38**	P	**P**		**18 06 50.0**	**+0.3**
GUMO				pmax	pmax			
	comp=Z,596nm,1.3s							
GUMO	**Guam**	**21.76**	**38**	P	**P**		**18 06 50.0**	**+0.3**
GUMO	**Guam**	**21.76**	**38**	P	**P**		**18 06 51.2**	**+1.5**
	comp=Z,413nm,1.3s							
CTAO	**Charters Tower**	**22.12**	**139**	P	**P**		**18 06 55.4**	**+1.7**
CTAO	**Charters Tower**	**22.12**	**139**	P	**P**		**18 06 54.1**	**+0.5**
CTAO				pmax	pmax			
	comp=Z,53nm,0.9s							
CTAO	**Charters Tower**	**22.12**	**139**	P	**P**		**18 06 54.1**	**+0.5**
CTAO	**Charters Tower**	**22.12**	**139**	P	**P**		**18 06 55.7**	**+2.0**
	comp=Z,83nm,1.1s							
KPJI	**Karang Pucung**	**22.44**	**259**	P	**P**		**18 06 55.8**	**-1.3**
LEM	**Lembang**	**23.66**	**261**	P	**P**		**18 07 08.4**	**-1.4**
	comp=Z,20nm,0.6s,baz=62,slow=10,SNR=5.6							
LEM				LR	LR		18 18 18.4	
	comp=Z,6μm,19.0s,baz=96,slow=42							
	comp=Z,20nm,0.6s							
BBJI	**Bungbulang**	**23.71**	**259**	P	**P**		**18 07 09.2**	**-1.0**
BBJI	**Bungbulang**	**23.71**	**259**	P	**P**		**18 07 07.5**	**-2.6**
BBJI	**Bungbulang**	**23.71**	**259**	P	**P**		**18 07 09.0**	**-1.2**
	comp=Z,52nm,0.7s							
GIRL	**Giralia**	**25.12**	**219**	P	**P**		**18 07 23.0**	**+0.1**
	comp=Z,92nm,1.5s							
INKA	**Innaminka**	**25.80**	**160**	P	**P**		**18 07 30.6**	**+1.5**
MEEK	**Meekatharra**	**25.96**	**206**	P	**P**		**18 07 29.1**	**-1.4**
	comp=Z,25nm,1.6s,comp=Z,0.0nm							
MEEK	**Meekatharra**	**25.96**	**206**	P	**P**		**18 07 31.1**	**+0.6**
MEEK	**Meekatharra**	**25.96**	**206**	P	**P**		**18 07 31.2**	**+0.6**
	comp=Z,25nm,1.6s							
QLP	**Quilpie**	**26.17**	**153**	P	**P**		**18 07 33.4**	**+1.0**
	comp=Z,147nm,1.7s							
QLP	**Quilpie**	**26.17**	**153**	P	**P**		**18 07 34.3**	**+1.9**
QLP	**Quilpie**	**26.17**	**153**	P	**P**		**18 07 33.9**	**+1.6**
	comp=Z,147nm,1.7s							
FORT	**Forrest**	**27.30**	**186**	P	**P**		**18 07 42.6**	**0.0**
	comp=Z,49nm,1.4s,comp=Z,0.0nm							
FORT	**Forrest**	**27.30**	**186**	P	**P**		**18 07 42.7**	**+0.2**
TPUB	**Ta-pu**	**28.53**	**339**	P	**P**		**18 07 52.6**	**-1.1**
SSLB	**Suanglung**	**28.87**	**340**	P	**P**		**18 07 56.1**	**-0.6**
SSLB				IAmb	IAmb		18 07 58.7	
	comp=Z,87nm,1.1s							
SSLB	**Suanglung**	**28.87**	**340**	P	**P**		**18 07 56.5**	**-0.1**
	comp=Z,81nm,1.2s							
KMBL	**Kambalda**	**29.07**	**196**	P	**P**		**18 07 57.7**	**-0.7**
	comp=Z,34nm,1.0s							
MORW	**Morawa**	**29.21**	**208**	P	**P**		**18 07 58.1**	**-1.5**
	comp=Z,29nm,1.1s							
MORW	**Morawa**	**29.21**	**208**	P	**P**		**18 07 58.9**	**-0.7**
MORW	**Morawa**	**29.21**	**208**	P	**P**		**18 07 58.6**	**-1.0**
BBOO	**Buckleboo**	**29.53**	**172**	P	**P**		**18 08 02.6**	**+0.2**
	comp=Z,16nm,0.6s							
BBOO	**Buckleboo**	**29.53**	**172**	P	**P**		**18 08 03.0**	**+0.6**
BBOO	**Buckleboo**	**29.53**	**172**	P	**P**		**18 08 02.5**	**0.0**
BBOO	**Buckleboo**	**29.53**	**172**	P	**P**		**18 08 04.5**	**+2.1**
	comp=Z,19nm,0.9s							
STKA	**Stephens Creek**	**29.90**	**162**	P	**P**		**18 08 05.8**	**0.0**
	comp=Z,10nm,0.7s,baz=335,slow=8.7,SNR=23							
STKA				LR	LR		18 21 29.4	
	comp=Z,3μm,18.9s,baz=339,slow=39							
	comp=Z,10nm,0.7s							
STKA	**Stephens Creek**	**29.90**	**162**	P	**P**		**18 08 06.1**	**+0.4**
STKA				pmax	pmax			
	comp=Z,543nm,1.7s							
STKA	**Stephens Creek**	**29.90**	**162**	P	**P**		**18 08 06.1**	**+0.4**
BLDU	**Ballidu**	**30.23**	**205**	P	**P**		**18 08 08.3**	**-0.4**
	comp=Z,17nm,1.3s							
BLDU	**Ballidu**	**30.23**	**205**	P	**P**		**18 08 08.4**	**-0.3**
JOW	**Kunigami**	**30.27**	**355**	LR	LR		18 20 59.4	
	comp=Z,2μm,19.6s,baz=196,slow=38							
QIZ	**Qiongzhong**	**30.66**	**318**	P	**P**		**18 08 13.2**	**+0.7**
QIZ				S	**S**		**18 13 14.3**	**+0.4**
QIZ				L	L			
	comp=Z,1μm,12.9s							
QIZ				L	L			
	comp=Z,800nm,10.3s							
QIZ				L	L			
	comp=Z,1μm,19.9s							
HTT	**Hallett**	**30.66**	**167**	P	**P**		**18 08 13.8**	**+1.3**
	comp=Z,12nm,1.7s							
HTT	**Hallett**	**30.66**	**167**	P	**P**		**18 08 13.9**	**+1.4**
KLBR	**Kellerberrin**	**30.67**	**203**	P	**P**		**18 08 12.0**	**-0.5**
	comp=Z,76nm,0.7s							
KLBR	**Kellerberrin**	**30.67**	**203**	P	**P**		**18 08 12.2**	**-0.3**
KLBR	**Kellerberrin**	**30.67**	**203**	P	**P**		**18 08 12.4**	**0.0**
	comp=Z,76nm,0.7s							
CMSA	**Cobar Meteorol**	**31.08**	**155**	P	**P**		**18 08 17.7**	**+1.5**
	comp=Z,59nm,1.3s							
CMSA	**Cobar Meteorol**	**31.08**	**155**	P	**P**		**18 08 17.1**	**+1.0**
CMSA	**Cobar Meteorol**	**31.08**	**155**	P	**P**		**18 08 17.9**	**+1.7**
	comp=Z,59nm,1.3s							
IPM	**Ipoh**	**31.12**	**285**	P	**P**		**18 08 17.5**	**+0.8**
IPM	**Ipoh**	**31.12**	**285**	IAmb	IAmb		18 08 33.9	
	comp=Z,53nm,1.0s							
IPM	**Ipoh**	**31.12**	**285**	P	**P**		**18 08 18.0**	**+1.3**
	comp=Z,55nm,1.3s							
KULM	**Kulim**	**31.68**	**286**	P	**P**		**18 08 22.0**	**+0.3**
KULM	**Kulim**	**31.68**	**286**	P	**P**		**18 08 21.9**	**+0.3**
KULM				IAmb	IAmb		18 08 48.3	
	comp=Z,51nm,1.2s							
KULM	**Kulim**	**31.68**	**286**	P	**P**		**18 08 23.0**	**+1.3**
	comp=Z,42nm,1.3s							
NWAO	**Narrogin (SRO)**	**32.05**	**202**	P	**P**	

CHTO	**Chiang Mai**	**38.67**	**306**	P	**P**	**18 09 22.8 +0.9**	BJI2				pmax	pmax							
CHTO				S	S	18 15 32.2 +15		comp=Z,39nm,1.2s											
CHTO	**Chiang Mai**	**38.67**	**306**	P	**P**	**18 09 21.8 0.0**	BJI2				pmax	pmax							
CHTO				pmax	pmax			comp=Z,170nm,3.8s											
	comp=Z,55nm,1.0s						BJI2				L	L							
CHTO	**Chiang Mai**	**38.67**	**306**	P	**P**	**18 09 21.8 0.0**		comp=Z,230nm,15.1s											
CHTO				IAmb	IAmb	18 09 40.3	BJI2				L	L							
	comp=Z,55nm,0.9s							comp=Z,750nm,16.8s											
CHTO	**Chiang Mai**	**38.67**	**306**	P	**P**	**18 09 23.0 +1.2**	BJI2				L	L							
	comp=Z,61nm,1.0s							comp=Z,390nm,24.5s											
JGF	**Kuroka**	**39.32**	**8**	P	**P**	**18 09 26.6 -0.4**	**IMP**	**Imphal**	**45.80**	**310**	*i* S	S	18 16 48.2	-14					
ENH	**Enshi**	**39.44**	**330**	IAmb	IAmb	18 09 36.3	**IMP**	**Imphal**	**45.80**	**310**	*i* P	P	18 10 14.9	-5.0					
	comp=Z,68nm,1.1s						**IMP**	**Imphal**	**45.80**	**310**	IAmb	IAmb	18 10 22.4						
KMI2	**Kunming**	**39.62**	**317**	⇑P	**P**	**18 09 30.9 +1.0**		comp=Z,105nm,1.7s											
KMI2				sP	pP	18 09 38.1 +1.1	**MOKO**	**MOKOCHONG**	**46.19**	**312**	*i* S	**S**	**18 16 59.6**	**-8.7**					
KMI2				S	**S**	**18 15 30.6 -1.4**	**MOKO**	**MOKOCHONG**	**46.19**	**312**	*i* P	**P**	**18 10 19.3**	**-3.7**					
KMI2				pmax	pmax		**MOKO**	**MOKOCHONG**	**46.19**	**312**	IAmb	IAmb	18 10 33.0						
	comp=Z,36nm,1.1s							comp=Z,62nm,1.4s											
KMI2				pmax	pmax		**AZL**	**Aizawl**	**46.20**	**308**	*i* S	S	18 16 54.2	-14					
	comp=Z,170nm,4.0s						**AZL**	**Aizawl**	**46.20**	**308**	*i* P	**P**	**18 10 19.4**	**-3.7**					
KMI2				L	L		**AZL**	**Aizawl**	**46.20**	**308**	IAmb	IAmb	18 10 26.7						
	comp=Z,650nm,19.0s							comp=Z,115nm,1.3s											
KMI2				L	L		**LZDM**	**Lanzhou Array**	**46.89**	**329**	P	**P**	**18 10 29.9**	**+1.2**					
	comp=Z,930nm,22.0s							comp=Z,8.7nm,0.5s,baz=134,slow=4.3,SNR=7.6											
KMI2				L	L		LZDM				LR	LR	18 31 36.8						
	comp=Z,1μm,24.9s							comp=Z,512nm,21.4s,baz=90,slow=38											
TJN	**Taejon**	**39.81**	**355**	P	**P**	**18 09 31.1 0.0**		comp=Z,8.7nm,0.5s											
TJN				pmax	pmax		**LZH**	**Lanzhou**	**46.92**	**329**	*e*P	**P**	**18 10 29.8**	**+1.2**					
	comp=Z,229nm,1.0s						LZH				sP	sP	18 10 37.3	-1.3					
TJN	**Taejon**	**39.81**	**355**	P	**P**	**18 09 31.1 0.0**	LZH				S	**S**	**18 17 17.1**	**-1.5**					
TJN	**Taejon**	**39.81**	**355**	P	**P**	**18 09 31.9 +0.8**	LZH				pmax	pmax							
	comp=Z,278nm,1.1s							comp=Z,63nm,1.2s											
MJAR	**Matsushiro Arr**	**40.37**	**9**	P	**P**	**18 09 34.0 -1.6**	LZH				pmax	pmax							
	comp=Z,11nm,0.9s,baz=187,slow=9.0,SNR=15							comp=Z,270nm,4.8s											
	comp=Z,11nm,0.9s						LZH				L	L							
MJAR	**Matsushiro Arr**	**40.37**	**9**	P	**P**	**18 09 36.1 +0.4**		comp=Z,2μm,14.8s											
MJAR				pmax	pmax		LZH				L	L							
	comp=Z,26nm,1.7s							comp=Z,2μm,14.8s											
MJAR	**Matsushiro Arr**	**40.37**	**9**	P	**P**	**18 09 36.1 +0.4**	LZH				L	L							
MAJO	**Matsushiro**	**40.37**	**9**	P	**P**	**18 09 36.7 +1.0**		comp=Z,980nm,13.7s											
MAJO	**Matsushiro**	**40.37**	**9**	P	**P**	**18 09 34.2 -1.5**	**CN2**	**Changchun**	**47.35**	**354**	*e*P	**P**	**18 10 30.0**	**-1.7**					
MAJO				pmax	pmax		CN2				*e*S	**S**	**18 17 21.8**	**-2.3**					
	comp=Z,27nm,0.9s						CN2				SS	**SS**	**18 20 45.1**	**-7.0**					
MAJO	**Matsushiro**	**40.37**	**9**	P	**P**	**18 09 34.2 -1.5**	CN2				pmax	pmax							
MAJO	**Matsushiro**	**40.37**	**9**	P	**P**	**18 09 34.0 -1.7**		comp=Z,10.0nm,0.5s											
	comp=Z,33nm,0.9s						CN2				pmax	pmax							
KSAR	**Wonju Array Be**	**40.83**	**356**	P	**P**	**18 09 39.7 +0.2**		comp=Z,100nm,3.0s											
KSAR	**Wonju Array Be**	**40.83**	**356**	P	**P**	**18 09 39.7 +0.2**	CN2				L	L							
KSRS	**Korea Array**	**40.84**	**356**	P	**P**	**18 09 39.9 +0.3**		comp=Z,600nm,18.0s											
	comp=Z,8.3nm,0.9s,baz=175,slow=9.9,SNR=14						CN2				L	L							
KSRS				LR	LR	18 26 49.0		comp=Z,400nm,18.0s											
	comp=Z,1μm,19.9s,baz=175,slow=37						CN2				L	L							
	comp=Z,8.3nm,0.9s							comp=Z,600nm,18.6s											
PZH	**PanZhiHua**	**41.20**	**318**	P	**P**	**18 09 42.9 +0.1**	**ZIRO**	**ZIRO**	**47.36**	**313**	*i* S	S	18 17 13.9	-11					
PZH				pmax	pmax		**ZIRO**	**ZIRO**	**47.36**	**313**	*i* P	**P**	**18 10 28.9**	**-3.4**					
	comp=Z,20nm,1.3s						**ZIRO**	**ZIRO**	**47.36**	**313**	IAmb	IAmb	18 10 34.4						
PZH				pmax	pmax			comp=Z,30nm,0.8s											
	comp=Z,100nm,4.0s						**USA0B**	**Ussuriysk Arra**	**47.48**	**1**	*ce*P	**P**	**18 10 32.7**	**+0.1**					
PZH				L	L		**USRK**	**Ussuriysk Ar.**	**47.48**	**1**	P	**P**	**18 10 33.0**	**+0.3**					
	comp=Z,740nm,20.8s							comp=Z,13nm,0.8s,baz=180,slow=7.2,SNR=9.1											
PZH				L	L		USRK				LR	LR	18 30 10.8						
	comp=Z,500nm,19.4s							comp=Z,461nm,20.4s,baz=173,slow=36											
PZH				L	L			comp=Z,13nm,0.8s											
	comp=Z,690nm,17.3s						**USRK**	**Ussuriysk Ar.**	**47.48**	**1**	P	**P**	**18 10 33.0**	**+0.3**					
MOO	**Moorlands**	**41.35**	**162**	P	**P**	**18 09 45.0 +1.3**	**USRK**	**Ussuriysk Ar.**	**47.48**	**1**		**P**	**18 10 32.8**	**+0.1**					
NPW	**Naypyitaw**	**41.44**	**305**	P	**P**	**18 09 46.1 +1.3**	**HHC**	**Hu-ho-hao-te**	**47.62**	**340**	⇑P	**P**	**18 10 34.4**	**+0.4**					
	comp=Z,62nm,1.1s						HHC				sP	pP	18 10 42.0	+1.0					
TIA	**Tai'an**	**41.61**	**343**	P	**P**	**18 09 45.9 0.0**	HHC				PP	**PP**	**18 12 23.0**	**-2.8**					
TIA				S	**S**	**18 15 57.4 -3.6**	HHC				S	**S**	**18 17 29.0**	**+0.7**					
TIA				pmax	pmax		HHC				SS	**SS**	**18 20 52.6**	**-4.2**					
	comp=Z,29nm,1.1s						HHC				pmax	pmax							
TIA				L	L			comp=Z,27nm,1.1s											
	comp=Z,610nm,24.1s						HHC				pmax	pmax							
TIA				L	L			comp=Z,240nm,7.6s											
	comp=Z,1μm,20.8s						HHC				L	L							
TIA				L	L			comp=Z,440nm,19.3s											
	comp=Z,920nm,23.5s						HHC				L	L							
LYN	**LuoYang**	**41.72**	**337**	P	**P**	**18 09 47.4 +0.6**		comp=Z,1μm,24.4s											
LYN				S	**S**	**18 15 59.5 -3.1**	HHC				L	L							
LYN				pmax	pmax			comp=Z,960nm,27.8s											
	comp=Z,44nm,1.0s						**TEZP**	**TEZPUR**	**47.63**	**311**	*i* S	S	18 17 15.0	-14					
LYN				pmax	pmax		**TEZP**	**TEZPUR**	**47.63**	**311**	*i* P	P	18 10 28.7	-5.5					
	comp=Z,280nm,4.9s						**TEZP**	**TEZPUR**	**47.63**	**311**	IAmb	IAmb	18 10 37.0						
LYN				L	L			comp=Z,20nm,1.0s											
	comp=Z,1μm,25.8s						**SHL**	**Shillong**	**47.77**	**309**	P	**P**	**18 10 36.0**	**+0.5**					
LYN				L	L			SNR=20											
	comp=Z,2μm,27.5s						**SHL**	**Shillong**	**47.77**	**309**	P	**P**	**18 10 35.1**	**-0.4**					
LYN				L	L		SHL				pmax	pmax							
	comp=Z,1μm,21.6s							comp=Z,80nm,0.9s											
TNCH	**TengChong**	**42.50**	**314**	P	**P**	**18 09 54.6 +1.0**	**SHL**	**Shillong**	**47.77**	**309**	IAmb	IAmb	18 10 38.4						
TNCH				PcP	**PcP**	**18 11 47.8 +1.6**		comp=Z,72nm,1.4s											
TNCH				S	**S**	**18 16 16.5 +1.7**	**SHL**	**Shillong**	**47.77**	**309**	*i* P	P	18 10 28.2	-7.2					
TNCH				SS	**SS**	**18 19 18.5 -6.4**	**MDJ**	**Mudanjiang**	**47.91**	**359**	P	**P**	**18 10 36.9**	**+0.9**					
TNCH				pmax	pmax		MDJ				PP	**PP**	**18 12 26.1**	**-2.1**					
	comp=Z,32nm,1.4s						MDJ				S	**S**	**18 17 33.2**	**+1.2**					
TNCH				pmax	pmax		MDJ				pmax	pmax							
	comp=Z,230nm,4.2s							comp=Z,28nm,1.1s											
TNCH				L	L		MDJ				L	L							
	comp=Z,690nm,16.6s							comp=Z,1μm,19.9s											
TNCH				L	L		**MDJ**	**Mudanjiang**	**47.91**	**359**	IAmb	IAmb	18 10 39.3						
	comp=Z,400nm,14.8s							comp=Z,31nm,1.0s											
TNCH				L	L		**MSVF**	**Nonsavu**	**48.07**	**111**	LR	LR	18 32 05.4						
	comp=Z,1μm,23.8s							comp=Z,897nm,18.5s,baz=315,slow=38											
XAN	**Xi'an**	**42.81**	**332**	P	**P**	**18 09 55.9 +0.1**		comp=Z,28nm,1.1s											
XAN				sP	pP	18 10 03.4 +0.6	**BTO2**	**Baotou**	**48.13**	**338**	*e*P	**P**	**18 10 39.6**	**+1.7**					
XAN				S	**S**	**18 16 15.8 -3.0**	BTO2				pP	**pP**	**18 10 44.2**	**-0.8**					
XAN				ScS	**ScS**	**18 19 46.9 -8.8**	BTO2				sP	**sP**	**18 10 46.8**	**-1.0**					
XAN				pmax	pmax		BTO2				S	**S**	**18 17 36.3**	**+0.8**					
	comp=Z,71nm,1.1s						BTO2				sS	**pS**	**18 17 45.5**	**+1.6**					
XAN				L	L		BTO2				pmax	pmax							
	comp=Z,790nm,19.2s							comp=Z,28nm,1.4s											
XAN				L	L		BTO2				pmax	pmax							
	comp=Z,1μm,23.4s							comp=Z,400nm,9.0s											
XAN				L	L		BTO2				L	L							
	comp=Z,1μm,23.4s							comp=Z,2μm,19.5s											
CD2	**Chengdu**	**43.04**	**325**	P	**P**	**18 09 57.3 -0.4**	BTO2				L	L							
CD2				S	**S**	**18 16 14.9 -7.4**		comp=Z,3μm,23.7s											
CD2				pmax	pmax		BTO2				L	L							
	comp=Z,50nm,1.0s							comp=Z,1μm,23.5s											
CD2				pmax	pmax		**ASAJ**	**Asahikawa**	**48.49**	**11**	LR	LR	18 31 17.1						
	comp=Z,310nm,5.1s							comp=Z,873nm,20.4s,baz=232,slow=36											
CD2				L	L		**XLT**	**XiLinHaoTe**	**49.08**	**346**	*e*P	**P**	**18 10 45.3**	**+0.2**					
	comp=Z,2μm,19.0s						XLT				sP	pP	18 10 52.5	+0.2					
CD2				L	L		XLT				PP	**PP**	**18 12 35.9**	**-3.1**					
	comp=Z,2μm,27.9s						XLT				S	**S**	**18 17 48.5**	**-0.3**					
CD2				L	L		XLT				SS	**SS**	**18 21 12.3**	**-8.0**					
	comp=Z,2μm,18.4s						XLT				pmax	pmax							
DL2	**Dalian**	**43.09**	**349**	P	**P**	**18 09 59.4 +1.5**		comp=Z,33nm,0.9s											
DL2				S	**S**	**18 16 25.2 +2.6**	XLT				L	L							
DL2				pmax	pmax			comp=Z,710nm,17.2s											
	comp=Z,100nm,1.0s						XLT				L	L							
DL2				pmax	pmax			comp=Z,380nm,16.9s											
	comp=Z,310nm,5.1s						**BNX**	**BinXian**	**49.12**	**357**	⇓P	**P**	**18 10 45.2**	**-0.1**					
DL2				L	L		BNX				pP	**pP**	**18 10 48.4**	**-4.1**					
	comp=Z,1μm,18.0s						BNX				S	**S**	**18 17 51.1**	**+2.0**					
DL2				L	L		BNX				pmax	pmax							
	comp=Z,3μm,22.7s							comp=Z,28nm,1.4s											
DL2				L	L		BNX				L	L							
	comp=Z,2μm,24.6s							comp=Z,940nm,20.6s											
HNS	**HongShan**	**43.46**	**341**	⇓P	**P**	**18 10 01.3 +0.4**	BNX				L	L							
HNS				S	**S**	**18 16 26.2 -1.8**		comp=Z,1μm,21.7s											
HNS				pmax	pmax		BNX				L	L							
	comp=Z,29nm,1.3s							comp=Z,1μm,22.8s											
HNS				L	L		**DHUB**	**DHUBRI**	**49.46**	**309**	IAmb	IAmb	18 10 51.5						
	comp=Z,830nm,20.1s							comp=Z,25nm,1.2s											
HNS				L	L		**DHUB**	**DHUBRI**	**49.46**	**309**	*i* P	**P**	**18 10 43.9**	**-4.3**					
	comp=Z,400nm,17.2s						**LSA**	**Lhasa**	**50.54**	**314**	*i* P	**P**	**18 10 58.4**	**+1.5**					
HNS				L	L			SNR=8.8											
	comp=Z,1μm,21.6s						**LSA**	**Lhasa**	**50.54**	**314**	P	**P**	**18 10 59.8**	**+2.8**					
TIY	**Taiyuan**	**44.52**	**339**	*e*P	**P**	**18 10 10.2 +0.6**	LSA				S	**S**	**18 18 14.3**	**+3.9**					
TIY				S	**S**	**18 16 44.1 +0.3**	LSA				pmax	pmax							
TIY				pmax	pmax			comp=Z,24nm,1.4s											
	comp=Z,43nm,0.9s						LSA				L	L							
TIY				L	L			comp=Z,420nm,17.7s											
	comp=Z,550nm,31.6s						LSA				L	L							
TIY				L	L			comp=Z,300nm,15.7s											
	comp=Z,1μm,30.2s						LSA				L	L							
TIY				L	L			comp=Z,89nm,10.9s											
	comp=Z,740nm,28.9s						**LSA**	**Lhasa**	**50.54**	**314**	IAmb	IAmb	18 11 18.9						
MORE	**Moreh**	**45.20**	**310**	P	**P**	**18 10 14.6 -0.6**		comp=Z,123nm,1.8s											
MORE				IAmb	IAmb	18 10 32.4	**YSS**	**Yuzhno-Sakhali**	**51.26**	**10**	*e*P	**P**	**18 10 58.3**	**-3.2**					
	comp=Z,26nm,0.8s						YSS				*e*		18 12 12.6						
BJI2	**Beijing**	**45.43**	**344**	P	**P**	**18 10 17.3 +0.7**	YSS				pmax	pmax							
BJI2				pP	**pP**	**18 10 22.6 -1.1**		comp=Z,20nm,1.1s											
BJI2				S	**S**	**18 16 57.4 +0.8**	YSS				MLR	MLR							
BJI2				sS	**pS**	**18 17 06.5 +1.6**		comp=N,700nm,16.0s											
							YSS				MLR	MLR							

	comp=E,600nm,18.0s							comp=Z,1μm,19.9s,baz=90,slow=38											
PALK	**Pallekele**	**51.46**	**282**	P	**P**	**18 11 04.0 +0.3**		comp=Z,8.7nm,0.5s											
	comp=E,6.2nm,0.7s,baz=89,slow=7.8,SNR=6.5						**LZH**	**Lanzhou**	**46.92**	**329**	*e*P	**P**	**18 10 29.8**	**+1.2**					
PALK				LR	LR	18 35 03.8	LZH				sP	sP	18 10 37.3	-1.3					
	comp=E,568nm,18.4s,baz=104,slow=39						LZH				S	**S**	**18 17 17.1**	**-1.5**					
	comp=E,6.2nm,0.7s						LZH				pmax	pmax							
PALK	**Pallekele**	**51.46**	**282**	P	**P**	**18 11 04.4 +0.7**		comp=Z,63nm,1.2s											
PALK	**Pallekele**	**51.46**	**282**	P	**P**	**18 11 04.8 +1.2**	LZH				pmax	pmax							
PALK	**Pallekele**	**51.46**	**282**	P	**P**	**18 11 03.2 -0.5**		comp=Z,270nm,4.8s											
PALK				pmax	pmax		LZH				L	L							
	comp=Z,40nm,1.1s							comp=Z,2μm,14.8s											
PALK	**Pallekele**	**51.46**	**282**	P	**P**	**18 11 03.2 -0.5**	LZH				L	L							
PALK				IAmb	IAmb	18 11 23.4		comp=Z,2μm,14.8s											
	comp=Z,40nm,1.1s						LZH				L	L							
PALK	**Pallekele**	**51.46**	**282**	P	**P**	**18 11 04.6 +0.9**		comp=Z,980nm,13.7s											
	comp=Z,39nm,1.0s						**CN2**	**Changchun**	**47.35**	**354**	*e*P	**P**	**18 10 30.0**	**-1.7**					
GTA2	**Gaotai**	**51.60**	**329**	P	**P**	**18 11 05.0 +0.6**	CN2				*e*S	**S**	**18 17 21.8**	**-2.3**					
GTA2				pP	pP	18 11 09.7 -1.8	CN2				SS	**SS**	**18 20 45.1**	**-7.0**					
GTA2				ScP	**ScP**	**18 16 15.6 +2.1**	CN2				pmax	pmax							
GTA2				S	**S**	**18 18 21.0 -3.1**		comp=Z,10.0nm,0.5s											
GTA2				ScS	**ScS**	**18 20 53.6 +0.1**	CN2				pmax	pmax							
GTA2				pmax	pmax			comp=Z,100nm,3.0s											
	comp=Z,33nm,1.3s						CN2				L	L							
GTA2				pmax	pmax			comp=Z,600nm,18.0s											
	comp=Z,250nm,7.3s						CN2				L	L							
GTA2				L	L			comp=Z,400nm,18.0s											
	comp=Z,890nm,22.2s						CN2				L	L							
GTA2				L	L			comp=Z,600nm,18.6s											
	comp=Z,720nm,21.9s						**ZIRO**	**ZIRO**	**47.36**	**313**	*i* S	S	18 17 13.9	-11					
GTA2				L	L		**ZIRO**	**ZIRO**	**47.36**	**313**	*i* P	**P**	**18 10 28.9**	**-3.4**					
	comp=Z,890nm,22.2s						**ZIRO**	**ZIRO**	**47.36**	**313**	IAmb	IAmb	18 10 34.4						
VIS	**Vishakhapatnam**	**51.64**	**296**	IAmb	IAmb	18 11 24.4		comp=Z,30nm,0.8s											
	comp=Z,126nm,1.7s						**USA0B**	**Ussuriysk Arra**	**47.48**	**1**	*ce*P	**P**	**18 10 32.7**	**+0.1**					
VIS	**Vishakhapatnam**	**51.64**	**296**	*i* P	P	18 10 59.6 -5.3	**USRK**	**Ussuriysk Ar.**	**47.48**	**1**	P	**P**	**18 10 33.0**	**+0.3**					
BOK	**Bokaro**	**51.73**	**304**	IAmb	IAmb	18 11 06.3		comp=Z,13nm,0.8s,baz=180,slow=7.2,SNR=9.1											
	comp=Z,20nm,1.2s						USRK				LR	LR	18 30 10.8						
BOK	**Bokaro**	**51.73**	**304**	*i* P	P	18 10 57.6 -7.9		comp=Z,461nm,20.4s,baz=173,slow=36											
MALK	**Mahakanadarawa**	**51.82**	**283**	P	**P**	**18 11 06.6 +0.3**		comp=Z,13nm,0.8s											
	comp=Z,80nm,1.1s						**USRK**	**Ussuriysk Ar.**	**47.48**	**1**	P	**P**	**18 10 32.8**	**+0.1**					
MALK				P	**P**	**18 11 06.6 +0.3**	**HHC**	**Hu-ho-hao-te**	**47.62**	**340**	⇑P	**P**	**18 10 34.4**	**+0.4**					
	comp=Z,80nm,1.1s						HHC				sP	pP	18 10 42.0	+1.0					
RAGD	**RAYAGADA**	**52.04**	**298**	IAmb	IAmb	18 11 10.7	HHC				PP	**PP**	**18 12 23.0**	**-2.8**					
	comp=Z,26nm,0.9s						HHC				S	**S**	**18 17 29.0**	**+0.7**					
RAGD	**RAYAGADA**	**52.04**	**298**	*i* P	P	18 10 58.7 -9.2	HHC				SS	**SS**	**18 20 52.6**	**-4.2**					
GOMU	**GeErMu**	**52.05**	**323**	P	**P**	**18 11 08.5 +0.4**	HHC				pmax	pmax							
GOMU				pP	pP	18 11 12.4 -2.8		comp=Z,27nm,1.1s											
GOMU				sP	sP	18 11 16.1 -2.0	HHC				pmax	pmax							
GOMU				S	**S**	**18 18 31.4 +0.5**		comp=Z,240nm,7.6s											
GOMU				pmax	pmax		HHC				L	L							
	comp=Z,7.0nm,0.9s							comp=Z,440nm,19.3s											
GOMU				L	L		HHC				L	L							
	comp=Z,250nm,14.7s							comp=Z,1μm,24.4s											
GOMU				L	L		HHC				L	L							
	comp=Z,250nm,14.6s							comp=Z,960nm,27.8s											
GOMU				L	L		**TEZP**	**TEZPUR**	**47.63**	**311**	*i* S	S	18 17 15.0	-14					
	comp=Z,660nm,14.5s						**TEZP**	**TEZPUR**	**47.63**	**311**	*i* P	P	18 10 28.7	-5.5					
KLR	**Kul'dur**	**52.51**	**1**	LR	LR	18 34 25.2	**TEZP**	**TEZPUR**	**47.63**	**311**	IAmb	IAmb	18 10 37.0						
	comp=Z,395nm,18.9s,baz=174,slow=37							comp=Z,20nm,1.0s											
KLR	**Kul'dur**	**52.51**	**1**	⇓*e*P	**P**	**18 11 11.3 +0.6**	**SHL**	**Shillong**	**47.77**	**309**	P	**P**	**18 10 36.0**	**+0.5**					
KLR				pmax	pmax			SNR=20											
	comp=Z,29nm,1.5s						**SHL**	**Shillong**	**47.77**	**309**	P	**P**	**18 10 35.1**	**-0.4**					
EVN	**Everest**	**52.88**	**309**	IAmb	IAmb	18 11 33.3	SHL				pmax	pmax							
	comp=Z,72nm,1.0s							comp=Z,80nm,0.9s											
RPZ	**Rata Peaks**	**53.36**	**145**	LR	LR	18 34 59.6	**SHL**	**Shillong**	**47.77**	**309**	IAmb	IAmb	18 10 38.4						
	comp=Z,182nm,21.0s,baz=300,slow=37							comp=Z,72nm,1.4s											
HEH	**HeiHe**	**53.62**	**357**	*e*P	**P**	**18 11 19.3 +0.3**	**SHL**	**Shillong**	**47.77**	**309**	*i* P	P	18 10 28.2	-7.2					
HEH				pmax	pmax		**MDJ**	**Mudanjiang**	**47.91**	**359**	P	**P**	**18 10 36.9**	**+0.9**					
	comp=Z,50nm,1.3s						MDJ				PP	**PP**	**18 12 26.1**	**-2.1**					
HEH				L	L		MDJ				S	**S**	**18 17 33.2**	**+1.2**					
	comp=Z,810nm,17.9s						MDJ				pmax	pmax							
HEH				L	L			comp=Z,28nm,1.1s											
	comp=Z,1μm,16.8s						MDJ				L	L							
HEH				L	L			comp=Z,1μm,19.9s											
	comp=Z,1μm,18.4s						**MDJ**	**Mudanjiang**	**47.91**	**359**	IAmb	IAmb	18 10 39.3						
HILR	**Hailar Array B**	**53.74**	**351**	P	**P**	**18 11 21.0 +1.1**		comp=Z,31nm,1.0s											
	comp=Z,14nm,0.8s,baz=162,slow=10,SNR=9.9						**MSVF**	**Nonsavu**	**48.07**	**111**	LR	LR	18 32 05.4						
HILR				LR	LR	18 36 06.2		comp=Z,897nm,18.5s,baz=315,slow=38											
	comp=Z,552nm,18.8s,baz=115,slow=38							comp=Z,28nm,1.1s											
	comp=Z,14nm,0.8s						**BTO2**	**Baotou**	**48.13**	**338**	*e*P	**P**	**18 10 39.6**	**+1.7**					
URZ	**Urewera**	**54.31**	**136**	LR	LR	18 36 13.6	BTO2				pP	**pP**	**18 10 44.2**	**-0.8**					
	comp=Z,763nm,18.9s,baz=308,slow=38						BTO2				sP	**sP**	**18 10 46.8**	**-1.0**					
BKZ	**Black Stump Fm**	**54.31**	**137**	P	**P**	**18 11 26.0 +1.6**	BTO2				S	**S**	**18 17 36.3**	**+0.8**					
BHW	**Baring Head**	**54.38**	**140**	P	**P**	**18 11 24.8 +0.1**	BTO2				sS	**pS**	**18 17 45.5**	**+1.6**					
RAO	**Raoul Island**	**54.62**	**124**	LR	LR	18 35 50.4	BTO2				pmax	pmax							
	comp=Z,525nm,18.5s,baz=1.5,slow=37							comp=Z,28nm,1.4s											
TYV	**Tymovskoe**	**55.03**	**9**	*e*P	**P**	**18 11 28.8 -0.4**	BTO2				pmax	pmax							
TYV				pmax	pmax			comp=Z,400nm,9.0s

comp=Z,23nm,1.0s,baz=226,slow=3.9,SNR=9.1
PETK PcP **PcP** **18 12 53.2 +0.5**
comp=Z,4.3nm,0.6s,baz=252,slow=4.5,SNR=9.2
comp=Z,23nm,1.0s
PET **Petropavlovsk** **60.88 19** *e*P P 18 12 18.7 +8.5
PET *e*S **S** **18 20 35.1 +8.6**
PET pmax pmax
comp=Z,100nm,13.4s
PET MLR MLR
comp=Z,400nm,19.0s
PET MLR MLR
comp=Z,700nm,17.0s
KNGR **Kungurtug, Tuv** **61.12 336***de*P **P** **18 12 14.5 +2.5**
KNGR pmax pmax
comp=Z,15nm,1.2s
WMQ **Urumqi** **61.13 325** ⇑P **P** **18 12 13.0 +0.8**
WMQ sP sP 18 12 21.2 -1.1
WMQ S **S** **18 20 33.1 +2.9**
WMQ pmax pmax
comp=Z,45nm,0.9s
WMQ pmax pmax
comp=Z,190nm,3.7s
WMQ L L
comp=Z,1μm,15.9s
WMQ L L
comp=Z,630nm,21.9s
WMQ L L
comp=Z,780nm,23.8s
KLP **Kalpa** **61.13 309** IAmb IAmb 18 12 21.9
comp=Z,29nm,1.0s
KLP **Kalpa** **61.13 309** *i*P **P** **18 12 08.2 -4.6**
KUDL **Kundal** **61.21 305** *i*P **P** **18 12 08.4 -4.6**
SMLA **Simla** **61.81 308** *i*S S 18 20 25.5 -14
SMLA **Simla** **61.81 308** *i*P **P** **18 12 12.4 -4.5**
SMLA **Simla** **61.81 308** IAmb IAmb 18 12 21.0
comp=Z,54nm,0.9s
AJM **Ajmer** **62.15 302** IAmb IAmb 18 12 19.6
comp=Z,24nm,1.1s
AJM **Ajmer** **62.15 302** *i*P P 18 12 14.1 -5.3
BOD **Bodaibo** **62.65 350** *e*P **P** **18 12 22.6 +0.6**
BOD pmax pmax
comp=Z,109nm,1.5s
DHRM **DHARAMSHALA** **62.94 309** *i*S S 18 20 41.3 -13
DHRM **DHARAMSHALA** **62.94 309** *i*P P 18 12 19.4 -5.4
DHRM **DHARAMSHALA** **62.94 309** IAmb IAmb 18 12 42.4
comp=Z,84nm,0.5s
ALCI **Alchi Leh** **63.07 311** IAmb IAmb 18 12 29.0
comp=Z,20nm,0.9s
ALCI **Alchi Leh** **63.07 311** *i*P **P** **18 12 22.3 -3.5**
TSSA **Tissa** **63.29 309** IAmb IAmb 18 12 30.1
comp=Z,29nm,0.9s
TSSA **Tissa** **63.29 309** *i*P **P** **18 12 23.1 -4.0**
MA2 **Magadan** **64.75 11** LR LR 18 39 52.5
comp=Z,270nm,20.9s,baz=205,slow=35
WUS **Wushi** **64.86 319** IAmb IAmb 18 12 46.6
comp=Z,48nm,1.3s
ZSN **Zaisan** **64.92 327** *e*P **P** **18 12 38.1 +0.9**
ZSN pmax pmax
comp=Z,14nm,1.3s
ZSN **Zaisan** **64.92 327** *e*P **P** **18 12 38.1 +0.9**
comp=Z,14nm,1.3s
DGZ **Jazzator, Alta** **65.01 330***c* iP **P** **18 12 38.6 +0.7**
DGZ pmax pmax
comp=Z,42nm,1.1s
YAK **Yakutsk** **65.34 359** LR LR 18 43 27.9
comp=Z,204nm,18.1s,baz=170,slow=38
YAK **Yakutsk** **65.34 359** *e*P **P** **18 12 39.8 +0.2**
YAK *e* 18 13 08.6
YAK *e* 18 15 03.3
YAK *e*PPP PPP 18 16 42.3
YAK *e*S **S** **18 21 24.8 +2.8**
YAK *e* 18 22 34.7
YAK *e*SS **SS** **18 25 38.0 +2.5**
YAK pmax pmax
comp=Z,53nm,1.0s
YAK pmax pmax
comp=N,11nm,1.1s
YAK pmax pmax
comp=E,4.0nm,1.1s
YAK pmax pmax
comp=Z,362nm,3.8s
YAK pmax pmax
comp=N,347nm,3.5s
YAK pmax pmax
comp=E,99nm,2.7s
YAK smax smax
comp=N,260nm,2.9s
YAK smax smax
comp=E,139nm,2.2s
YAK **Yakutsk** **65.34 359** P **P** **18 12 39.9 +0.2**
SHLS **Shalkode** **65.69 321***c* iP **P** **18 12 41.6 -0.8**
SHLS *e*S **S** **18 21 26.9 -0.4**
SHLS pmax pmax
comp=Z,8.0nm,0.6s
SHLS **Shalkode** **65.69 321**⇑ *i*P **P** **18 12 41.6 -0.8**
comp=Z,7.7nm,0.6s
SHLS *e*S **S** **18 21 26.9 -0.4**
UZB **Uzynbulak** **65.96 321***c* iP **P** **18 12 45.1 +0.9**
UZB pmax pmax
comp=Z,13nm,1.0s
UZB **Uzynbulak** **65.96 321**⇑ *i*P **P** **18 12 45.1 +0.9**
comp=Z,13nm,1.0s
MK31 **Makanchi Array** **65.96 325***c* iP **P** **18 12 44.3 +0.3**
MKAR **Makanchi Array** **65.96 325** P **P** **18 12 44.8 +0.8**
comp=Z,19nm,0.6s,baz=118,slow=8.0,SNR=203
MKAR LR LR 18 44 15.9
comp=Z,317nm,20.9s,baz=103,slow=38
comp=Z,19nm,0.6s
TARG **Taragay, Kyrgy** **66.04 319** IAmb IAmb 18 12 58.7
comp=Z,21nm,0.9s
MAKZ **Makanchi** **66.15 325** P **P** **18 12 45.9 +0.7**
MAKZ pmax pmax
comp=Z,105nm,1.4s
MAKZ **Makanchi** **66.15 325** P **P** **18 12 45.9 +0.7**
SATY **Saty** **66.31 320***c* iP **P** **18 12 47.2 +0.8**
SATY pmax pmax
comp=Z,21nm,0.9s
SATY **Saty** **66.31 320**⇑ *i*P **P** **18 12 47.3 +0.8**
comp=Z,21nm,0.9s
KPKS **Kokpek** **66.33 321** *e*P **P** **18 12 47.4 +0.8**
KPKS *e*S **S** **18 21 37.9 +2.8**
KPKS **Kokpek** **66.33 321** *e*P **P** **18 12 47.4 +0.8**
KPKS *e*S **S** **18 21 37.9 +2.8**
KSH2 **Kashi** **66.37 316** P **P** **18 12 47.8 +0.8**
KSH2 sP pP 18 12 54.2 -0.1
KSH2 S **S** **18 21 37.1 +1.3**
KSH2 pmax pmax
comp=Z,18nm,1.1s
KSH2 pmax pmax
comp=Z,170nm,5.0s
KSH2 L L
comp=Z,670nm,24.0s
KSH2 L L
comp=Z,630nm,19.2s
KSH2 L L
comp=Z,650nm,22.3s
SHEM **Shemya Is, Ala** **66.65 27** LR LR 18 37 59.8
comp=Z,467nm,21.8s,baz=240,slow=32
NRN **Naryn** **67.10 318** IAmb IAmb 18 12 56.1
comp=Z,26nm,1.2s
MDOK **Medeo** **67.22 320** *e*P **P** **18 12 53.1 +0.8**
MDOK **Medeo** **67.22 320** *e*P **P** **18 12 53.2 +0.9**
TNSS **Tian-Shan** **67.23 320** *e*P **P** **18 12 53.2 +0.5**
TNSS **Tian-Shan** **67.23 320** *e*P **P** **18 12 53.2 +0.5**
TDK **Taldyqorghan** **67.28 322***c* iP **P** **18 12 53.5 +1.0**
TDK pmax pmax
comp=Z,16nm,1.0s
TDK **Taldyqorghan** **67.28 322**⇑ *i*P **P** **18 12 53.5 +1.0**
comp=Z,16nm,1.0s
AAA **Alma-Ata** **67.33 320** *e*P **P** **18 12 53.8 +0.9**
AAA **Alma-Ata** **67.33 320** *e*P **P** **18 12 53.8 +0.9**
BOOM **Boomskoye usch** **67.62 319** IAmb IAmb 18 12 59.7
comp=Z,50nm,1.2s
TKM2 **Tokmak 2** **68.05 319** P **P** **18 12 58.7 +1.1**
SNR=34
SEY **Seymchan** **68.17 10** LR LR 18 42 03.2
comp=Z,388nm,21.2s,baz=170,slow=35
SEY **Seymchan** **68.17 10**⇓ *e*P **P** **18 12 59.1 +1.5**
SEY pmax pmax
comp=Z,43nm,1.1s
KBK **Karagaybulak** **68.35 319** P **P** **18 13 00.7 +1.3**
SNR=13
UCH **Uchtor** **68.45 318** P **P** **18 13 02.0 +1.6**
SNR=36
CHMS **Chumysh** **68.64 319** P **P** **18 13 01.8 +0.7**
SNR=8.7
AAK **Ala-Archa** **68.64 319** LR LR 18 46 38.3
comp=Z,238nm,21.3s,baz=97,slow=39
AAK **Ala-Archa** **68.64 319** P **P** **18 13 02.0 +0.8**
SNR=22
AAK **Ala-Archa** **68.64 319** *i*P **P** **18 13 02.5 +1.2**
SNR=7.9
AAK **Ala-Archa** **68.64 319** P **P** **18 13 02.5 +1.2**
AAK **Ala-Archa** **68.64 319***c* iP **P** **18 13 02.2 +0.9**
AAK pmax pmax
comp=Z,22nm,1.1s
AAK **Ala-Archa** **68.64 319** P **P** **18 13 01.6 +0.4**
AAK IAmb IAmb 18 13 06.1
comp=Z,26nm,1.1s
USP **Ospenovka** **68.92 319** P **P** **18 13 03.8 +1.0**
SNR=34
ZALV **Zalesovo Beam** **68.98 333** P **P** **18 13 02.7 -0.2**
comp=Z,47nm,1.0s,baz=106,slow=5.4,SNR=62
ZALV LR LR 18 45 05.5
comp=Z,171nm,18.6s,baz=132,slow=38
comp=Z,47nm,1.0s
ZALV **Zalesovo Beam** **68.98 333** P **P** **18 13 02.5 -0.4**
EKS2 **Erkin-Say** **69.13 318** P **P** **18 13 05.7 +1.4**
SNR=26
RAR **Rarotonga** **69.25 111** LR LR 18 43 24.4
comp=Z,179nm,20.1s,baz=268,slow=36
KBL **Kabul** **69.42 309** P **P** **18 13 06.1 -0.2**
KBL pmax pmax
comp=Z,15nm,0.7s
KBL **Kabul** **69.42 309** P **P** **18 13 06.1 -0.2**
KBL IAmb IAmb 18 13 10.9
comp=Z,15nm,0.7s
BTLS **Baital** **70.01 321***c* iP **P** **18 13 10.4 +0.9**
BTLS **Baital** **70.01 321**⇑ *i*P **P** **18 13 10.5 +0.9**
BTK **Batken** **70.09 315** IAmb IAmb 18 13 29.0
comp=Z,24nm,1.0s
KURBB **Kurchatov Arra** **70.16 327** P **P** **18 13 10.8 +0.6**
comp=Z,29nm,0.6s,baz=127,slow=5.6,SNR=304
comp=Z,29nm,0.6s
KURK **Kurchatov** **70.16 328** P **P** **18 13 10.9 +0.7**
KURK **Kurchatov** **70.16 328** P **P** **18 13 10.7 +0.5**
KURK pmax pmax
comp=Z,162nm,1.4s
KURK **Kurchatov** **70.16 328** P **P** **18 13 10.7 +0.5**
DZA **Taraz** **70.86 318** *e*P **P** **18 13 15.6 +0.9**
DZA pmax pmax
comp=Z,10.0nm,0.7s
DZA **Taraz** **70.86 318** *e*P **P** **18 13 15.7 +0.9**
comp=Z,9.6nm,0.7s
IUG **Iuzhnay** **71.44 317***c* iP **P** **18 13 19.2 +0.8**
IUG pmax pmax
comp=Z,24nm,1.5s
IUG **Iuzhnay** **71.44 317**⇑ *i*P **P** **18 13 19.3 +0.8**
comp=Z,24nm,1.5s
KKAR **Karatay Array** **71.50 318** P **P** **18 13 18.8 +0.2**
KKAR **Karatay Array** **71.50 318** P **P** **18 13 18.8 +0.2**
CHM **Chimkent** **71.81 317** *e*P **P** **18 13 21.4 +0.9**
CHM pmax pmax
comp=Z,14nm,0.9s
CHM **Chimkent** **71.81 317** *e*P **P** **18 13 21.4 +0.9**
comp=Z,14nm,0.9s
BRLS **Boroldav** **71.92 317***c* iP **P** **18 13 22.0 +0.9**
BRLS pmax pmax
comp=Z,17nm,1.3s
BRLS **Boroldav** **71.92 317**⇑ *i*P **P** **18 13 22.1 +0.9**
comp=Z,18nm,1.3s
NGCH **Negor - Chabah** **73.56 298** P **P** **18 13 32.4 +1.2**
JLN **Jalan Bani Buh** **74.49 294** P **P** **18 13 37.4 +0.7**
SNR=7.5
WBK **Wadi Bani Khal** **74.97 294** P **P** **18 13 40.9 +1.3**
SNR=8.5
TIXI **Tiksi** **75.01 359** LR LR 18 45 50.3
comp=Z,738nm,21.9s,baz=194,slow=35
TIXI **Tiksi** **75.01 359**⇓ *e*P **P** **18 13 38.4 -0.3**
TIXI pmax pmax
comp=Z,18nm,1.1s
TIXI **Tiksi** **75.01 359** P **P** **18 13 38.3 -0.3**
TIXI IAmb IAmb 18 13 47.7
comp=Z,83nm,1.7s
WSAR **Wadi Sarin** **75.39 295** P **P** **18 13 43.1 +1.1**
SNR=13
MSEY **Mahe Island** **75.45 266** P **P** **18 13 43.5 +1.0**
BILL **Bilibino** **75.46 13**⇓ *e*P **P** **18 13 43.4 +2.0**
BILL pmax pmax
comp=Z,10.0nm,1.3s
MHTO **MHTO** **75.61 293** P **P** **18 13 44.0 +0.8**
SNR=8.8
JMDO **Jabal Madar** **75.72 294** P **P** **18 13 44.8 +0.9**
SNR=9.2
BVAR **Borovoye Array** **75.73 327** P **P** **18 13 43.9 +0.6**
comp=Z,96nm,1.1s,baz=124,slow=7.5,SNR=98
comp=Z,96nm,1.1s
VNDA **Vanda** **75.78 173** P **P** **18 13 44.5 +1.3**
comp=Z,7.1nm,0.8s,baz=317,slow=6.1,SNR=29
comp=Z,7.1nm,0.8s
VNDA **Vanda** **75.78 173** P **P** **18 13 44.4 +1.3**
VNDA pmax pmax
comp=Z,13nm,1.1s
VNDA **Vanda** **75.78 173** P **P** **18 13 44.4 +1.3**
BORK **Borovoye** **75.78 327** P **P** **18 13 44.0 +0.5**
BORK pmax pmax
comp=Z,54nm,0.9s
BORK **Borovoye** **75.78 327** P **P** **18 13 44.0 +0.5**
DQM **DQM** **75.84 291** P **P** **18 13 45.6 +1.1**
SMDO **Samad** **75.89 295** P **P** **18 13 45.7 +0.8**
SNR=8.9
BIDO **Bidbid** **75.90 295** P **P** **18 13 45.8 +1.0**
SNR=22
BSY **Bisya** **76.61 294** P **P** **18 13 50.0 +1.1**
SNR=8.5
HOQ **Hoqain** **76.65 295** P **P** **18 13 50.1 +1.0**
SNR=23
UNV **Unalaska Valle** **76.95 33** P **P** **18 13 52.2 +2.1**
ARQ **Araqi** **77.32 295** P **P** **18 13 53.9 +1.0**
SNR=12
SHAO **Shalim** **77.35 289** P **P** **18 13 53.9 +0.7**
SOHO **SOHO** **77.44 296** *i*P **P** **18 13 54.2 +0.6**
SNR=10
SOHO **SOHO** **77.44 296** P **P** **18 13 54.3 +0.8**
SNR=17
MDH **Madha** **77.85 297** P **P** **18 13 56.0 +0.2**
MDH **Madha** **77.85 297** P **P** **18 13 56.5 +0.8**
UOSS **Minazif** **77.87 296** *i*P **P** **18 13 56.7 +0.8**
SNR=6.1
UOSS **Minazif** **77.87 296** P **P** **18 13 56.8 +0.9**
UOSS **Minazif** **77.87 296** P **P** **18 13 56.2 +0.3**
HATD **Hatta, Dubai** **77.92 296** *i*P **P** **18 13 57.4 +1.2**
SNR=14
HATD **Hatta, Dubai** **77.92 296** P **P** **18 13 57.4 +1.2**
SNR=15
BANOM **Banah** **77.95 297** *i*P **P** **18 13 58.2 +1.8**
SNR=6.1
BANOM **Banah** **77.95 297** P **P** **18 13 58.0 +1.6**
SNR=10.0
DMTO **DMTO** **77.95 289** P **P** **18 13 57.2 +0.7**
ASHO **Ashiyiah** **77.96 296** *i*P **P** **18 13 57.4 +1.0**
SNR=9.7
ASHO **Ashiyiah** **77.96 296** P **P** **18 13 57.3 +0.9**
SNR=10
MSFE **Esma-Masafi** **77.98 297** *i*P **P** **18 13 57.9 +1.4**
SNR=14
MASF **Masafi** **77.98 297** P **P** **18 13 57.8 +1.2**
SNR=13
SHME **Shamm** **78.11 297** *i*P **P** **18 13 58.5 +1.3**
SNR=19
SHME **Shamm** **78.11 297** P **P** **18 13 58.9 +1.6**
SNR=12
ALNE **Al Ain** **78.13 295** *i*P **P** **18 13 58.5 +1.1**
SNR=14
ALNE **Al Ain** **78.13 295** P **P** **18 13 58.5 +1.1**
SNR=18
NAZ **Nazwa, Dubai** **78.36 296** *i*P **P** **18 13 59.6 +1.0**
SNR=11
NAZ **Nazwa, Dubai** **78.36 296** P **P** **18 13 59.6 +1.0**
SNR=7.3
FAQ **Al Faqa, Dubai** **78.39 296** *i*P **P** **18 13 59.8 +1.0**
SNR=8.4
FAQ **Al Faqa, Dubai** **78.39 296** P **P** **18 13 59.8 +1.0**
SNR=6.5
NRIK **Noril'sk** **78.46 346** P **P** **18 13 59.0 +0.7**
comp=Z,23nm,1.1s,baz=126,slow=6.2,SNR=15
NRIK LR LR 18 49 38.4
comp=Z,903nm,21.4s,baz=142,slow=36
comp=Z,23nm,1.1s
NRIK **Noril'sk** **78.46 346***c* iP **P** **18 13 58.7 +0.5**
NRIK pmax pmax
comp=Z,33nm,1.2s
NRIK **Noril'sk** **78.46 346** IAmb IAmb 18 14 23.0
comp=Z,38nm,1.1s
ASUD **Al Ashush, Dub** **78.60 296** *i*P **P** **18 14 01.7 +1.7**
SNR=6.3
ASUD **Al Ashush, Dub** **78.60 296** P **P** **18 14 01.9 +1.9**
SNR=5.2
MAW **Mawson** **78.61 201** P **P** **18 14 00.9 +1.8**
comp=Z,4.4nm,1.1s
MAW **Mawson** **78.61 201** P **P** **18 14 00.1 +1.0**
comp=Z,4.1nm,0.6s,baz=57,slow=4.5,SNR=7.6
comp=Z,4.1nm,0.6s
MAW **Mawson** **78.61 201** P **P** **18 14 00.5 +1.4**
MAW pmax pmax
comp=Z,3.0nm,1.0s
MAW **Mawson** **78.61 201** P **P** **18 14 00.5 +1.4**
PPT2 **Papeete2** **78.74 107** *e*P **P** **18 13 56.2 -4.8**
comp=Z,73nm,24.0s
PPT2 *e*S **S** **18 23 53.8 -3.9**
comp=Z,242nm,26.2s
PPT2 *e*SS **SS** **18 29 04.2 +1.7**
comp=Z,228nm,27.5s
PPT2 *e*LQ LQ 18 35 06.7
comp=Z,864nm,28.5s
PPT2 *e*LR LR 18 38 19.8
comp=Z,1μm,30.5s
PPT **Papeete** **78.74 107** LR LR 18 49 15.6
comp=Z,145nm,19.1s,baz=260,slow=36
DOK **Doka** **78.84 290** P **P** **18 14 02.1 +0.7**
TBI **Tubuai** **78.89 113** *e*S **S** **18 23 57.0 -2.0**
comp=Z,2μm,28.8s
TBI *e*LQ LQ 18 35 11.7
comp=Z,5μm,31.5s
TBI *e*LR LR 18 38 26.2
comp=Z,2μm,26.5s
TBI *e*LR LR 18 38 31.4
comp=Z,5μm,31.2s
AJN **Ajban** **78.90 296** P **P** **18 14 02.5 +0.9**
WHFO **Wadi Hawf** **79.09 289** P **P** **18 14 03.3 +0.5**
ABTO **Aybut** **79.47 288** P **P** **18 14 05.6 +0.7**
MZWR **Madinat Zayed** **79.78 295** P **P** **18 14 07.8 +1.4**
MZR **Muzera** **80.04 294** *i*P **P** **18 14 09.2 +1.4**
SNR=11
MZR **Muzera** **80.04 294** P **P** **18 14 08.9 +1.1**
SNR=7.9
ABKAR **Akbulak array** **80.50 321** P **P** **18 14 09.8 +0.1**
JRN **Qarnain Island** **80.88 296** P **P** **18 14 12.9 +0.6**
K13K **Kusilvak Mount** **81.24 26** IAmb IAmb 18 14 23.3
comp=Z,79nm,1.7s
L14K **Kuka Creek** **81.87 26** IAmb IAmb 18 14 26.4
comp=Z,32nm,1.0s
AKTO **Aktyubinsk** **82.02 322** LR LR 18 54 46.2
comp=Z,266nm,21.7s,baz=100,slow=39
J14K **Nanvaranak Lak** **82.05 25** IAmb IAmb 18 14 22.8
comp=Z,36nm,1.3s
SVE **Sverdlovsk** **82.38 328** *e*P **P** **18 14 20.1 +0.6**
SVE pmax pmax
comp=Z,30nm,0.9s
N15K **Kwethluk River** **82.62 28** IAmb IAmb 18 14 30.3
comp=Z,32nm,1.0s
K15K **Wolf Creek Mou** **82.74 26** IAmb IAmb 18 14 26.5
comp=Z,27nm,1.0s
F15K **North Star Dit** **82.84 22** IAmb IAmb 18 14 31.6
comp=Z,47nm,1.2s
OPO **Ambohidratompo** **83.17 252** LR LR 18 47 58.6
comp=Z,109nm,18.4s,baz=278,slow=33
O16K **Kokwok River B** **83.38 29** IAmb IAmb 18 14 36.2
comp=Z,21nm,1.0s
ARTI **Arti** **83.44 328** LR LR 18 53 44.3
comp=Z,220nm,20.8s,baz=105,slow=37
ARTI **Arti** **83.44 328***c* iP **P** **18 14 25.0 0.0**
ARTI 18 17 36.4
ARTI S **SKSac** **18 24 45.6 -0.3**
ARTI SS **SS** **18 30 08.1 -2.7**
ARTI pmax pmax
comp=Z,28nm,1.2s
ARTI **Arti** **83.44 328** P **P** **18 14 24.7 -0.3**
ARTI IAmb IAmb 18 14 33.5
comp=Z,20nm,0.9s
VOI **Vohitsoka** **83.47 248** P **P** **18 14 26.6 +0.5**
ACHA **Angle Creek He** **84.34 31** IAmb IAmb 18 14 42.4
comp=Z,52nm,1.6s
F17K **Baldwin Pennin** **84.40 22** IAmb IAmb 18 15 00.5
comp=Z,26nm,1.2s
RDOG **Red Dog Mine** **84.44 20** IAmb IAmb 18 14 39.6
comp=Z,51nm,1.5s
L18K **Granite Mounta** **84.85 27** IAmb IAmb 18 14 37.4
comp=Z,32nm,1.0s
H18K **Honhosa River** **85.06 24** IAmb IAmb 18 14 42.3
comp=Z,44nm,1.3s
OHAK **Old Harbor** **85.15 32** P **P** **18 14 36.1 +2.4**
G18K **Tagagawik** **85.19 23** IAmb IAmb 18 14 42.9
comp=Z,30nm,1.5s
KDAK **Kodiak Island** **85.65 31** LR LR 18 48 01.2
comp=Z,250nm,21.7s,baz=243,slow=32
J19K **Poorman** **85.83 25** IAmb IAmb 18 14 46.6
comp=Z,43nm,1.2s
G19K **Purcell Mounta** **85.88 23** IAmb IAmb 18 14 53.5
comp=Z,43nm,1.6s
L20K **Farewell, AK** **86.18 27** IAmb IAmb 18 14 48.5
comp=Z,38nm,1.2s
K20K **Telida** **86.32 26** IAmb IAmb 18 14 49.2
comp=Z,51nm,1.3s
M20K **Styx River** **86.36 27** IAmb IAmb 18 14 44.7
comp=Z,41nm,1.1s
QSPA **South Pole Qui** **86.47 180** P **P** **18 14 40.6 +0.3**
comp=Z,7.2nm,0.9s,baz=151,slow=3.3,SNR=21
QSPA LR LR 18 53 52.9
comp=Z,852nm,21.7s,baz=352,slow=36
comp=Z,7.2nm,0.9s
QSPA **South Pole Qui** **86.47 180** P **P** **18 14 39.8 -0.5**
QSPA IAmb IAmb 18 15 03.6
comp=Z,41nm,1.1s
J20K **Nowinta River** **86.50 25** IAmb IAmb 18 14 50.0
comp=Z,47nm,1.4s
SKT **Skwentna** **87.12 27** IAmb IAmb 18 14 51.8
comp=Z,36nm,1.3s
SYO **Syowa Base** **87.33 201**⇑ *e*P **P** **18 14 45.4 +1.2**
SYO **Syowa Base** **87.33 201**⇓ *e*P P 18 14 51.0 +6.8
RAYN **Ar Rayn** **87.38 294** *i*P **P** **18 14 46.6 +1.0**
SNR=19
RAYN **Ar Rayn** **87.38 294** P **P** **18 14 46.6 +1.0**
RAYN **Ar Rayn** **87.38 294** P **P** **18 14 45.9 +0.3**
RAYN pmax pmax
comp=Z,28nm,1.1s
RAYN **Ar Rayn** **87.38 294** P **P** **18 14 45.9 +0.3**
RAYN IAmb IAmb 18 14 47.5
comp=Z,28nm,1.1s
MAK **Makhachkala** **87.70 313** *e*P P 18 14 39.0 -7.5
MAK *e*SS SS 18 31 18.5 +4.4
MAK *e*SSS SSS 18 34 44.2
MAK pmax pmax
comp=Z,84nm,1.2s
KTH **Kantishna Hill** **87.74 26** IAmb IAmb 18 14 54.9
comp=Z,18nm,1.1s
TAOE **Nuku Hiva Isla** **88.20 99** *e*LR LR 18 42 47.0
comp=Z,712nm,29.9s
KIRV **Kirov** **88.64 329** LR LR 18 59 26.4
comp=Z,324nm,18.4s,baz=103,slow=39
KIRV **Kirov** **88.64 329**⇓ *e*P **P** **18 14 52.1 +1.5**
MCK **McKinley** **88.65 26** IAmb IAmb 18 15 12.5
comp=Z,23nm,1.2s
I23K **Minto, Yukon-K** **88.73 25** IAmb IAmb 18 15 01.2
comp=Z,36nm,1.3s
G23K **Bananza Creek** **88.77 23** IAmb IAmb 18 15 01.3
comp=Z,17nm,1.2s
BELG **Belogornoye** **88.78 322**⇑ *e*P **P** **18 14 53.6 +2.2**
BELG pmax pmax
comp=Z,4.0nm,1.3s
D23K **Nanushuk River** **89.00 21** IAmb IAmb 18 15 02.0
comp=Z,25nm,1.1s
ATD **Arta Tunnel** **89.02 282** LR LR 18 56 05.6
comp=Z,8.5nm,18.1s,baz=76,slow=36
E23K **Chandalar** **89.19 22** IAmb IAmb 18 15 02.1
comp=Z,24nm,1.3s
CCB **Clear Creek Bu** **89.30 25** IAmb IAmb 18 15 02.7
comp=Z,23nm,1.2s
COLA **College** **89.31 25**⇑ *e*P **P** **18 14 53.3 -0.4**
COLA pmax pmax
comp=Z,5.0nm,1.1s
H24K **Noodor Dome** **89.46 24** IAmb IAmb 18 15 03.2
comp=Z,24nm,1.4s
ILAR **Eielson Array** **89.70 25** P **P** **18 14 54.4 -1.2**
comp=Z,4.8nm,1.0s,baz=269,slow=3.8,SNR=20
ILAR LR LR 18 49 07.8
comp=Z,264nm,20.9s,baz=255,slow=32
comp=Z,4.8nm,1.0s
ILAR **Eielson Array** **89.70 25** P **P** **18 14 53.6 -1.9**
G24K **Hadweenzic Riv** **89.77 23** IAmb IAmb 18 14 59.5

	comp=Z,21nm,1.2s							
C24K	**Franklin Bluff**	**89.83**	**20**	IAmb	IAmb	18 15 04.5		
	comp=Z,29nm,1.4s							
RIDG	**Independent Ri**	**90.45**	**26**	IAmb	IAmb	18 15 08.0		
	comp=Z,17nm,1.1s							
MENT	**Mentasta**	**90.86**	**27**	IAmb	IAmb	18 15 30.3		
	comp=Z,15nm,0.6s							
BMAR	**Burnt Mountain**	**90.99**	**23**	P	**P**	**18 15 02.5**	**+0.9**	
TGL	**Tana Glacier**	**91.07**	**29**	IAmb	IAmb	18 15 05.8		
	comp=Z,34nm,1.3s							
KBZ	**Khabaz**	**91.12**	**314**	LR	LR	19 04 07.1		
	comp=Z,114nm,18.4s,baz=82,slow=41							
KBZ	**Khabaz**	**91.12**	**314**	⇓*e*P	**P**	**18 15 02.3**	**-0.3**	
KBZ				pmax	pmax			
	comp=Z,3.0nm,1.1s							
C26K	**Camden Bay**	**91.17**	**20**	IAmb	IAmb	18 15 19.3		
	comp=Z,43nm,1.7s							
F26K	**Sheenjek River**	**91.19**	**22**	IAmb	IAmb	18 15 11.1		
	comp=Z,42nm,2.0s							
G26K	**Porcupine Rive**	**91.25**	**23**	IAmb	IAmb	18 15 11.9		
	comp=Z,25nm,1.4s							
KIV	**Kislovodsk**	**91.28**	**314**	*e*P	**P**	**18 15 05.5**	**+2.0**	
KIV				*e*		18 25 37.5		
KIV				pmax	pmax			
	comp=Z,4.0nm,1.0s							
KIV				MLR	MLR			
	comp=Z,168nm,20.0s							
GURO	**Guroymak-BITLI**	**91.45**	**308**	IAmb	IAmb	18 15 15.1		
	comp=Z,13nm,0.9s							
C27K	**Jago River**	**91.55**	**20**	IAmb	IAmb	18 15 25.1		
	comp=Z,31nm,1.7s							
L27K	**Beaver Creek,**	**91.73**	**27**	IAmb	IAmb	18 15 09.6		
	comp=Z,23nm,1.1s							
BCAR	**Beaver Creek A**	**91.75**	**27**	P	**P**	**18 15 05.9**	**+0.7**	
I27K	**Kandik River**	**92.01**	**25**	IAmb	IAmb	18 15 16.0		
	comp=Z,17nm,1.0s							
ELIB	**Princess Elisa**	**92.16**	**197**	*d*P	**P**	**18 15 09.2**	**+2.2**	
	comp=Z,13nm,1.0s							
E27K	**Coleen River**	**92.19**	**22**	IAmb	IAmb	18 15 15.9		
	comp=Z,19nm,1.4s							
VRH	**Novokhopyorsk**	**92.33**	**321**	*e*P	P	18 15 02.3	-5.7	
VRH				pmax	pmax			
	comp=Z,8.0nm,0.8s							
I28M	**Miner Creek**	**92.70**	**25**	IAmb	IAmb	18 15 19.3		
	comp=Z,27nm,1.2s							
F28M	**Old Crow**	**92.81**	**23**	IAmb	IAmb	18 15 28.7		
	comp=Z,14nm,1.2s							
E28M	**Babbage River**	**92.97**	**22**	IAmb	IAmb	18 15 20.0		
	comp=Z,21nm,1.3s							
M29M	**Somme Creek**	**93.25**	**28**	IAmb	IAmb	18 15 21.5		
	comp=Z,17nm,1.2s							
SOC	**Sochi**	**93.42**	**313**	*e*P	**P**	**18 15 13.8**	**+0.6**	
SOC				*e*S	**SKSac**	**18 25 48.4**	**+2.1**	
SOC				*e*SS	**SS**	**18 32 41.9**	**+5.2**	
SOC				*e*SSS	SSS	18 36 18.7		
SOC				pmax	pmax			
	comp=Z,33nm,0.8s							
SOC				MLR	MLR			
	comp=Z,270nm,25.0s							
L29M	**L29M**	**93.42**	**27**	IAmb	IAmb	18 15 22.9		
	comp=Z,29nm,1.2s							
KLMR	**Klimovskoe**	**93.81**	**331**	*e*P	**P**	**18 15 13.0**	**-1.7**	
KLMR				*e*		18 18 57.1		
KLMR				pmax	pmax			
	comp=Z,27nm,1.4s							
KMBO	**Kilima Mbogo**	**93.81**	**269**	LR	LR	18 53 46.6		
	comp=Z,867nm,21.9s,baz=102,slow=33							
KMBO	**Kilima Mbogo**	**93.81**	**269**⇑	*e*P	**P**	**18 15 15.2**	**-0.9**	
VORD	**Divnogorie**	**93.85**	**321**	*e*P	**P**	**18 15 13.9**	**-1.1**	
VORD				pmax	pmax			
	comp=Z,6.0nm,1.0s							
VORR	**Voronezh**	**93.91**	**321**	*e*P	**P**	**18 15 11.6**	**-3.7**	
VORR				pmax	pmax			
	comp=Z,20nm,0.4s							
VSR	**Storozhevoye**	**93.94**	**321**	*e*P	**P**	**18 15 12.1**	**-3.3**	
VSR				pmax	pmax			
	comp=Z,3.0nm,0.6s							
LPSR	**Galich'ya Gora**	**94.09**	**322**	*e*P	**P**	**18 15 13.8**	**-2.3**	
LPSR				pmax	pmax			
	comp=Z,8.0nm,0.7s							
I30M	**Mount Dempster**	**94.19**	**25**	IAmb	IAmb	18 15 32.4		
	comp=Z,27nm,1.5s							
J30M	**Hart River**	**94.22**	**26**	IAmb	IAmb	18 15 25.6		
	comp=Z,31nm,1.3s							
G30M	**tAoh Zraii Nji**	**94.22**	**23**	IAmb	IAmb	18 15 25.0		
	comp=Z,21nm,1.2s							
F30M	**Barrier River**	**94.38**	**23**	IAmb	IAmb	18 15 25.5		
	comp=Z,32nm,1.3s							
MOS	**Moscow**	**94.85**	**325**	*e*P	**P**	**18 15 15.3**	**-4.2**	
MOS				*e*		18 25 47.3		
G31M	**Satah River**	**94.99**	**23**	IAmb	IAmb	18 15 28.0		
	comp=Z,27nm,1.4s							
H31M	**Peel River**	**95.02**	**24**	IAmb	IAmb	18 15 28.3		
	comp=Z,28nm,1.4s							
F31M	**Tsiigehtchic**	**95.17**	**23**	IAmb	IAmb	18 15 29.2		
	comp=Z,29nm,1.4s							
INK	**Inuvik**	**95.20**	**22**	IAmb	IAmb	18 15 29.4		
	comp=Z,19nm,1.2s							
ASF	**Jabal al Asfar**	**95.43**	**302**	LR	LR	19 03 43.6		
	comp=Z,305nm,21.4s,baz=91,slow=39							
OBN	**Obninsk**	**95.46**	**325**	LR	LR	19 01 00.9		
	comp=Z,187nm,22.0s,baz=88,slow=37							
OBN	**Obninsk**	**95.46**	**325**⇓	*e*P	**P**	**18 15 21.1**	**-1.2**	
OBN				*e*		18 19 12.1		
OBN				*e*S	**SKSac**	**18 25 56.6**	**-0.2**	
OBN				*e*SS	**SS**	**18 33 02.6**	**-2.6**	
OBN				pmax	pmax			
	comp=Z,6.0nm,1.2s							
OBN				MLR	MLR			
	comp=Z,460nm,22.0s							
APA	**Apatity**	**96.16**	**338**	*e*P	**P**	**18 15 22.3**	**-3.0**	
APA				*e*		18 19 18.3		
APA				pmax	pmax			
	comp=Z,16nm,1.2s							
APA				MLR	MLR			
	comp=Z,1μm,22.6s							
MMAI	**Mount Meron Ar**	**96.70**	**303**	LR	LR	19 04 18.0		
	comp=Z,268nm,21.9s,baz=87,slow=39							
EIL	**Elat**	**97.09**	**299**	LR	LR	19 07 06.3		
	comp=Z,306nm,18.2s,baz=93,slow=40							
A36M	**Sachs Harbour**	**97.50**	**18**	IAmb	IAmb	18 15 39.3		
	comp=Z,19nm,1.2s							
DLBC	**Dease Lake**	**97.58**	**32**	LR	LR	18 54 36.8		
	comp=Z,272nm,22.0s,baz=256,slow=32							
BZK	**Bozkurt**	**97.63**	**312**	P	Pdif	18 15 32.8	+0.3	
	comp=Z,69nm,1.1s							
TROLL	**Troll, Antarti**	**97.83**	**194**	P	Pdif	18 15 34.0	+1.0	
	comp=Z,224nm,1.1s							
BR131	**Keskin Array S**	**97.99**	**309**⇑	*e*P	**P**	**18 15 33.9**	**-0.5**	
BRTR	**Keskin Array B**	**97.99**	**309**	LR	LR	19 06 23.1		
	comp=Z,107nm,20.5s,baz=74,slow=40							
SPITS	**Spitsbergen Ar**	**98.36**	**349**	LR	LR	19 01 57.0		
	comp=Z,300nm,21.4s,baz=56,slow=37							
ARCES	**ARCESS Array B**	**98.70**	**340**	P	**P**	**18 15 36.4**	**-0.3**	
	comp=Z,4.4nm,0.8s,baz=81,slow=5.2,SNR=13							
ARCES				LR	LR	19 05 12.0		
	comp=Z,269nm,21.5s,baz=78,slow=38							
	comp=Z,4.4nm,0.8s							
ARCES	**ARCESS Array B**	**98.70**	**340**	P	**P**	**18 15 36.3**	**-0.4**	
ARCES	**ARCESS Array B**	**98.70**	**340**	P	**P**	**18 15 36.3**	**-0.4**	
SNAA	**Sanae**	**99.32**	**193**	P	**Pdif**	**18 15 40.3**	**+0.7**	
	comp=Z,1.3nm,0.4s,baz=79,slow=7.1,SNR=3.7							
SNAA				LR	LR	19 00 00.3		
	comp=Z,965nm,21.9s,baz=178,slow=35							
	comp=Z,1.3nm,0.4s							
SNAA	**Sanae**	**99.32**	**193**⇑	*e*P	**Pdif**	**18 15 40.4**	**+0.8**	
SNAA				pmax	pmax			
	comp=Z,9.0nm,1.5s							
SNAA	**Sanae**	**99.32**	**193**	P	**Pdif**	**18 15 40.1**	**+0.6**	
SNAA				IAmb	IAmb	18 15 42.4		
	comp=Z,9.9nm,1.4s							
BBB	**Bella Bella**	**99.33**	**38**	LR	LR	18 53 22.3		
	comp=Z,368nm,21.7s,baz=268,slow=31							
FINES	**FINESS Array B**	**100.23**	**332**	P	**Pdif**	**18 15 44.0**	**+0.3**	
	comp=Z,11nm,1.1s,baz=298,slow=4.1,SNR=3.9							
FINES	**FINESS Array B**	**100.23**	**332**	P	**Pdif**	**18 15 44.0**	**+0.3**	
NACGM	**Naroch**	**101.09**	**325**	*e*PP	**PP**	**18 19 51.0**	**-5.2**	
	baz=80							
VNA3	**Neumayer Olymp**	**101.13**	**192**	⇓Pdiff	**Pdif**	**18 15 49.2**	**+1.6**	
	comp=Z,1.6nm,0.6s							
BOSA	**Boshof**	**102.21**	**240**	P	**Pdif**	**18 15 52.6**	**-0.8**	
	comp=Z,3.7nm,0.9s,baz=80,slow=3.4,SNR=4.6							
BOSA	**Boshof**	**102.21**	**240**		**Pdif**	**18 15 53.0**	**-0.5**	
CLL	**Collm**	**110.03**	**324**	*e*PKiKP	**PKiKP**	**18 20 28.0**	**-1.2**	
CLL				MLR	MLR			
	comp=Z,400nm,21.1s							
CLL	**Collm**	**110.03**	**324**	*e*Pdif	**Pdif**	**18 16 28.0**	**+0.5**	
CLL				*e*PKiKP	**PKiKP**	**18 20 28.0**	**-1.2**	
CLL				*e*P	**PP**	**18 21 03.0**	**+0.7**	
CLL				*ex*	x	18 42 45.0		
CLL				L	L	18 57 00.0		
CLL				AMS	AMS	19 04 00.0		
	comp=N,500nm,22.2s							
CLL				AMS	AMS	19 04 00.0		
	comp=E,600nm,23.4s							
CLL				AMS	AMS	19 16 00.0		
	comp=N,400nm,20.5s							
CLL				AMS	AMS	19 16 00.0		
	comp=E,200nm,21.2s							
CLL				AMS	AMS	19 16 00.0		
	comp=Z,400nm,21.1s							
PDAR	**Pinedale Array**	**113.61**	**44**	PKKPbc	PKKPbc	18 31 20.8	-0.6	
	comp=Z,1.1nm,0.9s,baz=117,slow=5.6,SNR=3.8							
TXAR	**Lajitas Array**	**122.12**	**57**	PKP	**PKPdf**	**18 20 53.1**	**-0.1**	
	comp=Z,0.3nm,0.6s,baz=249,slow=3.5,SNR=4.2							
TXAR				PKKPbc	**PKKPbc**	**18 30 49.6**	**-0.7**	
	comp=Z,0.9nm,0.8s,baz=122,slow=6.5,SNR=7.7							
TXAR	**Lajitas Array**	**122.12**	**57**		**PKPdf**	**18 20 52.6**	**-0.6**	
S39A	**Bolivar**	**127.01**	**44**		**PKPdf**	**18 21 02.0**	**-0.2**	
TORD	**Torodi Ar. Bea**	**129.16**	**284**	PKP	**PKPdf**	**18 21 06.2**	**-0.7**	
	comp=Z,2.4nm,0.7s,baz=21,slow=1.7,SNR=15							
PLCA	**Paso Flores**	**131.72**	**158**	PKP	**PKiKP**	**18 21 12.7**	**+0.4**	
	comp=Z,1.2nm,0.7s,baz=100,slow=3.5,SNR=4.7							
DBIC	**Dimbokro**	**136.07**	**276**	PKP	**PKPdf**	**18 21 20.4**	**+0.4**	
	comp=Z,6.9nm,0.9s,baz=97,slow=2.3,SNR=4.5							
DBIC	**Dimbokro**	**136.07**	**276**		**PKPdf**	**18 21 19.9**	**-0.1**	
CFA	**Coronel Fontan**	**140.53**	**154**	PKP	**PKPdf**	**18 21 26.2**	**-1.6**	
	comp=Z,1.0nm,0.5s,baz=256,slow=5.4,SNR=3.6							
AC02	**Maricunga**	**144.05**	**148**		**PKPdf**	**18 21 34.1**	**-0.7**	
PB07	**IPOC Station P**	**147.57**	**142**		**PKPdf**	**18 21 38.5**	**-2.0**	
CPUP	**Villa Florida**	**149.25**	**165**	PKPbc	**PKiKP**	**18 21 48.1**	**-0.2**	
	comp=Z,8.9nm,0.9s,baz=17,slow=5.9,SNR=3.7							
ITAB	**Concordia**	**149.29**	**174**		**PKiKP**	**18 21 48.0**	**-0.4**	
NMDO	**Nuevo Mundo**	**149.42**	**54**		**PKPbc**	**18 21 45.7**	**-2.0**	
SLOR	**San Lorenzo -**	**150.08**	**98**		**PKPdf**	**18 21 42.4**	**-2.7**	
LPAZ	**La Paz**	**152.63**	**136**	PKP	**PKPdf**	**18 21 50.4**	**+1.3**	
	comp=Z,3.4nm,1.2s,baz=295,slow=3.3,SNR=5.7							
LPAZ				PKPbc	**pPKPdf**	**18 21 57.8**	**+0.8**	
	comp=Z,4.6nm,0.7s,baz=286,slow=1.2,SNR=18							
LPAZ	**La Paz**	**152.63**	**136**		**PKPdf**	**18 21 47.9**	**-1.2**	
CZSB	**Cruzeiro do Su**	**153.73**	**115**		**PKPdf**	**18 21 48.9**	**-1.1**	
SIV	**San Ignacio**	**157.18**	**148**	PKP	**PKPdf**	**18 21 56.4**	**+1.7**	
	comp=Z,1.7nm,0.8s,baz=107,slow=8.3,SNR=7.5							
SIV				PKPab	**PKPab**	**18 22 26.7**	**+1.5**	
	comp=Z,4.2nm,1.0s,baz=183,slow=5.9,SNR=7.1							
BDFB	**Brasilia**	**160.98**	**182**	PKP	**PKPdf**	**18 22 00.7**	**+1.5**	
	comp=Z,2.2nm,0.7s,baz=351,slow=2.6,SNR=3.2							

*AZER **02** 18:02:39.2, 41.75N×46.22E, h8km, ml2.0*
*MOS **02** 18:02:40.4, 41.87N×46.33E, h20km, MPVA3.3*
*NORS **02** 18:02:42.6, 41.88N×46.31E, h15km, MPVA3.2*
*DRS **02** 18:02:42.0, 41.94N×46.41E, h6km*

ISC 02 18:02:41.4±0.9, 41.86N±0.02×46.27E±0.03, h15km±7km, n29, σ1§11/55, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLTR	**Tlyarata**	**0.25**	**14**	*i* Pg	**Pg**	**18 02 46.9**	**-0.1**
TLTR				*e*Sg	**Sg**	**18 02 51.2**	**+0.4**
ZKTA	**Zakatala**	**0.34**	**130**	P	**Pg**	**18 02 47.9**	**-0.5**
ZKTA				S	**Sg**	**18 02 53.4**	**+0.1**
KMKR	**Kumukh**	**0.67**	**66**	*i* Pg	**Pb**	**18 02 54.6**	**-0.4**
KMKR				*e*Sg	**Sb**	**18 03 04.5**	**+0.2**
GNBR	**Gunib**	**0.74**	**44**	*e*Pg	**Pg**	**18 02 53.2**	**-2.6**
GNBR				*e*Sg	**Sb**	**18 03 06.4**	**+0.4**
XNZR	**Khunzakh**	**0.75**	**25**	*e*Pg	**Pb**	**18 02 56.6**	**+0.3**
XNZR				*e*Sg	**Sn**	**18 03 07.8**	**-1.2**
BTLR	**Botlikh**	**0.80**	**357**	*e*Pg	**Pg**	**18 02 56.9**	**-0.2**
BTLR				*e*Sg	**Sb**	**18 03 08.4**	**+0.5**
ARKR	**Arakani**	**0.92**	**36**	*e*Pg	**Pg**	**18 02 59.2**	**0.0**
ARKR				*e*Sg	**Sn**	**18 03 12.5**	**-0.3**
UNCR	**Uncukul**	**0.94**	**24**	*e*Pg	**Pb**	**18 02 59.2**	**-0.2**
UNCR				*e*Sg	**Sn**	**18 03 13.0**	**-0.4**
SEKA	**Sheki**	**0.95**	**133**	P	**Pb**	**18 02 59.0**	**-0.7**
SEKA				S	**Sg**	**18 03 12.9**	**+0.6**
QZX	**Qazax, Azerbai**	**1.05**	**220**	P	**Pb**	**18 03 00.1**	**-1.2**
QZX				S	**Sb**	**18 03 15.1**	**+0.2**
URKR	**Urkarakh**	**1.06**	**73**	*e*Pg	**Pb**	**18 03 01.0**	**-0.5**
URKR				*e*Sg	**Sn**	**18 03 16.2**	**-0.3**
KRNR	**Karanay**	**1.07**	**26**	*e*Pg	**Pb**	**18 03 01.6**	**-0.2**
KRNR				*e*Sg	**Sn**	**18 03 16.9**	**+0.1**
DVE	**Vedeno**	**1.10**	**354**	*e*Pg	**Pg**	**18 03 03.0**	**+0.3**
DVE				*e*Sg	**Sn**	**18 03 18.4**	**+1.0**
BUJR	**Buynaksk**	**1.15**	**32**	*e*Pg	**Pb**	**18 03 02.6**	**-0.4**
BUJR				*e*Sg	**Sn**	**18 03 19.0**	**+0.5**
AKT	**Akhty**	**1.16**	**109**	*e*Pg	**Pb**	**18 03 02.5**	**-0.7**
AKT				*e*Sg	**Sn**	**18 03 18.8**	**-0.1**
SGKR	**Sergokala**	**1.19**	**59**	*e*Pg	**Pn**	**18 03 02.9**	**-0.7**
SGKR				*e*Sg	**Sg**	**18 03 19.5**	**-0.4**
GDB	**GEDABAY**	**1.20**	**199**	P	**Pn**	**18 03 01.9**	**-2.0**
GDB				S	**Sb**	**18 03 18.1**	**-1.4**
GANJ	**Ganja**	**1.22**	**178**	P	**Pn**	**18 03 02.6**	**-1.3**
GANJ				S	**Sb**	**18 03 19.1**	**-0.6**
DBC	**Dubki**	**1.23**	**19**	*e*Pg	**Pg**	**18 03 05.6**	**+0.4**
DBC				*e*Sg	**Sg**	**18 03 22.7**	**+1.6**
DLMR	**Dylym**	**1.24**	**12**	*e*Pg	**Pn**	**18 03 02.0**	**-2.2**
DLMR				*e*Sg	**Sg**	**18 03 22.5**	**+1.2**
MNGR	**Mingechevir, A**	**1.25**	**150**	P	**Pn**	**18 03 04.8**	**+0.4**
MNGR				S	**Sg**	**18 03 23.3**	**+1.6**
QBL	**Gabala**	**1.49**	**127**	Pn	**Pb**	**18 03 08.6**	**-0.2**
QBL				Sn	**Sg**	**18 03 29.9**	**+0.4**
QSAR	**Qusar**	**1.53**	**102**	Pn	**Pg**	**18 03 10.4**	**-0.5**
QSAR				Sn	**Sg**	**18 03 32.4**	**+1.7**
XNQ	**Khinaliq**	**1.56**	**116**	Pn	**Pb**	**18 03 10.1**	**-0.1**
XNQ				Sn	**Sg**	**18 03 33.8**	**+2.0**
LACR	**Lac**	**1.75**	**304**	*e*Pg	**Pb**	**18 03 13.7**	**+0.3**
LACR				*e*Sg	**Sb**	**18 03 37.4**	**+2.1**
IML	**Ismayilli**	**1.79**	**126**	Sn	**Sg**	**18 03 40.9**	**+1.9**
AGDM	**Agdam**	**1.86**	**160**	Pn	**Pn**	**18 03 13.7**	**+0.8**
AGDM				Sn	**Sb**	**18 03 40.6**	**+2.3**
PQL	**Pirkuli**	**2.05**	**121**	Sn	**Sg**	**18 03 49.5**	**+2.1**
YRD	**Yardimli**	**3.30**	**152**	Sn	**Sn**	**18 04 13.5**	**+1.6**

*IDC **02** 18:08:11.9±1.3, 3.37S×130.90E, h0km, mb3.8/3, mbtmp3.8/5, ML3.0/1, Error ellipse: s-maj=50.8km s-min=17.5km az=91.0*
*NEIC **02** 18:08:12.5±1.9, 3.38S±0.04×131.06E±0.09, h10km±1km, mb4.2/4, Error ellipse: s-maj=16.0km s-min=7.3km az=268.0*

ISC 02 18:08:14.3±0.9, 3.44S±0.07×131.1E±0.1, h30km, n15, σ1§30/15, mb4.0/4, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAKI	**Fak Fak**	**1.30**	**67**		**Pn**	**18 08 36.5**	**+0.1**
SIJI	**Sorong**	**2.56**	**5**	Pn	**Pn**	**18 08 53.0**	**-0.8**
	3.4nm,0.3s,baz=210,slow=20,SNR=7.6						
SIJI				Sn	**Sn**	**18 09 23.5**	**-0.5**
	11nm,0.3s,baz=220,slow=22,SNR=4.2						
	12nm,0.2s						
SIJI				AML	AML		
MTN	**Manton Dam**	**9.35**	**180**	Pn	**Pn**	**18 10 27.0**	**-0.1**
KNRA	**Kununurra**	**12.37**	**190**	Pn	**Pn**	**18 11 06.7**	**-1.8**
WRA	**Warramunga Arr**	**16.72**	**169**	Pn	**Pn**	**18 12 04.3**	**-2.2**
	1.9nm,0.6s,baz=346,slow=10,SNR=0.7						
WRA				Sn	Sn	18 14 58.1	-13
	0.1nm,0.3s,baz=350,slow=23,SNR=1.8						
JAGI	**Jajag, Banyuwa**	**17.53**	**253**		**Pn**	**18 12 17.1**	**+0.3**
AS31	**Alice Springs**	**20.30**	**172**	P	Pn	18 12 49.6	-0.4
ASAR	**Alice Springs**	**20.30**	**172**	P	**P**	**18 12 49.0**	**+1.1**
	2.2nm,0.3s,baz=359,slow=8.9,SNR=5.8						
	2.2nm,0.3s						
ASAR	**Alice Springs**	**20.30**	**172**	P	**P**	**18 12 48.8**	**+0.8**
MKAR	**Makanchi Array**	**65.87**	**326**	P	**P**	**18 18 59.3**	**+2.1**
	0.4nm,0.5s,baz=112,slow=6.4,SNR=4.8						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**65.87**	**326**	P	**P**	**18 18 57.7**	**+0.5**
MAKZ	**Makanchi**	**66.06**	**325**	P	**P**	**18 18 59.5**	**+1.0**
MAKZ				IAmb	IAmb	18 19 17.7	
	comp=Z,2.5nm,1.4s						
ZALV	**Zalesovo Beam**	**68.89**	**333**	P	**P**	**18 19 15.6**	**-0.6**
KURBB	**Kurchatov Arra**	**70.06**	**327**	P	**P**	**18 19 24.9**	**+1.4**
	comp=Z,0.5nm,0.5s,baz=127,slow=6.2,SNR=7.1						
	comp=Z,0.5nm,0.5s						
KURK	**Kurchatov**	**70.07**	**328**	P	**P**	**18 19 24.6**	**+1.1**
KURK				IAmb	IAmb	18 19 33.4	
	comp=Z,1.4nm,0.8s						

*BER **02** 18:13:03.8±3.3, 71.56N×3.47W, h15km±25km, Mw4.2, ML3.3(NAO), Confirmed Earthquake*
*IDC **02** 18:13:05.1±3.1, 71.58N×2.54W, h0km, mb3.6/1, mbtmp3.9/6, ML3.4/5, Error ellipse: s-maj=47.2km s-min=21.8km az=94.0*
*NAO **02** 18:13:05.6±1.4, 71.53N×2.53W, h10km, ML3.2*

ISC 02 18:13:01.6±0.9, 71.53N±0.09×3.58W±0.07, h10km, n45, σ1§94/44, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNW	**Jan Mayen West**	**1.64**	**255**	*e*P	**Pn**	**18 13 29.9**	**-0.6**
JNW				*e*S	**Sn**	**18 13 48.8**	**-2.7**
JNW				IAML		18 14 04.8	
	comp=Z,30nm,0.9s						
DBG	**Daneborg**	**5.63**	**307**	*e*P	**Pn**	**18 14 24.6**	**-0.6**
DBG				*e*S	Sn	18 15 20.9	-8.8
DAG	**Danmarks Havn**	**6.67**	**329**	*e*P	**Pn**	**18 14 41.6**	**+2.3**
LOF	**Lofoten**	**6.82**	**112**	Pn	**Pn**	**18 14 40.3**	**-1.2**
LOF	**Lofoten**	**6.82**	**112**	*e*P	**Pn**	**18 14 40.1**	**-1.4**
LOF				*e*S	Sn	18 15 50.3	-8.7
STEI	**Steigen**	**7.45**	**110**	Pn	**Pn**	**18 14 48.4**	**-1.7**
STEI	**Steigen**	**7.45**	**110**	*e*P	**Pn**	**18 14 48.3**	**-1.8**
STEI				*e*S	Sn	18 16 05.6	-8.9
STEI				IAML		18 16 09.0	
	comp=Z,3.5nm,0.7s						
VAGH	**Vaagaholmen**	**7.68**	**120**	Pn	**Pn**	**18 14 51.7**	**-1.7**
VAGH	**Vaagaholmen**	**7.68**	**120**	*e*P	Pn	18 14 50.5	-2.9
TRO	**Tromso**	**7.72**	**93**	Pn	**Pn**	**18 14 50.9**	**-2.9**
TRO	**Tromso**	**7.72**	**93**	*e*P	**Pn**	**18 14 50.9**	**-2.9**
FAUS	**Fauske**	**7.81**	**113**	Pn	**Pn**	**18 14 52.9**	**-2.1**
FAUS	**Fauske**	**7.81**	**113**	*e*P	**Pn**	**18 14 52.8**	**-2.3**
FAUS				*e*S	Sn	18 16 14.2	-9.1
FAUS				IAML		18 16 18.7	
	comp=Z,3.2nm,0.9s						
KONS	**Konsvik**	**7.81**	**122**	*e*P	Pn	18 14 52.0	-3.1
KONS				*e*S	Sn	18 16 13.5	-10
KONS				IAML		18 16 23.8	
	comp=Z,3.8nm,0.7s						
STOK	**Stokkvaagen**	**7.91**	**123**	Pn	**Pn**	**18 14 54.1**	**-2.3**
STOK				Sn	Sn	18 16 16.0	-10
STOK	**Stokkvaagen**	**7.91**	**123**	*e*P	**Pn**	**18 14 53.7**	**-2.7**
STOK				*e*S	Sn	18 16 15.4	-10
STOK				IAML		18 16 17.2	
	comp=Z,5.8nm,0.9s						
LEIR	**Leirfjorden**	**8.10**	**124**	Pn	**Pn**	**18 14 57.2**	**-1.9**
LEIR				Sn	Sn	18 16 20.2	-10
LEIR	**Leirfjorden**	**8.10**	**124**	*e*P	**Pn**	**18 14 56.9**	**-2.2**
LEIR				*e*S	Sn	18 16 19.9	-11
LEIR				IAML		18 16 27.6	
	comp=Z,3.9nm,0.5s						
RAUS	**Rausandaksla**	**8.11**	**120**	*e*P	**Pn**	**18 14 57.0**	**-2.3**
SPA0	**Spitsbergen Ar**	**8.41**	**29**	Pn	**Pn**	**18 15 04.4**	**+1.1**
	baz=221,slow=18						
SPA0	**Spitsbergen Ar**	**8.41**	**29**	Pn	**Pn**	**18 15 04.4**	**+1.1**
SPITS	**Spitsbergen Ar**	**8.41**	**29**	Pn	**Pn**	**18 15 04.0**	**+0.7**
	baz=214,slow=15						
	comp=Z,14nm,0.8s						
MOR8	**Moi Rana**	**8.41**	**121**	*e*P	**Pn**	**18 15 01.8**	**-1.6**
MOR8				*e*S	Sn	18 16 28.6	-10
SALU	**Saltoluokta**	**8.77**	**107**	*e*P	**Pn**	**18 15 06.4**	**-1.9**
SALU				*e*S	Sn	18 16 36.8	-10
KOVU	**Salmi**	**8.79**	**101**	*e*P	**Pn**	**18 15 06.2**	**-2.3**
NSS	**Namsos**	**9.09**	**133**	Pn	**Pn**	**18 15 11.5**	**-1.2**
NSS	**Namsos**	**9.09**	**133**	*e*P	**Pn**	**18 15 11.2**	**-1.4**
NSS				*e*S	Sn	18 16 45.6	-9.3
NSS				IAML		18 16 47.8	
	comp=Z,4.2nm,0.7s						
KTK1	**Kautokeino**	**9.37**	**93**	*e*P	**Pn**	**18 15 14.7**	**-1.7**
LANU	**Lannavaara**	**9.46**	**99**	*e*P	**Pn**	**18 15 15.6**	**-2.2**
HEF	**Hetta**	**9.80**	**95**	*e*P	**

ASAR				S		Sn	18 26 05.9	-6.9
	comp=Z,1.3nm,0.6s,baz=354,slow=25,SNR=5.7							
ASAR	**Alice Springs**	**17.79**	**172**	P		**Pn**	18 22 56.8	+2.4
MBWA	**Marble Bar**	**18.74**	**215**	P		**Pn**	18 23 04.7	-1.1
MBWA				IAmb		IAmb	18 23 43.4	
	comp=Z,12nm,1.1s							
KKM	**Kota Kinabalu**	**19.13**	**308**	P		**Pn**	18 23 09.5	-1.0
INKA	**Innaminka**	**23.48**	**158**	P		**P**	18 23 54.6	+0.7
FORT	**Forrest**	**24.85**	**186**	P		**P**	18 24 05.2	-1.2
FORT				IAmb		IAmb	18 24 15.9	
	comp=Z,12nm,1.3s							
CMAR	**Chiang Mai Arr**	**40.01**	**308**	P		**P**	18 26 18.7	+0.2
	comp=Z,0.6nm,0.4s,baz=135,slow=7.6,SNR=6.9							
	comp=Z,0.6nm,0.4s							
KSRS	**Korea Array**	**43.31**	**356**	P		**P**	18 26 47.1	+1.9
	comp=Z,0.6nm,0.6s,baz=156,slow=12,SNR=1.4							
	comp=Z,0.6nm,0.6s							
SONM	**Songino Array**	**57.86**	**341**	P		**P**	18 28 36.0	+1.4
	comp=Z,0.3nm,0.3s,baz=145,slow=5.3,SNR=2.9							
	comp=Z,0.3nm,0.3s							
SONM	**Songino Array**	**57.86**	**341**	P		**P**	18 28 35.8	+1.2
SONM				IAmb		IAmb	18 28 56.4	
	comp=Z,1.6nm,1.3s							
MKAR	**Makanchi Array**	**68.03**	**326**	P		**P**	18 29 43.0	+1.2
	comp=Z,2.9nm,0.4s,baz=115,slow=7.9,SNR=67							
	comp=Z,2.9nm,0.4s							
MKAR	**Makanchi Array**	**68.03**	**326**	P		**P**	18 29 42.6	+0.7
KSH2	**Kashi**	**68.18**	**316**	P		**P**	18 29 44.2	+1.1
KSH2				pmax		pmax		
	comp=Z,2.0nm,1.2s							
MAKZ	**Makanchi**	**68.21**	**326**	P		**P**	18 29 43.9	+0.9
ARSB	**Arslanbob**	**70.93**	**317**	P		**P**	18 30 01.2	+1.1
DRK	**Karamyk**	**70.94**	**315**	P		**P**	18 30 01.4	+1.1
DRK				IAmb		IAmb	18 30 03.3	
	comp=Z,3.1nm,0.7s							
ZALV	**Zalesovo Beam**	**71.20**	**333**	P		**P**	18 30 00.7	-0.5
	comp=Z,0.4nm,0.3s,baz=134,slow=4.3,SNR=4.6							
	comp=Z,0.4nm,0.3s							
ZALV	**Zalesovo Beam**	**71.20**	**333**	P		**P**	18 30 00.8	-0.3
KURBB	**Kurchatov Arra**	**72.27**	**328**	P		**P**	18 30 08.1	+0.4
	comp=Z,0.8nm,0.6s,baz=130,slow=5.4,SNR=12							
	comp=Z,0.8nm,0.6s							
KURK	**Kurchatov**	**72.27**	**328**	P		**P**	18 30 08.1	+0.4
KURK	**Kurchatov**	**72.27**	**328**	IAmb		IAmb	18 30 08.8	
	comp=Z,1.6nm,0.6s							
KK31	**Karatay Array**	**73.36**	**318**	P		P	18 30 08.3	-6.0
KKAR	**Karatay Array**	**73.36**	**318**	P		**P**	18 30 10.2	-4.1
BVAR	**Borovoye Array**	**77.83**	**327**	P		**P**	18 30 39.9	+0.3
	comp=Z,0.9nm,0.5s,baz=134,slow=8.3,SNR=3.6							
	comp=Z,0.9nm,0.5s							
QSPA	**South Pole Qui**	**84.00**	**180**	P		**P**	18 31 13.7	+1.4
	comp=Z,0.7nm,0.6s,baz=284,slow=2.6,SNR=9.3							
	comp=Z,0.7nm,0.6s							
QSPA	**South Pole Qui**	**84.00**	**180**	IAmb		IAmb	18 31 53.8	
	comp=Z,5.2nm,1.4s							

IDC 02 18:19:42.4±2.3, 3°22S×131°49E, h0km, mb3.8/3, mbtmp3.8/5, ML3.9/2, MS3.5/1, Error ellipse: s-maj=111.2km s-min=23.7km az=79.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**2.35**	**355**	LR	LR	18 21 44.2	
	comp=Z,892nm,18.9s,baz=288,slow=52						
FITZ	**Fitzroy Crossi**	**15.86**	**201**	Pn	Pn	18 23 21.6	-5.5
	0.5nm,0.3s,baz=40,slow=17,SNR=1.6						
	1.6nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**16.85**	**171**	Pn	Pn	18 23 35.2	-4.7
	0.3nm,0.3s,baz=351,slow=13,SNR=2.0						
	0.5nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.46**	**174**	P	P	18 24 21.1	-0.7
	1.4nm,0.4s,baz=350,slow=12,SNR=11						
	1.4nm,0.4s						
MKAR	**Makanchi Array**	**65.94**	**325**	P	P	18 30 29.7	-0.8
	0.4nm,0.5s,baz=127,slow=7.8,SNR=2.0						
	0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**70.12**	**327**	P	P	18 30 57.2	+0.7
	0.4nm,0.3s,baz=128,slow=5.8,SNR=5.2						
	0.4nm,0.3s						

*IDC **02** 18:45:22.7±0.7, 62°.13S×57°.96W, h0km, mb4.2/7, mbtmp4.1/8, ML4.0/1, MS3.8/2, Error ellipse: s-maj=28.0km s-min=16.8km az=91.0*

*NEIC **02** 18:45:24.1±1.2, 62°.35S±0°.05×58°.2W±0°.1, h10km±1km, mb4.6/21, Error ellipse: s-maj=10.8km s-min=5.6km az=314.0*

*GFZ **02** 18:45:27.0±0.2, 62°S±4°×5°.8W±°, h10km, M4.7/16, mb4.7/16, confirmed*

ISC 02 18:45:24.2±0.5, 62°.34S±0°.05×58°.27W±0°.08, h10km, n72, σ1°54/64, mb4.5/24, 5C, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.22**	**152**		**Pg**	18 45 46.7	-0.8
PMSA	**Palmer Station**	**3.56**	**224**	Pn	**Pn**	18 46 20.2	+0.8
	11nm,0.3s,baz=48,slow=11,SNR=7.8						
PMSA				Sn	**Sb**	18 47 11.0	+0.6
	22nm,0.3s,baz=350,slow=8.6,SNR=4.8						
	49nm,0.5s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.56**	**224**	Pn	**Pn**	18 46 19.9	+0.5
PMSA	**Palmer Station**	**3.56**	**224**	P	**Pb**	18 46 25.6	-1.5
EFI	**East Falkland**	**10.69**	**1**	Pn	**Pn**	18 47 57.4	+0.3
EFI	**East Falkland**	**10.69**	**1**	P	**Pn**	18 47 58.7	+1.6
	comp=Z,106nm,1.2s						
MG02	**Cerro Sombrero**	**11.22**	**324**	Pn	**Pn**	18 48 05.2	+0.8
MG02	**Cerro Sombrero**	**11.22**	**324**	P	**Pn**	18 48 07.0	+2.6
	comp=Z,63nm,1.2s						
GO08	**Villa O'Higgin**	**16.03**	**324**	P	**P**	18 49 13.2	+0.2
GO08	**Villa O'Higgin**	**16.03**	**324**	P	**P**	18 49 13.9	+0.9
	comp=Z,23nm,1.4s						
BELA	**Belgrano 2**	**17.30**	**163**	P	P	18 49 25.9	-0.8
VNA3	**Neumayer Olymp**	**20.50**	**136**	⇑P	Pn	18 50 04.1	+0.1
	comp=Z,23nm,0.8s						
VNA3	**Neumayer Olymp**	**20.50**	**136**	P	Pn	18 50 04.9	+0.8
	comp=Z,39nm,0.9s						
LL02	**Futaleuf**	**20.78**	**331**	P	**P**	18 50 05.6	+0.5
LL02				IAmb	IAmb	18 50 11.0	
	comp=Z,17nm,1.0s						
LL02	**Futaleuf**	**20.78**	**331**	P	**P**	18 50 06.5	+1.4
	comp=Z,21nm,2.9s						
VNA1	**Neumayer--Stat**	**20.96**	**134**	⇑P	Pn	18 50 10.0	+0.5
	comp=Z,36nm,0.9s						
VNA2	**Neumayer--Watz**	**21.24**	**135**	⇑P	**P**	18 50 12.2	+2.3
	comp=Z,14nm,0.7s,baz=263,slow=11						
VNA2	**Neumayer--Watz**	**21.24**	**135**	P	**P**	18 50 13.0	+3.1
	comp=Z,24nm,0.8s						
SNAA	**Sanae**	**22.67**	**137**	⇑P	**P**	18 50 27.4	+2.1
	comp=Z,254nm,0.8s						
SNAA	**Sanae**	**22.67**	**137**	P	**P**	18 50 26.8	+1.6
	comp=Z,16nm,1.0s,baz=253,slow=8.3,SNR=15						
	comp=Z,16nm,1.0s						
SNAA	**Sanae**	**22.67**	**137**	P	**P**	18 50 25.2	0.0
SNAA				IAmb	IAmb	18 50 28.7	
	comp=Z,22nm,1.0s						
SNAA	**Sanae**	**22.67**	**137**	P	**P**	18 50 27.7	+2.4
	comp=Z,22nm,1.4s						
LL05	**Los Muermos**	**22.85**	**329**	P	**P**	18 50 26.5	-0.8
PLCA	**Paso Flores**	**22.86**	**335**	P	**P**	18 50 25.5	-2.0
	comp=Z,4.7nm,1.1s,baz=165,slow=12,SNR=6.9						
PLCA				LR	LR	18 58 10.8	
	comp=Z,133nm,21.6s,baz=192,slow=34						
	comp=Z,4.7nm,1.1s						
PLCA	**Paso Flores**	**22.86**	**335**	P	**P**	18 50 26.6	-0.9
LR05	**Currie**	**23.64**	**333**	P	**P**	18 50 34.9	-0.4
LR05				IAmb	IAmb	18 50 46.8	
	comp=Z,41nm,1.4s						
GO06	**Curarrehue**	**24.15**	**334**		**P**	18 50 39.6	-0.7
GO06				IAmb	IAmb	18 50 41.8	
	comp=Z,12nm,1.0s						
GO06	**Curarrehue**	**24.15**	**334**	P	**P**	18 50 40.8	+0.5
	comp=Z,16nm,1.1s						
TROLL	**Troll, Antarti**	**24.30**	**139**	⇑P	**P**	18 50 43.7	+2.3
	comp=Z,434nm,1.0s						
ML02	**Panimavida**	**27.84**	**337**	P	**P**	18 51 14.7	+1.2
QSPA	**South Pole Qui**	**27.89**	**180**	P	**P**	18 51 17.0	+3.1
	comp=Z,3.3nm,0.8s,baz=147,slow=1.5,SNR=12						
	comp=Z,3.3nm,0.8s						
QSPA	**South Pole Qui**	**27.89**	**180**	P	**P**	18 51 13.8	-0.1
QSPA				IAmb	IAmb	18 51 30.9	
	comp=Z,12nm,1.1s						
QSPA	**South Pole Qui**	**27.89**	**180**	P	**P**	18 51 17.3	+3.4
	comp=Z,10nm,1.0s						
BO02	**Sierra Bellavi**	**28.67**	**338**	P	**P**	18 51 22.6	+1.6
BO02				IAmb	IAmb	18 51 33.6	
	comp=Z,9.3nm,0.9s						
BO02	**Sierra Bellavi**	**28.67**	**338**	P	**P**	18 51 24.7	+3.7
	comp=Z,11nm,1.0s						
BO04	**La Punta**	**29.43**	**339**	P	**P**	18 51 26.4	-1.2
BO04				IAmb	IAmb	18 51 33.6	
	comp=Z,13nm,0.9s						
VA03	**San Esteban**	**30.62**	**339**	P	**P**	18 51 41.0	+2.7
	comp=Z,15nm,1.0s						
ZON	**Zonda**	**31.53**	**343**	P	**P**	18 51 45.4	-0.9
ZON				IAmb	IAmb	18 51 52.0	
	comp=Z,4.0nm,0.7s						
CO02	**Combarbal**	**32.22**	**339**	P	**P**	18 51 52.0	-0.3
CO02	**Combarbal**	**32.22**	**339**	P	**P**	18 51 52.1	-0.3
	comp=Z,17nm,0.9s						
GO04	**Tololo Observa**	**33.19**	**340**	P	**P**	18 52 00.9	-0.2
GO04	**Tololo Observa**	**33.19**	**340**	P	**P**	18 52 00.6	-0.5
	comp=Z,20nm,0.9s						
CO01	**Juntas del Tor**	**33.27**	**341**	P	**P**	18 52 02.8	+1.0
CO01				IAmb	IAmb	18 52 10.3	
	comp=Z,13nm,1.1s						
CO01	**Juntas del Tor**	**33.27**	**341**	P	**P**	18 52 03.4	+1.6
	comp=Z,15nm,1.4s						
AC04	**Llanos de Chal**	**35.16**	**340**	P	**P**	18 52 17.5	-0.4
	comp=Z,49nm,0.8s						
CPUP	**Villa Florida**	**36.00**	**1**	P	**P**	18 52 24.7	-0.4
	comp=Z,2.1nm,0.7s,baz=171,slow=8.5,SNR=7.1						
	comp=Z,2.1nm,0.7s						
CPUP	**Villa Florida**	**36.00**	**1**	P	**P**	18 52 24.3	-0.8
SALTA		**38.49**	**348**	P	**P**	18 52 48.9	+2.1
	comp=Z,5.4nm,0.9s						
TA01	**Diego Aracena**	**42.54**	**343**	P	**P**	18 53 20.9	+1.2
	comp=Z,18nm,1.2s						
PB16	**IPOC Station P**	**44.65**	**345**	P	**P**	18 53 39.3	+1.9
	comp=Z,5.0nm,1.4s						
LPAZ	**La Paz**		**46.52**	**347**	P	**P**	18 53 51.5	-0.8
	comp=Z,0.8nm,0.7s,baz=142,slow=4.4,SNR=4.9							
	comp=Z,0.8nm,0.7s							
LPAZ	**La Paz**		**46.52**	**347**	P	**P**	18 53 51.7	-0.5
CLDB	**Colider**		**51.41**	**3**	P	**P**	18 54 31.1	+2.0
	comp=Z,7.3nm,1.0s							
NNA	**Nana**		**52.02**	**337**	P	**P**	18 54 33.8	+0.2
H10S2	**ASCENSION HYDR**		**61.92**	**51**	T	T	20 02 52.7	
	baz=18,slow=74,SNR=51							
H10S3	**ASCENSION HYDR**		**61.92**	**51**	T	T	20 02 52.7	
	baz=202,slow=74,SNR=48							
H10N3	**ASCENSION HYDR**		**63.01**	**50**	T	T	20 04 17.8	
	baz=201,slow=75,SNR=50							
H10N1	**ASCENSION HYDR**		**63.01**	**50**	T	T	20 04 18.1	
	baz=201,slow=75,SNR=110							
H10N2	**ASCENSION HYDR**		**63.03**	**50**	T	T	20 04 19.1	
	baz=201,slow=75,SNR=65							
OTAV	**Otavalo**		**64.25**	**337**	P	**P**	18 55 57.1	-2.6
OTAV					IAmb	IAmb	18 56 10.2	
	comp=Z,8.3nm,1.4s							
BOAV	**Boa Vista**		**64.58**	**358**	P	**P**	18 55 59.0	-2.3
BOAV					IAmb	IAmb	18 56 00.9	
	comp=Z,7.1nm,1.4s							
KMBO	**Kilima Mbogo**		**91.58**	**95**	LR	LR	19 35 44.6	
	comp=Z,91nm,19.3s,baz=96,slow=33							
ASAR	**Alice Springs**		**93.75**	**191**	P	**P**	18 58 40.8	-0.4
	comp=Z,1.1nm,1.1s,baz=169,slow=4.3,SNR=4.1							
	comp=Z,1.1nm,1.1s							
WRA	**Warramunga Arr**		**97.39**	**192**	P	**P**	18 58 57.2	-0.5
	comp=Z,0.7nm,1.0s,baz=178,slow=4.1,SNR=3.3							
	comp=Z,0.7nm,1.0s							
CMAR	**Chiang Mai Arr**		**133.38**	**150**	PKP	**PKPdf**	19 04 39.1	-1.0
	comp=Z,0.4nm,0.6s,baz=227,slow=4.0,SNR=5.1							
ILAR	**Eielson Array**		**142.58**	**315**	PKP	**PKPdf**	19 04 53.7	-1.9
	comp=Z,0.3nm,0.6s,baz=176,slow=2.0,SNR=4.4							
ARCES	**ARCESS Array B**		**144.10**	**37**	PKP	**PKPdf**	19 04 57.4	-0.7
	comp=Z,3.9nm,0.8s,baz=242,slow=2.6,SNR=5.7							
ARCES	**ARCESS Array B**		**144.10**	**37**		**PKPdf**	19 04 58.0	-0.2
BVAR	**Borovoye Array**		**151.75**	**85**	PKPbc	**PKPbc**	19 05 16.8	-0.8
	comp=Z,2.5nm,0.7s,baz=222,slow=2.0,SNR=11							
MKAR	**Makanchi Array**		**152.91**	**107**	PKPbc	**PKPbc**	19 05 20.1	-0.3
	comp=Z,0.6nm,0.6s,baz=221,slow=3.1,SNR=6.4							
KURBB	**Kurchatov Arra**		**153.96**	**97**	PKPbc	**PKPbc**	19 05 21.8	-0.7
	comp=Z,0.2nm,0.6s,baz=237,slow=2.5,SNR=4.8							
KURK	**Kurchatov**		**154.06**	**97**		**PKPbc**	19 05 21.8	-0.9

*ISK **02** 18:48:30.5, 37°.85N×26°.49E, h9km, ML2.5/14*

*THE **02** 18:48:31.7, 38°N±3°×2°6E±°, h4km±3km, M2.6/5, MLh2.6/5*

*ATH **02** 18:48:31.0, 37°.83N×26°.44E, h13km±2km, ML2.6/4, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 02 18:48:31.1±0.9, 37°.85N±0°.02×26°.46E±0°.03, h13km±9km, n31, σ0°52/42, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.21**	**106**	P	**Pg**	18 48 35.7	+0.1
KRL1				S	**Sg**	18 48 39.4	+0.7
KRL1				AML	AML		
GMLD	**Gumuldur**	**0.43**	**58**	Pg	**Pg**	18 48 38.2	-1.4
GMLD				Sg	**Sg**	18 48 44.9	-0.4
GMLD				AML	AML		
CHOS	**Chios island**	**0.62**	**330**	P	**Pb**	18 48 43.5	-0.4
CHOS				S	**Sb**	18 48 52.9	+0.4
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**330**	Pg	**Pg**	18 48 43.2	0.0
CHOS				Sg	**Sb**	18 48 52.6	+0.1
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**330**	P	**Pb**	18 48 43.6	-0.2
CHOS				S	**Sb**	18 48 52.7	+0.2
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.64**	**104**	Pg	**Pg**	18 48 43.3	-0.1
GCAM				Sg	**Sg**	18 48 51.7	-0.1
GCAM				AML	AML		
BLCB	**Balcova**	**0.71**	**41**	P	**Pg**	18 48 44.7	-0.1
BLCB	**Balcova**	**0.71**	**41**	Pg	**Pg**	18 48 43.9	-0.9
BLCB				Sg	**Sg**	18 48 54.2	+0.1
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.74**	**339**	P	**Pb**	18 48 46.6	+0.7
EAG2				S	**Sb**	18 48 55.7	-0.3
KRBN	**Karaburun**	**0.74**	**6**	Pg	**Pg**	18 48 45.3	-0.2
KRBN				Sg	**Sb**	18 48 56.2	+0.2
KRBN				AML	AML		
FOCM	**Foa**	**0.89**	**14**	Pg	**Pg**	18 48 47.4	-0.8
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.98**	**138**	Pg	**Pg**	18 48 48.9	-1.0
YKAV				AML	AML		
BODT	**Bodrum**	**1.04**	**139**	P	**Pn**	18 48 52.4	+1.0
BODT				AML	AML		
BODT	**Bodrum**	**1.04**	**139**	Pg	**Pg**	18 48 50.7	-0.4
BODT				AML	AML		
APE	**Apeiranthos**	**1.07**	**224**	P	**Pb**	18 48 51.7	+0.1
APE				AML	AML		
APE	**Apeiranthos**	**1.07**	**224**	P	**Pg**	18 48 51.3	-0.5
APE				S	**Sg**	18 49 05.5	-0.2
AYDB	**Zeytinkoy-Aydi**	**1.14**	**85**	Pn	**Pg**	18 48 52.4	-0.6
AYDB				AML	AML		
NAX1	**Naxos Island**	**1.14**	**229**	P	**Pb**	18 48 51.9	-0.7
MLSB	**Milas**	**1.19**	**117**	Pn	**Pb**	18 48 53.2	-0.3
MLSB				AML	AML		
DKL	**Dikili**	**1.27**	**16**	Pn	**Pn**	18 48 54.8	+0.3
DKL				AML	AML		
DKL	**Dikili**	**1.27**	**16**	P	**Pn**	18 48 54.7	+0.3
PRK	**Paraskevi**	**1.40**	**354**	P	**Pb**	18 48 57.2	+0.2
PRK				S	**Sg**	18 49 16.4	+0.2
PRK	**Paraskevi**	**1.40**	**354**	P	**Pb**	18 48 57.3	+0.2
PRK				AML	AML		
NAZL	**Nazilli-Aydin**	**1.46**	**85**	Pn	**Pn**	18 48 57.3	+0.2
NAZL				AML	AML		
SOMA	**Soma-Manisa**	**1.55**	**33**	Pn	**Pn**	18 48 58.8	+0.3
SOMA				AML	AML		
KARY	**Karystos**	**1.61**	**277**	P	**Pn**	18 48 59.8	+0.7
KARY	**Karystos**	**1.61**	**277**	P	**Pn**	18 48 59.1	-0.1
YER	**Yerkesik**	**1.62**	**116**	P	**Pb**	18 49 01.4	+0.6
GORD	**Gordes-Manisa**	**1.72**	**52**	Pn	**Pn**	18 49 00.9	+0.2
GORD				AML	AML		
DION	**Dionisos Attik**	**2.01**	**277**	P	**Pn**	18 49 05.0	+0.3
PTL	**Penteli**	**2.06**	**276**	P	**Pn**	18 49 06.0	+0.6

*NNC **02** 18:51:16.1±5.2, 36°.89N×69°.53E, h0km, mb4.1, mpv4.0, Error ellipse: s-maj=42.2km s-min=37.5km az=169.0*

*IDC **02** 18:51:18.9±7.1, 36°.45N×70°.63E, h157km±59km, mb3.5/8, mbtmp3.9/13, Error ellipse: s-maj=54.2km s-min=24.0km az=29.0*

ISC 02 18:51:19.0±1.3, 36°.6N±0°.1×70°.2E±0°.1, h150km, n25, σ1°65/29, mb3.9/7, 3C-2D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.53**	**2**	P	**Pn**	18 52 50.8	-1.8
	2.9nm,0.2s,baz=196,slow=16,SNR=75						
KK31				⇓S	Sn	18 54 03.6	-2.4
	44nm,0.7s,baz=190,slow=24						
UCH	**Uchtor**	**6.56**	**29**	P	**Pn**	18 52 53.3	-0.1
	SNR=26						
EKS2	**Erkin-Say**	**6.67**	**23**	P	**Pn**	18 52 55.1	+0.4
	SNR=11						
AAK	**Ala-Archa**	**6.90**	**27**	P	**Pn**	18 52 58.4	+0.6
	18nm,0.4s,baz=191,slow=6.4,SNR=137						
AAK				S	Sn	18 54 14.1	-1.1
	7.8nm,0.4s,baz=147,slow=23,SNR=17						
AAK	**Ala-Archa**	**6.90**	**27**	P	**Pn**	18 52 58.0	+0.2
	SNR=40						
AAK	**Ala-Archa**	**6.90**	**27**	⇑P	**Pn**	18 52 57.9	+0.2
	3.4nm,0.4s						
AAK				⇑S	Sn	18 54 17.9	+2.7
	7.7nm,0.5s						
KBK	**Karagaybulak**	**7.09**	**30**	P	**Pn**	18 53 00.8	+0.4
	SNR=7.1						
CHMS	**Chumysh**	**7.31**	**27**	P	**Pn**	18 53 03.0	-0.1
	SNR=13						
USP	**Ospenovka**	**7.45**	**25**	P	**Pn**	18 53 04.5	-0.5
	SNR=11						
TKM2	**Tokmak 2**	**7.58**	**32**	P	**Pn**	18 53 06.5	-0.3
	SNR=22						
MAKZ	**Makanchi**	**13.47**	**37**	⇓P	**P**	18 54 29.3	+1.3
	4.3nm,1.4s						
MK31	**Makanchi Array**	**13.61**	**38**	P	**P**	18 54 31.1	+1.5
	1.3nm,0.7s,baz=212,slow=10,SNR=10						
MKAR	**Makanchi Array**	**13.61**	**38**	P	**Pn**	18 54 23.9	-1.9
	0.4nm,0.7s,baz=227,slow=14,SNR=14						
AB31	**Akbulak array**	**14.72**	**333**	⇑P	**Pn**	18 54 39.0	-0.7
	0.9nm,0.3s,baz=167,slow=12,SNR=5.6						
KURBB	**Kurchatov Arra**	**15.27**	**20**	P	**Pn**	18 54 44.7	-1.8
	0.9nm,0.7s,baz=209,slow=10,SNR=9.6						
AKTO	**Aktyubinsk**	**16.41**	**331**	P	**P**	18 55 02.6	+2.2
	4.4nm,0.7s,baz=144,slow=9.9,SNR=13						
AKTO				S	**S**	18 57 59.1	-3.5
	1.4nm,0.4s,baz=354,slow=21,SNR=5.5						
BVAR	**Borovoye Array**	**16.45**	**0**	P	**P**	18 55 00.3	-0.7
	1.4nm,0.4s,baz=159,slow=9.4,SNR=18						
ZALV	**Zalesovo Beam**	**20.12**	**26**	P	**P**	18 55 40.7	-0.2
	3.1nm,0.4s,baz=215,slow=11,SNR=20						
	3.1nm,0.4s						
ARTI	**Arti**	**21.37**	**342**	P	**P**	18 55 55.3	+1.1
	2.8nm,0.6s,baz=133,slow=5.1,SNR=6.6						
	2.8nm,0.6s						
BELG	**Belogornoye**	**22.44**	**322**	P	**P**	18 56 06.9	+1.8
	4.4nm,0.6s,baz=333,slow=2.3,SNR=1.4						
	4.4nm,0.6s						
FINES	**FINESS Array B**	**37.07**	**326**	P	**P**	18 58 16.2	+2.0
	2.4nm,0.8s,baz=123,slow=8.6,SNR=8.3						
	2.4nm,0.8s						
ARCES	**ARCESS Array B**	**40.84**	**338**	P	**P**	18 58 47.0	+1.6
	4.4nm,1.0s,baz=104,slow=8.9,SNR=6.1						
	4.4nm,1.0s						
HFS	**Hagfors**	**42.62**	**322**	P	**P**	18 59 01.4	+1.4
	1.0nm,0.4s,baz=100,slow=7.7,SNR=5.3						
	1.0nm,0.4s						
NOA	**NORSAR Array B**	**43.94**	**323**	P	**P**	18 59 11.9	+1.3
	0.3nm,0.5s,baz=97,slow=8.1,SNR=1.2						
	0.3nm,0.5s						
WRA	**Warramunga Arr**	**82.57**	**121**	P	**P**	19 03 22.3	-3.1
	0.2nm,0.9s,baz=330,slow=4.9,SNR=1.8						
	0.2nm,0.9s						

*TAP **02** 18:51:42.1, 24°.09N×120°.93E, h9km, ML3.7, B*

ISC 02 18:51:42.7±0.8, 24°.09N±0°.01×120°.94E±0°.01, h9km±4km, n145, σ0°84/239, 11C-9D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WCS	**Beigang Elemen**	**0.04**	**216**	*i* P	**Pg**	18 51 44.2	-0.4
WCS				*i* S	**Sg**	18 51 45.6	-0.3
DPDB	**Guoxing**	**0.06**	**192**	⇑*i* P	**Pg**	18 51 44.5	-0.3
DPDB				*i* S	**Sg**	18 51 46.1	-0.2
WPL	**Puli Township**	**0.08**	**170**	⇓*i* P	**Pg**	18 51 44.8	-0.3
WPL				*i* S	**Sg**	18 51 46.5	-0.1
WHP	**Taichung City**	**0.18**	**1**	⇑*i* P	**Pg**	18 51 46.6	-0.1
WHP				S	**Sb**	18 51 50.0	+0.6
WUSB	**Renai**	**0.19**	**122**	⇓*i* P	**Pg**	18 51 47.0	+0.2
WUSB				S	**Sg**	18 51 50.2	+0.6
TYC	**Yuchr**	**0.20**	**202**	⇑*i* P	**Pg**	18 51 46.7	-0.3
TYC				*e*S	**Sg**	18 51 49.9	+0.1
SMLT	**Sun Moon Lake**	**0.21**	**190**	⇑*i* P	**Pg**	18 51 47.1	-0.1
SMLT				*i* S	**

SHUL	**Shoufeng**	**0.65**	**118**	*eP*	**Pb**	**18 51 55.8**	**-0.4**
SHUL				*eS*	**Sb**	**18 52 06.0**	**+0.8**
EHY	**Hungye**	**0.68**	**149**	*eP*	**Pg**	**18 51 55.6**	**-0.3**
EHY				*eS*	**Sg**	**18 52 04.9**	**0.0**
LATG	**Datong**	**0.69**	**50**	*eP*	**Pg**	**18 51 55.5**	**-0.6**
LATG				*eS*	**Sg**	**18 52 04.2**	**-1.0**
NSK	**Sanguang**	**0.69**	**33**	*eP*	**Pg**	**18 51 55.8**	**-0.4**
NSK				*eS*	**Sg**	**18 52 05.3**	**+0.1**
SBCB	**Hsinchu**	**0.70**	**3**	*eP*	**Pb**	**18 51 57.1**	**+0.1**
SBCB				*eS*	**Sn**	**18 52 08.2**	**-1.5**
YHNB	**Yeheng**	**0.70**	**35**	P	**Pg**	**18 51 55.4**	**-0.8**
YHNB	**Yeheng**	**0.70**	**35**	S	**Sg**	**18 52 05.7**	**+0.3**
YHNB	**Yeheng**	**0.70**	**35**	P	**Pg**	**18 51 55.8**	**-0.5**
CHN2	**Minshiung**	**0.70**	**217**	*i* P	**Pb**	**18 51 56.9**	**-0.2**
CHN2				*i* S	**Sb**	**18 52 07.8**	**+0.9**
EHYH	**Wanrong**	**0.70**	**148**	*eP*	**Pg**	**18 51 56.0**	**-0.4**
EHYH				*eS*	**Sg**	**18 52 03.0**	**-2.5**
HSN	**Hsinchu**	**0.71**	**2**	*eP*	**Pn**	**18 51 58.1**	**-0.8**
HSN				*eS*	**Sn**	**18 52 08.4**	**-1.4**
KSHI	**Guanxi Townshi**	**0.71**	**17**	*eP*	**Pb**	**18 51 57.6**	**+0.3**
KSHI				S	**Sb**	**18 52 07.9**	**+0.7**
WCKO	**Fanlu**	**0.72**	**205**	*i* P	**Pb**	**18 51 57.0**	**-0.5**
WCKO				S	**Sb**	**18 52 07.7**	**+0.3**
NDT	**Datong Townshi**	**0.73**	**46**	*eP*	**Pg**	**18 51 56.3**	**-0.5**
HGSD	**Ruisui**	**0.74**	**143**	*eP*	**Pb**	**18 51 57.3**	**-0.6**
EAHA	**Aohua**	**0.77**	**72**	*eP*	**Pg**	**18 51 57.6**	**+0.1**
EAHA				*eS*	**Sb**	**18 52 09.0**	**+0.3**
YULB	**Yu-li**	**0.77**	**155**	P	**Pg**	**18 51 56.7**	**-0.9**
YULB	**Yu-li**	**0.77**	**155**	S	**Sg**	**18 52 07.4**	**-0.3**
YULB	**Yu-li**	**0.77**	**155**	*eP*	**Pg**	**18 51 57.1**	**-0.5**
YULB				*eS*	**Sg**	**18 52 07.4**	**-0.3**
ENTT	**Nioudou**	**0.79**	**46**	*eP*	**Pg**	**18 51 57.6**	**-0.4**
WSF	**Szhu**	**0.80**	**236**	*eP*	**Pg**	**18 51 58.0**	**+0.1**
WSF				S	**Sb**	**18 52 09.8**	**+0.1**
ENA	**Nanau**	**0.80**	**65**	*eP*	**Pg**	**18 51 58.1**	**-0.1**
ENA				*eS*	**Sb**	**18 52 09.2**	**-0.6**
CHN4	**Tsaushan**	**0.81**	**203**	*eP*	**Pb**	**18 51 58.5**	**-0.4**
CHN4				*i* S	**Sn**	**18 52 11.0**	**-1.3**
TWF1	**Yuli**	**0.81**	**156**	*eP*	**Pg**	**18 51 57.7**	**-0.6**
TWF1				*eS*	**Sb**	**18 52 09.8**	**-0.1**
TPUB	**Ta-pu**	**0.84**	**200**	P	**Pg**	**18 51 58.4**	**-0.5**
TPUB	**Ta-pu**	**0.84**	**200**	S	**Sg**	**18 52 10.1**	**+0.2**
TPUB	**Ta-pu**	**0.84**	**200**	P	**Pg**	**18 51 58.9**	**-0.1**
TPUB				*eS*	**Sb**	**18 52 11.4**	**+0.5**
EWUT	**Wuta**	**0.84**	**65**	*eP*	**Pg**	**18 51 58.6**	**-0.4**
EWUT				S	**Sb**	**18 52 10.6**	**-0.3**
NWLT	**Wulai**	**0.85**	**37**	*eP*	**Pg**	**18 51 58.9**	**-0.3**
NWLT				*eS*	**Sg**	**18 52 09.2**	**-1.1**
WSL	**Shuilin Townsh**	**0.87**	**229**	*eP*	**Pg**	**18 51 59.2**	**-0.2**
WSL				*eS*	**Sb**	**18 52 11.5**	**-0.1**
FUSB	**Fushanzhiwuyua**	**0.89**	**42**	*eP*	**Pg**	**18 51 59.5**	**-0.3**
NDS	**Dongshan**	**0.89**	**53**	P	**Pg**	**18 51 59.4**	**-0.5**
NDS				*eS*	**Sb**	**18 52 12.3**	**+0.1**
WTP	**Ta-pu**	**0.90**	**200**	*eP*	**Pg**	**18 51 59.8**	**-0.2**
WTP				S	**Sb**	**18 52 12.6**	**+0.1**
NCU	**National Centr**	**0.90**	**14**	P	**Pn**	**18 52 01.4**	**-0.2**
NCU				*eS*	**Sn**	**18 52 14.8**	**+0.1**
ELDTW	**Lidau**	**0.90**	**176**	*eP*	**Pb**	**18 52 00.4**	**-0.2**
ELDTW				*eS*	**Sb**	**18 52 13.2**	**+0.4**
TWE	**Neicheng**	**0.91**	**47**	*eP*	**Pg**	**18 51 60.0**	**-0.3**
TWK	**Hsinying**	**0.92**	**207**	*eP*	**Pg**	**18 52 00.3**	**-0.1**
TWK				S	**Sb**	**18 52 14.0**	**+0.7**
STYH	**Taoyuan**	**0.93**	**189**	*eP*	**Pg**	**18 52 00.5**	**-0.2**
STYH				*eS*	**Sb**	**18 52 13.3**	**-0.2**
FULB	**Fuli**	**0.95**	**160**	*eP*	**Pn**	**18 52 01.6**	**-0.6**
FULB				*eS*	**Sn**	**18 52 15.0**	**-0.9**
EHD	**Haiduan**	**0.97**	**165**	*eP*	**Pb**	**18 52 01.5**	**-0.3**
EHD				*eS*	**Sn**	**18 52 15.7**	**-0.8**
TWC	**Suao**	**0.97**	**58**	*eP*	**Pb**	**18 52 01.7**	**-0.1**
TWC				*eS*	**Sg**	**18 52 13.5**	**-0.7**
CHN1	**Nanshi**	**0.98**	**203**	*eP*	**Pg**	**18 52 01.4**	**-0.2**
CHN1				*eS*	**Sb**	**18 52 15.4**	**+0.5**
CHKH	**Chenggong**	**0.99**	**155**	*eP*	**Pb**	**18 52 02.0**	**0.0**
CHKH				*eS*	**Sn**	**18 52 18.7**	**+1.8**
CHN8	**Yiju**	**1.00**	**222**	*eP*	**Pg**	**18 52 01.4**	**-0.6**
TATO	**Taipei**	**1.01**	**29**	P	**Pn**	**18 52 02.8**	**-0.2**
TATO	**Taipei**	**1.01**	**29**	S	**Sn**	**18 52 16.9**	**-0.5**
NHDH	**Xindian Distri**	**1.02**	**31**	*eP*	**Pn**	**18 52 03.1**	**-0.1**
ECS	**Chishang**	**1.03**	**166**	*eP*	**Pg**	**18 52 02.3**	**-0.2**
ECS				*eS*	**Sn**	**18 52 18.3**	**+0.5**
SGST	**Jiashian**	**1.06**	**198**	*eP*	**Pg**	**18 52 02.1**	**-1.0**
SGST				*eS*	**Sn**	**18 52 18.5**	**-0.1**
TWA	**Mucha**	**1.06**	**33**	*eP*	**Pn**	**18 52 04.4**	**+0.7**
CHKT	**Chengkung**	**1.06**	**158**	*eP*	**Pn**	**18 52 04.2**	**+0.4**
CHKT				*eS*	**Sn**	**18 52 19.4**	**+0.7**
TAP	**Taipei**	**1.07**	**29**	*eP*	**Pn**	**18 52 04.6**	**-0.7**
TWS1	**Kuangyinshan**	**1.09**	**23**	P	**Pn**	**18 52 04.7**	**+0.6**
TWS1				*eS*	**Sn**	**18 52 20.5**	**+1.1**
SSHA	**Shanhua**	**1.13**	**212**	*eP*	**Pg**	**18 52 03.8**	**-0.6**
SSHA				*eS*	**Sn**	**18 52 21.2**	**+1.0**
SLGT	**Liugui**	**1.13**	**194**	*eP*	**Pg**	**18 52 04.0**	**-0.4**
SLGT				*eS*	**Sn**	**18 52 21.0**	**+0.7**
CHN3	**Shinhua**	**1.14**	**208**	*eP*	**Pn**	**18 52 05.0**	**+0.1**
CHN3				*eS*	**Sn**	**18 52 23.1**	**+2.5**
SCLT	**Jiali**	**1.14**	**217**	P	**Pb**	**18 52 04.1**	**-0.6**
SCLT				*eS*	**Sn**	**18 52 21.2**	**+0.6**
NTST	**Danshui**	**1.16**	**23**	*eP*	**Pn**	**18 52 05.6**	**+0.4**
EGS		**1.17**	**50**	*eP*	**Pn**	**18 52 07.7**	**+2.4**
TIPB	**Shuangxi**	**1.19**	**42**	*eP*	**Pn**	**18 52 06.4**	**+0.8**
YM01	**YM01**	**1.19**	**29**	*eP*	**Pn**	**18 52 06.2**	**+0.6**
YM01				S	**Sn**	**18 52 23.8**	**+1.8**
ZUZH	**Zhuzihu**	**1.20**	**27**	*eP*	**Pg**	**18 52 05.6**	**-0.2**
ZUZH				*eS*	**Sn**	**18 52 22.7**	**+0.7**
ANP	**Anpu**	**1.21**	**26**	*eP*	**Pg**	**18 52 06.4**	**+0.4**
ANP				*eS*	**Sn**	**18 52 23.4**	**+0.9**
EOS2	**EOS2**	**1.22**	**74**	*eP*	**Pg**	**18 52 06.2**	**0.0**
TSCK	**Chigu Township**	**1.23**	**220**	*eP*	**Pn**	**18 52 04.7**	**-1.3**
TSCK				*eS*	**Sn**	**18 52 23.3**	**+0.6**
NWF	**Wu-fen Shan**	**1.24**	**38**	*eP*	**Pg**	**18 52 07.6**	**+1.1**
WFSB	**Wu-fen Shan**	**1.24**	**38**	*eP*	**Pg**	**18 52 07.0**	**+0.4**
YM08	**YM08**	**1.24**	**28**	*eP*	**Pg**	**18 52 06.7**	**+0.1**
EOS3	**EOS3**	**1.27**	**81**	*eP*	**Pg**	**18 52 06.9**	**-0.2**
TWG	**Pinlang**	**1.27**	**175**	*eP*	**Pg**	**18 52 07.2**	**0.0**
TWG				*i* S	**Sn**	**18 52 24.7**	**+0.8**
TWGBT	**Beinan**	**1.28**	**174**	P	**Pg**	**18 52 06.9**	**-0.4**
TWGBT	**Beinan**	**1.28**	**174**	*eP*	**Pg**	**18 52 07.1**	**-0.2**
TWGBT				*eS*	**Sn**	**18 52 24.3**	**+0.3**
SXI1	**Grass Mountain**	**1.31**	**40**	P	**Pg**	**18 52 08.1**	**+0.2**
TWB1	**Santiao Chiao**	**1.32**	**46**	*eP*	**Pg**	**18 52 09.2**	**+1.1**
TWM1	**Shoushan**	**1.35**	**201**	*eP*	**Pg**	**18 52 09.2**	**+0.7**
TWM1				*eS*	**Sg**	**18 52 30.3**	**+4.1**
SSD	**Sandimen**	**1.37**	**192**	*eP*	**Pg**	**18 52 08.8**	**-0.3**
SSD				S	**Sg**	**18 52 28.1**	**+1.2**
PNG	**Penghu**	**1.37**	**248**	P	**Pn**	**18 52 07.1**	**-0.9**
PNG				*eS*	**Sb**	**18 52 25.3**	**-0.9**
PHUB	**P'eng-hu**	**1.38**	**246**	*eP*	**Pn**	**18 52 07.3**	**-0.8**
PHUB				*eS*	**Sb**	**18 52 25.4**	**-1.0**
WDGT	**Dungji**	**1.44**	**235**	*eP*	**Pn**	**18 52 08.0**	**-1.0**
WDGT				*eS*	**Sn**	**18 52 27.2**	**-0.7**
ECL	**Taimali**	**1.49**	**180**	*eP*	**Pg**	**18 52 11.0**	**-0.3**
ECL				*eS*	**Sg**	**18 52 31.1**	**+0.4**
MASBT	**Mashibuluo**	**1.50**	**191**	P	**Pb**	**18 52 10.3**	**-0.4**
MASBT				*eS*	**Sg**	**18 52 31.8**	**+0.7**
WSSB	**Gushan**	**1.57**	**203**	*eP*	**Pg**	**18 52 12.7**	**-0.2**
VWUC	**VWUC**	**1.63**	**304**	*eP*	**Pn**	**18 52 09.1**	**-2.4**
VWUC				*eS*	**Sn**	**18 52 30.7**	**-1.8**
SSPT	**Xinbi**	**1.64**	**192**	*eP*	**Pg**	**18 52 14.1**	**-0.1**
SSPT				*eS*	**Sg**	**18 52 37.4**	**+2.0**
VCHM	**Qimei**	**1.64**	**238**	*eP*	**Pn**	**18 52 11.4**	**-0.3**
VCHM				*eS*	**Sn**	**18 52 32.5**	**-0.4**
EAST	**Anshuo**	**1.71**	**183**	*eP*	**Pn**	**18 52 13.2**	**+0.5**
SCZT	**Fangliau**	**1.74**	**190**	P	**Pb**	**18 52 14.1**	**-0.8**
SCZT				*eS*	**Sg**	**18 52 38.3**	**-0.4**
PTMZ	**Houxiangcun**	**1.91**	**300**	*eP*	**Pn**	**18 52 13.2**	**-2.2**
SMST	**Manzhou Townsh**	**2.07**	**183**	*eP*	**Pb**	**18 52 19.1**	**-1.3**
LYUB	**Lan-yu**	**2.17**	**164**	*eP*	**Pn**	**18 52 20.3**	**+1.3**
MATB	**Ma-tsu**	**2.24**	**336**	*eP*	**Pn**	**18 52 20.3**	**+0.4**
KNM	**Kinmen**	**2.31**	**279**	*eP*	**Pb**	**18 52 24.8**	**+0.2**
KNMB	**Chin-men Tao**	**2.36**	**280**	*eP*	**Pn**	**18 52 20.0**	**-1.6**
MHZQ	**Yeshan**	**2.64**	**319**	*eP*	**Pb**	**18 52 28.1**	**-2.2**
LYJJ	**Jianjiangzhen**	**2.67**	**337**	*eP*	**Pn**	**18 52 28.1**	**+2.2**
AXDP	**Jialang**	**2.82**	**287**	*eP*	**Pn**	**18 52 26.6**	**-1.4**
XPSS	**Dashiqiu**	**2.91**	**347**	*eP*	**Pn**	**18 52 31.0**	**+1.9**
SXFK	**Yanhouchang**	**3.77**	**308**	*eP*	**Pn**	**18 52 43.9**	**+2.9**

IDC 02 18:55:39.9±1.5, 4°.45S×150°.58E, h0km, mb3.2/3, mbtmp3.2/3, Error ellipse: s-maj=48.0km s-min=18.4km az=157.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.45**	**84**	Pn	Pn	18 56 06.3	-1.0
	51nm,0.3s,baz=334,slow=2.4,SNR=19						
KRVT				Sn	Sn	18 56 27.8	+0.7
	161nm,0.3s,baz=30,slow=21,SNR=7.0						
WRA	**Warramunga Arr**	**22.08**	**224**	P	P	19 00 37.9	+1.2
	0.2nm,0.7s,baz=52,slow=10,SNR=2.4						
	0.2nm,0.7s						
ASAR	**Alice Springs**	**24.98**	**219**	P	P	19 01 04.8	-0.6
	0.7nm,0.9s,baz=58,slow=10,SNR=7.6						
	0.7nm,0.9s						
ILAR	**Eielson Array**	**82.68**	**23**	P	P	19 08 04.9	-0.2
	0.3nm,0.6s,baz=247,slow=5.9,SNR=5.1						
	0.3nm,0.6s						

*THE **02** 18:59:33.2, 38˚.N±29˚×2˚.7E±4˚.3, h0km±37km, MLh2.6/3*
*AFAD **02** 18:59:33.2, 37˚.72N×27˚.01E, h7km±1km, ML2.4*
*ISK **02** 18:59:33.1, 37˚.73N×27˚.03E, h7km, ML2.6/15*

ISC 02 18:59:33.5±0.9, 37°.72N±0°.03×27°.04E±0°.03, h14km±7km, n27, σ0s38/41, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.16**	**97**	P	**Pg**	**18 59 37.3**	**-0.1**
GCAM				S	**Sg**	**18 59 40.2**	**+0.2**
GCAM				IAML		18 59 41.0	
	comp=N,2μm,0.1s						
GCAM	**G?zelcaml?**	**0.16**	**97**	Pg	**Pg**	**18 59 37.0**	**-0.3**
GCAM				Sg	**Sg**	**18 59 40.0**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**55**	Pg	**Pg**	**18 59 38.5**	**-0.3**
KUSD				Sg	**Sg**	**18 59 42.4**	**+0.1**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.31**	**148**	P	**Pg**	**18 59 40.0**	**+0.1**
DDIM				IAML		18 59 45.0	
	comp=E,412nm,0.2s						
DDIM				S	**Sb**	**18 59 45.1**	**-0.6**
DDIM				IAML		18 59 48.0	
	comp=N,380nm,0.3s						
DGB	**zmir**	**0.35**	**340**	P	**Pg**	**18 59 40.2**	**-0.5**
DGB				S	**Sg**	**18 59 44.8**	**-0.7**
DGB				IAML		18 59 45.0	
	comp=N,360nm,0.3s						
DGB				IAML		18 59 45.0	
	comp=E,491nm,0.2s						
GMLD	**Gumuldur**	**0.37**	**345**	Pg	**Pg**	**18 59 40.9**	**-0.1**
GMLD				Sg	**Sg**	**18 59 46.3**	**+0.3**
GMLD				AML	AML		
BEYE	**izmir**	**0.51**	**350**	P	**Pg**	**18 59 43.2**	**-0.5**
BEYE				S	**Sg**	**18 59 50.7**	**+0.1**
BEYE				IAML		18 59 54.0	
	comp=N,343nm,0.2s						
BEYE				IAML		18 59 54.0	
	comp=E,276nm,0.2s						
DUVT	**Torbali**	**0.60**	**33**	P	**Pg**	**18 59 44.8**	**-0.4**
DUVT				S	**Sb**	**18 59 54.0**	**-0.1**
DUVT				IAML		18 59 55.0	
	comp=E,182nm,0.1s						
YKAV	**Yalikavak-Bodr**	**0.62**	**162**	Pg	**Pb**	**18 59 46.1**	**-0.1**
YKAV				Sg	**Sb**	**18 59 55.3**	**+0.4**
YKAV				AML	AML		
BLCB	**Balcova**	**0.67**	**0**	P	**Pg**	**18 59 45.9**	**-0.6**
BLCB	**Balcova**	**0.67**	**0**	Pg	**Pg**	**18 59 46.3**	**-0.2**
BLCB				Sg	**Sg**	**18 59 55.5**	**+0.2**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.67**	**95**	P	**Pg**	**18 59 46.6**	**0.0**
AYDN				S	**Sg**	**18 59 55.5**	**0.0**
AYDN				IAML		18 59 57.0	
	comp=N,168nm,0.3s						
AYDN				IAML		18 59 59.0	
	comp=E,162nm,0.2s						
BODT	**Bodrum**	**0.69**	**162**	P	**Pg**	**18 59 46.5**	**-0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.69**	**162**	Pg	**Pg**	**18 59 46.6**	**-0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**71**	Pg	**Pg**	**18 59 47.2**	**-0.2**
AYDB				AML	AML		
MLSB	**Milas**	**0.72**	**126**	Pg	**Pg**	**18 59 47.2**	**-0.4**
MLSB				Sg	**Sb**	**18 59 57.8**	**0.0**
MLSB				AML	AML		
CESE	**eme**	**0.84**	**317**	Pg	**Pb**	**18 59 49.9**	**-0.1**
CESE				AML	AML		
KRBN	**Karaburun**	**0.95**	**337**	Pg	**Pb**	**18 59 52.0**	**+0.2**
KRBN				AML	AML		
FOCM	**Foa**	**1.02**	**346**	Pg	**Pg**	**18 59 52.9**	**-0.3**
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**18 59 52.8**	**-0.4**
CHOS				S	**Sb**	**19 00 07.1**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	Pg	**Pb**	**18 59 53.2**	**+0.1**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg	**Pg**	**18 59 52.9**	**-0.4**
NAZL				AML	AML		
YER	**Yerkesik**	**1.15**	**120**	P	**Pg**	**18 59 55.2**	**-0.5**
DKL	**Dikili**	**1.35**	**356**	Pn	**Pb**	**18 59 58.7**	**0.0**
DKL				AML	AML		
APE	**Apeiranthos**	**1.36**	**242**	P	**Pn**	**18 59 58.6**	**+0.3**
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	**Pb**	**19 00 00.9**	**-0.1**
GORD				AML	AML		
PRK	**Paraskevi**	**1.64**	**339**	P	**Pn**	**19 00 02.6**	**+0.6**
PRK				S	**Sg**	**19 00 25.6**	**-0.7**

*IDC **02** 19:11:56.7±1.2, 3˚.40S×131˚.14E, h0km, mb4.0/5, mbtmp3.9/9, ML3.6/4, MS3.2/4, Error ellipse: s-maj=42.4km s-min=13.4km az=95.0*
*DJA **02** 19:11:59.9±0.4, 3˚.5S×13˚.1E±˚, h13km±3km, M4.3/15, mb4.7/4, MLv4.1/15*

ISC 02 19:12:01.6±0.8, 3°.33S±0°.06×131°.21E±0°.06, h30km, n21, σ1s01/20, mb4.1/4, MS3.0/4, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**1.11**	**69**	P	**Pb**	**19 12 21.6**	**-0.7**
FAKI				S	**Sb**	**19 12 37.3**	**+0.8**
FAKI				AML	AML		
BNDI	**Bandanaira**	**1.76**	**228**	P	**Pn**	**19 12 29.2**	**-0.8**
BNDI				S	**Sn**	**19 12 53.6**	**+2.1**
BNDI				AML	AML		
SIJI	**Sorong**	**2.44**	**1**	Pn	**Pn**	**19 12 39.8**	**+0.3**
	9.3nm,0.3s,baz=225,slow=22,SNR=25						
SIJI				Sn	**Sn**	**19 13 09.8**	**+1.4**
	20nm,0.3s,baz=222,slow=22,SNR=20						
	18nm,0.3s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.44**	**1**	P	**Pn**	**19 12 39.1**	**-0.4**
SIJI				S	**Sn**	**19 13 09.6**	**+1.2**
SIJI				AML	AML		
MWPI	**Manokwari, Pap**	**3.70**	**50**	P	**Pn**	**19 12 57.5**	**+0.8**
MWPI				AML	AML		
NLAI	**Namlea**	**4.10**	**271**	P	**Pn**	**19 13 03.2**	**+0.9**
NLAI				S	**Sn**	**19 13 50.8**	**+1.5**
NLAI				AML	AML		
SAUI	**Saumlaki**	**4.62**	**179**	P	**Pn**	**19 13 10.0**	**+0.5**
BAKI	**Biak**	**5.33**	**67**	P	**Pn**	**19 13 19.9**	**+0.7**
	0.3nm48nm,0.4s						
BAKI				AML	AML		
SANI	**Sanana**	**5.37**	**284**	P	**Pn**	**19 13 19.7**	**0.0**
	0.1nm38nm,1.1s						
SANI				AML	AML		
BATI	**Baumata**	**10.14**	**227**	Pn	**Pn**	**19 14 25.1**	**-0.1**
	1.3nm,0.3s,baz=132,slow=7.2,SNR=4.8						
	9.4nm,0.5s						
BATI				AML	AML		
FITZ	**Fitzroy Crossi**	**15.66**	**200**	Pn	Pn	19 15 33.2	-7.0
	0.2nm,0.3s,baz=22,slow=7.4,SNR=9.4						
	0.5nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**16.79**	**170**	Pn	Pn	19 15 45.9	-8.8
	0.2nm,0.3s,baz=350,slow=13,SNR=18						
WRA				Sn	Sn	19 18 43.4	-17
	0.3nm,0.3s,baz=358,slow=24,SNR=6.8						
	0.3nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.39**	**173**	P	**P**	**19 16 34.5**	**-1.6**
	3.3nm,0.6s,baz=352,slow=9.4,SNR=38						
	3.3nm,0.6s						
KRVT	**Keravat (AS076**	**20.79**	**93**	LR	LR	19 27 07.8	
	comp=Z,38nm,19.8s,baz=8.0,slow=44						
CTA	**Charters Tower**	**22.20**	**140**	LR	LR	19 27 26.4	
	comp=Z,77nm,18.1s,baz=17,slow=42						
NWAO	**Narrogin (SRO)**	**32.22**	**202**	LR	LR	19 34 19.9	
	comp=Z,101nm,18.9s,baz=246,slow=42						
CMAR	**Chiang Mai Arr**	**38.45**	**305**	LR	LR	19 38 06.6	
	comp=Z,19nm,18.7s,baz=310,slow=41						
MKAR	**Makanchi Array**	**65.87**	**325**	P	**P**	**19 22 44.1**	**-0.4**
	1.3nm,0.7s,baz=121,slow=8.2,SNR=12						
	1.3nm,0.7s						
ZALV	**Zalesovo Beam**	**68.87**	**333**	P	**P**	**19 23 02.7**	**-0.6**
	0.5nm,0.5s,baz=123,slow=10,SNR=4.0						
	0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**70.06**	**327**	P	**P**	**19 23 10.4**	**-0.3**
	1.9nm,0.7s,baz=126,slow=5.6,SNR=22						
	1.9nm,0.7s						
BVAR	**Borovoye Array**	**75.64**	**327**	P	**P**	**19 23 43.5**	**-0.3**
	1.4nm,0.8s,baz=120,slow=8.8,SNR=6.4						
	1.4nm,0.8s						

IDC 02 19:13:39.3±3.4, 10°.51S×66°.08E, h0km, mb3.8/3, mbtmp3.8/3, Error ellipse: s-maj=121.8km s-min=42.7km az=57.0, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H08S1	**Diego Carcia H**	**6.93**	**66**	T	T	19 22 07.2	
	baz=245,slow=75,SNR=13						
H08S3	**Diego Garcia H**	**6.94**	**66**	T	T	19 22 15.5	
	baz=245,slow=75,SNR=60						
H08S2	**Diego Garcia H**	**6.94**	**66**	T	T	19 22 11.0	
	baz=245,slow=75,SNR=24						
H01W3	**Cape Leeuwin H**	**49.95**	**127**	T	T	20 16 01.1	
	baz=288						
H01W2	**Cape Leeuwin H**	**49.95**	**127**	T	T	20 16 14.0	
	baz=288						
H01W1	**Cape Leeuwin H**	**49.96**	**127**	T	T	20 16 15.1	
	baz=288						
ASAR	**Alice Springs**	**65.63**	**111**	P	P	19 24 25.6	-0.3
	0.8nm,0.9s,baz=279,slow=6.2,SNR=6.8						
	0.8nm,0.9s						
WRA	**Warramunga Arr**	**66.17**	**107**	P	P	19 24 29.5	+0.2
	1.0nm,0.9s,baz=279,slow=5.3,SNR=8.0						
	1.0nm,0.9s						
SONM	**Songino Array**	**68.20**	**28**	P	P	19 24 42.0	+0.2
	0.9nm,0.8s,baz=211,slow=5.2,SNR=4.0						
	0.9nm,0.8s						
NVAR	**Mina Array Bea**	**151.92**	**7**	PKPbc	PKPbc	19 33 36.8	-0.2
	0.4nm,0.7s,baz=308,slow=3.4,SNR=4.2						

*SOF **02** 19:16:33.1, 37˚.55N±0˚.07×26˚.76E±0˚.05, h10km, MD4.4/12*
*GII **02** 19:16:35.7±0.0, 37˚.831N±0˚.002×26˚.502E±0˚.001, h0km, Mws4.3, confirmed*
*MED_RC **02** 19:16:38.0, 37˚.84N×26˚.49E, h16km, Mw4.5, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.91±.35; $M_{\theta\theta}$1.22±.37; $M_{\phi\phi}$0.00±.27; $M_{r\theta}$-5.23±.75; $M_{\theta\phi}$-3.05±.20; $M_{\phi r}$-0.01±.62; Fault plane solution: M_o6.24000×10^{15} NP1:φ354.00000°, δ35.00000°, λ9.00000°. NP2:φ257.00000°, δ85.00000°, λ125.00000°. Principal axes: T 6.8500, Plg40.0000°, Azm199.0000°; N -1.2300, Plg35.000°, Azm73.0000°; P -5.6300, Plg31.0000°, Azm319.0000°;*
*IDC **02** 19:16:38.6±0.6, 37.80N×26˚.47E, h0km, mb4.0/13, mbtmp4.0/21, ML3.4/6, MS3.7/11 Error ellipse: s-maj=11.6km s-min=10.0km az=48.0*
*THE **02** 19:16:38.9, 38˚.N±1˚×2˚.6E±˚, h7km±5km, M4.3/20, MLh4.3/20*
*ISK **02** 19:16:38.1, 37˚.83N×26˚.45E, h22km, ML4.4/18*
*ATH **02** 19:16:38.7, 37˚.83N×26˚.48E, h12km±2km, ML4.2/37, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*GFZ **02** 19:16:39.8±0.2, 38˚.N±2˚×2˚.7E±˚, h10km, M4.2/12, mb4.4/12*
*PDG **02** 19:16:39.6±0.6, 37˚.81N×26˚.43E, h27km±1km, ML4.5/12, Error ellipse: s-maj=0.6km s-min=0.8km az=0.0*
*AFAD **02** 19:16:40.4, 37˚.91N×26˚.50E, h7km±2km, MW4.2*
*NAO **02** 19:16:40.4, 37˚.84N×26˚.85E, h10km, MB4.2*
*NEIC **02** 19:16:40.1±2.3, 37˚.83N±0˚.04×26˚.49E±0˚.05, h10km±1km, mb4.5/10, Error ellipse: s-maj=7.9km s-min=5.9km az=41.0*

ISC 02 19:16:39.5±0.9, 37°.81N±0°.02×26°.47E±0°.02, h11km±6km, n384, σ1s82/435, mb4.2/19, MS3.9/5, 22C-19D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.19**

AYDB AML AML
CAMT Merkez 1.15 35 P **Pb** 19 17 00.3 -1.1
MLSB Milas 1.16 116 Pn **Pb** 19 16 59.9 -1.8
MLSB AML AML
IZMR zmir-demi 1.22 74 P **Pg** 19 17 03.4 +0.5
IZMR S **Sn** 19 17 18.9 -0.1
ZEDA zmir-Bergama 1.25 22 P **Pn** 19 17 02.1 -0.8
ASTA Astypalaia 1.27 184 P **Pn** 19 17 02.6 -0.6
ASTA AML AML
DKL Dikili 1.30 15 Pn **Pn** 19 17 01.6 -2.1
DKL AML AML
DKL Dikili 1.30 15 P **Pn** 19 17 02.4 -1.3
PRK Paraskevi 1.44 354 P **Pn** 19 17 04.3 -1.3
PRK S **Sn** 19 17 24.7 +0.2
PRK AML AML
PRK Paraskevi 1.44 354 P **Pn** 19 17 04.2 -1.3
GOMA Golmarmara-Man 1.45 51 Pn **Pn** 19 17 03.4 -2.3
GOMA AML AML
NAZL Nazilli-Aydin 1.45 83 Pn **Pn** 19 17 04.2 -1.6
NAZL AML AML
AKHS Akhisar 1.50 44 P **Pn** 19 17 05.4 -1.0
AKHS S **Sg** 19 17 27.7 -0.2
AKS Akhisar 1.50 44 Pn **Pn** 19 17 04.4 -2.0
AKS AML AML
AYVA Ayvalik 1.50 7 P **Pn** 19 17 06.7 +0.3
AYVA S **Sg** 19 17 28.2 +0.3
KTTT Salihli 1.55 55 P **Pn** 19 17 05.8 -1.3
KTTT S **Sb** 19 17 28.5 +0.6
SOMA Soma-Manisa 1.58 32 Pn **Pn** 19 17 05.3 -2.2
SOMA AML AML
CMBO Columbo, Santo 1.59 213 P **Pn** 19 17 07.0 -0.5
CMBO AML AML
CMBO Columbo, Santo 1.59 213 Pn **Pn** 19 17 06.9 -0.7
THR2 Thira island, 1.59 212 P **Pn** 19 17 06.7 -1.0
THR2 Thira island, 1.59 212 P **Pn** 19 17 07.2 -0.5
YER Yerkesik 1.59 115 P **Pn** 19 17 04.7 -3.1
THR8 Santorini-Mono 1.61 210 P **Pn** 19 17 07.1 -0.8
THR8 Santorini-Mono 1.61 210 P **Pn** 19 17 07.3 -0.6
KARY Karystos 1.62 278 P **Pn** 19 17 07.0 -1.0
KARY AML AML
KARY Karystos 1.62 278 P **Pn** 19 17 07.3 -0.8
KARY AML AML
THRA Thira 1.62 211 P **Pn** 19 17 07.3 -0.8
THR3 Thira Island, 1.64 212 P **Pn** 19 17 08.1 -0.2
THR3 Thira Island, 1.64 212 P **Pn** 19 17 07.8 -0.6
SAP3 Santorini-Thir 1.64 213 P **Pn** 19 17 07.9 -0.5
SAP3 AML AML
SAP3 Santorini-Thir 1.64 213 P **Pn** 19 17 07.8 -0.6
SNT5 Nea Kammeni, S 1.65 212 P **Pn** 19 17 07.8 -0.6
THERA Ancient Thera, 1.65 209 P **Pn** 19 17 07.4 -1.0
THERA AML AML
THERA Ancient Thera, 1.65 209 P **Pn** 19 17 08.0 -0.4
THERA Ancient Thera, 1.65 209 P **Pn** 19 17 07.5 -0.9
THERA AML AML
THT1 Athinios (Pele 1.65 211 P **Pn** 19 17 07.8 -0.7
THR5 Thira Island, 1.66 213 P **Pn** 19 17 07.7 -0.8
THR5 Thira Island, 1.66 213 P **Pn** 19 17 07.7 -0.8
THR6 Thira Island, 1.69 211 P **Pn** 19 17 08.4 -0.5
THR6 Thira Island, 1.69 211 P **Pn** 19 17 08.4 -0.5
THR9 Santorini-Faro 1.70 212 P **Pn** 19 17 08.7 -0.5
THR9 Santorini-Faro 1.70 212 P **Pn** 19 17 08.2 -0.9
KOCA Canakkale, Ayv 1.71 351 P **Pn** 19 17 09.5 +0.2
KOCA S **Sg** 19 17 34.6 +0.2
GORD Gordes-Manisa 1.73 50 Pn **Pn** 19 17 07.9 -1.8
GORD AML AML
BUHA Balikesir, Bur 1.75 16 P **Pn** 19 17 09.5 -0.4
BUHA S **Sg** 19 17 36.4 +0.5
MANT Manisa 1.78 67 Pn **Pn** 19 17 08.7 -1.9
STEP BALIKESIR_Sava 1.84 32 P **Pb** 19 17 14.0 +0.7
SKY Skiros Island 1.84 306 P **Pn** 19 17 10.6 -0.6
SKY AML AML
SKY Skiros Island 1.84 306 P **Pn** 19 17 10.2 -1.0
SKY AML AML
LVRA Laurium 1.92 268 P **Pn** 19 17 11.3 -0.8
LVRA AML AML
MILOS Milos 1.95 237 P **Pn** 19 17 11.7 -0.8
TAVA DENIZLI_Tavas 1.97 99 ⇑P **Pn** 19 17 12.2 -0.8
MHLO Agia Marina, M 1.99 236 P **Pn** 19 17 12.5 -0.7
MHLO AML AML
MHLO Agia Marina, M 1.99 236 P **Pn** 19 17 12.4 -0.8
EZN Ezine 2.01 357 P **Pn** 19 17 12.0 -1.4
EZN AML AML
DION Dionisos Attik 2.02 278 P **Pn** 19 17 12.9 -0.8
DION AML AML
DION Dionisos Attik 2.02 278 P **Pn** 19 17 12.7 -0.9
DION AML AML
KYMI Kymi, Euboea I 2.04 294 P **Pn** 19 17 13.0 -0.8
KYMI Kymi, Euboea I 2.04 294 P **Pn** 19 17 12.5 -1.3
PTL Penteli 2.07 277 P **Pn** 19 17 13.4 -1.0
ARG Arkhangelos 2.07 140 P **Pn** 19 17 15.0 +0.6
ARG Arkhangelos 2.07 140 **Pn** 19 17 14.9 +0.6
ARG Arkhangelos 2.07 140 P **Pn** 19 17 15.6 +1.3
EFSA Agios Efstrati 2.08 327 P **Pn** 19 17 13.4 -1.0
EFSA AML AML
VLY Voula,Athens 2.12 272 P **Pn** 19 17 14.4 -0.5
VLY AML AML
VLY Voula,Athens 2.12 272 P **Pn** 19 17 13.8 -1.1
VLY AML AML
BALY Balya 2.12 25 P **Pn** 19 17 14.4 -0.6
ATHU Athens Univers 2.13 275 P **Pn** 19 17 14.3 -0.8
ATHU AML AML
BALB Balikesir 2.13 31 **Pn** 19 17 15.6 +0.5
BALB Balikesir 2.13 31 P **Pn** 19 17 13.1 -2.1
BALB AML AML
ATH5 Athens Parliam 2.17 275 P **Pn** 19 17 14.1 -1.5
ATH5 AML AML
ATH Athens Observa 2.18 275 P **Pn** 19 17 14.8 -1.0
ATH AML AML
NOAC Athens-Thissio 2.18 275 P **Pn** 19 17 14.7 -1.1
NOAC AML AML
LIA Limnos Island 2.31 335 P **Pn** 19 17 16.5 -1.1
LIA Limnos Island 2.31 335 P **Pn** 19 17 16.5 -1.1
LIA AML AML
KARP Karpathos 2.33 166 P **Pn** 19 17 18.2 +0.3
KARP AML AML
KARP Karpathos 2.33 166 **Pn** 19 17 17.8 -0.1
KARP Karpathos 2.33 166 P **Pn** 19 17 19.1 +1.2
KARP AML AML
KARP Karpathos 2.33 166 P **Pn** 19 17 18.8 +0.9
KAP Karpathos 2.33 166 P **Pn** 19 17 17.2 -0.7
KARP AML AML
STFN Stefani 2.34 280 P **Pn** 19 17 17.5 -0.4
STFN AML AML
STFN Stefani 2.34 280 P **Pn** 19 17 17.3 -0.7
STFN AML AML
GADA Gvkgeada 2.42 350 P **Pn** 19 17 17.7 -1.3
GADA AML AML
AOS2 Alonissos-2 2.45 304 P **Pn** 19 17 18.8 -0.8
MET1 Methana Town, 2.46 265 P **Pn** 19 17 18.9 -0.6
MET5 Makryloggos,Me 2.47 267 P **Pn** 19 17 19.3 -0.6
MET6 Megalochori,Me 2.48 266 P **Pn** 19 17 19.3 -0.6
MET2 Kameni Chora, 2.50 266 P **Pn** 19 17 19.6 -0.5
VIL2 Platees 2.56 280 P **Pn** 19 17 19.9 -1.1
MET3 Ano Fanari,Met 2.58 266 P **Pn** 19 17 20.2 -1.1
NPS Neapolis 2.64 195 P **Pn** 19 17 21.3 -0.8
NPS AML AML
EPID Epidavros 2.66 267 P **Pn** 19 17 21.5 -0.9
EPID AML AML
ZKR Zakros 2.70 184 P **Pn** 19 17 23.9 +0.9
ZKR Zakros 2.70 184 P **Pn** 19 17 22.1 -0.8
ZKR AML AML
SMTH Samothraki Isl 2.75 345 P **Pn** 19 17 22.2 -1.5
LOUT Loutraki 2.77 275 P **Pn** 19 17 22.9 -1.0
LOUT AML AML
LTK Loutraki 2.78 275 P **Pn** 19 17 23.1 -0.9
IDI Anoyia 2.82 207 Pn **Pn** 19 17 24.7 0.0
37nm,0.5s,baz=20,slow=7.7,SNR=50
IDI LR LR 19 18 21.3
comp=Z,85nm,20.6s,baz=53,slow=36
IDI Anoyia 2.82 207 **Pn** 19 17 24.1 -0.6
IDI Anoyia 2.82 207 P **Pn** 19 17 24.0 -0.6
BAND Balkesir-Ban 2.84 26 ⇑P **Pn** 19 17 25.3 +0.4
ACOR Acrocorinthos 2.85 273 P **Pn** 19 17 24.3 -0.7
ATAL Atalanti 2.85 289 P **Pn** 19 17 24.2 -0.8
CAVK Edirne/Enez-Ca 2.88 355 ⇓P **Pn** 19 17 26.8 +1.3
ELL Elmali 2.94 110 **Pn** 19 17 28.7 +2.4
NEO Neokhori 2.95 301 P **Pn** 19 17 25.7 -0.7
AKAS Kas 2.96 121 **Pn** 19 17 28.5 +1.8
XOR Xorichti 3.00 302 P **Pn** 19 17 26.9 -0.2

XOR Xorichti 3.00 302 P **Pn** 19 17 26.1 -1.0
CHAN Chania 3.01 221 P **Pn** 19 17 26.2 -0.9
VAM Vamos 3.02 218 P **Pn** 19 17 26.5 -0.8
THAL Thalero 3.02 275 P **Pn** 19 17 26.4 -0.8
VLI Veliai 3.02 250 P **Pn** 19 17 26.5 -0.9
VLI AML AML
PAIG Paliouri 3.03 315 P **Pn** 19 17 27.0 -0.5
ALN Alexandroupoli 3.10 354 **Pn** 19 17 27.3 -1.1
ALN Alexandroupoli 3.10 354 P **Pn** 19 17 27.5 -0.9
ALN Alexandroupoli 3.10 354 P **Pn** 19 17 27.2 -1.1
ALN AML AML
THAS Thassos island 3.10 335 P **Pn** 19 17 27.0 -1.4
THAS Thassos island 3.10 335 P **Pn** 19 17 27.1 -1.4
RODP Rodopos 3.13 225 P **Pn** 19 17 28.4 -0.5
RODP AML AML
KTHA Kythira Island 3.14 241 P **Pn** 19 17 31.7 +2.8
AXAR Agios Charalam 3.15 289 P **Pn** 19 17 29.2 +0.1
AXAR AML AML
AXAR Agios Charalam 3.15 289 P **Pn** 19 17 28.1 -1.0
AXAR AML AML
OUR Ouranopolis 3.18 323 P **Pn** 19 17 28.6 -0.8
OUR Ouranopolis 3.18 323 P **Pn** 19 17 28.8 -0.6
ANKY Antikythira Is 3.20 234 P **Pn** 19 17 29.3 -0.4
ANKY Antikythira Is 3.20 234 P **Pn** 19 17 28.9 -0.8
ANKY AML AML
ISP Isparta 3.21 89 Pn **Pn** 19 17 29.9 -0.1
GUR Goura 3.27 273 P **Pn** 19 17 30.0 -0.9
GUR AML AML
KLV Kalavryta, Ach 3.42 275 P **Pn** 19 17 32.8 -0.1
KNDR Palaiochora Ch 3.44 223 P **Pn** 19 17 32.5 -0.6
KNDR AML AML
TEME Temeni, Aigial 3.46 278 P **Pn** 19 17 32.2 -1.1
AGG Agios Georgios 3.47 292 P **Pn** 19 17 32.7 -0.8
AGG Agios Georgios 3.47 292 P **Pn** 19 17 32.2 -1.3
PLG Polygyros 3.47 318 P **Pn** 19 17 32.7 -0.9
KAVA Kavala 3.52 335 P **Pn** 19 17 33.1 -1.1
ITM Ithomi 3.67 261 **Pn** 19 17 37.0 +0.8
ITM Ithomi 3.67 261 P **Pn** 19 17 37.8 +1.6
LIT Litokhoron 3.85 308 **Pn** 19 17 38.5 -0.3
LIT Litokhoron 3.85 308 P **Pn** 19 17 38.7 -0.1
SOH Sokhos 3.85 322 P **Pn** 19 17 39.0 +0.1
THE Thessaloniki 3.92 317 P **Pn** 19 17 39.9 +0.3
SRS Serrai 3.98 327 P **Pn** 19 17 40.2 -0.3
RZN Rozhen 4.10 342 P **Pn** 19 17 42.2 -0.1
KEPZ Antalya-Kepez 4.19 101 ⇑P **Pn** 19 17 42.9 -0.6
MMB Musomishta 4.28 331 P **Pn** 19 17 44.9 +0.2
DIM Dimitrovgrad 4.28 351 P **Pn** 19 17 44.4 -0.3
KNT Kendrikon 4.34 322 P **Pn** 19 17 46.0 +0.6
GRG Griva 4.45 316 P **Pn** 19 17 47.3 +0.3
PLD Plovdiv 4.53 344 P **Pn** 19 17 47.8 -0.2
MDUB Mudurnu 4.54 53 **Pn** 19 17 47.7 -0.5
SAHE Sakarya_HENDEK 4.56 47 ⇑P **Pn** 19 17 48.2 -0.3
VAY Valandovo 4.62 321 *i* Pn **Pn** 19 17 50.1 +0.8
VAY *i* Sn **Sn** 19 18 46.0 +3.0
KKB Krupnik 4.78 328 P **Pn** 19 17 52.2 +0.7
PEHC Pehcevo 4.82 326 *i* Pn **Pn** 19 17 52.4 +0.3
PEHC *i* Sn **Sn** 19 18 50.0 +2.0
PGB Panagyurishte 5.01 340 P **Pn** 19 17 54.7 -0.1
PLNA Plana 5.21 334 P **Pn** 19 17 58.4 +0.9
KBN Korca 5.23 304 P **Pn** 19 18 00.6 +2.9
comp=Z,78nm,1.0s
PRD Provadia 5.39 7 P **Pn** 19 18 00.6 +0.7
VTS Vitosha 5.40 334 P **Pn** 19 18 00.6 +0.4
SZH Strazhitsa 5.46 356 P **Pn** 19 18 00.8 0.0
OHR Ohrid 5.49 309 *i* Pn **Pn** 19 18 05.4 +4.1
OHR *i* Sn **Sn** 19 19 07.9 +3.5
KEK Kerkira 5.55 292 Pn **Pn** 19 18 03.8 +1.8
PLVB Pleven 5.74 346 ⇑P **Pn** 19 18 05.8 +1.1
TRAN Tran 5.80 331 P **Pn** 19 18 06.6 +1.0
MPEP Malo Peshtene 5.91 340 P **Pn** 19 18 07.4 +0.3
BRTR Keskin Array B 5.92 69 Pn **Pn** 19 18 08.8 +1.5
comp=Z,0.4nm,0.3s,baz=250,slow=13,SNR=20
comp=Z,3.8nm,0.7s
BRTR AML AML
BRTR Keskin Array B 5.92 69 **Pn** 19 18 07.7 +0.4
KIRS Kirsehir-Merke 5.99 75 ⇑P **Pn** 19 18 08.0 -0.3
PHP Peshkopia 6.04 312 P **Pn** 19 18 10.4 +1.5
comp=Z,22nm,0.8s
CSS Mathiatis 6.22 115 **Pn** 19 18 12.4 +1.0
CSS Mathiatis 6.22 115 P Pn 19 18 17.9 +6.5
comp=Z,0.1nmcomp=Z,308nmcomp=Z,31nm,0.9s
CSS AML AML
CSS Mathiatis 6.22 115 P **Pn** 19 18 08.6 -2.8
CSS S **Sn** 19 19 19.4 -3.2
ICOR Ion Corvin 6.38 9 ⇑P **Pn** 19 18 13.6 +0.2
BLKB Belogradchik 6.48 335 ⇑P **Pn** 19 18 15.5 +0.6
TIRR Tirgusor 6.80 12 **Pn** 19 18 18.4 -0.8
TLBR Topalu 6.83 10 ⇓P **Pn** 19 18 20.7 +1.1
BOVS Bovan 6.85 330 ⇑P **Pn** 19 18 20.3 +0.4
PVY Plav 6.90 316 *e*Pn **Pn** 19 18 20.3 -0.4
PVY *i* Sn **Sn** 19 19 33.6 -5.7
ULC Ulcinj 6.93 309 *e*Pn **Pn** 19 18 20.7 -0.4
ULC *i* Sn **Sn** 19 19 41.4 -5.5
HARR Harsova 6.96 9 ⇑P **Pn** 19 18 22.5 +1.1
DRME Dracevica, Mon 7.09 310 *e*Pn **Pn** 19 18 24.9 +1.6
DRME Dracevica, Mon 7.09 310 *e*Pn **Pn** 19 18 23.3 0.0
DRME *i* Sn **Sn** 19 19 38.3 -5.6
IVA Berane 7.12 317 *e*Pn **Pn** 19 18 23.5 -0.3
IVA *i* Sn **Sn** 19 19 38.7 -6.0
PDG Podgorica 7.20 312 **Pn** 19 18 26.1 +1.4
PDG Podgorica 7.20 312 ⇓P **Pn** 19 18 25.9 +1.3
PDG Podgorica 7.20 312 *e*Pn **Pn** 19 18 26.1 +1.4
PDG Podgorica 7.20 312 P **Pn** 19 18 27.1 +2.4
comp=Z,19nm,0.7s
PDG Podgorica 7.20 312 *e*Pn **Pn** 19 18 24.7 0.0
PDG *i* Sn **Sn** 19 19 41.0 -5.4
KOME Kolasin 7.32 316 *e*Pn **Pn** 19 18 26.3 -0.1
KOME *i* Sn **Sn** 19 19 43.6 -5.9
BUM Brajici-Budva 7.34 310 *e*Pn **Pn** 19 18 26.4 -0.3
BUM *i* Sn **Sn** 19 19 44.1 -5.9
SJES Sjenica 7.35 320 *e*Pn **Pn** 19 18 27.2 +0.3
CY604 RAF Akrotiri, 7.38 116 Pn **Pn** 19 18 27.2 +0.3
CFR Carcaliu 7.46 9 ⇑P **Pn** 19 18 29.0 +0.6
CEME Cevo 7.47 312 *e*Pn **Pn** 19 18 28.1 -0.4
CEME *i* Sn **Sn** 19 19 47.5 -5.6
NKME Niksic 7.58 313 *e*Pn **Pn** 19 18 30.1 +0.1
NKME *i* Sn **Sn** 19 19 49.8 -6.1
HCY Herceg Novi 7.66 310 *e*Pn **Pn** 19 18 31.1 0.0
HCY Herceg Novi 7.66 310 *e*Pn **Pn** 19 18 30.9 -0.2
HCY *i* Sn **Sn** 19 19 51.8 -6.1
MLR Muntele Rosu 7.68 357 Pn **Pn** 19 18 33.0 +1.6
comp=Z,0.6nm,0.3s,baz=269,slow=24,SNR=6.2
MLR LR LR 19 21 53.0
comp=Z,412nm,19.9s,baz=0.0,slow=41
comp=Z,4.0nm,0.7s
MLR AML AML
MLR Muntele Rosu 7.68 357 **Pn** 19 18 32.0 +0.5
MLR Muntele Rosu 7.68 357 ⇑P **Pn** 19 18 32.6 +1.1
HERR Herculane 7.69 338 ⇑P **Pn** 19 18 31.6 +0.2
VOIR 7.69 353 ⇓P **Pn** 19 18 32.6 +1.1
BISRR Bisoca 7.73 1 ⇓P **Pn** 19 18 32.9 +0.8
TIP Timpagrande 7.74 283 **Pn** 19 18 33.3 +1.1
TIP Timpagrande 7.74 283 ⇓P **Pn** 19 18 33.2 +1.0
TIP Timpagrande 7.74 283 P **Pn** 19 18 34.1 +1.9
comp=Z,30nm,0.9s
MDVR Moldovita 7.83 334 ⇓P **Pn** 19 18 33.6 +0.2
UPM Unac-Piva 7.88 315 *e*Pn **Pn** 19 18 37.1 +2.8
UPM Unac-Piva 7.88 315 *e*Pn **Pn** 19 18 34.0 -0.3
UPM *i* Sn **Sn** 19 19 57.3 -6.3
LOT Lotru 7.89 346 ⇓P **Pn** 19 18 35.0 +0.6
LOT Lotru 7.89 346 P **Pn** 19 18 37.2 +2.8
comp=Z,16nm,0.8s
BRY Bratogost 7.90 313 *e*Pn **Pn** 19 18 35.7 +1.2
BRY Bratogost 7.90 313 *e*Pn **Pn** 19 18 34.2 -0.3
BRY *i* Sn **Sn** 19 19 57.7 -6.3
TREB Trebinje 7.91 311 *e*Pn **Pn** 19 18 35.9 +1.5
SAHR Sahastru 7.91 1 ⇓P **Pn** 19 18 35.6 +1.1
COVR Voineasa-Covas 8.03 359 ⇓P **Pn** 19 18 37.1 +0.9
PLOR Plostina 8.03 1 ⇓P **Pn** 19 18 37.3 +1.1
KLINJ Klinje 8.04 314 *e*Pn **Pn** 19 18 38.2 +1.8
VRI Vrincioaia 8.05 1 ⇓P **Pn** 19 18 37.6 +1.2
BBLS Lazi&#263i 8.07 321 *e*Pn **Pn** 19 18 37.8 +1.0
VLDR Vladesti 8.12 8 ⇑P **Pn** 19 18 38.4 +1.2
DOPR Dopca 8.19 355 ⇑P **Pn** 19 18 39.4 +1.1
TURR Turia 8.24 358 ⇑P **Pn** 19 18 40.5 +1.4
OZUR 8.29 357 ⇓P **Pn** 19 18 40.9 +1.1
CEL Celeste 8.36 276 **Pn** 19 18 42.2 +1.5
CEL Celeste 8.36 276 P Pn 19 18 46.8 +6.1
comp=Z,36nm,1.2s
TEKS Tekeris 8.52 324 *e*Pn **Pn** 19 18 42.5 -0.4

SURR Surduc 8.57 339 ⇓P **Pn** 19 18 43.6 +0.1
CUC Castrocucco 8.59 288 P **Pn** 19 18 46.4 +2.6
comp=Z,26nm,1.1s
ZRT Zar'it 8.59 121 P **Pn** 19 18 40.6 -3.4
ZRT S **Sn** 19 20 17.7 -3.3
BZS Buzias 8.60 337 ⇑P **Pn** 19 18 44.3 +0.4
BZS Buzias 8.60 337 ⇑P **Pn** 19 18 44.3 +0.4
BZS Buzias 8.60 337 P **Pn** 19 18 43.9 0.0
comp=Z,13nm,0.7s
MARCO Tramutola 8.66 290 P **Pn** 19 18 47.5 +2.6
comp=Z,34nm,0.8s
OFRI `Ofer 8.68 124 P **Pn** 19 18 41.8 -3.3
OFRI S **Sn** 19 20 20.4 -2.6
ACER Acerenza 8.68 293 **Pn** 19 18 45.8 +0.6
TESR Tescani 8.69 1 ⇓P **Pn** 19 18 46.3 +1.0
MMA0B Mount Meron ar 8.72 121 P **Pn** 19 18 42.3 -3.4
MMA0B S **Sn** 19 20 21.4 -2.7
MMAI Mount Meron Ar 8.72 121 Pn **Pn** 19 18 44.2 -1.6
comp=Z,3.8nm,0.4s,baz=306,slow=14,SNR=17
MMAI Sn **Sn** 19 20 19.9 -4.2
comp=Z,8.8nm,0.3s,baz=313,slow=27,SNR=12
MMAI LR LR 19 23 05.9
comp=Z,278nm,19.3s,baz=322,slow=44
GEM Giv'at Ha'Em 8.79 119 P **Pn** 19 18 43.3 -3.2
GEM S **Sn** 19 20 22.4 -3.2
NATI Neve Ativ 8.81 118 P **Pn** 19 18 43.6 -3.3
NATI S **Sn** 19 20 23.2 -3.0
KNHM Kefar Nahum 8.92 121 P **Pn** 19 18 45.1 -3.3
KNHM S **Sn** 19 20 25.7 -3.1
MMLI Mount Malkishu 9.08 124 P **Pn** 19 18 47.6 -3.0
MMLI S **Sn** 19 20 29.9 -3.0
BIZ Bicaz 9.12 358 ⇑P **Pn** 19 18 52.4 +1.2
SALP Salfit 9.17 126 P **Pn** 19 18 55.7 +3.9
comp=Z,17nm,0.7s
SIRR Siria 9.17 339 ⇓P **Pn** 19 18 53.5 +1.7
ROII Roi 9.24 124 P **Pn** 19 18 49.8 -3.0
ROII S **Sn** 19 20 34.2 -2.6
QRNJ Al-Qirein 9.25 124 P **Pn** 19 18 53.9 +1.1
comp=Z,24µmcomp=Z,3µm,0.7s
RGMN Argaman 9.32 124 P **Pn** 19 18 50.1 -3.7
RGMN S **Sn** 19 20 36.2 -2.4
DRGR 9.39 344 ⇑P **Pn** 19 18 56.4 +1.5
YITV Yitav 9.40 126 P **Pn** 19 18 51.3 -3.5
YITV S **Sn** 19 20 37.4 -3.1
KZIT Kziot 9.51 134 P **Pn** 19 18 55.5 -0.9
comp=Z,802nmcomp=Z,79nm,0.7s
KZIT Kziot 9.51 134 P **Pn** 19 18 57.1 +0.7
comp=Z,79nm,0.7s
KZIT Kziot 9.51 134 P **Pn** 19 18 53.3 -3.1
KZIT S **Sn** 19 20 40.2 -3.1
RAFF Raffo Rosso 9.64 270 Pn **Pn** 19 18 58.6 +0.4
MSBI Mazada 9.78 129 P **Pn** 19 18 56.6 -3.5
MSBI S **Sn** 19 20 47.4 -2.5
KIJV Kijevo 9.81 312 P **Pn** 19 19 01.7 +1.2
comp=Z,32nm,1.4s
BLY Banja Luka 9.84 318 ⇓P **Pn** 19 19 02.3 +1.4
BLY Banja Luka 9.84 318 *e*Pn **Pn** 19 19 02.7 +1.8
BLY Banja Luka 9.84 318 P **Pn** 19 19 02.4 +1.5
comp=Z,25nm,0.9s
LISJ El Lisan 9.91 129 P **Pn** 19 19 04.7 +2.8
comp=Z,38µmcomp=Z,11nm,0.6s
GHAJ Chor Haditha 9.92 128 P **Pn** 19 19 05.5 +3.5
comp=Z,14nm,0.6s
RMNI Mount Ramon 9.94 134 P **Pn** 19 18 59.3 -3.1
RMNI S **Sn** 19 20 51.9 -2.2
ASF Jabal al Asfar 10.20 120 Pn **Pn** 19 19 06.3 -0.2
comp=Z,0.7nm,0.3s,baz=310,slow=19,SNR=4.0
ASF LR LR 19 24 04.3
comp=Z,213nm,19.2s,baz=324,slow=44
comp=Z,1.6nm,0.5s
ASF AML AML
ASF Jabal al Asfar 10.20 120 P Pn 19 19 11.5 +5.0
comp=Z,62nm,0.7s
MORH Mrgy, Hungar 10.21 328 ⇑P **Pn** 19 19 07.4 +1.5
MORH Mrgy, Hungar 10.21 328 *e*Pn **Pn** 19 19 05.8 -0.2
MORH Mrgy, Hungar 10.21 328 P **Pn** 19 19 07.6 +1.6
comp=Z,6.5nm,1.2s
ZFRI Zfri 10.22 133 P **Pn** 19 19 03.1 -3.0
ZFRI S **Sn** 19 20 57.4 -3.2
PRNI Paran 10.27 134 P **Pn** 19 19 08.7 +1.9
comp=Z,49nm,0.9s
INTR Introdacqua 10.52 297 **Pn** 19 19 11.9 +1.5
HRFI Mount Harif 10.52 135 P **Pn** 19 19 13.6 +3.2
comp=Z,16nm,1.2s
HRFI Mount Harif 10.52 135 P **Pn** 19 19 10.9 +0.5
comp=Z,16nm,1.2s
HRFI Mount Harif 10.52 135 P **Pn** 19 19 06.8 -3.5
HRFI S **Sn** 19 21 04.7 -3.6
EIL Elat 10.76 137 Pn **Pn** 19 19 13.0 -0.5
comp=Z,1.2nm,0.3s,baz=343,slow=16,SNR=8.3
EIL Sn **Sn** 19 21 06.2 -7.7
comp=Z,1.8nm,0.3s,baz=122,slow=20,SNR=5.4
comp=Z,9.1nm,0.7s
EIL AML AML
EIL Elat 10.76 137 P **Pn** 19 19 16.2 +2.7
comp=Z,16nm,0.8s
EIL Elat 10.76 137 P **Pn** 19 19 10.6 -2.9
AQBJ Aqaba 10.77 136 P **Pn** 19 19 16.3 +2.6
NRCA Norcia 11.36 300 **Pn** 19 19 21.1 -0.7
MPLH Magyarpolny 11.43 328 P **Pn** 19 19 23.9 +1.2
comp=Z,12nm,1.3s
FDMO Fiordimonte 11.45 301 **Pn** 19 19 22.5 -0.6
RONA Rosalia, Austr 12.38 326 *i* Pn **Pn** 19 19 36.4 +0.7
comp=Z,4.9nm,1.5s
OBKA Obir 12.39 318 *e*Pn **Pn** 19 19 36.6 +0.7
comp=Z,5.7nm,1.2s
ARSA Arzberg 12.40 323 Pn **Pn** 19 19 35.9 -0.1
ARSA Arzberg 12.40 323 *e*Pn **Pn** 19 19 36.5 +0.5
comp=Z,3.8nm,0.8s
CONA Conrad Observa 12.74 326 *e*Pn **Pn** 19 19 42.0 +1.3
comp=Z,6.1nm,1.2s
SESA Seetaler Alpe, 12.78 320 *i* Pn **Pn** 19 19 42.0 +0.7
comp=Z,3.4nm,1.0s
MYKA Terra Mystica 12.95 317 *e*Pn **Pn** 19 19 44.9 +1.4
comp=Z,3.5nm,0.9s
KBA Koelnbreinsper 13.39 318 *e*Pn **Pn** 19 19 50.8 +1.3
comp=Z,7.4nm,1.7s
KRUC Moravsky 13.40 330 *e*PN **P** 19 20 01.3 +2.2
MOA Molln 13.43 322 *e*Pn **Pn** 19 19 51.7 +1.7
comp=Z,5.8nm,1.4s
VRAC Vranov 13.52 331 *e*PN **P** 19 20 04.1 +3.6
MORC Moravsky Berou 13.57 335 *e*PN **P** 19 20 04.9 +3.8
BIOA Bad Ischl, Aus 13.63 320 *e*Pn **Pn** 19 19 54.6 +1.8
comp=Z,7.5nm,1.1s
ABTA Abfaltersbach 13.64 315 *i* Pn **Pn** 19 19 54.0 +1.0
comp=Z,1.9nm,0.7s
LESA Schwarzleotal 13.96 318 *i* Pn **Pn** 19 19 57.7 +0.4
comp=Z,3.5nm,0.9s
CKRC Cesky Krumlov 14.10 325 *e*P **P** 19 20 09.7 +2.8
GERES GERESS Array B 14.40 324 Pn **Pn** 19 20 04.3 +1.0
baz=138,slow=13,SNR=2.3
GERES LR LR 19 25 12.2
comp=Z,256nm,18.7s,baz=48,slow=36
comp=Z,0.3nm,0.6s
GNI Garni 14.41 75 LR LR 19 25 35.3
comp=Z,116nm,18.8s,baz=293,slow=37
WTTA Wattenberg 14.43 316 *e*Pn **Pn** 19 20 03.5 -0.3
comp=Z,3.4nm,0.9s
WATA Walderalm 14.50 316 *i* Pn **Pn** 19 20 04.6 -0.2
comp=Z,6.3nm,0.8s
ZVC Zvikov 14.61 327 *e*P P 19 20 17.7 +5.2
SQTA Sankt Quirin 14.64 315 *e*Pn **Pn** 19 20 06.3 -0.4
comp=Z,1.8nm,0.5s
KHC Kasperske Hory 14.66 325 **P** 19 20 13.3 +0.1
KHC Kasperske Hory 14.66 325 *e*P **P** 19 20 15.3 +2.2
MOTA Moosalm 14.77 315 *i* Pn **Pn** 19 20 09.0 +0.6
comp=Z,8.6nm,1.5s
FETA Feichten 14.80 313 *e*P **P** 19 20 12.7 -2.2
comp=Z,7.0nm,1.2s
PRU Pruhonice 14.88 329 *e*P **P** 19 20 19.5 +4.0
RETA Reutte 15.04 315 *i* P **P** 19 20 17.6 +0.1
comp=Z,6.1nm,1.3s
DAVOX Davos/Dischmat 15.17 311 Pn **Pn** 19 20 12.2 -1.7
comp=Z,0.2nm,0.3s,baz=64,slow=20,SNR=4.7
comp=Z,1.9nm,0.7s
DAVOX AML AML
DAVA Damuels 15.43 313 *i* P **Pn** 19 20 19.5 +2.2
comp=Z,8.8nm,1.2s
BRG Berggiesshubel 15.80 330 *e*P **P** 19 20 27.6 +1.8
BRG Amp 19 20 32.4
comp=Z,21nm,1.3s
CLL Collm 16.52 329 *e*PP **P** 19 20 39.0 +5.3
OBN Obninsk 18.62 18 LR LR 19 28 36.3
comp=Z,179nm,18.9s,baz=170,slow=38
RAYN Ar Rayn 21.64 126 P **P** 19 21 30.9 +0.9

TAM	**Tamanrasset**	**23.40**	**236**		**P**		**19 21 51.1 +2.5**	
TAM	**Tamanrasset**	**23.40**	**236**	P	**P**		**19 21 51.8 +3.1**	
	comp=Z,7.7nm,0.9s							
FINES	**FINESS Array B**	**23.66**	**360**	P	**P**		**19 21 51.7 +1.0**	
	comp=Z,6.2nm,0.8s,baz=154,slow=14,SNR=3.8							
	comp=Z,6.2nm,0.8s							
ESDC	**Sonseca Array**	**23.76**	**284**	P	**P**		**19 21 52.0 0.0**	
	comp=Z,1.5nm,0.9s,baz=70,slow=11,SNR=6.9							
	comp=Z,1.5nm,0.9s							
ESDC	**Sonseca Array**	**23.76**	**284**	P	**P**		**19 21 51.4 -0.6**	
NB2	**NORSAR Subarra**	**25.15**	**342**	P	**P**		**19 22 05.7 +1.2**	
	comp=Z,4.5nm,0.9s,baz=150,slow=9.3							
NOA	**NORSAR Array B**	**25.15**	**342**	P	**P**		**19 22 05.0 +0.5**	
	comp=Z,3.7nm,0.8s,baz=156,slow=11,SNR=6.3							
	comp=Z,3.7nm,0.8s							
ARCES	**ARCESS Array B**	**31.79**	**359**	P	**P**		**19 23 04.3 +0.7**	
	comp=Z,2.9nm,0.8s,baz=187,slow=9.3,SNR=4.1							
	comp=Z,2.9nm,0.8s							
TORD	**Torodi Ar. Bea**	**33.02**	**229**	P	**P**		**19 23 16.1 +1.2**	
	comp=Z,6.5nm,0.5s,baz=35,slow=8.7,SNR=50							
	comp=Z,6.5nm,0.5s							
KKAR	**Karatay Array**	**33.63**	**67**	P	**P**		**19 23 18.7 -1.4**	
AAK	**Ala-Archa**	**36.59**	**67**	LR	LR		19 40 57.7	
	comp=Z,87nm,18.8s,baz=299,slow=40							
NIL	**Nilore**	**37.90**	**82**	P	**P**		**19 23 56.0 -0.8**	
NIL				IAmb	IAmb		19 24 02.7	
	comp=Z,8.9nm,1.1s							
NRN	**Naryn**	**37.91**	**69**	P	**P**		**19 23 56.1 -1.1**	
NRN				IAmb	IAmb		19 24 03.7	
	comp=Z,5.8nm,1.4s							
MBAR	**Mbarara**	**38.43**	**173**	P	**P**		**19 24 01.8 +0.3**	
KURBB	**Kurchatov Arra**	**38.67**	**54**	P	**P**		**19 24 03.5 +0.5**	
	comp=Z,1.2nm,0.7s,baz=279,slow=8.7,SNR=9.2							
KURBB				PcP	**PcP**		**19 26 15.6 +0.7**	
	comp=Z,1.2nm,0.8s,baz=272,slow=4.0,SNR=5.6							
	comp=Z,1.2nm,0.7s							
WUS	**Wushi**	**40.33**	**68**	P	**P**		**19 24 17.1 -0.1**	
WUS				IAmb	IAmb		19 24 23.6	
	comp=Z,7.3nm,1.2s							
MKAR	**Makanchi Array**	**41.47**	**59**	P	**P**		**19 24 26.8 +0.4**	
	comp=Z,0.6nm,0.5s,baz=278,slow=7.1,SNR=9.8							
	comp=Z,0.6nm,0.5s							
MKAR	**Makanchi Array**	**41.47**	**59**	P	**P**		**19 24 27.1 +0.7**	
DBIC	**Dimbokro**	**42.06**	**230**	P	**P**		**19 24 32.3 +0.9**	
	comp=Z,9.6nm,0.6s,baz=43,slow=6.7,SNR=22							
	comp=Z,9.6nm,0.6s							
DBIC	**Dimbokro**	**42.06**	**230**	P	**P**		**19 24 31.5 +0.1**	
DBIC				IAmb	IAmb		19 24 32.8	
	comp=Z,14nm,0.8s							
ZALV	**Zalesovo Beam**	**42.43**	**48**	P	**P**		**19 24 34.1 0.0**	
	comp=Z,0.3nm,0.3s,baz=258,slow=7.1,SNR=3.7							
	comp=Z,0.3nm,0.3s							
NRIK	**Noril'sk**	**45.04**	**26**	LR	LR		19 45 58.5	
	comp=Z,114nm,19.8s,baz=296,slow=39							
SONM	**Songino Array**	**57.01**	**52**	P	**P**		**19 26 25.8 +0.4**	
	comp=Z,0.9nm,0.9s,baz=297,slow=6.5,SNR=4.6							
	comp=Z,0.9nm,0.9s							
LBTB	**Lobatse**	**62.50**	**181**	P	**P**		**19 27 03.9 +0.7**	
HHC	**Hu-ho-hao-te**	**63.31**	**58**	*eP*	**P**		**19 27 08.5 -0.1**	
HHC				pmax	pmax			
	comp=Z,15nm,0.7s							
CMAR	**Chiang Mai Arr**	**65.26**	**85**	P	**P**		**19 27 22.6 +1.0**	
	comp=Z,1.4nm,0.8s,baz=302,slow=7.5,SNR=7.1							
	comp=Z,1.4nm,0.8s							
BOSA	**Boshof**	**66.09**	**181**	P	**P**		**19 27 27.1 +0.4**	
	comp=Z,3.5nm,0.8s,baz=324,slow=4.2,SNR=5.6							
	comp=Z,3.5nm,0.8s							
NJ2	**Nanjing**	**72.88**	**63**	*eP*	**P**		**19 28 08.6 -0.1**	
NJ2				pmax	pmax			
	comp=Z,14nm,0.7s							
E29M	**Blow River**	**73.47**	**354**	P	**P**		**19 28 14.3 +2.7**	
E29M				IAmb	IAmb		19 28 17.7	
	comp=Z,5.3nm,0.9s							
ILAR	**Eielson Array**	**77.62**	**357**	P	**P**		**19 28 37.2 +1.8**	
	comp=Z,0.5nm,0.9s,baz=58,slow=3.5,SNR=4.4							
	comp=Z,0.5nm,0.9s							
PDAR	**Pinedale Array**	**90.38**	**329**	LR	LR		20 14 16.3	
	comp=Z,40nm,18.4s,baz=74,slow=38							
YBH	**Yreka Blue Hor**	**95.98**	**337**	LR	LR		20 17 50.7	
	comp=Z,59nm,20.1s,baz=66,slow=38							
NVAR	**Mina Array Bea**	**97.48**	**333**	LR	LR		20 16 59.6	
	comp=Z,112nm,19.8s,baz=88,slow=37							

ROM **02** *19:17:05.3±0.1,* **42°.499N±0°.004×13°.300E±0°.005, h12km±1km, ML1.7/32, 3D, Error ellipse: s-maj=0.5km s-min=0.1km az=31.0, Central Italy**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
RM33	**Pellescritta (**	**0.06**	**279**	P		Pg	19 17 08.0	+0.2
RM33				S		Sg	19 17 09.7	+0.1
RM33				AML		AML		
	comp=E,1350μm,0.3s							
RM33				AML		AML		
	comp=N,800μm,1.2s							
RM33				AML		AML		
	comp=N,800μm,1.2s							
RM33				AML		AML		
	comp=N,800μm,0.8s							
RM33				AML		AML		
	comp=N,800μm,0.8s							
RM33				AML		AML		
	comp=E,1285μm,0.3s							
CAMP	**Campotosto**	**0.09**	**66**	⇓P		Pg	19 17 08.4	+0.3
CAMP				S		Sg	19 17 10.4	+0.2
CAMP				AML		AML		
	comp=N,416μm,0.4s							
CAMP				AML		AML		
	comp=E,255μm,0.7s							
RM25	**Mosicchio (Ama**	**0.12**	**354**	P		Pb	19 17 09.1	-0.6
RM25				S		Sg	19 17 11.7	+0.9
SMA1	**SAN MARTINO**	**0.13**	**11**	⇓P		Pg	19 17 09.1	+0.5
SMA1				S		Sg	19 17 12.0	+0.9
SMA1				AML		AML		
	comp=E,1019μm,0.6s							
SMA1				AML		AML		
	comp=N,1880μm,0.4s							
AQU	**L'Aquila**	**0.16**	**153**	P		Pb	19 17 09.9	-0.4
AQU				S		Sg	19 17 12.7	+1.0
GIGS	**Gran Sasso**	**0.20**	**104**	P		Pg	19 17 09.9	+0.2
GIGS				S		Sg	19 17 13.2	+0.4
LNSS	**Leonessa**	**0.22**	**298**	P		Pg	19 17 10.3	+0.3
LNSS				S		Sg	19 17 14.1	+0.8
LNSS				AML		AML		
	comp=E,470μm,0.2s							
LNSS				AML		AML		
	comp=N,372μm,0.2s							
TERO	**Teramo**	**0.26**	**61**	P		Pg	19 17 10.9	+0.2
TERO				S		Sg	19 17 14.8	+0.6
TERO				AML		AML		
	comp=E,253μm,0.7s							
TERO				AML		AML		
	comp=N,248μm,1.0s							
TERO				AML		AML		
	comp=N,218μm,0.7s							
TERO				AML		AML		
	comp=N,218μm,1.3s							
TERO				AML		AML		
	comp=E,182μm,1.2s							
TERO				AML		AML		
	comp=E,253μm,1.3s							
MTRA	**Matera**	**0.27**	**15**	P		Pg	19 17 11.1	+0.2
MTRA				S		Sg	19 17 15.3	+0.7
MTRA				AML		AML		
	comp=N,1145μm,0.2s							
MTRA				AML		AML		
	comp=N,1120μm,0.2s							
MTRA				AML		AML		
	comp=E,1128μm,0.2s							
MTRA				AML		AML		
	comp=E,1120μm,0.2s							
FAGN	**Fagnano**	**0.31**	**138**	P		Pg	19 17 12.0	+0.4
FAGN				AML		AML		
	comp=E,180μm,0.4s							
FAGN				AML		AML		
	comp=N,122μm,0.4s							
GAVE	**Gavelli**	**0.36**	**303**	P		Pg	19 17 12.6	+0.1
GAVE				S		Sg	19 17 18.2	+1.0
NRCA	**Norcia**	**0.36**	**338**	⇓P		Pg	19 17 12.7	+0.2
NRCA				S		Sg	19 17 18.3	+0.8
NRCA				AML		AML		
	comp=E,264μm,0.7s							
NRCA				AML		AML		
	comp=N,168μm,0.1s							
NRCA				AML		AML		
	comp=E,264μm,1.3s							

MMO1	**Montemonaco**	**0.40**	**3**	P		Pg	19 17 13.5	+0.2
MMO1				S		Sb	19 17 19.9	-0.7
ARRO	**Arrone**	**0.40**	**282**	P		Pg	19 17 13.4	+0.1
ARRO				S		Sg	19 17 19.4	+0.8
ARRO				AML		AML		
	comp=E,49μm,1.3s							
ARRO				AML		AML		
	comp=N,55μm,0.1s							
ARRO				AML		AML		
	comp=E,49μm,0.7s							
MC2	**Monte Cornacci**	**0.42**	**349**	P		Pg	19 17 14.0	+0.3
MC2				S		Sb	19 17 20.8	-0.4
T0110	**Collepietro**	**0.45**	**127**	P		Pg	19 17 14.3	+0.2
T0110				S		Sb	19 17 21.5	-0.4
T0110				AML		AML		
	comp=N,70μm,1.1s							
T0110				AML		AML		
	comp=E,76μm,0.3s							
MF5	**Montefalcone A**	**0.50**	**14**	P		Pg	19 17 15.6	+0.5
MF5				S		Sb	19 17 23.9	+0.4
MF5				AML		AML		
	comp=N,128μm,0.9s							
MF5				AML		AML		
	comp=E,104μm,0.2s							
MF5				AML		AML		
	comp=N,128μm,1.1s							
CSP1	**Cessapalombo**	**0.60**	**353**	P		Pg	19 17 17.0	0.0
MNTT	**Montottone**	**0.60**	**21**	P		Pb	19 17 17.7	-0.1
MNTT				AML		AML		
	comp=N,112μm,1.2s							
MNTT				AML		AML		
	comp=E,113μm,0.2s							
MNTT				AML		AML		
	comp=N,112μm,0.8s							
MOMA	**Monte Martano**	**0.62**	**300**	P		Pg	19 17 17.4	0.0
MOMA				AML		AML		
	comp=N,33μm,1.3s							
MOMA				AML		AML		
	comp=N,33μm,0.7s							
MOMA				AML		AML		
	comp=E,52μm,0.2s							

KRNET **02** *19:37:58.2±0.1, 39°.12N×76°.04E, mb3.7*
SOME **02** *19:38:00.2, 39°.32N×75°.87E, h10km*
NNC **02** *19:38:02.5±2.0, 39°.44N×75°.95E, h0km, mb4.0, mpv3.5, Error ellipse: s-maj=14.8km s-min=7.8km az=168.0*
ISC 02 19:38:01.2±1.4, 39°.36N±0°.06×75°.86E±0°.03, h10km, n41, σ2s87/71, 27C-20D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**1.93**	**290**	⇑*i*P		**Pg**	**19 38 37.5**	**-0.8**
SFK				⇑*i*S		**Sg**	**19 39 06.3**	**+2.9**
NRN	**Naryn**	**2.07**	**3**	⇓*i*P		**Pb**	**19 38 39.5**	**+0.4**
NRN				⇓*i*S		**Sg**	**19 39 09.7**	**+1.9**
SALK	**Salom-Alik**	**2.18**	**315**	⇑*i*P		**Pg**	**19 38 41.6**	**-1.5**
SALK				⇑*i*S		**Sg**	**19 39 13.2**	**+1.8**
OHH	**Osh**	**2.64**	**297**	⇑*i*P		**Pb**	**19 38 47.3**	**-1.3**
OHH				⇑*i*S		**Sb**	**19 39 23.1**	**+2.1**
TARG	**Taragay, Kyrgy**	**2.79**	**31**	⇑*i*P		**Pb**	**19 38 48.5**	**-2.9**
TARG				⇑*i*S		**Sb**	**19 39 25.0**	**-0.7**
ULHL	**Ulahol**	**2.89**	**6**	⇑*e*P		**Pb**	**19 38 50.9**	**-2.2**
ULHL				⇑*e*S		**Sb**	**19 39 29.4**	**+0.8**
ARSB	**Arslanbob**	**2.95**	**313**	⇓*i*P		**Pb**	**19 38 52.1**	**-1.8**
ARSB				⇓*i*S		**Sb**	**19 39 31.5**	**+1.4**
UCH	**Uchtor**	**3.04**	**341**	⇑*i*P		**Pb**	**19 38 53.8**	**-1.9**
UCH				⇑*i*S		**Sb**	**19 39 34.2**	**+1.2**
BOOM	**Boomskoye usch**	**3.12**	**1**	⇑*i*P		**Pb**	**19 38 54.4**	**-2.6**
BOOM				⇑*i*S		**Sb**	**19 39 35.2**	**0.0**
DRK	**Karamyk**	**3.15**	**273**	⇓*i*P		**Pb**	**19 38 53.5**	**-4.0**
DRK				⇓*i*S		**Sb**	**19 39 33.9**	**-2.1**
KBK	**Karagaybulak**	**3.36**	**348**	⇑*i*P		**Pb**	**19 38 57.9**	**-3.1**
KBK				⇑*i*S		**Sb**	**19 39 41.6**	**-0.5**
AAK	**Ala-Archa**	**3.43**	**343**	⇑Pg		**Pg**	**19 39 05.3**	**-1.7**
	10nm,0.7s							
AAK				⇓Lg		Lg	19 39 51.7	
	14nm,0.8s							
AAK	**Ala-Archa**	**3.43**	**343**	⇑*i*P		**Pb**	**19 38 59.0**	**-3.2**
AAK				⇑*i*S		**Sb**	**19 39 43.4**	**-0.6**
TKM2	**Tokmak 2**	**3.56**	**357**	⇓*i*P		**Pb**	**19 39 00.5**	**-3.9**
TKM2				⇓*i*S		**Sb**	**19 39 45.9**	**-1.9**
FRU1	**Bishkek**	**3.57**	**345**	⇓*i*P		**Pb**	**19 39 01.1**	**-3.4**
FRU1				⇓*i*S		**Sb**	**19 39 47.0**	**-0.9**
EKS2	**Erkin-Say**	**3.65**	**335**	⇑*i*P		**Pb**	**19 39 02.2**	**-3.8**
EKS2				⇑*i*S		**Sb**	**19 39 48.7**	**-1.7**
PRZ	**Przheval'sk**	**3.66**	**31**	⇑*i*P		**Pn**	**19 39 00.6**	**+2.5**
PRZ				⇑*i*S		**Sb**	**19 39 46.1**	**-4.6**
KST	**Kastek**	**3.68**	**1**	Pg		**Pb**	**19 39 07.1**	**+0.7**
	3.1nm,0.3s							
KST				Lg		Lg	19 39 55.4	
	19nm,0.4s							
KST	**Kastek**	**3.68**	**1**	*e*P		**Pb**	**19 39 07.1**	**+0.7**
	3.1nm,0.3s							
KST				*e*S		**Sb**	**19 39 55.4**	**+4.3**
	19nm,0.4s							
ANVS	**Anan'yevo**	**3.68**	**21**	⇓*i*P		**Pn**	**19 39 01.1**	**+2.8**
ANVS				⇓*i*S		**Sb**	**19 39 47.1**	**-4.1**
CHMS	**Chumysh**	**3.73**	**347**	⇓*e*P		**Pb**	**19 39 02.9**	**-4.3**
CHMS				⇓*i*S		**Sb**	**19 39 50.2**	**-2.2**
TNSS	**Tian-Shan**	**3.76**	**12**	Pg		**Pb**	**19 39 08.6**	**+0.7**
	2.0nm,0.4s							
TNSS				Lg		Lg	19 39 58.2	
	3.5nm,1.2s							
TNSS	**Tian-Shan**	**3.76**	**12**	*e*P		**Pb**	**19 39 08.6**	**+0.7**
	2.0nm,0.4s							
TNSS				*e*S		**Sb**	**19 39 58.2**	**+4.5**
	3.5nm,1.2s							
MRKS	**Merke**	**3.92**	**330**	Pg		**Pb**	**19 39 11.6**	**+1.1**
	10.0nm,0.2s							
MRKS				Lg		Lg	19 40 03.2	
	6.8nm,0.3s							
MRKS	**Merke**	**3.92**	**330**	*e*P		**Pb**	**19 39 11.6**	**+1.1**
	10.0nm,0.2s							
MRKS				*e*S		**Sg**	**19 40 03.2**	**-4.0**
	6.8nm,0.3s							
BTK	**Batken**	**3.95**	**282**	⇑*i*P		**Pn**	**19 39 05.0**	**+3.0**
BTK				⇑*i*S		**Sb**	**19 39 53.7**	**-5.3**
MNAS	**Manas**	**4.03**	**322**	⇓*e*P		**Pn**	**19 39 07.2**	**+4.1**
MNAS				⇓*e*S		**Sb**	**19 39 58.2**	**-2.9**
USP	**Ospenovka**	**4.03**	**346**	⇓*i*P		**Pn**	**19 39 07.2**	**+4.1**
USP				⇓*i*S		**Sb**	**19 39 57.5**	**-3.7**
SATY	**Saty**	**4.16**	**27**	Pg		**Pb**	**19 39 17.3**	**+2.7**
	8.7nm,0.3s							
SATY				Lg		Lg	19 40 12.8	
	7.4nm,0.4s							
SATY	**Saty**	**4.16**	**27**	*e*P		**Pb**	**19 39 17.3**	**+2.7**
	8.7nm,0.3s							
SATY				*e*S		**Sg**	**19 40 12.8**	**-2.0**
	7.4nm,0.4s							
UZB	**Uzynbulak**	**4.47**	**31**	Pg		**Pb**	**19 39 21.2**	**+1.3**
	2.4nm,0.1s							
UZB				Lg		Lg	19 40 19.7	
	4.2nm,0.7s							
UZB	**Uzynbulak**	**4.47**	**31**	*e*P		**Pb**	**19 39 21.1**	**+1.3**
	2.4nm,0.1s							
UZB				*e*S		**Sg**	**19 40 19.7**	**-5.0**
	4.2nm,0.7s							
KURS	**Kuram**	**4.47**	**22**	Pg		**Pb**	**19 39 22.7**	**+2.8**
	9.1nm,0.6s							
KURS				Lg		Lg	19 40 22.3	
	4.7nm,0.6s							
KURS	**Kuram**	**4.47**	**22**	*e*P		**Pb**	**19 39 22.7**	**+2.8**
	9.1nm,0.6s							
KURS				*e*S		**Sg**	**19 40 22.3**	**-2.5**
	4.7nm,0.6s							
KPKS	**Kokpek**	**4.62**	**26**	Pg		**Pg**	**19 39 25.7**	**-3.9**
	0.2nm,0.1s							
KPKS				Lg		Lg	19 40 27.5	
	9.9nm,0.5s							
KPKS	**Kokpek**	**4.62**	**26**	*e*P		**Pg**	**19 39 25.7**	**-3.9**
	0.2nm,0.1s							
KPKS				*e*S		**Sg**	**19 40 27.5**	**-1.9**
	9.9nm,0.5s							
SHLS	**Shalkode**	**4.66**	**34**	Pg		**Pg**	**19 39 29.1**	**-1.4**
	7.2nm,0.4s							
SHLS				Lg		Lg	19 40 32.9	
	6.2nm,0.3s							
PDGK	**Podgornoye**	**4.81**	**33**	⇑Pg		**Pb**	**19 39 29.0**	**+3.3**
	4.0nm,0.5s							
PDGK				⇓Lg		Lg	19 40 33.4	
	25nm,1.1s							
ARXS	**Arharly**	**5.06**	**16**	Pg		**Pb**	**19 39 32.6**	**+2.7**
	4.8nm,0.5s							
ARXS				Lg		Lg	19 40 38.9	
	7.4nm,0.5s							
ARXS	**Arharly**	**5.06**	**16**	*e*P		**Pb**	**19 39 32.6**	**+2.7**
	4.8nm,0.5s							
ARXS				*e*S		**Sg**	**19 40 38.9**	**-4.9**
	7.4nm,0.5s							
KK31	**Karatay Array**	**5.50**	**315**	Pn		**Pn**	**19 39 24.8**	**+1.6**
	0.9nm,0.3s,baz=126,slow=14,SNR=10							
KK31				⇑Sn		**Sn**	**19 40 32.1**	**+5.7**
	1.4nm,0.4s,baz=132,slow=22							

IDC **02** *19:38:30.9±1.3, 36°.75N×141°.37E, h0km, mb3.5/7, mbtmp3.6/9, ML4.4/1, Error ellipse: s-maj=24.9km s-min=20.3km az=154.0*
JMA **02** *19:38:38.7±0.1, 36°.7N±0°.2×140°.9E±0°.3, h49km, MV3.5/40, E OFF IBARAKI PREF*
JMA Felt I J1 at E OFF IBARAKI PREF .
ISC 02 19:38:37.4±1.3, 36°.62N±0°.05×141°.10E±0°.10, h44km±10km, n26, σ0s88/30, mb3.5/7, 12D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JHO	**Hitachi**	**0.43**	**269**	⇓*i*P		**Pn**	**19 38 47.6**	**+0.2**
JHO				⇓S		**Sn**	**19 38 53.6**	**-0.9**
JHYU	**Hitachinakayam**	**0.50**	**237**	⇓*i*P		**Pn**	**19 38 48.8**	**+0.5**
JHYU				⇓S		**Sn**	**19 38 55.7**	**-0.3**
ONAJ	**Iwakimizuishiy**	**0.54**	**333**	⇓*i*P		**Pn**	**19 38 49.2**	**+0.3**
ONAJ				⇓S		**Sn**	**19 38 56.4**	**-0.6**
JFFD	**Fukushimafurud**	**0.64**	**317**	⇓*i*P		**Pn**	**19 38 50.2**	**+0.1**
JFFD				⇓S		**Sn**	**19 38 57.9**	**-1.4**
JFK	**Kawauchi**	**0.77**	**346**	⇓*i*P		**Pn**	**19 38 52.1**	**+0.2**
JFK				⇓S		**Sn**	**19 39 01.7**	**-0.7**
JYT	**Yasato**	**0.83**	**242**	*i*P		**Pn**	**19 38 52.4**	**-0.2**
JYT				S		**Sn**	**19 39 02.2**	**-1.5**
JOTO	**OTAMA OYAMA**	**1.12**	**327**	*i*P		**Pn**	**19 38 57.2**	**+0.6**
JOTO				S		**Sn**	**19 39 11.1**	**+0.1**
JMM	**Marumori**	**1.27**	**349**	*i*P		**Pn**	**19 38 59.3**	**+0.7**
JMM				S		**Sn**	**19 39 14.2**	**-0.3**
JAG	**Ashikaga**	**1.34**	**262**	⇓*i*P		**Pn**	**19 38 59.3**	**-0.4**
JAG				⇓S		**Sn**	**19 39 14.7**	**-1.6**
JFY	**Yanaizu**	**1.37**	**306**	*i*P		**Pn**	**19 38 59.9**	**-0.1**
JKT	**Katashina**	**1.50**	**276**	P		**Pn**	**19 39 01.8**	**0.0**
MJAR	**Matsushiro Arr**	**2.33**	**269**	Pn		**Pn**	**19 39 13.5**	**+0.3**
	17nm,0.4s,baz=91,slow=14,SNR=86							
MJAR				Sn		**Sn**	**19 39 41.8**	**+1.1**
	0.8nm,0.3s,baz=116,slow=17,SNR=5.6							
JOW	**Kunigami**	**14.63**	**232**	Pn		**Pn**	**19 42 03.0**	**+1.5**
	3.2nm,0.3s,baz=72,slow=19,SNR=1.5							
	13nm,0.5s							
JOW				AML		AML		
SONM	**Songino Array**	**27.81**	**305**	P		**P**	**19 44 23.5**	**+1.1**
	0.5nm,0.8s,baz=120,slow=10,SNR=3.2							
	0.5nm,0.8s							
H11N2	**WAKE ISLAND Hy 28.15**	**120**		T		T	20 14 31.1	
	baz=313,slow=75,SNR=19							
H11N1	**WAKE ISLAND Hy 28.16**	**120**		T		T	20 14 25.7	
	baz=313,slow=75,SNR=16							
H11N3	**WAKE ISLAND Hy 28.17**	**120**		T		T	20 14 23.0	
	baz=313,slow=75,SNR=14							
H11S1	**WAKE ISLAND Hy 28.85**	**122**		T		T	20 15 16.3	
	baz=314,slow=76,SNR=9.5							
H11S3	**WAKE ISLAND Hy 28.85**	**122**		T		T	20 15 17.1	
	baz=314,slow=76,SNR=19							
H11S2	**WAKE ISLAND Hy 28.86**	**122**		T		T	20 15 21.1	
	baz=314,slow=76,SNR=22							
ZALV	**Zalesovo Beam**	**42.01**	**313**	P		**P**	**19 46 24.3**	**+0.2**
	0.4nm,0.4s,baz=79,slow=7.5,SNR=2.4							
	0.4nm,0.4s							
MKAR	**Makanchi Array**	**44.13**	**302**	P		**P**	**19 46 42.5**	**+1.1**
	0.2nm,0.6s,baz=86,slow=12,SNR=2.6							
	0.2nm,0.6s							
KURBB	**Kurchatov Arra**	**46.06**	**308**	P		**P**	**19 46 55.8**	**-0.8**
	0.3nm,0.5s,baz=83,slow=7.5,SNR=3.0							
	0.3nm,0.5s							
ILAR	**Eielson Array**	**49.98**	**32**	P		**P**	**19 47 24.9**	**-1.8**
	0.4nm,0.7s,baz=269,slow=7.5,SNR=4.2							
	0.4nm,0.7s							
BVAR	**Borovoye Array**	**50.67**	**313**	P		**P**	**19 47 31.7**	**-0.5**
	1.2nm,0.8s,baz=66,slow=11,SNR=3.8							
	1.2nm,0.8s							
WRA	**Warramunga Arr**	**56.62**	**188**	P		**P**	**19 48 16.1**	**+0.2**
	0.5nm,0.7s,baz=3.0,slow=7.4,SNR=9.3							
	0.5nm,0.7s							

ATH **02** *19:39:11.9, 37°.74N×27°.11E, h9km±1km, ML3.6/23, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
THE **02** *19:39:12.8, 38°.N±1°×27°.7E±°, h7km±2km, M3.4/15, MLh3.4/15*
AFAD **02** *19:39:12.1, 37°.73N×27°.05E, h12km±2km, ML3.3*
ISK **02** *19:39:12.0, 37°.72N×27°.03E, h11km, ML3.6/18*
ISC 02 19:39:12.5±0.8, 37°.73N±0°.01×27°.06E±0°.02, h15km±5km, n127, σ0s65/174, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.14**	**102**	P		**Pg**	**19 39 16.1**	**-0.2**
GCAM				S		**Sg**	**19 39 19.1**	**+0.4**
GCAM				IAML			19 39 20.0	
	comp=E,1μm,0.5s							
GCAM				IAML			19 39 20.0	
	comp=N,9μm,0.2s							
GCAM	**G?zelcaml?**	**0.14**	**102**	Pg		**Pg**	**19 39 16.0**	**-0.2**
GCAM				Sg		**Sg**	**19 39 18.9**	**+0.2**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.22**	**54**	Pg		**Pb**	**19 39 17.5**	**-0.8**
KUSD				Sg		**Sg**	**19 39 21.8**	**+0.9**
KUSD				AML		AML		
KRL1	**Karlovasi Samo**	**0.29**	**283**	P		**Pg**	**19 39 17.8**	**-0.9**
KRL1				S		**Sg**	**19 39 22.8**	**0.0**
DDIM	**Aydin, Didim**	**0.31**	**152**	P		**Pb**	**19 39 19.1**	**-0.6**
DDIM				S		**Sb**	**19 39 24.4**	**-0.2**
DDIM				IAML			19 39 25.0	

AYDB				AML	AML			
BODT	**Bodrum**	**0.69**	**163**	P	**Pg**	**19 39 25.8**	**-0.3**	
BODT				S	**Sb**	**19 39 36.5**	**+0.7**	
BODT				AML	AML			
BODT	**Bodrum**	**0.69**	**163**	Pg	**Pb**	**19 39 26.0**	**-0.4**	
BODT				AML	AML			
MLSB	**Milas**	**0.71**	**127**	Pg	**Pg**	**19 39 26.2**	**-0.3**	
MLSB				AML	AML			
BDRM	**Kayabasi**	**0.73**	**155**	P	**Pg**	**19 39 26.1**	**-0.7**	
BDRM				S	**Sb**	**19 39 36.6**	**-0.1**	
BDRM				IAML		19 39 38.0		
	comp=E,2µm,0.6s							
BDRM				IAML		19 39 41.0		
	comp=N,3µm,0.5s							
KLNA	**Kalymnos**	**0.77**	**185**	P	**Pg**	**19 39 27.1**	**-0.5**	
KLNA				S	**Sg**	**19 39 37.5**	**-0.3**	
IZMR	**zmir-demi**	**0.81**	**60**	P	**Pg**	**19 39 27.9**	**-0.5**	
IZMR				P	**Pn**	**19 39 29.1**	**-0.3**	
IZMR				S	**Sg**	**19 39 37.7**	**-1.3**	
IZMR				IAML		19 39 42.0		
	comp=N,916nm,0.5s							
IZMR				IAML		19 39 43.0		
	comp=E,832nm,0.6s							
CESE	**eme**	**0.85**	**315**	Pg	**Pb**	**19 39 28.7**	**-0.3**	
CESE				AML	AML			
BAGT	**Foa**	**0.94**	**350**	P	**Pn**	**19 39 31.0**	**-0.2**	
BAGT				S	**Sb**	**19 39 43.6**	**+0.7**	
BAGT				IAML		19 39 48.0		
	comp=E,1µm,0.4s							
BAGT				IAML		19 39 48.0		
	comp=N,2µm,0.5s							
KRBN	**Karaburun**	**0.95**	**335**	Pg	**Pb**	**19 39 30.8**	**0.0**	
KRBN				AML	AML			
NAZL	**Nazilli-Aydin**	**1.00**	**76**	Pg	**Pn**	**19 39 32.3**	**+0.2**	
NAZL				AML	AML			
FOCM	**Foa**	**1.02**	**345**	Pg	**Pb**	**19 39 31.9**	**+0.1**	
FOCM				AML	AML			
ESEN	**Aydn-Nazilli**	**1.02**	**86**	P	**Pn**	**19 39 32.9**	**+0.5**	
ESEN				S	**Sb**	**19 39 45.5**	**+0.4**	
ESEN				IAML		19 39 49.0		
	comp=E,489nm,0.5s							
CHOS	**Chios island**	**1.03**	**310**	P	**Pn**	**19 39 32.5**	**0.0**	
CHOS				S	**Sn**	**19 39 47.1**	**+0.4**	
CHOS				AML	AML			
CHOS	**Chios island**	**1.03**	**310**	Pg	**Pb**	**19 39 32.0**	**-0.2**	
CHOS				AML	AML			
CHOS	**Chios island**	**1.03**	**310**	P	**Pn**	**19 39 32.3**	**-0.3**	
CHOS				S	**Sn**	**19 39 46.4**	**-0.3**	
CHOS				AML	AML			
CAMT	**Merkez**	**1.04**	**11**	P	**Pn**	**19 39 32.3**	**-0.2**	
CAMT				S	**Sn**	**19 39 47.9**	**+1.1**	
CAMT				IAML		19 39 51.0		
	comp=E,2µm,0.7s							
CAMT				IAML		19 39 54.0		
	comp=N,1µm,0.4s							
KARB	**zmir-Karabur**	**1.06**	**331**	P	**Pn**	**19 39 32.8**	**-0.1**	
KARB				S	**Sn**	**19 39 47.4**	**-0.1**	
KARB				IAML		19 39 51.0		
	comp=N,1µm,0.8s							
KARB				IAML		19 39 52.0		
	comp=E,1µm,0.5s							
DAT	**Datca**	**1.08**	**157**	P	**Pn**	**19 39 33.6**	**+0.4**	
DAT				S	**Sn**	**19 39 48.2**	**+0.2**	
DAT				IAML		19 39 52.0		
	comp=E,901nm,1.4s							
YAZI	**Mula-Dat§a-**	**1.09**	**163**	P	**Pg**	**19 39 33.2**	**-0.4**	
YAZI				S	**Sn**	**19 39 48.1**	**0.0**	
YAZI				IAML		19 39 51.0		
	comp=E,494nm,0.5s							
YAZI				IAML		19 39 53.0		
	comp=N,464nm,0.4s							
MULA	**Mugla, Merkez-**	**1.11**	**115**	P	**Pn**	**19 39 34.1**	**+0.5**	
MULA				S	**Sg**	**19 39 47.8**	**-0.5**	
EAG2	**Marmaro, Chios**	**1.11**	**318**	P	**Pn**	**19 39 33.5**	**0.0**	
EAG2				S	**Sn**	**19 39 48.4**	**-0.1**	
YER	**Yerkesik**	**1.14**	**121**	P	**Pn**	**19 39 34.4**	**+0.4**	
YER				S	**Sn**	**19 39 50.5**	**+1.1**	
KIRA	**zmir-Kiraz**	**1.16**	**66**	P	**Pn**	**19 39 34.4**	**+0.1**	
KIRA				S	**Sn**	**19 39 49.9**	**-0.1**	
KIRA				IAML		19 39 54.0		
	comp=N,904nm,0.5s							
KIRA				IAML		19 39 59.0		
	comp=E,405nm,0.5s							
GOMA	**Golmarmara-Man**	**1.19**	**34**	Pn	**Pg**	**19 39 35.5**	**+0.1**	
GOMA				AML	AML			
ZEDA	**zmir-Bergama**	**1.24**	**1**	P	**Pg**	**19 39 36.4**	**0.0**	
ZEDA				S	**Sn**	**19 39 52.2**	**+0.5**	
ZEDA				IAML		19 39 55.0		
	comp=N,818nm,0.4s							
ZEDA				IAML		19 39 58.0		
	comp=E,764nm,0.7s							
KTTT	**Salihli**	**1.26**	**40**	P	**Pb**	**19 39 35.9**	**0.0**	
KTTT				S	**Sb**	**19 39 50.8**	**-1.1**	
KTTT				IAML		19 40 02.0		
	comp=N,287nm,0.7s							
AKHS	**Akhisar**	**1.29**	**27**	P	**Pg**	**19 39 36.7**	**-0.7**	
AKHS				S	**Sn**	**19 39 53.2**	**+0.1**	
AKHS				IAML		19 39 59.0		
	comp=N,865nm,0.3s							
AKS	**Akhisar**	**1.29**	**27**	Pn	**Pg**	**19 39 36.8**	**-0.6**	
AKS				AML	AML			
ASTA	**Astypalaia**	**1.31**	**206**	P	**Pb**	**19 39 36.9**	**0.0**	
ASTA				AML	AML			
TURN	**Turunc**	**1.34**	**135**	P	**Pn**	**19 39 36.7**	**0.0**	
TURN				S	**Sb**	**19 39 54.0**	**-0.3**	
TURN				IAML		19 40 01.0		
	comp=N,327nm,0.5s							
TURN				IAML		19 40 01.0		
	comp=E,497nm,0.6s							
DKL	**Dikili**	**1.35**	**355**	P	**Pn**	**19 39 36.8**	**0.0**	
APE	**Apeiranthos**	**1.39**	**242**	P	**Pg**	**19 39 38.4**	**-0.8**	
APE				AML	AML			
APE	**Apeiranthos**	**1.39**	**242**	P	**Pn**	**19 39 36.8**	**-0.6**	
APE				AML	AML			
SULTU	**Buldan**	**1.39**	**76**	P	**Pg**	**19 39 38.9**	**-0.4**	
SULTU				S	**Sn**	**19 39 56.4**	**+0.7**	
SULTU				IAML		19 40 04.0		
	comp=E,493nm,0.5s							
SULTU				IAML		19 40 06.0		
	comp=N,587nm,1.3s							
MANT	**Manisa**	**1.40**	**57**	P	**Pb**	**19 39 38.2**	**-0.4**	
MANT				S	**Sb**	**19 39 55.4**	**-1.0**	
MANT				IAML		19 40 02.0		
	comp=E,417nm,0.5s							
MANT				IAML		19 40 03.0		
	comp=N,295nm,0.4s							
GORD	**Gordes-Manisa**	**1.47**	**36**	Pn	**Pb**	**19 39 39.5**	**-0.1**	
GORD				AML	AML			
SOMA	**Soma-Manisa**	**1.47**	**14**	Pn	**Pb**	**19 39 39.5**	**-0.1**	
SOMA				AML	AML			
NAX1	**Naxos Island**	**1.48**	**246**	P	**Pb**	**19 39 39.7**	**-0.1**	
NAX1				AML	AML			
TAVA	**DENIZLI_Tavas**	**1.49**	**100**	P	**Pb**	**19 39 40.1**	**0.0**	
TAVA				S	**Sg**	**19 39 59.8**	**-0.9**	
TAVA				IAML		19 40 06.0		
	comp=E,207nm,0.4s							
TAVA				IAML		19 40 07.0		
	comp=N,196nm,0.7s							
HARTU	**Esme**	**1.50**	**65**	P	**Pb**	**19 39 39.7**	**-0.5**	
HARTU				S	**Sn**	**19 39 57.8**	**-0.6**	
HARTU				IAML		19 40 06.0		
	comp=E,141nm,0.4s							
TNSA	**Tinos**	**1.52**	**263**	P	**Pn**	**19 39 38.9**	**-0.3**	
TNSA				AML	AML			
DALY	**Dalyan (Mula)**	**1.56**	**125**	P	**Pg**	**19 39 42.1**	**-0.4**	
DALY				S	**Sg**	**19 40 03.8**	**+1.0**	
DALY				IAML		19 40 10.0		
	comp=E,268nm,0.6s							
DALY				IAML		19 40 13.0		
	comp=N,323nm,1.0s							
DNIZ	**Denizli-Tavas-**	**1.57**	**93**	P	**Pb**	**19 39 41.1**	**-0.2**	
DNIZ				S	**Sg**	**19 40 02.5**	**-0.7**	
DNIZ				IAML		19 40 10.0		
	comp=E,701nm,0.3s							
DNIZ				IAML		19 40 13.0		
	comp=N,686nm,0.5s							
AYVA	**Ayvalik**	**1.60**	**350**	P	**Pg**	**19 39 42.9**	**-0.5**	
AYVA				S	**Sb**	**19 40 02.6**	**+0.7**	
AYVA				IAML		19 40 07.0		
	comp=E,602nm,1.3s							
AYVA				IAML		19 40 09.0		
	comp=N,488nm,0.5s							
PRK	**Paraskevi**	**1.64**	**338**	P	**Pn**	**19 39 41.2**	**+0.4**	
PRK				AML	AML			
PRK	**Paraskevi**	**1.64**	**338**	P	**Pn**	**19 39 41.0**	**+0.2**	
PRK				AML	AML			
STEP	**BALIKESIR_Sava**	**1.72**	**17**	P	**Pb**	**19 39 44.4**	**+0.4**	
STEP				S	**Sg**	**19 40 07.1**	**-0.9**	
STEP				IAML		19 40 17.0		
	comp=N,372nm,0.6s							
STEP				IAML		19 40 18.0		
	comp=E,335nm,0.4s							
ARG	**Arkhangelos**	**1.73**	**150**	P	**Pb**	**19 39 43.4**	**-0.7**	
ARG				AML	AML			
ARG	**Arkhangelos**	**1.73**	**150**	P	**Pn**	**19 39 41.8**	**-0.3**	
ARG				AML	AML			
SABU	**Mula-Dalaman**	**1.77**	**120**	P	**Pb**	**19 39 44.1**	**-0.6**	
SABU				S	**Sn**	**19 40 05.4**	**+0.5**	
SABU				IAML		19 40 19.0		
	comp=E,164nm,0.8s							
SABU				IAML		19 40 21.0		
	comp=N,180nm,0.6s							
BUHA	**Balikesir, Bur**	**1.77**	**0**	P	**Pb**	**19 39 44.9**	**+0.2**	
BUHA				S	**Sb**	**19 40 07.7**	**+0.9**	
BUHA				IAML		19 40 14.0		
	comp=E,454nm,0.5s							
BUHA				IAML		19 40 19.0		
	comp=N,384nm,0.6s							
THR2	**Thira island,**	**1.82**	**226**	P	**Pn**	**19 39 44.4**	**+1.1**	
USAK	**Uak-Merkez**	**1.83**	**57**	P	**Pb**	**19 39 46.3**	**+0.5**	
USAK				S	**Sb**	**19 40 09.4**	**+0.9**	
THR8	**Santorini-Mono**	**1.83**	**224**	P	**Pn**	**19 39 43.7**	**+0.3**	
DEMI	**Demirci**	**1.85**	**44**	P	**Pg**	**19 39 47.7**	**-0.4**	
DEMI				S	**Sg**	**19 40 10.6**	**-1.4**	
DEMI				IAML		19 40 24.0		
	comp=E,182nm,0.4s							
THERA	**Ancient Thera,**	**1.86**	**224**	P	**Pn**	**19 39 43.5**	**-0.4**	
THERA				AML	AML			
THR3	**Thira Island,**	**1.87**	**226**	P	**Pg**	**19 39 47.4**	**-1.0**	
THR3	**Thira Island,**	**1.87**	**226**	P	**Pn**	**19 39 44.8**	**+0.8**	
SNT3	**Nea Kammeni, S**	**1.88**	**226**	P	**Pn**	**19 39 45.0**	**+0.8**	
THR5	**Thira Island,**	**1.90**	**227**	P	**Pn**	**19 39 45.4**	**+1.0**	
THR6	**Thira Island,**	**1.91**	**225**	P	**Pb**	**19 39 46.8**	**-0.3**	
THR6	**Thira Island,**	**1.91**	**225**	P	**Pn**	**19 39 45.3**	**+0.8**	
FETY	**Fethiye**	**1.95**	**123**	P	**Pg**	**19 39 49.0**	**-0.9**	
FETY				S	**Sb**	**19 40 12.6**	**+0.7**	
BALB	**Balikesir**	**2.01**	**18**	P	**Pn**	**19 39 46.4**	**+0.4**	
BALB				AML	AML			
KARY	**Karystos**	**2.10**	**279**	P	**Pn**	**19 39 47.7**	**+0.6**	
KARY				AML	AML			
KARY	**Karystos**	**2.10**	**279**	P	**Pn**	**19 39 47.1**	**0.0**	
KARP	**Karpathos**	**2.18**	**178**	P	**Pn**	**19 39 48.9**	**+0.6**	
KARP				AML	AML			
KARP	**Karpathos**	**2.18**	**178**	P	**Pn**	**19 39 47.8**	**-0.5**	
DION	**Dionisos Attik**	**2.50**	**279**	P	**Pn**	**19 39 53.1**	**+0.5**	
DION				AML	AML			
DION	**Dionisos Attik**	**2.50**	**279**	P	**Pn**	**19 39 52.5**	**-0.2**	
DION				AML	AML			
KYMI	**Kymi, Euboea I**	**2.50**	**292**	P	**Pn**	**19 39 53.0**	**+0.3**	
PTL	**Penteli**	**2.55**	**278**	P	**Pn**	**19 39 53.7**	**+0.3**	
PTL				AML	AML			
PTL	**Penteli**	**2.55**	**278**	P	**Pn**	**19 39 53.4**	**0.0**	
PTL				AML	AML			
VLY	**Voula,Athens**	**2.59**	**274**	P	**Pn**	**19 39 53.4**	**-0.5**	
VLY				AML	AML			
ATHU	**Athens Univers**	**2.60**	**276**	P	**Pn**	**19 39 54.1**	**0.0**	
ATHU				AML	AML			
ATHU	**Athens Univers**	**2.60**	**276**	P	**Pn**	**19 39 54.0**	**-0.1**	
LIA	**Limnos Island**	**2.62**	**326**	P	**Pn**	**19 39 54.9**	**+0.7**	
LIA				AML	AML			
LIA	**Limnos Island**	**2.62**	**326**	P	**Pn**	**19 39 54.2**	**0.0**	
LIA				AML	AML			
GADA	**Gvkgeada**	**2.62**	**340**	P	**Pn**	**19 39 54.6**	**+0.3**	
GADA				AML	AML			
MET4	**Agioi Theodoro**	**2.91**	**269**	P	**Pn**	**19 39 58.5**	**+0.2**	
MET5	**Makryloggos.Me**	**2.94**	**269**	P	**Pn**	**19 39 59.1**	**+0.3**	
MET6	**Megalochori,Me**	**2.94**	**268**	P	**Pn**	**19 39 59.4**	**+0.6**	
MET2	**Kameni Chora,**	**2.96**	**269**	P	**Pn**	**19 39 59.3**	**+0.2**	
SMTH	**Samothraki Isl**	**2.99**	**337**	P	**Pn**	**19 39 59.9**	**+0.6**	
SMTH	**Samothraki Isl**	**2.99**	**337**	P	**Pn**	**19 39 59.3**	**-0.1**	
IDI	**Anoyia**	**3.00**	**216**	P	**Pn**	**19 39 59.7**	**+0.1**	
VIL2	**Platees**	**3.04**	**280**	P	**Pn**	**19 39 60.0**	**-0.1**	
VIL2				AML	AML			
MET3	**Ano Fanari,Met**	**3.05**	**268**	P	**Pn**	**19 40 00.6**	**+0.4**	
LTK	**Loutraki**	**3.25**	**276**	P	**Pn**	**19 40 03.6**	**+0.6**	
LTK				AML	AML			
SIVA	**Sivas**	**3.26**	**215**	P	**Pn**	**19 40 03.6**	**+0.5**	
SIVA				AML	AML			
ALN	**Alexandroupoli**	**3.26**	**346**	P	**Pn**	**19 40 02.8**	**-0.4**	
ACOR	**Acrocorinthos**	**3.32**	**274**	P	**Pn**	**19 40 04.5**	**+0.4**	
ATAL	**Atalanti**	**3.33**	**288**	P	**Pn**	**19 40 04.7**	**+0.7**	
NEO	**Neokhori**	**3.40**	**299**	P	**Pn**	**19 40 05.5**	**+0.5**	
THAS	**Thassos island**	**3.40**	**328**	P	**Pn**	**19 40 06.1**	**+0.1**	
RODP	**Rodopos**	**3.43**	**232**	P	**Pn**	**19 40 07.0**	**+1.5**	
VLI	**Veliai**	**3.44**	**254**	P	**Pn**	**19 40 06.2**	**+0.6**	
VLI				AML	AML			
XOR	**Xorichti**	**3.45**	**300**	P	**Pn**	**19 40 05.8**	**+0.1**	
KTHA	**Kythira Island**	**3.52**	**247**	P	**Pn**	**19 40 07.0**	**+0.2**	
ANKY	**Antikythira Is**	**3.54**	**240**	P	**Pn**	**19 40 07.5**	**+0.5**	
GUR	**Goura**	**3.74**	**275**	P	**Pn**	**19 40 10.3**	**+0.4**	
AGG	**Agios Georgios**	**3.94**	**291**	P	**Pn**	**19 40 13.3**	**+0.9**	
LAKA	**Lakka**	**4.05**	**279**	P	**Pn**	**19 40 14.9**	**+0.9**	
ITM	**Ithomi**	**4.12**	**264**	P	**Pn**	**19 40 16.0**	**+1.0**	
EFP	**Efpalio**	**4.13**	**281**	P	**Pn**	**19 40 15.7**	**+0.7**	
ANX	**Ano Chora**	**4.14**	**284**	P	**Pn**	**19 40 16.4**	**+1.1**	
DRO	**Drossia**	**4.24**	**275**	P	**Pn**	**19 40 17.9**	**+1.2**	
TYRN	**Tyrnavos**	**4.26**	**299**	P	**Pn**	**19 40 18.1**	**+1.1**	
AGRP	**Agrapidokambos**	**4.27**	**281**	P	**Pn**	**19 40 18.2**	**+1.3**	
PEHC	**Pehcevo**	**5.16**	**323**	*i* Pn	Pn	19 40 34.3	+5.0	
PEHC				*i* Sn	**Sn**	**19 41 32.5**	**+3.8**	

IDC ***02*** *19:43:14.6±0.5,25˚.74N×91˚.08E, h0km, mb4.1/21, mbtmp4.1/24, ML4.6/3, MS3.0/1, Error ellipse: s-maj=18.1km s-min=9.8km az=64.0*

NEIC ***02*** *19:43:17.1±1.4,25˚.78N±0˚.06×91˚.17E±0˚.05, h10km±1km, mb4.5/48, Error ellipse: s-maj=10.7km s-min=6.3km az=208.0*

GFZ ***02*** *19:43:19.1±0.2,26˚N±4˚×9˚1E±˚, h18km, M4.4/12, mb4.4/12, confirmed*

NDI ***02*** *19:43:25.1±2.5,25˚.72N×91˚.32E, h48km±30km, ML4.0, MW4.1, Presumed earthquake*

BKK ***02*** *19:43:47.0±3.5,25˚N±20˚×9˚3E±2˚2, h75km±18km, mb4.2/11, mB4.3/7, Mjma3.7/13, ML4.2/7, MLv4.2/10, Mw(mB)3.4/7*

ISC 02 19:43:17.4±0.8, 25˚.74N±0˚.03×91˚.19E±0˚.03, h14km±5km, n143, σ1$77/154, mb4.4/50, 1D, India-Bangladesh border region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SHL	**Shillong**	**0.65**	**105**			**Pn**	**19 43 32.8**	**+0.4**
SHL						**Sb**	**19 43 39.8**	**+0.1**
DHUB	**DHUBRI**	**1.11**	**285**	*i* P		Pn	19 43 46.8	+8.3
TEZP	**TEZPUR**	**1.69**	**59**	*i* P		**Pg**	**19 43 51.5**	**+1.5**
TEZP				*i* S		**Sg**	**19 44 12.4**	**+0.3**
AGT	**Agartala**	**1.84**	**178**	*i* P		**Pg**	**19 43 54.1**	**+1.3**
AGT				*i* S		**Sg**	**19 44 16.5**	**-0.2**
IMP	**Imphal**	**2.66**	**109**	*i* P		**Pb**	**19 44 03.7**	**-1.1**
IMP				*i* S		**Sn**	**19 44 33.3**	**+1.4**
ITAN	**ITANAGAR**	**2.67**	**58**	*i* P		**Pb**	**19 44 05.0**	**0.0**
JORH	**JORHAT**	**2.93**	**69**	*i* P		**Pb**	**19 44 08.0**	**-1.4**
JORH				*i* S		**Sn**	**19 44 40.8**	**+2.2**
ZIRO	**ZIRO**	**2.98**	**53**	*i* P		**Pb**	**19 44 09.1**	**-1.2**
ZIRO				*i* S		**Sn**	**19 44 42.3**	**+2.3**
MOKO	**MOKOCHONG**	**3.05**	**78**	*i* P		**Pb**	**19 44 09.5**	**-2.1**
MOKO				*i* S		**Sn**	**19 44 43.4**	**+1.6**
BRDH	**Bariadhala**	**3.08**	**172**	Pn		**Pn**	**19 44 07.2**	**+1.7**
	58nm,0.3s,baz=271,slow=22,SNR=1.4							
BRDH						**Sn**	**19 44 43.0**	**+0.9**
	157nm,0.3s,baz=264,slow=20,SNR=15							
	174nm,0.3s							
BRDH					AML	AML		
MORE	**Moreh**	**3.20**	**117**			**Pn**	**19 44 10.1**	**+2.8**
SHBG	**Sahibganj**	**3.25**	**262**	*i* P		**Pb**	**19 44 15.0**	**+0.1**
SHBG				*i* S		**Sb**	**19 44 51.1**	**-3.2**
SHBG					IAML		19 45 03.1	
	comp=N,1µm,0.3s							
LSA	**Lhasa**	**3.95**	**360**	Pg		**Pb**	**19 44 23.4**	**-3.7**
LSA				Sn		**Sn**	**19 45 05.6**	**+1.3**
LSA					AML	AML		
	comp=N,210nm,0.5s							

LSA					AML	AML		
	comp=N,280nm,0.8s							
LSA	**Lhasa**	**3.95**	**360**			**Pn**	**19 44 18.4**	**+0.4**
LSA	**Lhasa**	**3.95**	**360**	P		**Pn**	**19 44 20.8**	**+2.8**
EVN	**Everest**	**4.49**	**300**			**Pn**	**19 44 26.4**	**+0.9**
EVN	**Everest**	**4.49**	**300**	P		**Pn**	**19 44 26.4**	**+0.9**
BOK	**Bokaro**	**5.19**	**249**	*i* P		Pb	19 44 41.9	-6.2
NPW	**Naypyitaw**	**7.49**	**141**	P		**Pn**	**19 45 07.5**	**+1.3**
	comp=Z,27nm,0.8s							
RAGD	**RAYAGADA**	**9.63**	**229**	*i* P		Pn	19 45 41.3	+5.7
RAGD				*i* S		**Sn**	**19 47 30.4**	**+6.8**
RAGD					IAML		19 48 21.1	
	comp=N,59nm,0.7s							
MHMT	**Maesarieng**	**9.79**	**139**	P		**Pn**	**19 45 38.7**	**+0.9**
	comp=N,0.1nmcomp=N,0.1nmcomp=N,0.1nmcomp=N,254nm comp=N,27nm,0.9s							
MHMT					AML	AML		
MHMT					AML	AML		
CHTO	**Chiang Mai**	**9.95**	**132**	P		**Pn**	**19 45 39.0**	**-1.0**
	comp=N,0.0nmcomp=N,0.0nmcomp=N,0.2nmcomp=N,8.4nm,0.9s							
CHTO					AML	AML		
CHTO					AML	AML		
CHTO	**Chiang Mai**	**9.95**	**132**	Pn		**Pn**	**19 45 39.9**	**-0.1**
CHTO	**Chiang Mai**	**9.95**	**132**	P		**Pn**	**19 45 40.4**	**+0.3**
	comp=Z,8.4nm,0.9s							
CM31	**Chiang Mai Arr**	**10.21**	**134**	Pn		**Pn**	**19 45 41.5**	**-2.0**
CMAR	**Chiang Mai Arr**	**10.21**	**134**	Pn		**Pn**	**19 45 43.9**	**+0.3**
	comp=Z,0.7nm,0.3s,baz=307,slow=13,SNR=31							
CMAR					LR	LR	19 51 18.1	
	comp=Z,74nm,18.2s,baz=305,slow=47 comp=Z,2.7nm,0.6s							
CMAR					AML	AML		
CMAR	**Chiang Mai Arr**	**10.21**	**134**			**Pn**	**19 45 43.4**	**-0.1**
PTH	**Pithoragarh**	**10.46**	**294**	*i* S		**Sn**	**19 47 51.1**	**+6.9**
KMI2	**Kunming**	**10.47**	**91**	P		**Pn**	**19 45 50.6**	**+3.3**
KMI2				pP			19 46 00.1	
KMI2				pmax		pmax		
	comp=Z,8.0nm,0.7s							
LGTI	**Lohaghat**	**10.50**	**293**	IAML			19 47 52.1	
	comp=N,11nm,0.3s							
LAMP	**Lampang**	**10.62**	**131**	P		**Pn**	**19 45 50.0**	**+0.8**
	comp=N,0.0nmcomp=N,0.2nmcomp=N,10nm,0.8s							
LAMP					AML	AML		
GOMU	**GeErMu**	**10.88**	**16**	P		**Pn**	**19 45 54.7**	**+1.6**
GOMU				pP			19 45 57.9	
GOMU				sP			19 46 02.1	
GOMU				pmax		pmax		
	comp=N,6.0nm,0.9s							
UTTA	**Uttaradit**	**11.79**	**131**	P		**Pn**	**19 46 05.7**	**+0.5**
	comp=N,0.0nmcomp=N,11nm,0.6s							
NGP	**Nagpur**	**12.03**	**250**	*i* P		Pn	19 46 14.8	+6.3
NGP				*i* S		**Sn**	**19 48 29.2**	**+6.7**
NGP					IAML		19 49 11.2	
	comp=N,39nm,0.5s							
KLP	**Kalpa**	**12.74**	**300**	*i* P		Pn	19 46 23.8	+5.3
KLP				*i* S		**Sn**	**19 48 46.0**	**+5.8**
KUDL	**Kundal**	**13.33**	**284**	*i* P		**P**	**19 46 33.5**	**-2.3**
PBA	**Port Blair**	**14.08**	**174**	Pn		**Pn**	**19 46 37.6**	**+1.0**
HYB	**Hyderabad**	**14.37**	**237**	*e*P		**P**	**19 46 47.7**	**+0.3**
HYB				*e*S		**S**	**19 49 40.6**	**+0.8**
HYB	**Hyderabad**	**14.37**	**237**	*i* P		**P**	**19 46 47.9**	**+0.4**
DHRM	**DHARAMSHALA**	**14.55**	**300**	*i* P		**P**	**19 46 50.4**	**+0.8**
LZDM	**Lanzhou Array**	**14.79**	**44**	Pn		**Pn**	**19 46 47.4**	**+0.9**
	baz=221,slow=8.8 comp=N,2.7nm,0.3s							
LZH	**Lanzhou**	**14.97**	**43**	*e*P		**P**	**19 46 54.7**	**+0.5**
LZH				sP		Pn	19 47 04.8	+16
LZH				pmax		pmax		
	comp=N,21nm,1.2s							
PHET	**Kaeng Krachan**	**15.04**	**146**	P		**P**	**19 46 52.9**	**-2.0**
GTA2	**Gaotai**	**15.48**	**26**	P		**P**	**19 46 59.9**	**0.0**
GTA2				pP		sP	19 47 04.5	-1.7
GTA2				pmax		pmax		
	comp=N,9.0nm,0.8s							
UDPR	**Udaipur**	**15.87**	**270**	*i* P		**P**	**19 47 06.9**	**+2.8**
UDPR				*i* S		**S**	**19 50 06.5**	**-3.9**
ENH	**Enshi**	**16.78**	**70**			**Pn**	**19 47 09.9**	**-2.2**
ENH	**Enshi**	**16.78**	**70**	P		**P**	**19 47 15.0**	**+0.8**
	comp=Z,81nm,0.8s							
XAN	**Xi'an**	**17.45**	**58**	*e*P		**P**	**19 47 27.6**	**+6.0**
XAN				LR		LR		
	comp=Z,120nm,7.6s							
NIL	**Nilore**	**17.45**	**301**			**Pn**	**19 47 16.4**	**-4.0**
NIL	**Nilore**	**17.45**	**301**	P		**P**	**19 47 21.7**	**+0.1**
	comp=Z,15nm,0.7s							
WMQ	**Urumqi**	**18.26**	**352**	*e*P		**Pn**	**19 47 30.0**	**-0.4**
WMQ				S		**Sn**	**19 50 56.7**	**+2.6**
WMQ				pmax		pmax		
	comp=Z,19nm,0.7s							
WUS	**Wushi**	**18.34**	**330**	P		**Pn**	**19 47 28.8**	**-2.7**
KSH2	**Kashi**	**18.74**	**319**	P		**Pn**	**19 47 37.7**	**+1.4**
KSH2				pmax		pmax		
	comp=Z,3.0nm,0.7s							
TARG	**Taragay, Kyrgy**	**19.41**	**329**	P		**P**	**19 47 40.0**	**-3.5**
ASAI	**AK-SAY(Kyrgyzs**	**19.43**	**325**	P		**Pn**	**19 47 44.6**	**-0.3**
	comp=Z,8.4nm,1.3s							
PDGK	**Podgornoye**	**19.98**	**334**	P		**P**	**19 47 46.4**	**-3.1**
BOOM	**Boomskoye usch**	**20.89**	**327**	P		**P**	**19 47 57.9**	**-1.5**
BOOM	**Boomskoye usch**	**20.89**	**327**	P		**P**	**19 48 00.4**	**+1.1**
	comp=Z,6.2nm,1.1s							
DRK	**Karamyk**	**21.26**	**315**	P		**P**	**19

	comp=Z,3.1nm,0.6s							
USRK	**Ussuriysk Ar.**	**37.71**	**50**	P	**P**	**19 50 33.0**	**+0.5**	
KLR	**Kul'dur**	**39.17**	**42**	P	**P**	**19 50 44.3**	**-0.3**	
	comp=Z,1.6nm,0.5s,baz=258,slow=6.5,SNR=4.3							
	comp=Z,1.6nm,0.5s							
JAGI	**Jajag, Banyuwa**	**40.69**	**144**	P	**P**	**19 50 57.3**	**-0.3**	
JAGI				IAmb	IAmb	19 51 01.8		
	comp=Z,17nm,1.1s							
MJB9	**Matsu-Tunnel**	**41.30**	**63**	P	**P**	**19 51 03.1**	**+0.5**	
MJB9				IAmb	IAmb	19 51 15.1		
	comp=Z,20nm,1.2s							
MAJO	**Matsushiro**	**41.30**	**63**	P	**P**	**19 51 02.0**	**-0.6**	
MAJO				IAmb	IAmb	19 51 14.2		
	comp=Z,20nm,1.2s							
MJAR	**Matsushiro Arr**	**41.31**	**63**	P	**P**	**19 51 02.3**	**-0.3**	
	comp=Z,2.2nm,0.8s,baz=279,slow=10.0,SNR=5.8							
	comp=Z,2.2nm,0.8s							
FAKI	**Fak Fak**	**48.90**	**119**	P	**P**	**19 52 03.1**	**-0.1**	
TIXI	**Tiksi**	**50.52**	**15**	P	**P**	**19 52 13.5**	**-1.3**	
TIXI				IAmb	IAmb	19 52 14.6		
	comp=Z,5.3nm,0.5s							
SAUI	**Saumlaki**	**51.42**	**125**	P	**P**	**19 52 20.1**	**-2.2**	
FITZ	**Fitzroy Crossi**	**54.97**	**139**	P	**P**	**19 52 48.1**	**-0.2**	
	comp=Z,2.1nm,0.8s,baz=274,slow=6.2,SNR=3.3							
	comp=Z,2.1nm,0.8s							
MLR	**Muntele Rosu**	**55.06**	**309**	P	**P**	**19 52 48.7**	**-0.2**	
MLR				IAmb	IAmb	19 52 57.3		
	comp=Z,4.8nm,1.0s							
BURAR	**Bucovina Array**	**55.49**	**311**	P	**P**	**19 52 51.2**	**-0.7**	
FINES	**FINESS Array B**	**55.86**	**328**	P	**P**	**19 52 53.2**	**-0.9**	
	comp=Z,1.4nm,0.5s,baz=98,slow=12,SNR=6.9							
	comp=Z,1.4nm,0.5s							
FINES	**FINESS Array B**	**55.86**	**328**	P	**P**	**19 52 52.6**	**-1.5**	
PABE	**Paberze**	**56.37**	**321**	P	**P**	**19 52 56.7**	**-1.1**	
ARCES	**ARCESS Array B**	**57.66**	**338**	P	**P**	**19 53 06.4**	**-0.5**	
	comp=Z,1.0nm,0.4s,baz=66,slow=5.9,SNR=11							
	comp=Z,1.0nm,0.4s							
ARCES	**ARCESS Array B**	**57.66**	**338**	P	**P**	**19 53 06.1**	**-0.8**	
ARCES				IAmb	IAmb	19 53 27.9		
	comp=Z,9.7nm,1.2s							
WB0	**Warramunga Arr**	**61.71**	**133**	P	**P**	**19 53 35.2**	**-0.2**	
WB0				IAmb	IAmb	19 53 55.4		
	comp=Z,8.2nm,1.2s							
WRA	**Warramunga Arr**	**61.80**	**133**	P	**P**	**19 53 36.1**	**0.0**	
	comp=Z,1.6nm,0.7s,baz=325,slow=7.0,SNR=43							
	comp=Z,1.6nm,0.7s							
WRA	**Warramunga Arr**	**61.80**	**133**	P	**P**	**19 53 34.4**	**-1.6**	
WRAB	**Tennant Creek**	**61.80**	**133**	P	**P**	**19 53 35.7**	**-0.4**	
WRAB				IAmb	IAmb	19 53 40.7		
	comp=Z,9.3nm,1.4s							
HFS	**Hagfors**	**61.86**	**326**	P	**P**	**19 53 34.6**	**-1.3**	
	comp=Z,1.3nm,0.5s,baz=85,slow=18,SNR=5.6							
	comp=Z,1.3nm,0.5s							
WR8	**Warramunga Arr**	**61.91**	**133**	P	**P**	**19 53 36.7**	**-0.1**	
WR8				IAmb	IAmb	19 53 46.5		
	comp=Z,7.0nm,1.3s							
NC405	**NORSAR Array S**	**62.77**	**328**	P	**P**	**19 53 41.2**	**-0.8**	
NOA	**NORSAR Array B**	**63.02**	**327**	P	**P**	**19 53 41.8**	**-1.9**	
	comp=Z,1.3nm,0.8s,baz=85,slow=6.7,SNR=3.5							
	comp=Z,1.3nm,0.8s							
GERES	**GERESS Array B**	**63.04**	**314**	P	**P**	**19 53 43.2**	**-0.9**	
	comp=Z,1.1nm,0.7s,baz=78,slow=7.0,SNR=9.8							
	comp=Z,1.1nm,0.7s							
GERES	**GERESS Array B**	**63.04**	**314**	P	**P**	**19 53 43.4**	**-0.8**	
CLL	**Collm**	**63.12**	**316**	*eP*	**P**	**19 53 43.0**	**-1.5**	
AS31	**Alice Springs**	**64.20**	**136**	P	**P**	**19 53 51.7**	**-0.3**	
AS31				IAmb	IAmb	19 53 53.0		
	comp=Z,1.1nm,0.5s							
ASAR	**Alice Springs**	**64.20**	**136**	P	**P**	**19 53 52.4**	**+0.4**	
	comp=Z,2.1nm,0.5s,baz=314,slow=6.4,SNR=53							
	comp=Z,2.1nm,0.5s							
ASAR	**Alice Springs**	**64.20**	**136**	P	**P**	**19 53 52.3**	**+0.3**	
NRCA	**Norcia**	**64.55**	**307**	P	**P**	**19 53 53.1**	**-1.0**	
NRCA				IAmb	IAmb	19 54 02.8		
	comp=Z,6.0nm,1.2s							
FORT	**Forrest**	**66.36**	**146**	P	**P**	**19 54 05.8**	**+0.1**	
EKA	**Eskdalemuir Ar**	**71.61**	**323**	P	**P**	**19 54 37.3**	**-0.9**	
	comp=Z,0.8nm,0.5s,baz=56,slow=7.4,SNR=3.8							
	comp=Z,0.8nm,0.5s							
BBOO	**Buckleboo**	**72.22**	**141**	P	**P**	**19 54 41.6**	**-0.5**	
F15K	**North Star Dit**	**72.43**	**25**	P	**P**	**19 54 42.5**	**-0.4**	
F17K	**Baldwin Pennin**	**73.38**	**24**	P	**P**	**19 54 48.7**	**+0.2**	
D20K	**Etivluk River**	**73.88**	**21**	P	**P**	**19 54 51.8**	**+0.3**	
D20K				IAmb	IAmb	19 55 31.7		
	comp=Z,8.7nm,1.3s							
F19K	**Shaleruckik Mo**	**74.42**	**23**	P	**P**	**19 54 53.9**	**-0.7**	
F19K				IAmb	IAmb	19 54 54.6		
	comp=Z,4.7nm,1.1s							
STKA	**Stephens Creek**	**74.81**	**137**	P	**P**	**19 54 56.2**	**-1.1**	
	comp=Z,2.0nm,0.7s,baz=316,slow=7.3,SNR=6.1							
	comp=Z,2.0nm,0.7s							
STKA	**Stephens Creek**	**74.81**	**137**	P	**P**	**19 54 57.1**	**-0.3**	
D22K	**Ayikyak River**	**75.02**	**20**	P	**P**	**19 54 58.0**	**-0.1**	
D22K				IAmb	IAmb	19 55 22.1		
	comp=Z,6.1nm,1.2s							
L14K	**Kuka Creek**	**75.07**	**29**	P	**P**	**19 54 58.7**	**+0.2**	
G21K	**Allakaket**	**76.05**	**22**	P	**P**	**19 55 03.5**	**-0.5**	
G21K				IAmb	IAmb	19 55 04.8		
	comp=Z,1.6nm,0.8s							
J18K	**Innoko River**	**76.50**	**25**	P	**P**	**19 55 06.3**	**-0.3**	
J18K				IAmb	IAmb	19 55 11.8		
	comp=Z,4.3nm,1.1s							
J19K	**Poorman**	**76.64**	**25**	P	**P**	**19 55 07.3**	**-0.2**	
J19K				IAmb	IAmb	19 55 09.1		
	comp=Z,3.5nm,1.0s							
BPAW	**Bear Paw Mtn.**	**78.28**	**23**	P	**P**	**19 55 16.6**	**-0.1**	
BPAW				IAmb	IAmb	19 55 24.9		
	comp=Z,5.7nm,1.2s							
BMAR	**Burnt Mountain**	**78.31**	**19**	P	**P**	**19 55 17.4**	**+0.6**	
E28M	**Babbage River**	**78.92**	**17**	P	**P**	**19 55 19.9**	**-0.2**	
ILAR	**Eielson Array**	**79.29**	**22**	P	**P**	**19 55 21.4**	**-0.8**	
	comp=Z,0.8nm,0.8s,baz=295,slow=5.1,SNR=8.5							
	comp=Z,0.8nm,0.8s							
SKT	**Skwentna**	**79.31**	**25**	P	**P**	**19 55 21.8**	**-0.6**	
SKT				IAmb	IAmb	19 55 52.2		
	comp=Z,7.3nm,1.1s							
BOSA	**Boshof**	**83.24**	**234**	P	**P**	**19 55 42.9**	**-0.9**	
	comp=Z,2.5nm,1.0s,baz=25,slow=5.1,SNR=4.0							
	comp=Z,2.5nm,1.0s							
TXAR	**Lajitas Array**	**123.42**	**16**	PKP	**PKPdf**	**20 02 14.1**	**-0.7**	
	comp=Z,2.2nm,0.5s,baz=100,slow=3.7,SNR=4.3							
ROSC	**El Rosal**	**146.51**	**333**	PKPbc	**PKPbc**	**20 02 60.0**	**+0.4**	
	comp=Z,8.3nm,0.4s,baz=114,slow=10.0,SNR=5.8							
ROSC	**El Rosal**	**146.51**	**333**		**PKPbc**	**20 02 59.4**	**-0.2**	
CPUP	**Villa Florida**	**151.74**	**262**	PKPbc	**PKPbc**	**20 03 09.8**	**-2.2**	
	comp=Z,0.6nm,0.4s,baz=133,slow=4.2,SNR=4.2							

*ATH **02** 19:46:34.8, 37.76N×27.12E, h6km±2km, ML3.0/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **02** 19:46:35.5, 37.75N×27.09E, h13km±1km, ML2.9*
*ISK **02** 19:46:35.4, 37.74N×27.04E, h8km, ML3.1/21*
*THE **02** 19:46:36.1, 38.N±15.×2.7E±1.°1, h0km±12km, M3.1/5, MLh3.1/5*

ISC 02 19:46:35.8±0.8, 37.75N±0.02×27.07E±0.02, h14km±6km, n42, σ0s52/61, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcami?**	**0.14**	**109**	P	**Pg**	**19 46 39.2**	**-0.2**
GCAM				S	**Sg**	**19 46 41.9**	**0.0**
GCAM				IAML		19 46 43.0	
	comp=N,5μm,0.3s						
GCAM				IAML		19 46 43.0	
	comp=E,5μm,0.2s						
GCAM	**G?zelcami?**	**0.14**	**109**	Pg	**Pg**	**19 46 39.1**	**-0.3**
GCAM				Sg	**Sg**	**19 46 41.9**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.21**	**57**	Pg	**Pg**	**19 46 40.4**	**-0.1**
KUSD				Sg	**Sg**	**19 46 44.2**	**+0.5**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.29**	**280**	P	**Pg**	**19 46 41.3**	**-0.6**
KRL1				S	**Sg**	**19 46 45.9**	**-0.1**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**154**	P	**Pg**	**19 46 42.5**	**+0.1**
DDIM				S	**Sg**	**19 46 47.2**	**+0.3**
DDIM				IAML		19 46 48.0	
	comp=N,3μm,0.6s						
DDIM				IAML		19 46 49.0	
	comp=E,2μm,0.5s						
DGB	**zmir**	**0.34**	**335**	P	**Pg**	**19 46 42.7**	**0.0**
DGB				S	**Sg**	**19 46 47.2**	**-0.1**
DGB				IAML		19 46 48.0	
	comp=N,569nm,0.2s						
DGB				IAML		19 46 48.0	
	comp=E,819nm,0.2s						
GMLD	**Gumuldur**	**0.35**	**340**	Pg	**Pg**	**19 46 42.4**	**-0.5**
GMLD				Sg	**Sb**	**19 46 48.4**	**-0.8**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**159**	Pg	**Pg**	**19 46 43.3**	**-0.4**
DIDI				Sg	**Sb**	**19 46 49.9**	**-0.6**
DIDI				AML	AML		
BLCB	**Balcova**	**0.64**	**358**	P	**Pg**	**19 46 48.1**	**-0.2**
BLCB				S	**Sb**	**19 46 57.2**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.64**	**358**	Pg	**Pg**	**19 46 48.2**	**-0.5**
BLCB				Sg	**Sb**	**19 46 57.8**	**+0.3**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.65**	**165**	Pg	**Pg**	**19 46 47.8**	**-0.6**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.65**	**97**	P	**Pb**	**19 46 48.7**	**-0.3**
AYDN				S	**Sb**	**19 46 57.3**	**-0.7**
AYDN				IAML		19 47 01.0	
	comp=E,646nm,0.3s						
AYDN				IAML		19 47 03.0	
	comp=N,459nm,0.3s						
ZEYE	**İzmir, Urla-Ze**	**0.66**	**318**	P	**Pg**	**19 46 46.5**	**-2.2**
ZEYE				S	**Sb**	**19 46 58.2**	**0.0**
AYDB	**Zeytinkoy-Aydi**	**0.68**	**73**	Pg	**Pb**	**19 46 49.5**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.71**	**164**	Pg	**Pg**	**19 46 49.4**	**-0.3**
BODT				AML	AML		
MLSB	**Milas**	**0.72**	**128**	Pg	**Pb**	**19 46 50.3**	**+0.1**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.79**	**185**	P	**Pg**	**19 46 50.6**	**-0.6**
KLNA				S	**Sg**	**19 47 01.5**	**-0.1**
IZMR	**zmir-demi**	**0.80**	**61**	P	**Pn**	**19 46 52.8**	**+0.2**
IZMR				S	**Sb**	**19 47 01.6**	**-0.7**
CESE	**eme**	**0.84**	**314**	Pg	**Pg**	**19 46 51.8**	**-0.3**
CESE				AML	AML		
BAGT	**Foa**	**0.92**	**350**	P	**Pb**	**19 46 53.6**	**0.0**
BAGT				S	**Sn**	**19 47 07.0**	**-0.4**
BAGT				IAML		19 47 09.0	
	comp=N,1μm,0.5s						
BAGT				IAML		19 47 09.0	
	comp=E,896nm,0.6s						
KRBN	**Karaburun**	**0.94**	**335**	Pg	**Pb**	**19 46 53.9**	**+0.1**
KRBN				AML	AML		
NAZL	**Nazilli-Aydin**	**0.99**	**77**	Pg	**Pn**	**19 46 55.5**	**+0.1**
NAZL				AML	AML		
FOCM	**Foa**	**1.00**	**345**	Pg	**Pb**	**19 46 54.9**	**0.0**
FOCM				AML	AML		
ESEN	**Aydn-Nazilli**	**1.02**	**87**	P	**Pn**	**19 46 55.9**	**+0.3**
ESEN				S	**Sn**	**19 47 10.4**	**+0.6**
CHOS	**Chios island**	**1.02**	**309**	P	**Pg**	**19 46 55.2**	**-0.4**
CHOS				S	**Sb**	**19 47 09.8**	**+1.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**309**	Pg	**Pb**	**19 46 55.5**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**309**	P	**Pb**	**19 46 55.4**	**+0.1**
CHOS				S	**Sb**	**19 47 09.4**	**+0.7**
CHOS				AML	AML		
EAG2	**Marmaro, Chios**	**1.10**	**317**	P	**Pg**	**19 46 56.3**	**-0.7**
EAG2				S	**Sb**	**19 47 11.2**	**+0.5**
KIRA	**zmir-Kiraz**	**1.15**	**67**	S	**Sb**	**19 47 12.5**	**+0.3**
GOMA	**Golmarmara-Man**	**1.17**	**35**	Pn	**Pn**	**19 46 58.5**	**+0.7**
GOMA				AML	AML		
AKS	**Akhisar**	**1.27**	**27**	Pn	**Pg**	**19 47 00.2**	**-0.1**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.33**	**206**	P	**Pn**	**19 46 59.7**	**-0.2**
ASTA				AML	AML		
DKL	**Dikili**	**1.33**	**355**	Pn	**Pb**	**19 47 00.6**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.33**	**355**	P	**Pn**	**19 47 00.2**	**+0.3**
APE	**Apeiranthos**	**1.40**	**241**	P	**Pb**	**19 47 01.9**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.40**	**241**	P	**Pn**	**19 47 01.8**	**+0.8**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**37**	Pn	**Pb**	**19 47 02.7**	**0.0**
GORD				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**15**	Pn	**Pb**	**19 47 02.7**	**0.0**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.62**	**338**	P	**Pb**	**19 47 05.5**	**+0.1**
ARG	**Arkhangelos**	**1.75**	**151**	P	**Pn**	**19 47 05.5**	**-0.2**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.88**	**223**	P	**Pn**	**19 47 08.0**	**+0.6**
THERA				AML	AML		
KARP	**Karpathos**	**2.20**	**178**	P	**Pn**	**19 47 12.6**	**+0.7**
KARP				AML	AML		

THE 02 20:03:20.8, 38.N±53.×2.7E±6.°0, h11km±35km, M2.8/4, MLh2.8/4, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BLCB	**Balcova**	**0.51**	**16**	P	Pg	20 03 30.6	-0.2
BLCB				AML	AML		
CHOS	**Chios island**	**0.81**	**308**	P	Pg	20 03 36.6	+0.2
CHOS				AML	AML		
BODT	**Bodrum**	**0.90**	**157**	P	Pg	20 03 38.1	-0.1
APE	**Apeiranthos**	**1.34**	**233**	P	Pn	20 03 44.4	-1.1

*ISK **02** 20:03:28.8, 37.73N×26.98E, h6km, ML2.9/11*
*AFAD **02** 20:03:29.9, 37.71N×27.06E, h7km±4km, ML2.3*

ISC 02 20:03:29.0±1.0, 37.73N±0.03×26.97E±0.04, h13km±7km, n21, σ0s54/34, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcami?**	**0.21**	**98**	P	**Pg**	**20 03 33.9**	**+0.3**
GCAM				S	**Sg**	**20 03 36.4**	**-0.3**
GCAM				IAML		20 03 37.0	
	comp=E,2μm,0.5s						
GCAM				IAML		20 03 37.0	
	comp=N,1μm,0.2s						
GCAM	**G?zelcami?**	**0.21**	**98**	Pg	**Pg**	**20 03 33.7**	**+0.1**
GCAM				Sg	**Sg**	**20 03 36.6**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**62**	Pg	**Pg**	**20 03 34.8**	**-0.1**
KUSD				Sg	**Sg**	**20 03 38.8**	**-0.1**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.34**	**142**	P	**Pg**	**20 03 36.3**	**+0.3**
DDIM				IAML		20 03 41.0	
	comp=E,832nm,0.3s						
DDIM				S	**Sg**	**20 03 41.0**	**+0.3**
DDIM				IAML		20 03 43.0	
	comp=N,881nm,0.5s						
BODT	**Bodrum**	**0.72**	**158**	Pg	**Pb**	**20 03 43.1**	**-0.3**
BODT				Sg	**Sb**	**20 03 53.3**	**+0.2**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.72**	**95**	P	Pg	20 03 37.8	-5.3
AYDN				S	**Sg**	**20 03 50.8**	**-1.7**
AYDN				IAML		20 03 53.0	
	comp=E,140nm,0.3s						
AYDN				IAML		20 04 00.0	
	comp=N,135nm,0.4s						
AYDB	**Zeytinkoy-Aydi**	**0.76**	**73**	Pg	**Pg**	**20 03 44.2**	**+0.4**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.76**	**150**	P	**Pn**	**20 03 44.9**	**-0.5**
BDRM				S	**Sg**	**20 03 53.6**	**-0.2**
BDRM				IAML		20 03 57.0	
	comp=E,208nm,0.3s						
BDRM				IAML		20 03 58.0	
	comp=N,359nm,0.3s						
MLSB	**Milas**	**0.77**	**124**	Pg	**Pb**	**20 03 44.4**	**+0.1**
MLSB				Sg	**Sg**	**20 03 54.1**	**0.0**
MLSB				AML	AML		
KRBN	**Karaburun**	**0.92**	**339**	Pg	**Pg**	**20 03 46.8**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.93**	**354**	P	**Pn**	**20 03 48.0**	**+0.2**
BAGT				S	**Sn**	**20 04 01.4**	**+0.6**
BAGT				IAML		20 04 03.0	
	comp=N,359nm,0.5s						
BAGT				IAML		20 04 04.0	
	comp=E,410nm,0.4s						
CHOS	**Chios island**	**0.98**	**312**	Pg	**Pg**	**20 03 47.7**	**-0.2**
CHOS				AML	AML		
FOCM	**Foa**	**1.00**	**349**	Pg	**Pb**	**20 03 48.6**	**+0.4**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.07**	**77**	Pg	**Pb**	**20 03 49.8**	**+0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.09**	**86**	P	**Pg**	**20 03 50.2**	**+0.1**
ESEN				S	**Sb**	**20 04 02.5**	**-1.3**
ESEN				IAML		20 04 07.0	
	comp=N,37nm,0.3s						
ESEN				IAML		20 04 07.0	
	comp=E,37nm,0.4s						
DAT	**Datca**	**1.11**	**154**	P	**Pn**	**20 03 51.0**	**+0.7**
DAT				S	**Sn**	**20 04 05.1**	**-0.4**
DAT				IAML		20 04 08.0	
	comp=E,53nm,0.3s						
DAT				IAML		20 04 11.0	
	comp=N,72nm,0.2s						
YAZI	**Mula-Dat§a-**	**1.11**	**160**	P	**Pb**	**20 03 49.8**	**-0.3**
YAZI				S	**Sn**	**20 04 05.0**	**-0.4**
YAZI				IAML		20 04 08.0	
	comp=E,63nm,0.6s						
YAZI				IAML		20 04 15.0	
	comp=N,25nm,0.3s						
GOMA	**Golmarmara-Man**	**1.23**	**37**	Pn	**Pg**	**20 03 52.7**	**+0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.34**	**358**	Pn	**Pg**	**20 03 54.7**	**-0.1**
DKL				AML	AML		
TURN	**Turunc**	**1.39**	**133**	P	**Pg**	**20 03 55.9**	**+0.1**
TURN				S	**Sb**	**20 04 12.9**	**+0.4**
TURN				IAML		20 04 18.0	
	comp=N,75nm,0.4s						
TURN				IAML		20 04 19.0	
	comp=E,55nm,0.4s						
DALY	**Dalyan (Mula)**	**1.62**	**124**	P	**Pg**	**20 04 00.3**	**+0.2**
DALY				S	**Sg**	**20 04 22.1**	**+1.0**
DALY				IAML		20 04 27.0	
	comp=E,40nm,0.6s						
DALY				IAML		20 04 28.0	
	comp=N,48nm,1.0s						

*NNC **02** 20:10:13.1±3.5, 38.°95N×75.°62E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=25.5km s-min=14.3km az=164.0*
*SOME **02** 20:10:13.8, 39.°03N×75.°58E, h15km*
*KRNET **02** 20:10:20.5±0.1, 39.°12N×76.°00E, mb3.6*

ISC 02 20:10:25.0±2.4, 39.°41N±0.°07×75.°87E±0.°04, h3km±14km, n37, σ2s05/64, 27C-16D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SFK	**Sufi-Kurgan**	**1.92**	**289**	↑*iP*	**Pn**	**20 10 59.7**	**+0.8**
SFK				↑*iS*	**Sg**	**20 11 28.1**	**+1.3**
NRN	**Naryn**	**2.03**	**3**	↑*iP*	**Pb**	**20 11 02.1**	**-0.6**
NRN				↑*iS*	**Sg**	**20 11 32.4**	**+2.3**
SALK	**Salom-Alik**	**2.15**	**314**	↑*iP*	**Pb**	**20 11 03.6**	**-1.2**
SALK				↑*iS*	**Sg**	**20 11 35.4**	**+1.2**
OHH	**Osh**	**2.62**	**296**	↓*iP*	**Pn**	**20 11 09.5**	**+1.2**
OHH				↓*iS*	**Sb**	**20 11 45.2**	**0.0**
TARG	**Taragay, Kyrgy**	**2.75**	**32**	↓*iP*	**Pn**	**20 11 11.2**	**+0.8**
TARG				↓*iS*	**Sb**	**20 11 48.0**	**-1.3**
ULHL	**Ulahol**	**2.85**	**6**	↓*iP*	**Pn**	**20 11 13.5**	**+1.9**
ULHL				↓*iS*	**Sb**	**20 11 52.2**	**+0.2**
ARSB	**Arslanbob**	**2.92**	**312**	↑*eP*	**Pn**	**20 11 14.5**	**+2.0**
ARSB				↑*eS*	**Sb**	**20 11 53.8**	**-0.2**
UCH	**Uchtor**	**3.00**	**340**	↓*iP*	**Pn**	**20 11 16.1**	**+2.2**
UCH				↓*iS*	**Sb**	**20 11 56.8**	**+0.3**
DRK	**Karamyk**	**3.15**	**273**	↑*iP*	**Pn**	**20 11 15.6**	**-0.2**
DRK				↑*iS*	**Sn**	**20 11 55.8**	**+1.7**
KBK	**Karagaybulak**	**3.32**	**348**	↑*iP*	**Pn**	**20 11 20.3**	**+2.3**
KBK				↑*iS*	**Sb**	**20 12 04.1**	**-1.4**
AAK	**Ala-Archa**	**3.39**	**343**	↑Pg	**Pb**	**20 11 23.8**	**-2.0**
	7.7nm,0.8s						
AAK				↑Lg	Lg	20 12 12.6	
	6.4nm,0.7s						
AAK	**Ala-Archa**	**3.39**	**343**	↓*iP*	**Pn**	**20 11 21.4**	**+2.4**
AAK				↓*iS*	**Sb**	**20 12 05.8**	**-1.7**
TKM2	**Tokmak 2**	**3.52**	**357**	↓*iP*	**Pn**	**20 11 23.1**	**+2.3**
TKM2				↓*iS*	**Sb**	**20 12 08.6**	**-2.6**
EKS2	**Erkin-Say**	**3.62**	**335**	↑*iP*	**Pn**	**20 11 24.4**	**+2.4**
EKS2				↑*iS*	**Sb**	**20 12 11.1**	**-2.8**
PRZ	**Przheval'sk**	**3.62**	**31**	↑*iP*	**Pn**	**20 11 23.3**	**+1.1**
PRZ				↑*iS*	**Sn**	**20 12 09.1**	**+3.6**
KST	**Kastek**	**3.63**	**1**	Pg	**Pb**	**20 11 28.8**	**-1.1**
	3.3nm,0.3s						
KST				Lg	Lg	20 12 22.9	
	12nm,0.3s						
KST	**Kastek**	**3.63**	**1**	*eP*	**Pb**	**20 11 28.8**	**-1.1**
	3.3nm,0.3s						
KST				*eS*	**Sg**	**20 12 22.9**	**+1.2**
	12nm,0.3s						
ANVS	**Anan'yevo**	**3.64**	**21**	↑*eP*	**Pn**	**20 11 23.8**	**+1.4**
ANVS				↑*eS*	**Sb**	**20 12 10.3**	**-4.3**
CHMS	**Chumysh**	**3.69**	**347**	↑*iP*	**Pn**	**20 11 25.3**	**+2.4**
CHMS				↑*iS*	**Sb**	**20 12 12.7**	**-3.2**
TNSS	**Tian-Shan**	**3.72**	**12**	Pg	**Pb**	**20 11 29.4**	**-2.1**
	1.6nm,0.3s						
TNSS				Lg	Lg	20 12 23.8	
	1.7nm,0.6s						
TNSS	**Tian-Shan**	**3.72**	**12**	*eP*	**Pb**	**20 11 29.4**	**-2.1**
	1.6nm,0.3s						
TNSS				*eS*	**Sg**	**20 12 23.8**	**-0.6**
	1.7nm,0.6s						
ARK	**Arkit**	**3.81**	**310**	↑*iP*	**Pn**	**20 11 26.6**	**+1.9**
ARK				↑*iS*	**Sb**	**20 12 15.0**	**-4.6**
MRKS	**Merke**	**3.89**	**330**	Pg	**Pn**	**20 11 27.6**	**+1.9**
	1.1nm,0.1s						
MRKS				Lg	Lg	20 12 20.8	
	8.7nm,0.6s						
MRKS	**Merke**	**3.89**	**330**	*eP*	**Pn**	**20 11 27.6**	**+1.9**
	1.1nm,0.1s						
MRKS				*eS*	**Sb**	**20 12 20.8**	**-0.9**
	8.7nm,0.6s						
BTK	**Batken**	**3.95**	**281**	↓*iP*	**Pn**	**20 11 27.1**	**+0.5**
BTK				↓*iS*	**S

GCAM S **Sg** **20 13 09.0 +0.2**
GCAM G?zelcaml? 0.14 99 Pg **Pg** **20 13 06.2 -0.2**
GCAM Sg **Sg** **20 13 09.1 +0.2**
GCAM AML AML
KUSD Kusadasi-Aydin 0.23 53 Pg **Pg** **20 13 07.6 -0.1**
KUSD Sg **Sg** **20 13 10.9 -0.3**
KUSD AML AML
KRL1 Karlovasi Samo 0.28 285 P **Pg** **20 13 08.1 -0.6**
KRL1 S **Sg** **20 13 12.5 -0.2**
KRL1 AML AML
DDIM Aydin, Didim 0.30 151 P **Pg** **20 13 09.1 +0.2**
DDIM IAML 20 13 14.0
comp=N,3µm,0.5s
DDIM IAML 20 13 14.0
comp=E,2µm,0.3s
DDIM S **Sb** **20 13 14.1 -0.5**
DGB zmir 0.36 338 P **Pg** **20 13 09.5 -0.4**
DGB IAML 20 13 14.0
comp=N,794nm,0.7s
DGB S **Sg** **20 13 14.1 -0.7**
DGB IAML 20 13 15.0
comp=E,923nm,0.2s
GMLD Gumuldur 0.37 343 Pg **Pg** **20 13 10.2 +0.1**
GMLD Sg **Sg** **20 13 15.1 -0.2**
GMLD AML AML
DIDI Didim-Aydin 0.38 157 Pg **Pg** **20 13 10.0 -0.2**
DIDI Sg **Sb** **20 13 16.9 +0.3**
DIDI AML AML
BEYE izmir 0.51 349 P **Pg** **20 13 12.5 -0.3**
BEYE S **Sg** **20 13 19.4 -0.3**
BEYE IAML 20 13 23.0
comp=E,2µm,0.4s
BEYE IAML 20 13 24.0
comp=N,1µm,0.2s
DUVT Torbali 0.59 32 P **Pg** **20 13 13.8 -0.4**
DUVT S **Sg** **20 13 20.9 -1.0**
DUVT IAML 20 13 26.0
comp=E,1µm,0.4s
DAGE izmir 0.62 63 P **Pb** **20 13 15.7 +0.5**
DAGE S **Sg** **20 13 22.0 -1.0**
DAGE IAML 20 13 27.0
comp=E,1µm,0.2s
YKAV Yalikavak-Bodr 0.62 163 Pg **Pb** **20 13 15.1 -0.1**
YKAV AML AML
AYDN Tasoluk 0.66 95 P **Pb** **20 13 15.5 -0.3**
AYDN S **Sg** **20 13 23.8 -0.4**
AYDN IAML 20 13 26.0
comp=E,640nm,0.3s
AYDN IAML 20 13 26.0
comp=N,580nm,0.2s
BLCB Balcova 0.66 359 P **Pg** **20 13 15.2 -0.4**
BLCB S **Sg** **20 13 24.3 -0.1**
BLCB AML AML
BLCB Balcova 0.66 359 Pg **Pg** **20 13 15.1 -0.4**
BLCB AML AML
ZEYE Izmir, Urla-Ze 0.68 320 P **Pg** **20 13 15.3 -0.5**
ZEYE S **Sg** **20 13 24.2 -0.5**
ZEYE IAML 20 13 27.0
comp=N,1µm,0.4s
ZEYE IAML 20 13 28.0
comp=E,974nm,0.7s
BODT Bodrum 0.69 163 P **Pg** **20 13 15.7 -0.4**
BODT S **Sb** **20 13 25.9 +0.2**
BODT Bodrum 0.69 163 Pg **Pg** **20 13 16.0 -0.1**
BODT AML AML
AYDB Zeytinkoy-Aydi 0.70 71 Pg **Pb** **20 13 16.6 0.0**
AYDB AML AML
MLSB Milas 0.71 126 Pg **Pb** **20 13 16.6 -0.2**
MLSB AML AML
BDRM Kayabasi 0.73 155 P **Pg** **20 13 16.3 -0.4**
BDRM S **Sg** **20 13 26.3 -0.1**
BDRM IAML 20 13 27.0
comp=E,632nm,0.3s
BDRM IAML 20 13 30.0
comp=N,1µm,0.3s
KLNA Kalymnos 0.77 185 P **Pg** **20 13 17.4 -0.2**
KLNA S **Sg** **20 13 27.8 +0.2**
KLNA AML AML
IZMR zmir-demi 0.82 60 P **Pg** **20 13 18.2 -0.3**
IZMR P **Pb** **20 13 19.2 +0.6**
IZMR S **Sg** **20 13 27.4 -1.9**
IZMR IAML 20 13 30.0
comp=E,329nm,0.4s
IZMR IAML 20 13 32.0
comp=N,334nm,0.6s
CESE eme 0.85 316 Pg **Pg** **20 13 17.9 -1.2**
CESE AML AML
BAGT Foa 0.94 350 P **Pb** **20 13 20.8 0.0**
BAGT S **Sb** **20 13 33.7 +0.6**
BAGT IAML 20 13 36.0
comp=E,1µm,0.4s
BAGT IAML 20 13 36.0
comp=N,1µm,0.6s
KRBN Karaburun 0.95 336 Pg **Pb** **20 13 21.4 +0.5**
KRBN AML AML
NAZL Nazilli-Aydin 1.01 76 Pg **Pn** **20 13 22.4 +0.1**
NAZL AML AML
FOCM Foa 1.02 346 Pg **Pb** **20 13 22.2 +0.2**
FOCM AML AML
ESEN Aydn-Nazilli 1.03 85 P **Pn** **20 13 22.7 +0.2**
ESEN S **Sn** **20 13 37.1 +0.4**
ESEN IAML 20 13 39.0
comp=N,156nm,0.9s
ESEN IAML 20 13 39.0
comp=E,140nm,0.4s
CHOS Chios island 1.03 310 P **Pb** **20 13 22.4 +0.1**
CHOS S **Sb** **20 13 36.7 +1.1**
CHOS AML AML
CHOS Chios island 1.03 310 Pg **Pb** **20 13 22.6 +0.4**
CHOS AML AML
CHOS Chios island 1.03 310 P **Pg** **20 13 22.0 -0.5**
CHOS S **Sb** **20 13 36.0 +0.4**
CHOS AML AML
CAMT Merkez 1.04 11 P **Pb** **20 13 22.5 +0.1**
CAMT S **Sn** **20 13 38.1 +0.9**
CAMT IAML 20 13 41.0
comp=E,2µm,0.7s
CAMT IAML 20 13 42.0
comp=N,1µm,0.6s
KARB zmir-Karabur 1.07 332 P **Pg** **20 13 22.9 -0.4**
DAT Datca 1.08 157 P **Pn** **20 13 24.1 +0.8**
DAT S **Sg** **20 13 37.3 -0.2**
DAT IAML 20 13 43.0
comp=E,231nm,0.7s
YAZI Mula-Datşa- 1.09 163 P **Pg** **20 13 23.2 -0.4**
EAG2 Marmaro, Chios 1.11 318 P **Pb** **20 13 23.6 +0.1**
EAG2 S **Sg** **20 13 38.0 -0.5**
MULA Mugla, Merkez- 1.11 114 P **Pn** **20 13 24.3 +0.6**
MULA S **Sg** **20 13 37.5 -1.0**
MULA IAML 20 13 41.0
comp=N,271nm,0.6s
MULA IAML 20 13 41.0
comp=E,306nm,0.8s
YER Yerkesik 1.14 121 P **Pb** **20 13 24.2 +0.1**
KIRA zmir-Kiraz 1.16 66 P **Pb** **20 13 24.5 0.0**
KIRA S **Sn** **20 13 40.4 +0.2**
KIRA IAML 20 13 44.0
comp=E,209nm,0.6s
KIRA IAML 20 13 44.0
comp=N,257nm,0.3s
GOMA Golmarmara-Man 1.20 34 Pn **Pg** **20 13 25.6 -0.1**
GOMA AML AML
AKS Akhisar 1.30 27 Pn **Pg** **20 13 27.6 0.0**
AKS AML AML
ASTA Astypalaia 1.30 206 P **Pn** **20 13 26.0 -0.3**
DKL Dikili 1.35 355 Pn **Pg** **20 13 28.4 -0.2**
DKL AML AML
DKL Dikili 1.35 355 P **Pn** **20 13 27.0 +0.1**
APE Apeiranthos 1.38 242 P **Pb** **20 13 28.2 +0.1**
APE Apeiranthos 1.38 242 P **Pn** **20 13 27.4 0.0**
APE AML AML
GORD Gordes-Manisa 1.48 36 Pn **Pg** **20 13 30.4 -0.6**
GORD AML AML
SOMA Soma-Manisa 1.48 15 Pn **Pb** **20 13 30.2 +0.3**
SOMA AML AML
PRK Paraskevi 1.64 338 P **Pn** **20 13 30.2 -0.8**
ARG Arkhangelos 1.73 150 P **Pn** **20 13 31.9 -0.3**
ARG AML AML
THERA Ancient Thera, 1.85 224 P **Pn** **20 13 33.6 -0.2**
SAP3 Santorini-Thir 1.88 227 P **Pn** **20 13 33.9 -0.3**
KARY Karystos 2.09 279 P **Pn** **20 13 36.9 -0.3**
KARP Karpathos 2.17 178 P **Pn** **20 13 38.1 -0.3**

DION Dionisos Attik 2.50 279 P **Pn** **20 13 42.5 -0.2**
PTL Penteli 2.54 278 P **Pn** **20 13 43.6 +0.2**
VLY Voula,Athens 2.59 274 P **Pn** **20 13 43.9 -0.1**
ATHU Athens Univers 2.60 276 P **Pn** **20 13 44.2 0.0**
LIA Limnos Island 2.62 327 P **Pn** **20 13 45.1 +0.8**
LIA AML AML
ZKR Zakros 2.69 195 P **Pn** **20 13 44.6 -0.8**
STFN Stefani 2.81 280 P **Pn** **20 13 47.5 +0.4**
AOS2 Alonissos-2 2.90 300 P **Pn** **20 13 48.4 +0.2**
MET2 Kameni Chora, 2.96 269 P **Pn** **20 13 49.9 +0.8**
SMTH Samothraki Isl 2.99 337 P **Pn** **20 13 49.6 +0.1**
IDI Anoyia 2.99 216 P **Pn** **20 13 50.3 +0.7**
VIL2 Platees 3.03 280 P **Pn** **20 13 49.7 -0.4**
THAS Thassos island 3.40 328 P **Pn** **20 13 54.8 -0.3**
KLV Kalavryta, Ach 3.89 276 P **Pn** **20 14 02.5 +0.5**

NEIC ***02*** *20:18:17.6± 1.2, 43.˚88N± 0.˚06 × 141.˚8E± 0.˚1, h203km± 5km, mb4.2/38, Error ellipse: s-maj=14.2km s-min=8.5km az=101.0*
MOS ***02*** *20:18:17.1± 0.8, 43.˚85N × 141.˚86E, h218km, mb4.5/30, Error ellipse: s-maj=8.4km s-min=5.5km az=112.6*
GFZ ***02*** *20:18:17.7± 0.2, 44.˚1N ± 3.˚3 × 14.˚2E ± .˚, h205km, M4.2/36, mb4.2/36, confirmed*
IDC ***02*** *20:18:18.0± 0.4, 43.˚95N × 141.˚87E, h207km± 3km, mb4.0/25, mbtmp4.5/34, Error ellipse: s-maj=12.3km s-min=10.1km az=158.0*
JMA ***02*** *20:18:18.1± 0.2, 43.˚8N± 0.˚8 × 14.˚2E ± .˚, h214km± 1km, MV3.8/39, KAMIKAWA-SORACHI REGION*
SKHL ***02*** *20:18:18.4± 0.2, 43.˚90N × 142.˚00E, h200km± 5km, mb4.6/6, msha5.3/5*
NIED ***02*** *20:18:18.1, 43.˚81N × 141.˚95E, h214km, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.49; $M_{\theta\theta}$1.06; $M_{\phi\phi}$-1.55; $M_{r\theta}$1.00; $M_{r\phi}$-0.47; $M_{\theta\phi}$1.26; Fault plane solution: $M_0$2.12000×10^{15} NP1: ϕ_s146.00000°, δ37.00000°, λ14.00000°. NP2:ϕ_s45.00000°, δ82.00000°, λ126.00000°.*

ISC 02 20:18:17.9± 0.4, 43.˚81N± 0.˚04 × 141.˚92E± 0.˚04, h215km± 3km, n324, σ1↑00/359, mb4.2/112, 16C-33D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		h m s	ISC
JHR	**Hokuryu**	**0.15**	**244**	P	**Pn**	**20 18 46.5**	**+0.6**
JHR				S	**S**	**20 19 08.0**	**+0.3**
JAB	**Ashibetsu**	**0.38**	**144**	*i* P	**Pn**	**20 18 46.8**	**+0.4**
JAB				S	**S**	**20 19 08.6**	**+0.1**
ASAJ	**Asahikawa**	**0.58**	**58**	P	**Pn**	**20 18 46.9**	**-0.1**
	170nm,0.3s,baz=234,slow=9.0,SNR=701						
ASAJ				S	**S**	**20 19 08.8**	**-0.9**
	219nm,0.7s,baz=18,slow=30,SNR=37						
ASAJ	**Asahikawa**	**0.58**	**58**	*i* P	**Pn**	**20 18 47.0**	**0.0**
ASAJ				S	**S**	**20 19 08.8**	**-0.9**
JKA	**Kamikawa-asahi**	**0.58**	**58**		**Pn**	**20 18 46.1**	**-0.9**
JKA				Sn	**S**	**20 19 06.1**	**-3.6**
JKA	**Kamikawa-asahi**	**0.58**	**58**	*e*P	**Pn**	**20 18 46.9**	**-0.1**
JKA	**Kamikawa-asahi**	**0.58**	**58**	P	**Pn**	**20 18 47.1**	**+0.2**
JKA				S	**S**	**20 19 08.3**	**-1.3**
JSS	**Shosan**	**0.59**	**356**	⇓*i* P	**Pn**	**20 18 47.5**	**+0.5**
JSS				⇓S	**S**	**20 19 09.6**	**-0.2**
JKK2	**Kamakawa 2**	**0.61**	**84**	*i* P	**Pn**	**20 18 47.4**	**+0.3**
JKK2				S	**S**	**20 19 09.8**	**0.0**
JEW	**Eniwo**	**1.03**	**199**	*i* P	**Pn**	**20 18 49.9**	**+0.5**
JEW				S	**S**	**20 19 13.6**	**-0.2**
JSE	**Soyaes**	**1.25**	**22**	⇓P	**Pn**	**20 18 50.9**	**+0.1**
JSE				⇓*e*S	**S**	**20 19 15.2**	**-1.3**
JAR	**Ashorobuto**	**1.44**	**110**	*i* P	**Pn**	**20 18 53.1**	**+0.7**
JAR				S	**S**	**20 19 19.8**	**+0.7**
JTKR	**Abashiri--Toko**	**1.45**	**83**	*i* P	**Pn**	**20 18 53.2**	**+0.8**
JTKR				S	**S**	**20 19 20.0**	**+0.9**
JWK2	**Keihoku**	**1.51**	**360**	⇓P	**Pn**	**20 18 53.0**	**+0.2**
JWK2				⇓S	**S**	**20 19 19.8**	**-0.4**
JCH	**Churui**	**1.60**	**138**	*i* P	**Pn**	**20 18 53.0**	**-0.8**
JCH				*e*S	S	**20 19 19.1**	**-2.9**
JNBK	**Urakawa-nobuka**	**1.65**	**158**	*i* P	**Pn**	**20 18 54.7**	**+0.4**
JRBN	**Rebuntou**	**1.72**	**340**	⇓P	**Pn**	**20 18 54.6**	**-0.2**
JRBN				⇓S	**S**	**20 19 23.0**	**-0.5**
ERM	**Erimo**	**2.01**	**153**	*c* iPN	**Pn**	**20 18 57.9**	**+0.2**
ERM	**Erimo**	**2.01**	**153**	P	**Pn**	**20 18 57.7**	**+0.1**
ERM	**Erimo**	**2.01**	**153**	P	**Pn**	**20 18 58.2**	**+0.5**
JAK	**Akkeshi**	**2.18**	**111**	P	**Pn**	**20 18 58.7**	**-0.7**
JAK				S	**S**	**20 19 30.0**	**-1.3**
AKK	**Akkeshi**	**2.27**	**109**	*e*P	**Pn**	**20 18 59.8**	**-0.5**
RUSJ	**Misakicho**	**2.42**	**82**	*e*PN	**Pn**	**20 19 03.1**	**+1.3**
JOSM	**Okushiri--Mats**	**2.49**	**227**	*i* P	**Pn**	**20 19 02.3**	**-0.3**
JOT	**Ohata**	**2.51**	**195**	*i* P	**Pn**	**20 19 02.4**	**-0.4**
JOMM	**Oshimamatsumae**	**2.68**	**212**	P	**Pn**	**20 19 04.8**	**+0.1**
NMR	**Nemuro--Hokkai**	**2.81**	**98**	⇓*i* PN	**Pn**	**20 19 05.2**	**-0.8**
NMR				*i* S	**S**	**20 19 40.7**	**-2.6**
NMR	**Nemuro--Hokkai**	**2.81**	**98**	*i* P	**Pn**	**20 19 05.5**	**-0.5**
NMR				*i* S	**S**	**20 19 41.3**	**-2.0**
NEM2	**Nemuro 2**	**2.82**	**98**	P	**Pn**	**20 19 05.5**	**-0.7**
NEM2				S	**S**	**20 19 40.6**	**-2.9**
YUK	**Yuzh-Kuril'sk**	**2.86**	**84**	*e*PN	**Pn**	**20 19 09.5**	**+2.9**
YUK				*i* S	**S**	**20 19 46.0**	**+1.5**
YUK				pmax	pmax		
	comp=E,125nm,0.2s						
YUK				pmax	pmax		
	comp=E,81nm,0.1s						
YUK				smax	smax		
	comp=N,498nm,0.6s						
YUK				smax	smax		
	comp=E,291nm,0.6s						
YUK	**Yuzh-Kuril'sk**	**2.86**	**84**	*e*P	**Pn**	**20 19 06.5**	**-0.1**
YUK				AMB	AMB	20 19 13.1	
	comp=E,130nm,0.7s						
YUK				*i* S	**S**	**20 19 44.5**	**0.0**
YUK				A	A	20 19 47.3	
	comp=E,840nm,0.7s						
YUK				A	A	20 19 47.3	
	comp=E,460nm,0.7s						
JTM	**Tenmabayashi**	**3.09**	**192**		**Pn**	**20 19 08.6**	**-0.8**
JTM				Sn	**S**	**20 19 46.2**	**-3.0**
JTM	**Tenmabayashi**	**3.09**	**192**	P	**Pn**	**20 19 08.9**	**-0.4**
YSS	**Yuzhno-Sakhali**	**3.20**	**10**	*e*PN	**Pn**	**20 19 09.4**	**-1.1**
YSS				*e*S	**S**	**20 19 50.2**	**-1.4**
YSS				pmax	pmax		
	comp=E,70nm,0.5s						
YSS				smax	smax		
	comp=N,240nm,0.8s						
YSS	**Yuzhno-Sakhali**	**3.20**	**10**		**Pn**	**20 19 09.4**	**-1.1**
YSS					**S**	**20 19 50.8**	**-0.8**
YSS	**Yuzhno-Sakhali**	**3.20**	**10**	*e*P	**Pn**	**20 19 10.6**	**+0.1**
YSS				AMB	AMB	20 19 13.4	
	comp=N,70nm,0.6s						
YSS				*e*S	**S**	**20 19 50.4**	**-1.2**
YSS				A	A	20 19 52.1	
	comp=N,170nm,0.8s						
YSS				A	A	20 19 52.1	
	comp=N,100nm,0.8s						
SHO	**Shikotan**	**3.56**	**87**	*e*P	Pn	20 19 33.8	+19
SHO				AMB	AMB	20 19 36.5	
	comp=N,50nm,0.4s						
SHO				*e*S	S	20 20 15.3	+16
SHO				A	A	20 20 18.5	
	comp=N,530nm,0.4s						
SHO				A	A	20 20 18.5	
	comp=N,480nm,0.4s						
KUR	**Kuril'sk**	**4.49**	**69**	PN	**Pn**	**20 19 26.9**	**+0.8**
KUR				pmax	pmax		
	comp=E,65nm,1.1s						
KUR	**Kuril'sk**	**4.49**	**69**	*e*P	**Pn**	**20 19 26.9**	**+0.8**
KUR				AMB	AMB	20 19 27.6	
	comp=E,30nm,0.4s						
KUR				*e*S	**S**	**20 20 20.0**	**+0.3**
KUR				A	A	20 20 28.3	
	comp=E,30nm,0.8s						
KUR				A	A	20 20 28.3	
	comp=E,80nm,0.8s						
TYV	**Tymovskoe**	**7.08**	**4**	*e*PN	**Pn**	**20 19 59.3**	**+0.2**
TYV				*e*S	**S**	**20 21 19.6**	**0.0**
TYV				pmax	pmax		
	comp=E,23nm,0.7s						
TYV				pmax	pmax		
	comp=Z,200nm,3.7s						
TYV				smax	smax		
	comp=N,8.0nm,1.6s						
TYV				smax	smax		
	comp=E,20nm,1.6s						
TYV				smax	smax		
	comp=N,300nm,3.9s						
TYV				smax	smax		
	comp=E,400nm,3.9s						
TYV	**Tymovskoe**	**7.08**	**4**	*e*P	**Pn**	**20 19 59.2**	**+0.2**
TYV				AMB	AMB	20 19 59.9	
	comp=E,20nm,0.4s						
USA0B	**Ussuriysk Arra**	**7.17**	**277**	*de*PN	**Pn**	**20 19 59.7**	**-0.6**
USA0B	**Ussuriysk Arra**	**7.17**	**277**	Pn	**Pn**	**20 19 58.9**	**-1.5**
USRK	**Ussuriysk Ar.**	**7.17**	**277**	P	**Pn**	**20 19 59.6**	**-0.7**
	comp=E,13nm,0.6s,baz=77,slow=14,SNR=14						
MJB9	**Matsu-Tunnel**	**7.79**	**203**	Pn	**Pn**	**20 20 08.1**	**-0.4**
MAJO	**Matsushiro**	**7.79**	**203**	*de*PN	**Pn**	**20 20 07.9**	**-0.6**
MAJO				pmax	pmax		
	comp=E,76nm,0.7s						
MAJO	**Matsushiro**	**7.79**	**203**		**Pn**	**20 20 07.4**	**-1.2**
MAJO	**Matsushiro**	**7.79**	**203**	P	**Pn**	**20 20 07.5**	**-1.0**
	comp=Z,19nm,0.8s						
MJAR	**Matsushiro Arr**	**7.79**	**203**	P	**Pn**	**20 20 08.3**	**-0.2**
	comp=Z,4.1nm,0.4s,baz=12,slow=13,SNR=29						
KLR	**Kul'dur**	**8.86**	**311**	P	**Pn**	**20 20 20.5**	**-1.6**
	comp=Z,4.9nm,0.9s,baz=123,slow=14,SNR=6.9						
KLR	**Kul'dur**	**8.86**	**311**	⇓*e*PN	**Pn**	**20 20 21.5**	**-0.6**
KLR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KLR	**Kul'dur**	**8.86**	**311**	*e*P	**Pn**	**20 20 21.5**	**-0.6**
JGF	**Kuroka**	**8.92**	**205**	Pn	**Pn**	**20 20 22.7**	**-0.4**
JGF	**Kuroka**	**8.92**	**205**	P	**Pn**	**20 20 22.2**	**-0.9**
	comp=Z,22nm,2.9s						
INU	**Inuyama**	**9.26**	**206**	Pn	**Pn**	**20 20 26.0**	**-1.4**
INU	**Inuyama**	**9.26**	**206**	P	**Pn**	**20 20 26.6**	**-0.8**
BNX	**BinXian**	**10.50**	**286**	⇑P	**Pn**	**20 20 42.6**	**-0.6**
BNX				pmax	pmax		
	comp=Z,13nm,0.8s						
KSRS	**Korea Array**	**12.37**	**244**	P	**Pn**	**20 21 07.5**	**+0.4**
	comp=Z,2.0nm,0.7s,baz=56,slow=20,SNR=4.5						
ZEA	**Zeya**	**13.84**	**321**	*e*P	**Pn**	**20 21 23.4**	**-1.6**
ZEA				pmax	pmax		
	comp=E,10.0nm,0.8s						
ZEA				pmax	pmax		
	comp=N,10.0nm,0.9s						
ZEA				pmax	pmax		
	comp=Z,20nm,0.6s						
ZEA	**Zeya**	**13.84**	**321**	*e*P	**Pn**	**20 21 23.4**	**-1.6**
PETK	**Petropavlovsk-**	**13.98**	**43**	P	**Pn**	**20 21 26.2**	**-0.6**
	comp=E,4.7nm,0.9s,baz=238,slow=9.9,SNR=1.9						
HILR	**Hailar Array B**	**16.23**	**298**	P	**P**	**20 21 52.4**	**-1.0**
	comp=E,5.4nm,0.4s,baz=100,slow=9.9,SNR=9.8						
MA2	**Magadan**	**16.69**	**16**	P	**P**	**20 21 57.2**	**-1.0**
	comp=Z,22nm,0.8s,baz=184,slow=11,SNR=5.9						
MA2	**Magadan**	**16.69**	**16**	⇓*e*P	**Pn**	**20 21 58.9**	**-0.6**
MA2	**Magadan**	**16.69**	**16**	P	**P**	**20 21 58.2**	**+0.1**
	comp=Z,94nm,2.5s						
MA2	**Magadan**	**16.69**	**16**	*e*P	**Pn**	**20 21 58.9**	**-0.6**
MA2	**Magadan**	**16.69**	**16**	P	**Pn**	**20 22 00.1**	**+0.7**
	comp=Z,84nm,2.5s						
XLT	**XiLinHaoTe**	**18.61**	**279**	*e*P	**P**	**20 22 17.6**	**-1.8**
XLT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
YAK	**Yakutsk**	**19.62**	**343**	P	**P**	**20 22 27.5**	**-2.4**
	comp=Z,31nm,0.6s,baz=342,slow=2.7,SNR=19						
YAK	**Yakutsk**	**19.62**	**343**	*e*P	**P**	**20 22 27.4**	**-2.4**
YAK				*e*S	**S**	**20 25 57.6**	**-1.6**
YAK				pmax	pmax		
	comp=Z,31nm,0.9s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.1s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.0s						
YAK				smax	smax		
	comp=N,393nm,4.0s						
YAK				smax	smax		
	comp=E,119nm,3.0s						
YAK	**Yakutsk**	**19.62**	**343**		**P**	**20 22 27.3**	**-2.6**
YAK	**Yakutsk**	**19.62**	**343**	P	**P**	**20 22 27.7**	**-2.2**
	comp=Z,47nm,0.8s						
SEY	**Seymchan**	**20.10**	**14**	P	**P**	**20 22 33.6**	**-1.4**
	comp=Z,5.4nm,0.4s,baz=187,slow=9.7,SNR=27						
SEY	**Seymchan**	**20.10**	**14**	⇓*e*P	**P**	**20 22 33.7**	**-1.3**
SEY				pmax	pmax		
	comp=Z,7.0nm,1.1s						
SEY	**Seymchan**	**20.10**	**14**	*e*P	**P**	**20 22 33.7**	**-1.3**
HHC	**Hu-ho-hao-te**	**22.57**	**273**	*e*P	**P**	**20 22 58.9**	**-1.3**
HHC				pmax	pmax		
	comp=Z,14nm,0.7s						
ULN	**Ulaanbaatar**	**24.49**	**292**	*de*P	**P**	**20 23 18.1**	**+0.6**
ULN				pmax	pmax		
	comp=Z,12nm,1.2s						
ULN	**Ulaanbaatar**	**24.49**	**292**		**P**	**20 23 17.8**	**+0.3**
ULN				IAmb	IAmb	20 23 18.9	
	comp=Z,12nm,1.2s						
ULN	**Ulaanbaatar**	**24.49**	**292**	*e*P	**P**	**20 23 18.1**	**+0.6**
ULN	**Ulaanbaatar**	**24.49**	**292**	P	**P**	**20 23 18.5**	**+0.9**
	comp=Z,10nm,1.2s						
SONM	**Songino Array**	**24.94**	**292**	P	**P**	**20 23 21.6**	**0.0**
	comp=Z,10nm,0.7s,baz=90,slow=9.2,SNR=52						
	comp=Z,10nm,0.7s						
SONM	**Songino Array**	**24.94**	**292**	P	**P**	**20 23 21.5**	**0.0**
SONM				pmax	pmax		
	comp=Z,12nm,0.8s						
SONM	**Songino Array**	**24.94**	**292**		**P**	**20 23 21.5**	**-0.1**
SONM				IAmb	IAmb	20 23 23.7	
	comp=Z,12nm,0.8s						
ZAK	**Zakamensk**	**26.88**	**298**	*e*P	**P**	**20 23 38.8**	**0.0**
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ZAK	**Zakamensk**	**26.88**	**298**	*e*P	**P**	**20 23 38.8**	**0.0**
XAN	**Xi'an**	**27.30**	**260**	*e*P	**P**	**20 23 38.3**	**-4.4**
TIXI	**Tiksi**	**28.63**	**351**	P	**P**	**20 23 51.6**	**-2.3**
	comp=Z,1.8nm,0.2s,baz=13,slow=1.7,SNR=1.6						
	comp=Z,1.8nm,0.2s						
TIXI	**Tiksi**	**28.63**	**351**	IAmb	IAmb	20 23 51.8	
	comp=Z,8.6nm,1.4s						
TIXI	**Tiksi**	**28.63**	**351**	P	**P**	**20 23 51.2**	**-2.8**
	comp=Z,4.5nm,2.6s						
KNGR	**Kungurtug, Tuv**	**30.54**	**299**	⇓*e*P	**P**	**20 24 13.1**	**+1.9**
KNGR				pmax	pmax		
	comp=Z,12nm,1.6s						
KMI2	**Kunming**	**36.85**	**253**	P	**P**	**20 25 07.4**	**+1.5**
KMI2				pmax	pmax		
	comp=Z,11nm,0.8s						
DGZ	**Jazzator, Alta**	**37.09**	**299**	⇓*e*P	**P**	**20 25 07.2**	**-0.4**
DGZ				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ZALV	**Zalesovo Beam**	**37.92**	**306**	P	**P**	**20 25 14.3**	**0.0**
	comp=Z,10nm,0.7s,baz=86,slow=8.3,SNR=48						
ZALV				PcP	**PcP**	**20 27 26.0**	**+0.6**
	comp=Z,1.8nm,0.5s,baz=110,slow=2.0,SNR=7.0						
ZALV				ScP	**ScP**	**20 30 53.8**	**+1.5**
	comp=Z,0.8nm,0.6s,baz=126,slow=2.6,SNR=4.1						
	comp=Z,10nm,0.7s						
ZALV	**Zalesovo Beam**	**37.92**	**306**		**P**	**20 25 14.1**	**-0.1**
WMQ	**Urumqi**	**38.52**	**289**	*e*P	**P**	**20 25 22.1**	**+2.5**
G18K	**Tagagawik**	**38.72**	**34**	P	**P**	**20 25 21.1**	**+0.2**
G18K				IAmb	IAmb	20 25 21.8	
	comp=Z,5.0nm,0.7s						
F19K	**Shaleruckik Mo**	**39.16**	**33**	P	**P**	**20 25 24.2**	**-0.2**
G19K	**Purcell Mounta**	**39.38**	**34**	P	**P**	**20 25 25.8**	**-0.5**
E19K	**Redstone River**	**39.42**	**32**		**P**	**20 25 26.8**	**+0.1**
E19K				IAmb	IAmb	20 25 29.4	
	comp=Z,3.6nm,0.6s						
H19K	**Roundabout Mou**	**39.61**	**35**	P	**P**	**20 25 29.0**	**+0.9**
H19K				IAmb	IAmb	20 25 29.3	
	comp=Z,5.2nm,0.6s						
D20K	**Etivluk River**	**39.78**	**30**	IAmb	IAmb	20 25 42.6	
	comp=Z,16nm,1.5s						
G21K	**Allakaket**	**40.84**	**34**	IAmb	IAmb	20 25 42.0	
	comp=Z,4.8nm,0.7s						
MK31	**Makanchi Array**	**41.17**	**296**	*c* iP	**P**	**20 25 41.5**	**+0.3**
MKAR	**Makanchi Array**	**41.17**	**296**	P	**P**	**20 25 41.6**	**+0.4**
	comp=Z,4.3nm,0.5s,baz=83,slow=10,SNR=85						
MKAR				PcP	**PcP**	**20 27 36.4**	**+0.4**
	comp=Z,0.5nm,0.3s,baz=72,slow=4.9,SNR=6.1						
	comp=Z,4.3nm,0.5s						
MKAR	**Makanchi Array**	**41.17**	**296**	*i* P	**P**	**20 25 41.5**	**+0.3**
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.5s						
MKAR	**Makanchi Array**	**41.17**	**296**	*e*P	**P**	**20 25 41.5**	**+0.3**
MAKZ	**Makanchi**	**41.37**	**296**	P	**P**	**20 25 43.1**	**+0.3**
MAKZ				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MAKZ	**Makanchi**	**41.37**	**296**		**P**	**20 25 43.1**	**+0.3**
MAKZ				IAmb	IAmb	20 25 44.0	
	comp=Z,6.2nm,0.8s						
MAKZ	**Makanchi**

comp=Z,4.2nm,0.7s
KURK Kurchatov 42.33 302 P P 20 25 50.4 -0.1
KURK pmax pmax
comp=Z,12nm,0.5s
KURK Kurchatov 42.33 302 P 20 25 50.4 -0.1
KURK Kurchatov 42.33 302 *e*P P 20 25 50.4 -0.1
KURK Kurchatov 42.33 302 P P 20 25 50.7 +0.3
comp=Z,16nm,0.7s
KURBB Kurchatov Arra 42.41 302 P P 20 25 51.4 +0.2
comp=Z,15nm,0.6s,baz=72,slow=8.9,SNR=79
comp=Z,15nm,0.6s
COLA College 43.25 36*de*P P 20 25 58.3 +0.6
COLA pmax pmax
comp=Z,6.0nm,0.9s
COLA College 43.25 36 P P 20 25 58.5 +0.8
comp=Z,8.3nm,1.3s
ILAR Eielson Array 43.67 36 P P 20 26 01.6 +0.6
comp=Z,2.3nm,0.8s,baz=281,slow=7.8,SNR=25
comp=Z,2.3nm,0.8s
CHTO Chiang Mai 43.71 249 P P 20 26 02.7 +0.8
comp=Z,3.0nm,0.9s
PDGK Podgornoye 44.26 292 P P 20 26 06.2 0.0
PDGK Podgornoye 44.26 292 P 20 26 06.2 0.0
C27K Jago River 44.40 29 IAmb IAmb 20 26 07.9
comp=Z,4.8nm,0.7s
F26K Sheenjek River 44.43 32 IAmb IAmb 20 26 08.8
comp=Z,4.2nm,0.8s
G26K Porcupine Rive 44.66 33 IAmb IAmb 20 26 11.0
comp=Z,5.2nm,0.8s
WUS Wushi 45.31 289 P P 20 26 15.4 +0.9
comp=Z,21nm,0.7s
E28M Babbage River 46.02 30 P P 20 26 20.0 +0.5
TARG Taragay, Kyrgy 46.05 291 P P 20 26 20.3 -0.3
TARG pmax pmax
comp=Z,4.0nm,0.7s
TARG Taragay, Kyrgy 46.05 291 P 20 26 20.3 -0.3
TARG Taragay, Kyrgy 46.05 291 P P 20 26 22.0 +1.4
comp=Z,5.6nm,0.7s
BVAR Borovoye Array 46.50 308 P P 20 26 23.9 +0.4
comp=Z,6.0nm,0.3s,baz=77,slow=9.5,SNR=48
BVAR PcP PcP 20 27 54.6 +0.5
comp=Z,1.4nm,0.5s,baz=92,slow=1.8,SNR=4.5
comp=Z,6.0nm,0.3s
EVN Everest 46.52 269 P P 20 26 24.4 -0.3
EVN Everest 46.52 269 P P 20 26 25.5 +0.8
comp=Z,5.0nm,0.8s
BORK Borovoye 46.53 308 P P 20 26 24.3 +0.6
BORK pmax pmax
comp=Z,8.0nm,0.6s
BORK Borovoye 46.53 308 P 20 26 24.2 +0.6
BORK IAmb IAmb 20 26 26.6
comp=Z,8.2nm,0.6s
BOOM Boomskoye usch 46.98 292 IAmb IAmb 20 26 29.2
comp=Z,9.4nm,0.7s
BOOM Boomskoye usch 46.98 292 P P 20 26 28.6 +1.1
comp=Z,14nm,0.7s
TKM2 Tokmak 2 47.02 293 P P 20 26 29.0 +1.0
SNR=21
ASAI AK-SAY(Kyrgyzs 47.27 290 P P 20 26 31.1 +1.1
comp=Z,4.5nm,1.1s
EPYK Eagle Plains 47.54 33 P P 20 26 32.2 +0.9
KBK Karagaybulak 47.57 293 P P 20 26 33.0 +0.9
SNR=13
F30M Barrier River 47.59 31 IAmb IAmb 20 26 33.8
comp=Z,9.9nm,0.9s
USP Ospenovka 47.61 294 P P 20 26 32.8 +0.6
SNR=9.6
AAK Ala-Archa 47.88 293 P P 20 26 35.0 +0.5
SNR=8.9
AAK Ala-Archa 47.88 293 P P 20 26 34.8 +0.4
AAK pmax pmax
comp=Z,5.0nm,0.5s
AAK Ala-Archa 47.88 293 P 20 26 34.8 +0.4
AAK IAmb IAmb 20 26 35.4
comp=Z,4.8nm,0.5s
AAK Ala-Archa 47.88 293 *e*P P 20 26 34.8 +0.4
AAK Ala-Archa 47.88 293 P P 20 26 34.5 0.0
comp=Z,8.6nm,0.5s
I30M Mount Dempster 47.96 34 IAmb IAmb 20 26 37.0
comp=Z,9.4nm,1.1s
EKS2 Erkin-Say 48.35 294 P P 20 26 38.5 +0.6
SNR=11
KSH2 Kashi 48.73 289 P P 20 26 41.6 +0.6
ARK Arkit 49.94 293 P P 20 26 51.0 +1.0
comp=Z,5.3nm,0.9s
KKAR Karatay Array 50.30 296 P P 20 26 52.5 -0.1
KKAR Karatay Array 50.30 296 P 20 26 52.5 -0.1
SVE Sverdlovsk 50.46 315 *e*P P 20 26 54.2 +0.7
SVE pmax pmax
comp=Z,16nm,0.7s
SVE Sverdlovsk 50.46 315 *e*P P 20 26 54.2 +0.7
BTK Batken 51.52 292 IAmb IAmb 20 27 09.5
comp=Z,3.6nm,0.6s
BTK Batken 51.52 292 P P 20 27 01.6 -0.2
comp=Z,5.5nm,0.8s
ARTI Arti 51.78 315 P P 20 27 03.4 +0.1
comp=Z,13nm,0.5s,baz=67,slow=4.3,SNR=30
comp=Z,13nm,0.5s
ARTI Arti 51.78 315*c* *i*P P 20 27 03.3 -0.1
ARTI *PP pP 20 27 50.1 -0.4
ARTI 20 28 11.9
ARTI S S 20 34 08.9 +0.7
ARTI pmax pmax
comp=Z,10.0nm,0.6s
ARTI Arti 51.78 315 P 20 27 03.2 -0.1
ABKAR Akbulak array 54.03 307 P 20 27 20.3 +0.4
AKTO Aktyubinsk 54.58 309 P P 20 27 24.2 +0.4
comp=Z,2.2nm,0.5s,baz=69,slow=8.3,SNR=9.6
comp=Z,2.2nm,0.5s
KIRV Kirov 55.17 320 P P 20 27 27.9 +0.1
comp=Z,12nm,0.4s,baz=9.3,slow=3.1,SNR=5.2
comp=Z,12nm,0.4s
KIRV Kirov 55.17 320*de*P P 20 27 27.7 -0.1
YKA Yellowknife Ar 57.82 32 P P 20 27 46.4 0.0
comp=Z,2.2nm,0.7s,baz=308,slow=6.6,SNR=5.1
comp=Z,2.2nm,0.7s
ARCES ARCESS Array B 57.82 338 P P 20 27 45.0 -1.4
comp=Z,3.3nm,1.0s,baz=49,slow=8.2,SNR=10
comp=Z,3.3nm,1.0s
ARCES ARCESS Array B 57.82 338 P P 20 27 44.9 -1.5
ARCES pmax pmax
comp=Z,30nm,1.5s
ARCES ARCESS Array B 57.82 338 P P 20 27 44.9 -1.5
KLMR Klimovskoe 58.30 326 *e*P P 20 27 47.0 -2.8
KLMR pmax pmax
comp=Z,23nm,1.4s
SGF Sodankyl 58.89 336 P P 20 27 53.4 -0.4
comp=Z,19nm,2.3s
BELG Belogornoye 59.21 315 P P 20 27 56.4 +0.2
comp=Z,17nm,0.7s,baz=279,slow=0.8,SNR=19
comp=Z,17nm,0.7s
VRH Novokhopyorsk 62.90 316 *e*P P 20 28 20.3 -0.6
VRH pmax pmax
comp=Z,10.0nm,0.7s
OBN Obninsk 62.97 322 *e*P P 20 28 21.0 -0.3
OBN *e* 20 30 42.5
OBN pmax pmax
comp=Z,4.0nm,0.8s
OBN Obninsk 62.97 322 *e*P P 20 28 21.0 -0.3
FINES FINESS Array B 63.04 331 P P 20 28 21.4 -0.3
comp=Z,7.4nm,0.5s,baz=51,slow=7.5,SNR=61
comp=Z,7.4nm,0.5s
FINES FINESS Array B 63.04 331 *i*P P 20 28 21.3 -0.4
FINES pmax pmax
comp=Z,7.0nm,0.5s
FINES FINESS Array B 63.04 331 P P 20 28 21.2 -0.5
LPSR Galich'ya Gora 63.42 318 *e*P P 20 28 23.2 -1.2
LPSR pmax pmax
comp=Z,10.0nm,0.6s
WRAB Tennant Creek 63.81 188 *e*P P 20 28 26.5 -0.7
WRAB *i* *PP pP 20 29 16.0 -0.5
WRAB pmax pmax
comp=Z,11nm,1.5s
WRA Warramunga Arr 63.82 188 P P 20 28 27.6 +0.3
comp=Z,0.6nm,0.4s,baz=6.5,slow=6.5,SNR=4.0
comp=Z,0.6nm,0.4s
VORR Voronezh 63.86 317 *e*P P 20 28 26.8 -0.4
VORR pmax pmax
comp=Z,10.0nm,0.4s
VSR Storozhevoye 64.16 317 *e*P P 20 28 28.9 -0.3
VSR pmax pmax
comp=Z,10.0nm,0.4s
VORD Divnogorie 64.25 317 *e*P P 20 28 29.4 -0.4
VORD pmax pmax
comp=Z,9.0nm,0.5s
PALK Pallekele 64.37 255 *e*P P 20 28 30.6 -0.6
PALK pmax pmax
comp=Z,24nm,1.8s
VSU Vasula 64.85 328 P P 20 28 32.1 -1.4
comp=Z,26nm,1.7s
MTSE Matsula 65.76 330 P P 20 28 39.5 +0.2
comp=Z,156nm,0.8s
KIV Kislovodsk 66.84 309 *e*P P 20 28 47.5 +0.9
KIV pmax pmax
comp=Z,14nm,1.1s
KIV Kislovodsk 66.84 309 P 20 28 47.4 +0.7
KIV Kislovodsk 66.84 309 ⇑P P 20 28 47.7 +1.0
KIV Kislovodsk 66.84 309 P P 20 28 47.0 +0.4
comp=Z,16nm,0.7s
KIV Kislovodsk 66.84 309 *e*P P 20 28 47.5 +0.9
KIV Kislovodsk 66.84 309 P P 20 28 48.0 +1.3
comp=Z,20nm,0.7s
KBZ Khabaz 66.86 309 P P 20 28 47.1 +0.4
comp=Z,5.9nm,0.7s,baz=82,slow=1.9,SNR=22
comp=Z,5.9nm,0.7s
KBZ Khabaz 66.86 309⇓ *e*P P 20 28 47.8 +1.2
KBZ pmax pmax
comp=Z,5.0nm,0.6s
KBZ Khabaz 66.86 309 *e*P P 20 28 47.8 +1.2
MNK Minsk 67.15 325 *i*P P 20 28 48.8 +0.6
MNK *i* 20 29 14.7
MNK *i* *PP pP 20 29 39.7 +1.8
MNK *i* *SP sP 20 30 03.7 +2.7
MNK *i* 20 31 22.9
MNK *i* PPP PPP 20 33 03.2
MNK *i* S S 20 37 26.2 +1.6
MNK pmax pmax
comp=E,8.0nm,0.9s
MNK pmax pmax
comp=Z,12nm,0.8s
MNK pmax pmax
comp=N,4.0nm,0.9s
MNK Minsk 67.15 325 *i*P P 20 28 48.8 +0.6
comp=E,8.0nm,0.9s
MNK *i*P P 20 28 48.8 +0.6
comp=N,4.0nm,0.9s
MNK *i*P P 20 28 48.8 +0.6
comp=Z,12nm,0.8s,baz=46
MNK *i* pP pP 20 29 39.7 +1.8
MNK *i* sP sP 20 30 03.7 +2.7
MNK *i* PP PP 20 31 22.9 +4.4
MNK *i* PPP PPP 20 33 03.2
MNK *i* S S 20 37 26.3 +1.6
MNK *i* sS sS 20 39 01.3 +10
MNK *i* SSS SSS 20 46 16.7
ASAR Alice Springs 67.55 188 P P 20 28 52.7 +1.7
comp=Z,1.2nm,0.7s,baz=3.3,slow=6.5,SNR=3.2
comp=Z,1.2nm,0.7s
ASAR Alice Springs 67.55 188 P P 20 28 52.3 +1.2
HFS Hagfors 68.10 335 P P 20 28 53.9 -0.2
comp=Z,4.6nm,0.4s,baz=40,slow=5.8,SNR=20
comp=Z,4.6nm,0.4s
NB2 NORSAR Subarra 68.11 337 P P 20 28 53.8 -0.4
comp=Z,1.4nm,0.5s,baz=36,slow=6.5
NOA NORSAR Array B 68.11 337 P P 20 28 54.0 -0.2
comp=Z,2.2nm,0.6s,baz=36,slow=6.3,SNR=10
comp=Z,2.2nm,0.6s
NORES NORESS Array B 68.26 336 P P 20 28 57.8 +2.7
SOC Sochi 68.73 310 *e*P P 20 28 59.6 +1.3
SOC *e* 20 31 38.4
SOC *e*PPP PPP 20 33 10.5
SOC *e*S S 20 37 46.3 +2.5
SOC *e*SS SS 20 42 12.9 +0.8
SOC *e*SSS SSS 20 45 17.2
SOC pmax pmax
comp=Z,44nm,1.0s
AK03 Malin Array Si 69.20 321 P P 20 29 00.7 -0.4
AKASG Malin Array Be 69.22 321 P P 20 29 00.8 -0.3
comp=Z,2.6nm,0.4s,baz=44,slow=6.3,SNR=15
comp=Z,2.6nm,0.4s
AKBB Malin Array Si 69.22 321⇓ *e*P P 20 29 00.9 -0.3
AKBB Malin Array Si 69.22 321 P P 20 29 00.8 -0.4
AK04 Malin Array Si 69.23 321 P P 20 29 00.9 -0.3
AK01 Malin Array Si 69.23 321 P P 20 29 00.9 -0.3
KIEV Kiev 69.23 321 P P 20 29 00.1 -1.1
KIEV pmax pmax
comp=Z,6.0nm,0.7s
KIEV Kiev 69.23 321 P P 20 29 00.1 -1.1
KIEV IAmb IAmb 20 29 01.7
comp=Z,5.5nm,0.7s
KIEV Kiev 69.23 321 P P 20 29 00.8 -0.5
comp=Z,41nm,0.8s
KIEV Kiev 69.23 321 P P 20 29 00.7 -0.5
comp=Z,10nm,0.8s
AK22 Malin Array Si 69.25 321 P P 20 29 01.0 -0.3
AK21 Malin Array Si 69.25 321 P P 20 29 01.0 -0.3
AK08 Malin Array Si 69.25 321 P P 20 29 00.9 -0.5
AK09 Malin Array Si 69.25 321 P P 20 29 00.9 -0.5
AK02 Malin Array Si 69.26 321 P P 20 29 01.0 -0.4
AK11 Malin Array Si 69.26 321 P P 20 29 01.0 -0.4
AK18 Malin Array Si 69.28 321 P P 20 29 00.9 -0.6
AK10 Malin Array Si 69.28 321 P P 20 29 01.0 -0.5
AK05 Malin Array Si 69.28 321 P P 20 29 01.0 -0.6
AK20 Malin Array Si 69.29 321 P P 20 29 01.1 -0.5
AK12 Malin Array Si 69.29 321 P P 20 29 01.2 -0.4
AK16 Malin Array Si 69.30 321 P P 20 29 01.2 -0.4
AK19 Malin Array Si 69.30 321 P P 20 29 01.2 -0.5
AK06 Malin Array Si 69.31 321 P P 20 29 01.3 -0.4
AK14 Malin Array Si 69.32 321 P P 20 29 01.4 -0.4
AK07 Malin Array Si 69.33 321 P P 20 29 01.4 -0.5
AK13 Malin Array Si 69.36 321 P P 20 29 01.6 -0.4
UOSS Minazif 70.22 286 P P 20 29 07.5 -0.2
comp=Z,4.2nm,1.0s
RNPP5 Staryi Chortor 70.33 323 P P 20 29 07.5 -0.4
LUBAR Lubar, Ukraine 70.44 321 P P 20 29 08.0 -0.6
SORM Soroca 71.44 320 ⇓P P 20 29 14.5 -0.2
SORM Soroca 71.44 320 ⇓P P 20 29 14.5 -0.2
SORM Soroca 71.44 320 P P 20 29 14.4 -0.2
comp=Z,12nm,1.0s
KMPD K-Podol'skiy 72.00 321 P P 20 29 17.4 -0.6
PDAR Pinedale Array 72.70 47 P P 20 29 23.8 +1.2
comp=Z,1.0nm,0.6s,baz=244,slow=1.2,SNR=7.0
comp=Z,1.0nm,0.6s
PDAR Pinedale Array 72.70 47 P P 20 29 23.6 +1.0
BURAR Bucovina Array 73.27 321 ⇓P P 20 29 26.1 +0.5
BURAR Bucovina Array 73.27 321 ⇓P P 20 29 26.1 +0.5
BIZ Bicaz 73.36 320 ⇑P P 20 29 26.8 +0.8
TESR Tescani 73.41 319 ⇓P P 20 29 26.7 +0.3
TESR Tescani 73.41 319 P P 20 29 26.5 +0.2
comp=Z,13nm,0.9s
CFR Carcaliu 73.67 318 ⇑P P 20 29 28.1 +0.3
CFR Carcaliu 73.67 318 ⇑P P 20 29 28.1 +0.3
ULM Lac du Bonnet 73.67 34 P P 20 29 28.1 +0.4
comp=Z,2.9nm,0.8s,baz=62,slow=12,SNR=3.0
comp=Z,2.9nm,0.8s
ULM Lac du Bonnet 73.67 34 P P 20 29 27.9 +0.2
ULM pmax pmax
comp=Z,21nm,1.5s
ULM Lac du Bonnet 73.67 34 P P 20 29 27.9 +0.2
TPGR Topolog 73.76 317 ⇑P P 20 29 29.1 +0.7
VRI Vrincioaia 73.85 319 ⇑P P 20 29 29.1 +0.2
VRI Vrincioaia 73.85 319 ⇑P P 20 29 29.1 +0.2
SAHR Sahastru 73.97 319 ⇑P P 20 29 30.4 +0.8
ICOR Ion Corvin 74.60 317 ⇓P P 20 29 34.2 +0.9
BR131 Keskin Array S 74.69 311⇓ *e*P P 20 29 34.4 +0.4
BRTR Keskin Array B 74.69 311 P P 20 29 34.1 +0.1
comp=Z,1.0nm,0.6s,baz=75,slow=4.7,SNR=6.3
comp=Z,1.0nm,0.6s
BRTR Keskin Array B 74.69 311 P P 20 29 33.9 -0.1
STEB Steborice 74.70 326 *e*P P 20 29 34.4 +0.7
BR104 Keskin Array S 74.70 311 P P 20 29 34.1 0.0
comp=Z,2.2nm,0.7s
BR105 Keskin Array S 74.71 311 P P 20 29 34.2 +0.1
comp=Z,2.6nm,0.7s
MORC Moravsky Berou 74.91 326 ⇓P P 20 29 35.9 +0.9
MORC Moravsky Berou 74.91 326 ⇓P P 20 29 35.9 +0.9
MORC Moravsky Berou 74.91 326 *e*P P 20 29 35.6 +0.6
MORC Moravsky Berou 74.91 326 ⇓P P 20 29 35.9 +0.9
MORC Moravsky Berou 74.91 326 P P 20 29 35.6 +0.6
comp=Z,6.9nm,1.1s
DPC Dobruska-Polom 74.94 327 P P 20 29 36.2 +1.0
comp=Z,4.6nm,1.3s
VOIR 74.96 319 ⇑P P 20 29 36.8 +1.4
VOIR 74.96 319 ⇑P P 20 29 36.8 +1.4
VOIR 74.96 319 P P 20 29 35.5 +0.1
comp=Z,4.6nm,1.4s
VOIR 74.96 319 P P 20 29 36.5 +1.1
comp=Z,4.5nm,1.4s
DRGR 75.02 322 P P 20 29 35.9 +0.2
comp=Z,3.9nm,2.6s
FLTG Flechtingen 75.22 331 P P 20 29 36.4 -0.2
comp=Z,13nm,0.8s
CLL Collm 75.43 330 *i*P P 20 29 37.9 +0.1
CLL pmax pmax
comp=Z,6.0nm,0.7s
CLL Collm 75.43 330 P P 20 29 37.6 -0.2
comp=Z,7.3nm,1.7s
CLL Collm 75.43 330 *i*P P 20 29 37.9 +0.1
comp=Z,6.0nm,0.7s
KKUL Konya-Kulu 75.48 311 P P 20 29 39.6 +1.1
comp=Z,11nm,1.4s
JAVC Velka Javorina 75.58 326 *e*P P 20 29 40.3 +1.4
JAVC Velka Javorina 75.58 326 P P 20 29 40.5 +1.6
comp=Z,7.8nm,2.0s
VRAC Vranov 75.66 327 *e*P P 20 29 40.4 +1.2
SIRR Siria 75.89 322 ⇑P P 20 29 40.8 +0.2
CLZ Clausthal 75.93 331 P P 20 29 41.2 +0.5
KRUC Moravsky 75.94 327 *e*P P 20 29 41.2 +0.4
KRUC Moravsky 75.94 327 P P 20 29 41.6 +0.9
comp=Z,7.0nm,1.9s
SURR Surduc 76.07 321 ⇓P P 20 29 40.4 -1.2
TREC Trest 76.11 327 P P 20 29 42.8 +1.0
comp=Z,4.0nm,2.8s
BZS Buzias 76.41 321 P P 20 29 43.7 +0.2
comp=Z,3.2nm,2.0s
ZVC Zvikov 76.50 328 *e*P P 20 29 44.8 +0.9
ABNA Allensteig Bun 76.64 327 *i*P P 20 29 45.6 +0.8
comp=Z,4.0nm,1.3s
WINA Alland / Wiene 76.83 326 *i*P P 20 29 47.5 +1.6
comp=Z,7.1nm,1.4s
EKA Eskdalemuir Ar 76.88 340 P P 20 29 46.1 +0.2
comp=Z,2.0nm,0.5s,baz=19,slow=4.9,SNR=17
comp=Z,2.0nm,0.5s
CKRC Cesky Krumlov 76.96 327 *e*P P 20 29 46.8 +0.3
CKRC Cesky Krumlov 76.96 327 *e*P P 20 29 46.8 +0.3
KHC Kasperske Hory 76.99 328 *e*P P 20 29 47.5 +0.8
KHC Kasperske Hory 76.99 328 *e*P P 20 29 47.5 +0.8
CONA Conrad Observa 77.06 326 *i*P P 20 29 47.9 +0.7
comp=Z,4.3nm,1.2s
RONA Rosalia, Austr 77.06 326 *i*P P 20 29 48.2 +1.0
comp=Z,4.0nm,0.8s
GERES GERESS Array B 77.17 328 P P 20 29 48.3 +0.5
comp=Z,0.8nm,0.7s,baz=17,slow=4.9,SNR=6.5
comp=Z,0.8nm,0.7s
GERES GERESS Array B 77.17 328 P P 20 29 48.1 +0.2
MORH Mrgy, Hungar 77.25 323 P P 20 29 48.6 +0.4
comp=Z,1.8nm,1.1s
SOKA Soboth 78.40 326 *i*P P 20 29 55.0 +0.4
comp=Z,3.8nm,1.2s
RAYN Ar Rayn 78.49 291 P P 20 29 55.4 0.0
comp=Z,2.0nm,1.7s
LESA Schwarzleotal 78.73 328 *i*P P 20 29 56.9 +0.5
comp=Z,1.8nm,0.6s
OBKA Obir 78.73 326 *i*P P 20 29 57.5 +1.0
comp=Z,3.0nm,0.8s
KBA Koelnbreinsper 78.75 327 *i*P P 20 29 57.2 +0.6
comp=Z,4.4nm,1.0s
WATA Walderalm 79.22 328 *i*P P 20 29 59.6 +0.5
comp=Z,4.9nm,1.1s
WTTA Wattenberg 79.26 328 *i*P P 20 29 60.0 +0.6
comp=Z,3.4nm,0.8s
WTTA Wattenberg 79.26 328 P P 20 29 60.0 +0.6
comp=Z,4.2nm,1.2s
MOTA Moosalm 79.40 328 *i*P P 20 30 00.6 +0.4
comp=Z,4.6nm,1.0s
RETA Reutte 79.41 329 *i*P P 20 30 00.6 +0.5
comp=Z,3.2nm,0.8s
SQTA Sankt Quirin 79.46 328 *i*P P 20 30 00.0 -0.4
comp=Z,5.4nm,1.1s
GRG Griva 79.61 318 P P 20 30 01.2 0.0
comp=Z,5.9nm,1.2s
DAVA Damuels 79.91 329 *i*P P 20 30 02.9 +0.1
comp=Z,4.5nm,0.9s
PDG Podgorica 79.95 321 P P 20 30 03.1 +0.1
comp=Z,5.7nm,1.2s
PHP Peshkopia 79.98 320 P P 20 30 03.3 0.0
comp=Z,3.8nm,0.9s
XOR Xorichti 80.44 316 P P 20 30 05.2 -0.5
comp=Z,4.3nm,0.7s
AQU L'Aquila 82.59 324 P P 20 30 16.7 -0.2
comp=Z,5.0nm,0.9s
ITM Ithomi 82.76 316 P P 20 30 17.3 -0.5
comp=Z,12nm,1.7s
GVD Gavdhos 83.44 313 P P 20 30 23.3 +2.0
comp=Z,203nm,0.5s
TXAR Lajitas Array 85.70 53 P P 20 30 33.8 +0.9
comp=Z,0.2nm,0.5s,baz=299,slow=6.7,SNR=2.9
TXAR Lajitas Array 85.70 53 P P 20 30 32.6 -0.3
TROLL Troll, Antarti 145.74 201 PKPbc PKPbc 20 37 30.7 +0.3
comp=Z,77nm,0.6s
VNA2 Neumayer--Watz 148.89 199 PKPbc PKPbc 20 37 39.5 +0.6
comp=Z,1.7nm,0.6s,baz=116,slow=2.0
VNA3 Neumayer Olymp 149.18 197 PKPbc PKiKP 20 37 40.2 -0.4
comp=Z,0.3nm,0.5s

IDC ***02*** *20:21:50.5±1.2,3°.36S×131°.04E, h0km, mb3.8/7, mbtmp3.8/10, ML3.8/3, MS3.5/6, Error ellipse: s-maj=44.1km s-min=13.8km az=91.0*
DJA ***02*** *20:21:53.9±0.5,3°.5S×13°.1E±°, h11km±4km, M4.4/13, mB5.2/2, mb4.7/3, MLv4.2/13, Mw(mB)4.5/2*
ISC 02 20:21:52.4±0.7,3°.29S±0°.07×131°.11E±0°.05,h10km,n24,
σ2s15/21,mb4.1/6,MS3.4/5,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FAKI	**Fak Fak**	**1.19**	**72**	P	**Pb**	**20 22 15.6**	**+0.5**
FAKI				S	**Sn**	**20 22 33.4**	**+2.0**
FAKI				AML	AML		
BNDI	**Bandanaira**	**1.72**	**224**	P	**Pn**	**20 22 23.8**	**+1.4**
BNDI				S	**Sb**	**20 22 46.6**	**+0.8**
BNDI				AML	AML		
SIJI	**Sorong**	**2.41**	**4**	Pn	**Pn**	**20 22 32.8**	**+0.9**
	17nm,0.3s,baz=248,slow=21,SNR=46						
SIJI				Sn	**Sn**	**20 23 02.8**	**+1.3**
	52nm,0.3s,baz=223,slow=22,SNR=32						
	35nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.41**	**4**	P	**Pn**	**20 22 33.1**	**+1.2**
SIJI				AML	AML		
MWPI	**Manokwari, Pap**	**3.75**	**51**	P	**Pn**	**20 22 53.2**	**+2.9**
NLAI	**Namlea**	**4.01**	**271**	P	**Pn**	**20 22 56.1**	**+2.2**
NLAI				S	**Sn**	**20 23 43.1**	**+2.2**
NLAI				AML	AML		
SANI	**Sanana**	**5.26**	**283**	P	**Pn**	**20 23 11.5**	**+0.3**
	0.2nm28nm,0.7s						
SANI				AML	AML		
BAKI	**Biak**	**5.41**	**67**	P	**Pn**	**20 23 15.3**	**+2.1**
	0.4nm1μm133nm,0.9s						
BAKI				AML	AML		
BATI	**Baumata**	**10.10**	**227**	LR	LR	20 28 18.2	
	comp=Z,242nm,18.2s,baz=46,slow=39						
BATI	**Baumata**	**10.10**	**227**	P	**Pn**	**20 24 20.4**	**+2.8**
FITZ	**Fitzroy Crossi**	**15.67**	**200**	Pn	**Pn**	**20 25 27.6**	**-5.8**
	0.4nm,0.3s,baz=22,slow=9.6,SNR=22						
FITZ				Sn	Sn	20 28 10.0	-17
	0.3nm,0.3s,baz=116,slow=12,SNR=2.2						
	1.5nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**16.85**	**169**	Pn	Pn	20 25 42.2	-6.4
	0.3nm,0.3s,baz=345,slow=14,SNR=24						
WRA				Sn	Sn	20 28 39.1	-17
	0.5nm,0.3s,baz=357,slow=23,SNR=5.8						
	0.7nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.44**	**173**	P	**P**	**20 26 27.9**	**-2.3**
	1.7nm,0.3s,baz=348,slow=11,SNR=28						
ASAR				S	S	20 30 05.2	-14
	0.9nm,0.6s,baz=359,slow=27,SNR=4.3						
	1.7nm,0.3s						
GUMO	**Guam**	**21.62**	**39**	LR	LR	20 35 18.2	
	comp=Z,32nm,19.2s,baz=112,slow=37						
LEM	**Lembang**	**23.66**	**261**	LR	LR	20 36 56.8	
	comp=Z,133nm,18.6s,baz=28,slow=38						
STKA	**Stephens Creek**	**30.10**	**162**	LR	LR	20 42 14.6	
	comp=Z,81nm,19.8s,baz=18,slow=41						
CMAR	**Chiang Mai Arr**	**38.35**	**305**	P	**P**	**20 29 13.8**	**-0.1**
	0.3nm,0.4s,baz=123,slow=6.2,SNR=6.3						
	0.3nm,0.4s						
KSRS	**Korea Array**	**40.64**	**356**	LR	LR	20 46 42.6	
	comp=Z,25nm,19.9s,baz=25,slow=37						
SONM	**Songino Array**	**55.32**	**340**	P	**P**	**20 31 25.2**	**-1.2**
	0.3nm,0.5s,baz=153,slow=10.0,SNR=4.3						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**65.78**	**325**	P	**P**	**20 32 38.2**	**+0.5**
	0.8nm,0.5s,baz=121,slow=8.1,SNR=16						
	0.8nm,0.5s						

ZALV	**Zalesovo Beam**	**68.79**	**333**	P		**P**	**20 32 55.4**	**-1.3**
	0.7nm,0.6s,baz=117,slow=5.6,SNR=4.6							
	0.7nm,0.6s							
KURBB	**Kurchatov Arra**	**69.97**	**327**	P		**P**	**20 33 03.7**	**-0.4**
	1.2nm,0.6s,baz=128,slow=5.3,SNR=8.5							
	1.2nm,0.6s							
BVAR	**Borovoye Array**	**75.55**	**327**	P		**P**	**20 33 36.5**	**-0.7**
	1.3nm,0.7s,baz=119,slow=9.2,SNR=6.3							
	1.3nm,0.7s							
KIRV	**Kirov**	**88.45**	**329**	LR		LR	21 16 13.5	
	comp=Z,108nm,18.2s,baz=293,slow=37							

IDC 02 20:26:13.2±6.1, 56°.53S×142°.12W, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=696.7km s-min=32.8km az=3.0, Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLCA	**Paso Flores**	**47.60**	**103**	P	P	20 34 50.5	-0.1
	0.9nm,0.9s,baz=209,slow=6.3,SNR=3.2						
	0.9nm,0.9s						
ASAR	**Alice Springs**	**67.32**	**261**	P	P	20 37 09.8	-0.1
	0.6nm,0.8s,baz=141,slow=6.1,SNR=11						
	0.6nm,0.8s						
H01W1	**Cape Leeuwin H**	**68.53**	**239**	T	T	21 51 50.0	
	baz=146,slow=74,SNR=4.3						
H01W2	**Cape Leeuwin H**	**68.54**	**239**	T	T	21 51 49.7	
	baz=146						
H01W3	**Cape Leeuwin H**	**68.55**	**239**	T	T	21 51 49.9	
	baz=146,slow=74,SNR=3.3						
WRA	**Warramunga Arr**	**70.07**	**264**	P	P	20 37 27.1	+0.2
	0.5nm,0.9s,baz=150,slow=5.5,SNR=3.0						
	0.5nm,0.9s						

*THE **02** 20:26:27.4, 38°N±8°×2°7E±1°0, h3km±12km, M2.6/5, MLh2.6/5*
*AFAD **02** 20:26:27.2, 37°.72N×27°.01E, h7km±3km, ML2.3*
*ISK **02** 20:26:28.2, 37°.69N×27°.10E, h6km, ML2.5/15*
ISC 02 20:26:27.3±0.9, 37°.71N±0°.02×27°.03E±0°.03, h12km±7km, n36, σ0s55/55, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.16**	**92**	P	**Pg**	**20 26 31.1**	**+0.1**
GCAM				IAML		20 26 34.0	
	comp=E,1µm,0.2s						
GCAM				IAML		20 26 35.0	
	comp=N,1µm,0.7s						
GCAM	**G?zelcaml?**	**0.16**	**92**	Pg	**Pg**	**20 26 31.1**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**52**	Pg	**Pb**	**20 26 33.3**	**-0.6**
KUSD				Sg	**Sg**	**20 26 36.5**	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.30**	**146**	P	**Pb**	**20 26 34.2**	**-0.4**
DDIM				S	**Sb**	**20 26 39.0**	**-0.5**
DDIM				IAML		20 26 39.0	
	comp=E,630nm,0.7s						
DDIM				IAML		20 26 40.0	
	comp=N,794nm,0.4s						
GMLD	**Gumuldur**	**0.38**	**346**	Pg	**Pb**	**20 26 37.0**	**+1.0**
GMLD				AML	AML		
BEYE	**izmir**	**0.53**	**351**	P	**Pg**	**20 26 37.3**	**-0.4**
BEYE				S	**Sg**	**20 26 44.3**	**-0.3**
BEYE				IAML		20 26 48.0	
	comp=N,232nm,0.5s						
BEYE				IAML		20 26 48.0	
	comp=E,342nm,0.3s						
DUVT	**Torbali**	**0.61**	**33**	P	**Pg**	**20 26 38.8**	**-0.4**
DUVT				S	**Sg**	**20 26 46.8**	**-0.5**
DUVT				IAML		20 26 51.0	
	comp=E,255nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.61**	**161**	Pg	**Pb**	**20 26 39.9**	**-0.1**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.67**	**94**	P	**Pg**	**20 26 40.5**	**+0.1**
AYDN				S	**Sg**	**20 26 49.0**	**-0.3**
AYDN				IAML		20 26 54.0	
	comp=N,111nm,0.2s						
AYDN				IAML		20 26 55.0	
	comp=E,134nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.68**	**322**	P	**Pg**	**20 26 39.7**	**-0.8**
ZEYE				S	**Sg**	**20 26 49.8**	**+0.4**
ZEYE				IAML		20 26 50.0	
	comp=N,292nm,0.4s						
ZEYE				IAML		20 26 52.0	
	comp=E,210nm,0.4s						
BLCB	**Balcova**	**0.68**	**1**	P	**Pg**	**20 26 39.9**	**-0.6**
BLCB				S	**Sg**	**20 26 48.8**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.68**	**1**	Pg	**Pn**	**20 26 42.2**	**-0.5**
BLCB				AML	AML		
BODT	**Bodrum**	**0.68**	**161**	P	**Pg**	**20 26 40.4**	**-0.1**
BODT				S	**Sb**	**20 26 50.5**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.68**	**161**	Pg	**Pg**	**20 26 40.5**	**-0.1**
BODT				Sg	**Sb**	**20 26 50.8**	**+0.3**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.72**	**153**	P	**Pg**	**20 26 41.1**	**-0.2**
BDRM				S	**Sb**	**20 26 51.8**	**+0.2**
BDRM				IAML		20 26 54.0	
	comp=E,141nm,0.4s						
BDRM				IAML		20 26 55.0	
	comp=N,286nm,0.3s						
MLSB	**Milas**	**0.72**	**124**	Pg	**Pb**	**20 26 41.7**	**-0.1**
MLSB				Sg	**Sb**	**20 26 51.4**	**-0.2**
MLSB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**70**	Pg	**Pb**	**20 26 41.7**	**-0.2**
AYDB				AML	AML		
IZMR	**zmir-demi**	**0.84**	**59**	P	**Pb**	**20 26 44.0**	**+0.1**
IZMR				IAML		20 26 57.0	
	comp=N,67nm,0.7s						
IZMR				IAML		20 27 00.0	
	comp=E,58nm,0.6s						
BAGT	**Foa**	**0.96**	**352**	P	**Pg**	**20 26 45.8**	**0.0**
BAGT				S	**Sg**	**20 26 58.9**	**+0.6**
BAGT				IAML		20 27 01.0	
	comp=N,295nm,0.6s						
BAGT				IAML		20 27 01.0	
	comp=E,274nm,0.6s						
KRBN	**Karaburun**	**0.96**	**337**	Pg	**Pn**	**20 26 47.6**	**+0.9**
KRBN				AML	AML		
CHOS	**Chios island**	**1.03**	**312**	P	**Pb**	**20 26 46.6**	**-0.5**
CHOS				S	**Sn**	**20 27 01.3**	**-0.7**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**75**	Pg	**Pg**	**20 26 47.1**	**-0.1**
NAZL				AML	AML		
FOCM	**Foa**	**1.03**	**347**	Pg	**Pn**	**20 26 48.6**	**+1.0**
FOCM				AML	AML		
ESEN	**Aydn-Nazilli**	**1.05**	**85**	P	**Pg**	**20 26 47.5**	**0.0**
ESEN				S	**Sn**	**20 27 01.8**	**-0.5**
ESEN				IAML		20 27 04.0	
	comp=N,34nm,0.3s						
ESEN				IAML		20 27 04.0	
	comp=E,30nm,0.6s						
CAMT	**Merkez**	**1.06**	**12**	P	**Pb**	**20 26 47.5**	**-0.2**
CAMT				S	**Sn**	**20 27 02.9**	**+0.1**
CAMT				IAML		20 27 04.0	
	comp=E,382nm,0.6s						
CAMT				IAML		20 27 07.0	
	comp=N,334nm,0.6s						
KARB	**zmir-Karabur**	**1.07**	**333**	P	**Pg**	**20 26 49.0**	**+1.0**
KARB				S	**Sn**	**20 27 02.9**	**-0.1**
YAZI	**Mula-Dat§a-**	**1.08**	**162**	P	**Pg**	**20 26 48.8**	**+0.7**
YAZI				IAML		20 27 05.0	
	comp=E,52nm,0.6s						
YAZI				IAML		20 27 18.0	
	comp=N,28nm,1.7s						
MULA	**Mugla, Merkez-**	**1.12**	**113**	P	**Pg**	**20 26 50.6**	**+1.7**
MULA				S	**Sg**	**20 27 03.4**	**-0.1**
YER	**Yerkesik**	**1.15**	**119**	P	**Pg**	**20 26 49.5**	**+0.1**
KIRA	**zmir-Kiraz**	**1.19**	**65**	P	**Pn**	**20 26 49.4**	**-0.4**
KIRA				S	**Sg**	**20 27 06.4**	**+0.8**
KIRA				IAML		20 27 08.0	
	comp=N,62nm,0.5s						
KIRA				IAML		20 27 08.0	
	comp=E,28nm,0.5s						
GOMA	**Golmarmara-Man**	**1.22**	**35**	Pn	**Pg**	**20 26 51.8**	**+1.0**
GOMA				AML	AML		
KTTT	**Salihli**	**1.29**	**40**	P	**Pg**	**20 26 52.1**	**0.0**
KTTT				S	**Sb**	**20 27 07.8**	**-0.2**
KTTT				IAML		20 27 11.0	
	comp=N,33nm,0.4s						
APE	**Apeiranthos**	**1.35**	**242**	P	**Pg**	**20 26 53.1**	**-0.3**
DKL	**Dikili**	**1.37**	**356**	Pn	**Pg**	**20 26 54.5**	**+0.9**
DKL				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**36**	Pn	**Pg**	**20 26 56.0**	**-0.2**
GORD				AML	AML		
SOMA	**Soma-Manisa**	**1.50**	**15**	Pn	**Pg**	**20 26 56.4**	**+0.2**
SOMA				AML	AML		

ROM 02 20:27:19.3±0.1, 43°.374N±0°.002×12°.681E±0°.003, h13km, ML1.1/20, Error ellipse: s-maj=0.2km s-min=0.0km az=39.0, Central Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATSC	**Scheggia e Pas**	**0.05**	**5**	P	Pg	20 27 22.1	+0.2
ATSC				S	Sg	20 27 24.1	+0.3
ATFO	**Monte Foce - G**	**0.08**	**265**	P	Pg	20 27 22.4	+0.2
ATFO				S	Sg	20 27 24.6	+0.4
ATFO				AML	AML		
	comp=E,118µm,0.2s						
ATFO				AML	AML		
	comp=E,118µm,0.2s						
ATFO				AML	AML		
	comp=N,120µm,0.2s						
SSFR	**Montelago di S**	**0.10**	**50**	P	Pg	20 27 22.6	+0.2
SSFR				S	Sg	20 27 24.9	+0.4
SSFR				AML	AML		
	comp=E,419µm,0.7s						
SSFR				AML	AML		
	comp=E,314µm,0.6s						
SSFR				AML	AML		
	comp=N,318µm,0.7s						
SSFR				AML	AML		
	comp=E,419µm,1.3s						
SSFR				AML	AML		
	comp=E,314µm,1.4s						
SSFR				AML	AML		
	comp=N,420µm,0.7s						
FOSV	**Fossato di Vic**	**0.10**	**144**	P	Pg	20 27 22.5	+0.2
FOSV				S	Sg	20 27 24.8	+0.4
FOSV				AML	AML		
	comp=E,77µm,0.3s						
FOSV				AML	AML		
	comp=E,77µm,0.3s						
FOSV				AML	AML		
	comp=N,37µm,0.4s						
FOSV				AML	AML		
	comp=N,37µm,1.6s						
FOSV				AML	AML		
	comp=E,77µm,1.7s						
ATBU	**Serra di Buran**	**0.14**	**316**	P	Pg	20 27 23.4	+0.5
ATBU				S	Sb	20 27 26.5	-0.4
FRON	**Frontone**	**0.15**	**13**	P	Pg	20 27 23.2	+0.6
FRON				S	Sg	20 27 26.1	+0.6
FRON				AML	AML		
	comp=E,46µm,0.1s						
FRON				AML	AML		
	comp=N,63µm,0.5s						
MURB	**Monte Urbino**	**0.16**	**226**	P	Pg	20 27 23.5	+0.3
MURB				S	Sb	20 27 26.8	-0.7
MURB				AML	AML		
	comp=E,354µm,0.3s						
MURB				AML	AML		
	comp=N,256µm,0.3s						
MURB				AML	AML		
	comp=N,349µm,0.2s						
MURB				AML	AML		
	comp=N,256µm,0.3s						
MURB				AML	AML		
	comp=E,328µm,0.3s						
ATCC	**AVT- Casa Cast**	**0.19**	**189**	P	Pg	20 27 24.0	+0.3
ATCC				S	Sb	20 27 27.7	-0.6
ATCC				AML	AML		
	comp=E,112µm,0.3s						
ATCC				AML	AML		
	comp=N,94µm,0.3s						
ATCC				AML	AML		
	comp=E,112µm,0.3s						
ATCC				AML	AML		
	comp=N,95µm,0.3s						
ATCC				AML	AML		
	comp=E,112µm,1.7s						
ATCC				AML	AML		
	comp=N,95µm,1.7s						
ATPC	**Poggio Castell**	**0.20**	**303**	P	Pg	20 27 24.1	+0.3
ATPC				S	Sb	20 27 27.8	-0.7
ATVO	**AVT- Monte Val**	**0.20**	**272**	P	Pg	20 27 24.0	+0.2
ATVO				S	Sg	20 27 27.5	+0.7
ATPI	**Pietralunga -**	**0.22**	**291**	P	Pg	20 27 24.4	+0.4
ATPI				S	Sb	20 27 28.3	-0.8
SNTG	**Esanatoglia**	**0.22**	**122**	P	Pg	20 27 24.4	+0.2
SNTG				S	Sg	20 27 28.3	+0.8
SNTG				AML	AML		
	comp=N,26µm,0.2s						
SNTG				AML	AML		
	comp=E,20µm,0.2s						
ARVD	**Arcevia**	**0.23**	**57**	P	Pg	20 27 24.6	+0.3
ARVD				S	Sb	20 27 28.7	-0.7
ARVD				AML	AML		
	comp=N,26µm,0.8s						
ARVD				AML	AML		
	comp=E,27µm,0.1s						
ARVD				AML	AML		
	comp=N,26µm,1.2s						
NARO	**Abbazia di Nar**	**0.25**	**343**	P	Pg	20 27 24.8	+0.2
NARO				S	Sb	20 27 29.2	-0.7
EL6	**Elcito**	**0.31**	**98**	P	Pg	20 27 25.9	+0.2
EL6				S	Sb	20 27 31.2	-0.6
FDMO	**Fiordimonte**	**0.45**	**139**	P	Pg	20 27 28.4	+0.1
FDMO				S	Sb	20 27 35.5	-0.3

*THE **02** 20:43:11.6, 38°N±22°×2°7E±1°4, h10km±13km, M2.5/4, MLh2.5/4*
*AFAD **02** 20:43:11.0, 37°.75N×27°.06E, h12km±2km, ML2.2*
*ISK **02** 20:43:11.2, 37°.72N×27°.04E, h4km, ML2.6/15*
*ATH **02** 20:43:11.4, 37°.75N×27°.02E, h10km±1km, ML2.5/6, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 02 20:43:11.5±0.8, 37°.74N±0°.02×27°.04E±0°.02, h13km±6km, n47, σ0s50/80, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.16**	**104**	P	**Pg**	**20 43 15.1**	**-0.2**
GCAM				IAML		20 43 18.0	
	comp=E,1µm,0.2s						
GCAM				S	**Sg**	**20 43 18.1**	**+0.2**
GCAM				IAML		20 43 19.0	
	comp=N,1µm,0.2s						
GCAM	**G?zelcaml?**	**0.16**	**104**	Pg	**Pg**	**20 43 15.0**	**-0.2**
GCAM				Sg	**Sg**	**20 43 18.4**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**58**	Pg	**Pg**	**20 43 16.6**	**+0.1**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**282**	P	**Pg**	**20 43 16.6**	**-0.5**
KRL1				S	**Sg**	**20 43 20.2**	**-0.7**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**150**	P	**Pg**	**20 43 18.2**	**+0.1**
DDIM				IAML		20 43 23.0	
	comp=E,660nm,0.2s						
DDIM				S	**Sg**	**20 43 23.1**	**+0.6**
DDIM				IAML		20 43 24.0	
	comp=N,899nm,0.4s						
DGB	**zmir**	**0.34**	**339**	P	**Pg**	**20 43 18.1**	**-0.2**
DGB				S	**Sg**	**20 43 22.5**	**-0.4**
DGB				IAML		20 43 23.0	
	comp=E,345nm,0.3s						
DGB				IAML		20 43 25.0	
	comp=N,201nm,0.4s						
GMLD	**Gumuldur**	**0.35**	**344**	Pg	**Pb**	**20 43 19.6**	**0.0**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**156**	Pg	**Pg**	**20 43 19.4**	**0.0**
DIDI				Sg	**Sg**	**20 43 25.2**	**+0.6**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**350**	P	**Pg**	**20 43 21.2**	**-0.1**
BEYE				S	**Sg**	**20 43 27.9**	**0.0**
BEYE				IAML		20 43 32.0	
	comp=N,438nm,0.2s						
BEYE				IAML		20 43 32.0	
	comp=E,386nm,0.2s						
DUVT	**Torbali**	**0.58**	**34**	P	**Pg**	**20 43 22.7**	**-0.2**
DUVT				S	**Sg**	**20 43 30.2**	**-0.4**
DUVT				IAML		20 43 32.0	
	comp=E,209nm,0.1s						
DAGE	**izmir**	**0.62**	**65**	P	**Pb**	**20 43 25.1**	**+0.8**
DAGE				S	**Sg**	**20 43 31.5**	**-0.4**
DAGE				IAML		20 43 36.0	
	comp=E,323nm,0.2s						
BLCB	**Balcova**	**0.65**	**0**	P	**Pg**	**20 43 23.6**	**-0.5**
BLCB				S	**Sg**	**20 43 32.5**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**0**	Pg	**Pb**	**20 43 24.9**	**+0.3**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**320**	P	**Pg**	**20 43 23.6**	**-0.6**
ZEYE				IAML		20 43 33.0	
	comp=N,352nm,0.3s						
ZEYE				S	**Sg**	**20 43 33.0**	**+0.2**
ZEYE				IAML		20 43 38.0	
	comp=E,233nm,0.2s						
AYDN	**Tasoluk**	**0.67**	**96**	P	**Pg**	**20 43 24.3**	**-0.3**
AYDN				S	**Sg**	**20 43 32.3**	**-1.2**
AYDN				IAML		20 43 38.0	
	comp=E,188nm,0.3s						
AYDN				IAML		20 43 38.0	
	comp=N,206nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.71**	**73**	Pg	**Pb**	**20 43 25.9**	**+0.2**
AYDB				Sg	**Sb**	**20 43 36.2**	**+0.8**
AYDB				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pg**	**20 43 25.2**	**0.0**
BODT				AML	AML		
MLSB	**Milas**	**0.73**	**127**	Pg	**Pg**	**20 43 25.9**	**+0.2**
MLSB				Sg	**Sg**	**20 43 35.7**	**+0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**20 43 25.9**	**0.0**
BDRM				S	**Sg**	**20 43 35.6**	**-0.1**
BDRM				IAML		20 43 37.0	
	comp=E,144nm,0.6s						
BDRM				IAML		20 43 40.0	
	comp=N,194nm,0.6s						
KLNA	**Kalymnos**	**0.78**	**184**	P	**Pg**	**20 43 26.8**	**+0.2**
KLNA				S	**Sb**	**20 43 37.7**	**+0.3**
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pn**	**20 43 28.5**	**-0.3**
IZMR				S	**Sg**	**20 43 37.4**	**-0.9**
IZMR				IAML		20 43 41.0	
	comp=E,52nm,0.3s						
IZMR				IAML		20 43 41.0	
	comp=N,106nm,0.5s						
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pn**	**20 43 30.2**	**-0.1**
KRBN				AML	AML		
FOCM	**Foa**	**1.00**	**346**	Pg	**Pn**	**20 43 31.3**	**0.0**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pg**	**20 43 30.8**	**-0.2**
CHOS				S	**Sb**	**20 43 44.8**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	Pg	**Pn**	**20 43 31.5**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pg**	**20 43 30.8**	**-0.2**
CHOS				S	**Sb**	**20 43 44.3**	**+0.2**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pn**	**20 43 31.7**	**+0.2**
NAZL				AML	AML		
CAMT	**Merkez**	**1.03**	**12**	P	**Pb**	**20 43 31.3**	**+0.1**
CAMT				S	**Sn**	**20 43 45.8**	**-0.2**
CAMT				IAML		20 43 49.0	
	comp=E,215nm,0.6s						
CAMT				IAML		20 43 50.0	
	comp=N,184nm,0.5s						
ESEN	**Aydn-Nazilli**	**1.04**	**86**	P	**Pb**	**20 43 31.7**	**+0.3**
ESEN				S	**Sn**	**20 43 46.2**	**0.0**
ESEN				IAML		20 43 48.0	
	comp=N,53nm,0.4s						
ESEN				IAML		20 43 51.0	
	comp=E,42nm,0.8s						
KARB	**zmir-Karabur**	**1.05**	**332**	P	**Pb**	**20 43 31.5**	**+0.1**
KARB				S	**Sb**	**20 43 45.6**	**+0.5**
KARB				IAML		20 43 49.0	
	comp=E,128nm,0.8s						
KARB				IAML		20 43 49.0	
	comp=N,85nm,0.3s						
EAG2	**Marmaro, Chios**	**1.09**	**318**	P	**Pn**	**20 43 32.5**	**+0.1**
DAT	**Datca**	**1.10**	**157**	P	**Pg**	**20 43 32.3**	**-0.3**
DAT				S	**Sg**	**20 43 45.8**	**-1.0**
DAT				IAML		20 43 51.0	
	comp=E,48nm,0.6s						
YAZI	**Mula-Dat§a-**	**1.11**	**162**	P	**Pb**	**20 43 32.0**	**-0.5**
YAZI				S	**Sg**	**20 43 45.6**	**-1.5**
YAZI				IAML		20 43 49.0	
	comp=E,33nm,0.4s						
YAZI				IAML		20 43 52.0	
	comp=N,32nm,0.6s						
MULA	**Mugla, Merkez-**	**1.13**	**115**	P	**Pb**	**20 43 32.8**	**-0.1**
MULA				S	**Sg**	**20 43 46.8**	**-1.1**
MULA				IAML		20 43 51.0	
	comp=N,39nm,0.7s						
MULA				IAML		20 43 52.0	
	comp=E,46nm,0.2s						
KIRA	**zmir-Kiraz**	**1.17**	**67**	P	**Pn**	**20 43 34.6**	**+0.9**
KIRA				S	**Sb**	**20 43 47.7**	**-1.1**
KIRA				IAML		20 43 53.0	
	comp=N,56nm,0.7s						
KIRA				IAML		20 43 53.0	
	comp=E,47nm,0.6s						
GOMA	**Golmarmara-Man**	**1.19**	**35**	Pn	**Pg**	**20 43 34.9**	**+0.5**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.23**	**1**	P	**Pg**	**20 43 35.3**	**+0.2**
ZEDA				S	**Sn**	**20 43 51.0**	**+0.2**
ZEDA				IAML		20 43 53.0	
	comp=N,78nm,0.5s						
ZEDA				IAML		20 43 56.0	
	comp=E,51nm,0.7s						
KTTT	**Salihli**	**1.26**	**41**	P	**Pg**	**20 43 35.5**	**-0.2**
KTTT				S	**Sb**	**20 43 50.5**	**-0.8**
KTTT				IAML		20 43 57.0	
	comp=N,36nm,0.5s						
DKL	**Dikili**	**1.33**	**356**	Pn	**Pg**	**20 43 37.8**	**+0.6**
DKL				AML	AML		
TURN	**Turunc**	**1.36**	**135**	P	**Pg**	**20 43 37.5**	**-0.1**
TURN				IAML		20 43 52.0	
	comp=E,19nm,1.1s						
TURN				S	**Sg**	**20 43 55.4**	**+0.1**
TURN				IAML		20 43 59.0	
	comp=N,48nm,0.5s						
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**20 43 36.0**	**-0.4**
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**20 43 36.9**	**+0.5**
APE				S	**Sn**	**20 43 55.2**	**+0.7**
APE				AML	AML		
SULTU	**Buldan**	**1.41**	**77**	P	**Pg**	**20 43 38.7**	**+0.2**
SULTU				S	**Sb**	**20 43 55.2**	**-0.4**
SULTU				IAML		20 44 03.0	
	comp=N,49nm,0.7s						
SULTU				IAML		20 44 03.0	
	comp=E,41nm,0.8s						
MANT	**Manisa**	**1.42**	**57**	P	**Pb**	**20 43 38.1**	**+0.2**
MANT				S	**Sb**	**20 43 54.9**	**-1.0**
MANT				IAML		20 43 59.0	
	comp=N,22nm,0.8s						
MANT				IAML		20 44 02.0	
	comp=E,38nm,0.6s						
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pg**	**20 43 39.5**	**-0.2**
SOMA				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.51**	**100**	P	**Pg**	**20 43 40.6**	**+0.1**
TAVA				S	**Sn**	**20 43 58.2**	**+0.1**
TAVA				IAML		20 44 07.0	
	comp=N,14nm,0.4s						
TAVA				IAML		20 44 13.0	
	comp=E,15nm,0.5s						
PRK	**Paraskevi**	**1.62**	**338**	P	**Pn**	**20 43 40.3**	**+0.6**
PRK				AML	AML		

*IDC **02** 20:48:28.5±1.1, 47°.90N×27°.57W, h0km, mb3.6/10, mbtmp3.7/12, ML4.0/2, MS3.5/28, Error ellipse: s-maj=33.2km s-min=18.8km az=13.0*
ISC 02 20:48:30.0±0.9, 47°.9N±0°.2×27°.6W±0°.1, h10km, n41, σ0s65/13, mb3.6/9, MS3.5/26, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EKA	**Eskdalemuir Ar**	**16.82**	**55**	Pn	**Pn**	**20 52 26.2**	**+0.7**
	baz=264,slow=15						
EKA				LR	LR	20 57 39.2	
	comp=Z,118nm,19.6s,baz=208,slow=33						
	3.5nm,0.8s						
ESDC	**Sonseca Array**	**18.86**	**107**	P	**Pn**	**20 52 51.2**	**+0.5**
	0.1nm,0.3s,baz=298,slow=12,SNR=18						
ESDC				LR	LR	20 58 42.5	

	comp=Z,63nm,20.6s,baz=288,slow=32 1.1nm,0.6s						
ESDC				AML	AML		
SFJD	**Kangerlussuaq**	**22.56**	**336**	LR	LR	21 00 22.1	
	comp=Z,116nm,19.0s,baz=148,slow=32						
DAVOX	**Davos/Dischmat**	**25.24**	**78**	LR	LR	21 01 49.8	
	comp=Z,129nm,21.5s,baz=310,slow=32						
NOA	**NORSAR Array B**	**25.64**	**45**	LR	LR	21 01 55.3	
	comp=Z,64nm,20.3s,baz=265,slow=32						
HFS	**Hagfors**	**26.67**	**47**	LR	LR	21 03 43.0	
	comp=Z,97nm,18.3s,baz=346,slow=34						
GERES	**GERESS Array B**	**27.19**	**72**	P	**P**	**20 54 13.4**	**-0.3**
	1.1nm,0.9s,baz=282,slow=9.3,SNR=5.2						
GERES				LR	LR	21 04 33.1	
	comp=Z,134nm,18.1s,baz=240,slow=36 1.1nm,0.9s						
VRAC	**Vranov**	**28.92**	**70**	LR	LR	21 05 07.3	
	comp=Z,186nm,18.5s,baz=322,slow=34						
KEST	**Kesra**	**29.79**	**100**	P	**P**	**20 54 37.2**	**+0.3**
	3.4nm,0.9s,baz=22,slow=0.9,SNR=4.1 3.4nm,0.9s						
SADO	**Sadowa**	**35.22**	**285**	LR	LR	21 08 24.3	
	comp=Z,84nm,19.2s,baz=156,slow=34						
MLR	**Muntele Rosu**	**36.17**	**73**	LR	LR	21 10 09.6	
	comp=Z,137nm,18.7s,baz=0,slow=36						
AKASG	**Malin Array Be**	**36.36**	**64**	P	**P**	**20 55 33.3**	**-0.7**
	0.5nm,0.5s,baz=283,slow=9.6,SNR=1.6						
AKASG				LR	LR	21 10 05.5	
	comp=Z,118nm,20.0s,baz=320,slow=36 0.5nm,0.5s						
RES	**Resolute Bay**	**38.56**	**337**	LR	LR	21 08 56.6	
	comp=Z,44nm,18.4s,baz=11,slow=32						
TORD	**Torodi Ar. Bea**	**42.34**	**135**	P	**P**	**20 56 24.0**	**-0.2**
	0.7nm,0.9s,baz=321,slow=9.6,SNR=2.9 0.7nm,0.9s						
TKL	**Tuckaleechee C**	**42.78**	**275**	LR	LR	21 12 17.2	
	comp=Z,80nm,19.9s,baz=61,slow=33						
SJG	**San Juan**	**43.21**	**240**	LR	LR	21 10 18.7	
	comp=Z,46nm,20.8s,baz=50,slow=30						
BRTR	**Keskin Array B**	**43.87**	**77**	LR	LR	21 15 18.8	
	comp=Z,40nm,19.1s,baz=259,slow=37						
DBIC	**Dimbokro**	**45.41**	**147**	LR	LR	21 14 07.0	
	comp=Z,58nm,18.3s,baz=92,slow=34						
MDP	**Montagnes des**	**47.74**	**215**	LR	LR	21 12 01.2	
	comp=Z,34nm,19.5s,baz=96,slow=30						
MMAI	**Mount Meron Ar**	**48.84**	**84**	LR	LR	21 22 16.2	
	comp=Z,28nm,18.1s,baz=298,slow=42						
ARTI	**Arti**	**50.12**	**46**	LR	LR	21 17 10.3	
	comp=Z,127nm,18.5s,baz=306,slow=34						
ASF	**Jabal al Asfar**	**50.35**	**84**	LR	LR	21 20 13.3	
	comp=Z,29nm,19.2s,baz=325,slow=38						
SDV	**Santo Domingo**	**53.18**	**237**	LR	LR	21 19 56.3	
	comp=Z,23nm,18.5s,baz=358,slow=36						
PDAR	**Pinedale Array**	**55.29**	**297**	LR	LR	21 19 57.4	
	comp=Z,49nm,18.1s,baz=30,slow=34						
H10N2	**ASCENSION HYDR**	**56.67**	**164**	T	T	21 59 06.3	
	baz=350,slow=75,SNR=8.4						
H10N3	**ASCENSION HYDR**	**56.68**	**164**	T	T	21 59 07.6	
	baz=350,slow=75,SNR=10						
H10N1	**ASCENSION HYDR**	**56.69**	**164**	T	T	21 59 07.6	
	baz=350,slow=75,SNR=9.0						
H10S3	**ASCENSION HYDR**	**57.74**	**165**	T	T	22 00 25.6	
	baz=349,slow=74,SNR=26						
H10S2	**ASCENSION HYDR**	**57.75**	**165**	T	T	22 00 27.7	
	baz=231,slow=74,SNR=35						
BVAR	**Borovoye Array**	**57.77**	**45**	P	**P**	**20 58 21.7**	**+0.7**
	1.3nm,0.7s,baz=319,slow=7.7,SNR=3.3 1.3nm,0.7s						
ANMO	**Albuquerque**	**58.12**	**288**	LR	LR	21 21 19.1	
	comp=Z,26nm,18.9s,baz=14,slow=34						
ILAR	**Eielson Array**	**58.20**	**334**	P	**P**	**20 58 23.5**	**-0.3**
	0.8nm,0.7s,baz=42,slow=5.3,SNR=7.1 0.8nm,0.7s						
ROSC	**El Rosal**	**58.57**	**238**	LR	LR	21 25 00.6	
	comp=Z,29nm,18.1s,baz=64,slow=37						
TXAR	**Lajitas Array**	**59.90**	**282**	P	**P**	**20 58 36.7**	**+0.5**
	0.3nm,0.7s,baz=69,slow=8.2,SNR=4.1 0.3nm,0.7s						
CMIG	**Matias Romero**	**62.34**	**265**	LR	LR	21 23 18.4	
	comp=Z,43nm,21.6s,baz=3,0,slow=34						
KURBB	**Kurchatov Arra**	**63.17**	**43**	P	**P**	**20 58 58.5**	**+0.6**
	0.3nm,0.7s,baz=312,slow=7.3,SNR=4.9 0.3nm,0.7s						
NVAR	**Mina Array Bea**	**63.20**	**298**	P	**P**	**20 58 58.7**	**+0.2**
	0.1nm,0.3s,baz=40,slow=5.5,SNR=1.4 0.1nm,0.3s						
ZALV	**Zalesovo Beam**	**63.57**	**38**	LR	LR	21 26 34.3	
	comp=Z,76nm,18.3s,baz=330,slow=36						
AAK	**Ala-Archa**	**66.70**	**52**	LR	LR	21 29 40.5	
	comp=Z,45nm,18.4s,baz=322,slow=37						
MKAR	**Makanchi Array**	**67.64**	**44**	P	**P**	**20 59 26.4**	**-0.5**
	0.2nm,0.7s,baz=301,slow=9.4,SNR=3.7						
MKAR				LR	LR	21 30 23.3	
	comp=Z,62nm,18.0s,baz=267,slow=37 0.2nm,0.7s						
ASAR	**Alice Springs**	**151.68**	**38**	PKPbc	**PKPbc**	**21 08 23.6**	**-1.1**
	0.4nm,0.7s,baz=341,slow=1.9,SNR=5.7						

*ISK **02** 20:51:39.3,37.°72N×27.°00E,h9km,ML2.9/21*
*THE **02** 20:51:40.2,38.°N±1.°×2.°7E±.°,h7km±2km,M3.0/8,MLh3.0/8*
*AFAD **02** 20:51:40.1,37.°73N×27.°02E,h7km±2km,ML2.9*
*ATH **02** 20:51:41.2,37.°68N×26.°98E,h26km±11km,ML3.2/4,*
Latitude uncertainty: 2 km; Longitude uncertainty: 3 km
ISC 02 20:51:40.1±0.9,**37.71N**±0.02×**27.01E**±0.02,**h13**km±6km,
n43,σ0°54/63,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
GCAM	**G?zelcami?**	**0.18**	**94**	P		**Pg**	**20 51 44.1**	**-0.2**
GCAM				IAML			20 51 47.0	
	comp=E,3μm,0.2s							
GCAM				S		**Sg**	**20 51 47.2**	**+0.2**
GCAM				IAML			20 51 48.0	
	comp=N,4μm,0.4s							
GCAM	**G?zelcami?**	**0.18**	**94**	Pg		**Pg**	**20 51 44.0**	**-0.2**
GCAM				Sg		**Sg**	**20 51 47.2**	**+0.2**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**56**	Pg		**Pg**	**20 51 45.0**	**-0.7**
KUSD				AML		AML		
DDIM	**Aydin, Didim**	**0.31**	**144**	P		**Pg**	**20 51 46.9**	**+0.3**
DDIM				S		**Sb**	**20 51 52.0**	**-0.6**
DDIM				IAML			20 51 52.0	
	comp=E,1μm,0.6s							
DDIM				IAML			20 51 53.0	
	comp=N,993nm,0.3s							
DGB	**zmir**	**0.35**	**343**	P		**Pg**	**20 51 47.1**	**-0.2**
DGB				S		**Sg**	**20 51 51.7**	**-0.5**
DGB				IAML			20 51 52.0	
	comp=N,1μm,0.2s							
DGB				IAML			20 51 52.0	
	comp=E,1μm,0.2s							
GMLD	**Gumuldur**	**0.37**	**348**	Pg		**Pg**	**20 51 47.1**	**-0.5**
GMLD				Sg		**Sg**	**20 51 52.9**	**+0.2**
GMLD				AML		AML		
DIDI	**Didim-Aydin**	**0.38**	**152**	Pg		**Pg**	**20 51 47.7**	**-0.1**
DIDI				AML		AML		
BEYE	**izmir**	**0.52**	**353**	P		**Pg**	**20 51 50.2**	**-0.1**
BEYE				S		**Sg**	**20 51 57.7**	**+0.5**
BEYE				IAML			20 51 58.0	
	comp=E,811nm,0.5s							
BEYE				IAML			20 52 01.0	
	comp=N,894nm,0.2s							
DUVT	**Torbali**	**0.61**	**34**	P		**Pg**	**20 51 51.5**	**-0.6**
DUVT				S		**Sg**	**20 51 59.9**	**-0.4**
DUVT				IAML			20 52 04.0	
	comp=E,784nm,0.6s							
YKAV	**Yalikavak-Bodr**	**0.62**	**160**	Pg		**Pg**	**20 51 52.2**	**-0.1**
YKAV				AML		AML		
BLCB	**Balcova**	**0.67**	**2**	P		**Pg**	**20 51 52.7**	**-0.5**
BLCB				AML		AML		
BLCB	**Balcova**	**0.67**	**2**	Pg		**Pg**	**20 51 52.9**	**-0.3**
BLCB				Sg		**Sg**	**20 52 02.4**	**+0.3**
BLCB				AML		AML		
AYDN	**Tasoluk**	**0.69**	**94**	P		**Pg**	**20 51 53.4**	**-0.2**
AYDN				S		**Sg**	**20 52 02.2**	**-0.5**
AYDN				IAML			20 52 07.0	
	comp=N,767nm,0.2s							
AYDN				IAML			20 52 07.0	
	comp=E,1μm,0.6s							
BODT	**Bodrum**	**0.69**	**160**	P		**Pg**	**20 51 53.3**	**-0.3**
BODT				S		**Sb**	**20 52 03.6**	**+0.2**
BODT				AML		AML		
BODT	**Bodrum**	**0.69**	**160**	Pg		**Pg**	**20 51 53.2**	**-0.4**
BODT				AML		AML		
BDRM	**Kayabasi**	**0.73**	**152**	P		**Pg**	**20 51 54.0**	**-0.4**
BDRM				S		**Sb**	**20 52 05.2**	**+0.5**
BDRM				IAML			20 52 06.0	
	comp=E,493nm,0.4s							
BDRM				IAML			20 52 08.0	
	comp=N,886nm,0.6s							
AYDB	**Zeytinkoy-Aydi**	**0.73**	**71**	Pg		**Pg**	**20 51 53.9**	**-0.5**
AYDB				AML		AML		
MLSB	**Milas**	**0.74**	**124**	Pg		**Pg**	**20 51 53.9**	**-0.6**
MLSB				Sg		**Sb**	**20 52 04.9**	**+0.1**
MLSB				AML		AML		
KLNA	**Kalymnos**	**0.76**	**182**	P		**Pb**	**20 51 55.3**	**+0.2**
KLNA				S		**Sg**	**20 52 05.0**	**+0.3**
KLNA				AML		AML		
IZMR	**zmir-demi**	**0.85**	**60**	P		**Pg**	**20 51 56.1**	**-0.6**
IZMR				S		**Sg**	**20 52 06.6**	**-1.3**
IZMR				IAML			20 52 10.0	
	comp=N,350nm,0.5s							
IZMR				IAML			20 52 10.0	
	comp=E,291nm,0.6s							
KRBN	**Karaburun**	**0.95**	**338**	Pg		**Pg**	**20 51 57.6**	**-0.9**
KRBN				AML		AML		
CHOS	**Chios island**	**1.01**	**312**	P		**Pg**	**20 51 59.5**	**-0.2**
CHOS				S		**Sb**	**20 52 13.6**	**+0.9**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**312**	P		**Pg**	**20 51 59.4**	**-0.3**
CHOS				S		**Sb**	**20 52 13.4**	**+0.6**
CHOS				AML		AML		
FOCM	**Foa**	**1.02**	**348**	Pg		**Pg**	**20 51 59.2**	**-0.7**
FOCM				AML		AML		
NAZL	**Nazilli-Aydin**	**1.04**	**76**	Pg		**Pg**	**20 51 59.9**	**-0.4**
NAZL				AML		AML		
DAT	**Datca**	**1.08**	**155**	Pn		**Pg**	**20 52 00.2**	**-0.8**
DAT				AML		AML		
EAG2	**Marmaro, Chios**	**1.09**	**320**	P		**Pb**	**20 52 01.3**	**+0.4**
EAG2				S		**Sn**	**20 52 16.4**	**+0.3**
YER	**Yerkesik**	**1.17**	**119**	P		**Pg**	**20 52 02.0**	**-0.6**
YER				S		**Sn**	**20 52 18.3**	**+0.3**
YER	**Yerkesik**	**1.17**	**119**	Pn		**Pb**	**20 52 02.5**	**+0.4**
YER				AML		AML		
GOMA	**Golmarmara-Man**	**1.22**	**35**	Pn		**Pb**	**20 52 03.1**	**0.0**
GOMA				AML		AML		
AKS	**Akhisar**	**1.32**	**28**	Pn		**Pn**	**20 52 04.5**	**+0.2**
AKS				AML		AML		
APE	**Apeiranthos**	**1.34**	**242**	P		**Pn**	**20 52 04.6**	**0.0**
APE				AML		AML		
APE	**Apeiranthos**	**1.34**	**242**	P		**Pn**	**20 52 03.8**	**-0.8**
APE				S		**Sb**	**20 52 20.9**	**-1.4**
APE				AML		AML		
DKL	**Dikili**	**1.36**	**357**	P		**Pn**	**20 52 05.0**	**+0.2**
TURN	**Turunc**	**1.36**	**133**	Pn		**Pn**	**20 52 05.3**	**+0.6**
TURN				AML		AML		
SOMA	**Soma-Manisa**	**1.50**	**16**	Pn		**Pn**	**20 52 07.5**	**+0.8**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.50**	**37**	Pn		**Pn**	**20 52 07.2**	**+0.4**
GORD				AML		AML		
DALY	**Dalyan (Mula)**	**1.59**	**124**	Pn		**Pn**	**20 52 08.3**	**+0.4**
DALY				AML		AML		
PRK	**Paraskevi**	**1.64**	**339**	P		**Pn**	**20 52 08.9**	**+0.3**
PRK				S		**Sb**	**20 52 30.8**	**+0.2**
PRK				AML		AML		
PRK	**Paraskevi**	**1.64**	**339**	P		**Pn**	**20 52 07.7**	**-0.9**
PRK				AML		AML		
ARG	**Arkhangelos**	**1.74**	**149**	P		**Pn**	**20 52 09.1**	**-0.9**
ARG				AML		AML		
THERA	**Ancient Thera,**	**1.82**	**223**	P		**Pn**	**20 52 11.5**	**+0.4**
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn		**Pn**	**20 52 12.0**	**+0.6**
APMY				AML		AML		

*RSNC **02** 20:54:53.2±0.0,6.°N±2.°×7.°3W±.°, h33km±7km, M3.2, mb3.8, ML2.8*
*FUNV **02** 20:54:56.8,5.°60N×72.°65W, h23km, MW4.0, Presumed earthquake*
ISC 02 20:54:55.3±1.1,**5.°55N**±0.°03×**72.°54W**±0.°03,**h35**km,**n39,**
σ2°30/68,Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
RUSC	**La Rusia**	**0.64**	**302**	P		**Pn**	**20 55 07.5**	**-0.9**
RUSC				S		**Sn**	**20 55 16.9**	**-0.6**
RUSC	**La Rusia**	**0.64**	**302**	*e*P		**Pn**	**20 55 07.4**	**-1.0**
RUSC				*e*S		**Sn**	**20 55 15.6**	**-1.9**
TAMC	**Tame, Arauca**	**1.16**	**40**	P		**Pn**	**20 55 17.6**	**+2.5**
TAMC				S		**Sn**	**20 55 35.4**	**+5.7**
BARC	**Barichara**	**1.22**	**328**	P		**Pn**	**20 55 17.4**	**+1.3**
BARC				S		**Sn**	**20 55 34.4**	**+2.9**
PTGC	**Puerto Gaitan,**	**1.40**	**163**	P		**Pn**	**20 55 18.4**	**0.0**
PTGC				S		**Sn**	**20 55 37.3**	**+1.6**
CHIC	**Chingaza**	**1.50**	**232**	P		**Pn**	**20 55 20.2**	**+0.1**
CHIC				S		**Sn**	**20 55 39.9**	**+1.3**
SPBC	**San Pablo de B**	**1.53**	**274**	P		**Pn**	**20 55 20.9**	**+0.7**
SPBC				S		**Sn**	**20 55 41.7**	**+2.8**
VILC	**Villavicencio,**	**1.83**	**219**	P		**Pn**	**20 55 24.8**	**+0.4**
VILC				S		**Sn**	**20 55 49.8**	**+3.3**
CVER	**Cruz Verde, Cu**	**1.83**	**236**	P		Pn	20 55 26.8	+2.0
CVER				S		**Sn**	**20 55 49.4**	**+2.3**
BRJC	**Barrancabermej**	**1.85**	**320**	P		**Pn**	**20 55 26.1**	**+1.5**
BRJC				S		**Sn**	**20 55 50.4**	**+3.5**
PTBC	**PUERTO BERRIO,**	**2.14**	**297**	P		**Pn**	**20 55 28.4**	**-0.2**
PTBC				S		**Sn**	**20 55 58.8**	**+4.7**
CAPV	**Capacho**	**2.31**	**6**	*e*P		**Pn**	**20 55 33.1**	**+2.0**
NORC	**Norcasia**	**2.32**	**271**	P		**Pn**	**20 55 31.3**	**+0.2**
NORC				S		**Sn**	**20 56 00.3**	**+1.9**
OCAC	**Ocana**	**2.78**	**344**	P		**Pn**	**20 55 38.7**	**+1.1**
GUY2C	**Guyana, Caldas**	**2.83**	**264**	P		**Pn**	**20 55 39.6**	**+1.1**
GUY2C				S		**Sn**	**20 56 12.1**	**+0.5**
URMC	**La Uribe, Meta**	**2.93**	**219**	P		**Pn**	**20 55 40.2**	**+0.7**
URMC				S		**Sn**	**20 56 14.9**	**+1.4**
PRAC	**Prado**	**2.96**	**232**	P		**Pn**	**20 55 41.0**	**+1.1**
PRAC				S		**Sn**	**20 56 16.6**	**+2.3**
GUVC	**San Jose del G**	**2.98**	**182**	P		**Pn**	**20 55 40.7**	**+0.5**
GUVC				S		**Sn**	**20 56 14.9**	**+0.1**
HELC	**Santa Helena**	**3.04**	**282**	P		**Pn**	**20 55 41.6**	**+0.3**
HELC				S		Sn	20 56 22.8	+6.1
HELC	**Santa Helena**	**3.04**	**282**	*e*P		**Pn**	**20 55 42.1**	**+0.8**
HELC				*e*S		**Sn**	**20 56 15.4**	**-1.3**
ORTC	**Ortega, Tolima**	**3.15**	**239**	P		**Pn**	**20 55 42.8**	**+0.3**
ORTC				S		**Sn**	**20 56 20.6**	**+1.7**
CBOC	**Ciudad Bolivar**	**3.47**	**275**	P		Pn	20 55 49.2	+2.2
MACC	**Macarena, Meta**	**3.62**	**201**	P		**Pn**	**20 55 48.7**	**-0.3**
MACC				S		**Sn**	**20 56 29.0**	**-1.6**
UREC	**San Jos de Ur**	**3.69**	**307**	P		**Pn**	**20 55 50.9**	**+1.0**
SDV	**Santo Domingo**	**3.82**	**30**	P		**Pn**	**20 55 54.2**	**+2.3**
SDV				S		**Sn**	**20 56 37.4**	**+1.7**
SDV	**Santo Domingo**	**3.82**	**30**	*e*P		**Pn**	**20 55 53.6**	**+1.7**
SDV				*e*S		**Sn**	**20 56 35.9**	**+0.2**
YOTC	**Yotoco, Valle**	**4.10**	**248**	P		**Pn**	**20 55 55.8**	**+0.2**
APAC	**Apartado, Choc**	**4.64**	**300**	P		**Pn**	**20 56 04.4**	**+1.4**
APAC				S		**Sn**	**20 56 59.6**	**+3.9**
SJCC	**San Jacinto, C**	**5.05**	**329**	*e*P		**Pn**	**20 56 08.4**	**-0.3**
SJCC				*e*S		**Sn**	**20 57 01.0**	**-4.9**
CRJC	**Cerrejon, Guaj**	**5.45**	**356**	P		**Pn**	**20 56 13.9**	**-0.3**
CRJC				S		**Sn**	**20 57 16.0**	**+0.3**
TEPV	**Terepaima**	**5.50**	**37**	*e*P		**Pn**	**20 56 16.2**	**+1.3**
TEPV				*e*S		**Sn**	**20 57 14.9**	**-2.1**
MAPV	**Macapo**	**5.87**	**43**	*e*P		**Pn**	**20 56 20.8**	**+0.8**
MAPV				*e*S		**Sn**	**20 57 24.1**	**-2.0**
URIC	**Uribia, Colomb**	**6.14**	**5**	P		**Pn**	**20 56 22.8**	**-0.8**
URIC				S		**Sn**	**20 57 29.7**	**-2.9**
CACV	**CAICARA DEL OR**	**6.29**	**71**	*e*P		Pn	20 56 34.2	+8.6
CACV				*e*S		Sn	20 57 46.0	+10
BENV	**Beln**	**6.57**	**48**	*e*P		**Pn**	**20 56 31.0**	**+1.4**
BENV				*e*S		**Sn**	**20 57 39.5**	**-4.0**
TURV	**Turiamo**	**6.74**	**43**	*e*P		**Pn**	**20 56 32.3**	**+0.5**
TURV				*e*S		**Sn**	**20 57 43.3**	**-4.1**
TACV	**Tcata**	**7.12**	**50**	*e*P		**Pn**	**20 56 38.3**	**+1.2**
TACV				*e*S		**Sn**	**20 57 53.5**	**-3.3**
MERV	**Las Mercedes**	**7.20**	**59**	*e*P		**Pn**	**20 56 39.5**	**+1.3**
MERV				*e*S		**Sn**	**20 57 54.9**	**-4.0**
SGC2	**Sao Gabriel da**	**7.93**	**135**	P		**Pn**	**20 56 47.4**	**-0.8**
SGC2				S		**Sn**	**20 58 09.4**	**-7.4**

*AFAD **02** 20:55:28.9,37.°73N×27.°02E,h7km±2km,ML2.3*
*THE **02** 20:55:29.4,38.°N±2.°×2.°7E±.°, h3km±4km, M2.4/4, MLh2.4/4*
*ISK **02** 20:55:29.1,37.°75N×27.°03E,h5km,ML2.6/13*
*ATH **02** 20:55:29.1,37.°75N×27.°01E,h20km±1km,ML2.4/8,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km
ISC 02 20:55:28.9±0.8,**37.74N**±0.02×**27.04E**±0.02,**h18**km±5km,
n52,σ0°51/73,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
GCAM	**G?zelcami?**	**0.16**	**106**	P		**Pg**	**20 55 33.0**	**-0.2**
GCAM				S		**Sg**	**20 55 36.4**	**+0.3**
GCAM				IAML			20 55 37.0	
	comp=N,2μm,0.1s							
GCAM				IAML			20 55 37.0	
	comp=E,1μm,0.5s							
GCAM	**G?zelcami?**	**0.16**	**106**	Pg		**Pg**	**20 55 33.0**	**-0.2**
GCAM				Sg		**Sg**	**20 55 35.9**	**-0.2**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**59**	Pg		**Pg**	**20 55 34.3**	**-0.2**
KUSD				AML		AML		
KRL1	**Karlovasi Samo**	**0.27**	**281**	P		**Pg**	**20 55 34.7**	**-0.2**
KRL1				S		**Sg**	**20 55 39.1**	**+0.2**
KRL1				AML		AML		
DDIM	**Aydin, Didim**	**0.33**	**151**	P		**Pg**	**20 55 36.1**	**+0.2**
DDIM				S		**Sg**	**20 55 41.1**	**+0.4**
DDIM				IAML			20 55 42.0	
	comp=N,762nm,0.4s							
DDIM				IAML			20 55 42.0	
	comp=E,484nm,0.7s							
DGB	**zmir**	**0.33**	**338**	P		**Pg**	**20 55 36.1**	**+0.1**
DGB				S		**Sg**	**20 55 40.5**	**-0.3**
DGB				IAML			20 55 43.0	
	comp=N,145nm,0.5s							
DGB				IAML			20 55 46.0	
	comp=E,184nm,0.2s							
GMLD	**Gumuldur**	**0.35**	**344**	Pg		**Pg**	**20 55 36.6**	**+0.4**
GMLD				Sg		**Sg**	**20 55 41.6**	**+0.4**
GMLD				AML		AML		
BEYE	**izmir**	**0.49**	**350**	P		**Pg**	**20 55 39.0**	**+0.2**
BEYE				S		**Sg**	**20 55 46.0**	**+0.5**
BEYE				IAML			20 55 50.0	
	comp=N,388nm,0.2s							
BEYE				IAML			20 55 50.0	
	comp=E,313nm,0.3s							
DUVT	**Torbali**	**0.57**	**34**	P		**Pb**	**20 55 40.6**	**+0.1**
DUVT				S		**Sg**	**20 55 48.4**	**+0.3**
DUVT				IAML			20 55 49.0	
	comp=E,221nm,0.1s							
BLCB	**Balcova**	**0.64**	**0**	P		**Pb**	**20 55 41.6**	**+0.1**
BLCB				S		**Sg**	**20 55 50.7**	**+0.5**
BLCB	**Balcova**	**0.64**	**0**	Pg		**Pb**	**20 55 41.7**	**+0.1**
BLCB				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.65**	**163**	Pg		**Pg**	**20 55 42.3**	**+0.6**
YKAV				AML		AML		
AYDN	**Tasoluk**	**0.67**	**97**	P		**Pb**	**20 55 42.3**	**+0.1**
AYDN				S		**Sg**	**20 55 51.2**	**+0.1**
AYDN				IAML			20 55 56.0	
	comp=N,162nm,0.2s							
AYDN				IAML			20 55 56.0	
	comp=E,241nm,0.6s							
AYDB	**Zeytinkoy-Aydi**	**0.70**	**73**	Pg		**Pg**	**20 55 43.3**	**+0.5**
AYDB				Sg		**Sn**	**20 55 53.6**	**-1.0**
AYDB				AML		AML		
BODT	**Bodrum**	**0.71**	**162**	P		**Pb**	**20 55 42.6**	**-0.3**
BODT				AML		AML		
BODT	**Bodrum**	**0.71**	**162**	Pg		**Pg**	**20 55 43.6**	**+0.7**
BODT				Sg		**Sn**	**20 55 53.8**	**-0.9**
BODT				AML		AML		
MLSB	**Milas**	**0.74**	**127**	Pg		**Pb**	**20 55 43.2**	**-0.1**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.75**	**154**	P		**Pb**	**20 55 43.4**	**-0.1**
BDRM				IAML			20 55 54.0	
	comp=E,128nm,0.5s							
BDRM				S		**Sg**	**20 55 54.1**	**+0.6**
BDRM				IAML			20 56 00.0	
	comp=N,156nm,0.9s							
KLNA	**Kalymnos**	**0.79**	**184**	P		**Pb**	**20 55 44.0**	**-0.1**
KLNA				S		**Sb**	**20 55 54.6**	**+0.2**
IZMR	**zmir-demi**	**0.82**	**61**	P		**Pg**	**20 55 45.2**	**+0.2**
IZMR				S		**Sb**	**20 55 55.3**	**-0.2**
IZMR				IAML			20 55 59.0	
	comp=N,97nm,0.4s							
IZMR				IAML			20 55 59.0	
	comp=E,46nm,0.5s							
KRBN	**Karaburun**	**0.93**	**336**	Pg		**Pg**	**20 55 47.5**	**+0.5**
KRBN				AML		AML		
FOCM	**Foa**	**1.00**	**346**	Pg		**Pg**	**20 55 48.6**	**+0.3**
FOCM				AML		AML		
CHOS	**Chios island**	**1.01**	**310**	P		**Pn**	**20 55 48.6**	**+0.3**
CHOS				S		**Sn**	**20 56 03.2**	**+1.2**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**310**	Pg		**Pg**	**20 55 48.9**	**+0.4**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**310**	P		**Pn**	**20 55 48.6**	**+0.3**
CHOS				S		**Sb**	**20 56 00.6**	**-0.3**
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg		**Pg**	**20 55 49.5**	**+0.9**
NAZL				AML		AML		
EAG2	**Marmaro, Chios**	**1.08**	**318**	P		**Pb**	**20 55 48.8**	**-0.4**
EAG2				S		**Sb**	**20 56 02.9**	**-0.1**
YER	**Yerkesik**	**1.16**	**121**	P		**Pg**	**20 55 51.2**	**-0.2**
YER				S		**Sg**	**20 56 07.1**	**+0.5**
APE	**Apeiranthos**	**1.38**	**241**	P		**Pb**	**20 55 55.1**	**+0.9**
APE	**Apeiranthos**	**1.38**	**241**	P		**Pn**	**20 55 53.4**	**+0.1**
APE				S		**Sn**	**20 56 10.8**	**-0.4**
APE				AML		AML		
SOMA	**Soma-Manisa**	**1.46**	**15**	Pn		**Pg**	**20 55 57.1**	**0.0**
PRK	**Paraskevi**	**1

DGB			IAML		20 56 41.0	
	comp=E,194nm,0.4s					
DGB			IAML		20 56 42.0	
	comp=N,153nm,0.1s					
GMLD	**Gumuldur**	**0.36 349**	Pg	**Pg**	**20 56 35.2**	**+0.2**
GMLD			Sg	**Sg**	**20 56 40.3**	**+0.6**
GMLD			AML	AML		
BEYE	**izmir**	**0.50 353**	P	**Pg**	**20 56 37.6**	**-0.1**
BEYE			S	**Sg**	**20 56 44.6**	**+0.2**
BEYE			IAML		20 56 49.0	
	comp=N,193nm,0.2s					
BEYE			IAML		20 56 49.0	
	comp=E,186nm,0.3s					
DUVT	**Torbali**	**0.61 36**	P	**Pg**	**20 56 39.1**	**-0.6**
DUVT			IAML		20 56 48.0	
	comp=E,141nm,0.6s					
YKAV	**Yalikavak-Bodr**	**0.64 160**	Pg	**Pb**	**20 56 41.0**	**-0.1**
YKAV			AML	AML		
BLCB	**Balcova**	**0.66 3**	Pg	**Pg**	**20 56 40.1**	**-0.5**
BLCB			Sg	**Sg**	**20 56 48.5**	**-0.8**
BLCB			AML	AML		
AYDN	**Tasoluk**	**0.70 95**	P	**Pg**	**20 56 40.8**	**-0.6**
AYDN			S	**Sg**	**20 56 50.0**	**-0.6**
AYDN			IAML		20 56 54.0	
	comp=E,150nm,0.3s					
AYDN			IAML		20 56 58.0	
	comp=N,168nm,0.4s					
BODT	**Bodrum**	**0.71 160**	Pg	**Pb**	**20 56 42.3**	**+0.1**
BODT			AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74 72**	Pg	**Pg**	**20 56 42.2**	**+0.1**
AYDB			AML	AML		
MLSB	**Milas**	**0.75 125**	Pg	**Pb**	**20 56 42.9**	**-0.1**
MLSB			AML	AML		
KLNA	**Kalymnos**	**0.77 182**	P	**Pg**	**20 56 42.4**	**-0.3**
KLNA			S	**Sg**	**20 56 53.5**	**+0.8**
KLNA			AML	AML		
KRBN	**Karaburun**	**0.94 338**	Pg	**Pb**	**20 56 46.2**	**+0.1**
KRBN			AML	AML		
CHOS	**Chios island**	**1.00 312**	Pg	**Pb**	**20 56 47.4**	**+0.2**
CHOS			AML	AML		
CHOS	**Chios island**	**1.00 312**	P	**Pg**	**20 56 47.2**	**+0.1**
CHOS			S	**Sg**	**20 57 00.1**	**+0.1**
CHOS			AML	AML		
FOCM	**Foa**	**1.01 348**	Pg	**Pg**	**20 56 47.3**	**0.0**
FOCM			AML	AML		
NAZL	**Nazilli-Aydin**	**1.05 77**	Pg	**Pg**	**20 56 47.9**	**-0.1**
NAZL			AML	AML		
EAG2	**Marmaro, Chios**	**1.08 319**	P	**Pb**	**20 56 48.9**	**+0.4**
EAG2			S	**Sg**	**20 57 02.7**	**+0.1**
GOMA	**Golmarmara-Man**	**1.22 36**	Pn	**Pb**	**20 56 51.1**	**+0.2**
GOMA			AML	AML		
AKS	**Akhisar**	**1.32 29**	Pn	**Pg**	**20 56 52.9**	**-0.2**
AKS			AML	AML		
APE	**Apeiranthos**	**1.34 241**	P	**Pn**	**20 56 52.5**	**-0.1**
APE			S	**Sb**	**20 57 08.0**	**-2.3**
APE			AML	AML		
DKL	**Dikili**	**1.34 357**	Pn	**Pg**	**20 56 53.5**	**-0.2**
DKL			AML	AML		
DKL	**Dikili**	**1.34 357**	P	**Pg**	**20 56 53.5**	**-0.2**
DKL			S	**Sn**	**20 57 11.3**	**+0.8**
SOMA	**Soma-Manisa**	**1.49 16**	Pn	**Pb**	**20 56 55.7**	**+0.1**
SOMA			AML	AML		
GORD	**Gordes-Manisa**	**1.50 38**	Pn	**Pb**	**20 56 55.7**	**-0.1**
GORD			AML	AML		
PRK	**Paraskevi**	**1.62 340**	P	**Pb**	**20 56 58.3**	**+0.4**
PRK			S	**Sn**	**20 57 18.1**	**+0.8**
ARG	**Arkhangelos**	**1.76 149**	P	**Pn**	**20 56 59.1**	**+0.8**
THR8	**Santorini-Mono**	**1.79 223**	P	**Pn**	**20 56 58.7**	**0.0**
THERA	**Ancient Thera,**	**1.82 222**	P	**Pn**	**20 56 59.0**	**-0.2**
SNT5	**Nea Kammeni, S**	**1.84 225**	P	**Pn**	**20 56 59.4**	**0.0**
BALB	**Balikesir**	**2.03 20**	P	**Pb**	**20 57 04.6**	**-0.2**
BALB			S	**Sb**	**20 57 29.7**	**-0.4**
BALB			AML	AML		
KARP	**Karpathos**	**2.18 177**	P	**Pn**	**20 57 05.1**	**+0.9**

IDC 02 21:04:00.3±4.0,**2°87S**×133″46E,**h0**km,**mb3.1**/2,
mbtmp3.1/3,**ML3.1**/1,**Error ellipse: s-maj=209.8km**
s-min=29.2km az=77.0,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**16.99**	**177**	Pn	Pn	21 07 53.2	-6.2
	0.1nm,0.3s,baz=356,slow=12,SNR=4.9						
WRA				Sn	Sn	21 10 57.0	-12
	0.1nm,0.3s,baz=358,slow=24,SNR=4.5						
	0.1nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.68**	**179**	P	P	21 08 42.9	+0.8
	0.3nm,0.5s,baz=353,slow=11,SNR=13						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**66.79**	**324**	P	P	21 14 53.8	0.0
	0.2nm,0.6s,baz=114,slow=8.4,SNR=2.6						
	0.2nm,0.6s						

CNRM ***02*** *21:16:25.6,35°.69N×3°.67W,h12km,ML1.6*
SFS ***02*** *21:16:27.1,35°.41N×3°.67W,h7km,ML2.9/12,ML3.2/12,*
MLv2.9/12
MDD ***02*** *21:16:27.1±1.1,35°.45N×3°.70W,h0km,mb_Lg2.3/5,Error*
ellipse: s-maj=11.6km s-min=3.8km az=39.0

ISC 02 21:16:28.3±0.9,**35°48N**×0°.03×**3°64W**±0°.03,**h22**km±7km,
n32,σ1ᵎ38/56,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.35**	**223**	P	**Pb**	**21 16 35.7**	**-0.3**
PALE				S	**Sb**	**21 16 42.0**	**+0.8**
WMELI	**Melilla**	**0.59**	**106**	P	**Pn**	**21 16 38.7**	**-2.6**
WMELI				S	**Sb**	**21 16 45.9**	**-1.9**
EMEL	**Melilla**	**0.59**	**107**	Pg	**Pn**	**21 16 39.2**	**-2.1**
EMEL				Sg	**Sb**	**21 16 46.9**	**-1.0**
EMEL				IVmb_Lg		21 16 47.7	
EMLI	**Melilla**	**0.59**	**107**	P	**Pn**	**21 16 38.8**	**-2.6**
EMLI				S	**Sb**	**21 16 46.1**	**-1.9**
AKLM	**AKL**	**0.98**	**191**	P	**Pb**	**21 16 48.4**	**+1.7**
AKLM				S	**Sb**	**21 17 03.2**	**+4.0**
TAF	**Taforalt**	**1.20**	**123**	P	**Pb**	**21 16 51.4**	**+0.9**
TAF				S	**Sb**	**21 17 09.3**	**+3.6**
ELGU	**Los Guajares,**	**1.39**	**1**	P	**Pn**	**21 16 51.6**	**-0.8**
ELGU				S	**Sn**	**21 17 10.2**	**+0.1**
ELGU	**Los Guajares,**	**1.39**	**1**	Pn	**Pn**	**21 16 52.5**	**+0.1**
ELGU				Sn	**Sn**	**21 17 09.2**	**-0.9**
ELGU				IVmb_Lg		21 17 10.6	
EMIJ	**Mijas**	**1.42**	**320**	P	**Pn**	**21 16 52.0**	**-0.8**
EMIJ				S	**Sn**	**21 17 10.1**	**-0.8**
EMIJ	**Mijas**	**1.42**	**320**	Pn	**Pn**	**21 16 51.9**	**-1.0**
EMIJ				Sn	**Sn**	**21 17 09.8**	**-1.1**
EMIJ				IVmb_Lg		21 17 13.4	
EMAL	**Malaga-Limoner**	**1.43**	**334**	P	**Pn**	**21 16 52.5**	**-0.5**
SMIR	**Smir Dam**	**1.43**	**279**	P	**Pn**	**21 16 51.5**	**-1.4**
SMIR				S	**Sn**	**21 17 09.6**	**-1.5**
JBK	**JBK**	**1.44**	**142**	P	**Pb**	**21 16 53.8**	**-0.8**
JBK				S	**Sb**	**21 17 13.5**	**+0.9**
ECEU	**Ceuta**	**1.47**	**287**	P	**Pn**	**21 16 52.2**	**-1.4**
ECEU				S	**Sn**	**21 17 10.5**	**-1.7**
EBER	**Berja**	**1.54**	**23**	P	**Pn**	**21 16 54.6**	**-0.1**
EBER				S	**Sn**	**21 17 15.7**	**+1.6**
EBER	**Berja**	**1.54**	**23**	Pn	**Pn**	**21 16 54.8**	**+0.2**
EBER				Sn	**Sn**	**21 17 14.8**	**+0.7**
EBER				IVmb_Lg		21 17 17.8	
EGOR	**Sierra Gorda,**	**1.67**	**347**	P	**Pn**	**21 16 56.4**	**0.0**
EGOR				S	**Sb**	**21 17 19.6**	**+0.3**
EGOR	**Sierra Gorda,**	**1.67**	**347**	Pn	**Pb**	**21 16 58.2**	**-0.3**
EGOR				Sn	**Sb**	**21 17 19.5**	**+0.3**
EQTA	**Presa de Quent**	**1.73**	**5**	S	**Sn**	**21 17 18.3**	**-0.4**
EQES	**Quesada**	**2.37**	**11**	Pn	**Pn**	**21 17 07.7**	**+1.7**
EQES				Sn	**Sn**	**21 17 36.7**	**+2.3**
MD31	**MD31**	**2.76**	**200**	P	**Pn**	**21 17 12.8**	**+1.5**
MD31				S	**Sb**	**21 17 49.8**	**-0.7**
MDT	**Midelt**	**2.77**	**197**	P	**Pn**	**21 17 12.4**	**+0.8**
MDT				S	**Sb**	**21 17 49.6**	**-1.3**
EADA	**Adamuz**	**2.79**	**345**	P	**Pn**	**21 17 11.3**	**-0.3**
EADA				S	**Sn**	**21 17 46.1**	**+1.5**
ECAB	**El Cabril**	**2.96**	**332**	P	**Pn**	**21 17 14.5**	**+0.4**
ECAB				S	**Sn**	**21 17 49.9**	**+1.1**
EMUR	**La Murta**	**3.05**	**39**	S	**Sn**	**21 17 50.8**	**-0.3**
ETOB	**Tobarra**	**3.58**	**27**	P	**Pn**	**21 17 23.7**	**+1.1**
EGRO	**El Granado**	**3.71**	**305**	P	**Pn**	**21 17 23.4**	**-0.9**
PBAR	**Barrancos**	**3.83**	**316**	P	**Pn**	**21 17 25.8**	**-0.1**
PBAR				S	**Sn**	**21 18 10.4**	**+0.1**
PBDV	**Barranco-do-Ve**	**3.88**	**298**	S	**Sn**	**21 18 11.5**	**-0.1**
EBAD	**Badajoz**	**4.24**	**322**	P	**Pn**	**21 17 31.5**	**-0.1**
EBAD				S	**Sn**	**21 18 19.9**	**-0.5**
EVO	**Evora**	**4.64**	**312**	P	**Pn**	**21 17 36.3**	**-0.8**
EIBI	**Ibiza**	**5.33**	**47**	P	**Pn**	**21 17 46.3**	**-0.2**

TRN ***02*** *21:42:48.4,16°.03N×61°.27W,h100km,MD3.8,Near North*
coast of Marie-Galante.
PTWC ***02*** *21:42:50,16°.10N×61°.30W,h87km,Ml3.4/9*

ISC 02 21:42:49.0±1.6,**16°02N**±0°.04×**61°24W**±0°.08,**h106**km±8km,
n28,σ0ᵎ86/43,**Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAGL	**Barre de l'ile**	**0.08**	**208**	P	**Pn**	**21 43 03.8**	**+0.1**
MAGL	**Barre de l'ile**	**0.08**	**208**	*eP*	**Pn**	**21 43 03.9**	**+0.3**
MAGL				*eS*	**Sn**	**21 43 14.4**	**-0.3**
DSDZ	**La Diserade, G**	**0.33**	**30**	*eP*	**Pn**	**21 43 04.9**	**+0.5**
DSDZ				*eS*	**Sn**	**21 43 15.7**	**-0.3**
GDSD	**La Dsirade Is**	**0.33**	**30**	P	**Pn**	**21 43 04.8**	**+0.3**
CBE	**Ff, Capester**	**0.35**	**278**	P	**Pn**	**21 43 05.0**	**+0.4**
CBE				S	**Sn**	**21 43 15.0**	**-1.3**
DWS	**Wesley**	**0.46**	**189**	*eP*	**Pn**	**21 43 05.1**	**0.0**
DWS				*eS*	**Sn**	**21 43 16.4**	**-0.8**
ABD	**La Joyeuse, An**	**0.51**	**332**	P	**Pn**	**21 43 05.8**	**+0.3**
ABD				S	**Sn**	**21 43 17.5**	**-0.3**
GDHS	**Morne Mazeau,**	**0.56**	**296**	P	**Pn**	**21 43 06.2**	**+0.3**
GDHS				S	**Sn**	**21 43 18.7**	**+0.1**
DHSZ	**Broadband at M**	**0.56**	**296**	*eP*	**Pn**	**21 43 06.0**	**+0.2**
DHSZ				*eS*	**Sn**	**21 43 18.4**	**-0.1**
DSLB	**Salisbury**	**0.61**	**197**	P	**Pn**	**21 43 06.8**	**+0.5**
DSLB	**Salisbury**	**0.61**	**197**	*eP*	**Pn**	**21 43 07.0**	**+0.8**
DSLB				*eS*	**Sn**	**21 43 20.0**	**+0.8**
DLPL	**La Plaine**	**0.69**	**180**	*eP*	**Pn**	**21 43 07.2**	**+0.3**
DLPL				*eS*	**Sn**	**21 43 19.8**	**-0.5**
SVN	**Savane Anatole**	**1.18**	**177**	*eP*	**Pn**	**21 43 12.3**	**+0.4**
SVN				*eS*	**Sn**	**21 43 28.8**	**-0.4**
FDFM	**Morne la Roset**	**1.28**	**176**	P	**Pn**	**21 43 13.8**	**+0.7**
ILAM	**Ilet Lapin Mar**	**1.29**	**164**	P	**Pn**	**21 43 13.6**	**+0.5**
ILAM	**Ilet Lapin Mar**	**1.29**	**164**	*eP*	**Pn**	**21 43 13.8**	**+0.7**
ILAM				*eS*	**Sn**	**21 43 31.2**	**-0.2**
BIM	**Bigot**	**1.51**	**174**	P	**Pn**	**21 43 16.1**	**+0.4**
BIM	**Bigot**	**1.51**	**174**	*eP*	**Pn**	**21 43 16.6**	**+0.9**
BIM				*eS*	**Sn**	**21 43 36.4**	**+0.4**
ANWB	**Willy Bob**	**1.72**	**342**	P	**Pn**	**21 43 18.5**	**+0.3**
ANWB	**Willy Bob**	**1.72**	**342**	*eP*	**Pn**	**21 43 18.6**	**+0.4**
ANWB				*eS*	**Sn**	**21 43 39.6**	**-0.9**
SKI	**Saint Kitts**	**1.94**	**312**	*eP*	**Pn**	**21 43 21.6**	**+0.5**
SKI				*eS*	**Sn**	**21 43 44.7**	**-0.8**
SLBI	**Saint Lucia, B**	**2.00**	**173**	P	**Pn**	**21 43 22.6**	**+0.7**
SLBI	**Saint Lucia, B**	**2.00**	**173**	*eP*	**Pn**	**21 43 22.5**	**+0.7**
SLBI				*eS*	**Sn**	**21 43 47.0**	**0.0**
SVB	**Belmont**	**2.73**	**180**	x	**Sn**	**21 44 00.2**	**-3.8**
MTP	**Monte Pirata**	**4.61**	**297**	P	**Pn**	**21 43 57.2**	**+0.7**
IGPR	**InterUniversit**	**5.04**	**293**	P	**Pn**	**21 44 02.2**	**-0.1**
CELP	**Cerrillos**	**5.50**	**293**	P	**Pn**	**21 44 08.8**	**+0.3**
AOPR	**Arecibo Observ**	**5.75**	**294**	P	**Pn**	**21 44 13.5**	**+1.5**

BER 02 21:56:59.1±1.9,**71°50N**×4°05W,**h10**km,**Mw4.2,**
Confirmed Earthquake,Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBG	**Daneborg**	**5.53**	**308**	*eP*	Pn	21 58 19.6	-1.7
DBG				*eS*	Sn	21 59 17.5	-7.3
LOF	**Lofoten**	**6.94**	**111**	*eP*	Pn	21 58 37.5	-3.2
LOF				*eS*	Sn	21 59 46.7	-13
STEI	**Steigen**	**7.58**	**109**	*eP*	Pn	21 58 46.0	-3.4
FAUS	**Fauske**	**7.93**	**112**	*eP*	Pn	21 58 52.5	-1.8
LEIR	**Leirfjorden**	**8.21**	**123**	*eP*	Pn	21 58 55.1	-3.0
LEIR				*eS*	Sn	22 00 18.7	-12
LEIR				IAML		22 00 23.3	
	comp=Z,3.4nm,0.9s						
SALU	**Saltoluokta**	**8.90**	**107**	*eP*	Pn	21 59 04.6	-3.0
KOVU	**Salmi**	**8.93**	**100**	*eP*	Pn	21 59 04.5	-3.5
LANU	**Lannavaara**	**9.61**	**98**	*eP*	Pn	21 59 13.3	-3.9
HEF	**Hetta**	**9.94**	**95**	*eP*	Pn	21 59 16.4	-5.4

TEH ***02*** *22:32:13.1,28°.23N×56°.24E,h18km±30km,ML3.1,*
Presumed earthquake
DSN ***02*** *22:32:14.3±1.7,28°.25N×55°.82E,h12km,ML2.9/10,Error*
ellipse: s-maj=23.2km s-min=12.4km az=60.0
OMAN ***02*** *22:32:16.3±2.0,28°.06N×56°.28E,h10km,ml3.0/15,Error*
ellipse: s-maj=18.1km s-min=13.1km az=145.0

ISC 02 22:32:14.0±1.8,**28°23N**×0°.05×**56°27E**±0°.06,**h14**km±13km,
n51,σ1ᵎ43/66,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GENO	**Geno**	**0.83**	**186**	Pg	**Pg**	**22 32 29.7**	**-0.4**
KHNJ	**Kahnooj**	**1.30**	**102**	Pg	**Pn**	**22 32 37.4**	**-0.3**
CHMN	**Cheshme madani**	**1.97**	**34**	Pn	**Pn**	**22 32 47.5**	**+0.1**
KBAM	**BAM**	**2.12**	**64**	Pn	**Pn**	**22 32 49.9**	**+0.8**
KHGB	**Koh Gabri**	**2.15**	**5**	Pn	**Pn**	**22 32 50.1**	**+0.4**
SHME	**Shamm**	**2.17**	**183**	P	**Pb**	**22 32 52.8**	**-0.3**
SHME	**Shamm**	**2.17**	**183**	P	**Pb**	**22 32 54.4**	**+1.3**
SHME				S	**Sb**	**22 33 22.2**	**+2.3**
BANOM	**Banah**	**2.29**	**179**	P	**Pn**	**22 32 53.5**	**+2.0**
BANOM				S	**Sb**	**22 33 22.3**	**-1.2**
BANOM	**Banah**	**2.29**	**179**	P	**Pb**	**22 32 55.9**	**+0.7**
BANOM				S	**Sb**	**22 33 23.7**	**+0.2**
KRM1	**Kerman Provinc**	**2.43**	**21**	Pn	**Pn**	**22 32 54.5**	**+0.9**
ZRDN	**Zarand Kerman**	**2.74**	**5**	Pn	**Pn**	**22 32 58.9**	**+1.1**
JASK	**Jask - Hormozg**	**2.75**	**148**	P	**Pn**	**22 32 51.5**	**-1.4**
JASK	**Jask - Hormozg**	**2.75**	**148**	Pn	**Pn**	**22 32 58.1**	**+0.4**
MASF	**Masafi**	**2.85**	**182**	P	**Pn**	**22 33 01.9**	**+2.8**
MASF				S	**Sn**	**22 33 35.9**	**+2.7**
MSFE	**Esma-Masafi**	**2.86**	**182**	P	**Pn**	**22 33 00.1**	**+0.9**
MDH	**Madha**	**2.92**	**180**	P	**Pn**	**22 33 00.6**	**+0.6**
MDH	**Madha**	**2.92**	**180**	P	**Pn**	**22 33 00.6**	**+0.6**
MDH				S	**Sn**	**22 33 36.3**	**+1.4**
UOSS	**Minazif**	**3.27**	**181**	P	**Pn**	**22 33 05.0**	**+0.2**
UOSS	**Minazif**	**3.27**	**181**	P	**Pn**	**22 33 05.4**	**+0.5**
NAZ	**Nazwa, Dubai**	**3.27**	**190**	P	**Pn**	**22 33 06.4**	**+1.5**
NAZ	**Nazwa, Dubai**	**3.27**	**190**	P	**Pn**	**22 33 07.2**	**+2.3**
HATD	**Hatta, Dubai**	**3.39**	**182**	P	**Pn**	**22 33 08.9**	**+2.3**
HATD				S	**Sn**	**22 33 47.1**	**+0.5**
IBAF	**Bafgh**	**3.41**	**350**	Pn	**Pn**	**22 33 07.4**	**+0.5**
IMEH	**Mehriz**	**3.47**	**336**	Pn	**Pn**	**22 33 08.3**	**+0.5**
ASHO	**Ashiyiah**	**3.53**	**183**	P	**Pn**	**22 33 09.4**	**+0.9**
ASHO				S	**Sn**	**22 33 53.3**	**+3.1**
ASHO	**Ashiyiah**	**3.53**	**183**	P	**Pn**	**22 33 10.3**	**+1.7**
	SNR=7.9						
ASHO				S	**Sn**	**22 33 51.9**	**+1.7**
ASUD	**Al Ashush, Dub**	**3.68**	**193**	P	**Pn**	**22 33 12.2**	**+1.7**
TAFT	**Taft - Yazd**	**3.93**	**333**	Pn	**Pn**	**22 33 14.5**	**+0.3**
DOBD	**Dorbid, Yazd**	**4.05**	**338**	Pn	**Pn**	**22 33 15.6**	**-0.2**
SOHO	**SOHO**	**4.08**	**177**	P	**Pn**	**22 33 17.5**	**+1.4**
NHDN	**Nehbandan**	**4.55**	**45**	Pn	**Pn**	**22 33 23.3**	**+0.6**
HOQ	**Hoqain**	**4.72**	**168**	P	**Pn**	**22 33 25.9**	**+1.1**
HOQ				S	**Sn**	**22 34 16.3**	**-3.2**
ARQ	**Araqi**	**4.88**	**177**	P	**Pn**	**22 33 27.9**	**+1.0**
	SNR=8.1						
ARQ				S	**Sn**	**22 34 21.2**	**-2.0**
IRAM	**Ramesheh**	**4.91**	**318**	Pn	**Pn**	**22 33 27.9**	**+0.2**
KLNJ	**Kolanjah**	**4.93**	**305**	Pn	**Pn**	**22 33 27.9**	**0.0**
MZWR	**Madinat Zayed**	**4.94**	**206**	P	**Pn**	**22 33 28.8**	**+1.0**
MZWR				S	**Sn**	**22 34 22.8**	**-2.0**
BIDO	**Bidbid**	**4.97**	**160**	P	**Pn**	**22 33 29.1**	**+0.8**
NGCH	**Negor - Chabah**	**5.20**	**122**	P	**Pn**	**22 33 33.0**	**+1.6**
NGCH				S	**Sn**	**22 34 31.4**	**+0.1**
WSAR	**Wadi Sarin**	**5.40**	**156**	P	**Pn**	**22 33 33.9**	**-0.3**
WSAR				S	**Sn**	**22 34 34.2**	**-2.1**
BSY	**Bisya**	**5.52**	**171**	P	**Pn**	**22 33 36.3**	**+0.4**
IGAR	**Gharneh**	**5.54**	**320**	Pn	**Pn**	**22 33 36.4**	**+0.1**
UMZA	**Um Al Zommool**	**5.58**	**191**	P	**Pn**	**22 33 36.7**	**0.0**
UMZA				S	**Sn**	**22 34 38.2**	**-2.4**
MZR	**Muzera**	**5.78**	**206**	P	**Pn**	**22 33 38.8**	**-0.6**
MZR	**Muzera**	**5.78**	**206**	P	**Pn**	**22 33 39.0**	**-0.4**
MZR				S	**Sn**	**22 34 42.8**	**-2.8**
JMDO	**Jabal Madar**	**6.06**	**164**	P	**Pn**	**22 33 43.6**	**+0.3**
WBK	**Wadi Bani Khal**	**6.10**	**156**	P	**Pn**	**22 33 43.9**	**0.0**
IPIR	**Pirpir**	**6.42**	**315**	Pn	**Pn**	**22 33 48.5**	**-0.1**
JLN	**Jalan Bani Buh**	**6.69**	**154**	P	**Pn**	**22 33 51.3**	**-0.6**
MHTO	**MHTO**	**7.37**	**168**	P	**Pn**	**22 34 00.7**	**-0.5**
DOK	**Doka**	**9.76**	**192**	P	**Pn**	**22 34 32.2**	**-1.9**
ABTO	**Aybut**	**11.16**	**195**	P	**Pn**	**22 34 50.5**	**-2.8**
	SNR=7.0						

DJA ***02*** *22:35:04.0±0.1,3°S±1°×12°2E±°,h10km,M4.5/36,*
mb4.7/12,mB5.3/3,MLv4.4/36,Mw(mB)4.7/3
IDC ***02*** *22:35:10.3±3.7,2°.81S×122°.53E,h75km±42km,mb3.4/5,*
mbtmp3.9/8,ML4.0/3,MS3.0/8,Error ellipse: s-maj=37.2km
s-min=21.0km az=72.0

ISC 02 22:35:06.9±0.8,**2°80S**±0°.06×**122°36E**±0°.07,**h35**km,**n36,**
σ1ᵎ30/34,**mb3.9**/4,**MS2.9**/4,**Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KDI	**Kendari**	**1.18**	**167**	P	**Pn**	**22 35 24.4**	**-2.5**
KDI				AML	AML		
KKSI	**Kolaka, Sulawe**	**1.53**	**207**	P	**Pn**	**22 35 30.9**	**-0.9**
KKSI				S	**Sn**	**22 35 50.8**	**+0.3**
KKSI				AML	AML		
LUWI	**Luwuk**	**1.79**	**13**	P	**Pn**	**22 35 35.7**	**+0.3**
LUWI				AML	AML		
APSI	**Ampana**	**2.01**	**339**	P	**Pn**	**22 35 37.7**	**-0.6**
APSI				AML	AML		
TTSI	**Tana Toraja**	**2.55**	**264**	P	**Pn**	**22 35 44.1**	**-1.6**
TTSI				AML	AML		
BBSI	**Bau Bau**	**2.68**	**175**	P	**Pn**	**22 35 46.1**	**-1.4**
BBSI				AML	AML		
PCI	**Palu**	**3.14**	**307**	P	**Pn**	**22 35 53.2**	**-0.7**
PCI				AML	AML		
BKSI	**Bulukumba**	**3.35**	**222**	P	**Pn**	**22 35 56.3**	**-0.5**
MMSI	**Mamuju**	**3.44**	**272**	P	**Pn**	**22 35 57.0**	**-1.1**
MMSI				AML	AML		
GTOI	**Gorontalo**	**3.48**	**11**	P	**Pn**	**22 35 59.9**	**+1.4**
GTOI				AML	AML		
PMSI	**Majene**	**3.51**	**258**	P	**Pn**	**22 35 57.8**	**-1.1**
PMSI				AML	AML		
SANI	**Sanana**	**3.70**	**78**	P	**Pn**	**22 35 58.8**	**-2.8**
SANI				AML	AML		
KMSI	**Cibinong**	**3.73**	**26**	P	**Pn**	**22 36 02.0**	**+0.1**
MKS	**Makassar**	**3.75**	**230**	P	**Pn**	**22 36 00.3**	**-1.9**
MKS				S	**Sn**	**22 36 45.4**	**+0.2**
MKS				AML	AML		
BSSI	**Bau Bau, Buton**	**3.81**	**209**	P	**Pn**	**22 36 01.1**	**-1.9**
BSSI				AML	AML		
MNI	**Manado**	**4.89**	**31**	P	**Pn**	**22 36 19.7**	**+1.7**
MNI				AML	AML		
MMRI	**Maumere**	**5.80**	**181**	P	**Pn**	**22 36 29.9**	**-0.5**
	0.2nm57nm,0.9s						
MMRI				AML	AML		
EDFI	**Ende, Flores**	**5.95**	**186**	P	**Pn**	**22 36 31.7**	**-0.9**
	0.1nm27nm,0.4s						
EDFI				AML	AML		
TNTI	**Ternate**	**6.14**	**55**	P	**Pn**	**22 36 35.8**	**+0.7**
	0.2nm44nm,0.8s						
TNTI				AML	AML		
MSAI	**Masohi**	**6.58**	**95**	P	**Pn**	**22 36 42.1**	**+0.9**
SOEI	**Soe**	**7.17**	**165**	P	**Pn**	**22 36 50.4**	**+1.1**
	0.2nm61nm,0.8s						
SOEI				AML	AML		
BATI	**Baumata**	**7.47**	**170**	P	**Pn**	**22 36 56.5**	**+3.0**
	4.1nm,0.3s,baz=287,slow=12,SNR=2.1						
BATI				LR	LR	22 40 19.3	
	comp=Z,280nm,18.3s,baz=32,slow=42						
	13nm,0.4s						
BATI				AML	AML		
BATI	**Baumata**	**7.47**	**170**	P	**Pn**	**22 36 53.9**	**+0.4**
	0.1nm19nm,0.8s						
BATI				AML	AML		
BNDI	**Bandanaira**	**7.72**	**103**	P	**Pn**	**22 36 57.0**	**+0.1**
	81nm,0.8s						
TWSI	**Taliwang, Sumb**	**8.03**	**222**	P	**Pn**	**22 37 00.4**	**-0.7**
TWSI				AML	AML		
SIJI	**Sorong**	**9.11**	**78**	P	**Pn**	**22 37 16.3**	**+0.3**
	2.4nm,0.3s,baz=163,slow=22,SNR=4.9						
SIJI				LR	LR	22 40 42.9	
	comp=Z,56nm,21.8s,baz=266,slow=37						
	6.1nm,0.3s						
SIJI				AML	AML		
DAV	**Davao City (W)**	**10.32**	**18**	LR	LR	22 42 45.6	
	comp=Z,82nm,18.2s,baz=2.5,slow=44						
FITZ	**Fitzroy Crossi**	**15.54**	**168**	P	**Pn**	**22 38 44.6**	**+1.2**
	0.2nm,0.3s,baz=337,slow=15,SNR=6.1						
FITZ				LR	LR	22 44 49.2	
	comp=Z,56nm,18.4s,baz=310,slow=37						
	3.9nm,0.8s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**20.67**	**146**	P	**P**	**22 39 43.1**	**-0.8**
	1.1nm,0.8s,baz=326,slow=10,SNR=9.4						
	1.1nm,0.8s						
ASAR	**Alice Springs**	**23.56**

comp=Z,10nm,0.9s
QSPA South Pole Qui 28.01 180 P **P** **22 55 33.9 +2.7**
comp=Z,2.3nm,1.1s,baz=155,slow=7.2,SNR=5.2
comp=Z,2.3nm,1.1s
GO05 Hualane 28.56 336 P **P** **22 55 37.5 +1.5**
BO04 La Punta 29.32 339 P **P** **22 55 44.5 +1.6**
BO04 IAmb IAmb 22 55 45.3
comp=Z,9.9nm,0.8s
MT09 Talagante 29.59 338 P **P** **22 55 46.0 +0.6**
MT08 Bocatoma Ro 29.75 340 P **P** **22 55 48.9 +2.0**
MT08 IAmb IAmb 22 55 53.4
comp=Z,13nm,0.9s
CO01 Juntas del Tor 33.16 341 P **P** **22 56 18.6 +1.6**
CPUP Villa Florida 35.89 1 P **P** **22 56 39.3 -1.0**
comp=Z,0.4nm,0.4s,baz=181,slow=7.8,SNR=2.9
CPUP LR LR 23 10 12.6
comp=Z,86nm,20.8s,baz=250,slow=35
comp=Z,0.4nm,0.4s
VNDA Vanda 38.34 193 LR LR 23 14 00.5
comp=Z,71nm,18.3s,baz=148,slow=38
MAW Mawson 43.69 152 P **P** **22 57 47.4 +2.7**
comp=Z,3.4nm,0.9s,baz=259,slow=5.7,SNR=4.1
MAW LR LR 23 15 24.0
comp=Z,340nm,21.7s,baz=254,slow=35
comp=Z,3.4nm,0.9s
PB16 IPOC Station P 44.54 345 P **P** **22 57 54.8 +2.1**
LPAZ La Paz 46.40 347 LR LR 23 19 41.0
comp=Z,127nm,18.7s,baz=172,slow=39
BDFB Brasilia 47.09 14 P **P** **22 58 10.9 -1.4**
comp=Z,3.2nm,0.7s,baz=161,slow=10,SNR=5.6
BDFB LR LR 23 16 28.0
comp=Z,84nm,21.8s,baz=194,slow=34
comp=Z,3.2nm,0.7s
RPN Rapa Nui 48.45 292 LR LR 23 13 25.5
comp=Z,90nm,19.3s,baz=168,slow=29
SUR Sutherland 56.92 97 LR LR 23 19 37.1
comp=Z,86nm,18.2s,baz=177,slow=32
H10S2 ASCENSION HYDR 61.86 51 T T 00 07 11.4
baz=203,slow=74,SNR=22
H10S3 ASCENSION HYDR 61.86 51 T T 00 07 11.5
baz=17,slow=74,SNR=25
BOSA Boshof 62.15 99 LR LR 23 22 56.6
comp=Z,74nm,19.4s,baz=188,slow=32
H10N3 ASCENSION HYDR 62.94 50 T T 00 08 31.9
baz=201,slow=75,SNR=23
H10N1 ASCENSION HYDR 62.95 50 T T 00 08 31.4
baz=201,slow=75,SNR=28
H10N2 ASCENSION HYDR 62.96 50 T T 00 08 32.5
baz=201,slow=75,SNR=23
BOAV Boa Vista 64.46 358 P **P** **23 00 17.5 +0.8**
BOAV IAmb IAmb 23 00 44.3
comp=Z,4.7nm,1.2s
LBTB Lobatse 65.37 97 LR LR 23 22 57.8
comp=Z,72nm,21.5s,baz=197,slow=31
MDP Montagnes des 67.27 6 LR LR 23 32 49.6
comp=Z,44nm,18.2s,baz=220,slow=39
ROSC El Rosal 67.99 343 LR LR 23 33 45.9
comp=Z,162nm,18.2s,baz=228,slow=39
RUSC La Rusia 68.86 344 P **P** **23 00 44.8 -0.7**
RUSC IAmb IAmb 23 00 45.8
comp=Z,4.3nm,0.8s
MATP Matopo 70.66 97 LR LR 23 26 24.5
comp=Z,62nm,20.4s,baz=232,slow=31
SJCC San Jacinto, C 73.09 343 P **P** **23 01 09.6 -0.9**
OPO Ambohidratompo 80.73 112 LR LR 23 32 35.3
comp=Z,47nm,18.2s,baz=87,slow=32
TORD Torodi Ar. Bea 88.36 58 P **P** **23 02 30.0 -2.0**
comp=Z,0.9nm,0.7s,baz=197,slow=4.6,SNR=4.2
comp=Z,0.9nm,0.7s
MBAR Mbarara 89.02 89 LR LR 23 39 26.3
comp=Z,34nm,18.0s,baz=202,slow=34
ASAR Alice Springs 93.86 191 P **P** **23 02 57.5 -0.3**
comp=Z,0.4nm,0.4s,baz=169,slow=4.4,SNR=4.7
ASAR LR LR 23 45 08.2
comp=Z,35nm,19.8s,baz=272,slow=35
comp=Z,0.4nm,0.4s
WRA Warramunga Arr 97.50 192 P **P** **23 03 13.6 -0.9**
comp=Z,0.4nm,0.8s,baz=179,slow=4.2,SNR=2.6
comp=Z,0.4nm,0.8s
GERES GERESS Array B 124.58 50 PKP **PKPdf** **23 08 36.2 -2.5**
comp=Z,0.2nm,0.5s,baz=211,slow=1.6,SNR=4.7
ARCES ARCESS Array B 144.01 37 PKP **PKPab** **23 09 11.4 -0.2**
comp=Z,8.1nm,0.9s,baz=222,slow=1.6,SNR=8.6
ARCES ARCESS Array B 144.01 37 **PKPab** **23 09 11.1 -0.6**
ARTI Arti 148.34 71 PKPbc **PKPdf** **23 09 23.5 +1.6**
comp=Z,2.8nm,1.0s,baz=293,slow=6.9,SNR=3.2
LZDM Lanzhou Array 151.40 148 PKPbc **PKPbc** **23 09 34.5 +0.6**
comp=Z,0.9nm,0.3s,baz=170,slow=2.6,SNR=4.1
LZH Lanzhou 151.56 149 *e*P **PKPdf** **23 09 22.0 -5.9**
LZH pP pPKPdf 23 09 30.9 -0.3
LZH pmax pmax
comp=Z,18nm,1.3s
BVAR Borovoye Array 151.75 85 PKPbc **PKPbc** **23 09 33.7 0.0**
comp=Z,6.8nm,0.9s,baz=255,slow=2.9,SNR=12
MKAR Makanchi Array 152.95 106 PKPbc **PKPbc** **23 09 35.5 -1.1**
comp=Z,1.9nm,0.9s,baz=266,slow=1.8,SNR=7.4
MKAR Makanchi Array 152.95 106 **PKPbc** **23 09 35.8 -0.8**
GTA2 Gaotai 153.62 139 *e*P **PKiKP** **23 09 39.9 +1.3**
GTA2 pP sPKPbc 23 09 44.6 +1.7
GTA2 pmax pmax
comp=Z,6.0nm,0.8s
KURBB Kurchatov Arra 153.98 96 PKPbc **PKPbc** **23 09 38.2 -0.5**
comp=Z,0.4nm,0.2s,baz=227,slow=2.6,SNR=5.4

*ISK **02** 22:57:13.7,37.°77N×26.°04E,h17km, ML2.4/17*
*AFAD **02** 22:57:14.3,37.°74N×27.°04E,h7km±2km, ML2.2*
*THE **02** 22:57:14.8,38.°N±7.°×2.°7E±.°, h12km±7km, M2.5/4, MLh2.5/4*
*ATH **02** 22:57:15.9,37.°69N×26.°94E,h14km±3km, ML2.4/6, Latitude uncertainty: 2 km; Longitude uncertainty: 4 km*
ISC 02 22:57:14.6±0.8, 37.75N±0.02×27.04E±0.02, h14km±6km, n40, σ0°53/59, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
GCAM	**G?zelcaml?**	**0.16**	**107**	P		**Pg**	**22 57 18.2**	**-0.3**
GCAM				IAML			22 57 21.0	
	comp=E,765nm,0.2s							
GCAM				IAML			22 57 22.0	
	comp=N,913nm,0.2s							
GCAM	**G?zelcaml?**	**0.16**	**107**	Pg		**Pg**	**22 57 18.2**	**-0.3**
GCAM				Sg		**Sg**	**22 57 21.9**	**+0.7**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**61**	Pg		**Pg**	**22 57 19.6**	**+0.1**
KUSD				AML		AML		
KRL1	**Karlovasi Samo**	**0.27**	**280**	P		**Pg**	**22 57 19.9**	**-0.2**
KRL1				S		**Sg**	**22 57 23.8**	**-0.2**
KRL1				AML		AML		
DGB	**zmir**	**0.33**	**338**	P		**Pg**	**22 57 21.3**	**0.0**
DGB				S		**Sg**	**22 57 25.6**	**-0.1**
DGB				IAML			22 57 26.0	
	comp=E,314nm,0.2s							
DGB				IAML			22 57 28.0	
	comp=N,158nm,0.7s							
DDIM	**Aydin, Didim**	**0.33**	**151**	P		**Pg**	**22 57 21.1**	**-0.2**
DDIM				IAML			22 57 26.0	
	comp=E,724nm,0.2s							
DDIM				S		**Sg**	**22 57 26.2**	**+0.3**
DDIM				IAML			22 57 27.0	
	comp=N,709nm,0.6s							
GMLD	**Gumuldur**	**0.34**	**344**	Pg		**Pg**	**22 57 21.2**	**-0.3**
GMLD				AML		AML		
BEYE	**izmir**	**0.48**	**350**	P		**Pg**	**22 57 24.4**	**+0.2**
BEYE				S		**Sg**	**22 57 31.2**	**+0.5**
BEYE				IAML			22 57 32.0	
	comp=E,155nm,0.2s							
BEYE				IAML			22 57 35.0	
	comp=N,282nm,0.2s							
DUVT	**Torbali**	**0.57**	**35**	P		**Pg**	**22 57 25.8**	**0.0**
DUVT				S		**Sg**	**22 57 33.7**	**+0.2**
DUVT				IAML			22 57 35.0	
	comp=E,145nm,0.2s							
BLCB	**Balcova**	**0.64**	**0**	P		**Pb**	**22 57 27.8**	**+0.3**
BLCB				S		**Sg**	**22 57 36.0**	**+0.6**
BLCB				AML		AML		
BLCB	**Balcova**	**0.64**	**0**	Pg		**Pg**	**22 57 26.5**	**-0.5**
BLCB				Sg		**Sg**	**22 57 35.0**	**-0.4**
BLCB				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**319**	P		**Pg**	**22 57 26.6**	**-0.6**
ZEYE				IAML			22 57 36.0	
	comp=N,282nm,0.5s							
ZEYE				S		**Sb**	**22 57 36.5**	**-0.1**
ZEYE				IAML			22 57 40.0	
	comp=E,136nm,0.4s							
YKAV	**Yalikavak-Bodr**	**0.65**	**163**	Pg		**Pg**	**22 57 27.1**	**-0.2**
YKAV				AML		AML		
AYDN	**Tasoluk**	**0.67**	**97**	P		**Pg**	**22 57 27.5**	**-0.2**
AYDN				S		**Sg**	**22 57 36.7**	**+0.1**
AYDN				IAML			22 57 41.0	
	comp=N,145nm,0.2s							
AYDN				IAML			22 57 41.0	
	comp=E,223nm,0.6s							
AYDB	**Zeytinkoy-Aydi**	**0.70**	**73**	Pg		**Pg**	**22 57 27.7**	**-0.6**
AYDB				AML		AML		
BODT	**Bodrum**	**0.72**	**162**	P		**Pg**	**22 57 27.8**	**-0.7**
BODT				S		**Sg**	**22 57 38.3**	**+0.3**
BODT				AML		AML		
BODT	**Bodrum**	**0.72**	**162**	Pg		**Pg**	**22 57 28.5**	**-0.1**
BODT				AML		AML		
MLSB	**Milas**	**0.74**	**127**	Pg		**Pg**	**22 57 28.7**	**-0.3**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.76**	**154**	P		**Pg**	**22 57 29.0**	**-0.2**
BDRM				S		**Sg**	**22 57 39.0**	**-0.2**
BDRM				IAML			22 57 42.0	
	comp=N,200nm,0.3s							
BDRM				IAML			22 57 42.0	
	comp=E,109nm,0.4s							
KLNA	**Kalymnos**	**0.79**	**184**	P		**Pb**	**22 57 30.1**	**0.0**
KLNA				S		**Sg**	**22 57 40.4**	**+0.1**
IZMR	**zmir-demi**	**0.82**	**62**	P		**Pg**	**22 57 30.6**	**+0.1**
IZMR				S		**Sg**	**22 57 40.5**	**-0.8**
IZMR				IAML			22 57 44.0	
	comp=N,74nm,0.5s							
IZMR				IAML			22 57 44.0	
	comp=E,55nm,0.5s							
CESE	**eme**	**0.82**	**315**	Pg		**Pg**	**22 57 29.7**	**-0.8**
KRBN	**Karaburun**	**0.93**	**336**	Pg		**Pb**	**22 57 32.1**	**-0.3**
KRBN				Sg		**Sb**	**22 57 44.8**	**+0.2**
KRBN				AML		AML		
FOCM	**Foa**	**0.99**	**346**	Pg		**Pb**	**22 57 33.1**	**-0.5**
FOCM				AML		AML		
CHOS	**Chios island**	**1.00**	**310**	P		**Pb**	**22 57 33.7**	**-0.1**
CHOS				S		**Sn**	**22 57 48.4**	**0.0**
CHOS	**Chios island**	**1.00**	**310**	Pg		**Pb**	**22 57 33.1**	**-0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**1.00**	**310**	P		**Pb**	**22 57 33.7**	**-0.1**
CHOS				S		**Sn**	**22 57 48.0**	**-0.4**
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg		**Pb**	**22 57 34.1**	**+0.1**
NAZL				AML		AML		
ESEN	**Aydn-Nazilli**	**1.04**	**87**	P		**Pn**	**22 57 35.3**	**+0.6**
ESEN				S		**Sn**	**22 57 49.9**	**+0.8**
EAG2	**Marmaro, Chios**	**1.08**	**318**	P		**Pg**	**22 57 35.6**	**+0.2**
EAG2				S		**Sn**	**22 57 50.3**	**+0.2**
YER	**Yerkesik**	**1.17**	**121**	P		**Pn**	**22 57 36.5**	**-0.1**
GOMA	**Golmarmara-Man**	**1.18**	**36**	Pn		**Pn**	**22 57 35.6**	**-1.1**
GOMA				AML		AML		
DKL	**Dikili**	**1.32**	**356**	Pn		**Pn**	**22 57 37.6**	**-1.1**
DKL				AML		AML		
DKL	**Dikili**	**1.32**	**356**	P		**Pg**	**22 57 40.7**	**+0.7**
APE	**Apeiranthos**	**1.38**	**241**	P		**Pn**	**22 57 39.2**	**-0.2**
APE				AML		AML		
SOMA	**Soma-Manisa**	**1.46**	**15**	Pn		**Pn**	**22 57 39.6**	**-1.0**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.47**	**37**	Pn		**Pn**	**22 57 40.0**	**-0.7**
GORD				AML		AML		
PRK	**Paraskevi**	**1.61**	**338**	P		**Pb**	**22 57 44.5**	**+0.4**
PRK				AML		AML		
KARY	**Karystos**	**2.08**	**279**	P		**Pn**	**22 57 49.7**	**+0.7**
LIA	**Limnos Island**	**2.59**	**327**	P		**Pn**	**22 57 57.8**	**+1.8**
LIA				AML		AML		

*DJA **02** 23:08:19.0±0.6,2.°S±3.°×19.°9E±.°, h10km±6km, M4.5/7, mB5.2/1, mb4.5/7, MLv4.5/7, Mw(mB)4.6/1*
*IDC **02** 23:08:22.6±2.0,2.°51S×139.°22E, h47km±22km, mb4.0/12, mbtmp4.2/13, ML4.7/2, MS3.4/5, Error ellipse: s-maj=16.8km s-min=10.3km az=104.0*
*NEIC **02** 23:08:22.1±1.1,2.°42S±0.°08×139.°3E±0.°1, h38km±6km, mb4.4/24, Error ellipse: s-maj=17.1km s-min=12.2km az=86.0*
ISC 02 23:08:20.4±0.5,2.38S±0.06×139.29E±0.04, h27km, n58, σ1833/57, mb4.3/21, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
GENI	**Genyem**	**0.90**	**103**	P		**Pb**	**23 08 38.1**	**+0.7**
GENI				S		**Sn**	**23 08 51.3**	**+1.9**
GENI				AML		AML		
JAY	**Jayapura**	**1.42**	**95**	P		**Pn**	**23 08 44.8**	**+0.3**
	210nm,0.3s,baz=232,slow=11,SNR=242							
JAY				S		**Sb**	**23 09 05.2**	**+1.3**
	398nm,0.3s,baz=103,slow=19,SNR=7.0							
JAY	**Jayapura**	**1.42**	**95**	P		**Pn**	**23 08 44.8**	**+0.3**
JAY				S		**Sb**	**23 09 03.9**	**0.0**
WAMI	**Wamena**	**1.60**	**201**	P		**Pb**	**23 08 53.2**	**+3.8**
WAMI				S		Sb	23 09 21.0	+12
BAKI	**Biak**	**3.40**	**290**	P		**Pn**	**23 09 12.4**	**+0.7**
BAKI				S		**Sn**	**23 09 52.0**	**+0.9**
BAKI				AML		AML		
MWPI	**Manokwari, Pap**	**5.45**	**285**	P		**Pn**	**23 09 40.1**	**+0.2**
	0.4nm78nm,0.6s							
MWPI				AML		AML		
FAKI	**Fak Fak**	**7.06**	**266**	Pn		**Pn**	**23 10 02.5**	**+0.5**
SIJI	**Sorong**	**8.16**	**280**	LR		LR	23 13 54.2	
	comp=Z,224nm,21.7s,baz=48,slow=41							
SAUI	**Saumlaki**	**9.71**	**235**	Pn		**Pn**	**23 10 38.6**	**+0.1**
PMG	**Port Moresby**	**10.48**	**132**	LR		LR	23 16 32.8	
	comp=Z,228nm,18.9s,baz=297,slow=47							
KRVT	**Keravat (AS076**	**12.85**	**99**	LR		LR	23 15 36.3	
	comp=Z,137nm,21.4s,baz=222,slow=34							
MTN	**Manton Dam**	**13.16**	**217**			**Pn**	**23 11 24.3**	**-1.4**
LUWI	**Luwuk**	**16.57**	**274**	Pn		**Pn**	**23 12 10.6**	**-0.4**
LUWI				IAmb		IAmb	23 12 25.4	
	comp=Z,29nm,0.6s							
SOEI	**Soe**	**16.63**	**243**			**Pn**	**23 12 10.5**	**-1.5**
SOEI	**Soe**	**16.63**	**243**	P		**P**	**23 12 15.4**	**+1.2**
	comp=Z,78nm,0.7s							
KNRA	**Kununurra**	**16.80**	**218**			**Pn**	**23 12 14.0**	**+0.1**
BATI	**Baumata**	**17.36**	**243**	P		**Pn**	**23 12 21.4**	**+0.4**
	comp=Z,8.2nm,0.3s,baz=94,slow=0.3,SNR=14							
BATI				AML		AML		
BATI	**Baumata**	**17.36**	**243**	P		**P**	**23 12 24.3**	**+2.1**
WB0	**Warramunga Arr**	**17.93**	**195**			**P**	**23 12 28.5**	**0.0**
WR8	**Warramunga Arr**	**18.08**	**195**			**Pn**	**23 12 29.5**	**-0.4**
WRA	**Warramunga Arr**	**18.11**	**195**	P		**Pn**	**23 12 30.1**	**-0.1**
	comp=Z,1.7nm,0.3s,baz=18,slow=11,SNR=22							
	comp=Z,3.0nm,0.4s							
WRA				AML		AML		
DPSS	**Saipan**	**18.65**	**20**	P		**P**	**23 12 36.1**	**-0.3**
TOLI2	**Tolitoli**	**18.83**	**280**			**P**	**23 12 37.8**	**-0.6**
CTA	**Charters Tower**	**18.87**	**159**	LR		LR	23 20 36.0	
	comp=Z,126nm,19.3s,baz=42,slow=39							
FITZ	**Fitzroy Crossi**	**20.57**	**220**	P		**P**	**23 12 57.4**	**+0.1**
	comp=Z,5.3nm,0.8s,baz=36,slow=12,SNR=12							
FITZ				S		**S**	**23 16 40.0**	**-6.3**
	comp=Z,2.3nm,0.5s,baz=178,slow=11,SNR=3.5							
FITZ				LR		LR	23 20 11.9	
	comp=Z,114nm,20.6s,baz=38,slow=35							
	comp=Z,5.3nm,0.8s							
ASAR	**Alice Springs**	**21.79**	**193**	P		**P**	**23 13 10.8**	**+0.3**
	comp=Z,3.3nm,0.5s,baz=16,slow=11,SNR=16							
ASAR				S		**S**	**23 17 06.8**	**-3.5**
	comp=Z,1.7nm,0.9s,baz=12,slow=28,SNR=5.0							
	comp=Z,3.3nm,0.5s							
ASAR	**Alice Springs**	**21.79**	**193**			**P**	**23 13 09.9**	**-0.6**
STKA	**Stephens Creek**	**29.42**	**176**	P		**P**	**23 14 22.1**	**+0.3**
	comp=Z,2.3nm,0.8s,baz=327,slow=12,SNR=4.4							
	comp=Z,2.3nm,0.8s							
STKA	**Stephens Creek**	**29.42**	**176**	IAmb		IAmb	23 14 27.1	
	comp=Z,36nm,1.4s							
CMAR	**Chiang Mai Arr**	**44.78**	**299**	P		**P**	**23 16 31.4**	**-0.8**
	comp=Z,1.1nm,0.4s,baz=120,slow=6.9,SNR=9.2							
	comp=Z,1.1nm,0.4s							
EVN	**Everest**	**58.73**	**305**			**P**	**23 18 16.9**	**-0.1**
MKAR	**Makanchi Array**	**69.89**	**322**	P		**P**	**23 19 29.6**	**+0.5**
	comp=Z,2.8nm,0.6s,baz=97,slow=8.2,SNR=25							
	comp=Z,2.8nm,0.6s							
MKAR	**Makanchi Array**	**69.89**	**322**			**P**	**23 19 29.3**	**+0.2**
MAKZ	**Makanchi**	**70.09**	**322**			**P**	**23 19 30.5**	**+0.2**
MAKZ				IAmb		IAmb	23 19 31.7	
	comp=Z,6.2nm,0.8s							
PDGK	**Podgornoye**	**70.22**	**318**	P		**P**	**23 19 31.0**	**-0.3**
KSH2	**Kashi**	**71.46**	**313**	P		**P**	**23 19 39.8**	**+0.8**
KSH2				pmax		pmax		
	comp=Z,3.0nm,1.1s							
NIL	**Nilore**	**71.60**	**307**			**P**	**23 19 39.9**	**+0.2**
NRN	**Naryn**	**71.92**	**315**			**P**	**23 19 40.8**	**-1.1**
NRN				IAmb		IAmb	23 19 43.1	
	comp=Z,2.2nm,0.7s							
ZAA0	**Zalesovo Array**	**71.95**	**330**	P		**P**	**23 19 41.2**	**-0.2**
ZAA0				IAmb		IAmb	23 20 01.9	
	comp=Z,2.3nm,0.9s							
ZALV	**Zalesovo Beam**	**71.95**	**330**	P		**P**	**23 19 40.6**	**-0.7**
	comp=Z,1.5nm,0.5s,baz=110,slow=6.0,SNR=7.9							
	comp=Z,1.5nm,0.5s							
ZALV	**Zalesovo Beam**	**71.95**	**330**	P		**P**	**23 19 40.2**	**-1.1**
BOOM	**Boomskoye usch**	**72.32**	**316**	P		**P**	**23 19 43.7**	**-0.4**
BOOM				IAmb		IAmb	23 19 45.6	
	comp=Z,3.1nm,0.7s							
KURK	**Kurchatov**	**73.79**	**325**			**P**	**23 19 51.9**	**-0.5**
KURK				IAmb		IAmb	23 19 56.6	
	comp=Z,2.5nm,0.8s							
KURBB	**Kurchatov Arra**	**73.80**	**325**	P		**P**	**23 19 52.7**	**+0.3**
	comp=Z,2.4nm,0.9s,baz=114,slow=5.3,SNR=11							
	comp=Z,2.4nm,0.9s							
ARSB	**Arslanbob**	**74.03**	**314**	P		**P**	**23 19 53.9**	**-0.3**
ARSB				IAmb		IAmb	23 19 55.7	
	comp=Z,4.7nm,0.8s							
VNDA	**Vanda**	**76.05**	**175**	P		**P**	**23 20 04.8**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=337,slow=7.3,SNR=10							
	comp=Z,0.7nm,0.6s							
KK31	**Karatay Array**	**76.31**	**315**	P		**P**	**23 20 06.7**	**-0.4**
KK31				IAmb		IAmb	23 20 09.7	
	comp=Z,3.2nm,1.1s							
KKAR	**Karatay Array**	**76.31**	**315**	P		**P**	**23 20 06.2**	**-1.0**
BVAR	**Borovoye Array**	**79.38**	**325**	P		**P**	**23 20 24.0**	**+0.1**
	comp=Z,4.1nm,0.6s,baz=117,slow=8.2,SNR=14							
	comp=Z,4.1nm,0.6s							
BORK	**Borovoye**	**79.43**	**325**	P		**P**	**23 20 24.1**	**-0.1**
BORK				IAmb		IAmb	23 20 25.3	
	comp=Z,3.8nm,0.6s							
NRIK	**Noril'sk**	**79.57**	**344**	P		**P**	**23 20 25.6**	**+0.9**
	comp=Z,3.4nm,0.7s,baz=101,slow=5.0,SNR=4.8							
	comp=Z,3.4nm,0.7s							
NRIK	**Noril'sk**	**79.57**	**344**	P		**P**	**23 20 24.6**	**0.0**
NRIK				IAmb		IAmb	23 20 28.9	
	comp=Z,4.3nm,0.9s							
ILAR	**Eielson Array**	**85.30**	**24**	P		**P**	**23 20 54.4**	**-0.3**
	comp=Z,1.6nm,0.9s,baz=262,slow=4.4,SNR=7.2							
	comp=Z,1.6nm,0.9s							
QSPA	**South Pole Qui**	**87.56**	**180**	P		**P**	**23 21 05.1**	**-0.8**
	comp=Z,1.0nm,0.6s,baz=302,slow=1.2,SNR=8.9							
	comp=Z,1.0nm,0.6s							
QSPA	**South Pole Qui**	**87.56**	**180**	IAmb		IAmb	23 21 09.6	
	comp=Z,1.8nm,0.8s							
I27K	**Kandik River**	**87.65**	**24**	P		**P**	**23 21 06.8**	**+0.5**
C27K	**Jago River**	**87.70**	**20**	P		**P**	**23 21 07.6**	**+1.2**
C27K				IAmb		IAmb	23 21 46.1	
	comp=Z,1.9nm,1.1s							
DBIC	**Dimbokro**	**144.02**	**278**	PKP		PKPab	23 27 51.8	-0.3
	comp=Z,3.8nm,0.6s,baz=82,slow=2.8,SNR=11							

*IDC **02** 23:14:17.2±0.7,24.°19N×122.°29E, h0km, mb4.0/11, mbtmp4.0/13, ML3.9/2, MS3.7/25, Error ellipse: s-maj=20.2km s-min=14.4km az=67.0*
*NEIC **02** 23:14:19.2±1.6,24.°04N±0.°04×122.°29E±0.°06, h10km±1km, mb4.2/10, Error ellipse: s-maj=9.5km s-min=6.9km az=64.0*
*JMA **02** 23:14:21.4±0.1,24.°0N±0.°6×122.°3E±0.°2, h30km±2km, MD4.5/15, MV4.1/15, TAIWAN REGION*
*TAP **02** 23:14:21.7,24.°10N×122.°27E, h25km, ML4.7, C*
*NIED **02** 23:14:21.4,24.°03N×122.°27E, h30km, MW4.3, Moment Tensor Solution. s2 Moment tensor: Scale 10^15^Nm; Mrr-2.59; Mθθ0.86; Mφφ1.73; Mrθ1.38; Mθφ0.96; Mφr-0.08; Fault plane solution: M0 2.78000×10^15^ NP1:φs17.00000°, δ40.00000°, λ-120.00000°. NP2:φs234.00000°, δ56.00000°, λ-67.00000°.*
*BJI **02** 23:14:22.2,24.°13N×122.°23E, h20km, mb4.2/5, ML4.1/3, Ms4.2/5, Ms7.4 1/5*
ISC 02 23:14:21.5±0.7, 24.°07N±0.°02×122.°28E±0.°02, h27km±5km, n231, σ0°90/330, mb4.1/17, MS3.7/21, 8C-5D, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
EOS4	**EOS4**	**0.07**	**36**	⇓	*i* P	**Pb**	**23 14 25.8**	**0.0**
EOS4					*i* S	**Sb**	**23 14 28.8**	**+0.1**
EOS3	**EOS3**	**0.22**	**10**	⇓	*i* P	**Pb**	**23 14 27.3**	**-0.2**
EOS3					*i* S	**Sb**	**23 14 31.8**	**+0.2**
EOS2	**EOS2**	**0.35**	**353**		*i* P	**Pb**	**23 14 29.3**	**0.0**
EOS2					*i* S	**Sb**	**23 14 35.0**	**+0.2**
EHP	**Heping Village**	**0.55**	**296**		*e*P	**Pb**	**23 14 32.7**	**+0.1**
EAHA	**Aohua**	**0.56**	**298**		P	**Pb**	**23 14 32.2**	**-0.5**
EAHA					S	**Sb**	**23 14 40.9**	**+0.5**
EWUT	**Wuta**	**0.59**	**310**	⇑	*e*P	**Pb**	**23 14 32.4**	**-0.9**
EWUT					*e*S	**Sb**	**23 14 40.5**	**-0.8**
ETL	**Fush Village**	**0.60**	**279**		*e*P	**Pb**	**23 14 33.7**	**+0.2**
ETL					*e*S	**Sn**	**23 14 43.2**	**0.0**
ENA	**Nanau**	**0.61**	**306**	⇑	*i* P	**Pb**	**23 14 32.7**	**-0.9**
ENA					*e*S	**Sb**	**23 14 40.4**	**-1.4**
HWA	**Hwalien**	**0.62**	**262**		*e*P	**Pb**	**23 14 34.1**	**+0.3**
HWA					*e*S	**Sn**	**23 14 44.7**	**+1.2**
TWD	**Chiawan**	**0.62**	**271**		*e*P	**Pb**	**23 14 33.6**	**-0.2**
NACB	**Ninganchiao**	**0.63**	**280**		P	**Pb**	**23 14 33.3**	**-0.7**
NACB	**Ninganchiao**	**0.63**	**280**			**Pb**	**23 14 33.8**	**-0.2**
NACB	**Ninganchiao**	**0.63**	**280**	⇓	P	**Pb**	**23 14 33.8**	**-0.2**
NACB					*e*S	**Sn**	**23 14 43.4**	**-0.4**
ESAO	**Su ao**	**0.64**	**322**		*e*P	**Pb**	**23 14 33.1**	**-1.1**
ESAO					*e*S	**Sb**	**23 14 41.1**	**-1.7**
TEYL	**Yanliau Villag**	**0.65**	**252**		*e*P	**Pb**	**23 14 34.4**	**+0.1**
TEYL					*e*S	**Sn**	**23 14 44.0**	**-0.3**
TWC	**Suao**	**0.67**	**324**	⇑	P	**Pb**	**23 14 33.2**	**-1.3**
TWC					S	**Sb**	**23 14 41.4**	**-2.0**
SHUL	**Shoufeng**	**0.71**	**247**		P	**Pb**	**23 14 35.4**	**+0.1**
SHUL					*e*S	**Sn**	**23 14 46.5**	**+0.8**
JYNG	**Yonagunijimaku**	**0.72**	**58**		P	**Pb**	**23 14 35.5**	**0.0**
JYNG					A	A	23 14 35.5	
	comp=N,20nm,2.4s,comp=E,29nm,1.0s							
JYNG					*e*S	**Sb**	**23 14 45.2**	**+0.2**
ETM	**Tongmen**	**0.72**	**262**		P	**Pb**	**23 14 35.0**	**-0.5**
ETM					S	**Sb**	**23 14 45.6**

NWLT	**Wulai**	**1.00 315**	*i* P	**Pn**	**23 14 39.9 +0.2**		
NWLT			*i* S	**Sn**	**23 14 52.7 -0.2**		
OWD	**Renai**	**1.01 264**	P	**Pn**	**23 14 39.9 -0.2**		
OWD			S	**Sn**	**23 14 53.1 -0.3**		
YHNB	**Yeheng**	**1.02 306**	P	**Pn**	**23 14 40.1 +0.1**		
YHNB	**Yeheng**	**1.02 306**	S	**Sn**	**23 14 52.9 -0.6**		
YHNB	**Yeheng**	**1.02 306**		**Sn**	**23 14 40.1 +0.1**		
YHNB	**Yeheng**	**1.02 306**	*i* P	**Pb**	**23 14 40.4 -0.2**		
YHNB			*e*S	**Sb**	**23 14 53.6 0.0**		
TWT	**Tachien**	**1.02 281** ⇑	*i* P	**Pb**	**23 14 40.7 0.0**		
EHYH	**Wanrong**	**1.03 236**	*e*P	**Pn**	**23 14 40.1 +0.1**		
EHYH			S	**Sn**	**23 14 53.4 -0.2**		
NSK	**Sanguang**	**1.03 306**	*i* P	**Pb**	**23 14 40.6 -0.2**		
NSK			*e*S	**Sb**	**23 14 54.1 +0.1**		
EHY	**Hungye**	**1.04 238**	*e*P	**Pn**	**23 14 39.9 -0.3**		
EHY			*e*S	**Sn**	**23 14 53.2 -0.7**		
TDCB	**Techi**	**1.04 280**	*e*P	**Pb**	**23 14 40.7 -0.2**		
WUSB	**Renai**	**1.06 266**	*e*P	**Pn**	**23 14 40.8 +0.1**		
ECBN	**Changbin**	**1.06 225**	*e*P	**Pn**	**23 14 40.4 -0.2**		
ECBN			*e*S	**Sn**	**23 14 54.0 -0.5**		
SXI1	**Grass Mountain**	**1.08 340** ⇑	*i* P	**Pn**	**23 14 40.8 -0.2**		
SXI1			*e*S	**Sb**	**23 14 56.3 +0.8**		
VWDT	**VWDT**	**1.08 253**	*e*P	**Pn**	**23 14 41.3 +0.4**		
NWF	**Wu-fen Shan**	**1.10 336**	*e*P	**Pn**	**23 14 41.4 +0.3**		
NWF			*i* S	**Sn**	**23 14 55.1 -0.3**		
WFSB	**Wu-fen Shan**	**1.10 336**	P	**Pn**	**23 14 41.3 +0.3**		
WFSB			S	**Sn**	**23 14 55.3 0.0**		
TWA	**Mucha**	**1.11 325**	*i* P	**Pb**	**23 14 41.9 -0.1**		
TWA			*e*S	**Sb**	**23 14 56.4 +0.3**		
YULB	**Yu-li**	**1.12 233**	P	**Pn**	**23 14 40.8 -0.6**		
YULB	**Yu-li**	**1.12 233**	S	**Sn**	**23 14 56.2 +0.3**		
YULB	**Yu-li**	**1.12 233**		**Sn**	**23 14 40.3 -1.1**		
YULB	**Yu-li**	**1.12 233**	P	**Pn**	**23 14 41.1 -0.3**		
YULB			*e*S	**Sn**	**23 14 54.0 -2.0**		
NHDH	**Xindian Distri**	**1.12 323**	*e*P	**Pb**	**23 14 42.6 +0.3**		
NHDH			*e*S	**Sn**	**23 14 56.0 +0.1**		
TWF1	**Yuli**	**1.15 232**	P	**Pn**	**23 14 41.5 -0.3**		
TWF1			*e*S	**Sn**	**23 14 56.1 -0.4**		
TATO	**Taipei**	**1.15 322**	P	**Pb**	**23 14 42.5 -0.3**		
TATO	**Taipei**	**1.15 322**		**Pn**	**23 14 42.0 +0.2**		
TATO	**Taipei**	**1.15 322**	Pn	**Pb**	**23 14 42.6 -0.2**		
NHY	**Taipei**	**1.16 326**	*e*P	**Pn**	**23 14 42.4 +0.4**		
NHY			*e*S	**Sb**	**23 14 57.8 +0.2**		
TNOU	**National Taiwa**	**1.17 337**	*e*P	**Pn**	**23 14 41.2 -0.8**		
TNOU			*e*S	**Sn**	**23 14 56.4 -0.7**		
CHKH	**Chenggong**	**1.19 223**	*e*P	**Pn**	**23 14 41.6 -0.7**		
CHKH			*e*S	**Sn**	**23 14 56.7 -0.9**		
TAP	**Taipei**	**1.20 324**	*e*P	**Pb**	**23 14 43.7 +0.2**		
TAP			*e*S	**Sb**	**23 14 59.3 +0.8**		
NFF	**Wufeng Townshi**	**1.20 298**	*e*P	**Pb**	**23 14 43.6 0.0**		
NFF			*e*S	**Sb**	**23 14 59.3 +0.6**		
KSHI	**Guanxi Townshi**	**1.23 305**	*i* P	**Pb**	**23 14 44.4 +0.3**		
KSHI			*e*S	**Sb**	**23 15 01.6 +2.2**		
WHP	**Taichung City**	**1.23 280**	*e*P	**Pb**	**23 14 44.2 0.0**		
SSLB	**Suanglung**	**1.24 257**	P	**Pn**	**23 14 42.7 -0.4**		
SSLB	**Suanglung**	**1.24 257**		**Pn**	**23 14 42.7 -0.4**		
SSLB	**Suanglung**	**1.24 257**	*e*P	**Pn**	**23 14 43.5 +0.4**		
WCS	**Beigang Elemen**	**1.25 270**	*e*P	**Pn**	**23 14 43.8 +0.6**		
FULB	**Fuli**	**1.25 226**	*e*P	**Pn**	**23 14 42.7 -0.5**		
FULB			S	**Sn**	**23 14 59.5 +0.4**		
YM01	**YM01**	**1.25 329**	*e*P	**Pn**	**23 14 43.8 +0.6**		
YM01			*e*S	**Sb**	**23 15 00.6 +0.4**		
SMLT	**Sun Moon Lake**	**1.27 262**	*e*P	**Pn**	**23 14 44.1 +0.5**		
SMLT			*e*S	**Sb**	**23 15 01.4 +0.5**		
CHKT	**Chengkung**	**1.28 221**	P	**Pn**	**23 14 42.5 -1.0**		
CHKT			*e*S	**Sn**	**23 14 57.7 -2.0**		
ZUZH	**Zhuzihu**	**1.28 329**	*e*P	**Pn**	**23 14 43.8 +0.2**		
ZUZH			*e*S	**Sb**	**23 15 00.4 -0.6**		
YM08	**YM08**	**1.28 331**	*e*P	**Pn**	**23 14 43.5 -0.1**		
LIOB	**Emei**	**1.29 297**	*e*P	**Pb**	**23 14 45.4 +0.4**		
NSTT	**Nanjuang**	**1.29 296**	*e*P	**Pb**	**23 14 45.5 +0.4**		
NSTT			*e*S	**Sb**	**23 15 01.9 +0.6**		
TWS1	**Kuangyinshan**	**1.29 323**	P	**Pb**	**23 14 44.7 -0.4**		
TWS1			*e*S	**Sb**	**23 15 02.6 +1.3**		
ANP	**Anpu**	**1.31 328**	*e*P	**Pb**	**23 14 45.1 -0.4**		
TYC	**Yuchr**	**1.31 263**	*e*P	**Pn**	**23 14 44.5 +0.6**		
TYC			*e*S	**Sn**	**23 15 00.5 0.0**		
NTST	**Danshui**	**1.33 326**	*e*P	**Pb**	**23 14 45.3 -0.4**		
NCU	**National Centr**	**1.34 312**	*e*P	**Pb**	**23 14 45.7 -0.2**		
EHD	**Haiduan**	**1.34 227**	*e*P	**Pn**	**23 14 44.4 -0.1**		
EHD			S	**Sn**	**23 15 01.4 +0.1**		
YUS	**Yu-Shan**	**1.34 245**	*e*P	**Pn**	**23 14 45.4 +0.5**		
YUS			S	**Sn**	**23 15 02.2 +0.1**		
TWY	**Chenhua**	**1.35 333**	*e*P	**Pb**	**23 14 46.2 0.0**		
IRIF	**Iriomote-Funau**	**1.35 78**	*e*P	**Pn**	**23 14 45.3 +0.8**		
IRIF			A	A	23 14 45.3		
	comp=N,22nm,1.4s,comp=E,13nm,1.2s						
WHYT	**Xinyi Township**	**1.35 254**	*i* P	**Pb**	**23 14 45.7 -0.5**		
WHYT			*e*S	**Sb**	**23 15 03.5 +0.3**		
ECS	**Chishang**	**1.37 225**	P	**Pn**	**23 14 45.3 +0.4**		
ECS			*e*S	**Sb**	**23 15 03.2 -0.4**		
SBCB	**Hsinchu**	**1.38 302**	*e*P	**Pb**	**23 14 46.7 0.0**		
SBCB			*e*S	**Sb**	**23 15 06.7 +2.9**		
HATJ	**Hateruma jima**	**1.40 90**	*e*P	**Pb**	**23 14 46.3 -0.6**		
HATJ			A	A	23 14 46.3		
	comp=N,22nm,2.4s,comp=E,21nm,1.7s						
HSN	**Hsinchu**	**1.40 302**	*e*P	**Pb**	**23 14 47.0 0.0**		
HSN			S	**Sb**	**23 15 05.6 +1.3**		
TWQ1	**Liyutan**	**1.40 282**	*e*P	**Pb**	**23 14 47.5 +0.5**		
NMLH	**Miaoli**	**1.43 289**	*e*P	**Pb**	**23 14 47.9 +0.3**		
WJS	**Zhushan**	**1.44 260**	P	**Pb**	**23 14 48.1 +0.5**		
WJS			*e*S	**Sb**	**23 15 07.1 +1.6**		
ELDTW	**Lidau**	**1.45 233**	*e*P	**Pn**	**23 14 46.3 +0.3**		
ELDTW			S	**Sn**	**23 15 04.0 -0.2**		
ALS	**Alishan**	**1.46 248**	*i* P	**Pn**	**23 14 47.2 +0.9**		
ALS			*e*S	**Sb**	**23 15 06.0 -0.4**		
TCU	**Taichung**	**1.47 273**	P	**Pb**	**23 14 48.1 +0.1**		
TCU			*e*S	**Sb**	**23 15 07.5 +1.2**		
WNT	**Mingjian**	**1.47 263**	*e*P	**Pb**	**23 14 48.3 +0.1**		
WNT			*e*S	**Sb**	**23 15 07.5 +1.0**		
WDJ	**Dajia District**	**1.52 281**	*e*P	**Pb**	**23 14 49.9 +0.8**		
WDJ			*e*S	**Sb**	**23 15 09.1 +1.2**		
CHN5	**Tsauling**	**1.54 253**	P	**Pb**	**23 14 48.8 -0.6**		
CHN5			S	**Sb**	**23 15 08.5 0.0**		
PCYT	**Pengchaiyu**	**1.57 353**	*e*P	**Pn**	**23 14 47.9 +0.4**		
WCHH	**Zhanghua**	**1.57 271**	*e*P	**Pb**	**23 14 49.8 -0.1**		
WCHH			S	**Sb**	**23 15 10.4 +1.0**		
WCH1	**Changhua City**	**1.58 270**	*e*P	**Pb**	**23 14 49.2 -0.8**		
WCH1			*e*S	**Sb**	**23 15 11.1 +1.5**		
JKRS	**Kuro-shima**	**1.59 84**	*e*P	**Pn**	**23 14 48.8 +1.0**		
JKRS			A	A	23 14 48.8		
	comp=N,27nm,3.9s,comp=E,22nm,3.1s						
WGK	**Gukeng**	**1.61 257**	*e*P	**Pb**	**23 14 50.0 -0.6**		
WGK			*e*S	**Sb**	**23 15 11.4 +0.8**		
WDL	**Douliou City**	**1.63 258**	*e*P	**Pb**	**23 14 50.4 -0.4**		
WDLH	**Douliu**	**1.64 257**	P	**Pb**	**23 14 50.7 -0.3**		
WDLH			*e*S	**Sb**	**23 15 11.7 +0.5**		
STYH	**Taoyuan**	**1.64 237**	*e*P	**Pn**	**23 14 49.6 +1.0**		
STYH			*e*S	**Sn**	**23 15 10.0 +1.3**		
WCKO	**Fanlu**	**1.66 248**	*e*P	**Pb**	**23 14 51.0 -0.3**		
WCKO			*e*S	**Sb**	**23 15 12.8 +1.0**		
TWGBT	**Beinan**	**1.66 222**	P	**Pn**	**23 14 48.2 -0.6**		
TWGBT	**Beinan**	**1.66 222**	*e*P	**Pn**	**23 14 48.5 -0.3**		
TWGBT			*e*S	**Sn**	**23 15 09.4 +0.1**		
TWG	**Pinlang**	**1.66 222**		**Pn**	**23 14 48.3 -0.6**		
TWG	**Pinlang**	**1.66 222**	P	**Pn**	**23 14 48.4 -0.4**		
TWG			*e*S	**Sn**	**23 15 08.7 -0.6**		
TPUB	**Ta-pu**	**1.69 243**	P	**Pn**	**23 14 50.7 +1.4**		
TPUB	**Ta-pu**	**1.69 243**		**Pn**	**23 14 49.3 +0.1**		
TPUB	**Ta-pu**	**1.69 243**	P	**Pb**	**23 14 51.0 -1.0**		
TPUB			*e*S	**Sb**	**23 15 13.1 +0.3**		
CHN4	**Tsaushan**	**1.70 246**	*e*P	**Pb**	**23 14 52.1 0.0**		
CHN4			*e*S	**Sb**	**23 15 13.7 +0.6**		
JIJ	**Ishigaki jima**	**1.73 80**	P	**Pn**	**23 14 50.3 +0.5**		
JIJ			A	A	23 14 50.3		
	comp=N,5.0nm,3.9s,comp=E,6.0nm,4.0s						
JIJ			*e*S	**Sn**	**23 15 11.9 +1.0**		
WTP	**Ta-pu**	**1.73 242**	*e*P	**Pb**	**23 14 51.5 -1.1**		
WTP			*e*S	**Sb**	**23 15 14.8 +0.8**		
CHN2	**Minshiung**	**1.73 252**	*e*P	**Pb**	**23 14 52.4 -0.3**		
CHN2			*e*S	**Sb**	**23 15 15.5 +1.5**		
RLNB	**Erlin**	**1.76 265**	*e*P	**Pn**	**23 14 51.7 +1.5**		
RLNB			S	**Sb**	**23 15 15.7 +0.8**		
CHY	**Chiayi**	**1.79 252**	*e*P	**Pb**	**23 14 53.2 -0.4**		
CHY			S	**Sb**	**23 15 16.2 +0.6**		
TWK	**Hsinying**	**1.82 244**	P	**Pb**	**23 14 53.3 -0.9**		
TWK			S	**Sb**	**23 15 16.4 -0.3**		
CHN1	**Nanshi**	**1.83 242**	*e*P	**Pb**	**23 14 53.5 -0.8**		
CHN1			*e*S	**Sb**	**23 15 16.9 +0.1**		
SGST	**Jiashian**	**1.84 238**	P	**Pn**	**23 14 52.9 +1.6**		
SGST			S	**Sb**	**23 15 16.6 -0.5**		
SLGT	**Liugui**	**1.84 235**	*e*P	**Pb**	**23 14 53.0 -1.4**		
ECL	**Taimali**	**1.90 220**	*e*P	**Pn**	**23 14 51.4 -0.7**		
ECL			*e*S	**Sn**	**23 15 14.4 -0.8**		
JISG	**Ishigakijimahi**	**1.93 74**	P	**Pn**	**23 14 53.1 +0.7**		
JISG			*e*S	**Sn**	**23 15 16.4 +0.7**		
WSF	**Szhu**	**1.93 258**	*e*P	**Pb**	**23 14 55.0 -1.0**		
WSF			S	**Sb**	**23 15 19.4 -0.3**		
WSL	**Shuilin Townsh**	**1.95 254**	*e*P	**Pb**	**23 14 55.0 -1.4**		
WSL			*e*S	**Sb**	**23 15 20.6 +0.2**		
SSD	**Sandimen**	**2.00 229**	*e*P	**Pb**	**23 14 55.5 -1.7**		
CHN3	**Shinhua**	**2.01 241**	*e*P	**Pn**	**23 14 55.4 +1.8**		
CHN3			*e*S	**Sb**	**23 15 23.5 +1.5**		
CHN8	**Yiju**	**2.02 250**	*e*P	**Pn**	**23 14 54.7 +0.9**		
CHN8			*e*S	**Sb**	**23 15 22.0 -0.4**		
SSHA	**Shanhua**	**2.05 243**	*e*P	**Pn**	**23 14 55.7 +1.6**		
SSHA			*e*S	**Sb**	**23 15 23.3 +0.3**		
MASBT	**Mashibuluo**	**2.09 227**	*e*P	**Pn**	**23 14 56.5 +1.8**		
MASBT			*e*S	**Sb**	**23 15 24.1 -0.3**		
TWM1	**Shoushan**	**2.11 234**	*e*P	**Pb**	**23 14 58.8 -0.2**		
SCLT	**Jiali**	**2.11 245**	*e*P	**Pn**	**23 14 56.5 +1.6**		
SCLT			*e*S	**Sb**	**23 15 23.4 -1.4**		
LAY	**Lan-yu**	**2.13 198**	*e*P	**Pn**	**23 14 54.5 -0.7**		
LAY			*e*S	**Sn**	**23 15 18.0 -2.8**		
EAST	**Anshuo**	**2.13 218**	*e*P	**Pn**	**23 14 55.5 +0.2**		
TAI1	**Yung-k'ang**	**2.14 242**	*e*P	**Pn**	**23 14 57.0 +1.6**		
TAI1			*e*S	**Sb**	**23 15 25.8 +0.1**		
LYUB	**Lan-yu**	**2.15 197**	P	**Pn**	**23 14 54.7 -0.9**		
LYUB			*e*S	**Sn**	**23 15 18.7 -2.7**		
TSCK	**Chigu Township**	**2.21 246**	*e*P	**Pn**	**23 14 58.2 +1.9**		
TSCK			S	**Sb**	**23 15 25.3 -2.3**		
SSPT	**Xinbi**	**2.23 225**	*e*P	**Pb**	**23 14 59.2 -1.8**		
SCZT	**Fangliau**	**2.27 222**	*e*P	**Pb**	**23 15 00.1 -1.8**		
JTJ	**Tarama**	**2.28 75**	P	**Pn**	**23 14 58.4 +1.0**		
WSSB	**Gushan**	**2.33 233**	*e*P	**Pb**	**23 15 01.3 -1.6**		
SMST	**Manzhou Townsh**	**2.43 213**	*e*P	**Pn**	**23 15 00.3 +0.9**		
SMST			*e*S	**Sn**	**23 15 27.9 -0.4**		
HEN	**Hengchun**	**2.50 215**	*e*P	**Pn**	**23 15 01.8 +1.5**		
TSEB	**Hengchuen, Pin**	**2.50 211**	*e*P	**Pn**	**23 15 02.5 +2.1**		
TSEB			*e*S	**Sn**	**23 15 31.8 +1.8**		
TWKBT	**Hengchun**	**2.51 213**	P	**Pn**	**23 15 01.3 +0.8**		
TWKBT			S	**Sn**	**23 15 32.1 +1.8**		
TWK1	**Hengchun**	**2.51 213**	P	**Pn**	**23 15 01.0 +0.5**		
TWK1			*i* S	**Sn**	**23 15 31.0 +0.8**		
WDGT	**Dungji**	**2.53 252**	*e*P	**Pn**	**23 15 03.0 +2.2**		
WDGT			*e*S	**Sn**	**23 15 32.3 +1.6**		
PHUB	**P'eng-hu**	**2.54 258**	*e*P	**Pn**	**23 15 02.3 +1.4**		
PHUB			S	**Sn**	**23 15 31.8 +0.9**		
PNG	**Penghu**	**2.54 259**	*e*P	**Pn**	**23 15 02.1 +1.2**		
PNG			S	**Sn**	**23 15 31.9 +0.9**		
VWUC	**VWUC**	**2.73 290**	*e*P	**Pn**	**23 15 04.0 +0.4**		
VWUC			*e*S	**Sn**	**23 15 34.6 -1.1**		
VCHM	**Qimei**	**2.75 252**	*e*P	**Pn**	**23 15 04.5 +0.7**		
VCHM			*e*S	**Sn**	**23 15 36.5 +0.5**		
MATB	**Ma-tsu**	**2.96 315**	*e*P	**Pn**	**23 15 05.7 -0.9**		
PTMZ	**Houxiangcun**	**3.03 289**	*e*P	**Pn**	**23 15 08.1 +0.5**		
LYJJ	**Jianjiangzhen**	**3.36 318**	*e*P	**Pn**	**23 15 11.1 -1.0**		
XPSS	**Dashiqiu**	**3.42 327**	*e*P	**Pn**	**23 15 13.1 +0.2**		
KNM	**Kinmen**	**3.52 276**	*e*P	**Pn**	**23 15 16.6 +2.1**		
KNMB	**Chin-men Tao**	**3.57 277**		**Pn**	**23 15 15.1 0.0**		
KNMB	**Chin-men Tao**	**3.57 277**	*e*P	**Pn**	**23 15 15.0 -0.1**		
KNMB			*e*S	**Sn**	**23 15 56.3 -0.1**		
MHZQ	**Yeshan**	**3.57 305**	*e*P	**Pn**	**23 15 15.1 0.0**		
AXDP	**Jialang**	**4.01 283**	*e*P	**Pn**	**23 15 21.1 0.0**		
ZPLA	**Ao Xicun**	**4.14 269**	*e*P	**Pn**	**23 15 23.2 +0.3**		
DSXP	**Dongshan**	**4.45 266**	*e*P	**Pn**	**23 15 27.4 +0.2**		
SXFK	**Yanhouchang**	**4.79 300**	*e*P	**Pn**	**23 15 31.6 -0.4**		
PIP	**Pasuquin**	**5.92 195**	*e*P	**Pn**	**23 15 49.7 +2.3**		
PIP			*e*S	**Sn**	**23 16 52.1 -2.3**		
JOW	**Kunigami**	**6.08 62**	Pn	**Pn**	**23 15 48.9 -0.7**		
	comp=E,8.7nm,0.3s,baz=204,slow=11,SNR=5.6						
	comp=E,15nm,0.3s						
JOW			AML	AML			
JOW	**Kunigami**	**6.08 62**		**Pn**	**23 15 48.8 -0.8**		
CVP	**Callao Caves**	**6.35 184**	*e*P	**Pn**	**23 15 55.4 +2.1**		
CVP			*e*S	**Sn**	**23 17 05.5 +0.6**		
JNU	**Nakatsue**	**11.76 38**	LR	LR	23 22 21.4		
	comp=E,242nm,18.1s,baz=204,slow=42						
KSRS	**Korea Array**	**14.19 19**	Pn	**Pn**	**23 17 39.2 -1.4**		
	comp=E,0.4nm,0.3s,baz=200,slow=11,SNR=5.0						
KSRS			LR	LR	23 23 43.8		
	comp=E,220nm,18.4s,baz=200,slow=40						
	comp=E,1.2nm,0.7s						
KSRS			AML	AML			
XAN	**Xi'an**	**15.32 313**	*e*P	**P**	**23 18 03.3 +2.9**		
XAN			LR	LR			
	comp=N,430nm,16.5s						
XAN			LR	LR			
	comp=E,670nm,15.1s						
XAN			LR	LR			
	comp=E,650nm,15.1s						
DAV	**Davao City (W)**	**17.20 169**	LR	LR	23 24 55.7		
	comp=Z,173nm,19.2s,baz=354,slow=37						
MJAR	**Matsushiro Arr**	**18.51 44**	LR	LR	23 26 15.2		
	comp=Z,190nm,21.4s,baz=196,slow=39						
LZDM	**Lanzhou Array**	**19.94 311**	LR	LR	23 27 23.1		
	comp=Z,336nm,18.9s,baz=95,slow=40						
USRK	**Ussuriysk Ar.**	**21.60 19**	LR	LR	23 28 07.4		
	comp=Z,38nm,18.3s,baz=187,slow=39						
CMAR	**Chiang Mai Arr**	**22.44 260**	P	**P**	**23 19 19.4 +1.0**		
	comp=Z,1.3nm,0.3s,baz=68,slow=8.6,SNR=6.1						
CMAR			LR	LR	23 29 50.4		
	comp=Z,105nm,18.1s,baz=90,slow=42						
	comp=Z,1.3nm,0.3s						
GTA2	**Gaotai**	**24.45 314**	*e*P	**P**	**23 19 40.0 +1.8**		
GTA2			pP	pP	23 19 44.0 -1.3		
GTA2			pmax	pmax			
	comp=Z,3.0nm,0.9s						
GTA2			L	L			
	comp=Z,190nm,11.4s						
GTA2			L	L			
	comp=Z,340nm,12.7s						
GTA2			L	L			
	comp=Z,350nm,13.6s						
ASAJ	**Asahikawa**	**26.01 35**	LR	LR	23 31 15.3		
	comp=Z,152nm,18.0s,baz=255,slow=39						
KLR	**Kul'dur**	**26.20 14**	LR	LR	23 31 11.7		
	comp=Z,179nm,19.9s,baz=202,slow=39						
SONM	**Songino Array**	**26.87 336**	P	**P**	**23 19 58.8 -1.2**		
	comp=Z,4.0nm,0.7s,baz=153,slow=10,SNR=17						
SONM			LR	LR	23 31 07.8		
	comp=Z,151nm,20.9s,baz=166,slow=38						
	comp=Z,4.0nm,0.7s						
SONM	**Songino Array**	**26.87 336**	P	**P**	**23 19 59.5 -0.5**		
SONM			lAmb	lAmb	23 20 01.9		
	comp=Z,3.5nm,0.8s						
JAY	**Jayapura**	**31.93 143**	LR	LR	23 30 54.0		
	comp=Z,88nm,21.7s,baz=302,slow=31						
YAK	**Yakutsk**	**38.28 6**	LR	LR	23 37 53.6		
	comp=Z,104nm,18.8s,baz=174,slow=37						
MKAR	**Makanchi Array**	**39.12 316**	P	**P**	**23 21 46.2 -0.3**		
	comp=Z,0.8nm,0.5s,baz=101,slow=9.4,SNR=6.2						
MKAR			LR	LR	23 39 38.6		
	comp=Z,135nm,18.0s,baz=86,slow=39						
	comp=Z,0.8nm,0.5s						
MAKZ	**Makanchi**	**39.32 315**	P	**P**	**23 21 47.9 -0.3**		
MAKZ			lAmb	lAmb	23 21 59.9		
	comp=Z,4.3nm,1.1s						
PETK	**Petropavlovsk-**	**39.41 33**	LR	LR	23 38 11.9		
	comp=Z,94nm,20.8s,baz=239,slow=36						
PDGK	**Podgornoye**	**39.93 309**	P	**P**	**23 21 54.0 +0.5**		
KRVT	**Keravat (AS076**	**40.44 130**	LR	LR	23 36 06.7		
	comp=Z,54nm,20.2s,baz=122,slow=32						
MA2	**Magadan**	**40.72 22**	LR	LR	23 40 14.6		
	comp=Z,115nm,18.4s,baz=162,slow=38						
ZALV	**Zalesovo Beam**	**40.89 327**	P	**P**	**23 21 59.6 -1.4**		
	comp=Z,1.4nm,0.5s,baz=116,slow=8.3,SNR=6.1						
ZALV			LR	LR	23 40 10.1		
	comp=Z,192nm,18.5s,baz=127,slow=38						
	comp=Z,1.4nm,0.5s						
PMG	**Port Moresby**	**41.20 141**	LR	LR	23 38 50.1		
	comp=Z,56nm,20.4s,baz=138,slow=36						
NRN	**Naryn**	**42.06 306**	P	**P**	**23 22 12.9 +1.6**		
NRN			lAmb	lAmb	23 22 23.0		
	comp=Z,4.0nm,1.0s						
KURK	**Kurchatov**	**42.82 320**	P	**P**	**23 22 17.0 +0.1**		
KURBB	**Kurchatov Arra**	**42.84 320**	P	**P**	**23 22 17.0 0.0**		
	comp=Z,0.5nm,0.6s,baz=106,slow=7.4,SNR=3.6						
	comp=Z,0.5nm,0.6s						
AAK	**Ala-Archa**	**43.37 307**	LR	LR	23 43 19.3		
	comp=Z,106nm,20.8s,baz=96,slow=40						
WRA	**Warramunga Arr**	**45.30 164**	P	**P**	**23 22 37.2 +0.2**		
	comp=Z,3.0nm,0.7s,baz=345,slow=8.6,SNR=23						
	comp=Z,3.0nm,0.7s						
WRA	**Warramunga Arr**	**45.30 164**	P	**P**	**23 22 35.9 -1.1**		
WR8	**Warramunga Arr**	**45.35 164**	P	**P**	**23 22 37.7 +0.2**		
WR8			lAmb	lAmb	23 22 38.7		
	comp=Z,6.5nm,0.8s						
TIXI	**Tiksi**	**47.76 3**	LR	LR	23 45 33.1		
	comp=Z,203nm,18.9s,baz=195,slow=39						
BVAR	**Borovoye Array**	**48.40 321**	P	**P**	**23 23 00.6 -0.4**		
	comp=Z,1.3nm,0.5s,baz=118,slow=3.7,SNR=3.6						
	comp=Z,1.3nm,0.5s						
AS31	**Alice Springs**	**48.77 166**	P	**P**	**23 23 04.2 0.0**		
AS31			lAmb	lAmb	23 23 05.9		
	comp=Z,2.0nm,1.0s						
ASAR	**Alice Springs**	**48.77 166**	P	**P**	**23 23 05.3 +1.1**		
	comp=Z,3.1nm,0.8s,baz=347,slow=7.2,SNR=20						
	comp=Z,3.1nm,0.8s						
ASAR	**Alice Springs**	**48.77 166**	P	**P**	**23 23 04.4 +0.2**		
NRIK	**Noril'sk**	**49.77 345**	LR	LR	23 46 16.5		
	comp=Z,134nm,18.4s,baz=150,slow=39						
AB31	**Akbulak array**	**54.24 314**	P	**P**	**23 23 45.2 +0.4**		
AB31			lAmb	lAmb	23 23 54.4		
	comp=Z,3.4nm,0.7s						
ABKAR	**Akbulak array**	**54.24 314**	P	**P**	**23 23 44.5 -0.3**		
ARTI	**Arti**	**55.89 323**	LR	LR	23 49 24.3		
	comp=Z,120nm,18.9s,baz=72,slow=38						
STKA	**Stephens Creek**	**58.62 161**	P	**P**	**23 24 16.3 +0.2**		
	comp=Z,4.7nm,0.7s,baz=336,slow=6.0,SNR=11						
	comp=Z,4.7nm,0.7s						
STKA	**Stephens Creek**	**58.62 161**	P	**P**	**23 24 16.8 +0.7**		
GNI	**Garni**	**65.69 305**	LR	LR	23 57 50.2		
	comp=Z,49nm,18.9s,baz=320,slow=40						
BRTR	**Keskin Array B**	**74.04 307**	P	**P**	**23 25 53.6 -1.6**		
	comp=Z,0.7nm,0.6s,baz=86,slow=3.8,SNR=5.6						
	comp=Z,0.7nm,0.6s						
HFS	**Hagfors**	**78.15 331**	LR	LR	00 04 13.7		
	comp=Z,233nm,19.4s,baz=358,slow=38						
NOA	**NORSAR Array B**	**78.79 332**	LR	LR	00 04 54.5		
	comp=Z,108nm,19.2s,baz=0.0,slow=39						
GERES	**GERESS Array B**	**83.56 321**	P	**P**	**23 26 46.4 -0.9**		
	comp=Z,0.2nm,0.3s,baz=56,slow=5.0,SNR=4.2						
	comp=Z,0.2nm,0.3s						
GERES	**GERESS Array B**	**83.56 321**	P	**P**	**23 26 46.3 -1.0**		

MEX ***02*** *23:25:23.8±1.5, 14°.18N×93°.16W, h10km, MD4.8, Presumed earthquake*

CATAC ***02*** *23:25:24.9±0.5, 14°N±4°×9°3W±°, h35km, M5.0/20, mb5.3/3, mB5.2/3, MLv5.0/20, Mw(mB)4.6/3, Error ellipse: s-maj=9.7km s-min=4.7km az=42.2, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.43; $M_{\theta\theta}$-1.75; $M_{\phi\phi}$ 1.32; $M_{r\theta}$-0.12; $M_{\theta\phi}$0.37; $M_{r\theta}$0.71; Fault plane solution: $M_0$1.77548×10^{16} NP1:ϕ_s318.21349°, δ74.72482°, λ155.38444°. NP2:ϕ_s55.09613°, δ66.30847°, λ16.72044°. Principal axes: T 1.7326, Plg28.0613°, Azm274

UXUV eS Sn 23 26 49.5 -2.6
HUIG Huatulco 3.32 298 Pn Pn 23 26 12.9 -2.5
HUIG Sn 23 26 48.3 -5.4
HUIG Huatulco 3.32 298 eP Pn 23 26 12.9 -2.5
HUIG eS Sn 23 26 48.3 -5.4
CMIG Matias Romero 3.35 329 Pn Pn 23 26 14.7 -1.2
comp=N,49nm,0.3s,baz=156,slow=8.0,SNR=349
CMIG Sn Sn 23 26 52.8 -1.6
comp=N,139nm,0.3s,baz=73,slow=13,SNR=8.4
CMIG LR LR 23 27 44.5
comp=N,1µm,18.4s,baz=230,slow=41
comp=N,184nm,0.3s
CMIG AML AML
CMIG Matias Romero 3.35 329 Pn 23 26 14.5 -1.4
CMIG Sn 23 26 52.3 -2.2
CMIG Matias Romero 3.35 329 eP Pn 23 26 14.5 -1.4
CMIG eS Sn 23 26 52.3 -2.2
CEVE Cerro Verde 3.36 96 P Pn 23 26 15.8 -0.5
UNIC Universidad Ca 3.42 93 P Pn 23 26 16.0 -0.9
JAYA Jayaque - finc 3.56 99 P Pn 23 26 18.4 -0.5
JAYA Jayaque - finc 3.56 99 i P Pn 23 26 18.7 -0.1
CEDA San Andres 3.59 96 P Pn 23 26 19.2 0.0
MTO3 Montecristo 3.60 87 Pn 23 26 19.9 +0.4
PMON Piamonte 3.68 97 P Pn 23 26 20.6 +0.1
PMON S Sn 23 27 05.0 +2.3
LALI Alcalda de L 3.71 101 P Pn 23 26 20.1 -0.8
LALI S Sn 23 27 03.2 -0.1
LALI Alcalda de L 3.71 101 i P Pn 23 26 20.0 -0.8
SEMO Seminario San 3.77 97 P Pn 23 26 21.5 -0.2
UTEC Universidad Te 3.79 97 P Pn 23 26 22.5 +0.5
UDBS Universidad Do 3.83 97 P Pn 23 26 22.0 -0.5
LLGN La Laguna 4.00 90 P Pn 23 26 22.9 -2.0
TUIG Tuzandepetl 4.01 341 Pn 23 26 23.5 -1.5
TUIG Sn 23 27 12.2 +1.4
TUIG Tuzandepetl 4.01 341 eP Pn 23 26 23.5 -1.5
TUIG eS Sn 23 27 12.2 +1.4
PAVA Las Pavas 4.04 97 P Pn 23 26 25.1 -0.4
P5NO Presa 5 de nov 4.19 93 P Pn 23 26 26.7 -0.7
SARH Santa Rosa de 4.21 82 P Pn 23 26 29.3 +1.5
TECO Alcaldia de Te 4.22 99 P Pn 23 26 27.6 -0.2
TECO S Sn 23 27 17.4 +1.4
PEIG Puerto Escondi 4.32 295 Pn 23 26 28.2 -1.0
PEIG Sn 23 27 11.6 -6.9
PEIG Puerto Escondi 4.32 295 i P Pn 23 26 28.2 -1.0
PEIG i S Sn 23 27 11.6 -6.9
NEUV Arroyo Zacate 4.36 323 Pn 23 26 27.5 -2.2
NEUV Sn 23 27 15.9 -3.4
NEUV Arroyo Zacate 4.36 323 eP Pn 23 26 27.5 -2.2
NEUV eS Sn 23 27 15.9 -3.4
ALJI Alcalda de J 4.46 101 P Pn 23 26 29.4 -1.7
ALJI S Sn 23 27 21.0 -0.8
OXIG Oaxaca 4.53 309 Pn 23 26 30.1 -2.2
OXIG Sn 23 27 20.9 -3.0
VHO Vista Hermosa 4.53 309 eP Pn 23 26 30.1 -2.2
VHO eS Sn 23 27 20.9 -3.0
PACA Pacayal 4.67 99 P Pn 23 26 33.4 -0.7
RANC El Ranchito 4.71 99 P Pn 23 26 34.5 -0.2
YOIG Yosondua 5.05 302 Pn 23 26 40.2 +0.7
YOIG Sn 23 27 36.1 -0.8
YOIG Yosondua 5.05 302 i P Pn 23 26 40.2 +0.7
YOIG i S Sn 23 27 36.1 -0.8
SCIG Sabancuy 5.06 21 P Pn 23 26 40.0 +0.6
SCIG Sabancuy 5.06 21 Pn 23 26 38.5 -0.9
SCIG Sn 23 27 38.3 +1.8
SCIG Sabancuy 5.06 21 IAML 23 28 19.4
comp=E,1µm,2.7s
SCIG Sabancuy 5.06 21 eP Pn 23 26 38.5 -0.9
SCIG eS Sn 23 27 38.3 +1.8
CNCH Conchagua 5.17 100 P Pn 23 26 40.0 -1.1
PNIG Pinotepa 5.34 295 Pn 23 26 42.3 -1.0
PNIG Sn 23 27 38.6 -5.0
PNIG Pinotepa 5.34 295 eP Pn 23 26 42.3 -1.0
PNIG eS Sn 23 27 38.6 -5.0
TXIG Tlaxiaco 5.44 304 Pn 23 26 45.2 +0.3
TXIG Sn 23 27 43.1 -3.3
TXIG Tlaxiaco 5.44 304 eP Pn 23 26 45.2 +0.3
TXIG eS Sn 23 27 43.1 -3.3
TOIG Toxpalan 5.44 316 Pn 23 26 44.8 +0.1
TOIG Sn 23 27 46.8 +0.5
TOIG Toxpalan 5.44 316 eP Pn 23 26 44.8 +0.1
TOIG eS Sn 23 27 46.8 +0.5
CSGN Cosiguina Volc 5.50 102 P Pn 23 26 45.0 -0.4
TGUH Tegucigalpa,Un 5.62 91 Pn 23 26 47.9 +0.7
TGUH Tegucigalpa,Un 5.62 91 P Pn 23 26 47.5 +0.3
comp=Z,131nm,0.6s
HLIG Huajuapan de L 5.80 309 Pn 23 26 49.6 -0.2
HLIG Sn 23 27 52.9 -2.3
HLIG Huajuapan de L 5.80 309 eP Pn 23 26 49.6 -0.2
HLIG eS Sn 23 27 52.9 -2.3
TPIG Tehuac#an 5.87 316 Pn 23 26 52.5 +1.8
TPIG Sn 23 27 58.0 +1.1
TPIG Tehuac#an 5.87 316 eP Pn 23 26 52.5 +1.8
TPIG eS Sn 23 27 58.0 +1.1
CRIN San Cristobal 6.04 104 Pn 23 26 52.7 -0.3
CRIN San Cristobal 6.04 104 P Pn 23 26 53.6 +0.6
comp=Z,349nm,0.7s
FTIG Fresnillo de T 6.10 308 Pn 23 26 55.8 +2.0
FTIG Sn 23 27 57.7 -4.7
FTIG Fresnillo de T 6.10 308 eP Pn 23 26 55.8 +2.0
FTIG eS Sn 23 27 57.7 -4.7
MGIG Malinaltepec 6.14 300 Pn 23 26 54.5 0.0
MGIG Sn 23 27 58.1 -5.4
MGIG Malinaltepec 6.14 300 eP Pn 23 26 54.5 0.0
MGIG eS Sn 23 27 58.1 -5.4
JAUV Jalcomulco 6.25 326 Pn 23 26 53.8 -2.0
JAUV Sn 23 28 02.9 -3.1
JAUV Jalcomulco 6.25 326 eP Pn 23 26 53.8 -2.0
JAUV eS Sn 23 28 02.9 -3.1
TLIG Tlapa 6.25 303 Sn 23 28 06.2 0.0
TLIG Tlapa 6.25 303 Pn 23 26 56.9 +1.0
TLIG Tlapa 6.25 303 eP Pn 23 26 56.3 +0.4
TLIG eS Sn 23 28 06.2 0.0
CRIG Cruz Grande 6.36 294 Pn 23 26 57.2 -0.1
CRIG Sn 23 27 58.8 -10
CRIG Cruz Grande 6.36 294 eP Pn 23 26 57.2 -0.1
CRIG eS Sn 23 27 58.8 -10
DAIG Los Arroyos 6.93 295 Pn 23 27 05.0 -0.1
DAIG Sn 23 28 15.0 -7.8
DAIG Los Arroyos 6.93 295 eP Pn 23 27 05.0 -0.1
DAIG eS Sn 23 28 15.0 -7.8
PPAX Atlixo 6.94 313 Pn 23 27 07.0 +1.6
PPAX Sn 23 28 21.5 -2.0
PPAX Atlixo 6.94 313 eP Pn 23 27 07.0 +1.6
PPAX eS Sn 23 28 21.5 -2.0
MGAN Managua 6.95 106 P Pn 23 27 08.6 +3.2
comp=Z,172nm,1.1s
PPCL Tochimilco 7.08 312 Pn 23 27 09.7 +2.3
PPCL Sn 23 28 20.8 -6.0
PPCL Tochimilco 7.08 312 eP Pn 23 27 09.7 +2.3
PPCL eS Sn 23 28 20.8 -6.0
PPPT Popocatepetl 7.12 312 Pn 23 27 10.6 +2.4
PPPT Sn 23 28 28.0 -0.2
PPPT Popocatepetl 7.12 312 eP Pn 23 27 10.6 +2.4
PPPT eS Sn 23 28 28.0 -0.2
PPCU Popocatepetl 7.14 313 Pn 23 27 10.1 +1.6
PPCU Sn 23 28 28.8 +0.1
PPCU Popocatepetl 7.14 313 eP Pn 23 27 10.1 +1.6
PPCU eS Sn 23 28 28.8 +0.1
PBPN Popocatepetl 7.17 313 eP Pn 23 27 11.2 +2.3
PBPN eS Sn 23 28 30.4 +1.0
PBXN Popocatepetl 7.17 312 eP Pn 23 27 11.7 +2.9
PBXN eS Sn 23 28 29.2 -0.1
PPM Popocatepetl 7.19 313 eP Pn 23 27 11.7 +2.6
PPM eS Sn 23 28 31.4 +1.6
PPIG Popocatepetl 7.19 313 Pn 23 27 11.7 +2.6
PPIG Sn 23 28 31.4 +1.6
MEIG Mezcala 7.30 301 Pn 23 27 11.1 +0.9
MEIG Sn 23 28 27.7 -4.3
MEIG Mezcala 7.30 301 eP Pn 23 27 11.1 +0.9
MEIG eS Sn 23 28 27.7 -4.3
CXUV Coxquihui 7.33 325 Pn 23 27 10.4 -0.3
CXUV Sn 23 28 21.5 -11
CXUV Coxquihui 7.33 325 eP Pn 23 27 10.4 -0.3
CXUV eS Sn 23 28 21.5 -11
YAIG Yautepec 7.38 310 Pn 23 27 10.9 -0.4
YAIG Sn 23 28 31.0 -3.0
YAIG Yautepec 7.38 310 i P Pn 23 27 10.9 -0.4
YAIG i S Sn 23 28 31.0 -3.0
BOAB BOACO BROADBAN 7.42 103 Pn 23 27 11.5 -0.3
BOAB BOACO BROADBAN 7.42 103 P Pn 23 27 10.3 -1.4
comp=Z,114nm,1.4s
PLIG Platanillo 7.44 305 Pn 23 27 13.5 +1.3
PLIG Sn 23 28 36.1 +0.6
PLIG Platanillo 7.44 305 eP Pn 23 27 13.5 +1.3
PLIG eS Sn 23 28 36.1 +0.6
CAIG El Cayaco 7.49 293 Pn 23 27 13.1 +0.4
CAIG Sn 23 28 32.6 -3.9
CAIG El Cayaco 7.49 293 eP Pn 23 27 13.1 +0.4
CAIG eS Sn 23 28 32.6 -3.9
TEIG Tepich 7.53 37 Pn 23 27 11.5 -1.7
TEIG Sn 23 28 35.7 -1.7
TEIG Tepich 7.53 37 eP Pn 23 27 11.9 -1.3
TEIG eS Sn 23 28 31.9 -5.5
TEIG Tepich 7.53 37 P Pn 23 27 12.0 -1.3
comp=Z,196nm,0.5s
MPVM San Francisco 7.55 312 Pn 23 27 09.7 -4.1
MPVM Sn 23 28 31.4 -6.9
MPVM San Francisco 7.55 312 eP Pn 23 27 09.7 -4.1
MPVM eS Sn 23 28 31.4 -6.9
THVM De Xico 7.59 313 Pn 23 27 07.7 -6.7
THVM Sn 23 28 32.1 -7.4
THVM De Xico 7.59 313 eP Pn 23 27 07.7 -6.7
THVM eS Sn 23 28 32.1 -7.4
TLVM San Miguel Top 7.66 311 Sn 23 28 31.4 -10
TLVM San Miguel Top 7.66 311 eP Pn 23 27 07.7 -7.7
TLVM eS Sn 23 28 31.4 -10
MZVM 7.70 311 Pn 23 27 19.7 +4.0
MZVM 7.70 311 eP Pn 23 27 19.7 +4.0
UNM Universidad Na 7.75 312 eS Sn 23 28 52.5 +9.2
MAVM Malinalco, Edo 7.76 308 Pn 23 27 19.0 +2.4
MAVM Malinalco, Edo 7.76 308 eP Pn 23 27 19.0 +2.4
PBVM Pinon 7.76 313 Pn 23 27 13.0 -3.4
PBVM Pinon 7.76 313 eP Pn 23 27 13.0 -3.4
PTVM Pico Tres Padr 7.88 314 Pn 23 27 17.0 -1.3
PTVM Pico Tres Padr 7.88 314 eP Pn 23 27 17.0 -1.3
SIUN Universidad Ur 8.07 93 Pn 23 27 21.0 +0.3
ARIG Puente Sto Nin 8.07 301 Pn 23 27 20.3 -0.5
ARIG Sn 23 28 50.4 -0.6
ARIG Puente Sto Nin 8.07 301 eP Pn 23 27 20.3 -0.5
ARIG eS Sn 23 28 50.4 -0.6
TOVM TOLUCA 8.09 309 Pn 23 27 19.0 -2.3
TOVM TOLUCA 8.09 309 eP Pn 23 27 19.0 -2.3
DEIG Demacu 8.31 318 eP Pn 23 27 25.8 +1.5
DEIG eS Sn 23 28 55.9 -1.2
DHIG Demacu 8.31 318 Pn 23 27 25.8 +1.6
DHIG Sn 23 28 55.9 -1.2
JUD3 Juan Diaz 3 8.39 118 Pn 23 27 26.8 +1.6
ZIIG Zihuatanejo 8.75 294 Pn 23 27 30.2 +0.1
ZIIG Sn 23 29 11.0 +3.4
ZIIG Zihuatanejo 8.75 294 eP Pn 23 27 30.2 +0.1
ZIIG eS Sn 23 29 11.0 +3.4
JTS Las Juntas de 8.84 115 Pn Pn 23 27 31.8 +0.5
comp=Z,2.5nm,0.3s,baz=320,slow=11,SNR=6.6
comp=Z,5.8nm,0.3s
JTS AML AML
JTS Las Juntas de 8.84 115 Pn 23 27 33.5 +2.2
JTS Las Juntas de 8.84 115 P Pn 23 27 31.3 0.0
comp=Z,47nm,0.9s
MOIG Morelia 9.48 306 Sn 23 29 34.4 +8.6
MOIG Morelia 9.48 306 Pn 23 27 42.7 +2.4
MOIG Morelia 9.48 306 eP Pn 23 27 47.6 +7.3
MOIG eS Sn 23 29 34.4 +8.6
LCR2 La Lucha 2 9.92 116 Pn 23 27 48.2 +1.9
RPIG Rio Verde 10.07 320 Pn 23 27 51.2 +2.9
RPIG Sn 23 29 48.0 +7.9
RPIG Rio Verde 10.07 320 eP Pn 23 27 51.2 +2.9
RPIG eS Sn 23 29 48.0 +7.9
MMIG Aquila 10.67 294 Pn 23 27 51.9 -4.5
MMIG Sn 23 30 01.9 +7.3
MMIG Aquila 10.67 294 eP Pn 23 27 51.9 -4.5
MMIG eS Sn 23 30 01.9 +7.3
PIRO Carate, Puerto 11.15 120 Pn Pn 23 28 05.3 +2.3
ZAIG Zacatecas 12.39 315 Pn 23 28 22.1 +1.9
ZAIG Zacatecas 12.39 315 P Pn 23 28 22.0 +1.9
comp=Z,23nm,1.3s
SOR Soroa 12.79 47 P Pn 23 28 24.2 -1.3
comp=Z,67nm,1.9s
833A Chaparral WMA, 15.22 338 Pn 23 28 58.7 +0.4
833A IAmb IAmb 23 29 09.1
comp=Z,25nm,0.8s
HKT Hockley 15.87 351 Pn 23 29 06.4 -0.2
HKT IAmb IAmb 23 29 10.9
comp=Z,58nm,1.5s
HKT Hockley 15.87 351 P Pn 23 29 07.5 +0.8
comp=Z,23nm,1.4s
MLDN Muldoon 15.93 347 Pn 23 29 07.5 0.0
MLDN IAmb IAmb 23 29 11.9
comp=Z,106nm,1.4s
HNDO Hondo 16.29 340 Sn 23 31 56.1 -16
HNDO Hondo 16.29 340 Pn 23 29 12.4 +0.3
435B Jarrell 17.00 347 Pn Pn 23 29 21.1 -0.1
SNAG San Augustine 17.25 357 Pn 23 29 23.9 -0.3
HPIG 17.28 319 P 23 29 26.6 +0.6
HPIG 17.28 319 P P 23 29 26.6 +0.6
comp=Z,13nm,0.9s
JCT Junction City 17.33 340 P Pn 23 29 26.3 +1.0
NATX Nacogdoches 17.52 355 Pn Pn 23 29 27.1 -0.5
SAND Sanderson 17.75 333 Pn 23 29 30.2 -0.3
BRAL Brewton 17.75 17 Pn 23 29 30.7 +0.2
BRDY Brady 17.84 343 Pn 23 29 31.3 -0.3
TXAR Lajitas Array 17.96 329 P Pn 23 29 33.3 +0.2
comp=Z,0.2nm,0.3s,baz=153,slow=11,SNR=43
TXAR PcP PcP 23 34 06.7 -1.0
comp=Z,0.8nm,0.7s,baz=102,slow=1.6,SNR=4.2
comp=Z,8.9nm,1.0s
TXAR AML AML
TXAR Lajitas Array 17.96 329 P Pn 23 29 33.7 +0.7
TX31 Lajitas Ar. Si 17.96 329 P 23 29 34.8 +1.4
TX31 IAmb IAmb 23 29 38.7
comp=Z,79nm,1.4s
WHTX Lake Whitney, 18.14 348 P P 23 29 36.3 +1.0
OZNA Ozona 18.20 337 Sn 23 32 50.6 -7.7
OZNA Ozona 18.20 337 P Pn 23 29 36.2 +0.2
OZNA IAmb IAmb 23 29 39.9
comp=Z,55nm,1.4s
143A Socs Landing, 18.46 4 P P 23 29 38.7 -0.1
143A IAmb IAmb 23 29 44.9
comp=Z,39nm,0.8s
FW13 Cleburne 18.49 348 P P 23 29 39.0 -0.1
TREL Terrell 18.64 352 P P 23 29 39.9 -0.8
TREL IAmb IAmb 23 29 45.7
comp=Z,53nm,1.2s
146A Union 18.70 11 P P 23 29 39.7 -1.7
146A IAmb IAmb 23 29 44.0
comp=Z,53nm,1.3s
CBOC Ciudad Bolivar 18.72 115 P P 23 29 44.1 +2.2
comp=Z,20nm,1.1s
352A Blakely 18.73 22 P P 23 29 41.5 -0.3
352A IAmb IAmb 23 29 49.2
comp=Z,81nm,1.2s
250A Grady 18.74 18 P P 23 29 41.6 -0.2
250A IAmb IAmb 23 29 59.9
comp=Z,51nm,1.1s
ALPN Alpine 18.80 331 P P 23 29 43.4 +0.7
ALPN IAmb IAmb 23 29 57.5
comp=Z,50nm,1.4s
Z41A Richland Creek 18.96 1 P P 23 29 45.0 +0.8
Z41A IAmb IAmb 23 30 03.1
comp=Z,96nm,1.2s
HELC Santa Helena 19.00 113 P P 23 29 46.0 +0.7
SGCY Sterling City 19.10 339 P P 23 29 46.5 +0.7
TPB05 Hovey Rd 19.11 332 P P 23 29 46.2 +0.2
FW06 Azle 19.11 348 P P 23 29 46.5 +0.6
PLPT Palo Pinto 19.12 346 P Pn 23 29 47.2 +0.1
MNHN Monahans 19.23 334 P P 23 29 48.5 +1.3
MNHN IAmb IAmb 23 29 51.5
comp=Z,45nm,0.8s
TMB01 Midkiff 19.23 336 P P 23 29 48.5 +1.1
ABTX Abilene, Hawle 19.28 343 P P 23 29 47.5 -0.3
ABTX IAmb IAmb 23 29 56.0
comp=Z,22nm,0.6s
TPB01 Permian Basin 19.34 331 P Pn 23 29 50.1 +0.3
TPB01 IAmb IAmb 23 29 55.8
comp=Z,50nm,1.4s
YOTC Yotoco, Valle 19.37 120 P P 23 29 51.3 +2.3
comp=Z,1µmcomp=Z,12nm,1.5s
WLAR White Oak Lake 19.39 360 P P 23 29 49.5 +0.6
WLAR IAmb IAmb 23 30 01.4
comp=Z,26nm,0.9s
229A Bryant Ranch, 19.40 337 P P 23 29 49.1 0.0
Z35A Perchaven, San 19.41 349 P P 23 29 50.1 +1.0
Z35A IAmb IAmb 23 30 02.8
comp=Z,35nm,1.1s
Z47A Carrollton 19.44 13 P P 23 29 49.2 -0.2
Z47A IAmb IAmb 23 29 56.9
comp=Z,71nm,1.5s
JAMC Jamundi, Valle 19.53 123 P Pn 23 29 53.9 +1.6
comp=Z,12nm,1.1s
LRAL Lakeview Retre 19.53 15 P P 23 29 51.2 +0.7
GUY2C Guyana, Caldas 19.59 115 P P 23 29 54.1 +2.3
comp=Z,26nm,0.7s
CCAR Cane Creek 19.65 3 P P 23 29 51.6 -0.1
CCAR IAmb IAmb 23 29 56.0
comp=Z,72nm,1.2s
TPB06 Permian Basin 19.69 333 P P 23 29 53.0 +0.7
PECS Pecos 19.74 332 P P 23 29 53.6 +0.8
BBAC Balboa, Cauca 19.78 126 P P 23 29 55.3 +1.7
comp=Z,13nm,1.4s
VHRN Van Horn 19.80 328 P P 23 29 54.5 +0.9
VHRN IAmb IAmb 23 29 59.5
comp=Z,38nm,1.3s
ODSA Odessa 19.82 336 P P 23 29 54.2 +0.4
ODSA IAmb IAmb 23 29 56.7
comp=Z,41nm,0.8s
PTBC PUERTO BERRIO, 19.82 111 P P 23 29 54.5 +0.7
comp=Z,13nm,1.1s
Y45A Yeager Farm, C 19.82 9 P P 23 29 54.9 +1.3
Y45A IAmb IAmb 23 29 59.6
comp=Z,54nm,1.1s
TPB07 Mentone 19.83 332 P P 23 29 54.0 +0.2
TPB07 IAmb IAmb 23 29 59.9
comp=Z,29nm,0.8s
NORC Norcasia 19.87 114 P P 23 29 55.9 +1.5
comp=Z,12nm,1.1s
152A Waverly Hall 19.88 21 P P 23 29 54.5 +0.2
152A IAmb IAmb 23 30 12.4
comp=Z,28nm,1.1s
POPC Popayan, Colom 19.92 124 P P 23 29 56.4 +1.3
comp=Z,24nm,1.1s
129A Stewart Farms, 20.01 338 P P 23 29 56.0 +0.2
129A IAmb IAmb 23 29 58.6
comp=Z,31nm,1.0s
OTAV Otavalo 20.05 133 P P 23 29 57.0 +0.2
OTAV Otavalo 20.05 133 P P 23 29 58.2 +1.4
comp=Z,8.7nm,1.2s
WTFS Witchita Falls 20.07 347 P P 23 29 56.6 +0.2
WTFS IAmb IAmb 23 30 06.5
comp=Z,15nm,0.6s
APMT Aspermont 20.08 343 P P 23 29 56.1 -0.4
SN07 Snyder 07 20.09 341 IAmb IAmb 23 30 00.4
comp=Z,32nm,0.9s
128A Castleberry Fa 20.24 336 P P 23 29 58.8 +0.5
128A IAmb IAmb 23 30 01.3
comp=Z,54nm,1.0s
MIAR Mount Ida 20.25 359 P P 23 29 57.3 -1.0
MIAR Mount Ida 20.25 359 P P 23 29 55.9 -2.3
comp=Z,49nm,1.2s
POST Post 20.27 339 P P 23 29 59.1 +0.5
POST IAmb IAmb 23 30 01.0
comp=Z,80nm,1.4s
TPB28 20.29 331 P P 23 30 00.2 +1.4
TPB28 IAmb IAmb 23 30 08.4
comp=Z,25nm,1.3s
TPB11 China Draw 20.29 332 P P 23 29 59.5 +0.6
TPB11 IAmb IAmb 23 30 05.4
comp=Z,43nm,1.4s
ORTC Ortega, Tolima 20.34 119 P P 23 30 01.9 +2.4
comp=Z,44nm,0.9s
UALR University of 20.48 2 P P 23 30 01.3 +0.6
UALR IAmb IAmb 23 30 16.9
comp=Z,27nm,1.1s
CLNB Carlsbad 20.50 333 P P 23 30 01.1 -0.1
SPBC San Pablo de B 20.54 113 P P 23 30 02.7 +1.0
comp=Z,13nm,1.1s
ROSC El Rosal 20.68 115 P P 23 30 04.2 +0.6
comp=Z,19nm,0.7s,baz=166,slow=2.7,SNR=11
comp=Z,19nm,0.7s
ROSC El Rosal 20.68 115 P P 23 30 04.4 +0.8
ROSC IAmb IAmb 23 30 07.8
comp=Z,29nm,0.9s
MNTX Cornudas Mount 20.74 329 P P 23 30 04.3 +0.6
MNTX IAmb IAmb 23 30 17.4
comp=Z,46nm,1.5s
MNTX Cornudas Mount 20.74 329 P P 23 30 04.8 +1.2
comp=Z,21nm,1.2s
X34A Smith Ranch, M 20.75 349 P P 23 30 05.4 +1.7
X34A IAmb IAmb 23 30 24.7
comp=Z,30nm,0.9s
PRAC Prado 20.75 118 P P 23 30 06.4 +2.5
comp=Z,33nm,1.4s
X48A Hartselle 20.87 14 P P 23 30 06.7 +1.7
BARC Barichara 20.96 109 P P 23 30 08.2 +1.8
comp=Z,41nm,1.4s
WHAR Wooly Hollow 21.00 2 P P 23 30 06.5 +0.2
WHAR IAmb IAmb 23 30 12.8
comp=Z,27nm,1.3s
GOGA Godfrey 21.01 23 P P 23 30 05.6 -0.9
GOGA IAmb IAmb 23 30 11.1
comp=Z,43nm,1.3s
GOGA Godfrey 21.01 23 P P 23 30 06.5 -0.1
comp=Z,26nm,2.8s
PIAT Ana Tenorio 21.06 135 P P 23 30 10.2 +2.5
comp=Z,8.3nm,1.0s
WMOK Wichita Mounta 21.07 347 P P 23 30 06.7 -0.5
WMOK Wichita Mounta 21.07 347 P P 23 30 07.9 +0.7
comp=Z,12nm,1.1s
W35A Tecumseh 21.13 351 P P 23 30 08.0 +0.2
W35A IAmb IAmb 23 30 15.7
comp=Z,37nm,0.9s
CPRX Cap Rock 21.15 334 P P 23 30 09.2 +0.9
CHIC Chingaza 21.30 115 P P 23 30 12.4 +2.1
comp=Z,58nm,1.2s
FNO Franklin 21.31 350 P P 23 30 10.7 +0.9
RUSC La Rusia 21.33 111 P P 23 30 12.0 +1.3
RUSC IAmb IAmb 23 30 24.9
comp=Z,39nm,1.1s
RUSC La Rusia 21.33 111 P P 23 30 12.4 +1.7
comp=Z,33nm,1.0s
URMC La Uribe, Meta 21.42 119 P P 23 30 12.6 +1.4
comp=Z,13nm,0.8s
OKCSW OKLAHOMA CITY 21.46 350 P P 23 30 11.9 +0.5
TUL3 Leonard 21.74 354 IAmb IAmb 23 30 34.7
comp=Z,23nm,0.9s
DEOK Depew 21.75 352 IAmb IAmb 23 30 26.2
comp=Z,22nm,1.0s
OK029 Liberty Lake 21.85 350 IAmb IAmb 23 30 18.1
comp=Z,22nm,0.7s
OK052 Battle Ridge R 21.94 352 IAmb IAmb 23 30 18.6
comp=Z,28nm,0.7s
HODGE Hodges 22.20 24 IAmb IAmb 23 30 31.4
comp=Z,45nm,1.2s
TAMC Tame, Arauca 22.30 108 P P 23 30 23.7 +3.1
comp=Z,74nm,0.8s
WVT Waverly 22.32 11 P P 23 30 18.3 -2.3
comp=Z,14nm,2.0s
OK048 Pawnee Station 22.38 352 IAmb IAmb 23 30 23.0
comp=Z,19nm,0.8s
MACC Macarena, Meta 22.46 121 P P 23 30 24.7 +2.4
ELIS Ellis County 22.49 346 IAmb IAmb 23 30 26.4
comp=Z,37nm,0.9s
PH02 Texas Public H 22.55 341 P P 23 30 22.6 -0.6
PH02 IAmb IAmb 23 30 24.1
comp=Z,28nm,0.8s
PBMO Poplar Bluff 22.59 6 P P 23 30 22.2 -1.3
SDV Santo Domingo 22.60 101 LR LR 23 40 13.8
comp=Z,266nm,19.6s,baz=294,slow=39
SDV Santo Domingo 22.60 101 P P 23 30 25.6 +1.6
SDV Santo Domingo 22.60 101 P P 23 30 25.4 +1.4
SDV Santo Domingo 22.60 101 P P 23 30 25.7 +1.7
comp=Z,72nm,0.8s
319A Douglas 22.64 322 IAmb IAmb 23 30 37.6
comp=Z,57nm,1.4s
T35A Sooner Cattle 22.81 353 IAmb IAmb 23 30 43.4
comp=Z,26nm,1.1s
NOKA Waynoka 22.93 348 IAmb IAmb 23 30 29.1
comp=Z,23nm,0.7s
U49A Red Boiling Sp 23.14 15 IAmb IAmb 23 30 51.1
comp=Z,34nm,1.3s
KAN01 Argonia South 23.22 350 IAmb IAmb 23 30 32.3
comp=Z,26nm,1.0s
CCM Cathedral Cave 23.80 4 P P 23 30 34.1 -1.4
CCM Cathedral Cave 23.80 4 P P 23 30 33.3 -2.2
comp=Z,19nm,1.1s
ALQ Albuquerque 23.91 332 IAmb IAmb 23 30 58.0
comp=Z,12nm,1.0s
ANMO Albuquerque 23.91 332 P 23 30 39.9 +3.0
ANMO Albuquerque 23.91 332 P P 23 30 37.7 +0.8
comp=Z,13nm,1.9s
ANMO pP sP 23 30 50.8 -0.1

TASM	ASL Pad, Albuq	23.91	332	IAmb	IAmb	23 30 58.0
	comp=Z,12nm,1.0s					
TUC	Tucson	24.21	321		P	23 30 40.6 +1.1
TUC				IAmb	IAmb	23 30 45.7
	comp=Z,22nm,1.1s					
TUC	Tucson	24.21	321	P	P	23 30 41.2 +1.7
	comp=Z,22nm,1.0s					
R32A	Long Quarter,	24.62	349	IAmb	IAmb	23 30 43.7
	comp=Z,13nm,0.7s					
WCI	Wyandotte Cave	24.66	13	P	P	23 30 44.5 +1.0
	comp=Z,31nm,1.0s					
KSU1	Kansas State U	24.98	353	IAmb	IAmb	23 30 46.5
	comp=Z,15nm,0.7s					
CBKS	Cedar Bluff	25.20	348	IAmb	IAmb	23 30 50.9
	comp=Z,13nm,0.8s					
X18A	Snowflake	25.33	326	IAmb	IAmb	23 31 03.1
	comp=Z,21nm,1.3s					
ATAH	Atahualpa	25.73	145	LR	LR	23 39 09.3
	comp=Z,179nm,18.8s,baz=296,slow=32					
113A	Mohawk Valley,	26.39	318		P	23 31 00.8 +1.5
MVCO	Mesa Verde	26.71	332	IAmb	IAmb	23 31 08.8
	comp=Z,32nm,1.1s					
MVCO	Mesa Verde	26.71	332	P	P	23 31 03.9 +1.5
	comp=Z,28nm,1.5s					
WUAZ	Wupatki	26.85	325	IAmb	IAmb	23 31 20.5
	comp=Z,14nm,1.1s					
ESJX	Sierra Juarez	27.40	314	P	P	23 31 09.4 +0.9
PV01	Paradox Valley	27.50	333	P	P	23 31 09.8 +0.4
ISCO	Idaho Springs	27.77	339	P	P	23 31 12.1 +0.3
	comp=Z,7.2nm,1.1s					
PV21	Cone Mtn., Par	28.04	333	IAmb	IAmb	23 31 18.5
	comp=Z,24nm,0.9s					
BC3	Big Chuckawall	28.05	318	IAmb	IAmb	23 31 16.7
	comp=Z,19nm,1.0s					
CBX	Cerro Bola	28.08	314	P	P	23 31 14.5 0.0
IRM	Iron Mountain	28.16	319	P	P	23 31 14.6 -0.6
HMU	Henry Mountain	28.36	330	P	P	23 31 18.1 +0.9
HMU				IAmb	IAmb	23 31 29.5
	comp=Z,14nm,1.1s					
PFO	Pinyon Flats O	28.69	316	LR	LR	23 43 04.0
	comp=Z,274nm,20.3s,baz=130,slow=37					
PFO	Pinyon Flats O	28.69	316	P	P	23 31 21.6 +1.7
HAYD	Hayden	29.00	337	P	P	23 31 24.8 +2.1
HAYD				IAmb	IAmb	23 31 26.4
	comp=Z,14nm,1.2s					
O20A	White River Ci	29.04	336		P	23 31 24.6 +1.5
SMRT	St. Maarten	29.05	78	P	P	23 31 23.5 +0.4
SSPA	Standing Stone	29.47	24	P	P	23 31 22.3 -4.4
	comp=Z,27nm,2.3s					
P18A	Preston Nutter	29.48	332	IAmb	IAmb	23 31 31.8
	comp=Z,15nm,1.4s					
CZSB	Cruzeiro do Su	29.73	136	P	P	23 31 30.2 +1.1
CZSB				IAmb	IAmb	23 31 41.8
	comp=Z,21nm,1.3s					
BFSC	Mount Baldy Ra	29.86	316	P	P	23 31 30.8 +0.4
RDMU	Red Mountain	29.96	334	P	P	23 31 31.2 -0.1
RDMU				IAmb	IAmb	23 31 35.0
	comp=Z,9.8nm,0.9s					
K22A	Casper	30.62	340	IAmb	IAmb	23 31 39.2
	comp=Z,17nm,1.0s					
MPMC	Manual Prospec	30.85	319	P	P	23 31 39.6 +0.5
DUG	Dugway, Tooele	31.13	330	P	P	23 31 43.0 +1.5
	comp=Z,4.9nm,1.1s					
HWUT	Hardware Ranch	31.67	333	IAmb	IAmb	23 31 51.2
	comp=Z,8.4nm,1.0s					
HWUT	Hardware Ranch	31.67	333	P	P	23 31 48.6 +2.4
	comp=Z,9.7nm,1.0s					
BW06	Boulder Array	31.80	337	P	P	23 31 47.6 +0.1
PDAR	Pinedale Array	31.80	337	P	P	23 31 47.5 0.0
	comp=Z,3.0nm,0.8s,baz=133,slow=10,SNR=12					
PDAR				LR	LR	23 46 46.5
	comp=Z,80nm,19.6s,baz=154,slow=40					
	comp=Z,3.0nm,0.8s					
MZP	Montezuma Peak	31.83	322	IAmb	IAmb	23 31 50.2
	comp=Z,6.8nm,0.9s					
HVU	Hansel Valley	32.35	332	P	P	23 31 53.1 +0.9
HVU				IAmb	IAmb	23 31 57.0
	comp=Z,9.8nm,1.0s					
AHID	Auburn Hatcher	32.42	335	P	P	23 31 53.0 +0.1
AHID	Auburn Hatcher	32.42	335	P	P	23 31 55.9 +3.1
	comp=Z,21nm,1.5s					
SADO	Sadowa	32.67	19	LR	LR	23 47 23.0
	comp=Z,164nm,18.0s,baz=152,slow=40					
ELK	Elko	32.75	328	LR	LR	23 47 55.0
	comp=Z,274nm,18.7s,baz=198,slow=41					
MDPB	Devils Postpil	32.83	320	P	P	23 31 58.5 +1.9
MDPB				IAmb	IAmb	23 31 59.3
	comp=Z,7.9nm,0.9s					
NVAR	Mina Array Bea	32.86	322	P	P	23 31 55.9 -0.9
	comp=Z,14nm,0.8s,baz=138,slow=8.9,SNR=64					
NVAR				PcP	PcP	23 34 41.1 0.0
	comp=Z,2.6nm,0.7s,baz=127,slow=3.8,SNR=8.6					
NVAR				LR	LR	23 47 08.0
	comp=Z,538nm,19.4s,baz=133,slow=40					
	comp=Z,14nm,0.8s					
NVAR	Mina Array Bea	32.86	322	P	P	23 31 58.6 +1.8
NVAR					PcP	23 34 42.1 +1.0
LHV	Little Huntoon	32.86	321	IAmb	IAmb	23 31 60.0
	comp=Z,11nm,0.8s					
YPP	Pitchstone Pla	33.56	337	P	P	23 32 04.5 +1.5
YPP				IAmb	IAmb	23 32 23.0
	comp=Z,8.0nm,1.1s					
H17A	Grant Village	33.58	337	P	P	23 32 04.2 +1.1
H17A				IAmb	IAmb	23 32 09.8
	comp=Z,21nm,1.4s					
BMN	Battle Mountai	33.58	326	P	P	23 32 03.6 +0.6
BMN				IAmb	IAmb	23 32 05.5
	comp=Z,8.7nm,1.0s					
WAKR	Walker	33.59	321		P	23 32 04.1 +1.0
WAKR				IAmb	IAmb	23 32 06.3
	comp=Z,13nm,1.3s					
YFT	Old Faithful	33.72	337	P	P	23 32 07.6 +3.3
YFT				IAmb	IAmb	23 32 10.1
	comp=Z,19nm,1.2s					
RLMT	Red Lodge	33.73	339	IAmb	IAmb	23 32 06.7
	comp=Z,5.2nm,0.7s					
YERR	Yerington	33.78	322	P	P	23 32 05.4 +0.6
YERR				IAmb	IAmb	23 32 07.5
	comp=Z,7.7nm,0.9s					
YNR	Norris Junctio	33.89	337	P	P	23 32 06.1 +0.4
YNR				IAmb	IAmb	23 32 09.2
	comp=Z,7.1nm,0.9s					
YNE	Yellowstone No	33.89	338	P	P	23 32 05.7 -0.1
YNE				IAmb	IAmb	23 32 11.1
	comp=Z,14nm,0.9s					
YMR	Madison River	33.96	337	IAmb	IAmb	23 32 11.8
	comp=Z,13nm,0.9s					
YHH	Holmes Hill	34.02	337	IAmb	IAmb	23 32 11.7
	comp=Z,16nm,1.3s					
PNTR	Pine Nut	34.06	322	P	P	23 32 08.1 +0.9
PNTR				IAmb	IAmb	23 32 10.1
	comp=Z,11nm,0.9s					
AGMN	Agassiz Nation	34.06	357	P	P	23 32 04.8 -2.1
	comp=Z,12nm,1.6s					
YHB	Horse Butte	34.11	337	P	P	23 32 09.5 +1.9
YHL	Hebgen Lake	34.19	337		P	23 32 10.1 +1.7
QLMT	Earthquake Lak	34.27	337	P	P	23 32 10.9 +1.9
MPK	Martis Peak	34.45	322	P	P	23 32 12.8 +2.1
HLID	Hailey	34.49	332		P	23 32 11.4 +0.5
HLID	Hailey	34.49	332	P	P	23 32 12.2 +1.3
	comp=Z,5.2nm,1.4s					
BCYI	Bear Canyon	34.65	334	IAmb	IAmb	23 32 16.4
	comp=Z,14nm,1.3s					
BOZ	Bozeman (W)	34.99	337	IAmb	IAmb	23 32 21.1
	comp=Z,7.3nm,0.8s					
BEKR	Beckworth	35.01	322	P	P	23 32 16.5 +1.1
BEKR				IAmb	IAmb	23 32 17.9
	comp=Z,6.7nm,0.9s					
DLMT	Dillon	35.17	336	P	P	23 32 17.4 +0.7
WVOR	Wild Horse Val	35.74	327	IAmb	IAmb	23 32 23.6
	comp=Z,8.1nm,1.1s					
WVOR	Wild Horse Val	35.74	327	P	P	23 32 22.0 +0.4
	comp=Z,5.9nm,1.5s					
ULM	Lac du Bonnet	36.01	357	P	P	23 32 21.3 -2.3
	comp=Z,6.1nm,1.0s,baz=173,slow=13,SNR=8.0					
ULM				LR	LR	23 50 16.4
	comp=Z,127nm,18.4s,baz=198,slow=41					
	comp=Z,6.1nm,1.0s					
ULM	Lac du Bonnet	36.01	357	IAmb	IAmb	23 32 25.4
	comp=Z,8.6nm,1.2s					
J08A	Circle Bar Ran	36.31	328	P	P	23 32 27.0 +0.6
J08A				IAmb	IAmb	23 32 28.4
	comp=Z,12nm,0.8s					
GBMT	Granite Butte,	36.37	337		P	23 32 28.3 +1.3
GBMT				IAmb	IAmb	23 32 31.1
	comp=Z,15nm,1.2s					

PLID	Pearl Lake	36.40	332	P	P	23 32 27.4 +0.1
PLID				IAmb	IAmb	23 32 36.7
	comp=Z,8.3nm,0.9s					
EGMT	Eagleton	36.44	341	P	P	23 32 27.8 +0.3
MSO	Missoula	36.91	336	IAmb	IAmb	23 32 35.7
	comp=Z,13nm,0.9s					
YBH	Yreka Blue Hor	37.56	323	LR	LR	23 50 15.6
	comp=Z,293nm,18.9s,baz=151,slow=40					
KHMM	Horse Mountain	37.66	321	P	P	23 32 38.4 +0.3
KHMM				IAmb	IAmb	23 32 40.2
	comp=Z,16nm,0.9s					
PINE	Pine Mountain	37.90	327	IAmb	IAmb	23 32 41.3
	comp=Z,9.6nm,1.2s					
WIFE	Three Sisters-	38.55	326	IAmb	IAmb	23 32 57.9
	comp=Z,12nm,1.4s					
I04A	Tendick Farm,	38.70	325	IAmb	IAmb	23 32 57.2
	comp=Z,11nm,1.3s					
LDM	Libby Dam	38.77	336		P	23 32 49.0 +1.8
LDM				IAmb	IAmb	23 33 06.6
	comp=Z,12nm,1.0s					
LPAZ	La Paz	39.06	140	P	P	23 32 49.5 -1.1
	comp=Z,0.9nm,0.7s,baz=301,slow=14,SNR=5.0					
LPAZ				LR	LR	23 47 46.6
	comp=Z,103nm,21.5s,baz=314,slow=34					
	comp=Z,0.9nm,0.7s					
LPAZ	La Paz	39.06	140		P	23 32 52.6 +2.0
LPAZ	La Paz	39.06	140	P	P	23 32 51.1 +0.5
	comp=Z,3.8nm,1.3s					
J01E	Myrtle Point	39.15	324	IAmb	IAmb	23 32 54.9
	comp=Z,21nm,1.0s					
BUCK	Buck Mountain	39.27	325	IAmb	IAmb	23 33 03.4
	comp=Z,26nm,1.2s					
H04D	Lebanon	39.35	326	IAmb	IAmb	23 33 00.6
	comp=Z,11nm,1.0s					
NEW	Newport	39.35	335	LR	LR	23 51 37.6
	comp=Z,271nm,18.2s,baz=152,slow=40					
NEW	Newport	39.35	335		P	23 32 53.4 +1.4
NEW	Newport	39.35	335	P	P	23 32 52.0 0.0
	comp=Z,10nm,2.5s					
C09A	Chrisman Ranch	39.48	333	IAmb	IAmb	23 32 56.9
	comp=Z,7.0nm,0.7s					
PB16	IPOC Station P	39.82	144	P	P	23 32 58.3 +1.5
	comp=Z,7.9nm,2.3s					
LON	Longmire	40.37	329	P	P	23 33 00.7 +0.2
MDP	Montagnes des	40.81	99	LR	LR	23 50 48.5
	comp=Z,121nm,21.4s,baz=250,slow=37					
GO01	Chusmiza	41.06	145	P	P	23 33 07.8 +0.8
PB02	IPOC Station P	42.01	147	P	P	23 33 13.9 -0.3
	comp=Z,16nm,1.1s					
EDM	Edmonton	42.10	342		P	23 33 14.9 +0.3
EDM				IAmb	IAmb	23 33 16.3
	comp=Z,13nm,0.9s					
PB07	IPOC Station P	42.35	147	P	P	23 33 14.5 -2.6
	comp=Z,8.2nm,1.6s					
RPN	Rapa Nui	44.03	201	LR	LR	23 47 22.8
	comp=Z,126nm,18.9s,baz=171,slow=30					
CLDB	Colider	44.58	122	P	P	23 33 35.0 -0.1
	comp=Z,5.7nm,1.0s					
SCHQ	Schefferville	45.39	21	LR	LR	23 54 18.3
	comp=Z,254nm,18.2s,baz=233,slow=38					
AC02	Maricunga	46.97	150	P	P	23 33 56.2 +1.9
	comp=Z,10nm,1.0s					
YKA	Yellowknife Ar	50.58	347	P	P	23 34 20.0 -0.9
	comp=Z,5.7nm,0.7s,baz=156,slow=7.5,SNR=9.3					
	comp=Z,5.7nm,0.7s					
SMTB	Santa Maria do	50.61	114		P	23 34 22.5 +0.6
TAOE	Nuku Hiva Isla	52.03	247	eLR	LR	23 49 30.7
	comp=Z,141nm,24.0s					
FRB	Frobisher Bay	52.34	13	LR	LR	00 00 07.6
	comp=Z,139nm,19.1s,baz=123,slow=40					
WTLY	Watson Lake, Y	52.74	338	P	P	23 34 38.5 +1.4
CPUP	Villa Florida	53.22	139	P	P	23 34 39.2 -1.9
	comp=Z,1.2nm,0.8s,baz=356,slow=8.9,SNR=4.8					
CPUP				LR	LR	23 59 12.2
	comp=Z,106nm,18.3s,baz=262,slow=38					
	comp=Z,1.2nm,0.8s					
BDFB	Brasilia	53.51	122	P	P	23 34 42.4 -1.2
	comp=Z,1.0nm,0.3s,baz=200,slow=5.2,SNR=3.9					
	comp=Z,1.0nm,0.3s					
BDFB	Brasilia	53.51	122	IAmb	IAmb	23 34 52.1
	comp=Z,7.8nm,1.1s					
J30M	Hart River	58.33	340	IAmb	IAmb	23 35 29.6
	comp=Z,5.8nm,1.1s					
PLCA	Paso Flores	58.52	160	P	P	23 35 18.2 -0.7
	comp=Z,4.1nm,0.9s,baz=326,slow=8.2,SNR=7.6					
	comp=Z,4.1nm,0.9s					
PLCA	Paso Flores	58.52	160		P	23 35 19.3 +0.3
PLCA				IAmb	IAmb	23 35 30.7
	comp=Z,6.5nm,1.1s					
I30M	Mount Dempster	58.76	340	IAmb	IAmb	23 35 24.0
	comp=Z,6.5nm,0.9s					
BCAR	Beaver Creek A	59.43	337	P	P	23 35 25.1 +0.2
I29M	Ogilvie Camp,	59.48	340	IAmb	IAmb	23 35 28.6
	comp=Z,8.8nm,1.1s					
SFJD	Kangerlussuaq	59.62	18	LR	LR	00 02 47.5
	comp=Z,158nm,18.1s,baz=207,slow=38					
G30M	tAoh Zraii Nji	59.83	342	P	P	23 35 29.4 +1.8
G30M				IAmb	IAmb	23 35 31.0
	comp=Z,13nm,1.4s					
INK	Inuvik	59.94	344	LR	LR	00 05 01.6
	comp=Z,156nm,19.7s,baz=7.0,slow=40					
INK	Inuvik	59.94	344	P	P	23 35 28.5 +0.2
	comp=Z,24nm,1.2s					
K27K	Chicken	60.05	337	IAmb	IAmb	23 35 46.8
	comp=Z,12nm,1.2s					
SCRK	Sand Creek	60.74	337	IAmb	IAmb	23 35 39.4
	comp=Z,5.2nm,1.1s					
I27K	Kandik River	60.75	339	IAmb	IAmb	23 35 35.8
	comp=Z,7.4nm,1.0s					
PAX	Paxson	60.83	336	IAmb	IAmb	23 35 35.6
	comp=Z,7.7nm,0.8s					
I26K	Coal Creek Min	61.13	338	IAmb	IAmb	23 35 40.9
	comp=Z,3.5nm,0.7s					
F28M	Old Crow	61.34	341	P	P	23 35 37.9 0.0
G27K	Doyon Strip	61.44	340	IAmb	IAmb	23 35 39.3
	comp=Z,5.0nm,1.2s					
J25K	Salcha River,	61.59	337	IAmb	IAmb	23 35 45.7
	comp=Z,5.2nm,0.8s					
E28M	Babbage River	61.83	342	P	P	23 35 41.1 0.0
E28M				IAmb	IAmb	23 35 53.2
	comp=Z,9.5nm,1.2s					
KDAK	Kodiak Island	61.99	328	LR	LR	00 02 54.5
	comp=Z,80nm,18.6s,baz=104,slow=36					
HDA	Harding Lake	62.09	337	IAmb	IAmb	23 35 47.9
	comp=Z,8.1nm,1.2s					
PRP	Porcupine Dome	62.09	338	IAmb	IAmb	23 35 44.0
	comp=Z,6.5nm,0.9s					
E27K	Coleen River	62.20	342	IAmb	IAmb	23 35 44.8
	comp=Z,7.5nm,1.0s					
ILAR	Eielson Array	62.23	337	P	P	23 35 43.1 -0.9
	comp=Z,5.1nm,0.9s,baz=136,slow=4.5,SNR=38					
ILAR				LR	LR	00 04 47.5
	comp=Z,168nm,19.1s,baz=97,slow=38					
	comp=Z,5.1nm,0.9s					
ILAR	Eielson Array	62.23	337	P	P	23 35 43.3 -0.7
D27M	Malcolm River	62.63	343	IAmb	IAmb	23 35 51.4
	comp=Z,6.7nm,1.0s					
F26K	Sheenjek River	62.73	340	IAmb	IAmb	23 35 51.6
	comp=Z,13nm,1.5s					
BMAR	Burnt Mountain	62.73	340		P	23 35 47.7 +0.4
H24K	Noodor Dome	63.10	338	IAmb	IAmb	23 35 50.7
	comp=Z,7.1nm,1.0s					
F25K	Christian Rive	63.17	340	IAmb	IAmb	23 35 51.6
	comp=Z,12nm,1.4s					
G24K	Hadweenzic Riv	63.36	339	IAmb	IAmb	23 36 03.5
	comp=Z,13nm,1.4s					
BPAW	Bear Paw Mtn.	63.55	335	IAmb	IAmb	23 35 53.2
	comp=Z,6.0nm,0.8s					
C27K	Jago River	63.64	342	IAmb	IAmb	23 35 54.6
	comp=Z,7.2nm,0.9s					
CAST	Castle Rocks	63.73	335	IAmb	IAmb	23 35 54.2
	comp=Z,9.3nm,0.9s					
MLY	Manley	63.83	336	IAmb	IAmb	23 35 55.3
	comp=Z,8.3nm,0.9s					
PPT	Papeete	64.07	242	LR	LR	23 58 16.5
	comp=Z,75nm,20.1s,baz=6.5,slow=31					
PPT2	Papeete2	64.08	242	eLR	LR	23 54 54.0
	comp=Z,84nm,22.2s					
C26K	Camden Bay	64.15	342	IAmb	IAmb	23 35 58.2
	comp=Z,11nm,1.1s					
G23K	Bananza Creek	64.27	338	IAmb	IAmb	23 35 58.5
	comp=Z,4.2nm,1.0s					
H22K	Ishtalitna Cre	64.42	337	IAmb	IAmb	23 35 58.8
	comp=Z,5.2nm,0.9s					
K20K	Telida	64.55	334	IAmb	IAmb	23 35 59.7
	comp=Z,9.7nm,0.9s					
J20K	Nowinta River	64.86	335	IAmb	IAmb	23 36 04.6
	comp=Z,6.7nm,1.0s					

H21K	Melozitna Rive	64.87	337	IAmb	IAmb	23 36 01.9
	comp=Z,5.8nm,1.1s					
TOLK	Toolik Lake Re	64.97	340	IAmb	IAmb	23 36 03.6
	comp=Z,11nm,1.2s					
J19K	Poorman	65.41	335	IAmb	IAmb	23 36 05.0
	comp=Z,9.6nm,0.9s					
G21K	Allakaket	65.46	337	IAmb	IAmb	23 36 06.0
	comp=Z,4.4nm,0.8s					
D23K	Nanushuk River	65.47	340	P	P	23 36 05.6 +0.4
D23K				IAmb	IAmb	23 36 07.0
	comp=Z,8.8nm,1.1s					
D22K	Ayikyak River	66.09	340	P	P	23 36 09.3 +0.1
D22K				IAmb	IAmb	23 36 10.7
	comp=Z,9.3nm,0.9s					
H19K	Roundabout Mou	66.24	336	IAmb	IAmb	23 36 11.1
	comp=Z,7.8nm,0.9s					
F20K	Avaraart Lake	66.47	338	IAmb	IAmb	23 36 12.7
	comp=Z,8.4nm,0.9s					
G19K	Purcell Mounta	66.69	337	IAmb	IAmb	23 36 14.2
	comp=Z,8.8nm,1.1s					
F19K	Shaleruckik Mo	67.17	337	P	P	23 36 15.8 -0.2
F19K				IAmb	IAmb	23 36 16.9
	comp=Z,5.5nm,0.9s					
D19K	Kuna River	67.81	339	P	P	23 36 20.6 +0.4
D19K				IAmb	IAmb	23 36 33.7
	comp=Z,6.3nm,1.0s					
ESDC	Sonseca Array	80.39	52	P	P	23 37 34.1 -0.1
	comp=Z,1.1nm,1.0s,baz=278,slow=5.1,SNR=4.9					
ESDC				LR	LR	00 09 40.2
	comp=Z,85nm,19.5s,baz=277,slow=33					
	comp=Z,1.1nm,1.0s					
MDT	Midelt	81.17	58	LR	LR	00 09 21.2
	comp=Z,51nm,20.5s,baz=326,slow=32					
DBIC	Dimbokro	86.66	84	P	P	23 38 05.1 -1.7
	comp=Z,6.6nm,1.1s,baz=343,slow=4.7,SNR=3.6					
DBIC				LR	LR	00 11 43.4
	comp=Z,48nm,21.7s,baz=262,slow=32					
	comp=Z,6.6nm,1.1s					
DBIC	Dimbokro	86.66	84	IAmb	IAmb	23 38 11.0
	comp=Z,16nm,1.4s					
DAVOX	Davos/Dischmat	88.40	42	LR	LR	00 12 26.6
	comp=Z,83nm,20.6s,baz=316,slow=32					
TIXI	Tiksi	89.83	348	P	P	23 38 19.7 -1.0
NRIK	Noril'sk	96.66	360	LR	LR	00 28 25.9
	comp=Z,70nm,18.1s,baz=336,slow=39					
YAK	Yakutsk	96.92	341	LR	LR	00 27 42.1
	comp=Z,39nm,18.2s,baz=38,slow=38					
KURBB	Kurchatov Arra	115.02	6	PKP	PKiKP	23 44 02.6 -0.8
	comp=Z,0.7nm,0.3s,baz=358,slow=2.2,SNR=4.0					
MKAR	Makanchi Array	119.13	4	PKP	PKPdf	23 44 09.5 -1.9
	comp=Z,0.5nm,0.7s,baz=86,slow=5.0,SNR=3.8					
HHC	Hu-ho-hao-te	120.64	338	*e*P	PKPdf	23 44 15.2 +0.5
WMQ	Urumqi	122.24	359	*e*PKP	PKiKP	23 44 19.5 +1.7
WMQ				sPKP	sPKPdf	23 44 40.1 +7.9
NJ2	Nanjing	124.75	327	*e*P	PKiKP	23 44 25.2 +2.3
NJ2				pmax	pmax	
	comp=Z,10.0nm,0.5s					
GTA2	Gaotai	125.25	348	*e*P	PKPdf	23 44 23.8 +0.2
GTA2				pP	PKiKP	23 44 26.6 +2.7
GTA2				pmax	pmax	
	comp=Z,2.0nm,1.0s					
STKA	Stephens Creek	127.26	241	PKP	PKPdf	23 44 27.1 -0.2
	comp=Z,3.3nm,0.7s,baz=112,slow=1.9,SNR=5.6					
XAN	Xi'an	127.64	337	*e*PKP	PKPdf	23 44 28.2 0.0
WRA	Warramunga Arr	134.44	256	PKP	PKPdf	23 44 41.0 -0.4
	comp=Z,2.0nm,0.7s,baz=85,slow=2.3,SNR=25					
WRA	Warramunga Arr	134.44	256		PKPdf	23 44 41.3 0.0
ASAR	Alice Springs	134.76	251	PKP	PKPdf	23 44 42.4 +0.5
	comp=Z,1.4nm,0.9s,baz=90,slow=1.5,SNR=8.3					
CMAR	Chiang Mai Arr	145.44	340	PKPbc	PKPbc	23 45 00.9 -0.3
	comp=Z,6.3nm,0.8s,baz=345,slow=4.6,SNR=40					
CMAR	Chiang Mai Arr	145.44	340		PKPbc	23 45 00.6 -0.6

KRSC 02 23:27:43.9±1.8, 56.05N×164.33E, h14km±20km, MI3.8, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.86	281	*e*P	Pg	23 27 59.9	-0.6
KBTR				*e*S	Sg	23 28 11.6	-0.2
SMKR	Semkarok	1.68	290	*e*P	Pn	23 28 12.7	-0.2
SRKR	Sorokina	1.86	290	*e*P	Pn	23 28 15.8	+0.4
KLY	Klyuchi	2.07	279	*e*P	Pn	23 28 18.9	+0.8
KMNR	Kamenistaya	2.32	264	*e*P	Pb	23 28 24.1	-1.4
TUMD	Tumrok D	2.38	251	*e*P	Pb	23 28 25.2	-1.3
TUMD				*e*S	Sb	23 28 54.9	-0.8
SRDR	Sredinnyy	2.59	278	*e*P	Pn	23 28 27.3	+2.0
ESO	Esso	3.16	270	*e*P	Pb	23 28 36.9	-2.9
SPN	Mys Shipunski	3.87	222	*e*S	Sn	23 29 30.3	+2.1
SMKR	Somma	4.25	231	*e*P	Pn	23 28 51.8	+3.5
KRX	Arik	4.25	233	*e*P	Pn	23 28 52.4	+4.1
UGLR	Uglovaya	4.28	231	*e*P	Pn	23 28 51.6	+3.0
KRMR	Karymshinskiy	4.84	231	*e*P	Pn	23 29 00.6	+4.3
KRMR				*e*S	Sn	23 29 57.2	+5.2
GRL	Gorelyy	5.07	229	*e*P	Pn	23 29 04.6	+5.2
MTVR	Mutnovka	5.07	228	*e*P	Pn	23 29 03.8	+4.3
ASAK	Asacha	5.26	228	*e*P	Pn	23 29 06.5	+4.4

*ISK **02** 23:34:41.2, 37.84N×26.38E, h8km, ML3.0/30*
*THE **02** 23:34:41.6, 38.N±1.×2.6E±., h6km±2km, M3.1/22, MLh3.1/22*
*AFAD **02** 23:34:41.8, 37.89N×26.49E, h11km±2km, ML2.7*
*ATH **02** 23:34:41.0, 37.83N×26.41E, h10km±2km, ML3.1/10,*
Latitude uncertainty: 1 km; Longitude uncertainty: 2 km

ISC 02 23:34:41.5±1.0, 37.86N±0.02×26.44E±0.02, h9km±9km, n99, σ0.85/129, 2C-2D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZEYE	Izmir, Urla-Ze	0.38	8	P	Pg	23 34 48.8	-0.2
ZEYE				S	Sg	23 34 54.4	+0.4
ZEYE				IAML		23 34 56.0	
	comp=E,2μm,0.3s						
ZEYE				IAML		23 34 56.0	
	comp=N,3μm,0.4s						
DGB	zmir	0.40	62	P	Pg	23 34 49.0	-0.4
DGB				S	S

KARB IAML 23 35 10.0
comp=E,716nm,0.4s
KARB IAML 23 35 11.0
comp=N,778nm,0.9s
BAGT Foa 0.86 22 P **Pg** **23 34 57.6 -0.3**
BAGT S **Sg** **23 35 10.0 +0.8**
BAGT IAML 23 35 11.0
comp=E,1μm,1.0s
BAGT IAML 23 35 12.0
comp=N,2μm,0.9s
DUVT Torbali 0.88 66 P **Pg** **23 34 58.0 -0.4**
DUVT S **Sg** **23 35 06.7 -3.0**
DUVT IAML 23 35 18.0
comp=E,383nm,0.8s
FOCM Foa 0.88 15 Pg **Pb** **23 34 59.2 +0.2**
FOCM AML AML
YKAV Yalikavak-Bodr 1.00 137 Pg **Pb** **23 35 00.9 0.0**
YKAV AML AML
DAGE izmir 1.05 82 P **Pn** **23 35 02.6 +0.1**
DAGE S **Sg** **23 35 13.4 -1.9**
DAGE IAML 23 35 22.0
comp=E,158nm,0.3s
BODT Bodrum 1.06 139 P **Pg** **23 35 01.6 -0.2**
BODT S **Sn** **23 35 18.2 +0.7**
BODT AML AML
BODT Bodrum 1.06 139 Pg **Pb** **23 35 02.1 +0.1**
BODT AML AML
TNSA Tinos 1.06 253 P **Pg** **23 35 01.0 -0.9**
TNSA AML AML
APE Apeiranthos 1.07 223 P **Pg** **23 35 01.6 -0.4**
APE S **Sn** **23 35 17.2 -0.7**
APE AML AML
APE Apeiranthos 1.07 223 ⇓P **Pn** **23 35 02.7 0.0**
APE Apeiranthos 1.07 223 P **Pg** **23 35 01.3 -0.7**
APE AML AML
CAMT Merkez 1.12 38 P **Pg** **23 35 03.4 +0.4**
CAMT S **Sb** **23 35 17.1 -0.7**
CAMT IAML 23 35 19.0
comp=E,575nm,0.4s
CAMT IAML 23 35 20.0
comp=N,483nm,0.8s
BDRM Kayabasi 1.13 134 P **Pb** **23 35 03.0 -0.2**
BDRM S **Sb** **23 35 18.0 0.0**
BDRM IAML 23 35 20.0
comp=N,213nm,0.9s
BDRM IAML 23 35 21.0
comp=E,209nm,1.0s
BDRM Kayabasi 1.13 134 ⇓P **Pn** **23 35 05.4 +1.9**
AYDB Zeytinkoy-Aydi 1.15 85 Pn **Pn** **23 35 04.2 +0.2**
AYDB AML AML
AYDN Tasoluk 1.16 100 P **Pb** **23 35 03.3 -0.5**
AYDN S **Sb** **23 35 17.0 -2.0**
AYDN IAML 23 35 29.0
comp=E,81nm,0.3s
AYDN IAML 23 35 29.0
comp=N,59nm,0.4s
MLSB Milas 1.21 118 Pn **Pg** **23 35 05.4 +0.8**
MLSB AML AML
ZEDA zmir-Bergama 1.21 24 P **Pn** **23 35 04.2 -0.4**
ZEDA S **Sg** **23 35 21.0 +0.5**
ZEDA IAML 23 35 23.0
comp=E,296nm,0.9s
ZEDA IAML 23 35 24.0
comp=N,261nm,0.4s
IZMR zmir-demi 1.23 77 P **Pb** **23 35 05.1 +0.2**
IZMR S **Sb** **23 35 18.8 -2.1**
IZMR IAML 23 35 28.0
comp=E,182nm,0.9s
IZMR IAML 23 35 29.0
comp=N,121nm,0.6s
DKL Dikili 1.26 17 Pn **Pg** **23 35 06.1 +0.4**
DKL AML AML
DKL Dikili 1.26 17 P **Pn** **23 35 05.5 +0.2**
PRK Paraskevi 1.39 355 P **Pb** **23 35 07.8 +0.2**
PRK S **Sg** **23 35 26.8 +0.7**
PRK AML AML
PRK Paraskevi 1.39 355 P **Pn** **23 35 07.2 0.0**
YAZI Mula-Dat§a- 1.43 145 P **Pn** **23 35 07.2 -0.5**
YAZI S **Sg** **23 35 29.3 +1.8**
YAZI IAML 23 35 31.0
comp=N,69nm,1.1s
YAZI IAML 23 35 32.0
comp=E,153nm,1.2s
GOMA Golmarmara-Man 1.44 54 Pn **Pb** **23 35 08.9 +0.4**
GOMA AML AML
DAT Datca 1.45 141 Pn **Pb** **23 35 08.5 -0.3**
DAT AML AML
AYVA Ayvalik 1.46 8 P **Pg** **23 35 09.5 0.0**
AYVA S **Sg** **23 35 29.8 +1.4**
AYVA IAML 23 35 33.0
comp=E,320nm,0.5s
AYVA IAML 23 35 34.0
comp=N,492nm,0.7s
NAZL Nazilli-Aydin 1.47 85 Pn **Pb** **23 35 09.3 +0.2**
NAZL AML AML
AKS Akhisar 1.48 46 Pn **Pb** **23 35 09.7 +0.4**
AKS AML AML
KTTT Salihli 1.54 57 P **Pb** **23 35 10.3 0.0**
KTTT S **Sb** **23 35 30.1 +0.2**
KTTT IAML 23 35 34.0
comp=N,135nm,0.6s
SOMA Soma-Manisa 1.55 33 Pn **Pb** **23 35 10.4 -0.1**
SOMA AML AML
KARY Karystos 1.59 277 P **Pn** **23 35 09.6 -0.3**
KARY AML AML
KARY Karystos 1.59 277 P **Pn** **23 35 09.0 -0.9**
CMBO Columbo, Santo 1.61 211 P **Pn** **23 35 10.6 +0.4**
CMBO S **Sg** **23 35 37.1 +3.7**
CMBO AML AML
THR2 Thira island, 1.62 210 P **Pg** **23 35 13.3 +0.7**
YER Yerkesik 1.64 116 Pn **Pb** **23 35 11.8 -0.1**
YER AML AML
THR8 Santorini-Mono 1.64 208 P **Pg** **23 35 12.4 -0.6**
THRA Thira 1.65 209 P **Pg** **23 35 14.0 +0.8**
THRA AML AML
SAP3 Santorini-Thir 1.67 212 P **Pb** **23 35 12.6 +0.1**
SAP3 AML AML
SAP3 Santorini-Thir 1.67 212 Pn **Pn** **23 35 09.1 -1.9**
THR3 Thira Island, 1.67 210 P **Pg** **23 35 13.6 +0.1**
SNT5 Nea Kammeni, S 1.68 210 P **Pg** **23 35 13.3 -0.4**
SNT5 AML AML
THERA Ancient Thera, 1.68 208 P **Pn** **23 35 10.2 -0.9**
THERA S **Sb** **23 35 33.7 -0.2**
THERA AML AML
THERA Ancient Thera, 1.68 208 P **Pn** **23 35 09.9 -1.2**
THERA AML AML
THT1 Athinios (Pele 1.68 209 P **Pb** **23 35 13.0 +0.4**
THT1 AML AML
THR5 Thira Island, 1.69 211 P **Pg** **23 35 14.3 +0.5**
BUHA Balikesir, Bur 1.71 17 P **Pb** **23 35 13.2 +0.1**
BUHA S **Sg** **23 35 37.4 +0.9**
BUHA IAML 23 35 42.0
comp=N,343nm,0.8s
BUHA IAML 23 35 45.0
comp=E,301nm,0.8s
THR6 Thira Island, 1.72 209 P **Pg** **23 35 14.7 +0.3**
GORD Gordes-Manisa 1.72 52 Pn **Pb** **23 35 12.8 -0.6**
GORD AML AML
SKY Skiros Island 1.80 305 P **Pn** **23 35 12.3 -0.5**
SKY AML AML
SKY Skiros Island 1.80 305 P **Pn** **23 35 12.7 -0.1**
SKY AML AML
TURN Turunc 1.80 126 Pn **Pn** **23 35 13.4 +0.6**
TURN AML AML
YAYO Edremit-Balk 1.82 16 Pn **Pb** **23 35 14.4 -0.5**
YAYO AML AML
EZN Ezine 1.96 357 P **Pb** **23 35 18.2 +0.7**
EZN AML AML
DION Dionisos Attik 1.99 277 P **Pn** **23 35 15.1 -0.3**
DION AML AML
DION Dionisos Attik 1.99 277 P **Pn** **23 35 15.0 -0.4**
DION AML AML
KYMI Kymi, Euboea I 2.00 293 P **Pn** **23 35 14.7 -0.8**
PTL Penteli 2.04 276 P **Pn** **23 35 15.9 -0.2**
PTL AML AML
PTL Penteli 2.04 276 P **Pn** **23 35 15.4 -0.8**
PTL AML AML
DALY Dalyan (Mula) 2.05 120 Pn **Pb** **23 35 17.6 -1.3**
DALY AML AML
VLY Voula,Athens 2.09 271 P **Pn** **23 35 16.6 -0.2**
VLY AML AML
VLY Voula,Athens 2.09 271 P **Pn** **23 35 15.7 -1.1**

ATHU Athens Univers 2.10 274 P **Pn** **23 35 16.6 -0.3**
ATHU AML AML
ATHU Athens Univers 2.10 274 P **Pn** **23 35 15.9 -1.0**
BALB Balikesir 2.10 32 Pn **Pb** **23 35 18.6 -1.2**
BALB AML AML
ARG Arkhangelos 2.13 140 P **Pn** **23 35 16.8 -0.4**
ARG AML AML
ARG Arkhangelos 2.13 140 Pn **Pn** **23 35 16.9 -0.4**
ARG AML AML
ARG Arkhangelos 2.13 140 P **Pn** **23 35 16.8 -0.4**
ARG AML AML
DEMI Demirci 2.14 56 P **Pb** **23 35 21.5 +1.0**
DEMI S **Sb** **23 35 47.3 0.0**
DEMI IAML 23 35 51.0
comp=E,70nm,0.5s
DEMI IAML 23 36 05.0
comp=N,44nm,0.9s
USAK Uak-Merkez 2.20 66 P **Pg** **23 35 23.3 -0.4**
USAK S **Sb** **23 35 49.5 +0.5**
USAK IAML 23 35 59.0
comp=E,22nm,1.0s
USAK IAML 23 36 36.0
comp=N,9.1nm,0.9s
LIA Limnos Island 2.26 335 P **Pn** **23 35 18.2 -0.8**
LIA AML AML
APMY Acipayam-Deniz 2.31 99 Pn **Pn** **23 35 21.3 +1.5**
APMY AML AML
SIMA Simav-Kutahya 2.34 58 Pn **Pn** **23 35 21.9 +1.6**
SIMA AML AML
KARP Karpathos 2.38 166 P **Pn** **23 35 20.0 -0.8**
AOS Alonnisos 2.39 304 P **Pn** **23 35 20.8 -0.2**
AOS AML AML
AOS2 Alonissos-2 2.41 303 P **Pn** **23 35 20.6 -0.5**
AOS2 AML AML
FETY Fethiye 2.44 119 Pn **Pn** **23 35 22.7 +1.1**
FETY AML AML
CAME Cameli-Denizli 2.46 111 Pn **Pn** **23 35 23.4 +1.4**
CAME AML AML
GEDZ Gediz 2.62 62 Pn **Pn** **23 35 26.0 +1.9**
GEDZ AML AML
BAND Balkesir-Ban 2.81 27 ⇑P **Pb** **23 35 33.0 +1.2**
NEO Neokhori 2.90 301 P **Pn** **23 35 27.7 -0.2**
BLKB Belogradchik 6.42 335 ⇑P **Pn** **23 36 16.2 -0.1**

MOS ***03*** *00:11:37.3±1.1,28.˚96N×51.˚22E,h14km,mb4.5/21,Error ellipse: s-maj=7.4km s-min=4.5km az=113.0*
IDC ***03*** *00:11:37.3±0.9,29.˚09N×51.˚23E,h0km,mb4.0/21, mbtmp4.0/28,ML3.7/7,MS3.2/4,Error ellipse: s-maj=20.2km s-min=11.6km az=178.0*
TEH ***03*** *00:11:38.4,29.˚13N×51.˚29E,h9km±23km,ML4.1, Presumed earthquake*
NEIC ***03*** *00:11:38.7±1.9,29.˚00N±0.˚07×51.˚28E±0.˚07,h10km±1km, mb4.2/33,Error ellipse: s-maj=15.6km s-min=4.4km az=219.0*
GFZ ***03*** *00:11:40.0±0.3,29˚N±4˚×5˚1E±˚,h10km,M4.3/36, mb4.3/36,confirmed*
OMAN ***03*** *00:11:40.1±0.9,29.˚09N×51.˚46E,h10km,mb3.8/29, ml4.3/6,Error ellipse: s-maj=7.6km s-min=5.5km az=177.0*
DSN ***03*** *00:11:45.4±1.5,28.˚83N×51.˚67E,h12km,ML4.3/20,Error ellipse: s-maj=16.6km s-min=8.6km az=171.0*
NAO ***03*** *00:12:09.4,31.˚85N×48.˚97E,h33km,MB3.8*

ISC 03 00:11:39.0±0.4,**29.˚12N**±0.˚04×**51.˚27E**±0.˚04,**h10**km,**n344,** σ1**s29**/364,**mb4.2**/92,**MS3.4**/3,**37C-19D,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAZ2	**Kazeron-Fars-I**	**0.60**	**34**	Pg	**Pg**	**00 11 49.6**	**-1.0**
DSBU	**Dashti - Bushe**	**0.75**	**181**	Pg	**Pb**	**00 11 53.8**	**-0.4**
SHI	**Shiraz**	**1.20**	**64**	P	**Pn**	**00 12 00.7**	**-1.3**
SHI	**Shiraz**	**1.20**	**64**	Pg	**Pn**	**00 12 01.2**	**-0.9**
KLNJ	**Kolanjah**	**1.91**	**8**	Pn	**Pn**	**00 12 13.7**	**+1.9**
JHRM	**Jahrom**	**2.11**	**106**	Pn	**Pn**	**00 12 15.7**	**+1.2**
KHL1	**Khalili_Fars**	**2.31**	**129**	Pn	**Pn**	**00 12 18.6**	**+1.4**
LMD1	**Lamerd**	**2.43**	**136**	Pn	**Pn**	**00 12 20.5**	**+1.7**
IBRJ	**Brojen**	**2.78**	**360**	Pn	**Pn**	**00 12 25.7**	**+1.9**
IRAM	**Ramesheh**	**2.85**	**19**	Pn	**Pn**	**00 12 26.3**	**+1.5**
ZNGN	**Zangian**	**3.01**	**353**	Pn	**Pn**	**00 12 28.9**	**+1.8**
AMIS	**Naft Sefid**	**3.07**	**326**	Pn	**Pn**	**00 12 29.0**	**+1.4**
JHBN	**Jahan bin**	**3.15**	**351**	Pn	**Pn**	**00 12 30.8**	**+1.9**
SAKB	**Bahrain**	**3.19**	**192**	P	**Pn**	**00 12 31.8**	**+2.5**
SAKB				S	**Sn**	**00 13 09.7**	**+2.3**
TAFT	**Taft - Yazd**	**3.61**	**43**	Pn	**Pn**	**00 12 36.9**	**+1.7**
JRN	**Qarnain Island**	**4.39**	**161**	P	**Pn**	**00 12 47.2**	**+1.5**
JRN				S	**Sn**	**00 13 39.8**	**+2.9**
IBAF	**Bafgh**	**4.46**	**55**	Pn	**Pn**	**00 12 48.2**	**+1.5**
GENO	**Geno**	**4.65**	**110**	Pn	**Pn**	**00 12 50.7**	**+1.3**
KHGB	**Koh Gabri**	**4.70**	**73**	Pn	**Pn**	**00 12 51.3**	**+1.2**
ZRDN	**Zarand Kerman**	**4.92**	**67**	Pn	**Pn**	**00 12 54.8**	**+1.5**
SLWR	**Sila**	**5.04**	**176**	P	**Pn**	**00 12 56.0**	**+1.3**
SLWR				S	**Sn**	**00 13 54.3**	**+1.4**
IKFM	**Kafar-mosalman**	**5.28**	**327**	Pn	**Pn**	**00 12 59.3**	**+1.4**
SHME	**Shamm**	**5.29**	**124**	P	**Pn**	**00 12 58.0**	**-0.1**
SHME	**Shamm**	**5.29**	**124**	P	**Pn**	**00 12 58.2**	**+0.1**
UMQ	**Umm Al-Quwin**	**5.29**	**131**	P	**Pn**	**00 12 59.0**	**+0.9**
GHWR	**Ruwais**	**5.33**	**164**	P	**Pn**	**00 13 00.1**	**+1.5**
KRM1	**Kerman Provinc**	**5.39**	**74**	Pn	**Pn**	**00 13 01.3**	**+1.6**
BANOM	**Banah**	**5.48**	**124**	P	**Pn**	**00 12 59.8**	**-1.0**
BANOM	**Banah**	**5.48**	**124**	P	**Pn**	**00 13 00.7**	**0.0**
CHMN	**Cheshme madani**	**5.51**	**81**	Pn	**Pn**	**00 13 02.2**	**+0.7**
AJN	**Ajban** SNR=18	**5.62**	**143**	*i* P	**Pn**	**00 13 04.0**	**+1.4**
AJN	**Ajban** SNR=18	**5.62**	**143**	P	**Pn**	**00 13 04.7**	**+2.1**
AJN				S	**Sn**	**00 14 07.3**	**+0.1**
NAZ	**Nazwa, Dubai** SNR=18	**5.68**	**135**	*i* P	**Pn**	**00 13 04.3**	**+0.9**
NAZ	**Nazwa, Dubai** SNR=29	**5.68**	**135**	P	**Pn**	**00 13 04.3**	**+0.9**
NAZ				S	**Sn**	**00 14 07.4**	**-1.3**
IQOM	**Qom**	**5.71**	**358**	Pn	**Pn**	**00 13 05.1**	**+1.0**
MASF	**Masafi** SNR=12	**5.73**	**129**	P	**Pn**	**00 13 04.4**	**+0.3**
MSFE	**Esma-Masafi** SNR=12	**5.74**	**130**	*i* P	**Pn**	**00 13 04.2**	**-0.1**
MSFE				S	**Sn**	**00 14 05.7**	**-4.5**
ASUD	**Al Ashush, Dub** SNR=31	**5.75**	**140**	*i* P	**Pn**	**00 13 05.9**	**+1.4**
ASUD	**Al Ashush, Dub** SNR=31	**5.75**	**140**	P	**Pn**	**00 13 06.0**	**+1.5**
ASUD				S	**Sn**	**00 14 10.8**	**+0.2**
FAQ	**Al Faqa, Dubai** SNR=12	**5.81**	**137**	*i* P	**Pn**	**00 13 06.2**	**+0.9**
FAQ	**Al Faqa, Dubai** SNR=12	**5.81**	**137**	P	**Pn**	**00 13 06.1**	**+0.8**
FAQ				S	**Sn**	**00 14 10.5**	**-1.6**
MZWR	**Madinat Zayed**	**5.82**	**156**	P	**Pn**	**00 13 07.1**	**+1.7**
MDH	**Madha** SNR=18	**5.87**	**129**	*i* P	**Pn**	**00 13 05.8**	**-0.3**
MDH	**Madha** SNR=17	**5.87**	**129**	P	**Pn**	**00 13 06.0**	**-0.1**
MDH				S	**Sn**	**00 14 09.9**	**-3.6**
UOSS	**Minazif** SNR=24	**6.05**	**132**	*i* P	**Pn**	**00 13 07.9**	**-0.6**
UOSS	**Minazif**	**6.05**	**132**	P	**Pn**	**00 13 08.2**	**-0.3**
UOSS	**Minazif**	**6.05**	**132**	Pn	**Pn**	**00 13 07.7**	**-0.9**
UOSS				S	**Sn**	**00 14 13.6**	**-4.3**
UOSS	**Minazif** comp=Z,17nm,0.9s	**6.05**	**132**	P	**Pn**	**00 13 08.3**	**-0.3**
HATD	**Hatta, Dubai** SNR=22	**6.09**	**133**	*i* P	**Pn**	**00 13 09.6**	**+0.5**
HATD	**Hatta, Dubai** SNR=22	**6.09**	**133**	P	**Pn**	**00 13 09.6**	**+0.5**
ASHO	**Ashiyiah** SNR=24	**6.14**	**135**	*i* P	**Pn**	**00 13 09.9**	**+0.1**
ASHO	**Ashiyiah** SNR=24	**6.14**	**135**	P	**Pn**	**00 13 10.7**	**+0.8**
ASHO				S	**Sn**	**00 14 18.2**	**-2.1**
ILBA	**Ilam Banvizeh**	**6.24**	**317**	Pn	**Pn**	**00 13 12.3**	**+1.0**
KBAM	**BAM**	**6.28**	**88**	Pn	**Pn**	**00 13 13.3**	**+1.5**
MZR	**Muzera** SNR=34	**6.40**	**161**	*i* P	**Pn**	**00 13 14.8**	**+1.4**
MZR	**Muzera** SNR=34	**6.40**	**161**	P	**Pn**	**00 13 15.1**	**+1.7**
MZR				S	**Sn**	**00 14 26.2**	**-0.5**
ALNE	**Al Ain** SNR=29	**6.44**	**140**	*i* P	**Pn**	**00 13 14.8**	**+0.8**
ALNE	**Al Ain** SNR=29	**6.44**	**140**	P	**Pn**	**00 13 14.9**	**+0.9**
ALNE				S	**Sn**	**00 14 25.9**	**-1.6**
HGHA	**Hamedan- Ghaye**	**6.67**	**343**	Pn	**Pn**	**00 13 18.7**	**+1.4**

JASK Jask - Hormozg 6.69 117 P **Pn** **00 13 16.5 -0.9**
SNR=6.8
JASK S **Sn** **00 14 31.9 -1.8**
SOHO SOHO 6.84 135 *i* P **Pn** **00 13 19.0 -0.3**
SNR=18
SOHO SOHO 6.84 135 P **Pn** **00 13 19.1 -0.3**
SNR=18
UMZA Um Al Zommool 7.27 150 P **Pn** **00 13 26.1 +0.7**
ARQ Araqi 7.44 139 P **Pn** **00 13 27.7 +0.1**
SNR=45
RAYN Ar Rayn 7.60 224 P **Pn** **00 13 29.7 -0.3**
RAYN Ar Rayn 7.60 224 P **Pn** **00 13 28.9 -1.1**
RAYN Ar Rayn 7.60 224 P **Pn** **00 13 28.9 -1.1**
RAYN Ar Rayn 7.60 224 P **Pn** **00 13 30.3 +0.4**
comp=Z,21nm,0.7s
HOQ Hoqain 7.72 134 P **Pn** **00 13 31.6 0.0**
SNR=13
BSY Bisya 8.29 139 P **Pn** **00 13 39.3 0.0**
SNR=95
BIDO Bidbid 8.30 131 P **Pn** **00 13 39.1 -0.3**
SMDO Samad 8.57 133 P **Pn** **00 13 42.7 -0.5**
SNR=16
WSAR Wadi Sarin 8.83 130 P **Pn** **00 13 45.6 -1.1**
SNR=12
JMDO Jabal Madar 9.11 136 P **Pn** **00 13 50.1 -0.5**
SNR=21
WBK Wadi Bani Khal 9.48 131 P **Pn** **00 13 54.2 -1.5**
SNR=15
NGCH Negor - Chabah 9.54 111 P **Pn** **00 13 53.8 -2.6**
JLN Jalan Bani Buh 10.10 132 P **Pn** **00 14 02.0 -2.1**
MHTO MHTO 10.11 142 P **Pn** **00 14 03.9 -0.4**
SNR=43
HAKT HAKKARI 10.53 325 P **Pn** **00 14 09.3 -0.8**
comp=Z,105nm,0.7s
DOK Doka 10.77 165 P **Pn** **00 14 13.0 -0.4**
DQM DQM 10.78 147 P **Pn** **00 14 12.3 -1.1**
SNR=22
OZAP Van, Ozalp-Mer 11.27 330 ⇓P **Pn** **00 14 21.6 +1.2**
WHFO Wadi Hawf 11.38 168 P **Pn** **00 14 21.1 -0.6**
SNR=15
GEVA Gevas 11.43 325 **Pn** **00 14 22.5 0.0**
SHAO Shalim 11.74 159 P **Pn** **00 14 26.6 0.0**
DMTO DMTO 11.84 163 P **Pn** **00 14 26.8 -1.1**
SNR=18
ABTO Aybut 11.86 171 P **Pn** **00 14 27.2 -1.1**
SNR=17
RBK Rabkut 11.87 166 P **Pn** **00 14 27.5 -0.9**
GURO Guroymak-BITLI 12.14 323 **Pn** **00 14 31.0 -1.1**
GNI Garni 12.24 336 Pn **Pn** **00 14 34.3 +0.7**
comp=Z,0.1nm,0.3s,baz=294,slow=11,SNR=3.0
comp=Z,5.0nm,1.0s
GNI AML AML
GNI Garni 12.24 336⇑ *e*P **Pn** **00 14 35.9 +2.3**
GNI pmax pmax
comp=Z,8.0nm,1.2s
ASF Jabal al Asfar 12.79 287 Pn **Pn** **00 14 39.3 -1.2**
comp=Z,0.8nm,0.3s,baz=62,slow=3.6,SNR=11
ASF Sn **Sn** **00 16 55.3 -7.2**
comp=Z,0.2nm,0.3s,baz=167,slow=4.8,SNR=3.6
ASF Lg Lg 00 18 35.9
baz=253,slow=19
comp=Z,1.6nm,0.3s
ASF AML AML
HOMI Horasan 13.35 327 ⇓P **Pn** **00 14 53.2 +4.5**
UJAP Al Uja 13.92 286 P **Pn** **00 14 54.0 -2.3**
comp=Z,13nm,0.5s
KOPT Kop Dagi 14.03 324 **Pn** **00 15 00.5 +2.5**
MMAI Mount Meron Ar 14.15 290 Pn **Pn** **00 14 58.7 -0.8**
comp=Z,0.7nm,0.3s,baz=87,slow=18,SNR=5.4
MMAI Sn **Sn** **00 17 32.2 -4.4**
comp=Z,0.8nm,0.3s,baz=122,slow=26,SNR=1.7
MMAI LR LR 00 22 42.1
comp=Z,34nm,18.1s,baz=249,slow=47
comp=Z,0.2nm,0.2s
MMAI AML AML
HRFI Mount Harif 14.16 278 P **Pn** **00 14 58.6 -1.1**
comp=Z,13nm,1.0s
EPOS Posof 14.18 333 P **Pn** **00 15 04.1 +4.1**
comp=Z,14nm,0.9s
EIL Elat 14.24 276 Pn **Pn** **00 15 00.1 -0.7**
comp=Z,0.2nm,0.3s,baz=72,slow=9.6,SNR=1.7
EIL Lg Lg 00 19 31.3
comp=Z,0.2nm,0.3s,baz=284,slow=11,SNR=5.2
comp=Z,2.1nm,0.8s
EIL AML AML
KEMA Kemaliye 14.63 317 P **Pn** **00 15 04.5 -1.6**
comp=Z,25nm,0.8s
ANDN Andirin 15.05 308 P **Pn** **00 15 10.5 -1.3**
comp=Z,33nm,1.1s
NCK Nalchik 15.62 339⇑ *e*P **P** **00 15 22.7 -0.7**
NCK pmax pmax
comp=Z,17nm,0.7s
NEUR Neytrino 15.71 336⇑ *e*P **Pn** **00 15 22.2 +1.7**
NEUR pmax pmax
comp=Z,8.0nm,1.1s
KBL Kabul 16.04 66 P **P** **00 15 29.6 +1.3**
comp=Z,6.0nm,1.1s
BNN Bunyan 16.04 311 Pn **Pn** **00 15 25.9 +1.1**
KBZ Khabaz 16.05 338 Pn **Pn** **00 15 26.7 +2.0**
comp=Z,0.6nm,0.3s,baz=165,slow=2.4,SNR=13
KBZ Lg Lg 00 20 00.9
comp=Z,0.3nm,0.3s,baz=343,slow=7.4,SNR=4.2
comp=Z,2.9nm,0.5s
KBZ AML AML
KBZ Khabaz 16.05 338 *de*P **Pn** **00 15 27.0 +2.3**
KBZ pmax pmax
comp=Z,19nm,1.5s
SHA1 Shidzhatmaz 16.14 337 *de*P **Pn** **00 15 28.6 +2.5**
CSS Mathiatis 16.29 296 Pn **Pn** **00 15 28.3 +0.5**
CSS Mathiatis 16.29 296 P **Pn** **00 15 27.8 0.0**
comp=Z,12nm,1.4s
KVAR Kislovodsk Arr 16.32 337 Pn **Pn** **00 15 29.9 +1.6**
baz=79,slow=19
comp=Z,1.8nm,0.4s
KIV Kislovodsk 16.32 337 *e*P **Pn** **00 15 30.6 +2.3**
KIV pmax pmax
comp=Z,19nm,1.1s
KIV Kislovodsk 16.32 337 **Pn** **00 15 29.7 +1.4**
KIV IAmb IAmb 00 15 33.2
comp=Z,16nm,0.7s
KIV Kislovodsk 16.32 337 ⇑P **P** **00 15 31.1 -0.2**
KIV Kislovodsk 16.32 337 P **Pn** **00 15 29.6 +1.3**
comp=Z,15nm,1.2s
KIV Kislovodsk 16.32 337 P **P** **00 15 30.9 -0.4**
comp=Z,19nm,1.2s
SOC Sochi 17.15 330 *e*P **Pn** **00 15 39.7 +1.0**
SOC *e*S **S** **00 18 57.4 -1.5**
SOC pmax pmax
comp=Z,37nm,1.0s
SOC MLR MLR
comp=Z,88nm,13.0s
KIRS Kirsehir-Merke 17.48 309 ⇓P **P** **00 15 46.7 +2.6**
BR104 Keskin Array S 17.95 311 P **Pn** **00 15 49.2 +0.4**
comp=Z,54nmcomp=Z,4.7nm,1.0s
BR131 Keskin Array S 17.96 311 *de*P **Pn** **00 15 49.4 +0.5**
BRTR Keskin Array B 17.96 311 P **Pn** **00 15 49.2 +0.3**
comp=Z,0.3nm,0.3s,baz=134,slow=12,SNR=22
BRTR LR LR 00 24 21.6
comp=Z,57nm,18.4s,baz=304,slow=43
comp=Z,3.7nm,0.8s
BRTR AML AML
BRTR Keskin Array B 17.96 311 *e*P **Pn** **00 15 49.5 +0.5**
BRTR Keskin Array B 17.96 311 **Pn** **00 15 48.7 -0.2**
BR105 Keskin Array S 17.97 311 P **Pn** **00 15 49.4 +0.3**
comp=Z,64nmcomp=Z,4.9nm,0.8s
BR106 Keskin Array S 17.98 311 P **Pn** **00 15 49.2 +0.1**
comp=Z,52nmcomp=Z,5.4nm,0.8s
KKUL Konya-Kulu 18.18 308 P **P** **00 15 52.9 +1.1**
comp=Z,11nm,1.2s
ILGA Ilgaz 18.62 314 P **P** **00 15 57.0 +0.1**
NIL Nilore 19.29 71 P **Pn** **00 16 07.5 +2.4**
comp=Z,5.8nm,0.7s
BTK Batken 19.40 51 P **P** **00 16 06.2 +1.0**
comp=Z,5.4nm,0.9s
ELL Elmali 19.46 299 P **P** **00 16 06.7 +0.7**
ELL pmax pmax
comp=Z,5.0nm,0.7s
ELL Elmali 19.46 299 P **P** **00 16 06.7 +0.7**
AKAS Kas 19.55 297 P **P** **00 16 06.1 -0.9**
AKAS IAmb IAmb 00 16 22.0
comp=Z,9.4nm,0.8s
MDUB Mudurnu 19.95 310 P **Pn** **00 16 13.0 0.0**
MDUB IAmb IAmb 00 16 20.3
comp=Z,11nm,0.8s
SAHE Sakarya_HENDEK 20.37 310 ⇓P **P** **00 16 17.4 +1.7**
TAVA DENIZLI_Tavas 20.43 300 ⇑P **P** **00 16 17.5 +1.0**

ARG	**Arkhangelos**	**20.70**	**296**	P	**P**		**00 16 19.9**	**+0.5**
ARG				pmax	pmax			
	comp=Z,38nm,1.2s							
ARG	**Arkhangelos**	**20.70**	**296**	P	**P**		**00 16 19.9**	**+0.5**
KKAR	**Karatay Array**	**20.82**	**43**	P	**P**		**00 16 21.1**	**+0.5**
KKAR	**Karatay Array**	**20.82**	**43**	P	**P**		**00 16 21.1**	**+0.5**
ARK	**Arkit**	**21.01**	**47**	P	**P**		**00 16 24.5**	**+1.7**
	comp=Z,7.4nm,0.9s							
MANT	**Manisa**	**21.02**	**302**	P	**P**		**00 16 22.6**	**-0.5**
MANT				IAmb	IAmb		00 16 30.3	
	comp=Z,5.8nm,0.7s							
ABKAR	**Akbulak array**	**21.18**	**16**		**P**		**00 16 24.7**	**+0.4**
YLV	**Yalova**	**21.24**	**308**	P	**P**		**00 16 25.4**	**+0.2**
	comp=Z,12nm,1.1s							
ARSB	**Arslanbob**	**21.45**	**50**	P	**P**		**00 16 28.7**	**+1.1**
ARSB				pmax	pmax			
	comp=Z,12nm,1.0s							
ARSB	**Arslanbob**	**21.45**	**50**	P	**P**		**00 16 28.7**	**+1.1**
ARSB				IAmb	IAmb		00 16 33.1	
	comp=Z,12nm,1.0s							
AKTO	**Aktyubinsk**	**21.89**	**12**	P	**P**		**00 16 32.7**	**+0.6**
	comp=Z,4.2nm,0.4s,baz=196,slow=8.3,SNR=16							
	comp=Z,4.2nm,0.4s							
KSH2	**Kashi**	**22.40**	**57**	P	**P**		**00 16 39.1**	**+1.3**
KSH2				pP	sP		00 16 43.5	+1.2
AAK	**Ala-Archa**	**23.06**	**48**	P	**P**		**00 16 46.4**	**+1.7**
AAK				pmax	pmax			
	comp=Z,3.0nm,0.8s							
AAK	**Ala-Archa**	**23.06**	**48**		**P**		**00 16 46.4**	**+1.7**
AAK	**Ala-Archa**	**23.06**	**48**	P	**P**		**00 16 48.3**	**+3.6**
	comp=Z,4.8nm,1.0s							
EZN	**Ezine**	**23.11**	**304**	P	**P**		**00 16 45.8**	**+0.8**
	comp=Z,6.3nm,1.3s							
IDI	**Anoyia**	**23.12**	**292**	P	**P**		**00 16 46.3**	**+1.0**
IDI				IAmb	IAmb		00 16 52.9	
	comp=Z,18nm,1.1s							
VRH	**Novokhopyorsk**	**23.20**	**345**	*e*P	**P**		**00 16 44.9**	**-0.9**
VRH				pmax	pmax			
	comp=Z,10.0nm,0.6s							
NRN	**Naryn**	**23.54**	**52**	P	**P**		**00 16 49.9**	**+0.1**
NRN				pmax	pmax			
	comp=Z,4.0nm,0.9s							
NRN	**Naryn**	**23.54**	**52**	P	**P**		**00 16 49.9**	**+0.1**
NRN				IAmb	IAmb		00 16 56.0	
	comp=Z,4.0nm,0.9s							
VORD	**Divnogorie**	**23.61**	**341**	*e*P	**P**		**00 16 49.6**	**-0.4**
VORD				pmax	pmax			
	comp=Z,10.0nm,0.4s							
ALN	**Alexandroupoli**	**23.68**	**306**	P	**P**		**00 16 50.4**	**-0.4**
ALN				pmax	pmax			
	comp=Z,3.0nm,0.8s							
ALN	**Alexandroupoli**	**23.68**	**306**	P	**P**		**00 16 50.4**	**-0.4**
ALN	**Alexandroupoli**	**23.68**	**306**	P	**P**		**00 16 51.1**	**+0.3**
	comp=Z,4.6nm,0.9s							
ASAI	**AK-SAY(Kyrgyzs**	**23.71**	**54**	P	**P**		**00 16 52.4**	**+1.0**
	comp=Z,6.3nm,1.1s							
TIRR	**Tirgusor**	**23.75**	**316**	P	**P**		**00 16 51.9**	**+0.5**
	comp=Z,5.9nm,1.4s							
VSR	**Storozhevoye**	**23.87**	**341**	*e*P	**P**		**00 16 51.6**	**-0.9**
VSR				pmax	pmax			
	comp=Z,10.0nm,0.4s							
BOOM	**Boomskoye usch**	**23.94**	**50**	P	**P**		**00 16 54.7**	**+1.2**
BOOM				pmax	pmax			
	comp=Z,3.0nm,0.8s							
BOOM	**Boomskoye usch**	**23.94**	**50**	P	**P**		**00 16 54.7**	**+1.2**
BOOM				IAmb	IAmb		00 17 01.0	
	comp=Z,3.1nm,0.8s							
BOOM	**Boomskoye usch**	**23.94**	**50**	P	**P**		**00 16 56.7**	**+3.2**
	comp=Z,3.9nm,0.7s							
TPGR	**Topolog**	**23.97**	**317**	⇑P	**P**		**00 16 54.2**	**+0.7**
PURM	**Purcari**	**24.12**	**322**	P	**P**		**00 16 55.3**	**+0.4**
	comp=Z,26nm,0.6s							
HARR	**Harsova**	**24.17**	**316**	⇑P	**P**		**00 16 56.5**	**+1.2**
HARR	**Harsova**	**24.17**	**316**	⇑P	**P**		**00 16 56.5**	**+1.2**
VORR	**Voronezh**	**24.27**	**342**	*e*P	**P**		**00 16 54.3**	**-1.9**
VORR				pmax	pmax			
	comp=Z,20nm,0.4s							
CFR	**Carcaliu**	**24.31**	**318**	⇓P	**P**		**00 16 57.4**	**+0.8**
CFR	**Carcaliu**	**24.31**	**318**	⇓P	**P**		**00 16 57.4**	**+0.8**
ELND	**Elena**	**24.62**	**311**	⇑P	**P**		**00 17 00.4**	**+0.9**
VLDR	**Vladesti**	**24.71**	**319**	⇓P	**P**		**00 17 01.0**	**+0.7**
LPSR	**Galich'ya Gora**	**25.18**	**342**	*e*P	**P**		**00 17 03.7**	**-0.7**
LPSR				pmax	pmax			
	comp=Z,10.0nm,0.7s							
GHRR		**25.23**	**319**	⇑P	**P**		**00 17 06.4**	**+1.4**
GHRR		**25.23**	**319**	P	**P**		**00 17 05.9**	**+1.0**
GHRR		**25.23**	**319**	P	**P**		**00 17 06.8**	**+1.9**
	comp=Z,71nm,0.9s							
SAHR	**Sahastru**	**25.47**	**317**	⇑P	**P**		**00 17 08.0**	**+0.8**
VRI	**Vrincioaia**	**25.52**	**318**	⇑P	**P**		**00 17 09.0**	**+1.5**
VRI	**Vrincioaia**	**25.52**	**318**	⇑P	**P**		**00 17 09.0**	**+1.5**
VRI	**Vrincioaia**	**25.52**	**318**	P	**P**		**00 17 09.1**	**+1.5**
	comp=Z,10nm,1.6s							
VRI	**Vrincioaia**	**25.52**	**318**	P	**P**		**00 17 09.1**	**+1.5**
	comp=Z,10nm,1.6s							
PLOR	**Plostina**	**25.55**	**318**	⇑P	**P**		**00 17 09.6**	**+1.6**
PLOR	**Plostina**	**25.55**	**318**	⇑P	**P**		**00 17 09.6**	**+1.6**
SOH	**Sokhos**	**25.58**	**305**	P	**P**		**00 17 10.3**	**+2.1**
	comp=Z,13nm,0.8s							
PRZ	**Przheval'sk**	**25.60**	**51**	P	**P**		**00 17 09.7**	**+1.1**
PRZ				pmax	pmax			
	comp=Z,7.0nm,0.5s							
PRZ	**Przheval'sk**	**25.60**	**51**	P	**P**		**00 17 09.7**	**+1.1**
HORT	**Hortiatis**	**25.69**	**304**	P	**P**		**00 17 11.1**	**+1.8**
	comp=Z,8.8nm,0.7s							
IASR	**Iasi**	**25.77**	**321**	⇓P	**P**		**00 17 10.6**	**+0.7**
MLR	**Muntele Rosu**	**25.79**	**316**	P	**P**		**00 17 10.5**	**+0.3**
MLR				pmax	pmax			
	comp=Z,6.0nm,0.6s							
MLR	**Muntele Rosu**	**25.79**	**316**		**P**		**00 17 10.5**	**+0.3**
MLR				IAmb	IAmb		00 17 18.8	
	comp=Z,6.2nm,0.6s							
MLR	**Muntele Rosu**	**25.79**	**316**	⇑P	**P**		**00 17 11.8**	**+1.6**
MLR	**Muntele Rosu**	**25.79**	**316**	P	**P**		**00 17 10.8**	**+0.6**
	comp=Z,9.4nm,0.9s							
MLR	**Muntele Rosu**	**25.79**	**316**	P	**P**		**00 17 12.6**	**+2.4**
	comp=Z,9.4nm,0.9s							
COVR	**Voineasa-Covas**	**25.82**	**317**	⇑P	**P**		**00 17 12.1**	**+1.8**
TESR	**Tescani**	**25.91**	**319**	P	**P**		**00 17 11.6**	**+0.4**
	comp=Z,34nm,0.6s							
TESR	**Tescani**	**25.91**	**319**	P	**P**		**00 17 12.6**	**+1.4**
	comp=Z,33nm,0.6s							
SORM	**Soroca**	**25.93**	**323**	⇑P	**P**		**00 17 12.5**	**+1.2**
SORM	**Soroca**	**25.93**	**323**	⇑P	**P**		**00 17 12.5**	**+1.2**
SORM	**Soroca**	**25.93**	**323**	P	**P**		**00 17 11.6**	**+0.3**
	comp=Z,24nm,0.5s							
ONER	**Baraj Valea Uz**	**25.96**	**318**	⇑P	**P**		**00 17 12.9**	**+1.2**
LIT	**Litokhoron**	**25.99**	**303**	P	**P**		**00 17 11.7**	**-0.3**
LIT				pmax	pmax			
	comp=Z,2.0nm,0.6s							
LIT	**Litokhoron**	**25.99**	**303**	P	**P**		**00 17 11.7**	**-0.3**
LIT				IAmb	IAmb		00 17 17.2	
	comp=Z,2.2nm,0.6s							
LIT	**Litokhoron**	**25.99**	**303**	P	**P**		**00 17 12.4**	**+0.4**
	comp=Z,6.8nm,1.4s							
KNT	**Kendrikon**	**26.01**	**305**	P	**P**		**00 17 12.9**	**+0.8**
	comp=Z,2.3nm,0.6s							
TURR	**Turia**	**26.04**	**317**	⇑P	**P**		**00 17 13.9**	**+1.5**
GIRR	**Girov**	**26.24**	**320**	⇑P	**P**		**00 17 15.2**	**+1.0**
BOSR	**Bodos**	**26.26**	**317**	⇑P	**P**		**00 17 15.6**	**+1.3**
GRG	**Griva**	**26.30**	**304**	P	**P**		**00 17 16.3**	**+1.4**
	comp=Z,19nm,0.8s							
VOIR		**26.31**	**315**	⇓P	**P**		**00 17 16.1**	**+1.3**
VOIR		**26.31**	**315**	⇓P	**P**		**00 17 16.1**	**+1.3**
VOIR		**26.31**	**315**	P	**P**		**00 17 15.2**	**+0.3**
	comp=Z,4.8nm,0.7s							
VOIR		**26.31**	**315**	P	**P**		**00 17 16.7**	**+1.8**
	comp=Z,4.9nm,0.8s							
DOPR	**Dopca**	**26.36**	**317**	⇓P	**P**		**00 17 16.7**	**+1.4**
BIZ	**Bicaz**	**26.46**	**319**	⇓P	**P**		**00 17 17.1**	**+1.0**
PRAR	**RASCA**	**26.63**	**320**	⇓P	**P**		**00 17 18.3**	**+0.7**
PDGK	**Podgornoye**	**26.67**	**50**	P	**P**		**00 17 20.1**	**+1.9**
PDGK	**Podgornoye**	**26.67**	**50**	P	**P**		**00 17 20.1**	**+1.9**
LOT	**Lotru**	**27.10**	**314**	⇓P	**P**		**00 17 22.8**	**+0.8**
AK07	**Malin Array Si**	**27.11**	**328**	P	**P**		**00 17 21.7**	**-0.2**
AK09	**Malin Array Si**	**27.12**	**328**	P	**P**		**00 17 21.9**	**-0.1**
AK09				pP	**pP**		**00 17 25.4**	**+0.3**
AK10	**Malin Array Si**	**27.13**	**328**	P	**P**		**00 17 21.7**	**-0.4**
AK10				pP	**pP**		**00 17 25.5**	**+0.4**
AK06	**Malin Array Si**	**27.14**	**328**	P	**P**		**00 17 21.9**	**-0.3**
AK08	**Malin Array Si**	**27.15**	**328**	P	**P**		**00 17 21.7**	**-0.5**
AK08				pP	**pP**		**00 17 25.7**	**+0.4**
AK02	**Malin Array Si**	**27.19**	**328**	P	**P**		**00 17 21.9**	**-0.7**
KMPD	**K-Podol'skiy**	**27.20**	**322**	P	**P**		**00 17 22.2**	**-0.5**

AKASG	**Malin Array Be**	**27.21**	**329**	P	**P**		**00 17 22.5**	**-0.2**
	comp=Z,1.5nm,0.4s,baz=111,slow=6.9,SNR=22							
	comp=Z,1.5nm,0.4s							
AKASG	**Malin Array Be**	**27.21**	**329**	*e*P	**P**		**00 17 22.6**	**-0.2**
AKASG				pmax	pmax			
	comp=Z,3.0nm,0.4s							
AKBB	**Malin Array Si**	**27.21**	**329**	⇑*e*P	**P**		**00 17 22.2**	**-0.6**
AKBB	**Malin Array Si**	**27.21**	**329**	P	**P**		**00 17 22.1**	**-0.7**
KIEV	**Kiev**	**27.21**	**329**	P	**P**		**00 17 22.3**	**-0.5**
KIEV				pmax	pmax			
	comp=Z,6.0nm,0.6s							
KIEV	**Kiev**	**27.21**	**329**		**P**		**00 17 22.3**	**-0.5**
KIEV				IAmb	IAmb		00 17 23.8	
	comp=Z,5.5nm,0.6s							
KIEV	**Kiev**	**27.21**	**329**	⇑P	**P**		**00 17 23.0**	**+0.2**
KIEV	**Kiev**	**27.21**	**329**	P	**P**		**00 17 22.1**	**-0.7**
	comp=Z,32nm,0.5s							
BURAR	**Bucovina Array**	**27.34**	**320**	⇓P	**P**		**00 17 25.3**	**+1.2**
BURAR	**Bucovina Array**	**27.34**	**320**	P	**P**		**00 17 24.4**	**+0.3**
BURAR				IAmb	IAmb		00 17 43.9	
	comp=Z,3.4nm,0.7s							
BURAR	**Bucovina Array**	**27.34**	**320**	⇓P	**P**		**00 17 25.3**	**+1.2**
BUR08	**Bucovina Ar. S**	**27.36**	**320**	P	**P**		**00 17 24.5**	**+0.1**
BUR08				IAmb	IAmb		00 17 26.5	
	comp=Z,3.2nm,0.5s							
LUBAR	**Lubar, Ukraine**	**27.38**	**326**	P	**P**		**00 17 24.2**	**-0.1**
BOVS	**Bovan**	**27.69**	**310**	⇑P	**P**		**00 17 28.1**	**+0.9**
BORK	**Borovoye**	**27.71**	**25**	⇑*e*P	**P**		**00 17 28.6**	**+1.3**
BVAR	**Borovoye Array**	**27.72**	**25**	P	**P**		**00 17 28.1**	**+0.7**
	comp=Z,1.9nm,0.6s,baz=211,slow=8.6,SNR=8.9							
BVAR				PcP	**PcP**		**00 20 43.9**	**-0.1**
	comp=Z,0.5nm,0.4s,baz=194,slow=3.9,SNR=5.3							
	comp=Z,1.9nm,0.6s							
PHP	**Peshkopia**	**27.93**	**305**	P	**P**		**00 17 30.2**	**+0.7**
	comp=Z,5.2nm,0.6s							
OBN	**Obninsk**	**28.06**	**342**	⇑*e*P	**P**		**00 17 29.6**	**-0.7**
OBN				*e**PP	**pP**		**00 17 34.7**	**+1.2**
OBN							00 18 19.0	
OBN				*e*			00 20 45.1	
OBN				pmax	pmax			
	comp=Z,22nm,1.7s							
OBN				MLR	MLR			
	comp=Z,75nm,15.0s							
DRGR		**28.38**	**316**	⇑P	**P**		**00 17 34.1**	**+0.6**
DRGR		**28.38**	**316**	⇑P	**P**		**00 17 34.1**	**+0.6**
DRGR		**28.38**	**316**	P	**P**		**00 17 33.9**	**+0.4**
	comp=Z,3.1nm,1.5s							
SIRR	**Siria**	**28.79**	**315**	⇑P	**P**		**00 17 38.6**	**+1.5**
PDG	**Podgorica**	**28.99**	**306**	P	**P**		**00 17 38.8**	**0.0**
	comp=Z,3.8nm,1.3s							
RNPP5	**Staryi Chortor**	**29.14**	**326**	P	**P**		**00 17 39.8**	**-0.2**
TRPA	**Tarpa**	**29.14**	**319**	P	**P**		**00 17 40.8**	**+0.8**
	comp=Z,2.8nm,0.8s							
KURBB	**Kurchatov Arra**	**29.70**	**36**	P	**P**		**00 17 45.8**	**+0.8**
	comp=Z,0.6nm,0.7s,baz=235,slow=9.2,SNR=6.3							
	comp=Z,0.6nm,0.7s							
KOLS	**Kolonicke sedl**	**29.70**	**320**	*e*P	**P**		**00 17 47.0**	**+1.9**
KOLS				pmax	pmax			
	comp=Z,5.0nm,0.6s							
KOLS	**Kolonicke sedl**	**29.70**	**320**	*e*P	**P**		**00 17 47.0**	**+1.9**
KURK	**Kurchatov**	**29.80**	**36**	P	**P**		**00 17 45.8**	**-0.1**
KWP	**Kalwaria Pacla**	**29.83**	**321**	P	**P**		**00 17 46.6**	**+0.4**
	comp=Z,11nm,1.7s							
MK31	**Makanchi Array**	**29.89**	**45**	⇑*e*P	**P**		**00 17 48.1**	**+1.3**
MKAR	**Makanchi Array**	**29.89**	**45**	P	**P**		**00 17 47.0**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=239,slow=7.0,SNR=4.1							
	comp=Z,0.3nm,0.3s							
MKAR	**Makanchi Array**	**29.89**	**45**	*e*P	**P**		**00 17 48.4**	**+1.6**
MKAR	**Makanchi Array**	**29.89**	**45**	P	**P**		**00 17 46.8**	**0.0**
MARCO	**Tramutola**	**31.03**	**301**	P	**P**		**00 17 59.8**	**+2.8**
	comp=Z,4.1nm,0.8s							
LANS	**Liptovska Anna**	**31.42**	**318**	*e*P	**P**		**00 18 01.4**	**+1.1**
LANS				pmax	pmax			
	comp=Z,1.0nm,0.5s							
LANS	**Liptovska Anna**	**31.42**	**318**	*e*P	**P**		**00 18 01.4**	**+1.1**
OJC	**Ojcow**	**31.75**	**320**	P	**P**		**00 18 02.5**	**-0.6**
OJC	**Ojcow**	**31.75**	**320**	P	**P**		**00 18 03.5**	**+0.5**
	comp=Z,8.1nm,0.8s							
WMQ	**Urumqi**	**32.47**	**53**	*e*P	**P**		**00 18 10.0**	**+0.4**
WMQ				pmax	pmax			
	comp=Z,11nm,0.7s							
KLMR	**Klimovskoe**	**32.70**	**349**	*e*P	**P**		**00 18 09.6**	**-1.7**
KLMR				pmax	pmax			
	comp=Z,28nm,1.6s							
PABE	**Paberze**	**32.81**	**331**	P	**P**		**00 18 11.8**	**-0.5**
	comp=Z,20nm,2.4s							
MORC	**Moravsky Berou**	**32.82**	**318**	⇑P	**P**		**00 18 13.2**	**+0.6**
MORC	**Moravsky Berou**	**32.82**	**318**	*e*P	**P**		**00 18 12.6**	**0.0**
MORC	**Moravsky Berou**	**32.82**	**318**	⇑P	**P**		**00 18 13.2**	**+0.6**
MORC	**Moravsky Berou**	**32.82**	**318**	P	**P**		**00 18 12.8**	**+0.2**
	comp=Z,5.4nm,1.1s							
WINA	**Alland / Wiene**	**33.02**	**315**	*e*P	**P**		**00 18 14.6**	**+0.4**
	comp=Z,0.4nm,0.2s							
VRAC	**Vranov**	**33.18**	**317**	*e*P	**P**		**00 18 16.1**	**+0.4**
VRAC	**Vranov**	**33.18**	**317**	P	**P**		**00 18 15.9**	**+0.2**
KRUC	**Moravsky**	**33.20**	**317**	*e*P	**P**		**00 18 16.1**	**+0.3**
KRUC	**Moravsky**	**33.20**	**317**	P	**P**		**00 18 16.0**	**+0.2**
	comp=Z,5.3nm,2.1s							
DPC	**Doska-Polom**	**33.78**	**319**	*e*P	**P**		**00 18 20.3**	**-0.7**
DPC	**Dobruska-Polom**	**33.78**	**319**	*e*P	**P**		**00 18 20.3**	**-0.7**
DPC	**Dobruska-Polom**	**33.78**	**319**	P	**P**		**00 18 21.2**	**+0.2**
	comp=Z,2.6nm,0.7s							
PBUR	**Paburge**	**34.02**	**331**	P	**P**		**00 18 23.1**	**+0.2**
	comp=Z,66nm,1.4s							
CHVC	**Chvalec**	**34.04**	**319**	*e*P	**P**		**00 18 23.4**	**+0.2**
CHVC	**Chvalec**	**34.04**	**319**	*e*P	**P**		**00 18 23.4**	**+0.2**
MOA	**Molln**	**34.06**	**314**	P	**P**		**00 18 23.6**	**+0.2**
	comp=Z,5.2nm,2.7s							
BIOA	**Bad Ischl, Aus**	**34.41**	**313**	*i* P	**P**		**00 18 26.7**	**+0.3**
	comp=Z,1.7nm,0.6s							
LSA	**Lhasa**	**34.62**	**79**	P	**P**		**00 18 29.4**	**+0.3**
	comp=Z,14nm,0.5s							
ZVC	**Zvikov**	**34.67**	**316**	*e*P	**P**		**00 18 29.0**	**+0.3**
GERES	**GERESS Array B**	**34.76**	**315**	P	**P**		**00 18 29.3**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=99,slow=6.9,SNR=4.8							
	comp=Z,0.6nm,0.8s							
GERES	**GERESS Array B**	**34.76**	**315**	*e*P	**P**		**00 18 32.0**	**+2.5**
ZALV	**Zalesovo Beam**	**34.76**	**35**	P	**P**		**00 18 29.2**	**-0.1**
	comp=Z,0.8nm,0.4s,baz=240,slow=12,SNR=5.0							
	comp=Z,0.8nm,0.4s							
ZALV	**Zalesovo Beam**	**34.76**	**35**	*e*P	**P**		**00 18 28.8**	**-0.5**
ZALV				pmax	pmax			
	comp=Z,1.0nm,0.4s							
KHC	**Kasperske Hory**	**34.94**	**315**	⇑*e*P	**P**		**00 18 29.1**	**-1.9**
KHC				pmax	pmax			
	comp=Z,2.0nm,1.0s							
KHC	**Kasperske Hory**	**34.94**	**315**	*e*P	**P**		**00 18 30.6**	**-0.4**
LESA	**Schwarzleotal**	**34.94**	**312**	*e*P	**P**		**00 18 31.0**	**-0.1**
	comp=Z,0.3nm,0.2s							
PALK	**Pallekele**	**35.22**	**122**	⇑*e*P	**P**		**00 18 33.1**	**-0.7**
PALK				pmax	pmax			
	comp=Z,9.0nm,1.2s							
BRG	**Berggiesshubel**	**35.38**	**318**	P	**P**		**00 18 34.6**	**-0.1**
	comp=Z,5.7nm,1.5s							
WTTA	**Wattenberg**	**35.57**	**312**	*e*P	**P**		**00 18 36.5**	**-0.1**
	comp=Z,1.5nm,0.5s							
WTTA	**Wattenberg**	**35.57**	**312**	P	**P**		**00 18 36.2**	**-0.4**
	comp=Z,4.7nm,1.9s							
WATA	**Walderalm**	**35.63**	**312**	*e*P	**P**		**00 18 36.7**	**-0.4**
	comp=Z,0.6nm,0.2s							
SQTA	**Sankt Quirin**	**35.84**	**311**	*e*P	**P**		**00 18 38.7**	**-0.2**
	comp=Z,1.1nm,0.3s							
MOTA	**Moosalm**	**35.94**	**312**	*e*P	**P**		**00 18 39.6**	**-0.2**
	comp=Z,0.9nm,0.3s							
FETA	**Feichten**	**36.10**	**311**	*e*P	**P**		**00 18 41.3**	**+0.1**
	comp=Z,0.2nm,0.2s							
RETA	**Reutte**	**36.20**	**312**	*e*P	**P**		**00 18 41.5**	**-0.5**
	comp=Z,0.8nm,0.3s							
FINES	**FINESS Array B**	**36.39**	**340**	P	**P**		**00 18 42.6**	**-0.6**
	comp=Z,2.1nm,0.5s,baz=150,slow=10,SNR=16							
	comp=Z,2.1nm,0.5s							
DAVA	**Damuels**	**36.73**	**311**	*e*P	**P**		**00 18 46.1**	**-0.4**
	comp=Z,2.3nm,0.4s							
DAVA	**Damuels**	**36.73**	**311**	P	**P**		**00 18 45.9**	**-0.7**
	comp=Z,10nm,0.7s							
BRDH	**Bariadhala**	**36.74**	**91**	LR	LR		00 37 29.2	
	comp=Z,81nm,18.1s,baz=218,slow=42							
CLZ	**Clausthal**	**37.82**	**319**	P	**P**		**00 18 56.1**	**+0.6**
	comp=Z,9.6nm,0.6s							
HFS	**Hagfors**	**39.99**	**332**	P	**P**		**00 19 13.0**	**-0.5**
	comp=Z,2.4nm,0.3s,baz=134,slow=8.5,SNR=20							
	comp=Z,2.4nm,0.3s							
GTA2	**Gaotai**	**40.94**	**62**	*e*P	**P**		**00 19 24.4**	**+2.5**
GTA2				pP	sP		00 19 28.5	+2.2
GTA2				pmax	pmax			
	comp=Z,4.0nm,1.0s							

NB2	**NORSAR Subarra**	**41.51**	**332**	P	**P**		**00 19 25.2**	**-0.9**
	comp=Z,0.7nm,0.5s,baz=122,slow=8.6							
NOA	**NORSAR Array B**	**41.51**	**332**	P	**P**		**00 19 25.3**	**-0.9**
	comp=Z,0.9nm,0.5s,baz=108,slow=9.9,SNR=5.1							
NOA				LR	LR		00 39 03.7	
	comp=Z,23nm,18.2s,baz=5.0,slow=40							
	comp=Z,0.9nm,0.5s							
ARCES	**ARCESS Array B**	**43.09**	**347**	P	**P**		**00 19 38.7**	**-0.2**
	comp=Z,1.2nm,0.7s,baz=134,slow=8.1,SNR=8.6							
	comp=Z,1.2nm,0.7s							
ARCES	**ARCESS Array B**	**43.09**	**347**	*e*P	**P**		**00 19 39.5**	**+0.6**
ARCES				pmax	pmax			
	comp=Z,2.0nm,0.8s							
SONM	**Songino Array**	**45.98**	**50**	P	**P**		**00 20 03.3**	**+0.8**
	comp=Z,0.3nm,0.4s,baz=317,slow=11,SNR=3.7							
	comp=Z,0.3nm,0.4s							
ESDC	**Sonseca Array**	**46.14**	**298**	P	**P**		**00 20 03.9**	**+0.1**
	comp=Z,0.3nm,0.7s,baz=61,slow=8.6,SNR=5.8							
	comp=Z,0.3nm,0.7s							
EKA	**Eskdalemuir Ar**	**46.52**	**320**	P	**P**		**00 20 06.2**	**-0.2**
	comp=Z,0.4nm,0.4s,baz=105,slow=8.0,SNR=4.5							
	comp=Z,0.4nm,0.4s							
TORD	**Torodi Ar. Bea**	**48.54**	**262**	P	**P**		**00 20 22.2**	**-0.5**
	comp=Z,0.9nm,0.7s,baz=57,slow=8.9,SNR=3.6							
	comp=Z,0.9nm,0.7s							
XAN	**Xi'an**	**48.81**	**69**	*e*P	P		00 20 17.2	-7.4
HHC	**Hu-ho-hao-te**	**49.88**	**60**	*e*P	**P**		**00 20 33.2**	**+0.5**
HHC				pmax	pmax			
	comp=Z,9.0nm,0.5s							
SPITS	**Spitsbergen Ar**	**51.56**	**351**	P	**P**		**00 20 45.0**	**+0.2**
	comp=Z,14nm,0.9s,baz=264,slow=7.5,SNR=7.0							
	comp=Z,14nm,0.9s							
SPITS	**Spitsbergen Ar**	**51.56**	**351**	P	**P**		**00 20 45.0**	**+0.2**
DBIC	**Dimbokro**	**57.30**	**259**	P	**P**		**00 21 27.4**	**0.0**
	comp=Z,4.7nm,0.9s,baz=38,slow=6.8,SNR=4.9							
	comp=Z,4.7nm,0.9s							
DBIC	**Dimbokro**	**57.30**	**259**	P	**P**		**00 21 26.6**	**-0.8**
DBIC				pmax	pmax			
	comp=Z,7.0nm,1.1s							
DBIC	**Dimbokro**	**57.30**	**259**	P	**P**		**00 21 26.6**	**-0.8**
D25K	**Kavik River**	**81.00**	**6**	P	**P**		**00 23 53.7**	**+0.1**
SCHQ	**Schefferville**	**81.00**	**329**	P	**P**		**00 23 53.5**	**-0.3**
	comp=Z,1.5nm,0.4s,baz=69,slow=4.0,SNR=5.4							
	comp=Z,1.5nm,0.4s							
SCHQ	**Schefferville**	**81.00**	**329**	P	**P**		**00 23 52.9**	**-1.0**
SCHQ				IAmb	IAmb		00 23 53.8	
	comp=Z,3.6nm,1.1s							
TOLK	**Toolik Lake Re**	**81.32**	**8**	P	**P**		**00 23 56.3**	**+1.0**
TOLK				IAmb	IAmb		00 24 12.4	
	comp=Z,2.9nm,1.1s							
E19K	**Redstone River**	**81.36**	**11**	P	**P**		**00 23 55.5**	**0.0**
INK	**Inuvik**	**82.81**	**2**	P	**P**		**00 24 05.0**	**+2.0**
ILAR	**Eielson Array**	**85.35**	**8**	P	**P**		**00 24 15.7**	**-0.4**
	comp=Z,0.7nm,0.6s,baz=325,slow=4.1,SNR=14							
	comp=Z,0.7nm,0.6s							
ILAR	**Eielson Array**

	comp=E,72nm,0.4s								
BDRM					IAML			00 12 46.0	
	comp=N,68nm,0.5s								
MLSB	**Milas**	**0.86**	**127**		Pg	**Pg**	**00 12 29.7**	**-0.1**
MLSB					AML	AML			
IZMR	**zmir-demi**	**0.88**	**68**		P	**Pb**	**00 12 30.3**	**+0.1**
IZMR					S	**Sg**	**00 12 40.8**	**-1.1**
IZMR					IAML		00 12 44.0		
	comp=E,24nm,0.5s								
IZMR					IAML		00 12 44.0		
	comp=N,20nm,0.3s								
CHOS	**Chios island**	**0.89**	**311**		P	**Pb**	**00 12 30.5**	**+0.2**
CHOS					S	**Sb**	**00 12 43.2**	**+1.1**
CHOS					AML	AML			
CHOS	**Chios island**	**0.89**	**311**		Pg	**Pg**	**00 12 30.1**	**-0.2**
CHOS					AML	AML			
CHOS	**Chios island**	**0.89**	**311**		P	**Pb**	**00 12 30.6**	**+0.2**
CHOS					S	**Sb**	**00 12 42.2**	**+0.1**
CHOS					AML	AML			
FOCM	**Foa**	**0.91**	**351**		Pg	**Pg**	**00 12 30.7**	**-0.1**
FOCM					AML	AML			
KARB	**zmir-Karabur**	**0.94**	**335**		P	**Pg**	**00 12 30.8**	**-0.5**
KARB					S	**Sn**	**00 12 44.6**	**-0.5**
KARB					IAML		00 12 46.0		
	comp=N,74nm,0.5s								
KARB					IAML		00 12 46.0		
	comp=E,94nm,0.5s								
EAG2	**Marmaro, Chios**	**0.97**	**319**		P	**Pn**	**00 12 32.5**	**+0.2**
EAG2					S	**Sb**	**00 12 45.3**	**+1.0**
CAMT	**Merkez**	**0.99**	**19**		P	**Pb**	**00 12 32.2**	**+0.2**
CAMT					S	**Sb**	**00 12 45.5**	**+0.6**
CAMT					IAML		00 12 50.0		
	comp=N,66nm,0.8s								
CAMT					IAML		00 12 55.0		
	comp=E,54nm,0.4s								
NAZL	**Nazilli-Aydin**	**1.10**	**82**		Pn	**Pn**	**00 12 34.8**	**+0.6**
NAZL					AML	AML			
ESEN	**Aydn-Nazilli**	**1.14**	**90**		P	**Pb**	**00 12 34.7**	**+0.1**
ESEN					S	**Sg**	**00 12 49.9**	**0.0**
ESEN					IAML		00 12 54.0		
	comp=N,11nm,0.4s								
ESEN					IAML		00 12 54.0		
	comp=E,12nm,0.3s								
ZEDA	**zmir-Bergama**	**1.16**	**6**		P	**Pb**	**00 12 34.8**	**-0.2**
ZEDA					S	**Sg**	**00 12 50.4**	**-0.2**
ZEDA					IAML		00 12 54.0		
	comp=E,23nm,0.2s								
ZEDA					IAML		00 12 56.0		
	comp=N,24nm,0.3s								
GOMA	**Golmarmara-Man**	**1.19**	**41**		Pn	**Pg**	**00 12 36.1**	**-0.1**
DAT	**Datca**	**1.21**	**154**		Pn	**Pg**	**00 12 36.5**	**+0.1**
DAT					AML	AML			
KIRA	**zmir-Kiraz**	**1.24**	**71**		P	**Pg**	**00 12 37.0**	**0.0**
KIRA					S	**Sb**	**00 12 51.5**	**-0.7**
KIRA					IAML		00 12 55.0		
	comp=N,17nm,0.3s								
KIRA					IAML		00 12 57.0		
	comp=E,13nm,0.5s								
MULA	**Mugla, Merkez-**	**1.25**	**116**		P	**Pn**	**00 12 35.8**	**-0.5**
DKL	**Dikili**	**1.26**	**360**		Pn	**Pg**	**00 12 37.1**	**-0.3**
DKL					AML	AML			
DKL	**Dikili**	**1.26**	**360**		P	**Pb**	**00 12 36.8**	**+0.2**
KTTT	**Salihli**	**1.28**	**46**		P	**Pn**	**00 12 36.9**	**+0.3**
KTTT					S	**Sb**	**00 12 52.2**	**-1.1**
KTTT					IAML		00 12 58.0		
	comp=N,19nm,0.6s								
YER	**Yerkesik**	**1.28**	**121**		P	**Pb**	**00 12 37.2**	**+0.1**
YER					S	**Sb**	**00 12 53.8**	**+0.3**
YER	**Yerkesik**	**1.28**	**121**		Pn	**Pb**	**00 12 37.4**	**+0.3**
APE	**Apeiranthos**	**1.33**	**236**		P	**Pn**	**00 12 36.8**	**-0.5**
APE					AML	AML			
APE	**Apeiranthos**	**1.33**	**236**		P	**Pn**	**00 12 36.6**	**-0.7**
APE					S	**Sb**	**00 12 54.7**	**0.0**
SOMA	**Soma-Manisa**	**1.43**	**20**		Pn	**Pb**	**00 12 39.7**	**+0.1**
SOMA					AML	AML			
MANT	**Manisa**	**1.46**	**62**		P	**Pg**	**00 12 41.2**	**-0.1**
MANT					S	**Sn**	**00 12 58.0**	**-0.4**
MANT					IAML		00 13 04.0		
	comp=N,13nm,0.6s								
MANT					IAML		00 13 05.0		
	comp=E,11nm,0.2s								
GORD	**Gordes-Manisa**	**1.48**	**42**		Pn	**Pb**	**00 12 40.5**	**0.0**
GORD					AML	AML			
TURN	**Turunc**	**1.48**	**134**		Pn	**Pb**	**00 12 40.5**	**0.0**
TURN					AML	AML			
SULTU	**Buldan**	**1.49**	**80**		P	**Pb**	**00 12 40.5**	**-0.1**
SULTU					S	**Sg**	**00 13 02.3**	**+1.2**
SULTU					IAML		00 13 06.0		
	comp=E,12nm,0.4s								
SULTU					IAML		00 13 08.0		
	comp=N,10nm,0.5s								
PRK	**Paraskevi**	**1.52**	**341**		P	**Pb**	**00 12 40.9**	**-0.2**
PRK	**Paraskevi**	**1.52**	**341**		P	**Pn**	**00 12 40.2**	**+0.3**
PRK					AML	AML			
YAYO	**Edremit-Balk**	**1.80**	**4**		Pn	**Pn**	**00 12 44.7**	**+0.9**
YAYO					AML	AML			
APMY	**Acipayam-Deniz**	**1.93**	**99**		Pn	**Pn**	**00 12 46.5**	**+0.9**
CAME	**Cameli-Denizli**	**2.09**	**114**		Pn	**Pn**	**00 12 49.1**	**+1.2**
DION	**Dionisos Attik**	**2.37**	**277**		P	**Pn**	**00 12 51.8**	**+0.2**
LIA	**Limnos Island**	**2.48**	**328**		P	**Pn**	**00 12 53.9**	**+0.8**

*SDD **03** 00:26:06.8±1.4, 19°70N×71°34W,h182km±14km,MD2.9, ML2.4,MW2.6,Presumed earthquake*

OSPL 03 00:26:06.8±0.5,20°50N×71°46W,h8km±10km,ML1.8, 1C-1D,Presumed earthquake,Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LOPP1	**Punta Rusia, P**	**0.69**	**159**	*i* P	Pg	00 26 19.2	-0.8
LOPP1				*e*S	Sg	00 26 28.4	-0.6
LOPP1				IAML		00 26 30.4	
	comp=Z,43nm,2.8s						
GRTK	**Grand Turk**	**1.05**	**17**	*e*Sg	Sn	00 27 05.5	+23
REDR	**Restauracion**	**1.33**	**177**	*e*Pg	Pn	00 26 30.7	-0.9
REDR				⇓*e*Sg	Sb	00 26 48.0	-1.1
SDDR	**Presa de Saban**	**1.52**	**174**	*e*Sg	Sn	00 26 51.1	-3.2
SDDR	**Presa de Saban**	**1.52**	**174**	*i* P	Pn	00 26 32.2	-2.1
SDDR				*e*S	Sn	00 26 51.6	-2.7
SDDR				IAML		00 26 55.3	
	comp=Z,9.3nm,0.5s						
ABDR	**Alto Bandera**	**1.85**	**155**	*e*Pg	Pn	00 26 35.2	-3.9
ABDR				*e*Sg	Sn	00 26 54.6	-8.3
LONE3	**El Aguacate, B**	**1.88**	**180**	*i* P	Pn	00 26 37.9	-1.5
LONE3				*e*S	Sn	00 27 00.2	-3.2
LONE3				IAML		00 27 05.6	
	comp=Z,8.6nm,4.1s						
HATOM	**Hato Mayor del**	**2.59**	**131**	*e*Pg	Pn	00 26 42.6	-6.5
HATOM				⇑*e*Sg	Sn	00 27 10.2	-11
HATOM				IAML		00 27 21.8	
	comp=N,18nm,3.3s						

IDC 03 00:27:47.6±6.4,18°91N×145°26E,h0km,mb3.7/5, mbtmp3.7/5,Error ellipse: s-maj=255.1km s-min=22.7km az=79.0,Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**40.06**	**196**	P	P	00 35 24.9	0.0
	4.2nm,0.7s,baz=17,slow=9.0,SNR=58 4.2nm,0.7s						
ASAR	**Alice Springs**	**43.74**	**195**	P	P	00 35 54.6	-0.4
	0.5nm,0.7s,baz=14,slow=7.5,SNR=6.3 0.5nm,0.7s						
MKAR	**Makanchi Array**	**58.02**	**314**	P	P	00 37 43.3	+0.9
	0.2nm,0.5s,baz=93,slow=8.7,SNR=2.8 0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**60.89**	**318**	P	P	00 38 01.6	-0.4
	0.2nm,0.4s,baz=92,slow=7.5,SNR=6.3 0.2nm,0.4s						
BVAR	**Borovoye Array**	**66.05**	**320**	P	P	00 38 35.6	-0.6
	0.5nm,0.4s,baz=85,slow=7.3,SNR=4.4 0.5nm,0.4s						

NNC 03 00:37:17.3±9.3,37°12N×70°72E,h0km,mb3.9,mpv3.7, 2C-3D,Error ellipse: s-maj=83.0km s-min=54.7km az=159.0,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UCH	**Uchtor**	**5.88**	**29**	P	Pn	00 38 45.2	-0.9
	SNR=10						
KK31	**Karatay Array**	**5.98**	**359**	⇑P	Pn	00 38 48.6	+1.5
	3.0nm,0.2s,baz=179,slow=13,SNR=81						
KK31				⇓S	Sn	00 39 59.0	+2.7
	4.2nm,0.3s,baz=182,slow=21,SNR=9.9						
EKS2	**Erkin-Say**	**6.02**	**22**	P	Pn	00 38 47.6	0.0
	SNR=12						
AAK	**Ala-Archa**	**6.23**	**27**	P	Pn	00 38 50.0	-0.6
	SNR=23						
AAK	**Ala-Archa**	**6.23**	**27**	⇓P	Pn	00 38 49.8	-0.8
	2.1nm,0.4s						
AAK				⇑S	Sn	00 40 02.3	-0.3
	2.5nm,0.6s						
KBK	**Karagaybulak**	**6.42**	**29**	P	Pn	00 38 52.8	-0.4
	SNR=5.7						
CHMS	**Chumysh**	**6.64**	**27**	P	Pn	00 38 55.5	-0.6
	SNR=7.0						
USP	**Ospenovka**	**6.79**	**24**	P	Pn	00 38 57.5	-0.7
	SNR=23						
TKM2	**Tokmak 2**	**6.90**	**31**	P	Pn	00 38 58.2	-1.7
	SNR=12						
AB31	**Akbulak array**	**14.44**	**331**	⇓P	Pn	00 40 42.1	-0.7
	0.2nm,0.3s,baz=267,slow=36,SNR=14						

*THE **03** 00:48:00.9,38°N±1°×2°7E±°,h7km±2km,M3.1/15, MLh3.1/15*
*ISK **03** 00:48:00.0,37°72N×27°02E,h3km,ML3.3/32*
*AFAD **03** 00:48:00.7,37°73N×27°05E,h7km±2km,ML3.1*
*ATH **03** 00:48:00.4,37°73N×27°08E,h11km±2km,ML3.1/24, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 03 00:48:01.1±0.8,37°73N±0°02×27°04E±0°02,h12km±6km, n103,σ0s62/126,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.16**	**99**	P	**Pg**	**00 48 04.4**	**-0.2**
GCAM				IAML		00 48 07.0	
	comp=E,6μm,0.3s						
GCAM				S	**Sg**	**00 48 07.0**	**-0.2**
GCAM				IAML		00 48 08.0	
	comp=N,5μm,0.2s						
GCAM	**G?zelcaml?**	**0.16**	**99**	Pg	**Pg**	**00 48 04.5**	**-0.2**
GCAM				Sg	**Sg**	**00 48 07.5**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**55**	Pg	**Pg**	**00 48 05.5**	**-0.6**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**285**	P	**Pg**	**00 48 06.5**	**-0.2**
KRL1				S	**Sg**	**00 48 11.2**	**+0.8**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.31**	**149**	P	**Pg**	**00 48 07.4**	**0.0**
DDIM				S	**Sg**	**00 48 12.3**	**+0.6**
DDIM				IAML		00 48 13.0	
	comp=N,7μm,0.6s						
DDIM				IAML		00 48 13.0	
	comp=E,5μm,0.6s						
DGB	**zmir**	**0.35**	**339**	P	**Pg**	**00 48 07.9**	**-0.2**
DGB				S	**Sg**	**00 48 12.5**	**-0.3**
DGB				IAML		00 48 13.0	
	comp=E,2μm,0.3s						
DGB				IAML		00 48 14.0	
	comp=N,1μm,0.4s						
GMLD	**Gumuldur**	**0.36**	**345**	Pg	**Pg**	**00 48 08.0**	**-0.4**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.38**	**155**	Pg	**Pg**	**00 48 08.4**	**-0.3**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**350**	P	**Pg**	**00 48 10.9**	**-0.1**
BEYE				S	**Sg**	**00 48 17.9**	**+0.1**
BEYE				IAML		00 48 22.0	
	comp=N,2μm,0.5s						
BEYE				IAML		00 48 22.0	
	comp=E,2μm,0.6s						
DUVT	**Torbali**	**0.59**	**33**	P	**Pg**	**00 48 12.1**	**-0.5**
DUVT				S	**Sg**	**00 48 20.3**	**-0.2**
DUVT				IAML		00 48 24.0	
	comp=E,2μm,0.6s						
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg	**Pg**	**00 48 12.9**	**-0.4**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**0**	P	**Pg**	**00 48 13.4**	**-0.5**
BLCB				S	**Sg**	**00 48 22.3**	**-0.2**
BLCB	**Balcova**	**0.66**	**0**	Pg	**Pg**	**00 48 13.5**	**-0.4**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.67**	**95**	P	**Pg**	**00 48 13.7**	**-0.4**
AYDN				S	**Sg**	**00 48 22.6**	**-0.3**
AYDN				IAML		00 48 27.0	
	comp=N,837nm,0.3s						
AYDN				IAML		00 48 27.0	
	comp=E,1μm,0.7s						
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**00 48 14.2**	**-0.4**
BODT				S	**Sb**	**00 48 24.3**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pg**	**00 48 14.2**	**-0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pg**	**00 48 14.5**	**-0.4**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**126**	Pg	**Pg**	**00 48 14.3**	**-0.9**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.73**	**154**	P	**Pg**	**00 48 14.9**	**-0.4**
BDRM				S	**Sb**	**00 48 25.7**	**-0.1**
BDRM				IAML		00 48 27.0	
	comp=E,918nm,0.5s						
BDRM				IAML		00 48 28.0	
	comp=N,2μm,0.4s						
KLNA	**Kalymnos**	**0.77**	**184**	P	**Pg**	**00 48 15.5**	**-0.4**
KLNA				S	**Sb**	**00 48 26.9**	**+0.2**
CESE	**eme**	**0.84**	**316**	Pg	**Pg**	**00 48 16.7**	**-0.6**
CESE				AML	AML		
KRBN	**Karaburun**	**0.95**	**336**	Pg	**Pg**	**00 48 18.9**	**-0.5**
KRBN				AML	AML		
FOCM	**Foa**	**1.02**	**346**	Pg	**Pg**	**00 48 20.3**	**-0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**00 48 20.3**	**-0.4**
CHOS				S	**Sb**	**00 48 34.8**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	Pg	**Pg**	**00 48 20.4**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**00 48 20.5**	**-0.2**
CHOS				S	**Sb**	**00 48 34.7**	**+0.6**
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg	**Pb**	**00 48 20.5**	**-0.2**
NAZL				AML	AML		
DAT	**Datca**	**1.08**	**156**	P	**Pg**	**00 48 21.6**	**-0.3**
DAT				S	**Sb**	**00 48 36.5**	**+0.6**
DAT				AML	AML		
DAT	**Datca**	**1.08**	**156**	Pn	**Pg**	**00 48 21.5**	**-0.4**
DAT				AML	AML		
EAG2	**Marmaro, Chios**	**1.10**	**318**	P	**Pg**	**00 48 21.5**	**-0.7**
EAG2				S	**Sb**	**00 48 36.5**	**+0.3**
YER	**Yerkesik**	**1.15**	**120**	P	**Pg**	**00 48 22.5**	**-0.7**
YER				S	**Sb**	**00 48 38.1**	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.15**	**120**	Pn	**Pb**	**00 48 22.9**	**-0.1**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pn**	**00 48 23.8**	**+0.1**
GOMA				AML	AML		
ASTA	**Astypalaia**	**1.30**	**205**	P	**Pn**	**00 48 25.4**	**+0.4**
ASTA				AML	AML		
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**00 48 25.7**	**-0.4**
AKS				AML	AML		
DKL	**Dikili**	**1.35**	**356**	Pn	**Pg**	**00 48 26.4**	**-0.6**
DKL				AML	AML		
DKL	**Dikili**	**1.35**	**356**	P	**Pn**	**00 48 25.4**	**-0.3**
TURN	**Turunc**	**1.35**	**134**	Pn	**Pg**	**00 48 26.5**	**-0.5**
TURN				AML	AML		
APE	**Apeiranthos**	**1.37**	**242**	P	**Pn**	**00 48 25.1**	**-0.9**
APE				S	**Sb**	**00 48 44.9**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.37**	**242**	P	**Pn**	**00 48 25.3**	**-0.7**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pg**	**00 48 28.7**	**-0.8**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**00 48 28.3**	**-0.3**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.57**	**125**	Pn	**Pb**	**00 48 29.8**	**-0.3**
DALY				AML	AML		
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**00 48 29.4**	**-0.2**
PRK				S	**Sb**	**00 48 51.6**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**00 48 29.9**	**+0.2**
ARG	**Arkhangelos**	**1.74**	**150**	P	**Pn**	**00 48 30.8**	**-0.3**
ARG				S	**Sg**	**00 48 57.0**	**0.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.74**	**150**	Pn	**Pb**	**00 48 32.2**	**-0.7**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.74**	**150**	P	**Pn**	**00 48 30.6**	**-0.5**
ARG				AML	AML		
CMBO	**Columbo, Santo**	**1.81**	**227**	P	**Pn**	**00 48 32.2**	**+0.2**
CMBO				AML	AML		
THR2	**Thira island,**	**1.81**	**226**	P	**Pn**	**00 48 32.7**	**+0.7**
APMY	**Acipayam-Deniz**	**1.82**	**97**	Pn	**Pb**	**00 48 33.2**	**-1.1**
APMY				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**223**	P	**Pn**	**00 48 31.7**	**-0.8**
THERA				S	**Sn**	**00 48 55.1**	**-0.6**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**223**	P	**Pn**	**00 48 32.1**	**-0.4**
THERA				AML	AML		
THR3	**Thira Island,**	**1.85**	**225**	P	**Pn**	**00 48 33.3**	**+0.6**
SAP3	**Santorini-Thir**	**1.87**	**227**	P	**Pn**	**00 48 33.7**	**+0.8**
SAP3				S	**Sb**	**00 49 00.0**	**+1.6**
SAP3				AML	AML		
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pn**	**00 48 34.1**	**+1.0**
YAYO				AML	AML		
FETY	**Fethiye**	**1.96**	**123**	Pn	**Pn**	**00 48 35.4**	**+1.2**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.97**	**113**	Pn	**Pn**	**00 48 35.3**	**+1.0**
CAME				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pn**	**00 48 36.0**	**+1.0**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.04**	**48**	Pn	**Pn**	**00 48 36.4**	**+1.1**
SIMA				AML	AML		
KARY	**Karystos**	**2.08**	**279**	P	**Pn**	**00 48 35.2**	**-0.6**
KARY				AML	AML		
KARY	**Karystos**	**2.08**	**279**	P	**Pn**	**00 48 35.2**	**-0.6**
EZN	**Ezine**	**2.17**	**345**	P	**Pn**	**00 48 36.7**	**-0.3**
EZN				S	**Sn**	**00 49 04.1**	**+0.3**
EZN				AML	AML		
KARP	**Karpathos**	**2.18**	**177**	P	**Pn**	**00 48 36.4**	**-0.7**
GEDZ	**Gediz**	**2.28**	**54**	Pn	**Pn**	**00 48 40.2**	**+1.6**
GEDZ				AML	AML		
BASM	**Basmaki-Afyon**	**2.39**	**84**	Pn	**Pn**	**00 48 41.4**	**+1.3**
BASM				AML	AML		
DION	**Dionisos Attik**	**2.48**	**279**	P	**Pn**	**00 48 41.1**	**-0.2**
DION				AML	AML		
DION	**Dionisos Attik**	**2.48**	**279**	P	**Pn**	**00 48 41.1**	**-0.2**
DION				AML	AML		
KYMI	**Kymi, Euboea I**	**2.49**	**292**	P	**Pn**	**00 48 41.5**	**+0.1**
KYMI	**Kymi, Euboea I**	**2.49**	**292**	P	**Pn**	**00 48 41.0**	**-0.3**
PTL	**Penteli**	**2.53**	**278**	P	**Pn**	**00 48 41.5**	**-0.5**
VLY	**Voula,Athens**	**2.57**	**274**	P	**Pn**	**00 48 42.4**	**-0.1**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.59**	**276**	P	**Pn**	**00 48 42.4**	**-0.3**
LIA	**Limnos Island**	**2.61**	**327**	P	**Pn**	**00 48 43.1**	**+0.1**
LIA				AML	AML		
ATH	**Athens Observa**	**2.64**	**276**	P	**Pn**	**00 48 43.4**	**0.0**
ATH				AML	AML		
NPS	**Neapolis**	**2.71**	**205**	P	**Pn**	**00 48 44.2**	**-0.3**
STFN	**Stefani**	**2.80**	**280**	P	**Pn**	**00 48 45.8**	**+0.1**
STFN				AML	AML		
AOS2	**Alonissos-2**	**2.88**	**301**	P	**Pn**	**00 48 47.1**	**+0.3**
AOS2				AML	AML		
MET4	**Agioi Theodoro**	**2.89**	**269**	P	**Pn**	**00 48 47.4**	**+0.6**
MET6	**Megalochori,Me**	**2.92**	**269**	P	**Pn**	**00 48 48.2**	**+0.9**
MET2	**Kameni Chora,**	**2.94**	**269**	P	**Pn**	**00 48 47.7**	**0.0**
SMTH	**Samothraki Isl**	**2.98**	**337**	P	**Pn**	**00 48 48.0**	**-0.2**
SMTH				AML	AML		
IDI	**Anoyia**	**2.98**	**216**	P	**Pn**	**00 48 49.1**	**+0.8**
IDI				AML	AML		
VIL2	**Platees**	**3.02**	**280**	P	**Pn**	**00 48 48.4**	**-0.3**
VIL2				AML	AML		
ME3	**Ano Fanari,Met**	**3.03**	**268**	P	**Pn**	**00 48 48.6**	**-0.3**
LTK	**Loutraki**	**3.23**	**277**	P	**Pn**	**00 48 51.9**	**+0.3**
LTK				AML	AML		
SIVA	**Sivas**	**3.25**	**214**	P	**Pn**	**00 48 53.7**	**+1.9**
SIVA				AML	AML		
ALN	**Alexandroupoli**	**3.26**	**347**	P	**Pn**	**00 48 52.0**	**+0.1**
ALN				AML	AML		
ATAL	**Atalanti**	**3.31**	**288**	P	**Pn**	**00 48 52.9**	**+0.2**
NEO	**Neokhori**	**3.38**	**299**	P	**Pn**	**00 48 53.9**	**+0.2**
THAS	**Thassos island**	**3.40**	**329**	P	**Pn**	**00 48 53.9**	**+0.1**
THAS				AML	AML		
VLI	**Veliai**	**3.42**	**254**	P	**Pn**	**00 48 54.3**	**+0.1**
VLI				AML	AML		
XOR	**Xorichti**	**3.43**	**300**	P	**Pn**	**00 48 54.2**	**-0.2**
OUR	**Ouranopolis**	**3.53**	**319**	P	**Pn**	**00 48 56.0**	**+0.3**
OUR				AML	AML		
GUR	**Goura**	**3.72**	**275**	P	**Pn**	**00 48 58.8**	**+0.3**
KLV	**Kalavryta, Ach**	**3.88**	**276**	P	**Pn**	**00 49 01.1**	**+0.5**
AGG	**Agios Georgios**	**3.92**	**291**	P	**Pn**	**00 49 02.0**	**+0.9**
MG00	**Magoula, Dorid**	**4.08**	**281**	P	**Pn**	**00 49 04.5**	**+1.3**
ITM	**Ithomi**	**4.10**	**264**	P	**Pn**	**00 49 03.9**	**+0.3**
EFP	**Efpalio**	**4.11**	**281**	P	**Pn**	**00 49 04.6**	**+0.9**
ANX	**Ano Chora**	**4.12**	**284**	P	**Pn**	**00 49 05.1**	**+1.1**
AGRP	**Agrapidokambos**	**4.25**	**281**	P	**Pn**	**00 49 06.9**	**+1.3**
TYRN	**Tyrnavos**	**4.25**	**299**	P	**Pn**	**00 49 06.7**	**+1.1**

*IDC **03** 00:48:05.0±1.4,11°28N×60°89W,h0km,mb3.6/5, mbtmp3.8/6,ML4.4/1,MS3.1/1,Error ellipse: s-maj=97.9km s-min=15.9km az=41.0*
*FUNV **03** 00:48:10.3,11°19N×60°51W,h35km,MW4.3,Presumed earthquake*
*TRN **03** 00:48:11.1,11°19N×60°71W,h50km,MD4.1,Near South of Tobago.*

ISC 03 00:48:10.7±0.8,11°11N±0°04×60°64W±0°05,h72km±8km, n36,σ2s26/58,mb3.5/5,1C-1D,Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TRN	**Trinidad (W)**	**0.88**	**238**	*e*P	**Pn**	**00 48 28.9**	**+1.1**
TRN				*e*S	**Sn**	**00 48 39.9**	**-0.7**
TRN	**Trinidad (W)**	**0.88**	**238**	⇓*i*P	**Pn**	**00 48 28.9**	**+1.1**
TRN				*e*S	**Sn**	**00 48 39.7**	**-0.8**
PSKH	**Kent House, Po**	**0.97**	**244**	*e*P	**Pn**	**00 48 30.2**	**+1.3**
PSKH				*e*S	**Sn**	**00 48 41.9**	**-0.5**
PSMG	**Mucurapo Girls**	**0.98**	**243**	*e*P	**Pn**	**00 48 30.4**	**+1.4**
PSMG				*e*S	**Sn**	**00 48 42.7**	**0.0**
DMDM	**Guralp CMG5TDE**	**0.98**	**245**	⇑*i*P	**Pn**	**00 48 30.3**	**+1.2**
DMDM				*e*S	**Sn**	**00 48 42.4**	**-0.4**
GRGR	**Grenville**	**1.42**	**316**	*e*P	**Pn**	**00 48 33.7**	**-1.0**
GRGR				*e*S	**Sn**	**00 48 51.6**	**-1.1**
GRGR	**Grenville**	**1.42**	**316**	*e*P	**Pn**	**00 48 34.0**	**-0.7**
GRGR				*e*S	**Sn**	**00 48 52.9**	**+0.2**
GRW	**Mount Saint Ca**	**1.44**	**316**	*e*P	**Pn**	**00 48 34.8**	**-0.3**
GRW				*e*S	**Sn**	**00 48 52.9**	**-0.5**
GRSS	**Sisters**	**1.51**	**321**	*e*P	**Pn**	**00 48 35

2.9nm,0.3s,baz=309,slow=17,SNR=74
MDP Sn **Sn** **00 52 16.0 -4.3**
4.9nm,0.3s,baz=40,slow=19,SNR=9.0
10nm,0.4s
MDP AML AML
SDV Santo Domingo 10.09 258 Sn Sn 00 52 15.2 -9.5
2.4nm,0.3s,baz=347,slow=14,SNR=3.4
TXAR Lajitas Array 43.96 301 P **P** **00 56 11.7 +0.6**
0.2nm,0.6s,baz=110,slow=9.1,SNR=4.3
0.2nm,0.6s
ULM Lac du Bonnet 48.58 330 P **P** **00 56 48.0 +1.1**
1.3nm,0.4s,baz=128,slow=8.6,SNR=8.7
1.3nm,0.4s
PDAR Pinedale Array 52.80 316 P **P** **00 57 19.8 +0.7**
0.1nm,0.3s,baz=105,slow=6.9,SNR=2.6
0.1nm,0.3s
ELK Elko 56.18 312 LR LR 01 26 12.0
comp=Z,14nm,18.6s,baz=102,slow=41
YKA Yellowknife Ar 64.04 335 P **P** **00 58 38.9 +2.2**
0.8nm,0.5s,baz=109,slow=7.3,SNR=4.9
0.8nm,0.5s
ILAR Eielson Array 78.43 334 P **P** **01 00 06.2 +2.8**
0.3nm,0.5s,baz=87,slow=4.7,SNR=6.9
0.3nm,0.5s

*IDC **03** 00:49:19.8±1.6,31°.69S×179°.95E,h308km±14km,mb3.7/8, mbtmp4.4/11,Error ellipse: s-maj=17.3km s-min=15.8km az=133.0*
*NEIC **03** 00:49:23.6±1.9,32°.1S±0°.1×179°.8E±0°.2,h329km±3km, mb4.3/15,Error ellipse: s-maj=22.1km s-min=14.1km az=50.0*
*WEL **03** 00:49:26.4±0.9,32°S±7°×17°9W±1°.7,h309km±12km, mB5.3/17,ML5.1/13,MLv5.4/19,Mw(mB)4.7/17,Error ellipse: s-maj=23.8km s-min=4.3km az=108.4*
*NOU **03** 00:49:30.6,32°.84S×179°.96W,h360km,mb4.5/21,South of Kermadec Islands*

ISC 03 00:49:21.5±0.3,31°.85S±0°.02×179°.50E±0°.05,h300km, n177,σ2$41/146,mb4.2/17,4D,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.41**	**41**	P	Pn	00 50 25.3	+3.7
GLKZ				S	**S**	**00 51 13.9**	**+4.5**
GLKZ				AML	AML		
RAO	**Raoul Island**	**3.42**	**41**	P	Pn	00 50 16.6	-5.0
	150nm,0.3s,baz=270,slow=20,SNR=2.0						
RAO				S	**S**	**00 51 08.3**	**-1.3**
	254nm,0.4s,baz=266,slow=17,SNR=3.6						
RIZ	**Raoul Island**	**3.42**	**41**	P	Pn	00 50 27.5	+5.9
RIZ				S	**S**	**00 51 14.7**	**+5.1**
RIZ				AML	AML		
GRZ	**Great Barrier**	**5.52**	**216**	P	Pn	00 50 53.1	+8.1
GRZ				AML	AML		
MXZ	**Matakaoa Point**	**5.78**	**189**	P	**Pn**	**00 50 49.6**	**+1.5**
MXZ	**Matakaoa Point**	**5.78**	**189**	P	**S**	**00 51 54.9**	**-2.9**
MXZ	**Matakaoa Point**	**5.78**	**189**	Pn	**Pn**	**00 50 49.3**	**+1.2**
MXZ	**Matakaoa Point**	**5.78**	**189**	P	**Pn**	**00 50 49.9**	**+1.8**
MXZ				S	**S**	**00 51 58.1**	**+0.2**
MXZ				AML	AML		
WCZ	**Waipu Caves**	**5.91**	**225**	P	Pn	00 50 58.9	+9.2
OUZ	**Omahuta**	**5.96**	**234**	P	Pn	00 50 59.7	+9.4
OUZ	**Omahuta**	**5.96**	**234**	P	Pn	00 50 57.4	+7.1
WMGZ	**Waiomatatini S**	**6.02**	**188**	P	**Pn**	**00 50 53.1**	**+2.2**
WMGZ				S	**S**	**00 52 04.1**	**+1.1**
WMGZ				AML	AML		
HAZ	**Te Kaha**	**6.05**	**193**	P	**Pn**	**00 50 54.2**	**+2.8**
HAZ				S	**S**	**00 52 05.2**	**+1.4**
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**6.11**	**191**	P	**Pn**	**00 50 54.4**	**+2.4**
PKGZ				S	**S**	**00 52 06.2**	**+1.1**
PKGZ				AML	AML		
MBAZ	**Motutapu North**	**6.21**	**217**	P	Pn	00 51 01.5	+8.3
MBAZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.28**	**193**	P	**Pn**	**00 50 56.3**	**+2.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
PUZ	**Puketiti**	**6.29**	**189**	P	Pn	00 50 58.0	+3.8
PUZ				S	**S**	**00 52 08.2**	**-0.8**
PUZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.43**	**191**	P	**Pn**	**00 50 58.3**	**+2.3**
TWGZ				S	**S**	**00 52 13.2**	**+1.1**
TWGZ				AML	AML		
TWGZ				AML	AML		
OPRZ	**Ohinepanea**	**6.45**	**201**	P	Pn	00 51 00.8	+4.7
OPRZ				AML	AML		
OPRZ				AML	AML		
MARZ	**Manawahe**	**6.54**	**200**	P	Pn	00 51 03.3	+6.1
MARZ				AML	AML		
MARZ				AML	AML		
EDRZ	**Edgecumbe**	**6.64**	**199**	P	Pn	00 51 04.5	+6.0
EDRZ				AML	AML		
EDRZ				AML	AML		
MWZ	**Matawai**	**6.66**	**193**	P	**Pn**	**00 50 59.9**	**+1.1**
MWZ				S	**S**	**00 52 18.3**	**+1.0**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**6.68**	**196**	P	**Pn**	**00 50 59.7**	**+0.8**
	100nm,0.3s,baz=333,slow=3.2,SNR=54						
URZ				S	**S**	**00 52 17.3**	**-0.3**
	315nm,0.4s,baz=71,slow=23,SNR=18						
URZ	**Urewera**	**6.68**	**196**	P	**Pn**	**00 50 59.8**	**+0.8**
URZ	**Urewera**	**6.68**	**196**	S	**S**	**00 52 15.2**	**-2.4**
URZ	**Urewera**	**6.68**	**196**	P	**Pn**	**00 51 01.4**	**+2.4**
URZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.70**	**189**	P	**Pn**	**00 51 01.2**	**+2.1**
CNGZ				AML	AML		
CNGZ				AML	AML		
KARZ	**Kaharoa**	**6.71**	**203**	P	Pn	00 51 06.1	+6.8
KARZ				AML	AML		
KARZ				AML	AML		
TKGZ	**Te Karaka**	**6.71**	**191**	P	**Pn**	**00 50 60.0**	**+0.7**
TKGZ				AML	AML		
TKGZ				AML	AML		
TOZ	**Tahuroa Road**	**6.72**	**208**	P	Pn	00 51 07.3	+7.9
RAGZ	**Rawiri**	**6.84**	**194**	P	**Pn**	**00 51 01.9**	**+0.9**
RAGZ				AML	AML		
RAGZ				AML	AML		
HLRZ	**Highlands Stat**	**6.88**	**201**	P	Pn	00 51 07.9	+6.5
HLRZ				AML	AML		
HLRZ				AML	AML		
RRRZ	**Republican Roa**	**6.92**	**200**	P	Pn	00 51 07.1	+5.3
RRRZ				AML	AML		
RRRZ				AML	AML		
MUGZ	**Murupara**	**6.97**	**198**	P	**Pn**	**00 51 04.7**	**+2.2**
MUGZ				AML	AML		
MUGZ				AML	AML		
RIGZ	**Rimuhau**	**6.98**	**191**	P	**Pn**	**00 51 02.8**	**+0.2**
RIGZ				AML	AML		
RIGZ				AML	AML		
GRRZ	**Galatos Road**	**7.05**	**202**	P	Pn	00 51 10.1	+6.7
RTZ	**Ruatahuna**	**7.05**	**196**	P	Pn	00 51 07.4	+3.9
RTZ				AML	AML		
PRRZ	**Plateau Road**	**7.10**	**200**	P	Pn	00 51 08.7	+4.6
ALRZ	**Allen Road**	**7.17**	**200**	P	Pn	00 51 09.9	+5.0
PRGZ	**Paritu Road**	**7.17**	**190**	P	**Pn**	**00 51 08.0**	**+3.0**
WPRZ	**Whakapapatarin**	**7.19**	**201**	P	Pn	00 51 11.0	+5.9
TLZ	**Tolley Road**	**7.23**	**206**	P	Pn	00 51 13.2	+7.5
KUTZ	**Kaahu Road**	**7.27**	**203**	P	Pn	00 51 12.7	+6.6
KNZ	**Kokohu**	**7.30**	**191**	P	**Pn**	**00 51 06.2**	**-0.2**
MTHZ	**Maungataniwha**	**7.31**	**197**	P	**Pn**	**00 51 08.8**	**+2.2**
RAHZ	**Arahi**	**7.32**	**195**	P	**Pn**	**00 51 08.7**	**+2.0**
WHTZ	**Whakaora**	**7.39**	**202**	P	Pn	00 51 13.6	+6.0
MHGZ	**Mahia Peninsul**	**7.40**	**190**	P	Pn	00 51 10.9	+3.3
MHGZ				S	**S**	**00 52 34.2**	**+0.7**
MRHZ	**Matea Rd**	**7.40**	**199**	P	Pn	00 51 11.6	+3.8
WHHZ	**Waihua**	**7.44**	**194**	P	Pn	00 51 11.8	+3.7
WAIZ	**Wairara**	**7.50**	**203**	P	Pn	00 51 14.5	+5.6
NMHZ	**Naumai**	**7.55**	**196**	P	**Pn**	**00 51 11.9**	**+2.3**
RATZ	**Rangitukua**	**7.63**	**202**	P	Pn	00 51 15.3	+4.8
HIZ	**Hauiti**	**7.65**	**208**	P	Pn	00 51 15.3	+4.6
HIZ	**Hauiti**	**7.65**	**208**	P	Pn	00 51 17.3	+6.6
ARHZ	**Aropaoanui**	**7.67**	**195**	P	**Pn**	**00 51 12.7**	**+1.8**
BKZ	**Black Stump Fm**	**7.70**	**198**	P	**Pn**	**00 51 11.7**	**+0.4**
BKZ	**Black Stump Fm**	**7.70**	**198**	S	**S**	**00 52 37.0**	**-3.3**
BKZ	**Black Stump Fm**	**7.70**	**198**	P	**Pn**	**00 51 11.9**	**+0.6**
RITZ	**Rihia Road**	**7.70**	**202**	P	Pn	00 51 15.9	+4.5
NTVZ	**North Tongarir**	**7.87**	**202**	P	Pn	00 51 17.1	+3.6
TMVZ	**Te Maari**	**7.88**	**202**	P	Pn	00 51 17.4	+3.8
ETVZ	**East Tongariro**	**7.89**	**202**	P	Pn	00 51 17.7	+3.8
MCHZ	**McNeill Hill**	**7.91**	**196**	P	**Pn**	**00 51 16.6**	**+2.7**
WTVZ	**West Tongariro**	**7.91**	**203**	P	Pn	00 51 18.0	+4.0
TWVZ	**Taurewa**	**7.92**	**204**	P	Pn	00 51 18.5	+4.4
OTVZ	**Oturere**	**7.93**	**202**	P	**Pn**	**00 51 15.6**	**+1.3**
KWHZ	**Kaweka Forest**	**7.96**	**197**	P	**Pn**	**00 51 17.5**	**+3.0**
SNVZ	**South Ngauruho**	**7.96**	**202**	P	Pn	00 51 18.7	+4.0
NGZ	**Ngauruhoe**	**7.96**	**202**	P	Pn	00 51 19.1	+4.4
CKHZ	**Cape Kidnapper**	**8.03**	**193**	P	**Pn**	**00 51 16.9**	**+1.5**
TUVZ	**Tukino**	**8.03**	**202**	P	**Pn**	**00 51 18.9**	**+3.4**
FWVZ	**Far West T-bar**	**8.05**	**202**	P	**Pn**	**00 51 18.9**	**+3.0**
MAVZ	**Matarangi**	**8.06**	**202**	P	Pn	00 51 19.7	+3.6
WHVZ	**Whangaehu Hut**	**8.07**	**202**	P	**Pn**	**00 51 19.5**	**+3.4**
WNVZ	**Wahianoa**	**8.10**	**202**	P	**Pn**	**00 51 19.0**	**+2.5**
BHHZ	**Black Hill Sta**	**8.11**	**199**	P	**Pn**	**00 51 16.9**	**+0.5**
MOVZ	**Moawhango**	**8.13**	**201**	P	**Pn**	**00 51 18.8**	**+2.2**
KRHZ	**Kereru**	**8.18**	**197**	P	**Pn**	**00 51 17.7**	**+0.5**
KAHZ	**Kahuranaki**	**8.20**	**194**	P	**Pn**	**00 51 18.3**	**+0.7**
VRZ	**Vera Road**	**8.22**	**207**	P	**Pn**	**00 51 23.1**	**+5.5**
PXZ	**Pawanui**	**8.43**	**194**	P	**Pn**	**00 51 20.6**	**+0.3**
PNHZ	**Pukenui**	**8.47**	**197**	P	**Pn**	**00 51 20.3**	**-0.6**
WPHZ	**Waipukurau**	**8.56**	**196**	P	**Pn**	**00 51 24.1**	**+2.3**
PKE	**Pukeiti**	**8.59**	**210**	P	**P**	**00 51 29.8**	**+2.3**
TSZ	**Takapari Road**	**8.67**	**198**	P	**Pn**	**00 51 23.9**	**+0.6**
WAZ	**Wanganui**	**8.69**	**204**	P	**P**	**00 51 26.5**	**-2.1**
PRHZ	**Porangahau**	**8.71**	**195**	P	**Pn**	**00 51 24.0**	**+0.3**
DVHZ	**Dannevirke**	**8.85**	**197**	P	**Pn**	**00 51 26.7**	**+1.3**
ANWZ	**Angora Road**	**8.93**	**195**	P	**Pn**	**00 51 28.4**	**+2.1**
POWZ	**Post Office Ro**	**9.04**	**198**	P	**Pn**	**00 51 29.0**	**+1.3**
PRWZ	**Pori Road**	**9.14**	**197**	P	**Pn**	**00 51 30.6**	**+1.7**
BFZ	**Birch Farm**	**9.19**	**196**	P	**Pn**	**00 51 29.9**	**+0.3**
BFZ	**Birch Farm**	**9.19**	**196**	S	**S**	**00 53 05.7**	**-8.2**
BFZ	**Birch Farm**	**9.19**	**196**	P	**Pn**	**00 51 28.9**	**-0.7**
MRZ	**Mangatainoka R**	**9.34**	**199**	P	**Pn**	**00 51 30.2**	**-1.3**
TIWZ	**Tintock**	**9.37**	**197**	P	**Pn**	**00 51 32.6**	**+0.8**
CPWZ	**Castlepoint**	**9.42**	**195**	P	**Pn**	**00 51 34.1**	**+1.7**
HOWZ	**Holdsworth Sta**	**9.58**	**198**	P	**Pn**	**00 51 34.7**	**+0.3**
OGWZ	**Otaki Gorge**	**9.60**	**200**	P	**Pn**	**00 51 33.7**	**-0.9**
TMWZ	**Te Maipa**	**9.68**	**196**	P	**Pn**	**00 51 36.3**	**+0.7**
KIW	**Kapiti Island**	**9.72**	**201**	P	**Pn**	**00 51 35.8**	**-0.3**
MTW	**Mount Morrison**	**9.82**	**198**	P	**Pn**	**00 51 37.7**	**+0.4**
DUWZ	**D'Urville Isla**	**9.99**	**205**	P	**Pn**	**00 51 39.4**	**-0.1**
TRWZ	**Traveller**	**10.00**	**197**	P	**Pn**	**00 51 40.2**	**+0.6**
PAWZ	**Paruwai Farm**	**10.05**	**198**	P	**Pn**	**00 51 40.1**	**-0.1**
MSWZ	**Moikau Station**	**10.13**	**198**	P	**Pn**	**00 51 41.5**	**+0.4**
SNZO	**South Karori**	**10.19**	**201**	P	**Pn**	**00 51 42.2**	**+0.4**
SNZO	**South Karori**	**10.19**	**201**	S	**S**	**00 53 28.9**	**-7.6**
BHW	**Baring Head**	**10.23**	**200**	P	**Pn**	**00 51 42.3**	**-0.1**
TCW	**Tory Channel**	**10.24**	**203**	P	**Pn**	**00 51 42.2**	**-0.2**
PLWZ	**Palliser**	**10.28**	**198**	P	**Pn**	**00 51 42.6**	**-0.3**
TUWZ	**Tuamarina**	**10.54**	**203**	P	**Pn**	**00 51 45.7**	**-0.4**
NNZ	**Nelson**	**10.56**	**206**	P	**Pn**	**00 51 46.0**	**-0.3**
TKNZ	**Takaka Hill**	**10.56**	**208**	P	**Pn**	**00 51 46.9**	**+0.4**
QRZ	**Quartz Range**	**10.57**	**210**	P	**Pn**	**00 51 47.8**	**+1.3**
QRZ	**Quartz Range**	**10.57**	**210**	S	**S**	**00 53 41.0**	**-4.0**
QRZ	**Quartz Range**	**10.57**	**210**	P	**Pn**	**00 51 47.6**	**+1.1**
CMWZ	**Cape Campbell**	**10.74**	**202**	P	**Pn**	**00 51 49.7**	**+1.1**
KHZ	**Kahutara**	**11.56**	**203**	P	**Pn**	**00 51 57.6**	**-1.0**
KHZ	**Kahutara**	**11.56**	**203**	S	**S**	**00 54 00.7**	**-6.7**
RPZ	**Rata Peaks**	**13.58**	**207**	P	**P**	**00 52 22.3**	**-0.6**
	3.1nm,0.4s,baz=6.4,slow=5.7,SNR=9.0						
RPZ				S	S	00 54 42.4	-10
	11nm,0.7s,baz=116,slow=23,SNR=14						
RPZ	**Rata Peaks**	**13.58**	**207**	S	S	00 54 43.3	-9.5
MSVF	**Nonsavau**	**14.12**	**354**	P	**Pn**	**00 52 32.0**	**+2.3**
	6.3nm,0.5s,baz=227,slow=12,SNR=9.9						
OUENC	**Ouen Island, N**	**14.66**	**307**		**Pn**	**00 52 40.7**	**+4.7**
JCZ	**Jackson Bay**	**14.82**	**212**	P	**P**	**00 52 36.0**	**-0.6**
JCZ	**Jackson Bay**	**14.82**	**212**	S	**S**	**00 55 12.4**	**-6.1**
ODZ	**Otahua Downs**	**14.87**	**205**	P	**P**	**00 52 37.6**	**+0.6**
ODZ	**Otahua Downs**	**14.87**	**205**	S	S	00 55 09.8	-9.5
DZM	**Mont Dzumac**	**15.16**	**307**	P	**Pn**	**00 52 46.0**	**+3.9**
	31nm,0.7s,baz=165,slow=21,SNR=9.9						
CTAO	**Charters Tower**	**31.98**	**283**	P	**P**	**00 55 23.0**	**+2.6**
CTAO				IAmb	IAmb	00 55 23.7	
	comp=Z,6.6nm,0.7s						
STKA	**Stephens Creek**	**32.08**	**260**	P	**P**	**00 55 23.2**	**+2.0**
	comp=Z,3.8nm,0.5s,baz=98,slow=11,SNR=6.7						
	comp=Z,3.8nm,0.5s						
STKA	**Stephens Creek**	**32.08**	**260**	P	**P**	**00 55 22.9**	**+1.8**
BBOO	**Buckleboo**	**36.52**	**257**	P	**P**	**00 55 59.9**	**+0.8**
BBOO				IAmb	IAmb	00 56 00.1	
	comp=Z,9.2nm,0.5s						
ASAR	**Alice Springs**	**40.92**	**270**	P	**P**	**00 56 36.1**	**+0.6**
	comp=Z,2.4nm,0.4s,baz=106,slow=7.6,SNR=8.0						
ASAR				S	**S**	**01 02 20.6**	**-3.7**
	comp=Z,1.3nm,0.9s,baz=110,slow=16,SNR=5.3						
	comp=Z,2.4nm,0.4s						
WRA	**Warramunga Arr**	**42.05**	**275**	P	**P**	**00 56 45.1**	**+0.5**
	comp=Z,2.5nm,0.3s,baz=113,slow=7.9,SNR=12						
WRA				S	**S**	**01 02 37.9**	**-3.0**
	comp=Z,0.7nm,1.0s,baz=107,slow=16,SNR=4.8						
	comp=Z,2.5nm,0.3s						
WRA	**Warramunga Arr**	**42.05**	**275**	P	**P**	**00 56 45.2**	**+0.6**
WB0	**Warramunga Arr**	**42.08**	**275**	P	**P**	**00 56 45.3**	**+0.4**
QSPA	**South Pole Qui**	**58.26**	**180**	P	**P**	**00 58 43.8**	**-1.2**
	comp=Z,3.6nm,0.8s,baz=351,slow=1.7,SNR=23						
	comp=Z,3.6nm,0.8s						
QSPA	**South Pole Qui**	**58.26**	**180**	P	**P**	**00 58 42.4**	**-2.5**
QSPA				IAmb	IAmb	00 58 45.1	
	comp=Z,3.8nm,0.8s						
TROLL	**Troll, Antarti**	**76.40**	**181**	⇓P	**P**	**01 00 35.3**	**-2.6**
	comp=Z,54nm,0.4s						
VNA3	**Neumayer Olymp**	**76.99**	**177**	⇓P	**P**	**01 00 38.1**	**-2.9**
	comp=Z,3.4nm,0.3s						
VNA2	**Neumayer--Watz**	**77.39**	**178**	⇓P	**P**	**01 00 40.7**	**-2.6**
	comp=Z,2.5nm,0.4s,baz=186,slow=5.5						
VNA1	**Neumayer--Stat**	**77.64**	**177**	⇓P	**P**	**01 00 42.0**	**-2.5**
	comp=Z,2.9nm,0.7s						
PLCA	**Paso Flores**	**83.07**	**134**	P	**P**	**01 01 11.7**	**-2.3**
	comp=Z,1.9nm,0.8s,baz=223,slow=7.7,SNR=7.2						
	comp=Z,1.9nm,0.8s						
PLCA	**Paso Flores**	**83.07**	**134**	P	**P**	**01 01 10.9**	**-3.1**
PLCA				IAmb	IAmb	01 01 27.8	
	comp=Z,0.4nm,0.7s						
O02D	**Mt. Diablo Mer**	**89.38**	**40**		**P**	**01 01 44.1**	**-0.3**
O02D				IAmb	IAmb	01 01 44.9	
	comp=Z,7.8nm,1.0s						
K02D	**Willamette Mer**	**90.67**	**38**	P	**P**	**01 01 49.7**	**-0.5**
K02D				IAmb	IAmb	01 01 50.4	
	comp=Z,2.8nm,0.8s						
NVAR	**Mina Array Bea**	**90.77**	**44**	P	**P**	**01 01 46.5**	**-4.5**
	comp=Z,1.4nm,0.7s,baz=222,slow=8.1,SNR=10						
	comp=Z,1.4nm,0.7s						
NVAR	**Mina Array Bea**	**90.77**	**44**	P	**P**	**01 01 47.7**	**-3.3**
KVN	**Kaiserville**	**91.29**	**44**	P	**P**	**01 01 51.6**	**-1.8**
KVN				IAmb	IAmb	01 01 52.4	
	comp=Z,1.8nm,0.7s						
J04A	**Umpqua Nationa**	**91.87**	**39**	P	**P**	**01 01 54.6**	**-1.4**
MOD	**Modoc Plateau**	**91.93**	**40**	P	**P**	**01 01 55.0**	**-1.3**
MOD				IAmb	IAmb	01 01 55.5	
	comp=Z,3.0nm,0.7s						
K05A	**Summer Lake**	**92.17**	**40**	P	**P**	**01 01 56.5**	**-0.9**
K05A				IAmb	IAmb	01 01 56.5	
	comp=Z,4.1nm,0.9s						
WIFE	**Three Sisters-**	**92.58**	**38**	P	**P**	**01 01 57.7**	**-1.6**
WIFE				IAmb	IAmb	01 02 02.9	
	comp=Z,2.9nm,1.2s						
PINE	**Pine Mountain**	**92.87**	**39**		**P**	**01 01 59.8**	**-0.8**
PDAR	**Pinedale Array**	**98.67**	**45**	P	Pdif	01 02 22.2	-4.7
	comp=Z,0.3nm,0.6s,baz=172,slow=3.0,SNR=3.6						
	comp=Z,0.3nm,0.6s						
ILAR	**Eielson Array**	**99.83**	**14**	P	**Pdif**	**01 02 27.0**	**-4.3**
	comp=Z,0.1nm,0.4s,baz=212,slow=5.2,SNR=4.3						
	comp=Z,0.1nm,0.4s						
MKAR	**Makanchi Array**	**117.06**	**310**	PKP	**PKPdf**	**01 07 26.7**	**-3.9**
	comp=Z,0.2nm,0.5s,baz=185,slow=3.0,SNR=3.3						
ZALV	**Zalesovo Beam**	**117.69**	**318**	PKP	**PKPdf**	**01 07 27.3**	**-4.2**
	comp=Z,0.3nm,0.3s,baz=77,slow=2.5,SNR=2.1						
KURBB	**Kurchatov Arra**	**120.53**	**313**	PKP	**PKPdf**	**01 07 33.1**	**-4.0**
	comp=Z,0.4nm,0.4s,baz=117,slow=2.1,SNR=5.8						
BVAR	**Borovoye Array**	**125.93**	**315**	PKP	**PKPdf**	**01 07 44.4**	**-3.0**
	comp=Z,0.6nm,0.3s,baz=141,slow=1.0,SNR=4.9						
ARCES	**ARCESS Array B**	**139.52**	**346**	PKhKP	PKPpre	01 08 02.4	
	comp=Z,3.1nm,0.8s,baz=6.4,slow=1.7,SNR=7.3						
FINES	**FINESS Array B**	**145.72**	**338**	PKPbc	**PKPdf**	**01 08 21.6**	**-1.9**
	comp=Z,9.4nm,0.6s,baz=48,slow=4.4,SNR=52						
MMAI	**Mount Meron Ar**	**149.76**	**282**	PKPbc	**PKPbc**	**01 08 34.4**	**-1.9**
	comp=Z,0.4nm,0.4s,baz=44,slow=14,SNR=4.3						
NB201	**NORSAR Array S**	**149.78**	**349**	PKPbc	**PKPdf**	**01 08 32.3**	**+2.0**
NB2	**NORSAR Subarra**	**149.81**	**349**	PKP	**PKPdf**	**01 08 32.7**	**+2.3**
	comp=Z,1.8nm,0.5s,baz=17,slow=2.6						
NOA	**NORSAR Array B**	**149.81**	**349**	PKPbc	**PKPdf**	**01 08 32.7**	**+2.3**
	comp=Z,2.8nm,0.6s,baz=17,slow=4.2,SNR=9.1						
NBO00	**NORSAR Array S**	**149.89**	**349**	PKPbc	**PKPdf**	**01 08 32.8**	**+2.4**
NC602	**NORSAR Array S**	**150.04**	**348**	PKPbc	**PKPdf**	**01 08 33.1**	**+2.4**
HFS	**Hagfors**	**150.18**	**346**	PKPbc	**PKPdf**	**01 08 32.9**	**+2.0**
	comp=Z,4.1nm,0.7s,baz=112,slow=1.6,SNR=8.9						
PABE	**Paberze**	**150.76**	**331**	PKPbc	**PKPbc**	**01 08 35.4**	**-2.3**
AKASG	**Malin Array Be**	**151.07**	**319**	PKPbc	**PKPdf**	**01 08 35.6**	**+3.1**
	comp=Z,0.6nm,0.3s,baz=51,slow=3.0,SNR=4.7						
ILGA	**Ilgaz**	**151.14**	**298**	PKPbc	**PKPbc**	**01 08 37.2**	**-2.3**
BRTR	**Keskin Array B**	**151.34**	**296**	PKPbc	**PKPdf**	**01 08 36.7**	**+3.2**
	comp=Z,0.7nm,0.6s,baz=120,slow=2.0,SNR=4.4						
DBIC	**Dimbokro**	**154.62**	**170**	PKPbc	**PKPbc**	**01 08 44.3**	**-3.3**
	comp=Z,1.4nm,0.6s,baz=156,slow=3.8,SNR=3.3						
EKA	**Eskdalemuir Ar**	**156.45**	**4**	PKPab	**PKPab**	**01 09 07.5**	**-2.8**
	comp=Z,0.7nm,0.5s,baz=335,slow=3.7,SNR=3.8						

*IDC **03** 00:50:42.7±1.0,3°.39S×131°.23E,h0km,mb4.1/9, mbtmp4.2/13,ML4.0/4,MS3.3/4,Error ellipse: s-maj=33.7km s-min=12.7km az=95.0*
*NEIC **03** 00:50:44.4±1.3,3°.45S±0°.03×131°.07E±0°.06,h10km±1km, mb4.4/30,Error ellipse: s-maj=11.8km s-min=3.3km az=294.0*
*DJA **03** 00:50:46.3±0.4,3°S±2°×13°1E±°,h27km±4km,M4.4/17, mB5.5/2,mb4.5/5,MLv4.3/17,Mw(mB)5.0/2*

ISC 03 00:50:46.2±1.3,3°.46S±0°.05×131°.14E±0°.04,h29km±10km, n68,σ1$70/71,mb4.4/24,MS3.0/3,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**1.23**	**64**		**Pb**	**00 51 07.6**	**-1.4**
FAKI				Sn	**Sn**	**00 51 27.0**	**+3.8**
FAKI	**Fak Fak**	**1.23**	**64**	P	**Pb**	**00 51 07.9**	**-1.0**
FAKI				S	**Sn**	**00 51 24.3**	**+1.1**
BNDI	**Bandanaira**	**1.62**	**229**	P	**Pb**	**00 51 15.8**	**+0.3**
BNDI				S	**Sb**	**00 51 37.2**	**+1.7**
BNDI				AML	AML		
MSAI	**Masohi**	**2.21**	**273**	P	**Pn**	**00 51 21.0**	**+0.1**
MSAI				S	**Sn**	**00 51 48.0**	**+0.8**
MSAI				AML	AML		
KMPI	**Kaimana, Papua**	**2.57**	**95**	P	**Pn**	**00 51 26.7**	**+0.8**
KMPI				S	**Sn**	**00 51 57.3**	**+1.1**
KMPI				AML	AML		
SIJI	**Sorong**	**2.58**	**3**	Pn	**Pn**	**00 51 24.9**	**-1.1**
	13nm,0.3s,baz=247,slow=23,SNR=47						
SIJI				Sn	**Sn**	**00 51 55.1**	**-1.3**
	25nm,0.3s,baz=61,slow=3.0,SNR=10						
	34nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.58**	**3**	P	**Pn**	**00 51 24.1**	**-1.9**
SIJI				AML	AML		
MWPI	**Manokwari, Pap**	**3.84**	**49**	P	**Pn**	**00 51 41.7**	**-1.7**
SANI	**Sanana**	**5.33**	**285**	P	**Pn**	**00 52 03.7**	**-0.2**
	0.2nm18nm,0.5s						
SANI				AML	AML		
BAKI	**Biak**	**5.45**	**66**	P	**Pn**	**00 52 05.4**	**-0.2**
	0.4nm61nm,0.4s						
BAKI				AML	AML		
MTN	**Manton Dam**	**9.32**	**180**		**Pn**	**00 52 59.0**	**+0.2**
BATI	**Baumata**	**10.00**	**228**	Pn	**Pn**	**00 53 11.1**	**+3.1**
	4.9nm,0.3s,baz=184,slow=7.5,SNR=4.5						
BATI				LR	LR	00 57 24.7	
	comp=Z,237nm,20.5s,baz=43,slow=40						
	20nm,0.4s						
BATI				AML	AML		
MMRI	**Maumere**	**10.23**	**239**	Pn	**Pn**	**00 53 11.8**	**+0.6**
TOLI2	**Tolitoli**	**11.30**	**294**	Pn	**Pn**	**00 53 25.0**	**-0.9**
KNRA	**Kununurra**	**12.36**	**191**	Pn	**Pn**	**00 53 38.0**	**-2.4**
FITZ	**Fitzroy Crossi**	**15.51**	**200**	Pn	**Pn**	**00 54 19.4**	**-3.6**
	0.8nm,0.3s,baz=25,sl

D19K					IAmb	IAmb	01 03 31.3	
	comp=Z,3.8nm,1.1s							
J20K	**Nowinta River**	**86.48**	**25**	P	**P**		**01 03 27.8**	**+1.9**
J20K					IAmb	IAmb	01 03 28.8	
	comp=Z,3.3nm,1.2s							
D20K	**Etivluk River**	**86.83**	**20**	P	**P**		**01 03 28.7**	**+1.1**
D20K					IAmb	IAmb	01 03 29.8	
	comp=Z,3.8nm,1.1s							
ILAR	**Eielson Array**	**89.68**	**25**	P	**P**		**01 03 41.5**	**+0.2**
	comp=Z,0.3nm,0.5s,baz=269,slow=7.5,SNR=4.0							
ILAR				LR	LR		01 45 26.3	
	comp=Z,25nm,18.5s,baz=83,slow=37							
	comp=Z,0.3nm,0.5s							
BMAR	**Burnt Mountain**	**90.97**	**23**	P	**P**		**01 03 48.3**	**+1.0**
M27K	**Edge Creek, AK**	**91.64**	**28**	P	**P**		**01 03 52.1**	**+1.6**
BCAR	**Beaver Creek A**	**91.73**	**27**	P	**P**		**01 03 52.4**	**+1.5**
I27K	**Kandik River**	**91.98**	**25**	P	**P**		**01 03 53.2**	**+1.2**
I27K					IAmb	IAmb	01 04 01.5	
	comp=Z,3.0nm,1.2s							
O28M	**Mount Upton**	**92.34**	**29**	P	**P**		**01 03 55.5**	**+1.4**
I28M	**Miner Creek**	**92.67**	**25**	P	**P**		**01 03 56.6**	**+1.3**

*NNC **03** 01:02:47.0±0.6,42°.79N×78°.83E,h4km±3km,mb2.9, mpv2.9,Error ellipse: s-maj=5.0km s-min=2.1km az=170.0*
*KRNET **03** 01:02:47.8±0.1,42°.79N×78°.81E,h30km,mb2.6*
*SOME **03** 01:02:47.8,42°.80N×78°.78E,h10km*

ISC 03 01:02:48.2±1.0,42°.78N±0°.03×78°.76E±0°.02,h14km±8km, n42,σ0°.96/79,13C-13D,Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SATY	**Saty**	**0.38**	**317**	P	**Pg**	**01 02 56.1**	**+0.2**
	29nm,0.2s						
SATY				S	**Sg**	**01 03 01.9**	**+0.8**
	62nm,0.1s						
SATY	**Saty**	**0.38**	**317**	*e*P	**Pg**	**01 02 56.1**	**+0.2**
	29nm,0.2s						
SATY				*e*S	**Sg**	**01 03 01.9**	**+0.8**
	62nm,0.1s						
PRZ	**Przheval'sk**	**0.40**	**222**	⇓*e*P	**Pb**	**01 02 56.9**	**-0.3**
PRZ				⇓*i*S	**Sg**	**01 03 02.8**	**+1.2**
UZB	**Uzynbulak**	**0.42**	**28**	P	**Pg**	**01 02 55.9**	**-0.7**
	9.6nm,0.1s						
UZB				S	**Sg**	**01 03 01.9**	**-0.4**
	143nm,0.1s						
UZB	**Uzynbulak**	**0.42**	**28**	*e*P	**Pg**	**01 02 55.9**	**-0.7**
UZB				*e*S	**Sg**	**01 03 01.8**	**-0.4**
UZB	**Uzynbulak**	**0.42**	**28**	*e*P	**Pg**	**01 02 55.9**	**-0.7**
	9.6nm,0.1s						
UZB				*e*S	**Sg**	**01 03 01.9**	**-0.4**
	143nm,0.1s						
SHLS	**Shalkode**	**0.64**	**54**	P	**Pn**	**01 03 04.4**	**+1.3**
	10.0nm,0.1s						
SHLS				S	**Sn**	**01 03 16.2**	**+3.0**
	58nm,0.3s						
SHLS	**Shalkode**	**0.64**	**54**	*e*P	**Pn**	**01 03 04.3**	**+1.3**
	10.0nm,0.1s						
SHLS				*e*S	**Sn**	**01 03 16.2**	**+3.0**
	58nm,0.3s						
KPKS	**Kokpek**	**0.69**	**356**	P	**Pg**	**01 03 01.1**	**-0.5**
	0.2nm,0.1s						
KPKS				S	**Sg**	**01 03 10.7**	**-0.1**
	23nm,0.2s						
KPKS	**Kokpek**	**0.69**	**356**	*e*P	**Pg**	**01 03 01.1**	**-0.5**
	0.2nm,0.1s						
KPKS				*e*S	**Sg**	**01 03 10.7**	**-0.1**
	23nm,0.2s						
PDGK	**Podgornoye**	**0.77**	**44**	⇑P	**Pg**	**01 03 01.3**	**-1.8**
	2.0nm,0.1s						
PDGK				⇑S	**Sg**	**01 03 11.2**	**-2.1**
	4.6nm,0.3s						
ANVS	**Anan'yevo**	**0.80**	**271**	⇑*i*P	**Pg**	**01 03 03.7**	**-0.1**
ANVS				⇑*i*S	**Sg**	**01 03 15.2**	**+0.8**
KURS	**Kuram**	**0.83**	**329**	P	**Pg**	**01 03 03.9**	**-0.3**
	4.9nm,0.2s						
KURS				S	**Sg**	**01 03 15.3**	**+0.2**
	3.9nm,0.2s						
KURS	**Kuram**	**0.83**	**329**	*e*P	**Pg**	**01 03 03.9**	**-0.3**
	4.9nm,0.2s						
KURS				*e*S	**Sg**	**01 03 15.3**	**+0.2**
	3.9nm,0.2s						
TARG	**Taragay, Kyrgy**	**1.27**	**214**	⇑*i*P	**Pn**	**01 03 11.1**	**-0.8**
TARG				⇑*i*S	**Sb**	**01 03 28.6**	**+0.2**
KOTS	**Kotyrbulak**	**1.29**	**291**	P	**Pn**	**01 03 12.3**	**+0.3**
	3.2nm,0.1s						
KOTS				S	**Sb**	**01 03 29.6**	**+0.8**
	18nm,0.2s						
KOTS	**Kotyrbulak**	**1.29**	**291**	*e*P	**Pn**	**01 03 12.3**	**+0.3**
	3.2nm,0.1s						
KOTS				*e*S	**Sb**	**01 03 29.6**	**+0.8**
	18nm,0.2s						
MDOK	**Medeo**	**1.31**	**288**	Pg	**Pn**	**01 03 12.3**	**0.0**
	2.4nm,0.1s						
MDOK				Lg	Lg	01 03 30.5	
	9.6nm,0.3s						
MDOK	**Medeo**	**1.31**	**288**	*e*P	**Pn**	**01 03 12.3**	**0.0**
	2.4nm,0.1s						
MDOK				*e*S	**Sb**	**01 03 30.5**	**+1.0**
	9.6nm,0.3s						
TNSS	**Tian-Shan**	**1.35**	**282**	P	**Pn**	**01 03 13.2**	**+0.1**
	0.6nm,0.1s						
TNSS				S	**Sb**	**01 03 31.9**	**+1.0**
	1.1nm,0.3s						
TNSS	**Tian-Shan**	**1.35**	**282**	*e*P	**Pn**	**01 03 13.2**	**+0.1**
	0.6nm,0.1s						
TNSS				*e*S	**Sb**	**01 03 31.9**	**+1.0**
	1.1nm,0.3s						
ARXS	**Arharly**	**1.58**	**335**	P	**Pb**	**01 03 17.1**	**-0.3**
	1.9nm,0.1s						
ARXS				S	**Sg**	**01 03 38.3**	**-0.9**
	14nm,0.2s						
ARXS	**Arharly**	**1.58**	**335**	*e*P	**Pb**	**01 03 17.1**	**-0.3**
	1.9nm,0.1s						
ARXS				*e*S	**Sg**	**01 03 38.3**	**-0.9**
	14nm,0.2s						
DJR	**Jarkent**	**1.72**	**26**	P	**Pn**	**01 03 18.2**	**+0.3**
	4.9nm,0.2s						
DJR				S	**Sb**	**01 03 41.0**	**-0.3**
	9.1nm,0.3s						
DJR	**Jarkent**	**1.72**	**26**	*e*P	**Pn**	**01 03 18.2**	**+0.3**
	4.9nm,0.2s						
DJR				*e*S	**Sb**	**01 03 41.0**	**-0.3**
	9.1nm,0.3s						
KTBS	**Karatobe**	**1.78**	**302**	P	**Pb**	**01 03 20.1**	**-0.5**
	0.4nm,0.1s						
KTBS				S	**Sb**	**01 03 43.4**	**+0.6**
	12nm,0.2s						
KTBS	**Karatobe**	**1.78**	**302**	*e*P	**Pb**	**01 03 20.1**	**-0.5**
	0.4nm,0.1s						
KTBS				*e*S	**Sb**	**01 03 43.5**	**+0.6**
	12nm,0.2s						
ULHL	**Ulahol**	**1.93**	**255**	⇑*i*P	**Pn**	**01 03 20.5**	**-0.4**
ULHL				⇑*i*S	**Sn**	**01 03 44.5**	**-0.7**
KST	**Kastek**	**2.07**	**278**	Pg	**Pb**	**01 03 26.0**	**+0.4**
	1.7nm,0.3s						
KST				Lg	Lg	01 03 53.7	
	9.0nm,0.6s						
KST	**Kastek**	**2.07**	**278**	*e*P	**Pb**	**01 03 26.0**	**+0.4**
	1.7nm,0.3s						
KST				*e*S	**Sb**	**01 03 53.7**	**+2.5**
	9.0nm,0.6s						
BOOM	**Boomskoye usch**	**2.10**	**263**	⇑*i*P	**Pn**	**01 03 22.7**	**-0.4**
BOOM				⇑*i*S	**Sn**	**01 03 48.2**	**-0.9**
TKM2	**Tokmak 2**	**2.33**	**275**	⇓*i*P	**Pn**	**01 03 26.1**	**-0.2**
TKM2				⇓*i*S	**Sn**	**01 03 54.0**	**-0.9**
KRBS	**Karabastau**	**2.43**	**293**	Pg	**Pb**	**01 03 31.1**	**-0.6**
	0.8nm,0.3s						
KRBS				Lg	Lg	01 04 01.9	
	1.8nm,0.3s						
KRBS	**Karabastau**	**2.43**	**293**	*e*P	**Pb**	**01 03 31.1**	**-0.6**
	0.8nm,0.3s						
KRBS				*e*S	**Sb**	**01 04 01.9**	**+0.3**
	1.8nm,0.3s						
NRN	**Naryn**	**2.45**	**238**	⇓*e*P	**Pn**	**01 03 27.9**	**-0.2**
NRN				⇓*e*S	**Sn**	**01 03 57.6**	**-0.5**
KAPS	**Kapalarasan**	**2.54**	**10**	Pg	**Pb**	**01 03 33.5**	**-0.2**
	1.7nm,0.2s						
KAPS				Lg	Lg	01 04 05.9	
	17nm,0.1s						
KAPS	**Kapalarasan**	**2.54**	**10**	*e*P	**Pb**	**01 03 33.5**	**-0.2**
	1.7nm,0.2s						
KAPS				*e*S	**Sb**	**01 04 05.9**	**+1.0**
	17nm,0.1s						
KBK	**Karagaybulak**	**2.81**	**269**	⇓*e*P	**Pn**	**01 03 32.6**	**-0.3**
KBK				⇓*i*S	**Sn**	**01 04 05.4**	**-1.3**
AAK	**Ala-Archa**	**3.14**	**269**	⇓Pg	**Pb**	**01 03 46.4**	**+2.4**
	1.0nm,0.9s						
AAK				⇑Lg	Lg	01 04 28.2	
	1.3nm,0.6s						
AAK	**Ala-Archa**	**3.14**	**269**	⇑*i*P	**Pn**	**01 03 37.5**	**0.0**
AAK				⇑*i*S	**Sn**	**01 04 13.5**	**-1.4**
USP	**Ospenovka**	**3.16**	**280**	⇓*e*P	**Pn**	**01 03 37.3**	**-0.3**
USP				⇓*i*S	**Sn**	**01 04 13.8**	**-1.3**
UCH	**Uchtor**	**3.19**	**261**	⇓*e*P	**Pn**	**01 03 37.9**	**-0.4**
UCH				⇓*i*S	**Sn**	**01 04 14.6**	**-1.8**

MRB 03 01:03:42.7±0.4,42°.44N×0°.81E,h0km±3km,ML0.3/12, 1C-1D,Error ellipse: s-maj=1.6km s-min=1.0km az=93.0, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTRE	**Tremp**	**0.12**	**192**	⇑P	Pg	01 03 45.2	+0.2
CTRE				S	Sg	01 03 47.2	+0.7
	10nm,0.3s						
CTRE				AML	AML		
CSOR	**Sort**	**0.25**	**105**	⇓P	Pg	01 03 47.5	0.0
CSOR				S	Sg	01 03 51.5	+0.8
	5.2nm,0.2s						
CSOR				AML	AML		
CARA	**Val d'Aran**	**0.27**	**2**	P	Pg	01 03 48.3	+0.4
CARA				S	Sg	01 03 52.4	+1.0
	7.0nm,0.4s						
CARA				AML	AML		
CEST	**Esterri de Cor**	**0.37**	**64**	P	Pg	01 03 49.9	+0.2
CEST				S	Sg	01 03 55.3	+0.8
SALF	**Salau**	**0.43**	**41**	P	Pg	01 03 51.4	+0.5
SALF				S	Sg	01 03 57.9	+1.5
	1.2nm,0.1s						
SALF				AML	AML		
CORG	**Organya**	**0.43**	**119**	P	Pg	01 03 50.9	0.0
CORG				S	Sg	01 03 58.0	+1.5
RESF	**Ens**	**0.51**	**317**	P	Pg	01 03 52.9	+0.5
RESF				S	Sg	01 03 59.9	+1.0
ECHI	**Chisagues Biel**	**0.51**	**297**	P	Pg	01 03 52.5	+0.1
ECHI				S	Sg	01 03 59.9	+1.0
	2.0nm,0.2s						
ECHI				AML	AML		
ARBS	**La Rabassa**	**0.55**	**89**	P	Pg	01 03 53.5	+0.3
ARBS				S	Sg	01 04 01.1	+0.7
	1.3nm,0.3s						
ARBS				AML	AML		
PAND	**Andorre**	**0.55**	**81**	P	Pg	01 03 53.8	+0.5
PAND				S	Sg	01 04 02.1	+1.7
CAVN	**Les Avellanes**	**0.56**	**184**	P	Pg	01 03 53.9	+0.5
CAVN				S	Sg	01 04 02.0	+1.4
MLS	**Moulis**	**0.56**	**22**	P	Pg	01 03 53.7	+0.3
MLS				S	Sg	01 04 01.2	+0.5
	0.7nm,0.3s						
MLS				AML	AML		
CLLI	**Llivia**	**0.86**	**87**	P	Pg	01 03 59.5	+0.3
CLLI				S	Sb	01 04 11.8	-1.0
CBRU	**Bruguera**	**1.03**	**98**	S	Sb	01 04 16.7	-0.8
	0.5nm,0.2s						
CBRU				AML	AML		
CORI	**Orista**	**1.03**	**116**	P	Pg	01 04 02.3	-0.2
CORI				S	Sb	01 04 17.2	-0.4
	1.0nm,0.2s						
CORI				AML	AML		
EPOB	**Poblet**	**1.10**	**169**	P	Pg	01 04 03.6	-0.3
EPOB				S	Sb	01 04 19.1	-0.6
	1.1nm,0.1s						
EPOB				AML	AML		
CFON	**Fontmartina**	**1.39**	**119**	P	Pg	01 04 08.7	-0.6
CFON				S	Sb	01 04 27.9	0.0
CBEU	**Beuda**	**1.40**	**97**	P	Pg	01 04 08.8	-0.7
CBEU				S	Sb	01 04 28.3	+0.2
CCAS	**Cassa de la Se**	**1.66**	**109**	S	Sb	01 04 35.6	+0.1
	0.4nm,0.3s						
CCAS				AML	AML		
OSSF	**Osses**	**1.73**	**299**	S	Sn	01 04 37.1	+0.4
	0.8nm,0.3s						
OSSF				AML	AML		

STR 03 01:04:25.0±0.0,43°.1N±0°.2×0°.4W±0°.1,h9km,MLv0.5/6, LOCSAT earthModelID pyrenees_taup-2.11 preliminary, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REYF	**Montagne du Re**	**0.04**	**145**	Pg	Pg	01 04 26.8	-0.1
REYF				Sg	Sg	01 04 28.0	-0.3
ATE	**Arette**	**0.20**	**264**	Pg	Pg	01 04 29.0	-0.1
ATE				Sg	Sg	01 04 33.8	+1.8
CANF	**Canfranc**	**0.35**	**191**	Pg	Pg	01 04 31.7	-0.2
CANF				Sg	Sg	01 04 36.7	+0.2
LABF	**Labassere**	**0.37**	**99**	Pg	Pg	01 04 32.2	-0.1
LABF				Sg	Sg	01 04 37.1	-0.1
VIEF	**Viey**	**0.40**	**124**	Sg	Sg	01 04 37.4	-0.7

*ISK **03** 01:22:43.6,37°.93N×26°.93E,h19km,ML2.5/14*
*AFAD **03** 01:22:44.0,37°.90N×26°.89E,h7km±1km,ML1.9*

ISC 03 01:22:44.0±1.0,37°.93N±0°.04×26°.93E±0°.04,h17km±8km, n20,σ0°.40/27,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.13**	**344**	P	**Pb**	**01 22 47.8**	**-0.2**
DGB				IAML		01 22 50.0	
	comp=N,478nm,0.3s						
DGB				IAML		01 22 50.0	
	comp=E,757nm,0.1s						
DGB				S	**Sg**	**01 22 50.3**	**-0.1**
GMLD	**Gumuldur**	**0.15**	**356**	Pg	**Pb**	**01 22 48.3**	**-0.1**
GMLD				Sg	**Sb**	**01 22 51.3**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**103**	Pg	**Pg**	**01 22 50.3**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.30**	**360**	P	**Pg**	**01 22 50.6**	**+0.2**
BEYE				IAML		01 22 55.0	
	comp=N,209nm,0.3s						
BEYE				IAML		01 22 55.0	
	comp=E,219nm,0.2s						
BEYE				S	**Sb**	**01 22 55.4**	**-0.2**
GCAM	**G?zelcaml?**	**0.33**	**133**	P	**Pg**	**01 22 51.0**	**+0.1**
GCAM				IAML		01 22 56.0	
	comp=N,95nm,0.2s						
GCAM				IAML		01 22 56.0	
	comp=E,88nm,0.2s						
GCAM	**G?zelcaml?**	**0.33**	**133**	Pg	**Pb**	**01 22 51.3**	**-0.2**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.46**	**313**	P	**Pg**	**01 22 52.9**	**-0.3**
ZEYE				S	**Sb**	**01 22 59.9**	**-0.3**
ZEYE				IAML		01 23 00.0	
	comp=N,151nm,0.2s						
ZEYE				IAML		01 23 00.0	
	comp=E,113nm,0.2s						
BLCB	**Balcova**	**0.47**	**11**	Pg	**Pg**	**01 22 53.3**	**-0.1**
BLCB				Sg	**Sb**	**01 23 00.9**	**+0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.50**	**54**	P	**Pb**	**01 22 54.5**	**0.0**
DUVT				S	**Sb**	**01 23 01.7**	**+0.2**
DUVT				IAML		01 23 05.0	
	comp=E,194nm,0.3s						
KRBN	**Karaburun**	**0.73**	**336**	Pg	**Pb**	**01 22 58.6**	**+0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.73**	**355**	P	**Pn**	**01 22 59.5**	**-0.1**
BAGT				S	**Sb**	**01 23 09.6**	**+1.6**
BAGT				IAML		01 23 11.0	
	comp=N,46nm,0.6s						
BAGT				IAML		01 23 14.0	
	comp=E,52nm,0.9s						
AYDB	**Zeytinkoy-Aydi**	**0.76**	**88**	Pg	**Pg**	**01 22 58.8**	**-0.1**
AYDB				AML	AML		
FOCM	**Foa**	**0.80**	**349**	Pg	**Pg**	**01 22 59.4**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.83**	**304**	Pg	**Pb**	**01 23 00.2**	**+0.2**
CHOS				AML	AML		
BODT	**Bodrum**	**0.92**	**161**	Pg	**Pn**	**01 23 02.1**	**-0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.92**	**133**	Pg	**Pn**	**01 23 02.2**	**-0.1**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.08**	**88**	Pg	**Pb**	**01 23 04.3**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.10**	**45**	Pn	**Pb**	**01 23 04.3**	**-0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.14**	**359**	Pn	**Pb**	**01 23 05.0**	**-0.3**
DKL				AML	AML		
GORD	**Gordes-Manisa**	**1.39**	**45**	Pn	**Pn**	**01 23 08.4**	**-0.3**
GORD				AML	AML		

*IDC **03** 01:24:54.5±5.1,36°.65N×71°.53E,h179km±43km,mb3.4/6, mbtmp3.8/12,Error ellipse: s-maj=53.3km s-min=32.9km az=144.0*
*NEIC **03** 01:24:55.7±1.3,36°.77N±0°.07×71°.47E±0°.09,h185km±8km, mb4.4/18,Error ellipse: s-maj=10.7km s-min=9.5km az=78.0*
*NNC **03** 01:24:59.8±2.1,37°.06N×71°.31E,h170km±41km,mb2.8, mpv3.7,Error ellipse: s-maj=22.6km s-min=16.3km az=14.0*

ISC 03 01:24:54.7±0.6,36°.69N±0°.06×71°.65E±0°.06,h200km,n55, σ1°.69/56,mb4.0/14,2C-2D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRK	**Karamyk**	**2.79**	**2**		**Pn**	**01 25 41.8**	**-0.4**
KBL	**Kabul**	**3.02**	**225**		**Pn**	**01 25 42.8**	**-2.0**
NIL	**Nilore**	**3.30**	**156**		**Pn**	**01 25 50.1**	**+2.1**
BTK	**Batken**	**3.43**	**349**		**Pn**	**01 25 48.9**	**-0.6**
ARSB	**Arslanbob**	**4.74**	**12**		**Pn**	**01 26 05.5**	**-0.4**
ALCI	**Alchi Leh**	**5.15**	**117**	*i* P	**Pn**	**01 26 10.2**	**-1.2**
ALCI				*i* S	**Sn**	**01 27 07.7**	**-4.1**
ALCI				IAML		01 27 16.1	
	comp=N,66nm,0.6s						
DHRM	**DHARAMSHALA**	**5.86**	**138**	*i* P	Pn	01 26 09.6	-11
DHRM				*i* S	Sn	01 27 05.2	-23
DHRM				IAML		01 27 30.3	
	comp=N,200nm,0.3s						
AAK	**Ala-Archa**	**6.33**	**19**	P	**Pn**	**01 26 28.0**	**+1.7**
	comp=N,7.1nm,0.4s,baz=191,slow=8.8,SNR=13						
AAK				S	**Sn**	**01 27 36.7**	**-2.2**
	comp=N,9.8nm,0.6s,baz=323,slow=20,SNR=12						
AAK	**Ala-Archa**	**6.33**	**19**	⇑Pn	**Pn**	**01 26 27.7**	**+1.4**
	comp=N,1.4nm,0.4s						
AAK				⇑Sn	**Sn**	**01 27 37.6**	**-1.3**
	comp=N,7.2nm,0.6s						
AAK	**Ala-Archa**	**6.33**	**19**		**Pn**	**01 26 26.9**	**+0.6**
AAK					**Sn**	**01 27 36.5**	**-2.5**
KK31	**Karatay Array**	**6.46**	**353**	Pn	**Pn**	**01 26 27.5**	**-0.4**
	comp=N,4.6nm,0.2s,baz=172,slow=11,SNR=46						
KK31				⇓Sn	**Sn**	**01 27 36.7**	**-5.1**
	comp=N,12nm,0.6s,baz=171,slow=22,SNR=6.7						
KK31	**Karatay Array**	**6.46**	**353**		**Pn**	**01 26 27.7**	**-0.2**
KKAR	**Karatay Array**	**6.46**	**353**		**Pn**	**01 26 27.4**	**-0.5**
BOOM	**Boomskoye usch**	**6.67**	**28**		**Pn**	**01 26 31.7**	**+1.0**
SMLA	**Simla**	**7.20**	**139**	*i* P	Pn	01 26 27.3	-10
SMLA				*i* S	Sn	01 27 38.1	-21
WUS	**Wushi**	**7.42**	**50**		**Pn**	**01 26 41.8**	**+1.4**
KLP	**Kalpa**	**7.51**	**131**	*i* P	Pn	01 26 36.2	-5.7
KLP				*i* S	Sn	01 27 52.2	-15
KLP				IAML		01 28 09.0	
	comp=N,42nm,0.5s						
PRZ	**Przheval'sk**	**7.79**	**40**	Pn	**Pn**	**01 26 46.2**	**+1.0**
MKAR	**Makanchi Array**	**12.83**	**35**	P	**P**	**01 27 53.1**	**-0.3**
	comp=N,0.4nm,0.3s,baz=225,slow=15,SNR=4.6						
MKAR	**Makanchi Array**	**12.83**	**35**	Pn	**P**	**01 27 51.1**	**-2.3**
KURBB	**Kurchatov Arra**	**14.78**	**17**	P	**P**	**01 28 16.4**	**+1.5**
	comp=N,0.5nm,0.5s,baz=208,slow=11,SNR=5.7						
KURK	**Kurchatov**	**14.89**	**17**		**P**	**01 28 16.5**	**+0.4**
AB31	**Akbulak array**	**15.18**	**329**	⇓P	**P**	**01 28 19.7**	**+0.3**
	comp=N,0.5nm,0.3s,baz=142,slow=13,SNR=36						
AB31	**Akbulak array**	**15.18**	**329**		**P**	**01 28 18.9**	**-0.4**
ABKAR	**Akbulak array**	**15.18**	**329**	Pn	**P**	**01 28 16.4**	**-2.9**
EVN	**Everest**	**15.48**	**120**		**P**	**01 28 25.3**	**+1.7**
EVN				IAmb	IAmb	01 28 27.6	
	comp=Z,5.5nm,0.6s						
BVAR	**Borovoye Array**	**16.36**	**357**	P	**Pn**	**01 28 35.2**	**+2.1**
	comp=Z,0.5nm,0.5s,baz=170,slow=12,SNR=2.1						
AKTO	**Aktyubinsk**	**16.88**	**329**	P	**Pn**	**01 28 39.9**	**+0.5**
	comp=Z,1.0nm,0.3s,baz=150,slow=10.0,SNR=5.3						
AKTO				S	**S**	**01 31 40.5**	**-3.4**
	comp=Z,0.9nm,0.3s,baz=150,slow=20,SNR=1.2						
ZAA0	**Zalesovo Array**	**19.53**	**24**	P	**Pn**	**01 29 09.3**	**-1.2**
ZALV	**Zalesovo Beam**	**19.53**	**24**	P	**Pn**	**01 29 09.1**	**-1.4**
	comp=Z,0.9nm,0.5s,baz=217,slow=11,SNR=6.9						
ZALV	**Zalesovo Beam**	**19.53**	**24**	P	**Pn**	**01 29 08.7**	**-1.8**
ARTI	**Arti**	**21.64**	**340**	P	**P**	**01 29 29.4**	**+0.4**
ARTI				IAmb	IAmb	01 29 52.0	
	comp=Z,6.7nm,1.2s						
BRTR	**Keskin Array B**	**29.87**	**288**	P	P	01 30 45.5	+1.9
	comp=Z,0.4nm,0.6s,baz=79,slow=7.5,SNR=3.1						
	comp=Z,0.4nm,0.6s						
BRTR	**Keskin Array B**	**29.87**	**288**	P	**P**	**01 30 43.2**	**-0.4**
ARG	**Arkhangelos**	**34.79**	**283**	P	**P**	**01 31 27.4**	**+1.2**
BURAR	**Bucovina Array**	**35.62**	**303**	P	**P**	**01 31 34.4**	**+1.1**
KAAM	**Kaadhedhoo**	**36.04**	**178**	P	**P**	**01 31 39.5**	**+2.5**
FIA1	**FINESS Array S**	**37.62**	**326**	P	**P**	**01 31 51.2**	**+1.3**
FINES	**FINESS Array B**	**37.62**	**326**	P	**P**	**01 31 51.5**	**+1.7**
	comp=Z,3.7nm,0.9s,baz=105,slow=8.5,SNR=6.1						
	comp=Z,3.7nm,0.9s						
FINES	**FINESS Array B**	**37.62**	**326**	P	**P**	**01 31 51.3**	**+1.4**
MORC	**Moravsky Berou**	**40.67**	**306**	P	**P**	**01 32 16.0**	**+0.6**
KEV	**Kevo**	**40.82**	**338**	P	**P**	**01 32 18.2**	**+2.0**
KEV				IAmb	IAmb	01 32 38.3	
	comp=Z,36nm,1.2s						
TIP	**Timpagrande**	**42.81**	**291**	P	**P**	**01 32 31.7**	**-1.1**
TIP				IAmb	IAmb	01 33 01.2	
	comp=Z,6.2nm,1.2s						
HFS	**Hagfors**	**43.24**	**322**	P	**P**	**01 32 37.6**	**+1.8**
	comp=Z,1.7nm,0.5s,baz=99,slow=9.3,SNR=8.9						
	comp=Z,1.7nm,0.5s						
NC602	**NORSAR Array S**	**44.36**	**322**	P	**P**	**01 32 45.9**	**+1.1**
NC602				IAmb	IAmb	01 32 57.7	
	comp=Z,27nm,1.4s						
NB201	**NORSAR Array S**	**44.51**	**323**	P	**P**	**01 32 44.9**	**-1.1**
NB201				IAmb	IAmb	01 33 07.9	
	comp=Z,39nm,1.4s						
NOA	**NORSAR Array B**	**44.54**	**323**	P	**P**	**01 32 47.3**	**+1.0**
	comp=Z,0.5nm,0.4s,baz=97,slow=8.1,SNR=2.4						
	comp=Z,0.5nm,0.4s						
NC204	**NORSAR Array S**	**44.78**	**323**	P	**P**	**01 32 49.5**	**+1.3**
NC204				IAmb	IAmb	01 32 59.7	
	comp=Z,47nm,1.4s						
FUORN	**Ofenpass-Fuorn**	**45.87**	**303**	P	**P**	**01 32

comp=N,596nm,0.4s
GCAM G?zelcaml? 0.24 129 Pg **Pg** **01 28 33.6 -0.2**
GCAM Sg **Sg** **01 28 37.8 +0.8**
GCAM AML AML
BEYE izmir 0.38 351 P **Pg** **01 28 36.1 -0.4**
BEYE S **Sg** **01 28 41.6 +0.1**
BEYE IAML 01 28 42.0
comp=N,243nm,0.3s
BEYE IAML 01 28 42.0
comp=E,294nm,0.1s
DDIM Aydin, Didim 0.44 154 P **Pg** **01 28 37.5 0.0**
DDIM S **Sb** **01 28 44.2 -1.2**
DDIM IAML 01 28 45.0
comp=N,158nm,0.5s
DDIM IAML 01 28 48.0
comp=E,171nm,0.4s
DUVT Torbali 0.51 44 P **Pg** **01 28 38.7 -0.3**
DUVT S **Sg** **01 28 45.6 0.0**
DUVT IAML 01 28 50.0
comp=E,216nm,0.4s
BLCB Balcova 0.54 3 P **Pg** **01 28 38.9 -0.5**
BLCB S **Sg** **01 28 46.5 +0.1**
BLCB Balcova 0.54 3 Pg **Pg** **01 28 39.2 -0.2**
BLCB AML AML
ZEYE Izmir, Urla-Ze 0.55 315 P **Pg** **01 28 39.0 -0.7**
ZEYE S **Sg** **01 28 47.1 +0.1**
AYDB Zeytinkoy-Aydi 0.71 82 Pg **Pg** **01 28 42.2 -0.5**
AYDB AML AML
CESE eme 0.73 311 Pg **Pg** **01 28 43.2 +0.1**
CESE AML AML
YKAV Yalikavak-Bodr 0.76 163 Pg **Pg** **01 28 43.3 -0.3**
YKAV AML AML
BAGT Foa 0.81 352 P **Pg** **01 28 44.0 -0.7**
BAGT S **Sb** **01 28 56.6 +0.3**
BAGT IAML 01 28 58.0
comp=N,149nm,1.0s
BAGT IAML 01 28 58.0
comp=E,136nm,0.3s
KRBN Karaburun 0.82 335 Pg **Pg** **01 28 44.5 -0.3**
KRBN AML AML
BODT Bodrum 0.82 163 P **Pg** **01 28 44.2 -0.7**
BODT S **Sg** **01 28 55.6 -0.1**
BODT AML AML
BODT Bodrum 0.82 163 Pg **Pg** **01 28 44.8 -0.1**
BODT AML AML
MLSB Milas 0.83 132 Pg **Pg** **01 28 44.8 -0.2**
MLSB AML AML
FOCM Foa 0.89 346 Pg **Pg** **01 28 45.9 -0.2**
FOCM AML AML
CHOS Chios island 0.92 306 P **Pg** **01 28 46.5 -0.1**
CHOS S **Sb** **01 28 59.2 -0.2**
CHOS AML AML
CHOS Chios island 0.92 306 Pg **Pg** **01 28 46.7 0.0**
CHOS AML AML
KARB zmir-Karabur 0.93 330 P **Pg** **01 28 46.0 -1.0**
KARB S **Sg** **01 28 59.4 +0.3**
KARB IAML 01 29 01.0
comp=N,116nm,0.3s
KARB IAML 01 29 01.0
comp=E,105nm,0.2s
NAZL Nazilli-Aydin 1.03 83 Pg **Pb** **01 28 48.6 -0.4**
NAZL AML AML
GOMA Golmarmara-Man 1.12 40 Pn **Pg** **01 28 49.9 -0.6**
GOMA AML AML
AKS Akhisar 1.21 32 Pn **Pg** **01 28 51.7 -0.5**
AKS AML AML
DAT Datca 1.21 157 P **Pg** **01 28 51.1 -1.1**
DAT S **Sb** **01 29 08.2 +0.3**
DAT AML AML
DAT Datca 1.21 157 Pn **Pg** **01 28 51.8 -0.5**
DAT AML AML
DKL Dikili 1.22 357 Pn **Pg** **01 28 52.1 -0.3**
DKL AML AML
YER Yerkesik 1.25 125 P **Pg** **01 28 52.1 -0.8**
YER S **Sb** **01 29 08.9 +0.1**
YER Yerkesik 1.25 125 Pn **Pb** **01 28 52.6 -0.1**
YER AML AML
SOMA Soma-Manisa 1.37 18 Pn **Pb** **01 28 55.0 +0.2**
SOMA AML AML
GORD Gordes-Manisa 1.40 41 Pn **Pg** **01 28 55.2 -0.7**
GORD AML AML
APE Apeiranthos 1.41 237 P **Pn** **01 28 54.5 -0.3**
APE S **Sn** **01 29 14.4 +0.9**
APE AML AML
TURN Turunc 1.46 137 Pn **Pn** **01 28 55.9 +0.4**
TURN AML AML
PRK Paraskevi 1.51 338 P **Pn** **01 28 56.1 0.0**
PRK S **Sn** **01 29 15.6 -0.3**
DALY Dalyan (Mula) 1.67 128 Pn **Pb** **01 28 59.2 -0.7**
DALY AML AML
YAYO Edremit-Balk 1.76 2 Pn **Pn** **01 29 00.6 +1.0**
YAYO AML AML
ARG Arkhangelos 1.86 151 Pn **Pn** **01 29 01.8 +0.7**
ARG AML AML
APMY Acipayam-Deniz 1.86 101 Pn **Pn** **01 29 01.5 +0.3**
BALB Balikesir 1.91 21 Pn **Pn** **01 29 02.5 +0.7**
BALB AML AML
SIMA Simav-Kutahya 1.98 51 Pn **Pn** **01 29 03.5 +0.7**
SIMA AML AML
CAME Cameli-Denizli 2.04 116 Pn **Pn** **01 29 04.2 +0.5**
FETY Fethiye 2.06 126 Pn **Pn** **01 29 04.5 +0.7**
FETY AML AML

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*IDC **03** 01:50:59.7±0.6,0°.17N×97°.83E, h0km, mb4.6/23, mbtmp4.6/25, ML4.4/2, MS4.4/42, Error ellipse: s-maj=23.4km s-min=11.4km az=51.0*

*BJI **03** 01:50:59.7,0°.10N×97°.79E, h15km, mB5.2/26, mb4.8/58, Ms5.1/53, Ms7 4.9/51*

*MOS **03** 01:51:00.2±1.0,0°.17N×97°.87E, h17km, mb5.1/45, MS4.3/4, Error ellipse: s-maj=9.8km s-min=4.6km az=113.7*

*BKK **03** 01:51:01.6±0.8,0°.N±.8°×9°.8E±.1°7, h10km, M4.6/6, mB4.9/2, mb4.6/6, Mjma4.6/2, ML4.7/1, MLv4.6/1, Mw(mB)4.2/2*

*GFZ **03** 01:51:01.7±0.3,0°.N±.4°×9°.8E±.°, h10km, M4.8/25, mb5.0/25*

*DJA **03** 01:51:03.0±0.3,0°.N±.1°×9°.8E±.°, h17km±3km, M5.2/46, mB5.6/18, mb5.2/26, MLv5.2/46, Mw5.1/19, Mw(mB)5.1/18, MwMwp4.9/2, Mwp5.2/2*

*GFZ **03** 01:51:04.0,0°.13N×97°.83E, h25km, Mw4.9/29, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}2.11; $M_{\theta\theta}$-0.86; $M_{\phi\phi}$-1.25; $M_{r\theta}$1.63; $M_{r\phi}$1.24; $M_{\theta\phi}$-1.55; Fault plane solution: $M_0$3.16055×10^{16} NP1: ϕ_s135.12758°, δ67.81421°, λ86.43759°. NP2: ϕ_s324.48960°, δ22.45572°, λ98.66334°. Principal axes: T 3.0668, Plg66.9996°, Azm38.6713°; N 0.1798, Plg3.2984°, Azm136.4743°; P -3.2466, Plg22.7356°, Azm227.8581°;*

*NEIC **03** 01:51:05.2±1.3,0°.24N±.0°.05×97°.90E±.0°.08, h35km±1km, mb5.0/60, Mww4.9/10 Error ellipse: s-maj=15.1km s-min=5.3km az=245.0*

*GCMT **03** 01:51:05.2±0.3,0°.06N±.0°.02×97°.71E±.0°.02, h34km±1km, MW5.0/70, Moment Tensor Solution. s55,c72; s70,c106; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.52±.16; $M_{\theta\theta}$-1.84±.11; $M_{\phi\phi}$-1.68±.12; $M_{r\theta}$1.92±.13; $M_{\theta\phi}$1.77±.07; M_{0r}-2.24±.16; Best double couple: $M_0$4.59700×10^{16} NP1:ϕ_s310.00000°, δ25.00000°, λ83.00000°. NP2: ϕ_s137.00000°, δ65.00000°, λ93.00000°. Principal axes: T 4.5990, Plg70.0000°, Azm54.0000°; N -0.0030, Plg3.0000°, Azm316.0000°; P -4.5960, Plg20.0000°, Azm225.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 03 01:51:03.6±0.5,0°.12N±.0°.04×97°.75E±.0°.04, h28km±2km, h28km;pP-P,n483,σ1s59/470, mb4.9/149, MS4.6/64, 28C-29D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**0.56**	**108**	P	**Pb**	**01 51 13.8**		**-1.1**
PBSI				S	**Sb**	**01 51 22.8**		**+0.2**
PBSI				AML	AML			
GSI	**Gunungsitoli**	**1.19**	**351**	P	**Pn**	**01 51 24.1**		**-0.3**
GSI	**Gunungsitoli**	**1.19**	**351**	Pn	**Pn**	**01 51 24.1**		**-0.3**
GSI	**Gunungsitoli**	**1.19**	**351**	P	**Pn**	**01 51 24.2**		**-0.3**
GSI				S	**Sn**	**01 51 37.9**		**-1.7**
GSI	**Gunungsitoli**	**1.19**	**351**	P	**Pn**	**01 51 24.3**		**-0.1**
MNSI	**Mandailing Nat**	**1.95**	**70**	P	**Pn**	**01 51 33.9**		**-0.9**
MNSI				AML	AML			
TRSI	**Tarutung**	**2.24**	**33**	P	**Pn**	**01 51 37.7**		**-1.4**
TRSI				S	**Sn**	**01 52 04.4**		**-1.5**
TRSI				AML	AML			
SNSI	**Sinabang, Aceh**	**2.68**	**328**	P	**Pn**	**01 51 45.0**		**0.0**
PPI	**Padang Panjang**	**2.71**	**102**	P	**Pn**	**01 51 45.2**		**-0.1**
PPI				S	**Sn**	**01 52 18.2**		**+1.0**
RPSI	**Rantau Prapat**	**2.81**	**25**	Pn	**Pn**	**01 51 45.5**		**-1.3**
RPSI	**Rantau Prapat**	**2.81**	**25**	P	**Pn**	**01 51 46.4**		**-0.4**
PSI	**Prapat**	**2.91**	**24**	P	**Pn**	**01 51 46.7**		**-1.5**
PSI	**Prapat**	**2.91**	**24**	P	**Pn**	**01 51 45.5**		**-2.7**
PSI	**Prapat**	**2.91**	**24**	P	**Pn**	**01 51 46.1**		**-2.1**
TPTI		**3.17**	**350**	P	**Pn**	**01 51 50.5**		**-1.2**
BKNI	**Bangkinang**	**3.29**	**86**	P	**Pn**	**01 51 54.6**		**+1.2**
BKNI	**Bangkinang**	**3.29**	**86**		**Pn**	**01 51 51.7**		**-1.7**
BKNI	**Bangkinang**	**3.29**	**86**	P	**Pn**	**01 51 53.0**		**-0.4**
BKNI				AML	AML			
BKNI	**Bangkinang**	**3.29**	**86**	P	**Pn**	**01 51 55.0**		**+1.6**
KCSI	**Kotacane, Aceh**	**3.38**	**0**	P	**Pn**	**01 51 52.8**		**-1.8**
KCSI				AML	AML			
TSI	**Tuntungan**	**3.45**	**14**	P	**Pn**	**01 51 55.5**		**-0.1**
TSI				AML	AML			
KRJI	**Kerinci**	**4.31**	**121**	P	**Pn**	**01 52 08.8**		**+1.3**
MLSI	**Meulaboh, Aceh**	**4.33**	**342**	P	**Pn**	**01 52 07.2**		**-0.5**
MLSI				S	**Sn**	**01 52 57.6**		**+0.3**
MLSI				AML	AML			
IPM	**Ipoh**	**5.42**	**37**	P	**Pn**	**01 52 23.1**		**+0.4**
IPM	**Ipoh**	**5.42**	**37**		**Pn**	**01 52 22.0**		**-0.7**
IPM	**Ipoh**	**5.42**	**37**	P	**Pn**	**01 52 22.2**		**-0.5**
	1.1nm7μm2μm106nm,0.6s							
IPM				AML	AML			
IPM	**Ipoh**	**5.42**	**37**	P	**Pn**	**01 52 23.3**		**+0.5**
	comp=Z,106nm,0.6s							
MASI	**Maura Aman, Be**	**5.53**	**126**	P	**Pn**	**01 52 25.8**		**+1.5**
BSI	**Banda Aceh**	**5.88**	**335**	P	**Pn**	**01 52 27.8**		**-1.1**
	comp=Z,0.7nmcomp=Z,4μmcomp=Z,88nm,0.5s							
BSI				AML	AML			
KULM	**Kulim**	**5.89**	**29**	P	**Pn**	**01 52 28.7**		**-0.5**
KULM	**Kulim**	**5.89**	**29**		**Pn**	**01 52 27.6**		**-1.5**
KULM	**Kulim**	**5.89**	**29**	P	**Pn**	**01 52 27.4**		**-1.8**
	comp=Z,1.1nmcomp=Z,5μmcomp=Z,1μmcomp=Z,145nm,0.9s							
KULM				AML	AML			
KULM	**Kulim**	**5.89**	**29**	P	**Pn**	**01 52 28.7**		**-0.5**
	comp=Z,145nm,0.9s							
UBSI	**University, Be**	**5.94**	**131**	P	**Pn**	**01 52 30.2**		**+0.4**
KSI	**Kapahiang**	**6.12**	**128**	P	**Pn**	**01 52 32.9**		**+0.6**
	comp=Z,23μmcomp=Z,280nm,0.6s							
BTDF	**Bukit Timah Da**	**6.14**	**78**	P	**Pn**	**01 52 32.8**		**+0.2**
BTDF	**Bukit Timah Da**	**6.14**	**78**	P	**Pn**	**01 52 32.0**		**-0.6**
	comp=Z,34nm,0.6s							
MNAI	**Manna**	**6.84**	**131**		**Pn**	**01 52 42.3**		**0.0**
MNAI	**Manna**	**6.84**	**131**	P	**Pn**	**01 52 43.8**		**+1.5**
	comp=Z,9μmcomp=Z,332nm,0.8s							
DSRI	**Dabo**	**6.85**	**95**	P	**Pn**	**01 52 42.2**		**-0.1**
	comp=Z,0.6nmcomp=Z,30nm,0.5s							
DSRI				AML	AML			
LHSI	**Lahat**	**6.97**	**124**	P	**Pn**	**01 52 45.0**		**+1.0**
	comp=Z,0.9nmcomp=Z,4μmcomp=Z,189nm,1.0s							
LHSI				AML	AML			
MDSI	**Maura Dua**	**7.88**	**126**	P	**Pn**	**01 52 56.6**		**+0.1**
	comp=Z,0.5nmcomp=Z,1μmcomp=Z,157nm,0.8s							
MDSI				AML	AML			
LWLI	**Liwa**	**8.11**	**129**	P	**Pn**	**01 53 00.2**		**+0.5**
KASI	**Kota Agung**	**8.76**	**130**	P	**Pn**	**01 53 07.3**		**-1.3**
	comp=Z,106nm,0.9s							
LEM	**Lembang**	**12.02**	**125**	Pn	**Pn**	**01 53 54.8**		**+1.4**
	comp=Z,3.8nm,0.3s,baz=315,slow=20,SNR=1.6							
BBJI	**Bungbulang**	**12.42**	**128**	P	**Pn**	**01 53 58.7**		**0.0**
BBJI	**Bungbulang**	**12.42**	**128**		**Pn**	**01 53 56.4**		**-2.3**
BBJI	**Bungbulang**	**12.42**	**128**	P	**Pn**	**01 53 59.7**		**+1.0**
	comp=Z,31nm,0.8s							
BBJI	**Bungbulang**	**12.42**	**128**	P	**Pn**	**01 53 57.0**		**-1.7**
	comp=Z,30nm,0.8s							
SBUM	**Sibu**	**14.65**	**81**	P	**Pn**	**01 54 29.7**		**+0.6**
SBUM	**Sibu**	**14.65**	**81**		**Pn**	**01 54 28.3**		**-0.8**
SBUM	**Sibu**	**14.65**	**81**	P	**Pn**	**01 54 28.1**		**-1.0**
	comp=Z,21nm,0.8s							
SBUM	**Sibu**	**14.65**	**81**	P	**Pn**	**01 54 30.1**		**+1.0**
	comp=Z,21nm,0.8s							
CMAR	**Chiang Mai Arr**	**18.26**	**4**	P	**P**	**01 55 14.1**		**-1.1**
	comp=Z,1.8nm,0.3s,baz=194,slow=12,SNR=25							
CMAR				LR	LR	02 02 59.7		
	comp=Z,1μm,18.5s,baz=195,slow=40							
	comp=Z,6.4nm,0.5s							
CMAR				AML	AML			
CMAR	**Chiang Mai Arr**	**18.26**	**4**		**P**	**01 55 13.2**		**-1.9**
LAMP	**Lampang**	**18.38**	**6**	P	Pn	01 55 23.8		+7.2
PALK	**Pallekele**	**18.43**	**293**	P	**Pn**	**01 55 18.0**		**+0.8**
	comp=Z,0.2nm,0.3s,baz=94,slow=8.7,SNR=4.6							
PALK				LR	LR	02 01 50.5		
	comp=Z,2μm,18.6s,baz=110,slow=35							
	comp=Z,9.3nm,0.9s							
PALK				AML	AML			
PALK	**Pallekele**	**18.43**	**293**		**P**	**01 55 17.0**		**-0.1**
PALK	**Pallekele**	**18.43**	**293**	P	**Pn**	**01 55 18.6**		**+1.3**
CHTO	**Chiang Mai**	**18.61**	**4**	P	**P**	**01 55 19.1**		**+0.1**
CHTO	**Chiang Mai**	**18.61**	**4**	P	**P**	**01 55 16.8**		**-2.2**
CHTO				pmax	pmax			
	comp=Z,9.0nm,0.9s							
CHTO	**Chiang Mai**	**18.61**	**4**	P	**P**	**01 55 16.8**		**-2.2**
CHTO	**Chiang Mai**	**18.61**	**4**	P	**P**	**01 55 17.4**		**-1.6**
CHTO	**Chiang Mai**	**18.61**	**4**	P	**P**	**01 55 17.9**		**-1.1**
	comp=Z,10nm,0.9s							
KKM	**Kota Kinabalu**	**19.34**	**72**	P	**P**	**01 55 27.7**		**+0.5**
KKM	**Kota Kinabalu**	**19.34**	**72**	P	**P**	**01 55 26.7**		**-0.5**
KKM				IAmb	IAmb	01 55 29.2		
	comp=Z,42nm,0.6s							
KKM	**Kota Kinabalu**	**19.34**	**72**	P	**P**	**01 55 25.1**		**-2.2**
	comp=Z,64nm,0.7s							
NPW	**Naypyitaw**	**19.60**	**355**	P	**P**	**01 55 30.0**		**+0.2**
	comp=Z,21nm,1.0s							
SLVN	**Son La**	**21.92**	**16**	P	**P**	**01 55 54.3**		**-0.7**
SLVN	**Son La**	**21.92**	**16**		**P**	**01 55 52.2**		**-2.8**
SLVN	**Son La**	**21.92**	**16**	P	**P**	**01 55 54.1**		**-0.9**
	comp=Z,26nm,1.0s							
QIZ	**Qiongzhong**	**22.22**	**32**	P	**P**	**01 55 58.6**		**+0.4**
QIZ				S	**S**	**02 00 04.1**		**+2.6**
QIZ				pmax	pmax			
	comp=Z,430nm,3.8s							
QIZ				L	L			
	comp=Z,2μm,14.1s							
QIZ				L	L			
	comp=Z,1μm,15.8s							
QIZ				L	L			
	comp=Z,2μm,14.5s							
TRD	**Trivandrum**	**22.33**	**292**	*i* P	P	01 55 46.7		-13
TRD				*i* S	**S**	**01 59 56.7**		**-6.9**
VIS	**Vishakhapatnam**	**22.52**	**322**	*i* P	P	01 55 53.6		-7.8
SALM	**Salem**	**22.58**	**301**	*i* P	P	01 55 50.2		-12
BKSI	**Bulukumba**	**22.98**	**104**	P	P	01 56 20.5		+14
TOLI2	**Tolitoli**	**23.05**	**87**	P	**P**	**01 56 07.7**		**+0.7**
TOLI2	**Tolitoli**	**23.05**	**87**		**P**	**01 56 04.0**		**-3.0**
TOLI2	**Tolitoli**	**23.05**	**87**	P	**P**	**01 56 04.7**		**-2.4**
	comp=Z,17nm,0.7s							
BWNR	**Bhubaneshwar**	**23.17**	**330**	*i* P	P	01 56 01.1		-7.0
BWNR				*i* S	**S**	**02 00 19.7**		**+1.7**
VJD	**Vijayawada**	**23.45**	**315**	*i* P	P	01 56 01.2		-10
RAGD	**RAYAGADA**	**23.62**	**324**	*i* P	P	01 56 04.8		-7.8
CAL	**Calcutta**	**24.09**	**338**	*i* P	**P**	**01 56 11.4**		**-5.5**
MORE	**Moreh**	**24.20**	**352**	P	**P**	**01 56 15.8**		**-2.2**
MORE				IAmb	IAmb	01 56 39.1		
	comp=Z,34nm,1.0s							
AGT	**Agartala**	**24.45**	**345**	*i* P	P	01 56 13.2		-7.1
TNCH	**TengChong**	**24.77**	**2**	P	**P**	**01 56 23.9**		**+0.5**
TNCH				pmax	pmax			
	comp=Z,92nm,0.4s							
TNCH				L	L			
	comp=Z,1μm,12.5s							
TNCH				L	L			
	comp=Z,2μm,9.1s							
TNCH				L	L			
	comp=Z,3μm,18.5s							
IMP	**Imphal**	**24.84**	**352**	*i* P	**P**	**01 56 17.3**		**-6.6**
IMP				*i* S	**S**	**02 00 47.3**		**+2.2**
SILR	**SILCHAR**	**24.98**	**349**	*i* P	**P**	**01 56 19.2**		**-5.8**
KMI2	**Kunming**	**25.34**	**11**	⇑P	**P**	**01 56 29.0**		**+0.4**
KMI2				pP	pP	01 56 37.8		+1.0
KMI2				pmax	pmax			
	comp=Z,23nm,1.3s							
KMI2				pmax	pmax			
	comp=Z,260nm,6.5s							
KMI2				L	L			
	comp=Z,5μm,15.5s							
KMI2				L	L			
	comp=Z,2μm,13.3s							
KMI2				L	L			
	comp=Z,6μm,14.9s							
HYB	**Hyderabad**	**25.55**	**313**	*e*P	**P**	**01 56 31.2**		**+0.9**
HYB				*e*pP	**pP**	**01 56 39.7**		**+1.6**
HYB				IVmB_BB		01 56 43.1		
	comp=Z,188nm,1.6s							
HYB				*e*S	**S**	**02 00 57.0**		**+0.5**
HYB				IVMs_BB	IVMs_BB	02 05 50.9		
	comp=Z,314nm,20.4s							
HYB	**Hyderabad**	**25.55**	**313**	*i* P	P	01 56 20.9		-9.4
SHL	**Shillong**	**25.92**	**348**	P	**P**	**01 56 32.1**		**-1.7**
SHL	**Shillong**	**25.92**	**348**		**P**	**01 56 32.1**		**-1.7**
SHL	**Shillong**	**25.92**	**348**	*i* P	**P**	**01 56 27.6**		**-6.2**
BOK	**Bokaro**	**26.20**	**335**	*i* P	P	01 56 28.0		-8.2
BOK				*i* S	**S**	**02 01 07.8**		**+1.1**
H08S2	**Diego Garcia H**	**26.34**	**252**	T	T	02 23 59.2		
	baz=74,slow=75,SNR=2733							
H08S3	**Diego Garcia H**	**26.34**	**252**	T	T	02 24 01.1		
	baz=74,slow=75							
H08S1	**Diego Carcia H**	**26.36**	**252**	T	T	02 23 58.4		
	baz=74,slow=75,SNR=2010							
TEZP	**TEZPUR**	**26.77**	**350**	*i* P	P	01 56 33.7		-7.6
DHUB	**DHUBRI**	**26.81**	**344**	*i* P	**P**	**01 56 34.7**		**-6.9**
JMUI	**Jamui**	**27.07**	**337**	*i* P	**P**	**01 56 37.3**		**-6.6**
GAYA	**Gaya**	**27.37**	**335**	*i* P	**P**	**01 56 40.4**		**-6.2**
ZIRO	**ZIRO**	**27.50**	**352**	*i* P	**P**	**01 56 42.0**		**-6.1**
ZIRO				*i* S	**S**	**02 01 31.5**		**+4.0**
PASG	**PASIGHAT**	**27.88**	**355**	*i* P	**P**	**01 56 45.1**		**-6.0**
DAV	**Davao City (W)**	**28.60**	**75**	LR	LR	02 10 16.4		
	comp=Z,610nm,18.6s,baz=224,slow=41							
EVN	**Everest**	**29.60**	**340**		**P**	**01 57 06.7**		**-0.5**
EVN	**Everest**	**29.60**	**340**	P	**P**	**01 57 08.2**		**+1.0**
	comp=Z,18nm,1.6s							
CD2	**Chengdu**	**31.15**	**10**	P	**P**	**01 57 20.9**		**+0.7**
CD2				S	**S**	**02 02 25.6**		**+1.2**
CD2				pmax	pmax			
	comp=Z,30nm,0.7s							
CD2				pmax	pmax			
	comp=Z,180nm,4.7s							
CD2				L	L			
	comp=Z,5μm,14.3s							
CD2				L	L			
	comp=Z,4μm,14.7s							
CD2				L	L			
	comp=Z,7μm,13.9s							
FITZ	**Fitzroy Crossi**	**32.86**	**125**	P	**P**	**01 57 34.0**		**-1.4**
	comp=Z,1.9nm,1.3s							
FITZ	**Fitzroy Crossi**	**32.86**	**125**	P	**P**	**01 57 34.6**		**-0.8**
	comp=Z,3.9nm,0.6s,baz=300,slow=6.4,SNR=11							
	comp=Z,3.9nm,0.6s							
FITZ	**Fitzroy Crossi**	**32.86**	**125**	P	**P**	**01 57 34.3**		**-1.1**
SIJI	**Sorong**	**33.53**	**92**	LR	LR	02 14 08.3		
	comp=Z,248nm,18.9s,baz=234,slow=42							
WHN	**Wuhan**	**34.12**	**26**	P	**P**	**01 57 46.0**		**-0.2**
XAN	**Xi'an**	**35.33**	**16**	P	**P**	**01 57 55.5**		**-1.2**
XAN				pP	pP	01 58 02.0		-2.9
XAN				S	**S**	**02 03 27.9**		**-1.4**
XAN				pmax	pmax			
	comp=Z,56nm,0.9s							
XAN				L	L			
	comp=Z,2μm,15.8s							
XAN				L	L			
	comp=Z,2μm,15.8s							
XAN				L	L			
	comp=Z,4μm,16.5s							
XAN	**Xi'an**	**35.33**	**16**	P	**P**	**01 57 55.7**		**-1.0**
GOMU	**GeErMu**	**36.00**	**356**	P	**P**	**01 58 03.8**		**+1.1**
GOMU				pP	pP	01 58 07.2		-3.8
GOMU				sP	sP	01 58 11.5		-2.8
GOMU				S	**S**	**02 03 38.8**		**-1.3**
GOMU				pmax	pmax			
	comp=Z,3.0nm,1.1s							
GOMU				L	L			
	comp=Z,620nm,14.9s							
GOMU				L	L			
	comp=Z,570nm,14.3s							
LZDM	**Lanzhou Array**	**36.08**	**8**	P	**P**	**01 58 03.0**		**-0.3**
	comp=Z,4.7nm,0.5s,baz=188,slow=9.0,SNR=6.5							
	comp=Z,4.7nm,0.5s							
LZH	**Lanzhou**	**36.23**	**8**	*e*P	**P**	**01 58 04.3**		**-0.2**
LZH				sP	sP	01 58 18.8		+2.6
LZH				pmax	pmax			
	comp=Z,19nm,1.4s							
LZH				L	L			
	comp=Z,1μm,16.2s							
LZH				L	L			
	comp=Z,940nm,17.9s							
LZH				L	L			
	comp=Z,2μm,18.9s							
SMLA	**Simla**	**36.50**	**330**	*i* P	P	01 57 59.1		-7.5
SMLA				*i* S	**S**	**02 03 46.2**		**-1.0**
LYN	**LuoYang**	**36.92**	**20**	⇑P	**P**	**01 58 10.1**		**-0.1**
LYN				PP	**PnPn**	**01 59 39.8**		**+4.9**
LYN				S	S	02 04 02.1		+8.6
LYN				pmax	pmax			
	comp=Z,52nm,1.3s							
LYN				pmax	pmax			
	comp=Z,330nm,3.9s							
LYN				L	L			
	comp=Z,4μm,14.4s							
LYN				L	L			
	comp=Z,1μm,12.7s							
LYN				L	L			
	comp=Z,4μm,14.2s							
NJ2	**Nanjing**	**37.50**	**30**	*e*P	**P**	**01 58 16.5**		**+1.3**
NJ2				pmax	pmax			
	comp=Z,14nm,0.6s							
SSE	**Sheshan**	**37.99**	**34**	P	**P**	**01 58 18.7**		**-0.6**
SSE				S	**S**	**02 04 13.2**		**+3.4**
SSE				pmax	pmax			
	comp=Z,15nm,0.9s							
SSE				pmax	pmax			
	comp=Z,190nm,4.6s							
SSE				L	L			
	comp=Z,800nm,16.5s							
SSE				L	L			
	comp=Z,410nm,15.2s							
H01W3	**Cape Leeuwin H**	**38.05**	**158**	T	T	02 38 50.5		
	baz=334,slow=76,SNR=37							
H01W2	**Cape Leeuwin H**	**38.06**	**158**	T	T	02 38 36.5		
	baz=334,slow=76,SNR=26							
H01W1	**Cape Leeuwin H**	**38.06**	**158**	T	T	02 38 51.8		
	baz=334,slow=76,SNR=32							
GTA2	**Gaotai**	**39.22**	**2**	P	**P**	**01 58 29.4**		**-0.3**
GTA2				pP	sP	01 58 40.0		-1.4
GTA2				pmax	pmax			
	comp=Z,14nm,1.5s							
GTA2				pmax	pmax			
	comp=Z,190nm,7.3s							
GTA2				L	L			
	comp=Z,540nm,16.5s							
GTA2				L	L			
	comp=Z,570nm,13.3s							
GTA2				L	L			
	comp=Z,850nm,13.7s							
JOW	**Kunigami**	**39.59**	**45**	LR	LR	02 16 15.0		
	comp=Z,253nm,18.1s,baz=72,slow=38							
TIA	**Tai'an**	**40.17**	**25**	P	**P**	**01 58 38.4**		**+0.9**
TIA				pmax	pmax			
	comp=Z,10.0nm,0.4s							
HNS	**HongShan**	**40.27**	**21**	⇑P	**P**	**01 58 38.3**		**+0.1**
HNS				L	L			
	comp=Z,880nm,14.5s							
HNS				L	L			
	comp=Z,1μm,15.9s							
HNS				L	L			
	comp=Z,1μm,15.2s							
NIL	**Nilore**	**40.52**	**328**	P	**P**	**01 58 40.6**		**+0.2**
	comp=Z,16nm,0.6s							
WB0	**Warramunga Arr**	**40.98**	**121**	P	**P**	**01 58 42.3**		**-2.1**
WRA	**Warramunga Arr**	**41.00**	**121**	P	**

BTO2 Baotou 41.91 14 *e*P **P** **01 58 52.5 +0.6**
BTO2 pP **pP** **01 58 57.0 -3.3**
BTO2 sP sP 01 58 59.7 -4.0
BTO2 S **S** **02 05 11.1 +2.5**
BTO2 sS **pS** **02 05 18.7 +0.4**
BTO2 pmax pmax
comp=Z,45nm,1.6s
BTO2 pmax pmax
comp=Z,450nm,6.8s
BTO2 L L
comp=Z,5μm,15.2s
BTO2 L L
comp=Z,2μm,17.8s
BTO2 L L
comp=Z,5μm,14.6s
AS15 Alice Springs 42.30 126 P **P** **01 58 54.3 -1.0**
comp=Z,11nm,1.4s
ASAR Alice Springs 42.31 127 P **P** **01 58 55.0 -0.3**
comp=Z,4.5nm,0.6s,baz=300,slow=7.8,SNR=42
ASAR LR LR 02 18 27.0
comp=Z,620nm,20.7s,baz=310,slow=39
comp=Z,4.5nm,0.6s
ASAR Alice Springs 42.31 127 P **P** **01 58 54.6 -0.7**
AS31 Alice Springs 42.31 127 **P** **01 58 54.0 -1.3**
AS01 Alice Springs 42.35 126 P **P** **01 58 55.9 +0.2**
AS09 Alice Springs 42.36 127 P **P** **01 58 54.9 -0.8**
comp=Z,8.9nm,1.0s
AS17 Alice Springs 42.38 126 P **P** **01 58 54.1 -1.8**
comp=Z,9.2nm,0.7s
HHC Hu-ho-hao-te 42.44 16⇑ *i*P **P** **01 58 56.9 +0.7**
HHC pP pP 01 59 06.4 +1.8
HHC S **S** **02 05 16.4 +0.1**
HHC pmax pmax
comp=Z,18nm,1.1s
HHC pmax pmax
comp=Z,190nm,5.9s
HHC L L
comp=Z,2μm,15.4s
HHC L L
comp=Z,410nm,18.5s
HHC L L
comp=Z,2μm,15.5s
BJT Baijiatuau 43.12 21 P **P** **01 59 01.8 +0.3**
BJT Baijiatuau 43.12 21 P **P** **01 58 59.7 -1.9**
BJT pmax pmax
comp=Z,15nm,0.6s
BJT Baijiatuau 43.12 21 P **P** **01 58 59.6 -1.9**
BJT IAmb IAmb 01 59 03.6
comp=Z,15nm,0.6s
BJT Baijiatuau 43.12 21 P **P** **01 59 02.4 +0.8**
BJT pP **pP** **01 59 11.6 +1.7**
BJI2 Beijing 43.12 21 P **P** **01 59 02.6 +1.0**
BJI2 pP **pP** **01 59 11.2 +1.2**
BJI2 sP **sP** **01 59 14.4 +1.0**
BJI2 PP **PP** **02 00 43.9 +1.8**
BJI2 S **S** **02 05 27.4 +1.3**
BJI2 pmax pmax
comp=Z,11nm,0.6s
BJI2 pmax pmax
comp=Z,170nm,3.5s
BJI2 L L
comp=Z,510nm,14.7s
BJI2 L L
comp=Z,430nm,15.1s
BJI2 L L
comp=Z,430nm,15.8s
KSH2 Kashi 43.83 335 P **P** **01 59 07.7 +0.1**
KSH2 sP sP 01 59 23.0 +3.7
KSH2 pmax pmax
comp=Z,6.0nm,1.6s
KSH2 L L
comp=Z,730nm,17.5s
KSH2 L L
comp=Z,580nm,17.2s
KSH2 L L
comp=Z,330nm,20.3s
DL2 Dalian 44.38 27 *e*P **P** **01 59 12.2 +0.5**
DL2 *e*S **S** **02 05 46.6 +2.1**
DL2 pmax pmax
comp=Z,110nm,1.4s
DL2 pmax pmax
comp=Z,350nm,4.9s
DL2 L L
comp=Z,1μm,17.2s
DL2 L L
comp=Z,1μm,15.1s
DL2 L L
comp=Z,1μm,15.5s
WMQ Urumqi 44.43 350 *e*P **P** **01 59 13.0 +0.9**
WMQ pP sP 01 59 22.6 -1.2
WMQ PP **PP** **02 01 01.3 +5.2**
WMQ pmax pmax
comp=Z,24nm,0.7s
WMQ pmax pmax
comp=Z,220nm,4.3s
WMQ L L
comp=Z,490nm,14.3s
WMQ L L
comp=Z,690nm,17.7s
WMQ L L
comp=Z,420nm,22.1s
JNU Nakatsue 45.26 40 LR LR 02 18 09.0
comp=Z,679nm,21.2s,baz=236,slow=36
PRZ Przheval'sk 45.62 340 P **P** **01 59 23.0 +1.2**
PRZ Przheval'sk 45.62 340 P **P** **01 59 24.0 +2.1**
comp=Z,32nm,1.6s
DRK Karamyk 45.80 332 P **P** **01 59 24.2 +0.8**
DRK pmax pmax
comp=Z,68nm,1.0s
DRK Karamyk 45.80 332 P **P** **01 59 24.1 +0.8**
DRK Karamyk 45.80 332 P **P** **01 59 25.1 +1.8**
comp=Z,81nm,1.1s
SHLS Shalkode 45.87 341 *e*P **P** **01 59 24.0 +0.3**
SHLS pmax pmax
comp=Z,9.0nm,0.7s
SHLS Shalkode 45.87 341 *e*P **P** **01 59 24.1 +0.3**
comp=Z,9.3nm,0.7s
UZB Uzynbulak 46.01 341 *e*P **P** **01 59 26.0 +1.2**
UZB pmax pmax
comp=Z,12nm,1.1s
UZB Uzynbulak 46.01 341 *e*P **P** **01 59 26.1 +1.2**
comp=Z,12nm,1.1s
SATY Saty 46.13 340 *e*P **P** **01 59 27.1 +1.3**
SATY pmax pmax
comp=Z,12nm,1.3s
SATY Saty 46.13 340 *e*P **P** **01 59 27.1 +1.3**
comp=Z,12nm,1.3s
KPKS Kokpek 46.40 341 *e*P **P** **01 59 29.2 +1.4**
KPKS Kokpek 46.40 341 *e*P **P** **01 59 29.2 +1.4**
KSRS Korea Array 46.43 34 P **P** **01 59 27.1 -0.8**
comp=Z,8.2nm,0.7s,baz=222,slow=8.9,SNR=18
KSRS LR LR 02 20 36.2
comp=Z,650nm,18.4s,baz=215,slow=38
comp=Z,8.2nm,0.7s
KS19 Wonju Array Si 46.43 33 P **P** **01 59 27.1 -1.0**
KS19 IAmb IAmb 01 59 41.3
comp=Z,19nm,0.8s
XLT XiLinHaoTe 46.55 18 *e*P **P** **01 59 29.2 +0.2**
XLT sP pP 01 59 38.0 +0.5
XLT pmax pmax
comp=Z,11nm,0.8s
XLT L L
comp=Z,100nm,15.3s
XLT L L
comp=Z,570nm,12.8s
XLT L L
comp=Z,1μm,15.3s
TNSS Tian-Shan 46.62 339 *e*P **P** **01 59 30.9 +1.0**
TNSS Tian-Shan 46.62 339 *e*P **P** **01 59 30.9 +1.0**
MDOK Medeo 46.70 339 *e*P **P** **01 59 31.4 +1.2**
MDOK Medeo 46.70 339 *e*P **P** **01 59 31.4 +1.2**
BTK Batken 46.72 331 P **P** **01 59 30.7 +0.4**
BTK pmax pmax
comp=Z,65nm,1.4s
BTK Batken 46.72 331 **P** **01 59 30.7 +0.4**
BTK Batken 46.72 331 P **P** **01 59 32.1 +1.8**
comp=Z,27nm,1.6s
ARSB Arslanbob 46.74 334 P **P** **01 59 30.6 0.0**
ARSB pmax pmax
comp=Z,63nm,1.3s
ARSB Arslanbob 46.74 334 P **P** **01 59 30.6 0.0**
AAA Alma-Ata 46.78 339 *e*P **P** **01 59 32.2 +1.4**
AAA Alma-Ata 46.78 339 *e*P **P** **01 59 32.2 +1.4**
COEN Coen 47.09 109 P **P** **01 59 34.1 +0.6**
AAK Ala-Archa 47.20 337 LR LR 02 21 15.9
comp=Z,471nm,21.8s,baz=153,slow=38

AAK Ala-Archa 47.20 337⇓ *e*P **P** **01 59 36.1 +1.9**
AAK pmax pmax
comp=Z,23nm,1.9s
KUU Kurty 47.58 339 *e*P **P** **01 59 38.3 +1.4**
KUU pmax pmax
comp=Z,8.0nm,1.2s
KUU Kurty 47.58 339 *e*P **P** **01 59 38.4 +1.4**
comp=Z,7.9nm,1.2s
TRKS Terek-Say 47.73 333 P **P** **01 59 39.0 +0.7**
SONM Songino Array 48.11 8 P **P** **01 59 41.5 +0.3**
comp=Z,4.3nm,0.6s,baz=190,slow=11,SNR=19
SONM LR LR 02 22 55.7
comp=Z,923nm,19.1s,baz=188,slow=40
comp=Z,4.3nm,0.6s
SONM Songino Array 48.11 8 P **P** **01 59 40.3 -0.8**
SONM pmax pmax
comp=Z,14nm,1.2s
SONM Songino Array 48.11 8 **P** **01 59 40.3 -0.8**
SONM IAmb IAmb 01 59 42.3
comp=Z,14nm,1.2s
ULN Ulaanbaatar 48.24 8*c**e*P **P** **01 59 42.5 +0.4**
ULN pmax pmax
comp=Z,6.0nm,1.1s
ULN Ulaanbaatar 48.24 8 P **P** **01 59 40.9 -1.2**
ULN Ulaanbaatar 48.24 8 P **P** **01 59 42.5 +0.4**
comp=Z,8.8nm,1.2s
MK31 Makanchi Array 48.41 346*c i*P **P** **01 59 43.8 +0.4**
MKAR Makanchi Array 48.41 346 P **P** **01 59 44.0 +0.7**
comp=Z,16nm,0.5s,baz=158,slow=8.6,SNR=172
MKAR LR LR 02 23 29.6
comp=Z,243nm,18.6s,baz=126,slow=40
comp=Z,16nm,0.5s
MKAR Makanchi Array 48.41 346 P **P** **01 59 43.1 -0.2**
ZSN Zaisan 48.46 348 *e*P **P** **01 59 45.1 +1.4**
ZSN pmax pmax
comp=Z,14nm,1.1s
ZSN Zaisan 48.46 348 *e*P **P** **01 59 45.1 +1.4**
comp=Z,14nm,1.1s
MAKZ Makanchi 48.51 346 P **P** **01 59 44.1 +0.1**
MAKZ pmax pmax
comp=Z,14nm,0.8s
MAKZ Makanchi 48.51 346 P **P** **01 59 44.1 +0.1**
MAKZ IAmb IAmb 01 59 45.2
comp=Z,14nm,0.8s
MAKZ Makanchi 48.51 346 P **P** **01 59 44.5 +0.5**
MAKZ pP **pP** **01 59 53.6 +1.2**
KK31 Karatay Array 49.26 334 P **P** **01 59 48.9 -1.0**
KK31 pmax pmax
comp=Z,20nm,1.2s
KK31 Karatay Array 49.26 334 P **P** **01 59 48.9 -1.0**
KK31 IAmb IAmb 02 00 00.9
comp=Z,20nm,1.1s
KKAR Karatay Array 49.26 334 P **P** **01 59 48.4 -1.5**
KKAR Karatay Array 49.26 334 P **P** **01 59 48.4 -1.5**
INKA Innaminka 49.66 128 **P** **01 59 52.4 -0.7**
INKA IAmb IAmb 01 59 54.9
comp=Z,9.8nm,0.7s
PMG Port Moresby 50.08 102 P **P** **01 59 56.1 -0.5**
comp=Z,10.0nm,0.6s,baz=321,slow=6.6,SNR=4.2
comp=Z,10.0nm,0.6s
PMG Port Moresby 50.08 102*c**e*P **P** **01 59 55.5 -1.1**
PMG pmax pmax
comp=Z,10.0nm,0.8s
PMG Port Moresby 50.08 102 P **P** **01 59 55.2 -1.4**
PMG IAmb IAmb 01 59 58.0
comp=Z,14nm,0.9s
DGZ Jazzator, Alta 50.18 351*c**e*P **P** **01 59 57.9 +1.0**
DGZ pmax pmax
comp=Z,16nm,1.0s
ZAK Zakamensk 50.29 5 *e*P **P** **01 59 57.5 -0.2**
ZAK pmax pmax
comp=Z,9.0nm,1.8s
KNGR Kungurtug, Tuv 50.30 360⇓ *e*P **P** **01 59 59.6 +1.8**
KNGR pmax pmax
comp=Z,14nm,1.2s
HTT Hallett 51.07 135 P **P** **02 00 04.6 +0.8**
comp=Z,6.1nm,1.0s
HTT Hallett 51.07 135 P **P** **02 00 03.7 -0.2**
CTA Charters Tower 51.53 116 P **P** **02 00 07.0 -0.5**
comp=Z,8.5nm,0.8s,baz=273,slow=5.3,SNR=4.6
CTA LR LR 02 25 15.3
comp=Z,598nm,19.6s,baz=262,slow=40
comp=Z,8.5nm,0.8s
QLP Quilpie 52.00 125 P **P** **02 00 10.9 0.0**
comp=Z,39nm,1.1s
QLP Quilpie 52.00 125 P **P** **02 00 11.6 +0.8**
QLP Quilpie 52.00 125 P **P** **02 00 11.6 +0.8**
comp=Z,39nm,1.1s
MJAR Matsushiro Arr 52.12 41 LR LR 02 25 05.9
comp=Z,276nm,18.1s,baz=242,slow=39
STKA Stephens Creek 52.23 132 P **P** **02 00 12.8 +0.3**
comp=Z,68nm,1.6s
STKA Stephens Creek 52.23 132 P **P** **02 00 13.7 +1.2**
comp=Z,5.8nm,0.6s,baz=305,slow=6.1,SNR=14
STKA LR LR 02 24 16.5
comp=Z,622nm,21.6s,baz=290,slow=38
comp=Z,5.8nm,0.6s
STKA Stephens Creek 52.23 132 P **P** **02 00 12.9 +0.4**
STKA Stephens Creek 52.23 132 P **P** **02 00 11.6 -0.9**
STKA pmax pmax
comp=Z,274nm,2.0s
STKA Stephens Creek 52.23 132 P **P** **02 00 11.6 -0.9**
STKA Stephens Creek 52.23 132 P **P** **02 00 11.3 -1.1**
comp=Z,68nm,1.6s
BNX BinXian 52.40 26 ⇓P **P** **02 00 13.0 -0.5**
BNX pmax pmax
comp=Z,14nm,0.8s
KURBB Kurchatov Arra 52.91 345 P **P** **02 00 17.6 +0.5**
comp=Z,6.3nm,0.7s,baz=165,slow=6.9,SNR=34
KURBB LR LR 02 28 31.5
comp=Z,353nm,18.0s,baz=174,slow=43
comp=Z,6.3nm,0.7s
KURK Kurchatov 52.97 345*c i*P **P** **02 00 18.0 +0.4**
KURK pmax pmax
comp=Z,16nm,0.9s
KURK Kurchatov 52.97 345 P **P** **02 00 17.5 -0.1**
KURK IAmb IAmb 02 00 28.2
comp=Z,27nm,1.0s
KURK Kurchatov 52.97 345 P **P** **02 00 18.3 +0.8**
comp=Z,34nm,1.1s
KURK Kurchatov 52.97 345 P **P** **02 00 18.2 +0.6**
KURK pP **pP** **02 00 27.2 +1.1**
USA0B Ussuriysk Arra 53.41 30 P **P** **02 00 19.8 -1.2**
USA0B pmax pmax
comp=Z,19nm,0.8s
USA0B Ussuriysk Arra 53.41 30 **P** **02 00 19.8 -1.2**
USA0B IAmb IAmb 02 00 21.6
comp=Z,19nm,0.8s
USRK Ussuriysk Ar. 53.41 30 P **P** **02 00 20.9 -0.1**
comp=Z,17nm,0.7s,baz=230,slow=5.0,SNR=20
USRK LR LR 02 23 44.2
comp=Z,573nm,21.6s,baz=209,slow=37
comp=Z,17nm,0.7s
USRK Ussuriysk Ar. 53.41 30 **P** **02 00 20.0 -1.0**
ZAA0 Zalesovo Array 54.70 351 **P** **02 00 30.1 -0.1**
ZALV Zalesovo Beam 54.70 351 P **P** **02 00 30.5 +0.3**
comp=Z,17nm,0.6s,baz=168,slow=6.5,SNR=66
ZALV LR LR 02 29 50.8
comp=Z,241nm,18.2s,baz=182,slow=43
comp=Z,17nm,0.6s
ZALV Zalesovo Beam 54.70 351 **P** **02 00 29.6 -0.6**
CMSA Cobar Meteorol 55.19 129 P **P** **02 00 34.8 +0.6**
comp=Z,24nm,1.4s
CMSA Cobar Meteorol 55.19 129 P **P** **02 00 35.2 +1.1**
CMSA Cobar Meteorol 55.19 129 P **P** **02 00 35.3 +1.2**
comp=Z,24nm,1.4s
ATD Arta Tunnel 55.67 284 LR LR 02 21 27.8
comp=Z,8.4nm,18.8s,baz=73,slow=33
RAYN Ar Rayn 55.75 299 P **P** **02 00 39.3 +0.9**
RAYN pmax pmax
comp=Z,9.0nm,1.1s
RAYN Ar Rayn 55.75 299 **P** **02 00 39.2 +0.9**
RAYN Ar Rayn 55.75 299 P **P** **02 00 39.6 +1.2**
comp=Z,12nm,1.2s
RAYN Ar Rayn 55.75 299 P **P** **02 00 39.1 +0.7**
RAYN pP **pwP** **02 00 48.1 +1.3**
RK1H Rockhampton Ha 56.26 118 P **P** **02 00 43.1 +1.1**
KLR Kul'dur 56.97 26 LR LR 02 28 41.3
comp=Z,1μm,18.7s,baz=220,slow=40
KLR Kul'dur 56.97 26⇓ *e*P **P** **02 00 46.8 +0.2**
KLR pmax pmax
comp=Z,9.0nm,0.9s
BVAR Borovoye Array 57.44 341 P **P** **02 00 49.8 -0.1**
comp=Z,4.0nm,0.5s,baz=147,slow=8.8,SNR=27
comp=Z,4.0nm,0.5s
BORK Borovoye 57.48 341 P **P** **02 00 50.4 +0.3**

BORK pmax pmax
comp=Z,14nm,1.0s
BORK Borovoye 57.48 341 **P** **02 00 50.4 +0.3**
BORK IAmb IAmb 02 00 59.8
comp=Z,14nm,0.9s
AB31 Akbulak array 58.72 332 **P** **02 00 59.2 +0.4**
AB31 IAmb IAmb 02 01 08.8
comp=Z,20nm,1.1s
ABKAR Akbulak array 58.72 332 **P** **02 00 57.9 -1.0**
ASAJ Asahikawa 59.19 36 LR LR 02 27 06.3
comp=Z,264nm,19.8s,baz=261,slow=37
YSS Yuzhno-Sakhali 60.93 34 *e*P **P** **02 01 13.9 -0.2**
YSS MLR MLR
comp=Z,400nm,14.0s
H04N2 CROZET ISLANDS 61.20 215 T T 03 07 41.4
baz=56,slow=75,SNR=3585
H04N1 CROZET ISLANDS 61.21 215 T T 03 07 41.9
baz=56,slow=75,SNR=3702
H04N3 CROZET ISLANDS 61.22 215 T T 03 07 42.4
baz=56,slow=75,SNR=2962
H04S1 CROZET ISLANDS 61.53 214 T T 03 08 13.3
baz=55,slow=75,SNR=748
H04S3 CROZET ISLANDS 61.54 214 T T 03 08 12.8
baz=55,slow=75,SNR=946
H04S2 CROZET ISLANDS 61.55 214 T T 03 08 07.9
baz=55,slow=75,SNR=546
MAK Makhachkala 61.91 320 *e*P **P** **02 01 17.5 -3.3**
MAK *e*S **S** **02 09 38.7 -4.3**
MAK *e*SS **SS** **02 13 45.4 -0.2**
MAK pmax pmax
comp=Z,90nm,1.0s
HAKT HAKKARI 62.10 313 P **P** **02 01 22.4 -0.1**
comp=Z,34nm,2.4s
OZAP Van, Ozalp-Mer 62.34 315 ⇓P **P** **02 01 26.6 +2.5**
GNI Garni 62.45 316 LR LR 02 31 03.9
comp=Z,92nm,20.3s,baz=108,slow=38
GURO Guroymak-BITLI 63.71 314 P **P** **02 01 32.5 -0.6**
GURO IAmb IAmb 02 01 43.8
comp=Z,16nm,1.3s
SVE Sverdlovsk 63.89 338 *e*P P 02 01 42.5 +8.8
SVE pmax pmax
comp=Z,28nm,1.2s
ARTI Arti 64.42 337 LR LR 02 32 15.2
comp=Z,239nm,19.4s,baz=136,slow=38
ARTI Arti 64.42 337*d i*P **P** **02 01 36.3 -0.9**
ARTI 02 02 09.9
ARTI S **S** **02 10 15.2 +1.2**
ARTI SS **SS** **02 14 20.4 -4.1**
ARTI pmax pmax
comp=Z,13nm,1.5s
ARTI Arti 64.42 337 P **P** **02 01 35.8 -1.4**
ARTI IAmb IAmb 02 01 46.2
comp=Z,25nm,1.3s
ARTI Arti 64.42 337 P **P** **02 01 36.0 -1.2**
ARTI pP **pP** **02 01 45.3 -0.6**
NCK Nalchik 64.69 319⇓ *e*P **P** **02 01 40.6 +1.4**
NCK pmax pmax
comp=Z,3.0nm,1.1s
NEUR Neytrino 65.17 319⇓ *e*P **P** **02 01 43.9 +1.3**
NEUR pmax pmax
comp=Z,3.0nm,1.3s
KBZ Khabaz 65.24 319 P **P** **02 01 43.5 +0.7**
comp=Z,3.2nm,0.9s,baz=158,slow=7.6,SNR=6.1
comp=Z,3.2nm,0.9s
KBZ Khabaz 65.24 319⇓ *e*P **P** **02 01 43.2 +0.4**
KBZ pmax pmax
comp=Z,11nm,1.1s
SHA1 Shidzhatmaz 65.40 319⇑ *e*P **P** **02 01 44.8 +0.6**
KIV Kislovodsk 65.48 319 *e*P **P** **02 01 45.2 +0.7**
KIV pmax pmax
comp=Z,19nm,1.1s
KIV Kislovodsk 65.48 319 ⇑P **P** **02 01 46.5 +2.1**
KIV Kislovodsk 65.48 319 P **P** **02 01 44.8 +0.3**
comp=Z,19nm,1.3s
ASF Jabal al Asfar 65.53 306 LR LR 02 31 56.4
comp=Z,179nm,18.0s,baz=100,slow=38
YAK Yakutsk 66.30 16 LR LR 02 34 01.7
comp=Z,805nm,19.6s,baz=212,slow=39
EIL Elat 66.49 302 LR LR 02 31 32.5
comp=Z,1μm,18.1s,baz=100,slow=37
EIL Elat 66.49 302 P P 02 02 02.2 +11
comp=Z,23nm,1.4s
HRFI Mount Harif 66.51 303 P **P** **02 01 54.4 +3.1**
comp=Z,34nm,1.4s
HRFI P **pwP** **02 02 02.4 +2.3**
comp=Z,34nm,1.4s
HRFI Mount Harif 66.51 303 P **P** **02 01 53.5 +2.2**
comp=Z,34nm,1.4s
KEMA Kemaliye 66.54 313 P **P** **02 01 53.2 +1.9**
comp=Z,61nm,1.2s
GAZ Gaziantep 66.79 311 **P** **02 01 52.8 -0.2**
MMAI Mount Meron Ar 66.98 306 LR LR 02 33 13.0
comp=Z,272nm,18.2s,baz=105,slow=38
MBAR Mbarara 67.02 269 LR LR 02 26 00.3
comp=Z,154nm,20.0s,baz=90,slow=31
LABN Labinsk 67.05 319 *e*P **P** **02 01 54.2 -0.2**
LABN *e**PP pP 02 01 57.3 -5.8
LABN *e*S **S** **02 10 47.9 +1.4**
LABN pmax pmax
comp=Z,23nm,1.0s
SOC Sochi 67.28 318 *e*P P 02 01 44.0 -12
SOC *e* 02 04 28.3
SOC *e*S **S** **02 10 40.5 -8.9**
SOC pmax pmax
comp=Z,26nm,1.2s
SOC MLR MLR
comp=Z,115nm,16.0s
ERBR Yeremizino-Bor 67.64 320 *e*P **P** **02 01 57.4 -0.7**
ERBR *e**PP pP 02 02 01.8 -5.1
ERBR *e*S **S** **02 10 54.0 +0.4**
ERBR pmax pmax
comp=Z,9.0nm,0.9s
BNN Bunyan 68.34 312 P **P** **02 02 02.3 -0.6**
BNN IAmb IAmb 02 02 13.1
comp=Z,22nm,1.4s
ANN Anapa 69.27 319 *e*P **P** **02 02 07.2 -1.1**
ANN *e**PP pP 02 02 11.8 -5.2
ANN *e*S **S** **02 11 13.5 +0.6**
ANN pmax pmax
comp=Z,37nm,0.8s
VRH Novokhopyorsk 69.32 326 *e*P **P** **02 02 07.5 -1.0**
VRH pmax pmax
comp=Z,26nm,1.2s
NRIK Noril'sk 69.44 356 P **P** **02 02 08.6 -0.2**
comp=Z,2.7nm,0.3s,baz=166,slow=8.1,SNR=8.8
NRIK LR LR 02 35 43.6
comp=Z,265nm,19.2s,baz=175,slow=39
comp=Z,2.7nm,0.3s
NRIK Noril'sk 69.44 356 P **P** **02 02 08.2 -0.6**
NRIK IAmb IAmb 02 02 09.1
comp=Z,19nm,1.2s
KIRV Kirov 69.51 335 LR LR 02 35 05.6
comp=Z,247nm,20.4s,baz=134,slow=38
KIRV Kirov 69.51 335⇓ *e*P **P** **02 02 10.0 +0.5**
KIRS Kirsehir-Merke 69.86 312 ⇓P **P** **02 02 13.1 +0.9**
BR104 Keskin Array S 70.23 312 P **P** **02 02 14.2 -0.4**
comp=Z,63nmcomp=Z,5.6nm,1.4s
BR131 Keskin Array S 70.24 313⇑ *e*P **P** **02 02 14.5 -0.1**
BR131 Keskin Array S 70.24 313 P **P** **02 02 14.5 -0.1**
BR131 IAmb IAmb 02 02 24.1
comp=Z,26nm,1.6s
BRTR Keskin Array B 70.24 313 P **P** **02 02 14.5 -0.1**
comp=Z,1.4nm,0.8s,baz=128,slow=7.8,SNR=9.5
comp=Z,1.4nm,0.8s
BRTR Keskin Array B 70.24 313 *i* P **P** **02 02 14.1 -0.5**
BRTR pmax pmax
comp=Z,1.0nm,0.8s
BR105 Keskin Array S 70.25 312 P **P** **02 02 14.6 -0.1**
comp=Z,67nmcomp=Z,6.1nm,1.5s
BR106 Keskin Array S 70.26 313 P **P** **02 02 14.4 -0.3**
comp=Z,53nmcomp=Z,5.3nm,1.3s
VORD Divnogorie 70.58 325 *e*P P 02 02 11.4 -4.8
VORD pmax pmax
comp=Z,20nm,0.6s
MATP Matopo 70.64 248 LR LR 02 30 04.0
comp=Z,291nm,18.6s,baz=82,slow=33
VSR Storozhevoye 70.76 325 *e*P **P** **02 02 16.2 -1.1**
VSR pmax pmax
comp=Z,19nm,1.2s
VORR Voronezh 70.94 326 *e*P **P** **02 02 17.8 -0.6**
VORR pmax pmax
comp=Z,20nm,1.2s
KEPZ Antalya-Kepez 71.01 309 ⇓P **P** **02 02 20.4 +1.2**
LPSR Galich'ya Gora 71.49 327 *e*P **P** **02 02 20.1 -1.6**
LPSR pmax pmax
comp=Z,10.0nm,0.9s

MAW	**Mawson**	**71.80**	**193**	LR	LR	02 26 55.2	
	comp=Z,396nm,21.7s,baz=14,slow=30						
MA2	**Magadan**	**72.06**	**25**	LR	LR	02 36 16.9	
	comp=Z,400nm,18.9s,baz=258,slow=38						
MDUB	**Mudurnu**	**72.25**	**313**		**P**	**02 02 26.8**	**+0.1**
ELL	**Elmali**	**72.29**	**309**	P	**P**	**02 02 26.7**	**-0.3**
ELL				pmax	pmax		
	comp=Z,44nm,1.3s						
ELL	**Elmali**	**72.29**	**309**		**P**	**02 02 26.7**	**-0.3**
PETK	**Petropavlovsk-**	**72.33**	**33**	P	**P**	**02 02 26.7**	**-0.1**
	comp=Z,2.2nm,0.7s,baz=213,slow=7.1,SNR=1.4						
PETK				LR	LR	02 35 04.9	
	comp=Z,259nm,20.0s,baz=244,slow=37						
	comp=Z,2.2nm,0.7s						
PETK	**Petropavlovsk-**	**72.33**	**33**	P	**P**	**02 02 24.7**	**-2.1**
MOS	**Moscow**	**73.53**	**329**	*e*P	P	02 02 42.3	+8.5
MOS				pmax	pmax		
	comp=Z,30nm,1.0s						
YLV	**Yalova**	**73.62**	**312**	P	**P**	**02 02 35.2**	**+0.4**
	comp=Z,27nm,1.3s						
OBN	**Obninsk**	**73.82**	**328**	⇑*i*P	**P**	**02 02 35.2**	**-0.3**
OBN				*PP	pP	02 02 40.0	-4.3
OBN				*e*SP	**sP**	**02 02 44.5**	**-3.1**
OBN						02 02 51.0	
OBN						02 05 20.0	
OBN				*i*		02 12 49.6	
OBN				pmax	pmax		
	comp=Z,21nm,1.8s						
OBN				MLR	MLR		
	comp=Z,208nm,18.0s						
OBN	**Obninsk**	**73.82**	**328**	P	**P**	**02 02 35.1**	**-0.4**
	comp=Z,16nm,2.8s						
LBTB	**Lobatse**	**73.91**	**244**	LR	LR	02 31 53.2	
	comp=Z,344nm,18.0s,baz=88,slow=33						
TIXI	**Tiksi**	**74.15**	**10**	LR	LR	02 38 57.2	
	comp=Z,1μm,18.0s,baz=204,slow=39						
TIXI	**Tiksi**	**74.15**	**10**	⇑*e*P	**P**	**02 02 35.5**	**-1.6**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.0s						
TIXI	**Tiksi**	**74.15**	**10**		**P**	**02 02 36.3**	**-0.8**
TIXI				IAmb	IAmb	02 02 37.3	
	comp=Z,9.6nm,0.8s						
BOSA	**Boshof**	**74.72**	**240**	LR	LR	02 29 51.7	
	comp=Z,235nm,20.1s,baz=80,slow=31						
PURM	**Purcari**	**74.84**	**318**	P	**P**	**02 02 42.3**	**+0.7**
	comp=Z,25nm,0.6s						
KLMR	**Klimovskoe**	**74.96**	**334**	*e*P	**P**	**02 02 39.4**	**-2.6**
KLMR				pmax	pmax		
	comp=Z,27nm,1.4s						
TIRR	**Tirgusor**	**75.28**	**316**	P	**P**	**02 02 44.6**	**+0.4**
	comp=Z,9.6nm,1.3s						
CFR	**Carcaliu**	**75.65**	**317**	P	**P**	**02 02 47.0**	**+0.7**
CFR	**Carcaliu**	**75.65**	**317**	⇓P	**P**	**02 02 47.0**	**+0.7**
EZN	**Ezine**	**75.72**	**311**	P	**P**	**02 02 47.6**	**+0.8**
	comp=Z,5.9nm,1.2s						
IDI	**Anoyia**	**75.98**	**306**	LR	LR	02 39 18.0	
	comp=Z,127nm,20.5s,baz=13,slow=38						
ALN	**Alexandroupoli**	**76.15**	**312**	P	**P**	**02 02 48.9**	**-0.4**
ALN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ALN	**Alexandroupoli**	**76.15**	**312**		**P**	**02 02 48.9**	**-0.4**
ALN	**Alexandroupoli**	**76.15**	**312**	P	**P**	**02 02 50.0**	**+0.7**
	comp=Z,12nm,1.5s						
SORM	**Soroca**	**76.28**	**320**	P	**P**	**02 02 50.3**	**+0.5**
SORM	**Soroca**	**76.28**	**320**	⇓P	**P**	**02 02 50.4**	**+0.5**
SORM	**Soroca**	**76.28**	**320**	P	**P**	**02 02 49.7**	**-0.1**
	comp=Z,22nm,1.4s						
AK09	**Malin Array Si**	**76.38**	**322**	P	**P**	**02 02 50.7**	**+0.3**
AK10	**Malin Array Si**	**76.40**	**322**	P	**P**	**02 02 50.6**	**+0.1**
AK07	**Malin Array Si**	**76.41**	**322**	P	**P**	**02 02 50.9**	**+0.3**
AKASG	**Malin Array Be**	**76.44**	**323**	P	**P**	**02 02 50.7**	**0.0**
	comp=Z,0.6nm,0.4s,baz=87,slow=5.7,SNR=13						
AKASG				LR	LR	02 40 50.5	
	comp=Z,71nm,18.1s,baz=110,slow=39						
	comp=Z,0.6nm,0.4s						
AKASG	**Malin Array Be**	**76.44**	**323**	*i* P	**P**	**02 02 50.5**	**-0.2**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKBB	**Malin Array Si**	**76.44**	**323**	⇓*e*P	**P**	**02 02 50.7**	**0.0**
AKBB	**Malin Array Si**	**76.44**	**323**	P	**P**	**02 02 50.2**	**-0.5**
KIEV	**Kiev**	**76.45**	**322**	P	**P**	**02 02 49.5**	**-1.3**
KIEV				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KIEV	**Kiev**	**76.45**	**322**		**P**	**02 02 49.5**	**-1.3**
KIEV	**Kiev**	**76.45**	**322**	⇑P	**P**	**02 02 51.0**	**+0.3**
KIEV	**Kiev**	**76.45**	**322**	P	**P**	**02 02 50.2**	**-0.6**
	comp=Z,45nm,2.5s						
AK12	**Malin Array Si**	**76.47**	**322**	P	**P**	**02 02 50.9**	**0.0**
AK17	**Malin Array Si**	**76.54**	**322**	P	**P**	**02 02 51.1**	**-0.2**
BISRR	**Bisoca**	**76.72**	**317**	⇑P	**P**	**02 02 54.6**	**+2.1**
BISRR	**Bisoca**	**76.72**	**317**	P	**P**	**02 02 53.1**	**+0.6**
	comp=Z,4μmcomp=Z,29nm,1.2s						
VRI	**Vrincioaia**	**76.78**	**317**	P	**P**	**02 02 54.7**	**+1.9**
VRI	**Vrincioaia**	**76.78**	**317**	⇓P	**P**	**02 02 54.7**	**+1.9**
VRI	**Vrincioaia**	**76.78**	**317**	P	**P**	**02 02 53.2**	**+0.4**
	comp=Z,20nm,1.3s						
VRI	**Vrincioaia**	**76.78**	**317**	P	**P**	**02 02 52.5**	**-0.3**
	comp=Z,20nm,1.4s						
PLOR	**Plostina**	**76.83**	**317**	P	**P**	**02 02 54.6**	**+1.5**
PLOR	**Plostina**	**76.83**	**317**	⇑P	**P**	**02 02 54.7**	**+1.5**
TESR	**Tescani**	**76.98**	**318**	⇓P	**P**	**02 02 54.7**	**+0.7**
TESR	**Tescani**	**76.98**	**318**	P	**P**	**02 02 54.1**	**+0.2**
	comp=Z,31nm,1.6s						
COVR	**Voineasa-Covas**	**77.13**	**317**	⇑P	**P**	**02 02 55.7**	**+0.9**
LUBAR	**Lubar, Ukraine**	**77.13**	**321**	P	**P**	**02 02 53.9**	**-0.7**
MI29	**MI29, Kamyanyy**	**77.21**	**322**	P	**P**	**02 02 55.2**	**+0.2**
	comp=Z,91nm,1.0s						
MLR	**Muntele Rosu**	**77.22**	**317**	LR	LR	02 43 27.3	
	comp=Z,98nm,18.8s,baz=80,slow=41						
MLR	**Muntele Rosu**	**77.22**	**317**	P	**P**	**02 02 55.6**	**+0.1**
MLR				pmax	pmax		
	comp=Z,32nm,1.3s						
MLR	**Muntele Rosu**	**77.22**	**317**		**P**	**02 02 55.5**	**+0.1**
MLR				IAmb	IAmb	02 03 06.8	
	comp=Z,32nm,1.3s						
MLR	**Muntele Rosu**	**77.22**	**317**	⇑P	**P**	**02 02 57.1**	**+1.6**
MLR	**Muntele Rosu**	**77.22**	**317**	P	**P**	**02 02 55.9**	**+0.4**
	comp=Z,19nm,1.6s						
BIZ	**Bicaz**	**77.45**	**318**	⇓P	**P**	**02 02 56.7**	**+0.1**
PRAR	**TRASCA**	**77.47**	**319**	⇑P	**P**	**02 02 57.6**	**+1.0**
KMPD	**K-Podol'skiy**	**77.61**	**320**	P	**P**	**02 02 56.6**	**-0.7**
PLVB	**Pleven**	**77.70**	**314**	⇓P	**P**	**02 02 59.7**	**+1.7**
DOPR	**Dopca**	**77.71**	**317**	⇓P	**P**	**02 02 59.0**	**+0.9**
VOIR		**77.83**	**317**	P	**P**	**02 02 59.2**	**+0.4**
VOIR		**77.83**	**317**	⇑P	**P**	**02 02 59.2**	**+0.4**
VOIR		**77.83**	**317**	P	**P**	**02 02 58.5**	**-0.3**
	comp=Z,4.6nm,2.6s						
BURAR	**Bucovina Array**	**78.19**	**319**	P	**P**	**02 03 02.4**	**+1.6**
BURAR	**Bucovina Array**	**78.19**	**319**		**P**	**02 03 00.5**	**-0.3**
BURAR	**Bucovina Array**	**78.19**	**319**	⇓P	**P**	**02 03 02.4**	**+1.6**
BUR08	**Bucovina Ar. S**	**78.21**	**319**		**P**	**02 03 01.7**	**+0.8**
BUR08				IAmb	IAmb	02 03 12.1	
	comp=Z,41nm,1.6s						
MNK	**Minsk**	**78.32**	**326**	*i* P	**P**	**02 03 03.2**	**+2.0**
MNK				*i*		02 05 59.5	
MNK				*i* PPP	PPP	02 07 47.6	
MNK				*i* S	**S**	**02 12 59.3**	**+4.7**
MNK				*i* SS	**SS**	**02 17 56.6**	**-0.9**
MNK				pmax	pmax		
	comp=N,20nm,1.3s						
MNK				pmax	pmax		
	comp=E,17nm,0.9s						
MNK				pmax	pmax		
	comp=Z,8.0nm,0.6s						
MNK				MLR	MLR		
	comp=Z,86nm,19.0s						
MNK				MLR	MLR		
	comp=E,331nm,16.0s						
MNK				MLR	MLR		
	comp=N,291nm,17.0s						
MNK	**Minsk**	**78.32**	**326**	*i* P	**P**	**02 03 03.2**	**+2.0**
	comp=E,17nm,0.9s						
MNK				*i* P	**P**	**02 03 03.2**	**+2.0**
	comp=N,20nm,1.3s						
MNK				*i* P	**P**	**02 03 03.2**	**+2.0**
	comp=Z,8.0nm,0.6s,baz=106						
MNK				*i* PP	**PP**	**02 05 59.6**	**+1.2**
MNK				*i* PPP	PPP	02 07 47.7	
MNK				*i* S	**S**	**02 12 59.4**	**+4.7**
MNK				*i* SS	**SS**	**02 17 56.7**	**-0.9**
MNK				*i* SSS	SSS	02 21 27.6	
MNK				*i* LQ	LQ	02 32 31.6	
MNK				*i* LRM	MLR	02 39 56.0	
	comp=Z,86nm,18.7s						
MNK				*i* LRM	MLR	02 40 31.2	
	comp=E,331nm,15.6s						
MNK				*i* LRM	MLR	02 40 37.9	
	comp=N,291nm,17.0s						
RNPP5	**Staryi Chortor**	**78.62**	**322**	P	**P**	**02 03 03.0**	**+0.1**
RNPP9	**Sopachiv**	**78.66**	**323**	P	**P**	**02 03 03.3**	**+0.2**
RNPP8	**Varash**	**78.66**	**323**	P	**P**	**02 03 03.5**	**+0.4**
LIT	**Litokhoron**	**78.67**	**311**	P	**P**	**02 03 02.8**	**-0.7**
LIT				pmax	pmax		
	comp=Z,17nm,1.2s						
LIT	**Litokhoron**	**78.67**	**311**	P	**P**	**02 03 02.8**	**-0.7**
LIT				IAmb	IAmb	02 03 13.1	
	comp=Z,17nm,1.2s						
BLKB	**Belogradchik**	**79.14**	**314**	⇓P	**P**	**02 03 06.5**	**+0.5**
DEV	**Deva**	**79.39**	**317**	P	**P**	**02 03 08.1**	**+0.9**
DEV	**Deva**	**79.39**	**317**	⇓P	**P**	**02 03 08.1**	**+0.9**
MESR	**Meseseni**	**79.60**	**318**	⇑P	**P**	**02 03 10.0**	**+1.6**
DRGR		**79.69**	**318**	P	**P**	**02 03 09.4**	**+0.4**
DRGR		**79.69**	**318**	⇓P	**P**	**02 03 09.5**	**+0.4**
BOVS	**Bovan**	**79.83**	**314**	⇑P	**P**	**02 03 09.8**	**+0.1**
MDVR	**Moldovita**	**80.02**	**315**	⇑P	**P**	**02 03 11.8**	**+1.0**
BZS	**Buzias**	**80.23**	**316**	P	**P**	**02 03 12.4**	**+0.6**
BZS	**Buzias**	**80.23**	**316**	⇓P	**P**	**02 03 12.5**	**+0.6**
KWP	**Kalwaria Pacla**	**80.25**	**320**	*e*P	P	02 03 22.0	+10
SIRR	**Siria**	**80.31**	**317**	⇑P	**P**	**02 03 13.8**	**+1.6**
KOLS	**Kolonicke sedl**	**80.39**	**320**	*e*P	**P**	**02 03 14.8**	**+2.2**
KOLS				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KOLS	**Kolonicke sedl**	**80.39**	**320**	*e*P	**P**	**02 03 14.8**	**+2.2**
SUW	**Suwalki**	**80.87**	**325**	*e*P	P	02 03 22.8	+7.8
FINES	**FINESS Array B**	**81.20**	**333**	P	**P**	**02 03 17.1**	**+0.5**
	comp=Z,1.7nm,0.5s,baz=95,slow=5.8,SNR=18						
	comp=Z,1.7nm,0.5s						
FINES	**FINESS Array B**	**81.20**	**333**	P	**P**	**02 03 17.0**	**+0.3**
PDG	**Podgorica**	**81.43**	**313**		**P**	**02 03 18.1**	**-0.2**
PDG	**Podgorica**	**81.43**	**313**	⇑P	**P**	**02 03 18.9**	**+0.6**
NIE	**Niedzica**	**81.75**	**320**	*e*P	P	02 03 27.3	+7.4
OJC	**Ojcow**	**82.20**	**321**	*e*P	P	02 03 31.4	+9.2
OJC	**Ojcow**	**82.20**	**321**	P	**P**	**02 03 22.7**	**+0.5**
	comp=Z,9.1nm,1.7s						
MORH	**Mrgy, Hungar**	**82.37**	**317**	⇑P	**P**	**02 03 23.8**	**+0.7**
MORH	**Mrgy, Hungar**	**82.37**	**317**	P	**P**	**02 03 24.0**	**+0.9**
	comp=Z,4.9nm,1.9s						
TIP	**Timpagrande**	**82.94**	**309**	P	**P**	**02 03 27.0**	**+0.6**
	comp=Z,7.1nm,2.5s						
BLY	**Banja Luka**	**83.21**	**315**		**P**	**02 03 27.8**	**+0.3**
BLY				IAmb	IAmb	02 03 38.1	
	comp=Z,27nm,1.6s						
BLY	**Banja Luka**	**83.21**	**315**	⇓P	**P**	**02 03 28.6**	**+1.1**
MPLH	**Magyarpolny**	**83.25**	**317**	P	**P**	**02 03 28.5**	**+0.8**
	comp=Z,49nm,1.5s						
JAVC	**Velka Javorina**	**83.38**	**319**	*e*P	**P**	**02 03 29.6**	**+1.2**
JAVC				*e*		02 03 38.0	
MORC	**Moravsky Berou**	**83.58**	**320**	P	**P**	**02 03 30.5**	**+1.1**
MORC	**Moravsky Berou**	**83.58**	**320**	*e*P	**P**	**02 03 29.4**	**0.0**
MORC				*e*		02 03 38.9	
MORC	**Moravsky Berou**	**83.58**	**320**	⇓P	**P**	**02 03 30.5**	**+1.1**
ACER	**Acerenza**	**83.71**	**311**	P	**P**	**02 03 30.0**	**-0.3**
ARCES	**ARCESS Array B**	**83.73**	**340**	P	**P**	**02 03 30.6**	**+0.9**
	comp=Z,1.5nm,0.4s,baz=97,slow=5.1,SNR=17						
ARCES				LR	LR	02 44 56.2	
	comp=Z,173nm,18.6s,baz=110,slow=39						
	comp=Z,1.5nm,0.4s						
ARCES	**ARCESS Array B**	**83.73**	**340**	P	**P**	**02 03 30.2**	**+0.5**
ARCES				pmax	pmax		
	comp=Z,142nm,2.0s						
ARCES	**ARCESS Array B**	**83.73**	**340**	P	**P**	**02 03 30.2**	**+0.5**
KOGS	**Kog**	**84.05**	**317**	*i* P	**P**	**02 03 32.4**	**+0.6**
VRAC	**Vranov**	**84.14**	**319**	*e*P	**P**	**02 03 32.5**	**+0.3**
RONA	**Rosalia, Austr**	**84.15**	**318**	*e*P	**P**	**02 03 33.8**	**+1.4**
	comp=Z,0.8nm,0.8s						
KRUC	**Moravsky**	**84.24**	**319**	*e*P	**P**	**02 03 32.5**	**-0.2**
KRUC				*e*		02 03 40.2	
WINA	**Alland / Wiene**	**84.34**	**318**	*e*P	**P**	**02 03 34.0**	**+0.7**
	comp=Z,2.7nm,1.2s						
CONA	**Conrad Observa**	**84.47**	**318**	*e*P	**P**	**02 03 34.0**	**-0.1**
	comp=Z,3.1nm,1.2s						
KSP	**Ksiaz**	**84.50**	**321**	*e*P	P	02 03 43.7	+10
ARSA	**Arzberg**	**84.63**	**317**	P	**P**	**02 03 35.0**	**+0.2**
ARSA				IAmb	IAmb	02 03 46.2	
	comp=Z,16nm,1.4s						
ARSA	**Arzberg**	**84.63**	**317**	*e*P	**P**	**02 03 36.0**	**+1.2**
	comp=Z,5.7nm,1.1s						
BOJS	**Bojanci**	**84.65**	**316**	*i* P	**P**	**02 03 35.5**	**+0.7**
ABNA	**Allensteig Bun**	**84.83**	**319**	*e*P	**P**	**02 03 37.4**	**+1.7**
	comp=Z,5.5nm,1.4s						
SOKA	**Soboth**	**84.91**	**317**	*e*P	**P**	**02 03 36.7**	**+0.4**
	comp=Z,5.0nm,1.3s						
LJU	**Ljubljana**	**85.20**	**316**	*i* P	**P**	**02 03 38.5**	**+0.8**
OBKA	**Obir**	**85.22**	**317**	*e*P	**P**	**02 03 38.5**	**+0.6**
	comp=Z,1.4nm,0.9s						
SESA	**Seetaler Alpe,**	**85.26**	**317**	*e*P	**P**	**02 03 38.6**	**+0.4**
	comp=Z,5.3nm,1.3s						
ELIB	**Princess Elisa**	**85.31**	**198**	*d*P	**P**	**02 03 37.8**	**-0.1**
AQU	**L'Aquila**	**85.73**	**312**	P	**P**	**02 03 40.2**	**-0.3**
AQU				pmax	pmax		
	comp=Z,25nm,1.2s						
AQU	**L'Aquila**	**85.73**	**312**	P	**P**	**02 03 40.1**	**-0.3**
AQU	**L'Aquila**	**85.73**	**312**	P	**P**	**02 03 41.1**	**+0.6**
BIOA	**Bad Ischl, Aus**	**85.94**	**318**	*e*P	**P**	**02 03 41.5**	**+0.2**
	comp=Z,2.1nm,0.8s						
GEC2	**GERESS Array S**	**85.98**	**319**		**P**	**02 03 41.1**	**-0.6**
GEC2				IAmb	IAmb	02 03 52.9	
	comp=Z,16nm,1.3s						
GERES	**GERESS Array B**	**85.98**	**319**	P	**P**	**02 03 42.5**	**+0.9**
	comp=Z,1.9nm,1.0s,baz=108,slow=4.3,SNR=12						
	comp=Z,1.9nm,1.0s						
GERES	**GERESS Array B**	**85.98**	**319**	P	**P**	**02 03 41.7**	**+0.1**
BRG	**Berggiesshubel**	**85.99**	**321**	*e*P	P	02 03 51.6	+10
BRG				Amp		02 03 53.0	
	comp=Z,11nm,1.2s						
CLL	**Collm**	**86.61**	**321**	*e*P	**P**	**02 03 44.0**	**-0.5**
CLL	**Collm**	**86.61**	**321**	*e*P	**P**	**02 03 44.0**	**-0.5**
CLL				LQ	LQ	02 36 00.0	
CLL				AMS	AMS	02 44 00.0	
	comp=N,200nm,21.6s						
CLL				AMS	AMS	02 44 00.0	
	comp=E,200nm,23.1s						
CLL				AMS	AMS	02 51 00.0	
	comp=Z,200nm,18.1s						
ABTA	**Abfaltersbach**	**86.64**	**317**	*e*P	**P**	**02 03 45.2**	**+0.4**
	comp=Z,2.4nm,1.2s						
CTI	**Castel Tesino**	**87.20**	**316**	P	**P**	**02 03 47.5**	**-0.1**
CTI				pmax	pmax		
	comp=Z,22nm,1.6s						
CTI	**Castel Tesino**	**87.20**	**316**	P	**P**	**02 03 47.5**	**-0.1**
CTI				IAmb	IAmb	02 04 04.0	
	comp=Z,22nm,1.6s						
WTTA	**Wattenberg**	**87.27**	**317**	*e*P	**P**	**02 03 48.4**	**+0.3**
	comp=Z,3.0nm,1.0s						
SQTA	**Sankt Quirin**	**87.56**	**317**	*e*P	**P**	**02 03 50.0**	**+0.6**
	comp=Z,2.6nm,0.9s						
FETA	**Feichten**	**87.88**	**317**	*e*P	**P**	**02 03 51.9**	**+0.9**
	comp=Z,5.1nm,1.5s						
SPITS	**Spitsbergen Ar**	**88.11**	**348**	LR	LR	02 49 38.7	
	comp=Z,226nm,20.6s,baz=102,slow=40						
NOA	**NORSAR Array B**	**88.21**	**331**	LR	LR	02 47 13.0	
	comp=Z,87nm,20.4s,baz=90,slow=38						
QSPA	**South Pole Qui**	**90.07**	**180**	P	**P**	**02 04 02.6**	**+1.8**
	comp=Z,2.6nm,1.1s,baz=310,slow=4.6,SNR=4.3						
	comp=Z,2.6nm,1.1s						
QSPA	**South Pole Qui**	**90.07**	**180**	P	**P**	**02 04 01.9**	**+1.1**
D20K	**Etivluk River**	**95.53**	**21**		**P**	**02 04 25.0**	**-0.8**
F20K	**Avaraart Lake**	**96.29**	**22**	P	**P**	**02 04 28.7**	**-0.6**
F20K				IAmb	IAmb	02 04 39.2	
	comp=Z,5.3nm,1.0s						
H19K	**Roundabout Mou**	**96.40**	**24**	P	**P**	**02 04 29.6**	**-0.2**
H19K				IAmb	IAmb	02 04 40.8	
	comp=Z,8.2nm,1.1s						
G21K	**Allakaket**	**97.29**	**22**	P	**P**	**02 04 33.4**	**-0.4**
G21K				IAmb	IAmb	02 04 43.9	
	comp=Z,5.7nm,1.0s						
NVAR	**Mina Array Bea**	**129.32**	**37**	PKP	**PKPdf**	**02 10 10.4**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=260,slow=1.2,SNR=3.7						
PDAR	**Pinedale Array**	**130.76**	**26**	PKP	**PKPdf**	**02 10 13.2**	**+0.3**
	comp=Z,0.3nm,0.6s,baz=132,slow=2.2,SNR=3.6						
ANMO	**Albuquerque**	**138.42**	**31**	*c* PKIKP	**PKiKP**	**02 10 32.6**	**+3.1**
ANMO				pmax	pmax		
	comp=Z,14nm,2.5s						
MIAR	**Mount Ida**	**143.92**	**16**	PKIKP	**PKPdf**	**02 10 36.3**	**-0.7**
MIAR	**Mount Ida**	**143.92**	**16**		**PKPdf**	**02 10 36.3**	**-0.7**
TX31	**Lajitas Ar. Si**	**144.28**	**33**		**PKPab**	**02 10 36.0**	**+0.2**
TXAR	**Lajitas Array**	**144.28**	**33**	PKP	PKPbc	02 10 36.9	+0.8
	comp=Z,2.4nm,0.5s,baz=213,slow=0.2,SNR=82						
TXAR	**Lajitas Array**	**144.28**	**33**		**PKPab**	**02 10 36.0**	**+0.2**
CPUP	**Villa Florida**	**144.57**	**221**	PKP	**PKPdf**	**02 10 38.5**	**+0.1**
	comp=Z,4.1nm,1.0s,baz=81,slow=3.7,SNR=10.0						
CPUP	**Villa Florida**	**144.57**	**221**		PKPbc	02 10 37.2	+0.1
SAND	**Sanderson**	**144.60**	**31**		**PKPab**	**02 10 36.8**	**-0.1**
BRDY	**Brady**	**144.96**	**25**		**PKPab**	**02 10 37.9**	**-0.2**

*NNC **03** 02:00:28.8±0.6, 43.36N×78.08E, h14km±5km, mb3.4, mpv3.3, Error ellipse: s-maj=7.5km s-min=3.5km az=4.0*
*KRNET **03** 02:00:30.8±0.1, 43.37N×77.87E, h23km, mb2.7*
*SOME **03** 02:00:30.6, 43.40N×78.02E, h15km*
ISC 03 02:00:28.8±1.1, 43.41N±0.02×78.00E±0.02, h4km±10km, n39,σ1s31/73, 20C-6D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		h m s	
SATY	**Saty**	**0.46**	**139**	P	**Pb**	**02 00 38.4**	**-1.1**
	70nm,0.1s						
SATY				S	**Sg**	**02 00 44.2**	**+0.7**
	493nm,0.1s						
SATY	**Saty**	**0.46**	**139**	*e*P	**Pb**	**02 00 38.4**	**-1.1**
	70nm,0.1s						
SATY				*e*S	**Sg**	**02 00 44.2**	**+0.7**
	493nm,0.1s						
KPKS	**Kokpek**	**0.50**	**83**	P	**Pb**	**02 00 39.4**	**-0.8**
	0.3nm,0.1s						
KPKS				S	**Sg**	**02 00 45.7**	**+0.7**
	137nm,0.2s						
KPKS	**Kokpek**	**0.50**	**83**	*e*P	**Pb**	**02 00 39.4**	**-0.8**
	0.3nm,0.1s						
KPKS				*e*S	**Sg**	**02 00 45.6**	**+0.7**
	137nm,0.2s						
ANVS	**Anan'yevo**	**0.67**	**202**	⇑*e*P	**Pb**	**02 00 42.6**	**-0.6**
ANVS				⇑*i*S	**Sg**	**02 00 51.3**	**+1.0**
MDOK	**Medeo**	**0.74**	**251**	Pg	**Pb**	**02 00 44.4**	**+0.1**
	14nm,0.1s						
MDOK				Lg	Lg	02 00 54.3	
	17nm,0.3s						
MDOK	**Medeo**	**0.74**	**251**	*e*P	**Pb**	**02 00 44.4**	**+0.1**
	14nm,0.1s						
MDOK				*e*S	**Sb**	**02 00 54.3**	**-0.5**
	17nm,0.3s						
UZB	**Uzynbulak**	**0.79**	**109**	P	**Pb**	**02 00 44.2**	**-0.9**
	6.3nm,0.1s						
UZB				S	**Sg**	**02 00 53.8**	**-0.3**
	65nm,0.1s						
UZB	**Uzynbulak**	**0.79**	**109**	*e*P	**Pb**	**02 00 44.2**	**-0.9**
	6.3nm,0.1s						
UZB				*e*S	**Sg**	**02 00 53.9**	**-0.3**
	65nm,0.1s						
ARXS	**Arharly**	**0.82**	**351**	P	**Pn**	**02 00 46.1**	**-1.1**
	19nm,0.1s						
ARXS				S	**Sb**	**02 00 57.4**	**+0.3**
	53nm,0.1s						
ARXS	**Arharly**	**0.82**	**351**	*e*P	**Pn**	**02 00 46.1**	**-1.1**
	19nm,0.1s						
ARXS				*e*S	**Sb**	**02 00 57.4**	**+0.3**
	53nm,0.1s						
TNSS	**Tian-Shan**	**0.85**	**245**	P	**Pb**	**02 00 46.5**	**0.0**
	4.2nm,0.1s						
TNSS				S	**Sb**	**02 00 57.9**	**-0.5**
	5.8nm,0.2s						
TNSS	**Tian-Shan**	**0.85**	**245**	*e*P	**Pb**	**02 00 46.5**	**0.0**
	4.2nm,0.1s						
TNSS				*e*S	**Sb**	**02 00 57.9**	**-0.5**
	5.8nm,0.2s						
PRZ	**Przheval'sk**	**0.97**	**162**	⇑*i*P	**Pn**	**02 00 48.7**	**-0.6**
PRZ				⇑*i*S	**Sn**	**02 01 01.7**	**-1.9**
KTBS	**Karatobe**	**1.01**	**288**	P	**Pb**	**02 00 48.7**	**-0.1**
	4.2nm,0.0s						
KTBS				S	**Sb**	**02 01 02.3**	**-0.2**
	53nm,0.3s						
KTBS	**Karatobe**	**1.01**	**288**	*e*P	**Pb**	**02 00 48.8**	**-0.1**
	4.2nm,0.0s						
KTBS				*e*S	**Sb**	**02 01 02.3**	**-0.2**
	53nm,0.3s						
PDGK	**Podgornoye**	**1.09**	**94**	⇑Pn	**Pg**	**02 00 49.3**	**-0.3**
	2.3nm,0.3s						
PDGK				⇑Sn	**Sg**	**02 01 02.9**	**-0.9**
	25nm,0.6s						
SHLS	**Shalkode**	**1.09**	**103**	P	Pn	02 00 55.5	+4.4
	5.9nm,0.1s						
SHLS				S	**Sn**	**02 01 13.1**	**+6.4**
	35nm,0.2s						
SHLS	**Shalkode**	**1.09**	**103**	*e*P	Pn	02 00 55.5	+4.4
	5.9nm,0.1s						
SHLS				*e*S	**Sn**	**02 01 13.1**	**+6.4**
	35nm,0.2s						
KUU	**Kurty**	**1.30**	**293

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**0.87**	**325**	P	**Pn**	**02 02 45.8**	**-2.2**
KMSI				S	**Sn**	**02 02 59.1**	**-1.2**
KMSI				AML	AML		
KMSI	**Cibinong**	**0.87**	**325**	P	**Pn**	**02 02 46.6**	**-1.3**
MNI	**Manado**	**1.62**	**13**	P	**Pn**	**02 02 59.0**	**+1.2**
MNI				S	**Sn**	**02 03 20.4**	**+2.6**
MNI				AML	AML		
LUWI	**Luwuk**	**1.92**	**243**		**Pn**	**02 03 01.9**	**+0.2**
LUWI				Sn	**Sn**	**02 03 25.9**	**+1.0**
LUWI	**Luwuk**	**1.92**	**243**	P	**Pn**	**02 03 02.5**	**+0.8**
LUWI				S	**Sn**	**02 03 27.5**	**+2.6**
LUWI				AML	AML		
LUWI	**Luwuk**	**1.92**	**243**	P	**Pn**	**02 03 03.5**	**+1.8**
SANI	**Sanana**	**2.42**	**141**	P	**Pn**	**02 03 05.3**	**-3.2**
SANI	**Sanana**	**2.42**	**141**	P	**Pn**	**02 03 06.0**	**-2.5**
APSI	**Ampana**	**2.93**	**255**	P	**Pn**	**02 03 16.0**	**+0.6**
APSI	**Ampana**	**2.93**	**255**	P	**Pn**	**02 03 16.5**	**+1.1**
TNTI	**Ternate**	**3.03**	**72**	Pn	**Pn**	**02 03 16.1**	**-0.7**
TNTI					**Sn**	**02 03 51.8**	**-0.3**
TNTI	**Ternate**	**3.03**	**72**	P	**Pn**	**02 03 18.0**	**+1.1**
TNTI				S	**Sn**	**02 03 55.6**	**+3.5**
TOLI2	**Tolitoli**	**3.90**	**289**		**Pn**	**02 03 27.5**	**-1.2**
TOLI2	**Tolitoli**	**3.90**	**289**	P	**Pn**	**02 03 28.3**	**-0.5**
NLAI	**Namlea**	**4.04**	**140**	P	**Pn**	**02 03 29.2**	**-1.5**
NLAI				AML	AML		
NLAI	**Namlea**	**4.04**	**140**	P	**Pn**	**02 03 29.1**	**-1.5**
KDI	**Kendari**	**4.21**	**206**	P	**Pn**	**02 03 32.1**	**-0.9**
PCI	**Palu**	**4.70**	**261**	P	**Pn**	**02 03 40.5**	**+0.8**
PCI				AML	AML		
AAI	**Ambon** comp=Z,58nm,0.7s	**5.12**	**133**	P	**Pn**	**02 03 44.4**	**-1.0**
MSAI	**Masohi**	**5.47**	**126**	P	**Pn**	**02 03 50.7**	**+0.5**
MSAI				AML	AML		
MSAI	**Masohi** comp=Z,216nm,0.8s	**5.47**	**126**	P	**Pn**	**02 03 50.4**	**+0.2**
TTSI	**Tana Toraja** comp=Z,1.1nmcomp=Z,4µmcomp=Z,204nm,0.5s	**5.47**	**238**	P	**Pn**	**02 03 50.8**	**+0.6**
TTSI				AML	AML		
TTSI	**Tana Toraja** comp=Z,93nm,0.5s	**5.47**	**238**	P	**Pn**	**02 03 50.5**	**+0.3**
BBSI	**Bau Bau** comp=Z,0.3nmcomp=Z,39nm,0.6s	**5.63**	**200**	P	**Pn**	**02 03 53.0**	**+0.5**
BBSI				AML	AML		
BBSI	**Bau Bau** comp=Z,23nm,0.6s	**5.63**	**200**	P	**Pn**	**02 03 52.3**	**-0.1**
SPSI	**Sidrap Palu** comp=Z,0.4nmcomp=Z,82nm,0.5s	**6.04**	**231**	P	**Pn**	**02 03 58.6**	**+0.6**
SPSI				AML	AML		
SPSI	**Sidrap Palu** comp=Z,76nm,0.5s	**6.04**	**231**	P	**Pn**	**02 03 58.2**	**+0.2**
MMSI	**Mamuju** comp=Z,0.4nmcomp=Z,2µmcomp=Z,98nm,0.7s	**6.11**	**246**	P	**Pn**	**02 03 59.9**	**+0.9**
MMSI				AML	AML		
MMSI	**Mamuju** comp=Z,1µm,0.7s	**6.11**	**246**	P	**Pn**	**02 03 59.7**	**+0.7**
DDMP	**Don Marcelino,**	**6.33**	**11**	*e*P	**Pn**	**02 04 05.5**	**+3.4**
DDMP				*e*S	**Sn**	**02 05 07.3**	**-5.7**
PMSI	**Majene** comp=Z,78nm,0.8s	**6.48**	**239**	P	**Pn**	**02 04 04.4**	**+0.4**
BKSI	**Bulukumba** comp=Z,0.2nmcomp=Z,755nmcomp=Z,29nm,0.6s	**6.73**	**220**	P	**Pn**	**02 04 08.3**	**+0.8**
BKSI				AML	AML		
BKSI	**Bulukumba** comp=Z,29nm,0.7s	**6.73**	**220**	P	**Pn**	**02 04 08.0**	**+0.5**
SIJI	**Sorong** comp=Z,3.5nm,0.3s,baz=226,slow=23,SNR=13	**6.83**	**96**	Pn	**Pn**	**02 04 10.8**	**+1.9**
SIJI	baz=53,slow=20 comp=Z,7.8nm,0.3s			Sn	**Sn**	**02 05 26.4**	**+1.2**
SIJI				AML	AML		
BNDI	**Bandanaira** comp=Z,147nm,1.4s	**6.95**	**129**	P	**Pn**	**02 04 09.6**	**-0.9**
MKS	**Makassar** comp=Z,0.5nmcomp=Z,67nm,0.7s	**7.09**	**225**	P	**Pn**	**02 04 13.3**	**+0.8**
MKS				AML	AML		
BSSI	**Bau Bau, Buton**	**7.16**	**214**	P	**Pn**	**02 04 13.4**	**0.0**
BSSI				AML	AML		
BSSI	**Bau Bau, Buton** comp=Z,34nm,0.6s	**7.16**	**214**	P	**Pn**	**02 04 13.3**	**-0.1**
FAKI	**Fak Fak**	**8.24**	**110**		**Pn**	**02 04 26.6**	**-1.5**
FAKI	**Fak Fak** comp=Z,24nm,1.1s	**8.24**	**110**	P	**Pn**	**02 04 26.7**	**-1.5**
EDFI	**Ende, Flores** comp=Z,11nm,1.0s	**8.98**	**198**	P	**Pn**	**02 04 39.2**	**+0.8**
SOEI	**Soe**	**9.54**	**181**		**Pn**	**02 04 44.4**	**-1.7**
BATI	**Baumata** comp=Z,4.8nm,0.3s,baz=313,slow=12,SNR=3.7 comp=Z,15nm,0.3s	**10.02**	**185**	Pn	**Pn**	**02 04 53.8**	**+1.2**
BATI				AML	AML		
KKM	**Kota Kinabalu**	**10.29**	**307**	Pn	**Pn**	**02 04 55.4**	**-0.8**
KKM	**Kota Kinabalu** comp=Z,37nm,0.8s	**10.29**	**307**	P	**Pn**	**02 04 56.8**	**+0.5**
MTN	**Manton Dam**	**14.23**	**153**	Pn	**Pn**	**02 05 49.2**	**-0.4**
KPJI	**Karang Pucung** comp=Z,17nm,1.2s	**17.07**	**245**	P	**Pn**	**02 06 25.4**	**-0.2**
FITZ	**Fitzroy Crossi** comp=Z,0.2nm,0.3s,baz=20,slow=4.7,SNR=5.6 comp=Z,2.1nm,0.7s	**17.87**	**176**	P	**P**	**02 06 33.3**	**-2.1**
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.87**	**176**	P	**P**	**02 06 34.6**	**-0.7**
BBJI	**Bungbulang** comp=Z,19nm,0.7s	**18.28**	**246**		**Pn**	**02 06 40.4**	**-0.2**
BBJI				IAmb	IAmb	02 06 46.7	
BBJI	**Bungbulang** comp=Z,28nm,0.8s	**18.28**	**246**	P	**P**	**02 06 38.8**	**-1.2**
MBWA	**Marble Bar**	**21.39**	**192**	P	**P**	**02 07 12.8**	**-0.7**
MBWA	comp=Z,19nm,1.2s			IAmb	IAmb	02 07 52.9	
WB0	**Warramunga Arr**	**21.78**	**154**	P	**P**	**02 07 15.8**	**-2.1**
WB0	comp=Z,22nm,1.2s			IAmb	IAmb	02 07 40.6	
WRAB	**Tennant Creek**	**21.91**	**154**	P	**P**	**02 07 18.0**	**-1.2**
WRA	**Warramunga Arr** comp=Z,1.6nm,0.4s,baz=330,slow=11,SNR=25	**21.91**	**154**	P	**P**	**02 07 18.2**	**-1.0**
WRA	comp=Z,0.5nm,0.4s,baz=316,slow=2.6,SNR=5.5 comp=Z,1.6nm,0.4s			PcP	**PcP**	**02 11 17.5**	**+1.1**
WRA	**Warramunga Arr**	**21.91**	**154**	P	**P**	**02 07 16.6**	**-2.7**
WR8	**Warramunga Arr**	**22.00**	**154**	P	**P**	**02 07 18.2**	**-2.0**
TPUB	**Ta-pu**	**23.61**	**351**	P	**P**	**02 07 35.6**	**-0.8**
IPM	**Ipoh** comp=Z,14nm,1.0s	**23.87**	**281**	P	**P**	**02 07 39.0**	**0.0**
ASAR	**Alice Springs** comp=Z,1.1nm,0.5s,baz=319,slow=6.5,SNR=15	**25.11**	**159**	P	**P**	**02 07 51.2**	**+1.1**
ASAR	comp=Z,2.2nm,0.5s,baz=344,slow=1.9,SNR=13			PcP	**PcP**	**02 11 24.2**	**+1.1**
ASAR	comp=Z,0.8nm,0.9s,baz=343,slow=18,SNR=5.5 comp=Z,1.1nm,0.5s			S	**S**	**02 12 11.6**	**+1.4**
ASAR	**Alice Springs**	**25.11**	**159**	P	**P**	**02 07 50.5**	**+0.5**
ASAR					**PcP**	**02 11 23.9**	**+0.7**
CMAR	**Chiang Mai Arr** comp=Z,0.9nm,0.3s,baz=138,slow=7.6,SNR=9.6	**31.16**	**308**	P	**P**	**02 08 43.1**	**-1.1**
CMAR	comp=Z,1.0nm,0.3s,baz=173,slow=1.5,SNR=7.8 comp=Z,0.9nm,0.3s			PcP	**PcP**	**02 11 39.2**	**+1.1**
CMAR	**Chiang Mai Arr**	**31.16**	**308**	P	**P**	**02 08 43.4**	**-0.8**
CMAR					**PcP**	**02 11 38.0**	**-0.1**
CHTO	**Chiang Mai** comp=Z,5.9nm,0.7s	**31.36**	**308**		**P**	**02 08 45.2**	**-0.8**
CHTO				IAmb	IAmb	02 08 48.1	
CHTO	**Chiang Mai** comp=Z,9.7nm,0.9s	**31.36**	**308**	P	**P**	**02 08 46.1**	**+0.1**
NJ2	**Nanjing** comp=Z,8.0nm,0.7s	**32.47**	**351**	*e*P	**P**	**02 08 57.4**	**+2.0**
NJ2				pmax	pmax		
STKA	**Stephens Creek** comp=Z,2.0nm,0.4s,baz=341,slow=7.4,SNR=8.1 comp=Z,2.0nm,0.4s	**35.47**	**154**	P	**P**	**02 09 22.8**	**+1.3**
STKA	**Stephens Creek**	**35.47**	**154**	P	**P**	**02 09 21.2**	**-0.3**
XAN	**Xi'an**	**37.01**	**338**	*e*P	**P**	**02 09 38.6**	**+3.9**
KSRS	**Korea Array** comp=Z,0.9nm,0.5s,baz=174,slow=11,SNR=3.0 comp=Z,0.9nm,0.5s	**37.55**	**5**	P	**P**	**02 09 39.3**	**+0.2**
MJAR	**Matsushiro Arr** comp=Z,4.0nm,0.8s,baz=196,slow=8.8,SNR=7.7 comp=Z,4.0nm,0.8s	**38.67**	**18**	P	**P**	**02 09 48.8**	**+0.1**
MJAR	**Matsushiro Arr**	**38.67**	**18**	P	**P**	**02 09 48.4**	**-0.2**
MJAR	comp=Z,6.8nm,1.5s			IAmb	IAmb	02 09 59.1	
CAN	**Canberra** comp=Z,16nm,1.3s	**41.80**	**149**	P	**P**	**02 10 13.7**	**-0.9**
CAN				IAmb	IAmb	02 10 42.8	
HHC	**Hu-ho-hao-te**	**42.46**	**345**	*e*P	**P**	**02 10 21.2**	**+1.3**
HHC	comp=Z,10.0nm,0.7s			pmax	pmax		
USA0B	**Ussuriysk Arra**	**44.66**	**8**	P	**P**	**02 10 36.0**	**-1.5**
USA0B	comp=Z,7.5nm,1.1s			IAmb	IAmb	02 11 06.3	
USRK	**Ussuriysk Ar.** comp=Z,3.2nm,0.4s,baz=195,slow=7.4,SNR=15 comp=Z,3.2nm,0.4s	**44.66**	**8**	P	**P**	**02 10 38.4**	**+0.9**
USRK	**Ussuriysk Ar.**	**44.66**	**8**	P	**P**	**02 10 37.3**	**-0.1**
LHI	**Lord Howe Isla**	**45.22**	**137**	P	**P**	**02 10 41.4**	**-0.7**
GTA2	**Gaotai**	**45.47**	**333**	*e*P	**P**	**02 10 45.2**	**+1.1**
GTA2				pP	pP	02 10 48.7	-11
GTA2	comp=Z,11nm,0.7s			pmax	pmax		
EVN	**Everest**	**45.65**	**311**		**P**	**02 10 46.5**	**+0.2**
EVN	comp=Z,4.5nm,0.6s			IAmb	IAmb	02 10 47.8	
HILR	**Hailar Array B** comp=Z,3.4nm,0.5s,baz=185,slow=10.0,SNR=5.4 comp=Z,3.4nm,0.5s	**49.68**	**356**	P	**P**	**02 11 17.2**	**+0.7**
HEH	**HeiHe**	**50.28**	**2**	*e*P	**P**	**02 11 21.4**	**+0.5**
HEH	comp=Z,13nm,0.6s			pmax	pmax		
SONM	**Songino Array** comp=Z,2.5nm,0.5s,baz=159,slow=9.7,SNR=9.7 comp=Z,2.5nm,0.5s	**50.32**	**344**	P	**P**	**02 11 21.5**	**+0.1**
SONM	**Songino Array**	**50.32**	**344**	P	**P**	**02 11 21.1**	**-0.4**
PDGK	**Podgornoye**	**59.05**	**323**		**P**	**02 12 24.2**	**-0.5**
KSH2	**Kashi**	**59.37**	**317**	P	**P**	**02 12 28.5**	**+1.4**
KSH2	comp=Z,4.0nm,0.8s			pmax	pmax		
MKAR	**Makanchi Array** comp=Z,1.8nm,0.3s,baz=123,slow=8.1,SNR=37	**59.52**	**328**	P	**P**	**02 12 27.1**	**-0.7**
MKAR	comp=Z,0.9nm,0.5s,baz=139,slow=4.0,SNR=4.0 comp=Z,1.8nm,0.3s			PcP	**PcP**	**02 13 14.7**	**0.0**
MKAR	**Makanchi Array**	**59.52**	**328**		**P**	**02 12 26.9**	**-0.9**
MKAR					**PcP**	**02 13 13.9**	**-0.8**
MAKZ	**Makanchi**	**59.70**	**327**	P	**P**	**02 12 28.1**	**-0.9**
MAKZ	comp=Z,3.6nm,1.1s			IAmb	IAmb	02 12 28.8	
PETK	**Petropavlovsk-** comp=Z,4.6nm,0.8s,baz=234,slow=8.6,SNR=2.2 comp=Z,4.6nm,0.8s	**59.85**	**22**	P	**P**	**02 12 31.8**	**+1.9**
PETK	**Petropavlovsk-**	**59.85**	**22**	P	**P**	**02 12 29.9**	**+0.1**
BOOM	**Boomskoye usch**	**60.79**	**321**	P	**P**	**02 12 36.1**	**-0.6**
BOOM	comp=Z,4.0nm,1.1s			IAmb	IAmb	02 12 39.0	
ARSB	**Arslanbob**	**62.15**	**318**	P	**P**	**02 12 45.7**	**-0.2**
ARSB	comp=Z,4.9nm,1.2s			IAmb	IAmb	02 12 49.1	
YAK	**Yakutsk**	**62.15**	**3**	P	**P**	**02 12 45.7**	**+0.5**
ZAA0	**Zalesovo Array**	**63.06**	**335**	P	**P**	**02 12 51.1**	**-0.4**
ZAA0	comp=Z,4.3nm,1.4s			IAmb	IAmb	02 12 52.5	
ZALV	**Zalesovo Beam** comp=Z,1.4nm,0.3s,baz=132,slow=6.2,SNR=7.7 comp=Z,1.4nm,0.3s	**63.06**	**335**	P	**P**	**02 12 50.3**	**-1.3**
ZALV	**Zalesovo Beam**	**63.06**	**335**	P	**P**	**02 12 50.4**	**-1.1**
KURBB	**Kurchatov Arra** comp=Z,3.7nm,0.2s,baz=136,slow=5.7,SNR=5.9 comp=Z,3.7nm,0.2s	**63.84**	**329**	P	**P**	**02 12 55.8**	**-0.9**
KURK	**Kurchatov**	**63.85**	**329**		**P**	**02 12 55.7**	**-1.0**
KKAR	**Karatay Array**	**64.59**	**319**	P	**P**	**02 13 00.8**	**-1.0**
BVAR	**Borovoye Array** comp=Z,1.6nm,0.5s,baz=137,slow=8.6,SNR=9.5 comp=Z,1.6nm,0.5s	**69.38**	**328**	P	**P**	**02 13 31.6**	**-0.3**
TIXI	**Tiksi**	**71.74**	**1**	P	**P**	**02 13 45.3**	**-0.7**
TIXI	comp=Z,9.4nm,1.4s			IAmb	IAmb	02 14 10.5	
NRIK	**Noril'sk** comp=Z,1.9nm,0.4s,baz=95,slow=5.6,SNR=4.5 comp=Z,1.9nm,0.4s	**73.66**	**347**	P	**P**	**02 13 57.8**	**+0.4**
NRIK	**Noril'sk**	**73.66**	**347**	P	**P**	**02 13 57.3**	**-0.1**
NRIK	comp=Z,3.2nm,0.6s			IAmb	IAmb	02 13 58.3	
AB31	**Akbulak array**	**73.75**	**322**		**P**	**02 13 57.3**	**-1.1**
ABKAR	**Akbulak array**	**73.75**	**322**	P	**P**	**02 13 57.0**	**-1.4**
ARTI	**Arti**	**77.10**	**329**	P	**P**	**02 14 16.3**	**-1.2**
ARTI	comp=Z,5.2nm,0.5s			IAmb	IAmb	02 14 19.0	
VOI	**Vohitsoka**	**78.52**	**248**	P	**P**	**02 14 25.6**	**-0.6**
VNDA	**Vanda** comp=Z,0.8nm,0.7s,baz=318,slow=9.0,SNR=4.3 comp=Z,0.8nm,0.7s	**79.90**	**172**	P	**P**	**02 14 33.8**	**+1.4**
VNDA	**Vanda**	**79.90**	**172**	P	**P**	**02 14 33.2**	**+0.8**
KBZ	**Khabaz** comp=Z,2.0nm,0.9s,baz=59,slow=5.9,SNR=3.8 comp=Z,2.0nm,0.9s	**84.01**	**314**	P	**P**	**02 14 53.9**	**-0.8**
ILAR	**Eielson Array** comp=Z,0.3nm,0.5s,baz=260,slow=4.4,SNR=6.6 comp=Z,0.3nm,0.5s	**89.55**	**25**	P	**P**	**02 15 20.9**	**-0.3**
ILAR	**Eielson Array**	**89.55**	**25**	P	**P**	**02 15 20.3**	**-0.9**
QSPA	**South Pole Qui** comp=Z,1.3nm,0.7s,baz=296,slow=2.0,SNR=9.5 comp=Z,1.3nm,0.7s	**89.78**	**180**	P	**P**	**02 15 23.4**	**+1.0**
QSPA	**South Pole Qui**	**89.78**	**180**	P	**P**	**02 15 22.6**	**+0.2**
QSPA	comp=Z,7.1nm,1.4s			IAmb	IAmb	02 15 31.7	
BRTR	**Keskin Array B** comp=Z,0.7nm,0.9s,baz=107,slow=8.3,SNR=4.2 comp=Z,0.7nm,0.9s	**90.74**	**310**	P	**P**	**02 15 26.6**	**-0.9**
BRTR	**Keskin Array B**	**90.74**	**310**	P	**P**	**02 15 27.2**	**-0.3**
ARCES	**ARCESS Array B** comp=Z,14nm,1.3s,baz=105,slow=5.9,SNR=4.5 comp=Z,14nm,1.3s	**93.28**	**340**	P	**P**	**02 15 38.8**	**+0.4**
ARCES	**ARCESS Array B**	**93.28**	**340**	P	**P**	**02 15 37.4**	**-1.0**
FINES	**FINESS Array B** comp=Z,8.0nm,1.1s,baz=132,slow=5.7,SNR=3.4 comp=Z,8.0nm,1.1s	**94.16**	**332**	P	**P**	**02 15 41.2**	**-1.3**
FINES	**FINESS Array B**	**94.16**	**332**	P	**P**	**02 15 41.0**	**-1.6**
PB05	**IPOC Station P**	**153.04**	**149**	*e*P	**PKPab**	**02 22 34.3**	**+0.6**
PB03	**IPOC Station P**	**153.94**	**149**	*e*P	**PKPab**	**02 22 35.1**	**-2.5**
PB03	comp=N,22nm,0.2s			IAML		02 22 58.1	
PB09	**IPOC Station P** comp=E,18nm,0.2s	**154.41**	**149**	*e*P	**PKPab**	**02 22 35.8**	**-3.9**
PB09				IAML		02 22 56.0	
PB02	**IPOC Station P**	**154.46**	**148**	*e*P	**PKPab**	**02 22 44.1**	**+4.3**
PB02	comp=E,29nm,0.2s			IAML		02 23 16.7	

MOS ***03*** *02:09:51.8, 41°.21N×48°.70E, h40km, MPVA3.5*
NORS ***03*** *02:09:51.8, 41°.17N×48°.43E, h20km, MPVA3.6*
AZER ***03*** *02:09:53.8, 41°.17N×48°.61E, h49km, ml2.4*
DRS ***03*** *02:09:54.3, 41°.15N×48°.61E, h9km*

ISC 03 02:09:54.7±1.3, 41°.19N±0°.02×48°.64E±0°.04, h60km±6km, n43, σ1s16/86, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QUBA	**Quba, Azerbaij**	**0.20**	**325**	P	**Pn**	**02 10 03.4**	**-0.8**
QUBA				S	**Sn**	**02 10 10.8**	**-0.2**
SIZA	**Siyzn**	**0.22**	**121**	P	**Pn**	**02 10 03.6**	**-0.8**
SIZA				S	**Sn**	**02 10 11.6**	**+0.2**
XNQ	**Khinaliq**	**0.38**	**267**	P	**Pn**	**02 10 05.1**	**-0.6**
XNQ				S	**Sn**	**02 10 13.8**	**+0.1**
ATGJ	**Altiaghaj**	**0.40**	**146**	P	**Pn**	**02 10 05.3**	**-0.4**
ATGJ				S	**Sn**	**02 10 14.6**	**+0.9**
PQL	**Pirkuli**	**0.40**	**185**	P	**Pn**	**02 10 05.6**	**-0.2**
PQL				S	**Sn**	**02 10 14.7**	**+0.8**
QSAR	**Qusar**	**0.43**	**319**	P	**Pn**	**02 10 05.3**	**-0.7**
QSAR				S	**Sn**	**02 10 14.0**	**-0.2**
IML	**Ismayilli**	**0.53**	**221**	P	**Pn**	**02 10 06.7**	**-0.3**
IML				S	**Sn**	**02 10 16.9**	**+0.9**
KSMR	**Kasumkent**	**0.57**	**317**	*e*Pg	**Pn**	**02 10 06.7**	**-0.7**
KSMR				*e*Sg	**Sn**	**02 10 16.6**	**-0.1**
QBL	**Gabala**	**0.66**	**248**	P	**Pn**	**02 10 08.3**	**-0.1**
QBL				S	**Sn**	**02 10 20.1**	**+1.6**
GBS	**Qobustan**	**0.69**	**161**	P	**Pn**	**02 10 09.7**	**+0.8**
GBS				S	**Sn**	**02 10 21.4**	**+2.1**
AKT	**Akhty**	**0.75**	**293**	*i* Pg	**Pn**	**02 10 08.9**	**-0.6**
AKT				*i* Sg	**Sn**	**02 10 20.2**	**-0.3**
DRN	**Derbent**	**0.87**	**344**	*e*Pg	**Pn**	**02 10 09.9**	**-1.2**
DRN				*e*Sg	**Sn**	**02 10 22.3**	**-0.7**
KDMR	**Kurdemir**	**0.89**	**203**	P	**Pn**	**02 10 11.8**	**+0.6**
KDMR				S	**Sn**	**02 10 25.4**	**+2.1**
SEKA	**Sheki**	**1.09**	**271**	P	**Pn**	**02 10 13.8**	**-0.2**
SEKA				S	**Sn**	**02 10 28.9**	**+0.6**
ZRD	**Zardab**	**1.17**	**219**	P	**Pn**	**02 10 14.9**	**+0.1**
ZRD				S	**Sn**	**02 10 32.6**	**+2.7**
URKR	**Urkarakh**	**1.23**	**322**	*e*Pg	**Pn**	**02 10 15.4**	**-0.5**
URKR				*e*Sg	**Sn**	**02 10 32.1**	**+0.4**
MNGR	**Mingechevir, A**	**1.25**	**251**	P	**Pn**	**02 10 16.0**	**0.0**
MNGR				S	**Sn**	**02 10 33.2**	**+1.3**
ALIB	**&Aumli-Bayram**	**1.26**	**167**	Pg	**Pn**	**02 10 17.4**	**+1.3**
ALIB				Sg	**Sn**	**02 10 36.2**	**+4.1**
SGKR	**Sergokala**	**1.47**	**330**	*e*Pg	**Pn**	**02 10 18.5**	**-0.4**
SGKR				*e*Sg	**Sn**	**02 10 37.7**	**+0.6**
KMKR	**Kumukh**	**1.49**	**310**	*e*Pg	**Pn**	**02 10 19.5**	**+0.1**
KMKR				*e*Sg	**Sn**	**02 10 39.2**	**+1.2**
ZKTA	**Zakatala**	**1.58**	**287**	Pn	**Pn**	**02 10 20.4**	**-0.1**
ZKTA				Sn	**Sn**	**02 10 40.9**	**+0.8**
AGDM	**Agdam**	**1.59**	**228**	Pn	**Pn**	**02 10 20.1**	**-0.5**
AGDM				Sn	**Sn**	**02 10 41.6**	**+1.4**
BLQ	**Beylaqan**	**1.69**	**210**	Pn	**Pn**	**02 10 22.1**	**+0.3**
BLQ				Sn	**Sn**	**02 10 42.5**	**+0.1**
GNBR	**Gunib**	**1.73**	**314**	*e*Pg	**Pn**	**02 10 23.2**	**+0.6**
GNBR				*e*Sg	**Sn**	**02 10 45.5**	**+1.8**
GANJ	**Ganja**	**1.84**	**254**	Pn	**Pn**	**02 10 22.7**	**-1.3**
GANJ				Sn	**Sn**	**02 10 44.9**	**-1.4**
ARKR	**Arakani**	**1.87**	**319**	*e*Pg	**Pn**	**02 10 24.4**	**-0.1**
ARKR				*e*Sg	**Sn**	**02 10 48.1**	**+1.1**
TLTR	**Tlyarata**	**1.94**	**299**	*e*Pg	**Pn**	**02 10 25.2**	**-0.3**
TLTR				*e*Sg	**Sn**	**02 10 49.9**	**+0.9**
GLBA	**Clilabad**	**1.96**	**186**	Pn	**Pn**	**02 10 25.2**	**-0.3**
GLBA				Sn	**Sn**	**02 10 48.4**	**-0.6**
XNZR	**Khunzakh**	**1.98**	**314**	*e*Pg	**Pn**	**02 10 26.8**	**+0.8**
XNZR				*e*Sg	**Sn**	**02 10 51.8**	**+2.0**
QRD	**Qoradiz**	**2.00**	**211**	Pn	**Pn**	**02 10 25.6**	**-0.6**
QRD				Sn	**Sn**	**02 10 49.9**	**-0.2**
UNCR	**Uncukul**	**2.05**	**318**	*e*Pg	**Pn**	**02 10 26.7**	**-0.2**
UNCR				*e*Sg	**Sn**	**02 10 52.5**	**+1.0**
KRNR	**Karanay**	**2.08**	**322**	*e*Pg	**Pn**	**02 10 27.6**	**+0.2**
KRNR				*e*Sg	**Sn**	**02 10 53.9**	**+1.6**
GDB	**GEDABAY**	**2.24**	**259**	Pn	**Pn**	**02 10 28.1**	**-1.4**
GDB				Sn	**Sn**	**02 10 54.2**	**-2.0**
DBC	**Dubki**	**2.27**	**324**	*e*Pn	**Pn**	**02 10 29.6**	**-0.3**
DBC				*e*Sn	**Sn**	**02 10 57.9**	**+1.1**
YRD	**Yardimli**	**2.29**	**188**	Pn	**Pn**	**02 10 29.0**	**-1.4**
YRD				Sn	**Sn**	**02 10 56.7**	**-0.8**
DLMR	**Dylym**	**2.40**	**322**	*e*Pn	**Pn**	**02 10 31.8**	**+0.1**
DLMR				*e*Sn	**Sn**	**02 11 01.4**	**+1.5**
QZX	**Qazax, Azerbai**	**2.48**	**268**	Pn	**Pn**	**02 10 31.5**	**-1.1**
QZX				Sn	**Sn**	**02 11 00.0**	**-1.7**
LKRN	**Lenkeran, Azer**	**2.48**	**178**	Pn	**Pn**	**02 10 30.9**	**-1.8**
LKRN				Sn	**Sn**	**02 10 59.6**	**-2.2**
LRK	**Lerik**	**2.56**	**185**	Pn	**Pn**	**02 10 32.5**	**-1.4**
LRK				Sn	**Sn**	**02 11 02.9**	**-1.0**
DVE	**Vedeno**	**2.57**	**314**	*e*Pn	**Pn**	**02 10 34.3**	**+0.3**
DVE				*e*Sn	**Sn**	**02 11 04.4**	**+0.2**
ASTR	**Astara**	**2.63**	**177**	Pn	**Pn**	**02 10 32.9**	**-1.8**
ASTR				Sn	**Sn**	**02 11 03.6**	**-1.8**
SBZ	**Shahbuz**	**2.97**	**234**	Pn	**Pn**	**02 10 39.9**	**+0.5**
SBZ				Sn	**Sn**	**02 11 15.9**	**+2.1**
ORD	**Ordubad**	**3.04**	**223**	Pn	**Pn**	**02 10 40.4**	**0.0**
ORD				Sn	**Sn**	**02 11 15.7**	**+0.1**

IDC ***03*** *02:29:43.5±0.6, 57°.66N×33°.06W, h0km, mb3.9/15, mbtmp3.9/17, ML3.0/2, MS3.8/11, Error ellipse: s-maj=19.6km s-min=13.8km az=164.0*
NEIC ***03*** *02:29:44.8±1.1, 57°.6N±0°.1×33°.0W±0°.2, h10km±1km, mb4.6/49, Error ellipse: s-maj=19.8km s-min=15.1km az=146.0*

ISC 03 02:29:45.6±0.5, 57°.6N±0°.1×33°.06W±0°.07, h15km, n85, σ0s71/73, mb4.5/33, MS3.6/6, Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BORG	**Borgarnes** 1.0nm,0.3s,baz=320,slow=11,SNR=1.0	**9.10**	**33**	Pn	**Pn**	**02 31 57.9**	**+1.8**
BORG	comp=Z,334nm,20.1s,baz=237,slow=31 7.6nm,0.7s			LR	LR	02 34 27.1	
BORG				AML	AML		
BORG	**Borgarnes**	**9.10**	**33**		**Pn**	**02 31 55.2**	**-1.0**
SFJD	**Kangerlussuaq** comp=Z,530nm,18.3s,baz=154,slow=34	**12.39**	**326**	LR	LR	02 36 44.1	
EKA	**Eskdalemuir Ar** comp=Z,165nm,18.8s,baz=30,slow=33	**16.61**	**85**	LR	LR	02 38 43.8	
FRB	**Frobisher Bay** comp=Z,217nm,19.3s,baz=68,slow=34	**18.23**	**304**	LR	LR	02 39 54.5	
SCHQ	**Schefferville** 0.2nm,0.3s,baz=247,slow=19,SNR=4.3	**18.87**	**276**	P	**P**	**02 34 05.0**	**0.0**
SCHQ	comp=Z,240nm,19.7s,baz=104,slow=32 9.4nm,1.0s			LR	LR	02 39 41.5	
SCHQ				AML	AML		
SCHQ	**Schefferville**	**18.87**	**276**	P	**P**	**02 34 04.1**	**-0.8**
NOA	**NORSAR Array B** 1.6nm,1.0s,baz=282,slow=9.2,SNR=2.6 1.6nm,1.0s	**22.50**	**63**	P	**P**	**02 34 44.2**	**-0.1**
ESDC	**Sonseca Array** 0.8nm,0.8s,baz=312,slow=18,SNR=4.7	**26.00**	**121**	P	**P**	**02 35 18.4**	**+0.7**
ESDC	comp=Z,129nm,18.5s,baz=28,slow=32 0.8nm,0.8s			LR	LR	02 43 24.8	
ESDC	**Sonseca Array**	**26.00**	**121**	P	**P**	**02 35 17.2**	**-0.5**
CLL	**

PV13	**Radium Mtn., P**	**51.47**	**282**	P	**P**	**02 38 49.9**	**-0.5**
TORD	**Torodi Ar. Bea**	**51.60**	**135**	P	**P**	**02 38 52.4**	**+1.2**
	comp=Z,1.5nm,0.9s,baz=340,slow=8.0,SNR=4.9						
	comp=Z,1.5nm,0.9s						
H02S1	**DAWSON INLET T**	**51.65**	**311**	T	T	03 34 11.4	
	SNR=32						
H02S2	**DAWSON INLET T**	**51.65**	**311**	T	T	03 34 11.1	
	SNR=27						
PV05	**Paradox Valley**	**51.67**	**283**	P	**P**	**02 38 51.6**	**-0.3**
PV05				IAmb	IAmb	02 38 52.5	
	comp=Z,9.2nm,1.0s						
AB31	**Akbulak array**	**51.80**	**56**		**P**	**02 38 52.4**	**+0.1**
ABKAR	**Akbulak array**	**51.80**	**56**		**P**	**02 38 51.5**	**-0.8**
NLU	**North Lily Min**	**51.83**	**286**		**P**	**02 38 53.0**	**0.0**
MVCO	**Mesa Verde**	**52.01**	**281**	P	**P**	**02 38 55.3**	**+0.9**
HMU	**Henry Mountain**	**52.64**	**284**		**P**	**02 38 59.9**	**+0.8**
HMU				IAmb	IAmb	02 39 00.3	
	comp=Z,8.0nm,1.4s						
BVAR	**Borovoye Array**	**53.40**	**47**	P	**P**	**02 39 04.2**	**0.0**
	comp=Z,2.5nm,0.8s,baz=319,slow=5.9,SNR=8.3						
	comp=Z,2.5nm,0.8s						
TPB28		**54.10**	**274**	P	**P**	**02 39 10.7**	**+1.0**
TPB28				IAmb	IAmb	02 39 11.2	
	comp=Z,6.5nm,1.2s						
SAND	**Sanderson**	**54.15**	**270**		**P**	**02 39 10.6**	**+0.6**
SAND				IAmb	IAmb	02 39 11.1	
	comp=Z,6.9nm,1.1s						
K05A	**Summer Lake**	**54.21**	**295**		**P**	**02 39 09.8**	**-0.7**
K05A				IAmb	IAmb	02 39 16.1	
	comp=Z,6.4nm,1.3s						
TXAR	**Lajitas Array**	**55.47**	**271**	P	**P**	**02 39 19.9**	**+0.2**
	comp=Z,0.6nm,1.0s,baz=46,slow=3.6,SNR=3.6						
	comp=Z,0.6nm,1.0s						
KVN	**Kaiserville**	**55.59**	**290**		**P**	**02 39 20.6**	**+0.1**
PAHR	**Pah Rah Range**	**55.74**	**291**	P	**P**	**02 39 21.4**	**-0.1**
PAHR				IAmb	IAmb	02 39 23.4	
	comp=Z,5.5nm,1.1s						
DUN6	**Lazy B Ranch**	**55.87**	**278**	P	**P**	**02 39 22.7**	**+0.2**
NVAR	**Mina Array Bea**	**56.16**	**290**	P	**P**	**02 39 24.7**	**0.0**
	comp=Z,0.5nm,0.7s,baz=33,slow=8.2,SNR=2.9						
	comp=Z,0.5nm,0.7s						
NVAR	**Mina Array Bea**	**56.16**	**290**	P	**P**	**02 39 24.5**	**-0.2**
GMN	**Gold Mountain**	**56.49**	**288**	P	**P**	**02 39 27.4**	**+0.3**
GWY	**Greenwater Val**	**57.05**	**287**		**P**	**02 39 29.9**	**-0.9**
GWY				IAmb	IAmb	02 39 32.4	
	comp=Z,6.8nm,1.3s						
GSC	**Goldstone, Bar**	**57.80**	**286**	P	**P**	**02 39 36.7**	**+0.6**
113A	**Mohawk Valley,**	**58.18**	**282**		**P**	**02 39 39.3**	**+0.6**
113A				IAmb	IAmb	02 39 40.4	
	comp=Z,6.7nm,1.2s						
KURK	**Kurchatov**	**58.37**	**44**	P	**P**	**02 39 39.4**	**-0.4**
KURBB	**Kurchatov Arra**	**58.42**	**44**	P	**P**	**02 39 39.8**	**-0.3**
	comp=Z,1.8nm,0.8s,baz=321,slow=7.4,SNR=8.3						
	comp=Z,1.8nm,0.8s						
PFO	**Pinyon Flats O**	**58.93**	**285**	P	**P**	**02 39 44.2**	**+0.1**
PFO				IAmb	IAmb	02 39 46.0	
	comp=Z,6.8nm,1.2s						
HSIG		**59.62**	**277**	P	**P**	**02 39 49.0**	**+0.3**
ROSC	**El Rosal**	**61.73**	**228**	P	**P**	**02 40 05.1**	**+1.4**
	comp=Z,6.7nm,0.7s,baz=76,slow=4.6,SNR=7.4						
	comp=Z,6.7nm,0.7s						
ROSC	**El Rosal**	**61.73**	**228**		**P**	**02 40 03.4**	**-0.3**
MKAR	**Makanchi Array**	**62.98**	**44**	P	**P**	**02 40 11.4**	**+0.1**
	comp=Z,1.8nm,0.9s,baz=328,slow=6.7,SNR=6.5						
	comp=Z,1.8nm,0.9s						
MKAR	**Makanchi Array**	**62.98**	**44**	P	**P**	**02 40 10.8**	**-0.5**
H10N2	**ASCENSION HYDR**	**66.97**	**160**	T	T	03 52 58.9	
	baz=349,slow=74,SNR=4.6						
H10N3	**ASCENSION HYDR**	**66.98**	**160**	T	T	03 53 06.7	
	baz=349						
H10N1	**ASCENSION HYDR**	**66.99**	**160**	T	T	03 52 58.8	
	baz=349,slow=74,SNR=5.0						
OTAV	**Otavalo**	**67.59**	**230**	P	**P**	**02 40 41.5**	**-0.5**
H10S3	**ASCENSION HYDR**	**68.04**	**160**	T	T	03 54 17.2	
	baz=350,slow=74,SNR=17						
H10S2	**ASCENSION HYDR**	**68.05**	**160**	T	T	03 54 18.5	
	baz=230,slow=74,SNR=18						
SONM	**Songino Array**	**69.67**	**28**	P	**P**	**02 40 54.3**	**+0.1**
	comp=Z,2.4nm,1.1s,baz=316,slow=4.1,SNR=7.6						
	comp=Z,2.4nm,1.1s						
SONM	**Songino Array**	**69.67**	**28**	P	**P**	**02 40 53.3**	**-0.9**
SONM				IAmb	IAmb	02 40 54.9	
	comp=Z,5.9nm,1.3s						
BDFB	**Brasilia**	**74.05**	**195**	P	**P**	**02 41 20.2**	**-0.5**
	comp=Z,2.9nm,0.8s,baz=333,slow=4.5,SNR=4.8						
	comp=Z,2.9nm,0.8s						
BDFB	**Brasilia**	**74.05**	**195**	P	**P**	**02 41 19.8**	**-0.9**
BDFB				IAmb	IAmb	02 41 20.6	
	comp=Z,4.8nm,1.0s						
AQDB	**Aquidauana**	**80.08**	**201**	P	**P**	**02 41 54.0**	**-0.3**
AQDB				IAmb	IAmb	02 42 22.1	
	comp=Z,11nm,1.5s						
PB16	**IPOC Station P**	**81.52**	**215**		**P**	**02 42 01.9**	**-0.9**
ASAR	**Alice Springs**	**144.79**	**21**	PKP	**PKPab**	**02 49 20.2**	**-0.2**
	comp=Z,2.1nm,1.0s,baz=356,slow=2.8,SNR=8.8						
ASAR	**Alice Springs**	**144.79**	**21**		**PKPab**	**02 49 20.1**	**-0.3**

AFAD 03 02:36:57.4, 37.70N×27.26E, h14^{km}±2^{km}, ML1.7, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.02**	**271**	P	Pg	02 36 59.7	-0.1
GCAM				S	Sg	02 37 02.1	+0.7
GCAM				IAML		02 37 03.0	
	comp=E,149nm,0.1s						
GCAM				IAML		02 37 03.0	
	comp=N,164nm,0.1s						
DGB	**zmir**	**0.46**	**320**	P	Pb	02 37 07.4	+0.1
DGB				S	Sb	02 37 13.9	-0.1
DGB				IAML		02 37 14.0	
	comp=E,402nm,0.3s						
DGB				IAML		02 37 14.0	
	comp=N,340nm,0.3s						
AYDN	**Tasoluk**	**0.49**	**94**	P	Pb	02 37 09.0	+1.0
DUVT	**Torbali**	**0.54**	**16**	P	Pg	02 37 07.1	-0.9
DUVT				S	Sg	02 37 15.3	0.0
DUVT				IAML		02 37 32.0	
	comp=E,71nm,0.4s						
BEYE	**izmir**	**0.59**	**334**	P	Pb	02 37 10.3	+0.8
BEYE				S	Sg	02 37 16.9	+0.2
BEYE				IAML		02 37 19.0	
	comp=N,78nm,0.4s						
BEYE				IAML		02 37 20.0	
	comp=E,77nm,0.2s						
BDRM	**Kayabasi**	**0.65**	**167**	P	Pg	02 37 09.3	-0.8
BDRM				S	Sb	02 37 20.4	+0.9
BDRM				IAML		02 37 42.0	
	comp=N,56nm,0.3s						
BDRM				IAML		02 37 42.0	
	comp=E,30nm,0.3s						
IZMR	**zmir-demi**	**0.70**	**51**	P	Pb	02 37 11.8	+0.4
IZMR				S	Sb	02 37 21.7	+0.7
IZMR				IAML		02 37 42.0	
	comp=E,29nm,0.8s						
IZMR				IAML		02 37 43.0	
	comp=N,16nm,0.3s						

*ISK **03** 02:36:59.9, 37.84N×26.48E, h8^{km}, ML2.3/10*
*ATH **03** 02:37:00.1, 37.85N×26.45E, h14^{km}±4^{km}, ML2.4/4,*
Latitude uncertainty: 3 km; Longitude uncertainty: 3 km
ISC 03 02:37:00.2±1.1, 37.86N±0.03×26.47E±0.04, h12^{km}±9^{km}, n15, σ0^{s}37/23, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.20**	**108**	P	**Pb**	**02 37 05.3**	**-0.4**
KRL1				S	**Sg**	**02 37 08.2**	**+0.6**
KRL1				AML	AML		
GMLD	**Gumuldur**	**0.41**	**58**	Pg	**Pg**	**02 37 08.2**	**-0.2**
GMLD				Sg	**Sg**	**02 37 13.9**	**-0.1**
GMLD				AML	AML		
CHOS	**Chios island**	**0.62**	**328**	Pg	**Pb**	**02 37 12.7**	**-0.3**
CHOS				Sg	**Sb**	**02 37 22.2**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**328**	P	**Pg**	**02 37 12.5**	**+0.2**
CHOS				S	**Sb**	**02 37 21.6**	**-0.1**
CHOS				AML	AML		
BLCB	**Balcova**	**0.69**	**40**	Pg	**Pb**	**02 37 14.1**	**-0.1**
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.74**	**338**	P	**Pg**	**02 37 14.6**	**0.0**
EAG2				S	**Sg**	**02 37 24.4**	**+0.1**
BODT	**Bodrum**	**1.04**	**140**	Pg	**Pb**	**02 37 20.1**	**0.0**
BODT				AML	AML		

APE	**Apeiranthos**	**1.08**	**224**	P	**Pg**	**02 37 20.7**	**-0.4**
APE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.13**	**85**	Pn	**Pg**	**02 37 21.8**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**1.18**	**118**	Pn	**Pb**	**02 37 22.4**	**-0.1**
MLSB				Sn	**Sn**	**02 37 39.2**	**+0.7**
MLSB				AML	AML		
DKL	**Dikili**	**1.26**	**16**	P	**Pn**	**02 37 23.4**	**-0.1**
PRK	**Paraskevi**	**1.40**	**354**	P	**Pg**	**02 37 26.8**	**-0.2**
PRK				S	**Sb**	**02 37 44.4**	**+0.5**
PRK				AML	AML		
DAT	**Datca**	**1.43**	**142**	Pn	**Pb**	**02 37 26.6**	**-0.3**
DAT				AML	AML		
NAZL	**Nazilli-Aydin**	**1.45**	**85**	Pn	**Pb**	**02 37 26.9**	**-0.1**
NAZL				Sn	**Sg**	**02 37 46.7**	**-0.1**
NAZL				AML	AML		
GORD	**Gordes-Manisa**	**1.70**	**51**	Pn	**Pb**	**02 37 30.8**	**-0.7**
GORD				AML	AML		

*IDC **03** 02:39:17.4±1.1, 22.55S×170.66E, h0^{km}, mb4.1/5,*
mbtmp4.2/6, ML4.3/1, MS4.0/5, Error ellipse: s-maj=45.2km
s-min=20.2km az=0.0
*NEIC **03** 02:39:20.1±1.6, 22.6S±0.1×170.40E±0.06, h10^{km}±1^{km},*
mb4.7/10, Error ellipse: s-maj=21.9km s-min=9.5km
az=359.0
ISC 03 02:39:19.9±0.6, 22.5S±0.1×170.38E±0.08, h10^{km}, n66, σ1^{s}06/67, mb4.5/12, MS3.8/3, 4C-6D, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**2.40**	**294**		**Pn**	**02 39 58.8**	**-0.5**
PINNC	**Pines Island,**	**2.72**	**267**		**Pn**	**02 40 04.0**	**+0.4**
OUENC	**Ouen Island, N**	**3.27**	**270**		**Pn**	**02 40 11.6**	**+0.3**
DZM	**Mont Dzumac**	**3.67**	**276**	Pn	**Pn**	**02 40 19.0**	**+2.1**
	20nm,0.3s,baz=122,slow=14,SNR=240						
DZM				Sn	**Sn**	**02 41 01.5**	**+1.3**
	23nm,0.3s,baz=311,slow=21,SNR=23						
DZM				LR	LR	02 41 51.0	
	comp=Z,2μm,18.6s,baz=46,slow=39						
	46nm,0.3s						
DZM				AML	AML		
MSVF	**Nonsavu**	**8.62**	**58**		**Pn**	**02 41 25.7**	**+0.9**
RAO	**Raoul Island**	**12.50**	**125**	LR	LR	02 46 02.3	
	comp=Z,313nm,19.7s,baz=56,slow=33						
HNR	**Honiara**	**16.39**	**321**	LR	LR	02 47 23.8	
	comp=Z,142nm,20.5s,baz=234,slow=29						
RPZ	**Rata Peaks**	**21.18**	**179**	LR	LR	02 51 19.0	
	comp=Z,52nm,19.7s,baz=203,slow=34						
STKA	**Stephens Creek**	**27.19**	**244**	LR	LR	02 55 20.5	
	comp=Z,223nm,18.5s,baz=65,slow=35						
MCQ	**Macquarie Isla**	**33.11**	**192**	P	**P**	**02 45 55.5**	**-0.3**
WR8	**Warramunga Arr**	**33.49**	**268**	P	**P**	**02 45 57.4**	**-2.4**
WR8				IAmb	IAmb	02 46 27.9	
	comp=Z,9.0nm,1.4s						
ASAR	**Alice Springs**	**33.52**	**261**	P	**P**	**02 46 01.1**	**+1.0**
	comp=Z,1.1nm,0.7s,baz=89,slow=8.2,SNR=13						
	comp=Z,1.1nm,0.7s						
ASAR	**Alice Springs**	**33.52**	**261**	P	**P**	**02 45 58.2**	**-1.8**
WB0	**Warramunga Arr**	**33.63**	**268**	P	**P**	**02 45 59.8**	**-1.1**
WB0				IAmb	IAmb	02 46 01.1	
	comp=Z,10nm,1.4s						
WB2	**Warramunga Arr**	**33.63**	**267**	P	**P**	**02 46 00.1**	**-0.9**
WB2				IAmb	IAmb	02 46 17.4	
	comp=Z,6.8nm,1.2s						
WRA	**Warramunga Arr**	**33.65**	**267**	P	**P**	**02 46 01.2**	**+0.1**
	comp=Z,0.9nm,0.9s,baz=95,slow=8.4,SNR=5.1						
	comp=Z,0.9nm,0.9s						
WRA	**Warramunga Arr**	**33.65**	**267**	P	**P**	**02 46 00.2**	**-0.9**
FITZ	**Fitzroy Crossi**	**42.08**	**268**	P	**P**	**02 47 10.1**	**-2.2**
NWAO	**Narrogin (SRO)**	**47.76**	**245**	P	**P**	**02 47 57.0**	**-0.5**
NWAO				IAmb	IAmb	02 48 39.0	
	comp=Z,22nm,1.1s						
QSPA	**South Pole Qui**	**67.58**	**180**	P	**P**	**02 50 16.3**	**-0.3**
CMAR	**Chiang Mai Arr**	**80.81**	**294**	P	**P**	**02 51 35.3**	**+1.0**
	comp=Z,1.0nm,0.3s,baz=129,slow=4.4,SNR=11						
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**80.81**	**294**	P	**P**	**02 51 34.0**	**-0.3**
TROLL	**Troll, Antarti**	**85.39**	**184**	⇑P	**P**	**02 51 56.8**	**-0.5**
TROLL				⇓pP	**PcP**	**02 52 02.5**	**+2.1**
	comp=Z,478nm,0.8s						
SNAA	**Sanae**	**85.98**	**182**	⇑P	**P**	**02 51 59.8**	**-0.4**
SNAA				⇓pP	**PcP**	**02 52 04.9**	**+2.1**
	comp=Z,111nm,0.9s						
SNAA	**Sanae**	**85.98**	**182**	P	**P**	**02 51 59.2**	**-1.0**
	comp=Z,3.1nm,0.8s,baz=134,slow=4.2,SNR=4.6						
	comp=Z,3.1nm,0.8s						
SNAA	**Sanae**	**85.98**	**182**	P	**P**	**02 51 59.6**	**-0.6**
SNAA				IAmb	IAmb	02 52 05.7	
	comp=Z,9.3nm,1.0s						
VNA3	**Neumayer Olymp**	**86.53**	**180**	⇑P	**P**	**02 52 01.8**	**-1.0**
	comp=Z,7.9nm,0.7s						
VNA3				⇓pP	**PcP**	**02 52 07.3**	**+2.0**
	comp=Z,8.3nm,0.8s						
VNA2	**Neumayer--Watz**	**86.83**	**181**	⇑P	**P**	**02 52 03.4**	**-0.9**
	comp=Z,8.9nm,0.7s,baz=177,slow=4.3						
VNA2				⇓pP	**PcP**	**02 52 09.0**	**+2.4**
	comp=Z,8.9nm,0.7s,baz=169,slow=3.9						
VNA1	**Neumayer--Stat**	**87.12**	**180**	P	**P**	**02 52 04.9**	**-0.7**
	comp=Z,10nm,0.9s						
VNA1				⇓pP	**PcP**	**02 52 10.2**	**+2.4**
	comp=Z,10nm,0.9s						
SONM	**Songino Array**	**90.44**	**323**	P	**P**	**02 52 21.6**	**-0.1**
	comp=Z,1.9nm,0.9s,baz=145,slow=7.1,SNR=7.5						
	comp=Z,1.9nm,0.9s						
SONM	**Songino Array**	**90.44**	**323**	P	**P**	**02 52 22.1**	**+0.3**
SONM				IAmb	IAmb	02 52 22.6	
	comp=Z,3.2nm,1.1s						
ELK	**Elko**	**93.33**	**47**	LR	LR	03 30 55.3	
	comp=Z,456nm,18.6s,baz=160,slow=33						
ARCES	**ARCESS Array B**	**128.46**	**345**	PKP	**PKPdf**	**02 58 25.5**	**-0.8**
	comp=Z,4.8nm,1.0s,baz=48,slow=2.1,SNR=5.4						
ARCES	**ARCESS Array B**	**128.46**	**345**		**PKPdf**	**02 58 25.8**	**-0.5**
STEB	**Steborice**	**145.17**	**329**	*e*PKPDF	**PKPbc**	**02 58 56.7**	**-0.5**
MORC	**Moravsky Berou**	**145.39**	**329**	*e*PKP	**PKPdf**	**02 58 57.4**	**-0.7**
OSTC	**Ostas**	**145.47**	**331**	*e*PKPDF	**PKPdf**	**02 58 58.1**	**-0.1**
CHVC	**Chvalec**	**145.52**	**331**	*e*PKPDF	**PKPdf**	**02 58 57.4**	**-0.8**
DPC	**Dobruska-Polom**	**145.57**	**330**	*e*PKPDF	**PKPdf**	**02 58 58.3**	**-0.1**
UPC	**Upice**	**145.60**	**331**	*e*PKPDF	**PKPdf**	**02 58 58.1**	**-0.2**
JAVC	**Velka Javorina**	**145.93**	**327**	*e*PKP	**PKPbc**	**02 59 00.4**	**+0.7**
VRAC	**Vranov**	**146.16**	**329**	*e*PKP	**PKPdf**	**02 58 59.6**	**+0.2**
BRG	**Berggiesshubel**	**146.24**	**333**	*e*P	**PKPdf**	**02 59 00.1**	**+0.7**
BRG				Amp		02 59 02.1	
	comp=Z,6.9nm,1.0s						
BRG				⇓*e*PKPdf	PKPdf	03 00 09.2	+70
BRG				Amp		03 00 12.6	
	comp=Z,9.2nm,1.3s						
CLL	**Collm**	**146.29**	**334**	*e*PKPbc	**PKPdf**	**02 59 00.0**	**+0.5**
KRUC	**Moravsky**	**146.42**	**329**	*e*PKP	**PKPdf**	**02 59 00.3**	**+0.5**
PRU	**Pruhonice**	**146.63**	**331**	*e*PKPDF	**PKPdf**	**02 58 59.8**	**-0.3**
EKA	**Eskdalemuir Ar**	**146.84**	**353**	PKPbc	**PKPdf**	**02 59 00.3**	**0.0**
	comp=Z,1.8nm,0.5s,baz=1.9,slow=2.5,SNR=13						
ABNA	**Allensteig Bun**	**147.15**	**329**	*e*PKP	**PKPbc**	**02 59 03.4**	**+0.2**
	comp=Z,6.6nm,1.1s						
RONA	**Rosalia, Austr**	**147.38**	**327**	*e*PKP	**PKPbc**	**02 59 04.1**	**+0.1**
	comp=Z,1.6nm,0.5s						
CONA	**Conrad Observa**	**147.45**	**327**	*e*PKP	**PKPbc**	**02 59 04.6**	**+0.4**
	comp=Z,4.9nm,1.1s						
CKRC	**Cesky Krumlov**	**147.58**	**330**	*e*PKPDF	**PKPbc**	**02 59 03.5**	**-0.9**
KHC	**Kasperske Hory**	**147.68**	**331**	*e*PKPDF	**PKPbc**	**02 59 04.1**	**-0.6**
GERES	**GERESS Array B**	**147.84**	**331**	PKPbc	**PKPbc**	**02 59 04.4**	**-0.8**
	comp=Z,2.8nm,0.8s,baz=18,slow=1.6,SNR=16						
GERES	**GERESS Array B**	**147.84**	**331**		**PKPdf**	**02 59 02.3**	**0.0**
BEHE	**Becsehely**	**147.93**	**325**	PKPdf	**PKPdf**	**02 59 01.5**	**-0.9**
SOKA	**Soboth**	**148.71**	**326**	*e*PKP	**PKPbc**	**02 59 06.9**	**-0.6**
	comp=Z,4.3nm,1.3s						
BLY	**Banja Luka**	**148.76**	**322**	PKPdf	**PKPdf**	**02 59 04.2**	**+0.4**
KBA	**Koelnbreinsper**	**149.27**	**329**	*e*PKP	**PKPbc**	**02 59 08.0**	**-1.1**
	comp=Z,1.4nm,0.6s						
LESA	**Schwarzleotal**	**149.34**	**330**	*e*PKP	**PKPbc**	**02 59 08.2**	**-0.9**
	comp=Z,2.7nm,0.6s						
ABTA	**Abfaltersbach**	**149.91**	**329**	*e*PKP	**PKPbc**	**02 59 09.2**	**-1.3**
	comp=Z,4.2nm,0.9s						
WATA	**Walderalm**	**149.91**	**331**	*e*PKP	**PKPbc**	**02 59 10.1**	**-0.6**
	comp=Z,3.3nm,0.5s						
WTTA	**Wattenberg**	**149.94**	**330**	*e*PKP	**PKPbc**	**02 59 09.4**	**-1.3**
	comp=Z,3.5nm,0.5s						
MOTA	**Moosalm**	**150.12**	**331**	*e*PKP	**PKPbc**	**02 59 10.5**	**-0.7**
	comp=Z,9.0nm,1.2s						
RETA	**Reutte**	**150.16**	**332**	*e*PKP	**PKPbc**	**02 59 09.8**	**-1.3**
	comp=Z,4.8nm,1.3s						
SQTA	**Sankt Quirin**	**150.16**	**331**	*e*PKP	**PKPbc**	**02 59 10.5**	**-0.7**
	comp=Z,4.7nm,0.7s						
FETA	**Feichten**	**150.53**	**331**	*e*PKP	**PKPbc**	**02 59 11.7**	**-0.5**
	comp=Z,6.7nm,1.1s						

*NEIC **03** 02:40:54.9±1.4, 44.41S±0.07×79.4W±0.1, h10^{km}±1^{km},*
mb5.2/45, Ms_20 5.5/240, Mwb6.0/92, Mww6.0/78,
Mww6.0(GUC), Error ellipse: s-maj=15.6km s-min=11.7km
az=273.0, Moment Tensor Solution: Moment tensor:
Scale 10^{18}Nm; M$_{rr}$0.03; M$_{θθ}$0.40; M$_{φφ}$-0.42; M$_{rθ}$-0.14;
M$_{θφ}$-0.97; M$_{rφ}$0.25; Fault plane solution: M$_0$1.09000×10^{18}
NP1:φ$_s$257.89000°, δ75.30000°, λ175.17000°. NP2:
φ$_s$349.12000°, δ85.33000°, λ14.75000°. Principal axes: T
1.1013, Plg14.0000°, Azm214.0000°; N -0.0215,
Plg75.0000°, Azm6.0000°; P -1.0798, Plg7.0000°,
Azm123.0000°;
*NEIC **03** 02:40:55.5, 44.38S×79.35W, h10^{km}*
*NEIC **03** 02:40:55.7, 44.40S×79.30W, h10^{km}*
*IDC **03** 02:40:56.4±0.7, 44.77S×79.23W, h0^{km}, mb4.1/10,*
mbtmp4.2/13, ML4.7/3, MS5.3/25, Error ellipse:
s-maj=20.7km s-min=13.6km az=116.0
*MOS **03** 02:40:56.5±2.0, 44.31S×78.93W, h10^{km}, mb5.4/12, Error*
ellipse: s-maj=16.4km s-min=9.1km az=79.2
*GUC **03** 02:40:56.4±0.3, 44.18S×79.19W, h10^{km}, ML6.2,*
Presumed earthquake
*GFZ **03** 02:40:59.2±0.2, 45.2°S±2.2°×7.9W±.°, h10^{km}, M5.7/42,*
mb5.1/42, Error ellipse: s-maj=7.8km s-min=5.1km
az=97.9, confirmed
*GFZ **03** 02:40:59.2, 44.55S×78.87W, h21^{km}, Mw6.0/69, Moment*
Tensor Solution. Moment tensor: Scale 10^{18}Nm;
M$_{rr}$-0.03; M$_{θθ}$0.56; M$_{φφ}$-0.53; M$_{rθ}$0.06; M$_{θφ}$-1.19; M$_{φr}$-0.15;
Fault plane solution: M$_0$1.32396×10^{18} NP1:
φ$_s$167.70869°, δ89.29102°, λ6.90763°. NP2:φ$_s$77.62280°,
δ83.09291°, λ179.28584°. Principal axes: T 1.3419,
Plg5.3815°, Azm32.8725°; N -0.0367, Plg83.0563°,
Azm173.5405°; P -1.3052, Plg4.3752°, Azm302.4596°;
*PTWC **03** 02:41:00, 44.40S×78.90W, Mwp6.4/20*
*GCMT **03** 02:41:01.9±0.1, 44.61S×79.46W, h18^{km}, MW6.0/163,*
Moment Tensor Solution. s160,c357; s163,c597;
Duration: 2s5 Moment tensor: Scale 10^{18}Nm;
M$_{rr}$-0.08±.01; M$_{θθ}$0.59±.01; M$_{φφ}$-0.51±.01; M$_{rθ}$0.00±.01;
M$_{θφ}$-1.21±.01; M$_{rφ}$0.09±.01; Best double couple:
M$_0$1.33200×10^{18} NP1:φ$_s$258.00000°, δ86.00000°,
λ-179.00000°. NP2:φ$_s$168.00000°, δ89.00000°,
λ-4.00000°. Principal axes: T 1.3710, Plg2.0000°,
Azm213.0000°; N -0.0760, Plg86.0000°, Azm330.0000°;
P -1.2940, Plg3.0000°, Azm123.0000°; nsta1 refers to
body waves, cutoff=40s. nsta2 refers to surface/mantle
waves, cutoff=50s. Triangular moment-rate function
*NEIC **03** 02:41:09.5, 44.38S×79.35W, h12^{km}, Moment Tensor*
Solution. Duration: 5s1 Moment tensor: Scale 10^{18}Nm;
M$_{rr}$-0.09; M$_{θθ}$0.43; M$_{φφ}$-0.34; M$_{rθ}$-0.50; M$_{θφ}$-1.00; M$_{φr}$0.01;
Fault plane solution: M$_0$1.18000×10^{18} NP1:
φ$_s$350.16000°, δ65.70000°, λ1.01000°. NP2:φ$_s$259.74000°,
δ89.08000°, λ155.70000°. Principal axes: T 1.2463,
Plg18.0000°, Azm212.0000°; N -0.1367, Plg66.0000°,
Azm78.0000°; P -1.1096, Plg16.0000°, Azm308.0000°;
*OSUNB **03** 02:41:09.4±0.4, 43.92S×78.56W, h10^{km}, mb4.9/24 Error*
ellipse: s-maj=3.8km s-min=4.5km az=0.0
ISC 03 02:40:55.0±0.3, 44.45S±0.05×79.50W±0.04, h10^{km}, n541, σ2^{s}26/364, mb4.9/44, MS5.5/146, 25C-12D, Off coast of southern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GO07	**Milladeo Hill,**	**4.43**	**75**		**Pn**	**02 42 00.8**	**-1.4**
GO07				Sn	**Sn**	**02 42 51.4**	**-2.5**
GO07	**Milladeo Hill,**	**4.43**	**75**	P	**Pn**	**02 42 00.7**	**-1.5**
GO07	**Milladeo Hill,**	**4.43**	**75**	*i* P	**Pn**	**02 42 00.3**	**-1.9**
GO07	**Milladeo Hill,**	**4.43**	**75**	P	**Pn**	**02 42 01.6**	**-0.6**
LL07	**Hotel Espejo d**	**4.66**	**72**		**Pn**	**02 42 04.5**	**-0.8**
LL07	**Hotel Espejo d**	**4.66**	**72**	*e*P	**Pn**	**02 42 03.8**	**-1.6**
LL07				*e*S	**Sn**	**02 42 55.2**	**-4.3**
LL07	**Hotel Espejo d**	**4.66**	**72**	P	**Pn**	**02 42 06.0**	**+0.6**
MGDN	**Magdalena**	**4.70**	**95**	*e*P	**Pn**	**02 42 08.2**	**+2.2**
LL06	**Loncomilla**	**4.83**	**65**	*e*P	**Pn**	**02 42 06.2**	**-1.5**
LL06				*e*S	**Sn**	**02 42 59.6**	**-4.0**
LL06				IAML		02 43 14.4	
	comp=N,7μm,0.6s						
CHAC	**Puerto Chacabu**	**4.88**	**104**	*e*P	**Pn**	**02 42 10.3**	**+1.8**
HUDS	**Hud

comp=Z,143nm,0.7s
MG03 Isla Dawson 11.11 151 Pn 02 43 29.9 -3.8
BO02 Sierra Bellavi 11.74 38 Pn 02 43 40.7 -2.0
BO02 Sierra Bellavi 11.74 38 ⇑P Pn 02 43 40.9 -1.8
BO02 Sierra Bellavi 11.74 38 P Pn 02 43 43.0 +0.4
comp=Z,153nm,1.0s
BO01 Tunca 11.96 36 Pn 02 43 43.5 -2.0
BO01 Tunca 11.96 36 P Pn 02 43 46.0 +0.5
comp=Z,100nm,0.6s
MT01 Popeta 12.35 34 Pn 02 43 48.8 -2.0
BO04 La Punta 12.50 36 Pn 02 43 50.6 -2.3
MT09 Talagante 12.53 35 Pn 02 43 51.2 -2.2
USHA Ushuaia 12.61 149 Pn Pn 02 43 49.0 -5.2
comp=Z,3.3nm,0.3s,baz=196,slow=15,SNR=1.8
comp=Z,13nm,0.4s
USHA AML AML
MT13 San Alfonso 12.85 37 Pn 02 43 56.7 -1.1
MT02 Curacav 12.92 33 Pn 02 43 56.7 -2.0
VA01 Torpederas 12.94 31 Pn 02 43 57.2 -1.7
VA01 Torpederas 12.94 31 P Pn 02 43 57.8 -1.0
comp=Z,146nm,0.7s
MT05 Renca 12.96 35 Pn 02 43 58.6 -0.7
MT03 Universidad Ad 12.97 36 Pn 02 43 57.6 -1.8
MT16 CCHEN 13.02 35 Pn 02 43 59.0 -1.1
PEL Peldehue 13.20 34 Pn 02 44 01.1 -1.5
PEL Peldehue 13.20 34 P Pn 02 44 01.7 -0.8
PEL Peldehue 13.20 34 ⇑P Pn 02 44 01.5 -1.0
PEL Peldehue 13.20 34 P Pn 02 44 03.6 +1.1
comp=Z,136nm,0.7s
MT08 Bocatoma Ro 13.22 37 Pn 02 44 02.1 -0.9
VA03 San Esteban 13.59 34 Pn 02 44 05.9 -2.0
VA03 San Esteban 13.59 34 P Pn 02 44 06.5 -1.4
comp=Z,185nm,0.7s
CO04 Los Peladeros 14.07 31 Pn 02 44 12.5 -2.0
CO04 Los Peladeros 14.07 31 P Pn 02 44 13.7 -0.8
comp=Z,162nm,0.6s
CO02 Combarbal 14.81 30 Pn 02 44 23.0 -1.6
CO02 Combarbal 14.81 30 ⇑P Pn 02 44 23.1 -1.5
CO02 Combarbal 14.81 30 P Pn 02 44 24.7 +0.1
comp=Z,287nm,0.6s
CO06 Fray Jorge 15.08 27 Pn 02 44 26.5 -1.6
CO06 IAmb IAmb 02 44 32.7
comp=Z,30nm,0.7s
ZON Zonda 15.43 37 P **Pn 02 44 32.5 -0.2**
ZON pmax pmax
comp=Z,19nm,0.5s
ZON Zonda 15.43 37 Pn 02 44 32.5 -0.2
ZON Zonda 15.43 37 ⇓P Pn 02 44 33.5 +0.7
ZON Zonda 15.43 37 P P 02 44 34.9 -2.4
comp=E,74nm,2.0s
CFA Coronel Fontan 15.57 38 Pn **Pn 02 44 34.2 -0.4**
comp=E,1.2nm,0.3s,baz=227,slow=11,SNR=24
CFA Sn **Sn 02 47 27.8 +0.7**
baz=120,slow=16
CFA LR LR 02 49 55.9
comp=E,12μm,21.7s,baz=204,slow=34
comp=E,3.8nm,0.3s
CFA AML AML
GO04 Tololo Observa 15.82 29 Pn **Pn 02 44 35.6 -2.5**
GO04 IAmb IAmb 02 44 43.5
comp=Z,68nm,0.7s
GO04 Tololo Observa 15.82 29 P Pn 02 44 38.6 +0.5
GO04 Tololo Observa 15.82 29 ⇓P Pn 02 44 37.4 -0.7
GO04 Tololo Observa 15.82 29 P P 02 44 39.9 -2.0
comp=Z,132nm,0.6s
CO05 La Serena 15.91 27 P Pn 02 44 37.7 -1.2
EFI East Falkland 16.02 124 *eP P 02 44 41.3 -2.3*
EFI pmax pmax
comp=Z,115nm,2.7s
CO01 Juntas del Tor 16.25 30 Pn Pn 02 44 42.0 -1.6
CO01 Juntas del Tor 16.25 30 P P 02 44 45.6 -1.0
comp=Z,44nm,1.0s
LCO Las Campanas 16.93 27 *eP* **Pn 02 44 51.7 -0.5**
LCO Las Campanas 16.93 27 P Pn 02 44 51.7 -0.5
LCO Las Campanas 16.93 27 ⇓P P 02 44 54.5 +0.4
AC05 El Transito 17.23 28 Pn 02 44 55.2 -0.6
AC05 IAmb IAmb 02 45 03.3
comp=Z,107nm,0.7s
AC05 El Transito 17.23 28 P P 02 44 57.3 -0.1
AC05 El Transito 17.23 28 P P 02 44 57.8 +0.4
comp=Z,148nm,0.7s
AC04 Llanos de Chal 17.55 25 P Pn 02 44 58.4 -1.4
AC04 Llanos de Chal 17.55 25 P P 02 45 04.9 +4.0
comp=Z,82nm,2.1s
GO03 Copiapo 18.39 27 P P 02 45 09.2 -0.9
GO03 IAmb IAmb 02 45 16.6
comp=Z,229nm,1.9s
GO03 Copiapo 18.39 27 ⇑P P 02 45 13.2 +3.1
GO03 Copiapo 18.39 27 P P 02 45 14.4 +4.3
comp=Z,126nm,2.3s
AC06 Mina Casimiro 18.57 26 P P 02 45 10.8 -1.2
LPA La Plata 19.09 67 *i* P P 02 45 08.4 -9.3
LPA pP **Pn 02 45 17.6 -0.9**
LPA sP pwP 02 45 23.4 -0.3
LPA La Plata 19.09 67 SN **S 02 48 53.2 -1.0**
LPA sS sS 02 49 00.0 +2.6
LPA SS **SnSn 02 49 12.7 +6.5**
LPA PS 02 49 18.4
LPA PCP **PcP 02 49 37.6 -4.3**
LPA SSS SSS 02 51 18.8
LPA SCS **ScS 02 56 59.2 0.0**
LPA PKIKP **PKiKP 02 57 34.4 +2.5**
LPA SKIKP 03 01 00.9
LPA PKIKS 03 01 16.5
LPA SKIKS 03 04 35.4
ANCO Parque Anchore 19.45 66 *eP* **Pn 02 45 22.7 -0.1**
AC02 Maricunga 19.46 29 P P 02 45 20.4 -1.9
AC02 IAmb IAmb 02 45 31.2
comp=Z,149nm,1.5s
AC02 Maricunga 19.46 29 P Pn 02 45 26.6 +3.1
AC02 Maricunga 19.46 29 P Pn 02 45 26.2 +2.8
comp=Z,78nm,1.5s
AC01 Pan de Azucar 19.63 24 P P 02 45 21.6 -2.0
AC01 Pan de Azucar 19.63 24 P Pn 02 45 27.8 +2.8
AC01 Pan de Azucar 19.63 24 P Pn 02 45 25.9 +0.9
comp=Z,48nm,1.7s
PB14 IPOC Station P 21.12 24 P P 02 45 38.7 -1.5
PB14 IPOC Station P 21.12 24 P P 02 45 45.5 +5.4
comp=Z,159nm,2.7s
PSAL Palomas, Salto 21.77 60 *eP* **P 02 45 47.8 +1.1**
PB10 IPOC Station P 22.13 22 P P 02 45 48.5 -2.2
PB10 IAMs_20 IAMs_20 02 51 52.6
comp=Z,15μm,22.0s
PB10 IPOC Station P 22.13 22 P P 02 45 54.4 +3.7
comp=Z,163nm,2.3s
PB05 IPOC Station P 22.85 23 P P 02 46 01.7 +3.2
comp=Z,71nm,1.2s
SALTA 22.86 32 P P 02 46 03.3 +4.3
comp=Z,88nm,1.9s
ITQB Itaqui 23.36 59 P P 02 46 06.5 +3.0
ITQB S **S 02 50 18.2 +1.8**
ITQB Itaqui 23.36 59 *eP* **P 02 46 03.9 +0.3**
AF01 San Pedro de A 23.37 27 IAMs_20 IAMs_20 02 53 08.3
comp=Z,15μm,20.0s
PB09 IPOC Station P 24.13 24 P P 02 46 15.6 +4.4
comp=Z,132nm,3.0s
CPSB Cacapava Do Su 24.86 65 P 02 46 16.5 -1.2
CPSB Cacapava Do Su 24.86 65 P P 02 46 21.1 +3.4
CPSB Cacapava Do Su 24.86 65 P P 02 46 15.6 -2.1
CPSB Cacapava Do Su 24.86 65 *eP* **P 02 46 17.5 -0.2**
CPUP Villa Florida 25.43 52 P P 02 46 25.5 +2.7
comp=Z,26nm,1.1s,baz=228,slow=9.5,SNR=21
comp=Z,26nm,1.1s
CPUP Villa Florida 25.43 52 P 02 46 21.3 -1.4
CPUP IAmb IAmb 02 46 32.7
comp=Z,88nm,1.1s
CPUP Villa Florida 25.43 52 P P 02 46 25.1 +2.3
CPUP Villa Florida 25.43 52 ⇑P P 02 46 24.8 +2.0
CPUP Villa Florida 25.43 52 P P 02 46 26.0 +3.2
CPUP S **S 02 50 53.8 +4.2**
CPUP Villa Florida 25.43 52 P P 02 46 26.1 +3.2
comp=Z,83nm,2.4s
CPUP Villa Florida 25.43 52 *eP* **P 02 46 21.4 -1.4**
GO01 Chusmiza 26.16 22 IAMs_20 IAMs_20 02 54 23.4
comp=Z,10μm,20.0s
SJPY San Joaquin 27.16 52 *eP* **P 02 46 37.5 -0.9**
CNLB Canela 27.27 66 P P 02 46 46.1 +6.6
CNLB S **S 02 51 22.4 +3.7**
CNLB Canela 27.27 66 P **P 02 46 44.5 +5.0**
comp=Z,44nm,2.1s
CNLB Canela 27.27 66 *eP* **P 02 46 39.2 -0.3**
PB16 IPOC Station P 27.35 21 P P 02 46 38.2 -2.6
PB16 IAMs_20 IAMs_20 02 54 39.0
comp=Z,11μm,20.0s

ITAB Concordia 27.87 61 P 02 46 43.1 -1.7
ITAB Concordia 27.87 61 P **P 02 46 48.2 +3.4**
ITAB S **S 02 51 32.2 +4.1**
ITAB Concordia 27.87 61 P **P 02 46 48.1 +3.4**
comp=Z,46nm,2.0s
ITAB Concordia 27.87 61 *eP* **P 02 46 43.5 -1.3**
PB18 Visviri 28.07 21 IAMs_20 IAMs_20 02 55 03.1
comp=Z,12μm,22.0s
MURT Porto Murtinho 29.04 46 *eP* **P 02 46 54.1 -1.1**
HOPE Hope Point 29.26 125 P P **02 46 59.3 +2.3**
HOPE Hope Point 29.26 125 IAMs_20 IAMs_20 02 58 10.9
comp=Z,12μm,20.0s
LPAZ La Paz 29.67 22 P P 02 47 06.2 +4.6
comp=Z,3.8nm,0.8s,baz=158,slow=4.7,SNR=3.8
comp=Z,3.8nm,0.8s
LPAZ La Paz 29.67 22 P **P 02 46 59.8 -1.8**
LPAZ pmax pmax
comp=Z,59nm,1.9s
LPAZ La Paz 29.67 22 P **P 02 46 59.8 -1.8**
LPAZ IAmb IAmb 02 47 54.9
comp=Z,59nm,1.9s
LPAZ La Paz 29.67 22 P P 02 47 09.7 +8.2
LPAZ S **S 02 52 01.8 +4.1**
COIM Forte Coimbra 30.41 43 *eP* **P 02 47 05.9 -1.6**
TRCB Terra Rica 30.86 54 P P 02 47 11.2 -0.2
TRCB Terra Rica 30.86 54 P P 02 47 20.1 +8.7
TRCB Terra Rica 30.86 54 *eP* **P 02 47 10.2 -1.2**
AQDB Aquidauana 31.00 47 P 02 47 11.2 -1.5
AQDB Aquidauana 31.00 47 P **P 02 47 16.5 +3.8**
AQDB Aquidauana 31.00 47 P **P 02 47 16.2 +3.5**
comp=Z,44nm,1.8s
AQDB Aquidauana 31.00 47 *eP* **P 02 47 11.7 -1.0**
LDASE Londrina, Braz 31.30 57 *eP* **P 02 47 13.6 -1.7**
BBSD Serra de San D 31.49 36 *eP* **P 02 47 14.9 -2.1**
NNA Nana 32.42 5 *i*P *eP* **P 02 47 27.1 +1.9**
NNA pmax pmax
comp=Z,40nm,1.0s
NNA Nana 32.42 5 IAMs_20 IAMs_20 02 58 01.6
comp=Z,9μm,20.0s
PCMB Pacaembu 32.58 55 P **P 02 47 29.6 +3.1**
PCMB S **S 02 52 43.2 +1.1**
PCMB Pacaembu 32.58 55 P **P 02 47 29.8 +3.3**
comp=Z,40nm,1.4s
PCMB Pacaembu 32.58 55 *eP* **P 02 47 26.3 -0.2**
PTLB Pontes e Lacer 33.67 37 P 02 47 34.7 -1.3
PTLB IAmb IAmb 02 47 48.6
comp=Z,56nm,1.2s
PTLB Pontes e Lacer 33.67 37 P P 02 47 41.4 +5.4
PTLB Pontes e Lacer 33.67 37 *eP* **P 02 47 33.9 -2.2**
PP1B Ponte de Pedra 33.82 46 *eP* **P 02 47 36.5 -0.9**
VABB Valinhos 34.15 62 P **P 02 47 43.6 +3.3**
VAO Valinhos 34.15 62 P **P 02 47 38.2 -2.2**
VAO IAmb IAmb 02 47 59.5
comp=Z,67nm,1.7s
BB19B Bebedouro 34.62 58 P P 02 47 48.7 +4.4
SALV Santo Antonio 34.86 43 P P 02 47 51.5 +5.1
SALV Santo Antonio 34.86 43 *eP* **P 02 47 45.1 -1.3**
VILB Vilhena 35.47 34 P 02 47 50.8 -0.9
VILB IAmb IAmb 02 48 03.7
comp=Z,46nm,1.2s
VILB Vilhena 35.47 34 P P 02 47 59.2 +7.5
VILB Vilhena 35.47 34 *eP* **P 02 47 49.1 -2.5**
ITU3 Corumbazu 36.61 54 P P 02 48 08.3 +6.8
VAS01 Vassouras-RJ 36.93 65 *eP* **P 02 48 03.2 -0.9**
ARAG Araguaiana, MT 37.00 48 P P 02 48 11.8 +7.1
ARAG S **S 02 53 55.2 +5.0**
ARAG Araguaiana, MT 37.00 48 *eP* **P 02 48 03.0 -1.7**
CZSB Cruzeiro do Su 37.05 11 P P 02 48 16.7 +11
CZSB Cruzeiro do Su 37.05 11 *eP* **P 02 48 00.8 -4.4**
IPMB Ipameri, GO 37.18 55 S **S 02 53 53.9 +0.8**
PMNB Patos De Minas 37.81 58 S **S 02 54 04.5 +1.7**
BELA Belgrano 2 37.87 166 P **P 02 48 11.5 -0.1**
PDRB Porto dos Gac 38.12 38 P P 02 48 21.8 +7.5
PDRB S **S 02 54 12.3 +5.0**
PDRB Porto dos Gac 38.12 38 *eP* **P 02 48 11.8 -2.4**
BDFB Brasilia 39.15 53 P **P 02 48 26.4 +3.4**
comp=Z,4.3nm,0.9s,baz=181,slow=5.8,SNR=4.5
comp=Z,4.3nm,0.9s
BDFB Brasilia 39.15 53 P **P 02 48 21.3 -1.8**
BDFB pmax pmax
comp=Z,66nm,1.7s
BDFB Brasilia 39.15 53 P **P 02 48 21.3 -1.8**
BDFB IAmb IAmb 02 48 39.7
comp=Z,66nm,1.7s
CLDB Colider 39.20 39 P P 02 48 30.5 +7.2
CLDB S **S 02 54 25.4 +1.9**
CLDB Colider 39.20 39 *eP* **P 02 48 21.9 -1.4**
DIAM Diamantina, MG 39.69 61 P **P 02 48 31.2 +3.6**
DIAM S **S 02 54 34.3 +3.0**
DIAM Diamantina, MG 39.69 61 *eP* **P 02 48 25.5 -2.1**
JQT1 Jequitai-MG 40.07 59 P P 02 48 36.7 +6.1
SNDB Serra Nova Dou 40.40 46 P P 02 48 40.8 +7.5
SNDB S **S 02 54 43.5 +1.9**
SNDB Serra Nova Dou 40.40 46 *eP* **P 02 48 32.2 -1.1**
MC08 Montes Claros 40.77 59 S **S 02 54 49.6 +2.4**
SJMB Sao Joao De Ma 40.97 64 S **S 02 54 56.0 +6.0**
RIB01 Linhares ES 41.03 65 S **S 02 54 54.4 +3.5**
CAN3 Cana Brava 41.06 50 P P 02 48 43.1 +4.3
BSFB Barra de Sao F 41.09 64 S **S 02 54 57.9 +6.1**
VNA3 Neumayer Olymp 42.25 153 ⇑P **P 02 48 48.3 +0.4**
comp=Z,21nm,0.8s
VNA3 Neumayer Olymp 42.25 153 P **P 02 48 48.5 +0.5**
comp=Z,43nm,1.0s
VNA1 Neumayer--Stat 42.72 152 ⇑P **P 02 48 50.8 -0.9**
comp=Z,26nm,1.0s
NPGB Novo Progresso 42.80 37 P P 02 49 00.7 +7.7
NPGB S **S 02 55 18.3 +1.2**
NPGB Novo Progresso 42.80 37 *eP* **P 02 48 50.3 -2.6**
VNA2 Neumayer--Watz 43.00 153 ⇑P **P 02 48 52.2 -1.8**
comp=Z,24nm,0.8s,baz=273,slow=7.9
VNA2 Neumayer--Watz 43.00 153 P **P 02 48 54.7 +0.7**
comp=Z,48nm,0.8s
SDBA SAO DESIDERIO 43.53 54 P P 02 49 05.8 +6.8
SDBA SAO DESIDERIO 43.53 54 *eP* **P 02 48 58.3 -0.6**
SLOR San Lorenzo - 43.54 1 P **P 02 48 57.2 -2.2**
SNAA Sanae 44.42 154 ⇑pP pP 02 49 07.2 -0.5
comp=Z,149nm,0.8s
SNAA Sanae 44.42 154 P **P 02 49 05.0 -0.5**
comp=Z,3.2nm,0.8s,baz=271,slow=6.3,SNR=7.0
SNAA LR LR 03 04 55.6
comp=Z,4μm,20.9s,baz=276,slow=33
comp=Z,3.2nm,0.8s
SNAA Sanae 44.42 154 P **P 02 49 06.0 +0.5**
SNAA pmax pmax
comp=Z,60nm,1.7s
SNAA Sanae 44.42 154 P **P 02 49 06.0 +0.5**
SNAA IAmb IAmb 02 49 26.5
comp=Z,59nm,1.7s
SNAA Sanae 44.42 154 P **P 02 49 06.2 +0.7**
comp=Z,20nm,1.7s
OTAV Otavalo 44.50 1 P **P 02 49 09.7 +2.6**
OTAV Otavalo 44.50 1 P P 02 49 19.0 +12
OTAV Otavalo 44.50 1 P **P 02 49 09.7 +2.6**
comp=Z,15nm,1.4s
OTAV Otavalo 44.50 1 *eP* P 02 49 01.1 -6.0
SMTB Santa Maria do 44.96 48 P **P 02 49 08.1 -2.2**
SMTB IAmb IAmb 02 49 22.7
comp=Z,57nm,1.1s
SMTB Santa Maria do 44.96 48 P P 02 49 17.6 +7.3
SMTB Santa Maria do 44.96 48 *eP* **P 02 49 08.4 -2.0**
ITTB Itaituba 45.05 35 P P 02 49 18.5 +7.4
ITTB Itaituba 45.05 35 *eP* **P 02 49 08.3 -2.8**
QSPA South Pole Qui 45.80 180 P **P 02 49 16.9 +0.3**
comp=Z,1.5nm,0.8s,baz=123,slow=2.8,SNR=5.2
QSPA LR LR 03 06 44.4
comp=Z,1μm,18.1s,baz=142,slow=34
comp=Z,1.5nm,0.8s
QSPA South Pole Qui 45.80 180 P P 02 49 17.7 +1.1
QSPA IAmb IAmb 02 49 49.6
comp=Z,62nm,1.5s
QSPA South Pole Qui 45.80 180 IAMs_20 IAMs_20 03 07 09.5
comp=Z,4μm,18.0s
TROLL Troll, Antarti 46.04 155 ⇑P **P 02 49 17.8 -0.6**
comp=Z,468nm,1.0s
ATM1 UHE Belo Monte 47.52 38 P P 02 49 40.4 +10
NBPN Ponto Novo - B 47.55 57 P P 02 49 37.8 +7.0
NBPN Ponto Novo - B 47.55 57 *eP* **P 02 49 29.1 -1.7**
MAL2 Monte Alegre, 47.82 35 P P 02 49 41.1 +8.4
NVL N'lazarevskaya 49.24 154 *eP* **P 02 49 42.4 -0.7**
NVL *eS* **S 02 56 41.5 -7.0**
NVL *eSS* **SS 03 00 18.8 -0.4**
NVL *eSSS* SSS 03 01 40.3
NVL pmax pmax

comp=Z,9.0nm,0.9s
NVL MLR MLR
comp=Z,2μm,16.0s
ROSC El Rosal 49.28 7 P P 02 49 50.4 +5.9
comp=Z,1.8nm,0.4s,baz=111,slow=17,SNR=4.1
comp=Z,1.8nm,0.4s
ROSC El Rosal 49.28 7 P **P 02 49 42.4 -2.0**
ROSC pmax pmax
comp=Z,16nm,1.0s
ROSC El Rosal 49.28 7 P **P 02 49 42.4 -2.0**
ROSC IAmb IAmb 02 50 11.6
comp=Z,16nm,0.9s
BOAV Boa Vista 49.63 25 P P 02 49 55.7 +9.0
BOAV Boa Vista 49.63 25 *eP* **P 02 49 43.2 -3.5**
RUSC La Rusia 50.44 8 P **P 02 49 51.8 -1.6**
NBMA Muriti-CE 51.16 56 P P 02 50 06.6 +8.3
NBMA Muriti-CE 51.16 56 *eP* **P 02 49 56.7 -1.7**
NBPS Pedro II - PI 52.01 51 P P 02 50 12.2 +7.4
NBPS Pedro II - PI 52.01 51 *eP* **P 02 50 02.7 -2.1**
NBPB Pedra_Branca-C 52.14 54 P P 02 50 14.2 +8.6
ELIB Princess Elisa 52.16 157 *dP* **P 02 50 05.5 +0.1**
comp=Z,6.5nm,1.3s
VNDA Vanda 52.67 194 P **P 02 50 10.0 +1.2**
comp=Z,1.1nm,1.0s,baz=146,slow=8.2,SNR=4.4
comp=Z,1.1nm,1.0s
VNDA Vanda 52.67 194 P **P 02 50 09.3 +0.5**
VNDA pmax pmax
comp=Z,31nm,1.8s
VNDA Vanda 52.67 194 P **P 02 50 09.3 +0.5**
VNDA IAmb IAmb 02 50 50.9
comp=Z,31nm,1.8s
VNDA Vanda 52.67 194 P **P 02 50 10.7 +1.9**
comp=Z,7.9nm,2.0s
SDV Santo Domingo 53.69 11 LR LR 03 11 53.9
comp=Z,5μm,20.7s,baz=205,slow=34
SDV Santo Domingo 53.69 11 P **P 02 50 14.7 -2.4**
SDV IAmb IAmb 02 50 49.2
comp=Z,20nm,1.1s
SDV IAMs_20 IAMs_20 03 11 43.6
comp=Z,5μm,21.0s
SDV Santo Domingo 53.69 11 P **P 02 50 18.0 +0.8**
comp=Z,94nm,1.1s
NBMO Morrinhos-CE 53.69 52 P P 02 50 22.6 +5.6
NBPV Pedro Velho 54.00 59 P P 02 50 26.7 +7.3
RCBR Riachuelo 54.09 58 LR LR 03 12 54.8
comp=Z,4μm,21.1s,baz=202,slow=36
EGUB Earth Gujpi 54.52 355 P **P 02 50 21.6 -1.4**
JTS Las Juntas de 54.70 353 LR LR 03 07 44.2
comp=Z,3μm,20.6s,baz=177,slow=29
JTS Las Juntas de 54.70 353 *iP* **P 02 50 25.3 +0.9**
JTS pmax pmax
comp=Z,52nm,2.1s
JTS Las Juntas de 54.70 353 IAMs_20 IAMs_20 03 07 31.7
comp=Z,3μm,20.0s
MDP Montagnes des 54.91 33 LR LR 03 15 56.7
comp=Z,5μm,18.2s,baz=194,slow=38
SYO Syowa Base 58.30 158 ⇓ *iP* **P 02 50 51.4 +2.0**
TBI Tubuai 59.96 266 *eP* **P 02 51 00.5 -1.1**
comp=Z,2μm,27.0s
TBI *eS* **S 02 59 15.9 +2.0**
comp=Z,16μm,29.8s
TBI *eLQ* LQ 03 06 12.5
comp=Z,69μm,34.8s
TBI *eLR* LR 03 08 33.1
comp=Z,5μm,28.0s
TBI *eLR* LR 03 08 39.9
comp=Z,18μm,26.5s
APG El Apazote 60.00 348 LR LR 03 09 22.9
comp=Z,103nm,21.1s,baz=208,slow=28
BBGH Gun Hill 60.12 23 P **P 02 51 02.2 -0.3**
BBGH IAMs_20 IAMs_20 03 17 07.5
comp=Z,5μm,21.0s
MPOM Morne Pois Mar 61.02 21 IAMs_20 IAMs_20 03 15 29.6
comp=Z,5μm,21.0s
BIM Bigot 61.03 20 IAMs_20 IAMs_20 03 15 30.0
comp=Z,6μm,21.0s
FDFM Morne la Roset 61.22 20 IAMs_20 IAMs_20 03 15 35.4
comp=Z,6μm,22.0s
SVN Savane Anatole 61.32 20 IAMs_20 IAMs_20 03 15 14.6
comp=Z,6μm,22.0s
ILAM Ilet Lapin Mar 61.33 21 IAMs_20 IAMs_20 03 15 48.8
comp=Z,6μm,20.0s
GDSD La Dsirade Is 62.76 20 IAMs_20 IAMs_20 03 17 35.7
comp=Z,6μm,20.0s
TAOE Nuku Hiva Isla 63.02 285 *e*PKIKP **P 02 51 20.6 -1.8**
comp=Z,468nm,38.1s
TAOE *eS* **S 02 59 49.9 -3.2**
comp=Z,2μm,27.9s
TAOE *eSS* **SS 03 03 54.3 -4.4**
comp=Z,852nm,29.2s
TAOE *eLQ* LQ 03 07 28.4
comp=Z,4μm,28.3s
TAOE *eLR* LR 03 10 09.1
comp=Z,3μm,26.4s
TVO Taravao 63.38 271 *eLR* LR 03 10 07.8
comp=Z,2μm,24.0s
SJG San Juan 63.44 14 LR LR 03 17 22.0
comp=Z,3μm,21.4s,baz=189,slow=34
SJG San Juan 63.44 14 IAMs_20 IAMs_20 03 17 11.9
comp=Z,3μm,22.0s
SABA Saba 63.52 17 IAMs_20 IAMs_20 03 19 56.1
comp=Z,5μm,20.0s
SDDR Presa de Saban 63.56 9 IAMs_20 IAMs_20 03 16 40.6
comp=Z,3μm,22.0s
TIAR Tiarei 63.60 271 *eLR* LR 03 10 23.5
comp=Z,9μm,22.9s
PAE Paea 63.70 271 *eLR* LR 03 10 22.5
comp=Z,3μm,24.5s
PPT2 Papeete2 63.74 271 *e*PKIKP **P 02 51 26.5 -0.7**
comp=Z,470nm,26.5s
PPT2 *e*PP **PP 02 53 46.0 -1.2**
comp=Z,299nm,23.0s
PPT2 *eS* **S 03 00 05.6 +3.6**
comp=Z,2μm,27.5s
PPT2 *eSS* **SS 03 04 07.9 -1.8**
comp=Z,984nm,35.5s
PPT2 *eLQ* LQ 03 07 41.5
comp=Z,10μm,38.2s
PPT2 *eLR* LR 03 10 17.9
comp=Z,4μm,31.0s
PPT2 *eLR* LR 03 10 25.2
comp=Z,6μm,27.2s
PPT Papeete 63.76 271 LR LR 03 11 37.9
comp=Z,1μm,20.5s,baz=126,slow=29
ANWB Willy Bob 63.90 19 IAMs_20 IAMs_20 03 16 49.8
comp=Z,4μm,21.0s
VAH Vaihoa 63.91 274 *eLR* LR 03 10 27.9
comp=Z,3μm,26.6s
SMRT St. Maarten 63.98 17 IAMs_20 IAMs_20 03 20 18.1
comp=Z,4μm,20.0s
TLIG Tlapa 64.12 340 P **P 02 51 28.7 -0.8**
TLIG IAmb IAmb 02 53 20.4
comp=Z,40nm,1.6s
PMOR Pomariorio Ree 64.25 274 *eLR* LR 03 10 42.3
comp=Z,3μm,25.2s
MAW Mawson 64.71 165 LR LR 03 18 43.5
comp=Z,4μm,19.3s,baz=204,slow=35
SHEL Horse Pasture 67.45 90 IAMs_20 IAMs_20 03 14 22.0
comp=Z,5μm,22.0s
RAR Rarotonga 68.66 261 LR LR 03 13 49.5
comp=Z,2μm,20.7s,baz=138,slow=29
CASY Casey 69.34 184 IAMs_20 IAMs_20 03 19 28.2
comp=Z,5μm,21.0s
MQZ McQueen's Vall 71.26 227 P **P 02 52 15.2 +0.9**
MQZ IAMs_20 IAMs_20 03 14 41.6
comp=Z,4μm,22.0s
KHZ Kahutara 71.69 228 IAMs_20 IAMs_20 03 15 49.0
comp=Z,4μm,21.0s
MRZ Mangatainoka R 71.78 231 IAMs_20 IAMs_20 03 17 08.7
comp=Z,3μm,19.0s
SNZO South Karori 71.82 230 IAMs_20 IAMs_20 03 16 32.6
comp=Z,3μm,20.0s
RPZ Rata Peaks 72.08 226 LR LR 03 17 10.5
comp=Z,581nm,19.6s,baz=108,slow=30
MLZ Mavora Lakes 72.38 223 IAMs_20 IAMs_20 03 21 38.0
comp=Z,3μm,19.0s
RTZ Ruatahuna 72.39 233 IAMs_20 IAMs_20 03 15 36.9
comp=Z,3μm,21.0s
URZ Urewera 72.56 233 LR LR 03 15 55.2
comp=Z,2μm,22.0s,baz=136,slow=29
TOZ Tahuroa Road 73.84 233 IAMs_20 IAMs_20 03 17 19.4
comp=Z,2μm,22.0s
545A Edgard 74.81 350 IAMs_20 IAMs_20 03 21 14.4
comp=Z,5μm,20.0s
TIGA Tifton 75.61 356 IAMs_20 IAMs_20 03 20 11.4
comp=Z,2μm,21.0s
RAO Raoul Island 75.66 243 LR LR 03 18 20.0

comp=Z,503nm,21.3s,baz=146,slow=30
HNDO Hondo 75.81 342 P **P** **02 52 40.4 -0.6**
HNDO IAmb IAmb 02 53 20.0
comp=Z,35nm,1.4s
TXAR Lajitas Array 76.67 338 P P 02 52 51.5 +5.5
comp=Z,0.3nm,0.7s,baz=146,slow=4.0,SNR=3.0
TXAR LR LR 03 20 57.8
comp=Z,2µm,21.2s,baz=148,slow=31
comp=Z,0.3nm,0.7s
TXAR Lajitas Array 76.67 338 P **P** **02 52 46.2 +0.2**
152A Waverly Hall 76.89 355 IAMs_20 IAMs_20 03 22 58.4
comp=Z,2µm,19.0s
143A Socs Landing, 77.55 350 IAMs_20 IAMs_20 03 21 29.9
comp=Z,2µm,22.0s
Y52A Lilburn 78.05 356 IAMs_20 IAMs_20 03 21 34.9
comp=Z,2µm,21.0s
WIN Windhoek 79.04 111 P **P** **02 52 58.6 -1.1**
WIN pmax pmax
comp=Z,14nm,1.0s
WIN Windhoek 79.04 111 P **P** **02 52 58.6 -1.1**
WIN IAmb IAmb 02 53 15.8
comp=Z,14nm,1.0s
WIN IAMs_20 IAMs_20 03 22 39.9
comp=Z,3µm,20.0s
WIN Windhoek 79.04 111 P **P** **02 52 59.9 +0.2**
comp=Z,18nm,1.4s
TPB28 79.11 338 P **P** **02 52 59.2 -0.3**
TPB28 IAmb IAmb 02 53 40.5
comp=Z,13nm,1.6s
MIAR Mount Ida 79.66 348 IAMs_20 IAMs_20 03 23 55.9
comp=Z,2µm,22.0s
EPT El Paso 79.75 337 IAMs_20 IAMs_20 03 22 49.2
comp=Z,2µm,20.0s
TKL Tuckaleechee C 79.82 356 LR LR 03 23 23.9
comp=Z,1µm,20.0s,baz=178,slow=32
V61A Roper 79.91 2 IAMs_20 IAMs_20 03 22 35.7
comp=Z,2µm,21.0s
BOSA Boshof 80.09 120 P **P** **02 53 06.1 +0.8**
comp=Z,2.2nm,0.7s,baz=267,slow=4.0,SNR=4.8
BOSA LR LR 03 24 29.8
comp=Z,3µm,20.2s,baz=230,slow=33
comp=Z,2.2nm,0.7s
BOSA Boshof 80.09 120 P **P** **02 53 04.6 -0.7**
BOSA pmax pmax
comp=Z,68nm,1.9s
BOSA Boshof 80.09 120 P **P** **02 53 04.6 -0.7**
BOSA IAmb IAmb 02 53 47.4
comp=Z,68nm,1.9s
WVT Waverly 80.56 353 P P 02 53 13.0 +5.9
comp=Z,15nm,1.5s
KOOLE Kule 80.80 113 P **P** **02 53 08.2 -0.9**
KOOLE IAmb IAmb 02 53 36.3
comp=Z,73nm,1.8s
T50A Nancy 81.23 356 IAMs_20 IAMs_20 03 32 58.2
comp=Z,2µm,20.0s
BLA Blacksburg 81.28 359 IAMs_20 IAMs_20 03 28 14.4
comp=Z,2µm,19.0s
U38A Gravette 81.63 348 IAMs_20 IAMs_20 03 25 19.3
comp=Z,2µm,20.0s
R55A Marlinton 82.35 360 IAMs_20 IAMs_20 03 30 56.6
comp=Z,2µm,21.0s
GRTLG Ghanzi 82.61 113 P **P** **02 53 18.1 -0.7**
GRTLG IAmb IAmb 02 53 41.1
comp=Z,33nm,1.1s
ANMO Albuquerque 82.73 338 LR LR 03 24 40.9
comp=Z,2µm,18.3s,baz=144,slow=32
ANMO Albuquerque 82.73 338⇑ *e*P **P** **02 53 22.0 +3.1**
ANMO pmax pmax
comp=Z,34nm,3.8s
ANMO Albuquerque 82.73 338 P P 02 53 23.7 +4.8
comp=Z,6.6nm,1.0s
CCM Cathedral Cave 82.81 351⇓ P P 02 53 24.3 +5.3
CCM Cathedral Cave 82.81 351 P P 02 53 23.6 +4.6
comp=Z,40nm,1.0s
LBTB Lobatse 82.86 118 LR LR 03 24 41.1
comp=Z,3µm,21.9s,baz=226,slow=32
LBTB Lobatse 82.86 118 P **P** **02 53 18.7 -1.3**
LBTB Lobatse 82.86 118 P **P** **02 53 18.7 -1.3**
Q56A Snyder Ridge, 83.11 0 IAMs_20 IAMs_20 03 37 44.5
comp=Z,2µm,22.0s
DBIC Dimbokro 83.81 74 LR LR 03 27 43.8
comp=Z,3µm,18.7s,baz=222,slow=34
DBIC Dimbokro 83.81 74 P P 02 53 32.6 +7.8
O49A Covington 84.36 356 IAMs_20 IAMs_20 03 30 17.1
comp=Z,2µm,21.0s
PFO Pinyon Flats O 84.66 330⇑ *e*P **P** **02 53 30.2 +1.5**
PFO pmax pmax
comp=Z,29nm,2.0s
PFO Pinyon Flats O 84.66 330 P P 02 53 35.7 +6.9
comp=Z,8.6nm,2.0s
DANC Danby, Needles 85.20 331 IAMs_20 IAMs_20 03 18 42.8
comp=Z,2µm,21.0s
MVCO Mesa Verde 85.42 337 P P 02 53 40.5 +7.9
comp=Z,13nm,2.2s
MSVF Nonsavu 86.33 249 LR LR 03 27 10.9
comp=Z,305nm,18.2s,baz=165,slow=32
MSVF Nonsavu 86.33 249⇑ *e*P **P** **02 53 35.4 -2.1**
MSVF pmax pmax
comp=Z,45nm,2.0s
BCX Boston College 86.72 6 IAMs_20 IAMs_20 03 26 33.8
comp=Z,3µm,22.0s
MMNY Mt. Morris Dam 86.81 1 IAMs_20 IAMs_20 03 26 27.4
comp=Z,2µm,18.0s
MATP Matopo 88.02 117 LR LR 03 27 55.8
comp=Z,1µm,21.5s,baz=223,slow=32
SADO Sadowa 88.83 0 LR LR 03 33 38.4
comp=Z,791nm,18.8s,baz=198,slow=36
ECSD EROS Data Cent 89.11 348 P P 02 53 58.0 +8.0
comp=Z,15nm,2.1s
CAN Canberra 89.22 218 IAMs_20 IAMs_20 03 26 41.5
comp=Z,1µm,19.0s
DUG Dugway, Tooele 89.43 335 P P 02 53 58.7 +6.9
comp=Z,11nm,1.6s
NVAR Mina Array Bea 89.63 331 P P 02 53 57.9 +5.1
comp=Z,0.1nm,0.3s,baz=178,slow=4.6,SNR=1.5
comp=Z,0.1nm,0.3s
NVAR Mina Array Bea 89.63 331 P **P** **02 53 53.2 +0.4**
HWUT Hardware Ranch 90.37 337 P P 02 54 03.0 +6.8
comp=Z,11nm,2.4s
D62A Allapoint, All 91.61 7 IAMs_20 IAMs_20 03 27 51.2
comp=Z,3µm,20.0s
EDA Edea 92.37 87 IAMs_20 IAMs_20 03 29 56.9
comp=Z,2µm,20.0s
TORD Torodi Ar. Bea 92.92 75 LR LR 03 33 54.2
comp=Z,2µm,18.4s,baz=230,slow=34
MOD Modoc Plateau 93.42 331 IAMs_20 IAMs_20 03 34 13.9
comp=Z,1µm,18.0s
AGMN Agassiz Nation 93.47 349 IAMs_20 IAMs_20 03 38 05.1
comp=Z,2µm,20.0s
STKA Stephens Creek 95.31 214 LR LR 03 28 57.5
comp=Z,3µm,20.6s,baz=147,slow=30
PMOZ Porto Moniz, M 95.52 49 *e*LR LR 03 33 51.3
PMOZ IAMs_20 IAMs_20 03 40 43.7
comp=Z,3µm,16.0s
ABPO Ambohimpanom 100.32 130 IAMs_20 IAMs_20 03 35 51.8
comp=Z,2µm,19.0s
FFC Flin Flon 100.63 347 IAMs_20 IAMs_20 03 42 56.6
comp=Z,2µm,22.0s
NWAO Narrogin (SRO) 101.50 194 IAMs_20 IAMs_20 03 39 17.5
comp=Z,1µm,18.0s
CTAO Charters Tower 103.38 224 IAMs_20 IAMs_20 03 34 34.0
comp=Z,1µm,20.0s
PVAQ Vaqueiros 104.11 51 *e*SS SS 03 14 07.2 +1.8
PVAQ *e*LQ LQ 03 28 55.9
PVAQ *e*LR LR 03 35 53.4
PVAQ IAMs_20 IAMs_20 03 40 01.8
comp=Z,7µm,20.0s
PMRV Marv??o 105.72 50 *e*LQ LQ 03 36 32.0
PMRV *e*LR LR 03 38 28.9
PMRV IAMs_20 IAMs_20 03 41 36.8
comp=Z,4µm,20.0s
MTE Manteigas 106.32 49 *e*SS SS 03 14 45.1 +9.4
MTE *e*LQ LQ 03 31 42.0
MTE *e*LR LR 03 40 15.8
MTE IAMs_20 IAMs_20 03 46 34.8
comp=Z,4µm,18.0s
PGAV Gavieira, Arco 107.04 48 *e*LR LR 03 34 44.4
PGAV IAMs_20 IAMs_20 03 43 06.5
comp=Z,3µm,20.0s
KIBK Kibwezi 107.62 112 IAMs_20 IAMs_20 03 41 12.1
comp=Z,2µm,20.0s
WRAB Tennant Creek 108.85 214 IAMs_20 IAMs_20 03 37 10.8
comp=Z,2µm,21.0s
R33M Jennings River 111.79 334 IAMs_20 IAMs_20 03 43 44.6
comp=Z,2µm,19.0s
PMG Port Moresby 111.83 231 IAMs_20 IAMs_20 03 37 30.3
comp=Z,1µm,22.0s

FURI Furi 116.19 104 IAMs_20 IAMs_20 03 47 55.4
comp=Z,2µm,21.0s
G31M Satah River 118.58 338 IAMs_20 IAMs_20 04 01 51.3
comp=Z,1µm,19.0s
G30M tAoh Zraii Nji 119.15 338 IAMs_20 IAMs_20 04 02 21.7
comp=Z,1µm,20.0s
KNK Knik Glacier 119.22 329 IAMs_20 IAMs_20 03 50 33.0
comp=Z,937nm,22.0s
GHO Glory Hole Cre 119.62 329 IAMs_20 IAMs_20 03 48 10.6
comp=Z,922nm,20.0s
H11S2 WAKE ISLAND Hyl 119.62 267 T T 05 10 34.6
baz=132,slow=76,SNR=31
H11S1 WAKE ISLAND Hyl 119.64 267 T T 05 10 37.2
baz=132,slow=76,SNR=13
H11S3 WAKE ISLAND Hyl 119.64 267 T T 05 10 35.7
baz=132,slow=76,SNR=17
H11N3 WAKE ISLAND Hyl 120.27 268 T T 05 11 24.6
baz=131,slow=76,SNR=6.0
H11N1 WAKE ISLAND Hyl 120.28 268 T T 05 11 24.6
baz=131,slow=76,SNR=14
H11N2 WAKE ISLAND Hyl 120.29 268 T T 05 11 25.3
baz=131,slow=76,SNR=11
DAVA Damuels 120.39 52 *e*PKiKP PKiKP 03 00 04.0 +18
comp=Z,5.3nm,0.9s
A36M Sachs Harbour 120.51 345 IAMs_20 IAMs_20 04 03 12.0
comp=Z,2µm,21.0s
F28M Old Crow 120.60 337 IAMs_20 IAMs_20 03 48 56.6
comp=Z,1µm,22.0s
E29M Blow River 120.61 338 IAMs_20 IAMs_20 04 03 04.2
comp=Z,1µm,19.0s
RND Reindeer 120.63 331 IAMs_20 IAMs_20 03 51 51.1
comp=Z,906nm,21.0s
SAUI Saumlaki 120.87 216 IAMs_20 IAMs_20 03 45 00.6
comp=Z,1µm,20.0s
TULEG Thule 120.90 3 IAMs_20 IAMs_20 04 00 12.0
comp=Z,1µm,19.0s
MOTA Moosalm 121.11 53 *i* PKiKP PKiKP 03 00 04.5 +17
comp=Z,4.2nm,1.0s
E28M Babbage River 121.19 338 IAMs_20 IAMs_20 03 49 59.7
comp=Z,1µm,22.0s
KTH Kantishna Hill 121.45 330 IAMs_20 IAMs_20 03 49 44.0
comp=Z,899nm,21.0s
E27K Coleen River 121.47 337 IAMs_20 IAMs_20 03 49 32.6
comp=Z,1µm,22.0s
ABTA Abtaltersbach 121.60 54 *i* PKiKP PKiKP 03 00 04.5 +16
comp=Z,5.0nm,1.0s
M19K Big River Lodg 121.76 327 PKPdf **PKPdf** **02 59 48.0 -0.1**
F26K Sheenjek River 121.86 336 IAMs_20 IAMs_20 03 56 13.7
comp=Z,1µm,22.0s
OBKA Obir 122.66 55 *e*PKiKP PKiKP 03 00 06.8 +16
comp=Z,4.4nm,1.0s
C27K Jago River 122.99 338 IAMs_20 IAMs_20 04 04 32.3
comp=Z,974nm,20.0s
SOKA Soboth 123.03 55 *i* PKiKP PKiKP 03 00 08.9 +18
comp=Z,3.3nm,1.3s
N15K Kwethluk River 123.08 324 IAMs_20 IAMs_20 04 03 16.5
comp=Z,908nm,20.0s
PDG Podgorica 123.35 61 IAMs_20 IAMs_20 03 51 36.5
comp=Z,2µm,21.0s
E24K Your Creek 123.39 335 IAMs_20 IAMs_20 04 05 17.6
comp=Z,1µm,20.0s
GERES GERESS Array B 123.39 52 PKP **PKiKP** **02 59 54.5 +2.5**
comp=Z,0.6nm,0.7s,baz=225,slow=1.2,SNR=1.1
KHC Kasperske Hory 123.47 52*c* *i*PKiKP **PKiKP** **02 59 55.6 +3.6**
KHC Kasperske Hory 123.47 52 *e*PKPPKP 03 18 34.6
KHC AMS AMS 03 52 20.0
comp=Z,3µm,19.5s
C26K Camden Bay 123.50 338 IAMs_20 IAMs_20 03 51 24.8
comp=Z,1µm,22.0s
D25K Kavik River 123.53 337 IAMs_20 IAMs_20 04 04 47.7
comp=Z,987nm,22.0s
ARSA Arzberg 123.61 55 *i* PKiKP PKiKP 03 00 08.2 +16
comp=Z,4.0nm,0.8s
MMRI Maumere 123.63 206 IAMs_20 IAMs_20 03 46 32.7
comp=Z,805nm,21.0s
E23K Chandalar 123.72 335 IAMs_20 IAMs_20 03 57 32.8
comp=Z,995nm,20.0s
CKRC Cesky Krumlov 123.72 52 *e*PKPPKP 03 18 33.9
CKRC AMS AMS 03 46 20.0
comp=Z,4µm,25.7s
TOLK Toolik Lake Re 124.05 335 IAMs_20 IAMs_20 03 57 37.0
comp=Z,954nm,21.0s
HSKC Hora Svate Kat 124.14 50 AMS AMS 03 51 00.0
comp=Z,2.7nm,0.9s
CONA Conrad Observa 124.16 54 *i* PKiKP PKiKP 03 00 09.0 +16
CLL Collm 124.25 49 *e*P **Pdif** **02 56 28.0 +0.5**
CLL MLR MLR
comp=Z,3µm,20.5s
CLL Collm 124.25 49 *e*Pdif **Pdif** **02 56 28.0 +0.5**
CLL *e*SKKSac SKKSac 03 08 38.0 +1.3
CLL *e*Sdif **Sdif** **03 09 30.0 -6.1**
CLL *e*sPKKPdf 03 10 26.0
CLL *e*PS **PS** **03 11 36.0 -1.2**
CLL *e*PPS PPS 03 13 12.0
CLL *e*PKKSdf PKKSdf 03 13 54.0 -0.7
CLL *e*SS **SS** **03 18 24.0 -6.6**
CLL *e*SSS SSS 03 23 08.0
CLL *e*SSSS 03 26 42.0
CLL LH 03 32 00.0
CLL LV 03 39 00.0
CLL AMS AMS 03 51 00.0
comp=N,2µm,20.5s
CLL AMS AMS 03 51 00.0
comp=E,1µm,20.6s
CLL AMS AMS 03 51 00.0
comp=Z,3µm,20.5s
PRU Pruhonice 124.44 51 *e*PKPPKP 03 18 45.0
PRU AMS AMS 03 47 10.0
comp=Z,3µm,23.6s
BRG Berggiesshubel 124.55 50 PP PP 03 01 52.0 +11
BRG Berggiesshubel 124.55 50 SP SP 03 11 46.0 +7.6
BRG Berggiesshubel 124.55 50 SS SS 03 18 38.0 +3.6
PVCC Panska Ves 124.73 51 AMS AMS 03 51 30.0
comp=Z,3µm,20.6s
KARP Karpathos 124.84 72 IAMs_20 IAMs_20 03 55 39.2
comp=Z,2µm,20.0s
D22K Ayikyak River 125.12 335 IAMs_20 IAMs_20 03 52 23.8
comp=Z,1µm,22.0s
E21K Killik River 125.28 334 IAMs_20 IAMs_20 04 04 34.2
comp=Z,953nm,21.0s
DPC Dobruska-Polom 125.62 52 *e*PKPPKP 03 19 00.4
DPC AMS AMS 03 51 40.0
comp=Z,2µm,19.0s
D20K Etivluk River 126.25 334 IAMs_20 IAMs_20 03 57 40.7
comp=Z,831nm,21.0s
C18K Utukok River 127.70 333 IAMs_20 IAMs_20 04 00 37.1
comp=Z,803nm,22.0s
ISP Isparta 128.34 72 IAMs_20 IAMs_20 03 59 23.8
comp=Z,1µm,22.0s
CSS Mathiatis 128.78 76 IAMs_20 IAMs_20 04 00 19.5
comp=Z,2µm,22.0s
TIRR Tirgusor 130.15 63 IAMs_20 IAMs_20 04 01 49.4
comp=Z,1µm,20.0s
BR131 Keskin Array S 131.40 71 *i* PKiKP **PKPdf** **03 00 07.3 0.0**
BKB Balikpapan 132.20 202 IAMs_20 IAMs_20 04 02 55.4
comp=Z,906nm,18.0s
PMBI Palembang 132.68 186 IAMs_20 IAMs_20 03 55 26.0
comp=Z,1µm,20.0s
AKASG Malin Array Be 133.22 56 PKP **PKiKP** **03 00 13.0 +1.6**
comp=Z,0.2nm,0.3s,baz=263,slow=2.3,SNR=1.7
AKASG Malin Array Be 133.22 56 PKiKP **PKiKP** **03 00 13.0 +1.6**
AKBB Malin Array Si 133.22 56⇑ *i*PKiKP **PKiKP** **03 00 11.9 +0.5**
ARPR Arapgir-MÁLATY 134.31 74 IAMs_20 IAMs_20 04 04 18.3
comp=Z,1µm,20.0s
BKNI Bangkinang 136.07 181 IAMs_20 IAMs_20 03 52 54.7
comp=Z,1µm,22.0s
SOC Sochi 137.18 69 *i* PKiKP **PKiKP** **03 00 22.2 +2.5**
SOC *e* 03 03 03.6
SOC *e*PPP PPP 03 05 59.8
SOC pmax pmax
comp=Z,31nm,1.1s
TASP Talacogon, Agu 137.94 219 PKiKP PKPdf 03 00 07.9 -12
MARP2 New Provincial 138.22 217 PKiKP **PKiKP** **03 00 22.5 -0.3**
TSSP Tandag City 138.28 220 PKiKP PKiKP 03 00 42.6 +20
PALK Pallekele 139.14 149 IAMs_20 IAMs_20 03 50 57.2
comp=Z,1µm,20.0s
GNI Garni 139.21 76 IAMs_20 IAMs_20 04 07 52.6
comp=Z,1µm,20.0s
BILL Bilibino 139.21 328 IAMs_20 IAMs_20 04 13 27.1
comp=Z,905nm,21.0s
KIV Kislovodsk 139.31 70 *i* PKiKP **PKiKP** **03 00 25.4 +1.2**
KIV pmax pmax
comp=Z,4.0nm,1.1s
KIV MLR MLR
comp=Z,538nm,24.0s
KIV Kislovodsk 139.31 70 IAMs_20 IAMs_20 04 08 11.0
comp=Z,900nm,20.0s
VSR Storozhevoye 139.34 58 *e*PKiKP PKiKP 03 00 37.1 +13
VSR pmax pmax
comp=Z,5.0nm,0.8s
KKM Kota Kinabalu 139.35 204 IAMs_20 IAMs_20 04 04 28.3
comp=Z,690nm,19.0s
VORD Divnogorie 139.35 58 *e*PKiKP PKiKP 03 00 36.2 +12
VORD pmax pmax
comp=Z,10.0nm,0.4s
KBZ Khabaz 139.37 70⇑ *i*PKiKP **PKiKP** **03 00 26.2 +2.1**
VORR Voronezh 139.49 57 *e*PKiKP PKiKP 03 00 36.6 +12
VORR pmax pmax
comp=Z,20nm,0.4s
LSIP Lazi, Siquijor 139.50 217 PKiKP **PKiKP** **03 00 29.4 +4.0**
LPSR Galich'ya Gora 139.55 56 *e*PKiKP **PKiKP** **03 00 30.3 +6.1**
LPSR pmax pmax
comp=Z,9.0nm,0.8s
TABP Talibon, Bohol 140.06 218 PKiKP **PKPdf** **03 00 22.7 -1.3**
IPM Ipoh 140.19 181 IAMs_20 IAMs_20 03 57 17.1
comp=Z,1µm,21.0s
SFCP San Francisco, 140.53 219 PKiKP PKPdf 03 00 05.0 -20
GNOP Guihulngan Cit 140.65 217 PKiKP **PKiKP** **03 00 32.4 +4.6**
VRH Novokhopyorsk 140.90 59 *e*PKiKP **PKiKP** **03 00 29.7 +2.7**
VRH pmax pmax
comp=Z,10.0nm,0.7s
KULM Kulim 141.00 180 IAMs_20 IAMs_20 03 58 45.4
comp=Z,1µm,20.0s
KLMR Klimovskoe 141.13 43 *e*PKiKP **PKiKP** **03 00 26.3 -0.9**
KLMR pmax pmax
comp=Z,16nm,1.5s
KLMR MLR MLR
comp=Z,3µm,19.0s
MAK Makhachkala 142.22 73*d* *i*PKHKP PKPpre 03 00 23.3
MAK *e* 03 03 30.3
MAK *e* 03 07 33.1
MAK *e*SS SS 03 22 02.5 -6.2
MAK *e*SSS SSS 03 27 24.8
MAK pmax pmax
comp=Z,103nm,1.2s
ENPP El Nido 143.09 212 PKiKP **PKiKP** **03 00 40.1 +7.5**
JCNP Jose Panganiba 144.50 219 PKiKP **PKiKP** **03 00 40.5 +5.0**
LBLP Los Banos, Lag 145.04 217 PKiKP **PKiKP** **03 00 38.7 +2.0**
LUBP Lubang 145.06 215 PKiKP **PKPbc** **03 00 32.3 +0.1**
PAKP Brgy Taft, Pak 145.13 217 PKiKP **PKPbc** **03 00 29.5 -2.9**
TIRP Brgy. Guiod. B 145.20 217 PKiKP **PKiKP** **03 00 39.3 +2.4**
MACP Maragondon, Ca 145.34 216 PKiKP **PKiKP** **03 00 36.3 -1.0**
SEY Seymchan 145.37 321⇑ *e*PKiKP **PKiKP** **03 00 34.1 -1.7**
GNQP Gen. Nakar, Qu 145.41 218 PKiKP **PKiKP** **03 00 42.6 +5.2**
RTBP Dona Remedios 145.82 217 PKiKP **PKPab** **03 00 36.8 +1.8**
KIRV Kirov 146.11 47⇑ *e*PKP2 **PKPab** **03 00 35.3 +0.4**
IBZP Iba, Zambales 146.65 216 PKiKP **PKPdf** **03 00 36.4 +0.9**
HYB Hyderabad 147.34 139 *e*PKPdf **PKPdf** **03 00 36.1 -0.6**
AGIP Aguinaldo, Ifu 147.51 219 PKiKP **PKPdf** **03 00 34.9 -2.2**
BOLP Bolinao 147.57 217 PKiKP **PKPdf** **03 00 35.8 -1.3**
TCKP Tabuk City, Ka 147.72 220 PKiKP **PKiKP** **03 00 42.2 +0.1**
PACPP Pamplona Cagay 148.75 221 PKiKP PKPdf 03 00 30.1 -8.8
HRA Herat 149.03 96 PKPdf **PKPdf** **03 00 38.0 -1.2**
ERM Erimo 149.08 281 PKiKP **PKPdf** **03 00 38.2 -0.6**
ERM Erimo 149.08 281 PKPdf **PKPdf** **03 00 38.2 -0.6**
TIXI Tiksi 149.49 343⇑ *i*PKP2 **PKiKP** **03 00 45.1 +1.0**
TIXI pmax pmax
comp=Z,16nm,1.7s
JKA Kamikawa-asahi 150.10 284 PKPdf **PKPdf** **03 00 40.9 +0.6**
ASAJ Asahikawa 150.10 284 PKiKP **PKPdf** **03 00 40.9 +0.6**
MJAR Matsushiro Arr 150.46 268 PKPbc **PKiKP** **03 00 49.6 +2.4**
comp=Z,3.8nm,1.1s,baz=112,slow=1.5,SNR=6.0
MJAR Matsushiro Arr 150.46 268 **PKiKP** **03 00 47.0 -0.2**
MAJO Matsushiro 150.47 268 IAMs_20 IAMs_20 03 54 26.6
comp=Z,799nm,21.0s
YSS Yuzhno-Sakhali 150.64 290 *e*PKiKP **PKPab** **03 00 55.3 +1.8**
YSS Yuzhno-Sakhali 150.64 290 IAMs_20 IAMs_20 03 53 57.2
comp=Z,859nm,21.0s
INU Inuyama 150.75 265 IAMs_20 IAMs_20 03 53 08.9
comp=Z,968nm,22.0s
ARTI Arti 151.10 51 *i* PKiKP **PKPbc** **03 00 44.8 -2.5**
ARTI 03 04 23.5
ARTI SS SS 03 23 45.5 -3.1
QIZ Qiongzhong 153.48 200 PKPbc **PKPdf** **03 00 44.1 -2.1**
QIZ SS SS 03 24 22.5 +8.9
QIZ L L
comp=Z,660nm,15.9s
QIZ L L
comp=Z,530nm,19.5s
QIZ L L
comp=Z,820nm,21.8s
CMAR Chiang Mai Arr 154.06 177 PKPbc **PKiKP** **03 00 57.3 +2.1**
comp=Z,0.8nm,0.3s,baz=217,slow=2.9,SNR=5.2
CMAR Chiang Mai Arr 154.06 177 PKPdf **PKPdf** **03 00 44.9 -2.1**
CHTO Chiang Mai 154.41 177 IAMs_20 IAMs_20 04 04 08.7
comp=Z,639nm,21.0s
NIL Nilore 156.35 108 IAMs_20 IAMs_20 04 19 42.3
comp=Z,1µm,21.0s
SLVN Son La 156.78 188 IAMs_20 IAMs_20 04 10 50.7
comp=Z,799nm,20.0s
BVAR Borovoye Array 158.50 56 PKP **PKPdf** **03 00 53.4 +1.7**
comp=Z,0.5nm,0.4s,baz=275,slow=3.6,SNR=1.8
SSE Sheshan 158.98 238 PKP **PKPdf** **03 00 54.9 +1.9**
SSE PP **PP** **03 05 16.0 +5.7**
SSE SS SS 03 25 19.4 +5.2
SSE PPMZ
comp=Z,210nm,8.3s
SSE L L
comp=Z,210nm,20.4s
SSE L L
comp=Z,310nm,20.3s
INCN Inchon 159.13 260 IAMs_20 IAMs_20 04 27 24.0
comp=Z,762nm,20.0s
MORE Moreh 159.21 164 IAMs_20 IAMs_20 04 18 13.9
comp=Z,1µm,21.0s
MDJ Mudanjiang 159.30 281 IAMs_20 IAMs_20 04 30 10.2
comp=Z,834nm,21.0s
KSH2 Kashi 160.70 97 PKP **PKPdf** **03 00 54.2 -0.8**
KSH2 L L
comp=Z,1µm,22.3s
KSH2 L L
comp=Z,1µm,24.0s
KSH2 L L
comp=Z,2µm,19.9s
NJ2 Nanjing 161.06 235 *e*PKP **PKPdf** **03 00 55.2 -0.1**
CN2 Changchun 162.09 277 PKP **PKPdf** **03 00 58.3 +2.2**
CN2 PPMZ
comp=Z,200nm,6.5s
CN2 L L
comp=Z,600nm,22.0s
CN2 L L
comp=Z,700nm,22.0s
CN2 L L
comp=Z,400nm,22.0s
DL2 Dalian 163.29 258 *e*PKP **PKPdf** **03 00 56.5 -0.9**
DL2 PP **PP** **03 05 33.2 -0.5**
DL2 SS SS 03 26 02.8 +2.8
DL2 PPMZ
comp=Z,380nm,4.4s
DL2 L L
comp=Z,1µm,21.5s
DL2 L L
comp=Z,1µm,21.3s
DL2 L L
comp=Z,2µm,22.7s
KURBB Kurchatov Arra 163.96 60 PKP **PKPdf** **03 01 00.4 +2.8**
comp=Z,0.5nm,0.6s,baz=277,slow=1.2,SNR=6.2
KURBB PKPab **pPKPab** **03 01 52.5 -0.6**
comp=Z,0.5nm,0.3s,baz=288,slow=4.9,SNR=4.9
KURK Kurchatov 163.99 59 PKiKP **PKPdf** **03 01 00.4 +2.8**
KURK 03 01 52.5
KURK Kurchatov 163.99 59 **PKPdf** **03 00 57.2 -0.4**
KURK **PKPab** **03 01 50.9 +0.1**
CD2 Chengdu 166.25 192 PKP **PKPdf** **03 00 58.8 -1.5**
CD2 sPKP sPKPdf 03 01 03.1 -0.5
CD2 PP **PP** **03 05 49.3 +1.3**
CD2 SS SS 03 26 32.3 +4.2
CD2 PPMZ
comp=Z,360nm,9.2s
CD2 L L
comp=Z,2µm,19.6s
CD2 L L
comp=Z,1µm,23.5s
CD2 L L
comp=Z,1µm,21.8s
LYN LuoYang 166.49 227 *e*PKP **PKPdf** **03 01 04.4 +4.1**
LYN PKPab **sPKPab** **03 02 08.7 +3.2**
LYN PP **PP** **03 05 50.9 +1.0**
LYN SKKS 03 12 44.0
LYN PPMZ
comp=Z,380nm,7.6s

LYN				L	L			
	comp=Z,2μm,18.4s							
LYN				L	L			
	comp=Z,1μm,17.8s							
LYN				L	L			
	comp=Z,2μm,23.4s							
HNS	**HongShan**	**167.16**	**242**	⇓PKP	**PKPdf**	**03 00 59.1**	**-1.6**
HNS				PP	PP	03 06 02.3	+8.6
HNS				PPMZ			
	comp=Z,360nm,10.6s						
HNS				L	L		
	comp=Z,2μm,19.1s						
HNS				L	L		
	comp=Z,960nm,18.1s						
HNS				L	L		
	comp=Z,2μm,20.1s						
XAN	**Xi'an**	**167.74**	**215**	*e*PKP	**PKPdf**	**03 00 57.3**	**-4.0**
XAN				PP	PP	03 06 00.6	+4.5
XAN				SS	SS	03 26 51.8	+7.9
XAN				L	L		
	comp=Z,1μm,18.0s						
XAN				L	L		
	comp=Z,1μm,18.4s						
XAN				L	L		
	comp=Z,2μm,19.6s						
WMQ	**Urumqi**	**170.77**	**89**	*e*PKP	**PKPdf**	**03 01 03.0**	**+0.1**
WMQ				SS	SS	03 27 16.9	+1.0
WMQ				L	L		
	comp=Z,1μm,21.9s						
WMQ				L	L		
	comp=Z,1μm,20.7s						
WMQ				L	L		
	comp=Z,1μm,22.9s						
HHC	**Hu-ho-hao-te**	**171.09**	**250**	*e*PKP	**PKPdf**	**03 00 58.5**	**-4.7**
HHC				PP	**PP**	**03 06 15.0**	**+1.1**
HHC				SS	SS	03 27 14.8	-4.0
HHC				PPMZ			
	comp=Z,280nm,11.8s						
HHC				L	L		
	comp=Z,2μm,19.4s						
HHC				L	L		
	comp=Z,1μm,17.7s						
HHC				L	L		
	comp=Z,2μm,19.3s						

*IDC **03** 02:51:23.8±2.0,0.°19N×98.°04E, h0km, mb4.1/7, mbtmp4.0/8, ML4.6/1, Error ellipse: s-maj=76.3km s-min=18.9km az=58.0*
*DJA **03** 02:51:27.5±0.4,0.°N±3.°×9.°8E±.°, h15km±4km, M4.2/17, MLv4.2/17*
*NEIC **03** 02:51:29.3±1.1,0.°22N±0.°07×97.°90E±0.°09, h35km±2km, mb4.4/18, Error ellipse: s-maj=15.9km s-min=9.8km az=246.0*

ISC 03 02:51:27.5±0.6,0.°22N±0.°05×97.°89E±0.°06,h30km,n63, σ1°08/53,mb4.3/14,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBSI	**Pulau Batu**	**0.48**	**124**	P	**Pn**	**02 51 38.5**	**+0.2**
PBSI				S	**Sn**	**02 51 47.5**	**+1.9**
GSI	**Gunungsitoli**	**1.12**	**344**		**Pn**	**02 51 47.7**	**+0.5**
GSI				Sn	**Sb**	**02 52 03.0**	**+0.3**
GSI	**Gunungsitoli**	**1.12**	**344**	P	**Pn**	**02 51 47.4**	**+0.2**
GSI				S	**Sb**	**02 52 02.9**	**+0.3**
GSI				AML	AML		
MNSI	**Mandailing Nat**	**1.79**	**71**	P	**Pb**	**02 51 58.3**	**-1.3**
TRSI	**Tarutung**	**2.09**	**31**	P	**Pn**	**02 52 02.4**	**+1.8**
TRSI				S	**Sb**	**02 52 28.6**	**-1.9**
PPI	**Padang Panjang**	**2.60**	**105**	P	**Pn**	**02 52 09.1**	**+1.6**
RPSI	**Rantau Prapat**	**2.67**	**23**		**Pn**	**02 52 09.9**	**+1.4**
SNSI	**Sinabang, Aceh**	**2.68**	**324**	P	**Pn**	**02 52 09.8**	**+1.2**
PSI	**Prapat**	**2.77**	**22**	P	**Pn**	**02 52 10.5**	**+0.5**
PDSI	**Padang**	**2.81**	**113**	P	**Pb**	**02 52 13.2**	**-3.8**
TPTI		**3.10**	**347**	P	**Pn**	**02 52 14.3**	**-0.1**
BKNI	**Bangkinang**	**3.16**	**88**	P	**Pn**	**02 52 17.8**	**+2.7**
KCSI	**Kotacane, Aceh**	**3.29**	**358**	P	**Pn**	**02 52 17.6**	**+0.6**
KCSI				AML	AML		
KULM	**Kulim**	**5.75**	**29**	Pn	**Pn**	**02 52 51.9**	**+1.1**
BBJI	**Bungbulang**	**12.37**	**128**	Pn	**Pn**	**02 54 22.9**	**+1.2**
CMAR	**Chiang Mai Arr**	**18.16**	**3**	P	**P**	**02 55 37.8**	**+0.2**
	0.8nm,0.3s,baz=195,slow=12,SNR=10						
	1.2nm,0.4s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**18.16**	**3**	P	**Pn**	**02 55 37.1**	**-0.4**
KKM	**Kota Kinabalu**	**19.19**	**72**	P	**Pn**	**02 55 50.5**	**+0.3**
KKM				IAmb	IAmb	02 56 01.1	
	comp=Z,17nm,1.0s						
SLVN	**Son La**	**21.80**	**15**	P	**P**	**02 56 16.8**	**-0.4**
TOLI2	**Tolitoli**	**22.91**	**88**	P	**P**	**02 56 28.5**	**-0.7**
SHL	**Shillong**	**25.86**	**347**	P	**P**	**02 56 57.0**	**+0.2**
H08S2	**Diego Garcia H**	**26.50**	**252**	T	T	03 24 20.9	
	baz=73,slow=75,SNR=1591						
H08S3	**Diego Garcia H**	**26.50**	**252**	T	T	03 24 22.6	
	baz=73,slow=75,SNR=2041						
H08S1	**Diego Carcia H**	**26.51**	**252**	T	T	03 24 26.3	
	baz=73,slow=75,SNR=823						
MBWA	**Marble Bar**	**30.11**	**136**	P	**P**	**02 57 34.1**	**-0.6**
H01W3	**Cape Leeuwin H**	**38.08**	**158**	T	T	03 38 55.0	
	baz=334,slow=76,SNR=6.1						
H01W2	**Cape Leeuwin H**	**38.09**	**158**	T	T	03 38 54.8	
	baz=334,slow=76,SNR=7.2						
H01W1	**Cape Leeuwin H**	**38.10**	**158**	T	T	03 38 54.1	
	baz=334,slow=76,SNR=6.9						
WRA	**Warramunga Arr**	**40.94**	**121**	P	**P**	**02 59 07.1**	**-0.5**
	comp=Z,0.9nm,0.7s,baz=302,slow=9.0,SNR=9.6						
	comp=Z,0.9nm,0.7s						
WRA	**Warramunga Arr**	**40.94**	**121**	P	**P**	**02 59 07.7**	**0.0**
WR8	**Warramunga Arr**	**41.08**	**121**	P	**P**	**02 59 08.7**	**-0.1**
WR8				IAmb	IAmb	02 59 51.5	
	comp=Z,7.5nm,1.5s						
AIS	**Amsterdam Isla**	**42.22**	**204**	P	**P**	**02 59 18.9**	**+1.1**
ASAR	**Alice Springs**	**42.26**	**127**	P	**P**	**02 59 18.4**	**-0.1**
	comp=Z,0.5nm,0.4s,baz=302,slow=8.1,SNR=9.9						
	comp=Z,0.5nm,0.4s						
ASAR	**Alice Springs**	**42.26**	**127**	P	**P**	**02 59 19.1**	**+0.6**
SONM	**Songino Array**	**48.00**	**8**	P	**P**	**03 00 05.3**	**+1.4**
	comp=Z,0.9nm,0.7s,baz=186,slow=9.8,SNR=4.7						
	comp=Z,0.9nm,0.7s						
SONM	**Songino Array**	**48.00**	**8**	P	**P**	**03 00 04.3**	**+0.5**
SONM				IAmb	IAmb	03 00 27.8	
	comp=Z,3.3nm,1.4s						
MKAR	**Makanchi Array**	**48.36**	**346**	P	**P**	**03 00 07.8**	**+1.4**
	comp=Z,4.1nm,0.8s,baz=157,slow=8.2,SNR=26						
	comp=Z,4.1nm,0.8s						
MKAR	**Makanchi Array**	**48.36**	**346**		**P**	**03 00 07.2**	**+0.7**
MAKZ	**Makanchi**	**48.45**	**345**	P	**P**	**03 00 07.8**	**+0.6**
MAKZ				IAmb	IAmb	03 00 09.2	
	comp=Z,4.7nm,1.1s						
KKAR	**Karatay Array**	**49.24**	**334**	P	**P**	**03 00 13.4**	**+0.1**
INKA	**Innaminka**	**49.61**	**128**	P	**P**	**03 00 16.7**	**+0.4**
INKA				IAmb	IAmb	03 00 31.4	
	comp=Z,2.4nm,0.8s						
KURBB	**Kurchatov Arra**	**52.85**	**345**	P	**P**	**03 00 41.5**	**+1.2**
	comp=Z,1.7nm,0.8s,baz=169,slow=7.4,SNR=15						
	comp=Z,1.7nm,0.8s						
KURK	**Kurchatov**	**52.91**	**345**		**P**	**03 00 41.6**	**+0.9**
KURK				IAmb	IAmb	03 00 43.1	
	comp=Z,3.9nm,1.0s						
USRK	**Ussuriysk Ar.**	**53.26**	**30**	P	**P**	**03 00 43.3**	**-0.1**
	comp=Z,4.3nm,0.9s,baz=214,slow=6.3,SNR=4.8						
	comp=Z,4.3nm,0.9s						
USRK	**Ussuriysk Ar.**	**53.26**	**30**	P	**P**	**03 00 42.5**	**-0.9**
ZAA0	**Zalesovo Array**	**54.63**	**351**		**P**	**03 00 53.6**	**+0.3**
ZAA0				IAmb	IAmb	03 01 20.2	
	comp=Z,7.6nm,1.1s						
ZALV	**Zalesovo Beam**	**54.63**	**351**	P	**P**	**03 00 54.3**	**+1.1**
	comp=Z,2.8nm,0.6s,baz=179,slow=6.7,SNR=17						
	comp=Z,2.8nm,0.6s						
ZALV	**Zalesovo Beam**	**54.63**	**351**		**P**	**03 00 53.6**	**+0.3**
RAYN	**Ar Rayn**	**55.82**	**298**	P	**P**	**03 01 02.6**	**+0.1**
RAYN				IAmb	IAmb	03 01 04.1	
	comp=Z,4.8nm,1.2s						
EIDS	**Eidsvold**	**57.29**	**121**	P	**P**	**03 01 12.2**	**-0.6**
CAN	**Canberra**	**59.26**	**132**	P	**P**	**03 01 25.9**	**-0.6**
H04N2	**CROZET ISLANDS**	**61.35**	**215**	T	T	04 08 12.4	
	baz=55,slow=74,SNR=153						
H04N1	**CROZET ISLANDS**	**61.37**	**215**	T	T	04 08 12.9	
	baz=55,slow=74,SNR=199						
H04N3	**CROZET ISLANDS**	**61.37**	**215**	T	T	04 07 58.7	
	baz=55,slow=74,SNR=183						
H04S1	**CROZET ISLANDS**	**61.68**	**214**	T	T	04 08 25.2	
	baz=55,slow=76,SNR=92						
H04S3	**CROZET ISLANDS**	**61.69**	**214**	T	T	04 08 24.8	
	baz=55,slow=76,SNR=127						
H04S2	**CROZET ISLANDS**	**61.70**	**214**	T	T	04 08 37.3	
	baz=55,slow=76,SNR=63						
GAZ	**Gaziantep**	**66.83**	**311**	P	**P**	**03 02 15.9**	**-0.9**
GAZ				IAmb	IAmb	03 02 48.2	
	comp=Z,5.0nm,0.8s						
TPB01	**Permian Basin**	**142.80**	**32**	PKPdf	**PKPdf**	**03 10 58.2**	**-0.7**
T50A	**Nancy**	**142.86**	**4**	PKPdf	**PKPdf**	**03 10 59.2**	**+0.5**
V55A	**Taylorsville**	**144.11**	**359**	PKPdf	PKPbc	03 10 58.9	+0.1
TXAR	**Lajitas Array**	**144.12**	**33**	PKP	**PKPdf**	**03 11 00.7**	**-0.5**
	comp=Z,0.5nm,0.8s,baz=300,slow=0.8,SNR=5.7						
TXAR	**Lajitas Array**	**144.12**	**33**		PKPbc	03 10 60.0	+0.7

IDC 03 03:00:40.7±8.1,19.°30S×175.°93W,h0km,mb3.6/3, mbtmp3.6/3,Error ellipse: s-maj=352.6km s-min=39.3km az=143.0,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ASAR	**Alice Springs**	**46.70**	**255**	P	P	03 09 12.1	+0.3
	0.7nm,0.4s,baz=92,slow=8.5,SNR=11						
	0.7nm,0.4s						
WRA	**Warramunga Arr**	**46.71**	**260**	P	P	03 09 11.2	-0.7
	0.3nm,0.4s,baz=97,slow=6.8,SNR=7.5						
	0.3nm,0.4s						
ILAR	**Eielson Array**	**86.73**	**12**	P	P	03 13 26.2	+0.1
	0.2nm,0.4s,baz=212,slow=5.2,SNR=4.8						
	0.2nm,0.4s						

IDC 03 03:27:17.9±1.9,6.°33S×129.°11E,h0km,mb3.5/1, mbtmp3.2/3,ML3.0/2,Error ellipse: s-maj=130.3km s-min=25.3km az=66.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.46**	**160**	Pn	Pn	03 30 37.7	-6.2
	0.1nm,0.3s,baz=339,slow=13,SNR=4.5						
WRA				Sn	Sn	03 32 58.7	-26
	0.4nm,0.3s,baz=317,slow=26,SNR=9.2						
	0.1nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.85**	**166**	Pn	Pn	03 31 20.1	-7.7
	baz=344,slow=11,SNR=1.8						
ASAR				Sn	Sn	03 34 21.3	-26
	0.1nm,0.3s,baz=320,slow=17,SNR=4.6						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**67.18**	**327**	P	P	03 38 13.9	0.0
	0.2nm,0.4s,baz=125,slow=5.6,SNR=3.0						
	0.2nm,0.4s						

*IDC **03** 03:38:46.9±0.9,57.°99N×32.°89W, h0km, mb3.6/8, mbtmp3.7/9, ML2.6/1, Error ellipse: s-maj=33.1km s-min=17.6km az=6.0*

ISC 03 03:38:48.3±0.8,58.°0N±0.°2×32.°9W±0.°1,h10km,n13, σ0°81/12,mb3.7/8,Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SCHQ	**Schefferville**	**18.91**	**275**	P	**Pn**	**03 43 09.1**	**-0.4**
	0.2nm,0.3s,baz=59,slow=12,SNR=4.6						
	11nm,1.0s						
SCHQ				AML	AML		
ESDC	**Sonseca Array**	**26.11**	**122**	P	**P**	**03 44 23.1**	**+0.9**
	0.7nm,0.8s,baz=319,slow=9.5,SNR=6.8						
	0.7nm,0.8s						
AKASG	**Malin Array Be**	**35.77**	**74**	P	**P**	**03 45 47.4**	**+0.3**
	0.6nm,0.6s,baz=308,slow=8.5,SNR=4.0						
	0.6nm,0.6s						
BRTR	**Keskin Array B**	**45.41**	**84**	P	**P**	**03 47 07.0**	**+0.1**
	0.6nm,0.8s,baz=313,slow=4.4,SNR=4.4						
	0.6nm,0.8s						
ILAR	**Eielson Array**	**47.80**	**328**	P	**P**	**03 47 25.8**	**+0.5**
	0.9nm,0.8s,baz=32,slow=6.3,SNR=8.7						
ILAR				PcP	**PcP**	**03 48 54.5**	**+0.6**
	0.7nm,0.7s,baz=13,slow=2.4,SNR=8.3						
	0.9nm,0.8s						
PDAR	**Pinedale Array**	**48.46**	**287**	P	**P**	**03 47 31.0**	**+0.1**
	0.9nm,0.7s,baz=68,slow=8.3,SNR=8.4						
	0.9nm,0.7s						
TXAR	**Lajitas Array**	**55.53**	**271**	P	**P**	**03 48 24.1**	**+0.5**
	0.6nm,1.0s,baz=61,slow=3.1,SNR=3.7						
	0.6nm,1.0s						
KURBB	**Kurchatov Arra**	**58.13**	**44**	P	**P**	**03 48 40.5**	**-1.1**
	0.5nm,0.6s,baz=323,slow=7.3,SNR=8.2						
	0.5nm,0.6s						
MKAR	**Makanchi Array**	**62.69**	**44**	P	**P**	**03 49 12.9**	**-0.1**
	0.5nm,0.6s,baz=336,slow=6.0,SNR=4.6						
	0.5nm,0.6s						
H10S3	**ASCENSION HYDR**	**68.33**	**161**	T	T	05 03 21.2	
	baz=350,slow=74,SNR=14						
H10S2	**ASCENSION HYDR**	**68.34**	**161**	T	T	05 03 23.9	
	baz=230,slow=74,SNR=13						
ASAR	**Alice Springs**	**144.45**	**21**	PKP	**PKPdf**	**03 58 24.1**	**-0.5**
	1.0nm,0.6s,baz=317,slow=2.3,SNR=8.7						
QSPA	**South Pole Qui**	**147.86**	**180**	PKPbc	**PKPbc**	**03 58 30.4**	**-1.6**
	1.9nm,0.8s,baz=228,slow=2.0,SNR=6.5						

*AFAD **03** 03:59:33.9, 37.°88N×26.°47E, h16km±1km, ML2.6*
*ISK **03** 03:59:33.7, 37.°86N×26.°45E, h4km, ML2.5/28*
*ATH **03** 03:59:34.0, 37.°88N×26.°42E, h12km±1km, ML2.9/12, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **03** 03:59:34.0, 38.°N±2.°×2.°6E±.°, h8km±3km, M2.7/11, MLh2.7/11*

ISC 03 03:59:34.0±0.9,37.°87N±0.°01×26.°44E±0.°02,h13km±7km, n91,σ0°56/152,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.23**	**110**	P	**Pg**	**03 59 38.8**	**0.0**
KRL1				S	**Sg**	**03 59 42.6**	**+0.5**
KRL1				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.37**	**8**	P	**Pg**	**03 59 41.3**	**-0.1**
ZEYE				IAML		03 59 47.0	
	comp=N,2μm,0.6s						
ZEYE				S	**Sb**	**03 59 47.2**	**-0.8**
ZEYE				IAML		03 59 48.0	
	comp=E,938nm,0.3s						
DGB	**zmir**	**0.39**	**63**	P	**Pg**	**03 59 41.6**	**-0.3**
DGB				S	**Sg**	**03 59 46.9**	**-0.3**
DGB				IAML		03 59 47.0	
	comp=N,898nm,0.5s						
DGB				IAML		03 59 47.0	
	comp=E,900nm,0.4s						
GMLD	**Gumuldur**	**0.43**	**62**	P	**Pg**	**03 59 42.7**	**+0.2**
GMLD				IAML		03 59 48.0	
	comp=E,6μm,0.4s						
GMLD				S	**Sg**	**03 59 48.2**	**0.0**
GMLD				IAML		03 59 54.0	
	comp=N,4μm,0.5s						
GMLD	**Gumuldur**	**0.43**	**62**	Pg	**Pg**	**03 59 42.1**	**-0.4**
GMLD				Sg	**Sg**	**03 59 48.1**	**-0.1**
GMLD				AML	AML		
CESE	**eme**	**0.47**	**346**	P	**Pb**	**03 59 43.9**	**-0.2**
CESE				S	**Sg**	**03 59 50.2**	**+0.6**
CESE				IAML		03 59 51.0	
	comp=N,3μm,0.3s						
CESE				IAML		03 59 54.0	
	comp=E,1μm,0.7s						
CESE	**eme**	**0.47**	**346**	Pg	**Pg**	**03 59 43.4**	**+0.1**
CESE				AML	AML		
CHOS	**Chios island**	**0.59**	**329**	P	**Pg**	**03 59 46.1**	**+0.4**
CHOS				S	**Sb**	**03 59 54.4**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.59**	**329**	Pg	**Pg**	**03 59 46.1**	**+0.4**
CHOS				Sg	**Sb**	**03 59 55.1**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.59**	**329**	P	**Pg**	**03 59 46.0**	**+0.4**
CHOS				S	**Sg**	**03 59 53.6**	**+0.1**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.65**	**105**	P	**Pg**	**03 59 46.4**	**-0.3**
GCAM				S	**Sg**	**03 59 55.4**	**+0.1**
GCAM				IAML		03 59 56.0	
	comp=E,286nm,0.4s						
GCAM				IAML		03 59 59.0	
	comp=N,305nm,0.3s						
GCAM	**G?zelcaml?**	**0.65**	**105**	Pg	**Pg**	**03 59 46.5**	**-0.2**
GCAM				Sg	**Sb**	**03 59 56.0**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.67**	**91**	Pg	**Pg**	**03 59 47.1**	**+0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.70**	**43**	P	**Pg**	**03 59 47.1**	**-0.5**
BLCB				S	**Sg**	**03 59 56.9**	**+0.1**
BLCB				IAML		04 00 02.0	
	comp=E,631nm,0.3s						
BLCB	**Balcova**	**0.70**	**43**	Pg	**Pg**	**03 59 47.4**	**-0.2**
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.72**	**339**	P	**Pg**	**03 59 48.0**	**0.0**
EAG2				S	**Sg**	**03 59 56.4**	**-1.0**
KRBN	**Karaburun**	**0.72**	**7**	P	**Pg**	**03 59 47.6**	**-0.5**
KRBN				S	**Sb**	**03 59 59.2**	**+1.0**
KRBN				IAML		04 00 01.0	
	comp=N,4μm,0.3s						
KRBN				IAML		04 00 02.0	
	comp=E,3μm,0.5s						
KRBN	**Karaburun**	**0.72**	**7**	Pg	**Pb**	**03 59 48.6**	**+0.2**
KRBN				AML	AML		
DDIM	**Aydin, Didim**	**0.76**	**123**	P	**Pg**	**03 59 48.3**	**-0.4**
DDIM				S	**Sb**	**03 59 59.3**	**0.0**
DDIM				IAML		04 00 01.0	
	comp=N,375nm,0.4s						
DDIM				IAML		04 00 02.0	
	comp=E,254nm,0.4s						
KARB	**zmir-Karabur**	**0.79**	**358**	P	**Pg**	**03 59 48.7**	**-0.6**
KARB				S	**Sb**	**03 59 59.9**	**-0.2**
KARB				IAML		04 00 02.0	
	comp=N,277nm,0.8s						
KARB				IAML		04 00 04.0	
	comp=E,391nm,0.4s						
BAGT	**Foa**	**0.84**	**22**	P	**Pg**	**03 59 50.3**	**0.0**
BAGT				S	**Sb**	**04 00 01.8**	**0.0**
BAGT				IAML		04 00 04.0	
	comp=N,803nm,1.0s						
BAGT				IAML		04 00 11.0	
	comp=E,281nm,0.9s						
FOCM	**Foa**	**0.87**	**15**	P	**Pg**	**03 59 50.1**	**-0.7**
FOCM				S	**Sb**	**04 00 02.7**	**+0.3**
FOCM				IAML		04 00 04.0	
	comp=N,1μm,0.9s						
FOCM				IAML		04 00 11.0	
	comp=E,793nm,0.9s						
FOCM	**Foa**	**0.87**	**15**	Pg	**Pb**	**03 59 51.1**	**+0.2**
FOCM				AML	AML		
DUVT	**Torbali**	**0.87**	**66**	P	**Pg**	**03 59 50.6**	**-0.2**
DUVT				S	**Sg**	**04 00 00.9**	**-1.3**
DUVT				IAML		04 00 02.0	
	comp=E,207nm,0.3s						
YKAV	**Yalikavak-Bodr**	**1.00**	**138**	Pg	**Pg**	**03 59 53.3**	**0.0**
YKAV				AML	AML		
KLNA	**Kalymnos**	**1.01**	**155**	P	**Pb**	**03 59 53.1**	**-0.2**
KLNA				S	**Sn**	**04 00 07.6**	**-0.2**
KLNA				AML	AML		
TNSA	**Tinos**	**1.07**	**252**	P	**Pb**	**03 59 54.1**	**-0.1**
TNSA				S	**Sb**	**04 00 07.5**	**-0.6**
TNSA				AML	AML		
BODT	**Bodrum**	**1.07**	**139**	P	**Pb**	**03 59 54.1**	**-0.2**
BODT				S	**Sn**	**04 00 09.7**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**1.07**	**139**	P	**Pn**	**03 59 54.6**	**0.0**
BODT				S	**Sg**	**04 00 08.8**	**+0.4**
BODT				IAML		04 00 11.0	
	comp=E,327nm,0.4s						
BODT				IAML		04 00 14.0	
	comp=N,147nm,0.2s						
BODT	**Bodrum**	**1.07**	**139**	Pg	**Pn**	**03 59 54.6**	**0.0**
BODT				AML	AML		
APE	**Apeiranthos**	**1.08**	**222**	P	**Pb**	**03 59 53.8**	**-0.7**
APE				S	**Sn**	**04 00 10.0**	**+0.3**
APE				AML	AML		
APE	**Apeiranthos**	**1.08**	**222**	P	**Pb**	**03 59 54.0**	**-0.5**
APE				S	**Sb**	**04 00 08.3**	**-0.2**
APE				AML	AML		
CAMT	**Merkez**	**1.11**	**38**	P	**Pb**	**03 59 55.0**	**0.0**
CAMT				S	**Sn**	**04 00 10.3**	**0.0**
CAMT				IAML		04 00 13.0	
	comp=E,237nm,0.5s						
CAMT				IAML		04 00 13.0	
	comp=N,238nm,0.3s						
BDRM	**Kayabasi**	**1.14**	**135**	P	**Pg**	**03 59 55.9**	**0.0**
BDRM				S	**Sn**	**04 00 11.5**	**+0.5**
BDRM				IAML		04 00 13.0	
	comp=N,110nm,0.3s						
BDRM				IAML		04 00 19.0	
	comp=E,135nm,0.4s						
NAX1	**Naxos Island**	**1.15**	**228**	P	**Pb**	**03 59 54.7**	**-0.9**
NAX1				S	**Sb**	**04 00 10.9**	**+0.6**
NAX1				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.15**	**86**	Pn	**Pg**	**03 59 56.3**	**+0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.16**	**100**	P	**Pg**	**03 59 56.3**	**-0.1**
AYDN				S	**Sb**	**04 00 09.8**	**-1.1**
AYDN				IAML		04 00 15.0	
	comp=N,79nm,0.3s						
AYDN				IAML		04 00 16.0	
	comp=E,69nm,0.3s						
ZEDA	**zmir-Bergama**	**1.20**	**24**	P	**Pg**	**03 59 57.1**	**0.0**
ZEDA				S	**Sn**	**04 00 13.3**	**+0.7**
ZEDA				IAML		04 00 18.0	
	comp=N,111nm,0.3s						
ZEDA				IAML		04 00 23.0	
	comp=E,66nm,0.7s						
MLSB	**Milas**	**1.21**	**118**	P	**Pb**	**03 59 56.8**	**+0.1**
MLSB				S	**Sn**	**04 00 13.1**	**+0.3**
MLSB				IAML		04 00 15.0	
	comp=N,123nm,0.5s						
MLSB				IAML		04 00 22.0	
	comp=E,43nm,0.3s						
MLSB	**Milas**	**1.21**	**118**	Pn	**Pg**	**03 59 57.0**	**-0.3**
MLSB				AML	AML		
DKL	**Dikili**	**1.25**	**17**	P	**Pn**	**03 59 56.8**	**-0.3**
DKL				S	**Sg**	**04 00 14.2**	**-0.1**
DKL				IAML		04 00 17.0	
	comp=N,124nm,0.5s						
DKL				IAML		04 00 20.0	
	comp=E,74nm,0.7s						
DKL	**Dikili**	**1.25**	**17**	Pn	**Pg**	**03 59 58.1**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**17**	P	**Pn**	**03 59 56.4**	**-0.7**
DKL				S	**Sb**	**04 00 13.7**	**+0.3**
ASTA	**Astypalaia**	**1.33**	**183**	P	**Pn**	**03 59 58.4**	**+0.3**
ASTA				S	**Sb**	**04 00 15.6**	**0.0**
PRK	**Paraskevi**	**1.38**	**355**	P	**Pn**	**03 59 58.8**	**-0.1**
PRK				S	**Sg**	**04 00 19.6**	**+1.3**
PRK				AML	AML		
PRK	**Paraskevi**	**1.38**	**355**	P	**Pn**	**03 59 59.1**	**+0.3**
PRK				S	**Sn**	**04 00 16.1**	**-0.8**
GOMA	**Golmarmara-Man**	**1.43**	**54**	Pn	**Pg**	**04 00 01.4**	**-0.1**
AYVA	**Ayvalik**	**1.45**	**8**	P	**Pg**	**04 00 01.3**	**-0.4**
AYVA				S	**Sg**	**04 00 21.1**	**+0.6**
AYVA				IAML		04 00 27.0	
	comp=N,136nm,0.6s						
AYVA				IAML		04 00 30.0	
	comp=E,63nm,0.3s						
DAT	**Datca**	**1.46**	**141**	P	**Pn**	**03 59 59.9**	**-0.2**
DAT				AML	AML		
DAT	**Datca**	**1.46**	**141**	Pn	**Pb**	**04 00 01.3**	**+0.3**
DAT				AML	AML		
NAZL	**Nazilli-Aydin**	**1.47**	**86**	Pn	**Pg**	**04 00 01.7**	**-0.5**
NAZL				AML	AML		
AKS	**Akhisar

KOCA				S	Sg	04 00 27.3	+0.4
KOCA				IAML		04 00 28.0	
	comp=E,86nm,0.5s						
KOCA				IAML		04 00 33.0	
	comp=N,77nm,0.9s						
THR8	**Santorini-Mono**	**1.65**	**208**	P	**Pn**	**04 00 02.6**	**-0.1**
THR8				S	**Sb**	**04 00 24.8**	**-0.2**
THRA	**Thira**	**1.66**	**209**	P	**Pn**	**04 00 03.1**	**+0.3**
THRA				S	**Sn**	**04 00 24.7**	**+0.7**
THRA				AML	AML		
SAP3	**Santorini-Thir**	**1.68**	**212**	P	**Pn**	**04 00 02.8**	**-0.3**
SAP3				S	**Sn**	**04 00 24.9**	**+0.5**
THR3	**Thira Island,**	**1.68**	**210**	P	**Pn**	**04 00 03.4**	**+0.3**
THR3				S	**Sn**	**04 00 24.7**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.69**	**210**	P	**Pn**	**04 00 03.2**	**+0.1**
SNT5				S	**Sn**	**04 00 25.1**	**+0.5**
THERA	**Ancient Thera,**	**1.69**	**207**	P	**Pn**	**04 00 02.4**	**-0.8**
THERA				S	**Sn**	**04 00 25.5**	**+0.9**
THERA				AML	AML		
THR5	**Thira Island,**	**1.70**	**211**	P	**Pn**	**04 00 03.3**	**+0.1**
THR5				S	**Sn**	**04 00 25.1**	**+0.4**
BUHA	**Balikesir, Bur**	**1.70**	**17**	P	**Pb**	**04 00 05.6**	**+0.5**
BUHA				S	**Sg**	**04 00 29.1**	**+0.4**
BUHA				IAML		04 00 33.0	
	comp=E,181nm,0.6s						
BUHA				IAML		04 00 34.0	
	comp=N,88nm,0.7s						
GORD	**Gordes-Manisa**	**1.71**	**52**	Pn	**Pb**	**04 00 05.4**	**+0.1**
GORD				AML	AML		
THR6	**Thira Island,**	**1.73**	**209**	P	**Pn**	**04 00 04.9**	**+1.2**
THR6				S	**Sn**	**04 00 26.1**	**+0.6**
THR9	**Santorini-Faro**	**1.74**	**210**	P	**Pn**	**04 00 03.9**	**+0.1**
THR9				S	**Sn**	**04 00 26.0**	**+0.1**
SKY	**Skiros Island**	**1.79**	**305**	P	**Pn**	**04 00 04.8**	**+0.3**
SKY				S	**Sn**	**04 00 27.6**	**+0.4**
SKY1	**Skyros Island**	**1.80**	**306**	P	**Pn**	**04 00 04.5**	**-0.2**
SKY1				S	**Sn**	**04 00 27.9**	**+0.7**
YAYO	**Edremit-Balk**	**1.80**	**16**	Pn	**Pb**	**04 00 06.7**	**-0.1**
YAYO				AML	AML		
TURN	**Turunc**	**1.81**	**127**	Pn	**Pb**	**04 00 06.2**	**-0.7**
TURN				AML	AML		
BAYC	**CANAKKALE_Bayr**	**1.87**	**3**	P	**Pn**	**04 00 05.5**	**-0.1**
BAYC				S	**Sg**	**04 00 33.3**	**-0.7**
BAYC				IAML		04 00 37.0	
	comp=E,64nm,0.4s						
BAYC				IAML		04 00 39.0	
	comp=N,73nm,0.3s						
BOZC	**Bozcaada**	**1.99**	**351**	P	**Pg**	**04 00 11.6**	**-0.5**
BOZC				S	**Sg**	**04 00 37.5**	**-0.4**
BOZC				IAML		04 00 40.0	
	comp=E,45nm,0.7s						
BOZC				IAML		04 00 41.0	
	comp=N,51nm,0.4s						
DION	**Dionisos Attik**	**1.99**	**277**	P	**Pn**	**04 00 07.3**	**0.0**
DION				AML	AML		
BALY	**Balya**	**2.08**	**26**	P	**Pb**	**04 00 12.3**	**+0.8**
BALY				S	**Sg**	**04 00 40.7**	**-0.1**
BALY				IAML		04 00 45.0	
	comp=N,92nm,0.6s						
BALY				IAML		04 00 48.0	
	comp=E,39nm,0.5s						
BALB	**Balikesir**	**2.09**	**32**	Pn	**Pb**	**04 00 10.9**	**-0.9**
BALB				AML	AML		
ARG	**Arkhangelos**	**2.13**	**140**	P	**Pn**	**04 00 09.4**	**+0.1**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.13**	**140**	Pn	**Pn**	**04 00 10.6**	**+1.3**
ARG				AML	AML		
DEMI	**Demirci**	**2.13**	**56**	P	**Pg**	**04 00 13.9**	**-1.0**
DEMI				S	**Sb**	**04 00 39.5**	**+0.6**
DEMI				IAML		04 00 47.0	
	comp=E,17nm,0.4s						
DEMI				IAML		04 00 57.0	
	comp=N,12nm,0.7s						
LIA	**Limnos Island**	**2.25**	**335**	P	**Pn**	**04 00 10.9**	**+0.1**
APMY	**Acipayam-Deniz**	**2.31**	**99**	Pn	**Pn**	**04 00 13.6**	**+1.9**
SIMA	**Simav-Kutahya**	**2.33**	**58**	Pn	**Pb**	**04 00 14.2**	**-1.7**
SIMA				AML	AML		
FETY	**Fethiye**	**2.44**	**120**	Pn	**Pb**	**04 00 15.8**	**-2.0**
CAME	**Cameli-Denizli**	**2.46**	**111**	Pn	**Pn**	**04 00 15.8**	**+1.9**

NEIC ***03*** *04:01:33.8±1.4,23.23S×0.09×173.7W±0.1,h10km±1km, mb4.5/18, Error ellipse: s-maj=19.3km s-min=15.5km az=111.0*

IDC ***03*** *04:01:35.0±53.0,22.71S×174.28W,h0km,mb4.2/3, mbtmp4.2/3,MS4.0/2,Error ellipse: s-maj=990.4km s-min=179.1km az=87.0*

ISC 03 04:01:32.9±0.9,23.2S±0.1×173.7W±0.1,h10km,n25, σ0.9s66/23,mb4.5/12,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAR	**Rarotonga**	**13.04**	**84**	Pn	**Pn**	**04 04 38.6**	**+0.3**
FUNA	**Funafuti**	**16.10**	**334**	Pn	**Pn**	**04 05 18.5**	**-1.1**
MARNC	**Mare, Loyalty**	**17.00**	**272**	Pn	**Pn**	**04 05 30.9**	**0.0**
RTZ	**Ruatahuna**	**17.32**	**205**	Pn	**Pn**	**04 05 33.9**	**-1.0**
LHI	**Lord Howe Isla**	**25.54**	**245**	P	**P**	**04 07 02.9**	**+1.1**
ARMA	**Armidale**	**31.69**	**249**	P	**P**	**04 07 56.8**	**-0.2**
ARMA				IAmb	IAmb	04 08 04.5	
	comp=Z,9.2nm,1.0s						
EIDS	**Eidsvold**	**32.13**	**259**	P	**P**	**04 08 00.4**	**-0.4**
EIDS				IAmb	IAmb	04 08 14.1	
	comp=Z,7.8nm,1.1s						
CTAO	**Charters Tower**	**37.28**	**267**	P	**P**	**04 08 45.5**	**+0.1**
CTAO				IAmb	IAmb	04 08 47.4	
	comp=Z,12nm,1.1s						
STKA	**Stephens Creek**	**40.35**	**248**	P	**P**	**04 09 10.2**	**-0.8**
	comp=Z,1.1nm,0.4s,baz=98,slow=14,SNR=3.2						
	comp=Z,1.1nm,0.4s						
STKA	**Stephens Creek**	**40.35**	**248**	P	**P**	**04 09 11.2**	**+0.2**
STKA				IAmb	IAmb	04 09 23.0	
	comp=Z,14nm,1.1s						
BBOO	**Buckleboo**	**45.04**	**246**	P	**P**	**04 09 48.9**	**-0.2**
BBOO				IAmb	IAmb	04 09 59.6	
	comp=Z,8.4nm,1.1s						
ASAR	**Alice Springs**	**47.86**	**258**	P	**P**	**04 10 11.7**	**+0.3**
	comp=Z,0.9nm,0.4s,baz=98,slow=8.1,SNR=16						
	comp=Z,0.9nm,0.4s						
ASAR	**Alice Springs**	**47.86**	**258**	P	**P**	**04 10 10.8**	**-0.6**
WR8	**Warramunga Arr**	**48.09**	**263**	P	**P**	**04 10 13.1**	**-0.1**
WR8				IAmb	IAmb	04 10 14.4	
	comp=Z,2.5nm,0.8s						
WB0	**Warramunga Arr**	**48.23**	**264**	P	**P**	**04 10 14.3**	**0.0**
WRAB	**Tennant Creek**	**48.23**	**263**	P	**P**	**04 10 14.3**	**+0.1**
WRAB				IAmb	IAmb	04 10 14.9	
	comp=Z,2.7nm,0.7s						
WRA	**Warramunga Arr**	**48.24**	**263**	P	**P**	**04 10 14.8**	**+0.5**
	comp=Z,2.9nm,0.4s,baz=99,slow=7.1,SNR=64						
	comp=Z,2.9nm,0.4s						
WRA	**Warramunga Arr**	**48.24**	**263**	P	**P**	**04 10 13.3**	**-1.0**
FORT	**Forrest**	**51.97**	**248**	P	**P**	**04 10 42.7**	**+0.2**
FORT				IAmb	IAmb	04 10 53.7	
	comp=Z,7.3nm,1.1s						
KNRA	**Kununurra**	**54.50**	**267**	P	**P**	**04 11 01.9**	**+0.6**
KNRA				IAmb	IAmb	04 11 21.8	
	comp=Z,4.7nm,1.1s						
FITZ	**Fitzroy Crossi**	**56.66**	**263**	P	**P**	**04 11 18.1**	**+1.3**
RPN	**Rapa Nui**	**57.82**	**108**	LR	LR	04 31 39.9	
	comp=Z,82nm,20.4s,baz=175,slow=31						
MORW	**Morawa**	**62.54**	**248**	P	**P**	**04 11 58.0**	**+0.7**
MORW				IAmb	IAmb	04 11 59.6	
	comp=Z,7.7nm,1.1s						
QSPA	**South Pole Qui**	**66.89**	**180**	P	**P**	**04 12 24.6**	**-0.6**
YKA	**Yellowknife Ar**	**97.31**	**24**	LR	LR	04 54 36.7	
	comp=Z,93nm,18.2s,baz=326,slow=33						

NEIC ***03*** *04:25:07.6±1.6,38.63N±0.05×0.48W±0.09,h5km±9km, ML3.3/6,Error ellipse: s-maj=10.6km s-min=5.9km az=119.0*

MDD ***03*** *04:25:08.4±0.2,38.63N×0.37W,h0km±1km,mb_Lg3.6/69, Error ellipse: s-maj=1.8km s-min=1.0km az=134.0*

SFS ***03*** *04:25:08.1,38.65N×0.37W,h2km,mb4.2/6,ML4.1/23, ML4.1/23,MLv4.0/23*

IDC ***03*** *04:25:09.6±1.0,38.94N×0.47W,h0km,mb3.7/2, mbtmp3.6/6,ML3.2/4,MS3.4/1,Error ellipse: s-maj=18.9km s-min=12.9km az=176.0*

INMG ***03*** *04:25:09.2±2.5,38.66N×0.40W,h4km±4km,ML3.4,Error ellipse: s-maj=3.2km s-min=2.1km az=131.0, #DIST_RANGE: REGIONAL #IPMA_REGION: NE Alicante (ESP)*

CNRM ***03*** *04:25:10.9,38.72N×0.42W,h56km,ML3.5*

ISC 03 04:25:08.5±0.8,38.68N±0.02×0.43W±0.02,h11km±5km, n157,σ1s43/283,3C-3D,Spain

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFON	**Font Roja**	**0.09**	**259**	⇓Pg	**Pg**	**04 25 10.8**	**-0.4**
AFON				Sg	**Sg**	**04 25 13.4**	**+0.2**
AFON				IVmb_Lg		04 25 14.5	
EBEN2	**Beniarda presa**	**0.19**	**92**	⇑Pg	**Pg**	**04 25 12.7**	**0.0**
EBEN2				Sg	**Sg**	**04 25 14.7**	**-0.8**
ETRV	**Los Montesinos**	**0.71**	**202**	Pg	**Pb**	**04 25 22.6**	**-0.2**
ETRV				Sg	**Sg**	**04 25 31.6**	**+0.1**
ETRV				IVmb_Lg		04 25 37.2	
EVIV	**Cofrentes, Val**	**0.79**	**318**	Pg	**Pb**	**04 25 24.2**	**0.0**
EVIV				Sg	**Sb**	**04 25 36.1**	**+1.0**
EVIV				IVmb_Lg		04 25 38.0	
ETOB	**Tobarra**	**0.87**	**268**	Pg	**Pn**	**04 25 27.0**	**+0.3**
ETOB				Sg	**Sn**	**04 25 39.7**	**+0.2**
ETOB	**Tobarra**	**0.87**	**268**	Pg	**Pn**	**04 25 26.4**	**-0.4**
ETOB				Sg	**Sn**	**04 25 39.9**	**+0.5**
ETOB	**Tobarra**	**0.87**	**268**	Pg	**Pb**	**04 25 25.8**	**+0.1**
ETOB				Sg	**Sn**	**04 25 39.3**	**-0.2**
ETOB				IVmb_Lg		04 25 41.5	
ECHE	**Chera**	**1.00**	**336**	Pg	**Pg**	**04 25 27.5**	**-0.2**
ECHE				Sg	**Sg**	**04 25 40.8**	**0.0**
ECHE	**Chera**	**1.00**	**336**	Pg	**Pb**	**04 25 27.9**	**+0.1**
ECHE				Sg	**Sb**	**04 25 41.7**	**+0.7**
ECHE				IVmb_Lg		04 25 45.2	
EMUR	**La Murta**	**1.05**	**217**	Pg	**Pb**	**04 25 28.1**	**-0.6**
EMUR				Sg	**Sg**	**04 25 41.6**	**-0.9**
EMUR	**La Murta**	**1.05**	**217**	⇑Pg	**Pb**	**04 25 28.1**	**-0.6**
EMUR				Sg	**Sg**	**04 25 42.0**	**-0.4**
EMUR				IVmb_Lg		04 25 51.3	
CART	**Cartagena**	**1.18**	**202**	Pg	**Pb**	**04 25 28.9**	**-2.0**
CART				Sg	**Sb**	**04 25 44.2**	**-1.9**
CART	**Cartagena**	**1.18**	**202**	Pg	**Pb**	**04 25 29.0**	**-1.9**
CART				Sg	**Sb**	**04 25 41.9**	**-4.2**
CART				IAML		04 25 53.1	
	comp=N,524nm,0.8s						
CART	**Cartagena**	**1.18**	**202**	P	**Pg**	**04 25 32.4**	**+1.2**
CART				S	**Sn**	**04 25 48.3**	**+1.4**
CART	**Cartagena**	**1.18**	**202**	P	**Pg**	**04 25 32.4**	**+1.2**
CART	**Cartagena**	**1.18**	**202**	P	**Pg**	**04 25 32.4**	**+1.2**
EZAR	**Zarzadilla de**	**1.28**	**231**	Pg	**Pn**	**04 25 31.1**	**-1.3**
EZAR				Sg	**Sg**	**04 25 49.8**	**+0.1**
EZAR				IVmb_Lg		04 26 04.3	
TLOR	**Lorca, Murcia**	**1.43**	**224**	Pn	**Pn**	**04 25 33.0**	**-1.2**
TLOR				Sn	**Sn**	**04 25 52.2**	**-0.8**
EIBI	**Ibiza**	**1.43**	**76**	Pn	**Pn**	**04 25 33.7**	**-0.6**
EIBI				Sn	**Sn**	**04 25 51.7**	**-1.4**
EIBI	**Ibiza**	**1.43**	**76**	⇓Pg	**Pn**	**04 25 34.0**	**-0.3**
EIBI				Sg	**Sn**	**04 25 51.2**	**-1.9**
EIBI				IVmb_Lg		04 25 52.4	
ELOR	**Lorca, Murcia**	**1.47**	**225**	Pn	**Pn**	**04 25 34.2**	**-0.7**
ELOR				Sn	**Sn**	**04 25 53.4**	**-0.6**
ELOR				IVmb_Lg		04 26 14.0	
ECOL	**Islas Columbre**	**1.49**	**35**	Pn	**Pn**	**04 25 34.5**	**-0.6**
ECOL				Sn	**Sn**	**04 25 53.5**	**-1.1**
EMOS	**Mosqueruela**	**1.68**	**359**	Pn	**Pn**	**04 25 37.4**	**-0.6**
EMOS				Sn	**Sb**	**04 26 00.6**	**-0.1**
EMOS				IVmb_Lg		04 26 11.6	
E0901	**Celadas (Terue**	**1.88**	**344**	Pn	**Pn**	**04 25 41.4**	**+0.8**
E0901				Pg	**Pg**	**04 25 44.8**	**+0.4**
E0901				Sn	**Sn**	**04 26 04.0**	**-0.2**
E0901				IVmb_Lg		04 26 14.9	
ENIJ	**Nijar**	**2.21**	**220**	Pn	**Pn**	**04 25 44.2**	**-0.9**
ENIJ				Sn	**Sn**	**04 26 09.6**	**-2.8**
ENIJ	**Nijar**	**2.21**	**220**	Pn	**Pn**	**04 25 44.4**	**-0.6**
ENIJ				Sn	**Sn**	**04 26 11.1**	**-1.3**
ENIJ				IVmb_Lg		04 26 40.1	
EBR	**Ebro Roquetas**	**2.25**	**18**	Pn	**Pn**	**04 25 45.2**	**-0.4**
EQES	**Quesada**	**2.25**	**248**	Pn	**Pn**	**04 25 46.6**	**+0.8**
EQES				Sn	**Sn**	**04 26 13.7**	**+0.1**
EQES				Sg	**Sg**	**04 26 21.0**	**0.0**
EQES				IVmb_Lg		04 26 32.6	
ERTA	**Horta de San J**	**2.35**	**14**	⇓Pn	**Pn**	**04 25 47.1**	**+0.1**
ERTA				Pg	**Pg**	**04 25 52.4**	**-1.1**
ERTA				Sn	**Sn**	**04 26 15.3**	**-0.5**
ERTA				Sg	**Sg**	**04 26 22.4**	**-1.6**
ERTA				IVmb_Lg		04 26 27.4	
E0802	**Ubeda,Jaen**	**2.41**	**255**	Pn	**Pn**	**04 25 48.1**	**+0.3**
E0802				Pg	**Pb**	**04 25 52.8**	**+1.1**
E0802				Sn	**Sn**	**04 26 18.2**	**+0.9**
E0802				Sg	**Sg**	**04 26 26.6**	**+0.9**
ETOR	**Torete**	**2.47**	**330**	Pn	**Pn**	**04 25 50.8**	**+2.0**
ETOR				Pg	**Pg**	**04 25 55.6**	**-0.3**
ETOR				Sn	**Sn**	**04 26 21.1**	**+2.1**
ETOR				Sg	**Sg**	**04 26 27.6**	**-0.4**
ETOR				IVmb_Lg		04 26 48.2	
EBER	**Berja**	**2.64**	**228**	Pn	**Pn**	**04 25 51.9**	**+0.8**
EBER				Sn	**Sn**	**04 26 21.0**	**-2.1**
EBER	**Berja**	**2.64**	**228**	Pn	**Pn**	**04 25 52.1**	**+0.9**
EBER				Sn	**Sn**	**04 26 22.0**	**-1.2**
EBER				Sg	**Sg**	**04 26 33.6**	**+0.3**
EBER				IVmb_Lg		04 26 53.5	
UCM	**Universidad Co**	**2.71**	**308**	Pn	**Pn**	**04 25 52.2**	**+0.1**
UCM				Sn	**Sn**	**04 26 23.6**	**-1.2**
UCM	**Universidad Co**	**2.71**	**308**	Pn	**Pn**	**04 25 52.1**	**+0.1**
ETOS	**Mallorca**	**2.75**	**66**	Pn	**Pn**	**04 25 52.2**	**-0.3**
ETOS				Sn	**Sn**	**04 26 23.1**	**-2.4**
ETOS	**Mallorca**	**2.75**	**66**	Pn	**Pn**	**04 25 52.4**	**0.0**
ETOS				Sn	**Sn**	**04 26 23.6**	**-2.0**
ETOS				IVmb_Lg		04 26 28.4	
EPOB	**Poblet**	**2.91**	**23**	Pn	**Pn**	**04 25 54.3**	**-0.4**
EPOB				Pg	**Pb**	**04 26 01.6**	**+1.2**
EPOB				Sn	**Sn**	**04 26 28.4**	**-1.3**
EPOB				IVmb_Lg		04 27 00.2	
ESBB	**Sonseca Array**	**2.92**	**291**	Pn	**Pn**	**04 25 54.4**	**-0.5**
ESDC	**Sonseca Array**	**2.92**	**291**	Pn	**Pn**	**04 25 54.7**	**-0.1**
	comp=N,4.0nm,0.3s,baz=105,slow=14,SNR=164						
ESDC				Lg	Lg	04 26 39.8	
	comp=N,21nm,0.3s,baz=100,slow=30,SNR=11						
	comp=N,12nm,0.5s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**2.92**	**291**	Pn	**Pn**	**04 25 54.1**	**-0.8**
ESDC	**Sonseca Array**	**2.92**	**291**	Pn	**Pn**	**04 25 54.7**	**-0.1**
ESDC				Pg	**Pg**	**04 26 03.2**	**-1.2**
ESDC				Sn	**Sn**	**04 26 32.8**	**+2.9**
ESDC				Sg	**Sg**	**04 26 42.2**	**0.0**
ESDC				IVmb_Lg		04 26 48.4	
ESAC	**San Caprasio**	**3.04**	**359**	Pn	**Pn**	**04 25 57.6**	**+1.1**
ESAC				Pg	**Pb**	**04 26 03.7**	**+1.2**
ESAC				Sn	**Sn**	**04 26 34.3**	**+1.5**
ESAC				Sg	**Sg**	**04 26 44.7**	**-1.4**
ESAC				IVmb_Lg		04 26 52.1	
ELGU	**Los Guajares,**	**3.11**	**235**	Pn	**Pn**	**04 25 58.0**	**+0.5**
ELGU				Sn	**Sn**	**04 26 35.7**	**+1.0**
ELGU	**Los Guajares,**	**3.11**	**235**	Pn	**Pn**	**04 25 59.0**	**+1.5**
ELGU	**Los Guajares,**	**3.11**	**235**	Pn	**Pn**	**04 25 58.3**	**+0.8**
ELGU				Sg	**Sg**	**04 26 46.9**	**-1.6**
ELGU				IVmb_Lg		04 27 06.2	
PAB	**San Pablo**	**3.17**	**287**	Pn	**Pn**	**04 25 57.8**	**-0.5**
PAB				IAML		04 26 59.4	
	comp=N,94nm,0.9s						
PAB	**San Pablo**	**3.17**	**287**	P	**Pn**	**04 25 57.9**	**-0.4**
PAB	**San Pablo**	**3.17**	**287**	P	**Pn**	**04 25 57.9**	**-0.4**
PAB	**San Pablo**	**3.17**	**287**	P	**Pn**	**04 25 57.9**	**-0.4**
PAB	**San Pablo**	**3.17**	**287**	⇑Pn	**Pn**	**04 25 58.1**	**-0.2**
PAB				Sn	**Sn**	**04 26 36.3**	**+0.3**
PAB				Sg	**Sg**	**04 26 48.9**	**-1.3**
PAB				IVmb_Lg		04 26 59.0	
EADA	**Adamuz**	**3.29**	**262**	Pn	**Pn**	**04 25 59.1**	**-0.8**
EADA				Sn	**Sn**	**04 26 38.5**	**-0.7**
EADA	**Adamuz**	**3.29**	**262**	Pn	**Pn**	**04 25 59.2**	**-0.8**
EADA	**Adamuz**	**3.29**	**262**	Pn	**Pn**	**04 25 59.2**	**-0.8**
EADA				Pg	**Pb**	**04 26 08.1**	**+1.2**
EADA				Sn	**Sn**	**04 26 39.7**	**+0.5**
EADA				Sg	**Sg**	**04 26 51.6**	**-2.7**
EADA				IVmb_Lg		04 27 03.9	
EGOR	**Sierra Gorda,**	**3.31**	**243**	Pn	**Pn**	**04 26 01.5**	**+1.2**
EGOR				Sn	**Sn**	**04 26 39.7**	**+0.1**
EGOR	**Sierra Gorda,**	**3.31**	**243**	Pn	**Pn**	**04 26 01.2**	**+0.9**
EGOR	**Sierra Gorda,**	**3.31**	**243**	Pn	**Pn**	**04 26 01.2**	**+0.9**
EGOR				Sn	**Sn**	**04 26 42.1**	**+2.6**
EGOR				IVmb_Lg		04 27 15.9	
EMIR	**Miracle**	**3.56**	**24**	Pn	**Pn**	**04 26 04.3**	**+0.6**
EMIR				Sn	**Sn**	**04 26 46.3**	**+0.5**
EMIR				IVmb_Lg		04 27 19.3	
EMAL	**Malaga-Limoner**	**3.70**	**240**	Pn	**Pn**	**04 26 06.4**	**+0.8**
EMAL				Sn	**Sn**	**04 26 46.7**	**-2.5**
CORI	**Orista**	**3.80**	**29**	Pn	**Pn**	**04 26 07.0**	**+0.2**
MAHO	**Mahon**	**3.84**	**70**	Pn	**Pn**	**04 26 07.5**	**+0.1**
MAHO				Sn	**Sn**	**04 26 49.9**	**-2.6**
MAHO	**Mahon**	**3.84**	**70**	Pn	**Pn**	**04 26 08.0**	**+0.5**
MAHO				IAML		04 26 55.0	
	comp=E,41nm,0.9s						
MAHO				IAML		04 27 39.0	
	comp=N,46nm,1.0s						
WMELI	**Melilla**	**3.92**	**212**	Pn	**Pn**	**04 26 06.8**	**-1.7**
WMELI				Sn	**Sn**	**04 26 52.7**	**-1.7**
EMLI	**Melilla**	**3.93**	**212**	Pn	**Pn**	**04 26 09.6**	**+0.9**
EMLI				Sn	**Sn**	**04 26 52.7**	**-2.0**
ECAB	**El Cabril**	**3.96**	**263**	Pn	**Pn**	**04 26 08.2**	**-0.9**
ECAB				Sn	**Sn**	**04 26 54.4**	**-1.3**
ECAB	**El Cabril**	**3.96**	**263**	Pn	**Pn**	**04 26 07.5**	**-1.8**
ECAB	**El Cabril**	**3.96**	**263**	Pn	**Pn**	**04 26 08.3**	**-0.9**
ECAB				Sn	**Sn**	**04 26 56.1**	**+0.5**
ECAB				Sg	**Sg**	**04 27 15.0**	**-0.8**
ECAB				IVmb_Lg		04 27 27.4	
CIBOR	**Castaar de Ib**	**4.00**	**285**	Pn	**Pn**	**04 26 09.4**	**-0.2**
CIBOR				Sn	**Sn**	**04 26 53.6**	**-2.9**
CIBOR				Sg	**Sg**	**04 27 15.0**	**-1.8**
ECHI	**Chisagues Biel**	**4.01**	**7**	Pn	**Pn**	**04 26 10.5**	**+0.6**
ECHI				Sn	**Sn**	**04 26 56.0**	**-0.8**
ECHI				Sg	**Sg**	**04 27 15.4**	**-1.7**
ECHI				IVmb_Lg		04 27 31.6	
EMIJ	**Mijas**	**4.04**	**240**	Pn	**Pn**	**04 26 11.3**	**+1.0**
EMIJ				Sn	**Sn**	**04 26 56.5**	**-1.1**
EMIJ	**Mijas**	**4.04**	**240**	Pn	**Pn**	**04 26 11.8**	**+1.5**
EMIJ	**Mijas**	**4.04**	**240**	Pn	**Pn**	**04 26 11.5**	**+1.2**
EMIJ				Sn	**Sn**	**04 26 59.2**	**+1.6**
EMIJ				IVmb_Lg		04 27 38.2	
CEST	**Esterri de Car**	**4.12**	**18**	Pn	**Pn**	**04 26 11.8**	**+0.4**
EARA	**Aranguren**	**4.18**	**348**	Pn	**Pn**	**04 26 12.9**	**+0.7**
EARA				Sn	**Sn**	**04 27 01.6**	**+0.7**
EARA				Sg	**Sg**	**04 27 23.3**	**+0.6**
EARA				IVmb_Lg		04 27 36.3	
EORO	**Oroz-Betelu**	**4.26**	**351**	Pn	**Pn**	**04 26 14.9**	**+1.6**
EORO				Sn	**Sn**	**04 27 03.2**	**+0.2**
EORO				Sg	**Sg**	**04 27 24.6**	**-0.6**
EORO				IVmb_Lg		04 27 35.8	
PALE	**Palemas**	**4.46**	**220**	P	**Pn**	**04 26 16.0**	**0.0**
PALE				S	**Sn**	**04 27 07.9**	**+0.1**
PALE	**Palemas**	**4.46**	**220**	P	**Pn**	**04 26 18.0**	**+2.0**
PALE	**Palemas**	**4.46**	**220**	P	**Pn**	**04 26 18.0**	**+2.0**
EJON	**La Jonquera**	**4.53**	**33**	Pn	**Pn**	**04 26 17.3**	**+0.3**
EJON				Sn	**Sn**	**04 27 07.2**	**-2.5**
EJON	**La Jonquera**	**4.53**	**33**	Pn	**Pn**	**04 26 17.3**	**+0.3**
EJON				Sn	**Sn**	**04 27 08.0**	**-1.6**
EJON				IVmb_Lg		04 27 54.8	
EALK	**Alkurruntz**	**4.61**	**350**	Pn	**Pn**	**04 26 19.9**	**+1.8**
EALK				Sn	**Sn**	**04 27 11.0**	**-0.5**
EALK				IVmb_Lg		04 27 46.6	
ESPR	**Espera**	**4.66**	**249**	Pn	**Pn**	**04 26 18.5**	**-0.3**
ESPR				Sn	**Sn**	**04 27 11.4**	**-1.5**
ESPR	**Espera**	**4.66**	**249**	Pn	**Pn**	**04 26 18.8**	**+0.1**
JBK	**JBK**	**4.67**	**202**	P	**Pn**	**04 26 19.4**	**+0.4**
JBK				S	**Sn**	**04 27 14.9**	**+1.6**
AKLM	**AKL**	**5.00**	**215**	P	**Pn**	**04 26 24.4**	**+1.0**
AKLM				P	**Pn**	**04 26 24.6**	**+1.2**
AKLM	**AKL**	**5.00**	**215**	P	**Pn**	**04 26 24.4**	**+1.0**
AKLM	**AKL**	**5.00**	**215**	P	**Pn**	**04 26 24.4**	**+1.0**
EMIN	**Mina Concepcio**	**5.00**	**261**	Pn	**Pn**	**04 26 22.2**	**-1.2**
EMIN				Sn	**Sn**	**04 27 20.2**	**-0.9**
EMIN	**Mina Concepcio**	**5.00**	**261**	Pn	**Pn**	**04 26 21.2**	**-2.2**
EMIN	**Mina Concepcio**	**5.00**	**261**	Pn	**Pn**	**04 26 22.7**	**-0.7**
EMIN				Sg	**Sg**	**04 27 45.5**	**-3.4**
ELAN	**Lanestosa**	**5.08**	**334**	Pn	**Pn**	**04 26 26.2**	**+1.6**
ELAN				Sn	**Sn**	**04 27 21.5**	**-1.7**
EBAD	**Badajoz**	**5.15**	**273**	Pn	**Pn**	**04 26 24.1**	**-1.3**
EBAD				Sn	**Sn**	**04 27 22.8**	**-2.0**
EBAD	**Badajoz**	**5.15**	**273**	Pn	**Pn**	**04 26 23.8**	**-1.7**
EBAD	**Badajoz**	**5.15**	**273**	Pn	**Pn**	**04 26 24.7**	**-0.7**
EBAD				Pg	**Pb**	**04 26 41.8**	**+3.4**
EBAD				Sg	**Sg**	**04 27 52.3**	**-1.4**
EBAD				IVmb_Lg		04 27 58.7	
PBAR	**Barrancos**	**5.21**	**266**	Pn	**Pn**	**04 26 25.0**	**-1.3**
PBAR				Sn	**Sn**	**04 27 24.4**	**-2.0**
PBAR	**Barrancos**	**5.21**	**266**	Pn	**Pn**	**04 26 24.7**	**-1.6**
PBAR	**Barrancos**	**5.21**	**266**	*e*Pn	**Pn**	**04 26 25.5**	**-1.1**

PSARD				IAML		04 28 31.3		
PSARD				IAML		04 28 32.7		
PSARD				IAML		04 28 41.1		
PCVE	**Castro Verde**	**6.08**	**262**	Pn	**Pn**	**04 26 37.1**	**-1.2**
PCVE				Sn	**Sn**	**04 27 44.9**	**-3.0**
PCVE	**Castro Verde**	**6.08**	**262**	*e*Sg	**Sg**	**04 28 25.0**	**+1.2**
PCVE				IAML		04 28 28.9		
PCVE				IAML		04 29 29.0		
PCVE				IAML		04 28 30.6		
PMTG	**Montargil**	**6.09**	**276**	*e*Pn	**Pn**	**04 26 38.4**	**-0.1**
PMTG				*e*Sn	**Sn**	**04 27 49.3**	**+1.2**
PMTG				*e*Sg	**Sg**	**04 28 24.5**	**+0.5**
PMTG				IAML		04 28 31.9		
PMTG				IAML		04 28 41.8		
PMTG				IAML		04 28 46.0		
PBDV	**Barranco-do-Ve**	**6.10**	**259**	Pn	**Pn**	**04 26 37.1**	**-1.4**
PBDV	**Barranco-do-Ve**	**6.10**	**259**	*e*Pn	**Pn**	**04 26 37.9**	**-0.6**
PBDV				*e*Sn	**Sn**	**04 27 46.0**	**-2.2**
PBDV				IAML		04 28 32.6		
PBDV				IAML		04 28 33.8		
PBDV				IAML		04 28 46.1		
PVIS	**Viseu**	**6.10**	**292**	*e*Pn	**Pn**	**04 26 38.9**	**+0.3**
PVIS				*e*Sn	**Sn**	**04 27 45.5**	**-2.9**
PVIS				*e*Sg	**Sg**	**04 28 24.1**	**-0.2**
PVRL	**Vila Real**	**6.16**	**297**	*e*Pn	**Pn**	**04 26 39.3**	**-0.1**
PVRL				*e*Sg	**Sg**	**04 28 25.4**	**-0.9**
PVRL				IAML		04 28 34.0		
PVRL				IAML		04 28 35.1		
PVRL				IAML		04 28 36.8		
MESJ	**Messejana**	**6.19**	**265**	Pn	**Pn**	**04 26 38.5**	**-1.2**
MESJ	**Messejana**	**6.19**	**265**	*e*Pn	**Pn**	**04 26 39.0**	**-0.7**
MESJ				*e*Sn	**Sn**	**04 27 47.7**	**-2.7**
MESJ				*e*Sg	**Sg**	**04 28 27.3**	**+0.3**
MESJ				IAML		04 28 35.9		
MESJ				IAML		04 28 37.0		
MESJ				IAML		04 28 47.0		
POLO	**Lamas de Olo**	**6.26**	**298**	*e*Pn	**Pn**	**04 26 41.0**	**+0.2**
POLO				*e*Sn	**Sn**	**04 27 48.8**	**-3.5**
POLO				*e*Sg	**Sg**	**04 28 27.6**	**-1.7**
POLO				IAML		04 28 38.8		
POLO				IAML		04 28 39.5		
POLO				IAML		04 28 51.1		
PLOUS	**Minas do Lousa**	**6.31**	**267**	*e*Sn	**Sn**	**04 27 51.3**	**-2.1**
PLOUS				*e*Sg	**Sg**	**04 28 31.0**	**0.0**
PLOUS				IAML		04 28 37.0		
PLOUS				IAML		04 28 43.0		
PLOUS				IAML		04 28 47.2		
PCAB	**Cabril**	**6.55**	**300**	*e*Pn	**Pn**	**04 26 45.2**	**+0.4**
PCAB				*e*Sg	**Sg**	**04 28 36.3**	**-2.4**
PCAB				IAML		04 28 42.9		
PCAB				IAML		04 28 46.3		
PCAB				IAML		04 28 48.0		
PTEO	**Sao Teotonio**	**6.64**	**263**	*e*Sg	**Sg**	**04 28 41.7**	**+0.3**
PTEO				IAML		04 28 50.6		
PTEO				IAML		04 28 52.2		
PTEO				IAML		04 28 56.1		
ELOB	**Lobios**	**6.64**	**301**	Pn	**Pn**	**04 26 46.0**	**-0.1**
ELOB				Sn	**Sn**	**04 27 58.3**	**-3.4**
ELOB				Sg	**Sg**	**04 28 39.2**	**-2.5**
ELOB				IVmb_Lg		04 28 59.5		
PTO	**Porto**	**6.74**	**294**	*e*Sg	**Sg**	**04 28 45.3**	**+0.5**
PTO				IAML		04 28 58.4		
PTO				IAML		04 28 58.9		
MDT	**Midelt**	**6.77**	**211**	Pn	**Pn**	**04 26 51.9**	**+4.1**
	comp=N,0.3nm,0.3s,baz=36,slow=16,SNR=13							
	comp=N,1.9nm,0.7s							
MDT				AML	AML			
MDT	**Midelt**	**6.77**	**211**	P	**Pn**	**04 26 49.1**	**+1.3**
MD01	**Midelt array s**	**6.78**	**213**	Pn	**Pn**	**04 26 48.1**	**+0.1**
MD31	**MD31**	**6.78**	**213**	Pn	**Pn**	**04 26 47.7**	**-0.3**
MD31	**MD31**	**6.78**	**213**	P	**Pn**	**04 26 49.8**	**+1.8**
PGAV	**Gavieira, Arco**	**6.83**	**301**	*e*Pn	**Pn**	**04 26 48.6**	**0.0**
PGAV				*e*Sg	**Sg**	**04 28 44.6**	**-3.0**
PGAV				IAML		04 28 58.3		
PGAV				IAML		04 29 03.1		
PGAV				IAML		04 29 08.9		
SSB	**Saint Sauveur**	**7.56**	**28**	Pn	**Pn**	**04 26 58.8**	**+0.2**
VSL	**Villasalto**	**7.67**	**81**	Pn	**Pn**	**04 27 01.2**	**+1.1**
BNI	**Bardonecchia**	**8.28**	**38**	Pn	**Pn**	**04 27 10.0**	**+1.4**
KEST	**Kesra**	**8.34**	**108**	Pn	**Pn**	**04 27 13.5**	**+4.2**
	comp=N,0.6nm,0.3s,baz=268,slow=8.0,SNR=11							
	comp=N,5.6nm,0.5s							
KEST				AML	AML			
KEST	**Kesra**	**8.34**	**108**	Pn	**Pn**	**04 27 12.5**	**+3.2**
SENIN	**Lac Senin/Sane**	**9.56**	**34**	Pn	**Pn**	**04 27 27.3**	**+1.2**
NRCA	**Norcia**	**11.08**	**64**	Pn	**Pn**	**04 27 48.6**	**+1.7**
FDMO	**Fiordimonte**	**11.12**	**63**	Pn	**Pn**	**04 27 49.5**	**+2.2**
INTR	**Introdacqua**	**11.44**	**69**	Pn	**Pn**	**04 27 51.5**	**-0.2**
GERES	**GERESS Array B**	**14.38**	**41**	Pn	**Pn**	**04 28 32.3**	**+0.4**
	baz=235,slow=13,SNR=6.9							
	comp=N,0.6nm,0.5s							
KURBB	**Kurchatov Arra**	**54.88**	**50**	P	**P**	**04 34 40.1**	**+1.5**
	comp=N,0.7nm,0.6s,baz=294,slow=7.7,SNR=5.3							
	comp=N,0.7nm,0.6s							
RCBR	**Riachuelo**	**55.15**	**225**	LR	LR	04 56 50.4		
	comp=N,32nm,19.1s,baz=29,slow=34							
MKAR	**Makanchi Array**	**58.64**	**53**	P	**P**	**04 35 08.2**	**+2.6**
	comp=N,0.7nm,0.8s,baz=298,slow=6.2,SNR=4.5							
	comp=N,0.7nm,0.8s							

NEIC ***03*** *04:35:56.6±1.6, 6.°73S±0.°05×129.°79E±0.°07, h124km±3km, mb4.5/17, Error ellipse: s-maj=9.7km s-min=7.3km az=72.0*

IDC ***03*** *04:35:57.2±1.7, 6.°79S×129.°85E, h132km±17km, mb3.9/8, mbtmp4.4/14, Error ellipse: s-maj=16.2km s-min=13.2km az=63.0*

GFZ ***03*** *04:35:57.6±0.2, 7.°5S±3.°×13.°0E±.°, h153km±4km, M4.6/19, mb4.5/19, Error ellipse: s-maj=6.5km s-min=5.0km az=1.5, confirmed*

DJA ***03*** *04:35:58.2±2.3, 7.°5S±4.°×13.°0E±.°, h26km±23km, M4.8/20, mB5.3/9, mb5.0/14, MLv4.8/20, Mw(mB)4.7/9*

ISC 03 04:35:58.1±0.4, 6.°75S±0.°05×129.°88E±0.°04, h146km, n101, σ1°63/101, mb4.4/19, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.87**	**131**		**Pn**	**04 36 30.4**	**-1.1**
SAUI				Sn	**Sn**	**04 36 56.9**	**-0.3**
SAUI	**Saumlaki**	**1.87**	**131**	P	**Pn**	**04 36 29.8**	**-1.7**
SAUI				S	**Sn**	**04 36 53.3**	**-3.9**
SAUI				AML	AML		
SAUI	**Saumlaki**	**1.87**	**131**	P	**Pn**	**04 36 30.5**	**-1.1**
BNDI	**Bandanaira**	**2.21**	**1**	P	**Pn**	**04 36 33.4**	**-2.1**
BNDI				AML	AML		
BNDI	**Bandanaira**	**2.21**	**1**	P	**Pn**	**04 36 35.5**	**0.0**
AAI	**Ambon**	**3.47**	**331**	P	**Pn**	**04 36 52.7**	**+1.3**
MSAI	**Masohi**	**3.51**	**344**	P	**Pn**	**04 36 51.6**	**-0.3**
MSAI				AML	AML		
MSAI	**Masohi**	**3.51**	**344**	P	**Pn**	**04 36 51.5**	**-0.3**
NLAI	**Namlea**	**4.45**	**321**	P	**Pn**	**04 37 04.2**	**0.0**
NLAI	**Namlea**	**4.45**	**321**	P	**Pn**	**04 37 04.9**	**+0.7**
FAKI	**Fak Fak**	**4.48**	**32**		**Pn**	**04 37 02.0**	**-2.7**
FAKI	**Fak Fak**	**4.48**	**32**	P	**Pn**	**04 37 02.5**	**-2.1**
FAKI				AML	AML		
FAKI	**Fak Fak**	**4.48**	**32**	P	**Pn**	**04 37 01.8**	**-2.8**
KMPI	**Kaimana, Papua**	**4.89**	**51**	P	**Pn**	**04 37 08.3**	**-1.8**
KMPI	**Kaimana, Papua**	**4.89**	**51**	P	**Pn**	**04 37 07.9**	**-2.2**
SIJI	**Sorong**	**6.00**	**13**	P	**Pn**	**04 37 24.2**	**-0.7**
	15nm,0.3s,baz=228,slow=16,SNR=17							
SIJI				S	**Sn**	**04 38 25.4**	**-7.3**
	50nm,0.3s,baz=204,slow=16,SNR=7.6							
SIJI	**Sorong**	**6.00**	**13**	P	**Pn**	**04 37 24.8**	**-0.1**
SIJI				AML	AML		
SIJI	**Sorong**	**6.00**	**13**	P	**Pn**	**04 37 23.6**	**-1.3**
	comp=Z,15nm,0.7s							
MTN	**Manton Dam**	**6.18**	**169**		**Pn**	**04 37 25.8**	**-1.5**
SOEI	**Soe**	**6.30**	**241**		**Pn**	**04 37 25.0**	**-4.0**
SOEI	**Soe**	**6.30**	**241**	P	**Pn**	**04 37 29.8**	**+0.8**
	comp=Z,1.3nmcomp=Z,2µmcomp=Z,184nm,0.8s							
SOEI				S	**Sn**	**04 38 40.9**	**+0.8**
	comp=Z,1.3nmcomp=Z,2µmcomp=Z,184nm,0.8s							
SOEI				AML	AML			
SOEI	**Soe**	**6.30**	**241**	P	**Pn**	**04 37 29.1**	**0.0**
	comp=Z,181nm,1.0s							
BATI	**Baumata**	**7.04**	**240**	P	**Pn**	**04 37 38.5**	**-0.3**
	comp=Z,123nm,0.5s,baz=145,slow=4.2,SNR=16							
BATI				S	**Sn**	**04 38 55.6**	**-2.0**
	comp=Z,150nm,0.6s,baz=292,slow=22,SNR=9.2							
BATI	**Baumata**	**7.04**	**240**	P	**Pn**	**04 37 38.3**	**-0.5**
	comp=Z,0.6nmcomp=Z,2µmcomp=Z,155nm,0.6s							
BATI				S	**Sn**	**04 38 58.5**	**+0.8**
	comp=Z,0.6nmcomp=Z,2µmcomp=Z,155nm,0.6s							
BATI				AML	AML			
BATI	**Baumata**	**7.04**	**240**	P	**Pn**	**04 37 37.3**	**-1.5**
	comp=Z,149nm,0.6s							
MWPI	**Manokwari, Pap**	**7.12**	**36**	P	**Pn**	**04 37 39.7**	**-0.1**
	comp=Z,81nm,0.4s							
BBSI	**Bau Bau**	**7.37**	**279**	P	**Pn**	**04 37 44.3**	**+1.1**
	comp=Z,0.3nmcomp=Z,78nm,0.9s							
BBSI				AML	AML			
BBSI	**Bau Bau**	**7.37**	**279**	P	**Pn**	**04 37 44.5**	**+1.3**
	comp=Z,46nm,1.0s							
KDI	**Kendari**	**7.74**	**291**	P	**Pn**	**04 37 48.9**	**+0.8**
KDI				AML	AML			
MMRI	**Maumere**	**7.80**	**256**	P	**Pn**	**04 37 48.5**	**-0.4**
	comp=Z,0.4nmcomp=Z,84nm,0.8s							
MMRI				AML	AML			
BAKI	**Biak**	**8.31**	**49**	P	**Pn**	**04 37 56.2**	**+0.4**
EDFI	**Ende, Flores**	**8.35**	**256**	P	**Pn**	**04 37 56.7**	**+0.3**
	comp=Z,52nm,0.8s							
EDFI	**Ende, Flores**	**8.35**	**256**	P	**Pn**	**04 37 57.4**	**+1.0**
	comp=Z,52nm,0.8s							
KNRA	**Kununurra**	**8.94**	**187**		**Pn**	**04 38 02.6**	**-1.6**
BKSI	**Bulukumba**	**9.80**	**278**	P	**Pn**	**04 38 15.7**	**0.0**
	comp=Z,13nm,0.7s							
LBFI	**Labuhan Bajo,**	**10.05**	**259**	P	**Pn**	**04 38 19.8**	**+0.9**
	comp=Z,26nm,0.5s							
SPSI	**Sidrap Palu**	**10.43**	**285**	P	Pn	04 38 36.8	+13
PMSI	**Majene**	**11.38**	**286**	P	**P**	**04 38 47.6**	**+3.1**
PMSI	**Majene**	**11.38**	**286**	P	**Pn**	**04 38 37.2**	**+0.6**
	comp=Z,94nm,0.8s							
JAY	**Jayapura**	**11.58**	**69**	P	**Pn**	**04 38 39.4**	**+0.2**
	comp=Z,8.1nm,0.6s,baz=214,slow=11,SNR=4.7							
DBNI	**Kabupaten Domp**	**11.59**	**261**	P	**P**	**04 38 45.8**	**-1.1**
DBNI	**Kabupaten Domp**	**11.59**	**261**	P	**Pn**	**04 38 38.7**	**-0.7**
	comp=Z,16nm,0.8s							
FITZ	**Fitzroy Crossi**	**12.02**	**200**	P	**Pn**	**04 38 42.5**	**-2.3**
	comp=Z,4.2nm,0.4s,baz=23,slow=12,SNR=32							
FITZ				S	Sn	04 40 42.2	-15	
	comp=Z,22nm,0.5s,baz=65,slow=12,SNR=9.5							
FITZ	**Fitzroy Crossi**	**12.02**	**200**		**Pn**	**04 38 41.1**	**-3.7**
FITZ	**Fitzroy Crossi**	**12.02**	**200**	P	**Pn**	**04 38 42.8**	**-2.0**
	comp=Z,1.7nm,1.1s							
PLAI	**Plampang**	**12.16**	**259**	P	**Pn**	**04 38 49.9**	**+3.1**
PLAI	**Plampang**	**12.16**	**259**	P	**Pn**	**04 38 44.6**	**-2.2**
	comp=Z,53nm,0.8s							
WB0	**Warramunga Arr**	**13.67**	**162**		Pn	04 39 00.8	-5.2	
WRAB	**Tennant Creek**	**13.81**	**162**		Pn	04 39 02.7	-5.2	
WRA	**Warramunga Arr**	**13.82**	**162**	P	Pn	04 39 01.9	-6.0	
	comp=Z,5.2nm,0.5s,baz=335,slow=13,SNR=35							
WRA				S	Sn	04 41 24.1	-17	
	comp=Z,13nm,0.7s,baz=340,slow=22,SNR=8.9							
WRA	**Warramunga Arr**	**13.82**	**162**		Pn	04 39 01.1	-6.8	
WR8	**Warramunga Arr**	**13.88**	**162**		Pn	04 39 04.0	-4.8	
JAGI	**Jajag, Banyuwa**	**15.68**	**263**	P	**Pn**	**04 39 29.4**	**-1.9**
	comp=Z,29nm,0.9s							
QIS	**Mount Isa**	**16.66**	**146**	P	**P**	**04 39 41.9**	**-1.2**
	comp=Z,16nm,0.5s							
AS31	**Alice Springs**	**17.26**	**167**		**P**	**04 39 49.4**	**-0.4**
ASAR	**Alice Springs**	**17.26**	**167**	P	**P**	**04 39 49.1**	**-0.6**
	comp=Z,9.6nm,0.5s,baz=346,slow=9.8,SNR=93							
ASAR				S		04 42 49.2	-13	
	comp=Z,3.3nm,0.7s,baz=344,slow=18,SNR=7.4							
PMG	**Port Moresby**	**17.31**	**100**	P	**P**	**04 39 49.8**	**-0.5**
	comp=Z,4.8nm,0.3s,baz=261,slow=13,SNR=4.1							
PMG	**Port Moresby**	**17.31**	**100**	P	**P**	**04 39 49.9**	**-0.4**
PMG				IAmb	IAmb	04 39 57.0		
	comp=Z,19nm,0.9s							
MBWA	**Marble Bar**	**17.37**	**213**		**P**	**04 39 50.4**	**-0.5**
MBWA	**Marble Bar**	**17.37**	**213**	P	**P**	**04 39 50.4**	**-0.5**
	comp=Z,14nm,1.5s							
MTSU	**Mount Surprise**	**18.07**	**130**	P	**P**	**04 39 58.6**	**+0.1**
	comp=Z,11nm,0.6s							
WOJI	**Wonogiri, Jawa**	**18.83**	**266**	P	**P**	**04 40 06.2**	**-0.7**
	comp=Z,42nm,2.3s							
CTA	**Charters Tower**	**20.70**	**131**	P	**P**	**04 40 27.7**	**+0.7**
	comp=Z,11nm,0.7s,baz=303,slow=12,SNR=9.0							
	comp=Z,11nm,0.7s							
CTAO	**Charters Tower**	**20.70**	**131**	P	**P**	**04 40 28.7**	**+1.7**
CTAO				IAmb	IAmb	04 40 30.8		
	comp=Z,21nm,0.9s							
CTAO	**Charters Tower**	**20.70**	**131**	P	**P**	**04 40 26.6**	**-0.5**
	comp=Z,24nm,1.9s							
KPJI	**Karang Pucung**	**20.80**	**267**	P	**P**	**04 40 25.8**	**-2.3**
	comp=Z,14nm,0.8s							
BBJI	**Bungbulang**	**22.07**	**267**	P	**P**	**04 40 40.0**	**-1.6**
BBJI				IAmb	IAmb	04 40 57.7		
	comp=Z,13nm,1.0s							
BBJI	**Bungbulang**	**22.07**	**267**	P	**P**	**04 40 39.0**	**-2.6**
	comp=Z,16nm,0.7s							
FORT	**Forrest**	**23.97**	**184**	P	**P**	**04 41 00.0**	**+0.9**
QLP	**Quilpie**	**24.00**	**147**	P	**P**	**04 40 58.6**	**-0.9**
	comp=Z,26nm,1.0s							
BBOO	**Buckleboo**	**26.56**	**168**	P	**P**	**04 41 23.7**	**+1.1**
BBOO				IAmb	IAmb	04 41 34.4		
	comp=Z,9.6nm,1.1s							
STKA	**Stephens Creek**	**27.29**	**158**	P	**P**	**04 41 28.8**	**-0.3**
	comp=Z,3.6nm,0.6s,baz=337,slow=8.8,SNR=7.0							
	comp=Z,3.6nm,0.6s							
STKA	**Stephens Creek**	**27.29**	**158**	P	**P**	**04 41 29.0**	**-0.1**
NWAO	**Narrogin (SRO)**	**28.58**	**203**	P	**P**	**04 41 41.3**	**+0.8**
NWAO				IAmb	IAmb	04 41 59.5		
	comp=Z,10nm,0.8s							
CMSA	**Cobar Meteorol**	**28.76**	**151**	P	**P**	**04 41 41.5**	**-0.6**
	comp=Z,12nm,0.9s							
SDSI	**Sungai Dareh**	**28.95**	**280**	P	**P**	**04 41 42.0**	**-2.1**
	comp=Z,7.5nm,1.1s							
ARMA	**Armidale**	**31.17**	**142**	P	**P**	**04 42 04.6**	**+1.0**
ARMA				IAmb	IAmb	04 42 06.3		
	comp=Z,9.5nm,1.0s							
CAN	**Canberra**	**33.44**	**151**	P	**P**	**04 42 23.9**	**+0.7**
CAN				IAmb	IAmb	04 42 25.0		
	comp=Z,9.1nm,0.8s							
CAN	**Canberra**	**33.44**	**151**	P	**P**	**04 42 23.3**	**+0.1**
	comp=Z,17nm,1.8s							
SANVU	**Saraoutou**	**37.58**	**107**	P	**P**	**04 42 59.0**	**+0.2**
CMAR	**Chiang Mai Arr**	**39.47**	**310**	P	**P**	**04 43 14.9**	**+0.4**
	comp=Z,1.3nm,0.3s,baz=145,slow=8.0,SNR=4.8							
	comp=Z,1.3nm,0.3s							
CMAR	**Chiang Mai Arr**	**39.47**	**310**	P	**P**	**04 43 13.2**	**-1.4**
NJ2	**Nanjing**	**39.99**	**345**	*e*P	**P**	**04 43 21.3**	**+2.7**
NJ2				pmax	pmax			
	comp=Z,11nm,0.5s							
HHC	**Hu-ho-hao-te**	**50.27**	**342**	*e*P	**P**	**04 44 42.6**	**+2.9**
HHC				pmax	pmax			
	comp=Z,19nm,0.7s							
EVN	**Everest**	**54.02**	**312**	P	**P**	**04 45 08.3**	**0.0**
EVN				IAmb	IAmb	04 45 09.3		
	comp=Z,3.1nm,0.6s							
MKAR	**Makanchi Array**	**67.95**	**327**	P	**P**	**04 46 42.3**	**+1.0**
	comp=Z,5.5nm,0.5s,baz=123,slow=7.8,SNR=42							
	comp=Z,5.5nm,0.5s							
MKAR	**Makanchi Array**	**67.95**	**327**		**P**	**04 46 42.0**	**+0.7**
MAKZ	**Makanchi**	**68.13**	**327**		**P**	**04 46 42.1**	**-0.2**
MAKZ				IAmb	IAmb	04 46 44.1		
	comp=Z,5.2nm,0.6s							
ZALV	**Zalesovo Beam**	**71.30**	**334**	P	**P**	**04 47 02.1**	**+0.5**
	comp=Z,0.8nm,0.6s,baz=115,slow=10.0,SNR=4.0							
	comp=Z,0.8nm,0.6s							
ZALV	**Zalesovo Beam**	**71.30**	**334**	P	**P**	**04 47 01.9**	**+0.3**
KURBB	**Kurchatov Arra**	**72.23**	**329**	P	**P**	**04 47 08.0**	**+0.8**
	comp=Z,1.5nm,0.6s,baz=127,slow=5.0,SNR=15							
	comp=Z,1.5nm,0.6s							
KURK	**Kurchatov**	**72.24**	**329**	P	**P**	**04 47 08.0**	**+0.8**
BVAR	**Borovoye Array**	**77.78**	**328**	P	**P**	**04 47 39.4**	**+0.4**
	comp=Z,1.0nm,0.5s,baz=123,slow=5.3,SNR=3.1							
	comp=Z,1.0nm,0.5s							
P08K	**Saint George I**	**80.06**	**29**	P	**P**	**04 47 53.4**	**+2.1**
QSPA	**South Pole Qui**	**83.23**	**180**	P	**P**	**04 48 08.2**	**+0.1**
	comp=Z,0.6nm,0.7s,baz=119,slow=1.1,SNR=1.9							
	comp=Z,1.6nm,0.7s							
QSPA	**South Pole Qui**	**83.23**	**180**	P	**P**	**04 48 09.1**	**+1.0**
CNPM	**China Poot**	**90.16**	**30**	P	**P**	**04 48 42.7**	**+1.0**
CPUP	**Villa Florida**	**146.39**	**168**	PKPbc	**PKPdf**	**04 55 22.6**	**+1.4**
	comp=Z,0.7nm,0.7s,baz=249,slow=2.7,SNR=3.4							
CPUP	**Villa Florida**	**146.39**	**168**		**PKPdf**	**04 55 20.9**	**-0.3**
LPAZ	**La Paz**	**150.99**	**142**	PKPbc	**PKPbc**	**04 55 36.5**	**+1.0**
	comp=Z,0.6nm,0.5s,baz=30,slow=5.4,SNR=7.6							
LPAZ	**La Paz**	**150.99**	**142**	PKPdf	**PKPdf**	**04 55 28.8**	**-0.9**

IDC ***03*** *05:01:03.0±1.0, 14.°81N×144.°23E, h0km, mb4.1/9, mbtmp4.1/9, MS3.6/11, Error ellipse: s-maj=41.4km s-min=14.2km az=69.0*

NEIC ***03*** *05:01:03.8±1.5, 14.°76N±0.°04×144.°48E±0.°07, h10km±1km, mb4.5/13, Error ellipse: s-maj=11.3km s-min=6.1km az=95.0*

ISC 03 05:01:04.9±0.6, 14.°78N±0.°06×144.°46E±0.°08, h22km, n40, σ0°73/29, mb4.3/14, MS3.6/11, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.25**	**161**	Pn	**Pb**	**05 01 27.3**	**-0.5**
	233nm,0.3s,baz=357,slow=19,SNR=27						
GUMO				Sn	**Sb**	**05 01 43.4**	**0.0**
	475nm,0.3s,baz=122,slow=21,SNR=58						
GUMO				LR	LR	05 02 07.5	
	comp=Z,1µm,19.9s,baz=291,slow=47						
DPSS	**Saipan**	**1.37**	**70**		**Pn**	**05 01 28.8**	**+0.1**
DPSS				Sn	**Sb**	**05 01 46.8**	**-0.1**
DAV	**Davao City (W)**	**20.04**	**250**	LR	LR	05 13 32.4	
	comp=Z,93nm,19.8s,baz=154,slow=38						
SIJI	**Sorong**	**20.30**	**221**	P	Pn	05 05 41.9	+0.4
	30nm,0.9s,baz=8.0,slow=13,SNR=7.3						
FAKI	**Fak Fak**	**21.34**	**215**	P	**P**	**05 05 50.1**	**-0.6**
FAKI				IAmb	IAmb	05 05 57.4	
	comp=Z,39nm,1.0s						
H11S3	**WAKE ISLAND Hy**	**21.61**	**77**	T	T	05 28 35.2	
	baz=262,slow=75,SNR=6.3						
H11S1	**WAKE ISLAND Hy**	**21.63**	**77**	T	T	05 28 48.5	
	baz=262,slow=75,SNR=6.1						
H11S2	**WAKE ISLAND Hy**	**21.63**	**77**	T	T	05 28 47.2	
	baz=262,slow=75,SNR=7.6						
JNU	**Nakatsue**	**22.04**	**328**	LR	LR	05 13 11.2	
	comp=Z,93nm,18.3s,baz=180,slow=33						
YOJ	**Yonaguni jima**	**22.35**	**299**	P	**P**	**05 06 00.9**	**-0.7**
MJAR	**Matsushiro Arr**	**22.38**	**347**	P	**P**	**05 06 03.0**	**+1.2**
	comp=Z,2.9nm,0.8s,baz=166,slow=9.3,SNR=4.9						
MJAR				LR	LR	05 13 18.9	
	comp=Z,204nm,19.7s,baz=166,slow=33						
	comp=Z,2.9nm,0.8s						
MJAR	**Matsushiro Arr**	**22.38**	**347**	P	**P**	**05 05 59.9**	**-1.9**
MJAR				IAmb	IAmb	05 06 12.4	
	comp=Z,4.2nm,1.1s						
MAJO	**Matsushiro**	**22.39**	**347**	P	**P**	**05 06 01.6**	**-0.2**
MAJO				IAmb	IAmb	05 06 14.8	
	comp=Z,8.1nm,1.0s						
SSLB	**Suanglung**	**23.90**	**296**	P	**P**	**05 06 16.8**	**-0.5**
SSLB				IAmb	IAmb	05 06 46.2	
	comp=Z,31nm,1.2s						
KSRS	**Korea Array**	**26.94**	**330**	LR	LR	05 16 57.1	
	comp=Z,57nm,19.8s,baz=95,slow=36						
ASAJ	**Asahikawa**	**29.29**	**357**	LR	LR	05 18 33.6	
	comp=Z,47nm,20.5s,baz=257,slow=36						
WR8	**Warramunga Arr**	**35.88**	**196**	P	**P**	**05 08 03.9**	**+0.4**
WR8				IAmb	IAmb	05 08 05.5	
	comp=Z,5.0nm,1.1s						
KLR	**Kul'dur**	**35.91**	**346**	LR	LR	05 21 49.6	
	comp=Z,75nm,18.1s,baz=189,slow=35						
WRA	**Warramunga Arr**	**35.91**	**196**	P	**P**	**05 08 04.6**	**+0.8**
	comp=Z,3.0nm,0.9s,baz=16,slow=9.4,SNR=9.6						
	comp=Z,3.0nm,0.9s						
WRA	**Warramunga Arr**	**35.91**	**196**	P	**P**	**05 08 02.6**	**-1.2**
FITZ	**Fitzroy Crossi**	**37.57**	**210**	P	**P**	**05 08 17.5**	**-0.3**
AS31	**Alice Springs**	**39.57**	**195**	P	**P**	**05 08 35.0**	**+0.3**
ASAR	**Alice Springs**	**39.58**	**195**	P	**P**	**05 08 35.7**	**+0.9**
	comp=Z,0.3nm,0.6s,baz=18,slow=8.3,SNR=4.2						
	comp=Z,0.3nm,0.6s						
ASAR	**Alice Springs**	**39.58**	**195**	P	**P**	**05 08 34.9**	**+0.1**
PEA0B	**Petropavlovsk-**	**39.66**	**12**	P	**P**	**05 08 34.5**	**-0.6**
PETK	**Petropavlovsk-**	**39.66**	**12**	P	**P**	**05 08 34.9**	**-0.2**
CMAR	**Chiang Mai Arr**	**43.68**	**281**	P	**P**	**05 09 08.4**	**-0.2**
	comp=Z,0.8nm,0.3s,baz=77,slow=6.8,SNR=9.1						
	comp=Z,0.8nm,0.3s						
SONM	**Songino Array**	**45.54**	**324**	LR	LR	05 28 30.5	
	comp=Z,122nm,18.1s,baz=128,slow=36						
BBOO	**Buckleboo**	**47.99**	**190**	P	**P**	**05 09 43.0**	**+0.7**
MKAR	**Makanchi Array**	**60.37**	**316**	P	**P**	**05 11 13.1**	**+0.7**
	comp=Z,0.4nm,0.6s,baz=94,slow=8.5,SNR=3.9						
	comp=

GUVC				S	**Sb**	**05 16 04.2**	**+1.7**	
CHIC	**Chingaza**	**3.77**	**40**	P	**Pn**	**05 15 14.4**	**+1.3**	
CHIC				S	**Sg**	**05 16 12.9**	**-2.4**	
NORC	**Norcasia**	**4.03**	**18**	P	**Pn**	**05 15 16.1**	**-0.3**	
NORC				S	**Sn**	**05 16 07.0**	**+3.0**	
CBOC	**Ciudad Bolivar**	**4.12**	**2**	P	**Pn**	**05 15 19.0**	**+1.2**	
CBOC				S	**Sb**	**05 16 13.8**	**-3.6**	
SPBC	**San Pablo de B**	**4.42**	**28**	P	**Pn**	**05 15 21.5**	**-0.4**	
SPBC				S	**Sn**	**05 16 12.7**	**-1.1**	
PTGC	**Puerto Gaitan,**	**4.71**	**58**	P	**Pn**	**05 15 25.9**	**+0.2**	
PTBC	**PUERTO BERRIO,**	**5.08**	**19**	P	**Pn**	**05 15 30.2**	**-0.6**	
PTBC				S	**Sn**	**05 16 27.8**	**-2.0**	
RUSC	**La Rusia**	**5.15**	**36**	P	**Pn**	**05 15 34.2**	**+2.0**	
RUSC				S	**Sn**	**05 16 33.9**	**+1.6**	
RUSC	**La Rusia**	**5.15**	**36**	P	**Pn**	**05 15 33.0**	**+0.8**	
RUSC				S	**Sn**	**05 16 33.7**	**+1.4**	
APAC	**Apartado, Choc**	**6.16**	**356**	P	Pn	05 15 50.5	+4.9	
TAMC	**Tame, Arauca**	**6.39**	**43**	P	**Pn**	**05 15 49.5**	**+0.6**	
BCIP	**Isla Barro Col**	**8.26**	**334**	P	**Pn**	**05 16 16.1**	**+1.5**	
CZSB	**Cruzeiro do Su**	**9.99**	**160**	P	**Pn**	**05 16 35.2**	**-3.1**	

*AEIC **03** 05:21:29.1±3.6,53˚.47N±0˚.05×160˚.19W±0˚.07,h30km±8km, Error ellipse: s-maj=7.5km s-min=5.2km az=217.0*
NEIC 03 05:21:22.7±2.5,**53˚.32N**±0˚.07×**159˚.7W**±0˚.1,**h10**km±2km,
ML3.1/20,**ML2.8**(AEIC),**Error ellipse: s-maj=13.5km s-min=9.5km az=150.0,South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**1.50**	**2**		Pn	05 21 49.3	-0.4
CNBA					Sn	05 22 09.5	+0.1
SDPT	**Sand Point**	**2.08**	**347**		Pn	05 21 56.9	-0.8
SDPT					Sn	05 22 22.4	-1.3
DOL	**Dolgoi Island**	**2.23**	**326**		Pn	05 22 00.2	+0.4
DOL					Sn	05 22 25.3	-2.1
DT1	**Dutton Round H**	**2.35**	**321**		Pn	05 22 02.1	+0.7
DT1					Sn	05 22 27.9	-2.4
DTNA	**Dutton South F**	**2.37**	**322**		Pn	05 22 02.9	+1.3
DTNA					Sn	05 22 28.7	-2.1
PS4A	**Pavlof South-4**	**2.39**	**329**		Pn	05 22 03.1	+1.1
PS4A					Sn	05 22 29.9	-1.5
PVV	**Pavlof Volcano**	**2.40**	**330**		Pn	05 22 03.4	+1.4
PVV					Sn	05 22 30.8	-0.6
PS1A	**Pavlof South-1**	**2.42**	**331**		Pb	05 22 04.4	-1.9
PS1A					Sn	05 22 31.9	-0.1
PN7A	**Pavlof North-7**	**2.51**	**328**		Pn	05 22 05.2	+1.5
PN7A					Sn	05 22 33.3	-1.0
S12K	**Black Hills**	**2.76**	**331**	Pn	Pn	05 22 06.9	-0.1
SSLS	**Shishaldin Sou**	**2.90**	**300**		Pn	05 22 09.9	+0.9
SSLS					Sn	05 22 40.5	-3.4
CHGN	**Chignik**	**3.08**	**13**	Pn	Pn	05 22 12.0	+0.7
CHGN				IAML		05 23 51.0	
	comp=N,28nm,0.1s						
CHGN				IAML		05 24 00.6	
	comp=E,32nm,0.1s						
WESN	**West Dahl Nort**	**3.15**	**295**		Pn	05 22 13.4	+1.0
WESN					Sn	05 22 46.5	-3.6
WESP	**Westdahl Peak**	**3.20**	**294**		Pn	05 22 13.9	+0.8
WESP					Sn	05 22 47.6	-3.8
WECS	**Westdahl Cape**	**3.25**	**294**	Pn	Pn	05 22 13.7	0.0
CHIR	**Chirikof Islan**	**3.44**	**42**	Pn	Pn	05 22 17.6	+1.2
CHIR				IAML		05 24 10.7	
	comp=E,64nm,1.0s						
AKUT	**Akutan**	**3.71**	**285**	Pn	Pn	05 22 19.7	-0.3
AKUT				IAML		05 23 13.1	
	comp=E,49nm,1.1s						
AKUT				IAML		05 23 17.2	
	comp=N,48nm,1.2s						
LVA	**Lava Point**	**3.86**	**285**	Pn	Pn	05 22 22.3	+0.1
UNV	**Unalaska Valle**	**4.10**	**280**		Pn	05 22 24.3	-1.1
UNV				IAML		05 24 45.8	
	comp=N,14nm,1.0s						
MNAT	**Makushin Natee**	**4.21**	**280**		Pn	05 22 27.0	+0.1
MGOD	**Makushin Gods**	**4.31**	**279**		Pn	05 22 28.9	+0.6
OHAK	**Old Harbor**	**5.35**	**41**	Pn	Pn	05 22 41.5	-1.0
OHAK				IAML		05 25 02.9	
	comp=N,7.2nm,1.2s						
OHAK				IAML		05 25 24.6	
	comp=E,6.3nm,1.1s						
ACHA	**Angle Creek He**	**5.48**	**25**	Pn	Pn	05 22 43.3	-1.2
O16K	**Kokwok River B**	**6.35**	**7**	Pn	Pn	05 22 55.7	-0.6
N14K	**Kuskokwak Cree**	**6.71**	**351**	Pn	Pn	05 23 00.4	-0.8
BRLK	**Bradley Lake**	**8.08**	**33**	Pn	Pn	05 23 18.4	-1.6
K15K	**Wolf Creek Mou**	**9.05**	**355**	Pn	Pn	05 23 32.8	-0.5
M19K	**Big River Lodg**	**9.06**	**16**	Pn	Pn	05 23 33.0	-0.4

*BJI **03** 05:24:30.2,5˚.72S×153˚.82E,h8km,mB5.4/3,mb4.8/33*
*IDC **03** 05:24:32.5±0.6,5˚.79S×153˚.45E,h0km,mb4.5/18, mbtmp4.5/21,ML3.4/3,MS3.6/16,Error ellipse: s-maj=16.1km s-min=11.5km az=90.0*
*GFZ **03** 05:24:32.6±0.3,6˚S±4˚×15˚4E±˚,h10km,M4.8/18, mb4.8/18,Error ellipse: s-maj=12.0km s-min=7.9km az=90.5,confirmed*
*NEIC **03** 05:24:33.1±0.9,5˚.84S±0˚.06×153˚.54E±0˚.07,h10km±1km, mb4.8/57,Error ellipse: s-maj=12.8km s-min=9.5km az=74.0*
ISC 03 05:24:33.1±0.3,**5˚.87S**±0˚.04×**153˚.52E**±0˚.06,**h10**km,**n147,** σ1°**33**/146,**mb4.8**/68,**MS3.6**/14,**2D,New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RABL	**Rabaul**	**2.14**	**321**		**Pn**	**05 25 08.5**	**-0.5**
RABL				Sn	**Sn**	**05 25 33.5**	**-2.2**
KRVT	**Keravat (AS076**	**2.15**	**316**	Pn	**Pn**	**05 25 08.4**	**-0.6**
	100nm,0.3s,baz=340,slow=3.4,SNR=25						
KRVT				Sn	**Sn**	**05 25 33.6**	**-2.1**
	210nm,0.3s,baz=215,slow=12,SNR=11						
	201nm,0.3s						
KRVT				AML	AML		
PMG	**Port Moresby**	**7.22**	**240**	Pn	**Pn**	**05 26 19.7**	**+1.0**
	4.5nm,0.3s,baz=65,slow=8.6,SNR=13						
PMG				Sn	**Sn**	**05 27 39.4**	**-1.5**
	4.7nm,0.3s,baz=119,slow=23,SNR=11						
PMG				LR	LR	05 28 49.7	
	comp=Z,362nm,19.6s,baz=330,slow=36						
	64nm,0.7s						
PMG				AML	AML		
PMG	**Port Moresby**	**7.22**	**240**		**Pn**	**05 26 18.1**	**-0.7**
PMG				Sn	**Sn**	**05 27 40.2**	**-0.7**
PMG	**Port Moresby**	**7.22**	**240**	P	**Pn**	**05 26 18.0**	**-0.7**
	comp=Z,114nm,0.8s						
JAY	**Jayapura**	**13.21**	**284**	P	**Pn**	**05 27 40.5**	**-0.4**
	comp=Z,15nm,1.3s						
PATS	**Pohnpei**	**13.50**	**21**	Pn	Pn	05 27 42.6	-2.2
CTA	**Charters Tower**	**15.80**	**206**	Pn	**Pn**	**05 28 18.0**	**+2.1**
	comp=Z,0.3nm,0.3s,baz=11,slow=13,SNR=5.1						
CTA				LR	LR	05 33 33.5	
	comp=Z,130nm,19.2s,baz=38,slow=34						
	comp=Z,16nm,1.0s						
CTA				AML	AML		
CTAO	**Charters Tower**	**15.80**	**206**	Pn	**Pn**	**05 28 15.4**	**-0.5**
CTAO	**Charters Tower**	**15.80**	**206**	P	**Pn**	**05 28 15.5**	**-0.4**
	comp=Z,23nm,1.2s						
SANVU	**Saraoutou**	**16.46**	**126**	Pn	**Pn**	**05 28 23.0**	**-1.4**
SANVU				IAmb	IAmb	05 28 44.7	
	comp=Z,76nm,1.0s						
KOUNC	**Koumac, New Ca**	**17.95**	**145**		**Pn**	**05 28 41.7**	**-1.3**
EIDS	**Eidsvold**	**19.53**	**187**		**P**	**05 29 00.2**	**-0.7**
EIDS	**Eidsvold**	**19.53**	**187**	P	**P**	**05 29 00.1**	**-0.7**
	comp=Z,18nm,1.0s						
QIS	**Mount Isa**	**19.89**	**221**	P	**P**	**05 29 05.0**	**+0.1**
	comp=Z,20nm,1.1s						
DZM	**Mont Dzumac**	**20.39**	**143**	P	**P**	**05 29 13.5**	**+3.1**
	comp=Z,14nm,1.1s,baz=50,slow=7.9,SNR=4.8						
	comp=Z,14nm,1.1s						
GUMO	**Guam**	**21.15**	**336**	LR	LR	05 37 51.8	
	comp=Z,90nm,18.1s,baz=145,slow=38						
QLP	**Quilpie**	**22.42**	**202**	P	**P**	**05 29 31.6**	**-0.6**
	comp=Z,46nm,0.8s						
SIJI	**Sorong**	**22.76**	**282**	LR	LR	05 39 47.1	
	comp=Z,136nm,18.4s,baz=330,slow=40						
MTN	**Manton Dam**	**23.14**	**251**		**P**	**05 29 38.7**	**-1.1**
WB0	**Warramunga Arr**	**23.17**	**232**	P	**P**	**05 29 38.7**	**-1.4**
WR8	**Warramunga Arr**	**23.19**	**231**		**P**	**05 29 39.2**	**-1.2**
WR8				IAmb	IAmb	05 30 07.2	
	comp=Z,20nm,1.1s						
WRA	**Warramunga Arr**	**23.31**	**231**	P	**P**	**05 29 40.5**	**-1.0**
	comp=Z,3.7nm,0.9s,baz=55,slow=10,SNR=18						
	comp=Z,3.7nm,0.9s						
ARMA	**Armidale**	**24.49**	**184**	P	**P**	**05 29 52.3**	**-0.4**
ARMA				IAmb	IAmb	05 30 06.3	
	comp=Z,19nm,1.1s						
INKA	**Innaminka**	**24.91**	**208**		**P**	**05 29 56.2**	**-0.2**
INKA				IAmb	IAmb	05 29 58.1	
	comp=Z,19nm,1.1s						
AS31	**Alice Springs**	**25.87**	**225**	P	**P**	**05 30 04.4**	**-0.9**
ASAR	**Alice Springs**	**25.88**	**225**	P	**P**	**05 30 04.8**	**-0.5**
	comp=Z,8.6nm,0.9s,baz=57,slow=8.8,SNR=44						
ASAR				PcP	**PcP**	**05 33 36.6**	**+2.1**
	comp=Z,0.4nm,0.5s,baz=43,slow=2.4,SNR=2.1						
ASAR				ScP	**ScP**	**05 37 18.2**	**+3.8**
	comp=Z,0.2nm,0.3s,baz=66,slow=3.1,SNR=4.1						
ASAR				LR	LR	05 39 18.7	
	comp=Z,159nm,21.2s,baz=89,slow=34						
	comp=Z,8.6nm,0.9s						
ASAR	**Alice Springs**	**25.88**	**225**	P	**P**	**05 30 04.6**	**-0.7**
KNRA	**Kununurra**	**26.17**	**246**	P	**P**	**05 30 07.2**	**-0.8**
KNRA				IAmb	IAmb	05 30 27.8	
	comp=Z,12nm,0.9s						
CMSA	**Cobar Meteorol**	**26.57**	**195**	P	**P**	**05 30 11.2**	**-0.2**
	comp=Z,16nm,1.1s						
MSVF	**Nonsavu**	**26.71**	**118**	LR	LR	05 40 54.3	
	comp=Z,173nm,20.1s,baz=36,slow=37						
TNTI	**Ternate**	**26.93**	**283**	P	**P**	**05 30 13.7**	**-1.2**
TNTI				IAmb	IAmb	05 30 35.0	
	comp=Z,15nm,0.7s						
H11S3	**WAKE ISLAND Hy**	**27.47**	**28**	T	T	05 58 55.2	
	baz=213						
H11S2	**WAKE ISLAND Hy**	**27.48**	**28**	T	T	05 58 49.4	
	baz=213,SNR=2.9						
H11S1	**WAKE ISLAND Hy**	**27.49**	**28**	T	T	05 58 53.4	
	baz=213						
WAKE	**Wake Island**	**28.14**	**27**	P	**P**	**05 30 24.4**	**-1.2**
	comp=Z,134nm,1.7s						
STKA	**Stephens Creek**	**28.18**	**202**	P	**P**	**05 30 28.2**	**+2.3**
	comp=Z,9.9nm,1.1s,baz=26,slow=12,SNR=7.1						
STKA				LR	LR	05 41 49.1	
	comp=Z,88nm,18.1s,baz=24,slow=37						
	comp=Z,9.9nm,1.1s						
STKA	**Stephens Creek**	**28.18**	**202**	P	**P**	**05 30 24.8**	**-1.1**
STKA	**Stephens Creek**	**28.18**	**202**	P	**P**	**05 30 25.0**	**-0.9**
	comp=Z,28nm,1.0s						
FUTU	**Fugatoga**	**29.12**	**109**	P	**P**	**05 30 33.0**	**-1.5**
SOEI	**Soe**	**29.23**	**261**	P	**P**	**05 30 33.8**	**-1.8**
SOEI				IAmb	IAmb	05 30 58.1	
	comp=Z,27nm,1.1s						
FITZ	**Fitzroy Crossi**	**29.80**	**243**	P	**P**	**05 30 39.4**	**-1.0**
FITZ	**Fitzroy Crossi**	**29.80**	**243**	P	**P**	**05 30 39.5**	**-1.0**
	comp=Z,3.3nm,1.4s						
BATI	**Baumata**	**29.86**	**260**	LR	LR	05 46 14.7	
	comp=Z,291nm,18.3s,baz=204,slow=44						
DAV	**Davao City (W)**	**30.70**	**294**	LR	LR	05 42 38.5	
	comp=Z,102nm,18.4s,baz=150,slow=36						
BKSI	**Bulukumba**	**33.24**	**269**	P	**P**	**05 31 10.6**	**-0.2**
	comp=Z,9.8nm,0.9s						
KAPI	**Kappang**	**33.62**	**270**	P	**P**	**05 31 13.7**	**-0.5**
	comp=Z,13nm,1.1s						
FORT	**Forrest**	**34.44**	**221**	P	**P**	**05 31 20.2**	**-0.9**
FORT				IAmb	IAmb	05 31 21.5	
	comp=Z,14nm,0.9s						
NIUE	**Niue**	**37.93**	**114**	P	**P**	**05 31 49.5**	**-1.6**
JMZ	**Minamidaito 2**	**38.22**	**326**	P	**P**	**05 31 52.3**	**-1.1**
SNZO	**South Karori**	**40.04**	**155**	P	**P**	**05 32 08.5**	**0.0**
	comp=Z,65nm,1.3s						
RPZ	**Rata Peaks**	**40.73**	**160**	LR	LR	05 49 10.3	
	comp=Z,111nm,18.2s,baz=246,slow=36						
KPJI	**Karang Pucung**	**44.30**	**266**	P	**P**	**05 32 43.6**	**0.0**
	comp=Z,14nm,0.9s						
MAJO	**Matsshiro**	**44.56**	**342**	P	**P**	**05 32 44.5**	**-0.8**
	comp=Z,15nm,2.8s						
CMJI	**Cimerak**	**44.78**	**265**	P	**P**	**05 32 46.0**	**-1.4**
	comp=Z,57nm,1.6s						
BBJI	**Bungbulang**	**45.57**	**265**	P	**P**	**05 32 53.4**	**-0.5**
BBJI	**Bungbulang**	**45.57**	**265**	P	**P**	**05 32 52.5**	**-1.3**
	comp=Z,25nm,0.8s						
JTU	**Tsushima**	**46.18**	**332**	P	**P**	**05 32 57.3**	**-0.9**
	comp=Z,122nm,1.6s						
KSRS	**Korea Array**	**49.27**	**333**	P	**P**	**05 33 22.2**	**0.0**
	comp=Z,2.5nm,0.8s,baz=146,slow=8.2,SNR=5.5						
KSRS				LR	LR	05 50 60.0	
	comp=Z,19nm,18.7s,baz=110,slow=32						
	comp=Z,2.5nm,0.8s						
NJ2	**Nanjing**	**50.12**	**321**	*e*P	**P**	**05 33 30.8**	**+2.1**
NJ2				pmax	pmax		
	comp=Z,11nm,0.6s						
ASAJ	**Asahikawa**	**50.72**	**350**	LR	LR	05 53 44.9	
	comp=Z,59nm,19.2s,baz=60,slow=35						
WHN	**Wuhan**	**52.12**	**316**	P	**P**	**05 33 44.6**	**+0.8**
SDSI	**Sungai Dareh**	**52.21**	**273**	P	**P**	**05 33 43.9**	**-0.9**
	comp=Z,10nm,1.1s						
USA0B	**Ussuriysk Arra**	**53.48**	**341**	P	**P**	**05 33 53.4**	**-0.2**
USA0B				IAmb	IAmb	05 33 55.0	
	comp=Z,19nm,1.1s						
USRK	**Ussuriysk Ar.**	**53.48**	**341**	P	**P**	**05 33 54.3**	**+0.7**
	comp=Z,6.6nm,0.8s,baz=166,slow=10,SNR=6.6						
	comp=Z,6.6nm,0.8s						
USRK	**Ussuriysk Ar.**	**53.48**	**341**	P	**P**	**05 33 53.2**	**-0.4**
KULM	**Kulim**	**53.94**	**281**	P	**P**	**05 33 56.9**	**-0.6**
KULM				IAmb	IAmb	05 34 25.3	
	comp=Z,10nm,1.0s						
MDJ	**Mudanjiang**	**54.66**	**339**	P	**P**	**05 34 01.2**	**-1.1**
	comp=Z,14nm,1.0s						
ENH	**Enshi**	**55.40**	**313**	P	**P**	**05 34 07.5**	**-0.4**
HNS	**HongShan**	**56.23**	**323**	⇓P	**P**	**05 34 14.4**	**+0.8**
HNS				pmax	pmax		
	comp=Z,25nm,1.1s						
BNX	**BinXian**	**56.42**	**338**	⇓P	**P**	**05 34 14.5**	**-0.3**
BNX				pmax	pmax		
	comp=Z,22nm,1.0s						
BJI2	**Beijing**	**57.16**	**326**	P	**P**	**05 34 19.1**	**-1.1**
BJI2				pP	**pP**	**05 34 23.6**	**+2.2**
BJI2				sP	**sP**	**05 34 25.8**	**+4.0**
BJI2				S	**S**	**05 42 18.9**	**+3.2**
BJI2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
PEA0B	**Petropavlovsk-**	**58.86**	**3**	P	**P**	**05 34 31.5**	**-0.3**
PETK	**Petropavlovsk-**	**58.86**	**3**	P	**P**	**05 34 32.3**	**+0.4**
	comp=Z,12nm,0.9s,baz=180,slow=5.8,SNR=6.8						
PETK				LR	LR	05 55 32.6	
	comp=Z,46nm,21.8s,baz=201,slow=32						
	comp=Z,12nm,0.9s						
PETK	**Petropavlovsk-**	**58.86**	**3**	P	**P**	**05 34 31.5**	**-0.3**
CM31	**Chiang Mai Arr**	**58.98**	**296**	P	**P**	**05 34 32.6**	**-0.8**
CM31				IAmb	IAmb	05 34 57.5	
	comp=Z,12nm,1.2s						
CMAR	**Chiang Mai Arr**	**58.98**	**296**	P	**P**	**05 34 34.5**	**+1.1**
	comp=Z,2.1nm,0.6s,baz=120,slow=5.1,SNR=15						
	comp=Z,2.1nm,0.6s						
CMAR	**Chiang Mai Arr**	**58.98**	**296**	P	**P**	**05 34 32.9**	**-0.5**
CHTO	**Chiang Mai**	**59.09**	**296**	P	**P**	**05 34 33.5**	**-0.6**
CHTO				IAmb	IAmb	05 34 47.3	
	comp=Z,5.7nm,0.9s						
CHTO	**Chiang Mai**	**59.09**	**296**	P	**P**	**05 34 33.7**	**-0.5**
	comp=Z,7.8nm,1.2s						
CD2	**Chengdu**	**59.97**	**311**	P	**P**	**05 34 40.7**	**+0.6**
CD2				pmax	pmax		
	comp=Z,20nm,0.6s						
HHC	**Hu-ho-hao-te**	**60.33**	**324**	*e*P	**P**	**05 34 44.1**	**+1.7**
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
SHEM	**Shemya Is, Ala**	**60.94**	**14**	LR	LR	05 56 00.4	
	comp=Z,57nm,19.9s,baz=199,slow=31						
BTO2	**Baotou**	**61.25**	**323**	*e*P	**P**	**05 34 49.0**	**+0.3**
BTO2				pP	**sP**	**05 34 53.8**	**+3.6**
BTO2				sP	**pP**	**05 34 56.0**	**+6.2**
BTO2				pmax	pmax		
	comp=Z,27nm,1.0s						
BTO2				pmax	pmax		
	comp=Z,380nm,7.4s						
LZDM	**Lanzhou Array**	**62.52**	**316**	P	**P**	**05 34 58.6**	**+1.0**
	comp=Z,2.1nm,0.3s,baz=125,slow=7.8,SNR=4.0						
	comp=Z,2.1nm,0.3s						
GTA2	**Gaotai**	**67.00**	**317**	*e*P	**P**	**05 35 27.4**	**+0.9**
GTA2				pP	sP	05 35 33.3	+5.3
GTA2				pmax	pmax		
	comp=Z,9.0nm,1.5s						
SONM	**Songino Array**	**67.60**	**328**	P	**P**	**05 35 31.3**	**+1.1**
	comp=Z,2.0nm,0.5s,baz=145,slow=6.6,SNR=15						
SONM				LR	LR	06 05 41.1	
	comp=Z,62nm,18.8s,baz=178,slow=37						
	comp=Z,2.0nm,0.5s						
SONM	**Songino Array**	**67.60**	**328**	P	**P**	**05 35 29.7**	**-0.5**
SONM				IAmb	IAmb	05 35 32.6	
	comp=Z,11nm,1.4s						
GOMU	**GeErMu**	**69.00**	**312**	P	**P**	**05 35 39.3**	**-0.2**
GOMU				pP	pP	05 35 43.3	+2.7
GOMU				sP	sP	05 35 46.4	+5.4
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.4s						
LSA	**Lhasa**	**69.43**	**305**	P	**P**	**05 35 42.3**	**-0.1**
LSA				IAmb	IAmb	05 35 46.9	
	comp=Z,9.8nm,1.0s						
VNDA	**Vanda**	**71.75**	**178**	P	**P**	**05 35 56.7**	**+1.6**
	comp=Z,1.6nm,0.9s,baz=339,slow=6.1,SNR=8.6						
	comp=Z,1.6nm,0.9s						
VNDA	**Vanda**	**71.75**	**178**		**P**	**05 35 55.2**	**+0.1**
EVN	**Everest**	**72.50**	**302**		**P**	**05 35 60.0**	**-1.4**
EVN				IAmb	IAmb	05 36 16.0	
	comp=Z,8.2nm,1.1s						
K15K	**Wolf Creek Mou**	**76.16**	**20**	P	**P**	**05 36 21.6**	**+0.5**
K15K				IAmb	IAmb	05 36 22.7	
	comp=Z,9.6nm,1.0s						
M16K	**Timber Creek**	**76.20**	**22**	P	**P**	**05 36 21.3**	**-0.1**
KDAK	**Kodiak Island**	**76.81**	**26**	LR	LR	06 04 45.6	
	comp=Z,56nm,19.8s,baz=199,slow=31						
WMQ	**Urumqi**	**77.01**	**317**	*e*P	**P**	**05 36 27.7**	**+1.3**
WMQ				PcP	**pwP**	**05 36 38.8**	**+2.7**
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SLKM	**Skilak Lake**	**79.33**	**25**	P	**P**	**05 36 38.7**	**-0.2**
J20K	**Nowinta River**	**79.92**	**21**	P	**P**	**05 36 42.0**	**0.0**
J20K				IAmb	IAmb	05 36 54.5	
	comp=Z,13nm,1.5s						
CAST	**Castle Rocks**	**80.22**	**22**	P	**P**	**05 36 43.5**	**-0.1**
F19K	**Shaleruckik Mo**	**80.42**	**18**	P	**P**	**05 36 44.4**	**-0.2**
F19K				IAmb	IAmb	05 36 47.9	
	comp=Z,9.9nm,1.4s						
SML	**Sawmill**	**80.80**	**24**	P	**P**	**05 36 46.5**	**-0.3**
IMAR	**Indian Mountai**	**81.15**	**19**	P	**P**	**05 36 48.6**	**+0.1**
MCK	**McKinley**	**81.57**	**22**	P	**P**	**05 36 50.3**	**-0.6**
MCK				IAmb	IAmb	05 36 51.0	
	comp=Z,11nm,1.1s						
MK31	**Makanchi Array**	**81.59**	**319**	P	**P**	**05 36 50.7**	**-0.7**
MKAR	**Makanchi Array**	**81.59**	**319**	P	**P**	**05 36 51.1**	**-0.3**
	comp=Z,1.9nm,0.8s,baz=149,slow=5.7,SNR=9.4						
	comp=Z,1.9nm,0.8s						
MKAR	**Makanchi Array**	**81.59**	**319**		**P**	**05 36 50.7**	**-0.7**
MLY	**Manley**	**81.62**	**21**	P	**P**	**05 36 51.0**	**-0.1**
H22K	**Ishtalitna Cre**	**81.88**	**20**	P	**P**	**05 36 52.1**	**-0.4**
ZAA0	**Zalesovo Array**	**82.43**	**326**	P	**P**	**05 36 54.9**	**-0.6**
ZAA0				IAmb	IAmb	05 36 58.6	
	comp=Z,4.3nm,0.8s						
ZALV	**Zalesovo Beam**	**82.43**	**326**	P	**P**	**05 36 55.1**	**-0.5**
	comp=Z,4.9nm,0.8s,baz=104,slow=5.0,SNR=12						
	comp=Z,4.9nm,0.8s						
IL31		**82.87**	**22**	P	**P**	**05 36 57.5**	**0.0**
IL31				IAmb	IAmb	05 37 11.0	
	comp=Z,7.5nm,1.4s						
ILAR	**Eielson Array**	**82.87**	**22**	P	**P**	**05 36 56.9**	**-0.8**
	comp=Z,1.2nm,0.9s,baz=252,slow=6.1,SNR=11						
	comp=Z,1.2nm,0.9s						
J25K	**Salcha River,**	**83.36**	**22**		**P**	**05 36 59.8**	**-0.5**
J25K				IAmb	IAmb	05 37 14.3	
	comp=Z,9.7nm,1.4s						
D23K	**Nanushuk River**	**83.85**	**17**	P	**P**	**05 37 02.5**	**-0.1**
BCAR	**Beaver Creek A**	**84.07**	**24**	P	**P**	**05 37 03.1**	**-0.9**
QSPA	**South Pole Qui**	**84.10**	**180**	P	**P**	**05 37 05.3**	**+1.2**
	comp=Z,5.3nm,0.9s,baz=351,slow=2.5,SNR=13						
	comp=Z,5.3nm,0.9s						
QSPA	**South Pole Qui**	**84.10**	**180**	P	**P**	**05 37 04.7**	**+0.5**
KSH2	**Kashi**	**84.40**	**310**	P	**P**	**05 37 07.6**	**+1.4**
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BOOM	**Boomskoye usch**	**84.84**	**314**	P	**P**	**05 37 07.8**	**-0.7**
BOOM				IAmb	IAmb	05 37 10.6	
	comp=Z,8.3nm,1.1s						
BMAR	**Burnt Mountain**	**85.00**	**20**	P	**P**	**05 37 08.6**	**+0.1**
KURK	**Kurchatov**	**85.04**	**322**	P	**P**	**05 37 09.0**	**0.0**
KURK				IAmb	IAmb	05 37 10.1	
	comp=Z,10nm,1.2s						
KURBB	**Kurchatov Arra**	**85.08**	**322**	P	**P**	**05 37 09.4**	**+0.2**
	comp=Z,3.2nm,0.9s,baz=112,slow=3.6,SNR=22						
	comp=Z,3.2nm,0.9s						
DIB	**Dawson Inlet,**	**85.19**	**35**	P	**P**	**05 37 09.6**	**0.0**
MOBC	**Moresby Island**	**85.47**	**36**	P	**P**	**05 37 10.5**	**-0.6**
C26K	**Camden Bay**	**86.08**	**18**		**P**	**05 37 14.0**	**+0.3**
C26K				IAmb	IAmb	05 37 16.4	
	comp=Z,10nm,1.0s						
E27K	**Coleen River**	**86.35**	**20**	P	**P**	**05 37 15.2**	**0.0**
E27K				IAmb	IAmb	05 37 17.0	
	comp=Z,4.2nm,1.0s						
J30M	**Hart River**	**86.89**	**24**	P	**P**	**05 37 17.6**	**-0.4**
J30M				IAmb	IAmb	05 37 19.9	
	comp=Z,5.0nm,1.0s						
NRIK	**Noril'sk**	**87.20**	**341**	P	**P**	**05 37 19.5**	**+0.2**
	comp=Z,4.5nm,0.6s,baz=125,slow=3.9,SNR=5.

AYDN				IAML		05 33 20.0	
	comp=N,832nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.71**	**79**	Pg	**Pb**	**05 33 06.9**	**-0.1**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.72**	**163**	Pg	**Pg**	**05 33 06.4**	**-0.5**
YKAV				AML	AML		
CESE	**eme**	**0.76**	**313**	Pg	**Pg**	**05 33 07.6**	**0.0**
CESE				AML	AML		
BODT	**Bodrum**	**0.79**	**162**	P	**Pg**	**05 33 07.5**	**-0.6**
BODT				S	**Sb**	**05 33 18.9**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**162**	Pg	**Pg**	**05 33 08.0**	**-0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.80**	**130**	Pg	**Pb**	**05 33 08.4**	**-0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.83**	**155**	P	**Pb**	**05 33 09.0**	**+0.1**
BDRM				S	**Sb**	**05 33 19.8**	**-0.1**
BDRM				IAML		05 33 23.0	
	comp=E,969nm,0.3s						
BDRM				IAML		05 33 23.0	
	comp=N,2µm,0.3s						
KRBN	**Karaburun**	**0.85**	**335**	Pg	**Pg**	**05 33 09.5**	**+0.1**
KRBN				AML	AML		
KLNA	**Kalymnos**	**0.86**	**182**	P	**Pg**	**05 33 08.7**	**-0.7**
KLNA				S	**Sg**	**05 33 20.8**	**+0.1**
FOCM	**Foa**	**0.92**	**346**	Pg	**Pg**	**05 33 10.5**	**-0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.94**	**307**	P	**Pg**	**05 33 10.3**	**-0.8**
CHOS				S	**Sb**	**05 33 24.4**	**+1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.94**	**307**	Pg	**Pg**	**05 33 10.7**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.94**	**307**	P	**Pg**	**05 33 10.5**	**-0.6**
CHOS				S	**Sg**	**05 33 23.7**	**+0.2**
CAMT	**Merkez**	**0.96**	**14**	P	**Pb**	**05 33 11.7**	**+0.5**
CAMT				S	**Sn**	**05 33 25.2**	**-0.2**
CAMT				IAML		05 33 27.0	
	comp=E,1µm,0.5s						
CAMT				IAML		05 33 32.0	
	comp=N,2µm,0.4s						
EAG2	**Marmaro, Chios**	**1.02**	**316**	P	**Pb**	**05 33 11.4**	**-0.8**
NAZL	**Nazilli-Aydin**	**1.02**	**81**	Pg	**Pn**	**05 33 13.1**	**+0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.18**	**157**	P	**Pb**	**05 33 14.0**	**-0.9**
DAT				S	**Sg**	**05 33 30.5**	**-0.3**
DAT				AML	AML		
DAT	**Datca**	**1.18**	**157**	Pn	**Pb**	**05 33 15.1**	**+0.1**
DAT				AML	AML		
KTTT	**Salihli**	**1.22**	**44**	P	**Pb**	**05 33 15.7**	**0.0**
KTTT				S	**Sb**	**05 33 31.1**	**-0.1**
KTTT				IAML		05 33 35.0	
	comp=N,516nm,0.7s						
YER	**Yerkesik**	**1.22**	**124**	P	**Pn**	**05 33 15.5**	**0.0**
YER				S	**Sb**	**05 33 31.6**	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.22**	**124**	Pn	**Pg**	**05 33 16.1**	**-0.2**
YER				AML	AML		
AKHS	**Akhisar**	**1.23**	**31**	P	**Pn**	**05 33 12.3**	**-3.3**
AKHS				S	**Sb**	**05 33 31.0**	**-0.7**
AKHS				IAML		05 33 36.0	
	comp=N,624nm,0.4s						
AKS	**Akhisar**	**1.23**	**30**	Pn	**Pb**	**05 33 16.1**	**+0.2**
AKS				Sn	**Sg**	**05 33 33.6**	**+1.0**
AKS				AML	AML		
DKL	**Dikili**	**1.25**	**356**	Pn	**Pg**	**05 33 17.3**	**+0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**356**	P	**Pn**	**05 33 15.4**	**-0.5**
ASTA	**Astypalaia**	**1.37**	**203**	P	**Pb**	**05 33 18.3**	**+0.1**
ASTA				AML	AML		
APE	**Apeiranthos**	**1.40**	**238**	Pn	**Pn**	**05 33 18.6**	**+0.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.40**	**238**	P	**Pn**	**05 33 18.3**	**+0.5**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.40**	**17**	Pn	**Pb**	**05 33 18.9**	**+0.2**
SOMA				AML	AML		
SULTU	**Buldan**	**1.41**	**80**	P	**Pn**	**05 33 18.5**	**+0.4**
SULTU				S	**Sg**	**05 33 38.7**	**+0.5**
SULTU				IAML		05 33 47.0	
	comp=N,318nm,0.4s						
SULTU				IAML		05 33 48.0	
	comp=E,215nm,0.7s						
GORD	**Gordes-Manisa**	**1.42**	**40**	Pn	**Pb**	**05 33 19.4**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.43**	**136**	P	**Pn**	**05 33 17.8**	**-0.5**
TURN				S	**Sg**	**05 33 39.5**	**+0.5**
TURN				IAML		05 33 43.0	
	comp=N,263nm,0.4s						
TURN				IAML		05 33 46.0	
	comp=E,249nm,0.8s						
TURN	**Turunc**	**1.43**	**136**	Pn	**Pn**	**05 33 18.9**	**+0.6**
TURN				AML	AML		
HARTU	**Esme**	**1.50**	**69**	P	**Pn**	**05 33 19.8**	**+0.4**
HARTU				S	**Sn**	**05 33 37.4**	**-1.5**
HARTU				IAML		05 33 44.0	
	comp=E,72nm,0.7s						
HARTU				IAML		05 33 47.0	
	comp=N,116nm,1.2s						
AYVA	**Ayvalik**	**1.51**	**351**	P	**Pb**	**05 33 20.8**	**+0.2**
AYVA				S	**Sg**	**05 33 41.3**	**-0.2**
AYVA				IAML		05 33 44.0	
	comp=N,748nm,0.6s						
AYVA				IAML		05 33 44.0	
	comp=E,468nm,0.8s						
PRK	**Paraskevi**	**1.54**	**338**	P	**Pn**	**05 33 20.5**	**+0.7**
PRK				S	**Sb**	**05 33 41.2**	**+0.7**
PRK				AML	AML		
PRK	**Paraskevi**	**1.54**	**338**	P	**Pn**	**05 33 19.5**	**-0.3**
PRK				AML	AML		
DALY	**Dalyan (Mula)**	**1.65**	**127**	Pn	**Pn**	**05 33 22.0**	**+0.7**
DALY				AML	AML		
STEP	**BALIKESIR_Sava**	**1.65**	**19**	P	**Pb**	**05 33 23.1**	**+0.1**
STEP				S	**Sb**	**05 33 44.7**	**+0.9**
STEP				IAML		05 33 54.0	
	comp=E,445nm,0.7s						
STEP				IAML		05 33 57.0	
	comp=N,449nm,0.5s						
BUHA	**Balikesir, Bur**	**1.68**	**2**	P	**Pb**	**05 33 22.9**	**-0.6**
BUHA				S	**Sg**	**05 33 47.2**	**+0.2**
BUHA				IAML		05 33 51.0	
	comp=N,637nm,0.4s						
BUHA				IAML		05 33 51.0	
	comp=E,599nm,0.4s						
YAYO	**Edremit-Balk**	**1.79**	**2**	Pn	**Pn**	**05 33 23.9**	**+0.6**
YAYO				AML	AML		
DEMI	**Demirci**	**1.81**	**47**	P	**Pg**	**05 33 27.0**	**-0.6**
DEMI				S	**Sb**	**05 33 47.8**	**-0.6**
DEMI				IAML		05 33 53.0	
	comp=N,109nm,0.3s						
DEMI				IAML		05 33 56.0	
	comp=E,212nm,0.4s						
ARG	**Arkhangelos**	**1.83**	**150**	P	**Pn**	**05 33 23.4**	**-0.4**
ARG				S	**Sn**	**05 33 47.4**	**+0.6**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.83**	**150**	Pn	**Pn**	**05 33 24.9**	**+1.1**
ARG				AML	AML		
SABU	**Mula-Dalaman**	**1.85**	**122**	P	**Pn**	**05 33 24.5**	**+0.4**
SABU				S	**Sn**	**05 33 45.4**	**-1.9**
SABU				IAML		05 33 55.0	
	comp=N,75nm,0.6s						
SABU				IAML		05 34 05.0	
	comp=E,62nm,0.4s						
APMY	**Acipayam-Deniz**	**1.85**	**100**	Pn	**Pn**	**05 33 24.9**	**+0.7**
APMY				AML	AML		
THERA	**Ancient Thera,**	**1.90**	**221**	P	**Pn**	**05 33 24.3**	**-0.4**
THERA				AML	AML		
BALB	**Balikesir**	**1.94**	**20**	Pn	**Pn**	**05 33 26.4**	**+1.0**
BALB				AML	AML		
BALY	**Balya**	**1.98**	**14**	P	**Pb**	**05 33 28.6**	**0.0**
BALY				S	**Sg**	**05 33 54.9**	**-1.6**
BALY				IAML		05 33 58.0	
	comp=E,218nm,0.4s						
BALY				IAML		05 34 01.0	
	comp=N,304nm,0.7s						
SIMA	**Simav-Kutahya**	**2.00**	**50**	Pn	**Pn**	**05 33 27.6**	**+1.4**
SIMA				AML	AML		
FETY	**Fethiye**	**2.03**	**125**	Pn	**Pb**	**05 33 28.4**	**-1.1**
FETY				AML	AML		
EZN	**Ezine**	**2.08**	**345**	P	**Pn**	**05 33 27.3**	**+0.1**
EZN				AML	AML		
EZN	**Ezine**	**2.08**	**345**	P	**Pb**	**05 33 31.2**	**+1.0**
	1µm114nm,0.7s						
EZN	**Ezine**	**2.08**	**345**	Pn	**Pn**	**05 33 28.2**	**+1.0**
EZN				AML	AML		
DURS	**Dursunbey**	**2.12**	**32**	P	**Pb**	**05 33 31.0**	**0.0**
DURS				S	**Sb**	**05 33 58.8**	**+1.6**
DURS				IAML		05 34 05.0	
	comp=E,228nm,0.4s						
DURS				IAML		05 34 14.0	
	comp=N,98nm,0.5s						
SKY	**Skiros Island**	**2.21**	**299**	P	**Pn**	**05 33 29.4**	**+0.4**
SKY				AML	AML		
IZZE	**Mula-Seydike**	**2.24**	**127**	P	**Pn**	**05 33 31.3**	**+1.8**
IZZE				S	**Sn**	**05 33 58.8**	**+1.9**
IZZE				IAML		05 34 02.0	
	comp=N,335nm,0.4s						
IZZE				IAML		05 34 03.0	
	comp=E,177nm,0.3s						
GEDZ	**Gediz**	**2.25**	**56**	Pn	**Pn**	**05 33 31.3**	**+1.7**
GEDZ				AML	AML		
KARP	**Karpathos**	**2.27**	**177**	P	**Pn**	**05 33 30.1**	**+0.2**
KARP				AML	AML		
KARP	**Karpathos**	**2.27**	**177**	Pn	**Pn**	**05 33 31.6**	**+1.7**
KARP				AML	AML		
KARP	**Karpathos**	**2.27**	**177**	P	**Pn**	**05 33 30.0**	**+0.2**
KARP				AML	AML		
GDZ	**Gediz**	**2.32**	**56**	P	**Pg**	**05 33 35.8**	**-1.5**
GDZ				S	**Sg**	**05 34 05.3**	**-2.0**
GDZ				IAML		05 34 11.0	
	comp=E,35nm,0.4s						
GDZ				IAML		05 34 20.0	
	comp=N,45nm,0.7s						
DION	**Dionisos Attik**	**2.45**	**277**	P	**Pn**	**05 33 32.5**	**+0.2**
DION				AML	AML		
DION	**Dionisos Attik**	**2.45**	**277**	P	**Pn**	**05 33 32.6**	**+0.2**
LIA	**Limnos Island**	**2.52**	**326**	P	**Pn**	**05 33 33.2**	**-0.1**

*THE **03** 06:04:24.1,37°N±1°×2°5E±°,h12km±3km,M2.8/22,*
MLh2.8/22
ATH 03 06:04:23.8,37.19N×24.77E,h16km±1km,ML2.9/25,
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km,Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNSA	**Tinos**	**0.47**	**41**	P	Pg	06 04 33.1	-0.2
TNSA				S	Sg	06 04 39.8	+0.1
MHLO	**Agia Marina, M**	**0.58**	**211**	P	Pg	06 04 34.7	-0.5
MHLO				S	Sg	06 04 42.3	-0.6
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**0.58**	**211**	P	Pg	06 04 35.3	+0.1
MHLO				AML	AML		
APE	**Apeiranthos**	**0.62**	**101**	P	Pg	06 04 35.8	-0.2
APE				S	Sb	06 04 45.0	+0.3
APE				AML	AML		
APE	**Apeiranthos**	**0.62**	**101**	P	Pg	06 04 35.6	-0.4
APE				S	Sb	06 04 44.7	-0.1
APE				AML	AML		
LVRA	**Laurium**	**0.78**	**313**	P	Pb	06 04 38.8	-0.1
LVRA				S	Sb	06 04 49.4	+0.2
LVRA				AML	AML		
CMBO	**Columbo, Santo**	**0.88**	**144**	P	Pg	06 04 40.8	0.0
CMBO				S	Sn	06 04 53.2	-0.7
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**0.88**	**144**	P	Pg	06 04 40.8	0.0
CMBO				S	Sg	06 04 52.6	+0.3
SAP3	**Santorini-Thir**	**0.88**	**148**	P	Pb	06 04 40.6	0.0
SAP3				AML	AML		
KARY	**Karystos**	**0.89**	**343**	S	Sb	06 04 51.9	-0.6
KARY				AML	AML		
KARY	**Karystos**	**0.89**	**343**	P	Pb	06 04 40.4	-0.4
KARY				AML	AML		
THR5	**Thira Island,**	**0.90**	**149**	P	Pb	06 04 40.6	-0.3
THR5	**Thira Island,**	**0.90**	**149**	P	Pb	06 04 40.6	-0.3
THR2	**Thira island,**	**0.91**	**144**	P	Pg	06 04 41.4	-0.1
THR3	**Thira Island,**	**0.92**	**147**	P	Pb	06 04 41.5	+0.1
THR3	**Thira Island,**	**0.92**	**147**	P	Pb	06 04 41.5	0.0
SNT5	**Nea Kammeni, S**	**0.93**	**147**	P	Pb	06 04 41.2	-0.2
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**0.93**	**147**	P	Pb	06 04 41.5	0.0
THR9	**Santorini-Faro**	**0.95**	**150**	P	Pg	06 04 42.1	-0.1
THR9	**Santorini-Faro**	**0.95**	**150**	P	Pg	06 04 42.1	-0.1
THR8	**Santorini-Mono**	**0.96**	**144**	P	Pb	06 04 41.9	-0.2
THR8	**Santorini-Mono**	**0.96**	**144**	P	Pb	06 04 41.8	-0.2
THR6	**Thira Island,**	**0.97**	**148**	P	Pg	06 04 42.6	0.0
THERA	**Ancient Thera,**	**0.99**	**145**	P	Pb	06 04 42.3	-0.3
THERA				S	Sn	06 04 56.4	-0.3
THERA				AML	AML		
THERA	**Ancient Thera,**	**0.99**	**145**	P	Pb	06 04 42.3	-0.4
VLY	**Voula,Athens**	**1.02**	**311**	P	Pb	06 04 43.1	-0.1
VLY				S	Sb	06 04 55.7	-0.7
VLY				AML	AML		
VLY	**Voula,Athens**	**1.02**	**311**	P	Pb	06 04 42.9	-0.3
VLY				AML	AML		
ATHU	**Athens Univers**	**1.11**	**315**	P	Pb	06 04 44.4	-0.1
ATHU				S	Sb	06 04 58.6	-0.2
ATHU				AML	AML		
ATHU	**Athens Univers**	**1.11**	**315**	P	Pb	06 04 44.4	-0.2
ATHU				AML	AML		
DION	**Dionisos Attik**	**1.11**	**324**	P	Pb	06 04 44.7	0.0
DION				S	Sn	06 04 59.7	-0.1
DION				AML	AML		
DION	**Dionisos Attik**	**1.11**	**324**	P	Pb	06 04 44.7	0.0
DION				AML	AML		
PTL	**Penteli**	**1.12**	**320**	P	Pn	06 04 44.9	0.0
PTL				S	Sb	06 04 59.1	-0.2
PTL				AML	AML		
PTL	**Penteli**	**1.12**	**320**	P	Pb	06 04 44.8	-0.1
PTL				AML	AML		
ATHP	**Athens-Neo Psi**	**1.14**	**316**	P	Pb	06 04 45.2	+0.1
ATHP				AML	AML		
ATH5	**Athens Parliam**	**1.14**	**314**	P	Pn	06 04 44.8	-0.3
ATH5				AML	AML		
ATH	**Athens Observa**	**1.15**	**314**	P	Pb	06 04 45.4	+0.1
ATH				S	Sb	06 05 00.1	+0.1
ATH				AML	AML		
ATH	**Athens Observa**	**1.15**	**314**	P	Pb	06 04 45.4	+0.1
ATH				AML	AML		
NOAC	**Athens-Thissio**	**1.15**	**314**	P	Pb	06 04 45.4	+0.1
MET4	**Agioi Theodoro**	**1.18**	**292**	P	Pn	06 04 45.4	-0.3
MET4				AML	AML		
MET6	**Megalochori,Me**	**1.20**	**290**	P	Pb	06 04 46.1	0.0
MET6				AML	AML		
MET5	**Makryloggos,Me**	**1.21**	**292**	P	Pb	06 04 46.5	+0.2
MET2	**Kameni Chora,**	**1.23**	**291**	P	Pn	06 04 45.8	-0.4
MET2				AML	AML		
MET3	**Ano Fanari,Met**	**1.29**	**288**	P	Pn	06 04 46.6	-0.6
EPID	**Epidavros**	**1.38**	**289**	P	Pn	06 04 48.4	-0.1
EPID				S	Sg	06 05 07.6	-0.8
EPID				AML	AML		
STFN	**Stefani**	**1.39**	**316**	P	Pn	06 04 48.9	+0.3
STFN				AML	AML		
STFN	**Stefani**	**1.39**	**316**	P	Pn	06 04 48.8	+0.2
VILL	**Villia**	**1.52**	**311**	P	Pn	06 04 50.8	+0.5
VILL				S	Sb	06 05 10.7	+0.1
VILL				AML	AML		
VLI	**Veliai**	**1.54**	**253**	P	Pn	06 04 49.9	-0.7
VLI				S	Sn	06 05 10.1	-0.3
VLI				AML	AML		
VLI	**Veliai**	**1.54**	**253**	P	Pn	06 04 50.1	-0.5
VLI				AML	AML		
CHOS	**Chios island**	**1.57**	**40**	P	Pn	06 04 51.2	0.0
CHOS				AML	AML		
CHOS	**Chios island**	**1.57**	**40**	P	Pn	06 04 51.0	-0.1
CHOS				AML	AML		
VIL2	**Platees**	**1.57**	**311**	P	Pn	06 04 50.8	-0.3
VIL2				AML	AML		
LOUT	**Loutraki**	**1.64**	**300**	P	Pn	06 04 52.2	+0.3
LOUT				AML	AML		
KTHA	**Kythira Island**	**1.66**	**237**	P	Pn	06 04 51.4	-0.8
KTHA				AML	AML		
KTHA	**Kythira Island**	**1.66**	**237**	P	Pn	06 04 52.1	-0.1
KTHA				AML	AML		
LTK	**Loutraki**	**1.66**	**301**	P	Pn	06 04 52.5	+0.2
LTK				S	Sb	06 05 14.0	-0.7
LTK				AML	AML		
LTK	**Loutraki**	**1.66**	**301**	P	Pn	06 04 52.5	+0.2
LTK				AML	AML		
ACOR	**Acrocorinthos**	**1.67**	**296**	P	Pn	06 04 52.8	+0.4
ACOR				AML	AML		
SKY	**Skiros Island**	**1.70**	**354**	P	Pb	06 04 53.9	-0.8
SKY				AML	AML		
ANKY	**Antikythira Is**	**1.77**	**222**	P	Pb	06 04 55.8	-0.1
IDI	**Anoyia**	**1.90**	**177**	P	Pn	06 04 55.6	0.0
IDI	**Anoyia**	**1.90**	**177**	P	Pn	06 04 55.7	+0.1

*AFAD **03** 06:05:11.2,37.84N×26.72E,h7km±3km,ML2.4*
*ISK **03** 06:05:11.8,37.85N×26.72E,h6km,ML2.5/19*
ISC 03 06:05:12.1±1.2,37.85N±0.03×26.75E±0.04,h7km±9km,
n31,σ0.75/45,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.23**	**27**	P	**Pg**	**06 05 14.5**	**-2.1**
DGB				IAML		06 05 20.0	
	comp=E,1µm,0.4s						
DGB				S	**Sg**	**06 05 20.6**	**+1.1**
DGB				IAML		06 05 21.0	
	comp=N,723nm,0.7s						
GMLD	**Gumuldur**	**0.26**	**29**	Pg	**Pg**	**06 05 17.4**	**+0.2**
GMLD				Sg	**Sg**	**06 05 21.7**	**+1.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.40**	**20**	P	**Pg**	**06 05 19.0**	**-0.8**
BEYE				S	**Sg**	**06 05 25.6**	**+0.5**
BEYE				IAML		06 05 26.0	
	comp=N,363nm,0.4s						
BEYE				IAML		06 05 26.0	
	comp=E,324nm,0.3s						
GCAM	**G?zelcaml?**	**0.41**	**111**	P	**Pg**	**06 05 19.8**	**-0.2**
GCAM				S	**Sg**	**06 05 26.7**	**+1.4**
GCAM				IAML		06 05 27.0	
	comp=N,454nm,0.9s						
GCAM				IAML		06 05 27.0	
	comp=E,364nm,0.5s						
GCAM	**G?zelcaml?**	**0.41**	**111**	Pg	**Pg**	**06 05 19.9**	**-0.1**
GCAM				Sg	**Sb**	**06 05 26.9**	**-1.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.42**	**88**	Pg	**Pb**	**06 05 21.1**	**-0.8**
KUSD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.44**	**333**	P	**Pg**	**06 05 20.0**	**-0.5**
ZEYE				IAML		06 05 26.0	
	comp=E,212nm,0.6s						
ZEYE				S	**Sg**	**06 05 26.6**	**+0.4**
ZEYE				IAML		06 05 27.0	
	comp=N,353nm,0.5s						
BLCB	**Balcova**	**0.58**	**23**	Pg	**Pb**	**06 05 23.8**	**-0.8**
BLCB				AML	AML		
CESE	**eme**	**0.60**	**323**	Pg	**Pg**	**06 05 23.5**	**-0.1**
CESE				AML	AML		
DUVT	**Torbali**	**0.66**	**56**	P	**Pg**	**06 05 24.2**	**-0.6**
DUVT				S	**Sg**	**06 05 33.5**	**+0.1**
DUVT				IAML		06 05 42.0	
	comp=E,192nm,0.8s						
KRBN	**Karaburun**	**0.76**	**348**	Pg	**Pg**	**06 05 26.6**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.81**	**5**	P	**Pn**	**06 05 30.3**	**+0.4**
BAGT				S	**Sn**	**06 05 41.5**	**-0.7**
YKAV	**Yalikavak-Bodr**	**0.84**	**150**	Pg	**Pb**	**06 05 28.6**	**-0.3**
YKAV				AML	AML		
KARB	**zmir-Karabur**	**0.86**	**342**	P	**Pn**	**06 05 32.7**	**+2.1**
KARB				S	**Sb**	**06 05 40.1**	**-0.9**
FOCM	**Foa**	**0.86**	**359**	Pg	**Pb**	**06 05 28.6**	**-0.8**
FOCM				AML	AML		
BODT	**Bodrum**	**0.90**	**150**	Pg	**Pb**	**06 05 29.7**	**-0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.90**	**84**	Pg	**Pb**	**06 05 30.0**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.91**	**102**	P	**Pg**	**06 05 29.4**	**-0.1**
AYDN				S	**Sb**	**06 05 43.0**	**+0.4**
AYDN				IAML		06 05 46.0	
	comp=N,68nm,0.5s						
AYDN				IAML		06 05 48.0	
	comp=E,98nm,0.6s						
BDRM	**Kayabasi**	**0.96**	**145**	P	**Pg**	**06 05 29.5**	**-0.9**
BDRM				S	**Sb**	**06 05 43.1**	**-0.7**
BDRM				IAML		06 05 46.0	
	comp=N,158nm,0.9s						
BDRM				IAML		06 05 46.0	
	comp=E,118nm,0.8s						
MLSB	**Milas**	**0.98**	**124**	Pg	**Pn**	**06 05 31.9**	**-0.4**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.99**	**73**	P	**Pb**	**06 05 31.4**	**-0.1**
IZMR				S	**Sg**	**06 05 43.8**	**-0.1**
CAMT	**Merkez**	**1.00**	**26**	P	**Pb**	**06 05 31.9**	**+0.2**
CAMT				S	**Sn**	**06 05 47.4**	**+0.4**
CAMT				IAML		06 05 55.0	
	comp=E,257nm,0.5s						
ZEDA	**zmir-Bergama**	**1.14**	**13**	P	**Pg**	**06 05 33.7**	**-0.3**
ZEDA				S	**Sn**	**06 05 50.6**	**+0.1**
ZEDA				IAML		06 05 53.0	
	comp=N,77nm,0.6s						
ZEDA				IAML		06 05 55.0	
	comp=E,83nm,0.6s						
NAZL	**Nazilli-Aydin**	**1.22**	**84**	Pn	**Pn**	**06 05 36.5**	**+0.9**
NAZL				AML	AML		
DKL	**Dikili**	**1.23**	**6**	Pn	**Pn**	**06 05 35.7**	**+0.1**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.25**	**47**	Pn	**Pg**	**06 05 36.6**	**+0.5**
GOMA				AML	AML		
DAT	**Datca**	**1.30**	**149**	Pn	**Pg**	**06 05 37.2**	**+0.3**
YER	**Yerkesik**	**1.41**	**120**	Pn	**Pg**	**06 05 39.1**	**0.0**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**25**	Pn	**Pg**	**06 05 39.5**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.54**	**46**	Pn	**Pb**	**06 05 40.9**	**-0.1**
GORD				AML	AML		
TURN	**Turunc**	**1.60**	**132**	Pn	**Pb**	**06 05 41.6**	**-0.3**
TURN				AML	AML		

*THE **03** 06:10:07.8,38°N±1°×2°7E±°,h9km±2km,M2.9/13,*
MLh2.9/13
*AFAD **03** 06:10:07.6,37.84N×26.93E,h7km±2km,ML3.2*
*ISK **03** 06:10:07.5,37.85N×26.95E,h13km,ML3.3/24*
*ATH **03** 06:10:08.6,37.81N×26.88E,h14km±1km,ML3.2/6,*
Latitude uncertainty: 1 km; Longitude uncertainty: 2 km
ISC 03 06:10:07.8±0.8,37.84N±0.02×26.95E±0.02,h13km±6km,
n59,σ0.43/86,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.20**	**257**	P	**Pg**	**06 10 11.8**	**-0.4**
KRL1				S	**Sg**	**06 10 14.7**	**-0.4**
KRL1				AML	AML		
DGB	**zmir**	**0.22**	**346**	P	**Pg**	**06 10 12.3**	**-0.3**
DGB				S	**Sg**	**06 10 15.4**	**-0.3**
GMLD	**Gumuldur**	**0.24**	**354**	Pg	**Pg**	**06 10 13.1**	**+0.2**
GMLD				Sg	**Sg**	**06 10 16.5**	**+0.2**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**122**	P	**Pg**	**06 10 13.5**	**+0.1**
GCAM				IAML		06 10 18.0	
	comp=N,6µm,0.2s						
GCAM				IAML		06 10 18.0	
	comp=E,5µm,0.3s						
GCAM				S	**Sb**	**06 10 18.1**	**-0.8**
GCAM	**G?zelcaml?**	**0.27**	**122**	Pg	**Pg**	**06 10 13.4**	**+0.1**
GCAM				Sg	**Sg**	**06 10 17.9**	**+0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**86**	Pg	**Pg**	**06 10 13.5**	**0.0**
KUSD				Sg	**Sg**	**06 10 17.4**	**+0.2**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**358**	P	**Pg**	**06 10 15.6**	**-0.1**
BEYE				IAML		06 10 21.0	
	comp=N,2µm,0.3s						
BEYE				IAML		06 10 21.0	
	comp=E,3µm,0.3s						
BEYE				S	**Sg**	**06 10 21.0**	**+0.2**
DDIM	**Aydin, Didim**	**0.45**	**149**	P	**Pg**	**06 10 16.5**	**-0.2**
DDIM				IAML		06 10 23.0	
	comp=E,2µm,0.6s	

BLCB					AML	AML		
BLCB	**Balcova**	**0.55**	**8**		Pg	**Pg**	**06 10 18.5**	**-0.1**
BLCB					AML	AML		
CESE	**eme**	**0.71**	**314**		Pg	**Pb**	**06 10 22.0**	**-0.1**
CESE					Sg	**Sb**	**06 10 31.8**	**0.0**
CESE					AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**82**		Pg	**Pb**	**06 10 23.2**	**+0.3**
AYDB					AML	AML		
AYDN	**Tasoluk**	**0.76**	**103**		P	**Pg**	**06 10 22.5**	**-0.1**
AYDN					S	**Sg**	**06 10 32.8**	**+0.3**
AYDN					IAML		06 10 37.0	
	comp=N,898nm,0.3s							
AYDN					IAML		06 10 37.0	
	comp=E,1µm,0.2s							
YKAV	**Yalikavak-Bodr**	**0.76**	**160**		Pg	**Pg**	**06 10 22.3**	**-0.3**
YKAV					AML	AML		
KRBN	**Karaburun**	**0.81**	**338**		Pg	**Pb**	**06 10 23.8**	**-0.1**
KRBN					AML	AML		
BAGT	**Foa**	**0.82**	**355**		P	**Pb**	**06 10 23.8**	**-0.2**
BAGT					S	**Sb**	**06 10 35.2**	**+0.3**
BAGT					IAML		06 10 37.0	
	comp=N,978nm,0.7s							
BAGT					IAML		06 10 38.0	
	comp=E,1µm,0.4s							
BODT	**Bodrum**	**0.83**	**160**		P	**Pg**	**06 10 23.4**	**-0.5**
BODT					S	**Sg**	**06 10 34.8**	**0.0**
BODT					AML	AML		
BODT	**Bodrum**	**0.83**	**160**		Pg	**Pg**	**06 10 23.5**	**-0.4**
BODT					AML	AML		
IZMR	**zmir-demi**	**0.85**	**69**		P	**Pn**	**06 10 25.0**	**-0.5**
IZMR					S	**Sg**	**06 10 34.6**	**-0.7**
MLSB	**Milas**	**0.85**	**129**		Pg	**Pb**	**06 10 24.7**	**+0.1**
MLSB					AML	AML		
BDRM	**Kayabasi**	**0.87**	**153**		P	**Pg**	**06 10 23.7**	**-0.9**
BDRM					IAML		06 10 36.0	
	comp=N,636nm,0.7s							
BDRM					IAML		06 10 36.0	
	comp=E,681nm,0.7s							
BDRM					S	**Sb**	**06 10 36.3**	**0.0**
KLNA	**Kalymnos**	**0.88**	**179**		P	**Pb**	**06 10 25.1**	**+0.1**
KLNA					S	**Sb**	**06 10 37.0**	**+0.3**
FOCM	**Foa**	**0.89**	**349**		Pg	**Pb**	**06 10 25.2**	**0.0**
FOCM					AML	AML		
CHOS	**Chios island**	**0.89**	**308**		P	**Pg**	**06 10 24.9**	**-0.2**
CHOS					S	**Sb**	**06 10 37.4**	**+0.3**
CHOS					AML	AML		
CHOS	**Chios island**	**0.89**	**308**		Pg	**Pg**	**06 10 25.1**	**0.0**
CHOS					AML	AML		
CHOS	**Chios island**	**0.89**	**308**		P	**Pg**	**06 10 25.1**	**0.0**
CHOS					S	**Sb**	**06 10 37.4**	**+0.3**
CHOS					AML	AML		
KARB	**zmir-Karabur**	**0.92**	**333**		P	**Pg**	**06 10 24.8**	**-0.9**
KARB					S	**Sb**	**06 10 38.1**	**+0.1**
KARB					IAML		06 10 40.0	
	comp=N,765nm,0.7s							
KARB					IAML		06 10 40.0	
	comp=E,582nm,0.4s							
CAMT	**Merkez**	**0.95**	**17**		P	**Pn**	**06 10 27.0**	**0.0**
CAMT					S	**Sn**	**06 10 40.3**	**-0.1**
EAG2	**Marmaro, Chios**	**0.96**	**317**		P	**Pn**	**06 10 26.8**	**-0.3**
EAG2					S	**Sb**	**06 10 39.6**	**+0.4**
NAZL	**Nazilli-Aydin**	**1.07**	**83**		Pg	**Pg**	**06 10 28.5**	**0.0**
NAZL					AML	AML		
ZEDA	**zmir-Bergama**	**1.13**	**5**		P	**Pn**	**06 10 29.4**	**0.0**
ZEDA					S	**Sn**	**06 10 45.0**	**+0.2**
ZEDA					IAML		06 10 46.0	
	comp=N,519nm,0.7s							
ZEDA					IAML		06 10 49.0	
	comp=E,440nm,0.5s							
GOMA	**Golmarmara-Man**	**1.15**	**41**		Pn	**Pg**	**06 10 29.9**	**-0.2**
GOMA					AML	AML		
DAT	**Datca**	**1.22**	**155**		P	**Pn**	**06 10 30.6**	**-0.2**
DAT					S	**Sg**	**06 10 47.4**	**+0.3**
DAT					AML	AML		
DAT	**Datca**	**1.22**	**155**		Pn	**Pn**	**06 10 30.7**	**0.0**
DAT					AML	AML		
DKL	**Dikili**	**1.23**	**358**		Pn	**Pb**	**06 10 30.9**	**-0.1**
DKL					AML	AML		
DKL	**Dikili**	**1.23**	**358**		P	**Pg**	**06 10 31.8**	**+0.2**
AKS	**Akhisar**	**1.24**	**33**		Pn	**Pn**	**06 10 30.8**	**-0.2**
AKS					AML	AML		
YER	**Yerkesik**	**1.27**	**123**		P	**Pn**	**06 10 31.3**	**-0.2**
YER					S	**Sb**	**06 10 48.1**	**0.0**
YER					AML	AML		
YER	**Yerkesik**	**1.27**	**123**		Pn	**Pn**	**06 10 31.1**	**-0.4**
YER					AML	AML		
APE	**Apeiranthos**	**1.37**	**236**		Pn	**Pn**	**06 10 32.7**	**0.0**
APE					AML	AML		
APE	**Apeiranthos**	**1.37**	**236**		P	**Pn**	**06 10 32.4**	**-0.3**
APE					AML	AML		
ASTA	**Astypalaia**	**1.38**	**200**		P	**Pn**	**06 10 33.1**	**+0.3**
ASTA					AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**19**		Pn	**Pn**	**06 10 33.1**	**+0.1**
SOMA					AML	AML		
GORD	**Gordes-Manisa**	**1.44**	**42**		Pn	**Pb**	**06 10 34.9**	**+0.3**
GORD					AML	AML		
TURN	**Turunc**	**1.48**	**135**		Pn	**Pn**	**06 10 33.7**	**-0.5**
TURN					AML	AML		
PRK	**Paraskevi**	**1.50**	**340**		P	**Pn**	**06 10 34.7**	**+0.2**
PRK					S	**Sb**	**06 10 55.1**	**+0.6**
PRK					AML	AML		
PRK	**Paraskevi**	**1.50**	**340**		P	**Pb**	**06 10 35.9**	**+0.3**
PRK					AML	AML		
DALY	**Dalyan (Mula)**	**1.70**	**126**		Pn	**Pb**	**06 10 38.4**	**-0.6**
DALY					AML	AML		
THR3	**Thira Island,**	**1.89**	**221**		P	**Pb**	**06 10 42.9**	**+0.7**
KARY	**Karystos**	**2.00**	**276**		P	**Pn**	**06 10 40.3**	**-1.0**
KARY					AML	AML		
DION	**Dionisos Attik**	**2.40**	**277**		P	**Pn**	**06 10 46.1**	**-0.7**
DION					AML	AML		
LIA	**Limnos Island**	**2.47**	**327**		P	**Pn**	**06 10 47.6**	**-0.3**
LIA					AML	AML		
STFN	**Stefani**	**2.71**	**278**		P	**Pn**	**06 10 51.0**	**-0.2**
STFN					AML	AML		
AOS	**Alonnisos**	**2.75**	**300**		P	**Pn**	**06 10 51.7**	**0.0**
AOS					AML	AML		
NPS	**Neapolis**	**2.79**	**203**		P	**Pn**	**06 10 54.2**	**+2.0**
SMTH	**Samothraki Isl**	**2.85**	**338**		P	**Pn**	**06 10 52.6**	**-0.5**

IDC ***03*** *06:10:04.7±0.5,57˚.49N×33˚.02W,h0km,mb4.1/21, mbtmp4.1/24,ML3.6/3,MS4.0/73,Error ellipse: s-maj=14.9km s-min=11.5km az=150.0*

NEIC ***03*** *06:10:07.0±1.0,57˚.61N±0˚.08×32˚.9W±0˚.1,h10km±1km, mb4.6/118,Error ellipse: s-maj=14.4km s-min=11.8km az=164.0*

GCMT ***03*** *06:10:07.0±0.3,57˚.70N±0˚.04×32˚.77W±0˚.04,h12km, MW4.8/96,Moment Tensor Solution. s16,c18; s96,c124; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-2.20±.08; Mθθ0.22±.10; Mϕϕ1.98±.06; Mrθ0.81±.40; Mϕθ0.52±.07; Mϕr0.35±.33; Best double couple: Mo2.32700×10¹⁶ NP1:ϕs1.00000°,δ40.00000°,λ-113.00000°. NP2: ϕs211.00000°,δ54.00000°,λ-72.00000°. Principal axes: T 2.1980, Plg8.0000°, Azm288.0000°; N 0.2550, Plg15.0000°, Azm20.0000°; P -2.4560, Plg73.0000°, Azm171.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***03*** *06:10:08.0±0.4,58˚.N±6˚×3˚.3W±˚,h10km,M4.3/13, mb4.3/13 Error ellipse: s-maj=14.8km s-min=6.9km az=42.3,confirmed*

ISC 03 06:10:07.5±0.3,57˚.58N±0˚.06×32˚.96W±0˚.05,h15km,n233, σ0992/175,mb4.5/92,MS4.0/69,Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m	s	ISC
NRS	**Narsarsuaq**	**7.30**	**305**	Pn		**Pn**	**06**	**11**	**53.5**	**0.0**
ANGG	**Ammassalik, Gr**	**8.36**	**347**	Pn		**Pn**	**06**	**12**	**07.3**	**-0.7**
ANGG	**Ammassalik, Gr**	**8.36**	**347**	P		**Pn**	**06**	**12**	**06.8**	**-1.2**
	comp=Z,36nm,1.6s									
IVI	**Ivigtut**	**8.56**	**301**	Pn		**Pn**	**06**	**12**	**09.8**	**-1.0**
BORG	**Borgarnes**	**9.11**	**33**	Pn		**Pn**	**06**	**12**	**20.2**	**+2.0**
	comp=Z,1.7nm,0.3s,baz=215,slow=4.8,SNR=14									
BORG				Sn		**Sn**	**06**	**14**	**01.2**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=52,slow=17,SNR=1.4									
BORG				LR		LR	06	14	50.0	
	comp=Z,1µm,18.0s,baz=259,slow=31									
	comp=Z,21nm,0.8s									
BORG				AML		AML				

BORG	**Borgarnes**	**9.11**	**33**	Pn		**Pn**	**06 12 16.8**	**-1.5**
SFJD	**Kangerlussuaq**	**12.46**	**326**	LR		LR	06 17 07.1	
	comp=Z,1µm,18.6s,baz=138,slow=34							
SFJD	**Kangerlussuaq**	**12.46**	**326**	P		**Pn**	**06 13 03.0**	**-1.0**
	comp=Z,21nm,2.1s							
ILULI	**Ilulissat**	**14.13**	**333**	Pn		**Pn**	**06 13 25.8**	**-1.0**
ILULI	**Ilulissat**	**14.13**	**333**	P		**Pn**	**06 13 27.6**	**+0.8**
	comp=Z,51nm,1.2s							
SUMG	**Summit**	**15.22**	**354**			**Pn**	**06 13 40.7**	**-1.2**
SUMG					IAmb	IAmb	06 13 42.6	
	comp=Z,21nm,1.1s							
SUMG	**Summit**	**15.22**	**354**	P		**Pn**	**06 13 39.9**	**-2.0**
EKA	**Eskdalemuir Ar**	**16.56**	**85**	Pn		**P**	**06 14 00.5**	**-0.9**
	baz=280,slow=11							
EKA				LR		LR	06 19 16.8	
	comp=Z,899nm,18.6s,baz=263,slow=33							
	comp=Z,2.1nm,0.7s							
JMIC	**Jan Mayen**	**16.93**	**28**	LR		LR	06 19 19.0	
	comp=Z,142nm,18.4s,baz=218,slow=33							
FRB	**Frobisher Bay**	**18.30**	**304**	LR		LR	06 20 17.3	
	comp=Z,810nm,19.7s,baz=77,slow=33							
SCHQ	**Schefferville**	**18.92**	**276**	P		**P**	**06 14 27.4**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=333,slow=1.8,SNR=5.2							
SCHQ				LR		LR	06 20 27.9	
	comp=Z,957nm,20.6s,baz=109,slow=33							
	comp=Z,10nm,1.1s							
SCHQ				AML		AML		
SCHQ	**Schefferville**	**18.92**	**276**	P		**Pn**	**06 14 27.6**	**-0.5**
SCHQ				IAmb		IAmb	06 14 34.9	
	comp=Z,41nm,1.3s							
BATG	**Bathurst New B**	**22.44**	**257**	P		**P**	**06 15 06.0**	**+0.5**
NOA	**NORSAR Array B**	**22.48**	**63**	LR		LR	06 22 47.2	
	comp=Z,230nm,18.5s,baz=280,slow=34							
LMN	**Caledonia Moun**	**22.72**	**253**	P		**P**	**06 15 08.7**	**+0.1**
HGN	**Heimansgroeve**	**23.50**	**90**	P		**P**	**06 15 17.2**	**+0.8**
	comp=Z,11nm,2.6s							
MTE	**Manteigas**	**23.73**	**125**	P		**P**	**06 15 19.6**	**+0.7**
	comp=Z,29nm,2.5s							
HFS	**Hagors**	**23.87**	**64**	LR		LR	06 23 20.1	
	comp=Z,261nm,19.9s,baz=284,slow=33							
WLF	**Walferdange**	**24.22**	**92**	P		**P**	**06 15 23.3**	**0.0**
	comp=Z,15nm,1.0s							
BSEG	**Bad Segeberg**	**24.31**	**80**	P		**P**	**06 15 25.4**	**+1.3**
	comp=Z,21nm,2.2s							
NOR	**Nord**	**24.58**	**6**	P		**P**	**06 15 26.2**	**-0.1**
PESTR	**Estremoz**	**24.97**	**128**	P		**P**	**06 15 29.8**	**-0.5**
CLZ	**Clausthal**	**25.33**	**84**	P		**P**	**06 15 35.1**	**+1.7**
	comp=Z,10nm,1.4s							
MESJ	**Messejana**	**25.58**	**130**	P		**P**	**06 15 34.9**	**-0.8**
PAB	**San Pablo**	**25.85**	**122**	P		**P**	**06 15 37.2**	**-1.1**
PAB				IAmb		IAmb	06 15 43.5	
	comp=Z,24nm,1.4s							
ESBB	**Sonseca Array**	**25.93**	**121**	P		**P**	**06 15 38.9**	**0.0**
ESBB				IAmb		IAmb	06 15 44.7	
	comp=Z,24nm,1.5s							
ESDC	**Sonseca Array**	**25.93**	**121**	P		**P**	**06 15 38.8**	**-0.1**
	comp=Z,1.3nm,0.6s,baz=321,slow=9.8,SNR=7.4							
ESDC				LR		LR	06 23 38.2	
	comp=Z,358nm,21.6s,baz=328,slow=31							
	comp=Z,1.3nm,0.6s							
ESDC	**Sonseca Array**	**25.93**	**121**			**P**	**06 15 38.4**	**-0.5**
SENIN	**Lac Senin/Sane**	**26.82**	**97**	P		**P**	**06 15 47.0**	**-0.1**
HEF	**Hetta**	**26.83**	**43**	P		**P**	**06 15 47.9**	**+1.2**
CLL	**Collm**	**27.01**	**83**	L		L	06 23 00.0	
CLL				AMS		AMS	06 26 00.0	
	comp=N,200nm,18.5s							
CLL				AMS		AMS	06 26 00.0	
	comp=E,400nm,18.5s							
CLL				AMS		AMS	06 26 00.0	
	comp=Z,600nm,18.2s							
BNI	**Bardonecchia**	**27.34**	**100**	P		**P**	**06 15 52.9**	**+1.2**
	comp=Z,7.8nm,1.6s							
ARCES	**ARCESS Array B**	**27.41**	**41**	P		**P**	**06 15 52.1**	**+0.2**
	comp=Z,5.6nm,1.1s,baz=274,slow=7.2,SNR=4.9							
ARCES				LR		LR	06 24 35.2	
	comp=Z,219nm,20.5s,baz=282,slow=32							
	comp=Z,5.6nm,1.1s							
ARCES	**ARCESS Array B**	**27.41**	**41**	P		**P**	**06 15 51.2**	**-0.7**
TUE	**Stuetta**	**27.84**	**95**	P		**P**	**06 15 56.6**	**+0.3**
	comp=Z,10nm,3.0s							
DAVOX	**Davos/Dischmat**	**27.93**	**94**	LR		LR	06 26 36.3	
	comp=Z,593nm,18.8s,baz=301,slow=36							
RES	**Resolute Bay**	**28.41**	**330**	LR		LR	06 26 51.5	
	comp=Z,172nm,19.2s,baz=88,slow=35							
GERES	**GERESS Array B**	**28.75**	**87**	LR		LR	06 26 36.8	
	comp=Z,354nm,19.7s,baz=301,slow=34							
FINES	**FINESS Array B**	**29.30**	**57**	P		**P**	**06 16 10.5**	**+1.6**
	comp=Z,3.2nm,0.8s,baz=251,slow=4.3,SNR=1.6							
FINES				LR		LR	06 27 02.3	
	comp=Z,177nm,19.2s,baz=254,slow=35							
	comp=Z,3.2nm,0.8s							
FINES	**FINESS Array B**	**29.30**	**57**	P		**P**	**06 16 08.6**	**-0.3**
AVE	**Averroes**	**29.84**	**133**	P		**P**	**06 16 16.1**	**+2.2**
	comp=Z,39nm,1.2s							
VRAC	**Vranov**	**30.04**	**84**	LR		LR	06 28 20.1	
	comp=Z,570nm,18.1s,baz=306,slow=36							
BLKN	**Baker Lake**	**30.15**	**309**	P		**P**	**06 16 16.5**	**+0.2**
PABE	**Paberze**	**30.67**	**69**	P		**P**	**06 16 19.9**	**-1.1**
SADO	**Sadowa**	**31.02**	**266**	LR		LR	06 27 32.9	
	comp=Z,714nm,18.7s,baz=19,slow=34							
BINY	**Binghamton**	**31.08**	**259**	P		**P**	**06 16 26.9**	**+2.1**
	comp=Z,31nm,1.2s							
MD01	**Midelt array s**	**31.29**	**130**	P		**P**	**06 16 27.1**	**+0.2**
MD31	**MD31**	**31.29**	**130**	P		**P**	**06 16 26.2**	**-0.6**
MD31				IAmb		IAmb	06 16 42.5	
	comp=Z,16nm,1.4s							
MDT	**Midelt**	**31.39**	**130**	LR		LR	06 27 35.9	
	comp=Z,110nm,19.9s,baz=327,slow=34							
VYHS	**Vyhne**	**31.71**	**84**	P		**P**	**06 16 29.9**	**-0.5**
	comp=Z,2.1nm,1.1s							
NACGM	**Naroch**	**32.38**	**69**	*eP*		**P**	**06 16 37.0**	**+1.0**
	comp=Z,8.0nm,0.4s,baz=300							
MORH	**Mrgy, Hungar**	**33.01**	**87**	P		**P**	**06 16 41.8**	**+0.1**
	comp=Z,7.0nm,1.2s							
PAMR	**Moraine State**	**34.15**	**262**	P		**P**	**06 16 52.4**	**+0.7**
BZS	**Buzias**	**34.99**	**86**	P		**P**	**06 16 59.3**	**+0.5**
	comp=Z,4.6nm,1.4s							
KEST	**Kesra**	**35.52**	**109**	LR		LR	06 29 42.5	
	comp=Z,252nm,21.5s,baz=254,slow=33							
EPLO	**Experimental L**	**35.77**	**284**	P		**P**	**06 17 05.3**	**-0.2**
EPLO				IAmb		IAmb	06 17 08.2	
	comp=Z,17nm,1.3s							
AKASG	**Malin Array Be**	**35.90**	**74**	P		**P**	**06 17 06.2**	**-0.5**
	comp=Z,0.3nm,0.3s,baz=306,slow=8.5,SNR=5.0							
AKASG				LR		LR	06 31 31.3	
	comp=Z,240nm,19.5s,baz=299,slow=36							
	comp=Z,0.3nm,0.3s							
ULM	**Lac du Bonnet**	**36.54**	**286**	LR		LR	06 30 49.1	
	comp=Z,579nm,18.7s,baz=24,slow=34							
TIP	**Timpagrande**	**36.79**	**98**	P		**P**	**06 17 14.3**	**-0.2**
VAE	**Valguarnera**	**36.80**	**102**	LR		LR	06 30 46.5	
	comp=Z,409nm,19.4s,baz=330,slow=34							
OBN	**Obninsk**	**37.08**	**63**	LR		LR	06 31 10.7	
	comp=Z,301nm,21.3s,baz=334,slow=34							
MLR	**Muntele Rosu**	**37.39**	**83**	LR		LR	06 33 45.4	
	comp=Z,509nm,18.2s,baz=321,slow=38							
A36M	**Sachs Harbour**	**37.44**	**329**	P		**P**	**06 17 19.9**	**+0.5**
JFWS	**Jewell Farm**	**38.24**	**273**	P		**P**	**06 17 26.8**	**+0.3**
JFWS				IAmb		IAmb	06 17 49.0	
	comp=Z,20nm,1.3s							
S51A	**Beattyville**	**38.41**	**261**	P		**P**	**06 17 28.1**	**0.0**
S51A				IAmb		IAmb	06 18 08.6	
	comp=Z,22nm,1.3s							
YKAW1	**Yellowknife Wh**	**38.46**	**312**	P		**P**	**06 17 27.9**	**-0.3**
YKAW1				IAmb		IAmb	06 18 02.8	
	comp=Z,18nm,1.2s							
YKAW3	**Yellowknife Wh**	**38.47**	**313**	P		**P**	**06 17 28.1**	**-0.2**
YKAW3				IAmb		IAmb	06 17 44.6	
	comp=Z,14nm,1.2s							
YKA	**Yellowknife Ar**	**38.51**	**312**	P		**P**	**06 17 28.1**	**-0.5**
	comp=Z,2.1nm,0.8s,baz=54,slow=8.6,SNR=2.4							
YKA				LR		LR	06 32 42.8	
	comp=Z,1µm,18.4s,baz=81,slow=35							
	comp=Z,2.1nm,0.8s							
YKA	**Yellowknife Ar**	**38.51**	**312**	P		**P**	**06 17 27.8**	**-0.8**
L42A	**Oliver, Polo**	**38.55**	**271**	P		**P**	**06 17 29.9**	**+0.7**
TZTN	**Tazewell**	**39.20**	**260**	P		**P**	**06 17 34.8**	**0.0**
TZTN				IAmb		IAmb	06 17 41.4	
	comp=Z,14nm,1.1s							
TKL	**Tuckaleechee C**	**39.99**	**259**	LR		LR	06 33 13.5	
	comp=Z,674nm,19.1s,baz=42,slow=35							
KIRV	**Kirov**	**40.96**	**52**	LR		LR	06 34 49.2	
	comp=Z,109nm,18.1s,baz=282,slow=36							
ECSD	**EROS Data Cent**	**41.09**	**279**	P		**P**	**06 17 50.5**	**+0.2**
N38A	**Joes South For**	**41.31**	**273**	P		**P**	**06 17 51.7**	**-0.5**
WVT	**Waverly**	**41.80**	**263**	P		**P**	**06 17 56.3**	**+0.1**
WVT				IAmb		IAmb	06 18 21.3	

	comp=Z,14nm,1.4s							
INK	**Inuvik**	**41.81**	**327**	LR		LR	06 33 52.7	
	comp=Z,242nm,21.6s,baz=20,slow=34							
INK	**Inuvik**	**41.81**	**327**	P		**P**	**06 17 55.4**	**-0.4**
F31M	**Tsiigehtchic**	**42.41**	**326**			**P**	**06 18 01.0**	**+0.3**
F31M				IAmb		IAmb	06 18 04.2	
	comp=Z,14nm,1.1s							
G31M	**Satah River**	**42.89**	**325**	P		**P**	**06 18 04.5**	**-0.2**
G31M				IAmb		IAmb	06 18 13.8	
	comp=Z,8.8nm,1.0s							
F30M	**Barrier River**	**42.91**	**327**	P		**P**	**06 18 04.9**	**0.0**
F30M				IAmb		IAmb	06 18 19.9	
	comp=Z,8.6nm,1.1s							
E29M	**Blow River**	**43.02**	**328**	P		**P**	**06 18 05.9**	**+0.2**
E28M	**Babbage River**	**43.33**	**329**	P		**P**	**06 18 08.6**	**+0.3**
H31M	**Peel River**	**43.63**	**324**	P		**P**	**06 18 11.0**	**+0.3**
H31M				IAmb		IAmb	06 18 12.8	
	comp=Z,16nm,1.2s							
C27K	**Jago River**	**43.75**	**332**	P		**P**	**06 18 12.8**	**+1.1**
BELG	**Belogornoye**	**43.96**	**61**	LR		LR	06 35 04.9	
	comp=Z,324nm,21.3s,baz=278,slow=34							
F28M	**Old Crow**	**44.09**	**328**			**P**	**06 18 14.4**	**0.0**
E27K	**Coleen River**	**44.18**	**329**			**P**	**06 18 15.5**	**+0.3**
E27K				IAmb		IAmb	06 18 26.3	
	comp=Z,11nm,1.2s							
Y45A	**Yeager Farm, C**	**44.42**	**263**	P		**P**	**06 18 18.0**	**+0.5**
TAM	**Tamanrasset**	**44.47**	**125**			**P**	**06 18 19.1**	**+1.0**
D25K	**Kavik River**	**44.64**	**332**	P		**P**	**06 18 18.8**	**0.0**
I30M	**Mount Dempster**	**44.65**	**324**			**P**	**06 18 19.2**	**+0.2**
I30M				IAmb		IAmb	06 18 19.5	
	comp=Z,6.3nm,1.1s							
WHAR	**Wooly Hollow**	**44.82**	**267**	P		**P**	**06 18 21.1**	**+0.5**
J30M	**Hart River**	**45.07**	**324**			**P**	**06 18 23.6**	**+1.2**
J30M				IAmb		IAmb	06 18 35.3	
	comp=Z,6.0nm,1.1s							
I29M	**Ogilvie Camp,**	**45.16**	**325**	P		**P**	**06 18 23.4**	**+0.5**
I29M				IAmb		IAmb	06 18 34.3	
	comp=Z,13nm,1.4s							
F26K	**Sheenjek River**	**45.22**	**330**	P		**P**	**06 18 24.3**	**+0.8**
BRTR	**Keskin Array B**	**45.47**	**83**	P		**P**	**06 18 26.3**	**+0.4**
	comp=Z,1.0nm,0.8s,baz=331,slow=5.4,SNR=5.1							
BRTR				LR		LR	06 38 31.3	
	comp=Z,109nm,19.5s,baz=299,slow=38							
	comp=Z,1.0nm,0.8s							
BRTR	**Keskin Array B**	**45.47**	**83**	P		**P**	**06 18 26.0**	**+0.2**
BMAR	**Burnt Mountain**	**45.52**	**330**	P		**P**	**06 18 26.4**	**+0.5**
BMAR				PcP		**PcP**	**06 20 05.3**	**+1.0**
F25K	**Christian Rive**	**45.69**	**330**	P		**P**	**06 18 27.6**	**+0.4**
TOLK	**Toolik Lake Re**	**45.93**	**333**	P		**P**	**06 18 29.5**	**+0.4**
TOLK				IAmb		IAmb	06 18 35.9	
	comp=Z,11nm,1.2s							
TOLK				PcP		**PcP**	**06 20 06.2**	**+0.5**
D23K	**Nanushuk River**	**45.95**	**334**	P		**P**	**06 18 29.9**	**+0.7**
D23K				IAmb		IAmb	06 18 31.9	
	comp=Z,5.7nm,0.9s							
D23K				PcP		**PcP**	**06 20 06.2**	**+0.6**
K29M	**Barlow Dome**	**45.95**	**323**	P		**P**	**06 18 30.4**	**+1.0**
K29M				IAmb		IAmb	06 18 47.0	
	comp=Z,9.8nm,1.5s							
I27K	**Kandik River**	**45.99**	**327**	P		**P**	**06 18 29.9**	**+0.4**
I27K				IAmb		IAmb	06 18 41.0	
	comp=Z,14nm,1.5s							
MIAR	**Mount Ida**	**46.07**	**267**	P		**P**	**06 18 31.3**	**+0.8**
MIAR				IAmb		IAmb	06 19 13.7	
	comp=Z,12nm,1.4s							
ARTI	**Arti**	**46.12**	**50**	LR		LR	06 36 42.3	
	comp=Z,185nm,18.3s,baz=310,slow=35							
ARTI	**Arti**	**46.12**	**50**	P		**P**	**06 18 30.9**	**+0.3**
NRIK	**Noril'sk**	**46.32**	**25**	LR		LR	06 38 09.4	
	comp=Z,83nm,18.4s,baz=322,slow=36							
FYU	**Fort Yukon**	**46.33**	**329**	P		**P**	**06 18 32.0**	**-0.1**
F24K	**Squaw Lake**	**46.34**	**331**	P		**P**	**06 18 33.0**	**+0.8**
F24K				IAmb		IAmb	06 18 33.5	
	comp=Z,5.5nm,1.2s							
DAWY	**Dawson**	**46.39**	**324**	P		**P**	**06 18 33.0**	**+0.2**
SJG	**San Juan**	**46.44**	**226**	LR		LR	06 38 16.5	
	comp=Z,71nm,18.2s,baz=80,slow=36							
D22K	**Ayikyak River**	**46.49**	**334**	P		**P**	**06 18 33.2**	**-0.2**
M30M	**Minto, Yukon**	**46.60**	**322**	P		**P**	**06 18 34.7**	**+0.3**
M30M				IAmb		IAmb	06 18 47.6	
	comp=Z,5.0nm,1.2s							
DLBC	**Dease Lake**	**47.02**	**314**	LR		LR	06 38 01.0	
	comp=Z,679nm,19.1s,baz=22,slow=36							
W35A	**Tecumseh**	**47.39**	**270**	P		**P**	**06 18 40.8**	**-0.1**
LDM	**Libby Dam**	**47.44**	**296**	P		**P**	**06 18 41.5**	**+0.4**
LDM				IAmb		IAmb	06 18 41.8	
	comp=Z,6.9nm,0.9s							
KBZ	**Khabaz**	**47.49**	**

comp=Z,7.8nm,1.2s
JCT Junction City 52.55 269 IAmb IAmb 06 19 30.0
comp=Z,6.8nm,0.8s
ANMO Albuquerque 52.69 278 LR LR 06 40 52.6
comp=Z,509nm,19.1s,baz=46,slow=35
HMU Henry Mountain 52.70 284 IAmb IAmb 06 19 43.4
comp=Z,6.2nm,1.1s
ASF Jabal al Asfar 52.86 87 LR LR 06 43 22.0
comp=Z,90nm,18.7s,baz=297,slow=38
BVAR Borovoye Array 53.39 47 P **P** **06 19 25.9 -0.1**
comp=Z,1.9nm,0.6s,baz=316,slow=6.2,SNR=6.5
comp=Z,1.9nm,0.6s
EIL Elat 53.76 91 LR LR 06 44 17.0
comp=Z,83nm,18.5s,baz=282,slow=38
TPB28 54.15 274 P **P** **06 19 32.8 +0.8**
TPB28 IAmb IAmb 06 19 35.6
comp=Z,6.3nm,1.5s
SAND Sanderson 54.21 271 **P** **06 19 32.4 0.0**
TPB01 Permian Basin 54.33 273 IAmb IAmb 06 19 37.6
comp=Z,9.0nm,1.3s
MDP Montagnes des 54.58 204 LR LR 06 37 01.2
comp=Z,124nm,18.6s,baz=71,slow=30
MOD Modoc Plateau 54.60 294 IAmb IAmb 06 20 09.7
comp=Z,3.1nm,0.6s
DBIC Dimbokro 55.31 145 P **P** **06 19 38.9 -1.4**
comp=Z,3.5nm,0.9s,baz=353,slow=9.9,SNR=4.2
DBIC LR LR 06 40 35.9
comp=Z,218nm,19.2s,baz=324,slow=33
comp=Z,3.5nm,0.9s
DBIC Dimbokro 55.31 145 P **P** **06 19 39.4 -0.9**
KDAK Kodiak Island 55.33 326 LR LR 06 45 27.8
comp=Z,105nm,19.4s,baz=59,slow=38
TXAR Lajitas Array 55.52 271 P **P** **06 19 41.6 -0.4**
TXAR LR LR 06 42 37.8
comp=Z,152nm,19.0s,baz=58,slow=35
comp=Z,0.6nm,0.8s
TXAR Lajitas Array 55.52 271 P **P** **06 19 41.8 -0.1**
KVN Kaiserville 55.65 290 **P** **06 19 42.5 -0.4**
KVN IAmb IAmb 06 19 44.9
comp=Z,4.4nm,0.8s
PAHR Pah Rah Range 55.80 291 P **P** **06 19 44.3 +0.4**
PAHR IAmb IAmb 06 19 59.0
comp=Z,5.8nm,1.1s
YBH Yreka Blue Hor 55.91 295 LR LR 06 42 26.6
comp=Z,275nm,21.1s,baz=38,slow=35
NVAR Mina Array Bea 56.23 290 P **P** **06 19 47.0 -0.1**
comp=Z,1.1nm,0.7s,baz=60,slow=6.9,SNR=8.3
NVAR LR LR 06 43 21.2
comp=Z,352nm,18.2s,baz=40,slow=36
comp=Z,1.1nm,0.7s
NVAR Mina Array Bea 56.23 290 P **P** **06 19 46.7 -0.4**
SDV Santo Domingo 56.59 226 LR LR 06 43 12.6
comp=Z,33nm,18.9s,baz=39,slow=35
GWY Greenwater Val 57.11 287 IAmb IAmb 06 19 55.6
comp=Z,6.3nm,1.2s
ZALV Zalesovo Beam 57.92 38 P **P** **06 19 57.9 -0.5**
comp=Z,0.4nm,0.5s,baz=323,slow=4.5,SNR=2.4
ZALV LR LR 06 44 52.1
comp=Z,64nm,18.2s,baz=335,slow=36
comp=Z,0.4nm,0.5s
ZALV Zalesovo Beam 57.92 38 P **P** **06 19 58.2 -0.3**
CCCA Chr Cany lake 57.98 287 P **P** **06 20 00.1 +0.9**
KURK Kurchatov 58.37 44 P **P** **06 20 01.3 -0.3**
KURK IAmb IAmb 06 20 02.7
comp=Z,3.0nm,0.8s
KURBB Kurchatov Arra 58.41 44 P **P** **06 20 01.8 -0.2**
comp=Z,3.0nm,0.7s,baz=324,slow=7.1,SNR=20
comp=Z,3.0nm,0.7s
PFO Pinyon Flats O 58.99 285 LR LR 06 45 07.2
comp=Z,224nm,18.6s,baz=62,slow=36
YAK Yakutsk 59.96 9 LR LR 06 45 52.0
comp=Z,60nm,19.0s,baz=356,slow=36
CMIG Matias Romero 60.75 255 LR LR 06 46 46.7
comp=Z,117nm,19.8s,baz=1,slow=36
JTS Las Juntas de 61.58 242 LR LR 06 47 25.9
comp=Z,93nm,18.0s,baz=27,slow=36
ROSC El Rosal 61.74 228 P **P** **06 20 25.3 -0.4**
comp=Z,6.9nm,0.6s,baz=62,slow=5.7,SNR=6.7
ROSC LR LR 06 42 46.9
comp=Z,72nm,21.6s,baz=132,slow=32
comp=Z,6.9nm,0.6s
ROSC El Rosal 61.74 228 **P** **06 20 26.9 +1.2**
MK31 Makanchi Array 62.98 44 P **P** **06 20 33.2 0.0**
MKAR Makanchi Array 62.98 44 P **P** **06 20 33.0 -0.2**
comp=Z,1.8nm,0.6s,baz=334,slow=5.2,SNR=16
MKAR LR LR 06 47 25.5
comp=Z,56nm,18.2s,baz=308,slow=36
comp=Z,1.8nm,0.6s
MA2 Magadan 63.15 358 LR LR 06 47 07.3
comp=Z,56nm,20.0s,baz=258,slow=35
LPIG La Paz 63.26 273 LR LR 06 45 42.2
comp=Z,79nm,18.3s,baz=63,slow=34
AAK Ala-Archa 63.30 52 LR LR 06 47 17.0
comp=Z,112nm,19.7s,baz=319,slow=35
ARSB Arslanbob 63.72 54 P **P** **06 20 39.2 +0.8**
KSH2 Kashi 66.63 53 P **P** **06 20 58.8 +1.5**
KSH2 pmax pmax
comp=Z,9.0nm,0.9s
WMQ Urumqi 67.51 42 *eP* **P** **06 21 04.9 +2.2**
WMQ pP pwP 06 21 10.1 +0.6
WMQ PcP **PcP** **06 21 31.5 +1.6**
WMQ PP **PP** **06 23 31.9 +1.0**
WMQ S **S** **06 29 51.7 -6.5**
WMQ pmax pmax
comp=Z,16nm,0.9s
WMQ LR LR
comp=Z,68nm,23.3s
SHEM Shemya Is, Ala 67.85 343 LR LR 06 50 44.3
comp=Z,43nm,21.3s,baz=46,slow=36
H10S3 ASCENSION HYDR 67.97 160 T T 07 34 42.4
baz=230,slow=74,SNR=26
H10S2 ASCENSION HYDR 67.98 160 T T 07 34 40.0
baz=350,slow=74,SNR=30
UOSS Minazif 68.87 77 P **P** **06 21 11.4 +0.1**
SONM Songino Array 69.68 28 P **P** **06 21 16.6 +0.4**
comp=Z,2.4nm,1.0s,baz=320,slow=5.1,SNR=7.8
SONM LR LR 06 52 43.8
comp=Z,31nm,18.8s,baz=336,slow=37
comp=Z,2.4nm,1.0s
SONM Songino Array 69.68 28 P **P** **06 21 16.4 +0.2**
SONM IAmb IAmb 06 21 18.2
comp=Z,3.6nm,1.1s
ULN Ulaanbaatar 69.82 27 P **P** **06 21 17.6 +0.5**
ULN IAmb IAmb 06 21 28.2
comp=Z,8.1nm,1.3s
KLR Kul'dur 72.81 10 LR LR 06 52 05.1
comp=Z,53nm,19.4s,baz=322,slow=35
BDFB Brasilia 74.01 195 P **P** **06 21 41.9 -0.5**
BDFB LR LR 06 49 42.3
comp=Z,50nm,21.8s,baz=293,slow=32
comp=Z,3.0nm,0.7s
BDFB Brasilia 74.01 195 P **P** **06 21 42.2 -0.2**
BDFB IAmb IAmb 06 21 42.6
comp=Z,4.0nm,0.9s
ATAH Atahualpa 74.27 227 LR LR 06 56 58.7
comp=Z,35nm,18.5s,baz=15,slow=38
GTA2 Gaotai 75.47 36 *eP* **P** **06 21 52.0 +1.2**
GTA2 pP sP 06 21 56.0 -0.8
GTA2 pmax pmax
comp=Z,5.0nm,1.0s
MBAR Mbarara 76.71 113 LR LR 06 56 47.0
comp=Z,225nm,18.1s,baz=256,slow=36
HHC Hu-ho-hao-te 77.52 27 *eP* **P** **06 22 01.1 -1.2**
HHC pmax pmax
comp=Z,10.0nm,0.6s
LZH Lanzhou 79.86 34 *eP* **P** **06 22 13.4 -2.0**
LZH sP pwP 06 22 21.6 -0.4
LZH pmax pmax
comp=Z,55nm,1.2s
EVN Everest 81.01 51 P **P** **06 22 21.6 -0.7**
EVN IAmb IAmb 06 22 40.5
comp=Z,7.0nm,1.5s
PB16 IPOC Station P 81.51 215 P **P** **06 22 24.9 +0.2**
GO01 Chusmiza 82.67 214 P **P** **06 22 30.5 -0.2**
GO01 IAmb IAmb 06 22 31.2
comp=Z,4.0nm,0.8s
PB11 IPOC Station P 82.90 215 P **P** **06 22 31.1 -0.3**
PB08 IPOC Station P 83.10 214 P **P** **06 22 32.5 -0.3**
KSRS Korea Array 83.97 15 P **P** **06 22 36.5 -0.2**
comp=Z,2.3nm,0.9s,baz=0.0,slow=4.0,SNR=3.6
KSRS LR LR 07 00 01.0
comp=Z,17nm,21.6s,baz=5.0,slow=36
comp=Z,2.3nm,0.9s
KSAR Wonju Array Be 83.97 15 P **P** **06 22 36.2 -0.5**
PB07 IPOC Station P 84.82 214 P **P** **06 22 41.8 +0.5**

CPUP Villa Florida 86.06 202 P **P** **06 22 45.6 -1.5**
comp=Z,1.3nm,0.7s,baz=9.0,slow=6.2,SNR=7.2
comp=Z,1.3nm,0.7s
CPUP Villa Florida 86.06 202 P **P** **06 22 46.1 -1.0**
NJ2 Nanjing 87.61 24 *eP* **P** **06 22 54.3 -0.6**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
BRDH Bariadhala 87.68 50 LR LR 07 05 24.3
comp=Z,99nm,18.6s,baz=271,slow=38
LBTB Lobatse 95.70 129 LR LR 07 05 37.3
comp=Z,144nm,19.6s,baz=262,slow=35
PALK Pallekele 96.23 66 LR LR 07 11 15.4
comp=Z,44nm,18.5s,baz=310,slow=38
BOSA Boshof 98.74 131 LR LR 07 07 01.1
comp=Z,85nm,19.1s,baz=251,slow=35
TAOE Nuku Hiva Isla 106.63 280 *e*LR LR 06 59 34.5
comp=Z,166nm,24.3s
PPT2 Papeete2 118.90 283 *e*LR LR 07 05 10.0
PPT2 comp=Z,187nm,24.8s *e*LR LR 07 05 11.8
comp=Z,128nm,23.0s
ASAR Alice Springs 144.81 21 PKP **PKPab** **06 29 42.0 -0.5**
comp=Z,1.9nm,0.7s,baz=345,slow=2.7,SNR=20
ASAR Alice Springs 144.81 21 **PKPab** **06 29 41.7 -0.7**
QSPA South Pole Qui 147.48 180 PKPbc **PKPbc** **06 29 48.2 -1.1**
comp=Z,4.2nm,0.9s,baz=174,slow=1.5,SNR=8.8
QSPA South Pole Qui 147.48 180 **PKPdf** **06 29 47.1 +0.4**

*IDC **03** 06:14:52.1±0.7, 57.66N×33.11W, h0km, mb3.9/13, mbtmp3.9/15, ML3.9/2, Error ellipse: s-maj=18.9km s-min=16.2km az=166.0*
*NEIC **03** 06:14:53.8±1.3, 57.61N±0.08×33.1W±0.1, h10km±1km, mb4.4/54, Error ellipse: s-maj=13.9km s-min=11.9km az=153.0*
ISC 03 06:14:54.3±0.4, 57.62N±0.08×33.13W±0.06, h15km, n86, σ0.964/85, mb4.3/37, Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NRS	**Narsarsuaq**	**7.21**	**305**	Pn	**Pn**	**06 16 38.5**	**-0.5**
ANGG	**Ammassalik, Gr**	**8.31**	**347**	Pn	**Pn**	**06 16 54.0**	**0.0**
BORG	**Borgarnes**	**9.13**	**34**	Pn	**Pn**	**06 17 06.2**	**+1.0**
	1.0nm,0.3s,baz=287,slow=2.3,SNR=9.0						
	30nm,1.1s						
BORG				AML	AML		
BORG	**Borgarnes**	**9.13**	**34**		**Pn**	**06 17 04.6**	**-0.6**
SFJD	**Kangerlussuaq**	**12.38**	**327**	Pn	**Pn**	**06 17 49.3**	**-0.3**
SUMG	**Summit**	**15.18**	**354**	Pn	**Pn**	**06 18 27.8**	**-0.4**
ESK	**Eskdalemuir**	**16.63**	**85**	Pn	**Pn**	**06 18 45.7**	**-0.8**
ESK				IAmb	IAmb	06 19 20.8	
	comp=Z,41nm,1.3s						
EKA	**Eskdalemuir Ar**	**16.65**	**85**	Pn	**Pn**	**06 18 46.8**	**0.0**
	baz=283,slow=9.4						
	comp=Z,1.5nm,0.7s						
DRLN	**Deer Lake**	**16.68**	**250**	Pn	**Pn**	**06 18 46.9**	**-0.4**
SCHQ	**Schefferville**	**18.83**	**276**	P	**Pn**	**06 19 13.7**	**0.0**
SCHQ				IAmb	IAmb	06 19 18.0	
	comp=Z,30nm,1.3s						
LMN	**Caledonia Moun**	**22.65**	**252**	P	**P**	**06 19 54.6**	**0.0**
NC602	**NORSAR Array S**	**22.76**	**63**	P	**P**	**06 19 56.0**	**+0.4**
NC602				IAmb	IAmb	06 20 35.5	
	comp=Z,13nm,1.0s						
ESDC	**Sonseca Array**	**26.02**	**121**	P	**P**	**06 20 27.3**	**+0.7**
	comp=Z,1.1nm,0.8s,baz=316,slow=9.2,SNR=4.3						
	comp=Z,1.1nm,0.8s						
ESDC	**Sonseca Array**	**26.02**	**121**	P	**P**	**06 20 26.2**	**-0.4**
ARCES	**ARCESS Array B**	**27.44**	**41**	P	**P**	**06 20 38.4**	**-0.6**
	comp=Z,3.3nm,0.9s,baz=284,slow=4.9,SNR=3.6						
	comp=Z,3.3nm,0.9s						
ARCES	**ARCESS Array B**	**27.44**	**41**	P	**P**	**06 20 38.9**	**-0.1**
BLKN	**Baker Lake**	**30.05**	**309**	P	**P**	**06 21 02.9**	**+0.6**
BLKN				IAmb	IAmb	06 21 03.1	
	comp=Z,3.7nm,0.7s						
FDMO	**Fiordimonte**	**32.20**	**97**	P	**P**	**06 21 21.6**	**+0.2**
KEST	**Kesra**	**35.61**	**109**	P	**P**	**06 21 52.9**	**+1.7**
	comp=Z,2.2nm,0.8s,baz=36,slow=8.1,SNR=4.0						
	comp=Z,2.2nm,0.8s						
KEST	**Kesra**	**35.61**	**109**	P	**P**	**06 21 51.6**	**+0.4**
KEST				IAmb	IAmb	06 21 56.4	
	comp=Z,7.2nm,1.2s						
BURAR	**Bucovina Array**	**35.73**	**80**	P	**P**	**06 21 52.4**	**+0.2**
T45A	**Paducah**	**41.48**	**265**	P	**P**	**06 22 39.7**	**-0.7**
WVT	**Waverly**	**41.71**	**263**	P	**P**	**06 22 41.9**	**-0.3**
WVT				IAmb	IAmb	06 22 59.3	
	comp=Z,9.7nm,1.4s						
INK	**Inuvik**	**41.73**	**327**	P	**P**	**06 22 41.1**	**-0.8**
F31M	**Tsiigehtchic**	**42.32**	**326**	P	**P**	**06 22 46.4**	**-0.5**
F31M				IAmb	IAmb	06 23 19.8	
	comp=Z,14nm,1.5s						
G31M	**Satah River**	**42.81**	**325**	P	**P**	**06 22 50.6**	**-0.2**
G31M				IAmb	IAmb	06 23 10.5	
	comp=Z,12nm,1.4s						
F30M	**Barrier River**	**42.83**	**327**	P	**P**	**06 22 51.6**	**+0.6**
E28M	**Babbage River**	**43.26**	**329**	P	**P**	**06 22 53.9**	**-0.5**
G30M	**tAoh Zraii Nji**	**43.36**	**326**	P	**P**	**06 22 56.1**	**+0.7**
G30M				IAmb	IAmb	06 22 59.2	
	comp=Z,9.2nm,1.4s						
C27K	**Jago River**	**43.68**	**332**	P	**P**	**06 22 58.4**	**+0.6**
G29M	**Pine Creek**	**43.95**	**327**	P	**P**	**06 23 00.8**	**+0.8**
E27K	**Coleen River**	**44.10**	**329**	P	**P**	**06 23 02.2**	**+0.9**
E27K				IAmb	IAmb	06 23 04.4	
	comp=Z,7.3nm,1.4s						
H29M	**Whitestone**	**44.51**	**326**	P	**P**	**06 23 05.1**	**+0.5**
H29M				IAmb	IAmb	06 23 11.6	
	comp=Z,7.3nm,1.4s						
I30M	**Mount Dempster**	**44.57**	**324**	P	**P**	**06 23 05.1**	**-0.1**
I29M	**Ogilvie Camp,**	**45.08**	**325**	P	**P**	**06 23 10.3**	**+1.2**
BMAR	**Burnt Mountain**	**45.45**	**330**	P	**P**	**06 23 12.8**	**+0.8**
I28M	**Miner Creek**	**45.51**	**326**	P	**P**	**06 23 13.6**	**+0.9**
TOLK	**Toolik Lake Re**	**45.85**	**333**	P	**P**	**06 23 15.8**	**+0.6**
TOLK				IAmb	IAmb	06 23 18.9	
	comp=Z,6.2nm,1.2s						
D23K	**Nanushuk River**	**45.88**	**334**	P	**P**	**06 23 16.4**	**+1.0**
I27K	**Kandik River**	**45.91**	**327**	P	**P**	**06 23 16.1**	**+0.4**
I27K				IAmb	IAmb	06 23 29.1	
	comp=Z,5.8nm,1.3s						
ARTI	**Arti**	**46.16**	**50**	P	**P**	**06 23 17.6**	**-0.2**
DAWY	**Dawson**	**46.31**	**324**	P	**P**	**06 23 20.1**	**+1.2**
DAWY				IAmb	IAmb	06 23 26.0	
	comp=Z,7.5nm,1.4s						
OK048	**Pawnee Station**	**46.39**	**271**	P	**P**	**06 23 19.0**	**-0.8**
D22K	**Ayikyak River**	**46.42**	**334**	P	**P**	**06 23 20.4**	**+0.7**
D22K				IAmb	IAmb	06 23 59.4	
	comp=Z,10nm,1.3s						
G24K	**Hadweenzic Riv**	**46.76**	**330**	P	**P**	**06 23 21.2**	**-1.1**
G24K				IAmb	IAmb	06 23 47.7	
	comp=Z,3.9nm,1.2s						
E21K	**Killik River**	**47.06**	**334**	P	**P**	**06 23 25.8**	**+1.1**
E21K				IAmb	IAmb	06 23 55.2	
	comp=Z,9.2nm,1.4s						
YNE	**Yellowstone No**	**47.10**	**289**	P	**P**	**06 23 26.2**	**+0.6**
YNE				IAmb	IAmb	06 24 06.8	
	comp=Z,4.8nm,1.4s						
H24K	**Noodor Dome**	**47.51**	**330**	P	**P**	**06 23 29.3**	**+1.0**
H24K				IAmb	IAmb	06 23 32.0	
	comp=Z,4.8nm,1.3s						
SCRK	**Sand Creek**	**47.78**	**326**	P	**P**	**06 23 30.4**	**-0.1**
SCRK				IAmb	IAmb	06 23 37.1	
	comp=Z,5.3nm,1.2s						
D19K	**Kuna River**	**47.96**	**336**	P	**P**	**06 23 32.1**	**+0.4**
H23K	**Yukon River**	**47.97**	**330**	P	**P**	**06 23 32.2**	**+0.4**
H23K				IAmb	IAmb	06 24 01.6	
	comp=Z,5.5nm,1.4s						
IL31		**48.04**	**328**	P	**P**	**06 23 33.1**	**+0.9**
IL31				PcP	**PcP**	**06 25 00.2**	**+0.4**
ILAR	**Eielson Array**	**48.04**	**328**	P	**P**	**06 23 33.1**	**+0.9**
	comp=Z,1.0nm,0.8s,baz=34,slow=6.0,SNR=9.8						
	comp=Z,1.0nm,0.8s						
ILAR	**Eielson Array**	**48.04**	**328**	P	**P**	**06 23 32.7**	**+0.4**
ILAR				PcP	**PcP**	**06 24 59.9**	**0.0**
PDAR	**Pinedale Array**	**48.45**	**287**	P	**P**	**06 23 36.0**	**-0.1**
	comp=Z,0.5nm,0.6s,baz=75,slow=6.6,SNR=5.3						
	comp=Z,0.5nm,0.6s						
PDAR	**Pinedale Array**	**48.45**	**287**	P	**P**	**06 23 36.4**	**+0.3**
E19K	**Redstone River**	**48.60**	**335**	P	**P**	**06 23 37.4**	**+0.8**
E19K				IAmb	IAmb	06 23 40.0	
	comp=Z,3.3nm,0.8s						
O29M	**Mount Kennedy**	**48.73**	**320**	P	**P**	**06 23 37.9**	**+0.1**
MLY	**Manley**	**48.91**	**330**	P	**P**	**06 23 40.0**	**+1.0**
MLY				IAmb	IAmb	06 23 40.9	
	comp=Z,3.4nm,1.1s						
TORD	**Torodi Ar. Bea**	**51.62**	**135**	P	**P**	**06 24 00.2**	**+0.1**
	comp=Z,1.4nm,1.0s,baz=315,slow=8.3,SNR=4.3						
	comp=Z,1.4nm,1.0s						

AB31 Akbulak array 51.84 56 P **P** **06 24 00.9 -0.4**
BVAR Borovoye Array 53.44 47 P **P** **06 24 12.9 -0.2**
comp=Z,1.9nm,0.8s,baz=317,slow=6.1,SNR=3.8
comp=Z,1.9nm,0.8s
TXAR Lajitas Array 55.43 271 P **P** **06 24 28.5 +0.4**
comp=Z,0.5nm,0.9s,baz=28,slow=5.7,SNR=4.0
comp=Z,0.5nm,0.9s
KVN Kaiserville 55.56 290 P **P** **06 24 30.0 +1.1**
KVN IAmb IAmb 06 24 32.3
comp=Z,3.5nm,1.0s
NVAR Mina Array Bea 56.13 290 P **P** **06 24 33.5 +0.4**
comp=Z,0.4nm,0.5s,baz=39,slow=5.6,SNR=3.9
comp=Z,0.4nm,0.5s
NVAR Mina Array Bea 56.13 290 P **P** **06 24 32.6 -0.5**
O02D Mt. Diablo Mer 57.04 294 P **P** **06 24 40.2 +0.8**
O02D IAmb IAmb 06 24 47.8
comp=Z,3.8nm,1.2s
KURBB Kurchatov Arra 58.45 44 P **P** **06 24 48.1 -0.9**
comp=Z,1.4nm,0.7s,baz=321,slow=7.1,SNR=8.5
comp=Z,1.4nm,0.7s
MKAR Makanchi Array 63.02 44 P **P** **06 25 19.6 -0.6**
comp=Z,1.1nm,0.6s,baz=329,slow=6.1,SNR=12
comp=Z,1.1nm,0.6s
MKAR Makanchi Array 63.02 44 P **P** **06 25 20.2 0.0**
H10S3 ASCENSION HYDR 68.04 160 T T 07 39 30.8
baz=350,slow=74,SNR=11
H10S2 ASCENSION HYDR 68.05 160 T T 07 39 37.0
baz=230,slow=74,SNR=12
SONM Songino Array 69.69 28 P **P** **06 26 02.7 -0.4**
comp=Z,1.1nm,0.8s,baz=340,slow=8.3,SNR=4.8
comp=Z,1.1nm,0.8s
SONM Songino Array 69.69 28 P **P** **06 26 03.0 -0.1**
VILB Vilhena 73.77 208 P **P** **06 26 27.8 +0.1**
VILB IAmb IAmb 06 26 28.6
comp=Z,4.0nm,0.9s
BDFB Brasilia 74.02 195 P **P** **06 26 29.3 0.0**
comp=Z,2.0nm,0.5s,baz=43,slow=6.2,SNR=5.4
comp=Z,2.0nm,0.5s
BDFB Brasilia 74.02 195 P **P** **06 26 29.8 +0.6**
BJT Baijiatuan 79.37 24 P **P** **06 26 59.1 -0.1**
GO01 Chusmiza 82.65 214 P **P** **06 27 16.9 -0.4**
GO01 IAmb IAmb 06 27 23.6
comp=Z,5.5nm,1.4s
PB11 IPOC Station P 82.88 214 P **P** **06 27 17.9 -0.2**
CPUP Villa Florida 86.06 202 P **P** **06 27 33.1 -0.7**
CPUP IAmb IAmb 06 27 55.9
comp=Z,3.4nm,1.3s
AS31 Alice Springs 144.81 21 PKPdf **PKPdf** **06 34 29.5 -0.8**
ASAR Alice Springs 144.81 21 PKP PKPbc 06 34 29.0 -0.3
comp=Z,1.6nm,0.6s,baz=338,slow=2.5,SNR=16
ASAR Alice Springs 144.81 21 **PKPab** **06 34 28.8 -0.4**
QSPA South Pole Qui 147.52 180 PKPbc **PKPbc** **06 34 35.6 -0.6**
comp=Z,3.1nm,0.8s,baz=193,slow=2.7,SNR=4.9
QSPA South Pole Qui 147.52 180 **PKPdf** **06 34 33.8 +0.3**

*AFAD **03** 06:17:54.4, 37.85N×26.94E, h7km±1km, ML2.8*
*ISK **03** 06:17:54.5, 37.87N×26.98E, h9km, ML2.8/24*
ISC 03 06:17:54.8±0.9, 37.86N±0.02×26.96E±0.03, h13km±7km, n37, σ0.941/54, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.20**	**342**	P	**Pg**	**06 17 59.0**	**-0.3**
DGB				IAML		06 18 02.0	
	comp=N,1μm,0.1s						
DGB				S	**Sg**	**06 18 02.1**	**-0.3**
DGB				IAML		06 18 04.0	
	comp=E,1μm,0.2s						
GMLD	**Gumuldur**	**0.22**	**350**	Pg	**Pg**	**06 17 59.6**	**-0.1**
GMLD				Sg	**Sg**	**06 18 03.2**	**+0.2**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**89**	Pg	**Pg**	**06 17 59.9**	**-0.4**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**126**	P	**Pg**	**06 18 00.4**	**-0.1**
GCAM				S	**Sg**	**06 18 04.8**	**+0.6**
GCAM				IAML		06 18 05.0	
	comp=N,2μm,0.5s						
GCAM				IAML		06 18 05.0	
	comp=E,2μm,0.3s						
GCAM	**G?zelcaml?**	**0.27**	**126**	Pg	**Pg**	**06 18 00.3**	**-0.1**
GCAM				Sg	**Sg**	**06 18 04.6**	**+0.4**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**356**	P	**Pg**	**06 18 02.1**	**-0.2**
BEYE				S	**Sg**	**06 18 07.3**	**-0.1**
BEYE				IAML		06 18 08.0	
	comp=E,949nm,0.2s						
BEYE				IAML		06 18 10.0	
	comp=N,855nm,0.2s						
DDIM	**Aydin, Didim**	**0.46**	**151**	P	**Pg**	**06 18 03.4**	**-0.5**
DDIM				S	**Sb**	**06 18 10.6**	**-0.8**
DDIM				IAML		06 18 12.0	
	comp=N,623nm,0.2s						
DDIM				IAML		06 18 18.0	
	comp=E,483nm,0.8s						
ZEYE	**Izmir, Urla-Ze**	**0.53**	**316**	P	**Pg**	**06 18 04.5**	**-0.7**
ZEYE				IAML		06 18 12.0	
	comp=N,1μm,0.2s						
ZEYE				IAML		06 18 12.0	
	comp=E,2μm,0.2s						
ZEYE				S	**Sg**	**06 18 12.5**	**+0.3**
DUVT	**Torbali**	**0.53**	**47**	P	**Pg**	**06 18 05.0**	**-0.2**
DUVT				S	**Sg**	**06 18 12.1**	**-0.1**
DUVT				IAML		06 18 16.0	
	comp=E,522nm,0.3s						
DIDI	**Didim-Aydin**	**0.53**	**155**	Pg	**Pg**	**06 18 04.9**	**-0.3**
DIDI				AML	AML		
BLCB	**Balcova**	**0.53**	**7**	Pg	**Pg**	**06 18 04.9**	**-0.4**
BLCB				Sg	**Sg**	**06 18 12.5**	**+0.2**
BLCB				AML	AML		
CESE	**eme**	**0.70**	**312**	Pg	**Pb**	**06 18 08.9**	**-0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**83**	Pg	**Pg**	**06 18 09.0**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**105**	P	**Pg**	**06 18 09.1**	**-0.4**
AYDN				S	**Sg**	**06 18 19.4**	**0.0**
AYDN				IAML		06 18 23.0	
	comp=N,424nm,0.6s						
AYDN				IAML		06 18 23.0	
	comp=E,506nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.78**	**161**	Pg	**Pg**	**06 18 09.6**	**-0.3**
YKAV				Sg	**Sb**	**06 18 21.1**	**+0.6**
YKAV				AML	AML		
BAGT	**Foa**	**0.80**	**354**	P	**Pb**	**06 18 10.6**	**0.0**
BAGT				S	**Sb**	**06 18 21.5**	**+0.2**
BAGT				IAML		06 18 24.0	
	comp=N,840nm,0.6s						
BAGT				IAML		06 18 24.0	
	comp=E,376nm,0.7s						
KRBN	**Karaburun**	**0.80**	**336**	Pg	**Pb**	**06 18 10.7**	**+0.1**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.83**	**70**	P	**Pb**	**06 18 11.3**	**+0.3**
IZMR				S	**Sg**	**06 18 21.2**	**-0.5**
BODT	**Bodrum**	**0.84**	**161**	Pg	**Pg**	**06 18 10.9**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**131**	Pg	**Pg**	**06 18 11.1**	**-0.3**
MLSB				AML	AML		
FOCM	**Foa**	**0.87**	**348**	Pg	**Pg**	**06 18 11.3**	**-0.4**
FOCM				AML	AML		
BDRM	**Kayabasi**	**0.88**	**154**	P	**Pb**	**06 18 11.7**	**-0.2**
BDRM				S	**Sb**	**06 18 23.6**	**+0.1**
BDRM				IAML		06 18 26.0	
	comp=E,256nm,0.7s						
BDRM				IAML		06 18 27.0	
	comp=N,203nm,0.3s						
CHOS	**Chios island**	**0.89**	**307**	Pg	**Pb**	**06 18 12.0**	**-0.2**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**332**	P	**Pg**	**06 18 11.6**	**-0.9**
KARB				S	**Sb**	**06 18 24.9**	**+0.3**
KARB				IAML		06 18 27.0	
	comp=N,402nm,0.5s						
KARB				IAML		06 18 27.0	
	comp=E,518nm,0.5s						
CAMT	**Merkez**	**0.93**	**17**	P	**Pb**	**06 18 13.0**	**+0.1**
CAMT				S	**Sb**	**06 18 26.2**	**+1.1**
CAMT				IAML		06 18 28.0	
	comp=E,698nm,0.6s						
CAMT				IAML		06 18 33.0	
	comp=N,514nm,0.8s						
NAZL	**Nazilli-Aydin**	**1.06**	**84**	Pg	**Pg**	**06 18 14.7**	**-0.5**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.11**	**5**	P	**Pg**	**06 18 15.7**	**-0.6**
ZEDA				S	**Sn**	**06 18 31.3**	**+0.1**
ZEDA				IAML		06 18 33.0	

	comp=E,259nm,0.4s							
ZEDA				IAML		06 18 34.0		
	comp=N,226nm,0.3s							
GOMA	**Golmarmara-Man**	**1.13**	**41**	Pn	**Pg**	**06 18 16.1**	**-0.6**
GOMA				AML	AML			
DKL	**Dikili**	**1.21**	**358**	Pn	**Pg**	**06 18 18.0**	**-0.2**
DKL				AML	AML			
AKS	**Akhisar**	**1.22**	**33**	Pn	**Pb**	**06 18 17.7**	**0.0**
AKS				AML	AML			
DAT	**Datca**	**1.23**	**156**	Pn	**Pb**	**06 18 17.6**	**-0.4**
DAT				AML	AML			
YER	**Yerkesik**	**1.27**	**124**	Pn	**Pn**	**06 18 18.4**	**0.0**
YER				AML	AML			
SOMA	**Soma-Manisa**	**1.37**	**19**	Pn	**Pg**	**06 18 20.9**	**-0.3**
SOMA				AML	AML			
APE	**Apeiranthos**	**1.39**	**236**	Pn	**Pg**	**06 18 21.8**	**+0.3**
APE				AML	AML			
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn	**Pb**	**06 18 21.1**	**-0.1**
GORD				AML	AML			
TURN	**Turunc**	**1.49**	**136**	Pn	**Pn**	**06 18 20.8**	**-0.4**
TURN				AML	AML			
DALY	**Dalyan (Mula)**	**1.70**	**127**	Pn	**Pn**	**06 18 24.9**	**+0.8**
DALY				AML	AML			

*IDC **03** 06:26:41.4±1.0,55.°15S×28.°68W,h0km,mb3.7/6, mbtmp3.7/7,ML4.3/1,MS3.8/2,Error ellipse: s-maj=36.3km s-min=20.2km az=67.0*
*NEIC **03** 06:26:42.5±1.8,55.°1S±0.°1×28.°8W±0.°2,h10km±1km, mb4.6/24,Error ellipse: s-maj=21.5km s-min=16.7km az=194.0*

ISC 03 06:26:42.4±0.6,55.°1S±0.°1×28.°8W±0.°1,h10km,n56, σ1§26/44,mb4.5/17,South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**4.55**	**277**			**Pn**	**06 27 50.8**	**-0.4**
VNA3	**Neumayer Olymp**	**18.22**	**160**	P		**P**	**06 31 01.4**	**+6.1**
SNAA	**Sanae**	**20.01**	**156**	P		**P**	**06 31 12.8**	**-2.0**
SNAA	**Sanae**	**20.01**	**156**	P		**P**	**06 31 13.3**	**-1.5**
	0.9nm,0.3s,baz=300,slow=12,SNR=5.0							
	1.4nm,0.4s							
SNAA				AML		AML		
SNAA	**Sanae**	**20.01**	**156**	P		**P**	**06 31 14.0**	**-0.9**
TROLL	**Troll, Antarti**	**21.53**	**154**	P		**P**	**06 31 30.0**	**-1.4**
	comp=Z,208nm,0.6s							
MG02	**Cerro Sombrero**	**23.70**	**259**	P		**P**	**06 31 53.3**	**-0.7**
MG03	**Isla Dawson**	**24.01**	**256**	P		**P**	**06 31 56.1**	**-0.9**
MG03				IAmb		IAmb	06 31 57.0	
	comp=Z,26nm,1.4s							
GO08	**Villa O'Higgin**	**27.51**	**266**	P		**P**	**06 32 29.2**	**+0.4**
GO08				IAmb		IAmb	06 32 45.7	
	comp=Z,8.3nm,1.1s							
PLCA	**Paso Flores**	**30.94**	**280**	P		**P**	**06 33 00.1**	**+0.8**
	comp=Z,1.0nm,0.8s,baz=156,slow=10.0,SNR=3.1							
	comp=Z,1.0nm,0.8s							
QSPA	**South Pole Qui**	**35.19**	**180**	P		**P**	**06 33 36.0**	**-0.2**
	comp=Z,0.7nm,0.5s,baz=220,slow=0.8,SNR=7.2							
	comp=Z,0.7nm,0.5s							
QSPA	**South Pole Qui**	**35.19**	**180**	P		**P**	**06 33 36.5**	**+0.2**
CPUP	**Villa Florida**	**35.48**	**312**	P		**P**	**06 33 39.8**	**+0.8**
	comp=Z,0.4nm,0.5s,baz=123,slow=9.5,SNR=6.7							
	comp=Z,0.4nm,0.5s							
CPUP	**Villa Florida**	**35.48**	**312**	P		**P**	**06 33 39.3**	**+0.3**
MT09	**Talagante**	**36.15**	**288**	P		**P**	**06 33 45.8**	**+1.0**
MT09				IAmb		IAmb	06 34 01.1	
	comp=Z,10nm,1.2s							
MT02	**Curacav**	**36.62**	**289**	P		**P**	**06 33 48.8**	**+0.1**
MT02				IAmb		IAmb	06 33 49.4	
	comp=Z,15nm,1.2s							
CO05	**La Serena**	**39.26**	**292**	P		**P**	**06 34 12.0**	**+1.1**
PB06	**IPOC Station P**	**44.27**	**300**	P		**P**	**06 34 51.3**	**-1.0**
PB06				IAmb		IAmb	06 35 02.5	
	comp=Z,6.6nm,0.8s							
PB05	**IPOC Station P**	**44.46**	**299**	P		**P**	**06 34 53.4**	**-0.4**
PB05				IAmb		IAmb	06 35 20.8	
	comp=Z,12nm,1.2s							
PB09	**IPOC Station P**	**44.87**	**301**	P		**P**	**06 34 57.3**	**+0.2**
PB09				IAmb		IAmb	06 35 12.4	
	comp=Z,18nm,1.3s							
PB03	**IPOC Station P**	**44.91**	**300**	P		**P**	**06 34 57.0**	**-0.4**
PB03				IAmb		IAmb	06 35 15.8	
	comp=Z,12nm,1.4s							
PB07	**IPOC Station P**	**45.25**	**301**	P		**P**	**06 34 59.3**	**-0.8**
PB02	**IPOC Station P**	**45.60**	**301**	P		**P**	**06 35 02.5**	**-0.2**
BOSA	**Boshof**	**46.63**	**78**	P		**P**	**06 35 10.6**	**-0.2**
BOSA				IAmb		IAmb	06 35 12.0	
	comp=Z,7.6nm,1.3s							
GO01	**Chusmiza**	**46.66**	**303**	P		**P**	**06 35 12.0**	**+0.4**
GO01				IAmb		IAmb	06 35 40.3	
	comp=Z,12nm,1.4s							
PB11	**IPOC Station P**	**46.80**	**302**	P		**P**	**06 35 12.0**	**-0.3**
H10S2	**ASCENSION HYDR**	**47.34**	**19**	T		T	07 26 29.6	
	baz=191,slow=74,SNR=16							
H10S3	**ASCENSION HYDR**	**47.34**	**19**	T		T	07 26 32.9	
	baz=29,slow=74,SNR=19							
VNDA	**Vanda**	**47.51**	**183**	P		**P**	**06 35 17.2**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=162,slow=5.3,SNR=6.5							
	comp=Z,0.4nm,0.6s							
VNDA	**Vanda**	**47.51**	**183**	P		**P**	**06 35 16.3**	**-0.6**
H10N1	**ASCENSION HYDR**	**48.46**	**19**	T		T	07 27 52.5	
	baz=190							
H10N3	**ASCENSION HYDR**	**48.46**	**19**	T		T	07 27 53.1	
	baz=190,slow=74,SNR=26							
H10N2	**ASCENSION HYDR**	**48.48**	**19**	T		T	07 27 53.1	
	baz=190,slow=74,SNR=17							
H04S2	**CROZET ISLANDS**	**48.78**	**116**	T		T	07 28 38.9	
	baz=231,slow=75,SNR=10							
H04S3	**CROZET ISLANDS**	**48.79**	**116**	T		T	07 28 41.7	
	baz=231,slow=75,SNR=8.9							
H04S1	**CROZET ISLANDS**	**48.80**	**116**	T		T	07 28 48.2	
	baz=231,slow=75,SNR=10							
LPAZ	**La Paz**	**49.07**	**306**	P		**P**	**06 35 32.2**	**+1.8**
	comp=Z,1.2nm,0.8s,baz=140,slow=7.9,SNR=3.8							
LPAZ				LR		LR	06 59 02.0	
	comp=Z,54nm,18.7s,baz=122,slow=40							
	comp=Z,1.2nm,0.8s							
LPAZ	**La Paz**	**49.07**	**306**	P		**P**	**06 35 29.1**	**-1.3**
LBTB	**Lobatse**	**49.61**	**76**	P		**P**	**06 35 33.0**	**-0.9**
LBTB				IAmb		IAmb	06 35 50.0	
	comp=Z,7.0nm,1.2s							
OTAV	**Otavalo**	**68.36**	**305**	P		**P**	**06 37 42.9**	**-1.6**
TORD	**Torodi Ar. Bea**	**72.66**	**31**	P		**P**	**06 38 11.0**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=205,slow=6.6,SNR=6.3							
	comp=Z,0.6nm,0.6s							
TORD	**Torodi Ar. Bea**	**72.66**	**31**	P		**P**	**06 38 10.3**	**+0.2**
TORD				IAmb		IAmb	06 38 11.8	
	comp=Z,6.4nm,0.8s							
PPT	**Papeete**	**92.04**	**235**	LR		LR	07 12 23.1	
	comp=Z,94nm,20.6s,baz=120,slow=30							
PCA	**Pinnacle**	**144.44**	**307**	PKPdf		PKPbc	06 46 16.7	+0.6
INK	**Inuvik**	**144.47**	**322**	PKPdf		PKPbc	06 46 16.1	+0.2
K29M	**Barlow Dose**	**144.61**	**314**	PKPdf		PKPbc	06 46 17.1	+0.4
L29M	**L29M**	**144.61**	**312**	PKPdf		**PKPdf**	**06 46 18.1**	**+0.3**
F30M	**Barrier River**	**145.09**	**320**	PKPbc		**PKPdf**	**06 46 19.0**	**+0.6**
YAH	**Yahtse**	**145.22**	**307**	PKPbc		**PKPab**	**06 46 19.8**	**+0.8**
DAWY	**Dawson**	**145.46**	**313**	PKPdf		**PKPab**	**06 46 19.9**	**+0.3**
H29M	**Whitestone**	**145.69**	**317**	PKPdf		**PKPdf**	**06 46 19.9**	**+0.4**
CRQM	**Cirque**	**146.01**	**307**	PKPdf		**PKPdf**	**06 46 19.9**	**-0.5**
I28M	**Miner Creek**	**146.09**	**316**	PKPdf		**PKPdf**	**06 46 20.6**	**+0.3**
BCAR	**Beaver Creek A**	**146.17**	**311**	PKPdf		**PKPdf**	**06 46 20.2**	**-0.2**
KAIM	**Kayak Island**	**146.31**	**305**	PKPdf		**PKPbc**	**06 46 21.6**	**-0.3**
ILAR	**Eielson Array**	**148.79**	**313**	PKPbc		**PKPbc**	**06 46 29.2**	**+0.7**
	comp=Z,1.0nm,0.7s,baz=108,slow=1.5,SNR=8.9							

*THE **03** 06:38:39.9,38.°N±1.°×2.°7E±.°,h10km±2km,M2.8/7, MLh2.8/7*
*AFAD **03** 06:38:39.4,37.°82N×26.°79E,h3km±1km,ML3.0*
*ISK **03** 06:38:39.7,37.°83N×26.°82E,h16km,ML3.0/15*
*ATH **03** 06:38:40.4,37.°81N×26.°66E,h9km±1km,ML2.6/7,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 03 06:38:39.9±0.8,37.°82N±0.°02×26.°79E±0.°02,h10km±6km, n64,σ0§61/107,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.07**	**250**	P		**Pg**	**06 38 42.0**	**-0.2**
KRL1				S		**Sg**	**06 38 43.7**	**-0.2**
KRL1				AML		AML		
DGB	**zmir**	**0.24**	**17**	P		**Pg**	**06 38 44.6**	**-0.3**
DGB				S		**Sg**	**06 38 47.6**	**-0.6**
GMLD	**Gumuldur**	**0.27**	**21**	Pg		**Pg**	**06 38 45.5**	**0.0**
GMLD				Sg		**Sg**	**06 38 50.1**	**+0.9**
GMLD				AML		AML		
GCAM	**G?zelcami?**	**0.37**	**109**	P		**Pg**	**06 38 47.2**	**0.0**
GCAM				IAML			06 38 53.0	
	comp=E,3μm,0.2s							
GCAM				IAML			06 38 53.0	
	comp=N,3μm,0.3s							
GCAM				S		**Sg**	**06 38 53.1**	**+0.9**
GCAM	**G?zelcami?**	**0.37**	**109**	Pg		**Pg**	**06 38 47.2**	**0.0**
GCAM				Sg		**Sg**	**06 38 52.9**	**+0.8**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.39**	**84**	Pg		**Pg**	**06 38 47.8**	**+0.1**
KUSD				Sg		**Sg**	**06 38 53.5**	**+0.6**
KUSD				AML		AML		
BEYE	**izmir**	**0.42**	**15**	P		**Pg**	**06 38 48.0**	**-0.2**
BEYE				S		**Sg**	**06 38 54.3**	**+0.5**
BEYE				IAML			06 38 56.0	
	comp=E,793nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.48**	**331**	P		**Pg**	**06 38 49.0**	**-0.2**
ZEYE				S		**Sg**	**06 38 56.1**	**+0.6**
ZEYE				IAML			06 38 57.0	
	comp=E,1μm,0.2s							
ZEYE				IAML			06 38 57.0	
	comp=N,2μm,0.2s							
DDIM	**Aydin, Didim**	**0.51**	**135**	P		**Pg**	**06 38 50.0**	**+0.2**
DDIM				S		**Sb**	**06 38 57.9**	**-0.4**
DDIM				IAML			06 38 58.0	
	comp=N,1μm,0.6s							
DDIM				IAML			06 38 59.0	
	comp=E,1μm,0.6s							
DIDI	**Didim-Aydin**	**0.57**	**141**	Pg		**Pg**	**06 38 51.0**	**+0.1**
DIDI				Sg		**Sb**	**06 38 59.8**	**-0.2**
DIDI				AML		AML		
BLCB	**Balcova**	**0.60**	**19**	P		**Pg**	**06 38 51.4**	**-0.1**
BLCB	**Balcova**	**0.60**	**19**	Pg		**Pg**	**06 38 51.5**	**0.0**
BLCB				Sg		**Sg**	**06 39 00.1**	**+0.7**
BLCB				AML		AML		
CESE	**eme**	**0.64**	**323**	Pg		**Pb**	**06 38 52.9**	**-0.3**
CESE				AML		AML		
DUVT	**Torbali**	**0.65**	**52**	P		**Pg**	**06 38 52.1**	**-0.4**
DUVT				S		**Sg**	**06 39 00.4**	**-0.8**
DUVT				IAML			06 39 05.0	
	comp=E,948nm,0.3s							
KRBN	**Karaburun**	**0.80**	**346**	Pg		**Pg**	**06 38 55.4**	**+0.1**
KRBN				Sg		**Sb**	**06 39 07.3**	**+0.7**
KRBN				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**151**	Pg		**Pg**	**06 38 55.4**	**+0.1**
YKAV				Sg		**Sb**	**06 39 07.2**	**+0.6**
YKAV				AML		AML		
CHOS	**Chios island**	**0.81**	**314**	P		**Pg**	**06 38 55.3**	**-0.3**
CHOS				S		**Sb**	**06 39 07.8**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.81**	**314**	Pg		**Pg**	**06 38 55.3**	**-0.3**
CHOS				Sg		**Sb**	**06 39 07.9**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.81**	**314**	P		**Pg**	**06 38 55.1**	**-0.5**
CHOS				AML		AML		
BAGT	**Foa**	**0.83**	**3**	P		**Pg**	**06 38 56.0**	**0.0**
BAGT				S		**Sn**	**06 39 09.8**	**-0.2**
BAGT				IAML			06 39 10.0	
	comp=E,978nm,0.6s							
BAGT				IAML			06 39 11.0	
	comp=N,671nm,0.7s							
BODT	**Bodrum**	**0.86**	**151**	P		**Pg**	**06 38 56.4**	**-0.2**
BODT				S		**Sb**	**06 39 09.1**	**+0.6**
BODT				AML		AML		
BODT	**Bodrum**	**0.86**	**151**	Pg		**Pg**	**06 38 56.7**	**+0.2**
BODT				AML		AML		
KLNA	**Kalymnos**	**0.87**	**171**	P		**Pb**	**06 38 57.6**	**+0.5**
KLNA				S		**Sb**	**06 39 09.5**	**+0.7**
AYDN	**Tasoluk**	**0.88**	**100**	P		**Pg**	**06 38 55.6**	**-1.2**
AYDN				S		**Sg**	**06 39 08.5**	**+0.3**
AYDN				IAML			06 39 12.0	
	comp=N,302nm,0.5s							
AYDN				IAML			06 39 12.0	
	comp=E,325nm,0.3s							
AYDB	**Zeytinkoy-Aydi**	**0.88**	**81**	Pg		**Pg**	**06 38 56.8**	**-0.1**
AYDB				AML		AML		
FOCM	**Foa**	**0.89**	**357**	Pg		**Pg**	**06 38 56.9**	**-0.2**
FOCM				AML		AML		
KARB	**zmir-Karabur**	**0.89**	**340**	P		**Pg**	**06 38 56.4**	**-0.8**
KARB				S		**Sb**	**06 39 09.6**	**+0.2**
KARB				IAML			06 39 11.0	
	comp=E,536nm,0.5s							
KARB				IAML			06 39 12.0	
	comp=N,702nm,0.5s							
EAG2	**Marmaro, Chios**	**0.90**	**323**	P		**Pg**	**06 38 56.9**	**-0.4**
BDRM	**Kayabasi**	**0.92**	**145**	P		**Pg**	**06 38 56.8**	**-0.8**
BDRM				S		**Sb**	**06 39 10.0**	**0.0**
BDRM				IAML			06 39 13.0	
	comp=E,431nm,0.6s							
BDRM				IAML			06 39 13.0	
	comp=N,500nm,0.6s							
MLSB	**Milas**	**0.94**	**124**	Pg		**Pg**	**06 38 58.1**	**+0.1**
MLSB				AML		AML		
IZMR	**zmir-demi**	**0.97**	**71**	P		**Pg**	**06 38 57.8**	**-0.7**
IZMR				S		**Sg**	**06 39 09.8**	**-1.4**
CAMT	**Merkez**	**1.01**	**24**	P		**Pg**	**06 38 59.5**	**+0.1**
CAMT				S		**Sb**	**06 39 13.8**	**+0.9**
CAMT				IAML			06 39 16.0	
	comp=E,2μm,0.3s							
CAMT				IAML			06 39 16.0	
	comp=N,2μm,0.3s							
ZEDA	**zmir-Bergama**	**1.17**	**11**	P		**Pb**	**06 39 01.5**	**-0.6**
ZEDA				S		**Sg**	**06 39 17.7**	**+0.2**
ZEDA				IAML			06 39 21.0	
	comp=E,297nm,0.6s							
ZEDA				IAML			06 39 22.0	
	comp=N,434nm,0.3s							
ESEN	**Aydn-Nazilli**	**1.23**	**91**	P		**Pn**	**06 39 02.1**	**-1.0**
ESEN				S		**Sn**	**06 39 21.1**	**+1.3**
DKL	**Dikili**	**1.25**	**4**	Pn		**Pn**	**06 39 03.0**	**-0.4**
DKL				AML		AML		
DKL	**Dikili**	**1.25**	**4**	P		**Pg**	**06 39 04.4**	**+0.4**
GOMA	**Golmarmara-Man**	**1.25**	**45**	Pn		**Pn**	**06 39 02.9**	**-0.5**
GOMA				AML		AML		
YAZI	**Mula-Dat§a-**	**1.25**	**155**	P		**Pn**	**06 39 02.0**	**-1.4**
YAZI				S		**Sn**	**06 39 20.5**	**+0.2**
APE	**Apeiranthos**	**1.25**	**234**	P		**Pn**	**06 39 02.6**	**-0.9**
APE				S		**Sb**	**06 39 19.4**	**-0.5**
APE				AML		AML		
APE	**Apeiranthos**	**1.25**	**234**	P		**Pn**	**06 39 02.4**	**-1.1**
APE				AML		AML		
DAT	**Datca**	**1.26**	**150**	P		**Pn**	**06 39 03.2**	**-0.4**
DAT				S		**Sb**	**06 39 20.1**	**+0.1**
DAT				AML		AML		
TNSA	**Tinos**	**1.32**	**258**	P		**Pn**	**06 39 03.5**	**-0.9**
TNSA				AML		AML		
KIRA	**zmir-Kiraz**	**1.32**	**73**	P		**Pb**	**06 39 05.1**	**+0.2**
KIRA				S		**Sg**	**06 39 22.5**	**0.0**
AKHS	**Akhisar**	**1.33**	**37**	P		**Pb**	**06 39 04.9**	**0.0**
AKHS				S		**Sg**	**06 39 23.6**	**+1.0**
AKHS				IAML			06 39 28.0	
	comp=N,208nm,0.6s							
MULA	**Mugla, Merkez-**	**1.34**	**114**	P		**Pn**	**06 39 03.6**	**-1.1**
MULA				S		**Sb**	**06 39 22.1**	**-0.2**
KTTT	**Salihli**	**1.34**	**49**	P		**Pn**	**06 39 05.0**	**+0.3**
KTTT				S		**Sn**	**06 39 22.9**	**+0.3**
KTTT				IAML			06 39 25.0	
	comp=N,158nm,0.5s							
YER	**Yerkesik**	**1.37**	**120**	P		**Pn**	**06 39 05.0**	**-0.1**
YER				S		**Sb**	**06 39 23.2**	**0.0**
PRK	**Paraskevi**	**1.48**	**344**	P		**Pn**	**06 39 06.2**	**-0.3**
PRK				S		**Sn**	**06 39 26.2**	**+0.2**
PRK				AML		AML		
PRK	**Paraskevi**	**1.48**	**344**	P		**Pn**	**06 39 06.8**	**+0.2**
AYVA	**Ayvalik**	**1.49**	**357**	P		**Pb**	**06 39 07.6**	**0.0**
AYVA				S		**Sg**	**06 39 28.4**	**+0.6**
AYVA				IAML			06 39 31.0	
	comp=E,139nm,0.7s							
AYVA				IAML			06 39 31.0	
	comp=N,291nm,0.3s							
MANT	**Manisa**	**1.54**	**64**	P		**Pb**	**06 39 08.9**	**+0.2**
MANT				S		**Sn**	**06 39 28.0**	**+0.2**
MANT				IAML			06 39 30.0	
	comp=E,93nm,0.3s							
MANT				IAML			06 39 30.0	
	comp=N,99nm,0.4s							
TURN	**Turunc**	**1.56**	**132**	P		**Pn**	**06 39 06.9**	**-0.7**
HARTU	**Esme**	**1.67**	**71**	P		**Pn**	**06 39 08.7**	**-0.5**
STEP	**BALIKESIR_Sava**	**1.71**	**25**	P		**Pb**	**06 39 11.0**	**-0.5**
STEP				S		**Sg**	**06 39 35.4**	**+0.4**
STEP				IAML			06 39 39.0	
	comp=E,222nm,0.3s							
STEP				IAML			06 39 42.0	
	comp=N,199nm,0.6s							
THERA	**Ancient Thera,**	**1.79**	**216**	P		**Pn**	**06 39 11.7**	**+0.8**
THERA				AML		AML		
SNT5	**Nea Kammeni, S**	**1.80**	**219**	P		**Pb**	**06 39 13.6**	**+0.6**
KARY	**Karystos**	**1.88**	**277**	P		**Pn**	**06 39 11.6**	**-0.4**
KARY	**Karystos**	**1.88**	**277**	P		**Pn**	**06 39 11.8**	**-0.2**
DEMI	**Demirci**	**1.94**	**50**	P		**Pb**	**06 39 15.9**	**+0.5**
DEMI				S		**Sg**	**06 39 42.1**	**-0.3**
DEMI				IAML			06 39 47.0	
	comp=E,96nm,0.3s							
BALY	**Balya**	**2.02**	**18**	P		**Pb**	**06 39 15.9**	**-0.9**
BALY				S		**Sg**	**06 39 44.7**	**-0.2**
BALY				IAML			06 39 47.0	
	comp=E,168nm,0.6s							
BALY				IAML			06 39 50.0	
	comp=N,194nm,0.6s							
BKES	**Balkesir-Mer**	**2.11**	**25**	P		**Pg**	**06 39 19.4**	**-0.9**
BKES				S		**Sg**	**06 39 48.1**	**+0.4**
BKES				IAML			06 39 51.0	
	comp=N,78nm,0.5s							
BKES				IAML			06 39 55.0	
	comp=E,78nm,0.6s							
SIMV	**Simav**	**2.17**	**53**	P		**Pb**	**06 39 20.0**	**+0.7**
SIMV				S		**Sg**	**06 39 48.2**	**-1.6**
SIMV				IAML			06 39 54.0	
	comp=N,39nm,0.7s							
DURS	**Dursunbey**	**2.21**	**36**	P		**Pn**	**06 39 18.2**	**+1.5**
DURS				S		**Sg**	**06 39 50.0**	**-1.0**
DURS				IAML			06 39 57.0	
	comp=N,60nm,0.6s							
DURS				IAML			06 39 59.0	
	comp=E,76nm,0.3s							
DION	**Dionisos Attik**	**2.28**	**277**	P		**Pn**	**06 39 17.1**	**-0.4**
DION				AML		AML		

UCR 03 06:40:32.2±0.8,5.°11N×82.°95W,h0km±131km,MW3.5, Presumed earthquake,South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
SAJE	**San Jernim**	**4.24**	**353**	*eP*		Pn	06 41 38.3	0.0
RAZU	**San Marcos de**	**4.64**	**347**	*eP*		Pn	06 41 44.1	+0.4
RAZU				*eS*		Sn	06 42 40.3	+1.8
PITB	**Pirrs, San**	**4.64**	**347**	*eP*		Pn	06 41 44.2	+0.4
PICV	**PH. Pirrs**	**4.65**	**345**	*eP*		Pn	06 41 43.7	-0.1
ABE2	**San Pablo**	**4.69**	**347**	*eP*		Pn	06 41 44.7	+0.2
LCR2	**La Lucha 2**	**4.71**	**347**	*eP*		Pn	06 41 45.0	+0.2
REPA	**Paraso**	**4.77**	**349**	*eP*		Pn	06 41 45.9	+0.3
VERH	**Veragua Rainfo**	**4.79**	**357**	*eP*		Pn	06 41 46.1	+0.4
ACOS	**Acosta**	**4.80**	**346**	*eP*		Pn	06 41 45.9	-0.2
VTCV	**VTCV, Calle Va**	**4.90**	**351**	*eP*		Pn	06 41 48.0	+0.6
LUJA	**Lujan**	**4.91**	**347**	*eP*		Pn	06 41 47.6	+0.2
ABRB	**Las Abras (San**	**4.92**	**351**	*eP*		Pn	06 41 48.3	+0.6
VICA	**Volcano Irazu**	**4.92**	**350**	*eP*		Pn	06 41 48.4	+0.6
CVTV	**Tajo**	**4.92**	**351**	*eP*		Pn	06 41 48.4	+0.6
HDC	**Heredia**	**4.99**	**347**	*eP*		Pn	06 41 48.9	+0.3
VBV1	**V. Barva**	**5.10**	**347**	*eP*		Pn	06 41 50.3	+0.2
PILE	**Guapiles**	**5.14**	**351**	*eP*		Pn	06 41 51.5	+1.0
VARE2	**V. Arenal**	**5.59**	**342**	*eP*		Pn	06 41 58.1	+1.3
JUD3	**Juan Diaz 3**	**5.64**	**333**	*eP*		Pn	06 41 58.1	+0.7
CUI	**Cuipilapa**	**5.93**	**338**	*eP*		Pn	06 42 02.3	+0.9

*THE **03** 06:55:01.9,37.°N±1.°×2.°5E±.°,h7km±3km,M2.6/16, MLh2.6/16*

ATH 03 06:55:01.7,37.°18N×24.°77E,h16km±1km,ML2.6/19, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km,Southern Greece

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
MHLO	**Agia Marina, M**	**0.57**	**211**	P		Pb	06 55 13.2	-0.1
MHLO				S		Sb	06 55 21.4	+0.2
MHLO				AML		AML		
MHLO	**Agia Marina, M**	**0.57**	**211**	P		Pg	06 55 13.1	+0.2
MHLO				AML		AML		
APE	**Apeiranthos**	**0.62**	**100**	P		Pg	06 55 13.7	-0.2
APE				S		Sb	06 55 23.0	+0.2
APE				AML		AML		
APE	**Apeiranthos**	**0.62**	**100**	P		Pg	06 55 13.8	-0.1
APE				S		Sg	06 55 22.4	+0.2
APE				AML		AML		
CMBO	**Columbo, Santo**	**0.87**	**144**	P		Pn	06 55 19.0	-0.3
CMBO				S		Sg	06 55 30.9	+0.7
CMBO				AML		AML		
CMBO	**Columbo, Santo**	**0.87**	**144**	P		Pg	06 55 18.7	+0.1
CMBO				S		Sg	06 55 30.5	+0.4
SAP3	**Santorini-Thir**	**0.88**	**148**	P		Pb	06 55 18.5	0.0
SAP3				S		Sg	06 55 30.9	+0.7
SAP3				AML		AML		
SAP3	**Santorini-Thir**	**0.88**	**148**	P		Pb	06 55 18.6	+0.1
KARY	**Karystos**	**0.89**	**343**	P		Pb	06 55 18.3	-0.5
KARY				S		Sb	06 55 30.5	0.0
KARY				AML		AML		
KARY	**Karystos**	**0.89**	**343**	P		Pb	06 55 18.3	-0.5
KARY				S		Sb	06 55 30.6	+0.1
KARY				AML		AML		
SNT5	**Nea Kammeni, S**	**0.92**	**147**	P		Pb	06 55 19.2	-0.2
SNT5				S		Sn	06 55 33.7	+0.6
SNT5				AML		AML		
SNT5	**Nea Kammeni, S**	**0.92**	**147**	P		Pb	06 55 19.4	+0.1
THERA	**Ancient Thera,**	**0.99**	**145**	P		Pb	06 55 20

CHOS				AML	AML				
CHOS	**Chios island**	**1.58**	**40**	P	Pn	06 55 29.0	-0.2		
CHOS				AML	AML				
KTHA	**Kythira Island**	**1.65**	**237**	P	Pn	06 55 30.1	0.0		
KTHA	**Kythira Island**	**1.65**	**237**	P	Pn	06 55 30.1	0.0		
KTHA				AML	AML				
IDI	**Anoyia**	**1.89**	**177**	P	Pn	06 55 33.6	+0.1		

AFAD ***03*** *06:55:08.8, 37.66N×26.95E, h7km±2km, ML1.8*

ISK 03 06:55:10.7, 37.76N×27.01E, h6km, ML1.9/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.19**	**109**	Pg	Pg	06 55 14.9	+0.4
GCAM				Sg	Sg	06 55 18.3	+1.3
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**66**	Pg	Pg	06 55 15.6	+0.1
KUSD				Sg	Sg	06 55 19.6	+0.9
KUSD				AML	AML		
DGB	**zmir**	**0.30**	**341**	P	Pg	06 55 17.1	+0.5
DGB				S	Sg	06 55 21.1	+0.4
DGB				IAML		06 55 25.0	
	comp=E,82nm,0.2s						
DGB				IAML		06 55 28.0	
	comp=N,48nm,0.1s						
GMLD	**Gumuldur**	**0.32**	**347**	Pg	Pg	06 55 17.5	+0.5
GMLD				Sg	Sb	06 55 23.0	-1.2
GMLD				AML	AML		
BEYE	**zmir**	**0.47**	**352**	P	Pg	06 55 19.8	0.0
BEYE				S	Sb	06 55 27.9	-0.6
ZEYE	**Izmir, Urla-Ze**	**0.62**	**320**	P	Pg	06 55 21.6	-1.1
ZEYE				S	Sb	06 55 31.9	-0.9
ZEYE				IAML		06 55 33.0	
	comp=N,258nm,0.4s						
ZEYE				IAML		06 55 35.0	
	comp=E,84nm,0.3s						
BLCB	**Balcova**	**0.62**	**3**	Pg	Pg	06 55 22.9	+0.2
BLCB				Sg	Sb	06 55 32.2	-0.7
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.67**	**161**	Pg	Pg	06 55 23.8	+0.2
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**75**	Pg	Pb	06 55 25.3	-0.4
AYDB				Sg	Sb	06 55 35.6	-0.3
AYDB				AML	AML		
BODT	**Bodrum**	**0.74**	**161**	Pg	Pg	06 55 25.3	+0.4
BODT				Sg	Sb	06 55 36.4	+0.1
BODT				AML	AML		
MLSB	**Milas**	**0.77**	**127**	Pg	Pg	06 55 25.9	+0.4
MLSB				Sg	Sb	06 55 36.9	-0.3
MLSB				AML	AML		
KRBN	**Karaburun**	**0.90**	**337**	Pg	Pb	06 55 29.0	+0.3
KRBN				Sg	Sb	06 55 41.3	+0.3
KRBN				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**78**	Pg	Pg	06 55 30.8	+0.2
DAT	**Datca**	**1.13**	**156**	Pn	Pg	06 55 32.4	+0.1
DAT				AML	AML		
YER	**Yerkesik**	**1.19**	**121**	Pn	Pb	06 55 33.7	0.0
TURN	**Turunc**	**1.40**	**135**	Pn	Pg	06 55 37.4	0.0
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**16**	Pn	Pg	06 55 38.4	-0.1
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.47**	**38**	Pn	Pn	06 55 37.7	0.0

MDD ***03*** *06:59:03.4±1.3, 37.17N×13.62W, h0km, Mb4.4/5, M_mb3.9/5, Error ellipse: s-maj=10.5km s-min=8.5km az=33.0*

INMG ***03*** *06:59:06.4±1.3, 37.11N×13.93W, h20km, ML2.4, Error ellipse: s-maj=8.0km s-min=7.8km az=70.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Josephine*

CNRM ***03*** *06:59:15.2, 36.27N×12.74W, h20km*

ISC 03 06:58:59.1±3.2, 36.90N±0.06×13.6W±0.2, h10km, n41, σ2s73/61, 5C, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**3.82**	**85**	S	**Sn**	**07 00 44.0**	**+1.1**
PFVI	**Vila Bisbo**	**3.82**	**85**	*e*S	**Sn**	**07 00 44.7**	**+1.7**
PFVI				IAML		07 00 45.0	
PFVI				IAML		07 00 45.3	
PFVI				IAML		07 00 45.8	
PTEO	**Sao Teotonio**	**3.94**	**79**	*e*S	**Sn**	**07 00 46.6**	**+0.8**
PTEO				IAML		07 00 50.5	
PTEO				IAML		07 00 50.5	
PTEO				IAML		07 00 51.4	
MORF	**Marmelete**	**3.97**	**83**	*e*S	**Sn**	**07 00 47.3**	**+0.6**
PMAFR	**Mafra**	**3.98**	**58**	P	**Pn**	**07 00 02.5**	**+2.4**
PMAFR				S	**Sn**	**07 00 47.2**	**+0.4**
PMAFR	**Mafra**	**3.98**	**58**	*e*P	**Pn**	**07 00 03.1**	**+3.0**
PMAFR				*e*S	**Sn**	**07 00 45.3**	**-1.5**
PMAFR				IAML		07 00 48.5	
PMAFR				IAML		07 00 49.6	
PMAFR				IAML		07 00 50.0	
PLOUS	**Minas do Lousa**	**4.27**	**73**	*e*P	**Pn**	**07 00 07.8**	**+3.8**
PLOUS				*e*S	**Sn**	**07 00 54.9**	**+1.1**
PLOUS				IAML		07 00 56.8	
PLOUS				IAML		07 00 57.2	
PLOUS				IAML		07 00 57.8	
MESJ	**Messejana**	**4.38**	**76**	*e*S	**Sn**	**07 00 57.7**	**+0.9**
MESJ				IAML		07 01 00.2	
MESJ				IAML		07 01 02.4	
MESJ				IAML		07 01 04.4	
PCVE	**Castro Verde**	**4.49**	**79**	S	**Sn**	**07 00 59.4**	**-0.1**
PCVE	**Castro Verde**	**4.49**	**79**	*e*S	**Sn**	**07 01 00.3**	**+0.9**
PCVE				IAML		07 01 02.0	
PCVE				IAML		07 01 03.8	
PCVE				IAML		07 01 04.1	
PBDV	**Barranco-do-Ve**	**4.54**	**84**	P	**Pn**	**07 00 12.3**	**+4.4**
PBDV				S	**Sn**	**07 01 02.3**	**+1.6**
PBDV	**Barranco-do-Ve**	**4.54**	**84**	*e*S	**Sn**	**07 01 02.0**	**+1.3**
PBDV				IAML		07 01 05.3	
PBDV				IAML		07 01 05.4	
PBDV				IAML		07 01 06.0	
EVO	**Evora**	**4.71**	**68**	S	**Sn**	**07 01 04.4**	**-0.5**
EVO	**Evora**	**4.71**	**68**	*e*S	**Sn**	**07 01 04.8**	**-0.2**
EVO				IAML		07 01 06.0	
EVO				IAML		07 01 07.7	
EVO				IAML		07 01 09.8	
PVAQ	**Vaqueiros**	**4.72**	**82**	P	**Pb**	**07 00 18.0**	**-3.9**
PVAQ				S	**Sn**	**07 01 06.5**	**+1.4**
PVAQ	**Vaqueiros**	**4.72**	**82**	*e*P	Pn	07 00 15.5	+5.2
PVAQ				*e*S	**Sn**	**07 01 05.7**	**+0.6**
PVAQ				IAML		07 01 09.6	
PVAQ				IAML		07 01 10.3	
PVAQ				IAML		07 01 11.0	
PMTG	**Montargil**	**4.76**	**61**	*e*P	**Pn**	**07 00 13.6**	**+2.8**
PMTG				*e*S	**Sn**	**07 01 05.3**	**-0.8**
PMTG				IAML		07 01 06.3	
PMTG				IAML		07 01 07.5	
PMTG				IAML		07 01 12.7	
PARRA	**Arraiolos**	**4.79**	**65**	*e*P	**Pn**	**07 00 14.8**	**+3.5**
PARRA				*e*S	**Sn**	**07 01 06.0**	**-0.9**
PARRA				IAML		07 01 07.7	
PARRA				IAML		07 01 07.7	
PARRA				IAML		07 01 14.1	
EGRO	**El Granado**	**4.92**	**81**	S	**Sn**	**07 01 11.7**	**+1.8**
EGRO	**El Granado**	**4.92**	**81**	Sn	**Sn**	**07 01 09.7**	**-0.2**
PSARD	**Sardoal**	**5.05**	**56**	*e*P	**Pn**	**07 00 17.8**	**+2.9**
PSARD				*e*S	**Sn**	**07 01 11.9**	**-1.5**
PSARD				IAML		07 01 13.4	
PSARD				IAML		07 01 14.0	
PSARD				IAML		07 01 14.6	
PESTR	**Estremoz**	**5.14**	**66**	P	**Pn**	**07 00 17.6**	**+1.5**
PESTR				S	**Sn**	**07 01 15.2**	**-0.3**
PESTR	**Estremoz**	**5.14**	**66**	*e*S	**Sn**	**07 01 15.4**	**-0.1**
PESTR				IAML		07 01 17.2	
PESTR				IAML		07 01 17.4	
PESTR				IAML		07 01 23.0	
PBAR	**Barrancos**	**5.36**	**74**	P	**Pn**	**07 00 22.5**	**+3.4**
PBAR				S	**Sn**	**07 01 19.9**	**-1.0**
PBAR	**Barrancos**	**5.36**	**74**	*e*S	**Sn**	**07 01 21.9**	**+0.9**
PBAR				IAML		07 01 22.8	
PBAR				IAML		07 01 23.1	
PBAR				IAML		07 01 25.3	
PMRV	**Marv??o**	**5.50**	**61**	*e*P	**Pn**	**07 00 23.6**	**+2.6**
PMRV				*e*S	**Sn**	**07 01 22.6**	**-1.8**
PMRV				IAML		07 01 24.9	
PMRV				IAML		07 01 26.0	
PMRV				IAML		07 01 26.6	
EBAD	**Badajoz**	**5.53**	**68**	P	**Pn**	**07 00 24.7**	**+3.3**
EBAD				S	**Sn**	**07 01 23.1**	**-1.9**
EBAD	**Badajoz**	**5.53**	**68**	Pn	**Pn**	**07 00 24.0**	**+2.6**
EBAD				⇑IVmb_VC		07 00 29.7	
	174nm,SNR=1.5						
EBAD				Sn	**Sn**	**07 01 23.7**	**-1.3**
EMIN	**Mina Concepcio**	**5.58**	**79**	S	**Sn**	**07 01 27.2**	**+0.8**
EMIN	**Mina Concepcio**	**5.58**	**79**	Sn	**Sn**	**07 01 29.6**	**+3.2**
ELOB	**Lobios**	**6.55**	**39**	Pn	**Pn**	**07 00 37.0**	**+1.5**
ELOB				⇑IVmb_VC		07 00 39.5	
	380nm,SNR=1.9						
ELOB				Sn	**Sn**	**07 01 44.9**	**-5.5**
ECAB	**El Cabril**	**6.61**	**77**	P	**Pn**	**07 00 39.7**	**+3.4**
ECAB				S	**Sn**	**07 01 50.9**	**-0.7**
ECAB	**El Cabril**	**6.61**	**77**	Pn	**Pn**	**07 00 40.0**	**+3.8**
ECAB				⇑IVmb_VC		07 00 47.1	
	92nm,SNR=0.8						
ECAB				Sn	**Sn**	**07 01 51.7**	**+0.1**
CIBOR	**Castaar de Ib**	**6.98**	**65**	Sn	**Sn**	**07 01 59.5**	**-1.4**
PBRG	**Braganca**	**7.22**	**45**	*e*P	**Pn**	**07 00 45.9**	**+1.2**
EAGO	**Agolada(Pontev**	**7.25**	**34**	Pn	**Pn**	**07 00 45.6**	**+0.5**
EAGO				⇑IVmb_VC		07 00 48.2	
	394nm,SNR=1.3						
EAGO				Sn	**Sn**	**07 02 02.7**	**-4.9**
EADA	**Adamuz**	**7.28**	**77**	Pn	**Pn**	**07 00 49.3**	**+3.8**
EADA				⇑IVmb_VC		07 00 57.9	
	120nm,SNR=1.6						
EADA				Sn	**Sn**	**07 02 07.8**	**-0.3**
OUK	**Oukaimeden**	**7.41**	**138**	P	Pn	07 00 52.9	+5.4
OUK				S	**Sn**	**07 02 05.0**	**-6.8**
TTIG	**Tnine Tigouga,**	**7.65**	**144**	P	**Pn**	**07 00 52.0**	**+1.3**
TTIG				S	**Sn**	**07 02 10.3**	**-7.3**
TIO	**Tiouine**	**7.95**	**137**	P	**Pn**	**07 00 55.4**	**+0.6**
TIO				S	**Sn**	**07 02 17.7**	**-7.2**
OUZM	**OUZ**	**8.24**	**135**	P	**Pn**	**07 01 00.5**	**+1.6**
OUZM				S	Sn	07 02 23.9	-8.2

ISK 03 06:59:48.9, 37.86N×26.61E, h6km, ML1.9/12**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.52**	**108**	Pg	Pg	06 59 59.5	+0.6
GCAM				Sg	Sb	07 00 07.2	-1.1
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.54**	**90**	Pg	Pg	06 59 59.8	+0.5
KUSD				Sg	Sg	07 00 07.4	+1.1
KUSD				AML	AML		
BLCB	**Balcova**	**0.63**	**33**	Pg	Pg	07 00 01.4	+0.4
BLCB				AML	AML		
CHOS	**Chios island**	**0.68**	**321**	Pg	Pg	07 00 02.4	+0.3
CHOS				Sg	Sb	07 00 12.5	-0.6
CHOS				AML	AML		
KRBN	**Karaburun**	**0.73**	**357**	Pg	Pb	07 00 03.7	-0.5
KRBN				Sg	Sb	07 00 14.1	-0.4
FOCM	**Foa**	**0.86**	**6**	Pg	Pb	07 00 05.9	-0.4
FOCM				Sg	Sb	07 00 18.2	+0.2
FOCM				AML	AML		
BODT	**Bodrum**	**0.97**	**145**	Pg	Pb	07 00 07.9	-0.3
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.02**	**85**	Pg	Pb	07 00 08.8	-0.3
AYDB				AML	AML		
MLSB	**Milas**	**1.09**	**121**	Pn	Pb	07 00 10.1	0.0
MLSB				AML	AML		
APE	**Apeiranthos**	**1.16**	**228**	Pn	Pb	07 00 11.6	+0.1
NAZL	**Nazilli-Aydin**	**1.34**	**85**	Pn	Pg	07 00 14.9	+0.4
NAZL				AML	AML		
GORD	**Gordes-Manisa**	**1.62**	**49**	Pn	Pb	07 00 18.9	-0.4

AFAD 03 07:00:36.2, 37.87N×26.96E, h7km±1km, ML1.2, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**342**	P	Pg	07 00 40.3	+0.3
DGB				IAML		07 00 43.0	
	comp=E,45nm,0.2s						
DGB				S	Sg	07 00 43.2	+0.7
GCAM	**G?zelcaml?**	**0.28**	**128**	P	Pg	07 00 42.1	+0.4
GCAM				S	Sg	07 00 46.5	+1.1
GCAM				IAML		07 00 47.0	
	comp=N,80nm,0.2s						
GCAM				IAML		07 00 54.0	
	comp=E,52nm,0.1s						
BEYE	**zmir**	**0.35**	**356**	P	Pg	07 00 43.3	+0.2
BEYE				S	Sg	07 00 48.7	+0.9
BEYE				IAML		07 00 49.0	
	comp=E,23nm,0.2s						
BEYE				IAML		07 00 53.0	
	comp=N,19nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**316**	P	Pn	07 00 50.4	+0.5
ZEYE				S	Sb	07 00 54.0	-1.1
AYDN	**Tasoluk**	**0.76**	**106**	P	Pb	07 00 51.5	-0.3
AYDN				S	Sb	07 01 03.5	+1.1
AYDN				IAML		07 01 22.0	
	comp=N,16nm,0.9s						

NNC 03 07:04:25.4±3.4, 37.73N×69.32E, h0km, mb3.6, mpv3.3, 2C-5D, Error ellipse: s-maj=26.8km s-min=21.5km az=151.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**5.44**	**9**	⇑Pn	Pn	07 05 48.5	+0.8
	0.8nm,0.3s,baz=185,slow=11,SNR=6.2						
KK31				⇓Pg	Pb	07 06 05.1	+3.8
	5.4nm,0.6s,baz=192,slow=15,SNR=10						
KK31				⇑Sn	Sn	07 06 52.5	+1.4
	2.6nm,0.4s						
KK31				⇓Lg	Lg	07 07 17.7	
	7.7nm,0.5s,baz=185,slow=31,SNR=5.7						
AAK	**Ala-Archa**	**6.30**	**37**	⇓Pn	Pn	07 05 59.5	-0.2
	0.7nm,0.4s						
AAK				⇓Sn	Sn	07 07 16.1	+3.6
	1.8nm,0.6s						
AAK				⇓Lg	Lg	07 07 44.0	
	12nm,0.9s						
AB31	**Akbulak array**	**13.36**	**333**	P	Pn	07 07 35.0	-1.2
	0.2nm,0.3s,baz=163,slow=11,SNR=22						

IDC 03 07:06:53.1±1.3, 11.97N×142.68E, h0km, mb4.1/4, mbtmp4.1/4, Error ellipse: s-maj=95.7km s-min=30.3km az=104.0, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**32.75**	**195**	P	P	07 13 27.9	0.0
	0.2nm,0.5s,baz=17,slow=9.8,SNR=6.5						
	0.2nm,0.5s						
ILAR	**Eielson Array**	**70.94**	**25**	P	P	07 18 12.1	0.0
	0.5nm,0.5s,baz=251,slow=5.8,SNR=9.4						
	0.5nm,0.5s						
ARCES	**ARCESS Array B**	**87.95**	**342**	P	P	07 19 45.4	+0.7
	2.4nm,0.9s,baz=78,slow=6.3,SNR=3.8						
	2.4nm,0.9s						
FINES	**FINESS Array B**	**91.71**	**335**	P	P	07 20 01.5	-0.9
	6.4nm,1.1s,baz=35,slow=5.1,SNR=3.5						
	6.4nm,1.1s						

IDC ***03*** *07:13:33.4±2.1, 18.02S×172.58W, h0km, mb4.0/4, mbtmp4.0/4, MS3.4/4, Error ellipse: s-maj=127.9km s-min=27.5km az=150.0*

ISC 03 07:13:34.8±1.4, 18.65S±0.5×172.2W±0.2, h10km, n11, σ1s70/9, mb4.0/4, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**9.27**	**274**	Pn	**Pn**	**07 15 49.6**	**+0.8**
	0.2nm,0.3s,baz=118,slow=12,SNR=7.0						
MSVF				LR	LR	07 18 33.7	
	comp=Z,336nm,19.1s,baz=68,slow=34						
RAR	**Rarotonga**	**12.01**	**105**	LR	LR	07 20 00.5	
	comp=Z,56nm,18.6s,baz=97,slow=31						
HNR	**Honiara**	**28.45**	**285**	LR	LR	07 28 44.4	
	comp=Z,121nm,18.1s,baz=245,slow=33						
CTA	**Charters Tower**	**39.13**	**261**	LR	LR	07 35 48.7	
	comp=Z,79nm,18.3s,baz=66,slow=34						
ASAR	**Alice Springs**	**50.26**	**254**	P	**P**	**07 22 30.9**	**-0.9**
	6.3nm,0.8s,baz=86,slow=8.5,SNR=62						
ASAR				PcP	**PcP**	**07 23 50.4**	**-0.4**
	1.0nm,0.8s,baz=91,slow=4.0,SNR=4.5						
	6.3nm,0.8s						
WRA	**Warramunga Arr**	**50.27**	**259**	P	**P**	**07 22 30.0**	**-1.9**
	1.8nm,0.9s,baz=97,slow=8.2,SNR=20						
	1.8nm,0.9s						
TXAR	**Lajitas Array**	**81.47**	**55**	P	**P**	**07 25 52.7**	**-0.1**
	0.5nm,1.0s,baz=238,slow=4.2,SNR=3.4						
	0.5nm,1.0s						
ILAR	**Eielson Array**	**85.34**	**11**	P	**P**	**07 26 10.0**	**-1.7**
	1.0nm,1.1s,baz=220,slow=6.7,SNR=5.4						
	1.0nm,1.1s						
CLL	**Collm**	**147.08**	**354**	*i* PKPbc	**PKPbc**	**07 33 18.8**	**+0.9**
	comp=Z,15nm,1.1s						
BRTR	**Keskin Array B**	**149.29**	**319**	PKPbc	**PKPdf**	**07 33 21.4**	**+1.4**
	comp=Z,1.1nm,0.9s,baz=132,slow=1.8,SNR=4.7						
GERES	**GERESS Array B**	**149.43**	**352**	PKPbc	**PKPdf**	**07 33 22.5**	**+2.6**
	comp=Z,0.3nm,0.2s,baz=135,slow=0.8,SNR=5.2						

NNC ***03*** *07:15:56.5±0.9, 49.05N×78.45E, h0km, mb2.9, mpv2.4, Error ellipse: s-maj=18.8km s-min=3.7km az=86.0, Suspected Mining explosion.*

IDC ***03*** *07:15:58.4±1.4, 50.05N×78.82E, h0km, mbtmp2.5/2, ML2.0/2, Error ellipse: s-maj=12.3km s-min=9.9km az=67.0*

ISC 03 07:15:58.7±1.2, 50.03N±0.08×78.9E±0.2, h0km, n16, σ1s14/26, 16C-5D, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR07	**Kurchatov Arra**	**0.60**	**339**	⇑P	**Pg**	**07 16 08.7**	**-1.5**
KUR07				⇑S	**Sg**	**07 16 18.3**	**+0.4**
KUR14	**Kurchatov Arra**	**0.61**	**344**	⇓P	**Pg**	**07 16 08.9**	**-1.5**
KUR14				⇑S	**Sg**	**07 16 18.1**	**-0.3**
KUR06	**Kurchatov Arra**	**0.61**	**340**	⇑P	**Pg**	**07 16 09.1**	**-1.3**
KUR06				⇑S	**Sg**	**07 16 18.8**	**+0.3**
KUR15	**Kurchatov Arra**	**0.62**	**343**	⇓P	**Pg**	**07 16 09.5**	**-1.2**
KUR15				⇓S	**Sg**	**07 16 19.2**	**+0.5**
KURBB	**Kurchatov Arra**	**0.63**	**341**	Pg	**Pg**	**07 16 09.5**	**-1.4**
	1.0nm,0.3s,baz=164,slow=18,SNR=36						
KURBB				Lg	Lg	07 16 18.7	
	1.2nm,0.3s,baz=160,slow=33,SNR=22						
KURBB	**Kurchatov Arra**	**0.63**	**341**	⇑P	**Pg**	**07 16 09.4**	**-1.4**
	10nm,0.4s						
KURBB				⇑S	**Sg**	**07 16 19.7**	**+0.6**
	42nm,0.6s						
KUR16	**Kurchatov Arra**	**0.64**	**340**	⇑P	**Pg**	**07 16 09.7**	**-1.4**
KUR16				⇑S	**Sg**	**07 16 20.1**	**+0.7**
KUR05	**Kurchatov Arra**	**0.65**	**342**	⇑P	**Pg**	**07 16 09.7**	**-1.5**
KUR05				⇑S	**Sg**	**07 16 19.4**	**-0.2**
KUR17	**Kurchatov Arra**	**0.66**	**338**	⇓P	**Pg**	**07 16 10.1**	**-1.1**
KUR17				⇓S	**Sg**	**07 16 19.9**	**+0.1**
KUR04	**Kurchatov Arra**	**0.67**	**343**	⇑P	**Pg**	**07 16 10.0**	**-1.5**
KUR04				⇑S	**Sg**	**07 16 20.3**	**+0.2**
KURK	**Kurchatov**	**0.71**	**348**	⇑P	**Pg**	**07 16 11.1**	**-1.2**
	1.1nm,0.4s						
KURK				⇑S	**Sg**	**07 16 22.1**	**+0.7**
	6.9nm,0.6s						
MK31	**Makanchi Array**	**3.96**	**143**	Pn	**Pn**	**07 17 01.8**	**+1.0**
	baz=322,slow=9.8,SNR=13						
MK31				⇑Pg	**Pg**	**07 17 12.5**	**-2.1**
	0.5nm,0.5s,baz=325,slow=14,SNR=8.6						
MK31				Lg	Lg	07 18 04.1	
	5.7nm,0.8s,baz=329,slow=28,SNR=12						
MKAR	**Makanchi Array**	**3.96**	**143**	Pn	**Pn**	**07 17 01.6**	**+0.8**
	0.1nm,0.3s,baz=321,slow=10.0,SNR=13						
MKAR				Pg	**Pb**	**07 17 10.4**	**+1.0**
	0.4nm,0.3s,baz=316,slow=16,SNR=13						
MKAR				Lg	Lg	07 18 03.1	
	0.5nm,0.3s,baz=337,slow=24,SNR=13						
	0.2nm,0.5s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**5.39**	**41**	I	I	07 47 20.0	
	baz=222,slow=330,SNR=1.0						
ZALV	**Zalesovo Beam**	**5.39**	**41**	Pn	**Pn**	**07 17 20.8**	**+0.5**
	0.2nm,0.3s,baz=246,slow=9.6,SNR=4.5						
ZALV				Lg	Lg	07 18 50.0	
	0.2nm,0.3s,baz=220,slow=24,SNR=2.3						
	0.9nm,0.5s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**6.08**	**303**	Lg	Lg	07 19 11.8	
	baz=111,slow=28,SNR=4.2						

ASRS ***03*** *07:21:39.0±1.6, 49.72N×81.65E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 03 07:21:43.6±1.3, 49.66N×81.52E, h0km, mbtmp2.6/2**, ML2.1**/2**, 2C-2D, Error ellipse: s-maj=16.3km s-min=10.2km az=78.0, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.14**	**301**	⇓Pn	Pb	07 22 22.6	-0.6
	4.3nm,0.7s						
KURK				⇑Sn	Sg	07 22 52.7	+0.3
	11nm,0.7s						
KURBB	**Kurchatov Arra**	**2.15**	**298**	Pg	Pb	07 22 23.1	-0.3
	0.3nm,0.3s,baz=112,slow=19,SNR=40						
KURBB				Lg	Lg	07 22 53.5	
	0.6nm,0.3s,baz=113,slow=30,SNR=24						
MK31	**Makanchi Array**	**2.92**	**170**	⇓Pn	Pb	07 22 35.3	-1.2
	0.2nm,0.3s,baz=354,slow=12,SNR=22						
MK31				⇑Sn	Sg	07 23 15.2	-2.1
	1.8nm,0.5s,baz=346,slow=33,SNR=4.3						
MKAR	**Makanchi Array**	**2.92**	**170**	Pn	Pn	07 22 33.8	+2.5
	0.8nm,0.3s,baz=342,slow=14,SNR=22						
MKAR				Pg	Pb	07 22 36.2	-0.4
	0.8nm,0.3s,baz=358,slow=15,SNR=23						
MKAR				Lg	Lg	07 23 13.3	
	1.3nm,0.3s,baz=358,slow=28,SNR=24						
	1.1nm,0.3s						
MKAR				AML	AML		
ZALV	**Zalesovo Beam**	**4.75**	**24**	Pn	Pn	07 22 59.0	+2.5
	0.2nm,0.3s,baz=209,slow=15,SNR=2.4						
ZALV				Lg	Lg	07 24 12.9	
	0.3nm,0.3s,baz=198,slow=26,SNR=11						
	0.5nm,0.4s						
ZALV				AML	AML		
I46RU	**ZALESOVO INFRA**	**4.76**	**24**	I	I	07 48 50.0	
	baz=202,slow=324,SNR=3.9						

IDC ***03*** *07:44:21.9±0.9, 30.17N×67.35E, h0km, mb4.0/11, mbtmp4.1/12, ML4.2/1, MS2.9/3, Error ellipse: s-maj=22.5km s-min=19.2km az=99.0*

ISC 03 07:44:24.3±0.7, 30.16N±0.07×67.46E±0.08, h17km, n18, σ1s89/20, mb4.0/9, Pakistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JASL	**Jaisalmer**	**4.42**	**136**	*i* S	**Sn**	**07 46 23.6**	**+1.8**
JASL				IAML		07 46 31.9	
	comp=N,364nm,0.4s						
BHUJ	**Bhuj**	**7.15**	**164**	*i* P	**Pn**	**07 46 08.2**	**+0.1**
BHUJ				*i* S	**Sn**	**07 47 26.1**	**-

comp=N,2.5nm,0.5s
CMAR Chiang Mai Arr 30.87 105 P P 07 50 41.0 +1.2
comp=N,0.7nm,0.3s,baz=302,slow=8.2,SNR=4.8
comp=N,0.7nm,0.3s
ARCES ARCESS Array B 46.02 341 P P 07 52 45.5 -0.9
comp=N,3.8nm,0.9s,baz=137,slow=7.5,SNR=4.6
comp=N,3.8nm,0.9s
NOA NORSAR Array B 47.86 327 LR LR 08 15 47.3
comp=N,25nm,19.3s,baz=355,slow=39
TORD Torodi Ar. Bea 62.66 270 P P 07 54 47.7 -0.6
comp=N,1.5nm,0.9s,baz=61,slow=5.0,SNR=6.2
comp=N,1.5nm,0.9s
DBIC Dimbokro 71.40 267 P P 07 55 44.7 +0.7
comp=N,4.1nm,1.0s,baz=18,slow=6.4,SNR=3.0
comp=N,4.1nm,1.0s
WRA Warramunga Arr 81.35 119 P P 07 56 41.1 +0.8
comp=N,0.5nm,0.8s,baz=314,slow=5.1,SNR=3.4
comp=N,0.5nm,0.8s
ASAR Alice Springs 83.23 122 P P 07 56 50.8 +0.7
comp=N,1.1nm,0.9s,baz=306,slow=5.0,SNR=6.0
comp=N,1.1nm,0.9s

*ATH **03** 07:48:33.1, 37˚.15N×20˚.40E, h7km±2km, ML2.9/14, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **03** 07:48:34.8, 37˚N±2˚×20˚E±˚, h3km±2km, M2.7/19, MLh2.7/19*
ISC 03 07:48:32.9±2.5, 37˚.15N±0˚.08×20˚.37E±0˚.09, h6km±12km, n42, σ0s48/56, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LTHK	**Lithakia**	**0.67**	**33**	P	**Pg**	**07 48 45.5**	**-0.3**
LTHK				S	**Sg**	**07 48 54.7**	**+0.2**
LTHK				AML	AML		
LTHK	**Lithakia**	**0.67**	**33**	P	**Pg**	**07 48 45.5**	**-0.3**
LTHK				S	**Sg**	**07 48 54.5**	**-0.1**
LTHK				AML	AML		
KYPS	**Kipseli, Zakin**	**0.76**	**28**	P	**Pg**	**07 48 47.8**	**+0.3**
KYPS				S	**Sg**	**07 48 57.4**	**+0.1**
CLEM	**Kyllini,Ilia,G**	**0.96**	**39**	P	**Pb**	**07 48 51.9**	**0.0**
CLEM				S	**Sg**	**07 49 03.7**	**0.0**
PSDA	**Pessada-Kefalo**	**0.98**	**10**	P	**Pg**	**07 48 52.0**	**+0.3**
PSDA				S	**Sg**	**07 49 04.1**	**-0.2**
PSDA				AML	AML		
PSDA	**Pessada-Kefalo**	**0.98**	**10**	P	**Pg**	**07 48 52.1**	**+0.5**
PSDA				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.98**	**19**	P	**Pg**	**07 48 51.7**	**0.0**
RTZL				S	**Sb**	**07 49 05.9**	**+0.5**
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.98**	**19**	P	**Pg**	**07 48 51.6**	**0.0**
RTZL				S	**Sg**	**07 49 04.7**	**+0.3**
RTZL				AML	AML		
VLS	**Valsamata**	**1.04**	**10**	P	**Pg**	**07 48 52.2**	**-0.7**
VLS				S	**Sb**	**07 49 07.1**	**-0.1**
VLS				AML	AML		
VLS	**Valsamata**	**1.04**	**10**	P	**Pg**	**07 48 52.0**	**-0.9**
VLS				AML	AML		
DMLN	**Damoulianata-K**	**1.09**	**0**	P	**Pg**	**07 48 53.8**	**0.0**
DMLN				S	**Sb**	**07 49 08.6**	**+0.1**
DMLN				AML	AML		
DMLN	**Damoulianata-K**	**1.09**	**0**	P	**Pg**	**07 48 54.2**	**+0.4**
AMT	**Artemida-Makis**	**1.13**	**70**	P	**Pb**	**07 48 54.6**	**-0.3**
AMT				AML	AML		
AMT	**Artemida-Makis**	**1.13**	**70**	P	**Pb**	**07 48 54.6**	**-0.3**
AMT				AML	AML		
ITM	**Ithomi**	**1.24**	**88**	P	**Pn**	**07 48 56.7**	**-0.1**
ITM				AML	AML		
ITM	**Ithomi**	**1.24**	**88**	P	**Pb**	**07 48 56.5**	**-0.2**
ITM				AML	AML		
RLS	**Riolos of Patr**	**1.26**	**44**	P	**Pb**	**07 48 56.5**	**-0.5**
RLS				S	**Sg**	**07 49 12.9**	**-0.4**
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.26**	**44**	P	**Pb**	**07 48 56.5**	**-0.5**
RLS				AML	AML		
VALY	**Valyra**	**1.29**	**89**	P	**Pn**	**07 48 57.0**	**-0.4**
VALY				AML	AML		
AXS	**Araxos**	**1.31**	**37**	P	**Pn**	**07 48 57.4**	**-0.4**
AXS				S	**Sg**	**07 49 15.0**	**-0.2**
AXS				AML	AML		
AXS	**Araxos**	**1.31**	**37**	P	**Pn**	**07 48 57.2**	**-0.5**
DRO	**Drossia**	**1.33**	**53**	P	**Pn**	**07 48 57.7**	**-0.3**
DRO				AML	AML		
DRO	**Drossia**	**1.33**	**53**	P	**Pn**	**07 48 57.7**	**-0.3**
DRO				AML	AML		
EVGI	**Lefkada island**	**1.49**	**9**	P	**Pn**	**07 49 00.4**	**+0.2**
EVGI				AML	AML		
EVGI	**Lefkada island**	**1.49**	**9**	P	**Pn**	**07 49 00.5**	**+0.3**
EVGI				AML	AML		
PLEV	**Plevrona-Mesol**	**1.50**	**33**	P	**Pn**	**07 49 00.8**	**+0.3**
PLEV				S	**Sn**	**07 49 20.3**	**0.0**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**1.50**	**33**	P	**Pn**	**07 49 00.7**	**+0.3**
PLEV				AML	AML		
NYDR	**Nydri-Lefkada**	**1.58**	**9**	P	**Pn**	**07 49 01.6**	**+0.2**
PDO	**Prodromos**	**1.58**	**24**	P	**Pn**	**07 49 01.8**	**+0.3**
PDO				S	**Sg**	**07 49 24.5**	**+0.7**
PDO				AML	AML		
PDO	**Prodromos**	**1.58**	**24**	P	**Pn**	**07 49 01.5**	**0.0**
VLX	**Vlachokerasia**	**1.62**	**82**	P	**Pn**	**07 49 01.8**	**-0.2**
VLX				S	**Sg**	**07 49 26.8**	**+1.9**
VLX				AML	AML		
KLV	**Kalavryta, Ach**	**1.67**	**57**	P	**Pn**	**07 49 02.8**	**+0.1**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**1.67**	**57**	P	**Pn**	**07 49 02.6**	**-0.1**
LAKA	**Lakka**	**1.68**	**49**	P	**Pn**	**07 49 03.3**	**+0.5**
LAKA				AML	AML		
AIOA	**Agios Ioannis,**	**1.70**	**52**	P	**Pn**	**07 49 03.5**	**+0.4**
PVO	**Paravola**	**1.73**	**32**	P	**Pb**	**07 49 04.4**	**-0.6**
PVO				AML	AML		
PVO	**Paravola**	**1.73**	**32**	P	**Pn**	**07 49 04.2**	**+0.8**
PVO				AML	AML		
GUR	**Goura**	**1.75**	**63**	P	**Pn**	**07 49 03.7**	**-0.2**
GUR				AML	AML		
GUR	**Goura**	**1.75**	**63**	P	**Pn**	**07 49 03.7**	**-0.2**
GUR				AML	AML		
EFP	**Efpalio**	**1.76**	**43**	P	**Pb**	**07 49 04.8**	**-0.7**
PYRG	**Pyrgos, Dorida**	**1.81**	**46**	P	**Pn**	**07 49 05.4**	**+0.8**
SERG	**Sergoula**	**1.84**	**46**	P	**Pn**	**07 49 05.7**	**+0.7**
SERG				AML	AML		

*IDC **03** 08:03:39.9±0.7, 62˚.28S×164˚.38E, h0km, mb4.4/11, mbtmp4.3/12, ML4.2/1, MS4.4/11, Error ellipse: s-maj=32.6km s-min=15.4km az=69.0*
*NEIC **03** 08:03:41.1±1.9, 62˚.28S±0˚.03×164˚.6E±0˚.4, h10km±1km, mb4.7/24, Error ellipse: s-maj=31.3km s-min=5.5km az=85.0*
*GFZ **03** 08:03:41.0±0.3, 62˚S±3˚×16˚5E±˚, h10km, M4.7/12, mb4.7/12, confirmed*
ISC 03 08:03:41.1±0.5, 62˚.27S±0˚.07×164˚.6E±0˚.1, h10km, n85, σ0s92/68, mb4.7/23, MS4.4/9, 3C, Balleny Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VNDA	**Vanda**	**15.35**	**182**	Pn	**Pn**	**08 07 16.2**	**-1.2**
	1.8nm,0.3s,baz=356,slow=12,SNR=109						
VNDA				LR	LR	08 12 17.4	
	comp=Z,2μm,18.6s,baz=4.0,slow=34						
VNDA	**Vanda**	**15.35**	**182**		**Pn**	**08 07 16.5**	**-0.9**
VNDA				IAmb	IAmb	08 07 21.9	
	comp=Z,55nm,1.4s						
VNDA	**Vanda**	**15.35**	**182**	P	**Pn**	**08 07 15.6**	**-1.8**
	comp=Z,30nm,2.0s						
SBA	**Scott Base**	**15.68**	**178**		**Pn**	**08 07 21.3**	**-0.3**
SBA	**Scott Base**	**15.68**	**178**	P	**Pn**	**08 07 21.8**	**+0.2**
	comp=Z,71nm,1.9s						
WHZ	**Wether Hill Ro**	**16.52**	**8**	Pn	**Pn**	**08 07 30.3**	**-2.4**
DCZ	**Deep Cove**	**16.90**	**6**		**Pn**	**08 07 37.0**	**-0.5**
DCZ				IAmb	IAmb	08 07 45.9	
	comp=Z,62nm,1.0s						
MLZ	**Mavora Lakes**	**17.06**	**9**		**Pn**	**08 07 39.0**	**-0.5**
MLZ				IAmb	IAmb	08 07 49.1	
	comp=Z,50nm,1.1s						
ODZ	**Otahua Downs**	**17.61**	**14**	P	**Pn**	**08 07 46.0**	**-0.3**
ODZ				IAmb	IAmb	08 07 47.9	
	comp=Z,71nm,1.3s						
ODZ	**Otahua Downs**	**17.61**	**14**	P	**Pn**	**08 07 46.4**	**0.0**
	comp=Z,60nm,1.4s						
WKZ	**Wanaka**	**17.66**	**10**	P	**P**	**08 07 48.8**	**+0.9**
LBZ	**Lake Benmore**	**18.21**	**13**	P	**Pn**	**08 07 52.9**	**-0.8**
LBZ				IAmb	IAmb	08 07 58.0	
	comp=Z,59nm,1.2s						
RPZ	**Rata Peaks**	**18.97**	**15**	P	**Pn**	**08 08 02.7**	**-0.3**
	comp=Z,0.7nm,0.3s,baz=206,slow=10,SNR=14						
RPZ				LR	LR	08 14 12.9	
	comp=Z,362nm,20.5s,baz=198,slow=33						
	comp=Z,4.2nm,0.6s						
RPZ				AML	AML		
RPZ	**Rata Peaks**	**18.97**	**15**		**Pn**	**08 08 02.9**	**0.0**
RPZ				IAmb	IAmb	08 08 18.4	
	comp=Z,38nm,1.0s						
KHZ	**Kahutara**	**20.58**	**19**		**P**	**08 08 19.9**	**+0.1**
KHZ	**Kahutara**	**20.58**	**19**	P	**P**	**08 08 19.8**	**0.0**
THZ	**Tophouse**	**21.13**	**17**	P	**P**	**08 08 26.6**	**+0.7**
THZ				IAmb	IAmb	08 08 29.6	
	comp=Z,51nm,1.1s						
MRNZ	**Matariki Terra**	**21.47**	**17**	P	**P**	**08 08 30.6**	**+1.2**
MRZ	**Mangatainoka R**	**22.63**	**22**		**P**	**08 08 41.1**	**-0.7**
BFZ	**Birch Farm**	**22.73**	**23**	P	**P**	**08 08 41.6**	**-1.4**
	comp=Z,67nm,1.3s						
URZ	**Urewera**	**25.24**	**24**	LR	LR	08 18 48.1	
	comp=Z,1μm,18.7s,baz=174,slow=36						
QSPA	**South Pole Qui**	**27.82**	**180**	P	**P**	**08 09 30.3**	**0.0**
	comp=Z,4.1nm,1.0s,baz=15,slow=5.3,SNR=8.8						
QSPA				LR	LR	08 19 02.6	
	comp=Z,744nm,18.9s,baz=34,slow=33						
	comp=Z,4.1nm,1.0s						
QSPA	**South Pole Qui**	**27.82**	**180**		**P**	**08 09 30.2**	**0.0**
QSPA				IAmb	IAmb	08 09 38.2	
	comp=Z,30nm,1.4s						
QSPA	**South Pole Qui**	**27.82**	**180**	P	**P**	**08 09 30.5**	**+0.3**
CMSA	**Cobar Meteorol**	**33.07**	**330**	P	**P**	**08 10 17.9**	**+1.3**
	comp=Z,11nm,1.8s						
STKA	**Stephens Creek**	**33.81**	**323**	P	**P**	**08 10 23.3**	**+0.3**
	comp=Z,7.0nm,0.8s,baz=164,slow=8.4,SNR=12						
	comp=Z,7.0nm,0.8s						
STKA	**Stephens Creek**	**33.81**	**323**	P	**P**	**08 10 25.4**	**+2.4**
	comp=Z,61nm,1.1s						
INKA	**Innaminka**	**37.95**	**324**		**P**	**08 11 00.1**	**+1.6**
MAW	**Mawson**	**38.74**	**217**	P	**P**	**08 11 04.9**	**+0.1**
	comp=Z,2.4nm,0.8s,baz=131,slow=9.8,SNR=4.6						
MAW				LR	LR	08 27 12.2	
	comp=Z,802nm,18.3s,baz=125,slow=36						
	comp=Z,2.4nm,0.8s						
MAW	**Mawson**	**38.74**	**217**	IAmb	IAmb	08 11 10.8	
	comp=Z,2.9nm,1.4s						
H01W1	**Cape Leeuwin H**	**41.56**	**287**	T	T	08 56 21.5	
	baz=146,slow=75,SNR=328						
H01W2	**Cape Leeuwin H**	**41.56**	**287**	T	T	08 56 21.9	
	baz=146,slow=75,SNR=388						
H01W3	**Cape Leeuwin H**	**41.57**	**287**	T	T	08 56 22.8	
	baz=146,slow=75,SNR=377						
ASAR	**Alice Springs**	**43.80**	**317**	P	**P**	**08 11 47.3**	**+0.4**
	comp=Z,9.5nm,1.0s,baz=161,slow=7.6,SNR=44						
ASAR				PcP	**PcP**	**08 13 32.1**	**-1.2**
	comp=Z,1.0nm,0.7s,baz=146,slow=4.2,SNR=4.8						
	comp=Z,9.5nm,1.0s						
ASAR	**Alice Springs**	**43.80**	**317**	P	**P**	**08 11 46.6**	**-0.3**
AS31	**Alice Springs**	**43.81**	**317**	P	**P**	**08 11 47.1**	**+0.1**
QIS	**Mount Isa**	**45.09**	**326**	P	**P**	**08 11 57.7**	**+0.4**
	comp=Z,8.9nm,1.0s						
TROLL	**Troll, Antarti**	**45.43**	**188**	P	**P**	**08 11 59.5**	**+0.1**
	comp=Z,265nm,0.9s						
SNAA	**Sanae**	**46.05**	**185**	⇑P	**P**	**08 12 03.6**	**-0.7**
	comp=Z,105nm,0.7s						
SNAA	**Sanae**	**46.05**	**185**	P	**P**	**08 12 03.8**	**-0.5**
	comp=Z,5.1nm,1.0s,baz=161,slow=7.3,SNR=8.9						
	comp=Z,5.1nm,1.0s						
SNAA	**Sanae**	**46.05**	**185**		**P**	**08 12 03.6**	**-0.7**
SNAA				IAmb	IAmb	08 12 12.5	
	comp=Z,7.0nm,0.9s						
SNAA	**Sanae**	**46.05**	**185**	P	**P**	**08 12 04.2**	**-0.1**
	comp=Z,9.9nm,1.1s						
VNA3	**Neumayer Olymp**	**46.71**	**183**	P	**P**	**08 12 08.9**	**-0.5**
	comp=Z,2.7nm,0.8s						
VNA3	**Neumayer Olymp**	**46.71**	**183**	P	**P**	**08 12 08.9**	**-0.5**
	comp=Z,7.5nm,1.9s						
SANVU	**Saraoutou**	**46.80**	**3**	P	**P**	**08 12 09.5**	**-1.1**
	comp=Z,41nm,1.0s						
VNA2	**Neumayer--Watz**	**46.97**	**184**	⇑P	**P**	**08 12 10.6**	**-0.8**
	comp=Z,4.4nm,0.7s,baz=175,slow=7.1						
VNA2	**Neumayer--Watz**	**46.97**	**184**	P	**P**	**08 12 11.1**	**-0.3**
	comp=Z,7.4nm,1.2s						
WR8	**Warramunga Arr**	**47.10**	**320**	P	**P**	**08 12 12.4**	**-0.6**
WRA	**Warramunga Arr**	**47.16**	**320**	P	**P**	**08 12 12.9**	**-0.6**
	comp=Z,3.1nm,0.9s,baz=156,slow=7.0,SNR=12						
WRA				PcP	**PcP**	**08 13 43.9**	**-1.1**
	comp=Z,0.9nm,0.7s,baz=162,slow=3.2,SNR=5.7						
	comp=Z,3.1nm,0.9s						
WRA	**Warramunga Arr**	**47.16**	**320**		**P**	**08 12 13.3**	**-0.2**
WRAB	**Tennant Creek**	**47.17**	**320**	P	**P**	**08 12 14.0**	**+0.4**
WRAB	**Tennant Creek**	**47.17**	**320**	P	**P**	**08 12 13.8**	**+0.2**
	comp=Z,9.6nm,2.1s						
VNA1	**Neumayer--Stat**	**47.27**	**183**	⇑P	**P**	**08 12 13.9**	**+0.1**
	comp=Z,12nm,1.0s						
WB0	**Warramunga Arr**	**47.31**	**320**	IAmb	IAmb	08 12 23.5	
	comp=Z,13nm,1.4s						
FITZ	**Fitzroy Crossi**	**51.76**	**310**	P	**P**	**08 12 48.5**	**0.0**
	comp=Z,5.6nm,1.1s,baz=192,slow=13,SNR=4.3						
	comp=Z,5.6nm,1.1s						
FITZ	**Fitzroy Crossi**	**51.76**	**310**	P	**P**	**08 12 48.8**	**+0.2**
FITZ	**Fitzroy Crossi**	**51.76**	**310**	P	**P**	**08 12 49.9**	**+1.3**
	comp=Z,2.4nm,1.2s						
HNR	**Honiara**	**52.85**	**354**	LR	LR	08 29 44.4	
	comp=Z,838nm,21.1s,baz=240,slow=30						
KNRA	**Kununurra**	**52.93**	**315**		**P**	**08 12 55.9**	**-1.4**
KNRA				IAmb	IAmb	08 13 05.1	
	comp=Z,12nm,1.0s						
PPT	**Papeete**	**54.83**	**57**	LR	LR	08 30 21.6	
	comp=Z,659nm,19.7s,baz=239,slow=29						
NLAI	**Namlea**	**65.15**	**318**	P	**P**	**08 14 22.2**	**+0.2**
	comp=Z,24nm,1.4s						
PLCA	**Paso Flores**	**68.21**	**138**	P	**P**	**08 14 43.3**	**+1.9**
	comp=Z,3.5nm,1.2s,baz=236,slow=6.1,SNR=3.1						
	comp=Z,3.5nm,1.2s						
H03S2	**Juan Fernandez**	**71.57**	**128**	T	T	09 33 45.0	
	baz=204,slow=74,SNR=681						
H03S1	**Juan Fernandez**	**71.57**	**128**	T	T	09 33 39.7	
	baz=204,slow=74,SNR=517						
H03S3	**Juan Fernandez**	**71.59**	**128**	T	T	09 33 42.5	
	baz=204,slow=74,SNR=553						
GUMO	**Guam**	**77.18**	**340**	LR	LR	08 46 05.1	
	comp=Z,224nm,20.7s,baz=60,slow=33						
SUR	**Sutherland**	**81.27**	**210**	LR	LR	08 50 25.7	
	comp=Z,164nm,19.4s,baz=172,slow=34						
BOSA	**Boshof**	**83.73**	**215**	LR	LR	08 49 42.1	
	comp=Z,103nm,20.7s,baz=184,slow=33						
H08S2	**Diego Garcia H**	**84.26**	**265**	T	T	09 49 44.7	
	baz=152,slow=76,SNR=66						
H08S1	**Diego Garcia H**	**84.27**	**265**	T	T	09 49 48.3	
	baz=152,slow=76,SNR=71						
H08S3	**Diego Garcia H**	**84.28**	**265**	T	T	09 49 49.1	
	baz=152,slow=76,SNR=55						
CPUP	**Villa Florida**	**85.56**	**143**	P	**P**	**08 16 20.0**	**+0.8**
	comp=Z,0.8nm,0.8s,baz=227,slow=9.3,SNR=3.6						
	comp=Z,0.8nm,0.8s						
LBTB	**Lobatse**	**87.05**	**217**	LR	LR	08 51 10.8	
	comp=Z,154nm,21.3s,baz=176,slow=33						
LPAZ	**La Paz**	**91.48**	**130**	P	**P**	**08 16 48.1**	**-0.3**
	comp=Z,1.0nm,0.8s,baz=194,slow=6.0,SNR=5.6						
	comp=Z,1.0nm,0.8s						
LPAZ	**La Paz**	**91.48**	**130**	IAmb	IAmb	08 16 48.5	
	comp=Z,4.3nm,1.4s						
CMAR	**Chiang Mai Arr**	**95.45**	**300**	P	**P**	**08 17 04.7**	**-0.9**
	comp=Z,1.3nm,0.3s,baz=153,slow=2.1,SNR=0.7						
	comp=Z,1.3nm,0.3s						
NJ2	**Nanjing**	**100.92**	**322**	*e*P	**Pdif**	**08 17 32.5**	**+2.7**
NJ2				pmax	pmax		
	comp=Z,19nm,0.7s						
HHC	**Hu-ho-hao-te**	**111.25**	**319**	*e*P	**PKiKP**	**08 22 15.0**	**+0.8**
MKAR	**Makanchi Array**	**126.80**	**302**	PKP	**PKPdf**	**08 22 43.0**	**-0.8**
	comp=Z,0.2nm,0.6s,baz=130,slow=2.3,SNR=2.5						
TORD	**Torodi Ar. Bea**	**129.44**	**202**	PKP	**PKiKP**	**08 22 50.5**	**0.0**
	comp=Z,1.4nm,1.1s,baz=221,slow=3.7,SNR=3.4						
KURBB	**Kurchatov Arra**	**131.36**	**302**	PKP	**PKiKP**	**08 22 53.1**	**0.0**
	comp=Z,0.1nm,0.4s,baz=97,slow=3.8,SNR=1.7						
ILAR	**Eielson Array**	**131.74**	**25**	PKP	**PKiKP**	**08 22 53.9**	**+0.4**
	comp=Z,0.4nm,0.8s,baz=254,slow=3.3,SNR=3.4						
BRTR	**Keskin Array B**	**143.04**	**256**	PKP	**PKiKP**	**08 23 16.3**	**-1.2**
	comp=Z,0.3nm,0.5s,baz=197,slow=3.0,SNR=3.9						
ARTI	**Arti**	**143.81**	**295**	PKP	**PKPdf**	**08 23 15.1**	**+0.2**
	comp=Z,1.1nm,0.3s,baz=192,slow=3.8,SNR=3.6						
AKASG	**Malin Array Be**	**153.35**	**265**	PKPbc	**PKiKP**	**08 23 39.0**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=98,slow=1.9,SNR=1.3						

*IDC **03** 08:08:00.1±0.8, 55˚.72N×158˚.59W, h0km, mb4.1/18, mbtmp4.0/22, ML3.5/4, MS3.2/5, Error ellipse: s-maj=19.8km s-min=10.4km az=162.0*
*NEIC **03** 08:08:01.0±1.2, 55˚.03N±0˚.05×157˚.98W±0˚.09, h34km±6km, mb4.3/13, ML4.0/40, ML3.7(AEIC), Error ellipse: s-maj=9.2km s-min=5.3km az=138.0*
*AEIC **03** 08:08:01.2±1.5, 55˚.02N±0˚.06×157˚.97W±0˚.09, h31km±4km, Error ellipse: s-maj=9.6km s-min=5.2km az=139.0*
ISC 03 08:08:01.0±1.2, 55˚.04N±0˚.05×157˚.95W±0˚.04, h34km±3km, n155, σ0s96/165, mb4.2/19, Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CHNA	**Chernabura Isl**	**0.97**	**258**	P	**Pn**	**08 08 17.1**	**-1.0**
CHNA	**Chernabura Isl**	**0.97**	**258**	S	**Sn**	**08 08 30.0**	**-0.6**
CNBA	**Chernabura Isl**	**0.97**	**257**		**Pn**	**08 08 16.8**	**-1.3**
CNBA				IAML		08 08 33.0	
	comp=E,2μm,0.5s						
CNBA				IAML		08 08 36.7	
	comp=N,3μm,1.1s						
CNBA	**Chernabura Isl**	**0.97**	**257**		**Sn**	**08 08 30.0**	**-0.6**
VNSG	**Veniaminof 6**	**1.26**	**330**		**Pn**	**08 08 22.0**	**-0.2**
VNSG					**Sn**	**08 08 37.9**	**-0.1**
VNKR	**Veniaminof 5**	**1.28**	**322**		**Pn**	**08 08 22.0**	**-0.4**
VNKR					**Sn**	**08 08 37.9**	**-0.4**
CHGN	**Chignik**	**1.29**	**349**		**Pn**	**08 08 21.9**	**-0.7**
CHGN				IAML		08 08 41.8	
	comp=E,2μm,0.6s						
CHGN				IAML		08 08 43.9	
	comp=N,2μm,0.8s						
CHGN	**Chignik**	**1.29**	**349**		**Sn**	**08 08 38.6**	**+0.1**
VNHG	**Veniaminof 1**	**1.37**	**330**		**Pn**	**08 08 23.8**	**+0.1**
VNWF	**Veniaminof 8**	**1.44**	**321**		**Pn**	**08 08 25.1**	**+0.5**
VNWF					**Sn**	**08 08 42.7**	**+0.2**
VNSS	**Veniaminof 8**	**1.46**	**325**		**Pn**	**08 08 25.5**	**+0.5**
SDPT	**Sand Point**	**1.48**	**283**	P	**Pn**	**08 08 24.3**	**-0.8**
SDPT	**Sand Point**	**1.48**	**283**	S	**Sn**	**08 08 44.0**	**+0.8**
SDPT	**Sand Point**	**1.48**	**283**		**Pn**	**08 08 24.1**	**-1.0**
SDPT				IAML		08 08 52.5	
	comp=E,3μm,1.0s						
SDPT				IAML		08 08 57.2	
	comp=N,2μm,0.8s						
SDPT	**Sand Point**	**1.48**	**283**		**Sn**	**08 08 43.3**	**+0.1**
VNFG	**Fog Glacier, M**	**1.54**	**325**		**Pn**	**08 08 26.6**	**+0.5**
CHIR	**Chirikof Islan**	**1.54**	**59**	P	**Pn**	**08 08 25.7**	**-0.3**
CHIR	**Chirikof Islan**	**1.54**	**59**	Pn	**Pn**	**08 08 25.3**	**-0.7**
CHIR	**Chirikof Islan**	**1.54**	**59**		**Sn**	**08 08 44.5**	**-0.3**
BPBCA	**Veniaminof**	**1.58**	**350**		**Pn**	**08 08 26.7**	**+0.2**
BPBCA					**Sn**	**08 08 46.2**	**+0.5**
ANPB	**Aniakchak Plen**	**1.77**	**354**		**Pn**	**08 08 29.4**	**+0.2**
ANPB					**Sn**	**08 08 50.6**	**0.0**
ANPK	**Aniakchak Peak**	**1.81**	**357**		**Pn**	**08 08 30.4**	**+0.7**
ANPK					**Sn**	**08 08 51.6**	**+0.1**
AZAC	**Aniakchak**	**1.86**	**355**		**Pn**	**08 08 31.1**	**+0.5**
AZAC					**Sn**	**08 08 52.6**	**-0.3**
ANNW	**Aniakchak Nort**	**1.94**	**356**		**Pn**	**08 08 31.4**	**0.0**
PS1A	**Pavlof South-1**	**2.20**	**282**		**Pn**	**08 08 35.3**	**+0.2**
PS1A					**Sn**	**08 09 00.8**	**-0.3**
PVV	**Pavlof Volcano**	**2.22**	**280**		**Pn**	**08 08 35.2**	**-0.1**
PVV					**Sn**	**08 09 01.9**	**+0.3**
DOL	**Dolgoi Island**	**2.25**	**274**		**Pn**	**08 08 35.2**	**-0.5**
DOL					**Sn**	**08 09 02.3**	**0.0**
PS4A	**Pavlof South-4**	**2.26**	**279**		**Sn**	**08 09 03.0**	**+0.5**
HAG	**Hague Volcano**	**2.28**	**279**		**Pn**	**08 08 36.1**	**0.0**
HAG					**Sn**	**08 09 03.0**	**0.0**
PN7A	**Pavlof North-7**	**2.35**	**281**		**Pn**	**08 08 37.4**	**+0.3**
S12K	**Black Hills**	**2.44**	**287**		**Pn**	**08 08 38.4**	**+0.1**
S12K					**Sn**	**08 09 06.5**	**-0.4**
DTNA	**Dutton South F**	**2.47**	**274**		**Pn**	**08 08 38.6**	**-0.1**
DT1	**Dutton Round H**	**2.49**	**273**		**Pn**	**08 08 38.6**	**-0.4**
DT1					**Sn**	**08 09 07.8**	**-0.3**
R16K	**Pilot Point**	**2.54**	**5**		**Pn**	**08 08 40.5**	**+0.8**
R16K					**Sn**	**08 09 10.7**	**+1.3**
R16K	**Pilot Point**	**2.54**	**5**	IAML		08 09 29.1	
	comp=E,854nm,1.1s						
R16K				IAML		08 09 49.5	
	comp=N,666nm,1.2s						
SII	**Sitkinak Islan**	**2.62**	**53**	P	**Pn**	**08 08 41.1**	**+0.3**
SII	**Sitkinak Islan**	**2.62**	**53**	S	**Sn**	**08 09 14.2**	**+2.9**
SII	**Sitkinak Islan**	**2.62**	**53**	Pn	**Pn**	**08 08 41.2**	**+0.5**
SII				IAML		08 09 42.4	
	comp=N,691nm,1.0s						
SII				IAML		08 09 53.4	
	comp=E,666nm,1.0s						
R17L	**Mt. Peulik Vol**	**2.74**	**18**		**Pn**	**08 08 43.4**	**+0.8**
R17L					**Pb**	**08 08 47.7**	**-1.6**
R17L					**Sn**	**08 09 15.1**	**+0.6**
R17L					**Sb**	**08 09 23.9**	**+1.4**
PLK5	**Peulik 5**	**3.02**	**11**		**Pn**	**08 08 47.1**	**+0.8**
OHAK	**Old Harbor**	**3.41**	**48**	P	**Pn**	**08 08 51.2**	**-0.4**
OHAK	**Old Harbor**	**3.41**	**48**		**Pn**	**08 08 51.3**	**-0.2**
Q17K	**Contact Creek**

SEW	Seward	6.83	39		Pn	08 09 37.2	-1.3
M20K	Styx River	7.31	18		Pn	08 09 46.7	+1.4
K15K	Wolf Creek Mou	7.51	347		Pn	08 09 48.4	+0.5
K17K	Iditarod	7.70	359		Pn	08 09 50.5	0.0
SKT	Skwentna	7.72	23	Pn	Pn	08 09 52.5	+1.6
K13K	Kusilvak Mount	7.75	336		Pn	08 09 50.5	-0.7
L20K	Farewell, AK	7.75	14		Pn	08 09 53.0	+1.7
PWL	Port Wells	7.75	37		Pn	08 09 49.5	-1.7
KNK	Knik Glacier	8.11	34	Pn	Pn	08 09 56.8	+0.6
HIN	Hinchinbrook I	8.14	44	Pn	Pn	08 09 57.3	+0.7
FID	Port Fidalgo	8.37	42	Pn	Pn	08 09 59.4	-0.2
J17K	VABM Dome	8.40	357		Pn	08 10 00.7	+0.6
PPLA	Purkeypile	8.42	18		Pn	08 10 02.4	+1.9
SML	Sawmill	8.45	33	Pn	Pn	08 10 00.9	+0.1
J18K	Innoko River	8.47	4		Pn	08 10 01.4	+0.3
EYAK	Cordova Ski Ar	8.53	45	P	Pn	08 10 02.1	+0.2
SCM	Sheep Creek Mo	8.79	35	Pn	Pn	08 10 06.1	+0.6
CAST	Castle Rocks	8.92	17		Pn	08 10 08.0	+0.8
I17K	Unalakleet	8.98	352		Pn	08 10 07.2	-0.8
KLU	Klutina	9.04	40		Pn	08 10 09.9	+0.9
J19K	Poorman	9.06	7		Pn	08 10 08.7	-0.4
KTH	Kantishna Hill	9.26	20		Pn	08 10 12.4	+0.5
DHY	Denali Highway	9.71	30	Pn	Pn	08 10 18.1	-0.1
GLB	Gilahina Butte	9.82	44	Pn	Pn	08 10 19.7	+0.1
H17K	Granite Mounta	9.98	355		Pn	08 10 22.4	+0.7
PAX	Paxson	10.21	34		Pn	08 10 25.6	+0.7
BARN	Barnard Glacie	10.51	48	Pn	Pn	08 10 28.4	-0.9
WRH	Wood River Hil	10.67	24	Pn	Pn	08 10 30.6	-0.5
LOGN	Logan Glacier	10.70	50	Pn	Pn	08 10 31.2	-0.5
RIDG	Independent Ri	10.96	32	Pn	Pn	08 10 36.5	+1.2
PNL	Peninsula	11.03	58	P	Pn	08 10 37.4	+1.3
ILAR	Eielson Array	11.21	25	Pn	Pn	08 10 34.9	-3.6
	comp=E,0.2nm,0.3s,baz=216,slow=14,SNR=11						
ILAR				Sn	Sn	08 12 37.2	-5.1
	baz=215,slow=23,SNR=2.9						
ILAR				LR	LR	08 14 52.8	
	comp=E,121nm,18.9s,baz=242,slow=38						
	comp=E,0.6nm,0.8s						
ILAR				AML	AML		
ADK	Adak	11.60	262	P	Pn	08 10 44.3	+0.4
M29M	Somme Creek	12.51	46		Pn	08 10 57.2	+0.8
G29M	Pine Creek	15.23	31	IAmb	IAmb	08 11 39.9	
	comp=Z,18nm,0.9s						
EPYK	Eagle Plains	15.29	34		P	08 11 37.0	-1.4
EPYK				IAmb	IAmb	08 11 40.5	
	comp=Z,23nm,1.1s						
DLBC	Dease Lake	15.64	66	Pn	Pn	08 11 40.5	+1.9
	baz=229,slow=9.2,SNR=1.2						
	comp=Z,1.5nm,0.9s						
H31M	Peel River	15.76	37		P	08 11 43.6	+0.1
H31M				IAmb	IAmb	08 11 45.7	
	comp=Z,20nm,1.1s						
G30M	tAoh Zraii Nji	15.82	32	P	Pn	08 11 43.0	+2.2
SHEM	Shemya Is, Ala	16.59	274	LR	LR	08 18 24.8	
	comp=Z,61nm,19.5s,baz=100,slow=39						
INK	Inuvik	17.45	31	P	Pn	08 12 00.3	-0.9
	comp=Z,0.6nm,0.3s,baz=212,slow=9.5,SNR=9.2						
INK				LR	LR	08 19 14.7	
	comp=Z,155nm,18.9s,baz=112,slow=40						
	comp=Z,7.4nm,0.8s						
INK				AML	AML		
INK	Inuvik	17.45	31	P	Pn	08 12 01.6	+0.3
C36M	Paulatuk	20.92	34		P	08 12 40.0	-0.1
C36M				IAmb	IAmb	08 12 56.9	
	comp=Z,15nm,1.0s						
A36M	Sachs Harbour	21.90	27		P	08 12 50.1	-0.5
A36M				IAmb	IAmb	08 12 54.9	
	comp=Z,9.1nm,0.9s						
PETK	Petropavlovsk-	25.77	284	P	P	08 13 26.7	-1.5
	comp=E,5.4nm,0.8s,baz=83,slow=12,SNR=4.7						
	comp=Z,5.4nm,0.8s						
NVAR	Mina Array Bea	31.32	105	P	P	08 14 27.6	+10
	comp=Z,0.5nm,0.7s,baz=303,slow=6.9,SNR=4.9						
	comp=Z,0.5nm,0.7s						
TIXI	Tiksi	34.06	327	P	P	08 14 39.6	-1.8
	comp=Z,0.8nm,0.3s,baz=87,slow=8.7,SNR=8.7						
TIXI				LR	LR	08 30 13.7	
	comp=Z,44nm,18.0s,baz=20,slow=40						
	comp=Z,0.8nm,0.3s						
TIXI	Tiksi	34.06	327	IAmb	IAmb	08 14 41.5	
	comp=Z,3.7nm,0.8s						
TXAR	Lajitas Array	46.22	101	P	P	08 16 30.3	+7.7
	comp=Z,0.6nm,0.8s,baz=312,slow=5.5,SNR=4.8						
	comp=Z,0.6nm,0.8s						
NRIK	Noril'sk	47.17	334	P	P	08 16 27.9	-1.6
	comp=Z,3.1nm,0.6s,baz=55,slow=7.1,SNR=5.2						
	comp=Z,3.1nm,0.6s						
NRIK	Noril'sk	47.17	334	IAmb	IAmb	08 16 29.9	
	comp=Z,6.3nm,0.8s						
KSRS	Korea Array	51.65	283	P	P	08 17 06.1	+2.1
	comp=Z,0.8nm,0.5s,baz=43,slow=7.2,SNR=4.5						
	comp=Z,0.8nm,0.5s						
SONM	Songino Array	55.52	306	P	P	08 17 32.6	+0.1
	comp=Z,1.4nm,0.8s,baz=60,slow=7.1,SNR=5.4						
	comp=Z,1.4nm,0.8s						
SONM	Songino Array	55.52	306	IAmb	IAmb	08 17 32.7	
	comp=Z,4.6nm,1.5s						
FINES	FINESS Array B	63.81	358	P	P	08 18 28.8	-0.3
	comp=Z,4.5nm,0.9s,baz=26,slow=7.3,SNR=4.3						
	comp=Z,4.5nm,0.9s						
KURK	Kurchatov	64.55	324	P	P	08 18 35.0	+1.0
KURBB	Kurchatov Arra	64.66	324	P	P	08 18 35.0	+0.2
	comp=Z,0.4nm,0.7s,baz=27,slow=6.6,SNR=2.7						
	comp=Z,0.4nm,0.7s						
APG	El Apazote	64.96	100	LR	LR	08 46 17.7	
	comp=Z,16nm,20.7s,baz=286,slow=35						
ARTI	Arti	65.05	339	P	P	08 18 37.2	-0.1
	comp=Z,3.1nm,0.5s,baz=2.3,slow=4.6,SNR=6.9						
	comp=Z,3.1nm,0.5s						
ARTI	Arti	65.05	339	P	P	08 18 36.9	-0.4
BVAR	Borovoye Array	65.13	330	P	P	08 18 38.1	+0.3
	comp=Z,1.8nm,0.6s,baz=60,slow=7.0,SNR=5.7						
	comp=Z,1.8nm,0.6s						
MKAR	Makanchi Array	66.55	319	P	P	08 18 46.2	-0.9
	comp=Z,0.5nm,0.5s,baz=38,slow=6.3,SNR=5.1						
	comp=Z,0.5nm,0.5s						
AKTO	Aktyubinsk	70.68	337	P	P	08 19 12.7	-0.1
	comp=Z,2.1nm,0.5s,baz=32,slow=4.5,SNR=5.7						
	comp=Z,2.1nm,0.5s						
AKASG	Malin Array Be	74.46	355	P	P	08 19 34.9	-0.3
	comp=Z,0.6nm,0.3s,baz=7.3,slow=5.8,SNR=8.8						
	comp=Z,0.6nm,0.3s						
KBZ	Khabaz	80.02	345	P	P	08 20 05.8	-0.7
	comp=Z,2.3nm,0.8s,baz=27,slow=2.3,SNR=5.6						
	comp=Z,2.3nm,0.8s						
CMAR	Chiang Mai Arr	82.33	291	P	P	08 20 19.1	0.0
	comp=Z,1.2nm,0.3s,baz=32,slow=5.1,SNR=12						
	comp=Z,1.2nm,0.3s						
ESDC	Sonseca Array	83.06	20	P	P	08 20 23.8	+1.0
	comp=Z,1.3nm,0.8s,baz=350,slow=5.7,SNR=4.8						
	comp=Z,1.3nm,0.8s						
ESDC	Sonseca Array	83.06	20	IAmb	IAmb	08 20 25.3	
	comp=Z,1.3nm,0.9s						
BRTR	Keskin Array B	85.08	351	P	P	08 20 34.1	+1.0
	comp=Z,0.5nm,0.6s,baz=353,slow=7.5,SNR=3.0						
	comp=Z,0.5nm,0.6s						
QSPA	South Pole Qui	144.82	180	PKPbc	PKiKP	08 27 39.1	+2.6
	comp=Z,1.5nm,1.0s,baz=61,slow=5.5,SNR=6.1						

MOS ***03*** *08:18:54.8±0.9, 19°.95S×177°.56W, h383km, mb5.3/26, Error ellipse: s-maj=9.7km s-min=8.3km az=43.5*

BJI ***03*** *08:18:54.5, 19°.70S×177°.05W, h391km, mB5.6/36, mb5.4/71*

NEIC ***03*** *08:18:56.6±2.1, 19°.99S±0°.08×177°.46W±0°.08, h388km±1km, mb5.3/568, Mwb5.8/78, Mww5.7/24, Error ellipse: s-maj=14.4km s-min=12.3km az=192.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr=4.73; Mθθ 0.57; Mφφ 4.16; Mrθ 1.80; Mθφ -0.01; Mrφ -4.22; Fault plane solution: M₀6.40000×10¹⁷ NP1: φs189.16000°, δ23.82000°, λ-67.14000°. NP2: φs344.41000°, δ68.15000°, λ-99.73000°. Principal axes: T 5.9293, Plg23.0000°, Azm82.0000°; N 0.8606, Plg9.0000°, Azm348.0000°; P -6.7898, Plg66.0000°, Azm238.0000°;*

NOU ***03*** *08:18:56.9, 19°.99S×177°.50W, h387km, ML5.5/181, Fiji Islands Region*

NEIC ***03*** *08:18:56.9, 20°.02S×177°.47W, h391km*

NEIC ***03*** *08:18:56.6, 20°.00S×177°.46W, h388km*

GFZ ***03*** *08:18:56.6, 19°.95S×177°.52W, h394km, Mw5.7/68, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-1.83; Mθθ 0.10; Mφφ 1.73; Mrθ 1.08; Mθφ -1.12; Mrφ-3.41; Fault plane solution: M₀4.150074×10¹⁷ NP1: φs140.25089°, δ15.81637°, λ-110.76480°. NP2: φs341.75936°, δ75.23525°, λ-84.26490°. Principal axes: T 4.3413, Plg30.0085°, Azm67.0789°; N -0.4119, Plg5.5451°, Azm160.2932°; P -3.9295, Plg59.3776°, Azm259.7331°;*

IPGP ***03*** *08:18:56.0, 19°.99S×177°.46W, h399km, Mw5.8, Fault plane solution: NP1:φs137.00000°, δ21.00000°, λ-111.00000°. NP2:φs340.00000°, δ70.00000°, λ-82.00000°.*

PTWC ***03*** *08:18:56, 19°.80S×177°.30W, h402km, Mwp5.7/14, FIJI REGION*

GFZ ***03*** *08:18:56.5±0.2, 20°.5S±3°×17°.8W±°, h390km, M5.6/42, mb5.7/42, confirmed*

IDC ***03*** *08:18:57.1±0.3, 20°.01S×177°.54W, h400km±3km, mb4.7/24, mbtmp5.5/29, Error ellipse: s-maj=7.4km s-min=7.0km az=40.0*

BGR ***03*** *08:18:58.0, 19°.58S×177°.14W, h400km±6km*

GCMT ***03*** *08:18:59.6±0.1, 19°.88S±0°.01×177°.50W±0°.01, h398km, MW5.8/150, Moment Tensor Solution. s150,c296; Duration: 1ᵗ8 Moment tensor: Scale 10¹⁷ Nm; Mrr-3.20±.05; Mθθ 0.53±.08; Mφφ 2.67±.08; Mrθ 0.90±.07; Mθφ -1.65±.07; Mφr-3.95±.07; Best double couple: M₀5.28500×10¹⁷ NP1:φs138.00000°, δ22.00000°, λ-114.00000°. NP2:φs344.00000°, δ70.00000°, λ-81.00000°. Principal axes: T 5.3830, Plg25.0000°, Azm67.0000°; N -0.2020, Plg9.0000°, Azm161.0000°; P -5.1870, Plg63.0000°, Azm268.0000°; nsta1 refers to body waves, cutoff=40s. Triangular moment-rate function*

NEIC ***03*** *08:19:02.1, 19°.80S×177°.35W, h390km, Moment Tensor Solution. Duration: 3ᵗ7 Moment tensor: Scale 10¹⁷Nm; Mrr-2.44; Mθθ 0.05; Mφφ 2.39; Mrθ 0.49; Mθφ -1.52; Mrφ-3.66; Fault plane solution: M₀4.66000×10¹⁷ NP1: φs133.33000°, δ21.67000°, λ-124.42000°. NP2: φs349.73000°, δ72.27000°, λ-77.34000°. Principal axes: T 4.8710, Plg26.0000°, Azm70.0000°; N -0.4455, Plg12.0000°, Azm166.0000°; P -4.4255, Plg61.0000°, Azm278.0000°;*

ISC 03 08:18:56.4±0.2, 19°.99S±0°.03×177°.39W±0°.03, h395km±1km, h396km:pP-P,n1076,σ1ˢ53/1069, mb5.3/396, 60C-55D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res
				Op	ISC		ISC
LKBA	Tubou, Lakemba	2.21	322	P	Pn	08 19 52.6	-0.8
LKBA	Tubou, Lakemba	2.21	322	P	Pn	08 19 52.6	-0.8
TAVE	Taveuni	4.05	323	P	Pn	08 20 08.3	-0.5
TAVE	Taveuni	4.05	323	P	Pn	08 20 08.4	-0.4
DGTI	Dogotuki	4.58	323	P	Pn	08 20 12.8	-1.2
DGTI	Dogotuki	4.58	323	P	Pn	08 20 12.0	-2.0
MSVF	Nonsavu	4.87	297	P	Pn	08 20 16.8	-0.2
	2μm,0.7s,baz=130,slow=8.2,SNR=488						
MSVF				S	S	08 21 20.4	-2.0
	594nm,0.9s,baz=193,slow=20,SNR=0.6						
MSVF	Nonsavu	4.87	297	P	Pn	08 20 16.1	-0.9
MSVF	Nonsavu	4.87	297	P	Pn	08 20 16.2	-0.8
MSVF				SN	S	08 21 20.4	-2.0
MSVF	Nonsavu	4.87	297		Pn	08 20 16.2	-0.8
MSVF	Nonsavu	4.87	297	P	Pn	08 20 16.3	-0.8
MSVF	Nonsavu	4.87	297	P	Pn	08 20 16.4	-0.6
FUTU	Fugatoga	5.70	353	P	Pn	08 20 25.0	-0.7
FUTU	Fugatoga	5.70	353		Pn	08 20 25.1	-0.6
FUTU	Fugatoga	5.70	353	P	Pn	08 20 25.3	-0.4
FUTU	Fugatoga	5.70	353	P	Pn	08 20 25.1	-0.6
FUTU				S	S	08 21 35.4	-2.9
FUTU				AML	AML		
FUTU	Fugatoga	5.70	353	P	Pn	08 20 25.4	-0.3
	comp=Z,3μm,1.0s						
NIUE	Niue	7.09	84	P	Pn	08 20 41.0	-0.1
	comp=Z,2μm,1.2s						
NIUE	Niue	7.09	84	P	Pn	08 20 41.9	+0.9
	comp=Z,2μm,1.2s,comp=Z,0.0nm						
NIUE	Niue	7.09	84	P	Pn	08 20 40.7	-0.4
NIUE	Niue	7.09	84		Pn	08 20 40.3	-0.7
NIUE	Niue	7.09	84	P	Pn	08 20 40.4	-0.7
NIUE	Niue	7.09	84	P	Pn	08 20 40.3	-0.7
NIUE				S	S	08 22 03.9	-2.6
NIUE				AML	AML		
NIUE	Niue	7.09	84	P	Pn	08 20 40.4	-0.6
	comp=Z,2μm,1.2s						
RIZ	Raoul Island	9.23	183	P	P	08 21 03.7	-1.7
RIZ				S	S	08 22 45.5	-5.8
RAO	Raoul Island	9.23	183	P	Pn	08 21 06.3	+0.9
	comp=Z,170nm,0.3s,baz=74,slow=19,SNR=2.2						
RAO				S	S	08 22 46.9	-4.5
	comp=Z,2μm,0.4s,baz=92,slow=23,SNR=13						
FUNA	Funafuti	11.87	343	P	Pn	08 21 36.4	+0.1
FUNA	Funafuti	11.87	343	P	P	08 21 34.5	-0.4
FUNA	Funafuti	11.87	343	P	P	08 21 34.7	-0.2
	comp=Z,369nm,1.1s						
RTV	Rentapao	13.60	277	P	Pn	08 21 54.6	-1.7
RTV	Rentapao	13.60	277	P	P	08 21 54.2	+0.2
MARNC	Mare, Loyalty	13.72	261	P	Pn	08 21 55.9	-1.8
MARNC	Mare, Loyalty	13.72	261		P	08 21 54.8	-0.4
MARNC	Mare, Loyalty	13.72	261	P	P	08 21 55.5	+0.3
DVP	Devils Point	13.84	277	P	P	08 21 56.8	+0.3
DVP	Devils Point	13.84	277	P	Pn	08 21 57.5	-1.6
PINNC	Pines Island,	14.37	257	P	Pn	08 22 03.1	-1.7
PINNC	Pines Island,	14.37	257		Pn	08 22 03.2	-1.6
PINNC	Pines Island,	14.37	257	P	Pn	08 22 04.2	-0.6
YATNC	Mamie plateau,	14.82	259	P	P	08 22 07.5	+0.3
OUENC	Ouen Island, N	14.90	258	P	P	08 22 08.6	+0.5
OUENC	Ouen Island, N	14.90	258	P	P	08 22 08.5	+0.5
DZM	Mont Dzumac	15.24	259	P	P	08 22 12.0	+0.2
	comp=Z,418nm,0.8s,baz=84,slow=15,SNR=202						
DZM				S	S	08 24 53.2	-0.4
	comp=Z,175nm,1.1s,baz=77,slow=14,SNR=8.9						
SANVU	Saraoutou	15.36	285	P	P	08 22 12.3	-0.8
SANVU	Saraoutou	15.36	285		P	08 22 11.2	-1.9
SANVU	Saraoutou	15.36	285	P	P	08 22 12.2	-0.8
SANVU	Saraoutou	15.36	285	P	P	08 22 12.2	-0.8
	comp=Z,342nm,1.1s						
NOUC	Port Laguerre	15.37	259	P	P	08 22 13.8	+0.7
NOUC	Port Laguerre	15.37	259	P	P	08 22 13.4	+0.3
NFK	Norfolk Island	16.10	233	P	Pn	08 22 24.4	-0.1
	comp=Z,608nm,1.1s						
NFK	Norfolk Island	16.10	233	P	P	08 22 21.2	+0.3
	comp=Z,608nm,1.1s						
NFK	Norfolk Island	16.10	233	P	Pn	08 22 24.3	-0.2
NFK	Norfolk Island	16.10	233	P	Pn	08 22 24.3	-0.2
RAR	Rarotonga	16.54	97	P	P	08 22 27.6	+2.0
	comp=Z,168nm,0.9s,baz=241,slow=7.0,SNR=11						
RAR	Rarotonga	16.54	97	P	P	08 22 27.5	+1.8
RAR	Rarotonga	16.54	97		P	08 22 26.2	+0.5
RAR	Rarotonga	16.54	97	P	P	08 22 27.8	+2.1
	comp=Z,474nm,2.2s						
OUZ	Omahuta	17.13	206	P	P	08 22 33.9	+2.1
OUZ	Omahuta	17.13	206	P	Pn	08 22 34.1	-1.6
	comp=Z,173nm,1.4s						
KOUNC	Koumac, New Ca	17.20	265	P	P	08 22 32.5	-0.3
KOUNC	Koumac, New Ca	17.20	265		P	08 22 32.2	-0.6
KOUNC	Koumac, New Ca	17.20	265	P	P	08 22 32.8	0.0
GRZ	Great Barrier	17.37	200	P	P	08 22 36.3	+2.0
WCZ	Waipu Caves	17.47	203	P	Pn	08 22 39.0	-0.7
MXZ	Matakaoa Point	17.91	191	P	P	08 22 40.9	+0.9
MXZ	Matakaoa Point	17.91	191		P	08 22 41.6	+1.6
MXZ				IAmb	IAmb	08 22 42.8	
	comp=Z,187nm,1.3s						
MXZ	Matakaoa Point	17.91	191	P	P	08 22 40.7	+0.7
MXZ				S	S	08 25 46.8	+1.7
WIAZ	Waiheke Island	17.97	200	P	Pn	08 22 43.6	-1.9
MBAZ	Motutapu North	18.03	200	P	P	08 22 44.8	+3.5
WMGZ	Waiomatatini S	18.14	191	P	P	08 22 43.3	+0.9
WMGZ				S	S	08 25 52.3	+2.9
ETAZ	East Tamaki Re	18.19	200	P	P	08 22 46.3	+3.2
HAZ	Te Kaha	18.19	192	P	P	08 22 42.5	-0.6
HAZ				S	S	08 25 50.9	+0.5
PKGZ	Pakihiroa	18.24	192	S	S	08 25 53.9	+2.5
MKAZ	Moumakai	18.25	199	P	P	08 22 45.5	+1.8
WTAZ	Waiatarua	18.28	201	P	P	08 22 47.1	+3.0
PUZ	Puketiti	18.41	191	P	P	08 22 44.6	-0.8
PUZ				S	S	08 25 54.2	-0.2
RUGZ	Raukumara Rang	18.42	192	P	P	08 22 46.3	+0.7
RUGZ				S	S	08 25 55.9	+1.1
TGRZ	Tauranga	18.52	196	P	P	08 22 50.6	+4.1
OPRZ	Ohinepanea	18.55	195	P	P	08 22 49.1	+2.2
TWGZ	Tauwhareparae	18.56	192	P	P	08 22 48.6	+1.5
TWGZ				S	S	08 25 59.7	+2.5
TOZ	Tahuroa Road	18.73	198		P	08 22 49.0	+0.2
TOZ	Tahuroa Road	18.73	198	P	P	08 22 50.8	+2.1
KARZ	Kaharoa	18.80	196	P	P	08 22 53.3	+3.8
MWZ	Matawai	18.80	192	P	P	08 22 49.8	+0.2
MWZ				S	S	08 26 03.8	+2.5
CNGZ	Carnagh Statio	18.82	191	P	P	08 22 50.4	+0.8
CNGZ				S	S	08 26 08.5	+7.0
URZ	Urewera	18.82	194	P	P	08 22 49.8	+0.1
	comp=Z,53nm,0.3s,baz=27,slow=5.6,SNR=39						
URZ				S	S	08 26 01.2	-0.3
	comp=Z,57nm,0.5s,baz=56,slow=21,SNR=7.8						
URZ				ScP	ScP	08 29 53.6	-0.5
	comp=Z,7.9nm,0.6s,baz=336,slow=17,SNR=1.8						
URZ	Urewera	18.82	194	P	P	08 22 49.2	-0.5
URZ	Urewera	18.82	194	P	P	08 22 48.6	-1.1
URZ				S	S	08 26 02.5	+1.0
URZ	Urewera	18.82	194	P	P	08 22 49.5	-0.2
	comp=Z,171nm,0.7s						
TKGZ	Te Karaka	18.84	192	P	P	08 22 51.5	+1.6
TKGZ				S	S	08 26 03.8	+2.0
RAGZ	Rawiri	18.98	193	P	P	08 22 53.4	+2.0
RRRZ	Republican Roa	19.03	195	P	P	08 22 54.0	+2.1
MUGZ	Murupara	19.10	194	P	P	08 22 53.3	+0.8
MUGZ				S	S	08 26 12.1	+5.7
RIGZ	Rimuhau	19.12	192	P	P	08 22 53.4	+0.7
RIGZ				S	S	08 26 12.4	+5.7
HRRZ	Handcock Road	19.14	195	P	P	08 22 54.0	+1.0
RTZ	Ruatahuna	19.19	194		P	08 22 51.9	-1.6
RTZ				IAmb	IAmb	08 22 58.8	
	comp=Z,372nm,1.7s						
PRRZ	Plateau Road	19.21	195	P	P	08 22 54.0	+0.4
TLZ	Tolley Road	19.28	197	P	P	08 22 57.1	+2.8
WPRZ	Whakapapatarin	19.29	195	P	P	08 22 56.9	+2.5
PRGZ	Paritu Road	19.30	191	P	P	08 22 56.6	+2.0
PRGZ				S	S	08 26 16.2	+6.5
KNZ	Kokohu	19.44	192	P	P	08 22 56.9	+1.1
KNZ				S	S	08 26 20.9	+9.1
MTHZ	Maungataniwha	19.45	194	P	P	08 22 56.4	+0.4
MTHZ				S	S	08 26 20.4	+8.3
RAHZ	Arahi	19.45	193	P	P	08 22 56.2	+0.2
MRHZ	Matea Rd	19.53	195	P	P	08 22 56.4	-0.3
WHHZ	Waihua	19.58	193	P	P	08 22 59.2	+2.1
HIZ	Hauiti	19.64	198	P	P	08 22 59.0	+1.2
HIZ	Hauiti	19.64	198	P	P	08 23 00.2	+2.5
HIZ	Hauiti	19.64	198	P	P	08 22 58.9	+1.2
	comp=Z,438nm,1.5s						
NMHZ	Naumai	19.69	194	P	P	08 22 56.7	-1.6
ARHZ	Aropaoanui	19.81	193	P	P	08 23 01.9	+2.6
BKZ	Black Stump Fm	19.82	194	P	P	08 23 00.0	+0.5
BKZ	Black Stump Fm	19.82	194	P	P	08 22 58.9	-0.6
NTVZ	North Tongarir	19.96	196	P	P	08 23 02.1	+1.2
TMVZ	Te Maari	19.97	196	P	P	08 23 01.1	+0.2
ETVZ	East Tongariro	19.99	196	P	P	08 23 01.4	+0.3
MCHZ	McNeill Hill	20.05	193	P	P	08 23 04.2	+2.7
SNVZ	South Ngauruho	20.05	196	P	P	08 23 02.3	+0.6
MOVZ	Moawhango	20.23	196	P	P	08 23 04.1	+0.9
KRWZ	Kereru	20.31	194	P	P	08 23 03.9	0.0
KAHZ	Kahuranaki	20.34	193	P	P	08 23 05.3	+1.0
PXZ	Pawanui	20.57	193	P	P	08 23 06.9	+0.6
BFZ	Birch Farm	21.33	193	P	P	08 23 14.2	+1.0
BFZ	Birch Farm	21.33	193	P	P	08 23 14.2	+1.0
BFZ				IAmb	IAmb	08 23 16.4	
	comp=Z,302nm,1.5s						
BFZ	Birch Farm	21.33	193	P	P	08 23 12.4	-0.7
	comp=Z,142nm,1.4s						
MRZ	Mangatainoka R	21.46	195	P	P	08 23 12.3	-2.0
HURO	Huro Makira	22.09	292	P	P	08 23 20.7	+0.3
SNZO	South Karori	22.29	196	P	P	08 23 23.6	+1.7
SNZO	South Karori	22.29	196	P	P	08 23 22.0	+0.2
SNZO				IAmb	IAmb	08 23 26.6	
	comp=Z,89nm,0.9s						
SNZO	South Karori	22.29	196	P	P	08 23 22.3	+0.4
SNZO	South Karori	22.29	196	P	P	08 23 22.7	+0.8
	comp=Z,142nm,1.1s						
BHW	Baring Head	22.34	195	P	P	08 23 20.9	-1.4
QRZ	Quartz Range	22.48	200	P	P	08 23 24.4	+0.8
NNZ	Nelson	22.57	198	IAmb	IAmb	08 23 28.5	
	comp=Z,269nm,1.5s						
CMWZ	Cape Campbell	22.83	196	P	P	08 23 27.7	+0.9
THZ	Tophouse	23.21	199	IAmb	IAmb	08 23 40.4	
	comp=Z,119nm,1.1s						
NGOA	Tingoa Renbel	23.24	288	P	P	08 23 30.7	-0.1
TARA	Tarawa	23.25	335	P	P	08 23 31.4	+0.6
TARA	Tarawa	23.25	335	P	P	08 23 29.7	-1.1
	comp=Z,612nm,1.0s						
KHZ	Kahutara	23.63	197	P	P	08 23 35.0	+1.0
KHZ	Kahutara	23.63	197	IAmb	IAmb	08 23 41.2	
	comp=Z,106nm,1.2s						
KHZ	Kahutara	23.63	197	P	P	08 23 33.1	-0.8
KHZ	Kahutara	23.63	197	P	P	08 23 33.2	-0.8
	comp=Z,88nm,1.1s						
ALEG	Aligegeo Malai	23.96	295	P	P	08 23 38.1	+0.9
LHI	Lord Howe Isla	24.06	237	P	P	08 23 40.2	+2.2
	comp=Z,156nm,1.5s						
LHI	Lord Howe Isla	24.06	237	IAmb	IAmb	08 23 42.3	

EIDS Eidsvold 29.54 254 P P 08 24 26.2 -0.3
comp=Z,440nm,1.1s
EIDS Eidsvold 29.54 254 P P 08 24 25.9 -0.6
EIDS Eidsvold 29.54 254 P P 08 24 26.0 -0.6
comp=Z,440nm,1.1s
ARMA Armidale 29.81 243 P P 08 24 29.2 +0.1
comp=Z,443nm,1.0s
ARMA Armidale 29.81 243 P P 08 24 29.0 0.0
ARMA Armidale 29.81 243 P P 08 24 29.1 +0.1
ARMA Armidale 29.81 243 P P 08 24 29.5 +0.5
comp=Z,444nm,1.0s
AUNRC North Rockhamp 29.97 258 P P 08 24 30.6 +0.3
NTLH Newcastle Hard 30.39 239 P P 08 24 34.6 +0.7
AUPHS Peel High Scho 30.58 242 P P 08 24 35.4 -0.3
AUKHS Kincumber High 30.82 238 P P 08 24 38.1 +0.5
MGCD Mangrove Creek 30.96 238 P P 08 24 39.2 +0.3
comp=Z,352nm,0.8s
MGCD Mangrove Creek 30.96 238 P P 08 24 39.4 +0.4
comp=Z,352nm,0.8s
MGCD Mangrove Creek 30.96 238 P P 08 24 39.3 +0.4
MGCD Mangrove Creek 30.96 238 P P 08 24 38.9 0.0
comp=Z,352nm,0.8s
RIV Riverview 31.11 237 P P 08 24 41.8 +1.7
comp=Z,379nm,1.3s
RIV Riverview 31.11 237 P P 08 24 41.1 +0.9
RIV Riverview 31.11 237 P P 08 24 41.2 +1.1
comp=Z,379nm,1.3s
SYDH Sydney Hard Ro 31.42 238 P P 08 24 43.0 +0.2
RMQ Roma 31.71 252 P P 08 24 47.1 +1.6
comp=Z,220nm,1.4s
RMQ Roma 31.71 252 P P 08 24 46.4 +0.9
RMQ Roma 31.71 252 P P 08 24 46.6 +1.1
comp=Z,220nm,1.4s
AUUHS Ulladulla High 32.15 235 P P 08 24 49.7 +0.6
AUDCS Dubbo College 32.72 241 P P 08 24 54.6 +0.5
AULRC Lightning Ridg 32.73 246 P P 08 24 54.5 +0.3
CNB Canberra Magne 32.98 235 P P 08 24 56.4 0.0
comp=Z,540nm,1.1s,comp=Z,0.0nm
CNB Canberra Magne 32.98 235 P P 08 24 56.6 +0.2
comp=Z,540nm,1.1s,comp=Z,0.0nm
AUAYR Ayr State High 33.09 265 P P 08 24 58.1 +0.7
AUDAR Daramalan Coll 33.14 236 P P 08 24 58.1 +0.4
AUMTS Mt Stromlo 33.27 236 P P 08 24 59.5 +0.7
CAN Canberra 33.27 236 P P 08 24 59.3 +0.6
comp=Z,432nm,1.2s
CAN Canberra 33.27 236 P P 08 24 59.4 +0.6
CAN Canberra 33.27 236 P P 08 24 59.0 +0.2
CAN pmax pmax
comp=Z,482nm,1.2s
CAN Canberra 33.27 236 P P 08 24 59.1 +0.3
comp=Z,432nm,1.2s
CAN Canberra 33.27 236 P P 08 24 59.0 +0.2
RABL Rabaul 33.56 294 IAmb IAmb 08 25 23.8
comp=Z,118nm,0.7s
MILA Mila 33.73 233 P P 08 25 03.5 +0.8
comp=Z,40nm,1.3s
CTAO Charters Tower 34.11 263 P P 08 25 05.8 -0.3
CTAO Charters Tower 34.11 263 P P 08 25 05.5 -0.7
CTAO pmax pmax
comp=Z,1µm,0.9s
CTAO Charters Tower 34.11 263 P P 08 25 05.5 -0.7
CTAO Charters Tower 34.11 263 P P 08 25 05.8 -0.3
comp=Z,2µm,1.0s
CMSA Cobar Meteorol 35.02 243 P P 08 25 13.7 0.0
comp=Z,627nm,1.1s
CMSA Cobar Meteorol 35.02 243 P P 08 25 13.3 -0.4
CMSA Cobar Meteorol 35.02 243 P P 08 25 13.3 -0.4
comp=Z,627nm,1.1s
AUSSC Sale College, 35.64 232 P P 08 25 20.0 +1.2
QLP Quilpie 35.76 252 P P 08 25 19.2 -0.7
comp=Z,1µm,0.9s
QLP Quilpie 35.76 252 P P 08 25 19.8 -0.1
comp=Z,1µm,0.9s
QLP Quilpie 35.76 252 P P 08 25 19.4 -0.6
QLP Quilpie 35.76 252 P P 08 25 19.3 -0.7
comp=Z,1µm,0.9s
PMG Port Moresby 35.79 282 P P 08 25 20.0 -0.4
PMG Port Moresby 35.79 282 *de*P P 08 25 19.3 -1.0
PMG pmax pmax
comp=Z,900nm,1.0s
PMG Port Moresby 35.79 282 P P 08 25 19.4 -0.9
PMG Port Moresby 35.79 282 P P 08 25 19.6 -0.8
comp=Z,7µmcomp=Z,823nm,1.0s
PMG Port Moresby 35.79 282 P P 08 25 19.9 -0.5
comp=Z,842nm,1.0s
PMG Port Moresby 35.79 282 P P 08 25 19.4 -1.0
PMG PcP PcP 08 27 39.0 +0.9
PATS Pohnpei 35.81 316 P P 08 25 21.0 +0.5
comp=Z,379nm,1.0s
PATS Pohnpei 35.81 316 P P 08 25 20.7 +0.2
PATS Pohnpei 35.81 316 P P 08 25 19.8 -0.7
PATS Pohnpei 35.81 316 P P 08 25 20.6 +0.2
comp=Z,378nm,1.0s
GLAD Gladstone 36.09 227 P P 08 25 22.7 +0.2
MTSU Mount Surprise 36.19 266 P P 08 25 23.0 -0.7
comp=Z,581nm,0.8s
MTSU Mount Surprise 36.19 266 P P 08 25 22.4 -1.3
MTSU Mount Surprise 36.19 266 P P 08 25 23.0 -0.7
comp=Z,581nm,0.8s
AUMAG Moama Anglican 36.80 236 P P 08 25 28.9 +0.4
CORO Coronation Par 36.88 227 P P 08 25 29.9 +0.9
MLBS Spotswood, Mel 37.19 233 P P 08 25 32.7 +1.0
MOO Moorlands 37.27 225 P P 08 25 33.2 +0.9
comp=Z,41nm,1.5s
TAU Tasmania Unive 37.39 224 P P 08 25 34.4 +1.1
TAU Tasmania Unive 37.39 224 P P 08 25 32.8 -0.5
TAU pmax pmax
comp=Z,54nm,0.8s
TAU Tasmania Unive 37.39 224 P P 08 25 32.8 -0.5
TAU Tasmania Unive 37.39 224 P P 08 25 33.1 -0.2
comp=Z,76nm,1.6s
AUBRN Burnie High Sc 37.59 228 P P 08 25 36.1 +1.1
TAOE Nuku Hiva Isla 37.64 78 *e*P P 08 25 36.1 +0.3
comp=Z,441nm,1.3s
TAOE *e*S S 08 30 48.7 -7.5
comp=Z,813nm,26.3s
TAOE *e*SS SS 08 34 05.7 +4.3
comp=Z,3µm,29.4s
BRAT Ballarat 37.84 234 P P 08 25 37.1 +0.1
AUMTC Mt Clear Colle 37.89 234 P P 08 25 37.6 +0.1
STKA Stephens Creek 38.53 244 P P 08 25 42.3 -0.6
comp=Z,260nm,0.8s,baz=86,slow=10,SNR=235
STKA pP pP 08 26 58.8 +1.9
comp=Z,24nm,0.8s,baz=109,slow=12,SNR=1.0
comp=Z,260nm,0.8s
STKA Stephens Creek 38.53 244 P P 08 25 42.2 -0.6
MANU Manus Island 38.77 293 IAmb IAmb 08 25 46.7
comp=Z,192nm,1.1s
MCQ Macquarie Isla 38.87 202 P P 08 25 48.1 +2.9
comp=Z,90nm,1.6s
INKA Innaminka 38.91 250 IAmb IAmb 08 25 48.4
comp=Z,236nm,1.1s
AUHPC Hawkesdale P12 39.22 234 P P 08 25 49.1 +0.7
ARPS Mount Arapiles 39.24 236 P P 08 25 48.4 -0.3
comp=Z,46nm,1.2s
ARPS Mount Arapiles 39.24 236 P P 08 25 48.7 0.0
comp=Z,46nm,1.2s
QIS Mount Isa 40.26 262 P P 08 25 55.8 -1.4
comp=Z,83nm,0.9s
QIS Mount Isa 40.26 262 P P 08 25 56.1 -1.1
QIS Mount Isa 40.26 262 P P 08 25 55.7 -1.4
comp=Z,83nm,0.9s
AUMBR Murray Bridge 40.93 239 P P 08 26 01.9 -0.5
HTT Hallett 40.97 242 P P 08 26 02.7 -0.1
comp=Z,227nm,1.3s
HTT Hallett 40.97 242 P P 08 26 02.1 -0.7
AUMAR Marden Senior 41.42 240 P P 08 26 06.0 -0.3
GHSS Government Hou 41.45 240 P P 08 26 06.9 +0.4
PTPS Port Pirie 41.71 242 P P 08 26 09.4 +0.8
WAKE Wake Island 42.05 337 P P 08 26 09.4 -2.0
WAKE pP pP 08 27 26.0 -1.9
BBOO Buckleboo 43.29 243 P P 08 26 20.8 -0.4
comp=Z,534nm,1.4s
BBOO Buckleboo 43.29 243 P P 08 26 20.1 -1.1
BBOO Buckleboo 43.29 243 P P 08 26 20.2 -1.0
comp=Z,534nm,1.4s
AUCAS Cummins Area S 43.72 241 P P 08 26 24.6 +0.1
OVEH Oceanview Est 44.30 30 IAmb IAmb 08 26 30.9
comp=Z,178nm,0.8s
DAH Dandelion 44.53 30 P P 08 26 31.5 +0.1
KHLU Kahalu`u 44.62 29 P P 08 26 32.3 +0.5
comp=Z,376nm,0.9s
MLOA Mauna Loa Obse 44.72 30 P P 08 26 33.6 +0.6
MLOA IAmb IAmb 08 26 34.1
comp=Z,195nm,1.2s

HUH Hualalai 44.73 29 IAmb IAmb 08 26 34.8
comp=Z,197nm,1.1s
PUH Pauahi 44.75 30 IAmb IAmb 08 26 34.7
comp=Z,165nm,1.0s
BYL Byron's Ledge 44.77 30 IAmb IAmb 08 26 34.7
comp=Z,296nm,1.5s
HATHI Halema'uma'u T 44.77 30 IAmb IAmb 08 26 34.7
comp=Z,279nm,1.5s
MLH Mauna Loa 44.78 30 IAmb IAmb 08 26 35.1
comp=Z,315nm,1.4s
STCH Steam Cracks 44.81 30 IAmb IAmb 08 26 35.0
comp=Z,248nm,0.9s
HMH Humu'ula Sheep 44.82 30 P P 08 26 34.5 +0.9
GENI Genyem 44.88 287 P P 08 26 34.3 +0.4
GENI Genyem 44.88 287 P P 08 26 32.6 -1.3
comp=Z,5µmcomp=Z,1µm,1.3s
GENI Genyem 44.88 287 P P 08 26 34.0 +0.1
comp=Z,1µm,1.3s
JOKA Jonika Flow 44.91 31 IAmb IAmb 08 26 35.8
comp=Z,260nm,1.2s
POHA Pohakuloa 44.93 30 P P 08 26 36.0 +1.6
POHA Pohakuloa 44.93 30 P P 08 26 33.9 -0.5
POHA IAmb IAmb 08 26 36.3
comp=Z,273nm,1.2s
POHA Pohakuloa 44.93 30 P P 08 26 35.4 +1.0
comp=Z,177nm,1.1s
AS17 Alice Springs 45.12 256 P P 08 26 34.8 -0.9
comp=Z,2µm,0.8s
AS01 Alice Springs 45.15 256 P P 08 26 35.5 -0.5
KEKH Kekaha 45.15 23 IAmb IAmb 08 26 37.5
comp=Z,230nm,0.9s
KEKH Kekaha 45.15 23 P P 08 26 36.7 +1.0
comp=Z,341nm,0.9s
AS09 Alice Springs 45.16 256 P P 08 26 35.1 -0.9
comp=Z,1µm,0.9s
AS15 Alice Springs 45.19 256 P P 08 26 35.4 -0.9
comp=Z,2µm,0.8s
AS31 Alice Springs 45.19 256 P P 08 26 35.5 -0.8
comp=Z,428nm,0.9s,comp=Z,0.0nm
ASAR Alice Springs 45.20 256 P P 08 26 35.2 -1.0
comp=Z,1µm,0.8s,baz=89,slow=7.9,SNR=2343
ASAR pP pP 08 27 53.8 +0.6
comp=Z,64nm,0.9s,baz=86,slow=8.0,SNR=1.5
ASAR ScP ScP 08 31 22.3 -0.7
comp=Z,11nm,0.9s,baz=100,slow=3.4,SNR=5.2
ASAR S S 08 32 43.2 -2.8
comp=Z,49nm,1.0s,baz=91,slow=15,SNR=26
ASAR Alice Springs 45.20 256 P P 08 26 35.1 -1.2
AUALC St Philip's Co 45.21 256 P P 08 26 35.7 -0.7
HON Honolulu 45.23 26 IAmb IAmb 08 26 38.3
comp=Z,232nm,1.1s
WB2 Warramunga Arr 45.23 261 P P 08 26 35.4 -1.2
WRAB Tennant Creek 45.23 261 P P 08 26 35.0 -1.6
WRAB Tennant Creek 45.23 261 P P 08 26 34.9 -1.6
WRAB pmax pmax
comp=Z,486nm,1.1s
WRAB Tennant Creek 45.23 261 P P 08 26 34.9 -1.7
WRAB Tennant Creek 45.23 261 P P 08 26 35.0 -1.7
comp=Z,514nm,1.2s
WRA Warramunga Arr 45.24 261 P P 08 26 35.2 -1.5
comp=Z,253nm,0.9s,baz=95,slow=7.6,SNR=76
WRA pP pP 08 27 53.2 -0.4
comp=Z,22nm,1.1s,baz=95,slow=7.9,SNR=1.0
WRA ScP ScP 08 31 22.8 -0.4
comp=Z,4.1nm,0.8s,baz=73,slow=7.9,SNR=2.8
WRA S S 08 32 44.1 -2.6
comp=Z,24nm,1.0s,baz=97,slow=12,SNR=8.9
comp=Z,253nm,0.9s
WRA Warramunga Arr 45.24 261 IAmb IAmb 08 26 37.1
comp=Z,68nm,1.1s
KIP Kipapa 45.31 26 P P 08 26 39.0 +1.9
KIP Kipapa 45.31 26 P P 08 26 38.9 +1.9
KIP Kipapa 45.31 26 *e*P P 08 26 37.9 +0.9
KIP pmax pmax
comp=Z,160nm,1.3s
KIP Kipapa 45.31 26 P P 08 26 38.1 +1.1
comp=Z,105nm,1.2s
KIP Kipapa 45.31 26 P P 08 26 37.5 +0.5
KIP pP pP 08 27 55.7 +1.3
KHLH Kahului Airpor 45.52 28 IAmb IAmb 08 26 41.0
comp=Z,263nm,1.3s
KHLH Kahului Airpor 45.52 28 P P 08 26 40.4 +1.7
comp=Z,218nm,1.3s
KDU Kakadu 48.52 271 P P 08 27 01.1 -0.6
comp=Z,282nm,1.1s
BAKI Biak 49.14 286 P P 08 27 05.5 -0.9
MTN Manton Dam 49.73 270 P P 08 27 09.3 -1.5
comp=Z,326nm,0.9s,comp=Z,0.0nm
GUMO Guam 49.92 309 P P 08 27 11.4 -0.8
comp=Z,656nm,0.7s,baz=144,slow=8.4,SNR=33
GUMO Guam 49.92 309 P P 08 27 12.6 +0.5
GUMO Guam 49.92 309 P P 08 27 11.9 -0.2
GUMO pmax pmax
comp=Z,1µm,1.0s
GUMO Guam 49.92 309 P P 08 27 11.9 -0.2
GUMO Guam 49.92 309 P P 08 27 11.9 -0.2
comp=Z,1µm,1.0s
FORT Forrest 50.02 246 P P 08 27 12.4 -0.3
comp=Z,270nm,1.1s
FORT Forrest 50.02 246 P P 08 27 11.5 -1.3
DRS Darwin Rock St 50.06 270 P P 08 27 13.1 -0.1
WRKA Warakurna 50.16 254 P P 08 27 13.0 -0.9
comp=Z,379nm,1.2s
KMPI Kaimana, Papua 50.32 282 P P 08 27 14.6 -0.6
SAUI Saumlaki 51.01 276 P P 08 27 21.3 +1.0
SAUI Saumlaki 51.01 276 P P 08 27 20.5 +0.2
comp=Z,2µm,1.1s
KNRA Kununurra 51.27 266 P P 08 27 21.1 -1.0
comp=Z,406nm,0.9s,comp=Z,0.0nm
FAKI Fak Fak 51.95 282 P P 08 27 26.8 -0.3
FAKI Fak Fak 51.95 282 P P 08 27 26.3 -0.8
FAKI Fak Fak 51.95 282 P P 08 27 26.1 -1.0
comp=Z,842nm,1.2s
BNDI Bandanaira 53.51 279 P P 08 27 38.7 +0.3
BNDI Bandanaira 53.51 279 P P 08 27 37.8 -0.6
comp=Z,2µm,1.0s
SIJI Sorong 53.67 284 P P 08 27 38.8 -0.8
comp=Z,2µm,0.9s,baz=75,slow=6.4,SNR=266
KMBL Kambalda 55.29 245 P P 08 27 49.2 -1.6
comp=Z,80nm,1.2s
SOEI Soe 57.06 271 P P 08 28 04.6 +1.0
SOEI Soe 57.06 271 P P 08 28 04.3 +0.7
comp=Z,2µm,1.1s
TNTI Ternate 57.89 284 P P 08 28 09.5 +0.3
TNTI Ternate 57.89 284 P P 08 28 09.0 -0.1
TNTI Ternate 57.89 284 P P 08 28 09.1 -0.1
comp=Z,802nm,1.0s
SANI Sanana 58.05 280 P P 08 28 09.9 -0.4
SANI Sanana 58.05 280 P P 08 28 09.3 -1.0
comp=Z,819nm,1.1s
AUKUL Kulin High Sch 58.36 243 P P 08 28 12.0 -0.1
AUALB St Joseph's Co 58.41 241 P P 08 28 13.1 +0.7
SBA Scott Base 58.41 184 P P 08 28 14.3 +2.6
SBA pmax pmax
comp=Z,103nm,1.3s
SBA Scott Base 58.41 184 P P 08 28 14.3 +2.6
SBA IAmb IAmb 08 28 16.1
comp=Z,103nm,1.2s
SBA Scott Base 58.41 184 P P 08 28 14.4 +2.8
comp=Z,90nm,1.2s
SBA Scott Base 58.41 184 P P 08 28 14.1 +2.4
SBA pP pwP 08 29 37.8 +0.5
VNDA Vanda 58.46 185 P P 08 28 12.9 +0.9
comp=Z,22nm,1.1s,baz=10,slow=6.9,SNR=42
comp=Z,22nm,1.1s
VNDA Vanda 58.46 185 P P 08 28 13.8 +1.8
VNDA pmax pmax
comp=Z,34nm,1.2s
VNDA Vanda 58.46 185 P P 08 28 13.8 +1.8
MBWA Marble Bar 58.53 257 P P 08 28 12.9 -0.6
comp=Z,456nm,1.1s
MBWA Marble Bar 58.53 257 P P 08 28 12.8 -0.6
MBWA Marble Bar 58.53 257 P P 08 28 12.1 -1.3
MBWA Marble Bar 58.53 257 P P 08 28 11.9 -1.5
MBWA pP pP 08 29 35.3 0.0
MEEK Meekatharra 58.63 250 P P 08 28 13.5 -0.6
comp=Z,208nm,1.1s
MEEK Meekatharra 58.63 250 P P 08 28 12.9 -1.2
MEEK Meekatharra 58.63 250 P P 08 28 12.8 -1.3
comp=Z,208nm,1.1s
KLBR Kellerberrin 58.79 245 P P 08 28 14.8 -0.3
comp=Z,657nm,0.9s
KLBR Kellerberrin 58.79 245 P P 08 28 14.2 -0.9
KLBR Kellerberrin 58.79 245 P P 08 28 14.2 -0.9
comp=Z,657nm,0.9s
NWAO Narrogin (SRO) 59.11 243 P P 08 28 17.1 -0.1
comp=Z,201nm,1.2s
NWAO Narrogin (SRO) 59.11 243 P P 08 28 17.7 +0.5
NWAO Narrogin (SRO) 59.11 243 P P 08 28 16.6 -0.6
NWAO pmax pmax
comp=Z,189nm,1.1s
NWAO Narrogin (SRO) 59.11 243 P P 08 28 16.6 -0.6
NWAO IAmb IAmb 08 28 18.4
comp=Z,189nm,1.1s
NWAO Narrogin (SRO) 59.11 243 P P 08 28 16.7 -0.6
NWAO comp=Z,193nm,1.2s
NWAO Narrogin (SRO) 59.11 243 P P 08 28 16.2 -1.0
NWAO pP pP 08 29 39.6 0.0
RKGY Rocky Gully 59.19 241 P P 08 28 17.8 +0.1
comp=Z,65nm,1.1s
MMRI Maumere 59.31 272 P P 08 28 19.0 +0.2
MMRI Maumere 59.31 272 P P 08 28 18.1 -0.8
comp=Z,588nm,0.8s
BLDU Ballidu 59.78 246 P P 08 28 20.7 -1.2
comp=Z,211nm,1.2s
BLDU Ballidu 59.78 246 P P 08 28 20.9 -0.9
BLDU Ballidu 59.78 246 P P 08 28 20.6 -1.2
comp=Z,211nm,1.2s
MORW Morawa 60.55 247 P P 08 28 26.4 -0.6
comp=Z,217nm,1.2s
MORW Morawa 60.55 247 P P 08 28 26.3 -0.6
MORW Morawa 60.55 247 P P 08 28 26.2 -0.8
comp=Z,217nm,1.2s
JCJ Chichijima 61.04 319 P P 08 28 27.0 -3.1
comp=Z,171nm,0.7s,baz=134,slow=5.9,SNR=7.3
LUWI Luwuk 61.41 280 P P 08 28 33.7 +0.8
LUWI Luwuk 61.41 280 P P 08 28 31.8 -1.1
LUWI Luwuk 61.41 280 P P 08 28 33.1 +0.2
comp=Z,838nm,1.5s
H01W1 Cape Leeuwin H 61.48 240 P P 08 28 34.1 +1.3
baz=115,slow=7.6,SNR=8.4
H01W3 Cape Leeuwin H 61.50 240 P P 08 28 34.8 +2.0
baz=115,slow=7.6,SNR=5.2
H01W2 Cape Leeuwin H 61.50 240 P P 08 28 34.9 +2.0
baz=115,slow=7.6,SNR=4.8
DAV Davao City (W) 62.20 290 P P 08 28 37.3 -0.8
comp=Z,640nm,0.7s,baz=95,slow=2.0,SNR=26
DAV Davao City (W) 62.20 290 P P 08 28 38.9 +0.8
DAV Davao City (W) 62.20 290 P P 08 28 38.0 -0.1
KAPI Kappang 62.81 275 P P 08 28 42.2 +0.1
KAPI Kappang 62.81 275 P P 08 28 41.3 -0.8
KAPI pmax pmax
comp=Z,90nm,0.9s
KAPI Kappang 62.81 275 P P 08 28 41.3 -0.8
KAPI IAmb IAmb 08 28 53.5
comp=Z,90nm,0.8s
KAPI Kappang 62.81 275 P P 08 28 41.6 -0.5
comp=Z,156nm,1.0s
CCD Concordia, Ant 63.10 194 P P 08 28 43.8 +0.3
CCD PcP PcP 08 29 16.0 -1.1
CCD pP pP 08 30 07.5 +0.5
GIRL Giralia 63.24 254 P P 08 28 46.0 +1.2
comp=Z,256nm,1.2s
GIRL Giralia 63.24 254 P P 08 28 44.9 +0.1
PLAI Plampang 63.45 270 P P 08 28 45.4 -0.8
PLAI Plampang 63.45 270 P P 08 28 45.2 -1.0
comp=Z,914nm,0.8s
TOLI2 Tolitoli 64.06 281 P P 08 28 50.1 -0.1
TOLI2 Tolitoli 64.06 281 P P 08 28 49.0 -1.2
TOLI2 Tolitoli 64.06 281 P P 08 28 49.7 -0.5
comp=Z,275nm,1.4s
CASY Casey 64.67 205 P P 08 28 51.7 -1.4
CASY IAmb IAmb 08 28 55.5
comp=Z,108nm,1.1s
JHJ2 Mitsune 66.77 322 P P 08 29 07.8 +0.9
JAGI Jajag, Banyuwa 66.96 269 P P 08 29 07.7 -0.9
JAGI Jajag, Banyuwa 66.96 269 P P 08 29 06.4 -2.2
JAGI Jajag, Banyuwa 66.96 269 P P 08 29 06.7 -1.9
comp=Z,627nm,1.0s
JMZ Minamidaito 2 67.56 310 P P 08 29 13.1 +1.2
JSG Sagara 68.83 322 P P 08 29 20.6 +1.0
JGF Kuroka 69.97 322 P P 08 29 27.0 +0.5
JGF Kuroka 69.97 322 IAmb IAmb 08 29 27.8
comp=Z,122nm,1.1s
INU Inuyama 69.99 322 P P 08 29 27.1 +0.5
INU Inuyama 69.99 322 P P 08 29 26.2 -0.4
INU IAmb IAmb 08 29 28.1
comp=Z,98nm,1.1s
QSPA South Pole Qui 70.07 180 P P 08 29 27.4 +0.6
comp=Z,77nm,0.9s,baz=74,slow=2.2,SNR=101
QSPA pP pwP 08 30 55.4 -0.4
comp=Z,21nm,1.0s,baz=105,slow=2.0,SNR=2.7
QSPA PKPPKP P'P'df 08 57 25.0 -6.2
comp=Z,3.7nm,1.1s,baz=210,slow=2.9,SNR=4.2
comp=Z,77nm,0.9s
QSPA South Pole Qui 70.07 180 P P 08 29 27.8 +1.0
QSPA IAmb IAmb 08 29 30.0
comp=Z,108nm,0.9s
QSPA South Pole Qui 70.07 180 P P 08 29 27.9 +1.0
QSPA pP pP 08 30 54.9 +2.4
MJAR Matsushiro Arr 70.15 323 P P 08 29 26.6 -0.9
comp=Z,89nm,0.8s,baz=156,slow=6.0,SNR=128
MJAR pP pP 08 30 54.4 +0.5
comp=Z,3.5nm,1.0s,baz=35,slow=39,SNR=1.2
comp=Z,89nm,0.8s
MJAR Matsushiro Arr 70.15 323 P P 08 29 27.1 -0.4
MJAR pmax pmax
comp=Z,105nm,0.9s
MJAR Matsushiro Arr 70.15 323 P P 08 29 27.1 -0.4
MJAR IAmb IAmb 08 29 28.6
comp=Z,105nm,0.9s
MAJO Matsushiro 70.15 323 P P 08 29 28.2 +0.7
MAJO Matsushiro 70.15 323 P P 08 29 27.0 -0.5
MAJO pmax pmax
comp=Z,119nm,0.9s
MAJO Matsushiro 70.15 323 P P 08 29 27.0 -0.5
MAJO Matsushiro 70.15 323 P P 08 29 26.9 -0.5
MAJO pP pP 08 30 55.4 +1.5
KKM Kota Kinabalu 70.19 284 P P 08 29 28.7 +0.3
JOW Kunigami 70.28 310 P P 08 29 28.6 0.0
comp=Z,251nm,1.0s,baz=143,slow=5.5,SNR=12
comp=Z,251nm,1.0s
JOW Kunigami 70.28 310 P P 08 29 29.5 +1.0
JMN Monobe 70.78 318 P P 08 29 33.3 +1.9
SMRI Semarang 70.90 269 P P 08 29 32.5 0.0
KIWB Kanaga Island 71.53 0 IAmb IAmb 08 29 38.3
comp=Z,49nm,0.8s
JSU Suzuyama 71.57 315 P P 08 29 37.0 +0.9
ERM Erimo 71.67 330 P P 08 29 37.4 +1.0
ERM Erimo 71.67 330 P P 08 29 38.0 +1.6
ERM pmax pmax
comp=Z,72nm,1.2s
ERM Erimo 71.67 330 P P 08 29 38.0 +1.6
ERM IAmb IAmb 08 29 41.6
comp=Z,72nm,1.2s
JEM Erimo 71.67 330 P P 08 29 37.7 +1.3
JTM Tenmabayashi 71.74 328 P P 08 29 37.7 +0.9
JNU Nakatsue 72.31 316 P P 08 29 40.2 -0.2
comp=Z,93nm,1.0s,baz=85,slow=5.4,SNR=18
comp=Z,93nm,1.0s
SBUM Sibu 72.49 279 P P 08 29 42.2 +0.3
SBUM Sibu 72.49 279 IAmb IAmb 08 29 44.2
comp=Z,79nm,1.1s
YOJ Yonaguni jima 72.92 305 P P 08 29 45.4 +1.3
BBJI Bungbulang 73.39 268 P P 08 29 47.7 +0.5
TWGBT Beinan 73.59 302 P P 08 29 48.5 +0.5
YULB Yu-li 73.70 303 P P 08 29 50.2 +1.5
YULB Yu-li 73.70 303 IAmb IAmb 08 29 53.1
comp=Z,91nm,1.0s
NACB Ninganchiao 73.87 304 P P 08 29 50.4 +0.8
SSLB Suanglung 74.18 303 P P 08 29 51.7 +0.3
TPUB Ta-pu 74.19 302 P P 08 29 51.6 +0.1
YHNB Yeheng 74.30 304 P P 08 29 53.0 +0.9
TATO Taipei 74.37 304 P P 08 29 53.8 +1.4
TATO Taipei 74.37 304 P P 08 29 51.4 -1.0
PET Petropavlovsk 75.62 345 *e*P P 08 29 58.9 +0.1
PET *i*S S 08 39 08.6 +2.1
PET *e*SS SS 08 44 09.8 +1.5
PET pmax pmax
comp=Z,400nm,4.9s
PET MLR MLR
comp=Z,200nm,16.0s
YSS Yuzhno-Sakhali 75.70 333 P P 08 30 01.5 +2.1
YSS Yuzhno-Sakhali 75.70 333⇑ *i*P P 08 29 59.3 -0.1
YSS *i*S S 08 39 09.4 +1.8
YSS *e* 08 39 34.6
YSS *e*SS SS 08 44 13.3 +3.5
YSS pmax pmax
comp=Z,900nm,4.4s
YSS smax smax
comp=N,700nm,6.0s

YSS smax smax
comp=E,1µm,6.6s
YSS Yuzhno-Sakhali 75.70 333 P P 08 29 59.8 +0.4
PETK Petropavlovsk- 75.93 345 P P 08 30 00.5 -0.1
comp=E,24nm,0.9s,baz=100,slow=5.6,SNR=29
PETK pP **pP 08 31 29.2 +1.3**
comp=E,14nm,0.9s,baz=115,slow=7.0,SNR=3.2
comp=E,24nm,0.9s
TJN Taejon 76.59 317 P P 08 30 05.7 +1.1
TJN Taejon 76.59 317⇓ *e*P **P 08 30 05.6 +1.0**
QZH2 Quanzhou 76.61 303 P P 08 30 05.6 +0.6
QZH2 pmax pmax
comp=E,310nm,1.1s
KSRS Korea Array 76.89 318 P P 08 30 06.5 +0.2
comp=E,26nm,1.0s,baz=142,slow=6.4,SNR=34
KSRS pP **pP 08 31 35.8 +1.3**
comp=E,4.0nm,0.9s,baz=134,slow=6.9,SNR=3.4
comp=E,26nm,1.0s
KSAR Wonju Array Be 76.91 318 P P 08 30 07.1 +0.7
KSAR Wonju Array Be 76.91 318 P P 08 30 07.1 +0.7
KS19 Wonju Array Si 76.96 318 IAmb IAmb 08 30 10.0
comp=Z,62nm,1.1s
HULI Fort Hunter Li 76.96 44 IAmb IAmb 08 30 09.8
comp=Z,38nm,0.8s
PKD Bear Valley Ra 77.37 44 IAmb IAmb 08 30 12.3
comp=Z,55nm,1.4s
BBGB Big Mountain B 77.42 43 IAmb IAmb 08 30 21.2
comp=Z,63nm,1.2s
MHC Mount Hamilton 77.49 42 IAmb IAmb 08 31 44.1
comp=Z,47nm,1.1s
PMBI Palembang 77.58 271 P P 08 30 12.2 +1.6
CVS Carmenet Viney 77.59 41 IAmb IAmb 08 31 44.0
comp=Z,79nm,1.4s
GDXM Geysers 77.67 41 IAmb IAmb 08 31 47.8
comp=Z,57nm,1.5s
INCN Inchon 77.72 318 P P 08 30 11.7 +0.8
INCN Inchon 77.72 318 P P 08 30 11.8 +0.8
INCN pmax pmax
comp=Z,137nm,1.1s
INCN Inchon 77.72 318 P P 08 30 11.8 +0.9
KCPM Cahto Peak 77.74 40 IAmb IAmb 08 31 47.6
comp=Z,68nm,1.3s
KMPM Mount Pierce 77.88 39 IAmb IAmb 08 31 48.6
comp=Z,124nm,1.4s
PASC Pasadena Art C 77.92 47 IAmb IAmb 08 30 14.8
comp=Z,35nm,0.9s
MWC Mount Wilson 78.04 47 IAmb IAmb 08 30 15.3
comp=Z,38nm,0.7s
VES Vestal, Richgr 78.27 45 IAmb IAmb 08 31 47.6
comp=Z,81nm,1.2s
TPO Tropico Hills 78.29 46 IAmb IAmb 08 30 16.9
comp=Z,43nm,0.7s
KHMM Horse Mountain 78.40 39 IAmb IAmb 08 31 51.5
comp=Z,75nm,1.3s
O02D Mt. Diablo Mer 78.52 40 IAmb IAmb 08 31 52.3
comp=Z,90nm,1.4s
KHBM Hayfork Bally 78.57 39 IAmb IAmb 08 31 51.0
comp=Z,86nm,1.6s
HJU Haeju 78.63 318 P P 08 30 15.5 -0.3
HJU AmB
comp=Z,1µm,3.1s
HHU Hamhung 78.66 320 P P 08 30 15.8 -0.1
HHU sP sP 08 32 07.7 -18
HHU S **S 08 39 45.5 +6.0**
HHU AmB
comp=Z,1µm,3.7s
SRIG Santa Rosalia 78.67 55 IAmb IAmb 08 30 19.0
comp=Z,46nm,0.9s
KRMB Red Mountain 78.71 38 IAmb IAmb 08 31 52.1
comp=Z,110nm,1.4s
PFO Pinyon Flats O 78.81 48 *e*P **P 08 30 18.8 +1.8**
PFO pmax pmax
comp=Z,80nm,2.4s
PFO Pinyon Flats O 78.81 48 P P 08 30 18.8 +1.8
PFO Pinyon Flats O 78.81 48 P P 08 30 18.1 +1.1
PFO PcP **PcP 08 30 25.8 +1.6**
PFO pP **pP 08 31 46.5 +1.5**
XPFO Pinon Flat 78.81 48 P P 08 30 18.1 +1.1
XPFO PcP **PcP 08 30 25.8 +1.6**
XPFO pP **pP 08 31 46.5 +1.5**
MNAI Manna 78.81 269 P P 08 30 17.9 +0.6
TYV Tymovskoe 78.82 335 *e*P **P 08 30 16.7 +0.3**
TYV *e*S **S 08 39 35.2 -5.5**
TYV pmax pmax
comp=Z,40nm,1.3s
TYV pmax pmax
comp=Z,600nm,4.2s
TYV smax smax
comp=N,1µm,5.0s
TYV smax smax
comp=E,2µm,5.0s
USA0B Ussuriysk Arra 78.87 325 *d*e**P P 08 30 17.7 +0.8**
USRK Ussuriysk Ar. 78.87 325 P P 08 30 18.2 +1.3
comp=E,88nm,1.0s,baz=136,slow=3.3,SNR=61
USRK pP **pP 08 31 47.2 +1.5**
comp=E,12nm,1.2s,baz=174,slow=4.3,SNR=1.3
comp=E,88nm,1.0s
USRK Ussuriysk Ar. 78.87 325 P P 08 30 17.5 +0.6
SMAI San Martin Ant 78.87 159 P P 08 30 17.9 +1.3
KSXB Camp Six Broad 78.92 38 IAmb IAmb 08 31 49.0
comp=Z,88nm,1.4s
HKC Hong Kong Obse 78.94 299 ⇑P P 08 30 19.0 +1.2
HKPS Hong Kong Po S 78.95 299 P P 08 30 19.5 +1.6
O03E Paynes Creek 79.19 40 IAmb IAmb 08 31 55.9
comp=Z,126nm,1.3s
PYAG Pyongyang 79.21 318 P P 08 30 19.7 +0.9
PYAG S **SKSac 08 39 51.5 -4.9**
PYAG AmB
comp=Z,253nm,1.4s
CCCA Chr Cany lake 79.24 46 IAmb IAmb 08 31 55.4
comp=Z,54nm,1.3s
M02C Callahan 79.24 39 IAmb IAmb 08 31 51.8
comp=Z,142nm,1.8s
L02F Cave Junction 79.28 38 IAmb IAmb 08 31 57.1
comp=Z,85nm,1.4s
BELC Belle Mtn. Jos 79.34 48 IAmb IAmb 08 30 22.6
comp=Z,29nm,0.7s
MPMC Manual Prospec 79.45 45 IAmb IAmb 08 31 56.8
comp=Z,47nm,1.3s
DLV Lat 79.52 287 P P 08 30 22.7 +1.4
YBH Yreka Blue Hor 79.54 38 IAmb IAmb 08 31 56.6
comp=Z,87nm,1.4s
BC3 Big Chuckawall 79.54 48 IAmb IAmb 08 31 57.1
comp=Z,76nm,1.7s
K02D Willamette Mer 79.59 37 IAmb IAmb 08 31 52.5
comp=Z,124nm,1.7s
M03C McCloud 79.60 39 IAmb IAmb 08 31 58.4
comp=Z,106nm,1.2s
MPK Martis Peak 79.67 42 IAmb IAmb 08 31 58.3
comp=Z,99nm,1.4s
BEKR Beckworth 79.81 41 IAmb IAmb 08 31 56.9
comp=Z,61nm,1.5s
QSM Queen of Sheba 79.82 46 IAmb IAmb 08 31 58.4
comp=Z,60nm,1.4s
PNTR Pine Nut 79.82 42 IAmb IAmb 08 30 25.1
comp=Z,38nm,0.9s
BTDF Bukit Timah Da 79.98 275 P P 08 30 24.8 +1.2
BELA Belgrano 2 79.98 173 P P 08 30 22.7 +0.2
BELA IAmb IAmb 08 30 24.6
comp=Z,48nm,1.0s
YERR Yerington 79.99 42 IAmb IAmb 08 31 59.9
comp=Z,94nm,1.5s
NJ2 Nanjing 80.00 309⇓ *i*P **P 08 30 24.3 +1.1**
NJ2 PcP **PcP 08 30 29.3 +0.1**
NJ2 pP **pP 08 31 55.2 +2.9**
NJ2 S **S 08 39 56.2 +2.4**
NJ2 pmax pmax
comp=Z,94nm,1.1s
NJ2 pmax pmax
comp=Z,380nm,4.4s
IRM Iron Mountain 80.02 48 IAmb IAmb 08 31 57.5
comp=Z,60nm,1.5s
LHV Little Huntoon 80.03 43 IAmb IAmb 08 31 59.6
comp=Z,84nm,1.3s
GRAC Grapevine Rang 80.06 45 IAmb IAmb 08 32 01.2
comp=Z,120nm,1.4s
L04D Klamath Falls 80.08 38 IAmb IAmb 08 32 01.2
comp=Z,90nm,1.3s
FURC Furnace Creek, 80.10 45 IAmb IAmb 08 32 00.2
comp=Z,52nm,1.4s
NVAR Mina Array Bea 80.26 43 P P 08 30 26.6 +1.8
comp=Z,9.0nm,0.7s,baz=224,slow=8.8,SNR=59
NVAR pP **pP 08 31 54.5 +1.2**
comp=Z,38nm,1.1s,baz=225,slow=7.3,SNR=3.6
comp=Z,9.0nm,0.7s
NVAR Mina Array Bea 80.26 43 P P 08 30 25.9 +1.1

GMN Gold Mountain 80.30 45 IAmb IAmb 08 32 01.4
comp=Z,50nm,1.2s
NV11 Mina Array Sit 80.36 43 IAmb IAmb 08 32 01.8
comp=Z,79nm,1.3s
MDJ Mudanjiang 80.44 325 P P 08 30 26.9 +1.7
MDJ Mudanjiang 80.44 325 P P 08 30 26.1 +0.9
MDJ sP sP 08 32 33.7 -2.2
MDJ S **SKSac 08 40 02.6 -2.0**
MDJ pmax pmax
comp=Z,190nm,1.2s
MDJ L L
comp=Z,111µm,4.6s
MDJ L L
comp=Z,58µm,4.6s
MDJ L L
comp=Z,420nm,4.7s
WCT Wildcat Mounta 80.44 45 IAmb IAmb 08 32 02.2
comp=Z,60nm,1.4s
SUJ Sinuiju 80.62 319 P P 08 30 26.5 +0.2
KVN Kaiserville 80.75 43 IAmb IAmb 08 32 03.2
comp=Z,49nm,1.3s
TPH Tonopah 80.76 44 IAmb IAmb 08 32 04.0
comp=Z,71nm,1.2s
TPNV Topopah Spring 80.78 45 IAmb IAmb 08 32 04.2
comp=Z,66nm,1.4s
I04A Tendick Farm, 81.00 37 IAmb IAmb 08 31 59.5
comp=Z,86nm,1.5s
MOD Modoc Plateau 81.06 39 IAmb IAmb 08 32 06.5
comp=Z,63nm,1.3s
K05A Sumner Lake 81.21 38 IAmb IAmb 08 32 05.1
comp=Z,116nm,1.4s
H04D Lebanon 81.27 36 IAmb IAmb 08 32 05.0
comp=Z,94nm,1.3s
GRNR Gornyy 81.32 332⇓ *i*P **P 08 30 31.1 +1.4**
GRNR pmax pmax
comp=Z,50nm,1.3s
J05D Fort Rock, OR 81.35 38 IAmb IAmb 08 30 42.7
comp=Z,48nm,0.8s
WIFE Three Sisters- 81.50 37 IAmb IAmb 08 32 02.9
comp=Z,70nm,1.4s
DL2 Dalian 81.76 316 P P 08 30 32.4 +0.2
DL2 sP **sP 08 32 41.2 -1.7**
DL2 S **SKSac 08 40 15.7 +2.0**
DL2 sS **sS 08 42 53.2 +3.2**
DL2 pmax pmax
comp=Z,75nm,1.1s
DL2 pmax pmax
comp=Z,910nm,3.5s
PRN Pahroc Range 81.83 45 IAmb IAmb 08 32 10.3
comp=Z,96nm,1.3s
PINE Pine Mountain 81.83 38 IAmb IAmb 08 32 04.9
comp=Z,97nm,1.4s
G04A Mulino 81.85 36 IAmb IAmb 08 32 08.7
comp=Z,139nm,1.5s
I05D Terrebonne, OR 81.94 37 IAmb IAmb 08 32 05.0
comp=Z,150nm,1.7s
BMN Battle Mountai 82.09 42 IAmb IAmb 08 32 11.3
comp=Z,63nm,1.3s
BKNI Bangkinang 82.19 273 P P 08 30 36.7 +1.6
TUC Tucson 82.22 52 P P 08 30 36.9 +2.0
TUC pmax pmax
comp=Z,30nm,0.8s
TUC Tucson 82.22 52 P P 08 30 36.9 +2.0
TUC IAmb IAmb 08 30 38.5
comp=Z,30nm,0.8s
TUC Tucson 82.22 52 P P 08 30 37.1 +2.2
TUC PcP **PcP 08 30 42.0 +2.9**
TUC pP **pwP 08 32 07.5 +0.3**
MAW Mawson 82.23 200 P P 08 30 35.3 +1.1
comp=Z,4.1nm,1.4s
MAW Mawson 82.23 200 P P 08 30 34.1 -0.1
comp=Z,9.0nm,0.8s,baz=114,slow=8.1,SNR=10
MAW pP **pP 08 32 05.0 +1.9**
comp=Z,9.6nm,1.1s,baz=106,slow=4.0,SNR=3.6
comp=Z,9.0nm,0.8s
MAW Mawson 82.23 200 P P 08 30 33.9 -0.4
MAW pmax pmax
comp=Z,8.0nm,1.5s
MAW Mawson 82.23 200 P P 08 30 33.9 -0.4
CN2 Changchun 82.25 322 *e*P **P 08 30 34.8 +0.1**
CN2 epP pP 08 32 07.2 +2.9
CN2 eS **S 08 40 19.6 +3.3**
CN2 pmax pmax
comp=Z,20nm,1.1s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 L L
comp=Z,500nm,10.0s
CN2 L L
comp=Z,400nm,10.0s
CN2 L L
comp=Z,400nm,11.0s
K13K Kusilvak Mount 82.27 6 IAmb IAmb 08 32 06.1
comp=Z,55nm,1.3s
BNX BinXian 82.34 325⇓ P P 08 30 34.7 -0.4
BNX pP **pP 08 32 01.0 -3.8**
BNX S **SKSac 08 40 17.6 +0.3**
BNX sS **sS 08 42 49.7 -6.0**
BNX pmax pmax
comp=Z,140nm,1.1s
BNX pmax pmax
comp=Z,770nm,5.0s
BRLK Bradley Lake 82.37 13 IAmb IAmb 08 32 09.0
comp=Z,89nm,1.1s
HOOD Mount Hood Mea 82.37 36 IAmb IAmb 08 32 07.1
comp=Z,76nm,1.3s
WVOR Wild Horse Val 82.37 40 IAmb IAmb 08 30 42.0
comp=Z,42nm,1.1s
KLR Kul'dur 82.39 329⇑ *e*P **P 08 30 35.4 +0.2**
KLR pmax pmax
comp=Z,57nm,1.5s
RED Redoubt Volcan 82.58 12 IAmb IAmb 08 32 09.5
comp=Z,50nm,1.1s
WHN Wuhan 82.61 306⇓ P P 08 30 37.5 +0.7
WHN pmax pmax
comp=Z,310nm,1.2s
CNSH ChangSha 82.61 303 P P 08 30 38.2 +1.3
CNSH pmax pmax
comp=Z,82nm,1.2s
N19K Bonanza Creek 82.62 11 IAmb IAmb 08 32 10.0
comp=Z,45nm,1.1s
M17K Holitna River 82.68 10 IAmb IAmb 08 30 40.9
comp=Z,59nm,0.9s
X16A Lo Mia Camp, P 82.78 50 IAmb IAmb 08 32 19.5
comp=Z,52nm,1.3s
319A Douglas 82.89 53 IAmb IAmb 08 30 43.8
comp=Z,68nm,1.0s
G06A Carlson Farm, 82.89 37 IAmb IAmb 08 32 09.8
comp=Z,134nm,1.7s
J08A Circle Bar Ran 83.01 39 IAmb IAmb 08 32 14.2
comp=Z,53nm,1.3s
GNW Green Mountain 83.15 34 IAmb IAmb 08 32 11.3
comp=Z,93nm,1.4s
SLKM Skilak Lake 83.18 13 IAmb IAmb 08 32 13.2
comp=Z,95nm,1.1s
TIA Tai'an 83.36 312 P P 08 30 40.7 +0.2
TIA pP **pP 08 32 12.4 +1.9**
TIA SKS **SKSac 08 40 24.8 +0.4**
TIA S **SKKSac 08 40 31.3 +1.4**
TIA pmax pmax
comp=Z,55nm,1.1s
TIA pmax pmax
comp=Z,860nm,5.4s
GULI GuiLin 83.38 300 P P 08 30 43.6 +2.7
GULI S **S 08 40 34.8 +6.4**
GULI pmax pmax
comp=Z,120nm,1.2s
L18K Granite Mounta 83.57 10 IAmb IAmb 08 32 17.9
comp=Z,60nm,1.1s
IPM Ipoh 83.64 277 P P 08 30 42.8 +0.4
F07A Phinny Hill Vi 83.68 36 IAmb IAmb 08 32 14.1
comp=Z,52nm,1.3s
PKCU Pink Cliffs 83.70 47 IAmb IAmb 08 32 21.3
comp=Z,103nm,1.4s
G08A Pilot Rock 83.87 37 IAmb IAmb 08 32 15.3
comp=Z,95nm,1.4s
PWL Port Wells 83.91 14 IAmb IAmb 08 32 16.9
comp=Z,68nm,1.1s
LTY Liberty 84.10 35 IAmb IAmb 08 32 16.1
comp=Z,100nm,1.6s
E07A Sunnyside 84.12 36 IAmb IAmb 08 32 16.6
comp=Z,88nm,1.3s
GLI Glacier Island 84.22 14 IAmb IAmb 08 32 18.4
comp=Z,95nm,1.2s
KULM Kulim 84.27 278 P P 08 30 46.7 +1.1
J17K VABM Dome 84.35 8 IAmb IAmb 08 32 17.3
comp=Z,78nm,1.3s
W18A Petrified Fore 84.35 50 IAmb IAmb 08 32 26.8
comp=Z,58nm,1.4s
KNK Knik Glacier 84.38 14 IAmb IAmb 08 32 19.5
comp=Z,38nm,1.1s
PMR Palmer 84.39 13 P P 08 30 46.4 +1.4
PMR Palmer 84.39 13 IAmb IAmb 08 32 19.4
comp=Z,54nm,1.3s
E08A Dider Farm, El 84.52 36 IAmb IAmb 08 32 22.1
comp=Z,125nm,1.5s
121A Cookes Peak, D 84.55 53 IAmb IAmb 08 32 24.1
comp=Z,52nm,1.3s
BMO Blue Mountains 84.56 38 IAmb IAmb 08 32 22.1
comp=Z,80nm,1.5s
LNOR Lincton Mounta 84.59 37 IAmb IAmb 08 32 18.7
comp=Z,65nm,1.6s
GHO Glory Hole Cre 84.60 13 IAmb IAmb 08 32 20.6
comp=Z,64nm,1.0s
MFID Camas Ranch 84.63 40 IAmb IAmb 08 32 19.2
comp=Z,82nm,1.8s
EPH Ephrata 84.74 35 IAmb IAmb 08 32 19.5
comp=Z,119nm,1.4s
J18K Innoko River 84.75 9 IAmb IAmb 08 32 19.0
comp=Z,84nm,1.2s
DIV Divide 84.75 15 IAmb IAmb 08 32 21.4
comp=Z,76nm,1.1s
BMRM Bremner River 84.89 15 IAmb IAmb 08 32 22.4
comp=Z,68nm,1.1s
SCM Sheep Creek Mo 85.00 14 IAmb IAmb 08 30 52.4
comp=Z,54nm,1.0s
PSI Prapat 85.02 275 P P 08 30 50.0 +0.6
KLU Klutina 85.03 15 IAmb IAmb 08 32 23.1
comp=Z,44nm,1.3s
K20K Telida 85.07 10 IAmb IAmb 08 32 23.4
comp=Z,59nm,1.2s
CRQM Cirque 85.09 16 IAmb IAmb 08 32 23.7
comp=Z,58nm,1.1s
EPT El Paso 85.17 54 IAmb IAmb 08 32 27.0
comp=Z,82nm,1.4s
TGL Tana Glacier 85.17 16 IAmb IAmb 08 32 24.1
comp=Z,73nm,1.2s
HEH HeiHe 85.18 328 ⇑P P 08 30 49.3 +0.1
HEH pP **pP 08 32 21.6 +2.0**
HEH S **S 08 40 46.4 +1.5**
HEH sS **sS 08 43 26.7 +1.4**
HEH pmax pmax
comp=Z,69nm,1.5s
Q16A Castle Valley 85.22 46 IAmb IAmb 08 32 34.3
comp=Z,75nm,1.7s
F10A Beach Ranch, E 85.25 37 IAmb IAmb 08 32 21.9
comp=Z,80nm,1.3s
TMUT Trail Mountain 85.39 45 IAmb IAmb 08 32 29.4
comp=Z,48nm,1.1s
VRDI Verde Repeater 85.41 16 IAmb IAmb 08 32 25.2
comp=Z,69nm,1.3s
J19K Poorman 85.41 9 IAmb IAmb 08 32 22.6
comp=Z,50nm,1.3s
GRNC Granite Creek 85.43 17 IAmb IAmb 08 30 54.7
comp=Z,39nm,1.1s
PLID Pearl Lake 85.46 39 IAmb IAmb 08 32 23.4
comp=Z,104nm,1.8s
GLB Gilahina Butte 85.50 15 IAmb IAmb 08 32 25.4
comp=Z,57nm,1.3s
LLLB Lillooet 85.56 32 IAmb IAmb 08 32 25.4
comp=Z,107nm,1.6s
HLID Hailey 85.57 41 IAmb IAmb 08 32 28.0
comp=Z,33nm,1.1s
SPUT South Promonto 85.61 43 IAmb IAmb 08 32 28.5
comp=Z,42nm,1.2s
HNS HongShan 85.63 312 ⇑P P 08 30 52.5 +0.8
HNS sP **sP 08 33 04.4 +1.2**
HNS S **S 08 40 48.7 -1.1**
HNS sS **sS 08 43 30.6 +0.1**
HNS pmax pmax
comp=Z,97nm,1.3s
HNS pmax pmax
comp=Z,710nm,5.9s
HVU Hansel Valley 85.64 43 IAmb IAmb 08 32 24.5
comp=Z,97nm,1.7s
LOGN Logan Glacier 85.72 17 IAmb IAmb 08 32 25.1
comp=Z,62nm,1.3s
H17K Granite Mounta 85.72 7 IAmb IAmb 08 32 23.7
comp=Z,68nm,1.2s
BARN Barnard Glacie 85.73 17 IAmb IAmb 08 32 27.2
comp=Z,80nm,1.2s
SRU San Rafael Swe 85.76 46 IAmb IAmb 08 32 33.4
comp=Z,63nm,1.2s
GSI Gunungsitoli 85.78 273 P P 08 30 53.2 +0.2
P17A Butcher Ranch, 85.79 45 IAmb IAmb 08 32 25.8
comp=Z,102nm,1.8s
Y22A Socorro 85.81 52 IAmb IAmb 08 32 30.9
comp=Z,44nm,1.2s
KTH Kantishna Hill 85.81 12 IAmb IAmb 08 32 23.8
comp=Z,77nm,1.4s
J20K Nowinta River 85.82 10 IAmb IAmb 08 32 24.2
comp=Z,73nm,1.2s
LYN LuoYang 85.88 309 P P 08 30 54.0 +1.0
LYN pP pP 08 32 27.3 +3.7
LYN S **S 08 40 56.7 +4.3**
LYN pmax pmax
comp=Z,230nm,1.1s
LYN pmax pmax
comp=Z,1µm,4.9s
G16K Koyuk River 85.89 6 IAmb IAmb 08 32 24.9
comp=Z,63nm,1.1s
VHRN Van Horn 85.89 55 IAmb IAmb 08 32 32.8
comp=Z,93nm,1.4s
O28M Mount Upton 85.90 17 IAmb IAmb 08 32 27.5
comp=Z,36nm,1.2s
BJI2 Beijing 85.93 315 P P 08 30 53.5 +0.4
BJI2 S **S 08 40 56.4 +3.8**
BJI2 pmax pmax
comp=Z,43nm,1.1s
BJT Baijiatuau 85.93 315 P P 08 30 53.8 +0.7
MNTX Cornudas Mount 85.99 54 IAmb IAmb 08 32 27.1
comp=Z,90nm,1.5s
HARP HAARP 86.00 14 IAmb IAmb 08 32 28.1
comp=Z,68nm,1.2s
SEY Seymchan 86.01 347 *e*P **P 08 30 53.0 +0.1**
SEY pmax pmax
comp=Z,64nm,1.1s
DHY Denali Highway 86.09 13 IAmb IAmb 08 32 28.4
comp=Z,56nm,1.4s
COYC Coyhaique 86.13 137 P P 08 30 55.3 +1.2
COYC IAmb IAmb 08 30 58.3
comp=Z,56nm,1.0s
COYC Coyhaique 86.13 137 P P 08 30 55.7 +1.6
COYC pP **pwP 08 32 27.7 +0.7**
P18A Preston Nutter 86.20 45 IAmb IAmb 08 32 34.1
comp=Z,43nm,1.4s
ENH Enshi 86.23 304 P P 08 30 55.7 +0.9
TX31 Lajitas Ar. Si 86.30 57 IAmb IAmb 08 32 35.7
comp=Z,84nm,1.3s
TXAR Lajitas Array 86.30 57 P P 08 30 57.2 +1.9
comp=Z,6.8nm,0.7s,baz=217,slow=6.0,SNR=98
TXAR pP **pP 08 32 26.8 +1.7**
comp=Z,31nm,1.2s,baz=218,slow=5.9,SNR=7.5
TXAR PP **PP 08 34 23.0 -0.1**
comp=Z,4.5nm,1.1s,baz=248,slow=4.2,SNR=4.1
TXAR PKKPbc **PKKPbc 08 48 50.6 -0.7**
comp=Z,1.3nm,1.0s,baz=120,slow=4.5,SNR=7.3
comp=Z,6.8nm,0.7s
TXAR Lajitas Array 86.30 57 P P 08 30 57.4 +2.1
TXAR Lajitas Array 86.30 57 P P 08 30 57.4 +2.1
BSUT Blindstream Ca 86.31 45 IAmb IAmb 08 32 32.9
comp=Z,62nm,1.3s
MCK McKinley 86.36 12 IAmb IAmb 08 32 30.8
comp=Z,80nm,1.1s
PV10 Paradox Valley 86.41 47 IAmb IAmb 08 32 33.8
comp=Z,86nm,1.4s
PV17 East Wray Mesa 86.42 47 IAmb IAmb 08 32 32.0
comp=Z,76nm,1.4s
PV14 Lion Creek, Pa 86.42 47 IAmb IAmb 08 32 34.1
comp=Z,94nm,1.3s
PAX Paxson 86.42 14 IAmb IAmb 08 32 29.8
comp=Z,40nm,1.4s
PV18 Skein Mesa, Pa 86.44 47 IAmb IAmb 08 32 32.0
comp=Z,86nm,1.4s
PV20 West Nyswonger 86.44 47 IAmb IAmb 08 32 34.2
comp=Z,101nm,1.3s
PV16 Nyswonger Mesa 86.46 47 IAmb IAmb 08 32 34.4
comp=Z,96nm,1.5s
PV23 Carpenter Ridg 86.47 47 IAmb IAmb 08 32 34.4
comp=Z,80nm,1.3s
M26K Nabesna, AK 86.52 15 IAmb IAmb 08 32 30.9
comp=Z,74nm,1.2s
PV02 Paradox Valley 86.54 47 IAmb IAmb 08 32 35.5

comp=Z,104nm,1.5s
BCYI Bear Canyon 86.58 40 IAmb IAmb 08 32 29.7
comp=Z,69nm,1.5s
PV01 Paradox Valley 86.62 47 IAmb IAmb 08 32 35.1
comp=Z,54nm,1.2s
ALQ Albuquerque 86.64 51 IAmb IAmb 08 32 34.9
comp=Z,38nm,1.2s
ALQ Albuquerque 86.64 51 IAmb IAmb 08 32 34.9
comp=Z,37nm,1.2s
ANMO Albuquerque 86.64 51⇑*e*P **P 08 30 58.6 +1.7**
ANMO pmax pmax
comp=Z,13nm,0.9s
ANMO Albuquerque 86.64 51 P **P 08 30 58.3 +1.4**
ANMO Albuquerque 86.64 51 P **P 08 30 58.2 +1.4**
ANMO pP **pP 08 32 28.5 +1.7**
ANMO sP **sP 08 33 08.5 +1.0**
TPB28 86.65 55 IAmb IAmb 08 32 35.3
comp=Z,66nm,1.4s
PV07 Paradox Valley 86.71 47 IAmb IAmb 08 32 30.1
comp=Z,141nm,1.9s
HYT Haines Junctio 86.71 18 IAmb IAmb 08 32 32.5
comp=Z,36nm,1.2s
ALPN Alpine 86.76 56 IAmb IAmb 08 32 31.0
comp=Z,101nm,1.4s
PV15 Paradox Valley 86.78 47 IAmb IAmb 08 32 36.6
comp=Z,64nm,1.3s
MENT Mentasta 86.80 15 P **P 08 30 58.2 +1.4**
TPB01 Permian Basin 86.90 56 IAmb IAmb 08 32 31.5
comp=Z,84nm,1.4s
GYA Guiyang 86.90 299⇓P **P 08 30 59.3 +1.1**
GYA SKS **SKSac 08 40 47.6 +0.4**
GYA pmax pmax
comp=Z,69nm,1.0s
GYA L L
comp=Z,220nm,4.5s
GYA L L
comp=Z,290nm,5.0s
GYA L L
comp=Z,170nm,4.6s
L26K Log Cabin Wild 86.97 15 IAmb IAmb 08 32 33.2
comp=Z,31nm,1.0s
PECS Pecos 87.01 55 IAmb IAmb 08 32 32.8
comp=Z,83nm,1.6s
O30N Mendenhall 87.09 19 IAmb IAmb 08 32 34.4
comp=Z,82nm,1.4s
I21K Tanana 87.11 10 IAmb IAmb 08 32 30.3
comp=Z,72nm,1.2s
MLY Manley 87.19 11 IAmb IAmb 08 32 30.1
comp=Z,46nm,1.2s
SLVN Son La 87.20 294 P **P 08 31 00.4 +0.7**
SLVN Son La 87.20 294 IAmb IAmb 08 31 04.1
comp=Z,90nm,1.8s
ELIB Princess Elisa 87.21 186 *d*P **P 08 30 58.6 -0.3**
comp=Z,24nm,0.8s
ELIB *d*pP **pP 08 32 28.2 -0.7**
ELIB *d*sP **sP 08 33 08.2 -1.5**
RIDG Independent Ri 87.23 14 IAmb IAmb 08 32 34.1
comp=Z,58nm,1.1s
TPB07 Mentone 87.25 55 IAmb IAmb 08 32 33.3
comp=Z,63nm,1.1s
LL02 Futaleuf 87.28 135 IAmb IAmb 08 32 35.9
comp=Z,47nm,1.2s
DOT Dot Lake 87.33 14 IAmb IAmb 08 32 34.6
comp=Z,57nm,1.0s
SYO Syowa Base 87.34 193⇓*i*P **P 08 30 59.2 -0.2**
HDA Harding Lake 87.36 13 IAmb IAmb 08 32 35.7
comp=Z,54nm,1.0s
TIY Taiyuan 87.37 312 *e*P **P 08 31 01.2 +1.1**
TIY S **S 08 41 10.3 +3.7**
TIY sS **sS 08 43 46.2 -1.5**
TIY pmax pmax
comp=Z,89nm,1.1s
TIY pmax pmax
comp=Z,640nm,5.1s
BCAR Beaver Creek A 87.38 15 P **P 08 31 00.5 +0.9**
CCB Clear Creek Bu 87.40 12 IAmb IAmb 08 32 31.2
comp=Z,74nm,1.1s
H21K Melozitna Rive 87.41 10 IAmb IAmb 08 32 32.3
comp=Z,108nm,1.5s
ZEA Zeya 87.47 331 *e*P **P 08 31 00.9 +0.8**
ZEA pmax pmax
comp=N,10.0nm,1.3s
ZEA pmax pmax
comp=Z,30nm,1.0s
I23K Minto, Yukon-K 87.55 11 IAmb IAmb 08 32 32.0
comp=Z,78nm,1.4s
IMAR Indian Mountai 87.56 9 P **P 08 31 00.3 0.0**
COLA College 87.59 12 P **P 08 31 01.9 +1.5**
COLA College 87.59 12 P **P 08 30 59.7 -0.7**
COLA pmax pmax
comp=Z,85nm,1.0s
COLA College 87.59 12 P **P 08 30 59.7 -0.7**
DLMT Dillon 87.63 40 IAmb IAmb 08 32 38.1
comp=Z,61nm,1.1s
IL31 87.69 13 IAmb IAmb 08 32 32.8
comp=Z,106nm,1.4s
ILAR Eielson Array 87.69 13 P **P 08 30 59.6 -1.3**
comp=Z,13nm,1.1s,baz=223,slow=4.9,SNR=36
ILAR pP **pP 08 32 31.8 +0.6**
comp=Z,21nm,0.9s,baz=225,slow=5.2,SNR=8.9
ILAR PP **PP 08 34 33.2 -0.1**
comp=Z,1.7nm,0.9s,baz=204,slow=5.2,SNR=2.0
comp=Z,13nm,1.1s
ILAR Eielson Array 87.69 13 P **P 08 31 00.2 -0.7**
ILAR Eielson Array 87.69 13 P **P 08 31 00.2 -0.7**
R33M Jennings River 87.72 22 IAmb IAmb 08 32 38.0
comp=Z,110nm,1.6s
M29M Somme Creek 87.74 17 IAmb IAmb 08 32 37.3
comp=Z,45nm,1.2s
N31M Braeburn, Yuko 87.75 19 IAmb IAmb 08 32 37.4
comp=Z,67nm,1.1s
SAND Sanderson 87.78 57 IAmb IAmb 08 32 39.1
comp=Z,68nm,1.4s
SNOW Snow King Moun 87.78 42 IAmb IAmb 08 32 41.8
comp=Z,38nm,1.1s
F19K Shaleruckik Mo 87.80 8 IAmb IAmb 08 32 33.8
comp=Z,53nm,1.1s
MNHN Monahans 87.86 56 IAmb IAmb 08 32 35.9
comp=Z,56nm,1.2s
H22K Ishtalitna Cre 87.86 10 IAmb IAmb 08 32 34.2
comp=Z,64nm,1.1s
J25K Salcha River, 87.88 13 IAmb IAmb 08 32 37.3
comp=Z,36nm,1.0s
POKR Poker Plat Res 87.89 12 IAmb IAmb 08 32 33.7
comp=Z,72nm,1.2s
XLT XiLinHaoTe 87.94 318 *e*P **P 08 31 03.2 +0.5**
XLT pP pP 08 32 34.9 +1.2
XLT sP sP 08 33 12.4 -2.3
XLT S **S 08 41 05.4 -6.3**
XLT pmax pmax
comp=Z,42nm,1.1s
XLT pmax pmax
comp=Z,400nm,6.8s
E18K Tukpahlearik C 88.04 6 IAmb IAmb 08 32 36.0
comp=Z,58nm,1.3s
G21K Allakaket 88.09 9 IAmb IAmb 08 32 35.6
comp=Z,74nm,1.3s
K27K Chicken 88.12 15 IAmb IAmb 08 32 39.3
comp=Z,44nm,1.2s
YPP Pitchstone Pla 88.16 41 IAmb IAmb 08 32 46.1
comp=Z,63nm,1.9s
YHB Horse Butte 88.16 41 IAmb IAmb 08 32 41.5
comp=Z,41nm,1.3s
PDAR Pinedale Array 88.20 43 P **P 08 31 04.8 +0.6**
comp=Z,3.0nm,0.6s,baz=214,slow=3.4,SNR=27
PDAR pP **pP 08 32 35.5 +1.0**
comp=Z,7.2nm,0.9s,baz=216,slow=4.6,SNR=6.3
PDAR PKKPbc **PKKPbc 08 48 46.8 -0.8**
comp=Z,0.8nm,1.0s,baz=77,slow=3.2,SNR=4.4
comp=Z,3.0nm,0.6s
PDAR Pinedale Array 88.20 43 P **P 08 31 04.3 +0.2**
YHL Hebgen Lake 88.22 41 IAmb IAmb 08 32 41.9
comp=Z,76nm,1.2s
YFT Old Faithful 88.23 41 IAmb IAmb 08 32 45.3
comp=Z,77nm,1.7s
TROLL Troll, Antarti 88.24 180⇓P **P 08 31 03.2 -0.5**
comp=Z,538nm,0.5s
TROLL ⇑SKSac **SKSac 08 40 53.9 +0.1**
comp=E,65nm,1.0s
TROLL ⇑S **S 08 41 13.7 -0.2**
comp=E,78nm,0.9s
F20K Avaraart Lake 88.27 8 IAmb IAmb 08 32 37.0
comp=Z,38nm,1.1s
XAN Xi'an 88.28 307 P **P 08 31 04.8 +0.3**
XAN pP pP 08 32 35.4 -0.1
XAN SKS **SKSac 08 40 54.1 -0.8**
XAN S **ScS 08 41 18.1 -1.5**
XAN pmax pmax
comp=Z,160nm,1.3s
XAN pmax pmax
comp=Z,960nm,4.1s
M30M Minto, Yukon 88.31 18 IAmb IAmb 08 32 39.8
comp=Z,41nm,1.1s
BOZ Bozeman (W) 88.33 40 IAmb IAmb 08 32 38.2
comp=Z,109nm,1.6s
YHH Holmes Hill 88.39 41 IAmb IAmb 08 32 39.2
comp=Z,108nm,1.9s
LR05 Currie 88.42 132 IAmb IAmb 08 32 42.0
comp=Z,88nm,1.4s
LR03 Panguipulli 88.43 132 IAmb IAmb 08 32 40.1
comp=Z,119nm,1.7s
E19K Redstone River 88.46 8 IAmb IAmb 08 32 38.0
comp=Z,42nm,1.1s
YNR Norris Junctio 88.46 41 IAmb IAmb 08 32 40.8
comp=Z,69nm,1.6s
SNAA Sanae 88.50 178⇓P **P 08 31 05.0 +0.1**
comp=Z,184nm,0.7s
SNAA Sanae 88.50 178 P **P 08 31 04.2 -0.6**
comp=Z,12nm,0.9s,baz=205,slow=3.8,SNR=15
SNAA pP **pP 08 32 36.6 +1.4**
comp=Z,11nm,1.2s,baz=250,slow=7.1,SNR=3.2
comp=Z,12nm,0.9s
SNAA Sanae 88.50 178 *e*P **P 08 31 04.5 -0.4**
SNAA pmax pmax
comp=Z,28nm,1.3s
TMB01 Midkiff 88.52 56 IAmb IAmb 08 32 39.2
comp=Z,37nm,1.2s
BILL Bilibino 88.59 354 *e*P **P 08 31 06.0 +1.0**
BILL pmax pmax
comp=Z,16nm,0.9s
128A Castleberry Fa 88.60 55 IAmb IAmb 08 32 39.7
comp=Z,42nm,1.2s
VNA3 Neumayer Olymp 88.61 176⇓P **P 08 31 04.9 -0.4**
comp=Z,80nm,0.9s
VNA3 ⇑pP **pP 08 32 38.1 +2.4**
comp=Z,13nm,0.8s
VNA3 ⇑S **S 08 41 16.1 -0.9**
comp=E,3.7nm,1.5s
HIA Hailar 88.62 324 P **P 08 31 06.6 +1.0**
HIA Hailar 88.62 324 IAmb IAmb 08 31 06.7
comp=Z,37nm,1.2s
PRP Porcupine Dome 88.63 13 IAmb IAmb 08 32 37.8
comp=Z,68nm,1.4s
HILR Hailar Array B 88.77 325 P **P 08 31 06.3 -0.1**
comp=Z,11nm,0.7s,baz=133,slow=8.3,SNR=15
HILR pP **pP 08 32 39.0 +1.5**
comp=Z,1.0nm,0.3s,baz=175,slow=24,SNR=1.7
comp=Z,11nm,0.7s
G23K Bananza Creek 88.84 11 IAmb IAmb 08 32 39.2
comp=Z,50nm,1.4s
229A Bryant Ranch, 88.85 55 IAmb IAmb 08 32 44.3
comp=Z,37nm,1.2s
MSTX Muleshoe 88.95 53 IAmb IAmb 08 32 41.1
comp=Z,94nm,1.5s
I26K Coal Creek Min 88.96 14 IAmb IAmb 08 32 39.8
comp=Z,61nm,1.5s
OZNA Ozona 88.96 57 IAmb IAmb 08 32 44.9
comp=Z,105nm,1.6s
VNA2 Neumayer--Watz 89.06 177⇓P **P 08 31 07.3 -0.1**
comp=Z,53nm,0.8s,baz=186,slow=4.2
VNA2 ⇑pP **pwP 08 32 40.6 -0.4**
comp=Z,7.9nm,0.8s,baz=178,slow=2.7
VNA2 ⇑S **S 08 41 20.2 -1.0**
comp=E,3.4nm,1.1s
129A Stewart Farms, 89.08 55 IAmb IAmb 08 32 45.4
comp=Z,61nm,1.3s
PLCA Paso Flores 89.20 133 P **P 08 31 10.2 +1.3**
comp=Z,9.0nm,1.1s,baz=245,slow=5.2,SNR=11
PLCA pP **pP 08 32 41.5 +2.2**
comp=Z,11nm,1.2s,baz=254,slow=3.0,SNR=6.5
comp=Z,9.0nm,1.1s
PLCA Paso Flores 89.20 133 P **P 08 31 09.9 +1.1**
PLCA pmax pmax
comp=Z,87nm,2.0s
PLCA Paso Flores 89.20 133 P **P 08 31 09.9 +1.1**
PLCA IAmb IAmb 08 32 44.0
comp=Z,87nm,2.0s
PLCA Paso Flores 89.20 133 *e*P **P 08 31 10.1 +1.3**
PLCA *e*pP **pP 08 32 36.3 -3.0**
NVL N'lazarevskaya 89.25 183 *e*P **P 08 31 06.4 -1.9**
NVL pmax pmax
comp=Z,25nm,0.8s
VNA1 Neumayer--Stat 89.28 176⇓P **P 08 31 08.4 +0.1**
comp=Z,74nm,0.9s
VNA1 pP **pwP 08 32 42.4 +0.3**
comp=Z,19nm,1.1s
SGCY Sterling City 89.36 56 IAmb IAmb 08 32 46.4
comp=Z,83nm,1.4s
HHC Hu-ho-hao-te 89.41 314⇓*i*P **P 08 31 10.5 +0.9**
HHC sP sP 08 33 20.1 -1.7
HHC SKS **SKSac 08 41 04.1 +2.7**
HHC S **ScS 08 41 27.0 -1.8**
HHC sS sS 08 44 10.2 +3.3
HHC pmax pmax
comp=Z,56nm,1.3s
RLMT Red Lodge 89.54 41 IAmb IAmb 08 32 44.3
comp=Z,80nm,1.8s
POST Post 89.54 55 IAmb IAmb 08 32 47.2
comp=Z,98nm,1.4s
KMI2 Kunming 89.64 297 P **P 08 31 12.1 +0.9**
KMI2 pP pwP 08 32 45.7 +1.4
KMI2 pmax pmax
comp=Z,110nm,1.1s
KMI2 pmax pmax
comp=Z,600nm,5.1s
D20K Etivluk River 89.73 7 IAmb IAmb 08 31 13.6
comp=Z,41nm,1.2s
JCT Junction City 89.83 57 IAmb IAmb 08 32 45.0
comp=Z,53nm,1.6s
HNDO Hondo 89.87 59 IAmb IAmb 08 32 53.8
comp=Z,80nm,1.4s
SN07 Snyder 07 90.02 55 IAmb IAmb 08 32 49.2
comp=Z,62nm,1.4s
J30M Hart River 90.03 16 IAmb IAmb 08 32 46.5
comp=Z,74nm,1.9s
I29M Ogilvie Camp, 90.14 15 IAmb IAmb 08 32 45.0
comp=Z,48nm,1.6s
G26K Porcupine Rive 90.23 13 IAmb IAmb 08 32 50.1
comp=Z,36nm,1.1s
D22K Ayikyak River 90.41 9 IAmb IAmb 08 32 46.6
comp=Z,32nm,1.0s
BMAR Bunt Mountain 90.48 12 P **P 08 31 13.6 -0.3**
CMAR Chiang Mai Arr 90.49 289 P **P 08 31 16.1 +1.0**
comp=Z,79nm,1.0s,baz=115,slow=2.9,SNR=189
CMAR pP **pwP 08 32 47.9 -0.3**
comp=Z,9.6nm,1.0s,baz=116,slow=2.8,SNR=5.3
CMAR PP **PP 08 34 55.0 -1.4**
comp=Z,2.3nm,0.4s,baz=114,slow=7.7,SNR=4.5
CMAR PKKPbc **PKKPbc 08 48 40.3 -0.2**
comp=Z,0.9nm,0.3s,baz=285,slow=4.2,SNR=4.9
comp=Z,79nm,1.0s
CMAR Chiang Mai Arr 90.49 289 *i*P **P 08 31 15.8 +0.8**
CMAR pmax pmax
comp=Z,76nm,1.0s
CMAR Chiang Mai Arr 90.49 289 P **P 08 31 15.9 +0.9**
BTO2 Baotou 90.51 313 *e*P **P 08 31 15.6 +0.8**
BTO2 pP **pP 08 32 44.6 -1.6**
BTO2 sP **sP 08 33 23.0 -4.0**
BTO2 S **S 08 41 37.2 +1.7**
BTO2 sS **sS 08 44 12.4 -4.9**
BTO2 SS **SS 08 47 50.9 +3.0**
BTO2 pmax pmax
comp=Z,83nm,1.2s
BTO2 pmax pmax
comp=Z,650nm,8.2s
I30M Mount Dempster 90.52 16 IAmb IAmb 08 32 48.5
comp=Z,56nm,1.6s
CHTO Chiang Mai 90.61 290 P **P 08 31 16.1 +0.5**
CHTO Chiang Mai 90.61 290 P **P 08 31 15.8 +0.2**
CHTO pmax pmax
comp=Z,100nm,1.0s
CHTO Chiang Mai 90.61 290 P **P 08 31 15.8 +0.2**
BRDY Brady 90.78 57 IAmb IAmb 08 32 53.2
comp=Z,76nm,1.6s
D23K Nanushuk River 90.78 9 IAmb IAmb 08 32 49.0
comp=Z,34nm,1.0s
H29M Whitestone 90.82 15 IAmb IAmb 08 31 25.1
comp=Z,30nm,1.1s
PZH PanZhiHua 90.98 298 P **P 08 31 18.6 +1.3**
PZH pmax pmax
comp=Z,70nm,1.1s
CD2 Chengdu 91.00 302 P **P 08 31 17.5 +0.3**
CD2 S **S 08 41 41.1 +0.9**
CD2 pmax pmax
comp=Z,40nm,0.9s
CD2 pmax pmax
comp=Z,430nm,5.4s
C24K Franklin Bluff 91.77 10 IAmb IAmb 08 32 53.5
comp=Z,55nm,1.1s
YAK Yakutsk 91.86 338 *e*P **P 08 31 20.7 +0.4**
YAK *e**PP **pwP 08 32 53.1 -1.0**
YAK *e*PPP PPP 08 37 12.2
YAK *e*S **SKSac 08 41 13.7 -0.3**
YAK *e*SS **SS 08 48 06.2 +0.3**
YAK *e*SSS SSS 08 51 42.8
YAK pmax pmax
comp=Z,14nm,0.9s
YAK pmax pmax
comp=N,3.0nm,1.0s
YAK pmax pmax
comp=E,12nm,1.4s
YAK smax smax
comp=N,475nm,3.5s
YAK smax smax
comp=E,379nm,3.8s
G30M tAoh Zraii Nji 91.95 15 IAmb IAmb 08 31 30.1
comp=Z,36nm,1.1s
C26K Camden Bay 92.57 11 IAmb IAmb 08 32 56.9
comp=Z,30nm,1.1s
LZH Lanzhou 92.92 307 *e*P **P 08 31 26.0 0.0**
LZH SKS **SKSac 08 41 16.9 -4.6**
LZH S **ScS 08 42 02.6 +4.2**
LZH pmax pmax
comp=Z,61nm,1.3s
LZH pmax pmax
comp=Z,140nm,4.8s
LZDM Lanzhou Array 92.98 307 P **P 08 31 26.6 0.0**
comp=Z,1.7nm,0.3s,baz=79,slow=7.7,SNR=10
comp=Z,1.7nm,0.3s
CBKS Cedar Bluff 93.15 50 IAmb IAmb 08 31 38.9
comp=Z,23nm,0.9s
TNCH TengChong 93.16 295 P **P 08 31 27.7 +0.3**
TNCH pmax pmax
comp=Z,250nm,1.8s
INK Inuvik 93.64 15 IAmb IAmb 08 33 00.9
comp=Z,49nm,1.7s
ULN Ulaanbaatar 95.36 319*de*P **P 08 31 36.7 -0.2**
ULN pmax pmax
comp=Z,25nm,1.5s
ULN Ulaanbaatar 95.36 319 P **P 08 31 36.3 -0.6**
ULN IAmb IAmb 08 31 38.2
comp=Z,19nm,1.2s
SONM Songino Array 95.75 319 P **P 08 31 37.8 -0.8**
comp=Z,5.3nm,1.2s,baz=117,slow=5.2,SNR=15
SONM PP PP 08 35 24.9 -12
comp=Z,3.4nm,1.0s,baz=126,slow=8.5,SNR=4.1
comp=Z,5.3nm,1.2s
SONM Songino Array 95.75 319 P **P 08 31 38.0 -0.6**
SONM pmax pmax
comp=Z,30nm,1.7s
SONM Songino Array 95.75 319 P **P 08 31 38.0 -0.6**
SONM IAmb IAmb 08 31 39.9
comp=Z,30nm,1.7s
YKA Yellowknife Ar 95.81 25 P **P 08 31 39.0 +0.7**
comp=Z,3.4nm,0.9s,baz=237,slow=3.9,SNR=3.9
YKA pP **pP 08 33 11.1 +1.8**
comp=Z,2.0nm,0.9s,baz=234,slow=4.8,SNR=1.9
comp=Z,3.4nm,0.9s
GTA2 Gaotai 97.16 309 P Pdif 08 31 45.6 +0.4
GTA2 pP pP 08 33 18.1 +1.1
GTA2 pmax pmax
comp=Z,18nm,1.1s
TIXI Tiksi 98.41 345⇑*e*P **P 08 31 49.8 0.0**
TIXI pmax pmax
comp=Z,15nm,2.4s
GOMU GeErMu 99.82 305 P **Pdif 08 31 58.7 +1.3**
ULM Lac du Bonnet 99.87 40 PKKPbc PKKPbc 08 48 16.1 -0.8
comp=Z,2.3nm,0.8s,baz=57,slow=5.3,SNR=1.9
LPAZ La Paz 101.72 112 PP **PP 08 36 22.9 +0.2**
comp=Z,2.0nm,1.1s,baz=253,slow=9.8,SNR=3.8
LPAZ PKKPbc **PKKPbc 08 48 10.1 -0.9**
comp=Z,1.0nm,0.8s,baz=66,slow=2.1,SNR=4.1
WMQ Urumqi 107.03 311 Pdif **Pdif 08 32 29.4 +0.5**
WMQ PP **PP 08 37 04.3 +3.4**
WMQ PPMZ
comp=Z,350nm,4.5s
WMQ L L
comp=Z,110nm,21.5s
HYB Hyderabad 108.62 282 *e*PKiKP **PKiKP 08 36 37.1 -2.7**
HYB *e*PP **PP 08 37 12.1 -0.8**
HYB *ep*PKiKP **pPKiKP 08 38 15.8 0.0**
HYB *e*SKSdf **SKSdf 08 43 14.2 +0.3**
HYB *e*SKKSac **SKKSac 08 43 32.7 -1.8**
ZSN Zaisan 109.61 314 *e*PKiKP **PKiKP 08 36 41.0 +0.2**
ZSN *e*PP **PP 08 37 19.2 -0.2**
ZALV Zalesovo Beam 110.46 321 Pdiff **Pdif 08 32 43.2 -0.6**
comp=Z,0.3nm,0.3s,baz=126,slow=2.0,SNR=1.6
ZALV PKiKP **PKiKP 08 36 40.9 -1.3**
comp=Z,1.5nm,0.4s,baz=8.9,slow=27,SNR=5.7
ZALV PP **PP 08 37 22.1 -3.0**
comp=Z,4.8nm,1.0s,baz=72,slow=4.8,SNR=3.6
MKAR Makanchi Array 111.27 314 Pdiff **Pdif 08 32 47.7 +0.1**
comp=Z,1.0nm,0.9s,baz=92,slow=7.3,SNR=6.4
MKAR PKiKP **PKiKP 08 36 42.5 -1.4**
comp=Z,1.0nm,0.5s,baz=148,slow=0.5,SNR=8.2
MKAR PP **PP 08 37 27.2 -4.0**
comp=Z,7.0nm,1.0s,baz=98,slow=8.7,SNR=7.8
MKAR PKKPbc **PKKPbc 08 47 41.2 -0.8**
comp=Z,1.3nm,0.9s,baz=270,slow=8.4,SNR=7.6
SHLS Shalkode 112.84 309 *i* PKiKP **PKiKP 08 36 46.5 -0.7**
SHLS *e* 08 37 39.9
SHLS Shalkode 112.84 309 *e*PKiKP **PKiKP 08 36 46.5 -0.7**
SHLS *e*PP **PP 08 37 40.0 -2.6**
UZB Uzynbulak 113.16 309 *i* PKiKP **PKiKP 08 36 47.7 -0.1**
UZB *e* 08 37 44.1
UZB Uzynbulak 113.16 309 *e*PKiKP **PKiKP 08 36 47.8 -0.1**
UZB *e*PP **PP 08 37 44.2 -0.7**
SATY Saty 113.60 309 *i* PKiKP **PKiKP 08 36 48.6 -0.1**
SATY *e* 08 37 47.4
SATY Saty 113.60 309 *e*PKiKP **PKiKP 08 36 48.6 -0.1**
SATY *e*PP **PP 08 37 47.4 -0.5**
TDK Taldyqorghan 113.78 311 *i* PKiKP **PKiKP 08 36 48.9 +0.1**
TDK *e* 08 37 48.5
TDK Taldyqorghan 113.78 311 *e*PKiKP **PKiKP 08 36 48.9 +0.1**
TDK *e*PP **PP 08 37 48.6 -0.4**
KURK Kurchatov 114.01 318 *i* PKiKP **PKiKP 08 36 47.4 -1.6**
KURBB Kurchatov Arra 114.06 317 Pdiff **Pdif 08 32 59.9 0.0**
KURBB PKiKP **PKiKP 08 36 47.4 -1.7**
comp=Z,1.0nm,0.4s,baz=109,slow=2.0,SNR=7.0
KURBB PP **PP 08 37 46.1 -4.6**
comp=Z,8.0nm,1.2s,baz=90,slow=5.1,SNR=9.8
KURBB PKKPbc **PKKPbc 08 47 32.0 -0.9**
comp=Z,1.1nm,0.2s,baz=274,slow=3.8,SNR=4.3
MDOK Medeo 114.60 309 *e*PKiKP **PKiKP 08 36 50.4 -0.2**
MDOK *e* 08 37 54.3
MDOK Medeo 114.60 309 *e*PKP **PKiKP 08 36 50.5 -0.2**
MDOK *e*PP **PP 08 37 54.4 -0.6**
TNSS Tian-Shan 114.66 309 *e*PKiKP PKPdf 08 36 50.6 -0.5
TNSS *e* 08 37 54.7
TNSS Tian-Shan 114.66 309 *e*PKP PKPdf 08 36 50.6 -0.5
TNSS *e*PP **PP 08 37 54.8 -0.9**
AAA Alma-Ata 114.70 309 *e*PKiKP **PKiKP 08 36 50.7 0.0**
AAA *e* 08 37 55.0
AAA Alma-Ata 114.70 309 *e*PKP **PKiKP 08 36 50.8 0.0**
AAA *e*PP **PP 08 37 55.1 -0.5**
AAK Ala-Archa 116.44 308 *i* PKiKP **PKPdf 08 36 53.7 -0.5**
BDFB Brasilia 118.93 122 PKiKPbc PKKPbc 08 47 13.8 -1.6
comp=Z,3.9nm,0.9s,baz=39,slow=7.4,SNR=3.5
BVAR Borovoye Array 119.06 320 PKP **PKPdf 08 36 57.4 -1.3**
comp=Z,4.0nm,0.5s,baz=97,slow=3.6,SNR=7.8
BVAR PP **PP 08 38 21.9 -3.3**
comp=Z,4.5nm,0.8s,baz=98,slow=6.1,SNR=3.8
BORK Borovoye 119.10 320 *i* PKiKP **PKPdf 08 36 57.7 -1.1**
KKAR Karatay Array 119.38 309 PKiKP **PKPdf 08 36 58.3 -1.4**
KKAR Karatay Array 119.38 309 **PKPdf 08 36 58.3 -1.4**
IUG luzhnay 119.72 308 *e*PKiKP **PKiKP 08 37 00.3 -0.2**
IUG *e* 08 38 29.7
IUG luzhnay 119.72 308 *e*PKP **PKiKP 08 37 00.4 -0.2**
IUG *e*PP **PP 08 38 29.7 -0.5**
BRLS Borolday 119.87 309 *e*PKiKP **PKiKP 08 37 00.8 +0.1**
BRLS *e* 08 38 31.4
BRLS Borolday 119.87 309 *e*PKP **PKiKP 08 37 00.8 +0.1**
BRLS *e*PP **PP 08 38 31.4 +0.3**
SPITS Spitsbergen Ar 121.39 357 PKP **PKPdf 08 37 00.9 -1.7**
comp=Z,50nm,1.1s,baz=66,slow=3.5,SNR=2.9
SJMB Sao Joao De Ma 122.35 129 *e*P **PKPdf 08 37 05.2 -0.9**
SUMG Summit 122.53 14 PKiKP **PKPdf 08 37 04.5 -0.8**
SUMG Summit 122.53 14 **PKPdf 08 37 04.5 -0.8**

SMTB **Santa Maria do** 122.88 115 **PKPdf** 08 37 06.7 -0.6
SMTB **Santa Maria do** 122.88 115 *e*P **PKPdf** 08 37 06.6 -0.6
ARTI **Arti** 125.22 326 PKP **PKPdf** 08 37 09.3 -1.1
comp=Z,6.3nm,0.5s,baz=76,slow=1.2,SNR=9.3
ARTI pPKP **pPKPdf** 08 38 48.2 +2.0
comp=Z,7.5nm,0.9s,baz=226,slow=2.9,SNR=3.4
ARTI **Arti** 125.22 326 *i* PKIKP **PKPdf** 08 37 09.9 -0.5
ARTI 08 39 04.6
ARTI 08 43 42.1
ARTI **Arti** 125.22 326 **PKPdf** 08 37 09.1 -1.3
ABKAR **Akbulak array** 126.11 317 **PKPdf** 08 37 08.4 -3.9
BOSA **Boshof** 126.96 205 PKP **PKPdf** 08 37 14.6 -0.3
comp=Z,4.2nm,0.9s,baz=155,slow=6.0,SNR=4.1
AKTO **Aktyubinsk** 127.07 319 PKP **PKPdf** 08 37 13.5 -0.7
comp=Z,3.8nm,0.8s,baz=101,slow=2.5,SNR=6.7
ARCES **ARCESS Array B** 128.53 350 PKP **PKPdf** 08 37 15.1 -1.2
comp=Z,8.0nm,0.7s,baz=19,slow=1.8,SNR=28
APA **Apatity** 128.60 345 *e*PKIKP **PKiKP** 08 37 19.6 +2.4
APA pmax pmax
comp=Z,9.0nm,1.3s
KIRV **Kirov** 128.81 331 ⇑*i*PKIKP **PKiKP** 08 37 17.7 -0.2
SOHO **SOHO** 130.10 285 PKPdf **PKPdf** 08 37 19.9 -0.8
NBPS **Pedro II - PI** 130.39 114 *e*P **PKPdf** 08 37 20.9 -0.8
MDH **Madha** 130.44 287 *i* PKPdf **PKPdf** 08 37 19.2 -2.1
SNR=6.4
UOSS **Minazif** 130.49 286 *i* PKPdf **PKPdf** 08 37 20.0 -1.4
SNR=9.9
UOSS **Minazif** 130.49 286 **PKPdf** 08 37 20.1 -1.4
HATD **Hatta, Dubai** 130.54 286 PKPdf **PKPdf** 08 37 20.6 -0.9
MSFE **Esma-Masafi** 130.57 287 *i* PKPdf **PKPdf** 08 37 21.2 -0.4
SNR=10
ASHO **Ashiyiah** 130.59 286 *i* PKPdf **PKPdf** 08 37 21.5 -0.2
SNR=5.2
SHME **Shamm** 130.64 288 *i* PKPdf **PKPdf** 08 37 20.8 -0.9
SNR=6.8
PHPEN **Phepeng** 130.71 204 **PKPdf** 08 37 20.6 -1.4
ALNE **Al Ain** 130.81 285 *i* PKPdf **PKPdf** 08 37 21.5 -0.5
SNR=5.7
NAZ **Nazwa, Dubai** 130.98 286 *i* PKPdf **PKPdf** 08 37 22.6 +0.2
SNR=6.5
FAQ **Al Faqa, Dubai** 131.02 286 PKPdf **PKPdf** 08 37 21.2 -1.2
ASUD **Al Ashush, Dub** 131.25 286 PKPdf **PKPdf** 08 37 21.4 -1.4
KDWAN **Kaudwane** 131.82 208 **PKPdf** 08 37 23.2 -1.0
MZR **Muzera** 132.76 283 PKPdf **PKPdf** 08 37 25.7 -0.1
FINES **FINESS Array B** 135.45 344 PKhKP PKPpre 08 37 23.9
comp=Z,5.8nm,0.9s,baz=76,slow=5.1,SNR=7.4
FINES SKPbc **SKPbc** 08 40 21.6 -1.2
comp=Z,5.3nm,0.8s,baz=116,slow=8.7,SNR=5.0
MAK **Makhachkala** 136.04 312 *e*P **Pdif** 08 34 40.1 +2.3
MAK *i* 08 37 31.5
MAK *e* 08 40 10.8
MAK *e*PPP PPP 08 43 20.2
MAK *e* 08 44 04.1
MAK *e*SS SS 08 57 41.4 -2.2
MAK pmax pmax
comp=Z,128nm,1.2s
OBN **Obninsk** 136.58 332 ⇓*i*PKIKP **PKiKP** 08 37 34.5 +0.8
OBN *e* 08 40 27.1
OBN 08 44 02.0
OBN pmax pmax
comp=Z,8.0nm,0.4s
NB2 **NORSAR Subarra** 138.54 354 PKP **PKPdf** 08 37 29.9 -5.5
comp=Z,3.8nm,1.4s,baz=20,slow=4.4
NB2 SKP **SKPdf** 08 40 33.2 +1.2
comp=Z,1.5nm,0.6s,baz=6.1,slow=2.8
NOA **NORSAR Array B** 138.54 354 PKP **PKPdf** 08 37 34.9 -0.6
comp=Z,1.3nm,0.7s,baz=16,slow=4.0,SNR=4.0
NOA SKPbc **SKPbc** 08 40 31.3 -0.8
comp=Z,2.4nm,0.7s,baz=14,slow=4.3,SNR=3.4
KBZ **Khabaz** 138.96 314 SKPbc **SKPbc** 08 40 32.9 -0.7
comp=Z,9.2nm,0.9s,baz=158,slow=3.4,SNR=8.5
KBZ **Khabaz** 138.96 314 ⇓*i*PKIKP **PKiKP** 08 37 40.0 +1.1
KIV **Kislovodsk** 139.01 315 *i* PKIKP **PKiKP** 08 37 39.4 +0.2
KIV *e* 08 40 34.7
KIV *e*SS SS 08 58 19.5 +1.0
KIV pmax pmax
comp=Z,6.0nm,1.0s
HFS **Hagfors** 139.13 352 PKhKP PKPpre 08 37 24.6
comp=Z,0.9nm,0.3s,baz=80,slow=9.2,SNR=4.8
HFS PP **PP** 08 40 34.4 +0.5
comp=Z,2.1nm,0.7s,baz=64,slow=9.8,SNR=3.0
RAYN **Ar Rayn** 140.12 283 ⇑PKHKP PKPpre 08 37 31.0
MNK **Minsk** 140.54 337 *i* PKIKP **PKPdf** 08 37 38.4 -0.7
MNK *i* 08 40 43.6
MNK *i* PPP PPP 08 43 52.5
MNK *i* 08 44 10.2
MNK *i* SS SS 08 58 36.9 +2.2
MNK *i* SSS SSS 09 03 57.1
MNK pmax pmax
comp=Z,11nm,0.7s
MNK pmax pmax
comp=N,11nm,0.8s
MNK pmax pmax
comp=E,26nm,1.0s
MNK **Minsk** 140.54 337 *i* PKP **PKPdf** 08 37 38.5 -0.7
comp=E,26nm,1.0s
MNK *i* PKP **PKPdf** 08 37 38.5 -0.7
comp=N,11nm,0.8s
MNK *i* PKP **PKPdf** 08 37 38.5 -0.7
comp=Z,11nm,0.7s,baz=39
MNK *i* pPKP **pPKPdf** 08 39 16.3 +1.3
MNK *i* sPKP **sPKPdf** 08 39 56.3 +2.0
MNK *i* PP **PP** 08 40 43.6 +0.8
MNK *i* PPP PPP 08 43 52.5
MNK *i* SKS **SKSdf** 08 44 10.2 -0.7
MNK *i* SKKS **SKKSdf** 08 53 33.4 -4.7
MNK *i* SS **SS** 08 58 37.0 +2.3
MNK *i* SSS SSS 09 03 57.1
SOC **Sochi** 141.13 316 *i* PKIKP **PKPdf** 08 37 40.4 -0.2
SOC *e* 08 40 43.5
SOC pmax pmax
comp=Z,19nm,0.9s
SUW **Suwalki** 142.56 340 *e*PKP **PKPdf** 08 37 41.1 -1.6
AKASG **Malin Array Be** 142.84 332 PKhKP PKPpre 08 37 38.8
comp=Z,3.7nm,0.4s,baz=40,slow=4.5,SNR=30
AKASG pPKP pPKPdf 08 39 20.4 +1.1
comp=Z,0.7nm,0.4s,baz=47,slow=2.7,SNR=1.5
AKASG SKPbc **SKPbc** 08 40 42.6 -0.8
comp=Z,3.8nm,0.7s,baz=42,slow=3.4,SNR=4.2
KIEV **Kiev** 142.86 332 ⇑PKHKP PKPpre 08 37 38.5
KIEV **Kiev** 142.86 332 PKPpre 08 37 39.0
KIEV **Kiev** 142.86 332 ⇑P **PKPdf** 08 37 38.5 -4.9
SHEL **Horse Pasture** 143.34 166 *i* PKIKP **PKPdf** 08 37 45.3 -0.1
SHEL **Horse Pasture** 143.34 166 **PKPdf** 08 37 44.6 -0.8
SIM **Simferopol'** 143.97 321 K *i*PKIKP **PKPdf** 08 37 45.1 -0.4
SIM pmax pmax
comp=Z,200nm,1.2s
LODK **Lodwar** 144.07 247 **PKPab** 08 37 45.4 -0.3
EKA **Eskdalemuir Ar** 144.45 6 PKP PKPbc 08 37 44.6 -0.9
comp=Z,35nm,1.0s,baz=347,slow=3.0,SNR=17
EKA pPKP pPKPdf 08 39 24.4 +2.2
comp=Z,2.5nm,0.7s,baz=24,slow=4.6,SNR=2.2
EKA SKPbc **SKiKP** 08 40 47.5 -0.3
comp=Z,4.4nm,0.9s,baz=329,slow=1.0,SNR=2.5
ESK **Eskdalemuir** 144.46 6 PKIKP **PKPab** 08 37 45.5 -0.3
ESK **Eskdalemuir** 144.46 6 **PKPab** 08 37 45.5 -0.3
GKP **Gorka Klasztor** 144.91 345 *e*PKP **PKPdf** 08 37 46.6 -0.3
SORM **Soroca** 145.07 329 ⇑PKIKP **PKPdf** 08 37 46.5 -0.8
SORM **Soroca** 145.07 329 ⇑P **PKPdf** 08 37 46.5 -0.8
BEL **Belsk** 145.18 340 *e*PKP **PKPbc** 08 37 47.8 -0.2
BSEG **Bad Segeberg** 145.60 352 *e*PKPbc **PKPbc** 08 37 48.4 -0.7
baz=16,slow=2.6
BZK **Bozkurt** 145.60 317 ⇓P **PKPab** 08 37 50.2 -0.4
BZK **Bozkurt** 145.60 317 PKP **PKPab** 08 37 49.8 -0.8
KWP **Kalwaria Pacla** 146.36 336 *e*PKP **PKPbc** 08 37 51.8 +0.3
RUE **Ruedersdorf** 146.43 348 *e*PKPbc **PKPbc** 08 37 51.7 +0.2
baz=16,slow=2.6
TLCR 146.83 325 ⇑PKP2 **PKPbc** 08 37 52.7 -0.2
TLCR 146.83 325 ⇑P **PKPbc** 08 37 52.7 -0.2
OJC **Ojcow** 146.89 340 *e*PKP **PKPdf** 08 37 51.0 +0.6
BURAR **Bucovina Array** 146.90 332 ⇑PKP2 **PKPbc** 08 37 52.9 -0.3
BURAR **Bucovina Array** 146.90 332 **PKiKP** 08 37 54.3 -1.0
BURAR **Bucovina Array** 146.90 332 ⇑P **PKPbc** 08 37 52.9 -0.3
RETH **Rethem/Aller,** 146.90 352 *e*PKPbc **PKPbc** 08 37 51.9 -0.9
baz=16,slow=2.6
RETH *e*pPKPbc pPKPab 08 39 28.3 +0.3
baz=15,slow=2.8
BRTR **Keskin Array B** 146.92 313 PKPbc **PKPbc** 08 37 52.0 -1.5
comp=Z,23nm,1.0s,baz=134,slow=2.4,SNR=54
BRTR pPKPbc pPKPab 08 39 29.8 +0.7
comp=Z,7.0nm,1.0s,baz=107,slow=4.3,SNR=2.7
BRTR SKPbc **SKiKP** 08 40 53.6 +0.1
comp=Z,3.2nm,0.8s,baz=116,slow=3.4,SNR=3.1
BRTR **Keskin Array B** 146.92 313 **PKPdf** 08 37 51.9 +0.9

BIZ **Bicaz** 146.99 330 ⇑P **PKPbc** 08 37 53.7 +0.4
KIRS **Kirsehir-Merke** 146.99 312 ⇑P **PKPbc** 08 37 52.6 -1.1
FLTG **Flechtingen** 147.03 350 *e*PKPbc **PKPbc** 08 37 51.7 -1.5
baz=16,slow=2.6
FLTG *e*pPKPbc pPKPab 08 39 28.7 +0.4
baz=15,slow=2.8
TESR **Tescani** 147.03 329 ⇓P **PKPbc** 08 37 52.8 -0.7
TESR **Tescani** 147.03 329 PKP **PKPbc** 08 37 52.7 -0.7
ASF **Jabal al Asfar** 147.04 299 P **PKPbc** 08 37 54.4 +0.4
ASF AML AML
KOLS **Kolonicke sedl** 147.09 336 *e*PKP2 **PKPab** 08 37 55.6 -0.6
KOLS **Kolonicke sedl** 147.09 336 *e*PKP **PKPab** 08 37 55.6 -0.6
CFR **Carcaliu** 147.19 326 ⇓PKIKP **PKPbc** 08 37 52.9 -1.0
CFR **Carcaliu** 147.19 326 ⇓P **PKPbc** 08 37 52.9 -1.0
TPGR **Topolog** 147.26 325 ⇑P **PKPbc** 08 37 53.1 -1.0
ONER **Baraj Valea Uz** 147.28 329 ⇓P **PKPbc** 08 37 54.0 -0.1
ASSE **Asse, Remlinge** 147.31 351 *e*PKPbc **PKPbc** 08 37 52.7 -1.2
baz=16,slow=2.6
ASSE *e*pPKPbc **pPKPab** 08 39 29.5 -0.1
baz=15,slow=2.8
KSP **Ksiaz** 147.37 344 *e*PKP **PKPbc** 08 37 52.6 -1.6
NIE **Niedzica** 147.41 338 *e*PKP **PKPbc** 08 37 54.1 -0.3
VRI **Vrincioaia** 147.45 328 ⇑PKP2 **PKPbc** 08 37 54.3 -0.3
VRI **Vrincioaia** 147.45 328 ⇑P **PKPbc** 08 37 54.3 -0.3
IBBN **Ibbenburen** 147.50 354 *e*PKPbc **PKPbc** 08 37 54.9 +0.5
baz=16,slow=2.6
IBBN *e*pPKPbc **pPKPab** 08 39 30.8 +0.5
baz=15,slow=2.8
PLOR **Plostina** 147.50 328 ⇓PKP2 **PKPbc** 08 37 54.3 -0.4
PLOR **Plostina** 147.50 328 ⇓P **PKPbc** 08 37 54.3 -0.4
TIRR **Tirgusor** 147.52 325 ⇓PKP2 **PKPab** 08 37 57.0 -1.1
TIRR **Tirgusor** 147.52 325 ⇓P **PKPab** 08 37 57.0 -1.1
SAHR **Sahastru** 147.57 328 ⇓P **PKPbc** 08 37 54.6 -0.4
HARR **Harsova** 147.63 325 ⇑PKP2 **PKPbc** 08 37 54.7 -0.3
HARR **Harsova** 147.63 325 ⇑P **PKPbc** 08 37 54.7 -0.3
CLZ **Clausthal** 147.64 351 *e*PKPbc **PKPbc** 08 37 53.8 -1.2
baz=16,slow=2.6
CLZ *e*pPKPbc **pPKPbc** 08 39 29.8 +0.1
baz=15,slow=2.8
HSUJ **Al Zarqa** 147.64 299 P **PKiKP** 08 37 57.3 +0.1
HSUJ AML AML
OSTC **Ostas** 147.65 344 *e*PKP2 **PKPbc** 08 37 54.6 -0.4
OSTC **Ostas** 147.65 344 ⇑*e*PKP **PKPbc** 08 37 54.6 -0.4
CHVC **Chvalec** 147.66 344 *e*PKP2 **PKPbc** 08 37 55.4 +0.4
CHVC **Chvalec** 147.66 344 ⇑*e*PKP **PKPbc** 08 37 55.4 +0.4
CLL **Collm** 147.69 348 *e*PKIKP **PKPdf** 08 37 53.0 +1.4
CLL *i* 08 37 59.3
CLL pmax pmax
comp=Z,35nm,1.0s
CLL **Collm** 147.69 348 *e*PKPbc **PKPbc** 08 37 54.3 -0.7
baz=16,slow=2.6
CLL *e*pPKPbc **pPKPbc** 08 39 30.0 +0.1
baz=15,slow=2.8
CLL **Collm** 147.69 348 *e*PKPdf **PKPdf** 08 37 53.0 +1.4
CLL *i* PKPbc **PKPbc** 08 37 54.7 -0.3
CLL *i* PKPbcmax 08 37 56.3
comp=Z,69nm,0.9s
CLL *e*PKPlp 08 37 57.0
comp=Z,200nm,21.7s
CLL *i* PKPab **PKPab** 08 37 59.3 +0.8
comp=Z,35nm,1.0s
CLL *i* pPKPab **pPKPab** 08 39 30.8 -0.3
comp=Z,210nm,2.0s
CLL *e*SKPdf **SKPdf** 08 40 49.0 +1.6
CLL *i* SKPbc **SKiKP** 08 40 56.8 +2.2
CLL *e*SKPbcmax 08 41 07.0
CLL *e*SKSdf **SKSdf** 08 44 25.0 +3.2
CLL *e*PSKS 08 51 36.0
CLL *e*PPS PPS 08 54 24.0
CLL *e*SS **SS** 08 59 52.0 -3.5
CLL *e*sSS 09 02 26.0
CLL *e*SSS SSS 09 05 41.0
CLL *e*sSSS 09 07 58.0
CLL *e*SSSS 09 09 36.0
CLL LV 09 34 00.0
CLL **Collm** 147.69 348 *i* PKPbc **PKPab** 08 38 03.6 +5.1
comp=Z,53nm,0.7s
CLL *i* pPKPab **pPKPab** 08 39 39.6 +8.5
COVR **Voineasa-Covas** 147.72 328 ⇑P **PKPbc** 08 37 54.7 -0.6
OZUR 147.75 329 ⇑P **PKPbc** 08 37 55.8 +0.4
UPC **Upice** 147.75 344 *e*PKP2 **PKPbc** 08 37 55.2 0.0
UPC **Upice** 147.75 344 ⇑*e*PKP **PKPbc** 08 37 55.2 0.0
STEB **Steborice** 147.77 342 ⇑*e*PKP **PKPdf** 08 37 52.0 +0.2
GEM **Giv'at Ha'Em** 147.79 301 P **PKiKP** 08 37 57.2 -0.3
GEM AML AML
DPC **Dobruska-Polom** 147.81 343 *e*PKIKP **PKPbc** 08 37 54.5 -0.9
DPC **Dobruska-Polom** 147.81 343 ⇑*e*PKP **PKPbc** 08 37 54.5 -0.9
DPC *e*PKPAB **PKPab** 08 38 03.5 +4.4
SWQJ **Karak** 147.88 297 P **PKiKP** 08 37 58.8 +0.9
SWQJ AML AML
BRG **Berggiesshubel** 147.91 346 *e*PKPbc **PKPbc** 08 37 55.8 +0.2
baz=16,slow=2.6
BRG *e*pPKPbc **pPKPab** 08 39 31.9 +0.1
baz=15,slow=2.8
BRG **Berggiesshubel** 147.91 346 ⇓*e*PKPdf **PKPdf** 08 37 52.5 +0.5
BRG Amp 08 37 53.5
comp=Z,8.0nm,1.1s
BRG ⇑PKP **PKiKP** 08 37 56.3 -0.8
BRG Amp 08 37 58.2
comp=Z,30nm,0.9s
BRG PKPab **PKPab** 08 38 00.9 +1.5
BRG Amp 08 38 01.4
comp=Z,26nm,0.9s
BRG **Berggiesshubel** 147.91 346 P **PKPab** 08 38 04.8 +5.3
BRG Amp 08 38 05.6
comp=Z,34nm,0.8s
BRG pPKP **pPKPab** 08 39 32.4 +0.6
BRG Amp 08 39 33.5
comp=Z,24nm,1.1s
MORC **Moravsky Berou** 147.98 342 ⇓PKIKP **PKPbc** 08 37 54.0 -1.9
MORC **Moravsky Berou** 147.98 342 *e*PKP **PKPbc** 08 37 53.9 -1.9
MORC *e*pPKP **pPKPdf** 08 39 28.6 +0.2
MORC **Moravsky Berou** 147.98 342 ⇓P **PKPbc** 08 37 54.0 -1.9
GTTG **Gottingen** 147.99 351 *e*PKPbc **PKPbc** 08 37 55.3 -0.5
baz=16,slow=2.6
GTTG *e*pPKPbc **pPKPab** 08 39 32.2 -0.1
baz=15,slow=2.8
NEUB **Neuenburg** 148.02 349 *e*PKPbc **PKiKP** 08 37 56.5 -0.8
baz=16,slow=2.6
DOPR **Dopca** 148.03 329 ⇑P **PKPbc** 08 37 56.3 +0.2
MMAI **Mount Meron Ar** 148.06 301 PKPbc **PKPbc** 08 37 56.5 -0.2
comp=Z,31nm,0.8s,baz=34,slow=10,SNR=28
MMAI pPKPbc **pPKPab** 08 39 34.0 +0.4
comp=Z,3.8nm,0.5s,baz=114,slow=2.0,SNR=0.9
MMAI SKPbc **SKiKP** 08 40 55.7 -0.4
comp=Z,1.2nm,0.3s,baz=213,slow=5.0,SNR=1.1
ISR **Istrita** 148.06 327 ⇑PKP2 **PKPbc** 08 37 56.1 -0.2
ISR **Istrita** 148.06 327 ⇑P **PKPbc** 08 37 56.1 -0.2
PVCC **Panska Ves** 148.09 346 *e*PKP2 **PKiKP** 08 37 57.0 -0.5
PVCC **Panska Ves** 148.09 346 ⇑*e*PKP **PKiKP** 08 37 57.0 -0.5
QRNJ **Al-Qirein** 148.09 299 P **PKPab** 08 37 59.3 -1.5
QRNJ AML AML
MLR **Muntele Rosu** 148.10 328 ⇑PKP2 **PKPbc** 08 37 56.6 +0.1
MLR **Muntele Rosu** 148.10 328 ⇑P **PKPbc** 08 37 56.5 +0.1
SAHE **Sakarya_HENDEK** 148.21 317 ⇓P **PKPbc** 08 37 55.9 -0.8
HSKC **Hora Svate Kat** 148.27 347 ⇑*e*PKP **PKPbc** 08 37 57.0 +0.4
BUG **Bochum--Univer** 148.40 354 *e*PKPbc **PKPbc** 08 37 56.9 +0.2
baz=16,slow=2.6
BUG *e*pPKPbc **pPKPab** 08 39 33.4 -0.4
baz=15,slow=2.8
LISJ **El Lisan** 148.43 297 P **PKiKP** 08 37 58.8 +0.1
LISJ AML AML
SALP **Salfit** 148.47 299 P **PKiKP** 08 37 58.8 -0.1
SALP AML AML
KASTN **Kahler Asten** 148.52 353 *e*PKPbc **PKPbc** 08 37 57.4 +0.2
baz=16,slow=2.6
KASTN *e*pPKPbc **pPKPab** 08 39 33.7 -0.6
baz=15,slow=2.8
VOIR 148.58 329 ⇓PKP2 **PKPbc** 08 37 57.3 -0.3
VOIR 148.58 329 ⇓P **PKPbc** 08 37 57.3 -0.3
MOX **Moxa** 148.59 349 *e*PKPbc **PKPbc** 08 37 57.3 0.0
baz=16,slow=2.6
MOX *e*pPKPbc **pPKPbc** 08 39 33.7 +1.3
baz=15,slow=2.8
PRU **Pruhonice** 148.60 345 *e*PKHKP PKPpre 08 37 56.6
PRU **Pruhonice** 148.60 345 ⇑*e*PKP **PKPbc** 08 37 56.6 -0.8
PLN **Plauen** 148.64 348 *e*PKPbc **PKPbc** 08 37 57.4 -0.1
baz=16,slow=2.6
PLN *e*pPKPbc **pPKPbc** 08 39 33.9 +1.3
baz=15,slow=2.8
TANN **Tannenbergstha** 148.65 348 *e*PKPbc **PKPbc** 08 37 57.0 -0.5
baz=16,slow=2.6
TANN *e*pPKPbc **pPKPbc** 08 39 33.5 +0.7
baz=15,slow=2.8
VRAC **Vranov** 148.68 342 ⇑PKP2 **PKPbc** 08 37 57.8 +0.2
VRAC **Vranov** 148.68 342 *e*PKP **PKPbc** 08 37 57.4 -0.2
VRAC *e*pPKP **pPKPbc** 08 39 33.5 +0.9
VRAC **Vranov** 148.68 342 ⇑P **PKPbc** 08 37 57.8 +0.2
VYHS **Vyhne** 148.70 339 *e*PKP2 **PKPbc** 08 37 57.7 0.0
VYHS **Vyhne** 148.70 339 *e*PKP **PKPbc** 08 37 57.7 0.0
VYHS *e* 08 38 02.6
VYHS *e* 08 38 06.8
JAVC **Velka Javorina** 148.76 341 *e*PKP **PKPbc** 08 37 57.4 -0.5
JAVC *e*pPKP **pPKPab** 08 39 34.7 -0.6
BMOL **Mol** 148.78 357 *d*PKP **PKiKP** 08 37 59.2 +0.3
SILT **Sile** 148.81 319 ⇑P **PKPbc** 08 37 56.1 -2.0
PSZ **Piszkesteto** 148.82 337 ⇑PKHKP PKPpre 08 37 57.7
PSZ **Piszkesteto** 148.82 337 ⇑P **PKPbc** 08 37 57.7 -0.4
ARR **Arges** 148.83 329 ⇓P **PKiKP** 08 37 58.9 -0.4
BOPT **Opiter** 148.85 356 *d*PKP **PKPbc** 08 37 57.8 -0.2
KRUC **Moravsky** 148.96 342 *e*PKP **PKPbc** 08 37 57.5 -0.8
KRUC *e*pPKP **pPKPbc** 08 39 34.1 +0.8
PRNI **Paran** 149.02 296 P **PKiKP** 08 37 59.6 -0.5
PRNI AML AML
HRFI **Mount Harif** 149.05 295 P **PKiKP** 08 37 59.7 -0.5
HRFI AML AML
AQBJ **Aqaba** 149.10 295 P **PKiKP** 08 38 00.4 +0.1
AQBJ AML AML
SMOL **Smolenice** 149.14 341 *e*PKP2 **PKiKP** 08 37 59.1 -0.7
ZVC **Zvikov** 149.19 345 ⇑*e*PKP **PKPbc** 08 37 58.8 -0.1
ZVC *e*PKPAB **PKPab** 08 38 05.0 +0.3
EIL **Elat** 149.20 295 P **PKiKP** 08 37 59.9 -0.6
EIL AML AML
UCC **Uccle** 149.23 358 *d*PKP **PKPbc** 08 37 58.9 +0.1
MODS **Modra-Piesok** 149.31 341 *e*PKP2 **PKiKP** 08 37 59.9 -0.2
MODS **Modra-Piesok** 149.31 341 *e*PKP **PKiKP** 08 37 59.9 -0.2
MODS *e* 08 38 04.7
MEM **Membach** 149.33 356 *d*PKP **PKPbc** 08 37 59.2 +0.1
BSKQ **Steenkerk** 149.39 358 *d*PKP **PKPbc** 08 37 59.1 -0.1
KZIT **Kziot** 149.41 297 P **PKiKP** 08 38 01.0 +0.1
KZIT AML AML
TNS **Taunus Mts** 149.48 353 *e*PKPbc **PKPbc** 08 37 59.5 -0.1
baz=16,slow=2.6
SIRR **Siria** 149.48 334 ⇑P **PKPdf** 08 37 54.8 0.0
BCLA **Clavier** 149.56 357 *d*PKP **PKiKP** 08 37 60.0 -0.6
GRF **Grafenberg Arr** 149.58 349 *e*PKPbc **PKPbc** 08 37 59.4 -0.4
baz=16,slow=2.6
GRF *e*pPKPbc **pPKPbc** 08 39 36.8 +1.8
baz=15,slow=2.8
ABNA **Allensteig Bun** 149.58 343 *i* PKP **PKPbc** 08 37 60.0 +0.1
comp=Z,29nm,1.2s
KEPZ **Antalya-Kepez** 149.61 310 ⇑P **PKPbc** 08 37 58.2 -2.2
KHC **Kasperske Hory** 149.62 346 *e*PKHKP PKPpre 08 37 55.0
KHC *e* 08 38 07.6
KHC **Kasperske Hory** 149.62 346 *e*PKPDF **PKPdf** 08 37 55.0 +0.1
KHC ⇑*e*PKP **PKPbc** 08 37 59.8 -0.2
KHC *e*PKPAB **PKPab** 08 38 07.6 +1.0
KHC *e*pPKP **pPKPab** 08 39 38.5 -0.2
SURR **Surduc** 149.69 332 ⇓P **PKPbc** 08 37 59.3 -0.9
BMRD **Maredsous** 149.71 357 *d*PKP **PKPbc** 08 37 59.7 -0.3
CKRC **Cesky Krumlov** 149.74 345 *e*PKHKP PKPpre 08 37 59.7
CKRC *e* 08 38 07.0
CKRC **Cesky Krumlov** 149.74 345 ⇑*e*PKP **PKPbc** 08 37 59.7 -0.5
CKRC *e*PKPAB **PKPab** 08 38 07.0 0.0
WET **Wettzell** 149.77 347 *e*PKPbc **PKPbc** 08 37 59.4 -0.9
baz=16,slow=2.6
WET *e*pPKPbc **pPKPbc** 08 39 37.4 +1.8
baz=15,slow=2.8
RCHB **Rochefort** 149.83 357 *d*PKP **PKPbc** 08 38 00.3 0.0
GEC2 **GERESS Array S** 149.86 345 *e*PKPbc **PKPbc** 08 38 00.2 -0.5
baz=16,slow=2.6
GERES **GERESS Array B** 149.86 345 PKPbc **PKPbc** 08 38 00.0 -0.6
comp=Z,1.9nm,0.8s,baz=315,slow=0.2,SNR=12
GERES pPKPbc **pPKPbc** 08 39 36.5 +0.6
comp=Z,5.6nm,0.9s,baz=72,slow=0.4,SNR=3.1
GERES **GERESS Array B** 149.86 345 PKHKP PKPpre 08 37 56.9
GERES **GERESS Array B** 149.86 345 **PKPdf** 08 37 56.9 +1.6
WINA **Alland / Wiene** 149.91 342 *e*PKP **PKiKP** 08 38 01.0 -0.4
comp=Z,19nm,0.8s,SNR=5.9
WINA *e*pPKiKP **pPKiKP** 08 39 38.1 +1.0
comp=Z,51nm,1.5s
DOU **Dourbes** 149.92 357 *d*PKP **PKPbc** 08 38 00.2 -0.3
BZS **Buzias** 150.02 333 ⇑PKIKP **PKPdf** 08 37 54.9 -0.7
BZS **Buzias** 150.02 333 ⇑P **PKPdf** 08 37 54.9 -0.7
CONA **Conrad Observa** 150.13 342 *e*PKP **PKPdf** 08 37 56.1 +0.3
comp=Z,4.4nm,1.1s
CONA *e*PKP **PKPbc** 08 38 01.1 -0.2
comp=Z,20nm,0.7s,SNR=15
CONA *e*pPKiKP **pPKiKP** 08 39 38.3 +0.6
comp=Z,58nm,1.2s
RONA **Rosalia, Austr** 150.21 341 *i* PKP **PKPbc** 08 38 01.1 -0.3
comp=Z,30nm,0.7s,SNR=16
RONA *e*pPKiKP **pPKiKP** 08 39 38.4 +0.7
comp=Z,38nm,1.2s
HERR **Herculane** 150.24 331 ⇑P **PKPdf** 08 37 50.4 -5.6
WLF **Walferdange** 150.26 355 *d*PKP **PKiKP** 08 38 01.9 -0.2
WLF **Walferdange** 150.26 355 *e*PKPbc **PKiKP** 08 38 01.6 -0.5
baz=16,slow=2.6
MDVR **Moldovita** 150.63 332 ⇓P **PKPbc** 08 37 59.8 -2.7
MOA **Molln** 150.65 344 *e*PKP **PKPbc** 08 38 01.9 -0.5
comp=Z,17nm,1.5s
MOA *e*pPKP **pPKPab** 08 39 42.4 -0.5
comp=Z,28nm,1.5s
MORH **Mrgy, Hungar** 150.72 337 ⇑P **PKPbc** 08 38 01.0 -1.5
STU **Stuttgart** 150.80 351 *e*PKPbc **PKPbc** 08 38 02.6 -0.1
baz=16,slow=2.6
ARSA **Arzberg** 150.84 342 *i* PKP **PKPbc** 08 38 02.2 -0.6
comp=Z,5.4nm,0.7s
ARSA *e*pPKP **pPKPab** 08 39 41.6 -2.0
comp=Z,21nm,1.5s
BIOA **Bad Ischl, Aus** 150.95 345 *e*PKP **PKPbc** 08 38 02.5 -0.6
comp=Z,10nm,0.8s
BIOA *e*pPKP **pPKPab** 08 39 43.6 -0.5
comp=Z,37nm,1.3s
FUR **Furstenfeldbru** 151.03 348 *e*PKPbc **PKPbc** 08 38 03.0 -0.3
baz=16,slow=2.6
BLKB **Belogradchik** 151.07 329 ⇓P **PKPdf** 08 37 57.4 +0.1
SESA **Seetaler Alpe,** 151.24 343 *e*PKP **PKPdf** 08 37 56.7 -1.0
comp=Z,5.2nm,1.2s
SESA *e*PKP **PKPbc** 08 38 02.9 -1.2
comp=Z,41nm,0.8s,SNR=21
SESA *e*pPKP **pPKPab** 08 39 44.3 -1.1
comp=Z,53nm,1.2s
TAVA **DENIZLI_Tavas** 151.25 313 ⇓P **PKPbc** 08 38 04.0 -0.2
BFO **Black Forest** 151.35 352 PKIKP **PKPbc** 08 38 03.9 -0.1
BFO **Black Forest** 151.35 352 **PKPbc** 08 38 03.9 -0.1
BFO **Black Forest** 151.35 352 *e*PKPbc **PKPbc** 08 38 03.2 -0.8
baz=16,slow=2.6
BFO *e*pPKPbc **pPKPbc** 08 39 40.7 +1.2
baz=15,slow=2.8
LESA **Schwarzleotal** 151.44 346 *e*PKP **PKPdf** 08 37 57.6 -0.2
comp=Z,5.9nm,1.0s
LESA *e*PKP **PKPbc** 08 38 03.5 -0.8
comp=Z,17nm,1.1s
LESA *e*pPKP **pPKPab** 08 39 44.3 -1.8
comp=Z,32nm,1.5s
SOKA **Soboth** 151.50 342 *e*PKP **PKPdf** 08 37 57.6 -0.3
comp=Z,5.1nm,1.2s
SOKA *i* PKP **PKPbc** 08 38 04.0 -0.5
comp=Z,19nm,1.0s,SNR=8.2
SOKA *e*pPKP **pPKPab** 08 39 45.0 -1.4
comp=Z,29nm,1.2s
BOVS **Bovan** 151.52 330 ⇓P **PKPbc** 08 38 02.4 -2.1
PERS **Pernice** 151.52 342 *i* PKPbc **PKPbc** 08 38 03.7 -0.8
KBA **Koelnbreinsper** 151.60 344 *e*PKP **PKPbc** 08 38 03.8 -1.0
comp=Z,24nm,1.0s,SNR=8.7
KBA *e*pPKP **pPKPab** 08 39 44.7 -2.2
comp=Z,23nm,1.1s
UBR **Ueberruh** 151.72 349 *e*PKPbc **PKPbc** 08 38 04.5 -0.4
baz=16,slow=2.6
UBR *e*pPKPbc **pPKPbc** 08 39 41.6 +1.2
baz=15,slow=2.8
WATA **Walderalm** 151.76 347 *i* PKP **PKPbc** 08 38 04.5 -0.6
comp=Z,15nm,0.7s,SNR=6.9
WATA *e*pPKP **pPKPab** 08 39 45.6 -2.0
comp=Z,37nm,1.2s
RETA **Reutte** 151.78 348 *e*PKP **PKPbc** 08 38 04.9 -0.2
comp=Z,19nm,1.3s
RETA *e*pPKP **pPKPab** 08 39 46.0 -1.7
comp=Z,20nm,1.0s
OBKA **Obir** 151.80 342 *e*PKP **PKPbc** 08 38 04.1 -1.1
comp=Z,8.6nm,1.0s
WTTA **Wattenberg** 151.82 347 *i* PKP **PKPbc** 08 38 05.0 -0.3
comp=Z,25nm,0.7s,SNR=10
WTTA *e*pPKP **pPKPab** 08 39 46.3 -1.5
comp=Z,67nm,1.3s
MOTA **Moosalm** 151.85 348 *i* PKP **PKPbc** 08 38 04.8 -0.5
comp=Z,24nm,1.0s,SNR=7.8

MOTA				*ep*PKP	**pPKPab**	08 39 45.8	-2.2
	comp=Z,18nm,1.3s						
MYKA	**Terra Mystica**	**151.94**	**344**	*e*PKP	**PKPbc**	08 38 03.9	-1.5
	comp=Z,11nm,0.8s						
MYKA				*ep*PKP	**pPKPab**	08 39 45.2	-3.0
	comp=Z,17nm,1.0s						
SQTA	**Sankt Quirin**	**151.95**	**347**	*i* PKP	**PKPbc**	08 38 05.3	-0.2
	comp=Z,31nm,0.9s,SNR=7.3						
SQTA				*ep*PKP	**pPKPab**	08 39 45.8	-2.5
	comp=Z,30nm,1.0s						
ABTA	**Abfaltersbach**	**152.11**	**345**	*i* PKP	**PKPdf**	08 37 58.3	-0.5
	comp=Z,8.7nm,0.8s						
ABTA				*i* PKP	**PKPbc**	08 38 05.2	-0.7
	comp=Z,37nm,1.2s,SNR=6.4						
ABTA				*ep*PKP	**pPKPab**	08 39 45.7	-3.2
	comp=Z,36nm,1.1s						
DAVA	**Damuels**	**152.14**	**349**	*i* PKP	**PKiKP**	08 38 06.0	-0.2
	comp=Z,26nm,1.1s,SNR=7.9						
DAVA				*ep*PKiKP	**pPKiKP**	08 39 44.7	+2.8
	comp=Z,24nm,1.0s						
LJU	**Ljubljana**	**152.23**	**342**	*i* PKPbc	**PKiKP**	08 38 06.1	-0.1
LJU				*ep*PKPbc	**pPKPbc**	08 39 43.4	+2.0
FETA	**Feichten**	**152.24**	**348**	*i* PKP	**PKPdf**	08 37 59.1	0.0
	comp=Z,9.3nm,1.0s						
FETA				*i* PKP	**PKPbc**	08 38 05.6	-0.6
	comp=Z,40nm,1.0s,SNR=7.2						
FETA				*ep*PKiKP	**pPKiKP**	08 39 44.9	+2.7
	comp=Z,18nm,1.0s						
BOJS	**Bojanci**	**152.50**	**341**	*i* PKPdf	**PKPdf**	08 37 59.6	+0.3
BOJS				*i* PKPbc	**PKPbc**	08 38 05.5	-1.0
VAY	**Valandovo**	**152.80**	**326**	*i* Pn	**PKPab**	08 38 20.8	+0.7
OHR	**Ohrid**	**153.86**	**328**	*i* Pn	**PKiKP**	08 38 09.8	0.0
ESDC	**Sonseca Array**	**159.58**	**15**	PKP	**PKPdf**	08 38 07.5	-1.3
	comp=Z,2.0nm,1.0s,baz=338,slow=2.5,SNR=5.6						
ESDC				PKPab	**PKPab**	08 38 49.6	+0.2
	comp=Z,5.1nm,1.1s,baz=332,slow=4.4,SNR=8.2						
ESDC				pPKPab	**pPKPab**	08 40 21.4	+0.5
	comp=Z,5.4nm,1.2s,baz=323,slow=4.5,SNR=4.4						
KEST	**Kesra**	**163.24**	**341**	PKP	**PKPdf**	08 38 12.1	-0.7
	comp=Z,3.4nm,0.9s,baz=317,slow=5.1,SNR=2.5						
KEST				PKPab	**PKPab**	08 39 05.5	0.0
	comp=Z,3.2nm,0.6s,baz=237,slow=3.2,SNR=3.5						
KEST				pPKPab	**pPKPab**	08 40 38.8	+1.9
	comp=Z,8.8nm,0.9s,baz=334,slow=4.1,SNR=4.2						
DBIC	**Dimbokro**	**164.90**	**150**	PKP	**PKPdf**	08 38 13.6	-1.2
	comp=Z,12nm,1.0s,baz=228,slow=3.3,SNR=6.6						
DBIC				PKPab	**PKPab**	08 39 13.4	+0.1
	comp=Z,7.5nm,0.9s,baz=203,slow=5.0,SNR=4.8						
DBIC				pPKPab	**pPKPab**	08 40 46.9	+2.3
	comp=Z,14nm,1.1s,baz=193,slow=8.2,SNR=4.9						
TORD	**Torodi Ar. Bea**	**173.14**	**173**	PKP	**PKPdf**	08 38 18.9	-0.9
	comp=Z,8.6nm,1.0s,baz=284,slow=0.6,SNR=18						
TORD				PKPab	**PKPab**	08 39 50.0	+0.4
	comp=Z,5.7nm,1.1s,baz=202,slow=5.3,SNR=9.8						
TORD				pPKPab	**pPKPab**	08 41 22.5	+1.6
	comp=Z,11nm,1.2s,baz=191,slow=4.1,SNR=8.2						
TORD				PP	**PP**	08 43 40.5	+0.2
	comp=Z,6.6nm,1.2s,baz=175,slow=3.4,SNR=3.6						

*ISK **03** 08:22:47.1,37.84N×26.58E,h7km,ML2.5/23*
*THE **03** 08:22:48.2,38°N-2°×2°7E±°,h9km,3km,M2.5/6,MLh2.5/6*
*AFAD **03** 08:22:48.0,37.90N×26.65E,h7km,3km,ML2.5*

ISC 03 08:22:47.5±1.0,37.87N±0.02×26.61E±0.02,h10km±8km, n43,σ0946/65,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DGB	**zmir**	**0.28**	**49**	P		**Pg**	**08 22 52.9**	**-0.3**
DGB				S		**Sg**	**08 22 56.7**	**-0.3**
DGB				IAML			08 22 57.0	
	comp=E,608nm,0.3s							
GMLD	**Gumuldur**	**0.32**	**49**	Pg		**Pg**	**08 22 54.3**	**+0.5**
GMLD				Sg		**Sg**	**08 22 58.9**	**+0.8**
GMLD				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**347**	P		**Pg**	**08 22 54.8**	**-0.2**
ZEYE				IAML			08 23 01.0	
	comp=N,756nm,0.2s							
ZEYE				S		**Sg**	**08 23 01.2**	**+1.1**
ZEYE				IAML			08 23 02.0	
	comp=E,501nm,0.2s							
BEYE	**izmir**	**0.44**	**35**	P		**Pg**	**08 22 55.6**	**-0.5**
BEYE				S		**Sg**	**08 23 01.7**	**-0.1**
BEYE				IAML			08 23 02.0	
	comp=N,439nm,0.2s							
BEYE				IAML			08 23 02.0	
	comp=E,380nm,0.2s							
GCAM	**G?zelcaml?**	**0.52**	**109**	P		**Pg**	**08 22 57.3**	**-0.3**
GCAM				S		**Sb**	**08 23 05.9**	**-0.3**
GCAM				IAML			08 23 06.0	
	comp=N,595nm,0.2s							
GCAM				IAML			08 23 06.0	
	comp=E,609nm,0.4s							
GCAM	**G?zelcaml?**	**0.52**	**109**	Pg		**Pg**	**08 22 58.0**	**+0.4**
GCAM				Sg		**Sb**	**08 23 06.0**	**-0.3**
GCAM				AML		AML		
CESE	**eme**	**0.52**	**332**	Pg		**Pg**	**08 22 57.7**	**0.0**
CESE				Sg		**Sb**	**08 23 05.7**	**-0.7**
CESE				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.53**	**91**	Pg		**Pb**	**08 22 58.5**	**-0.4**
KUSD				AML		AML		
BLCB	**Balcova**	**0.62**	**33**	P		**Pg**	**08 22 59.4**	**-0.1**
BLCB				S		**Sg**	**08 23 07.5**	**-0.1**
BLCB	**Balcova**	**0.62**	**33**	Pg		**Pg**	**08 22 59.4**	**-0.1**
BLCB				AML		AML		
DDIM	**Aydin, Didim**	**0.65**	**129**	P		**Pb**	**08 23 00.8**	**0.0**
DDIM				S		**Sb**	**08 23 10.8**	**+0.9**
DDIM				IAML			08 23 11.0	
	comp=E,239nm,0.6s							
DDIM				IAML			08 23 17.0	
	comp=N,277nm,0.5s							
CHOS	**Chios island**	**0.68**	**320**	P		**Pb**	**08 23 01.4**	**-0.1**
CHOS				S		**Sb**	**08 23 11.2**	**+0.2**
CHOS				AML		AML		
CHOS	**Chios island**	**0.68**	**320**	Pg		**Pg**	**08 23 00.9**	**+0.2**
CHOS				Sg		**Sb**	**08 23 10.8**	**-0.2**
CHOS				AML		AML		
DIDI	**Didim-Aydin**	**0.70**	**134**	Pg		**Pg**	**08 23 00.9**	**-0.1**
DIDI				AML		AML		
KRBN	**Karaburun**	**0.73**	**356**	Pg		**Pg**	**08 23 01.9**	**+0.4**
KRBN				Sg		**Sb**	**08 23 12.8**	**+0.6**
KRBN				AML		AML		
DUVT	**Torbali**	**0.75**	**62**	P		**Pg**	**08 23 01.5**	**-0.4**
DUVT				S		**Sg**	**08 23 11.3**	**-0.4**
DUVT				IAML			08 23 14.0	
	comp=E,214nm,0.7s							
BAGT	**Foa**	**0.81**	**13**	P		**Pn**	**08 23 04.8**	**-0.1**
BAGT				S		**Sn**	**08 23 16.2**	**-0.7**
BAGT				IAML			08 23 18.0	
	comp=N,248nm,0.4s							
BAGT				IAML			08 23 23.0	
	comp=E,205nm,0.8s							
KARB	**zmir-Karabur**	**0.81**	**349**	P		**Pg**	**08 23 02.5**	**-0.6**
KARB				S		**Sb**	**08 23 14.5**	**-0.1**
KARB				IAML			08 23 23.0	
	comp=N,170nm,0.5s							
KARB				IAML			08 23 23.0	
	comp=E,231nm,1.1s							
FOCM	**Foa**	**0.85**	**6**	Pg		**Pb**	**08 23 04.6**	**+0.3**
FOCM				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.91**	**144**	Pg		**Pg**	**08 23 04.8**	**-0.3**
BODT	**Bodrum**	**0.98**	**145**	P		**Pg**	**08 23 06.7**	**+0.4**
BODT				AML		AML		
BODT	**Bodrum**	**0.98**	**145**	Pg		**Pb**	**08 23 06.5**	**0.0**
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**1.01**	**85**	Pg		**Pn**	**08 23 07.7**	**-0.2**
AYDB				AML		AML		
AYDN	**Tasoluk**	**1.02**	**101**	P		**Pb**	**08 23 07.3**	**0.0**
AYDN				S		**Sb**	**08 23 20.2**	**-0.6**
AYDN				IAML			08 23 24.0	
	comp=N,114nm,0.3s							
AYDN				IAML			08 23 25.0	
	comp=E,232nm,0.3s							
CAMT	**Merkez**	**1.04**	**32**	P		**Pn**	**08 23 08.2**	**+0.1**
CAMT				S		**Sn**	**08 23 22.7**	**+0.1**
BDRM	**Kayabasi**	**1.04**	**140**	P		**Pn**	**08 23 08.0**	**-0.1**
BDRM				S		**Sn**	**08 23 22.8**	**+0.1**
BDRM				IAML			08 23 29.0	
	comp=N,74nm,0.3s							
MLSB	**Milas**	**1.09**	**121**	Pn		**Pg**	**08 23 08.6**	**+0.2**
MLSB				AML		AML		
IZMR	**zmir-demi**	**1.09**	**75**	P		**Pb**	**08 23 08.4**	**0.0**
IZMR				S		**Sb**	**08 23 21.5**	**-1.3**
IZMR				IAML			08 23 25.0	
	comp=N,80nm,0.7s							
IZMR				IAML			08 23 26.0	
	comp=E,93nm,0.6s							
ZEDA	**zmir-Bergama**	**1.16**	**18**	P		**Pb**	**08 23 09.2**	**-0.4**
ZEDA				S		**Sn**	**08 23 25.9**	**+0.3**
ZEDA				IAML			08 23 27.0	
	comp=E,89nm,0.3s							
ZEDA				IAML			08 23 29.0	
	comp=N,116nm,0.3s							
APE	**Apeiranthos**	**1.17**	**228**	P		**Pb**	**08 23 09.3**	**-0.6**
APE				S		**Sn**	**08 23 27.0**	**+1.0**
APE				AML		AML		
APE	**Apeiranthos**	**1.17**	**228**	Pn		**Pb**	**08 23 09.1**	**-0.8**
APE				AML		AML		
DKL	**Dikili**	**1.22**	**11**	Pn		**Pg**	**08 23 11.7**	**+0.7**
DKL				AML		AML		
GOMA	**Golmarmara-Man**	**1.32**	**50**	Pn		**Pg**	**08 23 13.6**	**+0.7**
GOMA				AML		AML		
NAZL	**Nazilli-Aydin**	**1.33**	**85**	Pn		**Pg**	**08 23 13.3**	**+0.2**
NAZL				AML		AML		
DAT	**Datca**	**1.37**	**146**	Pn		**Pb**	**08 23 13.1**	**-0.2**
DAT				AML		AML		
AKS	**Akhisar**	**1.38**	**43**	Pn		**Pg**	**08 23 14.1**	**+0.1**
AKS				AML		AML		
PRK	**Paraskevi**	**1.40**	**349**	P		**Pb**	**08 23 13.6**	**-0.1**
PRK				S		**Sg**	**08 23 32.9**	**+0.2**
PRK				AML		AML		
SOMA	**Soma-Manisa**	**1.48**	**29**	Pn		**Pb**	**08 23 15.2**	**+0.2**
SOMA				AML		AML		
YER	**Yerkesik**	**1.52**	**118**	P		**Pn**	**08 23 14.9**	**+0.2**
YER	**Yerkesik**	**1.52**	**118**	Pn		**Pn**	**08 23 14.7**	**0.0**
YER				AML		AML		
GORD	**Gordes-Manisa**	**1.61**	**49**	Pn		**Pb**	**08 23 17.1**	**-0.2**
GORD				AML		AML		
TURN	**Turunc**	**1.70**	**129**	Pn		**Pn**	**08 23 17.7**	**+0.6**
TURN				AML		AML		
KARY	**Karystos**	**1.73**	**276**	P		**Pn**	**08 23 17.1**	**-0.4**

ISK 03 08:46:08.6,37.87N×26.42E,h16km,ML2.0/7, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
CHOS	**Chios island**	**0.59**	**331**	Pg		Pb	08 46 20.8	+0.1
CHOS				Sg		Sb	08 46 29.6	+0.7
CHOS				AML		AML		
GCAM	**G?zelcaml?**	**0.66**	**104**	Pg		Pb	08 46 21.8	0.0
GCAM				Sg		Sb	08 46 31.9	+1.2
GCAM				AML		AML		
BLCB	**Balcova**	**0.71**	**43**	Pg		Pb	08 46 22.8	+0.2
BLCB				Sg		Sb	08 46 33.2	+1.1
BLCB				AML		AML		
KRBN	**Karaburun**	**0.73**	**8**	Pg		Pb	08 46 23.3	+0.3
KRBN				Sg		Sn	08 46 34.3	-0.8
KRBN				AML		AML		
FOCM	**Foa**	**0.88**	**16**	Pg		Pg	08 46 25.9	+0.2
FOCM				Sg		Sn	08 46 38.7	0.0
FOCM				AML		AML		
APE	**Apeiranthos**	**1.07**	**222**	Pg		Pg	08 46 29.3	+0.1
APE				AML		AML		
BODT	**Bodrum**	**1.07**	**138**	Pg		Pg	08 46 29.4	+0.1
BODT				AML		AML		

AFAD 03 08:47:07.1,37.82N×26.77E,h7km±1km,ML1.5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DGB	**zmir**	**0.25**	**22**	P		Pg	08 47 12.3	+0.3
DGB				IAML			08 47 16.0	
	comp=N,76nm,0.3s							
DGB				IAML			08 47 16.0	
	comp=E,81nm,0.3s							
DGB				S		Sg	08 47 16.0	+0.7
BEYE	**izmir**	**0.42**	**17**	P		Pg	08 47 15.6	+0.2
BEYE				S		Sg	08 47 21.8	+0.9
BEYE				IAML			08 47 23.0	
	comp=E,43nm,0.2s							
BEYE				IAML			08 47 27.0	
	comp=N,38nm,0.3s							
ZEYE	**Izmir, Urla-Ze**	**0.47**	**333**	P		Pg	08 47 15.9	-0.2
ZEYE				S		Sg	08 47 23.3	+1.1
ZEYE				IAML			08 47 24.0	
	comp=N,49nm,0.4s							
ZEYE				IAML			08 47 25.0	
	comp=E,40nm,0.2s							
KARB	**zmir-Karabur**	**0.89**	**342**	P		Pg	08 47 24.1	0.0
KARB				S		Sb	08 47 37.7	+0.9
KARB				IAML			08 47 39.0	
	comp=E,29nm,0.5s							
KARB				IAML			08 47 39.0	
	comp=N,32nm,0.6s							

*IDC **03** 08:50:40.0±1.5,51.81N×75.46E,h0km,mbtmp2.7/2, ML2.3/1,Error ellipse: s-maj=23.8km s-min=10.5km az=30.0*
*NNC **03** 08:50:41.9±3.8,51.66N×75.56E,h0km,mb2.5,mpv2.1, Error ellipse: s-maj=107.1km s-min=25.3km az=28.0, Suspected Mining explosion.*

ISC 03 08:50:41.0±1.4,51.8N±0.1×75.51E±0.09,h0km,n8, σ1§30/6,3C-2D,Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
KURBB	**Kurchatov Arra**	**2.21**	**119**	Pg		**Pb**	**08 51 21.1**	**-0.7**
	0.1nm,0.3s,baz=304,slow=18,SNR=8.7							
KURBB				Lg		Lg	08 51 51.5	
	0.2nm,0.3s,baz=306,slow=30,SNR=9.5							
KURBB	**Kurchatov Arra**	**2.21**	**119**	⇑Pg		**Pb**	**08 51 21.4**	**-0.5**
	1.4nm,0.5s							
KURBB				⇑Lg		Lg	08 51 50.5	
	17nm,0.8s							
KURK	**Kurchatov**	**2.21**	**117**	⇓Pg		**Pb**	**08 51 20.5**	**-1.4**
	0.4nm,0.6s							
KURK				⇑Lg		Lg	08 51 49.5	
	3.1nm,0.8s							
BVAR	**Borovoye Array**	**3.39**	**294**	Pg		**Pb**	**08 51 41.2**	**-0.7**
	baz=110,slow=17,SNR=1.8							
BVAR				Lg		Lg	08 52 27.6	
	0.1nm,0.3s,baz=104,slow=30,SNR=5.8							
I46RU	**ZALESOVO INFRA**	**6.06**	**65**	I		I	09 28 30.0	
	baz=248,slow=319,SNR=5.5							
ZALV	**Zalesovo Beam**	**6.06**	**65**	Pn		**Pn**	**08 52 12.6**	**+0.8**
	0.4nm,0.4s,baz=242,slow=12,SNR=1.7							
MK31	**Makanchi Array**	**6.65**	**136**	⇓Lg		Lg	08 54 08.9	
	2.0nm,0.9s,baz=319,slow=27,SNR=5.1							
MKAR	**Makanchi Array**	**6.65**	**136**	Pn		**Pn**	**08 52 21.1**	**+1.1**
	0.1nm,0.3s,baz=324,slow=7.1,SNR=2.2							
MKAR				Lg		Lg	08 54 09.3	
	0.1nm,0.3s,baz=320,slow=26,SNR=10.0							
	0.4nm,0.7s							
MKAR				AML		AML		

*IDC **03** 09:05:12.8±2.1,77.79N×115.83W,h0km,mb3.7/2, mbtmp3.5/5,ML3.3/3,MS3.8/1,Error ellipse: s-maj=36.8km s-min=21.6km az=89.0*
*OTT **03** 09:05:13.4±0.5,77.77N×115.29W,h18km,ML4.3/4, 200km northeast from Mould Bay, Nt*

ISC 03 09:05:11.0±1.2,77.46N±0.10×115.20W±0.06,h10km,n12, σ3§26/18,Queen Elizabeth Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
RES	**Resolute Bay**	**5.61**	**110**	PN		**Pn**	**09 06 37.1**	**+2.9**
RES				SN		**Sn**	**09 07 38.8**	**+0.2**
RES				Trac			09 07 48.3	
	comp=Z,20nm,0.5s							
A36M	**Sachs Harbour**	**6.10**	**211**	PN		**Pn**	**09 06 43.9**	**+2.9**
A36M				SN		**Sn**	**09 07 52.7**	**+2.0**
A36M				Trac			09 07 58.5	
	comp=Z,35nm,0.8s							
KUKN	**Kugluktuk,NWT**	**9.70**	**180**	PN		**Pn**	**09 07 35.0**	**+4.8**
KUKN				SN		**Sn**	**09 09 20.1**	**+1.1**
KUKN				Trac			09 09 36.9	
	comp=Z,50nm,1.0s							
POIN	**Pond Inlet**	**10.52**	**98**	PN		**Pn**	**09 07 42.4**	**+0.9**
POIN				SN		**Sn**	**09 09 34.1**	**-5.0**
POIN				Trac			09 09 43.5	
	comp=Z,66nm,1.5s							

INK	**Inuvik**	**10.58**	**220**	Pn		**Pn**	**09 07 42.8**	**+0.5**
	0.2nm,0.3s,baz=18,slow=10,SNR=9.0							
INK				Sn		**Sn**	**09 09 38.4**	**-2.3**
	0.2nm,0.3s,baz=106,slow=20,SNR=5.9							
	0.5nm,0.5s							
INK				AML		AML		
INK	**Inuvik**	**10.58**	**220**	PN		**Pn**	**09 07 45.9**	**+3.5**
INK				SN		**Sn**	**09 09 39.8**	**-0.9**
INK				Trac			09 09 49.5	
	comp=Z,552nm,4.3s							
ILON	**Igloolik, Nuna**	**12.27**	**113**	PN		**Pn**	**09 08 07.6**	**+2.2**
ILON				SN		**Sn**	**09 10 17.4**	**-4.5**
ILON				Trac			09 10 22.7	
	comp=Z,80nm,1.0s							
YKA	**Yellowknife Ar**	**15.05**	**179**	Pn		**Pn**	**09 08 44.4**	**+1.1**
	0.2nm,0.3s,baz=353,slow=12,SNR=6.9							
YKA				Sn		**Sn**	**09 11 23.8**	**-5.9**
	0.1nm,0.3s,baz=357,slow=23,SNR=2.1							
	1.2nm,0.8s							
YKA				AML		AML		
ILAR	**Eielson Array**	**15.98**	**235**	Pn		**P**	**09 08 56.0**	**-3.0**
	baz=25,slow=11,SNR=8.0							
	0.1nm,0.5s							
TIXI	**Tiksi**	**26.45**	**320**	P		**P**	**09 10 47.7**	**+0.3**
	1.0nm,0.3s,baz=30,slow=6.6,SNR=5.7							
	1.0nm,0.3s							
PDAR	**Pinedale Array**	**34.88**	**173**	P		P	09 12 08.9	+6.6
	0.3nm,0.5s,baz=343,slow=7.2,SNR=3.4							
	0.3nm,0.5s							
VRAC	**Vranov**	**50.02**	**40**	LR		LR	09 35 29.5	
	comp=Z,91nm,19.5s,baz=22,slow=36							

JMA 03 09:13:36.6±0.3,25.7N×122.4E±°,h68km,MV1.1/6,NW OFF ISHIGAKIJIMA IS,Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.43**	**192**	P		Pn	09 13 48.6	0.0
JISG	**Ishigakijimahi**	**0.47**	**111**	P		Pn	09 13 49.2	+0.2
JISG				*e*S		Sn	09 13 58.4	+0.4
JIJ	**Ishigaki jima**	**0.49**	**144**	P		Pn	09 13 48.9	-0.2
JIJ				*e*S		Sn	09 13 58.0	-0.3
JKRS	**Kuro-shima**	**0.55**	**162**	*e*P		Pn	09 13 49.9	+0.2
JKRS				*e*S		Sn	09 14 00.1	+0.8
JTJ	**Tarama**	**0.81**	**98**	*e*S		Sn	09 14 05.1	+0.7

TAP 03 09:13:59.4,24.10N×122.27E,h24km,ML3.2,C,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
EOS4	**EOS4**	**0.04**	**66**	*i* P		Pb	09 14 03.3	+0.1
EOS4				S		Sb	09 14 06.3	+0.6
EOS3	**EOS3**	**0.19**	**12**	*i* P		Pb	09 14 04.9	+0.2
EOS3				*i* S		Sb	09 14 09.3	+1.1
EOS2	**EOS2**	**0.32**	**353**	P		Pb	09 14 06.9	+0.4
EOS2				S		Sb	09 14 12.6	+1.2
EAHA	**Aohua**	**0.54**	**295**	*e*P		Pb	09 14 09.8	-0.4
EWUT	**Wuta**	**0.57**	**307**	*e*P		Pb	09 14 10.2	-0.4
EWUT				S		Sb	09 14 18.9	+0.5
ENA	**Nanau**	**0.58**	**304**	P		Pb	09 14 11.2	+0.2
ENA				*e*S		Sb	09 14 18.2	-0.7
ETL	**Fush Village**	**0.60**	**275**	*e*P		Pn	09 14 12.0	-0.4
ESAO	**Su ao**	**0.61**	**320**	*e*P		Pb	09 14 11.0	-0.5
NACB	**Ninganchiao**	**0.62**	**277**	*e*P		Pb	09 14 11.6	-0.1
TWC	**Suao**	**0.64**	**323**	*e*P		Pb	09 14 11.0	-0.8
TWC				S		Sb	09 14 18.9	-1.4
SHUL	**Shoufeng**	**0.72**	**244**	*e*P		Pb	09 14 12.9	-0.4
SHUL				*e*S		Sb	09 14 22.7	-0.1
ETM	**Tongmen**	**0.73**	**259**	P		Pb	09 14 12.5	-0.9
ETM				S		Sb	09 14 23.2	+0.2
ETLH	**Xiulin Townshi**	**0.73**	**278**	P		Pb	09 14 13.2	-0.3
ETLH				S		Sn	09 14 24.6	-0.1
NDS	**Dongshan**	**0.73**	**316**	*i* P		Pb	09 14 13.6	+0.1
NDS				*i* S		Sb	09 14 23.3	+0.2
YOJ	**Yonaguni jima**	**0.76**	**62**	*e*P		Pb	09 14 14.0	0.0
YOJ				*e*S		Sb	09 14 24.6	+0.6
LXIB	**Xiulin Townshi**	**0.79**	**264**	*e*P		Pb	09 14 14.3	-0.2
LATG	**Datong**	**0.81**	**302**	*e*P		Pb	09 14 15.1	+0.3
TWE	**Neicheng**	**0.83**	**318**	*e*P		Pn	09 14 15.4	-0.1
TWE				S		Sn	09 14 26.8	-0.2
ENTT	**Nioudou**	**0.84**	**310**	P		Pb	09 14 15.4	+0.1
ENTT				S		Sb	09 14 26.7	+0.5
NDT	**Datong Townshi**	**0.85**	**306**	*e*P		Pn	09 14 15.9	0.0
NDT				*e*S		Sn	09 14 27.5	-0.1
NNSB	**Datong**	**0.88**	**292**	*e*P		Pb	09 14 16.1	+0.1
NNS	**Nan Shan**	**0.89**	**292**	*e*P		Pb	09 14 16.4	-0.1
WARBT	**Fenglin Townsh**	**0.90**	**245**	*e*P		Pb	09 14 14.6	-1.7
WARBT				*e*S		Sb	09 14 27.1	-0.7
FUSB	**Fushanzhiwuyua**	**0.91**	**316**	*e*P		Pn	09 14 16.9	+0.2
FUSB				*e*S		Sn	09 14 28.7	-0.3
WHF	**Hehuan Shan**	**0.92**	**273**	*e*P		Pb	09 14 16.5	-0.5
TWB1	**Santiao Chiao**	**0.94**	**344**	*e*P		Pn	09 14 17.4	+0.4
TWB1				*e*S		Sn	09 14 29.6	-0.1
TIPB	**Shuangxi**	**0.96**	**335**	*e*P		Pb	09 14 16.6	-0.7
TIPB				S		Sb	09 14 29.2	-0.3
NWLT	**Wulai**	**0.97**	**314**	*i* P		Pb	09 14 17.9	+0.3
NWLT				S		Sn	09 14 30.9	+0.3
HGSD	**Ruisui**	**0.99**	**232**	*e*P		Pn	09 14 16.7	-1.0
YHNB	**Yeheng**	**0.99**	**305**	*e*P		Pn	09 14 17.8	-0.1
YHNB				*e*S		Sn	09 14 31.2	0.0
NSK	**Sanguang**	**1.01**	**305**	*e*P		Pb	09 14 19.2	+0.9
NSK				S		Sn	09 14 31.7	0.0
TWT	**Tachien**	**1.01**	**279**	*e*P		Pb	09 14 18.4	0.0
OWD	**Renai**	**1.01**	**262**	*e*P		Pn	09 14 17.5	-0.8
OWD				*e*S		Sb	09 14 30.4	-1.0
TDCB	**Techi**	**1.03**	**279**	*e*P		Pn	09 14 17.9	-0.5
EHYH	**Wanrong**	**1.04**	**235**	*e*P		Pn	09 14 16.6	-1.9
SXI1	**Grass Mountain**	**1.05**	**340**	*e*P		Pn	09 14 18.7	0.0
SXI1				*e*S		Sn	09 14 33.1	+0.5
NWF	**Wu-fen Shan**	**1.06**	**335**	*e*P	

*BUC **03** 09:14:40.8±0.2,45°.51N×26°.39E,h118^{km}±1^{km},ml3.9/61, Error ellipse: s-maj=1.4km s-min=1.2km az=15.0*
*CFUSG **03** 09:14:40.6,45°.50N×26°.40E,h100^{km},Mb3.0/3,MD3.5, MSH2.9/3*
*SIGU **03** 09:14:40.8±0.1,46°N±1°×2°6E±°,h116^{km},mb2.8/3, MD3.5/6*
*SOF **03** 09:14:42.3,45°.44N±0°.01×26°.29E±0°.01,h100^{km}±4^{km}, MD3.6/8*

ISC 03 09:14:40.3±1.2,**45°.53N**±0°.03×**26°.38E**±0°.02,**h124**^{km}±6^{km}, **n96,**σ0^{s}**79**/143,**60C-47D,Romania**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
NEHR	**Nehoiu**	**0.12**	**210**	⇓	P		**Pn**	**09 14 57.9**	**+0.5**
NEHR				⇑	S		**Sn**	**09 15 10.0**	**-0.1**
NEHR					AML		AML		
NEHR					AML		AML		
SAHR	**Sahastru**	**0.29**	**47**	⇓	P		**Pn**	**09 14 58.4**	**+0.6**
SAHR				⇑	S		**Sn**	**09 15 11.2**	**+0.3**
SAHR					AML		AML		
SAHR					AML		AML		
MLR	**Muntele Rosu**	**0.31**	**263**	⇑	P		**Pn**	**09 14 58.4**	**+0.5**
MLR				⇑	S		**Sn**	**09 15 11.4**	**+0.2**
MLR					AML		AML		
MLR					AML		AML		
COVR	**Voineasa-Covas**	**0.34**	**339**	⇑	P		**Pn**	**09 14 58.0**	**0.0**
COVR				⇓	S		**Sn**	**09 15 10.8**	**-0.5**
COVR					AML		AML		
COVR					AML		AML		
PLOR	**Plostina**	**0.38**	**30**	⇑	P		**Pn**	**09 14 58.4**	**+0.3**
PLOR				⇑	S		**Sn**	**09 15 11.5**	**0.0**
PLOR					AML		AML		
PLOR					AML		AML		
VRI	**Vrincioaia**	**0.42**	**36**	⇑	P		**Pn**	**09 14 58.7**	**+0.4**
VRI				⇑	S		**Sn**	**09 15 11.7**	**-0.2**
VRI					AML		AML		
VRI					AML		AML		
ISR	**Istrita**	**0.42**	**164**	⇓	P		**Pn**	**09 14 58.8**	**+0.4**
TURR	**Turia**	**0.59**	**334**	⇓	P		**Pn**	**09 14 59.5**	**+0.2**
TURR				⇑	S		**Sn**	**09 15 13.4**	**-0.2**
TURR					AML		AML		
TURR					AML		AML		
PANC	**Panciu**	**0.64**	**57**	⇑	P		**Pn**	**09 15 00.2**	**+0.6**
PANC				⇑	S		**Sn**	**09 15 14.3**	**+0.1**
OZUR		**0.70**	**324**	⇑	P		**Pn**	**09 15 00.1**	**0.0**
OZUR				⇑	S		**Sn**	**09 15 14.3**	**-0.8**
OZUR					AML		AML		
OZUR					AML		AML		
COSR	**Cosmesti PH**	**0.73**	**63**	⇓	P		**Pn**	**09 15 00.5**	**+0.2**
COSR				⇓	S		**Sn**	**09 15 15.0**	**-0.4**
COSR					AML		AML		
COSR					AML		AML		
BOSR	**Bodos**	**0.74**	**318**	⇑	P		**Pn**	**09 15 00.4**	**-0.1**
BOSR				⇑	S		**Sn**	**09 15 15.0**	**-0.7**
BOSR					AML		AML		
BOSR					AML		AML		
ONER	**Baraj Valea Uz**	**0.81**	**1**	⇓	P		**Pn**	**09 15 01.2**	**+0.2**
ONER				⇑	S		**Sn**	**09 15 16.0**	**-0.7**
ONER					AML		AML		
ONER					AML		AML		
DOPR	**Dopca**	**0.82**	**303**	⇑	S		**Sn**	**09 15 16.1**	**-0.7**
DOPR					AML		AML		
GHRR		**0.90**	**53**	⇑	P		**Pn**	**09 15 02.5**	**+0.8**
GHRR				⇑	S		**Sn**	**09 15 17.8**	**0.0**
GHRR					AML		AML		
GHRR					AML		AML		
TUDR		**0.91**	**85**	⇑	P		**Pn**	**09 15 01.8**	**+0.1**
TUDR				⇑	S		**Sn**	**09 15 17.5**	**-0.5**
TUDR					AML		AML		
TUDR					AML		AML		
VOIR		**0.94**	**265**	⇓	P		**Pn**	**09 15 02.5**	**+0.3**
VOIR				⇑	S		**Sn**	**09 15 18.0**	**-0.7**
VOIR					AML		AML		
VOIR					AML		AML		
IZVR	**Izvoarele**	**0.98**	**89**	⇑	P		**Pn**	**09 15 02.7**	**+0.4**
IZVR				⇑	S		**Sn**	**09 15 17.9**	**-1.2**
IZVR					AML		AML		
IZVR					AML		AML		
TESR	**Tescani**	**1.00**	**11**	⇑	P		**Pn**	**09 15 02.7**	**0.0**
TESR					AML		AML		
SCHL	**Schela**	**1.02**	**91**	⇑	S		**Sn**	**09 15 18.8**	**-1.1**
SCHL					AML		AML		
SCHLR	**Schela**	**1.02**	**93**	⇓	P		**Pn**	**09 15 03.2**	**+0.4**
SCHLR				⇑	S		**Sn**	**09 15 18.9**	**-1.0**
SCHLR					AML		AML		
SCHLR					AML		AML		
NEGRR	**Negrea**	**1.05**	**89**	⇑	P		**Pn**	**09 15 03.6**	**+0.5**
NEGRR				⇑	S		**Sn**	**09 15 19.8**	**-0.7**
NEGRR					AML		AML		
NEGRR					AML		AML		
VARL	**Varlezi**	**1.09**	**70**	⇓	P		**Pn**	**09 15 04.0**	**+0.4**
VARL				⇑	S		**Sn**	**09 15 20.7**	**-0.5**
VARL					AML		AML		
VARL					AML		AML		
INCR	**INCERC-Sediu C**	**1.10**	**188**	⇑	S		**Sn**	**09 15 21.8**	**+0.6**
INCR					AML		AML		
LEHL	**Lehliu**	**1.10**	**163**	⇑	P		**Pn**	**09 15 03.5**	**-0.1**
LEHL					AML		AML		
BIR	**Birlad**	**1.14**	**49**	⇓	P		**Pn**	**09 15 04.5**	**+0.5**
BIR				⇑	S		**Sn**	**09 15 21.6**	**-0.5**
BIR					AML		AML		
BIR					AML		AML		
SCTR	**Scanteiesti**	**1.14**	**82**	⇓	P		**Pn**	**09 15 04.8**	**+0.8**
SCTR				⇑	S		**Sn**	**09 15 21.9**	**-0.2**
SCTR					AML		AML		
SCTR					AML		AML		
TATR	**Tatarca**	**1.18**	**86**	⇓	P		**Pn**	**09 15 05.0**	**+0.6**
TATR				⇑	S		**Sn**	**09 15 22.7**	**+0.1**
GISR	**Galati**	**1.18**	**94**	⇑	P		**Pn**	**09 15 05.0**	**+0.6**
GISR				⇓	S		**Sn**	**09 15 22.2**	**-0.5**
GISR					AML		AML		
GISR					AML		AML		
STFAR	**Stefanesti-Arg**	**1.20**	**237**	⇓	S		**Sn**	**09 15 23.2**	**0.0**
STFAR					AML		AML		
BUC1	**Bucharest**	**1.21**	**192**	⇑	S		**Sn**	**09 15 23.5**	**+0.3**
BUC1					AML		AML		
VLDR	**Vladesti**	**1.23**	**75**	⇓	P		**Pn**	**09 15 05.5**	**+0.5**
VLDR				⇑	S		**Sn**	**09 15 23.2**	**-0.5**
VLDR					AML		AML		
VLDR					AML		AML		
ARR	**Arges**	**1.24**	**263**	⇓	P		**Pn**	**09 15 05.8**	**+0.7**
ARR				⇑	S		**Sn**	**09 15 24.3**	**+0.2**
ARR					AML		AML		
ARR					AML		AML		
CFR	**Carcaliu**	**1.29**	**105**	⇓	P		**Pn**	**09 15 05.4**	**-0.2**
CFR					AML		AML		
GIUM	**Giurgiulesti**	**1.29**	**91**		P		**Pn**	**09 15 06.4**	**+0.8**
GIUM					S		**Sn**	**09 15 25.4**	**+0.7**
GIUM	**Giurgiulesti**	**1.29**	**91**	⇓	P		**Pn**	**09 15 06.2**	**+0.7**
GIUM				⇓	S		**Sn**	**09 15 25.4**	**+0.7**
GIUM					AML		AML		
GIUM					AML		AML		
SGRR	**Singureni**	**1.34**	**193**	⇓	P		**Pn**	**09 15 06.8**	**+0.6**
SGRR				⇓	S		**Sn**	**09 15 25.9**	**+0.2**
SGRR					AML		AML		
SGRR					AML		AML		
HARR	**Harsova**	**1.38**	**127**	⇓	P		**Pn**	**09 15 07.0**	**+0.4**
HARR				⇓	S		**Sn**	**09 15 25.9**	**-0.7**
HARR					AML		AML		
HARR					AML		AML		
CICN	**Ciocanesti**	**1.41**	**161**	⇓	S		**Sn**	**09 15 27.3**	**+0.2**
CICN					AML		AML		
HUMR	**Humele**	**1.41**	**225**	⇑	P		**Pn**	**09 15 07.3**	**+0.4**
BIZ	**Bicaz**	**1.43**	**352**	⇓	P		**Pn**	**09 15 08.1**	**+1.0**
BIZ				⇑	S		**Sn**	**09 15 28.0**	**+0.5**
BIZ					AML		AML		
BIZ					AML		AML		
VASR	**Vaslui**	**1.49**	**41**	⇓	P		**Pn**	**09 15 08.0**	**+0.2**
VASR					AML		AML		
MDB	**Medias**	**1.53**	**294**	⇓	P		**Pn**	**09 15 08.9**	**+0.6**
MDB					AML		AML		
TLBR	**Topalu**	**1.54**	**129**	⇓	S		**Sn**	**09 15 28.8**	**-0.9**
TLBR					AML		AML		
TPGR	**Topolog**	**1.59**	**114**	⇑	S		**Sn**	**09 15 29.8**	**-1.1**
TPGR					AML		AML		
COPA	**Copaceanca**	**1.62**	**211**	⇓	P		**Pn**	**09 15 09.9**	**+0.6**
COPA				⇑	S		**Sn**	**09 15 31.2**	**-0.3**
COPA					AML		AML		
COPA					AML		AML		
CVDA	**Cernavoda**	**1.68**	**135**	⇑	S		**Sn**	**09 15 32.0**	**-0.7**
CVDA					AML		AML		
ICOR	**Ion Corvin**	**1.74**	**144**	⇓	P		**Pn**	**09 15 11.4**	**+0.7**
ICOR				⇓	S		**Sn**	**09 15 33.7**	**-0.2**
ICOR					AML		AML		
ICOR					AML		AML		
TLCR		**1.75**	**100**	⇑	P		**Pn**	**09 15 11.4**	**+0.5**
TIRR	**Tirgusor**	**1.80**	**126**	⇓	P		**Pn**	**09 15 11.9**	**+0.4**
TIRR				⇓	S		**Sn**	**09 15 34.4**	**-0.8**
LOT	**Lotru**	**1.84**	**268**	⇓	S		**Sn**	**09 15 35.9**	**-0.4**
LOT					AML		AML		
IASR	**Iasi**	**1.85**	**26**	⇓	P		**Pn**	**09 15 11.6**	**-0.4**
IASR					AML		AML		
JURR	**Jurilovca**	**1.93**	**112**	⇓	P		**Pn**	**09 15 13.7**	**+0.7**
ZIMR		**2.00**	**202**	⇓	S		**Sn**	**09 15 40.3**	**+0.5**
ZIMR					AML		AML		
VLAD	**Vladila**	**2.08**	**223**	⇑	P		**Pn**	**09 15 14.7**	**-0.2**
VLAD					AML		AML		
TSCT	**Constanta Port**	**2.12**	**129**	⇑	S		**Sn**	**09 15 41.3**	**-0.9**
TSCT					AML		AML		
EFOR	**EFORIE**	**2.16**	**131**	⇑	P		**Pn**	**09 15 15.7**	**-0.3**
EFOR				⇑	S		**Sn**	**09 15 42.5**	**-0.7**
EFOR					AML		AML		
EFOR					AML		AML		
BURAR	**Bucovina Array**	**2.24**	**339**	⇓	P		**Pn**	**09 15 18.2**	**+1.2**
BURAR				⇑	S		**Sn**	**09 15 46.2**	**+1.1**
KIS	**Kishinev**	**2.24**	**48**		P		**Pn**	**09 15 16.9**	**0.0**
KIS	**Kishinev**	**2.24**	**48**	⇑	P		**Pn**	**09 15 17.0**	**0.0**
KIS					AML		AML		
PSN	**Preselentsi**	**2.27**	**146**		P		**Pn**	**09 15 18.5**	**+1.2**
PSN					S		**Sn**	**09 15 45.5**	**-0.1**
SZH	**Strazhitsa**	**2.28**	**187**		P		**Pn**	**09 15 18.1**	**+0.6**
MANR	**Mangalia**	**2.33**	**137**	⇓	S		**Sn**	**09 15 45.9**	**-1.0**
MANR					AML		AML		
NEF	**NEVSHA**	**2.35**	**164**		P		**Pn**	**09 15 19.2**	**+0.8**
SRE	**Strehaia**	**2.41**	**250**	⇑	P		**Pn**	**09 15 19.4**	**+0.3**
SRE					AML		AML		
PRD	**Provadia**	**2.48**	**162**		P		**Pn**	**09 15 20.8**	**+0.8**
PLVB	**Pleven**	**2.48**	**211**	⇓	P		**Pn**	**09 15 20.5**	**+0.5**
PLVB					AML		AML		
SHAB	**Shabla**	**2.55**	**141**	⇑	S		**Sn**	**09 15 51.6**	**-0.3**
PVL	**Pavlikeni**	**2.56**	**200**		P		**Pn**	**09 15 21.4**	**+0.4**
ELND	**Elena**	**2.62**	**188**	⇓	P		**Pn**	**09 15 22.4**	**+0.5**
ELND				⇑	S		**Sn**	**09 15 53.5**	**-0.2**
ELND					AML		AML		
ELND					AML		AML		
RMGR	**Halanga-Turnu**	**2.75**	**253**	⇓	P		**Pn**	**09 15 23.2**	**-0.3**
VALD	**Valchedram**	**2.79**	**230**		P		**Pn**	**09 15 24.1**	**+0.1**
HERR	**Herculane**	**2.88**	**258**	⇑	P		**Pn**	**09 15 24.6**	**-0.4**
HERR					AML		AML		
MPEP	**Malo Peshtene**	**2.88**	**222**		P		**Pn**	**09 15 25.6**	**+0.5**
MPEP					S		**Sn**	**09 15 57.8**	**-1.8**
RAKU	**Rahkiv**	**2.93**	**329**	*e*	P		**Pn**	**09 15 28.3**	**+2.6**
SORM	**Soroca**	**2.94**	**27**		P		**Pn**	**09 15 25.2**	**-0.6**
SORM	**Soroca**	**2.94**	**27**	⇓	P		**Pn**	**09 15 25.2**	**-0.6**
SORM					AML		AML		
SURR	**Surduc**	**2.99**	**276**	⇑	P		**Pn**	**09 15 27.0**	**+0.4**
KMPD	**K-Podol'skiy**	**3.04**	**1**	*e*	Pn		**Pn**	**09 15 29.1**	**+2.0**
KMPD				*e*	Sn		**Sn**	**09 16 01.4**	**-1.9**
NDNU	**Novodnistrovsk**	**3.14**	**12**	*e*	Pn		**Pn**	**09 15 28.1**	**-0.4**
NDNU					pmax		pmax	09 15 28.2	
NDNU				*e*	Sn		**Sn**	**09 16 03.1**	**-2.7**
NDNU					smax		smax	09 16 03.8	
BLKB	**Belogradchik**	**3.26**	**236**	⇑	P		**Pn**	**09 15 29.4**	**-0.7**
BLKB					AML		AML		
BZS	**Buzias**	**3.35**	**273**	⇓	P		**Pn**	**09 15 30.8**	**-0.4**
SIRR	**Siria**	**3.38**	**284**	⇑	P		**Pn**	**09 15 31.4**	**-0.3**
MDVR	**Moldovita**	**3.38**	**259**	⇑	P		**Pn**	**09 15 31.5**	**-0.3**
BLSH	**Balsha**	**3.48**	**221**		P		**Pn**	**09 15 33.7**	**+0.7**
VTS	**Vitosha**	**3.69**	**219**		P		**Pn**	**09 15 36.5**	**+0.6**
PLNA	**Plana**	**3.72**	**216**		P		**Pn**	**09 15 37.1**	**+0.8**
MORS	**Morshin**	**3.98**	**336**	*e*	Pn		**Pn**	**09 15 41.2**	**+1.6**
MORS				*e*	Sn		Sn	09 16 35.8	+10
DNZ2	**Donuzlav2**	**4.81**	**89**	*e*	P		**Pn**	**09 15 50.3**	**-0.4**
DNZ2					pmax		pmax	09 15 50.8	
	comp=Z,17nm,0.3s								
DNZ2				*e*	S		**Sn**	**09 16 43.5**	**-2.0**
DNZ2					smax		smax	09 16 44.7	
	comp=N,15nm,0.3s								
DNZ2					smax		smax	09 16 44.7	
	comp=E,17nm,0.3s								
SEV	**Sevastopol'**	**5.26**	**98**		P		**Pn**	**09 15 56.8**	**+0.1**
SEV					pmax		pmax	09 15 57.7	
SEV					S		**Sn**	**09 16 55.7**	**-0.5**
SEV					smax		smax	09 16 58.7	
SEV	**Sevastopol'**	**5.26**	**98**	*e*	P		**Pn**	**09 15 56.8**	**+0.1**
SEV					pmax		pmax	09 15 57.7	
	comp=Z,6.0nm,0.3s								
SEV				*e*	S		**Sn**	**09 16 55.7**	**-0.5**
SEV					smax		smax	09 16 58.7	
	comp=N,4.0nm,0.3s								
SEV					smax		smax	09 16 58.7	
	comp=E,4.0nm,0.4s								
SUDU	**Sudak**	**6.12**	**93**		P		**Pn**	**09 16 08.7**	**+0.3**
SUDU					pmax		pmax	09 16 08.8	
SUDU					S		**Sn**	**09 17 17.0**	**-0.1**
SUDU					smax		smax	09 17 20.9	
SUDU	**Sudak**	**6.12**	**93**	⇓	*e*P		**Pn**	**09 16 08.7**	**+0.3**
SUDU					pmax		pmax	09 16 08.8	
	comp=Z,4.0nm,0.3s								
SUDU				*e*	S		**Sn**	**09 17 17.0**	**-0.1**
SUDU					smax		smax	09 17 20.9	
	comp=N,11nm,0.5s								
SUDU					smax		smax	09 17 20.9	
	comp=E,8.0nm,0.3s								
DBRK	**Dubrovnik**	**6.58**	**247**	*i*	Pn		**Pn**	**09 16 15.8**	**+1.3**
DBRK					Sn		**Sn**	**09 17 26.2**	**-1.9**
STON	**Ston**	**6.78**	**250**	*e*	Pn		**Pn**	**09 16 17.1**	**-0.1**
STON					Sn		**Sn**	**09 17 30.9**	**-2.0**
LSTV	**Lastovo**	**7.36**	**251**		Sn		**Sn**	**09 17 44.3**	**-2.7**

*VAO **03** 09:35:18.9±0.6,21°.55S×68°.69W,h103^{km}±5^{km},mb4.7, Presumed earthquake*
*SJA **03** 09:35:23.9±0.6,21°.60S×68°.54W,h141^{km}±3^{km},ML4.4, MW4.3*
*NEIC **03** 09:35:24.4±2.7,21°.62S±0°.04×68°.62W±0°.07,h140^{km}±5^{km}, mb4.7/31,Mwr4.5(GUC),Error ellipse: s-maj=9.6km s-min=6.3km az=86.0*
*GFZ **03** 09:35:24.5±0.2,22°S±2°×6°8W±°,h114^{km},M4.7/24, mb4.6/24,Mw4.3/14,confirmed*
*GUC **03** 09:35:26.1±0.9,21°.61S×68°.52W,h126^{km}±6^{km},ML4.5, Presumed earthquake*
*IDC **03** 09:35:26.2±0.5,21°.57S×68°.27W,h129^{km}±4^{km},mb4.0/15, mbtmp4.3/17,Error ellipse: s-maj=15.9km s-min=12.4km az=76.0*

ISC 03 09:35:24.0±0.4,**21°.59S**±0°.03×**68°.52W**±0°.04,**h130**^{km}±4^{km}, **n239,**σ1^{s}**91**/275,**mb4.5**/26,**14C-2D,Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.71**	**253**	*e*	P		**Pn**	**09 35 45.9**	**+1.3**
PB09				*e*	S		**Sn**	**09 36 02.5**	**+2.3**
PB09					IAML			09 36 04.5	
	comp=Z,3μm,0.2s								
PB09	**IPOC Station P**	**0.71**	**253**				**Pn**	**09 35 45.8**	**+1.3**
PB09					Sn		**Sn**	**09 36 01.2**	**+1.0**
PB09	**IPOC Station P**	**0.71**	**253**	⇑	*i*P		**Pn**	**09 35 45.8**	**+1.3**
PB09					eS		**Sn**	**09 36 01.2**	**+1.0**
PB09					IAML			09 36 04.2	
	comp=E,5μm,0.4s								
PB09	**IPOC Station P**	**0.71**	**253**		P		**Pn**	**09 35 46.0**	**+1.3**
PB03	**IPOC Station P**	**1.24**	**248**	*e*	P		**Pn**	**09 35 50.5**	**+1.1**
PB03					IAML			09 36 12.8	
	comp=Z,4μm,0.3s								
PB03	**IPOC Station P**	**1.24**	**248**				**Pn**	**09 35 50.4**	**+1.1**
PB03					Sn		**Sn**	**09 36 09.5**	**+0.8**
PB03	**IPOC Station P**	**1.24**	**248**	⇑	*e*P		**Pn**	**09 35 50.5**	**+1.1**
PB03					eS		**Sn**	**09 36 09.5**	**+0.8**
PB03					IAML			09 36 10.1	
	comp=N,7μm,0.6s								
PB03	**IPOC Station P**	**1.24**	**248**		P		**Pn**	**09 35 50.5**	**+1.1**
PB07	**IPOC Station P**	**1.28**	**264**	*e*	P		**Pn**	**09 35 51.0**	**+1.1**
PB07				*i*	S		**Sn**	**09 36 11.2**	**+1.6**
PB07	**IPOC Station P**	**1.28**	**264**				**Pn**	**09 35 50.5**	**+0.7**
PB07					Sn		**Sn**	**09 36 10.7**	**+1.1**
PB07	**IPOC Station P**	**1.28**	**264**	⇑	*e*P		**Pn**	**09 35 51.0**	**+1.1**
PB07					eS		**Sn**	**09 36 10.6**	**+1.0**
PB07					IAML			09 36 12.7	
	comp=N,6μm,0.3s								
PB07	**IPOC Station P**	**1.28**	**264**		P		**Pn**	**09 35 51.0**	**+1.1**
PB02	**IPOC Station P**	**1.31**	**282**	*e*	P		**Pn**	**09 35 51.2**	**+1.1**
PB02				*i*	S		**Sn**	**09 36 11.7**	**+1.6**
PB02	**IPOC Station P**	**1.31**	**282**				**Pn**	**09 35 51.3**	**+1.1**
PB02					Sn		**Sn**	**09 36 11.3**	**+1.2**
PB02	**IPOC Station P**	**1.31**	**282**	⇑	*e*P		**Pn**	**09 35 51.3**	**+1.1**
PB02					eS		**Sn**	**09 36 11.3**	**+1.2**
PB02					IAML			09 36 13.1	
	comp=E,14μm,0.5s								
PB02	**IPOC Station P**	**1.31**	**282**		P		**Pn**	**09 35 51.4**	**+1.1**
AF01	**San Pedro de A**	**1.39**	**167**		IAML			09 36 29.3	
	comp=Z,4μm,1.6s								
AF01	**San Pedro de A**	**1.39**	**167**				**Pn**	**09 35 52.6**	**+1.4**
AF01	**San Pedro de A**	**1.39**	**167**	⇓	*i*P		**Pn**	**09 35 52.6**	**+1.4**
AF01					eS		**Sn**	**09 36 13.9**	**+2.0**
PB06	**IPOC Station P**	**1.48**	**221**	*e*	P		**Pn**	**09 35 53.2**	**+1.2**
PB06					eS		**Sn**	**09 36 14.8**	**+1.5**
PB06					IAML			09 36 16.0	
	comp=Z,4μm,0.3s								
PB06	**IPOC Station P**	**1.48**	**221**				**Pn**	**09 35 52.9**	**+0.9**
PB06					Sn		**Sn**	**09 36 14.3**	**+1.0**
PB06	**IPOC Station P**	**1.48**	**221**	⇑	*e*P		**Pn**	**09 35 53.1**	**+1.2**
PB06					eS		**Sn**	**09 36 14.4**	**+1.0**
PB06					IAML			09 36 15.5	
	comp=E,11μm,0.3s								
PB06	**IPOC Station P**	**1.48**	**221**		P		**Pn**	**09 35 53.3**	**+1.2**
PB08	**IPOC Station P**	**1.56**	**337**	*i*	P		**Pn**	**09 35 54.5**	**+1.3**
PB08					eS		**Sn**	**09 36 12.7**	**-2.7**
PB08					IAML			09 36 19.9	
	comp=Z,2μm,0.4s								
PB08	**IPOC Station P**	**1.56**	**337**				**Pn**	**09 35 55.0**	**+1.8**
PB08					Sn		**Sn**	**09 36 17.0**	**+1.5**
PB08	**IPOC Station P**	**1.56**	**337**	⇑	*e*P		**Pn**	**09 35 55.0**	**+1.8**
PB08					eS		**Sn**	**09 36 17.0**	**+1.5**
PB08					IAML			09 36 18.3	
	comp=E,4μm,0.6s								
PB08	**IPOC Station P**	**1.56**	**337**		P		**Pn**	**09 35 55.1**	**+1.8**
TA01	**Diego Aracena**	**1.86**	**303**	*e*	P		**Pn**	**09 35 57.3**	**+1.0**
TA01					eS		**Sn**	**09 36 22.6**	**+1.6**
TA01					IAML			09 36 23.2	
	comp=Z,4μm,0.6s								
TA01	**Diego Aracena**	**1.86**	**303**				**Pn**	**09 35 57.2**	**+1.0**
TA01	**Diego Aracena**	**1.86**	**303**	⇑	*e*P		**Pn**	**09 35 57.3**	**+1.0**
TA01					eS		**Sn**	**09 36 21.3**	**+0.3**
TA01					IAML			09 36 23.3	
	comp=E,10μm,0.5s								
TA01	**Diego Aracena**	**1.86**	**303**		P		**Pn**	**09 35 57.4**	**+1.0**
TA02	**Huaiquique**	**2.00**	**311**	*e*	P		**Pn**	**09 35 58.8**	**+0.8**
TA02				*i*	S		**Sn**	**09 36 24.6**	**+0.6**
TA02					IAML			09 36 27.8	
	comp=Z,3μm,0.6s								
TA02	**Huaiquique**	**2.00**	**311**	⇑	*e*P		**Pn**	**09 35 58.7**	**+0.7**
TA02					eS		**Sn**	**09 36 24.1**	**+0.1**
TA02					IAML			09 36 26.6	
	comp=N,10μm,0.1s								
PB05	**IPOC Station P**	**2.00**	**231**	*e*	P		**Pn**	**09 35 58.8**	**+0.7**
PB05					eS		**Sn**	**09 36 22.7**	**-1.6**
PB05					IAML			09 36 33.9	
	comp=Z,2μm,0.8s								
PB05	**IPOC Station P**	**2.00**	**231**				**Pn**	**09 35 58.9**	**+0.8**
PB05					Sn		**Sn**	**09 36 24.1**	**-0.1**
PB05	**IPOC Station P**	**2.00**	**231**	⇑	*e*P		**Pn**	**09 35 58.9**	**+0.8**
PB05					eS		**Sn**	**09 36 24.3**	**0.0**
PB05					IAML			09 36 29.2	
	comp=E,2μm,0.3s								
PB05	**IPOC Station P**	**2.00**	**231**		P		**Pn**	**09 35 59.1**	**+0.9**
GO01	**Chusmiza**	**2.02**	**341**	*e*	P		**Pn**	**09 36 00.1**	**+1.4**
GO01					eS		**Sn**	**09 36 28.5**	**+3.3**
GO01					IAML			09 36 31.4	
	comp=Z,752nm,0.3s								
GO01	**Chusmiza**	**2.02**	**341**				**Pn**	**09 36 00.0**	**+1.4**
GO01	**Chusmiza**	**2.02**	**341**	*e*	P		**Pn**	**09 36 00.1**	**+1.4**
GO01					eS		**Sn**	**09 36 26.6**	**+1.4**
GO01					IAML			09 36 30.0	
	comp=N,3μm,0.2s								
GO01	**Chusmiza**	**2.02**	**341**		P		**Pn**	**09 36 00.2**	**+1.5**
PB11	**IPOC Station P**	**2.11**	**329**	*e*	P		**Pn**	**09 36 00.6**	**+1.1**
PB11					eS		**Sn**	**09 36 23.0**	**-3.7**
PB11					IAML			09 36 29.1	
	comp=Z,2μm,1.3s								
PB11	**IPOC Station P**	**2.11**	**329**				**Pn**	**09 36 00.3**	**+0.8**
PB11	**IPOC Station P**	**2.11**	**329**	*e*	P		**Pn**	**09 36 00.5**	**+0.9**
PB11					eS		**Sn**	**09 36 27.2**	**+0.5**
PB11					IAML			09 36 29.1	
	comp=E,6μm,0.5s								
PB11	**IPOC Station P**	**2.11**	**329**		P		**Pn**	**09 36 00.7**	**+1.1**
PSGCX	**Pisagua**	**2.49**	**323**	*e*	P		**Pn**	**09 36 04.5**	**+0.3**
PSGCX					eS		**Sn**	**09 36 29.4**	**-5.7**
PSGCX					IAML			09 36 37.5	
	comp=Z,3μm,0.5s								
PSGCX	**Pisagua**	**2.49**	**323**

GO04	**Tololo Observa**	**8.79**	**193**	P		**Pn**	**09 37 24.4**	**-3.8**
	comp=2,22nm,0.6s								
SIV	**San Ignacio**	**8.98**	**53**	P		**Pn**	**09 37 27.3**	**-3.5**
	comp=2,24nm,0.6s,baz=240,slow=12,SNR=113								
SIV				S		Sn	09 39 01.0	-9.3	
	comp=2,13nm,0.8s,baz=303,slow=22,SNR=14								
CFA	**Coronel Fontan**	**9.97**	**179**	P		**Pn**	**09 37 41.2**	**-2.8**
	comp=2,3.7nm,0.3s,baz=356,slow=14,SNR=20								
CFA				S		**Sn**	**09 39 26.9**	**-7.3**	
	comp=2,1.9nm,0.3s,baz=281,slow=22,SNR=2.4								
COIM	**Forte Coimbra**	**10.18**	**82**	*eP*		Pn	09 37 41.6	-5.0	
CO04	**Los Peladeros**	**10.64**	**191**	Pn		Pn	09 37 48.5	-4.6	
PTLB	**Pontes e Lacer**	**10.79**	**57**			**Pn**	**09 37 52.3**	**-2.6**	
PTLB	**Pontes e Lacer**	**10.79**	**57**	*eP*		**Pn**	**09 37 52.1**	**-2.8**	
BDQN	**Bodoquena, MS**	**11.05**	**86**	*eP*		Pn	09 37 54.2	-4.1	
CPUP	**Villa Florida**	**11.26**	**117**	P		**Pn**	**09 37 58.0**	**-3.2**	
	comp=2,3.2nm,0.6s,baz=299,slow=14,SNR=12								
CPUP				S		Sn	09 39 54.7	-11	
	comp=2,1.9nm,0.6s,baz=280,slow=9.3,SNR=1.6								
CPUP	**Villa Florida**	**11.26**	**117**			**Pn**	**09 37 58.9**	**-2.3**	
CPUP	**Villa Florida**	**11.26**	**117**	P		**Pn**	**09 37 58.9**	**-2.3**	
	comp=2,7.0nm,1.1s								
CPUP	**Villa Florida**	**11.26**	**117**	*eP*		**Pn**	**09 37 58.6**	**-2.5**	
VA03	**San Esteban**	**11.27**	**189**	Pn		Pn	09 37 56.3	-5.0	
VA03	**San Esteban**	**11.27**	**189**	P		**Pn**	**09 38 03.6**	**+2.3**	
	comp=2,28nm,1.4s								
VILB	**Vilhena**	**11.70**	**44**			**Pn**	**09 38 05.6**	**-1.4**	
VILB	**Vilhena**	**11.70**	**44**	*eP*		**Pn**	**09 38 04.3**	**-2.7**	
SJPY	**San Joaquin**	**11.90**	**109**	*eP*		**Pn**	**09 38 08.0**	**-1.6**	
AQDB	**Aquidauana**	**12.02**	**87**			**Pn**	**09 38 08.7**	**-2.5**	
AQDB	**Aquidauana**	**12.02**	**87**	P		**Pn**	**09 38 08.8**	**-2.3**	
	comp=2,28nm,0.7s								
AQDB	**Aquidauana**	**12.02**	**87**	*eP*		**Pn**	**09 38 08.7**	**-2.5**	
MT13	**San Alfonso**	**12.21**	**187**	Pn		**Pn**	**09 38 09.8**	**-3.9**	
MT01	**Popeta**	**12.46**	**191**	Pn		**Pn**	**09 38 13.3**	**-3.6**	
BO01	**Tunca**	**12.95**	**190**			**Pn**	**09 38 20.9**	**-2.3**	
BO01	**Tunca**	**12.95**	**190**	P		**Pn**	**09 38 22.6**	**-0.6**	
	comp=2,13nm,0.6s								
BO02	**Sierra Bellavi**	**13.30**	**188**	Pn		**Pn**	**09 38 25.2**	**-2.6**	
BO02	**Sierra Bellavi**	**13.30**	**188**	P		**Pn**	**09 38 29.5**	**+1.8**	
	comp=2,16nm,0.7s								
SALV	**Santo Antonio**	**13.39**	**67**	*eP*		**Pn**	**09 38 25.6**	**-3.4**	
ITQB	**Itaqui**	**13.40**	**129**	*eP*		**Pn**	**09 38 27.1**	**-1.9**	
PP1B	**Ponte de Pedra**	**13.45**	**75**	*eP*		**Pn**	**09 38 26.9**	**-2.8**	
PSAL	**Palomas, Salto**	**13.59**	**136**	*eP*		**Pn**	**09 38 28.6**	**-2.9**	
ML02	**Panimavida**	**14.35**	**190**	Pn		**Pn**	**09 38 38.1**	**-2.9**	
ML02	**Panimavida**	**14.35**	**190**	P		**Pn**	**09 38 41.5**	**+0.5**	
	comp=2,48nm,1.0s								
CZSB	**Cruzeiro do Su**	**14.36**	**343**			**Pn**	**09 38 38.9**	**-2.5**	
CZSB	**Cruzeiro do Su**	**14.36**	**343**	*eP*		Pn	09 38 36.6	-4.8	
PDRB	**Porto dos Gac**	**15.03**	**51**	*eP*		**Pn**	**09 38 47.6**	**-2.2**	
VA04	**Juan Fernndez**	**15.08**	**215**	Pn		**Pn**	**09 38 45.7**	**-4.5**	
BI02	**San Fabin de**	**15.21**	**188**	P		**Pn**	**09 38 51.7**	**-0.2**	
BI02				IAmb		IAmb	09 38 53.9		
	comp=2,22nm,0.8s								
BI02	**San Fabin de**	**15.21**	**188**	P		**Pn**	**09 38 52.6**	**+0.7**	
BI05	**Punta Hualpn**	**15.64**	**194**	P		**Pn**	**09 38 55.4**	**-1.8**	
BI05				IAmb		IAmb	09 38 57.1		
	comp=2,70nm,1.2s								
ANCO	**Parque Anchore**	**15.69**	**146**	*eP*		**Pn**	**09 38 55.7**	**-2.1**	
ITAB	**Concordia**	**15.94**	**114**	P		**Pn**	**09 39 01.7**	**+0.7**	
ITAB				IAmb		IAmb	09 39 03.7		
	comp=2,75nm,1.1s								
ITAB	**Concordia**	**15.94**	**114**	P		**Pn**	**09 39 01.5**	**+0.5**	
	comp=2,60nm,1.0s								
ITAB	**Concordia**	**15.94**	**114**	*eP*		**Pn**	**09 38 59.8**	**-1.2**	
PCMB	**Pacaembu**	**16.05**	**93**	P		**Pn**	**09 39 01.7**	**-0.7**	
	comp=2,165nm,0.8s								
PCMB	**Pacaembu**	**16.05**	**93**	*eP*		**Pn**	**09 39 01.7**	**-0.7**	
CPSB	**Cacapava Do Su**	**16.13**	**126**			**Pn**	**09 39 02.5**	**-0.8**	
CPSB	**Cacapava Do Su**	**16.13**	**126**	P		**Pn**	**09 39 02.0**	**-1.4**	
	comp=2,203nm,0.7s								
CPSB	**Cacapava Do Su**	**16.13**	**126**	*eP*		**Pn**	**09 39 01.8**	**-1.6**	
LDASE	**Londrina, Braz**	**16.18**	**100**	*eP*		**Pn**	**09 39 02.5**	**-1.5**	
CLDB	**Colider**	**16.20**	**51**	P		**Pn**	**09 39 05.0**	**+0.7**	
	comp=2,102nm,0.8s								
CLDB	**Colider**	**16.20**	**51**	*eP*		**Pn**	**09 39 01.9**	**-2.3**	
ARAG	**Araguaiana, MT**	**16.87**	**73**	*eP*		**P**	**09 39 10.8**	**-1.5**	
CNLB	**Canela**	**17.69**	**119**	*eP*		**P**	**09 39 20.6**	**-0.7**	
GO06	**Curarrehue**	**18.11**	**187**	P		**Pn**	**09 39 27.9**	**+0.6**	
	comp=2,26nm,1.0s								
BB19B	**Bebedouro**	**18.63**	**92**	*eP*		**P**	**09 39 30.3**	**-1.4**	
LR05	**Currie**	**18.82**	**188**	P		**P**	**09 39 32.2**	**-1.3**	
LR05				IAmb		IAmb	09 39 38.9		
	comp=2,24nm,1.2s								
SNDB	**Serra Nova Dou**	**19.04**	**63**	*eP*		**P**	**09 39 34.4**	**-1.8**	
PLCA	**Paso Flores**	**19.16**	**185**	P		**Pn**	**09 39 38.9**	**-0.7**	
	comp=2,2.5nm,0.6s,baz=351,slow=11,SNR=14								
PLCA	**Paso Flores**	**19.16**	**185**	P		**P**	**09 39 37.6**	**+0.3**	
PLCA	**Paso Flores**	**19.16**	**185**	P		**Pn**	**09 39 39.1**	**-0.5**	
PLCA	**Paso Flores**	**19.16**	**185**	*eP*		**P**	**09 39 34.4**	**-2.9**	
NPGB	**Novo Progresso**	**19.25**	**43**	*eP*		**P**	**09 39 36.3**	**-2.2**	
IPMB	**Ipameri, GO**	**19.44**	**83**	*eP*		**P**	**09 39 39.8**	**-0.8**	
SPB	**Sao Paulo**	**19.57**	**100**	P		**P**	**09 39 40.6**	**-1.2**	
SPB				IAmb		IAmb	09 39 42.0		
	comp=2,31nm,1.0s								
SPB	**Sao Paulo**	**19.57**	**100**	P		**P**	**09 39 40.8**	**-1.0**	
	comp=2,33nm,0.8s								
SPB	**Sao Paulo**	**19.57**	**100**	*eP*		**P**	**09 39 40.7**	**-1.0**	
PET01	**Itanhaem-SP**	**19.74**	**102**	*eP*		**P**	**09 39 43.2**	**-0.5**	
LL03	**Petrohue**	**19.76**	**189**	P		**Pn**	**09 39 46.0**	**-0.5**	
	comp=2,50nm,0.9s								
VAO	**Valinhos**	**19.99**	**98**			**P**	**09 39 45.3**	**-1.1**	
VAO	**Valinhos**	**19.99**	**98**	*eP*		**P**	**09 39 44.9**	**-1.5**	
LL05	**Los Muermos**	**20.19**	**191**	P		**P**	**09 39 49.9**	**+1.6**	
	comp=2,39nm,1.6s								
BDFB	**Brasilia**	**20.30**	**77**	P		**P**	**09 39 48.9**	**-1.0**	
	comp=2,5.9nm,0.4s,baz=253,slow=10,SNR=13								
	comp=2,5.9nm,0.4s								
BDFB	**Brasilia**	**20.30**	**77**			**P**	**09 39 48.9**	**-1.0**	
BDFB				IAmb		IAmb	09 39 50.2		
	comp=2,24nm,1.3s								
CANS	**Sao Roque de M**	**20.70**	**90**	*eP*		**P**	**09 39 52.8**	**-1.4**	
PMNB	**Patos De Minas**	**20.96**	**86**	P		**P**	**09 39 56.0**	**-0.9**	
	comp=2,32nm,1.3s								
PMNB	**Patos De Minas**	**20.96**	**86**	*eP*		**P**	**09 39 55.2**	**-1.7**	
ITTB	**Itaituba**	**21.14**	**38**	*eP*		**P**	**09 39 56.4**	**-2.4**	
PARB	**Paraibuna**	**21.23**	**99**	P		**P**	**09 39 58.2**	**-1.5**	
	comp=2,61nm,1.6s								
PARB	**Paraibuna**	**21.23**	**99**	*eP*		**P**	**09 39 58.4**	**-1.3**	
LL07	**Hotel Espejo d**	**21.58**	**190**	P		**P**	**09 40 02.3**	**-1.0**	
LL07				IAmb		IAmb	09 40 06.5		
	comp=2,29nm,0.9s								
LL02	**Futaleuf**	**21.72**	**187**	P		**P**	**09 40 07.3**	**+2.6**	
	comp=2,13nm,1.2s								
BSCB	**Bom Sucesso**	**22.13**	**93**	*eP*		**P**	**09 40 08.3**	**-1.0**	
SLOR	**San Lorenzo -**	**22.91**	**334**	P		**P**	**09 40 14.8**	**-2.5**	
SLOR				IAmb		IAmb	09 40 34.7		
	comp=2,11nm,0.6s								
VAS01	**Vassouras-RJ**	**23.26**	**96**	*eP*		**P**	**09 40 19.2**	**-0.9**	
DIAM	**Diamantina, MG**	**23.57**	**86**	*eP*		**P**	**09 40 21.6**	**-1.5**	
OTAV	**Otavalo**	**23.77**	**335**	P		**P**	**09 40 21.1**	**-4.1**	
OTAV	**Otavalo**	**23.77**	**335**	*eP*		**P**	**09 40 20.4**	**-4.8**	
SMTB	**Santa Maria do**	**23.79**	**61**			**P**	**09 40 24.6**	**-0.3**	
SMTB				IAmb		IAmb	09 40 25.6		
	comp=2,30nm,0.7s								
SMTB	**Santa Maria do**	**23.79**	**61**	*eP*		**P**	**09 40 24.0**	**-1.0**	
SDBA	**SAO DESIDERIO**	**24.33**	**72**	*eP*		**P**	**09 40 29.2**	**-0.7**	
CAM01	**Campos-RJ**	**24.95**	**96**	*eP*		**P**	**09 40 33.8**	**-1.6**	
BOAV	**Boa Vista**	**25.09**	**19**	P		**P**	**09 40 38.1**	**+1.4**	
BOAV	**Boa Vista**	**25.09**	**19**	*eP*		**P**	**09 40 33.7**	**-3.0**	
ARCA	**Araçuai, MG**	**25.50**	**84**	*eP*		**P**	**09 40 39.1**	**-1.4**	
SJMB	**Sao Joao De Ma**	**25.80**	**88**	*eP*		**P**	**09 40 42.1**	**-1.1**	
RIB01	**Linhares ES**	**26.43**	**90**	*eP*		**P**	**09 40 47.5**	**-1.4**	
ROSC	**El Rosal**	**26.88**	**347**	P		**P**	**09 40 56.1**	**+2.9**	
	comp=2,4.3nm,0.3s,baz=150,slow=20,SNR=1.4								
	comp=2,4.3nm,0.3s								
GUA01	**Guaratinga, BA**	**27.56**	**85**	*eP*		**P**	**09 40 57.8**	**-1.1**	
RUSC	**La Rusia**	**27.68**	**350**	P		**P**	**09 40 59.0**	**-1.4**	
NBPN	**Ponto Novo - B**	**29.16**	**73**	*eP*		**P**	**09 41 12.0**	**-1.2**	
NBPS	**Pedro II - PI**	**31.33**	**61**	*eP*		**P**	**09 41 30.5**	**-1.9**	
SJCC	**San Jacinto, C**	**31.97**	**348**	P		**P**	**09 41 37.9**	**0.0**	
SJCC				IAmb		IAmb	09 41 44.7		
	comp=2,21nm,1.2s								
NBMA	**Muriti-CE**	**32.00**	**68**	*eP*		**P**	**09 41 36.2**	**-2.1**	
URIC	**Uribia, Colomb**	**33.26**	**354**	P		**P**	**09 41 47.5**	**-1.6**	
URIC				IAmb		IAmb	09 41 56.4		
	comp=2,12nm,1.2s								
RCBR	**Riachuelo**	**35.23**	**68**	P		**P**	**09 42 06.2**	**0.0**	
	comp=2,6.9nm,0.8s,baz=247,slow=17,SNR=16								
	comp=2,6.9nm,0.8s								
RCBR	**Riachuelo**	**35.23**	**68**	P		**P**	**09 42 06.3**	**+0.1**	
RCBR				IAmb		IAmb	09 42 09.0		
	comp=2,14nm,0.7s								
RCBR	**Riachuelo**	**35.23**	**68**	P		**P**	**09 42 06.3**	**+0.1**	
CRIN	**San Cristobal**	**38.63**	**330**	P		**P**	**09 42 32.9**	**-2.0**	
CELP	**Cerrillos**	**39.47**	**3**	P		**P**	**09 42 39.8**	**-1.9**	
CELP				IAmb		IAmb	09 43 03.1		
	comp=2,31nm,1.4s								
ECPR	**Experimental S**	**39.72**	**3**	P		**P**	**09 42 43.3**	**-0.5**	
ECPR				IAmb		IAmb	09 42 59.8		
	comp=2,31nm,1.1s								
SMRT	**St. Maarten**	**39.76**	**8**	P		**P**	**09 42 42.1**	**-2.0**	
HOPE	**Hope Point**	**40.62**	**151**	P		**P**	**09 42 50.6**	**-0.2**	
HOPE				IAmb		IAmb	09 43 03.4		
	comp=2,36nm,1.3s								
ORCD	**Orcadas**	**42.52**	**163**	P		**P**	**09 43 04.7**	**-1.5**	
V61A	**Roper**	**57.58**	**352**	P		**P**	**09 44 58.1**	**-1.9**	
VNA3	**Neumayer Olymp**	**59.87**	**161**	⇑P		**P**	**09 45 17.8**	**+2.2**	
	comp=2,2.1nm,0.6s								
VNA3	**Neumayer Olymp**	**59.87**	**161**	P		**P**	**09 45 18.1**	**+2.5**	
	comp=2,4.9nm,0.8s								
WVT	**Waverly**	**60.25**	**342**	P		**P**	**09 45 19.7**	**+1.2**	
VNA2	**Neumayer--Watz**	**60.44**	**161**	⇑P		**P**	**09 45 21.7**	**+2.2**	
	comp=2,2.3nm,0.6s,baz=276,slow=6.5								
VNA2	**Neumayer--Watz**	**60.44**	**161**	P		**P**	**09 45 21.9**	**+2.5**	
	comp=2,5.3nm,0.8s								
MIAR	**Mount Ida**	**60.70**	**336**	P		**P**	**09 45 23.9**	**+2.3**	
TXAR	**Lajitas Array**	**60.91**	**325**	P		**P**	**09 45 25.9**	**+2.5**	
	comp=2,0.4nm,0.6s,baz=147,slow=8.8,SNR=6.0								
TXAR				pP		**pP**	**09 45 56.0**	**+0.2**	
	comp=2,0.4nm,0.7s,baz=138,slow=7.6,SNR=3.8								
	comp=2,0.4nm,0.6s								
TXAR	**Lajitas Array**	**60.91**	**325**	P		**P**	**09 45 20.6**	**-2.7**	
SNAA	**Sanae**	**62.07**	**161**	P		**P**	**09 45 32.6**	**+2.1**	
	comp=2,2.3nm,0.6s,baz=276,slow=3.8,SNR=6.3								
	comp=2,2.3nm,0.6s								
SNAA	**Sanae**	**62.07**	**161**	P		**P**	**09 45 28.1**	**-2.4**	
SNAA				IAmb		IAmb	09 45 33.6		
	comp=2,3.4nm,0.8s								
SNAA	**Sanae**	**62.07**	**161**	P		**P**	**09 45 32.9**	**+2.4**	
	comp=2,6.6nm,0.9s								
MNTX	**Cornudas Mount**	**63.68**	**325**	P		**P**	**09 45 43.7**	**+2.1**	
TROLL	**Troll, Antarti**	**63.79**	**161**	⇑P		**P**	**09 45 44.3**	**+2.4**	
	comp=2,114nm,0.5s								
ALQ	**Albuquerque**	**66.78**	**327**	P		**P**	**09 45 59.9**	**-1.8**	
T25A	**Trinidad**	**67.51**	**330**	P		**P**	**09 46 03.0**	**-3.4**	
DBIC	**Dimbokro**	**68.41**	**73**	P		**P**	**09 46 12.9**	**+0.7**	
	comp=2,24nm,0.7s,baz=238,slow=6.5,SNR=32								
	comp=2,24nm,0.7s								
DBIC	**Dimbokro**	**68.41**	**73**	P		**P**	**09 46 13.0**	**+0.8**	
BGNE	**Belgrade**	**68.44**	**336**	P		**P**	**09 46 08.5**	**-3.3**	
BGNE				IAmb		IAmb	09 46 09.0		
	comp=2,11nm,0.8s								
QSPA	**South Pole Qui**	**68.60**	**180**	P		**P**	**09 46 15.4**	**+2.7**	
	comp=2,1.6nm,0.5s,baz=201,slow=0.5,SNR=17								
QSPA				pP		**pP**	**09 46 46.0**	**+0.4**	
	comp=2,3.3nm,1.0s,baz=151,slow=5.8,SNR=3.8								
	comp=2,1.6nm,0.5s								
QSPA	**South Pole Qui**	**68.60**	**180**	P		**P**	**09 46 15.1**	**+2.4**	
PDAR	**Pinedale Array**	**74.37**	**330**	P		**P**	**09 46 51.0**	**+3.2**	
	comp=2,0.3nm,0.6s,baz=123,slow=7.3,SNR=4.9								
PDAR				pP		**pP**	**09 47 21.5**	**+0.1**	
	comp=2,1.3nm,1.1s,baz=186,slow=3.0,SNR=3.2								
	comp=2,0.3nm,0.6s								
ULM	**Lac du Bonnet**	**75.52**	**342**	P		**P**	**09 46 55.8**	**+2.0**	
	comp=2,1.4nm,0.6s,baz=157,slow=7.7,SNR=1.5								
	comp=2,1.4nm,0.6s								
NVAR	**Mina Array Bea**	**75.79**	**322**	P		**P**	**09 46 59.8**	**+3.9**	
	comp=2,0.4nm,0.5s,baz=121,slow=4.2,SNR=3.8								
NVAR				pP		**pP**	**09 47 30.9**	**+1.4**	
	comp=2,0.2nm,0.6s,baz=132,slow=4.8,SNR=1.8								
	comp=2,0.4nm,0.5s								
TORD	**Torodi Ar. Bea**	**77.04**	**70**	P		**P**	**09 47 03.8**	**+0.6**	
	comp=2,8.4nm,0.5s,baz=250,slow=5.2,SNR=45								
TORD				pP		**pP**	**09 47 37.6**	**+0.3**	
	comp=2,6.7nm,0.9s,baz=249,slow=5.2,SNR=5.4								
	comp=2,8.4nm,0.5s								
BOSA	**Boshof**	**83.08**	**118**	P		**P**	**09 47 36.7**	**+1.1**	
	comp=2,3.5nm,0.5s,baz=294,slow=4.8,SNR=6.1								
	comp=2,3.5nm,0.5s								
MAW	**Mawson**	**84.14**	**163**	P		**P**	**09 47 42.6**	**+2.5**	
	comp=2,1.1nm,0.6s,baz=229,slow=9.3,SNR=2.0								
	comp=2,1.1nm,0.6s								
ESDC	**Sonseca Array**	**85.64**	**44**	P		**P**	**09 47 49.7**	**+1.6**	
	comp=2,2.0nm,0.9s,baz=245,slow=5.5,SNR=6.2								
	comp=2,2.0nm,0.9s								
YKA	**Yellowknife Ar**	**91.40**	**340**	P		**P**	**09 48 17.3**	**+2.6**	
	comp=2,1.5nm,0.7s,baz=139,slow=4.7,SNR=12								
	comp=2,1.5nm,0.7s								
ASAR	**Alice Springs**	**130.00**	**207**	PKP		**PKiKP**	**09 54 21.6**	**+1.7**	
	comp=2,0.3nm,0.7s,baz=127,slow=0.9,SNR=2.5								
ASAR				pPKP		**pPKPdf**	**09 54 55.8**	**+0.6**	
	comp=2,0.3nm,0.7s,baz=111,slow=3.0,SNR=2.9								
WRA	**Warramunga Arr**	**133.06**	**210**	PKP		**PKiKP**	**09 54 28.6**	**+2.4**	
	comp=2,0.3nm,0.6s,baz=153,slow=1.6,SNR=2.9								
WRA				pPKP		**pPKPdf**	**09 55 01.8**	**+0.8**	
	comp=2,0.4nm,0.7s,baz=159,slow=1.7,SNR=3.7								
ZALV	**Zalesovo Beam**	**141.88**	**25**	PKP		**PKPdf**	**09 54 41.4**	**+1.4**	
	comp=2,0.5nm,0.4s,baz=280,slow=2.6,SNR=3.7								
ZALV				pPKP		**pPKPdf**	**09 55 17.0**	**+0.6**	
	comp=2,0.9nm,0.6s,baz=270,slow=3.7,SNR=1.6								
MKAR	**Makanchi Array**	**145.49**	**36**	PKPbc		**PKPab**	**09 54 49.1**	**+1.8**	
	comp=2,2.4nm,0.6s,baz=318,slow=4.5,SNR=21								
MKAR				pPKPbc		pPKPab	09 55 23.3	+0.6	
	comp=2,2.2nm,0.8s,baz=321,slow=3.1,SNR=6.5								
SONM	**Songino Array**	**153.50**	**8**	PKPbc		**PKiKP**	**09 55 09.0**	**+1.6**	
	comp=2,0.3nm,0.4s,baz=56,slow=5.6,SNR=1.5								
HHC	**Hu-ho-hao-te**	**160.80**	**360**	*eP*		**PKPdf**	**09 55 04.3**	**-4.6**	
NJ2	**Nanjing**	**167.69**	**329**	*eP*		**PKPdf**	**09 55 14.7**	**-0.4**	
NJ2				pmax		pmax			
	comp=2,9.0nm,0.5s								

ATH 03 10:31:00.5, 37.85N×26.07E, h18km±2km, ML2.2/6, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
KRL1	**Karlovasi Samo**	**0.50**	**96**	P		Pg	10 31 10.6	0.0
KRL1				S		Sb	10 31 17.9	0.0
KRL1				AML		AML		
CHOS	**Chios island**	**0.54**	**358**	P		Pb	10 31 11.6	+0.1
CHOS				S		Sb	10 31 19.3	+0.2
CHOS				AML		AML		
TNSA	**Tinos**	**0.78**	**247**	P		Pg	10 31 15.8	-0.1
TNSA				S		Sg	10 31 26.2	0.0
TNSA				AML		AML		
APE	**Apeiranthos**	**0.89**	**209**	P		Pb	10 31 16.7	-0.8
APE				S		Sg	10 31 29.4	0.0
KARY	**Karystos**	**1.31**	**279**	P		Pn	10 31 24.0	+0.1
KARY				S		Sb	10 31 41.1	+0.1
SNT5	**Nea Kammeni, S**	**1.54**	**201**	P		Pn	10 31 27.8	+0.7

ISK 03 10:31:28.1, 37.74N×27.20E, h10km, ML2.4/17, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.14**	**32**	P		Pg	10 31 31.2	-0.1
KUSD				Sg		Sg	10 31 34.3	+0.8
KUSD				AML		AML		
DIDI	**Didim-Aydin**	**0.37**	**175**	Pg		Pb	10 31 36.5	-0.2
DIDI				Sg		Sg	10 31 41.1	+0.8
DIDI				AML		AML		
GMLD	**Gumuldur**	**0.40**	**326**	Pg		Pb	10 31 36.9	-0.4
GMLD				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.59**	**70**	Pg		Pg	10 31 39.9	+0.4
AYDB				Sg		Sb	10 31 48.7	-0.3
AYDB				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.62**	**174**	Pg		Pg	10 31 39.9	-0.2
YKAV				AML		AML		
MLSB	**Milas**	**0.64**	**134**	Pg		Pb	10 31 41.2	-0.2
MLSB				Sg		Sb	10 31 50.6	+0.1
MLSB				AML		AML		
BLCB	**Balcova**	**0.65**	**349**	Pg		Pb	10 31 41.2	-0.4
BLCB				AML		AML		
BODT	**Bodrum**	**0.69**	**172**	Pg		Pg	10 31 41.7	+0.3
BODT				AML		AML		
NAZL	**Nazilli-Aydin**	**0.90**	**75**	Pg		Pg	10 31 45.5	+0.2
NAZL				Sg		Sb	10 31 58.4	+0.6
NAZL				AML		AML		
KRBN	**Karaburun**	**0.99**	**329**	Pg		Pb	10 31 47.6	+0.3
KRBN				AML		AML		
FOCM	**Foa**	**1.03**	**339**	Pg		Pn	10 31 48.4	-0.3
FOCM				AML		AML		
YER	**Yerkesik**	**1.06**	**125**	Pg		Pn	10 31 48.9	-0.1
YER				AML		AML		
DAT	**Datca**	**1.06**	**163**	Pg		Pn	10 31 49.4	+0.3
DAT				AML		AML		
TURN	**Turunc**	**1.28**	**139**	Pn		Pg	10 31 52.7	+0.1
TURN				AML		AML		
GORD	**Gordes-Manisa**	**1.40**	**33**	Pn		Pb	10 31 54.3	0.0
GORD				AML		AML		
SOMA	**Soma-Manisa**	**1.44**	**11**	Pn		Pn	10 31 54.4	+0.2
SOMA				AML		AML		
DALY	**Dalyan (Mula)**	**1.49**	**128**	Pn		Pb	10 31 55.7	-0.1
DALY				AML		AML		

*SNET **03** 10:35:14.7±1.4, 13.90N×91.03W, h19km, ML3.6, Presumed earthquake*
*CATAC **03** 10:35:14.3±0.7, 14.7N±3.7×9.7W±.7, h30km±6km, M3.6/16, MLv3.6/16, Error ellipse: s-maj=8.1km s-min=2.5km az=27.0, confirmed*
*GCG **03** 10:35:14.8±1.0, 13.91N×91.09W, h58km±9km, MD4.0, ML3.9, MW3.2, Presumed earthquake*

ISC 03 10:35:14.5±1.5, 13.88N±0.07×91.09W±0.04, h26km±13km, n30, σ0.47/43, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
STG8	**El Palmar, Qui**	**0.62**	**336**	*i* P		Pn	10 35 32.5	+4.7
STG8				*i* S		Sn	10 35 45.9	+8.7
STG8				IAML			10 35 50.0	
	comp=N,4μm,0.2s							
FG8	**Yepocapa, Chim**	**0.64**	**53**	*i* P		**Pn**	**10 35 27.7**	**-0.3**
FG8				*i* S		**Sn**	**10 35 37.3**	**-0.1**
FG16	**Alotenango, Sa**	**0.69**	**55**	*i* P		**Pb**	**10 35 28.3**	**+0.2**
FG16				*i* S		**Sn**	**10 35 38.6**	**-0.1**
RTAL	**Retalhuleu**	**0.87**	**318**	P		**Pb**	**10 35 31.1**	**+0.1**
RTAL				S		**Sn**	**10 35 43.9**	**+1.0**
RTAL	**Retalhuleu**	**0.87**	**318**	*eP*		**Pb**	**10 35 31.1**	**+0.1**
GCG4	**OSOP**	**0.89**	**37**	*i* P		**Pb**	**10 35 31.8**	**+0.4**
FAME	**Alcaldia de Sa**	**1.05**	**92**	P		**Pn**	**10 35 33.1**	**-0.4**
FAME				S		**Sb**	**10 35 47.4**	**+0.1**
QUEO	**Labor Ovalle**	**1.07**	**338**	*i* P		**Pb**	**10 35 34.6**	**0.0**
NUBE	**Las Nubes**	**1.28**	**89**	P		**Pn**	**10 35 36.5**	**-0.2**
NUBE				S		**Sn**	**10 35 53.5**	**+0.4**
NUBE	**Las Nubes**	**1.28**	**89**	*i* P		**Pn**	**10 35 36.5**	**-0.2**
APG	**El Apazote**	**1.28**	**28**	*i* P		**Pn**	**10 35 36.9**	**+0.1**
APG				*i* S		**Sb**	**10

SJX				⇓	*e*			11 00 57.0	
SIVMX	**Santa Isabel v**	**0.37**	**342**	⇓	*i*	P	**Pg**	**11 00 46.1**	**-0.3**
SIVMX					*e*	S	**Sg**	**11 00 51.2**	**-0.5**
ALAMX	**Rancho Alamar**	**0.49**	**357**	⇓	*i*	P	**Pg**	**11 00 48.2**	**-0.3**
ALAMX					*e*	S	**Sg**	**11 00 54.6**	**-0.6**
OJOX	**Ej. Ojos Negro**	**0.49**	**314**	⇓	*e*	P	**Pg**	**11 00 48.5**	**-0.1**
OJOX					*e*	S	**Sg**	**11 00 55.3**	**0.0**
ESJX	**Sierra Juarez**	**0.54**	**335**				**Pg**	**11 00 49.1**	**-0.4**
ESJX						Sg	**Sg**	**11 00 56.3**	**-0.4**
ESJX						IAML		11 00 56.8	
	comp=N,2μm,0.1s								
ESJX						IAML		11 01 01.0	
	comp=E,3μm,0.1s								
ECBX	**El Chinero**	**0.54**	**94**	⇑	*i*	P	**Pg**	**11 00 49.4**	**-0.1**
ECBX					*e*	S	**Sg**	**11 00 56.3**	**-0.4**
ECBX	**El Chinero**	**0.54**	**94**		*e*	P	**Pg**	**11 00 49.4**	**-0.1**
ECBX					*i*	S	**Sg**	**11 00 56.0**	**-0.7**
RHX	**Rio Hardy**	**0.70**	**29**	⇑	*e*	P	**Pg**	**11 00 51.9**	**-0.6**
RHX					*e*	S	**Sg**	**11 01 00.7**	**-1.2**
RACA	**Rancho agua Ca**	**0.73**	**314**	⇓	*e*	P	**Pg**	**11 00 52.9**	**-0.2**
RACA					*e*	S	**Sb**	**11 01 02.9**	**-0.1**
AGSX	**Ej. Aguas Cali**	**0.87**	**30**	⇑	*i*	P	**Pg**	**11 00 55.5**	**-0.1**
AGSX					*e*	S	**Sg**	**11 01 06.8**	**-0.3**
RITX	**Riito Sonora**	**0.89**	**43**				**Pg**	**11 00 56.1**	**0.0**
RITX							**Sb**	**11 01 08.9**	**+1.3**
CCX	**Cicese**	**0.91**	**293**	⇑	*e*	P	**Pg**	**11 00 55.9**	**-0.5**
CCX					*e*	S	**Sb**	**11 01 08.5**	**+0.4**
CCX				⇓	*e*			11 01 11.1	
CCX						IAML		11 01 11.1	
	comp=E,2μm,0.3s								
CCX	**Cicese**	**0.91**	**293**				**Pg**	**11 00 56.1**	**-0.3**
CCX						IAML		11 01 11.0	
	comp=E,2μm,0.4s								
CCX	**Cicese**	**0.91**	**293**				**Sb**	**11 01 08.5**	**+0.4**
EDOMX	**El Doctor, EDO**	**0.91**	**61**	⇑	*e*	P	**Pg**	**11 00 56.2**	**-0.2**
EDOMX	**El Doctor, EDO**	**0.91**	**61**				**Pb**	**11 00 56.8**	**+0.5**
EDOMX							**Sn**	**11 01 09.9**	**+0.1**
PBX	**Punta Banda**	**0.92**	**284**	⇑	*e*	P	**Pg**	**11 00 56.0**	**-0.6**
PBX					*e*	S	**Sb**	**11 01 08.9**	**+0.4**
GUVIX	**Guadalupe Vict**	**0.94**	**33**	⇑	*i*	P	**Pb**	**11 00 57.4**	**+0.7**
GUVIX	**Guadalupe Vict**	**0.94**	**33**				**Pg**	**11 00 56.8**	**-0.2**
GUVIX							**Sn**	**11 01 10.6**	**+0.1**
SQX	**San Quintin**	**0.95**	**190**	⇑	*e*	P	**Pg**	**11 00 56.8**	**-0.4**
SQX					*e*	S	**Sg**	**11 01 10.0**	**+0.3**
SQX						IAML		11 01 10.5	
	comp=N,5μm,0.2s								
SQX	**San Quintin**	**0.95**	**190**		*e*	P	**Pg**	**11 00 56.8**	**-0.4**
SQX					*e*	S	**Sg**	**11 01 09.7**	**0.0**
CPBX	**Cerro Prieto**	**0.96**	**19**	⇑	*e*	P	**Pg**	**11 00 57.1**	**-0.2**
CPBX	**Cerro Prieto**	**0.96**	**19**				**Pb**	**11 00 57.5**	**+0.5**
CPBX	**Cerro Prieto**	**0.96**	**19**				**Sn**	**11 01 11.5**	**+0.5**
MBIG	**Mexicali**	**0.98**	**25**		*e*	P	**Pb**	**11 00 57.1**	**-0.3**
MBIG					*e*	S	**Sb**	**11 01 10.6**	**+0.5**
CTLX	**Tlaxcala, TLX**	**1.06**	**25**	⇑	*e*	P	**Pb**	**11 00 58.5**	**-0.3**
PESCX	**Ej. Pescaderos**	**1.10**	**33**	⇑	*i*	P	**Pb**	**11 00 59.0**	**-0.5**
PESCX	**Ej. Pescaderos**	**1.10**	**33**				**Pb**	**11 00 58.9**	**-0.5**
PESCX							**Sn**	**11 01 15.3**	**+0.8**
SGL	**Mount Signal**	**1.13**	**358**				**Pb**	**11 00 59.5**	**-0.5**
SGL							**Sn**	**11 01 15.8**	**+0.5**
RMX	**La Rumorosa**	**1.14**	**343**	⇓	*e*	P	**Pb**	**11 00 58.6**	**-1.6**
RMX					*e*	S	**Sb**	**11 01 12.5**	**-2.2**
RMX	**La Rumorosa**	**1.14**	**343**				**Pb**	**11 00 58.9**	**-1.3**
RMX							**Sb**	**11 01 12.4**	**-2.4**
YUH	**Yuha Desert**	**1.15**	**350**				**Pb**	**11 00 59.8**	**-0.4**
YUH						IAML		11 01 17.1	
	comp=N,750nm,0.8s								
YUH						IAML		11 01 19.6	
	comp=E,762nm,0.6s								
YUH2	**Yuha Desert**	**1.15**	**350**	⇓	*i*	P	**Pb**	**11 00 59.9**	**-0.4**
CBX	**Cerro Bola**	**1.15**	**314**	⇓	*i*	P	**Pb**	**11 01 00.2**	**-0.2**
CBX					*e*	S	**Sg**	**11 01 15.5**	**-0.6**
CBX	**Cerro Bola**	**1.15**	**314**				**Pb**	**11 01 00.3**	**-0.2**
CBX						Sg	**Sb**	**11 01 14.5**	**-0.8**
CBX	**Cerro Bola**	**1.15**	**314**		*e*	P	**Pb**	**11 01 00.0**	**-0.4**
CBX					*e*	S	**Sb**	**11 01 14.5**	**-0.8**
IKP	**In-Ko-Pah, Jac**	**1.19**	**342**	⇓	*i*	P	**Pb**	**11 01 00.7**	**-0.3**
IKP	**In-Ko-Pah, Jac**	**1.19**	**342**				**Pb**	**11 01 00.7**	**-0.3**
YUCAX	**Ej. Yucatɨn**	**1.20**	**24**	⇑	*e*	P	**Pg**	**11 01 02.1**	**+0.2**
5054	**Holtville Bond**	**1.21**	**14**				**Pn**	**11 01 01.0**	**-0.1**
TJIG	**Tijuana**	**1.25**	**318**	⇓	*i*	P	**Pn**	**11 01 01.6**	**-0.1**
TJIG					*e*	S	**Sb**	**11 01 17.8**	**0.0**
TJIG	**Tijuana**	**1.25**	**318**		*e*	P	**Pn**	**11 01 01.5**	**-0.1**
TJIG					*e*	S	**Sb**	**11 01 17.7**	**-0.1**
DREC	**Desert Rsrch C**	**1.30**	**9**	⇑	*e*	P	**Pg**	**11 01 03.5**	**-0.3**
TKX	**Tecate**	**1.31**	**323**		*e*	P	**Pn**	**11 01 02.6**	**+0.1**
TKX					*e*	S	**Sb**	**11 01 19.7**	**0.0**
EMSC	**East Mesa**	**1.35**	**26**	⇑	*e*	P	**Pg**	**11 01 04.7**	**-0.2**
SWSC	**Sam W. Stewart**	**1.43**	**356**	⇓	*i*	P	**Pb**	**11 01 05.2**	**+0.2**
BAR	**Barrett**	**1.43**	**324**	⇓	*i*	P	**Pn**	**11 01 04.6**	**+0.4**
BAR	**Barrett**	**1.43**	**324**				**Pn**	**11 01 04.6**	**+0.4**
BAR						IAML		11 01 26.9	
	comp=N,1μm,0.6s								
OLP	**Otay Lakes Par**	**1.52**	**316**	⇓	*e*	P	**Pn**	**11 01 06.1**	**+0.8**
TJX	**Tijuana**	**1.53**	**311**		*i*	P	**Pb**	**11 01 06.8**	**0.0**
TJX	**Tijuana**	**1.53**	**311**			Pn	**Pn**	**11 01 05.6**	**+0.1**
SDRC	**San Diego Road**	**1.62**	**319**	⇓	*i*	P	**Pn**	**11 01 07.7**	**+1.0**
EML	**El Monte Cty P**	**1.69**	**325**	⇓	*i*	P	**Pn**	**11 01 08.8**	**+1.1**
GLA	**Glamis**	**1.69**	**25**	⇑	*e*	P	**Pn**	**11 01 07.3**	**-0.5**
GLA	**Glamis**	**1.69**	**25**				**Pn**	**11 01 07.3**	**-0.5**
GLA						IAML		11 01 33.1	
	comp=E,688nm,0.6s								
GLA						IAML		11 01 34.2	
	comp=N,333nm,0.6s								
PPXB	**Puerto Peasco**	**1.76**	**95**	⇑	*e*	P	**Pn**	**11 01 07.8**	**-0.8**
DPP	**Dos Picos Cty**	**1.82**	**324**				**Pn**	**11 01 10.9**	**+1.3**
DPP						IAML		11 01 39.8	
	comp=E,686nm,0.7s								
DPP						IAML		11 01 39.8	
	comp=N,340nm,0.6s								
BORC	**Borrego Spring**	**1.85**	**341**				**Pn**	**11 01 10.4**	**+0.4**
BORC						IAML		11 01 37.6	
	comp=E,289nm,0.7s								
BORC						IAML		11 01 44.8	
	comp=N,232nm,0.7s								
MATG	**Mataguay Scout**	**1.87**	**334**	⇓	*e*	P	**Pn**	**11 01 11.1**	**+0.9**
PIX	**Pinacate**	**1.90**	**88**	⇓	*i*	P	**Pn**	**11 01 09.7**	**-0.9**
PIX	**Pinacate**	**1.90**	**88**				**Pn**	**11 01 09.6**	**-0.9**
SLGB	**San Luis Gonza**	**2.01**	**146**	⇑	*e*	P	**Pn**	**11 01 12.3**	**+0.3**
BC3	**Big Chuckawall**	**2.14**	**5**				**Pn**	**11 01 14.2**	**+0.1**
PFO	**Pinyon Flats O**	**2.19**	**343**				**Pn**	**11 01 15.0**	**+0.2**
PFO						IAML		11 01 52.5	
	comp=N,145nm,1.0s								
DNR	**Dunn Ranch,Anz**	**2.20**	**339**				**Pn**	**11 01 15.7**	**+0.9**
PMD	**Palm Desert**	**2.21**	**345**				**Pn**	**11 01 15.0**	**+0.2**
PMD						IAML		11 01 48.5	
	comp=N,153nm,0.7s								
PMD						IAML		11 01 49.7	
	comp=E,181nm,0.5s								
BLYC	**Blythe**	**2.43**	**23**				**Pn**	**11 01 18.4**	**+0.5**
BELC	**Belle Mtn. Jos**	**2.49**	**354**				**Pn**	**11 01 19.6**	**+0.7**
BELC						IAML		11 02 04.0	
	comp=E,130nm,0.7s								
ELS	**Elsinore Mount**	**2.59**	**326**			Pn	**Pn**	**11 01 20.9**	**+0.7**
ELS						IAML		11 02 03.0	
	comp=N,163nm,0.6s								
ELS						IAML		11 02 05.8	
	comp=E,276nm,0.7s								
IRM	**Iron Mountain**	**2.67**	**10**				**Pn**	**11 01 22.2**	**+0.9**
BREC	**Barre Substati**	**3.00**	**320**				**Pb**	**11 01 29.8**	**-2.0**
BAHB	**Baha de los**	**3.15**	**144**		*e*	P	**Pg**	**11 01 38.5**	**-0.7**
BAHB					*e*	S	**Sg**	**11 02 19.6**	**-0.5**
PASC	**Pasadena Art C**	**3.38**	**322**			Pn	**Pn**	**11 01 30.2**	**-0.8**
PASC						IAML		11 02 25.5	
	comp=N,102nm,0.6s								
PASC						IAML		11 02 27.6	
	comp=E,94nm,0.6s								
SBI	**Santa Barbara**	**3.44**	**306**				**Pn**	**11 01 31.9**	**+0.1**
TPO	**Tropico Hills**	**3.98**	**328**			Pn	**Pn**	**11 01 37.2**	**-2.0**
TUC	**Tucson**	**4.24**	**78**				**Pn**	**11 01 42.5**	**-0.3**
TUC	**Tucson**	**4.24**	**78**		*e*	P	**Pn**	**11 01 42.0**	**-0.8**
TUC					*e*	S	**Sn**	**11 02 28.5**	**-3.6**
WUAZ	**Wupatki**	**5.37**	**41**				**Pn**	**11 02 00.4**	**+1.9**
WUAZ						IAML		11 03 55.5	
	comp=E,23nm,1.2s								
WUAZ						IAML		11 04 02.9	
	comp=E,24nm,2.5s								
319A	**Douglas**	**5.47**	**90**				**Pn**	**11 02 01.8**	**+2.0**
SZCU	**Shurtz Canyon**	**6.43**	**19**				**Pn**	**11 02 15.8**	**+2.7**
HMU	**Henry Mountain**	**7.59**	**31**		Pn		**Pn**	**11 02 32.4**	**+3.4**
LENM	**Lemitar**	**7.79**	**68**		Pn		**Pn**	**11 02 33.1**	**+1.4**
MNTX	**Cornudas Mount**	**8.79**	**86**		Pn		**Pn**	**11 02 47.6**	**+2.4**

*LDG **03** 11:10:13.6±0.1, 42.°93N×0.°20E, h2km, Md2.6/3, Ml2.3/5, Error ellipse: s-maj=1.1km s-min=0.6km az=28.0*
*STR **03** 11:10:13.9±0.0, 42.°9N±0.°1×0.°20E±0.°06, h2km, MLv1.4/10, LOCSAT earthModelID pyrenees_taup-2.11 preliminary*
*MRB **03** 11:10:14.0±0.4, 42.°91N×0.°20E, h0km±5km, ML1.3/20, Error ellipse: s-maj=2.4km s-min=1.1km az=240.0*

ISC 03 11:10:13.9±1.0, 42.°92N±0.°02×0.°20E±0.°02, h2km±10km, n44, σ0.956/80, 2C, Pyrenees

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
VIEF	**Viey**	**0.13**	**254**	⇑	P	**Pg**	**11 10 16.9**	**+0.3**
VIEF					S	**Sg**	**11 10 19.0**	**+0.7**
	72nm,0.2s							
VIEF					AML	AML		
VIEF	**Viey**	**0.13**	**254**		Pg	**Pg**	**11 10 16.4**	**-0.1**
VIEF					Sg	**Sg**	**11 10 18.5**	**+0.2**
EPF	**Esparros**	**0.15**	**44**		*e*Pg	**Pg**	**11 10 16.5**	**-0.4**
	baz=225							
EPF	**Esparros**	**0.15**	**44**		*e*Pg	**Pg**	**11 10 16.6**	**-0.4**
EPF					*e*Sg	**Sg**	**11 10 18.9**	**-0.1**
	338nm,0.3s							
RESF	**Ens**	**0.15**	**137**		Pg	**Pg**	**11 10 16.8**	**-0.1**
RESF					Sg	**Sg**	**11 10 19.3**	**+0.3**
LABF	**Labassere**	**0.16**	**325**		Pg	**Pg**	**11 10 16.8**	**-0.2**
PYLO	**Lourdes**	**0.25**	**315**		P	**Pg**	**11 10 19.1**	**+0.3**
PYLO					S	**Sg**	**11 10 22.8**	**+0.7**
	34nm,0.3s							
PYLO					AML	AML		
PYLO	**Lourdes**	**0.25**	**315**		Pg	**Pg**	**11 10 18.5**	**-0.3**
PYLO					Sg	**Sg**	**11 10 21.9**	**-0.2**
ECHI	**Chisagues Biel**	**0.26**	**180**	⇑	P	**Pg**	**11 10 18.8**	**-0.1**
ECHI					S	**Sg**	**11 10 22.5**	**+0.3**
	104nm,0.1s							
ECHI					AML	AML		
MELF	**Melles**	**0.42**	**96**		Pg	**Pg**	**11 10 21.4**	**-0.5**
MELF					Sg	**Sg**	**11 10 27.5**	**+0.2**
REYF	**Montagne du Re**	**0.46**	**289**		Pg	**Pg**	**11 10 22.4**	**-0.3**
REYF					Sg	**Sg**	**11 10 28.9**	**+0.2**
VIER	**Vielha - Casau**	**0.48**	**116**		S	**Sg**	**11 10 30.6**	**+1.1**
	17nm,0.2s							
VIER					AML	AML		
CARA	**Val d'Aran**	**0.50**	**115**		P	**Pg**	**11 10 23.8**	**+0.2**
CARA					S	**Sg**	**11 10 31.3**	**+1.1**
	9.1nm,0.3s							
CARA					AML	AML		
CANF	**Canfranc**	**0.55**	**254**		P	**Pg**	**11 10 24.0**	**-0.5**
ETSF	**Etsaut**	**0.56**	**268**		*e*Pg	**Pg**	**11 10 24.0**	**-0.6**
ETSF	**Etsaut**	**0.56**	**268**		*e*Pg	**Pg**	**11 10 24.1**	**-0.6**
	baz=88							
ETSF					*e*Sg	**Sg**	**11 10 31.3**	**-0.5**
	34nm,0.3s							
MLS	**Moulis**	**0.66**	**86**		P	**Pg**	**11 10 26.3**	**-0.3**
MLS					S	**Sg**	**11 10 36.2**	**+1.0**
MLS	**Moulis**	**0.66**	**86**		Pg	**Pg**	**11 10 25.7**	**-0.9**
MLS					Sg	**Sg**	**11 10 33.9**	**-1.3**
ATE	**Arette**	**0.68**	**284**		P	**Pg**	**11 10 27.1**	**+0.2**
ATE					S	**Sg**	**11 10 36.4**	**+0.6**
	4.9nm,0.2s							
ATE					AML	AML		
ATE	**Arette**	**0.68**	**284**		Pg	**Pg**	**11 10 26.7**	**-0.3**
ATE					Sg	**Sg**	**11 10 36.0**	**+0.2**
CTRE	**Tremp**	**0.73**	**144**		P	**Pg**	**11 10 28.1**	**+0.1**
CTRE					S	**Sg**	**11 10 38.1**	**+0.7**
	4.9nm,0.2s							
CTRE					AML	AML		
CEST	**Esterri de Car**	**0.84**	**112**		P	**Pg**	**11 10 30.2**	**+0.1**
CEST					S	**Sb**	**11 10 42.0**	**-1.1**
	4.7nm,0.2s							
CEST					AML	AML		
LATF	**Latrape**	**0.87**	**69**		Pg	**Pb**	**11 10 32.2**	**+0.3**
LATF					Sg	**Sb**	**11 10 44.2**	**+0.2**
CSOR	**Sort**	**0.88**	**128**		P	**Pg**	**11 10 30.5**	**-0.3**
CSOR					S	**Sg**	**11 10 42.9**	**+0.7**
	4.8nm,0.2s							
CSOR					AML	AML		
ORDF	**Ordiarp**	**0.88**	**290**		Pg	**Pg**	**11 10 31.3**	**+0.5**
ORDF					Sg	**Sb**	**11 10 43.3**	**-0.8**
CRAS	**Crastes**	**0.89**	**26**		Pg	**Pg**	**11 10 31.5**	**+0.4**
CRAS					Sg	**Sb**	**11 10 44.7**	**+0.3**
MLZA	**Monlezun-d-Arm**	**0.94**	**346**		Pg	**Pg**	**11 10 32.4**	**+0.5**
GENF	**Genat**	**1.02**	**95**		Pg	**Pg**	**11 10 32.9**	**-0.5**
GENF					Sg	**Sg**	**11 10 46.7**	**+0.1**
SJPF	**Ste Jean**	**1.06**	**281**		*e*Pg	**Pg**	**11 10 33.6**	**-0.7**
SJPF					*e*Sg	**Sg**	**11 10 47.0**	**-1.0**
	5.7nm,0.3s							
SJPF					AML	AML		
CORG	**Organya**	**1.08**	**129**		P	**Pg**	**11 10 34.2**	**-0.4**
CORG					S	**Sb**	**11 10 49.2**	**-0.6**
	3.0nm,0.3s							
CORG					AML	AML		
ARBS	**La Rabassa**	**1.10**	**115**		P	**Pg**	**11 10 35.2**	**+0.1**
ARBS					S	**Sb**	**11 10 50.0**	**-0.7**
	6.6nm,0.3s							
ARBS					AML	AML		
CAVN	**Les Avellanes**	**1.12**	**158**		P	**Pg**	**11 10 34.4**	**-0.9**
CAVN					S	**Sb**	**11 10 50.5**	**-0.4**
	24nm,0.3s							
CAVN					AML	AML		
OSSF	**Osses**	**1.12**	**288**		S	**Sg**	**11 10 50.4**	**+0.4**
	2.5nm,0.2s							
OSSF					AML	AML		
CLLI	**Llivia**	**1.38**	**108**		P	**Pn**	**11 10 40.2**	**-0.2**
CLLI					S	**Sb**	**11 10 58.9**	**+0.2**
	2.8nm,0.3s							
CLLI					AML	AML		
RUFF	**Ruffiac, Nouve**	**1.47**	**355**		Pn	**Pn**	**11 10 41.2**	**-0.1**
RUFF					Sn	**Sn**	**11 11 01.9**	**+0.7**
MTLF	**Montolieu**	**1.54**	**73**		*e*Pg	**Pn**	**11 10 41.9**	**-0.5**
MTLF					*e*Sg	**Sn**	**11 11 02.7**	**-0.2**
	4.7nm,0.2s							
MTLF					AML	AML		
EPOB	**Poblet**	**1.70**	**157**		P	**Pn**	**11 10 44.8**	**+0.2**
EPOB					S	**Sb**	**11 11 07.4**	**-0.3**
	6.0nm,0.4s							
EPOB					AML	AML		
SLVF	**La Salvetat-Pe**	**1.91**	**48**		Pg	**Pb**	**11 10 49.3**	**-0.2**
SLVF					Sn	**Sb**	**11 11 13.9**	**+0.1**
CFON	**Fontmartina**	**2.02**	**124**		P	**Pn**	**11 10 49.6**	**+0.4**
LFF	**La Frestale**	**2.06**	**11**		*e*Pg	**Pb**	**11 10 50.9**	**-1.1**
LFF					*e*Sg	**Sb**	**11 11 17.7**	**-0.3**
	8.2nm,0.4s							
LFF					AML	AML		
CMAS	**Mas de Barbera**	**2.19**	**178**		P	**Pn**	**11 10 51.8**	**+0.4**
CMAS					S	**Sn**	**11 11 19.6**	**+0.5**
	4.0nm,0.3s							
CMAS					AML	AML		
CAF	**Calviac**	**2.42**	**33**		*e*Pg	**Pb**	**11 10 58.4**	**+0.3**
CAF					*e*Sg	**Sb**	**11 11 29.5**	**+1.1**
RJF	**Les Rejaudoux**	**2.57**	**21**		*e*Pg	**Pb**	**11 11 00.7**	**0.0**
RJF					*e*Sg	**Sb**	**11 11 32.6**	**-0.1**
	2.9nm,0.3s							
RJF					AML	AML		
LASF	**Ste Croix**	**2.90**	**65**		*e*Pg	**Pb**	**11 11 07.0**	**+0.6**
LASF					*e*Sg	**Sg**	**11 11 46.2**	**-1.0**
	5.6nm,0.4s							
LASF					AML	AML		

HEL 03 11:21:19.7±0.2, 63.°83N×25.°53E, h0km, ML1.0, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
OUF	**Merijarvi**	**0.65**	**327**		PG	Pg	11 21 31.0	-1.1
	baz=146							
OUF					SG	Sg	11 21 39.5	-0.9
OUF					MSG		11 21 40.2	
	comp=Z,1.8nm,0.2s							
OBF0	**Syolatti, Pyha**	**0.88**	**321**		PG	Pg	11 21 35.9	-0.6
OBF0					MSG		11 21 46.9	
	comp=Z,1.3nm,0.2s							
OBF4	**Vikkela, Lumij**	**1.01**	**350**		PG	Pg	11 21 38.1	-0.9
OBF4					MSG		11 21 50.6	
	comp=Z,0.8nm,0.2s							
OBF4					SB	Sb	11 21 53.7	-0.1
NIF	**Nilsia**	**1.11**	**112**		PG	Pg	11 21 39.2	-1.7
NIF					MSG		11 21 53.4	
	comp=Z,1.1nm,0.2s							
NIF					SB	Sg	11 21 55.7	+0.5
SUF	**Sumiainen**	**1.15**	**166**		*e*P	Pg	11 21 40.3	-1.3
SUF	**Sumiainen**	**1.15**	**166**		PG	Pg	11 21 40.5	-1.1
SUF					MSG		11 21 54.4	
	comp=Z,0.4nm,0.2s							
OUL	**Oulu**	**1.27**	**7**		PG	Pg	11 21 42.7	-1.4
	baz=192							
VAF	**Ylistaro**	**1.51**	**240**		*e*P	Pn	11 21 47.4	-0.5
VAF	**Ylistaro**	**1.51**	**240**		PN	Pn	11 21 47.4	-0.5
	baz=53							
VAF					MSG		11 22 05.1	
	comp=Z,0.8nm,0.2s							
VAF					SN	Sg	11 22 07.4	-0.7
KEF	**Keuruu**	**1.69**	**191**		*e*P	Pn	11 21 49.5	-1.0
KEF	**Keuruu**	**1.69**	**191**		PN	Pn	11 21 50.8	+0.3
KEF					MSG		11 22 10.2	
	comp=Z,0.7nm,0.2s							
KEF					SG	Sn	11 22 11.8	-1.0
KAF	**Kangasniemi**	**1.76**	**168**		PG	Pn	11 21 51.2	-0.1
	baz=346							
KAF					MSG		11 22 12.1	
	comp=Z,1.5nm,0.2s							
KAF					SG	Sn	11 22 14.2	-0.2
RMF	**Romuvaara**	**1.98**	**77**		MSG		11 22 18.5	
	comp=Z,0.8nm,0.2s							
RMF					SG	Sn	11 22 20.5	+0.7
RANF	**Ranua**	**2.26**	**13**		SG	Sn	11 22 28.0	+1.2
SJUU	**Sjulsmark**	**2.39**	**317**		*e*P	Pn	11 22 00.8	+0.8
FIA0	**FINESS Array S**	**2.41**	**174**		MSG		11 22 30.7	
	comp=Z,1.1nm,0.2s							
FIA0					SG	Sb	11 22 33.3	-0.6
KU6	**Riekki**	**2.88**	**38**		MSG		11 22 44.7	
	comp=Z,0.4nm,0.2s							
KU6					SB	Sb	11 22 45.6	-2.1
PVF	**Pernaja**	**3.30**	**177**		PN	Pn	11 22 12.2	-0.3
HEMU	**Hemsoen**	**3.58**	**255**		SB	Sn	11 23 03.4	+4.1

*HEL **03** 11:21:47.8±0.4, 67.°81N×20.°28E, h0km, ML1.4, Suspected explosion*

UPP 03 11:21:45.2±0.3, 67.°81N×20.°30E, h0km, ML2.1, Presumed earthquake, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.14**	**5**		P	Pg	11 21 48.1	+0.2
	baz=212							
KUA					S	Sg	11 21 50.3	+0.5
RATU	**Laukkuluspa**	**0.27**	**273**		P	Pg	11 21 50.5	+0.2
RATU					S	Sg	11 21 54.4	+0.6
KOVU	**Salmi**	**0.42**	**353**		P	Pg	11 21 53.3	+0.1
KOVU					S	Sg	11 21 58.5	0.0
NIKU	**Nikkaluokta**	**0.48**	**277**		P	Pg	11 21 54.4	0.0
NIKU					S	Sg	11 22 01.1	+0.4
LANU	**Lannavaara**	**0.68**	**69**		PG	Pb	11 21 60.0	0.0
LANU					SG	Sb	11 22 09.3	-0.6
PAJU	**Pajala**	**1.34**	**125**		PN	Pb	11 22 11.3	+0.1
PAJU	**Pajala**	**1.34**	**125**		PG	Pb	11 22 11.3	+0.1
	baz=304							
PAJU					SB	Sn	11 22 30.2	+0.5
HEF	**Hetta**	**1.39**	**63**		*e*P	Pb	11 22 12.9	+0.8
HEF	**Hetta**	**1.39**	**63**		PG	Pb	11 22 12.7	+0.6
HEF					MSG		11 22 30.1	
	comp=Z,3.0nm,0.2s							
HEF					SN	Sn	11 22 35.1	+4.1
ERTU	**Ertsjaerv**	**1.46**	**149**		PG	Pb	11 22 14.4	+1.2
ERTU	**Ertsjaerv**	**1.46**	**149**		PG	Pb	11 22 14.4	+1.2
ERTU					SN	Sn	11 22 35.4	+2.8
KLF	**Kolari**	**1.52**	**111**		PN	Pg	11 22 14.9	+0.6
KLF	**Kolari**	**1.52**	**111**		PG	Pg	11 22 14.9	+0.6
KLF					MSG		11 22 33.7	
	comp=Z,2.4nm,0.2s							
KLF					SN	Sn	11 22 35.9	+1.8
KTK1	**Kautokeino**	**1.62**	**41**		*e*P	Pg	11 22 17.6	+1.4
KTK1	**Kautokeino**	**1.62**	**41**		PG	Pg	11 22 18.8	+0.6
KTK1					SN	Sg	11 22 39.5	+2.3
TRO	**Tromso**	**1.90**	**345**		SG	Sg	11 22 45.6	-0.5
TOF	**Tornio**	**2.35**	**136**		MSG		11 22 28.4	
	comp=Z,0.9nm,0.2s							
TOF					SB	Pb	11 22 28.6	+0.3
TOF	**Tornio**	**2.35**	**136**		PG	Pb	11 22 28.6	+0.3
TOF					MSG		11 22 57.5	
	comp=

CEST				AML	AML			
LATF	**Latrape**	**0.87**	**69**	Pg	**Pg**	**11 22 21.9**	**-0.4**	
CRAS	**Crastes**	**0.88**	**26**	Pg	**Pg**	**11 22 23.1**	**+0.6**	
CRAS				Sn	**Sb**	**11 22 36.8**	**+1.2**	
CSOR	**Sort**	**0.89**	**129**	P	**Pg**	**11 22 22.3**	**-0.4**	
CSOR				S	**Sg**	**11 22 34.7**	**+0.5**	
	13nm,0.3s							
CSOR				AML	AML			
MLZA	**Monlezun-d-Arm**	**0.93**	**345**	Pg	**Pb**	**11 22 24.1**	**-0.3**	
MLZA				Sn	**Sb**	**11 22 37.7**	**+0.6**	
GENF	**Genat**	**1.01**	**96**	P	**Pg**	**11 22 24.4**	**-0.7**	
GENF				S	**Sg**	**11 22 38.4**	**+0.1**	
GENF	**Genat**	**1.01**	**96**	Pg	**Pg**	**11 22 24.5**	**-0.7**	
GENF				Sg	**Sg**	**11 22 38.5**	**+0.2**	
SJPF	**Ste Jean**	**1.06**	**280**	*e*Pg	**Pg**	**11 22 25.4**	**-0.6**	
SJPF				*e*Sg	**Sg**	**11 22 38.6**	**-1.2**	
	11nm,0.2s							
SJPF				AML	AML			
CORG	**Organya**	**1.08**	**130**	P	**Pg**	**11 22 26.2**	**-0.2**	
CORG				S	**Sb**	**11 22 41.4**	**-0.3**	
	8.9nm,0.3s							
CORG				AML	AML			
ARBS	**La Rabassa**	**1.11**	**116**	P	**Pg**	**11 22 26.7**	**-0.1**	
ARBS				S	**Sg**	**11 22 41.5**	**+0.2**	
	17nm,0.2s							
ARBS				AML	AML			
OSSF	**Osses**	**1.12**	**287**	P	**Pg**	**11 22 26.8**	**-0.3**	
OSSF				S	**Sb**	**11 22 42.3**	**-0.3**	
	7.7nm,0.1s							
OSSF				AML	AML			
CAVN	**Les Avellanes**	**1.13**	**159**	P	**Pg**	**11 22 26.9**	**-0.3**	
CAVN				S	**Sb**	**11 22 42.4**	**-0.5**	
	51nm,0.2s							
CAVN				AML	AML			
DUNF	**Dun**	**1.19**	**85**	Pg	**Pb**	**11 22 28.8**	**0.0**	
ESAC	**San Caprasio**	**1.31**	**203**	P	**Pg**	**11 22 30.2**	**-0.5**	
ESAC				S	**Sn**	**11 22 48.2**	**-0.7**	
CLLI	**Llivia**	**1.38**	**109**	P	**Pn**	**11 22 31.6**	**-0.4**	
CLLI				S	**Sg**	**11 22 50.1**	**0.0**	
	7.7nm,0.4s							
CLLI				AML	AML			
FNEB	**Nbias**	**1.40**	**91**	P	**Pn**	**11 22 31.6**	**-0.6**	
FNEB				S	**Sb**	**11 22 51.1**	**+0.3**	
	7.2nm,0.3s							
FNEB				AML	AML			
FNEB	**Nbias**	**1.40**	**91**	Pn	**Pn**	**11 22 30.9**	**-1.2**	
FNEB				Pg	**Pg**	**11 22 32.1**	**-0.5**	
FNEB				Sg	**Sb**	**11 22 51.0**	**+0.3**	
EMIR	**Miracle**	**1.41**	**136**	P	**Pn**	**11 22 31.9**	**-0.4**	
EMIR				S	**Sn**	**11 22 51.4**	**-0.1**	
	17nm,0.2s							
EMIR				AML	AML			
CARF	**Carcanieres**	**1.42**	**98**	P	**Pn**	**11 22 32.0**	**-0.4**	
CARF				S	**Sg**	**11 22 51.3**	**+0.1**	
	15nm,0.4s							
CARF				AML	AML			
CARF	**Carcanieres**	**1.42**	**98**	Pg	**Pn**	**11 22 32.2**	**-0.3**	
CARF				Sg	**Sg**	**11 22 51.2**	**0.0**	
RUFF	**Ruffiac, Nouve**	**1.46**	**355**	Pg	**Pb**	**11 22 33.3**	**-0.1**	
RUFF				Sn	**Sn**	**11 22 53.1**	**+0.7**	
VALC	**Valcebollere**	**1.47**	**111**	P	**Pn**	**11 22 32.5**	**-0.7**	
VALC				S	**Sn**	**11 22 53.1**	**+0.2**	
	31nm,0.3s							
VALC				AML	AML			
VALC	**Valcebollere**	**1.47**	**111**	Pg	**Pg**	**11 22 33.9**	**+0.1**	
MTLF	**Montolieu**	**1.53**	**74**	*e*Pg	**Pb**	**11 22 34.5**	**-0.2**	
MTLF				*e*Sg	**Sg**	**11 22 55.0**	**+0.1**	
	12nm,0.2s							
MTLF				AML	AML			
CORI	**Orista**	**1.67**	**124**	P	**Pn**	**11 22 35.8**	**0.0**	
CORI				S	**Sn**	**11 22 58.0**	**+0.2**	
	15nm,0.2s							
CORI				AML	AML			
EPOB	**Poblet**	**1.71**	**157**	P	**Pn**	**11 22 36.7**	**+0.3**	
EPOB				S	**Sb**	**11 22 59.3**	**-0.3**	
	13nm,0.3s							
EPOB				AML	AML			
FILF	**Fillols**	**1.78**	**101**	Pg	**Pn**	**11 22 37.7**	**+0.4**	
FILF				Sg	**Sn**	**11 23 00.9**	**+0.4**	
SLVF	**La Salvetat-Pe**	**1.90**	**48**	Pn	**Pn**	**11 22 37.2**	**-1.8**	
SLVF				Pg	**Pb**	**11 22 41.2**	**+0.2**	
CBEU	**Beuda**	**1.95**	**109**	S	**Sn**	**11 23 05.1**	**+0.4**	
	19nm,0.3s							
CBEU				AML	AML			
SJAF	**Saint Jean de**	**2.03**	**102**	P	**Pn**	**11 22 40.6**	**-0.2**	
SJAF				S	**Sn**	**11 23 07.6**	**+1.0**	
	7.8nm,0.3s							
SJAF				AML	AML			
CFON	**Fontmartina**	**2.03**	**124**	S	**Sn**	**11 23 07.4**	**+0.8**	
LFF	**La Frestale**	**2.04**	**11**	*e*Pg	**Pb**	**11 22 43.5**	**+0.1**	
CMAS	**Mas de Barbera**	**2.21**	**178**	P	**Pn**	**11 22 43.8**	**+0.6**	
CMAS				S	**Sn**	**11 23 11.8**	**+0.8**	
	11nm,0.3s							
CMAS				AML	AML			
ALCN	**Alcanar**	**2.39**	**175**	S	**Sn**	**11 23 16.1**	**+0.6**	
	11nm,0.2s							
ALCN				AML	AML			
CAF	**Calviac**	**2.41**	**33**	*e*Pg	**Pb**	**11 22 50.6**	**+1.0**	
CAF				*e*Sg	**Sb**	**11 23 20.3**	**+0.6**	
RJF	**Les Rejaudoux**	**2.55**	**21**	*e*Pg	**Pb**	**11 22 53.1**	**+1.0**	
RJF				*e*Sg	**Sb**	**11 23 24.1**	**+0.2**	
	7.1nm,0.3s							
RJF				AML	AML			
EMOS	**Mosqueruela**	**2.62**	**191**	P	**Pn**	**11 22 49.8**	**+0.8**	
EMOS				S	**Sn**	**11 23 22.1**	**+0.7**	
	3.9nm,0.4s							
EMOS				AML	AML			
ALCX	**Castello**	**2.67**	**179**	S	**Sn**	**11 23 22.9**	**+0.5**	
	11nm,0.6s							
ALCX				AML	AML			
LASF	**Ste Croix**	**2.90**	**66**	*e*Pg	**Pb**	**11 22 56.2**	**-1.8**	
LASF				*e*Sg	**Sg**	**11 23 37.3**	**-1.4**	
	3.5nm,0.3s							
LASF				AML	AML			
MFF	**Saint Martin d**	**3.68**	**356**	*e*Pg	**Pg**	**11 23 14.1**	**-2.0**	
MFF				*e*Sg	**Sb**	**11 23 59.0**	**+2.8**	

*THE **03** 11:48:23.8,38˚N±1˚×2˚7E±˚, h9km±2km, M2.5/7, MLh2.5/7*
*AFAD **03** 11:48:23.5,37˚.91N×26˚.65E, h7km±2km, ML2.3*
*ISK **03** 11:48:23.3,37˚.89N×26˚.62E, h8km, ML2.5/23*
ISC 03 11:48:23.4±1.0,37˚.90N±0˚.02×26˚.63E±0˚.02,h10km±9km, n40,σ0°56/60,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.25**	**54**	P	**Pg**	**11 48 28.4**	**-0.1**
DGB				S	**Sg**	**11 48 31.8**	**-0.1**
DGB				IAML		11 48 32.0	
	comp=E,514nm,0.3s						
DGB				IAML		11 48 32.0	
	comp=N,301nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.35**	**344**	P	**Pg**	**11 48 30.1**	**-0.2**
ZEYE				S	**Sb**	**11 48 36.4**	**-0.9**
ZEYE				IAML		11 48 38.0	
	comp=E,437nm,0.1s						
ZEYE				IAML		11 48 38.0	
	comp=N,613nm,0.2s						
BEYE	**izmir**	**0.40**	**36**	P	**Pg**	**11 48 31.1**	**-0.2**
BEYE				S	**Sg**	**11 48 36.7**	**+0.1**
BEYE				IAML		11 48 37.0	
	comp=E,337nm,0.2s						
BEYE				IAML		11 48 39.0	
	comp=N,373nm,0.3s						
CESE	**eme**	**0.50**	**329**	Pg	**Pg**	**11 48 33.5**	**+0.4**
CESE				Sg	**Sb**	**11 48 41.2**	**-0.4**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.52**	**113**	P	**Pg**	**11 48 33.5**	**0.0**
GCAM				IAML		11 48 41.0	
	comp=E,424nm,0.4s						
GCAM				S	**Sb**	**11 48 41.3**	**-0.9**
GCAM				IAML		11 48 45.0	
	comp=N,462nm,0.3s						
GCAM	**G?zelcaml?**	**0.52**	**113**	Pg	**Pg**	**11 48 33.9**	**+0.4**
GCAM				Sg	**Sb**	**11 48 41.8**	**-0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.52**	**95**	Pg	**Pg**	**11 48 33.6**	**0.0**
KUSD				AML	AML		
BLCB	**Balcova**	**0.58**	**34**	P	**Pg**	**11 48 34.7**	**0.0**
BLCB				S	**Sg**	**11 48 42.7**	**+0.3**
BLCB	**Balcova**	**0.58**	**34**	Pg	**Pb**	**11 48 35.2**	**-0.5**
BLCB				AML	AML		
CHOS	**Chios island**	**0.66**	**317**	P	**Pg**	**11 48 36.6**	**+0.4**
CHOS				S	**Sb**	**11 48 46.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.66**	**317**	Pg	**Pg**	**11 48 36.7**	**+0.5**
CHOS				Sg	**Sb**	**11 48 46.7**	**+0.4**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.69**	**355**	Pg	**Pg**	**11 48 37.1**	**+0.3**
KRBN				Sg	**Sb**	**11 48 48.2**	**+1.0**
KRBN				AML	AML		
DIDI	**Didim-Aydin**	**0.72**	**137**	Pg	**Pg**	**11 48 37.2**	**0.0**
DIDI				Sg	**Sb**	**11 48 48.5**	**+0.7**
DIDI				AML	AML		
DUVT	**Torbali**	**0.72**	**64**	P	**Pg**	**11 48 37.3**	**-0.1**
DUVT				S	**Sg**	**11 48 46.5**	**-0.3**
DUVT				IAML		11 48 51.0	
	comp=E,257nm,0.3s						
KARB	**zmir-Karabur**	**0.78**	**347**	P	**Pg**	**11 48 37.9**	**-0.5**
KARB				S	**Sb**	**11 48 50.7**	**+1.0**
KARB				IAML		11 48 52.0	
	comp=E,141nm,0.1s						
KARB				IAML		11 48 53.0	
	comp=N,126nm,0.2s						
FOCM	**Foa**	**0.81**	**6**	Pg	**Pb**	**11 48 39.7**	**+0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.94**	**146**	Pg	**Pb**	**11 48 41.9**	**+0.2**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.00**	**87**	Pg	**Pb**	**11 48 43.1**	**+0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**1.00**	**147**	P	**Pb**	**11 48 42.9**	**+0.1**
BODT				S	**Sb**	**11 48 56.8**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**1.00**	**147**	Pg	**Pb**	**11 48 43.3**	**+0.5**
BODT				AML	AML		
CAMT	**Merkez**	**1.00**	**32**	P	**Pn**	**11 48 43.6**	**+0.1**
CAMT				S	**Sn**	**11 48 57.3**	**-0.4**
IZMR	**zmir-demi**	**1.07**	**77**	P	**Pg**	**11 48 42.1**	**-2.0**
IZMR				S	**Sg**	**11 48 57.7**	**-0.3**
MLSB	**Milas**	**1.10**	**123**	Pn	**Pg**	**11 48 44.5**	**0.0**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**18**	P	**Pg**	**11 48 44.1**	**-0.8**
ZEDA				S	**Sn**	**11 49 01.2**	**+0.6**
ZEDA				IAML		11 49 04.0	
	comp=N,94nm,0.3s						
ZEDA				IAML		11 49 07.0	
	comp=E,85nm,0.6s						
DKL	**Dikili**	**1.19**	**11**	Pn	**Pn**	**11 48 47.0**	**+1.0**
DKL				AML	AML		
APE	**Apeiranthos**	**1.21**	**227**	P	**Pb**	**11 48 45.4**	**-1.0**
APE				S	**Sn**	**11 49 03.3**	**+0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.21**	**227**	Pn	**Pb**	**11 48 46.4**	**0.0**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.29**	**51**	Pn	**Pg**	**11 48 48.3**	**0.0**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.32**	**87**	Pn	**Pg**	**11 48 48.8**	**+0.1**
NAZL				AML	AML		
AKS	**Akhisar**	**1.35**	**43**	Pn	**Pg**	**11 48 49.1**	**-0.2**
AKS				AML	AML		
PRK	**Paraskevi**	**1.37**	**348**	P	**Pb**	**11 48 49.1**	**0.0**
PRK				S	**Sg**	**11 49 07.4**	**-0.1**
PRK				AML	AML		
DAT	**Datca**	**1.40**	**147**	Pn	**Pb**	**11 48 49.6**	**0.0**
DAT				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**29**	Pn	**Pb**	**11 48 50.6**	**+0.3**
SOMA				AML	AML		
YER	**Yerkesik**	**1.52**	**120**	P	**Pn**	**11 48 50.7**	**0.0**
YER	**Yerkesik**	**1.52**	**120**	Pn	**Pb**	**11 48 51.6**	**-0.2**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.58**	**50**	Pn	**Pb**	**11 48 52.6**	**-0.1**
GORD				AML	AML		
TURN	**Turunc**	**1.71**	**131**	Pn	**Pn**	**11 48 53.8**	**+0.5**
TURN				AML	AML		
KARY	**Karystos**	**1.73**	**275**	P	**Pn**	**11 48 53.2**	**-0.4**
KARY				S	**Sn**	**11 49 14.2**	**-1.6**
KARY				AML	AML		
DALY	**Dalyan (Mula)**	**1.94**	**123**	Pn	**Pn**	**11 48 57.1**	**+0.6**
DALY				AML	AML		
DION	**Dionisos Attik**	**2.13**	**275**	P	**Pn**	**11 48 59.1**	**0.0**

BGSI 03 11:53:22.1±2.2,23˚.71S×27˚.55E,h31km±999km, ML2.0, Presumed earthquake,South Africa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPHEP	**Lephephe**	**1.59**	**282**	*i* P	Pn	11 53 45.7	-2.6
LPHEP				*i* S	Sn	11 54 06.2	-1.6
LPHEP				IAML		11 54 11.0	
	comp=E,48nm,0.7s						
LPHEP	**Lephephe**	**1.59**	**282**	*i* P	Pn	11 53 46.1	-2.2
LPHEP				*i* S	Sn	11 54 05.8	-2.0
LPHEP				IAML		11 54 10.4	
	comp=E,48nm,0.6s						
LBTB	**Lobatse**	**2.21**	**233**	*i* P	Pn	11 53 54.9	-1.9
LBTB				*i* S	Sn	11 54 25.2	+2.1
LBTB				IAML		11 54 26.6	
	comp=N,14nm,0.6s						
LBTB	**Lobatse**	**2.21**	**233**	*i* P	Pn	11 53 54.9	-1.9
LBTB				*i* S	Sn	11 54 20.5	-2.6
LBTB				IAML		11 54 26.6	
	comp=N,13nm,0.6s						
BROLN	**Tlhalogang**	**2.60**	**355**	*i* P	Pn	11 53 58.5	-3.6
BROLN				*i* S	Sn	11 54 28.9	-3.8
BROLN				IAML		11 54 46.5	
	comp=E,12nm,0.7s						
BROLN	**Tlhalogang**	**2.60**	**355**	*i* P	Pn	11 54 02.4	+0.3
BROLN				*i* S	Sn	11 54 28.7	-4.0
BROLN				IAML		11 54 46.5	
	comp=E,12nm,0.7s						

*IDC **03** 11:55:09.5±1.0,23˚.97N×125˚.66E, h0km, mb3.6/7, mbtmp3.6/8, ML3.2/1, MS2.5/1, Error ellipse: s-maj=24.7km s-min=18.7km az=100.0*
*JMA **03** 11:55:09.7±0.3,24˚N±1˚×12˚6E±˚, h67km, MV3.8/11, NEAR MIYAKOJIMA ISLAND*
ISC 03 11:55:08.7±2.3,23˚.89N±0˚.06×125˚.88E±0˚.05,h4km±14km, n32,σ1°40/34,mb3.5/7,Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	**Gusukube**	**0.97**	**334**	P	**Pn**	**11 55 29.5**	**+0.3**
JOGS				S	**Sn**	**11 55 44.6**	**+1.2**
JMJ2	**Miyako jima3**	**0.99**	**330**	P	**Pn**	**11 55 29.4**	**0.0**
JMJ2				*e*S	**Sn**	**11 55 44.6**	**+0.8**
JMJ	**Miyako jima 2**	**1.07**	**330**	P	**Pg**	**11 55 29.2**	**0.0**
JIRJ	**Irabujima**	**1.13**	**327**	P	**Pn**	**11 55 31.3**	**0.0**
JIRJ				S	**Sn**	**11 55 46.9**	**-0.5**
JIKM	**Ikemajima**	**1.18**	**331**	P	**Pn**	**11 55 32.4**	**+0.3**
JIKM				*e*S	**Sn**	**11 55 49.4**	**+0.7**
JTJ	**Tarama**	**1.31**	**305**	P	**Pn**	**11 55 33.2**	**-0.6**
JTJ				*e*S	**Sn**	**11 55 50.9**	**-0.9**
JISG	**Ishigakijimahi**	**1.59**	**296**	P	**Pn**	**11 55 37.4**	**-0.3**
JISG				*e*S	**Sb**	**11 55 58.0**	**-1.2**
JIJ	**Ishigaki jima**	**1.66**	**287**	P	**Pn**	**11 55 38.4**	**-0.2**
JKRS	**Kuro-shima**	**1.74**	**282**	P	**Pn**	**11 55 39.9**	**+0.1**
HATJ	**Hateruma jima**	**1.90**	**275**	P	**Pn**	**11 55 41.6**	**-0.4**
HATJ				*e*S	**Sn**	**11 56 03.8**	**-2.7**
IRIF	**Iriomote-Funau**	**2.01**	**283**	P	**Pn**	**11 55 43.4**	**-0.1**
IRIF				S	**Sn**	**11 56 07.7**	**-1.5**
JOW	**Kunigami**	**3.65**	**36**	Pn	**Pn**	**11 56 05.6**	**-0.4**
	3.6nm,0.3s,baz=306,slow=6.0,SNR=1.6						
JOW				Sn	**Sn**	**11 56 44.5**	**-5.0**
	2.1nm,0.3s,baz=307,slow=20,SNR=1.1 20nm,0.4s						
JOW				AML	AML		
NACB	**Ninganchiao**	**3.93**	**275**	P	**Pn**	**11 56 08.8**	**-1.0**
YHNB	**Yeheng**	**4.18**	**282**	P	**Pn**	**11 56 14.3**	**+0.9**
YULB	**Yu-li**	**4.23**	**264**	P	**Pn**	**11 56 12.7**	**-1.3**
SSLB	**Suanglung**	**4.51**	**270**	P	**Pn**	**11 56 17.3**	**-0.6**
TWGBT	**Beinan**	**4.54**	**257**	P	**Pn**	**11 56 17.2**	**-1.0**
TPUB	**Ta-pu**	**4.85**	**264**	P	**Pn**	**11 56 22.2**	**-0.4**
KSRS	**Korea Array**	**13.64**	**7**	LR	LR	12 03 44.6	
	comp=Z,20nm,18.4s,baz=305,slow=38						
H11N1	**WAKE ISLAND Hy**	**38.21**	**88**	T	T	12 43 14.4	
	baz=284,slow=75,SNR=4.4						
H11N2	**WAKE ISLAND Hy**	**38.21**	**88**	T	T	12 43 16.5	
	baz=284,slow=75,SNR=5.0						
H11N3	**WAKE ISLAND Hy**	**38.23**	**88**	T	T	12 43 15.8	
	baz=284,slow=75,SNR=5.1						
H11S3	**WAKE ISLAND Hy**	**38.33**	**90**	T	T	12 43 24.7	
	baz=285,SNR=8.8						
H11S1	**WAKE ISLAND Hy**	**38.34**	**90**	T	T	12 43 24.8	
	baz=285						
H11S2	**WAKE ISLAND Hy**	**38.35**	**90**	T	T	12 43 26.1	
	baz=285						
MKAR	**Makanchi Array**	**41.57**	**314**	P	**P**	**12 02 57.7**	**0.0**
	0.7nm,0.5s,baz=99,slow=10.0,SNR=9.5 0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**42.88**	**325**	P	**P**	**12 03 06.2**	**-2.0**
	0.4nm,0.4s,baz=110,slow=11,SNR=2.3 0.4nm,0.4s						
WRA	**Warramunga Arr**	**44.34**	**169**	P	**P**	**12 03 22.4**	**+2.1**
	0.6nm,0.7s,baz=348,slow=8.8,SNR=5.1 0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**45.13**	**319**	P	**P**	**12 03 26.6**	**+0.3**
	0.2nm,0.4s,baz=108,slow=9.1,SNR=3.4 0.2nm,0.4s						
ASAR	**Alice Springs**	**47.91**	**170**	P	**P**	**12 03 50.4**	**+2.1**
	0.2nm,0.6s,baz=349,slow=6.2,SNR=4.6 0.2nm,0.6s						
AKASG	**Malin Array Be**	**75.92**	**319**	P	**P**	**12 06 56.9**	**+0.3**
	0.2nm,0.2s,baz=64,slow=5.4,SNR=4.3 0.2nm,0.2s						
GERES	**GERESS Array B**	**85.75**	**322**	P	**P**	**12 07 50.0**	**+0.7**
	0.3nm,0.3s,baz=79,slow=6.2,SNR=3.5 0.3nm,0.3s						

*IDC **03** 11:58:14.4±1.8,24˚.07N×92˚.73E, h0km, mb3.7/3, mbtmp3.5/4, Error ellipse: s-maj=32.3km s-min=17.9km az=147.0*
ISC 03 11:58:18.6±0.8,24˚.56N±0˚.05×92˚.24E±0˚.04,h34km, n20, σ2°20/31,India-Bangladesh border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	**Shillong**	**1.06**	**342**	*i* P	**Pb**	**11 58 40.5**	**+2.0**
AGT	**Agartala**	**1.12**	**234**	*i* P	**Pb**	**11 58 40.6**	**+1.1**
AGT				*i* S	**Sb**	**11 58 57.7**	**+3.8**
AGT				IAML		11 59 16.9	
	comp=N,3μm,0.7s						
IMP	**Imphal**	**1.58**	**80**	*i* P	**Pn**	**11 58 44.3**	**0.0**
IMP				*i* S	**Sn**	**11 59 02.7**	**-0.8**
IMP				IAML		11 59 06.4	
	comp=N,245nm,0.4s						
BRDH	**Bariadhala**	**1.95**	**196**	Pg	**Pn**	**11 58 47.8**	**-1.4**
	comp=N,73nm,0.3s,baz=61,slow=9.5,SNR=4.6						
BRDH				Lg	Lg	11 59 11.9	
	comp=N,80nm,0.3s,baz=169,slow=18,SNR=7.3						
KOHI	**KOHIMA**	**2.05**	**55**	*i* P	**Pn**	**11 58 52.3**	**+1.5**
KOHI				*i* S	**Sn**	**11 59 16.0**	**+0.6**
KOHI				IAML		11 59 27.5	
	comp=E,703nm,0.7s						
TEZP	**TEZPUR**	**2.11**	**14**	*i* P	**Pn**	**11 58 53.8**	**+2.3**
TEZP				*i* S	**Sb**	**11 59 20.7**	**-1.5**
TEZP				IAML		11 59 21.4	
	comp=Z,399nm,0.2s						
TEZP				IAML		11 59 21.4	
	comp=N,2μm,0.3s						
DHUB	**DHUBRI**	**2.50**	**306**	*i* P	**Pb**	**11 59 02.2**	**-0.6**
MOKO	**MOKOCHONG**	**2.71**	**49**	*i* P	**Pn**	**11 58 59.2**	**-0.6**
ODAN	**Odare**	**4.94**	**299**	Pn	**Pn**	**11 59 32.2**	**+1.6**
	baz=317,slow=0.0						
ODAN				Sn	**Sn**	**12 00 28.6**	**+1.9**
	comp=N,52nm,0.3s,baz=317,slow=0.0						
ODAN				AML	AML		
RAMN	**Ramite**	**5.62**	**296**	Pn	**Pn**	**11 59 40.9**	**+1.0**
	baz=312,slow=0.0						
RAMN				Sn	**Sn**	**12 00 41.7**	**-1.7**
	comp=N,33nm,0.4s,baz=312,slow=0.0						
RAMN				AML	AML		
GUN	**Gumba**	**6.62**	**302**	Pn	**Pn**	**11 59 54.9**	**+1.2**
	baz=315,slow=0.0						
GUN				Sn	**Sn**	**12 01 07.9**	**-0.3**
	comp=N,29nm,0.3s,baz=315,slow=0.0						
GUN				AML	AML		
PKI	**Pulchoki**	**6.84**	**298**	Pn	**Pn**	**11 59 56.8**	**0.0**
	baz=311,slow=0.0						
PKI				Sn	**Sn**	**12 01 11.1**	**-2.5**
	comp=N,13nm,0.4s,baz=311,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**6.85**	**298**	Pn	**Pn**	**11 59 56.9**	**0.0**
	baz=311,slow=0.0						
PKIN				Sn	**Sn**	**12 01 11.9**	**-1.9**
	comp=N,20nm,0.4s,baz=311,slow=0.0						
PKIN				AML	AML		
KKN	**Kakani**	**7.03**	**299**	Pn	**Pn**	**12 00 00.3**	**+0.9**
	baz=312,slow=0.0						
KKN				Sn	**Sn**	**12 01 15.8**	**-2.5**
	comp=N,18nm,0.4s,baz=312,slow=0.0						
KKN				AML	AML		
GKN	**Gorkha**	**7.64**	**298**	Pn	**Pn**	**12 00 07.9**	**+0.3**
	baz=310,slow=0.0						
GKN				Sn	**Sn**	**12 01 29.9**	**-3.2**
	comp=N,37nm,0.4s,baz=310,slow=0.0						
GKN				AML	AML		
DANN	**Dangsing**	**8.49**	**298**	Pn	**Pn**	**12 00 18.7**	**-0.7**
	baz=309,slow=0.0						
DANN				Sn	**Sn**	**12 01 49.3**	**-4.8**
	comp=N,9.8nm,0.2s,baz=309,slow=0.0						
DANN				AML	AML		
CMAR	**Chiang Mai Arr**	**8.70**	**133**	Pn	Pn	12 00 14.6	-7.6
	comp=N,0.3nm,0.3s,baz=312,slow=14,SNR=4.1						
WRA	**Warramunga Arr**	**60.30**	**133**	P	**P**	**12 08 20.2**	**-3.9**
	comp=N,0.4nm,0.5s,baz=322,slow=7.4,SNR=12 comp=N,0.4nm,0.5s						
ASAR	**Alice Springs**	**62.69**	**137**	P	**P**	**12 08 37.0**	**-3.2**
	comp=N,0.5nm,0.6s,baz=318,slow=6.8,SNR=11 comp=N,0.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**85.12**	**282**	P	**P**	**12 10 55.7**	**+3.9**
	comp=N,0.4nm,0.5s,baz=63,slow=4.1,SNR=2.0 comp=N,0.4nm,0.5s						

IDC 03 12:01:24.0±3.3,5˚.84S×146˚.80E,h0km,mb2.9/1, mbtmp3.2/3,ML2.5/2,Error ellipse: s-maj=65.7km s-min=29.6km az=72.0,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.56**	**174**	Pn	Pn	12 02 21.8	+1.2
	3.3nm,0.3s,baz=332,slow=7.8,SNR=15						
PMG				Sn	Sn	12 03 02.0	-1.5
	7.4nm,0.3s,baz=70,slow=12,SNR=9.1 9.6nm,0.3s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**18.53**	**220**	P	P	12 05 41.5	-0.7
	0.1nm,0.3s,baz=42,slow=11,SNR=4.6 0.4nm,0.9s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.64**	**214**	P	P	12 06 15.9	-0.2
	0.3nm,0.4s,baz=54,slow=9.4,SNR=6.2 0.3nm,0.4s						
TORD	**Torodi

MOS Felt (II-III) at Makhachkala; (II) at Akhty.
*NEIC **03** 12:16:45.9±2.3, 42°.26N±0°.08×48°.84E±0°.10, h70^{km}±8^{km}, mb4.5/46, Error ellipse: s-maj=11.9km s-min=10.7km az=182.0*
*NNC **03** 12:16:52.1±6.9, 42°.34N×49°.69E, h71^{km}±53^{km}, mb4.4, Error ellipse: s-maj=53.4km s-min=47.1km az=85.0*
ISC 03 12:16:44.7±0.5, 42°.14N±0°.03×48°.91E±0°.03, h70^{km}±5^{km}, n536, σ1°90/592, mb4.4/85, 23C-28D, Caspian Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DRN	**Derbent**	**0.45**	**256**	*i* P	**Pn**	**12 16 58.7**	**+1.7**
DRN				*e*S	**Sn**	**12 17 08.3**	**+2.3**
DRN	**Derbent**	**0.45**	**256**	Pg	**Pn**	**12 16 58.7**	**+1.7**
QSAR	**Qusar**	**0.79**	**218**	Pg	**Pn**	**12 17 02.0**	**+1.3**
KSMR	**Kasumkent**	**0.79**	**228**	*e*P	**Pn**	**12 17 02.5**	**+1.7**
KSMR				*e*S	**Sn**	**12 17 14.7**	**+2.1**
KSMR				pmax	pmax		
	comp=Z,3μm,0.3s						
URKR	**Urkarakh**	**0.95**	**272**	*e*P	**Pn**	**12 17 04.7**	**+2.0**
URKR				*e*S	**Sn**	**12 17 18.6**	**+2.5**
AKT	**Akhty**	**1.10**	**234**	*e*P	**Pn**	**12 17 06.3**	**+1.7**
AKT				*e*S	**Sn**	**12 17 21.0**	**+1.6**
AKT	**Akhty**	**1.10**	**234**	Pg	**Pn**	**12 17 06.5**	**+1.9**
XNQ	**Khinaliq**	**1.12**	**211**	Pg	**Pn**	**12 17 05.8**	**+0.8**
MAK	**Makhachkala**	**1.33**	**309**	*i* P	**Pn**	**12 17 10.1**	**+2.7**
MAK				*e*S	**Sn**	**12 17 28.2**	**+3.8**
MAK				pmax	pmax		
	comp=Z,1μm,0.3s						
KMKR	**Kumukh**	**1.35**	**270**	*e*P	**Pn**	**12 17 10.5**	**+2.6**
KMKR				*e*S	**Sn**	**12 17 28.5**	**+3.2**
KMKR				pmax	pmax		
	comp=Z,1μm,0.4s						
PQL	**Pirkuli**	**1.37**	**190**	Pg	**Pn**	**12 17 09.5**	**+1.4**
GNBR	**Gunib**	**1.47**	**281**	*e*P	**Pn**	**12 17 12.6**	**+3.3**
GNBR				*e*S	**Sn**	**12 17 32.4**	**+4.5**
GNBR				pmax	pmax		
	comp=Z,1μm,0.4s						
KANR	**Karaman**	**1.49**	**316**	*e*P	**Pn**	**12 17 13.0**	**+3.5**
ARKR	**Arakani**	**1.50**	**289**	*e*P	**Pn**	**12 17 12.9**	**+3.2**
ARKR				*e*S	**Sn**	**12 17 33.2**	**+4.7**
ARKR				pmax	pmax		
	comp=Z,472nm,0.4s						
BUJR	**Buynaksk**	**1.50**	**298**	*e*P	**Pn**	**12 17 12.9**	**+3.2**
BUJR				*e*S	**Sn**	**12 17 32.8**	**+4.2**
BUJR				pmax	pmax		
	comp=Z,766nm,0.4s						
SEKA	**Sheki**	**1.58**	**235**	P	**Pn**	**12 17 11.8**	**+0.9**
KRNR	**Karanay**	**1.64**	**296**	*e*P	**Pn**	**12 17 14.7**	**+3.1**
KRNR				*e*S	**Sn**	**12 17 36.3**	**+4.4**
KRNR				pmax	pmax		
	comp=Z,662nm,0.4s						
UNCR	**Uncukul**	**1.67**	**291**	*e*P	**Pn**	**12 17 15.1**	**+3.1**
UNCR				*e*S	**Sn**	**12 17 37.6**	**+5.0**
HNZR	**Khunzah**	**1.68**	**285**	*e*P	**Pn**	**12 17 15.5**	**+3.2**
HNZR				*e*S	**Sn**	**12 17 38.3**	**+5.2**
DBC	**Dubki**	**1.77**	**301**	*e*P	**Pn**	**12 17 16.2**	**+2.8**
DBC				*e*S	**Sn**	**12 17 39.1**	**+4.0**
DBC				pmax	pmax		
	comp=Z,702nm,0.4s						
TLTR	**Tlyarata**	**1.91**	**270**	*e*P	**Pn**	**12 17 17.3**	**+2.1**
TLTR				*e*S	**Sn**	**12 17 41.6**	**+3.2**
TLTR				pmax	pmax		
	comp=Z,431nm,0.4s						
DLMR	**Dylym**	**1.93**	**300**	*e*P	**Pn**	**12 17 19.0**	**+3.6**
DLMR				*e*S	**Sn**	**12 17 44.6**	**+5.9**
MNGR	**Mingechevir, A**	**1.94**	**226**	P	**Pn**	**12 17 18.7**	**+1.2**
LGD	**Lagodekhi**	**2.02**	**262**	P	**Pn**	**12 17 18.4**	**+1.8**
LGD				S	**Sn**	**12 17 46.0**	**+5.2**
LGD	**Lagodekhi**	**2.02**	**262**	P	**Pn**	**12 17 18.4**	**+1.8**
LGD				S	**Sn**	**12 17 46.0**	**+5.2**
BTLR	**Botlikh**	**2.06**	**286**	*i* P	**Pn**	**12 17 20.5**	**+3.3**
BTLR				*e*S	**Sn**	**12 17 46.6**	**+4.6**
VSHL	**Vashlovani**	**2.09**	**245**	P	**Pn**	**12 17 19.3**	**+1.7**
VSHL				S	Sn	12 17 54.7	+12
DDFL	**Dedoflistskaro**	**2.20**	**253**	P	Pn	12 17 26.9	+7.8
DDFL				S	Sn	12 17 59.0	+14
DDFL	**Dedoflistskaro**	**2.20**	**253**	P	Pn	12 17 26.9	+7.8
DVE	**Vedeno**	**2.22**	**293**	*e*P	**Pn**	**12 17 22.8**	**+3.5**
DVE				*e*S	**Sn**	**12 17 50.7**	**+4.9**
GANJ	**Ganja**	**2.45**	**233**	P	**Pn**	**12 17 22.2**	**-0.3**
GROC	**Groznyy**	**2.53**	**296**	*e*P	**Pn**	**12 17 27.4**	**+3.9**
GROC				*e*S	**Sn**	**12 17 58.0**	**+4.7**
SHTL	**Shatili**	**2.83**	**282**	P	**Pn**	**12 17 29.8**	**+2.0**
SHTL				S	**Sn**	**12 18 04.3**	**+3.4**
SHTL	**Shatili**	**2.83**	**282**	P	**Pn**	**12 17 29.8**	**+2.0**
SHTL				S	**Sn**	**12 18 04.3**	**+3.4**
CHRG	**Chargali**	**2.97**	**275**	P	**Pn**	**12 17 31.3**	**+1.7**
SEAG	**Tbilisi Sea**	**3.09**	**264**	P	**Pn**	**12 17 32.3**	**+1.2**
SEAG				S	**Sn**	**12 18 07.3**	**+0.4**
SEAG	**Tbilisi Sea**	**3.09**	**264**	P	**Pn**	**12 17 32.3**	**+1.2**
SEAG				S	**Sn**	**12 18 07.3**	**+0.4**
BTNK	**Botanikuri**	**3.10**	**263**	P	**Pn**	**12 17 32.2**	**+0.9**
KMGR	**Komgaron**	**3.13**	**288**	*e*P	**Pn**	**12 17 34.4**	**+2.7**
KMGR				*e*S	**Sn**	**12 18 11.2**	**+3.3**
TBLG	**Delisi**	**3.14**	**264**	P	**Pn**	**12 17 32.8**	**+0.9**
TBLG				S	**Sn**	**12 18 08.6**	**+0.4**
TBLG	**Delisi**	**3.14**	**264**	P	**Pn**	**12 17 32.8**	**+0.9**
TBLG				S	**Sn**	**12 18 08.6**	**+0.4**
GUDG	**Gudauri**	**3.31**	**277**	P	**Pn**	**12 17 36.6**	**+2.3**
GUDG				S	**Sn**	**12 18 15.8**	**+3.3**
GUDG	**Gudauri**	**3.31**	**277**	P	**Pn**	**12 17 36.6**	**+2.3**
GUDG				S	**Sn**	**12 18 15.8**	**+3.3**
GRMI	**Germi**	**3.42**	**194**	Pn	**Pn**	**12 17 35.5**	**-0.2**
LKRN	**Lenkeran, Azer**	**3.42**	**182**	P	**Pn**	**12 17 34.8**	**-0.9**
BTKR	**Batakoyurt**	**3.45**	**292**	*e*P	**Pn**	**12 17 38.0**	**+2.0**
BTKR				*e*S	**Sn**	**12 18 18.4**	**+2.7**
LACR	**Lac**	**3.48**	**283**	*e*P	**Pn**	**12 17 38.0**	**+1.4**
LACR				*e*S	**Sn**	**12 18 18.5**	**+1.8**
TRLG	**Trialeti**	**3.65**	**262**	P	**Pn**	**12 17 39.3**	**+0.5**
TRLG	**Trialeti**	**3.65**	**262**	P	**Pn**	**12 17 39.3**	**+0.5**
KORR	**Kora**	**3.70**	**286**	*e*P	**Pn**	**12 17 40.9**	**+1.4**
KORR				*e*S	**Sn**	**12 18 22.6**	**+0.7**
GNI	**Garni**	**3.72**	**239**	P	**Pn**	**12 17 37.5**	**-2.4**
	comp=Z,70nm,0.5s,baz=33,slow=4.3,SNR=16						
GNI				S	**Sn**	**12 18 19.4**	**-3.2**
	comp=Z,264nm,0.7s,baz=54,slow=22,SNR=6.4						
GNI	**Garni**	**3.72**	**239**	P	**Pn**	**12 17 41.0**	**+1.0**
GNI	**Garni**	**3.72**	**239**	P	**Pn**	**12 17 41.2**	**+1.3**
GNI				S	**Sn**	**12 18 19.1**	**-3.5**
GNI	**Garni**	**3.72**	**239**	*e*P	**Pn**	**12 17 41.0**	**+1.0**
GNI				*e*S	**Sn**	**12 18 21.0**	**-1.7**
GNI	**Garni**	**3.72**	**239**		**Pn**	**12 17 41.2**	**+1.3**
GNI	**Garni**	**3.72**	**239**	P	**Pn**	**12 17 40.9**	**+1.0**
GNI	**Garni**	**3.72**	**239**	P	**Pn**	**12 17 41.2**	**+1.3**
PRTR	**Priterechnaya**	**3.76**	**297**	*e*P	**Pn**	**12 17 43.5**	**+3.2**
PRTR				*e*S	**Sn**	**12 18 25.5**	**+2.2**
STDR	**Stavd-Durt**	**3.78**	**291**	*e*P	**Pn**	**12 17 42.7**	**+2.2**
STDR				*e*S	**Sn**	**12 18 24.8**	**+1.1**
LSNR	**Lesken**	**3.92**	**289**	*e*P	**Pn**	**12 17 44.3**	**+1.8**
LSNR				*e*S	**Sn**	**12 18 27.4**	**+0.2**
DIGR	**Digorskoe uzhe**	**4.01**	**283**	*e*P	**Pn**	**12 17 44.8**	**+0.9**
DIGR				*e*S	**Sn**	**12 18 32.0**	**+2.2**
IHRS	**Heris**	**4.07**	**201**	Pn	**Pn**	**12 17 45.1**	**+0.4**
AKH	**Akhalkalaki**	**4.12**	**262**	P	**Pn**	**12 17 47.6**	**+2.3**
AKH	**Akhalkalaki**	**4.12**	**262**	P	**Pn**	**12 17 47.6**	**+2.3**
NCK	**Nalchik**	**4.14**	**291**	*i* P	**Pn**	**12 17 45.8**	**+0.3**
IMRD	**Marand**	**4.21**	**217**	Pn	**Pn**	**12 17 47.3**	**+0.7**
KBTC	**Kuba-Taba**	**4.38**	**294**	*e*P	**Pn**	**12 17 50.3**	**+1.6**
KBTC				*e*S	**Sn**	**12 18 37.5**	**-0.9**
TKB	**Tkibuli**	**4.40**	**275**	P	**Pn**	**12 17 50.3**	**+1.3**
TKB	**Tkibuli**	**4.40**	**275**	P	**Pn**	**12 17 50.3**	**+1.3**
ISRB	**Sarab**	**4.41**	**193**	Pn	**Pn**	**12 17 49.6**	**+0.2**
ITBZ	**Tabriz**	**4.44**	**209**	Pn	**Pn**	**12 17 50.0**	**+0.4**
DIGO	**Kars**	**4.51**	**249**	P	**Pn**	**12 17 50.9**	**+0.1**
ISHB	**Shabestar**	**4.60**	**214**	Pn	**Pn**	**12 17 53.2**	**+1.3**
EPOS	**Posof**	**4.67**	**264**	P	**Pn**	**12 17 51.8**	**-1.0**
	comp=Z,90nm,1.1s						
PYA1	**Pyatigorsk**	**4.67**	**296**	*e*P	**Pn**	**12 17 53.4**	**+0.6**
PYA1				*e*S	**Sn**	**12 18 44.2**	**-1.5**
KBZ	**Khabaz**	**4.70**	**292**	P	**Pn**	**12 17 53.0**	**+0.1**
	comp=Z,31nm,0.3s,baz=118,slow=4.3,SNR=129						
KBZ				S	**Sn**	**12 18 43.7**	**-2.4**
	comp=Z,110nm,0.6s,baz=273,slow=5.8,SNR=4.2						
NEUR	**Neytrino**	**4.71**	**286**	*e*P	**Pn**	**12 17 54.0**	**+0.6**
NEUR				*e*S	**Sn**	**12 18 44.4**	**-2.5**
SHA1	**Shidzhatmaz**	**4.86**	**291**	*e*P	**Pn**	**12 17 55.6**	**+0.1**
SHA1				*e*S	**Sn**	**12 18 48.6**	**-2.0**
KVAR	**Kislovodsk Arr**	**4.91**	**294**	S	**Sn**	**12 18 44.2**	**-7.3**
	baz=90,slow=0.0						
KIV	**Kislovodsk**	**4.91**	**294**	*i* P	**Pn**	**12 17 56.5**	**+0.4**
	SNR=50						
KIV	**Kislovodsk**	**4.91**	**294**	P	**Pn**	**12 17 56.3**	**+0.3**
KIV				S	**Sn**	**12 18 48.6**	**-3.0**
KIV	**Kislovodsk**	**4.91**	**294**	*e*P	**Pn**	**12 17 56.3**	**+0.3**
KIV				*e*S	**Sn**	**12 18 49.9**	**-1.7**
KIV	**Kislovodsk**	**4.91**	**294**		**Pn**	**12 17 56.3**	**+0.3**
KIV	**Kislovodsk**	**4.91**	**294**	⇓P	**Pn**	**12 17 56.0**	**-0.1**
KIV	**Kislovodsk**	**4.91**	**294**	P	**Pn**	**12 17 56.6**	**+0.6**
KIV				S	**Sn**	**12 18 51.1**	**-0.5**
KIV				AML	AML		
KIV	**Kislovodsk**	**4.91**	**294**	P	**Pn**	**12 17 56.7**	**+0.6**
	comp=Z,303nm,0.6s						
IHSH	**Hashtrud**	**4.99**	**195**	Pn	**Pn**	**12 17 57.6**	**+0.3**
IAZR	**Azarshahr**	**4.99**	**208**	Pn	**Pn**	**12 17 58.2**	**+0.9**
ZNJK	**Zanjan**	**5.46**	**182**	Pn	**Pn**	**12 18 03.3**	**-0.5**
NVNR	**Nevinnomyssk**	**5.64**	**298**	*e*P	**Pn**	**12 18 06.5**	**+0.6**
HOMI	**Horasan**	**5.69**	**251**	⇓P	**Pn**	**12 18 06.4**	**-0.4**
MZPU	**Pul - Mazandar**	**6.05**	**159**	Pn	**Pn**	**12 18 10.6**	**-1.2**
GRYR	**Gornoye**	**6.05**	**292**	*e*P	**Pn**	**12 18 11.7**	**+0.1**
HAKT	**HAKKARI**	**6.08**	**223**	P	**Pn**	**12 18 15.8**	**+3.6**
	comp=Z,60nm,0.8s						
IPRN	**Peran**	**6.46**	**155**	Pn	**Pn**	**12 18 16.0**	**-1.3**
LABN	**Labinsk**	**6.47**	**296**	*e*P	**Pn**	**12 18 19.2**	**+1.9**
LABN				*e*S	**Sn**	**12 19 33.4**	**+3.8**
LABN				pmax	pmax		
	comp=Z,40nm,0.7s						
RPOR	**Krasnaya Polya**	**6.54**	**287**	*i* P	**Pn**	**12 18 22.0**	**+3.8**
VSLR	**Vesyoloye**	**6.67**	**284**	*e*P	Pn	12 18 26.8	+6.9
KOPT	**Kop Dagi**	**6.70**	**254**		**Pn**	**12 18 23.6**	**+2.8**
GUZR	**Guzeripl'**	**6.71**	**289**	*i* P	**Pn**	**12 18 23.9**	**+3.4**
IGLO	**Ghaloghah**	**6.79**	**144**	Pn	**Pn**	**12 18 20.3**	**-1.7**
SOC	**Sochi**	**6.91**	**285**	*e*P	Pn	12 18 29.3	+6.0
SOC				*e*		12 19 45.7	
SOC				pmax	pmax		
	comp=Z,56nm,0.6s						
SOC				MLR	MLR		
	comp=Z,39nm,8.0s						
ERBR	**Yeremizino-Bor**	**7.06**	**303**	*e*P	**Pn**	**12 18 26.3**	**+1.0**
ERBR				*e*S	**Sn**	**12 19 45.9**	**+1.9**
ERBR				pmax	pmax		
	comp=Z,25nm,0.6s						
MRVT	**Maraveh tapeh**	**7.10**	**127**	Pn	**Pn**	**12 18 24.5**	**-1.5**
IFIR	**Firoozkooh**	**7.14**	**154**	Pn	**Pn**	**12 18 26.2**	**-0.6**
KELT	**Kelkit**	**7.56**	**258**	P	**Pn**	**12 18 29.5**	**-2.8**
	comp=Z,39nm,1.2s						
SHRO	**Shahrood**	**8.25**	**136**	Pn	**Pn**	**12 18 40.5**	**-1.2**
KEMA	**Kemaliye**	**8.42**	**254**	P	**Pn**	**12 18 47.2**	**+3.3**
	comp=Z,40nm,1.0s						
BELG	**Belogornoye**	**10.30**	**356**	P	**Pn**	**12 19 09.3**	**-0.1**
	comp=Z,122nm,0.4s,baz=186,slow=19,SNR=48						
BELG				S	**Sn**	**12 20 55.9**	**-7.2**
	comp=Z,189nm,0.6s,baz=52,slow=22,SNR=16						
VRH	**Novokhopyorsk**	**10.32**	**334**	*e*P	**Pn**	**12 19 09.0**	**-0.8**
VRH				*e*S	**Sn**	**12 20 59.0**	**-4.7**
VRH				pmax	pmax		
	comp=Z,30nm,0.5s						
AKTO	**Aktyubinsk**	**10.41**	**34**	P	**Pn**	**12 19 11.2**	**+0.1**
	comp=Z,16nm,0.3s,baz=202,slow=9.9,SNR=47						
AKTO				S	**Sn**	**12 21 00.7**	**-5.2**
	comp=Z,66nm,0.4s,baz=210,slow=24,SNR=12						
AKTO				LR	LR	12 23 51.3	
	comp=Z,91nm,18.5s,baz=100,slow=41						
AKTO	**Aktyubinsk**	**10.41**	**34**	⇓P	**Pn**	**12 19 11.6**	**+0.6**
	comp=Z,7.9nm,0.5s						
AKTO				⇓S	**Sn**	**12 21 01.2**	**-4.7**
	comp=Z,44nm,0.4s						
AKTO	**Aktyubinsk**	**10.41**	**34**	P	**Pn**	**12 19 11.6**	**+0.6**
AKTO				S	**Sn**	**12 21 01.2**	**-4.7**
AB31	**Akbulak array**	**10.49**	**44**	P	**Pn**	**12 19 12.0**	**-0.1**
	comp=Z,2.0nm,0.2s,baz=234,slow=12,SNR=150						
AB31				⇓S	**Sn**	**12 21 04.0**	**-3.8**
	comp=Z,52nm,0.5s,baz=225,slow=22,SNR=6.3						
AB31	**Akbulak array**	**10.49**	**44**	P	**Pn**	**12 19 12.0**	**-0.1**
AB31				S	**Sn**	**12 21 04.5**	**-3.3**
AB31	**Akbulak array**	**10.49**	**44**		**Pn**	**12 19 12.1**	**-0.1**
ABKAR	**Akbulak array**	**10.49**	**44**		**Pn**	**12 19 12.2**	**+0.1**
VORD	**Divnogorie**	**11.03**	**326**	*e*P	**Pn**	**12 19 18.0**	**-1.4**
VORD				*e*S	**Sn**	**12 21 27.6**	**+6.6**
VORD				pmax	pmax		
	comp=Z,20nm,0.6s						
VSR	**Storozhevoye**	**11.27**	**327**	*e*P	**Pn**	**12 19 21.7**	**-1.0**
VSR				S	**Sn**	**12 21 20.2**	**-6.7**
VSR				pmax	pmax		
	comp=Z,17nm,1.1s						
ILGA	**Ilgaz**	**11.44**	**270**		**Pn**	**12 19 28.9**	**+3.7**
VORR	**Voronezh**	**11.61**	**329**	*e*P	**Pn**	**12 19 25.5**	**-1.8**
VORR				S	**Sn**	**12 21 27.1**	**-8.0**
VORR				pmax	pmax		
	comp=Z,38nm,0.8s						
KIRS	**Kirsehir-Merke**	**11.78**	**260**	⇑P	**Pn**	**12 19 30.1**	**+0.2**
BR131	**Keskin Array S**	**11.80**	**263**	P	**Pn**	**12 19 31.1**	**+0.8**
BR131	**Keskin Array S**	**11.80**	**263**	*i* P	**Pn**	**12 19 33.7**	**+3.4**
BR131	**Keskin Array S**	**11.80**	**263**		**Pn**	**12 19 33.6**	**+3.4**
BRTR	**Keskin Array B**	**11.80**	**263**	P	**Pn**	**12 19 30.0**	**-0.3**
	comp=Z,4.2nm,0.6s,baz=81,slow=12,SNR=25						
BRTR	**Keskin Array B**	**11.80**	**263**	P	**Pn**	**12 19 34.1**	**+3.9**
BRTR	**Keskin Array B**	**11.80**	**263**		**Pn**	**12 19 34.1**	**+3.9**
BR106	**Keskin Array S**	**11.82**	**263**	P	**Pn**	**12 19 34.0**	**+3.6**
BR105	**Keskin Array S**	**11.82**	**263**	P	**Pn**	**12 19 34.1**	**+3.6**
LPSR	**Galich'ya Gora**	**12.45**	**331**	*e*P	**Pn**	**12 19 37.2**	**-1.6**
LPSR				*e*S	**Sn**	**12 21 48.6**	**-7.0**
LPSR				pmax	pmax		
	comp=Z,100nm,0.8s						
KBD	**Kabd**	**12.97**	**185**	P	**Pn**	**12 19 44.6**	**-1.4**
ASF	**Jabal al Asfar**	**13.82**	**228**	LR	LR	12 26 19.6	
	comp=Z,68nm,18.1s,baz=32,slow=42						
CSS	**Mathiatis**	**14.13**	**245**		**P**	**12 20 06.5**	**-0.3**
CSS	**Mathiatis**	**14.13**	**245**	P	**P**	**12 20 05.6**	**-1.3**
	comp=Z,37nm,1.0s						
TLCR		**14.86**	**289**	P	**Pn**	**12 20 10.2**	**-0.6**
TLCR		**14.86**	**289**	⇓P	**Pn**	**12 20 10.2**	**-0.6**
TIRR	**Tirgusor**	**15.11**	**286**	P	**P**	**12 20 15.9**	**-1.7**
TIRR				pmax	pmax		
	comp=Z,25nm,0.8s						
TIRR	**Tirgusor**	**15.11**	**286**	P	**P**	**12 20 15.9**	**-1.7**
TIRR				IAmb	IAmb	12 20 18.1	
	comp=Z,25nm,0.8s						
TIRR	**Tirgusor**	**15.11**	**286**	⇓P	**Pn**	**12 20 14.9**	**+1.0**
TIRR	**Tirgusor**	**15.11**	**286**	P	**P**	**12 20 17.1**	**-0.5**
TIRR	**Tirgusor**	**15.11**	**286**	P	**P**	**12 20 16.1**	**-1.5**
	comp=Z,38nm,0.8s						
TPGR	**Topolog**	**15.12**	**287**	⇑P	**Pn**	**12 20 13.9**	**-0.2**
OBN	**Obninsk**	**15.30**	**332**	P	**Pn**	**12 20 15.7**	**-0.6**
	comp=Z,26nm,0.3s,baz=115,slow=11,SNR=7.8						
OBN	**Obninsk**	**15.30**	**332**	*de*P	**Pn**	**12 20 14.6**	**-1.8**
OBN				*e*S	**Sn**	**12 23 07.1**	**+2.3**
OBN				pmax	pmax		
	comp=Z,44nm,0.7s						
OBN				MLR	MLR		
	comp=Z,481nm,6.0s						
OBN	**Obninsk**	**15.30**	**332**	Pn	**Pn**	**12 20 16.2**	**-0.2**
OBN	**Obninsk**	**15.30**	**332**	⇑P	**Pn**	**12 20 13.8**	**-2.6**
CFR	**Carcaliu**	**15.34**	**288**	P	**Pn**	**12 20 16.3**	**-0.6**
CFR	**Carcaliu**	**15.34**	**288**	⇓P	**Pn**	**12 20 16.3**	**-0.6**
TLBR	**Topalu**	**15.37**	**286**	⇓P	**Pn**	**12 20 17.2**	**-0.1**
HARR	**Harsova**	**15.46**	**287**	P	**Pn**	**12 20 18.2**	**-0.2**
HARR	**Harsova**	**15.46**	**287**	⇓P	**Pn**	**12 20 18.3**	**-0.2**
MOS	**Moscow**	**15.47**	**335**	*e*P	**Pn**	**12 20 16.9**	**-1.6**
MOS				*e*S	**Sn**	**12 23 03.6**	**-5.2**
ARTI	**Arti**	**15.52**	**20**	P	**Pn**	**12 20 17.3**	**-1.9**
	comp=Z,29nm,0.4s,baz=202,slow=8.7,SNR=37						
ARTI				S	Sn	12 22 58.4	-12
	comp=Z,26nm,0.5s,baz=246,slow=20,SNR=8.5						
ARTI				LR	LR	12 27 39.9	
	comp=Z,36nm,18.1s,baz=218,slow=42						
ARTI	**Arti**	**15.52**	**20**	P	**Pn**	**12 20 17.0**	**-2.2**
ARTI				S	**Sn**	**12 23 06.7**	**-3.4**
ARTI	**Arti**	**15.52**	**20**	Pn	**Pn**	**12 20 17.1**	**-2.0**
ICOR	**Ion Corvin**	**15.54**	**284**	⇑P	**Pn**	**12 20 19.4**	**0.0**
ELL	**Elmali**	**15.63**	**256**	P	**P**	**12 20 23.5**	**-0.1**
ELL				pmax	pmax		
	comp=Z,48nm,0.7s						
ELL	**Elmali**	**15.63**	**256**		**P**	**12 20 23.5**	**-0.1**
SORM	**Soroca**	**15.68**	**299**	P	**Pn**	**12 20 21.9**	**+0.7**
KK31	**Karatay Array**	**15.93**	**79**	⇑P	**Pn**	**12 20 23.9**	**-0.5**
	comp=Z,8.5nm,0.5s,baz=273,slow=14,SNR=58						
KK31				S	Sn	12 23 11.2	-8.9
	comp=Z,14nm,0.5s,baz=271,slow=24,SNR=11						
KK31	**Karatay Array**	**15.93**	**79**	*i* P	**Pn**	**12 20 23.9**	**-0.5**
KK31				S	Sn	12 23 11.2	-8.9
KK31	**Karatay Array**	**15.93**	**79**	Pn	**Pn**	**12 20 23.6**	**-0.9**
KKAR	**Karatay Array**	**15.93**	**79**	P	**Pn**	**12 20 23.9**	**-0.5**
KKAR	**Karatay Array**	**15.93**	**79**	Pn	**Pn**	**12 20 23.9**	**-0.5**
AK09	**Malin Array Si**	**15.95**	**309**	P	**Pn**	**12 20 23.8**	**-0.7**
AK10	**Malin Array Si**	**15.96**	**309**	P	**Pn**	**12 20 23.8**	**-0.9**
AK07	**Malin Array Si**	**15.96**	**309**	P	**Pn**	**12 20 24.2**	**-0.6**
AK06	**Malin Array Si**	**15.98**	**309**	pP	pP	12 20 38.1	-3.4
AK05	**Malin Array Si**	**15.99**	**309**	P	**Pn**	**12 20 24.3**	**-0.8**
AK02	**Malin Array Si**	**16.01**	**309**	P	**Pn**	**12 20 24.7**	**-0.6**
AKASG	**Malin Array Be**	**16.02**	**309**	P	**Pn**	**12 20 23.5**	**-1.9**
	comp=Z,9.6nm,0.4s,baz=103,slow=8.8,SNR=34						
AKASG				S	**Sn**	**12 23 14.6**	**-7.5**
	comp=Z,2.3nm,0.6s,baz=116,slow=25,SNR=2.7						
AKBB	**Malin Array Si**	**16.02**	**309**	*e*P	**Pn**	**12 20 24.7**	**-0.7**
AK01	**Malin Array Si**	**16.02**	**309**	P	**Pn**	**12 20 25.0**	**-0.5**
KIEV	**Kiev**	**16.02**	**309**	*i* P	**Pn**	**12 20 24.9**	**-0.6**
	SNR=16						
KIEV	**Kiev**	**16.02**	**309**	P	**Pn**	**12 20 24.9**	**-0.6**
KIEV	**Kiev**	**16.02**	**309**	P	**Pn**	**12 20 24.7**	**-0.8**
KIEV				IAmb	IAmb	12 20 28.0	
	comp=Z,41nm,0.9s						
KIEV	**Kiev**	**16.02**	**309**	⇓P	**Pn**	**12 20 25.0**	**-0.6**
KIEV	**Kiev**	**16.02**	**309**	P	**Pn**	**12 20 24.9**	**-0.6**
	comp=Z,53nm,0.9s						
AK13	**Malin Array Si**	**16.07**	**309**	P	**Pn**	**12 20 24.9**	**-1.3**
AK18	**Malin Array Si**	**16.11**	**309**	P	**Pn**	**12 20 25.3**	**-1.4**
AK21	**Malin Array Si**	**16.15**	**309**	P	**Pn**	**12 20 25.8**	**-1.3**
PRNI	**Paran**	**16.23**	**228**	P	**P**	**12 20 31.0**	**+0.8**
	comp=Z,40nm,0.9s						
BISRR	**Bisoca**	**16.37**	**290**	⇓P	**Pn**	**12 20 30.5**	**+0.6**
VRI	**Vrincioaia**	**16.38**	**291**	P	**Pn**	**12 20 29.6**	**-0.5**
VRI	**Vrincioaia**	**16.38**	**291**	⇑P	**Pn**	**12 20 29.6**	**-0.5**
VRI	**Vrincioaia**	**16.38**	**291**	P	**Pn**	**12 20 30.5**	**+0.4**
	comp=Z,16nm,1.0s						
SAHR	**Sahastru**	**16.40**	**290**	⇑P	**Pn**	**12 20 30.7**	**+0.4**
PLOR	**Plostina**	**16.43**	**291**	P	**Pn**	**12 20 30.9**	**+0.2**
PLOR	**Plostina**	**16.43**	**291**	⇑P	**Pn**	**12 20 31.0**	**+0.2**
HRFI	**Mount Harif**	**16.45**	**227**	P	**P**	**12 20 33.6**	**+0.9**
	comp=Z,11nm,1.2s						
ISR	**Istrita**	**16.46**	**288**	P	**Pn**	**12 20 31.6**	**+0.5**
ISR	**Istrita**	**16.46**	**288**	⇑P	**Pn**	**12 20 31.6**	**+0.5**
KIRV	**Kirov**	**16.47**	**1**	P	**Pn**	**12 20 29.8**	**-1.3**
	comp=Z,88nm,0.6s,baz=168,slow=3.9,SNR=20						
KIRV				S	Sn	12 23 20.7	-12
	comp=Z,26nm,0.6s,baz=197,slow=19,SNR=3.3						
KIRV				LR	LR	12 27 58.0	
	comp=Z,106nm,18.6s,baz=199,slow=41						
KIRV	**Kirov**	**16.47**	**1**	*ce*P	**Pn**	**12 20 29.3**	**-1.7**
TESR	**Tescani**	**16.51**	**293**	⇑P	**Pn**	**12 20 30.8**	**-0.9**
TESR	**Tescani**

ASHO Ashiyiah 18.39 159 *i* P P 12 20 54.0 0.0
SNR=13
ASHO Ashiyiah 18.39 159 P P 12 20 54.0 0.0
SNR=7.6
GHWR Ruwais 18.42 168 P Pn 12 20 56.3 +1.1
LOT Lotru 18.43 289 ⇓P Pn 12 20 54.8 -0.5
LOT Lotru 18.43 289 P Pn 12 20 54.8 -0.5
comp=Z,14nm,0.8s
MNK Minsk 18.58 319 *i* P P 12 20 55.3 -0.6
MNK *i* S S 12 24 21.4 -2.0
MNK pmax pmax
comp=Z,37nm,0.8s
MNK pmax pmax
comp=N,28nm,0.7s
MNK pmax pmax
comp=E,24nm,0.7s
MNK Minsk 18.58 319 *i* P P 12 20 55.3 -0.6
comp=E,24nm,0.7s
MNK *i* P P 12 20 55.3 -0.6
comp=N,28nm,0.7s
MNK *i* P P 12 20 55.3 -0.6
comp=Z,37nm,0.8s,baz=122
MNK *i* pP pP 12 21 05.5 -4.8
MNK *i* PP PnPn 12 21 08.5 -2.3
MNK *i* sP sP 12 21 11.5 -7.6
MNK *i* S S 12 24 21.5 -2.0
MNK *i* sS Sn 12 24 34.8 +11
MNK *i* SS SnSn 12 24 37.2 -1.6
MNK *i* LQ LQ 12 26 12.8
MNK *i* LR LR 12 27 53.5
RAYN Ar Rayn 18.78 190 P P 12 20 57.9 -0.5
RAYN Ar Rayn 18.78 190 P P 12 20 58.1 -0.2
RAYN pmax pmax
comp=Z,5.0nm,0.6s
RAYN Ar Rayn 18.78 190 P 12 20 58.1 -0.2
MZWR Madinat Zayed 18.79 166 P Pn 12 21 00.6 +1.1
USP Ospenovka 18.82 78 P Pn 12 21 01.3 +1.4
SNR=7.9
AAK Ala-Archa 18.89 80 P P 12 21 00.9 +1.4
comp=Z,43nm,1.4s,baz=257,slow=9.7,SNR=19
AAK S S 12 24 27.7 -2.7
comp=Z,3.6nm,0.8s,baz=21,slow=2.8,SNR=2.0
AAK LR LR 12 28 38.5
comp=Z,93nm,20.1s,baz=290,slow=38
AAK Ala-Archa 18.89 80 P Pn 12 21 02.8 +2.0
SNR=16
AAK Ala-Archa 18.89 80 ⇑P Pn 12 21 01.6 +0.8
comp=Z,157nm,1.2s
AAK Ala-Archa 18.89 80 P Pn 12 21 02.4 +1.6
AAK Ala-Archa 18.89 80 P Pn 12 21 01.8 +0.9
AAK Ala-Archa 18.89 80 P Pn 12 21 01.6 +0.8
AAK S S 12 24 26.6 -3.8
AAK Ala-Archa 18.89 80 P P 12 21 01.1 +1.5
AAK Ala-Archa 18.89 80 P Pn 12 21 01.8 +0.9
comp=Z,20nm,1.2s
ALNE Al Ain 18.91 160 P P 12 21 00.3 +0.6
SRS Serrai 18.94 275 P Pn 12 21 00.9 -0.4
comp=Z,13nm,0.6s
UCH Uchtor 18.95 81 P P 12 21 02.6 +2.0
SNR=8.1
SOHO SOHO 19.04 158 *i* P P 12 21 02.3 +1.2
SNR=7.9
SOHO SOHO 19.04 158 P Pn 12 21 02.6 +0.1
SNR=6.0
SOH Sokhos 19.18 275 P Pn 12 21 04.0 -0.2
comp=Z,14nm,0.8s
KBK Karagaybulak 19.21 80 P 12 21 08.2 +3.5
SNR=8.1
DRGR 19.23 293 P P 12 21 03.2 0.0
DRGR 19.23 293 ⇑P P 12 21 03.2 0.0
DRGR 19.23 293 P P 12 21 03.7 +0.5
comp=Z,16nm,0.7s
BLKB Belogradchik 19.26 283 ⇑P P 12 21 03.8 +0.3
NACGM Naroch 19.34 319 *eP* P 12 21 04.5 +0.4
KNT Kendrikon 19.45 276 P P 12 21 05.9 +0.4
comp=Z,9.5nm,0.9s
TRPA Tarpa 19.50 297 P Pn 12 21 07.3 -0.5
comp=Z,13nm,0.7s
SURR Surduc 19.59 290 ⇓P P 12 21 07.1 +0.1
KLMR Klimovskoe 19.60 346 *eP* Pn 12 21 09.4 +0.6
KLMR 12 24 47.6
KLMR pmax pmax
comp=Z,73nm,1.2s
KWP Kalwaria Pacla 19.65 301 *eP* P 12 21 08.0 +0.3
HOQ Hoqain 19.78 157 P P 12 21 09.6 +0.3
ARQ Araqi 19.79 159 P P 12 21 10.8 +1.4
SNR=6.6
KOLS Kolonicke sedl 19.80 299 *eP* Pn 12 21 10.4 -1.0
KOLS pmax pmax
comp=Z,1.0nm,0.3s
KOLS Kolonicke sedl 19.80 299 *eP* Pn 12 21 10.4 -1.0
KOLS Kolonicke sedl 19.80 299 P Pn 12 21 11.2 -0.1
comp=Z,18nm,0.6s
GRG Griva 19.86 276 P P 12 21 10.2 +0.2
comp=Z,16nm,0.7s
MDVR Moldovita 19.89 287 ⇓P P 12 21 09.6 -0.7
IDI Anoyia 19.92 258 P P 12 21 09.1 -1.6
comp=Z,14nm,0.4s,baz=47,slow=13,SNR=20
IDI Anoyia 19.92 258 IAmb IAmb 12 21 46.7
comp=Z,48nm,1.4s
SIRR Siria 19.93 291 ⇓P P 12 21 10.9 +0.2
BZS Buzias 19.95 289 P P 12 21 09.9 -0.9
BZS Buzias 19.95 289 ⇓P P 12 21 10.0 -0.9
BZS Buzias 19.95 289 P P 12 21 10.6 -0.3
comp=Z,15nm,0.8s
BOVS Bovan 19.96 284 ⇓P P 12 21 11.8 +0.7
ISAL Salakas 20.01 320 *eP* P 12 21 11.4 -0.1
UMZA Um Al Zommool 20.06 163 P P 12 21 12.5 +0.3
ULHL Ulahol 20.22 80 P Pn 12 21 17.4 +0.8
SNR=6.1
AGG Agios Georgios 20.40 270 P P 12 21 15.7 -0.2
comp=Z,11nm,1.3s
KSH2 Kashi 20.42 89 P P 12 21 18.0 +1.8
KSH2 pP pP 12 21 31.4 +0.9
KSH2 S S 12 24 54.2 -6.7
KSH2 pmax pmax
comp=Z,13nm,0.7s
SMDO Samad 20.50 155 P P 12 21 19.0 +1.9
SNR=6.8
WSAR Wadi Sarin 20.52 154 P P 12 21 17.7 +0.6
BSY Bisya 20.54 158 P P 12 21 18.5 +1.0
ASAI AK-SAY(Kyrgyzs 20.67 84 P P 12 21 21.1 +1.9
comp=Z,15nm,1.2s
GVD Gavdhos 20.71 258 P P 12 21 19.7 +0.5
comp=Z,97nm,0.9s
SUW Suwalki 20.77 314 *eP* P 12 21 19.5 -0.1
SUW Suwalki 20.77 314 P P 12 21 19.1 -0.5
SUW Suwalki 20.77 314 P P 12 21 19.1 -0.5
SUW Suwalki 20.77 314 *eP* P 12 21 18.9 -0.7
NIL Nilore 20.94 106 P P 12 21 22.8 +1.1
NIL pmax pmax
comp=Z,18nm,0.8s
NIL Nilore 20.94 106 P 12 21 22.8 +1.1
NIL IAmb IAmb 12 21 27.6
comp=Z,18nm,0.8s
NIL Nilore 20.94 106 P P 12 21 22.9 +1.1
comp=Z,30nm,1.0s
PABE Paberze 21.03 318 *eP* P 12 21 21.8 -0.6
PABE Paberze 21.03 318 P P 12 21 22.7 +0.2
comp=Z,74nm,1.1s
NIE Niedzica 21.16 300 *eP* P 12 21 27.1 +3.2
PHP Peshkopia 21.16 278 P P 12 21 24.8 +0.8
comp=Z,27nm,0.6s
JMDO Jabal Madar 21.16 156 P P 12 21 25.0 +0.9
WBK Wadi Bani Khal 21.21 154 P P 12 21 25.8 +1.1
FRGS Fruska Gora 21.23 288 P P 12 21 25.1 +0.4
comp=Z,23nm,0.7s
PSZ Piszkesteto 21.23 296 P P 12 21 24.5 -0.3
PSZ pmax pmax
comp=Z,17nm,1.1s
PSZ Piszkesteto 21.23 296 P P 12 21 24.5 -0.3
PSZ Piszkesteto 21.23 296 *eP* P 12 21 24.5 -0.3
PSZ Piszkesteto 21.23 296 ⇑P P 12 21 24.7 -0.1
PSZ Piszkesteto 21.23 296 P P 12 21 25.2 +0.4
comp=Z,15nm,0.9s
ITM Ithomi 21.32 266 P P 12 21 23.5 -2.2
ITM IAmb IAmb 12 21 32.7
comp=Z,10nm,0.6s
BEL Belsk 21.38 307 *eP* P 12 21 25.6 -0.5
TARG Taragay, Kyrgy 21.46 81 P P 12 21 29.2 +1.6
TARG pmax pmax
comp=Z,9.0nm,0.6s
TARG Taragay, Kyrgy 21.46 81 P 12 21 29.1 +1.6
TARG IAmb IAmb 12 21 51.4
comp=Z,8.6nm,0.6s

VSU Vasula 21.46 327 *eP* P 12 21 26.1 -0.9
VSU Vasula 21.46 327 P P 12 21 25.7 -1.3
comp=Z,63nm,1.0s
BBLS Lazi&#263i 21.60 285 P P 12 21 28.5 -0.3
comp=Z,17nm,0.8s
OJC Ojcow 21.61 302 *eP* P 12 21 30.3 +1.6
OJC Ojcow 21.61 302 P P 12 21 29.5 +0.7
OJC Ojcow 21.61 302 P P 12 21 29.4 +0.7
OJC Ojcow 21.61 302 P P 12 21 31.1 +2.4
OJC Ojcow 21.61 302 P P 12 21 30.9 +2.1
comp=Z,16nm,1.1s
JLN Jalan Bani Buh 21.79 153 P P 12 21 31.4 +0.6
SRN Sarande 21.89 274 P P 12 21 32.9 +1.1
comp=Z,28nm,0.9s
PDG Podgorica 21.90 281 P P 12 21 33.5 +1.7
comp=Z,53nm,0.7s
KURBB Kurchatov Arra 22.00 57 P P 12 21 34.6 +1.7
comp=Z,3.4nm,0.6s,baz=259,slow=10,SNR=24
KURBB S S 12 25 30.6 -0.9
comp=Z,2.2nm,0.8s,baz=252,slow=14,SNR=5.6
KURBB LR LR 12 30 31.2
comp=Z,92nm,20.6s,baz=170,slow=37
comp=Z,3.4nm,0.6s
KURBB Kurchatov Arra 22.00 57 ⇑P P 12 21 36.0 +3.1
comp=Z,14nm,0.6s
KURBB Kurchatov Arra 22.00 57 P P 12 21 36.4 +3.5
MORH Mrgy, Hungar 22.02 291 ⇓P P 12 21 33.4 +0.3
MORH Mrgy, Hungar 22.02 291 P P 12 21 33.4 +0.3
comp=Z,7.9nm,1.2s
KURK Kurchatov 22.08 57 P P 12 21 33.3 -0.4
KURK Kurchatov 22.08 57 *ceP* P 12 21 36.1 +2.4
KURK pmax pmax
comp=Z,16nm,1.3s
KURK Kurchatov 22.08 57 P P 12 21 35.3 +1.6
KURK IAmb IAmb 12 21 55.2
comp=Z,16nm,0.7s
KURK Kurchatov 22.08 57 P P 12 21 36.0 +2.2
comp=Z,27nm,1.5s
KEK Kerkira 22.09 273 P P 12 21 32.3 -1.7
comp=Z,62nm,0.8s
ARBE Arbavere 22.39 328 *eP* P 12 21 37.9 +1.0
MHTO MHTO 22.43 157 P P 12 21 38.4 +0.7
SNR=7.0
PDGK Podgornoye 22.43 77 P P 12 21 39.7 +1.9
PDGK Podgornoye 22.43 77 P P 12 21 39.7 +1.9
JAVC Velka Javorina 22.80 298 *eP* P 12 21 39.7 -1.8
MTSE Matsula 22.83 325 *eP* P 12 21 42.8 +1.3
MORC Moravsky Berou 22.98 300 P P 12 21 42.6 -0.7
MORC Moravsky Berou 22.98 300 *eP* P 12 21 42.2 -1.1
MORC Moravsky Berou 22.98 300 ⇓P P 12 21 42.7 -0.7
MORC Moravsky Berou 22.98 300 P P 12 21 43.0 -0.3
comp=Z,6.0nm,1.3s
MODS Modra-Piesok 23.02 297 *eP* P 12 21 45.3 +1.6
MODS pmax pmax
comp=Z,43nm,1.5s
MODS Modra-Piesok 23.02 297 *eP* P 12 21 45.3 +1.6
JOF Joensuu 23.25 339 *eP* P 12 21 45.5 -0.2
DQM DQM 23.31 159 P P 12 21 46.5 -0.1
MEF Metsahovi 23.51 329 *eP* P 12 21 48.0 -0.1
VRAC Vranov 23.54 299 *eP* P 12 21 48.6 0.0
RONA Rosalia, Austr 23.64 295 *eP* P 12 21 50.3 +0.7
comp=Z,1.7nm,0.4s
KRUC Moravsky 23.65 298 *eP* P 12 21 50.3 +0.8
FIA1 FINESS Array S 23.71 332 P P 12 21 50.5 +0.6
FINES FINESS Array B 23.71 332 P P 12 21 49.9 0.0
comp=Z,3.9nm,0.3s,baz=136,slow=11,SNR=31
FINES S S 12 25 56.5 -3.0
comp=Z,5.6nm,0.7s,baz=122,slow=13,SNR=1.7
comp=Z,3.9nm,0.3s
FINES FINESS Array B 23.71 332 P P 12 21 50.0 0.0
KIJV Kijevo 23.74 286 P P 12 21 48.1 -2.3
comp=Z,40nm,0.8s
WINA Alland / Wiene 23.81 296 *i* P P 12 21 51.2 +0.2
comp=Z,2.8nm,0.4s
DPC Dobruska-Polom 23.84 301 *eP* P 12 21 59.2 +8.0
DOK Doka 23.86 168 P P 12 21 52.0 +0.4
MAKZ Makanchi 23.94 67 P P 12 21 53.8 +1.6
MAKZ pmax pmax
comp=Z,11nm,0.8s
MAKZ Makanchi 23.94 67 P 12 21 53.8 +1.6
MAKZ IAmb IAmb 12 22 18.4
comp=Z,11nm,0.8s
MAKZ Makanchi 23.94 67 P P 12 21 54.0 +1.8
comp=Z,15nm,0.7s
CONA Conrad Observa 23.94 295 *eP* P 12 21 52.2 -0.1
comp=Z,2.4nm,0.7s
MATE Matera 24.14 277 *eP* P 12 21 49.8 -4.1
MATE Matera 24.14 277 ⇑P P 12 21 53.0 -0.9
MATE Matera 24.14 277 P P 12 21 53.0 -0.9
comp=Z,41nm,0.8s
MK31 Makanchi Array 24.16 67 P P 12 21 55.0 +0.9
comp=Z,5.5nm,0.7s,baz=259,slow=7.2,SNR=46
MK31 Makanchi Array 24.16 67 *ceP* P 12 21 56.0 +1.9
MKAR Makanchi Array 24.16 67 P P 12 21 56.0 +1.9
comp=Z,5.0nm,0.6s,baz=271,slow=8.5,SNR=58
MKAR S S 12 26 11.6 +4.4
comp=Z,0.4nm,0.6s,baz=282,slow=15,SNR=1.2
MKAR LR LR 12 32 22.7
comp=Z,45nm,18.6s,baz=276,slow=39
comp=Z,5.0nm,0.6s
MKAR Makanchi Array 24.16 67 P 12 21 55.7 +1.5
ARSA Arzberg 24.16 294 *i* P P 12 21 54.5 +0.3
comp=Z,4.0nm,0.8s
ABNA Allensteig Bun 24.26 297 *eP* P 12 21 55.2 +0.2
comp=Z,5.3nm,0.9s
TREC Trest 24.27 299 P P 12 21 53.0 -2.1
comp=Z,187nm,0.5s
WHFO Wadi Hawf 24.49 169 P P 12 21 57.7 +0.3
TIP Timpagrande 24.50 274 P 12 21 56.4 -0.9
TIP Timpagrande 24.50 274 ⇓P P 12 21 56.4 -0.9
TIP Timpagrande 24.50 274 P P 12 21 55.8 -1.5
comp=Z,6.7nm,0.7s
SOKA Soboth 24.51 292 *i* P P 12 21 57.5 +0.1
comp=Z,17nm,1.1s
SUF Sumiainen 24.60 335 *eP* P 12 21 58.6 +0.7
KEF Keuruu 24.63 333 *eP* P 12 21 57.9 -0.3
SHAO Shalim 24.71 165 P P 12 21 59.4 +0.1
SESA Seetaler Alpe, 24.82 293 *i* P P 12 22 00.9 +0.6
comp=Z,25nm,0.5s
OBKA Obir 24.85 292 *eP* P 12 22 00.8 +0.3
comp=Z,4.6nm,0.5s
OBKA Obir 24.85 292 P P 12 22 01.0 +0.5
comp=Z,10nm,1.0s
DMTO DMTO 24.88 166 P P 12 22 01.5 +0.6
MARCO Tramutola 24.89 277 P P 12 22 00.8 -0.1
comp=Z,30nm,0.9s
CUC Castrocucco 24.96 276 P 12 22 00.8 -0.8
CUC IAmb IAmb 12 22 03.5
comp=Z,15nm,0.8s
CUC Castrocucco 24.96 276 P P 12 22 01.6 0.0
comp=Z,21nm,0.8s
RBK Rabkut 24.96 168 P P 12 22 02.9 +1.2
ABTO Aybut 24.98 170 P P 12 22 02.2 +0.3
CKRC Cesky Krumlov 25.01 297 *eP* P 12 22 01.4 -0.5
CKRC Cesky Krumlov 25.01 297 *eP* P 12 22 01.4 -0.5
MOA Molln 25.02 295 *eP* P 12 22 02.6 +0.7
comp=Z,4.8nm,0.5s
RAF Rauma 25.03 328 *eP* P 12 22 02.9 +1.1
GEC2 GERESS Array S 25.41 297 P P 12 22 05.3 -0.3
comp=Z,7.9nm,1.8s
GERES GERESS Array B 25.41 297 P P 12 22 05.5 -0.2
comp=Z,2.8nm,0.4s,baz=102,slow=9.8,SNR=16
GERES LR LR 12 32 47.9
comp=Z,90nm,18.4s,baz=38,slow=38
comp=Z,2.8nm,0.4s
CEL Celeste 25.43 272 P P 12 22 04.3 -1.5
comp=Z,12nm,0.7s
BIOA Bad Ischl, Aus 25.44 295 *i* P P 12 22 07.2 +1.4
comp=Z,3.1nm,0.3s
TRI Trieste 25.44 290 IAmb IAmb 12 22 07.7
comp=Z,12nm,0.7s
DRE Drenchia 25.49 291 P P 12 22 06.0 -0.3
comp=Z,18nm,0.7s
KHC Kasperske Hory 25.50 298 *ceP* P 12 22 08.4 +2.1
KHC pmax pmax
comp=Z,3.0nm,0.7s
KHC Kasperske Hory 25.50 298 *eP* P 12 22 08.5 +2.1
SABO M.te Sabotino 25.54 291 IAmb IAmb 12 22 08.9
comp=Z,16nm,0.5s
BLEU Blekinge 25.54 315 *i* P P 12 22 07.0 +0.4
KBA Koelnbreinsper 25.65 293 *eP* P 12 22 07.8 -0.1
comp=Z,5.6nm,0.4s
KBA Koelnbreinsper 25.65 293 P P 12 22 07.9 0.0
comp=Z,16nm,0.9s
BSD Bornholm Skovb 25.66 312 *eP* P 12 22 07.2 -0.5
BSD Bornholm Skovb 25.66 312 *i* P P 12 22 07.5 -0.2

HSKC Hora Svate Kat 25.70 301 P P 12 22 08.5 +0.4
comp=Z,14nm,1.1s
INTR Introdacqua 25.88 282 P 12 22 10.7 +0.8
INTR IAmb IAmb 12 22 16.0
comp=Z,12nm,0.8s
VAF Ylistaro 25.97 333 *eP* P 12 22 11.4 +1.1
CLL Collm 26.04 303 *eP* P 12 22 12.0 +0.8
CLL Collm 26.04 303 *eP* P 12 22 12.0 +0.8
CLL *esP* sP 12 22 35.0 -0.9
LESA Schwarzleotal 26.10 294 *i* P P 12 22 12.2 +0.4
comp=Z,6.9nm,0.8s
AQU L'Aquila 26.18 283 P P 12 22 16.3 +3.8
AQU pmax pmax
comp=Z,40nm,0.9s
AQU L'Aquila 26.18 283 P P 12 22 16.4 +3.8
comp=Z,50nm,0.8s
FDMO Fiordimonte 26.27 284 IAmb IAmb 12 22 14.5
comp=Z,13nm,0.7s
NRCA Norcia 26.29 284 IAmb IAmb 12 22 15.1
comp=Z,11nm,0.8s
ZAA0 Zalesovo Array 26.46 51 P P 12 22 14.1 -0.8
ZALV Zalesovo Beam 26.46 51 P P 12 22 15.9 +1.1
comp=Z,0.7nm,0.3s,baz=262,slow=9.7,SNR=5.8
ZALV LR LR 12 34 04.5
comp=Z,63nm,20.0s,baz=228,slow=39
comp=Z,0.7nm,0.3s
ZALV Zalesovo Beam 26.46 51 P P 12 22 16.4 +1.5
ZALV Zalesovo Beam 26.46 51 P P 12 22 16.4 +1.5
LUNU Lund 26.61 313 *i* P P 12 22 16.9 +0.7
DEL Delary 26.62 315 *i* P P 12 22 17.8 +1.5
MURB Monte Urbino 26.64 285 IAmb IAmb 12 22 22.6
comp=Z,28nm,1.0s
WTTA Wattenberg 26.81 294 *eP* P 12 22 17.5 -0.8
comp=Z,7.2nm,0.5s
WTTA Wattenberg 26.81 294 P P 12 22 17.4 -1.0
comp=Z,13nm,0.9s
MOX Moxa 26.86 301 P P 12 22 18.9 +0.4
comp=Z,7.2nm,0.9s
FABU Falkenberg 27.39 315 *i* P P 12 22 25.2 +2.1
RETA Reutte 27.39 294 *eP* P 12 22 23.5 +0.1
comp=Z,2.2nm,0.4s
FETA Feichten 27.44 293 P P 12 22 23.4 -0.6
comp=Z,3.9nm,0.9s
FUORN Ofenpass-Fuorn 27.79 293 P P 12 22 25.8 -1.4
comp=Z,6.6nm,2.4s
ONAU Onsala 27.92 316 *i* P P 12 22 27.1 -0.8
SJUU Sjulsmark 27.98 336 *eP* P 12 22 29.2 +0.8
HFS Hagfors 28.02 322 P P 12 22 27.2 -1.6
comp=Z,3.6nm,0.6s,baz=105,slow=10,SNR=10
HFS LR LR 12 35 06.4
comp=Z,85nm,18.5s,baz=181,slow=39
comp=Z,3.6nm,0.6s
DAVOX Davos/Dischmat 28.04 293 P P 12 22 27.5 -1.8
comp=Z,2.8nm,0.3s,baz=168,slow=20,SNR=5.5
DAVOX LR LR 12 36 40.7
comp=Z,95nm,19.6s,baz=92,slow=43
comp=Z,2.8nm,0.3s
WMQ Urumqi 28.25 73 *eP* P 12 22 33.7 +2.6
TJOU Tjoern 28.26 317 *i* P P 12 22 34.7 +3.8
NC602 NORSAR Array S 29.24 322 *eP* P 12 22 39.4 -0.2
NORES NORESS Array B 29.24 322 P P 12 22 39.5 -0.1
NB2 NORSAR Subarra 29.50 323 P P 12 22 41.6 -0.4
comp=Z,2.1nm,0.5s,baz=114,slow=8.6
NB2 NORSAR Subarra 29.50 323 P P 12 22 41.0 -1.0
NB2 AMP 12 22 41.0
NOA NORSAR Array B 29.50 323 P P 12 22 41.5 -0.4
comp=Z,0.4nm,0.3s,baz=107,slow=10,SNR=8.1
NOA LR LR 12 35 23.2
comp=Z,38nm,19.7s,baz=120,slow=38
comp=Z,0.4nm,0.3s
LANU Lannavaara 29.69 340 *eP* P 12 22 43.6 0.0
KONO Kongsberg 29.77 320 *eP* P 12 22 44.2 0.0
VADS Vadso 29.79 347 *eP* P 12 22 44.9 +0.6
SENIN Lac Senin/Sane 29.86 293 IAmb IAmb 12 22 44.8
comp=Z,6.6nm,0.6s
ARA0 ARCESS Array S 30.03 344 *eP* P 12 22 47.4 +0.9
ARCES ARCESS Array B 30.03 344 P P 12 22 47.4 +0.9
comp=Z,2.0nm,0.6s,baz=146,slow=9.6,SNR=13
comp=Z,2.0nm,0.6s
KTK1 Kautokeino 30.11 342 *eP* P 12 22 47.6 +0.3
ESCA l'Escarene 30.21 287 P P 12 22 48.4 -0.1
comp=Z,8.9nm,1.5s
ISO Isola 30.37 288 P P 12 22 50.1 +0.3
comp=Z,3.7nm,1.1s
BNI Bardonecchia 30.48 290 P P 12 22 50.9 0.0
BNI pmax pmax
comp=Z,13nm,1.4s
BNI Bardonecchia 30.48 290 P 12 22 50.9 0.0
BNI IAmb IAmb 12 23 26.4
comp=Z,13nm,1.4s
MOR8 Moi Rana 30.70 333 *eP* P 12 22 51.7 -0.7
SKAR Skarslia 30.71 321 *eP* P 12 22 52.7 +0.1
RAUS Rausandaksla 30.98 333 *eP* P 12 22 55.3 +0.4
LEIR Leirfjorden 31.11 333 *eP* P 12 22 55.1 -1.0
FAUS Fauske 31.14 336 *eP* P 12 22 56.6 +0.4
JETT Jettan, Norway 31.19 341 *eP* P 12 22 57.3 +0.5
KEST Kesra 31.23 271 P P 12 22 58.0 +0.5
comp=Z,4.3nm,0.5s,baz=323,slow=3.7,SNR=8.1
comp=Z,4.3nm,0.5s
KEST Kesra 31.23 271 P 12 22 58.1 +0.5
KEST IAmb IAmb 12 22 59.2
comp=Z,19nm,1.2s
STOK Stokkvaagen 31.27 333 *eP* P 12 22 58.0 +0.6
ODDI Odda 31.28 319 *eP* P 12 22 58.8 +1.1
KONS Konsvik 31.32 333 *eP* P 12 22 58.3 +0.4
VAGH Vaagaholmen 31.40 334 *eP* P 12 22 59.1 +0.6
STEI Steigen 31.48 336 *eP* P 12 22 59.8 +0.5
MOL Molde 31.69 324 *eP* P 12 23 01.4 +0.2
HYA Hoyanger 31.84 321 *eP* P 12 23 03.4 +0.9
NRIK Noril'sk 33.79 23 LR LR 12 39 47.7
comp=Z,34nm,18.1s,baz=286,slow=41
EVN Everest 33.81 102 P 12 23 22.4 +1.6
EVN Everest 33.81 102 P P 12 23 22.3 +1.4
comp=Z,19nm,0.9s
EKA Eskdalemuir Ar 35.93 310 P P 12 23 37.4 -0.5
comp=Z,7.9nm,0.5s,baz=97,slow=8.4,SNR=21
comp=Z,7.9nm,0.5s
TLY Talaya 37.77 56 LR LR 12 40 40.8
comp=Z,39nm,20.6s,baz=312,slow=38
GTA2 Gaotai 38.11 76 *eP* P 12 23 59.2 +2.3
GTA2 pP pP 12 24 13.3 -0.5
GTA2 pmax pmax
comp=Z,3.0nm,0.8s
SPA0 Spitsbergen Ar 38.43 350 *eP* P 12 23 58.7 -0.2
SPITS Spitsbergen Ar 38.43 350 P P 12 24 00.4 +1.4
comp=Z,4.6nm,0.5s,baz=122,slow=16,SNR=6.0
comp=Z,4.6nm,0.5s
ESDC Sonseca Array 39.51 285 P P 12 24 07.3 -1.2
comp=Z,1.4nm,0.5s,baz=59,slow=8.5,SNR=7.5
comp=Z,1.4nm,0.5s
SONM Songino Array 40.24 62 P P 12 24 14.4 -0.1
comp=Z,0.4nm,0.3s,baz=270,slow=9.9,SNR=1.7
SONM LR LR 12 42 40.9
comp=Z,78nm,18.5s,baz=258,slow=39
comp=Z,0.4nm,0.3s
TAM Tamanrasset 40.87 256 P P 12 24 21.0 +1.0
TAM pmax pmax
comp=Z,6.0nm,1.2s
TAM Tamanrasset 40.87 256 P P 12 24 20.9 +1.0
comp=Z,6.5nm,1.2s
HHC Hu-ho-hao-te 45.99 70 *eP* P 12 25 02.0 +1.0
HHC pmax pmax
comp=Z,14nm,0.6s
CMAR Chiang Mai Arr 48.40 103 P P 12 25 20.7 +0.9
comp=Z,0.8nm,0.4s,baz=305,slow=8.0,SNR=5.0
comp=Z,0.8nm,0.4s
YAK Yakutsk 49.78 38 LR LR 12 47 28.8
comp=Z,29nm,18.6s,baz=302,slow=37
TORD Torodi Ar. Bea 49.97 249 P P 12 25 30.9 -0.9
comp=Z,3.5nm,0.5s,baz=36,slow=6.9,SNR=21
TORD PcP PcP 12 26 50.7 -0.4
comp=Z,2.2nm,0.7s,baz=29,slow=3.8,SNR=4.7
comp=Z,3.5nm,0.5s
NJ2 Nanjing 55.27 76 *eP* P 12 26 11.8 +1.0
NJ2 pmax pmax
comp=Z,11nm,0.7s
KSRS Korea Array 58.83 66 P P 12 26 36.6 +0.8
comp=Z,0.7nm,0.5s,baz=277,slow=6.3,SNR=1.8
comp=Z,0.7nm,0.5s
DBIC Dimbokro 59.08 249 P P 12 26 37.1 -0.6
comp=Z,9.7nm,0.5s,baz=44,slow=8.2,SNR=22
comp=Z,9.7nm,0.5s
DBIC Dimbokro 59.08 249 P P 12 26 37.3 -0.6
DBIC pmax pmax
comp=Z,12nm,0.8s
DBIC Dimbokro 59.08 249 P 12 26 37.2 -0.6

MJAR	**Matsushiro Arr**	**66.19**	**62**	LR	LR	12 56 42.3		
	comp=Z,46nm,19.6s,baz=360,slow=36							
SCHQ	**Schefferville**	**69.01**	**326**	P	**P**	**12 27 42.5**	**+0.1**	
	comp=Z,6.0nm,0.9s,baz=116,slow=11,SNR=3.6							
	comp=Z,6.0nm,0.9s							
G21K	**Allakaket**	**70.31**	**9**		**P**	**12 27 49.1**	**-1.1**	
G21K				IAmb	IAmb	12 27 51.2		
	comp=Z,11nm,1.4s							
WIN	**Windhoek**	**70.78**	**211**	P	**P**	**12 27 55.0**	**+1.3**	
WIN				pmax	pmax			
	comp=Z,11nm,0.7s							
WIN	**Windhoek**	**70.78**	**211**	P	**P**	**12 27 55.0**	**+1.3**	
ILAR	**Eielson Array**	**72.71**	**7**	P	**P**	**12 28 05.7**	**+1.0**	
	comp=Z,0.2nm,0.6s,baz=324,slow=4.5,SNR=4.6							
	comp=Z,0.2nm,0.6s							
I30M	**Mount Dempster**	**72.90**	**2**	P	**P**	**12 28 07.1**	**+1.2**	
I30M				IAmb	IAmb	12 28 31.0		
	comp=Z,7.9nm,1.0s							
BOSA	**Boshof**	**73.71**	**202**	P	**P**	**12 28 11.6**	**+0.6**	
	comp=Z,6.4nm,0.6s,baz=15,slow=4.7,SNR=14							
	comp=Z,6.4nm,0.6s							
YKA	**Yellowknife Ar**	**74.88**	**352**	P	**P**	**12 28 17.9**	**+0.6**	
	comp=Z,1.5nm,0.7s,baz=9.4,slow=5.6,SNR=4.2							
	comp=Z,1.5nm,0.7s							
KAPI	**Kappang**	**79.33**	**107**	LR	LR	13 13 35.3		
	comp=Z,45nm,18.7s,baz=104,slow=43							
YBH	**Yreka Blue Hor**	**96.17**	**354**	LR	LR	13 22 21.9		
	comp=Z,21nm,19.0s,baz=20,slow=41							
WRA	**Warramunga Arr**	**99.83**	**108**	P	**Pdif**	**12 30 21.2**	**-0.3**	
	comp=Z,0.5nm,1.1s,baz=314,slow=5.2,SNR=1.9							
	comp=Z,0.5nm,1.1s							
ASAR	**Alice Springs**	**101.96**	**111**	P	**Pdif**	**12 30 32.3**	**+1.4**	
	comp=Z,0.2nm,1.0s,baz=324,slow=1.4,SNR=1.0							
QSPA	**South Pole Qui**	**131.95**	**180**	PKP	**PKPdf**	**12 35 47.8**	**-1.1**	
	comp=Z,1.6nm,0.8s,baz=285,slow=1.8,SNR=6.0							

*IDC **03** 12:18:37.4±1.7,44°.56N×19°.17W,h0km,mb3.4/2, mbtmp3.5/3,ML4.3/1,Error ellipse: s-maj=88.9km s-min=24.4km az=24.0*

*INMG **03** 12:18:45.1±2.9,45°.37N×18°.40W,h40km,ML3.4,Error ellipse: s-maj=28.1km s-min=19.8km az=48.0, #DIST_RANGE: REGIONAL #IPMA_REGION: North Atlantic Ocean*

ISC 03 12:18:44.3±2.1,44°.7N±0°.1×17°.9W±0°.1,h10km,n40, σ2s23/59,North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PGAV	**Gavieira, Arco**	**7.51**	**108**	*eP*	**Pn**	**12 20 36.9**	**+3.0**
PGAV				*eS*	**Sn**	**12 21 59.2**	**+0.1**
PGAV				IAML		12 22 03.0	
PGAV				IAML		12 22 04.5	
PGAV				IAML		12 22 05.5	
PCAB	**Cabril**	**7.78**	**109**	*eS*	**Sn**	**12 22 06.8**	**+1.0**
PCAB				IAML		12 22 12.1	
PCAB				IAML		12 22 12.4	
PCAB				IAML		12 22 13.0	
POLO	**Lamas de Olo**	**8.09**	**110**	*eP*	**Pn**	**12 20 45.3**	**+3.5**
POLO				*eS*	**Sn**	**12 22 13.2**	**-0.1**
POLO				IAML		12 22 14.8	
POLO				IAML		12 22 15.1	
POLO				IAML		12 22 17.6	
PVIS	**Viseu**	**8.34**	**115**	*eP*	**Pn**	**12 20 48.4**	**+3.1**
PSBE	**So Bento**	**8.49**	**124**	*eP*	**Pn**	**12 20 50.2**	**+2.9**
ECAL	**Calabor**	**8.57**	**105**	P	**Pn**	**12 20 49.5**	**+1.1**
ECAL				S	**Sn**	**12 22 24.1**	**-1.1**
PMAFR	**Mafra**	**8.58**	**129**	S	**Sn**	**12 22 24.1**	**-1.4**
PMAFR	**Mafra**	**8.58**	**129**	*eS*	**Sn**	**12 22 26.6**	**+1.2**
PBRG	**Braganca**	**8.62**	**105**	*eS*	**Sn**	**12 22 25.9**	**-0.5**
PBRG				IAML		12 22 29.2	
PBRG				IAML		12 22 31.9	
PBRG				IAML		12 22 32.9	
MTE	**Manteigas**	**8.74**	**116**	*eP*	**Pn**	**12 20 53.5**	**+2.7**
MTE				*eS*	**Sn**	**12 22 28.0**	**-1.3**
PSARD	**Sardoal**	**8.81**	**122**	*eP*	**Pn**	**12 20 54.2**	**+2.5**
PSARD				*eS*	**Sn**	**12 22 30.6**	**-0.5**
PSARD				IAML		12 22 34.9	
PSARD				IAML		12 22 37.1	
PSARD				IAML		12 22 38.9	
PCBR	**Castelo Branco**	**9.09**	**118**	*eS*	**Sn**	**12 22 38.0**	**+0.1**
PCBR				IAML		12 22 39.6	
PCBR				IAML		12 22 41.0	
PCBR				IAML		12 22 43.1	
PMTG	**Montargil**	**9.11**	**124**	*eP*	**Pn**	**12 20 58.6**	**+2.8**
PMTG				*eS*	**Sn**	**12 22 36.6**	**-1.8**
PMTG				IAML		12 22 40.9	
PMTG				IAML		12 22 41.7	
PMTG				IAML		12 22 41.9	
PARRA	**Arraiolos**	**9.39**	**125**	*eP*	**Pn**	**12 21 02.1**	**+2.6**
PARRA				*eS*	**Sn**	**12 22 42.5**	**-2.7**
PMRV	**Marv??o**	**9.39**	**120**	*eP*	**Pn**	**12 21 02.5**	**+2.9**
PMRV				*eS*	**Sn**	**12 22 43.7**	**-1.5**
EVO	**Evora**	**9.60**	**126**	S	**Sn**	**12 22 48.6**	**-1.6**
PESTR	**Estremoz**	**9.62**	**123**	S	**Sn**	**12 22 49.5**	**-1.4**
PESTR	**Estremoz**	**9.62**	**123**	*eS*	**Sn**	**12 22 51.3**	**+0.4**
PLOUS	**Minas do Lousa**	**9.71**	**130**	*eP*	**Pn**	**12 21 07.2**	**+3.2**
PLOUS				*eS*	**Sn**	**12 22 52.0**	**-1.1**
MESJ	**Messejana**	**9.96**	**130**	*eS*	**Sn**	**12 22 58.1**	**-1.2**
EBAD	**Badajoz**	**10.04**	**122**	P	**Pn**	**12 21 10.0**	**+1.5**
EBAD				S	**Sn**	**12 22 58.3**	**-2.8**
MORF	**Marmelete**	**10.13**	**133**	*eS*	**Sn**	**12 23 01.4**	**-2.1**
PFVI	**Vila Bisbo**	**10.17**	**135**	S	**Sn**	**12 23 02.6**	**-1.7**
PCVE	**Castro Verde**	**10.21**	**130**	P	**Pn**	**12 21 12.5**	**+1.6**
PCVE				S	**Sn**	**12 23 04.9**	**-0.6**
PCVE	**Castro Verde**	**10.21**	**130**	*eS*	**Sn**	**12 23 06.0**	**+0.6**
PBAR	**Barrancos**	**10.40**	**125**	P	**Pn**	**12 21 14.9**	**+1.4**
PBAR				S	**Sn**	**12 22 07.4**	**-2.6**
PBAR	**Barrancos**	**10.40**	**125**	*eP*	**Pn**	**12 21 16.6**	**+3.2**
PBAR				*eS*	**Sn**	**12 23 09.3**	**-0.7**
PVAQ	**Vaqueiros**	**10.55**	**130**	*eP*	**Pn**	**12 21 18.6**	**+3.1**
PVAQ				*eS*	**Sn**	**12 23 12.9**	**-0.9**
PBDV	**Barranco-do-Ve**	**10.56**	**131**	P	**Pn**	**12 21 18.4**	**+2.8**
PBDV				S	**Sn**	**12 23 12.3**	**-1.6**
PBDV	**Barranco-do-Ve**	**10.56**	**131**	*eP*	**Pn**	**12 21 19.3**	**+3.7**
PBDV				*eS*	**Sn**	**12 23 12.0**	**-1.9**
EGRO	**El Granado**	**10.59**	**129**	S	**Sn**	**12 23 13.9**	**-0.7**
EMIN	**Mina Concepcio**	**10.89**	**125**	P	**Pn**	**12 21 21.7**	**+1.6**
EMIN				S	**Sn**	**12 23 20.1**	**-1.9**
ECAB	**El Cabril**	**11.44**	**121**	P	**Pn**	**12 21 29.7**	**+2.0**
ECAB				S	**Sn**	**12 23 33.2**	**-2.3**
ESDC	**Sonseca Array**	**11.46**	**111**	Pn	**Pn**	**12 21 31.8**	**+3.8**
	0.5nm,0.3s,baz=297,slow=13,SNR=9.8						
ESDC				Sn	**Sn**	**12 23 31.3**	**-4.9**
	0.6nm,0.3s,baz=299,slow=24,SNR=7.3						
	1.0nm,0.3s						
ESDC				AML	AML		
EADA	**Adamuz**	**11.90**	**118**	P	**Pn**	**12 21 34.4**	**+0.4**
EADA				S	**Sn**	**12 23 45.2**	**-1.6**
EGOR	**Sierra Gorda,**	**12.85**	**121**	P	**Pn**	**12 21 47.2**	**0.0**
EGOR				S	**Sn**	**12 24 06.9**	**-3.4**
ILAR	**Eielson Array**	**63.87**	**338**	P	P	12 29 10.3	-6.2
	0.3nm,0.7s,baz=29,slow=5.9,SNR=4.3						
	0.3nm,0.7s						
TXAR	**Lajitas Array**	**67.22**	**289**	P	P	12 29 28.6	-10
	0.3nm,0.8s,baz=56,slow=7.7,SNR=3.8						
	0.3nm,0.8s						
WRA	**Warramunga Arr**	**146.25**	**52**	PKPbc	**PKPdf**	**12 38 20.1**	**-4.0**
	0.3nm,0.6s,baz=339,slow=3.6,SNR=2.4						
ASAR	**Alice Springs**	**148.89**	**57**	PKPbc	**PKPdf**	**12 38 28.3**	**-0.1**
	0.7nm,0.6s,baz=334,slow=2.1,SNR=10						

*NOU **03** 12:29:44.9,41°.28S×173°.47E,h97km,MLv3.6/16,South Island, New Zealand*

*WEL **03** 12:29:46.2±0.6,41°.S±4°×17°.3E±°,h76km±5km,M3.1/18, ML3.1/24,MLv3.1/18,Error ellipse: s-maj=4.7km s-min=3.6km az=167.7*

ISC 03 12:29:44.4±1.4,41°.28S±0°.03×173°.40E±0°.03,h101km±7km, n88,σ1s02/101,South Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NNZ	**Nelson**	**0.07**	**344**	P	**Pn**	**12 29 58.5**	**0.0**
NNZ				S	**Sn**	**12 30 07.6**	**-1.4**
NNZ				AML	AML		
NNZ				AML	AML		
TKNZ	**Takaka Hill**	**0.42**	**306**	P	**Pn**	**12 29 59.8**	**0.0**
TKNZ				S	**Sn**	**12 30 09.5**	**-1.9**
TKNZ				AML	AML		
TKNZ				AML	AML		
TUWZ	**Tuamarina**	**0.43**	**110**	P	**Pn**	**12 30 01.2**	**+1.3**
TUWZ				S	**Sn**	**12 30 11.8**	**+0.3**
TUWZ				AML	AML		
TUWZ				AML	AML		
MRNZ	**Matariki Terra**	**0.50**	**256**	P	**Pn**	**12 30 00.8**	**+0.5**
MRNZ				S	**Sn**	**12 30 11.5**	**-0.9**
MRNZ				AML	AML		
MRNZ				AML	AML		
BSWZ	**Blackbirch Sta**	**0.56**	**141**	P	**Pn**	**12 30 02.0**	**+1.2**
BSWZ				AML	AML		
BSWZ				AML	AML		
THZ	**Tophouse**	**0.61**	**218**	P	**Pn**	**12 30 02.1**	**+0.8**
THZ				S	**Sn**	**12 30 13.7**	**-0.2**
THZ				AML	AML		
THZ				AML	AML		
DUWZ	**D'Urville Isla**	**0.62**	**39**	P	**Pn**	**12 30 02.0**	**+0.7**
DUWZ				S	**Sn**	**12 30 13.5**	**-0.5**
DUWZ				AML	AML		
DUWZ				AML	AML		
CMWZ	**Cape Campbell**	**0.77**	**128**	P	**Pn**	**12 30 04.1**	**+1.5**
CMWZ				S	**Sn**	**12 30 18.0**	**+1.8**
CMWZ				AML	AML		
CMWZ				AML	AML		
QRZ	**Quartz Range**	**0.80**	**304**	P	**Pn**	**12 30 02.7**	**-0.2**
QRZ	**Quartz Range**	**0.80**	**304**	P	**Pn**	**12 30 03.0**	**0.0**
QRZ				S	**Sn**	**12 30 13.9**	**-2.9**
QRZ				AML	AML		
SNZO	**South Karori**	**0.98**	**92**	P	**Pn**	**12 30 05.1**	**+0.4**
SNZO	**South Karori**	**0.98**	**92**	P	Pn	12 30 19.9	+15
WEL	**Wellington**	**1.03**	**91**	P	**Pn**	**12 30 06.1**	**+0.8**
WEL				S	**Sn**	**12 30 20.8**	**-0.1**
WEL				AML	AML		
WEL				AML	AML		
BHW	**Baring Head**	**1.11**	**97**	P	**Pn**	**12 30 06.8**	**+0.6**
BHW				S	**Sn**	**12 30 22.6**	**0.0**
BHW				AML	AML		
BHW				AML	AML		
KHZ	**Kahutara**	**1.14**	**175**	P	**Pn**	**12 30 07.8**	**+1.3**
KHZ	**Kahutara**	**1.14**	**175**	P	Pn	12 30 23.3	+17
KHZ	**Kahutara**	**1.14**	**175**	P	**Pn**	**12 30 08.1**	**+1.6**
KHZ				AML	AML		
KIW	**Kapiti Island**	**1.21**	**70**	P	**Pn**	**12 30 08.2**	**+0.8**
KIW				S	**Sn**	**12 30 24.3**	**-0.4**
KIW				AML	AML		
KIW				AML	AML		
CAW	**Cannon Point**	**1.27**	**83**	P	**Pn**	**12 30 08.5**	**+0.6**
CAW				AML	AML		
CAW				AML	AML		
DSZ	**Denniston Nort**	**1.29**	**248**	P	**Pn**	**12 30 08.8**	**+0.6**
DSZ				AML	AML		
MSWZ	**Moikau Station**	**1.40**	**96**	P	**Pn**	**12 30 09.9**	**+0.4**
MSWZ				AML	AML		
MSWZ				AML	AML		
OGWZ	**Otaki Gorge**	**1.42**	**71**	P	**Pn**	**12 30 10.3**	**+0.6**
OGWZ				AML	AML		
OGWZ				AML	AML		
PLWZ	**Palliser**	**1.42**	**102**	P	**Pn**	**12 30 10.3**	**+0.5**
PLWZ				AML	AML		
PLWZ				AML	AML		
PAWZ	**Paruwai Farm**	**1.53**	**94**	P	**Pn**	**12 30 11.4**	**+0.3**
PAWZ				S	**Sn**	**12 30 29.4**	**-2.0**
PAWZ				AML	AML		
PAWZ				AML	AML		
MTW	**Mount Morrison**	**1.59**	**86**	P	**Pn**	**12 30 12.2**	**+0.4**
MTW				AML	AML		
MTW				AML	AML		
HOWZ	**Holdsworth Sta**	**1.64**	**77**	P	**Pn**	**12 30 12.7**	**+0.1**
HOWZ				AML	AML		
HOWZ				AML	AML		
GVZ	**Greta Valley S**	**1.71**	**189**	P	**Pn**	**12 30 14.5**	**+1.2**
GVZ				AML	AML		
LTZ	**Lake Taylor**	**1.72**	**209**	P	**Pn**	**12 30 14.7**	**+1.2**
LTZ				AML	AML		
LTZ				AML	AML		
TRWZ	**Traveller**	**1.72**	**95**	P	**Pn**	**12 30 12.2**	**-1.3**
TRWZ				S	**Sn**	**12 30 34.7**	**-1.0**
TRWZ				AML	AML		
TRWZ				AML	AML		
MRZ	**Mangatainoka R**	**1.76**	**70**	P	**Pn**	**12 30 14.0**	**0.0**
MRZ				S	**Sn**	**12 30 36.3**	**-0.2**
MRZ				AML	AML		
MRZ				AML	AML		
OHWZ	**Ohakea**	**1.81**	**54**	P	**Pn**	**12 30 15.3**	**+0.7**
OHWZ				AML	AML		
TMWZ	**Te Maipa**	**1.89**	**86**	P	**Pn**	**12 30 15.8**	**+0.2**
NMEZ	**Namu Road**	**1.90**	**11**	P	**Pn**	**12 30 17.3**	**+1.5**
NMEZ				AML	AML		
NMEZ				AML	AML		
WAZ	**Wanganui**	**1.94**	**39**	P	**Pn**	**12 30 18.2**	**+1.8**
WAZ				S	**Sn**	**12 30 43.0**	**+2.3**
LREZ	**Lake Rotokare**	**1.97**	**23**	P	**Pn**	**12 30 18.9**	**+2.2**
AMCZ	**Amberley**	**1.98**	**196**	P	**Pn**	**12 30 17.7**	**+1.0**
POWZ	**Post Office Ro**	**2.00**	**64**	P	**Pn**	**12 30 16.8**	**-0.3**
PREZ	**Palmer Road**	**2.02**	**17**	P	**Pn**	**12 30 19.0**	**+1.6**
PREZ				AML	AML		
PREZ				AML	AML		
KHEZ	**Kahui Hut**	**2.04**	**13**	P	**Pn**	**12 30 18.8**	**+1.1**
KHEZ	**Kahui Hut**	**2.04**	**13**	S	**Sn**	**12 30 43.2**	**+0.2**
KHEZ	**Kahui Hut**	**2.04**	**13**	P	**Pn**	**12 30 19.2**	**+1.5**
KHEZ				AML	AML		
NBEZ	**Newall Road No**	**2.04**	**10**	P	**Pn**	**12 30 19.3**	**+1.7**
NBEZ				AML	AML		
NBEZ				AML	AML		
INZ	**Inchbonnie**	**2.05**	**225**	P	**Pn**	**12 30 19.0**	**+1.3**
NEZ	**North Egmont**	**2.08**	**15**	P	**Pn**	**12 30 19.5**	**+1.3**
PRWZ	**Pori Road**	**2.08**	**70**	P	**Pn**	**12 30 18.0**	**-0.1**
PKE	**Pukeiti**	**2.13**	**12**	P	**Pn**	**12 30 20.4**	**+1.6**
DREZ	**Durham Road**	**2.18**	**17**	P	**Pn**	**12 30 20.9**	**+1.5**
BFZ	**Birch Farm**	**2.23**	**75**	P	**Pn**	**12 30 19.5**	**-0.6**
BFZ	**Birch Farm**	**2.23**	**75**	S	**Sn**	**12 30 46.2**	**-1.2**
BFZ	**Birch Farm**	**2.23**	**75**	P	**Pn**	**12 30 19.7**	**-0.4**
OXZ	**Oxford**	**2.28**	**206**	P	**Pn**	**12 30 20.8**	**+0.1**
TSZ	**Takapari Road**	**2.30**	**59**	P	**Pn**	**12 30 20.7**	**-0.2**
DVHZ	**Dannevirke**	**2.32**	**66**	P	**Pn**	**12 30 20.5**	**-0.7**
VRZ	**Vera Road**	**2.39**	**26**	P	**Pn**	**12 30 23.8**	**+1.7**
OKCZ	**Okains Bay**	**2.45**	**186**	P	**Pn**	**12 30 24.1**	**+1.1**
MQZ	**McQueen's Vall**	**2.49**	**193**	P	**Pn**	**12 30 23.1**	**-0.3**
PNHZ	**Pukenui**	**2.53**	**58**	P	**Pn**	**12 30 23.3**	**-0.7**
WNVZ	**Wahianoa**	**2.57**	**41**	P	**Pn**	**12 30 25.4**	**+0.6**
MOVZ	**Moawhango**	**2.59**	**45**	P	**Pn**	**12 30 25.1**	**+0.2**
WHWZ	**Whangaehu Hut**	**2.60**	**41**	P	**Pn**	**12 30 23.7**	**-1.5**
FWVZ	**Far West T-bar**	**2.61**	**40**	P	**Pn**	**12 30 26.1**	**+0.9**
WPHZ	**Waipukurau**	**2.61**	**63**	P	**Pn**	**12 30 24.3**	**-0.8**
AKCZ	**Akaroa Harbour**	**2.62**	**188**	P	**Pn**	**12 30 25.9**	**+0.8**
RACZ	**Rakaia**	**2.62**	**200**	P	**Pn**	**12 30 25.0**	**-0.1**
MHCZ	**Mount Hutt**	**2.63**	**211**	P	**Pn**	**12 30 25.5**	**+0.2**
COVZ	**Chateau Observ**	**2.65**	**39**	P	**Pn**	**12 30 26.3**	**+0.7**
PRHZ	**Porangahau**	**2.66**	**69**	P	**Pn**	**12 30 25.2**	**-0.5**
WVZ	**Waitaha Valley**	**2.67**	**227**	P	**Pn**	**12 30 26.5**	**+0.6**
SNVZ	**South Ngauruho**	**2.70**	**40**	P	**Pn**	**12 30 27.2**	**+0.7**
BHHZ	**Black Hill Sta**	**2.71**	**49**	P	**Pn**	**12 30 26.3**	**-0.1**
OTVZ	**Oturere**	**2.73**	**40**	P	**Pn**	**12 30 27.6**	**+0.8**
WTVZ	**West Tongariro**	**2.74**	**38**	P	**Pn**	**12 30 27.5**	**+0.7**
KRVZ	**Karewarewa**	**2.78**	**39**	P	**Pn**	**12 30 27.7**	**+0.3**
ETVZ	**East Tongariro**	**2.78**	**40**	P	**Pn**	**12 30 27.8**	**+0.4**
NTVZ	**North Tongarir**	**2.79**	**39**	P	**Pn**	**12 30 28.4**	**+0.8**
TMVZ	**Te Maari**	**2.79**	**40**	P	**Pn**	**12 30 28.5**	**+1.0**
KRHZ	**Kereru**	**2.79**	**55**	P	**Pn**	**12 30 26.9**	**-0.6**
WACZ	**Wakanui South**	**2.90**	**203**	P	**Pn**	**12 30 29.1**	**+0.3**
HIZ	**Hauiti**	**2.98**	**22**	P	**Pn**	**12 30 30.8**	**+0.8**
HIZ	**Hauiti**	**2.98**	**22**	S	**Sn**	**12 31 04.7**	**-0.4**
RPZ	**Rata Peaks**	**2.99**	**215**	P	**Pn**	**12 30 30.9**	**+0.8**
ARCZ	**Arundel**	**3.13**	**211**	P	**Pn**	**12 30 31.7**	**-0.2**
BKZ	**Black Stump Fm**	**3.17**	**49**	P	**Pn**	**12 30 31.8**	**-0.8**
BKZ	**Black Stump Fm**	**3.17**	**49**	P	**Pn**	**12 30 30.4**	**-2.1**
NMHZ	**Naumai**	**3.40**	**51**	P	**Pn**	**12 30 35.0**	**-0.6**
URZ	**Urewera**	**4.16**	**45**	P	**Pn**	**12 30 45.8**	**+0.1**
ODZ	**Otahua Downs**	**4.27**	**207**	P	**Pn**	**12 30 47.2**	**0.0**
JCZ	**Jackson Bay**	**4.40**	**229**	P	**Pn**	**12 30 49.8**	**+0.7**

IDC 03 12:39:53.0±3.1,12°.39N×144°.97E,h0km,mb3.4/4, mbtmp3.4/4,Error ellipse: s-maj=131.0km s-min=17.4km az=90.0,South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**1.19**	**355**	Pn	Pg	12 40 13.5	-2.5
	212nm,0.3s,baz=320,slow=7.9,SNR=250						
GUMO				Sn	Sg	12 40 28.0	-3.4
	248nm,0.3s,baz=53,slow=22,SNR=9.2						

H11S3	**WAKE ISLAND Hy**	**21.78**	**71**	T	T	13 07 51.4		
	baz=258,slow=75,SNR=16							
H11S1	**WAKE ISLAND Hy**	**21.80**	**71**	T	T	13 07 52.0		
	baz=258,slow=75,SNR=13							
H11S2	**WAKE ISLAND Hy**	**21.80**	**71**	T	T	13 07 46.7		
	baz=258,slow=75,SNR=14							
H11N1	**WAKE ISLAND Hy**	**22.27**	**68**	T	T	13 08 30.2		
	baz=255,slow=75,SNR=29							
H11N2	**WAKE ISLAND Hy**	**22.28**	**68**	T	T	13 08 26.9		
	baz=255,slow=75,SNR=27							
H11N3	**WAKE ISLAND Hy**	**22.29**	**68**	T	T	13 08 24.2		
	baz=255,slow=75,SNR=26							
WRA	**Warramunga Arr**	**33.80**	**198**	P	P	12 46 37.0	0.0	
	0.3nm,0.7s,baz=18,slow=9.8,SNR=5.0							
	0.3nm,0.7s							
ASAR	**Alice Springs**	**37.44**	**197**	P	P	12 47 07.9	-0.4	
	0.2nm,0.2s,baz=21,slow=9.2,SNR=5.0							
	0.2nm,0.2s							
MKAR	**Makanchi Array**	**62.42**	**316**	P	P	12 50 18.4	+0.4	
	0.2nm,0.5s,baz=98,slow=6.5,SNR=1.5							
	0.2nm,0.5s							
KURBB	**Kurchatov Arra**	**65.60**	**320**	P	P	12 50 39.1	+0.3	
	0.2nm,0.4s,baz=104,slow=7.4,SNR=2.8							
	0.2nm,0.4s							

*IDC **03** 12:52:46.1±6.4,53°.32N×170°.86W,h124km±61km,mb3.3/5, mbtmp3.7/8,Error ellipse: s-maj=62.1km s-min=26.5km az=176.0*

*NEIC **03** 12:52:47.7±1.3,53°.2N±0°.1×171°.08W±0°.08,h139km±5km, mb3.7/21,ML3.5/18,ML3.2(AEIC),Error ellipse: s-maj=19.8km s-min=6.6km az=170.0*

*AEIC **03** 12:52:47.8±8.1,53°.56N±0°.09×171°.29W±0°.08,h93km±8km, Error ellipse: s-maj=13.5km s-min=6.4km az=171.0*

ISC 03 12:52:47.3±0.7,53°.1N±0°.1×171°.02W±0°.05,h148km±8km, n86,σ1s02/102,mb3.6/9,Fox Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CLES	**Cleveland East**	**0.75**	**114**		**Pn**	**12 53 09.4**	**-0.6**
CLES					**Sn**	**12 53 26.8**	**-0.3**
CLES				IAML		12 53 30.2	
	comp=E,1μm,0.6s						
CLES				IAML		12 53 41.0	
	comp=N,960nm,0.9s						
CLCO	**Concord Point,**	**0.86**	**113**		**Pn**	**12 53 09.9**	**-0.8**
CLCO					**Sn**	**12 53 29.4**	**+0.9**
OKCE	**Okmok Cone E**	**1.74**	**79**		**Pn**	**12 53 19.4**	**+0.1**
OKNC	**Okmok New Cone**	**1.77**	**78**		**Pn**	**12 53 19.8**	**+0.2**
OKNC					**Sn**	**12 53 44.6**	**+0.2**
OKTU	**Okmok Mt. Tuli**	**1.81**	**81**		**Pn**	**12 53 20.0**	**-0.2**
KOFP	**Korovin Flat P**	**2.06**	**247**		**Pn**	**12 53 23.4**	**+0.3**
KOFP					**Sn**	**12 53 51.0**	**+0.5**
KOKV	**Korovin Volcan**	**2.06**	**249**		**Pn**	**12 53 23.1**	**0.0**
KOKV					**Sn**	**12 53 50.5**	**-0.1**
KOKL	**Mount Kliuchef**	**2.10**	**248**		**Pn**	**12 53 23.7**	**+0.1**
KOKL					**Sn**	**12 53 51.1**	**-0.2**
ATKA	**Atka Island**	**2.15**	**246**		**Pn**	**12 53 24.2**	**+0.2**
ATKA				IAML		12 53 53.4	
	comp=E,121nm,0.9s						
ATKA	**Atka Island**	**2.15**	**246**		**Sn**	**12 53 52.4**	**+0.2**
MAPS	**Pakushin South**	**2.53**	**73**		**Pn**	**12 53 28.8**	**+0.1**
MAPS					**Sn**	**12 54 00.2**	**-0.3**
MGOD	**Makushin Gods**	**2.57**	**73**		**Sn**	**12 54 01.4**	**0.0**
MSW	**Makushin Switc**	**2.65**	**71**		**Pn**	**12 53 30.0**	**-0.1**
MSW					**Sn**	**12 54 04.0**	**+0.8**
MNAT	**Makushin Natee**	**2.70**	**72**		**Pn**	**12 53 30.7**	**0.0**
MNAT					**Sn**	**12 54 04.7**	**+0.5**
UNV	**Unalaska Valle**	**2.79**	**73**		**Pn**	**12 53 32.0**	**+0.1**
UNV					**Sn**	**12 54 07.1**	**+0.9**
UNV	**Unalaska Valle**	**2.79**	**73**	IAML		12 54 20.2	
	comp=E,60nm,0.9s						
LVA	**Lava Point**	**3.14**	**69**		**Sn**	**12 54 16.0**	**+1.7**
LVA	**Lava Point**	**3.14**	**69**	Pn	**Pn**	**12 53 36.8**	**+0.4**
LVA				IAML		12 54 13.5	
	comp=E,134nm,1.2s						
ZRO	**Akutan Zero**	**3.15**	**70**		**Pn**	**12 53 37.2**	**+0.7**
ZRO					**Sn**	**12 54 16.3**	**+1.8**
AKBBA	**Akutan Broad B**	**3.18**	**70**		**Pn**	**12 53 37.4**	**+0.6**
AKBBA					**Sn**	**12 54 16.2**	**+1.0**
GSIG	**Igitkin Island**	**3.21**	**251**		**Pn**	**12 53 37.9**	**+0.6**
GSIG					**Sn**	**12 54 16.2**	**+0.4**
GSMY	**Great Sitkin M**	**3.26**	**252**		**Pn**	**12 53 38.5**	**+0.6**
GSMY					**Sn**	**12 54 17.9**	**+0.9**
GSTD	**Great Sitkin T**	**3.31**	**253**		**Pn**	**12 53 39.9**	**+1.4**
ETKA	**Kagalaska Isla**	**3.53**	**251**		**Pn**	**12 53 42.4**	**+1.1**
ETKA					**Sn**	**12 54 23.2**	**-0.1**
ADAG	**Mount Adagdak**	**3.60**	**253**		**Pn**	**12 53 42.8**	**+0.6**
ADAG					**Sn**	**12 54 25.0**	**+0.2**
ADK	**Adak**	**3.68**	**252**	Pn

comp=Z,0.5nm,0.7s,baz=278,slow=9.4,SNR=1.2
comp=Z,0.5nm,0.7s

EDM	**Edmonton**	**33.75**	**66**	P	**P**	**12 59 15.6**	**+1.2**
EDM				IAmb	IAmb	12 59 53.0	
	comp=Z,3.0nm,1.1s						
NEW	**Newport**	**33.80**	**76**	P	**P**	**12 59 16.4**	**+1.4**
NEW				IAmb	IAmb	12 59 26.7	
	comp=Z,1.5nm,1.2s						
BCYI	**Bear Canyon**	**38.07**	**79**	P	**P**	**12 59 52.4**	**+0.9**
MCMT	**McKenzie Canyo**	**38.11**	**78**	P	**P**	**12 59 52.7**	**+0.9**
NVAR	**Mina Array Bea**	**38.68**	**91**	P	**P**	**12 59 56.5**	**-0.2**
	comp=Z,0.6nm,0.7s,baz=305,slow=8.9,SNR=4.6						
	comp=Z,0.6nm,0.7s						
YHH	**Holmes Hill**	**39.31**	**77**	P	**P**	**13 00 02.9**	**+1.0**
PD31	**Pinedale Array**	**41.24**	**79**	P	**P**	**13 00 18.5**	**+0.7**
PD31				IAmb	IAmb	13 00 24.9	
	comp=Z,1.9nm,1.1s						
PDAR	**Pinedale Array**	**41.24**	**79**	P	**P**	**13 00 18.3**	**+0.5**
	comp=Z,0.7nm,0.6s,baz=311,slow=3.6,SNR=9.4						
	comp=Z,0.7nm,0.6s						
PDAR	**Pinedale Array**	**41.24**	**79**	P	**P**	**13 00 18.1**	**+0.4**
HMU	**Henry Mountain**	**43.55**	**85**	P	**P**	**13 00 37.8**	**+1.3**
ULM	**Lac du Bonnet**	**44.68**	**62**	P	**P**	**13 00 44.6**	**-0.4**
	comp=Z,1.3nm,0.8s,baz=308,slow=17,SNR=1.2						
	comp=Z,1.3nm,0.8s						
SDCO	**Great Sand Dun**	**46.81**	**82**	P	**P**	**13 01 03.4**	**+1.2**
TX31	**Lajitas Ar. Si**	**53.73**	**88**	P	**P**	**13 01 54.9**	**+0.8**
TX31				IAmb	IAmb	13 02 33.8	
	comp=Z,2.2nm,1.5s						
TXAR	**Lajitas Array**	**53.73**	**88**	P	**P**	**13 01 54.5**	**+0.4**
	comp=Z,1.4nm,0.9s,baz=306,slow=5.9,SNR=13						
	comp=Z,1.4nm,0.9s						
TXAR	**Lajitas Array**	**53.73**	**88**	P	**P**	**13 01 54.8**	**+0.7**

*IDC **03** 12:56:18.2±1.3,3.40S×130.87E,h0km,mb3.6/3, mbtmp3.6/6,ML3.3/3,Error ellipse: s-maj=55.7km s-min=15.1km az=94.0*

ISC 03 12:56:20.3±1.1,3.52S±0.08×131.1E±0.3,h30km,n6, σ2s47/7,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**2.64**	**4**	Pn	**Pn**	**12 57 01.0**	**+0.1**
	3.4nm,0.3s,baz=234,slow=23,SNR=29						
SIJI				Sn	**Sn**	12 57 30.2	-1.7
	6.9nm,0.3s,baz=236,slow=23,SNR=8.5						
	14nm,0.2s						
SIJI				AML	AML		
FITZ	**Fitzroy Crossi**	**15.43**	**200**	Pn	**Pn**	**12 59 53.2**	**-2.7**
	0.2nm,0.3s,baz=20,slow=6.7,SNR=14						
	0.8nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**16.64**	**169**	Pn	**Pn**	**13 00 09.2**	**-2.2**
	0.1nm,0.3s,baz=350,slow=12,SNR=15						
	0.3nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.22**	**172**	P	**P**	**13 00 55.6**	**+2.6**
	1.0nm,0.5s,baz=351,slow=11,SNR=20						
	1.0nm,0.5s						
MKAR	**Makanchi Array**	**65.94**	**326**	P	**P**	**13 07 04.8**	**+1.1**
	0.3nm,0.6s,baz=137,slow=7.3,SNR=3.2						
	0.3nm,0.6s						
KURBB	**Kurchatov Arra**	**70.14**	**327**	P	**P**	**13 07 31.1**	**+1.2**
	0.4nm,0.3s,baz=124,slow=5.7,SNR=4.9						
	0.4nm,0.3s						

SJA 03 13:00:59.3±0.6,23.16S×66.77W,h234km±7km,ML3.5, MW3.4,Jujuy Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**1.13**	**160**	*e*P	Pn	13 01 34.4	+0.3
SLA	**San Lorenzo**	**1.94**	**144**	*e*P	Pn	13 01 39.8	-0.3
PB09	**IPOC Station P**	**2.66**	**300**	*e*P	Pn	13 01 48.0	+0.6
PB09				*e*S	S	13 02 25.1	0.0
PB09				IAML		13 02 25.7	
	comp=Z,67nm,0.7s						
PB03	**IPOC Station P**	**2.97**	**291**	*e*P	Pn	13 01 51.1	+0.3
PB03				*e*S	S	13 02 29.6	-1.5
PB03				IAML		13 02 31.8	
	comp=Z,100nm,0.1s						
FSA	**Cafayete**	**3.02**	**166**	*e*P	Pn	13 01 52.0	+0.7
FSA				*e*S	S	13 02 41.4	+9.1
PB05	**IPOC Station P**	**3.18**	**275**	*e*P	Pn	13 01 53.5	+0.5
PB05				*e*S	S	13 02 32.6	-2.6
PB05				IAML		13 02 34.5	
	comp=Z,54nm,0.4s						
PB07	**IPOC Station P**	**3.22**	**296**	*e*P	Pn	13 01 53.8	+0.3
PB07				*e*S	S	13 02 34.4	-1.8
PB07				IAML		13 02 35.0	
	comp=Z,106nm,0.2s						
PB02	**IPOC Station P**	**3.43**	**302**	*e*P	Pn	13 01 56.1	+0.3
PB02				*e*S	S	13 02 38.2	-2.2
PB02				IAML		13 02 39.3	
	comp=Z,119nm,0.4s						
PB10	**IPOC Station P**	**3.50**	**264**	*e*P	Pn	13 01 57.3	+0.8
PB10				*e*S	S	13 02 39.0	-2.6
PB10				IAML		13 02 42.1	
	comp=Z,46nm,0.5s						
PB14	**IPOC Station P**	**3.63**	**246**	*e*P	Pn	13 01 59.1	+0.7
PB14				*e*S	S	13 02 43.1	-1.9
PB14				IAML		13 02 47.4	
	comp=Z,108nm,0.3s						
PB08	**IPOC Station P**	**3.73**	**323**	*e*P	Pn	13 02 00.4	+0.7
PB08				*e*S	S	13 02 46.5	-0.9
PB08				IAML		13 02 51.2	
	comp=Z,29nm,0.5s						
TA01	**Diego Aracena**	**4.09**	**309**	*e*P	Pn	13 02 03.9	+0.3
TA01				*e*S	S	13 02 52.3	-1.9
TA01				IAML		13 02 52.7	
	comp=Z,32nm,0.6s						
GO01	**Chusmiza**	**4.15**	**327**	*e*P	Pn	13 02 05.4	+0.7
GO01				*e*S	S	13 02 56.4	0.0
GO01				IAML		13 02 58.8	
	comp=Z,25nm,0.3s						
AC02	**Maricunga**	**4.24**	**210**	*e*P	Pn	13 02 07.0	+1.2
PB11	**IPOC Station P**	**4.32**	**321**	*e*P	Pn	13 02 05.7	-0.8
PB11				*e*S	S	13 02 56.7	-2.9
PB11				IAML		13 02 59.7	
	comp=Z,39nm,0.3s						
AC01	**Pan de Azucar**	**4.58**	**229**	*e*P	Pn	13 02 09.5	+0.1
AC01				*e*S	S	13 03 02.9	-2.2
AC01				IAML		13 03 06.9	
	comp=Z,20nm,1.4s						

MAN 03 13:02:00.0,5.32N×126.21E,h3km,MS2.8,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.92**	**328**	*e*S	Sb	13 02 32.3	+0.9
DDMP	**Don Marcelino,**	**0.92**	**328**	*e*P	Pb	13 02 18.5	-0.2
CDOP	**Cateel, Davao**	**2.46**	**5**	*i* S	Sn	13 03 06.5	-5.1
CDOP	**Cateel, Davao**	**2.46**	**5**	*i* P	Pn	13 02 36.7	-4.3
BIPH	**Bislig**	**2.85**	**3**	*e*S	Sn	13 03 12.9	-8.4
BIPH	**Bislig**	**2.85**	**3**	*e*P	Pn	13 02 43.4	-3.0

IDC 03 13:02:00.6±6.6,6.07S×127.24E,h334km±86km,mb3.5/3, mbtmp4.1/6,Error ellipse: s-maj=128.5km s-min=19.6km az=80.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**6.55**	**38**	P	Pn	13 03 37.4	0.0
	1.6nm,0.3s,baz=248,slow=23,SNR=1.8						
WRA	**Warramunga Arr**	**15.42**	**154**	P	P	13 05 20.5	-0.2
	5.0nm,0.5s,baz=332,slow=11,SNR=40						
ASAR	**Alice Springs**	**18.64**	**161**	P	P	13 05 55.4	+0.1
	2.6nm,0.3s,baz=344,slow=11,SNR=59						
MKAR	**Makanchi Array**	**65.97**	**328**	P	P	13 12 12.2	+0.4
	0.7nm,0.4s,baz=112,slow=8.2,SNR=9.6						
	0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**69.56**	**335**	P	P	13 12 33.0	-0.8
	0.5nm,0.5s,baz=148,slow=6.6,SNR=3.1						
	0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**70.30**	**329**	P	P	13 12 38.5	+0.1
	1.6nm,0.2s,baz=131,slow=5.0,SNR=2.8						
	1.6nm,0.2s						

*AEIC **03** 13:30:23.9±1.4,54.51N±0.04×159.72W±0.05,h25km±7km, Error ellipse: s-maj=7.0km s-min=3.2km az=205.0*

NEIC 03 13:30:23.3±0.9,54.47N±0.04×159.64W±0.05,h30km±6km, ML3.3/14,ML3.2(AEIC),Error ellipse: s-maj=6.1km s-min=3.0km az=216.0,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.36**	**5**		Pb	13 30 31.5	-0.1
CNBA					Sb	13 30 37.6	+0.4
CNBA				IAML		13 30 38.2	
	comp=N,1μm,0.4s						
SDPT	**Sand Point**	**1.01**	**332**		Pn	13 30 41.4	0.0
SDPT	**Sand Point**	**1.01**	**332**		Sn	13 30 54.5	-0.1
SDPT					Sb	13 30 54.8	-0.4
DOL	**Dolgoi Island**	**1.46**	**299**		Pn	13 30 47.3	-0.4
DOL					Sn	13 31 05.6	-0.1
DOL					Sb	13 31 08.7	+0.7
PVV	**Pavlof Volcano**	**1.54**	**307**		Pn	13 30 48.5	-0.2
PVV					Pb	13 30 49.4	-1.8
PVV					Sn	13 31 07.1	-0.6
PS1A	**Pavlof South-1**	**1.55**	**309**		Pn	13 30 48.7	-0.2
PS1A					Sn	13 31 07.1	-0.8
PS4A	**Pavlof South-4**	**1.56**	**305**		Pn	13 30 49.0	+0.1
PS4A					Sn	13 31 08.1	-0.1
PS4A					Sb	13 31 10.8	+0.1
HAG	**Hague Volcano**	**1.56**	**304**		Pn	13 30 49.0	0.0
HAG					Sn	13 31 07.6	-0.7
VNKR	**Veniaminof 5**	**1.58**	**6**		Pn	13 30 49.5	+0.2
VNKR					Sn	13 31 08.8	+0.1
DT1	**Dutton Round H**	**1.66**	**294**		Pn	13 30 50.0	-0.3
DT1					Sn	13 31 10.7	0.0
DT1					Sb	13 31 10.9	-2.9
DTNA	**Dutton South F**	**1.66**	**295**		Pn	13 30 50.3	-0.1
DTNA					Sn	13 31 10.8	+0.1
PN7A	**Pavlof North-7**	**1.67**	**306**		Pn	13 30 51.2	+0.6
PN7A					Pb	13 30 51.5	-2.0
VNSG	**Veniaminof 6**	**1.69**	**11**		Pn	13 30 50.4	-0.5
VNSS	**Veniaminof 8**	**1.77**	**3**		Pn	13 30 52.7	+0.7
S12K	**Black Hills**	**1.86**	**313**		Pn	13 30 54.0	+0.7
BPBCA	**Veniaminof**	**2.23**	**17**		Pn	13 30 58.0	-0.3
BPBCA					Pb	13 31 00.5	-2.5
SSLS	**Shishaldin Sou**	**2.55**	**277**		Pn	13 31 03.1	+0.4
SSLN	**Shishaldin Nor**	**2.56**	**280**		Pn	13 31 04.3	+1.6
SSBA	**Shishaldin**	**2.63**	**279**		Pn	13 31 04.8	+1.1
WTUG	**Tugumak**	**2.78**	**280**		Pn	13 31 06.9	+1.0
WESN	**West Dahl Nort**	**2.88**	**274**		Pn	13 31 08.0	+0.8
WECS	**Westdahl Cape**	**3.00**	**273**	Pn	Pn	13 31 08.6	-0.2
UNV	**Unalaska Valle**	**4.08**	**264**	Pn	Pn	13 31 22.8	-0.8
P16K	**Nushagak River**	**4.67**	**11**	Pn	Pn	13 31 32.2	+0.5
O15K	**Ungalikthiuk R**	**4.72**	**359**	Pn	Pn	13 31 33.5	+1.0
O15K				IAML		13 32 52.9	
	comp=N,11nm,1.1s						
O15K				IAML		13 33 35.0	
	comp=E,25nm,0.8s						
M13K	**Dall Lake**	**6.29**	**343**	Pn	Pn	13 31 55.2	+1.3
ILSW	**Iliamna Southw**	**6.56**	**30**	Pn	Pn	13 31 55.5	-2.2

*NEIC **03** 13:30:47.3±1.5,54.41N±0.03×159.81W±0.04, h23km±10km,mb3.6/7,ML3.4/32,ML3.3(AEIC),Error ellipse: s-maj=5.9km s-min=1.9km az=215.0*

*AEIC **03** 13:30:47.2±2.6,54.34N±0.06×159.67W±0.08,h28km±7km, Error ellipse: s-maj=9.4km s-min=6.3km az=165.0*

ISC 03 13:30:45.3±3.0,54.37N±0.06×159.71W±0.04, h11km±22km,n87,σ0.98/121,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.46**	**9**		**Pb**	**13 30 56.2**	**+0.9**
CNBA					**Sb**	**13 31 03.0**	**+1.0**
CNBA				IAML		13 31 04.2	
	comp=E,5μm,0.5s						
CNBA				IAML		13 31 04.4	
	comp=N,3μm,0.5s						
SDPT	**Sand Point**	**1.07**	**336**		**Pb**	**13 31 05.5**	**-0.4**
SDPT					**Sb**	**13 31 19.5**	**-0.3**
SDPT					**Sn**	**13 31 19.8**	**-1.2**
SDPT	**Sand Point**	**1.07**	**336**	IAML		13 31 20.9	
	comp=N,875nm,0.6s						
DOL	**Dolgoi Island**	**1.47**	**303**		**Pn**	**13 31 11.4**	**-0.3**
DOL					**Sn**	**13 31 29.4**	**-1.5**
PVV	**Pavlof Volcano**	**1.56**	**311**		**Pn**	**13 31 12.2**	**-0.8**
PVV					**Pb**	**13 31 12.5**	**-1.8**
PS1A	**Pavlof South-1**	**1.57**	**313**		**Pn**	**13 31 12.2**	**-0.9**
PS1A					**Pb**	**13 31 12.5**	**-1.8**
PS1A					**Sn**	**13 31 33.2**	**-0.3**
PS4A	**Pavlof South-4**	**1.58**	**309**		**Pn**	**13 31 11.7**	**-1.4**
PS4A					**Pb**	**13 31 14.2**	**-0.2**
PS4A					**Sn**	**13 31 33.4**	**-0.1**
HAG	**Hague Volcano**	**1.58**	**308**		**Pn**	**13 31 12.2**	**-1.0**
HAG					**Sn**	**13 31 33.5**	**-0.2**
DT1	**Dutton Round H**	**1.66**	**297**		**Pn**	**13 31 13.1**	**-1.2**
DT1					**Pb**	**13 31 13.4**	**-2.4**
DT1					**Sn**	**13 31 33.9**	**-1.7**
DTNA	**Dutton South F**	**1.67**	**299**		**Pn**	**13 31 14.1**	**-0.3**
DTNA					**Pb**	**13 31 14.3**	**-1.6**
DTNA					**Sn**	**13 31 34.9**	**-0.8**
DTNA					**Sb**	**13 31 35.9**	**-1.0**
VNKR	**Veniaminof 5**	**1.68**	**7**		**Sn**	**13 31 14.2**	**-0.3**
VNKR					**Sn**	**13 31 34.9**	**-1.1**
PN7A	**Pavlof North-7**	**1.69**	**310**		**Pn**	**13 31 14.6**	**-0.2**
PN7A					**Pb**	**13 31 14.8**	**-1.6**
PN7A					**Sn**	**13 31 35.8**	**-0.7**
VNSG	**Veniaminof 6**	**1.79**	**11**		**Pn**	**13 31 15.5**	**-0.7**
VNSG					**Pb**	**13 31 17.2**	**-1.0**
VNSG					**Sn**	**13 31 37.7**	**-1.3**
VNHG	**Veniaminof 1**	**1.88**	**9**		**Pn**	**13 31 16.9**	**-0.4**
VNHG					**Pn**	**13 31 17.2**	**-0.2**
VNHG					**Sn**	**13 31 40.1**	**-0.9**
S12K	**Black Hills**	**1.90**	**316**	Pn	**Pn**	**13 31 17.9**	**+0.3**
S12K	**Black Hills**	**1.90**	**316**		**Sn**	**13 31 41.3**	**-0.2**
CHGN	**Chignik**	**2.07**	**20**		**Pn**	**13 31 19.8**	**-0.1**
CHGN				IAML		13 31 52.6	
	comp=E,363nm,0.4s						
CHGN				IAML		13 31 55.7	
	comp=N,257nm,0.6s						
CHGN	**Chignik**	**2.07**	**20**		**Sn**	**13 31 45.0**	**-0.7**
BPBCA	**Veniaminof**	**2.34**	**17**		**Pn**	**13 31 23.6**	**0.0**
SSLS	**Shishaldin Sou**	**2.52**	**280**		**Pn**	**13 31 26.5**	**+0.4**
SSLN	**Shishaldin Nor**	**2.53**	**282**		**Pn**	**13 31 26.6**	**+0.3**
SSLN					**Sn**	**13 31 56.9**	**-0.2**
SSBA	**Shishaldin**	**2.60**	**281**		**Pn**	**13 31 27.7**	**+0.4**
SSBA					**Sn**	**13 31 58.5**	**-0.3**
AZAC	**Aniakchak**	**2.67**	**18**		**Pn**	**13 31 27.4**	**-0.7**
WTUG	**Tugumak**	**2.76**	**282**		**Pn**	**13 31 29.7**	**+0.3**
WTUG					**Pn**	**13 31 29.8**	**+0.4**
WTUG					**Sn**	**13 32 02.5**	**-0.2**
CHIR	**Chirikof Islan**	**2.76**	**57**	P	**Pn**	**13 31 28.7**	**-0.7**
CHIR	**Chirikof Islan**	**2.76**	**57**	Pn	**Pn**	**13 31 29.0**	**-0.4**
CHIR				IAML		13 32 09.8	
	comp=N,77nm,1.1s						
CHIR				IAML		13 32 29.1	
	comp=E,148nm,1.1s						
CHIR	**Chirikof Islan**	**2.76**	**57**		**Sn**	**13 31 59.8**	**-2.9**
WESN	**West Dahl Nort**	**2.85**	**276**		**Pn**	**13 31 31.3**	**+0.6**
WESN					**Sn**	**13 32 04.2**	**-0.8**
WESP	**Westdahl Peak**	**2.93**	**274**		**Pn**	**13 31 32.0**	**+0.3**
WESP					**Sn**	**13 32 06.6**	**-0.3**
WECS	**Westdahl Cape**	**2.96**	**275**		**Pn**	**13 31 32.5**	**+0.3**
WECS					**Sn**	**13 32 07.5**	**-0.2**
WECS	**Westdahl Cape**	**2.96**	**275**	IAML		13 32 22.1	
	comp=N,172nm,1.1s						
WECS				IAML		13 33 16.4	
	comp=E,115nm,1.1s						
R16K	**Pilot Point**	**3.42**	**20**	Pn	**Pn**	**13 31 38.5**	**+0.1**
R16K				IAML		13 33 56.8	
	comp=E,134nm,1.1s						
R16K	**Pilot Point**	**3.42**	**20**		**Sn**	**13 32 16.6**	**-2.3**
AKUT	**Akutan**	**3.56**	**269**	Pn	**Pn**	**13 31 40.6**	**+0.2**
AKUT				IAML		13 33 07.8	
	comp=E,47nm,1.1s						
AKUT				IAML		13 33 10.7	
	comp=N,40nm,1.1s						
AKLV	**Akutan Long Va**	**3.67**	**269**		**Pn**	**13 31 42.1**	**+0.2**
AKLV					**Pn**	**13 31 42.7**	**+0.8**
AKLV					**Sn**	**13 32 23.9**	**-1.2**
AKGG	**Akutan Green G**	**3.69**	**270**		**Pn**	**13 31 42.4**	**+0.3**
AKGG					**Sn**	**13 32 25.1**	**-0.4**
ZRO	**Akutan Zero**	**3.69**	**268**		**Pn**	**13 31 42.2**	**0.0**
ZRO					**Pn**	**13 31 42.8**	**+0.7**
ZRO					**Sn**	**13 32 24.2**	**-1.4**
LVA	**Lava Point**	**3.71**	**269**	Pn	**Pn**	**13 31 42.4**	**-0.1**
R17L	**Mt. Peulik Vol**	**3.77**	**29**		**Pn**	**13 31 43.1**	**-0.2**
R17L					**Sn**	**13 32 26.4**	**-1.2**
SII	**Sitkinak Islan**	**3.83**	**53**		**Pn**	**13 31 43.5**	**-0.7**
PLK5	**Peulik 5**	**3.96**	**22**		**Pn**	**13 31 46.1**	**+0.2**
UNV	**Unalaska Valle**	**4.03**	**265**	P	**Pn**	**13 31 47.9**	**+1.1**
UNV	**Unalaska Valle**	**4.03**	**265**	Pn	**Pn**	**13 31 46.3**	**-0.5**
MNAT	**Makushin Natee**	**4.13**	**266**		**Pn**	**13 31 48.8**	**+0.6**
MSW	**Makushin Switc**	**4.18**	**267**		**Pn**	**13 31 48.7**	**-0.2**
MGOD	**Makushin Gods**	**4.26**	**265**		**Pn**	**13 31 50.5**	**+0.6**
MGOD					**Pn**	**13 31 50.7**	**+0.7**
Q17K	**Contact Creek**	**4.44**	**27**		**Pn**	**13 31 52.4**	**-0.2**
ANCK	**Angle Creek**	**4.50**	**30**		**Pn**	**13 31 53.5**	**+0.2**
ACHA	**Angle Creek He**	**4.56**	**31**	Pn	**Pn**	**13 31 54.5**	**+0.4**
OHAK	**Old Harbor**	**4.62**	**49**	P	**Pn**	**13 31 54.1**	**-0.7**
OHAK	**Old Harbor**	**4.62**	**49**		**Pn**	**13 31 53.8**	**-1.0**
P16K	**Nushagak River**	**4.77**	**11**	Pn	**Pn**	**13 31 57.8**	**+0.9**
P16K				IAML		13 33 42.2	
	comp=N,47nm,1.2s						
KAWH	**Katmai**	**4.86**	**32**		**Pn**	**13 31 58.1**	**-0.2**
O14K	**Tigyukauivet M**	**4.97**	**351**	Pn	**Pn**	**13 32 00.2**	**+0.5**
O14K				IAML		13 33 39.0	
	comp=E,24nm,1.1s						
O14K				IAML		13 33 55.1	
	comp=N,17nm,1.2s						
KARR	**Katmai Rainbow**	**4.98**	**32**		**Pn**	**13 31 59.6**	**-0.3**
KAHG	**Katmai Hook Gl**	**5.03**	**33**		**Pn**	**13 32 00.4**	**-0.2**
KAHG					**Pn**	**13 32 00.6**	**0.0**
KDAK	**Kodiak Island**	**5.25**	**47**		**Pn**	**13 32 02.5**	**-1.1**
KDAK	**Kodiak Island**	**5.25**	**47**	IAML		13 33 03.8	
	comp=N,15nm,1.2s						
Q19K	**Cape Douglas,**	**5.66**	**34**	Pn	**Pn**	**13 32 10.4**	**+1.1**
N15K	**Kwethluk River**	**5.82**	**358**	Pn	**Pn**	**13 32 11.9**	**+0.5**
N16K	**Nishlik Lake**	**6.14**	**4**		**Pn**	**13 32 15.7**	**-0.1**
CLCO	**Concord Point,**	**6.17**	**259**		**Pn**	**13 32 14.3**	**-1.9**
N17K	**Nushagak Hills**	**6.32**	**11**		**Pn**	**13 32 17.5**	**-0.7**
M15K	**Kasigluk River**	**6.36**	**356**		**Pn**	**13 32 18.1**	**-0.7**
M13K	**Dall Lake**	**6.37**	**344**	Pn	**Pn**	**13 32 20.0**	**+1.2**
SLKM	**Skilak Lake**	**8.00**	**36**	Pn	**Pn**	**13 32 42.5**	**+1.2**
K13K	**Kusilvak Mount**	**8.02**	**343**	Pn	**Pn**	**13 32 41.5**	**0.0**
PWL	**Port Wells**	**8.91**	**39**		**Pn**	**13 32 52.1**	**-1.6**
J16K	**Anvik River**	**8.95**	**357**	Pn	**Pn**	**13 32 54.2**	**-0.1**
KNK	**Knik Glacier**	**9.25**	**36**		**Pn**	**13 32 56.5**	**-2.0**
HIN	**Hinchinbrook I**	**9.33**	**44**		**Pn**	**13 32 57.8**	**-1.8**
ADK	**Adak**	**10.50**	**263**	P	**Pn**	**13 33 17.3**	**+1.8**
GRNC	**Granite Creek**	**11.54**	**49**	Pn	**Pn**	**13 33 29.4**	**-0.4**
K24K	**Donnelly Dome**	**11.83**	**31**	Pn	**Pn**	**13 33 33.8**	**+0.1**
PNL	**Peninsula**	**12.25**	**56**	P	**Pn**	**13 33 39.6**	**+0.1**
BCAR	**Beaver Creek A**	**12.71**	**40**	Pn	**Pn**	**13 33 46.2**	**+0.5**
SIT	**Sitka**	**13.98**	**69**	P	**Pn**	**13 34 02.9**	**-0.1**
SKAG	**Skagway**	**14.21**	**59**	P	**Pn**	**13 34 07.5**	**+1.3**
JIS	**Juneau Island**	**14.55**	**64**	P	**Pn**	**13 34 10.7**	**-0.1**
WHY	**Whitehorse**	**14.69**	**55**	Pn	**Pn**	**13 34 14.6**	**+1.7**
TOLK	**Toolik Lake Re**	**15.08**	**14**	P	**P**	**13 34 23.8**	**+0.6**
TOLK				IAmb	IAmb	13 34 53.6	
	comp=Z,4.8nm,1.2s						
J30M	**Hart River**	**15.56**	**40**	P	**P**	**13 34 30.8**	**+2.0**
J30M				IAmb	IAmb	13 34 35.2	
	comp=Z,6.0nm,1.2s						
H29M	**Whitestone**	**15.79**	**33**	Pn	**Pn**	**13 34 28.9**	**+1.7**
I30M	**Mount Dempster**	**15.88**	**38**	P	**P**	**13 34 34.1**	**+1.9**
I30M				IAmb	IAmb	13 34 34.9	
	comp=Z,6.3nm,1.1s						
G29M	**Pine Creek**	**16.33**	**31**	P	**P**	**13 34 38.2**	**+1.0**
G30M	**tAoh Zraii Nji**	**16.93**	**33**		**P**	**13 34 43.8**	**0.0**
G30M				IAmb	IAmb	13 34 59.8	
	comp=Z,5.2nm,1.1s						
INK	**Inuvik**	**18.55**	**31**	P	**Pn**	**13 35 03.1**	**+1.3**
INK				IAmb	IAmb	13 35 38.6	
	comp=Z,3.5nm,1.2s						

*AFAD **03** 13:35:32.3,38.69N×39.64E,h6km±1km,ML3.6 ISK **03** 13:35:32.8,38.74N×39.65E,h3km,ML3.6/22*

ISC 03 13:35:31.7±1.2,38.70N±0.03×39.66E±0.02,h12km±11km, n27,σ1.916/36,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNCL	**Tunceli-Merkez**	**0.42**	**347**	P	**Pb**	**13 35 40.7**	**-0.5**
TNCL				S	**Sb**	**13 35 47.2**	**-0.4**
TNCL				IAML		13 35 49.0	
	comp=E,7μm,0.6s						
TNCL				IAML		13 35 54.0	
	comp=N,5μm,0.7s						
ELZG	**Elazig**	**0.57**	**249**	P	**Pg**	**13 35 43.2**	**+0.4**
ELZG				S	**Sb**	**13 35 51.5**	**-0.2**
ELZG				IAML		13 35 55.0	
	comp=N,4μm,0.7s						
ELZG				IAML		13 35 55.0	
	comp=E,5μm,0.7s						
BNGB	**Bingl**	**0.85**	**70**	Pg	**Pn**	**13 35 49.2**	**-0.3**
BNGB				Sg	**Sn**	**13 36 01.9**	**0.0**
BNGB				AML	AML		
ERZN	**Erzincan**	**0.89**	**3**	Pg	**Pn**	**13 35 49.6**	**-0.5**
ERZN				Sg	**Sn**	**13 36 02.7**	**-0.2**
ERZN				AML	AML		
YEDI	**Yedisu-Bingol**	**1.01**	**43**	Pg	**Pn**	**13 35 52.9**	**+1.1**
YEDI				Sg	**Sn**	**13 36 06.5**	**+0.6**
YEDI				AML	AML		
KEMA	**Kemaliye**	**1.07**	**302**	P	**Pb**	**13 35 51.5**	**-0.7**
KEMA				S	**Sn**	**13 36 07.4**	**0.0**
KEMA				IAML		13 36

PUZ			S	Sn	13 41 08.0	+0.8
RUGZ	**Raukumara Rang**	**5.42 199**	P	Pn	13 40 07.8	+1.7
RUGZ			AML	AML		
RUGZ			AML	AML		
TWGZ	**Tauwhareparae**	**5.54 196**	P	Pn	13 40 11.4	+3.7
TWGZ			S	Sn	13 41 13.2	+1.9
MWZ	**Matawai**	**5.80 199**	P	Pn	13 40 11.1	-0.2
MWZ			AML	AML		
TKGZ	**Te Karaka**	**5.82 197**	P	Pn	13 40 10.4	-1.1
TKGZ			AML	AML		
TKGZ			AML	AML		
URZ	**Urewera**	**5.86 203**	P	Pn	13 40 12.4	+0.4
URZ			AML	AML		
RIGZ	**Rimuhau**	**6.09 196**	P	Pn	13 40 16.3	+1.0
RIGZ			S	Sn	13 41 25.1	+0.2
RIGZ			AML	AML		
RIGZ			AML	AML		
MUGZ	**Murupara**	**6.17 204**	P	Pn	13 40 16.2	-0.1
MUGZ			AML	AML		
MUGZ			AML	AML		
ARHZ	**Aropaoanui**	**6.82 200**	P	Pn	13 40 21.8	-3.4
ARHZ			AML	AML		
BKZ	**Black Stump Fm**	**6.88 203**	P	Pn	13 40 25.8	-0.4
BKZ			AML	AML		
KWHZ	**Kaweka Forest**	**7.14 203**	P	Pn	13 40 28.1	-1.6
KWHZ			AML	AML		
OTVZ	**Oturere**	**7.18 208**	P	Pn	13 40 30.9	+0.6
OTVZ			AML	AML		
SNVZ	**South Ngauruho**	**7.21 208**	P	Pn	13 40 31.1	+0.3
SNVZ			AML	AML		
KAHZ	**Kahuranaki**	**7.35 199**	P	Pn	13 40 32.3	-0.2
KAHZ			AML	AML		
KRHZ	**Kereru**	**7.36 202**	P	Pn	13 40 31.8	-0.8
KRHZ			AML	AML		
KRHZ			AML	AML		

*IDC **03** 14:08:32.4±0.7,57˚.66N×33˚.15W,h0km,mb3.9/13, mbtmp3.9/15,ML4.0/2,MS3.6/31,Error ellipse: s-maj=17.8km s-min=16.0km az=167.0*
*NEIC **03** 14:08:35.4±1.2,57˚.72N±0˚.04×33˚.1W±0˚.1,h10km±1km, mb4.4/29,Error ellipse: s-maj=11.9km s-min=5.0km az=242.0*

ISC 03 14:08:35.5±0.5,**57˚.66N**±0˚.08×**33˚.06W**±0˚.06,**h15**km,**n79,** σ0**93**/57,**mb4.3**/23,**MS3.6**/28,**Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NRS	**Narsarsuaq**	**7.22**	**304**	Pn	**Pn**	**14 10 19.2**	**-1.0**
ANGG	**Ammassalik, Gr**	**8.27**	**347**	Pn	**Pn**	**14 10 32.6**	**-2.1**
BORG	**Borgarnes**	**9.07**	**34**	Pn	**Pn**	**14 10 46.6**	**+0.9**
	1.5nm,0.3s,baz=207,slow=8.8,SNR=6.5						
BORG				Sn	**Sn**	**14 12 25.6**	**-1.8**
	0.4nm,0.3s,baz=90,slow=21,SNR=5.6						
BORG				LR	LR	14 13 24.6	
	comp=Z,378nm,20.1s,baz=233,slow=32						
	18nm,1.0s						
BORG				AML	AML		
SUMG	**Summit**	**15.14**	**354**	Pn	**Pn**	**14 12 08.9**	**+0.1**
SUMG				IAmb	IAmb	14 12 34.7	
	comp=Z,21nm,1.5s						
EKA	**Eskdalemuir Ar**	**16.60**	**85**	Pn	**Pn**	**14 12 28.0**	**+0.5**
	baz=309,slow=9.5						
EKA				LR	LR	14 16 59.9	
	comp=Z,171nm,20.4s,baz=303,slow=30						
	comp=Z,1.7nm,0.8s						
DRLN	**Deer Lake**	**16.74**	**250**	Pn	**P**	**14 12 30.3**	**-1.1**
SCHQ	**Schefferville**	**18.86**	**276**	LR	LR	14 18 48.0	
	comp=Z,332nm,18.4s,baz=102,slow=33						
NOA	**NORSAR Array B**	**22.49**	**63**	P	**P**	**14 13 35.7**	**+1.7**
	comp=Z,1.2nm,0.9s,baz=283,slow=10.0,SNR=2.4						
NOA				LR	LR	14 21 05.5	
	comp=Z,36nm,18.5s,baz=305,slow=33						
	comp=Z,1.2nm,0.9s						
HFS	**Hagfors**	**23.88**	**64**	LR	LR	14 22 22.1	
	comp=Z,55nm,18.0s,baz=310,slow=35						
ESBB	**Sonseca Array**	**26.01**	**121**	P	**P**	**14 14 08.0**	**+0.3**
ESBB				IAmb	IAmb	14 14 13.1	
	comp=Z,20nm,1.4s						
ESDC	**Sonseca Array**	**26.01**	**121**	P	**P**	**14 14 06.9**	**-0.8**
	comp=Z,1.6nm,0.9s,baz=327,slow=9.7,SNR=7.9						
ESDC				LR	LR	14 21 55.2	
	comp=Z,96nm,20.0s,baz=331,slow=31						
	comp=Z,1.6nm,0.9s						
ESDC	**Sonseca Array**	**26.01**	**121**	P	**P**	**14 14 08.0**	**+0.3**
CLL	**Collm**	**27.05**	**84**	L	L	14 22 00.0	
CLL				AMS	AMS	14 23 00.0	
DAVOX	**Davos/Dischmat**	**27.99**	**94**	LR	LR	14 24 54.3	
	comp=Z,132nm,18.7s,baz=262,slow=35						
FUORN	**Ofenpass-Fuorn**	**28.30**	**94**	P	**P**	**14 14 29.2**	**+0.8**
WBO	**Williamsburg**	**28.75**	**262**	P	**P**	**14 14 33.7**	**+1.5**
GERES	**GERESS Array B**	**28.80**	**87**	LR	LR	14 25 13.9	
	comp=Z,76nm,18.7s,baz=272,slow=35						
L61B	**Northampton**	**29.13**	**256**	P	**P**	**14 14 36.2**	**+0.6**
FINES	**FINESS Array B**	**29.30**	**57**	LR	LR	14 24 56.3	
	comp=Z,62nm,19.4s,baz=256,slow=34						
VRAC	**Vranov**	**30.08**	**84**	LR	LR	14 25 34.7	
	comp=Z,94nm,19.5s,baz=313,slow=34						
MORC	**Moravsky Berou**	**30.32**	**83**	P	**P**	**14 14 46.0**	**-0.1**
SADO	**Sadowa**	**30.97**	**266**	LR	LR	14 26 02.3	
	comp=Z,130nm,18.8s,baz=358,slow=34						
MD01	**Midelt array s**	**31.38**	**130**	P	**P**	**14 14 56.8**	**+1.2**
MD31	**MD31**	**31.38**	**130**	P	**P**	**14 14 55.6**	**+0.1**
MD31				IAmb	IAmb	14 15 01.7	
	comp=Z,5.2nm,1.1s						
AKASG	**Malin Array Be**	**35.92**	**74**	P	**P**	**14 15 35.0**	**+0.1**
	comp=Z,0.9nm,0.5s,baz=302,slow=8.7,SNR=4.8						
AKASG				LR	LR	14 30 17.9	
	comp=Z,54nm,18.3s,baz=334,slow=36						
	comp=Z,0.9nm,0.5s						
ULM	**Lac du Bonnet**	**36.47**	**286**	LR	LR	14 28 45.4	
	comp=Z,98nm,19.4s,baz=34,slow=33						
VAE	**Valguarnera**	**36.87**	**102**	LR	LR	14 28 43.7	
	comp=Z,145nm,18.2s,baz=343,slow=33						
MLR	**Muntele Rosu**	**37.43**	**83**	LR	LR	14 30 32.5	
	comp=Z,113nm,19.2s,baz=0.0,slow=35						
YKA	**Yellowknife Ar**	**38.41**	**312**	LR	LR	14 31 11.0	
	comp=Z,226nm,18.0s,baz=10.0,slow=35						
TKL	**Tuckaleechee C**	**39.96**	**259**	LR	LR	14 31 33.8	
	comp=Z,116nm,19.1s,baz=30,slow=35						
CCM	**Cathedral Cave**	**42.16**	**268**	P	**P**	**14 16 28.4**	**+1.3**
E27K	**Coleen River**	**44.09**	**329**	P	**P**	**14 16 43.5**	**+1.2**
E27K				IAmb	IAmb	14 16 48.6	
	comp=Z,5.5nm,1.1s						
BMAR	**Burnt Mountain**	**45.43**	**330**	P	**P**	**14 16 54.1**	**+1.0**
BRTR	**Keskin Array B**	**45.51**	**83**	P	**P**	**14 16 54.8**	**+0.6**
	comp=Z,1.3nm,0.8s,baz=308,slow=6.1,SNR=6.3						
BRTR				LR	LR	14 36 06.2	
	comp=Z,26nm,18.3s,baz=302,slow=36						
	comp=Z,1.3nm,0.8s						
ARTI	**Arti**	**46.11**	**50**	P	**P**	**14 16 58.7**	**+0.2**
DAWY	**Dawson**	**46.30**	**324**	P	**P**	**14 17 00.8**	**+0.8**
DLBC	**Dease Lake**	**46.93**	**314**	LR	LR	14 35 35.4	
	comp=Z,91nm,19.8s,baz=11,slow=35						
ILAR	**Eielson Array**	**48.02**	**328**	P	**P**	**14 17 12.9**	**-0.5**
	comp=Z,1.5nm,0.9s,baz=35,slow=5.8,SNR=14						
ILAR				PcP	**PcP**	**14 18 41.5**	**+0.5**
	comp=Z,1.6nm,0.8s,baz=1.1,slow=2.6,SNR=12						
ILAR				LR	LR	14 35 45.7	
	comp=Z,34nm,21.9s,baz=95,slow=34						
	comp=Z,1.5nm,0.9s						
ILAR	**Eielson Array**	**48.02**	**328**	P	**P**	**14 17 14.0**	**+0.6**
NEW	**Newport**	**48.35**	**297**	LR	LR	14 36 34.1	
	comp=Z,81nm,18.2s,baz=58,slow=35						
PD31	**Pinedale Array**	**48.48**	**287**	P	**P**	**14 17 17.2**	**-0.3**
PD31				IAmb	IAmb	14 17 18.6	
	comp=Z,2.5nm,1.0s						
PDAR	**Pinedale Array**	**48.48**	**287**	P	**P**	**14 17 17.1**	**-0.4**
	comp=Z,1.3nm,0.8s,baz=70,slow=8.5,SNR=6.7						
PDAR				LR	LR	14 36 15.6	
	comp=Z,58nm,18.6s,baz=32,slow=34						
	comp=Z,1.3nm,0.8s						
PDAR	**Pinedale Array**	**48.48**	**287**	P	**P**	**14 17 17.8**	**+0.3**
E19K	**Redstone River**	**48.57**	**335**	P	**P**	**14 17 18.9**	**+1.3**
AKTO	**Aktyubinsk**	**50.07**	**56**	LR	LR	14 38 12.6	
	comp=Z,52nm,20.7s,baz=264,slow=36						
BBB	**Bella Bella**	**50.56**	**307**	LR	LR	14 37 43.1	
	comp=Z,48nm,18.2s,baz=1.0,slow=35						
PV03	**Paradox Valley**	**51.41**	**282**	P	**P**	**14 17 39.6**	**-0.2**
TORD	**Torodi Ar. Bea**	**51.63**	**135**	P	**P**	**14 17 40.0**	**-1.3**
	comp=Z,1.3nm,0.9s,baz=342,slow=6.5,SNR=4.0						
	comp=Z,1.3nm,0.9s						
AB31	**Akbulak array**	**51.78**	**56**	P	**P**	**14 17 42.8**	**+0.6**
AB31				IAmb	IAmb	14 17 48.6	
	comp=Z,4.8nm,1.3s						
ABKAR	**Akbulak array**	**51.78**	**56**	P	**P**	**14 17 42.5**	**+0.4**
ANMO	**Albuquerque**	**52.63**	**278**	LR	LR	14 39 02.0	
	comp=Z,95nm,18.9s,baz=46,slow=35						
ELK	**Elko**	**52.86**	**289**	LR	LR	14 39 06.4	
	comp=Z,55nm,18.2s,baz=40,slow=35						
ASF	**Jabal al Asfar**	**52.91**	**87**	LR	LR	14 41 06.4	
	comp=Z,37nm,19.1s,baz=215,slow=37						
BVAR	**Borovoye Array**	**53.38**	**47**	P	**P**	**14 17 53.5**	**-0.4**
	comp=Z,2.6nm,0.9s,baz=318,slow=6.0,SNR=6.0						
	comp=Z,2.6nm,0.9s						
MOD	**Modoc Plateau**	**54.52**	**294**	P	**P**	**14 18 03.3**	**+0.7**
MOD				IAmb	IAmb	14 18 12.5	
	comp=Z,5.7nm,1.4s						
DBIC	**Dimbokro**	**55.40**	**145**	P	**P**	**14 18 06.7**	**-2.3**
	comp=Z,3.9nm,0.9s,baz=335,slow=5.8,SNR=3.1						
DBIC				LR	LR	14 38 55.4	
	comp=Z,45nm,19.2s,baz=279,slow=33						
	comp=Z,3.9nm,0.9s						
DBIC	**Dimbokro**	**55.40**	**145**	P	**P**	**14 18 07.8**	**-1.1**
DBIC				IAmb	IAmb	14 18 08.6	
	comp=Z,5.2nm,0.9s						
KVN	**Kaiserville**	**55.58**	**290**		**P**	**14 18 11.1**	**+0.8**
KVN				IAmb	IAmb	14 18 16.9	
	comp=Z,4.2nm,1.0s						
YBH	**Yreka Blue Hor**	**55.83**	**295**	LR	LR	14 40 42.6	
	comp=Z,66nm,20.0s,baz=36,slow=35						
NVAR	**Mina Array Bea**	**56.16**	**290**	P	**P**	**14 18 13.4**	**-1.1**
	comp=Z,0.5nm,0.8s,baz=31,slow=7.0,SNR=3.4						
NVAR				LR	LR	14 40 36.6	
	comp=Z,68nm,18.6s,baz=72,slow=34						
	comp=Z,0.5nm,0.8s						
GWY	**Greenwater Val**	**57.04**	**287**	P	**P**	**14 18 20.8**	**0.0**
KURK	**Kurchatov**	**58.35**	**44**	P	**P**	**14 18 29.5**	**0.0**
KURBB	**Kurchatov Arra**	**58.39**	**44**	P	**P**	**14 18 29.3**	**-0.5**
	comp=Z,1.7nm,0.7s,baz=322,slow=7.5,SNR=13						
	comp=Z,1.7nm,0.7s						
PFO	**Pinyon Flats O**	**58.93**	**285**	LR	LR	14 43 07.5	
	comp=Z,59nm,18.1s,baz=50,slow=35						
KKAR	**Karatay Array**	**61.20**	**54**	P	**P**	**14 18 49.7**	**+0.4**
RTAL	**Retalhuleu**	**61.25**	**251**	P	**P**	**14 18 50.3**	**+0.5**
MAKZ	**Makanchi**	**62.83**	**44**	P	**P**	**14 19 00.5**	**+0.3**
MAKZ				IAmb	IAmb	14 19 11.0	
	comp=Z,2.6nm,1.2s						
MK31	**Makanchi Array**	**62.96**	**44**	P	**P**	**14 19 01.0**	**0.0**
MK31				IAmb	IAmb	14 19 35.7	
	comp=Z,3.5nm,1.4s						
MKAR	**Makanchi Array**	**62.96**	**44**	P	**P**	**14 19 00.9**	**-0.1**
	comp=Z,1.5nm,0.8s,baz=332,slow=6.4,SNR=12						
	comp=Z,1.5nm,0.8s						
AAK	**Ala-Archa**	**63.29**	**52**	P	**P**	**14 19 04.2**	**+0.7**
BTK	**Batken**	**63.79**	**56**	P	**P**	**14 19 07.3**	**+0.6**
BTK				IAmb	IAmb	14 19 08.4	
	comp=Z,4.2nm,0.9s						
SONM	**Songino Array**	**69.64**	**28**	P	**P**	**14 19 43.5**	**-0.5**
	comp=Z,1.0nm,0.5s,baz=318,slow=4.6,SNR=5.6						
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	**69.64**	**28**	IAmb	IAmb	14 19 47.2	
	comp=Z,1.5nm,1.0s						
NIL	**Nilore**	**70.17**	**58**	P	**P**	**14 19 47.4**	**+0.1**
NIL				IAmb	IAmb	14 19 48.6	
	comp=Z,4.3nm,0.8s						
LPAZ	**La Paz**	**79.20**	**214**	P	**P**	**14 20 40.7**	**+0.4**
LPAZ				IAmb	IAmb	14 20 48.5	
	comp=Z,7.8nm,1.5s						
WRA	**Warramunga Arr**	**141.20**	**19**	PKP	**PKPdf**	**14 28 03.6**	**-1.6**
	comp=Z,0.9nm,1.1s,baz=335,slow=4.1,SNR=2.6						
ASAR	**Alice Springs**	**144.76**	**21**	PKP	PKPbc	14 28 10.2	-0.1
	comp=Z,2.7nm,0.9s,baz=347,slow=2.7,SNR=18						
QSPA	**South Pole Qui**	**147.56**	**180**	PKPbc	**PKPdf**	**14 28 15.0**	**+0.2**
	comp=Z,5.3nm,1.0s,baz=233,slow=1.3,SNR=8.4						
QSPA	**South Pole Qui**	**147.56**	**180**		**PKPbc**	**14 28 15.6**	**-1.9**

*THE **03** 14:11:41.5,38˚.N±3˚×2˚.6E±˚,h2km±7km,M3.0/10, MLh3.0/10*
*AFAD **03** 14:11:41.0,37˚.79N×26˚.06E,h7km±4km,ML2.8*
*ISK **03** 14:11:41.2,37˚.76N×26˚.07E,h6km,ML2.8/22*
*ATH **03** 14:11:41.7,37˚.81N×26˚.10E,h17km±1km,ML2.9/6, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 03 14:11:41.0±1.0,**37˚.82N**±0˚.02×**26˚.02E**±0˚.02,**h14**km±9km, **n84,** σ0**79**/116,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.54**	**92**	P	**Pg**	**14 11 51.6**	**-0.1**
KRL1				S	**Sg**	**14 11 58.0**	**-0.9**
KRL1				AML	AML		
CESE	**eme**	**0.56**	**23**	Pg	**Pb**	**14 11 53.1**	**+0.6**
CESE				Sg	**Sn**	**14 12 02.0**	**-1.6**
CESE				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.57**	**42**	P	**Pb**	**14 11 53.0**	**+0.3**
ZEYE				S	**Sb**	**14 12 01.9**	**+1.3**
ZEYE				IAML		14 12 02.0	
	comp=E,607nm,0.3s						
ZEYE				IAML		14 12 03.0	
	comp=N,541nm,0.2s						
CHOS	**Chios island**	**0.57**	**3**	Pg	**Pb**	**14 11 53.5**	**+0.7**
CHOS				Sg	**Sn**	**14 12 02.9**	**-1.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.57**	**3**	P	**Pb**	**14 11 52.8**	**-0.1**
CHOS				S	**Sb**	**14 12 01.4**	**+0.5**
DGB	**zmir**	**0.72**	**71**	P	**Pg**	**14 11 53.5**	**-1.5**
DGB				S	**Sg**	**14 12 04.5**	**0.0**
EAG2	**Marmaro, Chios**	**0.73**	**5**	P	**Pn**	**14 11 56.0**	**-0.9**
EAG2				S	**Sn**	**14 12 06.3**	**-1.5**
TNSA	**Tinos**	**0.74**	**248**	P	**Pn**	**14 11 56.7**	**-0.2**
TNSA				S	**Sn**	**14 12 07.7**	**-0.2**
TNSA				AML	AML		
GMLD	**Gumuldur**	**0.75**	**70**	Pg	**Pg**	**14 11 55.6**	**0.0**
GMLD				Sg	**Sb**	**14 12 05.9**	**-0.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.82**	**60**	P	**Pg**	**14 11 55.8**	**-1.2**
BEYE				S	**Sg**	**14 12 07.8**	**0.0**
BEYE				IAML		14 12 09.0	
	comp=N,328nm,0.4s						
BEYE				IAML		14 12 13.0	
	comp=E,215nm,0.3s						
APE	**Apeiranthos**	**0.84**	**208**	P	**Pn**	**14 11 58.0**	**-0.4**
APE				S	**Sn**	**14 12 10.3**	**-0.4**
APE				AML	AML		
APE	**Apeiranthos**	**0.84**	**208**	Pg	**Pg**	**14 11 57.4**	**+0.1**
APE				Sg	**Sb**	**14 12 09.2**	**+0.6**
APE				AML	AML		
APE	**Apeiranthos**	**0.84**	**208**	P	**Pn**	**14 11 57.7**	**-0.8**
APE				S	**Sn**	**14 12 09.8**	**-0.9**
KRBN	**Karaburun**	**0.88**	**28**	Pg	**Pn**	**14 11 58.4**	**-0.6**
KRBN				Sg	**Sn**	**14 12 12.3**	**+0.7**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**20**	P	**Pb**	**14 11 58.0**	**-0.3**
KARB				S	**Sn**	**14 12 11.2**	**-0.8**
KARB				IAML		14 12 14.0	
	comp=N,208nm,0.7s						
KARB				IAML		14 12 14.0	
	comp=E,342nm,0.5s						
GCAM	**G?zelcaml?**	**0.97**	**97**	P	**Pb**	**14 11 58.7**	**-0.8**
GCAM				S	**Sg**	**14 12 12.3**	**0.0**
GCAM				IAML		14 12 13.0	
	comp=E,268nm,0.5s						
GCAM				IAML		14 12 18.0	
	comp=N,295nm,0.4s						
GCAM	**G?zelcaml?**	**0.97**	**97**	Pg	**Pb**	**14 11 59.2**	**-0.3**
GCAM				AML	AML		
BLCB	**Balcova**	**0.98**	**54**	P	**Pb**	**14 11 58.6**	**-1.2**
BLCB	**Balcova**	**0.98**	**54**	Pg	**Pn**	**14 12 00.1**	**-0.3**
BLCB				AML	AML		
KUSD	**Kusadasi-Aydin**	**1.00**	**87**	Pg	**Pb**	**14 11 59.9**	**-0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**1.03**	**110**	P	**Pb**	**14 12 00.0**	**-0.6**
DDIM				S	**Sn**	**14 12 15.3**	**0.0**
DDIM				IAML		14 12 16.0	
	comp=E,419nm,0.6s						
DDIM				IAML		14 12 17.0	
	comp=N,391nm,0.5s						
FOCM	**Foa**	**1.05**	**32**	Pn	**Pg**	**14 12 02.3**	**+1.0**
FOCM				AML	AML		
BAGT	**Foa**	**1.06**	**38**	P	**Pg**	**14 12 01.4**	**-0.1**
BAGT				S	**Sn**	**14 12 17.9**	**+1.9**
BAGT				IAML		14 12 19.0	
	comp=N,260nm,0.4s						
BAGT				IAML		14 12 19.0	
	comp=E,346nm,0.4s						
DUVT	**Torbali**	**1.20**	**70**	P	**Pn**	**14 12 03.1**	**-0.2**
DUVT				S	**Sn**	**14 12 19.0**	**-0.4**
DUVT				IAML		14 12 21.0	
	comp=E,275nm,0.3s						
YKAV	**Yalikavak-Bodr**	**1.22**	**124**	Pn	**Pb**	**14 12 03.6**	**-0.2**
YKAV				AML	AML		
BODT	**Bodrum**	**1.27**	**126**	P	**Pn**	**14 12 04.2**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**1.27**	**126**	Pn	**Pb**	**14 12 04.7**	**0.0**
BODT				AML	AML		
KARY	**Karystos**	**1.27**	**280**	P	**Pg**	**14 12 05.4**	**-0.1**
KARY				AML	AML		
KARY	**Karystos**	**1.27**	**280**	P	**Pg**	**14 12 05.2**	**-0.3**
KARY				S	**Sg**	**14 12 22.6**	**+0.6**
KARY				AML	AML		
ASTA	**Astypalaia**	**1.30**	**168**	P	**Pn**	**14 12 04.7**	**-0.4**
ASTA				S	**Sn**	**14 12 21.9**	**+0.1**
BDRM	**Kayabasi**	**1.36**	**123**	P	**Pn**	**14 12 05.7**	**+0.2**
BDRM				S	**Sg**	**14 12 26.9**	**+2.1**
BDRM				IAML		14 12 35.0	
	comp=N,80nm,0.7s						
CAMT	**Merkez**	**1.38**	**47**	P	**Pb**	**14 12 06.8**	**+0.3**
CAMT				S	**Sg**	**14 12 26.8**	**+1.4**
CAMT				IAML		14 12 29.0	
	comp=N,343nm,0.5s						
CAMT				IAML		14 12 30.0	
	comp=E,307nm,0.6s						
ZEDA	**zmir-Bergama**	**1.42**	**36**	P	**Pg**	**14 12 08.3**	**+0.1**
ZEDA				S	**Sg**	**14 12 26.7**	**0.0**
ZEDA				IAML		14 12 30.0	
	comp=N,138nm,0.4s						
ZEDA				IAML		14 12 31.0	
	comp=E,72nm,0.4s						
CMBO	**Columbo, Santo**	**1.43**	**200**	P	**Pb**	**14 12 06.8**	**-0.6**
CMBO				S	**Sg**	**14 12 28.9**	**+1.8**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.43**	**200**	P	**Pb**	**14 12 06.7**	**-0.7**
DKL	**Dikili**	**1.43**	**29**	Pn	**Pg**	**14 12 08.5**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.43**	**29**	P	**Pb**	**14 12 07.3**	**-0.2**
PRK	**Paraskevi**	**1.44**	**8**	S	**Sb**	**14 12 26.2**	**+0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**1.44**	**8**	P	**Pn**	**14 12 06.4**	**-0.3**
PRK				AML	AML		
THR8	**Santorini-Mono**	**1.47**	**197**	P	**Pg**	**14 12 09.3**	**0.0**
THR8	**Santorini-Mono**	**1.47**	**197**	P	**Pb**	**14 12 08.4**	**+0.3**
AYDN	**Tasoluk**	**1.48**	**95**	P	**Pb**	**14 12 08.3**	**0.0**
AYDN				S	**Sg**	**14 12 29.0**	**+0.3**
AYDN				IAML		14 12 30.0	
	comp=E,123nm,0.9s						
AYDN				IAML		14 12 31.0	
	comp=N,137nm,0.3s						
SAP3	**Santorini-Thir**	**1.48**	**202**	P	**Pg**	**14 12 09.1**	**-0.3**
SAP3				S	**Sg**	**14 12 30.1**	**+1.4**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.48**	**202**	P	**Pb**	**14 12 08.1**	**-0.2**
AYDB	**Zeytinkoy-Aydi**	**1.48**	**84**	Pn	**Pb**	**14 12 08.7**	**+0.3**
AYDB				AML	AML		
MLSB	**Milas**	**1.49**	**110**	Pn	**Pb**	**14 12 08.3**	**-0.1**
MLSB				AML	AML		
THR3	**Thira Island,**	**1.49**	**200**	P	**Pb**	**14 12 07.9**	**-0.6**
THR3	**Thira Island,**	**1.49**	**200**	P	**Pb**	**14 12 07.9**	**-0.6**
SNT5	**Nea Kammeni, S**	**1.50**	**200**	P	**Pg**	**14 12 09.5**	**-0.3**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.50**	**200**	P	**Pb**	**14 12 08.8**	**+0.3**
THR5	**Thira Island,**	**1.50**	**201**	P	**Pb**	**14 12 08.6**	**0.0**
THR5	**Thira Island,**	**1.50**	**201**	P	**Pb**	**14 12 07.8**	**-0.8**
THERA	**Ancient Thera,**	**1.51**	**197**	P	**Pg**	**14 12 09.3**	**-0.7**
THERA				S	**Sg**	**14 12 30.6**	**+0.9**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.51**	**197**	P	**Pn**	**14 12 07.5**	**-0.2**
THERA				AML	AML		
THR6	**Thira Island,**	**1.54**	**199**	P	**Pg**	**14 12 09.9**	**-0.7**
THR6	**Thira Island,**	**1.54**	**199**	P	**Pb**	**14 12 09.2**	**-0.1**
THR9	**Santorini-Faro**	**1.55**	**200**	P	**Pb**	**14 12 08.8**	**-0.7**
IZMR	**zmir-demi**	**1.56**	**78**	P	**Pg**	**14 12 10.5**	**-0.4**
IZMR				S	**Sg**	**14 12 30.2**	**-1.0**
IZMR				IAML		14 12 34.0	
	comp=E,78nm,0.8s						
DAT	**Datca**	**1.65**	**131**	Pn	**Pb**	**14 12 10.5**	**-0.7**
DAT				AML	AML		
DION	**Dionisos Attik**	**1.67**	**280**	P	**Pb**	**14 12 11.1**	**-0.4**
DION	**Dionisos Attik**	**1.67**	**280**	P	**Pb**	**14 12 11.0**	**-0.6**
MHLO	**Agia Marina, M**	**1.71**	**229**	P	**Pb**	**14 12 11.4**	**-0.9**
KYMI	**Kymi, Euboea I**	**1.72**	**299**	P	**Pb**	**14 12 12.0**	**-0.3**
PTL	**Penteli**	**1.72**	**278**	P	**Pb**	**14 12 11.6**	**-0.8**
GOMA	**Golmarmara-Man**	**1.74**	**59**	Pn	**Pb**	**14 12 12.6**	**0.0**
GOMA				AML	AML		
AKHS	**Akhisar**	**1.76**	**52**	P	**Pb**	**14 12 12.9**	**-0.2**
AKHS				S	**Sg**	**14 12 38.1**	**+0.4**
AKHS				IAML		14 12 39.0	
	comp=N,140nm,0.5s						
AKS	**Akhisar**	**1.76**	**52**	Pn	**Pb**	**14 12 12.9**	**-0.2**
AKS				AML	AML		
VLY	**Voula,Athens**	**1.77**	**272**	P	**Pb**	**14 12 12.2**	**-0.9**
ATHU	**Athens Univers**	**1.78**	**276**	P	**Pb**	**14 12 13.4**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.80**	**85**	Pn	**Pb**	**14 12 13.4**	**-0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.84**	**90**	P	**Pb**	**14 12 15.1**	**+0.7**
ESEN				S	**Sg**	**14 12 40.2**	**0.0**
KTTT	**Salihli**	**1.85**	**61**	P	**Pb**	**14 12 14.7**	**+0.1**
KTTT				S

MAT				eS	S	14 20 49.1	-0.5
JKG	**Kaga**	**1.65**	**318**	P	Pn	14 20 17.8	+0.4
JWT	**Wachi**	**1.90**	**277**	P	Pn	14 20 19.8	+0.5
JWY	**Kouya**	**1.93**	**245**	P	Pn	14 20 20.2	+0.4
JAG	**Ashikaga**	**1.97**	**46**	P	Pn	14 20 19.6	-0.4
JAG				S	S	14 20 53.5	-2.1
JTNC	**Tanabenakahech**	**2.12**	**235**	P	Pn	14 20 21.8	+0.4
JTNC				eS	S	14 20 57.7	-0.4
BSO1	**Boso 1**	**2.73**	**98**	P	Pn	14 20 26.7	+0.5
BSO1				eS	S	14 21 07.2	+0.2
JAI	**Aioi**	**2.97**	**246**	eP	Pn	14 20 29.1	-0.2
MKAR	**Makanchi Array**	**42.65**	**303**	P	P	14 27 04.7	+0.4
	0.4nm,0.5s,baz=88,slow=9.9,SNR=5.8 0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**44.88**	**309**	P	P	14 27 22.1	+0.3
	0.6nm,0.4s,baz=87,slow=6.6,SNR=6.1 0.6nm,0.4s						
BVAR	**Borovoye Array**	**49.69**	**313**	P	P	14 27 59.6	+0.8
	0.4nm,0.4s,baz=76,slow=8.5,SNR=4.1 0.4nm,0.4s						
WRA	**Warramunga Arr**	**54.79**	**184**	P	P	14 28 35.1	-1.2
	0.2nm,0.8s,baz=2.8,slow=7.3,SNR=1.2 0.2nm,0.8s						

*NEIC **03** 14:46:25.4±1.3,6.°10S±0.°06×146.°8E±0.°1,h58km±7km, mb4.4/27,Error ellipse: s-maj=14.6km s-min=8.9km az=91.0*
*IDC **03** 14:46:26.4±2.2,6.°20S×146.°82E,h79km±19km,mb3.7/8, mbtmp4.1/13,MS3.2/8,Error ellipse: s-maj=22.9km s-min=15.3km az=101.0*

ISC 03 14:46:26.5±0.6,6.°17S±0.°06×146.°83E±0.°08,h78km,n57, σ0s85/49,mb4.4/17,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.23**	**174**	P	**Pn**	**14 47 14.6**	**-0.5**
	49nm,0.3s,baz=10,slow=5.9,SNR=82						
PMG				S	**Sn**	**14 47 52.0**	**-0.5**
	72nm,0.5s,baz=279,slow=16,SNR=5.0						
PMG				LR	LR	14 49 01.4	
	comp=Z,409nm,20.6s,baz=14,slow=48						
PMG	**Port Moresby**	**3.23**	**174**		**Pn**	**14 47 14.5**	**-0.6**
MANU	**Manus Island**	**4.13**	**7**		Pn	14 47 22.1	-5.2
KRVT	**Keravat (AS076**	**5.50**	**71**	P	**Pn**	**14 47 46.0**	**+0.1**
	22nm,0.3s,baz=204,slow=21,SNR=4.7						
KRVT				LR	LR	14 49 42.0	
	comp=Z,140nm,19.4s,baz=246,slow=36						
RABL	**Rabaul**	**5.66**	**70**	Pn	**Pn**	**14 47 46.5**	**-1.7**
CTA	**Charters Tower**	**13.85**	**182**	P	**Pn**	**14 49 40.0**	**+0.6**
	6.9nm,1.0s,baz=2.7,slow=13,SNR=6.4						
CTA				LR	LR	14 55 00.9	
	comp=Z,145nm,18.7s,baz=32,slow=37						
CTAO	**Charters Tower**	**13.85**	**182**	P	**P**	**14 49 45.4**	**+0.3**
SIJI	**Sorong**	**16.40**	**288**	P	**Pn**	**14 50 12.1**	**0.0**
	5.5nm,0.5s,baz=157,slow=9.6,SNR=12						
MTN	**Manton Dam**	**16.84**	**246**		**Pn**	**14 50 17.2**	**-0.2**
MTN				IAmb	IAmb	14 50 41.3	
	comp=Z,13nm,1.4s						
WB0	**Warramunga Arr**	**18.14**	**221**	P	**P**	**14 50 32.5**	**-0.2**
WR8	**Warramunga Arr**	**18.20**	**220**	P	**P**	**14 50 33.2**	**-0.2**
WRAB	**Tennant Creek**	**18.28**	**220**	P	**P**	**14 50 34.0**	**-0.3**
WRA	**Warramunga Arr**	**18.30**	**220**	P	**P**	**14 50 33.8**	**-0.7**
	comp=Z,2.3nm,0.8s,baz=38,slow=11,SNR=22						
WRA				PcP	**PcP**	**14 55 03.4**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=27,slow=1.8,SNR=5.5						
WRA	**Warramunga Arr**	**18.30**	**220**	P	**P**	**14 50 32.5**	**-1.9**
EIDS	**Eidsvold**	**19.52**	**168**	Pn	**Pn**	**14 50 49.6**	**-0.2**
EIDS				IAmb	IAmb	14 51 32.2	
	comp=Z,13nm,1.2s						
GUMO	**Guam**	**19.73**	**354**	LR	LR	14 57 20.1	
	comp=Z,31nm,20.6s,baz=164,slow=33						
TNTI	**Ternate**	**20.62**	**289**	P	**P**	**14 50 59.9**	**+0.1**
TNTI				IAmb	IAmb	14 51 40.2	
	comp=Z,17nm,1.3s						
AS31	**Alice Springs**	**21.38**	**214**	P	**P**	**14 51 08.6**	**+0.6**
ASAR	**Alice Springs**	**21.39**	**214**	P	**P**	**14 51 08.7**	**+0.7**
	comp=Z,1.3nm,0.6s,baz=56,slow=8.9,SNR=63						
ASAR				PcP	**PcP**	**14 55 08.7**	**-0.5**
	comp=Z,0.2nm,0.4s,baz=38,slow=1.6,SNR=1.5						
ASAR				LR	LR	15 00 34.1	
	comp=Z,153nm,19.5s,baz=47,slow=40						
	comp=Z,1.3nm,0.6s						
ASAR	**Alice Springs**	**21.39**	**214**	P	**P**	**14 51 08.2**	**+0.3**
INKA	**Innaminka**	**22.22**	**194**	P	**P**	**14 51 17.4**	**+0.7**
INKA				IAmb	IAmb	14 51 20.5	
	comp=Z,7.5nm,0.5s						
SOEI	**Soe**	**22.62**	**259**	P	**P**	**14 51 21.6**	**+0.2**
SOEI				IAmb	IAmb	14 51 45.5	
	comp=Z,27nm,1.4s						
FITZ	**Fitzroy Crossi**	**23.83**	**238**	P	**P**	**14 51 31.3**	**-1.4**
	comp=Z,6.4nm,0.8s,baz=56,slow=14,SNR=12						
	comp=Z,6.4nm,0.8s						
FITZ	**Fitzroy Crossi**	**23.83**	**238**	P	**P**	**14 51 32.7**	**0.0**
LUWI	**Luwuk**	**24.54**	**281**	P	**P**	**14 51 39.4**	**+0.3**
ARMA	**Armidale**	**24.54**	**170**	P	**P**	**14 51 39.5**	**+0.4**
ARMA				IAmb	IAmb	14 52 12.3	
	comp=Z,22nm,1.4s						
STKA	**Stephens Creek**	**26.04**	**190**	P	**P**	**14 51 51.8**	**-0.9**
	comp=Z,1.1nm,0.3s,baz=353,slow=8.7,SNR=12						
STKA				LR	LR	15 02 38.2	
	comp=Z,76nm,20.2s,baz=23,slow=37						
	comp=Z,1.1nm,0.3s						
STKA	**Stephens Creek**	**26.04**	**190**	P	**P**	**14 51 52.7**	**+0.1**
STKA				IAmb	IAmb	14 52 17.4	
	comp=Z,35nm,1.4s						
H11S3	**WAKE ISLAND Hy**	**31.37**	**38**	T	T	15 25 28.6	
	baz=220,slow=74,SNR=3.4						
H11S2	**WAKE ISLAND Hy**	**31.38**	**38**	T	T	15 25 28.3	
	baz=220,slow=74,SNR=4.4						
H11S1	**WAKE ISLAND Hy**	**31.39**	**38**	T	T	15 25 27.9	
	baz=220						
H11N1	**WAKE ISLAND Hy**	**32.42**	**37**	T	T	15 26 46.7	
	baz=218,slow=76,SNR=4.2						
H11N3	**WAKE ISLAND Hy**	**32.44**	**37**	T	T	15 26 47.2	
	baz=218,slow=76,SNR=5.1						
H11N2	**WAKE ISLAND Hy**	**32.44**	**37**	T	T	15 26 45.9	
	baz=218,slow=76,SNR=8.6						
KSRS	**Korea Array**	**46.85**	**339**	LR	LR	15 11 30.2	
	comp=Z,17nm,21.1s,baz=25,slow=32						
KULM	**Kulim**	**47.49**	**283**	P	**P**	**14 54 53.8**	**-0.4**
KULM				IAmb	IAmb	14 55 22.1	
	comp=Z,10nm,1.2s						
CMAR	**Chiang Mai Arr**	**53.18**	**298**	P	**P**	**14 55 37.0**	**-0.2**
	comp=Z,0.3nm,0.3s,baz=122,slow=5.6,SNR=4.5						
	comp=Z,0.3nm,0.3s						
PETK	**Petropavlovsk-**	**59.77**	**8**	P	**P**	**14 56 23.5**	**+0.3**
	comp=Z,2.8nm,0.9s,baz=222,slow=7.7,SNR=1.3						
	comp=Z,2.8nm,0.9s						
YAK	**Yakutsk**	**69.28**	**351**	LR	LR	15 27 09.5	
	comp=Z,22nm,19.1s,baz=186,slow=35						
VNDA	**Vanda**	**71.75**	**177**	P	**P**	**14 57 40.1**	**+0.1**
	comp=Z,1.4nm,0.8s,baz=325,slow=6.2,SNR=12						
	comp=Z,1.4nm,0.8s						
VNDA	**Vanda**	**71.75**	**177**	P	**P**	**14 57 41.8**	**+1.8**
VNDA				IAmb	IAmb	14 57 43.3	
	comp=Z,1.6nm,0.8s						
L14K	**Kuka Creek**	**77.79**	**22**	P	**P**	**14 58 16.1**	**+1.1**
L14K				IAmb	IAmb	14 58 49.3	
	comp=Z,8.8nm,1.1s						
J17K	**VABM Dome**	**80.37**	**22**	P	**P**	**14 58 30.7**	**+1.6**
J17K				IAmb	IAmb	14 58 39.6	
	comp=Z,7.3nm,1.2s						
G18K	**Tagagawik**	**81.97**	**20**	P	**P**	**14 58 38.6**	**+1.1**
G18K				IAmb	IAmb	14 59 14.5	
	comp=Z,6.0nm,1.2s						
CAST	**Castle Rocks**	**83.05**	**23**	P	**P**	**14 58 43.7**	**+0.5**
CAST				IAmb	IAmb	14 59 03.7	
	comp=Z,10.0nm,1.4s						
E19K	**Redstone River**	**83.33**	**19**	P	**P**	**14 58 46.1**	**+1.5**
D19K	**Kuna River**	**83.64**	**18**	P	**P**	**14 58 47.0**	**+0.9**
IMAR	**Indian Mountai**	**83.70**	**21**	P	**P**	**14 58 47.3**	**+0.8**
QSPA	**South Pole Qui**	**83.80**	**180**	P	**P**	**14 58 46.2**	**-1.0**
	comp=Z,1.5nm,0.8s,baz=42,slow=1.6,SNR=4.4						
	comp=Z,1.5nm,0.8s						
QSPA	**South Pole Qui**	**83.80**	**180**	P	**P**	**14 58 48.0**	**+0.8**
QSPA				IAmb	IAmb	14 59 09.4	
	comp=Z,2.5nm,1.1s						
SCM	**Sheep Creek Mo**	**84.31**	**26**	P	**P**	**14 58 50.0**	**+0.2**
D22K	**Ayikyak River**	**85.52**	**18**	P	**P**	**14 58 56.5**	**+0.8**
ILAR	**Eielson Array**	**85.70**	**23**	P	**P**	**14 58 55.8**	**-0.8**
	comp=Z,1.1nm,0.8s,baz=250,slow=5.4,SNR=7.4						
	comp=Z,1.1nm,0.8s						
D23K	**Nanushuk River**	**86.20**	**19**	P	**P**	**14 59 00.1**	**+1.2**
D23K				IAmb	IAmb	14 59 34.8	
	comp=Z,7.2nm,1.3s						
L29M	**L29M**	**88.76**	**26**	P	**P**	**14 59 12.5**	**+1.1**
TORD	**Torodi Ar. Bea**	**144.97**	**284**	PKP	PKPbc	15 05 55.3	+0.1
	comp=Z,1.8nm,0.8s,baz=88,slow=3.0,SNR=8.0						
DBIC	**Dimbokro**	**151.86**	**273**	PKPbc	**PKPbc**	**15 06 12.0**	**-1.6**
	comp=Z,1.6nm,0.8s,baz=53,slow=3.0,SNR=4.5						

*ISK **03** 14:50:18.9,37.°78N×26.°37E,h22km, ML2.6/14*
*THE **03** 14:50:19.7,38.°N±1.°×2.°6E±.°, h2km±2km,M2.7/6,MLh2.7/6*
*AFAD **03** 14:50:19.1,37.°81N×26.°39E,h7km±2km,ML2.5*
*ATH **03** 14:50:20.6,37.°80N×26.°31E,h5km±1km,ML2.7/8,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 03 14:50:19.6±1.0,37.°81N±0.°02×26.°41E±0.°02,h9km±9km, n45,σ0s63/67,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZEYE	**Izmir, Urla-Ze**	**0.43**	**10**	P	**Pg**	**14 50 27.8**	**-0.3**
ZEYE				S	**Sg**	**14 50 34.8**	**+1.0**
ZEYE				IAML		14 50 35.0	
	comp=E,689nm,0.2s						
ZEYE				IAML		14 50 36.0	
	comp=N,711nm,0.3s						
DGB	**zmir**	**0.45**	**57**	P	**Pg**	**14 50 27.9**	**-0.4**
DGB				S	**Sg**	**14 50 34.4**	**+0.2**
GMLD	**Gumuldur**	**0.48**	**56**	Pg	**Pg**	**14 50 29.6**	**+0.7**
GMLD				Sg	**Sb**	**14 50 37.4**	**0.0**
GMLD				AML	AML		
CESE	**eme**	**0.53**	**351**	Pg	**Pg**	**14 50 30.5**	**+0.7**
CESE				Sg	**Sb**	**14 50 39.0**	**+0.3**
CESE				AML	AML		
BEYE	**izmir**	**0.58**	**44**	P	**Pg**	**14 50 30.2**	**-0.7**
BEYE				S	**Sg**	**14 50 39.1**	**+0.6**
BEYE				IAML		14 50 41.0	
	comp=E,217nm,0.2s						
BEYE				IAML		14 50 43.0	
	comp=N,216nm,0.3s						
CHOS	**Chios island**	**0.64**	**334**	P	**Pg**	**14 50 31.3**	**-0.7**
CHOS				S	**Sg**	**14 50 39.8**	**-0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.64**	**334**	Pg	**Pg**	**14 50 32.6**	**+0.6**
CHOS				Sg	**Sb**	**14 50 42.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.64**	**334**	P	**Pb**	**14 50 33.0**	**0.0**
CHOS				S	**Sg**	**14 50 41.3**	**+0.9**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.66**	**99**	P	**Pg**	**14 50 32.3**	**-0.1**
GCAM				IAML		14 50 42.0	
	comp=E,181nm,0.4s						
GCAM				S	**Sb**	**14 50 42.6**	**0.0**
GCAM				IAML		14 50 44.0	
	comp=N,218nm,0.3s						
GCAM	**G?zelcaml?**	**0.66**	**99**	Pg	**Pg**	**14 50 32.6**	**+0.2**
GCAM				Sg	**Sb**	**14 50 43.4**	**+0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.70**	**86**	Pg	**Pg**	**14 50 33.6**	**+0.6**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.75**	**118**	P	**Pb**	**14 50 35.0**	**+0.3**
DDIM				S	**Sb**	**14 50 45.5**	**+0.5**
DDIM				IAML		14 50 54.0	
	comp=N,216nm,0.5s						
DDIM				IAML		14 50 54.0	
	comp=E,236nm,0.5s						
BLCB	**Balcova**	**0.76**	**41**	P	**Pg**	**14 50 33.3**	**-0.9**
BLCB	**Balcova**	**0.76**	**41**	Pg	**Pg**	**14 50 34.5**	**+0.2**
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.77**	**342**	P	**Pg**	**14 50 34.9**	**+0.5**
EAG2				S	**Sb**	**14 50 45.6**	**-0.1**
KRBN	**Karaburun**	**0.79**	**8**	Pg	**Pg**	**14 50 34.5**	**-0.3**
KRBN				Sg	**Sb**	**14 50 47.1**	**+0.8**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.85**	**0**	P	**Pg**	**14 50 35.3**	**-0.7**
KARB				S	**Sb**	**14 50 48.0**	**-0.1**
KARB				IAML		14 50 50.0	
	comp=E,275nm,0.7s						
KARB				IAML		14 50 54.0	
	comp=N,165nm,0.5s						
BAGT	**Foa**	**0.91**	**22**	P	**Pg**	**14 50 36.6**	**-0.5**
BAGT				IAML		14 50 49.0	
	comp=N,399nm,2.4s						
BAGT				S	**Sb**	**14 50 50.6**	**+0.8**
BAGT				IAML		14 50 52.0	
	comp=E,468nm,0.4s						
DUVT	**Torbali**	**0.92**	**63**	P	**Pg**	**14 50 36.9**	**-0.3**
DUVT				IAML		14 50 52.0	
	comp=E,150nm,0.3s						
FOCM	**Foa**	**0.94**	**16**	Pg	**Pg**	**14 50 37.5**	**-0.1**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.96**	**152**	P	**Pn**	**14 50 39.5**	**+0.3**
KLNA				S	**Sb**	**14 50 52.1**	**+0.9**
KLNA				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.97**	**134**	Pg	**Pg**	**14 50 37.8**	**-0.5**
YKAV				AML	AML		
APE	**Apeiranthos**	**1.02**	**224**	P	**Pg**	**14 50 38.9**	**-0.2**
APE				S	**Sn**	**14 50 54.0**	**-0.4**
APE				AML	AML		
APE	**Apeiranthos**	**1.02**	**224**	P	**Pb**	**14 50 39.3**	**-0.1**
APE				S	**Sg**	**14 50 51.9**	**-0.5**
APE				AML	AML		
TNSA	**Tinos**	**1.02**	**255**	P	**Pg**	**14 50 38.9**	**-0.4**
TNSA				S	**Sg**	**14 50 50.9**	**-1.7**
BODT	**Bodrum**	**1.03**	**136**	P	**Pg**	**14 50 39.4**	**0.0**
BODT				S	**Sn**	**14 50 55.1**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**1.03**	**136**	Pg	**Pg**	**14 50 38.6**	**-0.9**
BODT				AML	AML		
CAMT	**Merkez**	**1.18**	**37**	P	**Pg**	**14 50 41.6**	**-0.6**
CAMT				S	**Sn**	**14 50 58.8**	**+0.4**
CAMT				IAML		14 51 02.0	
	comp=N,322nm,0.4s						
CAMT				IAML		14 51 02.0	
	comp=E,277nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**1.18**	**83**	Pn	**Pg**	**14 50 41.2**	**-1.0**
AYDB				AML	AML		
MLSB	**Milas**	**1.20**	**115**	Pn	**Pg**	**14 50 41.1**	**-1.5**
MLSB				AML	AML		
ASTA	**Astypalaia**	**1.26**	**182**	P	**Pg**	**14 50 44.8**	**+1.0**
PRK	**Paraskevi**	**1.44**	**356**	P	**Pn**	**14 50 45.5**	**-0.2**
PRK				S	**Sn**	**14 51 05.2**	**+0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**1.44**	**356**	P	**Pg**	**14 50 47.3**	**+0.1**
PRK				AML	AML		
GOMA	**Golmarmara-Man**	**1.49**	**52**	Pn	**Pn**	**14 50 45.6**	**-0.9**
AKS	**Akhisar**	**1.54**	**46**	Pn	**Pn**	**14 50 46.1**	**-1.1**
CMBO	**Columbo, Santo**	**1.56**	**211**	P	**Pb**	**14 50 48.3**	**-0.3**
KARY	**Karystos**	**1.57**	**279**	P	**Pn**	**14 50 47.3**	**-0.4**
KARY	**Karystos**	**1.57**	**279**	P	**Pn**	**14 50 47.3**	**-0.4**
SAP3	**Santorini-Thir**	**1.61**	**212**	P	**Pb**	**14 50 49.7**	**+0.2**
THERA	**Ancient Thera,**	**1.62**	**208**	P	**Pb**	**14 50 49.4**	**-0.2**
THERA				AML	AML		
SKY	**Skiros Island**	**1.81**	**307**	P	**Pb**	**14 50 52.2**	**-0.7**
MILOS	**Milos**	**1.91**	**237**	P	**Pn**	**14 50 53.2**	**+1.0**
MILOS				AML	AML		
DION	**Dionisos Attik**	**1.98**	**279**	P	**Pn**	**14 50 53.0**	**-0.2**
DION				AML	AML		
KYMI	**Kymi, Euboea I**	**2.00**	**295**	P	**Pn**	**14 50 54.5**	**+1.0**
PTL	**Penteli**	**2.03**	**278**	P	**Pn**	**14 50 53.8**	**-0.1**

IDC 03 14:55:33.8±3.9,6.°37S×145.°60E,h0km,mb3.0/2, mbtmp3.1/4,ML3.1/1,MS2.5/1,Error ellipse: s-maj=61.1km s-min=24.4km az=35.0,New Guinea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.39**	**153**	Pn	Pn	14 56 28.5	+0.5
	4.9nm,0.3s,baz=6.0,slow=9.3,SNR=12						
PMG				Sn	Sn	14 57 07.4	-1.5
	4.3nm,0.3s,baz=288,slow=22,SNR=12						
PMG				LR	LR	14 57 40.3	
	comp=Z,72nm,21.4s,baz=194,slow=37						
WRA	**Warramunga Arr**	**17.37**	**218**	P	P	14 59 38.7	-0.5
	0.1nm,0.3s,baz=39,slow=11,SNR=5.8 0.2nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.55**	**212**	P	P	15 00 13.6	-0.6
	0.2nm,0.8s,baz=34,slow=12,SNR=4.0 0.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**22.69**	**237**	P	P	15 00 37.0	-0.3
	1.7nm,0.9s,baz=54,slow=9.2,SNR=1.4 1.7nm,0.9s						
TORD	**Torodi Ar. Bea**	**143.83**	**284**	PKP	PKPdf	15 15 11.7	-0.5
	0.2nm,0.4s,baz=104,slow=2.3,SNR=2.6						

*SJA **03** 14:56:27.1±0.7,32.°00S×71.°96W,h41km±999km,ML3.5, MW3.7*
*GUC **03** 14:56:29.0±0.7,32.°02S×71.°65W,h35km±1km,ML3.8, Presumed earthquake*

ISC 03 14:56:28.1±1.1,32.°03S±0.°02×71.°76W±0.°05,h22km±8km, n56,σ1s54/90,5C-4D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO04	**Los Peladeros**	**0.67**	**92**	eP	**Pb**	**14 56 41.4**	**+0.1**
CO04				eS	**Sb**	**14 56 50.4**	**0.0**
CO04				IAML		14 56 51.2	
	comp=N,12μm,0.2s						
VA01	**Torpederas**	**1.00**	**174**	eP	**Pb**	**14 56 47.2**	**+0.5**
VA01	**Torpederas**	**1.00**	**174**	eP	**Pn**	**14 56 47.0**	**+0.2**
VA01				eS	**Sb**	**14 57 00.6**	**+1.2**
CO02	**Combarbal**	**1.05**	**39**	eP	**Pn**	**14 56 46.9**	**-0.7**
CO02				eS	**Sb**	**14 57 01.8**	**+0.8**
CO02				IAML		14 57 03.4	
	comp=Z,2μm,0.1s						
CO02	**Combarbal**	**1.05**	**39**	⇓ *iP*	**Pb**	**14 56 47.1**	**-0.4**
CO02				eS	**Sb**	**14 57 00.7**	**-0.2**
CO02				IAML		14 57 02.6	
	comp=E,9μm,0.3s						
ROCH	**El Roble**	**1.14**	**146**	eP	**Pb**	**14 56 48.9**	**-0.3**
ROCH				*i* S	**Sb**	**14 57 04.2**	**+0.5**
ROCH				IAML		14 57 06.6	
	comp=N,3μm,0.4s						
ROCH				IAML		14 57 07.0	
	comp=N,8μm,0.5s						
VA03	**San Esteban**	**1.26**	**126**	eP	**Pb**	**14 56 50.8**	**-0.5**
VA03				eS	**Sb**	**14 57 07.6**	**+0.5**
VA03				IAML		14 57 08.5	
	comp=Z,927nm,0.1s						
VA03	**San Esteban**	**1.26**	**126**	eP	**Pb**	**14 56 50.4**	**-0.9**
VA03				*i* S	**Sb**	**14 57 06.6**	**-0.5**
VA03				IAML		14 57 09.0	
	comp=E,5μm,0.2s						
MT02	**Curacav**	**1.34**	**157**	eP	**Pb**	**14 56 52.0**	**-0.6**
MT02				eS	**Sb**	**14 57 09.4**	**+0.1**
MT02				IAML		14 57 13.3	
	comp=Z,256nm,0.2s						
MT02	**Curacav**	**1.34**	**157**	eP	**Pn**	**14 56 51.6**	**+0.1**
MT02				eS	**Sn**	**14 57 08.0**	**-0.7**
CO06	**Fray Jorge**	**1.35**	**5**	⇑ *iP*	**Pn**	**14 56 51.4**	**-0.3**
PEL	**Peldehue**	**1.44**	**141**	eP	**Pb**	**14 56 53.6**	**-0.7**
PEL				eS	**Sb**	**14 57 12.6**	**+0.4**
PEL				IAML		14 57 12.7	
	comp=Z,570nm,0.3s						
PEL	**Peldehue**	**1.44**	**141**	eP	**Pb**	**14 56 53.5**	**-0.8**
PEL				*i* S	**Sb**	**14 57 11.5**	**-0.7**
PEL				IAML		14 57 12.8	
	comp=E,2μm,0.3s						
MT05	**Renca**	**1.61**	**148**	eP	**Pb**	**14 56 56.0**	**-1.2**
MT05				eS	**Sb**	**14 57 18.0**	**+0.8**
MT05				IAML		14 57 18.4	
	comp=Z,485nm,0.3s						
MT05	**Renca**	**1.61**	**148**	eP	**Pn**	**14 56 55.9**	**+0.6**
MT05				eS	**Sb**	**14 57 17.4**	**+0.1**
MT05				IAML		14 57 21.9	
	comp=E,2μm,0.2s						
MT10	**Hacienda Santa**	**1.62**	**141**	eP	**Pb**	**14 56 56.2**	**-1.2**
MT10				eS	**Sb**	**14 57 16.9**	**-0.6**
MT10				IAML		14 57 18.5	
	comp=E,2μm,0.2s						
MT14	**Cerro Cal¡n**	**1.71**	**143**	eP	**Pb**	**14 56 57.6**	**-1.4**
MT14				eS	**Sb**	**14 57 19.3**	**-0.9**
MT14				IAML		14 57 21.2	
	comp=E,2μm,0.6s						
MT16	**CCHEN**	**1.75**	**144**	eP	**Pb**	**14 56 58.0**	**-1.5**
MT16				eS	**Sb**	**14 57 19.5**	**-1.5**
FCH	**Farellones**	**1.80**	**137**	eP	**Pn**	**14 56 58.6**	**+0.5**
FCH				*i* S	**Sb**	**14 57 21.9**	**-0.8**
FCH				IAML		14 57 22.6	
	comp=N,759nm,0.3s						
MT03	**Universidad Ad**	**1.81**	**145**	eP	**Pb**	**14 56 59.3**	**-1.3**
MT03				eS	**Sb**	**14 57 22.9**	**+0.1**
MT03				IAML		14 57 23.4	
	comp=Z,821nm,0.1s						
MT03	**Universidad Ad**	**1.81**	**145**	eP	**Pb**	**14 56 59.0**	**-1.5**
MT09	**Talagante**	**1.86**	**160**	⇑ *iP*	**Pn**	**14 57 00.1**	**+1.2**
MT09				eS	**Sb**	**14 57 23.7**	**-0.8**
MT09				IAML		14 57 26.8	
	comp=N,1μm,0.2s						
MT01	**Popeta**	**1.88**	**167**	eP	**Pn**	**14 56 59.5**	**+0.5**
MT01				eS	**Sb**	**14 57 28.8**	**+3.8**
MT01				IAML		14 57 36.9	
	comp=Z,227nm,0.3s						
MT01	**Popeta**	**1.88**	**167**	⇓ eP	**Pn**	**14 56 59.5**	**+0.5**
MT15	**Las Vizcachas**	**1.89**	**146**	eP	**Pn**	**14 56 59.9**	**+0.7**
MT15				eS	**Sb**	**14 57 23.3**	**-2.0**
MT15				IAML		14 57 26.3	
	comp=E,1μm,0.2s						
MT04	**Ro Olivares**	**1.94**	**136**	eP	**Pb**	**14 57 01.3**	**-1.7**
MT04				eS	**Sb**	**14 57 27.0**	**+0.1**
MT04				IAML		14 57 35.4	
	comp=Z,221nm,0.2s						
MT04	**Ro Olivares**	**1.94**	**136**	eP	**Pn**	**14 57 01.0**	**-2.0**
MT12	**Pirque**	**1.99**	**149**	eP	**Pn**	**14 57 01.4**	**+0.9**
MT12				eS	**Sb**	**14 57 25.6**	**-2.4**
MT12				IAML		14 57 35.2	
	comp=E,632nm,0.4s						
GO04	**Tololo Observa**	**2.02**	**24**	eP	**Pn**	**14 57 01.3**	**+0.1**
GO04				eS	**Sb**	**14 57 29.6**	**+0.4**
GO04				IAML		14 57 31.2	
	comp=Z,1μm,0.7s						
GO04	**Tololo Observa**	**2.02**	**24**	⇑ eP	**Pn**	**14 57 01.2**	**+0.1**
MT08	**Bocatoma Ro**	**2.04**	**134**	eP	**Pn**	**14 56 59.3**

CFA	**Coronel Fontan**	**3.03**	**83**	*e*S	**Sb**	**14 57 59.6**	**+1.6**
CFA				*e*S	**Sb**	**14 57 59.6**	**+1.6**
CFA				IAML		14 58 10.1	
	comp=Z,209nm,0.4s						
AC05	**El Transito**	**3.43**	**22**	*e*P	**Pn**	**14 57 21.3**	**+0.9**
AC05				*e*P	**Pn**	**14 57 21.3**	**+0.9**
AC05				*e*S	**Sn**	**14 58 00.1**	**-0.2**
AC05				IAML		14 58 15.4	
	comp=Z,129nm,0.8s						
AC05	**El Transito**	**3.43**	**22**	*e*P	**Pn**	**14 57 21.0**	**+0.7**
AC04	**Llanos de Chal**	**3.85**	**9**	*e*P	**Pn**	**14 57 25.4**	**-0.7**
AC04	**Llanos de Chal**	**3.85**	**9⇓**	*e*P	**Pb**	**14 57 37.0**	**+1.6**
ACAN	**Cantantal**	**3.89**	**95°**	IAML		14 58 45.8	
	comp=Z,184nm,0.5s						
TCA	**Tanti**	**6.15**	**85⇓**	*e*P	**Pn**	**14 57 58.0**	**+0.3**

*IDC **03** 15:01:43.4±2.5,31°.10N×143°.34E,h0km,mb3.3/4, mbtmp3.4/6,ML2.8/2,Error ellipse: s-maj=73.8km s-min=16.0km az=79.0*
*JMA **03** 15:01:51.4±0.5,31°.2°×14°.3E±°,h77km,MV3.6/24,FAR E OFF IZU ISLANDS*
ISC 03 15:01:48.9±2.0,**30°.90N**±0°.09×**142°.8E**±0°.4,**h35**km,**n11**, σ**2$33**/12,**mb3.4**/4,**Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**3.82**	**188**	Pn	**Pn**	**15 02 42.4**	**-2.8**
	1.8nm,0.3s,baz=17,slow=19,SNR=2.8						
JCJ				Sn	**Sn**	**15 03 26.5**	**-2.4**
	5.3nm,0.3s,baz=270,slow=20,SNR=3.9						
	84nm,0.8s						
JCJ				AML	AML		
BSO1	**Boso 1**	**4.03**	**339**	P	**Pn**	**15 02 45.8**	**-1.8**
BSO3	**Boso 3**	**4.33**	**335**	P	**Pn**	**15 02 49.9**	**-1.9**
BSO4	**Boso 4**	**4.56**	**334**	S	**Sn**	**15 03 45.1**	**-1.7**
JHO	**Hitachi**	**5.98**	**343**	P	**Pn**	**15 03 12.9**	**-2.0**
JAG	**Ashikaga**	**6.16**	**334**	P	**Pn**	**15 03 16.3**	**-1.0**
MJAR	**Matsushiro Arr**	**6.78**	**327**	Pn	**Pn**	**15 03 24.9**	**-0.9**
	0.1nm,0.3s,baz=139,slow=12,SNR=5.8						
	0.5nm,0.4s						
MJAR				AML	AML		
MKAR	**Makanchi Array**	**48.51**	**307**	P	**P**	**15 10 31.8**	**+3.5**
	0.2nm,0.5s,baz=80,slow=10,SNR=2.6						
	0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**50.80**	**312**	P	**P**	**15 10 46.3**	**+0.7**
	0.1nm,0.2s,baz=76,slow=7.7,SNR=1.8						
	0.1nm,0.2s						
WRA	**Warramunga Arr**	**51.19**	**190**	P	**P**	**15 10 50.8**	**+2.0**
	0.6nm,0.6s,baz=8.7,slow=7.5,SNR=7.9						
	0.6nm,0.6s						
ASAR	**Alice Springs**	**54.91**	**190**	P	**P**	**15 11 18.0**	**+1.8**
	0.2nm,0.8s,baz=8.5,slow=6.8,SNR=6.6						
	0.2nm,0.8s						

*IDC **03** 15:02:22.3±0.5,62°.12S×57°.91W,h0km,mb4.2/14, mbtmp4.2/16,ML4.2/2,MS3.7/14,Error ellipse: s-maj=19.8km s-min=13.2km az=87.0*
*NEIC **03** 15:02:24.8±1.3,62°.32S±0°.07×58°.2W±0°.1,h10km±1km, mb4.7/35, Error ellipse: s-maj=12.1km s-min=7.1km az=208.0*
*GFZ **03** 15:02:26.5±0.2,62°S±3°×5°8W±°,h10km,M4.7/25, mb4.7/25,confirmed*
ISC 03 15:02:24.7±0.4,**62°.26S**±0°.05×**58°.32W**±0°.06,**h10**km,**n125**, σ**1$55**/112,**mb4.6**/43,**MS3.7**/14,**5C-6D,South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.30**	**153**	Pn	**Pn**	**15 02 46.6**	**-2.2**
PMSA	**Palmer Station**	**3.60**	**223**	Pn	**Pn**	**15 03 19.7**	**-0.7**
	9.1nm,0.3s,baz=44,slow=12,SNR=9.2						
PMSA				Sn	**Sb**	**15 04 12.2**	**+0.2**
	7.6nm,0.3s,baz=354,slow=18,SNR=3.9						
	16nm,0.2s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.60**	**223**		**Pn**	**15 03 20.7**	**+0.3**
PMSA	**Palmer Station**	**3.60**	**223**	P	**Pb**	**15 03 26.1**	**-2.3**
USHA	**Ushuaia**	**9.12**	**320**	Pn	**Pn**	**15 04 32.8**	**-3.4**
	4.1nm,0.3s,baz=176,slow=0.5,SNR=3.3						
USHA				Sn	**Sn**	**15 06 17.7**	**-1.0**
	2.5nm,0.3s,baz=146,slow=0.4,SNR=1.9						
	12nm,0.4s						
USHA				AML	AML		
MG03	**Isla Dawson**	**10.59**	**317**	Pn	**Pn**	**15 04 59.7**	**+3.5**
EFI	**East Falkland**	**10.61**	**1**	Pn	**Pn**	**15 04 57.7**	**+1.2**
MG02	**Cerro Sombrero**	**11.14**	**324**	Pn	**Pn**	**15 05 07.2**	**+3.4**
GO08	**Villa O'Higgin**	**15.96**	**323**		**P**	**15 06 13.4**	**+0.8**
COYC	**Coyhaique**	**18.50**	**328**	P	**Pn**	**15 06 43.9**	**+3.0**
VNA3	**Neumayer Olymp**	**20.57**	**136**	⇑P	Pn	15 07 05.3	-0.1
	comp=Z,19nm,0.7s						
VNA3				⇓pP	sP	15 07 10.7	+4.0
	comp=Z,19nm,0.7s						
VNA3	**Neumayer Olymp**	**20.57**	**136**	P	Pn	15 07 05.5	+0.1
	comp=Z,26nm,0.8s						
LL02	**Futaleuf**	**20.70**	**331**	P	Pn	15 07 07.3	+0.2
	comp=Z,18nm,1.4s						
VNA1	**Neumayer--Stat**	**21.04**	**135**	⇑P	**P**	**15 07 10.7**	**+2.6**
	comp=Z,15nm,0.8s						
VNA1				⇓pP	**sP**	**15 07 14.9**	**+3.2**
	comp=Z,13nm,1.0s						
VNA2	**Neumayer--Watz**	**21.32**	**135**	⇑P	**P**	**15 07 13.2**	**+2.1**
	comp=Z,9.6nm,0.7s,baz=262,slow=11						
VNA2				⇓pP	**sP**	**15 07 18.5**	**+3.8**
	comp=Z,9.1nm,0.7s,baz=264,slow=9.4						
VNA2	**Neumayer--Stat**	**21.32**	**135**	P	**P**	**15 07 13.1**	**+1.9**
	comp=Z,14nm,0.7s						
SNAA	**Sanae**	**22.74**	**138**	⇑P	**P**	**15 07 28.4**	**+1.9**
	comp=Z,209nm,0.7s						
SNAA	**Sanae**	**22.74**	**138**	P	**P**	**15 07 24.7**	**-1.7**
	comp=Z,4.8nm,0.9s,baz=268,slow=8.5,SNR=14						
SNAA				LR	LR	15 15 02.5	
	comp=Z,213nm,19.2s,baz=267,slow=34						
	comp=Z,4.8nm,0.9s						
SNAA	**Sanae**	**22.74**	**138**	P	**P**	**15 07 25.9**	**-0.6**
SNAA	**Sanae**	**22.74**	**138**	P	**P**	**15 07 25.8**	**-0.7**
	comp=Z,13nm,1.1s						
LL05	**Los Muermos**	**22.77**	**329**	P	**P**	**15 07 27.3**	**+0.4**
	comp=Z,63nm,1.2s						
PLCA	**Paso Flores**	**22.78**	**335**	P	**P**	**15 07 25.3**	**-1.8**
	comp=Z,13nm,1.1s,baz=160,slow=12,SNR=11						
	comp=Z,13nm,1.1s						
PLCA	**Paso Flores**	**22.78**	**335**		**P**	**15 07 27.7**	**+0.6**
PLCA				IAmb	IAmb	15 07 30.2	
	comp=Z,27nm,1.4s						
PLCA	**Paso Flores**	**22.78**	**335**	P	**P**	**15 07 27.7**	**+0.6**
	comp=Z,20nm,1.2s						
LR05	**Currie**	**23.56**	**333**	P	**P**	**15 07 35.5**	**+0.5**
LR05				IAmb	IAmb	15 07 36.7	
	comp=Z,36nm,1.0s						
GO06	**Curarrehue**	**24.07**	**334**		**P**	**15 07 40.5**	**+0.4**
GO06				IAmb	IAmb	15 07 42.8	
	comp=Z,22nm,0.9s						
GO06	**Curarrehue**	**24.07**	**334**	P	**P**	**15 07 40.8**	**+0.7**
	comp=Z,24nm,1.0s						
TROLL	**Troll, Antarti**	**24.38**	**139**	⇑P	**P**	**15 07 45.5**	**+2.9**
	comp=Z,223nm,0.7s						
BI02	**San Fabin de**	**26.86**	**336**	P	**P**	**15 08 07.1**	**+1.9**
BI02	**San Fabin de**	**26.86**	**336**	P	**P**	**15 08 07.6**	**+2.3**
	comp=Z,12nm,0.8s						
QSPA	**South Pole Qui**	**27.97**	**180**	P	**P**	**15 08 15.9**	**+0.7**
	comp=Z,4.0nm,0.7s,baz=166,slow=2.0,SNR=14						
QSPA				LR	LR	15 18 54.3	
	comp=Z,184nm,21.6s,baz=166,slow=35						
	comp=Z,4.0nm,0.7s						
QSPA	**South Pole Qui**	**27.97**	**180**		**P**	**15 08 15.1**	**0.0**
QSPA				IAmb	IAmb	15 08 28.2	
	comp=Z,10nm,0.9s						
QSPA	**South Pole Qui**	**27.97**	**180**	P	**P**	**15 08 18.3**	**+3.2**
	comp=Z,16nm,1.1s						
GO05	**Hualane**	**28.59**	**336**	P	**P**	**15 08 21.1**	**+0.4**
	comp=Z,20nm,1.1s						
BO02	**Sierra Bellavi**	**28.59**	**338**	P	**P**	**15 08 21.5**	**+0.7**
BO02				IAmb	IAmb	15 08 26.2	
	comp=Z,9.2nm,0.8s						
BO02	**Sierra Bellavi**	**28.59**	**338**	P	**P**	**15 08 21.3**	**+0.5**
	comp=Z,12nm,1.1s						
BO01	**Tunca**	**29.04**	**338**	P	**P**	**15 08 24.7**	**+0.1**
	comp=Z,10nm,1.5s						
BO04	**La Punta**	**29.35**	**339**	P	**P**	**15 08 27.9**	**+0.5**
BO04				IAmb	IAmb	15 08 28.8	
	comp=Z,16nm,0.9s						
MT09	**Talagante**	**29.62**	**338**	P	**P**	**15 08 30.2**	**+0.2**
MT08	**Bocatoma Ro**	**29.78**	**340**		**P**	**15 08 32.8**	**+1.3**
MT08				IAmb	IAmb	15 08 38.1	
	comp=Z,16nm,0.9s						
VA03	**San Esteban**	**30.53**	**339**	P	**P**	**15 08 38.7**	**+0.6**
VA03	**San Esteban**	**30.53**	**339**	P	**P**	**15 08 39.1**	**+1.1**
	comp=Z,27nm,0.9s						
ELIB	**Princess Elisa**	**30.59**	**143**	*d*P	**P**	**15 08 38.2**	**0.0**
	comp=Z,2.5nm,0.9s						
ELIB				*d*PP	**PnPn**	**15 09 34.9**	**-2.2**
ELIB				*d*PcP	**PcP**	**15 11 36.9**	**+0.7**
CO04	**Los Peladeros**	**31.31**	**339**	P	**P**	**15 08 45.5**	**+0.5**
CO04	**Los Peladeros**	**31.31**	**339**	P	**P**	**15 08 45.6**	**+0.5**
	comp=Z,19nm,1.3s						
ZON	**Zonda**	**31.45**	**343**	P	**P**	**15 08 46.4**	**+0.4**
	comp=E,9.5nm,1.2s						
CO02	**Combarbal**	**32.13**	**339**	P	**P**	**15 08 52.9**	**+0.7**
CO02	**Combarbal**	**32.13**	**339**	P	**P**	**15 08 53.1**	**+1.0**
GO04	**Tololo Observa**	**33.11**	**340**	P	**P**	**15 09 01.1**	**+0.3**
GO04	**Tololo Observa**	**33.11**	**340**	P	**P**	**15 09 01.4**	**+0.5**
	comp=Z,30nm,0.8s						
CO01	**Juntas del Tor**	**33.19**	**341**	P	**P**	**15 09 03.1**	**+1.5**
CO01	**Juntas del Tor**	**33.19**	**341**	P	**P**	**15 09 03.6**	**+2.0**
	comp=Z,22nm,1.0s						
AC05	**El Transito**	**34.34**	**341**		**P**	**15 09 12.4**	**+1.0**
AC05				IAmb	IAmb	15 09 24.3	
	comp=Z,9.8nm,0.9s						
AC05	**El Transito**	**34.34**	**341**	P	**P**	**15 09 12.4**	**+1.0**
	comp=Z,14nm,1.1s						
AC04	**Llanos de Chal**	**35.08**	**340**		**P**	**15 09 18.5**	**+0.8**
AC04	**Llanos de Chal**	**35.08**	**340**	P	**P**	**15 09 19.0**	**+1.3**
	comp=Z,36nm,1.0s						
GO03	**Copiapo**	**35.55**	**342**	P	**P**	**15 09 22.4**	**+0.6**
	comp=Z,12nm,1.3s						
AC06	**Mina Casimiro**	**35.80**	**342**	P	**P**	**15 09 24.4**	**+0.5**
AC06				IAmb	IAmb	15 09 24.8	
	comp=Z,11nm,1.0s						
CPUP	**Villa Florida**	**35.92**	**2**	P	**P**	**15 09 22.5**	**-2.4**
	comp=Z,0.8nm,0.5s,baz=182,slow=16,SNR=3.7						
CPUP				LR	LR	15 22 32.3	
	comp=Z,62nm,21.9s,baz=244,slow=34						
	comp=Z,0.8nm,0.5s						
CPUP	**Villa Florida**	**35.92**	**2**	P	**P**	**15 09 24.7**	**-0.2**
AC02	**Maricunga**	**36.14**	**343**		**P**	**15 09 28.5**	**+1.1**
AC02				IAmb	IAmb	15 09 29.7	
	comp=Z,22nm,1.5s						
AC02	**Maricunga**	**36.14**	**343**	P	**P**	**15 09 29.1**	**+1.7**
	comp=Z,10nm,1.3s						
AC01	**Pan de Azucar**	**37.03**	**341**	P	**P**	**15 09 34.0**	**-0.3**
	comp=Z,16nm,1.5s						
SBA	**Scott Base**	**37.47**	**194**	P	**P**	**15 09 42.1**	**+4.5**
VNDA	**Vanda**	**38.30**	**193**	P	**P**	**15 09 45.3**	**+0.7**
	comp=Z,0.6nm,0.8s,baz=172,slow=1.9,SNR=1.7						
VNDA				PcP	**PcP**	**15 11 59.3**	**+1.2**
	comp=Z,1.3nm,0.9s,baz=149,slow=2.3,SNR=5.5						
	comp=Z,0.6nm,0.8s						
SALTA		**38.40**	**348**	P	**P**	**15 09 47.9**	**+1.3**
PCMB	**Pacaembu**	**40.91**	**10**	P	**P**	**15 10 07.0**	**+0.1**
PB07	**IPOC Station P**	**41.28**	**344**	P	**P**	**15 10 10.7**	**+0.6**
	comp=Z,11nm,1.1s						
PB11	**IPOC Station P**	**43.18**	**344**	P	**P**	**15 10 26.3**	**+0.6**
GO01	**Chusmiza**	**43.22**	**345**	P	**P**	**15 10 27.0**	**+0.7**
GO01				IAmb	IAmb	15 11 01.4	
	comp=Z,23nm,1.9s						
MAW	**Mawson**	**43.66**	**152**	P	**P**	**15 10 29.7**	**+0.9**
	comp=Z,2.7nm,0.8s,baz=217,slow=7.9,SNR=5.0						
MAW				LR	LR	15 28 18.2	
	comp=Z,213nm,19.7s,baz=216,slow=36						
	comp=Z,2.7nm,0.8s						
PB16	**IPOC Station P**	**44.57**	**345**		**P**	**15 10 38.0**	**+0.8**
PB16				IAmb	IAmb	15 10 45.3	
	comp=Z,29nm,2.0s						
PB16	**IPOC Station P**	**44.57**	**345**	P	**P**	**15 10 38.5**	**+1.3**
	comp=Z,6.5nm,0.9s						
LPAZ	**La Paz**	**46.44**	**347**	P	**P**	**15 10 51.1**	**-1.0**
	comp=Z,1.4nm,0.7s,baz=167,slow=6.0,SNR=5.6						
LPAZ				LR	LR	15 32 24.2	
	comp=Z,61nm,18.2s,baz=182,slow=39						
	comp=Z,1.4nm,0.7s						
LPAZ	**La Paz**	**46.44**	**347**	P	**P**	**15 10 52.1**	**0.0**
LPAZ				IAmb	IAmb	15 12 22.1	
	comp=Z,17nm,1.9s						
LPAZ	**La Paz**	**46.44**	**347**	P	**P**	**15 10 52.6**	**+0.6**
	comp=Z,2.9nm,0.9s						
BDFB	**Brasilia**	**47.13**	**14**	P	**P**	**15 10 54.9**	**-2.1**
	comp=Z,3.3nm,0.5s,baz=169,slow=6.0,SNR=5.6						
	comp=Z,3.3nm,0.5s						
BDFB	**Brasilia**	**47.13**	**14**	P	**P**	**15 10 56.7**	**-0.2**
BDFB				IAmb	IAmb	15 10 57.3	
	comp=Z,6.2nm,0.8s						
CLDB	**Colider**	**51.33**	**3**	P	**P**	**15 11 28.2**	**-0.7**
	comp=Z,6.4nm,1.2s						
SUR	**Sutherland**	**56.93**	**97**	LR	LR	15 31 22.6	
	comp=Z,57nm,18.8s,baz=175,slow=31						
H10S2	**ASCENSION HYDR**	**61.89**	**51**	T	T	16 19 58.6	
	baz=17,slow=74,SNR=48						
H10S3	**ASCENSION HYDR**	**61.89**	**51**	T	T	16 19 57.6	
	baz=203,slow=74,SNR=35						
BOSA	**Boshof**	**62.15**	**99**	P	**P**	**15 12 44.8**	**-1.2**
	comp=Z,2.1nm,0.8s,baz=211,slow=7.6,SNR=4.6						
BOSA				LR	LR	15 34 36.1	
	comp=Z,45nm,19.0s,baz=203,slow=31						
	comp=Z,2.1nm,0.8s						
BOSA	**Boshof**	**62.15**	**99**	IAmb	IAmb	15 13 23.6	
	comp=Z,12nm,1.3s						
H10N3	**ASCENSION HYDR**	**62.98**	**50**	T	T	16 21 18.4	
	baz=201,slow=75,SNR=44						
H10N1	**ASCENSION HYDR**	**62.98**	**50**	T	T	16 21 16.9	
	baz=201,slow=75,SNR=33						
H10N2	**ASCENSION HYDR**	**62.99**	**50**	T	T	16 21 19.7	
	baz=201,slow=75,SNR=38						
OTAV	**Otavalo**	**64.17**	**338**	P	**P**	**15 13 00.2**	**+0.4**
OTAV	**Otavalo**	**64.17**	**338**	P	**P**	**15 13 00.9**	**+1.2**
	comp=Z,8.4nm,1.4s						
LBTB	**Lobatse**	**65.38**	**97**	LR	LR	15 35 49.8	
	comp=Z,72nm,19.8s,baz=177,slow=31						
LBTB	**Lobatse**	**65.38**	**97**	P	**P**	**15 13 06.5**	**-0.7**
MDP	**Montagnes des**	**67.31**	**6**	LR	LR	15 43 29.7	
	comp=Z,39nm,20.2s,baz=208,slow=37						
ROSC	**El Rosal**	**68.03**	**343**	LR	LR	15 46 01.0	
	comp=Z,90nm,18.0s,baz=107,slow=38						
RUSC	**La Rusia**	**68.90**	**344**	P	**P**	**15 13 28.5**	**-1.4**
SDV	**Santo Domingo**	**71.57**	**347**	LR	LR	15 45 54.3	
	comp=Z,56nm,21.8s,baz=158,slow=36						
PPT2	**Papeete2**	**75.19**	**261**	*e*LR	LR	15 37 12.6	
	comp=Z,95nm,33.8s						
PPT2				*e*LR	LR	15 37 14.2	
	comp=Z,45nm,23.2s						
VOI	**Vohitsoka**	**77.61**	**113**	P	**P**	**15 14 22.8**	**+1.7**
	comp=Z,20nm,1.7s						
TAOE	**Nuku Hiva Isla**	**78.41**	**273**	*e*LR	LR	15 38 46.1	
	comp=Z,32nm,25.0s						
DBIC	**Dimbokro**	**79.93**	**54**	P	**P**	**15 14 31.7**	**-1.9**
	comp=Z,2.7nm,0.9s,baz=212,slow=7.4,SNR=3.0						
	comp=Z,2.7nm,0.9s						
SJG	**San Juan**	**80.34**	**352**	LR	LR	15 51 27.8	
	comp=Z,39nm,18.1s,baz=121,slow=37						
CMIG	**Macias Romero**	**84.18**	**325**	LR	LR	15 44 49.4	
	comp=Z,25nm,19.8s,baz=180,slow=30						
ARMA	**Armidale**	**84.55**	**206**	P	**P**	**15 14 59.4**	**+1.5**
	comp=Z,14nm,1.0s						
STKA	**Stephens Creek**	**84.83**	**197**	P	**P**	**15 14 59.0**	**-0.1**
	comp=Z,2.4nm,0.8s,baz=152,slow=21,SNR=3.1						
	comp=Z,2.4nm,0.8s						
STKA	**Stephens Creek**	**84.83**	**197**	P	**P**	**15 14 59.5**	**+0.3**
TORD	**Torodi Ar. Bea**	**88.39**	**58**	P	**P**	**15 15 15.4**	**-1.1**
	comp=Z,0.6nm,0.8s,baz=207,slow=5.8,SNR=4.0						
	comp=Z,0.6nm,0.8s						
INKA	**Innaminka**	**89.02**	**197**	P	**P**	**15 15 19.8**	**+0.2**
INKA				IAmb	IAmb	15 15 20.6	
	comp=Z,3.7nm,0.9s						
ASAR	**Alice Springs**	**93.82**	**191**	P	**P**	**15 15 40.5**	**-1.5**
	comp=Z,1.5nm,1.0s,baz=178,slow=4.2,SNR=9.6						
	comp=Z,1.5nm,1.0s						
WRA	**Warramunga Arr**	**97.47**	**192**	P	**P**	**15 15 57.1**	**-1.4**
	comp=Z,0.9nm,0.9s,baz=176,slow=4.2,SNR=5.5						
	comp=Z,0.9nm,0.9s						
TKL	**Tuckaleechee C**	**99.72**	**339**	LR	LR	16 04 40.6	
	comp=Z,34nm,18.5s,baz=37,slow=38						
GERES	**GERESS Array B**	**124.61**	**50**	PKP	**PKPdf**	**15 21 21.4**	**-1.7**
	comp=Z,0.8nm,0.5s,baz=222,slow=1.3,SNR=6.1						
CMAR	**Chiang Mai Arr**	**133.45**	**150**	PKP	**PKPdf**	**15 21 38.8**	**-2.0**
	comp=Z,0.4nm,0.3s,baz=183,slow=1.1,SNR=5.0						
KSH2	**Kashi**	**143.89**	**108**	PKP	PKPbc	15 21 57.1	-0.1
ARCES	**ARCESS Array B**	**144.05**	**37**	PKP	**PKPab**	**15 21 55.1**	**-1.0**
	comp=Z,9.0nm,0.7s,baz=230,slow=3.2,SNR=12						
GOMU	**GeErMu**	**149.01**	**135**	PKPbc	**PKPdf**	**15 22 08.1**	**-0.4**
NJ2	**Nanjing**	**149.73**	**175**	*e*P	**PKPdf**	**15 22 09.1**	**-0.1**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
XAN	**Xi'an**	**150.62**	**158**	PKPbc	**PKPbc**	**15 22 15.7**	**-0.4**
LZH	**Lanzhou**	**151.53**	**149**	*e*P	**PKiKP**	**15 22 18.7**	**-0.1**
LZH				pmax	pmax		
	comp=Z,19nm,1.5s						
BVAR	**Borovoye Array**	**151.77**	**85**	PKPbc	**PKPbc**	**15 22 16.7**	**-1.4**
	comp=Z,8.1nm,0.7s,baz=236,slow=1.6,SNR=30						
MKAR	**Makanchi Array**	**152.95**	**107**	PKPbc	**PKPbc**	**15 22 19.8**	**-1.1**
	comp=Z,1.3nm,0.8s,baz=222,slow=1.8,SNR=12						
MKAR	**Makanchi Array**	**152.95**	**107**		**PKPbc**	**15 22 20.1**	**-0.8**
GTA2	**Gaotai**	**153.59**	**139**	PKPbc	**PKiKP**	**15 22 23.4**	**+0.5**
KURBB	**Kurchatov Arra**	**153.99**	**97**	PKPbc	**PKPbc**	**15 22 21.0**	**-2.0**
	comp=Z,0.9nm,0.8s,baz=235,slow=2.2,SNR=7.6						
KURK	**Kurchatov**	**154.10**	**96**		**PKPbc**	**15 22 21.0**	**-2.2**
HHC	**Hu-ho-hao-te**	**157.71**	**159**	*e*P	**PKPdf**	**15 22 16.6**	**-3.9**
SONM	**Songino Array**	**163.17**	**142**	PKPab	**PKPab**	**15 23 16.1**	**-0.5**
	comp=Z,1.6nm,0.9s,baz=193,slow=5.0,SNR=6.8						

AFAD 03 15:05:06.4,37°.88N×26°.89E,h7km±2km,**ML1.3, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**359**	P	Pg	15 05 10.1	+0.3
DGB				S	Sg	15 05 12.8	+0.6
DGB				IAML		15 05 13.0	
	comp=N,50nm,0.4s						
DGB				IAML		15 05 13.0	
	comp=E,71nm,0.2s						
GCAM	**G?zelcaml?**	**0.33**	**124**	P	Pg	15 05 12.9	+0.1
GCAM				S	Sg	15 05 18.4	+1.2
GCAM				IAML		15 05 19.0	
	comp=N,85nm,0.2s						
GCAM				IAML		15 05 20.0	
	comp=E,55nm,0.2s						
BEYE	**izmir**	**0.34**	**5**	P	Pg	15 05 13.5	+0.3
BEYE				IAML		15 05 19.0	
	comp=E,52nm,0.3s						
BEYE				S	Sb	15 05 19.2	-1.4
BEYE				IAML		15 05 20.0	
	comp=N,38nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**320**	P	Pn	15 05 22.1	+2.6
DUVT	**Torbali**	**0.56**	**53**	P	Pg	15 05 17.5	+0.3
DUVT				IAML		15 05 25.0	
	comp=N,0.7nm,0.7s						
DUVT				S	Sg	15 05 25.0	+0.6
DUVT				IAML		15 05 29.0	
	comp=E,40nm,0.5s						

*CATAC **03** 15:14:07.6±0.5,8°.N±5°×8°3W±°,h17km±3km,M3.9/12, MLv3.9/12,Error ellipse: s-maj=10.0km s-min=5.3km az=8.2,confirmed*
*UCR **03** 15:14:07.2±0.6,8°.26N×82°.59W,h48km±4km,MW4.0, Presumed earthquake*
*UPA **03** 15:14:08.6±1.0,8°.32N×82°.64W,h38km±2km,MW4.1, Presumed earthquake*
ISC 03 15:14:06.9±1.3,**8°.31N**±0°.02×**82°.64W**±0°.02,**h15**km±10km, **n68**,σ1$40/109,**10C-3D,Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAGA3	**Bagala, Chiriq**	**0.19**	**34**	*e*P	**Pb**	**15 14 15.9**	**+3.6**
BAGA3				*e*S	**Sb**	**15 14 20.1**	**+4.3**
DVD	**David**	**0.23**	**55**	*i* P	**Pb**	**15 14 15.9**	**+3.1**
DVD				*e*S	**Sb**	**15 14 21.1**	**+4.4**
PTPA	**Petro Terminal**	**0.25**	**246**	*e*P	**Pb**	**15 14 16.1**	**+2.9**
PTPA				*e*S	**Sb**	**15 14 23.1**	**+5.6**
PTPM	**Petroterminale**	**0.26**	**247⇓**	*i*P	**Pn**	**15 14 16.2**	**-0.1**
PTPM				*e*S	**Sn**	**15 14 21.4**	**-0.6**
LOMA3	**Las Lomas, Chi**	**0.27**	**63**	*e*P	**Pn**	**15 14 16.3**	**-0.2**
LOMA3				*e*S	**Sn**	**15 14 22.5**	**+0.1**
LIMO3	**Limones**	**0.30**	**228⇓**	*i*P	**Pn**	**15 14 16.6**	**-0.2**
LIMO3				*e*S	**Sn**	**15 14 22.6**	**-0.5**
CDITO	**Canoas**	**0.35**	**319**	P	**Pn**	**15 14 16.3**	**-1.3**
CDITO	**Canoas**	**0.35**	**319⇑**	*i*P	**Pn**	**15 14 16.6**	**-1.0**
CDITO				*e*S	**Sn**	**15 14 23.4**	**-1.0**
BGUAL	**Bijagual, Pana**	**0.36**	**56**	*i* P	**Pn**	**15 14 17.1**	**-0.6**
BGUAL				*e*S	**Sn**	**15 14 23.7**	**-0.9**
PTAR3	**Potrerillos Ar**	**0.41**	**20**	*e*P	**Pn**	**15 14 18.4**	**-0.1**
PTAR3				*e*S	**Sn**	**15 14 26.1**	**+0.1**
CLLRA	**Cordillera,**	**0.44**	**3⇑**	*i*P	**Pn**	**15 14 18.3**	**-0.6**
CLLRA				*e*S	**Sn**	**15 14 26.5**	**-0.2**
NELY	**Ciudad Neily**	**0.46**	**318**	*e*P	**Pn**	**15 14 17.8**	**-1.2**
NELY	**Ciudad Neily**	**0.46**	**318**	*e*P	**Pn**	**15 14 17.8**	**-1.2**
NELY				*e*S	**Sn**	**15 14 25.7**	**-1.3**
**BQS

PNME	**Penonome**	**2.29**	**85**	*eP*	**Pb**	**15 14 45.8**	**-2.2**
PNME				*eS*	Sn	15 14 59.1	-13
AZU	**Azuero**	**2.40**	**102**	*eP*	**Pn**	**15 14 46.4**	**+0.8**
AZU				⇑*iP*		15 14 46.6	
AZU				*eS*	**Sn**	**15 15 13.5**	**-1.3**
TRT2	**Tortugero**	**2.49**	**334**	P	**Pn**	**15 14 47.5**	**+0.6**
TRT2				S	**Sn**	**15 15 18.8**	**+1.7**
BCIP	**Isla Barro Col**	**2.90**	**73**	P	**Pn**	**15 14 53.5**	**+0.9**
VARE2	**V. Arenal**	**2.97**	**316**	*eP*	**Pn**	**15 14 54.0**	**+0.3**
JTS	**Las Juntas de**	**3.02**	**311**	P	**Pn**	**15 14 55.4**	**+1.1**
JTS				S	**Sn**	**15 15 33.0**	**+2.8**
JTS	**Las Juntas de**	**3.02**	**311**	*eP*	**Pn**	**15 14 54.9**	**+0.6**
JTS				*eS*	**Sn**	**15 15 28.2**	**-2.0**
CMARA	**Lajas Hojancha**	**3.23**	**302**	P	**Pn**	**15 14 57.4**	**+0.1**
CMARA				S	**Sn**	**15 15 36.5**	**+0.9**
BLUN	**Bluefields**	**3.84**	**343**	P	**Pn**	**15 15 05.3**	**-0.3**

*SOME **03** 15:15:30.8, 39°.12N × 75°.78E, h5km*
*NNC **03** 15:15:31.5±6.4, 39°.06N × 75°.77E, h0km, mb4.0, mpv3.5, Error ellipse: s-maj=49.2km s-min=30.3km az=160.0*
*KRNET **03** 15:15:33.9±0.1, 39°.13N × 76°.09E, mb3.6*

ISC 03 15:15:39.6±1.5, 39°.41N±0°.07 × 75°.93E±0°.04, h10km, n40, σ1§90/66, 22C-11D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**1.96**	**289**	⇑*iP*	**Pn**	**15 16 13.5**	**+0.3**
SFK				⇑*iS*	**Sg**	**15 16 42.6**	**-0.2**
NRN	**Naryn**	**2.03**	**2**	⇑*iP*	**Pn**	**15 16 15.1**	**+1.0**
NRN				⇑*iS*	**Sg**	**15 16 45.2**	**+0.4**
SALK	**Salom-Alik**	**2.19**	**313**	⇓*iP*	**Pn**	**15 16 17.5**	**+1.3**
SALK				⇓*iS*	**Sg**	**15 16 49.3**	**-0.6**
OHH	**Osh**	**2.66**	**296**	⇓*iP*	**Pn**	**15 16 23.3**	**+0.7**
OHH				⇓*iS*	**Sb**	**15 16 59.7**	**-0.4**
TARG	**Taragay, Kyrgy**	**2.73**	**31**	⇓*iP*	**Pn**	**15 16 23.9**	**+0.1**
TARG				⇓*iS*	**Sb**	**15 17 00.1**	**-2.3**
ULHL	**Ulahol**	**2.85**	**5**	⇑*iP*	**Pn**	**15 16 26.4**	**+1.1**
ULHL				⇑*iS*	**Sb**	**15 17 05.1**	**-0.5**
ARSB	**Arslanbob**	**2.95**	**311**	⇑*eP*	**Pn**	**15 16 28.1**	**+1.4**
ARSB				⇑*eS*	**Sb**	**15 17 07.8**	**-0.8**
DRK	**Karamyk**	**3.19**	**273**	⇑*eP*	**Pn**	**15 16 29.7**	**-0.5**
DRK				⇑*iS*	**Sn**	**15 17 10.6**	**+2.2**
KBK	**Karagaybulak**	**3.33**	**347**	⇑*iP*	**Pn**	**15 16 33.7**	**+1.8**
KBK				⇑*iS*	**Sb**	**15 17 17.2**	**-2.3**
AAK	**Ala-Archa** 12nm,0.7s	**3.41**	**342**	⇓Pn	**Pn**	**15 16 33.7**	**+0.8**
AAK	24nm,1.0s			⇓Lg	Lg	15 17 26.4	
FRU1	**Bishkek**	**3.54**	**344**	⇑*eP*	**Pn**	**15 16 37.0**	**+2.3**
FRU1				⇑*eS*	**Sb**	**15 17 22.7**	**-2.7**
PRZ	**Przheval'sk**	**3.60**	**31**	⇓*eP*	**Pn**	**15 16 36.0**	**+0.4**
PRZ				⇓*eS*	**Sn**	**15 17 21.1**	**+2.8**
ANVS	**Anan'yevo**	**3.62**	**21**	⇑*eP*	**Pn**	**15 16 36.3**	**+0.4**
ANVS				⇑*eS*	**Sn**	**15 17 22.1**	**+3.3**
KST	**Kastek** 7.6nm,0.4s	**3.63**	**0**	Pg	**Pb**	**15 16 43.5**	**-0.5**
KST	19nm,0.9s			Lg	Lg	15 17 36.0	
KST	**Kastek** 7.6nm,0.4s	**3.63**	**0**	*eP*	**Pb**	**15 16 43.5**	**-0.5**
KST	19nm,0.9s			*eS*	**Sg**	**15 17 36.0**	**-0.4**
TNSS	**Tian-Shan** 2.4nm,0.5s	**3.71**	**12**	Pg	**Pb**	**15 16 45.8**	**+0.3**
TNSS	5.2nm,0.6s			Lg	Lg	15 17 39.9	
TNSS	**Tian-Shan** 2.4nm,0.5s	**3.71**	**12**	*eP*	**Pb**	**15 16 45.8**	**+0.3**
TNSS	5.2nm,0.6s			*eS*	**Sg**	**15 17 39.9**	**+1.1**
MRKS	**Merke** 8.2nm,0.4s	**3.91**	**329**	Pg	**Pb**	**15 16 48.0**	**-0.7**
MRKS	7.7nm,0.5s			Lg	Lg	15 17 43.6	
MRKS	**Merke** 8.2nm,0.4s	**3.91**	**329**	*eP*	**Pb**	**15 16 48.0**	**-0.7**
MRKS	7.7nm,0.5s			*eS*	**Sg**	**15 17 43.6**	**-1.6**
BTK	**Batken**	**3.99**	**281**	⇑*eP*	**Pn**	**15 16 41.4**	**+0.5**
BTK				⇑*eS*	**Sn**	**15 17 30.6**	**+2.8**
MNAS	**Manas**	**4.02**	**321**	⇑*eP*	**Pn**	**15 16 43.3**	**+1.9**
MNAS				⇑*eS*	**Sb**	**15 17 34.1**	**-5.3**
SATY	**Saty** 8.1nm,0.5s	**4.10**	**26**	Pg	**Pb**	**15 16 52.5**	**+0.5**
SATY	16nm,0.5s			Lg	Lg	15 17 51.3	
SATY	**Saty** 8.1nm,0.5s	**4.10**	**26**	*eP*	**Pb**	**15 16 52.5**	**+0.5**
SATY	16nm,0.5s			*eS*	**Sg**	**15 17 51.4**	**+0.1**
KTBS	**Karatobe** 0.1nm,0.1s	**4.34**	**7**	Pg	**Pb**	**15 16 55.8**	**-0.2**
KTBS	8.2nm,0.5s			Lg	Lg	15 17 57.0	
KTBS	**Karatobe** 0.1nm,0.1s	**4.34**	**7**	*eP*	**Pb**	**15 16 55.8**	**-0.2**
KTBS	8.2nm,0.5s			*eS*	**Sg**	**15 17 57.0**	**-2.0**
UZB	**Uzynbulak** 2.1nm,0.2s	**4.41**	**31**	Pg	**Pb**	**15 16 57.6**	**+0.5**
UZB	8.7nm,0.7s			Lg	Lg	15 18 00.1	
UZB	**Uzynbulak** 2.1nm,0.2s	**4.41**	**31**	*eP*	**Pb**	**15 16 57.6**	**+0.5**
UZB	8.7nm,0.7s			*eS*	**Sg**	**15 18 00.1**	**-0.9**
KURS	**Kuram** 9.7nm,0.7s	**4.41**	**22**	Pg	**Pb**	**15 16 57.6**	**+0.3**
KURS	12nm,1.0s			Lg	Lg	15 18 00.1	
KURS	**Kuram** 9.7nm,0.7s	**4.41**	**22**	*eP*	**Pb**	**15 16 57.6**	**+0.3**
KURS	12nm,1.0s			*eS*	**Sg**	**15 18 00.1**	**-1.2**
KPKS	**Kokpek** 0.2nm,0.1s	**4.56**	**26**	Pg	**Pb**	**15 16 59.4**	**-0.3**
KPKS	12nm,0.5s			Lg	Lg	15 18 03.1	
KPKS	**Kokpek** 0.2nm,0.1s	**4.56**	**26**	*eP*	**Pb**	**15 16 59.4**	**-0.3**
KPKS	12nm,0.5s			*eS*	**Sg**	**15 18 03.1**	**-2.7**
SHLS	**Shalkode** 7.2nm,0.6s	**4.60**	**34**	Pg	**Pg**	**15 17 05.0**	**-2.6**
SHLS	12nm,0.5s			Lg	Lg	15 18 12.9	
PDGK	**Podgornoye** 6.6nm,0.8s	**4.75**	**33**	⇓Pg	**Pb**	**15 17 04.5**	**+1.5**
PDGK	22nm,1.0s			⇑Lg	Lg	15 18 10.5	
ARXS	**Arharly** 4.1nm,0.5s	**5.01**	**16**	Pg	**Pb**	**15 17 10.6**	**+3.2**
ARXS	8.0nm,0.6s			Lg	Lg	15 18 22.5	
ARXS	**Arharly** 4.1nm,0.5s	**5.01**	**16**	*eP*	**Pb**	**15 17 10.6**	**+3.2**
ARXS	8.0nm,0.6s			*eS*	**Sg**	**15 18 22.5**	**+2.1**
KK31	**Karatay Array** 1.2nm,0.3s,baz=143,slow=14,SNR=16	**5.50**	**314**	Pn	**Pn**	**15 16 59.8**	**-1.8**
KK31	3.3nm,0.6s,baz=155,slow=26,SNR=3.5			⇑Sn	**Sn**	**15 18 06.0**	**+1.1**
BTLS	**Baital** 1.9nm,0.7s	**5.80**	**347**	Pg	**Pb**	**15 17 23.2**	**+2.4**
BTLS	4.3nm,0.7s			Lg	Lg	15 18 44.1	
BTLS	**Baital** 1.9nm,0.7s	**5.80**	**347**	*eP*	**Pb**	**15 17 23.2**	**+2.4**
BTLS	4.3nm,0.7s			*eS*	**Sg**	**15 18 44.1**	**-1.7**
BRLS	**Borolday** 1.6nm,0.4s	**5.85**	**310**	Pg	**Pb**	**15 17 20.2**	**-1.4**
BRLS	3.2nm,0.4s			Lg	Lg	15 18 38.9	
BRLS	**Borolday** 1.6nm,0.4s	**5.85**	**310**	*eP*	**Pb**	**15 17 20.2**	**-1.4**
BRLS	3.2nm,0.4s			*eS*	**Sb**	**15 18 38.9**	**+7.2**

*IDC **03** 15:18:56.7±1.0, 14°.96N × 147°.27E, h0km, mb4.2/18, mbtmp4.2/19, ML4.3/1, MS3.2/8, Error ellipse: s-maj=28.5km s-min=13.9km az=105.0*

*NEIC **03** 15:18:59.0±1.0, 14°.91N±0°.08 × 147°.21E±0°.09, h10km±1km, mb4.8/22, Error ellipse: s-maj=15.1km s-min=13.3km az=126.0*

ISC 03 15:18:58.3±0.7, 14°.89N±0°.08 × 147°.2E±0°.1, h10km, n53, σ0§64/49, mb4.5/27, MS3.2/7, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DPSS	**Saipan**	**1.44**	**284**		**Pn**	**15 19 25.1**	**+0.6**
GUMO	**Guam**	**2.63**	**241**		**Pn**	**15 19 40.6**	**-0.2**
	47nm,0.3s,baz=54,slow=8.7,SNR=26						
GUMO				Sn	**Sn**	**15 20 12.6**	**-0.3**
	50nm,0.3s,baz=73,slow=19,SNR=7.2						
GUMO				LR	LR	15 20 55.3	
	comp=Z,277nm,22.0s,baz=80,slow=44 108nm,0.3s						
GUMO				AML	AML		
GUMO	**Guam**	**2.63**	**241**		**Pn**	**15 19 40.5**	**-0.4**
JOW	**Kunigami**	**21.30**	**307**	P	**P**	**15 23 46.3**	**+1.1**
JOW				IAmb	IAmb	15 23 48.8	
	comp=Z,279nm,1.9s						
SIJI	**Sorong**	**22.24**	**227**	P	**P**	**15 23 57.0**	**+1.6**
	comp=Z,18nm,0.9s,baz=33,slow=12,SNR=12						
SIJI				LR	LR	15 33 20.9	
	comp=Z,26nm,18.5s,baz=50,slow=39 comp=Z,18nm,0.9s						
MJAR	**Matsushiro Arr**	**23.02**	**341**	LR	LR	15 33 12.8	
	comp=Z,44nm,19.2s,baz=153,slow=37						
FAKI	**Fak Fak**	**23.10**	**221**	P	**P**	**15 24 06.2**	**+1.8**
FAKI				IAmb	IAmb	15 24 13.0	
	comp=Z,36nm,1.1s						
JNU	**Nakatsue**	**23.45**	**324**	P	**P**	**15 24 08.0**	**0.0**
	comp=Z,9.2nm,1.0s,baz=146,slow=18,SNR=2.0 comp=Z,9.2nm,1.0s						
PMG	**Port Moresby**	**24.14**	**180**	P	**P**	**15 24 14.8**	**+0.1**
PMG				IAmb	IAmb	15 24 32.3	
	comp=Z,18nm,1.1s						
KSRS	**Korea Array**	**28.27**	**326**	P	**P**	**15 24 51.0**	**-0.7**
	comp=Z,1.7nm,0.7s,baz=149,slow=9.4,SNR=4.6						
KSRS				LR	LR	15 36 09.9	
	comp=Z,32nm,18.2s,baz=115,slow=37 comp=Z,1.7nm,0.7s						
MTN	**Manton Dam**	**31.84**	**211**	P	**P**	**15 25 23.2**	**-0.4**
MTN				IAmb	IAmb	15 25 56.4	
	comp=Z,11nm,1.4s						
USRK	**Ussuriysk Ar.**	**31.97**	**339**	LR	LR	15 38 22.8	
	comp=Z,42nm,18.4s,baz=173,slow=36						
KLR	**Kul'dur**	**36.52**	**343**	P	**P**	**15 26 02.6**	**-1.3**
	comp=Z,2.7nm,0.6s,baz=162,slow=20,SNR=4.6 comp=Z,2.7nm,0.6s						
WB0	**Warramunga Arr**	**36.68**	**201**	P	**P**	**15 26 05.2**	**-0.4**
WB0				IAmb	IAmb	15 26 17.9	
	comp=Z,10nm,1.2s						
WR8	**Warramunga Arr**	**36.82**	**200**	P	**P**	**15 26 06.1**	**-0.6**
WRAB	**Tennant Creek**	**36.85**	**200**	P	**P**	**15 26 06.6**	**-0.4**
WRAB				IAmb	IAmb	15 26 53.1	
	comp=Z,13nm,1.5s						
WRA	**Warramunga Arr**	**36.87**	**200**	P	**P**	**15 26 07.1**	**0.0**
	comp=Z,2.6nm,0.8s,baz=17,slow=8.1,SNR=12 comp=Z,2.6nm,0.8s						
WRA	**Warramunga Arr**	**36.87**	**200**	P	**P**	**15 26 05.7**	**-1.4**
PEA0B	**Petropavlovsk-**	**39.02**	**10**	P	**P**	**15 26 25.3**	**+0.4**
FITZ	**Fitzroy Crossi**	**39.09**	**214**	P	**P**	**15 26 26.2**	**+0.4**
AS31	**Alice Springs**	**40.48**	**199**	P	**P**	**15 26 38.0**	**+0.6**
ASAR	**Alice Springs**	**40.48**	**199**	P	**P**	**15 26 37.8**	**+0.3**
	comp=Z,0.9nm,0.8s,baz=18,slow=6.4,SNR=14 comp=Z,0.9nm,0.8s						
LZDM	**Lanzhou Array**	**44.12**	**307**	P	**P**	**15 27 07.8**	**+0.4**
	comp=Z,2.3nm,0.3s,baz=81,slow=8.9,SNR=1.5 comp=Z,2.3nm,0.3s						
CMAR	**Chiang Mai Arr**	**46.29**	**281**	P	**P**	**15 27 24.1**	**-0.4**
	comp=Z,0.9nm,0.7s,baz=88,slow=7.7,SNR=9.9 comp=Z,0.9nm,0.7s						
CMAR	**Chiang Mai Arr**	**46.29**	**281**	P	**P**	**15 27 24.4**	**-0.1**
SONM	**Songino Array**	**47.04**	**323**	P	**P**	**15 27 30.2**	**0.0**
	comp=Z,1.4nm,0.7s,baz=128,slow=7.9,SNR=8.0 comp=Z,1.4nm,0.7s						
SEY	**Seymchan**	**48.12**	**3**	P	**P**	**15 27 38.4**	**+0.3**
	comp=Z,2.6nm,1.0s,baz=197,slow=19,SNR=10 comp=Z,2.6nm,1.0s						
YAK	**Yakutsk**	**48.72**	**349**	P	**P**	**15 27 43.2**	**+0.5**
	comp=Z,6.2nm,0.6s,baz=162,slow=20,SNR=4.7 comp=Z,6.2nm,0.6s						
YAK	**Yakutsk**	**48.72**	**349**	P	**P**	**15 27 42.9**	**+0.2**
EVN	**Everest**	**57.23**	**294**	P	**P**	**15 28 46.5**	**-0.4**
TIXI	**Tiksi**	**57.80**	**353**	P	**P**	**15 28 49.7**	**+0.3**
ZALV	**Zalesovo Beam**	**61.93**	**324**	P	**P**	**15 29 18.0**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=102,slow=6.6,SNR=2.5 comp=Z,0.5nm,0.3s						
MKAR	**Makanchi Array**	**62.17**	**315**	P	**P**	**15 29 19.2**	**-0.7**
	comp=Z,1.3nm,0.4s,baz=98,slow=7.5,SNR=28 comp=Z,1.3nm,0.4s						
MKAR	**Makanchi Array**	**62.17**	**315**		**P**	**15 29 19.9**	**0.0**
MAKZ	**Makanchi**	**62.38**	**315**		**P**	**15 29 21.6**	**+0.3**
RAR	**Rarotonga**	**63.18**	**123**	LR	LR	15 56 20.1	
	comp=Z,17nm,18.1s,baz=174,slow=36						
PDGK	**Podgornoye**	**63.78**	**311**	P	**P**	**15 29 30.6**	**-0.2**
KURK	**Kurchatov**	**65.09**	**319**	P	**P**	**15 29 38.6**	**-0.5**
KURBB	**Kurchatov Arra**	**65.13**	**319**	P	**P**	**15 29 38.6**	**-0.8**
	comp=Z,3.2nm,0.5s,baz=103,slow=6.8,SNR=42 comp=Z,3.2nm,0.5s						
HDA	**Harding Lake**	**66.30**	**26**	P	**P**	**15 29 46.9**	**+0.3**
HDA				IAmb	IAmb	15 30 27.6	
	comp=Z,25nm,1.7s						
ILAR	**Eielson Array**	**66.42**	**25**	P	**P**	**15 29 47.2**	**-0.2**
	comp=Z,0.3nm,0.7s,baz=257,slow=5.9,SNR=4.4 comp=Z,0.3nm,0.7s						
PPT	**Papeete**	**70.16**	**115**	LR	LR	15 55 13.6	
	comp=Z,39nm,20.6s,baz=16,slow=31						
KK31	**Karatay Array**	**70.34**	**311**	P	**P**	**15 30 12.2**	**-0.2**
KK31				IAmb	IAmb	15 30 50.1	
	comp=Z,8.8nm,1.1s						
KKAR	**Karatay Array**	**70.34**	**311**	P	**P**	**15 30 12.2**	**-0.1**
BVAR	**Borovoye Array**	**70.34**	**321**	P	**P**	**15 30 11.6**	**-0.6**
	comp=Z,1.8nm,0.5s,baz=102,slow=6.1,SNR=13 comp=Z,1.8nm,0.5s						
BORK	**Borovoye**	**70.38**	**321**	P	**P**	**15 30 12.6**	**+0.2**
S32K	**Killisnoo**	**71.23**	**34**	P	**P**	**15 30 17.8**	**+0.4**
AB31	**Akbulak array**	**77.12**	**318**	P	**P**	**15 30 51.0**	**-1.1**
AB31				IAmb	IAmb	15 31 29.7	
	comp=Z,9.3nm,0.8s						
ABKAR	**Akbulak array**	**77.12**	**318**	P	**P**	**15 30 51.0**	**-1.0**
ARCES	**ARCESS Array B**	**86.55**	**343**	P	**P**	**15 31 41.2**	**-0.2**
	comp=Z,1.3nm,0.6s,baz=77,slow=4.9,SNR=5.4 comp=Z,1.3nm,0.6s						
FINES	**FINESS Array B**	**90.94**	**336**	P	**P**	**15 32 01.9**	**-0.3**
	comp=Z,3.6nm,1.0s,baz=63,slow=0.3,SNR=3.6 comp=Z,3.6nm,1.0s						
FRB	**Frobisher Bay**	**96.90**	**15**	LR	LR	16 24 10.7	
	comp=Z,44nm,18.0s,baz=84,slow=40						
DBIC	**Dimbokro**	**145.01**	**306**	PKPbc	**PKPab**	**15 38 36.2**	**0.0**
	comp=Z,1.1nm,0.5s,baz=80,slow=2.8,SNR=4.5						

*IDC **03** 15:20:13.0±0.8, 16°.12N × 145°.62E, h241km±7km, mb4.0/31, mbtmp4.6/32, Error ellipse: s-maj=14.0km s-min=7.8km az=89.0*
*NEIC **03** 15:20:15.2±1.4, 16°.11N±0°.06 × 145°.4E±0°.1, h250km±5km, mb4.6/146, Error ellipse: s-maj=18.5km s-min=9.0km az=97.0*
*BJI **03** 15:20:16.1, 16°.42N × 145°.52E, h266km, mB4.6/4, mb4.4/34*

ISC 03 15:20:14.2±0.4, 16°.07N±0°.06 × 145°.42E±0°.10, h250km, n173, σ1§03/130, mb4.5/109, 2C-1D, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DPSS	**Saipan**	**0.90**	**156**		**Pn**	**15 20 50.1**	**+1.4**
DPSS					**S**	**15 21 16.2**	**+0.3**
GUMO	**Guam**	**2.52**	**192**	P	**Pn**	**15 21 01.9**	**+0.2**
	468nm,0.3s,baz=61,slow=2.2,SNR=18			S	**S**	**15 21 38.9**	**-0.4**
GUMO	298nm,0.3s,baz=154,slow=24,SNR=10						
GUMO	**Guam**	**2.52**	**192**		**Pn**	**15 21 02.7**	**+1.0**
JHJ2	**Mitsune**	**17.71**	**344**	P	**Pn**	**15 24 05.7**	**-0.6**
MANU	**Manus Island**	**18.10**	**174**	P	**Pn**	**15 24 10.6**	**-0.5**
JMN	**Monobe**	**20.43**	**331**	P	**P**	**15 24 33.7**	**+0.8**
H11S3	**WAKE ISLAND Hy** baz=267,slow=75,SNR=16	**20.45**	**80**	T	T	15 46 00.5	
H11S1	**WAKE ISLAND Hy** baz=267,slow=75,SNR=15	**20.47**	**80**	T	T	15 46 04.2	
H11S2	**WAKE ISLAND Hy** baz=267,slow=75,SNR=29	**20.47**	**80**	T	T	15 46 04.3	
INU	**Inuyama**	**20.62**	**340**	P	**P**	**15 24 34.6**	**-0.2**
INU				IAmb	IAmb	15 25 18.2	
	comp=Z,35nm,1.3s						
JGF	**Kuroka**	**20.74**	**341**	P	**P**	**15 24 36.9**	**+0.7**
JGF				IAmb	IAmb	15 25 14.9	
	comp=Z,26nm,1.2s						
H11N1	**WAKE ISLAND Hy** baz=263,slow=75,SNR=18	**20.75**	**77**	T	T	15 46 25.6	
H11N2	**WAKE ISLAND Hy** baz=263,slow=75,SNR=21	**20.76**	**77**	T	T	15 46 27.4	
H11N3	**WAKE ISLAND Hy** baz=263,slow=75,SNR=17	**20.77**	**77**	T	T	15 46 20.9	
MJAR	**Matsushiro Arr**	**21.38**	**344**	P	**P**	**15 24 40.4**	**-2.0**
	comp=Z,3.8nm,0.7s,baz=168,slow=10,SNR=7.4 comp=Z,3.8nm,0.7s						
MJAR	**Matsushiro Arr** comp=Z,11nm,1.2s	**21.38**	**344**	IAmb	IAmb	15 24 44.3	
MAJO	**Matsushiro**	**21.38**	**344**	P	**P**	**15 24 42.4**	**0.0**
MAJO				IAmb	IAmb	15 25 01.5	
	comp=Z,22nm,1.2s						
JNU	**Nakatsue**	**21.48**	**325**	P	**P**	**15 24 43.9**	**+0.5**
	comp=Z,19nm,0.5s,baz=142,slow=3.9,SNR=32 comp=Z,19nm,0.5s						
JNU	**Nakatsue** comp=Z,14nm,0.7s	**21.48**	**325**	IAmb	IAmb	15 25 11.7	
SIJI	**Sorong**	**21.87**	**221**	P	**P**	**15 24 47.9**	**+0.7**
	comp=Z,8.1nm,0.4s,baz=25,slow=14,SNR=13 comp=Z,8.1nm,0.4s						
JTU	**Tsushima**	**23.34**	**325**	P	**P**	**15 25 00.7**	**+0.3**
TJN	**Taejon**	**25.82**	**325**	P	**P**	**15 25 22.6**	**-0.2**
KSRS	**Korea Array**	**26.33**	**327**	P	**P**	**15 25 27.4**	**+0.2**
	comp=Z,21nm,0.9s,baz=136,slow=9.7,SNR=23 comp=Z,21nm,0.9s						
KSAR	**Wonju Array Be**	**26.34**	**327**		**P**	**15 25 26.6**	**-0.7**
KS19	**Wonju Array Si**	**26.39**	**327**	P	**P**	**15 25 27.1**	**-0.8**
ASAJ	**Asahikawa**	**28.06**	**356**	P	**P**	**15 25 42.0**	**-0.6**
	comp=Z,10nm,0.6s,baz=188,slow=6.4,SNR=7.9 comp=Z,10nm,0.6s						
JKA	**Kamikawa-asahi**	**28.06**	**356**	P	**P**	**15 25 41.9**	**-0.7**
NJ2	**Nanjing**	**28.89**	**308**	*eP*	**P**	**15 25 51.1**	**+1.0**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
USRK	**Ussuriysk Ar.**	**30.27**	**341**	P	**P**	**15 26 02.1**	**+0.1**
	comp=Z,2.8nm,0.8s,baz=142,slow=7.3,SNR=2.5 comp=Z,2.8nm,0.8s						
DL2	**Dalian**	**30.86**	**322**	P	**P**	**15 26 08.2**	**+0.9**
DL2				pmax	pmax		
	comp=Z,38nm,0.7s						
YSS	**Yuzhno-Sakhali**	**30.88**	**356**	P	**P**	**15 26 06.1**	**-1.2**
HNS	**HongShan**	**34.45**	**314**	⇓P	**P**	**15 26 39.1**	**+0.7**
HNS				pmax	pmax		
	comp=Z,16nm,0.7s						
LYN	**LuoYang**	**34.79**	**308**	P	**P**	**15 26 42.2**	**+0.8**
LYN				pmax	pmax		
	comp=Z,28nm,0.7s						
KLR	**Kul'dur**	**34.90**	**344**	P	**P**	**15 26 41.1**	**-1.1**
	comp=Z,2.4nm,0.6s,baz=160,slow=12,SNR=3.2 comp=Z,2.4nm,0.6s						
HEH	**HeiHe**	**37.07**	**341**	*eP*	**P**	**15 26 59.2**	**-1.3**
HEH				pmax	pmax		
	comp=Z,12nm,1.3s						
XLT	**XiLinHaoTe**	**37.26**	**324**	*eP*	**P**	**15 27 02.5**	**+0.3**
XLT				pP	pP	15 27 52.0	+0.2
XLT				pmax	pmax		
	comp=Z,15nm,0.7s						
XAN	**Xi'an**	**37.34**	**305**	*eP*	**P**	**15 27 01.7**	**-1.3**
WRA	**Warramunga Arr**	**37.40**	**197**	P	**P**	**15 27 03.8**	**+0.2**
	comp=Z,0.6nm,0.5s,baz=16,slow=8.4,SNR=11						
WRA				PcP	**PcP**	**15 29 18.0**	**+1.2**
	comp=Z,0.6nm,0.5s,baz=23,slow=3.7,SNR=4.7						
WRA				ScP	**ScP**	**15 32 39.6**	**-0.5**
	comp=Z,0.3nm,0.6s,baz=14,slow=4.1,SNR=2.5 comp=Z,0.6nm,0.5s						
PEA0B	**Petropavlovsk-**	**38.20**	**12**	P	**P**	**15 27 10.2**	**+0.3**
PETK	**Petropavlovsk-**	**38.20**	**12**	P	**P**	**15 27 08.7**	**-1.2**
	comp=Z,4.4nm,0.8s,baz=196,slow=7.4,SNR=9.5 comp=Z,4.4nm,0.8s						
PETK	**Petropavlovsk-**	**38.20**	**12**	P	**P**	**15 27 10.3**	**+0.4**
HHC	**Hu-ho-hao-te**	**38.29**	**317**	*eP*	**P**	**15 27 11.9**	**+1.0**
HHC				pmax	pmax		
	comp=Z,13nm,0.7s						
HILR	**Hailar Array B**	**39.37**	**334**	P	**P**	**15 27 20.2**	**+0.6**
	comp=Z,8.0nm,0.7s,baz=134,slow=10,SNR=6.8 comp=Z,8.0nm,0.7s						
ASAR	**Alice Springs**	**41.06**	**196**	P	**P**	**15 27 33.6**	**-0.2**
	comp=Z,0.5nm,0.6s,baz=21,slow=9.5,SNR=5.3						
ASAR				PcP	**PcP**	**15 29 29.4**	**+1.0**
	comp=Z,0.6nm,0.5s,baz=24,slow=3.1,SNR=7.0						
ASAR				ScP	**ScP**	**15 32 53.6**	**-0.6**
	comp=Z,0.4nm,0.8s,baz=14,slow=3.6,SNR=4.9						
LZDM	**Lanzhou Array**	**42.01**	**306**	P	**P**	**15 27 43.4**	**+1.7**
	comp=Z,8.5nm,0.5s,baz=108,slow=7.9,SNR=5.1 comp=Z,8.5nm,0.5s						
SHEM	**Shemya Is, Ala**	**43.01**	**25**	P	**P**	**15 27 50.4**	**+1.4**
SMY	**Shemya**	**43.01**	**25**	P	**P**	**15 27 50.4**	**+1.5**
MA2	**Magadan**	**43.62**	**4**	P	**P**	**15 27 52.3**	**-1.5**
	comp=Z,18nm,0.8s,baz=180,slow=14,SNR=2.9 comp=Z,18nm,0.8s						
MA2	**Magadan**	**43.62**	**4**	P	**P**	**15 27 53.3**	**-0.5**
CMAR	**Chiang Mai Arr**	**44.35**	**280**	P	**P**	**15 28 01.2**	**+1.0**
	comp=Z,0.8nm,0.6s,baz=88,slow=8.0,SNR=4.6 comp=Z,0.8nm,0.6s						
AMKA	**Amchitka**	**44.39**	**30**	P	**P**	**15 28 01.2**	**+1.1**
AMKA				IAmb	IAmb	15 28 02.2	
	comp=Z,16nm,0.8s						
ULN	**Ulaanbaatar**	**44.69**	**324**		**P**	**15 28 03.3**	**+0.6**
ULN				IAmb	IAmb	15 28 04.6	
	comp=Z,13nm,0.7s						
SONM	**Songino Array**	**45.05**	**323**	P	**P**	**15 28 06.0**	**+0.5**
	comp=Z,12nm,0.9s,baz=122,slow=6.0,SNR=24						
SONM				PcP	**PcP**	**15 29 41.5**	**-0.2**
	comp=Z,2.0nm,0.7s,baz=123,slow=3.5,SNR=3.9 comp=Z,12nm,0.9s						
SONM	**Songino Array**	**45.05**	**323**	IAmb	IAmb	15 28 10.1	
	comp=Z,9.7nm,0.9s						
SONM	**Songino Array**	**45.05**	**323**		**P**	**15 28 06.1**	**+0.6**
SONM				IAmb	IAmb	15 28 10.1	
	comp=Z,9.7nm,0.9s						
GTA2	**Gaotai**	**46.03**	**310**	*eP*

ZALV	**Zalesovo Beam**	**59.94**	**323**	P		**P**	**15 29 54.2**	**+0.1**
	comp=Z,5.1nm,0.6s,baz=100,slow=8.0,SNR=16							
ZALV				PcP		**PcP**	**15 30 36.8**	**-0.8**
	comp=Z,1.8nm,0.8s,baz=104,slow=4.9,SNR=3.6							
	comp=Z,5.1nm,0.6s							
MKAR	**Makanchi Array**	**60.10**	**315**	P		**P**	**15 29 56.5**	**+1.2**
	comp=Z,5.0nm,0.4s,baz=95,slow=8.0,SNR=22							
MKAR				PcP		**PcP**	**15 30 38.7**	**+0.3**
	comp=Z,2.0nm,0.6s,baz=101,slow=3.8,SNR=5.3							
	comp=Z,5.0nm,0.4s							
MKAR	**Makanchi Array**	**60.10**	**315**			**P**	**15 29 56.3**	**+0.9**
N17K	**Nushagak Hills**	**60.31**	**29**	P		**P**	**15 29 57.6**	**+1.1**
N17K				IAmb	IAmb		15 29 58.3	
	comp=Z,14nm,0.9s							
MAKZ	**Makanchi**	**60.32**	**315**	P		**P**	**15 29 58.0**	**+1.1**
MAKZ				IAmb	IAmb		15 29 58.9	
	comp=Z,22nm,1.2s							
MAKZ	**Makanchi**	**60.32**	**315**	IAmb	IAmb		15 29 58.9	
	comp=Z,22nm,1.2s							
K17K	**Iditarod**	**60.66**	**26**	P		**P**	**15 29 59.6**	**+0.8**
K17K				IAmb	IAmb		15 30 00.7	
	comp=Z,17nm,1.0s							
H17K	**Granite Mounta**	**60.94**	**23**	P		**P**	**15 30 01.1**	**+0.4**
H17K				IAmb	IAmb		15 30 02.0	
	comp=Z,12nm,1.0s							
G19K	**Purcell Mounta**	**62.52**	**23**			**P**	**15 30 11.4**	**+0.3**
G19K				IAmb	IAmb		15 30 12.1	
	comp=Z,7.8nm,0.8s							
J20K	**Nowinta River**	**62.93**	**25**	P		**P**	**15 30 14.8**	**+0.9**
J20K				IAmb	IAmb		15 30 16.4	
	comp=Z,9.3nm,1.0s							
KURK	**Kurchatov**	**63.05**	**319**			**P**	**15 30 15.4**	**+0.5**
KURK				IAmb	IAmb		15 30 16.9	
	comp=Z,32nm,0.9s							
KURBB	**Kurchatov Arra**	**63.10**	**319**	P		**P**	**15 30 15.9**	**+0.7**
	comp=Z,37nm,0.8s,baz=102,slow=6.6,SNR=41							
	comp=Z,37nm,0.8s							
CAST	**Castle Rocks**	**63.55**	**26**			**P**	**15 30 18.3**	**+0.3**
CAST				IAmb	IAmb		15 30 19.0	
	comp=Z,12nm,1.1s							
H21K	**Melozitna Rive**	**63.98**	**24**	P		**P**	**15 30 21.1**	**+0.4**
NRIK	**Noril'sk**	**63.98**	**340**	P		**P**	**15 30 20.2**	**-0.4**
	comp=Z,5.1nm,0.6s,baz=108,slow=8.4,SNR=7.7							
	comp=Z,5.1nm,0.6s							
NRIK	**Noril'sk**	**63.98**	**340**	IAmb	IAmb		15 30 21.1	
	comp=Z,23nm,1.4s							
KSH2	**Kashi**	**64.50**	**306**	P		**P**	**15 30 25.8**	**+1.0**
KSH2				pmax	pmax			
	comp=Z,5.0nm,0.8s							
MLY	**Manley**	**64.60**	**25**			**P**	**15 30 24.9**	**+0.1**
MLY				IAmb	IAmb		15 30 26.7	
	comp=Z,14nm,1.4s							
D22K	**Ayikyak River**	**65.14**	**21**			**P**	**15 30 28.7**	**+0.5**
D22K				IAmb	IAmb		15 30 32.9	
	comp=Z,19nm,1.2s							
I23K	**Minto, Yukon-K**	**65.19**	**25**	IAmb	IAmb		15 30 30.4	
	comp=Z,8.2nm,1.2s							
D23K	**Nanushuk River**	**65.85**	**21**	P		**P**	**15 30 33.5**	**+0.8**
D23K				IAmb	IAmb		15 30 35.2	
	comp=Z,5.7nm,0.8s							
E23K	**Chandalar**	**65.94**	**22**	P		**P**	**15 30 33.8**	**+0.5**
E23K				IAmb	IAmb		15 30 35.1	
	comp=Z,15nm,1.1s							
ILAR	**Eielson Array**	**66.12**	**26**	P		**P**	**15 30 32.6**	**-1.8**
	comp=Z,2.3nm,0.4s,baz=253,slow=5.6,SNR=39							
	comp=Z,2.3nm,0.4s							
TOLK	**Toolik Lake Re**	**66.13**	**21**	IAmb	IAmb		15 30 35.4	
	comp=Z,4.9nm,0.6s							
PAX	**Paxson**	**66.34**	**28**	IAmb	IAmb		15 30 36.9	
	comp=Z,16nm,1.3s							
E24K	**Your Creek**	**66.34**	**22**	IAmb	IAmb		15 30 36.7	
	comp=Z,6.0nm,0.8s							
G24K	**Hadweenzic Riv**	**66.35**	**24**	P		**P**	**15 30 36.2**	**+0.3**
ARSB	**Arslanbob**	**66.45**	**308**	IAmb	IAmb		15 30 39.5	
	comp=Z,16nm,1.4s							
DOT	**Dot Lake**	**67.09**	**27**	IAmb	IAmb		15 30 40.8	
	comp=Z,6.7nm,0.8s							
F25K	**Christian Rive**	**67.26**	**23**	IAmb	IAmb		15 30 43.0	
	comp=Z,5.0nm,0.7s							
D25K	**Kavik River**	**67.42**	**21**	IAmb	IAmb		15 30 45.3	
	comp=Z,7.5nm,0.6s							
BMAR	**Burnt Mountain**	**67.63**	**23**	P		**P**	**15 30 44.2**	**+0.3**
GRNC	**Granite Creek**	**67.73**	**30**	P		**P**	**15 30 45.5**	**+0.6**
GRNC				IAmb	IAmb		15 30 48.7	
	comp=Z,11nm,0.9s							
F26K	**Sheenjek River**	**67.84**	**23**	IAmb	IAmb		15 30 46.5	
	comp=Z,4.4nm,0.7s							
KKAR	**Karatay Array**	**68.24**	**310**			**P**	**15 30 49.2**	**+0.9**
BVAR	**Borovoye Array**	**68.33**	**321**	P		**P**	**15 30 49.0**	**+0.4**
	comp=Z,27nm,0.6s,baz=99,slow=7.7,SNR=50							
	comp=Z,27nm,0.6s							
BORK	**Borovoye**	**68.37**	**321**			**P**	**15 30 49.5**	**+0.7**
C27K	**Jago River**	**68.41**	**21**	IAmb	IAmb		15 30 50.9	
	comp=Z,4.0nm,0.6s							
H27K	**Steamboat Moun**	**68.59**	**25**	IAmb	IAmb		15 30 51.5	
	comp=Z,20nm,1.5s							
D27M	**Malcolm River**	**69.29**	**21**	IAmb	IAmb		15 30 55.8	
	comp=Z,11nm,1.2s							
M29M	**Somme Creek**	**69.47**	**29**	IAmb	IAmb		15 30 57.1	
	comp=Z,7.8nm,0.6s							
H29M	**Whitestone**	**69.86**	**25**	P		**P**	**15 30 58.0**	**+0.3**
H29M				IAmb	IAmb		15 31 08.5	
	comp=Z,22nm,1.4s							
F30M	**Barrier River**	**71.00**	**23**	P		**P**	**15 31 04.9**	**+0.4**
H31M	**Peel River**	**71.47**	**25**	P		**P**	**15 31 07.9**	**+0.5**
H31M				IAmb	IAmb		15 31 09.8	
	comp=Z,26nm,1.5s							
G31M	**Satah River**	**71.55**	**24**	IAmb	IAmb		15 31 08.2	
	comp=Z,10nm,0.7s							
Q32M	**Nakina River**	**72.43**	**33**	P		**P**	**15 31 14.2**	**+0.8**
Q32M				IAmb	IAmb		15 31 32.2	
	comp=Z,17nm,1.5s							
R33M	**Jennings River**	**73.08**	**32**	P		**P**	**15 31 17.9**	**+0.7**
A36M	**Sachs Harbour**	**74.64**	**19**	IAmb	IAmb		15 31 26.9	
	comp=Z,16nm,1.0s							
ABKAR	**Akbulak array**	**75.08**	**317**			**P**	**15 31 28.9**	**+0.3**
ARTI	**Arti**	**75.15**	**325**			**P**	**15 31 29.0**	**0.0**
NLWA	**Neilton Lookou**	**78.83**	**44**	P		**P**	**15 31 51.4**	**+1.8**
YKAW3	**Yellowknife Wh**	**80.41**	**28**	P		**P**	**15 31 57.6**	**-0.1**
YKAW3				IAmb	IAmb		15 32 06.4	
	comp=Z,20nm,1.4s							
YKA	**Yellowknife Ar**	**80.43**	**28**	P		**P**	**15 31 57.5**	**-0.4**
	comp=Z,3.9nm,0.5s,baz=287,slow=5.2,SNR=18							
	comp=Z,3.9nm,0.5s							
YKAW1	**Yellowknife Wh**	**80.49**	**28**	P		**P**	**15 31 58.0**	**-0.2**
YBH	**Yreka Blue Hor**	**80.86**	**49**			**P**	**15 32 02.1**	**+1.4**
L04D	**Klamath Falls**	**81.04**	**49**	P		**P**	**15 32 02.9**	**+1.1**
L04D				IAmb	IAmb		15 32 04.0	
	comp=Z,16nm,1.3s							
M03C	**McCloud**	**81.39**	**50**	IAmb	IAmb		15 32 05.4	
	comp=Z,9.7nm,0.7s							
O03E	**Paynes Creek**	**81.86**	**51**	IAmb	IAmb		15 32 07.6	
	comp=Z,5.8nm,0.8s							
K05A	**Summer Lake**	**81.93**	**48**	IAmb	IAmb		15 32 08.6	
	comp=Z,10nm,0.9s							
RES	**Resolute Bay**	**82.03**	**13**	P		**P**	**15 32 06.3**	**+0.3**
RES				IAmb	IAmb		15 32 07.2	
	comp=Z,13nm,1.0s							
E09A	**Wood Farm, Sta**	**82.85**	**44**	IAmb	IAmb		15 32 12.1	
	comp=Z,7.0nm,0.8s							
BEKR	**Beckworth**	**83.04**	**51**	IAmb	IAmb		15 32 15.0	
	comp=Z,8.1nm,0.8s							
PNTR	**Pine Nut**	**83.82**	**51**	IAmb	IAmb		15 32 18.3	
	comp=Z,7.1nm,0.9s							
PLID	**Pearl Lake**	**84.69**	**45**	IAmb	IAmb		15 32 21.3	
	comp=Z,5.4nm,0.9s							
ARCES	**ARCESS Array B**	**84.90**	**342**	P		**P**	**15 32 19.7**	**-1.0**
	comp=Z,2.7nm,0.6s,baz=46,slow=7.3,SNR=12							
	comp=Z,2.7nm,0.6s							
NVAR	**Mina Array Bea**	**84.97**	**52**	P		**P**	**15 32 22.1**	**+0.1**
	comp=Z,3.3nm,0.7s,baz=284,slow=6.2,SNR=21							
	comp=Z,3.3nm,0.7s							
HLID	**Hailey**	**86.25**	**46**	IAmb	IAmb		15 32 30.2	
	comp=Z,5.8nm,0.8s							
ELK	**Elko**	**86.55**	**49**	IAmb	IAmb		15 32 31.6	
	comp=Z,7.1nm,0.8s							
KBZ	**Khabaz**	**87.80**	**315**	P		**P**	**15 32 34.9**	**-0.4**
	comp=Z,2.6nm,0.9s,baz=104,slow=1.7,SNR=6.1							
	comp=Z,2.6nm,0.9s							
PSUT	**Pine Spring**	**88.27**	**50**	IAmb	IAmb		15 32 46.8	
	comp=Z,6.2nm,0.8s							
DUG	**Dugway, Tooele**	**88.48**	**49**	IAmb	IAmb		15 32 40.5	
	comp=Z,6.7nm,0.7s							
BC3	**Big Chuckawall**	**88.60**	**55**	IAmb	IAmb		15 32 41.8	
	comp=Z,4.2nm,0.8s							
HWUT	**Hardware Ranch**	**88.88**	**47**	IAmb	IAmb		15 32 42.1	
	comp=Z,5.8nm,0.8s							

FINES	**FINESS Array B**	**89.15**	**335**	P		**P**	**15 32 39.5**	**-1.7**
	comp=Z,4.8nm,0.9s,baz=46,slow=4.0,SNR=8.1							
	comp=Z,4.8nm,0.9s							
TCUT	**Toone Canyon**	**89.16**	**47**	IAmb	IAmb		15 32 43.4	
	comp=Z,7.1nm,0.8s							
GLA	**Glamis**	**89.29**	**56**	IAmb	IAmb		15 32 45.0	
	comp=Z,7.9nm,0.8s							
PDAR	**Pinedale Array**	**89.86**	**45**	P		**P**	**15 32 44.3**	**-0.9**
	comp=Z,0.6nm,0.5s,baz=297,slow=4.3,SNR=7.6							
	comp=Z,0.6nm,0.5s							
SRU	**San Rafael Swe**	**90.51**	**49**	IAmb	IAmb		15 32 49.8	
	comp=Z,6.8nm,0.7s							
P18A	**Preston Nutter**	**90.52**	**48**	IAmb	IAmb		15 32 51.2	
	comp=Z,3.7nm,0.8s							
HMU	**Henry Mountain**	**90.77**	**50**	IAmb	IAmb		15 32 52.4	
	comp=Z,4.0nm,0.8s							
PV21	**Cone Mtn., Par**	**91.84**	**49**	IAmb	IAmb		15 32 58.2	
	comp=Z,4.7nm,0.7s							
PV17	**East Wray Mesa**	**91.95**	**49**	IAmb	IAmb		15 32 56.8	
	comp=Z,2.6nm,0.5s							
PV16	**Nyswonger Mesa**	**91.97**	**49**	IAmb	IAmb		15 32 57.6	
	comp=Z,6.2nm,0.7s							
PV18	**Skein Mesa, Pa**	**92.00**	**49**	IAmb	IAmb		15 32 56.3	
	comp=Z,6.7nm,0.8s							
PV03	**Paradox Valley**	**92.05**	**49**	IAmb	IAmb		15 33 00.6	
	comp=Z,9.2nm,1.3s							
PV12	**Saucer Basin,**	**92.05**	**49**	IAmb	IAmb		15 32 57.0	
	comp=Z,5.5nm,0.7s							
HFS	**Hagfors**	**94.71**	**338**	P		**P**	**15 33 05.9**	**-1.0**
	comp=Z,1.7nm,0.6s,baz=39,slow=9.3,SNR=2.6							
	comp=Z,1.7nm,0.6s							
BR131	**Keskin Array S**	**95.74**	**314**	IAmb	IAmb		15 33 12.5	
	comp=Z,1.9nm,0.7s							
BRTR	**Keskin Array B**	**95.74**	**314**	P		**P**	**15 33 11.8**	**-0.5**
	comp=Z,1.5nm,0.7s,baz=71,slow=2.6,SNR=10							
	comp=Z,1.5nm,0.7s							
VNA2	**Neumayer--Watz**	**122.75**	**190**	⇑PKPdf		**PKiKP**	**15 38 40.2**	**+0.3**
	comp=Z,3.4nm,0.6s,slow=1.4							
VNA3	**Neumayer Olymp**	**122.84**	**189**	⇑PKPdf		**PKiKP**	**15 38 40.0**	**0.0**
	comp=Z,1.6nm,0.7s							
TORD	**Torodi Ar. Bea**	**133.85**	**307**	PKP		**PKPdf**	**15 39 01.9**	**-0.5**
	comp=Z,0.4nm,0.5s,baz=48,slow=3.7,SNR=2.3							
DBIC	**Dimbokro**	**142.90**	**305**	PKP		**PKPdf**	**15 39 16.0**	**-2.9**
	comp=Z,2.6nm,0.4s,baz=72,slow=4.9,SNR=8.4							
LPAZ	**La Paz**	**147.80**	**95**	PKPbc		**PKPbc**	**15 39 31.4**	**+0.2**
	comp=Z,3.9nm,0.6s,baz=273,slow=2.9,SNR=14							
LPAZ	**La Paz**	**147.80**	**95**			**PKiKP**	**15 39 32.5**	**-0.5**

*PRE **03** 15:28:51.1±0.8,26.°95S×26.°74E, h2km, ML2.9, Presumed earthquake*
*NEIC **03** 15:28:53.6±2.2,26.°97S±0.°05×26.°60E±0.°06, h5km±1km, mb4.2/3, Error ellipse: s-maj=9.5km s-min=8.2km az=108.0*
*BGSI **03** 15:28:54.1±2.0,26.°99S×26.°75E, h0km±17km, ML3.2, Presumed earthquake*
*IDC **03** 15:28:54.2±1.4,26.°96S×26.°62E, h0km, mb3.6/1, mbtmp3.8/5, ML3.7/4, Error ellipse: s-maj=24.3km s-min=7.9km az=109.0*

ISC 03 15:28:52.8±1.2, 26.°96S±0.°03×26.°77E±0.°03, h11km±8km, n72, σ1°74/114, mb4.1/3, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res
PRYS	**Parys**	**0.52**	**86**	*eP*		**Pg**	**15 29 02.0**	**-1.0**
PRYS				*eS*		**Sg**	**15 29 09.5**	**-0.5**
PRYS				IAML			15 29 14.2	
	comp=Z,583nm,0.6s							
WDLM	**Western Deep L**	**0.79**	**47**	*eP*		**Pg**	**15 29 06.6**	**-1.5**
WDLM				*eS*		**Sg**	**15 29 17.7**	**-0.7**
WDLM				IAML			15 29 24.3	
	comp=Z,88nm,0.3s							
SWZ	**Schweizer**	**1.30**	**260**	*eP*		**Pn**	**15 29 15.2**	**-2.0**
SWZ				*eS*		**Sb**	**15 29 33.1**	**-1.2**
SWZ				IAML			15 29 43.0	
	comp=Z,90nm,0.6s							
HRAO	**HartRAO**	**1.34**	**38**	*eP*		**Pn**	**15 29 16.9**	**-0.8**
HRAO				*eS*		**Sn**	**15 29 36.4**	**+0.7**
SNKL	**Senekal, Frees**	**1.58**	**146**	*eP*		**Pn**	**15 29 21.7**	**+0.7**
SNKL				*eS*		**Sb**	**15 29 43.2**	**+1.0**
SNKL				IAML			15 29 48.3	
	comp=Z,225nm,0.2s							
TSWA	**Tswaing Meteor**	**1.93**	**38**	*eP*		**Pn**	**15 29 26.6**	**+0.9**
TSWA				*eS*		**Sn**	**15 29 50.8**	**+0.7**
TSWA				IAML			15 29 53.9	
	comp=Z,295nm,0.3s							
MAKGR	**Makgori**	**2.11**	**302**			**Pn**	**15 29 28.3**	**+0.1**
BOSA	**Boshof**	**2.12**	**219**	Pn		**Pn**	**15 29 29.3**	**+0.9**
	comp=Z,10nm,0.3s,baz=40,slow=17,SNR=99							
BOSA				Pg		**Pb**	**15 29 31.3**	**-0.1**
	comp=Z,10nm,0.3s,baz=41,slow=18,SNR=29							
BOSA				Lg		Lg	15 29 58.7	
	comp=Z,30nm,0.3s,baz=321,slow=13,SNR=21							
	comp=Z,27nm,0.3s							
BOSA				AML		AML		
BOSA	**Boshof**	**2.12**	**219**			**Pn**	**15 29 29.1**	**+0.7**
BOSA	**Boshof**	**2.12**	**219**	*i* P		**Pn**	**15 29 29.0**	**+0.5**
BOSA				*i* S		**Sn**	**15 29 54.4**	**-0.5**
BOSA				IAML			15 29 59.7	
	comp=E,102nm,0.3s							
BOSA	**Boshof**	**2.12**	**219**	*i* P		**Pn**	**15 29 29.1**	**+0.7**
BOSA				*i* S		**Sn**	**15 29 55.5**	**+0.5**
BOSA				IAML			15 29 59.7	
	comp=E,104nm,0.4s							
LBTB	**Lobatse**	**2.21**	**331**	Pn		**Pn**	**15 29 30.9**	**+1.3**
	comp=E,19nm,0.3s,baz=155,slow=14,SNR=211							
LBTB				Pg		**Pb**	**15 29 32.4**	**-0.5**
	comp=E,19nm,0.3s,baz=149,slow=18,SNR=74							
LBTB				Lg		Lg	15 30 00.1	
	comp=E,103nm,0.3s,baz=227,slow=19,SNR=46							
	comp=E,65nm,0.4s							
LBTB				AML		AML		
LBTB	**Lobatse**	**2.21**	**331**			**Pn**	**15 29 30.6**	**+1.0**
LBTB	**Lobatse**	**2.21**	**331**	*i* P		**Pg**	**15 29 38.7**	**+3.5**
LBTB	**Lobatse**	**2.21**	**331**	*i* P		**Pn**	**15 29 30.9**	**+1.3**
LBTB				*i* S		**Sb**	**15 29 58.6**	**-1.7**
LBTB				IAML			15 30 01.2	
	comp=E,290nm,0.3s							
LBTB	**Lobatse**	**2.21**	**331**	*i* P		**Pn**	**15 29 30.9**	**+1.3**
LBTB				*i* S		**Sb**	**15 29 59.1**	**-1.2**
LBTB				IAML			15 30 01.2	
	comp=E,286nm,0.2s							
LBTB	**Lobatse**	**2.21**	**331**	*eP*		**Pn**	**15 29 30.1**	**+0.5**
LBTB				*eS*		**Sn**	**15 29 57.6**	**+0.6**
LBTB				IAML			15 30 17.2	
	comp=Z,54nm,0.2s							
CRLN	**Carolina, Mapu**	**3.07**	**72**	*eP*		**Pn**	**15 29 42.1**	**+0.7**
CRLN				*eS*		**Sn**	**15 30 19.4**	**+1.2**
CRLN				IAML			15 30 57.6	
	comp=Z,15nm,0.2s							
LEPH	**Lephalale, Lim**	**3.23**	**17**	*eP*		**Pn**	**15 29 43.9**	**+0.4**
LEPH				*eS*		**Sn**	**15 30 21.5**	**-0.6**
LEPH				IAML			15 30 35.6	
	comp=Z,68nm,0.6s							
SKOMA	**Sekoma**	**3.54**	**313**	*i* P		**Pn**	**15 29 47.8**	**0.0**
SKOMA				*i* S		**Sn**	**15 30 28.1**	**-1.7**
SKOMA				IAML			15 30 45.9	
	comp=E,88nm,0.4s							
SKOMA	**Sekoma**	**3.54**	**313**	*i* P		**Pn**	**15 29 48.5**	**+0.7**
LPHEP	**Lephephe**	**3.68**	**347**	*i* P		**Pn**	**15 29 50.6**	**+0.8**
LPHEP				IAML			15 30 48.6	
	comp=E,99nm,0.4s							
LPHEP	**Lephephe**	**3.68**	**347**	*i* P		**Pn**	**15 29 50.6**	**+0.8**
LPHEP				IAML			15 30 48.6	
	comp=E,102nm,0.4s							
HVD	**Gariep Dam**	**3.80**	**197**	*eP*		**Pn**	**15 29 52.2**	**+0.7**
HVD				*eS*		**Sn**	**15 30 36.0**	**-0.2**
HVD				IAML			15 30 57.9	
	comp=Z,31nm,0.3s							
PHPEN	**Phepeng**	**3.82**	**292**			**Pn**	**15 29 50.9**	**-0.8**
PHPEN	**Phepeng**	**3.82**	**292**	*i* P		**Pn**	**15 29 50.9**	**-0.8**
PHPEN				IAML			15 30 57.6	
	comp=N,681nm,0.4s							
PHPEN	**Phepeng**	**3.82**	**292**	*i* P		**Pn**	**15 29 52.3**	**+0.6**
PHPEN				IAML			15 30 57.6	
	comp=N,681nm,0.4s							
KDWAN	**Kaudwane**	**4.05**	**331**			**Pn**	**15 29 55.2**	**+0.3**
PILG	**Pilgrimsrest,**	**4.08**	**61**	*eP*		**Pn**	**15 29 56.0**	**+0.6**
PILG				*eS*		**Sn**	**15 30 43.3**	**0.0**
PILG				IAML			15 31 00.4	
	comp=Z,58nm,0.4s							
CRAIL	**Swartwater, Li**	**4.35**	**18**	*eP*		**Pn**	**15 29 58.8**	**-0.2**
CRAIL				*eS*		**Sn**	**15 30 49.0**	**-0.9**
POGA	**Pongola**	**4.41**	**96**	Pn		**Pn**	**15 29 59.8**	**+0.1**
POGA	**Pongola**	**4.41**	**96**	*eP*		**Pn**	**15 30 00.5**	**+0.7**
POGA				*eS*		**Sn**	**15 30 50.3**	**-0.8**
POGA				IAML			15 31 11.6	
	comp=Z,99nm,0.5s							
ALKP	**Alkanpan, Nort**	**4.97**	**232**	*eP*		**Pn**	**15 30 07.0**	**-0.5**
ALKP				*eS*		**Sn**	**15 31 03.4**	**-1.7**
ALKP				IAML			15 31 32.5	
	comp=Z,35nm,0.4s							
TEMBE	**Tembe Elephant**	**5.04**	**92**	*eP*		**Pn**	**15 30 09.1**	**+0.7**
TEMBE				*eS*		**Sn**	**15 31 06.3**	**-0.4**
TEMBE				IAML			15 31 52.3	
	comp=Z,37nm,0.7s							
MPHEP	**Siloam, Limpop**	**5.08**	**38**	*eP*		**Pn**	**15 30 09.1**	**0.0**
MPHEP				*eS*		**Sn**	**15 31 06.9**	**-1.1**
MPHEP				IAML			15 31 39.4	
	comp=Z,17nm,0.4s							
UPI	**Upington**	**5.09**	**253**	*eP*		**Pn**	**15 30 09.8**	**+0.7**
UPI				*eS*		**Sn**	**15 31 05.8**	**-2.2**
UPI				IAML			15 31 47.6	
	comp=Z,20nm,0.3s							
MOPA	**Mopani**	**5.41**	**52**	*i* P		**Pn**	**15 30 11.8**	**-1.7**
MOPA				*i* S		**Sn**	**15 31 10.4**	**-5.5**
MOPA	**Mopani**	**5.41**	**52**	*eP*		**Pn**	**15 30 13.7**	**+0.2**
MOPA				*eS*		**Sn**	**15 31 14.2**	**-1.7**
MOPA				IAML			15 31 42.9	
	comp=Z,43nm,0.4s							
MUSN	**Musina, Limpop**	**5.43**	**32**	*i* P		**Pn**	**15 30 14.3**	**+0.4**
MUSN				*i* S		**Sn**	**15 31 19.5**	**+3.0**
MUSN	**Musina, Limpop**	**5.43**	**32**	*eP*		**Pn**	**15 30 14.0**	**+0.1**
MUSN				*eS*		**Sn**	**15 31 15.0**	**-1.5**
MUSN				IAML			15 31 48.2	
	comp=Z,29nm,0.7s							
BFON	**Badsfontein, M**	**5.52**	**208**	*eP*		**Pn**	**15 30 14.9**	**-0.2**
BFON				*eS*		**Sn**	**15 31 16.4**	**-2.3**
BFON				IAML			15 31 46.5	
	comp=Z,33nm,0.4s							
GRAF	**Camdeboo Natio**	**5.66**	**200**	*eP*		**Pn**	**15 30 17.9**	**+0.9**
GRAF				*eS*		**Sn**	**15 31 21.1**	**-0.9**
GRAF				IAML			15 32 02.8	
	comp=Z,26nm,0.6s							
LKGWB	**Lokgwabe**	**5.76**	**298**			Pn	15 30 08.3	-10
BROLN	**Tlhalogang**	**5.86**	**5**	*i* P		**Pn**	**15 30 19.6**	**-0.2**
BROLN				*i* S		**Sn**	**15 31 24.4**	**-2.6**
BROLN				IAML			15 31 55.4	
	comp=E,49nm,0.4s							
BROLN	**Tlhalogang**	**5.86**	**5**	*i* P		**Pn**	**15 30 19.6**	**-0.2**
BROLN				IAML			15 31 55.4	
	comp=E,49nm,0.4s							
BRAK	**Brakfontein**	**5.88**	**214**	*eP*		**Pn**	**15 30 20.5**	**+0.6**
BRAK				*eS*		**Sn**	**15 31 24.6**	**-2.7**
BRAK				IAML			15 32 08.7	
	comp=Z,16nm,0.4s							
ROOI	**Rooidraai Farm**	**6.18**	**206**	*eP*		**Pn**	**15 30 24.1**	**-0.1**
ROOI				*eS*		**Sn**	**15 31 33.1**	**-1.9**
ROOI				IAML			15 32 08.8	
	comp=Z,23nm,0.5s							
GRHM	**Grahamstown, E**	**6.30**	**183**	Pn		**Pn**	**15 30 25.8**	**0.0**
GRHM	**Grahamstown, E**	**6.30**	**183**	*eP*		**Pn**	**15 30 26.4**	**+0.6**
GRHM				*eS*		**Sn**	**15 31 35.9**	**-1.9**
GRHM				IAML			15 32 46.4	
	comp=Z,27nm,0.4s							
ARMS	**Ukamas**	**6.34**	**259**	*eP*		**Pn**	**15 30 26.6**	**+0.3**
ARMS				*eS*		**Sn**	**15 31 35.7**	**-3.1**
SOOWA	**Sowa**	**6.39**	**355**	*i* P		**Pn**	**15 30 27.0**	**-0.1**
GRAN	**Grantham**	**6.66**	**216**	*eP*		**Pn**	**15 30 31.5**	**+0.8**
GRAN				*eS*		**Sn**	**15 31 43.5**	**-3.1**
GRAN				IAML			15 32 34.0	
	comp=Z,20nm,0.5s							
MATP	**Matopo**	**6.70**	**14**	Pn		**Pn**	**15 30 34.7**	**+3.4**
	comp=Z,1.5nm,0.3s,baz=193,slow=14,SNR=16							
MATP				Sn		**Sn**	**15 31 49.9**	**+2.1**
	comp=Z,1.7nm,0.3s,baz=225,slow=8.6,SNR=7.7							
MATP				Lg		Lg	15 32 20.4	
	comp=Z,5.1nm,0.3s,baz=127,slow=18,SNR=13							
	comp=Z,4.9nm,0.4s							
MATP				AML		AML		
MATP	**Matopo**	**6.70**	**14**	*i* P		**Pn**	**15 30 34.8**	**+3.4**
MATP				*i* S		**Sn**	**15 31 54.6**	**+6.8**
FRAZ	**Fraserburg**	**6.81**	**222**	*eP*

JKK2	**Kamakawa 2**	**1.28**	**322**	*i* P		**Pn**	**16 02 57.3**	**+0.4**
JKK2				*e*S		**Sn**	**16 03 15.3**	**-0.3**
JAB	**Ashibetsu**	**1.35**	**299**	P		**Pn**	**16 02 58.4**	**+0.9**
JRA	**Rausu**	**1.41**	**41**	P		**Pn**	**16 02 58.9**	**+0.6**
JRA				S		**Sn**	**16 03 19.9**	**+1.7**
NMR	**Nemuro--Hokkai**	**1.46**	**69**	*i* P		**Pn**	**16 02 58.8**	**-0.1**
NMR				*i* S		**Sn**	**16 03 17.8**	**-1.4**
NEM2	**Nemuro 2**	**1.47**	**70**	P		**Pn**	**16 02 58.8**	**-0.2**
NEM2				S		**Sn**	**16 03 17.9**	**-1.5**
JEW	**Eniwo**	**1.77**	**270**	P		**Pn**	**16 03 03.5**	**+1.0**
JEW				*e*S		**Sn**	**16 03 26.1**	**+0.4**
YUK	**Yuzh-Kuril'sk**	**1.87**	**51**	*i* P		**Pn**	**16 03 04.9**	**+1.1**
YUK				AMB		AMB	16 03 05.5	
	210nm,0.5s							
YUK				*i* S		**Sn**	**16 03 28.6**	**+0.7**
YUK				A		A	16 03 29.8	
	750nm,0.5s							
YUK				A		A	16 03 29.8	
	430nm,0.5s							
SHO	**Shikotan**	**2.39**	**64**	*e*P		Pn	16 03 29.6	+19
SHO				AMB		AMB	16 03 30.6	
	30nm,0.2s							
SHO				*e*S		Sn	16 03 56.6	+17
SHO				A		A	16 03 58.4	
	150nm,0.4s							
SHO				A		A	16 03 58.4	
	110nm,0.4s							
KUR	**Kuril'sk**	**3.74**	**49**	*e*P		**Pn**	**16 03 29.5**	**+1.5**
KUR				*e*S		**Sn**	**16 04 13.2**	**+1.9**
KUR				A		A	16 04 14.6	
	30nm,0.3s							
KUR				A		A	16 04 14.6	
	20nm,0.3s							
H11N2	**WAKE ISLAND Hy 30.15**		**133**	T		T	16 40 02.0	
	baz=327,slow=76,SNR=13							
H11N1	**WAKE ISLAND Hy 30.16**		**133**	T		T	16 40 07.4	
	baz=327,slow=76,SNR=11							
H11N3	**WAKE ISLAND Hy 30.16**		**133**	T		T	16 40 01.9	
	baz=327,slow=76,SNR=8.1							
H11S1	**WAKE ISLAND Hy 31.05**		**134**	T		T	16 41 10.5	
	baz=328,slow=76,SNR=22							
H11S3	**WAKE ISLAND Hy 31.05**		**134**	T		T	16 41 11.6	
	baz=328,slow=76,SNR=12							
H11S2	**WAKE ISLAND Hy 31.06**		**134**	T		T	16 41 16.7	
	baz=328,slow=76,SNR=14							
ZALV	**Zalesovo Beam**	**39.61**	**307**	P		**P**	**16 09 51.9**	**0.0**
	0.3nm,0.3s,baz=94,slow=11,SNR=2.2							
	0.3nm,0.3s							
MKAR	**Makanchi Array**	**42.85**	**297**	P		**P**	**16 10 17.6**	**-1.0**
	0.2nm,0.6s,baz=76,slow=8.6,SNR=2.2							
	0.2nm,0.6s							
ILAR	**Eielson Array**	**43.61**	**36**	P		**P**	**16 10 24.3**	**-0.1**
	0.2nm,0.6s,baz=268,slow=7.3,SNR=2.0							
	0.2nm,0.6s							
KURBB	**Kurchatov Arra**	**44.10**	**304**	P		**P**	**16 10 28.1**	**-0.5**
	0.5nm,0.5s,baz=72,slow=8.8,SNR=4.1							
	0.5nm,0.5s							
BVAR	**Borovoye Array**	**48.19**	**309**	P		**P**	**16 11 00.6**	**+0.1**
	0.7nm,0.4s,baz=74,slow=8.7,SNR=4.9							
	0.7nm,0.4s							
FINES	**FINESS Array B**	**64.54**	**332**	P		**P**	**16 12 55.8**	**-0.5**
	1.0nm,0.5s,baz=40,slow=6.2,SNR=9.1							
	1.0nm,0.5s							

*THE **03** 16:49:40.7,38˚N±1˚×2˚7E±˚, h8km±2km, M2.7/7, MLh2.7/7*
*AFAD **03** 16:49:40.6,37˚.87N×26˚.93E, h7km±4km, ML2.5*
*ISK **03** 16:49:40.8,37˚.89N×26˚.98E, h5km, ML2.5/19*
ISC 03 16:49:40.8±0.8, 37˚.86N±0˚.02×26˚.95E±0˚.02, h11km±7km, n53, σ0s42/73, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.18**	**209**	P	**Pg**	**16 49 44.9**	**+0.2**
SMG				S	**Sg**	**16 49 47.0**	**-0.4**
SMG				AML	AML		
DGB	**zmr**	**0.20**	**345**	P	**Pg**	**16 49 44.9**	**-0.1**
DGB				IAML		16 49 47.0	
	comp=N,1μm,0.4s						
DGB				S	**Sg**	**16 49 47.0**	**-0.8**
DGB				IAML		16 49 48.0	
	comp=E,1μm,0.6s						
GMLD	**Gumuldur**	**0.21**	**353**	Pg	**Pg**	**16 49 45.4**	**+0.1**
GMLD				Sg	**Sg**	**16 49 48.8**	**+0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**90**	Pg	**Pg**	**16 49 45.9**	**-0.4**
KUSD				Sg	**Sg**	**16 49 50.0**	**0.0**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**125**	P	**Pg**	**16 49 46.8**	**+0.3**
GCAM				S	**Sg**	**16 49 50.7**	**+0.5**
GCAM				IAML		16 49 51.0	
	comp=N,2μm,0.2s						
GCAM				IAML		16 49 51.0	
	comp=E,968nm,0.3s						
GCAM	**G?zelcaml?**	**0.28**	**125**	Pg	**Pg**	**16 49 46.5**	**0.0**
GCAM				Sg	**Sg**	**16 49 51.2**	**+0.9**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**358**	P	**Pg**	**16 49 47.9**	**-0.1**
BEYE				S	**Sg**	**16 49 52.2**	**-0.7**
BEYE				IAML		16 49 53.0	
	comp=N,425nm,0.2s						
BEYE				IAML		16 49 53.0	
	comp=E,434nm,0.1s						
DDIM	**Aydin, Didim**	**0.47**	**150**	P	**Pg**	**16 49 50.4**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.51**	**317**	P	**Pg**	**16 49 50.9**	**+0.1**
ZEYE				S	**Sg**	**16 49 57.7**	**+0.1**
ZEYE				IAML		16 49 58.0	
	comp=N,704nm,0.3s						
ZEYE				IAML		16 49 59.0	
	comp=E,297nm,0.2s						
BLCB	**Balcova**	**0.53**	**8**	P	**Pg**	**16 49 50.9**	**-0.2**
BLCB				S	**Sg**	**16 49 58.4**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**8**	Pg	**Pg**	**16 49 51.2**	**+0.1**
BLCB				Sg	**Sg**	**16 49 58.0**	**-0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.53**	**48**	P	**Pg**	**16 49 51.1**	**-0.1**
DUVT				S	**Sg**	**16 49 57.1**	**-1.2**
DUVT				IAML		16 49 58.0	
	comp=E,238nm,0.2s						
DIDI	**Didim-Aydin**	**0.54**	**154**	Pg	**Pg**	**16 49 51.8**	**+0.5**
DIDI				Sg	**Sb**	**16 50 00.3**	**+0.3**
DIDI				AML	AML		
DAGE	**izmir**	**0.65**	**77**	P	**Pg**	**16 49 53.6**	**+0.2**
DAGE				S	**Sg**	**16 50 01.6**	**-0.4**
CESE	**eme**	**0.69**	**313**	Pg	**Pb**	**16 49 54.9**	**0.0**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**83**	Pg	**Pg**	**16 49 55.1**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.77**	**105**	P	**Pg**	**16 49 55.7**	**+0.1**
AYDN				S	**Sg**	**16 50 04.3**	**-1.3**
YKAV	**Yalikavak-Bodr**	**0.78**	**160**	Pg	**Pb**	**16 49 56.4**	**0.0**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**337**	Pg	**Pb**	**16 49 56.5**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.80**	**355**	P	**Pb**	**16 49 56.6**	**0.0**
IZMR	**zmir-demi**	**0.84**	**71**	P	**Pb**	**16 49 57.8**	**+0.4**
BODT	**Bodrum**	**0.85**	**160**	S	**Sg**	**16 50 08.7**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**160**	Pg	**Pg**	**16 49 57.4**	**+0.2**
BODT				AML	AML		
FOCM	**Foa**	**0.86**	**349**	Pg	**Pb**	**16 49 57.9**	**+0.1**
FOCM				AML	AML		
MLSB	**Milas**	**0.87**	**130**	Pg	**Pg**	**16 49 57.7**	**+0.1**
MLSB				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	P	**Pb**	**16 49 57.8**	**-0.2**
CHOS				S	**Sb**	**16 50 10.6**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	Pg	**Pb**	**16 49 58.6**	**+0.5**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.89**	**153**	P	**Pg**	**16 49 57.8**	**-0.1**
KARB	**zmir-Karabur**	**0.90**	**332**	P	**Pg**	**16 49 58.0**	**-0.2**
KARB				S	**Sg**	**16 50 09.5**	**-0.5**
CAMT	**Merkez**	**0.93**	**18**	P	**Pn**	**16 50 00.0**	**+0.2**
CAMT				S	**Sb**	**16 50 11.4**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.07**	**84**	Pg	**Pg**	**16 50 01.0**	**-0.4**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.11**	**5**	P	**Pb**	**16 50 02.0**	**0.0**
ESEN	**Aydn-Nazilli**	**1.11**	**93**	P	**Pn**	**16 50 02.5**	**+0.2**
GOMA	**Golmarmara-Man**	**1.14**	**42**	Pn	**Pb**	**16 50 02.5**	**0.0**
KIRA	**zmir-Kiraz**	**1.20**	**73**	P	**Pb**	**16 50 03.7**	**+0.1**
DKL	**Dikili**	**1.21**	**358**	Pn	**Pn**	**16 50 04.1**	**+0.5**
DKL				AML	AML		
AKHS	**Akhisar**	**1.22**	**34**	P	**Pn**	**16 50 04.3**	**+0.4**
AKS	**Akhisar**	**1.22**	**34**	Pn	**Pn**	**16 50 04.1**	**+0.2**
KTTT	**Salihli**	**1.22**	**47**	P	**Pg**	**16 50 03.7**	**-0.6**
DAT	**Datca**	**1.24**	**156**	P	**Pb**	**16 50 03.8**	**-0.5**
YAZI	**Mula-Datça-**	**1.25**	**161**	P	**Pn**	**16 50 03.3**	**-0.8**
MULA	**Mugla, Merkez-**	**1.25**	**119**	P	**Pb**	**16 50 04.4**	**0.0**
YER	**Yerkesik**	**1.29**	**124**	P	**Pn**	**16 50 04.4**	**-0.4**
YER				S	**Sb**	**16 50 21.7**	**0.0**
SOMA	**Soma-Manisa**	**1.37**	**19**	Pn	**Pg**	**16 50 07.2**	**+0.1**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.38**	**235**	P	**Pn**	**16 50 05.2**	**-0.8**
APE				S	**Sb**	**16 50 24.4**	**+0.2**
APE				AML	AML		
MANT	**Manisa**	**1.42**	**63**	P	**Pg**	**16 50 08.2**	**+0.2**
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn	**Pg**	**16 50 07.8**	**-0.3**
GORD				AML	AML		
SULTU	**Buldan**	**1.45**	**82**	P	**Pg**	**16 50 08.9**	**+0.2**
AYVA	**Ayvalik**	**1.46**	**352**	P	**Pg**	**16 50 09.1**	**+0.4**
PRK	**Paraskevi**	**1.48**	**339**	P	**Pn**	**16 50 07.3**	**0.0**
PRK				S	**Sb**	**16 50 27.5**	**+0.4**
HARTU	**Esme**	**1.54**	**71**	P	**Pn**	**16 50 08.5**	**+0.2**
STEP	**BALIKESIR_Sava**	**1.63**	**22**	P	**Pb**	**16 50 11.2**	**+0.3**
BUHA	**Balikesir, Bur**	**1.64**	**4**	P	**Pg**	**16 50 11.9**	**-0.3**

*THE **03** 16:51:52.6,38˚N±1˚×2˚7E±˚, h12km±1km, M2.6/7, MLh2.6/7*
*AFAD **03** 16:51:52.9,37˚.81N×26˚.92E, h7km±3km, ML2.6*
*ISK **03** 16:51:52.3,37˚.80N×26˚.91E, h9km, ML2.6/19*
ISC 03 16:51:52.7±0.8, 37˚.79N±0˚.02×26˚.90E±0˚.02, h13km±6km, n47, σ0s50/70, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.10**	**211**	P	**Pg**	**16 51 55.6**	**-0.1**
SMG				S	**Sg**	**16 51 57.6**	**-0.2**
SMG				AML	AML		
DGB	**zmir**	**0.26**	**357**	P	**Pg**	**16 51 58.1**	**0.0**
DGB				S	**Sg**	**16 52 01.2**	**-0.6**
GCAM	**G?zelcaml?**	**0.28**	**109**	P	**Pg**	**16 51 58.7**	**+0.2**
GCAM				S	**Sg**	**16 52 02.4**	**0.0**
GCAM				IAML		16 52 03.0	
	comp=E,1μm,0.3s						
GCAM				IAML		16 52 04.0	
	comp=N,1μm,0.3s						
GCAM	**G?zelcaml?**	**0.28**	**109**	Pg	**Pg**	**16 51 58.6**	**+0.1**
GCAM				Sg	**Sb**	**16 52 03.9**	**-0.4**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.28**	**2**	Pg	**Pg**	**16 51 58.5**	**-0.1**
GMLD				Sg	**Sg**	**16 52 02.9**	**+0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**78**	Pg	**Pg**	**16 51 58.8**	**-0.3**
KUSD				Sg	**Sg**	**16 52 03.9**	**+0.5**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.43**	**141**	P	**Pg**	**16 52 01.6**	**+0.4**
DDIM				S	**Sg**	**16 52 07.0**	**0.0**
DDIM				IAML		16 52 08.0	
	comp=N,417nm,0.6s						
DDIM				IAML		16 52 09.0	
	comp=E,579nm,0.4s						
BEYE	**izmir**	**0.43**	**3**	P	**Pg**	**16 52 01.2**	**-0.1**
BEYE				S	**Sg**	**16 52 07.0**	**-0.1**
DIDI	**Didim-Aydin**	**0.50**	**147**	Pg	**Pg**	**16 52 02.5**	**0.0**
DIDI				Sg	**Sb**	**16 52 09.8**	**-0.7**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**325**	P	**Pg**	**16 52 03.5**	**+0.1**
ZEYE				S	**Sg**	**16 52 11.3**	**+0.7**
ZEYE				IAML		16 52 13.0	
	comp=E,406nm,0.5s						
ZEYE				IAML		16 52 14.0	
	comp=N,971nm,0.4s						
BLCB	**Balcova**	**0.60**	**11**	P	**Pg**	**16 52 04.3**	**-0.2**
BLCB				S	**Sb**	**16 52 13.1**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**11**	Pg	**Pg**	**16 52 04.3**	**-0.2**
BLCB				Sg	**Sb**	**16 52 13.1**	**-0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**45**	P	**Pg**	**16 52 04.4**	**-0.1**
CESE	**eme**	**0.72**	**319**	Pg	**Pg**	**16 52 06.5**	**-0.1**
CESE				Sg	**Sb**	**16 52 17.2**	**+0.4**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.73**	**156**	Pg	**Pg**	**16 52 06.9**	**0.0**
YKAV				Sg	**Sb**	**16 52 17.5**	**+0.2**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.79**	**99**	P	**Pg**	**16 52 07.6**	**-0.3**
AYDB	**Zeytinkoy-Aydi**	**0.80**	**79**	Pg	**Pg**	**16 52 07.9**	**-0.3**
AYDB				Sg	**Sb**	**16 52 19.2**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.80**	**156**	P	**Pg**	**16 52 07.7**	**-0.5**
BODT				S	**Sb**	**16 52 19.1**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**156**	Pg	**Pg**	**16 52 08.1**	**-0.1**
BODT				Sg	**Sb**	**16 52 19.7**	**+0.4**
BODT				AML	AML		
KRBN	**Karaburun**	**0.84**	**341**	Pg	**Pg**	**16 52 08.9**	**-0.2**
KRBN				Sg	**Sb**	**16 52 21.2**	**+0.7**
KRBN				AML	AML		
BDRM	**Kayabasi**	**0.85**	**149**	P	**Pb**	**16 52 09.9**	**+0.5**
MLSB	**Milas**	**0.86**	**125**	Pg	**Pg**	**16 52 08.9**	**-0.4**
MLSB				AML	AML		
BAGT	**Foa**	**0.86**	**357**	P	**Pb**	**16 52 09.7**	**+0.2**
BAGT				S	**Sb**	**16 52 21.8**	**+0.7**
BAGT				IAML		16 52 24.0	
	comp=E,175nm,0.7s						
BAGT				IAML		16 52 27.0	
	comp=N,134nm,0.7s						
CHOS	**Chios island**	**0.89**	**312**	P	**Pg**	**16 52 09.6**	**-0.4**
CHOS				S	**Sb**	**16 52 22.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**312**	Pg	**Pb**	**16 52 10.2**	**+0.1**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.90**	**67**	P	**Pb**	**16 52 10.4**	**+0.2**
FOCM	**Foa**	**0.93**	**352**	Pg	**Pg**	**16 52 10.5**	**-0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.95**	**336**	P	**Pg**	**16 52 10.4**	**-0.7**
CAMT	**Merkez**	**1.01**	**19**	P	**Pb**	**16 52 12.4**	**+0.3**
CAMT				S	**Sb**	**16 52 25.4**	**+0.1**
CAMT				IAML		16 52 28.0	
	comp=N,135nm,0.3s						
CAMT				IAML		16 52 28.0	
	comp=E,145nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.11**	**81**	Pn	**Pg**	**16 52 13.7**	**-0.5**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.15**	**89**	P	**Pg**	**16 52 13.9**	**-0.9**
ZEDA	**zmir-Bergama**	**1.18**	**7**	P	**Pb**	**16 52 14.3**	**-0.7**
DAT	**Datca**	**1.19**	**153**	P	**Pn**	**16 52 16.2**	**+0.9**
YAZI	**Mula-Datça-**	**1.20**	**158**	P	**Pg**	**16 52 15.9**	**+0.2**
GOMA	**Golmarmara-Man**	**1.21**	**41**	Pn	**Pb**	**16 52 15.6**	**0.0**
GOMA				AML	AML		
MULA	**Mugla, Merkez-**	**1.25**	**115**	P	**Pn**	**16 52 15.9**	**-0.1**
KIRA	**zmir-Kiraz**	**1.25**	**71**	P	**Pg**	**16 52 16.4**	**-0.4**
KIRA				S	**Sb**	**16 52 30.2**	**-2.1**
DKL	**Dikili**	**1.27**	**0**	Pn	**Pg**	**16 52 17.1**	**-0.2**
DKL				AML	AML		
YER	**Yerkesik**	**1.28**	**120**	P	**Pn**	**16 52 16.3**	**-0.1**
YER				S	**Sb**	**16 52 33.3**	**+0.2**
KTTT	**Salihli**	**1.29**	**46**	P	**Pg**	**16 52 17.3**	**-0.3**
AKHS	**Akhisar**	**1.30**	**33**	P	**Pg**	**16 52 17.9**	**+0.1**
AKS	**Akhisar**	**1.30**	**33**	Pn	**Pn**	**16 52 16.9**	**+0.3**
AKS				AML	AML		
APE	**Apeiranthos**	**1.31**	**237**	P	**Pn**	**16 52 15.5**	**-1.3**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**20**	Pn	**Pn**	**16 52 19.2**	**+0.5**
SOMA				AML	AML		
MANT	**Manisa**	**1.48**	**61**	P	**Pg**	**16 52 22.2**	**+1.0**
GORD	**Gordes-Manisa**	**1.50**	**42**	Pn	**Pn**	**16 52 19.9**	**+0.5**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.52**	**354**	P	**Pg**	**16 52 21.9**	**0.0**

*IDC **03** 16:52:25.8±0.8, 0˚.09N×97˚.82E, h0km, mb4.5/18, mbtmp4.4/19, ML4.8/1, MS4.0/46, Error ellipse: s-maj=30.6km s-min=13.6km az=52.0*
*BJI **03** 16:52:27.3, 0˚.27N×97˚.61E, h9km, mb5.2/9, mb4.6/42, Ms4.8/23, Ms7 4.6/26*
*NEIC **03** 16:52:29.0±1.2, 0˚.17N±0˚.06×97˚.77E±0˚.08, h10km±1km, mb4.8/35, Error ellipse: s-maj=15.2km s-min=9.1km az=243.0*
*DJA **03** 16:52:30.0±0.6, 0˚N±3˚×9˚8E±˚, h18km±4km, M4.9/38, mB5.3/12, mb5.1/11, MLv5.0/38, Mw(mB)4.7/12, MwMwp4.5/1, Mwp4.9/1*
*GFZ **03** 16:52:31.8±0.3, 0˚.7N±4˚×9˚8E±˚, h28km, M4.6/23, mb4.7/23, confirmed*
ISC 03 16:52:30.3±0.5, 0˚.10N±0˚.05×97˚.74E±0˚.06, h25km, n218, σ1s14/172, mb4.7/62, MS4.2/56, 2D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBSI	**Pulau Batu**	**0.56**	**106**	P	**Pb**	**16 52 41.8**	**+0.2**
PBSI				S	**Sn**	**16 52 50.9**	**-0.4**
PBSI				AML	AML		
GSI	**Gunungsitoli**	**1.20**	**352**	P	**Pn**	**16 52 51.1**	**-0.5**
GSI	**Gunungsitoli**	**1.20**	**352**		**Pn**	**16 52 51.0**	**-0.5**
GSI	**Gunungsitoli**	**1.20**	**352**	P	**Pn**	**16 52 51.1**	**-0.5**
GSI	**Gunungsitoli**	**1.20**	**352**	P	**Pn**	**16 52 51.3**	**-0.3**
TRSI	**Tarutung**	**2.27**	**33**	P	**Pn**	**16 53 05.7**	**-0.6**
TRSI				AML	AML		
PPI	**Padang Panjang**	**2.71**	**102**	P	**Pn**	**16 53 12.4**	**0.0**
PPI				AML	AML		
RPSI	**Rantau Prapat**	**2.83**	**25**		**Pn**	**16 53 13.3**	**-0.7**
RPSI	**Rantau Prapat**	**2.83**	**25**	P	**Pn**	**16 53 13.5**	**-0.5**
PSI	**Prapat**	**2.93**	**24**	P	**Pn**	**16 53 13.9**	**-1.5**
PSI	**Prapat**	**2.93**	**24**	P	**Pn**	**16 53 13.6**	**-1.8**
TPTI		**3.18**	**350**	P	**Pn**	**16 53 17.8**	**-1.0**
BKNI	**Bangkinang**	**3.31**	**86**	P	**Pn**	**16 53 21.4**	**+0.9**
BKNI	**Bangkinang**	**3.31**	**86**	Pn	**Pn**	**16 53 20.3**	**-0.2**
BKNI	**Bangkinang**	**3.31**	**86**	P	**Pn**	**16 53 21.9**	**+1.4**
TSI	**Tuntungan**	**3.47**	**14**	P	**Pn**	**16 53 23.2**	**+0.4**
KRJI	**Kerinci**	**4.31**	**120**	P	**Pn**	**16 53 36.6**	**+2.1**
MLSI	**Meulaboh, Aceh**	**4.34**	**342**	P	**Pn**	**16 53 34.1**	**-0.7**
MLSI				AML	AML		
IPM	**Ipoh**	**5.45**	**37**	P	**Pn**	**16 53 50.7**	**+0.7**
IPM	**Ipoh**	**5.45**	**37**		**Pn**	**16 53 49.8**	**-0.2**
IPM	**Ipoh**	**5.45**	**37**	P	**Pn**	**16 53 50.4**	**+0.4**
IPM				AML	AML		
IPM	**Ipoh**	**5.45**	**37**	P	**Pn**	**16 53 50.5**	**+0.5**
	comp=Z,61nm,0.8s						
MASI	**Maura Aman, Be**	**5.53**	**126**	P	**Pn**	**16 53 52.1**	**+0.9**
	comp=Z,4μmcomp=Z,331nm,1.0s						
BSI	**Banda Aceh**	**5.89**	**336**	P	**Pn**	**16 53 54.3**	**-1.7**
	comp=Z,0.8nmcomp=Z,2μmcomp=Z,67nm,0.5s						
BSI				AML	AML		
KULM	**Kulim**	**5.91**	**29**	P	**Pn**	**16 53 56.1**	**-0.3**
KULM	**Kulim**	**5.91**	**29**		**Pn**	**16 53 55.7**	**-0.7**
KULM	**Kulim**	**5.91**	**29**	P	**Pn**	**16 53 55.5**	**-0.9**
	comp=Z,0.5nmcomp=Z,77nm,0.9s						
KULM				AML	AML		
KULM	**Kulim**	**5.91**	**29**	P	**Pn**	**16 53 55.8**	**-0.7**
	comp=Z,77nm,0.9s						
KSI	**Kapahiang**	**6.12**	**128**	P	**Pn**	**16 54 00.5**	**+1.2**
	comp=Z,218nm,0.7s						
BTDF	**Bukit Timah Da**	**6.16**	**78**	P	**Pn**	**16 53 59.9**	**+0.1**
BTDF	**Bukit Timah Da**	**6.16**	**78**	P	**Pn**	**16 53 59.6**	**-0.2**
BTDF				AML	AML		
MNAI	**Manna**	**6.84**	**130**	Pn	**Pn**	**16 54 09.6**	**+0.4**
LHSI	**Lahat**	**6.97**	**124**	P	**Pn**	**16 54 12.6**	**+1.6**
	comp=Z,0.6nmcomp=Z,2μmcomp=Z,180nm,0.8s						
LHSI				AML	AML		
MDSI	**Maura Dua**	**7.88**	**125**	P	**Pn**	**16 54 24.1**	**+0.6**
	comp=Z,0.4nmcomp=Z,1μmcomp=Z,150nm,0.8s						
MDSI				AML	AML		
KASI	**Kota Agung**	**8.76**	**130**	P	**Pn**	**16 54 36.0**	**+0.5**
COCO	**West Island**	**12.25**	**184**	Pn	**Pn**	**16 55 24.4**	**+1.1**
SBUM	**Sibu**	**14.66**	**81**	P	**Pn**	**16 55 56.8**	**+0.5**
SBUM	**Sibu**	**14.66**	**81**	P	**Pn**	**16 55 56.9**	**+0.5**
	comp=Z,12nm,1.1s						
CM31	**Chiang Mai Arr**	**18.28**	**4**	P	**Pn**	**16 56 41.1**	**-1.2**
CMAR	**Chiang Mai Arr**	**18.28**	**4**	P	**Pn**	**16 56 39.7**	**-2.7**
	comp=Z,1.1nm,0.3s,baz=183,slow=12,SNR=45						
CMAR				LR	LR	17 04 36.8	
	comp=Z,565nm,18.0s,baz=170,slow=40 comp=Z,6.4nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**18.28**	**4**		**Pn**	**16 56 41.2**	**-1.1**
PALK	**Pallekele**	**18.42**	**293**	LR	LR	17 03 16.8	
	comp=Z,646nm,18.2s,baz=110,slow=35						
CHTO	**Chiang Mai**	**18.63**	**4**	P	**Pn**	**16 56 46.7**	**0.0**
CHTO	**Chiang Mai**	**18.63**	**4**		**P**	**16 56 45.3**	**-1.0**
CHTO	**Chiang Mai**	**18.63**	**4**	P	**P**	**16 56 45.5**	**-0.7**
	comp=Z,7.4nm,1.9s						
KKM	**Kota Kinabalu**	**19.36**	**72**	P	**Pn**	**16 56 55.5**	**-0.1**
KKM	**Kota Kinabalu**	**19.36**	**72**	P	**P**	**16 56 54.2**	**-0.2**
KKM				IAmb	IAmb	16 57 04.2	
	comp=Z,38nm,0.9s						
KKM	**Kota Kinabalu**	**19.36**	**72**	P	**P**	**16 56 55.0**	**+0.5**
	comp=Z,59nm,1.2s						
NPW	**Naypyitaw**	**19.62**	**356**	P	**P**	**16 56 57.0**	**-0.1**
	comp=Z,25nm,1.2s						
SLVN	**Son La**	**21.94**	**16**	P	**P**	**16 57 22.1**	**-0.2**
SLVN	**Son La**	**21.94**	**16**	P	**P**	**16 57 21.5**	**-0.8**
SLVN	**Son La**	**21.94**	**16**	P	**P**	**16 57 21.3**	**-1.0**
	comp=Z,17nm,1.3s						
QIZ	**Qiongzhong**	**22.24**	**32**	P	**P**	**16 57 25.7**	**+0.2**
QIZ				S	**S**	**17 01 31.1**	**+1.9**
QIZ				L	L		
	comp=Z,700nm,10.0s						
QIZ				L	L		
	comp=Z,550nm,14.1s						
QIZ				L	L		
	comp=Z,760nm,13.0s						
TOLI2	**

XAN pmax pmax
comp=Z,39nm,1.0s
XAN L L
comp=Z,1µm,16.5s
XAN L L
comp=Z,590nm,14.4s
XAN L L
comp=Z,1µm,17.9s
LZDM Lanzhou Array 36.10 8 LR LR 17 15 49.9
comp=Z,320nm,18.6s,baz=115,slow=39
LZH Lanzhou 36.25 8 *e*P **P** **16 59 34.6 +2.9**
LZH pP pP 16 59 39.4 +0.2
LZH pmax pmax
comp=Z,22nm,1.2s
LZH L L
comp=Z,520nm,13.7s
LZH L L
comp=Z,580nm,13.7s
LZH L L
comp=Z,650nm,13.1s
LYN LuoYang 36.94 20 P **P** **16 59 37.3 -0.1**
LYN pmax pmax
comp=Z,48nm,1.0s
LYN L L
comp=Z,1µm,12.4s
LYN L L
comp=Z,590nm,11.7s
LYN L L
comp=Z,1µm,15.9s
NJ2 Nanjing 37.52 30 *e*P **P** **16 59 43.2 +0.8**
NJ2 pmax pmax
comp=Z,21nm,1.8s
H01W3 Cape Leeuwin H 38.03 158 T T 17 39 55.1
baz=334,slow=76,SNR=28
H01W2 Cape Leeuwin H 38.05 158 T T 17 39 58.1
baz=334,slow=76,SNR=32
H01W1 Cape Leeuwin H 38.05 158 T T 17 40 00.1
baz=334,slow=76,SNR=27
GTA2 Gaotai 39.24 2 *e*P **P** **16 59 57.1 +0.2**
GTA2 pP pP 16 59 59.4 -4.9
GTA2 pmax pmax
comp=Z,8.0nm,1.1s
GTA2 L L
comp=Z,310nm,12.0s
GTA2 L L
comp=Z,220nm,14.4s
GTA2 L L
comp=Z,390nm,12.4s
HNS HongShan 40.29 21 ||P **P** **17 00 06.1 +0.6**
HNS L L
comp=Z,350nm,13.2s
HNS L L
comp=Z,470nm,14.2s
HNS L L
comp=Z,470nm,14.7s
WB0 Warramunga Arr 40.98 121 P **P** **17 00 10.2 -1.4**
WB0 IAmb IAmb 17 00 11.1
comp=Z,14nm,1.1s
WRA Warramunga Arr 41.01 121 P **P** **17 00 08.9 -2.8**
comp=Z,5.0nm,0.8s,baz=297,slow=8.2,SNR=41
comp=Z,5.0nm,0.8s
WRA Warramunga Arr 41.01 121 P **P** **17 00 10.2 -1.5**
WRAB Tennant Creek 41.01 121 P **P** **17 00 11.2 -0.6**
WRAB Tennant Creek 41.01 121 P **P** **17 00 10.8 -1.0**
WRAB IAmb IAmb 17 00 11.6
comp=Z,9.6nm,1.0s
WRAB Tennant Creek 41.01 121 P **P** **17 00 10.9 -1.0**
comp=Z,11nm,0.8s
WRAB pP **pP** **17 00 19.0 -0.3**
WR8 Warramunga Arr 41.15 121 P **P** **17 00 11.9 -1.0**
WR8 IAmb IAmb 17 00 12.2
comp=Z,13nm,1.1s
BTO2 Baotou 41.93 14 *e*P **P** **17 00 20.3 +1.2**
BTO2 pmax pmax
comp=Z,13nm,0.6s
BTO2 pmax pmax
comp=Z,260nm,6.4s
BTO2 L L
comp=Z,2µm,14.9s
BTO2 L L
comp=Z,800nm,19.2s
BTO2 L L
comp=Z,2µm,13.9s
AS31 Alice Springs 42.31 127 P **P** **17 00 22.1 -0.4**
ASAR Alice Springs 42.31 127 P **P** **17 00 21.7 -0.7**
comp=Z,7.4nm,0.9s,baz=297,slow=8.5,SNR=53
ASAR S **S** **17 06 38.7 -3.5**
comp=Z,0.9nm,1.1s,baz=290,slow=14,SNR=4.7
ASAR LR LR 17 19 43.1
comp=Z,227nm,20.8s,baz=305,slow=39
comp=Z,7.4nm,0.9s
ASAR Alice Springs 42.31 127 P **P** **17 00 22.3 -0.1**
AS01 Alice Springs 42.35 126 P **P** **17 00 22.2 -0.5**
HHC Hu-ho-hao-te 42.45 16 *e*P **P** **17 00 25.3 +1.9**
HHC pmax pmax
comp=Z,14nm,0.6s
BJT Baijiatuau 43.14 21 P **P** **17 00 30.0 +1.2**
BJI2 Beijing 43.14 21 P **P** **17 00 29.8 +1.0**
BJI2 pmax pmax
comp=Z,7.0nm,1.0s
KSH2 Kashi 43.84 335 P **P** **17 00 33.4 -1.3**
KSH2 sP pP 17 00 39.8 -2.5
KSH2 pmax pmax
comp=Z,2.0nm,1.0s
WUS Wushi 44.22 340 P **P** **17 00 39.0 +1.4**
comp=Z,5.8nm,1.4s
WUS pP **sP** **17 00 47.2 -1.0**
DL2 Dalian 44.40 27 P **P** **17 00 41.9 +3.0**
DL2 S **S** **17 07 14.0 +1.8**
DL2 pmax pmax
comp=Z,22nm,1.3s
DL2 pmax pmax
comp=Z,200nm,4.5s
DL2 L L
comp=Z,540nm,13.3s
DL2 L L
comp=Z,460nm,11.4s
DL2 L L
comp=Z,370nm,14.1s
WMQ Urumqi 44.44 350 *e*P **P** **17 00 41.0 +1.7**
WMQ pmax pmax
comp=Z,11nm,0.9s
WMQ L L
comp=Z,170nm,22.5s
ASAI AK-SAY(Kyrgyzs 44.96 337 P **P** **17 00 45.7 +1.8**
TARG Taragay, Kyrgy 45.18 339 IAmb IAmb 17 01 03.9
comp=Z,5.7nm,0.9s
TARG Taragay, Kyrgy 45.18 339 P **P** **17 00 46.7 +1.0**
comp=Z,9.0nm,0.8s
JNU Nakatsue 45.28 40 LR LR 17 19 36.5
comp=Z,241nm,21.4s,baz=229,slow=36
NRN Naryn 45.60 337 IAmb IAmb 17 00 51.1
comp=Z,12nm,1.2s
DRK Karamyk 45.80 332 IAmb IAmb 17 01 06.9
comp=Z,19nm,0.8s
DRK Karamyk 45.80 332 P **P** **17 00 52.0 +1.4**
comp=Z,29nm,0.8s
SHLS Shalkode 45.89 341 *e*P **P** **17 00 51.2 +0.2**
comp=Z,11nm,1.2s
UZB Uzynbulak 46.02 341 *e*P **P** **17 00 53.2 +1.2**
comp=Z,5.6nm,0.7s
PDGK Podgornoye 46.03 341 P **P** **17 00 51.8 -0.3**
SATY Saty 46.15 340 *e*P **P** **17 00 54.2 +1.3**
KPKS Kokpek 46.41 341 *e*P **P** **17 00 56.2 +1.1**
KSAR Wonju Array Be 46.42 33 P **P** **17 00 53.7 -1.3**
KSRS Korea Array 46.45 34 P **P** **17 00 53.9 -1.3**
comp=Z,12nm,0.9s,baz=223,slow=8.7,SNR=23
KSRS LR LR 17 22 32.3
comp=Z,268nm,18.2s,baz=215,slow=39
comp=Z,12nm,0.9s
KS19 Wonju Array Si 46.45 33 P **P** **17 00 54.7 -0.6**
TNSS Tian-Shan 46.63 339 *e*P **P** **17 00 58.0 +0.9**
MDOK Medeo 46.71 339 *e*P **P** **17 00 58.7 +1.3**
BTK Batken 46.73 331 P **P** **17 00 59.1 +1.6**
comp=Z,14nm,1.7s
AAA Alma-Ata 46.79 339 *e*P **P** **17 00 59.4 +1.4**
comp=Z,5.9nm,0.6s
COEN Coen 47.09 109 P **P** **17 00 59.6 -1.1**
AAK Ala-Archa 47.22 337 P **P** **17 01 03.5 +2.1**
comp=Z,3.8nm,1.1s
TDK Taldygorghan 47.88 342 *e*P **P** **17 01 07.2 +0.9**
comp=Z,9.3nm,1.3s
SONM Songino Array 48.13 8 P **P** **17 01 08.2 -0.2**
comp=Z,2.5nm,0.3s,baz=190,slow=9.9,SNR=30
SONM PcP **PcP** **17 02 35.7 0.0**
comp=Z,0.9nm,0.7s,baz=204,slow=3.2,SNR=1.7
SONM LR LR 17 24 23.3
comp=Z,346nm,18.4s,baz=182,slow=40
comp=Z,2.5nm,0.3s
SONM Songino Array 48.13 8 IAmb IAmb 17 01 20.5
comp=Z,11nm,1.3s
ULN Ulaanbaatar 48.26 8 P **P** **17 01 09.3 -0.1**
ULN IAmb IAmb 17 01 21.4
comp=Z,16nm,1.2s
ULN Ulaanbaatar 48.26 8 P **P** **17 01 09.7 +0.3**
comp=Z,14nm,1.4s
MKAR Makanchi Array 48.43 346 P **P** **17 01 11.0 +0.5**
comp=Z,9.5nm,0.5s,baz=158,slow=8.4,SNR=148
MKAR LR LR 17 24 19.4
comp=Z,90nm,19.4s,baz=152,slow=40
comp=Z,9.5nm,0.5s
MKAR Makanchi Array 48.43 346 P **P** **17 01 10.8 +0.3**
ZSN Zaisan 48.47 348 *e*P **P** **17 01 12.3 +1.4**
MAKZ Makanchi 48.52 346 P **P** **17 01 11.5 +0.2**
MAKZ IAmb IAmb 17 01 13.0
comp=Z,18nm,1.4s
MAKZ Makanchi 48.52 346 P **P** **17 01 11.8 +0.6**
comp=Z,10.0nm,1.8s
GUMO Guam 48.55 72 LR LR 17 22 42.3
comp=Z,30nm,21.2s,baz=202,slow=38
IUG Iuzhnay 48.73 333 *e*P **P** **17 01 14.2 +1.1**
comp=Z,5.7nm,1.2s
DZA Taraz 48.74 334 *e*P **P** **17 01 14.6 +1.6**
CHM Chimkent 49.06 332 *e*P **P** **17 01 17.1 +1.6**
KKAR Karatay Array 49.27 334 P **P** **17 01 17.0 -0.1**
INKA Innaminka 49.66 128 P **P** **17 01 21.2 +0.9**
INKA IAmb IAmb 17 01 22.6
comp=Z,12nm,1.1s
CTA Charters Tower 51.54 116 LR LR 17 26 51.8
comp=Z,218nm,18.8s,baz=275,slow=40
TLY Talaya 51.63 5 LR LR 17 25 30.7
comp=Z,280nm,18.1s,baz=179,slow=38
QLP Quilpie 52.00 124 P **P** **17 01 38.8 +0.8**
QLP Quilpie 52.00 124 P **P** **17 01 38.7 +0.8**
comp=Z,23nm,1.0s
MJAR Mausuiro Arr 52.14 41 LR LR 17 23 38.4
comp=Z,110nm,21.4s,baz=232,slow=36
STKA Stephens Creek 52.23 132 P **P** **17 01 40.2 +0.6**
comp=Z,6.3nm,1.0s,baz=304,slow=15,SNR=5.4
STKA LR LR 17 25 31.7
comp=Z,244nm,21.5s,baz=276,slow=38
comp=Z,6.3nm,1.0s
STKA Stephens Creek 52.23 132 P **P** **17 01 40.7 +1.1**
STKA Stephens Creek 52.23 132 P **P** **17 01 40.0 +0.4**
comp=Z,42nm,1.2s
STKA pP **pP** **17 01 48.4 +1.2**
BNX BinXian 52.42 26 ||P **P** **17 01 40.0 -0.7**
BNX pmax pmax
comp=Z,11nm,1.0s
KURBB Kurchatov Arra 52.92 345 P **P** **17 01 44.2 -0.2**
comp=Z,3.1nm,0.2s,baz=164,slow=7.0,SNR=15
KURBB LR LR 17 30 07.8
comp=Z,138nm,18.1s,baz=186,slow=43
comp=Z,3.1nm,0.2s
KURK Kurchatov 52.98 345 P **P** **17 01 44.3 -0.5**
KURK IAmb IAmb 17 01 46.4
comp=Z,8.4nm,1.1s
KURK Kurchatov 52.98 345 P **P** **17 01 45.2 +0.4**
comp=Z,8.1nm,1.1s
USRK Ussuriysk Ar. 53.43 30 P **P** **17 01 47.2 -1.0**
comp=Z,19nm,0.9s,baz=226,slow=5.4,SNR=28
USRK LR LR 17 27 19.7
comp=Z,194nm,18.2s,baz=209,slow=39
comp=Z,19nm,0.9s
USRK Ussuriysk Ar. 53.43 30 P **P** **17 01 47.9 -0.3**
ZAA0 Zalesovo Array 54.72 351 IAmb IAmb 17 01 58.9
comp=Z,20nm,1.1s
ZALV Zalesovo Beam 54.72 351 P **P** **17 01 57.3 -0.2**
comp=Z,7.6nm,0.4s,baz=168,slow=6.6,SNR=56
ZALV LR LR 17 28 00.5
comp=Z,78nm,18.3s,baz=172,slow=39
comp=Z,7.6nm,0.4s
ZALV Zalesovo Beam 54.72 351 P **P** **17 01 57.1 -0.3**
CMSA Cobar Meteorol 55.19 129 P **P** **17 02 02.4 +1.2**
CMSA Cobar Meteorol 55.19 129 P **P** **17 02 02.2 +1.0**
comp=Z,16nm,1.0s
HEH HeiHe 56.00 23 *e*P **P** **17 02 08.1 +1.4**
HEH pmax pmax
comp=Z,6.0nm,1.3s
KLR Kul'dur 56.99 26 LR LR 17 30 09.2
comp=Z,372nm,18.6s,baz=233,slow=40
BVAR Borovoye Array 57.45 341 P **P** **17 02 16.3 -0.7**
comp=Z,1.7nm,0.4s,baz=141,slow=9.2,SNR=17
comp=Z,1.7nm,0.4s
AB31 Akbulak array 58.73 332 IAmb IAmb 17 02 35.7
comp=Z,6.3nm,1.1s
ABKAR Akbulak array 58.73 332 P **P** **17 02 25.5 -0.5**
ASAJ Asahikawa 59.22 36 LR LR 17 28 34.4
comp=Z,85nm,19.6s,baz=10.0,slow=37
H04N2 CROZET ISLANDS 61.18 215 T T 18 08 58.4
baz=56,slow=74,SNR=2326
H04N1 CROZET ISLANDS 61.19 215 T T 18 09 05.9
baz=56,slow=74,SNR=2222
H04N3 CROZET ISLANDS 61.20 215 T T 18 09 03.3
baz=56,slow=74,SNR=1879
H04S1 CROZET ISLANDS 61.51 214 T T 18 09 31.9
baz=55,slow=76,SNR=466
H04S3 CROZET ISLANDS 61.52 214 T T 18 09 26.9
baz=55,slow=76,SNR=500
H04S2 CROZET ISLANDS 61.53 214 T T 18 09 25.8
baz=55,slow=76,SNR=335
HNR Hnara 62.83 101 LR LR 17 34 19.9
comp=Z,46nm,18.4s,baz=346,slow=40
ARTI Arti 64.44 337 LR LR 17 33 31.2
comp=Z,80nm,19.8s,baz=142,slow=38
KBZ Khabaz 65.25 319 P **P** **17 03 10.0 +0.1**
comp=Z,2.3nm,1.1s,baz=125,slow=6.5,SNR=3.2
comp=Z,2.3nm,1.1s
YAK Yakutsk 66.32 16 LR LR 17 35 19.8
comp=Z,452nm,18.1s,baz=210,slow=39
YAK Yakutsk 66.32 16 P **P** **17 03 15.2 -1.3**
EIL Elat 66.49 302 LR LR 17 32 58.9
comp=Z,332nm,18.1s,baz=106,slow=36
MBAR Mbarara 67.00 269 LR LR 17 29 07.8
comp=Z,59nm,18.3s,baz=89,slow=33
NRIK Noril'sk 69.45 356 LR LR 17 36 10.5
comp=Z,155nm,19.0s,baz=188,slow=38
BRTR Keskin Array B 70.24 313 P **P** **17 03 41.8 +0.1**
comp=Z,0.6nm,0.7s,baz=108,slow=9.5,SNR=4.0
BRTR LR LR 17 35 47.8
comp=Z,40nm,20.4s,baz=96,slow=37
comp=Z,0.6nm,0.7s
MATP Matopo 70.62 248 LR LR 17 30 12.4
comp=Z,137nm,19.7s,baz=66,slow=32
MAW Mawson 71.78 193 LR LR 17 30 25.0
comp=Z,115nm,18.4s,baz=17,slow=32
MA2 Magadan 72.08 25 LR LR 17 40 46.5
comp=Z,169nm,19.2s,baz=217,slow=40
PETK Petropavlovsk- 72.35 33 LR LR 17 36 22.3
comp=Z,93nm,20.2s,baz=253,slow=36
LBTB Lobatse 73.89 244 LR LR 17 33 27.4
comp=Z,98nm,18.6s,baz=90,slow=33
TIXI Tiksi 74.17 10 LR LR 17 40 34.1
comp=Z,308nm,18.9s,baz=200,slow=39
TIXI Tiksi 74.17 10 P **P** **17 04 03.1 -1.2**
TIXI IAmb IAmb 17 04 04.3
comp=Z,20nm,1.4s
TIXI Tiksi 74.17 10 P **P** **17 04 03.2 -1.2**
comp=Z,11nm,1.3s
BOSA Boshof 74.71 240 LR LR 17 31 29.7
comp=Z,84nm,21.1s,baz=39,slow=31
AKASG Malin Array Be 76.45 323 P **P** **17 04 16.6 -1.3**
comp=Z,0.5nm,0.4s,baz=88,slow=5.8,SNR=4.4
comp=Z,0.5nm,0.4s
MLR Muntele Rosu 77.23 317 LR LR 17 43 15.1
comp=Z,56nm,18.8s,baz=0.0,slow=39
RPZ Rata Peaks 78.06 135 LR LR 17 39 28.5
comp=Z,37nm,20.9s,baz=194,slow=36
BUR08 Bucovina Ar. S 78.22 319 P **P** **17 04 28.8 +0.8**
BUR08 IAmb IAmb 17 04 38.9
comp=Z,20nm,1.4s
SUR Sutherland 79.02 237 LR LR 17 31 47.5
comp=Z,86nm,19.6s,baz=118,slow=30
FINES FINESS Array B 81.21 333 P **P** **17 04 43.8 0.0**
comp=Z,6.6nm,1.1s,baz=104,slow=5.9,SNR=7.9
FINES LR LR 17 43 07.5
comp=Z,63nm,18.2s,baz=46,slow=37
comp=Z,6.6nm,1.1s
FINES FINESS Array B 81.21 333 P **P** **17 04 44.1 +0.3**
SHEM Shemya Is, Ala 81.67 37 LR LR 17 41 05.8
comp=Z,34nm,21.4s,baz=271,slow=36
URZ Urewera 81.72 129 LR LR 17 42 44.3
comp=Z,133nm,19.6s,baz=270,slow=37
ARCES ARCESS Array B 83.74 340 P **P** **17 04 57.1 +0.2**
comp=Z,4.4nm,0.9s,baz=105,slow=4.8,SNR=12
ARCES LR LR 17 46 37.3
comp=Z,69nm,19.1s,baz=90,slow=39
comp=Z,4.4nm,0.9s
ARCES ARCESS Array B 83.74 340 P **P** **17 04 57.4 +0.5**
VNDA Vanda 84.65 169 LR LR 17 36 24.1
comp=Z,72nm,20.6s,baz=308,slow=31
GERES GERESS Array B 85.99 319 P **P** **17 05 08.1 -0.6**
comp=Z,0.3nm,0.6s,baz=92,slow=4.4,SNR=1.6
comp=Z,0.3nm,0.6s
HFS Hagfors 86.93 330 P **P** **17 05 11.9 -1.1**
comp=Z,1.6nm,0.8s,baz=79,slow=7.5,SNR=1.7
comp=Z,1.6nm,0.8s
SPITS Spitsbergen Ar 88.12 348 LR LR 17 50 45.7
comp=Z,152nm,18.2s,baz=99,slow=40
NOA NORSAR Array B 88.22 331 LR LR 17 47 39.4
comp=Z,47nm,20.3s,baz=85,slow=38
KEST Kesra 88.63 306 LR LR 17 51 17.6
comp=Z,69nm,18.2s,baz=328,slow=40
QSPA South Pole Qui 90.05 180 LR LR 17 41 23.0
comp=Z,109nm,18.8s,baz=279,slow=33
D19K Kuna River 95.07 21 P **P** **17 05 51.4 +0.5**
IMAR Indian Mountai 97.37 23 P Pdif 17 06 01.8 +0.4
ILAR Eielson Array 100.49 23 PP **PP** **17 10 20.9 -0.9**
comp=Z,0.5nm,0.9s,baz=280,slow=7.1,SNR=4.1
PPT2 Papeete2 111.62 109 *e*LR LR 17 44 08.2
comp=Z,71nm,22.8s
TX31 Lajitas Ar. Si 144.30 33 PKPbc 17 12 04.1 +0.8
TXAR Lajitas Array 144.30 33 PKP PKPbc 17 12 04.0 +0.6
comp=Z,1.3nm,0.4s,baz=329,slow=2.2,SNR=26
TXAR Lajitas Array 144.30 33 PKPdf **PKPdf** **17 12 04.5 -0.7**
CPUP Villa Florida 144.55 221 PKP **PKPdf** **17 12 05.2 -0.3**
comp=Z,1.5nm,0.8s,baz=112,slow=7.1,SNR=4.2
SAND Sanderson 144.62 31 PKPbc 17 12 04.5 +0.2
BRDY Brady 144.98 25 **PKPab** **17 12 05.1 -0.3**

IDC 03 16:59:28.3±3.5, 0.30N×98.19E, h0km, mb3.3/3, mbtmp3.2/4, Error ellipse: s-maj=139.0km s-min=27.4km az=60.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**18.06**	**2**	P	P	17 03 42.4	+1.0
	0.3nm,0.8s,baz=186,slow=12,SNR=1.4						
H08S2	**Diego Garcia H**	**26.81**	**252**	T	T	17 32 22.2	
	baz=74,slow=76,SNR=232						
H08S3	**Diego Garcia H**	**26.82**	**252**	T	T	17 32 24.9	
	baz=74,slow=76,SNR=403						
H08S1	**Diego Carcia H**	**26.83**	**252**	T	T	17 32 23.4	
	baz=74,slow=76,SNR=95						
WRA	**Warramunga Arr**	**40.72**	**122**	P	P	17 07 11.6	+0.4
	0.3nm,0.8s,baz=299,slow=8.2,SNR=1.5						
	0.3nm,0.8s						
ASAR	**Alice Springs**	**42.07**	**127**	P	P	17 07 21.7	-0.5
	0.3nm,0.8s,baz=305,slow=8.4,SNR=2.0						
	0.3nm,0.8s						
MKAR	**Makanchi Array**	**48.35**	**345**	P	P	17 08 11.2	-0.7
	0.4nm,0.5s,baz=161,slow=9.1,SNR=4.5						
	0.4nm,0.5s						
H04N2	**CROZET ISLANDS**	**61.60**	**215**	T	T	18 16 09.8	
	baz=56,slow=74,SNR=36						
H04N1	**CROZET ISLANDS**	**61.61**	**215**	T	T	18 16 07.9	
	baz=56,slow=74,SNR=31						
H04N3	**CROZET ISLANDS**	**61.62**	**215**	T	T	18 16 06.5	
	baz=56,slow=74,SNR=33						
H04S1	**CROZET ISLANDS**	**61.92**	**214**	T	T	18 16 33.6	
	baz=55,slow=75,SNR=19						
H04S3	**CROZET ISLANDS**	**61.93**	**214**	T	T	18 16 39.6	
	baz=55,slow=75,SNR=17						
H04S2	**CROZET ISLANDS**	**61.94**	**214**	T	T	18 16 35.1	
	baz=55,slow=75,SNR=12						

*THE **03** 17:25:40.2, 37°.9N±0°.9×2°.7E±°, h7km±1km, M2.8/8, MLh2.8/8*
*AFAD **03** 17:25:40.3, 37°.87N×26°.82E, h7km±2km, ML3.0*
*ISK **03** 17:25:40.4, 37°.87N×26°.84E, h8km, ML3.1/19*
*ATH **03** 17:25:40.8, 37°.84N×26°.79E, h7km±1km, ML2.7/7, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 03 17:25:40.5±0.8, 37°.87N±0°.02×26°.83E±0°.02, h11km±6km, n65, σ0s41/88, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**178**	P	**Pg**	**17 25 44.1**	**0.0**
SMG				S	**Sg**	**17 25 46.3**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.16**	**178**	P	**Pg**	**17 25 43.9**	**-0.2**
SMG				S	**Sg**	**17 25 46.7**	**+0.1**
SMG				AML	AML		
DGB	**zmir**	**0.19**	**12**	P	**Pg**	**17 25 44.7**	**+0.1**
DGB				S	**Sg**	**17 25 47.0**	**-0.5**
DGB				IAML		17 25 47.0	
	comp=E,2µm,0.3s						
GMLD	**Gumuldur**	**0.22**	**18**	Pg	**Pg**	**17 25 45.4**	**+0.3**
GMLD				Sg	**Sg**	**17 25 48.3**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.36**	**117**	P	**Pg**	**17 25 47.7**	**+0.1**
GCAM	**G?zelcaml?**	**0.36**	**117**	Pg	**Pg**	**17 25 47.8**	**+0.1**
GCAM				Sg	**Sg**	**17 25 53.3**	**+0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**91**	Pg	**Pg**	**17 25 47.6**	**-0.1**
KUSD				Sg	**Sg**	**17 25 52.9**	**+0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.37**	**12**	P	**Pg**	**17 25 47.9**	**0.0**
BEYE				S	**Sg**	**17 25 52.4**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.45**	**325**	P	**Pg**	**17 25 49.2**	**-0.2**
ZEYE				S	**Sg**	**17 25 55.7**	**+0.3**
ZEYE				IAML		17 25 56.0	
	comp=N,1µm,0.4s						
DDIM	**Aydin, Didim**	**0.52**	**141**	P	**Pg**	**17 25 50.8**	**+0.1**
BLCB	**Balcova**	**0.54**	**18**	P	**Pg**	**17 25 51.0**	**-0.1**
BLCB				S	**Sg**	**17 25 58.5**	**+0.2**
BLCB	**Balcova**	**0.54**	**18**	Pg	**Pb**	**17 25 51.6**	**-0.4**
BLCB				AML	AML		
DIDI	**Didim-Aydin**	**0.59**	**146**	Pg	**Pg**	**17 25 52.3**	**+0.4**
DIDI				Sg	**Sb**	**17 26 00.9**	**-0.2**
DIDI				AML	AML		
DUVT	**Torbali**	**0.60**	**54**	P	**Pg**	**17 25 52.1**	**-0.1**
CESE	**eme**	**0.62**	**318**	Pg	**Pg**	**17 25 52.8**	**+0.2**
CESE				Sg	**Sb**	**17 26 02.0**	**-0.2**
CESE				AML	AML		
DAGE	**izmir**	**0.74**	**79**	P	**Pb**	**17 25 55.1**	**-0.3**
KRBN	**Karaburun**	**0.76**	**343**	Pg	**Pg**	**17 25 55.2**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.79**	**1**	P	**Pg**	**17 25 55.5**	**-0.2**
BAGT				S	**Sb**	**17 26 07.0**	**+0.1**
BAGT				IAML		17 26 09.0	
	comp=E,709nm,0.5s						
BAGT				IAML		17 26 10.0	
	comp=N,683nm,0.5s						
CHOS	**Chios island**	**0.80**	**311**	P	**Pg**	**17 25 55.7**	**-0.3**
CHOS				S	**Sb**	**17 26 07.4**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.80**	**311**	Pg	**Pb**	**17 25 56.4**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.80**	**311**	P	**Pb**	**17 25 56.4**	**-0.1**
CHOS				S	**Sb**	**17 26 07.3**	**-0.1**
CHOS				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**154**	Pg	**Pb**	**17 25 56.7**	**-0.1**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**84**	Pg	**Pg**	**17 25 56.8**	**0.0**
AYDB				AML	AML		
FOCM	**Foa**	**0.85**	**355**	Pg	**Pb**	**17 25 57.3**	**+0.1**
FOCM				AML	AML		
AYDN	**Tasoluk**	**0.86**	**104**	P	**Pg**	**17 25 56.8**	**-0.2**
KARB	**zmir-Karabur**	**0.86**	**338**	P	**Pg**	**17 25 56.6**	**-0.5**
KARB				S	**Sg**	**17 26 08.1**	**-0.3**
KARB				IAML		17 26 11.0	
	comp=N,419nm,0.5s						
EAG2	**Marmaro, Chios**	**0.88**	**320**	P	**Pg**	**17 25 57.6**	**+0.1**
EAG2				S	**Sb**	**17 26 10.1**	**+0.5**
BODT	**Bodrum**	**0.89**	**154**	P	**Pg**	**17 25 56.9**	**-0.7**
BODT				S	**Sb**	**17 26 10.0**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**154**	Pg	**Pb**	**17 25 58.0**	**+0.1**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.92**	**173**	P	**Pg**	**17 25 58.1**	**0.0**
KLNA				S	**Sg**	**17 26 09.5**	**-0.5**
IZMR	**zmir-demi**	**0.93**	**73**	P	**Pb**	**17 25 58.6**	**+0.1**
BDRM	**Kayabasi**	**0.94**	**148**	P	**Pg**	**17 25 58.1**	**-0.4**
MLSB	**Milas**	**0.94**	**127**	Pg	**Pb**	**17 25 58.8**	**-0.1**
MLSB				AML	AML		

CAMT	**Merkez**	**0.96**	**23**	P	**Pb**	**17 25 59.7**	**+0.6**
CAMT				S	**Sb**	**17 26 11.7**	**-0.1**
CAMT				IAML		17 26 14.0	
	comp=E,2µm,0.4s						
CAMT				IAML		17 26 15.0	
	comp=N,2µm,0.4s						
ZEDA	**zmir-Bergama**	**1.11**	**10**	P	**Pb**	**17 26 01.9**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.16**	**85**	Pn	**Pb**	**17 26 02.7**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**45**	Pn	**Pn**	**17 26 03.5**	**+0.3**
GOMA				AML	AML		
ESEN	**Aydn-Nazilli**	**1.20**	**93**	P	**Pg**	**17 26 02.7**	**-0.9**
DKL	**Dikili**	**1.20**	**3**	Pn	**Pn**	**17 26 03.5**	**+0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.20**	**3**	P	**Pn**	**17 26 04.4**	**+1.2**
AKS	**Akhisar**	**1.27**	**37**	Pn	**Pg**	**17 26 04.7**	**-0.2**
AKS				AML	AML		
AKHS	**Akhisar**	**1.27**	**37**	P	**Pg**	**17 26 05.1**	**+0.2**
KIRA	**zmir-Kiraz**	**1.28**	**75**	P	**Pn**	**17 26 03.8**	**-0.7**
KTTT	**Salihli**	**1.29**	**50**	P	**Pg**	**17 26 05.9**	**+0.6**
KTTT				S	**Sb**	**17 26 20.3**	**-1.0**
KTTT				IAML		17 26 23.0	
	comp=N,370nm,0.5s						
APE	**Apeiranthos**	**1.31**	**233**	P	**Pn**	**17 26 03.7**	**-1.0**
APE				S	**Sb**	**17 26 21.9**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.31**	**233**	P	**Pn**	**17 26 05.2**	**+0.6**
APE				AML	AML		
YER	**Yerkesik**	**1.37**	**122**	P	**Pn**	**17 26 05.2**	**-0.3**
YER				S	**Sb**	**17 26 23.6**	**0.0**
YER				AML	AML		
ASTA	**Astypalaia**	**1.37**	**196**	P	**Pn**	**17 26 06.1**	**+0.5**
SOMA	**Soma-Manisa**	**1.40**	**23**	Pn	**Pb**	**17 26 06.9**	**+0.2**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.44**	**356**	P	**Pg**	**17 26 07.9**	**-0.3**
PRK	**Paraskevi**	**1.45**	**343**	P	**Pn**	**17 26 06.5**	**0.0**
PRK				S	**Sn**	**17 26 25.6**	**+0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.45**	**343**	P	**Pg**	**17 26 08.1**	**-0.1**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**45**	Pn	**Pb**	**17 26 08.0**	**-0.1**
GORD				AML	AML		
MANT	**Manisa**	**1.50**	**65**	P	**Pg**	**17 26 09.8**	**+0.6**
BUHA	**Balikesir, Bur**	**1.64**	**7**	P	**Pn**	**17 26 09.4**	**+0.1**
STEP	**BALIKESIR_Sava**	**1.66**	**24**	P	**Pg**	**17 26 12.1**	**-0.2**
KOCA	**Canakkale, Ayv**	**1.72**	**342**	P	**Pn**	**17 26 10.6**	**+0.3**
THERA	**Ancient Thera,**	**1.85**	**216**	P	**Pn**	**17 26 12.4**	**+0.3**
THERA	**Ancient Thera,**	**1.85**	**216**	P	**Pn**	**17 26 13.2**	**+1.1**
THERA				AML	AML		
THR3	**Thira Island,**	**1.85**	**219**	P	**Pn**	**17 26 12.6**	**+0.5**
SAP3	**Santorini-Thir**	**1.86**	**220**	P	**Pn**	**17 26 13.3**	**+1.1**
BAYC	**CANAKKALE_Bayr**	**1.89**	**353**	P	**Pn**	**17 26 12.3**	**-0.4**
KARY	**Karystos**	**1.90**	**276**	P	**Pn**	**17 26 12.7**	**-0.1**
KARY	**Karystos**	**1.90**	**276**	P	**Pn**	**17 26 12.6**	**-0.3**
DION	**Dionisos Attik**	**2.30**	**276**	P	**Pn**	**17 26 18.4**	**0.0**

IDC 03 17:31:04.9±3.8, 8°70.5S×119°71.6E, h171km±23km, mb3.3/2, mbtmp3.6/5, Error ellipse: s-maj=57.1km s-min=31.7km az=24.0, Flores region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BATI	**Baumata**	**4.18**	**111**	P	Pn	17 32 08.4	+0.3
	11nm,0.4s,baz=275,slow=3.3,SNR=6.9						
BATI				S	Sn	17 32 57.5	+0.1
	11nm,0.3s,baz=106,slow=15,SNR=1.9						
FITZ	**Fitzroy Crossi**	**10.98**	**149**	P	Pn	17 33 38.7	+1.3
	1.8nm,0.8s,baz=330,slow=16,SNR=1.5						
FITZ				S	Sn	17 35 38.9	-0.3
	2.9nm,0.8s,baz=184,slow=19,SNR=7.7						
WRA	**Warramunga Arr**	**18.03**	**130**	P	P	17 35 02.8	-0.4
	0.3nm,0.5s,baz=304,slow=12,SNR=6.9						
WRA				S	S	17 38 22.3	+1.0
	0.3nm,0.6s,baz=305,slow=25,SNR=2.3						
ASAR	**Alice Springs**	**20.15**	**139**	P	P	17 35 25.9	-0.2
	0.7nm,0.4s,baz=313,slow=9.6,SNR=36						
	0.7nm,0.4s						
STKA	**Stephens Creek**	**30.74**	**142**	P	P	17 37 04.0	-0.2
	2.0nm,0.7s,baz=297,slow=9.0,SNR=2.9						
	2.0nm,0.7s						

*KOLA **03** 17:35:47.9, 77°.22N×17°.78E, h0km, ML1.8, Spitsbergen,Barentz Sea*

BER 03 17:35:49.2±1.9, 79°.26N×15°.35E, h22km±999km, ML1.5, Confirmed Earthquake, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SPA0	**Spitsbergen Ar**	**1.11**	**169**	*eP*	Pn	17 36 07.4	-2.0
SPA0				*eS*	Sb	17 36 20.6	-3.0
SPA0				*eSg*	Sn	17 36 23.6	-0.4
SPA0				IAML		17 36 26.0	
	comp=Z,12nm,0.2s						
SPITS	**Spitsbergen Ar**	**1.11**	**169**	P	Pn	17 36 07.2	-2.1
SPITS				S	Sb	17 36 21.2	-2.4
BRBB	**Barentsburg B**	**1.20**	**191**	*eP*	Pn	17 36 08.0	-2.5
BRBB				*ePg*	Pb	17 36 11.2	0.0
BRBB				*eSg*	Sn	17 36 25.7	-0.4
BRBB	**Barentsburg B**	**1.20**	**191**	P	Pn	17 36 10.6	0.0
BRBB				S	Sn	17 36 25.9	-0.1
BRBA	**Barentsburg A**	**1.23**	**191**	*eP*	Pn	17 36 08.3	-2.7
BRBA				*ePg*	Pb	17 36 11.4	-0.3
BRBA				*eSg*	Sn	17 36 26.2	-0.7
BRBA				IAML		17 36 29.0	
	comp=Z,17nm,0.2s						

*KRNET **03** 17:37:00.4±0.1, 42°.52N×72°.48E, h20km, mb3.6*
*SOME **03** 17:37:01.3, 42°.58N×72°.50E, h5km*
*NNC **03** 17:37:02.1±0.4, 42°.71N×72°.48E, h0km, mb4.0, mpv3.7, Error ellipse: s-maj=9.0km s-min=2.1km az=177.0*
*KNET **03** 17:37:02.9±0.4, 42°.56N×72°.64E, h12km±2km, ml2.8, Error ellipse: s-maj=4.0km s-min=2.5km az=171.0*

ISC 03 17:37:01.8±0.8, 42°.48N±0°.02×72°.50E±0°.02, h6km±5km, n67, σ1s58/114, 39C-27D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNAS	**Manas**	**0.01**	**20**	⇑*iP*	**Pg**	**17 37 02.8**	**-0.4**
MNAS				⇑*iS*	**Sg**	**17 37 04.0**	**-0.1**
MRKS	**Merke**	**0.60**	**63**	P	**Pg**	**17 37 12.6**	**-0.8**
	109nm,0.1s						
MRKS				S	**Sg**	**17 37 20.8**	**-0.5**
	220nm,0.1s						
MRKS	**Merke**	**0.60**	**63**	*eP*	**Pg**	**17 37 12.6**	**-0.8**
	109nm,0.1s						
MRKS				*eS*	**Sg**	**17 37 20.8**	**-0.5**
	220nm,0.1s						
ARK	**Arkit**	**0.79**	**211**	⇓*iP*	**Pg**	**17 37 16.1**	**-0.8**
ARK				⇓*iS*	**Sg**	**17 37 27.3**	**+0.2**
DZA	**Taraz**	**0.96**	**296**	P	**Pg**	**17 37 18.8**	**-1.4**
	71nm,0.1s						
DZA				S	**Sg**	**17 37 31.1**	**-1.5**
	486nm,0.2s						
DZA	**Taraz**	**0.96**	**296**	*eP*	**Pg**	**17 37 18.8**	**-1.4**
	71nm,0.1s						
DZA				*eS*	**Sg**	**17 37 31.1**	**-1.5**
	486nm,0.2s						
EKS2	**Erkin-Say**	**0.96**	**78**	⇑P	**Pg**	**17 37 19.2**	**-1.2**
	17nm,0.1s,SNR=52						
EKS2				⇑S	**Sg**	**17 37 32.4**	**-0.5**
	50nm,0.2s						
EKS2	**Erkin-Say**	**0.96**	**78**	⇑*iP*	**Pg**	**17 37 18.7**	**-1.6**
EKS2				⇑*iS*	**Sg**	**17 37 31.9**	**-0.9**
ARSB	**Arslanbob**	**1.21**	**162**	⇓*iP*	**Pg**	**17 37 23.9**	**-1.1**
ARSB				⇓*iS*	**Sb**	**17 37 40.8**	**-0.3**
TRKS	**Terek-Say**	**1.39**	**227**	⇓*iP*	**Pn**	**17 37 27.1**	**-0.8**
TRKS				⇓*iS*	**Sg**	**17 37 45.9**	**-0.5**
AAK	**Ala-Archa**	**1.48**	**83**	⇑P	**Pn**	**17 37 28.8**	**-0.5**
	24nm,0.1s,SNR=70						
AAK				⇑S	**Sb**	**17 37 48.9**	**-0.2**
	31nm,0.2s						
AAK	**Ala-Archa**	**1.48**	**83**	⇑P	**Pn**	**17 37 28.8**	**-0.5**
	6.1nm,0.4s						
AAK	**Ala-Archa**	**1.48**	**83**	⇓*iP*	**Pn**	**17 37 28.1**	**-1.1**
AAK				⇓*iS*	**Sn**	**17 37 48.0**	**-1.0**
UCH	**Uchtor**	**1.51**	**99**	⇑P	**Pn**	**17 37 29.3**	**-0.6**
	39nm,0.2s,SNR=50						
UCH				⇑S	**Sg**	**17 37 50.5**	**0.0**
	106nm,0.2s						
UCH	**Uchtor**	**1.51**	**99**	⇓*iP*	**Pn**	**17 37 28.8**	**-1.1**
UCH				⇓*iS*	**Sn**	**17 37 49.1**	**-1.1**
KK31	**Karatay Array**	**1.59**	**294**	⇑P	**Pn**	**17 37 29.7**	**-0.9**
	3.6nm,0.1s,baz=113,slow=18,SNR=174						
KK31				⇑S	**Sn**	**17 37 49.6**	**-1.9**
	33nm,0.3s,baz=119,slow=30,SNR=19						
FRU1	**Bishkek**	**1.61**	**77**	⇓*iP*	**Pn**	**17 37 30.1**	**-0.8**
FRU1				⇓*iS*	**Sn**	**17 37 51.5**	**-0.5**
USP	**Ospenovka**	**1.67**	**61**	P	**Pn**	**17 37 31.4**	**-0.3**
	86nm,0.2s,SNR=282						
USP				⇓S	**Sn**	**17 37 53.2**	**-0.3**
	136nm,0.2s						
USP	**Ospenovka**	**1.67**	**61**	⇑*iP*	**Pn**	**17 37 30.7**	**-1.0**
USP				⇑*iS*	**Sn**	**17 37 52.9**	**-0.6**
CHMS	**Chumysh**	**1.74**	**72**	⇑P	**Pn**	**17 37 32.7**	**+0.1**
	33nm,0.1s,SNR=64						
CHMS				⇓S	**Sb**	**17 37 56.1**	**-0.3**
	45nm,0.1s						
CHMS	**Chumysh**	**1.74**	**72**	Pg	Pg	17 37 42.6	+7.4
	108nm,0.3s						
CHMS				Lg	Lg	17 38 11.8	
	513nm,0.4s						
CHMS	**Chumysh**	**1.74**	**72**	⇑*iP*	**Pn**	**17 37 32.2**	**-0.5**
CHMS				⇑*iS*	**Sn**	**17 37 55.3**	**+0.1**
KBK	**Karagaybulak**	**1.82**	**83**	⇑P	**Pb**	**17 37 34.8**	**-0.8**
	52nm,0.1s,SNR=84						
KBK				⇓S	**Sb**	**17 37 59.1**	**+0.3**
	82nm,0.2s						
KBK	**Karagaybulak**	**1.82**	**83**	⇑*iP*	**Pn**	**17 37 33.9**	**0.0**
KBK				⇑*iS*	**Sb**	**17 37 58.1**	**-0.6**
IUG	**luzhnay**	**1.86**	**261**	P	**Pb**	**17 37 36.4**	**+0.1**
	211nm,0.2s						
IUG				S	**Sg**	**17 38 01.6**	**0.0**
	443nm,0.6s						
IUG	**luzhnay**	**1.86**	**261**	*eP*	**Pb**	**17 37 36.4**	**+0.1**
	211nm,0.2s						
IUG				*eS*	**Sg**	**17 38 01.6**	**0.0**
	443nm,0.6s						
SALK	**Salom-Alik**	**1.87**	**148**	⇓*iP*	**Pb**	**17 37 35.2**	**-1.4**
SALK				⇓*iS*	**Sb**	**17 38 00.3**	**0.0**
OHH	**Osh**	**1.96**	**174**	⇑*iP*	**Pn**	**17 37 36.4**	**+0.7**
OHH				⇑*iS*	**Sb**	**17 38 02.5**	**-0.3**
BRLS	**Boroldaу**	**2.04**	**287**	Pg	**Pb**	**17 37 39.1**	**-0.1**
	23nm,0.4s						
BRLS				Lg	Lg	17 38 06.3	
	86nm,0.3s						
BRLS	**Boroldaу**	**2.04**	**287**	*eP*	**Pb**	**17 37 39.1**	**-0.1**
	23nm,0.4s						
BRLS				*eS*	**Sg**	**17 38 06.3**	**-1.0**
	86nm,0.3s						
CHM	**Chimkent**	**2.15**	**267**	*eP*	**Pg**	**17 37 42.6**	**-0.4**
	108nm,0.3s						
CHM				*eS*	**Sg**	**17 38 11.8**	**+0.9**
	513nm,0.4s						
TKM2	**Tokmak 2**	**2.33**	**78**	⇑P	**Pn**	**17 37 42.1**	**+1.3**
	43nm,0.4s,SNR=82						
TKM2				⇑S	**Sb**	**17 38 13.6**	**+0.2**
	93nm,0.2s						
TKM2	**Tokmak 2**	**2.33**	**78**	⇓*iP*	**Pn**	**17 37 40.9**	**0.0**
TKM2				⇓*iS*	**Sn**	**17 38 10.4**	**+0.5**
SFK	**Sufi-Kurgan**	**2.57**	**163**	⇑*iP*	**Pn**	**17 37 45.1**	**+0.8**
SFK				⇑*iS*	**Sn**	**17 38 17.4**	**+1.4**
KST	**Kastek**	**2.61**	**76**	Pg	**Pb**	**17 37 49.1**	**0.0**
	9.6nm,0.2s						
KST				Lg	Lg	17 38 23.2	
	57nm,0.4s						
KST	**Kastek**	**2.61**	**76**	*eP*	**Pb**	**17 37 49.1**	**0.0**
	9.6nm,0.2s						
KST				*eS*	**Sb**	**17 38 23.2**	**+1.6**
	57nm,0.4s						
BTK	**Batken**	**2.73**	**208**	⇑*iP*	**Pn**	**17 37 46.8**	**+0.5**
BTK				⇑*iS*	**Sn**	**17 38 20.6**	**+1.0**
ULHL	**Ulahol**	**2.78**	**93**	⇑P	**Pb**	**17 37 49.3**	**-2.8**
	13nm,0.2s,SNR=50						
ULHL	**Ulahol**	**2.78**	**93**	⇓*iP*	**Pn**	**17 37 47.5**	**+0.3**
ULHL				⇓*iS*	**Sn**	**17 38 21.6**	**+0.4**
BTLS	**Baital**	**2.80**	**23**	Pg	**Pn**	**17 37 48.5**	**+1.4**
	2.6nm,0.2s						
BTLS				Lg	Lg	17 38 22.1	
	41nm,0.2s						
BTLS	**Baital**	**2.80**	**23**	*eP*	**Pn**	**17 37 48.5**	**+1.4**
	2.6nm,0.2s						
BTLS				*eS*	**Sn**	**17 38 22.1**	**+0.9**
	41nm,0.2s						
NRN	**Naryn**	**2.81**	**111**	⇓*iP*	**Pn**	**17 37 47.7**	**+0.1**
NRN				⇓*iS*	**Sn**	**17 38 22.3**	**+0.3**
DRK	**Karamyk**	**3.04**	**190**	⇑*iP*	**Pn**	**17 37 51.4**	**+0.7**
DRK				⇑*iS*	**Sn**	**17 38 28.4**	**+0.8**
KTBS	**Karatobe**	**3.30**	**67**	Pg	**Pb**	**17 38 00.5**	**-0.4**
	0.4nm,0.1s						
KTBS				Lg	Lg	17 38 42.4	
	35nm,0.2s						
KTBS	**Karatobe**	**3.30**	**67**	*eP*	**Pb**	**17 38 00.5**	**-0.4**
	0.4nm,0.1s						
KTBS				*eS*	**Sb**	**17 38 42.4**	**+1.0**
	35nm,0.2s						
TNSS	**Tian-Shan**	**3.32**	**79**	Pg	**Pb**	**17 38 01.9**	**+0.4**
	4.9nm,0.4s						
TNSS				Lg	Lg	17 38 44.9	
	5.4nm,0.5s						
TNSS	**Tian-Shan**	**3.32**	**79**	*eP*	**Pb**	**17 38 01.9**	**+0.4**
	4.9nm,0.4s						
TNSS				*eS*	**Sb**	**17 38 45.0**	**+2.7**
	5.4nm,0.5s						
KNDC	**Almaty**	**3.37**	**76**	⇑Pg	**Pg**	**17 38 04.0**	**-2.3**
	15nm,0.3s						
KNDC				⇓Lg	Lg	17 38 48.8	
	26nm,0.5s						
ANVS	**Anan'yevo**	**3.83**	**84**	⇑*iP*	**Pn**	**17 38 01.8**	**+0.3**
ANVS				⇑*iS*	**Sn**	**17 38 46.4**	**-0.5**
TARG	**Taragay, Kyrgy**	**4.02**	**99**	⇑*eP*	**Pn**	**17 38 04.8**	**+0.5**
TARG				⇑*iS*	**Sn**	**17 38 51.6**	**-0.3**
ARXS	**Arharly**	**4.26**	**64**	Pg	**Pb**	**17 38 17.8**	**+0.6**
	12nm,0.5s						
ARXS				Lg	Lg	17 39 12.2	
	33nm,0.4s						
ARXS	**Arharly**	**4.26**	**64**	*eP*	**Pb**	**17 38 17.8**	**+0.6**
	12nm,0.5s						
ARXS				*eS*	**Sb**	**17 39 12.2**	**+3.4**
	33nm,0.4s						
KURS	**Kuram**	**4.28**	**74**	Pg	**Pg**	**17 38 21.6**	**-2.3**
	3.2nm,0.5s						
KURS				Lg	Lg	17 39 18.6	
	3.7nm,0.5s						
KURS	**Kuram**	**4.28**	**74**	*eP*	**Pg**	**17 38 21.6**	**-2.3**
	3.2nm,0.5s						
KURS				*eS*	**Sg**	**17 39 18.6**	**-0.8**
	3.7nm,0.5s						
PRZ	**Przheval'sk**	**4.37**	**88**	⇑*iP*	**Pn**	**17 38 09.4**	**+0.5**
PRZ				⇑*iS*	**Sn**	**17 38 59.6**	**-0.5**
SATY	**Saty**	**4.39**	**80**	Pg	**Pb**	**17 38 21.9**	**+2.5**
	12nm,0.2s						
SATY				Lg	Lg	17 39 19.2	
	7.3nm,0.2s						
SATY	**Saty**	**4.39**	**80**	*eP*	**Pb**	**17 38 21.9**	**+2.5**
	12nm,0.2s						
SATY				*eS*	**Sg**	**17 39 19.2**	**-3.6**
	7.3nm,0.2s						
KPKS	**Kokpek**	**4.65**	**76**	Pg	**Pb**	**17 38 26.7**	**+2.9**
	0.6nm,0.3s						
KPKS				Lg	Lg	17 39 27.4	
	7.1nm,0.4s						
KPKS	**Kokpek**	**4.65**	**76**	*eP*	**Pb**	**17 38 26.7**	**+2.9**
	0.6nm,0.3s						
KPKS				*eS*	**Sg**	**17 39 27.4**	**-3.6**
	7.1nm,0.4s						
UZB	**Uzynbulak**	**4.85**	**80**	Pg	**Pb**	**17 38 29.8**	**+2.6**
	5.3nm,0.3s						
UZB				Lg	Lg	17 39 33.0	
	8.0nm,0.4s						
UZB	**Uzynbulak**	**4.85**	**80**	*eP*	**Pb**	**17 38 29.8**	**+2.6**
	5.3nm,0.3s						
UZB				*eS*	**Sg**	**17 39 33.0**	**-4.4**
	8.0nm,0.4s						
TDK	**Taldyqorghan**	**4.97**	**57**	Pg	**Pb**	**17 38 32.6**	**+3.3**
	20nm,0.3s						
TDK				Lg	Lg	17 39 37.4	
	67nm,0.5s						
TDK	**Taldyqorghan**	**4.97**	**57**	*eP*	**Pb**	**17 38 32.6**	**+3.3**
	20nm,0.3s						
TDK				*eS*	**Sg**	**17 39 37.4**	**-4.0**
	67nm,0.5s						
SHLS	**Shalkode**	**5.17**	**80**	Pg	**Pg**	**17 38 45.2**	**+4.4**
	7.6nm,0.5s						
SHLS				Lg	Lg	17 39 59.1	
	9.6nm,0.4s						
SHLS	**Shalkode**	**5.17**	**80**	*eP*	**Pg**	**17 38 45.2**	**+4.4**
	7.6nm,0.5s						
SHLS				*eS*	Sg	17 39 59.1	+11
	9.6nm,0.4s						
PDGK	**Podgornoye**	**5.21**	**78**	⇓Pg	**Pb**	**17 38 36.9**	**+3.5**
	4.8nm,0.5s						
PDGK				⇓Lg	Lg	17 39 46.8	
	5.4nm,0.6s						
MK31	**Makanchi Array**	**8.21**	**55**	⇓Pn	**Pn**	**17 39 01.9**	**+0.4**
	0.2nm,0.4s,baz=237,slow=10,SNR=29						

*IDC **03** 17:48:27.9±0.9, 35°.46N×138°.71E, h196km±7km, mb3.3/7, mbtmp3.8/9, Error ellipse: s-maj=39.0km s-min=13.9km az=71.0*
*JMA **03** 17:48:28.4±0.2, 35°.5N±0°.9×138°.4E±0°.9, h198km±1km, MV2.8/33, CENTRAL YAMANASHI PREF*

ISC 03 17:48:28.6±0.8, 35°.47N±0°.08×138°.42E±0°.07, h196km±6km, n22, σ0s80/28, mb3.5/7, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYN	**Shimob**	**0.11**	**75**	P	**Pn**	**17 48 54.5**	**+0.1**
JYN				*eS*	**Sn**	**17 49 14.4**	**+0.1**
JFNN	**Fujinakano**	**0.35**	**141**	*eP*	**Pn**	**17 48 55.2**	**+0.4**
JFNN				*eS*	**Sn**	**17 49 15.7**	**+0.8**
JOD2	**Odawara 2**	**0.59**	**110**	P	**Pn**	**17 48 55.5**	**+0.1**
JOD2				S	**Sn**	**17 49 16.6**	**+0.2**
JRY	**Ryogami san**	**0.68**	**36**	P	**Pn**	**17 48 56.9**	**+0.8**
MJAR	**Matsushiro Arr**	**1.08**	**351**	P	**Pn**	**17 48 58.7**	**+0.1**
	39nm,0.4s,baz=168,slow=12,SNR=167						
MJAR				S	**Sn**	**17 49 21.8**	**-0.1**
	6.6nm,0.8s,baz=139,slow=7.8,SNR=5.2						
MAT	**Matsushiro**	**1.08**	**351**	P	**Pn**	**17 48 58.9**	**+0.4**
MAT				*eS*	**Sn**	**17 49 21.8**	**-0.1**
JAG	**Ashikaga**	**1.27**	**41**	P	**Pn**	**17 49 00.0**	**+0.1**
JYTA	**Yamagatataniai**	**1.38**	**276**	P	**Pn**	**17 49 00.4**	**-0.4**
JYTA				*eS*	**Sn**	**17 49 24.6**	**-1.2**
JIE	**Ise**	**1.77**	**233**	*eP*	**Pn**	**17 49 04.2**	**-0.3**
JKG	**Kaga**	**1.87**	**296**	*eP*	**Pn**	**17 49 06.1**	**+0.6**
BSO1	**Boso 1**	**2.25**	**110**	P	**Pn**	**17 49 08.7**	**-0.2**
JNS	**Sasagawa**	**2.46**	**17**	P	**Pn**	**17 49 12.7**	**+1.1**
JWT	**Wachi**	**2.47**	**267**	*eP*	**Pn**	**17 49 12.1**	**+0.3**
ASAJ	**Asahikawa**	**9.21**	**19**	P	**Pn**	**17 50 35.2**	**-2.4**
	2.2nm,0.5s,baz=207,slow=14,SNR=9.5						
KLR	**Kul'dur**	**14.60**	**342**	P	**Pn**	**17 51 45.1**	**-0.8**
	1.3nm,0.5s,baz=166,slow=10,SNR=5.9						
ZALV	**Zalesovo Beam**	**41.21**	**314**	P	**P**	**17 55 54.6**	**+0.7**
	1.3nm,0.5s,baz=94,slow=6.4,SNR=9.2						
	1.3nm,0.5s						
MKAR	**Makanchi Array**	**42.92**	**303**	P	**P**	**17 56 08.1**	**+0.2**
	0.8nm,0.6s,baz=91,slow=9.6,SNR=9.1						
	0.8nm,0.6s						
KURBB	**Kurchatov Arra**	**45.07**	**309**	P	**P**	**17 56 25.5**	**+0.6**
	1.3nm,0.6s,baz=86,slow=7.3,SNR=16						
	1.3nm,0.6s						
BVAR	**Borovoye Array**	**49.84**	**313**	P	**P**	**17 57 02.8**	**+1.2**
	0.2nm,0.3s,baz=95,slow=8.4,SNR=2.2						
	0.2nm,0.3s						
WRA	**Warramunga Arr**	**55.24**	**185**	P	**P**	**17 57 40.3**	**-1.2**
	0.3nm,0.3s,baz=2.3,slow=7.3,SNR=19						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**58.97**	**185**	P	**P**	**17 58 07.2**	**-0.4**
	0.1nm,0.4s,baz=5.0,slow=7.1,SNR=6.4						
	0.1nm,0.4s						
FINES	**FINESS Array B**	**69.05**	**332**	P	**P**	**17 59 13.4**	**+0.6**
	2.9nm,1.0s,baz=51,slow=6.4,SNR=6.4						
	2.9nm,1.0s						

*THE **03** 17:56:25.9, 37°.9N±0°.6×26°.9E±0°.9, h4km±1km, M2.6/7, MLh2.6/7*
*AFAD **03** 17:56:25.5, 37°.87N×26°.86E, h5km±2km, ML2.6*
*ISK **03** 17:56:25.6, 37°.87N×26°.92E, h5km, ML2.6/17*

ISC 03 17:56:26.0±0.9, 37°.87N±0°.02×26°.89E±0°.03, h11km±7km, n36, σ0s79/54, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**195**	S	**Sg**	**17 56 31.5**	**-0.8**
SMG				AML	AML		
DGB	**zmir**	**0.18**	**358**	P	**Pg**	**17 56 29.7**	**-0.3**
DGB				S	**Sg**	**17 56 32.6**	**-0.1**
GMLD	**Gumuldur**	**0.21**	**5**	Pg	**Pg**	**17 56 30.4**	**0.0**
GMLD				Sg	**Sg**	**17 56 34.8**	**+1.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**92**	Pg	**Pg**	**17 56 32.2**	**-0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.32**	**122**	P	**Pg**	**17 56 32.6**	**+0.2**
GCAM				S	**Sg**	**17 56 37.4**	**+0.7**
GCAM				IAML		17 56 39.0	
	comp=N,605nm,0.2s						
GCAM	**G?zelcaml?**	**0.32**	**122**	Pg	**Pg**	**17 56 32.6**	**+0.2**
GCAM				Sg	**Sb**	**17 56 38.1**	**-0.8**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**4**	P	**Pg**	**17 56 33.1**	**-0.1**
BEYE				S	**Sg**	**17 56 37.9**	**0.0**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**320**	P	**Pg**	**17 56 34.9**	**-0.5**
ZEYE				S	**Sg**	**17 56 41.3**	**-0.4**
ZEYE				IAML		17 56 42.0	
	comp=N,498nm,0.5s						
DDIM	**Aydin, Didim**	**0.50**	**146**	P	**Pg**	**17 56 35.9**	**+0.2**
BLCB	**Balcova**	**0.53**	**13**	P	**Pg**	**17 56 36.2**	**-0.1**
BLCB				S	**Sb**	**17 56 44.0**	**-1.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**13**	Pg	**Pg**	**17 56 36.2**	**-0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**51**	P	**Pg**	**17 56 37.0**	**0.0**
DUVT				S	**Sg**

AYVA	**Ayvalik**	**1.45 354**	P	**Pb**	17 56 53.1	**+0.2**
PRK	**Paraskevi**	**1.46 341**	P	**Pn**	17 56 52.5	**+0.2**
PRK			S	**Sg**	17 57 12.8	**-0.2**

IDC 03 17:56:33.1±2.8, 33°02N×83°54E, h0km, mb3.1/2, mbtmp3.2/5, ML2.8/3, Error ellipse: s-maj=82.0km s-min=23.9km az=59.0, Xizang

Code	Station Name	Δ° AZ°	Phase	ID	Time	Res
			Op	ISC	h m s	ISC
AAK	**Ala-Archa**	**11.97 326**	Pn	Pn	17 59 27.6	+2.4
	0.1nm,0.3s,baz=180,slow=13,SNR=1.2 0.3nm,0.3s					
AAK			AML	AML		
MKAR	**Makanchi Array**	**13.79 356**	Pn	Pn	17 59 51.8	+1.9
	0.1nm,0.3s,baz=181,slow=11,SNR=5.5 0.2nm,0.6s					
MKAR			AML	AML		
KURBB	**Kurchatov Arra**	**17.98 350**	P	Pn	18 00 43.0	-1.3
	baz=174,slow=9.3,SNR=4.5 0.5nm,0.8s					
CMAR	**Chiang Mai Arr**	**20.03 133**	P	P	18 01 07.9	+0.2
	1.8nm,0.9s,baz=319,slow=10.0,SNR=16 1.8nm,0.9s					
ZALV	**Zalesovo Beam**	**20.95 2**	P	P	18 01 15.6	-1.7
	0.3nm,0.4s,baz=165,slow=12,SNR=2.0 0.3nm,0.4s					

*NEIC **03** 17:59:05.5,21.°11N×121.°75E,h103km*
*GFZ **03** 17:59:06.2±0.2,21.°4N±2.°×12.°2E±.°, h106km, M4.7/19, mb5.0/19, Mw4.6/7, confirmed*
*JMA **03** 17:59:06.3±0.3,21.°6N±1.°×121.°9E±0.°8, h64km, MV4.6/15, TAIWAN REGION*
*NEIC **03** 17:59:06.0±1.9,21.°09N±0.°05×121.°73E±0.°07, h109km±4km, mb4.8/180, Mwr4.6/16, Error ellipse: s-maj=9.8km s-min=6.8km az=99.0, Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr0.04; Mθθ-0.23; Mφφ0.19; Mrθ0.59; Mθφ-0.76; Mφr-0.28; Fault plane solution: M0 1.02000×10^16 NP1:φs 97.21000°, δ84.47000°, λ142.47000°. NP2:φs 191.44000°, δ52.67000°, λ6.96000°. Principal axes: T 1.0994, Plg30.0000°, Azm47.0000°; N -0.1771, Plg52.0000°, Azm270.0000°; P -0.9224, Plg21.0000°, Azm150.0000°;*
*TAP **03** 17:59:06.0,21.°19N×121.°83E,h124km,ML5.3,D*
*MOS **03** 17:59:06.2±0.9,21.°05N×122.°04E,h132km,mb4.7/43, Error ellipse: s-maj=7.8km s-min=4.4km az=115.2*
*NIED **03** 17:59:06.3,21.°11N×121.°85E,h64km,MW4.5,Moment Tensor Solution. s2 Moment tensor: Scale 10^15Nm; Mrr-0.99; Mθθ-1.52; Mφφ2.51; Mrθ0.72; Mθφ-2.25; Mφr-5.73; Fault plane solution: M0 6.36000×10^15 NP1: φs 111.00000°, δ20.00000°, λ-157.00000°. NP2: φs 359.00000°, δ82.00000°, λ-71.00000°.*
*MAN **03** 17:59:07.0,20.°88N×121.°99E,h101km,MS4.7*
*IDC **03** 17:59:07.2±1.4,20.°97N×121.°93E,h127km±11km, mb4.2/30,mbtmp4.7/33,MS3.5/15, Error ellipse: s-maj=13.0km s-min=9.9km az=71.0*
*BJI **03** 17:59:08.0,21.°44N×121.°72E,h84km,mB4.5/3,mb4.5/39, Ms4.1/3,Ms7 4.0/2*

ISC 03 17:59:05.8±0.4, 21.°07N±0.°02×121.°82E±0.°03, h109km±2km, h109km:pP-P,n662,σ1935/795, mb4.8/181, 46C-52D, Taiwan region

Code	Station Name	Δ° AZ°	Phase	ID	Time	Res
			Op	ISC	h m s	ISC
LYUB	**Lan-yu**	**0.96 347**	⇓*iP*	**Pn**	17 59 27.1	**+0.7**
LYUB			*eS*	**Sn**	17 59 43.1	**+1.1**
LAY	**Lan-yu**	**1.00 346**	⇓*iP*	**Pn**	17 59 26.8	**-0.1**
LAY			*i* S	**Sn**	17 59 42.9	**+0.1**
TSEB	**Hengchuen, Pin**	**1.19 314**	⇓*iP*	**Pn**	17 59 30.3	**+1.4**
TSEB			*i* S	**Sn**	17 59 48.8	**+2.4**
TWKBT	**Hengchun**	**1.28 313**	⇓*iP*	**Pn**	17 59 30.9	**+1.1**
TWKBT			*i* S	**Sn**	17 59 49.0	**+0.9**
TWK1	**Hengchun**	**1.28 313**	⇓*iP*	**Pn**	17 59 30.9	**+0.9**
TWK1			S	**Sn**	17 59 48.4	**+0.1**
SMST	**Manzhou Townsh**	**1.32 316**	⇑*iP*	**Pn**	17 59 30.9	**+0.6**
SMST			*eS*	**Sn**	17 59 49.9	**+0.9**
HEN	**Hengchun**	**1.37 313**	⇓P	**Pn**	17 59 32.1	**+1.1**
HEN			*i* S	**Sn**	17 59 51.0	**+0.9**
SLIU	**Shizi**	**1.48 321**	⇓*iP*	**Pn**	17 59 32.8	**+0.5**
SLIU			*i* S	**Sn**	17 59 52.9	**+0.4**
TAW	**Tawu**	**1.54 327**	*eP*	**Pn**	17 59 32.9	**-0.1**
TAW			*i* S	**Sn**	17 59 52.9	**-0.9**
EAST	**Anshuo**	**1.59 326**	⇓*iP*	**Pn**	17 59 33.6	**0.0**
EAST			*i* S	**Sn**	17 59 54.8	**0.0**
LDUT	**Ludao**	**1.63 349**	⇓*iP*	**Pn**	17 59 33.2	**-0.9**
LDUT			S	**Sn**	17 59 54.7	**-1.0**
SCZT	**Fangliau**	**1.71 320**	⇓*iP*	**Pn**	17 59 35.4	**+0.4**
SCZT			*i* S	**Sn**	17 59 56.4	**-1.0**
ECL	**Taimali**	**1.72 332**	⇓P	**Pn**	17 59 34.6	**-0.6**
ECL			*i* S	**Sn**	17 59 56.3	**-1.4**
TTN	**Taitung**	**1.79 340**	P	**Pn**	17 59 36.7	**+0.6**
TTN			S	**Sn**	18 00 00.3	**+1.2**
CICP	**Calayan Island**	**1.82 190**	*eP*	**Pn**	17 59 37.2	**+0.7**
CICP			*eS*	**Sn**	17 59 59.4	**-0.4**
SSPT	**Xinbi**	**1.83 321**	⇓*iP*	**Pn**	17 59 37.4	**+0.8**
SSPT			*i* S	**Sn**	17 59 59.9	**0.0**
WLCH	**Liuqiu**	**1.85 314**	⇓*iP*	**Pn**	17 59 38.7	**+1.9**
WLCH			*eS*	**Sn**	18 00 02.5	**+2.0**
TWP	**Hsiaoliuchiu**	**1.86 314**	⇓*iP*	**Pn**	17 59 38.6	**+1.7**
TWP			*i* S	**Sn**	18 00 02.7	**+2.0**
TWGBT	**Beinan**	**1.87 339**	P	**Pn**	17 59 36.6	**-0.6**
TWGBT	**Beinan**	**1.87 339**	⇓*iP*	**Pn**	17 59 36.5	**-0.6**
TWGBT			*i* S	**Sn**	17 59 59.4	**-1.6**
TWG	**Pinlang**	**1.88 339**		**Pn**	17 59 36.5	**-0.7**
TWG			Sn	**Sn**	17 59 58.0	**-3.2**
TWG	**Pinlang**	**1.88 339**	P	**Pn**	17 59 36.7	**-0.6**
TWG	**Pinlang**	**1.88 339**	⇓*iP*	**Pn**	17 59 36.6	**-0.6**
TWG			*eS*	**Sn**	17 59 59.1	**-2.0**
MASBT	**Mashibuluo**	**1.89 325**	⇓*iP*	**Pn**	17 59 37.6	**+0.3**
MASBT			*eS*	**Sn**	18 00 00.8	**-0.6**
LONT	**Longtian**	**1.94 341**	⇓*iP*	**Pn**	17 59 37.5	**-0.4**
LONT			*eS*	**Sn**	18 00 01.0	**-1.5**
EDH	**Donghe**	**1.96 346**	⇓*iP*	**Pn**	17 59 38.1	**-0.1**
EDH			*eS*	**Sn**	18 00 02.8	**-0.1**
TSMG	**Majia**	**1.96 327**	⇓P	**Pn**	17 59 38.5	**+0.3**
TSMG			*eS*	**Sn**	18 00 02.3	**-0.7**
SSD	**Sandimen**	**2.00 327**	⇓*iP*	**Pn**	17 59 38.9	**+0.2**
SSD			S	**Sn**	18 00 02.5	**-1.4**
KAU	**Kaohsiung**	**2.05 317**	*eP*	**Pn**	17 59 40.9	**+1.6**
KAU			*eS*	**Sn**	18 00 07.0	**+2.1**
SGLT	**Jiouru**	**2.06 324**	⇓*iP*	**Pn**	17 59 40.8	**+1.3**
SGLT			S	**Sn**	18 00 07.0	**+1.8**
CHKT	**Chengkung**	**2.07 348**	⇓*iP*	**Pn**	17 59 39.3	**-0.3**
CHKT			S	**Sn**	18 00 04.5	**-0.9**
ECS	**Chishang**	**2.09 345**	*eP*	**Pn**	17 59 40.3	**+0.4**
ECS			*eS*	**Sn**	18 00 06.4	**+0.4**
WSSB	**Gushan**	**2.13 318**	⇓*iP*	**Pn**	17 59 41.5	**+1.0**
WSSB			*i* S	**Sn**	18 00 07.7	**+0.8**
EHD	**Haiduan**	**2.15 345**	*eP*	**Pn**	17 59 40.1	**-0.6**
EHD			S	**Sn**	18 00 05.9	**-1.4**
CHKH	**Chenggong**	**2.15 350**	⇓P	**Pn**	17 59 40.3	**-0.3**
CHKH			S	**Sn**	18 00 06.6	**-0.7**
SNJT	**Kaohsiung City**	**2.17 321**	*eP*	**Pn**	17 59 42.0	**+1.1**
SNJT			*eS*	**Sn**	18 00 09.5	**+1.8**
TWM1	**Shoushan**	**2.17 324**	⇓*iP*	**Pn**	17 59 42.2	**+1.2**
TWM1			S	**Sn**	18 00 10.9	**+3.0**
FULB	**Fuli**	**2.18 347**	*eP*	**Pn**	17 59 41.0	**-0.1**
FULB			*eS*	**Sn**	18 00 08.5	**+0.5**
SCST	**Cishan**	**2.19 326**	⇓*iP*	**Pn**	17 59 41.9	**+0.8**
SCST			*i* S	**Sn**	18 00 07.9	**-0.2**
SLGT	**Liugui**	**2.20 331**	P	**Pn**	17 59 41.8	**+0.5**
SLGT			*eS*	**Sn**	18 00 07.6	**-0.9**
ELDTW	**Lidau**	**2.24 341**	⇓*iP*	**Pn**	17 59 41.3	**-0.6**
ELDTW			*eS*	**Sn**	18 00 09.3	**-0.3**
ECBN	**Changbin**	**2.27 352**	*eP*	**Pn**	17 59 42.1	**0.0**
ECBN			*eS*	**Sn**	18 00 08.9	**-1.1**
STYH	**Taoyuan**	**2.31 335**	⇓*iP*	**Pn**	17 59 43.2	**+0.6**
STYH			*eS*	**Sn**	18 00 10.7	**-0.2**
SGST	**Jiashian**	**2.31 331**	⇓*iP*	**Pn**	17 59 42.2	**-0.5**
SGST			S	**Sn**	18 00 09.5	**-1.6**
EYUL	**Yuli**	**2.32 349**	*eP*	**Pn**	17 59 43.2	**+0.4**
EYUL			*eS*	**Sn**	18 00 11.6	**+0.4**
TWF1	**Yuli**	**2.33 348**	*eP*	**Pn**	17 59 42.6	**-0.3**
TWF1			*eS*	**Sn**	18 00 10.3	**-1.1**
YULB	**Yu-li**	**2.37 348**	P	**Pn**	17 59 43.4	**0.0**
YULB	**Yu-li**	**2.37 348**		**Pn**	17 59 42.7	**-0.7**
YULB			*Sn*	**Sn**	18 00 11.2	**-1.2**
YULB	**Yu-li**	**2.37 348**	P	**Pn**	17 59 43.6	**+0.1**
YULB	**Yu-li**	**2.37 348**	P	**Pn**	17 59 42.9	**-0.5**
YULB			*eS*	**Sn**	18 00 10.3	**-2.0**
CHN3	**Shinhua**	**2.41 326**	⇓*iP*	**Pn**	17 59 45.2	**+1.2**
CHN3			*i* S	**Sn**	18 00 14.1	**+0.8**
CHN1	**Nanshi**	**2.42 331**	*i P*	**Pn**	17 59 44.4	**+0.2**
CHN1			*i* S	**Sn**	18 00 12.6	**-1.1**
WTP	**Ta-pu**	**2.44 333**	⇓*iP*	**Pn**	17 59 44.6	**+0.2**
WTP			*i* S	**Sn**	18 00 12.8	**-1.3**
HGSD	**Ruisui**	**2.44 352**	*eP*	**Pn**	17 59 44.0	**-0.4**
TAI1	**Yung-k'ang**	**2.46 323**	*eP*	**Pn**	17 59 45.3	**+0.7**
TAI1			S	**Sn**	18 00 14.0	**-0.3**
EHYH	**Wanrong**	**2.46 350**	P	**Pn**	17 59 44.8	**+0.1**
EHYH			S	**Sn**	18 00 12.7	**-1.7**
EHY	**Hungye**	**2.47 349**	*eP*	**Pn**	17 59 44.8	**0.0**
EHY			*eS*	**Sn**	18 00 13.4	**-1.4**
TPUB	**Ta-pu**	**2.48 334**	P	**Pn**	17 59 44.8	**-0.1**
TPUB	**Ta-pu**	**2.48 334**		**Pn**	17 59 44.9	**-0.1**
TPUB			*Sn*	**Sn**	18 00 11.9	**-3.1**
TPUB	**Ta-pu**	**2.48 334**	P	**Pn**	17 59 45.1	**+0.2**
TPUB	**Ta-pu**	**2.48 334**	⇓*iP*	**Pn**	17 59 45.0	**0.0**
TPUB			*i* S	**Sn**	18 00 13.4	**-1.6**
SSHA	**Shanhua**	**2.50 326**	⇓*iP*	**Pn**	17 59 46.0	**+0.8**
SSHA			*i* S	**Sn**	18 00 14.9	**-0.5**
TWK	**Hsinying**	**2.51 331**	⇓*iP*	**Pn**	17 59 45.3	**-0.1**
TWK			*i* S	**Sn**	18 00 14.1	**-1.7**
CHN4	**Tsaushan**	**2.54 334**	⇓*iP*	**Pn**	17 59 45.8	**+0.1**
CHN4			S	**Sn**	18 00 14.9	**-1.4**
YUS	**Yu-Shan**	**2.54 342**	P	**Pn**	17 59 46.9	**+0.7**
YUS			*eS*	**Sn**	18 00 16.6	**-0.5**
SCLT	**Jiali**	**2.58 325**	⇓*iP*	**Pn**	17 59 46.6	**+0.4**
SCLT			S	**Sn**	18 00 16.0	**-1.3**
ALS	**Alishan**	**2.61 339**	⇓*iP*	**Pn**	17 59 47.1	**+0.3**
ALS			*i* S	**Sn**	18 00 17.2	**-1.1**
WCKO	**Fanlu**	**2.61 335**	⇓*iP*	**Pn**	17 59 46.5	**-0.2**
WCKO			*i* S	**Sn**	18 00 16.1	**-2.0**
TSCK	**Chigu Township**	**2.62 323**	⇓*iP*	**Pn**	17 59 47.0	**+0.2**
TSCK			S	**Sn**	18 00 16.2	**-1.9**
PACPP	**Pamplona Cagay**	**2.63 190**	*i P*	**Pn**	17 59 47.5	**+0.6**
PACPP			*i* S	**Sn**	18 00 16.8	**-1.7**
TEGC	**Jichi Village**	**2.64 355**	*eP*	**Pn**	17 59 47.5	**+0.4**
WARBT	**Fenglin Townsh**	**2.67 352**	P	**Pn**	17 59 47.1	**-0.3**
WARBT			S	**Sn**	18 00 18.6	**-0.8**
ICHU	**Yijhu**	**2.69 328**	⇓*iP*	**Pn**	17 59 47.6	**-0.1**
ICHU			*i* S	**Sn**	18 00 19.0	**-0.9**
CHN8	**Yiju**	**2.71 327**	⇓*iP*	**Pn**	17 59 48.0	**0.0**
CHN8			S	**Sn**	18 00 18.6	**-1.8**
SHUL	**Shoufeng**	**2.72 355**	*eP*	**Pn**	17 59 48.4	**+0.3**
SHUL			*eS*	**Sn**	18 00 20.0	**+1.5**
CHN5	**Tsauling**	**2.73 338**	P	**Pn**	17 59 48.2	**-0.1**
CHN5			S	**Sn**	18 00 19.7	**-1.2**
CHY	**Chiayi**	**2.74 332**	*i P*	**Pn**	17 59 48.3	**-0.1**
CHY			S	**Sn**	18 00 18.9	**-2.2**
VWDT	**VWDT**	**2.75 347**	*eP*	**Pn**	17 59 49.4	**+0.9**
VWDT			*eS*	**Sn**	18 00 21.8	**+0.6**
CHN2	**Minshiung**	**2.75 333**	P	**Pn**	17 59 48.6	**+0.2**
CHN2			S	**Sn**	18 00 20.3	**-1.0**
ESL	**Shilin**	**2.76 353**	*eP*	**Pn**	17 59 48.3	**-0.3**
ESL			*eS*	**Sn**	18 00 20.2	**-1.3**
WHYT	**Xinyi Township**	**2.77 341**	P	**Pn**	17 59 48.9	**+0.2**
WHYT			S	**Sn**	18 00 20.3	**-1.4**
TEYL	**Yanliau Villag**	**2.80 356**	*eP*	**Pn**	17 59 50.1	**+1.0**
SSLB	**Suanglung**	**2.82 344**	P	**Pn**	17 59 50.2	**+0.7**
SSLB	**Suanglung**	**2.82 344**		**Pn**	17 59 49.4	**-0.1**
SSLB			*Sn*	**Sn**	18 00 19.7	**-3.4**
SSLB	**Suanglung**	**2.82 344**	P	**Pn**	17 59 50.7	**+1.5**
SSLB	**Suanglung**	**2.82 344**	P	**Pn**	17 59 49.7	**+0.2**
SSLB			*eS*	**Sn**	18 00 20.5	**-2.6**
WSL	**Shuilin Townsh**	**2.85 329**	⇓*iP*	**Pn**	17 59 49.5	**-0.3**
WSL			S	**Sn**	18 00 21.3	**-2.4**
WGK	**Gukeng**	**2.85 336**	P	**Pn**	17 59 49.6	**-0.2**
WGK			S	**Sn**	18 00 22.6	**-1.1**
WDLH	**Douliu**	**2.87 336**	*eP*	**Pn**	17 59 50.0	**0.0**
WDLH			S	**Sn**	18 00 21.9	**-2.1**
WDL	**Douliou City**	**2.89 336**	*eP*	**Pn**	17 59 50.4	**+0.1**
WDL			*eS*	**Sn**	18 00 22.6	**-2.0**
ETM	**Tongmen**	**2.90 354**	*eP*	**Pn**	17 59 50.7	**+0.2**
ETM			*eS*	**Sn**	18 00 23.3	**-1.5**
HWA	**Hwalien**	**2.90 356**	*eP*	**Pn**	17 59 50.7	**+0.2**
WJS	**Zhushan**	**2.92 340**	P	**Pn**	17 59 50.9	**+0.2**
WTK	**Tuku**	**2.92 333**	⇓P	**Pn**	17 59 50.0	**-0.8**
WTK			*eS*	**Sn**	18 00 23.4	**-2.0**
SMLT	**Sun Moon Lake**	**2.93 343**	*eP*	**Pn**	17 59 50.8	**-0.2**
SMLT			*eS*	**Sn**	18 00 23.1	**-2.6**
OWD	**Renai**	**2.94 349**	P	**Pn**	17 59 51.6	**+0.5**
OWD			*eS*	**Sn**	18 00 24.6	**-1.3**
PIP	**Pasuquin**	**2.95 203**	*eP*	**Pn**	17 59 51.8	**+0.6**
PIP			*i* S	**Sn**	18 00 24.1	**-1.9**
WSF	**Szhu**	**2.96 330**	⇓*iP*	**Pn**	17 59 50.6	**-0.5**
WSF			S	**Sn**	18 00 23.7	**-2.4**
WDGT	**Dungji**	**2.96 318**	⇓*iP*	**Pn**	17 59 50.7	**-0.5**
WDGT			S	**Sn**	18 00 23.3	**-3.0**
TYC	**Yuchr**	**2.96 343**	*eP*	**Pn**	17 59 51.1	**-0.1**
TYC			*eS*	**Sn**	18 00 25.6	**-0.6**
LXIB	**Xiulin Townshi**	**2.96 353**	P	**Pn**	17 59 51.2	**-0.2**
LXIB			*eS*	**Sn**	18 00 25.0	**-1.6**
WUSB	**Renai**	**2.98 348**	*i P*	**Pn**	17 59 52.2	**+0.5**
WUSB			*eS*	**Sn**	18 00 26.0	**-1.0**
WNT	**Mingjian**	**2.99 340**	P	**Pn**	17 59 51.8	**+0.1**
WNT			S	**Sn**	18 00 25.3	**-1.6**
TWD	**Chiawan**	**3.01 356**	P	**Pn**	17 59 51.9	**+0.1**
TWD			*eS*	**Sn**	18 00 25.6	**-1.6**
VCHM	**Qimei**	**3.07 314**	*i P*	**Pn**	17 59 52.3	**-0.4**
VCHM			S	**Sn**	18 00 25.6	**-3.2**
EOS4	**EOS4**	**3.08 9**	*eP*	**Pn**	17 59 53.3	**+0.8**
ETL	**Fush Village**	**3.08 357**	*eP*	**Pn**	17 59 53.0	**+0.1**
WCS	**Beigang Elemen**	**3.09 345**	*eP*	**Pn**	17 59 53.9	**+0.9**
WCS			*eS*	**Sn**	18 00 29.1	**-0.3**
NACB	**Ninganchiao**	**3.10 356**	P	**Pn**	17 59 53.2	**+0.1**
NACB	**Ninganchiao**	**3.10 356**		**Pn**	17 59 53.1	**0.0**
NACB			*Sn*	**Sn**	18 00 27.1	**-2.5**
NACB	**Ninganchiao**	**3.10 356**	P	**Pn**	17 59 53.3	**+0.2**
NACB	**Ninganchiao**	**3.10 356**	⇓*iP*	**Pn**	17 59 53.1	**0.0**
WHF	**Hehuan Shan**	**3.11 351**	*eP*	**Pn**	17 59 54.1	**+0.5**
WHF			*eS*	**Sn**	18 00 29.9	**-0.4**
RLNB	**Erlin**	**3.12 335**	*eP*	**Pn**	17 59 52.8	**-0.5**
RLNB			*eS*	**Sn**	18 00 28.2	**-1.7**
WTCT	**Ta-ch'eng**	**3.13 333**	*eP*	**Pn**	17 59 53.4	**0.0**
WTCT			S	**Sn**	18 00 27.0	**-1.5**
ETLH	**Xiulin Townshi**	**3.14 354**	*eP*	**Pn**	17 59 53.5	**-0.2**
PHUB	**P'eng-hu**	**3.20 320**	⇓*iP*	**Pn**	17 59 53.8	**-0.6**
PHUB			*i* S	**Sn**	18 00 27.8	**-4.2**
FUSS	**Fushou**	**3.21 351**	P	**Pn**	17 59 55.6	**+0.8**
FUSS			*eS*	**Sn**	18 00 31.5	**-1.0**
WCH1	**Changhua City**	**3.21 339**	*eP*	**Pn**	17 59 54.7	**+0.1**
WCH1			*eS*	**Sn**	18 00 30.5	**-1.7**
WCHH	**Zhanghua**	**3.22 339**	P	**Pn**	17 59 54.8	**+0.2**
WCHH			S	**Sn**	18 00 30.5	**-1.8**
TWT	**Tachien**	**3.23 350**	*eP*	**Pn**	17 59 56.7	**+1.7**
TWT			*eS*	**Sn**	18 00 33.1	**+0.2**
TDCB	**Techi**	**3.23 349**	*eP*	**Pn**	17 59 56.1	**+1.2**
TDCB			*eS*	**Sn**	18 00 31.5	**-1.4**
EOS3	**EOS3**	**3.24 8**	*eP*	**Pn**	17 59 56.0	**+1.2**
TCU	**Taichung**	**3.24 341**	*eP*	**Pn**	17 59 54.9	**-0.1**
TCU			*eS*	**Sn**	18 00 31.4	**-1.5**
EAHA	**Aohua**	**3.25 359**	*eP*	**Pn**	17 59 54.7	**-0.4**
PNG	**Penghu**	**3.25 320**	⇓*iP*	**Pn**	17 59 54.4	**-0.7**
PNG			S	**Sn**	18 00 29.4	**-3.8**
WHP	**Taichung City**	**3.30 346**	*eP*	**Pn**	17 59 56.2	**+0.5**
WHP			*eS*	**Sn**	18 00 33.6	**-0.8**
CVP	**Callao Caves**	**3.34 180**	*eP*	**Pn**	17 59 57.3	**+0.9**
CVP			*eS*	**Sn**	18 00 36.9	**+1.5**
ENA	**Nanau**	**3.35 359**	*eP*	**Pn**	17 59 56.7	**+0.3**
EOS2	**EOS2**	**3.36 6**	*eP*	**Pn**	17 59 58.2	**+1.8**
EWUT	**Wuta**	**3.36 359**	*eP*	**Pn**	17 59 57.1	**+0.5**
NNSB	**Datong**	**3.37 353**	*eP*	**Pn**	17 59 57.9	**+1.1**
NNSB			*eS*	**Sn**	18 00 36.9	**+0.7**
SIPP	**Brgy, Tapao**	**3.38 202**	*eP*	**Pn**	17 59 58.1	**+1.2**
SIPP			*eS*	**Sn**	18 00 36.8	**+0.6**
NNS	**Nan Shan**	**3.38 353**	*eP*	**Pn**	17 59 58.5	**+1.5**
NNS			S	**Sn**	18 00 37.4	**+0.8**
TWQ1	**Liyutan**	**3.41 344**	*eP*	**Pn**	17 59 57.8	**+0.6**
TWQ1			*eS*	**Sn**	18 00 36.4	**-0.5**
WDJ	**Dajia District**	**3.44 342**	*eP*	**Pn**	17 59 57.7	**0.0**
WDJ			*eS*	**Sn**	18 00 36.7	**-1.0**
LATG	**Datong**	**3.46 356**	*eP*	**Pn**	17 59 58.6	**+0.6**
LATG			*eS*	**Sn**	18 00 37.4	**-1.1**
ESAO	**Su ao**	**3.49 0**	*eP*	**Pn**	17 59 58.8	**+0.5**
HATJ	**Hateruma jima**	**3.50 31**	*eP*	**Pn**	17 59 59.1	**+0.7**
HATJ			*eS*	**Sn**	18 00 39.0	**-0.1**
TWC	**Suao**	**3.53 1**	*eP*	**Pn**	17 59 59.1	**+0.3**
JYNG	**Yonagunijimaku**	**3.53 17**	*eP*	**Pn**	17 59 59.3	**+0.5**
JYNG			*eS*	**Sn**	18 00 37.8	**-2.0**
NDT	**Datong Townshi**	**3.53 356**	*eP*	**Pn**	17 59 59.8	**+0.9**
NDT			*eS*	**Sn**	18 00 40.0	**+0.1**
NDS	**Dongshan**	**3.55 359**	*eP*	**Pn**	17 59 59.9	**+0.8**
YOJ	**Yonaguni jima**	**3.56 18**	P	**Pn**	18 00 00.5	**+1.3**
YOJ	**Yonaguni jima**	**3.56 18**	P	**Pn**	17 59 59.7	**+0.5**
YOJ					18 00 39.8	
YOJ	**Yonaguni jima**	**3.56 18**		**Pn**	17 59 59.7	**+0.5**
YOJ			*Sn*	**Sn**	18 00 39.8	**-0.6**
YOJ	**Yonaguni jima**	**3.56 18**	P	**Pn**	18 00 00.8	**+1.6**
YOJ	**Yonaguni jima**	**3.56 18**	*eP*	**Pn**	18 00 00.1	**+0.9**
YOJ	**Yonaguni jima**	**3.56 18**	*eP*	**Pn**	18 00 00.1	**+0.9**
YOJ			*eS*	**Sn**	18 00 40.7	**+0.2**
ENTT	**Nioudou**	**3.56 356**	*eP*	**Pn**	18 00 00.2	**+0.9**
ENTT			*eS*	**Sn**	18 00 40.8	**+0.1**
NFF	**Wufeng Townshi**	**3.61 350**	*eP*	**Pn**	18 00 00.5	**+0.6**
YHNB	**Yeheng**	**3.61 354**	P	**Pn**	18 00 01.2	**+1.3**
YHNB	**Yeheng**	**3.61 354**		**Pn**	18 00 00.8	**+0.9**
YHNB			*Sn*	**Sn**	18 00 41.3	**-0.6**
YHNB	**Yeheng**	**3.61 354**	P	**Pn**	18 00 01.6	**+1.6**
YHNB	**Yeheng**	**3.61 354**	*eP*	**Pn**	18 00 01.3	**+1.3**
YHNB			*eS*	**Sn**	18 00 42.4	**+0.5**
NSK	**Sanguang**	**3.62 353**	*eP*	**Pn**	18 00 01.0	**+0.9**
NSK			*eS*	**Sn**	18 00 40.9	**-1.1**
NSTT	**Nanjuang**	**3.63 348**	*eP*	**Pn**	17 59 59.8	**-0.3**
LIOB	**Emei**	**3.64 348**	*eP*	**Pn**	17 59 59.2	**-1.1**
LIOB			*eS*	**Sn**	18 00 41.2	**-1.3**
TWE	**Neicheng**	**3.64 358**	*eP*	**Pn**	18 00 01.5	**+1.2**
FUSB	**Fushanzhiwuyua**	**3.68 357**	*eP*	**Pn**	18 00 01.3	**+0.3**
FUSB			*eS*	**Sn**	18 00 44.0	**+0.4**
IRIF	**Iriomote-Funau**	**3.70 28**	P	**Pn**	18 00 01.9	**+0.8**
IRIF			*eS*	**Sn**	18 00 43.9	**0.0**
NWLT	**Wulai**	**3.71 356**	*eP*	**Pn**	18 00 02.8	**+1.6**
NWLT			*eS*	**Sn**	18 00 41.1	**-2.9**
SZP	**Santa**	**3.72 200**	P	**Pn**	18 00 01.4	**0.0**
SZP	**Santa**	**3.72 200**		**Pn**	18 00 01.6	**+0.2**
SZP			*Sn*	**Sn**	18 00 44.6	**+0.1**
SZP	**Santa**	**3.72 200**	P	**Pn**	18 00 03.7	**+2.3**
KSHI	**Guanxi Townshi**	**3.74 351**	*eP*	**Pn**	18 00 01.7	**+0.1**
KSHI			*eS*	**Sn**	18 00 45.5	**+0.6**
JKRS	**Kuro-shima**	**3.75 32**	P	**Pn**	18 00 02.7	**+1.0**
JKRS			*eS*	**Sn**	18 00 45.1	**0.0**
TIPB	**Shuangxi**	**3.89 0**	*eP*	**Pn**	18 00 05.8	**+2.1**
TATO	**Taipei**	**3.90 356**		**Pn**	18 00 03.7	**-0.1**
TATO			*Sn*	**Sn**	18 00 47.2	**-1.6**
JIJ	**Ishigaki jima**	**3.92 33**	P	**Pn**	18 00 04.2	**+0.1**
JIJ			*eS*	**Sn**	18 00 48.2	**-1.1**
WFSB	**Wu-fen Shan**	**3.99 360**	*eP*	**Pn**	18 00 07.2	**+2.2**
SXI1	**Grass Mountain**	**4.01 1**	*eP*	**Pn**	18 00 05.9	**+0.6**
SXI

INU	**Inuyama**	**19.51**	**40**	P		**Pn**	**18 03 26.7**	**-0.1**
INU	**Inuyama**	**19.51**	**40**			**P**	**18 03 24.0**	**-0.5**
INU	**Inuyama**	**19.51**	**40**	P		**Pn**	**18 03 27.8**	**+1.0**
	comp=Z,50nm,1.1s							
MNI	**Manado**	**19.72**	**171**	P		**P**	**18 03 27.0**	**0.0**
	comp=Z,206nm,1.0s							
TOLI2	**Tolitoli**	**19.86**	**183**	P		**P**	**18 03 29.7**	**+1.3**
TOLI2	**Tolitoli**	**19.86**	**183**			**P**	**18 03 28.5**	**+0.1**
TOLI2				IAmb		IAmb	18 03 31.8	
	comp=Z,46nm,0.7s							
TOLI2	**Tolitoli**	**19.86**	**183**	P		**P**	**18 03 29.3**	**+0.9**
	comp=Z,69nm,1.4s							
JGF	**Kuroka**	**19.88**	**40**	P		**Pn**	**18 03 30.8**	**-0.4**
JGF	**Kuroka**	**19.88**	**40**	P		**P**	**18 03 28.3**	**-0.3**
JGF				IAmb		IAmb	18 03 31.9	
	comp=Z,40nm,0.8s							
GTOI	**Gorontalo**	**20.34**	**177**	P		**P**	**18 03 33.4**	**-0.2**
	comp=Z,1µmcomp=Z,83nm,0.6s							
KMSI	**Cibinong**	**20.48**	**174**	P		**P**	**18 03 36.2**	**+1.2**
SBUM	**Sibu**	**20.73**	**208**	P		**P**	**18 03 39.6**	**+1.8**
SBUM	**Sibu**	**20.73**	**208**	P		**P**	**18 03 37.5**	**-0.3**
SBUM	**Sibu**	**20.73**	**208**	P		**P**	**18 03 39.1**	**+1.3**
SBUM	**Sibu**	**20.73**	**208**	P		**P**	**18 03 39.4**	**+1.6**
	comp=Z,9.0nm,1.2s							
TNTI	**Ternate**	**20.89**	**164**	P		**P**	**18 03 38.7**	**-0.7**
TNTI	**Ternate**	**20.89**	**164**			**P**	**18 03 38.1**	**-1.4**
TNTI				IAmb		IAmb	18 03 39.9	
	comp=Z,77nm,1.1s							
TNTI	**Ternate**	**20.89**	**164**	P		**P**	**18 03 38.9**	**-0.6**
	comp=Z,992nmcomp=Z,47nm,0.5s							
TNTI	**Ternate**	**20.89**	**164**	P		**P**	**18 03 38.8**	**-0.7**
	comp=Z,68nm,0.9s							
MAJO	**Matsushiro**	**21.03**	**39**	P		**P**	**18 03 39.6**	**-1.3**
MAJO				pmax		pmax		
	comp=Z,28nm,1.1s							
MAJO	**Matsushiro**	**21.03**	**39**	P		**P**	**18 03 39.5**	**-1.3**
MJAR	**Matsushiro Arr**	**21.03**	**39**	P		**P**	**18 03 41.7**	**+0.9**
	comp=Z,7.0nm,0.9s,baz=220,slow=8.5,SNR=11							
	comp=Z,7.0nm,0.9s							
MJAR	**Matsushiro Arr**	**21.03**	**39**	P		**P**	**18 03 40.9**	**0.0**
MJAR				pmax		pmax		
	comp=Z,19nm,1.2s							
MJAR	**Matsushiro Arr**	**21.03**	**39**	P		**P**	**18 03 40.9**	**0.0**
MJB9	**Matsu-Tunnel**	**21.03**	**39**	P		**P**	**18 03 39.3**	**-1.5**
HHC	**Hu-ho-hao-te**	**21.56**	**338**⇓	*i*P		**P**	**18 03 47.6**	**+1.0**
HHC				pmax		pmax		
	comp=Z,22nm,0.9s							
CHTO	**Chiang Mai**	**21.61**	**268**	P		**P**	**18 03 50.8**	**+3.5**
CHTO	**Chiang Mai**	**21.61**	**268**	P		**P**	**18 03 45.9**	**-1.4**
CHTO				pmax		pmax		
	comp=Z,4.0nm,0.9s							
CHTO	**Chiang Mai**	**21.61**	**268**	P		**P**	**18 03 45.9**	**-1.4**
CMAR	**Chiang Mai Arr**	**21.68**	**267**	P		**P**	**18 03 50.1**	**+2.1**
	comp=Z,1.4nm,0.9s,baz=80,slow=12,SNR=12							
CMAR				ScP		**ScP**	**18 11 09.3**	**-3.2**
	comp=Z,1.1nm,0.9s,baz=78,slow=3.4,SNR=9.0							
CMAR				LR		LR	18 12 31.4	
	comp=Z,43nm,18.7s,baz=85,slow=37							
CMAR	**Chiang Mai Arr**	**21.68**	**267**	*i* P		**P**	**18 03 51.2**	**+3.2**
CMAR	**Chiang Mai Arr**	**21.68**	**267**	P		**P**	**18 03 45.3**	**-2.7**
LZH	**Lanzhou**	**21.70**	**317**	*e*P		**P**	**18 03 49.8**	**+1.6**
LZH				sP		sP	18 04 19.3	-2.7
LZH				pmax		pmax		
	comp=Z,29nm,1.2s							
LZDM	**Lanzhou Array**	**21.71**	**317**	P		**P**	**18 03 49.9**	**+1.5**
	comp=Z,2.7nm,0.3s,baz=134,slow=18,SNR=1.6							
	comp=Z,2.7nm,0.3s							
APSI	**Ampana**	**21.84**	**180**	P		**P**	**18 03 52.0**	**+2.3**
	comp=Z,1µmcomp=Z,102nm,1.0s							
PCI	**Palu**	**21.92**	**185**	P		**P**	**18 03 51.9**	**+1.4**
	comp=Z,831nmcomp=Z,42nm,0.7s							
LUWI	**Luwuk**	**21.99**	**177**	P		**P**	**18 03 50.6**	**-0.6**
LUWI	**Luwuk**	**21.99**	**177**			**P**	**18 03 49.6**	**-1.6**
LUWI	**Luwuk**	**21.99**	**177**	P		**P**	**18 03 50.9**	**-0.3**
	comp=Z,1µmcomp=Z,107nm,1.1s							
LUWI	**Luwuk**	**21.99**	**177**	P		**P**	**18 03 50.9**	**-0.3**
	comp=Z,106nm,1.1s							
BTO2	**Baotou**	**22.09**	**335**	*e*P		**P**	**18 03 52.7**	**+0.5**
BTO2				pP		**pwP**	**18 04 15.6**	**+1.0**
BTO2				PP		**sP**	**18 04 25.0**	**-0.9**
BTO2				pmax		pmax		
	comp=Z,59nm,1.0s							
BKB	**Balikpapan**	**22.70**	**193**	P		**P**	**18 03 55.9**	**-2.7**
XLT	**XiLinHaoTe**	**23.27**	**349**	*e*P		**P**	**18 04 02.4**	**-1.4**
XLT				sP		sP	18 04 37.9	-0.8
XLT				pmax		pmax		
	comp=Z,11nm,0.7s							
SANI	**Sanana**	**23.33**	**169**	P		**P**	**18 04 04.6**	**+0.1**
SANI	**Sanana**	**23.33**	**169**	P		**P**	**18 04 04.2**	**-0.3**
	comp=Z,634nmcomp=Z,49nm,0.6s							
SANI	**Sanana**	**23.33**	**169**	P		**P**	**18 04 03.7**	**-0.9**
	comp=Z,47nm,0.6s							
SIJI	**Sorong**	**23.68**	**156**	P		**P**	**18 04 07.5**	**-0.2**
	comp=Z,17nm,0.5s							
MMSI	**Mamuju**	**23.78**	**187**	P		**P**	**18 04 10.8**	**+2.2**
	comp=Z,77nm,0.9s							
TTSI	**Tana Toraja**	**24.04**	**185**	P		**P**	**18 04 12.6**	**+1.7**
	comp=Z,57nm,0.9s							
USA0B	**Ussuriysk Arra**	**24.57**	**18**	P		**P**	**18 04 14.5**	**-1.0**
USA0B				pmax		pmax		
	comp=Z,16nm,1.2s							
USA0B	**Ussuriysk Arra**	**24.57**	**18**	P		**P**	**18 04 14.5**	**-1.0**
USRK	**Ussuriysk Ar.**	**24.57**	**18**	P		**P**	**18 04 15.9**	**+0.5**
	comp=Z,4.2nm,0.5s,baz=204,slow=7.2,SNR=12							
	comp=Z,4.2nm,0.5s							
USRK	**Ussuriysk Ar.**	**24.57**	**18**	P		**P**	**18 04 14.8**	**-0.6**
PMSI	**Majene**	**24.58**	**187**	P		**P**	**18 04 18.4**	**+2.6**
	comp=Z,1µmcomp=Z,64nm,0.8s							
NLAI	**Namlea**	**24.70**	**167**	P		**P**	**18 04 17.5**	**+0.6**
	comp=Z,1µmcomp=Z,121nm,1.1s							
BNX	**BinXian**	**25.04**	**9**	⇑P		**P**	**18 04 21.8**	**+2.1**
BNX				pmax		pmax		
	comp=Z,13nm,0.9s							
JTM	**Tenmabayashi**	**25.57**	**35**	P		**P**	**18 04 22.9**	**-1.8**
FAKI	**Fak Fak**	**25.94**	**156**	P		**P**	**18 04 26.8**	**-1.3**
FAKI				IAmb		IAmb	18 04 29.7	
	comp=Z,38nm,0.8s							
GTA2	**Gaotai**	**26.34**	**319**	*e*P		**P**	**18 04 33.0**	**+1.3**
GTA2				pP		pP	18 04 53.6	-1.1
GTA2				pmax		pmax		
	comp=Z,9.0nm,0.9s							
HILR	**Hailar Array B**	**28.48**	**357**	P		**P**	**18 04 52.5**	**+1.9**
	comp=Z,1.1nm,0.3s,baz=194,slow=12,SNR=2.4							
	comp=Z,1.1nm,0.3s							
ASAJ	**Asahikawa**	**28.74**	**32**	P		**P**	**18 04 53.8**	**+0.8**
	comp=Z,3.7nm,0.4s,baz=205,slow=19,SNR=11							
	comp=Z,3.7nm,0.4s							
ASAJ	**Asahikawa**	**28.74**	**32**	P		**P**	**18 04 52.4**	**-0.5**
ASAJ				pmax		pmax		
	comp=Z,43nm,1.2s							
JKA	**Kamikawa-asahi**	**28.74**	**32**	P		**P**	**18 04 52.4**	**-0.5**
JKA				IAmb		IAmb	18 05 35.7	
	comp=Z,43nm,1.2s							
KLR	**Kul'dur**	**29.20**	**13**	P		**P**	**18 04 56.7**	**-0.3**
	comp=Z,3.1nm,0.6s,baz=186,slow=9.9,SNR=11							
KLR				LR		LR	18 16 55.4	
	comp=Z,55nm,18.5s,baz=88,slow=36							
	comp=Z,3.1nm,0.6s							
KLR	**Kul'dur**	**29.20**	**13**	*ce*P		**P**	**18 04 56.8**	**-0.1**
KLR				pmax		pmax		
	comp=Z,4.0nm,0.6s							
ULN	**Ulaanbaatar**	**29.27**	**339**	*ce*P		**P**	**18 04 57.7**	**-0.1**
ULN				pmax		pmax		
	comp=Z,17nm,0.6s							
ULN	**Ulaanbaatar**	**29.27**	**339**	P		**P**	**18 04 57.5**	**-0.3**
ULN				IAmb		IAmb	18 04 59.7	
	comp=Z,22nm,0.7s							
ULN	**Ulaanbaatar**	**29.27**	**339**	P		**P**	**18 04 58.2**	**+0.4**
ULN	**Ulaanbaatar**	**29.27**	**339**	P		**P**	**18 04 58.7**	**+0.9**
	comp=Z,37nm,0.8s							
LBFI	**Labuhan Bajo,**	**29.42**	**184**	P		**P**	**18 04 59.7**	**+0.5**
SONM	**Songino Array**	**29.46**	**339**	P		**P**	**18 04 59.5**	**0.0**
	comp=Z,11nm,0.6s,baz=153,slow=10,SNR=72							
SONM				ScP		**ScP**	**18 11 32.2**	**-2.3**
	comp=Z,0.3nm,0.6s,baz=160,slow=4.9,SNR=2.6							
SONM				LR		LR	18 16 31.3	
	comp=Z,96nm,18.5s,baz=113,slow=35							
	comp=Z,11nm,0.6s							
SONM	**Songino Array**	**29.46**	**339**	P		**P**	**18 04 59.2**	**-0.3**
SONM				IAmb		IAmb	18 05 01.4	
	comp=Z,11nm,0.7s							
MMRI	**Maumere**	**29.52**	**179**	P		**P**	**18 05 01.3**	**+1.2**
MMRI	**Maumere**	**29.52**	**179**	P		**P**	**18 05 00.2**	**+0.2**
MMRI	**Maumere**	**29.52**	**179**	P		**P**	**18 05 00.9**	**+0.8**
	comp=Z,43nm,0.9s							
MMRI	**Maumere**	**29.52**	**179**	P		**P**	**18 05 00.8**	**+0.7**
	comp=Z,43nm,0.9s							
EDFI	**Ende, Flores**	**29.63**	**180**	P		**P**	**18 05 01.2**	**0.0**
KRJI	**Kerinci**	**30.44**	**223**	P		**P**	**18 05 08.9**	**+0.5**
MDSI	**Maura Dua**	**30.73**	**216**	P		**P**	**18 05 12.4**	**+1.6**
	comp=Z,15nm,1.0s							
YSS	**Yuzhno-Sakhali**	**30.92**	**28**	*e*P		**P**	**18 05 13.6**	**+1.4**
YSS				pmax		pmax		
	comp=Z,20nm,1.1s							
TLY	**Talaya**	**33.68**	**340**	LR		LR	18 19 48.0	
	comp=Z,77nm,18.9s,baz=142,slow=37							
MTN	**Manton Dam**	**34.92**	**164**	P		**P**	**18 05 45.3**	**-2.0**
WMQ	**Urumqi**	**36.27**	**317**	*e*P		**P**	**18 06 00.4**	**+1.7**
KNRA	**Kununurra**	**37.15**	**169**			**P**	**18 06 04.6**	**-1.6**
KNRA				IAmb		IAmb	18 06 05.9	
	comp=Z,18nm,1.2s							
FITZ	**Fitzroy Crossi**	**39.10**	**174**	P		**P**	**18 06 21.6**	**-1.0**
FITZ	**Fitzroy Crossi**	**39.10**	**174**	P		**P**	**18 06 21.3**	**-1.3**
FITZ	**Fitzroy Crossi**	**39.10**	**174**	P		**P**	**18 06 21.6**	**-1.0**
	comp=Z,3.9nm,1.0s							
DGZ	**Jazzator, Alta**	**39.44**	**325**	*i* P		**P**	**18 06 26.8**	**+1.4**
DGZ				pmax		pmax		
	comp=Z,16nm,0.6s							
ZSN	**Zaisan**	**39.73**	**320**	*e*P		**P**	**18 06 29.7**	**+2.1**
ZSN	**Zaisan**	**39.73**	**320**	*e*P		**P**	**18 06 29.8**	**+2.1**
MK31	**Makanchi Array**	**41.01**	**318**	P		**P**	**18 06 39.7**	**+1.5**
MKAR	**Makanchi Array**	**41.01**	**318**	P		**P**	**18 06 39.3**	**+1.1**
	comp=Z,22nm,0.5s,baz=111,slow=9.3,SNR=308							
MKAR				ScP		**ScP**	**18 12 12.9**	**-3.2**
	comp=Z,1.3nm,0.8s,baz=139,slow=4.4,SNR=6.3							
MKAR				LR		LR	18 23 09.4	
	comp=Z,46nm,18.1s,baz=330,slow=35							
	comp=Z,22nm,0.5s							
MKAR	**Makanchi Array**	**41.01**	**318**	*i* P		**P**	**18 06 39.7**	**+1.5**
MKAR				pmax		pmax		
	comp=Z,22nm,0.5s							
MKAR	**Makanchi Array**	**41.01**	**318**	P		**P**	**18 06 39.5**	**+1.3**
MAKZ	**Makanchi**	**41.21**	**318**	P		**P**	**18 06 41.0**	**+1.2**
MAKZ				pmax		pmax		
	comp=Z,23nm,0.8s							
MAKZ	**Makanchi**	**41.21**	**318**	P		**P**	**18 06 41.0**	**+1.2**
MAKZ	**Makanchi**	**41.21**	**318**	P		**P**	**18 06 41.4**	**+1.6**
	comp=Z,38nm,0.9s							
YAK	**Yakutsk**	**41.30**	**6**	LR		LR	18 26 19.4	
	comp=Z,68nm,18.1s,baz=266,slow=39							
YAK	**Yakutsk**	**41.30**	**6**	*e*P		**P**	**18 06 38.4**	**-1.8**
YAK				*e*			18 08 19.1	
YAK				*e*			18 08 35.5	
YAK				*e*S		**S**	**18 12 44.1**	**-2.0**
YAK				pmax		pmax		
	comp=Z,12nm,0.9s							
YAK				pmax		pmax		
	comp=E,7.0nm,1.5s							
YAK				pmax		pmax		
	comp=N,3.0nm,1.0s							
YAK				pmax		pmax		
	comp=Z,480nm,4.1s							
YAK				pmax		pmax		
	comp=N,519nm,3.1s							
YAK				pmax		pmax		
	comp=E,333nm,3.0s							
YAK				smax		smax		
	comp=E,323nm,3.2s							
YAK				smax		smax		
	comp=N,408nm,3.2s							
YAK	**Yakutsk**	**41.30**	**6**	P		**P**	**18 06 39.0**	**-1.2**
YAK	**Yakutsk**	**41.30**	**6**	P		**P**	**18 06 39.0**	**-1.2**
	comp=Z,30nm,1.1s							
SHLS	**Shalkode**	**41.53**	**312**	*e*P		**P**	**18 06 42.2**	**-0.4**
SHLS	**Shalkode**	**41.53**	**312**	*e*P		**P**	**18 06 42.2**	**-0.4**
PDGK	**Podgornoye**	**41.56**	**312**	P		**P**	**18 06 43.6**	**+0.7**
PDGK	**Podgornoye**	**41.56**	**312**	P		**P**	**18 06 43.6**	**+0.7**
UZB	**Uzynbulak**	**41.83**	**312**	*e*P		**P**	**18 06 47.2**	**+2.1**
UZB	**Uzynbulak**	**41.83**	**312**	*e*P		**P**	**18 06 47.2**	**+2.1**
PRZ	**Przheval'sk**	**42.07**	**311**	P		**P**	**18 06 49.0**	**+1.9**
PRZ				pmax		pmax		
	comp=Z,8.0nm,1.1s							
PRZ	**Przheval'sk**	**42.07**	**311**	P		**P**	**18 06 49.0**	**+1.9**
PEA0B	**Petropavlovsk-**	**42.16**	**32**	*ce*P		**P**	**18 06 45.7**	**-1.7**
PETK	**Petropavlovsk-**	**42.16**	**32**	P		**P**	**18 06 46.7**	**-0.8**
	comp=Z,3.5nm,0.7s,baz=230,slow=8.2,SNR=1.9							
PETK				LR		LR	18 25 57.5	
	comp=Z,33nm,21.1s,baz=272,slow=38							
	comp=Z,3.5nm,0.7s							
PETK	**Petropavlovsk-**	**42.16**	**32**	P		**P**	**18 06 47.2**	**-0.2**
PETK	**Petropavlovsk-**	**42.16**	**32**	P		**P**	**18 06 47.2**	**-0.2**
KPKS	**Kokpek**	**42.16**	**312**	*e*P		**P**	**18 06 49.9**	**+2.1**
KPKS	**Kokpek**	**42.16**	**312**	*e*P		**P**	**18 06 49.9**	**+2.1**
H11N1	**WAKE ISLAND Hy**	**42.17**	**84**	T		T	18 52 36.9	
	baz=282,slow=75,SNR=24							
H11N2	**WAKE ISLAND Hy**	**42.17**	**84**	T		T	18 52 40.8	
	baz=282,slow=75,SNR=27							
H11N3	**WAKE ISLAND Hy**	**42.19**	**84**	T		T	18 52 25.8	
	baz=282,slow=75,SNR=27							
H11S3	**WAKE ISLAND Hy**	**42.20**	**85**	T		T	18 52 43.5	
	baz=280,slow=74,SNR=57							
H11S1	**WAKE ISLAND Hy**	**42.21**	**85**	T		T	18 52 44.3	
	baz=280,slow=74,SNR=39							
H11S2	**WAKE ISLAND Hy**	**42.22**	**85**	T		T	18 52 21.8	
	baz=280							
SATY	**Saty**	**42.23**	**311**	*e*P		**P**	**18 06 50.4**	**+2.0**
SATY	**Saty**	**42.23**	**311**	*e*P		**P**	**18 06 50.4**	**+2.0**
TARG	**Taragay, Kyrgy**	**42.29**	**309**	P		**P**	**18 06 48.8**	**-0.4**
TARG				pmax		pmax		
	comp=Z,10.0nm,1.5s							
TARG	**Taragay, Kyrgy**	**42.29**	**309**	P		**P**	**18 06 48.8**	**-0.4**
WB0	**Warramunga Arr**	**42.41**	**162**	P		**P**	**18 06 47.9**	**-1.9**
WRAB	**Tennant Creek**	**42.55**	**162**	P		**P**	**18 06 49.6**	**-1.4**
WRAB	**Tennant Creek**	**42.55**	**162**	P		**P**	**18 06 49.1**	**-1.8**
WRAB				pmax		pmax		
	comp=Z,31nm,0.9s							
WRAB	**Tennant Creek**	**42.55**	**162**	P		**P**	**18 06 49.1**	**-1.8**
WRAB	**Tennant Creek**	**42.55**	**162**	P		**P**	**18 06 49.7**	**-1.3**
	comp=Z,44nm,1.0s							
WRA	**Warramunga Arr**	**42.56**	**162**	P		**P**	**18 06 47.7**	**-3.2**
	comp=Z,16nm,0.4s,baz=343,slow=8.1,SNR=162							
WRA				PcP		**PcP**	**18 08 41.1**	**-0.6**
	comp=Z,0.6nm,0.4s,baz=344,slow=3.3,SNR=2.0							
WRA				ScP		**ScP**	**18 12 19.1**	**-3.4**
	comp=Z,0.6nm,0.7s,baz=344,slow=4.3,SNR=5.9							
	comp=Z,16nm,0.4s							
WRA	**Warramunga Arr**	**42.56**	**162**	P		**P**	**18 06 47.8**	**-3.2**
PET	**Petropavlovsk**	**42.58**	**32**	P		**P**	**18 06 49.8**	**-1.1**
WR8	**Warramunga Arr**	**42.62**	**162**	P		**P**	**18 06 50.1**	**-1.4**
TDK	**Taldyqorghan**	**42.84**	**314**	*e*P		**P**	**18 06 55.3**	**+2.2**
TDK				pmax		pmax		
	comp=Z,29nm,1.4s							
TDK	**Taldyqorghan**	**42.84**	**314**	*e*P		**P**	**18 06 55.3**	**+2.2**
	comp=Z,28nm,1.4s							
ZAA0	**Zalesovo Array**	**43.19**	**329**	P		**P**	**18 06 55.5**	**-0.1**
ZAA0				IAmb		IAmb	18 06 57.0	
	comp=Z,23nm,0.8s							
ZALV	**Zalesovo Beam**	**43.19**	**329**	P		**P**	**18 06 55.9**	**+0.2**
	comp=Z,17nm,0.5s,baz=121,slow=8.4,SNR=13							
ZALV				ScP		**ScP**	**18 12 21.3**	**-3.3**
	comp=Z,0.4nm,0.4s,baz=126,slow=2.0,SNR=2.5							
ZALV				LR		LR	18 24 29.7	
	comp=Z,67nm,18.3s,baz=26,slow=35							
	comp=Z,17nm,0.5s							
ZALV	**Zalesovo Beam**	**43.19**	**329**	*i* P		**P**	**18 06 56.2**	**+0.5**
ZALV				pmax		pmax		
	comp=Z,17nm,0.5s							
MDOK	**Medeo**	**43.22**	**311**	*e*P		**P**	**18 06 58.5**	**+2.2**
MDOK	**Medeo**	**43.22**	**311**	*e*P		**P**	**18 06 58.6**	**+2.2**
TNSS	**Tian-Shan**	**43.25**	**311**	*e*P		**P**	**18 06 58.8**	**+1.9**
TNSS	**Tian-Shan**	**43.25**	**311**	*e*P		**P**	**18 06 58.8**	**+1.9**
AAA	**Alma-Ata**	**43.32**	**311**	*e*P		**P**	**18 06 59.2**	**+2.1**
AAA				pmax		pmax		
	comp=Z,5.0nm,0.4s							
AAA	**Alma-Ata**	**43.32**	**311**	*e*P		**P**	**18 06 59.2**	**+2.1**
	comp=Z,4.9nm,0.4s							
KSH2	**Kashi**	**43.37**	**305**	P		**P**	**18 07 00.2**	**+2.5**
KSH2				pmax		pmax		
	comp=Z,2.0nm,0.7s							
NRN	**Naryn**	**43.53**	**308**	P		**P**	**18 06 59.7**	**+0.6**
NRN						**pwP**	**18 07 29.0**	**+2.5**
GIRL	**Giralia**	**44.07**	**190**	P		**P**	**18 07 03.0**	**-0.1**
NIL	**Nilore**	**44.55**	**297**	P		**P**	**18 07 06.4**	**-0.6**
NIL				pmax		pmax		
	comp=Z,12nm,0.8s							
NIL	**Nilore**	**44.55**	**297**	P		**P**	**18 07 06.4**	**-0.6**
NIL				IAmb		IAmb	18 07 09.6	
	comp=Z,12nm,0.8s							
NIL	**Nilore**	**44.55**	**297**	P		**P**	**18 07 08.7**	**+1.8**
	comp=Z,18nm,0.9s							
MTSU	**Mount Surprise**	**44.77**	**149**	P		**P**	**18 07 09.7**	**+0.9**
	comp=Z,19nm,0.9s							
MTSU	**Mount Surprise**	**44.77**	**149**	P		**P**	**18 07 09.9**	**+1.1**
	comp=Z,19nm,0.9s							
KURK	**Kurchatov**	**44.87**	**322**	*ce*P		**P**	**18 07 09.9**	**+0.7**
KURK				pmax		pmax		
	comp=Z,31nm,0.8s							
KURK	**Kurchatov**	**44.87**	**322**	P		**P**	**18 07 09.4**	**+0.1**
KURK	**Kurchatov**	**44.87**	**322**	P		**P**	**18 07 10.5**	**+1.2**
	comp=Z,43nm,0.8s							
QIS	**Mount Isa**	**44.88**	**156**	P		**P**	**18 07 08.8**	**-0.8**
QIS	**Mount Isa**	**44.88**	**156**	P		**P**	**18 07 09.1**	**-0.5**
	comp=Z,34nm,0.8s							
KURBB	**Kurchatov Arra**	**44.88**	**322**	P		**P**	**18 07 10.0**	**+0.7**
	comp=Z,18nm,0.4s,baz=118,slow=7.5,SNR=156							
	comp=Z,18nm,0.4s							
AAK	**Ala-Archa**	**44.90**	**310**	P		**P**	**18 07 10.1**	**+0.3**
	comp=Z,0.7nm,0.3s,baz=101,slow=5.2,SNR=8.0							
AAK				LR		LR	18 29 12.3	
	comp=Z,68nm,19.5s,baz=81,slow=40							
	comp=Z,0.7nm,0.3s							
AAK	**Ala-Archa**	**44.90**	**310**	*ce*P		**P**	**18 07 11.5**	**+1.7**
AAK				pmax		pmax		
	comp=Z,3.0nm,1.2s							
AAK	**Ala-Archa**	**44.90**	**310**	P		**P**	**18 07 10.4**	**+0.6**
ARSB	**Arslanbob**	**45.72**	**308**	P		**P**	**18 07 17.4**	**+1.1**
ARSB				pmax		pmax		
	comp=Z,2.0nm,0.8s							
ARSB	**Arslanbob**	**45.72**	**308**	P		**P**	**18 07 17.4**	**+1.1**
BTLS	**Baital**	**45.81**	**313**	*e*P		**P**	**18 07 18.7**	**+2.0**
BTLS	**Baital**	**45.81**	**313**	*e*P		**P**	**18 07 18.8**	**+2.0**
AS31	**Alice Springs**	**45.99**	**165**	P		**P**	**18 07 17.5**	**-0.9**
ASAR	**Alice Springs**	**45.99**	**165**	P		**P**	**18 07 17.5**	**-0.9**
	comp=Z,11nm,0.3s,baz=347,slow=8.4,SNR=330							
ASAR				ScP		**ScP**	**18 12 33.9**	**-2.8**
	comp=Z,0.8nm,0.7s,baz=348,slow=4.8,SNR=8.7							
	comp=Z,11nm,0.3s							
ASAR	**Alice Springs**	**45.99**	**165**	P		**P**	**18 07 17.9**	**-0.5**
AS01	**Alice Springs**	**46.01**	**164**	P		**P**	**18 07 17.9**	**-0.6**
SEY	**Seymchan**	**46.71**	**19**	P		**P**	**18 07 24.4**	**+0.9**
	comp=Z,3.2nm,0.6s,baz=218,slow=12,SNR=9.3							
	comp=Z,3.2nm,0.6s							
DZA	**Taraz**	**47.23**	**309**	*e*P		**P**	**18 07 29.9**	**+2.0**
DZA	**Taraz**	**47.23**	**309**	*e*P		**P**	**18 07 29.9**	**+2.0**
CTAO	**Charters Tower**	**47.38**	**148**	P		**P**	**18 07 29.3**	**+0.1**
CTAO				pmax		pmax		
	comp=Z,18nm,1.3s							
CTAO	**Charters Tower**	**47.38**	**148**	P		**P**	**18 07 29.3**	**+0.1**
CTAO				IAmb		IAmb	18 07 43.6	
	comp=Z,18nm,1.2s							
KK31	**Karatay Array**	**47.86**	**310**	P		**P**	**18 07 33.5**	**+0.8**
KK31				pmax		pmax		
	comp=Z,3.0nm,0.5s							
KK31	**Karatay Array**	**47.86**	**310**	P		**P**	**18 07 33.5**	**+0.8**
KKAR	**Karatay Array**	**47.86**	**310**	P		**P**	**18 07 33.5**	**+0.8**
KKAR							18 08 59.4	
KKAR	**Karatay Array**	**47.86**	**310**	P		**P**	**18 07 33.5**	**+0.8**
KKAR						**PcP**	**18 08 59.4**	**-0.4**
IUG	**Iuzhnay**	**48.04**	**308**	*e*P		**P**	**18 07 36.3**	**+2.0**
IUG	**Iuzhnay**	**48.04**	**308**	*e*P		**P**	**18 07 36.3**	**+2.0**
KBL	**Kabul**	**48.08**	**298**	P		**P**	**18 07 36.8**	**+2.0**
	comp=Z,11nm,0.9s							
CHM	**Chimkent**	**48.38**	**308**	*e*P		**P**	**18 07 39.0**	**+2.2**
CHM	**Chimkent**	**48.38**	**308**	*e*P		**P**	**18 07 39.0**	**+2.2**
MORW	**Morawa**	**50.15**	**187**	P		**P**	**18 07 50.1**	**-0.1**
BVAR	**Borovoye Array**	**50.47**	**322**	P		**P**	**18 07 53.2**	**+0.8**
	comp=Z,16nm,0.5s,baz=106,slow=8.1,SNR=94							
BVAR				PcP		**PcP**	**18 09 08.2**	**-0.9**
	comp=Z,2.6nm,0.6s,baz=

AUSMG **Snowy Mountain** 62.53 156 P **P** 18 09 19.6 +1.4
KIRV **Kirov** 63.11 326 *ce*P **P** 18 09 22.3 +0.7
K13K **Kusilvak Mount** 63.89 30 P **P** 18 09 27.7 +1.0
K13K IAmb IAmb 18 09 28.5
comp=Z,13nm,1.0s
BELG **Belogornoye** 64.00 319 *i* P **P** 18 09 27.9 +0.3
BELG pmax pmax
comp=Z,4.0nm,0.9s
F15K **North Star Dit** 64.23 26 P **P** 18 09 29.9 +1.0
RDOG **Red Dog Mine** 65.14 24 P **P** 18 09 35.5 +0.7
H17K **Granite Mounta** 66.16 27 P **P** 18 09 42.6 +1.2
H17K IAmb IAmb 18 09 43.8
comp=Z,11nm,0.8s
M16K **Timber Creek** 66.60 31 P **P** 18 09 45.2 +1.0
M16K IAmb IAmb 18 09 46.4
comp=Z,14nm,0.6s
D19K **Kuna River** 66.95 23 P **P** 18 09 47.7 +1.3
E19K **Redstone River** 67.27 24 IAmb IAmb 18 09 50.4
comp=Z,12nm,0.7s
G19K **Purcell Mounta** 67.34 26 IAmb IAmb 18 09 50.8
comp=Z,13nm,1.0s
D20K **Etivluk River** 67.50 23 P **P** 18 09 51.0 +1.1
L18K **Granite Mounta** 67.64 30 IAmb IAmb 18 09 53.3
comp=Z,12nm,0.6s
VRH **Novokhopyorsk** 67.74 318 *e*P **P** 18 09 51.3 -0.3
VRH pmax pmax
comp=Z,20nm,0.7s
TAU **Tasmania Unive** 67.86 160 P **P** 18 09 52.5 +0.2
TAU pmax pmax
comp=Z,56nm,1.4s
TAU **Tasmania Unive** 67.86 160 P **P** 18 09 52.5 +0.2
F20K **Avaraart Lake** 67.87 25 IAmb IAmb 18 09 54.2
comp=Z,14nm,1.0s
KBZ **Khabaz** 67.90 310 P **P** 18 09 53.3 +0.6
comp=Z,6.0nm,0.8s,baz=76,slow=8.3,SNR=16
KBZ LR LR 18 45 26.1
comp=Z,58nm,18.9s,baz=12,slow=41
comp=Z,6.0nm,0.8s
KBZ **Khabaz** 67.90 310 *ce*P **P** 18 09 53.1 +0.4
KBZ pmax pmax
comp=Z,6.0nm,0.9s
P17K **Kvichak River** 67.95 33 P **P** 18 09 53.8 +1.0
KIV **Kislovodsk** 68.01 310 *e*P **P** 18 09 53.7 +0.1
KIV pmax pmax
comp=Z,15nm,1.0s
KIV **Kislovodsk** 68.01 310 P **P** 18 09 52.5 -1.1
KIV **Kislovodsk** 68.01 310 ⇑P **P** 18 09 54.4 +0.8
KIV **Kislovodsk** 68.01 310 P **P** 18 09 55.2 +1.6
comp=Z,22nm,0.9s
J19K **Poorman** 68.04 28 P **P** 18 09 53.8 +0.5
J19K IAmb IAmb 18 09 56.0
comp=Z,19nm,1.3s
SHA1 **Shidzhatmaz** 68.07 310 *ce*P **P** 18 09 54.1 0.0
L19K **White Mountain** 68.50 30 IAmb IAmb 18 09 58.6
comp=Z,13nm,1.0s
D22K **Ayikyak River** 68.93 23 IAmb IAmb 18 10 01.4
comp=Z,22nm,1.1s
VORR **Voronezh** 69.24 319 *e*P **P** 18 09 59.6 -1.3
VORR pmax pmax
comp=Z,20nm,0.4s
LPSR **Galich'ya Gora** 69.29 320 *e*P **P** 18 10 00.5 -0.7
LPSR pmax pmax
comp=Z,20nm,0.7s
VORD **Divnogorie** 69.29 318 *e*P **P** 18 10 00.2 -1.0
VORD pmax pmax
comp=Z,9.0nm,0.6s
ERBR **Yeremizino-Bor** 69.29 312 *e*P **P** 18 10 01.9 +0.5
ERBR *e**PP **pP** 18 10 27.1 -0.9
ERBR *e*S **S** 18 19 05.2 +5.9
ERBR pmax pmax
comp=Z,19nm,0.7s
VSR **Storozhevoye** 69.33 318 *e*P **P** 18 10 01.2 -0.3
VSR pmax pmax
comp=Z,6.0nm,0.5s
I21K **Tanana** 69.51 27 IAmb IAmb 18 10 04.8
comp=Z,16nm,0.9s
D23K **Nanushuk River** 69.64 23 **P** 18 10 04.5 +1.4
CAST **Castle Rocks** 69.65 29 P **P** 18 10 04.1 +0.8
H22K **Ishtalitna Cre** 69.69 26 IAmb IAmb 18 10 06.1
comp=Z,22nm,1.1s
RAYN **Ar Rayn** 69.84 288 P **P** 18 10 05.7 +0.5
RAYN pmax pmax
comp=Z,11nm,1.3s
RAYN **Ar Rayn** 69.84 288 **P** 18 10 05.7 +0.5
RAYN **Ar Rayn** 69.84 288 P **P** 18 10 06.4 +1.2
comp=Z,5.3nm,1.0s
MLY **Manley** 70.05 27 IAmb IAmb 18 10 07.8
comp=Z,16nm,0.9s
BPAW **Bear Paw Mtn.** 70.06 28 IAmb IAmb 18 10 07.7
comp=Z,28nm,1.3s
TOLK **Toolik Lake Re** 70.08 23 P **P** 18 10 06.5 +0.6
TOLK IAmb IAmb 18 10 07.7
comp=Z,14nm,1.0s
APA **Apatity** 70.13 336 *e*P P 18 10 00.0 -6.1
APA *e**PP **PcP** 18 10 27.4 0.0
APA *e* 18 12 42.4
APA pmax pmax
comp=Z,9.0nm,1.1s
APA MLR MLR
comp=Z,4μm,18.4s
E23K **Chandalar** 70.13 24 IAmb IAmb 18 10 08.4
comp=Z,15nm,0.9s
G23K **Bananza Creek** 70.14 25 IAmb IAmb 18 10 08.4
comp=Z,11nm,1.0s
KTH **Kantishna Hill** 70.16 28 IAmb IAmb 18 10 08.4
comp=Z,12nm,0.9s
KOPT **Kop Dagi** 70.30 306 IAmb IAmb 18 10 14.3
comp=Z,12nm,0.8s
OBN **Obninsk** 70.31 323 ⇑*e*P **P** 18 10 07.8 +0.4
OBN 18 10 27.0
OBN *e**SP **sP** 18 10 42.9 -3.0
OBN *SS **sS** 18 19 57.0 -0.6
OBN pmax pmax
comp=Z,7.0nm,0.9s
E24K **Your Creek** 70.55 23 IAmb IAmb 18 10 10.7
comp=Z,15nm,0.8s
CNPM **China Poot** 70.56 33 P **P** 18 10 08.8 -0.2
I23K **Minto, Yukon-K** 70.61 27 IAmb IAmb 18 10 52.5
comp=Z,16nm,0.7s
NEA2 **Nenana** 70.82 27 IAmb IAmb 18 10 11.9
comp=Z,17nm,0.8s
F24K **Squaw Lake** 70.85 24 IAmb IAmb 18 10 12.7
comp=Z,14nm,0.8s
MCK **McKinley** 71.01 28 IAmb IAmb 18 10 13.2
comp=Z,21nm,1.0s
D25K **Kavik River** 71.12 22 IAmb IAmb 18 10 13.8
comp=Z,17nm,0.9s
G24K **Hadweenzic Riv** 71.14 25 IAmb IAmb 18 10 14.4
comp=Z,15nm,0.9s
WRH **Wood River Hil** 71.25 27 IAmb IAmb 18 10 14.7
comp=Z,11nm,0.9s
PMR **Palmer** 71.27 30 P **P** 18 10 13.3 +0.2
PMR **Palmer** 71.27 30 IAmb IAmb 18 10 13.7
comp=Z,11nm,0.7s
C26K **Camden Bay** 71.52 21 IAmb IAmb 18 10 16.9
comp=Z,18nm,1.1s
ANN **Anapa** 71.58 312 *e*P **P** 18 10 15.0 -0.3
ANN *e**PP **pP** 18 10 41.1 -0.9
ANN *eS **S** 18 19 30.8 +5.0
ANN pmax pmax
comp=Z,43nm,0.8s
KNK **Knik Glacier** 71.61 30 P **P** 18 10 15.5 +0.2
KNK IAmb IAmb 18 10 16.9
comp=Z,15nm,0.9s
F25K **Christian Rive** 71.69 24 IAmb IAmb 18 10 18.5
comp=Z,15nm,1.1s
ILAR **Eielson Array** 71.71 27 P **P** 18 10 14.3 -1.4
comp=Z,2.5nm,0.7s,baz=270,slow=5.7,SNR=20
comp=Z,2.5nm,0.7s
ILAR **Eielson Array** 71.71 27 P **P** 18 10 14.8 -0.9
ILAR **Eielson Array** 71.71 27 P **P** 18 10 14.8 -0.9
BMAR **Burnt Mountain** 72.12 24 P **P** 18 10 19.1 +0.8
K24K **Donnelly Dome** 72.37 28 IAmb IAmb 18 10 21.3
comp=Z,22nm,0.8s
ARCES **ARCESS Array B** 72.64 339 P **P** 18 10 21.0 -0.2
comp=Z,8.1nm,1.1s,baz=75,slow=4.8,SNR=18
comp=Z,8.1nm,1.1s
ARCES **ARCESS Array B** 72.64 339 P **P** 18 10 20.9 -0.2
ARCES pmax pmax
comp=Z,10.0nm,1.2s
ARCES **ARCESS Array B** 72.64 339 P **P** 18 10 20.9 -0.3
SPB2 **Spitsbergen Ar** 72.64 348 P **P** 18 10 19.5 -1.6
SPITS **Spitsbergen Ar** 72.64 348 P **P** 18 10 22.1 +1.0
comp=Z,23nm,0.9s,baz=78,slow=13,SNR=5.8
comp=Z,23nm,0.9s
SPITS **Spitsbergen Ar** 72.64 348 P **P** 18 10 20.0 -1.1
SPITS pmax pmax
comp=Z,107nm,1.4s
RIDG **Independent Ri** 72.79 28 IAmb IAmb 18 10 23.7
comp=Z,23nm,1.2s
DOT **Dot Lake** 73.15 28 P **P** 18 10 24.2 -0.2
I27K **Kandik River** 73.70 25 IAmb IAmb 18 10 29.6
comp=Z,20nm,1.1s
GLB **Gilahina Butte** 73.79 30 IAmb IAmb 18 10 29.8
comp=Z,19nm,1.0s
F28M **Old Crow** 73.84 23 IAmb IAmb 18 10 30.6
comp=Z,18nm,1.2s
M26K **Nabesna, AK** 73.93 29 IAmb IAmb 18 10 30.5
comp=Z,14nm,0.8s
MCARA **McCarthy VSAT** 74.17 30 P **P** 18 10 30.9 +0.6
MCARA IAmb IAmb 18 10 32.7
comp=Z,24nm,1.2s
BCAR **Beaver Creek A** 74.29 28 **P** 18 10 32.3 +1.3
I28M **Miner Creek** 74.42 25 IAmb IAmb 18 10 33.8
comp=Z,11nm,0.8s
FIA1 **FINESS Array S** 74.42 330 P **P** 18 10 31.5 -0.2
FINES **FINESS Array B** 74.42 330 P **P** 18 10 31.7 0.0
comp=Z,4.7nm,0.8s,baz=67,slow=5.0,SNR=11
comp=Z,4.7nm,0.8s
FINES **FINESS Array B** 74.42 330 *i* P **P** 18 10 34.7 +3.0
FINES pmax pmax
comp=Z,5.0nm,0.8s
FINES **FINESS Array B** 74.42 330 P **P** 18 10 31.5 -0.2
BARN **Barnard Glacie** 74.89 30 P **P** 18 10 35.3 +0.6
BARN IAmb IAmb 18 10 36.9
comp=Z,29nm,1.4s
DAWY **Dawson** 75.04 27 IAmb IAmb 18 10 37.2
comp=Z,18nm,1.1s
I29M **Ogilvie Camp,** 75.09 25 IAmb IAmb 18 10 37.1
comp=Z,12nm,1.0s
ILGA **Ilgaz** 75.09 309 P **P** 18 10 36.2 -0.1
MNK **Minsk** 75.35 323 *i* P **P** 18 10 37.7 +0.5
MNK *i* *SP **sP** 18 11 14.6 -1.2
MNK *i* 18 13 27.7
MNK *i* PPP PPP 18 15 12.5
MNK *i* S **S** 18 20 11.3 +3.3
MNK *i* *SS **sS** 18 20 55.8 +1.2
MNK *i* SS **SS** 18 25 06.9 +7.3
MNK pmax pmax
comp=N,5.0nm,0.7s
MNK pmax pmax
comp=E,10.0nm,0.9s
MNK pmax pmax
comp=Z,24nm,0.8s
MNK **Minsk** 75.35 323 *i* P **P** 18 10 37.8 +0.5
comp=E,10.0nm,0.9s
MNK *i* P **P** 18 10 37.8 +0.5
comp=N,5.0nm,0.7s
MNK *i* P **P** 18 10 37.8 +0.5
comp=Z,24nm,0.8s,baz=74
MNK *i* pP **pP** 18 11 03.4 -0.9
MNK *i* sP **sP** 18 11 14.7 -1.2
MNK *i* PP **PP** 18 13 27.8 +0.8
MNK *i* PPP PPP 18 15 12.5
MNK *i* S **S** 18 20 11.3 +3.3
MNK *i* sS **sS** 18 20 55.9 +1.2
MNK *i* SS **SS** 18 25 06.9 +7.3
MNK *i* SSS SSS 18 28 25.9
MNK *i* LR LR 18 44 29.2
G30M **tAoh Zraii Nji** 75.38 23 IAmb IAmb 18 10 38.4
comp=Z,27nm,1.2s
EPYK **Eagle Plains** 75.39 24 IAmb IAmb 18 10 38.1
comp=Z,11nm,0.8s
KIRS **Kirsehir-Merke** 75.45 307 ⇑P **P** 18 10 38.3 +0.1
BR131 **Keskin Array S** 75.50 307 P **P** 18 10 37.8 -0.8
BR131 pmax pmax
comp=Z,5.0nm,1.1s
BR131 **Keskin Array S** 75.50 307 P **P** 18 10 37.8 -0.8
BRTR **Keskin Array B** 75.50 307 P **P** 18 10 38.9 +0.3
comp=Z,2.9nm,0.8s,baz=104,slow=6.1,SNR=14
comp=Z,2.9nm,0.8s
BRTR **Keskin Array B** 75.50 307 *i* P **P** 18 10 39.2 +0.6
BRTR pmax pmax
comp=Z,3.0nm,0.7s
BRTR **Keskin Array B** 75.50 307 P **P** 18 10 38.0 -0.5
BR104 **Keskin Array S** 75.50 307 P **P** 18 10 38.8 +0.2
comp=Z,4.3nm,1.0s
AK09 **Malin Array Si** 75.57 319 P **P** 18 10 38.3 -0.3
AK08 **Malin Array Si** 75.58 319 P **P** 18 10 38.2 -0.4
AKASG **Malin Array Be** 75.59 319 P **P** 18 10 38.4 -0.3
comp=Z,2.1nm,0.4s,baz=76,slow=5.1,SNR=10.0
comp=Z,2.1nm,0.4s
AKBB **Malin Array Si** 75.59 319 *ce*P **P** 18 10 38.8 +0.2
AKBB **Malin Array Si** 75.59 319 P **P** 18 10 38.4 -0.2
AK01 **Malin Array Si** 75.59 319 P **P** 18 10 38.4 -0.3
AK10 **Malin Array Si** 75.60 319 P **P** 18 10 38.3 -0.4
KIEV **Kiev** 75.60 319 P **P** 18 10 38.0 -0.7
KIEV pmax pmax
comp=Z,6.0nm,0.7s
KIEV **Kiev** 75.60 319 P **P** 18 10 38.0 -0.7
AK21 **Malin Array Si** 75.68 319 P **P** 18 10 38.8 -0.3
L29M **L29M** 75.87 27 IAmb IAmb 18 10 42.5
comp=Z,15nm,0.6s
INK **Inuvik** 75.89 22 P **P** 18 10 39.4 -0.6
INK pmax pmax
comp=Z,23nm,1.4s
INK **Inuvik** 75.89 22 **P** 18 10 39.4 -0.6
INK IAmb IAmb 18 10 41.3
comp=Z,22nm,1.4s
M29M **Somme Creek** 75.94 28 IAmb IAmb 18 10 43.3
comp=Z,16nm,0.8s
F31M **Tsiigehtchic** 76.13 23 IAmb IAmb 18 10 41.9
comp=Z,12nm,0.8s
KKUL **Konya-Kulu** 76.19 307 P **P** 18 10 43.5 +1.0
comp=Z,28nm,0.8s
CY604 **RAF Akrotiri,** 76.29 302 P **P** 18 10 41.3 -1.3
M30M **Minto, Yukon** 76.63 28 IAmb IAmb 18 10 46.5
comp=Z,12nm,0.8s
LUBAR **Lubar, Ukraine** 76.71 319 P **P** 18 10 44.6 -0.4
SORM **Soroca** 76.85 317 ⇑P **P** 18 10 45.3 -0.5
SORM **Soroca** 76.85 317 ⇑P **P** 18 10 45.3 -0.5
SORM **Soroca** 76.85 317 P **P** 18 10 45.5 -0.3
comp=Z,22nm,1.7s
N30M **Aishikik Lake** 76.87 29 IAmb IAmb 18 10 48.0
comp=Z,11nm,0.8s
HYT **Haines Junctio** 76.90 30 P **P** 18 10 45.9 -0.2
HYT IAmb IAmb 18 10 48.7
comp=Z,14nm,1.1s
A36M **Sachs Harbour** 76.92 17 IAmb IAmb 18 10 46.4
comp=Z,17nm,0.9s
CSS **Mathiatis** 77.05 303 P **P** 18 10 47.5 +0.3
TOZ **Tahuroa Road** 77.25 139 P **P** 18 10 49.4 +1.3
TOZ IAmb IAmb 18 11 09.3
comp=Z,18nm,1.3s
TLCR 77.40 314 ⇑P **P** 18 10 49.0 0.0
TLCR 77.40 314 ⇑P **P** 18 10 49.0 0.0
RNPP8 **Varash** 77.44 320 P **P** 18 10 49.0 -0.1
N31M **Braeburn, Yuko** 77.45 29 IAmb IAmb 18 10 51.2
comp=Z,12nm,0.9s
RNPP5 **Staryi Chortor** 77.46 320 P **P** 18 10 49.1 -0.1
QRZ **Quartz Range** 77.52 143 P **P** 18 10 50.5 +0.9
O30N **Mendenhall** 77.57 29 IAmb IAmb 18 10 51.7
comp=Z,8.4nm,0.7s
TPGR **Topolog** 77.77 313 ⇑P **P** 18 10 51.9 +0.8
CFR **Carcaliu** 77.86 314 ⇑P **P** 18 10 51.7 +0.1
CFR **Carcaliu** 77.86 314 ⇑P **P** 18 10 51.7 +0.1
TIRR **Tirgusor** 77.89 313 P **P** 18 10 51.9 +0.2
TIRR pmax pmax
comp=Z,65nm,1.5s
TIRR **Tirgusor** 77.89 313 P **P** 18 10 51.9 +0.2
HARR **Harsova** 78.15 313 ⇑P **P** 18 10 53.4 +0.2
HARR **Harsova** 78.15 313 ⇑P **P** 18 10 53.4 +0.2
WHY **Whitehorse** 78.16 29 P **P** 18 10 53.1 +0.1
NNZ **Nelson** 78.26 143 P **P** 18 10 53.1 -0.5
YLV **Yalova** 78.39 309 P **P** 18 10 55.1 +0.4
comp=Z,11nm,1.0s
GIRR **Girov** 78.40 316 ⇑P **P** 18 10 54.9 +0.4
ICOR **Ion Corvin** 78.42 313 ⇑P **P** 18 10 55.5 +0.8
TESR **Tescani** 78.44 315 ⇑P **P** 18 10 55.2 +0.4
VRI **Vrincioaia** 78.59 315 ⇑P **P** 18 10 56.2 +0.6
VRI **Vrincioaia** 78.59 315 ⇑P **P** 18 10 56.2 +0.6
PLOR **Plostina** 78.65 315 ⇑P **P** 18 10 56.5 +0.5
PLOR **Plostina** 78.65 315 ⇑P **P** 18 10 56.5 +0.5
BIZ **Bicaz** 78.66 316 ⇑P **P** 18 10 56.4 +0.4
SAHR **Sahastru** 78.67 315 ⇑P **P** 18 10 57.4 +1.3
LBZ **Lake Benmore** 78.71 147 P **P** 18 10 56.5 +0.5
LBZ IAmb IAmb 18 11 14.1
comp=Z,30nm,1.2s
TURR **Turia** 79.00 315 ⇑P **P** 18 10 59.0 +1.1
BURAR **Bucovina Array** 79.02 317 ⇑P **P** 18 10 58.1 +0.1
BURAR **Bucovina Array** 79.02 317 ⇑P **P** 18 10 58.3 +0.3
BURAR **Bucovina Array** 79.02 317 ⇑P **P** 18 10 58.1 +0.1
BUR08 **Bucovina Ar. S** 79.02 317 P **P** 18 10 57.7 -0.3
OZUR 79.14 315 ⇑P **P** 18 10 59.7 +1.1
ELL **Elmali** 79.17 305 P **P** 18 10 59.5 +0.4
ELL pmax pmax
comp=Z,20nm,0.7s
ELL **Elmali** 79.17 305 P **P** 18 10 59.5 +0.4
ELL IAmb IAmb 18 11 00.1
comp=Z,20nm,0.7s
MLR **Muntele Rosu** 79.23 315 P **P** 18 10 59.9 +0.6
MLR pmax pmax
comp=Z,7.0nm,0.9s
MLR **Muntele Rosu** 79.23 315 P **P** 18 10 59.9 +0.6
MLR **Muntele Rosu** 79.23 315 ⇑P **P** 18 11 00.2 +1.0
P33M **Teslin, Yukon** 79.28 29 P **P** 18 10 58.8 -0.4
DOPR **Dopca** 79.45 315 ⇑P **P** 18 11 01.1 +0.8
S32K **Killisnoo** 79.52 32 P **P** 18 10 59.8 -0.6
S32K IAmb IAmb 18 11 41.9
comp=Z,32nm,1.5s
PLWZ **Palliser** 79.56 142 P **P** 18 10 59.6 -1.2
BFZ **Birch Farm** 79.56 141 P **P** 18 11 00.6 -0.2
MDB **Medias** 80.05 316 ⇑P **P** 18 11 02.7 -0.8
MDB **Medias** 80.05 316 ⇑P **P** 18 11 02.7 -0.8
HFS **Hagfors** 80.56 331 P **P** 18 11 05.7 -0.2
comp=Z,1.3nm,0.4s,baz=79,slow=3.1,SNR=10.0
comp=Z,1.3nm,0.4s
LOT **Lotru** 80.69 315 P **P** 18 11 08.0 +0.9
comp=Z,20nm,0.8s
DRGR 80.90 317 ⇑P **P** 18 11 08.3 +0.2
DRGR 80.90 317 ⇑P **P** 18 11 08.3 +0.2
NC405 **NORSAR Array S** 81.00 333 **P** 18 11 07.6 -0.7
NB2 **NORSAR Subarra** 81.24 333 P **P** 18 11 08.7 -0.9
comp=Z,1.5nm,0.8s,baz=60,slow=4.6
NOA **NORSAR Array B** 81.24 333 P **P** 18 11 08.5 -1.1
comp=Z,1.9nm,0.8s,baz=59,slow=4.9,SNR=4.4
NOA LR LR 18 52 51.2
comp=Z,36nm,20.0s,baz=310,slow=40
comp=Z,1.9nm,0.8s
OJC **Ojcow** 81.43 321 P **P** 18 11 10.2 -0.6
OJC **Ojcow** 81.43 321 P **P** 18 11 10.2 -0.6
OJC **Ojcow** 81.43 321 P **P** 18 11 11.4 +0.6
OJC **Ojcow** 81.43 321 P **P** 18 11 11.3 +0.5
comp=Z,20nm,1.6s
MORC **Moravsky Berou** 82.95 321 *e*P **P** 18 11 18.7 -0.1
OPO **Ambohidratompo** 83.01 247 LR LR 18 46 20.1
comp=Z,32nm,18.2s,baz=283,slow=34
JAVC **Velka Javorina** 83.25 320 *e*P **P** 18 11 21.7 +1.4
IDI **Anoyia** 83.49 305 P **P** 18 11 22.0 +0.1
IDI IAmb IAmb 18 11 35.6
comp=Z,30nm,1.4s
LIT **Litokhoron** 83.50 310 P **P** 18 11 21.2 -0.6
LIT pmax pmax
comp=Z,8.0nm,1.0s
LIT **Litokhoron** 83.50 310 P **P** 18 11 21.2 -0.6
LIT **Litokhoron** 83.50 310 P **P** 18 11 21.4 -0.4
VRAC **Vranov** 83.70 321 *e*P **P** 18 11 22.8 +0.2
MORH **Mrgy, Hungar** 83.72 317 ⇑P **P** 18 11 22.8 +0.1
MORH **Mrgy, Hungar** 83.72 317 P **P** 18 11 23.0 +0.3
KRUC **Moravsky** 83.93 320 *e*P **P** 18 11 23.8 +0.1
ABNA **Allensteig Bun** 84.67 320 *i* PcP **P** 18 11 28.2 +0.6
comp=Z,2.1nm,0.5s
VOI **Vohitsoka** 84.74 244 P **P** 18 11 27.9 -0.5
VOI IAmb IAmb 18 11 49.5
comp=Z,30nm,1.5s
CLL **Collm** 84.89 323 *e*P **P** 18 11 28.0 -0.5
ITM **Ithomi** 85.01 308 P **P** 18 11 28.4 -1.1
ITM IAmb IAmb 18 11 29.3
comp=Z,14nm,0.7s
ARSA **Arzberg** 85.23 319 *i* P **P** 18 11 30.1 -0.3
comp=Z,2.9nm,1.1s
YKAW3 **Yellowknife Wh** 85.56 23 P **P** 18 11 31.8 +0.1
YKAW3 IAmb IAmb 18 11 32.4
comp=Z,10nm,0.9s
YKA **Yellowknife Ar** 85.61 23 P **P** 18 11 31.8 0.0
comp=Z,6.5nm,0.8s,baz=309,slow=4.7,SNR=11
comp=Z,6.5nm,0.8s
GERES **GERESS Array B** 85.62 321 P **P** 18 11 31.6 -0.8
comp=Z,1.1nm,0.7s,baz=72,slow=7.0,SNR=8.0
comp=Z,1.1nm,0.7s
SUMG **Summit** 85.65 354 P **P** 18 11 32.1 -0.3
SUMG pmax pmax
comp=Z,12nm,1.1s
SUMG **Summit** 85.65 354 P **P** 18 11 32.0 -0.3
SUMG IAmb IAmb 18 11 55.1
comp=Z,12nm,1.1s
MOA **Molln** 85.73 320 *i* P **P** 18 11 32.7 -0.1
comp=Z,4.7nm,1.0s
SESA **Seetaler Alpe,** 85.88 319 *i* P **P** 18 11 33.4 -0.4
comp=Z,4.0nm,1.2s
MYKA **Terra Mystica** 86.66 319 *e*P **P** 18 11 37.1 -0.4
comp=Z,2.1nm,0.9s
FUORN **Ofenpass-Fuorn** 88.72 320 P **P** 18 11 47.0 -0.6
EKA **Eskdalemuir Ar** 90.72 332 P **P** 18 11 55.7 -0.6
comp=Z,0.3nm,0.3s,baz=58,slow=3.2,SNR=5.3
comp=Z,0.3nm,0.3s
TXAR **Lajitas Array** 113.43 43 PKiKP **PKiKP** 18 17 31.1 -0.6
comp=Z,0.1nm,0.3s,baz=346,slow=2.5,SNR=5.7

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*AFAD **03** 18:03:58.7, 37.°83N×26.°44E, h7$^{km}_{\pm 2}$, h2$^{km}_{\pm 1}$, ML3.6*
*THE **03** 18:03:59.6, 37.°9N±0.°9×26.°6E±°, h4$^{km}_{\pm 1}$, M3.5/22, MLh3.5/22*
*ISK **03** 18:03:59.6, 37.°88N×26.°45E, h10^{km}, ML3.6/18*
*ATH **03** 18:03:59.7, 37.°87N×26.°46E, h16$^{km}_{\pm 1}$, ML3.6/29,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km

ISC 03 18:03:59.7±0.9, 37.°88N±0.°02×26.°44E±0.°02, h12$^{km}_{\pm 7}$, n127, σ0°43/158, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	0.22	111	P	**Pg**	18 04 04.5	0.0
KRL1				S	**Sg**	18 04 08.2	+0.4
KRL1				AML	AML		
SMG	**Samos**	0.35	118	P	**Pg**	18 04 06.4	-0.4
SMG				S	**Sg**	18 04 11.6	-0.1
SMG				AML	AML		
SMG	**Samos**	0.35	118	P	**Pg**	18 04 06.8	-0.1
SMG				S	**Sg**	18 04 12.1	+0.5
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	0.36	7	P	**Pg**	18 04 06.9	-0.1
ZEYE				S	**Sb**	18 04 13.3	-0.4
ZEYE				IAML		18 04 14.0	
ZEYE	comp=E,4μm,0.3s			IAML		18 04 18.0	
	comp=N,6μm,0.5s						
DGB	**zmir**	0.39	63	P	**Pg**	18 04 07.0	-0.5
DGB				S	**Sg**	18 04 12.8	+0.1
DGB				IAML		18 04 13.0	
DGB	comp=N,9μm,0.4s			IAML		18 04 13.0	
	comp=E,8μm,0.4s						
GMLD	**Gumuldur**	0.42	62	Pg	**Pg**	18 04 07.7	-0.4
GMLD				Sg	**Sg**	18 04 14.1	+0.3
GMLD				AML	AML		
CESE	**eme**	0.47	346	Pg	**Pg**	18 04 09.1	+0.1
CESE				AML	AML		
BEYE	**izmir**	0.52	47	P	**Pg**	18 04 09.6	-0.3
BEYE				S	**Sg**	18 04 17.4	+0.6
CHOS	**Chios island**	0.59	329	P	**Pg**	18 04 11.3	-0.1
CHOS				S	**Sg**	18 04 19.5	+0.2
CHOS				AML	AML		
CHOS	**Chios island**	0.59	329	Pg	**Pb**	18 04 11.8	-0.3
CHOS				Sg	**Sb**	18 04 20.5	0.0
CHOS				AML	AML		
CHOS	**Chios island**	0.59	329	P	**Pg**	18 04 11.6	+0.2
CHOS				S	**Sb**	18 04 20.9	+0.4
CHOS				AML	AML		
GCAM	**G?zelcaml?**	0.65	106	Pg	**Pg**	18 04 12.4	0.0
GCAM				Sg	**Sb**	18 04 21.9	-0.1
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	0.67	91	Pg	**Pg**	18 04 12.6	-0.1
KUSD				Sg	**Sb**	18 04 22.4	-0.1
KUSD				AML	AML		
BLCB	**Balcova**	0.69	43	P	**Pg**	18 04 12.7	-0.5
BLCB				S	**Sg**	18 04 22.5	+0.1
BLCB				AML	AML		
BLCB	**Balcova**	0.69	43	Pg	**Pg**	18 04 13.2	0.0
EAG2	**Marmaro, Chios**	0.72	338	P	**Pg**	18 04 13.7	+0.1
EAG2				S	**Sb**	18 04 24.1	+0.2
KRBN	**Karaburun**	0.72	7	Pg	**Pg**	18 04 13.7	0.0
KRBN				AML	AML		
DDIM	**Aydin, Didim**	0.76	123	P	**Pg**	18 04 14.3	-0.2

KARB	**zmir-Karabur**	**0.79**	**358**	P	**Pg**	**18 04 14.3**	**-0.7**
DIDI	**Didim-Aydin**	**0.81**	**128**	Pg	**Pg**	**18 04 15.3**	**0.0**
DIDI				AML	AML		
BAGT	**Foa**	**0.84**	**22**	P	**Pg**	**18 04 15.6**	**-0.4**
BAGT				S	**Sn**	**18 04 28.9**	**-0.8**
BAGT				IAML		18 04 30.0	
	comp=N,5μm,1.2s						
BAGT				IAML		18 04 35.0	
	comp=E,2μm,0.7s						
DUVT	**Torbali**	**0.86**	**66**	P	**Pg**	**18 04 16.0**	**-0.5**
DUVT				S	**Sg**	**18 04 27.1**	**-0.7**
DUVT				IAML		18 04 30.0	
	comp=E,1μm,0.5s						
FOCM	**Foa**	**0.86**	**15**	Pg	**Pg**	**18 04 16.4**	**-0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**1.00**	**138**	Pg	**Pb**	**18 04 19.2**	**+0.2**
YKAV				AML	AML		
KLNA	**Kalymnos**	**1.01**	**155**	P	**Pb**	**18 04 19.4**	**+0.2**
KLNA				S	**Sg**	**18 04 32.1**	**-0.3**
KLNA				AML	AML		
BODT	**Bodrum**	**1.07**	**139**	P	**Pg**	**18 04 19.9**	**-0.4**
BODT				S	**Sn**	**18 04 34.9**	**-0.3**
BODT				AML	AML		
BODT	**Bodrum**	**1.07**	**139**	Pg	**Pb**	**18 04 20.3**	**+0.2**
BODT				AML	AML		
TNSA	**Tinos**	**1.07**	**252**	P	**Pg**	**18 04 19.9**	**-0.5**
TNSA				S	**Sg**	**18 04 33.9**	**-0.3**
TNSA				AML	AML		
APE	**Apeiranthos**	**1.09**	**222**	P	**Pg**	**18 04 19.8**	**-0.8**
APE				S	**Sn**	**18 04 35.6**	**-0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.09**	**222**	P	**Pg**	**18 04 19.9**	**-0.8**
APE				S	**Sb**	**18 04 35.2**	**+0.6**
APE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.15**	**86**	Pn	**Pn**	**18 04 21.7**	**0.0**
AYDB				AML	AML		
BODA	**Bodrum-Mula**	**1.15**	**137**	Pn	**Pn**	**18 04 22.1**	**+0.5**
ZEDA	**zmir-Bergama**	**1.20**	**24**	P	**Pb**	**18 04 21.6**	**-0.7**
ZEDA				S	**Sn**	**18 04 40.3**	**+1.9**
ZEDA				IAML		18 04 41.0	
	comp=E,669nm,0.7s						
MLSB	**Milas**	**1.21**	**118**	Pn	**Pg**	**18 04 23.0**	**0.0**
MLSB				AML	AML		
DKL	**Dikili**	**1.25**	**17**	Pn	**Pg**	**18 04 23.6**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**17**	P	**Pn**	**18 04 22.4**	**-0.5**
DKL				S	**Sb**	**18 04 39.3**	**+0.1**
ASTA	**Astypalaia**	**1.33**	**183**	P	**Pn**	**18 04 23.8**	**-0.3**
ASTA				AML	AML		
PRK	**Paraskevi**	**1.37**	**354**	P	**Pn**	**18 04 24.2**	**-0.5**
PRK				S	**Sg**	**18 04 43.9**	**-0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.37**	**354**	P	**Pn**	**18 04 24.1**	**-0.5**
GOMA	**Golmarmara-Man**	**1.43**	**54**	Pn	**Pb**	**18 04 26.0**	**-0.2**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.47**	**86**	Pn	**Pn**	**18 04 26.4**	**+0.4**
NAZL				AML	AML		
AKS	**Akhisar**	**1.47**	**47**	Pn	**Pb**	**18 04 26.8**	**-0.2**
AKS				AML	AML		
SOMA	**Soma-Manisa**	**1.54**	**33**	Pn	**Pb**	**18 04 27.8**	**-0.3**
SOMA				AML	AML		
KARY	**Karystos**	**1.59**	**276**	P	**Pn**	**18 04 27.6**	**-0.1**
KARY				S	**Sb**	**18 04 49.3**	**+0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.59**	**276**	P	**Pn**	**18 04 27.8**	**0.0**
CMBO	**Columbo, Santo**	**1.63**	**211**	P	**Pn**	**18 04 28.0**	**-0.2**
CMBO				S	**Sb**	**18 04 50.7**	**+0.5**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.63**	**211**	P	**Pn**	**18 04 27.9**	**-0.2**
THR2	**Thira island,**	**1.64**	**210**	P	**Pn**	**18 04 28.2**	**-0.1**
THR2	**Thira island,**	**1.64**	**210**	P	**Pn**	**18 04 28.3**	**-0.1**
YER	**Yerkesik**	**1.64**	**116**	P	**Pn**	**18 04 28.9**	**+0.5**
YER				S	**Sb**	**18 04 50.9**	**+0.4**
THR8	**Santorini-Mono**	**1.66**	**208**	P	**Pn**	**18 04 28.5**	**-0.1**
THR8	**Santorini-Mono**	**1.66**	**208**	P	**Pn**	**18 04 29.0**	**+0.4**
SAP3	**Santorini-Thir**	**1.69**	**212**	P	**Pn**	**18 04 28.9**	**-0.1**
SAP3				S	**Sb**	**18 04 52.3**	**+0.5**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.69**	**212**	P	**Pn**	**18 04 28.7**	**-0.3**
THR3	**Thira Island,**	**1.69**	**210**	P	**Pn**	**18 04 29.6**	**+0.6**
THR3	**Thira Island,**	**1.69**	**210**	P	**Pn**	**18 04 29.0**	**+0.1**
SNT5	**Nea Kammeni, S**	**1.69**	**210**	P	**Pn**	**18 04 29.3**	**+0.2**
SNT5				S	**Sb**	**18 04 52.4**	**+0.4**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.69**	**210**	P	**Pn**	**18 04 29.1**	**+0.1**
THERA	**Ancient Thera,**	**1.69**	**207**	P	**Pn**	**18 04 28.5**	**-0.6**
THERA				S	**Sb**	**18 04 52.8**	**+0.7**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.69**	**207**	P	**Pn**	**18 04 28.4**	**-0.7**
THERA				AML	AML		
THT1	**Athinios (Pele**	**1.69**	**209**	P	**Pn**	**18 04 28.6**	**-0.5**
THT1				S	**Sb**	**18 04 52.6**	**+0.6**
THT1				AML	AML		
THR5	**Thira Island,**	**1.70**	**211**	P	**Pn**	**18 04 28.9**	**-0.3**
THR5	**Thira Island,**	**1.70**	**211**	P	**Pn**	**18 04 29.0**	**-0.2**
GORD	**Gordes-Manisa**	**1.71**	**52**	Pn	**Pb**	**18 04 30.3**	**-0.8**
GORD				AML	AML		
THR6	**Thira Island,**	**1.73**	**209**	P	**Pn**	**18 04 29.7**	**+0.1**
THR6	**Thira Island,**	**1.73**	**209**	P	**Pn**	**18 04 29.5**	**-0.1**
THR9	**Santorini-Faro**	**1.75**	**210**	P	**Pn**	**18 04 29.9**	**0.0**
THR9	**Santorini-Faro**	**1.75**	**210**	P	**Pn**	**18 04 29.8**	**0.0**
SKY	**Skiros Island**	**1.79**	**304**	P	**Pn**	**18 04 31.0**	**+0.5**
SKY				AML	AML		
LVRA	**Laurium**	**1.90**	**266**	P	**Pn**	**18 04 32.0**	**+0.1**
LVRA				AML	AML		
KYMI	**Kymi, Euboea I**	**1.99**	**293**	P	**Pn**	**18 04 33.2**	**0.0**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.99**	**293**	P	**Pn**	**18 04 33.2**	**0.0**
DION	**Dionisos Attik**	**1.99**	**277**	P	**Pn**	**18 04 33.3**	**+0.1**
DION				AML	AML		
MHLO	**Agia Marina, M**	**2.01**	**235**	P	**Pn**	**18 04 33.8**	**+0.3**
PTL	**Penteli**	**2.04**	**276**	P	**Pn**	**18 04 34.3**	**+0.3**
PTL				AML	AML		
PTL	**Penteli**	**2.04**	**276**	P	**Pn**	**18 04 33.8**	**-0.1**
PTL				AML	AML		
BALB	**Balikesir**	**2.09**	**32**	P	**Pn**	**18 04 34.7**	**+0.2**
BALB				AML	AML		
VLY	**Voula,Athens**	**2.10**	**270**	P	**Pn**	**18 04 34.7**	**+0.1**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.10**	**270**	P	**Pn**	**18 04 34.5**	**-0.2**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.10**	**273**	P	**Pn**	**18 04 35.0**	**+0.3**
ATHU				AML	AML		
ATHU	**Athens Univers**	**2.10**	**273**	P	**Pn**	**18 04 34.7**	**-0.1**
ARG	**Arkhangelos**	**2.14**	**140**	P	**Pn**	**18 04 35.0**	**-0.1**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.14**	**140**	P	**Pn**	**18 04 34.6**	**-0.5**
ARG				AML	AML		
ATH	**Athens Observa**	**2.16**	**273**	P	**Pn**	**18 04 35.9**	**+0.4**
ATH				AML	AML		
ATH	**Athens Observa**	**2.16**	**273**	P	**Pn**	**18 04 35.8**	**+0.3**
ATH				AML	AML		
LIA	**Limnos Island**	**2.25**	**334**	P	**Pn**	**18 04 36.7**	**+0.1**
LIA				AML	AML		
LIA	**Limnos Island**	**2.25**	**334**	P	**Pn**	**18 04 36.4**	**-0.2**
LIA				AML	AML		
STFN	**Stefani**	**2.31**	**278**	P	**Pn**	**18 04 37.8**	**+0.2**
STFN				AML	AML		
KARP	**Karpathos**	**2.40**	**166**	P	**Pn**	**18 04 38.6**	**-0.2**
AOS2	**Alonissos-2**	**2.40**	**303**	P	**Pn**	**18 04 39.0**	**+0.1**
MET4	**Agioi Theodoro**	**2.43**	**265**	P	**Pn**	**18 04 39.4**	**+0.2**
MET1	**Methana Town,**	**2.44**	**264**	P	**Pn**	**18 04 39.6**	**+0.2**
MET1				AML	AML		
MET5	**Makryloggos,Me**	**2.46**	**265**	P	**Pn**	**18 04 39.9**	**+0.2**
MET6	**Megalochori,Me**	**2.46**	**264**	P	**Pn**	**18 04 40.2**	**+0.6**
MET2	**Kameni Chora,**	**2.48**	**265**	P	**Pn**	**18 04 40.2**	**+0.2**
VIL2	**Platees**	**2.53**	**279**	P	**Pn**	**18 04 40.1**	**-0.5**
VIL2				AML	AML		
MET3	**Ano Fanari,Met**	**2.57**	**264**	P	**Pn**	**18 04 41.2**	**+0.1**
EPID	**Epidavros**	**2.65**	**265**	P	**Pn**	**18 04 42.6**	**+0.4**
EPID				AML	AML		
SMTH	**Samothraki Isl**	**2.69**	**345**	P	**Pn**	**18 04 42.3**	**-0.4**
NPS	**Neapolis**	**2.69**	**195**	P	**Pn**	**18 04 42.3**	**-0.6**
NPS				AML	AML		
LOUT	**Loutraki**	**2.75**	**273**	P	**Pn**	**18 04 43.2**	**-0.4**
LTK	**Loutraki**	**2.75**	**274**	P	**Pn**	**18 04 43.3**	**-0.3**
LTK				AML	AML		
ZKR	**Zakros**	**2.76**	**184**	P	**Pn**	**18 04 43.3**	**-0.5**
ATAL	**Atalanti**	**2.81**	**288**	P	**Pn**	**18 04 44.4**	**-0.1**
ACOR	**Acrocorinthos**	**2.83**	**271**	P	**Pn**	**18 04 44.8**	**+0.1**
IDI	**Anoyia**	**2.87**	**206**	P	**Pn**	**18 04 44.7**	**-0.6**
VLI	**Veliai**	**3.03**	**249**	P	**Pn**	**18 04 47.2**	**-0.2**
VLI				AML	AML		
THAS	**Thassos island**	**3.04**	**334**	P	**Pn**	**18 04 47.3**	**-0.3**
VAM	**Vamos**	**3.06**	**217**	P	**Pn**	**18 04 47.2**	**-0.6**
AXAR	**Agios Charalam**	**3.11**	**288**	P	**Pn**	**18 04 48.5**	**0.0**
AXAR				AML	AML		
OUR	**Ouranopolis**	**3.11**	**323**	P	**Pn**	**18 04 48.7**	**+0.1**
KTHA	**Kythira Island**	**3.15**	**240**	P	**Pn**	**18 04 49.3**	**+0.1**
ANKY	**Antikythira Is**	**3.22**	**232**	P	**Pn**	**18 04 49.9**	**-0.2**
GUR	**Goura**	**3.24**	**272**	P	**Pn**	**18 04 51.0**	**+0.5**
KLV	**Kalavryta, Ach**	**3.40**	**274**	P	**Pn**	**18 04 53.1**	**+0.5**
AGG	**Agios Georgios**	**3.43**	**291**	P	**Pn**	**18 04 53.4**	**+0.5**
KAVA	**Kavala**	**3.46**	**335**	P	**Pn**	**18 04 53.4**	**+0.1**
AIOA	**Agios Ioannis,**	**3.48**	**277**	P	**Pn**	**18 04 54.0**	**+0.4**
EFP	**Efpalio**	**3.62**	**280**	P	**Pn**	**18 04 56.2**	**+0.7**
ANX	**Ano Chora**	**3.63**	**283**	P	**Pn**	**18 04 56.4**	**+0.6**
VVK	**Vomvokou**	**3.69**	**280**	P	**Pn**	**18 04 57.3**	**+0.7**
DRO	**Drossia**	**3.74**	**273**	P	**Pn**	**18 04 57.7**	**+0.4**
AGRP	**Agrapidokambos**	**3.76**	**279**	P	**Pn**	**18 04 58.2**	**+0.7**
PLEV	**Plevrona-Mesol**	**4.01**	**279**	P	**Pn**	**18 05 01.4**	**+0.6**
TETR	**Tetrakomo, Epi**	**4.31**	**291**	P	**Pn**	**18 05 05.8**	**+0.7**
VAY	**Valandovo**	**4.56**	**320**	*i* Pn	**Pg**	**18 05 26.6**	**-0.4**
PEHC	**Pehcevo**	**4.76**	**326**	*i* Pn	**Pn**	**18 05 13.1**	**+1.8**

*AFAD **03** 18:13:28.8, 37˚.92N×26˚.60E, h7km±2km, ML2.5*
*THE **03** 18:13:28.7, 38˚N±5˚×2˚7E±˚, h16km±5km, M2.4/6, MLh2.4/6*
*ISK **03** 18:13:28.6, 37˚.93N×26˚.59E, h9km, ML2.6/17*

ISC 03 18:13:28.4±1.0, **37˚91N**±0˚02×**26˚59E**±0˚03, **h13**km±8km, **n38**, σ0**842**/59, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.28**	**58**	P	**Pg**	**18 13 34.2**	**0.0**
DGB				IAML		18 13 38.0	
	comp=N,735nm,0.2s						
DGB				IAML		18 13 38.0	
	comp=E,1μm,0.2s						
DGB				S	**Sg**	**18 13 38.3**	**+0.3**
SMG	**Samos**	**0.28**	**135**	P	**Pb**	**18 13 35.4**	**0.0**
SMG				S	**Sb**	**18 13 39.8**	**-0.2**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.31**	**57**	Pg	**Pg**	**18 13 34.5**	**-0.3**
GMLD				Sg	**Sg**	**18 13 38.9**	**-0.2**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.34**	**349**	P	**Pg**	**18 13 35.4**	**+0.1**
ZEYE				S	**Sg**	**18 13 40.6**	**+0.7**
BEYE	**izmir**	**0.42**	**40**	P	**Pg**	**18 13 36.5**	**-0.2**
BEYE				S	**Sg**	**18 13 42.5**	**+0.1**
BEYE				IAML		18 13 43.0	
	comp=N,296nm,0.3s						
CESE	**eme**	**0.48**	**332**	Pg	**Pg**	**18 13 38.2**	**+0.3**
CESE				Sg	**Sb**	**18 13 45.2**	**-0.5**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.55**	**112**	P	**Pg**	**18 13 39.5**	**+0.2**
GCAM				S	**Sb**	**18 13 47.8**	**0.0**
GCAM	**G?zelcaml?**	**0.55**	**112**	Pg	**Pb**	**18 13 40.1**	**+0.1**
GCAM				Sg	**Sb**	**18 13 48.2**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.56**	**95**	Pg	**Pb**	**18 13 39.8**	**-0.3**
KUSD				Sg	**Sb**	**18 13 48.3**	**+0.3**
KUSD				AML	AML		
BLCB	**Balcova**	**0.60**	**37**	P	**Pg**	**18 13 39.8**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**37**	Pg	**Pg**	**18 13 39.9**	**-0.3**
BLCB				AML	AML		
CHOS	**Chios island**	**0.64**	**319**	P	**Pb**	**18 13 41.1**	**-0.3**
CHOS				S	**Sb**	**18 13 50.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.64**	**319**	Pg	**Pb**	**18 13 41.3**	**-0.1**
CHOS				Sg	**Sb**	**18 13 50.5**	**+0.2**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.69**	**358**	Pg	**Pg**	**18 13 41.8**	**0.0**
KRBN				Sg	**Sb**	**18 13 51.8**	**+0.2**
KRBN				AML	AML		
DDIM	**Aydin, Didim**	**0.69**	**131**	P	**Pb**	**18 13 42.2**	**-0.1**
DDIM				S	**Sn**	**18 13 53.3**	**-1.1**
DDIM				IAML		18 13 54.0	
	comp=N,270nm,0.6s						
DDIM				IAML		18 13 54.0	
	comp=E,151nm,0.9s						
DIDI	**Didim-Aydin**	**0.74**	**135**	Pg	**Pb**	**18 13 43.7**	**+0.5**
DUVT	**Torbali**	**0.75**	**65**	P	**Pg**	**18 13 42.9**	**0.0**
DUVT				S	**Sg**	**18 13 52.7**	**-0.1**
BAGT	**Foa**	**0.78**	**16**	P	**Pg**	**18 13 43.2**	**-0.2**
BAGT				S	**Sb**	**18 13 54.1**	**-0.1**
BAGT				IAML		18 13 56.0	
	comp=E,164nm,0.3s						
FOCM	**Foa**	**0.81**	**8**	Pg	**Pg**	**18 13 44.1**	**-0.1**
FOCM				AML	AML		
DAGE	**izmir**	**0.93**	**84**	P	**Pb**	**18 13 46.6**	**+0.3**
DAGE				S	**Sg**	**18 13 58.1**	**-0.4**
DAGE				IAML		18 14 00.0	
	comp=N,119nm,0.2s						
DAGE				IAML		18 14 00.0	
	comp=E,150nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.96**	**145**	Pg	**Pn**	**18 13 47.8**	**+0.2**
YKAV				AML	AML		
CAMT	**Merkez**	**1.01**	**34**	P	**Pn**	**18 13 48.4**	**0.0**
CAMT				S	**Sn**	**18 14 02.5**	**0.0**
CAMT				IAML		18 14 04.0	
	comp=N,248nm,0.3s						
CAMT				IAML		18 14 04.0	
	comp=E,191nm,0.2s						
BODT	**Bodrum**	**1.02**	**145**	P	**Pb**	**18 13 47.8**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**1.02**	**145**	Pg	**Pg**	**18 13 48.3**	**+0.1**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.03**	**87**	Pg	**Pg**	**18 13 48.6**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.05**	**103**	P	**Pn**	**18 13 49.0**	**0.0**
AYDN				S	**Sb**	**18 14 02.5**	**+0.2**
BDRM	**Kayabasi**	**1.08**	**141**	P	**Pb**	**18 13 48.0**	**-1.1**
BDRM				S	**Sn**	**18 14 05.4**	**+1.1**
IZMR	**zmir-demi**	**1.10**	**78**	P	**Pn**	**18 13 49.6**	**0.0**
IZMR				S	**Sb**	**18 14 03.6**	**-0.1**
ZEDA	**zmir-Bergama**	**1.12**	**20**	P	**Pb**	**18 13 48.9**	**-0.9**
ZEDA				S	**Sn**	**18 14 06.4**	**+1.2**
MLSB	**Milas**	**1.13**	**123**	Pn	**Pg**	**18 13 50.1**	**0.0**
MLSB				AML	AML		
APE	**Apeiranthos**	**1.19**	**225**	P	**Pn**	**18 13 50.0**	**-0.8**
DKL	**Dikili**	**1.19**	**12**	Pn	**Pg**	**18 13 51.5**	**+0.2**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.32**	**52**	Pn	**Pg**	**18 13 53.5**	**-0.3**
NAZL	**Nazilli-Aydin**	**1.35**	**87**	Pn	**Pg**	**18 13 54.3**	**-0.1**
NAZL				AML	AML		
PRK	**Paraskevi**	**1.36**	**350**	P	**Pg**	**18 13 54.9**	**+0.4**
AKS	**Akhisar**	**1.37**	**44**	Pn	**Pg**	**18 13 54.4**	**-0.3**
SOMA	**Soma-Manisa**	**1.45**	**31**	Pn	**Pb**	**18 13 55.4**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.60**	**51**	Pn	**Pb**	**18 13 57.6**	**-0.3**
GORD				AML	AML		

*IDC **03** 18:17:45.6±2.2, 17˚.94S×168˚.43E, h73km±19km, mb3.9/15, mbtmp4.3/17, MS3.0/8, Error ellipse: s-maj=17.3km s-min=13.3km az=93.0*
*BJI **03** 18:17:45.9, 17˚.95S×168˚.12E, h76km, mB5.2/4, mb4.8/17*
*NEIC **03** 18:17:45.7±1.9, 17˚.92S±0˚.05×168˚.40E±0˚.08, h69km±6km, mb4.8/63, Error ellipse: s-maj=10.8km s-min=7.6km az=86.0*
*NOU **03** 18:17:47.0, 17˚.94S×168˚.40E, h77km, mb4.9/32, Vanuatu Islands*
*GFZ **03** 18:17:49.6±0.6, 18˚S±5˚×16˚8E±˚, h91km±6km, M4.8/24, mb4.8/24, Error ellipse: s-maj=12.1km s-min=9.7km az=29.4, confirmed*

ISC 03 18:17:46.5±0.6, **17˚95S**±0˚04×**168˚36E**±0˚06, **h79**km±5km, **n181**, σ1**906**/182, **mb4.7**/59, **2C-2D**, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	**0.17**	**21**	P	**Pn**	**18 17 58.6**	**+0.6**
DVP	**Devils Point**	**0.28**	**323**	P	**Pn**	**18 17 59.8**	**+1.3**
SANVU	**Saraoutou**	**2.72**	**336**	P	**Pn**	**18 18 27.6**	**-0.5**
SANVU	**Saraoutou**	**2.72**	**336**		**Pn**	**18 18 27.1**	**-0.9**
SANVU				Sn	**Sn**	**18 18 57.8**	**-2.3**
SANVU	**Saraoutou**	**2.72**	**336**	P	**Pn**	**18 18 27.9**	**-0.2**
MARNC	**Mare, Loyalty**	**3.53**	**185**		**Pn**	**18 18 38.3**	**-0.6**
MARNC				Sn	**Sn**	**18 19 14.9**	**-4.7**
YATNC	**Mamie plateau,**	**4.32**	**198**	P	**Pn**	**18 18 49.3**	**-0.4**
DZM	**Mont Dzumac**	**4.48**	**203**	P	**Pn**	**18 18 52.8**	**+0.8**
	302nm,0.3s,baz=58,slow=12,SNR=665						
DZM				S	**Sn**	**18 19 41.3**	**-1.7**
	278nm,0.4s,baz=316,slow=23,SNR=21						
DZM				LR	LR	18 19 50.8	
	comp=Z,59nm,21.6s,baz=23,slow=28						
NOUC	**Port Laguerre**	**4.56**	**205**	P	**Pn**	**18 18 54.4**	**+1.3**
KOUNC	**Koumac, New Ca**	**4.64**	**235**	P	**Pn**	**18 18 56.3**	**+2.2**
KOUNC	**Koumac, New Ca**	**4.64**	**235**	Pn	**Pn**	**18 18 54.8**	**+0.7**
KOUNC					**Sn**	**18 19 44.2**	**-2.5**
OUENC	**Ouen Island, N**	**4.67**	**198**	P	**Pn**	**18 18 55.4**	**+0.9**
OUENC	**Ouen Island, N**	**4.67**	**198**		**Pn**	**18 18 55.6**	**+1.0**
OUENC				Sn	**Sn**	**18 19 46.1**	**-1.4**
PINNC	**Pines Island,**	**4.72**	**190**	P	**Pn**	**18 18 55.7**	**+0.5**
PINNC	**Pines Island,**	**4.72**	**190**		**Pn**	**18 18 56.0**	**+0.8**
PINNC				Sn	**Sn**	**18 19 47.2**	**-1.5**
MSVF	**Nonsavu**	**9.23**	**90**	P	**Pn**	**18 19 56.5**	**-0.4**
	3.1nm,0.7s,baz=96,slow=20,SNR=1.4						
MSVF	**Nonsavu**	**9.23**	**90**	P		**18 19 57.2**	**+0.3**
MSVF	**Nonsavu**	**9.23**	**90**		**Pn**	**18 19 56.6**	**-0.2**
MSVF	**Nonsavu**	**9.23**	**90**	P	Pn	18 20 03.5	+6.6
	comp=Z,51nm,1.0s						
HNR	**Honiara**	**11.77**	**315**	P	**Pn**	**18 20 32.7**	**+1.3**
	comp=Z,104nm,0.6s,baz=276,slow=2.3,SNR=10						
HNR				LR	LR	18 24 21.2	
	comp=Z,64nm,18.9s,baz=244,slow=34						
HNR	**Honiara**	**11.77**	**315**	P	**Pn**	**18 20 33.0**	**+1.6**
HNR	**Honiara**	**11.77**	**315**		**Pn**	**18 20 29.7**	**-1.7**
HNR	**Honiara**	**11.77**	**315**	P	**Pn**	**18 20 33.8**	**+2.4**
	comp=Z,197nm,0.8s						
SAVO	**Savo Central**	**12.06**	**315**	P	**Pn**	**18 20 37.5**	**+2.1**
RAO	**Raoul Island**	**16.86**	**134**		**P**	**18 21 39.0**	**+0.6**
EIDS	**Eidsvold**	**17.67**	**242**		**P**	**18 21 45.8**	**-1.5**
ARMA	**Armidale**	**19.65**	**228**	P	**P**	**18 22 07.5**	**-1.6**
CTA	**Charters Tower**	**21.01**	**261**	P	**P**	**18 22 25.0**	**+1.2**
	comp=Z,5.7nm,0.6s,baz=88,slow=9.7,SNR=9.7						
CTA				LR	LR	18 29 01.4	
	comp=Z,48nm,20.6s,baz=40,slow=32						
	comp=Z,5.7nm,0.6s						
CTAO	**Charters Tower**	**21.01**	**261**	P	**P**	**18 22 21.9**	**-1.9**
MXZ	**Matakaoa Point**	**21.40**	**158**	P	**P**	**18 22 27.5**	**-0.3**
URZ	**Urewera**	**21.64**	**161**	P	**P**	**18 22 30.4**	**+0.1**
	comp=Z,3.7nm,0.6s,baz=253,slow=2.8,SNR=1.7						
URZ				LR	LR	18 29 25.9	
	comp=Z,42nm,19.4s,baz=304,slow=32						
	comp=Z,3.7nm,0.6s						
AULRC	**Lightning Ridg**	**21.85**	**235**	P	**P**	**18 22 34.9**	**+2.2**
RTZ	**Ruatahuna**	**21.92**	**162**	P	**P**	**18 22 33.1**	**-0.3**
RTZ				IAmb	IAmb	18 22 40.8	
	comp=Z,47nm,1.8s						
PMG	**Port Moresby**	**22.26**	**290**	P	**P**	**18 22 35.6**	**-1.7**
AUDCS	**Dubbo College**	**22.78**	**228**	P	**P**	**18 22 44.5**	**+1.9**
MTSU	**Mount Surprise**	**22.86**	**266**	P	**P**	**18 22 44.9**	**+1.3**
MTSU	**Mount Surprise**	**22.86**	**266**	P	**P**	**18 22 44.7**	**+1.1**
	comp=Z,26nm,1.1s						
QRZ	**Quartz Range**	**23.08**	**172**	P	**P**	**18 22 44.8**	**-0.6**
QRZ				IAmb	IAmb	18 23 11.6	
	comp=Z,77nm,1.5s						
BFZ	**Birch Farm**	**23.65**	**165**	P	**P**	**18 22 49.8**	**-0.9**
BFZ				IAmb	IAmb	18 22 59.5	
	comp=Z,33nm,1.1s						
MRNZ	**Matariki Terra**	**23.68**	**172**	P	**P**	**18 22 50.0**	**-0.9**
TCW	**Tory Channel**	**23.73**	**169**	P	**P**	**18 22 51.1**	**-0.3**
TUWZ	**Tuamarina**	**23.89**	**170**	P	**P**	**18 22 52.6**	**-0.1**
QLP	**Quilpie**	**23.89**	**245**	P	**P**	**18 22 53.8**	**+0.8**
QLP	**Quilpie**	**23.89**	**245**	P	**P**	**18 22 54.3**	**+1.2**
	comp=Z,57nm,1.3s						
BHW	**Baring Head**	**24.04**	**168**		**P**	**18 22 52.7**	**-1.4**
THZ	**Tophouse**	**24.05**	**172**	P	**P**	**18 22 53.0**	**-1.3**
THZ				IAmb	IAmb	18 23 17.5	
	comp=Z,139nm,2.0s						
MSWZ	**Moikau Station**	**24.12**	**167**	P	**P**	**18 22 54.5**	**-0.4**
PLWZ	**Palliser**	**24.27**	**167**	P	**P**	**18 22 56.0**	**-0.3**
CMSA	**Cobar Meteorol**	**24.57**	**232**	P	**P**	**18 23 00.4**	**+1.3**
CMSA	**Cobar Meteorol**	**24.57**	**232**	P	**P**	**18 22 58.9**	**-0.3**
	comp=Z,26nm,0.9s						
KHZ	**Kahutara**	**24.79**	**171**	P	**P**	**18 23 00.7**	**-0.2**
KHZ				IAmb	IAmb	18 23 18.7	
	comp=Z,38nm,1.3s						
INZ	**Inchbonnie**	**24.84**	**175**	P	**P**	**18 23 02.0**	**+0.6**
LTZ	**Lake Taylor**	**24.98**	**173**	P	**P**	**18 23 03.2**	**+0.4**
LTZ				IAmb	IAmb	18 23 03.6	
	comp=Z,53nm,1.6s						
FOZ	**Fox Glacier**	**25.54**	**178**	P	**P**	**18 23 08.8**	**+1

MBWA	**Marble Bar**	**45.80**	**258**	P	**P**	**18 26 01.5**	**+0.7**
	comp=Z,36nm,0.9s							
MBWA	**Marble Bar**	**45.80**	**258**	P	**P**	**18 26 01.4**	**+0.7**
MBWA				pP	**pwP**	**18 26 21.1**	**-1.4**
MEEK	**Meekatharra**	**46.60**	**250**	P	**P**	**18 26 07.3**	**+0.3**
MEEK	**Meekatharra**	**46.60**	**250**	P	**P**	**18 26 07.5**	**+0.5**
	comp=Z,40nm,0.9s							
LUWI	**Luwuk**	**47.81**	**285**	P	**P**	**18 26 17.0**	**+0.5**
LUWI				IAmb	IAmb	18 26 37.6		
	comp=Z,14nm,0.9s							
LUWI	**Luwuk**	**47.81**	**285**	P	**P**	**18 26 17.0**	**+0.5**
	comp=Z,18nm,0.8s							
NWAO	**Narrogin (SRO)**	**48.08**	**242**	P	**P**	**18 26 18.3**	**-0.1**
MORW	**Morawa**	**48.90**	**247**	P	**P**	**18 26 24.6**	**-0.1**
KAPI	**Kappang**	**49.19**	**279**	P	**P**	**18 26 28.2**	**+1.1**
	comp=Z,22nm,0.9s							
TOLI2	**Tolitoli**	**50.50**	**287**	P	**P**	**18 26 36.7**	**-0.3**
TOLI2				IAmb	IAmb	18 26 37.9		
	comp=Z,14nm,1.2s							
TOLI2	**Tolitoli**	**50.50**	**287**	P	**P**	**18 26 36.4**	**-0.6**
	comp=Z,11nm,0.9s							
MMSI	**Mamuju**	**50.77**	**282**	P	**P**	**18 26 39.9**	**+0.8**
	comp=Z,185nm,0.7s							
BKB	**Balikpapan**	**53.16**	**282**	P	**P**	**18 26 56.1**	**-0.8**
JAGI	**Jajag, Banyuwa**	**53.45**	**273**	P	**P**	**18 26 57.7**	**-1.3**
KKM	**Kota Kinabalu**	**56.71**	**290**	P	**P**	**18 27 20.8**	**-1.7**
KKM				IAmb	IAmb	18 27 43.1		
	comp=Z,16nm,1.1s							
SBUM	**Sibu**	**58.88**	**284**	P	**P**	**18 27 36.4**	**-1.3**
SBUM				IAmb	IAmb	18 29 28.0		
	comp=Z,7.2nm,1.4s							
SBUM	**Sibu**	**58.88**	**284**	P	**P**	**18 27 38.6**	**+0.9**
	comp=Z,3.4nm,2.2s							
VNDA	**Vanda**	**59.69**	**182**	P	**P**	**18 27 42.6**	**+0.4**
	comp=Z,0.6nm,0.5s,baz=346,slow=7.5,SNR=8.5							
	comp=Z,0.6nm,0.5s							
VNDA	**Vanda**	**59.69**	**182**	P	**P**	**18 27 42.4**	**+0.1**
VNDA	**Vanda**	**59.69**	**182**	P	**P**	**18 27 42.6**	**+0.4**
SBA	**Scott Base**	**59.94**	**180**	P	**P**	**18 27 44.8**	**+0.9**
SBA				IAmb	IAmb	18 28 10.5		
	comp=Z,26nm,1.9s							
SBA	**Scott Base**	**59.94**	**180**	P	**P**	**18 27 45.4**	**+1.5**
	comp=Z,3.6nm,0.7s							
JGF	**Kuroka**	**60.83**	**331**	P	**P**	**18 27 50.1**	**-0.5**
MJAR	**Matsushiro Arr**	**61.23**	**333**	P	**P**	**18 27 52.1**	**-1.1**
	comp=Z,1.3nm,0.6s,baz=170,slow=8.0,SNR=4.9							
	comp=Z,1.3nm,0.6s							
MJAR	**Matsushiro Arr**	**61.23**	**333**	IAmb	IAmb	18 28 10.9		
	comp=Z,31nm,1.9s							
MAJO	**Matsushiro**	**61.23**	**333**	P	**P**	**18 27 52.8**	**-0.5**
MJB9	**Matsu-Tunnel**	**61.23**	**333**	P	**P**	**18 27 53.7**	**+0.4**
TPUB	**Ta-pu**	**62.08**	**310**	P	**P**	**18 27 58.3**	**-1.0**
SSLB	**Suanglung**	**62.14**	**310**	P	**P**	**18 27 58.5**	**-1.2**
YHNB	**Yeheng**	**62.38**	**311**	P	**P**	**18 28 01.6**	**+0.3**
KSRS	**Korea Array**	**66.98**	**326**	P	**P**	**18 28 31.4**	**+0.6**
	comp=Z,1.6nm,0.8s,baz=162,slow=6.8,SNR=4.3							
	comp=Z,1.6nm,0.8s							
NJ2	**Nanjing**	**68.71**	**316**	*e*P	**P**	**18 28 44.4**	**+2.5**
NJ2				pmax	pmax			
	comp=Z,12nm,1.0s							
IPM	**Ipoh**	**70.01**	**282**	P	**P**	**18 28 49.9**	**-0.4**
IPM				IAmb	IAmb	18 29 11.5		
	comp=Z,20nm,1.3s							
SMY	**Shemya**	**70.56**	**4**	P	**P**	**18 28 54.4**	**+1.7**
PEA0B	**Petropavlovsk-**	**71.36**	**353**	P	**P**	**18 28 57.5**	**-0.2**
PETK	**Petropavlovsk-**	**71.36**	**353**	P	**P**	**18 28 57.4**	**-0.2**
	comp=Z,7.0nm,0.9s,baz=144,slow=3.8,SNR=6.4							
	comp=Z,7.0nm,0.9s							
PETK	**Petropavlovsk-**	**71.36**	**353**	P	**P**	**18 28 57.7**	**0.0**
QSPA	**South Pole Qui**	**72.10**	**180**	P	**P**	**18 29 02.0**	**-0.3**
	comp=Z,2.5nm,0.7s,baz=107,slow=0.5,SNR=9.0							
	comp=Z,2.5nm,0.7s							
QSPA	**South Pole Qui**	**72.10**	**180**		**P**	**18 29 02.3**	**0.0**
QSPA	**South Pole Qui**	**72.10**	**180**	P	**P**	**18 29 02.6**	**+0.3**
	comp=Z,6.3nm,1.0s							
QSPA	**South Pole Qui**	**72.10**	**180**	P	**P**	**18 29 02.2**	**0.0**
QSPA				pP	**pP**	**18 29 24.0**	**+1.4**
BNX	**BinXian**	**73.45**	**331**	⇑P	**P**	**18 29 10.1**	**-0.2**
BNX				pmax	pmax			
	comp=Z,8.0nm,0.7s							
LYN	**LuoYang**	**74.47**	**315**	P	**P**	**18 29 17.2**	**+0.7**
LYN				pmax	pmax			
	comp=Z,19nm,0.8s							
CM31	**Chiang Mai Arr**	**77.22**	**294**	P	**P**	**18 29 32.4**	**-0.1**
CMAR	**Chiang Mai Arr**	**77.22**	**294**	P	**P**	**18 29 33.8**	**+1.3**
	comp=Z,3.0nm,0.8s,baz=131,slow=4.6,SNR=30							
	comp=Z,3.0nm,0.8s							
CMAR	**Chiang Mai Arr**	**77.22**	**294**	P	**P**	**18 29 32.5**	**0.0**
CHTO	**Chiang Mai**	**77.36**	**295**	P	**P**	**18 29 34.3**	**+1.0**
CHTO	**Chiang Mai**	**77.36**	**295**	P	**P**	**18 29 33.3**	**0.0**
CHTO	**Chiang Mai**	**77.36**	**295**	P	**P**	**18 29 34.5**	**+1.2**
	comp=Z,7.0nm,1.3s							
CHTO	**Chiang Mai**	**77.36**	**295**	P	**P**	**18 29 34.1**	**+0.8**
HHC	**Hu-ho-hao-te**	**78.70**	**320**	*e*P	**P**	**18 29 41.3**	**+0.9**
HHC				pmax	pmax			
	comp=Z,13nm,0.7s							
MAW	**Mawson**	**79.31**	**202**	P	**P**	**18 29 44.4**	**+1.2**
	comp=Z,0.8nm,0.3s,baz=95,slow=19,SNR=9.9							
	comp=Z,0.8nm,0.3s							
NPW	**Naypyitaw**	**80.17**	**294**	P	**P**	**18 29 50.4**	**+1.7**
	comp=Z,12nm,1.2s							
LZDM	**Lanzhou Array**	**81.29**	**312**	P	**P**	**18 29 55.1**	**+0.3**
	comp=Z,1.7nm,0.3s,baz=79,slow=7.8,SNR=2.0							
	comp=Z,1.7nm,0.3s							
M16K	**Timber Creek**	**82.95**	**15**	P	**P**	**18 30 03.4**	**+1.0**
MORE	**Moreh**	**83.48**	**298**	IAmb	IAmb	18 30 05.3		
	comp=Z,5.4nm,0.8s							
ILSW	**Iliamna Southw**	**83.69**	**18**	P	**P**	**18 30 05.6**	**-0.8**
YAK	**Yakutsk**	**85.40**	**343**	P	**P**	**18 30 14.3**	**-0.4**
	comp=Z,13nm,1.2s							
KMRM	**Mail Ridge**	**85.59**	**45**	P	**P**	**18 30 17.0**	**+0.6**
KMRM				IAmb	IAmb	18 32 39.3		
	comp=Z,16nm,1.3s							
SONM	**Songino Array**	**85.69**	**323**	P	**P**	**18 30 16.6**	**-0.2**
	comp=Z,0.6nm,0.4s,baz=147,slow=5.5,SNR=6.8							
	comp=Z,0.6nm,0.4s							
SONM	**Songino Array**	**85.69**	**323**	P	**P**	**18 30 16.1**	**-0.6**
GTA2	**Gaotai**	**85.71**	**314**	*e*P	**P**	**18 30 17.9**	**+0.8**
GTA2				pmax	pmax			
	comp=Z,9.0nm,0.9s							
CAST	**Castle Rocks**	**86.75**	**17**	P	**P**	**18 30 21.1**	**-0.3**
NVAR	**Mina Array Bea**	**88.58**	**49**	P	**P**	**18 30 30.6**	**-0.4**
	comp=Z,0.9nm,0.8s,baz=211,slow=6.1,SNR=4.8							
	comp=Z,0.9nm,0.8s							
ILAR	**Eielson Array**	**89.25**	**18**	P	**P**	**18 30 31.1**	**-2.2**
	comp=Z,0.4nm,0.7s,baz=238,slow=5.4,SNR=5.5							
	comp=Z,0.4nm,0.7s							
ILAR	**Eielson Array**	**89.25**	**18**	P	**P**	**18 30 32.8**	**-0.5**
TROLL	**Troll, Antarti**	**89.75**	**184**	⇑P	**P**	**18 30 35.8**	**-0.1**
	comp=Z,84nm,0.7s							
MKAR	**Makanchi Array**	**100.24**	**316**	P	**Pdif**	**18 31 23.2**	**-0.8**
	comp=Z,0.3nm,0.6s,baz=98,slow=6.0,SNR=3.6							
MKAR				PKiKP	**PKiKP**	**18 35 50.3**	**-0.6**
	comp=Z,0.2nm,0.7s,baz=156,slow=1.4,SNR=1.7							
AAK	**Ala-Archa**	**104.72**	**310**	P	**Pdif**	**18 31 48.5**	**+4.3**
	comp=Z,8.2nm,1.6s							
ARCES	**ARCESS Array B**	**123.61**	**345**	PKP	**PKPdf**	**18 36 33.2**	**-1.1**
	comp=Z,4.5nm,0.8s,baz=74,slow=1.9,SNR=12							
FINES	**FINESS Array B**	**129.08**	**338**	PKP	**PKPdf**	**18 36 44.0**	**-0.9**
	comp=Z,4.1nm,1.0s,baz=87,slow=2.8,SNR=7.1							
CONA	**Conrad Observa**	**142.61**	**329**	*e*PKP	**PKPdf**	**18 37 09.0**	**-1.6**
	comp=Z,4.9nm,1.7s,SNR=5.5							
GERES	**GERESS Array B**	**142.97**	**332**	PKhKP	PKPpre	18 37 07.5		
	comp=Z,0.3nm,0.5s,baz=14,slow=2.2,SNR=3.5							
SESA	**Seetaler Alpe,**	**143.81**	**329**	*i* PKP	PKPbc	18 37 10.6	-0.1	
	comp=Z,5.4nm,0.8s,SNR=6.2							
OBKA	**Obir**	**144.24**	**329**	*i* PKP	**PKPab**	**18 37 11.3**	**-0.1**
	comp=Z,3.6nm,1.1s							
KBA	**Koelnbreinsper**	**144.42**	**330**	*i* PKP	**PKPab**	**18 37 12.0**	**-0.3**
	comp=Z,2.6nm,0.6s							
LESA	**Schwarzleotal**	**144.48**	**331**	*e*PKP	PKPbc	18 37 12.4	-0.2	
	comp=Z,4.9nm,0.5s,SNR=7.7							
MYKA	**Terra Mystica**	**144.60**	**329**	*i* PKP	**PKPab**	**18 37 12.3**	**-0.4**
	comp=Z,4.3nm,0.8s							
WATA	**Walderalm**	**145.04**	**332**	*i* PKP	**PKPbc**	**18 37 14.1**	**-0.3**
	comp=Z,6.4nm,1.0s							
ABTA	**Abfaltersbach**	**145.05**	**331**	*i* PKP	**PKPbc**	**18 37 13.7**	**-0.7**
	comp=Z,12nm,0.9s							
WTTA	**Wattenberg**	**145.07**	**332**	*i* PKP	**PKPab**	**18 37 14.5**	**-0.1**
	comp=Z,8.5nm,1.1s							
BMRD	**Maredsous**	**145.15**	**342**	*d*PKP	**PKPdf**	**18 37 14.9**	**+0.1**
MOTA	**Moosalm**	**145.24**	**333**	*e*PKP	**PKPbc**	**18 37 15.0**	**-0.1**
	comp=Z,9.1nm,0.8s,SNR=7.1							
WLF	**Walferdange**	**145.26**	**340**	*d*PKP	**PKPab**	**18 37 15.4**	**+0.4**
RETA	**Reutte**	**145.28**	**333**	*i* PKP	**PKPab**	**18 37 15.1**	**-0.2**
	comp=Z,8.2nm,1.2s							
SQTA	**Sankt Quirin**	**145.29**	**332**	*i* PKP	**PKPab**	**18 37 15.2**	**-0.2**
	comp=Z,9.9nm,0.7s							
FETA	**Feichten**	**145.66**	**333**	*i* PKP	**PKPab**	**18 37 16.5**	**-0.3**
	comp=Z,9.5nm,1.0s,SNR=8.4							
DAVA	**Damuels**	**145.82**	**334**	*i* PKP	**PKPbc**	**18 37 16.9**	**0.0**
	comp=Z,4.0nm,0.7s							
FUORN	**Ofenpass-Fuorn**	**146.17**	**332**		**PKPbc**	**18 37 18.1**	**0.0**
TUE	**Stuetta**	**146.68**	**333**		**PKPab**	**18 37 20.0**	**-0.8**

*ISK **03** 18:27:15.7,37.°86N×26.°96E,h7km,ML2.6/19*
*AFAD **03** 18:27:15.2,37.°84N×26.°92E,h7km±3km,ML2.2*
*ATH **03** 18:27:15.2,37.°88N×27.°03E,h6km±2km,ML2.6/4,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **03** 18:27:16.1,37.°9N±1.°0×2.°7E±.°,h3km±2km,M2.6/6, MLh2.6/6*

ISC 03 18:27:16.1±0.8,**37.°86N**±0.°02×**26.°96E**±0.°02,**h13**km±6km, **n53**,σ0°**52**/82,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**212**	P		**Pg**	**Pg**	**18 27 19.9**	**-0.3**
SMG				S		**Sg**	**Sg**	**18 27 22.5**	**-0.5**
SMG				AML		AML	AML		
SMG	**Samos**	**0.18**	**212**	P		**Pg**	**Pg**	**18 27 19.8**	**-0.3**
SMG				S		**Sg**	**Sg**	**18 27 23.3**	**+0.3**
SMG				AML		AML	AML		
DGB	**zmir**	**0.20**	**343**	P		**Pg**	**Pg**	**18 27 19.9**	**-0.6**
DGB				S		**Sg**	**Sg**	**18 27 22.6**	**-0.9**
DGB				IAML				18 27 23.0	
	comp=E,515nm,0.2s								
DGB				IAML				18 27 25.0	
	comp=N,312nm,0.3s								
KRL1	**Karlovasi Samo**	**0.21**	**251**	P		**Pg**	**Pg**	**18 27 20.5**	**-0.1**
KRL1				S		**Sg**	**Sg**	**18 27 24.1**	**+0.3**
KRL1				AML		AML	AML		
GMLD	**Gumuldur**	**0.22**	**351**	Pg		**Pg**	**Pg**	**18 27 20.6**	**-0.2**
GMLD				AML		AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**90**	Pg		**Pg**	**Pg**	**18 27 21.4**	**-0.1**
KUSD				AML		AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**126**	P		**Pg**	**Pg**	**18 27 21.7**	**0.0**
GCAM				S		**Sg**	**Sg**	**18 27 26.0**	**+0.4**
GCAM				IAML				18 27 26.0	
	comp=N,956nm,0.4s								
GCAM	**G?zelcaml?**	**0.27**	**126**	Pg		**Pg**	**Pg**	**18 27 21.6**	**-0.1**
GCAM				Sg		**Sg**	**Sg**	**18 27 25.9**	**+0.4**
GCAM				AML		AML	AML		
BEYE	**izmir**	**0.36**	**356**	P		**Pg**	**Pg**	**18 27 23.1**	**-0.3**
BEYE				S		**Sg**	**Sg**	**18 27 28.3**	**-0.1**
BEYE				IAML				18 27 29.0	
	comp=E,233nm,0.4s								
BEYE				IAML				18 27 30.0	
	comp=N,150nm,0.4s								
DDIM	**Aydin, Didim**	**0.46**	**151**	P		**Pg**	**Pg**	**18 27 24.2**	**-1.0**
DDIM				S		**Sg**	**Sg**	**18 27 31.2**	**-0.2**
DDIM				IAML				18 27 32.0	
	comp=E,210nm,0.3s								
DDIM				IAML				18 27 33.0	
	comp=N,352nm,0.3s								
ZEYE	**Izmir, Urla-Ze**	**0.52**	**316**	P		**Pg**	**Pg**	**18 27 25.7**	**-0.6**
ZEYE				S		**Sg**	**Sg**	**18 27 33.6**	**+0.4**
ZEYE				IAML				18 27 34.0	
	comp=N,393nm,0.4s								
ZEYE				IAML				18 27 34.0	
	comp=E,200nm,0.2s								
BLCB	**Balcova**	**0.53**	**7**	P		**Pg**	**Pg**	**18 27 26.1**	**-0.3**
BLCB				S		**Sg**	**Sg**	**18 27 33.4**	**0.0**
BLCB				AML		AML	AML		
BLCB	**Balcova**	**0.53**	**7**	Pg		**Pg**	**Pg**	**18 27 26.3**	**-0.1**
BLCB				Sg		**Sg**	**Sg**	**18 27 33.4**	**0.0**
BLCB				AML		AML	AML		
DUVT	**Torbali**	**0.53**	**47**	P		**Pg**	**Pg**	**18 27 26.0**	**-0.4**
DUVT				S		**Sg**	**Sg**	**18 27 33.1**	**-0.3**
DUVT				IAML				18 27 34.0	
	comp=E,202nm,0.3s								
DIDI	**Didim-Aydin**	**0.53**	**155**	Pg		**Pg**	**Pg**	**18 27 26.4**	**-0.1**
DIDI				AML		AML	AML		
CESE	**eme**	**0.70**	**312**	Pg		**Pb**	**Pb**	**18 27 29.7**	**-0.4**
CESE				Sg		**Sb**	**Sb**	**18 27 39.8**	**+0.1**
CESE				AML		AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**83**	Pg		**Pb**	**Pb**	**18 27 30.7**	**-0.2**
AYDB				AML		AML	AML		
AYDN	**Tasoluk**	**0.76**	**105**	P		**Pg**	**Pg**	**18 27 30.4**	**-0.3**
AYDN				S		**Sn**	**Sn**	**18 27 43.3**	**-0.5**
AYDN				IAML				18 27 46.0	
	comp=E,97nm,0.3s								
YKAV	**Yalikavak-Bodr**	**0.78**	**161**	Pg		**Pg**	**Pg**	**18 27 30.6**	**-0.6**
YKAV				Sg		**Sb**	**Sb**	**18 27 42.2**	**+0.2**
YKAV				AML		AML	AML		
BAGT	**Foa**	**0.80**	**354**	P		**Pg**	**Pg**	**18 27 31.2**	**-0.3**
BAGT				S		**Sg**	**Sg**	**18 27 40.6**	**-1.3**
BAGT				IAML				18 27 46.0	
	comp=N,170nm,1.1s								
BAGT				IAML				18 27 46.0	
	comp=E,138nm,0.5s								
KRBN	**Karaburun**	**0.80**	**337**	Pg		**Pb**	**Pb**	**18 27 31.9**	**+0.1**
KRBN				AML		AML	AML		
IZMR	**zmir-demi**	**0.83**	**70**	P		**Pg**	**Pg**	**18 27 31.0**	**-1.1**
IZMR				P		**Pb**	**Pb**	**18 27 32.2**	**-0.1**
IZMR				IAML				18 27 43.0	
	comp=N,61nm,1.0s								
IZMR				IAML				18 27 45.0	
	comp=N,58nm,0.5s								
BODT	**Bodrum**	**0.85**	**161**	S		**Sb**	**Sb**	**18 27 44.5**	**+0.6**
BODT				AML		AML	AML		
BODT	**Bodrum**	**0.85**	**161**	Pg		**Pg**	**Pg**	**18 27 32.1**	**-0.3**
BODT				AML		AML	AML		
MLSB	**Milas**	**0.86**	**131**	Pg		**Pg**	**Pg**	**18 27 32.7**	**0.0**
MLSB				AML		AML	AML		
FOCM	**Foa**	**0.87**	**348**	Pg		**Pb**	**Pb**	**18 27 33.3**	**+0.3**
FOCM				AML		AML	AML		
CHOS	**Chios island**	**0.88**	**307**	P		**Pg**	**Pg**	**18 27 32.7**	**-0.5**
CHOS				S		**Sb**	**Sb**	**18 27 45.4**	**+0.3**
CHOS				AML		AML	AML		
CHOS	**Chios island**	**0.88**	**307**	Pg		**Pb**	**Pb**	**18 27 33.4**	**+0.1**
CHOS				AML		AML	AML		
CHOS	**Chios island**	**0.88**	**307**	P		**Pg**	**Pg**	**18 27 32.9**	**-0.3**
CHOS				S		**Sb**	**Sb**	**18 27 45.5**	**+0.5**
CHOS				AML		AML	AML		
BDRM	**Kayabasi**	**0.89**	**154**	P		**Pg**	**Pg**	**18 27 31.8**	**-1.4**
BDRM				S		**Sb**	**Sb**	**18 27 45.2**	**+0.2**
BDRM				IAML				18 27 48.0	
	comp=E,91nm,0.3s								
BDRM				IAML				18 27 49.0	
	comp=N,89nm,0.3s								
KLNA	**Kalymnos**	**0.90**	**179**	P		**Pg**	**Pg**	**18 27 33.2**	**-0.3**
KLNA				S		**Sb**	**Sb**	**18 27 45.6**	**+0.1**
KLNA				AML		AML	AML		
KARB	**zmir-Karabur**	**0.91**	**332**	P		**Pg**	**Pg**	**18 27 33.0**	**-0.6**
KARB				S		**Sb**	**Sb**	**18 27 46.4**	**+0.7**
KARB				IAML				18 27 48.0	
	comp=N,163nm,0.4s								
KARB				IAML				18 27 48.0	
	comp=E,94nm,0.3s								
CAMT	**Merkez**	**0.93**	**17**	P		**Pg**	**Pg**	**18 27 33.5**	**-0.5**
CAMT				S		**Sn**	**Sn**	**18 27 47.8**	**-0.3**
CAMT				IAML				18 27 49.0	
	comp=N,301nm,0.3s								
CAMT				IAML				18 27 53.0	
	comp=E,199nm,0.5s								
EAG2	**Marmaro, Chios**	**0.95**	**316**	P		**Pb**	**Pb**	**18 27 34.3**	**-0.2**
EAG2				S		**Sb**	**Sb**	**18 27 47.4**	**+0.4**
NAZL	**Nazilli-Aydin**	**1.06**	**84**	Pg		**Pb**	**Pb**	**18 27 36.4**	**+0.1**
NAZL				AML		AML	AML		
ESEN	**Aydn-Nazilli**	**1.10**	**93**	P		**Pg**	**Pg**	**18 27 37.0**	**-0.3**
ESEN				S		**Sn**	**Sn**	**18 27 53.1**	**+0.8**
ZEDA	**zmir-Bergama**	**1.11**	**5**	P		**Pg**	**Pg**	**18 27 36.6**	**-0.7**
ZEDA				S		**Sn**	**Sn**	**18 27 52.8**	**+0.4**
ZEDA				IAML				18 27 54.0	
	comp=N,73nm,0.2s								
ZEDA				IAML				18 27 56.0	
	comp=E,129nm,0.6s								
GOMA	**Golmarmara-Man**	**1.13**	**42**	Pn		**Pn**	**Pn**	**18 27 38.0**	**+0.4**
GOMA				AML		AML	AML		
KIRA	**zmir-Kiraz**	**1.19**	**73**	P		**Pg**	**Pg**	**18 27 38.5**	**-0.4**
KIRA				S		**Sg**	**Sg**	**18 27 53.7**	**-0.7**
DKL	**Dikili**	**1.21**	**358**	Pn		**Pn**	**Pn**	**18 27 39.2**	**+0.5**
DKL				AML		AML	AML		
DKL	**Dikili**	**1.21**	**358**	P		**Pg**	**Pg**	**18 27 38.3**	**-1.0**
DKL				S		**Sg**	**Sg**	**18 27 54.2**	**-0.8**
KTTT	**Salihli**	**1.22**	**47**	P		**Pn**	**Pn**	**18 27 39.2**	**+0.4**
KTTT				S		**Sn**	**Sn**	**18 27 55.7**	**+0.5**
KTTT				IAML				18 27 58.0	
	comp=N,55nm,0.5s								
AKHS	**Akhisar**	**1.22**	**33**	P		**Pn**	**Pn**	**18 27 39.5**	**+0.7**
AKHS				IAML				18 28 00.0	
	comp=N,60nm,0.4s								
AKS	**Akhisar**	**1.22**	**33**	Pn		**Pn**	**Pn**	**18 27 39.7**	**+0.9**
AKS				AML		AML	AML		
YAZI	**Mula-Dat§a-**	**1.24**	**161**	P		**Pn**	**Pn**	**18 27 38.2**	**-1.0**
YAZI				IAML				18 28 02.0	
	comp=E,22nm,0.5s								
YER	**Yerkesik**	**1.28**	**124**	P		**Pb**	**Pb**	**18 27 40.2**	**+0.2**
SOMA	**Soma-Manisa**	**1.37**	**19**	Pn		**Pg**	**Pg**	**18 27 41.9**	**-0.5**
SOMA				AML		AML	AML		
APE	**Apeiranthos**	**1.38**	**236**	P		**Pn**	**Pn**	**18 27 41.4**	**+0.2**
APE	**Apeiranthos**	**1.38**	**236**	P		**Pb**	**Pb**	**18 27 42.0**	**+0.2**
MANT	**Manisa**	**1.41**	**63**	P		**Pg**	**Pg**	**18 27 43.0**	**-0.1**
MANT				IAML				18 28 05.0	
	comp=E,24nm,0.4s								
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn		**Pb**	**Pb**	**18 27 42.5**	**+0.1**
GORD				AML		AML	AML		
PRK	**Paraskevi**	**1.48**	**339**	P		**Pb**	**Pb**	**18 27 43.5**	**0.0**
STEP	**BALIKESIR_Sava**	**1.62**	**21**	P		**Pn**	**Pn**	**18 27 45.0**	**+0.6**
STEP				IAML				18 28 13.0	
	comp=E,67nm,0.3s								
STEP				IAML				18 28 16.0	
	comp=N,41nm,0.4s								

*ISK **03** 18:30:19.4,37.°87N×26.°43E,h2km,ML2.6/18*
*AFAD **03** 18:30:19.3,37.°86N×26.°44E,h7km±3km,ML2.5*
*ATH **03** 18:30:19.1,37.°85N×26.°41E,h14km±1km,ML2.6/3, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **03** 18:30:20.4,38.°N±1.°×2.°7E±.°,h10km±2km,M2.7/6, MLh2.7/6*

ISC 03 18:30:19.5±1.0,**37.°86N**±0.°02×**26.°43E**±0.°02,**h10**km±8km, **n45**,σ0°**54**/68,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.23**	**107**	P		**Pg**	**Pg**	**18 30 24.3**	**+0.1**
KRL1				S		**Sg**	**Sg**	**18 30 28.0**	**+0.6**
KRL1				AML		AML	AML		
SMG	**Samos**	**0.36**	**115**	P		**Pg**	**Pg**	**18 30 26.6**	**0.0**
SMG				S		**Sg**	**Sg**	**18 30 30.6**	**-0.8**
SMG				AML		AML	AML		
SMG	**Samos**	**0.36**	**115**	P		**Pg**	**Pg**	**18 30 26.7**	**+0.1**
SMG				S		**Sg**	**Sg**	**18 30 31.8**	**+0.4**
SMG				AML		AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**9**	P		**Pg**	**Pg**	**18 30 26.7**	**-0.3**
ZEYE				S		**Sg**	**Sg**	**18 30 32.8**	**+0.8**
ZEYE				IAML				18 30 34.0	
	comp=N,522nm,0.3s								
ZEYE				IAML				18 30 34.0	
	comp=E,531nm,0.2s								
DGB	**zmir**	**0.41**	**62**	P		**Pg**	**Pg**	**18 30 27.0**	**-0.4**
DGB				S		**Sg**	**Sg**	**18 30 32.8**	**0.0**
DGB				IAML				18 30 33.0	
	comp=N,650nm,0.4s								
DGB				IAML				18 30 33.0	
	comp=E,667nm,0.4s								
GMLD	**Gumuldur**	**0.44**	**61**	Pg		**Pg**	**Pg**	**18 30 28.2**	**+0.1**
GMLD				Sg		**Sg**	**Sg**	**18 30 34.5**	**+0.6**
GMLD				AML		AML	AML		
CESE	**eme**	**0.48**	**348**	Pg		**Pb**	**Pb**	**18 30 29.7**	**-0.3**
CESE				Sg		**Sb**	**Sb**	**18 30 36.7**	**-0.4**
CESE				AML		AML	AML		
BEYE	**izmir**	**0.54**	**47**	P		**Pg**	**Pg**	**18 30 29.2**	**-0.7**
BEYE				S		**Sg**	**Sg**	**18 30 37.2**	**+0.3**
BEYE				IAML				18 30 39.0	
	comp=E,184nm,0.2s								
CHOS	**Chios island**	**0.60**	**331**	P		**Pg**	**Pg**	**18

KTTT	Salihli	1.55	57	P	Pb	18 30 48.1	-0.2
SOMA	Soma-Manisa	1.56	34	Pn	Pg	18 30 49.2	-0.1
SOMA				AML	AML		
KARY	Karystos	1.58	277	P	Pn	18 30 47.2	-0.4
THR2	Thira island,	1.62	210	P	Pb	18 30 49.1	-0.5
GORD	Gordes-Manisa	1.73	52	Pn	Pb	18 30 51.7	+0.3
GORD				AML	AML		

*IDC **03** 18:39:02.7±0.8, 62°.13S×57°.47W, h0km, mb3.9/5, mbtmp3.9/6, ML4.0/1, MS3.5/2, Error ellipse: s-maj=27.2km s-min=19.9km az=100.0*
*NEIC **03** 18:39:03.7±1.2, 62°.34S±0°.06×58°.23W±0°.06, h10km±1km, mb4.4/13, Error ellipse: s-maj=11.2km s-min=3.1km az=24.0*

ISC 03 18:39:03.7±0.5, **62°.29S**±0°.06×**58°.23W**±0°.07, **h10**km, **n44, σ1§40/36, mb4.1/9, 4D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.24**	**154**		**Pn**	**18 39 26.6**	**-0.5**
ESPZ				Sn	**Sb**	**18 39 43.0**	**-0.3**
PMSA	**Palmer Station**	**3.60**	**224**	Pn	**Pn**	**18 40 01.7**	**+2.2**
	9.4nm,0.3s,baz=57,slow=9.9,SNR=13						
PMSA				Sn	**Sb**	**18 40 52.5**	**+1.4**
	6.9nm,0.3s,baz=148,slow=24,SNR=4.4						
PMSA				LR	LR	18 41 26.6	
	comp=Z,566nm,20.3s,baz=123,slow=36 10nm,0.4s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.60**	**224**		**Pn**	**18 39 58.5**	**-0.9**
PMSA				Sn	**Sn**	**18 40 38.6**	**-3.4**
ORCD	**Orcadas**	**6.64**	**82**	Pn	**Pn**	**18 40 39.7**	**-1.5**
MG03	**Isla Dawson**	**10.64**	**317**	Pn	**Pn**	**18 41 35.8**	**-0.2**
EFI	**East Falkland**	**10.65**	**1**	Pn	**Pn**	**18 41 36.1**	**+0.1**
MG02	**Cerro Sombrero**	**11.20**	**323**	Pn	**Pn**	**18 41 43.3**	**-0.3**
BELA	**Belgrano 2**	**17.33**	**163**	P	**P**	**18 43 06.3**	**-0.4**
VNA3	**Neumayer Olymp**	**20.51**	**136**	⇓P	Pn	18 43 45.0	+1.3
	comp=Z,7.8nm,0.8s						
VNA1	**Neumayer--Stat**	**20.98**	**135**	⇓P	Pn	18 43 50.6	+1.4
	comp=Z,8.5nm,0.8s						
VNA2	**Neumayer--Watz**	**21.26**	**135**	⇓P	**P**	**18 43 53.1**	**+3.5**
	comp=Z,4.2nm,0.7s,baz=257,slow=10						
SNAA	**Sanae**	**22.69**	**138**	⇓P	**P**	**18 44 08.1**	**+3.1**
	comp=Z,144nm,1.0s						
SNAA	**Sanae**	**22.69**	**138**	P	**P**	**18 44 03.4**	**-1.5**
	comp=Z,3.2nm,0.9s,baz=268,slow=7.8,SNR=7.4 comp=Z,3.2nm,0.9s						
SNAA	**Sanae**	**22.69**	**138**	P	**P**	**18 44 05.4**	**+0.5**
PLCA	**Paso Flores**	**22.83**	**335**	P	**P**	**18 44 06.9**	**+0.2**
	comp=Z,5.3nm,1.0s,baz=174,slow=9.2,SNR=6.0 comp=Z,5.3nm,1.0s						
PLCA	**Paso Flores**	**22.83**	**335**	P	**P**	**18 44 07.2**	**+0.5**
PLCA				IAmb	IAmb	18 44 11.0	
	comp=Z,10nm,1.1s						
LR05	**Currie**	**23.61**	**333**	P	**P**	**18 44 15.0**	**+0.4**
LR05				IAmb	IAmb	18 44 17.4	
	comp=Z,26nm,1.3s						
GO06	**Curarrehue**	**24.12**	**334**	P	**P**	**18 44 19.3**	**-0.2**
GO06				IAmb	IAmb	18 44 21.8	
	comp=Z,16nm,1.2s						
QSPA	**South Pole Qui**	**27.93**	**180**	P	**P**	**18 44 56.3**	**+2.4**
	comp=Z,0.9nm,0.7s,baz=124,slow=6.7,SNR=4.0 comp=Z,0.9nm,0.7s						
QSPA	**South Pole Qui**	**27.93**	**180**	IAmb	IAmb	18 45 29.8	
	comp=Z,9.6nm,1.4s						
CO02	**Combarbal**	**32.18**	**339**	P	**P**	**18 45 31.8**	**+0.1**
GO04	**Tololo Observa**	**33.16**	**340**	P	**P**	**18 45 40.3**	**0.0**
CO01	**Juntas del Tor**	**33.24**	**341**	P	**P**	**18 45 42.9**	**+1.8**
CO01				IAmb	IAmb	18 45 44.8	
	comp=Z,13nm,1.4s						
CPUP	**Villa Florida**	**35.96**	**1**	P	**P**	**18 46 03.6**	**-0.7**
	comp=Z,0.7nm,0.4s,baz=198,slow=3.2,SNR=2.9 comp=Z,0.7nm,0.4s						
PB16	**IPOC Station P**	**44.62**	**345**	P	**P**	**18 47 17.1**	**+0.5**
PB16				IAmb	IAmb	18 47 37.6	
	comp=Z,5.2nm,1.3s						
LPAZ	**La Paz**	**46.48**	**347**	LR	LR	19 07 43.4	
	comp=Z,52nm,18.1s,baz=264,slow=37						
H10S3	**ASCENSION HYDR**	**61.88**	**51**	T	T	19 56 39.6	
	baz=202,slow=74,SNR=28						
H10S2	**ASCENSION HYDR**	**61.88**	**51**	T	T	19 56 39.6	
	baz=18,slow=74,SNR=21						
H10N3	**ASCENSION HYDR**	**62.97**	**50**	T	T	19 57 57.1	
	baz=202,slow=75,SNR=20						
H10N1	**ASCENSION HYDR**	**62.97**	**50**	T	T	19 57 57.4	
	baz=202,slow=75,SNR=16						
H10N2	**ASCENSION HYDR**	**62.99**	**50**	T	T	19 57 58.4	
	baz=202,slow=75,SNR=22						
BOAV	**Boa Vista**	**64.54**	**357**	P	**P**	**18 49 40.0**	**-0.7**
MSWZ	**Moikau Station**	**68.08**	**221**	P	**P**	**18 50 01.6**	**-1.5**
THZ	**Tophouse**	**68.46**	**219**	P	**P**	**18 50 04.0**	**-1.6**
MRNZ	**Matariki Terra**	**68.83**	**219**	P	**P**	**18 50 07.1**	**-0.8**
WRA	**Warramunga Arr**	**97.44**	**192**	P	Pdif	18 52 38.2	+0.6
	comp=Z,0.3nm,0.8s,baz=165,slow=3.5,SNR=1.7 comp=Z,0.3nm,0.8s						
CMAR	**Chiang Mai Arr**	**133.40**	**150**	PKP	**PKiKP**	**18 58 21.5**	**+0.6**
	comp=Z,0.3nm,0.5s,baz=228,slow=3.7,SNR=5.0						
CMAR	**Chiang Mai Arr**	**133.40**	**150**		**PKiKP**	**18 58 21.1**	**+0.2**
ARCES	**ASCENSION Array B**	**144.06**	**37**	PKhKP	PKPpre	18 58 33.9	
	comp=Z,6.0nm,0.9s,baz=242,slow=1.9,SNR=5.7						
BVAR	**Borovoye Array**	**151.73**	**85**	PKPbc	**PKPbc**	**18 58 56.4**	**-0.7**
	comp=Z,1.1nm,0.3s,baz=159,slow=2.6,SNR=11						
MKAR	**Makanchi Array**	**152.90**	**106**	PKPbc	**PKPbc**	**18 58 59.5**	**-0.4**
	comp=Z,0.5nm,0.6s,baz=224,slow=3.1,SNR=5.3						
KURBB	**Kurchatov Arra**	**153.95**	**97**	PKPbc	**PKiKP**	**18 59 02.1**	**0.0**
	comp=Z,1.7nm,0.2s,baz=304,slow=5.5,SNR=5.2						
KURK	**Kurchatov**	**154.05**	**96**		**PKiKP**	**18 59 02.1**	**-0.2**
SONM	**Songino Array**	**163.12**	**142**	PKPab	**PKPab**	**18 59 56.4**	**+1.0**
	comp=Z,0.7nm,0.9s,baz=185,slow=8.7,SNR=4.0						

IDC 03 18:39:19.1±2.1, **2°.05S×126°.13E, h0**km, **mb3.1**/2, **mbtmp3.2/3, ML3.1/1, Error ellipse: s-maj=175.2km s-min=29.3km az=64.0, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.51**	**156**	P	Pn	18 43 48.8	-0.5
	0.1nm,0.3s,baz=335,slow=12,SNR=6.0 0.6nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**22.77**	**161**	P	P	18 44 22.9	-0.5
	0.3nm,0.7s,baz=346,slow=11,SNR=1.8 0.3nm,0.7s						
MKAR	**Makanchi Array**	**62.00**	**327**	P	P	18 49 41.1	-0.1
	0.3nm,0.6s,baz=114,slow=8.2,SNR=2.8 0.3nm,0.6s						

IDC 03 18:51:55.8±1.9, **4°.42N×123°.59E, h0**km, **mb3.6**/4, **mbtmp3.6**/4, **Error ellipse: s-maj=157.1km s-min=25.1km az=66.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**22.47**	**175**	P	P	18 56 56.8	0.0
	4.3nm,1.2s,baz=346,slow=8.3,SNR=2.0 4.3nm,1.2s						
WRA	**Warramunga Arr**	**26.42**	**157**	P	P	18 57 34.7	+0.2
	0.3nm,0.3s,baz=337,slow=8.7,SNR=15 0.3nm,0.3s						
ASAR	**Alice Springs**	**29.68**	**161**	P	P	18 58 03.2	-0.4
	0.3nm,0.5s,baz=335,slow=8.2,SNR=5.2 0.3nm,0.5s						
MKAR	**Makanchi Array**	**55.23**	**326**	P	P	19 01 30.7	0.0
	0.2nm,0.3s,baz=126,slow=7.8,SNR=5.3 0.2nm,0.3s						

*ISK **03** 18:53:37.3, 37°.89N×26°.66E, h8km, ML3.1/19*
*THE **03** 18:53:37.4, 38°.N±1°×2°.7E±°, h2km±1km, M3.0/6, MLh3.0/6*
*AFAD **03** 18:53:37.0, 37°.88N×26°.64E, h7km±2km, ML2.7*

ISC 03 18:53:37.6±0.9, **37°.89N**±0°.02×**26°.66E**±0°.02, **h12**km±7km, **n38, σ0§42/59, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.23**	**142**	P	**Pg**	**18 53 42.5**	**0.0**
SMG				S	**Sg**	**18 53 46.1**	**+0.3**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**48**	P	**Pg**	**18 53 42.4**	**-0.2**
DGB				IAML		18 53 46.0	
	comp=N,856nm,0.2s						
DGB				IAML		18 53 46.0	
	comp=E,2μm,0.3s						
DGB				S	**Sg**	**18 53 46.2**	**+0.1**
GMLD	**Gumuldur**	**0.28**	**48**	Pg	**Pg**	**18 53 43.0**	**-0.2**
GMLD				Sg	**Sg**	**18 53 46.9**	**-0.2**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.37**	**341**	P	**Pg**	**18 53 44.3**	**-0.7**
ZEYE				S	**Sg**	**18 53 50.4**	**+0.5**
ZEYE				IAML		18 53 51.0	
	comp=N,2μm,0.2s						
ZEYE				IAML		18 53 53.0	
	comp=E,913nm,0.2s						
BEYE	**izmir**	**0.40**	**32**	P	**Pg**	**18 53 45.0**	**-0.4**
BEYE				S	**Sg**	**18 53 51.0**	**+0.2**
BEYE				IAML		18 53 51.0	
	comp=N,1μm,0.3s						
BEYE				IAML		18 53 54.0	
	comp=E,798nm,0.5s						
GCAM	**G?zelcaml?**	**0.49**	**113**	P	**Pg**	**18 53 47.0**	**-0.3**
GCAM				S	**Sb**	**18 53 54.9**	**-0.5**
GCAM				IAML		18 53 55.0	
	comp=E,1μm,0.4s						
GCAM				IAML		18 53 56.0	
	comp=N,871nm,0.2s						
GCAM	**G?zelcaml?**	**0.49**	**113**	Pg	**Pg**	**18 53 47.4**	**+0.1**
GCAM				Sg	**Sb**	**18 53 54.8**	**-0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.50**	**93**	Pg	**Pg**	**18 53 47.5**	**+0.1**
KUSD				AML	AML		
CESE	**eme**	**0.52**	**327**	Pg	**Pg**	**18 53 47.9**	**+0.1**
CESE				Sg	**Sb**	**18 53 55.7**	**-0.4**
CESE				AML	AML		
BLCB	**Balcova**	**0.58**	**32**	Pg	**Pg**	**18 53 49.1**	**+0.2**
BLCB				Sg	**Sb**	**18 53 57.6**	**-0.2**
BLCB				AML	AML		
CHOS	**Chios island**	**0.69**	**316**	P	**Pg**	**18 53 50.2**	**-0.7**
CHOS				S	**Sb**	**18 54 00.6**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.69**	**316**	Pg	**Pg**	**18 53 51.1**	**+0.2**
CHOS				AML	AML		
DIDI	**Didim-Aydin**	**0.69**	**138**	Pg	**Pb**	**18 53 51.2**	**-0.3**
DIDI				AML	AML		
KRBN	**Karaburun**	**0.70**	**353**	Pg	**Pg**	**18 53 51.3**	**0.0**
KRBN				AML	AML		
DUVT	**Torbali**	**0.71**	**62**	P	**Pg**	**18 53 51.2**	**-0.1**
DUVT				S	**Sb**	**18 54 01.0**	**-0.4**
DUVT				IAML		18 54 04.0	
	comp=E,623nm,0.5s						
DUVT				IAML		18 54 21.0	
	comp=N,0.9nm,0.8s						
BAGT	**Foa**	**0.78**	**11**	P	**Pg**	**18 53 51.5**	**-1.1**
BAGT				IAML		18 54 07.0	
	comp=N,804nm,0.7s						
BAGT				IAML		18 54 13.0	
	comp=E,585nm,0.6s						
KARB	**zmir-Karabur**	**0.79**	**346**	P	**Pg**	**18 53 51.9**	**-1.0**
KARB				S	**Sb**	**18 54 04.2**	**+0.2**
KARB				IAML		18 54 07.0	
	comp=E,582nm,0.4s						
KARB				IAML		18 54 11.0	
	comp=N,454nm,0.7s						
FOCM	**Foa**	**0.82**	**4**	Pg	**Pb**	**18 53 53.7**	**-0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.91**	**147**	Pg	**Pb**	**18 53 55.3**	**0.0**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.98**	**86**	Pg	**Pb**	**18 53 56.5**	**0.0**
AYDB				AML	AML		
BODT	**Bodrum**	**0.98**	**148**	P	**Pg**	**18 53 55.9**	**-0.5**
BODT				S	**Sn**	**18 54 10.6**	**-0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.98**	**148**	Pg	**Pb**	**18 53 56.4**	**0.0**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.99**	**103**	P	**Pg**	**18 53 56.6**	**-0.2**
AYDN				S	**Sb**	**18 54 10.0**	**+0.2**
AYDN				IAML		18 54 13.0	
	comp=N,181nm,0.4s						
AYDN				IAML		18 54 15.0	
	comp=E,462nm,0.3s						
CAMT	**Merkez**	**1.00**	**31**	P	**Pb**	**18 53 57.2**	**+0.4**
CAMT				S	**Sn**	**18 54 11.9**	**+0.5**
CAMT				IAML		18 54 14.0	
	comp=N,1μm,0.4s						
CAMT				IAML		18 54 14.0	
	comp=E,1μm,0.2s						
BDRM	**Kayabasi**	**1.04**	**143**	P	**Pg**	**18 53 56.8**	**-0.7**
BDRM				IAML		18 54 14.0	
	comp=E,145nm,0.4s						
BDRM				IAML		18 54 17.0	
	comp=N,128nm,0.4s						
IZMR	**zmir-demi**	**1.05**	**76**	P	**Pg**	**18 53 57.1**	**-0.7**
IZMR				P	**Pb**	**18 53 57.3**	**-0.4**
IZMR				S	**Sg**	**18 54 11.2**	**-0.3**
IZMR				S	**Sb**	**18 54 11.4**	**0.0**
IZMR				IAML		18 54 13.0	
	comp=N,237nm,0.7s						
IZMR				IAML		18 54 15.0	
	comp=N,247nm,0.6s						
IZMR				IAML		18 54 16.0	
	comp=E,203nm,0.5s						
IZMR				IAML		18 54 16.0	
	comp=E,197nm,0.5s						
MLSB	**Milas**	**1.07**	**123**	Pg	**Pb**	**18 53 58.1**	**+0.1**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**17**	P	**Pg**	**18 53 58.5**	**-0.7**
ZEDA				IAML		18 54 17.0	
	comp=E,235nm,0.3s						
ZEDA				IAML		18 54 18.0	
	comp=N,311nm,0.3s						
DKL	**Dikili**	**1.19**	**9**	Pn	**Pn**	**18 54 00.6**	**+0.6**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.28**	**50**	Pn	**Pg**	**18 54 02.1**	**-0.1**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.29**	**86**	Pn	**Pg**	**18 54 02.2**	**-0.3**
NAZL				AML	AML		
AKS	**Akhisar**	**1.34**	**42**	Pn	**Pb**	**18 54 02.9**	**+0.3**
AKS				AML	AML		
PRK	**Paraskevi**	**1.39**	**348**	P	**Pn**	**18 54 02.8**	**+0.1**
PRK				S	**Sb**	**18 54 21.2**	**+0.2**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**28**	Pn	**Pb**	**18 54 04.3**	**0.0**
SOMA				AML	AML		
YER	**Yerkesik**	**1.50**	**120**	P	**Pn**	**18 54 04.4**	**+0.1**
YER				S	**Sb**	**18 54 24.7**	**+0.4**
GORD	**Gordes-Manisa**	**1.57**	**49**	Pn	**Pb**	**18 54 06.3**	**-0.2**
GORD				AML	AML		
THR3	**Thira Island,**	**1.79**	**215**	P	**Pb**	**18 54 10.0**	**-0.2**
THERA	**Ancient Thera,**	**1.79**	**212**	P	**Pn**	**18 54 09.2**	**+1.0**
THERA				S	**Sg**	**18 54 35.0**	**-0.2**

OTT 03 18:59:11.7±1.3, **77°.75N×115°.30W, h18**km, **ML3.5**/2, **198km northeast from Mould Bay, Nt, Queen Elizabeth Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RES	**Resolute Bay**	**5.74**	**112**	PN	Pn	19 00 35.1	-0.6
RES				SN	Sn	19 01 37.5	-3.4
RES				Trac		19 01 45.5	
	comp=Z,12nm,0.4s						
A36M	**Sachs Harbour**	**6.34**	**209**	PN	Pn	19 00 41.9	-2.1
A36M				SN	Sn	19 01 50.8	-4.9
A36M				Trac		19 01 56.0	
	comp=Z,6.0nm,0.2s						
KUKN	**Kugluktuk,NWT**	**9.98**	**180**	SN	Sn	19 03 17.3	-7.9
KUKN				SN		19 03 18.2	
KUKN				Trac		19 03 27.9	
	comp=Z,96nm,1.2s						
ILON	**Igloolik, Nuna**	**12.40**	**115**	SN	Sn	19 04 15.7	-8.7

*ISK **03** 19:03:07.5, 37°.83N×26°.85E, h7km, ML2.6/18*
*AFAD **03** 19:03:07.3, 37°.83N×26°.81E, h7km±2km, ML2.5*
*THE **03** 19:03:08.2, 37°.9N±0°.9×2°.7E±°, h10km±1km, M2.8/7, MLh2.8/7*

ISC 03 19:03:08.0±0.9, **37°.84N**±0°.02×**26°.86E**±0°.02, **h13**km±6km, **n42, σ0§53/66, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.13**	**188**	S	**Sg**	**19 03 14.2**	**+0.5**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**5**	P	**Pg**	**19 03 12.6**	**-0.2**
DGB				S	**Sg**	**19 03 15.6**	**-0.3**
DGB				IAML		19 03 16.0	
	comp=N,782nm,0.1s						
GMLD	**Gumuldur**	**0.24**	**11**	Pg	**Pg**	**19 03 12.9**	**-0.3**
GMLD				Sg	**Sg**	**19 03 16.9**	**+0.2**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.33**	**114**	P	**Pg**	**19 03 14.6**	**0.0**
GCAM				IAML		19 03 20.0	
	comp=E,495nm,0.2s						
GCAM				S	**Sb**	**19 03 20.5**	**-0.3**
GCAM				IAML		19 03 21.0	
	comp=N,922nm,0.3s						
GCAM	**G?zelcaml?**	**0.33**	**114**	Pg	**Pg**	**19 03 14.5**	**-0.1**
GCAM				Sg	**Sg**	**19 03 19.6**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**86**	Pg	**Pg**	**19 03 14.6**	**-0.3**
KUSD				Sg	**Sg**	**19 03 19.9**	**+0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**8**	P	**Pg**	**19 03 15.6**	**-0.3**
BEYE				S	**Sg**	**19 03 21.1**	**-0.1**
BEYE				IAML		19 03 23.0	
	comp=E,388nm,0.1s						
DDIM	**Aydin, Didim**	**0.48**	**141**	P	**Pg**	**19 03 17.2**	**-0.4**
DDIM				IAML		19 03 25.0	
	comp=E,344nm,0.6s						
DDIM				S	**Sb**	**19 03 25.2**	**-0.2**
DDIM				IAML		19 03 30.0	
	comp=N,420nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**325**	P	**Pg**	**19 03 16.8**	**-0.9**
ZEYE				IAML		19 03 24.0	
	comp=N,938nm,0.3s						
ZEYE				S	**Sg**	**19 03 24.1**	**-0.1**
ZEYE				IAML		19 03 25.0	
	comp=E,411nm,0.2s						
BLCB	**Balcova**	**0.57**	**15**	P	**Pg**	**19 03 18.8**	**-0.3**
BLCB				S	**Sg**	**19 03 26.4**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**15**	Pg	**Pg**	**19 03 18.8**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.60**	**50**	P	**Pg**	**19 03 19.5**	**-0.2**
DUVT				S	**Sg**	**19 03 27.7**	**-0.1**
DUVT				IAML		19 03 29.0	
	comp=E,661nm,0.5s						
CESE	**eme**	**0.66**	**318**	Pg	**Pg**	**19 03 20.8**	**-0.1**
CESE				AML	AML		
DAGE	**izmir**	**0.73**	**76**	P	**Pb**	**19 03 22.2**	**-0.3**
DAGE				S	**Sg**	**19 03 31.5**	**-0.2**
DAGE				IAML		19 03 33.0	
	comp=N,189nm,0.1s						
DAGE				IAML		19 03 34.0	
	comp=E,282nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.79**	**155**	Pg	**Pb**	**19 03 23.2**	**-0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**343**	Pg	**Pg**	**19 03 23.0**	**-0.4**
KRBN				Sg	**Sb**	**19 03 34.8**	**+0.5**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**360**	P	**Pg**	**19 03 22.8**	**-1.1**
BAGT				S	**Sb**	**19 03 35.6**	**+0.6**
BAGT				IAML		19 03 37.0	
	comp=N,167nm,0.6s						
BAGT				IAML		19 03 37.0	
	comp=E,215nm,0.5s						
AYDB	**Zeytinkoy-Aydi**	**0.82**	**82**	Pg	**Pb**	**19 03 23.9**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.83**	**102**	P	**Pb**	**19 03 24.2**	**-0.1**
AYDN				S	**Sb**	**19 03 35.3**	**0.0**
AYDN				IAML		19 03 39.0	
	comp=E,148nm,0.3s						
AYDN				IAML		19 03 40.0	
	comp=N,98nm,0.2s						
CHOS	**Chios island**	**0.84**	**311**	P	**Pg**	**19 03 23.8**	**-0.4**
CHOS				S	**Sb**	**19 03 35.8**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**311**	Pg	**Pb**	**19 03 24.1**	**-0.3**
CHOS				AML	AML		
BODT	**Bodrum**	**0.85**	**155**	P	**Pb**	**19 03 24.3**	**-0.3**
BODT				S	**Sb**	**19 03 36.9**	**+0.9**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**155**	Pg	**Pb**	**19 03 24.3**	**-0.3**
BODT				AML	AML		
FOCM	**Foa**	**0.88**	**354**	Pg	**Pb**	**19 03 24.9**	**-0.2**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**337**	P	**Pg**	**19 03 23.9**	**-1.4**
KARB				S	**Sb**	**19 03 37.4**	**+0.1**
KARB				IAML		19 03 38.0	
	comp=E,158nm,0.4s						
KARB				IAML		19 03 39.0	
	comp=N,124nm,0.4s						
BDRM	**Kayabasi**	**0.90**	**149**	P	**Pg**	**19 03 25.0**	**-0.4**
BDRM				S	**Sb**	**19 03 37.9**	**+0.6**
BDRM				IAML		19 03 41.0	
	comp=N,138nm,0.3s						
BDRM				IAML		19 03 42.0	
	comp=E,148nm,0.4s						
MLSB	**Milas**	**0.91**	**126**	Pg	**Pg**	**19 03 25.2**	**-0.3**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.92**	**71**	P	**Pg**	**19 03 24.9**	**-0.8**
IZMR				P	**Pb**	**19 03 25.2**	**-0.4**
IZMR				IAML		19 03 41.0	
	comp=E,55nm,0.3s						
IZMR				IAML		19 03 41.0	
	comp=E,67nm,0.4s						
IZMR				IAML		19 03 43.0	
	comp=N,70nm,0.6s						
BODA	**Bodrum-Mula**	**0.92**	**150**	Pg	**Pb**	**19 03 25.6**	**-0.1**
CAMT	**Merkez**	**0.98**	**21**	P	**Pb**	**19 03 26.7**	**-0.1**
CAMT				S	**Sb**	**19 03 40.6**	**+1.0**
CAMT				IAML		19 03 42.0	
	comp=N,233nm,0.7s						
CAMT				IAML		19 03 42.0	
	comp=E,250nm,0.6s						
NAZL	**Nazilli-Aydin**	**1.14**	**83**	Pn	**Pg**	**19 03 29.4**	**-0.6**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.14**	**9**	P	**Pg**	**19 03 28.5**	**-1.5**
ZEDA				S	**Sn**	**19 03 45.7**	**+0.5**
ZEDA				IAML		19 03 46.0	
	comp=N,62nm,0.2s						
ZEDA				IAML		19 03 47.0	
	comp=E,98nm,0.5s						
ESEN	**Aydn-Nazilli**	**1.18**	**91**	P	**Pg**	**19 03 29.1**	**-1.5**
GOMA	**Golmarmara-Man**	**1.21**	**43**	Pn	**Pn**	**19 03 31.1**	**+0.6**
GOMA				AML	AML		
DKL	**Dikili**	**1.23**	**2**	Pn	**Pg**	**19 03 31.6**	**-0.1**
DKL				AML	AML		
AKHS	**Akhisar**	**1.28**	**36**	P	**Pn**	**19 03 31.7**	**+0.1**
AKHS				IAML		19 03 52.0	
	comp=N,122nm,0.6s						
AKS	**Akhisar**	**1.28**	**35**	Pn	**Pg**	**19 03 32.5**	**-0.2**
APE	**Apeiranthos**	**1.30**	**234**	P	**Pn**	**19 03 31.8**	**-0.1**
APE				S	**Sn**	**19 03 49.8**	**+0.6**
APE				AML	AML		
YER	**Yerkesik**	**1.33**	**121**	P	**Pn**	**19 03 32.0**	**-0.3**
YER				S	**Sg**	**19 03 50.4**	**-0.5**
SOMA	**Soma-Manisa**	**1.42**	**22**	Pn	**Pb**	**19 03 34.4**	**+0.1**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.48**	**342**	P	**Pn**	**19 03 34.5**	**+0.2**
PRK				S	**Sn**	**19 03 54.3**	**+0.8**
GORD	**Gordes-Manisa**	**1.49**	**44**	Pn	**Pb**	**19 03 35.6**	**+0.1**
GORD				AML	AML		

*IDC **03** 19:05:30.9±1.5, 4°.70S×105°.07W, h0km, mb3.9/7, mbtmp3.9/7, MS3.8/17, Error

comp=Z,118nm,0.6s
CARN Rivas 24.86 51 P **P** 19 10 57.1 -0.2
MGAN Managua 24.91 48 P **P** 19 10 57.6 -0.1
MGAN Managua 24.91 48 P **P** 19 10 58.6 +0.9
comp=Z,815nm,0.8s
LCR2 La Lucha 2 25.25 56 P **P** 19 11 00.2 -0.9
HDC Heredia 25.30 55 P **P** 19 11 01.0 -0.5
TGUH Tegucigalpa,Un 25.47 43 P **P** 19 11 01.4 -1.5
BOAB BOACO BROADBAN 25.54 49 P **P** 19 11 04.2 +0.8
BOAB BOACO BROADBAN 25.54 49 P **P** 19 11 06.0 +2.5
comp=Z,298nm,0.7s
EGUB Earth Gupi 25.85 56 P **P** 19 11 06.2 0.0
ATAH Atahualpa 26.60 97 LR LR 19 18 60.0
comp=Z,470nm,20.9s,baz=266,slow=30
OTAV Otavalo 26.94 81 P P 19 11 23.5 +6.8
comp=Z,3.2nm,0.6s
SIUN Universidad Ur 27.02 48 P **P** 19 11 17.4 +0.6
SIUN IAmb IAmb 19 11 53.7
comp=Z,12nm,0.8s
ZAIG Zacatecas 27.19 5 P **P** 19 11 15.6 -2.9
BCIP Isla Barro Col 28.52 62 P **P** 19 11 33.6 +3.4
comp=Z,26nm,1.1s
NNA Nana 28.83 107 LR LR 19 19 41.9
comp=Z,282nm,21.5s,baz=320,slow=30
TEIG Tepich 29.55 33 P **P** 19 11 36.8 -2.4
comp=Z,56nm,2.3s
ROSC El Rosal 32.02 74 LR LR 19 21 09.7
comp=Z,59nm,19.2s,baz=233,slow=29
CZSB Cruzeiro do Su 32.27 97 P **P** 19 12 02.5 -1.0
RUSC La Rusia 33.50 72 P **P** 19 12 12.0 -2.8
RUSC IAmb IAmb 19 12 17.5
comp=Z,14nm,1.3s
TX31 Lajitas Ar. Si 33.65 2 P **P** 19 12 13.9 -1.4
TX31 IAmb IAmb 19 12 38.6
comp=Z,6.8nm,1.4s
TXAR Lajitas Array 33.65 2 P **P** 19 12 16.2 +0.8
comp=Z,0.6nm,0.8s,baz=186,slow=10,SNR=6.2
comp=Z,0.6nm,0.8s
TXAR Lajitas Array 33.65 2 P **P** 19 12 14.3 -1.1
SAND Sanderson 34.35 4 P **P** 19 12 20.5 -0.9
ALPN Alpine 34.68 2 P **P** 19 12 23.8 -0.7
ALPN IAmb IAmb 19 12 33.5
comp=Z,5.5nm,0.9s
VHRN Van Horn 35.07 0 P **P** 19 12 27.0 -0.8
VHRN IAmb IAmb 19 12 32.2
comp=Z,7.2nm,1.4s
JCT Junction City 35.12 8 P **P** 19 12 27.0 -1.1
JCT IAmb IAmb 19 12 30.1
comp=Z,4.6nm,0.8s
TAOE Nuku Hiva Isla 35.16 261 *e*LR LR 19 21 52.2
comp=Z,221nm,22.8s
TAOE Nuku Hiva Isla 35.16 261 P P 19 12 40.4 +12
comp=Z,96nm,1.0s
MTDJ Mount Denham 35.25 49 P **P** 19 12 29.4 -0.1
comp=Z,106nm,2.9s
MNHN Monahans 35.69 3 P **P** 19 12 31.9 -1.0
CAMR Camarioca 35.80 39 P **P** 19 12 33.1 -0.9
319A Douglas 35.89 354 P **P** 19 12 33.4 -1.4
MNTX Cornudas Mount 35.98 359 P **P** 19 12 34.7 -0.7
MNTX IAmb IAmb 19 12 44.1
comp=Z,8.1nm,1.2s
MNTX Cornudas Mount 35.98 359 P **P** 19 12 33.5 -2.0
BRDY Brady 36.02 9 P **P** 19 12 35.3 -0.5
TPB11 China Draw 36.23 1 P **P** 19 12 37.0 -0.6
SGCY Sterling City 36.38 6 P **P** 19 12 37.8 -1.1
GDL2 Guadalupe Moun 36.48 1 P **P** 19 12 38.3 -1.6
CAIB Caibarien 36.63 42 P **P** 19 12 41.4 +0.3
PIX Pinacate 36.73 348 P **P** 19 12 41.8 0.0
PIX IAmb IAmb 19 12 51.2
comp=Z,12nm,1.4s
SDV Santo Domingo 36.75 69 LR LR 19 24 38.3
comp=Z,146nm,20.8s,baz=220,slow=31
121A Cookes Peak, D 36.90 356 P **P** 19 12 43.3 -0.2
121A IAmb IAmb 19 12 47.2
comp=Z,7.2nm,1.1s
WHTX Lake Whitney, 36.98 11 P **P** 19 12 42.6 -1.3
DUN6 Lazy B Ranch 37.03 354 P **P** 19 12 44.3 -0.3
545A Edgard 37.04 21 P **P** 19 12 43.7 -0.7
PSGCX Pisagua 37.16 117 P P 19 12 57.8 +12
comp=Z,12nm,2.6s
ABTX Abilene, Hawle 37.25 7 P **P** 19 12 45.2 -1.0
ABTX IAmb IAmb 19 12 51.3
comp=Z,6.0nm,0.6s
PB16 IPOC Station P 37.32 115 P P 19 12 58.6 +11
comp=Z,6.6nm,1.3s
POST Post 37.49 5 P **P** 19 12 48.3 0.0
SN07 Snyder 07 37.57 6 P **P** 19 12 47.5 -1.5
PLPT Palo Pinto 37.63 9 P **P** 19 12 48.5 -0.9
PLPT IAmb IAmb 19 12 50.8
comp=Z,16nm,1.4s
113A Mohawk Valley, 37.97 348 P **P** 19 12 52.8 +0.6
LPAZ La Paz 38.04 111 LR LR 19 26 29.4
comp=Z,100nm,21.0s,baz=282,slow=33
DKNS Dickens 38.14 6 P **P** 19 12 53.1 -0.7
DKNS IAmb IAmb 19 13 15.2
comp=Z,10nm,1.1s
MSTX Muleshoe 38.30 3 P **P** 19 12 54.7 -0.5
SBM South Baldy 38.30 357 P **P** 19 12 54.7 -0.9
YUH Yuha Desert 38.35 345 P **P** 19 12 55.7 +0.2
LENM Lemitar 38.48 357 P **P** 19 12 56.4 -0.4
WTFS Witchita Falls 38.54 9 P **P** 19 12 55.0 -2.1
WTFS IAmb IAmb 19 13 05.8
comp=Z,21nm,1.3s
PB09 IPOC Station P 38.70 120 P **P** 19 12 57.4 -1.5
PB09 IAmb IAmb 19 13 22.1
comp=Z,12nm,1.1s
PB09 IPOC Station P 38.70 120 P P 19 13 13.1 +14
comp=Z,12nm,1.1s
BLYC Blythe 39.08 347 P **P** 19 13 01.9 +0.3
BLYC IAmb IAmb 19 13 35.1
comp=Z,4.3nm,0.6s
X16A Lo Mia Camp, P 39.16 352 P **P** 19 13 02.3 -0.3
ALQ Albuquerque 39.24 358 P **P** 19 13 01.6 -1.6
ALQ Albuquerque 39.24 358 P **P** 19 13 01.6 -1.6
ANMO Albuquerque 39.24 358 LR LR 19 26 09.1
comp=Z,92nm,21.7s,baz=44,slow=31
ANMO Albuquerque 39.24 358 P **P** 19 13 03.3 +0.1
comp=Z,6.0nm,2.8s
PFO Pinyon Flats O 39.41 345 LR LR 19 26 40.3
comp=Z,111nm,18.1s,baz=115,slow=32
IRM Iron Mountain 39.60 347 P **P** 19 13 06.3 +0.3
SMWD Samnorwood 39.63 6 P **P** 19 13 05.3 -1.0
SMWD IAmb IAmb 19 13 09.8
comp=Z,16nm,1.0s
W35A Tecumseh 40.16 10 P **P** 19 13 10.5 -0.2
W35A IAmb IAmb 19 13 26.5
comp=Z,23nm,1.3s
W13A Hualapai Mount 40.25 349 P **P** 19 13 12.5 +0.9
MIAR Mount Ida 40.28 15 P **P** 19 13 10.5 -1.2
MIAR IAmb IAmb 19 13 28.3
comp=Z,11nm,1.1s
MIAR Mount Ida 40.28 15 P **P** 19 13 11.2 -0.5
AC05 El Transito 40.88 130 P **P** 19 13 17.5 +0.6
AC05 IAmb IAmb 19 13 34.6
comp=Z,15nm,1.2s
AC05 El Transito 40.88 130 P P 19 13 31.8 +15
comp=Z,12nm,0.6s
GSC Goldstone, Bar 41.10 345 P **P** 19 13 18.8 +0.3
U15A North Rim 41.26 351 P **P** 19 13 21.0 +0.9
CCCA Chr Cany lake 41.45 345 P **P** 19 13 22.1 +0.8
CCCA IAmb IAmb 19 13 31.9
comp=Z,8.3nm,1.3s
LRMC Laurel Mtn Rad 41.49 344 P **P** 19 13 21.8 0.0
MVCO Mesa Verde 41.60 356 P **P** 19 13 22.9 +0.1
MVCO IAmb IAmb 19 13 31.7
comp=Z,10nm,1.1s
MVCO Mesa Verde 41.60 356 P P 19 13 23.3 +0.5
comp=Z,10nm,1.4s
QSM Queen of Sheba 41.74 345 P **P** 19 13 23.6 -0.1
QSM IAmb IAmb 19 13 35.9
comp=Z,10nm,1.4s
SHPR Sheep Range 41.86 348 P **P** 19 13 25.0 +0.1
ISA Isabella, Lake 41.88 343 P **P** 19 13 25.1 +0.2
GWY Greenwater Val 41.90 346 P **P** 19 13 25.1 -0.1
LCAR Lake Charles 42.37 17 P **P** 19 13 29.4 +0.6
LCAR IAmb IAmb 19 13 43.4
comp=Z,8.4nm,1.1s
WCT Wildcat Mounta 42.47 346 P **P** 19 13 30.8 +1.1
PV05 Paradox Valley 42.51 355 P **P** 19 13 30.7 +0.5
PV05 IAmb IAmb 19 13 39.5
comp=Z,13nm,1.0s
PV01 Paradox Valley 42.53 356 P **P** 19 13 30.5 +0.2
CCUT Cedar City 42.53 350 P **P** 19 13 31.2 +0.8
HMU Henry Mountain 42.54 353 P **P** 19 13 30.9 +0.4
HMU IAmb IAmb 19 13 40.0
comp=Z,8.4nm,1.2s
PV13 Radium Mtn., P 42.57 356 P **P** 19 13 30.7 0.0
PV13 IAmb IAmb 19 13 40.4
comp=Z,20nm,1.4s
PV02 Paradox Valley 42.61 356 P **P** 19 13 30.9 -0.2
PV02 IAmb IAmb 19 13 39.9
comp=Z,19nm,1.3s
PV11 David Mesa, Pa 42.71 356 P **P** 19 13 31.7 -0.1
PV11 IAmb IAmb 19 13 42.3
comp=Z,10nm,1.2s
PV12 Saucer Basin, 42.73 356 P **P** 19 13 31.5 -0.5
PV15 Paradox Valley 42.73 356 P **P** 19 13 31.6 -0.4
PV15 IAmb IAmb 19 13 40.5
comp=Z,13nm,1.1s
PV16 Nyswonger Mesa 42.73 355 P **P** 19 13 32.3 +0.4
PV16 IAmb IAmb 19 13 49.8
comp=Z,16nm,1.5s
PV10 Paradox Valley 42.80 355 P **P** 19 13 31.5 -1.1
PV10 IAmb IAmb 19 13 33.2
comp=Z,21nm,1.4s
PV07 Paradox Valley 42.84 356 P **P** 19 13 32.2 -0.6
PV07 IAmb IAmb 19 13 41.7
comp=Z,7.2nm,1.1s
PV23 Carpenter Ridg 42.88 355 P **P** 19 13 32.3 -0.9
PV23 IAmb IAmb 19 13 36.2
comp=Z,21nm,1.4s
FPAL Fort Paine 42.90 24 P **P** 19 13 31.9 -1.3
FPAL IAmb IAmb 19 14 10.9
comp=Z,8.9nm,1.3s
Y52A Lilburn 42.97 26 P **P** 19 13 32.4 -1.3
GMN Gold Mountain 43.11 346 P **P** 19 13 34.7 -0.4
GO05 Hualane 43.11 139 P P 19 13 50.0 +15
comp=Z,14nm,1.4s
PBMO Poplar Bluff 43.24 17 P **P** 19 13 35.3 -0.5
PBMO IAmb IAmb 19 13 45.4
comp=Z,19nm,1.2s
T42A Van Buren 43.29 16 P **P** 19 13 35.2 -1.0
T42A IAmb IAmb 19 13 38.7
comp=Z,9.0nm,1.0s
BO01 Tunca 43.30 138 P P 19 13 52.9 +16
comp=Z,8.9nm,2.4s
S39A Bolivar 43.34 14 P **P** 19 13 36.5 -0.2
CBKS Cedar Bluff 43.35 6 P **P** 19 13 36.6 -0.1
CBKS IAmb IAmb 19 14 13.3
comp=Z,12nm,0.8s
ZON Zonda 43.43 133 P **P** 19 13 37.1 -0.6
ZON IAmb IAmb 19 13 53.7
comp=Z,8.9nm,1.4s
WVT Waverly 43.48 20 P **P** 19 13 36.6 -1.2
WVT IAmb IAmb 19 13 53.4
comp=Z,18nm,1.4s
WVT Waverly 43.48 20 P **P** 19 13 36.1 -1.7
MZP Montezuma Peak 43.52 346 P **P** 19 13 38.0 -0.4
PSUT Pine Spring 43.58 350 P **P** 19 13 38.5 -0.3
SRU San Rafael Swe 43.67 354 P **P** 19 13 39.5 0.0
SRU IAmb IAmb 19 13 56.0
comp=Z,6.5nm,1.1s
TPH Tonopah 43.83 346 P **P** 19 13 40.9 0.0
TPH IAmb IAmb 19 13 43.5
comp=Z,5.1nm,1.0s
P17A Butcher Ranch, 44.05 354 P **P** 19 13 42.9 +0.3
P17A IAmb IAmb 19 13 51.8
comp=Z,5.0nm,1.0s
ISCO Idaho Springs 44.06 359 P **P** 19 13 42.9 +0.1
ISCO Idaho Springs 44.06 359 P **P** 19 13 42.2 -0.7
CPCT Cooper Cave 44.13 24 P **P** 19 13 44.1 +1.0
CCM Cathedral Cave 44.21 16 P **P** 19 13 43.0 -0.7
ECPR Experimental S 44.32 58 P **P** 19 13 46.0 +1.2
NVAR Mina Array Bea 44.44 345 P **P** 19 13 47.0 +1.3
comp=Z,0.5nm,0.7s,baz=155,slow=4.3,SNR=1.8
NVAR LR LR 19 28 13.9
comp=Z,105nm,18.8s,baz=94,slow=31
comp=Z,0.5nm,0.7s
O20A White River Ci 44.50 356 **P** 19 13 46.3 +0.2
O20A IAmb IAmb 19 13 48.4
comp=Z,6.5nm,1.1s
PAULI Pauline 44.78 27 P **P** 19 13 47.8 -0.4
VILB Vilhena 45.02 104 P **P** 19 13 50.5 -0.1
VILB IAmb IAmb 19 14 28.9
comp=Z,9.1nm,0.9s
DUG Dugway, Tooele 45.03 352 P **P** 19 13 50.2 -0.1
DUG IAmb IAmb 19 14 00.7
comp=Z,10nm,1.4s
DUG Dugway, Tooele 45.03 352 P **P** 19 13 50.5 +0.1
P38A Dawn 45.14 13 P **P** 19 13 49.9 -1.1
P38A IAmb IAmb 19 13 56.4
comp=Z,14nm,1.3s
PNTR Pine Nut 45.40 344 P **P** 19 13 53.1 -0.3
PNTR IAmb IAmb 19 13 55.6
comp=Z,4.9nm,0.8s
TZTN Tazewell 45.47 24 P **P** 19 13 53.7 -0.1
TZTN Tazewell 45.47 24 P **P** 19 13 54.1 +0.4
PPT Papeete 45.51 250 LR LR 19 27 30.0
comp=Z,99nm,20.4s,baz=30,slow=29
PPT2 Papeete2 45.51 250 *e*LR LR 19 26 48.1
comp=Z,175nm,25.8s
PPT2 *e*LR LR 19 26 54.3
comp=Z,131nm,26.8s
Q44A Meyer Farm, Va 45.63 17 P **P** 19 13 54.1 -0.8
ELK Elko 45.97 349 P **P** 19 13 58.8 +0.9
HWUT Hardware Ranch 46.26 353 P **P** 19 13 59.4 -0.7
HWUT Hardware Ranch 46.26 353 P **P** 19 13 59.3 -0.7
N38A Joes South For 46.33 12 P **P** 19 13 59.9 -0.5
R49A Shelbyville 46.36 22 P **P** 19 14 00.0 -0.7
PTLB Pontes e Lacer 46.37 107 P **P** 19 14 00.1 -1.1
PTLB IAmb IAmb 19 14 21.6
comp=Z,11nm,1.5s
R50A Paris 46.67 22 P **P** 19 14 02.5 -0.7
R50A IAmb IAmb 19 14 12.2
comp=Z,8.8nm,1.0s
LL06 Loncomilla 46.82 148 P P 19 14 20.7 +16
comp=Z,49nm,1.0s
K22A Casper 46.93 358 P **P** 19 14 05.6 +0.3
K22A IAmb IAmb 19 14 26.4
comp=Z,4.5nm,0.9s
PD31 Pinedale Array 47.21 355 P **P** 19 14 06.5 -1.0
PD31 IAmb IAmb 19 14 32.7
comp=Z,5.7nm,1.4s
PDAR Pinedale Array 47.21 355 P **P** 19 14 07.5 -0.1
comp=Z,0.9nm,0.8s,baz=157,slow=7.0,SNR=8.1
comp=Z,0.9nm,0.8s
PDAR Pinedale Array 47.21 355 P **P** 19 14 07.3 -0.3
MAGL Barre de l'ile 47.78 64 P **P** 19 14 11.0 -1.2
MOD Modoc Plateau 48.22 345 P **P** 19 14 16.3 +0.9
MOD IAmb IAmb 19 14 24.7
comp=Z,2.8nm,0.6s
RSSD Black Hills 48.39 1 P **P** 19 14 16.1 -0.6
RSSD Black Hills 48.39 1 P **P** 19 14 16.4 -0.3
HLID Hailey 48.57 351 P **P** 19 14 17.7 -0.4
BCYI Bear Canyon 49.15 352 P **P** 19 14 23.1 +0.5
BCYI IAmb IAmb 19 14 42.6
comp=Z,4.5nm,1.3s
YHH Holmes Hill 49.33 355 P **P** 19 14 24.2 +0.3
YHH IAmb IAmb 19 14 27.5
comp=Z,8.6nm,1.3s
QLMT Earthquake Lak 49.43 354 P **P** 19 14 24.6 0.0
CPUP Villa Florida 50.46 121 LR LR 19 32 07.1
comp=Z,82nm,19.9s,baz=253,slow=32
MDP Montagnes des 53.16 80 LR LR 19 34 49.5
comp=Z,126nm,19.4s,baz=314,slow=33
AGMN Agassiz Nation 53.16 8 P **P** 19 14 52.5 +0.1
ULM Lac du Bonnet 55.08 7 P **P** 19 15 06.2 0.0
comp=Z,1.1nm,0.4s,baz=217,slow=8.4,SNR=2.6
comp=Z,1.1nm,0.4s
BDFB Brasilia 57.04 106 LR LR 19 37 43.6
comp=Z,183nm,18.7s,baz=281,slow=34
BDFB Brasilia 57.04 106 P **P** 19 15 20.8 -0.3
BDFB IAmb IAmb 19 15 27.3
comp=Z,5.8nm,1.2s
SMTB Santa Maria do 57.15 98 P **P** 19 15 21.1 -0.7
YKA Yellowknife Ar 67.19 355 P **P** 19 16 26.2 -2.0
comp=Z,1.0nm,0.7s,baz=169,slow=5.4,SNR=2.3
comp=Z,1.0nm,0.7s
L29M L29M 71.91 345 P **P** 19 16 58.3 +0.9
KDAK Kodiak Island 72.86 336 LR LR 19 40 36.1
comp=Z,86nm,19.6s,baz=63,slow=29
ILAR Eielson Array 75.64 343 P **P** 19 17 17.8 -1.5
comp=Z,1.6nm,0.8s,baz=155,slow=5.3,SNR=13
comp=Z,1.6nm,0.8s
URZ Urewera 77.72 232 LR LR 19 47 17.0
comp=Z,43nm,18.1s,baz=204,slow=32
D24K Happy Valley 79.34 345 P **P** 19 17 42.6 +2.7
BELA Belgrano 2 81.57 168 P **P** 19 17 51.9 +0.1
QSPA South Pole Qui 85.57 180 P **P** 19 18 10.1 -2.6
comp=Z,1.8nm,0.9s,baz=85,slow=16,SNR=3.1
comp=Z,1.8nm,0.9s
SHEM Shemya Is, Ala 88.03 323 LR LR 19 50 33.1
comp=Z,44nm,19.1s,baz=120,slow=31
H11N3 WAKE ISLAND Hy 89.69 290 T T 20 57 41.5
baz=96,slow=74,SNR=49
H11N2 WAKE ISLAND Hy 89.71 290 T T 20 57 41.1
baz=96,slow=74,SNR=68
H11N1 WAKE ISLAND Hy 89.71 290 T T 20 57 41.4
baz=96,slow=74,SNR=63
H11S2 WAKE ISLAND Hy 89.78 288 T T 20 57 48.8
baz=94,slow=74,SNR=70
H11S1 WAKE ISLAND Hy 89.79 288 T T 20 57 48.1
baz=94,slow=74,SNR=76
H11S3 WAKE ISLAND Hy 89.80 288 T T 20 57 49.2
baz=94,slow=74,SNR=56
HNR Honiara 94.24 260 LR LR 19 53 19.1
comp=Z,56nm,18.8s,baz=209,slow=30
NJ2 Nanjing 130.65 309 *e*P **PKiKP** **19 24 54.1 +7.1**
NJ2 pmax pmax
comp=Z,14nm,0.9s
HHC Hu-ho-hao-te 131.15 323 *e*P **PKiKP** **19 24 51.1 +3.2**
KSH2 Kashi 145.49 359 PKP **PKPbc** **19 25 13.0 -0.3**
CMAR Chiang Mai Arr 152.78 303 PKP **PKPdf** **19 25 24.1 -1.3**
comp=Z,0.2nm,0.3s,baz=24,slow=1.8,SNR=4.3
CMAR PKPbc **sPKPdf** **19 25 31.4 +1.7**
comp=Z,0.2nm,0.3s,baz=3.8,slow=0.9,SNR=5.6

*UCR **03** 19:10:34.4±0.5, 10°.60N×86°.67W, h12km±12km, MW4.4, Presumed earthquake*
*CATAC **03** 19:10:36.5±0.6, 11°N±4°×8°7W±°, h21km±6km, M3.5/21, MLv3.5/21, Error ellipse: s-maj=8.4km s-min=4.3km az=27.0, confirmed*
ISC 03 19:10:36.6±2.7, 10°.63N±0°.06×86°.58W±0°.06, h25km±22km, n41, σ0°65/55, 5C-2D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ALIBA	**Liberia Airpor**	**1.02**	**92**	*e*P	**Pn**	**19 10 55.5**	**+0.2**
LCRUZ	**La Cruz**	**1.04**	**64**	*e*P	**Pn**	**19 10 55.4**	**-0.1**
JUD3	**Juan Diaz 3**	**1.13**	**114**	*e*P	**Pn**	**19 10 56.2**	**-0.6**
LAPC	**Finca la Perla**	**1.14**	**83**	*e*P	**Pn**	**19 10 56.6**	**-0.3**
LAPC				*e*S	**Sb**	**19 11 12.9**	**+0.9**
CARN	**Rivas**	**1.18**	**62**	⇑P	**Pn**	**19 10 57.9**	**+0.4**
CARN				S	**Sn**	**19 11 13.2**	**+0.4**
CARN	**Rivas**	**1.18**	**62**	*e*P	**Pn**	**19 10 57.6**	**+0.1**
VRLE	**La Escondida,**	**1.21**	**82**	*e*P	**Pn**	**19 10 57.7**	**-0.2**
GPS2	**Hotel Rincn d**	**1.22**	**84**	*e*P	**Pn**	**19 10 57.9**	**-0.1**
VORI	**VORI**	**1.23**	**81**	*e*P	**Pn**	**19 10 58.3**	**-0.1**
BUAI	**Buenos Aires**	**1.25**	**79**	*e*P	**Pn**	**19 10 58.9**	**+0.4**
JAPN	**Al SSO del Vol**	**1.26**	**45**	⇓P	**Pn**	**19 10 59.4**	**+0.9**
CMARA	**Lajas Hojancha**	**1.29**	**118**	P	**Pn**	**19 10 58.8**	**-0.3**
CMARA				S	**Sn**	**19 11 14.0**	**-1.6**
MORN	**Al O del Volca**	**1.29**	**45**	⇑P	**Pn**	**19 10 59.5**	**+0.4**
CONN	**Concepcion**	**1.32**	**45**	⇑P	**Pn**	**19 10 58.8**	**-0.6**
COLC	**Colonia**	**1.36**	**88**	*e*P	**Pn**	**19 11 00.1**	**+0.2**
MESS	**Mesas**	**1.37**	**85**	*e*P	**Pn**	**19 11 00.4**	**+0.3**
NANN	**Nandasmo**	**1.38**	**19**	P	**Pn**	**19 11 01.3**	**+1.1**
MAS3	**Al N del Volca**	**1.44**	**16**	P	**Pn**	**19 11 00.3**	**-0.8**
TIMP	**Tierras Morena**	**1.54**	**92**	*e*P	**Pn**	**19 11 02.8**	**+0.3**
COPN	**Copaltepe**	**1.54**	**360**	⇑P	**Pn**	**19 11 01.7**	**-0.7**
COPN	**Copaltepe**	**1.54**	**360**	*e*P	**Pn**	**19 11 01.7**	**-0.7**
WILN	**Americas 2**	**1.57**	**14**	P	**Pn**	**19 11 02.0**	**-0.8**
APQ2	**Apoyeque**	**1.58**	**9**	P	**Pn**	**19 11 03.0**	**+0.1**
TENO	**El Achiote**	**1.58**	**87**	*e*P	**Pn**	**19 11 03.0**	**0.0**
JTS	**Las Juntas de**	**1.64**	**102**	P	**Pn**	**19 11 04.2**	**+0.4**
COTE	**Lago Cote**	**1.64**	**92**	*e*P	**Pn**	**19 11 04.6**	**+0.7**
LEVN	**Ruinas Leon Vi**	**1.76**	**359**	P	**Pn**	**19 11 05.7**	**+0.3**
LEVN				S	**Sn**	**19 11 26.3**	**-0.8**
MOMN	**Momotombo**	**1.77**	**1**	P	**Pn**	**19 11 05.7**	**+0.1**
MOMN				S	**Sn**	**19 11 27.9**	**+0.6**
MOM2	**El Cardon**	**1.80**	**3**	⇓P	**Pn**	**19 11 06.4**	**+0.4**
MOM2				S	**Sn**	**19 11 28.9**	**+0.8**
MOM3	**MOM3**	**1.87**	**2**	⇑P	**Pn**	**19 11 07.2**	**+0.2**
MOM3				S	**Sn**	**19 11 29.4**	**-0.4**
ACON	**Acoyapa**	**1.92**	**46**	P	**Pn**	**19 11 07.8**	**+0.1**
ILCN	**San Idelfonso**	**1.94**	**357**	P	**Pn**	**19 11 07.8**	**-0.2**
ILCN				S	**Sn**	**19 11 32.3**	**+0.8**
PLRN	**Geotermica Pol**	**1.95**	**355**	P	**Pn**	**19 11 08.2**	**+0.1**
PLRN				S	**Sn**	**19 11 32.0**	**+0.2**
BOAB	**BOACO BROADBAN**	**2.02**	**26**	P	**Pn**	**19 11 09.1**	**+0.1**
BOAB				S	**Sb**	**19 11 35.9**	**-1.4**
PKGN	**Cerro Pekin**	**2.06**	**349**	P	**Pn**	**19 11 10.1**	**+0.5**
PKGN				S	**Sn**	**19 11 35.0**	**+0.5**
CRIN	**San Cristobal**	**2.11**	**348**	P	**Pn**	**19 11 10.4**	**+0.1**
LIMN	**Finca el Limon**	**2.43**	**5**	P	**Pn**	**19 11 15.0**	**+0.3**
CSGN	**Cosiguina Volc**	**2.52**	**338**	P	**Pn**	**19 11 16.9**	**+0.9**
CSGN				S	**Sn**	**19 11 45.4**	**-0.6**
LCR2	**La Lucha 2**	**2.69**	**109**	P	**Pn**	**19 11 20.0**	**+1.6**
CNCH	**Conchagua**	**2.90**	**335**	P	**Pn**	**19 11 21.6**	**+0.3**
CNCH				S	**Sn**	**19 11 54.8**	**-0.6**
PACA	**Pacayal**	**3.29**	**329**	P	**Pn**	**19 11 27.7**	**+1.0**
PACA				S	**Sn**	**19 12 04.1**	**-1.1**

*VAO **03** 19:26:34.9±1.8, 18°.78S×69°.98W, h131km±9km, mb4.1, Presumed earthquake*
*SJA **03** 19:26:39.9±0.7, 18°.67S×69°.76W, h129km±3km, ML3.9, MW3.7*
*NEIC **03** 19:26:40.0±1.3, 18°.65S±0°.04×69°.85W±0°.07, h134km±4km, mb4.2/4, ML4.1(GUC), Error ellipse: s-maj=9.5km s-min=5.7km az=102.0*
*GUC **03** 19:26:41.4±0.7, 18°.60S×69°.59W, h117km±3km, ML4.1, Presumed earthquake*
ISC 03 19:26:38.4±0.7, 18°.66S±0°.03×69°.76W±0°.06, h140km±6km, n81, σ1°47/109, 5C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB16	**IPOC Station P**	**0.41**	**37**	*e*P	**Pn**	**19 26 58.8**	**-0.1**
PB16				IAML		19 27 14.6	
	comp=Z,3μm,0.4s						
PB16	**IPOC Station P**	**0.41**	**37**		**Pn**	**19 26 58.6**	**-0.3**
PB16				Sn	**Sn**	**19 27 11.5**	**-2.9**
PB16	**IPOC Station P**	**0.41**	**37**	⇓*i*P	**Pn**	**19 26 58.7**	**-0.3**
PB16				*i* S	**Sn**	**19 27 12.0**	**-2.5**
PB16				IAML		19 27 12.2	
	comp=E,7μm,0.3s						
PX02	**IPOC Station P**	**0.51**	**234**	*e*P	**Pn**	**19 26 58.8**	**-0.1**
PX02				*i* S	**Sn**	**19 27 12.8**	**-1.6**
PX02				IAML		19 27 14.0	
	comp=N,3μm,0.2s						
PB12	**IPOC Station P**	**0.54**	**275**	*e*P	**Pn**	**19 26 59.9**	**+0.9**
PB12				*e*S	**Sn**	**19 27 14.3**	**-0.2**
PB12				IAML		19 27 14.6	
	comp=Z,3μm,0.4s						
PB12	**IPOC Station P**	**0.54**	**275**		**Pn**	**19 26 59.5**	**+0.5**
PB12				Sn	**Sn**	**19 27 13.5**	**-1.0**
PB12	**IPOC Station P**	**0.54**	**275**	⇑*i*P	**Pn**	**19 26 59.8**	**+0.9**
PB12				*i* S	**Sn**	**19 27 14.1**	**-0.4**
PB12				IAML		19 27 14.9	
	comp=N,7μm,0.2s						
AP01	**Chacalluta**	**0.62**	**298**	*e*P	**Pn**	**19 27 00.5**	**+1.2**
AP01				*e*S	**Sn**	**19 27 16.2**	**+1.0**
AP01				IAML		19 27 20.2	
	comp=Z,5μm,0.1s						
AP01	**Chacalluta**	**0.62**	**298**		**Pn**	**19 27 00.1**	**+0.8**
AP01				Sn	**Sn**	**19 27 14.8**	**-0.4**
AP01	**Chacalluta**	**0.62**	**298**	⇑*i*P	**Pn**	**19 27 00.4**	**+1.0**
AP01				*i* S	**Sn**	**19 27 15.1**	**0.0**
AP01				IAML		19 27 16.4	
	comp=N,16μm,0.3s						
PSGCX	**Pisagua**	**0.99**	**200**	*e*P	**Pn**	**19 27 03.5**	**+1.2**
PSGCX				*e*S	**Sn**	**19 27 20.6**	**0.0**
PSGCX				IAML		19 27 21.0	
	comp=Z,2μm,0.1s						
PSGCX	**Pisagua**	**0.99**	**200**		**Pn**	**19 27 03.2**	**+0.9**
PSGCX				Sn	**Sn**	**19 27 19.9**	**-0.6**
PSGCX	**Pisagua**	**0.99**	**200**	⇑*i*P	**Pn**	**19 27 03.5**	**+1.2**
PSGCX				*i* S	**Sn**	**19 27 20.4**	**-0.2**
PB11	**IPOC Station P**	**1.10**	**175**	*e*P	**Pn**	**19 27 04.8**	**+1.4**
PB11				*e*S	**Sn**	**19 27 22.9**	**+0.5**
PB11				IAML		19 27 23.6	
	comp=Z,2μm,0.2s						
PB11	**IPOC Station P**	**1.10**	**175**		**Pn**	**19 27 04.4**	**+1.1**
PB11				Sn	**Sn**	**19 27 21.8**	**-0.6**
PB11	**IPOC Station P**	**1.10**	**175**	⇑*i*P	**Pn**	**19 27 04.5**	**+1.2**
PB11				*i* S	**Sn**	**19 27 22.3**	**-0.1**
PB11				IAML		19 27 23.5	
	comp=E,4μm,0.2s						

PB18	**Visviri**	**1.10**	**14**			**Pn**	**19 27 05.4**	**+1.6**
PB18				Sn		**Sn**	**19 27 23.7**	**+0.7**
PB18	**Visviri**	**1.10**	**14**	*eP*		**Pn**	**19 27 05.5**	**+1.6**
GO01	**Chusmiza**	**1.14**	**152**	*eP*		**Pn**	**19 27 05.5**	**+1.4**
GO01				*eS*		**Sn**	**19 27 24.0**	**+0.3**
GO01				IAML			19 27 24.9	
	comp=Z,776nm,0.2s							
GO01	**Chusmiza**	**1.14**	**152**			**Pn**	**19 27 05.3**	**+1.2**
GO01				Sn		**Sn**	**19 27 23.1**	**-0.6**
GO01	**Chusmiza**	**1.14**	**152**	*eP*		**Pn**	**19 27 05.3**	**+1.2**
GO01				*i* S		**Sn**	**19 27 23.4**	**-0.3**
GO01				IAML			19 27 27.0	
	comp=E,8μm,0.1s							
PB08	**IPOC Station P**	**1.58**	**159**			**Pn**	**19 27 10.2**	**+1.7**
PB08				Sn		**Sn**	**19 27 30.7**	**-0.9**
TA02	**Huaiquique**	**1.64**	**192**	*eP*		**Pn**	**19 27 10.4**	**+1.6**
TA02				IAML			19 27 36.6	
	comp=Z,1μm,0.1s							
TA02	**Huaiquique**	**1.64**	**192**	*eP*		**Pn**	**19 27 10.4**	**+1.6**
TA02				IAML			19 27 35.3	
	comp=N,3μm,0.1s							
TA01	**Diego Aracena**	**1.94**	**192**	*eP*		**Pn**	**19 27 13.8**	**+1.6**
TA01				*eS*		**Sn**	**19 27 38.1**	**0.0**
TA01				IAML			19 27 39.9	
	comp=Z,355nm,0.3s							
TA01	**Diego Aracena**	**1.94**	**192**			**Pn**	**19 27 13.5**	**+1.3**
TA01				Sn		**Sn**	**19 27 36.6**	**-1.5**
TA01	**Diego Aracena**	**1.94**	**192**	*eP*		**Pn**	**19 27 13.6**	**+1.3**
TA01				IAML			19 27 45.5	
	comp=E,1μm,0.2s							
PB02	**IPOC Station P**	**2.65**	**183**	*eP*		**Pn**	**19 27 23.2**	**+2.1**
PB02				*eS*		**Sn**	**19 27 53.4**	**-0.5**
PB02				IAML			19 27 57.0	
	comp=Z,702nm,0.2s							
PB02	**IPOC Station P**	**2.65**	**183**			**Pn**	**19 27 22.2**	**+1.1**
PB02				Sn		**Sn**	**19 27 52.9**	**-1.1**
PB02	**IPOC Station P**	**2.65**	**183**	*eP*		**Pn**	**19 27 23.1**	**+2.1**
PB02				IAML			19 28 04.6	
	comp=E,840nm,0.3s							
LPAZ	**La Paz**	**2.83**	**34**	*eP*		**Pn**	**19 27 26.1**	**+2.3**
LPAZ	**La Paz**	**2.83**	**34**			**Pn**	**19 27 25.9**	**+2.1**
LPAZ				Sn		**Sn**	**19 27 56.3**	**-2.5**
LPAZ	**La Paz**	**2.83**	**34**⇑	*eP*		**Pn**	**19 27 25.9**	**+2.1**
LPAZ	**La Paz**	**2.83**	**34**	*eP*		**Pn**	**19 27 22.7**	**-1.1**
LPAZ				*eS*		**Sn**	**19 27 59.6**	**+0.9**
PB07	**IPOC Station P**	**3.05**	**182**	*eP*		**Pn**	**19 27 28.2**	**+2.0**
PB07				*eS*		Sn	19 27 51.5	-12
PB07				IAML			19 28 24.3	
	comp=Z,284nm,0.4s							
PB07	**IPOC Station P**	**3.05**	**182**			**Pn**	**19 27 27.8**	**+1.6**
PB07	**IPOC Station P**	**3.05**	**182**	*eP*		**Pn**	**19 27 28.5**	**+2.3**
PB07				IAML			19 28 18.3	
	comp=E,300nm,0.3s							
PB09	**IPOC Station P**	**3.16**	**171**	*eP*		**Pn**	**19 27 30.2**	**+2.6**
PB09				*eS*		Sn	19 27 55.5	-10
PB09				IAML			19 28 10.3	
	comp=Z,244nm,0.4s							
PB09	**IPOC Station P**	**3.16**	**171**			**Pn**	**19 27 30.1**	**+2.5**
PB09	**IPOC Station P**	**3.16**	**171**	*eP*		**Pn**	**19 27 30.1**	**+2.5**
PB09				IAML			19 28 40.5	
	comp=E,248nm,0.7s							
PB03	**IPOC Station P**	**3.37**	**180**	*eP*		**Pn**	**19 27 32.4**	**+2.0**
PB03				*eS*		Sn	19 27 57.8	-13
PB03				IAML			19 28 17.2	
	comp=Z,151nm,0.1s							
PB03	**IPOC Station P**	**3.37**	**180**			**Pn**	**19 27 32.1**	**+1.7**
PB03	**IPOC Station P**	**3.37**	**180**	*eP*		**Pn**	**19 27 32.2**	**+1.9**
PB03				IAML			19 28 39.1	
	comp=E,205nm,0.4s							
PB06	**IPOC Station P**	**4.03**	**177**	*eP*		**Pn**	**19 27 40.9**	**+2.0**
PB06				*eS*		Sn	19 28 41.9	+16
PB06				IAML			19 28 52.3	
	comp=Z,116nm,0.5s							
PB06	**IPOC Station P**	**4.03**	**177**			**Pn**	**19 27 40.6**	**+1.6**
PB05	**IPOC Station P**	**4.19**	**186**	*eP*		**Pn**	**19 27 42.8**	**+1.8**
PB05				*eS*		**Sn**	**19 28 26.9**	**-2.9**
PB05				IAML			19 28 30.9	
	comp=Z,83nm,0.2s							
PB05	**IPOC Station P**	**4.19**	**186**			**Pn**	**19 27 42.4**	**+1.3**
PB10	**IPOC Station P**	**4.88**	**189**	*eP*		**Pn**	**19 27 51.5**	**+1.4**
PB10				*eS*		**Sn**	**19 28 42.1**	**-3.9**
PB10				IAML			19 28 48.4	
	comp=Z,52nm,0.4s							
PB10	**IPOC Station P**	**4.88**	**189**	Pn		**Pn**	**19 27 50.8**	**+0.7**
PB14	**IPOC Station P**	**5.97**	**186**			**Pn**	**19 28 05.1**	**+0.3**
AC01	**Pan de Azucar**	**7.49**	**186**	Pn		**Pn**	**19 28 24.9**	**-0.1**
AC02	**Maricunga**	**8.16**	**176**	Pn		**Pn**	**19 28 35.8**	**+1.4**
BBSD	**Serra de San D**	**8.84**	**82**	*eP*		**Pn**	**19 28 41.3**	**-1.8**
GO03	**Copiapo**	**8.90**	**183**	Pn		**Pn**	**19 28 42.4**	**-1.6**
AC05	**El Transito**	**10.14**	**183**	Pn		**Pn**	**19 28 59.9**	**-0.6**
LCO	**Las Campanas**	**10.34**	**185**	Pn		**Pn**	**19 29 02.6**	**-0.8**
PTLB	**Pontes e Lacer**	**10.65**	**74**	*eP*		**Pn**	**19 29 05.6**	**-1.7**
VILB	**Vilhena**	**10.81**	**60**			**Pn**	**19 29 08.2**	**-1.2**
VILB	**Vilhena**	**10.81**	**60**	*eP*		**Pn**	**19 29 08.2**	**-1.2**
COIM	**Forte Coimbra**	**11.38**	**98**	*eP*		**Pn**	**19 29 15.6**	**-1.2**
CO06	**Fray Jorge**	**12.08**	**188**	Pn		**Pn**	**19 29 25.2**	**-0.8**
BDQN	**Bodoquena, MS**	**12.40**	**100**	*eP*		**Pn**	**19 29 29.4**	**-0.8**
SALV	**Santo Antonio**	**13.72**	**81**	*eP*		**Pn**	**19 29 47.2**	**0.0**
PP1B	**Ponte de Pedra**	**14.19**	**88**	*eP*		**Pn**	**19 29 53.0**	**-0.2**
PDRB	**Porto dos Gac**	**14.40**	**63**	*eP*		**Pn**	**19 29 56.1**	**+0.2**
CLDB	**Colider**	**15.56**	**62**	*eP*		**Pn**	**19 30 10.6**	**+0.3**
MACA	**Manacapuru-AM**	**17.78**	**31**	P		**P**	**19 30 37.5**	**+1.4**
NPGB	**Novo Progresso**	**18.16**	**52**	*eP*		**P**	**19 30 40.5**	**+0.2**
ITAB	**Concordia**	**18.33**	**121**	P		**Pn**	**19 30 45.7**	**+2.0**
CPSB	**Cacapava Do Su**	**18.88**	**131**	P		**P**	**19 30 50.5**	**+2.6**
CPSB				IAmb		IAmb	19 30 51.5	
	comp=Z,8.4nm,0.6s							
CPSB	**Cacapava Do Su**	**18.88**	**131**	*eP*		**P**	**19 30 46.4**	**-1.5**
SNDB	**Serra Nova Dou**	**19.00**	**72**	*eP*		**P**	**19 30 49.7**	**+0.2**
ITTB	**Itaituba**	**19.74**	**46**	*eP*		**P**	**19 30 57.0**	**-0.4**
BB19B	**Bebedouro**	**20.12**	**100**	*eP*		**P**	**19 31 01.1**	**-0.4**
IPMB	**Ipameri, GO**	**20.47**	**92**	*eP*		**P**	**19 31 04.8**	**-0.5**
BOAV	**Boa Vista**	**22.82**	**24**	P		**P**	**19 31 31.1**	**+1.7**
BOAV				IAmb		IAmb	19 31 53.5	
	comp=Z,12nm,1.5s							
BOAV	**Boa Vista**	**22.82**	**24**	*eP*		**P**	**19 31 27.4**	**-2.0**
SMTB	**Santa Maria do**	**23.61**	**69**	*eP*		**P**	**19 31 36.0**	**-0.9**
URIC	**Uribia, Colomb**	**30.25**	**356**	P		**P**	**19 32 37.1**	**+1.0**
WMQ	**Urumqi**	**148.57**	**32**	*e*PKPbc		**PKPdf**	**19 46 07.1**	**+1.9**
WMQ				LR		LR		
	comp=Z,130nm,24.1s							
HHC	**Hu-ho-hao-te**	**157.86**	**357**	*eP*		**PKPdf**	**19 46 16.0**	**-2.7**

IDC 03 19:28:18.9±2.6, 9°.29S×119°.80E, h0km, mb3.3/2, mbtmp3.4/4, ML3.6/2, MS2.6/1, Error ellipse: s-maj=236.3km s-min=26.6km az=51.0, Sumba region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**14.15**	**54**	LR	LR	19 39 23.1	
	comp=Z,21nm,18.4s,baz=358,slow=47						
WRA	**Warramunga Arr**	**17.60**	**129**	P	Pn	19 32 26.3	+0.5
	0.2nm,0.3s,baz=302,slow=12,SNR=18						
WRA				S	Sn	19 35 31.0	-11
	0.3nm,0.4s,baz=301,slow=24,SNR=2.0 0.5nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.66**	**138**	P	P	19 32 49.4	-0.1
	0.1nm,0.3s,baz=317,slow=11,SNR=20 0.7nm,0.4s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**65.07**	**333**	P	P	19 39 01.2	0.0
	0.2nm,0.5s,baz=152,slow=7.9,SNR=2.9 0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**69.58**	**333**	P	P	19 39 29.6	-0.1
	0.2nm,0.5s,baz=125,slow=8.0,SNR=2.7 0.2nm,0.5s						

*BER **03** 19:37:26.5±2.3, 80°.06N×0°.25W, h10km, Mw3.3, Confirmed Earthquake*
*DNK **03** 19:37:28.7±2.3, 80°.00N×0°.56E, h36km±57km, ML2.1, Presumed earthquake*
*KOLA **03** 19:37:29.8, 81°.09N×9°.76E, h0km, ML2.0, Arctic Ocean*

ISC 03 19:37:22.1±1.1, 80°.05N±0°.07×0°.39W±0°.05, h10km, n12, σ3°31/21, North of Svalbard

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NOR	**Nord**	**3.03**	**309**	*eP*	**Pb**	**19 38 12.7**	**-3.2**
NOR				*eS*	**Sn**	**19 38 47.0**	**+0.8**
NOR	**Nord**	**3.03**	**309**	*i* P	**Pb**	**19 38 14.8**	**-1.2**
NOR				*i* S	**Sn**	**19 38 48.1**	**+2.0**
NOR				IAML		19 38 58.6	
	comp=Z,3.6nm,0.4s						
BRBB	**Barentsburg B**	**3.40**	**118**	*eP*	**Pn**	**19 38 18.1**	**+3.1**
BRBB	**Barentsburg B**	**3.40**	**118**	S	**Sn**	**19 38 54.8**	**-0.5**
BRBA	**Barentsburg A**	**3.42**	**118**	*eP*	**Pn**	**19 38 18.7**	**+3.3**
BRBA				IAML		19 38 58.1	
	comp=Z,9.5nm,0.3s						
SPA0	**Spitsbergen Ar**	**3.68**	**112**	*eP*	**Pn**	**19 38 20.6**	**+1.7**
SPA0				*eS*	**Sn**	**19 38 58.4**	**-3.9**
SPA0				IAML		19 39 07.5	
	comp=Z,9.3nm,1.1s						
SPITS	**Spitsbergen Ar**	**3.68**	**112**	P	**Pn**	**19 38 20.6**	**+1.7**
SPITS				S	**Sn**	**19 38 59.0**	**-3.3**
DAG	**Danmarks Havn**	**4.91**	**237**	*eP*	**Pn**	**19 38 39.3**	**+3.5**
DAG				*eS*	**Sn**	**19 39 30.5**	**-2.1**
DAG	**Danmarks Havn**	**4.91**	**237**	*i* P	**Pn**	**19 38 39.4**	**+3.6**
DAG				*i* S	**Sn**	**19 39 32.5**	**-0.1**
DAG				IAML		19 39 34.6	
	comp=Z,12nm,0.1s						
DBG	**Daneborg**	**7.20**	**227**	*eP*	**Pn**	**19 39 10.6**	**+3.4**
DBG				*eS*	**Sn**	**19 40 24.8**	**-4.0**
DBG	**Daneborg**	**7.20**	**227**	*i* P	**Pn**	**19 39 10.8**	**+3.6**
DBG				*i* S	**Sn**	**19 40 24.3**	**-4.5**
DBG				IAML		19 40 29.4	
	comp=Z,12nm,0.4s						
NEEM	**North Greenlan**	**9.93**	**281**	*i* P	**Pn**	**19 39 48.2**	**+3.4**
NEEM				*i* S	**Sn**	**19 41 31.2**	**-5.0**
NEEM				IAML		19 41 33.4	
	comp=Z,4.2nm,0.3s						

OTT 03 19:37:22.7±0.8, 77°.73N×115°.30W, h18km, ML4.0/2, 196km northeast from Mould Bay, Nt, Queen Elizabeth Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RES	**Resolute Bay**	**5.73**	**112**	PN	Pn	19 38 46.6	0.0
RES				SN	Sn	19 39 47.9	-3.8
RES				Trac		19 39 54.0	
	comp=Z,24nm,0.7s						
A36M	**Sachs Harbour**	**6.32**	**209**	PN	Pn	19 38 53.3	-1.4
A36M				SN	Sn	19 40 02.5	-3.8
A36M				Trac		19 40 05.6	
	comp=Z,38nm,0.8s						
KUKN	**Kugluktuk,NWT**	**9.96**	**180**	PN	Pn	19 39 43.2	-1.4
KUKN				SN	Sn	19 41 28.2	-7.6
KUKN				Trac		19 41 44.1	
	comp=Z,118nm,1.3s						

*TEH **03** 19:38:22.3, 30°.02N×57°.45E, h8km±19km, ML3.6, Presumed earthquake*
*OMAN **03** 19:38:25.4±0.9, 29°.88N×57°.64E, h10km, mb2.9/11, ml3.3/6, Error ellipse: s-maj=9.3km s-min=6.6km az=101.0*

ISC 03 19:38:23.0±1.2, 30°.02N±0°.04×57°.47E±0°.05, h5km±10km, n48, σ1°16/69, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHMN	**Cheshme madani**	**0.17**	**160**	Pg	**Pg**	**19 38 26.3**	**-0.1**
CHMN				Sg	**Sg**	**19 38 29.5**	**+0.7**
KRM1	**Kerman Provinc**	**0.51**	**340**	Pg	**Pg**	**19 38 32.8**	**0.0**
KRM1				Sg	**Sg**	**19 38 40.4**	**+0.9**
KHGB	**Koh Gabri**	**0.93**	**292**	Pg	**Pg**	**19 38 39.4**	**-1.4**
KBAM	**BAM**	**1.23**	**136**	Pg	**Pb**	**19 38 45.7**	**-1.1**
ZRDN	**Zarand Kerman**	**1.24**	**320**	Pg	**Pn**	**19 38 46.0**	**-1.2**
KHNJ	**Kahnooj**	**2.08**	**174**	Pn	**Pn**	**19 38 58.7**	**+0.1**
IBAF	**Bafgh**	**2.27**	**314**	Pn	**Pn**	**19 39 02.7**	**+1.4**
NHDN	**Nehbandan**	**2.60**	**58**	Pn	**Pn**	**19 39 07.9**	**+2.0**
IKOO	**Kooshah**	**2.73**	**28**	Pn	**Pn**	**19 39 09.1**	**+1.4**
IMEH	**Mehriz**	**2.81**	**300**	Pn	**Pn**	**19 39 10.0**	**+1.0**
GENO	**Geno**	**2.85**	**204**	Pn	**Pn**	**19 39 10.4**	**+1.0**
BNDS	**Bandar-Abbas**	**2.85**	**204**	Pn	**Pn**	**19 39 10.7**	**+1.4**
ITEG	**Tejag**	**3.06**	**20**	Pn	**Pn**	**19 39 13.5**	**+1.2**
TPRV	**Parvadeh(Tabas**	**3.07**	**348**	Pn	**Pn**	**19 39 13.5**	**+1.2**
DOBD	**Dorbid, Yazd**	**3.21**	**308**	Pn	**Pn**	**19 39 15.8**	**+1.5**
TAFT	**Taft - Yazd**	**3.31**	**302**	Pn	**Pn**	**19 39 16.4**	**+0.7**
IDAH	**Dahanechah**	**3.39**	**36**	Pn	**Pn**	**19 39 18.3**	**+1.4**
TKDS	**Koohdasht(Taba**	**3.59**	**355**	Pn	**Pn**	**19 39 20.4**	**+0.9**
AFRZ	**Afriz**	**3.64**	**21**	Pn	**Pn**	**19 39 21.3**	**+1.2**
TSHB	**Tabas_ShorAb**	**3.76**	**347**	Pn	**Pn**	**19 39 23.1**	**+1.4**
TNSJ	**Nastanj**	**4.00**	**350**	Pn	**Pn**	**19 39 26.2**	**+1.2**
SHME	**Shamm**	**4.13**	**197**	P	**Pn**	**19 39 27.8**	**+1.0**
SHME				S	**Sn**	**19 40 16.4**	**+0.9**
JASK	**Jask - Hormozg** SNR=6.9	**4.16**	**175**	P	**Pn**	**19 39 28.6**	**+1.4**
JASK				S	**Sn**	**19 40 15.6**	**-0.5**
JASK	**Jask - Hormozg**	**4.16**	**175**	Pn	**Pn**	**19 39 28.1**	**+0.9**
BANOM	**Banah**	**4.21**	**195**	P	**Pn**	**19 39 28.8**	**+0.8**
BANOM				S	**Sn**	**19 40 15.5**	**+1.8**
MASF	**Masafi**	**4.78**	**194**	P	**Pn**	**19 39 37.5**	**+1.8**
MASF				S	**Sn**	**19 40 33.3**	**+1.8**
MDH	**Madha**	**4.82**	**193**	P	**Pn**	**19 39 37.7**	**+1.4**
MDH				S	**Sn**	**19 40 32.9**	**+0.4**
UOSS	**Minazif**	**5.18**	**193**	P	**Pn**	**19 39 42.5**	**+1.2**
UOSS				S	**Sn**	**19 40 41.8**	**+0.4**
HATD	**Hatta, Dubai**	**5.31**	**193**	P	**Pn**	**19 39 44.6**	**+1.6**
HATD				S	**Sn**	**19 40 45.7**	**+1.0**
ASHO	**Ashiyiah**	**5.46**	**194**	P	**Pn**	**19 39 46.4**	**+1.2**
ASHO				S	**Sn**	**19 40 49.3**	**+0.8**
FAQ	**Al Faqa, Dubai**	**5.52**	**198**	P	**Pn**	**19 39 46.8**	**+0.9**
FAQ				S	**Sn**	**19 40 49.8**	**+0.1**
NGCH	**Negor - Chabah**	**5.67**	**144**	P	**Pn**	**19 39 47.2**	**-0.7**
DSBU	**Dashti - Bushe**	**5.68**	**255**	Pn	**Pn**	**19 39 49.4**	**+1.3**
ASUD	**Al Ashush, Dub**	**5.70**	**200**	P	**Pn**	**19 39 49.7**	**+1.3**
ASUD				S	**Sn**	**19 40 54.9**	**+0.6**
AJN	**Ajban**	**5.87**	**203**	P	**Pn**	**19 39 52.5**	**+1.8**
SOHO	**SOHO**	**5.92**	**188**	P	**Pn**	**19 39 52.2**	**+0.8**
SOHO				S	**Sn**	**19 40 57.7**	**-2.1**
HOQ	**Hoqain**	**6.42**	**181**	P	**Pn**	**19 39 58.7**	**+0.5**
HOQ				S	**Sn**	**19 41 11.8**	**-0.1**
ARQ	**Araqi** SNR=7.4	**6.71**	**188**	P	**Pn**	**19 40 03.6**	**+1.3**
ARQ				S	**Sn**	**19 41 19.4**	**+0.1**
WSAR	**Wadi Sarin**	**6.84**	**171**	P	**Pn**	**19 40 04.3**	**+0.3**
WSAR				S	**Sn**	**19 41 22.0**	**-0.2**
SMDO	**Samad**	**6.96**	**176**	P	**Pn**	**19 40 06.1**	**+0.4**
SMDO				S	**Sn**	**19 41 24.0**	**-1.3**
BSY	**Bisya**	**7.25**	**182**	P	**Pn**	**19 40 10.6**	**+0.9**
WBK	**Wadi Bani Khal** SNR=7.5	**7.50**	**169**	P	**Pn**	**19 40 13.4**	**+0.3**
WBK				S	**Sn**	**19 41 38.0**	**-0.7**
UMZA	**Um Al Zommool**	**7.57**	**196**	P	**Pn**	**19 40 14.1**	**0.0**
UMZA				S	**Sn**	**19 41 40.2**	**-0.1**
JLN	**Jalan Bani Buh**	**8.03**	**167**	P	**Pn**	**19 40 20.3**	**-0.1**
JLN				S	**Sn**	**19 41 50.4**	**-1.3**
MHTO	**MHTO**	**9.01**	**177**	P	**Pn**	**19 40 34.5**	**+0.7**
MHTO				S	**Sn**	**19 42 14.6**	**-1.1**
DOK	**Doka**	**11.76**	**196**	P	**Pn**	**19 41 10.0**	**-1.4**
DMTO	**DMTO**	**12.47**	**191**	P	**Pn**	**19 41 20.2**	**-1.0**
ABTO	**Aybut**	**13.18**	**198**	P	**Pn**	**19 41 28.4**	**-2.5**

*KEA **03** 19:41:51.7, 38°.85N×125°.70E, h12km, ML2.6/6*
*KMA **03** 19:41:54.0±0.4, 38°.79N×125°.72E, h2km±2km, Error ellipse: s-maj=3.6km s-min=1.4km az=9.0*

ISC 03 19:41:52.8±1.1, 38°.85N±0°.03×125°.71E±0°.04, h6km±13km, n14, σ0°43/24, North Korea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYAG	**Pyongyang**	**0.21**	**10**	Pg	**Pg**	**19 41 56.9**	**0.0**
PYAG				Sg	**Sg**	**19 41 59.9**	**+0.2**
PYAG				AML	AML		
	comp=N,1μm,0.3s						
PYAG				AML	AML		
	comp=E,2μm,0.2s						
PYAG				AML	AML		
	comp=Z,846nm,0.4s						
SRW	**Sariwon**	**0.35**	**175**	Pg	**Pg**	**19 41 59.4**	**-0.1**
SRW				Sg	**Sg**	**19 42 04.2**	**+0.1**
SRW				AML	AML		
	comp=N,723nm,0.3s						
SRW				AML	AML		
	comp=E,1μm,0.3s						
SRW				AML	AML		
	comp=Z,566nm,0.3s						
PYS	**Pyongsong**	**0.42**	**16**	Pg	**Pg**	**19 42 00.5**	**-0.4**
PYS				Sg	**Sg**	**19 42 06.0**	**-0.4**
PYS				AML	AML		
	comp=N,2μm,0.4s						
PYS				AML	AML		
	comp=E,809nm,0.2s						
PYS				AML	AML		
	comp=Z,651nm,0.3s						
HJU	**Haeju**	**0.80**	**179**	Pg	**Pg**	**19 42 07.6**	**-0.6**
HJU				Sg	**Sg**	**19 42 18.4**	**-0.2**
HJU				AML	AML		
	comp=N,288nm,0.2s						
HJU				AML	AML		
	comp=E,453nm,0.4s						
HJU				AML	AML		
	comp=Z,170nm,0.1s						
KSBAR	**Backryungdo**	**1.17**	**222**	P	**Pn**	**19 42 15.6**	**0.0**
KSBAR				P	**Pn**	**19 42 15.6**	**0.0**
KSMUS	**Musan** SNR=34	**1.26**	**139**	P	**Pg**	**19 42 17.8**	**+0.9**
DACB	**Daecheong-do R** SNR=63	**1.28**	**218**	P	**Pg**	**19 42 17.8**	**+0.4**
DACB				P	**Pg**	**19 42 17.8**	**+0.4**
	SNR=63						
WOSN	**Wonsan**	**1.37**	**76**	Pg	**Pg**	**19 42 19.3**	**+0.3**
WOSN				Sg	**Sg**	**19 42 37.6**	**+0.8**
WOSN				AML	AML		
	comp=N,187nm,0.4s						
WOSN				AML	AML		
	comp=E,134nm,0.3s						
WOSN				AML	AML		
	comp=Z,60nm,0.4s						
GMHB	**Gimhwa**	**1.47**	**113**	P	**Pg**	**19 42 20.8**	**-0.1**
GMHB				P	**Pg**	**19 42 20.8**	**-0.1**
GMPB	**Gimpo**	**1.56**	**159**	P	**Pn**	**19 42 20.3**	**-0.6**
GMPB				P	**Pn**	**19 42 20.3**	**-0.6**
SGMA	**Sangmyun** SNR=10	**1.60**	**129**	P	**Pb**	**19 42 22.9**	**+0.2**
KSCWO	**Cheorwon** SNR=162	**1.61**	**118**	P	**Pb**	**19 42 22.7**	**-0.1**
KSCWO				P	**Pb**	**19 42 22.7**	**-0.1**
	SNR=162						
HHU	**Hamhung**	**1.77**	**52**	Pg	**Pb**	**19 42 26.1**	**+0.5**
HHU				Sg	**Sg**	**19 42 49.8**	**0.0**
HHU				AML	AML		
	comp=N,211nm,0.5s						
HHU				AML	AML		
	comp=E,222nm,0.4s						
HHU				AML	AML		
	comp=Z,66nm,0.5s						
GODA	**Kyodong** SNR=46	**2.04**	**129**	P	Pn	19 42 15.5	-12

IDC 03 19:44:13.8±1.3, 2°.69N×127°.85E, h0km, mb3.5/5, mbtmp3.6/6, ML4.0/1, MS3.4/1, Error ellipse: s-maj=48.7km s-min=16.2km az=54.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**4.91**	**136**	Pn	Pn	19 45 29.3	+0.3
	6.4nm,0.3s,baz=125,slow=12,SNR=31						
SIJI				Sn	Sn	19 46 22.9	-3.6
	2.6nm,0.3s,baz=167,slow=23,SNR=11 15nm,0.3s						
SIJI				AML	AML		
FITZ	**Fitzroy Crossi**	**20.77**	**186**	P	P	19 48 56.1	-0.4
	1.8nm,0.8s,baz=17,slow=8.7,SNR=2.2 1.8nm,0.8s						
WRA	**Warramunga Arr**	**23.38**	**164**	P	P	19 49 23.2	-1.0
	2.2nm,0.6s,baz=344,slow=11,SNR=18 2.2nm,0.6s						
ASAR	**Alice Springs**	**26.85**	**168**	P	P	19 49 57.5	+1.3
	0.4nm,0.6s,baz=351,slow=10,SNR=4.2 0.4nm,0.6s						
H11N1	**WAKE ISLAND Hy** baz=250	**41.70**	**63**	T	T	20 35 59.2	
H11N2	**WAKE ISLAND Hy** baz=250	**41.72**	**63**	T	T	20 36 13.9	
H11N3	**WAKE ISLAND Hy** baz=250	**41.72**	**63**	T	T	20 36 01.4	
SONM	**Songino Array**	**48.64**	**341**	LR	LR	20 13 52.8	
	comp=Z,35nm,19.0s,baz=12,slow=37						
MKAR	**Makanchi Array**	**59.04**	**325**	P	P	19 54 15.1	-0.6
	0.1nm,0.4s,baz=134,slow=8.3,SNR=1.7 0.1nm,0.4s						
KURBB	**Kurchatov Arra**	**63.21**	**327**	P	P	19 54 44.2	+0.4
	0.2nm,0.5s,baz=130,slow=6.5,SNR=1.8 0.2nm,0.5s						

MAN 03 19:44:20.0, 5°.64N×127°.28E, h121km, MS2.4, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**1.63**	**287**	*eS*	Sn	19 45 05.8	-5.2
DDMP	**Don Marcelino,**	**1.63**	**287**	*eP*	Pn	19 44 50.0	+1.1
BIPH	**Bislig**	**2.69**	**340**	*i* S	Sn	19 45 29.5	-5.3
BIPH	**Bislig**	**2.69**	**340**	*i* P	Pn	19 45 02.4	+0.2

*IDC **03** 19:47:33.0±0.6, 44°.65S×80°.12W, h0km, mb4.4/11, mbtmp4.4/12, ML5.1/1, MS3.9/18, Error ellipse: s-maj=22.9km s-min=14.1km az=132.0*
*NEIC **03** 19:47:34.0±1.9, 44°.44S±0°.07×79°.78W±0°.1, h10km±1km, mb4.8/51, Mww4.8/13, Mww4.9(GUC), Error ellipse: s-maj=13.4km s-min=11.1km az=27.0*
*NEIC **03** 19:47:33.9, 44°.46S×79°.77W, h10km*
*GUC **03** 19:47:34.9±2.3, 44°.23S×79°.85W, h10km, MW4.9, Presumed earthquake*
*GCMT **03** 19:47:37.0±0.3, 44°.77S±0°.02×79°.91W±0°.03, h29km±1km, MW5.0/98, Moment Tensor Solution. s27,c27; s98,c128; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.65±.18; $M_{\theta\theta}$1.09±.15; $M_{\phi\phi}$-0

AYSN	**Puerto Aysn**	**5.18**	**103**	*eP*		**Pn**	**19 48 53.5**	**+2.3**
LJUN	**La Junta**	**5.34**	**88**	*eP*		**Pn**	**19 48 52.9**	**-0.6**
LL05	**Los Muermos**	**5.59**	**59**			**Pn**	**19 48 56.6**	**-0.3**
LL05					Sn	**Sn**	**19 49 60.0**	**-1.2**
LL05	**Los Muermos**	**5.59**	**59**	⇑*iP*		**Pn**	**19 48 56.7**	**-0.2**
LL05	**Los Muermos**	**5.59**	**59**	P		**Pn**	**19 48 57.1**	**+0.2**
	comp=Z,456nm,0.7s							
COYC	**Coyhaique**	**5.63**	**104**			**Pn**	**19 48 55.3**	**-2.2**
COYC	**Coyhaique**	**5.63**	**104**	P		**Pn**	**19 49 00.3**	**+2.9**
	comp=Z,60nm,0.9s							
LL02	**Futaleuf**	**5.94**	**81**			**Pn**	**19 49 00.6**	**-1.1**
LL02					Sn	**Sn**	**19 50 09.1**	**-0.5**
LL02	**Futaleuf**	**5.94**	**81**	*eP*		**Pn**	**19 49 01.2**	**-0.4**
LL02	**Futaleuf**	**5.94**	**81**	P		**Pn**	**19 49 01.5**	**-0.1**
	comp=Z,21nm,0.5s							
LL03	**Petrohue**	**6.41**	**61**			**Pn**	**19 49 07.1**	**-1.1**
LL03	**Petrohue**	**6.41**	**61**	*eP*		**Pn**	**19 49 07.6**	**-0.5**
LL03	**Petrohue**	**6.41**	**61**	P		**Pn**	**19 49 08.2**	**0.0**
	comp=Z,648nm,0.7s							
GO08	**Villa O'Higgin**	**6.45**	**131**			**Pn**	**19 49 08.0**	**-0.6**
GO08	**Villa O'Higgin**	**6.45**	**131**	P		**Pn**	**19 49 08.9**	**+0.3**
	comp=Z,363nm,0.8s							
LR04	**Corral**	**6.61**	**49**			**Pn**	**19 49 11.1**	**+0.2**
LR05	**Currie**	**7.19**	**57**			**Pn**	**19 49 18.9**	**0.0**
LR05	**Currie**	**7.19**	**57**	*eP*		**Pn**	**19 49 19.0**	**+0.2**
LR03	**Panguipulli**	**7.38**	**52**			**Pn**	**19 49 21.9**	**+0.4**
PLCA	**Paso Flores**	**7.81**	**65**	Pn		**Pn**	**19 49 28.2**	**+0.8**
	comp=Z,5.3nm,0.3s,baz=234,slow=12,SNR=104							
PLCA					Sn	**Sn**	**19 50 59.5**	**+3.6**
	comp=Z,0.4nm,0.3s,baz=244,slow=11,SNR=1.4							
PLCA					LR	LR	19 52 12.6	
	comp=Z,1μm,19.3s,baz=236,slow=35							
	comp=Z,17nm,0.3s							
PLCA					AML	AML		
PLCA	**Paso Flores**	**7.81**	**65**			**Pn**	**19 49 27.5**	**+0.1**
PLCA	**Paso Flores**	**7.81**	**65**	*eP*		**Pn**	**19 49 28.2**	**+0.8**
PLCA	**Paso Flores**	**7.81**	**65**	P		**Pn**	**19 49 28.3**	**+0.8**
	comp=Z,38nm,0.7s							
PLCA	**Paso Flores**	**7.81**	**65**	*eP*		**Pn**	**19 49 25.3**	**-2.2**
PLCA				*ePP*		Pb	19 49 28.1	-21
GO06	**Curarrehue**	**7.92**	**55**			**Pn**	**19 49 29.4**	**+0.5**
GO06	**Curarrehue**	**7.92**	**55**	P		**Pn**	**19 49 30.0**	**+1.1**
	comp=Z,292nm,0.8s							
BI05	**Punta Hualpn**	**9.21**	**36**			**Pn**	**19 49 46.7**	**+0.1**
BI02	**San Fabin de**	**10.15**	**43**			**Pn**	**19 49 59.6**	**+0.1**
BI02	**San Fabin de**	**10.15**	**43**	P		**Pn**	**19 50 01.1**	**+1.5**
	comp=Z,47nm,0.7s							
GO10	**Punta Arenas**	**10.46**	**149**	Pn		**Pn**	**19 50 03.3**	**-0.4**
H03S1	**Juan Fernandez**	**10.62**	**4**	T		T	20 01 11.4	
	baz=181,slow=73,SNR=402							
H03S2	**Juan Fernandez**	**10.62**	**4**	T		T	20 01 08.3	
	baz=181,slow=73,SNR=397							
H03S3	**Juan Fernandez**	**10.64**	**4**	T		T	20 01 12.7	
	baz=181,slow=73,SNR=417							
ML02	**Panimavida**	**10.82**	**40**			**Pn**	**19 50 08.6**	**0.0**
ML02	**Panimavida**	**10.82**	**40**	P		**Pn**	**19 50 09.2**	**+0.6**
	comp=Z,220nm,0.5s							
VA04	**Juan Fernndez**	**10.82**	**5**	Pn		**Pn**	**19 50 08.3**	**-0.3**
MG02	**Cerro Sombrero**	**10.90**	**144**	Pn		**Pn**	**19 50 08.2**	**-1.4**
MG03	**Isla Dawson**	**11.23**	**150**	Pn		**Pn**	**19 50 12.0**	**-2.1**
BO02	**Sierra Bellavi**	**11.91**	**39**			**Pn**	**19 50 23.1**	**-0.5**
BO02	**Sierra Bellavi**	**11.91**	**39**	P		**Pn**	**19 50 24.0**	**+0.4**
BO01	**Tunca**	**12.12**	**37**			**Pn**	**19 50 25.9**	**-0.5**
BO01	**Tunca**	**12.12**	**37**	P		**Pn**	**19 50 26.6**	**+0.2**
	comp=Z,48nm,0.8s							
MT01	**Popeta**	**12.50**	**35**			**Pn**	**19 50 31.0**	**-0.6**
VA05	**Santo Domingo**	**12.53**	**33**			**Pn**	**19 50 31.1**	**-0.9**
VA05	**Santo Domingo**	**12.53**	**33**	P		**Pn**	**19 50 32.7**	**+0.6**
	comp=Z,80nm,0.6s							
BO04	**La Punta**	**12.66**	**38**			**Pn**	**19 50 33.3**	**-0.6**
MT09	**Talagante**	**12.68**	**36**			**Pn**	**19 50 33.8**	**-0.5**
MT13	**San Alfonso**	**13.01**	**38**			**Pn**	**19 50 38.8**	**0.0**
MT02	**Curacav**	**13.07**	**34**			**Pn**	**19 50 39.0**	**-0.5**
VA01	**Torpederas**	**13.08**	**32**			**Pn**	**19 50 39.3**	**-0.2**
MT03	**Universidad Ad**	**13.13**	**37**			**Pn**	**19 50 39.9**	**-0.4**
PEL	**Peldehue**	**13.36**	**35**			**Pn**	**19 50 43.0**	**-0.3**
PEL	**Peldehue**	**13.36**	**35**	P		**Pn**	**19 50 43.9**	**+0.5**
	comp=Z,67nm,0.6s							
MT08	**Bocatoma Ro**	**13.38**	**38**			**Pn**	**19 50 42.9**	**-1.0**
VA03	**San Esteban**	**13.74**	**35**	P		**Pn**	**19 50 48.6**	**0.0**
	comp=Z,181nm,0.6s							
CO04	**Los Peladeros**	**14.21**	**32**			**Pn**	**19 50 55.3**	**+0.1**
CO04	**Los Peladeros**	**14.21**	**32**	P		**Pn**	**19 50 56.0**	**+0.8**
	comp=Z,61nm,0.5s							
CO02	**Combarbal**	**14.95**	**31**	P		**Pn**	**19 51 06.1**	**+0.9**
	comp=Z,66nm,0.8s							
CO06	**Fray Jorge**	**15.21**	**28**	IAmb		IAmb	19 51 15.9	
	comp=Z,16nm,0.6s							
ZON	**Zonda**	**15.59**	**38**	P		**P**	**19 51 16.8**	**-1.0**
	comp=E,17nm,0.5s							
CFA	**Coronel Fontan**	**15.74**	**39**	Pn		**Pn**	**19 51 17.0**	**+1.5**
	comp=E,3.4nm,0.3s,baz=219,slow=11,SNR=30							
CFA					LR	LR	19 57 09.8	
	comp=E,143nm,19.9s,baz=94,slow=36							
GO04	**Tololo Observa**	**15.96**	**30**	IAmb		IAmb	19 51 23.7	
	comp=Z,39nm,0.8s							
GO04	**Tololo Observa**	**15.96**	**30**	P		**P**	**19 51 20.7**	**-1.4**
	comp=Z,110nm,1.3s							
CO05	**La Serena**	**16.04**	**28**	Pn		**Pn**	**19 51 18.1**	**-1.2**
EFI	**East Falkland**	**16.23**	**124**	Pn		**Pn**	**19 51 20.1**	**-1.5**
EFI				IAmb		IAmb	19 51 27.9	
	comp=Z,74nm,1.2s							
CO01	**Juntas del Tor**	**16.39**	**31**			**Pn**	**19 51 22.4**	**-1.6**
CO01	**Juntas del Tor**	**16.39**	**31**	P		**P**	**19 51 27.4**	**+0.5**
	comp=Z,22nm,0.8s							
LCO	**Las Campanas**	**17.05**	**28**			**Pn**	**19 51 29.5**	**-3.0**
AC05	**El Transito**	**17.36**	**29**			**Pn**	**19 51 33.1**	**-3.1**
AC05	**El Transito**	**17.36**	**29**	P		**P**	**19 51 39.6**	**+2.1**
	comp=Z,145nm,0.7s							
AC04	**Llanos de Chal**	**17.67**	**26**	P		**Pn**	**19 51 40.1**	**+0.2**
GO03	**Copiapo**	**18.51**	**28**	P		**P**	**19 51 49.1**	**-1.1**
GO03				IAmb		IAmb	19 51 57.4	
	comp=Z,41nm,0.7s							
GO03	**Copiapo**	**18.51**	**28**	P		**Pn**	**19 51 54.9**	**+4.5**
	comp=Z,62nm,1.1s							
AC02	**Maricunga**	**19.59**	**30**	IAmb		IAmb	19 52 12.8	
	comp=Z,55nm,0.9s							
AC02	**Maricunga**	**19.59**	**30**	P		**Pn**	**19 52 07.4**	**+3.6**
	comp=Z,61nm,1.0s							
AC01	**Pan de Azucar**	**19.74**	**25**			**P**	**19 52 02.5**	**-1.0**
AC01				IAmb		IAmb	19 52 13.1	
	comp=Z,58nm,1.3s							
AC01	**Pan de Azucar**	**19.74**	**25**	P		**Pn**	**19 52 10.4**	**+5.3**
	comp=Z,34nm,1.7s							
PB14	**IPOC Station P**	**21.23**	**24**			**P**	**19 52 19.3**	**-0.8**
PB14				IAmb		IAmb	19 52 30.8	
	comp=Z,60nm,1.1s							
PB14	**IPOC Station P**	**21.23**	**24**	P		**P**	**19 52 24.3**	**+4.3**
	comp=Z,61nm,1.3s							
PSAL	**Palomas, Salto**	**22.00**	**60**	*eP*		**P**	**19 52 25.6**	**-2.3**
PMSA	**Palmer Station**	**22.20**	**162**	P		**P**	**19 52 28.5**	**-1.3**
PMSA				IAmb		IAmb	19 52 42.1	
	comp=Z,104nm,1.7s							
PB10	**IPOC Station P**	**22.24**	**23**	P		**P**	**19 52 27.3**	**-3.3**
PB10				IAmb		IAmb	19 52 43.3	
	comp=Z,74nm,1.3s							
PB05	**IPOC Station P**	**22.96**	**23**	P		**P**	**19 52 35.9**	**-2.5**
PB05				IAmb		IAmb	19 52 46.8	
	comp=Z,30nm,1.0s							
PB05	**IPOC Station P**	**22.96**	**23**	P		**P**	**19 52 37.6**	**-0.8**
	comp=Z,37nm,1.2s							
SALTA		**23.00**	**33**	P		**P**	**19 52 43.6**	**+4.4**
ITQB	**Itaqui**	**23.59**	**59**	*eP*		**P**	**19 52 43.5**	**-1.0**
PB03	**IPOC Station P**	**23.85**	**24**	P		**P**	**19 52 45.8**	**-1.5**
PB03				IAmb		IAmb	19 52 53.3	
	comp=Z,38nm,0.9s							
PB03	**IPOC Station P**	**23.85**	**24**	P		**P**	**19 52 51.0**	**+3.7**
	comp=Z,53nm,0.9s							
PB07	**IPOC Station P**	**24.12**	**23**	IAmb		IAmb	19 53 04.5	
	comp=Z,35nm,1.0s							
PB07	**IPOC Station P**	**24.12**	**23**	P		**P**	**19 52 53.9**	**+4.1**
	comp=Z,32nm,0.8s							
PB09	**IPOC Station P**	**24.24**	**25**	P		**P**	**19 52 57.0**	**+6.0**
	comp=Z,51nm,1.1s							
PB02	**IPOC Station P**	**24.50**	**23**	P		**P**	**19 52 58.5**	**+5.2**
	comp=Z,34nm,1.1s							
CPSB	**Cacapava Do Su**	**25.10**	**65**	P		**P**	**19 52 55.2**	**-3.3**
CPSB				IAmb		IAmb	19 53 05.7	
	comp=Z,45nm,1.2s							
CPSB	**Cacapava Do Su**	**25.10**	**65**	P		**P**	**19 53 02.6**	**+4.1**
	comp=Z,42nm,1.2s							
CPSB	**Cacapava Do Su**	**25.10**	**65**	*eP*		**P**	**19 52 56.0**	**-2.6**
CPUP	**Villa Florida**	**25.64**	**53**	P		**P**	**19 53 06.0**	**+2.6**
	comp=Z,24nm,1.0s,baz=231,slow=9.5,SNR=22							
CPUP					LR	LR	20 03 28.8	
	comp=Z,327nm,18.1s,baz=250,slow=37							
	comp=Z,24nm,1.0s							
CPUP	**Villa Florida**	**25.64**	**53**			**P**	**19 53 02.3**	**-1.1**
CPUP					IAmb	IAmb	19 53 11.1	
	comp=Z,36nm,1.1s							
CPUP	**Villa Florida**	**25.64**	**53**	P		**P**	**19 53 06.2**	**+2.8**
	comp=Z,36nm,1.2s							
PB11	**IPOC Station P**	**26.05**	**22**	IAmb		IAmb	19 53 21.5	
	comp=Z,22nm,1.1s							
PB11	**IPOC Station P**	**26.05**	**22**	P		**P**	**19 53 11.8**	**+4.4**
	comp=Z,20nm,1.1s							
PSGCX	**Pisagua**	**26.08**	**21**	P		**P**	**19 53 11.9**	**+4.4**
	comp=Z,13nm,1.6s							
GO01	**Chusmiza**	**26.27**	**23**	P		**P**	**19 53 14.2**	**+4.5**
	comp=Z,11nm,1.0s							
SJPY	**San Joaquin**	**27.37**	**53**	*eP*		**P**	**19 53 17.0**	**-2.1**
PB16	**IPOC Station P**	**27.45**	**22**	P		**P**	**19 53 18.4**	**-2.1**
PB16				IAmb		IAmb	19 53 48.7	
	comp=Z,41nm,1.9s							
PB16	**IPOC Station P**	**27.45**	**22**	P		**P**	**19 53 25.5**	**+5.0**
	comp=Z,8.3nm,1.4s							
MURT	**Porto Murtinho**	**29.23**	**46**	*eP*		**P**	**19 53 35.1**	**-0.6**
RPN	**Rapa Nui**	**29.28**	**296**	LR		LR	20 02 02.4	
	comp=Z,342nm,21.0s,baz=108,slow=30							
RPN	**Rapa Nui**	**29.28**	**296**	P		**P**	**19 53 36.4**	**+0.3**
HOPE	**Hope Point**	**29.47**	**125**	P		**P**	**19 53 38.2**	**+0.7**
LPAZ	**La Paz**	**29.78**	**23**	P		**P**	**19 53 44.8**	**+3.6**
	comp=Z,2.6nm,0.8s,baz=196,slow=5.5,SNR=6.3							
	comp=Z,2.6nm,0.8s							
LPAZ	**La Paz**	**29.78**	**23**	P		**P**	**19 53 39.2**	**-2.0**
LPAZ	**La Paz**	**29.78**	**23**	P		**P**	**19 53 44.9**	**+3.7**
	comp=Z,8.1nm,1.4s							
LPAZ	**La Paz**	**29.78**	**23**	*eP*		**P**	**19 53 39.6**	**-1.6**
COIM	**Forte Coimbra**	**30.60**	**44**	*eP*		**P**	**19 53 46.9**	**-0.9**
BDQN	**Bodoquena, MS**	**30.67**	**46**	*eP*		**P**	**19 53 47.3**	**-1.2**
AQDB	**Aquidauana**	**31.20**	**48**	P		P	19 53 58.4	+5.2
	comp=Z,17nm,0.8s							
AQDB	**Aquidauana**	**31.20**	**48**	*eP*		**P**	**19 53 53.0**	**-0.1**
BBSD	**Serra de San D**	**31.65**	**37**	*eP*		**P**	**19 53 55.4**	**-1.7**
PTLB	**Pontes e Lacer**	**33.83**	**38**			**P**	**19 54 16.0**	**-0.2**
PTLB				IAmb		IAmb	19 54 30.4	
	comp=Z,10nm,1.0s							
PTLB	**Pontes e Lacer**	**33.83**	**38**	*eP*		**P**	**19 54 15.5**	**-0.6**
PP1B	**Ponte de Pedra**	**34.01**	**46**	*eP*		**P**	**19 54 16.0**	**-1.8**
VAO	**Valinhos**	**34.38**	**62**	P		**P**	**19 54 21.3**	**+0.3**
VAO				IAmb		IAmb	19 54 34.5	
	comp=Z,12nm,0.9s							
SALV	**Santo Antonio**	**35.04**	**43**	*eP*		**P**	**19 54 25.3**	**-1.3**
ATAH	**Atahualpa**	**37.19**	**2**	LR		LR	20 06 16.1	
	comp=Z,168nm,20.9s,baz=195,slow=30							
PDRB	**Porto dos Gac**	**38.29**	**38**	*eP*		**P**	**19 54 53.0**	**-1.4**
CLDB	**Colider**	**39.36**	**39**	P		**P**	**19 55 02.2**	**-1.2**
	comp=Z,8.4nm,1.2s							
CLDB	**Colider**	**39.36**	**39**	*eP*		**P**	**19 55 01.9**	**-1.5**
BDFB	**Brasilia**	**39.37**	**53**	P		**P**	**19 55 05.8**	**+2.2**
	comp=Z,1.1nm,0.3s,baz=64,slow=13,SNR=1.7							
BDFB					LR	LR	20 11 21.4	
	comp=Z,222nm,21.4s,baz=204,slow=36							
	comp=Z,1.1nm,0.3s							
BDFB	**Brasilia**	**39.37**	**53**	P		**P**	**19 55 02.8**	**-0.8**
SNDB	**Serra Nova Dou**	**40.59**	**46**	*eP*		P	19 55 09.0	-4.6
VNA3	**Neumayer Olymp**	**42.36**	**153**	⇑P		**P**	**19 55 28.1**	**+0.5**
	comp=Z,10nm,0.9s							
VNA3				⇓*pP*		**pwP**	**19 55 36.2**	**+2.2**
	comp=Z,10nm,0.9s							
VNA3	**Neumayer Olymp**	**42.36**	**153**	P		**P**	**19 55 28.3**	**+0.7**
	comp=Z,21nm,0.9s							
VNA1	**Neumayer--Stat**	**42.83**	**152**	⇑P		**P**	**19 55 32.2**	**+0.9**
	comp=Z,10nm,1.1s							
VNA1				⇓*pP*		**pwP**	**19 55 40.5**	**+2.7**
	comp=Z,10nm,1.1s							
NPGB	**Novo Progresso**	**42.96**	**37**	*eP*		**P**	**19 55 32.2**	**-0.7**
VNA2	**Neumayer--Watz**	**43.11**	**153**	⇑P		**P**	**19 55 34.3**	**+0.7**
	comp=Z,7.3nm,0.7s,baz=266,slow=7.7							
VNA2				⇓*pP*		**pwP**	**19 55 42.4**	**+2.3**
	comp=Z,7.3nm,0.7s,baz=272,slow=7.9							
VNA2	**Neumayer--Watz**	**43.11**	**153**	P		**P**	**19 55 34.1**	**+0.5**
	comp=Z,18nm,1.1s							
SNAA	**Sanae**	**44.53**	**154**	P		**P**	**19 55 45.1**	**0.0**
	comp=Z,0.9nm,0.4s,baz=234,slow=4.5,SNR=2.3							
SNAA					LR	LR	20 12 22.6	
	comp=Z,108nm,20.9s,baz=288,slow=34							
	comp=Z,0.9nm,0.4s							
SNAA	**Sanae**	**44.53**	**154**	P		**P**	**19 55 45.0**	**0.0**
SNAA				IAmb		IAmb	19 55 54.9	
	comp=Z,16nm,1.3s							
SNAA	**Sanae**	**44.53**	**154**	P		P	19 55 53.9	+8.8
	comp=Z,9.6nm,1.6s							
PTCN	**Pitcairn Islan**	**44.80**	**278**	P		**P**	**19 55 48.2**	**+0.5**
SMTB	**Santa Maria do**	**45.15**	**48**	P		**P**	**19 55 50.0**	**-0.6**
SMTB				IAmb		IAmb	19 56 04.1	
	comp=Z,17nm,1.0s							
SMTB	**Santa Maria do**	**45.15**	**48**	*eP*		**P**	**19 55 48.2**	**-2.4**
QSPA	**South Pole Qui**	**45.79**	**180**	P		**P**	**19 55 55.1**	**-0.2**
	comp=Z,2.2nm,0.9s,baz=135,slow=2.7,SNR=5.4							
	comp=Z,2.2nm,0.9s							
QSPA	**South Pole Qui**	**45.79**	**180**	P		**P**	**19 55 55.3**	**0.0**
TROLL	**Troll, Antarti**	**46.15**	**155**	⇑P		**P**	**19 55 58.3**	**+0.3**
	comp=Z,195nm,1.2s							
ROSC	**El Rosal**	**49.32**	**7**	P		**P**	**19 56 26.6**	**+3.1**
	comp=Z,7.7nm,0.4s,baz=277,slow=23,SNR=2.2							
ROSC					LR	LR	20 15 13.4	
	comp=Z,313nm,18.9s,baz=235,slow=34							
	comp=Z,7.7nm,0.4s							
BOAV	**Boa Vista**	**49.74**	**26**	P		**P**	**19 56 25.7**	**-0.5**
BOAV				IAmb		IAmb	19 56 38.9	
	comp=Z,9.5nm,1.1s							
RUSC	**La Rusia**	**50.48**	**9**	P		**P**	**19 56 30.4**	**-2.0**
RUSC				IAmb		IAmb	19 56 46.3	
	comp=Z,13nm,1.1s							
HELC	**Santa Helena**	**50.56**	**6**	P		**P**	**19 56 32.1**	**-0.7**
HELC				IAmb		IAmb	19 56 47.7	
	comp=Z,16nm,1.1s							
SBA	**Scott Base**	**51.55**	**194**	P		**P**	**19 56 38.9**	**-0.3**
ELIB	**Princess Elisa**	**52.26**	**157**	*dP*		**P**	**19 56 45.2**	**+0.5**
	comp=Z,11nm,1.0s							
VNDA	**Vanda**	**52.60**	**194**	P		**P**	**19 56 47.0**	**0.0**
	comp=Z,2.0nm,0.9s,baz=134,slow=5.0,SNR=8.1							
VNDA					LR	LR	20 15 10.2	
	comp=Z,63nm,19.4s,baz=232,slow=32							
	comp=Z,2.0nm,0.9s							
VNDA	**Vanda**	**52.60**	**194**	P		**P**	**19 56 47.3**	**+0.3**
VNDA	**Vanda**	**52.60**	**194**	P		**P**	**19 56 49.5**	**+2.5**
	comp=Z,5.7nm,1.9s							
SDV	**Santo Domingo**	**53.74**	**11**	LR		LR	20 18 30.2	
	comp=Z,80nm,18.2s,baz=222,slow=34							
SDV	**Santo Domingo**	**53.74**	**11**	P		**P**	**19 56 55.1**	**-1.2**
SDV				IAmb		IAmb	19 57 09.7	
	comp=Z,7.0nm,0.8s							
SDV	**Santo Domingo**	**53.74**	**11**	P		P	19 57 01.9	+5.6
	comp=Z,68nm,1.1s							
JTS	**Las Juntas de**	**54.68**	**354**	LR		LR	20 15 07.8	
	comp=Z,61nm,20.1s,baz=184,slow=30							
MDP	**Montagnes des**	**55.06**	**34**	LR		LR	20 19 28.2	
	comp=Z,95nm,19.6s,baz=152,slow=35							
BBGH	**Gun Hill**	**60.22**	**23**	P		**P**	**19 57 41.5**	**-0.5**
CRPR	**Cabo Rojo, PR**	**63.24**	**14**	P		**P**	**19 58 01.4**	**-0.7**
PPT	**Papeete**	**63.49**	**271**	LR		LR	20 17 33.8	
	comp=Z,84nm,20.7s,baz=182,slow=28							
MAW	**Mawson**	**64.77**	**165**	P		**P**	**19 58 12.1**	**+0.3**
	comp=Z,0.5nm,0.4s,baz=89,slow=10,SNR=1.6							
	comp=Z,0.5nm,0.4s							
SOR	**Soroa**	**66.98**	**357**	P		**P**	**19 58 25.2**	**-1.3**
RAR	**Rarotonga**	**68.40**	**261**	P		**P**	**19 58 36.4**	**+0.7**
	comp=Z,19nm,1.0s,baz=331,slow=20,SNR=1.9							
	comp=Z,19nm,1.0s							
RPZ	**Rata Peaks**	**71.89**	**226**	LR		LR	20 21 58.3	
	comp=Z,28nm,20.4s,baz=73,slow=29							
SUR	**Sutherland**	**74.95**	**121**	LR		LR	20 25 23.5	
	comp=Z,68nm,20.2s,baz=172,slow=30							
Z38A	**Mt. Pleasant**	**78.56**	**347**	P		**P**	**19 59 34.8**	**-0.2**
BOSA	**Boshof**	**80.31**	**121**	P		**P**	**19 59 45.4**	**+0.2**
	comp=Z,3.3nm,0.9s,baz=176,slow=6.0,SNR=4.8							
BOSA					LR	LR	20 27 09.3	
	comp=Z,75nm,21.9s,baz=182,slow=30							
	comp=Z,3.3nm,0.9s							
WMOK	**Wichita Mounta**	**80.67**	**344**	P		**P**	**19 59 46.1**	**-0.4**
WMOK				IAmb		IAmb	20 02 21.9	
	comp=Z,9.8nm,0.8s							
PHPEN	**Phepeng**	**81.03**	**117**	P		**P**	**19 59 47.1**	**-1.9**
KOOLE	**Kule**	**81.04**	**113**	P		**P**	**19 59 48.0**	**-1.2**
KOOLE				IAmb		IAmb	19 59 50.5	
	comp=Z,6.7nm,0.8s							
LBTB	**Lobatse**	**83.09**	**118**	LR		LR	20 32 45.4	
	comp=Z,62nm,19.1s,baz=186,slow=33							
DBIC	**Dimbokro**	**84.06**	**75**	P		**P**	**20 00 05.9**	**+1.2**
	comp=Z,1.5nm,0.6s,baz=39,slow=4.3,SNR=1.3							
	comp=Z,1.5nm,0.6s							
DBIC	**Dimbokro**	**84.06**	**75**	IAmb		IAmb	20 00 06.8	
	comp=Z,57nm,1.9s							
STKA	**Stephens Creek**	**95.16**	**214**	LR		LR	20 35 26.3	
	comp=Z,105nm,19.9s,baz=202,slow=30							
H11S2	**WAKE ISLAND Hyl**	**19.36**	**268**	T		T	22 16 50.1	
	baz=132,slow=75,SNR=11							
H11S1	**WAKE ISLAND Hyl**	**19.37**	**268**	T		T	22 16 52.1	
	baz=132,slow=75,SNR=4.4							
H11S3	**WAKE ISLAND Hyl**	**19.37**	**268**	T		T	22 16 48.4	
	baz=132,slow=75,SNR=7.2							
GERES	**GERESS Array B**	**123.60**	**52**	PKP		**PKiKP**	**20 06 32.8**	**+1.7**
	comp=Z,1.6nm,0.8s,baz=262,slow=2.7,SNR=3.4							
CMAR	**Chiang Mai Arr**	**154.06**	**177**	PKPbc		**PKPbc**	**20 07 32.4**	**-1.5**
	comp=Z,1.0nm,0.8s,baz=200,slow=3.8,SNR=4.3							
BVAR	**Borovoye Array**	**158.72**	**56**	PKPab		**PKPab**	**20 08 07.9**	**+1.4**
	comp=Z,0.3nm,0.7s,baz=5.7,slow=2.9,SNR=1.6							
NJ2	**Nanjing**	**160.84**	**236**	*eP*		**PKPdf**	**20 07 32.6**	**-1.2**
NJ2				pmax		pmax		
	comp=Z,8.0nm,1.6s							
KURBB	**Kurchatov Arra**	**164.19**	**59**	PKP		**PKPdf**	**20 07 37.9**	**+1.4**
	comp=Z,1.2nm,0.9s,baz=256,slow=1.3,SNR=7.3							
KURBB				PKPab		**PKPab**	**20 08 31.8**	**+1.4**
	comp=Z,2.0nm,0.9s,baz=285,slow=4.4,SNR=4.6							
KURK	**Kurchatov**	**164.22**	**59**			**PKPdf**	**20 07 37.9**	**+1.4**
KURK						**PKPab**	**20 08 31.8**	**+1.2**
HILR	**Hailar Array B**	**165.69**	**298**	PKPab		**PKPab**	**20 08 36.1**	**-1.1**
	comp=Z,4.8nm,0.5s,baz=356,slow=15,SNR=7.7							
ZALV	**Zalesovo Beam**	**166.22**	**41**	PKP		**PKPdf**	**20 07 38.9**	**+0.7**
	comp=Z,2.1nm,0.9s,baz=349,slow=1.5,SNR=3.9							
ZALV				PKPab		**pPKPab**	**20 08 41.9**	**+0.3**
	comp=Z,0.3nm,0.2s,baz=0.0,slow=4.5,SNR=1.7							
MKAR	**Makanchi Array**	**167.29**	**73**	PKPab		**PKPab**	**20 08 45.4**	**+1.0**
	comp=Z,0.9nm,0.8s,baz=265,slow=7.2,SNR=4.7							
MKAR	**Makanchi Array**	**167.29**	**73**	PKPdf		**PKPdf**	**20 07 38.2**	**-1.0**
MKAR						**PKPab**	**20 08 43.2**	**-1.2**
HHC	**Hu-ho-hao-te**	**170.84**	**251**	*eP*		**PKPdf**	**20 07 37.4**	**-4.4**
SONM	**Songino Array**	**174.49**	**310**	PKPab		**PKPab**	**20 09 17.2**	**+0.9**
	comp=Z,3.3nm,0.6s,baz=54,slow=2.5,SNR=1.7							
SONM	**Songino Array**	**174.49**	**310**	PKPdf		**PKPdf**	**20 07 41.7**	**-1.5**
SONM						**PKPab**	**20 09 15.7**	**-0.6**

*IDC **03** 19:58:16.4±1.1,5.°63S×150.°99E,h69km±12km, mb3.6/8, mbtmp3.9/9,MS3.0/3,Error ellipse: s-maj=39.5km s-min=9.0km az=131.0*

*NEIC **03** 19:58:16.0±1.5,5.°74S±0.°08×151.°19E±0.°09,h

PDAR	**Pinedale Array**	**3.31**	**256**		**Pn**	**19 59 19.4**	**+2.7**
BW06	**Boulder Array**	**3.31**	**256**		**Pn**	**19 59 19.3**	**+2.7**
HAYD	**Hayden**	**3.49**	**207**		**Pn**	**19 59 22.8**	**+3.8**
HAYD				IAML		20 00 30.7	
	comp=N,54nm,0.9s						
HAYD				IAML		20 00 30.8	
	comp=E,73nm,0.9s						
OGNE	**Ogallala**	**3.58**	**138**	Pn	**Pb**	**19 59 25.8**	**-1.7**
YNE	**Yellowstone No**	**3.71**	**293**		**Pn**	**19 59 22.6**	**+0.5**
YNE				IAML		20 00 25.1	
	comp=N,65nm,0.8s						
YNE				IAML		20 00 32.5	
	comp=E,54nm,0.9s						
YMP	**Mirror Lake Pl**	**3.73**	**289**	Pn	**Pn**	**19 59 23.1**	**+0.7**
YMP				IAML		20 00 28.5	
	comp=E,95nm,0.9s						
YMP				IAML		20 00 30.3	
	comp=N,90nm,0.6s						
GCMT	**Greycliff**	**3.84**	**305**	Pn	**Pn**	**19 59 23.5**	**-0.2**
ISCO	**Idaho Springs**	**3.86**	**185**	Pn	**Pn**	**19 59 27.2**	**+3.0**
ISCO				IAML		20 00 32.6	
	comp=N,41nm,3.8s						
ISCO				IAML		20 00 33.0	
	comp=N,38nm,0.8s						
H17A	**Grant Village**	**3.95**	**283**		**Pn**	**19 59 25.9**	**+0.4**
H17A				IAML		20 00 50.3	
	comp=N,40nm,4.0s						
SNOW	**Snow King Moun**	**4.05**	**269**		**Pn**	**19 59 27.4**	**+0.7**
SNOW				IAML		20 00 55.7	
	comp=N,72nm,4.2s						
YPP	**Pitchstone Pla**	**4.10**	**281**		**Pn**	**19 59 27.5**	**0.0**
YFT	**Old Faithful**	**4.15**	**283**		**Pn**	**19 59 28.4**	**+0.3**
YFT				IAML		20 00 00.0	
	comp=E,43nm,3.7s						
YFT				IAML		20 00 43.2	
	comp=N,35nm,1.2s						
O20A	**White River Ci**	**4.19**	**214**		**Pn**	**19 59 30.5**	**+1.9**
O20A				IAML		20 01 06.5	
	comp=N,60nm,2.5s						
YHH	**Holmes Hill**	**4.22**	**288**		**Pn**	**19 59 28.7**	**-0.5**
YHH				IAML		20 00 48.3	
	comp=N,35nm,4.1s						
YMR	**Madison River**	**4.28**	**286**		**Pn**	**19 59 28.2**	**-1.6**
YMR				IAML		20 01 09.1	
	comp=N,46nm,0.9s						
YMR				IAML		20 01 26.4	
	comp=E,60nm,3.8s						
E28A	**Huff**	**4.32**	**46**		**Pn**	**19 59 32.9**	**+2.6**
AHID	**Auburn Hatcher**	**4.41**	**260**		**Pn**	**19 59 29.6**	**-2.0**
AHID				IAML		20 00 55.7	
	comp=E,46nm,0.8s						
AHID				IAML		20 00 56.5	
	comp=E,36nm,1.6s						
YHB	**Horse Butte**	**4.45**	**286**		**Pn**	**19 59 33.2**	**+1.0**
YHL	**Hebgen Lake**	**4.47**	**288**	Pn	**Pn**	**19 59 29.5**	**-3.0**
YHL				IAML		20 00 58.9	
	comp=N,45nm,1.6s						
YHL				IAML		20 01 10.0	
	comp=E,42nm,1.6s						
RDMU	**Red Mountain**	**4.48**	**228**	Pn	**Pn**	**19 59 29.7**	**-2.9**
RDMU				IAML		20 00 56.5	
	comp=N,33nm,1.7s						
RDMU				IAML		20 00 57.7	
	comp=E,47nm,1.3s						
Q24A	**Divide**	**4.69**	**180**	Pn	**Pn**	**19 59 36.6**	**+1.1**
Q24A				IAML		20 00 55.0	
	comp=E,38nm,0.8s						
Q24A				IAML		20 01 39.7	
	comp=N,34nm,4.7s						
BOZ	**Bozeman (W)**	**4.99**	**295**		**Pn**	**19 59 35.5**	**-4.1**
BOZ				IAML		20 01 02.6	
	comp=N,28nm,4.7s						
BOZ				IAML		20 01 13.0	
	comp=N,23nm,3.8s						
KSCO	**Kaye Shedlock'**	**5.02**	**157**		**Pn**	**19 59 42.1**	**+2.1**
HWUT	**Hardware Ranch**	**5.13**	**249**		**Pn**	**19 59 40.6**	**-1.0**
HWUT				IAML		20 01 40.2	
	comp=N,31nm,4.8s						
BSUT	**Blindstream Ca**	**5.18**	**235**		**Pn**	**19 59 43.2**	**+0.8**
TCUT	**Toone Canyon**	**5.26**	**243**		**Pn**	**19 59 44.1**	**+0.8**
EGMT	**Eagleton**	**5.41**	**325**		**Pn**	**19 59 42.6**	**-2.6**
P18A	**Preston Nutter**	**5.52**	**225**		**Pn**	**19 59 48.3**	**+1.2**
MCMT	**McKenzie Canyo**	**5.63**	**285**		**Pn**	**19 59 48.0**	**-0.4**
PV22	**Blue Mesa, Par**	**5.79**	**209**		**Pn**	**19 59 51.1**	**+0.4**
PV07	**Paradox Valley**	**5.83**	**208**		**Pn**	**19 59 52.5**	**+1.4**
PV21	**Cone Mtn., Par**	**5.83**	**211**		**Pn**	**19 59 51.1**	**-0.1**
SPUT	**South Promonto**	**5.86**	**249**		**Pn**	**19 59 52.4**	**+0.9**
HVU	**Hansel Valley**	**5.89**	**254**		**Pn**	**19 59 51.7**	**-0.3**
SDCO	**Great Sand Dun**	**5.91**	**182**		**Pn**	**19 59 55.0**	**+2.7**
PV23	**Carpenter Ridg**	**5.95**	**210**		**Pn**	**19 59 54.3**	**+1.5**
PV04	**Paradox Valley**	**5.96**	**209**		**Pn**	**19 59 53.5**	**+0.6**
PV12	**Saucer Basin,**	**5.99**	**208**		**Pn**	**19 59 54.9**	**+1.5**
PV10	**Paradox Valley**	**6.02**	**210**		**Pn**	**19 59 53.8**	**0.0**
PV11	**David Mesa, Pa**	**6.03**	**209**		**Pn**	**19 59 54.9**	**+1.0**
PV16	**Nyswonger Mesa**	**6.04**	**209**		**Pn**	**19 59 54.0**	**0.0**
SRU	**San Rafael Swe**	**6.06**	**223**		**Pn**	**19 59 55.1**	**+0.8**
PV03	**Paradox Valley**	**6.06**	**208**		**Pn**	**19 59 54.9**	**+0.5**
PV02	**Paradox Valley**	**6.07**	**207**		**Pn**	**19 59 55.6**	**+1.1**
PV01	**Paradox Valley**	**6.08**	**206**		**Pn**	**19 59 55.4**	**+0.8**
PV18	**Skein Mesa, Pa**	**6.09**	**209**		**Pn**	**19 59 54.9**	**+0.1**
PV13	**Radium Mtn., P**	**6.14**	**208**		**Pn**	**19 59 56.0**	**+0.5**
TMUT	**Trail Mountain**	**6.27**	**228**		**Pn**	**19 59 58.2**	**+0.9**
PV05	**Paradox Valley**	**6.31**	**209**		**Pn**	**19 59 57.1**	**-0.6**
NLU	**North Lily Min**	**6.33**	**237**	Pn	**Pn**	**19 59 56.7**	**-1.4**
CBKS	**Cedar Bluff**	**6.34**	**138**		**Pn**	**19 59 58.2**	**+0.1**
T25A	**Trinidad**	**6.54**	**175**		**Pn**	**20 00 01.1**	**+0.2**
HMU	**Henry Mountain**	**7.09**	**218**		**Pn**	**20 00 08.0**	**-0.6**
I10CA	**LAC DU BONNET**	**9.06**	**41**	I	I	20 50 40.0	
	baz=221,slow=271,SNR=2.2						
ULM	**Lac du Bonnet**	**9.17**	**41**	Pn	**Pn**	**20 00 37.1**	**+0.4**
	comp=N,0.7nm,0.3s,baz=234,slow=10,SNR=4.1						
ULM				Pg		20 01 12.2	
	comp=N,0.5nm,0.3s,baz=227,slow=17,SNR=1.7						
ULM				Lg	Lg	20 03 14.0	
	comp=N,0.7nm,0.3s,baz=256,slow=4.2,SNR=3.6						
	comp=N,1.2nm,0.3s						
ULM				AML	AML		

IDC ***03*** *20:18:08.4±1.8,3°.43N×127°.27E,h0km,mb3.6/5, mbtmp3.6/5,Error ellipse: s-maj=108.9km s-min=24.4km az=68.0*

ISC 03 20:18:14.4±1.7,3°.5N±0°.3×127°.3E±0°.6,h45km,n6,σ1§33/7, mb3.5/5,Talaud Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**3.03**	**329**	*eP*		**Pn**	**20 19 00.4**	**+0.6**
DDMP				eS		**Sn**	**20 19 33.6**	**-1.2**
FITZ	**Fitzroy Crossi**	**21.51**	**184**	P		**P**	**20 23 00.2**	**+0.6**
	0.5nm,0.3s,baz=17,slow=11,SNR=6.8							
	0.5nm,0.3s							
WRA	**Warramunga Arr**	**24.30**	**164**	P		**P**	**20 23 26.4**	**-1.5**
	0.5nm,0.3s,baz=340,slow=10,SNR=41							
	0.5nm,0.3s							
ASAR	**Alice Springs**	**27.75**	**167**	P		**P**	**20 23 57.6**	**-1.5**
	0.3nm,0.5s,baz=348,slow=8.5,SNR=10							
	0.3nm,0.5s							
STKA	**Stephens Creek**	**37.72**	**160**	P		**P**	**20 25 26.5**	**+0.6**
	2.2nm,0.8s,baz=325,slow=7.2,SNR=4.5							
	2.2nm,0.8s							
MKAR	**Makanchi Array**	**58.06**	**325**	P		**P**	**20 28 03.6**	**+0.6**
	0.3nm,0.5s,baz=124,slow=7.5,SNR=4.9							
	0.3nm,0.5s							

BJI ***03*** *20:22:20.0,71°.50N×3°.50W,h10km,mB5.3/4,mb4.6/34, Ms4.7/1,Ms7 4.4/5*

MOS ***03*** *20:22:21.8±1.3,71°.49N×3°.48W,h10km,mb5.1/66, MS4.3/16,Error ellipse: s-maj=11.3km s-min=3.6km az=100.3*

IDC ***03*** *20:22:21.7±0.5,71°.55N×3°.89W,h0km,mb4.5/32, mbtmp4.5/39,ML3.9/7,MS4.2/75,Error ellipse: s-maj=10.0km s-min=8.9km az=34.0*

NEIC ***03*** *20:22:22.9±1.3,71°.41N±0°.07×3°.5W±0°.2,h10km±1km, mb4.9/200,Mww4.9/24,Error ellipse: s-maj=11.3km s-min=10.6km az=359.0*

GFZ ***03*** *20:22:22.8±0.2,72°.N×3°.×±°,h10km,M4.8/41,mb4.9/41*

NAO ***03*** *20:22:23.3±0.4,71°.49N×3°.79W,h10km,ML5.1*

INMG ***03*** *20:22:23.0±3.9,72°.09N×1°.73W,h10km,M4.9,mb5.1, Ms4.3,#DIST_RANGE: DISTANT*

GCMT ***03*** *20:22:23.9±0.2,71°.50N±0°.02×3°.48W±0°.05,h12km, MW5.0/106,Moment Tensor Solution. s29,c39; s106,c165; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=2.63±.11; Mθθ2.52±.10; Mφφ0.10±.10; Mrθ-0.13±.34; Mrφ2.67±.08; Mθφ-0.09±.29; Best double couple: M₀3.44000×10¹⁶ NP1:φ=237.00000°,δ44.00000°, λ-90.00000°. NP2:φ=57.00000°,δ46.00000°,λ-90.00000°. Principal axes: T 4.2470, Plg1.0000°, Azm147.0000°; N -1.6160, Plg0.0000°, Azm237.0000°; P -2.6340, Plg89.0000°, Azm328.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

FCIAR ***03*** *20:22:24.8,71°.75N×3°.77W,h10km*

BER ***03*** *20:22:24.5±2.9,71°.44N×3°.76W,h10km,Mw4.7, ML5.1(NAO),Confirmed Earthquake*

GFZ ***03*** *20:22:24.1,71°.66N×3°.37W,h14km,Mw5.0/97,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr-2.85; Mθθ2.33; Mφφ0.52; Mrθ-1.17; Mθφ0.99; Mφr-1.37; Fault plane solution: M₀3.33297×10¹⁶ NP1:φ=53.38871°, δ61.26396°,λ-102.17930°. NP2:φ=257.56497°, δ31.00659°,λ-68.95463°. Principal axes: T 3.2118, Plg15.4328°, Azm152.2916°; N 0.2304, Plg10.6605°, Azm59.3128°; P -3.4422, Plg71.0896°, Azm295.9821°;*

DNK ***03*** *20:22:31.0±4.5,71°.81N×4°.47W,h31km±174km,ML2.8, Presumed earthquake*

BGR ***03*** *20:22:31.8±2.1,71°.09N×1°.58W,h10km,mb5.0,Error ellipse: s-maj=54.5km s-min=38.9km az=74.0*

ISC 03 20:22:23.0±0.4,71°.50N±0°.03×3°.80W±0°.03,h11km±2km, h11km:pP-P,n845,σ1§58/800,mb4.9/241,MS4.2/85, 55C-23D,Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JNE	**Jan Mayen East**	**1.54**	**253**	*eP*		**Pn**	**20 22 49.6**	**-0.7**
JNE				eS		**Sn**	**20 23 06.1**	**-4.3**
JNW	**Jan Mayen West**	**1.57**	**255**	*eP*		**Pn**	**20 22 50.1**	**-0.7**
JNW				eS		**Sn**	**20 23 09.3**	**-1.7**
JNW				IAML			20 23 34.6	
	comp=Z,131nm,0.5s							
JMIC	**Jan Mayen**	**1.60**	**254**	Pn		Pn	20 22 47.2	-4.1
	comp=Z,35nm,0.3s,baz=157,slow=12,SNR=1.7							
JMIC				Sn		**Sn**	**20 23 08.4**	**-3.5**
	comp=Z,24nm,0.3s,baz=169,slow=20,SNR=1.7							
JMIC	**Jan Mayen**	**1.60**	**254**	*eS*		**Sn**	**20 23 11.6**	**-0.4**
JMI	**Jan Mayen**	**1.70**	**253**	Pn		**Pn**	**20 22 52.0**	**-0.6**
JMI	**Jan Mayen**	**1.70**	**253**	*eP*		**Pn**	**20 22 51.6**	**-0.9**
JMI				eS		**Sn**	**20 23 14.0**	**-0.1**
JMI				IAML			20 23 18.3	
	comp=Z,117nm,0.4s							
DBG	**Daneborg**	**5.59**	**308**	Pn		**Pn**	**20 23 44.4**	**-1.6**
DBG				Sn		**Sn**	**20 24 43.6**	**-6.4**
DBG	**Daneborg**	**5.59**	**308**	*eP*		**Pn**	**20 23 44.1**	**-1.9**
DBG				*eS*		**Sn**	**20 24 43.3**	**-6.8**
DBG	**Daneborg**	**5.59**	**308**	P		**Pn**	**20 23 45.2**	**-0.7**
	comp=Z,129nm,1.0s							
DBG	**Daneborg**	**5.59**	**308**	*i* P		**Pn**	**20 23 44.3**	**-1.6**
DBG				*i* S		Sn	20 24 42.4	-7.7
DBG				IAML			20 24 56.7	
	comp=Z,28nm,1.0s							
SCO	**Scoresbysund**	**6.01**	**269**	P		**Pn**	**20 23 51.8**	**+0.1**
SCO	**Scoresbysund**	**6.01**	**269**	Pn		**Pn**	**20 23 51.8**	**+0.1**
SCO	**Scoresbysund**	**6.01**	**269**	*i* P		**Pn**	**20 23 52.0**	**+0.3**
DAG	**Danmarks Havn**	**6.65**	**329**	*eP*		**Pn**	**20 23 58.4**	**-2.1**
DAG				*eS*		Sn	20 25 04.5	-12
DAG	**Danmarks Havn**	**6.65**	**329**	P		**Pn**	**20 23 58.8**	**-1.7**
	comp=Z,119nm,0.9s							
DAG	**Danmarks Havn**	**6.65**	**329**	*i* P		**Pn**	**20 23 59.2**	**-1.4**
DAG				*i* S		Sn	20 25 05.5	-11
DAG				IAML			20 25 12.9	
	comp=Z,49nm,0.7s							
LOF	**Lofoten**	**6.87**	**111**	Pn		**Pn**	**20 24 01.0**	**-2.5**
LOF	**Lofoten**	**6.87**	**111**	*eP*		**Pn**	**20 24 01.0**	**-2.5**
LOF				eS		Sn	20 25 10.6	-11
BJO1	**Bjornoya**	**7.30**	**55**	*eP*		**Pn**	**20 24 08.8**	**-0.5**
BJO1	**Bjornoya**	**7.30**	**55**	*eP*		**Pn**	**20 24 09.8**	**+0.4**
BEAR	**Bear Island, N**	**7.30**	**55**	Pn		**Pn**	**20 24 10.0**	**+0.6**
	baz=254,slow=18							
STEI	**Steigen**	**7.50**	**109**	Pn		**Pn**	**20 24 10.4**	**-1.8**
STEI	**Steigen**	**7.50**	**109**	*eP*		**Pn**	**20 24 10.2**	**-2.0**
STEI				eS		Sn	20 25 26.5	-11
STEI				IAML			20 25 32.9	
	comp=Z,23nm,0.8s							
VAGH	**Vaagaholmen**	**7.73**	**120**	Pn		**Pn**	**20 24 13.4**	**-1.8**
VAGH	**Vaagaholmen**	**7.73**	**120**	*eP*		**Pn**	**20 24 12.5**	**-2.8**
VAGH				eS		Sn	20 25 31.5	-11
VAGH				IAML			20 25 37.9	
	comp=Z,20nm,0.6s							
TRO	**Tromso**	**7.79**	**93**	Pn		**Pn**	**20 24 13.1**	**-2.9**
TRO	**Tromso**	**7.79**	**93**	*eP*		**Pn**	**20 24 13.2**	**-2.9**
TRO				eS		Sn	20 25 33.3	-11
TRO				IAML			20 25 39.2	
	comp=Z,12nm,0.7s							
KONS	**Konsvik**	**7.86**	**121**	*eP*		**Pn**	**20 24 14.2**	**-2.8**
KONS				eS		Sn	20 25 36.1	-10
KONS				IAML			20 25 42.1	
	comp=Z,20nm,0.6s							
FAUS	**Fauske**	**7.86**	**112**	Pn		**Pn**	**20 24 15.0**	**-2.1**
FAUS	**Fauske**	**7.86**	**112**	*eP*		**Pn**	**20 24 14.8**	**-2.3**
FAUS				eS		Sn	20 25 35.6	-10
FAUS				IAML			20 25 39.8	
	comp=Z,24nm,1.1s							
STOK	**Stokkvaagen**	**7.95**	**122**	Pn		**Pn**	**20 24 16.2**	**-2.1**
STOK	**Stokkvaagen**	**7.95**	**122**	*eP*		**Pn**	**20 24 16.2**	**-2.1**
STOK				eS		Sn	20 25 37.1	-11
STOK				IAML			20 25 42.4	
	comp=Z,16nm,0.7s							
BRBA	**Barentsburg A**	**8.06**	**27**	Pn		**Pn**	**20 24 20.4**	**+0.6**
BRBA	**Barentsburg A**	**8.06**	**27**	*eP*		**Pn**	**20 24 22.0**	**+2.2**
BRBB	**Barentsburg B**	**8.09**	**27**	Pn		**Pn**	**20 24 20.3**	**+0.2**
BRBB	**Barentsburg B**	**8.09**	**27**	*eP*		**Pn**	**20 24 21.5**	**+1.4**
LEIR	**Leirfjorden**	**8.14**	**123**	Pn		**Pn**	**20 24 19.2**	**-1.8**
LEIR	**Leirfjorden**	**8.14**	**123**	*eP*		**Pn**	**20 24 18.9**	**-2.1**
LEIR				eS		Sn	20 25 41.6	-11
LEIR				IAML			20 25 49.6	
	comp=Z,24nm,0.5s							
RAUS	**Rausandaksla**	**8.16**	**120**	*eP*		**Pn**	**20 24 18.6**	**-2.5**
RAUS				eS		Sn	20 25 42.5	-11
RAUS				IAML			20 25 47.8	
	comp=Z,16nm,1.2s							
JETT	**Jettan, Norway**	**8.29**	**92**	*eP*		**Pn**	**20 24 20.8**	**-2.2**
JETT				Pn		Pb	20 24 21.1	-25
JETT				eS		Sn	20 25 46.3	-10
JETT				IAML			20 25 54.4	
	comp=Z,20nm,0.5s							
MOR8	**Moi Rana**	**8.46**	**120**	Pn		**Pn**	**20 24 24.1**	**-1.2**
MOR8				Sn		**Sn**	**20 25 53.8**	**-6.9**
MOR8	**Moi Rana**	**8.46**	**120**	*eP*		**Pn**	**20 24 23.7**	**-1.6**
MOR8				eS		Sn	20 25 49.5	-11
MOR8				IAML			20 25 54.8	
	comp=Z,23nm,0.5s							
SPA0	**Spitsbergen Ar**	**8.47**	**29**	Pn		**Pn**	**20 24 26.3**	**+0.9**
	baz=221,slow=16							
SPA0	**Spitsbergen Ar**	**8.47**	**29**	*eP*		**Pn**	**20 24 26.1**	**+0.7**
SPA0	**Spitsbergen Ar**	**8.47**	**29**	Pn		**Pn**	**20 24 26.3**	**+0.9**
SPB2	**Spitsbergen Ar**	**8.47**	**29**			**Pn**	**20 24 26.1**	**+0.7**
SPITS	**Spitsbergen Ar**	**8.47**	**29**	Pn		**Pn**	**20 24 25.6**	**+0.2**
	baz=215,slow=16							
	comp=Z,10nm,0.3s							
SALU	**Saltoluokta**	**8.83**	**107**	*eP*		**Pn**	**20 24 28.4**	**-2.1**
NSS	**Namsos**	**9.12**	**132**	Pn		**Pn**	**20 24 33.1**	**-1.3**
NSS	**Namsos**	**9.12**	**132**	*eP*		**Pn**	**20 24 31.8**	**-2.6**
NSS				eS		Sn	20 26 05.9	-11
NSS				IAML			20 26 11.5	
	comp=Z,14nm,0.5s							
BORG	**Borgarnes**	**9.38**	**232**	Pn		**Pn**	**20 24 38.5**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=359,slow=12,SNR=1.5							
BORG				LR		LR	20 27 31.4	
	comp=Z,1μm,18.3s,baz=348,slow=33							
	comp=Z,12nm,1.0s							
BORG				AML		AML		
BORG	**Borgarnes**	**9.38**	**232**	Pn		**Pn**	**20 24 37.2**	**-0.7**
KTK1	**Kautokeino**	**9.43**	**92**	*eP*		**Pn**	**20 24 36.6**	**-2.1**
LANU	**Lannavaara**	**9.53**	**99**	*eP*		**Pn**	**20 24 37.3**	**-2.7**
HEF	**Hetta**	**9.87**	**95**	*eP*		**Pn**	**20 24 42.7**	**-1.8**
HEF				eS		Sn	20 26 24.4	-11
ARA0	**ARCESS Array S**	**9.93**	**87**	Pn		**Pn**	**20 24 43.3**	**-2.1**
	baz=288,slow=12							
ARA0	**ARCESS Array S**	**9.93**	**87**	Pn		**Pn**	**20 24 43.3**	**-2.1**
ARCES	**ARCESS Array B**	**9.93**	**87**	Pn		**Pn**	**20 24 43.3**	**-2.1**
	comp=Z,1.2nm,0.3s,baz=295,slow=11,SNR=42							
ARCES				LR		LR	20 28 02.6	
	comp=Z,721nm,19.6s,baz=292,slow=34							
	comp=Z,11nm,0.6s							
ARCES				AML		AML		
ARCES	**ARCESS Array B**	**9.93**	**87**			**Pn**	**20 24 43.1**	**-2.3**
MOL	**Molde**	**9.98**	**148**	P		**Pn**	**20 24 44.2**	**-1.9**
MOL	**Molde**	**9.98**	**148**	*eP*		**Pn**	**20 24 43.9**	**-2.2**
MOL	**Molde**	**9.98**	**148**	*i* P		**Pn**	**20 24 44.1**	**-1.9**
AKN	**Aaknes**	**10.26**	**150**	P		**Pn**	**20 24 48.2**	**-1.7**
AKN	**Aaknes**	**10.26**	**150**	P		**Pn**	**20 24 48.2**	**-1.7**
KEV	**Kevo**	**10.31**	**85**	P		**Pn**	**20 24 48.5**	**-2.1**
KEV	**Kevo**	**10.31**	**85**			**Pn**	**20 24 48.5**	**-2.1**
FOO	**Floro**	**10.53**	**156**	P		**Pn**	**20 24 51.6**	**-2.0**
FOO	**Floro**	**10.53**	**156**	*eP*		**Pn**	**20 24 51.3**	**-2.3**
FOO	**Floro**	**10.53**	**156**	*i* P		**Pn**	**20 24 50.4**	**-3.3**
NOR	**Nord**	**10.54**	**350**	P		**Pn**	**20 24 52.0**	**-1.7**
NOR	**Nord**	**10.54**	**350**	*eP*		**Pn**	**20 24 51.8**	**-1.9**
NOR				*eS*		Sn	20 26 42.9	-8.6
NOR	**Nord**	**10.54**	**350**	*eP*		**Pn**	**20 24 52.2**	**-1.5**
NOR				*eS*		Sn	20 26 42.8	-8.6
NOR	**Nord**	**10.54**	**350**	P		**Pn**	**20 24 52.5**	**-1.2**
	comp=Z,53nm,1.1s							
NOR	**Nord**	**10.54**	**350**	*i* P		**Pn**	**20 24 52.0**	**-1.7**
SUMG	**Summit**	**10.65**	**292**	*i* P		**Pn**	**20 24 57.2**	**+1.6**
DOMB	**Dombas**	**10.73**	**146**	*eP*		**Pn**	**20 24 54.9**	**-1.6**
DOMB	**Dombas**	**10.73**	**146**	*i* P		**Pn**	**20 24 54.5**	**-2.0**
VADS	**Vadso**	**10.91**	**81**	*eP*		**Pn**	**20 24 56.7**	**-2.2**
SJUU	**Sjulsmark**	**11.00**	**110**	*eP*		**Pn**	**20 24 57.5**	**-2.6**
SUE	**Sulen**	**11.02**	**158**	*eP*		**Pn**	**20 24 58.5**	**-1.8**
HYA	**Hoyanger**	**11.10**	**154**	*eP*		**Pn**	**20 24 59.8**	**-1.7**
HYA				IAML			20 27 13.8	
	comp=Z,7.8nm,0.8s							
HYA	**Hoyanger**	**11.10**	**154**	*i* P		**Pn**	**20 25 01.5**	**+0.1**
SGF	**Sodankyl**	**11.30**	**96**	P		Pn	20 24 56.9	-7.3
LRW	**Lerwick**	**11.46**	**173**	P		**Pn**	**20 25 05.9**	**-0.4**
LRW				S		Sn	20 27 03.6	-11
LRW	**Lerwick**	**11.46**	**173**	*eP*		**Pn**	**20 25 05.2**	**-1.1**
LRW				*eS*		Sn	20 27 01.7	-12
LRW				IAML			20 27 07.4	
	comp=Z,12nm,0.4s							
ASK	**Askoy**	**11.63**	**157**	P		**Pn**	**20 25 06.8**	**-1.9**
ASK	**Askoy**	**11.63**	**157**	*eP*		**Pn**	**20 25 06.4**	**-2.3**
BER	**Bergen**	**11.74**	**157**	P		**Pn**	**20 25 10.2**	**0.0**
	comp=Z,156nm,1.1s							
NC204	**NORSAR Array S**	**11.76**	**143**	Pn		**Pn**	**20 25 07.5**	**-3.0**
SKAR	**Skarslia**	**11.88**	**150**	*eP*		**Pn**	**20 25 09.5**	**-2.7**
SKAR	**Skarslia**	**11.88**	**150**	*i* P		**Pn**	**20 25 09.9**	**-2.3**
NB2	**NORSAR Subarra**	**12.06**	**143**	Pn		**Pn**	**20 25 14.3**	**-0.3**
	baz=326,slow=14							
NB2	**NORSAR Subarra**	**12.06**	**143**	Pn		**Pn**	**20 25 14.3**	**-0.3**
NOA	**NORSAR Array B**	**12.06**	**143**	Pn		**Pn**	**20 25 12.1**	**-2.6**
	comp=Z,0.1nm,0.3s,baz=336,slow=13,SNR=14							
NOA				Sn		**Sn**	**20 27 23.1**	**-5.8**
	baz=303,slow=16,SNR=1.4							
NOA				LR		LR	20 29 39.0	
	comp=Z,2μm,21.0s,baz=335,slow=36							
	comp=Z,7.3nm,0.8s							
NOA				AML		AML		
NAO01	**NORSAR Array S**	**12.18**	**144**	Pn		**Pn**	**20 25 12.9**	**-3.2**
NAO01	**NORSAR Array S**	**12.18**	**144**	P		Pn	20 25 20.7	+4.5
	comp=Z,18nm,1.2s							
ODD1	**Odda**	**12.37**	**155**	*eP*		**Pn**	**20 25 18.1**	**-0.8**
NORES	**NORESS Array B**	**12.40**	**143**	P		**Pn**	**20 25 19.9**	**+0.6**
NRA0	**NORESS Array S**	**12.40**	**143**	Pn		**Pn**	**20 25 17.2**	**-2.0**
	baz=344,slow=14							
NRA0	**NORESS Array S**	**12.40**	**143**	Pn		**Pn**	**20 25 17.2**	**-2.0**
OUL	**Oulu**	**12.60**	**106**	P		**Pn**	**20 25 19.9**	**-2.0**
OUL	**Oulu**	**12.60**	**106**	P		**Pn**	**20 25 19.9**	**-2.0**
	comp=Z,101nm,1.2s							
BLS5	**Blasjo**	**12.82**	**156**	*eP*		**Pn**	**20 25 23.0**	**-2.0**
BLS5	**Blasjo**	**12.82**	**156**	*i* P		**Pn**	**20 25 24.8**	**-0.2**
MSF	**Maaselka**	**13.03**	**99**	P		**Pn**	**20 25 26.2**	**-1.6**
MSF	**Maaselka**	**13.03**	**99**	P		**Pn**	**20 25 26.2**	**-1.6**
	comp=Z,63nm,2.6s							
KONO	**Kongsberg**	**13.07**	**149**	*ceP*		**Pn**	**20 25 26.8**	**-1.6**
KONO				pmax		pmax		
	comp=Z,83nm,1.0s							
KONO	**Kongsberg**	**13.07**	**149**			**Pn**	**20 25 26.0**	**-2.4**
KONO	**Kongsberg**	**13.07**	**149**	P		Pn	**20 25 28.3**	**0.0**
	comp=Z,85nm,1.0s							
KONO	**Kongsberg**	**13.07**	**149**	*i* P		**Pn**	**20 25 26.7**	**-1.7**
VAF	**Ylistaro**	**13.15**	**117**	*

TULEG Thule 17.66 316 P **Pn** **20 26 23.6 -4.9**
TULEG Thule 17.66 316 P **Pn** **20 26 26.1 -2.4**
comp=Z,51nm,1.0s
PUL Pulkovo 17.98 113 *i* P **Pn** **20 26 31.4 -1.2**
VSU Vasula 18.06 121 *ce*P **Pn** **20 26 30.1 -3.4**
VSU pmax pmax
comp=Z,142nm,1.2s
VSU Vasula 18.06 121 *e*P **Pn** **20 26 31.0 -2.5**
VSU Vasula 18.06 121 P **Pn** **20 26 30.9 -2.6**
comp=Z,111nm,0.8s
BSD Bornholm Skovb 18.31 144 *e*P **P** **20 26 36.5 -0.3**
BSD Bornholm Skovb 18.31 144 P **P** **20 26 36.4 -0.3**
comp=Z,111nm,1.3s
BSD Bornholm Skovb 18.31 144 *i* P **Pn** **20 26 36.0 -0.6**
BSD IAmb IAmb 20 26 41.2
comp=Z,119nm,1.2s
RGN Rugen 18.56 147 P **P** **20 26 35.4 -4.0**
RGN Rugen 18.56 147 P **Pn** **20 26 41.1 +1.4**
comp=Z,258nm,1.1s
BSEG Bad Segeberg 18.68 153 *e*P **Pn** **20 26 42.2 +1.1**
BSEG Bad Segeberg 18.68 153 P **Pn** **20 26 42.6 +1.5**
comp=Z,94nm,2.3s
PBUR Paburge 18.97 131 *e*P **P** **20 26 43.0 -1.0**
PBUR Paburge 18.97 131 P **Pn** **20 26 45.4 +0.8**
comp=Z,211nm,2.0s
LSH Leshukonskoye 19.02 85 *e*P **Pn** **20 26 44.9 -0.2**
comp=Z,49nm,1.2s
VSVD Vaisvydziai 19.50 128 *e*P **Pn** **20 26 52.9 +1.9**
RETH Rethem/Aller, 19.71 156 *e*P **Pn** **20 26 53.0 -0.5**
LNIZ Loecknitz 19.73 147 P **Pn** **20 26 53.5 -0.2**
comp=Z,116nm,0.9s
PABE Paberze 19.94 129 **P** **20 26 51.2 -3.3**
PABE Paberze 19.94 129 *e*P **P** **20 26 53.3 -1.2**
PABE Paberze 19.94 129 P **Pn** **20 26 54.8 -1.4**
comp=Z,154nm,1.0s
KLMR Klimovskoe 19.94 100 *e*P **P** **20 26 54.0 -0.5**
KLMR 20 30 41.6
KLMR pmax pmax
comp=Z,137nm,1.0s
FLTG Flechtingen 20.37 153 *e*P **P** **20 26 59.8 +0.5**
FLTG Flechtingen 20.37 153 P Pn 20 27 00.3 -1.0
comp=Z,50nm,1.4s
ISAL Salakas 20.43 126 *e*P **P** **20 26 59.0 -0.8**
ASSE Asse, Remlinge 20.49 154 *e*P **P** **20 27 01.1 +0.7**
ASSE Asse, Remlinge 20.49 154 P Pn 20 27 01.5 -1.1
comp=Z,62nm,1.6s
GKP Gorka Klasztor 20.50 142 *e*P Pn 20 27 01.6 -1.2
GKP Gorka Klasztor 20.50 142 *e*P **P** **20 27 00.4 -0.2**
CLZ Clausthal 20.73 155 *e*P Pn 20 27 04.1 -1.5
CLZ Clausthal 20.73 155 P Pn 20 27 04.8 -0.8
comp=Z,51nm,1.2s
BUG Bochum--Univer 20.74 160 P Pn 20 27 04.7 -0.9
BUG Bochum--Univer 20.74 160 *e*P Pn 20 27 04.6 -1.1
comp=Z,47nm,1.2s
BUG Bochum--Univer 20.74 160 P Pn 20 27 04.7 -0.9
comp=Z,39nm,1.2s
UCC Uccle 21.10 166 P **P** **20 27 07.2 +0.1**
UCC pmax pmax
comp=Z,178nm,2.0s
UCC Uccle 21.10 166 **P** **20 27 07.2 +0.1**
UCC IAmb IAmb 20 27 11.5
comp=Z,178nm,2.0s
UCC Uccle 21.10 166 P **P** **20 27 10.4 +3.3**
comp=Z,5.3nm,1.5s
KASTN Kahler Asten 21.10 158 *e*P **P** **20 27 07.8 +0.6**
comp=Z,40nm,1.1s
SUW Suwalki 21.10 132 *e*P **P** **20 27 06.7 -0.4**
SUW Suwalki 21.10 132 P **P** **20 27 05.7 -1.5**
SUW Suwalki 21.10 132 P **P** **20 27 05.7 -1.5**
SUW Suwalki 21.10 132 *e*P **P** **20 27 07.3 +0.1**
NACGM Naroch 21.19 126 *e*P **P** **20 27 07.8 -0.3**
WIMM Wimmelburg 21.20 153 P **P** **20 27 08.9 +0.7**
comp=Z,124nm,1.6s
BSKQ Steenkerk 21.23 166 *d*P **P** **20 27 07.9 -0.6**
HGN Heimansgroeve 21.27 163 P **P** **20 27 10.3 +1.3**
comp=Z,51nm,1.6s
SHIP Sredneye Shipi 21.39 92 *e*P **P** **20 27 12.6 +2.5**
comp=Z,61nm,0.8s
MEM Membach 21.43 163 *d*P **P** **20 27 12.2 +1.4**
MEM Membach 21.43 163 P **P** **20 27 11.9 +1.2**
comp=Z,70nm,2.1s
POIN Pond Inlet 21.51 308 **P** **20 27 12.8 +1.4**
NEUB Neuenburg 21.54 153 *e*P **P** **20 27 12.5 +0.6**
comp=Z,104nm,0.9s
NEUB Neuenburg 21.54 153 P **P** **20 27 12.9 +1.0**
comp=Z,147nm,1.2s
BCLA Clavier 21.56 164 *d*P **P** **20 27 12.0 0.0**
comp=Z,14nm,1.3s
BMRD Maredsous 21.63 165 *d*P **P** **20 27 15.7 +2.9**
CLL Collm 21.63 151 *i* P **P** **20 27 13.1 +0.2**
CLL *i* 20 27 15.7
CLL *e*S **S** **20 31 13.0 +1.0**
CLL pmax pmax
comp=Z,54nm,1.3s
CLL MLR MLR
comp=Z,800nm,22.0s
CLL Collm 21.63 151 P **P** **20 27 12.1 -0.8**
CLL IAmb IAmb 20 27 18.9
comp=Z,65nm,1.0s
CLL Collm 21.63 151 *e*P **P** **20 27 13.0 +0.2**
comp=Z,71nm,1.0s
CLL Collm 21.63 151 P **P** **20 27 13.2 +0.3**
comp=Z,74nm,1.1s
CLL sP **pwP** **20 27 17.8 -0.3**
comp=Z,74nm,1.1s
CLL Collm 21.63 151 P **P** **20 27 13.3 +0.5**
comp=Z,74nm,1.1s
CLL Collm 21.63 151 *i* P **P** **20 27 13.1 +0.2**
comp=Z,54nm,1.3s
CLL *i* x x 20 27 15.7
CLL *i* x x 20 27 17.5
comp=Z,84nm,1.1s
CLL *e*PPP PPP 20 27 42.0
CLL *e*S **S** **20 31 13.0 +1.0**
CLL L L 20 32 00.0
CLL AMS AMS 20 34 00.0
comp=N,600nm,22.4s
CLL AMS AMS 20 34 00.0
comp=E,400nm,20.0s
CLL AMS AMS 20 34 00.0
comp=Z,800nm,22.0s
RCHB Rochefort 21.81 164 *d*P **P** **20 27 14.7 -0.1**
comp=Z,12nm,1.0s
RCHB Rochefort 21.81 164 P **P** **20 27 17.9 +3.1**
comp=Z,20nm,1.2s
DOU Dourbes 21.82 165 *d*P **P** **20 27 14.1 -0.8**
comp=Z,18nm,1.3s
MNK Minsk 21.84 125 *i* P **P** **20 27 14.8 -0.2**
MNK *i* PPP PPP 20 27 44.0
MNK *i* S **S** **20 31 17.5 +1.5**
MNK *i* SS **SnSn** **20 31 45.5 +4.9**
MNK *i* SSS SSS 20 31 57.2
MNK pmax pmax
comp=Z,129nm,0.9s
MNK pmax pmax
comp=E,118nm,1.1s
MNK pmax pmax
comp=N,115nm,1.1s
MNK MLR MLR
comp=Z,2µm,20.0s
MNK MLR MLR
comp=E,856nm,18.0s
MNK MLR MLR
comp=N,977nm,19.0s
MNK Minsk 21.84 125 *i* P **P** **20 27 14.9 -0.2**
comp=E,118nm,1.1s
MNK *i* P **P** **20 27 14.9 -0.2**
comp=N,115nm,1.1s
MNK *i* P **P** **20 27 14.9 -0.2**
comp=Z,129nm,0.9s,baz=335
MNK *i* PP **PnPn** **20 27 34.9 -1.2**
MNK *i* PPP PPP 20 27 44.0
MNK *i* S **S** **20 31 17.5 +1.5**
MNK *i* SS **SnSn** **20 31 45.5 +4.9**
MNK *i* SSS SSS 20 31 57.3
MNK *i* LQ LQ 20 33 06.5
MNK *i* LR LR 20 34 25.9
MNK *i* LRM MLR 20 35 14.1
comp=Z,2µm,19.6s
MNK *i* LRM MLR 20 35 15.2
comp=E,856nm,18.2s
MNK *i* LRM MLR 20 35 18.0
comp=N,977nm,19.4s
MOX Moxa 22.07 153 P **P** **20 27 18.6 +1.0**
MOX Moxa 22.07 153 *e*P **P** **20 27 18.3 +0.7**
comp=N,132nm,1.3s
MOX Moxa 22.07 153 P **P** **20 27 18.6 +1.0**
comp=Z,90nm,1.9s
TNS Taunus Mts 22.07 159 *e*P **P** **20 27 18.7 +1.1**
comp=Z,42nm,1.0s
TNS Taunus Mts 22.07 159 P **P** **20 27 19.1 +1.5**
comp=Z,46nm,2.2s
BRG Berggiesshubel 22.20 149 P **P** **20 27 19.8 +0.8**
BRG Berggiesshubel 22.20 149 *e*P **P** **20 27 19.0 0.0**
comp=Z,93nm,1.1s
BRG Berggiesshubel 22.20 149 P **P** **20 27 19.8 +0.8**
comp=Z,102nm,1.3s
BRG Berggiesshubel 22.20 149 *e*P **P** **20 27 19.5 +0.4**
BRG Amp 20 27 22.3
comp=Z,16nm,1.3s
BRG Berggiesshubel 22.20 149 P P 20 27 26.4 +7.3
BRG Amp 20 27 27.3
comp=Z,79nm,1.0s
R9F13 Warsaw-Wawer 22.30 137 *e*P **P** **20 27 20.4 +0.4**
PLN Plauen 22.30 152 *e*P **P** **20 27 20.5 +0.4**
comp=Z,30nm,1.0s
HSKC Hora Svate Kat 22.38 150 *e*P **P** **20 27 21.0 +0.1**
WLF Walferdange 22.38 163 P **P** **20 27 19.5 -1.4**
WLF pmax pmax
comp=Z,48nm,1.2s
WLF Walferdange 22.38 163 P **P** **20 27 19.5 -1.4**
WLF IAmb IAmb 20 27 29.3
comp=Z,48nm,1.2s
WLF Walferdange 22.38 163 *d*P **P** **20 27 22.9 +2.0**
WLF Walferdange 22.38 163 *e*P **P** **20 27 23.1 +2.2**
comp=Z,45nm,1.1s
WLF Walferdange 22.38 163 P **P** **20 27 23.3 +2.4**
comp=Z,37nm,1.9s
TANN Tannenbergstha 22.42 152 *e*P **P** **20 27 21.1 -0.3**
comp=Z,64nm,1.1s
TANN Tannenbergstha 22.42 152 P **P** **20 27 22.5 +1.1**
comp=Z,112nm,1.9s
RICC Richard 22.55 149 *e*P **P** **20 27 23.9 +1.2**
BEL Belsk 22.59 138 *e*P **P** **20 27 23.7 +0.6**
NKC Novy Kostel 22.59 152 *e*P **P** **20 27 24.3 +1.1**
NKC Novy Kostel 22.59 152 *e*P **P** **20 27 24.3 +1.1**
KSP Ksiaz 22.64 146 *e*P **P** **20 27 23.9 +0.2**
KSP Ksiaz 22.64 146 P **P** **20 27 24.0 +0.3**
comp=Z,124nm,1.2s
PVCC Panska Ves 22.64 148 *e*P **P** **20 27 25.6 +1.9**
PVCC MLR MLR
comp=Z,900nm,22.3s
PVCC Panska Ves 22.64 148 *e*P **P** **20 27 25.6 +1.9**
PVCC AMS AMS 20 35 40.0
comp=Z,900nm,22.3s
CHVC Chvalec 22.84 146 *e*P **P** **20 27 26.5 +0.7**
CHVC MLR MLR
comp=Z,1µm,13.9s
CHVC Chvalec 22.84 146 *e*P **P** **20 27 26.5 +0.7**
CHVC AMS AMS 20 37 40.0
comp=Z,1µm,13.9s
OSTC Ostas 22.90 146 *e*P **P** **20 27 27.1 +0.7**
OSTC MLR MLR
comp=Z,1µm,15.5s
OSTC Ostas 22.90 146 *e*P **P** **20 27 27.1 +0.7**
OSTC AMS AMS 20 37 30.0
comp=Z,1µm,15.5s
UPC Upice 22.91 146 *e*P **P** **20 27 26.9 +0.4**
UPC Upice 22.91 146 *e*P **P** **20 27 26.9 +0.4**
GRA1 Grafenberg Arr 22.95 154 P **P** **20 27 25.7 -1.2**
GRF Grafenberg Arr 22.95 154 P **P** **20 27 25.7 -1.2**
GRF pmax pmax
comp=Z,93nm,1.2s
GRF Grafenberg Arr 22.95 154 *e*P **P** **20 27 27.9 +1.0**
comp=Z,99nm,1.2s
GRA2 Grafenberg Arr 23.00 154 P **P** **20 27 28.9 +1.4**
comp=Z,76nm,1.2s
DPC Dobruska-Polom 23.12 146 *e*P **P** **20 27 29.1 +0.4**
DPC MLR MLR
comp=Z,1µm,15.7s
DPC Dobruska-Polom 23.12 146 *e*P **P** **20 27 29.1 +0.4**
DPC AMS AMS 20 37 30.0
comp=Z,1µm,15.7s
DPC Dobruska-Polom 23.12 146 P **P** **20 27 29.2 +0.5**
comp=Z,113nm,1.2s
DPC pP **sP** **20 27 32.0 -0.4**
comp=Z,113nm,1.2s
PRU Pruhonice 23.16 149 *e*P **P** **20 27 30.4 +1.3**
PRU MLR MLR
comp=Z,900nm,17.5s
PRU Pruhonice 23.16 149 *e*P **P** **20 27 30.4 +1.3**
PRU AMS AMS 20 35 20.0
comp=Z,900nm,17.5s
PRU Pruhonice 23.16 149 P **P** **20 27 30.3 +1.2**
comp=Z,60nm,1.0s
GRB4 Grafenberg Arr 23.21 154 P **P** **20 27 30.9 +1.2**
comp=Z,69nm,0.9s
GRB3 Grafenberg Arr 23.37 154 P **P** **20 27 32.6 +1.4**
comp=Z,60nm,1.1s
MOS Moscow 23.52 110 *e*P **P** **20 27 33.9 +1.3**
MOS *e* 20 28 01.8
MOS *e*S **S** **20 31 47.2 +1.2**
MOS *e*SS **SnSn** **20 32 22.6 +1.0**
MOS pmax pmax
comp=Z,111nm,1.5s
MOS MLR MLR
comp=Z,1µm,12.0s
GRB5 Grafenberg Arr 23.58 154 P **P** **20 27 35.2 +1.9**
comp=Z,64nm,1.0s
STU Stuttgart 23.59 158 P **P** **20 27 32.8 -0.6**
STU pmax pmax
comp=Z,37nm,1.0s
STU Stuttgart 23.59 158 P **P** **20 27 32.8 -0.6**
STU IAmb IAmb 20 27 42.0
comp=Z,37nm,1.0s
STU Stuttgart 23.59 158 *e*P **P** **20 27 35.1 +1.8**
comp=Z,82nm,0.9s
ZVC Zvikov 23.64 150 *e*P **P** **20 27 34.8 +1.0**
WET Wettzell 23.72 152 *e*P **P** **20 27 35.6 +0.9**
comp=Z,111nm,1.7s
OBN Obninsk 23.74 112 P **P** **20 27 35.3 +0.6**
comp=Z,22nm,0.6s,baz=68,slow=2.8,SNR=6.4
OBN LR LR 20 36 16.5
comp=Z,1µm,18.7s,baz=349,slow=35
comp=Z,22nm,0.6s
OBN Obninsk 23.74 112 ⇓*i* P **P** **20 27 33.9 -0.8**
OBN *e**PP **pwP** **20 27 38.4 -1.5**
OBN *e**SP **sP** **20 27 41.1 +2.6**
OBN *e*PPP PPP 20 28 06.0
OBN 20 31 23.0
OBN *i* S **S** **20 31 51.3 +1.8**
OBN SSS SSS 20 32 38.0
OBN pmax pmax
comp=Z,65nm,1.2s
OBN MLR MLR
comp=Z,1µm,17.0s
OBN Obninsk 23.74 112 **P** **20 27 33.1 -1.6**
OBN Obninsk 23.74 112 ⇓P **P** **20 27 33.4 -1.3**
OBN Obninsk 23.74 112 P **P** **20 27 35.0 +0.3**
comp=Z,50nm,0.8s
GRC3 Grafenberg Arr 23.78 154 P **P** **20 27 36.9 +1.6**
comp=Z,80nm,1.1s
STEB Steborice 23.78 144 *e*P **P** **20 27 35.9 +0.6**
KHC Kasperske Hory 23.84 151 *ce*P **P** **20 27 36.4 +0.6**
KHC pmax pmax
comp=Z,7.0nm,0.9s
KHC Kasperske Hory 23.84 151 P **P** **20 27 34.3 -1.5**
KHC Kasperske Hory 23.84 151 *e*P **P** **20 27 37.0 +1.2**
KHC AMS AMS 20 34 40.0
comp=Z,1µm,19.5s
KHC Kasperske Hory 23.84 151 P **P** **20 27 36.0 +0.2**
comp=Z,33nm,1.8s
MORC Moravsky Berou 23.89 144 P **P** **20 27 35.7 -0.6**
MORC pmax pmax
comp=Z,17nm,0.8s
MORC Moravsky Berou 23.89 144 P **P** **20 27 35.7 -0.6**
MORC Moravsky Berou 23.89 144 *e*P **P** **20 27 36.1 -0.2**
MORC Moravsky Berou 23.89 144 ⇑P **P** **20 27 36.5 +0.2**
MORC Moravsky Berou 23.89 144 P **P** **20 27 37.6 +1.3**
comp=Z,23nm,1.0s
OJC Ojcow 23.91 141 *e*P **P** **20 27 36.8 +0.4**
OJC Ojcow 23.91 141 P **P** **20 27 35.2 -1.2**
OJC Ojcow 23.91 141 P **P** **20 27 35.2 -1.2**
OJC Ojcow 23.91 141 P **P** **20 27 37.8 +1.4**
comp=Z,71nm,1.1s
OJC Ojcow 23.91 141 P **P** **20 27 37.0 +0.5**
comp=Z,71nm,1.1s
ECH Echery 23.91 162 P **P** **20 27 35.6 -0.9**
ECH pmax pmax
comp=Z,90nm,1.7s
ECH Echery 23.91 162 **P** **20 27 35.6 -0.9**
ECH IAmb IAmb 20 27 41.8
comp=Z,90nm,1.7s
BFO Black Forest 23.93 160 P **P** **20 27 36.1 -0.6**
BFO pmax pmax
comp=Z,70nm,1.1s
BFO Black Forest 23.93 160 P **P** **20 27 36.1 -0.6**
BFO Black Forest 23.93 160 *e*P **P** **20 27 37.7 +1.1**
comp=Z,70nm,1.1s
OKC Ostrava-Krasne 23.95 143 *e*P **P** **20 27 36.3 -0.5**
OKC MLR MLR
comp=Z,2µm,16.8s
OKC Ostrava-Krasne 23.95 143 *e*P **P** **20 27 36.3 -0.5**
OKC AMS AMS 20 38 10.0
comp=Z,2µm,16.8s
TREC Trest 23.99 148 *e*P **P** **20 27 38.3 +1.1**
TREC Trest 23.99 148 *e*P **P** **20 27 38.3 +1.1**
GEC2 GERESS Array S 24.14 151 **P** **20 27 37.3 -1.4**
GEC2 IAmb IAmb 20 27 45.8
comp=Z,67nm,1.3s
GEC2 GERESS Array S 24.14 151 *e*P **P** **20 27 40.0 +1.3**
comp=Z,74nm,1.3s
GERES GERESS Array B 24.14 151 P **P** **20 27 40.0 +1.3**
comp=Z,12nm,0.9s,baz=341,slow=7.8,SNR=39
GERES LR LR 20 36 45.9
comp=Z,604nm,20.7s,baz=352,slow=36
comp=Z,12nm,0.9s
GERES GERESS Array B 24.14 151 P **P** **20 27 38.4 -0.3**
RNPP9 Sopachiv 24.15 131 P **P** **20 27 39.2 +0.5**
VRAC Vranov 24.17 146 P **P** **20 27 39.8 +0.9**
comp=Z,27nm,1.0s,baz=346,slow=10,SNR=16
comp=Z,27nm,1.0s
VRAC Vranov 24.17 146 ⇑P **P** **20 27 40.0 +1.1**
VRAC Vranov 24.17 146 *e*P **P** **20 27 39.5 +0.6**
VRAC Vranov 24.17 146 ⇑P **P** **20 27 40.0 +1.1**
VRAC Vranov 24.17 146 P **P** **20 27 40.0 +1.1**
comp=Z,16nm,1.8s
RNPP8 Varash 24.21 131 P **P** **20 27 39.7 +0.5**
RES Resolute Bay 24.22 320 LR LR 20 36 46.1
comp=Z,1µm,20.1s,baz=28,slow=36
RES Resolute Bay 24.22 320 P **P** **20 27 40.5 +1.4**
RES pmax pmax
comp=Z,35nm,1.4s
RES Resolute Bay 24.22 320 P **P** **20 27 40.5 +1.4**
RES IAmb IAmb 20 27 50.1
comp=Z,35nm,1.4s
CKRC Cesky Krumlov 24.25 150 *e*P **P** **20 27 40.9 +1.2**
CKRC MLR MLR
comp=Z,800nm,22.3s
CKRC Cesky Krumlov 24.25 150 *e*P **P** **20 27 40.9 +1.2**
CKRC AMS AMS 20 35 10.0
comp=Z,800nm,22.3s
RNPP5 Staryi Chortor 24.32 131 P **P** **20 27 39.9 -0.3**
KRUC Moravsky 24.37 147 *e*P **P** **20 27 41.4 +0.7**
FUR Furstenfeldbru 24.45 155 *e*P **P** **20 27 43.6 +2.1**
comp=Z,223nm,1.7s
SLE Schleitheim 24.50 160 P **P** **20 27 43.7 +1.7**
comp=Z,40nm,1.2s
ILON Igloolik, Nuna 24.54 303 P **P** **20 27 43.6 +1.4**
FRB Frobisher Bay 24.58 285 LR LR 20 36 19.2
comp=Z,644nm,18.5s,baz=50,slow=34
ABNA Allensteig Bun 24.58 148 *i* pP **P** **20 27 45.1 +2.3**
comp=Z,16nm,0.8s
BOURR Bourrignon 24.73 162 P **P** **20 27 46.8 +2.7**
comp=Z,61nm,1.2s
NIE Niedzica 24.77 140 *e*P **P** **20 27 45.7 +1.3**
NIE Niedzica 24.77 140 P **P** **20 27 45.9 +1.5**
comp=Z,19nm,0.9s
UBR Ueberruh 24.77 157 *e*P **P** **20 27 46.3 +1.8**
comp=Z,25nm,1.0s
JAVC Velka Javorina 24.80 145 *e*P **P** **20 27 47.8 +3.1**
KIRV Kirov 24.85 93 P **P** **20 27 44.9 0.0**
comp=Z,24nm,0.8s,baz=0.7,slow=3.4,SNR=9.4
KIRV LR LR 20 36 53.3
comp=Z,375nm,18.2s,baz=326,slow=35
comp=Z,24nm,0.8s
KIRV Kirov 24.85 93 *ce*P **P** **20 27 43.9 -1.1**
LANS Liptovska Anna 24.86 142 *e*P **P** **20 27 47.7 +2.5**
LANS pmax pmax
comp=Z,6.0nm,1.1s
LANS Liptovska Anna 24.86 142 *e*P **P** **20 27 47.7 +2.5**
RETA Reutte 25.05 156 *i* pP **P** **20 27 48.2 +1.3**
comp=Z,16nm,1.3s
KWP Kalwaria Pacla 25.08 137 *e*P **P** **20 27 49.7 +2.6**
KWP Kalwaria Pacla 25.08 137 P **P** **20 27 50.2 +3.1**
SMOL Smolenice 25.08 145 *e*P **P** **20 27 49.0 +1.8**
SMOL pmax pmax
comp=Z,4.0nm,1.1s
DAVA Damuels 25.13 158 *e*P **P** **20 27 49.6 +1.8**
comp=Z,88nm,1.3s
DAVA Damuels 25.13 158 *i* pP **P** **20 27 48.7 +0.9**
comp=Z,40nm,1.2s,SNR=12
MODS Modra-Piesok 25.19 146 *e*P **P** **20 27 50.0 +1.8**
MODS pmax pmax
comp=Z,24nm,1.1s
MODS Modra-Piesok 25.19 146 *e*P **P** **20 27 50.0 +1.8**
MOA Molln 25.19 151 *e*pP **P** **20 27 50.1 +1.9**
comp=Z,41nm,1.6s,SNR=12
MOTA Moosalm 25.23 156 *i* pP **P** **20 27 50.1 +1.4**
comp=Z,56nm,1.2s,SNR=18
WINA Alland / Wiene 25.24 148 *e*P **P** **20 27 49.4 +0.8**
comp=Z,47nm,1.7s,SNR=10
BIOA Bad Ischl, Aus 25.25 152 *i* pP **P** **20 27 50.6 +1.9**
comp=Z,16nm,1.2s,SNR=7.3
WATA Walderalm 25.30 155 *i* pP **P** **20 27 50.8 +1.5**
comp=Z,54nm,1.2s,SNR=24
VYHS Vyhne 25.36 143 *e*P **P** **20 27 51.2 +1.5**
VYHS pmax pmax
comp=Z,86nm,2.5s
VYHS Vyhne 25.36 143 *e*P **P** **20 27 51.2 +1.5**
SQTA Sankt Quirin 25.37 156 *i* pP **P** **20 27 51.5 +1.6**
comp=Z,57nm,1.3s,SNR=30
LESA Schwarzleotal 25.37 153 *i* pP **P** **20 27 51.0 +1.1**
comp=Z,30nm,1.1s,SNR=13
CONA Conrad Observa 25.38 148 *e*P **P** **20 27 50.8 +0.9**
comp=Z,67nm,0.9s,SNR=43
WTTA Wattenberg 25.38 155 *i* pP **P** **20 27 51.7 +1.6**
comp=Z,54nm,1.1s,SNR=34
FETA Feichten 25.50 156 *i* P **P** **20 27 51.3 +0.2**
comp=Z,25nm,1.2s,SNR=11
DAVOX Davos/Dischmat 25.63 158 P **P** **20 27 53.4 +1.0**
comp=Z,5.3nm,0.9s,baz=334,slow=8.3,SNR=6.2
DAVOX LR LR 20 39 18.5
comp=Z,402nm,18.6s,baz=352,slow=40
comp=Z,5.3nm,0.9s
AKASG Malin Array Be 25.63 127 P **P** **20 27 51.5 -0.6**
comp=Z,23nm,0.8s,baz=336,slow=9.6,SNR=30
AKASG LR LR 20 37 37.3
comp=Z,1µm,19.1s,baz=332,slow=36
comp=Z,23nm,0.8s
AKASG Malin Array Be 25.63 127 *e*P **P** **20 27 51.5 -0.6**
AKASG pmax pmax
comp=Z,22nm,0.8s
AKBB Malin Array Si 25.63 127 *ce*P **P** **20 27 50.8 -1.3**
AKBB pmax pmax
comp=Z,41nm,0.7s
KIEV Kiev 25.64 127 P **P** **20 27 51.1 -1.0**
KIEV pmax pmax
comp=Z,44nm,0.8s
KIEV Kiev 25.64 127 P **P** **20 27 51.1 -1.0**
KIEV Kiev 25.64 127 ⇑P **P** **20 27 51.5 -0.6**
KOLS Kolonicke sedl 25.64 138 *e*P **P** **20 27 54.8 +2.5**
KOLS pmax pmax
comp=Z,17nm,1.4s
KOLS Kolonicke sedl 25.64 138 *e*P **P** **20 27 54.8 +2.5**
RONA Rosalia, Austr 25.67 148 *e*pP **P** **20 27 53.8 +1.2**
comp=Z,33nm,1.0s,SNR=20
AK13 Malin Array Si 25.67 127 P **P** **20 27 52.2 -0.3**
SENIN Lac Senin/Sean 25.76 162 P **P** **20 27 53.0 -0.6**
KBA Koelnbreinsper 25.80 152 *e*P **P** **20 27 55.5 +1.6**
comp=Z,28nm,0.9s
KBA Koelnbreinsper 25.80 152 *i* pP **P** **20 27 55.5 +1.6**
comp=Z,31nm,1.0s,SNR=20
FUORN Ofenpass-Fuorn 25.84 157 P **P** **20 27 53.4 -0.9**
TUE Stuetta 25.87 159 P **P** **20 27 53.9 -0.7**
TUE IAmb IAmb 20 28 06.2
comp=Z,63nm,1.5s
SESA Seetaler Alpe, 25.96 151 *e*pP **P** **20 27 57.5 +2.2**
comp=Z,20nm,1.1s
ARSA Arzberg 25.98 149 **P** **20 27 54.9 -0.4**
ARSA IAmb IAmb 20 28 05.0
comp=Z,33nm,0.9s
ARSA Arzberg 25.98 149 *e*pP **P** **20 27 57.7 +2.4**
comp=Z,28nm,0.9s,SNR=12
LUBAR Lubar, Ukraine 25.98 129 P **P** **20 27 55.3 0.0**
ABTA Abfaltersbach 26.01 154 *i* P **P** **20 27 56.9 +1.2**

comp=Z,13nm,1.7s
PSZ Piszkesteto 26.12 142 P P 20 27 55.9 -0.8
PSZ pmax pmax
comp=Z,161nm,1.9s
PSZ Piszkesteto 26.12 142 P 20 27 55.9 -0.8
PSZ Piszkesteto 26.12 142 *e*P P 20 27 58.0 +1.3
PSZ Piszkesteto 26.12 142 ⇓P P 20 27 57.1 +0.5
MYKA Terra Mystica 26.29 152 *i* pP P 20 27 58.7 +0.6
comp=Z,9.1nm,0.8s
MPLH Magyarpolny 26.40 146 P P 20 28 00.6 +1.5
comp=Z,124nm,1.3s
SOKA Soboth 26.45 150 *i* pP P 20 28 00.0 +0.3
comp=Z,7.9nm,1.1s
PRED Cave del Predi 26.46 152 P 20 27 58.5 -1.2
PRED IAmb IAmb 20 28 07.2
comp=Z,19nm,1.1s
OBKA Obir 26.54 151 *e*P P 20 28 03.2 +2.7
comp=Z,32nm,1.1s
OBKA Obir 26.54 151 *i* pP P 20 28 01.7 +1.1
comp=Z,20nm,1.4s,SNR=12
CTI Castel Tesino 26.57 155 P P 20 28 00.8 0.0
CTI pmax pmax
comp=Z,65nm,1.2s
CTI Castel Tesino 26.57 155 P 20 28 00.8 0.0
LPSR Galich'ya Gora 26.62 113 *e*P P 20 28 00.9 -0.1
LPSR pmax pmax
comp=Z,70nm,1.0s
SABO M.te Sabotino 26.91 153 P 20 28 03.4 -0.4
SABO IAmb IAmb 20 28 10.9
comp=Z,37nm,1.2s
BEHE Becsehely 26.94 148 P P 20 28 03.3 -0.8
BEHE IAmb IAmb 20 28 14.4
comp=Z,22nm,1.2s
BNI Bardonecchia 27.00 164 P P 20 28 03.8 -0.9
BNI pmax pmax
comp=Z,93nm,1.9s
BNI Bardonecchia 27.00 164 P 20 28 03.8 -0.9
BMR Baia Mare 27.10 137 ⇑P P 20 28 06.1 +0.7
BMR Baia Mare 27.10 137 ⇑P P 20 28 06.1 +0.7
TRI Trieste 27.20 152 P P 20 28 04.7 -1.6
TRI pmax pmax
comp=Z,20nm,0.9s
TRI Trieste 27.20 152 P 20 28 04.7 -1.6
TRI IAmb IAmb 20 28 13.1
comp=Z,20nm,0.9s
TEOL Teolo 27.25 156 P P 20 28 05.7 -1.1
TEOL IAmb IAmb 20 28 16.3
comp=Z,22nm,0.9s
MESR Meseseni 27.48 138 ⇓P P 20 28 11.5 +2.7
BUR08 Bucovina Ar. S 27.50 135 P 20 28 07.9 -1.3
BUR08 IAmb IAmb 20 28 15.7
comp=Z,76nm,1.9s
VORR Voronezh 27.52 113 *e*P P 20 28 09.1 0.0
VORR pmax pmax
comp=Z,36nm,1.1s
MORH Mrgy, Hungar 27.52 145 ⇓P P 20 28 08.7 -0.5
MORH Mrgy, Hungar 27.52 145 P P 20 28 09.7 +0.5
comp=Z,8.6nm,1.7s
BURAR Bucovina Array 27.54 135 ⇑P P 20 28 08.1 -1.4
BURAR Bucovina Array 27.54 135 P 20 28 08.4 -1.0
BURAR Bucovina Array 27.54 135 ⇑P P 20 28 08.1 -1.4
DRGR 27.77 139 ⇑P P 20 28 12.9 +1.4
DRGR 27.77 139 ⇑P P 20 28 12.9 +1.4
SORM Soroca 27.79 130 ⇓P P 20 28 11.8 +0.3
SORM Soroca 27.79 130 ⇓P P 20 28 11.8 +0.3
SORM Soroca 27.79 130 P P 20 28 11.9 +0.4
comp=Z,33nm,0.8s
VSR Storozhevoye 27.91 114 *e*P P 20 28 12.4 -0.2
VSR pmax pmax
comp=Z,68nm,1.0s
NRIK Noril'sk 27.96 49 P P 20 28 13.1 +0.2
comp=Z,2.3nm,0.5s,baz=297,slow=7.4,SNR=5.2
NRIK LR LR 20 41 12.1
comp=Z,257nm,18.2s,baz=322,slow=40
comp=Z,2.3nm,0.5s
NRIK Noril'sk 27.96 49 *e*P P 20 28 14.3 +1.4
NRIK pmax pmax
comp=Z,2.0nm,0.4s
NRIK Noril'sk 27.96 49 P 20 28 13.0 +0.1
PRAR RASCA 28.01 134 ⇑P P 20 28 14.7 +1.1
SIRR Siria 28.05 141 ⇑P P 20 28 15.9 +1.9
ZCCA Zocca 28.16 157 P P 20 28 14.2 -0.8
ZCCA IAmb IAmb 20 28 47.4
comp=Z,32nm,1.1s
VORD Divnogorie 28.17 114 *e*P P 20 28 14.0 -0.9
VORD pmax pmax
comp=Z,40nm,0.8s
BIZ Bicaz 28.38 134 ⇑P P 20 28 19.7 +2.8
GIRR Girov 28.45 133 ⇑P P 20 28 19.9 +2.4
SURR Surduc 28.64 140 ⇑P P 20 28 21.5 +2.4
BZS Buzias 28.67 141 ⇑P P 20 28 20.7 +1.3
BZS Buzias 28.67 141 ⇑P P 20 28 20.7 +1.3
VRH Novokhopyorsk 28.68 111 *e*P P 20 28 19.0 -0.4
VRH pmax pmax
comp=Z,50nm,0.9s
BLY Banja Luka 28.68 148 P 20 28 18.9 -0.6
BLY IAmb IAmb 20 28 28.8
comp=Z,23nm,1.3s
BLY Banja Luka 28.68 148 ⇑P P 20 28 20.9 +1.3
TESR Tescani 28.90 134 ⇑P P 20 28 17.8 -3.8
CEST Esterri de Car 29.08 172 P P 20 28 23.3 0.0
CEST IAmb IAmb 20 28 31.6
comp=Z,15nm,0.8s
GZR Gura Zlata 29.12 140 ⇑P P 20 28 25.9 +2.4
GZR Gura Zlata 29.12 140 ⇑P P 20 28 25.9 +2.4
TURR Turia 29.19 135 ⇑P P 20 28 27.2 +3.0
LOT Lotru 29.27 138 ⇓P P 20 28 26.2 +1.3
MURB Monte Urbino 29.43 155 P P 20 28 26.0 -0.2
MURB IAmb IAmb 20 28 35.4
comp=Z,38nm,1.2s
BELG Belogornoye 29.44 103 P P 20 28 26.7 +0.5
comp=Z,33nm,0.8s,baz=20,slow=4.0,SNR=6.2
BELG LR LR 20 39 03.9
comp=Z,398nm,21.8s,baz=318,slow=34
comp=Z,33nm,0.8s
BELG Belogornoye 29.44 103 *i* P P 20 28 25.0 -1.2
BELG pmax pmax
comp=Z,5.0nm,0.8s
MDVR Moldovita 29.49 141 ⇓P P 20 28 28.1 +1.3
ARTI Arti 29.49 88 P P 20 28 26.7 +0.1
comp=Z,14nm,1.1s,baz=304,slow=4.2,SNR=9.3
ARTI LR LR 20 39 50.6
comp=Z,415nm,18.4s,baz=324,slow=36
comp=Z,14nm,1.1s
ARTI Arti 29.49 88*c* *i*P P 20 28 27.3 +0.7
ARTI 20 29 16.3
ARTI S S 20 33 20.6 +0.1
ARTI pmax pmax
comp=Z,36nm,2.5s
ARTI Arti 29.49 88 P 20 28 25.9 -0.7
ARTI IAmb IAmb 20 29 05.7
comp=Z,29nm,1.2s
PLOR Plostina 29.53 134 ⇑P P 20 28 27.2 +0.1
PLOR Plostina 29.53 134 ⇑P P 20 28 27.2 +0.1
VRI Vrincioaia 29.53 134 ⇓P P 20 28 29.3 +2.2
VRI Vrincioaia 29.53 134 ⇓P P 20 28 29.3 +2.2
HERR Herculane 29.53 140 ⇓P P 20 28 28.6 +1.5
VOIR 29.56 136 ⇑P P 20 28 29.7 +2.2
VOIR 29.56 136 ⇑P P 20 28 29.7 +2.2
SAHR Sahastru 29.65 134 ⇓P P 20 28 30.6 +2.3
PGAV Gavieira, Arco 29.69 187 *e*P P 20 28 35.5 +6.8
PGAV IAMs_20 IAMs_20 20 39 43.2
comp=Z,554nm,18.0s
MLR Muntele Rosu 29.71 135 P P 20 28 29.0 +0.2
comp=Z,13nm,1.2s,baz=4.9,slow=4.9,SNR=6.3
MLR LR LR 20 40 52.2
comp=Z,919nm,20.2s,baz=356,slow=37
comp=Z,13nm,1.2s
MLR Muntele Rosu 29.71 135 P P 20 28 27.8 -1.0
MLR pmax pmax
comp=Z,44nm,1.6s
MLR Muntele Rosu 29.71 135 P 20 28 27.8 -1.0
MLR IAmb IAmb 20 29 28.6
comp=Z,44nm,1.6s
MLR Muntele Rosu 29.71 135 ⇑P P 20 28 30.3 +1.5
MLR Muntele Rosu 29.71 135 P P 20 28 30.3 +1.5
comp=Z,18nm,1.3s
FDMO Fiordimonte 29.73 155 P 20 28 28.1 -0.8
FDMO IAmb IAmb 20 28 36.1
comp=Z,18nm,1.1s
GUMA Gualdo di Mace 29.73 154 P P 20 28 28.3 -0.7
PBRG Braganca 29.80 184 *e*P P 20 28 38.0 +8.4
PBRG IAmb IAmb 20 29 21.7
comp=Z,49nm,2.0s
NEHR Nehoiu 29.85 135 ⇓P P 20 28 33.1 +3.2

SVE Sverdlovsk 29.85 85 *e*P P 20 28 30.3 +0.5
NRCA Norcia 29.93 155 IAmb IAmb 20 28 38.2
comp=Z,20nm,1.0s
CESX Cesi 30.08 155 P P 20 28 30.6 -1.3
CESX IAmb IAmb 20 28 40.8
comp=Z,22nm,1.3s
POLO Lamas de Olo 30.27 186 *e*P P 20 28 41.1 +7.3
POLO IAmb IAmb 20 28 44.4
comp=Z,33nm,1.6s
AQU L'Aquila 30.44 154 P P 20 28 33.7 -1.5
AQU pmax pmax
comp=Z,15nm,0.8s
AQU L'Aquila 30.44 154 P P 20 28 33.7 -1.5
AQU IAmb IAmb 20 28 50.8
comp=Z,15nm,0.8s
CFR Carcaliu 30.51 133 ⇑P P 20 28 37.3 +1.6
CFR Carcaliu 30.51 133 ⇑P P 20 28 37.3 +1.6
PTO Porto 30.53 187 *e*P P 20 28 42.8 +6.9
BOVS Bovan 30.59 142 ⇑P P 20 28 36.6 +0.1
TLCR 30.66 132 ⇑P P 20 28 37.6 +0.5
TLCR 30.66 132 ⇑P P 20 28 37.6 +0.5
BLKB Belogradchik 30.79 141 ⇑P P 20 28 38.7 +0.4
INTR Introdacqua 30.85 154 P P 20 28 38.0 -0.9
TPGR Topolog 30.88 132 ⇓P P 20 28 34.7 -4.4
MTE Manteigas 31.23 186 P P 20 28 41.1 -1.1
MTE Manteigas 31.23 186 *e*P P 20 28 47.4 +5.2
PLVB Pleven 31.42 138 ⇓P P 20 28 42.5 -1.3
PCBR Castelo Branco 31.79 185 *e*P P 20 28 53.4 +6.4
PCBR IAmb IAmb 20 28 57.8
comp=Z,38nm,1.8s
ESBB Sonseca Array 31.90 180 P P 20 28 46.5 -1.6
ESDC Sonseca Array 31.90 180 P P 20 28 49.2 +1.1
comp=Z,7.7nm,1.1s,baz=0.0,slow=7.5,SNR=14
ESDC LR LR 20 41 16.0
comp=Z,384nm,18.0s,baz=350,slow=36
comp=Z,7.7nm,1.1s
ESDC Sonseca Array 31.90 180 P P 20 28 47.7 -0.4
PAOL Paolisi 31.90 153 P P 20 28 45.9 -2.2
A36M Sachs Harbour 31.92 330 P P 20 28 48.4 +0.5
A36M IAmb IAmb 20 28 58.1
comp=Z,16nm,1.2s
MAHO Mahon 31.94 168 P P 20 28 47.4 -1.0
PAB San Pablo 32.03 181 P P 20 28 48.4 -0.9
PAB pmax pmax
comp=Z,17nm,1.0s
PAB San Pablo 32.03 181 P 20 28 48.4 -0.9
PAB IAmb IAmb 20 28 56.6
comp=Z,17nm,0.9s
BLKN Baker Lake 32.05 305 P P 20 28 49.3 +0.3
PSARD Sardoal 32.05 186 *e*P P 20 28 56.6 +7.3
PSARD IAmb IAmb 20 29 01.1
comp=Z,81nm,1.7s
ELND Elena 32.13 137 ⇑P P 20 28 49.6 -0.4
PSBE So Bento 32.16 187 *e*P P 20 28 57.5 +7.1
PMRV Marv??o 32.20 185 *e*P P 20 28 55.6 +5.0
PMRV IAmb IAmb 20 29 01.3
comp=Z,65nm,2.2s
PMRV IAMs_20 IAMs_20 20 40 50.7
comp=Z,456nm,20.0s
SIM Simferopol' 32.21 125 *e*P P 20 28 49.5 -1.2
SIM *e*S S 20 33 59.7 -3.6
SIM pmax pmax
comp=Z,17nm,1.2s
ACER Acerenza 32.35 151 P 20 28 50.6 -1.4
ACER IAmb IAmb 20 29 02.6
comp=Z,22nm,1.0s
PMTG Montargil 32.58 186 *e*P P 20 29 00.6 +6.6
PMTG IAmb IAmb 20 29 04.3
comp=Z,63nm,1.4s
PESTR Estremoz 32.76 185 P P 20 28 55.0 -0.6
PESTR Estremoz 32.76 185 *e*P P 20 29 02.3 +6.7
PESTR IAmb IAmb 20 29 07.8
comp=Z,62nm,1.7s
OHR Ohrid 32.85 145 *i* P P 20 28 58.2 +1.7
VAY Valandovo 32.99 142 *i* P P 20 29 01.0 +3.5
CUC Castrocucco 33.10 152 P P 20 28 57.8 -0.9
ANN Anapa 33.24 121 *e*P P 20 28 57.7 -1.9
ANN *e**PP pP 20 29 01.0 -1.4
ANN *e*S S 20 34 16.0 -3.1
ANN pmax pmax
comp=Z,23nm,0.9s
ANN MLR MLR
comp=Z,870nm,15.0s
ERBR Yeremizino-Bor 33.25 117 *e*P P 20 29 00.3 +0.5
ERBR *e**PP sP 20 29 02.5 -1.1
ERBR *e*S S 20 34 19.5 +0.1
ERBR pmax pmax
comp=Z,38nm,1.0s
PBAR Barrancos 33.44 185 *e*P P 20 29 06.1 +4.6
PBAR IAmb IAmb 20 29 12.0
comp=Z,50nm,1.7s
PBEJ Beja 33.61 186 *e*P P 20 29 08.4 +5.4
TIXI Tiksi 33.87 25*c*eP P 20 29 07.5 +2.6
TIXI pmax pmax
comp=Z,35nm,1.4s
TIXI Tiksi 33.87 25 P 20 29 05.4 +0.5
C36M Paulatuk 34.01 327 P P 20 29 06.4 +0.2
C36M IAmb IAmb 20 29 36.4
comp=Z,30nm,1.4s
TIP Timpagrande 34.05 151 P 20 29 06.0 -0.9
TIP IAmb IAmb 20 29 14.0
comp=Z,32nm,1.6s
TIP Timpagrande 34.05 151 ⇑P P 20 29 06.0 -0.9
ALN Alexandroupoli 34.11 138 P P 20 29 06.3 -1.0
ALN pmax pmax
comp=Z,4.0nm,1.2s
ALN Alexandroupoli 34.11 138 P P 20 29 06.3 -1.0
LIT Litokhoron 34.15 143 P P 20 29 07.1 -0.6
LIT pmax pmax
comp=Z,22nm,1.3s
LIT Litokhoron 34.15 143 P P 20 29 07.1 -0.6
LIT IAmb IAmb 20 29 16.3
comp=Z,22nm,1.3s
PVAQ Vaqueiros 34.23 186 IAMs_20 IAMs_20 20 42 42.6
comp=Z,533nm,18.0s
LABN Labinsk 34.30 117 *e*P P 20 29 10.3 +1.4
LABN *e**PP pwP 20 29 12.9 -1.3
LABN *e*S S 20 34 37.2 +1.5
LABN pmax pmax
comp=Z,66nm,0.9s
PBDV Barranco-do-Ve 34.39 186 *e*P P 20 29 17.1 +7.3
AKTO Aktyubinsk 34.41 94 P P 20 29 10.6 +0.7
comp=Z,9.1nm,1.0s,baz=321,slow=9.1,SNR=12
AKTO LR LR 20 42 55.6
comp=Z,481nm,18.6s,baz=284,slow=36
comp=Z,9.1nm,1.0s
PFVI Vila Bisbo 34.53 187 P P 20 29 10.6 -0.4
CEL Celeste 34.81 152 P P 20 29 11.7 -1.8
CEL IAmb IAmb 20 29 32.6
comp=Z,13nm,1.2s
BZK Bozkurt 34.98 127 P P 20 29 12.9 -1.8
SOC Sochi 34.99 119 *e*P P 20 29 31.8 +17
SOC *e*SS SS 20 37 02.0 -16
SOC pmax pmax
comp=Z,15nm,0.8s
SOC MLR MLR
comp=Z,611nm,16.0s
BAND Balkesir-Ban 35.08 135 ⇑P P 20 29 18.3 +2.6
SFS San Fernando 35.12 183 P P 20 29 15.5 -0.6
SFS San Fernando 35.12 183 P P 20 29 15.5 -0.6
VAE Valguarnera 35.37 155 LR LR 20 43 29.9
comp=Z,390nm,20.1s,baz=352,slow=36
KIV Kislovodsk 35.49 116 P P 20 29 21.4 +2.1
KIV Kislovodsk 35.49 116 *e*P P 20 29 19.3 0.0
KIV pmax pmax
comp=Z,36nm,1.0s
KIV MLR MLR
comp=Z,200nm,16.0s
KIV Kislovodsk 35.49 116 P 20 29 17.6 -1.7
KIV Kislovodsk 35.49 116 ⇑P P 20 29 19.8 +0.5
KIV Kislovodsk 35.49 116 P P 20 29 20.5 +1.2
comp=Z,39nm,1.1s
KVAR Kislovodsk Arr 35.49 116 P P 20 29 19.8 +0.4
comp=Z,5.0nm,1.0s,baz=108,slow=21,SNR=3.0
comp=Z,5.0nm,1.0s
RAFF Raffo Rosso 35.61 155 P P 20 29 19.7 -0.6
SHA1 Shidzhatmaz 35.68 116 *i* P P 20 29 21.6 +0.5
MDUB Mudurnu 35.69 131 P P 20 29 20.0 -1.0
MDUB IAmb IAmb 20 29 28.0
comp=Z,18nm,0.9s
BALB Balikesir 35.71 136 P P 20 29 19.6 -1.5
BALB IAmb IAmb 20 29 31.0
comp=Z,36nm,1.2s
ICQ Pointe Anglais 35.73 267 P P 20 29 22.5 +1.3

ILGA Ilgaz 35.76 128 P 20 29 20.5 -1.3
KBZ Khabaz 35.76 115 P P 20 29 23.8 +2.3
comp=Z,20nm,0.8s,baz=345,slow=5.3,SNR=25
KBZ LR LR 20 43 46.5
comp=Z,320nm,18.4s,baz=341,slow=36
comp=Z,20nm,0.8s
KBZ Khabaz 35.76 115*c*eP P 20 29 23.3 +1.8
KBZ pmax pmax
comp=Z,19nm,0.8s
AB31 Akbulak array 36.05 93 P 20 29 23.1 -0.9
ABKAR Akbulak array 36.05 93 P P 20 29 23.4 -0.6
BORK Borovoye 36.08 80 *i* P P 20 29 24.0 -0.2
BORK pmax pmax
comp=Z,5.0nm,0.9s
BORK Borovoye 36.08 80 P 20 29 23.5 -0.7
BVAR Borovoye Array 36.12 80 P P 20 29 25.2 +0.7
comp=Z,5.8nm,0.9s,baz=318,slow=8.6,SNR=16
comp=Z,5.8nm,0.9s
NCK Nalchik 36.17 115 *i* P P 20 29 24.4 -0.7
NCK pmax pmax
comp=Z,56nm,1.0s
KEST Kesra 36.49 162 P P 20 29 29.0 +1.0
comp=Z,4.7nm,0.8s,baz=56,slow=7.7,SNR=6.6
KEST LR LR 20 44 59.3
comp=Z,404nm,18.6s,baz=3.5,slow=37
comp=Z,4.7nm,0.8s
KEST Kesra 36.49 162 P P 20 29 29.7 +1.8
SNR=6.5
KEST Kesra 36.49 162 P 20 29 27.1 -0.8
KEST IAmb IAmb 20 29 36.9
comp=Z,30nm,1.3s
INK Inuvik 36.50 331 LR LR 20 45 32.7
comp=Z,336nm,19.0s,baz=20,slow=38
INK Inuvik 36.50 331 P P 20 29 27.5 -0.1
INK pmax pmax
comp=Z,31nm,1.8s
INK Inuvik 36.50 331 P P 20 29 27.5 -0.1
INK IAmb IAmb 20 29 36.0
comp=Z,31nm,1.8s
C26K Camden Bay 36.53 339 IAmb IAmb 20 29 45.1
comp=Z,35nm,1.6s
C27K Jago River 36.67 338 P P 20 29 29.4 +0.4
ITM Ithomi 36.87 145 P P 20 29 29.9 -1.3
MANT Manisa 36.96 136 P 20 29 30.6 -1.5
MANT IAmb IAmb 20 29 38.9
comp=Z,22nm,1.1s
BR131 Keskin Array S 36.99 129 P P 20 29 34.4 +2.1
SNR=8.1
BR131 Keskin Array S 36.99 129 *i* P P 20 29 30.9 -1.3
BR131 Keskin Array S 36.99 129 P 20 29 30.9 -1.3
BR131 IAmb IAmb 20 29 39.5
comp=Z,19nm,0.8s
BRTR Keskin Array B 36.99 129 P P 20 29 33.1 +0.9
comp=Z,7.9nm,0.8s,baz=340,slow=6.2,SNR=25
BRTR PP PnPn 20 30 57.1 +0.6
comp=Z,4.5nm,1.1s,baz=339,slow=9.5,SNR=4.5
comp=Z,7.9nm,0.8s
BRTR Keskin Array B 36.99 129 *e*P P 20 29 34.1 +1.9
BRTR pmax pmax
comp=Z,14nm,0.8s
BRTR Keskin Array B 36.99 129 P 20 29 30.9 -1.3
BR105 Keskin Array S 36.99 129 P P 20 29 33.6 +1.3
comp=Z,169nmcomp=Z,23nm,0.8s
E29M Blow River 37.06 334 P 20 29 33.1 +0.7
E28M Babbage River 37.09 335 P 20 29 33.9 +1.3
C24K Franklin Bluff 37.14 341 P P 20 29 34.1 +1.1
C24K IAmb IAmb 20 29 36.4
comp=Z,35nm,1.4s
TOKA Tokat 37.15 125 P P 20 29 32.0 -1.5
F31M Tsiigehtchic 37.33 331 P P 20 29 35.2 +0.6
F31M IAmb IAmb 20 30 14.3
comp=Z,57nm,1.9s
BATM Batumi 37.37 118 ⇑P P 20 29 35.8 +0.5
BATM Batumi 37.37 118 ⇑P P 20 29 35.8 +0.5
KIRS Kirsehir-Merke 37.62 129 ⇑P P 20 29 39.6 +2.1
E27K Coleen River 37.76 336 P P 20 29 39.0 +0.7
MAK Makhachkala 37.81 111*c* *i*P P 20 29 32.3 -6.7
MAK *e* 20 31 08.3
MAK *e*SS SS 20 38 01.8 -13
MAK pmax pmax
comp=Z,24nm,0.7s
MAK MLR MLR
comp=Z,1μm,18.0s
F28M Old Crow 38.06 334 P P 20 29 41.4 +0.5
F28M IAmb IAmb 20 29 55.0
comp=Z,29nm,1.8s
YKAW1 Yellowknife Wh 38.10 315 P P 20 29 41.9 +0.6
YKAW1 IAmb IAmb 20 30 39.4
comp=Z,34nm,1.4s
YKA Yellowknife Ar 38.12 315 P P 20 29 41.2 -0.1
comp=Z,5.6nm,1.0s,baz=36,slow=8.5,SNR=6.8
YKA LR LR 20 45 17.9
comp=Z,586nm,18.5s,baz=40,slow=36
comp=Z,5.6nm,1.0s
YKA Yellowknife Ar 38.12 315 P P 20 29 41.5 +0.1
YKA Yellowknife Ar 38.12 315 P P 20 29 41.5 +0.1
G30M tAoh Zraii Nji 38.13 332 P P 20 29 41.8 +0.3
G30M IAmb IAmb 20 30 09.7
comp=Z,46nm,1.9s
BNN Bunyan 38.37 127 P 20 29 42.5 -1.4
BNN IAmb IAmb 20 29 52.2
comp=Z,17nm,1.0s
G29M Pine Creek 38.46 333 P P 20 29 44.9 +0.7
G29M IAmb IAmb 20 29 52.9
comp=Z,21nm,1.2s
KOPT Kop Dagi 38.52 121 P P 20 29 43.6 -1.6
KOPT IAmb IAmb 20 29 53.9
comp=Z,41nm,1.0s
MDT Midelt 38.75 181 LR LR 20 45 38.2
comp=Z,226nm,18.8s,baz=303,slow=36
F25K Christian Rive 38.83 338 P P 20 29 48.4 +1.0
E23K Chandalar 38.84 340 P P 20 29 47.7 +0.2
E23K IAmb IAmb 20 29 52.2
comp=Z,36nm,1.9s
HOMI Horasan 38.88 119 ⇑P P 20 29 51.3 +3.0
ELL Elmali 38.94 135 P P 20 29 47.1 -1.6
ELL pmax pmax
comp=Z,15nm,1.0s
ELL Elmali 38.94 135 P 20 29 47.0 -1.6
G26K Porcupine Rive 39.21 336 P 20 29 51.1 +0.7
IDI Anoyia 39.28 142 P P 20 29 50.5 -1.0
SEKA Sheki 39.33 112 P P 20 29 50.3 -1.5
PMOZ Porto Moniz, M 39.40 198 *e*P P 20 29 59.6 +7.1
GGN Saint George 39.49 263 P P 20 29 53.9 +0.8
GANJ Ganja 39.59 114 P P 20 29 52.1 -1.9
GNI Garni 39.59 116 P P 20 29 55.7 +1.6
comp=Z,28nm,1.1s,baz=302,slow=2.6,SNR=14
GNI LR LR 20 46 48.0
comp=Z,368nm,19.1s,baz=329,slow=37
comp=Z,28nm,1.1s
GNI Garni 39.59 116 P P 20 29 56.3 +2.2
GNI Garni 39.59 116 *i* P P 20 29 53.0 -1.1
GNI pmax pmax
comp=Z,47nm,1.0s
GNI Garni 39.59 116 P 20 29 52.4 -1.7
GNI IAmb IAmb 20 30 01.7
comp=Z,37nm,0.9s
H27K Steamboat Moun 39.59 335 P P 20 29 54.2 +0.5
MNGR Mingechevir, A 39.70 113 P P 20 29 53.2 -1.6
ZAA0 Zalesovo Array 39.74 68 P P 20 29 53.7 -1.4
ZALV Zalesovo Beam 39.74 68 P P 20 29 55.0 -0.1
comp=Z,1.8nm,0.9s,baz=332,slow=8.4,SNR=6.3
ZALV PP PnPn 20 31 29.2 0.0
comp=Z,1.6nm,0.8s,baz=316,slow=12,SNR=4.2
ZALV LR LR 20 49 34.1
comp=Z,122nm,20.4s,baz=324,slow=41
comp=Z,1.8nm,0.9s
ZALV Zalesovo Beam 39.74 68 *e*P P 20 29 53.7 -1.3
ZALV pmax pmax
comp=Z,2.0nm,0.9s
ZALV Zalesovo Beam 39.74 68 P P 20 29 53.7 -1.3
FYU Fort Yukon 39.76 337 P P 20 29 55.6 +0.5
FYU IAmb IAmb 20 30 20.4
comp=Z,49nm,1.5s
I30M Mount Dempster 39.79 331 P P 20 29 56.1 +0.6
I29M Ogilvie Camp, 39.95 332 P P 20 29 56.9 +0.2
I27K Kandik River 40.20 334 P P 20 29 58.9 +0.1
GURO Guroymak-BITLI 40.31 120 P P 20 29 59.0 -1.1
GAZ Gaziantep 40.31 126 P P 20 29 58.7 -1.4
GAZ IAmb IAmb 20 30 09.7
comp=Z,24nm,0.8s
J30M Hart River 40.39 331 P P 20 30 00.8 +0.3
KURK Kurchatov 40.69 75 P P 20 30 02.5 -0.4
KURK Kurchatov 40.69 75*c*eP P 20 30 03.5 +0.6
KURK pmax pmax

comp=Z,23nm,2.5s
KURK Kurchatov 40.69 75 P 20 30 01.4 -1.4
G21K Allakaket 40.73 342 P P 20 30 04.3 +1.1
G21K IAmb IAmb 20 30 07.1
comp=Z,28nm,1.6s
KURBB Kurchatov Arra 40.74 75 P P 20 30 03.7 +0.4
comp=Z,4.1nm,0.8s,baz=335,slow=7.2,SNR=24
KURBB PP PP 20 31 37.4 +0.5
comp=Z,1.8nm,0.8s,baz=327,slow=12,SNR=6.5
comp=Z,4.1nm,0.8s
OZAP Van, Ozalp-Mer 40.76 117 ⇑P P 20 30 06.9 +3.0
H24K Noodor Dome 40.78 338 P P 20 30 04.8 +1.3
J29N Klondike Camp 40.79 332 P P 20 30 04.9 +1.2
PRP Porcupine Dome 40.80 337 P P 20 30 04.5 +0.7
F19K Shaleruckik Mo 40.81 345 P P 20 30 04.5 +0.8
F19K IAmb IAmb 20 30 32.3
comp=Z,44nm,1.9s
GEVA Gevas 40.82 119 P P 20 30 03.1 -1.3
GEVA IAmb IAmb 20 30 12.6
comp=Z,17nm,0.8s
TRQ Mont Tremblant 40.97 271 P P 20 30 07.1 +1.7
TRQ IAmb IAmb 20 30 10.7
comp=Z,57nm,1.6s
H22K Ishtalitna Cre 41.12 340 P P 20 30 07.8 +1.5
K29M Barlow Dome 41.26 331 P P 20 30 08.6 +0.9
K29M IAmb IAmb 20 30 10.8
comp=Z,24nm,1.2s
IMAR Indian Mountai 41.27 342 P P 20 30 08.6 +1.0
G19K Purcell Mounta 41.43 344 P 20 30 10.0 +1.1
G19K IAmb IAmb 20 30 14.0
comp=Z,24nm,1.4s
CSS Mathiatis 41.44 131 P P 20 30 08.4 -0.9
CSS Mathiatis 41.44 131 P P 20 30 10.8 +1.5
comp=Z,48nm,1.0s
ILAR Eielson Array 41.68 337 P P 20 30 10.7 -0.3
comp=Z,3.5nm,1.1s,baz=7.9,slow=6.9,SNR=16
ILAR LR LR 20 49 13.3
comp=Z,318nm,19.9s,baz=33,slow=39
comp=Z,3.5nm,1.1s
ILAR Eielson Array 41.68 337 eP P 20 30 13.1 +2.1
ILAR pmax pmax
comp=Z,4.0nm,1.1s
ILAR Eielson Array 41.68 337 P P 20 30 12.6 +1.7
L29M L29M 42.05 331 P P 20 30 15.0 +1.0
L29M IAmb IAmb 20 30 48.8
comp=Z,50nm,2.0s
LKRN Lenkeran, Azer 42.10 112 P P 20 30 12.9 -1.7
WBO Williamsburg 42.28 271 P P 20 30 17.7 +1.7
WBO IAmb IAmb 20 30 32.9
comp=Z,59nm,1.5s
M30M Minto, Yukon 42.34 330 P P 20 30 18.2 +1.8
M30M IAmb IAmb 20 30 19.7
comp=Z,27nm,1.4s
DOT Dot Lake 42.40 335 P P 20 30 18.7 +1.9
BCAR Beaver Creek A 42.63 333 P P 20 30 20.1 +1.3
YAK Yakutsk 42.93 30 LR LR 20 49 32.6
comp=Z,134nm,18.3s,baz=348,slow=38
YAK Yakutsk 42.93 30 eP P 20 30 20.9 -0.2
YAK e*PP sP 20 30 23.9 -1.0
YAK e 20 31 59.9
YAK eS S 20 36 43.7 -1.7
YAK e*SS sS 20 36 52.9 +3.0
YAK pmax pmax
comp=Z,22nm,1.1s
YAK pmax pmax
comp=E,12nm,1.9s
YAK pmax pmax
comp=N,12nm,1.5s
YAK pmax pmax
comp=Z,557nm,3.7s
YAK pmax pmax
comp=N,416nm,4.1s
YAK pmax pmax
comp=E,583nm,4.6s
YAK smax smax
comp=N,292nm,2.8s
YAK smax smax
comp=E,467nm,3.5s
MCK McKinley 42.93 338 P P 20 30 23.1 +1.9
MCK pmax pmax
comp=Z,37nm,1.8s
MCK McKinley 42.93 338 P P 20 30 23.1 +1.9
MCK IAmb IAmb 20 30 35.9
comp=Z,37nm,1.8s
DHY Denali Highway 43.38 337 P P 20 30 24.9 -0.1
SADO Sadowa 43.72 274 LR LR 20 47 37.9
comp=Z,269nm,18.5s,baz=42,slow=35
PECO Prince Edward 43.79 272 P P 20 30 28.6 +0.4
PECO IAmb IAmb 20 30 58.8
comp=Z,23nm,1.0s
MMAI Mount Meron Ar 43.80 130 LR LR 20 51 51.4
comp=Z,169nm,19.0s,baz=316,slow=40
WHY Whitehorse 43.83 328 P P 20 30 29.0 +0.5
MACI Morro de la Ar 43.87 196 P P 20 30 28.1 -1.2
BOD Bodaibo 43.88 43 eP P 20 30 26.8 -2.0
BOD pmax pmax
comp=Z,23nm,1.6s
P33M Teslin, Yukon 43.88 326 P P 20 30 29.5 +0.5
P33M IAmb IAmb 20 30 32.7
comp=Z,32nm,1.6s
EPLO Experimental L 43.89 290 P P 20 30 29.9 +0.9
ULM Lac du Bonnet 44.01 293 P P 20 30 29.8 -0.2
comp=Z,5.9nm,0.8s,baz=7.7,slow=11,SNR=3.3
ULM LR LR 20 46 43.1
comp=Z,217nm,20.6s,baz=26,slow=33
comp=Z,5.9nm,0.8s
ULM Lac du Bonnet 44.01 293 eP P 20 30 31.1 +1.1
ULM pmax pmax
comp=Z,6.0nm,0.9s
ULM Lac du Bonnet 44.01 293 IAmb IAmb 20 30 42.4
comp=Z,61nm,2.0s
DGZ Jazzator, Alta 44.25 68 i P P 20 30 30.8 -1.3
DGZ pmax pmax
comp=Z,6.0nm,1.1s
BTLS Baital 44.28 83 eP P 20 30 33.1 +1.0
BTLS Baital 44.28 83 eP P 20 30 33.2 +1.0
J17K VABM Dome 44.30 344 P P 20 30 33.3 +1.2
J17K IAmb IAmb 20 31 13.6
comp=Z,46nm,1.6s
CUT Chulitna 44.38 338 P P 20 30 34.4 +1.7
BRLS Borolday 44.74 88 eP P 20 30 38.0 +2.1
BRLS Borolday 44.74 88 eP P 20 30 38.0 +2.1
SEY Seymchan 44.84 15 LR LR 20 49 30.2
comp=Z,276nm,18.4s,baz=326,slow=36
KK31 Karatay Array 44.89 88 P 20 30 36.9 -0.3
KK31 PP PP 20 32 23.0 +1.3
KKAR Karatay Array 44.89 88 P P 20 30 37.7 +0.6
KKAR 20 32 23.0
KKAR Karatay Array 44.89 88 P P 20 30 37.6 +0.6
KKAR PP PP 20 32 23.0 +1.3
ASF Jabal al Asfar 44.96 129 P P 20 30 38.2 +0.3
comp=Z,10nm,1.0s,baz=344,slow=4.8,SNR=15
ASF PP PP 20 32 25.0 +2.2
comp=Z,2.5nm,0.6s,baz=147,slow=6.8,SNR=2.7
ASF LR LR 20 50 41.3
comp=Z,372nm,20.6s,baz=322,slow=38
comp=Z,10nm,1.0s
DLBC Dease Lake 45.03 323 LR LR 20 49 47.7
comp=Z,866nm,18.4s,baz=28,slow=37
MAKZ Makanchi 45.18 75 P P 20 30 38.9 -0.5
MAKZ pmax pmax
comp=Z,4.0nm,1.0s
MAKZ Makanchi 45.18 75 P 20 30 38.9 -0.5
MK31 Makanchi Array 45.29 75 P P 20 30 39.4 -0.9
MK31 pmax pmax
comp=Z,4.0nm,1.1s
MK31 Makanchi Array 45.29 75 P P 20 30 39.4 -0.9
MKAR Makanchi Array 45.29 75 P P 20 30 40.7 +0.4
comp=Z,2.8nm,0.9s,baz=347,slow=6.5,SNR=18
MKAR PP PP 20 32 24.1 -1.8
comp=Z,2.0nm,0.9s,baz=353,slow=4.9,SNR=4.5
MKAR LR LR 20 53 14.8
comp=Z,136nm,18.7s,baz=276,slow=41
comp=Z,2.8nm,0.9s
MKAR Makanchi Array 45.29 75 P P 20 30 39.4 -0.9
CHM Chimkent 45.31 89 eP P 20 30 41.2 +0.8
CHM Chimkent 45.31 89 eP P 20 30 41.2 +0.8
DZA Taraz 45.34 87 eP P 20 30 41.7 +1.0
DZA Taraz 45.34 87 eP P 20 30 41.8 +1.0
ZSN Zaisan 45.49 72 eP P 20 30 43.2 +1.4
ZSN Zaisan 45.49 72 eP P 20 30 43.3 +1.4
IUG luzhnay 45.60 89 eP P 20 30 43.8 +1.0
IUG pmax pmax
comp=Z,8.0nm,1.0s
IUG luzhnay 45.60 89 eP P 20 30 43.9 +1.0
comp=Z,8.1nm,1.0s
TDK Taldyqorghan 45.69 79 eP P 20 30 44.6 +1.2
TDK pmax pmax
comp=Z,8.0nm,0.9s
TDK Taldyqorghan 45.69 79 eP P 20 30 44.7 +1.2
comp=Z,7.6nm,0.9s
KUU Kurty 46.03 82 eP P 20 30 47.3 +1.2
KUU Kurty 46.03 82 eP P 20 30 47.4 +1.2
EDM Edmonton 46.13 308 P P 20 30 47.4 +0.5
EDM pmax pmax
comp=Z,60nm,1.7s
EDM Edmonton 46.13 308 P P 20 30 47.4 +0.5
MOY Mondy 46.32 56 eP P 20 30 50.2 +1.8
MOY pmax pmax
comp=Z,36nm,2.4s
KNGR Kungurtug, Tuv 46.34 60 i P P 20 30 48.9 +0.3
KNGR pmax pmax
comp=Z,6.0nm,1.1s
N19K Bonanza Creek 46.40 341 P P 20 30 49.8 +0.9
N19K IAmb IAmb 20 31 13.5
comp=Z,22nm,1.3s
AAK Ala-Archa 46.58 84 LR LR 20 49 30.6
comp=Z,140nm,20.4s,baz=332,slow=35
AAK Ala-Archa 46.58 84 P P 20 30 51.9 +1.3
AAK Ala-Archa 46.58 84 ceP P 20 30 50.4 -0.2
AAK pmax pmax
comp=Z,3.0nm,0.9s
AAK Ala-Archa 46.58 84 P P 20 30 49.9 -0.8
AAA Alma-Ata 46.83 82 eP P 20 30 53.6 +1.1
AAA Alma-Ata 46.83 82 eP P 20 30 53.6 +1.1
EIL Elat 46.89 132 P P 20 30 54.0 +1.0
comp=Z,5.9nm,0.7s,baz=341,slow=10.0,SNR=5.4
EIL LR LR 20 52 13.6
comp=Z,235nm,20.1s,baz=308,slow=38
comp=Z,5.9nm,0.7s
MDOK Medeo 46.91 82 eP P 20 30 54.2 +1.0
MDOK Medeo 46.91 82 eP P 20 30 54.3 +1.0
TNSS Tian-Shan 46.99 82 eP P 20 30 54.9 +0.7
TNSS Tian-Shan 46.99 82 eP P 20 30 54.9 +0.7
TLY Talaya 47.00 54 LR LR 20 53 05.9
comp=Z,142nm,19.1s,baz=344,slow=39
SSPA Standing Stone 47.05 271 P P 20 30 53.9 -0.2
KPKS Kokpek 47.16 80 eP P 20 30 56.2 +1.2
KPKS Kokpek 47.16 80 eP P 20 30 56.3 +1.2
ARSB Arslanbob 47.28 86 P P 20 30 54.6 -1.6
ARSB pmax pmax
comp=Z,17nm,1.6s
ARSB Arslanbob 47.28 86 P P 20 30 54.6 -1.6
ARSB IAmb IAmb 20 31 09.8
comp=Z,16nm,1.6s
SATY Saty 47.44 80 eP P 20 30 58.3 +1.0
SATY Saty 47.44 80 eP P 20 30 58.3 +1.0
PDGK Podgornoye 47.53 79 P P 20 30 57.1 -0.9
PDGK Podgornoye 47.53 79 P P 20 30 57.1 -0.9
UZB Uzynbulak 47.55 80 eP P 20 30 59.2 +1.0
UZB pmax pmax
comp=Z,6.0nm,1.0s
UZB Uzynbulak 47.55 80 eP P 20 30 59.2 +1.0
comp=Z,5.7nm,1.0s
SHLS Shalkode 47.68 79 eP P 20 31 01.2 +2.1
SHLS pmax pmax
comp=Z,9.0nm,1.0s
SHLS Shalkode 47.68 79 eP P 20 31 01.2 +2.1
comp=Z,9.2nm,1.0s
BTK Batken 47.74 89 P P 20 30 59.0 -0.6
BTK pmax pmax
comp=Z,46nm,2.0s
BTK Batken 47.74 89 P P 20 30 59.0 -0.6
MA2 Magadan 48.01 17 LR LR 20 50 48.0
comp=Z,138nm,18.1s,baz=281,slow=36
NRN Naryn 48.15 84 P P 20 31 01.0 -2.0
NRN pmax pmax
comp=Z,33nm,2.0s
NRN Naryn 48.15 84 P 20 31 01.0 -2.0
NRN IAmb IAmb 20 31 17.7
comp=Z,33nm,2.0s
TARG Taragay, Kyrgy 48.45 82 P P 20 31 03.8 -1.7
TARG pmax pmax
comp=Z,8.0nm,0.8s
TARG Taragay, Kyrgy 48.45 82 P 20 31 03.8 -1.7
TARG IAmb IAmb 20 31 08.6
comp=Z,7.8nm,0.8s
DRK Karamyk 48.58 88 P P 20 31 05.0 -1.4
DRK pmax pmax
comp=Z,30nm,1.3s
DRK Karamyk 48.58 88 P P 20 31 05.0 -1.4
TAM Tamanrasset 49.02 169 P P 20 31 08.8 -0.9
TAM pmax pmax
comp=Z,43nm,1.3s
TAM Tamanrasset 49.02 169 P P 20 31 08.8 -0.9
ACSO Alum Creek Sta 49.04 275 P P 20 31 10.2 +0.7
ACSO IAmb IAmb 20 32 02.9
comp=Z,28nm,1.4s
KDAK Kodiak Island 49.16 338 LR LR 20 52 15.0
comp=Z,263nm,21.6s,baz=27,slow=36
KDAK Kodiak Island 49.16 338 P P 20 31 10.8 +0.6
KDAK pmax pmax
comp=Z,148nm,1.8s
KDAK Kodiak Island 49.16 338 P P 20 31 10.8 +0.6
WUS Wushi 49.38 81 P P 20 31 10.5 -1.8
WUS IAmb IAmb 20 31 14.7
comp=Z,10nm,1.0s
WMQ Urumqi 49.62 72 eP P 20 31 15.8 +1.8
WMQ pP pwP 20 31 21.2 +1.6
WMQ pmax pmax
comp=Z,15nm,0.7s
WMQ L L
comp=Z,120nm,17.1s
EGMT Eagleton 49.95 303 P P 20 31 16.9 +0.4
L40A Anamosa 49.97 284 P P 20 31 17.1 +0.5
KSH2 Kashi 50.09 85 P P 20 31 19.3 +1.6
KSH2 sP pwP 20 31 26.6 +3.3
KSH2 pmax pmax
comp=Z,7.0nm,0.9s
HRA Herat 50.21 100 P P 20 31 17.9 -0.8
HRA IAmb IAmb 20 31 28.7
comp=Z,16nm,1.5s
ZEA Zeya 50.38 36 eP P 20 31 21.2 +1.7
ZEA pmax pmax
comp=Z,10.0nm,1.2s
ZEA MLR MLR
comp=Z,400nm,13.0s
BBB Bella Bella 50.51 319 LR LR 20 53 08.6
comp=Z,505nm,18.4s,baz=48,slow=37
LLLB Lillooet 50.60 313 P P 20 31 21.5 +0.2
LDM Libby Dam 51.01 307 P P 20 31 25.9 +1.5
LDM IAmb IAmb 20 31 27.0
comp=Z,16nm,1.0s
SONM Songino Array 51.24 54 P P 20 31 26.7 +0.5
comp=Z,0.5nm,0.6s,baz=347,slow=6.3,SNR=5.7
SONM Songino Array 51.24 54 P P 20 31 26.8 +0.5
SONM pmax pmax
comp=Z,14nm,1.8s
SONM Songino Array 51.24 54 IAmb IAmb 20 31 28.7
comp=Z,14nm,1.8s
ULN Ulaanbaatar 51.38 54 ceP P 20 31 28.8 +1.4
ULN pmax pmax
comp=Z,14nm,2.5s
NEW Newport 51.64 309 LR LR 20 53 48.4
comp=Z,688nm,18.4s,baz=22,slow=37
S44A Carbondale 53.34 280 P P 20 31 41.6 -0.1
TKL Tuckaleechee C 53.47 274 LR LR 20 53 12.4
comp=Z,272nm,18.6s,baz=28,slow=35
HEH HeiHe 53.73 37 eP P 20 31 45.6 +1.1
HEH pmax pmax
comp=Z,13nm,1.4s
R40A Maddies Statio 53.73 283 P P 20 31 45.3 +0.6
R40A IAmb IAmb 20 33 19.7
comp=Z,29nm,1.7s
T45A Paducah 53.76 279 P P 20 31 45.4 +0.5
NIL Nilore 54.38 90 P P 20 31 49.0 -0.5
NIL pmax pmax
comp=Z,8.0nm,1.0s
NIL Nilore 54.38 90 P P 20 31 49.0 -0.5
NIL IAmb IAmb 20 31 51.0
comp=Z,8.2nm,0.9s
SAKB Bahrain 54.52 116 P P 20 31 53.4 +2.9
PDAR Pinedale Array 54.74 300 LR LR 20 54 57.7
comp=Z,322nm,19.0s,baz=20,slow=36
BMO Blue Mountains 54.86 307 IAmb IAmb 20 32 32.0
comp=Z,22nm,1.8s
G08A Pilot Rock 54.87 309 IAmb IAmb 20 32 18.9
comp=Z,30nm,1.9s
PETK Petropavlovsk- 55.00 14 LR LR 20 54 55.1
comp=Z,135nm,18.3s,baz=357,slow=36
RAYN Ar Rayn 55.45 122 P P 20 31 59.1 +1.7
RAYN Ar Rayn 55.45 122 P P 20 31 57.9 +0.5
RAYN pmax pmax
comp=Z,13nm,0.9s
RAYN Ar Rayn 55.45 122 P P 20 31 57.9 +0.5
RAYN IAmb IAmb 20 32 04.0
comp=Z,13nm,0.9s
KLR Kul'dur 55.51 34 LR LR 20 56 56.0
comp=Z,149nm,18.1s,baz=351,slow=37
JRN Qarnain Island 56.17 114 P P 20 32 04.8 +2.4
MDH Madha 56.85 110 P P 20 32 07.8 +0.5
NAZ Nazwa, Dubai 56.95 111 P P 20 32 09.2 +1.2
AJN Ajban 57.15 112 P P 20 32 11.8 +2.3
UOSS Minazif 57.16 111 P P 20 32 11.6 +2.2
GTA2 Gaotai 57.16 64 eP P 20 32 10.4 +0.9
GTA2 pP pwP 20 32 14.7 -0.4
GTA2 pmax pmax
comp=Z,5.0nm,1.1s
ASUD Al Ashush, Dub 57.20 112 P P 20 32 12.0 +2.3
HATD Hatta, Dubai 57.25 111 P P 20 32 12.5 +2.4
XLT XiLinHaoTe 57.33 48 eP P 20 32 11.2 +0.6
XLT pmax pmax
comp=Z,8.0nm,0.9s
ASHO Ashiyiah 57.36 111 P P 20 32 13.7 +2.7
MZWR Madinat Zayed 57.58 113 P P 20 32 15.6 +3.1
SOHO SOHO 58.02 111 P P 20 32 17.8 +2.3
ELK Elko 58.16 304 LR LR 20 57 56.5
comp=Z,290nm,18.1s,baz=22,slow=37
MZR Muzera 58.18 114 P P 20 32 20.2 +3.5
TORD Torodi Ar. Bea 58.42 174 P P 20 32 18.0 -0.4
comp=Z,3.0nm,0.9s,baz=358,slow=8.1,SNR=7.5
TORD LR LR 20 57 33.3
comp=Z,348nm,18.5s,baz=82,slow=36
comp=Z,3.0nm,0.9s
TORD Torodi Ar. Bea 58.42 174 P P 20 32 18.0 -0.4
PV01 Paradox Valley 58.76 297 P P 20 32 21.2 +0.4
GOMU GeErMu 58.77 69 P P 20 32 21.2 +0.1
GOMU pP sP 20 32 24.4 -0.6
GOMU sP pwP 20 32 28.5 +1.8
GOMU pmax pmax
comp=Z,7.0nm,1.0s
HOQ Hoqain 58.77 110 P P 20 32 23.5 +2.7
UMZA Um Al Zommool 58.95 113 P P 20 32 24.5 +2.5
BIDO Bidbid 59.07 109 P P 20 32 24.1 +1.2
SNR=7.1
HHC Hu-ho-hao-te 59.09 53 eP P 20 32 22.1 -0.9
HHC pmax pmax
comp=Z,11nm,0.6s
YBH Yreka Blue Hor 59.14 310 LR LR 20 58 02.5
comp=Z,522nm,19.0s,baz=18,slow=36
SMDO Samad 59.48 109 P P 20 32 26.1 +0.3
BSY Bisya 59.52 110 P P 20 32 26.3 +0.2
SNR=9.7
JMDO Jabal Madar 60.15 110 P P 20 32 30.3 0.0
SNR=5.2
USRK Ussuriysk Ar. 60.41 35 LR LR 21 00 01.2
comp=Z,117nm,18.0s,baz=347,slow=37
KVN Kaiserville 60.51 305 P P 20 32 35.0 +2.2
KVN pmax pmax
comp=Z,9.0nm,1.4s
KVN Kaiserville 60.51 305 P P 20 32 35.0 +2.2
KVN IAmb IAmb 20 32 40.0
comp=Z,8.8nm,1.4s
JLN Jalan Bani Buh 60.75 108 P P 20 32 35.0 +0.6
ANMO Albuquerque 61.12 294 LR LR 21 00 29.6
comp=Z,227nm,18.6s,baz=26,slow=38
NVAR Mina Array Bea 61.14 305 P P 20 32 36.1 -1.1
comp=Z,0.5nm,0.6s,baz=196,slow=15,SNR=5.0
NVAR LR LR 20 58 40.3
comp=Z,234nm,19.6s,baz=20,slow=36
comp=Z,0.5nm,0.6s
NVAR Mina Array Bea 61.14 305 P P 20 32 38.3 +1.1
PRN Pahroc Range 61.24 302 P P 20 32 39.3 +1.5
PRN IAmb IAmb 20 33 22.9
comp=Z,25nm,1.8s
MHTO MHTO 61.41 110 P P 20 32 38.3 -0.6
LZH Lanzhou 61.49 61 eP P 20 32 29.5 -10
LZH pP pP 20 32 35.1 -7.2
LZH pmax pmax
comp=Z,18nm,1.3s
MZP Montezuma Peak 61.59 304 IAmb IAmb 20 32 43.1
comp=Z,11nm,1.5s
TPNV Topopah Spring 61.99 303 IAmb IAmb 20 32 56.3
comp=Z,6.7nm,1.1s
MDPB Devils Postpil 62.10 306 P P 20 32 45.0 +1.3
MDPB IAmb IAmb 20 32 47.5
comp=Z,11nm,1.4s
GRAC Grapevine Rang 62.25 304 IAmb IAmb 20 33 14.3
comp=Z,9.7nm,0.8s
DQM DQM 62.28 111 P P 20 32 47.1 +2.3
DOK Doka 62.52 115 P P 20 32 47.2 +0.9
GWY Greenwater Val 62.83 303 P P 20 32 49.7 +1.3
GWY IAmb IAmb 20 33 00.5
comp=Z,23nm,1.7s
CWC Cottonwood Cre 62.96 304 IAmb IAmb 20 32 53.2
comp=Z,13nm,1.4s
WHFO Wadi Hawf 63.08 116 P P 20 32 52.5 +2.4
QSM Queen of Sheba 63.09 303 IAmb IAmb 20 32 54.7
comp=Z,22nm,1.9s
ABTO Aybut 63.48 116 P P 20 32 55.2 +2.4
EVN Everest 63.97 80 P P 20 32 56.3 -0.4
EVN IAmb IAmb 20 33 17.1
comp=Z,7.4nm,1.0s
SJG San Juan 64.30 249 LR LR 20 55 26.2
comp=Z,82nm,21.9s,baz=70,slow=31
BELC Belle Mtn. Jos 64.70 302 IAmb IAmb 20 33 07.6
comp=Z,16nm,1.8s
DBIC Dimbokro 64.76 181 P P 20 33 01.2 0.0
comp=Z,3.3nm,1.0s,baz=223,slow=11,SNR=1.7
DBIC LR LR 21 00 45.8
comp=Z,118nm,19.1s,baz=16,slow=36
comp=Z,3.3nm,1.0s
PFO Pinyon Flats O 65.20 302 LR LR 21 02 28.9
comp=Z,210nm,18.2s,baz=18,slow=37
TXAR Lajitas Array 65.53 289 P P 20 33 07.4 +1.2
comp=Z,0.5nm,0.8s,baz=46,slow=3.6,SNR=4.7
TXAR LR LR 21 01 16.0
comp=Z,227nm,18.9s,baz=20,slow=36
comp=Z,0.5nm,0.8s
KSRS Korea Array 66.12 41 LR LR 21 03 57.7
comp=Z,128nm,18.6s,baz=340,slow=38
MJAR Matsushiro Arr 68.95 32 P P 20 33 27.8 +0.2
comp=Z,5.5nm,0.9s,baz=338,slow=4.9,SNR=6.6
comp=Z,5.5nm,0.9s
MJAR Matsushiro Arr 68.95 32 P P 20 33 27.9 +0.2
MJAR pmax pmax
comp=Z,13nm,1.5s
MJAR Matsushiro Arr 68.95 32 IAmb IAmb 20 33 37.5
comp=Z,13nm,1.5s
MJA0 Matsu Arr-Jizo 68.96 32 eP P 20 33 28.5 +0.7
MJA0 pmax pmax
comp=Z,5.0nm,0.9s
NJ2 Nanjing 69.26 50 eP P 20 33 27.6 -2.0
NJ2 pmax pmax
comp=Z,11nm,1.4s
MORE Moreh 69.77 74 IAmb IAmb 20 33 41.7
comp=Z,7.2nm,0.8s
BRDH Bariadhala 70.41 77 LR LR 21 10 34.5
comp=Z,119nm,19.7s,baz=258,slow=41
JNU Nakatsue 70.91 39 LR LR 21 08 45.9
comp=Z,62nm,18.6s,baz=342,slow=39
LODK Lodwar 72.34 139 P P 20 33 50.4 +1.8
SNR=6.3
LODK Lodwar 72.34 139 P P 20 33 48.0 -0.6
LODK IAmb IAmb 20 33 59.0
comp=Z,15nm,1.4s
LPIG La Paz 72.43 293 LR LR 21 05 56.8
comp=Z,192nm,18.1s,baz=36,slow=36
MDP Montagnes des 72.96 232 LR LR 20 58 26.5
comp=Z,76nm,18.6s,baz=6.0,slow=30
SDV Santo Domingo 74.36 251 LR LR 21 02 49.1
comp=Z,53nm,20.5s,baz=28,slow=33
MBAR Mbarara 75.34 144 LR LR 21 09 59.6
comp=Z,84nm,18.7s,baz=342,slow=38
MBAR Mbarara 75.34 144 P P 20 34 10.2 +3.9
CHTO Chiang Mai 76.29 72 P P 20 34 12.3 +0.7
CHTO Chiang Mai 76.29 72 P P 20 34 11.6 +0.1
CHTO pmax pmax
comp=Z,6.0nm,1.0s
CHTO Chiang Mai 76.29 72 P P 20 34 11.6 +0.1
CMAR Chiang Mai Arr 76.62 72 P P 20 34 13.7 +0.2
comp=Z,1.4nm,0.7s,baz=319,slow=7.0,SNR=15
CMAR LR LR 21 14 40.5
comp=Z,64nm,18.6s,baz=300,slow=41
comp=Z,1.4nm,0.7s
CMAR Chiang Mai Arr 76.62 72 eP P 20 34 14.1 +0.7

CMAR				pmax	pmax			
	comp=Z,2.0nm,0.8s							
KMBO	**Kilima Mbogo**	**77.16**	**138**	LR	LR	21 11 22.3		
	comp=Z,85nm,21.0s,baz=112,slow=38							
JTS	**Las Juntas de**	**77.49**	**265**	LR	LR	21 08 56.6		
	comp=Z,46nm,19.5s,baz=7.6,slow=36							
RUSC	**La Rusia**	**77.94**	**252**	P	**P**	**20 34 21.8**	**+0.4**	
ROSC	**El Rosal**	**79.31**	**252**	LR	LR	21 07 08.0		
	comp=Z,48nm,19.1s,baz=71,slow=34							
ATAH	**Atahualpa**	**91.88**	**253**	LR	LR	21 12 58.1		
	comp=Z,83nm,21.9s,baz=9.6,slow=33							
BDFB	**Brasilia**	**91.92**	**222**	LR	LR	21 09 32.3		
	comp=Z,113nm,19.5s,baz=22,slow=31							
DAV	**Davao City (W)**	**94.89**	**50**	LR	LR	21 24 16.1		
	comp=Z,63nm,19.1s,baz=313,slow=39							
OPO	**Ambohidratompo**	**96.28**	**132**	LR	LR	21 23 09.1		
	comp=Z,28nm,18.4s,baz=256,slow=38							
LPAZ	**La Paz**	**97.55**	**241**	LR	LR	21 18 30.7		
	comp=Z,33nm,18.8s,baz=6.5,slow=34							
LBTB	**Lobatse**	**98.41**	**153**	LR	LR	21 23 17.3		
	comp=Z,98nm,18.0s,baz=20,slow=37							
WRA	**Warramunga Arr**	**123.03**	**48**	PKP	**PKPdf**	**20 41 18.7**	**-0.2**	
	comp=Z,0.5nm,0.8s,baz=316,slow=2.9,SNR=3.0							
ASAR	**Alice Springs**	**126.50**	**50**	PKP	**PKPdf**	**20 41 25.4**	**-0.1**	
	comp=Z,0.5nm,0.7s,baz=343,slow=2.4,SNR=8.7							
MAW	**Mawson**	**145.78**	**141**	PKPbc	**PKPdf**	**20 41 59.4**	**-0.1**	
	comp=Z,5.1nm,0.9s,baz=72,slow=7.5,SNR=11							
MAW	**Mawson**	**145.78**	**141**		**PKiKP**	**20 42 04.0**	**+0.4**	

*IDC **03** 20:23:34.3±2.7, 8˚.50S×112˚.81E, h0km, mb3.7/6, mbtmp3.7/6, MS3.6/1, Error ellipse: s-maj=155.8km s-min=19.2km az=53.0*
*DJA **03** 20:23:52.5±0.5, 9˚.5±.5˚×11˚.3E±˚, h114km±5km, M3.6/16, MLv3.6/16*
ISC 03 20:23:51.3±0.9, 8˚.6S±0˚.1×113˚.2E±0˚.05, h143km±8km, n16, σ0s83/21, mb3.6/6, Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BLJI	**Banyuglugur**	**0.93**	**30**	P	**Pn**	**20 24 15.0**	**+0.2**
BLJI				S	**Sn**	**20 24 32.8**	**+0.1**
BLJI				AML	AML		
JAGI	**Jajag, Banyuwa**	**1.02**	**85**	P	**Pn**	**20 24 15.4**	**-0.2**
JAGI				S	**Sn**	**20 24 33.0**	**-1.1**
JAGI				AML	AML		
ABJI	**Asem Bagus**	**1.34**	**56**	P	**Pn**	**20 24 18.9**	**+0.3**
ABJI				S	**Sn**	**20 24 40.0**	**+0.6**
PWJI	**Pagerwojo**	**1.41**	**292**	P	**Pn**	**20 24 18.7**	**-0.6**
PWJI				S	**Sn**	**20 24 39.9**	**-0.8**
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**1.55**	**300**	P	**Pn**	**20 24 21.8**	**+0.7**
SNJI				S	**Sn**	**20 24 44.5**	**+0.7**
SNJI				AML	AML		
SJI	**Sawahan**	**1.57**	**301**	P	**Pn**	**20 24 21.2**	**0.0**
SJI				S	**Sn**	**20 24 44.3**	**+0.3**
GRJI	**Gresik**	**1.75**	**339**	P	**Pn**	**20 24 24.2**	**+1.1**
GRJI				AML	AML		
WOJI	**Wonogiri, Jawa**	**2.29**	**288**	P	**Pn**	**20 24 30.5**	**+1.0**
WOJI				AML	AML		
KHKI	**Kahang-Kahang**	**2.47**	**86**	P	**Pn**	**20 24 32.5**	**+0.8**
KHKI				AML	AML		
WRA	**Warramunga Arr**	**23.44**	**121**	P	**P**	**20 28 48.2**	**+0.3**
	0.3nm,0.4s,baz=297,slow=11,SNR=12						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**24.93**	**129**	P	**P**	**20 29 01.9**	**+0.5**
	0.9nm,0.4s,baz=302,slow=9.1,SNR=25						
	0.9nm,0.4s						
STKA	**Stephens Creek**	**35.18**	**135**	P	**P**	**20 30 32.6**	**+1.0**
	1.1nm,0.7s,baz=306,slow=6.8,SNR=3.0						
	1.1nm,0.7s						
SONM	**Songino Array**	**56.46**	**355**	P	**P**	**20 33 17.9**	**-0.3**
	0.2nm,0.4s,baz=162,slow=8.8,SNR=2.3						
	0.2nm,0.4s						
ASAJ	**Asahikawa**	**58.83**	**24**	LR	LR	21 00 24.7		
	comp=Z,53nm,20.6s,baz=81,slow=38							
MKAR	**Makanchi Array**	**61.57**	**336**	P	**P**	**20 33 52.5**	**-0.8**	
	0.5nm,0.4s,baz=156,slow=7.0,SNR=11							
	0.5nm,0.4s							
ZALV	**Zalesovo Beam**	**66.70**	**342**	P	**P**	**20 34 25.0**	**-1.7**	
	0.3nm,0.3s,baz=152,slow=6.5,SNR=2.0							
	0.3nm,0.3s							

*IDC **03** 20:26:20.7±3.8, 24˚.67N×95˚.34E, h131km±40km, mb3.0/3, mbtmp3.2/4, Error ellipse: s-maj=134.5km s-min=21.9km az=60.0*
ISC 03 20:26:23.8±2.1, 24˚.79N±0˚.09×94˚.4E±0˚.1, h126km±11km, n11, σ0s73/13, mb3.3/3, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IMP	**Imphal**	**0.43**	**275**	*i* P	**Pn**	**20 26 41.5**	**-0.6**
IMP				*i* S	**Sn**	**20 26 56.9**	**+0.9**
IMP				IAML		20 26 57.5	
	comp=N,255nm,0.3s						
KOHI	**KOHIMA**	**0.97**	**343**	*i* P	**Pn**	**20 26 45.3**	**-0.9**
MOKO	**MOKOCHONG**	**1.52**	**3**	*i* P	**Pn**	**20 26 51.5**	**-0.6**
MOKO				*i* S	**Sn**	**20 27 14.5**	**+0.8**
MOKO				IAML		20 27 19.2	
	comp=N,378nm,0.5s						
AZL	**Aizawl**	**1.90**	**237**	*i* P	**Pn**	**20 26 56.0**	**-0.4**
AZL				*i* S	**Sn**	**20 27 21.9**	**+0.6**
AZL				IAML		20 27 24.9	
	comp=N,121nm,0.2s						
TEZP	**TEZPUR**	**2.33**	**322**	*i* P	**Pn**	**20 27 01.0**	**-0.7**
TEZP				*i* S	**Sn**	**20 27 30.8**	**0.0**
TEZP				IAML		20 27 33.3	
	comp=N,1μm,0.3s						
SHL	**Shillong**	**2.42**	**289**	*i* P	**Pn**	**20 27 02.6**	**-0.4**
ZIRO	**ZIRO**	**2.77**	**349**	*i* P	**Pn**	**20 27 07.3**	**-0.2**
ZIRO				IAML		20 27 40.4	
	comp=N,269nm,0.3s						
ZIRO				*i* S	**Sn**	**20 27 41.8**	**+0.7**
CMAR	**Chiang Mai Arr**	**7.58**	**145**	P	Pn	20 28 01.1	-11
	comp=N,0.4nm,0.7s,baz=328,slow=13,SNR=5.0						
MKAR	**Makanchi Array**	**24.00**	**339**	P	**P**	**20 31 27.0**	**+0.2**
	comp=N,0.6nm,0.6s,baz=149,slow=9.6,SNR=7.4						
	comp=N,0.6nm,0.6s						
WRA	**Warramunga Arr**	**59.04**	**135**	P	P	20 36 02.4	-8.4
	comp=N,0.3nm,1.0s,baz=322,slow=7.4,SNR=6.2						
	comp=N,0.3nm,1.0s						
ASAR	**Alice Springs**	**61.53**	**138**	P	P	20 36 19.7	-8.1
	comp=N,0.2nm,0.6s,baz=319,slow=7.1,SNR=1.9						
	comp=N,0.2nm,0.6s						

*IDC **03** 20:35:35.8±0.5, 37˚.80N×26˚.56E, h0km, mb4.0/15, mbtmp3.9/27, ML3.4/9, MS3.6/3, Error ellipse: s-maj=8.1km s-min=7.5km az=124.0*
*NEIC **03** 20:35:35.8±2.3, 37˚.86N±0˚.04×26˚.46E±0˚.04, h10km±1km, mb4.0/13, Error ellipse: s-maj=8.0km s-min=2.9km az=138.0*
*THE **03** 20:35:36.3, 38˚N±1˚×2˚.6E±˚, h5km±2km, M3.9/28, MLh3.9/28*
*ATH **03** 20:35:36.2, 37˚.87N×26˚.43E, h16km±1km, ML4.0/28, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*ISK **03** 20:35:36.3, 37˚.86N×26˚.42E, h14km, ML4.0/19*
*AFAD **03** 20:35:37.4, 37˚.91N×26˚.49E, h16km±2km, MW4.1*
*GFZ **03** 20:35:38.6±0.2, 38˚N±2˚×2˚.6E±˚, h10km, M4.1/15, mb4.1/15*
ISC 03 20:35:36.1±0.9, 37˚.82N±0˚.02×26˚.40E±0˚.02, h12km±6km, n334, σ1s74/354, mb4.0/17, MS3.7/3, 22C-14D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.25**	**97**	P	**Pg**	**20 35 41.5**	**+0.2**
KRL1				S	**Sg**	**20 35 45.2**	**+0.3**
KRL1				AML	AML		
SMG	**Samos**	**0.37**	**108**	P	**Pb**	**20 35 44.0**	**-0.6**
SMG				S	**Sg**	**20 35 48.3**	**-0.2**
SMG				AML	AML		
SMG	**Samos**	**0.37**	**108**	P	**Pb**	**20 35 44.0**	**-0.6**
SMG				S	**Sg**	**20 35 48.9**	**+0.4**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.42**	**12**	P	**Pg**	**20 35 44.1**	**-0.4**
ZEYE				S	**Sg**	**20 35 49.5**	**-0.6**
ZEYE				IAML		20 35 51.0	
	comp=N,2μm,0.5s						
ZEYE				IAML		20 35 55.0	
	comp=E,9μm,0.4s						
DGB	**zmir**	**0.45**	**59**	P	**Pg**	**20 35 44.7**	**-0.3**
DGB				S	**Sg**	**20 35 49.8**	**-1.2**
DGB				IAML		20 35 51.0	
	comp=N,1μm,0.4s						
DGB				IAML		20 35 51.0	
	comp=E,1μm,0.5s						
GMLD	**Gumuldur**	**0.48**	**58**	Pg	**Pg**	**20 35 45.1**	**-0.5**
GMLD				Sg	**Sg**	**20 35 51.6**	**-0.5**
GMLD				AML	AML		
CESE	**eme**	**0.51**	**352**	Pg	**Pg**	**20 35 46.4**	**+0.2**
CESE				Sg	**Sg**	**20 35 53.7**	**+0.7**
CESE				AML	AML		
BEYE	**izmir**	**0.58**	**46**	P	**Pg**	**20 35 47.0**	**-0.5**
BEYE				S	**Sg**	**20 35 53.4**	**-1.8**
BEYE				IAML		20 35 55.0	
	comp=N,2μm,0.4s						
BEYE				IAML		20 35 55.0	
	comp=E,3μm,0.3s						
CHOS	**Chios island**	**0.62**	**335**	P	**Pg**	**20 35 48.0**	**-0.3**
CHOS				S	**Sg**	**20 35 56.9**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**335**	P	**Pg**	**20 35 48.2**	**-0.1**
CHOS	**Chios island**	**0.62**	**335**	Pg	**Pg**	**20 35 48.4**	**+0.1**
CHOS				Sg	**Sb**	**20 35 57.5**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**335**	P	**Pg**	**20 35 48.0**	**-0.3**
CHOS				S	**Sg**	**20 35 56.2**	**-0.3**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.68**	**100**	P	**Pb**	**20 35 50.0**	**+0.2**
GCAM				S	**Sg**	**20 35 58.4**	**+0.2**
GCAM				IAML		20 36 02.0	
	comp=N,1μm,0.4s						
GCAM				IAML		20 36 04.0	
	comp=E,6μm,0.5s						
GCAM	**G?zelcaml?**	**0.68**	**100**	Pg	**Pb**	**20 35 49.5**	**-0.3**
GCAM				Sg	**Sb**	**20 35 59.1**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.71**	**87**	Pg	**Pb**	**20 35 50.6**	**+0.2**
KUSD				AML	AML		
EAG2	**Marmaro, Chios**	**0.75**	**343**	P	**Pg**	**20 35 50.2**	**-0.6**
EAG2				S	**Sg**	**20 36 00.7**	**+0.1**
BLCB	**Balcova**	**0.76**	**42**	P	**Pg**	**20 35 49.7**	**-1.1**
BLCB				S	**Sg**	**20 36 00.7**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.76**	**42**	Pg	**Pg**	**20 35 50.3**	**-0.5**
DDIM	**Aydin, Didim**	**0.77**	**118**	P	**Pb**	**20 35 51.7**	**+0.4**
KRBN	**Karaburun**	**0.78**	**9**	Pg	**Pg**	**20 35 51.0**	**-0.2**
KRBN				AML	AML		
DIDI	**Didim-Aydin**	**0.81**	**123**	Pg	**Pn**	**20 35 52.9**	**-0.4**
DIDI				Sg	**Sn**	**20 36 04.1**	**-1.0**
DIDI				AML	AML		
KARB	**zmir-Karabur**	**0.84**	**1**	P	**Pg**	**20 35 51.6**	**-0.7**
KARB				S	**Sg**	**20 36 02.5**	**-0.8**
KARB				IAML		20 36 06.0	
	comp=N,4μm,0.5s						
KARB				IAML		20 36 06.0	
	comp=E,6μm,0.6s						
BAGT	**Foa**	**0.90**	**23**	P	**Pg**	**20 35 53.2**	**-0.4**
BAGT				S	**Sg**	**20 36 04.4**	**-1.0**
BAGT				IAML		20 36 07.0	
	comp=N,3μm,1.2s						
BAGT				IAML		20 36 07.0	
	comp=E,1μm,1.1s						
DUVT	**Torbali**	**0.92**	**64**	P	**Pg**	**20 35 53.4**	**-0.5**
DUVT				S	**Sg**	**20 36 04.5**	**-1.4**
DUVT				IAML		20 36 08.0	
	comp=E,3μm,0.6s						
FOCM	**Foa**	**0.93**	**16**	Pg	**Pg**	**20 35 53.3**	**-0.7**
FOCM				Sg	**Sb**	**20 36 06.7**	**+0.4**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.98**	**152**	P	**Pg**	**20 35 55.2**	**+0.2**
KLNA				S	**Sn**	**20 36 08.7**	**-0.7**
KLNA				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.99**	**134**	Pg	**Pn**	**20 35 55.9**	**+0.1**
YKAV				Sg	**Sn**	**20 36 10.3**	**+0.6**
YKAV				AML	AML		
TNSA	**Tinos**	**1.02**	**254**	P	**Pn**	**20 35 56.2**	**0.0**
TNSA				S	**Sn**	**20 36 10.3**	**0.0**
TNSA				AML	AML		
APE	**Apeiranthos**	**1.02**	**223**	P	**Pn**	**20 35 56.2**	**-0.1**
APE				S	**Sn**	**20 36 11.2**	**+0.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.02**	**223**	P	**Pn**	**20 35 56.4**	**+0.2**
APE	**Apeiranthos**	**1.02**	**223**	P	**Pn**	**20 35 56.1**	**-0.1**
APE				S	**Sn**	**20 36 10.7**	**+0.1**
APE				AML	AML		
BODT	**Bodrum**	**1.05**	**136**	P	**Pn**	**20 35 56.8**	**+0.1**
BODT				S	**Sn**	**20 36 11.4**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**1.05**	**136**	Pg	**Pn**	**20 35 56.9**	**+0.2**
BODT				AML	AML		
BDRM	**Kayabasi**	**1.13**	**132**	P	**Pg**	**20 35 57.8**	**0.0**
CAMT	**Merkez**	**1.17**	**38**	P	**Pb**	**20 35 57.8**	**-0.5**
AYDN	**Tasoluk**	**1.19**	**97**	P	**Pg**	**20 35 58.9**	**-0.1**
AYDN	**Tasoluk**	**1.19**	**97**	P	**Pb**	**20 35 58.3**	**-0.3**
AYDB	**Zeytinkoy-Aydi**	**1.19**	**84**	Pn	**Pn**	**20 35 58.7**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**1.22**	**115**	Pn	**Pg**	**20 35 59.5**	**-0.1**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.26**	**25**	P	**Pg**	**20 36 00.4**	**0.0**
IZMR	**zmir-demi**	**1.27**	**75**	P	**Pn**	**20 35 58.9**	**-0.7**
DKL	**Dikili**	**1.31**	**18**	Pn	**Pn**	**20 35 59.7**	**-0.5**
DKL				AML	AML		
DKL	**Dikili**	**1.31**	**18**	P	**Pn**	**20 35 59.1**	**-1.1**
YAZI	**Mula-Dat§a-**	**1.42**	**143**	P	**Pn**	**20 36 01.7**	**0.0**
PRK	**Paraskevi**	**1.42**	**356**	P	**Pn**	**20 36 01.4**	**-0.4**
PRK				S	**Sb**	**20 36 20.9**	**+0.3**
PRK				AML	AML		
PRK	**Paraskevi**	**1.42**	**356**	P	**Pn**	**20 36 00.8**	**-1.0**
DAT	**Datca**	**1.44**	**139**	P	**Pb**	**20 36 02.8**	**-0.2**
GOMA	**Golmarmara-Man**	**1.49**	**53**	Pn	**Pn**	**20 36 03.0**	**+0.4**
GOMA				AML	AML		
AYVA	**Ayvalik**	**1.50**	**9**	P	**Pn**	**20 35 58.8**	**-4.0**
NAZL	**Nazilli-Aydin**	**1.51**	**84**	Pn	**Pn**	**20 36 02.8**	**-0.2**
NAZL				AML	AML		
AKHS	**Akhisar**	**1.53**	**46**	P	**Pn**	**20 36 02.2**	**-1.1**
AKS	**Akhisar**	**1.53**	**46**	Pn	**Pn**	**20 36 03.2**	**-0.1**
AKS				AML	AML		
ESEN	**Aydn-Nazilli**	**1.55**	**90**	P	**Pn**	**20 36 03.6**	**+0.2**
KARY	**Karystos**	**1.56**	**278**	P	**Pb**	**20 36 04.4**	**-0.5**
KARY				S	**Sg**	**20 36 25.7**	**-0.7**
KARY				AML	AML		
KARY	**Karystos**	**1.56**	**278**	P	**Pn**	**20 36 04.0**	**+0.3**
CMBO	**Columbo, Santo**	**1.56**	**211**	P	**Pn**	**20 36 04.1**	**+0.4**
CMBO				S	**Sg**	**20 36 26.6**	**+0.1**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.56**	**211**	P	**Pn**	**20 36 04.1**	**+0.4**
THR2	**Thira island,**	**1.57**	**209**	P	**Pn**	**20 36 04.1**	**+0.3**
THR2	**Thira island,**	**1.57**	**209**	P	**Pn**	**20 36 04.2**	**+0.3**
KTTT	**Salihli**	**1.59**	**57**	P	**Pn**	**20 36 02.8**	**-1.3**
THR8	**Santorini-Mono**	**1.59**	**208**	P	**Pn**	**20 36 04.2**	**+0.2**
THR8	**Santorini-Mono**	**1.59**	**208**	P	**Pn**	**20 36 04.2**	**+0.2**
SOMA	**Soma-Manisa**	**1.60**	**34**	Pn	**Pn**	**20 36 04.0**	**-0.2**
SOMA				AML	AML		
THRA	**Thira**	**1.60**	**209**	P	**Pb**	**20 36 05.3**	**-0.3**
THRA				S	**Sg**	**20 36 27.2**	**-0.5**
THRA				AML	AML		
SAP3	**Santorini-Thir**	**1.62**	**211**	P	**Pn**	**20 36 04.7**	**+0.3**
SAP3				S	**Sg**	**20 36 27.9**	**-0.3**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.62**	**211**	P	**Pn**	**20 36 04.6**	**+0.2**
THR3	**Thira Island,**	**1.62**	**210**	P	**Pb**	**20 36 05.4**	**-0.5**
THR3	**Thira Island,**	**1.62**	**210**	P	**Pn**	**20 36 04.7**	**+0.3**
KIRA	**zmir-Kiraz**	**1.63**	**76**	P	**Pn**	**20 36 04.5**	**-0.2**
SNT5	**Nea Kammeni, S**	**1.63**	**210**	P	**Pn**	**20 36 05.3**	**+0.7**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.63**	**210**	P	**Pn**	**20 36 04.7**	**+0.1**
THERA	**Ancient Thera,**	**1.63**	**207**	P	**Pn**	**20 36 04.7**	**+0.1**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.63**	**207**	P	**Pg**	**20 36 07.8**	**+0.4**
THERA	**Ancient Thera,**	**1.63**	**207**	P	**Pn**	**20 36 04.4**	**-0.2**
THERA				AML	AML		
THT1	**Athinios (Pele**	**1.63**	**209**	P	**Pn**	**20 36 04.7**	**+0.2**
THT1				AML	AML		
MULA	**Mugla, Merkez-**	**1.63**	**110**	P	**Pb**	**20 36 05.9**	**-0.3**
THR5	**Thira Island,**	**1.64**	**211**	P	**Pn**	**20 36 05.0**	**+0.3**
THR5	**Thira Island,**	**1.64**	**211**	P	**Pn**	**20 36 05.0**	**+0.3**
YER	**Yerkesik**	**1.65**	**114**	P	**Pn**	**20 36 05.4**	**+0.5**
YER				AML	AML		
THR6	**Thira Island,**	**1.67**	**209**	P	**Pb**	**20 36 06.2**	**-0.6**
THR6	**Thira Island,**	**1.67**	**209**	P	**Pn**	**20 36 05.5**	**+0.4**
THR9	**Santorini-Faro**	**1.68**	**210**	P	**Pn**	**20 36 05.9**	**+0.6**
THR9	**Santorini-Faro**	**1.68**	**210**	P	**Pn**	**20 36 05.5**	**+0.2**
GORD	**Gordes-Manisa**	**1.77**	**52**	Pn	**Pn**	**20 36 06.8**	**+0.2**
GORD				AML	AML		
SKY	**Skiros Island**	**1.79**	**307**	P	**Pn**	**20 36 07.8**	**+1.0**
SKY				AML	AML		
MANT	**Manisa**	**1.83**	**68**	P	**Pg**	**20 36 10.9**	**-0.4**
MANT	**Manisa**	**1.83**	**68**		**Pn**	**20 36 06.7**	**-0.9**
MANT				Sn	**Sn**	**20 36 28.9**	**-1.9**
SULTU	**Buldan**	**1.89**	**82**	P	**Pg**	**20 36 12.0**	**-0.4**
MILOS	**Milos**	**1.90**	**236**	P	**Pn**	**20 36 07.8**	**-0.5**
MILOS				AML	AML		
MHLO	**Agia Marina, M**	**1.95**	**235**	P	**Pb**	**20 36 10.4**	**-1.2**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**1.95**	**235**	P	**Pn**	**20 36 09.4**	**+0.4**
DION	**Dionisos Attik**	**1.96**	**278**	P	**Pn**	**20 36 10.0**	**+0.8**
DION				AML	AML		
DION	**Dionisos Attik**	**1.96**	**278**	P	**Pn**	**20 36 09.5**	**+0.3**
DION				AML	AML		
HARTU	**Esme**	**1.97**	**74**	P	**Pn**	**20 36 09.2**	**-0.1**
KYMI	**Kymi, Euboea I**	**1.98**	**295**	P	**Pn**	**20 36 09.0**	**-0.4**
KYMI				AML	AML		
PTL	**Penteli**	**2.01**	**277**	P	**Pn**	**20 36 10.8**	**+0.9**
PTL				AML	AML		
PTL	**Penteli**	**2.01**	**277**	P	**Pn**	**20 36 10.2**	**+0.3**
PTL				AML	AML		
TAVA	**DENIZLI_Tavas**	**2.03**	**99**	⇓P	**Pn**	**20 36 11.0**	**+0.8**
EFSA	**Agios Efstrati**	**2.04**	**328**	P	**Pn**	**20 36 09.6**	**-0.5**
EFSA				AML	AML		
VLY	**Voula,Athens**	**2.06**	**272**	P	**Pn**	**20 36 11.6**	**+1.1**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.06**	**272**	P	**Pn**	**20 36 10.8**	**+0.3**
ATHU	**Athens Univers**	**2.07**	**275**	P	**Pn**	**20 36 11.5**	**+0.8**
ATHU				AML	AML		
ATH5	**Athens Univers**	**2.07**	**275**	P	**Pn**	**20 36 10.9**	**+0.2**
ATH5	**Athens Parliam**	**2.11**	**275**	P	**Pn**	**20 36 11.1**	**0.0**
ATH5				AML	AML		
ARG	**Arkhangelos**	**2.12**	**139**	P	**Pn**	**20 36 12.3**	**+0.9**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.12**	**139**		**Pn**	**20 36 11.4**	**+0.1**
ARG	**Arkhangelos**	**2.12**	**139**	P	**Pn**	**20 36 11.1**	**-0.3**
ARG	**Arkhangelos**	**2.12**	**139**	P	**Pn**	**20 36 11.3**	**0.0**
ARG				AML	AML		
ATH	**Athens Observa**	**2.12**	**275**	P	**Pn**	**20 36 12.5**	**+1.1**
ATH				AML	AML		
BALB	**Balikesir**	**2.15**	**32**	Pn	Pn	20 36 07.0	-4.8
BALB				Sn	**Sn**	**20 36 38.9**	**+0.5**
STFN	**Stefani**	**2.28**	**280**	P	**Pn**	**20 36 14.8**	**+1.2**
STFN				AML	AML		
STFN	**Stefani**	**2.28**	**280**	P	**Pn**	**20 36 13.7**	**+0.2**
STFN				AML	AML		
KARP	**Karpathos**	**2.35**	**165**	P	**Pn**	**20 36 15.2**	**+0.6**
KARP				AML	AML		
KARP	**Karpathos**	**2.35**	**165**		**Pn**	**20 36 15.0**	**+0.4**
KARP	**Karpathos**	**2.35**	**165**	P	**Pn**	**20 36 15.5**	**+0.9**
KARP	**Karpathos**	**2.35**	**165**	P	**Pn**	**20 36 14.7**	**+0.1**
KARP				AML	AML		
MET4	**Agioi Theodoro**	**2.38**	**266**	P	**Pn**	**20 36 15.2**	**+0.3**
AOS	**Alonnisos**	**2.39**	**305**	P	**Pn**	**20 36 16.1**	**+1.1**
AOS				AML	AML		
AOS2	**Alonissos-2**	**2.40**	**304**	P	**Pn**	**20 36 15.1**	**-0.1**
AOS2				AML	AML		
MET5	**Makryloggos,Me**	**2.42**	**266**	P	**Pn**	**20 36 15.3**	**-0.1**
MET6	**Megalochori,Me**	**2.42**	**265**	P	**Pn**	**20 36 15.5**	**0.0**
MET2	**Kameni Chora,**	**2.44**	**266**	P	**Pn**	**20 36 16.2**	**+0.4**
VILL	**Villia**	**2.46**	**279**	P	**Pn**	**20 36 17.4**	**+1.3**
VIL2	**Platees**	**2.50**	**280**	P	**Pn**	**20 36 16.2**	**-0.4**
VIL2				AML	AML		
MET3	**Ano Fanari,Met**	**2.52**	**265**	P	**Pn**	**20 36 17.5**	**+0.5**
NPS	**Neapolis**	**2.63**	**194**	P	**Pn**	**20 36 17.5**	**-0.9**
NPS				AML	AML		
ZKR	**Zakros**	**2.71**	**183**	P	**Pb**	**20 36 23.9**	**-0.6**
ZKR	**Zakros**	**2.71**	**183**	P	**Pn**	**20 36 19.8**	**+0.4**
ZKR				AML	AML		
LOUT	**Loutraki**	**2.71**	**274**	P	**Pn**	**20 36 19.9**	**+0.4**
LOUT				AML	AML		
LTK	**Loutraki**	**2.72**	**275**	P	**Pn**	**20 36 19.2**	**-0.4**
LTK				AML	AML		
ACOR	**Acrocorinthos**	**2.79**	**272**	P	**Pn**	**20 36 20.5**	**-0.1**
ACOR				AML	AML		
ATAL	**Atalanti**	**2.79**	**289**	P	**Pn**	**20 36 20.3**	**-0.4**
LKR	**Lokris**	**2.80**	**288**	P	**Pn**	**20 36 19.8**	**-0.8**
IDI	**Anoyia**	**2.81**	**206**	Pn	**Pn**	**20 36 22.3**	**+1.4**
	18nm,0.3s,baz=66,slow=3.0,SNR=26						
IDI				Pg	**Pg**	**20 36 29.0**	**-0.9**
	12nm,0.3s,baz=14,slow=11,SNR=15						
IDI				Sn	**Sb**	**20 36 57.8**	**-2.8**
	22nm,0.3s,baz=288,slow=20,SNR=5.5						
IDI				Lg	Lg	20 37 08.0	
	25nm,0.3s,baz=313,slow=18,SNR=6.9						
IDI	**Anoyia**	**2.81**	**206**		**Pn**	**20 36 22.0**	**+1.2**
IDI	**Anoyia**	**2.81**	**206**	P	**Pn**	**20 36 20.8**	**0.0**
BAND	**Balkesir-Ban**	**2.85**	**27**	⇓P	**Pb**	**20 36 28.7**	**+1.8**
BAND				⇑S	**Sg**	**20 37 07.2**	**-0.6**
CAVK	**Edirne/Enez-Ca**	**2.87**	**357**	⇑P	**Pb**	**20 36 24.5**	**-2.7**
CAVK				⇑S	**Sg**	**20 37 08.2**	**-0.1**
NEO	**Neokhori**	**2.89**	**

comp=Z,30nm,0.9s
TIRR Tirgusor 6.80 12 Pn **Pn 20 37 13.3 -2.3**
BOVS Bovan 6.81 330 ⇑P **Pn 20 37 17.2 +1.5**
PDG Podgorica 7.15 312 Pn 20 37 20.4 +0.1
PDG Podgorica 7.15 312 ⇓P **Pn 20 37 23.3 +2.9**
TPGR Topolog 7.19 12 ⇑P Pn 20 37 29.8 +8.8
ISR Istrita 7.29 1 ⇑P Pn 20 37 27.5 +5.1
CY604 RAF Akrotiri, 7.43 115 Pn **Pn 20 37 24.0 -0.1**
CFR Carcaliu 7.46 10 ⇑P Pn 20 37 33.5 +8.8
HERR Herculane 7.66 338 ⇑P **Pn 20 37 26.6 -0.8**
MLR Muntele Rosu 7.67 358 Pn **Pn 20 37 29.6 +2.0**
comp=Z,0.5nm,0.3s,baz=297,slow=3.4,SNR=4.8
MLR Sn **Sn 20 38 57.4 +3.0**
baz=247,slow=4.9
MLR Lg Lg 20 39 38.5
comp=Z,0.5nm,0.3s,baz=85,slow=20,SNR=3.1
comp=Z,3.7nm,0.7s
MLR AML AML
MLR Muntele Rosu 7.67 358 Pn 20 37 27.3 -0.4
MLR Muntele Rosu 7.67 358 ⇓P **Pn 20 37 30.4 +2.7**
MLR Muntele Rosu 7.67 358 P **Pn 20 37 32.3 +4.6**
comp=Z,24nm,0.9s
VOIR 7.67 353 ⇓P **Pn 20 37 28.8 +1.1**
VOIR 7.67 353 P Pn 20 37 33.2 +5.5
comp=Z,9.4nm,1.2s
TIP Timpagrande 7.68 283 Pn 20 37 28.8 +1.0
TIP Timpagrande 7.68 283 P **Pn 20 37 31.0 +3.2**
comp=Z,18nm,0.7s
MDVR Moldovita 7.79 335 ⇑P **Pn 20 37 30.7 +1.4**
LOT Lotru 7.87 346 ⇓P **Pn 20 37 32.9 +2.5**
LOT Lotru 7.87 346 P **Pn 20 37 33.7 +3.3**
comp=Z,12nm,3.0s
SAHR Sahastru 7.90 1 ⇑P **Pn 20 37 29.1 -1.6**
COVR Voineasa-Covas 8.02 359 ⇑P **Pn 20 37 34.0 +1.7**
PLOR Plostina 8.02 1 ⇓P **Pn 20 37 32.0 -0.5**
MATE Matera 8.03 294 ⇑P Pn 20 37 38.2 +5.7
GZR Gura Zlata 8.03 341 ⇑P **Pn 20 37 32.5 -0.1**
VRI Vrincioaia 8.04 2 ⇑P **Pn 20 37 32.9 +0.2**
VRI Vrincioaia 8.04 2 P Pn 20 37 37.9 +5.3
comp=Z,18nm,0.5s
TURR Turia 8.23 358 ⇓P **Pn 20 37 38.8 +3.5**
TOKA Tokat 8.23 69 Pn **Pn 20 37 31.9 -3.5**
CEL Celeste 8.30 276 Pn **Pn 20 37 35.0 -1.3**
ONER Baraj Valea Uz 8.51 360 ⇑P **Pn 20 37 38.8 -0.2**
CUC Castrocucco 8.53 288 Pn 20 37 39.0 -0.4
CUC Castrocucco 8.53 288 P Pn 20 37 44.6 +5.2
comp=Z,9.9nm,1.0s
SURR Surduc 8.54 339 ⇓P **Pn 20 37 38.5 -1.0**
BZS Buzias 8.56 337 ⇓P **Pn 20 37 39.7 -0.1**
BZS Buzias 8.56 337 P **Pn 20 37 40.5 +0.6**
comp=Z,6.9nm,1.3s
ACER Acerenza 8.62 293 Pn 20 37 40.6 -0.1
TESR Tescani 8.68 1 ⇑P **Pn 20 37 41.7 +0.2**
MMAI Mount Meron Ar 8.78 120 Pn **Pn 20 37 42.2 -0.7**
comp=Z,1.0nm,0.3s,baz=325,slow=16,SNR=11
MMAI Sn **Sn 20 39 17.5 -4.3**
comp=Z,6.7nm,0.3s,baz=336,slow=30,SNR=15
SIRR Siria 9.14 339 ⇓P **Pn 20 37 48.0 +0.3**
DRGR 9.37 344 ⇓P Pn 20 38 01.3 +10
BALJ Balqa 9.50 124 Pn **Pn 20 37 51.3 -1.5**
VAE Valguarnera 9.51 272 Pn **Pn 20 37 57.5 +4.6**
comp=Z,3.8nm,0.8s,baz=143,slow=12,SNR=3.0
RAFF Raffo Rosso 9.58 270 Pn Pn 20 37 53.8 0.0
PAOL Paolisi 9.70 293 Pn **Pn 20 37 54.2 -1.2**
BLY Banja Luka 9.79 318 Pn 20 37 55.3 -1.3
BLY Banja Luka 9.79 318 P **Pn 20 38 00.2 +3.6**
comp=Z,19nm,1.0s
BURAR Bucovina Array 9.82 355 Pn Pn 20 37 55.7 -1.5
BUR08 Bucovina Ar. S 9.85 355 Pn 20 37 55.8 -1.8
GHAJ Ghor Haditha 9.97 128 Pn **Pn 20 37 57.5 -1.6**
MORH Mrgy, Hungar 10.17 328 P Pn 20 38 07.5 +5.7
comp=Z,5.1nm,1.3s
ASF Jabal al Asfar 10.26 120 Pn **Pn 20 38 01.1 -2.5**
comp=Z,0.2nm,0.3s,baz=127,slow=16,SNR=1.4
ASF Sn **Sn 20 39 52.7 -6.3**
comp=Z,0.2nm,0.3s,baz=22,slow=15,SNR=1.6
comp=Z,0.6nm,0.3s
ASF AML AML
INTR Introdacqua 10.46 297 Pn 20 38 05.1 -0.8
EIL Elat 10.80 136 Pn **Pn 20 38 09.6 -1.1**
comp=Z,0.8nm,0.3s,baz=311,slow=1.8,SNR=7.7
EIL Sn Sn 20 40 02.0 -9.4
comp=Z,1.0nm,0.3s,baz=121,slow=18,SNR=4.3
comp=Z,1.8nm,0.4s
EIL AML AML
NRCA Norcia 11.30 300 Pn Pn 20 38 15.2 -2.2
FDMO Fiordimonte 11.40 301 Pn 20 38 18.4 -0.3
RONA Rosalia, Austr 12.34 326 *e*Pn Pn 20 38 37.3 +5.8
comp=Z,5.6nm,1.1s
ARSA Arzberg 12.36 323 *i* Pn **Pn 20 38 36.4 +4.6**
comp=Z,8.9nm,1.9s
CONA Conrad Observa 12.70 326 *e*Pn P 20 38 42.5 -5.3
comp=Z,9.1nm,2.5s
SESA Seetaler Alpe, 12.73 321 *i* Pn **Pn 20 38 39.3 +2.3**
comp=Z,3.1nm,1.1s
KBA Koelnbreinsper 13.34 318 *e*Pn **Pn 20 38 49.0 +3.6**
comp=Z,11nm,1.0s
KRUC Moravsky 13.36 330 *e*PN **P 20 38 57.1 +2.0**
KRUC Moravsky 13.36 330 P **Pn 20 38 49.7 +4.3**
comp=Z,14nm,1.2s
MOA Molln 13.38 322 *e*Pn Pn 20 38 50.6 +4.8
comp=Z,6.3nm,1.6s
ABNA Allensteig Bun 13.45 327 *i* Pn **Pn 20 38 49.8 +3.1**
comp=Z,9.1nm,1.5s
VRAC Vranov 13.48 331 Pn **P 20 38 52.2 -4.2**
comp=Z,0.3nm,0.3s,baz=124,slow=4.1,SNR=4.0
comp=Z,1.3nm,0.6s
VRAC AML AML
VRAC Vranov 13.48 331 *e*PN **P 20 38 58.2 +1.8**
BIOA Bad Ischl, Aus 13.59 321 *e*Pn **P 20 38 53.3 -4.3**
comp=Z,5.9nm,1.5s
ABTA Abfaltersbach 13.59 315 *e*Pn **P 20 38 54.5 -3.2**
comp=Z,6.1nm,1.3s
KBZ Khabaz 13.82 60 Pn **Pn 20 38 53.2 +1.5**
comp=Z,0.1nm,0.3s,baz=242,slow=10,SNR=6.7
comp=Z,1.3nm,1.0s
KBZ AML AML
KEST Kesra 13.83 266 Pn **P 20 38 57.1 -3.3**
comp=Z,0.1nm,0.3s,baz=86,slow=19,SNR=1.3
comp=Z,0.9nm,0.6s
KEST AML AML
LESA Schwarzleotal 13.91 318 *i* Pn **P 20 38 59.0 -2.3**
comp=Z,3.7nm,0.9s
CKRC Cesky Krumlov 14.06 325 *e*P P 20 39 08.0 +5.2
GEC2 GERESS Array S 14.35 324 P 20 39 03.4 -2.8
GEC2 GERESS Array S 14.35 324 P **P 20 39 04.3 -1.8**
comp=Z,10nm,2.6s
GERES GERESS Array B 14.35 324 Pn **P 20 39 03.9 -2.3**
baz=143,slow=11,SNR=7.1
comp=Z,0.3nm,0.5s
WTTA Wattenberg 14.38 316 *e*P **P 20 39 04.7 -1.8**
comp=Z,5.7nm,1.1s
WATA Walderalm 14.45 316 *e*P **P 20 39 06.1 -1.2**
comp=Z,20nm,1.2s
ZVC Zvikov 14.57 327 *e*P P 20 39 13.9 +5.5
SQTA Sankt Quirin 14.59 315 *i* pP **P 20 39 11.7 +2.8**
comp=Z,6.5nm,0.7s
KHC Kasperske Hory 14.61 325 P 20 39 05.9 -3.1
KHC Kasperske Hory 14.61 325 *e*P **P 20 39 11.3 +2.3**
MOTA Moosalm 14.72 315 *i* P **P 20 39 09.9 -0.4**
comp=Z,5.0nm,0.7s
FETA Feichten 14.75 313 *e*P **P 20 39 11.2 +0.5**
comp=Z,20nm,1.1s
FUORN Ofenpass-Fuorn 14.81 311 Pn 20 39 08.5 +2.9
WET Wettzell 14.95 323 *e*P **P 20 39 15.0 +2.3**
baz=132,slow=11
RETA Reutte 14.99 315 *i* P **P 20 39 13.8 +0.6**
comp=Z,7.6nm,0.8s
DAVOX Davos/Dischmat 15.12 312 Pn **Pn 20 39 12.1 +2.5**
comp=Z,0.1nm,0.3s,baz=154,slow=19,SNR=2.4
comp=Z,1.3nm,0.8s
DAVOX AML AML
DAVA Damuels 15.38 313 *e*pP **P 20 39 20.0 +2.3**
comp=Z,13nm,0.9s
UBR Ueberruh 15.47 315 *e*P **P 20 39 20.4 +1.9**
baz=132,slow=11
UBR Ueberruh 15.47 315 P **P 20 39 20.5 +1.9**
comp=Z,38nm,1.0s
BRG Berggiesshubel 15.77 330 *e*P **P 20 39 26.5 +4.8**
baz=132,slow=11
BRG Berggiesshubel 15.77 330 *e*P **P 20 39 25.0 +3.3**
BRG Amp 20 39 29.4
comp=Z,13nm,1.1s
HSKC Hora Svate Kat 15.77 328 P **P 20 39 23.9 +2.1**
comp=Z,13nm,1.6s
GRB4 Grafenberg Arr 15.80 322 P **P 20 39 24.6 +2.4**
comp=Z,23nm,1.1s
TANN Tannenbergstha 16.04 326 *e*P **P 20 39 30.7 +5.9**
baz=132,slow=11
GRA1 Grafenberg Arr 16.11 322 Pn 20 39 23.5 +1.2
GRA1 IAmb IAmb 20 39 32.4
comp=Z,24nm,1.3s
GRF Grafenberg Arr 16.11 322 *e*P **P 20 39 31.8 +6.2**
comp=Z,26nm,1.3s,baz=132,slow=11
PLN Plauen 16.23 326 *e*P **P 20 39 29.5 +2.7**
baz=132,slow=11
SLE Schleitheim 16.44 313 P **P 20 39 32.2 +3.0**
comp=Z,7.3nm,1.3s
CLL Collm 16.48 329 Pn 20 39 28.0 +1.0
CLL IAmb IAmb 20 39 36.5
comp=Z,13nm,1.2s
CLL Collm 16.48 329 *e*P **P 20 39 35.7 +6.1**
comp=Z,12nm,1.1s,baz=132,slow=11
CLL Collm 16.48 329 P **Pn 20 39 25.7 -1.2**
comp=Z,8.3nm,1.0s
CLL Collm 16.48 329 *i* PP **P 20 39 35.0 +5.4**
comp=Z,19nm,1.4s
CLL *es*PPP 20 39 47.0
MOX Moxa 16.58 325 *e*P **P 20 39 37.4 +6.6**
comp=Z,19nm,1.4s,baz=132,slow=11
MOX Moxa 16.58 325 P **Pn 20 39 28.3 -0.1**
comp=Z,11nm,1.8s
TNS Taunus Mts 17.84 320 *e*P **P 20 39 51.4 +6.6**
comp=Z,29nm,1.3s,baz=132,slow=11
OBN Obninsk 18.62 19 LR LR 20 47 26.1
comp=Z,182nm,19.2s,baz=182,slow=38
FIA1 FINESS Array S 23.64 360 P **P 20 40 45.1 -1.8**
FINES FINESS Array B 23.64 360 P **P 20 40 47.5 +0.6**
comp=Z,2.9nm,0.8s,baz=186,slow=11,SNR=4.0
comp=Z,2.9nm,0.8s
FINES FINESS Array B 23.64 360 P **P 20 40 45.5 -1.4**
ESDC Sonseca Array 23.70 284 P **P 20 40 49.3 +1.5**
comp=Z,1.4nm,0.9s,baz=74,slow=9.6,SNR=7.2
comp=Z,1.4nm,0.9s
ESDC Sonseca Array 23.70 284 P 20 40 48.1 +0.4
ESDC IAmb IAmb 20 40 56.4
comp=Z,4.8nm,1.1s
NB201 NORSAR Array S 25.11 343 P P 20 40 58.3 -2.2
NOA NORSAR Array B 25.12 343 P **P 20 41 01.8 +1.2**
comp=Z,3.5nm,1.0s,baz=156,slow=11,SNR=3.6
NOA LR LR 20 52 15.0
comp=Z,60nm,18.2s,baz=140,slow=40
comp=Z,3.5nm,1.0s
AKTO Aktyubinsk 25.75 51 P P 20 41 07.8 +1.4
comp=Z,0.9nm,0.4s,baz=251,slow=10,SNR=2.5
comp=Z,0.9nm,0.4s
EKA Eskdalemuir Ar 26.52 321 P P 20 41 16.5 +3.2
comp=Z,0.9nm,0.8s,baz=119,slow=9.2,SNR=1.1
comp=Z,0.9nm,0.8s
ARTI Arti 28.23 39 P **P 20 41 27.8 -0.8**
comp=Z,3.4nm,0.7s,baz=254,slow=1.9,SNR=6.5
comp=Z,3.4nm,0.7s
ARTI Arti 28.23 39 IAmb IAmb 20 41 29.5
comp=Z,4.8nm,0.7s
ARCES ARCESS Array B 31.77 359 P **P 20 41 60.0 +0.1**
comp=Z,10nm,1.1s,baz=172,slow=7.3,SNR=3.8
comp=Z,10nm,1.1s
ARCES ARCESS Array B 31.77 359 IAmb IAmb 20 42 04.9
comp=Z,49nm,1.5s
TORD Torodi Ar. Bea 32.98 228 P **P 20 42 13.0 +2.1**
comp=Z,2.1nm,0.4s,baz=38,slow=8.5,SNR=6.8
comp=Z,2.1nm,0.4s
TORD Torodi Ar. Bea 32.98 228 P **P 20 42 12.1 +1.1**
TORD IAmb IAmb 20 42 14.3
comp=Z,2.0nm,0.9s
KURBB Kurchatov Arra 38.71 54 P **P 20 43 00.8 +1.1**
comp=Z,2.0nm,0.5s,baz=280,slow=8.6,SNR=16
comp=Z,2.0nm,0.5s
KURK Kurchatov 38.76 53 P **P 20 43 00.2 +0.1**
MAKZ Makanchi 41.30 59 P **P 20 43 20.2 -1.2**
MKAR Makanchi Array 41.52 59 P **P 20 43 24.1 +1.0**
comp=Z,2.6nm,0.7s,baz=277,slow=7.2,SNR=22
comp=Z,2.6nm,0.7s
MKAR Makanchi Array 41.52 59 P **P 20 43 22.3 -0.8**
DBIC Dimbokro 42.02 230 P **P 20 43 29.0 +1.6**
comp=Z,2.0nm,0.4s,baz=37,slow=10,SNR=4.7
comp=Z,2.0nm,0.4s
DBIC Dimbokro 42.02 230 P **P 20 43 26.6 -0.9**
ZAA0 Zalesovo Array 42.47 48 P **P 20 43 29.8 -0.9**
ZAA0 IAmb IAmb 20 43 32.0
comp=Z,3.5nm,1.1s
ZALV Zalesovo Beam 42.47 48 P **P 20 43 31.3 +0.6**
comp=Z,1.2nm,0.5s,baz=270,slow=9.3,SNR=7.6
comp=Z,1.2nm,0.5s
ZALV Zalesovo Beam 42.47 48 P **P 20 43 29.7 -1.0**
WMQ Urumqi 45.84 62 *e*P **P 20 43 59.4 +1.4**
WMQ LR LR
comp=Z,100nm,22.7s
SONM Songino Array 57.05 52 P **P 20 45 22.7 +0.7**
comp=Z,0.6nm,0.7s,baz=284,slow=8.6,SNR=3.9
comp=Z,0.6nm,0.7s
SONM Songino Array 57.05 52 P **P 20 45 22.1 +0.2**
SONM IAmb IAmb 20 45 23.8
comp=Z,1.9nm,1.3s
TIXI Tiksi 58.33 21 LR LR 21 14 28.4
comp=Z,71nm,18.7s,baz=6.0,slow=40
HHC Hu-ho-hao-te 63.35 58 *e*P **P 20 46 03.7 -1.6**
HHC pmax pmax
comp=Z,12nm,0.7s
CMAR Chiang Mai Arr 65.32 85 P **P 20 46 19.0 +0.7**
comp=Z,0.7nm,0.3s,baz=304,slow=7.3,SNR=8.0
comp=Z,0.7nm,0.3s
CMAR Chiang Mai Arr 65.32 85 P **P 20 46 18.7 +0.4**
ILAR Eielson Array 77.60 357 P **P 20 47 33.5 +1.9**
comp=Z,0.4nm,0.6s,baz=9.6,slow=6.6,SNR=2.3
comp=Z,0.4nm,0.6s
ILAR Eielson Array 77.60 357 P **P 20 47 32.4 +0.7**

AFAD ***03*** *20:35:37.7, 40˚.31N×27˚.10E, h7km±3km, ML2.6*
ISK ***03*** *20:35:37.5, 40˚.33N×27˚.11E, h15km, ML3.0/32*
ISC 03 20:35:37.7±0.8**, 40˚32N**±0˚.02×**27˚.10E**±0˚.02**, h16**km±5km**, n54**, σ0**s47/67, Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BIGA	**Biga-Canakkale**	**0.05**	**137**	Pg	**Pg**	**20 35 40.6**	**-0.1**
BIGA				Sg	**Sg**	**20 35 42.7**	**0.0**
KRBG	**Karabiga-Canak**	**0.17**	**64**	Pg	**Pg**	**20 35 41.8**	**-0.2**
KRBG				Sg	**Sg**	**20 35 44.9**	**+0.1**
KRBG				AML	AML		
LAPS	**Lapseki, ANA**	**0.21**	**252**	P	**Pg**	**20 35 42.7**	**0.0**
LAPS				S	**Sg**	**20 35 45.3**	**-0.8**
LAPS				IAML		20 35 46.0	
	comp=N,1μm,0.2s						
LPK	**Lapseki**	**0.27**	**281**	Pg	**Pb**	**20 35 43.8**	**-0.3**
LPK				Sg	**Sb**	**20 35 48.2**	**-0.2**
LPK				AML	AML		
CANM	**Can-anakkale**	**0.31**	**187**	Pg	**Pb**	**20 35 44.6**	**-0.3**
CANM				Sg	**Sb**	**20 35 49.7**	**0.0**
CANM				AML	AML		
RKY	**Sarkoy-Tekirda**	**0.37**	**9**	Pg	**Pg**	**20 35 45.4**	**0.0**
RKY				Sg	**Sg**	**20 35 50.9**	**+0.2**
RKY				AML	AML		
YENI	**Yenice-Canakka**	**0.40**	**164**	Pg	**Pb**	**20 35 46.1**	**-0.2**
YENI				Sg	**Sb**	**20 35 52.4**	**+0.2**
ATIT	**Gnen**	**0.42**	**124**	P	**Pb**	**20 35 46.5**	**-0.3**
ATIT				S	**Sg**	**20 35 51.8**	**-0.3**
ATIT				IAML		20 35 53.0	
	comp=E,428nm,0.4s						
MADA	**Marmara adas**	**0.44**	**52**	P	**Pg**	**20 35 46.3**	**-0.2**
GAZK	**Gazikoy-TEKIRD**	**0.46**	**22**	Pg	**Pg**	**20 35 47.0**	**0.0**
GAZK				Sg	**Sb**	**20 35 53.9**	**-0.1**
GAZK				AML	AML		
MRMT	**Marmara Adasi**	**0.47**	**53**	Pg	**Pg**	**20 35 46.8**	**-0.4**
MRMT				Sg	**Sg**	**20 35 53.6**	**0.0**
MRMT				AML	AML		
GELI	**Tayfur-Gelibol**	**0.49**	**279**	Pg	**Pg**	**20 35 47.6**	**+0.1**
GELI				AML	AML		
GOKT	**Kean, EDRN**	**0.50**	**313**	P	**Pb**	**20 35 48.0**	**-0.1**
GOKT				S	**Sg**	**20 35 53.2**	**-1.2**
GONE	**Gonen-Balikesi**	**0.52**	**121**	Pg	**Pb**	**20 35 48.4**	**-0.1**
GONE				AML	AML		
COMU	**Canakkale**	**0.53**	**246**	Pg	**Pg**	**20 35 48.4**	**+0.1**
COMU				AML	AML		
ERIK	**Erikli-Kesan**	**0.57**	**308**	Pg	**Pg**	**20 35 49.1**	**+0.1**
ERIK				AML	AML		
EDC	**Edincik**	**0.58**	**87**	Pg	**Pg**	**20 35 49.0**	**-0.2**
EDC				AML	AML		
KESN	**Edirne-Kesan**	**0.60**	**328**	P	**Pg**	**20 35 49.4**	**-0.3**
KESN				S	**Sg**	**20 35 56.2**	**-1.5**
CNKL	**anakkale-Mer**	**0.60**	**245**	P	**Pg**	**20 35 49.5**	**-0.1**
CNKL				S	**Sg**	**20 35 56.5**	**-1.1**
BALY	**Balya**	**0.70**	**145**	P	**Pb**	**20 35 51.6**	**+0.1**
BALY	**Balya**	**0.70**	**145**	P	**Pb**	**20 35 51.7**	**+0.1**
YAYO	**Edremit-Balk**	**0.71**	**182**	Pg	**Pb**	**20 35 51.9**	**+0.3**
YAYO				AML	AML		
BAYC	**CANAKKALE_Bayr**	**0.72**	**217**	P	**Pg**	**20 35 51.6**	**-0.1**
BAYC	**CANAKKALE_Bayr**	**0.72**	**217**	P	**Pb**	**20 35 51.9**	**+0.1**
CMHT	**Manyas**	**0.73**	**115**	P	**Pb**	**20 35 52.1**	**0.0**
TKR	**Tekirdag**	**0.75**	**26**	Pg	**Pg**	**20 35 52.3**	**0.0**
TKR				AML	AML		
ECEA	**Canakkale, Ece**	**0.76**	**249**	P	**Pg**	**20 35 52.2**	**-0.4**
ECEA	**Canakkale, Ece**	**0.76**	**249**	P	**Pb**	**20 35 52.7**	**+0.1**
EZN	**Ezine**	**0.77**	**231**	Pg	**Pg**	**20 35 52.7**	**-0.1**
EZN				AML	AML		
ENZZ	**Sultanice-Enez**	**0.79**	**292**	Pg	**Pb**	**20 35 53.5**	**+0.5**
ENZZ				AML	AML		
CAVK	**Edirne/Enez-Ca**	**0.80**	**298**	P	**Pg**	**20 35 53.2**	**-0.2**
BUHA	**Balikesir, Bur**	**0.82**	**181**	P	**Pn**	**20 35 55.3**	**+0.7**
SUSR	**Susurluk-Balik**	**0.83**	**115**	Pg	**Pb**	**20 35 54.1**	**+0.3**
SUSR				AML	AML		
ENEZ	**Enez**	**0.83**	**300**	Pg	**Pg**	**20 35 53.8**	**-0.2**
ENEZ				AML	AML		
UKOP	**Uzunkopru-Edir**	**0.88**	**336**	Pg	**Pb**	**20 35 54.9**	**+0.3**
UKOP				AML	AML		
BALB	**Balikesir**	**0.90**	**138**	Pg	**Pg**	**20 35 55.0**	**-0.3**
BALB				AML	AML		
GOAD	**anakkale-G¶**	**0.93**	**261**	P	**Pg**	**20 35 55.3**	**-0.4**
GADA	**Gvkgeada**	**0.93**	**262**	Pg	**Pb**	**20 35 56.1**	**+0.7**
GADA				AML	AML		
BOZC	**Bozcaada**	**0.94**	**240**	P	**Pg**	**20 35 55.6**	**-0.3**
BOZC	**Bozcaada**	**0.94**	**240**	P	**Pg**	**20 35 55.6**	**-0.3**
BOZC	**Bozcaada**	**0.94**	**240**	Pg	**Pg**	**20 35 55.7**	**-0.2**
BOZC				AML	AML		
CRLT	**Corlu**	**0.94**	**31**	Pg	**Pb**	**20 35 55.9**	**+0.3**
CRLT				AML	AML		
BOTS	**Marmara Eregli**	**0.95**	**45**	Pg	**Pb**	**20 35 56.0**	**+0.3**
BOTS				AML	AML		
KCTX	**Karacabey (Bur**	**0.96**	**93**	Pg	**Pg**	**20 35 55.3**	**-1.0**
KCTX				AML	AML		
ALN	**Alexandroupoli**	**0.99**	**306**	Pg	**Pb**	**20 35 56.9**	**+0.4**
ALN				AML	AML		
STEP	**BALIKESIR_Sava**	**1.05**	**153**	P	**Pn**	**20 35 59.2**	**+1.4**
KOCA	**Canakkale, Ayv**	**1.10**	**223**	P	**Pg**	**20 35 58.8**	**-0.3**
KOCA	**Canakkale, Ayv**	**1.10**	**223**	P	**Pn**	**20 35 59.2**	**+0.7**
SLVT	**Silivri**	**1.24**	**42**	Pn	**Pn**	**20 36 00.5**	**+0.2**
SLVT				AML	AML		
DKL	**Dikili**	**1.26**	**187**	Pn	**Pn**	**20 36 01.0**	**+0.5**
DKL				AML	AML		
SINB	**Sinanoba-Istan**	**1.29**	**58**	Pn	**Pn**	**20 36 01.3**	**+0.3**
SINB				AML	AML		
MDNY	**Mudanya-Bursa**	**1.36**	**87**	Pn	**Pn**	**20 36 02.5**	**+0.5**
MDNY				AML	AML		
ARMT	**Armutlu**	**1.36**	**79**	Pn	**Pn**	**20 36 02.0**	**-0.1**
ARMT				AML	AML		
DST	**Dursunbey**	**1.37**	**121**	Pn	**Pn**	**20 36 02.7**	**+0.6**
DST				AML	AML		

IDC ***03*** *20:37:17.8±1.6, 38˚.36N×142˚.81E, h0km, mb3.6/5, mbtmp3.6/6, ML2.4/1, Error ellipse: s-maj=28.3km s-min=24.7km az=106.0*
NIED ***03*** *20:37:22.7, 38˚.19N×142˚.35E, h20km, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-1.78; $M_{\theta\theta}$0.78; $M_{\phi\phi}$ 1.00; $M_{r\theta}$0.21; $M_{\theta\phi}$-1.97; $M_{\phi r}$-1.33; Fault plane solution: M_o2.78000×10^{14} NP1: ϕ_s108.00000°, δ40.00000°, λ-136.00000°. NP2: ϕ_s341.00000°, δ64.00000°, λ-59.00000°.*
JMA ***03*** *20:37:22.7±0.1, 38˚.2N±0˚.3×142˚.4E±0˚.3, h20km±1km, MV3.9/39, E OFF MIYAGI PREF*
ISC 03 20:37:21.5±1.4**, 38˚24N**±0˚.07×**142˚37E**±0˚.08**, h14**km**, n18, σ1**s**52/17, mb3.5/5, 6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JIKH	**Ishinomakikobu**	**0.72**	**276**	⇓*e*P	**Pg**	**20 37 35.8**	**+0.3**
JIKH				⇓*e*S	**Sg**	**20 37 45.2**	**+0.3**
JIO	**Ouri**	**0.83**	**285**	⇓*i*P	**Pb**	**20 37 37.7**	**0.0**
JIO				⇓*e*S	**Sb**	**20 37 49.2**	**+0.4**
JKMT	**Kesennumamotoy**	**0.90**	**309**	⇓*i*P	**Pb**	**20 37 39.1**	**+0.2**
JKMT				⇓*e*S	**Sb**	**20 37 51.1**	**+0.2**
OFUJ	**Ofunato**	**1.00**	**327**	*e*P	**Pb**	**20 37 40.4**	**-0.3**
OFUJ				*e*S	**Sb**	**20 37 53.4**	**-0.3**
JMK	**Ichinoseki**	**1.15**	**308**	*e*P	**Pn**	**20 37 42.7**	**-0.4**
JOFO	**Osakifurukawao**	**1.20**	**288**	*e*P	**Pn**	**20 37 44.0**	**+0.1**
MJAR	**Matsushiro Arr**	**3.72**	**244**	Pn	**Pn**	**20 38 22.0**	**+3.4**
	0.3nm,0.3s,baz=78,slow=16,SNR=13						
MJAR				Sn	**Sb**	**20 39 07.8**	**-4.3**
	0.3nm,0.3s,baz=284,slow=11,SNR=4.4						
	2.8nm,0.4s						
MJAR				AML	AML		
H11N2	**WAKE ISLAND Hy**	**28.15**	**124**	T	T	21 13 35.1	
	baz=316,slow=76,SNR=39						
H11N1	**WAKE ISLAND Hy**	**28.16**	**124**	T	T	21 13 36.2	
	baz=316,slow=76,SNR=40						
H11N3	**WAKE ISLAND Hy**	**28.17**	**124**	T	T	21 13 36.9	
	baz=316,slow=76,SNR=29						
H11S1	**WAKE ISLAND Hy**	**28.92**	**126**	T	T	21 14 32.1	
	baz=318,slow=76,SNR=17						
H11S3	**WAKE ISLAND Hy**	**28.92**	**126**	T	T	21 14 33.3	
	baz=318,slow=76,SNR=20						
H11S2	**WAKE ISLAND Hy**	**28.93**	**126**	T	T	21 14 36.0	
	baz=318,slow=76,SNR=14						
ZALV	**Zalesovo Beam**	**41.67**	**311**	P	**P**	**20 45 08.7**	**-0.7**
	0.6nm,0.6s,baz=89,slow=7.1,SNR=2.5						
	0.6nm,0.6s						
MKAR	**Makanchi Array**	**44.13**	**301**	P	**P**	**20 45 29.5**	**+0.1**
	0.3nm,0.7s,baz=86,slow=9.8,SNR=3.0						
	0.3nm,0.7s						
KURBB	**Kurchatov Arra**	**45.87**	**307**	P	**P**	**20 45 43.5**	**+0.4**
	1.5nm,0.2s,baz=81,slow=7.9,SNR=9.2						
	1.5nm,0.2s						
WRA	**Warramunga Arr**	**58.37**	**189**	P	**P**	**20 47 15.5**	**-0.9**
	0.4nm,0.8s,baz=4.5,slow=6.9,SNR=2.1						
	0.4nm,0.8s						
ASAR	**Alice Springs**	**62.09**	**189**	P	**P**	**20 47 41.7**	**-0.2**
	0.4nm,0.8s,baz=12,slow=6.1,SNR=4.1						
	0.4nm,0.8s						

IDC ***03*** *20:40:02.3±2.1, 4˚.35S×125˚.21E, h0km, mb3.0/2, mbtmp3.1/3, ML2.6/1, Error ellipse: s-maj=279.6km s-min=29.4km az=62.0*
DJA ***03*** *20:40:03.8±0.4, 6˚.3S×12˚.3E±˚, h10km, M3.3/8, MLv3.3/8*
ISC 03 20:40:02.6±1.4**, 6˚03S**±0˚.09×**122˚.7E**±0˚.1**, h10**km**, n8, σ0**s31/8, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BBSI	**Bau Bau**	**0.55**	**352**	P	**Pb**	**20 40 14.5**	**+0.2**
BBSI				S	**Sn**	**20 40 25.4**	**-0.3**
BBSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**2.10**	**332**	P	**Pn**	**20 40 37.6**	**-0.2**
KKSI				AML	AML		
BSSI	**Bau Bau, Buton**	**2.15**	**267**	P	**Pn**	**20 40 38.5**	**0.0**
BKSI	**Bulukumba**	**2.61**	**286**	P	**Pn**	**20 40 44.5**	**-0.4**
BKSI				AML	AML		
KAPI	**Kappang**	**3.06**	**289**	P	**Pn**	**20 40 51.0**	**0.0**
KAPI				AML	AML		
WRA	**Warramunga Arr**	**17.90**	**142**	P	**P**	**20 44 12.3**	**-0.2**
	baz=324,slow=13,SNR=2.2						
	0.3nm,0.8s						
ASAR	**Alice Springs**	**20.61**	**149**	P	Pn	20 44 47.5	+3.0
	0.4nm,0.7s,baz=335,slow=13,SNR=8.3						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	**63.59**	**330**	P	**P**	**20 50 34.0**	**+0.3**
	0.3nm,0.8s,baz=121,slow=7.0,SNR=1.9						
	0.3nm,0.8s						

JMA ***03*** *20:45:35.8±0.1, 24˚.N±2˚×

YOJ	**Yonaguni jima**	**0.27**	**78**	S	**Sn**	**20 45 51.2**	**-0.1**
YOJ	**Yonaguni jima**	**0.27**	**78**	*i* P	**Pn**	**20 45 45.1**	**0.0**
YOJ				*e*S	**Sn**	**20 45 51.5**	**+0.2**
YOJ	**Yonaguni jima**	**0.27**	**78**	P	**Pn**	**20 45 45.1**	**0.0**
YOJ				*e*S	**Sn**	**20 45 51.2**	**-0.1**
EOS3	**EOS3**	**0.38**	**252**	P	**Pn**	**20 45 46.0**	**0.0**
EOS3				S	**Sn**	**20 45 53.6**	**+0.7**
EOS2	**EOS2**	**0.44**	**272**	*i* P	**Pn**	**20 45 46.6**	**-0.2**
EOS2				*i* S	**Sn**	**20 45 54.7**	**+0.5**
EOS4	**EOS4**	**0.46**	**233**	*i* P	**Pn**	**20 45 46.9**	**+0.2**
EOS4				S	**Sn**	**20 45 54.8**	**+0.6**
ESAO	**Su ao**	**0.81**	**282**	*i* P	**Pn**	**20 45 50.9**	**-0.7**
ESAO				*e*S	**Sn**	**20 46 01.2**	**-1.5**
TWC	**Suao**	**0.82**	**285**	||P	**Pn**	**20 45 50.6**	**-1.0**
TWC				*i* S	**Sn**	**20 46 00.8**	**-1.9**
EGS		**0.84**	**302**	*e*P	**Pn**	**20 45 51.4**	**-0.5**
EWUT	**Wuta**	**0.86**	**273**	*e*P	**Pn**	**20 45 51.6**	**-0.5**
ENA	**Nanau**	**0.89**	**272**	*e*P	**Pn**	**20 45 52.1**	**-0.5**
ENA				S	**Sn**	**20 46 03.6**	**-0.9**
EAHA	**Aohua**	**0.90**	**265**	*e*P	**Pn**	**20 45 53.2**	**+0.6**
TWB1	**Santiao Chiao**	**0.90**	**312**	*e*P	**Pn**	**20 45 52.0**	**-0.7**
IRIF	**Iriomote-Funau**	**0.93**	**94**	P	**Pn**	**20 45 52.6**	**-0.4**
IRIF				*e*S	**Sn**	**20 46 05.1**	**-0.2**
NDS	**Dongshan**	**0.94**	**284**	*e*P	**Pn**	**20 45 52.6**	**-0.7**
NDS				*e*S	**Sn**	**20 46 04.6**	**-1.1**
ILA	**Ilan**	**0.95**	**292**	*e*P	**Pn**	**20 45 53.2**	**-0.2**
ILA				*e*S	**Sn**	**20 46 05.5**	**-0.5**
TIPB	**Shuangxi**	**0.99**	**305**	||*i* P	**Pn**	**20 45 53.4**	**-0.6**
TIPB				*i* S	**Sn**	**20 46 05.7**	**-1.3**
TWE	**Neicheng**	**1.01**	**288**	*e*P	**Pn**	**20 45 53.5**	**-0.6**
TWE				*e*S	**Sn**	**20 46 06.7**	**-0.6**
ETL	**Fush Village**	**1.03**	**257**	*e*P	**Pn**	**20 45 54.3**	**-0.2**
ETL				*e*S	**Sn**	**20 45 57.9**	**0.0**
ENTT	**Nioudou**	**1.08**	**283**	*e*P	**Pn**	**20 45 55.0**	**-0.1**
NWF	**Wu-fen Shan**	**1.08**	**308**	*e*P	**Pn**	**20 45 54.8**	**-0.4**
NWF				S	**Sn**	**20 46 08.6**	**-0.6**
WFSB	**Wu-fen Shan**	**1.08**	**308**	P	**Pn**	**20 45 54.9**	**-0.3**
WFSB				S	**Sn**	**20 46 08.5**	**-0.6**
FUSB	**Fushanzhiwuyua**	**1.09**	**289**	*i* P	**Pn**	**20 45 55.0**	**-0.3**
FUSB				S	**Sn**	**20 46 08.0**	**-1.4**
LATG	**Datong**	**1.09**	**277**	*e*P	**Pn**	**20 45 55.5**	**+0.1**
LATG				*e*S	**Sn**	**20 46 10.2**	**+0.7**
HWA	**Hwalien**	**1.10**	**248**	*e*P	**Pn**	**20 45 54.5**	**-0.9**
NDT	**Datong Townshi**	**1.12**	**280**	*e*P	**Pn**	**20 45 55.7**	**+0.1**
NDT				*e*S	**Sn**	**20 46 10.3**	**+0.3**
ETLH	**Xiulin Townshi**	**1.15**	**260**	*e*P	**Pn**	**20 45 55.9**	**-0.2**
ETLH				*e*S	**Sn**	**20 46 11.4**	**+0.7**
NWLT	**Wulai**	**1.17**	**289**	*e*P	**Pn**	**20 45 56.0**	**-0.4**
NWLT				*e*S	**Sn**	**20 46 10.6**	**-0.7**
TWA	**Mucha**	**1.18**	**299**	*e*P	**Pn**	**20 45 56.3**	**-0.2**
JKRS	**Kuro-shima**	**1.19**	**98**	*e*P	**Pn**	**20 45 56.8**	**+0.2**
JKRS				*e*S	**Sn**	**20 46 12.3**	**+0.7**
ETM	**Tongmen**	**1.20**	**249**	*e*P	**Pn**	**20 45 56.0**	**-0.7**
ETM				*e*S	**Sn**	**20 46 10.2**	**-1.8**
NNSB	**Datong**	**1.22**	**271**	*e*P	**Pn**	**20 45 57.3**	**+0.2**
NNSB				S	**Sn**	**20 46 12.8**	**+0.3**
NHDH	**Xindian Distri**	**1.22**	**297**	*e*P	**Pn**	**20 45 56.9**	**-0.1**
NHY	**Taipei**	**1.22**	**301**	*e*P	**Pn**	**20 45 57.1**	**+0.1**
NHY				*e*S	**Sn**	**20 46 10.7**	**-1.8**
SHUL	**Shoufeng**	**1.22**	**240**	*e*P	**Pn**	**20 45 57.5**	**+0.4**
SHUL				S	**Sn**	**20 46 11.6**	**-0.8**
NNS	**Nan Shan**	**1.23**	**272**	*e*P	**Pn**	**20 45 57.7**	**+0.5**
LXIB	**Xiulin Townshi**	**1.25**	**253**	P	**Pn**	**20 45 57.2**	**-0.4**
LXIB				*i* S	**Sn**	**20 46 12.8**	**-0.6**
YHNB	**Yeheng**	**1.25**	**282**	P	**Pn**	**20 45 57.7**	**+0.2**
YHNB	**Yeheng**	**1.25**	**282**	S	**Sn**	**20 46 14.3**	**+1.0**
YHNB	**Yeheng**	**1.25**	**282**	*e*P	**Pn**	**20 45 57.5**	**-0.1**
TATO	**Taipei**	**1.26**	**297**	P	**Pn**	**20 45 57.3**	**-0.2**
TATO	**Taipei**	**1.26**	**297**	S	**Sn**	**20 46 12.7**	**-0.6**
NSK	**Sanguang**	**1.27**	**283**	*e*P	**Pn**	**20 45 57.8**	**+0.1**
TAP	**Taipei**	**1.27**	**300**	*e*P	**Pn**	**20 45 57.6**	**-0.1**
YM01	**YM01**	**1.28**	**306**	P	**Pn**	**20 45 57.5**	**-0.4**
YM01				*e*S	**Sn**	**20 46 13.1**	**-0.9**
YM08	**YM08**	**1.29**	**308**	*e*P	**Pn**	**20 45 56.9**	**-1.1**
JIJ	**Ishigaki jima**	**1.30**	**91**	*e*P	**Pn**	**20 45 57.6**	**-0.5**
JIJ				*e*S	**Sn**	**20 46 13.7**	**-0.7**
ZUZH	**Zhuzihu**	**1.31**	**306**	P	**Pn**	**20 45 57.7**	**-0.5**
ESL	**Shilin**	**1.31**	**244**	*e*P	**Pn**	**20 45 57.7**	**-0.6**
ANP	**Anpu**	**1.34**	**306**	*e*P	**Pn**	**20 45 57.6**	**-1.2**
WHF	**Hehuan Shan**	**1.35**	**259**	*e*P	**Pn**	**20 45 58.8**	**-0.4**
FUSS	**Fushou**	**1.35**	**264**	*e*P	**Pn**	**20 45 59.7**	**+0.6**
TWS1	**Kuangyinshan**	**1.37**	**301**	*e*P	**Pn**	**20 45 59.0**	**-0.1**
NTST	**Danshui**	**1.38**	**304**	*e*P	**Pn**	**20 45 59.1**	**-0.1**
WARBT	**Fenglin Townsh**	**1.40**	**241**	P	**Pn**	**20 45 58.6**	**-0.9**
WARBT				S	**Sn**	**20 46 15.2**	**-1.6**
TWT	**Tachien**	**1.42**	**264**	*e*P	**Pn**	**20 46 01.0**	**+1.1**
TWT				*e*S	**Sn**	**20 46 18.0**	**+0.5**
TDCB	**Techi**	**1.43**	**264**	*e*P	**Pn**	**20 46 01.0**	**+0.9**
TDCB				*e*S	**Sn**	**20 46 18.0**	**+0.2**
KSHI	**Guanxi Townshi**	**1.45**	**285**	*e*P	**Pn**	**20 46 00.6**	**+0.4**
KSHI				*e*S	**Sn**	**20 46 20.3**	**+2.2**
JISG	**Ishigakijimahi**	**1.46**	**82**	P	**Pn**	**20 45 59.9**	**-0.4**
JISG				*e*S	**Sn**	**20 46 17.7**	**-0.6**
NFF	**Wufeng Townshi**	**1.48**	**279**	*i* P	**Pn**	**20 46 01.6**	**+1.1**
OWD	**Renai**	**1.48**	**253**	*e*P	**Pn**	**20 46 00.4**	**-0.3**
OWD				*e*S	**Sn**	**20 46 17.7**	**-1.2**
HGSD	**Ruisui**	**1.49**	**233**	*e*P	**Pn**	**20 45 59.8**	**-0.9**
HGSD				*e*S	**Sn**	**20 46 19.3**	**+0.2**
WUSB	**Renai**	**1.52**	**255**	*e*P	**Pn**	**20 46 01.4**	**+0.2**
WUSB				*e*S	**Sn**	**20 46 20.1**	**+0.2**
EHYH	**Wanrong**	**1.55**	**235**	*e*P	**Pn**	**20 46 01.3**	**-0.3**
EHYH				*i* S	**Sn**	**20 46 19.9**	**-0.6**
EHY	**Hungye**	**1.56**	**235**	*e*P	**Pn**	**20 46 01.3**	**-0.4**
LIOB	**Emei**	**1.57**	**279**	*e*P	**Pn**	**20 46 03.0**	**+1.2**
LIOB				*e*S	**Sn**	**20 46 23.4**	**+2.4**
VWDT	**VWDT**	**1.58**	**246**	*i* P	**Pn**	**20 46 02.0**	**+0.1**
VWDT				S	**Sn**	**20 46 19.8**	**-1.4**
NSTT	**Nanjuang**	**1.58**	**279**	*e*P	**Pn**	**20 46 03.1**	**+1.1**
NSTT				*e*S	**Sn**	**20 46 22.5**	**+1.2**
ECBN	**Changbin**	**1.59**	**227**	*e*S	**Sn**	**20 46 19.5**	**-1.8**
WHP	**Taichung City**	**1.62**	**266**	*e*P	**Pn**	**20 46 04.1**	**+1.6**
YULB	**Yu-li**	**1.65**	**233**	P	**Pn**	**20 46 02.0**	**-0.8**
YULB	**Yu-li**	**1.65**	**233**	*e*P	**Pn**	**20 46 02.1**	**-0.8**
YULB				*i* S	**Sn**	**20 46 20.8**	**-2.0**
EYUL	**Yuli**	**1.66**	**231**	*e*P	**Pn**	**20 46 02.7**	**-0.3**
EYUL				*e*S	**Sn**	**20 46 21.4**	**-1.7**
TWF1	**Yuli**	**1.67**	**231**	*e*P	**Pn**	**20 46 02.7**	**-0.5**
WCS	**Beigang Elemen**	**1.69**	**259**	*e*P	**Pn**	**20 46 04.2**	**+0.8**
WCS				*e*S	**Sn**	**20 46 25.4**	**+1.6**
SSLB	**Suanglung**	**1.73**	**250**	P	**Pn**	**20 46 03.8**	**-0.2**
SSLB	**Suanglung**	**1.73**	**250**	S	**Sn**	**20 46 23.5**	**-1.3**
SSLB	**Suanglung**	**1.73**	**250**	*e*P	**Pn**	**20 46 03.9**	**-0.1**
SMLT	**Sun Moon Lake**	**1.74**	**253**	*e*P	**Pn**	**20 46 05.3**	**+1.1**
TYC	**Yuchr**	**1.77**	**254**	*e*P	**Pn**	**20 46 05.0**	**+0.4**
FULB	**Fuli**	**1.77**	**228**	*e*P	**Pn**	**20 46 05.0**	**+0.4**
FULB				*e*S	**Sn**	**20 46 24.4**	**-1.6**
CHKT	**Chengkung**	**1.79**	**224**	*e*P	**Pn**	**20 46 03.8**	**-1.1**
JTJ	**Tarama**	**1.82**	**82**	*e*P	**Pn**	**20 46 05.6**	**+0.3**
JTJ				S	**Sn**	**20 46 28.3**	**+1.1**
WHYT	**Xinyi Township**	**1.84**	**248**	*e*P	**Pn**	**20 46 06.4**	**+0.8**
WHYT				*i* S	**Sn**	**20 46 28.5**	**+0.7**
YUS	**Yu-Shan**	**1.85**	**241**	*e*S	**Sn**	**20 46 28.7**	**0.0**
EHD	**Haiduan**	**1.87**	**228**	*e*P	**Pn**	**20 46 04.9**	**-0.9**
EDH	**Donghe**	**1.93**	**223**	*e*P	**Pn**	**20 46 05.6**	**-1.1**
EDH				S	**Sn**	**20 46 28.2**	**-1.5**
WNT	**Mingjian**	**1.93**	**255**	*e*P	**Pn**	**20 46 08.9**	**+2.1**
ALS	**Alishan**	**1.96**	**243**	P	**Pn**	**20 46 08.4**	**+1.0**
ALS				S	**Sn**	**20 46 31.1**	**+0.1**
ELDTW	**Lidau**	**1.97**	**233**	*e*P	**Pn**	**20 46 07.2**	**-0.2**
WDLH	**Douliu**	**2.12**	**251**	*e*P	**Pn**	**20 46 11.2**	**+1.9**
WDLH				*e*S	**Sn**	**20 46 36.6**	**+2.2**
WCKO	**Fanlu**	**2.16**	**244**	*e*P	**Pn**	**20 46 11.9**	**+2.1**
WCKO				S	**Sn**	**20 46 37.2**	**+1.7**
STYH	**Taoyuan**	**2.16**	**236**	*e*P	**Pn**	**20 46 10.5**	**+0.6**
STYH				S	**Sn**	**20 46 35.2**	**-0.2**
TWGBT	**Beinan**	**2.18**	**224**	P	**Pn**	**20 46 09.8**	**-0.3**
TWGBT	**Beinan**	**2.18**	**224**	*e*P	**Pn**	**20 46 09.9**	**-0.3**
TWGBT				S	**Sn**	**20 46 34.2**	**-1.7**
TWG	**Pinlang**	**2.18**	**224**	*e*P	**Pn**	**20 46 09.8**	**-0.4**
TWG				S	**Sn**	**20 46 34.3**	**-1.7**
TPUB	**Ta-pu**	**2.21**	**241**	P	**Pn**	**20 46 11.7**	**+1.2**
TPUB	**Ta-pu**	**2.21**	**241**	*e*P	**Pn**	**20 46 12.2**	**+1.7**
TPUB				S	**Sn**	**20 46 37.3**	**+0.6**
MASBT	**Mashibuluo**	**2.62**	**227**	P	**Pn**	**20 46 18.1**	**+2.0**
MASBT				S	**Sn**	**20 46 48.5**	**+1.8**

NAO ***03*** *21:05:56.7±0.8, 71°.49N×3°.71W, h10km, ML3.1*
IDC ***03*** *21:05:56.8±4.5, 71°.38N×3°.57W, h0km, mb3.5/1, mbtmp3.6/5, ML2.7/3, MS3.1/1, Error ellipse: s-maj=68.1km s-min=23.4km az=85.0*
BER ***03*** *21:05:57.8±2.6, 71°.53N×3°.71W, h10km, Mw4.3, ML3.1(NAO), Confirmed Earthquake*
DNK ***03*** *21:06:03.2±2.5, 71°.79N×5°.42W, h0km±60km, ML1.8, Presumed earthquake*
ISC 03 21:05:54.9±1.0, 71°.54N±0°.10×3°.99W±0°.08, h10km, n45, σ1s76/46, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DBG	**Daneborg**	**5.52**	**308**	Pn	**Pn**	**21 07 18.2**	**+1.3**
DBG				Sn	**Sn**	**21 08 16.1**	**-4.2**
DBG	**Daneborg**	**5.52**	**308**	*e*P	**Pn**	**21 07 18.1**	**+1.2**
DBG				*e*S	Sn	21 08 16.0	-4.3
DBG	**Daneborg**	**5.52**	**308**	*i* P	**Pn**	**21 07 18.5**	**+1.6**
DBG				*i* S	Sn	21 08 15.3	-5.0
DBG				IAML		21 08 37.5	
	comp=Z,3.7nm,0.9s						
SCO	**Scoresbysund**	**5.95**	**268**	*i* P	**Pn**	**21 07 25.6**	**+2.7**
DAG	**Danmarks Havn**	**6.59**	**329**	*e*P	**Pn**	**21 07 33.5**	**+1.9**
DAG				*e*		21 08 37.7	
DAG	**Danmarks Havn**	**6.59**	**329**	*i* P	**Pn**	**21 07 33.1**	**+1.5**
DAG				*i* S	Sn	21 08 39.4	-7.2
DAG				IAML		21 08 47.0	
	comp=Z,4.5nm,0.5s						
LOF	**Lofoten**	**6.94**	**111**	*e*P	**Pn**	**21 07 34.8**	**-1.7**
STEI	**Steigen**	**7.58**	**109**	*e*P	**Pn**	**21 07 44.3**	**-0.9**
VAGH	**Vaagaholmen**	**7.80**	**120**	*e*P	**Pn**	**21 07 46.1**	**-2.2**
TRO	**Tromso**	**7.85**	**93**	Pn	**Pn**	**21 07 47.2**	**-1.7**
TRO	**Tromso**	**7.85**	**93**	*e*P	**Pn**	**21 07 47.5**	**-1.4**
KONS	**Konsvik**	**7.93**	**121**	*e*P	**Pn**	**21 07 48.3**	**-1.7**
KONS				*e*S	Sn	21 09 09.5	-10
KONS				IAML		21 09 15.2	
	comp=Z,3.5nm,0.5s						
FAUS	**Fauske**	**7.93**	**112**	Pn	**Pn**	**21 07 48.4**	**-1.7**
FAUS	**Fauske**	**7.93**	**112**	*e*P	**Pn**	**21 07 48.4**	**-1.7**
FAUS				*e*S	Sn	21 09 10.1	-10
FAUS				IAML		21 09 13.6	
	comp=Z,2.7nm,0.7s						
STOK	**Stokkvaagen**	**8.03**	**122**	Pn	**Pn**	**21 07 50.7**	**-0.6**
STOK				Sn	Sn	21 09 11.6	-10
STOK	**Stokkvaagen**	**8.03**	**122**	*e*P	**Pn**	**21 07 49.9**	**-1.5**
STOK				IAML		21 09 14.6	
	comp=Z,4.4nm,0.8s						
LEIR	**Leirfjorden**	**8.22**	**123**	Pn	**Pn**	**21 07 52.9**	**-1.1**
LEIR				Sn	Sn	21 09 16.7	-10
LEIR	**Leirfjorden**	**8.22**	**123**	*e*P	**Pn**	**21 07 52.5**	**-1.5**
LEIR				*e*S	Sn	21 09 16.5	-10
LEIR				IAML		21 09 16.8	
	comp=Z,4.1nm,0.9s						
RAUS	**Rausandaksla**	**8.23**	**120**	*e*P	**Pn**	**21 07 52.9**	**-1.3**
JETT	**Jettan, Norway**	**8.35**	**92**	Pn	**Pn**	**21 07 54.5**	**-1.4**
JETT				Sn	Sn	21 09 21.7	-8.4
JETT	**Jettan, Norway**	**8.35**	**92**	Pn	**Pn**	**21 07 54.5**	**-1.4**
JETT				Sn	Sn	21 09 21.7	-8.4
SPA0	**Spitsbergen Ar**	**8.46**	**29**	Pn	**Pn**	**21 08 00.3**	**+3.0**
	baz=223,slow=16						
SPA0	**Spitsbergen Ar**	**8.46**	**29**	Pn	**Pn**	**21 08 00.3**	**+3.0**
SPITS	**Spitsbergen Ar**	**8.46**	**29**	Pn	**Pn**	**21 08 00.6**	**+3.3**
	comp=Z,1.5nm,0.3s,baz=218,slow=18,SNR=13						
SALU	**Saltoluokta**	**8.90**	**107**	*e*P	**Pn**	**21 08 01.8**	**-1.5**
KOVU	**Salmi**	**8.92**	**100**	*e*P	**Pn**	**21 08 04.1**	**+0.4**
NSS	**Namsos**	**9.20**	**132**	Pn	**Pn**	**21 08 07.0**	**-0.4**
NSS	**Namsos**	**9.20**	**132**	*e*P	**Pn**	**21 08 06.5**	**-0.9**
KTK1	**Kautokeino**	**9.50**	**92**	*e*P	**Pn**	**21 08 10.8**	**-0.7**
LANU	**Lannavaara**	**9.60**	**99**	*e*P	**Pn**	**21 08 11.4**	**-1.5**
HEF	**Hetta**	**9.93**	**95**	*e*P	**Pn**	**21 08 16.9**	**-0.5**
ARA0	**ARCESS Array S**	**9.98**	**87**	Pn	**Pn**	**21 08 16.1**	**-2.0**
	baz=288,slow=11						
ARA0	**ARCESS Array S**	**9.98**	**87**	Pn	**Pn**	**21 08 16.1**	**-2.0**
ARCES	**ARCESS Array B**	**9.98**	**87**	Pn	**Pn**	**21 08 16.0**	**-2.2**
	comp=Z,0.1nm,0.3s,baz=299,slow=13,SNR=9.3						
	comp=Z,3.2nm,0.8s						
ARCES				AML	AML		
MOL	**Molde**	**10.04**	**148**	P	**Pn**	**21 08 18.1**	**-0.9**
MOL	**Molde**	**10.04**	**148**	*e*P	**Pn**	**21 08 18.3**	**-0.7**
KEV	**Kevo**	**10.37**	**85**	*e*P	**Pn**	**21 08 21.7**	**-1.7**
NOR	**Nord**	**10.49**	**350**	P	**Pn**	**21 08 26.8**	**+1.7**
NOR	**Nord**	**10.49**	**350**	*e*P	**Pn**	**21 08 25.5**	**+0.6**
HYA	**Hoyanger**	**11.17**	**154**	P	**Pn**	**21 08 34.6**	**+0.2**
NOA	**NORSAR Array B**	**12.13**	**143**	Pn	**Pn**	**21 08 45.2**	**-2.3**
	baz=329,slow=12,SNR=1.9						
NOA				LR	LR	21 12 59.6	
	comp=Z,89nm,18.1s,baz=330,slow=36						
	comp=Z,0.2nm,0.4s						
HFS	**Hagfors**	**13.46**	**139**	P	**Pn**	**21 09 05.4**	**-0.2**
	baz=335,slow=14						
HFS	**Hagfors**	**13.46**	**139**	P	**Pn**	**21 09 05.4**	**-0.2**
FINES	**FINESS Array B**	**15.47**	**115**	Pn	**Pn**	**21 09 31.6**	**-1.2**
	comp=Z,0.1nm,0.3s,baz=327,slow=10,SNR=3.3						
	comp=Z,3.7nm,0.9s						
FINES				AML	AML		
AKASG	**Malin Array Be**	**25.71**	**127**	P	**P**	**21 11 25.8**	**+1.0**
	comp=Z,0.6nm,0.5s,baz=338,slow=9.3,SNR=2.2						
	comp=Z,0.6nm,0.5s						

ISK ***03*** *21:17:02.1, 37°.83N×26°.75E, h7km, ML2.9/17*
AFAD ***03*** *21:17:02.0, 37°.82N×26°.72E, h7km±3km, ML3.0*
THE ***03*** *21:17:02.6, 38°.N±2°×2°.7E±°, h7km±1km, M2.7/10, MLh2.7/10*
ATH ***03*** *21:17:02.2, 37°.77N×26°.67E, h8km±1km, ML2.7/7, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
ISC 03 21:17:02.3±0.8, 37°.82N±0°.02×26°.72E±0°.02, h11km±5km, n57, σ0s66/89, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.03**	**210**	P	**Pg**	**21 17 04.0**	**-0.3**
KRL1				S	**Sg**	**21 17 05.4**	**-0.3**
KRL1				AML	AML		
SMG	**Samos**	**0.14**	**140**	P	**Pg**	**21 17 05.9**	**+0.3**
SMG				S	**Sg**	**21 17 08.1**	**+0.1**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**140**	P	**Pg**	**21 17 05.7**	**+0.1**
SMG				S	**Sg**	**21 17 07.9**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.27**	**28**	P	**Pg**	**21 17 07.2**	**-0.6**
DGB				S	**Sg**	**21 17 11.1**	**-0.3**
GMLD	**Gumuldur**	**0.30**	**30**	Pg	**Pg**	**21 17 08.1**	**-0.3**
GMLD				Sg	**Sg**	**21 17 12.5**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.42**	**106**	P	**Pg**	**21 17 08.8**	**-1.7**
GCAM				S	**Sb**	**21 17 17.5**	**-0.5**
GCAM	**G?zelcaml?**	**0.42**	**106**	Pg	**Pg**	**21 17 10.4**	**-0.2**
GCAM				Sg	**Sg**	**21 17 16.9**	**+0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.44**	**21**	P	**Pg**	**21 17 10.3**	**-0.7**
BEYE				S	**Sg**	**21 17 16.5**	**-0.3**
KUSD	**Kusadasi-Aydin**	**0.45**	**84**	Pg	**Pg**	**21 17 10.9**	**-0.2**
KUSD				Sg	**Sg**	**21 17 17.3**	**+0.3**
ZEYE	**Izmir, Urla-Ze**	**0.46**	**338**	P	**Pg**	**21 17 10.8**	**-0.5**
ZEYE				S	**Sb**	**21 17 18.3**	**-0.7**
ZEYE				IAML		21 17 20.0	
	comp=N,1μm,0.4s						
DDIM	**Aydin, Didim**	**0.55**	**131**	P	**Pg**	**21 17 12.9**	**0.0**
DDIM				S	**Sb**	**21 17 21.4**	**-0.3**
DDIM				IAML		21 17 23.0	
	comp=N,1μm,0.5s						
DIDI	**Didim-Aydin**	**0.60**	**137**	Pg	**Pg**	**21 17 14.1**	**+0.1**
DIDI				AML	AML		
CESE	**eme**	**0.61**	**327**	Pg	**Pb**	**21 17 14.6**	**-0.3**
CESE				Sg	**Sb**	**21 17 23.4**	**-0.1**
CESE				AML	AML		
BLCB	**Balcova**	**0.62**	**24**	Pg	**Pg**	**21 17 14.0**	**-0.3**
BLCB				Sg	**Sg**	**21 17 22.9**	**+0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.70**	**55**	P	**Pg**	**21 17 15.4**	**-0.4**
DUVT				S	**Sb**	**21 17 25.9**	**-0.2**
DUVT				IAML		21 17 28.0	
	comp=E,523nm,0.4s						

CHOS	**Chios island**	**0.78**	**317**	P	**Pg**	**21 17 17.1**	**-0.1**
CHOS				S	**Sb**	**21 17 28.1**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.78**	**317**	Pg	**Pb**	**21 17 17.8**	**0.0**
CHOS				Sg	**Sb**	**21 17 28.9**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.78**	**317**	P	**Pb**	**21 17 18.1**	**+0.3**
CHOS				S	**Sb**	**21 17 28.0**	**-0.4**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.79**	**350**	Pg	**Pg**	**21 17 17.4**	**-0.1**
KRBN				Sg	**Sb**	**21 17 29.1**	**+0.5**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**147**	Pg	**Pg**	**21 17 18.4**	**+0.3**
BAGT	**Foa**	**0.84**	**7**	P	**Pg**	**21 17 18.1**	**-0.4**
BAGT				S	**Sb**	**21 17 31.5**	**+1.3**
BAGT				IAML		21 17 33.0	
	comp=E,997nm,0.6s						
EAG2	**Marmaro, Chios**	**0.87**	**326**	P	**Pb**	**21 17 20.1**	**+0.7**
EAG2				S	**Sb**	**21 17 31.1**	**+0.1**
KARB	**zmir-Karabur**	**0.88**	**344**	P	**Pg**	**21 17 18.5**	**-0.7**
KARB				S	**Sn**	**21 17 32.7**	**-0.6**
KARB				IAML		21 17 33.0	
	comp=E,425nm,0.6s						
KARB				IAML		21 17 34.0	
	comp=N,736nm,0.5s						
BODT	**Bodrum**	**0.89**	**148**	P	**Pb**	**21 17 19.7**	**+0.1**
BODT				S	**Sb**	**21 17 32.2**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**148**	Pg	**Pb**	**21 17 19.7**	**+0.1**
BODT				AML	AML		
FOCM	**Foa**	**0.89**	**0**	Pg	**Pb**	**21 17 19.6**	**-0.2**
FOCM				Sg	**Sb**	**21 17 32.2**	**+0.5**
FOCM				AML	AML		
AYDN	**Tasoluk**	**0.93**	**99**	P	**Pg**	**21 17 18.3**	**-1.9**
AYDB	**Zeytinkoy-Aydi**	**0.93**	**82**	Pg	**Pg**	**21 17 19.9**	**-0.4**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.94**	**142**	P	**Pg**	**21 17 19.9**	**-0.6**
BDRM				S	**Sb**	**21 17 34.6**	**+1.4**
BDRM				IAML		21 17 36.0	
	comp=E,255nm,0.3s						
BDRM				IAML		21 17 37.0	
	comp=N,388nm,0.7s						
BODA	**Bodrum-Mula**	**0.96**	**144**	Pg	**Pg**	**21 17 20.9**	**+0.1**
MLSB	**Milas**	**0.99**	**122**	Pg	**Pg**	**21 17 21.2**	**-0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.02**	**71**	P	**Pg**	**21 17 20.5**	**-1.5**
CAMT	**Merkez**	**1.04**	**26**	P	**Pg**	**21 17 22.2**	**0.0**
CAMT				S	**Sb**	**21 17 36.6**	**+0.8**
CAMT				IAML		21 17 40.0	
	comp=E,908nm,0.5s						
CAMT				IAML		21 17 41.0	
	comp=N,1μm,0.5s						
APE	**Apeiranthos**	**1.21**	**232**	P	**Pg**	**21 17 24.7**	**-0.8**
APE				S	**Sn**	**21 17 42.3**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.21**	**232**	P	**Pg**	**21 17 24.2**	**-1.3**
APE				S	**Sg**	**21 17 39.7**	**-1.5**
APE				AML	AML		
NAZL	**Nazilli-Aydin**	**1.25**	**83**	Pn	**Pn**	**21 17 25.8**	**+0.1**
NAZL				AML	AML		
DKL	**Dikili**	**1.26**	**6**	Pn	**Pn**	**21 17 26.1**	**+0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.26**	**6**	P	**Pn**	**21 17 26.1**	**+0.3**
DKL				S	**Sn**	**21 17 44.0**	**+1.4**
YAZI	**Mula-Dat§a-**	**1.27**	**153**	P	**Pn**	**21 17 24.7**	**-1.3**
ESEN	**Aydn-Nazilli**	**1.29**	**90**	P	**Pn**	**21 17 24.8**	**-1.3**
GOMA	**Golmarmara-Man**	**1.29**	**46**	Pn	**Pn**	**21 17 26.7**	**+0.5**

GUY2C				S		Sn	21 41 52.7	-0.2
VILC	**Villavicencio,**		**2.81**	**193**	P	**Pn**	21 41 17.5	-0.2
VILC					S	**Sn**	21 41 52.0	-0.7
PTGC	**Puerto Gaitan,**		**2.82**	**160**	P	**Pn**	21 41 17.4	-0.3
PTGC					S	**Sn**	21 41 50.9	-1.8
NIZA	**Niza - Manizal**		**2.98**	**233**	P	**Pn**	21 41 21.7	+1.7
NIZA					S	**Sn**	21 41 57.4	+0.7
CBOC	**Ciudad Bolivar**		**3.08**	**251**	P	**Pn**	21 41 21.5	+0.4
CBOC					S	**Sn**	21 41 58.8	+0.1
SDV	**Santo Domingo**	**3.14**	**50**	P		**Pn**	21 41 23.6	+1.8
	132nm,0.4s,baz=229,slow=9.8,SNR=110							
SDV				S		**Sn**	21 42 01.0	+0.8
	108nm,0.4s,baz=91,slow=20,SNR=14							
SDV	**Santo Domingo**	**3.14**	**50**	P		**Pn**	21 41 23.7	+1.8
SDV				S		**Sn**	21 42 00.9	+0.8
SDV	**Santo Domingo**	**3.14**	**50**	*e*P		**Pn**	21 41 24.0	+2.1
SDV				*e*S		**Sn**	21 41 58.7	-1.4
ARGC	**Ariguani, Magd**		**3.18**	**339**	P	**Pn**	21 41 24.3	+2.2
ARGC					S	**Sn**	21 42 02.9	+2.1
APAC	**Apartado, Choc**		**3.61**	**287**	P	**Pn**	21 41 28.0	+0.3
APAC					S	**Sn**	21 42 08.5	-2.2
PRAC	**Prado**		**3.62**	**210**	P	**Pn**	21 41 27.3	-0.5
PRAC					S	**Sn**	21 42 09.7	-1.2
PRAC	**Prado**		**3.62**	**210**	P	**Pn**	21 41 27.4	-0.5
PRAC					S	**Sn**	21 42 09.9	-1.0
SJCC	**San Jacinto, C**		**3.65**	**325**	P	**Pn**	21 41 28.5	+0.3
SJCC					S	**Sn**	21 42 09.3	-2.3
SJCC	**San Jacinto, C**		**3.65**	**325**	P	**Pn**	21 41 27.9	-0.3
SJCC					S	**Sn**	21 42 09.1	-2.5
SJCC	**San Jacinto, C**		**3.65**	**325**	*e*P	**Pn**	21 41 28.5	+0.3
SJCC					*e*S	**Sn**	21 42 09.3	-2.3
ORTC	**Ortega, Tolima**		**3.65**	**216**	P	**Pn**	21 41 28.0	-0.3
ORTC					S	**Sn**	21 42 12.1	+0.4
LCBC	**Los crdobas,**		**3.80**	**301**	P	**Pn**	21 41 30.7	+0.5
LCBC					S	**Sn**	21 42 16.3	+1.2
URMC	**La Uribe, Meta**		**3.83**	**200**	P	**Pn**	21 41 30.8	+0.2
URMC					S	**Sn**	21 42 14.6	-1.3
CRJC	**Cerrejon, Guaj**		**4.12**	**3**	P	**Pn**	21 41 34.6	+0.2
CRJC					S	**Sn**	21 42 22.2	-0.5
GUVC	**San Jose del G**		**4.33**	**174**	P	**Pn**	21 41 36.2	-0.9
GUVC					S	**Sn**	21 42 25.2	-2.2
YOTC	**Yotoco, Valle**		**4.34**	**229**	P	**Pn**	21 41 36.6	-0.7
YOTC					S	**Sn**	21 42 27.6	-0.2
SMRC	**Santa Marta, M**		**4.41**	**345**	P	**Pn**	21 41 39.5	+1.4
SMRC					S	**Sn**	21 42 26.7	-2.6
MACC	**Macarena, Meta**		**4.76**	**189**	P	**Pn**	21 41 41.3	-1.5
MACC					S	**Sn**	21 42 32.2	-5.5
URI	**Uribia**		**4.91**	**13**	P	**Pn**	21 41 44.3	-0.4
URI					S	**Sn**	21 42 39.1	-2.1
URIC	**Uribia, Colomb**		**4.91**	**13**	P	**Pn**	21 41 44.8	0.0
URIC					S	**Sn**	21 42 38.3	-2.9
URIC	**Uribia, Colomb**		**4.91**	**13**	*e*P	**Pn**	21 41 44.8	0.0
URIC					*e*S	**Sn**	21 42 37.7	-3.5
TEPV	**Terepaima**		**4.92**	**51**	*e*P	**Pn**	21 41 46.1	+1.2
TEPV					*e*S	**Sn**	21 42 37.8	-3.7
JAMC	**Jamundi, Valle**		**5.10**	**225**	P	**Pn**	21 41 46.6	-0.8
	763nm31nm,0.4s							
JAMC					S	**Sn**	21 42 41.9	-4.1
	763nm31nm,0.4s							
JAMC					AML	AML		
UPD2	**Meteti**		**5.16**	**289**	P	**Pn**	21 41 47.1	-0.9
	46nm,0.8s							
UPD2					S	**Sn**	21 42 44.3	-2.8
	46nm,0.8s							
UPD2					AML	AML		
MAPV	**Macapo**		**5.44**	**57**	*e*P	**Pn**	21 41 52.3	+0.6
MAPV					*e*S	**Sn**	21 42 49.4	-4.3
POPC	**Popayan, Colom**		**5.60**	**220**	P	**Pn**	21 41 53.6	-0.5
	18nm,0.6s							
POPC					S	**Sn**	21 42 57.4	-0.5
	18nm,0.6s							
POPC					AML	AML		
JACV	**Jacura**		**5.93**	**45**	*e*P	**Pn**	21 41 58.3	+0.1
BENV	**Beln**		**6.23**	**60**	*e*P	**Pn**	21 42 02.3	0.0
BENV					*e*S	**Sn**	21 43 07.2	-5.5
TURV	**Turiamo**		**6.28**	**55**	*e*P	**Pn**	21 42 03.6	+0.7
TURV					*e*S	**Sn**	21 43 08.2	-5.6
CACV	**CAICARA DEL OR**		**6.53**	**84**	*e*P	Pn	21 42 12.6	+6.4
TACV	**Tcata**		**6.81**	**61**	*e*P	**Pn**	21 42 09.7	-0.3
TACV					*e*S	**Sn**	21 43 20.2	-6.3
MERV	**Las Mercedes**		**7.12**	**70**	*e*P	**Pn**	21 42 13.8	-0.4
FUNV	**FUNVISIS**		**7.16**	**60**	*e*P	**Pn**	21 42 13.9	-0.8
FUNV					*e*S	**Sn**	21 43 28.2	-6.7
PCRV	**Puerto La Cruz**		**8.97**	**68**	*e*P	**Pn**	21 42 38.2	-0.7
TXAR	**Lajitas Array**		**36.45**	**312**	P	**P**	21 47 23.3	+0.5
	0.9nm,0.6s,baz=127,slow=8.7,SNR=5.4							
	0.9nm,0.6s							
ULM	**Lac du Bonnet**		**47.25**	**340**	P	**P**	21 48 50.0	0.0
	3.3nm,0.5s,baz=137,slow=7.4,SNR=7.5							
	3.3nm,0.5s							
SCHQ	**Schefferville**		**48.08**	**5**	P	**P**	21 48 57.5	+1.1
	5.3nm,0.9s,baz=218,slow=16,SNR=1.2							
	5.3nm,0.9s							
NVAR	**Mina Array Bea**		**51.47**	**315**	P	**P**	21 49 23.7	+1.2
	0.3nm,0.6s,baz=82,slow=7.2,SNR=2.3							
	0.3nm,0.6s							
NRS	**Narsarsuaq**		**57.97**	**15**	*i*P	**P**	21 50 09.0	+0.5
YKA	**Yellowknife Ar**		**63.23**	**340**	P	**P**	21 50 44.7	+0.6
	2.2nm,0.5s,baz=135,slow=6.6,SNR=9.8							
	2.2nm,0.5s							
ILAR	**Eielson Array**		**76.93**	**335**	P	**P**	21 52 07.4	-0.2
	0.3nm,0.6s,baz=102,slow=7.3,SNR=2.4							
	0.3nm,0.6s							
MKAR	**Makanchi Array**		**122.26**	**20**	PKP	**PKPdf**	21 59 08.9	-0.5
	0.2nm,0.4s,baz=335,slow=2.8,SNR=5.3							
ASAR	**Alice Springs**		**149.17**	**234**	PKP	**PKPdf**	21 59 58.9	-0.4
	1.4nm,0.7s,baz=121,slow=3.2,SNR=7.3							
ASAR					PKPbc	**PKPbc**	22 00 02.7	-1.0
	1.4nm,0.7s,baz=119,slow=3.7,SNR=15							
WRA	**Warramunga Arr**		**150.40**	**241**	PKP	**PKPdf**	22 00 01.1	-0.2
	0.9nm,0.4s,baz=108,slow=2.3,SNR=1.8							
WRA					PKPbc	**PKPbc**	22 00 06.0	-0.7
	0.9nm,0.4s,baz=109,slow=2.7,SNR=31							

*IDC **03** 22:00:41.6±1.8,5°.70S×122°.97E, h0km, mb3.1/2, mbtmp3.3/4, ML3.1/2, Error ellipse: s-maj=97.2km s-min=23.8km az=69.0*
*DJA **03** 22:00:44.7±0.9,6°S±6°×12°3E±°, h17km±10km, M3.3/6, MLv3.3/6*
ISC 03 22:00:46.5±1.1,**5°.93S**±0°.06×**122°.60E**±0°.10,**h35**km,**n10,** σ1§**35**/10,**Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BBSI	**Bau Bau**	**0.44**	**356**	P	**Pn**	**22 00 55.4**	**-0.9**
BBSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**1.98**	**331**	P	**Pn**	**22 01 19.4**	**+1.8**
KKSI				AML	AML		
BSSI	**Bau Bau, Buton**	**2.11**	**264**	P	**Pn**	**22 01 19.6**	**+0.2**
BSSI				AML	AML		
BKSI	**Bulukumba**	**2.54**	**284**	P	**Pn**	**22 01 25.4**	**+0.1**
BKSI				AML	AML		
EDFI	**Ende, Flores**	**2.95**	**198**	P	**Pn**	**22 01 30.2**	**-0.8**
KAPI	**Kappang**	**2.98**	**288**	P	Pn	22 01 23.0	-8.3
BATI	**Baumata**	**4.38**	**166**	Pn	**Pn**	**22 01 52.6**	**+2.0**
	3.8nm,0.3s,baz=254,slow=1.8,SNR=9.0						
BATI				Sn	**Sn**	**22 02 40.3**	**-0.2**
	1.3nm,0.3s,baz=312,slow=17,SNR=1.0						
	16nm,0.4s						
BATI				AML	AML		
WRA	**Warramunga Arr**	**18.01**	**142**	P	**Pn**	**22 04 52.3**	**-1.9**
	baz=323,slow=12,SNR=2.3						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**20.72**	**149**	P	**P**	**22 05 24.5**	**+0.4**
	0.6nm,1.0s,baz=329,slow=12,SNR=8.3						
	0.6nm,1.0s						
MKAR	**Makanchi Array**	**63.47**	**330**	P	**P**	**22 11 13.4**	**+0.4**
	0.3nm,0.8s,baz=140,slow=9.4,SNR=2.5						
	0.3nm,0.8s						

*JMA **03** 22:35:55.2±0.1,24°N±1°×122°.5E±0°.3, h38km±2km, MV2.7/11, NW OFF ISHIGAKIJIMA IS*
*TAP **03** 22:35:56.1,24°.19N×122°.47E, h39km, ML3.4, C*
ISC 03 22:35:56.3±1.1,**24°.11N**±0°.03×**122°.54E**±0°.02,**h33**km±3km, **n111,** σ1§**30**/183,**2C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.20**	**274**	⇑P	**Pn**	**22 36 02.9**	**+0.8**
EOS4				*i* S	**Sb**	22 36 08.2	+1.4
EOS3	**EOS3**	**0.27**	**311**	⇓P	**Pn**	**22 36 03.6**	**-0.1**
EOS3				*i* S	**Sb**	22 36 09.6	+1.1
EOS2	**EOS2**	**0.42**	**318**	⇑P	**Pb**	**22 36 05.5**	**-0.1**
EOS2				S	**Sb**	22 36 13.1	+1.2
YOJ	**Yonaguni jima**	**0.56**	**51**	P	**Pn**	22 36 07.3	-0.5
YOJ	**Yonaguni jima**	**0.56**	**51**	S	**Sb**	22 36 15.9	+0.2
YOJ	**Yonaguni jima**	**0.56**	**51**	P	**Pn**	22 36 07.5	-0.4
YOJ				*e*S	**Sb**	22 36 16.2	+0.5
YOJ	**Yonaguni jima**	**0.56**	**51**	P	**Pn**	22 36 07.4	-0.5
YOJ				*e*S	**Sb**	22 36 16.1	+0.4
EAHA	**Aohua**	**0.76**	**287**	*e*P	**Pn**	22 36 09.9	-0.8
EAHA				*e*S	**Sn**	22 36 20.6	-0.5
EWUT	**Wuta**	**0.77**	**296**	*e*P	**Pn**	22 36 09.8	-1.1
EWUT				*i* S	**Sn**	22 36 19.4	-1.9
ESAO	**Su ao**	**0.79**	**306**	*e*P	**Pn**	22 36 09.9	-1.1
ESAO				*e*S	**Sn**	22 36 19.7	-2.0
ENA	**Nanau**	**0.80**	**294**	*e*P	**Pn**	22 36 10.0	-1.2
ENA				S	**Sn**	22 36 20.0	-1.9
TWC	**Suao**	**0.80**	**309**	P	**Pn**	22 36 10.0	-1.3
TWC				S	**Sn**	22 36 19.4	-2.7
ETL	**Fush Village**	**0.84**	**274**	*e*P	**Pn**	22 36 10.8	-1.1
TWD	**Chiawan**	**0.86**	**268**	*i* P	**Pn**	22 36 10.7	-1.4
TWD				*e*S	**Sn**	22 36 21.2	-2.3
NACB	**Ninganchiao**	**0.87**	**275**	P	**Pn**	22 36 10.4	-1.8
NACB	**Ninganchiao**	**0.87**	**275**	S	**Sn**	22 36 20.1	-3.5
NACB	**Ninganchiao**	**0.87**	**275**	P	**Pn**	22 36 10.7	-1.4
NACB				S	**Sn**	22 36 22.6	-1.0
TEYL	**Yanliau Villag**	**0.89**	**255**	P	**Pn**	22 36 11.6	-0.9
TEYL				*e*S	**Sn**	22 36 23.7	-0.6
NDS	**Dongshan**	**0.92**	**305**	*i* P	**Pn**	22 36 12.5	-0.4
NDS				*e*S	**Sn**	22 36 24.2	-0.7
EGS		**0.92**	**323**	*e*S	**Sn**	22 36 23.7	-1.2
SHUL	**Shoufeng**	**0.95**	**251**	*e*P	**Pn**	22 36 12.3	-1.0
SHUL				S	**Sn**	22 36 24.5	-1.2
ETM	**Tongmen**	**0.97**	**262**	*e*P	**Pn**	22 36 12.1	-1.5
ETM				*e*S	**Sn**	22 36 24.2	-2.0
ETLH	**Xiulin Townshi**	**0.97**	**276**	*i* P	**Pn**	22 36 12.4	-1.4
ETLH				*i* S	**Sn**	22 36 24.6	-1.8
ILA	**Ilan**	**0.97**	**312**	*e*S	**Sn**	22 36 26.4	0.0
TWE	**Neicheng**	**1.00**	**308**	*e*P	**Pn**	22 36 13.9	-0.1
TWE				S	**Sn**	22 36 25.5	-1.6
LATG	**Datong**	**1.02**	**295**	P	**Pn**	22 36 13.5	-0.9
LATG				*e*S	**Sn**	22 36 26.8	-0.8
TWB1	**Santiao Chiao**	**1.03**	**331**	*e*P	**Pn**	22 36 13.2	-1.2
TWB1				*e*S	**Sn**	22 36 26.4	-1.3
LXIB	**Xiulin Townshi**	**1.03**	**265**	*i* P	**Pn**	22 36 13.2	-1.4
LXIB				*e*S	**Sn**	22 36 25.9	-2.1
ENTT	**Nioudou**	**1.03**	**301**	*i* P	**Pn**	22 36 13.9	-0.6
ENTT				S	**Sn**	22 36 26.8	-1.1
ESL	**Shilin**	**1.05**	**254**	*e*P	**Pn**	22 36 13.1	-1.7
ESL				S	**Sn**	22 36 27.2	-1.2
NDT	**Datong Townshi**	**1.06**	**298**	*e*P	**Pn**	22 36 14.4	-0.5
NDT				*e*S	**Sn**	22 36 27.4	-1.1
TIPB	**Shuangxi**	**1.08**	**323**	*i* P	**Pn**	22 36 14.1	-1.0
TIPB				*e*S	**Sn**	22 36 28.3	-0.7
FUSB	**Fushanzhiwuyua**	**1.08**	**307**	*e*P	**Pn**	22 36 15.1	-0.1
FUSB				S	**Sn**	22 36 28.4	-0.7
NNSB	**Datong**	**1.10**	**287**	*e*P	**Pn**	22 36 14.6	-1.0
NNSB				S	**Sn**	22 36 28.6	-1.1
IRIF	**Iriomote-Funau**	**1.11**	**78**	P	**Pn**	22 36 15.7	+0.2
NNS	**Nan Shan**	**1.11**	**287**	*e*P	**Pn**	22 36 15.1	-0.7
NNS				S	**Sn**	22 36 28.6	-1.4
WARBT	**Fenglin Townsh**	**1.12**	**250**	*e*P	**Pn**	22 36 14.3	-1.5
WARBT				*e*S	**Sn**	22 36 27.8	-2.3
SXI1	**Grass Mountain**	**1.15**	**329**	*i* P	**Pn**	22 36 15.2	-1.0
SXI1				*e*S	**Sn**	22 36 30.8	-0.1
NWLT	**Wulai**	**1.16**	**305**	*e*P	**Pn**	22 36 16.2	0.0
NWLT				*i* S	**Sn**	22 36 30.1	-0.8
WHF	**Hehuan Shan**	**1.17**	**272**	*e*P	**Pn**	22 36 15.4	-1.3
WHF				*e*S	**Sn**	22 36 29.1	-2.6
NWF	**Wu-fen Shan**	**1.18**	**324**	P	**Pn**	22 36 15.5	-1.1
NWF				*e*S	**Sn**	22 36 30.0	-1.6
WFSB	**Wu-fen Shan**	**1.18**	**324**	*e*P	**Pn**	22 36 15.7	-0.9
WFSB				*e*S	**Sn**	22 36 30.0	-1.5
HGSD	**Ruisui**	**1.19**	**239**	*e*P	**Pn**	22 36 15.4	-1.2
HGSD				S	**Sn**	22 36 30.8	-0.9
YHNB	**Yeheng**	**1.20**	**298**	P	**Pn**	22 36 16.8	-0.1
YHNB	**Yeheng**	**1.20**	**298**	P	**Pn**	22 36 16.4	-0.4
YHNB				S	**Sn**	22 36 30.5	-1.5
NSK	**Sanguang**	**1.22**	**298**	P	**Pn**	22 36 16.4	-0.7
NSK				*e*S	**Sn**	22 36 30.8	-1.6
TWA	**Mucha**	**1.23**	**315**	*e*S	**Sn**	22 36 32.4	-0.3
TNOU	**National Taiwa**	**1.25**	**326**	*e*P	**Pn**	22 36 16.1	-1.4
EHYH	**Wanrong**	**1.25**	**241**	*e*P	**Pn**	22 36 16.7	-0.8
EHYH				*e*S	**Sn**	22 36 31.8	-1.4
TWT	**Tachien**	**1.25**	**277**	*e*P	**Pn**	22 36 17.3	-0.2
TWT				*e*S	**Sn**	22 36 32.7	-0.8
OWD	**Renai**	**1.26**	**263**	*i* P	**Pn**	22 36 16.6	-1.0
OWD				S	**Sn**	22 36 31.7	-1.9
EHY	**Hungye**	**1.27**	**242**	*e*P	**Pn**	22 36 16.7	-1.0
EHY				*e*S	**Sn**	22 36 31.6	-1.9
TDCB	**Techi**	**1.27**	**277**	*e*P	**Pn**	22 36 16.8	-1.1
TDCB				*e*S	**Sn**	22 36 32.6	-1.3
ECBN	**Changbin**	**1.27**	**232**	*e*S	**Sn**	22 36 31.7	-2.0
TATO	**Taipei**	**1.29**	**312**	P	**Pn**	22 36 20.0	+2.0
WUSB	**Renai**	**1.30**	**265**	*i* P	**Pn**	22 36 17.6	-0.7
WUSB				*e*S	**Sn**	22 36 33.9	-0.9
VWDT	**VWDT**	**1.33**	**255**	P	**Pn**	22 36 18.0	-0.5
VWDT				*e*S	**Sn**	22 36 33.8	-1.3
YULB	**Yu-li**	**1.34**	**238**	P	**Pn**	22 36 17.4	-1.4
YULB	**Yu-li**	**1.34**	**238**	S	**Sn**	22 36 33.8	-1.7
YULB	**Yu-li**	**1.34**	**238**	*i* P	**Pn**	22 36 17.8	-1.0
YULB				*e*S	**Sn**	22 36 33.8	-1.7
JKIS	**Kuro-shima**	**1.35**	**84**	*e*P	**Pn**	22 36 19.4	+0.6
YM01	**YM01**	**1.36**	**320**	*e*P	**Pn**	22 36 19.5	+0.5
YM01				*e*S	**Sn**	22 36 34.3	-1.6
TWF1	**Yuli**	**1.36**	**237**	P	**Pn**	22 36 18.2	-0.9
TWF1				*e*S	**Sn**	22 36 34.9	-1.1
YM08	**YM08**	**1.38**	**321**	*e*P	**Pn**	22 36 19.7	+0.4
ZUZH	**Zhuzihu**	**1.39**	**319**	*e*P	**Pn**	22 36 17.7	-1.6
CHKH	**Chenggong**	**1.39**	**229**	*e*S	**Sn**	22 36 33.9	-2.7
NFF	**Wufeng Townshi**	**1.40**	**292**	P	**Pn**	22 36 20.1	+0.5
NFF				S	**Sn**	22 36 36.1	-0.8
KSHI	**Guanxi Townshi**	**1.41**	**298**	*e*P	**Pn**	22 36 20.0	+0.3
KSHI				*e*S	**Sn**	22 36 37.6	+0.5
NTST	**Danshui**	**1.45**	**317**	*e*S	**Sn**	22 36 38.3	+0.3
FULB	**Fuli**	**1.46**	**232**	*e*P	**Pn**	22 36 18.6	-1.8
FULB				*e*S	**Sn**	22 36 37.1	-1.2
WHP	**Taichung City**	**1.47**	**277**	*e*P	**Pn**	22 36 21.8	+1.3
WHP				*e*S	**Sn**	22 36 39.9	+1.3
CHKT	**Chengkung**	**1.47**	**227**	*e*S	**Sn**	22 36 36.0	-2.7
JIJ	**Ishigaki jima**	**1.48**	**80**	P	**Pn**	22 36 20.7	0.0
JIJ				*e*S	**Sn**	22 36 39.5	+0.5
SSLB	**Suanglung**	**1.49**	**258**	P	**Pn**	22 36 20.1	-0.6
SSLB	**Suanglung**	**1.49**	**258**	*e*P	**Pn**	22 36 20.2	-0.5
LIOB	**Emei**	**1.49**	**291**	*e*P	**Pn**	22 36 21.4	+0.6
LIOB				*e*S	**Sn**	22 36 39.9	+0.8
WCS	**Beigang Elemen**	**1.49**	**268**	*e*P	**Pn**	22 36 20.2	-0.5
SMLT	**Sun Moon Lake**	**1.52**	**262**	*e*P	**Pn**	22 36 21.0	-0.2
EHD	**Haiduan**	**1.55**	**232**	*e*P	**Pn**	22 36 20.7	-1.0
TYC	**Yuchr**	**1.55**	**263**	*e*P	**Pn**	22 36 21.4	-0.2
TYC				*e*S	**Sn**	22 36 40.3	-0.3
ECS	**Chishang**	**1.58**	**230**	*e*S	**Sn**	22 36 41.1	-0.1
YUS	**Yu-Shan**	**1.58**	**247**	*e*P	**Pn**	22 36 22.2	-0.2
YUS				*e*S	**Sn**	22 36 39.9	-2.1
WHYT	**Xinyi Township**	**1.60**	**255**	P	**Pn**	22 36 22.5	+0.2
WHYT				S	**Sn**	22 36 41.2	-0.6
TWQ1	**Liyutan**	**1.63**	**279**	*e*P	**Pn**	22 36 24.3	+1.5
TWQ1				*e*S	**Sn**	22 36 43.4	+0.8
ELDTW	**Lidau**	**1.67**	**237**	*e*P	**Pn**	22 36 22.8	-0.5
ELDTW				*e*S	**Sn**	22 36 41.1	-2.6
WJS	**Zhushan**	**1.68**	**261**	*e*P	**Pn**	22 36 24.4	+1.0
JISG	**Ishigakijimahi**	**1.68**	**73**	P	**Pn**	22 36 23.4	0.0
JISG				*e*S	**Sn**	22 36 44.2	+0.4
ALS	**Alishan**	**1.70**	**250**	P	**Pn**	22 36 24.0	+0.1
WDJ	**Dajia District**	**1.75**	**278**	*e*P	**Pn**	22 36 23.9	-0.4
WDJ				*e*S	**Sn**	22 36 46.7	+1.2
CHN5	**Tsauling**	**1.78**	**254**	*e*P	**Pn**	22 36 25.8	+0.9
CHN5				S	**Sn**	22 36 47.1	+0.7
WCHH	**Zhanghua**	**1.81**	**270**	*e*S	**Sn**	22 36 49.6	+2.6
TWGBT	**Beinan**	**1.86**	**227**	*e*P	**Pn**	22 36 26.0	+0.2
TWGBT				*e*S	**Sn**	22 36 45.7	-2.5
WGK	**Gukeng**	**1.86**	**257**	*e*S	**Sn**	22 36 51.3	+3.1
STYH	**Taoyuan**	**1.87**	**240**	*e*P	**Pn**	22 36 26.1	+0.1
STYH				*e*S	**Sn**	22 36 48.3	-0.1
WDL	**Douliou City**	**1.87**	**258**	*e*S	**Sn**	22 36 49.4	+0.9
WDLH	**Douliu**	**1.88**	**258**	*e*P	**Pn**	22 36 27.2	+1.1
WDLH				*e*S	**Sn**	22 36 50.0	+1.4
WCKO	**Fanlu**	**1.89**	**250**	*e*P	**Pn**	22 36 27.7	+1.4
WCKO				*i* S	**Sn**	22 36 50.5	+1.4
TPUB	**Ta-pu**	**1.93**	**246**	P	**Pn**	22 36 25.9	-0.9
TPUB	**Ta-pu**	**1.93**	**246**	*e*P	**Pn**	22 36 27.9	+1.1
TPUB				*i* S	**Sn**	22 36 51.0	+1.0
CHN4	**Tsaushan**	**1.94**	**247**	*e*P	**Pn**	22 36 28.3	+1.4
CHN4				*e*S	**Sn**	22 36 52.5	+2.4
WTP	**Ta-pu**	**1.96**	**244**	*e*P	**Pn**	22 36 28.4	+1.1
TWK	**Hsinying**	**2.06**	**246**	*e*P	**Pn**	22 36 29.7	+1.1
TWK				S	**Sn**	22 36 55.0	+1.8
CHN1	**Nanshi**	**2.06**	**244**	*e*P	**Pn**	22 36 30.3	+1.6
CHN1				*e*S	**Sn**	22 36 55.1	+1.9
SLGT	**Liugui**	**2.06**	**238**	*e*P	**Pn**	22 36 30.6	+2.0
SLGT				*e*S	**Sn**	22 36 54.4	+1.1
SGST	**Jiashian**	**2.06**	**241**	*e*P	**Pn**	22 36 29.5	+0.8
SGST				*e*S	**Sn**	22 36 54.1	+0.8
WSL	**Shuilin Townsh**	**2.20**	**255**	*e*P	**Pn**	22 36 31.4	+1.0
WSL				*e*S	**Sn**	22 36 57.5	+1.0
SSD	**Sandimen**	**2.22**	**233**	*e*P	**Pn**	22 36 32.3	+1.5
LYUB	**Lan-yu**	**2.27**	**203**	*e*P	**Pn**	22 36 29.6	-1.9
MASBT	**Mashibuluo**	**2.30**	**230**	*e*P	**Pn**	22 36 32.5	+0.6
SCZT	**Fangliau**	**2.47**	**226**	*e*P	**Pn**	22 36 35.3	+1.0
KAU	**Kaohsiung**	**2.56**	**234**	*e*P	**Pn**	22 36 37.9	+2.4

*RSNC **03** 22:48:17.8±0.0,7°N±1°×7°3W±°, h152km±2km, M3.6, mb3.8, ML3.3*
*FUNV **03** 22:48:17.6,6°.84N×73°.08W, h161km, MW3.7, Presumed earthquake*
ISC 03 22:48:15.5±1.2,**6°.86N**±0°.03×**73°.09W**±0°.03,**h162**km±8km, **n49,** σ1§**55**/90,**Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.28**	**200**	P	**Pn**	**22 48 38.1**	**+0.4**
BARC				S	**Sn**	22 48 53.5	-1.1
BRJC	**Barrancabermej**	**0.66**	**280**	P	**Pn**	22 48 39.8	+0.8
BRJC				S	**Sn**	22 48 56.7	-0.2
RUSC	**La Rusia**	**0.96**	**180**	P	**Pn**	22 48 42.0	+0.4
RUSC				S	**Sn**	22 49 00.8	-0.9
RUSC	**La Rusia**	**0.96**	**180**	*e*P	**Pn**	22 48 42.2	+0.6
RUSC				*e*S	**Sn**	22 49 00.7	-0.9
CAPV	**Capacho**	**1.26**	**37**	*e*P	**Pn**	22 48 46.1	+2.3
CAPV				*e*S	**Sn**	22 49 05.7	+0.1
TAMC	**Tame, Arauca**	**1.35**	**108**	P	**Pn**	22 48 46.6	+2.1
TAMC				S	**Sn**	22 49 08.5	+1.7
OCAC	**Ocana**	**1.39**	**350**	P	**Pn**	22 48 46.1	+1.1
OCAC				S	**Sn**	22 49 08.1	+0.3
PTBC	**PUERTO BERRIO,**	**1.40**	**257**	P	**Pn**	22 48 44.5	-0.4
PTBC				S	**Sn**	22 49 06.0	-1.5
SPBC	**San Pablo de B**	**1.55**	**219**	P	**Pn**	22 48 46.8	+0.3
SPBC				S	**Sn**	22 49 09.1	-1.3
NORC	**Norcasia**	**2.19**	**234**	P	**Pn**	22 48 53.9	+0.3
NORC				S	**Sn**	22 49 21.4

DDIM				IAML		22 52 01.0		
	comp=E,1μm,0.3s							
DGB	**zmir**	**0.35**	**343**	P	**Pg**	**22 51 55.6**	**-0.2**
DGB				S	**Sg**	**22 51 60.0**	**-0.5**
GMLD	**Gumuldur**	**0.37**	**348**	Pg	**Pg**	**22 51 55.9**	**-0.2**
GMLD				AML	AML			
DIDI	**Didim-Aydin**	**0.38**	**152**	Pg	**Pg**	**22 51 56.6**	**+0.3**
DIDI				Sg	**Sb**	**22 52 02.6**	**-0.8**
DIDI				AML	AML			
BEYE	**izmir**	**0.52**	**352**	P	**Pg**	**22 51 58.7**	**-0.2**
BEYE				S	**Sg**	**22 52 04.9**	**-0.7**
BEYE				IAML		22 52 11.0		
	comp=E,342nm,0.3s							
DUVT	**Torbali**	**0.61**	**34**	P	**Pg**	**22 52 00.5**	**-0.1**
DUVT				S	**Sg**	**22 52 07.2**	**-1.4**
DUVT				IAML		22 52 10.0		
	comp=E,296nm,0.5s							
YKAV	**Yalikavak-Bodr**	**0.63**	**160**	Pg	**Pg**	**22 52 01.2**	**+0.3**
YKAV				Sg	**Sb**	**22 52 10.4**	**0.0**
YKAV				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.66**	**322**	P	**Pg**	**22 52 01.2**	**-0.3**
ZEYE				S	**Sg**	**22 52 09.7**	**-0.6**
ZEYE				IAML		22 52 11.0		
	comp=N,543nm,0.4s							
ZEYE				IAML		22 52 11.0		
	comp=E,318nm,0.3s							
BLCB	**Balcova**	**0.67**	**2**	Pg	**Pg**	**22 52 01.3**	**-0.4**
AYDN	**Tasoluk**	**0.69**	**94**	P	**Pg**	**22 52 02.1**	**0.0**
BODT	**Bodrum**	**0.69**	**160**	P	**Pg**	**22 52 02.4**	**+0.2**
BODT				S	**Sb**	**22 52 12.0**	**-0.3**
BODT				AML	AML			
BODT	**Bodrum**	**0.69**	**160**	Pg	**Pg**	**22 52 02.4**	**+0.2**
BODT				Sg	**Sb**	**22 52 12.7**	**+0.3**
BODT				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.73**	**71**	Pg	**Pb**	**22 52 03.2**	**-0.3**
AYDB				AML	AML			
BDRM	**Kayabasi**	**0.73**	**152**	P	**Pg**	**22 52 03.1**	**+0.2**
MLSB	**Milas**	**0.74**	**125**	Pg	**Pg**	**22 52 03.2**	**+0.2**
BODA	**Bodrum-Mula**	**0.76**	**154**	Pg	**Pg**	**22 52 03.5**	**+0.2**
BODA				Sg	**Sb**	**22 52 14.6**	**+0.5**
CESE	**eme**	**0.83**	**318**	Pg	**Pb**	**22 52 05.2**	**0.0**
CESE				AML	AML			
IZMR	**zmir-demi**	**0.85**	**60**	P	**Pb**	**22 52 05.6**	**+0.1**
BAGT	**Foa**	**0.95**	**352**	P	**Pn**	**22 52 08.1**	**+0.1**
BAGT				S	**Sb**	**22 52 19.7**	**0.0**
BAGT				IAML		22 52 24.0		
	comp=E,213nm,0.6s							
BAGT				IAML		22 52 28.0		
	comp=N,261nm,1.5s							
KRBN	**Karaburun**	**0.95**	**338**	Pg	**Pb**	**22 52 07.5**	**+0.3**
KRBN				AML	AML			
CHOS	**Chios island**	**1.01**	**312**	P	**Pg**	**22 52 08.4**	**+0.2**
CHOS				S	**Sb**	**22 52 22.8**	**+1.1**
CHOS				AML	AML			
CHOS	**Chios island**	**1.01**	**312**	Pg	**Pb**	**22 52 08.6**	**+0.3**
CHOS				AML	AML			
CHOS	**Chios island**	**1.01**	**312**	P	**Pb**	**22 52 08.5**	**+0.3**
CHOS				S	**Sb**	**22 52 22.5**	**+0.8**
CHOS				AML	AML			
FOCM	**Foa**	**1.02**	**347**	Pg	**Pn**	**22 52 09.2**	**+0.3**
FOCM				AML	AML			
NAZL	**Nazilli-Aydin**	**1.04**	**76**	Pg	**Pn**	**22 52 09.2**	**-0.1**
NAZL				AML	AML			
CAMT	**Merkez**	**1.06**	**13**	P	**Pg**	**22 52 08.8**	**-0.2**
KARB	**zmir-Karabur**	**1.06**	**334**	P	**Pn**	**22 52 09.8**	**+0.3**
KARB				S	**Sg**	**22 52 22.9**	**0.0**
KARB				IAML		22 52 26.0		
	comp=E,185nm,0.8s							
KARB				IAML		22 52 30.0		
	comp=N,130nm,0.5s							
ESEN	**Aydn-Nazilli**	**1.06**	**85**	P	**Pg**	**22 52 09.0**	**-0.1**
DAT	**Datca**	**1.08**	**155**	Pg	**Pn**	**22 52 10.2**	**+0.3**
DAT				AML	AML			
YER	**Yerkesik**	**1.16**	**120**	Pn	**Pb**	**22 52 10.9**	**0.0**
YER				AML	AML			
KIRA	**zmir-Kiraz**	**1.20**	**66**	P	**Pb**	**22 52 11.5**	**0.0**
ZEDA	**zmir-Bergama**	**1.25**	**2**	P	**Pg**	**22 52 12.8**	**+0.1**
KTTT	**Salihli**	**1.29**	**41**	P	**Pg**	**22 52 14.1**	**+0.6**
APE	**Apeiranthos**	**1.35**	**242**	P	**Pn**	**22 52 13.0**	**-0.5**
APE				S	**Sb**	**22 52 31.4**	**+0.2**
APE				AML	AML			
APE	**Apeiranthos**	**1.35**	**242**	P	**Pn**	**22 52 12.8**	**-0.6**
APE				S	**Sb**	**22 52 30.4**	**-0.8**
DKL	**Dikili**	**1.36**	**356**	Pn	**Pg**	**22 52 15.2**	**+0.4**
DKL				AML	AML			
TURN	**Turunc**	**1.36**	**133**	Pn	**Pg**	**22 52 14.9**	**+0.1**
TURN				AML	AML			
SOMA	**Soma-Manisa**	**1.50**	**16**	Pn	**Pg**	**22 52 17.7**	**+0.3**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.50**	**37**	Pn	**Pb**	**22 52 17.1**	**+0.5**
GORD				AML	AML			
DALY	**Dalyan (Mula)**	**1.58**	**124**	Pn	**Pb**	**22 52 18.4**	**+0.4**
DALY				AML	AML			
PRK	**Paraskevi**	**1.64**	**339**	P	**Pn**	**22 52 18.1**	**+0.7**
PRK				S	**Sb**	**22 52 40.4**	**+0.9**
PRK				AML	AML			
PRK	**Paraskevi**	**1.64**	**339**	P	**Pb**	**22 52 18.7**	**-0.2**
PRK				S	**Sb**	**22 52 39.7**	**+0.2**
ARG	**Arkhangelos**	**1.74**	**149**	P	**Pn**	**22 52 19.6**	**+0.7**
ARG				S	**Sb**	**22 52 42.7**	**+0.2**
ARG	**Arkhangelos**	**1.74**	**149**	Pn	**Pb**	**22 52 20.5**	**-0.2**
ARG				AML	AML			
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	**Pb**	**22 52 21.5**	**-0.8**
APMY				AML	AML			
YAYO	**Edremit-Balk**	**1.89**	**1**	Pn	**Pb**	**22 52 23.1**	**-0.2**
YAYO				AML	AML			
FETY	**Fethiye**	**1.97**	**123**	Pn	**Pb**	**22 52 23.6**	**-1.0**
FETY				AML	AML			
CAME	**Cameli-Denizli**	**1.98**	**112**	Pn	**Pb**	**22 52 23.8**	**-1.0**
CAME				AML	AML			
BALB	**Balikesir**	**2.04**	**19**	Pn	**Pb**	**22 52 24.9**	**-0.8**
BALB				AML	AML			
SIMA	**Simav-Kutahya**	**2.06**	**48**	Pn	**Pb**	**22 52 25.5**	**-0.7**
SIMA				AML	AML			

ISK 03 22:55:36.4, 38.79N×27.81E, h20km, ML2.2/17, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AKS	**Akhisar**	**0.09**	**3**	Pg	Pb	22 55 40.1	-0.2
AKS				Sg	Sb	22 55 42.6	-0.4
AKS				AML	AML		
GOMA	**Golmarmara-Man**	**0.12**	**134**	Pg	Pb	22 55 40.6	-0.5
GOMA				AML	AML		
GORD	**Gordes-Manisa**	**0.31**	**68**	Pg	Pb	22 55 44.2	+0.9
GORD				Sg	Sb	22 55 49.1	+1.1
GORD				AML	AML		
SOMA	**Soma-Manisa**	**0.42**	**330**	Pg	Pb	22 55 45.8	+0.7
SOMA				Sg	Sb	22 55 52.3	+1.2
SOMA				AML	AML		
BLCB	**Balcova**	**0.72**	**236**	Pg	Pn	22 55 51.2	-0.3
BLCB				AML	AML		
DKL	**Dikili**	**0.76**	**292**	Pg	Pn	22 55 51.7	-0.2
DKL				AML	AML		
FOCM	**Foa**	**0.84**	**265**	Pg	Pn	22 55 53.4	+0.3
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.85**	**176**	Pg	Pn	22 55 53.3	0.0
AYDB				AML	AML		
BALB	**Balikesir**	**0.85**	**4**	Pg	Pn	22 55 53.5	+0.3
BALB				AML	AML		
NAZL	**Nazilli-Aydin**	**0.91**	**155**	Pg	Pn	22 55 54.7	+0.6
NAZL				AML	AML		
SIMA	**Simav-Kutahya**	**0.96**	**72**	Pg	Pn	22 55 55.3	+0.5
SIMA				AML	AML		
YAYO	**Edremit-Balk**	**1.00**	**325**	Pg	Pn	22 55 55.9	+0.7
YAYO				AML	AML		
DST	**Dursunbey**	**1.03**	**38**	Pg	Pn	22 55 56.1	+0.4
DST				AML	AML		
SHAP	**Saphane-Kutahy**	**1.13**	**78**	Pn	Pb	22 55 57.6	+0.3
SUSR	**Susuruk-Balik**	**1.19**	**10**	Pn	Pb	22 55 58.3	0.0
SUSR				AML	AML		
YENI	**Yenice-Canakka**	**1.22**	**339**	Pn	Pb	22 55 58.9	0.0
GONE	**Gonen-Balikesi**	**1.26**	**356**	Pn	Pb	22 55 59.2	-0.2
CANM	**Can-anakkale**	**1.35**	**335**	Pn	Pb	22 56 00.7	-0.3
CANM				AML	AML		

AFAD 03 22:56:20.8, 37.73N×27.03E, h7km±4km, ML1.5, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.17**	**99**	P	Pg	22 56 24.8	+0.6
GCAM				IAML		22 56 27.0	
	comp=E,111nm,0.5s						
GCAM				S	Sg	22 56 27.2	+0.7
GCAM				IAML		22 56 28.0	
	comp=N,140nm,0.2s						
DDIM	**Aydin, Didim**	**0.32**	**147**	P	Pg	22 56 27.4	+0.4
DDIM				S	Sg	22 56 31.8	+0.6
DDIM				IAML		22 56 33.0	
	comp=E,65nm,1.0s						
DDIM				IAML		22 56 38.0	
	comp=N,92nm,0.7s						
DGB	**zmir**	**0.34**	**341**	P	Pg	22 56 27.3	-0.3
DGB				S	Sg	22 56 31.1	-1.0
BEYE	**izmir**	**0.51**	**351**	P	Pg	22 56 30.4	-0.2
DUVT	**Torbali**	**0.60**	**34**	P	Pg	22 56 32.0	-0.3
ZEYE	**Izmir, Urla-Ze**	**0.66**	**321**	P	Pb	22 56 34.6	0.0
AYDN	**Tasoluk**	**0.68**	**95**	P	Pg	22 56 34.4	+0.5
BDRM	**Kayabasi**	**0.74**	**153**	P	Pb	22 56 36.0	0.0
IZMR	**zmir-demi**	**0.84**	**61**	P	Pg	22 56 37.3	+0.3
ESEN	**Aydn-Nazilli**	**1.05**	**86**	P	Pn	22 56 41.6	-0.3

*THE **03** 23:03:38.6, 37.8N±0.9×2.7E±, h6km±1km, M2.7/8, MLh2.7/8*
*ISK **03** 23:03:38.9, 37.84N×26.79E, h6km, ML2.9/29*
*ATH **03** 23:03:38.6, 37.74N×26.64E, h7km±1km, ML2.9/5, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **03** 23:03:39.2, 37.86N×26.80E, h7km±5km, ML3.0*

ISC 03 23:03:38.6±0.8, 37.83N±0.02×26.73E±0.02, h10km±5km, n69, σ0°70/93, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.04**	**213**	P	**Pg**	**23 03 40.3**	**-0.2**
KRL1				S	**Sg**	**23 03 42.0**	**+0.1**
KRL1				AML	AML		
SMG	**Samos**	**0.14**	**144**	P	**Pg**	**23 03 42.0**	**+0.2**
SMG				S	**Sg**	**23 03 44.5**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**144**	P	**Pg**	**23 03 42.1**	**+0.2**
SMG				S	**Sg**	**23 03 44.5**	**+0.3**
SMG				AML	AML		
DGB	**zmir**	**0.26**	**28**	P	**Pg**	**23 03 43.4**	**-0.4**
DGB				S	**Sg**	**23 03 46.1**	**-1.3**
GMLD	**Gumuldur**	**0.29**	**30**	Pg	**Pg**	**23 03 44.3**	**-0.2**
GMLD				Sg	**Sg**	**23 03 48.9**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.42**	**107**	P	**Pg**	**23 03 47.0**	**+0.2**
GCAM				S	**Sb**	**23 03 53.0**	**-1.4**
GCAM				IAML		23 03 54.0	
	comp=N,1μm,0.6s						
GCAM				IAML		23 03 54.0	
	comp=E,1μm,0.3s						
GCAM	**G?zelcaml?**	**0.42**	**107**	Pg	**Pg**	**23 03 46.9**	**+0.2**
GCAM				Sg	**Sb**	**23 03 53.3**	**-1.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.43**	**21**	P	**Pg**	**23 03 46.6**	**-0.5**
BEYE				S	**Sg**	**23 03 51.4**	**-1.4**
KUSD	**Kusadasi-Aydin**	**0.44**	**85**	Pg	**Pg**	**23 03 46.9**	**-0.3**
KUSD				Sg	**Sg**	**23 03 53.1**	**0.0**
KUSD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.45**	**337**	P	**Pg**	**23 03 47.2**	**-0.2**
ZEYE				S	**Sg**	**23 03 52.9**	**-0.5**
DDIM	**Aydin, Didim**	**0.55**	**132**	P	**Pg**	**23 03 49.6**	**+0.4**
DDIM				S	**Sg**	**23 03 57.0**	**+0.5**
DDIM				IAML		23 03 59.0	
	comp=N,2μm,0.6s						
DDIM				IAML		23 03 59.0	
	comp=E,2μm,0.5s						
DIDI	**Didim-Aydin**	**0.60**	**138**	Pg	**Pg**	**23 03 50.6**	**+0.3**
DIDI				Sg	**Sb**	**23 04 00.5**	**+0.8**
DIDI				AML	AML		
BLCB	**Balcova**	**0.61**	**24**	P	**Pg**	**23 03 50.1**	**-0.3**
BLCB				S	**Sb**	**23 03 59.2**	**-0.8**
BLCB				AML	AML		
BLCB	**Balcova**	**0.61**	**24**	Pg	**Pg**	**23 03 50.2**	**-0.3**
BLCB				Sg	**Sg**	**23 03 58.4**	**-0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.69**	**55**	P	**Pg**	**23 03 51.7**	**-0.2**
DUVT				S	**Sg**	**23 04 00.0**	**-1.0**
DUVT				IAML		23 04 04.0	
	comp=E,639nm,0.4s						
CHOS	**Chios island**	**0.77**	**317**	P	**Pg**	**23 03 53.4**	**-0.1**
CHOS				S	**Sg**	**23 04 04.0**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**317**	Pg	**Pb**	**23 03 54.8**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**317**	P	**Pg**	**23 03 53.7**	**+0.2**
CHOS				S	**Sg**	**23 04 04.8**	**+1.1**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.78**	**350**	Pg	**Pb**	**23 03 54.5**	**+0.3**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**148**	Pg	**Pb**	**23 03 55.2**	**+0.3**
YKAV				AML	AML		
BAGT	**Foa**	**0.83**	**7**	P	**Pb**	**23 03 55.4**	**+0.3**
BAGT				S	**Sb**	**23 04 07.0**	**+0.6**
BAGT				IAML		23 04 09.0	
	comp=E,904nm,0.7s						
BAGT				IAML		23 04 09.0	
	comp=N,620nm,0.6s						
EAG2	**Marmaro, Chios**	**0.87**	**326**	P	**Pg**	**23 03 56.1**	**+0.8**
EAG2				S	**Sb**	**23 04 08.1**	**+0.8**
KARB	**zmir-Karabur**	**0.87**	**343**	P	**Pb**	**23 03 56.3**	**+0.5**
FOCM	**Foa**	**0.89**	**360**	Pg	**Pb**	**23 03 56.2**	**+0.2**
FOCM				AML	AML		
BODT	**Bodrum**	**0.89**	**149**	P	**Pg**	**23 03 55.7**	**0.0**
BODT				S	**Sb**	**23 04 08.4**	**+0.4**
BODT	**Bodrum**	**0.89**	**149**	Pg	**Pb**	**23 03 56.5**	**+0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.93**	**82**	Pg	**Pg**	**23 03 56.1**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.93**	**100**	P	**Pg**	**23 03 56.2**	**-0.2**
BDRM	**Kayabasi**	**0.95**	**143**	P	**Pn**	**23 03 58.1**	**+0.2**
BODA	**Bodrum-Mula**	**0.96**	**145**	Pg	**Pb**	**23 03 57.7**	**+0.4**
MLSB	**Milas**	**0.98**	**122**	Pg	**Pb**	**23 03 57.8**	**+0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.01**	**72**	P	**Pg**	**23 03 57.3**	**-0.7**
CAMT	**Merkez**	**1.03**	**26**	P	**Pb**	**23 03 58.6**	**+0.2**
ZEDA	**zmir-Bergama**	**1.17**	**13**	P	**Pg**	**23 04 00.6**	**-0.5**
APE	**Apeiranthos**	**1.22**	**232**	P	**Pn**	**23 04 00.8**	**-0.8**
APE				S	**Sg**	**23 04 18.6**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.22**	**232**	P	**Pn**	**23 04 00.7**	**-1.0**
APE				S	**Sg**	**23 04 14.9**	**-2.9**
NAZL	**Nazilli-Aydin**	**1.24**	**83**	Pn	**Pn**	**23 04 02.2**	**+0.2**
NAZL				AML	AML		
DKL	**Dikili**	**1.25**	**6**	Pn	**Pn**	**23 04 02.8**	**+0.7**
DKL				AML	AML		
YAZI	**Mula-Dat§a-**	**1.28**	**153**	P	**Pn**	**23 04 02.2**	**-0.3**
ESEN	**Aydn-Nazilli**	**1.28**	**91**	P	**Pb**	**23 04 02.2**	**-0.6**
GOMA	**Golmarmara-Man**	**1.28**	**46**	Pn	**Pg**	**23 04 02.8**	**-0.4**
GOMA				AML	AML		
DAT	**Datca**	**1.29**	**148**	P	**Pn**	**23 04 02.6**	**0.0**
DAT	**Datca**	**1.29**	**148**	Pn	**Pg**	**23 04 03.6**	**+0.3**
DAT				AML	AML		
AKHS	**Akhisar**	**1.35**	**39**	P	**Pg**	**23 04 04.3**	**-0.3**
AKS	**Akhisar**	**1.35**	**39**	Pn	**Pg**	**23 04 04.3**	**-0.3**
AKS				AML	AML		
KIRA	**zmir-Kiraz**	**1.37**	**74**	P	**Pg**	**23 04 04.9**	**0.0**
KTTT	**Salihli**	**1.38**	**51**	P	**Pg**	**23 04 05.2**	**+0.3**
MULA	**Mugla, Merkez-**	**1.39**	**114**	P	**Pn**	**23 04 04.0**	**0.0**
YER	**Yerkesik**	**1.41**	**119**	P	**Pn**	**23 04 04.3**	**0.0**
YER				S	**Sg**	**23 04 24.3**	**+0.2**
YER				AML	AML		
YER	**Yerkesik**	**1.41**	**119**	Pn	**Pb**	**23 04 05.2**	**+0.2**
YER				AML	AML		
PRK	**Paraskevi**	**1.46**	**346**	S	**Sn**	**23 04 24.4**	**+0.2**
PRK	**Paraskevi**	**1.46**	**346**	P	**Pb**	**23 04 06.4**	**+0.6**
PRK				S	**Sg**	**23 04 27.3**	**+1.6**
SOMA	**Soma-Manisa**	**1.47**	**25**	Pn	**Pg**	**23 04 06.3**	**-0.5**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.48**	**359**	P	**Pg**	**23 04 06.9**	**-0.1**
GORD	**Gordes-Manisa**	**1.57**	**46**	Pn	**Pb**	**23 04 07.5**	**-0.2**
GORD				AML	AML		
MANT	**Manisa**	**1.59**	**65**	P	**Pg**	**23 04 08.9**	**-0.1**
TURN	**Turunc**	**1.60**	**131**	Pn	**Pn**	**23 04 07.4**	**+0.6**
TURN				AML	AML		

THERA	**Ancient Thera,**	**1.77**	**215**	P	**Pn**	**23 04 08.5**	**-0.7**
THERA				AML	AML			
THERA	**Ancient Thera,**	**1.77**	**215**	P	**Pn**	**23 04 08.4**	**-0.8**
YAYO	**Edremit-Balk**	**1.80**	**8**	Pn	**Pb**	**23 04 11.0**	**-0.7**
YAYO				AML	AML			
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**23 04 09.5**	**-0.5**
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**23 04 09.4**	**-0.5**
DALY	**Dalyan (Mula)**	**1.83**	**123**	Pn	**Pb**	**23 04 11.4**	**-0.7**
DALY				AML	AML			
ARG	**Arkhangelos**	**1.96**	**145**	Pn	**Pb**	**23 04 13.6**	**-0.6**
ARG				AML	AML			
BALB	**Balikesir**	**2.02**	**26**	Pn	**Pb**	**23 04 14.3**	**-1.1**
BALB				AML	AML			
APMY	**Acipayam-Deniz**	**2.07**	**99**	Pn	**Pn**	**23 04 14.6**	**+1.2**
APMY				AML	AML			
SIMA	**Simav-Kutahya**	**2.17**	**54**	Pn	**Pn**	**23 04 16.2**	**+1.4**
SIMA				AML	AML			
FETY	**Fethiye**	**2.22**	**122**	Pn	**Pn**	**23 04 16.9**	**+1.5**
FETY				AML	AML			
CAME	**Cameli-Denizli**	**2.23**	**112**	Pn	**Pn**	**23 04 16.9**	**+1.2**
CAME				AML	AML			

*NEIC **03** 23:07:54.7±2.1, 23.9S±0.1×179.9W±0.1, h499km±6km, mb4.5/125, Error ellipse: s-maj=16.4km s-min=14.7km az=121.0*
*GFZ **03** 23:07:54.9±0.2, 24.2S±4.4×18.0W±., h494km, M4.7/24, mb4.7/24, confirmed*
*IDC **03** 23:07:56.2±0.9, 23.8S×179.89E, h514km±8km, mb3.8/13, mbtmp4.7/15, Error ellipse: s-maj=11.6km s-min=10.2km az=103.0*
*NOU **03** 23:07:56.9, 24.01S×179.64W, h562km, mb4.7/42, South of Fiji Islands*

ISC 03 23:07:54.9±0.3, 23.89S±0.05×179.95E±0.06, h500km, n299, σ1°62/291, mb4.5/92, 3C-3D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**5.67**	**161**	P	**P**	**23 09 29.9**	**+2.0**
	180nm,0.3s,baz=96,slow=18,SNR=1.8						
RAO				S	**S**	**23 10 48.8**	**+4.7**
	208nm,0.4s,baz=233,slow=23,SNR=1.5						
RAO	**Raoul Island**	**5.67**	**161**	P	**P**	**23 09 28.3**	**+0.4**
GLKZ	**Green Lake**	**5.68**	**161**	P	**P**	**23 09 30.4**	**+2.4**
GLKZ				S	**S**	**23 10 51.0**	**+6.8**
GLKZ				AML	AML		
MSVF	**Nonsavu**	**6.38**	**343**	P	**P**	**23 09 36.5**	**+1.3**
	9.7nm,0.5s,baz=260,slow=4.0,SNR=12						
MSVF				S	**S**	**23 10 58.6**	**+1.6**
	16nm,1.0s,baz=345,slow=23,SNR=2.0						
MSVF	**Nonsavu**	**6.38**	**343**	P	**P**	**23 09 36.2**	**+1.0**
MSVF	**Nonsavu**	**6.38**	**343**	P	**P**	**23 09 35.2**	**+0.1**
	comp=Z,25nm,0.9s						
NIUE	**Niue**	**10.57**	**65**	P	**P**	**23 10 18.3**	**-0.1**
NIUE	**Niue**	**10.57**	**65**	P	**P**	**23 10 17.6**	**-0.8**
NIUE	**Niue**	**10.57**	**65**	P	**P**	**23 10 17.6**	**-0.8**
NIUE				S	**S**	**23 12 20.1**	**+3.6**
NIUE	**Niue**	**10.57**	**65**	P	**P**	**23 10 18.1**	**-0.3**
	comp=Z,598nm,1.1s						
MARNC	**Mare, Loyalty**	**11.27**	**280**	P	**P**	**23 10 28.1**	**+2.4**
PINNC	**Pines Island,**	**11.57**	**274**	P	**P**	**23 10 32.3**	**+3.4**
OUZ	**Omahuta**	**12.57**	**205**	P	**P**	**23 10 41.2**	**+1.9**
DZM	**Mont Dzumac**	**12.58**	**276**	P	**P**	**23 10 43.1**	**+3.4**
	comp=Z,16nm,1.1s,baz=81,slow=18,SNR=2.1						
WIAZ	**Waiheke Island**	**13.51**	**197**	P	**P**	**23 10 50.8**	**+1.5**
MXZ	**Matakaoa Point**	**13.70**	**186**	P	**P**	**23 10 52.6**	**+1.3**
TOZ	**Tahuroa Road**	**14.31**	**194**	P	**P**	**23 10 58.0**	**+0.3**
TOZ	**Tahuroa Road**	**14.31**	**194**	P	**P**	**23 11 01.7**	**+4.0**
URZ	**Urewera**	**14.53**	**189**	P	**P**	**23 10 57.2**	**-2.7**
	comp=Z,14nm,0.3s,baz=246,slow=3.4,SNR=21						
URZ				S	**S**	**23 13 33.2**	**+0.7**
	comp=Z,53nm,0.8s,baz=63,slow=22,SNR=22						
URZ	**Urewera**	**14.53**	**189**	P	**P**	**23 11 00.3**	**+0.3**
URZ	**Urewera**	**14.53**	**189**	S	**S**	**23 13 32.0**	**-0.6**
MWZ	**Matawai**	**14.54**	**188**	P	**P**	**23 10 57.8**	**-2.4**
MWZ				S	**S**	**23 13 30.5**	**-2.5**
MUGZ	**Murupara**	**14.79**	**190**	P	**P**	**23 11 02.8**	**+0.1**
MTHZ	**Maungataniwha**	**15.15**	**189**	P	**P**	**23 11 04.9**	**-1.6**
MTHZ				S	**S**	**23 13 43.6**	**-0.9**
HIZ	**Hauiti**	**15.21**	**195**	P	**P**	**23 11 07.7**	**+0.6**
HIZ	**Hauiti**	**15.21**	**195**	S	**S**	**23 13 45.0**	**-0.7**
RATZ	**Rangitukua**	**15.35**	**192**	P	**P**	**23 11 09.9**	**+1.3**
NMHZ	**Naumai**	**15.39**	**189**	P	**P**	**23 11 10.1**	**+1.0**
NMHZ				S	**S**	**23 13 47.7**	**-1.6**
BKZ	**Black Stump Fm**	**15.51**	**190**	P	**P**	**23 11 10.1**	**-0.2**
BKZ	**Black Stump Fm**	**15.51**	**190**	S	**S**	**23 13 49.4**	**-2.1**
BKZ	**Black Stump Fm**	**15.51**	**190**	P	**P**	**23 11 09.7**	**-0.6**
BKZ				S	**S**	**23 13 45.8**	**-5.7**
ARHZ	**Aropaoanui**	**15.53**	**189**	P	**P**	**23 11 12.5**	**+2.0**
TMVZ	**Te Maari**	**15.60**	**192**	P	**P**	**23 11 07.8**	**-3.5**
ETVZ	**East Tongariro**	**15.62**	**192**	P	**P**	**23 11 12.5**	**+0.9**
WTVZ	**West Tongariro**	**15.62**	**193**	P	**P**	**23 11 13.4**	**+1.9**
OTVZ	**Oturere**	**15.65**	**192**	P	**P**	**23 11 11.6**	**-0.4**
OTVZ				S	**S**	**23 13 54.7**	**+0.3**
SNZ	**South Ngauruho**	**15.68**	**192**	P	**P**	**23 11 11.2**	**-1.1**
MCHZ	**McNeill Hill**	**15.75**	**189**	P	**P**	**23 11 14.7**	**+1.4**
TUVZ	**Tukino**	**15.76**	**192**	P	**P**	**23 11 13.3**	**+0.3**
FWVZ	**Far West T-bar**	**15.77**	**193**	P	**P**	**23 11 12.8**	**-0.3**
VRZ	**Vera Road**	**15.81**	**195**	P	**P**	**23 11 16.6**	**+3.2**
WNVZ	**Wahianoa**	**15.82**	**192**	P	**P**	**23 11 12.8**	**-0.9**
PKVZ	**Pokaka**	**15.84**	**193**	P	**P**	**23 11 13.5**	**-0.3**
MOVZ	**Moawhango**	**15.87**	**192**	P	**P**	**23 11 14.6**	**+0.4**
BHHZ	**Black Hill Sta**	**15.90**	**191**	P	**P**	**23 11 12

RPZ **Rata Peaks** 21.08 198 P **P** 23 12 03.6 +0.4
comp=Z,6.1nm,0.6s,baz=26,slow=1.5,SNR=11
comp=Z,6.1nm,0.6s
RPZ **Rata Peaks** 21.08 198 P **P** 23 12 01.7 -1.5
RPZ **Rata Peaks** 21.08 198 P **P** 23 12 03.1 -0.1
RPZ **Rata Peaks** 21.08 198 P **P** 23 12 04.5 +1.2
JCZ **Jackson Bay** 22.12 202 P **P** 23 12 11.1 -1.5
ODZ **Otahua Downs** 22.42 197 P **P** 23 12 13.8 -1.4
NGOA **Tingoa Renbel** 22.54 300 P **P** 23 12 19.2 +2.6
WHZ **Wether Hill Ro** 24.00 201 P **P** 23 12 29.7 +0.4
ARMA **Armidale** 25.98 249 P **P** 23 12 48.4 +1.1
ARMA **Armidale** 25.98 249 P **P** 23 12 49.1 +1.9
ARMA IAmb IAmb 23 12 50.5
comp=Z,20nm,0.8s
ARMA **Armidale** 25.98 249 P **P** 23 12 49.9 +2.7
comp=Z,28nm,0.8s
EIDS **Eidsvold** 26.27 261 P **P** 23 12 51.0 +1.3
EIDS **Eidsvold** 26.27 261 P **P** 23 12 50.5 +0.8
EIDS **Eidsvold** 26.27 261 P **P** 23 12 51.1 +1.3
comp=Z,30nm,0.9s
MGCD **Mangrove Creek** 26.91 243 P **P** 23 12 56.8 +1.5
MGCD **Mangrove Creek** 26.91 243 P **P** 23 12 57.3 +2.0
comp=Z,45nm,0.7s
CAN **Canberra** 29.11 240 P **P** 23 13 15.2 +0.6
CAN **Canberra** 29.11 240 P **P** 23 13 16.0 +1.4
CAN **Canberra** 29.11 240 P **P** 23 13 14.9 +0.3
comp=Z,53nm,1.0s
CMSA **Cobar Meteorol** 31.18 248 P **P** 23 13 32.9 +0.4
CMSA **Cobar Meteorol** 31.18 248 P **P** 23 13 33.7 +1.3
comp=Z,47nm,0.9s
CTA **Charters Tower** 31.43 270 P **P** 23 13 36.0 +1.1
CTAO **Charters Tower** 31.43 270 P **P** 23 13 35.9 +1.1
CTAO **Charters Tower** 31.43 270 P **P** 23 13 35.8 +1.0
CTAO **Charters Tower** 31.43 270 P **P** 23 13 36.1 +1.3
comp=Z,64nm,1.1s
QLP **Quilpie** 32.36 258 P **P** 23 13 43.5 +0.9
QLP **Quilpie** 32.36 258 P **P** 23 13 43.7 +1.1
comp=Z,66nm,1.3s
TAU **Tasmania Unive** 32.91 227 P **P** 23 13 46.7 -0.3
TAU **Tasmania Unive** 32.91 227 P **P** 23 13 48.0 +0.9
MTSU **Mount Surprise** 33.70 273 P **P** 23 13 55.6 +1.5
comp=Z,33nm,1.0s
PMG **Port Moresby** 34.45 289 P **P** 23 14 01.3 +0.8
comp=Z,38nm,0.9s
STKA **Stephens Creek** 34.69 248 P **P** 23 14 03.1 +0.9
comp=Z,6.0nm,0.4s,baz=93,slow=9.2,SNR=22
STKA ScP **ScP** 23 19 20.3 +0.3
comp=Z,2.2nm,0.7s,baz=28,slow=6.6,SNR=2.9
comp=Z,6.0nm,0.4s
STKA **Stephens Creek** 34.69 248 P **P** 23 14 02.5 +0.3
STKA **Stephens Creek** 34.69 248 P **P** 23 14 02.7 +0.5
STKA **Stephens Creek** 34.69 248 P **P** 23 14 03.2 +0.9
comp=Z,76nm,1.2s
HTT **Hallett** 37.04 246 P **P** 23 14 22.1 +0.3
QIS **Mount Isa** 37.41 267 P **P** 23 14 25.5 +0.5
BBOO **Buckleboo** 39.41 247 P **P** 23 14 41.0 -0.2
BBOO **Buckleboo** 39.41 247 P **P** 23 14 40.9 -0.2
BBOO IAmb IAmb 23 14 41.6
comp=Z,22nm,0.9s
BBOO **Buckleboo** 39.41 247 P **P** 23 14 40.9 -0.2
comp=Z,28nm,0.9s
AS01 **Alice Springs** 41.95 261 P **P** 23 15 01.5 -0.1
AS31 **Alice Springs** 41.99 261 P **P** 23 15 01.9 -0.1
ASAR **Alice Springs** 41.99 261 P **P** 23 15 02.4 +0.4
comp=Z,29nm,0.9s,baz=93,slow=8.2,SNR=135
ASAR ScP **ScP** 23 19 47.9 -0.5
comp=Z,8.9nm,0.9s,baz=106,slow=4.1,SNR=30
ASAR S **S** 23 20 42.6 -1.7
comp=Z,1.0nm,0.9s,baz=98,slow=18,SNR=4.2
comp=Z,29nm,0.9s
ASAR **Alice Springs** 41.99 261 P **P** 23 15 02.0 +0.1
WR8 **Warramunga Arr** 42.22 266 P **P** 23 15 03.3 -0.4
WR8 IAmb IAmb 23 15 04.5
comp=Z,25nm,0.9s
WB1 **Warramunga Ar.** 42.35 266 P **P** 23 15 04.4 -0.4
WRAB **Tennant Creek** 42.36 266 P **P** 23 15 04.6 -0.2
WRAB **Tennant Creek** 42.36 266 P **P** 23 15 04.4 -0.4
WRAB **Tennant Creek** 42.36 266 P **P** 23 15 04.4 -0.4
comp=Z,40nm,0.9s
WB0 **Warramunga Arr** 42.36 266 P **P** 23 15 04.1 -0.7
WRA **Warramunga Arr** 42.37 266 P **P** 23 15 04.7 -0.1
comp=Z,19nm,0.5s,baz=90,slow=6.2,SNR=158
WRA ScP **ScP** 23 19 50.2 +0.3
comp=Z,7.8nm,0.9s,baz=96,slow=4.1,SNR=24
WRA S **S** 23 20 46.3 -3.4
comp=Z,1.2nm,0.8s,baz=96,slow=14,SNR=4.8
comp=Z,19nm,0.5s
WRA **Warramunga Arr** 42.37 266 P **P** 23 15 04.6 -0.3
FORT **Forrest** 46.27 250 P **P** 23 15 34.2 -0.8
MTN **Manton Dam** 47.41 274 P **P** 23 15 43.0 -0.8
KNRA **Kununurra** 48.64 270 P **P** 23 15 53.5 +0.5
KNRA IAmb IAmb 23 15 54.4
comp=Z,29nm,1.3s
FAKI **Fak Fak** 50.54 287 P **P** 23 16 06.8 -0.3
FAKI IAmb IAmb 23 16 48.9
comp=Z,34nm,1.3s
FITZ **Fitzroy Crossi** 50.79 266 P **P** 23 16 09.4 +0.6
FITZ **Fitzroy Crossi** 50.79 266 P **P** 23 16 08.8 0.0
FITZ **Fitzroy Crossi** 50.79 266 P **P** 23 16 09.4 +0.6
comp=Z,6.7nm,1.1s
SIJI **Sorong** 52.39 289 P **P** 23 16 20.4 0.0
comp=Z,16nm,0.6s,baz=0.3,slow=7.7,SNR=6.7
comp=Z,16nm,0.6s
SIJI **Sorong** 52.39 289 P **P** 23 16 20.2 -0.3
comp=Z,27nm,1.0s
SBA **Scott Base** 54.38 183 P **P** 23 16 35.6 +2.0
SBA **Scott Base** 54.38 183 P **P** 23 16 35.8 +2.2
comp=Z,20nm,1.0s
VNDA **Vanda** 54.38 185 P **P** 23 16 34.0 +0.4
comp=Z,1.9nm,0.7s,baz=349,slow=6.4,SNR=15
comp=Z,1.9nm,0.7s
VNDA **Vanda** 54.38 185 P **P** 23 16 34.3 +0.7
VNDA **Vanda** 54.38 185 P **P** 23 16 34.4 +0.7
comp=Z,5.6nm,1.5s
SOEI **Soe** 54.80 275 P **P** 23 16 38.2 +0.5
SOEI **Soe** 54.80 275 P **P** 23 16 38.1 +0.3
comp=Z,34nm,0.5s
KLBR **Kellerberrin** 54.95 247 P **P** 23 16 37.6 -0.8
KLBR **Kellerberrin** 54.95 247 P **P** 23 16 38.2 -0.2
comp=Z,74nm,0.8s
MEEK **Meekatharra** 55.07 253 P **P** 23 16 38.6 -0.8
MEEK **Meekatharra** 55.07 253 P **P** 23 16 38.7 -0.8
comp=Z,18nm,1.1s
NWAO **Narrogin (SRO)** 55.20 246 P **P** 23 16 39.1 -1.0
NWAO **Narrogin (SRO)** 55.20 246 P **P** 23 16 39.2 -0.9
NWAO IAmb IAmb 23 16 53.0
comp=Z,54nm,1.5s
MBWA **Marble Bar** 55.33 260 P **P** 23 16 40.6 -0.6
MBWA **Marble Bar** 55.33 260 P **P** 23 16 40.6 -0.6
MBWA IAmb IAmb 23 16 42.3
comp=Z,27nm,1.1s
MBWA **Marble Bar** 55.33 260 P **P** 23 16 41.0 -0.2
comp=Z,27nm,1.0s
BLDU **Ballidu** 55.99 248 P **P** 23 16 44.9 -0.8
BLDU **Ballidu** 55.99 248 P **P** 23 16 45.2 -0.5
comp=Z,22nm,1.1s
MORW **Morawa** 56.84 250 P **P** 23 16 51.0 -0.6
MORW **Morawa** 56.84 250 IAmb IAmb 23 16 52.2
comp=Z,18nm,0.6s
MORW **Morawa** 56.84 250 P **P** 23 16 51.2 -0.4
comp=Z,24nm,1.2s
EDFI **Ende, Flores** 57.53 275 P **P** 23 16 56.6 0.0
comp=Z,491nmcomp=Z,29nm,1.0s
CASY **Casey** 60.10 206 P **P** 23 17 11.5 -1.4
CASY **Casey** 60.10 206 P **P** 23 17 12.5 -0.4
comp=Z,13nm,1.3s
PLAI **Plampang** 61.08 273 P **P** 23 17 20.0 -0.3
PLAI **Plampang** 61.08 273 P **P** 23 17 19.9 -0.4
comp=Z,48nm,1.0s
TOLI2 **Tolitoli** 62.53 285 P **P** 23 17 28.7 -1.1
TOLI2 IAmb IAmb 23 17 30.0
comp=Z,17nm,1.1s
TOLI2 **Tolitoli** 62.53 285 P **P** 23 17 28.9 -0.9
QSPA **South Pole Qui** 66.19 180 P **P** 23 17 52.7 +0.4
comp=Z,10nm,1.0s,baz=29,slow=2.1,SNR=20
comp=Z,10nm,1.0s
QSPA **South Pole Qui** 66.19 180 P **P** 23 17 52.4 +0.1
QSPA IAmb IAmb 23 17 53.8
comp=Z,10nm,0.9s
QSPA **South Pole Qui** 66.19 180 P **P** 23 17 53.0 +0.7
comp=Z,15nm,1.0s
AMKA **Amchitka** 74.94 360 P **P** 23 18 42.4 -1.5
AMKA IAmb IAmb 23 18 44.6
comp=Z,10nm,0.7s
KIWB **Kanaga Island** 75.46 2 P **P** 23 18 46.1 -0.7
KIWB IAmb IAmb 23 18 47.4
comp=Z,16nm,0.8s
MAW **Mawson** 77.74 200 P **P** 23 18 59.5 +0.2
comp=Z,6.9nm,0.9s,baz=106,slow=4.8,SNR=11
comp=Z,6.9nm,0.9s
MAW **Mawson** 77.74 200 P **P** 23 18 59.1 -0.2
MAW **Mawson** 77.74 200 P **P** 23 18 59.5 +0.2
comp=Z,16nm,1.0s
PETK **Petropavlovsk-** 79.08 347 P **P** 23 19 05.6 -1.0
comp=Z,7.4nm,1.0s,baz=84,slow=6.6,SNR=4.8
comp=Z,7.4nm,1.0s
PETK **Petropavlovsk-** 79.08 347 P **P** 23 19 06.6 0.0
NJ2 **Nanjing** 80.62 311 *e*P **P** 23 19 16.4 +1.2
NJ2 pmax pmax
comp=Z,12nm,0.7s
CBX **Cerro Bola** 82.36 50 P **P** 23 19 21.7 -2.5
CBX IAmb IAmb 23 19 25.7
comp=Z,15nm,1.2s
VTX **Valle De La Tr** 82.46 51 P **P** 23 19 23.7 -1.1
VTX IAmb IAmb 23 19 26.4
comp=Z,15nm,1.1s
DPP **Dos Picos Cty** 82.55 49 IAmb IAmb 23 19 26.2
comp=Z,10nm,0.8s
KMRM **Mail Ridge** 82.56 40 IAmb IAmb 23 19 28.5
comp=Z,24nm,1.1s
ESJX **Sierra Juarez** 82.69 50 IAmb IAmb 23 19 27.9
comp=Z,18nm,1.3s
ISA **Isabella, Lake** 83.05 46 IAmb IAmb 23 19 28.9
comp=Z,10nm,0.8s
YUH **Yuha Desert** 83.06 50 IAmb IAmb 23 19 29.1
comp=Z,20nm,1.3s
ELIB **Princess Elisa** 83.06 187 *d*P **P** 23 19 26.7 -0.5
BORC **Borrego Spring** 83.07 49 P **P** 23 19 27.6 0.0
BORC IAmb IAmb 23 19 29.1
comp=Z,11nm,1.0s
O02D **Mt. Diablo Mer** 83.08 40 IAmb IAmb 23 19 29.8
comp=Z,20nm,1.0s
KHBM **Hayfork Bally** 83.13 40 IAmb IAmb 23 19 29.7
comp=Z,12nm,1.0s
CMB **Columbia Colle** 83.22 43 IAmb IAmb 23 19 29.5
comp=Z,11nm,0.9s
PFO **Pinyon Flats O** 83.23 49 P **P** 23 19 28.5 -0.2
PFO **Pinyon Flats O** 83.23 49 P **P** 23 19 28.9 +0.3
AFDM **Forest Hills D** 83.42 42 P **P** 23 19 29.0 -0.4
AFDM IAmb IAmb 23 19 30.4
comp=Z,10nm,1.0s
ORV **Oroville** 83.47 42 P **P** 23 19 29.2 -0.3
CLC **China Lake** 83.72 46 IAmb IAmb 23 19 32.1
comp=Z,10nm,0.9s
O03E **Paynes Creek** 83.74 41 IAmb IAmb 23 19 32.6
comp=Z,18nm,1.1s
BELC **Belle Mtn. Jos** 83.77 49 P **P** 23 19 31.1 -0.2
BELC IAmb IAmb 23 19 32.8
comp=Z,10nm,0.9s
M02C **Callahan** 83.81 40 P **P** 23 19 31.9 +0.6
M02C IAmb IAmb 23 19 33.4
comp=Z,12nm,1.0s
BC3 **Big Chuckawall** 83.95 49 IAmb IAmb 23 19 34.1
comp=Z,18nm,1.5s
GSC **Goldstone, Bar** 83.95 47 IAmb IAmb 23 19 33.2
comp=Z,10nm,0.9s
GLA **Glamis** 84.05 50 IAmb IAmb 23 19 34.6
comp=Z,19nm,1.1s
WAKR **Walker** 84.10 43 IAmb IAmb 23 19 34.5
comp=Z,18nm,1.2s
HATC **Hat Creek Radi** 84.27 41 IAmb IAmb 23 19 35.0
comp=Z,18nm,0.9s
TROLL **Troll, Antarti** 84.34 181 ⇑P **P** 23 19 33.1 -0.5
comp=Z,7.2nm,0.3s
BEKR **Beckworth** 84.35 42 P **P** 23 19 33.5 -0.7
PNTR **Pine Nut** 84.35 43 IAmb IAmb 23 19 36.0
comp=Z,16nm,1.0s
IRM **Iron Mountain** 84.44 49 IAmb IAmb 23 19 36.2
comp=Z,20nm,1.3s
YERR **Yerington** 84.51 43 IAmb IAmb 23 19 36.0
comp=Z,13nm,1.2s
LHV **Little Huntoon** 84.54 44 IAmb IAmb 23 19 40.4
comp=Z,10nm,1.4s
113A **Maynawk Valley,** 84.65 51 IAmb IAmb 23 19 37.0
comp=Z,13nm,1.2s
NVAR **Mina Array Bea** 84.78 44 P **P** 23 19 36.6 +0.3
comp=Z,2.3nm,0.8s,baz=222,slow=7.8,SNR=16
comp=Z,2.3nm,0.8s
NVAR **Mina Array Bea** 84.78 44 P **P** 23 19 35.9 -0.5
GMN **Gold Mountain** 84.79 45 P **P** 23 19 35.6 -0.8
VNA3 **Neumayer Olymp** 84.89 177 ⇑P **P** 23 19 34.9 -1.2
comp=Z,0.6nm,0.2s
COYC **Coyhaique** 84.93 138 P **P** 23 19 37.3 +0.5
COYC IAmb IAmb 23 19 37.9
comp=Z,8.8nm,0.7s
KVN **Kaiserville** 85.27 44 P **P** 23 19 38.0 -0.7
VNA2 **Neumayer--Watz** 85.30 178 ⇑P **P** 23 19 37.1 -1.0
comp=Z,0.6nm,0.3s,baz=185,slow=5.0
PRN **Pahroc Range** 86.30 46 IAmb IAmb 23 19 45.0
comp=Z,6.5nm,0.9s
PINE **Pine Mountain** 86.41 39 IAmb IAmb 23 19 45.7
comp=Z,18nm,1.1s
TUC **Tucson** 86.55 53 P **P** 23 19 45.3 +0.5
TUC IAmb IAmb 23 19 46.9
comp=Z,12nm,0.9s
TUC **Tucson** 86.55 53 P **P** 23 19 45.9 +1.1
comp=Z,14nm,1.3s
WVOR **Wild Horse Val** 86.93 41 P **P** 23 19 46.9 +0.4
comp=Z,21nm,0.7s
X16A **Lo Mia Camp, P** 87.17 50 IAmb IAmb 23 19 49.6
comp=Z,9.2nm,1.2s
U15A **North Rim** 87.63 48 P **P** 23 19 50.2 +0.1
U15A IAmb IAmb 23 19 51.6
comp=Z,8.6nm,0.9s
WUAZ **Wupatki** 87.78 50 IAmb IAmb 23 19 52.2
comp=Z,14nm,1.4s
D05A **Enumclaw** 87.95 35 P **P** 23 19 51.8 +0.9
L19K **White Mountain** 88.12 12 IAmb IAmb 23 19 52.1
comp=Z,15nm,1.1s
CMAR **Chiang Mai Arr** 89.48 290 P **P** 23 19 58.8 +0.1
comp=Z,0.8nm,0.3s,baz=153,slow=2.8,SNR=7.1
comp=Z,0.8nm,0.3s
J19K **Poorman** 89.66 11 P **P** 23 19 57.8 -0.6
J19K IAmb IAmb 23 20 32.2
comp=Z,10nm,1.4s
TMUT **Trail Mountain** 89.86 46 P **P** 23 20 00.4 -0.1
Y22A **Socorro** 90.13 53 IAmb IAmb 23 20 02.9
comp=Z,8.3nm,1.1s
MNTX **Cornudas Mount** 90.24 55 IAmb IAmb 23 20 03.3
comp=Z,6.5nm,1.1s
P17A **Butcher Ranch,** 90.27 46 IAmb IAmb 23 20 04.0
comp=Z,12nm,1.2s
HHC **Hu-ho-hao-te** 90.38 315 *e*P **P** 23 20 02.4 -0.1
HHC pmax pmax
comp=Z,7.0nm,0.7s
TX31 **Lajitas Ar. Si** 90.46 58 IAmb IAmb 23 20 04.5
comp=Z,5.8nm,0.9s
TXAR **Lajitas Array** 90.46 58 P **P** 23 20 03.6 +0.5
comp=Z,3.8nm,0.8s,baz=213,slow=6.6,SNR=43
comp=Z,3.8nm,0.8s
TXAR **Lajitas Array** 90.46 58 P **P** 23 20 02.8 -0.3
ALQ **Albuquerque** 90.98 52 IAmb IAmb 23 20 06.0
comp=Z,6.3nm,1.2s
ALQ **Albuquerque** 90.98 52 IAmb IAmb 23 20 06.0
comp=Z,5.9nm,1.1s
TASM **ASL Pad, Albuq** 90.98 52 P **P** 23 20 04.9 -0.6
TASM IAmb IAmb 23 20 06.0
comp=Z,5.5nm,1.1s
ANMO **Albuquerque** 90.99 52 P **P** 23 20 05.0 -0.5
ANMO IAmb IAmb 23 20 06.8
comp=Z,11nm,1.4s
ANMO **Albuquerque** 90.99 52 P **P** 23 20 05.2 -0.4
PV01 **Paradox Valley** 91.05 48 IAmb IAmb 23 20 06.3
comp=Z,5.2nm,0.9s
PV22 **Blue Mesa, Par** 91.10 48 IAmb IAmb 23 20 08.2
comp=Z,3.6nm,0.8s
ILAR **Eielson Array** 92.03 14 P **P** 23 20 08.5 -0.9
comp=Z,0.7nm,0.8s,baz=220,slow=4.6,SNR=5.6
comp=Z,0.7nm,0.8s
SDCO **Great Sand Dun** 92.99 50 P **P** 23 20 14.9 0.0
LZH **Lanzhou** 93.34 308 *e*P **P** 23 20 17.5 +1.2
LZH pmax pmax
comp=Z,15nm,1.2s
MKAR **Makanchi Array** 112.12 313 PKiKP **PKiKP** 23 25 31.8 -1.3
comp=Z,0.4nm,0.7s,baz=81,slow=3.8,SNR=2.4
MKAR **Makanchi Array** 112.12 313 **PKiKP** 23 25 32.1 -1.0
KURBB **Kurchatov Arra** 115.21 316 PKP **PKPdf** 23 25 37.2 -1.6
comp=Z,0.7nm,0.7s,baz=95,slow=1.7,SNR=7.7
BVAR **Borovoye Array** 120.41 319 PKP **PKPdf** 23 25 47.6 -1.2
comp=Z,2.0nm,0.8s,baz=91,slow=6.2,SNR=6.2
ARCES **ARCESS Array B** 131.87 348 PKP **PKPdf** 23 26 08.9 -1.2
comp=Z,3.4nm,1.0s,baz=112,slow=3.3,SNR=5.8
ARCES **ARCESS Array B** 131.87 348 **PKPdf** 23 26 08.8 -1.4
FINES **FINESS Array B** 138.43 341 PKhKP PKPpre 23 26 13.8
comp=Z,2.7nm,0.9s,baz=159,slow=11,SNR=3.6
FINES PKP **PKPdf** 23 26 22.1 -0.4
comp=Z,2.0nm,0.8s,baz=134,slow=5.5,SNR=5.4
FINES SKPbc **SKPbc** 23 29 07.3 -2.4
comp=Z,2.5nm,0.8s,baz=48,slow=5.7,SNR=5.4
NOA **NORSAR Array B** 142.07 351 PKhKP PKPpre 23 26 24.2
comp=Z,1.8nm,0.9s,baz=3.2,slow=2.4,SNR=4.9
HFS **Hagfors** 142.53 349 PKhKP PKPpre 23 26 25.7
comp=Z,2.5nm,0.4s,baz=58,slow=3.7,SNR=21
PABE **Paberze** 143.79 337 PKPbc 23 26 30.1 -1.1
AKASG **Malin Array Be** 144.94 327 PKP **PKPdf** 23 26 33.6 -0.9
comp=Z,2.7nm,0.6s,baz=44,slow=4.1,SNR=13
AKASG SKPbc **SKPbc** 23 29 24.4 -2.0
comp=Z,1.0nm,0.6s,baz=49,slow=2.6,SNR=5.8
ASF **Jabal al Asfar** 146.49 293 PKPbc **PKPbc** 23 26 40.0 -0.2
comp=Z,2.2nm,0.9s,baz=117,slow=2.3,SNR=2.8
BRTR **Keskin Array B** 147.54 307 PKPbc **PKPbc** 23 26 42.0 -0.8
comp=Z,1.0nm,0.7s,baz=103,slow=3.9,SNR=6.0
BRTR **Keskin Array B** 147.54 307 **PKPbc** 23 26 41.8 -1.0
MMAI **Mount Meron Ar** 147.66 294 PKPbc **PKPbc** 23 26 43.5 +0.2
comp=Z,1.3nm,0.4s,baz=82,slow=7.9,SNR=1.7
EKA **Eskdalemuir Ar** 148.51 3 PKPbc **PKPbc** 23 26 43.0 -1.5
comp=Z,0.9nm,0.3s,baz=333,slow=2.5,SNR=11
OJC **Ojcow** 149.51 335 PKPbc **PKPbc** 23 26 46.1 -1.1
CLL **Collm** 150.84 343 PKPbc **PKPbc** 23 26 48.1 -2.1
CLL **Collm** 150.84 343 *e*PKPdf **PKPdf** 23 26 42.0 -2.0
CLL *i* PKPbc **PKPbc** 23 26 49.5 -0.7
comp=Z,12nm,0.8s
CLL *i* PKPab **PKPab** 23 26 58.9 -0.8
comp=Z,3.0nm,0.8s
CLL *i* pPKPbc **pPKPab** 23 28 55.5 +3.7
VRAC **Vranov** 151.46 337 *e*PKP **PKPbc** 23 26 50.8 -0.9
VRAC *e* 23 27 02.4
KRUC **Moravsky** 151.74 337 *e*PKP **PKPbc** 23 26 51.2 -1.2
KRUC *e* 23 27 02.9
ABNA **Allensteig Bun** 152.41 338 *i* PKP **PKPbc** 23 26 53.9 0.0
comp=Z,2.8nm,0.9s
ABNA *i* PKP **PKPab** 23 27 06.6 +0.2
comp=Z,4.4nm,1.0s
WINA **Alland / Wiene** 152.65 336 *i* PKP **PKPab** 23 27 08.9 +1.4
comp=Z,7.5nm,1.5s
GERES **GERESS Array B** 152.83 340 PKPbc **PKPbc** 23 26 54.0 -0.9
comp=Z,1.1nm,0.8s,baz=346,slow=2.8,SNR=7.0
GERES PKPab **PKPab** 23 27 07.8 -0.5
comp=Z,0.5nm,0.8s,baz=90,slow=2.0,SNR=2.0
GERES **GERESS Array B** 152.83 340 PKPbc **PKPbc** 23 26 54.5 -0.4
CONA **Conrad Observa** 152.88 336 *i* PKP **PKPbc** 23 26 54.7 -0.4
comp=Z,3.3nm,0.9s
CONA *i* PKP **PKPab** 23 27 09.3 +0.7
comp=Z,4.2nm,0.9s
BMRD **Maredsous** 153.37 353 *d*PKP **PKPbc** 23 26 55.6 -0.3
DOU **Dourbes** 153.59 353 *d*PKP **PKPbc** 23 26 53.5 -2.8
SESA **Seetaler Alpe,** 154.04 337 *i* PKP **PKPbc** 23 26 56.7 -1.0
comp=Z,2.3nm,0.9s
SESA *i* PKP **PKPab** 23 27 14.0 +0.3
comp=Z,5.8nm,0.8s
SOKA **Soboth** 154.24 336 *i* PKP **PKPab** 23 27 14.2 -0.2
comp=Z,3.1nm,1.1s
WATA **Walderalm** 154.83 341 *i* PKP **PKPab** 23 27 16.2 -0.8
comp=Z,7.4nm,1.3s
MOTA **Moosalm** 154.96 342 *i* PKP **PKPab** 23 27 17.5 0.0
comp=Z,3.6nm,1.0s
SQTA **Sankt Quirin** 155.04 342 *i* PKP **PKPab** 23 27 18.0 +0.2
comp=Z,4.5nm,1.0s
DAVA **Damuels** 155.34 344 *i* PKP **PKPab** 23 27 19.1 -0.1
comp=Z,4.4nm,0.8s
DAVOX **Davos/Dischmat** 155.81 343 PKPab **PKPab** 23 27 21.2 0.0
comp=Z,1.3nm,0.7s,baz=28,slow=4.2,SNR=5.7
ESDC **Sonseca Array** 163.92 11 PKPab **PKPab** 23 27 56.0 -0.6
comp=Z,1.7nm,1.0s,baz=347,slow=4.0,SNR=5.5

ISK ***03*** *23:12:03.9,37.86N,26.84E,h5km,ML2.5/22*
THE ***03*** *23:12:04.3,38.2,2.7E,h5km,2km,M2.8/4,MLh2.8/4*
AFAD ***03*** *23:12:04.0,37.87N,26.84E,h7km,4km,ML2.3*
ISC 03 23:12:04.3±0.9, 37.86N±0.02, 26.83E±0.03, h7km±8km,
n43, o0, g49/59, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**179**	P	**Pg**	**Pg**	**23 12 07.4**	**0.0**
SMG				S	**Sg**	**Sg**	**23 12 09.5**	**-0.1**
SMG				AML		AML		
DGB	**zmir**	**0.19**	**12**	P	**Pg**	**Pg**	**23 12 08.2**	**0.0**
DGB				S	**Sg**	**Sg**	**23 12 10.5**	**-0.3**
DGB				IAML			23 12 11.0	
	comp=E,602nm,0.5s							
GMLD	**Gumuldur**	**0.22**	**17**	Pg	**Pg**	**Pg**	**23 12 08.9**	**+0.1**
GMLD				Sg	**Sg**	**Sg**	**23 12 12.7**	**+0.9**
GCAM	**G?zelcaml?**	**0.36**	**117**	P	**Pg**	**Pg**	**23 12 11.4**	**+0.1**
GCAM				S	**Sg**	**Sg**	**23 12 16.1**	**+0.2**
GCAM				IAML			23 12 17.0	
	comp=N,442nm,0.5s							
GCAM				IAML			23 12 22.0	
	comp=E,281nm,0.2s							
GCAM	**G?zelcaml?**	**0.36**	**117**	Pg	**Pg**	**Pg**	**23 12 11.3**	**+0.1**
GCAM				Sg	**Sg**	**Sg**	**23 12 16.8**	**+0.9**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**90**	Pg	**Pg**	**Pg**	**23 12 11.1**	**-0.2**
KUSD				Sg	**Sg**	**Sg**	**23 12 16.1**	**0.0**
KUSD				AML		AML		
BEYE	**izmir**	**0.37**	**12**	P	**Pg**	**Pg**	**23 12 11.3**	**-0.2**
BEYE				S	**Sg**	**Sg**	**23 12 16.2**	**-0.3**
BEYE				IAML			23 12 18.0	
	comp=E,298nm,0.4s							
BEYE				IAML			23 12 19.0	
	comp=N,250nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.46**	**325**	P	**Pg**	**Pg**	**23 12 13.0**	**-0.2**
ZEYE				S	**Sg**	**Sg**	**23 12 19.1**	**-0.1**
ZEYE				IAML			23 12 20.0	
	comp=N,302nm,0.7s							
ZEYE				IAML			23 12 25.0	
	comp=E,181nm,0.6s							
DDIM	**Aydin, Didim**	**0.52**	**141**	P	**Pg**	**Pg**	**23 12 14.4**	**+0.1**
BLCB	**Balcova**	**0.55**	**17**	P	**Pg**	**Pg**	**23 12 14.6**	**-0.3**
BLCB				S	**Sg**	**Sg**	**23 12 22.5**	**+0.5**
BLCB				AML		AML		
BLCB	**Balcova**	**0.55**	**17**	Pg	**Pg**	**Pg**	**23 12 14.7**	**-0.2**
BLCB				AML		AML		
DUVT	**Torbali**	**0.60**	**53**	P	**Pg**	**Pg**	**23 12 15.6**	**-0.4**
KRBN	**Karaburun**	**0.76**	**343**	Pg	**Pg**	**Pg**	**23 12 19.1**	**+0.1**
KRBN				Sg	**Sb**	**Sb**	**23 12 30.4**	**-0.1**
KRBN				AML		AML		
BAGT	**Foa**	**0.79**	**1**	P	**Pb**	**Pb**	**23 12 20.3**	**-0.1**
BAGT				S	**Sb**	**Sb**	**23 12 31.4**	**0.0**
BAGT				IAML			23 12 33.0	
	comp=E,203nm,0.5s							
CHOS	**Chios island**	**0.81**	**311**	P	**Pg**	**Pg**	**23 12 20.0**	**+0.2**
CHOS				S	**Sb**	**Sb**	**23 12 31.7**	**-0.2**
CHOS	**Chios island**	**0.81**	**311**	Pg	**Pb**	**Pb**	**23 12 20.2**	**-0.5**
CHOS				Sg	**Sb**	**Sb**	**23 12 31.5**	**-0.3**
CHOS				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**154**	Pg	**Pb**	**Pb**	**23 12 20.1**	**-0.7**
YKAV				AML		AML		
AYDN	**Tasoluk**	**0.85**	**103**	P	**Pg**	**Pg**	**23 12 20.6**	**-0.1**
FOCM	**Foa**	**0.85**	**355**	Pg	**Pb**	**Pb**	**23 12 21.1**	**-0.3**
FOCM				AML		AML		
KARB	**zmir-Karabur**	**0.87**	**338**	P	**Pg**	**Pg**	**23 12 21.2**	**+0.2**
IZMR	**zmir-demi**	**0.93**	**72**	P	**Pg**	**Pg**	**23 12 21.5**	**-0.6**
BDRM	**Kayabasi**	**0.93**	**148**	P	**Pb**	**Pb**	**23 12 22.6**	**-0.2**
BDRM				S	**Sg**	**Sg**	**23 12 34.1**	**-0.2**
BDRM				IAML			23 12 37.0	
	comp=N,126nm,0.6s							
BDRM				IAML			23 12 37.0	
	comp=E,158nm,0.6s							
MLSB	**Milas**	**0.94**	**127**	Pg	**Pg**	**Pg**	**23 12 22.2**	**-0.1**
MLSB				AML		AML		
BODA	**Bodrum-Mula**	**0.95**	**150**	Pg	**Pb**	**Pb**	**23 12 22.6**	**-0.5**
CAMT	**Merkez**	**0.96**	**23**	P	**Pg**	**Pg**	**23 12 22.8**	**0.0**
ZEDA	**zmir-Bergama**	**1.12**	**10**	P	**Pg**	**Pg**	**23 12 25.3**	**-0.5**
ZEDA				S	**Sg**	**Sg**	**23 12 39.1**	**-1.2**
ZEDA				IAML			23 12 43.0	
	comp=E,124nm,0.8s							
ZEDA				IAML			23 12 44.0	
	comp=N,101nm,0.3s							
NAZL	**Nazilli-Aydin**	**1.16**	**84**	Pn	**Pb**	**Pb**	**23 12 26.5**	**-0.2**
NAZL				AML		AML		
GOMA	**Golmarmara-Man**	**1.20**	**45**	Pn	**Pn**	**Pn**	**23 12 27.4**	**-0.1**
GOMA				AML		AML		
AKS	**Akhisar**	**1.27**	**37**	Pn	**Pb**	**Pb**	**23 12 28.7**	**+0.1**
DAT	**Datca**	**1.28**	**152**	Pn	**Pn**	**Pn**	**23 12 28.6**	**-0.1**
DAT				AML		AML		

APE	**Apeiranthos**	**1.30**	**233**	S		**Sn**	**23 12 47.0**	**+0.4**
YER	**Yerkesik**	**1.36**	**122**	P		**Pn**	**23 12 28.7**	**-1.1**
YER				S		**Sb**	**23 12 47.3**	**-0.5**
YER	**Yerkesik**	**1.36**	**122**	Pn		**Pg**	**23 12 30.1**	**-0.3**
YER				AML		AML		
SOMA	**Soma-Manisa**	**1.41**	**23**	Pn		**Pg**	**23 12 30.9**	**-0.4**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.49**	**45**	Pn		**Pb**	**23 12 32.2**	**-0.1**
GORD				AML		AML		
TURN	**Turunc**	**1.56**	**134**	Pn		**Pb**	**23 12 33.4**	**-0.1**
TURN				AML		AML		
YAYO	**Edremit-Balk**	**1.76**	**6**	Pn		**Pb**	**23 12 36.3**	**-0.6**
YAYO				AML		AML		
ARG	**Arkhangelos**	**1.94**	**147**	Pn		**Pn**	**23 12 38.6**	**+0.9**
BALB	**Balikesir**	**1.96**	**24**	Pn		**Pn**	**23 12 38.8**	**+0.9**
BALB				AML		AML		
APMY	**Acipayam-Deniz**	**2.00**	**100**	Pn		**Pn**	**23 12 39.2**	**+0.7**
SIMA	**Simav-Kutahya**	**2.08**	**53**	Pn		**Pn**	**23 12 40.8**	**+1.1**
SIMA				AML		AML		
CAME	**Cameli-Denizli**	**2.17**	**114**	Pn		**Pn**	**23 12 41.6**	**+0.6**
FETY	**Fethiye**	**2.17**	**124**	Pn		**Pn**	**23 12 42.0**	**+1.1**

*IDC **03** 23:17:07.0±0.7,37°.48N×27°.10E,h0^{km},mb3.4/5, mbtmp3.5/15,ML3.2/7,MS3.2/10,Error ellipse: s-maj=10.4km s-min=8.5km az=155.0*
*ISK **03** 23:17:06.9,37°.72N×27°.00E,h5^{km},ML3.9/28*
*AFAD **03** 23:17:07.0,37°.72N×27°.01E,h8^{km}±2^{km},MW3.9*
*THE **03** 23:17:07.4,38°.N±1°×2°.7E±°,h7^{km}±1^{km},M3.7/20, ML3.7/20*
*ATH **03** 23:17:07.9,37°.73N×26°.99E,h6^{km}±1^{km},ML3.9/7,Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*GII **03** 23:17:12.2±0.0,37°.280N±0°.003×27°.264E±0°.001,h0^{km}, confirmed*

ISC 03 23:17:07.7±0.7,**37°.71N**±0°.02×**27°.00E**±0°.02,**h11**^{km}±5^{km}, **n150**,σ1°**73**/189,**mb3.2**/4,**MS3.5**/3,**11C-14D,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.12**	**272**	P		**Pg**	**23 17 10.2**	**-0.5**
SMG				S		**Sg**	**23 17 12.2**	**-0.7**
SMG				AML		AML		
SMG	**Samos**	**0.12**	**272**	P		**Pg**	**23 17 10.2**	**-0.5**
SMG				S		**Sg**	**23 17 12.7**	**-0.2**
GCAM	**G?zelcaml?**	**0.19**	**91**	P		**Pg**	**23 17 11.0**	**-0.7**
GCAM				S		**Sg**	**23 17 13.8**	**-0.7**
GCAM				IAML			23 17 15.0	
	comp=N,9μm,0.6s							
GCAM				IAML			23 17 15.0	
	comp=E,10μm,0.6s							
GCAM	**G?zelcaml?**	**0.19**	**91**	Pg		**Pg**	**23 17 11.1**	**-0.7**
GCAM				Sg		**Sg**	**23 17 14.4**	**-0.1**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**56**	Pg		**Pg**	**23 17 12.8**	**-0.6**
KUSD				AML		AML		
DDIM	**Aydin, Didim**	**0.32**	**142**	P		**Pg**	**23 17 14.2**	**+0.2**
DDIM				S		**Sg**	**23 17 18.5**	**+0.2**
DDIM				IAML			23 17 20.0	
	comp=E,1μm,0.8s							
DDIM				IAML			23 17 21.0	
	comp=N,1μm,0.4s							
DGB	**zmir**	**0.36**	**346**	P		**Pg**	**23 17 14.0**	**-0.8**
DGB				IAML			23 17 18.0	
	comp=N,4μm,0.6s							
DGB				S		**Sg**	**23 17 18.1**	**-1.5**
DGB				IAML			23 17 21.0	
	comp=E,4μm,0.5s							
GMLD	**Gumuldur**	**0.38**	**350**	Pg		**Pg**	**23 17 14.5**	**-0.6**
GMLD				Sg		**Sg**	**23 17 19.7**	**-0.5**
GMLD				AML		AML		
DIDI	**Didim-Aydin**	**0.38**	**149**	Pg		**Pg**	**23 17 14.9**	**-0.3**
DIDI				Sg		**Sg**	**23 17 20.9**	**+0.6**
DIDI				AML		AML		
BEYE	**izmir**	**0.52**	**354**	P		**Pg**	**23 17 17.0**	**-0.9**
YKAV	**Yalikavak-Bodr**	**0.62**	**158**	Pg		**Pg**	**23 17 19.2**	**-0.5**
YKAV				Sg		**Sb**	**23 17 28.8**	**-0.5**
YKAV				AML		AML		
DUVT	**Torbali**	**0.63**	**35**	P		**Pg**	**23 17 18.4**	**-1.5**
DUVT				S		**Sg**	**23 17 26.0**	**-2.1**
DUVT				IAML			23 17 31.0	
	comp=E,3μm,0.7s							
ZEYE	**Izmir, Urla-Ze**	**0.66**	**324**	P		**Pg**	**23 17 19.4**	**-1.0**
BLCB	**Balcova**	**0.68**	**3**	P		**Pg**	**23 17 19.6**	**-1.2**
BLCB				S		**Sg**	**23 17 29.1**	**-0.7**
BLCB				AML		AML		
BLCB	**Balcova**	**0.68**	**3**	Pg		**Pg**	**23 17 19.8**	**-1.1**
BLCB				Sg		**Sg**	**23 17 29.9**	**+0.1**
AYDN	**Tasoluk**	**0.70**	**93**	P		**Pg**	**23 17 20.4**	**-0.9**
BDRM	**Kayabasi**	**0.73**	**151**	P		**Pg**	**23 17 21.6**	**-0.2**
BDRM				S		**Sg**	**23 17 31.7**	**+0.3**
BDRM				IAML			23 17 35.0	
	comp=N,5μm,1.0s							
BDRM				IAML			23 17 35.0	
	comp=E,3μm,0.8s							
BDRM	**Kayabasi**	**0.73**	**151**	⇑P		**Pg**	**23 17 20.6**	**-1.2**
BDRM				⇓S		**Sb**	**23 17 32.4**	**0.0**
MLSB	**Milas**	**0.74**	**123**	Pg		**Pg**	**23 17 21.5**	**-0.6**
MLSB				AML		AML		
CESE	**eme**	**0.83**	**319**	Pg		**Pg**	**23 17 23.3**	**-0.4**
CESE				AML		AML		
IZMR	**zmir-demi**	**0.87**	**60**	P		**Pg**	**23 17 23.9**	**-0.6**
KRBN	**Karaburun**	**0.95**	**339**	Pg		**Pg**	**23 17 25.6**	**-0.4**
KRBN				AML		AML		
BAGT	**Foa**	**0.96**	**353**	P		**Pg**	**23 17 25.6**	**-0.5**
CHOS	**Chios island**	**1.01**	**313**	P		**Pg**	**23 17 26.1**	**-0.9**
CHOS				S		**Sb**	**23 17 40.5**	**0.0**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**313**	Pg		**Pg**	**23 17 26.6**	**-0.5**
CHOS				AML		AML		
CHOS	**Chios island**	**1.01**	**313**	P		**Pg**	**23 17 26.9**	**-0.1**
CHOS				S		**Sg**	**23 17 40.3**	**+0.1**
CHOS				AML		AML		
FOCM	**Foa**	**1.03**	**348**	Pg		**Pg**	**23 17 26.9**	**-0.6**
FOCM				AML		AML		
NAZL	**Nazilli-Aydin**	**1.06**	**75**	Pg		**Pg**	**23 17 27.6**	**-0.5**
NAZL				AML		AML		
KARB	**zmir-Karabur**	**1.06**	**335**	P		**Pg**	**23 17 27.5**	**-0.6**
CAMT	**Merkez**	**1.07**	**13**	P		**Pg**	**23 17 27.5**	**-0.8**
ESEN	**Aydn-Nazilli**	**1.08**	**85**	P		**Pg**	**23 17 27.0**	**-1.4**
DAT	**Datca**	**1.08**	**154**	Pn		**Pg**	**23 17 27.9**	**-0.5**
DAT				AML		AML		
DATC	**Datca-Mugla**	**1.08**	**150**	Pn		**Pg**	**23 17 28.2**	**-0.3**
DATC				AML		AML		
YAZI	**Mula-Dat§a-**	**1.08**	**160**	P		**Pg**	**23 17 27.9**	**-0.7**
EAG2	**Marmaro, Chios**	**1.09**	**320**	P		**Pg**	**23 17 28.5**	**-0.1**
EAG2				S		**Sg**	**23 17 42.3**	**-0.6**
MULA	**Mugla, Merkez-**	**1.15**	**113**	P		**Pg**	**23 17 29.2**	**-0.5**
YER	**Yerkesik**	**1.17**	**119**	P		**Pg**	**23 17 29.2**	**-1.1**
YER				AML		AML		
YER	**Yerkesik**	**1.17**	**119**	Pn		**Pg**	**23 17 29.7**	**-0.5**
YER				AML		AML		
KIRA	**zmir-Kiraz**	**1.22**	**66**	P		**Pg**	**23 17 29.9**	**-1.1**
GOMA	**Golmarmara-Man**	**1.24**	**36**	Pn		**Pg**	**23 17 30.8**	**-0.6**
GOMA				AML		AML		
ZEDA	**zmir-Bergama**	**1.26**	**3**	P		**Pg**	**23 17 30.4**	**-1.5**
KTTT	**Salihli**	**1.31**	**41**	P		**Pn**	**23 17 31.0**	**-1.0**
APE	**Apeiranthos**	**1.33**	**242**	P		**Pn**	**23 17 31.3**	**-0.9**
APE				S		**Sb**	**23 17 50.2**	**+0.5**
APE				AML		AML		
APE	**Apeiranthos**	**1.33**	**242**	⇓P		**Pn**	**23 17 31.0**	**-1.2**
APE				⇓S		**Sn**	**23 17 53.1**	**+3.2**
APE	**Apeiranthos**	**1.33**	**242**	P		**Pb**	**23 17 33.0**	**+0.4**
APE				S		**Sn**	**23 17 51.0**	**+1.0**
APE				AML		AML		
AKHS	**Akhisar**	**1.34**	**29**	P		**Pn**	**23 17 31.3**	**-1.0**
AKS	**Akhisar**	**1.34**	**29**	Pn		**Pn**	**23 17 32.3**	**0.0**
TURN	**Turunc**	**1.36**	**133**	P		**Pn**	**23 17 32.8**	**+0.2**
TURN	**Turunc**	**1.36**	**133**	Pn		**Pb**	**23 17 33.3**	**+0.1**
TURN				AML		AML		
NAX1	**Naxos Island**	**1.42**	**245**	P		**Pb**	**23 17 34.6**	**+0.4**
NAX1				S		**Sb**	**23 17 52.5**	**+0.2**
NAX1				AML		AML		
SULTU	**Buldan**	**1.45**	**76**	P		**Pn**	**23 17 33.2**	**-0.7**
MANT	**Manisa**	**1.46**	**57**	P		**Pn**	**23 17 33.3**	**-0.9**
SOMA	**Soma-Manisa**	**1.51**	**16**	Pn		**Pn**	**23 17 35.1**	**+0.4**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.52**	**37**	Pn		**Pn**	**23 17 35.2**	**+0.3**
GORD				AML		AML		
TAVA	**DENIZLI_Tavas**	**1.54**	**98**	P		**Pn**	**23 17 34.6**	**-0.6**
TAVA	**DENIZLI_Tavas**	**1.54**	**98**	⇓P		**Pn**	**23 17 34.6**	**-0.6**
TAVA				⇓S		**Sg**	**23 17 59.3**	**+2.0**
HARTU	**Esme**	**1.56**	**65**	P		**Pn**	**23 17 34.9**	**-0.6**
AYVA	**Ayvalik**	**1.62**	**352**	P		**Pb**	**23 17 37.4**	**-0.2**
DNIZ	**Denizli-Tavas-**	**1.62**	**92**	P		**Pn**	**23 17 36.0**	**-0.3**
PRK	**Paraskevi**	**1.64**	**340**	P		**Pn**	**23 17 35.9**	**-0.6**
PRK				S		**Sn**	**23 17 57.3**	**-0.3**
PRK				AML		AML		
PRK	**Paraskevi**	**1.64**	**340**	P		**Pn**	**23 17 36.8**	**+0.3**
PRK				S		**Sn**	**23 17 58.2**	**+0.6**
PRK				AML		AML		
DNZT	**Denizli-Tavas-**	**1.67**	**104**	P		**Pn**	**23 17 37.4**	**+0.4**
ARG	**Arkhangelos**	**1.74**	**148**	P		**Pn**	**23 17 37.2**	**-0.7**
ARG				S		**Sb**	**23 18 01.4**	**-0.1**
ARG				AML		AML		
ARG	**Arkhangelos**	**1.74**	**148**	Pn		**Pn**	**23 17 38.3**	**+0.5**
ARG				AML		AML		
STEP	**BALIKESIR_Sava**	**1.76**	**19**	P		**Pn**	**23 17 37.3**	**-0.9**
CMBO	**Columbo, Santo**	**1.77**	**226**	P		**Pn**	**23 17 38.4**	**+0.2**
CMBO				S		**Sn**	**23 18 01.3**	**+0.6**
CMBO	**Columbo, Santo**	**1.77**	**226**	P		**Pn**	**23 17 39.5**	**+1.3**
CMBO				S		**Sn**	**23 18 01.4**	**+0.7**
THR2	**Thira island,**	**1.77**	**225**	P		**Pn**	**23 17 38.5**	**+0.3**
THR8	**Santorini-Mono**	**1.77**	**224**	P		**Pn**	**23 17 37.7**	**-0.6**
SABU	**Mula-Dalaman**	**1.80**	**119**	P		**Pn**	**23 17 38.8**	**+0.1**
THERA	**Ancient Thera,**	**1.81**	**223**	P		**Pn**	**23 17 38.1**	**-0.7**
THERA				AML		AML		
THERA	**Ancient Thera,**	**1.81**	**223**	P		**Pn**	**23 17 40.2**	**+1.5**
THERA				S		**Sb**	**23 18 03.7**	**+0.3**
THERA				AML		AML		
THR3	**Thira Island,**	**1.82**	**225**	P		**Pn**	**23 17 39.1**	**+0.2**
THR3	**Thira Island,**	**1.82**	**225**	P		**Pb**	**23 17 40.5**	**-0.4**
THT1	**Athinios (Pele**	**1.82**	**224**	P		**Pn**	**23 17 38.2**	**-0.7**
THT1				AML		AML		
SNT5	**Nea Kammeni, S**	**1.82**	**225**	P		**Pn**	**23 17 39.3**	**+0.3**
SNT5				AML		AML		
SNT5	**Nea Kammeni, S**	**1.82**	**225**	P		**Pn**	**23 17 40.0**	**+1.1**
SNT5				S		**Sn**	**23 18 03.8**	**+1.8**
SAP3	**Santorini-Thir**	**1.83**	**227**	P		**Pn**	**23 17 39.3**	**+0.2**
SAP3				AML		AML		
SAP3	**Santorini-Thir**	**1.83**	**227**	P		**Pn**	**23 17 40.2**	**+1.1**
SAP3				S		**Sn**	**23 18 03.8**	**+1.6**
THR5	**Thira Island,**	**1.84**	**226**	P		**Pn**	**23 17 39.2**	**0.0**
APMY	**Acipayam-Deniz**	**1.85**	**97**	Pn		**Pn**	**23 17 39.7**	**+0.3**
APMY				AML		AML		
THR6	**Thira Island,**	**1.86**	**224**	P		**Pn**	**23 17 39.6**	**+0.2**
USAK	**Uak-Merkez**	**1.89**	**57**	P		**Pn**	**23 17 39.3**	**-0.6**
DEMI	**Demirci**	**1.90**	**45**	P		**Pg**	**23 17 43.7**	**-0.4**
YAYO	**Edremit-Balk**	**1.91**	**2**	Pn		**Pn**	**23 17 40.7**	**+0.6**
YAYO				AML		AML		
CAEL	**Denizli, Camel**	**1.94**	**107**	P		**Pg**	**23 17 45.3**	**+0.4**
FETY	**Fethiye**	**1.98**	**122**	Pn		**Pn**	**23 17 42.2**	**+1.0**
FETY				AML		AML		
CAME	**Cameli-Denizli**	**1.99**	**112**	Pn		**Pn**	**23 17 42.2**	**+0.8**
CAME				AML		AML		
KARY	**Karystos**	**2.05**	**280**	P		**Pn**	**23 17 40.9**	**-1.2**
KARY				AML		AML		
BALB	**Balikesir**	**2.05**	**19**	Pn		**Pn**	**23 17 42.9**	**+0.8**
BALB				AML		AML		
SIMA	**Simav-Kutahya**	**2.08**	**48**	Pn		**Pn**	**23 17 43.3**	**+0.7**
SIMA				AML		AML		
SMAA	**Simav-Kutahya**	**2.09**	**48**	Pn		**Pn**	**23 17 43.3**	**+0.6**
SMAA				AML		AML		
KARP	**Karpathos**	**2.16**	**176**	P		**Pn**	**23 17 43.0**	**-0.7**
KARP				AML		AML		
EZN	**Ezine**	**2.18**	**346**	P		**Pn**	**23 17 43.5**	**-0.4**
EZN				AML		AML		
SHAP	**Saphane-Kutahy**	**2.19**	**52**	Pn		**Pn**	**23 17 44.6**	**+0.5**
DST	**Dursunbey**	**2.28**	**33**	Pn		**Pn**	**23 17 46.2**	**+0.8**
GEDZ	**Gediz**	**2.32**	**54**	Pn		**Pn**	**23 17 46.7**	**+0.8**
GEDZ				AML		AML		
BASM	**Basmaki-Afyon**	**2.43**	**84**	Pn		**Pn**	**23 17 48.3**	**+0.9**
BASM				AML		AML		
DION	**Dionisos Attik**	**2.45**	**280**	P		**Pn**	**23 17 47.1**	**-0.5**
DION				AML		AML		
PTL	**Penteli**	**2.50**	**279**	P		**Pn**	**23 17 47.6**	**-0.7**
PTL				AML		AML		
VLY	**Voula,Athens**	**2.54**	**274**	P		**Pn**	**23 17 48.3**	**-0.5**
VLY				AML		AML		
ATHU	**Athens Univers**	**2.56**	**277**	P		**Pn**	**23 17 48.3**	**-0.7**
ATHU				AML		AML		
LIA	**Limnos Island**	**2.61**	**328**	P		**Pn**	**23 17 49.3**	**-0.4**
BAND	**Balkesir-Ban**	**2.78**	**18**	⇑P		**Pb**	**23 17 57.1**	**-0.3**
BAND				⇑S		**Sn**	**23 18 27.8**	**+2.0**
IDI	**Anoyia**	**2.95**	**216**	Pn		**Pn**	**23 17 54.1**	**-0.4**
	12nm,0.6s,baz=356,slow=11,SNR=14							
IDI						**Sn**	**23 18 29.0**	**-0.9**
	15nm,0.3s,baz=331,slow=16,SNR=6.3							
IDI					Lg	Lg	23 18 38.8	
	7.9nm,0.3s,baz=329,slow=10,SNR=4.8							
CAVK	**Edirne/Enez-Ca**	**3.05**	**348**	⇑P		**Pn**	**23 17 55.3**	**-0.6**
CAVK				⇓S		**Sg**	**23 18 44.6**	**-1.0**
KEPZ	**Antalya-Kepez**	**3.76**	**101**	⇑P		**Pn**	**23 18 07.8**	**+2.1**
SILT	**Sile**	**4.01**	**30**	⇑P		**Pg**	**23 18 23.1**	**-1.3**
SILT				⇑S		**Sb**	**23 19 09.3**	**+2.6**
SAHE	**Sakarya_HENDEK**	**4.34**	**42**	⇓P		**Pg**	**23 19 30.0**	**-0.8**
SAHE				⇓S		**Sg**	**23 19 27.8**	**+0.8**
VAY	**Valandovo**	**4.97**	**318**	i Pn		**Sg**	**23 18 39.5**	**-3.4**
VAY				i Sn		**Sg**	**23 19 46.9**	**-0.5**
ELND	**Elena**	**5.29**	**351**	⇑P		**Pn**	**23 18 27.1**	**+0.5**
BRTR	**Keskin Array B**	**5.57**	**67**	Pn		**Pn**	**23 18 31.6**	**+1.0**
	0.8nm,0.3s,baz=251,slow=14,SNR=18							
BRTR					Lg	Lg	23 20 09.2	
	baz=250,slow=32							
BRTR					LR	LR	23 20 57.8	
	comp=Z,41nm,19.3s,baz=246,slow=41 3.3nm,0.7s							
BRTR					AML	AML		
KIRS	**Kirsehir-Merke**	**5.62**	**73**	⇑P		**Pn**	**23 18 32.5**	**+1.2**
LOZB	**Loznitsa**	**5.67**	**357**	⇓P		**Pn**	**23 18 30.6**	**-1.2**
CSS	**Mathiatis**	**5.80**	**116**	P		**Pn**	**23 18 36.1**	**+2.4**
CSS				S		**Sn**	**23 19 38.1**	**-2.1**
PLVB	**Pleven**	**5.96**	**343**	⇑P		**Pn**	**23 18 36.5**	**+0.8**
BLKB	**Belogradchik**	**6.76**	**332**	⇓P		**Pn**	**23 18 46.8**	**0.0**
BOVS	**Bovan**	**7.16**	**328**	⇑P		**Pn**	**23 18 50.6**	**-1.7**
MLR	**Muntele Rosu**	**7.82**	**355**	Pn		**Pn**	**23 19 04.1**	**+2.6**
	0.2nm,0.3s,baz=268,slow=23,SNR=3.1							
MLR					Sn	Sn	23 20 40.0	+10
	0.1nm,0.3s,baz=90,slow=23,SNR=1.0							
MLR					Lg	Lg	23 21 22.0	
	0.1nm,0.3s,baz=92,slow=23,SNR=3.1							
MLR					LR	LR	23 22 49.4	
	comp=Z,159nm,18.8s,baz=180,slow=42 1.7nm,0.8s							
MLR					AML	AML		
MLR	**Muntele Rosu**	**7.82**	**355**	⇓P		**Pn**	**23 19 04.0**	**+2.6**
VRI	**Vrincioaia**	**8.16**	**359**	⇓P		Pn	23 19 14.3	+8.4
GZR	**Gura Zlata**	**8.31**	**339**	⇓P		**Pn**	**23 19 05.6**	**-2.5**
MMA0B	**Mount Meron ar**	**8.31**	**122**	P		**Pn**	**23 19 08.6**	**+0.4**
MMA0B				S		**Sn**	**23 20 38.3**	**-3.7**
MMAI	**Mount Meron Ar**	**8.31**	**122**	Pn		**Pn**	**23 19 04.6**	**-3.6**
	1.9nm,0.4s,baz=330,slow=14,SNR=17							
MMAI					Sn	**Sn**	**23 20 34.4**	**-7.6**
	2.7nm,0.3s,baz=303,slow=31,SNR=7.1							
MMAI					LR	LR	23 22 59.4	
	comp=Z,136nm,19.0s,baz=326,slow=43							
GEM	**Giv'at Ha'Em**	**8.37**	**120**	P		**Pn**	**23 19 09.4**	**+0.4**
GEM				S		**Sn**	**23 20 39.4**	**-4.1**
TURR	**Turia**	**8.38**	**355**	⇓P		**Pn**	**23 19 09.3**	**+0.3**
MMLI	**Mount Malkishu**	**8.68**	**125**	P		**Pn**	**23 19 13.9**	**+0.7**
MMLI				S		**Sn**	**23 20 45.7**	**-5.4**
KZIT	**Kziot**	**9.13**	**136**	P		**Pn**	**23 19 18.7**	**-0.8**
KZIT				S		**Sn**	**23 20 55.5**	**-6.7**
MSBI	**Mazada**	**9.39**	**130**	P		**Pn**	**23 19 23.2**	**+0.3**
MSBI				S		**Sn**	**23 21 02.4**	**-6.1**
GHAJ	**Ghor Haditha**	**9.53**	**130**	P		**Pn**	**23 19 25.0**	**+0.2**
RMNI	**Mount Ramon**	**9.57**	**136**	P		**Pn**	**23 19 25.4**	**-0.1**
RMNI				S		**Sn**	**23 21 07.2**	**-5.9**
ASF	**Jabal al Asfar**	**9.79**	**121**	Pn		**Pn**	**23 19 26.0**	**-2.9**
	0.2nm,0.3s,baz=231,slow=17,SNR=2.2							
ASF					Sn	Sn	23 21 10.6	-8.7
	0.2nm,0.3s,baz=333,slow=20,SNR=1.4							
ASF					LR	LR	23 23 57.8	
	comp=Z,120nm,19.0s,baz=289,slow=43 1.9nm,0.7s							
ASF					AML	AML		
VAE	**Valguarnera**	**9.99**	**273**	Pn		**Pn**	**23 19 33.2**	**+2.0**
	7.8nm,0.9s,baz=143,slow=17,SNR=4.2							
HRFI	**Mount Harif**	**10.15**	**137**	P		**Pn**	**23 19 33.3**	**-0.1**
HRFI				S		**Sn**	**23 21 20.3**	**-7.0**
EIL	**Elat**	**10.39**	**138**	Pn		**Pn**	**23 19 33.8**	**-2.9**
	0.3nm,0.3s,baz=320,slow=1.5,SNR=1.9							
EIL					Sn	Sn	23 21 24.4	-8.8
	0.8nm,0.3s,baz=79,slow=16,SNR=4.1 3.0nm,0.8s							
EIL				AML		AML		
EIL	**Elat**	**10.39**	**138**	P		**Pn**	**23 19 36.1**	**-0.6**
EIL				S		**Sn**	**23 21 26.4**	**-6.8**
AKASG	**Malin Array Be**	**13.09**	**6**	LR		LR	23 25 22.8	
	comp=Z,144nm,18.0s,baz=205,slow=37							
KVAR	**Kislovodsk Arr**	**13.42**	**57**	Pn		**Pn**	**23 20 20.1**	**+2.0**
	baz=283,slow=20 1.8nm,0.7s							
GNI	**Garni**	**14.03**	**74**	LR		LR	23 25 51.8	
	comp=Z,63nm,19.1s,baz=294,slow=37							
KEST	**Kesra**	**14.29**	**267**	Pn		**Pn**	**23 20 33.1**	**+3.0**
	0.1nm,0.3s,baz=80,slow=23,SNR=6.8 1.5nm,0.9s							
KEST				AML		AML		
GERES	**GERESS Array B**	**14.73**	**323**	Pn		**P**	**23 20 41.6**	**-0.5**
	baz=147,slow=7.6,SNR=4.1 0.2nm,0.4s							
DAVOX	**Davos/Dischmat**	**15.56**	**311**	LR		LR	23 26 37.7	
	comp=Z,153nm,21.9s,baz=126,slow=36							
HFS	**Hagfors**	**24.00**	**344**	LR		LR	23 32 15.2	
	comp=Z,142nm,19.4s,baz=290,slow=38							
ESDC	**Sonseca Array**	**24.19**	**284**	P		**P**	**23 22 25.9**	**+1.7**
	0.6nm,0.8s,baz=91,slow=10,SNR=2.9 0.6nm,0.8s							
NOA	**NORSAR Array B**	**25.38**	**342**	LR		LR	23 33 24.5	
	comp=Z,36nm,18.7s,baz=315,slow=38							
TORD	**Torodi Ar. Bea**	**33.26**	**229**	P		**P**	**23 23 44.8**	**-0.4**
	0.5nm,0.5s,baz=34,slow=9.9,SNR=5.4 0.5nm,0.5s							
KURBB	**Kurchatov Arra**	**38.40**	**53**	P		**P**	**23 24 31.6**	**+2.7**
	0.2nm,0.6s,baz=276,slow=8.8,SNR=4.3 0.2nm,0.6s							
MKAR	**Makanchi Array**	**41.17**	**59**	P		**P**	**23 24 55.0**	**+2.9**
	0.3nm,0.7s,baz=287,slow=6.2,SNR=4.5 0.3nm,0.7s							
CMAR	**Chiang Mai Arr**	**64.85**	**86**	P		**P**	**23 27 47.1**	**+0.1**
	0.4nm,0.3s,baz=301,slow=5.9,SNR=1.6 0.4nm,0.3s							
KSRS	**Korea Array**	**75.57**	**54**	LR		LR	00 08 10.4	
	comp=Z,34nm,19.0s,baz=315,slow=40							

*BUT **03** 23:18:50.8±1.7,44°.350N±0°.010×115°.17W±0°.03, h8^{km}±5^{km}, Error ellipse: s-maj=2.9km s-min=1.4km az=76.0*

NEIC 03 23:18:50.1±1.0,**44°.37N**±0°.02×**115°.14W**±0°.04,**h10**^{km}±2^{km}, **ML3.2**/90,**ML3.5**/23(BUT),**Error ellipse: s-maj=5.4km s-min=3.2km az=241.0,Western Idaho**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
PLID	**Pearl Lake**	**0.95**	**320**			Pg	23 19 08.1	-0.3
PLID						Sg	23 19 20.9	+0.2
PLID					IAML		23 19 25.5	
	546nm,0.3s							
PLID					IAML		23 19 25.7	
	785nm,0.2s							
HLID	**Hailey**	**0.96**	**147**	Pg		Pg	23 19 08.5	-0.1
HLID				Sg		Sg	23 19 20.8	-0.3
HLID				IAML			23 19 25.6	
	658nm,0.3s							
HLID				IAML			23 19 25.6	
	521nm,0.3s							
MFID	**Camas Ranch**	**1.07**	**208**	Pg		Pg	23 19 10.3	-0.4
MFID				Sg		Sg	23 19 24.6	-0.2
BCYI	**Bear Canyon**	**1.24**	**92**	Pn		Pg	23 19 14.3	+0.2
CNCI	**Crows Nest Can**	**1.29**	**109**			Pb	23 19 14.7	+0.1
ICI	**Italian Canyon**	**1.58**	**91**			Pg	23 19 19.9	-0.4
BMO	**Blue Mountains**	**1.62**	**288**	Pn		Pn	23 19 18.6	-0.3
MCMT	**McKenzie Canyo**	**1.70**	**73**			Pb	23 19 20.9	-0.7
MOMT	**Monida**	**1.98**	**82**			Pb	23 19 26.0	-0.3
DLMT	**Dillon**	**2.06**	**60**	Pn		Pb	23 19 28.1	+0.4
VCMT	**Victor**	**2.18**	**18**			Pn	23 19 28.1	+1.5
F10A	**Beach Ranch, E**	**2.18**	**318**	Pn		Pn	23 19 27.5	+0.9
HBMT	**Mount Humbug**	**2.29**	**51**			Pn	23 19 29.5	+1.3
BPMT	**Black Pine Rid**	**2.39**	**29**	Pn		Pn	23 19 30.2	+0.7
LRM	**Limekiln Ridge**	**2.40**	**52**			Pn	23 19 30.9	+1.3
BUTT	**Butte**	**2.

G06A				IAML		23 21 08.9		
	comp=N,32nm,4.7s							
G06A				IAML		23 21 32.0		
	comp=E,32nm,4.8s							
LDM	**Libby Dam**	**4.09**	**358**	Pn	Pn	23 19 54.5	+1.8	
GCMT	**Greycliff**	**4.13**	**68**	Pn	Pn	23 19 54.2	+0.9	
NEW	**Newport**	**4.13**	**341**	Pn	Pn	23 19 55.0	+1.7	
NEW				IAML		23 21 00.6		
	comp=E,36nm,1.8s							
NEW				IAML		23 21 04.1		
	comp=E,27nm,1.9s							
PINE	**Pine Mountain**	**4.22**	**264**	Pn	Pn	23 19 55.0	+0.3	
PINE				IAML		23 21 17.6		
	comp=E,22nm,5.0s							
PINE				IAML		23 22 22.1		
	comp=N,32nm,3.9s							
BMN	**Battle Mountai**	**4.22**	**202**	Pn	Pn	23 19 55.8	+1.1	
BMN				IAML		23 21 01.8		
	comp=N,27nm,1.0s							
BMN				IAML		23 21 08.6		
	comp=E,28nm,1.0s							
RLMT	**Red Lodge**	**4.25**	**78**	Pn	Pn	23 19 56.4	+1.3	
RLMT				IAML		23 20 31.8		
	comp=E,32nm,4.5s							
EPH	**Ephrata**	**4.32**	**315**	Pn	Pn	23 19 57.3	+1.5	
EPH				IAML		23 21 17.2		
	comp=E,33nm,4.7s							
EPH				IAML		23 21 19.5		
	comp=N,23nm,3.2s							
BW06	**Boulder Array**	**4.36**	**110**	Pn	Pn	23 19 58.1	+1.5	
PD31	**Pinedale Array**	**4.36**	**110**	Pn	Pn	23 19 55.7	-0.9	
PDAR	**Pinedale Array**	**4.36**	**110**	Pn	Pn	23 19 58.2	+1.6	
K05A	**Summer Lake**	**4.49**	**251**	Pn	Pn	23 19 59.3	+0.8	
K05A				IAML		23 22 44.9		
	comp=N,30nm,4.7s							
DUG	**Dugway, Tooele**	**4.51**	**157**	Pn	Pn	23 20 00.6	+2.0	
DUG				IAML		23 21 28.9		
	comp=N,22nm,2.9s							
DUG				IAML		23 21 47.9		
	comp=N,22nm,5.0s							
MOD	**Modoc Plateau**	**4.51**	**239**	Pn	Pn	23 20 00.2	+1.5	
MOD				IAML		23 21 23.9		
	comp=N,17nm,3.0s							
MOD				IAML		23 22 57.4		
	comp=E,22nm,5.0s							
J05D	**Fort Rock, OR**	**4.54**	**258**	Pn	Pn	23 20 00.1	+1.0	
LTY	**Liberty**	**4.83**	**309**	Pn	Pn	23 20 04.2	+1.2	
LTY				IAML		23 21 06.1		
	comp=E,19nm,4.8s							
NLU	**North Lily Min**	**4.96**	**152**	Pn	Pn	23 20 07.0	+2.1	
NLU				IAML		23 21 31.3		
	comp=E,11nm,4.6s							
KVN	**Kaiserville**	**5.76**	**204**	Pn	Pn	23 20 16.1	+0.3	
PSUT	**Pine Spring**	**5.91**	**170**	Pn	Pn	23 20 18.1	+0.2	

IDC 03 23:18:54.0±3.5, 3°21S×135°55E, h0km, mb3.7/2, mbtmp3.7/3, ML3.3/1, Error ellipse: s-maj=152.4km s-min=31.2km az=80.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**16.68**	**184**	Pn	Pn	23 22 48.0	-1.3
	0.1nm,0.3s,baz=3.0,slow=12,SNR=6.9						
	0.5nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.40**	**184**	P	P	23 23 31.9	-0.8
	3.5nm,0.6s,baz=7.8,slow=11,SNR=38						
	3.5nm,0.6s						
MKAR	**Makanchi Array**	**68.28**	**324**	P	P	23 29 57.0	+0.1
	0.3nm,0.7s,baz=101,slow=7.5,SNR=2.7						
	0.3nm,0.7s						

AFAD ***03*** *23:20:59.6, 37.70N×27.03E, h7km±5km, ML2.8*
THE ***03*** *23:21:02.8, 38.2°N×2.7°E±.°, h3km, 3km, M3.0/5, MLh3.0/5*
ISK ***03*** *23:21:03.1, 37.74N×27.02E, h5km, ML2.9/23*
ISC 03 23:21:00.5±0.9, 37.72N±0.02×26.98E±0.02, h7km±7km, n43, σ1.38/57, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.11**	**262**	P	**Pg**	**23 21 02.4**	**-0.6**
SMG				S	**Sg**	**23 21 04.5**	**-0.1**
GCAM	**G?zelcaml?**	**0.21**	**97**	P	**Pg**	**23 21 03.3**	**-1.2**
GCAM				S	**Sg**	**23 21 06.2**	**-1.1**
GCAM				IAML		23 21 10.0	
	comp=E,2μm,0.1s						
GCAM				IAML		23 21 11.0	
	comp=N,3μm,0.6s						
GCAM	**G?zelcaml?**	**0.21**	**97**	Pg	**Pg**	**23 21 06.9**	**+2.3**
GCAM				Sg	**Sg**	**23 21 10.3**	**+2.9**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**61**	Pg	**Pn**	**23 21 08.6**	**-2.5**
KUSD				Sg	**Sb**	**23 21 12.0**	**-0.8**
KUSD				AML	AML		
DGB	**zmir**	**0.34**	**347**	P	**Pg**	**23 21 06.5**	**-0.5**
DGB				S	**Sb**	**23 21 13.9**	**-0.5**
DGB				IAML		23 21 15.0	
	comp=N,747nm,0.3s						
DGB				IAML		23 21 15.0	
	comp=E,1μm,0.2s						
DDIM	**Aydin, Didim**	**0.34**	**142**	P	**Pb**	**23 21 06.4**	**-2.5**
DDIM				IAML		23 21 16.0	
	comp=N,2μm,0.5s						
GMLD	**Gumuldur**	**0.35**	**352**	Pg	**Pn**	**23 21 10.5**	**-1.6**
GMLD				Sg	**Sb**	**23 21 15.7**	**+0.8**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.41**	**149**	Pg	**Pn**	**23 21 11.6**	**-1.1**
DIDI				Sg	**Sb**	**23 21 17.6**	**+1.3**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**356**	P	**Pg**	**23 21 09.3**	**-1.0**
BEYE				S	**Sg**	**23 21 17.9**	**+1.1**
BEYE				IAML		23 21 24.0	
	comp=N,720nm,0.5s						
BEYE				IAML		23 21 25.0	
	comp=E,619nm,0.5s						
DUVT	**Torbali**	**0.62**	**37**	P	**Pg**	**23 21 10.9**	**-1.6**
ZEYE	**Izmir, Urla-Ze**	**0.64**	**324**	P	**Pg**	**23 21 12.5**	**-0.3**
ZEYE				IAML		23 21 25.0	
	comp=N,951nm,0.4s						
ZEYE				IAML		23 21 29.0	
	comp=E,696nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.65**	**158**	Pg	**Pn**	**23 21 15.9**	**-0.1**
YKAV				Sg	**Sn**	**23 21 24.8**	**-1.7**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**4**	P	**Pn**	**23 21 15.6**	**-0.6**
BLCB				S	**Sn**	**23 21 25.2**	**-1.8**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**4**	Pg	**Pn**	**23 21 15.7**	**-0.6**
BLCB				AML	AML		
MLSB	**Milas**	**0.77**	**124**	Pg	**Pn**	**23 21 17.4**	**-0.4**
BODA	**Bodrum-Mula**	**0.78**	**152**	Pg	**Pn**	**23 21 18.5**	**+0.7**
CESE	**eme**	**0.81**	**319**	Pg	**Pn**	**23 21 19.8**	**+1.5**
CESE				AML	AML		
IZMR	**zmir-demi**	**0.88**	**62**	P	**Pn**	**23 21 19.4**	**+0.2**
KRBN	**Karaburun**	**0.93**	**339**	Pg	**Pn**	**23 21 21.7**	**+1.7**
BAGT	**Foa**	**0.94**	**354**	P	**Pn**	**23 21 21.4**	**+1.4**
BAGT				S	**Sn**	**23 21 33.3**	**-0.4**
CHOS	**Chios island**	**0.98**	**313**	P	**Pb**	**23 21 19.6**	**-0.3**
CHOS				S	**Sg**	**23 21 32.7**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.98**	**313**	Pg	**Pn**	**23 21 22.9**	**+2.1**
CHOS				AML	AML		
FOCM	**Foa**	**1.01**	**349**	Pg	**Pn**	**23 21 22.8**	**+1.8**
KARB	**zmir-Karabur**	**1.04**	**335**	P	**Pn**	**23 21 22.0**	**+0.6**
KARB				S	**Sn**	**23 21 37.0**	**+0.8**
KARB				IAML		23 21 41.0	
	comp=N,419nm,0.6s						
KARB				IAML		23 21 41.0	
	comp=E,456nm,0.4s						
CAMT	**Merkez**	**1.06**	**14**	P	**Pb**	**23 21 20.6**	**-0.5**
NAZL	**Nazilli-Aydin**	**1.07**	**77**	Pg	**Pn**	**23 21 23.7**	**+1.8**
DAT	**Datca**	**1.10**	**154**	Pn	**Pn**	**23 21 24.5**	**+2.0**
DAT				AML	AML		
YER	**Yerkesik**	**1.20**	**119**	Pn	**Pn**	**23 21 25.7**	**+2.0**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.23**	**37**	Pn	**Pg**	**23 21 26.9**	**+2.8**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.32**	**241**	P	**Pg**	**23 21 25.7**	**-0.2**
APE				S	**Sg**	**23 21 42.9**	**-0.2**
APE				AML	AML		
TURN	**Turunc**	**1.39**	**133**	Pn	**Pg**	**23 21 29.5**	**+2.4**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.50**	**17**	Pn	**Pg**	**23 21 31.1**	**+1.9**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.51**	**38**	Pn	**Pg**	**23 21 31.1**	**+1.6**
GORD				AML	AML		
PRK	**Paraskevi**	**1.62**	**340**	P	**Pg**	**23 21 31.3**	**-0.2**
ARG	**Arkhangelos**	**1.77**	**148**	Pn	**Pg**	**23 21 35.3**	**+1.0**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.86**	**97**	Pn	**Pg**	**23 21 36.2**	**0.0**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.89**	**2**	Pn	**Pg**	**23 21 36.8**	**+0.2**
YAYO				AML	AML		
FETY	**Fethiye**	**2.00**	**122**	Pn	**Pg**	**23 21 38.3**	**-0.6**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**2.01**	**112**	Pn	**Pg**	**23 21 38.1**	**-0.9**
CAME				AML	AML		
BALB	**Balikesir**	**2.04**	**20**	Pn	**Pg**	**23 21 38.8**	**-0.8**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.08**	**49**	Pn	**Pg**	**23 21 39.7**	**-0.6**
SIMA				AML	AML		
GEDZ	**Gediz**	**2.32**	**55**	Pn	**Pb**	**23 21 42.5**	**-0.2**
GEDZ				AML	AML		
BASM	**Basmaki-Afyon**	**2.44**	**84**	Pn	**Pb**	**23 21 43.8**	**-1.0**
BASM				AML	AML		

AFAD 03 23:26:50.4, 37.82N×27.00E, h7km±3km, ML1.7, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.22**	**122**	P	Pg	23 26 52.6	-2.3
GCAM				S	Sg	23 26 59.4	+1.5
DGB	**zmir**	**0.25**	**339**	P	Pg	23 26 55.6	+0.3
BEYE	**izmir**	**0.41**	**352**	P	Pg	23 26 58.7	+0.3
DDIM	**Aydin, Didim**	**0.41**	**152**	P	Pg	23 26 55.9	-2.5
DDIM				S	Sg	23 27 04.9	+1.1
DDIM				IAML		23 27 06.0	
	comp=N,104nm,0.5s						
DDIM				IAML		23 27 06.0	
	comp=E,69nm,0.7s						
DUVT	**Torbali**	**0.54**	**42**	P	Pg	23 27 00.2	-0.5
ZEYE	**Izmir, Urla-Ze**	**0.57**	**317**	P	Pg	23 27 01.9	+0.4
CAMT	**Merkez**	**0.96**	**15**	P	Pb	23 27 09.1	-0.2
CAMT				S	Sg	23 27 13.7	-7.6

ISK 03 23:27:05.9, 37.72N×27.03E, h5km, ML2.3/19, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.17**	**98**	Pg	Pg	23 27 09.9	+0.7
GCAM				Sg	Sg	23 27 13.0	+1.5
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**56**	Pg	Pg	23 27 11.5	+0.7
KUSD				Sg	Sg	23 27 15.0	+0.9
GMLD	**Gumuldur**	**0.36**	**346**	Pg	Pg	23 27 13.5	+0.5
GMLD				Sg	Sg	23 27 19.1	+1.4
GMLD				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.63**	**161**	Pg	Pb	23 27 18.8	-0.6
YKAV				Sg	Sb	23 27 27.6	-0.9
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**1**	Pg	Pg	23 27 19.1	+0.5
BLCB				AML	AML		
MLSB	**Milas**	**0.73**	**125**	Pg	Pb	23 27 20.6	-0.6
MLSB				Sg	Sg	23 27 30.5	+1.0
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.76**	**155**	Pg	Pb	23 27 21.2	-0.3
BODA				Sg	Sb	23 27 31.9	-0.2
KRBN	**Karaburun**	**0.94**	**337**	Pg	Pb	23 27 24.6	-0.1
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**347**	Pg	Pb	23 27 26.0	+0.1
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**76**	Pg	Pb	23 27 26.0	-0.2
DAT	**Datca**	**1.09**	**156**	Pn	Pb	23 27 27.2	0.0
DAT				AML	AML		
YER	**Yerkesik**	**1.16**	**120**	Pn	Pg	23 27 28.1	-0.1
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**35**	Pn	Pn	23 27 29.5	+0.1
TURN	**Turunc**	**1.36**	**134**	Pn	Pg	23 27 32.3	+0.4
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.49**	**15**	Pn	Pb	23 27 33.9	-0.1
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	Pg	23 27 34.4	-0.1
GORD				AML	AML		
ARG	**Arkhangelos**	**1.74**	**149**	Pn	Pn	23 27 37.5	+0.7
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	Pn	23 27 38.8	+0.8
YAYO	**Edremit-Balk**	**1.89**	**1**	Pn	Pn	23 27 39.5	+0.8
YAYO				AML	AML		
FETY	**Fethiye**	**1.97**	**123**	Pn	Pn	23 27 40.8	+0.9
CAME	**Cameli-Denizli**	**1.98**	**113**	Pn	Pn	23 27 41.0	+0.9
BALB	**Balikesir**	**2.03**	**19**	Pn	Pb	23 27 42.0	-1.2
BALB				AML	AML		

ISK ***03*** *23:29:40.7, 37.71N×27.01E, h5km, ML2.8/8*
THE ***03*** *23:29:41.7, 38.2°N×2.7°E±.°, h3km±1km, M2.6/6, MLh2.6/6*
AFAD ***03*** *23:29:41.4, 37.75N×27.03E, h7km±4km, ML2.4*
ISC 03 23:29:41.6±0.9, 37.73N±0.02×27.03E±0.02, h9km±7km, n34, σ0.55/49, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**262**	P	**Pg**	**23 29 44.6**	**-0.3**
SMG				S	**Sg**	**23 29 47.1**	**-0.1**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**100**	P	**Pg**	**23 29 45.2**	**0.0**
GCAM				S	**Sg**	**23 29 47.8**	**+0.2**
GCAM				IAML		23 29 48.0	
	comp=E,2μm,0.5s						
GCAM				IAML		23 29 49.0	
	comp=N,1μm,0.3s						
GCAM	**G?zelcaml?**	**0.17**	**100**	Pg	**Pg**	**23 29 45.1**	**-0.1**
GCAM				Sg	**Sg**	**23 29 48.0**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**58**	Pg	**Pg**	**23 29 46.5**	**-0.1**
DDIM	**Aydin, Didim**	**0.32**	**148**	P	**Pg**	**23 29 48.3**	**+0.3**
DGB	**zmir**	**0.34**	**341**	P	**Pg**	**23 29 48.2**	**-0.1**
DGB				S	**Sg**	**23 29 52.6**	**-0.2**
GMLD	**Gumuldur**	**0.36**	**346**	Pg	**Pg**	**23 29 48.8**	**+0.2**
GMLD				Sg	**Sg**	**23 29 54.1**	**+0.7**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**351**	P	**Pg**	**23 29 51.4**	**0.0**
BEYE				S	**Sg**	**23 29 57.5**	**-0.5**
BEYE				IAML		23 30 00.0	
	comp=E,273nm,0.5s						
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**23 29 52.9**	**-0.2**
DUVT				S	**Sg**	**23 30 00.3**	**-0.6**
DUVT				IAML		23 30 06.0	
	comp=E,233nm,0.4s						
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**23 29 53.8**	**-0.4**
BLCB				S	**Sb**	**23 30 03.3**	**-1.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**23 29 53.9**	**-0.4**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**321**	P	**Pb**	**23 29 54.5**	**-0.7**
ZEYE				S	**Sg**	**23 30 02.8**	**0.0**
ZEYE				IAML		23 30 04.0	
	comp=N,220nm,0.6s						
ZEYE				IAML		23 30 08.0	
	comp=E,162nm,0.4s						
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**23 29 54.7**	**-0.1**
BODT	**Bodrum**	**0.70**	**161**	Pg	**Pg**	**23 29 54.5**	**-0.7**
BODT				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**23 29 54.9**	**-0.9**
BDRM	**Kayabasi**	**0.74**	**153**	P	**Pg**	**23 29 55.5**	**-0.4**
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pg**	**23 29 55.8**	**-0.5**
IZMR	**zmir-demi**	**0.84**	**61**	P	**Pb**	**23 29 58.6**	**+0.3**
IZMR				S	**Sg**	**23 30 06.8**	**-1.8**
BAGT	**Foa**	**0.93**	**352**	P	**Pb**	**23 29 59.9**	**0.0**
BAGT				IAML		23 30 04.0	
	comp=N,133nm,1.5s						
BAGT				S	**Sb**	**23 30 12.2**	**-0.2**
BAGT				IAML		23 30 15.0	
	comp=E,200nm,0.6s						
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**23 30 01.1**	**-0.1**
CHOS				S	**Sb**	**23 30 14.8**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	Pg	**Pb**	**23 30 00.9**	**-0.4**
CHOS				Sg	**Sb**	**23 30 15.3**	**+0.6**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**77**	Pg	**Pg**	**23 30 01.4**	**0.0**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pb**	**23 30 01.7**	**-0.1**
KARB	**zmir-Karabur**	**1.05**	**333**	P	**Pb**	**23 30 02.1**	**+0.2**
ESEN	**Aydn-Nazilli**	**1.05**	**86**	P	**Pg**	**23 30 01.8**	**0.0**
YER	**Yerkesik**	**1.16**	**120**	P	**Pg**	**23 30 03.7**	**-0.3**
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pn**	**23 30 05.2**	**+0.1**
KTTT	**Salihli**	**1.27**	**41**	P	**Pn**	**23 30 06.4**	**+0.8**
AKHS	**Akhisar**	**1.30**	**28**	P	**Pg**	**23 30 06.9**	**+0.2**
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**23 30 07.1**	**-0.3**
APE	**Apeiranthos**	**1.36**	**241**	P	**Pn**	**23 30 07.1**	**+0.3**
APE				S	**Sn**	**23 30 26.1**	**+1.1**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn	**Pb**	**23 30 09.0**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pn**	**23 30 09.0**	**+0.5**
GORD				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**23 30 10.8**	**+0.4**
PRK				S	**Sg**	**23 30 32.7**	**-1.1**

ISK ***03*** *23:33:20.2, 37.74N×27.04E, h6km, ML2.6/13*
THE ***03*** *23:33:21.1, 38.1°N×2.1°E±.°, h3km, 2km, M2.7/6, MLh2.7/6*
ISC 03 23:33:20.8±0.9, 37.74N±0.03×27.03E±0.03, h9km±7km, n19, σ0.41/28, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**260**	P	**Pg**	**23 33 24.0**	**-0.2**
SMG				S	**Sg**	**23 33 26.4**	**-0.1**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.16**	**103**	Pg	**Pg**	**23 33 24.2**	**0.0**
GCAM				Sg	**Sg**	**23 33 26.7**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**58**	Pg	**Pg**	**23 33 25.6**	**0.0**
KUSD				Sg	**Sg**	**23 33 29.1**	**+0.3**
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pg**	**23 33 27.9**	**+0.2**
GMLD				Sg	**Sg**	**23 33 33.0**	**+0.6**
GMLD				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**23 33 33.0**	**-0.3**
BLCB				S	**Sg**	**23 33 41.7**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**23 33 33.1**	**-0.2**
BLCB				Sg	**Sg**	**23 33 42.2**	**+0.4**
BLCB				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pg**	**23 33 34.3**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.74**	**127**	Pg	**Pg**	**23 33 34.5**	**-0.5**
MLSB				AML	AML		
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**23 33 38.8**	**-0.4**
KRBN				AML	AML		
FOCM	**Foa**	**1.00**	**346**	Pg	**Pb**	**23 33 39.9**	**-0.4**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pg**	**23 33 39.7**	**-0.5**
CHOS				S	**Sb**	**23 33 53.3**	**-0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	Pg	**Pb**	**23 33 40.2**	**-0.3**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pg**	**23 33 39.9**	**-0.5**
NAZL				AML	AML		
YER	**Yerkesik**	**1.16**	**121**	P	**Pg**	**23 33 42.8**	**-0.3**
DKL	**Dikili**	**1.34**	**356**	Pn	**Pb**	**23 33 46.2**	**+0.2**
DKL				AML	AML		
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**23 33 46.4**	**+0.3**
APE				S	**Sn**	**23 34 05.6**	**+1.1**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pn**	**23 33 47.9**	**+0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pg**	**23 33 48.8**	**-0.3**
GORD				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**23 33 49.4**	**-0.1**
PRK				S	**Sn**	**23 34 10.6**	**0.0**

AFAD ***03*** *23:37:00.8, 37.74N×26.98E, h7km±4km, MW3.5*
ISK ***03*** *23:37:01.2, 37.75N×27.03E, h5km, ML3.5/25*
THE ***03*** *23:37:01.3, 38°N±1°×27.0E±1.0, h3km±1km, M3.5/7, MLh3.5/7*
ISC 03 23:37:01.4±0.9, 37.74N±0.02×27.02E±0.02, h8km±8km, n47, σ0.52/62, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**258**	P	**Pg**	**23 37 04.3**	**-0.2**
SMG				S	**Sg**	**23 37 06.5**	**-0.1**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.18**	**102**	P	**Pg**	**23 37 04.9**	**-0.1**
GCAM	**G?zelcaml?**	**0.18**	**102**	Pg	**Pg**	**23 37 04.9**	**-0.1**
GCAM				Sg	**Sg**	**23 37 08.2**	**+0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**60**	Pg	**Pg**	**23 37 06.5**	**+0.2**
KUSD				Sg	**Sg**	**23 37 09.6**	**-0.1**
KUSD				AML	AML		
DGB	**zmir**	**0.33**	**341**	P	**Pg**	**23 37 07.8**	**-0.1**
DGB				S	**Sg**	**23 37 11.9**	**-0.4**
DGB				IAML		23 37 13.0	
	comp=E,3μm,0.7s						
DDIM	**Aydin, Didim**	**0.33**	**147**	P	**Pg**	**23 37 08.1**	**+0.2**
GMLD	**Gumuldur**	**0.35**	**347**	Pg	**Pg**	**23 37 08.5**	**+0.3**
GMLD				Sg	**Sg**	**23 37 13.8**	**+1.0**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**154**	Pg	**Pg**	**23 37 09.6**	**+0.4**
DIDI				Sg	**Sg**	**23 37 15.3**	**+0.8**
DIDI				AML	AML		
BEYE	**izmir**	**0.49**	**352**	P	**Pg**	**23 37 10.9**	**-0.1**
BEYE				S	**Sg**	**23 37 17.5**	**0.0**
BEYE				IAML		23 37 22.0	
	comp=N,2μm,0.2s						
BEYE				IAML		23 37 22.0	
	comp=E,2μm,0.3s						
DUVT	**Torbali**	**0.59**	**35**	P	**Pg**	**23 37 12.3**	**-0.5**
DUVT				S	**Sg**	**23 37 19.1**	**-1.5**
DUVT				IAML		23 37 20.0	
	comp=E,1μm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.64**	**321**	P	**Pg**	**23 37 13.4**	**-0.4**
ZEYE				S	**Sg**	**23 37 21.6**	**-0.7**
ZEYE				IAML		23 37 23.0	
	comp=N,3μm,0.3s						
ZEYE				IAML		23 37 24.0	
	comp=E,1μm,0.3s						
BLCB	**Balcova**	**0.65**	**2**	P	**Pg**	**23 37 13.5**	**-0.4**
BLCB				S	**Sg**	**23 37 22.7**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**2**	Pg	**Pg**	**23 37 13.9**	**0.0**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.65**	**161**	Pg	**Pg**	**23 37 14.2**	**+0.3**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.69**	**96**	P	**Pg**	**23 37 14.2**	**-0.5**
MLSB	**Milas**	**0.75**	**126**	Pg	**Pb**	**23 37 16.1**	**-0.7**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.75**	**153**	P	**Pg**	**23 37 15.3**	**-0.6

YER	**Yerkesik**	**1.18**	**120**	Pn	**Pg**	**23 37 23.1**	**-0.9**
YER				AML	AML			
GOMA	**Golmarmara-Man**	**1.20**	**36**	Pn	**Pg**	**23 37 24.2**	**-0.3**
GOMA				AML	AML			
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pg**	**23 37 24.6**	**-0.4**
AKS	**Akhisar**	**1.30**	**29**	Pn	**Pn**	**23 37 26.0**	**0.0**
AKS				AML	AML			
DKL	**Dikili**	**1.33**	**356**	Pn	**Pg**	**23 37 26.9**	**-0.1**
APE	**Apeiranthos**	**1.36**	**241**	P	**Pn**	**23 37 26.0**	**-0.8**
APE				S	**Sn**	**23 37 45.8**	**+0.7**
APE				AML	AML			
TURN	**Turunc**	**1.37**	**134**	Pn	**Pg**	**23 37 27.5**	**-0.2**
TURN				AML	AML			
SOMA	**Soma-Manisa**	**1.47**	**16**	Pn	**Pg**	**23 37 29.3**	**-0.4**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.48**	**38**	Pn	**Pn**	**23 37 28.9**	**+0.4**
GORD				AML	AML			
PRK	**Paraskevi**	**1.61**	**339**	P	**Pn**	**23 37 30.2**	**-0.1**
PRK				S	**Sb**	**23 37 52.0**	**-0.1**
PRK				AML	AML			
ARG	**Arkhangelos**	**1.76**	**149**	P	**Pn**	**23 37 31.8**	**-0.5**
ARG	**Arkhangelos**	**1.76**	**149**	Pn	**Pb**	**23 37 33.5**	**-0.5**
ARG				AML	AML			
APMY	**Acipayam-Deniz**	**1.83**	**98**	Pn	**Pn**	**23 37 34.1**	**+0.7**
APMY				AML	AML			
YAYO	**Edremit-Balk**	**1.87**	**1**	Pn	**Pn**	**23 37 34.6**	**+0.8**
YAYO				AML	AML			
CAME	**Cameli-Denizli**	**1.99**	**113**	Pn	**Pn**	**23 37 36.3**	**+0.8**
CAME				AML	AML			
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pn**	**23 37 36.5**	**+0.7**
BALB				AML	AML			

*IDC **03** 23:37:43.4±1.9,37.°60N×27.°11E,h0km, mb3.4/2, mbtmp3.4/4, ML3.6/2, MS2.9/3, Error ellipse: s-maj=30.1km s-min=23.6km az=174.0*
*AFAD **03** 23:37:43.9,37.°71N×26.°99E,h7km±4km, MW3.7*
*ISK **03** 23:37:44.2,37.°75N×27.°02E, h5km, ML3.7/30*
*THE **03** 23:37:44.4,38°N±3°×2°7E±°, h8km±4km, MLh3.8/3*

ISC 03 23:37:44.4±0.8,**37.73N**±0.°02×**27.°02E**±0.°02,**h10**km±6km, **n69**,σ0**s57**/80,**Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.14**	**262**	P	**Pg**	**23 37 47.4**	**-0.3**
SMG				S	**Sg**	**23 37 49.8**	**-0.2**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**99**	P	**Pg**	**23 37 48.2**	**0.0**
GCAM				S	**Sg**	**23 37 51.1**	**+0.3**
GCAM				IAML		23 37 52.0	
	comp=N,1μm,0.2s						
GCAM				IAML		23 37 52.0	
	comp=E,1μm,0.2s						
GCAM	**G?zelcaml?**	**0.17**	**99**	Pg	**Pg**	**23 37 48.3**	**+0.1**
GCAM				Sg	**Sg**	**23 37 51.5**	**+0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**58**	Pg	**Pg**	**23 37 49.4**	**-0.2**
KUSD				Sg	**Sg**	**23 37 53.0**	**0.0**
KUSD				AML	AML		
DGB	**zmir**	**0.34**	**342**	P	**Pg**	**23 37 51.1**	**-0.1**
DGB				S	**Sg**	**23 37 54.8**	**-0.9**
DGB				IAML		23 37 56.0	
	comp=N,3μm,0.6s						
DGB				IAML		23 37 56.0	
	comp=E,3μm,0.4s						
GMLD	**Gumuldur**	**0.36**	**347**	Pg	**Pg**	**23 37 51.6**	**+0.1**
GMLD				Sg	**Sg**	**23 37 56.4**	**+0.1**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**153**	Pg	**Pg**	**23 37 52.7**	**+0.5**
DIDI				Sg	**Sb**	**23 37 59.4**	**-0.2**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**352**	P	**Pg**	**23 37 54.2**	**0.0**
BEYE				S	**Sg**	**23 38 01.0**	**+0.1**
BEYE				IAML		23 38 02.0	
	comp=E,2μm,0.5s						
BEYE				IAML		23 38 05.0	
	comp=N,4μm,0.2s						
DUVT	**Torbali**	**0.60**	**35**	P	**Pg**	**23 37 55.7**	**-0.3**
DUVT				S	**Sg**	**23 38 02.9**	**-1.1**
DUVT				IAML		23 38 03.0	
	comp=E,4μm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.64**	**161**	Pg	**Pb**	**23 37 57.3**	**-0.4**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**322**	P	**Pg**	**23 37 56.8**	**-0.3**
ZEYE				S	**Sg**	**23 38 05.5**	**-0.1**
ZEYE				IAML		23 38 06.0	
	comp=N,6μm,0.4s						
ZEYE				IAML		23 38 07.0	
	comp=E,3μm,0.3s						
BLCB	**Balcova**	**0.66**	**2**	P	**Pg**	**23 37 56.7**	**-0.5**
BLCB	**Balcova**	**0.66**	**2**	Pg	**Pg**	**23 37 56.8**	**-0.3**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.69**	**95**	P	**Pg**	**23 37 57.6**	**-0.2**
BODT	**Bodrum**	**0.70**	**161**	Pg	**Pg**	**23 37 57.8**	**-0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**72**	Pg	**Pb**	**23 37 58.7**	**-0.6**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**125**	Pg	**Pg**	**23 37 58.9**	**+0.1**
BDRM	**Kayabasi**	**0.74**	**153**	P	**Pg**	**23 37 58.6**	**-0.2**
BODA	**Bodrum-Mula**	**0.77**	**154**	Pg	**Pb**	**23 37 59.5**	**-0.4**
CESE	**eme**	**0.83**	**317**	Pg	**Pb**	**23 38 00.6**	**-0.3**
CESE				AML	AML		
IZMR	**zmir-demi**	**0.84**	**61**	P	**Pn**	**23 38 01.9**	**-0.5**
BAGT	**Foa**	**0.93**	**352**	P	**Pb**	**23 38 02.7**	**0.0**
KRBN	**Karaburun**	**0.94**	**337**	Pg	**Pb**	**23 38 02.8**	**0.0**
KRBN				AML	AML		
CHOS	**Chios island**	**1.00**	**311**	P	**Pb**	**23 38 04.0**	**0.0**
CHOS				S	**Sb**	**23 38 17.4**	**+0.1**
CHOS	**Chios island**	**1.00**	**311**	Pg	**Pb**	**23 38 03.8**	**-0.2**
CHOS				AML	AML		
FOCM	**Foa**	**1.01**	**347**	Pg	**Pb**	**23 38 04.1**	**+0.1**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**77**	Pg	**Pb**	**23 38 04.4**	**-0.1**
CAMT	**Merkez**	**1.04**	**13**	P	**Pb**	**23 38 04.6**	**-0.1**
KARB	**zmir-Karabur**	**1.05**	**333**	P	**Pb**	**23 38 04.6**	**-0.1**
ESEN	**Aydn-Nazilli**	**1.06**	**86**	P	**Pn**	**23 38 05.4**	**+0.1**
DAT	**Datca**	**1.09**	**156**	P	**Pg**	**23 38 05.1**	**-0.4**
DAT				S	**Sb**	**23 38 20.6**	**+0.7**
DAT	**Datca**	**1.09**	**156**	P	**Pn**	**23 38 07.0**	**+1.1**
DAT				S	**Sg**	**23 38 19.3**	**-0.4**
DAT				IAML		23 38 24.0	
	comp=E,1μm,0.7s						
DAT				IAML		23 38 25.0	
	comp=N,1μm,0.4s						
DAT	**Datca**	**1.09**	**156**	Pn	**Pb**	**23 38 05.8**	**+0.3**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.10**	**152**	Pn	**Pn**	**23 38 06.2**	**+0.4**
YAZI	**Mula-Dat§a-**	**1.10**	**161**	P	**Pg**	**23 38 05.2**	**-0.4**
MULA	**Mugla, Merkez-**	**1.14**	**114**	P	**Pn**	**23 38 06.6**	**0.0**
YER	**Yerkesik**	**1.17**	**120**	P	**Pg**	**23 38 06.7**	**-0.2**
YER	**Yerkesik**	**1.17**	**120**	Pn	**Pn**	**23 38 07.3**	**+0.4**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.19**	**66**	P	**Pb**	**23 38 07.0**	**-0.2**
GOMA	**Golmarmara-Man**	**1.21**	**36**	Pn	**Pn**	**23 38 07.6**	**+0.2**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.24**	**2**	P	**Pn**	**23 38 08.9**	**+1.1**
KTST	**Salihli**	**1.28**	**41**	P	**Pg**	**23 38 09.6**	**+0.6**
AKS	**Akhisar**	**1.31**	**28**	Pn	**Pg**	**23 38 09.2**	**-0.4**
AKS				AML	AML		
AKHS	**Akhisar**	**1.31**	**28**	P	**Pg**	**23 38 09.8**	**+0.2**
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**23 38 10.1**	**-0.1**
DKL				AML	AML		
TURN	**Turunc**	**1.37**	**134**	Pn	**Pg**	**23 38 10.9**	**+0.2**
TURN				AML	AML		
SULTU	**Buldan**	**1.42**	**76**	P	**Pb**	**23 38 10.8**	**-0.3**
MANT	**Manisa**	**1.43**	**57**	P	**Pg**	**23 38 12.3**	**+0.3**
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn	**Pb**	**23 38 12.1**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	**Pg**	**23 38 12.5**	**-0.6**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**124**	Pn	**Pb**	**23 38 14.0**	**+0.1**
DALY				AML	AML		
STEP	**BALIKESIR_Sava**	**1.73**	**18**	P	**Pg**	**23 38 18.3**	**+0.6**
BUHA	**Balikesir, Bur**	**1.77**	**2**	P	**Pg**	**23 38 18.0**	**-0.4**
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	**Pb**	**23 38 17.5**	**-0.6**
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pb**	**23 38 17.9**	**-1.0**
YAYO				AML	AML		
FETY	**Fethiye**	**1.98**	**123**	Pn	**Pb**	**23 38 19.6**	**-1.0**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.98**	**113**	Pn	**Pn**	**23 38 19.4**	**+1.2**
CAME				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pb**	**23 38 19.9**	**-1.4**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.05**	**48**	Pn	**Pn**	**23 38 20.2**	**+1.1**
SIMA				AML	AML		
SHAP	**Saphane-Kutahy**	**2.16**	**53**	Pn	**Pn**	**23 38 21.7**	**+1.1**
SHAP				AML	AML		
DST	**Dursunbey**	**2.25**	**33**	Pn	**Pn**	**23 38 22.9**	**+1.0**
DST				AML	AML		
GEDZ	**Gediz**	**2.29**	**54**	Pn	**Pn**	**23 38 23.6**	**+1.2**
GEDZ				AML	AML		
BASM	**Basmaki-Afyon**	**2.41**	**85**	Pn	**Pn**	**23 38 24.2**	**+0.2**
BASM				AML	AML		
BRTR	**Keskin Array B**	**5.55**	**67**	Pn	**Pn**	**23 39 08.5**	**+1.3**
	0.5nm,0.3s,baz=255,slow=13,SNR=4.2						
	2.2nm,0.5s						
BRTR				AML	AML		
MLR	**Muntele Rosu**	**7.80**	**354**	LR	LR	23 43 11.4	
	comp=Z,192nm,18.6s,baz=180,slow=41						
MMAI	**Mount Meron Ar**	**8.31**	**122**	Pn	**Pn**	**23 39 43.5**	**-1.6**
	2.6nm,0.3s,baz=312,slow=14,SNR=9.6						
MMAI				Sn	Sn	23 41 10.2	-8.8
	1.2nm,0.3s,baz=308,slow=33,SNR=2.5						
MMAI				LR	LR	23 43 36.8	
	comp=Z,56nm,20.4s,baz=326,slow=43						
	1.0nm,0.3s						
MMAI				AML	AML		
ASF	**Jabal al Asfar**	**9.79**	**122**	LR	LR	23 44 12.0	
	comp=Z,43nm,20.3s,baz=286,slow=40						
TORD	**Torodi Ar. Bea**	**33.29**	**229**	P	**P**	**23 44 22.6**	**+0.2**
	0.3nm,0.4s,baz=41,slow=7.6,SNR=2.3						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**41.14**	**59**	P	**P**	**23 45 28.7**	**-0.1**
	0.2nm,0.5s,baz=295,slow=7.4,SNR=2.1						
	0.2nm,0.5s						

*THE **03** 23:41:05.3,38°N±1°×2°7E±°, h9km±2km, M2.8/7, MLh2.8/7*
*AFAD **03** 23:41:05.0,37.°76N×27.°04E, h7km±4km, ML2.7*
*ISK **03** 23:41:05.2,37.°74N×27.°06E, h4km, ML2.6/28*

ISC 03 23:41:05.1±0.9,**37.74N**±0.°02×**27.°02E**±0.°02,**h10**km±6km, **n52**,σ0**s76**/70,**Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**260**	P	**Pg**	**23 41 08.4**	**0.0**
SMG				S	**Sg**	**23 41 10.9**	**+0.2**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**101**	P	**Pg**	**23 41 08.9**	**+0.1**
GCAM				S	**Sg**	**23 41 11.1**	**-0.3**
GCAM				IAML		23 41 12.0	
	comp=E,1μm,0.1s						
GCAM				IAML		23 41 13.0	
	comp=N,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.17**	**101**	Pg	**Pg**	**23 41 08.8**	**+0.1**
GCAM				Sg	**Sg**	**23 41 11.8**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**59**	Pg	**Pg**	**23 41 10.0**	**-0.1**
KUSD				Sg	**Sg**	**23 41 13.5**	**0.0**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.33**	**148**	S	**Sg**	**23 41 11.6**	**-4.3**
DDIM				P	**Pg**	**23 41 11.9**	**+0.3**
DGB	**zmir**	**0.34**	**341**	P	**Pg**	**23 41 12.1**	**+0.3**
DGB				S	**Sg**	**23 41 15.8**	**-0.5**
GMLD	**Gumuldur**	**0.35**	**346**	Pg	**Pg**	**23 41 12.4**	**+0.3**
GMLD				Sg	**Sg**	**23 41 17.2**	**+0.4**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**154**	Pg	**Pg**	**23 41 13.2**	**+0.3**
DIDI				Sg	**Sg**	**23 41 19.4**	**+1.2**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**351**	P	**Pg**	**23 41 14.9**	**+0.1**
BEYE				S	**Sg**	**23 41 21.5**	**+0.2**
BEYE				IAML		23 41 26.0	
	comp=N,792nm,0.2s						
BEYE				IAML		23 41 26.0	
	comp=E,617nm,0.3s						
DUVT	**Torbali**	**0.59**	**35**	P	**Pg**	**23 41 16.4**	**-0.1**
DUVT				S	**Sg**	**23 41 23.4**	**-1.0**
DUVT				IAML		23 41 26.0	
	comp=E,285nm,0.5s						
DAGE	**izmir**	**0.64**	**65**	P	**Pg**	**23 41 17.4**	**0.0**
YKAV	**Yalikavak-Bodr**	**0.64**	**161**	Pg	**Pg**	**23 41 18.2**	**+0.7**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**321**	P	**Pg**	**23 41 17.5**	**-0.2**
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**23 41 17.4**	**-0.2**
BLCB				S	**Sg**	**23 41 26.5**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**23 41 17.3**	**-0.4**
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**23 41 18.0**	**-0.3**
BODT	**Bodrum**	**0.71**	**161**	Pg	**Pg**	**23 41 19.2**	**+0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**73**	Pg	**Pg**	**23 41 19.2**	**+0.2**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**23 41 19.5**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.75**	**153**	P	**Pg**	**23 41 19.2**	**-0.3**
BDRM				S	**Sg**	**23 41 28.7**	**-0.6**
BDRM				IAML		23 41 30.0	
	comp=E,307nm,0.5s						
BDRM				IAML		23 41 32.0	
	comp=N,393nm,0.6s						
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pg**	**23 41 20.3**	**+0.3**
IZMR	**zmir-demi**	**0.84**	**61**	P	**Pg**	**23 41 21.2**	**-0.1**
BAGT	**Foa**	**0.93**	**352**	P	**Pb**	**23 41 23.4**	**+0.1**
BAGT				S	**Sg**	**23 41 34.7**	**-0.4**
BAGT				IAML		23 41 38.0	
	comp=N,398nm,0.6s						
BAGT				IAML		23 41 38.0	
	comp=E,286nm,0.3s						
KRBN	**Karaburun**	**0.93**	**337**	Pg	**Pb**	**23 41 24.0**	**+0.6**
KRBN				AML	AML		
CHOS	**Chios island**	**1.00**	**311**	P	**Pg**	**23 41 23.9**	**-0.5**
CHOS				S	**Sg**	**23 41 37.8**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.00**	**311**	Pg	**Pn**	**23 41 25.6**	**+0.3**
CHOS				AML	AML		
FOCM	**Foa**	**1.00**	**347**	Pg	**Pn**	**23 41 25.3**	**+0.1**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**77**	Pg	**Pg**	**23 41 24.8**	**-0.1**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**13**	P	**Pg**	**23 41 25.0**	**-0.1**
KARB	**zmir-Karabur**	**1.04**	**333**	P	**Pg**	**23 41 24.7**	**-0.5**
DAT	**Datca**	**1.10**	**156**	Pn	**Pb**	**23 41 26.7**	**+0.5**
DAT				AML	AML		
YER	**Yerkesik**	**1.17**	**120**	P	**Pg**	**23 41 27.0**	**-0.6**
YER				S	**Sn**	**23 41 43.6**	**0.0**
YER	**Yerkesik**	**1.17**	**120**	Pn	**Pb**	**23 41 27.6**	**+0.2**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**36**	Pn	**Pn**	**23 41 28.3**	**+0.4**
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pn**	**23 41 29.4**	**+1.0**
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**23 41 30.0**	**-0.1**
AKS				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**23 41 31.2**	**+0.4**
DKL				AML	AML		
APE	**Apeiranthos**	**1.36**	**241**	P	**Pn**	**23 41 29.6**	**-0.6**
APE				S	**Sb**	**23 41 48.3**	**+0.1**
APE				AML	AML		
TURN	**Turunc**	**1.37**	**134**	Pn	**Pg**	**23 41 31.3**	**0.0**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn	**Pg**	**23 41 32.9**	**-0.5**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pg**	**23 41 33.0**	**-0.6**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**125**	Pn	**Pb**	**23 41 34.4**	**-0.2**
DALY				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**23 41 33.4**	**-0.3**
PRK				S	**Sn**	**23 41 53.8**	**-0.8**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.75**	**149**	P	**Pn**	**23 41 35.5**	**0.0**
ARG				S	**Sn**	**23 41 59.4**	**+1.4**
ARG	**Arkhangelos**	**1.75**	**149**	Pn	**Pb**	**23 41 37.0**	**-0.4**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**98**	Pn	**Pb**	**23 41 37.9**	**-0.8**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.87**	**1**	Pn	**Pb**	**23 41 39.0**	**-0.4**
YAYO				AML	AML		
FETY	**Fethiye**	**1.98**	**123**	Pn	**Pb**	**23 41 40.3**	**-0.9**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.98**	**113**	Pn	**Pn**	**23 41 40.0**	**+1.2**
CAME				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pb**	**23 41 41.0**	**-0.9**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.05**	**48**	Pn	**Pn**	**23 41 40.9**	**+1.2**
SIMA				AML	AML		
GEDZ	**Gediz**	**2.29**	**54**	Pn	**Pn**	**23 41 44.4**	**+1.4**
GEDZ				AML	AML		

*MEX **03** 23:48:26.3±0.8, 14.°18N×93.°14W, h13km±140km, MD4.2, Presumed earthquake*
*GCG **03** 23:48:28.1±0.8, 14.°23N×92.°84W, h16km±7km, MD4.2, Presumed earthquake*

ISC 03 23:48:22.9±1.9,**14.°15N**±0.°07×**93.°05W**±0.°05,**h13**km±11km, **n21**,σ1**s87**/34,**Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
THIG		**1.07**	**45**	*e*P	**Pg**	**23 48 42.5**	**-0.9**
THIG				*e*S	**Sb**	**23 48 57.0**	**-0.1**
PATR	**El Naranjo**	**1.24**	**39**	*e*P	**Pg**	**23 48 46.6**	**-0.2**
PATR				*e*S	**Sg**	**23 49 01.6**	**-1.4**
CHUJ	**Union Juarez**	**1.31**	**44**	*e*P	**Pb**	**23 48 47.5**	**+0.1**
CHUJ				*e*S	**Sb**	**23 49 03.9**	**-0.3**
PAVE	**Pavencul**	**1.34**	**39**	*e*P	**Pn**	**23 48 47.9**	**+0.4**
PAVE				*e*S	**Sb**	**23 49 04.3**	**-0.8**
RTAL	**Retalhuleu**	**1.36**	**74**	*e*P	**Pg**	**23 48 49.8**	**+0.7**
RTAL				*e*S	**Sb**	**23 49 05.8**	**+0.3**
PCIG		**1.56**	**354**	*e*P	**Pn**	**23 48 49.5**	**-0.7**
PCIG				*e*S	**Sn**	**23 49 07.0**	**-3.3**
QUEO	**Labor Ovalle**	**1.65**	**64**	*e*P	**Pb**	**23 48 54.5**	**+1.2**
STG8	**El Palmar, Qui**	**1.67**	**79**	*e*P	**Pn**	**23 48 51.7**	**-0.4**
CCIG	**Comitan**	**2.29**	**22**	*e*P	**Pn**	**23 49 03.9**	**+3.3**
CCIG	**Comitan**	**2.29**	**22**	*e*P	**Pn**	**23 49 03.7**	**+3.1**
CCIG				*e*S	**Sn**	**23 49 30.8**	**+2.0**
FG8	**Yepocapa, Chim**	**2.41**	**87**	*e*P	**Pn**	**23 48 59.5**	**-2.7**
FG16	**Alotenango, Sa**	**2.46**	**87**	*e*P	**Pn**	**23 49 00.6**	**-2.3**
PCG5	**San Vicente Pa**	**2.59**	**88**	*e*P	**Pn**	**23 49 03.6**	**-1.0**
TGIG		**2.61**	**358**	*i* P	**Pn**	**23 49 06.6**	**+1.7**
TGIG				*i* S	**Sn**	**23 49 34.6**	**-2.0**
TGIG		**2.61**	**358**	*e*P	**Pn**	**23 49 06.6**	**+1.7**
TGIG				*e*S	**Sn**	**23 49 36.7**	**+0.2**
APG	**El Apazote**	**2.64**	**71**	*e*P	**Pn**	**23 49 08.6**	**+3.2**
NUBE	**Las Nubes**	**3.18**	**94**	*e*P	**Pn**	**23 49 16.0**	**+3.2**
UXUV	**UXUV**	**3.32**	**342**	*e*P	**Pn**	**23 49 16.8**	**+2.2**
UXUV				*e*S	**Sn**	**23 49 51.3**	**-2.7**
CMIG	**Matias Romero**	**3.42**	**329**	*e*P	**Pn**	**23 49 16.7**	**+0.8**
CMIG				*e*S	**Sn**	**23 49 54.4**	**-1.9**
NEUV	**Arroyo Zacate**	**4.42**	**324**	*e*P	**Pn**	**23 49 30.6**	**+0.8**
NEUV				*e*S	**Sn**	**23 50 20.4**	**-0.7**
TXIG	**Tlaxiaco**	**5.50**	**305**	*e*P	**Pn**	**23 49 46.2**	**+1.5**
TXIG				*e*S	**Sn**	**23 50 47.6**	**-0.4**

*ATH **03** 23:56:09.3,37.°76N×27.°05E, h8km±2km, ML3.4/7, Latitude uncertainty: 2 km; Longitude uncertainty: 3 km*
*ISK **03** 23:56:10.2,37.°73N×27.°02E, h4km, ML3.4/27*
*AFAD **03** 23:56:10.1,37.°74N×27.°01E, h7km±3km, MW3.5*
*THE **03** 23:56:10.5,37.°7N±0.°9×2.°7E±°, h8km±2km, M3.4/9, MLh3.4/9*

ISC 03 23:56:10.3±0.8,**37.74N**±0.°02×**27.°01E**±0.°02,**h11**km±5km, **n65**,σ0**s53**/91,**Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.14**	**259**	P	**Pg**	**23 56 13.4**	**-0.2**
SMG				S	**Sg**	**23 56 16.0**	**0.0**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**259**	P	**Pg**	**23 56 13.2**	**-0.4**
SMG				S	**Sg**	**23 56 16.1**	**0.0**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.18**	**101**	P	**Pg**	**23 56 14.4**	**+0.1**
GCAM				S	**Sg**	**23 56 16.9**	**-0.1**
GCAM				IAML		23 56 19.0	
	comp=N,8μm,0.5s						
GCAM				IAML		23 56 21.0	
	comp=E,7μm,0.7s						
GCAM	**G?zelcaml?**	**0.18**	**101**	Pg	**Pg**	**23 56 14.3**	**+0.1**
GCAM				Sg	**Sg**	**23 56 17.5**	**+0.5**
GCAM				AML	AML		
KRL1	**Karlovasi Samo**	**0.25**	**284**	P	**Pg**	**23 56 15.2**	**-0.2**
KRL1				S	**Sg**	**23 56 18.7**	**-0.3**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**60**	Pg	**Pg**	**23 56 15.9**	**+0.4**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.33**	**147**	P	**Pg**	**23 56 17.0**	**0.0**
DGB	**zmir**	**0.33**	**342**	P	**Pg**	**23 56 17.2**	**+0.3**
DGB				S	**Sg**	**23 56 21.7**	**+0.3**
DGB				IAML		23 56 22.0	
	comp=N,2μm,0.8s						
DGB				IAML		23 56 23.0	
	comp=E,2μm,1.0s						
GMLD	**Gumuldur**	**0.35**	**347**	Pg	**Pb**	**23 56 17.9**	**-0.6**
GMLD				Sg	**Sb**	**23 56 23.4**	**-0.6**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**153**	Pg	**Pg**	**23 56 18.5**	**+0.3**
DIDI				Sg	**Sb**	**23 56 25.0**	**-0.5**
DIDI				AML	AML		
BEYE	**izmir**	**0.49**	**352**	P	**Pg**	**23 56 20.3**	**+0.3**
BEYE				S	**Sg**	**23 56 26.9**	**+0.3**
BEYE				IAML		23 56 28.0	
	comp=E,2μm,0.5s						
BEYE				IAML		23 56 30.0	
	comp=N,1μm,0.8s						
DUVT	**Torbali**	**0.59**	**35**	P	**Pg**	**23 56 21.9**	**+0.1**
DUVT				S	**Sg**	**23 56 29.2**	**-0.5**
DUVT				IAML		23 56 30.0	
	comp=E,2μm,0.8s						
ZEYE	**Izmir, Urla-Ze**	**0.64**	**322**	P	**Pg**	**23 56 22.7**	**-0.1**
ZEYE				S	**Sg**	**23 56 31.3**	**0.0**
ZEYE				IAML		23 56 34.0	
	comp=N,2

GOMA	**Golmarmara-Man**	**1.21**	**36**	Pn	**Pg**	**23 56 33.8**	**+0.3**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pg**	**23 56 34.1**	**+0.2**
KTTT	**Salihli**	**1.28**	**42**	P	**Pg**	**23 56 35.5**	**+0.7**
AKS	**Akhisar**	**1.30**	**29**	Pn	**Pg**	**23 56 35.7**	**+0.3**
AKS				AML	AML		
AKHS	**Akhisar**	**1.30**	**29**	P	**Pg**	**23 56 35.7**	**+0.4**
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**23 56 36.3**	**+0.3**
DKL				AML	AML		
APE	**Apeiranthos**	**1.35**	**241**	P	**Pn**	**23 56 34.3**	**-0.8**
APE				S	**Sb**	**23 56 53.2**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.35**	**241**	P	**Pn**	**23 56 35.4**	**+0.2**
APE				S	**Sg**	**23 56 54.5**	**+0.6**
TURN	**Turunc**	**1.37**	**134**	Pn	**Pg**	**23 56 36.9**	**+0.2**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn	**Pg**	**23 56 38.7**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**38**	Pn	**Pg**	**23 56 38.5**	**-0.4**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.60**	**124**	Pn	**Pb**	**23 56 40.0**	**+0.2**
DALY				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**23 56 39.3**	**+0.6**
PRK				S	**Sb**	**23 57 01.2**	**+0.7**
PRK				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**23 56 39.5**	**+0.8**
PRK				S	**Sn**	**23 56 57.9**	**-1.6**
ARG	**Arkhangelos**	**1.76**	**149**	P	**Pn**	**23 56 40.8**	**+0.1**
ARG				S	**Sn**	**23 57 04.1**	**+1.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.76**	**149**	Pn	**Pn**	**23 56 41.5**	**+0.8**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**222**	P	**Pn**	**23 56 41.7**	**0.0**
THERA				S	**Sn**	**23 57 04.7**	**-0.3**
THERA	**Ancient Thera,**	**1.84**	**222**	P	**Pn**	**23 56 43.1**	**+1.3**
THERA				S	**Sn**	**23 57 04.6**	**-0.3**
THERA				AML	AML		
APMY	**Acipayam-Deniz**	**1.84**	**98**	Pn	**Pb**	**23 56 43.7**	**-0.2**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.87**	**1**	Pn	**Pb**	**23 56 44.3**	**-0.2**
YAYO				AML	AML		
FETY	**Fethiye**	**1.99**	**123**	Pn	**Pb**	**23 56 45.7**	**-0.7**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.99**	**113**	Pn	**Pb**	**23 56 45.7**	**-0.9**
CAME				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pb**	**23 56 46.2**	**-0.8**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.05**	**48**	Pn	**Pb**	**23 56 46.7**	**-0.9**
SIMA				AML	AML		
KARY	**Karystos**	**2.06**	**279**	P	**Pn**	**23 56 44.6**	**-0.2**
GEDZ	**Gediz**	**2.29**	**55**	Pn	**Pb**	**23 56 50.3**	**-1.4**
GEDZ				AML	AML		
BASM	**Basmaki-Afyon**	**2.41**	**85**	Pn	**Pn**	**23 56 50.7**	**+1.0**
BASM				AML	AML		

AFAD ***04*** *00:05:57.8, 37°.73N×26°.99E, h7km±4km, ML2.7*
THE ***04*** *00:05:58.0, 38°N±1°×2°.7E±°, h3km±1km, M2.8/8, MLh2.8/8*
ISK ***04*** *00:05:58.0, 37°.74N×27°.02E, h7km, ML2.6/27*
ISC 04 00:05:58.2±0.9,**37.72N**±0.02×**27.00E**±0.02,**h9**km±7km,
n49,σ0s51/67,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.13**	**265**	P	**Pg**	**00 06 01.1**	**-0.1**
SMG				S	**Sg**	**00 06 03.1**	**-0.2**
SMG				AML	AML		
GCAM	**G?zelcami?**	**0.18**	**96**	P	**Pg**	**00 06 02.2**	**+0.1**
GCAM				S	**Sg**	**00 06 04.9**	**+0.2**
GCAM				IAML		00 06 05.0	
	comp=E,2μm,0.4s						
GCAM				IAML		00 06 06.0	
	comp=N,2μm,0.2s						
GCAM	**G?zelcami?**	**0.18**	**96**	Pg	**Pg**	**00 06 02.1**	**+0.1**
GCAM				Sg	**Sg**	**00 06 05.1**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**58**	Pg	**Pg**	**00 06 03.4**	**-0.2**
KUSD				Sg	**Sg**	**00 06 07.4**	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**144**	P	**Pb**	**00 06 05.2**	**-0.9**
DGB	**zmir**	**0.34**	**344**	P	**Pg**	**00 06 05.0**	**-0.1**
DGB				S	**Sg**	**00 06 09.0**	**-0.6**
GMLD	**Gumuldur**	**0.36**	**349**	Pg	**Pg**	**00 06 05.5**	**+0.1**
GMLD				Sg	**Sg**	**00 06 10.7**	**+0.5**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**151**	Pg	**Pb**	**00 06 06.8**	**-0.5**
DIDI				Sg	**Sb**	**00 06 12.7**	**-0.7**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**353**	P	**Pg**	**00 06 07.9**	**-0.2**
BEYE				S	**Sg**	**00 06 14.6**	**-0.2**
BEYE				IAML		00 06 19.0	
	comp=E,314nm,0.3s						
DUVT	**Torbali**	**0.61**	**35**	P	**Pg**	**00 06 09.7**	**-0.4**
DUVT				S	**Sg**	**00 06 16.5**	**-1.6**
YKAV	**Yalikavak-Bodr**	**0.64**	**160**	Pg	**Pg**	**00 06 10.4**	**-0.1**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**323**	P	**Pg**	**00 06 10.5**	**-0.3**
ZEYE				S	**Sg**	**00 06 18.9**	**-0.4**
ZEYE				IAML		00 06 20.0	
	comp=N,388nm,0.5s						
ZEYE				IAML		00 06 24.0	
	comp=E,289nm,0.2s						
DAGE	**izmir**	**0.66**	**64**	P	**Pb**	**00 06 12.4**	**+0.5**
BLCB	**Balcova**	**0.66**	**3**	P	**Pg**	**00 06 10.5**	**-0.6**
BLCB				S	**Sg**	**00 06 19.7**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**3**	Pg	**Pg**	**00 06 10.5**	**-0.6**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.70**	**95**	P	**Pg**	**00 06 11.5**	**-0.2**
BODT	**Bodrum**	**0.70**	**159**	P	**Pg**	**00 06 11.7**	**-0.1**
BODT				S	**Sg**	**00 06 21.4**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**159**	Pg	**Pb**	**00 06 12.2**	**-0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**72**	Pg	**Pb**	**00 06 12.6**	**-0.7**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**152**	P	**Pg**	**00 06 11.8**	**-0.8**
MLSB	**Milas**	**0.75**	**124**	Pg	**Pb**	**00 06 12.9**	**-0.5**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.77**	**153**	Pg	**Pb**	**00 06 13.3**	**-0.3**
IZMR	**zmir-demi**	**0.86**	**61**	P	**Pb**	**00 06 15.3**	**+0.1**
BAGT	**Foa**	**0.94**	**353**	P	**Pb**	**00 06 16.4**	**-0.2**
BAGT				S	**Sb**	**00 06 29.2**	**0.0**
BAGT				IAML		00 06 32.0	
	comp=N,253nm,1.0s						
BAGT				IAML		00 06 36.0	
	comp=E,303nm,0.7s						
KRBN	**Karaburun**	**0.94**	**338**	Pg	**Pb**	**00 06 16.7**	**0.0**
KRBN				AML	AML		
CHOS	**Chios island**	**1.00**	**312**	P	**Pg**	**00 06 17.1**	**-0.4**
CHOS				S	**Sb**	**00 06 31.6**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**1.00**	**312**	Pg	**Pb**	**00 06 17.9**	**+0.2**
CHOS				AML	AML		
FOCM	**Foa**	**1.01**	**348**	Pg	**Pb**	**00 06 17.9**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**1.05**	**334**	P	**Pb**	**00 06 18.6**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.05**	**76**	Pg	**Pb**	**00 06 18.6**	**+0.1**
NAZL				AML	AML		
CAMT	**Merkez**	**1.05**	**13**	P	**Pn**	**00 06 19.1**	**0.0**
DAT	**Datca**	**1.09**	**155**	P	**Pg**	**00 06 18.4**	**-0.7**
DAT				S	**Sb**	**00 06 33.5**	**-0.1**
DAT				AML	AML		
DAT	**Datca**	**1.09**	**155**	Pn	**Pb**	**00 06 19.5**	**+0.2**
DAT				AML	AML		
YER	**Yerkesik**	**1.18**	**119**	P	**Pg**	**00 06 20.2**	**-0.6**
YER				S	**Sb**	**00 06 36.1**	**+0.1**
YER	**Yerkesik**	**1.18**	**119**	Pn	**Pg**	**00 06 20.3**	**-0.5**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**36**	Pn	**Pn**	**00 06 21.3**	**-0.1**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.34**	**241**	P	**Pn**	**00 06 22.8**	**-0.3**
APE				S	**Sn**	**00 06 42.2**	**+1.2**
APE				AML	AML		
DKL	**Dikili**	**1.35**	**357**	Pn	**Pg**	**00 06 23.7**	**-0.4**
DKL				AML	AML		
TURN	**Turunc**	**1.37**	**133**	Pn	**Pg**	**00 06 24.1**	**-0.4**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.49**	**16**	Pn	**Pb**	**00 06 25.8**	**-0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**38**	Pn	**Pb**	**00 06 25.7**	**-0.6**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.60**	**124**	Pn	**Pb**	**00 06 27.2**	**-0.6**
DALY				AML	AML		
PRK	**Paraskevi**	**1.63**	**340**	P	**Pn**	**00 06 26.8**	**-0.2**
PRK				S	**Sg**	**00 06 49.8**	**-0.7**
ARG	**Arkhangelos**	**1.75**	**149**	Pn	**Pn**	**00 06 29.5**	**+0.8**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.84**	**97**	Pn	**Pn**	**00 06 30.9**	**+0.9**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.89**	**2**	Pn	**Pn**	**00 06 31.2**	**+0.6**
YAYO				AML	AML		
FETY	**Fethiye**	**1.98**	**122**	Pn	**Pn**	**00 06 32.5**	**+0.6**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.99**	**112**	Pn	**Pn**	**00 06 32.8**	**+0.7**
CAME				AML	AML		
BALB	**Balikesir**	**2.04**	**19**	Pn	**Pn**	**00 06 33.3**	**+0.7**
BALB				AML	AML		

AFAD ***04*** *00:16:05.8, 37°.72N×26°.97E, h6km±4km, ML2.1*
THE ***04*** *00:16:06.5, 38°N±2°×2°.7E±°, h3km±2km, M2.4/5, MLh2.4/5*
ISK ***04*** *00:16:06.4, 37°.75N×27°.02E, h5km, ML2.5/11*
ISC 04 00:16:06.7±0.9,**37.74N**±0.02×**27.03E**±0.02,**h9**km±8km,
n33,σ0s50/46,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**260**	P	**Pg**	**00 16 09.8**	**-0.2**
SMG				S	**Sg**	**00 16 12.1**	**-0.2**
SMG				AML	AML		
GCAM	**G?zelcami?**	**0.17**	**102**	P	**Pg**	**00 16 10.3**	**+0.1**
GCAM	**G?zelcami?**	**0.17**	**102**	Pg	**Pg**	**00 16 10.1**	**-0.1**
GCAM				Sg	**Sg**	**00 16 13.2**	**+0.6**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**59**	Pg	**Pg**	**00 16 11.6**	**0.0**
DDIM	**Aydin, Didim**	**0.33**	**149**	P	**Pg**	**00 16 13.2**	**+0.1**
DDIM				S	**Sg**	**00 16 17.5**	**+0.1**
DDIM				IAML		00 16 18.0	
	comp=E,224nm,0.2s						
DDIM				IAML		00 16 19.0	
	comp=N,284nm,0.7s						
DGB	**zmir**	**0.34**	**340**	P	**Pg**	**00 16 13.4**	**+0.1**
DGB				S	**Sg**	**00 16 17.3**	**-0.5**
DGB				IAML		00 16 18.0	
	comp=E,158nm,0.3s						
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pg**	**00 16 13.8**	**+0.1**
GMLD				Sg	**Sg**	**00 16 18.9**	**+0.6**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**351**	P	**Pg**	**00 16 16.6**	**+0.2**
BEYE				S	**Sg**	**00 16 22.1**	**-0.8**
BEYE				IAML		00 16 27.0	
	comp=E,135nm,0.3s						
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**00 16 18.1**	**0.0**
DUVT				S	**Sg**	**00 16 24.6**	**-1.1**
DUVT				IAML		00 16 30.0	
	comp=E,169nm,0.6s						
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**00 16 18.9**	**-0.3**
BLCB				S	**Sg**	**00 16 28.0**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**00 16 19.5**	**+0.2**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**321**	P	**Pg**	**00 16 18.9**	**-0.4**
ZEYE				S	**Sg**	**00 16 27.2**	**-0.6**
ZEYE				IAML		00 16 31.0	
	comp=N,81nm,0.2s						
ZEYE				IAML		00 16 31.0	
	comp=E,74nm,0.6s						
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**00 16 19.5**	**-0.3**
BODT	**Bodrum**	**0.71**	**161**	P	**Pb**	**00 16 21.3**	**+0.1**
BODT				S	**Sg**	**00 16 30.0**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**161**	Pg	**Pb**	**00 16 20.7**	**-0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**73**	Pg	**Pb**	**00 16 21.4**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pb**	**00 16 21.5**	**-0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.75**	**154**	P	**Pg**	**00 16 20.4**	**-0.7**
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pb**	**00 16 23.1**	**-0.3**
IZMR				S	**Sg**	**00 16 31.7**	**-1.9**
BAGT	**Foa**	**0.93**	**351**	P	**Pn**	**00 16 26.4**	**+0.4**
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**00 16 26.1**	**-0.3**
CHOS				S	**Sb**	**00 16 40.6**	**+0.8**
NAZL	**Nazilli-Aydin**	**1.03**	**77**	Pg	**Pg**	**00 16 26.4**	**0.0**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pg**	**00 16 26.7**	**0.0**
KARB	**zmir-Karabur**	**1.05**	**333**	P	**Pn**	**00 16 28.0**	**+0.4**
ESEN	**Aydn-Nazilli**	**1.05**	**86**	P	**Pb**	**00 16 27.2**	**+0.2**
YER	**Yerkesik**	**1.17**	**121**	P	**Pn**	**00 16 30.1**	**+0.8**
YER				S	**Sb**	**00 16 44.4**	**+0.1**
YER	**Yerkesik**	**1.17**	**121**	Pn	**Pn**	**00 16 29.3**	**0.0**
KIRA	**zmir-Kiraz**	**1.18**	**67**	P	**Pn**	**00 16 29.9**	**+0.4**
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pg**	**00 16 30.1**	**-0.2**
KTTT	**Salihli**	**1.27**	**41**	P	**Pb**	**00 16 31.1**	**+0.3**
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pg**	**00 16 34.7**	**-0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**00 16 34.6**	**+0.1**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.87**	**1**	Pn	**Pn**	**00 16 38.9**	**-0.1**

AFAD ***04*** *00:17:50.7, 37°.73N×26°.99E, h7km±5km, ML2.9*
ISK ***04*** *00:17:50.6, 37°.76N×27°.05E, h3km, ML2.7/30*
ATH ***04*** *00:17:51.3, 37°.70N×27°.02E, h7km±2km, ML3.1/5, Latitude uncertainty: 1 km; Longitude uncertainty: 3 km*
THE ***04*** *00:17:51.1, 37°.7N±1.0×2°.7E±°, h6km±2km, M3.1/9, MLh3.1/9*
ISC 04 00:17:51.1±0.9,**37.73N**±0.02×**27.04E**±0.02,**h7**km±8km,
n67,σ0s62/91,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcami?**	**0.16**	**100**	P	**Pg**	**00 17 52.2**	**-2.1**
GCAM	**G?zelcami?**	**0.16**	**100**	Pg	**Pg**	**00 17 54.5**	**+0.2**
GCAM				AML	AML		
SMG	**Samos**	**0.16**	**263**	P	**Pg**	**00 17 54.3**	**-0.1**
SMG				S	**Sg**	**00 17 56.9**	**+0.4**
SMG				AML	AML		
SMG	**Samos**	**0.16**	**263**	P	**Pg**	**00 17 54.5**	**+0.2**
SMG				S	**Sg**	**00 17 56.7**	**+0.2**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**56**	Pg	**Pg**	**00 17 55.9**	**+0.1**
KUSD				Sg	**Sg**	**00 17 59.4**	**+0.4**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**284**	P	**Pg**	**00 17 56.3**	**-0.1**
KRL1				S	**Sg**	**00 18 00.4**	**+0.4**
DDIM	**Aydin, Didim**	**0.32**	**149**	P	**Pg**	**00 17 58.2**	**+0.9**
DDIM				S	**Sg**	**00 18 02.2**	**+0.7**
DDIM				IAML		00 18 04.0	
	comp=N,1μm,0.4s						
DDIM				IAML		00 18 04.0	
	comp=E,1μm,0.5s						
DGB	**zmir**	**0.34**	**339**	P	**Pg**	**00 17 58.1**	**+0.3**
DGB				S	**Sg**	**00 18 01.9**	**-0.5**
GMLD	**Gumuldur**	**0.36**	**345**	Pg	**Pg**	**00 17 58.5**	**+0.4**
GMLD				Sg	**Sg**	**00 18 03.6**	**+0.7**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**155**	Pg	**Pg**	**00 17 59.4**	**+0.8**
DIDI				Sg	**Sb**	**00 18 05.9**	**-0.6**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**350**	P	**Pg**	**00 18 01.1**	**+0.2**
BEYE				S	**Sg**	**00 18 06.8**	**-0.7**
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**00 18 02.6**	**+0.2**
DAGE	**izmir**	**0.63**	**64**	P	**Pb**	**00 18 04.0**	**-0.4**
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg	**Pg**	**00 18 04.0**	**+0.7**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**0**	P	**Pg**	**00 18 03.5**	**-0.1**
BLCB				S	**Sg**	**00 18 13.1**	**+0.8**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**0**	Pg	**Pg**	**00 18 03.6**	**-0.1**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**321**	P	**Pg**	**00 18 03.6**	**-0.3**
ZEYE				S	**Sg**	**00 18 12.4**	**0.0**
ZEYE				IAML		00 18 14.0	
	comp=N,863nm,0.2s						
ZEYE				IAML		00 18 16.0	
	comp=E,473nm,0.5s						
AYDN	**Tasoluk**	**0.67**	**96**	P	**Pg**	**00 18 01.6**	**-2.4**
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**00 18 04.8**	**+0.3**
BODT				S	**Sb**	**00 18 15.4**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pg**	**00 18 04.9**	**+0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pg**	**00 18 04.3**	**-0.5**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**126**	Pg	**Pg**	**00 18 05.1**	**0.0**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**00 18 05.2**	**0.0**
BODA	**Bodrum-Mula**	**0.76**	**155**	Pg	**Pb**	**00 18 06.5**	**-0.2**
IZMR	**zmir-demi**	**0.83**	**60**	P	**Pb**	**00 18 08.2**	**+0.3**
CESE	**eme**	**0.84**	**316**	Pg	**Pb**	**00 18 07.6**	**-0.4**
CESE				AML	AML		
BAGT	**Foa**	**0.94**	**351**	P	**Pb**	**00 18 09.6**	**-0.1**
BAGT				S	**Sg**	**00 18 20.8**	**-0.4**
BAGT				IAML		00 18 26.0	
	comp=E,416nm,0.9s						
BAGT				IAML		00 18 29.0	
	comp=N,334nm,0.6s						
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pg**	**00 18 09.3**	**+0.1**
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**346**	Pg	**Pg**	**00 18 10.2**	**-0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pb**	**00 18 10.8**	**-0.3**
CHOS				S	**Sb**	**00 18 24.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	Pg	**Pb**	**00 18 10.9**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pb**	**00 18 10.8**	**-0.3**
CHOS				S	**Sb**	**00 18 24.8**	**+0.1**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg	**Pg**	**00 18 10.8**	**+0.1**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pg**	**00 18 09.5**	**-1.6**
ESEN	**Aydn-Nazilli**	**1.04**	**86**	P	**Pg**	**00 18 10.9**	**-0.2**
KARB	**zmir-Karabur**	**1.05**	**332**	P	**Pb**	**00 18 11.8**	**+0.1**
KARB				S	**Sg**	**00 18 25.0**	**0.0**
KARB				IAML		00 18 29.0	
	comp=N,341nm,0.4s						
KARB				IAML		00 18 29.0	
	comp=E,314nm,0.6s						
DAT	**Datca**	**1.09**	**156**	P	**Pg**	**00 18 11.7**	**-0.3**
DAT				S	**Sn**	**00 18 28.0**	**-0.3**
DAT				AML	AML		
DAT	**Datca**	**1.09**	**156**	Pn	**Pn**	**00 18 12.7**	**-0.2**
DAT				AML	AML		
EAG2	**Marmaro, Chios**	**1.09**	**318**	P	**Pn**	**00 18 12.6**	**-0.3**
EAG2				S	**Sb**	**00 18 27.0**	**+0.1**
YER	**Yerkesik**	**1.16**	**120**	P	**Pg**	**00 18 13.1**	**-0.2**
YER				S	**Sn**	**00 18 29.7**	**-0.2**
YER	**Yerkesik**	**1.16**	**120**	Pn	**Pg**	**00 18 12.9**	**-0.4**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.18**	**66**	P	**Pg**	**00 18 13.5**	**-0.1**
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pn**	**00 18 14.4**	**+0.1**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.24**	**1**	P	**Pn**	**00 18 15.1**	**+0.2**
KTTT	**Salihli**	**1.27**	**41**	P	**Pn**	**00 18 14.9**	**-0.4**
AKHS	**Akhisar**	**1.30**	**28**	P	**Pg**	**00 18 16.6**	**+0.5**
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pn**	**00 18 14.6**	**-1.2**
AKS				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pb**	**00 18 16.6**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.34**	**356**	P	**Pg**	**00 18 17.0**	**+0.1**
DKL				S	**Sn**	**00 18 35.5**	**+1.0**
TURN	**Turunc**	**1.35**	**134**	Pn	**Pg**	**00 18 17.4**	**+0.3**
TURN				AML	AML		
APE	**Apeiranthos**	**1.37**	**242**	P	**Pn**	**00 18 15.1**	**-1.6**
APE				S	**Sg**	**00 18 35.0**	**-0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.37**	**242**	P	**Pn**	**00 18 16.9**	**+0.2**
APE				S	**Sb**	**00 18 33.5**	**-1.2**
APE				AML	AML		
MANT	**Manisa**	**1.42**	**57**	P	**Pg**	**00 18 19.1**	**+0.7**
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pn**	**00 18 18.4**	**+0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pn**	**00 18 18.4**	**+0.1**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.58**	**125**	Pn	**Pb**	**00 18 20.7**	**+0.1**
DALY				AML	AML		
AYVA	**Ayvalik**	**1.60**	**350**	P	**Pg**	**00 18 22.1**	**+0.3**
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**00 18 19.7**	**-0.5**
PRK				S	**Sb**	**00 18 42.6**	**+0.3**
PRK				AML	AML		
PRK	**Paraskevi**	**1.63**	**339**	P	**Pb**	**00 18 21.8**	**+0.3**
PRK				S	**Sb**	**00 18 41.8**	**-0.5**
ARG	**Arkhangelos**	**1.74**	**150**	S	**Sb**	**00 18 45.4**	**-0.2**
ARG	**Arkhangelos**	**1.74**	**150**	Pn	**Pb**	**00 18 22.9**	**-0.5**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.82**	**97**	Pn	**Pn**	**00 18 23.7**	**+0.8**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pn**	**00 18 24.2**	**+0.5**
YAYO				AML	AML		
FETY	**Fethiye**	**1.97**	**123**	Pn	**Pn**	**00 18 26.1**	**+1.2**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.97**	**113**	Pn	**Pn**	**00 18 25.9**	**+0.8**
CAME				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pn**	**00 18 26.4**	**+0.8**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.04**	**48**	Pn	**Pn**	**00 18 26.3**	**+0.3**
SIMA				AML	AML		

NCEDC ***04*** *00:20:24.8±1.4, 37°.64N±0.02×119°.39W±0.02, h12km±6km, Error ellipse: s-maj=2.5km s-min=1.9km az=199.0*
REN ***04*** *00:20:25.3±2.8, 37°.67N±0.01×119°.379W±0.007, h5km±2km, Error ellipse: s-maj=2.1km s-min=0.7km az=182.0*
NEIC 04 00:20:24.1±1.4,**37.63N**±0.02×**119.42W**±0.02,**h11**km±9km,
ML3.1/126,**ML3.5**/10(REN),**ML3.4**/90(NCEDC),**Error ellipse: s-maj=2.8km s-min=2.0km az=205.0,Central California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDPB	**Devils Postpil**	**0.27**	**90**		Pg	00 20 30.0	+0.2
MDPB				Sg	Sg	00 20 33.5	-0.1
MINS

WAKR				Sg	Sg	00 20 52.0	-0.4		
WAKR				IAML		00 20 53.2			
	comp=N,829nm,0.3s								
WAKR				IAML		00 20 53.9			
	comp=E,808nm,0.4s								
LHV	**Little Huntoon**	**0.95**	**49**	Pg	Pg	00 20 42.4	0.0		
LHV				Sg	Sg	00 20 54.8	-0.1		
LHV				IAML		00 20 59.8			
	comp=E,604nm,0.9s								
LHV				IAML		00 21 00.5			
	comp=N,502nm,0.7s								
EBP	**Ebbets Pass**	**1.00**	**342**		Pg	00 20 43.4	0.0		
KARE	**Kearney REC, C**	**1.03**	**184**		Pb	00 20 43.7	-0.2		
TIN	**Tinemaha, Big**	**1.11**	**121**	Pg	Pb	00 20 45.1	-0.2		
TIN				Sg	Sg	00 20 60.0	0.0		
TIN				IAML		00 21 01.4			
	comp=E,686nm,0.7s								
TIN				IAML		00 21 02.0			
	comp=N,647nm,0.8s								
NV08	**Mina Array Sit**	**1.16**	**48**		Pb	00 20 46.2	-0.1		
NV09	**Mina Array Sit**	**1.17**	**47**		Pb	00 20 46.4	-0.1		
NV07	**Mina Array Sit**	**1.18**	**48**		Pb	00 20 46.6	-0.1		
NV04	**Mina Array Sit**	**1.18**	**48**		Pb	00 20 46.7	0.0		
NV01	**Mina Array Sit**	**1.19**	**48**		Pb	00 20 46.7	-0.1		
NVAR	**Mina Array Bea**	**1.19**	**48**		Pb	00 20 46.5	-0.3		
NV02	**Mina Array Sit**	**1.19**	**47**		Pb	00 20 46.8	-0.1		
NV03	**Mina Array Sit**	**1.19**	**48**		Pb	00 20 46.8	-0.1		
COLR	**Columbus**	**1.20**	**64**		Pg	00 20 47.0	-0.1		
NV06	**Mina Array Sit**	**1.20**	**49**		Pb	00 20 47.0	0.0		
NV05	**Mina Array Sit**	**1.21**	**47**		Pb	00 20 46.9	-0.2		
RYN	**Ryan**	**1.22**	**35**	Pg	Pb	00 20 47.3	0.0		
RYN				Sg	Sb	00 21 03.2	+0.1		
RYN				IAML		00 21 04.1			
	comp=E,679nm,0.3s								
RYN				IAML		00 21 04.3			
	comp=N,523nm,0.3s								
NV11	**Mina Array Sit**	**1.28**	**51**	Pg	Pb	00 20 48.2	-0.1		
NV11				Sg	Sb	00 21 04.9	+0.1		
WELL	**Weller Preserv**	**1.31**	**308**		Pn	00 20 48.3	0.0		
VOG	**Valley Oaks Go**	**1.31**	**179**		Pb	00 20 48.8	+0.1		
YERR	**Yerington**	**1.36**	**6**	Pg	Pb	00 20 49.9	+0.2		
YERR				Sg	Sg	00 21 07.7	-0.3		
YERR				IAML		00 21 10.0			
	comp=N,319nm,0.3s								
YERR				IAML		00 21 10.0			
	comp=E,591nm,0.2s								
WSRE	**Westside REC,**	**1.41**	**204**		Pg	00 20 51.1	0.0		
PNTR	**Pine Nut**	**1.46**	**355**		Pg	00 20 52.1	-0.1		
PNTR	**Pine Nut**	**1.46**	**355**	IAML		00 21 12.6			
	comp=N,305nm,0.7s								
BMSM	**Mercy Hot Spri**	**1.47**	**229**		Pb	00 20 51.7	+0.3		
LCH	**Last Change Ra**	**1.47**	**105**		Pn	00 20 51.0	+0.4		
MTOS	**Mt Oso, Westle**	**1.52**	**266**		Pb	00 20 52.6	+0.3		
SPG2	**Springville 2**	**1.52**	**160**		Pb	00 20 52.1	-0.2		
BABI	**Panoche/Babies**	**1.60**	**226**		Pb	00 20 54.1	+0.5		
CWC	**Cottonwood Cre**	**1.60**	**138**	Pn	Pb	00 20 53.4	-0.4		
PACP	**Pacheco Peak**	**1.61**	**248**		Pb	00 20 54.2	+0.3		
MZP	**Montezuma Peak**	**1.62**	**87**	Pn	Pn	00 20 52.6	-0.2		
CSTL	**Coral Hollow**	**1.65**	**271**		Pb	00 20 54.6	+0.1		
BBGB	**Big Mountain B**	**1.67**	**231**	Pn	Pb	00 20 55.0	+0.1		
VCNR	**Virginia City**	**1.67**	**354**		Pg	00 20 56.1	-0.1		
CGO	**Cerro Gordo**	**1.68**	**129**		Pb	00 20 55.1	-0.2		
GHS	**Gilroy Hot Spr**	**1.70**	**252**		Pb	00 20 55.1	-0.3		
ARN	**Arnold Ranch**	**1.70**	**261**		Pb	00 20 55.1	-0.3		
GMN	**Gold Mountain**	**1.75**	**100**	Pn	Pn	00 20 54.7	+0.1		
GRAC	**Grapevine Rang**	**1.76**	**111**	Pn	Pn	00 20 55.3	+0.8		
GRAC				IAML		00 21 23.5			
	comp=N,234nm,0.6s								
GRAC				IAML		00 21 26.0			
	comp=E,171nm,0.4s								
LRV	**Little Rabbit**	**1.76**	**227**		Pb	00 20 56.4	+0.1		
KVN	**Kaiserville**	**1.76**	**36**	Pn	Pn	00 20 54.9	+0.3		
KVN				IAML		00 21 22.8			
	comp=N,130nm,0.8s								
AVNL	**Avenal, CA USA**	**1.76**	**204**		Pb	00 20 56.2	-0.1		
BVL	**Bear Valley**	**1.76**	**234**		Pb	00 20 56.1	-0.3		
CBSNC	**Byron Hot Spri**	**1.77**	**277**		Pb	00 20 56.4	-0.1		
MHC	**Mount Hamilton**	**1.79**	**261**	Pn	Pb	00 20 56.0	-0.9		
MHC				IAML		00 21 21.8			
	comp=N,348nm,0.8s								
MHC				IAML		00 21 25.9			
	comp=E,354nm,0.5s								
AFDM	**Forest Hills D**	**1.79**	**318**	Pn	Pb	00 20 56.5	-0.5		
AFDM				IAML		00 21 21.0			
	comp=E,297nm,0.4s								
PMPB	**Monarch Peak**	**1.79**	**218**	Pn	Pb	00 20 56.4	-0.6		
TPH	**Tonopah**	**1.79**	**75**	Pn	Pn	00 20 55.2	0.0		
VES	**Vestal, Richgr**	**1.81**	**171**	Pn	Pn	00 20 56.1	+1.0		
BJOM	**Mount Johnson**	**1.81**	**237**		Pb	00 20 56.7	-0.6		
CADM	**Anderson Rs.**	**1.82**	**256**		Pb	00 20 57.6	+0.3		
PSMM	**Smith Mountain**	**1.82**	**212**		Pb	00 20 56.9	-0.5		
SAO	**San Andreas Ge**	**1.83**	**242**	Pn	Pn	00 20 56.4	+0.8		
PPTM	**Peach Tree Val**	**1.84**	**215**		Pb	00 20 57.2	-0.6		
HSFM	**Saint Francis**	**1.85**	**244**		Pb	00 20 57.8	-0.1		
CSR	**Chase Ranch**	**1.85**	**249**		Pb	00 20 57.5	-0.4		
WENL	**Wente Vineyard**	**1.85**	**270**		Pb	00 20 57.7	-0.3		
DONR	**Donner Summit**	**1.86**	**338**		Pb	00 20 58.8	+0.6		
HLPM	**Lions Peak**	**1.86**	**252**		Pb	00 20 57.4	-0.7		
MHR	**Mount Hamilton**	**1.88**	**262**		Pb	00 20 58.7	+0.3		
SCZ	**Santa Cruz**	**1.89**	**238**		Pb	00 20 57.5	-1.1		
CALM	**Calaveras Res.**	**1.90**	**265**		Pb	00 20 58.0	-0.8		
PHPM	**Hope Ranch**	**1.90**	**210**		Pb	00 20 58.0	-0.8		
PKD	**Bear Valley Ra**	**1.91**	**208**	Pn	Pn	00 20 57.0	+0.5		
PKD				IAML		00 21 27.5			
	comp=E,123nm,0.7s								
PKD				IAML		00 21 31.8			
	comp=N,195nm,0.9s								
BJCM	**Johnson Can.**	**1.91**	**236**		Pb	00 20 57.9	-1.0		
PHFM	**Heflinger Ranc**	**1.92**	**205**		Pb	00 20 58.1	-1.0		
YUBA	**Cisco Grove, Y**	**1.92**	**333**		Pb	00 20 59.4	+0.2		
CVLM	**Vallecito**	**1.92**	**271**		Pn	00 20 57.6	+0.9		
HCBM	**Chamberlain**	**1.92**	**249**		Pb	00 20 58.4	-0.7		
BSRM	**Salinas Radio**	**1.93**	**241**		Pn	00 20 58.0	+1.1		
JSTM	**Santa Teresa H**	**1.94**	**258**		Pb	00 20 58.4	-1.1		
PMRM	**Maxey Ranch**	**1.96**	**200**		Pb	00 20 58.8	-0.9		
MFS	**McCloud Flat S**	**1.96**	**140**		Pb	00 21 00.1	+0.1		
PKLM	**Kerr Lake**	**2.00**	**202**		Pb	00 20 59.2	-1.2		
PPO	**Portuguese Can**	**2.01**	**209**		Pb	00 20 59.7	-0.8		
THIS	**South End of C**	**2.01**	**199**		Pb	00 20 59.7	-1.0		
SGV	**South Grapevin**	**2.01**	**108**		Pn	00 20 58.8	+0.7		
WASM	**Alta Sierra Ca**	**2.01**	**160**		Pb	00 21 01.0	+0.2		
PEAR	**Peavine Mounta**	**2.02**	**348**		Pb	00 21 01.3	+0.3		
CNIC	**Niles Canyon**	**2.02**	**270**		Pb	00 20 60.0	-0.8		
BSMM	**Soledad Missio**	**2.03**	**233**		Pb	00 20 59.9	-1.2		
BPCNC	**Pine Canyon**	**2.06**	**240**		Pb	00 21 00.2	-1.2		
TRAM	**Private Proper**	**2.07**	**200**		Pb	00 21 00.8	-0.8		
PAHR	**Pah Rah Range**	**2.07**	**1**	Pn	Pn	00 20 59.9	+1.0		
PAHR				IAML		00 21 33.7			
	comp=E,94nm,0.4s								
PAHR				IAML		00 21 34.1			
	comp=N,89nm,0.4s								
PCCM	**Crazy Canyon**	**2.08**	**223**		Pb	00 21 00.9	-0.9		
TCHL	**Shandon**	**2.09**	**202**		Pb	00 21 01.6	-0.4		
BGC	**Bolinger Road**	**2.10**	**276**		Pb	00 21 01.0	-1.3		
ISA	**Isabella, Lake**	**2.11**	**159**		Pb	00 21 02.1	-0.2		
PBPM	**Bitterwater Pu**	**2.12**	**195**		Pb	00 21 01.2	-1.2		
LOY	**Loyalton**	**2.12**	**343**		Pg	00 21 04.6	-0.2		
Q09A	**Carvers**	**2.13**	**55**	Pn	Pn	00 21 00.4	+0.6		
Q09A				IAML		00 21 37.7			
	comp=N,231nm,1.0s								
Q09A				IAML		00 21 39.2			
	comp=E,191nm,0.7s								
RUSS	**Russell Ranch**	**2.13**	**296**		Pb	00 21 03.7	+0.9		
WORM	**Onyx Ranch**	**2.15**	**154**		Pb	00 21 03.2	+0.1		
TRAY	**Twisselman Ran**	**2.15**	**196**		Pn	00 21 01.4	+1.4		
WNMM	**Nine Mile Cany**	**2.16**	**145**		Pb	00 21 02.7	-0.5		
HULI	**Fort Hunter Li**	**2.17**	**223**	Pn	Pn	00 21 00.8	+0.7		
HULI				IAML		00 21 37.2			
	comp=E,174nm,0.8s								
NADM	**Allendale**	**2.18**	**293**		Pb	00 21 03.8	+0.3		
BRIB	**Briones**	**2.18**	**278**		Pb	00 21 02.2	-1.4		
JUCM	**University of**	**2.19**	**254**		Pn	00 21 01.5	+1.2		
JBMM	**Black Mountain**	**2.20**	**263**		Pn	00 21 01.8	+1.2		
MPMC	**Manual Prospec**	**2.21**	**135**	Pn	Pn	00 21 01.9	+1.1		
TSCN	**Private Proper**	**2.21**	**200**		Pb	00 21 02.8	-1.3		
BPRM	**Ponciano Ridge**	**2.22**	**237**		Pn	00 21 02.1	+1.3		
TCAS	**Cass Winery, P**	**2.22**	**205**		Pn	00 21 02.5	+1.7		
JFP	**Foothills Park**	**2.22**	**264**		Pn	00 21 02.1	+1.3		
YEG	**Yeguas Mountai**	**2.23**	**191**		Pn	00 21 02.7	+1.6		
LCUV	**Le Cuvier**	**2.24**	**208**		Pn	00 21 02.8	+1.7		
BKS	**Berkeley--Byer**	**2.25**	**277**		Pn	00 21 02.7	+1.6		
JRSC	**Jasper Ridge**	**2.25**	**265**	Pn	Pn	00 21 02.0	+0.7		
JRSC				IAML		00 21 31.3			
	comp=E,87nm,1.1s								
JRSC				IAML		00 21 50.2			
	comp=N,66nm,0.8s								
TOW	**Tower One**	**2.25**	**143**		Pb	00 21 04.4	-0.4		
RAMR	**Ramage Ranch**	**2.31**	**211**		Pn	00 21 03.7	+1.7		
CLC	**China Lake**	**2.33**	**141**	Pn	Pn	00 21 02.8	+0.4		
BPOM	**Post Ranch**	**2.34**	**234**		Pn	00 21 03.9	+1.4		
OHCM	**Honcut**	**2.35**	**317**		Pn	00 21 04.3	+1.7		
BEKR	**Beckworth**	**2.35**	**342**		Pb	00 21 05.0	-1.6		
BEKR	**Beckworth**	**2.35**	**342**	IAML		00 21 41.6			
	comp=N,102nm,0.4s								
BEKR				IAML		00 21 42.5			
	comp=E,182nm,0.4s								
SRTC	**Snort**	**2.36**	**145**		Pb	00 21 05.7	-0.8		
SMMC	**Simmler**	**2.36**	**192**		Pg	00 21 09.8	+0.5		
JPSM		**2.37**	**260**		Pn	00 21 03.3	+0.5		
SAC	**San Andreas**	**2.38**	**270**		Pn	00 21 04.7	+1.7		
WCT	**Wildcat Mounta**	**2.38**	**110**	Pn	Pn	00 21 03.5	+0.4		
CRGC	**Crocker Grade**	**2.40**	**186**		Pn	00 21 05.3	+1.9		
NTA	**Nevada Test Si**	**2.40**	**98**		Pn	00 21 04.0	+0.5		
NIMB	**Iron Mountain**	**2.43**	**293**		Pb	00 21 06.0	-1.8		
OSTM	**Stimpson Lane**	**2.43**	**316**		Pb	00 21 05.9	-2.0		
SUTB	**Sutter Butte**	**2.45**	**311**	Pn	Pn	00 21 05.1	+1.2		
PTAM	**Tassajara Cree**	**2.46**	**205**		Pn	00 21 06.2	+2.0		
EHN	**Echo Peak**	**2.50**	**99**		Pn	00 21 05.6	+0.7		
CVS	**Carmenet Viney**	**2.50**	**287**	Pn	Pn	00 21 06.0	+1.2		
CVS				IAML		00 21 44.0			
	comp=N,58nm,0.6s								
CVS				IAML		00 21 47.1			
	comp=E,69nm,0.9s								
ORV	**Oroville**	**2.52**	**320**	Pn	Pn	00 21 06.3	+1.4		
ORV				IAML		00 21 45.5			
	comp=N,72nm,0.6s								
ORV				IAML		00 21 45.7			
	comp=E,77nm,0.5s								
LRMC	**Laurel Mtn Rad**	**2.56**	**146**	Pn	Pn	00 21 06.0	+0.3		
LRMC				IAML		00 21 46.8			
	comp=E,169nm,0.2s								
TPNV	**Topopah Spring**	**2.62**	**104**	Pn	Pn	00 21 06.5	0.0		
TPNV				IAML		00 21 54.5			
	comp=E,51nm,0.8s								
GWY	**Greenwater Val**	**2.63**	**122**	Pn	Pn	00 21 07.0	+0.3		
GWY	**Greenwater Val**	**2.63**	**122**		Pb	00 21 12.8	+1.4		
GWY	**Greenwater Val**	**2.63**	**122**	IAML		00 21 51.1			
	comp=N,45nm,1.2s								
QSM	**Queen of Sheba**	**2.64**	**128**		Pb	00 21 12.6	+1.3		
OGOM	**Van Goodin Ran**	**2.65**	**320**		Pn	00 21 08.4	+1.7		
SDH	**Striped Hills**	**2.65**	**111**		Pn	00 21 08.0	+1.1		
CCCA	**Chr Cany lake**	**2.67**	**141**	Pn	Pn	00 21 07.4	+0.3		
CCCA	**Chr Cany lake**	**2.67**	**141**		Pb	00 21 12.4	+0.4		
NSP	**Numbskull Pass**	**2.72**	**108**		Pn	00 21 08.5	+0.7		
AMDNV	**Amargosa**	**2.77**	**114**		Pb	00 21 15.4	+1.7		
MCCM	**Marconi Confer**	**2.79**	**282**	Pn	Pn	00 21 08.9	+0.3		
MCCM				IAML		00 21 47.0			
	comp=E,67nm,1.3s								
MCCM				IAML		00 21 51.5			
	comp=N,45nm,1.1s								
TPO	**Tropico Hills**	**2.91**	**160**	Pn	Pn	00 21 10.4	0.0		
TPO				IAML		00 22 06.8			
	comp=N,124nm,0.7s								
GSC	**Goldstone, Bar**	**3.14**	**137**	Pn	Pn	00 21 14.8	+1.3		
GSC				IAML		00 22 07.7			
	comp=N,37nm,1.1s								
GSC				IAML		00 22 11.7			
	comp=E,57nm,0.7s								
O03E	**Paynes Creek**	**3.24**	**326**	Pn	Pn	00 21 15.6	+0.6		
O03E				IAML		00 22 08.5			
	comp=N,86nm,0.8s								
BMN	**Battle Mountai**	**3.28**	**31**	Pn	Pn	00 21 17.3	+1.7		
PRN	**Pahroc Range**	**3.48**	**92**	Pn	Pn	00 21 19.1	+0.8		
HATC	**Hat Creek Radi**	**3.55**	**334**	Pn	Pn	00 21 21.0	+1.8		
HATC				IAML		00 22 28.8			
	comp=N,60nm,3.7s								
MWC	**Mount Wilson**	**3.58**	**162**	Pn	Pn	00 21 20.7	+1.1		
MWC				IAML		00 22 20.2			
	comp=N,67nm,0.6s								
MWC				IAML		00 22 23.9			
	comp=E,49nm,1.1s								
SHPR	**Sheep Range**	**3.59**	**107**	Pn	Pn	00 21 21.2	+1.4		
O02D	**Mt. Diablo Mer**	**3.66**	**315**	Pn	Pn	00 21 22.5	+1.9		
O02D				IAML		00 22 28.4			
	comp=E,22nm,0.7s								
O02D				IAML		00 22 32.6			
	comp=N,21nm,2.0s								
BFSC	**Mount Baldy Ra**	**3.67**	**157**	Pn	Pn	00 21 23.0	+2.1		
ELS	**Elsinore Mount**	**4.29**	**157**	Pn	Pn	00 21 31.3	+1.9		
ELS				IAML		00 22 41.5			
	comp=N,18nm,1.0s								
ELS				IAML		00 22 47.0			
	comp=E,21nm,4.8s								
PSUT	**Pine Spring**	**4.48**	**77**	Pn	Pn	00 21 33.1	+1.0		
ELK	**Elko**	**4.50**	**45**	Pn	Pn	00 21 34.1	+1.8		
BELC	**Belle Mtn. Jos**	**4.57**	**141**	Pn	Pn	00 21 35.0	+1.8		
M02C	**Callahan**	**4.60**	**326**	Pn	Pn	00 21 35.7	+2.1		
M02C				IAML		00 22 18.7			
	comp=E,16nm,5.0s								
M02C				IAML		00 24 36.2			
	comp=N,19nm,5.0s								
PFO	**Pinyon Flats O**	**4.68**	**148**	Pn	Pn	00 21 37.5	+2.8		
PFO				IAML		00 22 53.6			
	comp=N,15nm,4.4s								
PFO				IAML		00 23 09.4			
	comp=N,14nm,5.0s								
PMD	**Palm Desert**	**4.68**	**147**	Pn	Pn	00 21 36.9	+2.2		
PMD				IAML		00 22 54.2			
	comp=E,11nm,0.7s								
PMD				IAML		00 22 56.7			
	comp=N,11nm,0.7s								
CCUT	**Cedar City**	**4.81**	**89**	Pn	Pn	00 21 38.2	+1.5		
IRM	**Iron Mountain**	**4.91**	**134**	Pn	Pn	00 21 39.9	+2.2		
LCMT	**Little Creek M**	**4.96**	**95**	Pn	Pn	00 21 39.4	+0.7		
BORC	**Borrego Spring**	**5.00**	**150**	Pn	Pn	00 21 38.0	-1.0		
BC3	**Big Chuckawall**	**5.12**	**140**	Pn	Pn	00 21 41.6	+0.9		
K05A	**Summer Lake**	**5.21**	**348**	Pn	Pn	00 21 44.3	+2.2		
CBX	**Cerro Bola**	**5.77**	**156**	Pn	Pn	00 21 52.4	+2.6		

*AFAD **04** 00:41:12.9, 37°.71N×26°.96E, h7km±3km, ML2.6*
*THE **04** 00:41:13.4, 38°N±1°×27°.1E±0°.9, h2km±1km, M2.5/9, MLh2.5/9*
*ISK **04** 00:41:13.8, 37°.74N×27°.08E, h5km, ML2.5/24*
*ATH **04** 00:41:13.0, 37°.72N×27°.09E, h6km±1km, ML2.6/7, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
ISC 04 00:41:13.8±0.8, **37.72N**±0°.02×**27.05E**±0°.02, **h10**km±6km, **n63**, σ0°**56**/82, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.15**	**99**	P	**Pg**	**00 41 16.9**	**-0.2**
GCAM				S	**Sg**	**00 41 21.6**	**+2.2**
GCAM				IAML		00 41 23.0	
	comp=N,2μm,0.5s						
GCAM				IAML		00 41 23.0	
	comp=E,2μm,0.5s						
GCAM	**G?zelcaml?**	**0.15**	**99**	Pg	**Pg**	**00 41 16.9**	**-0.2**
GCAM				AML	AML		
SMG	**Samos**	**0.17**	**265**	P	**Pg**	**00 41 16.8**	**-0.7**
SMG				S	**Sg**	**00 41 19.6**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.17**	**265**	P	**Pg**	**00 41 17.0**	**-0.5**
SMG				S	**Sg**	**00 41 19.8**	**-0.2**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**54**	Pg	**Pg**	**00 41 18.2**	**-0.4**
KRL1	**Karlovasi Samo**	**0.28**	**285**	P	**Pg**	**00 41 19.2**	**-0.3**
KRL1				S	**Sg**	**00 41 23.2**	**0.0**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.31**	**150**	P	**Pg**	**00 41 20.0**	**0.0**
DGB	**zmir**	**0.35**	**338**	P	**Pg**	**00 41 20.4**	**-0.5**
GMLD	**Gumuldur**	**0.37**	**344**	Pg	**Pb**	**00 41 22.8**	**+0.3**
DIDI	**Didim-Aydin**	**0.38**	**156**	Pg	**Pb**	**00 41 22.7**	**0.0**
DIDI				Sg	**Sb**	**00 41 28.5**	**-0.1**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**349**	P	**Pg**	**00 41 23.5**	**-0.3**
BEYE				S	**Sg**	**00 41 30.0**	**-0.5**
BEYE				IAML		00 41 35.0	
	comp=E,321nm,0.3s						
BEYE				IAML		00 41 36.0	
	comp=N,379nm,0.2s						
DUVT	**Torbali**	**0.59**	**33**	P	**Pg**	**00 41 24.9**	**-0.4**
DUVT				S	**Sg**	**00 41 31.5**	**-1.5**
DUVT				IAML		00 41 39.0	
	comp=E,329nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.63**	**163**	Pg	**Pb**	**00 41 27.5**	**+0.6**
BLCB	**Balcova**	**0.66**	**360**	P	**Pg**	**00 41 25.9**	**-0.7**
BLCB				S	**Sg**	**00 41 35.2**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**360**	Pg	**Pb**	**00 41 27.6**	**+0.1**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.66**	**95**	P	**Pg**	**00 41 25.8**	**-0.9**
ZEYE	**Izmir, Urla-Ze**	**0.67**	**320**	P	**Pb**	**00 41 27.5**	**-0.2**
ZEYE				S	**Sg**	**00 41 34.7**	**-0.9**
ZEYE				IAML		00 41 38.0	
	comp=E,258nm,0.2s						
ZEYE				IAML		00 41 40.0	
	comp=N,487nm,0.9s						
BODT	**Bodrum**	**0.69**	**162**	P	**Pg**	**00 41 26.4**	**-0.8**
BODT				S	**Sb**	**00 41 37.0**	**-0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.69**	**162**	Pg	**Pb**	**00 41 28.1**	**+0.1**
AYDB	**Zeytinkoy-Aydi**	**0.70**	**71**	Pg	**Pb**	**00 41 28.2**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**0.72**	**126**	Pg	**Pb**	**00 41 28.9**	**+0.4**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.73**	**154**	P	**Pg**	**00 41 27.4**	**-0.5**
BODA	**Bodrum-Mula**	**0.75**	**156**	Pg	**Pn**	**00 41 29.7**	**-0.8**
KLNA	**Kalymnos**	**0.77**	**184**	P	**Pg**	**00 41 27.9**	**-0.7**
KLNA				S	**Sg**	**00 41 38.1**	**-0.5**
IZMR	**zmir-demi**	**0.83**	**60**	P	**Pb**	**00 41 30.3**	**0.0**
BAGT	**Foa**	**0.94**	**351**	P	**Pn**	**00 41 33.2**	**0.0**
BAGT				S	**Sg**	**00 41 44.1**	**-0.2**
BAGT				IAML		00 41 51.0	
	comp=N,340nm,0.7s						
BAGT				IAML		00 41 51.0	
	comp=E,199nm,0.7s						
KRBN	**Karaburun**	**0.95**	**336**	Pg	**Pn**	**00 41 33.2**	**-0.1**
KRBN				AML	AML		
NAZL	**Nazilli-Aydin**	**1.01**	**76**	Pg	**Pn**	**00 41 33.8**	**-0.4**
NAZL				AML	AML		
FOCM	**Foa**	**1.02**	**346**	Pg	**Pn**	**00 41 34.4**	**+0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	P	**Pg**	**00 41 33.6**	**0.0**
CHOS				S	**Sb**	**00 41 47.8**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	Pg	**Pn**	**00 41 34.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	P	**Pg**	**00 41 33.3**	**-0.2**
CHOS				S	**Sb**	**00 41 47.7**	**+0.4**
CHOS				AML	AML		
ESEN	**Aydn-Nazilli**	**1.03**	**86**	P	**Pb**	**00 41 33.5**	**-0.4**
CAMT	**Merkez**	**1.04**	**11**	P	**Pg**	**00 41 33.2**	**-0.7**
KARB	**zmir-Karabur**	**1.06**	**332**	P	**Pn**	**00 41 35.3**	**+0.5**
KARB				S	**Sg**	**00 41 47.8**	**-0.4**
DAT	**Datca**	**1.08**	**157**	P	**Pb**	**00 41 34.8**	**+0.1**
DAT				S	**Sn**	**00 41 50.7**	**+0.5**
DAT				AML	AML		
DAT	**Datca**	**1.08**	**157**	Pg	**Pn**	**00 41 35.9**	**+0.7**
DAT				AML	AML		
YER	**Yerkesik**	**1.15**	**121**	P	**Pg**	**00 41 35.1**	**-0.7**
YER				S	**Sn**	**00 41 52.4**	**+0.6**
YER				AML	AML		
YER	**Yerkesik**	**1.15**	**121**	Pn	**Pn**	**00 41 36.9**	**+0.9**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.17**	**66**	P	**Pn**	**00 41 36.0**	**-0.4**
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pn**	**00 41 37.5**	**+0.8**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.24**	**1**	P	**Pg**	**00 41 36.8**	**-0.8**
KTTT	**Salihli**	**1.27**	**40**	P	**Pn**	**00 41 38.4**	**+0.7**
AKHS	**Akhisar**	**1.30**	**27**	P	**Pg**	**00 41 38.7**	**-0.2**
AKS	**Akhisar**	**1.30**	**27**	Pn	**Pg**	**00 41 39.5**	**+0.7**
AKS				AML	AML		
TURN	**Turunc

YKAV	**Yalikavak-Bodr**	**0.65**	**161**	Pg	**Pg**	00 56 08.1	**+0.6**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**73**	Pg	**Pb**	00 56 09.4	**-0.3**
AYDB				AML	AML		
BODT	**Bodrum**	**0.72**	**161**	P	**Pg**	00 56 08.1	**-0.6**
BODT				S	**Sg**	00 56 18.9	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.72**	**161**	Pg	**Pg**	00 56 09.2	**+0.5**
BODT				AML	AML		
MLSB	**Milas**	**0.75**	**127**	Pg	**Pb**	00 56 09.9	**-0.3**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.83**	**62**	P	**Pb**	00 56 11.5	**-0.1**
BAGT	**Foa**	**0.92**	**352**	P	**Pb**	00 56 13.3	**+0.2**
BAGT				S	**Sg**	00 56 24.3	**-0.2**
BAGT				IAML		00 56 28.0	
	comp=N,287nm,0.7s						
BAGT				IAML		00 56 33.0	
	comp=E,285nm,0.7s						
KRBN	**Karaburun**	**0.92**	**337**	Pg	**Pg**	00 56 12.5	**-0.1**
KRBN				AML	AML		
FOCM	**Foa**	**0.99**	**347**	Pg	**Pg**	00 56 13.3	**-0.7**
CHOS	**Chios island**	**0.99**	**310**	P	**Pg**	00 56 13.7	**-0.4**
CHOS				S	**Sb**	00 56 28.4	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.99**	**310**	Pg	**Pg**	00 56 13.6	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.99**	**310**	P	**Pb**	00 56 14.2	**-0.2**
CHOS				S	**Sb**	00 56 28.2	**+0.6**
CHOS				AML	AML		
CAMT	**Merkez**	**1.03**	**13**	P	**Pn**	00 56 15.1	**-0.5**
NAZL	**Nazilli-Aydin**	**1.03**	**77**	Pg	**Pn**	00 56 15.2	**-0.4**
NAZL				AML	AML		
KARB	**zmir-Karabur**	**1.03**	**333**	P	**Pn**	00 56 15.5	**-0.1**
DAT	**Datca**	**1.11**	**156**	P	**Pg**	00 56 15.8	**-0.4**
DAT				S	**Sg**	00 56 30.9	**+0.3**
DAT				AML	AML		
DAT	**Datca**	**1.11**	**156**	Pn	**Pg**	00 56 16.3	**+0.2**
DAT				AML	AML		
YER	**Yerkesik**	**1.18**	**121**	P	**Pg**	00 56 16.7	**-0.7**
YER				S	**Sb**	00 56 33.1	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.18**	**121**	Pn	**Pg**	00 56 16.9	**-0.5**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.19**	**36**	Pn	**Pn**	00 56 17.7	**-0.1**
DKL	**Dikili**	**1.33**	**356**	Pn	**Pg**	00 56 20.5	**+0.2**
DKL				AML	AML		
APE	**Apeiranthos**	**1.36**	**241**	P	**Pn**	00 56 20.5	**+0.3**
APE				S	**Sn**	00 56 38.9	**+0.4**
APE				AML	AML		
TURN	**Turunc**	**1.38**	**134**	Pn	**Pn**	00 56 20.4	**+0.1**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**16**	Pn	**Pb**	00 56 22.3	**-0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**38**	Pn	**Pg**	00 56 22.9	**-0.3**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.60**	**125**	Pn	**Pb**	00 56 24.6	**0.0**
DALY				AML	AML		
PRK	**Paraskevi**	**1.61**	**339**	P	**Pn**	00 56 24.0	**+0.4**
PRK				S	**Sb**	00 56 45.1	**-0.1**
ARG	**Arkhangelos**	**1.77**	**150**	Pn	**Pb**	00 56 27.0	**-0.5**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**98**	Pn	**Pb**	00 56 27.7	**-1.0**
YAYO	**Edremit-Balk**	**1.86**	**1**	Pn	**Pn**	00 56 27.9	**+0.8**
YAYO				AML	AML		
FETY	**Fethiye**	**1.99**	**123**	Pn	**Pb**	00 56 30.3	**-0.9**
CAME	**Cameli-Denizli**	**1.99**	**113**	Pn	**Pn**	00 56 29.9	**+1.0**
BALB	**Balikesir**	**2.01**	**19**	Pn	**Pn**	00 56 30.1	**+1.1**
BALB				AML	AML		

*THE **04** 00:58:20.1,37°.7N±0°.9×2°.7E±°, h10km±2km, M2.7/8, MLh2.7/8*
*AFAD **04** 00:58:20.1,37°.74N×27°.02E, h7km±3km, ML2.7*
*ISK **04** 00:58:20.1,37°.74N×27°.04E, h5km, ML2.4/28*
ISC 04 00:58:20.2±0.9, 37°.74N±0°.02×27°.03E±0°.02, h11km±6km, n49, σ0s51/62, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**260**	P	**Pg**	**00 58 23.7**	**-0.1**
SMG				S	**Sg**	**00 58 26.5**	**+0.2**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.16**	**103**	P	**Pg**	**00 58 23.7**	**-0.2**
GCAM	**G?zelcaml?**	**0.16**	**103**	Pg	**Pg**	**00 58 23.7**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**58**	Pg	**Pg**	**00 58 25.1**	**-0.1**
KUSD				Sg	**Sg**	**00 58 28.4**	**-0.1**
DDIM	**Aydin, Didim**	**0.33**	**149**	P	**Pg**	**00 58 26.8**	**+0.1**
DGB	**zmir**	**0.34**	**340**	P	**Pg**	**00 58 27.5**	**+0.5**
DGB				S	**Sg**	**00 58 31.4**	**-0.1**
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pb**	**00 58 27.9**	**-0.6**
GMLD				Sg	**Sg**	**00 58 32.4**	**+0.4**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**155**	Pg	**Pg**	**00 58 28.3**	**+0.3**
DIDI				Sg	**Sg**	**00 58 34.1**	**+0.8**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**350**	P	**Pg**	**00 58 30.2**	**+0.3**
BEYE				S	**Sg**	**00 58 35.8**	**-0.7**
BEYE				IAML		00 58 41.0	
	comp=N,651nm,0.2s						
BEYE				IAML		00 58 41.0	
	comp=E,542nm,0.2s						
DUVT	**Torbali**	**0.58**	**34**	P	**Pg**	**00 58 31.5**	**-0.1**
DAGE	**izmir**	**0.63**	**65**	P	**Pg**	**00 58 32.5**	**+0.1**
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pg**	**00 58 32.8**	**+0.1**
YKAV				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**00 58 32.7**	**-0.2**
BLCB				S	**Sb**	**00 58 42.1**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**00 58 32.8**	**0.0**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**320**	P	**Pg**	**00 58 32.8**	**-0.2**
ZEYE				S	**Sg**	**00 58 41.8**	**+0.3**
ZEYE				IAML		00 58 43.0	
	comp=N,538nm,0.2s						
ZEYE				IAML		00 58 45.0	
	comp=E,336nm,0.3s						
BODT	**Bodrum**	**0.71**	**162**	P	**Pg**	**00 58 33.5**	**-0.5**
BODT				S	**Sb**	**00 58 44.0**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pg**	**00 58 33.8**	**-0.1**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**73**	Pg	**Pb**	**00 58 34.4**	**-0.3**
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**00 58 34.4**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pb**	**00 58 35.5**	**-0.1**
BAGT	**Foa**	**0.93**	**351**	P	**Pb**	**00 58 39.0**	**+0.7**
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**00 58 39.0**	**+0.5**
KRBN				AML	AML		
FOCM	**Foa**	**1.00**	**346**	Pg	**Pb**	**00 58 39.7**	**+0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pg**	**00 58 39.6**	**0.0**
CHOS				S	**Sn**	**00 58 54.5**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	Pg	**Pb**	**00 58 39.9**	**+0.1**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pb**	**00 58 40.3**	**+0.3**
NAZL				AML	AML		
CAMT	**Merkez**	**1.03**	**12**	P	**Pb**	**00 58 40.2**	**0.0**
KARB	**zmir-Karabur**	**1.05**	**332**	P	**Pb**	**00 58 40.7**	**+0.3**
DAT	**Datca**	**1.10**	**156**	P	**Pg**	**00 58 41.1**	**-0.2**
DAT				S	**Sb**	**00 58 55.9**	**+0.3**
DAT				AML	AML		
DAT	**Datca**	**1.10**	**156**	Pn	**Pb**	**00 58 41.6**	**+0.3**
DAT				AML	AML		
YER	**Yerkesik**	**1.16**	**121**	P	**Pg**	**00 58 41.8**	**-0.8**
YER	**Yerkesik**	**1.16**	**121**	Pn	**Pn**	**00 58 42.7**	**+0.2**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pn**	**00 58 43.4**	**+0.5**
GOMA				AML	AML		
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**00 58 45.4**	**+0.3**
AKS				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**00 58 46.1**	**+0.2**
DKL				AML	AML		
TURN	**Turunc**	**1.36**	**134**	Pn	**Pg**	**00 58 46.5**	**+0.1**
TURN				AML	AML		
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**00 58 44.6**	**-0.8**
APE				S	**Sb**	**00 59 03.7**	**+0.3**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pb**	**00 58 47.7**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**00 58 47.7**	**-0.1**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**125**	Pn	**Pb**	**00 58 49.7**	**+0.2**
DALY				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**00 58 48.2**	**-0.6**
PRK				S	**Sn**	**00 59 09.4**	**-0.2**
ARG	**Arkhangelos**	**1.75**	**150**	Pn	**Pb**	**00 58 52.1**	**-0.3**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.82**	**98**	Pn	**Pb**	**00 58 52.8**	**-0.8**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.87**	**1**	Pn	**Pb**	**00 58 53.8**	**-0.6**
YAYO				AML	AML		
FETY	**Fethiye**	**1.97**	**123**	Pn	**Pb**	**00 58 55.2**	**-1.0**
CAME	**Cameli-Denizli**	**1.98**	**113**	Pn	**Pn**	**00 58 54.9**	**+1.1**
BALB	**Balikesir**	**2.01**	**19**	Pn	**Pb**	**00 58 55.9**	**-0.9**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.04**	**48**	Pn	**Pb**	**00 58 56.3**	**-1.0**
SIMA				AML	AML		
GEDZ	**Gediz**	**2.28**	**54**	Pn	**Pn**	**00 58 59.6**	**+1.7**
GEDZ				AML	AML		

*ISK **04** 01:01:13.8,39°.36N×25°.72E, h4km, ML2.5/15*
*ATH **04** 01:01:14.3,39°.34N×25°.73E, h19km±2km, ML2.4/7,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
ISC 04 01:01:14.0±1.1, 39°.33N±0°.03×25°.72E±0°.02, h13km±9km, n31, σ0s48/45, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRK	**Paraskevi**	**0.44**	**101**	P	**Pb**	**01 01 23.3**	**-0.3**
PRK				S	**Sg**	**01 01 29.2**	**+0.6**
PRK				AML	AML		
BOZC	**Bozcaada**	**0.57**	**27**	Pg	**Pg**	**01 01 24.9**	**-0.3**
BOZC				Sg	**Sb**	**01 01 33.3**	**-0.6**
BOZC				AML	AML		
EFSA	**Agios Efstrati**	**0.60**	**290**	P	**Pb**	**01 01 26.2**	**-0.1**
EZNE	**Ezine-Canakkal**	**0.66**	**50**	Pg	**Pb**	**01 01 26.9**	**-0.4**
EZNE				Sg	**Sb**	**01 01 36.3**	**-0.1**
EZN	**Ezine**	**0.68**	**43**	Pg	**Pb**	**01 01 27.4**	**-0.3**
EZN				Sg	**Sb**	**01 01 36.9**	**-0.2**
EZN				AML	AML		
LIA	**Limnos Island**	**0.70**	**324**	P	**Pg**	**01 01 27.7**	**+0.1**
LIA				S	**Sg**	**01 01 36.8**	**+0.1**
LIA				AML	AML		
GADA	**Gvkgeada**	**0.87**	**9**	Pg	**Pg**	**01 01 30.3**	**-0.5**
GADA				Sg	**Sb**	**01 01 43.2**	**+0.7**
GADA				AML	AML		
COMU	**Canakkale**	**0.96**	**37**	Pg	**Pn**	**01 01 32.9**	**-0.3**
COMU				Sg	**Sn**	**01 01 46.5**	**-0.3**
COMU				AML	AML		
CHOS	**Chios island**	**0.98**	**164**	P	**Pg**	**01 01 33.0**	**+0.1**
CHOS				S	**Sg**	**01 01 45.9**	**+0.2**
CHOS				AML	AML		
SKY	**Skiros Island**	**1.01**	**244**	P	**Pb**	**01 01 33.7**	**+0.3**
SKY				AML	AML		
YAYO	**Edremit-Balk**	**1.09**	**75**	Pn	**Pn**	**01 01 35.1**	**+0.2**
YAYO				Sn	**Sn**	**01 01 50.4**	**+0.6**
YAYO				AML	AML		
SMTH	**Samothraki Isl**	**1.15**	**353**	P	**Pb**	**01 01 35.3**	**-0.3**
SMTH				S	**Sb**	**01 01 50.2**	**-0.3**
GELI	**Tayfur-Gelibol**	**1.21**	**28**	Pn	**Pg**	**01 01 36.9**	**-0.4**
GELI				AML	AML		
CANM	**Can-anakkale**	**1.23**	**56**	Pn	**Pg**	**01 01 37.6**	**-0.1**
CANM				AML	AML		
LPK	**Lapseki**	**1.31**	**37**	Pn	**Pg**	**01 01 39.0**	**-0.2**
LPK				AML	AML		
YENI	**Yenice-Canakka**	**1.32**	**62**	Pn	**Pg**	**01 01 39.4**	**0.0**
KYMI	**Kymi, Euboea I**	**1.44**	**242**	P	**Pn**	**01 01 39.4**	**-0.3**
KYMI				S	**Sn**	**01 01 58.3**	**-0.2**
ENEZ	**Enez**	**1.44**	**13**	Pn	**Pb**	**01 01 40.7**	**0.0**
ENEZ				AML	AML		
BIGA	**Biga-Canakkale**	**1.46**	**49**	Pn	**Pb**	**01 01 41.1**	**+0.2**
AOS2	**Alonissos-2**	**1.47**	**263**	P	**Pn**	**01 01 40.2**	**+0.1**
AOS2				S	**Sn**	**01 01 59.5**	**+0.3**
AOS2				AML	AML		
ERIK	**Erikli-Kesan**	**1.47**	**24**	Pn	**Pb**	**01 01 40.9**	**-0.3**
ERIK				AML	AML		
ALN	**Alexandroupoli**	**1.58**	**9**	Pn	**Pb**	**01 01 42.9**	**-0.2**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.58**	**9**	P	**Pn**	**01 01 42.2**	**+0.5**
ALN				S	**Sb**	**01 02 02.4**	**-0.6**
KRBG	**Karabiga-Canak**	**1.61**	**48**	Pn	**Pb**	**01 01 43.5**	**-0.1**
KRBG				AML	AML		
OUR	**Ouranopolis**	**1.67**	**307**	P	**Pn**	**01 01 43.1**	**+0.2**
OUR				S	**Sn**	**01 02 04.1**	**-0.1**
GONE	**Gonen-Balikesi**	**1.68**	**64**	Pn	**Pb**	**01 01 44.5**	**-0.2**
KRL1	**Karlovasi Samo**	**1.72**	**153**	P	**Pn**	**01 01 43.0**	**-0.5**
GAZK	**Gazikoy-TEKIRD**	**1.88**	**41**	Pn	**Pn**	**01 01 46.9**	**+1.1**
MRMT	**Marmara Adasi**	**1.92**	**48**	Pn	**Pb**	**01 01 47.9**	**-1.0**
UKOP	**Uzunkopru-Edir**	**1.93**	**21**	Pn	**Pn**	**01 01 47.5**	**+1.0**
UKOP				AML	AML		
EDC	**Edincik**	**1.94**	**58**	Pn	**Pn**	**01 01 47.9**	**+1.3**
EDC				AML	AML		

*AFAD **04** 01:17:32.9,37°.75N×26°.99E, h7km±2km, ML2.3*
*ISK **04** 01:17:32.8,37°.73N×27°.03E, h6km, ML2.3/23*
*THE **04** 01:17:33.2,37°.7N±1°.0×27°.0E±1°.0, h2km±1km, M2.5/8, MLh2.5/8*
ISC 04 01:17:33.3±0.9, 37°.73N±0°.02×27°.02E±0°.02, h10km±7km, n45, σ0s44/62, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**261**	P	**Pg**	**01 17 36.2**	**-0.3**
SMG				S	**Sg**	**01 17 38.5**	**-0.3**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**100**	P	**Pg**	**01 17 37.1**	**+0.1**
GCAM	**G?zelcaml?**	**0.17**	**100**	Pg	**Pg**	**01 17 36.9**	**-0.1**
GCAM				Sg	**Sg**	**01 17 39.6**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**59**	Pg	**Pg**	**01 17 38.4**	**+0.1**
KUSD				Sg	**Sg**	**01 17 41.9**	**+0.1**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.33**	**147**	P	**Pg**	**01 17 40.1**	**+0.3**
DGB	**zmir**	**0.34**	**342**	P	**Pg**	**01 17 39.6**	**-0.3**
DGB				S	**Sg**	**01 17 44.2**	**-0.2**
DGB				IAML		01 17 45.0	
	comp=E,318nm,0.4s						
GMLD	**Gumuldur**	**0.35**	**347**	Pg	**Pg**	**01 17 40.7**	**+0.4**
GMLD				Sg	**Sg**	**01 17 45.1**	**+0.1**
DIDI	**Didim-Aydin**	**0.40**	**153**	Pg	**Pg**	**01 17 41.0**	**0.0**
DIDI				Sg	**Sg**	**01 17 47.0**	**+0.7**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**352**	P	**Pg**	**01 17 42.9**	**-0.1**
BEYE				S	**Sg**	**01 17 49.4**	**-0.2**
BEYE				IAML		01 17 51.0	
	comp=E,203nm,0.5s						
BEYE				IAML		01 17 54.0	
	comp=N,325nm,0.2s						
DUVT	**Torbali**	**0.59**	**35**	P	**Pg**	**01 17 44.7**	**-0.2**
YKAV	**Yalikavak-Bodr**	**0.64**	**161**	Pg	**Pg**	**01 17 45.7**	**0.0**
YKAV				Sg	**Sb**	**01 17 54.8**	**-0.8**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**321**	P	**Pg**	**01 17 45.4**	**-0.4**
ZEYE				S	**Sg**	**01 17 53.9**	**-0.4**
ZEYE				IAML		01 17 55.0	
	comp=N,357nm,0.3s						
ZEYE				IAML		01 17 55.0	
	comp=E,173nm,0.2s						
BLCB	**Balcova**	**0.65**	**2**	P	**Pg**	**01 17 45.6**	**-0.3**
BLCB				S	**Sg**	**01 17 54.7**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**2**	Pg	**Pg**	**01 17 45.5**	**-0.4**
BLCB				Sg	**Sb**	**01 17 55.1**	**-0.9**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.69**	**96**	P	**Pg**	**01 17 46.3**	**-0.2**
BODT	**Bodrum**	**0.71**	**161**	P	**Pg**	**01 17 46.6**	**-0.3**
BODT				S	**Sb**	**01 17 57.1**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**161**	Pg	**Pg**	**01 17 46.5**	**-0.4**
AYDB	**Zeytinkoy-Aydi**	**0.72**	**73**	Pg	**Pg**	**01 17 47.3**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**01 17 46.9**	**-0.7**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pg**	**01 17 47.9**	**-0.2**
IZMR	**zmir-demi**	**0.84**	**61**	P	**Pg**	**01 17 49.2**	**-0.3**
BAGT	**Foa**	**0.93**	**352**	P	**Pn**	**01 17 53.3**	**+0.9**
KRBN	**Karaburun**	**0.94**	**337**	Pg	**Pb**	**01 17 51.5**	**-0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**1.00**	**311**	P	**Pg**	**01 17 52.5**	**0.0**
CHOS				S	**Sb**	**01 18 06.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.00**	**311**	Pg	**Pg**	**01 17 52.5**	**0.0**
CHOS				AML	AML		
FOCM	**Foa**	**1.00**	**347**	Pg	**Pb**	**01 17 52.8**	**0.0**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**77**	Pg	**Pb**	**01 17 53.1**	**-0.2**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**13**	P	**Pb**	**01 17 53.3**	**-0.2**
KARB	**zmir-Karabur**	**1.04**	**333**	P	**Pg**	**01 17 52.5**	**-0.8**
DAT	**Datca**	**1.10**	**156**	Pn	**Pb**	**01 17 54.1**	**-0.3**
DAT				AML	AML		
YER	**Yerkesik**	**1.17**	**120**	P	**Pg**	**01 17 55.0**	**-0.7**
YER				S	**Sn**	**01 18 11.6**	**-0.3**
YER	**Yerkesik**	**1.17**	**120**	Pn	**Pg**	**01 17 55.3**	**-0.5**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**36**	Pn	**Pn**	**01 17 56.2**	**0.0**
GOMA				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**01 17 58.8**	**-0.2**
DKL				AML	AML		
APE	**Apeiranthos**	**1.36**	**241**	P	**Pg**	**01 17 58.9**	**-0.3**
APE				S	**Sn**	**01 18 17.3**	**+0.8**
APE				AML	AML		
TURN	**Turunc**	**1.37**	**134**	Pn	**Pb**	**01 17 58.8**	**-0.2**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn	**Pb**	**01 18 00.7**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	**Pb**	**01 18 00.9**	**-0.2**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**124**	Pn	**Pn**	**01 18 02.0**	**+0.5**
DALY				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**01 18 02.4**	**+0.4**
PRK				S	**Sg**	**01 18 25.2**	**-0.2**
PRK				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	**Pn**	**01 18 05.5**	**+0.6**
THERA	**Ancient Thera,**	**1.84**	**223**	P	**Pn**	**01 18 05.3**	**+0.4**
THERA				S	**Sb**	**01 18 29.8**	**-0.3**
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pn**	**01 18 06.5**	**+1.0**
YAYO				AML	AML		
FETY	**Fethiye**	**1.98**	**123**	Pn	**Pn**	**01 18 07.8**	**+0.9**
CAME	**Cameli-Denizli**	**1.98**	**113**	Pn	**Pn**	**01 18 07.7**	**+0.6**

*IDC **04** 01:33:27.1±1.7, 0°.09N×97°.83E, h0km, mb4.0/9, mbtmp4.0/10, MS3.6/3, Error ellipse: s-maj=58.4km s-min=18.6km az=57.0*
*DJA **04** 01:33:32.6±0.5, 0°.7N±7°×98°.8E±°, h13km±6km, M4.1/13, MLv4.1/13*
ISC 04 01:33:31.7±1.4, 0°.2N±0°.1×97°.8E±0°.2, h30km, n30, σ0s81/17, mb3.9/9, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**0.52**	**113**	P	**Pb**	**01 33 42.5**	**+0.1**
PBSI				S	**Sn**	**01 33 50.4**	**-0.4**
GSI	**Gunungsitoli**	**1.17**	**349**	P	**Pn**	**01 33 51.9**	**-0.1**
GSI				AML	AML		
PPI	**Padang Panjang**	**2.66**	**103**	P	**Pn**	**01 34 13.7**	**+1.2**
PPI				AML	AML		
PSI	**Prapat**	**2.86**	**23**	P	**Pn**	**01 34 14.5**	**-0.9**
KCSI	**Kotacane, Aceh**	**3.35**	**359**	P	**Pb**	**01 34 31.6**	**+1.2**
CMAR	**Chiang Mai Arr**	**18.23**	**3**	P	**Pn**	**01 37 41.5**	**-1.0**
	1.3nm,0.4s,baz=195,slow=12,SNR=7.8						
CMAR				LR	LR	01 45 37.2	
	comp=Z,45nm,19.2s,baz=190,slow=40						
H08S2	**Diego Garcia H**	**26.40**	**252**	T	T	02 06 23.1	
	baz=73,slow=75,SNR=887						
H08S3	**Diego Garcia H**	**26.40**	**252**	T	T	02 06 27.3	
	baz=73,slow=75,SNR=2562						
H08S1	**Diego Garcia H**	**26.42**	**252**	T	T	02 06 25.3	
	baz=73,slow=75,SNR=514						
H01W3	**Cape Leeuwin H**	**38.05**	**158**	T	T	02 20 59.0	
	baz=334,slow=76,SNR=9.5						
H01W2	**Cape Leeuwin H**	**38.06**	**158**	T	T	02 20 59.7	
	baz=334,slow=76,SNR=9.1						
H01W1	**Cape Leeuwin H**	**38.06**	**158**	T	T	02 20 58.5	
	baz=334,slow=76,SNR=9.0						
WRA	**Warramunga Arr**	**40.97**	**121**	P	**P**	**01 41 11.2**	**-0.9**
	1.0nm,0.7s,baz=302,slow=9.0,SNR=12						
	1.0nm,0.7s						
ASAR	**Alice Springs**	**42.28**	**127**	P	**P**	**01 41 22.6**	**-0.3**
	1.0nm,0.6s,baz=302,slow=7.8,SNR=9.2						
	1.0nm,0.6s						
KSRS	**Korea Array**	**46.38**	**33**	P	**P**	**01 41 54.9**	**-0.4**
	1.7nm,0.6s,baz=217,slow=11,SNR=5.0						
	1.7nm,0.6s						
SONM	**Songino Array**	**48.08**	**8**	P	**P**	**01 42 09.5**	**+0.9**
	0.4nm,0.3s,baz=187,slow=8.4,SNR=2.6						
	0.4nm,0.3s						
MKAR	**Makanchi Array**	**48.40**	**346**	P	**P**	**01 42 11.9**	**+0.9**
	2.6nm,0.6s,baz=161,slow=9.4,SNR=18						
	2.6nm,0.6s						
KURBB	**Kurchatov Arra**	**52.90**	**345**	P	**P**	**01 42 45.1**	**+0.3**
	0.8nm,0.6s,baz=166,slow=7.1,SNR=9.9						
	0.8nm,0.6s						
USRK	**Ussuriysk Ar.**	**53.36**	**30**	P	**P**	**01 42 48.6**	**+0.3**
	5.4nm,0.8s,baz=235,slow=6.7,SNR=4.8						
	5.4nm,0.8s						
ZALV	**Zalesovo Beam**	**54.69**	**351**	P	**P**	**01 42 58.4**	**+0.6**
	2.0nm,0.4s,baz=177,slow=5.3,SNR=10						
	2.0nm,0.4s						
BVAR	**Borovoye Array**	**57.44**	**341**	P	**P**	**01 43 17.0**	**-0.5**
	0.7nm,0.5s,baz=153,slow=5.0,SNR=2.8						
	0.7nm,0.5s						
H04N2	**CROZET ISLANDS**	**61.26**	**215**	T	T	02 50 06.9	
	baz=56,slow=75,SNR=314						
H04N1	**CROZET ISLANDS**	**61.27**	**215**	T	T	02 50 07.4	
	baz=56,slow=75,SNR=297						
H04N3	**CROZET ISLANDS**	**61.27**	**215**	T	T	02 50

YKAV AML AML
DAGE izmir 0.64 64 P **Pb** **01 35 33.3 +0.2**
DAGE S **Sg** **01 35 38.7 -1.7**
ZEYE Izmir, Urla-Ze 0.65 322 P **Pb** **01 35 32.8 -0.4**
BLCB Balcova 0.66 2 P **Pg** **01 35 31.9 -0.3**
BLCB S **Sg** **01 35 40.9 +0.1**
BLCB AML AML
BLCB Balcova 0.66 2 Pg **Pg** **01 35 32.1 -0.1**
BLCB AML AML
AYDN Tasoluk 0.69 95 P **Pg** **01 35 32.8 0.0**
BODT Bodrum 0.70 160 P **Pg** **01 35 32.8 -0.2**
BODT S **Sb** **01 35 43.2 -0.7**
BODT AML AML
BODT Bodrum 0.70 160 Pg **Pg** **01 35 33.4 +0.3**
BODT AML AML
AYDB Zeytinkoy-Aydi 0.73 72 Pg **Pg** **01 35 33.4 -0.1**
AYDB Sg **Sb** **01 35 43.8 -0.9**
AYDB AML AML
MLSB Milas 0.74 125 Pg **Pg** **01 35 33.9 +0.1**
MLSB AML AML
BDRM Kayabasi 0.74 153 P **Pb** **01 35 34.5 -0.3**
BODA Bodrum-Mula 0.77 154 Pg **Pg** **01 35 34.5 +0.2**
IZMR zmir-demi 0.85 61 P **Pb** **01 35 36.9 +0.4**
BAGT Foa 0.94 352 P **Pn** **01 35 38.9 -0.1**
BAGT IAML 01 35 43.0
comp=N,164nm,1.5s
BAGT S **Sb** **01 35 50.3 -0.3**
BAGT IAML 01 35 55.0
comp=E,131nm,0.9s
KRBN Karaburun 0.94 337 Pg **Pg** **01 35 37.7 +0.1**
KRBN AML AML
CHOS Chios island 1.00 311 P **Pg** **01 35 39.1 +0.2**
CHOS S **Sb** **01 35 52.9 +0.2**
CHOS AML AML
CHOS Chios island 1.00 311 Pg **Pg** **01 35 39.1 +0.2**
CHOS AML AML
FOCM Foa 1.01 347 Pg **Pg** **01 35 38.9 0.0**
FOCM AML AML
NAZL Nazilli-Aydin 1.04 76 Pg **Pg** **01 35 39.3 -0.2**
NAZL AML AML
CAMT Merkez 1.05 13 P **Pb** **01 35 39.7 -0.2**
CAMT S **Sn** **01 35 55.2 -0.2**
CAMT IAML 01 35 57.0
comp=N,132nm,0.3s
CAMT IAML 01 35 58.0
comp=E,142nm,0.4s
KARB zmir-Karabur 1.05 333 P **Pn** **01 35 40.6 0.0**
ESEN Aydn-Nazilli 1.06 86 P **Pn** **01 35 40.5 -0.2**
DAT Datca 1.09 156 Pn **Pb** **01 35 40.8 0.0**
DAT AML AML
YER Yerkesik 1.17 120 P **Pg** **01 35 41.5 -0.5**
YER S **Sb** **01 35 57.4 0.0**
YER Yerkesik 1.17 120 Pn **Pb** **01 35 41.8 -0.3**
YER AML AML
KIRA zmir-Kiraz 1.19 66 P **Pn** **01 35 43.1 +0.4**
GOMA Golmarmara-Man 1.21 36 Pn **Pb** **01 35 42.6 -0.1**
GOMA AML AML
ZEDA zmir-Bergama 1.24 2 P **Pn** **01 35 43.3 +0.1**
KTTT Salihli 1.28 41 P **Pb** **01 35 44.8 +0.8**
DKL Dikili 1.34 356 Pn **Pg** **01 35 45.2 -0.1**
DKL AML AML
APE Apeiranthos 1.35 241 P **Pg** **01 35 45.6 +0.1**
APE AML AML
TURN Turunc 1.36 134 Pn **Pg** **01 35 45.5 -0.2**
TURN AML AML
MANT Manisa 1.44 57 P **Pg** **01 35 48.5 +1.4**
SOMA Soma-Manisa 1.48 16 Pn **Pn** **01 35 46.9 +0.3**
SOMA AML AML
GORD Gordes-Manisa 1.49 37 Pn **Pn** **01 35 47.1 +0.3**
GORD AML AML
DALY Dalyan (Mula) 1.59 124 Pn **Pb** **01 35 48.7 -0.5**
DALY AML AML
AYVA Ayvalik 1.60 351 P **Pg** **01 35 51.0 +0.8**
PRK Paraskevi 1.62 339 P **Pg** **01 35 50.8 +0.1**
ARG Arkhangelos 1.75 149 Pn **Pn** **01 35 51.1 +0.9**
ARG AML AML
APMY Acipayam-Deniz 1.83 97 Pn **Pn** **01 35 52.1 +0.6**
YAYO Edremit-Balk 1.88 1 Pn **Pn** **01 35 52.9 +0.9**
YAYO AML AML
FETY Fethiye 1.98 123 Pn **Pn** **01 35 54.3 +0.9**
CAME Cameli-Denizli 1.98 113 Pn **Pn** **01 35 54.3 +0.7**

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*IDC **04** 01:35:26.9±0.4,55˚.80S×26˚.89W, h0ᵏᵐ, mb4.7/18, mbtmp4.7/19, ML4.4/1, MS4.1/29, Error ellipse: s-maj=17.5km s-min=12.8km az=53.0*
*MOS **04** 01:35:27.4±1.1, 55˚.80S×27˚.05W, h10ᵏᵐ, mb5.2/15, Error ellipse: s-maj=18.9km s-min=11.3km az=114.4*
*NEIC **04** 01:35:29.8±1.2, 55˚.80S±0˚.10×26˚.9W±0˚.2, h17ᵏᵐ±3ᵏᵐ, mb5.1/60, Error ellipse: s-maj=14.0km s-min=12.5km az=203.0*
*GFZ **04** 01:35:29.7±0.2, 56˚S±4˚×27˚W±˚, h10ᵏᵐ, M5.2/36, mb5.2/36, confirmed*
*GCMT **04** 01:35:32.8±0.2, 55˚.87S±0˚.02×26˚.77W±0˚.02, h23ᵏᵐ, MW5.0/86, Moment Tensor Solution. s59,c73; s86,c127; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr3.39±.17; Mθθ-0.52±.12; Mϕϕ-2.86±.12; Mrθ-0.27±.18; Mϕθ1.89±.07; Mϕr2.29±.15; Best double couple: Mo4.33300×10¹⁶ NP1:ϕs344.00000°, δ31.00000°, λ67.00000°. NP2: ϕs344.00000°, δ61.00000°, λ104.00000°. Principal axes: T 4.1650, Plg70.0000°, Azm283.0000°; N 0.3440, Plg12.0000°, Azm157.0000°; P -4.5020, Plg15.0000°, Azm64.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 04 01:35:28.8±0.3,**55˚.81S**±0˚.06×**26˚.99W**±0˚.06, **h10**ᵏᵐ, **n284**, σ1ˢ **11**/272, **mb5.1**/65, **MS4.2**/30, **10C-1D**, **South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**5.67**	**282**	P		**Pn**	**01 36 53.7**	**+0.8**
HOPE	**Hope Point**	**5.67**	**282**			**Pn**	**01 36 53.7**	**+0.8**
HOPE	**Hope Point**	**5.67**	**282**	P		**Pn**	**01 36 54.0**	**+1.1**
	comp=Z,252nm,0.8s							
ORCD	**Orcadas**	**10.56**	**235**			**Pn**	**01 38 00.6**	**+0.7**
VNA1	**Neumayer--Stat**	**16.98**	**159**	⇑P		**P**	**01 39 28.7**	**+0.8**
	comp=Z,33nm,0.9s							
VNA1				⇑ScP		**ScP**	**01 47 43.9**	**-2.0**
	comp=Z,14nm,1.0s							
VNA3	**Neumayer Olymp**	**17.18**	**161**	⇑P		**P**	**01 39 30.9**	**+0.7**
	comp=Z,15nm,0.7s							
VNA3				⇑ScP		**ScP**	**01 47 43.7**	**-2.7**
	comp=Z,9.4nm,0.9s							
VNA3	**Neumayer Olymp**	**17.18**	**161**	P		**P**	**01 39 31.1**	**+0.9**
	comp=Z,35nm,1.4s							
VNA2	**Neumayer--Watz**	**17.38**	**158**	⇑P		**P**	**01 39 34.5**	**+2.2**
	comp=Z,11nm,0.6s,baz=319,slow=13							
VNA2				⇑ScP		**ScP**	**01 47 44.4**	**-2.4**
	comp=Z,6.1nm,0.8s,baz=326							
VNA2	**Neumayer--Watz**	**17.38**	**158**	P		**Pn**	**01 39 32.0**	**+1.0**
	comp=Z,19nm,0.8s							
EFI	**East Falkland**	**18.75**	**270**	P		**P**	**01 39 48.2**	**+0.7**
EFI				pmax		pmax		
	comp=Z,71nm,1.1s							
EFI	**East Falkland**	**18.75**	**270**	P		**P**	**01 39 48.2**	**+0.7**
SNAA	**Sanae**	**18.92**	**156**	⇑P		**P**	**01 39 49.6**	**+0.2**
	comp=Z,352nm,0.8s							
SNAA				⇑ScP		**ScP**	**01 47 47.8**	**-2.3**
	comp=Z,48nm,0.5s							
SNAA	**Sanae**	**18.92**	**156**	P		**P**	**01 39 49.5**	**+0.1**
	comp=Z,1.2nm,0.3s,baz=317,slow=12,SNR=11							
SNAA				LR		LR	01 45 44.7	
	comp=Z,445nm,19.2s,baz=323,slow=33							
SNAA				ScP		**ScP**	**01 47 47.5**	**-2.6**
	comp=Z,4.4nm,0.9s,baz=42,slow=1.5,SNR=7.3							
	comp=Z,3.3nm,0.6s							
SNAA				AML		AML		
SNAA	**Sanae**	**18.92**	**156**	P		**P**	**01 39 49.6**	**+0.2**
SNAA				pmax		pmax		
	comp=Z,42nm,1.7s							
SNAA	**Sanae**	**18.92**	**156**			**P**	**01 39 49.6**	**+0.2**
SNAA	**Sanae**	**18.92**	**156**	P		**P**	**01 39 49.4**	**+0.1**
	comp=Z,20nm,1.2s							
PMSA	**Palmer Station**	**20.14**	**229**	P		**P**	**01 40 03.3**	**+0.6**
	comp=Z,18nm,0.8s,baz=64,slow=6.6,SNR=9.2							
PMSA				LR		LR	01 46 45.2	
	comp=Z,830nm,19.0s,baz=74,slow=34							
	comp=Z,18nm,0.8s							
PMSA	**Palmer Station**	**20.14**	**229**	P		**P**	**01 40 03.7**	**+1.1**
PMSA				IAmb		IAmb	01 40 17.3	
	comp=Z,78nm,0.9s							
PMSA	**Palmer Station**	**20.14**	**229**	P		**P**	**01 40 04.7**	**+2.0**
	comp=Z,88nm,2.0s							
PMSA	**Palmer Station**	**20.14**	**229**	*e*P		**P**	**01 40 02.6**	**-0.1**
TROLL	**Troll, Antarti**	**20.42**	**154**	⇑P		**P**	**01 40 06.3**	**+0.5**
	comp=Z,910nm,0.8s							
TROLL				⇑ScP		**ScP**	**01 47 50.8**	**-2.9**
	comp=Z,43nm,0.7s							
BELA	**Belgrano 2**	**22.33**	**184**	P		**P**	**01 40 25.0**	**-1.1**
BELA				IAmb		IAmb	01 40 41.4	
	comp=Z,78nm,1.4s							
NVL	**N'lazarevskaya**	**22.41**	**147**	*e*P		P	01 40 13.6	-13
NVL				pmax		pmax		
	comp=Z,13nm,1.0s							
MG02	**Cerro Sombrero**	**24.55**	**259**	P		**P**	**01 40 47.8**	**-0.5**
GO08	**Villa O'Higgin**	**28.47**	**266**			**P**	**01 41 23.4**	**-0.2**
GO08				IAmb		IAmb	01 41 24.5	
	comp=Z,28nm,0.8s							
GO08	**Villa O'Higgin**	**28.47**	**266**	P		**P**	**01 41 23.7**	**+0.1**
	comp=Z,44nm,0.8s							
COYC	**Coyhaique**	**29.84**	**271**	P		**P**	**01 41 35.1**	**-0.7**
	comp=Z,26nm,1.6s							
ANCO	**Parque Anchore**	**30.28**	**302**	*e*P		**P**	**01 41 40.1**	**+0.3**
CPSB	**Cacapava Do Su**	**31.53**	**313**			**P**	**01 41 51.0**	**+0.1**
CPSB				IAmb		IAmb	01 41 53.3	
	comp=Z,34nm,1.0s							
CPSB	**Cacapava Do Su**	**31.53**	**313**	P		**P**	**01 41 52.2**	**+1.3**
	comp=Z,40nm,1.1s							
CPSB	**Cacapava Do Su**	**31.53**	**313**	*e*P		**P**	**01 41 52.4**	**+1.5**
PLCA	**Paso Flores**	**32.07**	**279**	P		**P**	**01 41 54.4**	**-1.2**
	comp=Z,4.4nm,0.8s,baz=146,slow=9.3,SNR=10.0							
PLCA				LR		LR	01 55 35.1	
	comp=Z,332nm,18.1s,baz=132,slow=38							
	comp=Z,4.4nm,0.8s							
PLCA	**Paso Flores**	**32.07**	**279**	P		**P**	**01 41 54.5**	**-1.2**
PLCA				pmax		pmax		
	comp=Z,8.0nm,1.0s							
PLCA	**Paso Flores**	**32.07**	**279**	P		**P**	**01 41 54.5**	**-1.1**
PSAL	**Palomas, Salto**	**32.77**	**306**	*e*P		**P**	**01 42 02.3**	**+0.6**
ITQB	**Itaqui**	**33.53**	**309**	*e*P		**P**	**01 42 09.1**	**+0.7**
ITAB	**Concordia**	**33.82**	**317**			**P**	**01 42 11.7**	**+0.8**
ITAB				IAmb		IAmb	01 42 13.5	
	comp=Z,38nm,1.0s							
ITAB	**Concordia**	**33.82**	**317**	P		**P**	**01 42 12.4**	**+1.4**
	comp=Z,45nm,1.0s							
ITAB	**Concordia**	**33.82**	**317**	*e*P		**P**	**01 42 12.2**	**+1.3**
QSPA	**South Pole Qui**	**34.45**	**180**	P		**P**	**01 42 15.5**	**-0.7**
	comp=Z,27nm,1.1s,baz=206,slow=4.2,SNR=30							
QSPA				ScP		**ScP**	**01 48 31.5**	**-4.5**
	comp=Z,5.2nm,1.0s,baz=198,slow=4.0,SNR=5.4							
QSPA				LR		LR	01 57 18.4	
	comp=Z,392nm,18.2s,baz=192,slow=38							
	comp=Z,27nm,1.1s							
QSPA	**South Pole Qui**	**34.45**	**180**	P		**P**	**01 42 16.3**	**0.0**
QSPA						**ScP**	**01 48 31.5**	**-4.5**
SPB	**Sao Paulo**	**35.53**	**327**	P		**P**	**01 42 26.8**	**+1.0**
SPB	**Sao Paulo**	**35.53**	**327**	P		**P**	**01 42 27.9**	**+2.2**
	comp=Z,32nm,1.9s							
SPB	**Sao Paulo**	**35.53**	**327**	*e*P		**P**	**01 42 26.6**	**+0.9**
VAO	**Valinhos**	**35.94**	**328**			**P**	**01 42 29.1**	**-0.3**
VAO				IAmb		IAmb	01 42 32.1	
	comp=Z,18nm,1.0s							
VAO	**Valinhos**	**35.94**	**328**	*e*P		**P**	**01 42 30.8**	**+1.4**
ALF01	**Guarapari-ES**	**36.62**	**338**	*e*P		**P**	**01 42 36.0**	**+0.9**
CPUP	**Villa Florida**	**36.73**	**311**	P		**P**	**01 42 35.8**	**-0.3**
	comp=Z,30nm,1.0s,baz=153,slow=9.0,SNR=51							
CPUP				LR		LR	01 58 40.8	
	comp=Z,207nm,18.1s,baz=140,slow=38							
	comp=Z,30nm,1.0s							
CPUP	**Villa Florida**	**36.73**	**311**	P		**P**	**01 42 36.0**	**-0.1**
CPUP				pmax		pmax		
	comp=Z,41nm,1.1s							
CPUP	**Villa Florida**	**36.73**	**311**	P		**P**	**01 42 36.0**	**-0.1**
CPUP				IAmb		IAmb	01 42 37.4	
	comp=Z,41nm,1.1s							
CPUP	**Villa Florida**	**36.73**	**311**	P		**P**	**01 42 36.3**	**+0.2**
	comp=Z,39nm,1.3s							
CPUP	**Villa Florida**	**36.73**	**311**	*e*P		**P**	**01 42 36.3**	**+0.2**
LDASE	**Londrina, Braz**	**36.94**	**321**	*e*P		**P**	**01 42 39.1**	**+1.2**
MT08	**Bocatoma Ro**	**37.07**	**289**	P		**P**	**01 42 39.0**	**-0.2**
MT08				IAmb		IAmb	01 42 42.2	
	comp=Z,26nm,0.8s							
BSCB	**Bom Sucesso**	**37.22**	**332**	*e*P		**P**	**01 42 41.0**	**+0.7**
MT03	**Universidad Ad**	**37.30**	**288**	P		**P**	**01 42 40.6**	**-0.4**
MT09	**Talagante**	**37.34**	**287**	P		**P**	**01 42 40.0**	**-1.4**
MT09				IAmb		IAmb	01 42 40.7	
	comp=Z,19nm,0.7s							
MT16	**CCHEN**	**37.36**	**288**	P		**P**	**01 42 41.5**	**+0.1**
MT16				IAmb		IAmb	01 42 43.4	
	comp=Z,20nm,0.7s							
SJPY	**San Joaquin**	**37.40**	**313**	*e*P		**P**	**01 42 41.4**	**-0.3**
MT01	**Popeta**	**37.42**	**287**	P		**P**	**01 42 40.4**	**-1.4**
PEL	**Peldehue**	**37.66**	**288**	P		**P**	**01 42 43.3**	**-0.7**
PEL				pmax		pmax		
	comp=Z,44nm,0.7s							
PEL	**Peldehue**	**37.66**	**288**			**P**	**01 42 43.3**	**-0.7**
PEL	**Peldehue**	**37.66**	**288**	P		**P**	**01 42 43.8**	**-0.2**
	comp=Z,63nm,0.7s							
RIB01	**Linhares ES**	**37.81**	**339**	*e*P		**P**	**01 42 46.0**	**+0.8**
MT02	**Curacav**	**37.82**	**288**	P		**P**	**01 42 44.4**	**-0.8**
MT02				IAmb		IAmb	01 42 45.3	
	comp=Z,27nm,0.7s							
ZON	**Zonda**	**37.84**	**292**	P		**P**	**01 42 44.9**	**-0.6**
ZON				pmax		pmax		
	comp=Z,20nm,0.7s							
ZON	**Zonda**	**37.84**	**292**			**P**	**01 42 44.9**	**-0.6**
ZON				IAmb		IAmb	01 42 48.9	
	comp=Z,20nm,0.7s							
ZON	**Zonda**	**37.84**	**292**	P		**P**	**01 42 45.1**	**-0.4**
	comp=E,20nm,0.7s							
VA03	**San Esteban**	**37.88**	**289**	P		**P**	**01 42 45.8**	**-0.1**
VA03				IAmb		IAmb	01 42 49.9	
	comp=Z,30nm,0.7s							
VA03	**San Esteban**	**37.88**	**289**	P		**P**	**01 42 46.2**	**+0.4**
	comp=Z,42nm,0.7s							
CANS	**Base de Mo F**	**38.33**	**330**	*e*P		**P**	**01 42 50.6**	**+0.8**
BSFB	**Base de Sao F**	**38.37**	**339**	P		**P**	**01 42 50.5**	**+0.6**
	comp=Z,26nm,0.9s							
BSFB	**Barra de Sao F**	**38.37**	**339**	*e*P		**P**	**01 42 50.2**	**+0.2**
SJMB	**Sao Joao De Ma**	**38.57**	**338**	*e*P		**P**	**01 42 51.6**	**0.0**
PCMB	**Pacaembu**	**38.64**	**322**	*e*P		**P**	**01 42 52.8**	**+0.6**
CO04	**Los Peladeros**	**38.67**	**289**	P		**P**	**01 42 52.3**	**-0.4**
CO04	**Los Peladeros**	**38.67**	**289**	P		**P**	**01 42 52.8**	**+0.1**
	comp=Z,29nm,0.7s							
DIAM	**Diamantina, MG**	**39.52**	**335**	*e*P		**P**	**01 43 00.1**	**+0.4**
CO01	**Juntas del Tor**	**39.83**	**292**	P		**P**	**01 43 03.6**	**+1.2**
	comp=Z,38nm,0.9s							
PMNB	**Patos De Minas**	**40.01**	**331**	*e*P		**P**	**01 43 04.5**	**+0.7**
MAW	**Mawson**	**40.28**	**144**	P		**P**	**01 43 05.4**	**0.0**
	comp=Z,1.6nm,1.0s							
MAW	**Mawson**	**40.28**	**144**	P		**P**	**01 43 05.2**	**-0.1**
	comp=Z,5.0nm,0.7s,baz=224,slow=8.8,SNR=16							
MAW				ScP		**ScP**	**01 48 56.6**	**-1.0**
	comp=Z,3.4nm,1.1s,baz=288,slow=7.9,SNR=3.6							
MAW				LR		LR	01 57 35.0	
	comp=Z,383nm,21.1s,baz=262,slow=33							
	comp=Z,5.0nm,0.7s							
MAW	**Mawson**	**40.28**	**144**	P		**P**	**01 43 05.1**	**-0.3**
MAW	**Mawson**	**40.28**	**144**	P		**P**	**01 43 05.1**	**-0.3**
MAW	**Mawson**	**40.28**	**144**	P		**P**	**01 43 05.6**	**+0.2**
	comp=Z,1.6nm,1.0s							
GUA01	**Guaratinga, BA**	**40.36**	**341**	*e*P		**P**	**01 43 07.1**	**+0.6**
SUR	**Sutherland**	**40.47**	**75**	LR		LR	01 56 15.2	
	comp=Z,524nm,20.3s,baz=192,slow=31							
SUR	**Sutherland**	**40.47**	**75**	P		**P**	**01 43 08.4**	**+0.8**
ARCA	**Araçuai, MG**	**40.53**	**338**	*e*P		**P**	**01 43 08.3**	**+0.3**
AC05	**El Transito**	**40.83**	**293**	P		**P**	**01 43 11.2**	**+0.6**
	comp=Z,88nm,1.0s							
LCO	**Las Campanas**	**40.91**	**292**	P		**P**	**01 43 10.5**	**-0.9**
LCO				pmax		pmax		
	comp=Z,41nm,1.0s							
LCO	**Las Campanas**	**40.91**	**292**	P		**P**	**01 43 10.5**	**-0.9**
LCO				IAmb		IAmb	01 43 12.1	
	comp=Z,41nm,1.0s							
IPMB	**Ipameri, GO**	**41.05**	**328**	*e*P		**P**	**01 43 13.5**	**+1.2**
AQDB	**Aquidauana**	**41.30**	**317**			**P**	**01 43 13.5**	**-0.8**
AQDB				IAmb		IAmb	01 43 15.2	
	comp=Z,52nm,1.2s							
AQDB	**Aquidauana**	**41.30**	**317**	P		**P**	**01 43 14.0**	**-0.2**
	comp=Z,39nm,1.1s							
AQDB	**Aquidauana**	**41.30**	**317**	*e*P		**P**	**01 43 13.9**	**-0.4**
AC04	**Llanos de Chal**	**41.76**	**293**	P		**P**	**01 43 18.4**	**+0.5**
	comp=Z,136nm,0.9s							
GO03	**Copiapo**	**41.81**	**294**	P		**P**	**01 43 18.5**	**0.0**
	comp=Z,86nm,0.9s							
AC02	**Maricunga**	**41.87**	**296**	P		**P**	**01 43 20.0**	**+0.5**
AC02	**Maricunga**	**41.87**	**296**	P		**P**	**01 43 20.8**	**+1.2**
	comp=Z,128nm,0.9s							
COIM	**Forte Coimbra**	**42.63**	**315**	*e*P		**P**	**01 43 25.0**	**-0.1**
SALTA		**42.66**	**301**	P		**P**	**01 43 25.3**	**-0.7**
	comp=Z,19nm,1.1s							
AC01	**Pan de Azucar**	**43.18**	**295**	P		**P**	**01 43 29.6**	**0.0**
AC01				IAmb		IAmb	01 43 31.3	
	comp=Z,38nm,0.9s							
AC01	**Pan de Azucar**	**43.18**	**295**	P		**P**	**01 43 30.1**	**+0.5**
	comp=Z,46nm,0.8s							
BDFB	**Brasilia**	**43.21**	**330**	P		**P**	**01 43 30.0**	**0.0**
	comp=Z,4.3nm,0.8s,baz=92,slow=3.9,SNR=6.6							
BDFB				LR		LR	02 02 00.1	
	comp=Z,332nm,18.6s,baz=151,slow=37							
	comp=Z,4.3nm,0.8s							
PP1B	**Ponte de Pedra**	**43.62**	**320**	*e*P		**P**	**01 43 33.4**	**+0.3**
ARAG	**Araguaiana, MT**	**44.31**	**325**	*e*P		**P**	**01 43 39.8**	**+1.0**
PB14	**IPOC Station P**	**44.33**	**296**	P		**P**	**01 43 38.9**	**-0.3**
	comp=Z,46nm,0.9s							
AF01	**San Pedro de A**	**44.63**	**300**	P		**P**	**01 43 41.7**	**+0.1**
SALV	**Santo Antonio**	**45.47**	**320**	*e*P		**P**	**01 43 48.3**	**+0.3**
SDBA	**SAO DESIDERIO**	**45.49**	**335**	*e*P		**P**	**01 43 48.7**	**+0.5**
PB05	**IPOC Station P**	**45.71**	**298**	P		**P**	**01 43 49.8**	**-0.2**
PB05	**IPOC Station P**	**45.71**	**298**	P		**P**	**01 43 50.3**	**+0.3**
	comp=Z,67nm,1.2s							
BOSA	**Boshof**	**45.80**	**76**	P		**P**	**01 43 49.0**	**-1.7**
	comp=Z,3.7nm,0.6s,baz=221,slow=6.6,SNR=14							
BOSA				LR		LR	02 00 49.0	
	comp=Z,617nm,18.1s,baz=205,slow=33							
	comp=Z,3.7nm,0.6s							
BOSA	**Boshof**	**45.80**	**76**	P		**P**	**01 43 48.9**	**-1.7**
BOSA				pmax		pmax		
	comp=Z,37nm,1.6s							
BOSA	**Boshof**	**45.80**	**76**	P		**P**	**01 43 48.9**	**-1.7**
BOSA				IAmb		IAmb	01 43 50.9	
	comp=Z,37nm,1.6s							
NBPN	**Ponto Novo - B**	**46.03**	**342**	*e*P		**P**	**01 43 51.5**	**-0.9**
PB09	**IPOC Station P**	**46.12**	**300**	P		**P**	**01 43 55.0**	**+1.6**
	comp=Z,61nm,1.6s							
PB03	**IPOC Station P**	**46.16**	**299**	P		**P**	**01 43 53.4**	**-0.3**
	comp=Z,38nm,1.1s							
BBSD	**Serra de San D**	**46.23**	**313**	*e*P		**P**	**01 43 53.7**	**-0.3**
SBA	**Scott Base**	**46.33**	**184**	P		**P**	**01 43 54.5**	**+0.4**
SBA				pmax		pmax		
	comp=Z,13nm,1.0s							
SBA	**Scott Base**	**46.33**	**184**	P		**P**	**01 43 54.5**	**+0.4**
SBA	**Scott Base**	**46.33**	**184**	P		**P**	**01 43 55.2**	**+1.1**
PB07	**IPOC Station P**	**46.50**	**299**	P		**P**	**01 43 57.0**	**+0.7**
	comp=Z,48nm,1.0s							
VNDA	**Vanda**	**46.82**	**183**	P		**P**	**01 43 58.1**	**+0.2**
	comp=Z,12nm,0.7s,baz=184,slow=7.1,SNR=46							
	comp=Z,12nm,0.7s							
VNDA	**Vanda**	**46.82**	**183**	P		**P**	**01 43 58.4**	**+0.4**
VNDA				pmax		pmax		
	comp=Z,14nm,0.9s							
VNDA	**Vanda**	**46.82**	**183**	P		**P**	**01 43 58.4**	**+0.4**
VNDA				IAmb		IAmb	01 44 00.7	
	comp=Z,14nm,0.8s							
VNDA	**Vanda**	**46.82**	**183**	P		**P**	**01 43 58.4**	**+0.4**
	comp=Z,19nm,0.8s							
PB02	**IPOC Station P**	**46.85**	**300**	P		**P**	**01 43 59.9**	**+1.0**
	comp=Z,47nm,1.2s							
PTLB	**Pontes e Lacer**	**47.20**	**316**			**P**	**01 44 01.2**	**-0.4**
PTLB	**Pontes e Lacer**	**47.20**	**316**	*e*P		**P**	**01 44 01.6**	**+0.1**
PB08	**IPOC Station P**	**47.49**	**301**	P		**P**	**01 44 04.5**	**+0.2**
PB08	**IPOC Station P**	**47.49**	**301**	P		**P**	**01 44 05.7**	**+1.4**
	comp=Z,40nm,0.9s							
H04S2	**CROZET ISLANDS**	**47.55**	**114**	T		T	02 35 40.7	
	baz=230,slow=76,SNR=31							
H04S3	**CROZET ISLANDS**	**47.55**	**114**	T		T	02 35 47.1	
	baz=230,slow=76,SNR=28							
H04S1	**CROZET ISLANDS**	**47.56**	**114**	T		T	02 35 40.6	
	baz=230,slow=76,SNR=24							
KOOLE	**Kule**	**47.61**	**66**	P		**P**	**01 44 03.7**	**-1.2**
KOOLE				IAmb		IAmb	01 44 22.2	
	comp=Z,28nm,1.4s							
TA01	**Diego Aracena**	**47.63**	**300**	P		**P**	**01 44 05.2**	**+0.4**
	comp=Z,39nm,1.2s							
SNDB	**Serra Nova Dou**	**47.65**	**327**	*e*P		**P**	**01 44 06.0**	**+0.9**
H10S2	**ASCENSION HYDR**	**47.73**	**17**	T		T	02 35 33.0	
	baz=189,slow=74,SNR=141							
H10S3	**ASCENSION HYDR**	**47.74**	**17**	T		T	02 35 34.6	
	baz=31,slow=74,SNR=64							
MAKGR	**Makgori**	**47.76**	**73**	P		**P**	**01 44 04.9**	**-1.2**
MAKGR				IAmb		IAmb	01 44 07.7	
	comp=Z,33nm,1.9s							
GO01	**Chusmiza**	**47.91**	**301**	P		**P**	**01 44 08.8**	**+1.1**
	comp=Z,66nm,0.9s							
PB11	**IPOC Station P**	**48.06**	**301**	P		**P**	**01 44 09.1**	**+0.7**
	comp=Z,20nm,1.0s							
LBTB	**Lobatse**	**48.83**	**73**	LR		LR	02 01 47.0	
	comp=Z,162nm,18.3s,baz=187,slow=32							
LBTB	**Lobatse**	**48.83**	**73**	P		**P**	**01 44 13.1**	**-1.2**
LBTB	**Lobatse**	**48.83**	**73**	P		**P**	**01 44 13.1**	**-1.2**
LBTB	**Lobatse**	**48.83**	**73**	P		**P**	**01 44 13.4**	**-0.8**
	comp=Z,12nm,1.2s							
H10N1	**ASCENSION HYDR**	**48.85**	**17**	T		T	02 36 58.1	
	baz=189,slow=75,SNR=45							
H10N3	**ASCENSION HYDR**	**48.85**	**17**	T		T	02 36 56.3	
	baz=189,slow=75,SNR=140							
H10N2	**ASCENSION HYDR**	**48.87**	**17**	T		T	02 36 56.3	
	baz=189,slow=75,SNR=55							
PB16	**IPOC Station P**	**49.20**	**302**			**P**	**01 44 17.9**	**+0.1**
PB16	**IPOC Station P**	**49.20**	**

DBIC pmax pmax
comp=Z,29nm,1.5s
DBIC Dimbokro 64.90 24 P P 01 46 07.4 -0.7
DBIC IAmb IAmb 01 46 37.8
comp=Z,29nm,1.5s
OPO Ambohidratompo 65.97 88 LR LR 02 09 01.5
comp=Z,294nm,21.7s,baz=269,slow=31
SLOR San Lorenzo - 68.79 303 P P 01 46 33.9 +0.3
SLOR IAmb IAmb 01 46 38.9
comp=Z,8.3nm,0.8s
OTAV Otavalo 69.61 303 P P 01 46 38.9 +0.2
OTAV pmax pmax
comp=Z,10.0nm,0.9s
OTAV Otavalo 69.61 303 P P 01 46 38.9 +0.2
OTAV IAmb IAmb 01 46 41.6
comp=Z,10nm,0.9s
OTAV Otavalo 69.61 303 P P 01 46 39.9 +1.2
comp=Z,12nm,1.4s
OTAV Otavalo 69.61 303 *eP* **P 01 46 39.3 +0.6**
ROSC El Rosal 71.81 310 P P 01 46 51.9 -0.1
comp=Z,18nm,0.8s,baz=96,slow=7.4,SNR=9.8
ROSC LR LR 02 19 35.0
comp=Z,140nm,19.8s,baz=162,slow=37
comp=Z,18nm,0.8s
ROSC El Rosal 71.81 310 P P 01 46 51.5 -0.4
ROSC pmax pmax
comp=Z,20nm,0.9s
ROSC El Rosal 71.81 310 P P 01 46 51.5 -0.4
ROSC IAmb IAmb 01 46 54.5
comp=Z,20nm,0.9s
MBAR Mbarara 71.94 63 LR LR 02 14 56.2
comp=Z,134nm,21.8s,baz=191,slow=33
MBAR Mbarara 71.94 63 *i P* **P 01 46 54.8 +2.3**
MBAR pmax pmax
comp=Z,6.0nm,1.5s
RUSC La Rusia 72.22 311 P P 01 46 53.4 -1.1
RUSC IAmb IAmb 01 46 54.6
comp=Z,25nm,1.0s
TORD Torodi Ar. Bea 72.79 29 P P 01 46 57.0 -0.2
comp=Z,2.6nm,0.7s,baz=202,slow=6.7,SNR=17
TORD LR LR 02 12 07.7
comp=Z,136nm,21.5s,baz=188,slow=30
comp=Z,2.6nm,0.7s
TORD Torodi Ar. Bea 72.79 29 P P 01 46 57.5 +0.3
SDV Santo Domingo 73.92 315 P P 01 47 04.2 +0.1
comp=Z,26nm,0.8s,baz=156,slow=5.7,SNR=21
SDV LR LR 02 20 59.0
comp=Z,230nm,19.2s,baz=148,slow=37
comp=Z,26nm,0.8s
SDV Santo Domingo 73.92 315 P P 01 47 03.8 -0.3
SDV IAmb IAmb 01 47 05.2
comp=Z,27nm,0.8s
SDV Santo Domingo 73.92 315 P P 01 47 04.3 +0.1
comp=Z,235nm,1.1s
SJCC San Jacinto, C 76.71 311 P 01 47 19.4 -0.6
SMRC Santa Marta, M 77.44 312 P 01 47 23.0 -1.1
SMRC IAmb IAmb 01 47 27.6
comp=Z,22nm,0.8s
GDHS Morne Mazeau, 77.55 326 P P 01 47 23.4 -1.3
SJG San Juan 80.72 323 LR LR 02 26 59.7
comp=Z,39nm,18.6s,baz=121,slow=38
JTS Las Juntas de 81.47 302 LR LR 02 27 08.1
comp=Z,56nm,19.1s,baz=136,slow=38
JTS Las Juntas de 81.47 302 *i P* **P 01 47 46.4 +0.3**
JTS pmax pmax
comp=Z,73nm,1.5s
TOO Toolangi 86.77 174 P P 01 48 12.6 -0.3
TOO pmax pmax
comp=Z,8.0nm,1.1s
TOO Toolangi 86.77 174 P P 01 48 12.6 -0.3
TBI Tubuai 87.32 231 *e* **LR LR** 02 16 07.9
comp=Z,2µm,32.5s
APG El Apazote 88.20 300 P P 01 48 20.1 -0.1
comp=Z,0.6nm,0.8s,baz=182,slow=14,SNR=3.6
comp=Z,0.6nm,0.8s
ATD Arta Tunnel 88.46 67 LR LR 02 24 57.8
comp=Z,6.1nm,20.8s,baz=165,slow=34
MDT Midelt 90.32 19 LR LR 02 23 31.6
comp=Z,140nm,20.2s,baz=180,slow=32
MD01 Midelt array s 90.34 19 P P 01 48 30.3 +0.6
STKA Stephens Creek 92.12 170 P P 01 48 38.1 -0.1
comp=Z,3.0nm,0.7s,baz=250,slow=2.1,SNR=3.6
STKA LR LR 02 28 52.8
comp=Z,163nm,19.7s,baz=205,slow=35
comp=Z,3.0nm,0.7s
STKA Stephens Creek 92.12 170 *eP* **P 01 48 39.2 +1.0**
STKA pmax pmax
comp=Z,3.0nm,0.7s
STKA Stephens Creek 92.12 170 P P 01 48 37.5 -0.7
CMIG Matias Romero 92.17 298 LR LR 02 29 32.2
comp=Z,29nm,18.7s,baz=165,slow=35
PPT2 Papeete2 92.41 234 *e* **LR LR** 02 18 18.3
comp=Z,155nm,30.2s
PPT2 *e* LR LR 02 18 26.8
comp=Z,253nm,29.8s
PPT Papeete 92.43 234 LR LR 02 23 52.7
comp=Z,66nm,18.2s,baz=140,slow=31
ESDC Sonseca Array 97.40 18 P Pdif 01 49 01.8 +1.1
comp=Z,0.8nm,0.9s,baz=0.0,slow=10,SNR=2.2
ESDC LR LR 02 29 55.8
comp=Z,150nm,20.5s,baz=166,slow=34
comp=Z,0.8nm,0.9s
ASAR Alice Springs 99.19 162 P Pdif 01 49 08.8 -1.7
comp=Z,1.6nm,0.7s,baz=192,slow=4.3,SNR=12
ASAR PKKP **PKKPbc 02 05 32.8 +0.1**
comp=Z,0.8nm,0.8s,baz=4.0,slow=2.6,SNR=4.5
ASAR LR LR 02 32 50.7
comp=Z,91nm,18.8s,baz=221,slow=35
comp=Z,1.6nm,0.7s
ASAR Alice Springs 99.19 162 P Pdif 01 49 09.3 -1.2
ASAR Alice Springs 99.19 162 P Pdif 01 49 09.3 -1.2
AS31 Alice Springs 99.19 162 P Pdif 01 49 09.6 -1.0
WRA Warramunga Arr 102.91 162 P Pdif 01 49 27.5 +0.4
comp=Z,0.4nm,0.8s,baz=192,slow=4.2,SNR=1.8
WRA PKKPbc **PKKPbc 02 05 23.3 +1.3**
comp=Z,0.7nm,0.8s,baz=23,slow=3.5,SNR=4.7
TXAR Lajitas Array 106.78 297 PKKPbc PKKPbc 02 05 10.5 -0.4
comp=Z,0.5nm,0.8s,baz=166,slow=0.5,SNR=4.8
HYB Hyderabad 112.95 93 *e*PKiKP **PKiKP 01 54 06.3 +0.4**
HYB *es*PKiKP **sPKiKP 01 54 13.7 +4.3**
PDAR Pinedale Array 120.31 302 PKP PKPdf 01 54 17.5 -2.0
comp=Z,0.3nm,0.6s,baz=166,slow=3.1,SNR=4.5
PDAR PP **PP 01 55 46.2 -0.1**
comp=Z,0.4nm,0.8s,baz=110,slow=3.9,SNR=3.9
NVAR Mina Array Bea 121.40 293 PKP PKPdf 01 54 21.9 +0.1
comp=Z,1.1nm,0.9s,baz=163,slow=1.6,SNR=5.2
NVAR Mina Array Bea 121.40 293 PKPdf 01 54 21.4 -0.4
FINES FINESS Array B 124.11 28 PKP PKPdf 01 54 25.2 -0.7
comp=Z,3.8nm,0.8s,baz=185,slow=6.7,SNR=11
FINES FINESS Array B 124.11 28 *e*PKIKP **PKPdf 01 54 25.5 -0.4**
FINES pmax pmax
comp=Z,4.0nm,0.8s
CMAR Chiang Mai Arr 125.05 110 PKP PKPdf 01 54 28.8 -0.3
comp=Z,1.0nm,0.3s,baz=232,slow=3.9,SNR=10
CMAR Chiang Mai Arr 125.05 110 *e*PKIKP **PKPdf 01 54 27.3 -1.8**
CMAR pmax pmax
comp=Z,1.0nm,0.3s
CMAR Chiang Mai Arr 125.05 110 PKPdf 01 54 27.7 -1.4
AKTO Aktyubinsk 127.09 53 PKP PKPdf 01 54 31.2 -0.8
comp=Z,0.8nm,0.3s,baz=190,slow=1.5,SNR=7.2
AB31 Akbulak array 127.14 55 PKPdf 01 54 31.0 -1.1
ABKAR Akbulak array 127.14 55 PKPdf 01 54 31.3 -0.8
KLMR Klimovskoe 127.56 34 *e*PKIKP **PKPdf 01 54 30.6 -1.9**
KLMR *e* 01 56 33.0
KLMR PPP PPP 01 59 20.9
KLMR pmax pmax
comp=Z,26nm,1.4s
KSH2 Kashi 127.91 74 PKP PKPdf 01 54 34.2 0.0
KKAR Karatay Array 128.02 67 PKIKP PKPdf 01 54 33.2 -0.8
KKAR Karatay Array 128.02 67 PKPdf 01 54 33.2 -0.8
AAK Ala-Archa 129.79 70 *i* PKIKP **PKPdf 01 54 37.5 -0.1**
ARCES ARCESS Array B 130.67 22 PKP PKPdf 01 54 37.8 -0.4
comp=Z,7.3nm,1.0s,baz=270,slow=0.2,SNR=6.3
ARTI Arti 131.35 48 *i* PKIKP **PKPdf 01 54 39.5 -0.4**
ARTI 01 56 57.9
ARTI SS SS 02 14 26.5 -5.5
BORK Borovoye 134.53 57 *i* PKIKP **PKPdf 01 54 45.6 -0.4**
BVAR Borovoye Array 134.55 57 PKP PKPdf 01 54 46.0 0.0
comp=Z,3.5nm,0.8s,baz=245,slow=2.5,SNR=12
YKA Yellowknife Ar 136.06 318 PKP PKPdf 01 54 47.9 -0.7
comp=Z,2.0nm,0.8s,baz=123,slow=2.3,SNR=5.1
YKA Yellowknife Ar 136.06 318 *e*PKIKP **PKiKP 01 54 51.0 +0.8**
YKA pmax pmax
comp=Z,2.0nm,0.8s
MK31 Makanchi Array 136.70 71 *i* PKIKP **PKPdf 01 54 49.2 -1.1**
MKAR Makanchi Array 136.70 71 PKP PKPdf 01 54 50.2 -0.1
comp=Z,0.9nm,0.7s,baz=204,slow=2.1,SNR=6.1
MKAR Makanchi Array 136.70 71 *e*PKIKP **PKPdf 01 54 51.2 +0.9**
MKAR pmax pmax
comp=Z,1.0nm,0.7s
MKAR Makanchi Array 136.70 71 PKPdf 01 54 50.0 -0.3
KURBB Kurchatov Arra 137.10 64 PKP PKPdf 01 54 50.0 -0.8
comp=Z,1.4nm,0.8s,baz=238,slow=3.1,SNR=7.8
KURBB SKPbc **SKPbc 01 58 21.8 -1.9**
comp=Z,0.7nm,1.0s,baz=257,slow=3.7,SNR=6.5
KURK Kurchatov 137.20 64 PKIKP PKPdf 01 54 50.0 -1.0
WMQ Urumqi 137.75 78 *e*PKP **PKPdf 01 54 53.3 +0.9**
WMQ LR LR
comp=Z,78nm,23.7s
DGZ Jazzator, Alta 141.20 71 *i* PKIKP **PKPdf 01 54 58.5 -0.1**
LZH Lanzhou 141.54 100 *e*PKP **PKPdf 01 55 01.7 +2.0**
ZALV Zalesovo Beam 142.16 63 PKhKP PKPpre 01 54 54.9
comp=Z,0.6nm,0.4s,baz=253,slow=1.5,SNR=4.2
ZALV PKP **PKPdf 01 55 00.9 +0.9**
comp=Z,1.5nm,0.6s,baz=239,slow=4.9,SNR=5.8
XAN Xi'an 142.81 107 *e*PKP **PKiKP 01 55 05.1 +0.1**
HYT Haines Junctio 144.73 307 PKPab 01 55 04.3 +0.9
H31M Peel River 145.23 316 PKPbc 01 55 04.5 -0.3
INK Inuvik 145.69 321 PKPbc **PKPdf 01 55 05.2 -0.4**
comp=Z,14nm,0.9s,baz=88,slow=4.0,SNR=39
NJ2 Nanjing 146.37 121 *e*P **PKPbc 01 55 09.7 +0.4**
NJ2 pmax pmax
comp=Z,12nm,0.6s
DAWY Dawson 146.71 312 PKPdf 01 55 08.2 +0.6
KNGR Kungurtug, Tuv 147.13 75 *i* PKP2 **PKPbc 01 55 11.5 +0.4**
BTO2 Baotou 148.18 100 *e*PKPbc **PKPdf 01 55 13.5 +2.6**
BTO2 PP **PP 01 58 49.7 +6.5**
BTO2 pmax pmax
comp=Z,73nm,0.9s
BTO2 pmax pmax
comp=Z,680nm,10.5s
HNS HongShan 148.43 109 PKPbc **PKPbc 01 55 14.6 -0.2**
NRIK Noril'sk 148.75 38 PKPbc **PKPbc 01 55 14.2 -0.5**
comp=Z,7.5nm,0.8s,baz=46,slow=1.5,SNR=9.0
NRIK Noril'sk 148.75 38 PKPbc 01 55 14.4 -0.2
HHC Hu-ho-hao-te 149.19 101 *e*P **PKPdf 01 55 12.3 -0.3**
ILAR Eielson Array 150.03 312 PKPbc **PKPbc 01 55 16.9 -1.1**
comp=Z,1.5nm,1.0s,baz=336,slow=1.7,SNR=4.4
ILAR Eielson Array 150.03 312 PKIKP **PKPbc 01 55 17.6 -0.4**
ILAR Eielson Array 150.03 312 PKPbc 01 55 17.6 -0.4
ZAK Zakamensk 150.19 79 *e*PKIKP **PKPdf 01 55 17.1 +3.3**
ZAK pmax pmax
comp=Z,12nm,1.2s
SONM Songino Array 150.60 86 PKPbc **PKPbc 01 55 19.4 -0.6**
comp=Z,8.8nm,0.7s,baz=199,slow=3.2,SNR=28
SONM Songino Array 150.60 86 PKPbc 01 55 19.0 -1.0
KDAK Kodiak Island 150.81 297 PKPbc **PKPbc 01 55 19.7 -0.3**
comp=Z,17nm,0.7s,baz=25,slow=2.0,SNR=9.1
ULN Ulaanbaatar 150.99 86 PKIKP **PKPbc 01 55 20.0 -1.0**
ULN Ulaanbaatar 150.99 86 PKPbc 01 55 20.0 -1.0

*AFAD **04** 02:10:20.6,37.°73N×27.°02E,h7km±6km,ML2.3*
*ISK **04** 02:10:20.9,37.°75N×27.°04E,h6km,ML2.2/15*
*THE **04** 02:10:21.1,38.°N±2.°×2.°7E±.°,h3km±3km,M2.7/4,MLh2.7/4*
ISC 04 02:10:20.5±0.8,37.°75N±0.°02×27.°02E±0.°03,h15km±6km, n37,σ0°57/54,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**254**	P		**Pg**	**Pg**	**02 10 24.4**	**-0.1**
SMG				S		**Sg**	**Sg**	**02 10 26.8**	**-0.2**
SMG				AML		AML	AML		
GCAM	**G?zelcaml?**	**0.18**	**106**	P		**Pg**	**Pg**	**02 10 24.8**	**-0.1**
GCAM				S		**Sg**	**Sg**	**02 10 27.2**	**-0.4**
GCAM				IAML				02 10 28.0	
	comp=N,581nm,0.3s								
GCAM				IAML				02 10 29.0	
	comp=E,390nm,0.5s								
GCAM	**G?zelcaml?**	**0.18**	**106**	Pg		**Pg**	**Pg**	**02 10 24.8**	**-0.1**
GCAM				AML		AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**63**	Pg		**Pb**	**Pb**	**02 10 26.1**	**-0.5**
KUSD				Sg		**Sg**	**Sg**	**02 10 29.6**	**+0.2**
DGB	**zmir**	**0.32**	**341**	P		**Pb**	**Pb**	**02 10 27.8**	**-0.1**
DGB				S		**Sb**	**Sb**	**02 10 32.3**	**-0.6**
DGB				IAML				02 10 33.0	
	comp=N,252nm,0.4s								
DGB				IAML				02 10 33.0	
	comp=E,272nm,0.2s								
GMLD	**Gumuldur**	**0.34**	**346**	Pg		**Pb**	**Pb**	**02 10 28.4**	**+0.2**
GMLD				Sg		**Sb**	**Sb**	**02 10 33.5**	**+0.1**
GMLD				AML		AML	AML		
DDIM	**Aydin, Didim**	**0.34**	**149**	P		**Pg**	**Pg**	**02 10 27.7**	**+0.1**
DDIM				S		**Sg**	**Sg**	**02 10 32.8**	**+0.5**
DDIM				IAML				02 10 34.0	
	comp=N,355nm,0.2s								
DDIM				IAML				02 10 34.0	
	comp=E,400nm,0.6s								
DIDI	**Didim-Aydin**	**0.41**	**155**	Pg		**Pb**	**Pb**	**02 10 29.7**	**+0.2**
DIDI				Sg		**Sb**	**Sb**	**02 10 35.9**	**+0.3**
BEYE	**izmir**	**0.48**	**352**	P		**Pb**	**Pb**	**02 10 30.9**	**+0.2**
BEYE				S		**Sn**	**Sn**	**02 10 39.3**	**-1.8**
BEYE				IAML				02 10 42.0	
	comp=N,251nm,0.2s								
BEYE				IAML				02 10 42.0	
	comp=E,196nm,0.2s								
DUVT	**Torbali**	**0.58**	**36**	P		**Pg**	**Pg**	**02 10 31.9**	**0.0**
DUVT				S		**Sg**	**Sg**	**02 10 39.4**	**-0.3**
DUVT				IAML				02 10 42.0	
	comp=E,89nm,0.6s								
BLCB	**Balcova**	**0.63**	**2**	P		**Pb**	**Pb**	**02 10 33.5**	**+0.2**
BLCB				S		**Sb**	**Sb**	**02 10 43.2**	**+1.1**
BLCB				AML		AML	AML		
BLCB	**Balcova**	**0.63**	**2**	Pg		**Pb**	**Pb**	**02 10 33.5**	**+0.2**
BLCB				Sg		**Sb**	**Sb**	**02 10 42.9**	**+0.9**
BLCB				AML		AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.63**	**320**	P		**Pg**	**Pg**	**02 10 32.6**	**-0.4**
ZEYE				S		**Sb**	**Sb**	**02 10 42.9**	**+0.9**
ZEYE				IAML				02 10 43.0	
	comp=N,443nm,0.3s								
ZEYE				IAML				02 10 43.0	
	comp=E,214nm,0.2s								
YKAV	**Yalikavak-Bodr**	**0.66**	**161**	Pg		**Pb**	**Pb**	**02 10 34.2**	**+0.5**
AYDN	**Tasoluk**	**0.69**	**97**	P		**Pg**	**Pg**	**02 10 33.6**	**-0.4**
AYDN				S		**Sn**	**Sn**	**02 10 46.9**	**+0.6**
AYDN				IAML				02 10 48.0	
	comp=N,215nm,0.4s								
AYDN				IAML				02 10 48.0	
	comp=E,205nm,0.7s								
AYDB	**Zeytinkoy-Aydi**	**0.72**	**74**	Pg		**Pb**	**Pb**	**02 10 34.9**	**+0.1**
BODT	**Bodrum**	**0.73**	**161**	P		**Pg**	**Pg**	**02 10 34.6**	**-0.1**
BODT				S		**Sg**	**Sg**	**02 10 44.0**	**-0.2**
BODT	**Bodrum**	**0.73**	**161**	Pg		**Pg**	**Pg**	**02 10 34.9**	**+0.2**
MLSB	**Milas**	**0.76**	**127**	Pg		**Pg**	**Pg**	**02 10 35.0**	**-0.3**
BDRM	**Kayabasi**	**0.76**	**153**	P		**Pg**	**Pg**	**02 10 33.5**	**-1.9**
BDRM				S		**Sb**	**Sb**	**02 10 46.5**	**+0.7**
BDRM				IAML				02 10 49.0	
	comp=N,219nm,0.7s								
BDRM				IAML				02 10 49.0	
	comp=E,158nm,0.4s								
BODA	**Bodrum-Mula**	**0.79**	**155**	Pg		**Pn**	**Pn**	**02 10 36.6**	**-0.5**
IZMR	**zmir-demi**	**0.83**	**62**	P		**Pn**	**Pn**	**02 10 37.5**	**-0.2**
IZMR				P		**Pb**	**Pb**	**02 10 37.9**	**+1.2**
IZMR				IAML				02 10 52.0	
	comp=N,59nm,1.0s								
IZMR				IAML				02 10 52.0	
	comp=N,63nm,1.0s								
IZMR				IAML				02 10 53.0	
	comp=E,69nm,0.4s								
IZMR				IAML				02 10 53.0	
	comp=E,76nm,0.4s								
KRBN	**Karaburun**	**0.92**	**337**	Pg		**Pn**	**Pn**	**02 10 39.1**	**+0.2**
KRBN				AML		AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**78**	Pg		**Pn**	**Pn**	**02 10 40.9**	**+0.4**
DAT	**Datca**	**1.11**	**156**	Pn		**Pg**	**Pg**	**02 10 42.7**	**+0.7**
DAT				AML		AML	AML		
YER	**Yerkesik**	**1.18**	**121**	P		**Pg**	**Pg**	**02 10 43.1**	**-0.2**
YER				S		**Sg**	**Sg**	**02 10 59.0**	**+0.3**
YER	**Yerkesik**	**1.18**	**121**	Pn		**Pg**	**Pg**	**02 10 43.2**	**-0.1**
YER				AML		AML	AML		
GOMA	**Golmarmara-Man**	**1.19**	**36**	Pn		**Pg**	**Pg**	**02 10 43.2**	**-0.3**
DKL	**Dikili**	**1.32**	**356**	Pn		**Pg**	**Pg**	**02 10 46.6**	**+0.6**
DKL				AML		AML	AML		
TURN	**Turunc**	**1.38**	**134**	Pn		**Pg**	**Pg**	**02 10 47.1**	**0.0**
TURN				AML		AML	AML		
SOMA	**Soma-Manisa**	**1.46**	**16**	Pn		**Pg**	**Pg**	**02 10 48.5**	**-0.1**
SOMA				AML		AML	AML		
GORD	**Gordes-Manisa**	**1.47**	**38**	Pn		**Pg**	**Pg**	**02 10 48.5**	**-0.4**
GORD				AML		AML	AML		
DALY	**Dalyan (Mula)**	**1.60**	**125**	Pn		**Pb**	**Pb**	**02 10 50.3**	**+0.5**
DALY				AML		AML	AML		
ARG	**Arkhangelos**	**1.77**	**150**	Pn		**Pb**	**Pb**	**02 10 52.7**	**0.0**
ARG				AML		AML	AML		
APMY	**Acipayam-Deniz**	**1.84**	**98**	Pn		**Pb**	**Pb**	**02 10 53.6**	**-0.3**
FETY	**Fethiye**	**1.99**	**123**	Pn		**Pb**	**Pb**	**02 10 55.9**	**-0.6**
CAME	**Cameli-Denizli**	**1.99**	**113**	Pn		**Pb**	**Pb**	**02 10 56.1**	**-0.5**

*SOME **04** 02:10:45.9,38.°93N×75.°92E,h10km*
*NNC **04** 02:10:49.7±2.8,39.°02N×76.°18E,h0km,mb3.8,mpv3.4,*
Error ellipse: s-maj=19.5km s-min=15.3km az=172.0
*KRNET **04** 02:10:52.9±0.1,39.°08N×76.°16E,mb3.7*
ISC 04 02:10:51.5±2.1,38.°94N±0.°10×76.°07E±0.°04,h10km,n35, σ2°58/58,17C-7D,Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**2.26**	**299**	⇑*iP*		**Pb**	**Pb**	**02 11 33.1**	**+0.6**
SFK				⇑*iS*		**Sg**	**Sg**	**02 12 02.9**	**-1.2**
NRN	**Naryn**	**2.49**	**359**	⇑*iP*		**Pb**	**Pb**	**02 11 34.5**	**-2.0**
NRN				⇓*iS*		**Sn**	**Sn**	**02 12 04.5**	**+1.5**
SALK	**Salom-Alik**	**2.60**	**319**	⇑*iP*		**Pb**	**Pb**	**02 11 37.2**	**-1.1**
SALK				⇑*iS*		**Sb**	**Sb**	**02 12 09.5**	**-0.9**
OHH	**Osh**	**2.99**	**303**	⇑*eP*		**Pb**	**Pb**	**02 11 43.3**	**-1.6**
OHH				⇑*eS*		**Sb**	**Sb**	**02 12 19.4**	**-2.0**
TARG	**Taragay, Kyrgy**	**3.08**	**25**	⇑*eP*		**Pn**	**Pn**	**02 11 42.6**	**+1.9**
TARG				⇑*iS*		**Sn**	**Sn**	**02 12 19.0**	**+1.2**
ULHL	**Ulahol**	**3.30**	**2**	⇑*eP*		**Pn**	**Pn**	**02 11 45.8**	**+2.3**
ULHL				⇑*iS*		**Sn**	**Sn**	**02 12 24.2**	**+1.3**
ARSB	**Arslanbob**	**3.36**	**316**	⇓*eP*		**Pb**	**Pb**	**02 11 47.4**	**-3.8**
ARSB				⇓*eS*		**Sn**	**Sn**	**02 12 27.4**	**+3.2**
UCH	**Uchtor**	**3.49**	**341**	⇑*eP*		**Pn**	**Pn**	**02 11 49.0**	**+2.7**
UCH				⇑*iS*		**Sn**	**Sn**	**02 12 30.2**	**+2.3**
AAK	**Ala-Archa**	**3.88**	**343**	⇑*iP*		**Pn**	**Pn**	**02 11 51.8**	**+0.4**
	8.1nm,0.7s								
AAK				⇓*S*		**Sn**	**Sn**	**02 12 38.8**	**+1.7**
	15nm,1.1s								
PRZ	**Przheval'sk**	**3.95**	**26**	⇑*eP*		**Pn**	**Pn**	**02 11 55.0**	**+2.6**
PRZ				⇑*eS*		**Sn**	**Sn**	**02 12 40.0**	**+1.0**
ANVS	**Anan'yevo**	**4.02**	**17**	⇑*eP*		**Pn**	**Pn**	**02 11 55.3**	**+1.9**
ANVS				⇑*eS*		**Sn**	**Sn**	**02 12 41.3**	**+0.6**
KST	**Kastek**	**4.10**	**359**	Pg		**Pb**	**Pb**	**02 12 02.0**	**-1.8**
	4.9nm,0.6s								
KST				Lg		Lg	Lg	02 12 57.2	
	8.2nm,0.9s								
KST	**Kastek**	**4.10**	**359**	*eP*		**Pb**	**Pb**	**02 12 02.0**	**-1.8**
	4.9nm,0.6s								
KST				*eS*		**Sb**	**Sb**	**02 12 56.9**	**+3.5**
	8.2nm,0.9s								
TNSS	**Tian-Shan**	**4.14**	**9**	Pg		**Pb**	**Pb**	**02 12 03.6**	**-1.2**
	3.5nm,1.0s								
TNSS				Lg		Lg	Lg	02 12 59.6	
	3.0nm,1.1s								
TNSS	**Tian-Shan**	**4.14**	**9**	*eP*		**Pb**	**Pb**	**02 12 03.6**	**-1.2**
	3.5nm,1.0s								
TNSS				*eS*		**Sb**	**Sb**	**02 12 59.6**	**+4.5**
	3.0nm,1.1s								
MDOK	**Medeo**	**4.28**	**10**	Pg		**Pb**	**Pb**	**02 12 04.1**	**-2.9**
	9.4nm,1.0s								
MDOK				Lg		Lg	Lg	02 13 00.6	
	19nm,0.8s								
MDOK	**Medeo**	**4.28**	**10**	*eP*		**Pb**	**Pb**	**02 12 04.0**	**-2.9**
	9.4nm,1.0s								
MDOK				*eS*		**Sb**	**Sb**	**02 13 00.6**	**+1.9**
	19nm,0.8s								
MRKS	**Merke**	**4.37**	**331**	Pg		**Pb**	**Pb**	**02 12 06.1**	**-2.3**
	7.0nm,0.9s								
MRKS				Lg		Lg	Lg	02 13 03.8	
	5.6nm,1.0s								
MRKS	**Merke**	**4.37**	**331**	*eP*		**Pb**	**Pb**	**02 12 06.1**	**-2.3**
	7.0nm,0.9s								
MRKS				*eS*		**Sb**	**Sb**	**02 13 03.8**	**+2.6**
	5.6nm,1.0s								
MNAS	**Manas**	**4.46**	**324**	⇓*eP*		**Pn**	**Pn**	**02 12 02.6**	**+3.3**
MNAS				⇓*eS*		**Sn**	**Sn**	**02 12 54.0**	**+2.7**
SATY	**Saty**	**4.47**	**22**	Pg		**Pb**	**Pb**	**02 12 07.6**	**-2.7**
	7.9nm,0.6s								
SATY				Lg		Lg	Lg	02 13 07.0	
	8.7nm,0.6s								
SATY	**Saty**	**4.47**	**22**	*eP*		**Pb**	**Pb**	**02 12 08.0**	**-2.3**
	7.9nm,0.6s								
SATY				*eS*		**Sb**	**Sb**	**02 13 07.0**	**+2.7**
	8.7nm,0.6s								
UZB	**Uzynbulak**	**4.75**	**27**	Pg		**Pb**	**Pb**	**02 12 14.8**	**-0.2**
	4.3nm,0.4s								
UZB				Lg		Lg	Lg	02 13 18.8	
	5.2nm,1.0s								
UZB	**Uzynbulak**	**4.75**	**27**	*eP*		**Pb**	**Pb**	**02 12 14.8**	**-0.2**
	4.3nm,0.4s								
UZB				*eS*		**Sg**	**Sg**	**02 13 18.8**	**-5.4**
	5.2nm,1.0s								
KRBS	**Karabastau**	**4.76**	**357**	Pg		**Pb**	**Pb**	**02 12 15.5**	**+0.4**
	3.4nm,0.4s								
KRBS				Lg		Lg	Lg	02 13 20.2	
	6.2nm,1.2s								
KRBS	**Karabastau**	**4.76**	**357**	*eP*		**Pb**	**Pb**	**02 12 15.5**	**+0.4**
	3.4nm,0.4s								
KRBS				*eS*		**Sg**	**Sg**	**02 13 20.2**	**-4.1**
	6.2nm,1.2s								
KTBS	**Karatobe**	**4.79**	**5**	Pg		**Pb**	**Pb**	**02 12 15.0**	**-0.6**
	3.0nm,0.7s								
KTBS				Lg		Lg	Lg	02 13 19.2	
	7.5nm,1.2s								
KTBS	**Karatobe**	**4.79**	**5**	*eP*		**Pb**	**Pb**	**02 12 15.0**	**-0.6**
	3.0nm,0.7s								
KTBS				*eS*		**Sb**	**Sb**	**02 13 19.2**	**+6.0**
	7.5nm,1.2s								
KURS	**Kuram**	**4.81**	**19**	Pg		**Pb**	**Pb**	**02 12 15.8**	**-0.1**
	4.6nm,1.0s								
KURS				Lg		Lg	Lg	02 13 20.3	
	4.8nm,1.0s								
KURS	**Kuram**	**4.81**	**19**	*eP*		**Pb**	**Pb**	**02 12 15.8**	**-0.1**
	4.6nm,1.0s								
KURS				*eS*		**Sg**	**Sg**	**02 13 20.3**	**-5.6**
	4.8nm,1.0s								
SHLS	**Shalkode**	**4.93**	**30**	Pg		**Pg**	**Pg**	**02 12 22.5**	**-3.4**
	11nm,0.3s								
SHLS				Lg		Lg	Lg	02 13 31.7	
	8.9nm,0.6s								
KPKS	**Kokpek**	**4.93**	**23**	Pg		**Pb**	**Pb**	**02 12 16.2**	**-1.8**
	0.3nm,0.3s								
KPKS				Lg		Lg	Lg	02 13 21.2	
	14nm,0.6s								
KPKS	**Kokpek**	**4.93**	**23**	*eP*		**Pb**	**Pb**	**02 12 16.2**	**-1.8**
	0.3nm,0.3s								
KPKS				*eS*		**Sb**	**Sb**	**02 13 21.2**	**+3.9**
	14nm,0.6s								
ARXS

DGB				IAML		02 23 09.0	
	comp=E,66nm,0.2s						
DGB				IAML		02 23 10.0	
	comp=N,49nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.36**	**340**	P	Pg	02 23 07.6	+0.1
ZEYE				S	Sg	02 23 13.6	+1.2
ZEYE				IAML		02 23 14.0	
	comp=N,138nm,0.5s						
ZEYE				IAML		02 23 15.0	
	comp=E,76nm,0.3s						
BEYE	**izmir**	**0.39**	**32**	P	Pg	02 23 07.7	-0.3
BEYE				S	Sg	02 23 13.9	+0.6
BEYE				IAML		02 23 14.0	
	comp=N,39nm,0.5s						
BEYE				IAML		02 23 15.0	
	comp=E,38nm,0.5s						
GCAM	**G?zelcaml?**	**0.49**	**113**	P	Pg	02 23 10.2	+0.3
DUVT	**Torbali**	**0.70**	**62**	P	Pg	02 23 14.2	+0.3
BAGT	**Foa**	**0.77**	**11**	P	Pb	02 23 16.8	+0.6
BAGT				IAML		02 23 29.0	
	comp=N,60nm,0.9s						

AFAD ***04*** *02:23:27.7,37.°73N×27.°01E,h7km±1km,ML2.4*
ISK ***04*** *02:23:28.3,37.°77N×27.°03E,h8km,ML2.8/5*
ISC 04 02:23:28.3±1.1,37.°74N±0.°04×27.°02E±0.°06,h13km±10km, n13,σ0:46/21,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.17**	**104**	**Pg**	**Pg**	**02 23 31.9**	**-0.3**
GCAM				Sg	**Sg**	**02 23 35.1**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**60**	Pg	**Pg**	**02 23 33.2**	**-0.2**
KUSD				Sg	**Sg**	**02 23 37.1**	**+0.3**
KUSD				AML	AML		
DGB	**zmir**	**0.33**	**340**	P	**Pg**	**02 23 34.6**	**-0.4**
DGB				S	**Sg**	**02 23 39.3**	**-0.1**
DGB				IAML		02 23 40.0	
	comp=N,346nm,0.4s						
DGB				IAML		02 23 40.0	
	comp=E,440nm,0.2s						
DDIM	**Aydin, Didim**	**0.33**	**149**	P	**Pg**	**02 23 34.7**	**-0.3**
DDIM				S	**Sg**	**02 23 39.3**	**-0.2**
DDIM				IAML		02 23 40.0	
	comp=E,802nm,0.3s						
DDIM				IAML		02 23 41.0	
	comp=N,780nm,0.6s						
GMLD	**Gumuldur**	**0.34**	**346**	Pg	**Pg**	**02 23 35.4**	**+0.1**
GMLD				Sg	**Sg**	**02 23 40.4**	**+0.5**
GMLD				AML	AML		
BEYE	**izmir**	**0.49**	**351**	P	**Pg**	**02 23 37.5**	**-0.4**
BEYE				S	**Sb**	**02 23 45.1**	**-0.9**
BEYE				IAML		02 23 46.0	
	comp=N,296nm,0.2s						
BEYE				IAML		02 23 49.0	
	comp=E,323nm,0.6s						
BLCB	**Balcova**	**0.64**	**1**	Pg	**Pg**	**02 23 40.6**	**-0.2**
BLCB				Sg	**Sg**	**02 23 49.4**	**+0.1**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.64**	**320**	P	**Pg**	**02 23 40.5**	**-0.4**
ZEYE				S	**Sb**	**02 23 49.8**	**-0.5**
ZEYE				IAML		02 23 50.0	
	comp=N,472nm,0.4s						
ZEYE				IAML		02 23 51.0	
	comp=E,242nm,0.3s						
AYDN	**Tasoluk**	**0.68**	**97**	P	**Pg**	**02 23 41.0**	**-0.6**
AYDN				IAML		02 23 55.0	
	comp=N,192nm,0.3s						
AYDN				IAML		02 23 55.0	
	comp=E,271nm,0.3s						
BODT	**Bodrum**	**0.72**	**161**	Pg	**Pb**	**02 23 43.3**	**+0.6**
BAGT	**Foa**	**0.92**	**352**	P	**Pg**	**02 23 45.8**	**-0.3**
BAGT				S	**Sb**	**02 23 59.0**	**+0.6**
BAGT				IAML		02 24 01.0	
	comp=N,304nm,0.5s						
BAGT				IAML		02 24 04.0	
	comp=E,316nm,0.8s						
KTTT	**Salihli**	**1.27**	**41**	P	Pn	02 23 46.4	-5.4
KTTT				IAML		02 24 00.0	
	comp=E,0.5nm,1.0s						
KTTT				IAML		02 24 12.0	
	comp=N,45nm,0.4s						
TURN	**Turunc**	**1.37**	**134**	Pn	**Pg**	**02 23 54.5**	**-0.1**
TURN				AML	AML		

IDC ***04*** *02:24:16.9±0.9,37.°63N×27.°12E,h0km,mb3.4/1, mbtmp3.5/8,ML3.0/4,MS3.4/2,Error ellipse: s-maj=11.4km s-min=10.8km az=140.0*
ISK ***04*** *02:24:16.9,37.°72N×27.°03E,h4km,ML3.8/33*
THE ***04*** *02:24:17.1,38.°N±1.°×2.°7E±.°, h3km±1km,M3.8/11, MLh3.8/11*
AFAD ***04*** *02:24:17.2,37.°78N×27.°05E,h8km±3km,MW4.0*
ATH ***04*** *02:24:18.1,37.°71N×26.°93E,h9km±2km,ML3.8/7,Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 04 02:24:17.5±0.8,37.°72N±0.°02×27.°03E±0.°02,h10km±5km, n83,σ1:19/114,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**266**	P	**Pg**	**02 24 20.3**	**-0.6**
SMG				S	**Sg**	**02 24 22.4**	**-0.8**
SMG				AML	AML		
SMG	**Samos**	**0.15**	**266**	P	**Pg**	**02 24 20.2**	**-0.7**
SMG				S	**Sg**	**02 24 22.6**	**-0.7**
GCAM	**G?zelcaml?**	**0.16**	**96**	P	**Pg**	**02 24 20.7**	**-0.3**
GCAM	**G?zelcaml?**	**0.16**	**96**	Pg	**Pg**	**02 24 20.7**	**-0.3**
GCAM				Sg	**Sg**	**02 24 23.6**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**55**	Pg	**Pg**	**02 24 22.3**	**-0.2**
KUSD				Sg	**Sg**	**02 24 26.0**	**0.0**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**287**	P	**Pg**	**02 24 22.2**	**-0.7**
KRL1				S	**Sg**	**02 24 25.6**	**-0.9**
KRL1				AML	AML		
DGB	**zmir**	**0.35**	**341**	P	**Pg**	**02 24 23.7**	**-0.8**
DGB				S	**Sg**	**02 24 28.1**	**-1.1**
GMLD	**Gumuldur**	**0.37**	**346**	Pg	**Pg**	**02 24 24.5**	**-0.3**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.38**	**154**	Pg	**Pg**	**02 24 25.1**	**+0.1**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**351**	P	**Pg**	**02 24 26.9**	**-0.7**
DUVT	**Torbali**	**0.60**	**33**	P	**Pg**	**02 24 28.1**	**-1.0**
DUVT				S	**Sg**	**02 24 35.5**	**-1.5**
YKAV	**Yalikavak-Bodr**	**0.62**	**161**	Pg	**Pg**	**02 24 29.5**	**-0.1**
YKAV				AML	AML		
BLCB	**Balcova**	**0.67**	**1**	P	**Pg**	**02 24 29.4**	**-0.9**
BLCB				S	**Sg**	**02 24 38.6**	**-0.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.67**	**1**	Pg	**Pg**	**02 24 29.5**	**-0.9**
ZEYE	**Izmir, Urla-Ze**	**0.67**	**321**	P	**Pg**	**02 24 29.2**	**-1.2**
ZEYE				S	**Sg**	**02 24 39.1**	**0.0**
BODT	**Bodrum**	**0.69**	**161**	P	**Pg**	**02 24 30.6**	**-0.3**
BODT				S	**Sb**	**02 24 40.8**	**-0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.69**	**161**	Pg	**Pg**	**02 24 30.6**	**-0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**71**	Pg	**Pb**	**02 24 31.8**	**-0.4**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**125**	Pg	**Pb**	**02 24 31.8**	**-0.5**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.75**	**155**	Pg	**Pg**	**02 24 32.1**	**+0.1**
KLNA	**Kalymnos**	**0.76**	**183**	P	**Pg**	**02 24 32.3**	**+0.1**
KLNA				S	**Sb**	**02 24 43.0**	**-0.3**
KLNA				AML	AML		
CESE	**eme**	**0.84**	**317**	Pg	**Pb**	**02 24 33.8**	**-0.4**
CESE				AML	AML		
BAGT	**Foa**	**0.95**	**352**	P	**Pg**	**02 24 34.8**	**-0.9**
BAGT				S	**Sg**	**02 24 46.6**	**-1.4**
KRBN	**Karaburun**	**0.95**	**337**	Pg	**Pb**	**02 24 35.8**	**-0.3**
KRBN				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**02 24 36.7**	**-0.5**
CHOS				S	**Sb**	**02 24 51.4**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	Pg	**Pg**	**02 24 36.6**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**311**	P	**Pg**	**02 24 36.8**	**-0.3**
CHOS				S	**Sg**	**02 24 49.9**	**-0.5**
CHOS				AML	AML		
FOCM	**Foa**	**1.02**	**347**	Pg	**Pg**	**02 24 36.8**	**-0.3**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**76**	Pg	**Pb**	**02 24 37.4**	**0.0**
CAMT	**Merkez**	**1.05**	**12**	P	**Pg**	**02 24 36.3**	**-1.5**
CAMT				S	**Sb**	**02 24 52.3**	**+0.7**
DAT	**Datca**	**1.08**	**156**	P	**Pb**	**02 24 38.2**	**-0.1**
DAT				S	**Sb**	**02 24 53.6**	**+1.1**
DAT				AML	AML		
DAT	**Datca**	**1.08**	**156**	Pn	**Pb**	**02 24 38.2**	**-0.1**
DAT				AML	AML		
EAG2	**Marmaro, Chios**	**1.10**	**319**	P	**Pg**	**02 24 38.4**	**-0.2**
EAG2				S	**Sg**	**02 24 52.9**	**0.0**
YER	**Yerkesik**	**1.16**	**120**	P	**Pg**	**02 24 38.9**	**-0.8**
YER				S	**Sb**	**02 24 55.1**	**+0.4**
YER				AML	AML		
YER	**Yerkesik**	**1.16**	**120**	Pn	**Pg**	**02 24 39.4**	**-0.3**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**35**	Pn	**Pn**	**02 24 40.9**	**+0.4**
GOMA				AML	AML		
ASTA	**Astypalaia**	**1.29**	**205**	P	**Pg**	**02 24 41.6**	**-0.6**
ASTA				S	**Sg**	**02 24 58.3**	**-0.7**
ASTA				AML	AML		
AKS	**Akhisar**	**1.31**	**28**	Pn	**Pb**	**02 24 42.5**	**+0.2**
AKS				AML	AML		
TURN	**Turunc**	**1.35**	**134**	P	**Pn**	**02 24 41.4**	**-1.0**
TURN				S	**Sn**	**02 25 01.9**	**+1.5**
TURN	**Turunc**	**1.35**	**134**	Pn	**Pg**	**02 24 43.2**	**-0.2**
TURN				AML	AML		
DKL	**Dikili**	**1.35**	**356**	Pn	**Pb**	**02 24 43.0**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.35**	**356**	P	**Pn**	**02 24 42.7**	**+0.3**
DKL				S	**Sn**	**02 25 01.9**	**+1.4**
APE	**Apeiranthos**	**1.36**	**242**	P	**Pn**	**02 24 41.7**	**-0.9**
APE				S	**Sn**	**02 25 01.7**	**+1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.36**	**242**	P	**Pn**	**02 24 42.7**	**+0.1**
APE				S	**Sg**	**02 24 59.0**	**-2.3**
APE				AML	AML		
SULTU	**Buldan**	**1.42**	**76**	P	**Pn**	**02 24 42.5**	**-0.9**
MANT	**Manisa**	**1.43**	**57**	P	**Pb**	**02 24 44.4**	**0.0**
MANT				S	**Sg**	**02 25 00.8**	**-2.8**
SOMA	**Soma-Manisa**	**1.49**	**15**	Pn	**Pb**	**02 24 45.1**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	**Pb**	**02 24 45.2**	**-0.2**
GORD				AML	AML		
TNSA	**Tinos**	**1.49**	**264**	P	**Pg**	**02 24 46.0**	**-0.2**
TNSA				S	**Sn**	**02 25 02.6**	**-1.4**
DALY	**Dalyan (Mula)**	**1.58**	**124**	Pn	**Pb**	**02 24 46.6**	**-0.1**
DALY				AML	AML		
PRK	**Paraskevi**	**1.64**	**339**	P	**Pn**	**02 24 46.0**	**-0.4**
PRK				S	**Sb**	**02 25 08.5**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.64**	**339**	P	**Pb**	**02 24 47.6**	**-0.2**
PRK				S	**Sn**	**02 25 08.0**	**+0.5**
ARG	**Arkhangelos**	**1.74**	**149**	P	**Pn**	**02 24 47.8**	**0.0**
ARG				S	**Sn**	**02 25 11.1**	**+1.1**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.74**	**149**	Pn	**Pn**	**02 24 48.8**	**+1.1**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.74**	**149**	P	**Pb**	**02 24 50.0**	**+0.5**
ARG				S	**Sg**	**02 25 12.5**	**-0.9**
ARG				AML	AML		
SABU	**Mula-Dalaman**	**1.79**	**119**	P	**Pn**	**02 24 48.1**	**-0.4**
CMBO	**Columbo, Santo**	**1.80**	**227**	P	**Pn**	**02 24 48.9**	**+0.3**
THR8	**Santorini-Mono**	**1.80**	**224**	P	**Pn**	**02 24 49.5**	**+0.8**
APMY	**Acipayam-Deniz**	**1.82**	**97**	Pn	**Pn**	**02 24 49.9**	**+0.9**
APMY				AML	AML		
SNR	**Nea Kammeni, S**	**1.85**	**225**	P	**Pn**	**02 24 50.6**	**+1.2**
THR5	**Thira Island,**	**1.87**	**227**	P	**Pn**	**02 24 50.7**	**+1.2**
DEMI	**Demirci**	**1.87**	**45**	P	**Pb**	**02 24 52.3**	**+0.4**
YAYO	**Edremit-Balk**	**1.89**	**1**	Pn	**Pn**	**02 24 50.9**	**+1.0**
YAYO				AML	AML		
FETY	**Fethiye**	**1.96**	**123**	Pn	**Pn**	**02 24 52.2**	**+1.3**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.97**	**112**	Pn	**Pn**	**02 24 52.2**	**+1.1**
CAME				AML	AML		
BALB	**Balikesir**	**2.03**	**19**	Pn	**Pn**	**02 24 53.0**	**+1.2**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.05**	**48**	Pn	**Pn**	**02 24 53.2**	**+1.0**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**2.06**	**47**	Pn	**Pn**	**02 24 53.3**	**+1.0**
SMAA				AML	AML		
SHAP	**Saphane-Kutahy**	**2.16**	**52**	Pn	**Pn**	**02 24 54.6**	**+0.9**
SHAP				AML	AML		
DST	**Dursunbey**	**2.26**	**33**	Pn	**Pn**	**02 24 56.2**	**+1.3**
DST				AML	AML		
GEDZ	**Gediz**	**2.29**	**54**	Pn	**Pn**	**02 24 56.6**	**+1.1**
GEDZ				AML	AML		
BASM	**Basmaki-Afyon**	**2.40**	**84**	Pn	**Pn**	**02 24 57.7**	**+0.8**
BASM				AML	AML		
CMHT	**Manyas**	**2.40**	**17**	P	Pn	02 24 48.6	-8.3
IDI	**Anoyia**	**2.98**	**216**	Pn	**Pn**	**02 25 04.7**	**-0.2**
	9.7nm,0.6s,baz=18,slow=9.6,SNR=11						
IDI				Sn	**Sn**	**02 25 38.9**	**-1.7**
	3.2nm,0.3s,baz=270,slow=20,SNR=3.6						
IDI				Lg	Lg	02 25 52.3	
	12nm,0.3s,baz=308,slow=21,SNR=6.2						
VAY	**Valandovo**	**4.98**	**318**	*i* Pn	**Pg**	**02 25 51.0**	**-1.9**
VAY				*i* Sn	**Sg**	**02 26 57.6**	**+0.1**
BRTR	**Keskin Array B**	**5.54**	**67**	Pn	**Pn**	**02 25 40.9**	**+0.7**
	0.5nm,0.3s,baz=244,slow=16,SNR=15						
BRTR				Sn	**Sn**	**02 26 41.9**	**-2.2**
	0.3nm,0.3s,baz=324,slow=14,SNR=1.1						
BRTR				Lg	Lg	02 27 15.2	
	baz=254,slow=21						
	1.1nm,0.3s						
BRTR				AML	AML		
MLR	**Muntele Rosu**	**7.81**	**354**	Pn	**Pn**	**02 26 14.1**	**+2.8**
	0.2nm,0.3s,baz=270,slow=24,SNR=7.3						
MLR				Lg	Lg	02 28 28.4	
	0.1nm,0.3s,baz=90,slow=23,SNR=3.3						
MLR				LR	LR	02 29 34.0	
	comp=Z,178nm,18.8s,baz=180,slow=40						
	0.8nm,0.3s						
MLR				AML	AML		
MMAI	**Mount Meron Ar**	**8.29**	**122**	Pn	**Pn**	**02 26 16.5**	**-1.4**
	1.3nm,0.3s,baz=318,slow=14,SNR=15						
MMAI				Sn	**Sn**	**02 27 45.0**	**-6.7**
	3.7nm,0.3s,baz=310,slow=28,SNR=10						
VAE	**Valguarnera**	**10.02**	**272**	Pn	**Pn**	**02 26 45.2**	**+3.7**
	8.8nm,1.0s,baz=358,slow=5.2,SNR=3.7						
EIL	**Elat**	**10.39**	**138**	Pn	**Pn**	**02 26 45.0**	**-1.6**
	0.3nm,0.3s,baz=52,slow=22,SNR=1.8						
EIL				Sn	Sn	02 28 34.4	-8.6
	0.6nm,0.3s,baz=284,slow=18,SNR=4.1						
	1.4nm,0.4s						
EIL				AML	AML		
GERES	**GERESS Array B**	**14.74**	**323**	Pn	**Pn**	**02 27 48.4**	**+2.4**
	baz=132,slow=12,SNR=5.9						
	0.2nm,0.7s						
DAVOX	**Davos/Dischmat**	**15.57**	**311**	LR	LR	02 34 36.3	
	comp=Z,166nm,19.3s,baz=170,slow=40						
MKAR	**Makanchi Array**	**41.14**	**59**	P	**P**	**02 32 02.5**	**+0.7**
	0.2nm,0.4s,baz=271,slow=9.4,SNR=1.6						
	0.2nm,0.4s						

AFAD ***04*** *02:32:41.9,37.°85N×26.°96E,h7km±1km,ML2.4*
ISK ***04*** *02:32:41.9,37.°86N×26.°96E,h5km,ML2.9/14*
THE ***04*** *02:32:42.2,37.°9N±0.°7×27.°0E±1.°0,h0km±2km,M2.6/8, MLh2.6/8*
ISC 04 02:32:42.4±0.9,37.°86N±0.°02×26.°97E±0.°02,h11km±6km, n35,σ0:46/59,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**215**	P	**Pg**	**02 32 46.1**	**-0.3**
SMG				S	**Sg**	**02 32 49.5**	**+0.3**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**340**	P	**Pg**	**02 32 46.5**	**-0.2**
DGB				S	**Sg**	**02 32 49.5**	**-0.2**
DGB				IAML		02 32 50.0	
	comp=E,424nm,0.2s						
DGB				IAML		02 32 51.0	
	comp=N,336nm,0.5s						
GMLD	**Gumuldur**	**0.22**	**349**	Pg	**Pg**	**02 32 46.9**	**-0.1**
GMLD				Sg	**Sg**	**02 32 50.3**	**+0.2**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**90**	Pg	**Pg**	**02 32 47.5**	**-0.1**
KUSD				Sg	**Sg**	**02 32 50.9**	**-0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**128**	P	**Pg**	**02 32 47.7**	**-0.1**
GCAM				S	**Sg**	**02 32 51.7**	**+0.4**
GCAM				IAML		02 32 52.0	
	comp=N,1μm,0.2s						
GCAM				IAML		02 32 52.0	
	comp=E,705nm,0.3s						
GCAM	**G?zelcaml?**	**0.26**	**128**	Pg	**Pg**	**02 32 47.9**	**+0.1**
GCAM				Sg	**Sg**	**02 32 51.8**	**+0.4**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**355**	P	**Pg**	**02 32 49.5**	**-0.2**
BEYE				S	**Sg**	**02 32 54.9**	**+0.3**
BEYE				IAML		02 32 56.0	
	comp=N,153nm,0.2s						
BEYE				IAML		02 33 00.0	
	comp=E,161nm,0.2s						
DDIM	**Aydin, Didim**	**0.46**	**152**	P	**Pg**	**02 32 50.9**	**-0.4**
DDIM				S	**Sb**	**02 32 58.2**	**-1.0**
DDIM				IAML		02 32 59.0	
	comp=N,401nm,0.4s						
DDIM				IAML		02 32 59.0	
	comp=E,254nm,0.3s						
DUVT	**Torbali**	**0.52**	**46**	P	**Pg**	**02 32 52.2**	**-0.3**
DUVT				S	**Sg**	**02 32 58.9**	**-0.5**
DUVT				IAML		02 33 00.0	
	comp=E,187nm,0.1s						
DUVT				IAML		02 33 13.0	
	comp=N,5μm,2.9s						
BLCB	**Balcova**	**0.53**	**6**	P	**Pg**	**02 32 52.5**	**-0.1**
BLCB				S	**Sb**	**02 33 00.4**	**-0.8**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**6**	Pg	**Pg**	**02 32 52.5**	**-0.1**
BLCB				Sg	**Sb**	**02 33 00.6**	**-0.6**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**316**	P	**Pg**	**02 32 52.2**	**-0.5**
ZEYE				IAML		02 33 00.0	
	comp=N,653nm,0.2s						
ZEYE				S	**Sb**	**02 33 00.3**	**-0.9**
ZEYE				IAML		02 33 04.0	
	comp=E,328nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.73**	**83**	Pg	**Pg**	**02 32 56.7**	**+0.1**
AYDB				Sg	**Sb**	**02 33 07.4**	**+0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**105**	P	**Pg**	**02 32 56.4**	**-0.5**
AYDN				S	**Sb**	**02 33 07.5**	**-0.2**
AYDN				IAML		02 33 10.0	
	comp=N,99nm,0.4s						
AYDN				IAML		02 33 10.0	
	comp=E,92nm,0.4s						
BAGT	**Foa**	**0.80**	**353**	P	**Pg**	**02 32 57.7**	**0.0**
BAGT				S	**Sb**	**02 33 08.9**	**-0.1**
BAGT				IAML		02 33 09.0	
	comp=N,224nm,1.0s						
BAGT				IAML		02 33 09.0	
	comp=E,123nm,0.3s						
KRBN	**Karaburun**	**0.80**	**336**	Pg	**Pb**	**02 32 57.9**	**-0.4**
KRBN				Sg	**Sb**	**02 33 09.6**	**+0.5**
KRBN				AML	AML		
BODT	**Bodrum**	**0.84**	**161**	P	**Pg**	**02 32 58.1**	**-0.5**
BODT				S	**Sb**	**02 33 10.7**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**161**	Pg	**Pg**	**02 32 58.1**	**-0.5**
BODT				Sg	**Sb**	**02 33 10.7**	**+0.3**
MLSB	**Milas**	**0.85**	**131**	Pg	**Pb**	**02 32 58.9**	**-0.3**
MLSB				AML	AML		
FOCM	**Foa**	**0.87**	**348**	Pg	**Pb**	**02 32 59.4**	**-0.1**
FOCM				AML	AML		
BDRM	**Kayabasi**	**0.88**	**154**	P	**Pg**	**02 32 58.6**	**-0.7**
BDRM				S	**Sb**	**02 33 11.6**	**+0.2**
BDRM				IAML		02 33 15.0	
	comp=E,108nm,0.3s						
BDRM				IAML		02 33 16.0	
	comp=N,120nm,0.3s						
CHOS	**Chios island**	**0.89**	**306**	P	**Pg**	**02 32 59.4**	**-0.2**
CHOS				S	**Sb**	**02 33 12.3**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**306**	Pg	**Pb**	**02 32 59.7**	**-0.2**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**331**	P	**Pg**	**02 32 59.6**	**-0.4**
KARB				S	**Sb**	**02 33 12.7**	**+0.4**
KARB				IAML		02 33 14.0	
	comp=N,100nm,0.4s						
KARB				IAML		02 33 15.0	
	comp=E,158nm,0.7s						
CAMT	**Merkez**	**0.93**	**17**	P	**Pg**	**02 32 59.8**	**-0.5**
CAMT				S	**Sn**	**02 33 14.9**	**+0.3**
CAMT				IAML		02 33 16.0	
	comp=E,199nm,0.5s						
CAMT				IAML		02 33 19.0	
	comp=N,199nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.05**	**84**	Pg	**Pb**	**02 33 02.7**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.13**	**41**	Pn	**Pb**	**02 33 04.1**	**+0.3**
DKL	**Dikili**	**1.21**	**358**	Pn	**Pg**	**02 33 05.2**	**-0.4**
DKL				AML	AML		
DAT	**Datca**	**1.23**	**157**	P	**Pg**	**02 33 05.1**	**-0.9**
DAT				AML	AML		
YER	**Yerkesik**	**1.27**	**124**	P	**Pg**	**02 33 06.1**	**-0.7**
YER				S	**Sn**	**02 33 23.8**	**+0.5**
SOMA	**Soma-Manisa**	**1.37**	**19**	Pn	**Pg**	**02 33 08.4**	**-0.2**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**236**	P	**Pn**	**02 33 07.9**	**+0.2**
APE				S	**Sn**	**02 33 27.5**	**+1.4**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.41**	**42**	Pn	**Pb**	**02 33 08.9**	**+0.1**
GORD				AML	AML		
PRK	**Paraskevi**	**1.49**	**339**	P	**Pb**	**02 33 09.7**	**-0.3**
YAYO	**Edremit-Balk**	**1.75**	**3**	Pn	**Pb**	**02 33 13.8**	**-0.7**
YAYO				AML	AML		

AFAD ***04*** *02:33:13.8,37.°71N×26.°99E,h7km±3km,ML2.8*
THE ***04*** *02:33:14.3,37.°7N±0.°9×27.°0E±0.°9,h2km±2km,M3.2/7, MLh3.2/7*
ISK ***04*** *02:33:14.0,37.°74N×27.°05E,h6km,ML2.9/23*
ATH ***04*** *02:33:14.0,37.°58N×26.°88E,h13km±2km,ML3.0/6, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 04 02:33:14.2±0.8,37.°72N±0.°02×27.°02E±0.°02,h11km±5km, n53,σ0:55/85,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**265**	P	**Pg**	**02 33 17.6**	**0.0**
SMG				S	**Sg**	**02 33 20.1**	**+0.1**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**265**	P	**Pg**	**02 33 17.6**	**0.0**
SMG				S	**Sg**	**02 33 19.9**	**-0.2**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**97**	P	**Pg**	**02 33 17.9**	**-0.2**
GCAM				S	**Sg**	**02 33 21.4**	**+0.7**
GCAM				IAML		02 33 24.0	
	comp=E,1μm,0.4s						
GCAM				IAML		02 33 27.0	
	comp=N,2μm,0.6s						
GCAM	**G?zelcaml?**	**0.17**	**97**	Pg	**Pg**	**02 33 17.9**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**57**	Pg	**Pg**	**02 33 19.1**	**-0.4**
KUSD				Sg	**Sg**	**02 33 22.5**	**-0.6**
KRL1	**Karlovasi Samo**	**0.26**	**287**	P	**Pg**	**02 33 19.4**	**-0.2**
KR

DUVT	**Torbali**	**0.60**	**34**	P	**Pg**	**02 33 25.2**	**-0.8**
DUVT				S	**Sg**	**02 33 33.2**	**-0.7**
DUVT				IAML		02 33 36.0	
	comp=N,3μm,0.5s						
DUVT				IAML		02 33 37.0	
	comp=E,316nm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.63**	**161**	Pg	**Pg**	**02 33 26.9**	**+0.4**
YKAV				Sg	**Sb**	**02 33 35.8**	**-0.3**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**322**	P	**Pg**	**02 33 26.4**	**-0.6**
ZEYE				IAML		02 33 36.0	
	comp=N,1μm,0.3s						
ZEYE				S	**Sg**	**02 33 36.3**	**+0.6**
ZEYE				IAML		02 33 39.0	
	comp=E,882nm,0.4s						
BLCB	**Balcova**	**0.66**	**2**	P	**Pg**	**02 33 26.7**	**-0.4**
BLCB				S	**Sg**	**02 33 36.0**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**2**	Pg	**Pg**	**02 33 26.9**	**-0.2**
BLCB				Sg	**Sg**	**02 33 36.1**	**+0.2**
AYDN	**Tasoluk**	**0.69**	**95**	P	**Pg**	**02 33 27.0**	**-0.6**
AYDN				S	**Sn**	**02 33 40.2**	**-0.5**
AYDN				IAML		02 33 41.0	
	comp=N,486nm,0.5s						
AYDN				IAML		02 33 41.0	
	comp=E,556nm,0.6s						
BODT	**Bodrum**	**0.70**	**160**	P	**Pg**	**02 33 28.0**	**+0.2**
BODT				S	**Sb**	**02 33 37.9**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**160**	Pg	**Pg**	**02 33 28.1**	**+0.3**
BODT				Sg	**Sb**	**02 33 38.4**	**+0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**72**	Pg	**Pg**	**02 33 27.9**	**-0.4**
AYDB				Sg	**Sg**	**02 33 37.9**	**0.0**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**152**	P	**Pn**	**02 33 30.0**	**-0.6**
BDRM				S	**Sb**	**02 33 39.3**	**+0.1**
BDRM				IAML		02 33 42.0	
	comp=E,538nm,0.4s						
BDRM				IAML		02 33 43.0	
	comp=N,961nm,0.6s						
MLSB	**Milas**	**0.74**	**125**	Pg	**Pg**	**02 33 28.0**	**-0.5**
MLSB				Sg	**Sg**	**02 33 38.2**	**0.0**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.76**	**154**	Pg	**Pb**	**02 33 29.4**	**0.0**
BODA				Sg	**Sb**	**02 33 40.5**	**+0.7**
IZMR	**zmir-demi**	**0.85**	**60**	P	**Pb**	**02 33 31.0**	**+0.1**
IZMR				P	**Pg**	**02 33 31.2**	**+0.6**
IZMR				IAML		02 33 43.0	
	comp=E,251nm,0.6s						
IZMR				IAML		02 33 44.0	
	comp=N,268nm,0.5s						
IZMR				IAML		02 33 45.0	
	comp=N,180nm,0.5s						
IZMR				IAML		02 33 46.0	
	comp=E,234nm,0.5s						
BAGT	**Foa**	**0.94**	**352**	P	**Pg**	**02 33 32.2**	**-0.2**
BAGT				IAML		02 33 45.0	
	comp=N,251nm,0.6s						
BAGT				S	**Sb**	**02 33 45.6**	**+0.6**
BAGT				IAML		02 33 50.0	
	comp=E,526nm,0.9s						
KRBN	**Karaburun**	**0.94**	**337**	Pg	**Pg**	**02 33 32.4**	**-0.1**
KRBN				Sg	**Sb**	**02 33 45.9**	**+0.8**
KRBN				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**02 33 34.0**	**+0.2**
CHOS				S	**Sn**	**02 33 48.5**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	Pg	**Pb**	**02 33 33.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**02 33 34.0**	**+0.2**
CHOS				S	**Sb**	**02 33 47.9**	**+0.8**
FOCM	**Foa**	**1.02**	**347**	Pg	**Pg**	**02 33 33.6**	**-0.2**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**76**	Pg	**Pg**	**02 33 33.9**	**-0.3**
NAZL				AML	AML		
CAMT	**Merkez**	**1.05**	**13**	P	**Pg**	**02 33 33.4**	**-1.1**
CAMT				S	**Sn**	**02 33 49.8**	**+0.2**
CAMT				IAML		02 33 51.0	
	comp=E,546nm,0.6s						
CAMT				IAML		02 33 55.0	
	comp=N,423nm,0.6s						
KARB	**zmir-Karabur**	**1.05**	**333**	P	**Pg**	**02 33 34.6**	**0.0**
KARB				S	**Sb**	**02 33 49.0**	**+0.7**
KARB				IAML		02 33 50.0	
	comp=N,387nm,0.4s						
KARB				IAML		02 33 53.0	
	comp=E,360nm,0.5s						
DAT	**Datca**	**1.09**	**156**	P	**Pg**	**02 33 34.8**	**-0.4**
DAT				S	**Sn**	**02 33 50.5**	**0.0**
DAT				AML	AML		
DAT	**Datca**	**1.09**	**156**	Pn	**Pn**	**02 33 35.5**	**0.0**
DAT				AML	AML		
EAG2	**Marmaro, Chios**	**1.09**	**319**	P	**Pn**	**02 33 35.8**	**+0.4**
YER	**Yerkesik**	**1.17**	**120**	P	**Pb**	**02 33 36.2**	**-0.2**
YER				S	**Sn**	**02 33 52.1**	**-0.3**
YER	**Yerkesik**	**1.17**	**120**	Pn	**Pb**	**02 33 36.1**	**-0.3**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**35**	Pn	**Pn**	**02 33 37.2**	**+0.1**
GOMA				AML	AML		
AKHS	**Akhisar**	**1.31**	**28**	P	**Pn**	**02 33 38.5**	**-0.1**
AKHS				IAML		02 34 00.0	
	comp=N,206nm,0.4s						
AKHS				IAML		02 34 26.0	
	comp=E,0.8nm,1.3s						
APE	**Apeiranthos**	**1.35**	**242**	P	**Pg**	**02 33 40.4**	**+0.2**
APE				S	**Sg**	**02 33 59.0**	**+1.3**
DKL	**Dikili**	**1.35**	**356**	Pn	**Pb**	**02 33 39.9**	**+0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.35**	**356**	P	**Pg**	**02 33 40.5**	**+0.3**
TURN	**Turunc**	**1.36**	**134**	Pn	**Pb**	**02 33 39.9**	**+0.2**
TURN				AML	AML		
NAX1	**Naxos Island**	**1.45**	**245**	P	**Pn**	**02 33 37.6**	**-2.7**
NAX1				AML	AML		
SOMA	**Soma-Manisa**	**1.49**	**16**	Pn	**Pn**	**02 33 41.4**	**+0.5**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**37**	Pn	**Pn**	**02 33 41.6**	**+0.5**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**124**	Pn	**Pb**	**02 33 43.2**	**-0.3**
DALY				AML	AML		
ARG	**Arkhangelos**	**1.75**	**149**	Pn	**Pb**	**02 33 45.9**	**-0.4**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	**Pn**	**02 33 45.9**	**+0.2**
APMY				AML	AML		
FETY	**Fethiye**	**1.97**	**123**	Pn	**Pn**	**02 33 48.3**	**+0.7**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.98**	**112**	Pn	**Pn**	**02 33 48.8**	**+1.0**
CAME				AML	AML		
KARY	**Karystos**	**2.06**	**279**	P	**Pn**	**02 33 48.0**	**-0.9**

*THE **04** 02:36:15.9, 38˚N±1˚×2˚7E±˚, h3km±2km, M2.8/8, MLh2.8/8*
*AFAD **04** 02:36:15.4, 37˚.73N×27˚.00E, h7km±5km, ML2.7*
*ISK **04** 02:36:15.8, 37˚.75N×27˚.04E, h5km, ML2.7/29*
*ATH **04** 02:36:16.1, 37˚.72N×27˚.03E, h6km±1km, ML2.9/7, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 04 02:36:16.1±0.8,**37˚.73N**±0˚.02×**27˚.03E**±0˚.02,**h9**km±6km, **n60,σ0°62/83,Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**261**	P	**Pg**	**02 36 19.3**	**-0.2**
SMG				S	**Sg**	**02 36 21.5**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.16**	**261**	P	**Pg**	**02 36 19.1**	**-0.5**
SMG				S	**Sg**	**02 36 21.6**	**-0.3**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.16**	**101**	P	**Pg**	**02 36 19.3**	**-0.3**
GCAM				IAML		02 36 23.0	
	comp=E,2μm,0.2s						
GCAM				S	**Sg**	**02 36 23.2**	**+1.1**
GCAM				IAML		02 36 28.0	
	comp=N,2μm,0.5s						
GCAM	**G?zelcaml?**	**0.16**	**101**	Pg	**Pg**	**02 36 19.7**	**0.0**
GCAM				Sg	**Sg**	**02 36 22.7**	**+0.6**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**58**	Pg	**Pg**	**02 36 20.8**	**-0.2**
KUSD				Sg	**Sg**	**02 36 24.6**	**+0.3**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**284**	P	**Pg**	**02 36 21.5**	**0.0**
KRL1				S	**Sg**	**02 36 25.2**	**+0.1**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**149**	P	**Pg**	**02 36 22.2**	**-0.4**
DDIM				S	**Sg**	**02 36 27.5**	**+0.7**
DDIM				IAML		02 36 28.0	
	comp=E,2μm,0.4s						
DDIM				IAML		02 36 29.0	
	comp=N,1μm,0.4s						
DGB	**zmir**	**0.34**	**340**	P	**Pg**	**02 36 21.1**	**-1.8**
DGB				S	**Sg**	**02 36 26.7**	**-0.7**
DGB				IAML		02 36 27.0	
	comp=N,533nm,0.5s						
DGB				IAML		02 36 28.0	
	comp=E,913nm,0.2s						
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pg**	**02 36 23.5**	**+0.3**
GMLD				Sg	**Sg**	**02 36 28.4**	**+0.5**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**155**	Pg	**Pg**	**02 36 24.0**	**+0.1**
DIDI				Sg	**Sb**	**02 36 30.4**	**-0.9**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**351**	P	**Pg**	**02 36 25.5**	**-0.4**
BEYE				S	**Sb**	**02 36 33.5**	**-1.0**
BEYE				IAML		02 36 37.0	
	comp=N,740nm,0.2s						
BEYE				IAML		02 36 37.0	
	comp=E,774nm,0.3s						
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**02 36 27.0**	**-0.6**
DUVT				S	**Sg**	**02 36 34.8**	**-0.5**
DUVT				IAML		02 36 36.0	
	comp=E,459nm,0.3s						
DUVT				IAML		02 36 55.0	
	comp=N,0.7nm,0.9s						
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pg**	**02 36 28.7**	**+0.2**
YKAV				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**02 36 28.3**	**-0.4**
BLCB				S	**Sg**	**02 36 37.6**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**02 36 28.3**	**-0.4**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**321**	P	**Pg**	**02 36 27.5**	**-1.3**
ZEYE				S	**Sg**	**02 36 37.5**	**+0.1**
ZEYE				IAML		02 36 38.0	
	comp=N,1μm,0.3s						
ZEYE				IAML		02 36 41.0	
	comp=E,462nm,0.4s						
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**02 36 28.8**	**-0.4**
AYDN				IAML		02 36 42.0	
	comp=E,496nm,0.5s						
AYDN				IAML		02 36 43.0	
	comp=N,405nm,0.5s						
BODT	**Bodrum**	**0.71**	**162**	P	**Pg**	**02 36 28.4**	**-1.3**
BODT				S	**Sb**	**02 36 39.4**	**-0.9**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pb**	**02 36 30.3**	**-0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pg**	**02 36 29.8**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**02 36 30.2**	**-0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pb**	**02 36 31.6**	**+0.3**
BDRM				IAML		02 36 43.0	
	comp=E,303nm,0.3s						
BDRM				IAML		02 36 47.0	
	comp=N,416nm,0.3s						
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pb**	**02 36 31.2**	**-0.4**
KLNA	**Kalymnos**	**0.78**	**183**	P	**Pg**	**02 36 30.9**	**-0.2**
KLNA				S	**Sg**	**02 36 41.2**	**0.0**
CESE	**eme**	**0.83**	**316**	Pg	**Pb**	**02 36 32.4**	**-0.3**
CESE				AML	AML		
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pg**	**02 36 31.3**	**-0.9**
IZMR				P	**Pb**	**02 36 32.5**	**-0.2**
IZMR				S	**Sg**	**02 36 41.8**	**-1.2**
IZMR				IAML		02 36 45.0	
	comp=N,198nm,0.5s						
IZMR				IAML		02 36 45.0	
	comp=E,204nm,0.5s						
IZMR				IAML		02 36 45.0	
	comp=E,202nm,0.5s						
IZMR				IAML		02 36 46.0	
	comp=N,270nm,0.5s						
BAGT	**Foa**	**0.93**	**351**	P	**Pg**	**02 36 33.2**	**-0.9**
BAGT				S	**Sb**	**02 36 47.8**	**+0.9**
BAGT				IAML		02 36 49.0	
	comp=N,597nm,0.5s						
BAGT				IAML		02 36 49.0	
	comp=E,437nm,0.6s						
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**02 36 34.3**	**-0.2**
FOCM	**Foa**	**1.01**	**347**	Pg	**Pb**	**02 36 35.7**	**0.0**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	P	**Pg**	**02 36 35.2**	**-0.4**
CHOS				S	**Sb**	**02 36 49.6**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	Pg	**Pb**	**02 36 35.9**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**02 36 35.8**	**0.0**
CHOS				S	**Sb**	**02 36 49.4**	**+0.2**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pb**	**02 36 36.1**	**+0.1**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pg**	**02 36 35.8**	**-0.3**
CAMT				S	**Sn**	**02 36 51.2**	**-0.3**
CAMT				IAML		02 36 53.0	
	comp=E,437nm,0.6s						
CAMT				IAML		02 36 55.0	
	comp=N,426nm,0.8s						
EAG2	**Marmaro, Chios**	**1.09**	**318**	P	**Pg**	**02 36 36.9**	**-0.1**
DAT	**Datca**	**1.09**	**156**	S	**Sb**	**02 36 51.8**	**+0.2**
DAT				AML	AML		
DAT	**Datca**	**1.09**	**156**	Pn	**Pn**	**02 36 37.5**	**-0.2**
DAT				AML	AML		
YER	**Yerkesik**	**1.16**	**121**	S	**Sb**	**02 36 53.8**	**+0.2**
YER				AML	AML		
YER	**Yerkesik**	**1.16**	**121**	Pn	**Pn**	**02 36 38.8**	**+0.2**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pn**	**02 36 39.1**	**+0.1**
GOMA				AML	AML		
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**02 36 40.8**	**-0.3**
ASTA	**Astypalaia**	**1.30**	**205**	P	**Pb**	**02 36 40.6**	**-0.1**
ASTA				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pb**	**02 36 41.3**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.34**	**356**	P	**Pg**	**02 36 41.6**	**-0.2**
TURN	**Turunc**	**1.36**	**134**	Pn	**Pg**	**02 36 42.3**	**0.0**
TURN				AML	AML		
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**02 36 41.3**	**-0.1**
APE				S	**Sn**	**02 37 00.9**	**+1.2**
APE	**Apeiranthos**	**1.37**	**241**	P	**Pb**	**02 36 41.9**	**0.0**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pb**	**02 36 43.5**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**02 36 43.7**	**-0.1**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.58**	**125**	Pn	**Pb**	**02 36 45.5**	**0.0**
DALY				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**02 36 45.4**	**+0.5**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.75**	**150**	Pn	**Pb**	**02 36 47.9**	**-0.5**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.75**	**150**	P	**Pn**	**02 36 46.8**	**+0.2**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.82**	**98**	Pn	**Pb**	**02 36 48.9**	**-0.8**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pn**	**02 36 49.2**	**+0.9**
YAYO				AML	AML		
FETY	**Fethiye**	**1.97**	**123**	Pn	**Pb**	**02 36 50.9**	**-1.3**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.97**	**113**	Pn	**Pb**	**02 36 51.1**	**-1.2**
CAME				AML	AML		
BALB	**Balikesir**	**2.02**	**19**	Pn	**Pn**	**02 36 51.6**	**+1.3**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.04**	**48**	Pn	**Pn**	**02 36 51.8**	**+1.1**
SIMA				AML	AML		
BASM	**Basmaki-Afyon**	**2.40**	**85**	Pn	**Pn**	**02 36 56.7**	**+1.1**
BASM				AML	AML		

*NEIC **04** 02:39:45.6±1.5, 36˚.55N±0˚.05×69˚.56E±0˚.09, h169km±11km, mb4.2/9, Error ellipse: s-maj=11.4km s-min=5.8km az=66.0*
*IDC **04** 02:39:49.6±12.0, 36˚.42N×69˚.80E, h230km±149km, mb3.4/6, mbtmp3.9/9, Error ellipse: s-maj=75.9km s-min=54.1km az=97.0*
*NNC **04** 02:39:50.6±3.5, 36˚.99N×69˚.51E, h156km±39km, mb3.2, mpv4.0, Error ellipse: s-maj=31.3km s-min=20.3km az=177.0*

ISC 04 02:39:44.5±0.7,**36˚.59N**±0˚.06×**69˚.50E**±0˚.07,**h150**km,**n49, σ1°43/54,mb4.1/8,3C-4D,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.07**	**190**		**Pn**	**02 40 23.2**	**+2.5**
KBL				Sn	**Sn**	**02 40 50.3**	**+1.7**
DRK	**Karamyk**	**3.41**	**31**		**Pn**	**02 40 40.0**	**+2.6**
DRK				Sn	**Sn**	**02 41 20.4**	**+2.0**
BTK	**Batken**	**3.62**	**16**		**Pn**	**02 40 43.4**	**+3.5**
NIL	**Nilore**	**4.25**	**132**		**Pn**	**02 40 50.1**	**+2.0**
KSH2	**Kashi**	**5.44**	**60**	P	**Pn**	**02 41 05.5**	**+1.6**
KSH2				S	**Sn**	**02 42 08.0**	**+2.2**
KSH2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
ARSB	**Arslanbob**	**5.46**	**29**		**Pn**	**02 41 05.0**	**+1.0**
KK31	**Karatay Array**	**6.56**	**7**	P	**Pn**	**02 41 19.7**	**+1.1**
	comp=Z,3.4nm,0.3s,baz=195,slow=14,SNR=86						
KK31				⇓S	**Sn**	**02 42 30.1**	**-2.2**
	comp=Z,3.9nm,0.3s,baz=194,slow=22,SNR=7.7						
KK31	**Karatay Array**	**6.56**	**7**		**Pn**	**02 41 19.9**	**+1.3**
KKAR	**Karatay Array**	**6.56**	**7**		**Pn**	**02 41 19.9**	**+1.3**
UCH	**Uchtor**	**6.84**	**33**	P	**Pn**	**02 41 24.0**	**+1.2**
	SNR=66						
EKS2	**Erkin-Say**	**6.91**	**27**	P	**Pn**	**02 41 24.6**	**+1.3**
	SNR=18						
NRN	**Naryn**	**7.00**	**44**	Pn	**Pn**	**02 41 23.6**	**-1.2**
AAK	**Ala-Archa**	**7.17**	**31**	P	**Pn**	**02 41 28.2**	**+1.3**
	SNR=15						
AAK	**Ala-Archa**	**7.17**	**31**	⇑P	**Pn**	**02 41 28.1**	**+1.2**
	comp=Z,8.6nm,0.6s						
AAK				⇓S	**Sn**	**02 42 45.2**	**-2.0**
	comp=Z,6.9nm,0.5s						
AAK	**Ala-Archa**	**7.17**	**31**		**Pn**	**02 41 28.1**	**+1.2**
KBK	**Karagaybulak**	**7.38**	**33**	P	**Pn**	**02 41 31.6**	**+1.9**
	SNR=11						
CHMS	**Chumysh**	**7.57**	**31**	P	**Pn**	**02 41 33.4**	**+1.3**
	SNR=6.3						
USP	**Ospenovka**	**7.70**	**28**	P	**Pn**	**02 41 34.4**	**+0.6**
	SNR=11						
TKM2	**Tokmak 2**	**7.88**	**35**	P	**Pn**	**02 41 37.2**	**+0.8**
	SNR=16						
MK31	**Makanchi Array**	**13.96**	**39**	⇑P	**P**	**02 42 59.3**	**+0.3**
	comp=Z,1.3nm,0.7s,baz=0.0,slow=0.1,SNR=5.4						
MKAR	**Makanchi Array**	**13.96**	**39**	P	**P**	**02 42 58.6**	**-0.5**
	comp=Z,1.1nm,0.7s,baz=222,slow=10,SNR=5.8						
MKAR	**Makanchi Array**	**13.96**	**39**	P	**Pn**	**02 42 57.4**	**+1.6**
AB31	**Akbulak array**	**14.45**	**334**	P	**Pn**	**02 43 01.9**	**0.0**
	comp=Z,1.9nm,0.6s,baz=151,slow=11,SNR=32						
AB31	**Akbulak array**	**14.45**	**334**		**Pn**	**02 43 02.2**	**+0.3**
ABKAR	**Akbulak array**	**14.45**	**334**	Pn	**Pn**	**02 43 02.1**	**+0.2**
KURBB	**Kurchatov Arra**	**15.46**	**22**	P	**Pn**	**02 43 14.9**	**+0.4**
	comp=Z,1.0nm,0.7s,baz=210,slow=9.6,SNR=8.6						
KURBB	**Kurchatov Arra**	**15.46**	**22**	⇓P	**Pn**	**02 43 15.5**	**+1.0**
	comp=Z,3.0nm,0.8s						
KURK	**Kurchatov**	**15.57**	**22**	⇓P	**Pn**	**02 43 16.5**	**+0.7**
	comp=Z,2.5nm,1.3s						
WMQ	**Urumqi**	**15.65**	**57**	*e*P	**Pn**	**02 43 18.2**	**+1.3**
WMQ				pmax	pmax		
	comp=Z,17nm,0.9s						
AKTO	**Aktyubinsk**	**16.13**	**333**	⇑P	**P**	**02 43 25.3**	**+2.3**
	comp=Z,2.8nm,1.1s						
BVAR	**Borovoye Array**	**16.45**	**2**	P	**P**	**02 43 27.4**	**+0.9**
	comp=Z,1.2nm,0.4s,baz=163,slow=10,SNR=5.0						
EVN	**Everest**	**16.97**	**116**	P	**P**	**02 43 31.1**	**-2.0**
EVN				IAmb	IAmb	02 43 32.9	
	comp=Z,5.8nm,0.7s						
GNI	**Garni**	**19.72**	**288**	P	**P**	**02 44 04.0**	**+1.6**
GNI				IAmb	IAmb	02 44 07.1	
	comp=Z,9.1nm,0.8s						
ZAA0	**Zalesovo Array**	**20.36**	**27**		**P**	**02 44 07.9**	**-1.1**
ZALV	**Zalesovo Beam**	**20.36**	**27**	P	**P**	**02 44 09.2**	**+0.1**
	comp=Z,2.1nm,0.4s,baz=216,slow=11,SNR=13						
	comp=Z,2.1nm,0.4s						
HHC	**Hu-ho-hao-te**	**32.87**	**69**	*e*P	**P**	**02 46 04.2**	**0.0**
HHC				pmax	pmax		
	comp=Z,16nm,0.6s						
HHC				pmax	pmax		
	comp=Z,170nm,5.4s						
FINES	**FINESS Array B**	**36.74**	**326**	P	**P**	**02 46 37.2**	**+0.2**
	comp=Z,3.5nm,0.9s,baz=111,slow=10,SNR=4.0						
	comp=Z,3.5nm,0.9s						
FINES	**FINESS Array B**	**36.74**	**326**	P	**P**	**02 46 36.5**	**-0.5**
WHN	**Wuhan**	**37.59**	**86**	P	**P**	**02 46 43.0**	**-1.6**
ARCES	**ARCESS Array B**	**40.61**	**338**	P	**P**	**02 47 08.3**	**-0.8**
	comp=Z,3.9nm,0.8s,baz=114,slow=8.3,SNR=7.6						
	comp=Z,3.9nm,0.8s						
ARCES	**ARCESS Array B**	**40.61**	**338**	P	**P**	**02 47 08.7**	**-0.5**
HFS	**Hagfors**	**42.25**	**322**	P	**P**	**02 47 22.4**	**-0.2**
	comp=Z,2.3nm,0.7s,baz=96,slow=10,SNR=4.6						
	comp=Z,2.3nm,0.7s						
NOA	**NORSAR Array B**	**43.58**	**323**	P	**P**	**02 47 32.9**	**-0.5**
	comp=Z,0.4nm,0.5s,baz=97,slow=8.4,SNR=2.1						
	comp=Z,0.4nm,0.5s						
SPB2	**Spitsbergen Ar**	**47.13**	**347**	P	**P**	**02 48 00.6**	**-0.4**
TORD	**Torodi Ar. Bea**	**64.51**	**268**	P	**P**	**02 50 03.5**	**-2.1**
	comp=Z,3.0nm,0.5s,baz=48,slow=5.3,SNR=2.6						
	comp=Z,0.3nm,0.5s						
TOLK	**Toolik Lake Re**	**71.14**	**14**	P	**P**	**02 50 45.9**	**-0.4**
TOLK				IAmb	IAmb	02 50 57.6	
	comp=Z,6.2nm,1.4s						
A36M	**Sachs Harbour**	**71.23**	**5**	P	**P**	**02 50 46.1**	**-0.5**
A36M				IAmb	IAmb	02 51 25.2	
	comp=Z,2.9nm,0.9s						
F21K	**Alatna River**	**71.50**	**16**	P	**P**	**02 50 47.2**	**-1.2**
F21K				IAmb	IAmb	02 51 02.0	
	comp=Z,8.2nm,1.5s						
INK	**Inuvik**	**74.01**	**9**	P	**P**	**02 51 02.4**	**-0.7**

*IDC **04** 02:42:22.7±1.3, 9˚.78S×119˚.04E, h0km, mb4.0/3, mbtmp3.8/8, ML3.7/5, Error ellipse: s-maj=24.9km s-min=12.3km az=60.0*
*DJA **04** 02:42:27.8±0.6, 10˚S±6˚×119˚9E±˚, h10km, M4.1/6, mB4.7/1, mb4.6/1, MLv3.8/6, Mw(mB)3.9/1*

ISC 04 02:42:27.4±0.9,**9˚.87S**±0˚.07×**119˚.15E**±0˚.06,**h33**km,**n14, σ1°88/17,mb3.9/3,Sumba region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	**1.15**	**80**	P	**Pn**	**02 42 46.9**	**-0.3**
WSI				S	**Sn**	**02 43 01.8**	**+0.1**
WSI				AML	AML		
BASI	**Baing, Sumba**	**1.45**	**104**	P	**Pn**	**02 42 50.9**	**-0.4**
BASI				AML	AML		
**LB

0.9nm,0.5s,baz=149,slow=7.5,SNR=7.2
0.9nm,0.5s

ZALV	**Zalesovo Beam**	**69.90**	**339**	P	**P**	**02 53 34.1**	**-0.9**
	0.5nm,0.5s,baz=156,slow=7.1,SNR=1.8						
	0.5nm,0.5s						

IDC ***04*** *02:54:47.8±0.6,34°.86S×107°.79W,h0km,mb4.3/13, mbtmp4.3/13,MS4.4/39,Error ellipse: s-maj=21.8km s-min=16.6km az=86.0*

GFZ ***04*** *02:54:48.3±0.3,35°.5S±5°×10°.8W±°,h10km,M4.7/19, mb4.7/19*

GFZ ***04*** *02:54:48.3,34°.97S×107°.95W,h10km,Mw5.2/55,Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr=0.15; Mθθ-3.75; Mϕϕ3.90; Mrθ3.17; Mθϕ-5.97; Mϕr-0.23; Fault plane solution: M0 7.77274×10^16 NP1: ϕs=287.01105°,δ85.99235°,λ-156.49798°. NP2: ϕs=195.27026°,δ66.55889°,λ-4.36882°. Principal axes: T 7.5786, Plg13.4073°, Azm58.8176°; N 0.3747, Plg66.1779°, Azm296.1415°; P -7.9533, Plg19.3119°, Azm153.6091°;*

NEIC ***04*** *02:54:49.4±0.8,35°.0S±0°.1×107°.6W±0°.2,h10km±1km, mb4.9/71 Error ellipse: s-maj=21.9km s-min=18.0km az=292.0*

GCMT ***04*** *02:54:53.3±0.1,35°.04S±0°.01×107°.83W±0°.01,h16km, MW5.3/144,Moment Tensor Solution. s109,c180; s144,c262; Duration: 1s1 Moment tensor: Scale 10^17 Nm; Mrr-0.03±.01; Mθθ-0.34±.01; Mϕϕ0.36±.01; Mrθ-0.05±.04; Mθϕ-0.97±.01; Mϕr-0.33±.04; Best double couple: M0 1.08500×10^17 NP1:ϕs100.00000°,δ72.00000°, λ-180.00000°. NP2:ϕs10.00000°,δ90.00000°, λ-18.00000°. Principal axes: T 1.0990, Plg13.0000°, Azm56.0000°; N -0.0270, Plg72.0000°, Azm189.0000°; P -1.0720, Plg13.0000°, Azm323.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 04 02:54:48.6±0.4,34°.87S±0°.08×107°.79W±0°.07,h10km, n171,σ1°.24/141,mb4.8/62,MS4.4/39,2C-3D,Southern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RPN	**Rapa Nui**	**7.83**	**350**	LR	LR	02 59 05.7	
	comp=Z,3μm,21.4s,baz=162,slow=33						
LL02	**Futaleuf**	**28.95**	**118**	P	**P**	**03 00 49.5**	**+1.3**
	comp=Z,12nm,3.0s						
GO06	**Curarrehue**	**29.17**	**110**	P	**P**	**03 00 49.4**	**-0.8**
GO06	**Curarrehue**	**29.17**	**110**	P	**P**	**03 00 50.5**	**+0.3**
	comp=Z,17nm,2.8s						
PLCA	**Paso Flores**	**29.84**	**112**	P	**P**	**03 00 57.8**	**+1.6**
	comp=Z,2.0nm,0.7s,baz=244,slow=7.3,SNR=4.6						
PLCA				LR	LR	03 08 24.8	
	comp=Z,198nm,21.8s,baz=274,slow=27						
	comp=Z,2.0nm,0.7s						
PLCA	**Paso Flores**	**29.84**	**112**	P	**P**	**03 00 54.8**	**-1.3**
PLCA				IAmb	IAmb	03 01 20.5	
	comp=Z,35nm,1.9s						
MT09	**Talagante**	**30.31**	**99**	P	**P**	**03 00 59.3**	**-1.1**
GO04	**Tololo Observa**	**31.43**	**92**	P	**P**	**03 01 08.6**	**-1.8**
GO04				IAmb	IAmb	03 01 11.9	
	comp=Z,20nm,1.1s						
AC04	**Llanos de Chal**	**31.87**	**88**	P	**P**	**03 01 12.9**	**-1.1**
	comp=Z,15nm,0.5s						
LCO	**Las Campanas**	**31.89**	**90**	P	**P**	**03 01 13.2**	**-1.3**
LCO				IAmb	IAmb	03 01 18.1	
	comp=Z,19nm,1.3s						
ZON	**Zonda**	**32.75**	**95**		**P**	**03 01 20.9**	**-1.0**
ZON				IAmb	IAmb	03 01 24.8	
	comp=Z,13nm,1.1s						
CFA	**Coronel Fontan**	**33.10**	**96**	LR	LR	03 11 46.1	
	comp=Z,182nm,21.4s,baz=190,slow=31						
AC02	**Maricunga**	**33.98**	**87**		**P**	**03 01 32.0**	**-1.1**
AC02	**Maricunga**	**33.98**	**87**	P	**P**	**03 01 34.0**	**+0.9**
	comp=Z,10nm,1.9s						
PB03	**IPOC Station P**	**35.59**	**79**	P	**P**	**03 01 45.7**	**-0.9**
PB03				IAmb	IAmb	03 01 56.7	
	comp=Z,30nm,1.4s						
PB03	**IPOC Station P**	**35.59**	**79**	P	**P**	**03 01 46.4**	**-0.3**
	comp=Z,16nm,1.2s						
PB09	**IPOC Station P**	**36.13**	**79**	P	**P**	**03 01 50.9**	**-0.4**
PB09	**IPOC Station P**	**36.13**	**79**	P	**P**	**03 01 53.2**	**+2.0**
	comp=Z,26nm,1.3s						
NNA	**Nana**	**36.16**	**59**	LR	LR	03 13 28.7	
	comp=Z,830nm,18.3s,baz=228,slow=31						
PB11	**IPOC Station P**	**36.83**	**76**	P	**P**	**03 01 56.2**	**-1.0**
PB12	**IPOC Station P**	**36.92**	**74**		**P**	**03 01 57.3**	**-0.7**
PB12				IAmb	IAmb	03 02 00.4	
	comp=Z,23nm,1.1s						
PB08	**IPOC Station P**	**37.04**	**77**	P	**P**	**03 01 57.8**	**-1.4**
PB08				PcP	**PcP**	**03 04 19.6**	**-0.6**
PB08	**IPOC Station P**	**37.04**	**77**	P	**P**	**03 01 60.0**	**+0.7**
	comp=Z,9.1nm,0.9s						
GO01	**Chusmiza**	**37.25**	**76**	P	**P**	**03 02 00.3**	**-0.9**
GO01				IAmb	IAmb	03 02 12.1	
	comp=Z,43nm,1.9s						
GO01	**Chusmiza**	**37.25**	**76**	P	**P**	**03 02 01.6**	**+0.4**
	comp=Z,10nm,2.0s						
SALTA		**37.36**	**85**	P	**P**	**03 02 03.4**	**+1.2**
	comp=Z,4.3nm,1.1s						
TBI	**Tubuai**	**37.93**	**276**	*e*S	**S**	**03 08 00.1**	**+2.0**
	comp=Z,684nm,22.0s						
TBI				*e*LQ	LQ	03 10 55.1	
	comp=Z,15μm,42.0s						
TBI				*e*LR	LR	03 12 21.5	
	comp=Z,3μm,24.8s						
TBI				*e*LR	LR	03 12 24.1	
	comp=Z,956nm,25.5s						
ATAH	**Atahualpa**	**38.64**	**51**	LR	LR	03 14 08.1	
	comp=Z,1μm,19.0s,baz=241,slow=30						
TAOE	**Nuku Hiva Isla**	**39.34**	**303**	*e*S	**S**	**03 08 15.4**	**-4.3**
	comp=Z,372nm,28.2s						
TAOE				*e*LQ	LQ	03 11 27.4	
	comp=Z,3μm,26.7s						
TAOE				*e*LR	LR	03 13 11.9	
	comp=Z,1μm,29.2s						
PMSA	**Palmer Station**	**39.75**	**152**	LR	LR	03 14 23.4	
	comp=Z,786nm,19.0s,baz=302,slow=30						
LPAZ	**La Paz**	**39.96**	**73**	P	**P**	**03 02 24.8**	**+0.7**
	comp=Z,4.5nm,0.8s,baz=225,slow=4.6,SNR=16						
LPAZ				LR	LR	03 15 07.1	
	comp=Z,310nm,18.4s,baz=236,slow=30						
	comp=Z,4.5nm,0.8s						
LPAZ	**La Paz**	**39.96**	**73**		**P**	**03 02 22.9**	**-1.2**
LPAZ	**La Paz**	**39.96**	**73**	P	**P**	**03 02 25.3**	**+1.2**
	comp=Z,10nm,0.9s						
PPT2	**Papeete2**	**40.91**	**284**	*e*S	**S**	**03 08 41.2**	**-2.0**
	comp=Z,117nm,24.8s						
PPT2				*e*LQ	LQ	03 11 57.2	
	comp=Z,3μm,31.2s						
PPT2				*e*LR	LR	03 13 49.2	
	comp=Z,200nm,24.2s						
PPT2				*e*LR	LR	03 13 51.8	
	comp=Z,174nm,23.0s						
SLOR	**San Lorenzo -**	**43.60**	**45**	P	**P**	**03 02 53.1**	**-0.7**
CPUP	**Villa Florida**	**43.88**	**93**	P	**P**	**03 02 55.5**	**+0.1**
	comp=Z,3.0nm,1.0s,baz=224,slow=13,SNR=5.8						
CPUP				LR	LR	03 18 21.3	
	comp=Z,288nm,18.3s,baz=253,slow=32						
	comp=Z,3.0nm,1.0s						
CPUP	**Villa Florida**	**43.88**	**93**	P	**P**	**03 02 54.4**	**-1.0**
OTAV	**Otavalo**	**44.41**	**44**		**P**	**03 02 59.8**	**-0.4**
OTAV	**Otavalo**	**44.41**	**44**	P	**P**	**03 03 02.6**	**+2.3**
	comp=Z,7.9nm,1.0s						
CPSB	**Cacapava Do Su**	**45.52**	**100**	P	**P**	**03 03 06.6**	**-1.9**
CPSB				IAmb	IAmb	03 03 22.8	
	comp=Z,32nm,1.6s						
CPSB	**Cacapava Do Su**	**45.52**	**100**	P	**P**	**03 03 08.0**	**-0.5**
	comp=Z,11nm,1.5s						
RAR	**Rarotonga**	**47.37**	**272**	LR	LR	03 18 25.9	
	comp=Z,170nm,18.1s,baz=132,slow=30						
AQDB	**Aquidauana**	**47.81**	**87**	P	**P**	**03 03 26.4**	**-0.2**
	comp=Z,7.9nm,1.0s						
VILB	**Vilhena**	**48.14**	**75**		**P**	**03 03 28.1**	**-1.0**
JTS	**Las Juntas de**	**49.86**	**30**	LR	LR	03 19 36.9	
	comp=Z,883nm,20.2s,baz=200,slow=30						
ROSC	**El Rosal**	**50.53**	**45**	P	**P**	**03 03 48.8**	**+1.1**
	comp=Z,14nm,0.9s,baz=221,slow=3.8,SNR=6.9						
ROSC				LR	LR	03 21 13.3	
	comp=Z,856nm,21.3s,baz=218,slow=31						
	comp=Z,14nm,0.9s						
ROSC	**El Rosal**	**50.53**	**45**		**P**	**03 03 47.6**	**-0.1**
PCMB	**Pacaembu**	**50.93**	**91**	P	**P**	**03 03 50.3**	**0.0**
	comp=Z,11nm,0.7s						
RUSC	**La Rusia**	**52.10**	**46**		**P**	**03 03 58.7**	**-1.0**
BELA	**Belgrano 2**	**52.65**	**165**	P	**P**	**03 04 03.2**	**+0.7**
CLDB	**Colider**	**52.85**	**76**	P	**P**	**03 04 04.2**	**-0.5**
	comp=Z,7.4nm,1.2s						
CMIG	**Matias Romero**	**53.11**	**15**	LR	LR	03 20 57.9	
	comp=Z,334nm,20.9s,baz=188,slow=30						
SJCC	**San Jacinto, C**	**54.18**	**41**		**P**	**03 04 14.2**	**-0.3**
SBA	**Scott Base**	**55.24**	**195**		**P**	**03 04 21.8**	**+0.4**
SBA				IAmb	IAmb	03 04 28.5	
	comp=Z,23nm,1.7s						
SBA	**Scott Base**	**55.24**	**195**	P	**P**	**03 04 21.6**	**+0.3**
	comp=Z,6.3nm,0.8s						
QSPA	**South Pole Qui**	**55.33**	**180**	P	**P**	**03 04 23.1**	**+0.7**
	comp=Z,4.6nm,1.0s,baz=153,slow=1.6,SNR=7.3						
QSPA				LR	LR	03 25 00.3	
	comp=Z,266nm,18.3s,baz=112,slow=33						
	comp=Z,4.6nm,1.0s						
QSPA	**South Pole Qui**	**55.33**	**180**	P	**P**	**03 04 22.0**	**-0.3**
QSPA				IAmb	IAmb	03 04 32.5	
	comp=Z,16nm,1.1s						
QSPA	**South Pole Qui**	**55.33**	**180**	P	**P**	**03 04 19.5**	**-2.8**
	comp=Z,19nm,1.1s						
SDV	**Santo Domingo**	**55.93**	**46**	LR	LR	03 24 54.5	
	comp=Z,466nm,20.5s,baz=228,slow=32						
SDV	**Santo Domingo**	**55.93**	**46**	P	**P**	**03 04 26.0**	**-1.3**
SDV				IAmb	IAmb	03 04 39.8	
	comp=Z,11nm,1.1s						
SDV	**Santo Domingo**	**55.93**	**46**	P	**P**	**03 04 26.9**	**-0.4**
	comp=Z,59nm,1.1s						
VNDA	**Vanda**	**56.33**	**195**	P	**P**	**03 04 29.2**	**+0.1**
	comp=Z,1.1nm,0.9s,baz=339,slow=2.8,SNR=4.3						
VNDA				LR	LR	03 23 51.0	
	comp=Z,296nm,18.5s,baz=94,slow=31						
	comp=Z,1.1nm,0.9s						
VNDA	**Vanda**	**56.33**	**195**		**P**	**03 04 29.5**	**+0.4**
VNDA	**Vanda**	**56.33**	**195**	P	**P**	**03 04 28.4**	**-0.8**
	comp=Z,6.6nm,1.2s						
BSCB	**Bom Sucesso**	**56.54**	**94**	P	**P**	**03 04 31.3**	**-0.3**
	comp=Z,11nm,2.3s						
BDFB	**Brasilia**	**56.55**	**86**	P	**P**	**03 04 31.7**	**0.0**
	comp=Z,3.3nm,0.9s,baz=179,slow=3.1,SNR=3.9						
BDFB				LR	LR	03 25 40.3	
	comp=Z,259nm,22.0s,baz=225,slow=33						
	comp=Z,3.3nm,0.9s						
BDFB	**Brasilia**	**56.55**	**86**	P	**P**	**03 04 30.0**	**-1.7**
BDFB				IAmb	IAmb	03 04 35.6	
	comp=Z,29nm,1.7s						
URIC	**Uribia, Colomb**	**57.42**	**43**	P	**P**	**03 04 37.1**	**-0.5**
URIC				IAmb	IAmb	03 04 47.3	
	comp=Z,13nm,1.1s						
BOAV	**Boa Vista**	**57.74**	**60**	P	**P**	**03 04 38.1**	**-1.9**
BOAV				IAmb	IAmb	03 05 10.3	
	comp=Z,31nm,1.9s						
BFZ	**Birch Farm**	**58.58**	**240**	P	**P**	**03 04 45.0**	**-0.6**
LPIG	**La Paz**	**58.70**	**357**	LR	LR	03 22 59.6	
	comp=Z,198nm,21.6s,baz=171,slow=29						
RTZ	**Ruatahuna**	**58.80**	**242**		**P**	**03 04 47.7**	**+0.5**
URZ	**Urewera**	**58.84**	**243**	LR	LR	03 23 44.3	
	comp=Z,677nm,21.6s,baz=116,slow=30						
VNA3	**Neumayer Olymp**	**59.93**	**158**	⇑P	**P**	**03 04 54.1**	**-0.4**
	comp=Z,6.7nm,0.7s						
VNA3	**Neumayer Olymp**	**59.93**	**158**	P	**P**	**03 04 54.4**	**-0.1**
	comp=Z,12nm,0.8s						
VNA2	**Neumayer--Watz**	**60.74**	**158**	⇑P	**P**	**03 04 59.7**	**-0.3**
	comp=Z,6.1nm,0.8s,baz=262,slow=6.0						
VNA2	**Neumayer--Watz**	**60.74**	**158**	P	**P**	**03 04 59.3**	**-0.7**
	comp=Z,13nm,0.9s						
RPZ	**Reaks**	**61.08**	**235**	LR	LR	03 24 46.4	
	comp=Z,122nm,21.3s,baz=68,slow=29						
SNAA	**Sanae**	**61.78**	**160**	P	**P**	**03 05 08.7**	**+1.6**
	comp=Z,1.5nm,0.5s,baz=73,slow=19,SNR=4.3						
SNAA				LR	LR	03 28 06.8	
	comp=Z,208nm,19.9s,baz=260,slow=32						
	comp=Z,1.5nm,0.5s						
SNAA	**Sanae**	**61.78**	**160**	P	**P**	**03 05 07.1**	**0.0**
SNAA				IAmb	IAmb	03 05 32.9	
	comp=Z,14nm,1.5s						
SRIG	**Santa Rosalia**	**62.00**	**356**	P	**P**	**03 05 09.7**	**+0.8**
SRIG				IAmb	IAmb	03 05 15.9	
	comp=Z,11nm,1.0s						
HSIG		**63.62**	**357**	P	**P**	**03 05 20.6**	**+0.9**
TXAR	**Lajitas Array**	**63.98**	**4**	P	**P**	**03 05 23.4**	**+1.2**
	comp=Z,1.1nm,0.6s,baz=194,slow=10,SNR=8.6						
TXAR				LR	LR	03 26 55.2	
	comp=Z,148nm,21.0s,baz=120,slow=30						
	comp=Z,1.1nm,0.6s						
TXAR	**Lajitas Array**	**63.98**	**4**	P	**P**	**03 05 23.2**	**+1.0**
TX31	**Lajitas Ar. Si**	**63.98**	**4**		**P**	**03 05 23.7**	**+1.5**
TX31				IAmb	IAmb	03 06 13.5	
	comp=Z,26nm,1.9s						
SAND	**Sanderson**	**64.70**	**5**	P	**P**	**03 05 28.0**	**+1.1**
MDP	**Montagnes des**	**65.31**	**64**	LR	LR	03 30 56.5	
	comp=Z,1μm,19.5s,baz=237,slow=33						
JCT	**Junction City**	**65.44**	**8**	P	**P**	**03 05 33.2**	**+1.6**
SJG	**San Juan**	**65.89**	**44**	LR	LR	03 33 05.5	
	comp=Z,143nm,18.6s,baz=214,slow=35						
MNHN	**Monahans**	**66.03**	**5**		**P**	**03 05 36.7**	**+1.2**
MNTX	**Cornudas Mount**	**66.26**	**2**	P	**P**	**03 05 37.7**	**+0.9**
MNTX	**Cornudas Mount**	**66.26**	**2**	P	**P**	**03 05 35.1**	**-1.7**
PIX	**Pinacate**	**66.30**	**355**		**P**	**03 05 37.9**	**+0.8**
PIX				IAmb	IAmb	03 05 40.3	
	comp=Z,11nm,1.5s						
BRDY	**Brady**	**66.33**	**8**		**P**	**03 05 38.0**	**+0.7**
BRDY				IAmb	IAmb	03 07 40.3	
	comp=Z,13nm,1.5s						
SGCY	**Sterling City**	**66.73**	**6**		**P**	**03 05 40.5**	**+0.6**
MSVF	**Nonsavu**	**67.28**	**264**	LR	LR	03 27 44.7	
	comp=Z,205nm,21.8s,baz=165,slow=29						
CBX	**Cerro Bola**	**67.35**	**352**	P	**P**	**03 05 45.0**	**+1.1**
CBX				IAmb	IAmb	03 05 50.6	
	comp=Z,14nm,1.2s						
113A	**Mohawk Valley,**	**67.52**	**355**		**P**	**03 05 45.7**	**+0.9**
113A				IAmb	IAmb	03 05 54.6	
	comp=Z,11nm,1.5s						
YUH	**Yuha Desert**	**67.60**	**353**	P	**P**	**03 05 46.9**	**+1.6**
DPP	**Dos Picos Cty**	**68.06**	**352**	P	**P**	**03 05 49.4**	**+1.1**
DPP				IAmb	IAmb	03 05 54.8	
	comp=Z,7.4nm,1.0s						
ELIB	**Princess Elisa**	**68.15**	**165**	*d*P	**P**	**03 05 48.4**	**-0.3**
	comp=Z,2.4nm,1.1s						
ELIB				*d*PcP	**PcP**	**03 06 17.3**	**+2.7**
ELIB				*d*PP	**PP**	**03 08 16.2**	**-2.1**
BORC	**Borrego Spring**	**68.27**	**352**	P	**P**	**03 05 51.2**	**+1.7**
BORC				IAmb	IAmb	03 05 56.8	
	comp=Z,10nm,1.2s						
Y22A	**Socorro**	**68.46**	**1**		**P**	**03 05 52.6**	**+1.7**
Y22A				IAmb	IAmb	03 05 54.8	
	comp=Z,23nm,1.8s						
SBM	**South Baldy**	**68.49**	**1**	P	**P**	**03 05 52.9**	**+1.5**
LENM	**Lemitar**	**68.69**	**1**		**P**	**03 05 53.8**	**+1.4**
BELC	**Belle Mtn. Jos**	**68.95**	**353**	P	**P**	**03 05 55.6**	**+1.7**
BELC				IAmb	IAmb	03 06 05.0	
	comp=Z,13nm,1.5s						
MIAR	**Mount Ida**	**70.33**	**12**	P	**P**	**03 06 03.6**	**+1.3**
LRMC	**Laurel Mtn Rad**	**70.60**	**351**	P	**P**	**03 06 05.3**	**+1.2**
LRMC				IAmb	IAmb	03 06 14.1	
	comp=Z,16nm,1.3s						
QSM	**Queen of Sheba**	**70.98**	**352**	P	**P**	**03 06 07.5**	**+1.2**
QSM				IAmb	IAmb	03 06 16.1	
	comp=Z,20nm,1.6s						
U15A	**North Rim**	**71.06**	**356**	P	**P**	**03 06 07.4**	**+0.4**
U15A				IAmb	IAmb	03 06 13.9	
	comp=Z,9.6nm,1.2s						
TUL3	**Leonard**	**71.31**	**10**	P	**P**	**03 06 08.3**	**+0.2**
TUL3				IAmb	IAmb	03 06 18.2	
	comp=Z,11nm,0.7s						
TPNV	**Topopah Spring**	**71.89**	**353**		**P**	**03 06 12.2**	**+0.3**
HLK	**Haleakala**	**71.95**	**313**	P	**P**	**03 06 11.5**	**-1.3**
	comp=Z,137nm,2.9s						
CCUT	**Cedar City**	**72.24**	**355**		**P**	**03 06 15.0**	**+0.9**
WVT	**Waverly**	**73.05**	**17**	P	**P**	**03 06 19.3**	**+0.7**
WVT				IAmb	IAmb	03 08 12.1	
	comp=Z,22nm,1.7s						
PBMO	**Poplar Bluff**	**73.10**	**15**	P	**P**	**03 06 19.9**	**+1.0**
PBMO				IAmb	IAmb	03 06 31.5	
	comp=Z,12nm,1.2s						
TPH	**Tonopah**	**73.11**	**352**	P	**P**	**03 06 20.5**	**+1.3**
NV11	**Mina Array Sit**	**73.57**	**352**	P	**P**	**03 06 23.5**	**+1.7**
NV11				IAmb	IAmb	03 06 28.4	
	comp=Z,29nm,1.9s						
NVAR	**Mina Array Bea**	**73.58**	**351**	P	**P**	**03 06 23.8**	**+1.8**
	comp=Z,2.5nm,0.8s,baz=181,slow=7.8,SNR=13						
NVAR				LR	LR	03 32 02.7	
	comp=Z,192nm,19.9s,baz=194,slow=30						
	comp=Z,2.5nm,0.8s						
NVAR	**Mina Array Bea**	**73.58**	**351**	P	**P**	**03 06 23.0**	**+1.0**
TKL	**Tuckaleechee C**	**73.67**	**20**	LR	LR	03 33 08.1	
	comp=Z,406nm,21.5s,baz=202,slow=31						
CCM	**Cathedral Cave**	**74.17**	**14**	P	**P**	**03 06 25.4**	**+0.3**
CCM				IAmb	IAmb	03 06 33.6	
	comp=Z,10.0nm,1.1s						
DZM	**Mont Dzumac**	**74.40**	**254**	LR	LR	03 31 17.5	
	comp=Z,420nm,19.6s,baz=134,slow=29						
BEKR	**Beckworth**	**75.27**	**350**	P	**P**	**03 06 32.8**	**+1.0**
MOD	**Modoc Plateau**	**77.26**	**350**		**P**	**03 06 44.1**	**+1.2**
PDAR	**Pinedale Array**	**77.29**	**359**	P	**P**	**03 06 43.5**	**+0.3**
	comp=Z,2.7nm,0.9s,baz=152,slow=6.7,SNR=12						
PDAR				LR	LR	03 35 58.7	
	comp=Z,162nm,20.6s,baz=94,slow=32						
	comp=Z,2.7nm,0.9s						
PDAR	**Pinedale Array**	**77.29**	**359**	P	**P**	**03 06 43.0**	**-0.2**
WVOR	**Wild Horse Val**	**77.58**	**352**	P	**P**	**03 06 44.6**	**-0.1**
MAW	**Mawson**	**77.59**	**176**	P	**P**	**03 06 46.4**	**+2.0**
	comp=Z,2.4nm,0.8s,baz=178,slow=7.8,SNR=5.3						
MAW				LR	LR	03 38 55.4	
	comp=Z,308nm,19.0s,baz=196,slow=34						
	comp=Z,2.4nm,0.8s						
MAW	**Mawson**	**77.59**	**176**	P	**P**	**03 06 44.2**	**-0.3**
HLID	**Hailey**	**78.30**	**355**		**P**	**03 06 49.5**	**+0.7**
HLID				IAmb	IAmb	03 06 59.0	
	comp=Z,11nm,1.1s						
HLID	**Hailey**	**78.30**	**355**	P	**P**	**03 06 49.9**	**+1.2**
	comp=Z,18nm,2.5s						
ECSD	**EROS Data Cent**	**78.90**	**8**		**P**	**03 06 52.9**	**+1.1**
ECSD				IAmb	IAmb	03 07 01.8	
	comp=Z,16nm,1.1s						
BCYI	**Bear Canyon**	**78.98**	**356**	P	**P**	**03 06 53.5**	**+0.9**
BCYI				IAmb	IAmb	03 07 29.1	
	comp=Z,21nm,2.0s						
PINE	**Pine Mountain**	**79.20**	**350**	P	**P**	**03 06 54.4**	**+0.6**
PINE				IAmb	IAmb	03 07 04.8	
	comp=Z,21nm,1.3s						
SADO	**Sadowa**	**83.43**	**20**	LR	LR	03 38 46.7	
	comp=Z,412nm,21.6s,baz=208,slow=32						
ULM	**Lac du Bonnet**	**85.41**	**8**	P	**P**	**03 07 26.4**	**+0.6**
	comp=Z,4.2nm,0.7s,baz=195,slow=5.1,SNR=6.0						
	comp=Z,4.2nm,0.7s						
ULM	**Lac du Bonnet**	**85.41**	**8**	P	**P**	**03 07 26.1**	**+0.3**
HNR	**Honiara**	**86.52**	**261**	LR	LR	03 37 33.8	
	comp=Z,130nm,20.7s,baz=226,slow=30						
STKA	**Stephens Creek**	**86.97**	**233**	LR	LR	03 38 47.0	
	comp=Z,269nm,20.5s,baz=181,slow=30						
CTA	**Charters Tower**	**91.03**	**245**	LR	LR	03 44 38.9	
	comp=Z,194nm,19.0s,baz=58,slow=33						
KRVT	**Keravat (AS076**	**95.88**	**261**	LR	LR	03 43 37.8	
	comp=Z,124nm,21.0s,baz=196,slow=31						
SCHQ	**Schefferville**	**96.03**	**22**	LR	LR	03 47 14.5	
	comp=Z,276nm,20.4s,baz=232,slow=33						
PMG	**Port Moresby**	**96.79**	**254**	LR	LR	03 47 31.1	
	comp=Z,53nm,18.2s,baz=167,slow=33						
H11S2	**WAKE ISLAND Hy**	**96.79**	**288**	T	T	04 55 47.9	
	baz=126,slow=75,SNR=5.4						
H11S1	**WAKE ISLAND Hy**	**96.80**	**288**	T	T	04 55 51.6	
	baz=126,slow=75,SNR=3.2						
H11S3	**WAKE ISLAND Hy**	**96.81**	**288**	T	T	04 55 49.0	
	baz=126,slow=75,SNR=3.2						
YKA	**Yellowknife Ar**	**97.19**	**357**	LR	LR	03 47 22.1	
	comp=Z,372nm,19.4s,baz=116,slow=32						
ASAR	**Alice Springs**	**97.48**	**235**	LR	LR	03 49 44.1	
	comp=Z,324nm,18.3s,baz=153,slow=34						
SUR	**Sutherland**	**97.51**	**138**	LR	LR	03 45 37.2	
	comp=Z,199nm,19.8s,baz=196,slow=31						
H01W1	**Cape Leeuwin H**	**100.28**	**214**	T	T	05 00 52.4	
	baz=144,slow=75,SNR=93						
H01W2	**Cape Leeuwin H**	**100.29**	**214**	T	T	05 00 55.4	
	baz=144,slow=75,SNR=128						
H01W3	**Cape Leeuwin H**	**100.30**	**214**	T	T	05 00 52.3	
	baz=144,slow=75,SNR=88						
CLL	**Collm**	**135.02**	**50**	L	L	03 59 00.0	
CLL				AMS	AMS	04 04 00.0	
	comp=Z,200nm,22.3s						
ZST	**Bratislava**	**137.54**	**54**	*e*PKP	**PKiKP**	**03 14 16.8**	**+2.6**
MODS	**Modra-Piesok**	**137.66**	**54**	*e*PKP	**PKiKP**	**03 14 15.0**	**+0.5**
LANS	**Liptovska Anna**	**139.13**	**53**	*e*PKP	**PKiKP**	**03 14 20.7**	**+3.2**
FINES	**FINESS Array B**	**140.62**	**33**	PKP	**PKPdf**	**03 14 19.1**	**+1.5**
	comp=Z,2.0nm,0.9s,baz=194,slow=31,SNR=1.7						
NJ2	**Nanjing**	**141.25**	**279**	*e*P	**PKiKP**	**03 14 21.6**	**-0.7**
NJ2				pmax	pmax		
	comp=Z,13nm,0.6s						
NRIK	**Noril'sk**	**144.44**	**351**	PKP	**PKPdf**	**03 14 23.9**	**-0.2**
	comp=Z,2.1nm,0.7s,baz=331,slow=2.9,SNR=3.6						
AKASG	**Malin Array Be**	**145.26**	**50**	PKPbc	**PKPbc**	**03 14 24.4**	**-1.4**
	comp=Z,1.8nm,0.5s,baz=279,slow=3.6,SNR=5.9						
HHC	**Hu-ho-hao-te**	**148.55**	**293**	*e*P	**PKPdf**	**03 14 29.0**	**-3.1**
BRTR	**Keskin Array B**	**149.10**	**69**	PKPbc	**PKPbc**	**03 14 37.0**	**-0.2**
	comp=Z,2.7nm,1.0s,baz=248,slow=1.6,SNR=8.1						
XAN	**Xi'an**	**149.82**	**279**	PKPbc	**PKiKP**	**03 14 40.9**	**+0.9**
CMAR	**Chiang Mai Arr**	**151.18**	**242**	PKPbc	**PKPbc**	**03

comp=Z,9.1nm,0.0s
PDKS Podkum 0.15 113 *i* Pg Pg 03 15 40.7 +0.2
PDKS *i* Sg Sg 03 15 42.8 +0.3
PDKS IAML 03 15 43.8
comp=Z,2.3nm,0.1s
MOZS Mozjanca 0.30 305 *i* Pg Pg 03 15 43.8 +0.3
MOZS *i* Sg Sg 03 15 48.1 +0.5
GBAS Gorenja Brezov 0.31 234 *i* Pg Pg 03 15 43.8 +0.2
GBAS *i* Sg Sg 03 15 47.7 0.0
VISS Visnje 0.32 175 *i* Pg Pg 03 15 43.6 -0.1
VISS *i* Sg Sg 03 15 48.1 +0.2
ZAVS Zavodnje 0.35 26 *i* Pg Pg 03 15 44.4 0.0
ZAVS *i* Sg Sg 03 15 49.1 +0.1
ZAVS IAML 03 15 49.7
comp=Z,3.9nm,0.1s
CRNS Crni Vrh 0.38 264 *i* Pg Pg 03 15 45.3 +0.5
CRNS *i* Sg Sg 03 15 50.1 +0.3
LEGS Legarje 0.40 115 *i* Pg Pg 03 15 45.5 +0.3
LEGS *i* Sg Sg 03 15 51.1 +0.7

BJI ***04*** *03:27:20.3,52.˙37N×162.˙57W,h13km,mB5.4/12, mb5.2/58,Ms5.0/2,Ms7 4.7/2*
IDC ***04*** *03:27:21.1±0.5,52.˙39N×162.˙57W,h0km,mb5.0/41, mbtmp4.9/45,ML4.6/4,MS3.9/39,Error ellipse: s-maj=13.7km s-min=9.0km az=175.0*
MOS ***04*** *03:27:21.6±0.9,52.˙52N×162.˙57W,h10km,mb5.4/99, Error ellipse: s-maj=8.1km s-min=4.2km az=100.4*
GFZ ***04*** *03:27:23.7±0.2,52˚.˙N±4˚.˙×16˚.˙3W±˚,h10km,M5.4/129, mb5.3/129,Mw4.9/14,confirmed*
NEIC ***04*** *03:27:23.4±1.1,52.˙58N±0.˙06×162.˙59W±0.˙06,h12km±3km, mb5.2/637,ML4.8/22,Mwr4.6/14,Mww4.9/45,Error ellipse: s-maj=9.4km s-min=5.5km az=187.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=7.32; Mθθ=6.32; Mrθ=1.00; Mrφ=-4.15; Mθφ=3.29; Mφr=1.96; Fault plane solution: M₀=8.90000×10¹⁵ NP1:φ=86.23000°, δ=59.50000°,λ=-65.74000°. NP2:φ=224.63000°,δ=38.23000°, λ=-124.89000°. Principal axes: T 8.4770, Plg11.0000°, Azm159.0000°; N 0.7884, Plg21.0000°, Azm253.0000°; P -9.2654, Plg66.0000°, Azm42.0000°;*
NEIC ***04*** *03:27:23.3,52.˙58N×162.˙59W,h1km*
NEIC ***04*** *03:27:23.3,52.˙58N×162.˙59W,h11km*
GCMT ***04*** *03:27:25.4±0.3,52.˙43N±0.˙02×162.˙63W±0.˙04,h18km, MW5.0/98,Moment Tensor Solution. s39,c44; s98,c151; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=4.21±.25; Mθθ3.44±.17; Mφφ0.76±.14; Mrθ-0.93±.33; Mθφ 1.39±.08; Mφr0.83±.37; Best double couple: M₀4.29100×10¹⁶ NP1:φ=234.00000°,δ43.00000°,λ-110.00000°. NP2: φ=80.00000°,δ50.00000°,λ-72.00000°. Principal axes: T 4.0680, Plg4.0000°, Azm158.0000°; N 0.4460, Plg13.0000°, Azm249.0000°; P -4.5150, Plg76.0000°, Azm52.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
AEIC ***04*** *03:27:26.8±1.0,52.˙52N±0.˙07×162.˙58W±0.˙09,h5km±2km Error ellipse: s-maj=10.5km s-min=7.6km az=187.0*
NEIC ***04*** *03:27:26.8,52.˙38N×162.˙59W,h16km,Moment Tensor Solution. Duration: 1!s4 Moment tensor: Scale 10¹⁶Nm; Mrr-2.69; Mθθ2.38; Mφφ0.31; Mrθ-0.98; Mθφ 1.01; Mφr0.82; Fault plane solution: M₀3.03000×10¹⁶ NP1: φ=229.35000°,δ42.06000°,λ-120.30000°. NP2: φ=87.56000°,δ54.67000°,λ-65.53000°. Principal axes: T 2.8647, Plg7.0000°, Azm160.0000°; N 0.3015, Plg20.0000°, Azm253.0000°; P -3.1662, Plg69.0000°, Azm53.0000°;*
BGR ***04*** *03:27:30.7,53.˙30N×162.˙77W,h35km±1km,mb5.3,Ms4.3*
ISC 04 03:27:24.1±0.5,52.˙49N±0.˙04×162.˙56W±0.˙03,h19km±2km, h20km:pP-P,n1215,c1916/1056,mb5.2/518,MS3.9/39, 51C-66D,South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SSLS	**Shishaldin Sou**	**2.38**	**340**			**Pn**	**03 28 01.1**	**-1.1**
SSLS						**Pn**	**03 28 01.2**	**-0.9**
SSLS						**Sn**	**03 28 29.2**	**-1.6**
WESP	**Westdahl Peak**	**2.39**	**328**			**Pn**	**03 28 00.8**	**-1.3**
WESP						**Pn**	**03 28 01.0**	**-1.1**
WESP						**Sn**	**03 28 27.8**	**-3.1**
WESN	**West Dahl Nort**	**2.41**	**331**			**Pn**	**03 28 01.5**	**-0.9**
WESN						**Sn**	**03 28 28.9**	**-2.4**
WECS	**Westdahl Cape**	**2.44**	**328**			**Pn**	**03 28 01.4**	**-1.4**
WECS				Sn		**Sn**	**03 28 28.0**	**-4.1**
WECS				IAML			03 28 32.3	
	comp=E,5μm,0.5s							
WECS				IAML			03 28 33.7	
	comp=N,7μm,0.8s							
ISNN	**Isanotski Nort**	**2.46**	**343**			**Pn**	**03 28 02.5**	**-0.6**
ISNN						**Sn**	**03 28 31.3**	**-1.2**
SSBA	**Shishaldin**	**2.47**	**338**			**Pn**	**03 28 02.0**	**-1.3**
SSLN	**Shishaldin Nor**	**2.48**	**340**			**Pn**	**03 28 02.7**	**-0.6**
SSLN						**Sn**	**03 28 31.3**	**-1.8**
WEBT	**Westdahl Beart**	**2.48**	**329**			**Pn**	**03 28 02.3**	**-1.0**
AKUT	**Akutan**	**2.54**	**312**			**Pn**	**03 28 03.1**	**-1.0**
AKUT				Sn		**Sn**	**03 28 31.1**	**-3.3**
AKUT				IAML			03 28 36.8	
	comp=E,4μm,0.8s							
AHB	**Akutan Harbor**	**2.54**	**311**			**Pn**	**03 28 03.5**	**-0.7**
AHB						**Sn**	**03 28 32.2**	**-2.4**
AKBBA	**Akutan Broad B**	**2.59**	**310**			**Pn**	**03 28 04.2**	**-0.7**
AKBBA						**Sn**	**03 28 33.6**	**-2.1**
WTUG	**Tugumak**	**2.60**	**336**			**Pn**	**03 28 04.1**	**-1.0**
ZRO	**Akutan Zero**	**2.60**	**309**			**Sn**	**03 28 33.4**	**-2.7**
DT1	**Dutton Round H**	**2.63**	**4**			**Pn**	**03 28 03.6**	**-1.8**
DT1						**Sn**	**03 28 33.4**	**-3.3**
AKLV	**Akutan Long Va**	**2.64**	**311**			**Pn**	**03 28 04.1**	**-1.4**
AKLV						**Sn**	**03 28 34.1**	**-2.9**
LVA	**Lava Point**	**2.67**	**310**			**Pn**	**03 28 05.3**	**-0.7**
LVA				IAML			03 28 40.1	
	comp=N,7μm,0.7s							
LVA				IAML			03 28 43.7	
	comp=E,3μm,0.6s							
DOL	**Dolgoi Island**	**2.70**	**9**			**Sn**	**03 28 36.0**	**-2.4**
UNV	**Unalaska Valle**	**2.73**	**301**			**Sn**	**03 28 36.0**	**-3.3**
UNV	**Unalaska Valle**	**2.73**	**301**			**Pn**	**03 28 05.3**	**-1.5**
UNV				IAML			03 28 39.9	
	comp=E,4μm,0.7s							
MNAT	**Makushin Natee**	**2.85**	**301**			**Sn**	**03 28 38.8**	**-3.3**
PS4A	**Pavlof South-4**	**2.89**	**8**			**Sn**	**03 28 41.7**	**-1.5**
MSW	**Makushin Switc**	**2.91**	**301**			**Sn**	**03 28 41.1**	**-2.6**
CNBA	**Chernabura Isl**	**2.93**	**36**			**Pn**	**03 28 07.8**	**-1.7**
CNBA				IAML			03 28 42.7	
	comp=E,3μm,0.7s							
CNBA	**Chernabura Isl**	**2.93**	**36**			**Sn**	**03 28 40.7**	**-3.4**
PN7A	**Pavlof North-7**	**2.97**	**6**			**Pn**	**03 28 10.2**	**0.0**
PS1A	**Pavlof South-1**	**2.98**	**9**			**Sn**	**03 28 44.0**	**-1.3**
SDPT	**Sand Point**	**3.12**	**22**			**Pn**	**03 28 11.0**	**-1.1**
SDPT				IAML			03 28 48.2	
	comp=E,3μm,0.6s							
SDPT				IAML			03 28 52.8	
	comp=N,3μm,0.7s							
S12K	**Black Hills**	**3.23**	**5**			**Pn**	**03 28 13.3**	**-0.5**
S12K	**Black Hills**	**3.23**	**5**			**Sn**	**03 28 50.4**	**-1.2**
OKFG	**Magazine Ridge**	**3.37**	**288**			**Pn**	**03 28 14.8**	**-0.8**
VNFG	**Fog Glacier, M**	**4.19**	**24**			**Pn**	**03 28 27.5**	**+0.6**
CLCO	**Concord Point,**	**4.37**	**277**			**Sn**	**03 29 15.8**	**-3.9**
CLES	**Cleveland East**	**4.48**	**277**			**Pn**	**03 28 30.3**	**-0.5**
CHGN	**Chignik**	**4.52**	**31**			**Pn**	**03 28 30.6**	**-0.8**
CHGN				IAML			03 29 28.2	
	comp=N,1μm,0.7s							
CHGN	**Chignik**	**4.52**	**31**			**Sn**	**03 29 19.8**	**-3.5**
BPBCA	**Veniaminof**	**4.75**	**29**			**Pn**	**03 28 34.3**	**-0.3**
CHIR	**Chirikof Islan**	**5.27**	**48**			**Pn**	**03 28 39.9**	**-1.8**
CHIR				IAML			03 29 42.4	
	comp=E,522nm,0.5s							
CHIR				IAML			03 30 00.2	
	comp=N,607nm,0.9s							
R16K	**Pilot Point**	**5.84**	**27**			**Pn**	**03 28 48.9**	**-0.6**
SII	**Sitkinak Islan**	**6.36**	**47**			**Pn**	**03 28 54.5**	**-2.1**
SPIA	**Saint Paul Isl**	**6.46**	**320**	Pn		**Pn**	**03 28 57.7**	**-0.3**
O14K	**Tigyukauivet M**	**6.82**	**6**			**Pn**	**03 29 02.7**	**-0.2**
O15K	**Ungalikthiuk R**	**6.88**	**12**			**Pn**	**03 29 03.0**	**-0.7**
Q17K	**Contact Creek**	**6.92**	**31**			**Pn**	**03 29 03.5**	**-0.9**
CAHL	**Cahill**	**6.95**	**34**			**Pn**	**03 29 03.8**	**-0.9**
P16K	**Nushagak River**	**7.04**	**20**			**Pn**	**03 29 06.2**	**+0.2**
ACHA	**Angle Creek He**	**7.06**	**33**			**Pn**	**03 29 05.7**	**-0.6**
KOKL	**Mount Kliuchef**	**7.12**	**273**			**Pn**	**03 29 07.7**	**+0.5**
ATKA	**Atka Island**	**7.13**	**272**			**Pn**	**03 29 07.0**	**-0.2**
OHAK	**Old Harbor**	**7.15**	**45**			**Pn**	**03 29 05.3**	**-2.1**
KAHG	**Katmai Hook Gl**	**7.54**	**34**			**Pn**	**03 29 11.2**	**-1.7**
O16K	**Kokwok River B**	**7.55**	**18**			**Pn**	**03 29 11.9**	**-0.9**
P17K	**Kvichak River**	**7.55**	**25**			**Pn**	**03 29 12.8**	**-0.1**
KDAK	**Kodiak Island**	**7.79**	**43**	Pn		**Pn**	**03 29 14.6**	**-1.7**
	comp=N,18nm,0.3s,baz=221,slow=8.8,SNR=109							
KDAK						Sn	Sn	03 30 35.0	-8.8
	comp=N,16nm,0.3s,baz=12,slow=20,SNR=10							
KDAK						LR	LR	03 32 30.4	
	comp=N,568nm,18.8s,baz=237,slow=39							
	comp=N,39nm,0.3s							
KDAK						AML	AML		
KDAK	**Kodiak Island**	**7.79**	**43**				**Pn**	**03 29 14.2**	**-2.1**
KDAK	**Kodiak Island**	**7.79**	**43**	P			**Pn**	**03 29 14.9**	**-1.3**
	comp=Z,103nm,0.8s								
M13K	**Dall Lake**	**7.96**	**357**	Pn			**Pn**	**03 29 18.0**	**-0.5**
N16K	**Nishlik Lake**	**8.27**	**13**				**Pn**	**03 29 22.8**	**0.0**
GSTR	**Great Sitkin T**	**8.29**	**273**				**Pn**	**03 29 23.2**	**+0.1**
M15K	**Kasigluk River**	**8.29**	**6**				**Pn**	**03 29 22.3**	**-0.8**
GSTD	**Great Sitkin T**	**8.35**	**272**				**Pn**	**03 29 23.9**	**0.0**
GSSP	**Great Sitkin S**	**8.36**	**273**				**Pn**	**03 29 23.9**	**-0.2**
ETKA	**Kagalaska Isla**	**8.54**	**271**				**Pn**	**03 29 26.3**	**-0.2**
AUI	**Augustine Isla**	**8.56**	**33**				**Pn**	**03 29 26.1**	**-0.6**
AUJK	**Augustine Jueg**	**8.58**	**33**				**Pn**	**03 29 26.5**	**-0.6**
N17K	**Nushagak Hills**	**8.58**	**18**				**Pn**	**03 29 26.5**	**-0.6**
ADAG	**Mount Adagdak**	**8.64**	**272**				**Pn**	**03 29 28.3**	**+0.5**
ADK	**Adak**	**8.70**	**272**	P			**Pn**	**03 29 28.4**	**-0.3**
ADK	**Adak**	**8.70**	**272**				**Pn**	**03 29 28.4**	**-0.3**
ADK	**Adak**	**8.70**	**272**	P			**Pn**	**03 29 29.3**	**+0.6**
	comp=Z,282nm,0.6s								
L14K	**Kuka Creek**	**8.88**	**360**				**Pn**	**03 29 30.3**	**-0.7**
KIRH	**Kanaga Island**	**8.95**	**272**				**Pn**	**03 29 32.1**	**0.0**
KIWB	**Kanaga Island**	**8.99**	**272**				**Pn**	**03 29 32.7**	**0.0**
N18K	**Kilae Creek**	**8.99**	**21**				**Pn**	**03 29 32.1**	**-0.6**
ILSW	**Iliamna Southw**	**9.15**	**31**				**Pn**	**03 29 34.0**	**-1.0**
L15K	**Ungalak Mounta**	**9.23**	**3**				**Pn**	**03 29 35.0**	**-0.9**
M17K	**Holitna River**	**9.36**	**15**				**Pn**	**03 29 36.9**	**-0.8**
O20K	**Slope Mountain**	**9.39**	**32**				**Pn**	**03 29 37.5**	**-0.8**
N19K	**Bonanza Creek**	**9.45**	**25**				**Pn**	**03 29 38.8**	**-0.2**
TAFL	**Tanaga Flats**	**9.47**	**272**				**Pn**	**03 29 39.2**	**0.0**
CNPM	**China Poot**	**9.47**	**37**				**Pn**	**03 29 37.6**	**-1.8**
TAFP	**Tanaga Falls P**	**9.49**	**273**				**Pn**	**03 29 39.4**	**-0.2**
K13K	**Kusilvak Mount**	**9.54**	**354**	Pn			**Pn**	**03 29 39.9**	**-0.2**
TASE	**Tanaga Southea**	**9.54**	**272**				**Pn**	**03 29 40.1**	**-0.2**
M18K	**Stony River**	**9.74**	**19**				**Pn**	**03 29 41.8**	**-1.1**
BRSE	**Bradley Lake S**	**9.80**	**38**				**Pn**	**03 29 41.4**	**-2.5**
RDT	**Redoubt**	**9.84**	**31**				**Pn**	**03 29 43.1**	**-1.3**
K15K	**Wolf Creek Mou**	**9.85**	**3**				**Pn**	**03 29 43.2**	**-1.2**
L17K	**Donlin**	**9.94**	**12**				**Pn**	**03 29 44.5**	**-1.2**
GANE	**Gareloi Northe**	**9.99**	**273**				**Pn**	**03 29 46.0**	**-0.5**
J14K	**Nanvaranak Lak**	**10.30**	**357**	Pn			**Pn**	**03 29 49.0**	**-1.5**
L19K	**White Mountain**	**10.56**	**20**				**Pn**	**03 29 52.8**	**-1.5**
L20K	**Farewell, AK**	**11.04**	**21**				**Pn**	**03 29 58.8**	**-2.0**
AMKA	**Amchitka**	**11.25**	**272**	Pn			**Pn**	**03 30 02.6**	**-1.1**
P23K	**Montague Islan**	**11.28**	**42**				**Pn**	**03 30 02.6**	**-1.4**
PMR	**Palmer**	**11.67**	**33**	P			**Pn**	**03 30 07.1**	**-2.2**
PMR	**Palmer**	**11.67**	**33**				**Pn**	**03 30 07.1**	**-2.2**
HIN	**Hinchinbrook I**	**11.88**	**42**				**Pn**	**03 30 10.6**	**-1.6**
CAST	**Castle Rocks**	**12.27**	**23**				**Pn**	**03 30 16.6**	**-0.9**
EYAK	**Cordova Ski Ar**	**12.27**	**42**				**Pn**	**03 30 14.7**	**-2.8**
KAIM	**Kayak Island**	**12.52**	**46**				**Pn**	**03 30 19.4**	**-1.4**
DIV	**Divide**	**12.59**	**40**	Pn			**Pn**	**03 30 20.5**	**-1.5**
DHY	**Denali Highway**	**13.30**	**31**	Pn			**Pn**	**03 30 28.6**	**-3.1**
GLB	**Gilahina Butte**	**13.55**	**41**	Pn			**Pn**	**03 30 33.1**	**-2.0**
G18K	**Tagagawik**	**13.59**	**7**	Pn			**Pn**	**03 30 33.7**	**-1.9**
PAX	**Paxson**	**13.86**	**34**	P			**Pn**	**03 30 37.5**	**-1.8**
PAX	**Paxson**	**13.86**	**34**				**Pn**	**03 30 37.5**	**-1.8**
MLY	**Manley**	**13.95**	**21**				**Pn**	**03 30 39.3**	**-1.3**
H21K	**Melozitna Rive**	**14.10**	**17**				**Pn**	**03 30 40.8**	**-1.6**
SHEM	**Shemya Is, Ala**	**14.17**	**280**	Pn			**Pn**	**03 30 42.7**	**-0.8**
	comp=Z,2.5nm,0.3s,baz=96,slow=18,SNR=1.5								
SHEM						LR	LR	03 35 46.4	
	comp=Z,124nm,21.6s,baz=114,slow=36								
	comp=Z,42nm,0.8s								
SHEM						AML	AML		
SHEM	**Shemya Is, Ala**	**14.17**	**280**				**Pn**	**03 30 41.8**	**-1.7**
IMAR	**Indian Mountai**	**14.24**	**15**	Pn			**Pn**	**03 30 43.1**	**-1.3**
I23K	**Minto, Yukon-K**	**14.37**	**23**	Pn			**Pn**	**03 30 45.8**	**-0.4**
COLA	**College**	**14.53**	**26**	*i* P			**Pn**	**03 30 49.5**	**+1.2**
COLA	**College**	**14.53**	**26**	Pn			**Pn**	**03 30 46.4**	**-1.8**
COLA	**College**	**14.53**	**26**	P			**Pn**	**03 30 47.2**	**-1.0**
	comp=Z,46nm,0.8s								
ILAR	**Eielson Array**	**14.71**	**27**	Pn			Pn	03 30 44.9	-5.9
	comp=Z,1.6nm,0.3s,baz=222,slow=13,SNR=52								
ILAR						Sn	Sn	03 33 18.1	-15
	comp=Z,0.6nm,0.3s,baz=203,slow=7.9,SNR=4.2								
ILAR						PcP	**PcP**	**03 36 01.6**	**-0.3**
	comp=Z,3.4nm,0.7s,baz=272,slow=2.7,SNR=6.9								
ILAR						LR	LR	03 37 19.8	
	comp=Z,335nm,19.8s,baz=226,slow=40								
	comp=Z,3.4nm,0.4s								
ILAR						AML	AML		
ILAR	**Eielson Array**	**14.71**	**27**	P			**Pn**	**03 30 48.9**	**-1.9**
ILAR	**Eielson Array**	**14.71**	**27**				**Pn**	**03 30 48.9**	**-1.9**
ILAR							**PcP**	**03 36 01.1**	**-0.8**
M27K	**Edge Creek, AK**	**14.82**	**40**	Pn			**Pn**	**03 30 49.7**	**-2.7**
BCAR	**Beaver Creek A**	**15.24**	**38**				**Pn**	**03 30 56.5**	**-1.5**
C18K	**Utukok River**	**16.23**	**2**	Pn			**Pn**	**03 31 09.5**	**-1.2**
M29M	**Somme Creek**	**16.24**	**43**	IAmb		IAmb	03 31 18.2		
	comp=Z,214nm,1.5s								
FYU	**Fort Yukon**	**16.53**	**25**	P		**Pn**	**03 31 13.1**	**-1.3**
L29M	**L29M**	**16.69**	**41**	P		**Pn**	**03 31 15.6**	**-0.9**
DAWY	**Dawson**	**16.69**	**37**	IAmb		IAmb	03 31 24.0		
	comp=Z,107nm,0.8s								
BESE	**Bessie Mountai**	**16.74**	**58**	IAmb		IAmb	03 31 23.5		
	comp=Z,234nm,1.5s								
S32K	**Killisnoo**	**16.75**	**62**	IAmb		IAmb	03 31 24.4		
	comp=Z,208nm,1.4s								
I27K	**Kandik River**	**16.87**	**31**	IAmb		IAmb	03 31 25.5		
	comp=Z,244nm,1.5s								
R32K	**Eaglecrest**	**16.87**	**59**	P		**Pn**	**03 31 18.2**	**-0.7**
M30M	**Minto, Yukon**	**17.00**	**44**	P		**Pn**	**03 31 19.6**	**-0.8**
D22K	**Ayikyak River**	**17.10**	**12**	IAmb		IAmb	03 31 27.0		
	comp=Z,299nm,1.8s								
WHY	**Whitehorse**	**17.19**	**51**	IAmb		IAmb	03 31 26.2		
	comp=Z,150nm,0.9s								
G26K	**Porcupine Rive**	**17.20**	**25**	Pn		**Pn**	**03 31 21.6**	**-1.2**
I28M	**Miner Creek**	**17.31**	**33**	IAmb		IAmb	03 31 29.6		
	comp=Z,196nm,0.7s								
H27K	**Steamboat Moun**	**17.32**	**29**	Pn		**Pn**	**03 31 22.6**	**-1.8**
J29N	**Klondike Camp**	**17.34**	**37**	IAmb		IAmb	03 31 32.3		
	comp=Z,181nm,0.6s								
TOLK	**Toolik Lake Re**	**17.34**	**16**	IAmb		IAmb	03 31 32.5		
	comp=Z,146nm,0.9s								
BMAR	**Burnt Mountain**	**17.36**	**24**	P		**Pn**	**03 31 24.0**	**-1.0**
D23K	**Nanushuk River**	**17.46**	**14**	IAmb		IAmb	03 31 34.5		
	comp=Z,225nm,1.8s								
P32M	**Atlin**	**17.50**	**55**	P		**Pn**	**03 31 25.5**	**-1.3**
I29M	**Ogilvie Camp,**	**17.81**	**34**			**Pn**	**03 31 29.6**	**-0.8**
I29M				IAmb		IAmb	03 31 38.0		
	comp=Z,176nm,0.9s								
J30M	**Hart River**	**18.10**	**38**			**Pn**	**03 31 33.8**	**-0.4**
J30M				IAmb		IAmb	03 31 44.5		
	comp=Z,126nm,1.0s								
N32M	**Quiet Lake**	**18.17**	**50**	IAmb		IAmb	03 31 39.5		
	comp=Z,196nm,1.1s								
V35K	**Ketchikan**	**18.37**	**69**	P		**P**	**03 31 37.9**	**+0.5**
I30M	**Mount Dempster**	**18.41**	**36**	IAmb		IAmb	03 31 43.2		
	comp=Z,197nm,0.8s								
C24K	**Franklin Bluff**	**18.45**	**15**	IAmb		IAmb	03 31 44.1		
	comp=Z,434nm,1.9s								
D25K	**Kavik River**	**18.51**	**18**	IAmb		IAmb	03 31 45.5		
	comp=Z,229nm,2.0s								
F28M	**Old Crow**	**18.74**	**27**	P		**P**	**03 31 41.0**	**-0.4**
G29M	**Pine Creek**	**18.83**	**31**	IAmb		IAmb	03 31 46.9		
	comp=Z,170nm,0.8s								
R33M	**Jennings River**	**18.86**	**56**	IAmb		IAmb	03 31 47.2		
	comp=Z,144nm,1.4s								
DLBC	**Dease Lake**	**19.25**	**59**	P		**P**	**03 31 46.4**	**-0.6**
	comp=Z,0.8nm,0.3s,baz=252,slow=9.5,SNR=22								
	comp=Z,7.0nm,0.6s								
DLBC						AML	AML		
C26K	**Camden Bay**	**19.29**	**18**	P		**P**	**03 31 47.3**	**0.0**
C26K				IAmb		IAmb	03 31 51.4		
	comp=Z,138nm,0.8s								
H31M	**Peel River**	**19.44**	**36**	IAmb		IAmb	03 31 53.8		
	comp=Z,212nm,0.8s								
E28M	**Babbage River**	**19.51**	**25**	P		**P**	**03 31 49.2**	**-0.6**
E29M	**Blow River**	**19.81**	**27**	IAmb		IAmb	03 32 00.5		
	comp=Z,76nm,0.8s								
F30M	**Barrier River**	**19.94**	**30**	IAmb		IAmb	03 32 05.8		
	comp=Z,122nm,0.8s								
WTLY	**Watson Lake, Y**	**20.04**	**54**	IAmb		IAmb	03 31 58.8		
	comp=Z,122nm,0.9s								
F31M	**Tsiigehtchic**	**20.50**	**32**	P		**P**	**03 32 00.2**	**-0.2**
F31M				IAmb		IAmb	03 32 02.2		
	comp=Z,141nm,1.0s								
BBB	**Bella Bella**	**20.94**	**77**	P		Pn	03 32 07.1	-0.8
	comp=Z,36nm,0.9s,baz=282,slow=11,SNR=5.7								
	comp=Z,36nm,0.9s								
BBB	**Bella Bella**	**20.94**	**77**	IAmb		IAmb	03 32 12.1		
	comp=Z,115nm,1.2s								
INK	**Inuvik**	**21.04**	**30**	P		**P**	**03 32 06.8**	**+0.4**
	comp=Z,63nm,0.8s,baz=240,slow=12,SNR=102								
INK				S		**S**	**03 35 54.3**	**-5.1**
	comp=Z,7.3nm,0.9s,baz=241,slow=27,SNR=3.4								
INK				LR		LR	03 41 24.8		
	comp=Z,512nm,19.0s,baz=201,slow=40								
	comp=Z,63nm,0.8s								
INK	**Inuvik**	**21.04**	**30**	P		**P**	**03 32 06.2**	**-0.2**
INK				pmax		pmax			
	comp=Z,61nm,0.9s								
INK	**Inuvik**	**21.04**	**30**	P		**P**	**03 32 06.2**	**-0.2**
INK				IAmb		IAmb	03 32 11.4		
	comp=Z,61nm,0.9s								
BILI	**Bilibino, Chuk**	**21.52**	**328**	P		**P**	**03 32 13.3**	**+1.8**
	comp=Z,54nm,0.8s								
BILL	**Bilibino**	**21.57**	**328**	*ce*P		**P**	**03 32 11.7**	**-0.4**
BILL				pmax		pmax			
	comp=Z,108nm,2.5s								
BILL	**Bilibino**	**21.57**	**328**	P		**P**	**03 32 11.3**	**-0.7**
PET	**Petropavlovsk**	**23.29**	**287**	*e*P		**P**	**03 32 31.3**	**+1.0**
PET				*e*S		**S**	**03 36 32.6**	**-8.9**
PET				pmax		pmax			
	comp=Z,122nm,1.0s								
PET				MLR		MLR			
	comp=Z,1μm,15.0s								
PET				MLR		MLR			
	comp=Z,700nm,16.0s								
PEA0B	**Petropavlovsk-**	**23.83**	**287**	*ce*P		**P**	**03 32 36.3**	**+0.7**
PETK	**Petropavlovsk-**	**23.83**	**287**	P		**P**	**03 32 36.8**	**+1.2**
	comp=Z,82nm,0.6s,baz=79,slow=12,SNR=135								
PETK				LR		LR	03 41 45.3		
	comp=Z,80nm,21.8s,baz=86,slow=36								
	comp=Z,82nm,0.6s								
C36M	**Paulatuk**	**24.55**	**32**	P		**P**	**03 32 42.0**	**0.0**
B04A	**Port Angeles**	**25.13**	**84**	P		**P**	**03 32 47.6**	**+0.1**
B04A				IAmb		IAmb	03 32 52.6		
	comp=Z,96nm,1.4s								
NLWA	**Neilton Lookou**	**25.20**	**86**	P		**P**	**03 32 49.0**	**+0.8**
NLWA				IAmb		IAmb	03 32 51.8		
	comp=Z,57nm,0.8s								
A05A	**Maple Falls**	**25.61**	**82**	P		**P**	**03 32 52.1**	**+0.2**
SEY	**Seymchan**	**25.68**	**312**	*ce*P		**P**	**03 32 51.4**	**-1.0**
SEY				pmax		pmax			
	comp=Z,61nm,1.5s								
GNW	**Green Mountain**	**25.76**	**85**	P		**P**	**03 32 53.9**	**+0.6**
SHUK	**Shuksan-Mt. Ba**	**25.91**	**82**	P		**P**	**03 32 54.9**	**0.0**
F04D	**Rainier, OR**	**26.32**	**88**	IAmb		IAmb	03 33 05.2		
	comp=Z,107nm,1.2s								
D05A	**Enumclaw**	**26.43**	**85**	IAmb		IAmb	03 33 07.0		
	comp=Z,126nm,1.1s								
YKAW3	**Yellowknife Wh**	**27.01**	**49**	IAmb		IAmb	03 33 07.0		
	comp=Z,80nm,1.3s								
YKA	**Yellowknife Ar**	**27.01**	**49**	P		**P**	**03 33 05.3**	**+0.9**
	comp=Z,18nm,0.6s,baz=265,slow=7.0,SNR=91								
YKA				PcP		**PcP**	**03 36 24.7**	**-0.5**
	comp=Z,3.2nm,0.7s,baz=273,slow=3.1,SNR=5.4								
	comp=Z,18nm,0.6s

NVAR PcP 03 36 42.3 -0.6
ELK Elko 33.96 91 LR LR 03 45 30.6
comp=Z,134nm,18.2s,baz=336,slow=32
ELK Elko 33.96 91 P P 03 34 08.3 +2.0
ELK Elko 33.96 91 IAmb IAmb 03 34 09.4
comp=Z,17nm,0.9s
YHL Hebgen Lake 34.14 82 P P 03 34 07.9 0.0
YHL IAmb IAmb 03 34 10.5
comp=Z,29nm,1.2s
YHH Holmes Hill 34.38 82 IAmb IAmb 03 34 12.4
comp=Z,54nm,1.2s
TPH Tonopah 34.40 96 P P 03 34 10.5 +0.4
TPH pmax pmax
comp=Z,30nm,1.7s
TPH Tonopah 34.40 96 P P 03 34 10.5 +0.4
RES Resolute Bay 34.45 26 LR LR 03 49 52.3
comp=Z,227nm,18.4s,baz=208,slow=39
YNR Norris Junctio 34.52 82 IAmb IAmb 03 34 14.8
comp=Z,66nm,1.2s
VES Vestal, Richgr 34.73 101 IAmb IAmb 03 34 17.3
comp=Z,86nm,1.7s
H17A Grant Village 34.75 82 IAmb IAmb 03 34 17.9
comp=Z,25nm,1.0s
TIXI Tiksi 34.79 329 P P 03 34 13.2 +0.5
comp=Z,7.9nm,0.7s,baz=103,slow=8.4,SNR=23
TIXI PcP PcP 03 36 45.6 0.0
comp=Z,12nm,0.8s,baz=84,slow=3.8,SNR=8.7
TIXI LR LR 03 50 08.1
comp=Z,259nm,18.9s,baz=68,slow=39
comp=Z,7.9nm,0.7s
TIXI Tiksi 34.79 329 *ce*P P 03 34 13.3 +0.5
TIXI pmax pmax
comp=Z,15nm,1.0s
TIXI Tiksi 34.79 329 P P 03 34 12.8 +0.1
TIXI PcP 03 36 45.3 -0.3
TIXI Tiksi 34.79 329 P P 03 34 13.2 +0.5
comp=Z,16nm,1.0s
YMP Mirror Lake Pl 34.82 81 IAmb IAmb 03 34 16.7
comp=Z,32nm,1.0s
HVU Hansel Valley 34.87 88 P P 03 34 14.1 +0.1
HVU pmax pmax
comp=Z,40nm,0.8s
HVU Hansel Valley 34.87 88 P P 03 34 14.1 +0.1
HVU IAmb IAmb 03 34 17.0
comp=Z,40nm,0.8s
CWC Cottonwood Cre 34.94 99 IAmb IAmb 03 34 34.1
comp=Z,8.7nm,0.4s
GRAC Grapevine Rang 35.01 98 IAmb IAmb 03 34 21.4
comp=Z,45nm,1.6s
YSS Yuzhno-Sakhali 35.05 283 *e*P P 03 34 16.4 +1.0
YSS pmax pmax
comp=Z,30nm,1.0s
BLKN Baker Lake 35.10 44 IAmb IAmb 03 34 16.7
comp=Z,19nm,0.7s
SNOW Snow King Moun 35.15 84 P P 03 34 17.4 +0.9
RLMT Red Lodge 35.16 80 IAmb IAmb 03 34 19.4
comp=Z,62nm,1.1s
BGU Big Grassy Mou 35.21 89 IAmb IAmb 03 34 19.9
comp=Z,23nm,0.9s
AHID Auburn Hatcher 35.33 85 IAmb IAmb 03 34 21.1
comp=Z,25nm,1.1s
AHID Auburn Hatcher 35.33 85 P P 03 34 20.1 +2.1
comp=Z,31nm,1.1s
S11A Rachel 35.57 96 IAmb IAmb 03 34 24.5
comp=Z,110nm,2.0s
WCT Wildcat Mounta 35.59 98 P P 03 34 20.8 +0.6
WCT IAmb IAmb 03 34 23.5
comp=Z,41nm,2.0s
FURC Furnace Creek, 35.66 98 IAmb IAmb 03 34 27.2
comp=Z,64nm,1.6s
HWUT Hardware Ranch 35.70 87 IAmb IAmb 03 34 23.9
comp=Z,60nm,2.0s
HWUT Hardware Ranch 35.70 87 P P 03 34 23.1 +1.8
comp=Z,17nm,2.4s
TPNV Topopah Spring 35.71 97 P P 03 34 21.6 +0.3
TPNV pmax pmax
comp=Z,40nm,1.5s
TPNV Topopah Spring 35.71 97 P P 03 34 21.6 +0.3
TPNV IAmb IAmb 03 34 25.5
comp=Z,40nm,1.4s
DUG Dugway, Tooele 35.78 90 P P 03 34 23.9 +2.1
DUG Dugway, Tooele 35.78 90 IAmb IAmb 03 34 24.9
comp=Z,65nm,1.2s
DUG Dugway, Tooele 35.78 90 P P 03 34 23.9 +2.1
comp=Z,51nm,1.0s
CCCA Chr Cany lake 35.98 100 IAmb IAmb 03 34 30.2
comp=Z,49nm,1.7s
TCUT Toone Canyon 36.09 88 P P 03 34 24.8 +0.2
TCUT IAmb IAmb 03 34 27.4
comp=Z,28nm,0.8s
PRN Pahroc Range 36.15 95 IAmb IAmb 03 34 28.2
comp=Z,29nm,1.1s
PSUT Pine Spring 36.16 93 P P 03 34 25.7 +0.5
PSUT IAmb IAmb 03 34 28.0
comp=Z,25nm,0.9s
YAK Yakutsk 36.20 312 P P 03 34 25.2 +0.2
comp=Z,17nm,0.3s,baz=346,slow=4.0,SNR=5.2
YAK LR LR 03 51 09.6
comp=Z,135nm,18.2s,baz=74,slow=39
comp=Z,17nm,0.3s
YAK Yakutsk 36.20 312 *e*P P 03 34 25.3 +0.2
YAK *e**PP sP 03 34 32.2 +0.9
YAK *e*PPP PPP 03 36 04.6
YAK *e* 03 36 49.6
YAK *e*S S 03 40 05.4 +1.7
YAK *e*SS SnSn 03 42 28.0 -1.9
YAK *e* 03 44 43.1
YAK pmax pmax
comp=Z,40nm,0.9s
YAK pmax pmax
comp=E,35nm,1.8s
YAK pmax pmax
comp=N,19nm,1.6s
YAK smax smax
comp=E,1μm,3.6s
YAK smax smax
comp=N,871nm,3.3s
YAK MLR MLR
comp=N,316nm,19.0s
YAK MLR MLR
comp=Z,208nm,21.0s
YAK Yakutsk 36.20 312 P P 03 34 25.1 +0.1
YAK IAmb IAmb 03 34 36.1
comp=Z,36nm,0.8s
BW06 Boulder Array 36.26 84 IAmb IAmb 03 34 28.6
comp=Z,34nm,1.0s
PD31 Pinedale Array 36.26 84 IAmb IAmb 03 34 28.5
comp=Z,34nm,1.0s
PDAR Pinedale Array 36.26 84 P P 03 34 27.4 +1.3
comp=Z,18nm,0.8s,baz=307,slow=4.6,SNR=143
comp=Z,18nm,0.8s
PDAR Pinedale Array 36.26 84 P P 03 34 26.6 +0.5
NLU North Lily Min 36.37 90 IAmb IAmb 03 34 29.8
comp=Z,30nm,0.9s
SHOC Shoshone, Teco 36.39 98 P P 03 34 27.6 +0.7
DGMT Dagmar 36.48 72 IAmb IAmb 03 35 22.0
comp=Z,53nm,1.8s
JKA Kamikawa-asahi 36.63 279 P P 03 34 28.1 -0.7
JKA IAmb IAmb 03 34 34.3
comp=Z,73nm,1.3s
ASAJ Asahikawa 36.63 279 P P 03 34 28.9 +0.1
comp=Z,19nm,0.9s,baz=66,slow=12,SNR=3.8
comp=Z,19nm,0.9s
ASAJ Asahikawa 36.63 279 P P 03 34 28.1 -0.8
ASAJ pmax pmax
comp=Z,73nm,1.3s
BFSC Mount Baldy Ra 36.68 102 P P 03 34 29.8 +0.2
BSUT Blindstream Ca 36.83 88 IAmb IAmb 03 34 34.0
comp=Z,17nm,0.7s
TCRU Three Creeks R 36.97 92 IAmb IAmb 03 34 35.5
comp=Z,27nm,0.8s
ELS Elsinore Mount 37.23 102 P P 03 34 34.5 +0.3
TMUT Trail Mountain 37.30 90 IAmb IAmb 03 34 38.1
comp=Z,42nm,0.8s
P17A Butcher Ranch, 37.48 89 IAmb IAmb 03 34 39.3
comp=Z,33nm,0.9s
LCMT Little Creek M 37.50 94 IAmb IAmb 03 34 39.9
comp=Z,33nm,1.2s
RDMU Red Mountain 37.53 87 IAmb IAmb 03 34 39.6
comp=Z,58nm,0.8s
Q16A Castle Valley 37.56 90 P P 03 34 37.2 +0.1
Q16A IAmb IAmb 03 34 40.4
comp=Z,50nm,1.0s
P18A Preston Nutter 37.69 89 IAmb IAmb 03 34 41.4
comp=Z,54nm,1.0s
DNR Dunn Ranch,Anz 37.76 102 IAmb IAmb 03 35 49.4
comp=Z,20nm,0.3s

PKCU Pink Cliffs 37.79 93 IAmb IAmb 03 34 46.3
comp=Z,50nm,1.4s
PFO Pinyon Flats O 37.83 101 LR LR 03 46 21.9
comp=Z,134nm,21.1s,baz=293,slow=30
PFO Pinyon Flats O 37.83 101 P P 03 34 39.6 +0.2
PFO pmax pmax
comp=Z,8.0nm,1.2s
PFO Pinyon Flats O 37.83 101 P P 03 34 39.6 +0.2
PFO Pinyon Flats O 37.83 101 P P 03 34 41.1 +1.8
comp=Z,7.4nm,1.3s
SRU San Rafael Swe 37.84 89 IAmb IAmb 03 34 42.5
comp=Z,64nm,1.3s
K22A Casper 38.17 82 P P 03 34 42.4 +0.2
K22A IAmb IAmb 03 34 44.1
comp=Z,48nm,1.0s
W13A Hualapai Mount 38.37 97 IAmb IAmb 03 34 46.8
comp=Z,54nm,1.8s
HMU Henry Mountain 38.44 91 IAmb IAmb 03 34 47.6
comp=Z,60nm,0.8s
U15A North Rim 38.46 94 P P 03 34 44.1 -0.7
U15A IAmb IAmb 03 34 48.1
comp=Z,32nm,1.0s
O20A White River Ci 38.60 86 IAmb IAmb 03 34 48.3
comp=Z,61nm,0.8s
YUH Yuha Desert 38.83 102 P P 03 34 48.3 +0.7
RSSD Black Hills 38.84 78 P P 03 34 48.0 +0.1
RSSD pmax pmax
comp=Z,30nm,0.8s
RSSD Black Hills 38.84 78 P P 03 34 48.0 +0.1
RSSD IAmb IAmb 03 34 49.7
comp=Z,30nm,0.8s
RSSD Black Hills 38.84 78 P P 03 34 48.9 +1.0
comp=Z,40nm,1.1s
HAYD Hayden 38.97 85 IAmb IAmb 03 34 51.4
comp=Z,33nm,0.9s
PV21 Cone Mtn., Par 39.12 89 IAmb IAmb 03 34 52.4
comp=Z,50nm,0.6s
PV23 Carpenter Ridg 39.17 89 P P 03 34 51.0 +0.2
PV23 IAmb IAmb 03 34 53.0
comp=Z,125nm,1.4s
PV10 Paradox Valley 39.20 89 IAmb IAmb 03 34 53.7
comp=Z,86nm,0.9s
PV14 Lion Creek, Pa 39.21 89 IAmb IAmb 03 34 53.2
comp=Z,152nm,1.5s
PV22 Blue Mesa, Par 39.26 89 IAmb IAmb 03 34 53.5
comp=Z,62nm,0.8s
PV20 West Nyswonger 39.27 89 IAmb IAmb 03 34 53.6
comp=Z,91nm,1.2s
PV04 Paradox Valley 39.27 89 P P 03 34 51.7 +0.2
PV04 IAmb IAmb 03 34 53.7
comp=Z,72nm,0.8s
PV17 East Wray Mesa 39.31 89 IAmb IAmb 03 34 54.0
comp=Z,97nm,0.8s
PV16 Nyswonger Mesa 39.32 89 IAmb IAmb 03 34 54.1
comp=Z,99nm,1.1s
PV05 Paradox Valley 39.35 90 IAmb IAmb 03 34 54.6
comp=Z,78nm,1.1s
PV11 David Mesa, Pa 39.35 89 IAmb IAmb 03 34 55.8
comp=Z,100nm,0.7s
PV18 Skein Mesa, Pa 39.36 89 P P 03 34 52.8 +0.5
PV18 IAmb IAmb 03 34 54.5
comp=Z,97nm,0.8s
PV12 Saucer Basin, 39.38 89 IAmb IAmb 03 34 54.7
comp=Z,69nm,0.8s
PV03 Paradox Valley 39.40 89 IAmb IAmb 03 34 54.7
comp=Z,95nm,0.9s
PV07 Paradox Valley 39.40 89 IAmb IAmb 03 34 54.7
comp=Z,66nm,0.8s
MDND Maddock 39.46 71 P P 03 34 53.3 +0.6
MDND IAmb IAmb 03 34 54.5
comp=Z,60nm,0.9s
PV15 Paradox Valley 39.56 89 IAmb IAmb 03 34 56.1
comp=Z,90nm,1.0s
WUAZ Wupatki 39.62 95 IAmb IAmb 03 34 57.6
comp=Z,43nm,1.3s
MVCO Mesa Verde 40.27 90 P P 03 35 01.1 +1.3
comp=Z,24nm,1.4s
KLR Kul'dur 40.31 293 P P 03 34 59.9 +0.1
comp=Z,4.1nm,0.5s,baz=64,slow=6.4,SNR=15
KLR PcP PcP 03 37 02.0 -0.9
comp=Z,1.3nm,0.4s,baz=68,slow=5.4,SNR=2.1
KLR LR LR 03 53 26.3
comp=Z,62nm,18.8s,baz=74,slow=39
comp=Z,4.1nm,0.5s
KLR Kul'dur 40.31 293 *ce*P P 03 34 58.8 -1.0
KLR pmax pmax
comp=Z,4.0nm,0.6s
ULM Lac du Bonnet 40.36 66 P P 03 35 00.1 -0.1
comp=Z,15nm,0.8s,baz=302,slow=7.5,SNR=23
comp=Z,15nm,0.8s
ULM Lac du Bonnet 40.36 66 P P 03 34 59.7 -0.4
ULM pmax pmax
comp=Z,22nm,1.1s
ULM Lac du Bonnet 40.36 66 P P 03 34 59.7 -0.4
H11N2 WAKE ISLAND Hy 40.39 228 T T 04 18 08.2
baz=28
H11N3 WAKE ISLAND Hy 40.40 228 T T 04 18 06.6
baz=28
H11N1 WAKE ISLAND Hy 40.41 228 T T 04 18 09.9
baz=28
ISCO Idaho Springs 40.41 85 P P 03 35 00.8 -0.3
ISCO pmax pmax
comp=Z,12nm,1.1s
ISCO Idaho Springs 40.41 85 P P 03 35 00.8 -0.3
ZEA Zeya 40.57 301 *e*P P 03 35 02.2 +0.4
ZEA pmax pmax
comp=E,10.0nm,0.5s
ZEA pmax pmax
comp=N,10.0nm,0.4s
ZEA pmax pmax
comp=Z,20nm,0.3s
X18A Snowflake 41.15 95 P P 03 35 07.6 +0.5
Q24A Divide 41.21 86 P P 03 35 08.0 +0.3
AGMN Agassiz Nation 41.37 68 P P 03 35 08.8 +0.3
AGMN Agassiz Nation 41.37 68 P P 03 35 08.1 -0.4
H11S1 WAKE ISLAND Hy 41.55 227 T T 04 19 36.1
baz=29,slow=74
H11S2 WAKE ISLAND Hy 41.56 227 T T 04 19 32.8
baz=29
H11S3 WAKE ISLAND Hy 41.57 227 T T 04 19 35.4
baz=29,slow=74
SDCO Great Sand Dun 41.76 87 IAmb IAmb 03 35 15.0
comp=Z,54nm,1.3s
OGNE Ogallala 41.89 81 P P 03 35 13.2 +0.3
OGNE IAmb IAmb 03 35 15.3
comp=Z,67nm,0.9s
TUC Tucson 42.16 98 P P 03 35 16.3 +1.0
TUC pmax pmax
comp=Z,11nm,1.1s
TUC Tucson 42.16 98 P P 03 35 16.3 +1.0
TUC Tucson 42.16 98 P P 03 35 17.2 +1.9
comp=Z,12nm,1.7s
HEH HeiHe 42.20 296 *e*P P 03 35 14.8 -0.5
HEH pmax pmax
comp=Z,20nm,1.0s
KSCO Kaye Shedlock' 42.72 84 P P 03 35 19.8 0.0
T25A Trinidad 42.82 87 IAmb IAmb 03 35 23.6
comp=Z,91nm,1.0s
USRK Ussuriysk Ar. 42.91 286 P P 03 35 21.0 -0.1
comp=Z,3.8nm,0.6s,baz=51,slow=8.5,SNR=6.2
comp=Z,3.8nm,0.6s
USRK Ussuriysk Ar. 42.91 286 P P 03 35 21.0 -0.1
ANMO Albuquerque 43.00 91 LR LR 03 50 07.5
comp=Z,106nm,19.0s,baz=324,slow=32
ANMO Albuquerque 43.00 91 P P 03 35 22.5 +0.3
ANMO pmax pmax
comp=Z,11nm,1.0s
ANMO Albuquerque 43.00 91 P P 03 35 22.5 +0.3
ANMO Albuquerque 43.00 91 P P 03 35 23.7 +1.5
comp=Z,18nm,1.8s
ALQ Albuquerque 43.00 91 IAmb IAmb 03 35 24.7
comp=Z,15nm,1.0s
DUN6 Lazy B Ranch 43.02 96 IAmb IAmb 03 35 25.3
comp=Z,74nm,1.5s
LENM Lemitar 43.21 92 P P 03 35 24.4 +0.5
Y22A Socorro 43.37 93 IAmb IAmb 03 35 28.5
comp=Z,42nm,1.1s
NEEM North Greenlan 43.69 17 *i* P P 03 35 28.1 +0.8
NEEM IAmb IAmb 03 35 29.1
comp=Z,35nm,0.8s
MAJO Matsushiro 43.86 273 *i* P P 03 35 29.9 +1.0
MAJO pmax pmax
comp=Z,32nm,1.3s
MAJO Matsushiro 43.86 273 P P 03 35 30.6 +0.3
MAJO IAmb IAmb 03 35 30.6
comp=Z,125nm,1.7s
MAJO Matsushiro 43.86 273 P P 03 35 30.0 +1.0
comp=Z,46nm,1.3s
MJAR Matsushiro Arr 43.86 273 P P 03 35 29.6 +0.7
comp=Z,7.9nm,0.6s,baz=41,slow=6.8,SNR=16
comp=Z,7.9nm,0.6s
MJAR Matsushiro Arr 43.86 273 P P 03 35 29.2 +0.3
MJAR pmax pmax
comp=Z,36nm,1.7s
MJAR Matsushiro Arr 43.86 273 P P 03 35 29.2 +0.3
MJB9 Matsu-Tunnel 43.86 273 P P 03 35 29.9 +1.0
MJB9 IAmb IAmb 03 35 31.5
comp=Z,110nm,1.6s
EYMN Ely 44.02 66 P P 03 35 30.0 0.0
L34A Svendsen Farm, 44.66 76 IAmb IAmb 03 35 37.0
comp=Z,66nm,1.1s
BNX BinXian 44.68 291 ⇑P P 03 35 35.6 +0.3
BNX pmax pmax
comp=Z,16nm,0.8s
NOR Nord 44.91 7 P P 03 35 37.8 +1.0
comp=Z,28nm,1.3s
NOR Nord 44.91 7 *i* P P 03 35 37.7 +1.0
NOR IAmb IAmb 03 35 38.9
comp=Z,22nm,1.0s
BOD Bodaibo 45.10 311 *e*P P 03 35 38.4 -0.1
BOD pmax pmax
comp=Z,67nm,0.9s
EPT El Paso 45.14 95 IAmb IAmb 03 35 41.8
comp=Z,19nm,0.9s
I37A Lemond, Waseca 45.18 72 P P 03 35 39.9 +0.5
MNTX Cornudas Mount 45.87 94 P P 03 35 46.7 +1.7
comp=Z,23nm,1.1s
G40A Rib Lake 46.28 69 IAmb IAmb 03 35 48.5
comp=Z,22nm,1.1s
KSU1 Kansas State U 46.30 79 IAmb IAmb 03 35 49.4
comp=Z,29nm,0.9s
TPB28 46.43 93 P P 03 35 50.1 +0.6
TPB28 IAmb IAmb 03 35 52.7
comp=Z,29nm,1.1s
TPB11 China Draw 46.53 92 IAmb IAmb 03 35 52.9
comp=Z,50nm,1.0s
HILR Hailar Array B 46.73 299 P P 03 35 52.0 +0.5
comp=Z,2.6nm,0.5s,baz=42,slow=6.8,SNR=3.7
comp=Z,2.6nm,0.5s
VHRN Van Horn 46.75 94 IAmb IAmb 03 35 55.1
comp=Z,32nm,1.3s
KAN01 Argonia South 46.86 82 IAmb IAmb 03 35 53.8
comp=Z,35nm,0.8s
I40A Norwalk 46.87 70 IAmb IAmb 03 35 52.5
comp=Z,10nm,0.7s
CN2 Changchun 46.95 290 *e*P P 03 35 53.6 +0.4
CN2 pmax pmax
comp=Z,10.0nm,0.8s
PECS Pecos 47.03 93 IAmb IAmb 03 35 57.5
comp=Z,47nm,1.2s
F42A Maple Grove Fa 47.16 67 IAmb IAmb 03 35 55.8
comp=Z,34nm,1.0s
N38A Joes South For 47.24 75 IAmb IAmb 03 35 56.4
comp=Z,53nm,1.2s
ODSA Odessa 47.31 91 IAmb IAmb 03 35 58.9
comp=Z,24nm,0.9s
129A Stewart Farms, 47.38 90 IAmb IAmb 03 35 58.7
comp=Z,43nm,0.9s
TPB01 Permian Basin 47.38 93 IAmb IAmb 03 35 59.2
comp=Z,27nm,1.0s
TPB05 Hovey Rd 47.67 93 IAmb IAmb 03 36 01.5
comp=Z,22nm,1.0s
MNHN Monahans 47.72 92 IAmb IAmb 03 36 01.3
comp=Z,21nm,1.0s
WMOK Wichita Mounta 47.83 85 P P 03 36 01.3 +1.0
comp=Z,153nm,0.9s
I42A Draeger Farm, 47.85 69 IAmb IAmb 03 36 00.2
comp=Z,17nm,0.6s
ALPN Alpine 47.87 94 IAmb IAmb 03 36 02.9
comp=Z,17nm,1.0s
229A Bryant Ranch, 47.87 90 IAmb IAmb 03 36 02.9
comp=Z,72nm,1.9s
TMB01 Midkiff 47.91 91 IAmb IAmb 03 36 03.0
comp=Z,20nm,0.9s
NRIK Noril'sk 48.24 333 P P 03 36 04.1 +1.2
comp=Z,56nm,0.9s,baz=57,slow=6.8,SNR=26
comp=Z,56nm,0.9s
NRIK Noril'sk 48.24 333 *i* P P 03 36 04.2 +1.2
NRIK pmax pmax
comp=Z,88nm,1.1s
NRIK Noril'sk 48.24 333 P P 03 36 03.3 +0.4
LPIG La Paz 48.44 105 LR LR 03 51 50.8
comp=Z,50nm,18.4s,baz=325,slow=30
L42A Oliver, Polo 48.58 72 IAmb IAmb 03 36 07.6
comp=Z,29nm,1.3s
TX31 Lajitas Ar. Si 48.59 95 IAmb IAmb 03 36 08.7
comp=Z,36nm,1.1s
TXAR Lajitas Array 48.59 95 P P 03 36 07.5 +1.2
comp=Z,12nm,0.8s,baz=300,slow=5.8,SNR=130
TXAR PcP PcP 03 37 31.9 +0.2
comp=Z,4.1nm,0.7s,baz=281,slow=1.3,SNR=4.8
comp=Z,12nm,0.8s
TXAR Lajitas Array 48.59 95 P P 03 36 06.5 +0.3
TXAR PcP 03 37 31.8 +0.1
K43A Burlington 48.91 70 IAmb IAmb 03 36 08.4
comp=Z,28nm,0.9s
E46A Sault Ste Mari 48.92 64 IAmb IAmb 03 36 09.3
comp=Z,17nm,0.8s
DAG Danmarks Havn 48.99 10 P P 03 36 09.0 +0.4
DAG Danmarks Havn 48.99 10 P P 03 36 09.4 +0.9
DAG Danmarks Havn 48.99 10 *i* P P 03 36 08.7 +0.1
DAG IAmb IAmb 03 36 09.7
comp=Z,28nm,0.7s
OZNA Ozona 49.01 91 IAmb IAmb 03 36 11.1
comp=Z,54nm,1.4s
SAND Sanderson 49.09 93 IAmb IAmb 03 36 12.1
comp=Z,16nm,1.1s
HPIG 49.11 98 P P 03 36 11.9 +1.5
S39A Bolivar 49.18 79 IAmb IAmb 03 36 10.1
comp=Z,34nm,1.1s
SUMG Summit 49.37 19 P P 03 36 12.0 0.0
SUMG pmax pmax
comp=Z,87nm,1.2s
SUMG Summit 49.37 19 P P 03 36 12.0 0.0
SUMG Summit 49.37 19 P P 03 36 13.8 +1.8
comp=Z,65nm,1.1s
SUMG Summit 49.37 19 *i* P P 03 36 13.7 +1.7
SUMG IAmb IAmb 03 36 15.4
comp=Z,58nm,1.0s
R40A Maddies Statio 49.42 77 IAmb IAmb 03 36 12.6
comp=Z,27nm,1.0s
KSRS Korea Array 49.50 281 P P 03 36 14.3 +1.3
comp=Z,18nm,0.8s,baz=53,slow=7.2,SNR=33
KSRS PcP PcP 03 37 35.8 +1.0
comp=Z,1.9nm,0.8s,baz=59,slow=3.7,SNR=4.2
comp=Z,18nm,0.8s
KSAR Wonju Array Be 49.53 281 P P 03 36 13.1 -0.1
KSAR Wonju Array Be 49.53 281 P P 03 36 13.1 -0.1
SPA0 Spitsbergen Ar 49.59 0 *e*P P 03 36 13.6 +0.3
SPITS Spitsbergen Ar 49.59 0 P P 03 36 13.8 +0.6
comp=Z,10.0nm,0.7s,baz=58,slow=6.2,SNR=8.2
comp=Z,10.0nm,0.7s
HHAR Hobbs 49.74 80 IAmb IAmb 03 36 15.2
comp=Z,34nm,0.9s
SFJD Kangerlussuaq 50.37 28 *i* P P 03 36 20.5 +1.3
SFJD IAmb IAmb 03 36 21.9
comp=Z,228nm,1.3s
SLM Saint Louis 50.40 76 IAmb IAmb 03 36 20.3
comp=Z,53nm,0.9s
FVM French Village 50.72 76 IAmb IAmb 03 36 22.4
comp=Z,36nm,1.0s
T42A Van Buren 50.95 78 IAmb IAmb 03 36 22.9
comp=Z,18nm,0.8s
DBG Daneborg 50.98 12 P P 03 36 24.2 +0.5
DBG Daneborg 50.98 12 *i* P P 03 36 24.3 +0.6
DBG IAmb IAmb 03 36 25.6
comp=Z,22nm,0.8s
SFIN Lafayette 51.11 72 IAmb IAmb 03 36 25.8
comp=Z,53nm,1.3s
MIAR Mount Ida 51.12 82 P P 03 36 25.8 +0.5
comp=Z,73nm,1.0s
HNDO Hondo 51.13 91 IAmb IAmb 03 36 26.4
comp=Z,22nm,0.9s
PBMO Poplar Bluff 51.51 77 IAmb IAmb 03 36 28.7
comp=Z,29nm,1.1s
P46A Rosedale 51.54 73 IAmb IAmb 03 36 28.9
comp=Z,60nm,1.3s
N47A Urbana 51.59 70 IAmb IAmb 03 36 28.6
comp=Z,49nm,1.2s
S44A Carbondale 51.60 76 IAmb IAmb 03 36 28.9
comp=Z,29nm,0.9s
CGM3 Cape Girardeau 51.63 76 IAmb IAmb 03 36 28.8
comp=Z,104nm,1.8s
UALR University of 51.71 81 IAmb IAmb 03 36 30.3

comp=Z,24nm,1.1s
NUUK Nuuk 51.97 31 *i* P **P** **03 36 32.8 +1.6**
XLT XiLinHaoTe 52.18 295 *eP* **P** **03 36 34.4 +1.1**
XLT sP pwP 03 36 47.1 +2.6
XLT pmax pmax
comp=Z,23nm,1.1s
DL2 Dalian 52.27 287 P **P** **03 36 34.7 +0.8**
DL2 pmax pmax
comp=Z,65nm,0.7s
O48B Farmland 52.31 71 IAmb IAmb 03 36 34.0
comp=Z,77nm,1.5s
SCHQ Schefferville 52.41 47 P **P** **03 36 33.9 -0.8**
comp=Z,6.9nm,0.7s,baz=305,slow=6.9,SNR=5.0
comp=Z,6.9nm,0.7s
SCHQ Schefferville 52.41 47 IAmb IAmb 03 38 05.5
comp=Z,91nm,1.7s
N49A Columbus Grove 52.44 69 IAmb IAmb 03 36 35.5
comp=Z,45nm,1.4s
P48A Milroy 52.68 72 IAmb IAmb 03 37 54.3
comp=Z,61nm,1.9s
SADO Sadowa 52.75 63 LR LR 03 57 08.3
comp=Z,108nm,18.3s,baz=6.0,slow=34
O49A Covington 52.83 70 IAmb IAmb 03 36 37.0
comp=Z,43nm,1.4s
HKT Hockley 52.94 88 P **P** **03 36 39.4 +0.6**
HKT pmax pmax
comp=Z,136nm,1.4s
HKT Hockley 52.94 88 P **P** **03 36 39.4 +0.6**
HKT Hockley 52.94 88 P **P** **03 36 40.3 +1.6**
comp=Z,70nm,1.3s
WCI Wyandotte Cave 52.99 73 P **P** **03 36 38.8 -0.4**
WCI pmax pmax
comp=Z,13nm,0.8s
WCI Wyandotte Cave 52.99 73 P **P** **03 36 38.8 -0.4**
N51A Ashland 53.47 68 IAmb IAmb 03 36 43.1
comp=Z,61nm,1.4s
WVT Waverly 53.50 76 P **P** **03 36 42.3 -0.6**
WVT pmax pmax
comp=Z,72nm,0.9s
WVT Waverly 53.50 76 P **P** **03 36 42.3 -0.6**
WVT Waverly 53.50 76 P **P** **03 36 42.9 -0.1**
comp=Z,105nm,1.5s
TLY Talaya 53.56 309 *ce*P **P** **03 36 44.1 +0.9**
TLY pmax pmax
comp=Z,10.0nm,0.6s
TLY Talaya 53.56 309 P **P** **03 36 43.0 -0.3**
TLY IAmb IAmb 03 36 45.4
comp=Z,33nm,1.2s
TLY Talaya 53.56 309 P **P** **03 36 44.2 +1.0**
comp=Z,22nm,0.9s
ACSO Alum Creek Sta 53.58 69 IAmb IAmb 03 36 43.7
comp=Z,37nm,1.4s
P51A Williamsport 54.03 70 IAmb IAmb 03 36 47.3
comp=Z,44nm,1.3s
ZAIG Zacatecas 54.08 99 P **P** **03 36 48.3 +0.6**
comp=Z,9.5nm,1.0s
SCO Scoresbysund 54.10 15 *i* P **P** **03 36 48.0 +1.2**
SCO IAmb IAmb 03 36 48.8
comp=Z,15nm,0.8s
R50A Paris 54.10 72 IAmb IAmb 03 36 47.6
comp=Z,26nm,1.1s
O52A Adamsville 54.31 69 IAmb IAmb 03 36 48.8
comp=Z,39nm,1.1s
V48A Smith Brothers 54.36 76 IAmb IAmb 03 36 49.5
comp=Z,22nm,0.9s
ULN Ulaanbaatar 54.39 304 *ce*P **P** **03 36 50.4 +0.9**
ULN pmax pmax
comp=Z,16nm,0.8s
ULN Ulaanbaatar 54.39 304 P **P** **03 36 49.1 -0.5**
ULN IAmb IAmb 03 36 51.2
comp=Z,14nm,0.8s
ULN Ulaanbaatar 54.39 304 P **P** **03 36 50.3 +0.8**
ULN Ulaanbaatar 54.39 304 P **P** **03 36 50.5 +0.9**
comp=Z,25nm,0.8s
CLTN Cedars of Leba 54.41 75 IAmb IAmb 03 36 50.3
comp=Z,34nm,1.2s
N53A Lisbon 54.41 67 IAmb IAmb 03 36 49.4
comp=Z,23nm,1.1s
U49A Red Boiling Sp 54.45 75 IAmb IAmb 03 36 50.2
comp=Z,25nm,1.0s
ZAK Zakamensk 54.59 308 *eP* **P** **03 36 51.0 +0.2**
ZAK pmax pmax
comp=Z,7.0nm,1.6s
T50A Nancy 54.66 73 IAmb IAmb 03 36 51.8
comp=Z,30nm,1.0s
SONM Songino Array 54.74 304 P **P** **03 36 53.1 +1.0**
comp=Z,8.3nm,0.9s,baz=66,slow=7.1,SNR=29
SONM PcP **PcP** **03 37 55.2 +0.8**
comp=Z,8.8nm,0.8s,baz=90,slow=2.4,SNR=10
comp=Z,8.3nm,0.9s
SONM Songino Array 54.74 304 P **P** **03 36 52.2 +0.2**
SONM **PcP** **03 37 54.6 +0.1**
MOY Mondy 54.81 311 *eP* **P** **03 36 53.2 +0.8**
S51A Beattyville 54.97 72 IAmb IAmb 03 36 53.7
comp=Z,24nm,0.9s
O54A Avella 55.09 68 IAmb IAmb 03 36 54.4
comp=Z,39nm,1.2s
X48A Hartselle 55.11 77 IAmb IAmb 03 36 54.4
comp=Z,29nm,0.8s
SWET Sewanee 55.25 76 IAmb IAmb 03 36 55.3
comp=Z,17nm,0.8s
L56A Greenwood 55.35 64 IAmb IAmb 03 36 56.5
comp=Z,34nm,0.8s
JMIC Jan Mayen 55.43 10 LR LR 04 02 37.2
comp=Z,66nm,19.5s,baz=295,slow=38
TZTN Tazewell 55.74 73 IAmb IAmb 03 36 59.5
comp=Z,43nm,1.1s
TZTN Tazewell 55.74 73 P **P** **03 36 59.0 -0.2**
comp=Z,44nm,1.0s
MCWV Mont Chateau 55.75 68 IAmb IAmb 03 36 59.4
comp=Z,52nm,1.3s
Y49A Blount Mountai 55.90 77 IAmb IAmb 03 37 00.1
comp=Z,48nm,1.0s
CPCT Cooper Cave 55.92 75 IAmb IAmb 03 37 00.3
comp=Z,20nm,1.1s
LRAL Lakeview Retre 56.13 78 IAmb IAmb 03 37 01.7
comp=Z,22nm,0.8s
SSPA Standing Stone 56.19 66 P **P** **03 37 02.0 -0.3**
SSPA IAmb IAmb 03 37 02.5
comp=Z,48nm,1.1s
SSPA Standing Stone 56.19 66 P **P** **03 37 01.5 -0.9**
comp=Z,60nm,2.4s
TKL Tuckaleechee C 56.22 74 IAmb IAmb 03 37 02.5
comp=Z,31nm,1.2s
W52A Murphy 56.52 75 IAmb IAmb 03 37 04.2
comp=Z,18nm,0.8s
N58A Sunbury 56.70 65 IAmb IAmb 03 37 05.9
comp=Z,41nm,1.1s
HHC Hu-ho-hao-te 56.71 295 *eP* **P** **03 37 07.8 +1.6**
HHC pmax pmax
comp=Z,22nm,1.0s
HHC pmax pmax
comp=Z,280nm,5.5s
U54A Nelsons Funny 56.76 72 IAmb IAmb 03 37 07.1
comp=Z,33nm,0.9s
V53A Saluda 56.77 73 IAmb IAmb 03 37 07.0
comp=Z,49nm,1.2s
P57A Homestead Farm 56.90 67 IAmb IAmb 03 37 07.7
comp=Z,31nm,0.9s
G62A West of Eustis 57.01 57 IAmb IAmb 03 37 08.5
comp=Z,26nm,1.2s
BLA Blacksburg 57.10 70 IAmb IAmb 03 37 09.4
comp=Z,69nm,1.4s
KNGR Kungurtug, Tuv 57.13 312 *i* P **P** **03 37 08.2 -0.9**
KNGR pmax pmax
comp=Z,30nm,1.2s
BG3 Lake Jocassee 57.17 74 IAmb IAmb 03 37 09.5
comp=Z,56nm,1.3s
Y52A Lilburn 57.30 76 IAmb IAmb 03 37 10.1
comp=Z,22nm,0.8s
HNS HongShan 57.30 290 ⇓P **P** **03 37 11.7 +1.4**
HNS pmax pmax
comp=Z,34nm,0.9s
VADS Vadso 57.39 355 *eP* **P** **03 37 11.1 +0.7**
MVL Millersville 57.48 65 IAmb IAmb 03 37 11.4
comp=Z,25nm,1.1s
S57A Dark Hollow, R 57.56 69 IAmb IAmb 03 38 14.2
comp=Z,72nm,1.9s
V55A Taylorsville 57.58 72 IAmb IAmb 03 37 12.5
comp=Z,24nm,0.9s
U56A King 57.72 71 IAmb IAmb 03 37 13.4
comp=Z,27nm,1.0s
152A Waverly Hall 57.74 77 IAmb IAmb 03 37 12.5
comp=Z,42nm,0.8s
PAULI Pauline 57.95 73 IAmb IAmb 03 37 14.4
comp=Z,16nm,0.9s
GOGA Godfrey 57.97 76 IAmb IAmb 03 37 14.3
comp=Z,37nm,0.9s
GOGA Godfrey 57.97 76 P **P** **03 37 13.9 -1.2**
comp=Z,48nm,0.9s
KMSC Kings Mountain 58.01 73 IAmb IAmb 03 37 15.1
comp=Z,24nm,0.8s
R58B Mineral 58.03 68 IAmb IAmb 03 37 15.9
comp=Z,16nm,0.9s
HODGE Hodges 58.10 74 IAmb IAmb 03 37 15.2
comp=Z,14nm,0.9s
ARA0 ARCESS Array S 58.14 357 *eP* **P** **03 37 15.8 0.0**
ARCES ARCESS Array B 58.14 357 P **P** **03 37 15.8 +0.1**
comp=Z,12nm,0.7s,baz=12,slow=7.0,SNR=20
ARCES LR LR 04 03 54.5
comp=Z,106nm,18.7s,baz=314,slow=38
comp=Z,12nm,0.7s
ARCES ARCESS Array B 58.14 357 P **P** **03 37 15.7 -0.1**
ARCES pmax pmax
comp=Z,34nm,1.3s
ARCES ARCESS Array B 58.14 357 P **P** **03 37 15.7 -0.1**
ARCES IAmb IAmb 03 37 17.3
comp=Z,34nm,1.3s
CBN Corbin Frederi 58.15 68 IAmb IAmb 03 37 16.5
comp=Z,27nm,0.9s
TRO Tromso 58.18 359 *eP* **P** **03 37 16.6 +0.6**
JETT Jettan, Norway 58.25 359 *eP* **P** **03 37 17.1 +0.6**
WES Weston 58.56 60 IAmb IAmb 03 37 19.8
comp=Z,38nm,0.9s
NJ2 Nanjing 58.62 283 ⇑P **P** **03 37 20.2 +0.6**
NJ2 pmax pmax
comp=Z,29nm,0.7s
JSC Jenkinsville 58.65 73 IAmb IAmb 03 37 19.7
comp=Z,42nm,1.2s
KTK1 Kautokeino 58.74 358 *eP* **P** **03 37 19.9 0.0**
V58A Windy Hill, Pi 58.84 71 IAmb IAmb 03 37 21.3
comp=Z,33nm,1.1s
BIRD Birdtown, Kers 58.86 73 IAmb IAmb 03 37 21.2
comp=Z,32nm,1.3s
T59A Double "B" Far 58.91 69 IAmb IAmb 03 37 22.1
comp=Z,30nm,0.9s
LVZ Lovozero 59.24 353 *ce*P **P** **03 37 24.7 +1.2**
LVZ pmax pmax
comp=Z,83nm,1.0s
LVZ Lovozero 59.24 353 P **P** **03 37 23.5 0.0**
LVZ Lovozero 59.24 353 P **P** **03 37 24.0 +0.5**
comp=Z,98nm,0.9s
BORG Borgarnes 59.32 18 LR LR 04 03 22.5
comp=Z,85nm,21.9s,baz=298,slow=36
Y57A Sumter 59.35 73 IAmb IAmb 03 37 24.5
comp=Z,37nm,0.9s
APA Apatity 59.66 353 *eP* **P** **03 37 23.9 -2.4**
APA *e* 03 38 09.2
APA *e* 03 39 37.1
APA pmax pmax
comp=Z,15nm,0.9s
STEI Steigen 59.89 1 *eP* **P** **03 37 28.1 +0.2**
ZAA0 Zalesovo Array 60.05 321 P **P** **03 37 29.5 +0.3**
ZALV Zalesovo Beam 60.05 321 P **P** **03 37 29.9 +0.7**
comp=Z,7.8nm,0.7s,baz=36,slow=6.4,SNR=30
ZALV PcP **PcP** **03 38 15.4 +0.4**
comp=Z,8.4nm,0.7s,baz=37,slow=3.9,SNR=8.8
comp=Z,7.8nm,0.7s
ZALV Zalesovo Beam 60.05 321 P **P** **03 37 30.0 +0.8**
ZALV **PcP** **03 38 15.1 +0.2**
FAUS Fauske 60.44 1 *eP* **P** **03 37 32.0 +0.4**
LYN LuoYang 60.60 289 P **P** **03 37 34.3 +1.1**
LYN pmax pmax
comp=Z,50nm,0.8s
RAUS Rausandaksla 61.37 2 *eP* **P** **03 37 38.6 +0.6**
LEIR Leirfjorden 61.68 2 *eP* **P** **03 37 39.4 -0.6**
DGZ Jazzator, Alta 62.23 316 *i* P **P** **03 37 45.1 +0.9**
DGZ pmax pmax
comp=Z,23nm,1.0s
WHN Wuhan 62.38 285 P **P** **03 37 46.7 +1.4**
OUL Oulu 62.58 356 P **P** **03 37 46.6 +0.5**
OUL Oulu 62.58 356 P **P** **03 37 46.3 +0.3**
ADZR Andozero 62.78 350 *eP* **P** **03 37 46.2 -1.3**
ADZR pmax pmax
comp=Z,40nm,0.6s
DWPF Disney Wildern 62.99 78 P **P** **03 37 48.7 -0.7**
XAN Xi'an 63.00 291 P **P** **03 37 50.1 +0.6**
XAN sP pwP 03 38 04.1 +3.4
XAN pmax pmax
comp=Z,30nm,0.9s
NSS Namsos 63.24 3 *eP* **P** **03 37 50.5 0.0**
GTA2 Gaotai 64.03 301 P **P** **03 37 56.8 +0.5**
GTA2 pP pP 03 37 59.8 -1.2
GTA2 pmax pmax
comp=Z,35nm,1.1s
TAOE Nuku Hiva Isla 64.05 155 *e*LR LR 03 56 56.4
comp=Z,415nm,30.5s
LZH Lanzhou 64.34 296 *eP* **P** **03 37 59.7 +1.2**
LZH pP sP 03 38 03.4 -1.5
LZH pmax pmax
comp=Z,78nm,1.1s
LZDM Lanzhou Array 64.52 296 P **P** **03 38 00.9 +1.1**
comp=Z,9.3nm,0.5s,baz=350,slow=1.8,SNR=7.8
comp=Z,9.3nm,0.5s
KURK Kurchatov 64.95 322 *ce*P **P** **03 38 02.7 +0.7**
KURK pmax pmax
comp=Z,33nm,1.0s
KURK Kurchatov 64.95 322 P **P** **03 38 02.1 +0.2**
KURK IAmb IAmb 03 38 04.5
comp=Z,26nm,1.0s
KURK Kurchatov 64.95 322 P **P** **03 38 03.0 +1.0**
comp=Z,34nm,1.2s
CNSH ChangSha 64.95 284 P **P** **03 38 02.6 +0.3**
CNSH pmax pmax
comp=Z,39nm,0.8s
MOL Molde 65.02 5 *eP* **P** **03 38 01.7 -0.4**
ZSN Zaisan 65.05 316 *eP* **P** **03 38 03.8 +1.1**
ZSN pmax pmax
comp=Z,16nm,0.7s
ZSN Zaisan 65.05 316 *eP* **P** **03 38 03.8 +1.1**
comp=Z,16nm,0.7s
KURBB Kurchatov Arra 65.06 322 P **P** **03 38 03.5 +0.8**
comp=Z,17nm,0.9s,baz=43,slow=6.9,SNR=66
comp=Z,17nm,0.9s
KURBB Kurchatov Arra 65.06 322 P **P** **03 38 02.8 +0.1**
AKN Aaknes 65.38 5 *eP* **P** **03 38 05.2 +0.6**
SVE Sverdlovsk 65.42 336 *eP* **P** **03 38 06.1 +1.2**
SVE pmax pmax
comp=Z,28nm,0.7s
ENH Enshi 65.43 288 P **P** **03 38 06.1 +0.6**
comp=Z,53nm,1.0s
DOMB Dombas 65.62 4 *eP* **P** **03 38 06.6 +0.5**
KLMR Klimovskoe 65.63 348 *eP* **P** **03 38 04.2 -2.0**
KLMR pmax pmax
comp=Z,51nm,1.4s
BVAR Borovoye Array 65.92 328 P **P** **03 38 09.3 +1.1**
comp=Z,27nm,0.7s,baz=42,slow=6.9,SNR=76
comp=Z,27nm,0.7s
BVA2 Borovoye Array 65.92 328 P **P** **03 38 08.7 +0.5**
BORK Borovoye 65.92 328 *i* P **P** **03 38 08.9 +0.7**
BORK pmax pmax
comp=Z,16nm,0.7s
BORK Borovoye 65.92 328 P **P** **03 38 08.2 0.0**
BORK IAmb IAmb 03 38 10.3
comp=Z,20nm,0.8s
FINES FINESS Array B 66.21 355 P **P** **03 38 10.1 +0.2**
comp=Z,32nm,0.9s,baz=15,slow=8.3,SNR=72
FINES LR LR 04 07 11.9
comp=Z,124nm,21.5s,baz=326,slow=36
comp=Z,32nm,0.9s
FINES FINESS Array B 66.21 355 *i* P **P** **03 38 10.1 +0.2**
FINES pmax pmax
comp=Z,31nm,0.9s
FINES FINESS Array B 66.21 355 P **P** **03 38 09.7 -0.2**
KIRV Kirov 66.27 342 LR LR 04 11 31.0
comp=Z,171nm,18.3s,baz=3.9,slow=40
KIRV Kirov 66.27 342 *ce*P **P** **03 38 11.0 +0.7**
HYA Hoyanger 66.34 6 *eP* **P** **03 38 11.4 +0.7**
SUE Sulen 66.35 7 *eP* **P** **03 38 11.3 +0.5**
ARTI Arti 66.38 337 *d* iP **P** **03 38 11.8 +0.7**
ARTI 03 38 39.3
ARTI S **S** **03 46 57.0 -2.5**
ARTI pmax pmax
comp=Z,29nm,0.6s
ARTI Arti 66.38 337 P **P** **03 38 11.3 +0.2**
WMQ Urumqi 66.64 312 *eP* **P** **03 38 14.7 +1.6**
WMQ pP sP 03 38 17.9 -1.7
WMQ sP pwP 03 38 21.7 -2.7
WMQ PcP **PcP** **03 38 43.8 +1.6**
WMQ S **S** **03 47 05.7 +2.3**
WMQ pmax pmax
comp=Z,20nm,0.9s
MK31 Makanchi Array 66.65 317 *ce*P **P** **03 38 13.4 +0.4**
MKAR Makanchi Array 66.65 317 P **P** **03 38 13.2 +0.2**
comp=Z,16nm,0.6s,baz=48,slow=6.5,SNR=104
comp=Z,16nm,0.6s
MKAR Makanchi Array 66.65 317 P **P** **03 38 12.7 -0.4**
NB2 NORSAR Subarra 66.71 3 P **P** **03 38 14.0 +0.8**
comp=Z,6.2nm,0.7s,baz=357,slow=6.2
NB2 NORSAR Subarra 66.71 3 AMP **P** **03 38 14.0 +0.8**
NB2 P **P** **03 38 14.0 +0.8**
NOA NORSAR Array B 66.71 3 P **P** **03 38 13.7 +0.5**
comp=Z,12nm,0.8s,baz=357,slow=6.3,SNR=28
comp=Z,12nm,0.8s
MAKZ Makanchi 66.77 318 P **P** **03 38 13.8 0.0**
MAKZ pmax pmax
comp=Z,26nm,1.0s
MAKZ Makanchi 66.77 318 P **P** **03 38 13.8 0.0**
MAKZ IAmb IAmb 03 38 15.0
comp=Z,26nm,1.0s
MAKZ Makanchi 66.77 318 P **P** **03 38 14.2 +0.5**
comp=Z,32nm,1.1s
SKAR Skarslia 66.94 5 *eP* **P** **03 38 15.6 +0.9**
ASK Askoy 66.95 7 *eP* **P** **03 38 15.6 +0.9**
NC602 NORSAR Array S 67.03 3 *eP* **P** **03 38 15.4 +0.3**
NORES NORESS Array B 67.03 3 P **P** **03 38 15.7 +0.5**
NORES pmax pmax
comp=Z,2.0nm,0.5s
BER Bergen 67.06 6 *eP* **P** **03 38 15.9 +0.6**
ODD1 Odda 67.61 6 *eP* **P** **03 38 19.7 +0.7**
HFS Hagfors 67.69 2 P **P** **03 38 19.6 +0.3**
comp=Z,28nm,0.7s,baz=352,slow=3.1,SNR=45
HFS LR LR 04 08 46.5
comp=Z,77nm,19.8s,baz=327,slow=37
comp=Z,28nm,0.7s
KONO Kongsberg 68.04 4 *ce*P **P** **03 38 21.6 +0.1**
KONO pmax pmax
comp=Z,67nm,2.5s
KONO Kongsberg 68.04 4 *eP* **P** **03 38 22.5 +0.9**
BLS5 Blasjo 68.09 6 *eP* **P** **03 38 22.5 +0.6**
ARBE Arbavere 68.21 355 P **P** **03 38 23.5 +0.9**
STRU Stroemstad 68.72 3 *i* P **P** **03 38 26.3 +0.6**
KPL Plockton 68.91 13 *eP* **P** **03 38 27.6 +0.6**
KPL IAmb IAmb 03 38 28.7
comp=Z,13nm,0.9s
GOMU GeErMu 69.07 302 P **P** **03 38 27.3 -1.6**
GOMU sP sP 03 38 35.1 -0.3
GOMU pmax pmax
comp=Z,3.0nm,0.5s
VSU Vasula 69.15 355 *ce*P **P** **03 38 28.8 +0.3**
VSU pmax pmax
comp=Z,23nm,0.6s
VSU Vasula 69.15 355 P **P** **03 38 28.5 0.0**
comp=Z,78nm,1.2s
SNART Snartemo 69.22 6 *eP* **P** **03 38 30.1 +1.2**
SNART Snartemo 69.22 6 *i* P **P** **03 38 30.0 +1.1**
HNR Honiara 69.52 220 LR LR 04 05 53.6
comp=Z,51nm,18.7s,baz=54,slow=33
TDK Taldyqorghan 69.69 319 *eP* **P** **03 38 33.2 +1.1**
TDK pmax pmax
comp=Z,17nm,0.6s
TDK Taldyqorghan 69.69 319 *eP* **P** **03 38 33.3 +1.1**
comp=Z,17nm,0.6s
DRUM Mains of Drumt 69.74 11 *eP* **P** **03 38 32.8 +0.6**
DRUM IAmb IAmb 03 38 33.8
comp=Z,45nm,0.7s
GYA Guiyang 69.92 287 ⇑P **P** **03 38 34.9 +0.9**
GYA pmax pmax
comp=Z,33nm,1.2s
LAWE Loch Awe, Argy 69.99 13 *eP* **P** **03 38 34.4 +0.7**
LAWE IAmb IAmb 03 38 35.5
comp=Z,15nm,0.7s
EAB Aberfoyle 70.21 13 *eP* **P** **03 38 35.6 +0.5**
EAB IAmb IAmb 03 38 37.0
comp=Z,15nm,0.8s
ONAU Onsala 70.38 3 *i* P **P** **03 38 36.3 +0.3**
PDGK Podgornoye 70.62 317 P **P** **03 38 38.7 +0.7**
PPT Papeete 70.67 167 LR LR 04 03 20.6
comp=Z,114nm,20.5s,baz=342,slow=31
PPT2 Papeete2 70.69 167 *e*S **S** **03 47 54.1 +2.5**
comp=Z,366nm,25.5s
PPT2 *e*LQ LQ 03 56 57.3
comp=Z,348nm,42.0s
PPT2 *e*LR LR 03 59 55.2
comp=Z,346nm,24.5s
PPT2 *e*LR LR 04 00 04.9
comp=Z,281nm,25.8s
SHLS Shalkode 70.77 317 *eP* **P** **03 38 38.9 0.0**
SHLS pmax pmax
comp=Z,23nm,0.8s
SHLS Shalkode 70.77 317 *eP* **P** **03 38 38.9 0.0**
comp=Z,23nm,0.8s
FABU Falkenberg 70.80 3 *i* P **P** **03 38 39.0 +0.4**
IDGL Inch Island, C 70.83 15 P **P** **03 38 40.4 +1.6**
KPKS Kokpek 70.84 317 *eP* **P** **03 38 40.3 +1.0**
KPKS Kokpek 70.84 317 *eP* **P** **03 38 40.3 +1.0**
MOS Moscow 70.85 348 *eP* **P** **03 38 39.3 +0.3**
MOS *e* 03 38 59.0
MOS pmax pmax
comp=Z,52nm,1.2s
UZB Uzynbulak 70.96 317 *d* iP **P** **03 38 41.0 +0.9**
UZB pmax pmax
comp=Z,13nm,1.0s
UZB Uzynbulak 70.96 317 ⇓*i*P **P** **03 38 41.0 +0.9**
comp=Z,13nm,1.0s
EKA Eskdalemuir Ar 71.20 12 P **P** **03 38 42.0 +0.9**
comp=Z,24nm,0.7s,baz=339,slow=4.5,SNR=42
comp=Z,24nm,0.7s
MUD Monsted U'grnd 71.20 5 *i* P **P** **03 38 42.0 +1.0**
MUD IAmb IAmb 03 38 44.2
comp=Z,84nm,1.4s
ESK Eskdalemuir 71.21 12 *i* P **P** **03 38 43.2 +2.0**
ESK Eskdalemuir 71.21 12 *eP* **P** **03 38 41.7 +0.6**
ESK IAmb IAmb 03 38 43.4
comp=Z,21nm,0.8s
SATY Saty 71.29 317 *d* iP **P** **03 38 43.0 +1.0**
SATY Saty 71.29 317 ⇓*i*P **P** **03 38 43.1 +1.0**
DEL Delary 71.36 2 *i* P **P** **03 38 42.3 +0.2**
BTLS Baital 71.37 321 *eP* **P** **03 38 43.4 +1.1**
BTLS Baital 71.37 321 *eP* **P** **03 38 43.5 +1.1**
GAL1 Galloway 71.44 13 *eP* **P** **03 38 43.0 +0.5**
GAL1 IAmb IAmb 03 38 44.6
comp=Z,25nm,0.8s
BLEU Blekinge 71.56 1 *i* P **P** **03 38 43.4 +0.1**
OBN Obninsk 71.59 349 LR LR 04 13 52.4
comp=Z,65nm,20.2s,baz=6.5,slow=39
OBN Obninsk 71.59 349 *i* P **P** **03 38 42.2 -1.3**
OBN *i* 03 41 22.6
OBN *i* PPP PPP 03 43 08.4
OBN pmax pmax
comp=Z,29nm,1.1s
OBN MLR MLR
comp=Z,121nm,16.0s
OBN Obninsk 71.59 349 P **P** **03 38 43.9 +0.4**
comp=Z,38nm,2.4s
MDOK Medeo 71.76 318 *eP* **P** **03 38 45.7 +0.8**
MDOK Medeo 71.76 318 *eP* **P** **03 38 45.8 +0.8**
EDMD Edmundbyers 71.84 12 *eP* **P** **03 38 46.1 +1.2**
EDMD IAmb IAmb 03 38 47.3
comp=Z,19nm,0.8s
AKTO Aktyubinsk 71.86 334 LR LR 04 13 24.7
comp=Z,62nm,19.4s,baz=300,slow=38
AKTO Aktyubinsk 71.86 334 P **P** **03 38 45.1 -0.1**
TNSS Tian-Shan 71.91 318 *eP* **P** **03 38 46.6 +0.5**
TNSS Tian-Shan 71.91 318 *eP* **P** **03 38 46.6 +0.5**
MSVF Nonsavu 71.93 199 LR LR 04 05 04.5
comp=Z,110nm,19.6s,baz=163,slow=32
ILTH Belurgan, Co L 72.02 14 P **P** **03 38 47.1 +1.1**
CHIV Chivirico 72.10 80 P **P** **03 38 47.4 +0.3**
IGLA Glengowla, Co 72.11 16 P **P** **03 38 47.4 +0.8**
LUNU Lund 72.19 2 *i* P **P** **03 38 47.8 +0.7**
PABE Paberze 72.23 356 P **P** **03 38 48.3 +1.0**
comp=Z,92nm,1.0s
AB31 Akbulak array 72.40 332 *i* P **P** **03 38 49.0 +0.6**
AB31 Akbulak array 72.40 332 IAmb IAmb 03 38 50.6
comp=Z,31nm,0.8s
ABKAR Akbulak array 72.40 332 P **P** **03 38 49.0 +0.6**
BELG Belogornoye 72.46 341 LR LR 04 14 16.1
comp=Z,182nm,18.5s,baz=314,slow=39
BELG Belogornoye 72.46 341 *i* P **P** **03 38 49.3 +0.6**
BELG pmax pmax
comp=Z,8.0nm,0.9s
WUS Wushi 72.48 316 IAmb IAmb 03 38 51.4
comp=Z,26nm,0.8s
WUS Wushi 72.48 316 P **P** **03 38 50.6 +1.3**
comp=Z,43nm,1.1s
TKM2 Tokmak 2 72.55 319 P **P** **03 38 51.1 +1.4**

SNR=17
TARG Taragay, Kyrgy 72.64 317 IAmb IAmb 03 38 53.2
comp=Z,14nm,0.6s
USP Ospenovka 72.69 320 P **P** **03 38 51.9 +1.6**
SNR=23
DSB Dublin 72.77 15 P **P** **03 38 51.5 +1.0**
CHMS Chumysh 72.82 320 P **P** **03 38 52.8 +1.7**
SNR=10
MNK Minsk 73.02 354 *i* P **P** **03 38 52.5 +0.5**
MNK *i* 03 41 34.2
MNK *i* PPP PPP 03 43 19.6
MNK *i* S **S** **03 48 17.6 0.0**
MNK *i* SS **SS** **03 53 00.7 +3.6**
MNK pmax pmax
comp=N,13nm,1.1s
MNK pmax pmax
comp=Z,50nm,0.8s
MNK pmax pmax
comp=E,28nm,1.0s
MNK MLR MLR
comp=Z,162nm,17.0s
MNK MLR MLR
comp=N,222nm,24.0s
MNK MLR MLR
comp=E,170nm,21.0s
MNK Minsk 73.02 354 *i* P **P** **03 38 52.6 +0.5**
comp=E,28nm,1.0s
MNK *i* P **P** **03 38 52.6 +0.5**
comp=N,13nm,1.1s
MNK *i* P **P** **03 38 52.6 +0.5**
comp=Z,50nm,0.8s,baz=6.8
MNK *i* PP **PP** **03 41 34.3 +0.4**
MNK *i* PPP PPP 03 43 19.7
MNK *i* S **S** **03 48 17.7 0.0**
MNK *i* SS **SS** **03 53 00.7 +3.6**
MNK *i* SSS SSS 03 56 21.4
MNK *i* LQ LQ 04 06 05.0
KBK Karagaybulak 73.03 319 P **P** **03 38 54.2 +1.6**
SNR=14
KMI2 Kunming 73.20 289 P **P** **03 38 54.5 +0.7**
KMI2 pmax pmax
comp=Z,12nm,1.4s
AAK Ala-Archa 73.22 320 P **P** **03 38 55.1 +1.5**
comp=Z,35nm,0.8s,baz=0.0,slow=3.0,SNR=21
AAK LR LR 04 11 49.7
comp=Z,176nm,21.9s,baz=3.0,slow=36
comp=Z,35nm,0.8s
AAK Ala-Archa 73.22 320 P **P** **03 38 55.0 +1.3**
SNR=17
AAK Ala-Archa 73.22 320 *ce*P **P** **03 38 54.2 +0.5**
AAK pmax pmax
comp=Z,79nm,1.7s
AAK Ala-Archa 73.22 320 P **P** **03 38 53.8 +0.1**
AAK IAmb IAmb 03 38 56.0
comp=Z,31nm,0.8s
AAK Ala-Archa 73.22 320 P **P** **03 38 55.2 +1.5**
comp=Z,54nm,0.9s
LBWR Ladybower, Pea 73.27 12 *e*P **P** **03 38 54.8 +1.2**
LBWR IAmb IAmb 03 38 55.9
comp=Z,23nm,0.8s
VAL Valentia 73.37 17 P **P** **03 38 55.6 +1.5**
RAR Rarotonga 73.43 177 LR LR 04 04 38.3
comp=Z,83nm,19.3s,baz=138,slow=30
EKS2 Erkin-Say 73.48 320 P **P** **03 38 56.9 +1.7**
SNR=22
STNC Stoke 73.51 12 *e*P **P** **03 38 56.3 +1.3**
STNC IAmb IAmb 03 38 57.2
comp=Z,35nm,0.7s
IWEX Carrickbyrne, 73.55 15 P **P** **03 38 56.2 +1.0**
LLW Llanuwchllyn 73.55 13 *e*P **P** **03 38 56.4 +1.2**
LLW IAmb IAmb 03 38 57.1
comp=Z,12nm,0.8s
UCH Uchtor 73.56 319 P **P** **03 38 57.6 +1.6**
SNR=11
FOEL Foel Wylfa 73.58 13 *e*P **P** **03 38 56.0 +0.6**
FOEL IAmb IAmb 03 38 57.9
comp=Z,38nm,0.8s
NRN Naryn 73.63 318 IAmb IAmb 03 38 59.0
comp=Z,32nm,1.3s
LPSR Galich'ya Gora 73.74 347 *e*P **P** **03 38 56.3 0.0**
LPSR pmax pmax
comp=Z,37nm,1.0s
SUW Suwalki 73.76 356 *e*P **P** **03 38 56.4 +0.1**
BSEG Bad Segeberg 73.78 4 *e*P **P** **03 38 57.6 +1.1**
comp=Z,18nm,0.7s,baz=356,slow=5.7
ASAI AK-SAY(Kyrgyzs 73.85 317 P **P** **03 38 59.3 +1.7**
comp=Z,25nm,1.0s
CWF Charnwood Fore 73.97 12 *e*P **P** **03 38 58.4 +0.7**
CWF IAmb IAmb 03 39 00.5
comp=Z,19nm,1.0s
CWF Charnwood Fore 73.97 12 P **P** **03 38 58.9 +1.2**
comp=Z,58nm,1.2s
DZA Taraz 74.23 322 *e*P **P** **03 39 00.3 +0.9**
DZA Taraz 74.23 322 *e*P **P** **03 39 00.3 +0.9**
KK31 Karatay Array 74.36 323 *i* P **P** **03 39 00.3 +0.2**
KK31 Karatay Array 74.36 323 IAmb IAmb 03 39 01.8
comp=Z,33nm,0.8s
KKAR Karatay Array 74.36 323 P **P** **03 39 00.3 +0.2**
KKAR Karatay Array 74.36 323 P **P** **03 39 00.3 +0.2**
VORR Voronezh 74.60 346 *e*P **P** **03 39 01.3 0.0**
VORR pmax pmax
comp=Z,21nm,1.2s
BRLS Boroldav 74.67 323 *e*P **P** **03 39 04.0 +2.1**
BRLS Boroldav 74.67 323 *e*P **P** **03 39 04.0 +2.1**
VRH Novokhopyorsk 74.67 344 *e*P **P** **03 39 01.5 -0.2**
VRH pmax pmax
comp=Z,17nm,1.2s
ARSB Arslanbob 74.93 320 P **P** **03 39 03.7 0.0**
ARSB pmax pmax
comp=Z,48nm,1.1s
ARSB Arslanbob 74.93 320 P **P** **03 39 03.7 0.0**
ARSB IAmb IAmb 03 39 05.9
comp=Z,48nm,1.1s
VSR Storozhevoye 75.05 346 *e*P **P** **03 39 04.0 +0.1**
VSR pmax pmax
comp=Z,19nm,0.9s
PMG Port Moresby 75.10 232 *ce*P **P** **03 39 05.5 +0.9**
PMG pmax pmax
comp=Z,56nm,1.0s
PMG Port Moresby 75.10 232 P **P** **03 39 03.6 -1.0**
PMG Port Moresby 75.10 232 P **P** **03 39 04.8 +0.2**
PMG Port Moresby 75.10 232 P **P** **03 39 05.0 +0.3**
comp=Z,71nm,0.8s
IBBN Ibbenburen 75.26 6 *e*P **P** **03 39 06.0 +0.9**
comp=Z,82nm,1.2s,baz=356,slow=5.7
IBBN Ibbenburen 75.26 6 P **P** **03 39 05.5 +0.4**
comp=Z,57nm,1.0s
VORD Divnogorie 75.28 346 *e*P **P** **03 39 04.6 -0.6**
VORD pmax pmax
comp=Z,20nm,0.7s
RUE Ruedersdorf 75.36 2 *e*P **P** **03 39 06.6 +0.9**
comp=Z,48nm,0.9s,baz=356,slow=5.7
RUE Ruedersdorf 75.36 2 P **P** **03 39 07.0 +1.4**
comp=Z,61nm,1.0s
IUG luzhnay 75.36 322 *e*P **P** **03 39 07.0 +1.0**
IUG pmax pmax
comp=Z,24nm,0.8s
IUG luzhnay 75.36 322 *e*P **P** **03 39 07.0 +1.0**
comp=Z,24nm,0.8s
CHM Chimkent 75.37 323 *e*P **P** **03 39 07.0 +1.0**
CHM pmax pmax
comp=Z,25nm,0.6s
CHM Chimkent 75.37 323 *e*P **P** **03 39 07.0 +1.0**
comp=Z,25nm,0.6s
FLTG Flechtingen 75.42 4 *e*P **P** **03 39 06.4 +0.4**
comp=Z,22nm,0.9s,baz=356,slow=5.7
FLTG *ep*P **pwP** **03 39 16.4 -0.9**
baz=357,slow=5.8
FLTG Flechtingen 75.42 4 P **P** **03 39 06.9 +0.9**
comp=Z,35nm,0.9s
SLVN Son La 75.46 286 P **P** **03 39 06.0 -0.9**
SLVN IAmb IAmb 03 39 08.2
comp=Z,13nm,0.8s
SLVN Son La 75.46 286 P **P** **03 39 08.0 +1.1**
comp=Z,24nm,1.1s
ASSE Asse, Remlinge 75.60 4 *e*P **P** **03 39 07.9 +0.9**
comp=Z,25nm,1.0s,baz=356,slow=5.7
ASSE *ep*P **pwP** **03 39 17.6 -0.7**
baz=357,slow=5.8
ASSE Asse, Remlinge 75.60 4 P **P** **03 39 06.2 -0.8**
comp=Z,29nm,1.1s
OHH Osh 75.69 320 P **P** **03 39 07.7 -0.2**
comp=Z,32nm,1.4s
KSH2 Kashi 75.73 317 P **P** **03 39 09.7 +1.4**
KSH2 pP pwP 03 39 19.5 -0.1
KSH2 pmax pmax
comp=Z,32nm,0.9s
CLZ Clausthal 75.87 5 *e*P **P** **03 39 09.8 +1.1**
comp=Z,26nm,0.9s,baz=356,slow=5.7
CLZ Clausthal 75.87 5 P **P** **03 39 10.3 +1.6**
SDDR Presa de Saban 75.94 77 P **P** **03 39 09.0 -0.6**
SDDR Presa de Saban 75.94 77 P **P** **03 39 09.9 +0.3**
comp=Z,56nm,1.1s
LSA Lhasa 76.06 301 P **P** **03 39 10.0 -0.7**
LSA pmax pmax
comp=Z,53nm,1.6s
LSA Lhasa 76.06 301 P **P** **03 39 10.0 -0.7**
LSA IAmb IAmb 03 39 13.2
comp=Z,53nm,1.6s
LSA Lhasa 76.06 301 P **P** **03 39 12.4 +1.7**
comp=Z,23nm,0.8s
BUG Bochum--Univer 76.09 7 *e*P **P** **03 39 10.6 +0.7**
comp=Z,28nm,0.9s,baz=356,slow=5.7
BUG *ep*P **pwP** **03 39 20.5 -0.6**
baz=357,slow=5.8
BUG Bochum--Univer 76.09 7 P **P** **03 39 10.7 +0.8**
comp=Z,40nm,1.0s
GTTG Gottingen 76.15 5 *e*P **P** **03 39 11.3 +1.1**
comp=Z,38nm,0.9s,baz=356,slow=5.7
RNPP9 Sopachiv 76.23 355 P **P** **03 39 11.2 +0.5**
WIMM Wimmelburg 76.24 4 P **P** **03 39 12.0 +1.3**
comp=Z,103nm,1.0s
TBI Tubuai 76.38 168 *e*S **S** **03 48 51.7 -3.8**
comp=Z,1μm,34.0s
TBI *e*LQ LQ 03 59 39.7
comp=Z,821nm,36.5s
TBI *e*LR LR 04 02 39.4
comp=Z,2μm,31.2s
KASTN Kahler Asten 76.40 6 *e*P **P** **03 39 12.5 +0.8**
comp=Z,12nm,0.9s,baz=356,slow=5.7
KASTN *ep*P **pwP** **03 39 22.4 -0.6**
baz=357,slow=5.8
UCC Uccle 76.49 8 *d*P **P** **03 39 13.0 +0.8**
CLL Collm 76.51 3 ⇓*i*P **P** **03 39 13.0 +0.7**
CLL pmax pmax
comp=Z,21nm,0.8s
CLL Collm 76.51 3 P **P** **03 39 12.0 -0.3**
CLL IAmb IAmb 03 39 14.1
comp=Z,24nm,1.0s
CLL Collm 76.51 3 *e*P **P** **03 39 12.7 +0.4**
comp=Z,25nm,1.0s,baz=356,slow=5.7
CLL *ep*P **pwP** **03 39 22.8 -0.8**
baz=357,slow=5.8
CLL Collm 76.51 3 P **P** **03 39 13.2 +0.9**
comp=Z,28nm,1.1s
CLL Collm 76.51 3 ⇓*i*P **P** **03 39 13.0 +0.7**
comp=Z,21nm,0.8s
NEUB Neuenburg 76.56 4 *e*P **P** **03 39 13.3 +0.8**
comp=Z,31nm,0.7s,baz=356,slow=5.7
NEUB Neuenburg 76.56 4 P **P** **03 39 13.7 +1.2**
comp=Z,43nm,1.0s
BSKQ Steenkerk 76.62 9 *d*P **P** **03 39 13.7 +0.9**
BSKQ *d*PcP **pwP** **03 39 23.5 -0.7**
AK21 Malin Array Si 76.64 352 P **P** **03 39 12.9 -0.1**
AK22 Malin Array Si 76.66 352 P **P** **03 39 12.9 -0.2**
HGN Heimansgroeve 76.66 7 P **P** **03 39 14.1 +1.0**
comp=Z,33nm,1.4s
AK20 Malin Array Si 76.68 352 P **P** **03 39 13.1 -0.1**
AK04 Malin Array Si 76.69 352 P **P** **03 39 13.2 -0.1**
AK19 Malin Array Si 76.70 352 P **P** **03 39 13.3 0.0**
AKASG Malin Array Be 76.70 352 P **P** **03 39 13.3 0.0**
comp=Z,25nm,0.6s,baz=12,slow=5.8,SNR=55
AKASG LR LR 04 14 05.4
comp=Z,85nm,21.0s,baz=336,slow=36
comp=Z,25nm,0.6s
AKASG Malin Array Be 76.70 352 *i* P **P** **03 39 13.3 0.0**
AKASG pmax pmax
comp=Z,26nm,0.6s
AKBB Malin Array Si 76.70 352 *ce*P **P** **03 39 13.5 +0.1**
AKBB pmax pmax
comp=Z,26nm,0.8s
KIEV Kiev 76.71 352 P **P** **03 39 13.1 -0.3**
KIEV pmax pmax
comp=Z,29nm,0.7s
KIEV Kiev 76.71 352 P **P** **03 39 13.1 -0.3**
KIEV IAmb IAmb 03 39 13.9
comp=Z,29nm,0.7s
KIEV Kiev 76.71 352 ⇓P **P** **03 39 13.3 -0.1**
KIEV Kiev 76.71 352 P **P** **03 39 12.9 -0.5**
comp=Z,49nm,0.9s
AK01 Malin Array Si 76.71 352 P **P** **03 39 13.5 +0.1**
AK11 Malin Array Si 76.73 352 P **P** **03 39 13.4 -0.1**
AK16 Malin Array Si 76.74 352 P **P** **03 39 13.6 0.0**
AK14 Malin Array Si 76.78 352 P **P** **03 39 13.7 -0.1**
MEM Membach 76.82 7 *d*P **P** **03 39 15.0 +1.0**
comp=Z,20nm,1.0s
MEM *d*PcP **pwP** **03 39 24.7 -0.7**
MEM Membach 76.82 7 P **P** **03 39 15.4 +1.4**
comp=Z,41nm,0.9s
BTK Batken 76.86 321 P **P** **03 39 14.0 -0.6**
BTK pmax pmax
comp=Z,22nm,0.8s
BTK Batken 76.86 321 P **P** **03 39 14.0 -0.6**
BTK IAmb IAmb 03 39 16.5
comp=Z,22nm,0.8s
BTK Batken 76.86 321 P **P** **03 39 15.7 +1.1**
comp=Z,37nm,1.0s
BANI BANI 76.95 77 P **P** **03 39 15.0 -0.4**
BCLA Clavier 76.95 8 *d*P **P** **03 39 15.8 +1.1**
comp=Z,13nm,1.2s
BRG Berggiesshubel 76.97 2 *e*P **P** **03 39 15.5 +0.6**
comp=Z,18nm,0.9s,baz=356,slow=5.7
BRG *ep*P **pwP** **03 39 25.5 -0.7**
baz=357,slow=5.8
BRG Berggiesshubel 76.97 2 P **P** **03 39 16.0 +1.0**
comp=Z,30nm,1.2s
BRG Berggiesshubel 76.97 2 *i* P **P** **03 39 15.9 +1.0**
BRG Amp 03 39 16.9
comp=Z,18nm,0.9s
BMRD Maredsous 77.02 8 *d*P **P** **03 39 16.1 +0.9**
BMRD *d*PcP **pwP** **03 39 25.9 -0.6**
KSP Ksiaz 77.04 1 *e*P **P** **03 39 15.7 +0.4**
MOX Moxa 77.12 4 *e*P **P** **03 39 16.6 +0.9**
comp=Z,55nm,1.4s,baz=356,slow=5.7
MOX *ep*P **pwP** **03 39 26.3 -0.7**
baz=357,slow=5.8
MOX *e*L L 04 05 16.1
comp=Z,167nm,18.5s
MOX Moxa 77.12 4 P **P** **03 39 17.1 +1.3**
comp=Z,38nm,1.0s
RCHB Rochefort 77.21 8 *d*P **P** **03 39 16.9 +0.7**
comp=Z,14nm,0.9s
RCHB Rochefort 77.21 8 P **P** **03 39 17.3 +1.0**
comp=Z,24nm,1.1s
DOU Dourbes 77.21 8 *d*P **P** **03 39 16.1 -0.1**
comp=Z,8.3nm,1.1s
DOU *d*PcP **pwP** **03 39 26.8 -0.8**
HSKC Hora Svate Kat 77.22 3 *e*P **P** **03 39 17.6 +1.2**
HSKC Hora Svate Kat 77.22 3 P **P** **03 39 17.8 +1.4**
comp=Z,39nm,1.3s
CHVC Chvalec 77.29 1 *e*P **P** **03 39 17.0 +0.3**
CHVC Chvalec 77.29 1 *e*P **P** **03 39 17.0 +0.3**
PLN Plauen 77.30 3 *e*P **P** **03 39 17.5 +0.7**
comp=Z,3.9nm,0.8s,baz=356,slow=5.7
OSTC Ostas 77.32 1 *e*P **P** **03 39 17.3 +0.4**
OSTC Ostas 77.32 1 *e*P **P** **03 39 17.3 +0.4**
PVCC Panska Ves 77.33 2 *e*P **P** **03 39 17.9 +1.0**
PVCC Panska Ves 77.33 2 *e*P **P** **03 39 17.9 +1.0**
PVCC Panska Ves 77.33 2 P **P** **03 39 18.2 +1.3**
comp=Z,63nm,0.8s
UPC Upice 77.37 1 *e*P **P** **03 39 17.6 +0.4**
UPC Upice 77.37 1 *e*P **P** **03 39 17.6 +0.4**
UPC Upice 77.37 1 P **P** **03 39 18.4 +1.2**
comp=Z,24nm,1.2s
TNS Taunus Mts 77.38 6 *e*P **P** **03 39 18.0 +0.7**
comp=Z,14nm,0.7s,baz=356,slow=5.7
TNS Taunus Mts 77.38 6 P **P** **03 39 18.5 +1.2**
comp=Z,22nm,0.8s
TANN Tannenbergstha 77.38 3 *e*P **P** **03 39 18.1 +0.8**
comp=Z,8.2nm,0.9s,baz=356,slow=5.7
TANN Tannenbergstha 77.38 3 P **P** **03 39 18.3 +1.0**
comp=Z,19nm,2.1s
FAKI Fak Fak 77.51 248 P **P** **03 39 18.5 +0.1**
FAKI IAmb IAmb 03 39 19.7
comp=Z,21nm,0.8s
DPC Dobruska-Polom 77.53 1 *e*P **P** **03 39 19.1 +1.0**
DPC *e* 03 39 27.8
DPC Dobruska-Polom 77.53 1 *e*P **P** **03 39 19.1 +1.0**
DPC *e*PCP **pwP** **03 39 27.8 -1.6**
DPC Dobruska-Polom 77.53 1 P **P** **03 39 19.7 +1.6**
comp=Z,35nm,1.2s
NKC Novy Kostel 77.56 3 *e*P **P** **03 39 18.5 +0.2**
NKC Novy Kostel 77.56 3 P **P** **03 39 19.2 +0.9**
comp=Z,29nm,1.0s
LUBAR Lubar, Ukraine 77.59 353 P **P** **03 39 18.0 -0.4**
OJC Ojcow 77.65 358 *e*P **P** **03 39 19.8 +1.1**
OJC Ojcow 77.65 358 P **P** **03 39 18.8 +0.1**
OJC Ojcow 77.65 358 P **P** **03 39 18.8 +0.1**
OJC Ojcow 77.65 358 P **P** **03 39 20.0 +1.3**
comp=Z,24nm,1.3s
WLF Walferdange 77.77 7 P **P** **03 39 19.6 +0.2**
WLF pmax pmax
comp=Z,46nm,1.3s
WLF Walferdange 77.77 7 P **P** **03 39 19.6 +0.2**
WLF IAmb IAmb 03 39 22.0
comp=Z,46nm,1.3s
WLF Walferdange 77.77 7 *d*P **P** **03 39 20.7 +1.3**
comp=Z,14nm,1.2s
WLF Walferdange 77.77 7 *e*P **P** **03 39 20.5 +1.1**
comp=Z,42nm,1.3s,baz=356,slow=5.7
PRU Pruhonice 77.87 2 *e*P **P** **03 39 20.6 +0.7**
PRU *e* 03 39 30.8
PRU pmax pmax
comp=Z,5.0nm,0.5s
PRU Pruhonice 77.87 2 *e*P **P** **03 39 20.6 +0.7**
comp=Z,4.6nm,0.5s
PRU *e*PCP **pwP** **03 39 30.8 -0.4**
PRU Pruhonice 77.87 2 P **P** **03 39 20.4 +0.4**
comp=Z,14nm,2.0s
STEB Steborice 77.95 360 *e*P **P** **03 39 21.2 +0.8**
GRA3 Grafenberg Arr 77.99 4 P **P** **03 39 22.3 +1.6**
comp=Z,26nm,1.1s
OKC Ostrava-Krasne 78.05 360 P **P** **03 39 22.4 +1.4**
comp=Z,36nm,1.1s
GRA1 Grafenberg Arr 78.06 4 P **P** **03 39 21.1 +0.1**
GRA1 IAmb IAmb 03 39 23.0
comp=Z,24nm,0.8s
GRA1 Grafenberg Arr 78.06 4 P **P** **03 39 22.6 +1.6**
comp=Z,40nm,0.9s
GRF Grafenberg Arr 78.06 4 P **P** **03 39 21.1 +0.1**
GRF pmax pmax
comp=Z,24nm,0.8s
GRF Grafenberg Arr 78.06 4 *e*P **P** **03 39 22.2 +1.2**
comp=Z,24nm,0.8s,baz=356,slow=5.7
GRF *ep*P **pwP** **03 39 31.9 -0.4**
baz=357,slow=5.8
GRF *e*L L 04 05 24.1
comp=Z,165nm,21.0s
GRFO Grafenberg 78.06 4 P **P** **03 39 21.2 +0.2**
GRFO pmax pmax
comp=Z,19nm,0.7s
GRFO Grafenberg 78.06 4 P **P** **03 39 21.2 +0.2**
GRFO IAmb IAmb 03 39 23.3
comp=Z,19nm,0.7s
GRA2 Grafenberg Arr 78.10 4 P **P** **03 39 22.7 +1.4**
comp=Z,42nm,2.1s
MORC Moravsky Berou 78.11 360 P **P** **03 39 21.2 -0.1**
MORC pmax pmax
comp=Z,12nm,0.8s
MORC Moravsky Berou 78.11 360 P **P** **03 39 21.2 -0.1**
MORC IAmb IAmb 03 39 23.0
comp=Z,12nm,0.8s
MORC Moravsky Berou 78.11 360 *e*P **P** **03 39 21.9 +0.5**
MORC *e* 03 39 31.9
MORC Moravsky Berou 78.11 360 ⇓P **P** **03 39 21.8 +0.5**
MORC Moravsky Berou 78.11 360 P **P** **03 39 22.6 +1.3**
comp=Z,20nm,1.4s
KWP Kalwaria Pacla 78.16 357 *e*P **P** **03 39 22.9 +1.3**
GRB4 Grafenberg Arr 78.30 4 P **P** **03 39 23.9 +1.5**
comp=Z,49nm,1.0s
GRB1 Grafenberg Arr 78.38 4 P **P** **03 39 24.3 +1.5**
comp=Z,55nm,1.1s
ZVC Zvikov 78.41 2 *e*P **P** **03 39 23.7 +0.7**
ZVC *e*pP **sP** **03 39 27.5 -2.0**
ZVC *e*PCP **pwP** **03 39 34.1 -0.2**
GRB3 Grafenberg Arr 78.43 4 P **P** **03 39 24.6 +1.5**
comp=Z,50nm,1.0s
NIE Niedzica 78.44 358 *e*P **P** **03 39 24.7 +1.5**
GRB2 Grafenberg Arr 78.50 4 P **P** **03 39 24.8 +1.3**
comp=Z,43nm,0.9s
VRAC Vranov 78.58 1 P **P** **03 39 25.5 +1.6**
VRAC Vranov 78.58 1 *e*P **P** **03 39 24.8 +0.9**
VRAC *e* 03 39 34.7
VRAC Vranov 78.58 1 ⇓P **P** **03 39 24.9 +0.9**
VRAC Vranov 78.58 1 P **P** **03 39 25.4 +1.6**
comp=Z,11nm,1.0s
TREC Trest 78.58 1 P **P** **03 39 25.1 +1.1**
comp=Z,10.0nm,1.1s
GRB5 Grafenberg Arr 78.66 4 P **P** **03 39 25.5 +1.1**
comp=Z,30nm,1.4s
WET Wettzell 78.67 3 *e*P **P** **03 39 25.5 +1.1**
comp=Z,44nm,1.6s,baz=356,slow=5.7
WET Wettzell 78.67 3 P **P** **03 39 25.8 +1.4**
comp=Z,20nm,2.0s
GRC4 Grafenberg Arr 78.67 4 P **P** **03 39 25.3 +0.9**
comp=Z,20nm,1.1s
KHC Kasperske Hory 78.70 3 *e*P **P** **03 39 25.9 +1.3**
KHC *e**PP **sP** **03 39 29.6 -1.6**
KHC *e* 03 39 35.9
KHC pmax pmax
comp=Z,6.0nm,0.6s
KHC Kasperske Hory 78.70 3 P **P** **03 39 24.8 +0.2**
KHC IAmb IAmb 03 39 27.3
comp=Z,43nm,1.4s
KHC Kasperske Hory 78.70 3 *e*P **P** **03 39 25.9 +1.3**
comp=Z,5.5nm,0.6s
KHC *ep*P **sP** **03 39 29.6 -1.6**
KHC *e*PCP **pwP** **03 39 35.9 0.0**
KHC Kasperske Hory 78.70 3 P **P** **03 39 26.3 +1.7**
comp=Z,25nm,1.4s
LANS Liptovska Anna 78.72 359 *e*P **P** **03 39 26.8 +2.1**
LANS pmax pmax
comp=Z,22nm,0.7s
LANS Liptovska Anna 78.72 359 *e*P **P** **03 39 26.8 +2.1**
GRC1 Grafenberg Arr 78.77 4 P **P** **03 39 26.1 +1.1**
comp=Z,24nm,1.1s
KRUC Moravsky 78.82 1 *e*P **P** **03 39 25.9 +0.7**
KRUC *e* 03 39 35.8
KRUC Moravsky 78.82 1 P **P** **03 39 26.5 +1.2**
comp=Z,17nm,1.3s
KOLS Kolonicke sedl 78.87 357 *e*P **P** **03 39 26.9 +1.4**
KOLS pmax pmax
comp=Z,23nm,0.8s
KOLS Kolonicke sedl 78.87 357 *e*P **P** **03 39 26.9 +1.4**
KOLS Kolonicke sedl 78.87 357 P **P** **03 39 27.2 +1.7**
comp=Z,29nm,0.7s
STU Stuttgart 78.87 6 *e*P **P** **03 39 26.3 +0.8**
comp=Z,44nm,1.0s,baz=356,slow=5.7
GRC3 Grafenberg Arr 78.87 4 P **P** **03 39 26.8 +1.2**
comp=Z,34nm,1.0s
SHL Shillong 78.96 298 P **P** **03 39 25.6 -1.0**
SHL Shillong 78.96 298 P **P** **03 39 25.6 -1.0**
GEC2 GERESS Array S 78.99 3 P **P** **03 39 26.2 0.0**
GEC2 IAmb IAmb 03 39 28.3
comp=Z,32nm,1.5s
GEC2 GERESS Array S 78.99 3 *e*P **P** **03 39 27.2 +0.9**
comp=Z,11nm,0.8s,baz=356,slow=5.7
GEC2 *ep*P **pwP** **03 39 37.1 -0.5**
baz=357,slow=5.8
GEC2 GERESS Array S 78.99 3 P **P** **03 39 27.4 +1.2**
comp=Z,19nm,1.2s
GERES GERESS Array B 78.99 3 P **P** **03 39 27.3 +1.0**
comp=Z,7.1nm,0.7s,baz=356,slow=4.2,SNR=53
comp=Z,7.1nm,0.7s
GERES GERESS Array B 78.99 3 P **P** **03 39 26.1 -0.2**
JAVC Velka Javorina 79.03 360 *e*P **P** **03 39 28.3 +1.9**
JAVC Velka Javorina 79.03 360 P **P** **03 39 29.0 +2.5**
comp=Z,40nm,1.0s
KMPD K-Podol'skiy 79.03 354 P **P** **03 39 25.8 -0.6**
CKRC Cesky Krumlov 79.03 2 *e*P **P** **03 39 26.0 -0.4**
CKRC Cesky Krumlov 79.03 2 *e*P **P** **03 39 26.0 -0.4**
ABNA Allensteig Bun 79.20 1 *i* pP **P** **03 39 28.5 +1.1**
comp=Z,18nm,1.0s
BFO Black Forest 79.26 6 P **P** **03 39 27.9 +0.2**
BFO pmax pmax
comp=Z,36nm,1.5s
BFO Black Forest 79.26 6 P **P** **03 39 27.9 +0.2**
BFO IAmb IAmb 03 39 29.4
comp=Z,36nm,1.5s
BFO Black Forest 79.26 6 *e*P **P** **03 39 28.4 +0.7**
comp=Z,43nm,1.6s,baz=356,slow=5.7
ECH Echery 79.29 7 P **P** **03 39 27.1 -0.8**
ECH pmax pmax
comp=Z,23nm,0.9s
ECH Echery 79.29 7 P **P** **03 39 27.1 -0.8**
ECH IAmb IAmb 03 39 29.8

comp=Z,23nm,0.9s
ECH Echery 79.29 7 P **P** **03 39 29.0 +1.2**
comp=Z,32nm,1.4s
SORM Soroca 79.32 353 P **P** **03 39 27.9 -0.1**
SORM Soroca 79.32 353 ⇓P **P** **03 39 27.9 -0.1**
SORM Soroca 79.32 353 P **P** **03 39 27.7 -0.2**
comp=Z,55nm,1.1s
ECPR Experimental S 79.37 74 P **P**
ECPR IAmb IAmb 03 39 29.4
comp=Z,34nm,1.0s
KECS Kecovo 79.37 358 *e*P **P** **03 39 29.8 +1.6**
KECS pmax pmax
comp=Z,37nm,0.9s
KECS Kecovo 79.37 358 *e*P **P** **03 39 29.8 +1.6**
KECS Kecovo 79.37 358 P **P** **03 39 30.2 +2.0**
comp=Z,21nm,0.7s
SMOL Smolenice 79.37 0 *e*P **P** **03 39 30.3 +2.0**
SMOL pmax pmax
comp=Z,7.0nm,0.8s
VYHS Vyhne 79.39 359 *e*P **P** **03 39 30.2 +1.8**
VYHS pmax pmax
comp=Z,28nm,1.0s
VYHS Vyhne 79.39 359 *e*P **P** **03 39 30.2 +1.8**
VYHS Vyhne 79.39 359 P **P** **03 39 29.8 +1.5**
comp=Z,12nm,2.3s
CELP Cerrillos 79.43 74 P **P** **03 39 28.4 -0.7**
CELP IAmb IAmb 03 39 30.0
comp=Z,33nm,0.9s
MODS Modra-Piesok 79.51 0 *e*P **P** **03 39 31.0 +1.9**
MODS pmax pmax
comp=Z,74nm,1.1s
MODS Modra-Piesok 79.51 0 *e*P **P** **03 39 31.0 +1.9**
MODS Modra-Piesok 79.51 0 P **P** **03 39 31.1 +2.1**
comp=Z,57nm,1.1s
ABAH Abaujker 79.54 357 P **P** **03 39 30.2 +1.1**
comp=Z,48nm,1.0s
GCPR Guaynabo City 79.54 74 P **P** **03 39 29.2 -0.4**
FUR Furstenfeldbru 79.58 4 *e*P **P** **03 39 30.4 +0.9**
comp=Z,49nm,1.3s,baz=356,slow=5.7
FUR *ep*P **pwP** **03 39 40.6 -0.2**
baz=357,slow=5.8
FUR Furstenfeldbru 79.58 4 P **P** **03 39 30.7 +1.3**
comp=Z,30nm,1.1s
SJG San Juan 79.66 74 P **P** **03 39 29.4 -0.8**
SJG pmax pmax
comp=Z,25nm,1.0s
SJG San Juan 79.66 74 P **P** **03 39 29.4 -0.8**
SJG IAmb IAmb 03 39 31.8
comp=Z,24nm,0.9s
TRPA Tarpa 79.66 357 P **P** **03 39 31.4 +1.5**
comp=Z,75nm,0.9s
EVN Everest 79.72 303 P **P** **03 39 30.8 -0.4**
EVN IAmb IAmb 03 39 33.2
comp=Z,34nm,1.0s
EVN Everest 79.72 303 P **P** **03 39 32.3 +1.0**
comp=Z,37nm,1.0s
WINA Alland / Wiene 79.77 1 *e*pP **P** **03 39 32.0 +1.5**
comp=Z,20nm,0.8s,SNR=7.6
SLE Schleitheim 79.83 6 P **P** **03 39 31.5 +0.7**
comp=Z,16nm,1.1s
LOR Lormes 79.94 9 P **P** **03 39 32.3 +0.9**
comp=Z,21nm,1.6s
PSZ Piszkesteto 79.95 358 P **P** **03 39 31.5 0.0**
PSZ pmax pmax
comp=Z,32nm,1.0s
PSZ Piszkesteto 79.95 358 P **P** **03 39 31.5 0.0**
PSZ IAmb IAmb 03 39 34.4
comp=Z,32nm,1.0s
PSZ Piszkesteto 79.95 358 ⇓P **P** **03 39 33.2 +1.7**
PSZ Piszkesteto 79.95 358 P **P** **03 39 33.1 +1.7**
comp=Z,32nm,1.2s
CONA Conrad Observa 79.95 1 *i* pP **P** **03 39 33.0 +1.5**
comp=Z,27nm,0.9s,SNR=13
MOA Molln 80.00 2 *e*pP **P** **03 39 32.6 +0.9**
comp=Z,8.6nm,1.1s,SNR=4.7
MOA Molln 80.00 2 P **P** **03 39 33.3 +1.5**
comp=Z,17nm,2.7s
UBR Ueberruh 80.01 5 *e*P **P** **03 39 32.7 +0.9**
comp=Z,10nm,1.1s,baz=356,slow=5.7
UBR Ueberruh 80.01 5 P **P** **03 39 33.1 +1.2**
comp=Z,12nm,1.7s
BUR08 Bucovina Ar. S 80.02 355 P **P** **03 39 32.2 +0.2**
BUR08 IAmb IAmb 03 39 33.9
comp=Z,20nm,0.8s
BURAR Bucovina Array 80.05 355 ⇓P **P** **03 39 33.0 +0.9**
BURAR Bucovina Array 80.05 355 P **P** **03 39 32.2 +0.1**
BURAR IAmb IAmb 03 39 34.0
comp=Z,24nm,0.7s
BURAR Bucovina Array 80.05 355 ⇓P **P** **03 39 33.0 +0.9**
SRO Srobarova 80.07 359 *e*P **P** **03 39 33.7 +1.7**
SRO pmax pmax
comp=Z,19nm,1.0s
SRO Srobarova 80.07 359 *e*P **P** **03 39 33.7 +1.7**
SRO Srobarova 80.07 359 P **P** **03 39 33.3 +1.3**
comp=Z,29nm,1.0s
RJOB Jochberg 80.07 3 P **P** **03 39 33.5 +1.4**
comp=Z,29nm,0.8s
BMR Baia Mare 80.08 356 ⇓P **P** **03 39 33.4 +1.3**
BMR Baia Mare 80.08 356 ⇓P **P** **03 39 33.4 +1.3**
BMR Baia Mare 80.08 356 P **P** **03 39 33.6 +1.5**
comp=Z,60nm,0.9s
BOURR Bourrignon 80.11 7 P **P** **03 39 33.6 +1.2**
comp=Z,28nm,0.9s
MFF Saint Martin d 80.14 12 P **P** **03 39 33.8 +1.3**
comp=Z,14nm,1.2s
BIOA Bad Ischl, Aus 80.14 3 *e*pP **P** **03 39 33.5 +1.0**
comp=Z,16nm,1.2s,SNR=6.5
RONA Rosalia, Austr 80.18 1 *e*pP **P** **03 39 34.5 +1.8**
comp=Z,15nm,0.9s,SNR=5.2
ERBR Yeremizino-Bor 80.19 344 *e*P **P** **03 39 32.9 +0.2**
ERBR pmax pmax
comp=Z,59nm,1.0s
RETA Reutte 80.24 5 *i* pP **P** **03 39 34.0 +1.0**
comp=Z,9.3nm,0.8s,SNR=8.4
CHTO Chiang Mai 80.32 288 P **P** **03 39 33.0 -0.8**
CHTO pmax pmax
comp=Z,7.0nm,0.8s
CHTO Chiang Mai 80.32 288 P **P** **03 39 33.0 -0.8**
CHTO Chiang Mai 80.32 288 P **P** **03 39 33.9 0.0**
CHTO Chiang Mai 80.32 288 P **P** **03 39 33.6 -0.3**
comp=Z,9.4nm,2.6s
LESA Schwarzleotal 80.38 3 *e*pP **P** **03 39 34.9 +1.1**
comp=Z,12nm,0.6s,SNR=15
DAVA Damuels 80.39 5 *e*pP **P** **03 39 34.9 +0.9**
comp=Z,0.6nm,0.4s
DAVA Damuels 80.39 5 P **P** **03 39 35.6 +1.6**
comp=Z,16nm,1.8s
MOTA Moosalm 80.39 4 *e*pP **P** **03 39 34.9 +0.9**
comp=Z,28nm,0.9s,SNR=22
WATA Walderalm 80.43 4 *e*pP **P** **03 39 35.3 +1.1**
comp=Z,36nm,1.1s,SNR=14
SANI Sanana 80.43 254 P **P** **03 39 34.0 -0.4**
comp=Z,19nm,1.1s
SANI Sanana 80.43 254 P **P** **03 39 34.1 -0.4**
comp=Z,20nm,1.1s
LTVH Ltavrtes, Hu 80.43 357 ⇓P **P** **03 39 36.0 +2.1**
LTVH Ltavrtes, Hu 80.43 357 P **P** **03 39 36.1 +2.2**
comp=Z,92nm,1.0s
WTTA Wattenberg 80.50 4 *e*pP **P** **03 39 35.9 +1.3**
comp=Z,33nm,0.7s,SNR=29
WTTA Wattenberg 80.50 4 P **P** **03 39 36.1 +1.4**
comp=Z,49nm,1.0s
SQTA Sankt Quirin 80.52 4 *e*pP **P** **03 39 35.9 +1.2**
comp=Z,36nm,0.8s,SNR=17
BSZH Besenyszg 80.56 358 P **P** **03 39 37.1 +2.4**
comp=Z,68nm,1.0s
CMAR Chiang Mai Arr 80.60 288 P **P** **03 39 35.8 +0.4**
comp=Z,13nm,0.8s,baz=20,slow=5.2,SNR=57
CMAR LR LR 04 15 53.7
comp=Z,24nm,21.0s,baz=130,slow=36
comp=Z,13nm,0.8s
CMAR Chiang Mai Arr 80.60 288 *i* P **P** **03 39 35.7 +0.4**
CMAR pmax pmax
comp=Z,17nm,0.9s
CMAR Chiang Mai Arr 80.60 288 P **P** **03 39 35.6 +0.3**
ARSA Arzberg 80.62 1 P **P** **03 39 35.3 +0.2**
ARSA IAmb IAmb 03 39 37.8
comp=Z,23nm,1.0s
ARSA Arzberg 80.62 1 *e*pP **P** **03 39 36.8 +1.7**
comp=Z,22nm,1.0s,SNR=12
ARSA Arzberg 80.62 1 P **P** **03 39 36.7 +1.7**
comp=Z,29nm,1.0s
MESR Meseseni 80.63 356 ⇓P **P** **03 39 36.4 +1.3**
BIZ Bicaz 80.67 354 ⇓P **P** **03 39 36.0 +0.7**
FETA Feichten 80.70 5 *e*pP **P** **03 39 36.9 +1.2**
comp=Z,24nm,0.9s,SNR=24

BNALP Bannalp 80.72 6 P **P** **03 39 35.2 -0.5**
comp=Z,18nm,1.3s
MPLH Magyarpolny 80.72 360 P **P** **03 39 36.8 +1.3**
comp=Z,42nm,1.1s
SESA Seetaler Alpe, 80.74 2 *e*pP **P** **03 39 37.6 +1.6**
comp=Z,33nm,1.1s,SNR=26
KBA Koelnbreinsper 80.75 3 *e*pP **P** **03 39 37.6 +1.7**
comp=Z,46nm,0.7s,SNR=10
KBA Koelnbreinsper 80.75 3 P **P** **03 39 37.9 +1.9**
comp=Z,98nm,0.9s
PURM Purcari 80.78 351 ⇑P **P** **03 39 35.5 -0.4**
GIMEL St. Georges / 80.89 8 P **P** **03 39 38.0 +1.4**
comp=Z,34nm,1.0s
DRGR 80.99 356 P **P** **03 39 38.1 +1.0**
DRGR 80.99 356 ⇑P **P** **03 39 37.5 +0.3**
DRGR 80.99 356 P **P** **03 39 38.2 +1.0**
comp=Z,30nm,1.2s
CJR Cluj-Napoca 81.03 356 ⇓P **P** **03 39 38.5 +1.2**
CJR Cluj-Napoca 81.03 356 ⇓P **P** **03 39 38.5 +1.2**
ABTA Abfaltersbach 81.05 3 *i* pP **P** **03 39 38.3 +0.8**
comp=Z,11nm,0.7s,SNR=14
TESR Tescani 81.06 354 ⇓P **P** **03 39 36.7 -0.7**
TESR Tescani 81.06 354 ⇓P **P** **03 39 36.7 -0.7**
TESR Tescani 81.06 354 P **P** **03 39 37.9 +0.5**
comp=Z,23nm,1.4s
FUORN Ofenpass-Fuorn 81.08 5 P **P** **03 39 37.0 -0.8**
FUORN IAmb IAmb 03 39 40.0
comp=Z,16nm,0.8s
FUORN Ofenpass-Fuorn 81.08 5 P **P** **03 39 39.2 +1.4**
comp=Z,26nm,2.6s
SENIN Lac Senin/Sane 81.14 7 P **P** **03 39 38.7 +0.6**
TUE Stuetta 81.17 6 P **P** **03 39 38.9 +0.6**
TUE IAmb IAmb 03 39 40.9
comp=Z,62nm,1.8s
TUE Stuetta 81.17 6 P **P** **03 39 40.0 +1.7**
comp=Z,20nm,1.3s
NPW Naypyitaw 81.18 291 P **P** **03 39 38.5 +0.1**
comp=Z,30nm,0.8s
SOKA Soboth 81.19 2 *i* pP **P** **03 39 39.5 +1.3**
comp=Z,32nm,1.0s,SNR=23
MYKA Terra Mystica 81.20 3 *e*pP **P** **03 39 39.2 +1.0**
comp=Z,9.1nm,0.6s,SNR=8.0
PERS Pernice 81.23 2 *i* P **P** **03 39 39.8 +1.4**
ONER Baraj Valea Uz 81.25 354 ⇓P **P** **03 39 40.5 +2.0**
OBKA Obir 81.35 2 *i* pP **P** **03 39 40.2 +1.2**
comp=Z,41nm,0.7s,SNR=36
OBKA Obir 81.35 2 P **P** **03 39 40.3 +1.2**
comp=Z,83nm,0.8s
NIL Nilore 81.38 316 P **P** **03 39 39.1 -0.3**
NIL pmax pmax
comp=Z,61nm,1.0s
NIL Nilore 81.38 316 P **P** **03 39 39.1 -0.3**
NIL Nilore 81.38 316 P **P** **03 39 40.6 +1.2**
comp=Z,83nm,1.0s
PRED Cave del Predi 81.39 3 P **P** **03 39 39.1 -0.1**
PRED IAmb IAmb 03 39 40.8
comp=Z,25nm,1.3s
PRED Cave del Predi 81.39 3 P **P** **03 39 40.0 +0.8**
comp=Z,20nm,1.0s
GROS Grobnik 81.41 1 *i* P **P** **03 39 40.5 +1.1**
BEHE Becsehely 81.42 0 *e*P P **03 39 44.3 +5.0**
BEHE Becsehely 81.42 2 P **P** **03 39 41.2 +2.0**
GHRR 81.45 353 ⇓P **P** **03 39 40.8 +1.4**
GHRR 81.45 353 ⇓P **P** **03 39 40.8 +1.4**
GHRR 81.45 353 P **P** **03 39 40.9 +1.4**
comp=Z,113nm,1.0s
KIV Kislovodsk 81.50 342 *e*P **P** **03 39 41.3 +1.5**
KIV pmax pmax
comp=Z,24nm,0.9s
KIV MLR MLR
comp=Z,29nm,19.0s
KIV Kislovodsk 81.50 342 P **P** **03 39 40.6 +0.7**
KIV IAmb IAmb 03 39 42.2
comp=Z,29nm,0.7s
KIV Kislovodsk 81.50 342 ⇓P **P** **03 39 41.4 +1.5**
KIV Kislovodsk 81.50 342 P **P** **03 39 41.4 +1.5**
comp=Z,34nm,0.9s
OZUR 81.53 354 ⇑P **P** **03 39 41.5 +1.6**
OZUR 81.53 354 ⇑P **P** **03 39 41.5 +1.6**
STAL STALIGIAL 81.54 3 P **P** **03 39 39.9 -0.1**
SIRR Siria 81.55 357 ⇓P **P** **03 39 41.2 +1.1**
TURR Turia 81.56 354 ⇓P **P** **03 39 41.2 +1.1**
TURR Turia 81.56 354 ⇓P **P** **03 39 41.2 +1.1**
BOSR Bodos 81.56 354 ⇑P **P** **03 39 41.4 +1.3**
BOSR Bodos 81.56 354 ⇑P **P** **03 39 41.4 +1.3**
VLDR Vladesti 81.62 353 ⇓P **P** **03 39 41.4 +1.0**
DRE Drenchia 81.66 3 P **P** **03 39 41.1 +0.4**
comp=Z,44nm,0.8s
MORH Mrgy, Hungar 81.67 359 ⇓P **P** **03 39 41.7 +1.1**
MORH Mrgy, Hungar 81.67 359 *e*P **P** **03 39 40.7 +0.1**
MORH Mrgy, Hungar 81.67 359 P **P** **03 39 41.2 +0.6**
comp=Z,8.9nm,1.5s
KBZ Khabaz 81.67 342 P **P** **03 39 42.2 +1.6**
comp=Z,13nm,0.9s,baz=310,slow=1.7,SNR=25
KBZ LR LR 04 18 41.8
comp=Z,98nm,21.4s,baz=354,slow=38
comp=Z,13nm,0.9s
KBZ Khabaz 81.67 342 *ce*P **P** **03 39 42.6 +2.0**
KBZ pmax pmax
comp=Z,21nm,1.0s
DOPR Dopca 81.68 354 ⇓P **P** **03 39 42.4 +1.7**
VRI Vrincioaia 81.70 353 ⇑P **P** **03 39 41.4 +0.6**
VRI Vrincioaia 81.70 353 ⇑P **P** **03 39 41.4 +0.6**
VRI Vrincioaia 81.70 353 P **P** **03 39 42.0 +1.2**
comp=Z,14nm,0.9s
SHA1 Shidzhatmaz 81.71 342 *ce*P **P** **03 39 43.0 +1.8**
CTI Castel Tesino 81.71 4 P **P** **03 39 40.8 -0.2**
CTI pmax pmax
comp=Z,42nm,1.5s
CTI Castel Tesino 81.71 4 P **P** **03 39 40.8 -0.2**
CTI IAmb IAmb 03 39 43.3
comp=Z,42nm,1.5s
PLOR Plostina 81.72 354 ⇓P **P** **03 39 41.7 +0.8**
PLOR Plostina 81.72 354 ⇓P **P** **03 39 41.7 +0.8**
NCK Nalchik 81.76 341 *i* P **P** **03 39 42.5 +1.3**
NCK pmax pmax
comp=Z,47nm,0.7s
SAHR Sahastru 81.84 353 ⇓P **P** **03 39 42.9 +1.3**
SABO M.te Sabotino 81.85 3 P **P** **03 39 41.8 +0.1**
SABO IAmb IAmb 03 39 43.2
comp=Z,30nm,1.4s
DEV Deva 81.89 356 P **P** **03 39 42.6 +0.8**
comp=Z,15nm,1.8s
IZVR Izvoarele 81.94 353 ⇑P **P** **03 39 43.3 +1.3**
IZVR Izvoarele 81.94 353 ⇑P **P** **03 39 43.3 +1.3**
SSB Saint Sauveur 81.98 9 IAmb IAmb 03 39 43.9
comp=Z,16nm,1.1s
SSB Saint Sauveur 81.98 9 P **P** **03 39 43.1 +0.8**
comp=Z,17nm,0.9s
SURR Surduc 82.05 357 ⇑P **P** **03 39 43.3 +0.7**
TNR Turnu Rosu 82.06 355 ⇑P **P** **03 39 43.7 +1.0**
TNR Turnu Rosu 82.06 355 ⇑P **P** **03 39 43.7 +1.0**
MLR Muntele Rosu 82.12 354 ⇑P **P** **03 39 44.9 +1.7**
MLR Muntele Rosu 82.12 354 ⇑P **P** **03 39 44.9 +1.7**
MLR Muntele Rosu 82.12 354 IAmb IAmb 03 39 46.1
comp=Z,11nm,0.8s
MLR Muntele Rosu 82.12 354 ⇑P **P** **03 39 44.9 +1.7**
MLR Muntele Rosu 82.12 354 P **P** **03 39 45.0 +1.7**
comp=Z,14nm,0.9s
NEUR Neytrino 82.16 342 *i* P **P** **03 39 44.0 +0.5**
NEUR pmax pmax
comp=Z,8.0nm,1.2s
BZS Buzias 82.21 357 ⇑P **P** **03 39 44.2 +0.8**
BZS Buzias 82.21 357 ⇑P **P** **03 39 44.2 +0.8**
BZS Buzias 82.21 357 P **P** **03 39 44.2 +0.8**
comp=Z,20nm,1.2s
VOIR 82.23 355 P **P** **03 39 45.1 +1.4**
comp=Z,16nm,0.8s
CFR Carcaliu 82.28 352 ⇓P **P** **03 39 44.2 +0.4**
LOT Lotru 82.29 356 ⇑P **P** **03 39 43.7 -0.4**
GBRS Gornja Briga 82.33 2 *i* P **P** **03 39 45.1 +1.0**
KBL Kabul 82.35 319 P **P** **03 39 44.3 -0.4**
KBL pmax pmax
comp=Z,14nm,0.7s
KBL Kabul 82.35 319 P **P** **03 39 44.3 -0.4**
KBL IAmb IAmb 03 39 45.1
comp=Z,14nm,0.7s
KBL Kabul 82.35 319 P **P** **03 39 44.2 -0.4**
comp=Z,20nm,1.0s
GZR Gura Zlata 82.39 356 ⇓P **P** **03 39 45.6 +1.1**
GZR Gura Zlata 82.39 356 ⇓P **P** **03 39 45.6 +1.1**
SOC Sochi 82.39 344 *e*P **P** **03 39 44.2 -0.2**
SOC *e* 03 42 58.1
SOC *e*S **S** **03 49 54.3 -5.0**
SOC *e*SS **SS** **03 55 21.2 +2.7**

SOC pmax pmax
comp=Z,23nm,0.8s
BNI Bardonecchia 82.40 8 P **P** **03 39 46.6 +1.9**
BNI pmax pmax
comp=Z,30nm,1.2s
BNI Bardonecchia 82.40 8 P **P** **03 39 46.6 +1.9**
BNI IAmb IAmb 03 39 47.9
comp=Z,30nm,1.1s
BNI Bardonecchia 82.40 8 P **P** **03 39 47.0 +2.4**
comp=Z,29nm,1.1s
TEOL Teolo 82.40 4 P **P** **03 39 44.4 -0.1**
FRGS Fruska Gora 82.71 358 *e*P **P** **03 39 46.9 +0.8**
HERR Herculane 82.91 356 ⇑P **P** **03 39 47.4 +0.2**
MDVR Moldovita 83.04 357 ⇓P **P** **03 39 48.8 +0.9**
MDVR Moldovita 83.04 357 ⇓P **P** **03 39 48.8 +0.9**
BLY Banja Luka 83.14 0 P **P** **03 39 49.2 +0.9**
BLY Banja Luka 83.14 0 *e*P **P** **03 39 48.6 +0.3**
BLY Banja Luka 83.14 0 P **P** **03 39 49.4 +1.1**
comp=Z,8.7nm,1.2s
HUMR Humele 83.14 355 ⇑P **P** **03 39 48.4 +0.1**
HUMR Humele 83.14 355 P **P** **03 39 48.4 +0.1**
comp=Z,42nm,0.8s
SEKA Sheki 83.18 338 P **P** **03 39 49.1 +0.4**
ISO Isola 83.29 8 P **P** **03 39 51.4 +2.2**
comp=Z,22nm,1.4s
TEKS Tekeris 83.32 358 ⇓*i*P **P** **03 39 49.5 +0.2**
ZCCA Zocca 83.38 5 P **P** **03 39 50.6 +0.9**
ZCCA IAmb IAmb 03 39 53.5
comp=Z,20nm,1.0s
SGRR Singureni 83.39 354 ⇑P **P** **03 39 49.3 -0.2**
COPA Copaceanca 83.52 354 ⇓P **P** **03 39 49.0 -1.3**
VLC Villacollemand 83.54 5 P **P** **03 39 51.4 +1.0**
comp=Z,17nm,1.7s
MNGR Mingechevir, A 83.62 338 P **P** **03 39 51.5 +0.7**
EPOS Posof 83.85 341 P **P** **03 39 54.1 +1.9**
comp=Z,43nm,1.1s
KIJV Kijevo 83.88 1 P **P** **03 39 53.4 +1.2**
comp=Z,50nm,1.1s
GANJ Ganja 83.91 338 P **P** **03 39 53.0 +0.6**
POLO Lamas de Olo 83.99 19 *e*P **P** **03 39 54.5 +1.6**
POLO IAmb IAmb 03 39 55.8
comp=Z,27nm,1.8s
BBLS Lazi&#263i 84.01 359 ⇓*i*P **P** **03 39 54.3 +1.4**
MTSU Mount Surprise 84.02 230 P **P** **03 39 53.5 +0.5**
comp=Z,16nm,0.8s
MTSU Mount Surprise 84.02 230 P **P** **03 39 53.5 +0.5**
comp=Z,16nm,0.8s
PVRL Vila Real 84.10 19 *e*P **P** **03 39 54.8 +1.4**
BLKB Belogradchik 84.16 356 ⇓P **P** **03 39 53.8 +0.1**
BOVS Bovan 84.18 357 ⇓P **P** **03 39 54.3 +0.6**
LOZB Loznitsa 84.19 353 ⇑P **P** **03 39 53.8 0.0**
SDV Santo Domingo 84.20 83 P **P** **03 39 53.6 -0.8**
comp=Z,66nm,1.0s
MURB Monte Urbino 84.53 4 P **P** **03 39 56.6 +1.0**
SJES Sjenica 84.60 358 ⇓*i*P **P** **03 39 57.2 +1.2**
UPM Unac-Piva 84.68 359 *e*P **P** **03 39 56.7 +0.3**
GNI Garni 84.74 339 P **P** **03 39 58.0 +1.3**
comp=Z,13nm,0.8s,baz=351,slow=1.7,SNR=8.8
GNI LR LR 04 22 54.7
comp=Z,114nm,18.7s,baz=347,slow=39
comp=Z,13nm,0.8s
GNI Garni 84.74 339 *ce*P **P** **03 39 59.3 +2.5**
GNI pmax pmax
comp=Z,42nm,1.7s
GNI Garni 84.74 339 IAmb IAmb 03 39 60.0
comp=Z,23nm,1.0s
GNI Garni 84.74 339 P **P** **03 39 59.2 +2.5**
comp=Z,22nm,0.8s
GUMA Gualdo di Mace 84.76 3 P **P** **03 39 58.1 +1.5**
DIGO Kars 84.77 340 P **P** **03 39 59.0 +1.9**
comp=Z,126nm,1.1s
FDMO Fiordimonte 84.78 3 P **P** **03 39 57.7 +1.0**
FDMO IAmb IAmb 03 40 16.6
comp=Z,16nm,0.8s
CTA Charters Tower 84.83 227 LR LR 04 15 14.9
comp=Z,32nm,18.2s,baz=226,slow=34
BRY Bratogost 84.98 359 ⇓P **P** **03 39 58.2 +0.3**
NRCA Norcia 84.98 3 P **P** **03 39 58.5 +0.6**
NRCA IAmb IAmb 03 40 00.2
comp=Z,21nm,0.8s
RUSC La Rusia 85.05 87 P **P** **03 39 58.2 -0.9**
RUSC IAmb IAmb 03 39 59.5
comp=Z,18nm,1.0s
PGF Pioggiola 85.06 6 P **P** **03 39 59.9 +1.6**
comp=Z,43nm,1.2s
HRA Herat 85.06 324 P **P** **03 39 58.6 +0.1**
HRA IAmb IAmb 03 40 00.0
comp=Z,14nm,0.9s
TREB Trebinje 85.17 359 *e*P **P** **03 39 58.9 +0.2**
LKRN Lenkeran, Azer 85.17 336 P **P** **03 39 59.3 +0.6**
CESX Cesi 85.18 4 P **P** **03 39 59.0 +0.2**
CESX IAmb IAmb 03 40 00.5
comp=Z,47nm,1.6s
HOMI Horasan 85.42 341 ⇓P **P** **03 40 02.1 +1.8**
HCY Herceg Novi 85.44 359 *e*P **P** **03 39 58.8 -1.2**
PDG Podgorica 85.44 359 P **P** **03 40 00.1 +0.1**
PDG Podgorica 85.44 359 ⇓*i*P **P** **03 40 00.4 +0.4**
PDG Podgorica 85.44 359 P **P** **03 40 00.7 +0.7**
comp=Z,40nm,1.0s
AQU L'Aquila 85.47 3 P **P** **03 40 00.8 +0.5**
AQU pmax pmax
comp=Z,16nm,0.9s
AQU L'Aquila 85.47 3 P **P** **03 40 00.8 +0.5**
AQU IAmb IAmb 03 40 16.0
comp=Z,16nm,0.9s
AQU L'Aquila 85.47 3 ⇓*i*P **P** **03 40 01.1 +0.8**
AQU L'Aquila 85.47 3 P **P** **03 40 01.9 +1.6**
comp=Z,22nm,0.9s
PCBR Castelo Branco 85.53 19 *e*P **P** **03 40 00.9 +0.4**
DRME Dracevica, Mon 85.69 359 ⇓*i*P **P** **03 40 01.8 +0.5**
KELT Kelkit 85.81 343 P **P** **03 40 03.9 +1.7**
comp=Z,78nm,1.1s
INTR Introdacqua 85.83 3 P **P** **03 40 02.8 +0.8**
INTR IAmb IAmb 03 40 04.6
comp=Z,16nm,1.0s
SKO Skopje 85.85 357 *i* P **P** **03 40 03.6 +1.5**
PEHC Pehcevo 85.99 356 *i* P **P** **03 40 03.5 +0.6**
PHP Peshkopia 86.17 358 P **P** **03 40 04.4 +0.7**
comp=Z,35nm,1.0s
MTN Manton Dam 86.28 244 P **P** **03 40 04.5 0.0**
comp=Z,19nm,1.0s
MTN Manton Dam 86.28 244 P **P** **03 40 04.2 -0.2**
MTN IAmb IAmb 03 40 05.1
comp=Z,14nm,0.8s
OZAP Van, Ozalp-Mer 86.33 339 ⇑P **P** **03 40 07.2 +2.4**
ESDC Sonseca Array 86.34 16 P **P** **03 40 04.5 -0.1**
comp=Z,4.4nm,0.8s,baz=339,slow=4.7,SNR=22
ESDC LR LR 04 19 47.8
comp=Z,68nm,20.0s,baz=324,slow=36
comp=Z,4.4nm,0.8s
ESDC Sonseca Array 86.34 16 P **P** **03 40 04.4 -0.2**
ESDC IAmb IAmb 03 40 05.6
comp=Z,35nm,1.2s
VAY Valandovo 86.46 356 *i* P **P** **03 40 06.0 +0.9**
KAPI Kappang 86.49 257 P **P** **03 40 06.2 +0.6**
KAPI pmax pmax
comp=Z,19nm,1.1s
KAPI Kappang 86.49 257 P **P** **03 40 06.2 +0.6**
KAPI IAmb IAmb 03 40 06.6
comp=Z,19nm,1.1s
KNT Kendrikon 86.60 356 P **P** **03 40 07.1 +1.3**
comp=Z,37nm,1.3s
ALN Alexandroupoli 86.69 353 P **P** **03 40 07.0 +0.7**
comp=Z,26nm,1.1s
OHR Ohrid 86.73 357 *i* P **P** **03 40 07.9 +1.4**
GRG Griva 86.83 356 P **P** **03 40 08.1 +1.1**
comp=Z,79nm,1.1s
SOH Sokhos 86.92 356 P **P** **03 40 08.0 +0.5**
comp=Z,8.5nm,1.0s
BR131 Keskin Array S 87.09 348 P **P** **03 40 09.0 +0.6**
BR131 pmax pmax
comp=Z,11nm,1.0s
BR131 Keskin Array S 87.09 348 P **P** **03 40 09.0 +0.6**
BR131 IAmb IAmb 03 40 10.3
comp=Z,11nm,1.0s
BRTR Keskin Array B 87.09 348 P **P** **03 40 09.4 +1.0**
comp=Z,5.8nm,0.9s,baz=52,slow=2.8,SNR=26
BRTR PP **PP** **03 43 32.4 +1.5**
comp=Z,2.7nm,0.9s,baz=4.6,slow=5.0,SNR=4.6
BRTR LR LR 04 22 59.5
comp=Z,40nm,20.2s,baz=278,slow=38
comp=Z,5.8nm,0.9s
BRTR Keskin Array B 87.09 348 *i* P **P** **03 40 09.3 +0.9**
BRTR pmax pmax
comp=Z,6.0nm,0.9s

BRTR	**Keskin Array B**	**87.09**	**348**	P	**P**	**03 40 08.7**	**+0.3**
PBAR	**Barrancos**	**87.22**	**19**	*e*P	**P**	**03 40 08.9**	**0.0**
PBAR				IAmb	IAmb	03 40 11.2	
	comp=Z,33nm,1.6s						
HAKT	**HAKKARI**	**87.45**	**339**	P	**P**	**03 40 09.0**	**-1.3**
	comp=Z,26nm,1.5s						
MARCO	**Tramutola**	**87.58**	**1**	P	**P**	**03 40 12.2**	**+1.5**
	comp=Z,14nm,1.2s						
LIT	**Litokhoron**	**87.68**	**356**	P	**P**	**03 40 11.3**	**+0.2**
	comp=Z,17nm,0.9s						
KKUL	**Konya-Kulu**	**87.72**	**348**	P	**P**	**03 40 13.1**	**+1.7**
	comp=Z,22nm,1.6s						
QIS	**Mount Isa**	**88.35**	**233**	P	**P**	**03 40 14.0**	**-0.4**
	comp=Z,8.3nm,1.1s						
QIS	**Mount Isa**	**88.35**	**233**	P	**P**	**03 40 14.0**	**-0.4**
	comp=Z,8.3nm,1.1s						
XOR	**Xorichti**	**88.38**	**356**	P	**P**	**03 40 14.3**	**-0.2**
	comp=Z,20nm,1.0s						
WRA	**Warramunga Arr**	**90.46**	**237**	P	**P**	**03 40 23.4**	**-0.9**
	comp=Z,2.8nm,0.8s,baz=39,slow=5.6,SNR=26						
	comp=Z,2.8nm,0.8s						
WRA	**Warramunga Arr**	**90.46**	**237**	P	**P**	**03 40 23.6**	**-0.6**
WRA	**Warramunga Arr**	**90.46**	**237**	P	**P**	**03 40 23.6**	**-0.6**
QLP	**Quilpie**	**91.39**	**226**	P	**P**	**03 40 29.6**	**+1.2**
	comp=Z,37nm,1.1s						
RPN	**Rapa Nui**	**91.87**	**134**	LR	LR	04 11 22.4	
	comp=Z,50nm,20.0s,baz=95,slow=29						
URZ	**Urewera**	**92.09**	**196**	LR	LR	04 12 36.1	
	comp=Z,79nm,21.1s,baz=62,slow=30						
PSI	**Prapat**	**92.98**	**278**	P	**P**	**03 40 36.5**	**+0.2**
PSI				pmax	pmax		
	comp=Z,12nm,1.0s						
RPSI	**Rantau Prapat**	**93.06**	**278**	P	**P**	**03 40 36.5**	**0.0**
RPSI				IAmb	IAmb	03 40 37.4	
	comp=Z,12nm,1.0s						
ASAR	**Alice Springs**	**93.78**	**235**	P	**P**	**03 40 39.2**	**-0.4**
	comp=Z,4.4nm,0.9s,baz=35,slow=4.7,SNR=27						
ASAR				PKKPbc	**PKKPdf**	**03 57 42.0**	**+0.6**
	comp=Z,1.0nm,0.5s,baz=202,slow=2.0,SNR=8.8						
	comp=Z,4.4nm,0.9s						
ASAR	**Alice Springs**	**93.78**	**235**	P	**P**	**03 40 39.4**	**-0.2**
ASAR	**Alice Springs**	**93.78**	**235**	P	**P**	**03 40 39.4**	**-0.2**
STKA	**Stephens Creek**	**97.11**	**225**	P	**P**	**03 40 54.9**	**+0.4**
	comp=Z,1.6nm,0.7s,baz=5.7,slow=10,SNR=1.7						
STKA				LR	LR	04 21 17.7	
	comp=Z,70nm,20.1s,baz=2.7,slow=33						
	comp=Z,1.6nm,0.7s						
STKA	**Stephens Creek**	**97.11**	**225**	P	**P**	**03 40 54.5**	**0.0**
STKA				pmax	pmax		
	comp=Z,64nm,1.6s						
STKA	**Stephens Creek**	**97.11**	**225**	P	**P**	**03 40 54.5**	**0.0**
DBIC	**Dimbokro**	**118.08**	**25**	PKP	**PKPdf**	**03 46 08.1**	**-1.7**
	comp=Z,3.0nm,0.8s,baz=337,slow=4.3,SNR=4.6						
DBIC	**Dimbokro**	**118.08**	**25**	PKIKP	**PKPdf**	**03 46 09.1**	**-0.7**
DBIC	**Dimbokro**	**118.08**	**25**	PKPdf	**PKPdf**	**03 46 09.1**	**-0.7**
CPUP	**Villa Florida**	**119.56**	**95**	PKP	**PKPdf**	**03 46 10.6**	**-1.5**
	comp=Z,1.2nm,0.9s,baz=214,slow=7.3,SNR=3.5						
CPUP	**Villa Florida**	**119.56**	**95**	PKIKP	**PKPdf**	**03 46 10.7**	**-1.4**
CPUP	**Villa Florida**	**119.56**	**95**		**PKPdf**	**03 46 10.7**	**-1.4**
PLCA	**Paso Flores**	**122.05**	**116**	PKP	**PKPdf**	**03 46 15.6**	**-1.0**
	comp=Z,2.6nm,0.8s,baz=292,slow=3.0,SNR=5.0						
PLCA	**Paso Flores**	**122.05**	**116**	PKPdf	**PKPdf**	**03 46 15.1**	**-1.5**
VNDA	**Vanda**	**131.62**	**190**	PKP	**PKPdf**	**03 46 33.0**	**-0.7**
	comp=Z,0.1nm,0.4s,baz=129,slow=2.0,SNR=1.8						
VNDA	**Vanda**	**131.62**	**190**	PKIKP	**PKiKP**	**03 46 35.7**	**+1.0**
VNDA	**Vanda**	**131.62**	**190**		**PKiKP**	**03 46 35.7**	**+1.0**
QSPA	**South Pole Qui**	**142.26**	**180**	PKhKP	PKPpre	03 46 48.1	
	comp=Z,1.8nm,0.5s,baz=166,slow=0.4,SNR=11						
FOMA	**Nahampoana Res**	**144.59**	**309**	PKPdf	**PKPab**	**03 46 57.5**	**-0.1**
FOMA	**Nahampoana Res**	**144.59**	**309**	P	**PKPab**	**03 46 58.0**	**+0.5**
KSANE	**Kasane**	**144.85**	**347**	P	**PKPab**	**03 46 59.3**	**+0.5**
BROLN	**Tlhalogang**	**147.74**	**343**	P	**PKPdf**	**03 47 04.9**	**+0.3**
BELA	**Belgrano 2**	**148.52**	**161**	PKPdf	**PKPdf**	**03 47 05.3**	**+1.2**
GRTLG	**Ghanzi**	**148.79**	**353**	PKPdf	**PKPdf**	**03 47 05.7**	**-0.6**
WIN	**Windhoek**	**150.12**	**1**	P	**PKPbc**	**03 47 13.7**	**+0.1**
LPHEP	**Lephephe**	**150.21**	**344**	PKPdf	**PKPdf**	**03 47 08.7**	**+0.2**
KDWAN	**Kaudwane**	**150.41**	**346**	PKPdf	**PKPdf**	**03 47 08.5**	**-0.3**
KDWAN	**Kaudwane**	**150.41**	**346**	P	**PKPbc**	**03 47 14.4**	**+0.3**
KOOLE	**Kule**	**150.47**	**355**	P	**PKPbc**	**03 47 14.9**	**+0.5**
LKGWB	**Lokgwabe**	**151.52**	**353**	PKPdf	**PKPdf**	**03 47 10.5**	**-0.1**
LKGWB	**Lokgwabe**	**151.52**	**353**	P	**PKPbc**	**03 47 17.0**	**+0.3**
SKOMA	**Sekoma**	**151.63**	**347**	P	**PKPbc**	**03 47 17.2**	**+0.2**
LBTB	**Lobatse**	**151.87**	**344**	P	**PKPbc**	**03 47 17.8**	**+0.3**
POGA	**Pongola**	**152.71**	**331**	P	**PKPbc**	**03 47 19.2**	**0.0**
MAKGR	**Makgori**	**152.78**	**345**	P	**PKPbc**	**03 47 19.8**	**+0.3**
MAW	**Mawson**	**153.55**	**218**	PKPbc	**PKPbc**	**03 47 19.3**	**-0.4**
	comp=Z,6.6nm,0.6s,baz=128,slow=3.3,SNR=16						
MAW	**Mawson**	**153.55**	**218**	PKIKP	**PKPbc**	**03 47 19.4**	**-0.3**
MAW	**Mawson**	**153.55**	**218**		**PKPbc**	**03 47 19.4**	**-0.3**
BOSA	**Boshof**	**155.45**	**343**	PKP	**PKPdf**	**03 47 15.2**	**-0.9**
	comp=Z,3.0nm,0.8s,baz=69,slow=2.5,SNR=4.6						
BOSA				PKPab	**PKPab**	**03 47 40.2**	**-1.4**
	comp=Z,6.2nm,0.9s,baz=41,slow=3.9,SNR=4.8						
VNA3	**Neumayer Olymp**	**157.64**	**157**	⇑PKPdf	**PKPdf**	**03 47 14.5**	**-2.9**
	comp=Z,3.1nm,0.7s						
VNA2	**Neumayer--Watz**	**158.39**	**158**	⇑PKPdf	**PKPdf**	**03 47 16.4**	**-2.0**
	comp=Z,2.3nm,0.7s,baz=341,slow=3.0						
VNA2				⇑PKPab	**PKPab**	**03 47 52.1**	**-1.0**
	comp=Z,4.2nm,0.5s,baz=220,slow=3.7						
SNAA	**Sanae**	**158.76**	**162**	⇑PKPab	**PKPab**	**03 47 53.5**	**-1.2**
	comp=Z,47nm,0.7s						
SNAA	**Sanae**	**158.76**	**162**	PKPab	**PKPab**	**03 47 53.5**	**-1.2**
	comp=Z,1.5nm,0.5s,baz=254,slow=4.6,SNR=3.7						
TROLL	**Troll, Antarti**	**159.34**	**167**	⇓PKPdf	**PKPdf**	**03 47 18.0**	**-1.6**
TROLL				⇑PKPab	**PKPab**	**03 47 56.6**	**-0.8**
	comp=Z,156nm,0.8s						

*ISK **04** 03:28:47.9, 37.73N×27.06E, h9km, ML2.2/16*
*THE **04** 03:28:48.3, 38.1°×2.7E±°, h3km±2km, M2.8/7, MLh2.8/7*
*AFAD **04** 03:28:48.0, 37.76N×27.10E, h14km±2km, ML2.5*

ISC 04 03:28:48.0±0.9, 37.73N±0.02×27.05E±0.02, h10km±6km, n36, σ0967/51, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.15**	**100**	P	**Pg**	**03 28 51.2**	**-0.2**
GCAM				IAML		03 28 54.0	
	comp=N,978nm,0.3s						
GCAM				S	**Sg**	**03 28 54.9**	**+1.2**
GCAM				IAML		03 28 56.0	
	comp=E,771nm,0.2s						
GCAM	**G?zelcaml?**	**0.15**	**100**	Pg	**Pg**	**03 28 51.5**	**+0.2**
GCAM				Sg	**Sg**	**03 28 54.1**	**+0.4**
GCAM				AML	AML		
SMG	**Samos**	**0.17**	**264**	P	**Pg**	**03 28 51.2**	**-0.5**
SMG				S	**Sg**	**03 28 53.5**	**-0.8**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**55**	Pg	**Pg**	**03 28 52.9**	**+0.1**
KUSD				Sg	**Sg**	**03 28 56.3**	**+0.3**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.31**	**150**	P	**Pg**	**03 28 51.1**	**-3.1**
DDIM				S	**Sg**	**03 28 59.2**	**+0.8**
DDIM				IAML		03 29 00.0	
	comp=N,768nm,0.4s						
DDIM				IAML		03 29 00.0	
	comp=E,669nm,1.0s						
GMLD	**Gumuldur**	**0.36**	**343**	Pg	**Pg**	**03 28 55.8**	**+0.6**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.38**	**157**	Pg	**Pg**	**03 28 55.9**	**+0.4**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**349**	P	**Pg**	**03 28 57.7**	**-0.2**
BEYE				S	**Sg**	**03 29 04.5**	**-0.2**
BEYE				IAML		03 29 09.0	
	comp=N,373nm,0.2s						
BEYE				IAML		03 29 09.0	
	comp=E,291nm,0.2s						
DUVT	**Torbali**	**0.58**	**33**	P	**Pg**	**03 28 58.5**	**-0.9**
DUVT				S	**Sg**	**03 29 06.3**	**-0.7**
DUVT				IAML		03 29 08.0	
	comp=E,194nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.63**	**163**	Pg	**Pg**	**03 29 00.5**	**+0.3**
YKAV				AML	AML		
BLCB	**Balcova**	**0.66**	**359**	P	**Pg**	**03 29 00.2**	**-0.6**
BLCB				S	**Sb**	**03 29 10.7**	**0.0**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.66**	**96**	P	**Pg**	**03 29 00.6**	**-0.2**
AYDN				S	**Sb**	**03 29 10.0**	**-0.9**
AYDN				IAML		03 29 14.0	
	comp=N,229nm,0.3s						
AYDN				IAML		03 29 14.0	
	comp=E,244nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.67**	**320**	P	**Pb**	**03 29 01.7**	**0.0**
ZEYE				IAML		03 29 13.0	
	comp=E,370nm,0.2s						
ZEYE				IAML		03 29 14.0	
	comp=N,480nm,0.3s						
BODT	**Bodrum**	**0.70**	**163**	P	**Pg**	**03 29 01.5**	**+0.1**
BODT				S	**Sb**	**03 29 11.9**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**163**	Pg	**Pg**	**03 29 01.8**	**+0.4**
AYDB	**Zeytinkoy-Aydi**	**0.70**	**72**	Pg	**Pg**	**03 29 01.8**	**+0.2**
AYDB				AML	AML		
MLSB	**Milas**	**0.72**	**126**	Pg	**Pg**	**03 29 01.8**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.76**	**156**	Pg	**Pb**	**03 29 02.9**	**-0.2**
IZMR	**zmir-demi**	**0.82**	**60**	P	**Pb**	**03 29 04.3**	**0.0**
IZMR				S	**Sg**	**03 29 13.7**	**-0.9**
IZMR				S	**Sg**	**03 29 13.8**	**-0.9**
IZMR				IAML		03 29 17.0	
	comp=E,131nm,0.5s						
IZMR				IAML		03 29 19.0	
	comp=N,105nm,0.4s						
BAGT	**Foa**	**0.94**	**351**	P	**Pg**	**03 29 05.8**	**-0.3**
BAGT				S	**Sg**	**03 29 18.6**	**+0.3**
BAGT				IAML		03 29 21.0	
	comp=E,143nm,0.5s						
BAGT				IAML		03 29 24.0	
	comp=N,191nm,0.7s						
KRBN	**Karaburun**	**0.95**	**336**	Pg	**Pb**	**03 29 06.7**	**+0.2**
KRBN				AML	AML		
NAZL	**Nazilli-Aydin**	**1.01**	**76**	Pg	**Pb**	**03 29 07.6**	**0.0**
FOCM	**Foa**	**1.02**	**346**	Pg	**Pn**	**03 29 08.1**	**-0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	P	**Pg**	**03 29 07.7**	**0.0**
CHOS				S	**Sb**	**03 29 22.2**	**+0.8**
CHOS				AML	AML		
CAMT	**Merkez**	**1.04**	**11**	P	**Pg**	**03 29 07.4**	**-0.6**
CAMT				IAML		03 29 25.0	
	comp=E,208nm,0.4s						
CAMT				IAML		03 29 27.0	
	comp=N,144nm,0.9s						
KARB	**zmir-Karabur**	**1.06**	**332**	P	**Pg**	**03 29 08.5**	**+0.1**
KARB				S	**Sb**	**03 29 22.6**	**+0.3**
KARB				IAML		03 29 24.0	
	comp=E,169nm,0.8s						
KARB				IAML		03 29 25.0	
	comp=N,140nm,0.4s						
DAT	**Datca**	**1.08**	**157**	S	**Sn**	**03 29 24.8**	**+0.5**
DAT				AML	AML		
DAT	**Datca**	**1.08**	**157**	Pg	**Pb**	**03 29 08.8**	**0.0**
DAT				AML	AML		
YER	**Yerkesik**	**1.15**	**121**	P	**Pb**	**03 29 09.3**	**-0.6**
YER	**Yerkesik**	**1.15**	**121**	Pn	**Pb**	**03 29 09.8**	**-0.1**
YER				AML	AML		
TURN	**Turunc**	**1.35**	**135**	Pn	**Pb**	**03 29 13.2**	**0.0**
TURN				AML	AML		
APE	**Apeiranthos**	**1.38**	**242**	P	**Pn**	**03 29 12.9**	**-0.4**
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**03 29 15.3**	**-0.2**
GORD				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pb**	**03 29 15.2**	**-0.3**
SOMA				AML	AML		
DALY	**Dalyan (Mula)**	**1.57**	**125**	Pn	**Pn**	**03 29 16.4**	**+0.6**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.81**	**97**	Pn	**Pn**	**03 29 19.8**	**+0.6**
APMY				AML	AML		

AFAD 04 03:37:01.0, 37.77N×27.07E, h7km±6km, ML1.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.32**	**332**	P	Pg	03 37 07.8	+0.5
DGB				S	Sg	03 37 12.2	+0.7
DGB				IAML		03 37 13.0	
	comp=N,66nm,0.3s						
DGB				IAML		03 37 13.0	
	comp=E,134nm,0.2s						
BEYE	**izmir**	**0.47**	**346**	P	Pn	03 37 17.4	+3.2
BEYE				S	Sb	03 37 22.4	+3.5
BEYE				IAML		03 37 47.0	
	comp=N,306nm,0.3s						
BEYE				IAML		03 37 47.0	
	comp=E,376nm,0.5s						
AYDN	**Tasoluk**	**0.65**	**99**	P	Pg	03 37 14.0	+0.5
AYDN				S	Sg	03 37 22.8	+0.8
AYDN				IAML		03 37 27.0	
	comp=E,60nm,0.3s						
AYDN				IAML		03 37 28.0	
	comp=N,46nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.65**	**316**	P	Pn	03 37 17.5	+0.9
ZEYE				S	Sb	03 37 23.4	-0.6
ZEYE				IAML		03 37 46.0	
	comp=N,64nm,0.6s						
ZEYE				IAML		03 37 48.0	
	comp=E,66nm,0.7s						
BDRM	**Kayabasi**	**0.76**	**157**	P	Pb	03 37 17.4	+0.8
BDRM				S	Sg	03 37 26.1	+0.5
BDRM				IAML		03 37 29.0	
	comp=N,64nm,0.4s						
BDRM				IAML		03 37 48.0	
	comp=E,42nm,0.3s						

*AFAD **04** 03:37:28.9, 37.73N×27.01E, h7km±2km, ML2.7*

ISK 04 03:37:28.8, 37.74N×27.01E, h6km, ML2.7/17, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.18**	**101**	P	Pg	03 37 32.7	+0.2
GCAM				S	Sg	03 37 36.0	+1.1
GCAM				IAML		03 37 37.0	
	comp=N,2μm,0.7s						
GCAM				IAML		03 37 37.0	
	comp=E,2μm,0.3s						
GCAM	**G?zelcaml?**	**0.18**	**101**	Pg	Pg	03 37 33.1	+0.6
GCAM				Sg	Sg	03 37 36.3	+1.3
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**61**	Pg	Pg	03 37 34.2	+0.4
KUSD				Sg	Sg	03 37 38.3	+1.1
KUSD				AML	AML		
DGB	**zmir**	**0.33**	**343**	P	Pg	03 37 35.6	+0.4
DGB				S	Sg	03 37 40.1	+0.5
DGB				IAML		03 37 41.0	
	comp=E,550nm,0.4s						
DGB				IAML		03 37 46.0	
	comp=N,345nm,0.7s						
DDIM	**Aydin, Didim**	**0.34**	**146**	P	Pg	03 37 36.0	+0.7
DDIM				S	Sg	03 37 41.2	+1.4
DDIM				IAML		03 37 42.0	
	comp=N,1μm,0.7s						
DDIM				IAML		03 37 42.0	
	comp=E,1μm,1.0s						
GMLD	**Gumuldur**	**0.35**	**348**	Pg	Pb	03 37 36.5	-0.9
GMLD				Sg	Sg	03 37 41.5	+1.4
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.41**	**153**	Pg	Pb	03 37 37.6	-0.7
DIDI				Sg	Sb	03 37 43.5	-1.2
DIDI				AML	AML		
BEYE	**izmir**	**0.49**	**353**	P	Pg	03 37 38.8	+0.4
BEYE				S	Sb	03 37 46.2	-1.2
BEYE				IAML		03 37 50.0	
	comp=N,567nm,0.2s						
BEYE				IAML		03 37 50.0	
	comp=E,600nm,0.3s						
DUVT	**Torbali**	**0.60**	**36**	P	Pg	03 37 40.2	-0.1
DUVT				S	Sg	03 37 49.1	+1.0
DUVT				IAML		03 37 53.0	
	comp=E,502nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.64**	**322**	P	Pg	03 37 40.9	-0.2
ZEYE				S	Sb	03 37 50.9	-0.6
ZEYE				IAML		03 37 51.0	
	comp=N,513nm,0.3s						
ZEYE				IAML		03 37 54.0	
	comp=E,248nm,0.4s						
DAGE	**izmir**	**0.65**	**65**	P	Pb	03 37 42.1	-0.4
DAGE				IAML		03 37 52.0	
	comp=E,381nm,0.2s						
DAGE				IAML		03 37 53.0	
	comp=N,486nm,0.2s						
BLCB	**Balcova**	**0.65**	**3**	Pg	Pg	03 37 37.4	-3.9
BLCB				Sg	Sb	03 37 50.9	-0.9
YKAV	**Yalikavak-Bodr**	**0.65**	**160**	Pg	Pb	03 37 41.9	-0.6
YKAV				Sg	Sg	03 37 50.6	+0.9
YKAV				AML	AML		
BODT	**Bodrum**	**0.72**	**160**	Pg	Pg	03 37 43.0	+0.4
BODT				Sg	Sb	03 37 53.2	-0.5
AYDB	**Zeytinkoy-Aydi**	**0.73**	**73**	Pg	Pg	03 37 43.3	+0.4
MLSB	**Milas**	**0.76**	**125**	Pg	Pb	03 37 43.9	-0.4
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.78**	**154**	Pg	Pg	03 37 44.2	+0.5
BAGT	**Foa**	**0.93**	**353**	P	Pn	03 37 47.9	-0.4
BAGT				S	Sb	03 38 00.5	+0.7
BAGT				IAML		03 38 02.0	
	comp=N,536nm,0.6s						
BAGT				IAML		03 38 07.0	
	comp=E,479nm,0.6s						
KRBN	**Karaburun**	**0.93**	**338**	Pg	Pb	03 37 47.2	-0.1
KRBN				AML	AML		
FOCM	**Foa**	**1.00**	**348**	Pg	Pb	03 37 48.5	0.0
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**77**	Pg	Pb	03 37 49.2	-0.1
DAT	**Datca**	**1.10**	**155**	Pn	Pb	03 37 50.4	0.0
DAT				AML	AML		
YER	**Yerkesik**	**1.18**	**120**	Pn	Pn	03 37 51.9	0.0
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**36**	Pn	Pn	03 37 52.4	+0.2
GOMA				AML	AML		
AKS	**Akhisar**	**1.30**	**29**	Pn	Pg	03 37 53.9	+0.1
AKS				AML	AML		
TURN	**Turunc**	**1.38**	**134**	Pn	Pg	03 37 55.3	+0.1
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn	Pb	03 37 56.7	0.0
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**38**	Pn	Pb	03 37 56.8	-0.1
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.60**	**124**	Pn	Pb	03 37 58.5	-0.3
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.84**	**98**	Pn	Pn	03 38 01.9	+0.9
APMY				AML	AML		

*THE **04** 03:50:49.9, 38°N±1°×2°7E±°, h14km±1km, M3.0/7, MLh3.0/7*
*ISK **04** 03:50:49.8, 37.83N×26.82E, h10km, ML2.8/21*
*AFAD **04** 03:50:50.2, 37.86N×26.83E, h7km±1km, ML2.7*
*ATH **04** 03:50:50.4, 37.80N×26.76E, h11km±1km, ML2.9/7,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km

ISC 04 03:50:50.1±0.8, 37.82N±0.02×26.80E±0.02, h12km±5km, n46, σ053/67, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.08**	**248**	P	**Pg**	**03 50 52.6**	**-0.1**
KRL1				S	**Sg**	**03 50 54.9**	**+0.2**
KRL1				AML	AML		
SMG	**Samos**	**0.12**	**165**	P	**Pg**	**03 50 53.0**	**-0.3**
SMG				S	**Sg**	**03 50 55.7**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**165**	P	**Pg**	**03 50 53.0**	**-0.3**
SMG				S	**Sg**	**03 50 55.5**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**17**	P	**Pg**	**03 50 54.7**	**-0.5**
DGB				IAML		03 50 59.0	
	comp=N,583nm,0.3s						
DGB				IAML		03 50 59.0	
	comp=E,803nm,0.5s						
GMLD	**Gumuldur**	**0.27**	**20**	Pg	**Pg**	**03 50 55.4**	**-0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.37**	**110**	Pg	**Pg**	**03 50 57.3**	**-0.2**
GCAM				Sg	**Sb**	**03 51 03.2**	**-1.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.39**	**84**	Pg	**Pg**	**03 50 57.3**	**-0.6**
KUSD				Sg	**Sg**	**03 51 03.1**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**14**	P	**Pg**	**03 50 57.9**	**-0.5**
BEYE				IAML		03 51 04.0	
	comp=E,514nm,0.3s						
BEYE				S	**Sg**	**03 51 04.2**	**+0.2**
BEYE				IAML		03 51 09.0	
	comp=N,454nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**331**	P	**Pg**	**03 50 59.2**	**-0.2**
ZEYE				S	**Sg**	**03 51 06.2**	**+0.4**
ZEYE				IAML		03 51 07.0	
	comp=N,940nm,0.6s						
ZEYE				IAML		03 51 09.0	
	comp=E,404nm,0.5s						
DDIM	**Aydin, Didim**	**0.51**	**136**	P	**Pg**	**03 51 00.1**	**0.0**
DDIM				IAML		03 51 08.0	
	comp=E,1μm,0.3s						
DDIM				S	**Sb**	**03 51 08.3**	**+0.1**
DDIM				IAML		03 51 09.0	
	comp=N,898nm,0.2s						
DIDI	**Didim-Aydin**	**0.57**	**142**	Pg	**Pg**	**03 51 01.4**	**+0.2**
DIDI				AML	AML		
BLCB	**Balcova**	**0.59**	**19**	P	**Pg**	**03 51 01.4**	**-0.3**
BLCB				S	**Sg**	**03 51 09.5**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**19**	Pg	**Pg**	**03 51 01.4**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.65**	**52**	P	**Pg**	**03 51 02.0**	**-0.7**
DUVT				S	**Sg**	**03 51 10.8**	**-0.5**
DUVT				IAML		03 51 14.0	
	comp=E,716nm,0.5s						
KRBN	**Karaburun**	**0.79**	**346**	Pg	**Pg**	**03 51 05.6**	**+0.2**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**151**	Pg	**Pg**	**03 51 05.6**	**+0.1**
YKAV				AML	AML		
CHOS	**Chios island**	**0.81**	**314**	P	**Pg**	**03 51 04.7**	**-1.1**
CHOS				S	**Sb**	**03 51 17.3**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.81**	**314**	P	**Pg**	**03 51 04.7**	**-1.1**
CHOS				S	**Sg**	**03 51 17.1**	**+0.6**
CHOS				AML	AML		
BAGT	**Foa**	**0.83**	**3**	P	**Pg**	**03 51 05.6**	**-0.6**
BAGT				IAML		03 51 20.0	
	comp=E,584nm,0.5s						
BAGT				IAML		03 51 21.0	
	comp=N,870nm,0.6s						
BODT	**Bodrum**	**0.86**	**152**	P	**Pg**	**03 51 06.3**	**-0.5**
BODT				S	**Sb**	**03 51 19.2**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**152**	Pg	**Pg**	**03 51 06.8**	**0.0**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.87**	**100**	P	**Pg**	**03 51 06.6**	**-0.4**
AYDN				IAML		03 51 22.0	
	comp=E,515nm,0.2s						
AYDN				IAML		03 51 24.0	

DALY	**Dalyan (Mula)**	**1.79**	**124**	Pn	**Pn**	**03**	**51**	**21.5**	**+0.8**
DALY				AML	AML				
THERA	**Ancient Thera,**	**1.80**	**216**	P	**Pn**	**03**	**51**	**21.2**	**+0.3**
THERA				S	**Sn**	**03**	**51**	**43.1**	**-0.5**
THERA				AML	AML				
APMY	**Acipayam-Deniz**	**2.02**	**99**	Pn	**Pn**	**03**	**51**	**24.5**	**+0.5**
APMY				AML	AML				
DION	**Dionisos Attik**	**2.28**	**277**	P	**Pn**	**03**	**51**	**27.6**	**+0.1**

*IDC **04** 04:20:44.6±1.7,54˚.02N×159˚.58W, h0km, mb3.8/4, mbtmp3.6/7, ML3.2/3, MS2.7/1, Error ellipse: s-maj=35.8km s-min=21.7km az=155.0*
*NEIC **04** 04:20:47.4±1.5,54˚.09N±0˚.05×159˚.68W±0˚.06, h19km±6km, ML3.6/26, ML3.4(AEIC), Error ellipse: s-maj=7.6km s-min=4.7km az=184.0*
*AEIC **04** 04:20:48.7±1.7,54˚.09N±0˚.04×159˚.75W±0˚.07, h11km±5km, Error ellipse: s-maj=6.5km s-min=5.4km az=142.0*

ISC 04 04:20:46.0±2.0,54˚04N±0˚.06×159˚68W±0˚.04, h13km±12km, n56, σ0s98/57, mb4.0/4, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.78**	**4**		**Pg**	**04 21 02.0**	**+0.9**
CNBA				IAML		04 21 15.6	
	comp=E,3µm,0.6s						
CNBA	**Chernabura Isl**	**0.78**	**4**		**Sb**	**04 21 14.6**	**+2.7**
SDPT	**Sand Point**	**1.39**	**341**		**Pn**	**04 21 10.8**	**-0.2**
SDPT				IAML		04 21 43.4	
	comp=E,740nm,1.0s						
SDPT				IAML		04 21 45.4	
	comp=N,694nm,1.2s						
SDPT	**Sand Point**	**1.39**	**341**		**Sb**	**04 21 28.3**	**-1.1**
DOL	**Dolgoi Island**	**1.69**	**312**		**Pn**	**04 21 14.9**	**-0.2**
DOL					**Sn**	**04 21 35.1**	**-1.5**
HAG	**Hague Volcano**	**1.82**	**316**		**Pn**	**04 21 17.1**	**+0.1**
HAG					**Pb**	**04 21 17.2**	**-1.8**
PS4A	**Pavlof South-4**	**1.82**	**317**		**Pn**	**04 21 17.1**	**+0.2**
PS4A					**Sn**	**04 21 39.1**	**-0.7**
PS4A					**Sb**	**04 21 39.5**	**-2.2**
PS1A	**Pavlof South-1**	**1.83**	**320**		**Pn**	**04 21 17.4**	**+0.4**
PS1A					**Sn**	**04 21 39.9**	**-0.2**
DT1	**Dutton Round H**	**1.85**	**306**		**Pn**	**04 21 17.4**	**0.0**
DT1					**Sn**	**04 21 39.2**	**-1.4**
DTNA	**Dutton South F**	**1.86**	**308**		**Pn**	**04 21 17.8**	**+0.2**
PN7A	**Pavlof North-7**	**1.94**	**317**		**Pn**	**04 21 19.3**	**+0.7**
S12K	**Black Hills**	**2.16**	**321**		**Pn**	**04 21 22.4**	**+0.7**
S12K	**Black Hills**	**2.16**	**321**		**Sn**	**04 21 48.7**	**+0.5**
S12K				IAML		04 22 01.6	
	comp=N,470nm,0.6s						
S12K				IAML		04 22 10.2	
	comp=E,456nm,0.8s						
VNHG	**Veniaminof 1**	**2.21**	**7**		**Pn**	**04 21 24.0**	**+1.7**
CHGN	**Chignik**	**2.38**	**17**		**Pn**	**04 21 24.3**	**-0.2**
CHGN				IAML		04 22 10.9	
	comp=E,350nm,1.1s						
CHGN	**Chignik**	**2.38**	**17**		**Sn**	**04 21 53.8**	**+0.3**
ISLZ	**Isanotski Laza**	**2.46**	**288**		**Pn**	**04 21 26.3**	**+0.6**
ISLZ					**Sn**	**04 21 55.4**	**-0.1**
SSLS	**Shishaldin Sou**	**2.62**	**287**		**Pn**	**04 21 28.7**	**+0.8**
WTUG	**Tugumak**	**2.87**	**288**		**Pn**	**04 21 32.3**	**+1.0**
WTUG					**Sn**	**04 22 06.7**	**+1.1**
WESN	**West Dahl Nort**	**2.92**	**282**		**Pn**	**04 21 33.0**	**+0.9**
WESN					Pb	04 21 33.3	-4.6
WESN					**Sn**	**04 22 06.7**	**-0.4**
CHIR	**Chirikof Islan**	**2.94**	**51**		**Pn**	**04 21 31.8**	**-0.5**
CHIR					Pb	04 21 32.5	-5.6
CHIR	**Chirikof Islan**	**2.94**	**51**	IAML		04 22 45.3	
	comp=E,140nm,0.8s						
CHIR				IAML		04 22 50.9	
	comp=N,156nm,1.0s						
WESP	**Westdahl Peak**	**2.99**	**281**		**Pn**	**04 21 33.7**	**+0.6**
WECS	**Westdahl Cape**	**3.03**	**281**	Pn	**Pn**	**04 21 33.8**	**+0.2**
WECS				IAML		04 22 13.2	
	comp=E,179nm,1.1s						
AHB	**Akutan Harbor**	**3.62**	**274**		**Pn**	**04 21 42.6**	**+0.9**
ZRO	**Akutan Zero**	**3.71**	**273**		**Pn**	**04 21 43.8**	**+0.9**
SII	**Sitkinak Islan**	**4.03**	**49**	Pn	**Pn**	**04 21 47.2**	**0.0**
SII				IAML		04 23 37.5	
	comp=N,118nm,0.9s						
UNV	**Unalaska Valle**	**4.04**	**270**	Pn	**Pn**	**04 21 47.4**	**+0.1**
R17L	**Mt. Peulik Vol**	**4.05**	**26**		**Pn**	**04 21 48.9**	**+1.2**
MNAT	**Makushin Natee**	**4.14**	**271**		**Pn**	**04 21 49.3**	**+0.5**
CAHL	**Cahill**	**4.71**	**30**		**Pn**	**04 21 57.0**	**+0.3**
ANCK	**Angle Creek**	**4.78**	**28**		**Pn**	**04 21 58.2**	**+0.6**
OHAK	**Old Harbor**	**4.82**	**46**		**Pn**	**04 21 57.6**	**-0.5**
ACHA	**Angle Creek He**	**4.84**	**28**	Pn	**Pn**	**04 21 58.5**	**+0.1**
P16K	**Nushagak River**	**5.09**	**10**	Pn	**Pn**	**04 22 02.0**	**+0.2**
KAWH	**Katmai**	**5.13**	**30**		**Pn**	**04 22 02.8**	**+0.3**
O15K	**Ungalikthiuk R**	**5.15**	**359**	Pn	**Pn**	**04 22 03.3**	**+0.7**
O15K				IAML		04 23 18.1	
	comp=N,27nm,1.1s						
O15K				IAML		04 23 56.6	
	comp=E,41nm,1.1s						
O14K	**Tigyukauivet M**	**5.30**	**351**	Pn	**Pn**	**04 22 05.2**	**+0.6**
O14K				IAML		04 23 26.8	
	comp=E,25nm,1.1s						
O14K				IAML		04 23 51.5	
	comp=N,33nm,1.0s						
P17K	**Kvichak River**	**5.47**	**18**	Pn	**Pn**	**04 22 07.4**	**+0.5**
KDAK	**Kodiak Island**	**5.47**	**44**	Pn	**Pn**	**04 22 05.8**	**-1.2**
	comp=N,0.4nm,0.3s,baz=192,slow=15,SNR=45						
KDAK				Sn	Sn	04 23 03.6	-6.1
	comp=N,1.0nm,0.3s,baz=331,slow=11,SNR=1.8						
KDAK				LR	LR	04 23 23.6	
	comp=N,83nm,21.8s,baz=258,slow=29						
	comp=N,4.7nm,0.6s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.47**	**44**	Pn	**Pn**	**04 22 06.1**	**-0.9**
O16K	**Kokwok River B**	**5.63**	**8**	Pn	**Pn**	**04 22 09.9**	**+0.7**
Q19K	**Cape Douglas,**	**5.93**	**32**	Pn	**Pn**	**04 22 14.0**	**+0.7**
CLCO	**Concord Point,**	**6.14**	**262**		**Pn**	**04 22 17.1**	**+0.9**
ILAR	**Eielson Array**	**12.54**	**26**	Pn	Pn	04 23 40.8	-3.1
	comp=N,0.1nm,0.3s,baz=213,slow=13,SNR=5.0						
	comp=N,0.2nm,0.5s						
ILAR				AML	AML		
INK	**Inuvik**	**18.83**	**31**	Pn	**P**	**04 25 02.4**	**-2.6**
	comp=N,0.2nm,0.3s,baz=233,slow=12,SNR=10						
	comp=N,0.9nm,0.8s						
INK				AML	AML		
H11N2	**WAKE ISLAND Hy**	**42.72**	**230**	T	T	05 14 52.9	
	baz=28,slow=76,SNR=21						
H11N3	**WAKE ISLAND Hy**	**42.72**	**230**	T	T	05 14 45.7	
	baz=28,slow=76,SNR=16						
H11N1	**WAKE ISLAND Hy**	**42.74**	**230**	T	T	05 14 50.4	
	baz=28,slow=76,SNR=13						
H11S1	**WAKE ISLAND Hy**	**43.88**	**229**	T	T	05 16 16.2	
	baz=27,slow=76,SNR=9.7						
H11S2	**WAKE ISLAND Hy**	**43.89**	**229**	T	T	05 16 21.3	
	baz=27,slow=76,SNR=15						
H11S3	**WAKE ISLAND Hy**	**43.89**	**229**	T	T	05 16 24.4	
	baz=27,slow=76,SNR=6.7						
TXAR	**Lajitas Array**	**47.04**	**98**	P	**P**	**04 29 17.1**	**0.0**
	comp=N,0.1nm,0.4s,baz=317,slow=4.7,SNR=4.5						
	comp=N,0.1nm,0.4s						
FINES	**FINESS Array B**	**64.77**	**357**	P	**P**	**04 31 23.7**	**+0.3**
	comp=N,3.4nm,0.9s,baz=354,slow=13,SNR=3.7						
	comp=N,3.4nm,0.9s						
BVAR	**Borovoye Array**	**65.49**	**329**	P	**P**	**04 31 29.3**	**+1.0**
	comp=N,1.7nm,0.6s,baz=36,slow=5.5,SNR=5.0						
	comp=N,1.7nm,0.6s						
MKAR	**Makanchi Array**	**66.65**	**319**	P	**P**	**04 31 37.2**	**+1.4**
	comp=N,0.3nm,0.7s,baz=57,slow=10,SNR=4.2						
	comp=N,0.3nm,0.7s						

*AFAD **04** 04:47:28.5, 37˚.72N×26˚.99E, h7km±1km, ML2.5*
*THE **04** 04:47:28.9, 38˚N±1˚×2˚7E±˚, h2km±2km, M2.8/8, MLh2.8/8*
*ISK **04** 04:47:28.6, 37˚.73N×27˚.01E, h7km, ML2.8/22*
*ATH **04** 04:47:28.7, 37˚.71N×27˚.02E, h6km±1km, ML2.8/6, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 04 04:47:28.9±0.8, 37˚72N±0˚.02×27˚00E±0˚.02, h11km±6km, n49, σ0s56/75, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.13**	**265**	P	**Pg**	**04 47 31.9**	**-0.2**
SMG				S	**Sg**	**04 47 33.9**	**-0.4**
SMG				AML	AML		
SMG	**Samos**	**0.13**	**265**	P	**Pg**	**04 47 31.9**	**-0.2**
SMG				S	**Sg**	**04 47 33.9**	**-0.4**
SMG				AML	AML		
GCAM	**G?zelcamI?**	**0.18**	**96**	P	**Pg**	**04 47 32.9**	**0.0**
GCAM				IAML		04 47 36.0	
	comp=N,1µm,0.2s						
GCAM				S	**Sg**	**04 47 36.0**	**+0.5**
GCAM				IAML		04 47 37.0	
	comp=E,2µm,0.3s						
GCAM	**G?zelcamI?**	**0.18**	**96**	Pg	**Pg**	**04 47 32.9**	**0.0**
GCAM				Sg	**Sg**	**04 47 35.9**	**+0.3**
GCAM				AML	AML		
KRL1	**Karlovasi Samo**	**0.25**	**288**	P	**Pg**	**04 47 33.9**	**-0.1**
KRL1				S	**Sg**	**04 47 38.0**	**+0.5**
KUSD	**Kusadasi-Aydin**	**0.27**	**58**	Pg	**Pg**	**04 47 34.4**	**0.0**
KUSD				Sg	**Sg**	**04 47 37.8**	**-0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**144**	P	**Pg**	**04 47 35.3**	**-0.1**
DDIM				S	**Sb**	**04 47 40.7**	**-1.3**
DDIM				IAML		04 47 41.0	
	comp=N,806nm,0.5s						
DDIM				IAML		04 47 42.0	
	comp=E,791nm,0.5s						
DGB	**zmir**	**0.35**	**344**	P	**Pg**	**04 47 35.5**	**-0.4**
DGB				S	**Sg**	**04 47 40.6**	**+0.1**
DGB				IAML		04 47 42.0	
	comp=N,371nm,0.2s						
DGB				IAML		04 47 46.0	
	comp=E,383nm,0.2s						
GMLD	**Gumuldur**	**0.36**	**349**	Pg	**Pg**	**04 47 35.9**	**-0.3**
GMLD				Sg	**Sg**	**04 47 41.4**	**+0.4**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**151**	Pg	**Pb**	**04 47 37.1**	**-0.8**
DIDI				Sg	**Sb**	**04 47 43.3**	**-0.6**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**353**	P	**Pg**	**04 47 38.6**	**-0.3**
BEYE				S	**Sb**	**04 47 46.8**	**-0.6**
BEYE				IAML		04 47 50.0	
	comp=N,595nm,0.2s						
BEYE				IAML		04 47 50.0	
	comp=E,505nm,0.5s						
DUVT	**Torbali**	**0.61**	**35**	P	**Pg**	**04 47 40.1**	**-0.7**
DUVT				S	**Sg**	**04 47 48.8**	**-0.1**
DUVT				IAML		04 47 53.0	
	comp=E,621nm,0.2s						
DUVT				IAML		04 48 09.0	
	comp=N,1.0nm,0.8s						
YKAV	**Yalikavak-Bodr**	**0.63**	**160**	Pg	**Pg**	**04 47 41.4**	**+0.2**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**323**	P	**Pg**	**04 47 41.1**	**-0.5**
ZEYE				S	**Sg**	**04 47 50.5**	**+0.3**
ZEYE				IAML		04 47 54.0	
	comp=N,544nm,0.3s						
ZEYE				IAML		04 47 55.0	
	comp=E,337nm,0.2s						
DAGE	**izmir**	**0.66**	**64**	P	**Pb**	**04 47 41.9**	**-0.6**
DAGE				IAML		04 47 53.0	
	comp=N,676nm,0.2s						
DAGE				IAML		04 47 53.0	
	comp=E,603nm,0.3s						
BLCB	**Balcova**	**0.67**	**3**	P	**Pg**	**04 47 41.4**	**-0.4**
BLCB				S	**Sg**	**04 47 51.0**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.67**	**3**	Pg	**Pg**	**04 47 41.5**	**-0.4**
BLCB				AML	AML		
BODT	**Bodrum**	**0.70**	**159**	P	**Pg**	**04 47 42.2**	**-0.3**
BODT				S	**Sg**	**04 47 52.0**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**159**	Pg	**Pg**	**04 47 42.2**	**-0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**72**	Pg	**Pg**	**04 47 43.2**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**0.75**	**124**	Pg	**Pb**	**04 47 43.6**	**-0.4**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.76**	**182**	P	**Pg**	**04 47 43.2**	**-0.4**
KLNA				S	**Sg**	**04 47 53.4**	**-0.2**
BODA	**Bodrum-Mula**	**0.76**	**153**	Pg	**Pg**	**04 47 43.7**	**0.0**
CESE	**eme**	**0.82**	**318**	Pg	**Pg**	**04 47 44.8**	**-0.1**
CESE				AML	AML		
BAGT	**Foa**	**0.94**	**353**	P	**Pg**	**04 47 46.4**	**-0.7**
BAGT				S	**Sb**	**04 48 01.0**	**+1.1**
BAGT				IAML		04 48 04.0	
	comp=N,303nm,0.8s						
BAGT				IAML		04 48 05.0	
	comp=E,325nm,0.9s						
KRBN	**Karaburun**	**0.94**	**338**	Pg	**Pb**	**04 47 47.2**	**-0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**1.00**	**312**	P	**Pg**	**04 47 48.2**	**-0.1**
CHOS				S	**Sb**	**04 48 02.5**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**1.00**	**312**	P	**Pg**	**04 47 47.8**	**-0.5**
CHOS				S	**Sb**	**04 48 02.4**	**+0.8**
CHOS				AML	AML		
FOCM	**Foa**	**1.01**	**348**	Pg	**Pb**	**04 47 48.6**	**0.0**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.05**	**76**	Pg	**Pb**	**04 47 49.2**	**0.0**
NAZL				AML	AML		
KARB	**zmir-Karabur**	**1.05**	**334**	P	**Pg**	**04 47 48.0**	**-1.2**
KARB				S	**Sn**	**04 48 04.2**	**-0.1**
KARB				IAML		04 48 05.0	
	comp=N,154nm,0.3s						
KARB				IAML		04 48 07.0	
	comp=E,138nm,0.2s						
CAMT	**Merkez**	**1.06**	**13**	P	**Pg**	**04 47 48.2**	**-1.1**
CAMT				S	**Sn**	**04 48 04.1**	**-0.4**
CAMT				IAML		04 48 06.0	
	comp=N,361nm,0.3s						
CAMT				IAML		04 48 06.0	
	comp=E,374nm,0.5s						
DAT	**Datca**	**1.09**	**155**	P	**Pg**	**04 47 49.5**	**-0.4**
DAT				S	**Sb**	**04 48 04.3**	**+0.1**
DAT				AML	AML		
DAT	**Datca**	**1.09**	**155**	Pn	**Pb**	**04 47 49.9**	**0.0**
DAT				AML	AML		
YER	**Yerkesik**	**1.17**	**119**	P	**Pg**	**04 47 50.9**	**-0.6**
YER				S	**Sb**	**04 48 07.0**	**+0.5**
YER				AML	AML		
YER	**Yerkesik**	**1.17**	**119**	Pn	**Pn**	**04 47 51.8**	**+0.4**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**36**	Pn	**Pn**	**04 47 52.4**	**+0.4**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.25**	**3**	P	**Pb**	**04 47 51.0**	**-1.5**
ZEDA				S	**Sn**	**04 48 10.2**	**+1.0**
AKS	**Akhisar**	**1.32**	**29**	Pn	**Pg**	**04 47 53.8**	**-0.5**
AKS				AML	AML		
AKHS	**Akhisar**	**1.32**	**29**	P	**Pn**	**04 47 53.1**	**-0.4**
AKHS				IAML		04 48 12.0	
	comp=E,0.8nm,1.3s						
AKHS				S	**Sn**	**04 48 12.3**	**+1.3**
AKHS				IAML		04 48 14.0	
	comp=N,162nm,0.3s						
APE	**Apeiranthos**	**1.34**	**241**	P	**Pn**	**04 47 53.5**	**-0.1**
APE				AML	AML		
TURN	**Turunc**	**1.37**	**133**	Pn	**Pg**	**04 47 54.7**	**-0.5**
TURN				AML	AML		
SOMA	**Soma-Manisa**	**1.49**	**16**	Pn	**Pb**	**04 47 56.6**	**-0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**37**	Pn	**Pb**	**04 47 56.6**	**-0.4**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**124**	Pn	**Pb**	**04 47 57.9**	**-0.5**
DALY				AML	AML		
PRK	**Paraskevi**	**1.63**	**340**	P	**Pn**	**04 47 58.0**	**+0.4**
PRK				S	**Sg**	**04 48 20.8**	**-0.5**
PRK	**Paraskevi**	**1.63**	**340**	P	**Pb**	**04 47 58.7**	**-0.3**
PRK				AML	AML		
APMY	**Acipayam-Deniz**	**1.84**	**97**	Pn	**Pn**	**04 48 01.5**	**+0.9**
APMY				AML	AML		
KARY	**Karystos**	**2.06**	**280**	P	**Pn**	**04 48 04.2**	**+0.8**

*CATAC **04** 05:03:25.3±0.9,2˚S±8˚×8˚1W±˚, h1km, M3.8/7, MLv3.8/7, Error ellipse: s-maj=18.3km s-min=11.7km az=154.5, confirmed*
*IGQ **04** 05:03:26.4±0.4,2˚S±2˚×8˚1W±˚, h2km±1km, M3.6/26, Mjma3.7/26, ML3.9/25, MLv3.4/24, Ms(BB)3.5/25*

ISC 04 05:03:20.7±2.1,1˚43S±0˚05×81˚02W±0˚09, h10km±14km, n44, σ1s04/51, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ISPT	**Isla de la Pla**	**0.18**	**341**	P	Pb	05 03 32.7	+6.6
PPLP	**Puerto Lpez**	**0.27**	**115**	P		05 03 29.7	
PPLP				P	**Pn**	**05 03 29.6**	**-1.1**
PPLP				S	**Sb**	**05 03 32.7**	**+0.4**
PPLP				S		05 03 32.8	
SALI	**Salinas**	**0.75**	**178**	P	**Pn**	**05 03 37.5**	**+0.1**
SALI				S	**Sn**	**05 03 47.7**	**-1.1**
PECV	**Mancha de Ca P**	**1.17**	**56**	P	**Pg**	**05 03 43.6**	**+0.4**
ISPG	**Isla Puna-Puer**	**1.75**	**151**	P	**Pg**	**05 03 55.6**	**+1.3**
CHSH	**Refugio Sur-Vo**	**2.15**	**92**	P	**Pb**	**05 04 00.4**	**+0.3**
CHSH				S	**Sg**	**05 04 29.9**	**0.0**
CHSH	**Refugio Sur-Vo**	**2.15**	**92**	P	**Pb**	**05 04 00.4**	**+0.3**
TAMH	**Tambohuasha Ch**	**2.24**	**93**	P	**Pb**	**05 04 01.4**	**-0.1**
IGUA	**Igualata**	**2.38**	**91**	P	**Pb**	**05 04 03.9**	**-0.1**
ILLI	**Illinizas Sur**	**2.40**	**73**	P	**Pg**	**05 04 05.4**	**-1.4**
BPAT	**Tungurahua Vol**	**2.58**	**92**	P	**Pb**	**05 04 07.2**	**-0.3**
SLOR	**San Lorenzo -**	**2.61**	**75**	P	**Pb**	**05 04 09.1**	**+1.1**
SLOR				S	**Sb**	**05 04 42.2**	**+1.8**
BMOR	**Cotopaxi Volca**	**2.65**	**75**	P	**Pb**	**05 04 10.0**	**+1.3**
PIS1	**Pisayambo**	**2.66**	**82**	P	**Pb**	**05 04 08.7**	**0.0**
GGPT	**Toaza - Volcan**	**2.68**	**63**	P	**Pb**	**05 04 09.4**	**+0.4**
BREF	**Cotopaxi Volca**	**2.69**	**74**	P	**Pb**	**05 04 11.7**	**-0.6**
VCES	**Cotopaxi**	**2.70**	**77**	P	**Pg**	**05 04 11.7**	**-0.8**
VCES	**Cotopaxi**	**2.70**	**77**	P	**Pb**	**05 04 10.8**	**+1.4**
BVC2	**Cotopaxi Volca**	**2.72**	**74**	P	**Pb**	**05 04 10.8**	**+1.1**
TERV	**Terraza Guagua**	**2.72**	**63**	P	**Pb**	**05 04 10.9**	**+1.2**
GGPC	**Guagua Pichinc**	**2.72**	**63**	P	**Pg**	**05 04 12.7**	**-0.3**
GGPC				S	**Sb**	**05 04 45.6**	**+2.1**
GGPC	**Guagua Pichinc**	**2.72**	**63**	P	**Pg**	**05 04 11.4**	**-1.6**
BTAM	**Cotopaxi Volca**	**2.73**	**74**	P	**Pg**	**05 04 12.3**	**-0.8**
PITA	**Cotopaxi Volc**	**2.73**	**71**	P	**Pb**	**05 04 11.2**	**+1.4**
PAC1	**Pacto, Paraso**	**2.79**	**53**	P	**Pb**	**05 04 10.5**	**-0.3**
PULU	**Pululahua**	**2.90**	**60**	P	**Pb**	**05 04 14.2**	**+1.4**
PULU				S	**Sg**	**05 04 54.6**	**+0.6**
PULU	**Pululahua**	**2.90**	**60**	P	**Pb**	**05 04 14.2**	**+1.4**
ANTG	**Antisana-Guama**	**2.91**	**72**	P	**Pb**	**05 04 14.2**	**+1.1**
ANTM	**Antisana-La Mi**	**2.93**	**72**	P	**Pb**	**05 04 13.9**	**+0.5**
PUEM	**Granja Avicola**	**2.94**	**64**	P	**Pb**	**05 04 14.5**	**+1.0**
PUYO	**Puyo, Santa Ro**	**2.99**	**91**	P	**Pb**	**05 04 14.1**	**-0.1**
ANTS	**Antisana-Sarah**	**2.99**	**72**	P	**Pb**	**05 04 15.6**	**+1.0**
ANTS				S	**Sg**	**05 04 57.1**	**0.0**
ANTS	**Antisana-Sarah**	**2.99**	**72**	P	**Pb**	**05 04 15.9**	**+1.4**
BOSC	**San Juan Bosco**	**3.04**	**124**	P	**Pb**	**05 04 13.9**	**-1.2**
OTAV	**Otavalo**	**3.06**	**57**	P	**Pb**	**05 04 16.1**	**+0.6**
OTAV				S	**Sb**	**05 04 54.4**	**+1.4**
OTAV	**Otavalo**	**3.06**	**57**	P	**Pb**	**05 04 15.7**	**+0.2**
CUIC	**Cuicocha-Domo**	**3.17**	**57**	P	**Pb**	**05 04 18.1**	**+0.7**
ARDO	**Archidona, Ten**	**3.25**	**82**	P	**Pb**	**05 04 18.2**	**-0.3**
IMBA	**Imbabura, San**	**3.29**	**59**	P	**Pg**	**05 04 21.9**	**-1.9**
URCU	**Urcuqui**	**3.33**	**56**	P	**Pb**	**05 04 21.4**	**+1.2**
ANGU	**Angureal**	**3.35**	**64**	P	**Pb**	**05 04 21.5**	**+0.9**
CHMA	**Chilma**	**3.73**	**52**	P	**Pb**	**05 04 25.9**	**-1.1**
CHL1	**Volc¡n Chiles**	**3.78**	**54**	P	**Pb**	**05 04 27.1**	**-0.8**
TULM	**Tulcn-Chalpat**	**3.87**	**57**	P	**Pb**	**05 04 28.3**	**-1.1**

*ISK **04** 05:07:32.8, 37˚.73N×27˚.04E, h8km, ML3.0/19*
*THE **04** 05:07:33.3, 38˚N±1˚×2˚7E±˚, h3km±1km, M3.1/8, MLh3.1/8*
*AFAD **04** 05:07:33.0, 37˚.72N×27˚.02E, h7km±2km, ML3.0*
*ATH **04** 05:07:33.0, 37˚.72N×27˚.02E, h1 1km±1km, ML3.0/7, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 04 05:07:33.2±0.8, 37˚73N±0˚.02×27˚02E±0˚.02, h11km±6km, n75, σ0s47/101, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**264**	P	**Pg**	**05 07 36.5**	**-0.1**
SMG				S	**Sg**	**05 07 38.9**	**-0.2**
SMG				AML	AML		
SMG	**Samos**	**0.15**	**264**	P	**Pg**	**05 07 36.5**	**-0.1**
SMG				S	**Sg**	**05 07 38.9**	**-0.2**
SMG				AML	AML		
GCAM	**G?zelcamI?**	**0.17**	**99**	P	**Pg**	**05 07 37.0**	**+0.1**
GCAM				S	**Sg**	**05 07 39.8**	**+0.3**
GCAM				IAML		05 07 40.0	
	comp=E,4µm,0.2s						
GCAM				IAML		05 07 42.0	
	comp=N,3µm,0.1s						
GCAM	**G?zelcamI?**	**0.17**	**99**	Pg	**Pg**	**05 07 36.6**	**-0.3**
GCAM				Sg	**Sg**	**05 07 39.5**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**57**	Pg	**Pg**	**05 07 38.1**	**-0.2**
KUSD				Sg	**Sg**	**05 07 41.6**	**-0.2**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.26**	**285**	P	**Pg**	**05 07 38.4**	**-0.2**
KRL1				S	**Sg**	**05 07 42.9**	**+0.7**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**147**	P	**Pg**	**05 07 40.0**	**+0.4**
DDIM				S	**Sg**	**05 07 44.5**	**+0.6**
DDIM				IAML		05 07 45.0	
	comp=N,3µm,0.3s						
DDIM				IAML		05 07 45.0	
	comp=E,4µm,0.3s						
DGB	**zmir**	**0.34**	**341**	P	**Pg**	**05 07 40.1**	**0.0**
DGB				S	**Sg**	**05 07 44.1**	**-0.6**
DGB				IAML		05 07 45.0	
	comp=E,1µm,0.2s						
GMLD	**Gumuldur**	**0.36**	**346**	Pg	**Pg**	**05 07 40.6**	**+0.2**
GMLD				Sg	**Sg**	**05 07 45.4**	**+0.2**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.39**	**154**	Pg	**Pg**	**05 07 40.9**	**0.0**
DIDI				Sg	**Sg**	**05 07 46.7**	**+0.7**
BEYE	**izmir**	**0.51**	**351**	P	**Pg**	**05 07 42.9**	**-0.2**
DUVT	**Torbali**	**0.60**	**34**	P	**Pg**	**05 07 44.5**	**-0.3**
DUVT				S	**Sg**	**05 07 51.3**	**-1.4**
DUVT				IAML		05 07 53.0	
	comp=E,697nm,0.

YER	**Yerkesik**	**1.16**	**120**	Pn	**Pn**	**05 07 55.7 +0.3**
YER				AML	AML	
KIRA	**zmir-Kiraz**	**1.19**	**66**	P	**Pg**	**05 07 55.6 -0.4**
GOMA	**Golmarmara-Man**	**1.21**	**35**	Pn	**Pn**	**05 07 56.4 +0.4**
GOMA				AML	AML	
ZEDA	**zmir-Bergama**	**1.24**	**2**	P	**Pb**	**05 07 56.7 +0.1**
KTTT	**Salihli**	**1.28**	**41**	P	**Pn**	**05 07 56.3 -0.6**
ASTA	**Astypalaia**	**1.29**	**205**	P	**Pn**	**05 07 57.3 +0.1**
ASTA				AML	AML	
AKHS	**Akhisar**	**1.31**	**28**	P	**Pg**	**05 07 58.5 +0.2**
AKS	**Akhisar**	**1.31**	**28**	Pn	**Pb**	**05 07 57.8 0.0**
AKS				AML	AML	
DKL	**Dikili**	**1.35**	**356**	P	**Pn**	**05 07 57.7 -0.2**
APE	**Apeiranthos**	**1.36**	**242**	P	**Pg**	**05 07 59.2 -0.1**
APE				S	**Sg**	**05 08 18.2 +1.3**
APE				AML	AML	
APE	**Apeiranthos**	**1.36**	**242**	P	**Pn**	**05 07 57.4 -0.7**
APE				S	**Sb**	**05 08 15.9 -0.1**
APE				AML	AML	
TURN	**Turunc**	**1.36**	**134**	P	**Pb**	**05 07 58.5 -0.1**
TURN	**Turunc**	**1.36**	**134**	Pn	**Pn**	**05 07 58.3 +0.3**
TURN				AML	AML	
SULTU	**Buldan**	**1.42**	**76**	P	**Pg**	**05 08 00.5 +0.1**
MANT	**Manisa**	**1.43**	**57**	P	**Pg**	**05 08 00.9 +0.2**
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pb**	**05 08 00.7 -0.1**
SOMA				AML	AML	
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn	**Pb**	**05 08 00.7 -0.2**
GORD				AML	AML	
TAVA	**DENIZLI_Tavas**	**1.52**	**99**	P	**Pn**	**05 08 00.9 +0.5**
HARTU	**Esme**	**1.53**	**66**	P	**Pn**	**05 08 00.9 +0.4**
DALY	**Dalyan (Mula)**	**1.58**	**124**	Pn	**Pn**	**05 08 01.6 +0.5**
DALY				AML	AML	
DNIZ	**Denizli-Tavas-**	**1.60**	**93**	P	**Pn**	**05 08 02.2 +0.7**
AYVA	**Ayvalik**	**1.60**	**351**	P	**Pb**	**05 08 03.1 +0.4**
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**05 08 01.8 0.0**
PRK				S	**Sb**	**05 08 24.1 +0.4**
PRK	**Paraskevi**	**1.63**	**339**	P	**Pb**	**05 08 03.2 0.0**
PRK				AML	AML	
DNZT	**Denizli-Tavas-**	**1.65**	**105**	P	**Pn**	**05 08 02.5 +0.3**
SABU	**Mula-Dalaman**	**1.79**	**120**	P	**Pn**	**05 08 04.9 +0.8**
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	**Pn**	**05 08 05.2 +0.6**
APMY				AML	AML	
THERA	**Ancient Thera,**	**1.84**	**223**	P	**Pn**	**05 08 05.3 +0.7**
THR3	**Thira Island,**	**1.85**	**225**	P	**Pb**	**05 08 06.1 -0.8**
SAP3	**Santorini-Thir**	**1.86**	**227**	P	**Pb**	**05 08 06.6 -0.6**
KARY	**Karystos**	**2.07**	**279**	P	**Pn**	**05 08 07.4 -0.5**
KARP	**Karpathos**	**2.18**	**177**	P	**Pn**	**05 08 08.2 -1.1**
DION	**Dionisos Attik**	**2.47**	**279**	P	**Pn**	**05 08 13.2 -0.1**

*AFAD **04** 05:16:22.5, 37.73N×27.01E, h7km±3km, ML2.8*
*ISK **04** 05:16:22.8, 37.75N×27.03E, h6km, ML2.8/18*
*THE **04** 05:16:23.2, 38°№1.×2.7E±.°, h3km±1km, M2.8/9, MLh2.8/9*
ISC 04 05:16:23.2±0.9, 37.74N±0.02×27.03E±0.02, h10km±7km, n41, σ0.52/64, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**260**	P	**Pg**	**05 16 26.4**	**-0.3**
SMG				S	**Sg**	**05 16 28.7**	**-0.4**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**103**	P	**Pg**	**05 16 26.7**	**-0.1**
GCAM				IAML		05 16 30.0	
	comp=E,3μm,0.2s						
GCAM				S	**Sg**	**05 16 30.0**	**+0.8**
GCAM				IAML		05 16 31.0	
	comp=N,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.17**	**103**	Pg	**Pg**	**05 16 26.9**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**59**	Pg	**Pg**	**05 16 27.9**	**-0.2**
KUSD				Sg	**Sg**	**05 16 31.6**	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.33**	**149**	P	**Pg**	**05 16 29.6**	**-0.1**
DDIM				S	**Sg**	**05 16 34.5**	**+0.4**
DDIM				IAML		05 16 35.0	
	comp=E,1μm,0.3s						
DDIM				IAML		05 16 36.0	
	comp=N,1μm,0.4s						
DGB	**zmir**	**0.34**	**340**	P	**Pg**	**05 16 29.8**	**-0.2**
DGB				S	**Sg**	**05 16 34.3**	**-0.2**
DGB				IAML		05 16 35.0	
	comp=E,531nm,0.3s						
DGB				IAML		05 16 37.0	
	comp=N,367nm,0.5s						
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pg**	**05 16 30.3**	**+0.1**
GMLD				Sg	**Sg**	**05 16 35.5**	**+0.6**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**155**	Pg	**Pg**	**05 16 31.2**	**+0.2**
DIDI				Sg	**Sb**	**05 16 37.4**	**-1.1**
DIDI				AML	AML		
BEYE	**izmir**	**0.50**	**351**	P	**Pg**	**05 16 32.8**	**-0.1**
BEYE				S	**Sg**	**05 16 40.1**	**+0.6**
BEYE				IAML		05 16 44.0	
	comp=N,491nm,0.4s						
BEYE				IAML		05 16 44.0	
	comp=E,566nm,0.5s						
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**05 16 34.1**	**-0.5**
DUVT				S	**Sg**	**05 16 41.9**	**-0.4**
DUVT				IAML		05 16 44.0	
	comp=E,569nm,0.4s						
DAGE	**izmir**	**0.63**	**65**	P	**Pg**	**05 16 35.4**	**-0.1**
DAGE				S	**Sg**	**05 16 42.1**	**-1.7**
DAGE				IAML		05 16 48.0	
	comp=N,636nm,0.5s						
DAGE				IAML		05 16 48.0	
	comp=E,665nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pb**	**05 16 35.9**	**-0.7**
YKAV				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**05 16 35.5**	**-0.3**
BLCB				S	**Sg**	**05 16 44.3**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**05 16 35.5**	**-0.3**
BLCB				Sg	**Sg**	**05 16 44.7**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.65**	**321**	P	**Pg**	**05 16 35.1**	**-0.7**
ZEYE				S	**Sg**	**05 16 44.9**	**+0.5**
ZEYE				IAML		05 16 45.0	
	comp=N,713nm,0.5s						
ZEYE				IAML		05 16 48.0	
	comp=E,391nm,0.5s						
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**05 16 36.0**	**-0.4**
AYDN				S	**Sg**	**05 16 45.1**	**-0.2**
AYDN				IAML		05 16 50.0	
	comp=N,491nm,0.6s						
AYDN				IAML		05 16 50.0	
	comp=E,712nm,0.6s						
BODT	**Bodrum**	**0.71**	**162**	P	**Pg**	**05 16 36.6**	**-0.4**
BODT				S	**Sg**	**05 16 46.0**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pg**	**05 16 36.4**	**-0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**73**	Pg	**Pg**	**05 16 37.1**	**0.0**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**05 16 37.2**	**-0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.75**	**154**	P	**Pg**	**05 16 36.6**	**-1.1**
BDRM				S	**Sg**	**05 16 47.5**	**+0.1**
BDRM				IAML		05 16 49.0	
	comp=E,373nm,0.4s						
BDRM				IAML		05 16 51.0	
	comp=N,545nm,0.5s						
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pb**	**05 16 38.4**	**-0.3**
KRBN	**Karaburun**	**0.93**	**336**	Pg	**Pg**	**05 16 40.9**	**-0.3**
KRBN				AML	AML		
FOCM	**Foa**	**1.00**	**347**	Pg	**Pb**	**05 16 42.4**	**-0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**310**	P	**Pg**	**05 16 42.3**	**-0.3**
CHOS				S	**Sb**	**05 16 56.8**	**+0.6**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pb**	**05 16 42.9**	**-0.2**
CAMT	**Merkez**	**1.03**	**12**	P	**Pg**	**05 16 42.7**	**-0.5**
CAMT				S	**Sn**	**05 16 58.6**	**+0.2**
CAMT				IAML		05 17 00.0	
	comp=E,545nm,0.7s						
KARB	**zmir-Karabur**	**1.05**	**332**	P	**Pg**	**05 16 42.1**	**-1.3**
KARB				S	**Sb**	**05 16 57.4**	**+0.1**
KARB				IAML		05 17 00.0	
	comp=E,268nm,0.5s						
KARB				IAML		05 17 01.0	
	comp=N,227nm,0.5s						
DAT	**Datca**	**1.10**	**156**	P	**Pb**	**05 16 44.1**	**-0.3**
DAT				S	**Sb**	**05 16 59.3**	**+0.6**
DAT				AML	AML		
DAT	**Datca**	**1.10**	**156**	Pn	**Pb**	**05 16 44.4**	**0.0**
DAT				AML	AML		
YER	**Yerkesik**	**1.17**	**121**	P	**Pg**	**05 16 45.2**	**-0.5**
YER				S	**Sb**	**05 17 01.3**	**+0.6**
YER				AML	AML		
YER	**Yerkesik**	**1.17**	**121**	Pn	**Pn**	**05 16 45.6**	**-0.1**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**36**	Pn	**Pn**	**05 16 46.1**	**0.0**
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**05 16 47.9**	**-0.3**
AKS				AML	AML		
TURN	**Turunc**	**1.36**	**134**	Pn	**Pg**	**05 16 49.3**	**-0.1**
TURN				AML	AML		
APE	**Apeiranthos**	**1.37**	**241**	P	**Pb**	**05 16 48.6**	**-0.3**
APE				S	**Sn**	**05 17 07.9**	**+1.2**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pn**	**05 16 49.9**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**05 16 50.5**	**-0.4**
GORD				AML	AML		
DALY	**Dalyan (Mula)**	**1.59**	**125**	Pn	**Pb**	**05 16 52.4**	**-0.3**
DALY				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pn**	**05 16 52.1**	**+0.2**
PRK				S	**Sb**	**05 17 13.9**	**+0.1**
APMY	**Acipayam-Deniz**	**1.82**	**98**	Pn	**Pn**	**05 16 55.7**	**+0.9**
APMY				AML	AML		

*ISK **04** 05:33:38.9, 37.71N×27.03E, h2km, ML2.9/29*
*THE **04** 05:33:38.9, 38°№1.×2.7E±.°, h7km±2km, M3.0/8, MLh3.0/8*
*AFAD **04** 05:33:38.8, 37.71N×26.99E, h8km±2km, ML2.9*
*ATH **04** 05:33:39.4, 37.70N×26.99E, h9km±1km, ML3.0/12,*
Latitude uncertainty: 1 km; Longitude uncertainty: 2 km
ISC 04 05:33:38.9±0.8, 37.72N±0.02×27.01E±0.02, h10km±6km, n80, σ0.56/99, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**267**	P	**Pg**	**05 33 42.1**	**0.0**
SMG				S	**Sg**	**05 33 44.6**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**267**	P	**Pg**	**05 33 41.9**	**-0.3**
SMG				S	**Sg**	**05 33 44.4**	**0.0**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**95**	P	**Pg**	**05 33 43.3**	**+0.5**
GCAM	**G?zelcaml?**	**0.17**	**95**	Pg	**Pg**	**05 33 43.0**	**+0.3**
GCAM				AML	AML		
KRL1	**Karlovasi Samo**	**0.26**	**288**	P	**Pg**	**05 33 44.4**	**+0.2**
KRL1				S	**Sg**	**05 33 48.0**	**+0.4**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**56**	Pg	**Pg**	**05 33 44.5**	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**145**	P	**Pb**	**05 33 46.4**	**-0.3**
DDIM				S	**Sg**	**05 33 50.2**	**+0.7**
DDIM				IAML		05 33 52.0	
	comp=N,2μm,0.5s						
DDIM				IAML		05 33 52.0	
	comp=E,3μm,0.6s						
DGB	**zmir**	**0.35**	**343**	P	**Pg**	**05 33 45.9**	**0.0**
DGB				S	**Sg**	**05 33 50.1**	**-0.5**
DGB				IAML		05 33 51.0	
	comp=N,1μm,0.4s						
DGB				IAML		05 33 51.0	
	comp=E,1μm,0.6s						
DIDI	**Didim-Aydin**	**0.38**	**152**	Pg	**Pb**	**05 33 47.2**	**-0.6**
DIDI				Sg	**Sb**	**05 33 53.4**	**-0.4**
DIDI				AML	AML		
BEYE	**izmir**	**0.51**	**352**	P	**Pg**	**05 33 49.0**	**0.0**
BEYE				S	**Sg**	**05 33 56.2**	**+0.4**
BEYE				IAML		05 34 00.0	
	comp=N,1μm,0.2s						
DUVT	**Torbali**	**0.61**	**34**	P	**Pg**	**05 33 50.7**	**-0.1**
DUVT				S	**Sg**	**05 33 57.6**	**-1.2**
DUVT				IAML		05 33 58.0	
	comp=E,643nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.63**	**160**	Pg	**Pb**	**05 33 51.8**	**-0.2**
YKAV				Sg	**Sb**	**05 34 00.6**	**-0.2**
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**322**	P	**Pg**	**05 33 51.6**	**-0.1**
BLCB	**Balcova**	**0.67**	**2**	P	**Pg**	**05 33 51.4**	**-0.5**
BLCB				S	**Sg**	**05 34 00.8**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.67**	**2**	Pg	**Pg**	**05 33 51.8**	**-0.1**
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.69**	**94**	P	**Pg**	**05 33 52.5**	**+0.2**
AYDN				S	**Sg**	**05 34 00.3**	**-1.0**
AYDN				IAML		05 34 06.0	
	comp=E,822nm,0.7s						
AYDN				IAML		05 34 09.0	
	comp=N,694nm,0.6s						
BODT	**Bodrum**	**0.69**	**160**	P	**Pg**	**05 33 52.4**	**0.0**
BODT				S	**Sb**	**05 34 02.0**	**-0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.69**	**160**	Pg	**Pg**	**05 33 52.6**	**+0.2**
BODT				Sg	**Sb**	**05 34 03.4**	**+0.7**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**71**	Pg	**Pb**	**05 33 53.9**	**+0.1**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.73**	**152**	P	**Pg**	**05 33 53.1**	**0.0**
BDRM				S	**Sb**	**05 34 03.3**	**-0.6**
BDRM				IAML		05 34 05.0	
	comp=E,514nm,0.7s						
BDRM				IAML		05 34 08.0	
	comp=N,814nm,0.6s						
MLSB	**Milas**	**0.74**	**125**	Pg	**Pb**	**05 33 53.4**	**-0.5**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.76**	**154**	Pg	**Pb**	**05 33 54.1**	**-0.1**
KLNA	**Kalymnos**	**0.76**	**182**	P	**Pb**	**05 33 53.9**	**-0.3**
KLNA				S	**Sb**	**05 34 04.0**	**-0.6**
CESE	**eme**	**0.83**	**318**	Pg	**Pb**	**05 33 56.2**	**+0.7**
CESE				AML	AML		
IZMR	**zmir-demi**	**0.85**	**60**	P	**Pb**	**05 33 56.5**	**+0.7**
BAGT	**Foa**	**0.95**	**352**	P	**Pb**	**05 33 57.6**	**+0.2**
KRBN	**Karaburun**	**0.95**	**338**	Pg	**Pn**	**05 33 58.4**	**+0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**1.01**	**312**	P	**Pg**	**05 33 58.3**	**-0.1**
CHOS				S	**Sb**	**05 34 12.5**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**312**	Pg	**Pg**	**05 33 58.4**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**312**	P	**Pg**	**05 33 58.4**	**0.0**
CHOS				AML	AML		
FOCM	**Foa**	**1.02**	**347**	Pg	**Pn**	**05 33 59.5**	**+0.3**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**76**	Pg	**Pn**	**05 33 59.6**	**0.0**
NAZL				AML	AML		
CAMT	**Merkez**	**1.06**	**13**	P	**Pg**	**05 33 59.3**	**+0.1**
KARB	**zmir-Karabur**	**1.06**	**334**	P	**Pg**	**05 33 59.4**	**+0.1**
ESEN	**Aydn-Nazilli**	**1.06**	**85**	P	**Pn**	**05 34 00.3**	**+0.4**
ESEN				S	**Sb**	**05 34 13.9**	**+0.6**
DAT	**Datca**	**1.08**	**155**	P	**Pn**	**05 34 00.5**	**+0.3**
EAG2	**Marmaro, Chios**	**1.09**	**319**	P	**Pn**	**05 34 00.7**	**+0.4**
YAZI	**Mula-Dat§a-**	**1.09**	**161**	P	**Pb**	**05 33 59.9**	**0.0**
MULA	**Mugla, Merkez-**	**1.14**	**113**	P	**Pn**	**05 34 01.5**	**+0.5**
YER	**Yerkesik**	**1.17**	**120**	P	**Pb**	**05 34 01.1**	**0.0**
YER				S	**Sn**	**05 34 17.7**	**+0.4**
YER				AML	AML		
YER	**Yerkesik**	**1.17**	**120**	Pn	**Pn**	**05 34 01.3**	**0.0**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.20**	**66**	P	**Pn**	**05 34 02.1**	**+0.3**
GOMA	**Golmarmara-Man**	**1.22**	**35**	Pn	**Pg**	**05 34 03.0**	**+0.6**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.25**	**2**	P	**Pn**	**05 34 02.5**	**+0.1**
ASTA	**Astypalaia**	**1.28**	**205**	P	**Pg**	**05 34 03.5**	**0.0**
ASTA				AML	AML		
KTTT	**Salihli**	**1.29**	**41**	P	**Pg**	**05 34 03.7**	**0.0**
AKHS	**Akhisar**	**1.32**	**28**	P	**Pg**	**05 34 04.4**	**+0.1**
AKS	**Akhisar**	**1.32**	**28**	Pn	**Pg**	**05 34 04.8**	**+0.5**
AKS				AML	AML		
APE	**Apeiranthos**	**1.35**	**242**	P	**Pn**	**05 34 02.6**	**-1.2**
APE				S	**Sg**	**05 34 22.6**	**+0.3**
APE				AML	AML		
APE	**Apeiranthos**	**1.35**	**242**	Pn	**Pg**	**05 34 05.3**	**+0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.35**	**242**	P	**Pg**	**05 34 04.7**	**-0.1**
APE				AML	AML		
DKL	**Dikili**	**1.35**	**356**	Pn	**Pg**	**05 34 05.2**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.35**	**356**	P	**Pg**	**05 34 05.3**	**+0.4**
TURN	**Turunc**	**1.36**	**133**	P	**Pg**	**05 34 05.1**	**+0.1**
SULTU	**Buldan**	**1.43**	**76**	P	**Pg**	**05 34 06.8**	**+0.5**
MANT	**Manisa**	**1.44**	**57**	P	**Pg**	**05 34 07.3**	**+0.6**
SOMA	**Soma-Manisa**	**1.49**	**16**	Pn	**Pg**	**05 34 07.5**	**-0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**37**	Pn	**Pg**	**05 34 07.7**	**-0.1**
GORD				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.53**	**99**	P	**Pg**	**05 34 08.0**	**-0.3**
HARTU	**Esme**	**1.54**	**66**	P	**Pn**	**05 34 06.3**	**-0.2**
DALY	**Dalyan (Mula)**	**1.59**	**124**	P	**Pg**	**05 34 09.7**	**+0.3**
DNIZ	**Denizli-Tavas-**	**1.61**	**93**	P	**Pg**	**05 34 09.6**	**-0.2**
PRK	**Paraskevi**	**1.63**	**339**	P	**Pn**	**05 34 08.7**	**+1.0**
ARG	**Arkhangelos**	**1.74**	**149**	P	**Pn**	**05 34 10.0**	**+0.8**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.82**	**223**	P	**Pn**	**05 34 11.1**	**+0.8**
THERA				AML	AML		
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	**Pb**	**05 34 12.3**	**-0.3**
APMY				AML	AML		
YAYO	**Edremit-Balk**	**1.89**	**1**	Pn	**Pb**	**05 34 13.1**	**-0.4**
YAYO				AML	AML		
CAME	**Cameli-Denizli**	**1.98**	**112**	Pn	**Pb**	**05 34 14.3**	**-0.8**
BALB	**Balikesir**	**2.04**	**19**	Pn	**Pb**	**05 34 15.6**	**-0.4**
BALB				AML	AML		
KARY	**Karystos**	**2.06**	**280**	P	**Pn**	**05 34 13.5**	**-0.1**
SIMA	**Simav-Kutahya**	**2.06**	**48**	Pn	**Pb**	**05 34 15.5**	**-1.0**
SIMA				AML	AML		
KARP	**Karpathos**	**2.17**	**177**	P	**Pn**	**05 34 15.2**	**+0.2**
KARP				AML	AML		
BOZC	**Bozcaada**	**2.25**	**341**	Pn	**Pb**	**05 34 18.6**	**-1.1**
BOZC				AML	AML		
CANM	**Can-anakkale**	**2.29**	**1**	Pn	**Pb**	**05 34 19.2**	**-1.1**
GONE	**Gonen-Balikesi**	**2.38**	**13**	Pn	**Pb**	**05 34 20.3**	**-1.6**
SUSR	**Susurluk-Balik**	**2.39**	**20**	Pn	**Pb**	**05 34 20.6**	**-1.5**
SUSR				AML	AML		
COMU	**Canakkale**	**2.42**	**350**	Pn	**Pn**	**05 34 20.5**	**+2.0**
DION	**Dionisos Attik**	**2.46**	**279**	P	**Pn**	**05 34 19.4**	**+0.2**
DION				AML	AML		
SMTH	**Samothraki Isl**	**2.98**	**338**	P	**Pn**	**05 34 26.0**	**-0.3**
SMTH	**Samothraki Isl**	**2.98**	**338**	P	**Pn**	**05 34 27.2**	**+0.9**
SMTH				AML	AML		

*SNET **04** 06:07:45.0±3.9, 12.43N×90.01W, h4km, ML3.3, Presumed earthquake*
*CATAC **04** 06:07:46.1±0.8, 12°№7.×9.0W±.°, h22km±13km, M3.3/13, MLv3.3/13, Error ellipse: s-maj=17.0km s-min=5.3km az=36.5, confirmed*
*GCG **04** 06:07:47.5±0.8, 12.52N×89.93W, h0km±18km, MD4.0, Presumed earthquake*
ISC 04 06:07:43.8±3.3, 12.3N±0.1×89.81W±0.08, h3km±15km, n31, σ1.02/49, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAYA	**Jayaque - finc**	**1.39**	**15**	P	**Pn**	**06 08 10.7**	**+0.5**
JAYA				S	**Sg**	**06 08 28.4**	**0.0**
JAYA	**Jayaque - finc**	**1.39**	**15**	*eP*	**Pn**	**06 08 10.4**	**+0.2**
PMON	**Piamonte**	**1.48**	**19**	P	**Pb**	**06 08 13.3**	**+1.3**
PMON				S	**Sg**	**06 08 32.1**	**+0.8**
PMON	**Piamonte**	**1.48**	**19**	*i* P	**Pb**	**06 08 12.9**	**+0.9**
SEMO	**Seminario San**	**1.50**	**22**	P	**Pn**	**06 08 12.8**	**+1.0**
SEMO				S	**Sg**	**06 08 32.9**	**+0.9**
UEES	**Universidad Ev**	**1.51**	**22**	*i* P	**Pb**	**06 08 13.8**	**+1.3**
UESS	**Universidad de**	**1.53**	**23**	*i* P	**Pn**	**06 08 12.7**	**+0.7**
UESS				*eS*	**Sn**	**06 08 31.0**	**-1.4**
SBLS	**San Blas**	**1.54**	**7**	*i* P	**Pb**	**06 08 13.1**	**+0.1**
SBLS				*eS*	**Sg**	**06 08 33.5**	**+0.4**
FAME	**Alcaldia de Sa**	**1.54**	**353**	P	**Pb**	**06 08 12.9**	**0.0**
FAME				S	**Sg**	**06 08 32.1**	**-1.2**
SNJE	**San Jose**	**1.56**	**7**	*i* P	**Pb**	**06 08 14.0**	**+0.5**
SNJE				*eS*	**Sg**	**06 08 34.4**	**+0.3**
TECO	**Alcaldia de Te**	**1.58**	**39**	P	**Pn**	**06 08 12.6**	**-0.2**
TECO				S	**Sn**	**06 08 33.3**	**-0.5**
NUBE	**Las Nubes**	**1.59**	**1**	P	**Pb**	**06 08 14.0**	**+0.1**
NUBE				S	**Sg**	**06 08 33.7**	**-1.1**
NUBE	**Las Nubes**	**1.59**	**1**	*eP*	**Pn**	**06 08 13.5**	**+0.6**
NUBE				*eS*	**Sg**	**06 08 34.0**	**-0.8**
PAVA	**Las Pavas**	**1.64**	**31**	P	**Pn**	**06 08 14.1**	**+0.4**
PAVA				S	**Sb**	**06 08 35.8**	**-0.1**
LOAL	**Lomas de Alarc**	**1.68**	**1**	S	**Sg**	**06 08 37.1**	**-0.8**
UNIC	**Universidad Ca**	**1.69**	**9**	P	**Pn**	**06 08 14.7**	**+0.5**
UNIC				S	**Sg**	**06 08 38.0**	**+0.1**
SLOZ	**Alcaldia de Sa**	**1.71**	**1**	P	**Pb**	**06 08 15.9**	**0.0**
SLOZ	**Alcaldia de Sa**	**1.71**	**1**	*i* P	**Pb**	**06 08 15.9**	**0.0**
TECA	**Tecapa**	**1.74**	**47**	*i* P	**Pn**	**06 08 15.9**	**+0.8**
SCLA	**Alcaldia de Sa**	**1.74**	**37**	P	**Pn**	**06 08 15.8**	**+0.8**
JUCU	**Jucuarįn**	**1.79**	**58**	*i* P	**Pn**	**06 08 16.3**	**+0.6**
JUCU				*eS*	**Sn**	**06 08 40.7**	**+1.7**
PACA	**Pacayal**	**1.85**	**51**	P	**Pn**	**06 08 17.2**	**+0.6**
PACA				S	**Sn**	**06 08 41.8**	**+1.1**
JUAM	**Asuncion Mita**	**2.02**	**3**	*eP*	**Pn**	**06 08 20.4**	**-0.8**
LLGN	**La Laguna**	**2.03**	**24**	S	**Sb**	**06 08 47.0**	**-0.1**
MTO3	**Montecristo**	**2.13**	**12**	P	**Pn**	**06 08 22.1**	**+1.7**
MTO3				S	**Sb**	**06 08 47.8**	**-2.2**
MTO3	**Montecristo**	**2.13**	**12**	*eP*	**Pn**	**06 08 22.0**	**+1.5**
MTO3	**Montecristo**	**2.13**	**12**	*i* P	**Pb**	**06 08 22.4**	**-0.7**
MTO3				*eS*	**Sb**	**06 08 48.5**	**-1.5**
CNCH	**Conchagua**	**2.16**	**63**	P	**Pn**	**06 08 20.6**	**-0.1**
ESQI	**Esquipulas**	**2.29**	**11**	P	**Pn**	**06 08 24.6**	**+2.0**
ESQI				S	**Sb**	**06 08 52.9**	**-1.6**
CSGN	**Cosiguina Volc**	**2.30**	**73**	P	**Pn**	**06 08 21.4**	**-1.3**
CSGN				S	**Sn**	**06 08 50.8**	**-0.7**
APG	**El Apazote**	**2.76**	**347**	*eP*	**Pn**	**06 08 31.0**	**+1.9**

*IDC **04** 06:18:36.2±2.9, 28.50N×56.86E, h0km, mb3.7/4, mbtmp3.7/5, ML3.1/1, MS3.2/6,

UOSS				S		Sn	06 20 23.9	-2.1	
NAZ	**Nazwa, Dubai**	**3.92**	**196**	*i* P		**Pn**	**06 19 43.4**	**+1.9**	
	SNR=38								
NAZ	**Nazwa, Dubai**	**3.92**	**196**	P		**Pn**	**06 19 43.5**	**+2.1**	
	SNR=38								
NAZ				S		**Sn**	**06 20 28.6**	**+1.1**	
HATD	**Hatta, Dubai**	**3.98**	**190**	P		**Pn**	**06 19 44.3**	**+1.9**	
IKOO	**Kooshah**	**4.08**	**26**	Pn		**Pn**	**06 19 46.2**	**+2.2**	
ASHO	**Ashiyiah**	**4.13**	**190**	*i* P		**Pn**	**06 19 46.0**	**+1.5**	
	SNR=21								
ASHO	**Ashiyiah**	**4.13**	**190**	P		**Pn**	**06 19 45.9**	**+1.5**	
	SNR=21								
ASHO				S		**Sn**	**06 20 35.0**	**+2.1**	
FAQ	**Al Faqa, Dubai**	**4.17**	**196**	*i* P		**Pn**	**06 19 46.9**	**+2.0**	
	SNR=33								
FAQ	**Al Faqa, Dubai**	**4.17**	**196**	P		**Pn**	**06 19 46.7**	**+1.9**	
	SNR=33								
FAQ				S		**Sn**	**06 20 34.1**	**+0.5**	
ASUD	**Al Ashush, Dub**	**4.35**	**199**	*i* P		**Pn**	**06 19 49.9**	**+2.5**	
	SNR=13								
ASUD	**Al Ashush, Dub**	**4.35**	**199**	P		**Pn**	**06 19 49.9**	**+2.5**	
	SNR=13								
ASUD				S		**Sn**	**06 20 41.6**	**+3.5**	
CHBR	**Chabahar**	**4.51**	**134**	Pn		**Pn**	**06 19 51.8**	**+2.1**	
AJN	**Ajban**	**4.51**	**202**	*i* P		**Pn**	**06 19 51.6**	**+1.9**	
	SNR=11								
AJN	**Ajban**	**4.51**	**202**	P		**Pn**	**06 19 51.4**	**+1.8**	
	SNR=32								
AJN				S		**Sn**	**06 20 42.2**	**0.0**	
SOHO	**SOHO**	**4.63**	**184**	P		**Pn**	**06 19 51.4**	**+0.2**	
SOHO	**SOHO**	**4.63**	**184**	P		**Pn**	**06 19 52.3**	**+1.1**	
SOHO				S		**Sn**	**06 20 46.7**	**+1.8**	
ALNE	**Al Ain**	**4.80**	**192**	P		**Pn**	**06 19 55.0**	**+1.4**	
ALNE				S		**Sn**	**06 20 49.6**	**+0.3**	
IRAM	**Ramesheh**	**4.92**	**309**	Pn		**Pn**	**06 19 56.5**	**+1.1**	
KLNJ	**Kolanjah**	**5.09**	**297**	Pn		**Pn**	**06 19 59.2**	**+1.3**	
NGCH	**Negor - Chabah**	**5.10**	**131**	P		**Pn**	**06 20 00.3**	**+2.5**	
	SNR=14								
NGCH				S		**Sn**	**06 20 58.6**	**+1.9**	
NGCH	**Negor - Chabah**	**5.10**	**131**	Pn		**Pn**	**06 20 00.3**	**+2.5**	
HOQ	**Hoqain**	**5.18**	**175**	P		**Pn**	**06 19 58.7**	**-0.1**	
HOQ				S		**Sn**	**06 20 55.9**	**-2.8**	
BIDO	**Bidbid**	**5.35**	**167**	P		**Pn**	**06 20 01.0**	**-0.2**	
BIDO				S		**Sn**	**06 21 00.2**	**-2.7**	
ARQ	**Araqi**	**5.42**	**183**	P		**Pn**	**06 20 04.0**	**+1.8**	
	SNR=13								
ARQ				S		**Sn**	**06 21 05.6**	**+1.0**	
MZWR	**Madinat Zayed**	**5.66**	**209**	P		**Pn**	**06 20 06.3**	**+0.9**	
MZWR				S		**Sn**	**06 21 07.9**	**-2.6**	
IZEF	**Zefreh**	**5.67**	**318**	Pn		**Pn**	**06 20 07.0**	**+1.3**	
WSAR	**Wadi Sarin**	**5.73**	**164**	P		**Pn**	**06 20 07.6**	**+1.2**	
	SNR=23								
WSAR				S		**Sn**	**06 21 10.8**	**-1.5**	
IBRJ	**Brojen**	**5.77**	**304**	Pn		**Pn**	**06 20 08.5**	**+1.4**	
SMDO	**Samad**	**5.79**	**169**	P		**Pn**	**06 20 07.8**	**+0.6**	
	SNR=6.9								
SMDO				S		**Sn**	**06 21 13.2**	**-0.6**	
BSY	**Bisya**	**6.01**	**177**	P		**Pn**	**06 20 12.0**	**+1.8**	
	SNR=7.8								
BSY				S		**Sn**	**06 21 19.0**	**-0.1**	
IKLH	**Kolahrood**	**6.41**	**316**	Pn		**Pn**	**06 20 17.7**	**+1.7**	
WBK	**Wadi Bani Khal**	**6.42**	**162**	P		**Pn**	**06 20 17.2**	**+1.3**	
	SNR=6.1								
WBK				S		**Sn**	**06 21 27.7**	**-1.6**	
JMDO	**Jabal Madar**	**6.47**	**170**	P		**Pn**	**06 20 18.0**	**+1.4**	
JMDO				S		**Sn**	**06 21 30.4**	**-0.1**	
JLN	**Jalan Bani Buh**	**6.98**	**160**	P		**Pn**	**06 20 24.3**	**+0.8**	
	SNR=12								
JLN				S		**Sn**	**06 21 40.9**	**-2.1**	
MHTO	**MHTO**	**7.81**	**172**	P		**Pn**	**06 20 36.3**	**+1.3**	
	SNR=16								
MHTO				S		**Sn**	**06 22 00.1**	**-3.5**	
KBD	**Kabd**	**8.04**	**275**	P		**Pn**	**06 20 42.6**	**+4.5**	
DOK	**Doka**	**10.41**	**195**	P		**Pn**	**06 21 09.3**	**-1.3**	
SHAO	**Shalim**	**10.76**	**186**	P		**Pn**	**06 21 14.7**	**-0.7**	
DMTO	**DMTO**	**11.14**	**190**	P		**Pn**	**06 21 18.7**	**-2.0**	
WHFO	**Wadi Hawf**	**11.17**	**195**	P		**Pn**	**06 21 19.0**	**-2.0**	
	SNR=22								
ABTO	**Aybut**	**11.83**	**197**	P		**Pn**	**06 21 30.0**	**-0.1**	
	SNR=6.6								
GNI	**Garni**	**15.11**	**322**	LR		LR	06 28 46.9		
	comp=Z,37nm,19.2s,baz=300,slow=40								
KBZ	**Khabaz**	**18.66**	**327**	P		**P**	**06 22 58.4**	**-0.8**	
	0.1nm,0.3s,baz=101,slow=16,SNR=1.4								
	0.7nm,0.6s								
KBZ				AML		AML			
AAK	**Ala-Archa**	**19.86**	**41**	LR		LR	06 31 06.8		
	comp=Z,66nm,18.1s,baz=288,slow=37								
BRTR	**Keskin Array B**	**22.03**	**306**	P		**P**	**06 23 34.0**	**-2.0**	
	2.3nm,0.7s,baz=116,slow=11,SNR=13								
BRTR				LR		LR	06 33 35.5		
	comp=Z,53nm,19.1s,baz=143,slow=40								
	2.3nm,0.7s								
MKAR	**Makanchi Array**	**26.79**	**41**	P		**P**	**06 24 19.7**	**-1.6**	
	0.2nm,0.4s,baz=224,slow=8.0,SNR=2.3								
MKAR				LR		LR	06 36 40.6		
	comp=Z,40nm,18.6s,baz=312,slow=40								
	0.2nm,0.4s								
ZALV	**Zalesovo Beam**	**32.37**	**31**	P		**P**	**06 25 09.4**	**-1.3**	
	1.5nm,0.6s,baz=234,slow=8.2,SNR=7.3								
ZALV				LR		LR	06 40 13.0		
	comp=Z,79nm,18.4s,baz=310,slow=40								
	1.5nm,0.6s								
GERES	**GERESS Array B**	**38.51**	**313**	LR		LR	06 46 02.4		
	comp=Z,51nm,18.8s,baz=298,slow=42								
TORD	**Torodi Ar. Bea**	**53.37**	**265**	P		P	06 27 57.6	-3.6	
	0.6nm,0.7s,baz=60,slow=5.9,SNR=2.8								
	0.6nm,0.7s								

*IDC **04** 06:20:47.1±0.6,62˚21S×57˚52W,h0km,mb4.1/11,*
mbtmp4.1/12,ML3.6/1,MS3.5/12,Error ellipse:
s-maj=23.7km s-min=14.8km az=98.0
*NEIC **04** 06:20:48.9±1.8,62˚38S±0˚05×58˚2W±0˚1,h10km±1km,*
mb4.6/29,Error ellipse: s-maj=11.3km s-min=6.4km
az=130.0
*GFZ **04** 06:20:50.4±0.2,62˚S±3˚×57˚8W±˚,h10km,M4.6/22,*
mb4.6/22,confirmed
ISC 04 06:20:49.2±0.4,62˚25S±0˚04×58˚15W±0˚05,h10km,n103,
σ1s58/101,mb4.5/36,MS3.4/11,2C-6D,South Shetland
Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JUBA	**Jubany**	**0.24**	**274**	*i* P	**Pg**	**06 20 53.2**	**-0.8**
JUBA				*i* S	**Sg**	**06 20 55.8**	**-1.5**
JUBA				IAML		06 21 02.6	
	comp=Z,58μm,0.6s						
ESPZ	**Base Esperanza**	**1.27**	**156**	*i* P	**Pn**	**06 21 11.6**	**-1.3**
ESPZ				*i* S	**Sb**	**06 21 26.4**	**-3.0**
ESPZ	**Base Esperanza**	**1.27**	**156**	Pn	**Pn**	**06 21 11.6**	**-1.3**
PMSA	**Palmer Station**	**3.66**	**224**	Pn	**Pn**	**06 21 45.6**	**-0.1**
	comp=Z,4.6nm,0.3s,baz=43,slow=9.5,SNR=6.7						
PMSA				Sn	**Sb**	**06 22 34.4**	**-3.7**
	comp=Z,10nm,0.3s,baz=29,slow=21,SNR=1.6						
PMSA				LR	LR	06 23 07.5	
	comp=Z,399nm,20.0s,baz=40,slow=36						
	comp=Z,9.2nm,0.3s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.66**	**224**	*e*P	**Pn**	**06 21 45.7**	**+0.1**
PMSA				*i* S	**Sb**	**06 22 35.7**	**-2.4**
PMSA	**Palmer Station**	**3.66**	**224**	P	**Pn**	**06 21 46.0**	**+0.3**
SMAI	**San Martin Ant**	**6.99**	**209**	*i* P	**Pn**	**06 22 32.2**	**+0.8**
SMAI				*i* S	**Sn**	**06 23 58.2**	**+7.4**
SMAI	**San Martin Ant**	**6.99**	**209**	Pn	**Pn**	**06 22 31.2**	**-0.2**
EFI	**East Falkland**	**10.61**	**0**	*i* P	**Pn**	**06 23 23.9**	**+2.9**
EFI				*i* S	**Sn**	**06 25 17.9**	**-1.8**
EFI				IAML		06 26 20.8	
	comp=Z,57nm,2.5s						
EFI	**East Falkland**	**10.61**	**0**	Pn	**Pn**	**06 23 23.0**	**+2.0**
EFI	**East Falkland**	**10.61**	**0**	P	**Pn**	**06 23 24.0**	**+3.0**
	comp=Z,59nm,1.4s						
MG02	**Cerro Sombrero**	**11.19**	**323**	*i* P	**Pn**	**06 23 29.0**	**0.0**
GO10	**Punta Arenas**	**11.41**	**317**	P	**Pn**	**06 23 32.2**	**+0.1**
GO08	**Villa O'Higgin**	**16.00**	**323**		**P**	**06 24 37.2**	**-0.3**
GO08	**Villa O'Higgin**	**16.00**	**323**	P	**Pn**	**06 24 34.8**	**+0.7**
	comp=Z,20nm,1.3s						
BELA	**Belgrano 2**	**17.36**	**164**	P	**Pn**	**06 24 51.5**	**+0.5**
COYC	**Coyhaique**	**18.54**	**328**	P	**Pn**	**06 25 06.1**	**+0.3**
VNA3	**Neumayer Olymp**	**20.52**	**136**	⇓P	Pn	06 25 29.2	0.0
	comp=Z,28nm,0.7s						
VNA3				⇑PcP	**PcP**	**06 29 37.6**	**-0.1**
	comp=Z,3.0nm,0.6s						
VNA3	**Neumayer Olymp**	**20.52**	**136**	P	Pn	06 25 29.5	+0.2
	comp=Z,47nm,0.8s						
VNA1	**Neumayer--Stat**	**20.98**	**135**	⇓P	Pn	06 25 34.8	+0.1
	comp=Z,20nm,0.9s						
VNA2	**Neumayer--Watz**	**21.26**	**135**	⇓P	**P**	**06 25 37.3**	**+2.2**
	comp=Z,17nm,0.6s,baz=269,slow=11						
VNA2				⇑PcP	**PcP**	**06 29 39.8**	**+0.6**
	comp=Z,2.3nm,0.6s,baz=287,slow=7.6						
VNA2	**Neumayer--Watz**	**21.26**	**135**	P	**P**	**06 25 37.6**	**+2.5**
	comp=Z,30nm,0.7s						
SNAA	**Sanae**	**22.69**	**138**	P	**P**	**06 25 46.4**	**-4.1**
	comp=Z,10nm,0.5s,baz=255,slow=6.8,SNR=4.1						
SNAA				LR	LR	06 33 44.3	
	comp=Z,99nm,19.7s,baz=349,slow=34						
	comp=Z,10nm,0.5s						
SNAA	**Sanae**	**22.69**	**138**	IAmb	IAmb	06 25 54.9	
	comp=Z,23nm,0.9s						
LL05	**Los Muermos**	**22.81**	**329**	P	**P**	**06 25 52.8**	**+1.0**
PLCA	**Paso Flores**	**22.81**	**335**	P	**P**	**06 25 51.8**	**-0.2**
	comp=Z,3.6nm,0.8s,baz=171,slow=7.9,SNR=6.9						
PLCA				LR	LR	06 33 51.1	
	comp=Z,39nm,20.0s,baz=182,slow=34						
	comp=Z,3.6nm,0.8s						
PLCA	**Paso Flores**	**22.81**	**335**		**P**	**06 25 52.7**	**+0.8**
PLCA				IAmb	IAmb	06 25 57.6	
	comp=Z,11nm,1.1s						
PLCA	**Paso Flores**	**22.81**	**335**	P	**P**	**06 25 53.4**	**+1.4**
	comp=Z,14nm,1.7s						
GO06	**Curarrehue**	**24.10**	**334**	P	**P**	**06 26 05.4**	**+0.6**
GO06				IAmb	IAmb	06 26 13.2	
	comp=Z,22nm,1.0s						
GO06	**Curarrehue**	**24.10**	**334**	P	**P**	**06 26 05.4**	**+0.6**
	comp=Z,22nm,1.0s						
TROLL	**Troll, Antarti**	**24.33**	**139**	⇓P	**P**	**06 26 08.6**	**+1.9**
	comp=Z,253nm,0.7s						
ML02	**Panimavida**	**27.79**	**336**	P	**P**	**06 26 40.7**	**+2.6**
	comp=Z,24nm,2.4s						
QSPA	**South Pole Qui**	**27.97**	**180**	P	**P**	**06 26 40.7**	**+1.1**
	comp=Z,4.2nm,0.7s,baz=178,slow=1.4,SNR=18						
QSPA				LR	LR	06 36 45.5	
	comp=Z,69nm,21.9s,baz=155,slow=34						
	comp=Z,4.2nm,0.7s						
QSPA	**South Pole Qui**	**27.97**	**180**	P	**P**	**06 26 39.4**	**-0.3**
QSPA				IAmb	IAmb	06 26 49.8	
	comp=Z,9.2nm,1.1s						
QSPA	**South Pole Qui**	**27.97**	**180**	P	**P**	**06 26 41.0**	**+1.3**
	comp=Z,9.9nm,1.2s						
BO02	**Sierra Bellavi**	**28.62**	**338**	P	**P**	**06 26 45.6**	**+0.1**
BO02				IAmb	IAmb	06 27 01.5	
	comp=Z,9.4nm,1.1s						
BO02	**Sierra Bellavi**	**28.62**	**338**	P	**P**	**06 26 46.4**	**+0.8**
	comp=Z,12nm,2.0s						
BO01	**Tunca**	**29.06**	**338**	P	**P**	**06 26 48.9**	**-0.4**
	comp=Z,8.1nm,1.7s						
BO04	**La Punta**	**29.37**	**339**	P	**P**	**06 26 52.4**	**+0.2**
BO04				IAmb	IAmb	06 26 53.0	
	comp=Z,10nm,0.8s						
ELIB	**Princess Elisa**	**30.54**	**143**	*d*P	**P**	**06 27 03.7**	**+1.4**
	comp=Z,3.2nm,1.0s						
ELIB				*d*PP	**PnPn**	**06 27 59.7**	**-1.3**
VA03	**San Esteban**	**30.56**	**339**	P	**P**	**06 27 04.7**	**+2.0**
ZON	**Zonda**	**31.47**	**343**	P	**P**	**06 27 11.1**	**+0.4**
	comp=E,7.6nm,2.2s						
CO02	**Combarbal**	**32.16**	**339**	P	**P**	**06 27 17.4**	**+0.6**
CO02	**Combarbal**	**32.16**	**339**	P	**P**	**06 27 17.3**	**+0.5**
	comp=Z,16nm,0.7s						
GO04	**Tololo Observa**	**33.13**	**340**	P	**P**	**06 27 25.5**	**-0.1**
GO04	**Tololo Observa**	**33.13**	**340**	P	**P**	**06 27 25.7**	**+0.1**
	comp=Z,20nm,1.2s						
CO01	**Juntas del Tor**	**33.21**	**341**	P	**P**	**06 27 27.8**	**+1.6**
CO01				IAmb	IAmb	06 27 31.9	
	comp=Z,8.5nm,0.7s						
CO01	**Juntas del Tor**	**33.21**	**341**	P	**P**	**06 27 27.9**	**+1.6**
	comp=Z,14nm,1.4s						
LCO	**Las Campanas**	**34.26**	**340**	P	**P**	**06 27 35.7**	**+0.4**
AC05	**El Transito**	**34.36**	**341**		**P**	**06 27 36.8**	**+0.7**
AC05				IAmb	IAmb	06 28 00.6	
	comp=Z,11nm,1.1s						
AC05	**El Transito**	**34.36**	**341**	P	**P**	**06 27 36.5**	**+0.4**
	comp=Z,12nm,1.2s						
AC04	**Llanos de Chal**	**35.11**	**340**	P	**P**	**06 27 43.1**	**+0.7**
AC04	**Llanos de Chal**	**35.11**	**340**	P	**P**	**06 27 43.0**	**+0.7**
	comp=Z,21nm,1.0s						
CPUP	**Villa Florida**	**35.92**	**1**	P	**P**	**06 27 48.9**	**-0.5**
	comp=Z,2.0nm,0.9s,baz=156,slow=7.7,SNR=5.6						
CPUP				LR	LR	06 41 25.0	
	comp=Z,48nm,19.0s,baz=76,slow=34						
	comp=Z,2.0nm,0.9s						
AC02	**Maricunga**	**36.16**	**343**		**P**	**06 27 53.0**	**+0.9**
AC02				IAmb	IAmb	06 27 57.2	
	comp=Z,4.0nm,0.6s						
AC02	**Maricunga**	**36.16**	**343**	P	**P**	**06 27 53.1**	**+1.0**
	comp=Z,12nm,1.2s						
SBA	**Scott Base**	**37.49**	**194**	P	**P**	**06 28 03.6**	**+1.3**
SBA	**Scott Base**	**37.49**	**194**	P	**P**	**06 28 04.7**	**+2.5**
	comp=Z,4.9nm,1.3s						
VNDA	**Vanda**	**38.32**	**193**	P	**P**	**06 28 10.9**	**+1.7**
	comp=Z,0.4nm,0.7s,baz=248,slow=6.0,SNR=4.3						
VNDA				LR	LR	06 45 23.9	
	comp=Z,70nm,18.5s,baz=268,slow=38						
	comp=Z,0.4nm,0.7s						
SALTA		**38.42**	**348**	P	**P**	**06 28 12.1**	**+0.9**
	comp=Z,5.1nm,2.6s						
GO01	**Chusmiza**	**43.23**	**345**	P	**P**	**06 28 51.6**	**+0.7**
	comp=Z,6.0nm,2.8s						
MAW	**Mawson**	**43.63**	**152**	LR	LR	06 47 04.5	
	comp=Z,81nm,19.8s,baz=340,slow=36						
PB16	**IPOC Station P**	**44.59**	**345**	P	**P**	**06 29 03.1**	**+1.2**
PB16				IAmb	IAmb	06 29 14.1	
	comp=Z,11nm,1.5s						
PB16	**IPOC Station P**	**44.59**	**345**	P	**P**	**06 29 02.9**	**+1.0**
	comp=Z,10.0nm,2.7s						
LPAZ	**La Paz**	**46.45**	**347**	P	**P**	**06 29 16.8**	**+0.1**
	comp=Z,0.7nm,0.5s,baz=155,slow=4.6,SNR=4.7						
LPAZ				LR	LR	06 48 23.0	
	comp=Z,45nm,21.7s,baz=152,slow=36						
	comp=Z,0.7nm,0.5s						
BDFB	**Brasilia**	**47.11**	**13**	P	**P**	**06 29 20.5**	**-0.7**
	comp=Z,3.2nm,0.6s,baz=204,slow=9.2,SNR=7.6						
BDFB				LR	LR	06 51 07.9	
	comp=Z,36nm,18.0s,baz=17,slow=39						
	comp=Z,3.2nm,0.6s						
BDFB	**Brasilia**	**47.11**	**13**	P	**P**	**06 29 20.9**	**-0.4**
BDFB				IAmb	IAmb	06 29 26.1	
	comp=Z,5.7nm,0.9s						
CLDB	**Colider**	**51.32**	**3**	P	**P**	**06 29 52.8**	**-0.6**
SMTB	**Santa Maria do**	**53.85**	**13**	P	**P**	**06 30 12.0**	**-0.2**
SMTB				IAmb	IAmb	06 30 18.9	
	comp=Z,8.0nm,0.9s						
SUR	**Sutherland**	**56.85**	**97**	P	**P**	**06 30 33.3**	**-0.5**
BOSA	**Boshof**	**62.08**	**99**	P	**P**	**06 31 09.1**	**-0.8**
	comp=Z,2.7nm,0.7s,baz=219,slow=4.8,SNR=6.2						
	comp=Z,2.7nm,0.7s						
BOSA	**Boshof**	**62.08**	**99**	P	**P**	**06 31 09.9**	**0.0**
BOSA	**Boshof**	**62.08**	**99**	P	**P**	**06 31 09.6**	**-0.3**
	comp=Z,8.1nm,2.7s						
H10N3	**ASCENSION HYDR**	**62.92**	**50**	T	T	07 39 40.0	
	baz=202,slow=75						
H10N1	**ASCENSION HYDR**	**62.92**	**50**	T	T	07 39 40.0	
	baz=202,slow=75						
H10N2	**ASCENSION HYDR**	**62.93**	**50**	T	T	07 39 41.2	
	baz=202,slow=75						
OTAV	**Otavalo**	**64.19**	**337**		**P**	**06 31 25.0**	**+0.6**
OTAV				IAmb	IAmb	06 31 25.7	
	comp=Z,7.2nm,1.1s						
OTAV	**Otavalo**	**64.19**	**337**	P	**P**	**06 31 25.3**	**+0.9**
BOAV	**Boa Vista**	**64.50**	**357**	P	**P**	**06 31 25.1**	**-0.7**
BOAV				IAmb	IAmb	06 31 46.0	
	comp=Z,11nm,1.5s						
LBTB	**Lobatse**	**65.30**	**97**	P	**P**	**06 31 30.9**	**-0.3**
	comp=Z,8.4nm,3.0s						
POGA	**Pongola**	**66.12**	**103**	P	**P**	**06 31 37.0**	**+0.6**
	comp=Z,50nm,1.3s						
ROSC	**El Rosal**	**68.05**	**343**	LR	LR	07 06 05.1	
	comp=Z,82nm,18.6s,baz=171,slow=40						
SDV	**Santo Domingo**	**71.58**	**347**	LR	LR	07 05 32.1	
	comp=Z,36nm,18.6s,baz=344,slow=38						
SJG	**San Juan**	**80.34**	**352**	LR	LR	07 09 38.5	
	comp=Z,44nm,19.1s,baz=106,slow=36						
KLBR	**Kellerberrin**	**86.43**	**177**	P	**P**	**06 33 31.3**	**-0.2**
	comp=Z,23nm,0.9s						
TORD	**Torodi Ar. Bea**	**88.32**	**57**	P	**P**	**06 33 38.4**	**-2.3**
	comp=Z,0.5nm,0.6s,baz=153,slow=1.3,SNR=3.3						
	comp=Z,0.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**88.32**	**57**	IAmb	IAmb	06 34 12.0	
	comp=Z,4.6nm,1.2s						
QLP	**Quilpie**	**89.67**	**200**	P	**P**	**06 33 47.1**	**0.0**
	comp=Z,35nm,1.3s						
ASAR	**Alice Springs**	**93.84**	**191**	P	**P**	**06 34 05.2**	**-1.4**
	comp=Z,1.2nm,0.9s,baz=168,slow=4.2,SNR=8.3						
	comp=Z,1.2nm,0.9s						
WRA	**Warramunga Arr**	**97.48**	**192**	P	**P**	**06 34 21.2**	**-1.9**
	comp=Z,0.8nm,0.7s,baz=176,slow=4.1,SNR=6.4						
	comp=Z,0.8nm,0.7s						
GERES	**GERESS Array B**	**124.55**	**50**	PKP	**PKPdf**	**06 39 45.8**	**-1.7**
	comp=Z,0.5nm,0.6s,baz=222,slow=1.6,SNR=6.6						
ILAR	**Eielson Array**	**142.56**	**315**	PKP	**PKPdf**	**06 40 18.9**	**-1.7**
	comp=Z,0.3nm,0.6s,baz=180,slow=1.3,SNR=3.3						
ARCES	**ARCESS Array B**	**144.01**	**36**	PKP	**PKPab**	**06 40 19.2**	**-1.2**
	comp=Z,5.0nm,0.7s,baz=299,slow=2.5,SNR=14						
GOMU	**GeErMu**	**148.96**	**135**	PKPbc	**PKPdf**	**06 40 33.0**	**+0.1**
NJ2	**Nanjing**	**149.72**	**175**	*e*P	**PKPdf**	**06 40 34.1**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
XAN	**Xi'an**	**150.60**	**158**	*e*PKPbc	**PKPdf**	**06 40 36.2**	**+1.1**
LZDM	**Lanzhou Array**	**151.33**	**148**	PKPbc	**PKPbc**	**06 40 41.0**	**-1.5**
	comp=Z,1.4nm,0.3s,baz=245,slow=6.4,SNR=3.9						
BVAR	**Borovoye Array**	**151.69**	**85**	PKPbc	**PKPbc**	**06 40 41.4**	**-1.0**
	comp=Z,10nm,0.8s,baz=244,slow=2.7,SNR=24						
MKAR	**Makanchi Array**	**152.88**	**106**	PKPbc	**PKPbc**	**06 40 44.2**	**-1.1**
	comp=Z,1.8nm,0.6s,baz=238,slow=2.6,SNR=7.8						
WMQ	**Urumqi**	**152.88**	**117**	*e*PKPbc	**PKPdf**	**06 40 35.3**	**-3.0**
WMQ				PKPab	**PKPab**	**06 40 59.2**	**+2.5**
GTA2	**Gaotai**	**153.55**	**139**	*e*PKPbc	**PKiKP**	**06 40 47.6**	**+0.3**
KURBB	**Kurchatov Arra**	**153.92**	**96**	PKPbc	**PKPbc**	**06 40 45.7**	**-1.7**
	comp=Z,0.7nm,0.5s,baz=231,slow=3.2,SNR=6.6						
KURK	**Kurchatov**	**154.02**	**96**		**PKPbc**	**06 40 45.7**	**-1.9**

*ISK **04** 06:27:57.9,37˚89N×26˚97E,h15km,ML2.5/11*
*THE **04** 06:27:58.7,38˚N±2˚×2˚7E±˚,h2km±3km,M2.1/5,MLh2.1/5*
*AFAD **04** 06:27:58.6,37˚90N×26˚96E,h7km±4km,ML1.8*
ISC 04 06:27:58.9±0.9,37˚90N±0˚02×26˚97E±0˚02,h9km±7km,
n34,σ0s95/59,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.17**	**336**	P	**Pg**	**06 28 02.2**	**-0.2**
DGB				S	**Sg**	**06 28 04.7**	**-0.2**
DGB				IAML		06 28 05.0	
	comp=N,222nm,0.4s						
DGB				IAML		06 28 05.0	
	comp=E,657nm,0.2s						
GMLD	**Gumuldur**	**0.18**	**347**	Pg	**Pg**	**06 28 02.8**	**+0.1**
GMLD				AML	AML		
SMG	**Samos**	**0.22**	**209**	P	**Pg**	**06 28 02.8**	**-0.5**
SMG				S	**Sg**	**06 28 06.2**	**-0.1**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**98**	Pg	**Pg**	**06 28 03.7**	**-0.3**
GCAM	**G?zelcaml?**	**0.29**	**133**	P	**Pg**	**06 28 04.8**	**+0.2**
GCAM				IAML		06 28 09.0	
	comp=N,228nm,0.1s						
GCAM				IAML		06 28 09.0	
	comp=E,352nm,0.2s						
GCAM				S	**Sb**	**06 28 09.6**	**-1.6**
GCAM	**G?zelcaml?**	**0.29**	**133**	Pg	**Pg**	**06 28 04.5**	**-0.1**
GCAM				Sg	**Sg**	**06 28 09.1**	**+0.6**
GCAM				AML	AML		
BEYE	**izmir**	**0.33**	**354**	P	**Pg**	**06 28 05.4**	**0.0**
BEYE				S	**Sg**	**06 28 10.6**	**+0.8**
BEYE				IAML		06 28 11.0	
	comp=N,210nm,0.2s						
BEYE				IAML		06 28 11.0	
	comp=E,243nm,0.2s						
BLCB	**Balcova**	**0.49**	**7**	P	**Pg**	**06 28 08.5**	**+0.1**
BLCB				S	**Sg**	**06 28 15.4**	**+0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.49**	**7**	Pg	**Pg**	**06 28 08.2**	**-0.2**
BLCB				Sg	**Sg**	**06 28 15.5**	**+0.6**
DUVT	**Torbali**	**0.50**	**50**	P	**Pg**	**06 28 08.3**	**-0.2**
DUVT				S	**Sg**	**06 28 15.4**	**+0.3**
DUVT				IAML		06 28 16.0	
	comp=E,116nm,0.1s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**313**	P	**Pg**	**06 28 08.3**	**-0.4**
ZEYE				S	**Sg**	**06 28 15.6**	**+0.4**
ZEYE				IAML		06 28 18

σ2937/17, **mb3.5/6, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.75**	**177**	P	**Pn**	**06 32 11.5**	**-1.2**
	16nm,0.2s,baz=52,slow=12,SNR=12						
PMG				S	**Sn**	**06 32 55.8**	**-2.8**
	62nm,0.6s,baz=42,slow=20,SNR=14						
JAY	**Jayapura**	**6.98**	**296**	P	**Pn**	**06 32 54.9**	**+0.6**
	7.2nm,0.3s,baz=149,slow=12,SNR=6.6						
JAY				S	**Sn**	**06 34 09.3**	**-4.3**
	9.0nm,0.8s,baz=358,slow=23,SNR=1.2						
CTA	**Charters Tower**	**14.38**	**183**	P	**Pn**	**06 34 29.4**	**+0.3**
	1.8nm,0.5s,baz=9.5,slow=13,SNR=1.7						
WRA	**Warramunga Arr**	**18.79**	**220**	P	**P**	**06 35 21.9**	**+2.8**
	1.0nm,0.5s,baz=39,slow=11,SNR=16						
WRA				S	**S**	**06 38 42.8**	**+0.1**
	1.6nm,0.8s,baz=42,slow=20,SNR=9.4						
ASAR	**Alice Springs**	**21.90**	**214**	P	**P**	**06 35 54.6**	**+2.6**
	1.6nm,0.7s,baz=50,slow=8.3,SNR=16						
ASAR				S	**S**	**06 39 41.9**	**+1.8**
	1.3nm,0.8s,baz=36,slow=19,SNR=4.1						
	1.6nm,0.7s						
HHC	**Hu-ho-hao-te**	**56.52**	**328**	*e*P	**P**	**06 40 41.1**	**+4.7**
VNDA	**Vanda**	**72.27**	**177**	P	**P**	**06 42 18.1**	**+0.3**
	0.3nm,0.6s,baz=339,slow=6.9,SNR=5.5						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	**77.20**	**320**	P	**P**	**06 42 45.2**	**-1.6**
	0.6nm,0.7s,baz=87,slow=7.9,SNR=2.6						
	0.6nm,0.7s						
ZALV	**Zalesovo Beam**	**78.70**	**328**	P	**P**	**06 42 54.1**	**-0.6**
	0.5nm,0.5s,baz=116,slow=8.3,SNR=2.3						
	0.5nm,0.5s						
QSPA	**South Pole Qui**	**84.32**	**180**	P	**P**	**06 43 24.0**	**-0.2**
	0.5nm,0.5s,baz=18,slow=3.2,SNR=2.1						
	0.5nm,0.5s						
ILAR	**Eielson Array**	**85.16**	**23**	P	**P**	**06 43 25.4**	**-2.8**
	0.5nm,0.6s,baz=247,slow=5.4,SNR=4.6						
	0.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**144.97**	**285**	PKPbc	**PKPbc**	**06 50 29.0**	**0.0**
	1.4nm,0.5s,baz=62,slow=4.4,SNR=10						
BDFB	**Brasilia**	**154.16**	**145**	PKPbc	**PKPbc**	**06 50 52.3**	**+0.1**
	0.5nm,0.3s,baz=180,slow=2.0,SNR=3.4						

*AFAD **04** 06:46:08.4, 37°.90N×26°.67E, h7km±3km, ML2.6*
*THE **04** 06:46:08.5, 38°N±1°×2°.7E±°, h13km±2km, M3.0/5, MLh3.0/5*
*ISK **04** 06:46:08.4, 37°.88N×26°.65E, h5km, ML2.7/25*

ISC 04 06:46:08.4±1.0, **37°.89N**±0°.02×**26°.62E**±0°.02, **h10**km±8km, **n46**, σ0°52/73, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.25**	**137**	P	**Pg**	**06 46 13.8**	**+0.2**
SMG				S	**Sg**	**06 46 17.7**	**+0.7**
SMG				AML	AML		
DGB	**zmir**	**0.26**	**53**	P	**Pg**	**06 46 13.5**	**-0.2**
DGB				S	**Sg**	**06 46 16.9**	**-0.4**
DGB				IAML		06 46 17.0	
	comp=E,421nm,0.3s						
DGB				IAML		06 46 19.0	
	comp=N,644nm,0.6s						
GMLD	**Gumuldur**	**0.30**	**52**	Pg	**Pg**	**06 46 14.0**	**-0.4**
GMLD				Sg	**Sg**	**06 46 18.5**	**+0.1**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.36**	**345**	P	**Pg**	**06 46 15.7**	**+0.2**
ZEYE				S	**Sg**	**06 46 21.5**	**+1.2**
ZEYE				IAML		06 46 27.0	
	comp=N,1μm,0.4s						
ZEYE				IAML		06 46 27.0	
	comp=E,607nm,0.6s						
BEYE	**izmir**	**0.41**	**36**	P	**Pg**	**06 46 16.1**	**-0.4**
BEYE				S	**Sg**	**06 46 21.5**	**-0.5**
CESE	**eme**	**0.50**	**330**	Pg	**Pb**	**06 46 19.5**	**+0.1**
CESE				Sg	**Sb**	**06 46 26.8**	**0.0**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.52**	**112**	P	**Pg**	**06 46 18.3**	**-0.3**
GCAM				S	**Sg**	**06 46 25.4**	**-0.1**
GCAM				IAML		06 46 26.0	
	comp=E,517nm,0.3s						
GCAM				IAML		06 46 26.0	
	comp=N,553nm,0.6s						
GCAM	**G?zelcaml?**	**0.52**	**112**	Pg	**Pg**	**06 46 18.4**	**-0.3**
GCAM				Sg	**Sg**	**06 46 25.8**	**+0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.53**	**93**	Pg	**Pg**	**06 46 18.8**	**+0.1**
KUSD				Sg	**Sg**	**06 46 25.7**	**0.0**
KUSD				AML	AML		
BLCB	**Balcova**	**0.59**	**34**	P	**Pg**	**06 46 19.6**	**-0.3**
BLCB				S	**Sg**	**06 46 27.7**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**34**	Pg	**Pb**	**06 46 20.5**	**-0.4**
BLCB				AML	AML		
CHOS	**Chios island**	**0.66**	**318**	P	**Pg**	**06 46 21.5**	**+0.3**
CHOS				S	**Sb**	**06 46 31.8**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.66**	**318**	Pg	**Pb**	**06 46 22.2**	**0.0**
CHOS				Sg	**Sb**	**06 46 31.9**	**+0.4**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.70**	**356**	Pg	**Pb**	**06 46 22.7**	**-0.1**
KRBN				Sg	**Sb**	**06 46 33.3**	**+0.8**
KRBN				AML	AML		
DIDI	**Didim-Aydin**	**0.71**	**136**	Pg	**Pg**	**06 46 21.9**	**-0.3**
DIDI				AML	AML		
DUVT	**Torbali**	**0.73**	**63**	P	**Pg**	**06 46 22.2**	**-0.4**
DUVT				S	**Sg**	**06 46 31.5**	**-0.7**
DUVT				IAML		06 46 34.0	
	comp=E,291nm,1.0s						
BAGT	**Foa**	**0.78**	**14**	P	**Pg**	**06 46 22.4**	**-1.1**
BAGT				S	**Sb**	**06 46 35.1**	**+0.3**
BAGT				IAML		06 46 37.0	
	comp=E,290nm,0.5s						
BAGT				IAML		06 46 44.0	
	comp=N,304nm,0.5s						
KARB	**zmir-Karabur**	**0.79**	**348**	P	**Pg**	**06 46 23.2**	**-0.4**
KARB				S	**Sb**	**06 46 34.9**	**-0.1**
KARB				IAML		06 46 40.0	
	comp=E,324nm,0.5s						
KARB				IAML		06 46 44.0	
	comp=N,298nm,0.6s						
FOCM	**Foa**	**0.82**	**6**	Pg	**Pb**	**06 46 24.9**	**+0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.93**	**145**	Pg	**Pg**	**06 46 26.1**	**-0.3**
YKAV				AML	AML		
BODT	**Bodrum**	**1.00**	**146**	P	**Pb**	**06 46 27.6**	**-0.2**
BODT				S	**Sb**	**06 46 40.9**	**-0.2**
BODT	**Bodrum**	**1.00**	**146**	Pg	**Pg**	**06 46 27.4**	**-0.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.01**	**87**	Pg	**Pb**	**06 46 27.7**	**-0.4**
AYDB				AML	AML		
CAMT	**Merkez**	**1.01**	**32**	P	**Pn**	**06 46 28.9**	**+0.1**
CAMT				S	**Sn**	**06 46 43.1**	**0.0**
CAMT				IAML		06 46 44.0	
	comp=N,833nm,0.6s						
CAMT				IAML		06 46 44.0	
	comp=E,661nm,0.5s						
AYDN	**Tasoluk**	**1.03**	**103**	P	**Pb**	**06 46 28.2**	**-0.1**
AYDN				S	**Sg**	**06 46 40.3**	**-1.2**
AYDN				IAML		06 46 46.0	
	comp=N,169nm,0.3s						
BDRM	**Kayabasi**	**1.06**	**141**	P	**Pn**	**06 46 29.2**	**-0.2**
BDRM				S	**Sb**	**06 46 42.6**	**-0.1**
BDRM				IAML		06 46 44.0	
	comp=E,119nm,0.6s						
BDRM				IAML		06 46 45.0	
	comp=N,165nm,0.6s						
MLSB	**Milas**	**1.10**	**123**	Pg	**Pb**	**06 46 29.3**	**-0.2**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.13**	**18**	P	**Pg**	**06 46 29.5**	**-0.6**
ZEDA				S	**Sg**	**06 46 44.5**	**-0.3**
ZEDA				IAML		06 46 47.0	
	comp=E,120nm,0.7s						
ZEDA				IAML		06 46 47.0	
	comp=N,128nm,0.4s						
APE	**Apeiranthos**	**1.20**	**227**	P	**Pg**	**06 46 30.1**	**-1.3**
APE				S	**Sg**	**06 46 47.4**	**+0.4**
APE	**Apeiranthos**	**1.20**	**227**	Pn	**Pg**	**06 46 30.1**	**-1.3**
APE				AML	AML		
DKL	**Dikili**	**1.20**	**11**	Pn	**Pn**	**06 46 32.0**	**+0.7**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.30**	**51**	Pn	**Pg**	**06 46 33.6**	**+0.1**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.32**	**86**	Pn	**Pg**	**06 46 34.1**	**+0.2**
NAZL				AML	AML		
AKS	**Akhisar**	**1.36**	**43**	Pn	**Pg**	**06 46 34.6**	**+0.1**
AKS				AML	AML		
YAZI	**Mula-Dat§a-**	**1.38**	**151**	P	**Pn**	**06 46 34.1**	**+0.3**
YAZI				S	**Sg**	**06 46 53.8**	**+0.9**
YAZI				IAML		06 46 56.0	
	comp=N,66nm,0.6s						
YAZI				IAML		06 47 00.0	
	comp=E,68nm,0.4s						
KTTT	**Salihli**	**1.41**	**55**	P	**Pg**	**06 46 35.4**	**-0.1**
KTTT				S	**Sn**	**06 46 52.8**	**0.0**
KTTT				IAML		06 46 55.0	
	comp=N,73nm,0.5s						
SOMA	**Soma-Manisa**	**1.45**	**29**	Pn	**Pg**	**06 46 36.1**	**-0.2**
SOMA				AML	AML		
YER	**Yerkesik**	**1.52**	**119**	Pn	**Pb**	**06 46 36.7**	**-0.2**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.59**	**50**	Pn	**Pb**	**06 46 37.9**	**-0.1**
GORD				AML	AML		
BUHA	**Balikesir, Bur**	**1.64**	**12**	P	**Pb**	**06 46 38.7**	**-0.2**
BUHA				S	**Sg**	**06 47 00.9**	**-0.4**
BUHA				IAML		06 47 05.0	
	comp=N,139nm,0.6s						
BUHA				IAML		06 47 18.0	
	comp=E,92nm,0.5s						
STEP	**BALIKESIR_Sava**	**1.71**	**30**	P	**Pg**	**06 46 40.9**	**-0.4**
STEP				S	**Sb**	**06 47 01.5**	**-0.2**
STEP				IAML		06 47 06.0	
	comp=E,130nm,0.4s						
STEP				IAML		06 47 08.0	
	comp=N,130nm,0.5s						
YAYO	**Edremit-Balk**	**1.75**	**12**	Pn	**Pb**	**06 46 40.5**	**-0.2**
YAYO				AML	AML		
BAYC	**CANAKKALE_Bayr**	**1.84**	**358**	P	**Pb**	**06 46 41.5**	**-0.8**
BAYC				S	**Sg**	**06 47 07.6**	**-0.1**
BAYC				IAML		06 47 17.0	
	comp=N,37nm,0.5s						
BAYC				IAML		06 47 20.0	
	comp=E,52nm,0.5s						
BALB	**Balikesir**	**2.00**	**29**	Pn	**Pb**	**06 46 44.1**	**-0.9**
BALB				AML	AML		
APMY	**Acipayam-Deniz**	**2.17**	**100**	Pn	**Pn**	**06 46 45.8**	**+1.1**
APMY				AML	AML		
CAME	**Cameli-Denizli**	**2.34**	**113**	Pn	**Pn**	**06 46 48.3**	**+1.2**
CAME				AML	AML		

IDC 04 06:46:20.2±3.0, **6.76S×129.32E, h109**km±43km, **mb3.2/1, mbtmp3.7/5, Error ellipse: s-maj=70.7km s-min=17.1km az=95.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**6.17**	**18**	P	**Pn**	**06 47 49.8**	**+0.9**
	5.3nm,0.3s,baz=174,slow=18,SNR=2.0						
SIJI				S	Sn	06 48 57.9	-0.1
	8.8nm,0.3s,baz=276,slow=23,SNR=5.9						
FITZ	**Fitzroy Crossi**	**11.83**	**197**	P	Pn	06 49 06.2	+0.8
	2.0nm,0.3s,baz=39,slow=12,SNR=17						
FITZ				S	Sn	06 51 06.8	-8.8
	2.2nm,0.2s,baz=87,slow=6.5,SNR=3.9						
WRA	**Warramunga Arr**	**13.98**	**160**	P	Pn	06 49 32.3	-1.3
	0.7nm,0.4s,baz=324,slow=14,SNR=14						
WRA				S	Sn	06 51 53.0	-15
	1.7nm,0.4s,baz=335,slow=22,SNR=8.4						
ASAR	**Alice Springs**	**17.38**	**166**	P	P	06 50 15.4	-0.2
	0.3nm,0.3s,baz=335,slow=9.5,SNR=8.9						
ASAR				S	Sn	06 53 17.6	-12
	0.5nm,0.6s,baz=351,slow=26,SNR=6.0						
MKAR	**Makanchi Array**	**67.66**	**327**	P	P	06 57 05.6	+0.1
	0.2nm,0.4s,baz=134,slow=6.2,SNR=3.1						
	0.2nm,0.4s						

*IDC **04** 06:48:58.1±0.9, 31°.07S×59°.41E, h0km, mb3.9/8, mbtmp3.9/9, ML3.5/1, MS3.6/14, Error ellipse: s-maj=26.8km s-min=24.1km az=79.0*
*NEIC **04** 06:48:59.4±1.4, 31°.1S±0°.1×59°.4E±0°.1, h10km±1km, mb4.6/12, Error ellipse: s-maj=21.7km s-min=19.8km az=198.0*

ISC 04 06:48:59.0±0.6, **31°.0S**±0°.1×**59°.3E**±0°.1, **h10**km, **n51,** σ0°74/32, **mb4.4**/13, **MS3.6**/14, **Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FOMA	**Nahampoana Res**	**12.47**	**296**	Pn	**Pn**	**06 51 56.8**	**+0.3**
VOI	**Vohitsoka**	**14.44**	**306**	Pn	**Pn**	**06 52 23.4**	**-0.2**
H04N2	**CROZET ISLANDS**	**16.20**	**199**	T	T	07 09 36.7	
	baz=24,slow=76,SNR=98						
H04N1	**CROZET ISLANDS**	**16.20**	**199**	T	T	07 09 36.0	
	baz=24,slow=76,SNR=110						
H04N3	**CROZET ISLANDS**	**16.21**	**199**	T	T	07 09 39.4	
	baz=24,slow=76,SNR=113						
ABPO	**Ambohinpanonm**	**16.22**	**315**	Pn	**Pn**	**06 52 46.1**	**-1.1**
OPO	**Ambohidratompo**	**16.58**	**316**	Pn	**Pn**	**06 52 50.7**	**-1.1**
	baz=137,slow=16,SNR=2.3						
	2.9nm,0.8s						
H08S1	**Diego Carcia H**	**26.32**	**31**	T	T	07 21 56.1	
	baz=206						
H08S2	**Diego Garcia H**	**26.32**	**31**	T	T	07 22 06.1	
	baz=206,slow=74						
H08S3	**Diego Garcia H**	**26.34**	**31**	T	T	07 22 00.8	
	baz=206,slow=74						
DGAR	**Diego Garcia**	**26.52**	**30**	P	**P**	**06 54 36.2**	**-0.6**
BOSA	**Boshof**	**29.60**	**266**	P	**P**	**06 55 04.8**	**+0.3**
	1.1nm,0.8s,baz=82,slow=7.8,SNR=1.4						
BOSA				LR	LR	07 04 45.3	
	comp=Z,84nm,18.8s,baz=169,slow=32						
	1.1nm,0.8s						
BOSA	**Boshof**	**29.60**	**266**	P	**P**	**06 55 02.9**	**-1.6**
BOSA				IAmb	IAmb	06 55 24.4	
	comp=Z,16nm,1.4s						
KDWAN	**Kaudwane**	**31.67**	**275**	P	**P**	**06 55 22.7**	**-0.1**
SUR	**Sutherland**	**32.68**	**257**	LR	LR	07 05 46.1	
	comp=Z,117nm,19.8s,baz=136,slow=31						
KSANE	**Kasane**	**33.64**	**285**	P	**P**	**06 55 40.1**	**0.0**
KSANE				IAmb	IAmb	06 55 48.4	
	comp=Z,8.2nm,1.0s						
KOOLE	**Kule**	**35.63**	**273**	P	**P**	**06 55 57.1**	**-0.2**
KOOLE				IAmb	IAmb	06 56 00.1	
	comp=Z,8.5nm,0.8s						
MBAR	**Mbarara**	**40.62**	**313**	LR	LR	07 11 56.0	
	comp=Z,87nm,19.6s,baz=118,slow=34						
PALK	**Pailekele**	**43.24**	**32**	LR	LR	07 10 38.7	
	comp=Z,59nm,19.9s,baz=218,slow=30						
H01W2	**Cape Leeuwin H**	**45.66**	**110**	T	T	07 46 04.4	
	baz=259,slow=74,SNR=10.0						
H01W3	**Cape Leeuwin H**	**45.67**	**110**	T	T	07 46 05.0	
	baz=259,slow=74,SNR=14						
H01W1	**Cape Leeuwin H**	**45.68**	**110**	T	T	07 46 03.8	
	baz=259,slow=74,SNR=13						
KULM	**Kulim**	**53.49**	**55**	P	**P**	**06 58 18.6**	**-1.2**
KULM				IAmb	IAmb	06 59 00.2	
	comp=Z,8.3nm,1.1s						
QSPA	**South Pole Qui**	**59.13**	**180**	P	**P**	**06 59 00.6**	**+1.0**
	comp=Z,4.4nm,1.1s,baz=252,slow=2.5,SNR=7.1						
QSPA				LR	LR	07 21 44.4	
	comp=Z,77nm,20.1s,baz=265,slow=33						
	comp=Z,4.4nm,1.1s						
QSPA	**South Pole Qui**	**59.13**	**180**	P	**P**	**06 58 58.7**	**-0.8**
BRDH	**Bariadhala**	**61.75**	**34**	LR	LR	07 21 28.2	
	comp=Z,66nm,20.7s,baz=92,slow=32						
CMAR	**Chiang Mai Arr**	**62.21**	**43**	P	**P**	**06 59 21.8**	**+0.9**
	comp=Z,1.4nm,0.4s,baz=231,slow=5.8,SNR=6.6						
CMAR				LR	LR	07 20 55.6	
	comp=Z,31nm,21.9s,baz=210,slow=31						
	comp=Z,1.4nm,0.4s						
VNDA	**Vanda**	**62.60**	**166**	P	**P**	**06 59 23.2**	**+0.4**
	comp=Z,0.8nm,0.9s,baz=237,slow=8.7,SNR=4.3						
VNDA				LR	LR	07 25 22.9	
	comp=Z,95nm,18.7s,baz=256,slow=35						
	comp=Z,0.8nm,0.9s						
VNDA	**Vanda**	**62.60**	**166**	P	**P**	**06 59 22.1**	**-0.7**
VNDA				IAmb	IAmb	06 59 45.8	
	comp=Z,3.0nm,1.3s						
EIL	**Elat**	**64.67**	**337**	LR	LR	07 23 33.1	
	comp=Z,31nm,18.9s,baz=120,slow=32						
ASAR	**Alice Springs**	**65.53**	**104**	P	**P**	**06 59 43.1**	**+0.1**
	comp=Z,0.7nm,0.9s,baz=236,slow=5.3,SNR=5.6						
	comp=Z,0.7nm,0.9s						
ASAR	**Alice Springs**	**65.53**	**104**	P	**P**	**06 59 41.9**	**-1.1**
ASF	**Jabal al Asfar**	**66.36**	**339**	LR	LR	07 25 27.3	
	comp=Z,40nm,19.9s,baz=170,slow=33						
WRA	**Warramunga Arr**	**67.49**	**100**	P	**P**	**06 59 55.8**	**+0.3**
	comp=Z,1.1nm,0.8s,baz=241,slow=4.7,SNR=5.2						
	comp=Z,1.1nm,0.8s						
WRA	**Warramunga Arr**	**67.49**	**100**	P	**P**	**06 59 56.0**	**+0.5**
MMAI	**Mount Meron Ar**	**67.61**	**338**	LR	LR	07 26 18.3	
	comp=Z,20nm,19.9s,baz=176,slow=33						
WR8	**Warramunga Arr**	**67.62**	**100**	P	**P**	**06 59 56.1**	**-0.3**
WR8				IAmb	IAmb	07 00 04.6	
	comp=Z,5.2nm,1.1s						
GNI	**Garni**	**72.11**	**348**	LR	LR	07 30 27.3	
	comp=Z,40nm,19.6s,baz=202,slow=34						
AAK	**Ala-Archa**	**74.63**	**12**	LR	LR	07 31 52.8	
	comp=Z,38nm,18.4s,baz=246,slow=34						
AB31	**Akbulak array**	**79.93**	**0**	P	**P**	**07 01 08.7**	**+0.9**
ABKAR	**Akbulak array**	**79.93**	**0**	P	**P**	**07 01 08.5**	**+0.7**
MKAR	**Makanchi Array**	**80.20**	**16**	P	**P**	**07 01 10.5**	**+1.2**
	comp=Z,0.2nm,0.5s,baz=212,slow=7.8,SNR=2.0						
	comp=Z,0.2nm,0.5s						
MKAR	**Makanchi Array**	**80.20**	**16**	P	**P**	**07 01 09.7**	**+0.4**
KURBB	**Kurchatov Arra**	**83.06**	**12**	P	**P**	**07 01 24.5**	**+0.3**
	comp=Z,0.2nm,0.4s,baz=210,slow=5.5,SNR=4.1						
	comp=Z,0.2nm,0.4s						
KURK	**Kurchatov**	**83.16**	**12**	P	**P**	**07 01 25.5**	**+0.7**
KURK				IAmb	IAmb	07 01 36.3	
	comp=Z,3.1nm,1.1s						
KSRS	**Korea Array**	**93.52**	**48**	LR	LR	07 42 55.4	
	comp=Z,13nm,19.3s,baz=95,slow=35						
ILAR	**Eielson Array**	**142.52**	**18**	PKP	**PKPdf**	**07 08 31.6**	**+0.2**
	comp=Z,0.4nm,0.9s,baz=302,slow=2.0,SNR=2.8						
J30M	**Hart River**	**145.04**	**12**	PKPbc	**PKPbc**	**07 08 34.9**	**-0.4**
BCAR	**Beaver Creek A**	**145.22**	**17**	PKPbc	**PKPbc**	**07 08 35.7**	**-0.1**
K29M	**Barlow Dome**	**145.49**	**13**	PKPdf	**PKPdf**	**07 08 36.7**	**0.0**
M29M	**Somme Creek**	**146.54**	**15**	PKPdf	**PKPdf**	**07 08 38.9**	**+0.4**

*IDC **04** 06:52:14.6±0.8, 54°.76N×59°.16W, h0km, mb3.7/8, mbtmp3.9/12, ML3.7/4, Error ellipse: s-maj=18.2km s-min=12.2km az=174.0*
*NEIC **04** 06:52:16.0±2.2, 54°.94N±0°.06×59°.2W±0°.1, h10km±1km, mb4.3/16, Error ellipse: s-maj=13.9km s-min=4.6km az=137.0*
*OTT **04** 06:52:16.3±0.1, 55°.12N×58°.92W, h18km, M4.5/14, mB5.2/3, mb4.4/1, ML4.7/2, MLv4.5/6, MN4.5/14, MsBB4.6/5*
OTT 16km Ene of Makkovik, Nl, felt.
*DNK **04** 06:52:26.5±2.5, 55°.81N×59°.05W, h30km, ML2.9, Presumed earthquake*

ISC 04 06:52:14.7±0.5, **55°.04N**±0°.04×**59°.32W**±0°.05, **h10**km, **n106,** σ3°01/146, **mb4.1**/12, **Labrador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NINL	**Nain**	**2.01**	**319**	Pn	**Pn**	**06 52 50.3**	**+1.7**
NINL				Sn	**Sb**	**06 53 16.5**	**+0.1**
SCHQ	**Schefferville**	**4.34**	**270**	Pn	**Pn**	**06 53 22.2**	**+1.5**
	7.9nm,0.3s,baz=84,slow=8.9,SNR=98						
SCHQ				Sn	**Sn**	**06 54 13.7**	**+2.5**
	22nm,0.3s,baz=287,slow=16,SNR=4.9						
SCHQ				Lg	Lg	06 54 32.7	
	76nm,0.3s,baz=9.0,slow=19,SNR=7.5						
	21nm,0.4s						
SCHQ				AML	AML		
SCHQ	**Schefferville**	**4.34**	**270**		**Pn**	**06 53 24.2**	**+3.5**
SCHQ	**Schefferville**	**4.34**	**270**	Pn	**Pn**	**06 53 23.8**	**+3.1**
SCHQ				Sn	**Sn**	**06 54 16.0**	**+4.8**
BJBQ	**Baie Johan-Bee**	**5.21**	**205**	Pn	**Pn**	**06 53 34.7**	**+2.1**
BJBQ				Sn	**Sn**	**06 54 32.1**	**-0.5**
PCAQ	**Pointe Carleto**	**5.76**	**204**	Pn	**Pn**	**06 53 42.3**	**+2.2**
PCAQ				Sn	**Sn**	**06 54 47.7**	**+1.5**
DRLN	**Deer Lake**	**5.90**	**168**		**Pn**	**06 53 43.1**	**+1.1**
DRLN	**Deer Lake**	**5.90**	**168**	Pn	**Pn**	**06 53 42.6**	**+0.6**
DRLN				Sn	**Sn**	**06 54 49.1**	**-0.5**
PMAQ	**Port Menier**	**6.05**	**212**	Pn	**Pn**	**06 53 46.2**	**+2.1**
PMAQ				Sn	**Sn**	**06 54 54.9**	**+1.6**
SMQ	**Clarke City**	**6.59**	**226**	Pn	**Pn**	**06 53 53.2**	**+1.6**
SMQ				Sn	**Sn**	**06 55 07.6**	**+0.9**
ICQ	**Pointe Anglais**	**7.37**	**225**	Pn	**Pn**	**06 54 03.8**	**+1.7**
ICQ	**Pointe Anglais**	**7.37**	**225**	Pn	**Pn**	**06 54 03.5**	**+1.3**
ICQ				Sn	**Sn**	**06 55 26.2**	**+0.5**
SNFQ	**Sainte-Felicit**	**7.90**	**222**	Pn	**Pn**	**06 54 11.5**	**+2.0**
SNFQ				Sn	**Sn**	**06 55 36.4**	**-2.5**
CHEG	**Cheticamp, Nov**	**8.29**	**186**	Pn	**Pn**	**06 54 15.0**	**+0.2**
CHEG				Sn	**Sn**	**06 55 43.6**	**-4.8**
IVI	**Ivigtut**	**8.54**	**39**	Pn	**Pn**	**06 54 18.3**	**+0.1**
IVI	**Ivigtut**	**8.54**	**39**	*i* P	**Pn**	**06 54 18.5**	**+0.3**
IVI				*i* S	**Sn**	**06 55 47.9**	**-6.5**
IVI				IAML		06 55 49.1	
	comp=Z,34nm,0.3s						
LG4Q	**La Grande 4**	**8.75**	**267**	Pn	**Pn**	**06 54 22.2**	**+1.0**
LG4Q				Sn	**Sn**	**06 55 56.7**	**-3.1**
HSNB	**Heath Steele M**	**8.85**	**211**	Pn	**Pn**	**06 54 23.4**	**+0.9**
HSNB				Sn	**Sn**	**06 55 58.4**	**-3.8**
BATG	**Bathurst New B**	**8.85**	**211**		**Pn**	**06 54 23.4**	**+0.9**
BSCQ	**Baie-Sainte-Ca**	**9.47**	**227**	Pn	**Pn**	**06 54 32.3**	**+1.3**
BSCQ				Sn	**Sn**	**06 56 13.2**	**-4.2**
CACQ	**Cacouna**	**9.52**	**226**	Pn	**Pn**	**06 54 33.0**	**+1.3**
CACQ				Sn	**Sn**	**06 56 15.9**	**-2.7**
NRS	**Narsarsuaq**	**9.57**	**44**	Pn	**Pn**	**06 54 33.0**	**+0.7**
NRS	**Narsarsuaq**	**9.57**	**44**	*i* P	**Pn**	**06 54 32.5**	**+0.3**
NRS				*i* S	**Sn**	**06 56 13.0**	**-6.7**
GBN	**Guysborough**	**9.74**	**189**	Pn	**Pn**	**06 54 35.2**	**+0.5**
GBN	**Guysborough**	**9.74**	**189**	Pn	**Pn**	**06 54 35.3**	**+0.5**
GBN				Sn	**Sn**	**06 56 20.3**	**-3.8**
A64	**Saint Simeon**	**9.78**	**227**	Pn	**Pn**	**06 54 35.9**	**+0.8**
A64				Sn	**Sn**	**06 56 21.9**	**-3.0**
A21	**Saint Andre**	**9.79**	**226**	Pn	**Pn**	**06 54 36.4**	**+1.0**
A21				Sn	**Sn**	**06 56 21.4**	**-3.8**
LMN	**Caledonia Moun**	**9.84**	**203**	Pn	**Pn**	**06 54 36.8**

G62A	**West of Eustis**	**12.16**	**221**	Pn	**Pn**	06 55 08.7	**+0.8**
G62A				Sn	**Sn**	06 57 17.1	**-6.4**
SFJD	**Kangerlussuaq**	**12.70**	**16**	Pn	**Pn**	06 55 14.7	**-0.3**
	comp=Z,2.2nm,0.3s,baz=195,slow=11,SNR=9.3						
SFJD				Sn	**Sn**	06 57 28.3	**-8.0**
	comp=Z,0.4nm,0.3s,baz=53,slow=7.2,SNR=1.7						
	comp=Z,9.3nm,0.5s						
SFJD				AML	AML		
SFJD	**Kangerlussuaq**	**12.70**	**16**	Pn	**Pn**	06 55 15.4	**+0.4**
SFJD	**Kangerlussuaq**	**12.70**	**16**	P	**Pn**	06 55 15.5	**+0.4**
SFJD	**Kangerlussuaq**	**12.70**	**16**	*i* P	**Pn**	06 55 15.0	**0.0**
MOQ	**Mont Orford**	**12.77**	**226**	Pn	**Pn**	06 55 16.9	**+0.7**
MOQ				Sn	**Sn**	06 57 32.4	**-5.8**
H62A	**Milan**	**12.95**	**221**	Pn	**Pn**	06 55 19.8	**+1.3**
TRQ	**Mont Tremblant**	**13.07**	**234**		**Pn**	06 55 19.5	**-0.8**
TRQ	**Mont Tremblant**	**13.07**	**234**	Pn	**Pn**	06 55 19.7	**-0.5**
TRQ				Sn	**Sn**	06 57 43.0	**-2.6**
VLDQ	**Val d'Or**	**13.21**	**246**	Pn	**Pn**	06 55 21.4	**-0.8**
GRQ	**Grand Remous**	**13.41**	**238**	Sn	**Sn**	06 57 46.4	**-7.4**
LBNH	**Lisbon**	**13.52**	**222**	Pn	**Pn**	06 55 25.5	**-0.9**
FLET	**Fletcher**	**13.53**	**226**	Pn	**Pn**	06 55 27.5	**+1.0**
FLET	**Fletcher**	**13.53**	**226**	Pn	**Pn**	06 55 27.3	**+0.7**
MCVT	**Middlebury Col**	**14.18**	**224**	Pn	**Pn**	06 55 36.1	**+0.7**
LONY	**Lake Ozonia**	**14.31**	**230**	Pn	**Pn**	06 55 35.7	**-1.5**
SADO	**Sadowa**	**16.33**	**239**	Pn	**Pn**	06 55 59.9	**-4.0**
	comp=Z,0.6nm,0.3s,baz=62,slow=13,SNR=5.3						
SADO				Sn	**Sn**	06 58 54.9	**-10**
	comp=Z,1.1nm,0.3s,baz=212,slow=4.3,SNR=5.3						
SADO				Lg	Lg	07 00 34.4	
	comp=Z,1.2nm,0.3s,baz=30,slow=7.3,SNR=3.1						
	comp=Z,15nm,1.2s						
SADO				AML	AML		
KSPA	**Keystone Colle**	**17.31**	**226**		**P**	06 56 17.7	**+0.1**
KSPA				IAmb	IAmb	06 56 50.2	
	comp=Z,25nm,1.4s						
PAOC	**Oil Creek Stat**	**19.05**	**233**	P	**P**	06 56 37.3	**+0.4**
PAOC				IAmb	IAmb	06 57 10.4	
	comp=Z,20nm,1.4s						
SUMG	**Summit**	**19.65**	**19**	P	**P**	06 56 44.7	**+1.1**
ULM	**Lac du Bonnet**	**22.51**	**273**	P	**P**	06 57 15.3	**+1.1**
	comp=Z,4.1nm,1.1s,baz=78,slow=9.3,SNR=1.7						
ULM				S	**S**	07 01 14.5	**-6.4**
	comp=Z,4.6nm,0.6s,baz=283,slow=7.6,SNR=5.4						
	comp=Z,4.1nm,1.1s						
A36M	**Sachs Harbour**	**31.77**	**327**	P	P	06 58 44.0	+5.5
A36M				IAmb	IAmb	06 58 45.1	
	comp=Z,6.0nm,0.8s						
PDAR	**Pinedale Array**	**34.48**	**270**	P	**P**	06 59 04.1	**+1.3**
	comp=Z,0.6nm,0.7s,baz=65,slow=8.8,SNR=5.0						
	comp=Z,0.6nm,0.7s						
D25K	**Kavik River**	**39.20**	**326**		**P**	06 59 45.0	**+2.6**
D25K				IAmb	IAmb	06 59 51.2	
	comp=Z,8.1nm,0.8s						
TXAR	**Lajitas Array**	**40.71**	**249**	P	**P**	06 59 55.9	**+0.4**
	comp=Z,0.2nm,0.5s,baz=47,slow=7.0,SNR=4.2						
	comp=Z,0.2nm,0.5s						
ILAR	**Eielson Array**	**41.47**	**320**	P	P	07 00 06.7	+5.5
	comp=Z,1.2nm,0.8s,baz=64,slow=7.3,SNR=13						
	comp=Z,1.2nm,0.8s						
NVAR	**Mina Array Bea**	**42.34**	**272**	P	**P**	07 00 10.1	**+1.2**
	comp=Z,0.4nm,0.6s,baz=62,slow=7.1,SNR=2.3						
	comp=Z,0.4nm,0.6s						
PNTR	**Pine Nut**	**42.64**	**274**	P	**P**	07 00 13.9	**+2.5**
PNTR				IAmb	IAmb	07 00 19.1	
	comp=Z,3.2nm,0.7s						
MLY	**Manley**	**42.75**	**321**	P	**P**	07 00 11.7	**+0.1**
IMAR	**Indian Mountai**	**43.29**	**323**	P	**P**	07 00 20.4	**+4.5**
TRF	**Thorofare Moun**	**43.44**	**319**	P	**P**	07 00 21.0	**+3.6**
KTH	**Kantishna Hill**	**43.62**	**320**	P	**P**	07 00 21.2	**+2.5**
KTH				IAmb	IAmb	07 01 04.3	
	comp=Z,12nm,1.3s						
PPLA	**Purkeypile**	**44.46**	**319**	P	**P**	07 00 29.1	**+3.5**
G18K	**Tagagawik**	**44.99**	**325**	P	**P**	07 00 32.7	**+3.1**
M20K	**Styx River**	**45.41**	**318**	P	**P**	07 00 35.8	**+2.7**
TORD	**Torodi Ar. Bea**	**62.84**	**107**	P	**P**	07 02 40.4	**-0.2**
	comp=Z,1.0nm,0.7s,baz=307,slow=8.5,SNR=4.4						
	comp=Z,1.0nm,0.7s						
TORD	**Torodi Ar. Bea**	**62.84**	**107**	IAmb	IAmb	07 03 13.8	
	comp=Z,2.7nm,0.7s						
BVAR	**Borovoye Array**	**64.56**	**31**	P	**P**	07 02 55.0	**+3.5**
	comp=Z,0.7nm,0.4s,baz=310,slow=7.6,SNR=4.2						
	comp=Z,0.7nm,0.4s						
LPAZ	**La Paz**	**71.44**	**189**	P	**P**	07 03 35.9	**+0.2**
	comp=Z,0.6nm,0.7s,baz=348,slow=9.3,SNR=3.5						
	comp=Z,0.6nm,0.7s						
LPAZ	**La Paz**	**71.44**	**189**	IAmb	IAmb	07 03 52.7	
	comp=Z,2.2nm,1.1s						
QSPA	**South Pole Qui**	**144.92**	**180**	PKP	**PKPdf**	07 11 50.8	**+0.3**
	comp=Z,0.7nm,0.6s,baz=229,slow=0.7,SNR=8.8						
ASAR	**Alice Springs**	**147.16**	**337**	PKPbc	**PKPbc**	07 11 59.0	**+1.2**
	comp=Z,0.9nm,0.7s,baz=23,slow=2.3,SNR=10.0						
MAW	**Mawson**	**150.79**	**138**	PKPbc	**PKiKP**	07 12 06.8	**+0.6**
	comp=Z,1.0nm,0.5s,baz=208,slow=1.5,SNR=6.3						

*TAP **04** 06:54:07.4,24.7′N×122.3′E,h52km,ML3.8,C*
*JMA **04** 06:54:07.0±0.1,24′N±2.7′×122.8′E±0.5′,h57km±3km,*
MV2.9/15,NW OFF ISHIGAKIJIMA IS
ISC 04 06:54:07.5±1.2,24.08N±0.03×122.84E±0.02,h50km±9km,
n129,σ1s23/208,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.38**	**14**	P	**Pn**	06 54 17.2	**-0.3**
JYNG				S	**Sn**	06 54 24.3	**-0.2**
YOJ	**Yonaguni jima**	**0.41**	**22**	P	**Pn**	06 54 17.7	**-0.1**
YOJ	**Yonaguni jima**	**0.41**	**22**	S	**Sn**	06 54 24.7	**-0.3**
YOJ	**Yonaguni jima**	**0.41**	**22**	*i* P	**Pn**	06 54 17.5	**-0.2**
YOJ				S	**Sn**	06 54 24.8	**-0.3**
YOJ	**Yonaguni jima**	**0.41**	**22**	P	**Pn**	06 54 17.5	**-0.2**
YOJ				S	**Sn**	06 54 24.8	**-0.3**
EOS4	**EOS4**	**0.48**	**275**	P	**Pn**	06 54 18.5	**+0.3**
EOS4				S	**Sn**	06 54 26.6	**+0.7**
EOS3	**EOS3**	**0.52**	**293**	*i* P	**Pn**	06 54 19.4	**+0.5**
EOS3				S	**Sn**	06 54 28.3	**+1.2**
EOS2	**EOS2**	**0.65**	**301**	P	**Pn**	06 54 21.0	**+0.5**
EOS2				*eS*	**Sn**	06 54 31.8	**+1.8**
IRIF	**Iriomote-Funau**	**0.85**	**73**	P	**Pn**	06 54 23.3	**+0.1**
IRIF				S	**Sn**	06 54 34.8	**+0.1**
HATJ	**Hateruma jima**	**0.88**	**92**	P	**Pn**	06 54 24.1	**+0.5**
HATJ				S	**Sn**	06 54 36.6	**+1.2**
ESAO	**Su ao**	**1.03**	**298**	P	**Pn**	06 54 25.6	**-0.1**
ESAO				S	**Sn**	06 54 38.4	**-0.8**
EWUT	**Wuta**	**1.04**	**291**	*i* P	**Pn**	06 54 25.2	**-0.5**
EWUT				S	**Sn**	06 54 37.9	**-1.3**
EAHA	**Aohua**	**1.04**	**284**	*eS*	**Sn**	06 54 38.5	**-0.7**
TWC	**Suao**	**1.05**	**300**	*i* P	**Pn**	06 54 25.5	**-0.4**
TWC				S	**Sn**	06 54 38.4	**-1.1**
ENA	**Nanau**	**1.06**	**289**	P	**Pn**	06 54 25.7	**-0.4**
ENA				*eS*	**Sn**	06 54 39.9	**+0.1**
JKRS	**Kuro-shima**	**1.08**	**82**	*eP*	**Pn**	06 54 26.7	**+0.4**
JKRS				*eS*	**Sn**	06 54 41.1	**+0.9**
ETL	**Fush Village**	**1.12**	**274**	*eP*	**Pn**	06 54 26.5	**-0.4**
TWD	**Chiawan**	**1.14**	**270**	P	**Pn**	06 54 26.6	**-0.5**
TWD				S	**Sn**	06 54 40.2	**-1.5**
NACB	**Ninganchiao**	**1.14**	**275**	P	**Pn**	06 54 26.2	**-1.0**
NACB	**Ninganchiao**	**1.14**	**275**	S	**Sn**	06 54 40.0	**-1.8**
NACB	**Ninganchiao**	**1.14**	**275**	*i* P	**Pn**	06 54 26.5	**-0.7**
NACB				S	**Sn**	06 54 40.8	**-1.0**
TEYL	**Yanliau Villag**	**1.16**	**260**	*eS*	**Sn**	06 54 41.5	**-0.6**
NDS	**Dongshan**	**1.17**	**298**	P	**Pn**	06 54 27.4	**-0.1**
NDS				*eS*	**Sn**	06 54 41.8	**-0.5**
SHUL	**Shoufeng**	**1.21**	**256**	S	**Sn**	06 54 43.0	**-0.4**
JIJ	**Ishigaki jima**	**1.22**	**77**	P	**Pn**	06 54 27.9	**-0.3**
JIJ				S	**Sn**	06 54 43.3	**-0.3**
ETM	**Tongmen**	**1.24**	**265**	P	**Pn**	06 54 27.7	**-0.8**
ETM				S	**Sn**	06 54 42.5	**-1.7**
TWE	**Neicheng**	**1.25**	**301**	P	**Pn**	06 54 29.1	**+0.5**
ETLH	**Xiulin Townshi**	**1.25**	**276**	*i* P	**Pn**	06 54 28.1	**-0.6**
ETLH				S	**Sn**	06 54 43.4	**-1.1**
TEGC	**Jichi Village**	**1.25**	**253**	*eP*	**Pn**	06 54 28.7	**+0.1**
TEGC				*eS*	**Sn**	06 54 44.6	**+0.2**
TIPB	**Shuangxi**	**1.28**	**314**	P	**Pn**	06 54 28.6	**-0.5**
LATG	**Datong**	**1.28**	**291**	P	**Pn**	06 54 29.1	**-0.1**
LATG				*eS*	**Sn**	06 54 45.4	**0.0**
ENTT	**Nioudou**	**1.29**	**296**	*i* P	**Pn**	06 54 29.5	**+0.3**
ENTT				*eS*	**Sn**	06 54 45.2	**-0.2**
LXIB	**Xiulin Townshi**	**1.31**	**268**	*eP*	**Pn**	06 54 28.9	**-0.7**
LXIB				S	**Sn**	06 54 44.6	**-1.5**
ESL	**Shilin**	**1.32**	**259**	*eS*	**Sn**	06 54 43.9	**-2.2**
NDT	**Datong Townshi**	**1.32**	**293**	P	**Pn**	06 54 30.0	**+0.4**
NDT				*eS*	**Sn**	06 54 46.0	**-0.1**
FUSB	**Fushanzhiwuyua**	**1.33**	**301**	P	**Pn**	06 54 29.8	**0.0**
FUSB				*eS*	**Sn**	06 54 47.2	**+0.8**
SXI1	**Grass Mountain**	**1.34**	**319**	P	**Pn**	06 54 29.4	**-0.6**
SXI1				*eS*	**Sn**	06 54 46.0	**-0.7**
EGFH	**Guangfu**	**1.36**	**253**	P	**Pn**	06 54 31.1	**+1.0**
EGFH				*eS*	**Sn**	06 54 46.3	**-0.8**
NNSB	**Datong**	**1.38**	**285**	P	**Pn**	06 54 30.2	**-0.3**
NNSB				S	**Sn**	06 54 47.3	**-0.3**
NNSH	**Datong**	**1.38**	**285**	P	**Pn**	06 54 30.2	**-0.3**
NNSH				S	**Sn**	06 54 46.9	**-0.7**
NWF	**Wu-fen Shan**	**1.38**	**316**	P	**Pn**	06 54 30.1	**-0.4**
WFSB	**Wu-fen Shan**	**1.38**	**316**	P	**Pn**	06 54 30.0	**-0.4**
WARBT	**Fenglin Townsh**	**1.38**	**255**	P	**Pn**	06 54 30.0	**-0.5**
WARBT				S	**Sn**	06 54 46.4	**-1.3**
NNS	**Nan Shan**	**1.39**	**285**	*eS*	**Sn**	06 54 45.9	**-2.0**
NWLT	**Wulai**	**1.40**	**300**	P	**Pn**	06 54 31.0	**+0.3**
NWLT				S	**Sn**	06 54 48.1	**-0.1**
JISG	**Ishigakijimahi**	**1.43**	**69**	P	**Pn**	06 54 30.8	**-0.3**
JISG				*eS*	**Sn**	06 54 47.8	**-1.0**
WHF	**Hehuan Shan**	**1.44**	**273**	P	**Pn**	06 54 31.2	**-0.5**
WHF				S	**Sn**	06 54 48.9	**-0.9**
TWA	**Mucha**	**1.45**	**308**	*i* P	**Pn**	06 54 31.3	**-0.1**
YHNB	**Yeheng**	**1.46**	**294**	P	**Pn**	06 54 31.5	**-0.1**
YHNB	**Yeheng**	**1.46**	**294**	S	**Sn**	06 54 49.2	**-0.4**
YHNB	**Yeheng**	**1.46**	**294**	P	**Pn**	06 54 31.9	**+0.3**
YHNB				S	**Sn**	06 54 49.1	**-0.5**
FUSS	**Fushou**	**1.47**	**277**	P	**Pn**	06 54 31.7	**-0.1**
FUSS				S	**Sn**	06 54 49.6	**-0.5**
NSK	**Sanguang**	**1.48**	**294**	*i* P	**Pn**	06 54 32.0	**+0.2**
NSK				S	**Sn**	06 54 49.5	**-0.5**
ECBN	**Changbin**	**1.49**	**239**	*eS*	**Sn**	06 54 48.7	**-1.4**
EHYH	**Wanrong**	**1.49**	**247**	P	**Pn**	06 54 31.8	**-0.2**
EHYH				*eS*	**Sn**	06 54 49.2	**-1.1**
EHY	**Hungye**	**1.51**	**248**	*eP*	**Pn**	06 54 31.8	**-0.4**
EHY				*eS*	**Sn**	06 54 49.5	**-1.2**
TATO	**Taipei**	**1.52**	**306**	P	**Pn**	06 54 32.3	**0.0**
TATO	**Taipei**	**1.52**	**306**	S	**Sn**	06 54 53.3	**+2.3**
TATO	**Taipei**	**1.52**	**306**	P	**Pn**	06 54 31.9	**-0.5**
TATO				S	**Sn**	06 54 50.8	**-0.2**
OWD	**Renai**	**1.53**	**266**	P	**Pn**	06 54 32.3	**-0.3**
OWD				S	**Sn**	06 54 50.3	**-1.2**
TWT	**Tachien**	**1.53**	**277**	*eS*	**Sn**	06 54 51.2	**-0.4**
TDCB	**Techi**	**1.55**	**277**	P	**Pn**	06 54 33.1	**+0.2**
TDCB				S	**Sn**	06 54 50.7	**-1.1**
NWRT	**Kuosheng**	**1.55**	**316**	P	**Pn**	06 54 32.1	**-0.6**
NWRT				S	**Sn**	06 54 50.5	**-1.2**
BACT	**New Taipei Cit**	**1.57**	**306**	P	**Pn**	06 54 32.8	**-0.1**
BACT				S	**Sn**	06 54 51.5	**-0.6**
YM01	**YM01**	**1.57**	**313**	*eP*	**Pn**	06 54 32.6	**-0.4**
YULB	**Yu-li**	**1.57**	**244**	P	**Pn**	06 54 32.4	**-0.7**
YULB	**Yu-li**	**1.57**	**244**	S	**Sn**	06 54 49.7	**-2.6**
YULB	**Yu-li**	**1.57**	**244**	*i* P	**Pn**	06 54 32.7	**-0.4**
YULB				S	**Sn**	06 54 51.1	**-1.2**
EYUL	**Yuli**	**1.58**	**243**	*eP*	**Pn**	06 54 32.8	**-0.3**
EYUL				*eS*	**Sn**	06 54 51.4	**-1.0**
WUSB	**Renai**	**1.58**	**267**	P	**Pn**	06 54 33.2	**0.0**
WUSB				S	**Sn**	06 54 51.7	**-0.9**
YM08	**YM08**	**1.58**	**314**	P	**Pn**	06 54 32.6	**-0.6**
VWDT	**VWDT**	**1.59**	**258**	*i* P	**Pn**	06 54 33.4	**+0.1**
VWDT				*i* S	**Sn**	06 54 52.1	**-0.6**
TWF1	**Yuli**	**1.59**	**243**	P	**Pn**	06 54 33.0	**-0.3**
TWF1				S	**Sn**	06 54 51.9	**-0.9**
CHKH	**Chenggong**	**1.60**	**237**	S	**Sn**	06 54 50.2	**-2.6**
ZUZH	**Zhuzihu**	**1.60**	**313**	*i* P	**Pn**	06 54 32.9	**-0.5**
ZUZH				*eS*	**Sn**	06 54 51.7	**-1.2**
NFF	**Wufeng Townshi**	**1.67**	**289**	P	**Pn**	06 54 35.0	**+0.6**
NFF				S	**Sn**	06 54 55.0	**+0.4**
KSHI	**Guanxi Townshi**	**1.67**	**295**	*i* P	**Pn**	06 54 35.4	**+1.0**
KSHI				S	**Sn**	06 54 55.3	**+0.7**
FULB	**Fuli**	**1.67**	**239**	*eP*	**Pn**	06 54 33.4	**-1.0**
FULB				*eS*	**Sn**	06 54 53.1	**-1.6**
CHKT	**Chengkung**	**1.67**	**234**	S	**Sn**	06 54 52.1	**-2.6**
WPL	**Puli Township**	**1.73**	**268**	S	**Sn**	06 54 56.4	**+0.4**
WHP	**Taichung City**	**1.74**	**277**	*eP*	**Pn**	06 54 36.5	**+1.0**
WHP				*eS*	**Sn**	06 54 56.6	**0.0**
DPDB	**Guoxing**	**1.75**	**269**	P	**Pn**	06 54 35.9	**+0.4**
DPDB				S	**Sn**	06 54 57.2	**+0.5**
SSLB	**Suanglung**	**1.75**	**261**	P	**Pn**	06 54 35.7	**+0.2**
SSLB	**Suanglung**	**1.75**	**261**	S	**Sn**	06 54 55.2	**-1.5**
SSLB	**Suanglung**	**1.75**	**261**	*eP*	**Pn**	06 54 35.7	**+0.2**
SSLB				S	**Sn**	06 54 56.5	**-0.2**
LIOB	**Emei**	**1.76**	**289**	P	**Pn**	06 54 36.4	**+0.8**
LIOB				S	**Sn**	06 54 57.4	**+0.6**
EHD	**Haiduan**	**1.77**	**239**	*eS*	**Sn**	06 54 55.1	**-1.9**
NSTT	**Nanjuang**	**1.77**	**288**	P	**Pn**	06 54 36.9	**+1.2**
NSTT				*eS*	**Sn**	06 54 58.2	**+1.1**
WCS	**Beigang Elemen**	**1.77**	**270**	P	**Pn**	06 54 36.1	**+0.4**
WCS				S	**Sn**	06 54 56.8	**-0.2**
ECS	**Chishang**	**1.79**	**237**	*eS*	**Sn**	06 54 57.7	**+0.2**
SMLT	**Sun Moon Lake**	**1.79**	**264**	P	**Pn**	06 54 36.6	**+0.5**
SMLT				S	**Sn**	06 54 57.5	**-0.2**
TYC	**Yuchr**	**1.82**	**265**	P	**Pn**	06 54 37.0	**+0.5**
TYC				S	**Sn**	06 54 58.1	**-0.3**
YUS	**Yu-Shan**	**1.83**	**252**	*eP**	**Pn**	06 54 37.4	**+0.4**
YUS				*eS*	**Sn**	06 54 58.2	**-1.0**
WHYT	**Xinyi Township**	**1.86**	**258**	P	**Pn**	06 54 38.4	**+1.3**
WHYT				S	**Sn**	06 54 58.8	**-0.6**
ELDTW	**Lidau**	**1.90**	**242**	*eS*	**Sn**	06 54 58.4	**-2.0**
TWQ1	**Liyutan**	**1.91**	**278**	*eP*	**Pn**	06 54 39.1	**+1.5**
TWQ1				S	**Sn**	06 55 02.2	**+1.6**
ALS	**Alishan**	**1.95**	**253**	P	**Pn**	06 54 39.3	**+0.8**
ALS				S	**Sn**	06 55 02.0	**0.0**
WJS	**Zhushan**	**1.95**	**263**	*eP*	**Pn**	06 54 40.7	**+2.5**
WJS				S	**Sn**	06 55 05.3	**+3.7**
TCU	**Taichung**	**1.98**	**272**	*eS*	**Sn**	06 55 04.1	**+1.8**
WNT	**Mingjian**	**1.98**	**265**	P	**Pn**	06 54 40.4	**+1.7**
WNT				S	**Sn**	06 55 04.4	**+2.1**
CHN5	**Tsauling**	**2.04**	**257**	P	**Pn**	06 54 40.8	**+1.3**
CHN5				S	**Sn**	06 55 05.4	**+1.5**
TWGBT	**Beinan**	**2.05**	**232**	P	**Pn**	06 54 40.2	**+0.6**
TWGBT	**Beinan**	**2.05**	**232**	*eP*	**Pn**	06 54 39.3	**-0.3**
TWGBT				*eS*	**Sn**	06 55 03.4	**-0.7**
TWG	**Pinlang**	**2.06**	**233**	*eP*	**Pn**	06 54 39.5	**-0.2**
TWG				*eS*	**Sn**	06 55 02.1	**-2.0**
WCHH	**Zhanghua**	**2.09**	**270**	S	**Sn**	06 55 06.6	**+1.7**
STYH	**Taoyuan**	**2.10**	**245**	P	**Pn**	06 54 41.0	**+0.8**
STYH				S	**Sn**	06 55 05.2	**-0.1**
WGK	**Gukeng**	**2.12**	**260**	S	**Sn**	06 55 10.2	**+4.4**
WDLH	**Douliu**	**2.15**	**260**	P	**Pn**	06 54 42.4	**+1.5**
WDLH				S	**Sn**	06 55 08.4	**+2.1**
WCKO	**Fanlu**	**2.15**	**253**	S	**Sn**	06 55 08.4	**+2.2**
TPUB	**Ta-pu**	**2.17**	**249**	P	**Pn**	06 54 42.5	**+1.2**
TPUB	**Ta-pu**	**2.17**	**249**	S	**Sn**	06 55 08.4	**+1.3**
TPUB	**Ta-pu**	**2.17**	**249**	P	**Pn**	06 54 43.0	**+1.7**
TPUB				S	**Sn**	06 55 08.4	**+1.3**
CHN4	**Tsaushan**	**2.19**	**251**	P	**Pn**	06 54 43.7	**+2.2**
CHN4				*i* S	**Sn**	06 55 09.8	**+2.4**
JIRJ	**Irabujima**	**2.27**	**70**	*eS*	**Sn**	06 55 09.5	**+0.2**
RLNB	**Erlin**	**2.28**	**266**	*eS*	**Sn**	06 55 12.0	**+2.4**
SLGT	**Liugui**	**2.29**	**242**	*eS*	**Sn**	06 55 12.8	**+2.9**
CHY	**Chiayi**	**2.29**	**256**	*eS*	**Sn**	06 55 11.9	**+2.1**
SGST	**Jiashian**	**2.30**	**245**	*eS*	**Sn**	06 55 11.9	**+1.7**
CHN1	**Nanshi**	**2.30**	**248**	P	**Pn**	06 54 46.3	**+3.2**
CHN1				S	**Sn**	06 55 12.4	**+2.1**
TWK	**Hsinying**	**2.31**	**250**	P	**Pn**	06 54 45.0	**+1.9**
TWK				S	**Sn**	06 55 12.3	**+2.0**
JMJ2	**Miyako jima3**	**2.36**	**73**	*eS*	**Sn**	06 55 12.2	**+0.7**
LYUB	**Lan-yu**	**2.37**	**209**	*eP*	**Pn**	06 54 42.2	**-1.8**
LYUB				*eS*	**Sn**	06 55 08.3	**-3.7**
SSD	**Sandimen**	**2.43**	**237**	*eS*	**Sn**	06 55 15.6	**+2.3**
MASBT	**Mashibuluo**	**2.50**	**235**	*eP*	**Pn**	06 54 47.8	**+2.0**
MASBT				*eS*	**Sn**	06 55 17.9	**+2.7**
TSCK	**Chigu Township**	**2.69**	**250**	*eS*	**Sn**	06 55 21.1	**+1.3**
TWKBT	**Hengchun**	**2.84**	**222**	*eS*	**Sn**	06 55 23.7	**+0.4**
VWUC	**VWUC**	**3.22**	**287**	P	**Pn**	06 54 55.0	**-0.6**
VWUC				*i* S	**Sn**	06 55 30.4	**-2.3**
PTMZ	**Houxiangcun**	**3.52**	**286**	P	**Pn**	06 54 59.1	**-0.7**
PTMZ				*eS*	**Sn**	06 55 37.2	**-2.9**
MHZQ	**Yeshan**	**4.00**	**301**	P	**Pn**	06 55 05.6	**-0.7**

*THE **04** 07:31:19.3,38°N±1°×2°7E±°,h11km±1km,MS3.1/9,*
MLh3.1/9
*AFAD **04** 07:31:19.4,37.88N×26.78E,h7km±2km,ML3.0*
*ISK **04** 07:31:19.1,37.86N×26.76E,h7km,ML3.2/22*
*ATH **04** 07:31:19.1,37.85N×26.71E,h13km±1km,ML3.0/11,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
ISC 04 07:31:19.2±0.8,37.86N±0.01×26.74E±0.02,h15km±5km,
n96,σ0s69/151,3C-3D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.07**	**204**	P	**Pg**	07 31 21.8	**-0.3**
KRL1				S	**Sg**	07 31 23.6	**-0.4**
KRL1				AML	AML		
SMG	**Samos**	**0.17**	**153**	P	**Pg**	07 31 23.3	**0.0**
SMG				S	**Sg**	07 31 26.2	**+0.1**
SMG				AML	AML		
SMG	**Samos**	**0.17**	**153**	P	**Pg**	07 31 23.3	**0.0**
SMG				S	**Sg**	07 31 25.8	**-0.3**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**30**	P	**Pg**	07 31 24.0	**-0.2**
DGB				S	**Sg**	07 31 26.7	**-0.9**
DGB				IAML		07 31 27.0	
	comp=E,4μm,0.8s						
DGB				IAML		07 31 27.0	
	comp=N,4μm,0.3s						
GMLD	**Gumuldur**	**0.26**	**32**	Pg	**Pg**	07 31 24.6	**-0.2**
GMLD				Sg	**Sg**	07 31 28.1	**-0.4**
GMLD				AML	AML		
BEYE	**izmir**	**0.40**	**22**	P	**Pg**	07 31 27.1	**-0.2**
BEYE				S	**Sg**	07 31 31.8	**-0.8**
BEYE				IAML		07 31 34.0	
	comp=N,1μm,0.3s						
BEYE				IAML		07 31 35.0	
	comp=E,1μm,0.3s						
GCAM	**G?zelcaml?**	**0.42**	**112**	P	**Pg**	07 31 27.6	**0.0**
GCAM				S	**Sg**	07 31 33.6	**+0.3**
GCAM				IAML		07 31 34.0	
	comp=E,7μm,0.4s						
GCAM				IAML		07 31 34.0	
	comp=N,6μm,0.3s						
GCAM	**G?zelcaml?**	**0.42**	**112**	Pg	**Pg**	07 31 27.6	**0.0**
GCAM				Sg	**Sb**	07 31 33.9	**-0.6**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.42**	**334**	P	**Pg**	07 31 27.5	**-0.2**
ZEYE				S	**Sg**	07 31 33.8	**+0.3**
ZEYE				IAML		07 31 39.0	
	comp=E,1μm,0.2s						
ZEYE				IAML		07 31 39.0	
	comp=N,2μm,0.5s						
KUSD	**Kusadasi-Aydin**	**0.43**	**90**	Pg	**Pg**	07 31 27.8	**0.0**
KUSD				Sg	**Sg**	07 31 33.9	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.56**	**135**	P	**Pg**	07 31 30.6	**+0.3**
DDIM				S	**Sb**	07 31 38.8	**+0.2**
DDIM				IAML		07 31 40.0	
	comp=E,3μm,0.4s						
DDIM				IAML		07 31 40.0	
	comp=N,2μm,0.5s						
BLCB	**Balcova**	**0.58**	**24**	P	**Pg**	07 31 30.4	**-0.1**

DAT					S	**Sb**	**07 32 00.3**	**0.0**
DAT					AML	AML		
AKHS	**Akhisar**	**1.32**	**39**		P	**Pg**	**07 31 44.3**	**-0.3**
AKHS					S	**Sg**	**07 32 01.5**	**-0.4**
AKHS					IAML		07 32 04.0	
	comp=N,422nm,0.3s							
AKS	**Akhisar**	**1.32**	**39**		Pn	**Pg**	**07 31 44.3**	**-0.4**
AKS					AML	AML		
KTTT	**Salihli**	**1.35**	**52**		P	**Pg**	**07 31 45.2**	**0.0**
KTTT					S	**Sg**	**07 32 02.1**	**-0.6**
KTTT					IAML		07 32 05.0	
	comp=N,267nm,0.4s							
KIRA	**zmir-Kiraz**	**1.35**	**75**		P	**Pn**	**07 31 43.8**	**+0.1**
KIRA					S	**Sb**	**07 32 00.6**	**-0.9**
KIRA					IAML		07 32 06.0	
	comp=N,208nm,0.5s							
KIRA					IAML		07 32 07.0	
	comp=E,182nm,0.5s							
MULA	**Mugla, Merkez-**	**1.39**	**115**		P	**Pn**	**07 31 44.7**	**+0.5**
MULA					S	**Sn**	**07 31 60.0**	**-2.4**
MULA					IAML		07 32 15.0	
	comp=E,167nm,0.6s							
YER	**Yerkesik**	**1.42**	**120**		P	**Pn**	**07 31 45.1**	**+0.5**
YER					AML	AML		
YER	**Yerkesik**	**1.42**	**120**		Pn	**Pn**	**07 31 45.1**	**+0.5**
YER					AML	AML		
PRK	**Paraskevi**	**1.43**	**345**		P	**Pn**	**07 31 45.0**	**+0.3**
PRK					S	**Sn**	**07 32 03.6**	**+0.3**
PRK	**Paraskevi**	**1.43**	**345**		P	**Pn**	**07 31 44.5**	**-0.2**
PRK					AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**25**		Pn	**Pb**	**07 31 46.1**	**+0.4**
SOMA					AML	AML		
AYVA	**Ayvalik**	**1.45**	**358**		P	**Pg**	**07 31 46.8**	**-0.3**
AYVA					S	**Sg**	**07 32 05.4**	**-0.5**
AYVA					IAML		07 32 13.0	
	comp=N,243nm,0.3s							
AYVA					IAML		07 32 14.0	
	comp=E,145nm,0.5s							
GORD	**Gordes-Manisa**	**1.54**	**47**		Pn	**Pb**	**07 31 47.6**	**+0.1**
GORD					AML	AML		
MANT	**Manisa**	**1.56**	**66**		P	**Pb**	**07 31 48.6**	**+0.6**
MANT					S	**Sn**	**07 32 06.9**	**+0.1**
MANT					IAML		07 32 12.0	
	comp=E,224nm,0.3s							
MANT					IAML		07 32 12.0	
	comp=N,196nm,0.3s							
SULTU	**Buldan**	**1.61**	**82**		P	**Pg**	**07 31 49.6**	**-0.6**
SULTU					S	**Sn**	**07 32 05.5**	**-2.4**
SULTU					IAML		07 32 17.0	
	comp=E,213nm,1.0s							
SULTU					IAML		07 32 19.0	
	comp=N,163nm,0.6s							
BUHA	**Balikesir, Bur**	**1.66**	**9**		P	**Pb**	**07 31 49.6**	**+0.1**
BUHA					S	**Sb**	**07 32 11.5**	**+1.2**
BUHA					IAML		07 32 16.0	
	comp=N,140nm,0.3s							
BUHA					IAML		07 32 20.0	
	comp=E,257nm,0.4s							
HARTU	**Esme**	**1.69**	**73**		P	**Pb**	**07 31 50.9**	**+0.8**
HARTU					S	**Sn**	**07 32 09.0**	**-0.8**
HARTU					IAML		07 32 17.0	
	comp=N,93nm,0.4s							
STEP	**BALIKESIR_Sava**	**1.70**	**26**		P	**Pg**	**07 31 51.5**	**-0.3**
STEP					S	**Sg**	**07 32 14.1**	**+0.2**
STEP					IAML		07 32 18.0	
	comp=E,272nm,0.5s							
STEP					IAML		07 32 18.0	
	comp=N,355nm,0.4s							
TAVA	**DENIZLI_Tavas**	**1.77**	**102**	⇓	P	**Pn**	**07 31 49.9**	**+0.5**
YAYO	**Edremit-Balk**	**1.77**	**8**		Pn	**Pb**	**07 31 51.1**	**-0.3**
YAYO					AML	AML		
THERA	**Ancient Thera,**	**1.80**	**215**		P	**Pn**	**07 31 50.0**	**+0.3**
THERA					AML	AML		
KARY	**Karystos**	**1.83**	**276**		P	**Pn**	**07 31 50.0**	**-0.1**
BAYC	**CANAKKALE_Bayr**	**1.89**	**355**		P	**Pn**	**07 31 50.8**	**-0.1**
BAYC					S	**Sg**	**07 32 19.5**	**-0.4**
BAYC					IAML		07 32 27.0	
	comp=E,92nm,0.3s							
DEMI	**Demirci**	**1.95**	**52**		P	**Pg**	**07 31 55.7**	**-0.9**
DEMI					S	**Sb**	**07 32 19.2**	**+0.5**
DEMI					IAML		07 32 26.0	
	comp=E,106nm,0.3s							
USAK	**Uak-Merkez**	**1.98**	**64**		P	**Pg**	**07 31 56.8**	**-0.5**
USAK					S	**Sb**	**07 32 20.8**	**+1.2**
USAK					IAML		07 32 28.0	
	comp=N,73nm,1.4s							
BALB	**Balikesir**	**1.99**	**26**		Pn	**Pb**	**07 31 54.2**	**-0.9**
BALB					AML	AML		
BALY	**Balya**	**2.00**	**20**		P	**Pg**	**07 31 57.0**	**-0.6**
BALY					S	**Sg**	**07 32 23.1**	**-0.5**
BALY					IAML		07 32 26.0	
	comp=N,184nm,0.9s							
BALY					IAML		07 32 29.0	
	comp=E,122nm,0.5s							
BOZC	**Bozcaada**	**2.05**	**345**		P	**Pb**	**07 31 55.9**	**-0.3**
BOZC					S	**Sg**	**07 32 24.3**	**-0.9**
BOZC					IAML		07 32 29.0	
	comp=E,96nm,0.7s							
BOZC					IAML		07 32 35.0	
	comp=N,72nm,0.3s							
BKES	**Balkesir-Mer**	**2.09**	**26**		P	**Pb**	**07 31 57.4**	**+0.6**
BKES					S	**Sg**	**07 32 24.7**	**-1.7**
BKES					IAML		07 32 30.0	
	comp=N,73nm,0.5s							
BKES					IAML		07 32 35.0	
	comp=E,84nm,0.7s							
SIMV	**Simav**	**2.18**	**54**		P	**Pb**	**07 31 59.5**	**+1.0**
SIMV					S	**Sb**	**07 32 26.8**	**+1.4**
SIMV					IAML		07 32 34.0	
	comp=N,67nm,0.5s							
SIMV					IAML		07 32 35.0	
	comp=E,62nm,0.9s							
DURS	**Dursunbey**	**2.21**	**37**		P	**Pb**	**07 31 59.7**	**+0.8**
DURS					S	**Sb**	**07 32 27.4**	**+1.4**
DURS					IAML		07 32 32.0	
	comp=N,81nm,0.2s							
DURS					IAML		07 32 34.0	
	comp=E,149nm,0.4s							
DION	**Dionisos Attik**	**2.23**	**276**		P	**Pn**	**07 31 55.9**	**+0.2**
ATIT	**Gnen**	**2.31**	**16**		P	**Pb**	**07 32 02.1**	**+1.5**
ATIT					S	**Sg**	**07 32 33.3**	**-0.2**
ATIT					IAML		07 32 34.0	
	comp=N,82nm,1.5s							
ATIT					IAML		07 32 37.0	
	comp=E,134nm,0.4s							
KARP	**Karpathos**	**2.33**	**172**		P	**Pn**	**07 31 56.8**	**-0.3**
ATHU	**Athens Univers**	**2.34**	**274**		P	**Pn**	**07 31 57.5**	**+0.3**
CMHT	**Manyas**	**2.35**	**24**		P	**Pb**	**07 32 01.3**	**-0.1**
CMHT					IAML		07 32 30.0	
	comp=N,92nm,0.9s							
CMHT					S	**Sb**	**07 32 31.7**	**+1.5**
CMHT					IAML		07 32 41.0	
	comp=E,121nm,0.5s							
LIA	**Limnos Island**	**2.37**	**330**		P	**Pn**	**07 31 57.8**	**+0.3**
LIA					AML	AML		
LAPS	**Lapseki, ANA**	**2.39**	**2**		P	**Pn**	**07 31 58.9**	**+1.0**
LAPS					S	**Sg**	**07 32 35.0**	**-1.1**
LAPS					IAML		07 32 44.0	
	comp=E,67nm,0.4s							
BAND	**Balkesir-Ban**	**2.71**	**23**	⇑	P	**Pn**	**07 32 02.1**	**-0.1**
VIL2	**Platees**	**2.77**	**278**		P	**Pn**	**07 32 02.9**	**-0.1**
IDI	**Anoyia**	**2.97**	**211**		P	**Pn**	**07 32 06.1**	**+0.3**
IDI					AML	AML		
LOUT	**Loutraki**	**2.98**	**274**		P	**Pn**	**07 32 06.0**	**0.0**
LTK	**Loutraki**	**2.99**	**274**		P	**Pn**	**07 32 06.3**	**+0.2**
ACOR	**Acrocorinthos**	**3.06**	**272**		P	**Pn**	**07 32 07.7**	**+0.6**
KLV	**Kalavryta, Ach**	**3.63**	**274**		P	**Pn**	**07 32 16.1**	**+1.1**
KALE	**Kalithea**	**3.67**	**280**		P	**Pn**	**07 32 16.6**	**+1.2**
LAKA	**Lakka**	**3.78**	**277**		P	**Pn**	**07 32 18.2**	**+1.2**
EFP	**Efpalio**	**3.85**	**280**		P	**Pn**	**07 32 19.6**	**+1.6**
ANX	**Ano Chora**	**3.87**	**282**		P	**Pn**	**07 32 19.9**	**+1.7**
DRO	**Drossia**	**3.98**	**273**		P	**Pn**	**07 32 21.6**	**+1.8**

IDC 04 07:33:01.9±6.3,7°97S×129°29E,h270km±71km,mb3.0/1, mbtmp3.3/4,MS3.4/1,Error ellipse: s-maj=59.3km s-min=34.1km az=59.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
FITZ	**Fitzroy Crossi**	**10.67**	**199**	P		Pn	07 35 28.7		0.0
	2.0nm,0.9s,baz=17,slow=14,SNR=1.5								
FITZ				S		S	07 37 29.9		+1.5
	0.9nm,0.5s,baz=54,slow=9.4,SNR=1.2								
WRA	**Warramunga Arr**	**12.87**	**158**	P		Pn	07 35 55.1		-0.6
	0.2nm,0.4s,baz=330,slow=14,SNR=11								
WRA				S		S	07 38 16.8		-2.0
	0.3nm,0.4s,baz=330,slow=22,SNR=4.7								
ASAR	**Alice Springs**	**16.22**	**165**	P		Pn	07 36 36.0		+0.1
	0.2nm,0.3s,baz=342,slow=9.0,SNR=1.6								
ASAR				S		S	07 39 29.9		-0.5
	0.3nm,0.7s,baz=354,slow=28,SNR=3.5								
NWAO	**Narrogin (SRO)**	**27.23**	**203**	LR		LR	07 51 28.9		
	comp=Z,88nm,20.9s,baz=182,slow=41								
MKAR	**Makanchi Array**	**68.65**	**327**	P		P	07 43 36.2		-0.1
	0.3nm,0.4s,baz=119,slow=7.5,SNR=4.4								
	0.3nm,0.4s								

*PRU **04** 07:33:22.7,51°.51N×16°.09E,h0km*
*VIE **04** 07:33:23.7±0.6,51°.31N×15°.70E,h0km,mb2.5/5,ml2.6/7, ml2.5/7,Error ellipse: s-maj=5.4km s-min=2.9km az=42.0 71 km NE of Liberec Suspected Mining induced.*

ISC 04 07:33:19.8±1.3,51°.59N±0°.06×16°.05E±0°.03,h0km,n23, σ0°70/40,Poland

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
KSP	**Ksiaz**	**0.76**	**169**	*e*Pg		**Pg**	**07 33 34.5**		**+0.1**
KSP				*e*Sg		**Sg**	**07 33 44.6**		**+0.3**
CHVC	**Chvalec**	**1.00**	**180**	*e*PG		**Pg**	**07 33 39.3**		**+0.3**
CHVC				*e*SG		**Sb**	**07 33 52.9**		**-0.9**
	comp=Z,18nm,0.4s								
CHVC				AML		AML			
OSTC	**Ostas**	**1.04**	**174**	*e*PG		**Pg**	**07 33 40.0**		**+0.3**
OSTC				*e*SG		**Sg**	**07 33 53.5**		**+0.3**
	comp=Z,21nm,0.3s								
OSTC				AML		AML			
UPC	**Upice**	**1.08**	**181**	*e*PG		**Pg**	**07 33 40.6**		**0.0**
UPC				*e*SG		**Sg**	**07 33 54.9**		**+0.3**
	comp=Z,47nm,0.5s								
UPC				AML		AML			
DPC	**Dobruska-Polom**	**1.25**	**172**	*e*PG		**Pg**	**07 33 43.5**		**-0.3**
DPC				*e*SG		**Sg**	**07 33 59.1**		**-0.9**
	comp=Z,23nm,0.7s								
DPC				AML		AML			
PVCC	**Panska Ves**	**1.42**	**222**	*e*PG		**Pb**	**07 33 47.5**		**+0.4**
PVCC				*e*SG		**Sn**	**07 34 06.5**		**+0.3**
	comp=Z,79nm,0.2s								
PVCC				AML		AML			
BRG	**Berggiesshubel**	**1.51**	**242**	Pg		**Pg**	**07 33 49.0**		**+0.3**
BRG				Sg		**Sn**	**07 34 09.0**		**+0.6**
BRG				Amp			07 34 09.9		
	comp=Z,46nm,0.4s								
CLL	**Collm**	**1.93**	**263**	*i* Pn		**Pn**	**07 33 53.3**		**-0.6**
CLL				*e*Pg		**Pg**	**07 33 57.0**		**+0.2**
CLL				*i* x		x	07 34 00.1		
CLL				*e*Sg		**Sg**	**07 34 22.0**		**+0.2**
STEB	**Steborice**	**1.98**	**146**	*e*PG		**Pb**	**07 33 56.6**		**-0.2**
STEB				*e*SG		**Sg**	**07 34 23.4**		**-0.1**
	comp=Z,22nm,0.5s								
STEB				AML		AML			
MORC	**Moravsky Berou**	**2.05**	**152**	*e*PN		**Pn**	**07 33 54.6**		**-1.0**
MORC				*e*SG		**Sn**	**07 34 21.9**		**+0.1**
VRAC	**Vranov**	**2.31**	**171**	*e*PN		**Pn**	**07 33 59.3**		**+0.2**
VRAC				*e*SG		**Sb**	**07 34 31.2**		**-0.2**
KRUC	**Moravsky**	**2.54**	**175**	*e*PN		**Pn**	**07 34 02.4**		**+0.1**
KRUC				*e*SG		**Sb**	**07 34 38.3**		**+0.3**
OJC	**Ojcow**	**2.74**	**119**	*e*Pg		**Pg**	**07 34 12.3**		**0.0**
OJC				*e*Sg		**Sg**	**07 34 47.1**		**-0.6**
JAVC	**Velka Javorina**	**2.92**	**159**	*e*PN		**Pn**	**07 34 07.5**		**-0.1**
KHC	**Kasperske Hory**	**2.93**	**214**	*e*PG		**Pg**	**07 34 14.6**		**-1.3**
KHC				*e*SG		**Sg**	**07 34 53.0**		**-0.8**
ABNA	**Allensteig Bun**	**2.95**	**188**	*e*Pn		**Pn**	**07 34 08.3**		**+0.3**
	comp=Z,0.7nm,0.1s								
LANS	**Liptovska Anna**	**3.28**	**137**	*e*SG		**Sg**	**07 35 05.3**		**+0.3**
MODS	**Modra-Piesok**	**3.31**	**166**	*e*		**Pn**	**07 34 15.7**		**+2.7**
MODS	**Modra-Piesok**	**3.31**	**166**	*e*SG		**Sg**	**07 35 06.5**		**+0.2**
WINA	**Alland / Wiene**	**3.49**	**180**	*e*Pn		**Pn**	**07 34 15.1**		**-0.2**
	comp=Z,1.9nm,0.3s								
WINA				*e*Sg		**Sg**	**07 35 11.1**		**-0.7**
	comp=Z,4.3nm,0.4s								
CONA	**Conrad Observa**	**3.67**	**182**	*i* Pn		**Pn**	**07 34 18.3**		**+0.4**
	comp=Z,1.8nm,0.5s								
CONA				*e*Sg		**Sg**	**07 35 16.9**		**-0.7**
	comp=Z,2.8nm,0.3s								
MOA	**Molln**	**3.92**	**198**	*e*Pn		**Pn**	**07 34 20.9**		**-0.4**
	comp=Z,2.6nm,0.4s								
ARSA	**Arzberg**	**4.36**	**185**	Sg		**Sg**	**07 35 41.0**		**+1.3**
	comp=Z,4.3nm,0.6s								

*ISK **04** 07:34:39.7,37°.80N×26°.57E,h2km,ML2.4/20*
*THE **04** 07:34:40.4,37°.9N±0°.9×2°7E±°,h11km±1km,M2.7/6, MLh2.7/6*
*AFAD **04** 07:34:40.3,37°.89N×26°.65E,h7km±3km,ML2.3*
*ATH **04** 07:34:40.1,37°.86N×26°.55E,h10km±1km,ML2.7/5, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 04 07:34:40.2±0.9,37°.87N±0°.02×26°.58E±0°.02,h10km±7km, n44,σ0°56/66,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
KRL1	**Karlovasi Samo**	**0.12**	**128**	P		**Pg**	**07 34 43.2**		**+0.2**
KRL1				S		**Sg**	**07 34 45.4**		**+0.3**
SMG	**Samos**	**0.26**	**129**	P		**Pg**	**07 34 45.7**		**+0.2**
SMG				S		**Sg**	**07 34 49.6**		**+0.6**
SMG				AML		AML			
SMG	**Samos**	**0.26**	**129**	P		**Pg**	**07 34 45.6**		**+0.1**
SMG				S		**Sg**	**07 34 49.6**		**+0.6**
SMG				AML		AML			
DGB	**zmir**	**0.30**	**53**	P		**Pg**	**07 34 45.6**		**-0.6**
DGB				S		**Sg**	**07 34 48.8**		**-1.4**
DGB				IAML			07 34 49.0		
	comp=E,583nm,0.3s								
DGB				IAML			07 34 50.0		
	comp=N,471nm,0.5s								
ZEYE	**Izmir, Urla-Ze**	**0.37**	**350**	P		**Pg**	**07 34 47.6**		**0.0**
ZEYE				S		**Sg**	**07 34 52.6**		**+0.2**
ZEYE				IAML			07 34 54.0		
	comp=E,423nm,0.2s								
ZEYE				IAML			07 34 55.0		
	comp=N,546nm,0.2s								
BEYE	**izmir**	**0.45**	**37**	P		**Pg**	**07 34 48.3**		**-0.6**
BEYE				S		**Sg**	**07 34 53.6**		**-1.3**
BEYE				IAML			07 34 54.0		
	comp=N,342nm,0.3s								
BEYE				IAML			07 34 55.0		
	comp=E,333nm,0.2s								
CESE	**eme**	**0.51**	**334**	Pg		**Pb**	**07 34 51.7**		**+0.4**
CESE				AML		AML			
GCAM	**G?zelcaml?**	**0.54**	**108**	Pg		**Pg**	**07 34 50.9**		**+0.2**
GCAM				AML		AML			
KUSD	**Kusadasi-Aydin**	**0.56**	**91**	Pg		**Pg**	**07 34 51.6**		**+0.6**
KUSD				AML		AML			
BLCB	**Balcova**	**0.63**	**35**	P		**Pg**	**07 34 51.8**		**-0.6**
BLCB				S		**Sg**	**07 35 00.1**		**-0.5**
BLCB	**Balcova**	**0.63**	**35**	Pg		**Pb**	**07 34 53.6**		**+0.3**
BLCB				AML		AML			
CHOS	**Chios island**	**0.66**	**321**	P		**Pg**	**07 34 53.2**		**+0.2**
CHOS				S		**Sb**	**07 35 03.7**		**+0.5**
CHOS				AML		AML			
CHOS	**Chios island**	**0.66**	**321**	Pg		**Pb**	**07 34 54.3**		**+0.4**
CHOS				AML		AML			
CHOS	**Chios island**	**0.66**	**321**	P		**Pg**	**07 34 53.2**		**+0.2**
CHOS				S		**Sg**	**07 35 01.7**		**0.0**
CHOS				AML		AML			
KARB	**zmir-Karabur**	**0.80**	**350**	P		**Pg**	**07 34 55.4**		**-0.3**
KARB				S		**Sb**	**07 35 07.2**		**0.0**
KARB				IAML			07 35 09.0		
	comp=E,201nm,0.4s								
KARB				IAML			07 35 10.0		
	comp=N,171nm,0.7s								
BAGT	**Foa**	**0.81**	**15**	P		**Pg**	**07 34 55.8**		**-0.1**
BAGT				S		**Sb**	**07 35 07.2**		**-0.2**
BAGT				IAML			07 35 09.0		
	comp=E,179nm,0.5s								
BAGT				IAML			07 35 10.0		
	comp=N,294nm,0.4s								
FOCM	**Foa**	**0.85**	**8**	Pg		**Pn**	**07 34 58.2**		**0.0**
FOCM				AML		AML			
YKAV	**Yalikavak-Bodr**	**0.93**	**143**	Pg		**Pg**	**07 34 57.6**		**-0.5**
YKAV				AML		AML			
KLNA	**Kalymnos**	**0.96**	**161**	P		**Pg**	**07 34 58.3**		**-0.5**
KLNA				S		**Sg**	**07 35 11.4**		**+0.1**
KLNA				AML		AML			
BODT	**Bodrum**	**0.99**	**144**	P		**Pg**	**07 34 59.3**		**0.0**
BODT				S		**Sb**	**07 35 12.7**		**0.0**
BODT				AML		AML			
BODT	**Bodrum**	**0.99**	**144**	Pg		**Pg**	**07 34 59.6**		**+0.3**
BODT				AML		AML			
AYDB	**Zeytinkoy-Aydi**	**1.04**	**85**	Pg		**Pn**	**07 35 00.9**		**-0.1**
AYDB				AML		AML			
CAMT	**Merkez**	**1.05**	**33**	P		**Pn**	**07 35 01.1**		**+0.2**
CAMT				S		**Sg**	**07 35 13.8**		**-0.1**
CAMT				IAML			07 35 16.0		
	comp=E,312nm,0.3s								
CAMT				IAML			07 35 17.0		
	comp=N,464nm,0.5s								
BDRM	**Kayabasi**	**1.06**	**139**	P		**Pb**	**07 35 00.3**		**-0.3**
BDRM				S		**Sg**	**07 35 13.2**		**-1.1**
BDRM				IAML			07 35 21.0		
	comp=E,52nm,0.3s								
BDRM				IAML			07 35 21.0		
	comp=N,60nm,0.3s								
MLSB	**Milas**	**1.11**	**121**	Pn		**Pb**	**07 35 01.4**		**-0.1**
MLSB				AML		AML			
APE	**Apeiranthos**	**1.16**	**227**	P		**Pb**	**07 35 01.9**		**-0.5**
APE				S		**Sn**	**07 35 19.3**		**+0.9**
APE				AML		AML			
APE	**Apeiranthos**	**1.16**	**227**	Pn		**Pb**	**07 35 01.8**		**-0.5**
APE				AML		AML			
APE	**Apeiranthos**	**1.16**	**227**	P		**Pb**	**07 35 01.9**		**-0.5**
APE				S		**Sb**	**07 35 17.4**		**0.0**
DKL	**Dikili**	**1.23**	**12**	Pn		**Pg**	**07 35 05.3**		**+1.6**
DKL				AML		AML			
GOMA	**Golmarmara-Man**	**1.34**	**51**	Pn		**Pg**	**07 35 06.8**		**+0.8**
GOMA				AML		AML			
NAZL	**Nazilli-Aydin**	**1.36**	**86**	Pn		**Pg**	**07 35 06.6**		**+0.4**
NAZL				AML		AML			
YAZI	**Mula-Dat§a-**	**1.38**	**149**	P		**Pn**	**07 35 05.8**		**+0.3**
YAZI				S		**Sg**	**07 35 24.5**		**0.0**
YAZI				IAML			07 35 32.0		
	comp=E,22nm,0.5s								
YAZI				IAML			07 35 35.0		
	comp=N,31nm,1.0s								
PRK	**Paraskevi**	**1.39**	**350**	P		**Pn**	**07 35 04.5**		**-1.2**
PRK				S		**Sn**	**07 35 23.0**		**-1.2**
PRK	**Paraskevi**	**1.39**	**350**	P		**Pn**	**07 35 06.0**		**+0.3**
AKS	**Akhisar**	**1.40**	**44**	Pn		**Pg**	**07 35 07.8**		**+0.8**
SOMA	**Soma-Manisa**	**1.48**	**30**	Pn		**Pg**	**07 35 09.1**		**+0.4**
SOMA				AML		AML			
YER	**Yerkesik**	**1.54**	**118**	P		**Pn**	**07 35 07.5**		**-0.3**
YER				S		**Sn**	**07 35 28.1**		**+0.2**
YER	**Yerkesik**	**1.54**	**118**	Pn		**Pn**	**07 35 08.4**		**+0.6**
YER				AML		AML			
GORD	**Gordes-Manisa**	**1.63**	**50**	Pn		**Pg**	**07 35 11.1**		**-0.3**
BUHA	**Balikesir, Bur**	**1.67**	**13**	P		**Pb**	**07 35 11.2**		**+0.1**
BUHA				S		**Sb**	**07 35 32.5**		**+0.2**
BUHA				IAML			07 35 37.0		
	comp=N,67nm,0.4s								
BUHA				IAML			07 35 44.0		
	comp=E,61nm,0.6s								
KARY	**Karystos**	**1.70**	**276**	P		**Pn**	**07 35 09.8**		**-0.1**
YAYO	**Edremit-Balk**	**1.78**	**12**	Pn		**Pb**	**07 35 13.4**		**+0.5**
YAYO				AML		AML			
BAYC	**CANAKKALE_Bayr**	**1.87**	**359**	P		**Pn**	**07 35 12.1**		**-0.1**
BAYC				S		**Sb**	**07 35 38.5**		**+0.6**
BAYC				IAML			07 35 45.0		
	comp=N,22nm,0.2s								
BAYC				IAML			07 35 45.0		
	comp=E,33nm,0.4s								
BALB	**Balikesir**	**2.04**	**29**	Pn		**Pb**	**07 35 17.2**		**-0.1**
BALB				AML		AML			

*AFAD **04** 07:41:40.5,37°.87N×26°.61E,h7km±3km,ML2.2*
*ISK **04** 07:41:40.7,37°.89N×26°.62E,h10km,ML2.4/18*
*THE **04** 07:41:41.2,38°N±1°×2°7E±°,h12km±1km,M2.6/6, MLh2.6/6*

ISC 04 07:41:40.8±1.0,37°.89N±0°.02×26°.62E±0°.03,h11km±8km, n34,σ0°61/53,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
SMG	**Samos**	**0.25**	**135**	P		**Pb**	**07 41 46.7**		**-0.6**
SMG				S		**Sg**	**07 41 50.4**		**+1.1**
SMG				AML		AML			
DGB	**zmir**	**0.27**	**52**	P		**Pg**	**07 41 46.1**		**-0.1**
DGB				S		**Sg**	**07 41 49.2**		**-0.7**
DGB				IAML			07 41 50.0		
	comp=E,406nm,0.3s								
DGB				IAML			07 41 50.0		
	comp=N,298nm,0.2s								
GMLD	**Gumuldur**	**0.30**	**51**	Pg		**Pg**	**07 41 46.5**		**-0.4**
GMLD				Sg		**Sg**	**07 41 51.4**		**+0.4**
GMLD				AML		AML			
ZEYE	**Izmir, Urla-Ze**	**0.36**	**346**	P		**Pg**	**07 41 48.3**		**+0.3**
ZEYE				S		**Sb**	**07 41 53.7**		**-1.3**
ZEYE				IAML			07 41 54.0		
	comp=E,493nm,0.2s								
ZEYE				IAML			07 41 55.0		
	comp=N,451nm,0.3s								
CESE	**eme**	**0.51**	**331**	Pg		**Pg**	**07 41 50.9**		**+0.2**
CESE				Sg		**Sb**	**07 41 58.9**		**-0.3**
CESE				AML		AML			
GCAM	**G?zelcaml?**	**0.52**	**111**	P		**Pg**	**07 41 50.7**		**-0.3**
GCAM				S		**Sg**	**07 41 58.6**		**+0.8**
GCAM				IAML			07 41 59.0		
	comp=N,399nm,0.3s								
GCAM				IAML			07 41 59.0		
	comp=E,437nm,0.3s								
GCAM	**G?zelcaml?**	**0.52**	**111**	Pg		**Pg**	**07 41 51.2**		**+0.2**
GCAM				Sg		**Sb**	**07 41 59.5**		**0.0**
GCAM				AML		AML			
KUSD	**Kusadasi-Aydin**	**0.53**	**93**	Pg		**Pg**	**07 41 51.2**		**+0.1**
KUSD				Sg		**Sb**	**07 41 59.2**		**-0.6**
KUSD				AML		AML			
BLCB	**Balcova**	**0.60**	**34**	P		**Pg**	**07 41 51.9**		**-0.5**
BLCB				S		**Sg**	**07 42 00.4**		**+0.1**
BLCB	**Balcova**	**0.60**	**34**	Pg		**Pg**	**

APE				S	**Sn**	07 42 20.1	+0.5	
APE				AML	AML			
GOMA	**Golmarmara-Man**	**1.31**	**51**	Pn	**Pb**	07 42 05.5	+0.1	
GOMA				AML	AML			
NAZL	**Nazilli-Aydin**	**1.33**	**86**	Pn	**Pb**	07 42 05.7	0.0	
NAZL				AML	AML			
AKS	**Akhisar**	**1.37**	**43**	Pn	**Pb**	07 42 06.2	-0.2	
AKS				AML	AML			
YAZI	**Mula-Dat§a-**	**1.38**	**151**	P	**Pn**	07 42 05.7	-0.2	
YAZI				S	**Sg**	07 42 26.2	+1.2	
YAZI				IAML		07 42 33.0		
	comp=N,11nm,0.6s							
YAZI				IAML		07 42 34.0		
	comp=E,9.0nm,0.3s							
PRK	**Paraskevi**	**1.39**	**349**	P	**Pn**	07 42 05.6	-0.4	
PRK				S	**Sn**	07 42 24.5	+0.1	
SOMA	**Soma-Manisa**	**1.46**	**29**	Pn	**Pb**	07 42 07.7	-0.2	
SOMA				AML	AML			
YER	**Yerkesik**	**1.52**	**119**	P	**Pn**	07 42 07.5	-0.5	
YER	**Yerkesik**	**1.52**	**119**	Pn	**Pb**	07 42 08.7	-0.4	
YER				AML	AML			
GORD	**Gordes-Manisa**	**1.59**	**50**	Pn	**Pb**	07 42 09.6	-0.7	
GORD				AML	AML			
YAYO	**Edremit-Balk**	**1.76**	**12**	Pn	**Pb**	07 42 12.3	-0.8	
YAYO				AML	AML			
BALB	**Balikesir**	**2.01**	**29**	Pn	**Pn**	07 42 15.7	+1.0	
BALB				AML	AML			

*ISU **04** 07:46:38,40˚.18N×70˚.67E,h5km*

SOME 04 07:46:48.6,40˚.80N×70˚.88E,h5km,2C-1D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MINT	**Mingtut**	**0.34**	**168**	S	Sb	07 47 04.1	+1.2
MINT				S	Sg	07 47 10.0	+10
CHMG	**Chimgan**	**1.00**	**319**	S	Sn	07 47 26.0	+2.0
TVKS	**Tavaksay**	**1.21**	**310**	S	Sn	07 47 29.8	+0.8
IUG	**luzhnay**	**1.49**	**335**	*e*P	Pg	07 47 18.9	+1.7
	12nm,0.6s						
IUG				*e*S	Sg	07 47 40.7	+4.2
	47nm,1.1s						
KK31	**Karatay Array**	**2.32**	**353**	⇑Pn	Pn	07 47 27.3	-0.1
	0.3nm,0.3s,baz=158,slow=15,SNR=4.9						
KK31				⇓Pg	Pg	07 47 33.5	+0.5
	0.5nm,0.4s,baz=161,slow=15,SNR=4.3						
KK31				⇑Lg	Lg	07 48 06.0	
	3.3nm,0.6s,baz=156,slow=28,SNR=5.9						
MRKS	**Merke**	**2.62**	**41**	*e*P	Pg	07 47 38.9	+0.1
	2.9nm,0.6s						
MRKS				*e*S	Sg	07 48 14.9	+2.3
	4.5nm,0.8s						

*CATAC **04** 07:46:54.5±0.9,2˚S±9˚×8˚1W±1˚4,h140km±23km,M4.3/10, mb4.0/4,mB4.8/2,MLv4.5/10,Mw(mB)4.0/2,MwMwp5.5/1, Mwp5.7/1,Error ellipse: s-maj=33.8km s-min=13.1km az=114.9,confirmed*

*IGQ **04** 07:46:56.5±0.6,2˚S±2˚×8˚1W±˚,h1km±1km,M4.2/37, Mjma4.1/37,ML4.4/36,MLv4.1/34,Ms(BB)4.1/36*

ISC 04 07:46:53.0±1.9,1˚.60S±0˚.04×81˚.06W±0˚.07,h3km±12km, n92,σ1§88/107,Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPLP	**Puerto Lopez**	**0.29**	**79**	P	**Pb**	07 47 00.1	-0.9
PPLP				P	**Pb**	07 47 00.1	-0.9
PPLP				S	**Sg**	07 47 03.2	+0.7
PPLP	**Puerto Lpez**	**0.29**	**79**	P	**Pb**	07 47 00.1	-0.9
PPLP				S	**Sg**	07 47 03.1	+0.6
SALI	**Salinas**	**0.59**	**173**	P	**Pn**	07 47 08.0	-0.4
AMNT	**Manta-Manabi**	**0.73**	**27**	P	**Pb**	07 47 08.8	+0.3
ABH2	**Ecuador-Univer**	**1.15**	**36**	P	**Pb**	07 47 14.9	-0.7
AGUAY	**Guayaquil**	**1.20**	**112**	P	**Pb**	07 47 14.9	-1.5
ISPG	**Isla Puna-Puer**	**1.63**	**147**	P	**Pg**	07 47 25.6	+1.3
JSCH	**Cashca Tororas**	**2.09**	**93**	P	**Pn**	07 47 27.9	-1.5
CHSH	**Refugio Sur-Vo**	**2.20**	**87**	P	**Pn**	07 47 31.2	+0.1
CHSH				S	**Sn**	07 47 59.3	+0.2
CHSH	**Refugio Sur-Vo**	**2.20**	**87**	P	**Pn**	07 47 30.7	-0.4
TAMH	**Tambohuasha Ch**	**2.28**	**89**	P	**Pn**	07 47 31.5	-0.7
IGUA	**Igualata**	**2.43**	**87**	P	**Pn**	07 47 34.3	+0.1
ILLI	**Illinizas Sur**	**2.50**	**69**	P	**Pn**	07 47 34.6	-0.4
ASLC	**Ecuador-Salced**	**2.53**	**77**	P	**Pb**	07 47 38.7	-0.7
BIL2	**Estacion Bilba**	**2.56**	**87**	P	**Pn**	07 47 37.4	+1.6
BBIL	**Ulba Tungurahu**	**2.58**	**87**	P	**Pn**	07 47 37.6	+1.5
JUI6	**Juive**	**2.60**	**86**	P	**Pn**	07 47 37.9	+1.6
ARRY	**Arrayan**	**2.61**	**88**	P	**Pn**	07 47 37.1	+0.6
BPAT	**Tungurahua Vol**	**2.63**	**88**	P	**Pn**	07 47 37.5	+0.6
SRAM	**San Ramn-Vol**	**2.63**	**71**	P	**Pn**	07 47 37.7	+0.8
SLOR	**San Lorenzo -**	**2.71**	**71**	P	**Pn**	07 47 39.2	+1.3
SLOR				S	**Sb**	07 48 16.4	0.0
SLOR	**San Lorenzo -**	**2.71**	**71**	P	**Pn**	07 47 38.4	+0.5
BRRN	**Barrancas-Volc**	**2.71**	**73**	P	**Pn**	07 47 38.9	+0.9
SANGA	**Volcan Sangay**	**2.73**	**100**	P	**Pn**	07 47 39.4	+1.1
PIS1	**Pisayambo**	**2.73**	**79**	P	**Pn**	07 47 39.5	+1.1
SUCR	**Mariscal Sucre**	**2.73**	**79**	P	**Pn**	07 47 39.5	+1.1
BMOR	**Cotopaxi Volca**	**2.74**	**72**	P	**Pn**	07 47 39.5	+0.9
NAS2	**Nasa**	**2.76**	**70**	P	**Pb**	07 47 41.6	-1.8
BREF	**Cotopaxi Volca**	**2.78**	**71**	P	**Pb**	07 47 42.1	-1.7
VCES	**Cotopaxi**	**2.78**	**73**	P	**Pn**	07 47 40.6	+1.5
VCES	**Cotopaxi**	**2.78**	**73**	P	**Pn**	07 47 40.3	+1.3
GGPT	**Toaza - Volcan**	**2.80**	**61**	P	**Pn**	07 47 39.9	+0.8
BVC2	**Cotopaxi Volca**	**2.81**	**71**	P	**Pn**	07 47 41.4	+1.9
JUA2	**San Juan 2**	**2.82**	**61**	P	**Pn**	07 47 40.4	+0.9
BTAM	**Cotopaxi Volca**	**2.82**	**71**	P	**Pn**	07 47 41.4	+1.9
VC1	**Cotopaxi 1**	**2.83**	**70**	P	**Pn**	07 47 41.5	+1.9
PITA	**Cotopaxi Volc**	**2.83**	**69**	P	**Pn**	07 47 41.6	+2.0
TERV	**Terraza Guagua**	**2.84**	**60**	P	**Pn**	07 47 40.4	+0.6
GGPC	**Guagua Pichinc**	**2.84**	**60**	P	**Pn**	07 47 40.7	+0.8
GGPC				S	**Sb**	07 48 17.7	-2.6
GGPC	**Guagua Pichinc**	**2.84**	**60**	P	**Pn**	07 47 40.4	+0.5
TAMB	**Tambo**	**2.84**	**72**	P	**Pn**	07 47 41.2	+1.4
TOMA	**Boca Toma-Volc**	**2.85**	**67**	P	**Pn**	07 47 41.2	+1.4
ZALD	**Colegio Gonzal**	**2.85**	**62**	P	**Pn**	07 47 41.7	+1.9
PIAT	**Ana Tenorio**	**2.86**	**78**	P	**Pn**	07 47 42.2	+2.2
PIAT	**Ana Tenorio**	**2.86**	**78**	P	**Pn**	07 47 41.0	+0.9
PIAT				S	**Sn**	07 48 16.7	+1.4
TING	**Casa Alexandra**	**2.92**	**63**	P	**Pb**	07 47 43.9	-2.2
PAC1	**Pacto, Paraso**	**2.93**	**51**	P	**Pn**	07 47 41.0	+0.3
PAC1	**Pacto, Paraso**	**2.93**	**51**	P	**Pn**	07 47 41.1	+0.3
PAC1				S	**Sn**	07 48 18.6	+2.0
FENY	**Casa Vinicio C**	**2.96**	**61**	P	**Pn**	07 47 43.3	+2.0
BOSC	**San Juan Bosco**	**2.99**	**121**	P	**Pb**	07 47 44.7	-2.5
ANTG	**Antisana-Guama**	**3.01**	**69**	P	**Pn**	07 47 44.1	+1.8
PULU	**Pululahua**	**3.02**	**58**	P	**Pn**	07 47 44.2	+1.9
PULU				S	**Sn**	07 48 19.3	0.0
PULU	**Pululahua**	**3.02**	**58**	P	**Pn**	07 47 44.0	+1.7
ANTM	**Antisana-La Mi**	**3.03**	**70**	P	**Pn**	07 47 44.0	+1.5
PUYO	**Puyo, Santa Ro**	**3.04**	**88**	P	**Pb**	07 47 45.0	-2.9
PUEM	**Granja Avicola**	**3.06**	**62**	P	**Pn**	07 47 44.9	+2.2
ANTS	**Antisana-Sarah**	**3.09**	**69**	P	**Pb**	07 47 46.5	-2.6
ANTS				S	**Sb**	07 48 24.8	-2.7
ANTS	**Antisana-Sarah**	**3.09**	**69**	P	**Pn**	07 47 45.0	+1.6
ANTI	**Antisana**	**3.12**	**69**	P	**Pn**	07 47 45.2	+1.5
RVRD	**Rio Verde**	**3.14**	**32**	P	**Pn**	07 47 44.5	+1.1
OTAV	**Otavalo**	**3.19**	**55**	P	**Pn**	07 47 46.4	+1.8
OTAV				S	**Sn**	07 48 25.3	+2.0
OTAV	**Otavalo**	**3.19**	**55**	P	**Pn**	07 47 45.3	+0.7
OTAV	**Otavalo**	**3.19**	**55**	P	**Pn**	07 47 45.1	+0.6
OTAV				S	**Sn**	07 48 25.0	+1.7
CUSE	**Cuicocha Este**	**3.27**	**55**	P	**Pn**	07 47 46.9	+1.3
CUSE				S	**Sb**	07 48 30.2	-2.2
ARDO	**Archidona, Ten**	**3.32**	**80**	P	**Pn**	07 47 48.5	+2.5
COTA	**Cotacachi**	**3.33**	**55**	P	**Pn**	07 47 48.5	+1.8
IMBA	**Imbabura, San**	**3.42**	**57**	P	**Pb**	07 47 51.9	-2.6
IMBA				S	**Sb**	07 48 35.8	-0.9
IMBA	**Imbabura, San**	**3.42**	**57**	P	**Pb**	07 47 51.4	-3.2
CAYR	**Refugio Cayamb**	**3.45**	**62**	P	**Pn**	07 47 51.5	+3.1
URCU	**Urcuqui**	**3.46**	**54**	P	**Pn**	07 47 51.2	+2.9
ANGU	**Angureal**	**3.46**	**62**	P	**Pn**	07 47 51.2	+2.7
PKYU	**Pakayacu**	**3.47**	**91**	P	**Pn**	07 47 50.0	+1.9
LITE1	**Lita**	**3.60**	**49**	P	**Pn**	07 47 50.2	+0.2
SNLR	**San Lorenzo-Es**	**3.63**	**38**	P	**Pb**	07 47 54.2	-3.7
TAIS	**Taisha**	**3.65**	**102**	P	**Pn**	07 47 53.5	+3.0
ZUMB	**Zumba**	**3.77**	**149**	P	**Pn**	07 47 55.3	+3.0
LNGL	**El Angel-Carch**	**3.84**	**53**	P	**Pn**	07 47 56.1	+2.4
CHMA	**Chilma**	**3.87**	**51**	P	**Pn**	07 47 55.5	+1.7
ECEN	**Cerro Negro**	**3.92**	**52**	P	**Pn**	07 47 57.4	+2.7
CHL1	**Volc¡n Chiles**	**3.92**	**53**	P	**Pn**	07 47 57.3	+2.6
TULM	**Tulcn-Chalpat**	**4.00**	**55**	P	**Pb**	07 48 00.1	-4.4
TULM	**Tulcn-Chalpat**	**4.00**	**55**	P	**Pn**	07 47 59.8	+4.0
CASC	**Dorado de Casc**	**4.10**	**65**	P	**Pn**	07 48 00.4	+3.5
CASC	**Dorado de Casc**	**4.10**	**65**	P	**Pn**	07 48 00.4	+3.5
CMBC	**Cumbal**	**4.11**	**52**	P	**Pn**	07 48 01.4	+4.2
BBAC	**Balboa, Cauca**	**5.24**	**47**	P	**Pn**	07 48 13.8	+1.1
BBAC	**Balboa, Cauca**	**5.24**	**47**	P	**Pn**	07 48 13.5	+0.9
	1µm25nm,0.6s						
BBAC				S	**Sn**	07 49 14.5	+0.7
	1µm25nm,0.6s						
BBAC				AML	AML		
POPC	**Popayan, Colom**	**6.01**	**47**	P	**Pn**	07 48 23.8	+0.6
	33nm,0.7s						
POPC				AML	AML		
JAMC	**Jamundi, Valle**	**6.49**	**43**	P	**Pn**	07 48 28.9	-0.9
PTLC	**Puerto Leguiza**	**6.51**	**74**	P	**Pn**	07 48 31.8	+1.9
	1µm65nm,0.8s						
BETC	**Betania**	**7.05**	**53**	P	**Pn**	07 48 40.3	+3.0
PRAC	**Prado**	**8.12**	**49**	P	**Pn**	07 48 52.4	+0.3

*IDC **04** 07:49:46.8±0.8,51˚.66N×176˚.98W,h0km,mb3.6/8, mbtmp3.7/10,ML2.2/1,Error ellipse: s-maj=33.4km s-min=17.2km az=157.0*

*AEIC **04** 07:49:52.8±1.2,51˚.43N±0˚.04×176˚.77W±0˚.04,h31km±5km, Error ellipse: s-maj=5.6km s-min=3.8km az=177.0*

*NEIC **04** 07:49:53.6±1.2,51˚.48N±0˚.07×176˚.81W±0˚.05,h45km±3km, ML3.9/10,ML3.5(AEIC),Error ellipse: s-maj=10.7km s-min=4.0km az=172.0*

ISC 04 07:49:53.1±1.1,51˚.6N±0˚.1×176˚.84W±0˚.04,h51km±9km, n50,σ1§51/56,mb3.6/8,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KIMD	**Kanaga Island**	**0.31**	**307**		**Pn**	07 50 02.6	+0.2
KIMD					**Sn**	07 50 09.8	+0.7
ADK	**Adak**	**0.32**	**18**		**Pn**	07 50 02.8	+0.2
ADK					**Sn**	07 50 10.3	+1.0
ADK	**Adak**	**0.32**	**18**	IAML		07 50 10.8	
	15µm,0.4s						
ADK				IAML		07 50 10.8	
	37µm,0.4s						
KIWB	**Kanaga Island**	**0.34**	**325**		**Pn**	07 50 03.3	+0.6
KIWB				IAML		07 50 11.5	
	comp=N,6µm,0.7s						
KIWB				IAML		07 50 12.4	
	comp=E,4µm,0.4s						
KIWB	**Kanaga Island**	**0.34**	**325**		**Sn**	07 50 11.1	+1.5
KIKV	**Kanaga Island**	**0.37**	**326**		**Pn**	07 50 03.7	+0.7
KIKV					**Sn**	07 50 11.8	+1.7
ETKA	**Kagalaska Isla**	**0.39**	**43**		**Pn**	07 50 03.1	-0.2
ETKA					**Sn**	07 50 10.8	+0.2
KICM	**Kanaga Island**	**0.41**	**327**		**Pn**	07 50 04.4	+1.0
ADAG	**Mount Adagdak**	**0.43**	**20**		**Pn**	07 50 04.8	+1.1
ADAG					**Sn**	07 50 13.4	+2.2
GSCK	**Great Sitkin C**	**0.61**	**44**		**Pn**	07 50 06.5	+0.7
GSTD	**Great Sitkin T**	**0.65**	**42**		**Pn**	07 50 07.0	+0.6
GSTD					**Sn**	07 50 17.2	+1.3
TAPA	**Tanaga Point A**	**0.65**	**292**		**Pn**	07 50 06.9	+0.6
TAPA					**Sn**	07 50 17.5	+1.6
GSSP	**Great Sitkin S**	**0.66**	**38**		**Pn**	07 50 07.3	+0.9
GSSP					**Sn**	07 50 17.9	+1.9
TAFL	**Tanaga Flats**	**0.68**	**286**		**Pn**	07 50 07.2	+0.5
TAFL					**Sn**	07 50 18.2	+1.7
GSTR	**Great Sitkin T**	**0.71**	**43**		**Pn**	07 50 08.0	+0.9
GSTR				IAML		07 50 22.0	
	comp=E,7µm,0.5s						
GSTR	**Great Sitkin T**	**0.71**	**43**		**Sn**	07 50 19.7	+2.5
GAEA	**Gareloi East**	**1.21**	**281**		**Pn**	07 50 15.0	+1.3
GALAA	**Gareloi Lava P**	**1.22**	**280**		**Pn**	07 50 15.0	+1.2
GALAA					**Sn**	07 50 31.6	+2.5
GANE	**Gareloi Northe**	**1.23**	**282**		**Pn**	07 50 15.4	+1.4
GAKI	**Gareloi-Kavalg**	**1.23**	**270**		**Pn**	07 50 14.1	+0.1
GAKI					**Sn**	07 50 30.4	+0.9
ATKA	**Atka Island**	**1.75**	**68**		**Pn**	07 50 20.9	-0.1
ATKA				IAML		07 50 46.1	
	comp=E,642nm,0.4s						
KOWE	**Korovin West**	**1.79**	**63**		**Pn**	07 50 22.8	+1.2
KOWE					**Sn**	07 50 45.3	+2.2
KOKL	**Mount Kliuchef**	**1.80**	**64**		**Pn**	07 50 22.8	+1.1
KOSE	**Korovin Southe**	**1.89**	**65**		**Pn**	07 50 24.2	+1.2
CESW	**Semis' Southwe**	**2.26**	**280**		**Pn**	07 50 29.6	+1.6
AMKA	**Amchitka**	**2.42**	**267**	Pn	**Pn**	07 50 31.0	+0.8
AMKA				IAML		07 51 09.6	
	comp=N,346nm,0.7s						
LSNW	**Little Sitkin**	**2.91**	**280**		**Pn**	07 50 38.7	+1.8
UNV	**Unalaska Valle**	**6.68**	**66**	Pn	**Pn**	07 51 30.8	+2.3
OHAK	**Old Harbor**	**14.79**	**58**	Pn	**P**	07 53 22.3	-1.5
KDAK	**Kodiak Island**	**15.29**	**57**	Pn	**Pn**	07 53 23.8	-1.6
	comp=N,5.4nm,0.8s,baz=32,slow=2.0,SNR=17						
KDAK				Sn	**Sn**	07 56 10.5	-2.9
	comp=N,0.1nm,0.3s,baz=355,slow=21,SNR=1.5						
KDAK	**Kodiak Island**	**15.29**	**57**	Pn	**Pn**	07 53 25.9	+0.5
PETK	**Petropavlovsk-**	**15.61**	**286**	Pn	**Pn**	07 53 25.9	-3.7
	baz=91,slow=17,SNR=1.6						
	comp=N,8.5nm,1.2s						
KTH	**Kantishna Hill**	**18.19**	**39**		**Pn**	07 54 03.9	+2.2
ILAR	**Eielson Array**	**20.33**	**38**	P	**P**	07 54 23.2	-1.4
	comp=N,0.4nm,0.8s,baz=232,slow=9.2,SNR=5.5						
	comp=N,0.4nm,0.8s						
YKA	**Yellowknife Ar**	**34.20**	**47**	P	**P**	07 56 33.1	-0.1
	comp=N,0.4nm,0.6s,baz=284,slow=8.7,SNR=1.2						
	comp=N,0.4nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**34.25**	**208**	T	T	08 32 56.1	
	baz=18,slow=76						
H11N3	**WAKE ISLAND Hy**	**34.26**	**208**	T	T	08 32 59.7	
	baz=18,slow=76						
H11N1	**WAKE ISLAND Hy**	**34.27**	**208**	T	T	08 32 58.8	
	baz=18,slow=76						
H11S1	**WAKE ISLAND Hy**	**35.47**	**208**	T	T	08 34 29.2	
	baz=19,slow=76						
H11S2	**WAKE ISLAND Hy**	**35.48**	**208**	T	T	08 34 33.3	
	baz=19,slow=76						
H11S3	**WAKE ISLAND Hy**	**35.48**	**208**	T	T	08 34 30.3	
	baz=19,slow=76						
HILR	**Hailar Array B**	**39.20**	**293**	P	**P**	07 57 15.3	-0.7
	comp=N,0.8nm,0.3s,baz=83,slow=12,SNR=1.8						
	comp=N,0.8nm,0.3s						
PDAR	**Pinedale Array**	**45.08**	**74**	P	**P**	07 58 05.3	+1.2
	comp=N,0.5nm,0.5s,baz=320,slow=3.0,SNR=9.0						
	comp=N,0.5nm,0.5s						
TXAR	**Lajitas Array**	**57.41**	**83**	P	**P**	07 59 36.8	+0.3
	comp=N,0.4nm,0.7s,baz=336,slow=5.9,SNR=4.5						
	comp=N,0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**59.87**	**315**	P	**P**	07 59 50.1	-3.0
	comp=N,0.2nm,0.5s,baz=40,slow=6.3,SNR=1.5						
BVAR	**Borovoye Array**	**61.52**	**321**	P	**P**	08 00 04.7	+0.3
	comp=N,0.8nm,0.5s,baz=46,slow=6.2,SNR=3.8						
	comp=N,0.8nm,0.5s						
WRA	**Warramunga Arr**	**83.02**	**226**	P	**P**	08 02 12.8	0.0
	comp=N,0.6nm,0.8s,baz=24,slow=4.9,SNR=3.1						
	comp=N,0.6nm,0.8s						
ASAR	**Alice Springs**	**86.47**	**224**	P	**P**	08 02 30.6	+0.5
	comp=N,0.5nm,0.8s,baz=24,slow=4.8,SNR=5.1						
	comp=N,0.5nm,0.8s						
VNDA	**Vanda**	**129.51**	**186**	PKP	**PKiKP**	08 08 57.5	+2.4
	comp=N,0.4nm,0.5s,baz=42,slow=0.7,SNR=7.3						
MAW	**Mawson**	**147.39**	**218**	PKPbc	**PKPbc**	08 09 30.0	+0.4
	comp=N,1.5nm,0.8s,baz=117,slow=2.3,SNR=3.7						

*CNRM **04** 08:11:04.5,36˚.56N×7˚.69W,h43km,ML3.4*

*IGIL **04** 08:11:06.7,36˚.64N×7˚.58W,h30km,ML3.1*

*INMG **04** 08:11:06.8±1.7,36˚.64N×7˚.58W,h28km±3km,ML3.3,Error ellipse: s-maj=2.6km s-min=1.8km az=47.0, #DIST_RANGE: LOCAL #IPMA_REGION: Golfo de Cadiz*

*SFS **04** 08:11:06.1,36˚.63N×7˚.59W,h41km,mb4.2/5,ML3.7/25, ML3.8/25,MLv3.6/24*

*MDD **04** 08:11:06.2±0.3,36˚.65N×7˚.58W,h32km±8km,mb_Lg3.6/44, Error ellipse: s-maj=3.1km s-min=2.1km az=45.0*

ISC 04 08:11:05.1±1.1,36˚.66N±0˚.03×7˚.53W±0˚.02,h46km±12km, n131,σ1§36/234,21D,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTAV	**Tavira**	**0.47**	**348**	*e*P	**Pn**	08 11 16.2	+0.5
PTAV				*e*S	**Sn**	08 11 23.4	+0.1
PTAV				IAML		08 11 23.6	
PTAV				IAML		08 11 23.6	
PTAV				IAML		08 11 24.4	
PFARO	**Faro**	**0.48**	**319**	*e*P	**Pn**	08 11 16.0	+0.1
PFARO				*e*S	**Sn**	08 11 23.6	+0.2
PFARO				IAML		08 11 27.4	
PFARO				IAML		08 11 29.5	
PFARO				IAML		08 11 36.6	
EXAYA	**Ayamonte**	**0.57**	**10**	P	**Pn**	08 11 17.6	+0.7
EXAYA				S	**Sn**	08 11 25.4	0.0
PBDV	**Barranco-do-Ve**	**0.66**	**331**	Pn	**Pn**	08 11 18.7	+0.5
PBDV				S	**Sn**	08 11 27.7	0.0
PBDV	**Barranco-do-Ve**	**0.66**	**331**	⇓*i*P	**Pn**	08 11 18.7	+0.5
PBDV				*e*S	**Sn**	08 11 28.0	+0.3
PBDV				IAML		08 11 28.2	
PBDV				IAML		08 11 28.5	
PBDV				IAML		08 11 36.1	
PALBU	**Albufeira**	**0.72**	**307**	*e*P	**Pn**	08 11 19.2	+0.2
PALBU				*e*S	**Sn**	08 11 28.7	-0.2
PALBU				IAML		08 11 29.1	
PALBU				IAML		08 11 29.4	
PALBU				IAML		08 11 32.4	
PVAQ	**Vaqueiros**	**0.76**	**349**	P	**Pn**	08 11 19.4	0.0
PVAQ				S	**Sn**	08 11 30.5	+0.7
PVAQ	**Vaqueiros**	**0.76**	**349**	⇓*i*P	**Pn**	08 11 20.0	+0.6
PVAQ				*e*S	**Sn**	08 11 29.7	-0.1
PVAQ				IAML		08 11 30.3	
PVAQ				IAML		08 11 30.4	
PVAQ				IAML		08 11 30.8	
ARNO	**Arenosillo**	**0.78**	**55**	Pn	**Pn**	08 11 20.9	+1.2
ARNO				S	**Sn**	08 11 31.6	+1.4
EGRO	**El Granado**	**0.87**	**3**	Pn	**Pn**	08 11 21.9	+0.9
EGRO				S	**Sn**	08 11 32.8	+0.2
EGRO	**El Granado**	**0.87**	**3**	⇓P	**Pn**	08 11 21.9	+0.9
EGRO				S	**Sn**	08 11 32.7	+0.1
EGRO				IVmb_Lg		08 11 33.8	
PPOR	**Portimao**	**0.93**	**301**	*e*P	**Pn**	08 11 22.0	+0.3
PPOR				*e*S	**Sn**	08 11 33.5	-0.5
PPOR				IAML		08 11 34.9	
PPOR				IAML		08 11 43.3	
PLAGO	**Lagos**	**1.02**	**295**	*e*P	**Pn**	08 11 23.5	+0.5
PLAGO				*e*S	**Sn**	08 11 36.0	-0.2
PLAGO				IAML		08 11 42.8	
PLAGO				IAML		08 11 45.0	
PLAGO				IAML		08 11 53.0	
PCVE	**Castro Verde**	**1.05**	**337**	Pn	**Pn**	08 11 24.2	+0.7
PCVE				S	**Sn**	08 11 36.2	-0.7
PCVE	**Castro Verde**	**1.05**	**337**	⇓*e*P	**Pn**	08 11 24.2	+0.7
PCVE				*e*S	**Sn**	08 11 37.5	+0.5
PCVE				IAML		08 11 37.9	
PCVE				IAML		08 11 37.9	
PCVE				IAML		08 11 38.4	
SFS	**San Fernando**	**1.08**	**100**	Pn	**Pn**	08 11 24.7	+0.9
MORF	**Marmelete**	**1.10**	**306**	*e*P	**Pn**	08 11 24.3	+0.2
MORF				*e*S	**Sn**	08 11 37.7	-0.6
MORF				IAML		08 11 43.0	
	comp=N,498nm,0.3s						
MORF	**Marmelete**	**1.10**	**306**	⇓*i*P	**Pn**	08 11 24.3	+0.2
MORF				*e*S	**Sn**	08 11 37.9	-0.4
MORF				IAML		08 11 38.2	
MORF				IAML		08 11 38.3	
MORF				IAML		08 11 48.2	
PFVI	**Vila Bisbo**	**1.14**	**295**	Pn	**Pn**	08 11 24.8	+0.2
PFVI				S	**Sn**	08 11 38.4	-0.7
PFVI	**Vila Bisbo**	**1.14**	**295**	P	**Pn**	08 11 24.6	0.0
PFVI				S	**Sn**	08 11 38.2	-0.8
PFVI	**Vila Bisbo**	**1.14**	**295**	⇓*e*P	**Pn**	08 11 24.8	+0.2
PFVI				*e*S	**Sn**	08 11 38.8	-0.3
PFVI				IAML		08 11 49.9	
PFVI				IAML		08 11 51.6	
PFVI				IAML		08 11 55.8	
PALJ	**Aljezur**	**1.21**	**303**	*e*P	**Pn**	08 11 26.0	+0.5
PALJ				*e*S	**Sn**	08 11 40.2	-0.5
PALJ				IAML		08 11 50.7	
PALJ				IAML		08 11 50.8	
PALJ				IAML		08 11 51.0	
MESJ	**Messejana**	**1.30**	**335**	*e*P	**Pn**	08 11 27.6	+0.8
MESJ				*e*S	**Sn**	08 11 42.7	-0.2
MESJ				IAML		08 11 44.3	

PMTG				IAML		08 12 12.8		
PMTG				IAML		08 12 13.2		
PMTG				IAML		08 12 14.3		
EMAL	**Malaga-Limoner**	**2.50**	**87**	Pn	**Pn**	**08 11 44.3**	**+1.2**	
PBEN	**Benavente**	**2.50**	**336**	*eS*	**Sn**	**08 12 14.6**	**+2.1**	
PBEN				IAML		08 12 15.5		
PBEN				IAML		08 12 15.5		
AML03	**Fanhoes/Loures**	**2.56**	**330**	*eP*	**Pn**	**08 11 45.5**	**+1.4**	
AML03				*eS*	**Sn**	**08 12 14.9**	**+0.9**	
AML03				IAML		08 12 16.1		
AML03				IAML		08 12 17.6		
AML03				IAML		08 12 17.6		
PMAFR	**Mafra**	**2.68**	**329**	Pn	**Pn**	**08 11 46.9**	**+1.2**	
PMAFR	**Mafra**	**2.68**	**329**	*eP*	**Pn**	**08 11 46.9**	**+1.2**	
PMAFR				*eS*	**Sn**	**08 12 16.6**	**-0.3**	
PMAFR				IAML		08 12 18.1		
PMAFR				IAML		08 12 18.9		
PMAFR				IAML		08 12 22.5		
PMRV	**Marv??o**	**2.77**	**2**	*iP*	**Pn**	**08 11 47.8**	**+0.9**	
PMRV				*eS*	**Sn**	**08 12 18.6**	**-0.4**	
PMRV				IAML		08 12 19.7		
PMRV				IAML		08 12 19.8		
PMRV				IAML		08 12 20.1		
EGOR	**Sierra Gorda,**	**2.78**	**80**	Pn	**Pn**	**08 11 49.1**	**+1.9**	
EGOR	**Sierra Gorda,**	**2.78**	**80**	P	**Pn**	**08 11 48.6**	**+1.4**	
EGOR				S	**Sn**	**08 12 19.1**	**-0.5**	
EGOR				IVmb_Lg		08 12 28.7		
AML05	**Montejunto**	**2.79**	**335**	*eP*	**Pn**	**08 11 48.2**	**+1.0**	
AML05				*eS*	**Sn**	**08 12 18.8**	**-0.8**	
AML05				IAML		08 12 21.5		
AML05				IAML		08 12 22.2		
AML05				IAML		08 12 22.8		
EADA	**Adamuz**	**2.79**	**57**	Pn	**Pn**	**08 11 48.3**	**+1.1**	
EADA	**Adamuz**	**2.79**	**57**	P	**Pn**	**08 11 48.4**	**+1.1**	
EADA				S	**Sn**	**08 12 19.7**	**-0.1**	
EADA				IVmb_Lg		08 12 24.3		
PSARD	**Sardoal**	**2.98**	**351**	*eP*	**Pn**	**08 11 50.9**	**+1.1**	
PSARD				*eS*	**Sn**	**08 12 23.5**	**-0.7**	
PSARD				IAML		08 12 25.2		
PSARD				IAML		08 12 25.8		
PSARD				IAML		08 12 25.9		
PSBE	**So Bento**	**3.02**	**341**	*eP*	**Pn**	**08 11 51.7**	**+1.3**	
PSBE				*eS*	**Sn**	**08 12 25.6**	**+0.3**	
PSBE				IAML		08 12 27.4		
PSBE				IAML		08 12 50.5		
PSBE				IAML		08 12 54.1		
SICH	**Sidi Chahed**	**3.13**	**144**	P	**Pn**	**08 11 51.2**	**-0.6**	
SICH				S	**Sn**	**08 12 28.2**	**+0.2**	
ELGU	**Los Guajares,**	**3.14**	**85**	Pn	**Pn**	**08 11 52.9**	**+0.7**	
ELGU	**Los Guajares,**	**3.14**	**85**	P	**Pn**	**08 11 53.2**	**+1.1**	
ELGU				S	**Sn**	**08 12 28.4**	**0.0**	
ELGU				IVmb_Lg		08 12 34.9		
PCBR	**Castelo Branco**	**3.17**	**1**	*eP*	**Pn**	**08 11 53.5**	**+1.0**	
PCBR				*eS*	**Sn**	**08 12 28.7**	**-0.4**	
PCBR				IAML		08 12 29.6		
PCBR				IAML		08 12 30.1		
PCBR				IAML		08 12 30.2		
PALE	**Palemas**	**3.25**	**115**	P	**Pn**	**08 11 53.9**	**+0.3**	
PALE				S	**Sn**	**08 12 32.7**	**+1.7**	
ZHG	**ZHG**	**3.29**	**167**	P	**Pn**	**08 11 54.0**	**-0.2**	
ZHG				S	**Sn**	**08 12 32.2**	**+0.2**	
EQTA	**Presa de Quent**	**3.32**	**79**	Pn	**Pn**	**08 11 56.8**	**+2.2**	
EQUE	**Quentar**	**3.32**	**79**	P	**Pn**	**08 11 56.3**	**+1.7**	
EQUE				S	**Sn**	**08 12 33.5**	**+0.5**	
EQUE				IVmb_Lg		08 12 44.2		
AVE	**Averroes**	**3.36**	**178**	Pn	**Pn**	**08 11 55.0**	**0.0**	
AVE	**Averroes**	**3.36**	**178**	P	**Pn**	**08 11 56.4**	**+1.4**	
AVE				S	**Sn**	**08 12 32.9**	**-0.7**	
CIBOR	**Castaar de Ib**	**3.40**	**29**	P	**Pn**	**08 11 56.2**	**+0.6**	
CIBOR				S	**Sn**	**08 12 33.4**	**-1.4**	
EPLA	**Plasencia**	**3.58**	**18**	P	**Pn**	**08 11 58.9**	**+0.7**	
EPLA				S	**Sn**	**08 12 38.0**	**-1.2**	
EPLA				IVmb_Lg		08 12 41.4		
AKLM	**AKL**	**3.68**	**125**	P	**Pn**	**08 11 59.2**	**-0.4**	
AKLM				S	**Sn**	**08 12 40.2**	**-1.5**	
LCRM	**LCR**	**3.69**	**143**	P	**Pn**	**08 11 59.5**	**-0.3**	
LCRM				S	**Sn**	**08 12 43.5**	**+1.5**	
IFR	**Ifrane**	**3.71**	**147**	Pn	**Pn**	**08 11 59.1**	**-0.8**	
IFR				P	**Pn**	**08 11 59.2**	**-0.8**	
MTE	**Manteigas**	**3.73**	**360**	*eP*	**Pn**	**08 12 01.0**	**+0.8**	
MTE				*eS*	**Sn**	**08 12 41.6**	**-1.4**	
MTE				IAML		08 12 43.0		
MTE				IAML		08 12 43.4		
MTE				IAML		08 12 43.5		
EBER	**Berja**	**3.73**	**85**	Pn	**Pn**	**08 12 02.2**	**+1.9**	
EBER	**Berja**	**3.73**	**85**	P	**Pn**	**08 12 02.1**	**+1.7**	
EBER				S	**Sn**	**08 12 42.7**	**-0.5**	
EBER				IVmb_Lg		08 12 54.5		
EQES	**Quesada**	**3.74**	**71**	P	**Pn**	**08 12 01.5**	**+1.1**	
EQES				S	**Sn**	**08 12 42.8**	**-0.3**	
EQES				IVmb_Lg		08 12 53.3		
PAB	**San Pablo**	**3.82**	**40**	P	**Pn**	**08 12 02.6**	**+1.2**	
PAB				S	**Sn**	**08 12 42.0**	**-3.2**	
PAB				IVmb_Lg		08 12 44.1		
PVIS	**Viseu**	**4.06**	**356**	*eP*	**Pn**	**08 12 05.2**	**+0.5**	
PVIS				*eS*	**Sn**	**08 12 49.9**	**-1.1**	
CZD	**Col de Zad**	**4.16**	**150**	P	**Pn**	**08 12 05.9**	**-0.4**	
CZD				S	**Sn**	**08 12 53.1**	**-0.7**	
SRHM	**Skhour des Reh**	**4.19**	**184**	P	**Pn**	**08 12 06.5**	**0.0**	
ENIJ	**Nijar**	**4.28**	**84**	Pn	**Pn**	**08 12 09.4**	**+1.7**	
ENIJ	**Nijar**	**4.28**	**84**	P	**Pn**	**08 12 09.5**	**+1.7**	
ENIJ				S	**Sn**	**08 12 55.1**	**-1.4**	
ENIJ				IVmb_Lg		08 12 59.1		
MD31	**MD31**	**4.42**	**148**	P	**Pn**	**08 12 09.5**	**-0.2**	
MD31				Sn	**Sn**	**08 13 00.3**	**+0.3**	
MDT	**Midelt**	**4.53**	**147**	P	**Pn**	**08 12 11.1**	**-0.2**	
MDT				Sn	**Sn**	**08 13 02.6**	**0.0**	
PTO	**Porto**	**4.55**	**350**	*eP*	**Pn**	**08 12 12.4**	**+1.1**	
PTO				*eS*	**Sn**	**08 13 01.0**	**-1.9**	
PTO				IAML		08 13 03.6		
PTO				IAML		08 13 03.6		
PTO				IAML		08 13 03.8		
PVRL	**Vila Real**	**4.61**	**358**	*eP*	**Pn**	**08 12 13.0**	**+0.7**	
PVRL				*eS*	**Sn**	**08 13 02.7**	**-1.8**	
PVRL				IAML		08 13 04.7		
PVRL				IAML		08 13 04.8		
PVRL				IAML		08 13 04.8		
JBK	**JBK**	**4.67**	**118**	P	**Pn**	**08 12 12.7**	**-0.5**	
JBK				Sn	**Sn**	**08 13 05.5**	**-0.7**	
POLO	**Lamas de Olo**	**4.71**	**358**	*eP*	**Pn**	**08 12 14.4**	**+0.7**	
POLO				*eS*	**Sn**	**08 13 04.8**	**-2.3**	
POLO				IAML		08 13 07.3		
POLO				IAML		08 13 07.3		
POLO				IAML		08 13 07.3		
EZAR	**Zarzadilla de**	**4.81**	**74**	P	**Pn**	**08 12 16.5**	**+1.4**	
EZAR				S	**Sn**	**08 13 07.3**	**-2.2**	
EZAR				IVmb_Lg		08 13 14.0		
UCM	**Universidad Co**	**4.96**	**41**	Pn	**Pn**	**08 12 18.8**	**+1.8**	
TISM	**Timmit**	**5.01**	**169**	P	**Pn**	**08 12 15.4**	**-2.3**	
TISM				Sn	**Sn**	**08 13 12.0**	**-2.4**	
PCAB	**Cabril**	**5.06**	**356**	*eP*	**Pn**	**08 12 19.2**	**+0.8**	
PCAB				*eS*	**Sn**	**08 13 12.7**	**-2.8**	
PCAB				IAML		08 13 15.8		
PCAB				IAML		08 13 15.8		
PCAB				IAML		08 13 16.9		
ETOB	**Tobarra**	**5.14**	**66**	Pn	**Pn**	**08 12 19.4**	**-0.2**	
ETOB	**Tobarra**	**5.14**	**66**	P	**Pn**	**08 12 19.8**	**+0.2**	
ETOB				S	**Sn**	**08 13 14.6**	**-3.2**	
ETOB				IVmb_Lg		08 13 19.1		
EMUR	**La Murta**	**5.16**	**75**	Pn	**Pn**	**08 12 21.5**	**+1.7**	
EMUR	**La Murta**	**5.16**	**75**	P	**Pn**	**08 12 21.2**	**+1.5**	
EMUR				S	**Sn**	**08 13 14.7**	**-3.3**	
EMUR				IVmb_Lg		08 13 19.2		
PBRG	**Braganca**	**5.17**	**7**	*eP*	**Pn**	**08 12 20.6**	**+0.6**	
PBRG				*eS*	**Sn**	**08 13 15.1**	**-3.3**	
PBRG				IAML		08 13 16.5		
PBRG				IAML		08 13 18.0		
PBRG				IAML		08 13 18.1		
ELOB	**Lobios**	**5.21**	**356**	P	**Pn**	**08 12 21.2**	**+0.6**	
ELOB				S	**Sn**	**08 13 17.1**	**-2.3**	
CART	**Cartagena**	**5.30**	**78**	Pn	**Pn**	**08 12 22.5**	**+0.8**	
ECAL	**Calabor**	**5.31**	**6**	Pn	**Pn**	**08 12 22.5**	**+0.6**	
ECAL	**Calabor**	**5.31**	**6**	P	**Pn**	**08 12 22.5**	**+0.6**	
ECAL				S	**Sn**	**08 13 19.6**	**-2.2**	
ECAL				IVmb_Lg		08 13 22.1		
PGAV	**Gavieira, Arco**	**5.33**	**354**	*eP*	**Pn**	**08 12 23.0**	**+0.9**	
PGAV				*eS*	**Sn**	**08 13 19.8**	**-2.5**	
PGAV				IAML		08 13 22.8		
PGAV				IAML		08 13 22.9		
PGAV				IAML		08 13 23.7		
OUK	**Oukaimeden**	**5.45**	**183**	P	**Pn**	**08 12 23.3**	**-0.8**	
OUK				Sn	**Sn**	**08 13 23.2**	**-2.4**	
EVIV	**Cofrentes, Val**	**5.70**	**61**	P	**Pn**	**08 12 27.4**	**+0.2**	
EVIV				S	**Sn**	**08 13 28.6**	**-2.6**	
EVIV				IVmb_Lg		08 13 31.7		
TIO	**Tiouine**	**5.72**	**178**	Pn	**Pn**	**08 12 27.3**	**-0.3**	
TIO	**Tiouine**	**5.72**	**178**	P	**Pn**	**08 12 26.9**	**-0.7**	
TIO				Sn	**Sn**	**08 13 30.7**	**-1.4**	
OUZM	**OUZ**	**5.77**	**173**	P	**Pn**	**08 12 28.3**	**0.0**	
OUZM				Sn	**Sn**	**08 13 34.2**	**+0.9**	
AFON	**Font Roja**	**5.89**	**68**	P	**Pn**	**08 12 31.2**	**+1.3**	
AFON				S	**Sn**	**08 13 33.9**	**-2.4**	
AFON				IVmb_Lg		08 13 39.8		
ECHE	**Chera**	**5.94**	**59**	Pn	**Pn**	**08 12 31.5**	**+0.9**	
ECHE	**Chera**	**5.94**	**59**	P	**Pn**	**08 12 31.4**	**+0.9**	
ECHE				S	**Sn**	**08 13 34.2**	**-3.2**	
ECHE				IVmb_Lg		08 13 35.1		
ETOR	**Torete**	**5.96**	**44**	P	**Pn**	**08 12 32.0**	**+1.2**	
ETOR				S	**Sn**	**08 13 34.3**	**-3.6**	
ETOR				IVmb_Lg		08 13 38.1		
TZRR	**Tazzarine**	**6.08**	**164**	P	**Pn**	**08 12 31.9**	**-0.6**	
TZRR				Sn	**Sn**	**08 13 40.0**	**-1.0**	
TTIG	**Tnine Tigouga,**	**6.14**	**187**	P	**Pn**	**08 12 30.0**	**-3.5**	
TTIG				Sn	**Sn**	**08 13 40.3**	**-2.2**	
EAGO	**Agolada(Pontev**	**6.15**	**356**	P	**Pn**	**08 12 34.2**	**+0.8**	
EAGO				S	**Sn**	**08 13 37.6**	**-4.8**	
EAGO				IVmb_Lg		08 13 42.3		
EMAZ	**Mazaricos**	**6.38**	**350**	P	**Pn**	**08 12 37.3**	**+0.9**	
EMAZ				IVmb_Lg		08 13 43.8		
EMAZ				S	**Sn**	**08 13 44.8**	**-3.2**	
EMOS	**Mosqueruela**	**6.66**	**54**	P	**Pn**	**08 12 42.1**	**+1.6**	
EMOS				S	**Sn**	**08 13 51.8**	**-3.3**	
EMOS				IVmb_Lg		08 14 06.7		
EPON	**Pontenova**	**6.67**	**2**	P	**Pn**	**08 12 41.2**	**+0.8**	
EPON				S	**Sn**	**08 13 51.8**	**-3.2**	
EPON				IVmb_Lg		08 14 04.3		
ZGR	**Zagora**	**6.72**	**166**	P	**Pn**	**08 12 40.4**	**-0.9**	
ZGR				Sn	**Sn**	**08 13 55.9**	**-0.6**	
EARI	**Arriondas**	**6.87**	**14**	P	**Pn**	**08 12 43.8**	**+0.6**	
EARI				S	**Sn**	**08 13 56.8**	**-3.2**	
ELAN	**Lanestosa**	**7.28**	**24**	P	**Pn**	**08 12 49.7**	**+0.8**	
ELAN				S	**Sn**	**08 14 07.1**	**-3.0**	
ESAC	**San Caprasio**	**7.46**	**45**	P	**Pn**	**08 12 53.1**	**+1.8**	
ESAC				S	**Sn**	**08 14 10.4**	**-4.1**	
ESAC				IVmb_Lg		08 14 19.2		

NEIC ***04*** *08:14:14.8±1.5, 54.39N±0.07×159.71W±0.09, h28km±10km, ML3.5/20, ML3.4(AEIC), Error ellipse: s-maj=10.5km s-min=6.8km az=149.0*
AEIC ***04*** *08:14:16.0±1.6, 54.43N±0.06×159.74W±0.09, h15km±7km, Error ellipse: s-maj=9.6km s-min=6.9km az=154.0*

ISC 04 08:14:13.6±3.1, 54.37N±0.07×159.71W±0.05, h16km±23km, n72, σ0.980/89, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**0.46**	**9**		**Pb**	**08 14 23.9**	**+0.7**
CNBA	**Chernabura Isl**	**0.46**	**9**		**Sb**	**08 14 30.5**	**+0.8**
CNBA	**Chernabura Isl**	**0.46**	**9**	IAML		08 14 30.9	
	comp=E,5µm,0.7s						
CNBA				IAML		08 14 31.0	
	comp=N,4µm,0.4s						
CHNA	**Chernabura Isl**	**0.47**	**8**	P	**Pb**	**08 14 23.5**	**+0.1**
CHNA	**Chernabura Isl**	**0.47**	**8**	S	**Sb**	**08 14 30.7**	**+0.7**
SDPT	**Sand Point**	**1.08**	**336**	P	**Pb**	**08 14 33.0**	**-0.8**
SDPT	**Sand Point**	**1.08**	**336**	S	**Sb**	**08 14 47.5**	**-0.1**
SDPT	**Sand Point**	**1.08**	**336**		**Pb**	**08 14 33.2**	**-0.6**
SDPT	**Sand Point**	**1.08**	**336**		**Sb**	**08 14 46.9**	**-0.7**
SDPT					**Sn**	**08 14 47.0**	**-1.5**
SDPT	**Sand Point**	**1.08**	**336**	IAML		08 14 48.9	
	comp=N,1µm,0.8s						
SDPT				IAML		08 14 55.8	
	comp=E,738nm,0.6s						
DOL	**Dolgoi Island**	**1.47**	**303**		**Pn**	**08 14 38.9**	**-0.5**
DOL					**Sn**	**08 14 56.9**	**-1.4**
PVV	**Pavlof Volcano**	**1.57**	**311**		**Pn**	**08 14 40.5**	**-0.2**
PS1A	**Pavlof South-1**	**1.58**	**313**		**Pn**	**08 14 40.9**	**0.0**
PS1A					**Sn**	**08 15 01.0**	**+0.1**
PS4A	**Pavlof South-4**	**1.58**	**309**		**Pn**	**08 14 41.1**	**+0.2**
PS4A					**Sn**	**08 15 00.1**	**-0.9**
DT1	**Dutton Round H**	**1.67**	**297**		**Pn**	**08 14 41.5**	**-0.6**
DT1					**Sn**	**08 15 01.5**	**-1.5**
DTNA	**Dutton South F**	**1.67**	**299**		**Pn**	**08 14 42.0**	**-0.2**
DTNA					**Sn**	**08 15 02.5**	**-0.7**
VNKR	**Veniaminof 5**	**1.68**	**7**		**Pn**	**08 14 42.5**	**+0.3**
VNKR					**Pb**	**08 14 42.8**	**-1.2**
PN7A	**Pavlof North-7**	**1.70**	**310**		**Pn**	**08 14 43.4**	**+0.8**
PN7A					**Pb**	**08 14 43.5**	**-0.9**
VNWF	**Veniaminof 8**	**1.79**	**3**		**Pn**	**08 14 44.5**	**+0.7**
VNSS	**Veniaminof 8**	**1.86**	**4**		**Pn**	**08 14 45.8**	**+0.8**
VNSS					**Pb**	**08 14 45.9**	**-1.5**
S12K	**Black Hills**	**1.90**	**316**		**Pn**	**08 14 45.0**	**-0.3**
S12K					**Pb**	**08 14 45.5**	**-2.4**
S12K					**Sn**	**08 15 08.9**	**0.0**
CHGN	**Chignik**	**2.07**	**20**		**Pn**	**08 14 47.1**	**-0.5**
CHGN				IAML		08 15 24.8	
	comp=N,431nm,0.7s						
ISLZ	**Isanotski Laza**	**2.36**	**280**		**Pn**	**08 14 52.2**	**+0.5**
ISLZ					**Sn**	**08 15 20.4**	**+0.2**
SSLS	**Shishaldin Sou**	**2.52**	**280**		**Pn**	**08 14 55.0**	**+1.1**
SSLN	**Shishaldin Nor**	**2.53**	**282**		**Pn**	**08 14 55.9**	**+1.8**
SSLN					**Sn**	**08 15 25.3**	**+0.7**
CHIR	**Chirikof Islan**	**2.76**	**57**	P	**Pn**	**08 14 56.3**	**-0.8**
CHIR	**Chirikof Islan**	**2.76**	**57**		**Pn**	**08 14 56.4**	**-0.7**
CHIR	**Chirikof Islan**	**2.76**	**57**	IAML		08 15 49.3	
	comp=E,228nm,1.3s						
CHIR				IAML		08 15 51.2	
	comp=N,206nm,0.9s						
WTUG	**Tugumak**	**2.76**	**282**		**Pn**	**08 14 57.7**	**+0.5**
WTUG					**Pn**	**08 14 57.8**	**+0.7**
WESN	**West Dahl Nort**	**2.85**	**276**		**Pn**	**08 14 59.2**	**+0.8**
WESN					**Pn**	**08 14 59.5**	**+1.1**
WESN					**Sn**	**08 15 33.0**	**+0.6**
WESP	**Westdahl Peak**	**2.93**	**274**		**Pn**	**08 15 00.4**	**+0.9**
AHB	**Akutan Harbor**	**3.59**	**268**		**Pn**	**08 15 09.7**	**+1.1**
ZRO	**Akutan Zero**	**3.69**	**268**		**Pn**	**08 15 11.1**	**+1.2**
R17L	**Mt. Peulik Vol**	**3.77**	**29**		**Pn**	**08 15 11.6**	**+0.6**
R17L					**Pn**	**08 15 12.0**	**+1.0**
R17L					**Sn**	**08 15 54.4**	**-0.6**
SII	**Sitkinak Islan**	**3.83**	**53**	P	**Pn**	**08 15 11.0**	**-0.8**
SII	**Sitkinak Islan**	**3.83**	**53**		**Pn**	**08 15 11.0**	**-0.8**
SII					**Pn**	**08 15 11.2**	**-0.7**
SII	**Sitkinak Islan**	**3.83**	**53**	IAML		08 16 35.2	
	comp=N,101nm,0.9s						
PLK1	**Peulik 1**	**3.85**	**26**		**Pn**	**08 15 12.7**	**+0.6**
UNV	**Unalaska Valle**	**4.04**	**265**	P	**Pn**	**08 15 15.0**	**+0.4**
UNV	**Unalaska Valle**	**4.04**	**265**		**Pn**	**08 15 15.1**	**+0.4**
UNV					**Sn**	**08 15 60.0**	**-1.5**
MNAT	**Makushin Natee**	**4.13**	**266**		**Pn**	**08 15 16.4**	**+0.4**
MNAT					**Sn**	**08 16 02.6**	**-1.4**
KJL	**Kejulik**	**4.35**	**30**		**Pn**	**08 15 18.9**	**-0.2**
Q17K	**Contact Creek**	**4.44**	**27**		**Pn**	**08 15 20.0**	**-0.3**
ANCK	**Angle Creek**	**4.50**	**30**		**Pn**	**08 15 21.0**	**0.0**
ACHA	**Angle Creek He**	**4.56**	**31**	Pn	**Pn**	**08 15 22.4**	**+0.5**
OHAK	**Old Harbor**	**4.61**	**49**	P	**Pn**	**08 15 21.3**	**-1.2**
OHAK	**Old Harbor**	**4.61**	**49**	Pn	**Pn**	**08 15 21.7**	**-0.8**
OHAK				IAML		08 17 08.8	
	comp=E,21nm,1.1s						
KAWH	**Katmai**	**4.86**	**32**		**Pn**	**08 15 25.4**	**-0.6**
KARR	**Katmai Rainbow**	**4.98**	**32**		**Pn**	**08 15 27.2**	**-0.4**
KAHG	**Katmai Hook Gl**	**5.03**	**33**		**Pn**	**08 15 28.0**	**-0.3**
KDAK	**Kodiak Island**	**5.25**	**47**	Pn	**Pn**	**08 15 30.3**	**-1.0**
KDAK				IAML		08 16 29.2	
	comp=E,15nm,1.5s						
KDAK				IAML		08 17 21.2	
	comp=E,22nm,1.4s						
CLCO	**Concord Point,**	**6.17**	**259**		**Pn**	**08 15 44.9**	**+0.9**
M15K	**Kasigluk River**	**6.36**	**356**		**Pn**	**08 15 46.8**	**+0.2**
ILSW	**Iliamna Southw**	**6.66**	**30**	Pn	**Pn**	**08 15 50.9**	**+0.1**
M16K	**Timber Creek**	**6.68**	**3**		**Pn**	**08 15 51.0**	**0.0**
IVE	**Iliamna Volcan**	**6.72**	**30**		**Pn**	**08 15 51.6**	**0.0**
O20K	**Slope Mountain**	**6.89**	**31**		**Pn**	**08 15 54.0**	**+0.1**
CNPM	**China Poot**	**6.94**	**38**	Pn	**Pn**	**08 15 54.2**	**-0.3**
M17K	**Holitna River**	**7.15**	**9**		**Pn**	**08 15 57.4**	**0.0**
SLKM	**Skilak Lake**	**8.00**	**36**	Pn	**Pn**	**08 16 10.4**	**+1.4**
PMR	**Palmer**	**9.15**	**33**	P	**Pn**	**08 16 24.6**	**-0.2**
PMR	**Palmer**	**9.15**	**33**	Pn	**Pn**	**08 16 24.5**	**-0.2**
HIN	**Hinchinbrook I**	**9.33**	**44**	Pn	**Pn**	**08 16 26.7**	**-0.6**
GHO	**Glory Hole Cre**	**9.35**	**33**	Pn	**Pn**	**08 16 27.8**	**+0.2**
SML	**Sawmill**	**9.57**	**34**	Pn	**Pn**	**08 16 30.2**	**-0.3**
SCM	**Sheep Creek Mo**	**9.93**	**36**	Pn	**Pn**	**08 16 35.6**	**+0.1**
RAGM	**Ragged Mountai**	**10.10**	**47**	Pn	**Pn**	**08 16 37.2**	**-0.5**
KIWB	**Kanaga Island**	**10.78**	**264**	Pn	**Pn**	**08 16 48.1**	**+0.9**
GLB	**Gilahina Butte**	**11.01**	**44**	Pn	**Pn**	**08 16 50.6**	**+0.4**
VRDI	**Verde Repeater**	**11.04**	**45**	Pn	**Pn**	**08 16 50.8**	**0.0**
PNL	**Peninsula**	**12.25**	**56**	P	**Pn**	**08 17 06.9**	**-0.2**
SKAG	**Skagway**	**14.21**	**59**	P	**Pn**	**08 17 34.3**	**+0.4**

IDC 04 08:36:58.4±3.4, 18.36S×178.15W, h543km±29km, mb2.8/4, mbtmp3.7/5, Error ellipse: s-maj=130.8km s-min=29.8km az=154.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**3.67**	**279**	P	P	08 38 17.4	-0.1
	13nm,0.7s,baz=119,slow=9.6,SNR=6.4						
STKA	**Stephens Creek**	**38.63**	**242**	P	P	08 43 36.1	+0.6
	2.7nm,0.9s,baz=149,slow=5.9,SNR=3.1						
	2.7nm,0.9s						
WRA	**Warramunga Arr**	**44.80**	**260**	P	P	08 44 23.3	-1.0
	0.3nm,0.7s,baz=97,slow=7.5,SNR=5.6						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**44.91**	**255**	P	P	08 44 25.2	0.0
	2.2nm,0.6s,baz=92,slow=7.5,SNR=42						
	2.2nm,0.6s						
TXAR	**Lajitas Array**	**86.03**	**57**	P	P	08 48 41.9	-0.1
	0.1nm,0.7s,baz=242,slow=5.2,SNR=2.0						
	0.1nm,0.7s						

IDC 04 08:42:40.2±50.0, 16.29S×175.20W, h0km, mb4.0/3, mbtmp4.0/3, Error ellipse: s-maj=937.7km s-min=182.1km az=78.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**42.09**	**240**	P	P	08 50 34.3	+0.1
	2.2nm,0.8s,baz=84,slow=10,SNR=2.9						
	2.2nm,0.8s						
WRA	**Warramunga Arr**	**47.96**	**258**	P	P	08 51 21.0	0.0
	0.4nm,0.4s,baz=93,slow=7.2,SNR=12						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**48.19**	**253**	P	P	08 51 22.4	-0.4
	3.8nm,0.6s,baz=88,slow=8.4,SNR=63						
	3.8nm,0.6s						

AFAD 04 08:57:23.5, 37.82N×27.12E, h7km±2km, ML1.4, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.15**	**143**	P	Pg	08 57 27.1	+0.5
GCAM				IAML		08 57 29.0	
	comp=E,155nm,0.9s						
GCAM				S	Sg	08 57 29.7	+0.9
GCAM				IAML		08 57 30.0	
	comp=N,253nm,0.8s						
DGB	**zmir**	**0.30**	**321**	P	Pb	08 57 30.2	-0.9
DGB				S	Sg	08 57 34.3	+1.0
DGB				IAML		08 57 35.0	
	comp=E,48nm,0.2s						
DGB				IAML		08 57 36.0	
	comp=N,32nm,0.2s						
AYDN	**Tasoluk**	**0.62**	**105**	P	Pb	08 57 36.5	-0.3
AYDN				S	Sb	08 57 44.8	-1.0
AYDN				IAML		08 57 48.0	
	comp=E,18nm,0.2s						
AYDN				IAML		08 57 54.0	
	comp=N,23nm,0.5s						

ISK 04 08:57:35.4, 37.27N×28.25E, h0km, ML1.6/4, Suspected Mining explosion., Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	**Yerkesik**	**0.14**	**168**	Pg	Pg	08 57 38.9	+0.8
YER				Sg	Sg	08 57 41.4	+1.5
YER				AML	AML		
MLSB	**Milas**	**0.38**	**273**	Pg	Pg	08 57 43.3	+0.7
MLSB				AML	AML		
TURN	**Turunc**	**0.50**	**180**	Pg	Pg	08 57 45.6	+0.7
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**0.56**	**144**	Pg	Pg	08 57 46.8	+0.7
DALY				AML	AML		

**IDC 04 09:05:45.1±4.5, 17.01S×179.10W, h553km±19km, mb3.3/3, mbtmp4.2/4, Error ellipse: s-maj=105.9km s-min=78.0km az=147.0,

INKA IAmb IAmb 09 25 00.4
comp=Z,6.4nm,0.5s
AS31 Alice Springs 26.58 227 P **P** **09 25 11.7 +0.5**
ASAR Alice Springs 26.58 227 P **P** **09 25 11.5 +0.3**
comp=Z,0.9nm,0.3s,baz=58,slow=9.2,SNR=27
ASAR PcP **PcP** **09 28 28.0 -3.8**
comp=Z,0.3nm,0.9s,baz=60,slow=4.6,SNR=1.7
comp=Z,0.9nm,0.3s
KNRA Kununurra 27.27 248 P **P** **09 25 16.2 -1.2**
KNRA IAmb IAmb 09 25 16.9
comp=Z,4.6nm,1.0s
STKA Stephens Creek 28.35 204 P **P** **09 25 25.7 -1.1**
comp=Z,2.1nm,0.7s,baz=56,slow=7.3,SNR=4.2
comp=Z,2.1nm,0.7s
STKA Stephens Creek 28.35 204 P **P** **09 25 27.4 +0.6**
FITZ Fitzroy Crossi 30.85 245 P **P** **09 25 49.1 0.0**
BBOO Buckleboo 31.70 211 P **P** **09 25 56.9 +0.5**
MBWA Marble Bar 37.10 243 P **P** **09 26 43.1 +0.1**
RTZ Ruatahuna 37.92 151 P **P** **09 26 50.6 +0.9**
KSRS Korea Array 50.24 332 P **P** **09 28 29.3 +1.6**
comp=Z,0.5nm,0.6s,baz=151,slow=6.5,SNR=1.6
comp=Z,0.5nm,0.6s
PETK Petropavlovsk- 59.19 2 P **P** **09 29 33.0 +1.2**
comp=Z,5.7nm,0.9s,baz=169,slow=5.0,SNR=4.7
comp=Z,5.7nm,0.9s
ZALV Zalesovo Beam 83.51 326 P **P** **09 31 59.2 +1.5**
comp=Z,0.4nm,0.4s,baz=105,slow=5.1,SNR=2.6
comp=Z,0.4nm,0.4s
ZALV Zalesovo Beam 83.51 326 P **P** **09 31 58.6 +0.9**
QSPA South Pole Qui 83.71 180 P **P** **09 31 56.6 -2.2**
comp=Z,0.6nm,0.4s,baz=14,slow=5.4,SNR=9.0
comp=Z,0.6nm,0.4s
QSPA South Pole Qui 83.71 180 P **P** **09 31 59.8 +1.0**
QSPA IAmb IAmb 09 32 00.2
comp=Z,1.2nm,0.7s
E24K Your Creek 83.97 18 P **P** **09 32 00.1 +0.2**
MAW Mawson 85.03 203 P **P** **09 32 06.8 +1.7**

STR 04 09:24:47.3±0.5, 45°N±3°×±°, h0km, MLv1.5/6, LOCSAT
earthModelID haslach_taup-2.4.5 preliminary, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LAJAS	**L'Hospitalet-d**	**0.56**	**186**	Pg	Pg	09 24 58.2	+0.2
LAJAS				Sg	Sg	09 25 05.3	0.0
LEUC	**Leucamp**	**0.58**	**294**	Pg	Pg	09 24 58.1	-0.3
LEUC				Sg	Sn	09 25 11.3	-1.8
SLVF	**La Salvetat-Pe**	**0.88**	**248**	Pg	Pg	09 25 03.1	-1.1
SLVF				Sg	Sg	09 25 16.6	+1.0
FRNF	**Fournols**	**1.00**	**329**	Pg	Pg	09 25 06.5	-0.1
FRNF				Sg	Sg	09 25 20.5	+0.9
VERF	**Verneugheol**	**1.35**	**335**	Pg	Pg	09 25 12.6	-0.6
VERF				Sg	Sg	09 25 30.9	+0.2
PLDF	**La Plantade**	**1.46**	**9**	Pg	Pn	09 25 14.5	-0.6
PLDF				Sg	Sg	09 25 33.9	-0.3

STR 04 09:25:03.4±1.8, 43°N±9°×±°, h0km, MLv2.1/7, LOCSAT
earthModelID alpes_taup-2.11 preliminary, Near south coast of France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARTF	**Artigues**	**0.49**	**345**	Pg	Pg	09 25 13.5	+0.6
ARTF				Sg	Sg	09 25 20.1	+0.8
ARTF	**Artigues**	**0.49**	**345**	Pg	Pg	09 25 13.4	+0.5
ARTF				Sg	Sb	09 25 21.1	-1.7
TRIGF	**Trigance**	**0.71**	**26**	Pg	Pg	09 25 16.9	-0.1
TRIGF	**Trigance**	**0.71**	**26**	Pn	Pg	09 25 16.9	0.0
TRIGF				Sg	Sb	09 25 30.5	+1.5
BSTF	**la Bastide-des**	**0.81**	**342**	Pg	Pg	09 25 17.9	-1.0
RUSF	**Rustrel**	**0.91**	**337**	Pg	Pg	09 25 20.2	-0.5
RUSF				Pn	Pb	09 25 22.1	0.0
RUSF	**Rustrel**	**0.91**	**337**	Pg	Pb	09 25 22.1	+0.1
SALSA	**La sagne**	**0.93**	**33**	Pg	Pg	09 25 19.8	-1.3
SALSA				Sg	Sg	09 25 34.1	+1.0
CALF	**Calern**	**0.94**	**46**	Pg	Pg	09 25 21.5	+0.2
CALF				Sg	Sn	09 25 37.9	-0.2
CALF	**Calern**	**0.94**	**46**	Pn	Pg	09 25 21.6	+0.3
ENAUX	**Enaux**	**1.15**	**30**	Pg	Pb	09 25 26.0	-0.3

JMA 04 09:29:51.5±0.1, 40.6°N±0.4×145.0°E±0.5, h16km, MV3.7/36,
FAR E OFF NORTH HONSHU, Off east coast of Honshu

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*IDC **04** 09:35:20.5±0.5,54.88°N×59.19°W, h0km, mb4.1/22, mbtmp4.2/26, ML4.0/4, MS3.4/6, Error ellipse: s-maj=12.8km s-min=9.3km az=162.0*
*DNK **04** 09:35:20.7±5.1,54.91°N×58.97°W, h0km±137km, ML3.1, Presumed earthquake*
*NEIC **04** 09:35:21.6±1.3,54.97°N±0.07°×59.3°W±0.1, h10km±1km, mb4.4/58, Error ellipse: s-maj=14.6km s-min=10.8km az=118.0*
*OTT **04** 09:35:23.3±0.1,55.12°N×59.10°W, h18km, M4.9/13, mB5.2/4, mb5.3/8, ML5.1/2, MLv4.8/6, MN4.7/13, MsBB4.8/5 OTT 5km northeast of Makkovik, NI, felt.*
ISC 04 09:35:21.5±0.4, 55.12°N±0.05×59.28°W±0.05, h10km, n201,
σ1s95/194, mb4.4/43, MS3.3/7, Labrador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NINL	**Nain**	**1.97**	**317**	P	**Pb**	**09 35 56.5**	**-0.9**
SCHQ	**Schefferville**	**4.36**	**269**	Pn	**Pn**	**09 36 28.6**	**+0.8**
	17nm,0.3s,baz=86,slow=8.8,SNR=162						
SCHQ				Sn	**Sn**	**09 37 18.4**	**-0.3**
	81nm,0.3s,baz=346,slow=18,SNR=12						
SCHQ				Lg	Lg	09 37 38.3	
	216nm,0.3s,baz=9.3,slow=17,SNR=8.8						
	42nm,0.4s						
SCHQ				AML	AML		
SCHQ	**Schefferville**	**4.36**	**269**	Pn	**Pn**	**09 36 28.2**	**+0.3**
SCHQ	**Schefferville**	**4.36**	**269**	P	**Pn**	**09 36 30.0**	**+2.2**
BJBQ	**Baie Johan-Bee**	**5.29**	**205**	P	**Pn**	**09 36 41.1**	**+0.6**
PCAQ	**Pointe Carleto**	**5.84**	**204**	P	**Pn**	**09 36 48.5**	**+0.5**
DRLN	**Deer Lake**	**5.97**	**169**		**Pn**	**09 36 47.8**	**-2.0**
DRLN	**Deer Lake**	**5.97**	**169**	P	**Pn**	**09 36 48.9**	**-0.9**
PMAQ	**Port Menier**	**6.13**	**212**	P	**Pn**	**09 36 52.4**	**+0.4**
SMQ	**Clarke City**	**6.66**	**225**	P	**Pn**	**09 36 59.0**	**+0.1**
ICQ	**Pointe Anglais**	**7.44**	**224**		**Pn**	**09 37 09.1**	**-0.8**
ICQ	**Pointe Anglais**	**7.44**	**224**	P	**Pn**	**09 37 09.8**	**-0.2**
SNFQ	**Sainte-Felicit**	**7.98**	**222**	P	**Pn**	**09 37 17.3**	**0.0**
CHEG	**Cheticamp, Nov**	**8.36**	**187**	P	**Pn**	**09 37 21.3**	**-1.4**
IVI	**Ivigtut**	**8.46**	**39**		**Pn**	**09 37 24.2**	**+0.2**
IVI	**Ivigtut**	**8.46**	**39**	*i* P	**Pn**	**09 37 24.3**	**+0.4**
IVI				*i* S	**Sn**	**09 38 52.7**	**-6.7**
IVI				IAML		09 38 55.3	
	comp=Z,55nm,0.3s						
LG4Q	**La Grande 4**	**8.78**	**266**	P	**Pn**	**09 37 27.4**	**-1.0**
BATG	**Bathurst New B**	**8.92**	**211**		**Pn**	**09 37 29.5**	**-0.8**
HSNB	**Heath Steele M**	**8.92**	**211**	P	**Pn**	**09 37 29.4**	**-1.0**
NRS	**Narsarsuaq**	**9.50**	**45**	Pn	**Pn**	**09 37 38.3**	**+0.2**
NRS	**Narsarsuaq**	**9.50**	**45**	*i* P	**Pn**	**09 37 38.0**	**-0.1**
NRS				*i* S	**Sn**	**09 39 17.3**	**-7.5**
NRS				IAML		09 39 24.4	
	comp=Z,26nm,0.5s						
BSCQ	**Baie-Sainte-Ca**	**9.54**	**227**	P	**Pn**	**09 37 38.0**	**-0.8**
CACQ	**Cacouna**	**9.59**	**226**	P	**Pn**	**09 37 39.0**	**-0.4**
GBN	**Guysborough**	**9.82**	**189**		**Pn**	**09 37 41.6**	**-1.0**
GBN	**Guysborough**	**9.82**	**189**	P	**Pn**	**09 37 41.6**	**-1.0**
A64	**Saint Simeon**	**9.85**	**227**	P	**Pn**	**09 37 42.0**	**-0.9**
FRB	**Frobisher Bay**	**9.85**	**335**	Pn	**Pn**	**09 37 43.1**	**+0.2**
	comp=Z,4.2nm,0.3s,baz=161,slow=10,SNR=22						
FRB				Sn	**Sn**	**09 39 31.3**	**-2.1**
	comp=Z,5.1nm,0.3s,baz=155,slow=7.8,SNR=3.8						
FRB				Lg	Lg	09 40 23.7	
	comp=Z,22nm,0.3s,baz=240,slow=20,SNR=14						
	comp=Z,18nm,0.5s						
FRB				AML	AML		
FRB	**Frobisher Bay**	**9.85**	**335**	*i* P	**Pn**	**09 37 44.5**	**+1.6**
FRB				*e*S	**Sn**	**09 39 27.2**	**-6.2**
NUUK	**Nuuk**	**9.85**	**20**	*i* P	**Pn**	**09 37 41.6**	**-1.4**
NUUK				*i* S	**Sn**	**09 39 26.6**	**-6.9**
NUUK				IAML		09 39 35.2	
	comp=Z,70nm,0.8s						
A21	**Saint Andre**	**9.86**	**225**	P	**Pn**	**09 37 42.5**	**-0.7**
LMN	**Caledonia Moun**	**9.92**	**203**		**Pn**	**09 37 43.1**	**-0.9**
LMN	**Caledonia Moun**	**9.92**	**203**	P	**Pn**	**09 37 42.5**	**-1.5**
HKNB	**Havelock Quarr**	**9.93**	**205**	P	**Pn**	**09 37 42.5**	**-1.6**
ELNB	**Elgin, New Bru**	**9.99**	**204**	P	**Pn**	**09 37 43.2**	**-1.8**
A61	**Sainte Mathild**	**10.03**	**227**	P	**Pn**	**09 37 44.7**	**-0.8**
D62A	**Allapoint, All**	**10.11**	**221**		**Pn**	**09 37 46.5**	**-0.1**
D62A	**Allapoint, All**	**10.11**	**221**	P	**Pn**	**09 37 46.7**	**0.0**
A16	**Riviere Ouelle**	**10.17**	**226**	P	**Pn**	**09 37 46.9**	**-0.6**
LMQ	**La Malbaie**	**10.25**	**227**		**Pn**	**09 37 47.5**	**-1.0**
LMQ	**La Malbaie**	**10.25**	**227**	P	**Pn**	**09 37 47.5**	**-1.0**
LDAQ	**Lac Daran**	**10.32**	**231**		**Pn**	**09 37 47.8**	**-1.8**
LDAQ	**Lac Daran**	**10.32**	**231**	P	**Pn**	**09 37 47.8**	**-1.8**
A54	**Misere**	**10.35**	**227**	P	**Pn**	**09 37 49.2**	**-0.7**
A11	**Saint Roch-des**	**10.44**	**225**	P	**Pn**	**09 37 50.4**	**-0.6**
E62A	**Clayton Lake**	**10.68**	**221**		**Pn**	**09 37 54.1**	**-0.3**
E62A	**Clayton Lake**	**10.68**	**221**	P	**Pn**	**09 37 53.8**	**-0.6**
MCNB	**McAdam**	**10.82**	**212**	P	**Pn**	**09 37 54.8**	**-1.5**
HAL	**Halifax**	**10.85**	**197**		**Pn**	**09 37 55.0**	**-1.7**
HAL	**Halifax**	**10.85**	**197**	P	**Pn**	**09 37 55.2**	**-1.5**
F64A	**Sherman**	**10.91**	**216**		**Pn**	**09 37 56.2**	**-1.3**
F64A	**Sherman**	**10.91**	**216**	P	**Pn**	**09 37 56.0**	**-1.5**
BCLQ	**Boischatel**	**11.09**	**227**	P	**Pn**	**09 37 58.9**	**-1.1**
GGN	**Saint George**	**11.12**	**209**		**Pn**	**09 37 59.3**	**-1.0**
GGN	**Saint George**	**11.12**	**209**	P	**Pn**	**09 37 59.5**	**-0.9**
G65A	**Princeton**	**11.25**	**211**		**Pn**	**09 38 00.6**	**-1.6**
G65A	**Princeton**	**11.25**	**211**	P	**Pn**	**09 38 00.2**	**-1.9**
EMMW	**East Machias**	**11.67**	**210**		**Pn**	**09 38 06.0**	**-1.9**
PKME	**Peaks-Kenny Pk**	**11.75**	**217**		**Pn**	**09 38 07.5**	**-1.6**
PKME	**Peaks-Kenny Pk**	**11.75**	**217**	P	**Pn**	**09 38 07.4**	**-1.6**
DPQ	**Saint Jean**	**11.98**	**231**	P	**Pn**	**09 38 09.7**	**-2.4**
G62A	**West of Eustis**	**12.24**	**221**		**Pn**	**09 38 14.5**	**-1.2**
G62A	**West of Eustis**	**12.24**	**221**	P	**Pn**	**09 38 15.1**	**-0.6**
WVL	**Waterville**	**12.49**	**217**		**Pn**	**09 38 17.7**	**-1.5**
SFJD	**Kangerlussuaq**	**12.62**	**16**	Pn	**Pn**	**09 38 21.2**	**+0.4**
	comp=Z,6.5nm,0.3s,baz=197,slow=12,SNR=28						
SFJD				Sn	**Sn**	**09 40 35.5**	**-5.6**
	comp=Z,0.2nm,0.3s,baz=191,slow=3.7,SNR=1.6						
	comp=Z,21nm,0.5s						
SFJD				AML	AML		
SFJD	**Kangerlussuaq**	**12.62**	**16**	Pn	**Pn**	**09 38 21.6**	**+0.8**
SFJD	**Kangerlussuaq**	**12.62**	**16**	*i* P	**Pn**	**09 38 21.0**	**+0.2**
MOQ	**Mont Orford**	**12.84**	**226**	P	**Pn**	**09 38 22.8**	**-1.2**
H62A	**Milan**	**13.02**	**221**		**Pn**	**09 38 24.6**	**-1.8**
H62A	**Milan**	**13.02**	**221**	P	**Pn**	**09 38 25.4**	**-0.9**
TRQ	**Mont Tremblant**	**13.13**	**234**		**Pn**	**09 38 25.2**	**-2.8**
TRQ	**Mont Tremblant**	**13.13**	**234**	P	**Pn**	**09 38 24.9**	**-3.1**
I63A	**Otisfield**	**13.26**	**218**	Pn	**Pn**	**09 38 27.9**	**-1.7**
MNTQ	**Montreal, Queb**	**13.26**	**229**		**Pn**	**09 38 27.2**	**-2.5**
GRQ	**Grand Remous**	**13.47**	**238**	P	**Pn**	**09 38 29.6**	**-2.9**
LBNH	**Lisbon**	**13.60**	**222**	Pn	**Pn**	**09 38 32.2**	**-2.0**
LBNH	**Lisbon**	**13.60**	**222**	P	**Pn**	**09 38 32.1**	**-2.1**
FLET	**Fletcher**	**13.60**	**226**		**Pn**	**09 38 33.3**	**-1.1**
FLET	**Fletcher**	**13.60**	**226**	P	**Pn**	**09 38 33.2**	**-1.2**
I62A	**Tamworth**	**13.69**	**220**		**Pn**	**09 38 34.1**	**-1.3**
FRNY	**Flat Rock**	**13.78**	**228**	P	**Pn**	**09 38 34.2**	**-2.5**
VT1	**Waterbury**	**13.84**	**224**		**Pn**	**09 38 37.2**	**-0.4**
GAC	**Glen Almond**	**13.95**	**234**	P	**Pn**	**09 38 35.8**	**-3.2**
HNH	**Hanover**	**14.19**	**222**	Pn	**Pn**	**09 38 41.0**	**-1.3**
UNH	**University of**	**14.20**	**217**	Pn	**Pn**	**09 38 40.3**	**-2.2**
MCVT	**Middlebury Col**	**14.25**	**224**		**Pn**	**09 38 41.9**	**-1.4**
LONY	**Lake Ozonia**	**14.38**	**229**		**Pn**	**09 38 41.6**	**-3.3**
LONY	**Lake Ozonia**	**14.38**	**229**	P	**Pn**	**09 38 41.8**	**-3.1**
WBO	**Williamsburg**	**14.39**	**232**		**Pn**	**09 38 42.5**	**-2.5**
J61A	**Chester**	**14.59**	**222**	Pn	**Pn**	**09 38 45.1**	**-2.8**
PEMO	**Pembroke**	**14.81**	**238**	P	**Pn**	**09 38 47.3**	**-3.5**
CFNY	**Clifton-Fine,**	**14.94**	**229**	Pn	**Pn**	**09 38 48.8**	**-3.8**
CFNY	**Clifton-Fine,**	**14.94**	**229**	P	**Pn**	**09 38 49.9**	**-2.7**
KIPQ	**Kipawa,Quebec**	**14.95**	**244**	P	**Pn**	**09 38 47.6**	**-5.0**
HRV	**Adam Dziewonsk**	**14.96**	**218**	Pn	**Pn**	**09 38 52.6**	**-0.2**
K62A	**Royalston**	**15.06**	**220**	Pn	**Pn**	**09 38 51.8**	**-2.4**
PLVO	**Plevna**	**15.19**	**236**	P	**Pn**	**09 38 53.2**	**-2.7**
J59A	**Piesco**	**15.27**	**227**		**Pn**	**09 38 55.1**	**-2.0**
J59A				IAmb	IAmb	09 39 01.9	
	comp=Z,15nm,0.7s						
DELO	**Deloro Mine**	**15.84**	**236**	Pn	**Pn**	**09 39 02.2**	**-2.2**
SUBO	**Sudbury**	**16.16**	**247**	P	**Pn**	**09 39 03.5**	**-5.0**
SADO	**Sadowa**	**16.39**	**239**	Pn	**Pn**	**09 39 05.8**	**-5.7**
	comp=Z,1.3nm,0.3s,baz=50,slow=11,SNR=6.9						
SADO				Sn	Sn	09 42 00.6	-13
	comp=Z,2.1nm,0.3s,baz=70,slow=14,SNR=6.7						
SADO				Lg	Lg	09 43 36.0	
	comp=Z,3.9nm,0.3s,baz=327,slow=22,SNR=9.0						
	comp=Z,3.7nm,0.3s						
SADO				AML	AML		
SADO	**Sadowa**	**16.39**	**239**	P	**Pn**	**09 39 07.1**	**-4.4**
ODNJ	**Ogdensburg**	**17.32**	**222**	P	**Pn**	**09 39 21.6**	**-1.6**
MMNY	**Mt. Morris Dam**	**17.35**	**232**	P	**P**	**09 39 22.7**	**-2.2**
MMNY				IAmb	IAmb	09 39 28.9	
	comp=Z,22nm,1.0s						
ILON	**Igloolik, Nuna**	**17.56**	**333**	P	**P**	**09 39 26.8**	**-0.2**
ILON				IAmb	IAmb	09 39 52.5	
	comp=Z,28nm,1.1s						
SUMG	**Summit**	**19.57**	**19**		**Pn**	**09 39 50.2**	**-0.6**
SUMG	**Summit**	**19.57**	**19**	*i* P	**Pn**	**09 39 53.8**	**+3.0**
TBO	**Thunder Bay**	**19.59**	**263**	P	**Pn**	**09 39 48.8**	**-2.0**
PAMR	**Moraine State**	**19.76**	**233**	P	**P**	**09 39 50.0**	**-1.5**
P57A	**Homestead Farm**	**20.05**	**226**	IAmb	IAmb	09 40 03.2	
	comp=Z,13nm,0.9s						
BLKN	**Baker Lake**	**20.39**	**312**	P	**P**	**09 39 58.0**	**-0.1**
BLKN				IAmb	IAmb	09 40 13.6	
	comp=Z,18nm,1.4s						
MCWV	**Mont Chateau**	**20.69**	**230**	P	**P**	**09 39 59.8**	**-1.7**
MCWV				IAmb	IAmb	09 40 27.0	
	comp=Z,15nm,1.1s						
O53A	**New Philadelph**	**20.83**	**234**	P	**P**	**09 40 00.7**	**-2.3**
Q56A	**Snyder Ridge,**	**20.91**	**228**	P	Pn	09 40 03.7	-2.8
Q56A				IAmb	IAmb	09 40 13.8	
	comp=Z,22nm,1.1s						
EYMN	**Ely**	**21.14**	**264**	P	**P**	**09 40 06.8**	**+0.4**
EYMN				IAmb	IAmb	09 40 12.6	
	comp=Z,7.4nm,0.6s						
EPLO	**Experimental L**	**21.56**	**270**	P	**P**	**09 40 10.0**	**-0.9**
EPLO				IAmb	IAmb	09 40 25.0	
	comp=Z,24nm,1.5s						
P52A	**Corning**	**21.74**	**234**	P	**P**	**09 40 11.9**	**-1.0**
P52A				IAmb	IAmb	09 40 19.7	
	comp=Z,11nm,0.9s						
TULEG	**Thule**	**21.80**	**354**	P	**P**	**09 40 14.4**	**+1.2**
E38A	**The Farm, Brul**	**21.91**	**261**	P	**P**	**09 40 13.9**	**-0.7**
E38A				IAmb	IAmb	09 40 17.6	
	comp=Z,10nm,0.6s						
G40A	**Rib Lake**	**21.94**	**256**	P	**P**	**09 40 14.7**	**-0.3**
G40A				IAmb	IAmb	09 40 34.4	
	comp=Z,24nm,1.4s						
R55A	**Marlinton**	**21.95**	**229**	P	**P**	**09 40 14.2**	**-1.0**
R55A				IAmb	IAmb	09 40 26.5	
	comp=Z,16nm,1.0s						
I42A	**Draeger Farm,**	**22.11**	**252**	P	**P**	**09 40 14.7**	**-2.0**
I42A				IAmb	IAmb	09 40 26.1	
	comp=Z,14nm,0.8s						
ULM	**Lac du Bonnet**	**22.53**	**273**	P	**P**	**09 40 20.6**	**-0.6**
	comp=Z,1.5nm,0.4s,baz=76,slow=12,SNR=5.8						
	comp=Z,1.5nm,0.4s						
ULM	**Lac du Bonnet**	**22.53**	**273**	P	**P**	**09 40 20.5**	**-0.7**
SPMN	**Marine on St.**	**23.43**	**259**		**P**	**09 40 30.2**	**-0.4**
AGMN	**Agassiz Nation**	**23.46**	**268**		**P**	**09 40 30.4**	**-0.5**
AGMN				IAmb	IAmb	09 40 55.7	
	comp=Z,10nm,1.1s						
V58A	**Windy Hill, Pi**	**23.66**	**223**	P	**P**	**09 40 31.0**	**-1.9**
V58A				IAmb	IAmb	09 40 41.1	
	comp=Z,9.8nm,0.9s						
S51A	**Beattyville**	**24.03**	**233**	P	**P**	**09 40 35.4**	**-1.0**
RES	**Resolute Bay**	**24.05**	**338**	P	**P**	**09 40 37.3**	**+1.0**
	comp=Z,2.2nm,0.6s,baz=150,slow=11,SNR=6.3						
RES				LR	LR	09 49 52.8	
	comp=Z,254nm,18.6s,baz=324,slow=36						
	comp=Z,2.2nm,0.6s						
RES	**Resolute Bay**	**24.05**	**338**	P	**P**	**09 40 37.5**	**+1.1**
RES				IAmb	IAmb	09 41 03.6	
	comp=Z,20nm,1.4s						
U54A	**Nelsons Funny**	**24.16**	**229**	P	**P**	**09 40 36.4**	**-1.3**
FFC	**Flin Flon**	**24.27**	**287**	P	**P**	**09 40 38.9**	**+0.4**
V55A	**Taylorsville**	**24.47**	**227**	P	**P**	**09 40 39.2**	**-1.3**
V55A				IAmb	IAmb	09 40 49.6	
	comp=Z,9.4nm,1.0s						
L40A	**Anamosa**	**24.59**	**251**	P	**P**	**09 40 42.1**	**+0.6**
L40A				IAmb	IAmb	09 40 43.8	
	comp=Z,11nm,1.0s						
TZTN	**Tazewell**	**24.90**	**232**	P	**P**	**09 40 43.5**	**-0.9**
T50A	**Nancy**	**25.11**	**234**	P	**P**	**09 40 45.8**	**-0.5**
T50A				IAmb	IAmb	09 40 48.9	
	comp=Z,17nm,1.4s						
TKL	**Tuckaleechee C**	**25.74**	**231**	Lg	Lg	09 48 41.4	
	comp=Z,0.2nm,0.3s,baz=9.8,slow=15,SNR=4.0						
ECSD	**EROS Data Cent**	**26.50**	**260**	P	**P**	**09 40 58.4**	**-0.4**
CCM	**Cathedral Cave**	**27.48**	**245**	P	**P**	**09 41 06.7**	**-0.9**
P38A	**Dawn**	**27.54**	**250**	P	**P**	**09 41 07.5**	**-0.8**
YKAW3	**Yellowknife Wh**	**28.75**	**308**	P	**P**	**09 41 19.8**	**+1.1**
YKAW3				IAmb	IAmb	09 41 23.2	
	comp=Z,11nm,1.1s						
YKA	**Yellowknife Ar**	**28.76**	**307**	P	**P**	**09 41 21.4**	**+2.6**
	comp=Z,1.0nm,0.7s,baz=75,slow=9.1,SNR=2.1						
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**28.76**	**307**	P	**P**	**09 41 19.6**	**+0.8**
HHAR	**Hobbs**	**30.23**	**246**	P	**P**	**09 41 31.3**	**-0.8**
HHAR				IAmb	IAmb	09 41 38.9	
	comp=Z,2.3nm,0.5s						
TUL3	**Leonard**	**31.48**	**248**	P	**P**	**09 41 42.7**	**-0.4**
A36M	**Sachs Harbour**	**31.72**	**327**		**P**	**09 41 46.0**	**+1.1**
SPITS	**Spitsbergen Ar**	**33.87**	**21**	P	**P**	**09 42 05.2**	**+1.4**
	comp=Z,18nm,1.2s,baz=276,slow=8.6,SNR=5.6						
	comp=Z,18nm,1.2s						
PDAR	**Pinedale Array**	**34.50**	**270**	P	**P**	**09 42 10.1**	**+0.3**
	comp=Z,1.1nm,0.6s,baz=64,slow=9.6,SNR=7.9						
	comp=Z,1.1nm,0.6s						
PV07	**Paradox Valley**	**36.82**	**264**	IAmb	IAmb	09 42 36.6	
	comp=Z,5.8nm,0.7s						
PV23	**Carpenter Ridg**	**37.02**	**264**	IAmb	IAmb	09 42 33.2	
	comp=Z,4.9nm,0.7s						
PV20	**West Nyswonger**	**37.07**	**264**	IAmb	IAmb	09 42 39.1	
	comp=Z,4.6nm,0.7s						
PV18	**Skein Mesa, Pa**	**37.10**	**264**	IAmb	IAmb	09 42 42.2	
	comp=Z,4.2nm,0.9s						
SJG	**San Juan**	**37.31**	**191**	LR	LR	09 55 28.0	
	comp=Z,34nm,21.4s,baz=104,slow=33						
OBIP	**Obispado Ponce**	**37.43**	**192**	P	**P**	**09 42 32.0**	**-2.6**
E27K	**Coleen River**	**38.01**	**323**	IAmb	IAmb	09 42 45.4	
	comp=Z,6.7nm,0.7s						
ARCES	**ARCESS Array B**	**38.32**	**34**	P	**P**	**09 42 42.6**	**+0.8**
	comp=Z,2.1nm,0.7s,baz=284,slow=6.6,SNR=7.2						
	comp=Z,2.1nm,0.7s						
ARCES	**ARCESS Array B**	**38.32**	**34**	P	**P**	**09 42 42.5**	**+0.7**
F26K	**Sheenjek River**	**39.09**	**323**	P	**P**	**09 42 50.5**	**+2.2**
F26K				IAmb	IAmb	09 42 55.2	
	comp=Z,4.2nm,0.6s						
D25K	**Kavik River**	**39.15**	**326**		**P**	**09 42 50.8**	**+2.0**
TXAR	**Lajitas Array**	**40.76**	**249**	P	**P**	**09 43 01.8**	**-0.8**
	comp=Z,0.4nm,0.5s,baz=60,slow=7.0,SNR=7.8						
	comp=Z,0.4nm,0.5s						
TXAR	**Lajitas Array**	**40.76**	**249**	P	**P**	**09 43 01.0**	**-1.6**
ILAR	**Eielson Array**	**41.43**	**320**	P	**P**	**09 43 10.1**	**+2.4**
	comp=Z,2.8nm,0.7s,baz=62,slow=7.4,SNR=26						
	comp=Z,2.8nm,0.7s						
ILAR	**Eielson Array**	**41.43**	**320**	P	**P**	**09 43 08.7**	**+1.1**
FINES	**FINESS Array B**	**42.25**	**45**	P	**P**	**09 43 15.5**	**+1.1**
	comp=Z,7.0nm,1.2s,baz=316,slow=11,SNR=8.2						
	comp=Z,7.0nm,1.2s						
FINES	**FINESS Array B**	**42.25**	**45**	P	**P**	**09 43 15.2**	**+0.8**
FIA1	**FINESS Array S**	**42.26**	**45**	P	**P**	**09 43 15.3**	**+0.9**
MZP	**Montezuma Peak**	**42.34**	**271**	P	**P**	**09 43 17.4**	**+1.7**
NVAR	**Mina Array Bea**	**42.37**	**272**	P	**P**	**09 43 17.0**	**+1.1**
	comp=Z,1.2nm,0.7s,baz=68,slow=6.1,SNR=7.3						
	comp=Z,1.2nm,0.7s						
NVAR	**Mina Array Bea**	**42.37**	**272**	P	**P**	**09 43 15.0**	**-0.9**
PNTR	**Pine Nut**	**42.66**	**274**		**P**	**09 43 20.5**	**+2.2**
SDV	**Santo Domingo**	**46.98**	**195**	LR	LR	10 02 56.5	
	comp=Z,32nm,21.5s,baz=302,slow=35						
AKASG	**Malin Array Be**	**50.12**	**56**	P	**P**	**09 44 17.1**	**+0.8**
	comp=Z,1.7nm,0.6s,baz=314,slow=7.6,SNR=5.9						
	comp=Z,1.7nm,0.6s						
MDP	**Montagnes des**	**50.15**	**171**	LR	LR	10 03 36.6	
	comp=Z,28nm,20.2s,baz=288,slow=34						
SEY	**Seymchan**	**59.73**	**344**	P	**P**	**09 45 27.1**	**+1.3**
	comp=Z,5.6nm,0.6s,baz=26,slow=5.7,SNR=4.4						
	comp=Z,5.6nm,0.6s						
BRTR	**Keskin Array B**	**60

KICM	**Kanaga Island**	**0.44**	**329**			**Pn**		**09 35 56.1**	**+0.6**
ADAG	**Mount Adagdak**	**0.46**	**18**			**Pn**		**09 35 56.1**	**+0.4**
ADAG						**Sn**		**09 36 04.3**	**+1.4**
GSTD	**Great Sitkin T**	**0.66**	**39**			**Pn**		**09 35 59.0**	**+0.2**
GSTD						**Sn**		**09 36 08.7**	**+0.7**
TAPA	**Tanaga Point A**	**0.67**	**294**			**Pn**		**09 35 59.2**	**+0.3**
TAPA						**Sn**		**09 36 08.7**	**+0.5**
GSSP	**Great Sitkin S**	**0.68**	**36**			**Pn**		**09 35 59.4**	**+0.4**
GSSP						**Sn**		**09 36 09.1**	**+0.8**
GSMY	**Great Sitkin M**	**0.69**	**43**			**Sn**		**09 36 09.2**	**+0.6**
TAFL	**Tanaga Flats**	**0.70**	**288**			**Sn**		**09 36 09.5**	**+0.8**
GSTR	**Great Sitkin T**	**0.73**	**41**			**Pn**		**09 36 00.2**	**+0.7**
GSTR						**Sn**		**09 36 10.2**	**+0.8**
TAFP	**Tanaga Falls P**	**0.80**	**297**			**Pn**		**09 36 01.2**	**+0.6**
TASE	**Tanaga Southea**	**0.81**	**292**			**Sn**		**09 36 12.5**	**+0.9**
TANO	**Tanaga North**	**0.89**	**295**			**Sn**		**09 36 15.1**	**+1.7**
GAEA	**Gareloi East**	**1.22**	**282**			**Pn**		**09 36 07.2**	**+0.9**
GALAA	**Gareloi Lava P**	**1.23**	**281**			**Pn**		**09 36 07.3**	**+0.9**
GAKI	**Gareloi-Kavalg**	**1.24**	**271**			**Pn**		**09 36 06.9**	**+0.4**
GAKI						**Sn**		**09 36 22.8**	**+0.8**
GANE	**Gareloi Northe**	**1.25**	**283**			**Sn**		**09 36 24.0**	**+1.9**
ATKA	**Atka Island**	**1.76**	**67**			**Pn**		**09 36 14.1**	**+0.5**
ATKA						**Sn**		**09 36 35.8**	**+1.1**
ATKA				IAML				09 36 39.3	
	comp=N,2µm,0.7s								
KOWE	**Korovin West**	**1.79**	**62**			**Pn**		**09 36 15.2**	**+1.0**
KOKL	**Mount Kliuchef**	**1.80**	**63**			**Pn**		**09 36 15.5**	**+1.2**
KOKL						**Sn**		**09 36 37.8**	**+1.9**
CEPE	**Semis' Perret**	**2.23**	**282**			**Pn**		**09 36 21.6**	**+1.4**
CERB	**Semis' Cerberu**	**2.24**	**281**			**Pn**		**09 36 21.5**	**+1.3**
AMKA	**Amchitka**	**2.43**	**268**	Pn		**Pn**		**09 36 23.3**	**+0.5**
AMKA				IAML				09 36 57.9	
	comp=N,1µm,0.5s								
LSPA	**Little Sitkin**	**2.89**	**280**			**Pn**		**09 36 30.8**	**+1.6**
LSSE	**Little Sitkin**	**2.89**	**280**			**Pn**		**09 36 31.1**	**+1.9**
LSNW	**Little Sitkin**	**2.93**	**280**			**Pn**		**09 36 30.8**	**+1.1**
CLES	**Cleveland East**	**4.45**	**71**	Pn		**Pn**		**09 36 51.3**	**+0.6**
CLES				IAML				09 38 01.4	
	comp=N,416nm,1.1s								
CLES				IAML				09 38 22.5	
	comp=E,347nm,1.1s								
OKNC	**Okmok New Cone**	**5.65**	**67**	Pn		**Pn**		**09 37 07.6**	**+0.5**
OKTU	**Okmok Mt. Tuli**	**5.68**	**68**			**Pn**		**09 37 08.4**	**+0.9**
SHEM	**Shemya Is, Ala**	**5.71**	**286**	P		**Pn**		**09 37 07.9**	**0.0**
	comp=E,72nm,0.6s,baz=70,slow=5.6,SNR=5.9								
SHEM				S		**Sn**		**09 38 11.8**	**-0.4**
	comp=E,48nm,0.8s,baz=90,slow=15,SNR=1.2								
SMY	**Shemya**	**5.71**	**286**	Pn		**Pn**		**09 37 08.0**	**0.0**
UNV	**Unalaska Valle**	**6.68**	**66**			**Pn**		**09 37 22.3**	**+1.1**
SPIA	**Saint Paul Isl**	**6.83**	**32**	Pn		**Pn**		**09 37 23.7**	**+0.6**
LVA	**Lava Point**	**7.04**	**64**	Pn		**Pn**		**09 37 26.2**	**0.0**
SDPT	**Sand Point**	**10.46**	**62**	Pn		**Pn**		**09 38 13.8**	**+0.8**
CNBA	**Chernabura Isl**	**10.85**	**66**	Pn		**Pn**		**09 38 18.6**	**+0.3**
CHGN	**Chignik**	**11.84**	**59**	Pn		**Pn**		**09 38 32.5**	**+0.7**
K13K	**Kusilvak Mount**	**12.34**	**28**	Pn		**Pn**		**09 38 38.2**	**-0.4**
ACHA	**Angle Creek He**	**14.02**	**53**	Pn		**Pn**		**09 39 01.0**	**-0.6**
J16K	**Anvik River**	**14.60**	**30**	Pn		**Pn**		**09 39 09.1**	**-0.2**
N18K	**Kilae Creek**	**14.77**	**44**	Pn		**Pn**		**09 39 11.1**	**-0.5**
OHAK	**Old Harbor**	**14.80**	**58**	Pn		**Pn**		**09 39 08.9**	**-3.2**
Q19K	**Cape Douglas,**	**15.09**	**52**	Pn		**Pn**		**09 39 16.3**	**+0.4**
KDAK	**Kodiak Island**	**15.30**	**56**	P		**Pn**		**09 39 16.2**	**-2.5**
	comp=E,3.5nm,0.3s,baz=122,slow=1.6,SNR=23								
KDAK				S		**Sn**		**09 42 03.8**	**-2.9**
	comp=E,5.9nm,1.0s,baz=353,slow=16,SNR=1.4								
KDAK				LR		LR		09 44 56.7	
	comp=E,131nm,18.2s,baz=262,slow=36								
KDAK	**Kodiak Island**	**15.30**	**56**			**Pn**		**09 39 16.4**	**-2.3**
PETK	**Petropavlovsk-**	**15.63**	**286**	P		**Pn**		**09 39 23.2**	**+0.2**
	comp=E,0.1nm,0.3s,baz=74,slow=10,SNR=1.5								
PETK				LR		LR		09 43 53.9	
	comp=E,11nm,21.5s,baz=73,slow=31								
	comp=E,2.6nm,0.9s								
PETK				AML		AML			
PETK	**Petropavlovsk-**	**15.63**	**286**	P		**Pn**		**09 39 23.1**	**+0.1**
L19K	**White Mountain**	**15.96**	**40**			**P**		**09 39 30.8**	**+0.5**
L19K				IAmb		IAmb		09 39 35.7	
	comp=Z,15nm,0.8s								
CNPM	**China Poot**	**16.45**	**51**	Pn		**Pn**		**09 39 34.2**	**+0.8**
CNPM				IAmb		IAmb		09 39 44.6	
	comp=Z,45nm,1.4s								
BRLK	**Bradley Lake**	**16.70**	**50**	Pn		**Pn**		**09 39 36.8**	**+0.2**
BRLK				IAmb		IAmb		09 39 59.4	
	comp=Z,36nm,1.3s								
STLK	**Strandline Lak**	**16.90**	**44**			**P**		**09 39 40.6**	**-0.2**
SKT	**Skwentna**	**17.23**	**43**			**P**		**09 39 46.0**	**+1.6**
SKT				IAmb		IAmb		09 39 52.2	
	comp=Z,17nm,0.9s								
SLKM	**Skilak Lake**	**17.25**	**48**			**P**		**09 39 44.3**	**-0.3**
SLKM				IAmb		IAmb		09 40 25.8	
	comp=Z,37nm,1.4s								
SUA	**Susitna One**	**17.36**	**45**			**Pn**		**09 39 45.6**	**+0.7**
SUA				IAmb		IAmb		09 39 50.0	
	comp=Z,21nm,1.4s								
PPLA	**Purkeypile**	**17.39**	**40**			**P**		**09 39 48.6**	**+2.3**
PPLA				IAmb		IAmb		09 39 59.6	
	comp=Z,26nm,1.2s								
RC01	**Rabbit Creek A**	**17.67**	**47**			**P**		**09 39 49.8**	**+0.5**
CAST	**Castle Rocks**	**17.69**	**38**			**P**		**09 39 51.0**	**+1.5**
KTH	**Kantishna Hill**	**18.21**	**39**			**Pn**		**09 39 56.9**	**+1.6**
KTH				IAmb		IAmb		09 39 57.4	
	comp=Z,17nm,1.0s								
BPAW	**Bear Paw Mtn.**	**18.46**	**37**			**Pn**		**09 39 59.1**	**+0.8**
MLY	**Manley**	**19.05**	**35**	P		**Pn**		**09 40 06.1**	**+0.7**
MCK	**McKinley**	**19.08**	**40**			**Pn**		**09 40 06.7**	**+0.9**
DHY	**Denali Highway**	**19.44**	**42**	P		**P**		**09 40 09.5**	**+0.7**
DHY				IAmb		IAmb		09 40 16.1	
	comp=Z,11nm,0.6s								
CCB	**Clear Creek Bu**	**19.94**	**38**			**P**		**09 40 14.6**	**+0.6**
SEY	**Seymchan**	**19.96**	**317**	P		**P**		**09 40 12.9**	**-1.4**
	comp=Z,0.1nm,0.3s,baz=115,slow=16,SNR=2.2								
	comp=Z,3.0nm,0.9s								
SEY				AML		AML			
HDA	**Harding Lake**	**20.16**	**39**	P		**P**		**09 40 17.6**	**+1.1**
HDA				IAmb		IAmb		09 40 23.2	
	comp=Z,6.3nm,0.6s								
PAX	**Paxson**	**20.21**	**43**	P		Pn		09 40 18.8	-0.5
ILAR	**Eielson Array**	**20.35**	**38**	P		**P**		**09 40 17.9**	**-0.5**
	comp=Z,0.6nm,0.5s,baz=223,slow=9.8,SNR=12								
ILAR				LR		LR		09 47 40.5	
	comp=Z,52nm,19.4s,baz=84,slow=35								
ILAR				ScP		**ScP**		**09 48 00.1**	**-2.9**
	comp=Z,0.4nm,0.6s,baz=236,slow=2.1,SNR=5.7								
	comp=Z,0.6nm,0.5s								
K24K	**Donnelly Dome**	**20.39**	**41**	IAmb		IAmb		09 40 40.8	
	comp=Z,11nm,0.8s								
H24K	**Noodor Dome**	**20.49**	**35**	IAmb		IAmb		09 40 27.4	
	comp=Z,18nm,1.5s								
RIDG	**Independent Ri**	**20.75**	**42**	P		**P**		**09 40 23.1**	**+0.2**
RIDG				IAmb		IAmb		09 40 44.1	
	comp=Z,6.3nm,0.8s								
DOT	**Dot Lake**	**21.04**	**42**	P		**P**		**09 40 26.2**	**+0.2**
DOT				IAmb		IAmb		09 40 43.9	
	comp=Z,9.4nm,0.7s								
BMAR	**Burnt Mountain**	**22.42**	**33**	P		**P**		**09 40 41.2**	**+0.4**
DAWY	**Dawson**	**23.14**	**43**	P		**P**		**09 40 48.6**	**+0.3**
C26K	**Camden Bay**	**23.64**	**27**	P		**P**		**09 40 53.7**	**+0.7**
C26K				IAmb		IAmb		09 41 05.7	
	comp=Z,10nm,0.9s								
I29M	**Ogilvie Camp,**	**23.95**	**40**	IAmb		IAmb		09 40 55.9	
	comp=Z,5.7nm,0.8s								
F28M	**Old Crow**	**24.13**	**34**	P		**P**		**09 40 58.1**	**+0.4**
I30M	**Mount Dempster**	**24.69**	**41**	IAmb		IAmb		09 41 39.6	
	comp=Z,13nm,1.4s								
INK	**Inuvik**	**26.61**	**35**	P		**P**		**09 41 20.0**	**-0.1**
TIXI	**Tiksi**	**31.10**	**330**	LR		LR		09 54 56.5	
	comp=Z,30nm,18.5s,baz=22,slow=37								
KLR	**Kul'dur**	**32.32**	**287**	P		**P**		**09 42 09.1**	**-1.8**
	comp=Z,1.0nm,0.6s,baz=65,slow=8.9,SNR=2.1								
	comp=Z,1.0nm,0.6s								
H11N2	**WAKE ISLAND Hy**	**34.23**	**208**	T		T		10 18 47.8	
	baz=18,slow=76,SNR=1260								
H11N3	**WAKE ISLAND Hy**	**34.24**	**208**	T		T		10 18 51.2	
	baz=18,slow=76,SNR=1560								
H11N1	**WAKE ISLAND Hy**	**34.25**	**208**	T		T		10 18 49.5	
	baz=18,slow=76,SNR=1379								
H11S1	**WAKE ISLAND Hy**	**35.44**	**208**	T		T		10 20 22.1	
	baz=18,slow=76,SNR=1141								
H11S2	**WAKE ISLAND Hy**	**35.46**	**208**	T		T		10 20 22.1	
	baz=18,slow=76,SNR=678								
H11S3	**WAKE ISLAND Hy**	**35.46**	**208**	T		T		10 20 21.0	
	baz=18,slow=76,SNR=696								
WAH2	**Wahluke Slope**	**36.93**	**74**	IAmb		IAmb		09 43 21.3	
	comp=Z,6.8nm,1.1s								
HAWA	**Hanford**	**37.13**	**75**	IAmb		IAmb		09 42 55.6	
	comp=Z,7.3nm,0.8s								
NEW	**Newport**	**37.66**	**71**	P		**P**		**09 42 57.6**	**+0.6**
	comp=Z,9.2nm,0.6s,baz=302,slow=7.0,SNR=26								
	comp=Z,9.2nm,0.6s								
MOD	**Modoc Plateau**	**39.03**	**81**			**P**		**09 43 09.3**	**+0.6**
WVOR	**Wild Horse Val**	**39.76**	**80**	IAmb		IAmb		09 43 18.4	
	comp=Z,5.2nm,0.7s								
MSO	**Missoula**	**40.25**	**71**			**P**		**09 43 19.2**	**+0.5**
MSO				IAmb		IAmb		09 43 20.1	
	comp=Z,5.3nm,0.8s								
MPK	**Martis Peak**	**40.71**	**85**	IAmb		IAmb		09 43 25.4	
	comp=Z,4.2nm,0.8s								
PAHR	**Pah Rah Range**	**40.87**	**84**	IAmb		IAmb		09 43 26.4	
	comp=Z,3.8nm,0.7s								
YERR	**Yerington**	**41.39**	**84**	IAmb		IAmb		09 43 30.8	
	comp=Z,3.5nm,0.7s								
WAKR	**Walker**	**41.55**	**85**	P		**P**		**09 43 31.8**	**+2.1**
WAKR				IAmb		IAmb		09 43 32.8	
	comp=Z,3.7nm,0.8s								
BCYI	**Bear Canyon**	**41.90**	**74**	IAmb		IAmb		09 43 34.2	
	comp=Z,5.2nm,0.6s								
BOZ	**Bozeman (W)**	**42.26**	**71**	IAmb		IAmb		09 43 36.8	
	comp=Z,6.7nm,0.8s								
NVAR	**Mina Array Bea**	**42.30**	**84**	P		**P**		**09 43 37.3**	**+1.5**
	comp=Z,1.8nm,0.7s,baz=286,slow=7.9,SNR=11								
NVAR				PcP		**PcP**		**09 45 28.0**	**-0.9**
	comp=Z,0.6nm,0.7s,baz=328,slow=3.9,SNR=2.9								
	comp=Z,1.8nm,0.7s								
YHL	**Hebgen Lake**	**42.93**	**72**	IAmb		IAmb		09 43 42.5	
	comp=Z,9.6nm,1.1s								
YHB	**Horse Butte**	**42.98**	**72**	IAmb		IAmb		09 43 43.4	
	comp=Z,4.0nm,0.9s								
YHH	**Holmes Hill**	**43.16**	**72**	IAmb		IAmb		09 43 45.2	
	comp=Z,8.4nm,0.9s								
YNR	**Norris Junctio**	**43.30**	**72**	IAmb		IAmb		09 43 46.5	
	comp=Z,5.8nm,0.7s								
H17A	**Grant Village**	**43.54**	**72**	IAmb		IAmb		09 43 49.1	
	comp=Z,16nm,1.3s								
HVU	**Hansel Valley**	**43.71**	**77**	IAmb		IAmb		09 43 48.9	
	comp=Z,1.8nm,0.5s								
RLMT	**Red Lodge**	**43.91**	**71**	IAmb		IAmb		09 43 51.3	
	comp=Z,12nm,0.9s								
FURC	**Furnace Creek,**	**44.42**	**86**	IAmb		IAmb		09 43 55.4	
	comp=Z,4.7nm,0.8s								
TPNV	**Topopah Spring**	**44.50**	**85**	P		**P**		**09 43 55.0**	**+1.6**
TPNV				IAmb		IAmb		09 43 56.0	
	comp=Z,7.5nm,0.7s								
DUG	**Dugway, Tooele**	**44.63**	**79**	IAmb		IAmb		09 43 58.8	
	comp=Z,9.1nm,1.4s								
QSM	**Queen of Sheba**	**44.74**	**86**	IAmb		IAmb		09 43 57.8	
	comp=Z,7.4nm,1.2s								
PRN	**Pahroc Range**	**44.96**	**83**	IAmb		IAmb		09 43 59.4	
	comp=Z,5.7nm,0.7s								
PDAR	**Pinedale Array**	**45.08**	**74**	P		**P**		**09 43 58.8**	**+0.7**
	comp=Z,3.9nm,0.5s,baz=311,slow=3.7,SNR=33								
	comp=Z,3.9nm,0.5s								
PDAR	**Pinedale Array**	**45.08**	**74**	P		**P**		**09 43 58.6**	**+0.5**
GSC	**Goldstone, Bar**	**45.20**	**87**	IAmb		IAmb		09 44 01.0	
	comp=Z,4.8nm,0.7s								
BFSC	**Mount Baldy Ra**	**45.36**	**89**	IAmb		IAmb		09 44 02.4	
	comp=Z,3.9nm,0.6s								
MPU	**Maple Canyon**	**45.46**	**78**	IAmb		IAmb		09 44 02.9	
	comp=Z,2.0nm,0.6s								
TCRU	**Three Creeks R**	**45.82**	**80**	IAmb		IAmb		09 44 06.4	
	comp=Z,6.1nm,0.8s								
MTPC	**Mountain Pass**	**45.87**	**86**	IAmb		IAmb		09 44 06.2	
	comp=Z,2.5nm,0.6s								
TMUT	**Trail Mountain**	**46.15**	**79**	IAmb		IAmb		09 44 11.6	
	comp=Z,2.1nm,0.8s								
LCMT	**Little Creek M**	**46.33**	**82**	IAmb		IAmb		09 44 39.8	
	comp=Z,6.2nm,1.4s								
SRU	**San Rafael Swe**	**46.69**	**78**	IAmb		IAmb		09 44 13.6	
	comp=Z,3.6nm,0.9s								
W13A	**Hualapai Mount**	**47.15**	**85**	IAmb		IAmb		09 44 16.3	
	comp=Z,3.1nm,0.7s								
O20A	**White River Ci**	**47.45**	**76**	IAmb		IAmb		09 44 32.2	
	comp=Z,1.6nm,0.6s								
PV14	**Lion Creek, Pa**	**48.06**	**78**	IAmb		IAmb		09 44 26.7	
	comp=Z,4.5nm,1.0s								
PV22	**Blue Mesa, Par**	**48.11**	**78**	P		**P**		**09 44 22.4**	**+0.6**
PV22				IAmb		IAmb		09 44 24.6	
	comp=Z,8.8nm,1.2s								
PV20	**West Nyswonger**	**48.12**	**78**	IAmb		IAmb		09 44 23.8	
	comp=Z,8.1nm,1.0s								
PV18	**Skein Mesa, Pa**	**48.21**	**78**	P		**P**		**09 44 23.8**	**+1.2**
PV18				IAmb		IAmb		09 44 44.5	
	comp=Z,9.7nm,1.3s								
PV07	**Paradox Valley**	**48.25**	**78**	IAmb		IAmb		09 44 49.7	
	comp=Z,6.1nm,1.3s								
ULM	**Lac du Bonnet**	**48.55**	**58**	P		**P**		**09 44 23.0**	**-1.8**
	comp=Z,9.8nm,0.6s,baz=309,slow=7.8,SNR=6.7								
	comp=Z,9.8nm,0.6s								
HHC	**Hu-ho-hao-te**	**48.83**	**287**	*e*P		**P**		**09 44 27.1**	**-0.1**
HHC				pmax		pmax			
	comp=Z,8.0nm,0.6s								
HHC				pmax		pmax			
	comp=Z,250nm,5.6s								
T25A	**Trinidad**	**51.66**	**76**	IAmb		IAmb		09 45 19.2	
	comp=Z,5.2nm,1.2s								
Y22A	**Socorro**	**52.21**	**81**	IAmb		IAmb		09 44 55.1	
	comp=Z,2.9nm,0.6s								
MNTX	**Cornudas Mount**	**54.70**	**82**	IAmb		IAmb		09 45 13.0	
	comp=Z,2.3nm,0.8s								
VHRN	**Van Horn**	**55.58**	**82**	IAmb		IAmb		09 45 20.2	
	comp=Z,1.2nm,0.5s								
TX31	**Lajitas Ar. Si**	**57.41**	**83**	IAmb		IAmb		09 45 31.7	
	comp=Z,2.5nm,0.6s								
TXAR	**Lajitas Array**	**57.41**	**83**	P		**P**		**09 45 31.0**	**+0.6**
	comp=Z,1.9nm,0.5s,baz=307,slow=6.0,SNR=28								
	comp=Z,1.9nm,0.5s								
TXAR	**Lajitas Array**	**57.41**	**83**	P		**P**		**09 45 31.1**	**+0.7**
W35A	**Tecumseh**	**57.52**	**73**	P		**P**		**09 45 31.8**	**+0.7**
MIAR	**Mount Ida**	**59.90**	**71**	P		**P**		**09 45 47.9**	**+0.3**
WRA	**Warramunga Arr**	**83.00**	**226**	P		**P**		**09 48 06.8**	**-0.1**
	comp=Z,0.6nm,0.7s,baz=28,slow=5.5,SNR=2.2								
	comp=Z,0.6nm,0.7s								
ASAR	**Alice Springs**	**86.46**	**224**	P		**P**		**09 48 24.8**	**+0.6**
	comp=Z,1.1nm,0.8s,baz=36,slow=4.4,SNR=4.7								
	comp=Z,1.1nm,0.8s								
STKA	**Stephens Creek**	**90.75**	**214**	P		**P**		**09 48 44.9**	**+0.6**
	comp=Z,1.8nm,0.6s,baz=3.3,slow=6.5,SNR=3.1								
	comp=Z,1.8nm,0.6s								
LBTB	**Lobatse**	**148.45**	**319**	PKPbc		**PKPbc**		**09 55 27.8**	**-0.4**
	comp=Z,1.4nm,0.4s,baz=27,slow=2.8,SNR=3.0								
LBTB	**Lobatse**	**148.45**	**319**			**PKPbc**		**09 55 28.5**	**+0.4**
BOSA	**Boshof**	**151.75**	**316**	PKPbc		**PKPbc**		**09 55 35.0**	**-1.1**
	comp=Z,1.9nm,0.5s,baz=34,slow=3.0,SNR=10.0								
BOSA	**Boshof**	**151.75**	**316**			**PKPbc**		**09 55 35.9**	**-0.1**

*NEIC **04** 09:38:11.4±0.6, 17°.7S±0°.1×178°.2W±0°.1, h599km±10km, mb4.6/38, Error ellipse: s-maj=20.7km s-min=17.9km az=57.0*

*IDC **04** 09:38:12.2±3.7, 17°.74S×178°.46W, h582km±36km, mb3.5/5, mbtmp4.4/5, Error ellipse: s-maj=30.9km s-min=21.3km az=59.0*

*GFZ **04** 09:38:12.4±0.6, 18°.S±6°.×17°.8W±°, h599km±5km, M4.6/24, mb4.6/24, Error ellipse: s-maj=14.5km s-min=11.5km az=53.6, confirmed*

ISC 04 09:38:11.6±0.6, 17°.75S±0°.09×178°.21W±0°.09, h600km, n101, σ0.98/104, mb4.5/49, 1C-3D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time			Res
				Op	ISC	h	m	s	ISC
MSVF	**Nonsavu**	**3.56**	**270**	P	**P**	**09**	**39**	**35.2**	**+1.0**
MSVF	**Nonsavu**	**3.56**	**270**	P	**P**	**09**	**39**	**35.3**	**+1.0**
NIUE	**Niue**	**7.97**	**101**	P	**P**	**09**	**40**	**08.4**	**-2.3**
FUNA	**Funafuti**	**9.51**	**344**	P	**P**	**09**	**40**	**26.0**	**+0.3**
FUNA	**Funafuti**	**9.51**	**344**	P	**P**	**09**	**40**	**25.9**	**+0.2**
	comp=Z,85nm,1.0s								
MARNC	**Mare, Loyalty**	**13.48**	**252**	P	**P**	**09**	**41**	**03.4**	**-2.0**
MARNC	**Mare, Loyalty**	**13.48**	**252**		**P**	**09**	**41**	**03.3**	**-2.0**
SANVU	**Saraoutou**	**14.17**	**277**		**P**	**09**	**41**	**11.9**	**-0.3**
SANVU	**Saraoutou**	**14.17**	**277**	P	**P**	**09**	**41**	**12.1**	**-0.1**
	comp=Z,52nm,0.6s								
PINNC	**Pines Island,**	**14.31**	**248**	P	**P**	**09**	**41**	**11.9**	**-1.5**
OUENC	**Ouen Island, N**	**14.79**	**249**	P	**P**	**09**	**41**	**17.6**	**-0.3**
OUENC	**Ouen Island, N**	**14.79**	**249**		**P**	**09**	**41**	**16.9**	**-1.0**
ONTNC	**Ouen Toro**	**15.11**	**250**	P	**P**	**09**	**41**	**20.9**	**+0.1**
ONTNC	**Ouen Toro**	**15.11**	**250**	P	**P**	**09**	**41**	**20.4**	**-0.4**
ONTNC				IAmb	IAmb	09	41	23.3	
	comp=Z,22nm,0.8s								
NOUC	**Port Laguerre**	**15.19**	**251**	P	**P**	**09**	**41**	**21.1**	**-0.4**
URZ	**Urewera**	**20.84**	**190**	P	**P**	**09**	**42**	**10.7**	**-2.0**
	comp=Z,18nm,1.2s								
EIDS	**Eidsvold**	**29.50**	**250**		**P**	**09**	**43**	**28.6**	**-0.6**
EIDS				IAmb	IAmb	09	43	29.3	
	comp=Z,8.8nm,0.6s								
EIDS	**Eidsvold**	**29.50**	**250**	P	**P**	**09**	**43**	**28.4**	**-0.7**
	comp=Z,14nm,1.1s								
ARMA	**Armidale**	**30.18**	**240**	P	**P**	**09**	**43**	**35.4**	**+0.4**
ARMA				IAmb	IAmb	09	43	36.3	
	comp=Z,11nm,0.7s								
ARMA	**Armidale**	**30.18**	**240**	P	**P**	**09**	**43**	**35.5**	**+0.4**
	comp=Z,19nm,1.0s								
WHZ	**Wether Hill Ro**	**30.33**	**199**	P	**P**	**09**	**43**	**35.4**	**-0.5**
CTAO	**Charters Tower**	**33.66**	**260**		**P**	**09**	**44**	**04.2**	**-0.4**
CTAO				IAmb	IAmb	09	44	05.0	
	comp=Z,13nm,0.8s								
CTAO	**Charters Tower**	**33.66**	**260**	P	**P**	**09**	**44**	**04.0**	**-0.5**
	comp=Z,20nm,0.7s								
CAN	**Canberra**	**33.95**	**232**	P	**P**	**09**	**44**	**07.5**	**+0.7**
CAN				IAmb	IAmb	09	44	08.1	
	comp=Z,11nm,0.9s								
CAN	**Canberra**	**33.95**	**232**	P	**P**	**09**	**44**	**07.4**	**+0.6**
	comp=Z,18nm,1.4s								
PMG	**Port Moresby**	**34.62**	**279**		**P**	**09**	**44**	**11.7**	**-0.9**
PMG	**Port Moresby**	**34.62**	**279**	P	**P**	**09**	**44**	**13.7**	**+1.1**
	comp=Z,67nm,0.9s								
CMSA	**Cobar Meteorol**	**35.39**	**240**	P	**P**	**09**	**44**	**19.1**	**+0.3**
	comp=Z,24nm,1.0s								
MTSU	**Mount Surprise**	**35.61**	**263**	P	**P**	**09**	**44**	**19.7**	**-1.1**
	comp=Z,10nm,0.6s								
QLP	**Quilpie**	**35.77**	**249**	P	**P**	**09**	**44**	**21.9**	**-0.1**
	comp=Z,62nm,0.6s								
COEN	**Coen**	**37.29**	**270**	P	**P**	**09**	**44**	**33.4**	**-1.2**
TOO	**Toolangi**	**37.41**	**231**	P	**P**	**09**	**44**	**35.4**	**+0.1**
TOO				IAmb	IAmb	09	44	37.3	
	comp=Z,17nm,1.2s								
STKA	**Stephens Creek**	**38.87**	**241**	P	**P**	**09**	**44**	**47.4**	**+0.3**
	comp=Z,11nm,0.5s,baz=93,slow=6.4,SNR=26								
	comp=Z,11nm,0.5s								
STKA	**Stephens Creek**	**38.87**	**241**		**P**	**09**	**44**	**47.4**	**+0.3**
STKA	**Stephens Creek**	**38.87**	**241**	P	**P**	**09**	**44**	**48.0**	**+0.9**
	comp=Z,109nm,0.9s								
INKA	**Innaminka**	**38.98**	**248**		**P**	**09**	**44**	**48.3**	**+0.3**
INKA				IAmb	IAmb	09	44	49.8	
	comp=Z,8.8nm,0.8s								
QIS	**Mount Isa**	**39.87**	**259**	P	**P**	**09**	**44**	**54.5**	**-0.8**
	comp=Z,5.5nm,1.3s								
JAY	**Jayapura**	**43.05**	**286**	P	**P**	**09**	**45**	**21.3**	**+0.9**
	comp=Z,25nm,0.9s								
BBOO	**Buckleboo**	**43.65**	**241**	P	**P**	**09**	**45**	**24.9**	**+0.2**
BBOO				IAmb	IAmb	09	45	25.6	
	comp=Z,23nm,0.9s								
BBOO	**Buckleboo**	**43.65**	**241**	P	**P**

LZH	**Lanzhou**	**90.95**	**308**	*e*P	**P**	09 50 12.4	-0.6
LZH				pmax	pmax		
	comp=Z,37nm,1.0s						
VNA2	**Neumayer--Watz**	**91.32**	**177**	⇑P	**P**	09 50 16.0	+2.1
	comp=Z,2.2nm,0.5s,slow=4.8						
VNA2	**Neumayer--Watz**	**91.32**	**177**	P	**P**	09 50 15.8	+1.9
	comp=Z,5.7nm,0.8s						
CO02	**Combarbal**	**94.90**	**125**	P	**P**	09 50 30.9	-0.3
	comp=Z,15nm,2.6s						
BRTR	**Keskin Array B**	**144.81**	**315**	PKP	**PKPab**	09 56 43.7	+0.5
	comp=Z,2.6nm,0.9s,baz=107,slow=3.7,SNR=9.0						
CLL	**Collm**	**145.35**	**348**	*i* PKPbc	**PKiKP**	09 56 45.2	-1.0
GERES	**GERESS Array B**	**147.51**	**345**	PKPbc	**PKiKP**	09 56 51.0	+0.2
	comp=Z,1.5nm,0.5s,baz=26,slow=2.7,SNR=10						
GERES	**GERESS Array B**	**147.51**	**345**		**PKPab**	09 56 51.6	-2.0

*GII **04** 09:56:46.2±0.0,31.982N±0.003×36.181E±0.001,h0km, confirmed*
*JSO **04** 09:56:47.4±0.5,32.7N±5.3×6.6E±.,h0km,M2.9/6,MLv2.9/6*
ISC 04 09:56:47.8±1.5,31.98N±0.04×36.11E±0.04,h0km,n11,
σ0s47/19,Dead Sea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HSUJ	**Al Zarqa**	**0.14**	**30**	P	**Pg**	**09 56 50.7**	**+0.2**
HSUJ				AML	AML		
RGMN	**Argaman**	**0.53**	**291**	P	**Pg**	**09 56 58.7**	**+0.7**
RGMN				S	**Sb**	**09 57 08.5**	**+0.3**
ALMO	**Almog**	**0.58**	**251**	P	**Pg**	**09 56 59.3**	**+0.3**
ALMO				S	**Sb**	**09 57 09.6**	**-0.1**
YITV	**Yitav**	**0.58**	**267**	P	**Pg**	**09 56 59.1**	**+0.1**
YITV				S	**Sb**	**09 57 09.8**	**+0.1**
ROII	**Roi**	**0.59**	**297**	P	**Pg**	**09 56 59.3**	**+0.2**
ROII				S	**Sb**	**09 57 10.0**	**+0.1**
ASF	**Jabal al Asfar**	**0.66**	**73**	P	**Pg**	**09 57 00.9**	**-0.2**
ASF				AML	AML		
MMLI	**Mount Malkishu**	**0.74**	**308**	P	**Pg**	**09 57 01.7**	**-0.2**
MMLI				S	**Sb**	**09 57 14.4**	**+0.1**
SALP	**Salfit**	**0.79**	**277**	P	**Pg**	**09 57 01.4**	**-1.4**
SALP				AML	AML		
MSBI	**Mazada**	**0.93**	**224**	P	**Pg**	**09 57 05.2**	**-0.3**
MSBI				S	**Sb**	**09 57 20.1**	**+0.6**
KNHM	**Kefar Nahum**	**1.00**	**334**	P	**Pg**	**09 57 07.0**	**-0.1**
KNHM				S	**Sb**	**09 57 21.6**	**-0.3**
MMA0B	**Mount Meron ar**	**1.19**	**330**	P	**Pg**	**09 57 10.5**	**-0.2**
MMA0B				S	**Sb**	**09 57 27.5**	**+0.2**

ISK 04 10:08:45.5,37.28N×28.12E,h0km,ML1.7/9,Suspected Mining explosion., Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YER	**Yerkesik**	**0.20**	**138**	Pg	Pg	10 08 50.2	+1.0
YER				AML	AML		
MLSB	**Milas**	**0.27**	**273**	Pg	Pg	10 08 51.8	+1.0
MLSB				Sg	Sg	10 08 56.3	+2.0
MLSB				AML	AML		
TURN	**Turunc**	**0.51**	**169**	Pg	Pg	10 08 56.2	+0.9
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**0.63**	**137**	Pg	Pb	10 08 58.7	-0.6
DALY				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.69**	**345**	Pg	Pg	10 08 59.5	+0.8
AYDB				AML	AML		
DAT	**Datca**	**0.70**	**218**	Pg	Pg	10 08 59.7	+0.8
DAT				AML	AML		
APMY	**Acipayam-Deniz**	**0.96**	**78**	Pg	Pb	10 09 04.6	-0.5
CAME	**Cameli-Denizli**	**1.00**	**109**	Pg	Pb	10 09 05.5	-0.3
CAME				AML	AML		
FETY	**Fethiye**	**1.00**	**130**	Pg	Pb	10 09 05.5	-0.3

AFAD 04 10:08:54.2,37.74N×27.02E,h7km±3km,ML1.6,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.17**	**102**	P	Pg	10 08 57.7	0.0
GCAM				IAML		10 09 00.0	
	comp=N,233nm,0.7s						
GCAM				S	Sg	10 09 00.6	+0.5
GCAM				IAML		10 09 01.0	
	comp=E,311nm,0.2s						
DDIM	**Aydin, Didim**	**0.33**	**148**	P	Pg	10 09 00.6	0.0
DDIM				S	Sg	10 09 04.5	-0.4
DDIM				IAML		10 09 13.0	
	comp=E,128nm,1.5s						
DDIM				IAML		10 09 17.0	
	comp=N,110nm,1.5s						
DGB	**zmir**	**0.34**	**341**	P	Pg	10 09 00.7	0.0
DGB				S	Sg	10 09 04.7	-0.5
DGB				IAML		10 09 06.0	
	comp=E,56nm,0.2s						
DGB				IAML		10 09 06.0	
	comp=N,46nm,0.4s						
BEYE	**izmir**	**0.50**	**351**	P	Pg	10 09 04.1	+0.2
BEYE				S	Sg	10 09 10.3	0.0
BEYE				IAML		10 09 11.0	
	comp=E,56nm,0.2s						
BEYE				IAML		10 09 14.0	
	comp=N,27nm,0.3s						
DUVT	**Torbali**	**0.59**	**35**	P	Pg	10 09 05.5	-0.1
DUVT				IAML		10 09 12.0	
	comp=E,38nm,0.7s						
DUVT				S	Sg	10 09 12.4	-0.9

*AFAD **04** 10:19:33.2,37.72N×27.03E,h15km±1km,ML2.2*
*ISK **04** 10:19:33.9,37.72N×27.02E,h5km,ML2.4/17*
*THE **04** 10:19:34.2,38.1N±1.2×27.7E±.,h3km±2km,M2.5/6,MLh2.5/6*
ISC 04 10:19:34.3±0.9,37.73N±0.02×27.05E±0.02,h11km±6km,
n40,σ0s87/63,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.15**	**102**	P	**Pg**	**10 19 37.6**	**-0.1**
GCAM				S	**Sg**	**10 19 40.6**	**+0.4**
GCAM				IAML		10 19 41.0	
	comp=E,816nm,0.1s						
GCAM				IAML		10 19 41.0	
	comp=N,764nm,0.2s						
GCAM	**G?zelcaml?**	**0.15**	**102**	Pg	**Pg**	**10 19 37.8**	**0.0**
GCAM				AML	AML		
SMG	**Samos**	**0.17**	**262**	P	**Pg**	**10 19 37.3**	**-0.7**
SMG				S	**Sg**	**10 19 39.6**	**-1.0**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**56**	Pg	**Pg**	**10 19 39.0**	**-0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**150**	P	**Pg**	**10 19 40.3**	**-0.3**
DDIM				IAML		10 19 45.0	
	comp=E,464nm,0.2s						
DDIM				IAML		10 19 45.0	
	comp=N,406nm,0.2s						
DDIM				S	**Sg**	**10 19 45.3**	**+0.5**
DGB	**zmir**	**0.34**	**338**	P	**Pg**	**10 19 40.5**	**-0.7**
DGB				S	**Sg**	**10 19 45.5**	**-0.4**
DGB				IAML		10 19 46.0	
	comp=E,350nm,0.2s						
DGB				IAML		10 19 46.0	
	comp=N,233nm,0.1s						
GMLD	**Gumuldur**	**0.36**	**344**	Pg	**Pg**	**10 19 41.9**	**+0.4**
GMLD				Sg	**Sg**	**10 19 47.1**	**+0.8**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**349**	P	**Pg**	**10 19 43.4**	**-0.8**
BEYE				S	**Sg**	**10 19 50.4**	**-0.4**
BEYE				IAML		10 19 51.0	
	comp=E,305nm,0.2s						
BEYE				IAML		10 19 51.0	
	comp=N,180nm,0.2s						
DUVT	**Torbali**	**0.58**	**33**	P	**Pg**	**10 19 45.1**	**-0.6**
DUVT				S	**Sg**	**10 19 53.3**	**-0.1**
DUVT				IAML		10 19 57.0	
	comp=E,172nm,0.2s						
BLCB	**Balcova**	**0.65**	**360**	P	**Pg**	**10 19 46.6**	**-0.5**
BLCB				S	**Sg**	**10 19 56.0**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**360**	Pg	**Pg**	**10 19 46.5**	**-0.5**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**320**	P	**Pg**	**10 19 45.2**	**-2.0**
ZEYE				S	**Sg**	**10 19 56.2**	**+0.3**
ZEYE				IAML		10 19 58.0	
	comp=N,222nm,0.5s						
ZEYE				IAML		10 19 59.0	
	comp=E,204nm,0.6s						

AYDN	**Tasoluk**	**0.67**	**96**	P	**Pg**	**10 19 46.8**	**-0.5**
AYDN				S	**Sg**	**10 19 55.6**	**-0.4**
AYDN				IAML		10 20 01.0	
	comp=N,73nm,0.2s						
AYDN				IAML		10 20 01.0	
	comp=E,64nm,0.2s						
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**10 19 47.2**	**-0.7**
BODT				S	**Sg**	**10 19 57.0**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pg**	**10 19 47.3**	**-0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.70**	**72**	Pg	**Pb**	**10 19 48.5**	**-0.2**
AYDB				AML	AML		
MLSB	**Milas**	**0.73**	**127**	Pg	**Pg**	**10 19 48.5**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**10 19 47.5**	**-1.1**
BDRM				S	**Sg**	**10 19 58.1**	**-0.1**
BDRM				IAML		10 20 01.0	
	comp=N,159nm,0.3s						
BDRM				IAML		10 20 01.0	
	comp=E,109nm,0.5s						
BODA	**Bodrum-Mula**	**0.76**	**156**	Pg	**Pg**	**10 19 48.6**	**-0.4**
IZMR	**zmir-demi**	**0.82**	**60**	P	**Pg**	**10 19 50.1**	**-0.1**
IZMR				S	**Sg**	**10 19 59.2**	**-1.8**
IZMR				IAML		10 20 03.0	
	comp=N,60nm,0.7s						
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**10 19 52.5**	**-0.2**
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**346**	Pg	**Pb**	**10 19 54.2**	**-0.4**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.01**	**76**	Pg	**Pb**	**10 19 54.6**	**+0.7**
NAZL				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	P	**Pg**	**10 19 53.7**	**-0.3**
CHOS				S	**Sb**	**10 20 08.2**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	Pg	**Pb**	**10 19 53.9**	**-0.1**
CHOS				Sg	**Sb**	**10 20 08.4**	**+0.9**
CHOS				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pg**	**10 19 53.8**	**-0.5**
CAMT				S	**Sb**	**10 20 09.4**	**+1.5**
CAMT				IAML		10 20 12.0	
	comp=E,229nm,0.5s						
CAMT				IAML		10 20 16.0	
	comp=N,147nm,0.5s						
DAT	**Datca**	**1.09**	**157**	S	**Sb**	**10 20 10.2**	**+0.8**
YAZI	**Mula-Dat§a-**	**1.10**	**163**	P	**Pg**	**10 19 53.6**	**-1.8**
YAZI				S	**Sb**	**10 20 09.6**	**-0.1**
YAZI				IAML		10 20 12.0	
	comp=E,30nm,0.7s						
YAZI				IAML		10 20 16.0	
	comp=N,36nm,1.7s						
YER	**Yerkesik**	**1.15**	**121**	P	**Pg**	**10 19 56.2**	**-0.3**
YER				S	**Sb**	**10 20 11.6**	**+0.4**
YER	**Yerkesik**	**1.15**	**121**	Pn	**Pn**	**10 19 56.8**	**+0.4**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.17**	**66**	P	**Pg**	**10 19 55.2**	**-1.5**
KIRA				S	**Sg**	**10 20 11.2**	**-0.8**
KIRA				IAML		10 20 15.0	
	comp=N,42nm,0.3s						
KIRA				IAML		10 20 16.0	
	comp=E,26nm,0.5s						
GOMA	**Golmarmara-Man**	**1.19**	**35**	Pn	**Pn**	**10 19 57.7**	**+0.8**
ZEDA	**zmir-Bergama**	**1.23**	**1**	P	**Pg**	**10 19 55.6**	**-2.4**
ZEDA				S	**Sb**	**10 20 14.3**	**+0.7**
ZEDA				IAML		10 20 16.0	
	comp=N,91nm,0.6s						
ZEDA				IAML		10 20 18.0	
	comp=E,41nm,0.3s						
KTTT	**Salihli**	**1.26**	**41**	P	**Pn**	**10 19 57.7**	**-0.2**
KTTT				S	**Sg**	**10 20 13.0**	**-2.0**
KTTT				IAML		10 20 18.0	
	comp=N,24nm,0.5s						
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pg**	**10 19 59.5**	**+0.3**
AKS				AML	AML		
APE	**Apeiranthos**	**1.38**	**242**	P	**Pg**	**10 19 59.9**	**-0.8**
APE				S	**Sn**	**10 20 18.5**	**+0.8**
APE	**Apeiranthos**	**1.38**	**242**	Pn	**Pg**	**10 20 00.1**	**-0.6**
APE				AML	AML		
MANT	**Manisa**	**1.41**	**57**	P	**Pn**	**10 19 59.0**	**-1.2**
MANT				S	**Sb**	**10 20 18.0**	**-0.9**
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**10 20 02.2**	**+0.4**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pn**	**10 20 07.7**	**+1.3**
YAYO				AML	AML		

*NEIC **04** 10:50:39.7±1.0,19.21N±0.03×147.1E±0.1,h10km±1km, mb4.2/19,Error ellipse: s-maj=23.4km s-min=5.3km az=87.0*
*IDC **04** 10:50:47.3±3.4,19.15N×146.86E,h65km±30km,mb3.8/17, mbtmp4.1/20,ML3.6/3,MS3.1/7,Error ellipse: s-maj=25.0km s-min=12.0km az=78.0*
ISC 04 10:50:43.4±0.6,19.19N±0.06×147.0E±0.1,h37km,n59,
σ0s99/53,mb4.2/26,MS3.1/7,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DPSS	**Saipan**	**4.10**	**197**	Pn	**Pn**	**10 51 42.7**	**-0.8**
GUMO	**Guam**	**5.94**	**201**	P	**Pn**	**10 52 11.7**	**+2.9**
	10nm,0.3s,baz=18,slow=14,SNR=7.7						
GUMO				S	**Sn**	**10 53 18.1**	**+2.4**
	19nm,0.3s,baz=341,slow=12,SNR=1.7						
	25nm,0.3s						
GUMO				AML	AML		
GUMO	**Guam**	**5.94**	**201**		**Pn**	**10 52 06.9**	**-1.9**
H11S3	**WAKE ISLAND Hy**	**18.62**	**89**	T	T	11 14 02.0	
	baz=275,slow=75,SNR=51						
H11S1	**WAKE ISLAND Hy**	**18.63**	**89**	T	T	11 14 03.0	
	baz=275,slow=75,SNR=42						
H11S2	**WAKE ISLAND Hy**	**18.64**	**89**	T	T	11 14 05.3	
	baz=275,slow=75,SNR=27						
MJAR	**Matsushiro Arr**	**18.95**	**338**	P	**Pn**	**10 55 01.8**	**-0.4**
	baz=143,slow=12,SNR=2.1						
	0.5nm,0.3s						
JNU	**Nakatsue**	**20.03**	**317**	P	Pn	10 55 14.0	-1.1
	0.1nm,0.3s,baz=130,slow=11,SNR=2.7						
	6.6nm,0.9s						
JNU				AML	AML		
KRVT	**Keravat (AS076**	**23.86**	**168**	LR	LR	11 04 08.8	
	comp=Z,26nm,21.5s,baz=120,slow=34						
KSRS	**Korea Array**	**24.70**	**321**	P	**P**	**10 56 01.8**	**+0.9**
	0.6nm,0.5s,baz=142,slow=8.7,SNR=2.8						
	0.6nm,0.5s						
SIJI	**Sorong**	**25.24**	**220**	LR	LR	11 04 06.8	
	comp=Z,82nm,20.4s,baz=62,slow=32						
FAKI	**Fak Fak**	**26.34**	**215**	P	**P**	**10 56 15.9**	**-0.2**
FAKI				IAmb	IAmb	10 56 16.1	
	comp=Z,8.4nm,1.0s						
USA0B	**Ussuriysk Arra**	**27.94**	**337**	P	**P**	**10 56 30.2**	**+0.1**
HNR	**Honiara**	**31.16**	**155**	LR	LR	11 08 04.6	
	comp=Z,71nm,21.9s,baz=36,slow=33						
KLR	**Kul'dur**	**32.40**	**341**	LR	LR	11 12 01.3	
	comp=Z,16nm,19.7s,baz=272,slow=39						
KNRA	**Kununurra**	**39.03**	**209**	P	**P**	**10 58 06.0**	**-0.7**
KNRA				IAmb	IAmb	10 58 09.5	
	comp=Z,7.0nm,1.1s						
CTA	**Charters Tower**	**39.04**	**181**	LR	LR	11 15 29.1	
	comp=Z,28nm,18.1s,baz=238,slow=38						
CTAO	**Charters Tower**	**39.04**	**181**	P	**P**	**10 58 05.8**	**-1.0**
CTAO				IAmb	IAmb	10 58 17.6	
	comp=Z,7.7nm,1.1s						
WB0	**Warramunga Arr**	**40.65**	**198**	P	**P**	**10 58 20.8**	**+0.7**
WB0				IAmb	IAmb	10 58 49.5	
	comp=Z,3.1nm,1.0s						
WR8	**Warramunga Arr**	**40.80**	**198**	P	**P**	**10 58 21.6**	**+0.3**
WRAB	**Tennant Creek**	**40.82**	**198**	P	**P**	**10 58 21.3**	**-0.2**
WRAB				IAmb	IAmb	10 58 22.8	
	comp=Z,2.8nm,0.8s						
WRA	**Warramunga Arr**	**40.83**	**198**	P	**P**	**10 58 21.9**	**+0.3**
	comp=Z,2.1nm,0.8s,baz=20,slow=8.8,SNR=26						
WRA				PcP	**PcP**	**11 00 22.5**	**+0.4**
	comp=Z,0.5nm,0.4s,baz=22,slow=3.4,SNR=10						
	comp=Z,2.1nm,0.8s						
WRA	**Warramunga Arr**	**40.83**	**198**	P	**P**	**10 58 19.9**	**-1.7**
FITZ	**Fitzroy Crossi**	**42.60**	**211**	P	**P**	**10 58 35.8**	**-0.2**
SONM	**Songino Array**	**43.56**	**320**	P	**P**	**10 58 44.2**	**+0.4**
	comp=Z,0.6nm,0.3s,baz=140,slow=9.2,SNR=2.5						
	comp=Z,0.6nm,0.3s						
AS31	**Alice Springs**	**44.48**	**197**	P	**P**	**10 58 50.2**	**-0.9**
ASAR	**Alice Springs**	**44.48**	**197**	P	**P**	**10 58 51.0**	**-0.2**
	comp=Z,0.4nm,0.3s,baz=25,slow=7.1,SNR=28						
ASAR				PcP	**PP**	**11 00 35.5**	**-0.1**
	comp=Z,0.3nm,0.6s,baz=33,slow=3.1,SNR=2.2						
	comp=Z,0.4nm,0.3s						

ASAR	**Alice Springs**	**44.48**	**197**	P	**P**	**10 58 50.7**	**-0.5**
DZM	**Mont Dzumac**	**45.19**	**154**	P	**P**	**10 58 57.6**	**+0.7**
	comp=Z,3.8nm,0.9s,baz=317,slow=19,SNR=2.9						
	comp=Z,3.8nm,0.9s						
CMAR	**Chiang Mai Arr**	**45.41**	**277**	P	**P**	**10 58 59.1**	**+0.3**
	comp=Z,1.5nm,0.3s,baz=79,slow=10,SNR=4.7						
CMAR				LR	LR	11 17 13.7	
	comp=Z,12nm,20.1s,baz=105,slow=35						
	comp=Z,1.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**45.41**	**277**	P	**P**	**10 58 58.6**	**-0.2**
OUENC	**Ouen Island, N**	**45.66**	**154**	P	**P**	**10 58 60.0**	**-0.6**
OUENC				IAmb	IAmb	10 59 02.7	
	comp=Z,1.6nm,0.5s						
MBWA	**Marble Bar**	**48.19**	**215**	P	**P**	**10 59 19.6**	**-0.7**
STKA	**Stephens Creek**	**51.04**	**186**	P	**P**	**10 59 41.9**	**0.0**
	comp=Z,1.4nm,0.4s,baz=5.7,slow=7.5,SNR=7.8						
	comp=Z,1.4nm,0.4s						
STKA	**Stephens Creek**	**51.04**	**186**	P	**P**	**10 59 41.2**	**-0.7**
LSA	**Lhasa**	**51.52**	**293**	P	**P**	**10 59 44.8**	**-1.5**
BBOO	**Buckleboo**	**52.76**	**192**	P	**P**	**10 59 55.4**	**+0.7**
ZALV	**Zalesovo Beam**	**58.40**	**322**	P	**P**	**11 00 35.2**	**+0.2**
	comp=Z,0.5nm,0.4s,baz=108,slow=4.8,SNR=3.9						
	comp=Z,0.5nm,0.4s						
ZALV	**Zalesovo Beam**	**58.40**	**322**	P	**P**	**11 00 34.6**	**-0.4**
MKAR	**Makanchi Array**	**59.04**	**314**	P	**P**	**11 00 40.5**	**+0.8**
	comp=Z,0.9nm,0.5s,baz=90,slow=8.4,SNR=7.2						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**59.04**	**314**	P	**P**	**11 00 39.7**	**0.0**
PDGK	**Podgornoye**	**60.87**	**309**	P	**P**	**11 00 51.9**	**-0.5**
TRF	**Thorofare Moun**	**60.87**	**27**	P	**P**	**11 00 50.8**	**-1.3**
TRF				IAmb	IAmb	11 01 13.8	
	comp=Z,1.6nm,0.9s						
KURK	**Kurchatov**	**61.75**	**318**	P	**P**	**11 00 57.8**	**-0.3**
KURK				IAmb	IAmb	11 01 01.2	
	comp=Z,3.1nm,1.0s						
KURBB	**Kurchatov Arra**	**61.80**	**318**	P	**P**	**11 00 59.0**	**+0.6**
	comp=Z,2.3nm,0.6s,baz=95,slow=7.5,SNR=18						
	comp=Z,2.3nm,0.6s						
ILAR	**Eielson Array**	**62.65**	**26**	P	**P**	**11 01 06.9**	**+3.0**
	comp=Z,0.6nm,0.9s,baz=268,slow=7.0,SNR=4.6						
ILAR				LR	LR	11 29 15.8	
	comp=Z,18nm,18.0s,baz=88,slow=37						
	comp=Z,0.6nm,0.9s						
ILAR	**Eielson Array**	**62.65**	**26**	P	**P**	**11 01 03.7**	**-0.2**
BVAR	**Borovoye Array**	**66.91**	**320**	P	**P**	**11 01 31.7**	**-0.1**
	comp=Z,2.6nm,0.5s,baz=91,slow=6.9,SNR=8.1						
	comp=Z,2.6nm,0.5s						
KK31	**Karatay Array**	**67.43**	**310**	P	**P**	**11 01 36.0**	**+0.7**
KKAR	**Karatay Array**	**67.43**	**310**		**P**	**11 01 35.9**	**+0.6**
AB31	**Akbulak array**	**73.84**	**317**	P	**P**	**11 02 14.7**	**+0.4**
AB31				IAmb	IAmb	11 02 18.1	
	comp=Z,3.1nm,1.0s						
AKTO	**Aktyubinsk**	**74.84**	**319**	P	**P**	**11 02 20.0**	**0.0**
	comp=Z,1.1nm,0.3s,baz=90,slow=7.1,SNR=1.8						
	comp=Z,1.1nm,0.3s						
YKA	**Yellowknife Ar**	**76.97**	**28**	P	**P**	**11 02 32.3**	**+0.4**
	comp=Z,1.0nm,0.9s,baz=281,slow=5.5,SNR=2.0						
	comp=Z,1.0nm,0.9s						
YKA	**Yellowknife Ar**	**76.97**	**28**	P	**P**	**11 02 31.1**	**-0.7**
NVAR	**Mina Array Bea**	**81.84**	**52**	P	**P**	**11 03 01.2**	**+1.9**
	comp=Z,0.5nm,0.6s,baz=266,slow=6.3,SNR=4.7						
	comp=Z,0.5nm,0.6s						
NVAR	**Mina Array Bea**	**81.84**	**52**	P	**P**	**11 02 58.7**	**-0.6**
ARCES	**ARCESS Array B**	**82.41**	**342**	P	**P**	**11 03 01.6**	**+0.3**
	comp=Z,2.1nm,0.9s,baz=64,slow=5.5,SNR=5.5						
	comp=Z,2.1nm,0.9s						
FINES	**FINESS Array B**	**86.97**	**336**	P	**P**	**11 03 24.4**	**0.0**
	comp=Z,0.9nm,0.3s,baz=70,slow=4.9,SNR=16						
	comp=Z,0.9nm,0.3s						
FINES	**FINESS Array B**	**86.97**	**336**	P	**P**	**11 03 24.5**	**+0.1**

IDC 04 10:53:52.4±51.0,16.94S×179.41W,h0km,mb3.9/3, mbtmp3.9/3,Error ellipse: s-maj=928.0km s-min=161.0km az=77.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**38.28**	**240**	P	P	11 01 14.2	-0.5
	0.9nm,0.4s,baz=90,slow=7.1,SNR=1.5						
	0.9nm,0.4s						
WRA	**Warramunga Arr**	**43.88**	**259**	P	P	11 02 01.1	+0.1
	0.3nm,0.4s,baz=92,slow=7.8,SNR=9.4						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**44.15**	**253**	P	P	11 02 03.0	-0.1
	2.5nm,0.6s,baz=88,slow=8.4,SNR=41						
	2.5nm,0.6s						

*TIR **04** 11:11:09.1,40.15N×21.54E,h20km±1km,MD2.6,ML3.5, ML3.5,Presumed earthquake*
*THE **04** 11:11:10.9,40.2N±0.9×21.4E±0.6,h13km±2km,M3.3/15, MLh3.3/15*
*ATH **04** 11:11:10.6,40.16N×21.47E,h8km±1km,ML3.4/28, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*PDG **04** 11:11:11.3±0.3,40.16N×21.45E,h14km,ML3.4/13,Error ellipse: s-maj=0.3km s-min=0.5km az=0.0*
*SKO **04** 11:11:11.5,40.12N×21.46E,h26km,ML3.5*
*IDC **04** 11:11:13.8±3.6,40.29N×21.46E,h53km±35km,mb3.4/6, mbtmp3.5/8,ML2.7/2,Error ellipse: s-maj=26.8km s-min=24.4km az=19.0*
ISC 04 11:11:10.2±0.8,40.15N±0.01×21.43E±0.02,h18km±2km,
n117,σ1s11/168,mb3.6/5,4C-5D,Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KPRO	**Kipourio**	**0.20**	**195**	P	**Pg**	**11 11 16.0**	**+0.7**
KPRO				S	**Sg**	**11 11 20.0**	**+1.3**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.20**	**195**	P	**Pg**	**11 11 15.8**	**+0.5**
KPRO				S	**Sg**	**11 11 18.8**	**+0.1**
KPRO				AML	AML		
PENT	**Pentalofos**	**0.23**	**281**	P	**Pg**	**11 11 16.0**	**+0.3**
PENT				S	**Sg**	**11 11 19.8**	**+0.4**
PENT				AML	AML		
PENT	**Pentalofos**	**0.23**	**281**	P	**Pg**	**11 11 15.9**	**+0.3**
PENT				S	**Sg**	**11 11 19.7**	**+0.3**
KZN	**Kozani**	**0.30**	**59**	P	**Pb**	**11 11 17.5**	**+0.4**
KZN				S	**Sb**	**11 11 22.6**	**+0.9**
KZN				AML	AML		
KZN	**Kozani**	**0.30**	**59**	P	**Pb**	**11 11 17.0**	**0.0**
KZN				S	**Sg**	**11 11 20.4**	**-1.0**
KZN				AML	AML		
NEST	**Nestorio**	**0.39**

THL				AML	AML				
THL	**Klokotos Trika**	**0.74**	**142**	P	**Pb**	**11 11 24.5**	**0.0**		
THL				AML	AML				
TYRN	**Tyrnavos**	**0.76**	**125**	P	**Pg**	**11 11 25.1**	**+0.1**		
TYRN				S	**Sn**	**11 11 37.5**	**+0.6**		
TYRN				AML	AML				
TYRN	**Tyrnavos**	**0.76**	**125**	P	**Pg**	**11 11 25.1**	**+0.1**		
LIT	**Litokhoron**	**0.81**	**93**	P	**Pb**	**11 11 25.9**	**+0.1**		
LIT				S	**Sn**	**11 11 38.8**	**+0.5**		
LIT				AML	AML				
LIT	**Litokhoron**	**0.81**	**93**	P	**Pb**	**11 11 25.9**	**+0.1**		
LIT				AML	AML				
TETR	**Tetrakomo, Epi**	**0.82**	**188**	P	**Pb**	**11 11 25.9**	**+0.2**		
TETR				S	**Sn**	**11 11 38.4**	**0.0**		
TETR				AML	AML				
TETR	**Tetrakomo, Epi**	**0.82**	**188**	P	**Pb**	**11 11 26.0**	**+0.2**		
IGT	**Igoumenitsa**	**1.05**	**234**	P	**Pg**	**11 11 30.2**	**-0.2**		
IGT				S	**Sg**	**11 11 46.0**	**+1.8**		
IGT				AML	AML				
IGT	**Igoumenitsa**	**1.05**	**234**	P	**Pg**	**11 11 30.3**	**-0.2**		
IGT				S	**Sg**	**11 11 45.7**	**+1.4**		
IGT				A	A	11 12 34.1			
IGT				END		11 12 34.1			
IGT	**Igoumenitsa**	**1.05**	**234**	P	**Pg**	**11 11 30.7**	**+0.3**		
IGT				AML	AML				
ART2	**Arta**	**1.06**	**199**	P	**Pg**	**11 11 31.4**	**+0.7**		
ART2				AML	AML				
OHR	**Ohrid**	**1.07**	**334**	*i* Pg	**Pg**	**11 11 30.7**	**-0.3**		
OHR				*i* Sg	**Sg**	**11 11 47.8**	**+2.8**		
OHR				*e*Lg	Lg	11 11 48.2			
	comp=N,2µm,0.5s								
OHR				*e*Lg	Lg	11 11 50.2			
	comp=E,2µm,0.4s								
GRG	**Griva**	**1.09**	**42**	P	**Pg**	**11 11 31.0**	**-0.3**		
GRG				S	**Sg**	**11 11 47.1**	**+1.4**		
GRG				AML	AML				
GRG	**Griva**	**1.09**	**42**	P	**Pg**	**11 11 31.0**	**-0.3**		
GRG				AML	AML				
SRN	**Sarande**	**1.13**	**257**	P	**Pg**	**11 11 32.1**	**0.0**		
SRN				S	**Sg**	**11 11 47.8**	**+0.9**		
SRN				AML	AML				
SRN	**Sarande**	**1.13**	**257**	P	**Pg**	**11 11 32.5**	**+0.4**		
SRN				S	**Sg**	**11 11 49.4**	**+2.5**		
SRN				A	A	11 12 30.9			
SRN				END		11 12 30.9			
AMPL	**Ampelaki**	**1.24**	**188**	P	**Pg**	**11 11 34.2**	**+0.1**		
AMPL				AML	AML				
BERA	**Berati**	**1.26**	**296**	P	**Pg**	**11 11 33.9**	**-0.6**		
BERA				S	**Sg**	**11 11 53.1**	**+2.2**		
BERA				IAML		11 11 56.8			
	comp=E,1µm,0.4s								
THE	**Thessaloniki**	**1.27**	**67**	P	**Pb**	**11 11 33.5**	**0.0**		
THE	**Thessaloniki**	**1.27**	**67**	P	**Pb**	**11 11 34.0**	**+0.5**		
EVR	**Evrytania**	**1.27**	**167**	P	**Pb**	**11 11 34.1**	**+0.5**		
EVR				AML	AML				
AGG	**Agios Georgios**	**1.33**	**148**	P	**Pb**	**11 11 34.8**	**+0.3**		
AGG				AML	AML				
KEK	**Kerkira**	**1.33**	**251**	P	**Pb**	**11 11 34.4**	**-0.2**		
KEK				AML	AML				
VAY	**Valandovo**	**1.45**	**36**	*i* Pn	**Pb**	**11 11 36.6**	**0.0**		
VAY				*i* Sn	**Sg**	**11 12 00.6**	**+3.4**		
VAY				*e*Lg	Lg	11 12 02.6			
	comp=E,285nm,0.7s								
VAY				*e*Lg	Lg	11 12 05.9			
	comp=N,342nm,0.6s								
KNT	**Kendrikon**	**1.50**	**47**	P	**Pb**	**11 11 37.0**	**-0.5**		
VLO	**Vlora**	**1.51**	**283**	P	**Pg**	**11 11 38.8**	**-0.5**		
VLO				A	A	11 12 57.3			
VLO				END		11 12 57.3			
NYDR	**Nydri-Lefkada**	**1.54**	**202**	P	**Pg**	**11 11 39.4**	**-0.5**		
PLG	**Polygyros**	**1.56**	**81**	P	**Pb**	**11 11 37.8**	**-0.6**		
PDO	**Prodromos**	**1.56**	**187**	P	**Pg**	**11 11 39.8**	**-0.5**		
PDO				AML	AML				
XOR	**Xorichti**	**1.57**	**119**	P	**Pb**	**11 11 38.0**	**-0.6**		
XOR				AML	AML				
ANX	**Ano Chora**	**1.60**	**166**	P	**Pb**	**11 11 40.0**	**+0.7**		
DRAG	**Dragano-Lefkad**	**1.61**	**205**	P	**Pb**	**11 11 40.2**	**+0.9**		
SOH	**Sokhos**	**1.61**	**65**	P	**Pb**	**11 11 39.4**	**0.0**		
SOH				AML	AML				
EVGI	**Lefkada island**	**1.64**	**202**	P	**Pg**	**11 11 40.9**	**-0.9**		
EVGI				AML	AML				
AXAR	**Agios Charalam**	**1.68**	**145**	P	**Pb**	**11 11 40.3**	**-0.2**		
AXAR				AML	AML				
TIR	**Tirane**	**1.69**	**316**	P	**Pb**	**11 11 41.2**	**+0.6**		
TIR				A	A	11 12 47.9			
TIR				END		11 12 47.9			
PHP	**Peshkopia**	**1.71**	**334**	P	**Pb**	**11 11 40.5**	**-0.5**		
PHP				S	**Sb**	**11 12 03.0**	**+1.0**		
PHP				IAML		11 12 05.6			
	comp=N,500nm,0.4s								
PHP				A	A	11 12 46.8			
PHP				END		11 12 46.8			
EFP	**Efpalio**	**1.76**	**168**	P	**Pb**	**11 11 42.3**	**+0.4**		
EFP				AML	AML				
PYRG	**Pyrgos, Dorida**	**1.80**	**165**	P	**Pb**	**11 11 42.2**	**-0.4**		
PYRG				AML	AML				
SERG	**Sergoula**	**1.80**	**164**	P	**Pb**	**11 11 42.2**	**-0.4**		
SERG				AML	AML				
SKO	**Skopje**	**1.82**	**0**	*i* Pn	**Pb**	**11 11 41.9**	**-0.9**		
SKO				*i* Sn	**Sg**	**11 12 08.7**	**0.0**		
KALE	**Kalithea**	**1.84**	**162**	P	**Pb**	**11 11 42.9**	**-0.5**		
KALE				AML	AML				
SRS	**Serrai**	**1.91**	**59**	P	**Pb**	**11 11 43.1**	**-1.3**		
ATAL	**Atalanti**	**1.91**	**139**	P	**Pn**	**11 11 43.0**	**+1.3**		
LKR	**Lokris**	**1.93**	**140**	P	**Pb**	**11 11 43.5**	**-1.3**		
LAKA	**Lakka**	**1.96**	**167**	P	**Pb**	**11 11 45.0**	**-0.3**		
LAKA				AML	AML				
OUR	**Ouranopolis**	**1.96**	**84**	P	**Pb**	**11 11 44.0**	**-1.3**		
OUR				AML	AML				
AIOA	**Agios Ioannis,**	**2.02**	**166**	P	**Pb**	**11 11 46.3**	**+0.1**		
VLS	**Valsamata**	**2.08**	**199**	P	**Pb**	**11 11 46.6**	**-0.7**		
VLS				AML	AML				
DMLN	**Damoulianata-K**	**2.08**	**204**	P	**Pb**	**11 11 46.5**	**-0.8**		
AOS2	**Alonissos-2**	**2.12**	**118**	P	**Pn**	**11 11 45.3**	**+0.7**		
AOS2				AML	AML				
NVR	**Nevrokopi**	**2.20**	**56**	P	**Pn**	**11 11 47.2**	**+1.4**		
NVR				AML	AML				
ULC	**Ulcinj**	**2.45**	**318**	*e*Pn	**Pn**	**11 11 50.9**	**+1.7**		
ULC				*i* Sn	**Sn**	**11 12 20.5**	**+1.8**		
DRME	**Dracevica, Mon**	**2.65**	**321**	*e*Pn	**Pn**	**11 11 53.7**	**+1.8**		
DRME				*i* Sn	**Sn**	**11 12 25.2**	**+1.7**		
PVY	**Plav**	**2.68**	**336**	*e*Pn	**Pn**	**11 11 53.9**	**+1.4**		
PVY				*i* Sn	**Sn**	**11 12 25.8**	**+1.3**		
PDG	**Podgorica**	**2.80**	**325**	⇓P	**Pg**	**11 12 03.4**	**-0.5**		
PDG	**Podgorica**	**2.80**	**325**	⇑*i* Pn	**Pn**	**11 11 55.8**	**+1.8**		
PDG				*i* Sn	**Sn**	**11 12 29.4**	**+2.0**		
BUM	**Brajici-Budva**	**2.88**	**319**	*e*Pn	**Pn**	**11 11 56.8**	**+1.7**		
BUM				*i* Sn	**Sn**	**11 12 31.0**	**+1.8**		
IVA	**Berane**	**2.95**	**337**	*e*Pn	**Pn**	**11 11 57.9**	**+1.7**		
IVA				*i* Sn	**Sn**	**11 12 32.5**	**+1.3**		
CEME	**Cevo**	**3.05**	**322**	*e*Pn	**Pn**	**11 11 59.2**	**+1.7**		
CEME				*i* Sn	**Sn**	**11 12 34.7**	**+1.2**		
KOME	**Kolasin**	**3.06**	**333**	*e*Pn	**Pn**	**11 11 59.2**	**+1.6**		
KOME				*i* Sn	**Sn**	**11 12 34.9**	**+1.2**		
HCY	**Herceg Novi**	**3.19**	**317**	*e*Pn	**Pn**	**11 12 01.2**	**+1.9**		
HCY				*i* Sn	**Sn**	**11 12 38.3**	**+1.5**		
NKME	**Niksic**	**3.21**	**325**	*e*Pn	**Pn**	**11 12 01.2**	**+1.5**		
NKME				*i* Sn	**Sn**	**11 12 38.7**	**+1.3**		
NOCI	**Noci**	**3.39**	**282**	P	**Pn**	**11 12 03.7**	**+1.6**		
NOCI				A	A	11 13 53.3			
NOCI				END		11 13 53.3			
BOVS	**Bovan**	**3.49**	**3**	⇓P	**Pn**	**11 12 04.7**	**+1.3**		
BRY	**Bratogost**	**3.50**	**323**	*e*Pn	**Pn**	**11 12 05.5**	**+1.7**		
BRY				*i* Sn	**Sn**	**11 12 45.8**	**+1.0**		
PLE	**Pljevlja**	**3.52**	**335**	*e*Pn	**Pn**	**11 12 05.5**	**+1.4**		
PLE				*i* Sn	**Sn**	**11 12 45.8**	**+0.5**		
DBRK	**Dubrovnik**	**3.52**	**317**	*e*Pn	**Pn**	**11 12 04.2**	**+0.2**		
DBRK				Sn	**Sn**	**11 12 45.5**	**+0.4**		
UPM	**Unac-Piva**	**3.59**	**329**	*e*Pn	**Pn**	**11 12 06.5**	**+1.5**		
UPM				*i* Sn	**Sn**	**11 12 47.6**	**+0.6**		
BLKB	**Belogradchik**	**3.59**	**15**	⇑P	**Pn**	**11 12 06.7**	**+1.8**		
TIP	**Timpagrande**	**3.73**	**256**	⇑P	**Pn**	**11 12 09.0**	**+2.1**		
STON	**Ston**	**3.90**	**315**	*e*Pn	**Pn**	**11 12 10.6**	**+1.5**		
STON				Sn	**Sn**	**11 12 54.0**	**-0.5**		
LSTV	**Lastovo**	**4.30**	**309**	*e*Pn	**Pn**	**11 12 15.2**	**+0.7**		
LSTV				Sn	**Sn**	**11 13 02.1**	**-2.1**		
MAKA	**Makarska**	**4.55**	**315**	*e*Pn	**Pn**	**11 12 19.0**	**+1.0**		
MAKA				Sn	**Sn**	**11 13 09.2**	**-1.2**		
MDVR	**Moldovita**	**4.63**	**2**	⇓P	Pn	11 12 12.1	-7.1		
RICI	**Ricice**	**4.63**	**318**	*e*Pn	**Pn**	**11 12 20.4**	**+1.2**		
RICI				Sn	**Sn**	**11 13 12.4**	**-0.1**		
HVAR	**Hvar**	**4.80**	**311**	*e*Pn	**Pn**	**11 12 21.6**	**+0.1**		
HVAR				Sn	**Sn**	**11 13 14.7**	**-2.0**		
GZR	**Gura Zlata**	**5.33**	**10**	⇓P	Pn	11 12 17.4	-11		
KIJV	**Kijevo**	**5.37**	**317**	*e*Pn	**Pn**	**11 12 30.1**	**+0.8**		
KIJV				Sn	**Sn**	**11 13 29.4**	**-1.2**		
MORI	**Morici**	**5.65**	**313**	*e*Pn	**Pn**	**11 12 34.1**	**+0.9**		
MORI				Sn	**Sn**	**11 13 36.1**	**-1.4**		
UDBI	**Udbina**	**6.06**	**318**	*e*Pn	**Pn**	**11 12 40.2**	**+1.4**		
UDBI				Sn	**Sn**	**11 13 46.2**	**-1.5**		
DUGI	**Dugi Otok**	**6.10**	**311**	*e*Pn	**Pn**	**11 12 39.9**	**+0.5**		
DUGI				Sn	**Sn**	**11 13 46.6**	**-2.0**		
VIRC	**Vir**	**6.29**	**313**	*i* Pn	**Pn**	**11 12 41.9**	**0.0**		
VIRC				Sn	**Sn**	**11 13 50.9**	**-2.2**		
MORH	**Mrgy, Hungar**	**6.39**	**342**	⇑P	**Pn**	**11 12 45.2**	**+1.9**		
NVLJ	**Novalja**	**6.56**	**314**	*e*Pn	**Pn**	**11 12 46.3**	**+0.7**		
NVLJ				Sn	**Sn**	**11 13 58.0**	**-1.9**		
PSZ	**Piszkesteto**	**7.84**	**352**	⇓P	**Pn**	**11 13 04.8**	**+1.5**		
BRTR	**Keskin Array B**	**9.39**	**89**	P	**Pn**	**11 13 25.7**	**+1.1**		
	comp=N,0.2nm,0.3s,baz=252,slow=12,SNR=5.6								
	comp=N,0.3nm,0.5s								
BRTR				AML	AML				
GERES	**GERESS Array B**	**10.29**	**330**	P	**Pn**	**11 13 38.0**	**+1.2**		
	baz=140,slow=14,SNR=1.7								
	comp=N,0.2nm,0.2s								
NOA	**NORSAR Array B**	**21.84**	**347**	P	**P**	**11 15 59.6**	**-1.8**		
	comp=N,0.5nm,0.5s,baz=155,slow=12,SNR=2.0								
	comp=N,0.5nm,0.5s								
EKA	**Eskdalemuir Ar**	**22.28**	**321**	P	**P**	**11 16 05.5**	**-0.6**		
	comp=N,1.4nm,0.6s,baz=122,slow=11,SNR=4.6								
	comp=N,1.4nm,0.6s								
ARCES	**ARCESS Array B**	**29.52**	**3**	P	**P**	**11 17 11.1**	**-2.0**		
	comp=N,4.8nm,1.1s,baz=194,slow=9.9,SNR=4.1								
	comp=N,4.8nm,1.1s								
TORD	**Torodi Ar. Bea**	**32.01**	**218**	P	**P**	**11 17 36.2**	**+0.7**		
	comp=N,0.9nm,0.8s,baz=31,slow=8.9,SNR=3.3								
	comp=N,0.9nm,0.8s								
MKAR	**Makanchi Array**	**43.69**	**60**	P	**P**	**11 19 12.8**	**-1.0**		
	comp=N,0.2nm,0.4s,baz=278,slow=7.4,SNR=1.5								
	comp=N,0.2nm,0.4s								
ZALV	**Zalesovo Beam**	**43.86**	**50**	P	**P**	**11 19 14.1**	**-1.0**		
	comp=N,0.4nm,0.4s,baz=275,slow=7.1,SNR=1.9								
	comp=N,0.4nm,0.4s								
ASAR	**Alice Springs**	**121.67**	**95**	PKP	**PKPdf**	**11 30 01.6**	**-1.4**		
	comp=N,0.4nm,0.9s,baz=298,slow=1.6,SNR=4.6								

*IDC **04** 11:45:50.2±2.2,50.2°E×41N×73.2°E×45E,h0km,mbtmp2.6/3, ML2.4/3, Error ellipse: s-maj=30.2km s-min=11.8km az=34.0*

*NNC **04** 11:45:55.2±12.0,50.2°E×58N×73.2°E×85E,h0km,mb2.9,mpv2.5, Error ellipse: s-maj=88.8km s-min=76.0km az=135.0, Suspected Mining explosion.*

ISC 04 11:45:50.1±1.7,50.2°E×50.1°N±0.1°×73.2°E±0.1°,h0km,n8,σ1s22/8, 2C-2D,Central Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BVAR	**Borovoye Array**	**3.14**	**326**	Pg	**Pg**	**11 46 50.1**	**-0.2**
	0.1nm,0.3s,baz=139,slow=16,SNR=7.4						
BVAR				Lg	Lg	11 47 32.4	
	0.2nm,0.3s,baz=139,slow=27,SNR=6.3						
KURBB	**Kurchatov Arra**	**3.34**	**85**	Pn	**Pn**	**11 46 44.0**	**+0.4**
	0.3nm,0.3s,baz=268,slow=18,SNR=18						
KURBB				Pg	**Pb**	**11 46 50.1**	**0.0**
	0.3nm,0.3s,baz=265,slow=17,SNR=9.1						
KURBB				Lg	Lg	11 47 32.8	
	0.4nm,0.3s,baz=263,slow=31,SNR=10.0						
	0.3nm,0.4s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**3.34**	**85**	⇑Pg	**Pb**	**11 46 50.2**	**0.0**
	3.2nm,0.5s,baz=266,slow=15						
KURBB				⇓Lg	Lg	11 47 32.6	
	13nm,0.6s						
KURK	**Kurchatov**	**3.40**	**84**	⇓Pg	**Pb**	**11 46 49.3**	**-1.8**
	0.3nm,0.4s						
KURK				⇑Lg	Lg	11 47 31.8	
	3.6nm,0.7s						
MK31	**Makanchi Array**	**7.00**	**118**	Lg	Lg	11 49 26.7	
	1.4nm,0.6s,baz=311,slow=28,SNR=5.4						
MKAR	**Makanchi Array**	**7.00**	**118**	Pn	**Pn**	**11 47 32.7**	**-1.1**
	0.1nm,0.3s,baz=303,slow=15,SNR=1.9						
MKAR				Pg	**Pb**	**11 47 53.7**	**+1.2**
	0.4nm,0.3s,baz=299,slow=14,SNR=8.2						
MKAR				Lg	Lg	11 49 18.8	
	0.4nm,0.3s,baz=310,slow=26,SNR=7.6						
	0.2nm,0.4s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**7.89**	**59**	I	I	12 38 30.0	
	baz=244,slow=321,SNR=4.7						
ZALV	**Zalesovo Beam**	**7.89**	**59**	Pn	**Pn**	**11 47 47.0**	**+1.1**
	0.2nm,0.3s,baz=248,slow=13,SNR=1.7						
	0.3nm,0.3s						
ZALV				AML	AML		

*AFAD **04** 11:54:02.5,36.15°N×30.48°E,h19km±1km,ML3.0*

*ISK **04** 11:54:03.5,36.28°N×30.39°E,h1km,ML2.8/22*

ISC 04 11:54:04.5±1.0,36.25°N±0.04°×30.43°E±0.02°,h18km±2km, n36,σ1s24/54,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AKUM	**Antalya-Kumluc**	**0.10**	**315**	P	**Pb**	**11 54 08.2**	**+0.1**
AKUM				IAML		11 54 11.0	
	comp=E,7µm,0.1s						
AKUM				IAML		11 54 11.0	
	comp=N,8µm,0.2s						
AKUM				S	**Sg**	**11 54 11.3**	**+0.7**
KEMT	**Kemer-ANTALYA**	**0.36**	**17**	Pg	**Pg**	**11 54 11.4**	**-0.7**
KEMT				Sg	**Sb**	**11 54 17.5**	**-0.3**
KEMT				AML	AML		
DEMR	**Demre-Antalya**	**0.42**	**268**	Pg	**Pb**	**11 54 12.4**	**-1.0**
DEMR				AML	AML		
ELL	**Elmali**	**0.65**	**320**	Pg	**Pg**	**11 54 14.9**	**-2.4**
ELL				Sg	**Sb**	**11 54 25.9**	**0.0**
ELL				AML	AML		
AKAS	**Kas**	**0.66**	**268**	P	**Pg**	**11 54 15.9**	**-1.7**
AKAS				S	**Sb**	**11 54 27.2**	**+0.7**
AKAS				IAML		11 54 32.0	
	comp=E,1µm,0.5s						
AKAS				IAML		11 54 32.0	
	comp=N,2µm,0.4s						
AKAS	**Kas**	**0.66**	**268**	Pg	**Pb**	**11 54 17.2**	**-0.4**
AKAS				AML	AML		
ANTB	**Antalya**	**0.67**	**16**	Pg	**Pb**	**11 54 17.2**	**-0.4**
ANTB				AML	AML		
KORT	**Korkueli**	**0.75**	**355**	P	**Pg**	**11 54 16.3**	**-2.9**
KORT				S	**Sn**	**11 54 31.6**	**+0.4**
KORT				IAML		11 54 35.0	
	comp=N,302nm,0.6s						
KORT	**Korkueli**	**0.75**	**355**	Pg	**Pg**	**11 54 18.1**	**-1.1**
KORT				AML	AML		
KNIK	**Mula-Seydike**	**0.91**	**311**	P	**Pg**	**11 54 20.2**	**-1.9**
KNIK				S	**Sn**	**11 54 35.8**	**+0.7**
KNIK				IAML		11 54 37.0	
	comp=E,253nm,0.5s						
IZZE	**Mula-Seydike**	**0.99**	**281**	P	**Pn**	**11 54 23.0**	**-0.4**
IZZE				S	**Sn**	**11 54 38.9**	**+2.0**
IZZE				IAML		11 54 41.0	
	comp=E,459nm,0.5s						
IZZE				IAML		11 54 42.0	
	comp=N,966nm,0.5s						
BUCA	**Burdur, Bucak-**	**1.08**	**6**	P	**Pb**	**11 54 24.0**	**-0.6**
BUCA				S	**Sn**	**11 54 41.1**	**+1.9**
BUCA				IAML		11 54 43.0	
	comp=E,198nm,1.0s						
CAME	**Cameli-Denizli**	**1.14**	**308**	Pn	**Pb**	**11 54 25.2**	**-0.5**
CAME				Sn	**Sn**	**11 54 41.4**	**+0.6**
CAME				AML	AML		
KEPZ	**Antalya-Kepez**	**1.15**	**55**	P	**Pn**	**11 54 25.5**	**-0.2**
KEPZ				S	**Sn**	**11 54 44.2**	**+3.3**
FETY	**Fethiye**	**1.15**	**290**	P	**Pg**	**11 54 28.7**	**+2.0**
FETY	**Fethiye**	**1.15**	**290**	Pn	**Pg**	**11 54 25.8**	**-0.9**
FETY				Sn	**Sn**	**11 54 41.9**	**+1.0**
FETY				AML	AML		
GOLH	**Golhisar**	**1.20**	**325**	P	**Pn**	**11 54 26.4**	**-0.1**
GOLH				S	**Sn**	**11 54 43.9**	**+1.5**
GOLH				IAML		11 54 49.0	
	comp=N,334nm,0.5s						
GOLH				IAML		11 54 51.0	
	comp=E,378nm,0.8s						
BCK	**Bucak**	**1.21**	**6**	Pn	**Pg**	**11 54 27.1**	**-0.8**
BCK				AML	AML		
ALAN	**Alanya-ANTALYA**	**1.33**	**76**	Pn	**Pg**	**11 54 30.5**	**+0.3**
ALAN				AML	AML		
BRDR	**BURDUR-Merkez**	**1.47**	**349**	P	**Pb**	**11 54 30.9**	**-0.4**
BRDR				S	**Sg**	**11 54 52.9**	**+0.9**
APMY	**Acipayam-Deniz**	**1.51**	**324**	Pn	**Pb**	**11 54 32.1**	**0.0**
APMY				Sn	**Sg**	**11 54 52.5**	**-0.9**
APMY				AML	AML		
GAZI	**Gazipasa**	**1.53**	**90**	Pn	**Pg**	**11 54 33.2**	**-0.7**
GAZI				AML	AML		
DALY	**Dalyan (Mula)**	**1.53**	**292**	P	**Pn**	**11 54 30.4**	**-0.5**
DALY				S	**Sb**	**11 54 51.5**	**0.0**
DALY				IAML		11 54 55.0	
	comp=N,196nm,0.6s						
DALY	**Dalyan (Mula)**	**1.53**	**292**	Pn	**Pb**	**11 54 32.1**	**-0.2**
DALY				AML	AML		
ISP	**Isparta**	**1.57**	**3**	Pn	**Pb**	**11 54 32.8**	**-0.2**
SEDI	**Konya, Seydise**	**1.60**	**41**	P	**Pb**	**11 54 33.6**	**0.0**
SEDI				S	**Sg**	**11 54 57.2**	**+1.0**
SEDI				IAML		11 54 58.0	
	comp=E,164nm,0.6s						
SEDI				IAML		11 54 59.0	
	comp=N,137nm,0.8s						
SEYD	**Seydisehir-KON**	**1.61**	**44**	Pn	**Pg**	**11 54 34.1**	**-1.5**
SEYD				AML	AML		
BASM	**Basmaki-Afyon**	**1.69**	**350**	Pn	**Pb**	**11 54 34.3**	**-0.8**
BASM				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.71**	**315**	P	**Pn**	**11 54 34.2**	**+0.7**
TAVA				S	**Sb**	**11 54 57.6**	**+0.9**
HDMB	**Hadim**	**1.80**	**66**	Pn	**Pb**	**11 54 36.9**	**-0.2**
HDMB				AML	AML		
KZIL	**AFYON_Kizioren**	**2.01**	**354**	P	**Pn**	**11 54 38.2**	**+0.6**
KZIL				S	**Sb**	**11 55 05.9**	**+0.6**
TEKE	**Tekeli-Mersin**	**2.18**	**92**	Pn	**Pb**	**11 54 42.6**	**-0.7**
TEKE				AML	AML		
BERE	**Bereket-Mersin**	**2.26**	**87**	Pn	**Pb**	**11 54 43.7**	**-1.1**
BERE				AML	AML		
KONT	**Konya--Tatoy**	**2.29**	**42**	Pn	**Pb**	**11 54 43.6**	**-1.7**
KONT				AML	AML		
LADK	**Ladik-KONYA**	**2.48**	**38**	Pn	**Pb**	**11 54 46.3**	**-2.3**
LFK	**Lefkose**	**2.71**	**110**	Pn	**Pb**	**11 54 50.4**	**-2.0**
LFK				AML	AML		

IDC 04 12:17:07.1±5.4,25.63°E×177.46°W,h0km,mb4.0/3, mbtmp4.0/5,ML4.7/2,MS3.4/4,Error ellipse: s-maj=111.5km s-min=40.8km az=90.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**8.90**	**331**	Pn	Pn	12 19 17.8	+0.7
	1.1nm,0.3s,baz=176,slow=18,SNR=4.4						
	7.5nm,0.8s						
MSVF				AML	AML		
URZ	**Urewera**	**13.40**	**199**	Pn	Pn	12 20 20.5	+1.9
	0.4nm,0.3s,baz=336,slow=19,SNR=1.5						
URZ				Sn	Sn	12 22 39.2	-9.0
	0.3nm,0.3s,baz=355,slow=17,SNR=1.3						
	3.1nm,0.6s						
URZ				AML	AML		
HNR	**Honiara**	**26.83**	**303**	LR	LR	12 32 26.1	
	comp=Z,28nm,21.4s,baz=218,slow=34						
CTA	**Charters Tower**	**33.81**	**272**	LR	LR	12 35 18.8	
	comp=Z,27nm,20.9s,baz=60,slow=32						
KRVT	**Keravat (AS076**	**36.13**	**301**	LR	LR	12 37 54.2	
	comp=Z,26nm,19.1s,baz=184,slow=34						
ASAR	**Alice Springs**	**44.05**	**262**	P	P	12 25 16.8	-0.3
	1.5nm,0.8s,baz=102,slow=7.1,SNR=11						
	1.5nm,0.8s						
WRA	**Warramunga Arr**	**44.61**	**267**	P	P	12 25 21.4	-0.1
	0.9nm,0.7s,baz=108,slow=8.2,SNR=8.1						
	0.9nm,0.7s						
ANMO	**Albuquerque**	**90.23**	**51**	LR	LR	13 06 01.9	
	comp=Z,92nm,18.3s,baz=158,slow=32						
CMAR	**Chiang Mai Arr**	**92.28**	**289**	P	P	12 30 19.2	-0.5
	0.5nm,0.3s,baz=152,slow=2.5,SNR=6.2						
	0.5nm,0.3s						

*IDC **04** 12:23:40.2±0.6,53.68°N×165.06°W,h0km,mb4.3/30, mbtmp4.3/33,ML4.5/3,MS3.7/29,Error ellipse: s-maj=18.2km s-min=10.4km az=171.0*

*AEIC **04** 12:23:44.9±2.0,53.58°N±0.05°×164.84°W±0.05°,h26km±4km, Error ellipse: s-maj=7.0km s-min=4.1km az=160.0*

*MOS **04** 12:23:44.8±1.2,53.76°N×164.85°W,h41km,mb4.9/21, Error ellipse: s-maj=11.1km s-min=6.6km az=89.2*

*GFZ **04** 12:23:45.7±0.3,54°N±3°×16°W±°,h39km±2km,M5.0/44, mb5.0/44,Error ellipse: s-maj=7.2km s-min=4.7km az=6.7, confirmed*

*NEIC **04** 12:23:45.8±1.8,53.58°N±0.04°×164.88°W±0.05°,h35km±1km, mb4.9/388,ML4.9/20,Mwr4.4/28,Error ellipse: s-maj=7.6km s-min=5.0km az=161.0,Moment Tensor Solution. Moment tensor: Scale 10^15Nm; Mrr-3.12; Mθθ5.46; Mφφ-2.34; Mrθ-0.49; Mrφ 1.62; Mθφ1.55; Fault plane solution: Mo5.27000×10^15 NP1:φs111.

PN7A Pavlof North-7 2.49 40 Pn 12 24 25.2 +1.1
PS1A Pavlof South-1 2.58 43 Pn 12 24 26.5 +1.2
S12K Black Hills 2.67 36 Pn 12 24 26.9 +0.4
S12K IAML 12 25 06.7
comp=N,4µm,0.4s
S12K IAML 12 25 14.3
comp=E,4µm,0.6s
CLCO Concord Point, 3.05 257 Pn 12 24 31.9 +0.2
SDPT Sand Point 3.10 53 P Pn 12 24 32.6 +0.2
SDPT Sand Point 3.10 53 S Sn 12 24 39.4 +1.2
SDPT Sand Point 3.10 53 Pn 12 24 32.7 +0.3
SDPT Sn Sn 12 25 09.0 +0.9
SDPT IAML 12 25 30.1
comp=N,3µm,0.9s
CLES Cleveland East 3.14 258 Pn 12 24 33.4 +0.4
CLES IAML 12 25 34.7
comp=N,3µm,1.1s
CNBA Chernabura Isl 3.32 66 Pn 12 24 34.4 -1.0
CHNA Chernabura Isl 3.32 66 P Pn 12 24 34.2 -1.3
CHNA Chernabura Isl 3.32 66 S Sn 12 25 14.9 +1.2
VNWF Veniaminof 8 3.99 48 Pn 12 24 46.0 +1.3
VNSS Veniaminof 8 4.08 47 Pn 12 24 47.8 +1.7
CHGN Chignik 4.60 51 Pn Pn 12 24 53.6 +0.7
CHGN IAML 12 26 14.8
comp=N,967nm,0.9s
SPIA Saint Paul Isl 4.75 322 P Pn 12 24 56.5 +1.5
SPIA Saint Paul Isl 4.75 322 Pn 12 24 55.5 +0.5
SPIA IAML 12 26 34.7
comp=N,991nm,1.1s
SPIA IAML 12 26 38.0
comp=E,804nm,1.2s
ANPB Aniakchak Plen 4.95 47 Pn 12 24 58.9 +1.0
R16K Pilot Point 5.74 43 Pn Pn 12 25 08.4 -0.2
KOFP Korovin Flat P 5.75 261 Pn 12 25 10.6 +1.7
CHIR Chirikof Islan 5.79 63 P Pn 12 25 08.2 -1.2
CHIR Chirikof Islan 5.79 63 Pn 12 25 08.4 -1.0
KOWE Korovin West 5.82 262 Pn 12 25 11.6 +1.8
ATKA Atka Island 5.83 260 P Pn 12 25 10.0 +0.1
ATKA Atka Island 5.83 260 S Sn 12 26 19.6 +4.1
ATKA Atka Island 5.83 260 Pn 12 25 10.2 +0.3
O14K Tigyukauivet M 6.02 18 Pn 12 25 13.0 +0.5
O15K Ungalikthiuk R 6.26 24 Pn 12 25 16.4 +0.6
R17L Mt. Peulik Vol 6.29 46 Pn 12 25 17.2 +1.0
N14K Kuskokwak Cree 6.59 14 Pn 12 25 20.5 +0.2
P16K Nushagak River 6.66 32 Pn 12 25 21.9 +0.7
SII Sitkinak Islan 6.80 60 P Pn 12 25 22.0 -1.3
SII Sitkinak Islan 6.80 60 S Sn 12 26 40.3 +1.0
SII Sitkinak Islan 6.80 60 Pn 12 25 22.3 -1.0
Q17K Contact Creek 6.88 43 Pn 12 25 25.5 +1.1
M13K Dall Lake 6.90 6 Pn 12 25 24.9 +0.4
GSTR Great Sitkin T 6.96 262 Pn Pn 12 25 25.2 -0.3
ANCK Angle Creek 7.00 45 Pn 12 25 26.5 +0.5
GSTD Great Sitkin T 7.03 262 Pn 12 25 27.7 +1.3
ACHA Angle Creek He 7.08 45 Pn 12 25 27.8 +0.8
O16K Kokwok River B 7.08 29 Pn 12 25 27.5 +0.5
N15K Kwethluk River 7.10 20 Pn 12 25 28.0 +0.7
ETKA Kagalaska Isla 7.24 261 Pn 12 25 29.8 +0.6
ADAG Mount Adagdak 7.32 262 Pn 12 25 32.1 +1.8
ADK Adak 7.40 262 S Sn 12 26 57.8 +4.0
ADK Adak 7.40 262 P Pn 12 25 32.5 +1.1
ADK Adak 7.40 262 P Pn 12 25 31.3 -0.1
ADK Adak 7.40 262 Pn 12 25 32.0 +0.7
ADK Adak 7.40 262 P Pn 12 25 31.9 +0.5
comp=Z,149nm,0.9s
KAWH Katmai 7.40 45 Pn 12 25 31.7 +0.2
Q18K Katmai Hardscr 7.48 43 Pn 12 25 33.4 +0.8
M15K Kasigluk River 7.48 16 Pn 12 25 33.0 +0.6
KARR Katmai Rainbow 7.51 45 Pn 12 25 33.5 +0.5
OHAK Old Harbor 7.52 56 P Pn 12 25 31.1 -1.9
OHAK Old Harbor 7.52 56 Pn 12 25 31.6 -1.6
O17K Koliganek Bris 7.53 31 Pn 12 25 33.2 +0.1
KAHG Katmai Hook Gl 7.58 45 Pn 12 25 34.7 +0.9
N16K Nishlik Lake 7.66 23 Pn 12 25 36.3 +1.3
KIWB Kanaga Island 7.68 262 Pn 12 25 35.7 +0.5
KIKV Kanaga Island 7.69 262 Pn 12 25 36.2 +0.8
L14K Kuka Creek 7.87 8 Pn 12 25 38.9 +1.1
P18K Big Mountain, 7.88 38 Pn 12 25 39.7 +1.7
KDAK Kodiak Island 8.10 54 Pn Pn 12 25 39.1 -1.9
comp=Z,8.1nm,0.3s,baz=123,slow=1.0,SNR=157
KDAK Sn Sn 12 27 04.8 -6.2
baz=243,slow=8.7
comp=Z,19nm,0.3s
KDAK AML AML
KDAK Kodiak Island 8.10 54 Pn 12 25 39.3 -1.6
KDAK Kodiak Island 8.10 54 P Pn 12 25 38.7 -2.3
comp=Z,69nm,0.6s
M16K Timber Creek 8.11 21 Pn 12 25 41.8 +0.7
N17K Nushagak Hills 8.11 28 Pn 12 25 41.5 +0.3
Q19K Cape Douglas, 8.21 45 Pn 12 25 43.4 +0.9
L15K Ungalak Mounta 8.32 11 Pn 12 25 44.9 +1.0
N18K Kilae Creek 8.61 31 Pn 12 25 48.9 +0.8
O19K Port Alsworth 8.77 37 Pn 12 25 50.4 +0.3
M17K Holitna River 8.79 24 Pn 12 25 50.9 +0.5
P19K Oil Pt 8.82 42 Pn 12 25 51.6 +0.8
K15K Wolf Creek Mou 8.91 10 Pn 12 25 52.5 +0.4
ILSW Iliamna Southw 9.07 40 Pn 12 25 55.4 +1.1
N19K Bonanza Creek 9.16 34 Pn 12 25 57.0 +1.4
L17K Donlin 9.25 19 Pn 12 25 57.2 +0.5
M18K Stony River 9.29 28 Pn 12 25 57.9 +0.7
RED Redoubt Volcan 9.49 39 Pn 12 26 00.7 +0.6
RDWB Redoubt West 9.51 39 Pn 12 26 01.4 +1.0
CNPM China Poot 9.57 46 Pn 12 26 00.7 -0.5
L18K Granite Mounta 9.68 23 Pn 12 26 03.3 +0.7
K17K Iditarod 9.79 18 Pn 12 26 04.1 +0.1
BRLK Bradley Lake 9.85 45 Pn Pn 12 26 03.4 -1.6
BRSE Bradley Lake S 9.90 46 Pn 12 26 04.3 -1.4
AMKA Amchitka 9.93 264 Pn Pn 12 26 05.3 -0.7
J16K Anvik River 9.98 11 Pn 12 26 07.4 +0.7
L19K White Mountain 10.12 28 Pn 12 26 09.0 +0.4
J17K VABM Dome 10.29 15 Pn 12 26 11.8 +0.8
M20K Styx River 10.39 32 Pn 12 26 14.7 +2.2
SLKM Skilak Lake 10.54 43 Pn 12 26 14.5 0.0
I17K Unalakleet 10.56 10 Pn Pn 12 26 14.1 -0.4
SEW Seward 10.64 46 Pn Pn 12 26 14.8 -1.0
O22K Cooper Landing 10.73 44 Pn 12 26 16.3 -0.7
J18K Innoko River 10.77 20 Pn 12 26 18.0 +0.5
SUA Susitna One 10.92 38 Pn 12 26 19.6 +0.1
RC01 Rabbit Creek A 11.08 41 Pn 12 26 20.6 -1.1
K20K Telida 11.29 25 Pn 12 26 24.9 +0.3
J19K Poorman 11.47 21 Pn 12 26 27.1 +0.1
P23K Montague Islan 11.50 49 Pn 12 26 25.5 -1.9
PWL Port Wells 11.51 44 Pn Pn 12 26 26.7 -1.0
PMR Palmer 11.61 40 P Pn 12 26 26.8 -2.1
PMR Palmer 11.61 40 Pn 12 26 26.8 -2.1
GHO Glory Hole Cre 11.80 40 Pn Pn 12 26 28.9 -2.7
CAST Castle Rocks 11.88 29 Pn 12 26 33.0 +0.3
J20K Nowinta River 11.96 23 Pn 12 26 34.0 +0.3
GLI Glacier Island 12.04 46 Pn Pn 12 26 32.7 -2.2
SML Sawmill 12.04 40 P Pn 12 26 32.4 -2.5
SML Sawmill 12.04 40 Pn 12 26 32.4 -2.5
HIN Hinchinbrook I 12.08 48 Pn 12 26 33.5 -1.9
FID Port Fidalgo 12.25 47 Pn 12 26 35.6 -2.0
KTH Kantishna Hill 12.32 30 Pn Pn 12 26 39.5 +0.8
SCM Sheep Creek Mo 12.45 41 Pn 12 26 37.4 -3.1
EYAK Cordova Ski Ar 12.48 48 P Pn 12 26 38.2 -2.6
H19K Roundabout Mou 12.70 16 Pn 12 26 44.0 +0.2
DIV Divide 12.73 46 Pn 12 26 42.3 -2.0
G18K Tagagawik 12.73 12 Pn 12 26 46.6 +2.4
KLU Klutina 12.84 44 Pn 12 26 43.5 -2.3
BMRM Bremner River 13.17 48 Pn 12 26 49.8 -0.5
DHY Denali Highway 13.17 37 Pn 12 26 47.7 -2.6
G19K Purcell Mounta 13.18 14 Pn 12 26 51.4 +1.1
MLY Manley 13.51 26 Pn 12 26 55.1 +0.3
H21K Melozitna Rive 13.52 22 Pn 12 26 55.5 +0.5
IMAR Indian Mountai 13.60 20 Pn 12 26 56.7 +0.6
HARP HAARP 13.62 42 Pn 12 26 53.4 -2.9
NEA2 Nenana 13.64 30 Pn 12 26 54.8 -1.9
CRQM Cirque 13.74 50 Pn 12 26 56.3 -1.9
WRH Wood River Hil 13.85 31 Pn 12 26 56.4 -3.1
TGL Tana Glacier 13.88 50 Pn 12 26 58.5 -1.5
I23K Minto, Yukon-K 13.97 28 Pn 12 26 59.6 -1.5
H22K Ishtalitna Cre 14.04 23 Pn 12 27 02.8 +0.7
CCB Clear Creek Bu 14.06 31 Pn 12 26 59.3 -3.1
G21K Allakaket 14.12 19 Pn 12 27 04.0 +0.9
COLA College 14.21 31 *e*P Pn 12 27 03.9 -0.4
COLA College 14.21 31 Pn 12 27 02.8 -1.5
COLA College 14.21 31 P Pn 12 27 02.9 -1.5
comp=Z,21nm,0.9s
YAH Yahtse 14.25 52 Pn 12 27 04.2 -0.9
GRNC Granite Creek 14.37 51 Pn 12 27 04.9 -1.8
IL31 14.44 32 Pn 12 27 04.0 -3.4

ILAR Eielson Array 14.44 32 Pn Pn 12 27 03.2 -4.2
comp=Z,0.5nm,0.3s,baz=222,slow=12,SNR=29
ILAR Sn Sn 12 29 39.4 -6.4
baz=198,slow=7.6
ILAR LR LR 12 33 06.6
comp=Z,492nm,18.9s,baz=221,slow=39
comp=Z,1.8nm,0.4s
ILAR AML AML
MENT Mentasta 14.46 41 P Pn 12 27 07.3 -0.5
MENT Mentasta 14.46 41 Pn 12 27 05.3 -2.5
RIDG Independent Ri 14.48 37 Pn 12 27 05.5 -2.5
M26K Nabesna, AK 14.49 44 Pn 12 27 06.0 -2.2
L26K Log Cabin Wild 14.66 41 Pn 12 27 08.5 -1.8
F21K Alatna River 14.75 18 Pn 12 27 12.6 +1.1
H24K Noodor Dome 14.90 28 Pn 12 27 11.2 -2.3
M27K Edge Creek, AK 14.94 45 Pn 12 27 12.6 -1.6
O28M Mount Upton 15.11 52 Pn 12 27 15.5 -1.1
O28M IAmb IAmb 12 27 28.9
comp=Z,36nm,0.8s
PNL Peninsula 15.21 56 P Pn 12 27 16.7 -0.9
L27K Beaver Creek, 15.28 42 Pn 12 27 16.3 -2.2
BCAR Beaver Creek A 15.30 43 Pn 12 27 16.2 -2.6
PRP Porcupine Dome 15.37 31 Pn 12 27 15.9 -3.8
G24K Hadweenzic Riv 15.65 26 Pn 12 27 22.1 -1.2
O29M Mount Kennedy 15.75 54 Pn 12 27 24.6 -0.1
O29M IAmb IAmb 12 27 32.2
comp=Z,28nm,0.6s
E23K Chandalar 16.23 21 Pn 12 27 31.5 +0.8
D22K Ayikyak River 16.37 16 P P 12 27 34.4 -0.3
HYT Haines Junctio 16.39 53 P 12 27 34.0 -1.2
M29M Somme Creek 16.44 47 Pn 12 27 32.0 -1.4
M29M IAmb IAmb 12 27 42.6
comp=Z,50nm,0.7s
E24K Your Creek 16.49 22 Pn 12 27 34.1 +0.2
S31K Pelican 16.61 63 Pn Pn 12 27 35.0 -0.4
S31K IAmb IAmb 12 27 58.4
comp=Z,99nm,1.5s
DAWY Dawson 16.71 41 Pn 12 27 35.8 -1.0
DAWY IAmb IAmb 12 27 44.5
comp=Z,50nm,0.9s
TOLK Toolik Lake Re 16.73 20 P P 12 27 37.9 -0.8
N30M Aishikik Lake 16.75 51 P P 12 27 38.4 -0.5
N30M IAmb IAmb 12 27 46.4
comp=Z,57nm,0.8s
L29M L29M 16.82 45 Pn 12 27 38.5 +0.4
G26K Porcupine Rive 16.86 29 Pn 12 27 36.5 -1.9
BMAR Burnt Mountain 16.96 27 Pn 12 27 39.9 0.0
Q30N Mendenhall 17.05 54 P P 12 27 41.9 -0.5
SIT Sitka 17.08 66 P Pn 12 27 41.4 +0.1
H27K Steamboat Moun 17.09 33 P Pn 12 27 41.7 +0.2
I28M Miner Creek 17.19 37 Pn 12 27 39.4 -3.4
SKAG Skagway 17.21 58 P P 12 27 43.7 -0.3
SKAG Skagway 17.21 58 P Pn 12 27 42.9 0.0
M30M Minto, Yukon 17.21 47 P Pn 12 27 43.1 +0.1
F26K Sheenjek River 17.27 27 P Pn 12 27 43.5 -0.1
J29N Klondike Camp 17.34 41 P Pn 12 27 44.4 -0.3
J29N IAmb IAmb 12 27 55.4
comp=Z,37nm,0.6s
K29M Barlow Dome 17.36 43 P Pn 12 27 44.9 0.0
N31M Braeburn, Yuko 17.36 51 P P 12 27 46.4 +0.6
N31M IAmb IAmb 12 27 56.9
comp=Z,57nm,0.7s
JIS Juneau Island 17.60 62 P P 12 27 49.8 +1.5
WHY Whitehorse 17.61 54 P P 12 27 48.9 +0.3
WHY IAmb IAmb 12 27 59.7
comp=Z,46nm,0.7s
WHY Whitehorse 17.61 54 P P 12 27 48.8 +0.1
comp=Z,73nm,1.6s
I29M Ogilvie Camp, 17.73 38 P Pn 12 27 49.2 -0.2
P32M Atlin 18.04 58 P P 12 27 54.0 +0.7
J30M Hart River 18.14 41 P Pn 12 27 53.7 -0.7
I30M Mount Dempster 18.39 40 P P 12 27 55.8 -1.4
CRAG Craig 18.42 71 P Pn 12 27 59.1 +1.4
P33M Teslin, Yukon 18.56 56 P Pn 12 28 01.0 +1.4
P33M IAmb IAmb 12 28 02.6
comp=Z,48nm,0.8s
G29M Pine Creek 18.63 34 P P 12 27 58.4 -1.3
C27K Jago River 18.79 23 P P 12 28 01.2 -0.1
EPYK Eagle Plains 18.80 36 P P 12 28 01.0 -0.5
E28M Babbage River 19.16 29 P P 12 28 05.3 -0.1
D27M Malcolm River 19.19 26 P Pn 12 28 06.2 -0.8
H02S1 DAWSON INLET T 19.21 78 T T 12 47 42.2
H02S2 DAWSON INLET T 19.21 78 T T 12 47 39.4
G30M tAoh Zraii Nji 19.27 35 P P 12 28 05.4 -1.3
H31M Peel River 19.41 39 P P 12 28 07.9 -0.2
E29M Blow River 19.51 30 P P 12 28 08.8 -0.4
MOBC Moresby Island 19.53 78 P Pn 12 28 10.8 -0.3
MOBC IAmb IAmb 12 28 45.8
comp=Z,68nm,1.4s
F30M Barrier River 19.74 33 P P 12 28 10.8 -0.9
BILI Bilibino, Chuk 19.87 328 P P 12 28 12.6 -0.5
comp=Z,16nm,1.8s
DLBC Dease Lake 19.90 62 P Pn 12 28 15.4 -0.1
comp=Z,1.3nm,0.3s,baz=251,slow=10,SNR=49
DLBC LR LR 12 35 56.7
comp=Z,125nm,18.7s,baz=257,slow=37
comp=Z,24nm,0.8s
DLBC AML AML
BILL Bilibino 19.92 328 *e*P P 12 28 13.1 -0.6
BILL pmax pmax
comp=Z,20nm,1.5s
F31M Tsiigehtchic 20.34 35 P P 12 28 17.5 -0.7
INK Inuvik 20.83 33 P P 12 28 22.5 -1.0
comp=Z,5.1nm,0.3s,baz=243,slow=9.9,SNR=42
INK LR LR 12 36 42.4
comp=Z,238nm,19.4s,baz=194,slow=38
comp=Z,5.1nm,0.3s
INK Inuvik 20.83 33 P P 12 28 22.1 -1.4
INK Inuvik 20.83 33 P P 12 28 22.3 -1.2
comp=Z,26nm,0.8s
PET Petropavlovsk 21.68 283 P P 12 28 32.7 0.0
PET pmax pmax
comp=Z,328nm,1.9s
PET Petropavlovsk 21.68 283 P P 12 28 31.7 -1.1
BBB Bella Bella 22.05 79 LR LR 12 35 16.9
comp=Z,117nm,21.4s,baz=290,slow=31
PEA0B Petropavlovsk- 22.21 284 *e*P P 12 28 37.7 -0.8
PEA0B Petropavlovsk- 22.21 284 P P 12 28 38.2 -0.2
PEA0B IAmb IAmb 12 29 17.9
comp=Z,112nm,1.4s
PETK Petropavlovsk- 22.21 284 P P 12 28 37.8 -0.7
comp=Z,3.5nm,0.6s,baz=79,slow=14,SNR=16
PETK LR LR 12 36 30.2
comp=Z,97nm,20.9s,baz=93,slow=35
comp=Z,3.5nm,0.6s
PETK Petropavlovsk- 22.21 284 P P 12 28 37.9 -0.6
HOLB Holberg 22.57 83 P P 12 28 42.7 +0.3
HOLB IAmb IAmb 12 28 45.4
comp=Z,92nm,1.4s
WRGLY Wrigley 23.31 49 P P 12 28 49.1 -0.6
C36M Paulatuk 24.39 34 P P 12 28 59.5 -0.2
C36M IAmb IAmb 12 29 04.3
comp=Z,14nm,0.6s
A36M Sachs Harbour 25.06 28 P P 12 29 05.0 -0.7
A36M IAmb IAmb 12 29 11.6
comp=Z,30nm,0.8s
YKAW3 Yellowknife Wh 27.36 51 P P 12 29 26.9 +0.3
YKAW3 IAmb IAmb 12 29 36.9
comp=Z,14nm,0.8s
YKA Yellowknife Ar 27.36 51 P P 12 29 27.4 +0.7
comp=Z,7.1nm,0.5s,baz=271,slow=9.7,SNR=24
YKA LR LR 12 41 00.2
comp=Z,179nm,21.3s,baz=252,slow=38
comp=Z,7.1nm,0.5s
YKA Yellowknife Ar 27.36 51 *i* P P 12 29 27.3 +0.7
YKA pmax pmax
comp=Z,9.0nm,0.7s
YKA Yellowknife Ar 27.36 51 P P 12 29 25.2 -1.4
YKAW1 Yellowknife Wh 27.42 51 P P 12 29 27.7 +0.5
YKAW1 IAmb IAmb 12 29 36.9
comp=Z,13nm,0.7s
EPH Ephrata 29.05 84 P P 12 29 42.8 +0.9
I04A Tendick Farm, 29.26 92 P P 12 29 45.2 +1.5
I04A IAmb IAmb 12 29 47.1
comp=Z,21nm,1.0s
WAH2 Wahluke Slope 29.37 85 P P 12 29 44.8 +0.1
I05D Terrebonne, OR 29.59 90 P P 12 29 48.1 +1.4
I05D IAmb IAmb 12 29 49.9
comp=Z,16nm,0.8s
BBOR Butler Butte 29.63 94 P P 12 29 48.4 +1.2
KRMB Red Mountain 29.72 97 P P 12 29 49.9 +2.0
KRMB IAmb IAmb 12 30 22.2
comp=Z,24nm,1.5s
NEW Newport 30.08 80 LR LR 12 41 08.0

comp=Z,93nm,18.3s,baz=314,slow=35
NEW Newport 30.08 80 P P 12 29 50.2 -0.7
PINE Pine Mountain 30.14 91 P P 12 29 52.3 +0.6
EDM Edmonton 30.15 70 P P 12 29 52.2 +0.7
EDM IAmb IAmb 12 29 53.6
comp=Z,18nm,0.7s
J05D Fort Rock, OR 30.25 92 P P 12 29 53.2 +0.5
J05D IAmb IAmb 12 29 56.6
comp=Z,28nm,0.8s
YBH Yreka Blue Hor 30.30 96 LR LR 12 39 47.7
comp=Z,110nm,20.1s,baz=306,slow=32
KHBM Hayfork Bally 30.66 98 P P 12 29 55.0 -1.4
K05A Summer Lake 30.78 93 P P 12 29 57.1 -0.3
K05A IAmb IAmb 12 30 01.4
comp=Z,22nm,0.9s
KCPM Cahto Peak 31.07 100 P P 12 29 58.7 -1.2
O02D Mt. Diablo Mer 31.22 98 P P 12 29 59.9 -1.2
HATC Hat Creek Radi 31.60 96 P P 12 30 03.1 -1.5
HATC IAmb IAmb 12 30 12.6
comp=Z,41nm,1.2s
MOD Modoc Plateau 31.63 93 P P 12 30 03.2 -1.6
MOD IAmb IAmb 12 30 08.4
comp=Z,23nm,1.0s
BMO Blue Mountains 31.71 86 P P 12 30 05.5 0.0
O03E Paynes Creek 31.73 97 P P 12 30 06.3 +0.6
O03E IAmb IAmb 12 30 08.6
comp=Z,28nm,1.4s
J08A Circle Bar Ran 31.86 90 P P 12 30 07.7 +1.0
J08A IAmb IAmb 12 30 09.7
comp=Z,28nm,1.3s
GDXM Geysers 32.10 100 P P 12 30 09.8 +0.9
GDXM IAmb IAmb 12 30 12.7
comp=Z,12nm,1.1s
WVOR Wild Horse Val 32.30 91 P P 12 30 11.8 +1.1
WVOR IAmb IAmb 12 30 13.8
comp=Z,18nm,0.8s
WVOR Wild Horse Val 32.30 91 P P 12 30 10.9 +0.2
comp=Z,24nm,1.1s
KIP Kipapa 32.52 168 P P 12 30 12.5 0.0
comp=Z,109nm,2.0s
HON Honolulu 32.62 168 P P 12 30 12.9 -0.5
comp=Z,183nm,0.9s
BEKR Beckworth 32.86 96 P P 12 30 16.0 +0.4
BEKR IAmb IAmb 12 30 19.5
comp=Z,12nm,1.2s
AFDM Forest Hills D 33.09 98 P P 12 30 19.0 +1.5
TIXI Tiksi 33.14 328 LR LR 12 45 15.8
comp=Z,153nm,18.3s,baz=70,slow=39
TIXI Tiksi 33.14 328 *e*P P 12 30 19.0 +1.5
TIXI pmax pmax
comp=Z,21nm,3.3s
TIXI Tiksi 33.14 328 P P 12 30 17.4 -0.1
MFID Camas Ranch 33.40 87 P P 12 30 20.4 +0.1
PAHR Pah Rah Range 33.54 96 P P 12 30 23.5 +2.0
PAHR IAmb IAmb 12 30 24.8
comp=Z,22nm,0.9s
PNTR Pine Nut 33.81 97 P P 12 30 25.3 +1.4
CMB Columbia Colle 34.03 99 P P 12 30 26.6 +0.9
CMB IAmb IAmb 12 30 31.2
comp=Z,14nm,1.5s
RES Resolute Bay 34.08 26 LR LR 12 46 13.1
comp=Z,108nm,19.6s,baz=302,slow=40
RES Resolute Bay 34.08 26 P P 12 30 25.6 -0.1
YERR Yerington 34.09 97 P P 12 30 27.5 +1.2
YERR IAmb IAmb 12 30 29.8
comp=Z,31nm,1.1s
HLID Hailey 34.16 86 P P 12 30 27.2 +0.2
HLID Hailey 34.16 86 P P 12 30 27.9 +1.0
comp=Z,11nm,2.4s
WAKR Walker 34.28 97 P P 12 30 29.8 +1.7
WAKR IAmb IAmb 12 30 31.2
comp=Z,12nm,0.8s
BMN Battle Mountai 34.36 93 P P 12 30 29.6 +0.9
BMN IAmb IAmb 12 30 31.6
comp=Z,14nm,0.6s
MCMT McKenzie Canyo 34.38 83 P P 12 30 28.1 -0.8
YAK Yakutsk 34.45 311 LR LR 12 44 52.7
comp=Z,113nm,18.9s,baz=62,slow=37
YAK Yakutsk 34.45 311 *e*P P 12 30 31.7 +2.7
YAK pmax pmax
comp=Z,78nm,2.2s
KVN Kaiserville 34.72 95 P P 12 30 33.6 +1.7
KVN IAmb IAmb 12 30 35.1
comp=Z,21nm,1.0s
LHV Little Huntoon 35.00 97 P P 12 30 36.7 +2.7
LHV IAmb IAmb 12 30 38.5
comp=Z,35nm,1.2s
NVAR Mina Array Bea 35.00 96 P P 12 30 36.0 +1.7
comp=Z,12nm,0.8s,baz=298,slow=8.4,SNR=68
NVAR PcP PcP 12 33 06.3 +0.7
comp=Z,1.0nm,0.8s,baz=319,slow=4.0,SNR=3.6
comp=Z,12nm,0.8s
NVAR Mina Array Bea 35.00 96 P P 12 30 36.5 +2.2
MDPB Devils Postpil 35.07 98 P P 12 30 37.4 +2.5
MDPB IAmb IAmb 12 30 38.5
comp=Z,25nm,1.2s
JKA Kamikawa-asahi 35.12 276 P P 12 30 35.2 +0.2
comp=Z,57nm,1.3s
ASAJ Asahikawa 35.12 276 LR LR 12 43 49.4
comp=Z,64nm,21.7s,baz=77,slow=35
BLKN Baker Lake 35.28 45 P P 12 30 36.3 +0.2
YHL Hebgen Lake 35.35 82 P P 12 30 37.8 +0.5
ELK Elko 35.35 91 LR LR 12 42 30.9
comp=Z,121nm,20.7s,baz=274,slow=32
ELK Elko 35.35 91 P P 12 30 39.0 +1.7
ELK IAmb IAmb 12 30 40.1
comp=Z,13nm,0.7s
PKD Bear Valley Ra 35.36 102 P P 12 30 38.0 +0.8
PKD IAmb IAmb 12 30 40.1
comp=Z,9.7nm,0.7s
YMR Madison River 35.58 82 P P 12 30 39.9 +0.7
YHH Holmes Hill 35.58 82 P P 12 30 39.8 +0.5
YHH IAmb IAmb 12 30 41.5
comp=Z,15nm,1.3s
FFC Flin Flon 35.74 62 P P 12 30 40.8 +0.7
FFC IAmb IAmb 12 30 47.0
comp=Z,25nm,1.4s
FFC Flin Flon 35.74 62 P P 12 30 38.4 -1.8
TPH Tonopah 35.88 96 P P 12 30 42.7 +0.9
TIN Tinemaha, Big 35.96 98 P P 12 30 43.8 +1.4
H17A Grant Village 35.96 82 P P 12 30 43.0 +0.4
MZP Montezuma Peak 36.03 97 P P 12 30 44.1 +0.9
MZP IAmb IAmb 12 30 46.4
comp=Z,36nm,1.4s
VES Vestal, Richgr 36.29 100 P P 12 30 45.8 +0.8
GMN Gold Mountain 36.37 97 P P 12 30 47.5 +1.4
GMN IAmb IAmb 12 30 49.3
comp=Z,9.6nm,0.8s
AHID Auburn Hatcher 36.59 85 P P 12 30 47.6 -0.3
comp=Z,9.1nm,1.1s
S11A Rachel 37.04 95 P P 12 30 52.3 +0.7
S11A IAmb IAmb 12 31 23.8
comp=Z,19nm,1.0s
MPMC Manual Prospec 37.08 99 P P 12 30 53.0 +1.0
MPMC IAmb IAmb 12 30 55.1
comp=Z,19nm,1.1s
WCT Wildcat Mounta 37.09 97 P P 12 30 53.0 +1.0
DUG Dugway, Tooele 37.14 90 P P 12 30 52.9 +0.4
DUG IAmb IAmb 12 30 55.3
comp=Z,25nm,1.3s
DUG Dugway, Tooele 37.14 90 P P 12 30 52.1 -0.4
comp=Z,21nm,1.1s
FURC Furnace Creek, 37.16 98 P P 12 30 53.5 +1.0
CLC China Lake 37.18 99 P P 12 30 53.7 +1.0
CLC IAmb IAmb 12 30 55.8
comp=Z,13nm,1.0s
TPNV Topopah Spring 37.20 97 P P 12 30 54.6 +1.5
LRMC Laurel Mtn Rad 37.36 100 P P 12 30 55.1 +0.8
DGMT Dagmar 37.46 72 P P 12 30 55.0 +0.1
DGMT IAmb IAmb 12 31 17.4
comp=Z,36nm,1.5s
GWY Greenwater Val 37.47 98 P P 12 30 56.0 +0.7
GWY IAmb IAmb 12 30 58.2
comp=Z,23nm,0.8s
QSM Queen of Sheba 37.51 98 P P 12 30 56.3 +0.9
QSM IAmb IAmb 12 30 58.3
comp=Z,19nm,0.8s
PD31 Pinedale Array 37.51 84 P P 12 30 55.0 -0.7
PDAR Pinedale Array 37.51 84 P P 12 30 56.8 +1.1
comp=Z,1.4nm,0.4s,baz=303,slow=2.8,SNR=35
comp=Z,1.4nm,0.4s
PDAR Pinedale Array 37.51 84 P P 12 30 55.4 -0.3
CCCA Chr Cany lake 37.52 99 P P 12 30 57.8 +2.2
PSUT Pine Spring 37.58 92 P P 12 30 58.0 +1.7
PSUT IAmb IAmb 12 30 58.8

comp=Z,31nm,1.4s
PRN Pahroc Range 37.61 95 P **P** **12 30 58.1 +1.6**
PRN lAmb lAmb 12 30 59.5
comp=Z,32nm,1.0s
NLU North Lily Min 37.73 89 P **P** **12 30 58.1 +0.5**
SHOC Shoshone, Teco 37.90 98 P **P** **12 31 00.1 +1.3**
PASC Pasadena Art C 37.98 102 P **P** **12 31 00.3 +0.8**
GSC Goldstone, Bar 38.00 99 P **P** **12 31 00.6 +0.9**
GSC lAmb lAmb 12 31 02.7
comp=Z,23nm,0.9s
MWC Mount Wilson 38.02 101 P **P** **12 31 01.1 +1.1**
MWC lAmb lAmb 12 31 03.6
comp=Z,26nm,1.4s
FCC Fort Churchill 38.04 53 P **P** **12 30 59.2 -0.4**
SHPR Sheep Range 38.15 96 P **P** **12 31 02.3 +1.3**
BSUT Blindstream Ca 38.15 87 P **P** **12 31 03.1 +1.8**
BFSC Mount Baldy Ra 38.24 101 P **P** **12 31 02.6 +0.8**
BFSC lAmb lAmb 12 31 04.6
comp=Z,30nm,1.3s
TCRU Three Creeks R 38.37 91 P **P** **12 31 04.3 +1.3**
TCRU lAmb lAmb 12 31 05.6
comp=Z,8.8nm,0.7s
CCUT Cedar City 38.52 93 P **P** **12 31 05.0 +0.8**
MTPC Mountain Pass 38.61 98 P **P** **12 31 06.2 +1.3**
MTPC lAmb lAmb 12 31 07.7
comp=Z,9.2nm,0.7s
KLR Kul'dur 38.64 290 LR LR 12 48 00.2
comp=Z,91nm,19.5s,baz=39,slow=38
KLR Kul'dur 38.64 290‖ *e*P **P** **12 31 04.5 -0.3**
KLR pmax pmax
comp=Z,44nm,3.3s
SZCU Shurtz Canyon 38.65 93 P **P** **12 31 05.8 +0.5**
TMUT Trail Mountain 38.67 89 P **P** **12 31 06.0 +0.4**
TMUT lAmb lAmb 12 31 08.2
comp=Z,13nm,0.9s
ELS Elsinore Mount 38.80 101 P **P** **12 31 06.9 +0.5**
P17A Butcher Ranch, 38.83 89 P **P** **12 31 07.7 +0.9**
RDMU Red Mountain 38.84 87 P **P** **12 31 07.7 +0.8**
RDMU lAmb lAmb 12 31 09.2
comp=Z,11nm,0.9s
Q16A Castle Valley 38.93 90 P **P** **12 31 08.6 +1.0**
Q16A lAmb lAmb 12 31 10.6
comp=Z,17nm,1.1s
LCMT Little Creek M 38.95 94 P **P** **12 31 08.4 +0.7**
P18A Preston Nutter 39.03 88 P **P** **12 31 09.2 +0.6**
P18A lAmb lAmb 12 31 11.2
comp=Z,30nm,1.5s
SRU San Rafael Swe 39.19 89 P **P** **12 31 10.9 +1.1**
SRU lAmb lAmb 12 31 13.4
comp=Z,24nm,1.2s
PKCU Pink Cliffs 39.21 93 P **P** **12 31 12.0 +1.8**
PKCU lAmb lAmb 12 31 12.8
comp=Z,11nm,0.6s
DNR Dunn Ranch,Anz 39.32 101 P **P** **12 31 11.7 +0.9**
DNR lAmb lAmb 12 31 13.7
comp=Z,29nm,0.9s
K22A Casper 39.37 82 P **P** **12 31 11.3 0.0**
K22A lAmb lAmb 12 31 12.7
comp=Z,17nm,1.1s
BELC Belle Mtn. Jos 39.38 100 P **P** **12 31 11.5 +0.2**
BELC lAmb lAmb 12 31 13.7
comp=Z,13nm,0.9s
PFO Pinyon Flats O 39.39 101 *i* P **P** **12 31 13.2 +1.8**
PFO Pinyon Flats O 39.39 101 P **P** **12 31 12.2 +0.8**
PFO Pinyon Flats O 39.39 101 P **P** **12 31 12.0 +0.6**
comp=Z,12nm,1.9s
PMD Palm Desert 39.41 100 P **P** **12 31 12.3 +0.9**
PMD lAmb lAmb 12 31 13.8
comp=Z,13nm,1.0s
DPP Dos Picos Cty 39.54 102 P **P** **12 31 13.6 +1.0**
DPP lAmb lAmb 12 31 15.6
comp=Z,26nm,1.3s
BORC Borrego Spring 39.66 101 P **P** **12 31 14.3 +0.8**
BORC lAmb lAmb 12 31 16.6
comp=Z,19nm,1.0s
IRM Iron Mountain 39.77 99 P **P** **12 31 15.2 +0.7**
IRM lAmb lAmb 12 31 17.4
comp=Z,33nm,1.3s
HMU Henry Mountain 39.82 91 P **P** **12 31 16.3 +1.2**
HMU lAmb lAmb 12 31 17.7
comp=Z,21nm,0.8s
W13A Hualapai Mount 39.86 97 P **P** **12 31 16.4 +0.9**
W13A lAmb lAmb 12 31 18.1
comp=Z,21nm,0.8s
O20A White River Ci 39.90 86 P **P** **12 31 16.0 +0.3**
O20A lAmb lAmb 12 31 17.6
comp=Z,15nm,0.8s
U15A North Rim 39.90 94 P **P** **12 31 17.1 +1.3**
U15A lAmb lAmb 12 31 18.4
comp=Z,14nm,0.6s
BAR Barrett 39.93 102 P **P** **12 31 16.6 +0.8**
BAR lAmb lAmb 12 31 18.8
comp=Z,18nm,1.1s
BC3 Big Chuckawall 39.95 100 P **P** **12 31 16.4 +0.4**
RSSD Black Hills 39.96 78 P **P** **12 31 15.7 -0.4**
RSSD Black Hills 39.96 78 P **P** **12 31 15.8 -0.3**
H11N2 WAKE ISLAND Hy 40.17 224 T T 13 14 10.6
baz=26,slow=76,SNR=340
H11N3 WAKE ISLAND Hy 40.18 224 T T 13 14 12.3
baz=26,slow=76,SNR=250
H11N1 WAKE ISLAND Hy 40.19 224 T T 13 14 10.0
baz=26,slow=76,SNR=286
CBX Cerro Bola 40.20 102 P **P** **12 31 19.1 +1.0**
CBX lAmb lAmb 12 31 21.3
comp=Z,33nm,1.2s
HAYD Hayden 40.24 85 P **P** **12 31 18.4 -0.2**
YUH Yuha Desert 40.39 101 P **P** **12 31 20.8 +1.3**
YUH lAmb lAmb 12 31 22.3
comp=Z,14nm,1.1s
MDND Maddock 40.39 71 P **P** **12 31 20.1 +0.6**
MDND lAmb lAmb 12 31 21.4
comp=Z,35nm,0.8s
PV21 Cone Mtn., Par 40.47 89 P **P** **12 31 20.9 +0.5**
PV21 lAmb lAmb 12 31 24.4
comp=Z,12nm,0.8s
E28A Huff 40.48 73 P **P** **12 31 20.8 +0.5**
E28A lAmb lAmb 12 31 21.9
comp=Z,24nm,0.6s
PV23 Carpenter Ridg 40.52 89 P **P** **12 31 21.8 +0.9**
PV23 lAmb lAmb 12 31 29.2
comp=Z,9.7nm,0.7s
PV10 Paradox Valley 40.55 89 P **P** **12 31 22.2 +1.0**
PV10 lAmb lAmb 12 31 23.6
comp=Z,23nm,0.9s
PV14 Lion Creek, Pa 40.56 89 P **P** **12 31 22.2 +0.9**
PV14 lAmb lAmb 12 31 22.6
comp=Z,11nm,0.8s
PV22 Blue Mesa, Par 40.60 88 P **P** **12 31 22.4 +0.8**
PV22 lAmb lAmb 12 31 24.4
comp=Z,16nm,0.8s
PV20 West Nyswonger 40.62 89 P **P** **12 31 22.4 +0.7**
PV04 Paradox Valley 40.62 89 P **P** **12 31 22.4 +0.8**
PV04 lAmb lAmb 12 31 23.1
comp=Z,14nm,0.7s
PV17 East Wray Mesa 40.66 89 P **P** **12 31 22.9 +0.8**
PV17 lAmb lAmb 12 31 23.9
comp=Z,19nm,0.8s
PV16 Nyswonger Mesa 40.67 89 P **P** **12 31 23.3 +1.2**
PV16 lAmb lAmb 12 31 23.4
comp=Z,11nm,0.8s
PV11 David Mesa, Pa 40.70 89 P **P** **12 31 23.0 +0.6**
PV11 lAmb lAmb 12 31 25.6
comp=Z,27nm,0.7s
PV05 Paradox Valley 40.71 89 P **P** **12 31 23.8 +1.3**
PV05 lAmb lAmb 12 31 27.8
comp=Z,18nm,0.8s
PV18 Skein Mesa, Pa 40.72 89 P **P** **12 31 23.5 +1.1**
PV18 lAmb lAmb 12 31 24.3
comp=Z,24nm,0.8s
PV12 Saucer Basin, 40.73 89 P **P** **12 31 23.6 +0.9**
PV12 lAmb lAmb 12 31 57.1
comp=Z,17nm,0.9s
GLA Glamis 40.74 100 P **P** **12 31 23.6 +1.1**
GLA lAmb lAmb 12 31 25.3
comp=Z,33nm,1.2s
PV03 Paradox Valley 40.75 89 P **P** **12 31 23.7 +1.0**
PV03 lAmb lAmb 12 31 24.1
comp=Z,16nm,0.7s
PV07 Paradox Valley 40.75 88 P **P** **12 31 23.9 +1.2**
PV07 lAmb lAmb 12 31 24.7
comp=Z,16nm,0.8s
PV13 Radium Mtn., P 40.83 89 P **P** **12 31 24.1 +0.7**
ESJX Sierra Juarez 40.84 102 P **P** **12 31 24.6 +1.2**
ESJX lAmb lAmb 12 31 26.5
comp=Z,21nm,1.0s
PV02 Paradox Valley 40.84 89 P **P** **12 31 23.9 +0.4**
PV15 Paradox Valley 40.91 88 P **P** **12 31 24.8 +0.7**
PV15 lAmb lAmb 12 31 25.9
comp=Z,20nm,0.8s
PV01 Paradox Valley 40.99 89 P **P** **12 31 25.5 +0.7**
PV01 lAmb lAmb 12 31 26.6
comp=Z,28nm,0.7s
WUAZ Wupatki 41.07 94 P **P** **12 31 26.3 +1.0**
WUAZ lAmb lAmb 12 31 28.1
comp=Z,19nm,0.7s
ULM Lac du Bonnet 41.15 66 P **P** **12 31 25.8 +0.1**
comp=Z,5.2nm,0.9s,baz=304,slow=6.3,SNR=7.4
ULM LR LR 12 48 09.6
comp=Z,118nm,18.7s,baz=6.0,slow=36
comp=Z,5.2nm,0.9s
ULM Lac du Bonnet 41.15 66 P **P** **12 31 25.8 +0.1**
USRK Ussuriysk Ar. 41.30 283 P **P** **12 31 24.7 -2.3**
comp=Z,1.2nm,0.6s,baz=42,slow=10.0,SNR=2.8
USRK LR LR 12 49 58.9
comp=Z,44nm,18.6s,baz=52,slow=38
comp=Z,1.2nm,0.6s
H11S1 WAKE ISLAND Hy 41.35 223 T T 13 15 36.7
baz=25
H11S2 WAKE ISLAND Hy 41.36 223 T T 13 15 35.9
baz=25,slow=74
H11S3 WAKE ISLAND Hy 41.37 223 T T 13 15 39.0
baz=25,slow=74
113A Mohawk Valley, 41.57 99 P **P** **12 31 30.1 +0.9**
MVCO Mesa Verde 41.64 90 P **P** **12 31 31.2 +1.1**
MVCO Mesa Verde 41.64 90 P **P** **12 31 29.9 -0.2**
comp=Z,11nm,1.3s
ISCO Idaho Springs 41.68 85 P **P** **12 31 30.5 +0.1**
ISCO Idaho Springs 41.68 85 P **P** **12 31 30.0 -0.4**
X16A Lo Mia Camp, P 41.78 95 P **P** **12 31 32.2 +0.9**
AGMN Agassiz Nation 42.23 68 P **P** **12 31 34.0 -0.4**
MJAR Matsushiro Arr 42.46 270 P **P** **12 31 35.9 -0.7**
comp=Z,1.8nm,0.6s,baz=36,slow=6.6,SNR=11
MJAR LR LR 12 46 22.4
comp=Z,80nm,21.4s,baz=36,slow=32
comp=Z,1.8nm,0.6s
MJAR Matsushiro Arr 42.46 270 P **P** **12 31 35.7 -0.9**
MAJO Matsushiro 42.46 270‖ *e*P **P** **12 31 36.4 -0.1**
MAJO pmax pmax
comp=Z,42nm,2.4s
MAJO Matsushiro 42.46 270 P **P** **12 31 36.2 -0.3**
comp=Z,15nm,2.0s
X18A Snowflake 42.59 94 P **P** **12 31 38.4 +0.6**
X18A lAmb lAmb 12 31 40.9
comp=Z,19nm,1.2s
PIX Pinacate 42.62 100 P **P** **12 31 38.3 +0.5**
EPLO Experimental L 42.63 65 P **P** **12 31 37.0 -0.7**
NEEM North Greenlan 43.05 17 *i* P **P** **12 31 41.7 +0.6**
NEEM lAmb lAmb 12 31 44.9
comp=Z,32nm,1.1s
OGNE Ogallala 43.07 81 P **P** **12 31 42.0 +0.5**
OGNE lAmb lAmb 12 31 43.4
comp=Z,26nm,0.7s
SDCO Great Sand Dun 43.07 87 P **P** **12 31 42.5 +0.7**
JGF Kuroka 43.61 270 P **P** **12 31 46.2 +0.4**
comp=Z,18nm,0.9s
TUC Tucson 43.66 97 P **P** **12 31 47.6 +1.3**
TUC Tucson 43.66 97 P **P** **12 31 47.0 +0.7**
comp=Z,14nm,1.2s
JSG Sagara 43.75 268 P **P** **12 31 45.2 -1.6**
JSG Sagara 43.75 268 P **P** **12 31 45.2 -1.6**
comp=Z,162nm,1.9s
KSCO Kaye Shedlock' 43.95 83 P **P** **12 31 48.7 0.0**
NOR Nord 43.98 6 P **P** **12 31 48.8 +0.5**
comp=Z,25nm,2.7s
T25A Trinidad 44.12 87 P **P** **12 31 50.3 +0.1**
T25A lAmb lAmb 12 31 52.5
comp=Z,24nm,1.0s
TASM ASL Pad, Albuq 44.39 90 P **P** **12 31 52.5 +0.3**
TASM ASL Pad, Albuq 44.39 90 P **P** **12 31 52.6 +0.4**
TASM lAmb lAmb 12 31 54.7
comp=Z,9.3nm,1.3s
TASM ASL Pad, Albuq 44.39 90 P **P** **12 31 53.0 +0.7**
TASM lAmb lAmb 12 31 54.6
comp=Z,9.8nm,1.3s
TASM ASL Pad, Albuq 44.39 90 P **P** **12 31 53.0 +0.7**
TASM lAmb lAmb 12 31 54.6
comp=Z,11nm,1.4s
ANMO Albuquerque 44.39 90‖ *e*P **P** **12 31 53.2 +0.9**
ANMO Albuquerque 44.39 90 P **P** **12 31 53.1 +0.9**
ANMO Albuquerque 44.39 90 P **P** **12 31 53.1 +0.9**
ANMO lAmb lAmb 12 31 54.7
comp=Z,9.6nm,1.3s
ANMO Albuquerque 44.39 90 P **P** **12 31 52.6 +0.4**
comp=Z,9.7nm,2.7s
ALQ Albuquerque 44.39 90 P **P** **12 31 52.3 0.0**
ALQ Albuquerque 44.39 90 P **P** **12 31 53.4 +1.1**
ALQ lAmb lAmb 12 31 54.7
comp=Z,9.3nm,1.3s
ECSD EROS Data Cent 44.49 74 P **P** **12 31 52.1 -0.6**
ECSD lAmb lAmb 12 31 53.2
comp=Z,12nm,0.5s
ECSD EROS Data Cent 44.49 74 P **P** **12 31 52.6 -0.1**
comp=Z,28nm,0.9s
LENM Lemitar 44.62 92 P **P** **12 31 54.7 +0.6**
SBM South Baldy 44.63 92 P **P** **12 31 55.2 +0.7**
EYMN Ely 44.83 66 P **P** **12 31 55.5 +0.1**
EYMN Ely 44.83 66 P **P** **12 31 54.5 -0.9**
CRNM Carthage 44.91 92 P **P** **12 31 57.2 +0.7**
BGNE Belgrade 45.05 77 P **P** **12 31 57.3 +0.1**
121A Cookes Peak, D 45.28 94 P **P** **12 32 00.4 +1.0**
121A lAmb lAmb 12 32 02.2
comp=Z,19nm,1.2s
L34A Svendsen Farm, 45.72 76 P **P** **12 32 02.5 -0.1**
SPMN Marine on St. 45.73 70 P **P** **12 32 03.0 +0.4**
SPMN lAmb lAmb 12 32 04.4
comp=Z,9.4nm,1.0s
CBKS Cedar Bluff 45.79 81 P **P** **12 32 03.5 +0.3**
HSIG 45.95 100 P **P** **12 32 05.1 +0.6**
I37A Lemond, Waseca 46.14 72 P **P** **12 32 05.9 0.0**
NRIK Noril'sk 46.65 332 LR LR 12 54 35.3
comp=Z,53nm,19.0s,baz=76,slow=40
NRIK Noril'sk 46.65 332‖ *e*P **P** **12 32 10.3 +0.8**
NRIK pmax pmax
comp=Z,18nm,2.4s
R32A Long Quarter, 46.65 81 P **P** **12 32 10.2 +0.3**
PH02 Texas Public H 46.77 86 P **P** **12 32 11.8 +0.9**
MSTX Muleshoe 47.26 89 P **P** **12 32 15.0 +0.2**
MSTX lAmb lAmb 12 32 17.2
comp=Z,20nm,1.1s
MNTX Cornudas Mount 47.30 93 P **P** **12 32 16.0 +0.9**
MNTX lAmb lAmb 12 32 17.7
comp=Z,13nm,0.8s
MNTX Cornudas Mount 47.30 93 P **P** **12 32 15.8 +0.7**
comp=Z,24nm,1.5s
KSU1 Kansas State U 47.44 79 P **P** **12 32 16.1 +0.1**
GDL2 Guadalupe Moun 47.55 91 P **P** **12 32 17.7 +0.5**
I40A Norwalk 47.79 70 P **P** **12 32 18.6 0.0**
ELIS Ellis County 47.81 84 P **P** **12 32 19.7 +0.7**
TPB28 47.85 92 P **P** **12 32 20.1 +0.6**
TPB28 lAmb lAmb 12 32 22.3
comp=Z,13nm,0.8s
KSRS Korea Array 47.96 279 P **P** **12 32 20.3 +0.3**
comp=Z,1.3nm,0.6s,baz=50,slow=7.5,SNR=5.6
KSRS LR LR 12 52 35.9
comp=Z,22nm,19.0s,baz=60,slow=36
comp=Z,1.3nm,0.6s
SMWD Samnorwood 47.98 85 P **P** **12 32 20.4 +0.1**
KAN01 Argonia South 48.06 82 P **P** **12 32 20.7 -0.1**
DAG Danmarks Havn 48.16 10 P **P** **12 32 21.3 +0.2**
DAG Danmarks Havn 48.16 10 P **P** **12 32 21.4 +0.3**
comp=Z,31nm,2.8s
DAG Danmarks Havn 48.16 10 *i* P **P** **12 32 21.0 -0.1**
DAG lAmb lAmb 12 32 22.7
comp=Z,12nm,0.6s
N38A Joes South For 48.29 75 P **P** **12 32 22.3 -0.3**
128A Castleberry Fa 48.38 90 P **P** **12 32 24.2 +0.7**
PECS Pecos 48.44 92 P **P** **12 32 24.9 +0.9**
SPITS Spitsbergen Ar 48.50 360 P **P** **12 32 23.9 +0.1**
comp=Z,8.7nm,0.8s,baz=3.9,slow=8.3,SNR=4.3
comp=Z,8.7nm,0.8s
DKNS Dickens 48.57 87 P **P** **12 32 25.2 +0.3**
DKNS lAmb lAmb 12 32 25.9
comp=Z,11nm,0.7s
POST Post 48.65 88 P **P** **12 32 25.8 +0.3**
KAPO Kapuskasing 48.68 59 P **P** **12 32 25.0 -0.4**
ODSA Odessa 48.69 90 P **P** **12 32 25.5 -0.4**
ODSA lAmb lAmb 12 32 27.7
comp=Z,19nm,1.2s
129A Stewart Farms, 48.74 89 P **P** **12 32 26.5 +0.2**
129A lAmb lAmb 12 32 27.7
comp=Z,14nm,0.8s
SUMG Summit 48.78 19 P **P** **12 32 25.8 -0.6**
SUMG pmax pmax
comp=Z,64nm,1.5s
SUMG Summit 48.78 19 P **P** **12 32 25.9 -0.6**
SUMG Summit 48.78 19 P **P** **12 32 27.4 +0.9**
SUMG Summit 48.78 19 *i* P **P** **12 32 28.6 +2.1**
TPB01 Permian Basin 48.80 92 P **P** **12 32 27.3 +0.6**
TPB01 lAmb lAmb 12 32 28.5
comp=Z,11nm,0.8s
P38A Dawn 48.88 76 P **P** **12 32 26.9 -0.3**
T35A Sooner Cattle 48.95 81 P **P** **12 32 27.8 +0.1**
SN07 Snyder 07 48.99 88 P **P** **12 32 28.6 +0.4**
SN07 lAmb lAmb 12 32 29.7
comp=Z,15nm,0.9s
TJN Taejon 49.02 278 P **P** **12 32 28.7 +0.5**
comp=Z,71nm,2.0s
OK048 Pawnee Station 49.04 82 P **P** **12 32 28.0 -0.4**
TPB05 Hovey Rd 49.09 92 P **P** **12 32 29.4 +0.5**
TPB05 lAmb lAmb 12 32 30.9
comp=Z,14nm,0.8s
WMOK Wichita Mounta 49.10 85 P **P** **12 32 29.9 +1.0**
WMOK Wichita Mounta 49.10 85 P **P** **12 32 29.6 +0.6**
WMOK Wichita Mounta 49.10 85 P **P** **12 32 29.2 +0.3**
comp=Z,30nm,0.8s
MNHN Monahans 49.12 91 P **P** **12 32 30.0 +0.9**
JNU Nakatsue 49.18 272 LR LR 12 51 12.8
comp=Z,67nm,22.0s,baz=82,slow=34
APMT Aspermont 49.29 87 P **P** **12 32 30.7 +0.3**
APMT lAmb lAmb 12 32 31.6
comp=Z,15nm,1.0s
ALPN Alpine 49.29 93 P **P** **12 32 30.4 -0.1**
ALPN lAmb lAmb 12 32 32.3
comp=Z,10nm,0.7s
TMB01 Midkiff 49.29 90 P **P** **12 32 31.1 +0.6**
TMB01 lAmb lAmb 12 32 32.0
comp=Z,15nm,0.7s
QUOK Quay 49.34 82 P **P** **12 32 30.2 -0.5**
OK052 Battle Ridge R 49.41 82 P **P** **12 32 31.4 +0.2**
FNO Franklin 49.56 83 P **P** **12 32 32.8 +0.4**
SGCY Sterling City 49.69 89 P **P** **12 32 33.4 -0.1**
DEOK Depew 49.69 82 P **P** **12 32 33.3 -0.1**
DEOK lAmb lAmb 12 32 34.8
comp=Z,27nm,1.2s
N41A Harden Midland 49.71 73 P **P** **12 32 32.7 -0.7**
P40A Paris 49.80 75 P **P** **12 32 33.6 -0.6**
W35A Tecumseh 49.95 83 P **P** **12 32 35.1 -0.2**
TX31 Lajitas Ar. Si 50.03 94 P **P** **12 32 36.4 +0.2**
TXAR Lajitas Array 50.03 94 P **P** **12 32 37.3 +1.2**
comp=Z,16nm,0.5s,baz=300,slow=5.4,SNR=317
TXAR Lajitas Array 50.03 94 P **P** **12 32 36.4 +0.2**
TUL3 Leonard 50.06 81 P **P** **12 32 35.3 -0.9**
ABTX Abilene, Hawle 50.07 87 P **P** **12 32 36.2 -0.1**
DBG Daneborg 50.20 12 P **P** **12 32 36.5 -0.1**
comp=Z,29nm,1.8s
DBG Daneborg 50.20 12 *i* P **P** **12 32 36.8 +0.1**
DBG lAmb lAmb 12 32 38.2
comp=Z,7.5nm,0.6s
S39A Bolivar 50.30 78 P **P** **12 32 36.4 -1.6**
OZNA Ozona 50.39 90 P **P** **12 32 39.0 +0.1**
SAND Sanderson 50.50 92 P **P** **12 32 39.5 -0.1**
SAND lAmb lAmb 12 32 41.3
comp=Z,10nm,1.0s
R40A Maddies Statio 50.51 77 P **P** **12 32 38.1 -1.4**
U38A Gravette 50.53 80 P **P** **12 32 39.0 -0.7**
LOOK Love County 50.57 84 P **P** **12 32 39.8 -0.3**
HPIG 50.61 97 P **P** **12 32 41.1 +0.4**
comp=Z,5.8nm,0.7s
HDIL Hopedale 50.70 72 P **P** **12 32 40.1 -0.9**
PLPT Palo Pinto 50.72 86 P **P** **12 32 41.4 +0.2**
HHAR Hobbs 50.90 80 P **P** **12 32 41.8 -0.7**
P43A Skaggs, Pawnee 51.18 73 P **P** **12 32 44.0 -0.6**
CCM Cathedral Cave 51.26 76 P **P** **12 32 44.1 -1.0**
CCM lAmb lAmb 12 32 44.8
comp=Z,13nm,0.8s
CCM Cathedral Cave 51.26 76 P **P** **12 32 43.5 -1.7**
comp=Z,18nm,1.0s
BRDY Brady 51.40 88 P **P** **12 32 46.4 0.0**
BRDY lAmb lAmb 12 32 47.5
comp=Z,19nm,0.8s
SLM Saint Louis 51.45 75 P **P** **12 32 46.0 -0.6**
JCT Junction City 51.50 89 P **P** **12 32 47.0 -0.1**
FW13 Cleburne 51.58 86 P **P** **12 32 48.0 +0.4**
NUUK Nuuk 51.74 31 P **P** **12 32 49.4 +1.0**
comp=Z,83nm,2.0s
FVM French Village 51.78 76 P **P** **12 32 48.3 -0.8**
WHTX Lake Whitney, 51.82 86 P **P** **12 32 49.6 +0.2**
Q44A Meyer Farm, Va 51.97 74 P **P** **12 32 50.2 -0.3**
Q44A lAmb lAmb 12 32 50.8
comp=Z,22nm,1.0s
T42A Van Buren 52.05 77 P **P** **12 32 49.1 -2.0**
FCAR Ozark Folk Cen 52.23 79 P **P** **12 32 51.1 -1.4**
MIAR Mount Ida 52.31 81 P **P** **12 32 52.8 -0.3**
MIAR lAmb lAmb 12 32 53.9
comp=Z,15nm,0.8s
MIAR Mount Ida 52.31 81 P **P** **12 32 53.1 +0.1**
WHAR Wooly Hollow 52.55 79 P **P** **12 32 54.2 -0.6**
WHAR lAmb lAmb 12 32 56.0
comp=Z,9.9nm,0.7s
PBMO Poplar Bluff 52.61 77 P **P** **12 32 54.0 -1.2**
PBMO lAmb lAmb 12 32 55.5
comp=Z,20nm,1.0s
OLIL Olney 52.61 73 P **P** **12 32 54.7 -0.5**
SCHQ Schefferville 52.65 46 P **P** **12 32 56.0 +0.7**
comp=Z,7.0nm,0.8s,baz=308,slow=7.6,SNR=7.1
comp=Z,7.0nm,0.8s
SCHQ Schefferville 52.65 46 P **P** **12 32 54.6 -0.6**
SCHQ lAmb lAmb 12 33 10.8
comp=Z,26nm,1.2s
ULN Ulaanbaatar 52.65 302 *de*P **P** **12 32 55.2 -0.4**
ULN pmax pmax
comp=Z,6.0nm,0.9s
ULN Ulaanbaatar 52.65 302 P **P** **12 32 54.4 -1.2**
ULN lAmb lAmb 12 33 01.8
comp=Z,12nm,1.4s
ULN Ulaanbaatar 52.65 302 P **P** **12 32 55.1 -0.5**
comp=Z,9.1nm,0.9s
S44A Carbondale 52.66 75 P **P** **12 32 54.8 -0.7**
LCAR Lake Charles 52.67 78 P **P** **12 32 54.4 -1.3**
CGM3 Cape Girardeau 52.70 76 P **P** **12 32 54.8 -1.1**
CGM3 lAmb lAmb 12 32 55.4
comp=Z,15nm,0.6s
X40A Basin Creek Fa 52.79 81 P **P** **12 32 56.6 0.0**
X40A lAmb lAmb 12 32 56.9
comp=Z,8.8nm,0.8s
SONM Songino Array 53.00 302 P **P** **12 32 57.6 -0.6**
comp=Z,1.6nm,0.7s,baz=54,slow=6.8,SNR=5.9
SONM LR LR 12 55 39.7
comp=Z,72nm,20.4s,baz=44,slow=36
comp=Z,1.6nm,0.7s
SONM Songino Array 53.00 302 P **P** **12 32 57.4 -0.7**
WLAR White Oak Lake 53.19 81 P **P** **12 32 59.4 -0.1**
833A Chaparral WMA, 53.31 91 P **P** **12 33 00.8 +0.3**
USIN University of 53.38 74 P **P** **12 33 00.4 -0.5**
T45A Paducah 53.47 75 P **P** **12 33 01.4 -0.1**
HKT Hockley 54.25 87‖ *i* P **P** **12 33 08.6 +1.3**
HKT pmax pmax
comp=Z,30nm,1.5s
HKT Hockley 54.25 87 P **P** **12 33 06.9 -0.4**
HKT lAmb lAmb 12 33 10.0
comp=Z,13nm,1.0s
HKT Hockley 54.25 87 P **P** **12 33 07.6 +0.3**
DELO Deloro Mine 54.43 61 P **P** **12 33 07.1 -1.4**
DELO lAmb lAmb 12 33 18.2
comp=Z,17nm,1.0s
ANGG Ammassalik, Gr 54.50 24 P **P** **12 33 09.8 +1.1**
comp=Z,90nm,2.9s
WVT Waverly 54.56 76 P **P** **12 33 09.1 -0.5**
WVT Waverly 54.56 76 P **P** **12 33 09.8 +0.3**
comp=Z,53nm,0.8s
OXF Oxford 54.78 78 P **P** **12 33 10.5 -0.6**
143A Socs Landing, 54.90 81 P **P** **12 33 12.0 0.0**
HHC Hu-ho-hao-te 55.01 293 *e*P **P** **12 33 12.2 -0.7**
HHC pmax pmax
comp=Z,9.0nm,0.5s
HHC pmax pmax
comp=Z,85nm,3.9s
IVI Ivigtut 55.05 32 P **P** **12 33 13.2 +0.5**
comp=Z,102nm,2.6s
R50A Paris 55.06 71 P **P** **12 33 12.4 -0.7**
R50A lAmb lAmb 12 33 12.9
comp=Z,9.8nm,0.6s
Y45A Yeager Farm, C 55.16 79 P **P** **12 33 13.6 -0.3**
V48A Smith Brothers 55.42 75 P **P** **12 33 15.1 -0.7**

V48A IAmb IAmb 12 33 15.9
comp=Z,12nm,1.0s
CLTN Cedars of Leba 55.45 75 P **P** **12 33 15.9 -0.1**
CLTN IAmb IAmb 12 33 17.3
comp=Z,32nm,1.5s
U49A Red Boiling Sp 55.47 74 P **P** **12 33 15.3 -0.8**
U49A IAmb IAmb 12 33 16.0
comp=Z,8.7nm,0.6s
ZAIG Zacatecas 55.59 98 P **P** **12 33 17.8 +0.4**
comp=Z,5.3nm,1.0s
T50A Nancy 55.65 73 P **P** **12 33 17.1 -0.4**
T50A IAmb IAmb 12 33 17.3
comp=Z,8.8nm,0.8s
GUMO Guam 56.10 244 LR LR 12 51 01.5
comp=Z,45nm,21.4s,baz=88,slow=29
X48A Hartselle 56.20 76 P **P** **12 33 20.2 -1.1**
SWET Sewanee 56.30 75 P **P** **12 33 21.2 -0.9**
SWET IAmb IAmb 12 33 60.0
comp=Z,15nm,1.5s
146A Union 56.32 79 P **P** **12 33 22.1 -0.2**
Z47A Carrollton 56.50 78 P **P** **12 33 22.7 -0.8**
W50A Signal Mountai 56.67 75 P **P** **12 33 24.0 -0.7**
W50A IAmb IAmb 12 33 24.8
comp=Z,16nm,0.8s
KEV Kevo 56.67 355 P **P** **12 33 23.4 -0.8**
comp=Z,73nm,2.7s
TZTN Tazewell 56.72 72 P **P** **12 33 24.6 -0.5**
TZTN Tazewell 56.72 72 P **P** **12 33 23.4 -1.6**
BINY Binghamton 56.90 62 P **P** **12 33 26.1 -0.2**
ARCES ARCESS Array B 56.97 356 P **P** **12 33 25.5 -0.8**
comp=Z,3.0nm,0.6s,baz=10,slow=7.8,SNR=22
ARCES LR LR 13 00 18.6
comp=Z,58nm,18.2s,baz=9.0,slow=39
comp=Z,3.0nm,0.6s
ARCES ARCESS Array B 56.97 356 P **P** **12 33 25.6 -0.7**
ARCES IAmb IAmb 12 34 03.1
comp=Z,12nm,1.4s
FPAL Fort Paine 56.97 75 P **P** **12 33 26.0 -0.9**
FPAL IAmb IAmb 12 33 26.4
comp=Z,9.7nm,0.7s
SSPA Standing Stone 56.98 65 P **P** **12 33 25.8 -1.0**
Y49A Blount Mountai 56.99 76 P **P** **12 33 25.5 -1.5**
NJ2 Nanjing 57.06 281 *e*P **P** **12 33 26.6 -0.9**
NJ2 pmax pmax
comp=Z,18nm,0.6s
TKL Tuckaleechee C 57.22 73 P **P** **12 33 27.8 -0.8**
TKL IAmb IAmb 12 33 30.7
comp=Z,28nm,1.5s
LRAL Lakeview Retre 57.24 78 P **P** **12 33 27.6 -1.1**
LRAL IAmb IAmb 12 33 28.3
comp=Z,11nm,0.8s
X51A Calhoun 57.38 75 P **P** **12 33 29.7 0.0**
X51A IAmb IAmb 12 34 03.6
comp=Z,14nm,1.2s
V53A Saluda 57.76 72 P **P** **12 33 31.9 -0.6**
V53A IAmb IAmb 12 33 32.7
comp=Z,14nm,1.2s
LVZ Lovozero 57.97 351 P **P** **12 33 33.0 -0.4**
HEF Hetta 58.17 356 P **P** **12 33 34.0 -0.8**
BG3 Lake Jocassee 58.18 73 P **P** **12 33 34.7 -0.7**
BG3 IAmb IAmb 12 33 36.6
comp=Z,6.4nm,0.9s
BATG Bathurst New B 58.27 52 P **P** **12 33 35.5 -0.2**
BATG IAmb IAmb 12 33 36.2
comp=Z,21nm,1.1s
ZALV Zalesovo Beam 58.34 319 P **P** **12 33 35.6 -0.6**
comp=Z,0.4nm,0.3s,baz=47,slow=6.3,SNR=2.5
ZALV PcP **PcP** **12 34 26.6 0.0**
comp=Z,1.9nm,0.6s,baz=44,slow=4.1,SNR=6.3
ZALV LR LR 13 00 23.0
comp=Z,94nm,19.2s,baz=340,slow=38
comp=Z,0.4nm,0.3s
VRF Varrio 58.51 354 P **P** **12 33 37.0 -0.1**
comp=Z,47nm,0.6s
V55A Taylorsville 58.54 71 P **P** **12 33 37.4 -0.4**
V55A IAmb IAmb 12 33 38.3
comp=Z,18nm,1.2s
152A Waverly Hall 58.83 76 P **P** **12 33 38.8 -1.1**
152A IAmb IAmb 12 33 39.0
comp=Z,10nm,0.6s
SGF Sodankyl 59.00 355 P **P** **12 33 40.7 +0.2**
comp=Z,22nm,2.2s
GOGA Godfrey 59.01 75 P **P** **12 33 39.5 -1.6**
comp=Z,11nm,1.5s
G65A Princeton 59.04 55 P **P** **12 33 40.7 -0.5**
HODGE Hodges 59.11 73 P **P** **12 33 41.1 -0.7**
HODGE IAmb IAmb 12 34 13.6
comp=Z,8.7nm,1.3s
352A Blakely 59.57 77 P **P** **12 33 44.4 -0.6**
V58A Windy Hill, Pi 59.76 70 P **P** **12 33 46.0 -0.2**
V58A IAmb IAmb 12 33 46.7
comp=Z,9.8nm,0.9s
RNF Rovaniemi 59.86 355 P **P** **12 33 45.6 -0.9**
LMN Caledonia Moun 59.90 53 P **P** **12 33 46.5 -0.6**
KU6 Riekki 60.20 353 P **P** **12 33 48.3 -0.5**
MSF Maaselka 60.37 354 P **P** **12 33 49.8 -0.2**
TATO Taipei 60.72 273 P **P** **12 33 53.1 +0.2**
comp=Z,164nm,1.7s
XAN Xi'an 61.34 289 *e*P **P** **12 33 56.6 -0.5**
OUL Oulu 61.38 355 P **P** **12 33 56.5 -0.3**
comp=Z,18nm,0.7s
SSLB Suanglung 61.93 273 P **P** **12 34 01.2 0.0**
comp=Z,27nm,1.6s
TLIG Tlapa 61.98 98 P **P** **12 34 01.5 -0.2**
OUF Merijarvi 62.16 355 P **P** **12 34 02.1 +0.1**
GTA2 Gaotai 62.30 300 *e*P **P** **12 34 03.0 -0.6**
GTA2 pmax pmax
comp=Z,5.0nm,0.6s
656A Willston 62.52 77 P **P** **12 34 04.8 -0.2**
LZH Lanzhou 62.64 294 *e*P P 12 33 57.9 -8.1
LZH pP pP 12 34 10.6 -7.9
LZH sP sP 12 34 18.7 -4.8
LZH pmax pmax
comp=Z,33nm,1.0s
LZDM Lanzhou Array 62.82 294 P **P** **12 34 07.1 -0.2**
comp=Z,3.6nm,0.4s,baz=42,slow=7.2,SNR=1.8
comp=Z,3.6nm,0.4s
KURK Kurchatov 63.24 320 P **P** **12 34 09.5 0.0**
KURK Kurchatov 63.24 320 P **P** **12 34 08.9 -0.6**
KURK Kurchatov 63.24 320 P **P** **12 34 08.8 -0.6**
comp=Z,3.2nm,1.2s
KURBB Kurchatov Arra 63.35 320 P **P** **12 34 09.4 -0.8**
comp=Z,0.3nm,0.4s,baz=26,slow=7.2,SNR=5.2
comp=Z,0.3nm,0.4s
DWPF Disney Wildern 64.10 77 P **P** **12 34 15.2 -0.2**
comp=Z,71nm,2.0s
BVAR Borovoye Array 64.26 327 P **P** **12 34 15.7 -0.5**
comp=Z,2.9nm,0.6s,baz=50,slow=5.8,SNR=5.7
comp=Z,2.9nm,0.6s
KLMR Klimovskoe 64.28 347 *e*P **P** **12 34 15.0 -1.1**
KLMR *e**PP **sP** **12 34 32.7 -1.1**
KLMR pmax pmax
comp=Z,21nm,1.4s
KIRV Kirov 64.81 341 LR LR 13 05 48.2
comp=Z,122nm,19.1s,baz=19,slow=39
KIRV Kirov 64.81 341⇑ *e*P **P** **12 34 20.1 +0.5**
ARTI Arti 64.82 335 *d* *i*P **P** **12 34 19.3 -0.5**
ARTI S **S** **12 43 00.5 +3.5**
ARTI SS **SS** **12 47 05.2 -2.6**
ARTI pmax pmax
comp=Z,4.0nm,0.7s
ARTI Arti 64.82 335 P **P** **12 34 18.6 -1.2**
ARTI IAmb IAmb 12 34 41.1
comp=Z,7.3nm,0.5s
WMQ Urumqi 64.89 310 *e*P **P** **12 34 23.1 +2.5**
MK31 Makanchi Array 64.91 316‖ *e*P **P** **12 34 18.9 -1.7**
MKAR Makanchi Array 64.91 316 P **P** **12 34 19.1 -1.5**
comp=Z,1.0nm,0.8s,baz=47,slow=6.2,SNR=7.7
MKAR LR LR 13 03 49.8
comp=Z,109nm,19.6s,baz=11,slow=37
comp=Z,1.0nm,0.8s
MKAR Makanchi Array 64.91 316 *i*P **P** **12 34 19.7 -0.9**
MKAR pmax pmax
comp=Z,1.0nm,0.8s
MKAR Makanchi Array 64.91 316 P **P** **12 34 19.9 -0.7**
FIA1 FINESS Array S 65.00 354 P **P** **12 34 20.1 -0.7**
FINES FINESS Array B 65.00 354 P **P** **12 34 20.0 -0.8**
comp=Z,6.6nm,0.5s,baz=16,slow=8.3,SNR=44
comp=Z,6.6nm,0.5s
FINES FINESS Array B 65.00 354 *i*P **P** **12 34 20.5 -0.3**
FINES pmax pmax
comp=Z,7.0nm,0.5s
FINES FINESS Array B 65.00 354 P **P** **12 34 20.2 -0.6**
NC204 NORSAR Array S 65.44 2 P **P** **12 34 23.8 0.0**
NC204 IAmb IAmb 12 34 30.8
comp=Z,20nm,1.1s
NC405 NORSAR Array S 65.62 2 P **P** **12 34 24.9 -0.1**
NB2 NORSAR Subarra 65.69 2 P **P** **12 34 25.6 +0.2**
comp=Z,9.1nm,1.0s,baz=359,slow=6.5
NOA NORSAR Array B 65.69 2 P **P** **12 34 24.7 -0.7**
comp=Z,1.5nm,0.6s,baz=358,slow=6.3,SNR=6.9
comp=Z,1.5nm,0.6s
HFS Hagfors 66.63 1 P **P** **12 34 30.7 -0.6**
comp=Z,3.0nm,0.4s,baz=29,slow=4.1,SNR=17
comp=Z,3.0nm,0.4s
OBN Obninsk 70.24 347 *i*P **P** **12 34 55.3 +1.4**
OBN *i* 12 35 15.1
OBN *i* 12 37 28.4
OBN pmax pmax
comp=Z,12nm,0.9s
EKA Eskdalemuir Ar 70.41 11 P **P** **12 34 55.7 +0.7**
comp=Z,3.2nm,0.6s,baz=347,slow=4.4,SNR=14
comp=Z,3.2nm,0.6s
ESK Eskdalemuir 70.42 11 P **P** **12 34 55.0 -0.1**
AB31 Akbulak array 70.79 331 P **P** **12 34 57.4 0.0**
ABKAR Akbulak array 70.79 331 P **P** **12 34 57.5 +0.1**
PABE Paberze 71.04 355 P **P** **12 34 58.7 -0.1**
BOOM Boomskoye usch 71.04 317 P **P** **12 34 59.1 -0.3**
BOOM IAmb IAmb 12 35 23.8
comp=Z,30nm,1.4s
AAK Ala-Archa 71.50 318 LR LR 13 07 17.0
comp=Z,151nm,19.0s,baz=26,slow=37
AAK Ala-Archa 71.50 318‖ *e*P **P** **12 35 02.6 +0.5**
AAK pmax pmax
comp=Z,2.0nm,0.6s
MNK Minsk 71.77 352 *i*P **P** **12 35 02.0 -1.2**
MNK *i* 12 37 39.7
MNK *i* PPP PPP 12 39 23.5
MNK *i* S **S** **12 44 18.5 -1.3**
MNK *i* *SS **sS** **12 44 43.8 +2.5**
MNK *i* SS **SS** **12 48 57.7 +2.8**
MNK pmax pmax
comp=N,26nm,1.0s
MNK pmax pmax
comp=E,36nm,1.0s
MNK pmax pmax
comp=Z,12nm,0.8s
MNK MLR MLR
comp=N,151nm,19.0s
MNK MLR MLR
comp=E,186nm,23.0s
MNK MLR MLR
comp=Z,79nm,14.0s
MNK Minsk 71.77 352 *i*P **P** **12 35 02.1 -1.2**
comp=E,36nm,1.0s
MNK *i*P **P** **12 35 02.1 -1.2**
comp=N,26nm,1.0s
MNK *i*P **P** **12 35 02.1 -1.2**
comp=Z,12nm,0.8s,baz=7.9
MNK *i* PP **PP** **12 37 39.7 -2.5**
MNK *i* PPP PPP 12 39 23.6
MNK *i* S **S** **12 44 18.5 -1.3**
MNK *i* sS **sS** **12 44 43.8 +2.5**
MNK *i* SS **SS** **12 48 57.8 +2.8**
MNK *i* SSS SSS 12 52 12.9
MNK *i* LQ LQ 13 01 48.9
MNK *i* LRM MLR 13 09 14.7
comp=N,151nm,18.9s
MNK *i* LRM MLR 13 09 41.3
comp=E,186nm,23.4s
MNK *i* LRM MLR 13 10 01.6
comp=Z,79nm,14.3s
KKAR Karatay Array 72.65 321 P **P** **12 35 08.7 0.0**
ARSB Arslanbob 73.21 318 P **P** **12 35 12.2 -0.1**
NMDO Nuevo Mundo 73.64 78 P **P** **12 35 14.9 0.0**
NMDO IAmb IAmb 12 35 15.6
comp=Z,17nm,0.8s
KSH2 Kashi 74.00 315 P **P** **12 35 17.6 +0.7**
KSH2 pmax pmax
comp=Z,3.0nm,0.6s
RNPP9 Sopachiv 75.00 353 P **P** **12 35 21.0 -1.3**
RNPP5 Staryi Chortor 75.18 353 P **P** **12 35 22.2 -1.1**
DRK Karamyk 75.25 318 P **P** **12 35 24.1 -0.3**
DRK IAmb IAmb 12 35 26.2
comp=Z,9.3nm,0.6s
DRK Karamyk 75.25 318 P **P** **12 35 25.4 +1.0**
comp=Z,14nm,0.6s
AK21 Malin Array Si 75.36 351 P **P** **12 35 23.6 -0.8**
AK22 Malin Array Si 75.38 351 P **P** **12 35 23.7 -0.8**
AK20 Malin Array Si 75.40 351 P **P** **12 35 23.8 -0.8**
AK04 Malin Array Si 75.41 351 P **P** **12 35 23.9 -0.8**
AK18 Malin Array Si 75.42 351 P **P** **12 35 23.9 -0.8**
AK19 Malin Array Si 75.42 351 P **P** **12 35 24.0 -0.7**
AKASG Malin Array Be 75.42 351 P **P** **12 35 24.0 -0.7**
comp=Z,3.2nm,0.5s,baz=13,slow=5.8,SNR=14
comp=Z,3.2nm,0.5s
AKASG Malin Array Be 75.42 351 *i*P **P** **12 35 24.2 -0.5**
AKASG pmax pmax
comp=Z,7.0nm,0.7s
AKBB Malin Array Si 75.42 351⇑ *e*P **P** **12 35 24.4 -0.3**
AKBB pmax pmax
comp=Z,13nm,0.8s
AKBB Malin Array Si 75.42 351 P **P** **12 35 24.0 -0.7**
KIEV Kiev 75.43 351 P **P** **12 35 24.3 -0.5**
KIEV IAmb IAmb 12 35 29.0
comp=Z,32nm,1.5s
KIEV Kiev 75.43 351 P **P** **12 35 24.0 -0.8**
comp=Z,51nm,1.0s
KIEV Kiev 75.43 351 P **P** **12 35 24.7 -0.1**
comp=Z,13nm,1.0s
AK01 Malin Array Si 75.43 351 P **P** **12 35 24.0 -0.8**
AK11 Malin Array Si 75.45 351 P **P** **12 35 24.1 -0.8**
AK17 Malin Array Si 75.45 351 P **P** **12 35 24.1 -0.8**
CLL Collm 75.47 1 *e*P **P** **12 35 28.0 +3.0**
CLL Collm 75.47 1 *e*P **P** **12 35 28.0 +3.0**
LUBAR Lubar, Ukraine 76.33 352 P **P** **12 35 28.7 -1.2**
DPC Dobruska-Polom 76.44 359 P **P** **12 35 30.9 +0.3**
comp=Z,6.1nm,0.7s
MORC Moravsky Berou 77.00 358 *e*P **P** **12 35 34.1 +0.3**
VRAC Vranov 77.48 359 *e*P **P** **12 35 37.5 +1.0**
LANS Liptovska Anna 77.58 357 *e*P **P** **12 35 39.6 +2.5**
LANS Liptovska Anna 77.58 357 *e*P **P** **12 35 39.6 +2.5**
KHC Kasperske Hory 77.66 1⇑ *e*P **P** **12 35 39.0 +1.5**
KHC pmax pmax
comp=Z,24nm,3.3s
KOLS Kolonicke sedl 77.69 355 *e*P **P** **12 35 39.4 +1.8**
KOLS Kolonicke sedl 77.69 355 *e*P **P** **12 35 39.4 +1.8**
KOLS Kolonicke sedl 77.69 355 P **P** **12 35 38.5 +0.8**
comp=Z,13nm,0.8s
KRUC Moravsky 77.73 359 *e*P **P** **12 35 38.4 +0.6**
KMPD K-Podol'skiy 77.78 352 P **P** **12 35 36.9 -1.2**
GERES GERESS Array B 77.94 1 P **P** **12 35 39.8 +0.7**
comp=Z,1.4nm,0.7s,baz=1.9,slow=4.0,SNR=8.1
comp=Z,1.4nm,0.7s
GERES GERESS Array B 77.94 1 P **P** **12 35 38.6 -0.5**
EVN Everest 77.98 301 P **P** **12 35 38.8 -1.5**
SORM Soroca 78.05 351 P **P** **12 35 38.4 -1.2**
VYHS Vyhne 78.26 358 *e*P **P** **12 35 40.3 -0.5**
VYHS Vyhne 78.26 358 *e*P **P** **12 35 40.3 -0.5**
TRPA Tarja 78.47 355 P **P** **12 35 42.6 +0.7**
comp=Z,18nm,2.4s
BUR08 Bucovina Ar. S 78.79 353 P **P** **12 35 43.2 -0.7**
BURAR Bucovina Array 78.82 353 P **P** **12 35 44.5 +0.5**
BURAR pmax pmax
comp=Z,3.0nm,0.8s
BURAR Bucovina Array 78.82 353 P **P** **12 35 43.6 -0.4**
CONA Conrad Observa 78.87 360 *e*PcP P 12 35 50.0 +5.7
comp=Z,3.3nm,0.6s
CMAR Chiang Mai Arr 78.97 286 P **P** **12 35 45.8 +0.6**
comp=Z,0.8nm,0.5s,baz=22,slow=5.2,SNR=7.4
comp=Z,0.8nm,0.5s
CMAR Chiang Mai Arr 78.97 286 *i*P **P** **12 35 45.5 +0.3**
CMAR pmax pmax
comp=Z,2.0nm,0.8s
CMAR Chiang Mai Arr 78.97 286 P **P** **12 35 44.2 -1.0**
RJOB Jochberg 79.04 2 P **P** **12 35 45.5 +0.3**
comp=Z,7.8nm,0.7s
RONA Rosalia, Austr 79.09 359 *e*PcP **P** **12 35 49.9 +4.4**
comp=Z,2.5nm,0.9s
LESA Schwarzleotal 79.35 2 *e*PcP **P** **12 35 51.5 +4.6**
comp=Z,2.5nm,0.5s
MOTA Moosalm 79.39 3 *e*PcP **P** **12 35 50.2 +3.0**
comp=Z,5.1nm,0.9s
WTTA Wattenberg 79.49 2 *i*PcP **P** **12 35 50.1 +2.3**
comp=Z,8.8nm,1.2s
ARSA Arzberg 79.55 360 P **P** **12 35 47.7 -0.2**
SESA Seetaler Alpe, 79.68 0 *e*PcP P 12 35 53.6 +4.7
comp=Z,9.5nm,2.0s
FETA Feichten 79.71 3 *e*PcP **P** **12 35 50.8 +1.9**
comp=Z,10nm,1.4s
KBA Koelnbreinsper 79.71 1 *e*PcP **P** **12 35 51.1 +2.2**
comp=Z,3.7nm,0.7s
KBA Koelnbreinsper 79.71 1 P **P** **12 35 49.9 +1.0**
comp=Z,13nm,0.9s
KBA pP **pP** **12 36 01.6 -0.4**
KVAR Kislovodsk Arr 80.02 340 LR LR 13 14 13.8
comp=Z,49nm,18.4s,baz=236,slow=38
KIV Kislovodsk 80.02 340 *e*P **P** **12 35 51.3 +0.7**
KIV pmax pmax
comp=Z,7.0nm,1.0s
KIV MLR MLR
comp=Z,72nm,19.0s
SOKA Soboth 80.12 0 *e*PcP **P** **12 35 53.6 +2.5**
comp=Z,4.6nm,0.8s
KBZ Khabaz 80.19 340 P **P** **12 35 51.9 +0.5**
comp=Z,6.3nm,1.0s,baz=18,slow=5.8,SNR=8.5
KBZ LR LR 13 13 51.6
comp=Z,97nm,21.6s,baz=358,slow=38
comp=Z,6.3nm,1.0s
KBZ Khabaz 80.19 340⇑ *e*P **P** **12 35 53.6 +2.2**
KBZ pmax pmax
comp=Z,7.0nm,0.9s
SHA1 Shidzhatmaz 80.23 340⇑ *e*P **P** **12 35 52.6 +0.7**
NCK Nalchik 80.27 339⇑ *e*P **P** **12 35 52.0 +0.1**
OBKA Obir 80.29 0 *e*P **P** **12 35 53.3 +1.3**
comp=Z,15nm,1.0s
OBKA Obir 80.29 0 P **P** **12 35 52.9 +0.9**
comp=Z,24nm,0.8s
DRE Drenchia 80.62 1 P **P** **12 35 54.6 +0.9**
comp=Z,12nm,0.7s
SOC Sochi 80.95 342 *e*P **P** **12 35 56.4 +0.9**
SOC *e* 12 39 07.1
SOC *e*PPP PPP 12 40 47.8
SOC *e*S **S** **12 46 03.6 +2.9**
SOC *e*SSS SSS 12 54 33.8
SOC pmax pmax
comp=Z,8.0nm,0.7s
KNT Kendrikon 85.40 354 P **P** **12 36 19.3 +0.8**
comp=Z,7.7nm,0.8s
GRG Griva 85.63 355 P **P** **12 36 21.3 +1.6**
comp=Z,32nm,1.4s
GRG pP **pP** **12 36 33.4 +0.5**
ESDC Sonseca Array 85.66 15 P **P** **12 36 20.5 +0.6**
comp=Z,1.7nm,0.9s,baz=353,slow=5.4,SNR=7.1
comp=Z,1.7nm,0.9s
BR131 Keskin Array S 85.71 346‖ *e*P **P** **12 36 21.0 +0.8**
BR131 Keskin Array S 85.71 346 P **P** **12 36 19.9 -0.3**
BR131 IAmb IAmb 12 36 25.3
comp=Z,4.5nm,0.9s
BRTR Keskin Array B 85.71 346 P **P** **12 36 20.8 +0.6**
comp=Z,1.9nm,0.6s,baz=4.7,slow=3.1,SNR=9.5
comp=Z,1.9nm,0.6s
BRTR Keskin Array B 85.71 346 *i*P **P** **12 36 21.0 +0.8**
BRTR pmax pmax
comp=Z,2.0nm,0.6s
BRTR Keskin Array B 85.71 346 P **P** **12 36 19.0 -1.2**
RUSC La Rusia 86.34 85 P **P** **12 36 23.0 -1.1**
RUSC IAmb IAmb 12 36 46.0
comp=Z,7.0nm,0.9s
TIP Timpagrande 87.61 359 P **P** **12 36 28.4 -1.0**
TIP IAmb IAmb 12 37 03.0
comp=Z,5.8nm,1.0s
OTAV Otavalo 87.65 93 pP pP 12 36 40.8 -2.2
comp=Z,8.7nm,1.2s
WRA Warramunga Arr 89.93 235 P **P** **12 36 40.2 -0.1**
comp=Z,0.6nm,0.9s,baz=30,slow=4.5,SNR=2.9
comp=Z,0.6nm,0.9s
WRA Warramunga Arr 89.93 235 P **P** **12 36 40.0 -0.3**
ASAR Alice Springs 93.30 234 P **P** **12 36 57.6 +1.7**
comp=Z,0.8nm,1.1s,baz=32,slow=4.3,SNR=6.9
comp=Z,0.8nm,1.1s
ASAR Alice Springs 93.30 234 P **P** **12 36 55.5 -0.4**
QSPA South Pole Qui 143.35 180 PKhKP PKPpre 12 43 11.3
comp=Z,1.1nm,0.5s,baz=53,slow=2.1,SNR=12
MAW Mawson 153.54 220 PKPbc **PKPbc** **12 43 37.7 -0.4**
comp=Z,1.1nm,0.7s,baz=98,slow=0.7,SNR=6.1
MAW Mawson 153.54 220 **PKiKP** **12 43 38.6 +0.4**
BOSA Boshof 153.98 339 PKPbc **PKPbc** **12 43 39.0 -1.5**
comp=Z,1.2nm,0.5s,baz=48,slow=4.4,SNR=4.5
BOSA Boshof 153.98 339 PKiKP **PKPbc** **12 43 39.0 -1.5**
BOSA Boshof 153.98 339 PKPdf **PKPdf** **12 43 33.2 +0.8**

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*THE **04** 12:27:57.3, 38°N±1°×2°7E±°, h12km±2km, M2.6/7, MLh2.6/7*
*AFAD **04** 12:27:57.4, 37.86N×26.97E, h7km±3km, ML2.2*
*ISK **04** 12:27:57.2, 37.84N×26.98E, h8km, ML2.4/19*
ISC 04 12:27:57.4±0.8, 37.84N±0.02×26.96E±0.02, h13km±6km, n43, σ0s57/70, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**218**	P	**Pg**	**12 28 00.9**	**-0.3**
SMG				S	**Sg**	**12 28 04.3**	**+0.5**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**343**	P	**Pg**	**12 28 01.9**	**-0.2**
DGB				S	**Sg**	**12 28 04.8**	**-0.6**
DGB				IAML		12 28 05.0	
	comp=N,585nm,0.1s						
DGB				IAML		12 28 05.0	
	comp=E,894nm,0.2s						
GMLD	**Gumuldur**	**0.24**	**351**	Pg	**Pg**	**12 28 02.6**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**122**	P	**Pg**	**12 28 02.9**	**+0.3**
GCAM				IAML		12 28 07.0	
	comp=N,481nm,0.2s						
GCAM				IAML		12 28 07.0	
	comp=E,658nm,0.2s						
GCAM				S	**Sg**	**12 28 07.0**	**+0.8**
GCAM	**G?zelcaml?**	**0.25**	**122**	Pg	**Pg**	**12 28 03.0**	**+0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**85**	Pg	**Pg**	**12 28 02.5**	**-0.3**
KUSD				Sg	**Sg**	**12 28 06.1**	**-0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**356**	P	**Pg**	**12 28 05.1**	**-0.1**
BEYE				S	**Sg**	**12 28 10.6**	**+0.1**
BEYE				IAML		12 28 11.0	
	comp=N,1μm,0.2s						
BEYE				IAML		12 28 11.0	
	comp=E,1μm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**318**	P	**Pg**	**12 28 07.5**	**-0.5**
ZEYE				IAML		12 28 15.0	
	comp=N,538nm,0.2s						
ZEYE				S	**Sg**	**12 28 15.5**	**+0.3**
ZEYE				IAML		12 28 19.0	
	comp=E,299nm,0.2s						
DUVT	**Torbali**	**0.54**	**45**	P	**Pg**	**12 28 07.8**	**-0.2**
DUVT				S	**Sg**	**12 28 14.6**	**-0.6**
DUVT				IAML		12 28 15.0	
	comp=E,377nm,0.1s						
BLCB	**Balcova**	**0.55**	**6**	P	**Pg**	**12 28 08.2**	**0.0**
BLCB				S	**Sg**	**12 28 15.6**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**6**	Pg	**Pg**	**12 28 08.2**	**0.0**
BLCB				Sg	**Sg**	**12 28 15.8**	**+0.3**
BLCB				AML	AML		
CESE	**eme**	**0.72**	**313**	Pg	**Pb**	**12 28 11.7**	**-0.1**
CESE				Sg	**Sb**	**12 28 21.9**	**+0.3**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**81**	Pg	**Pb**	**12 28 12.4**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**103**	P	**Pb**	**12 28 12.4**	**+0.1**
AYDN				S	**Sg**	**12 28 21.2**	**-0.5**
AYDN				IAML		12 28 25.0	
	comp=E,102nm,0.3s						
AYDN				IAML		12 28 25.0	
	comp=N,82nm,0.3s						
BODT	**Bodrum**	**0.82**	**160**	P	**Pg**	**12 28 13.2**	**-0.1**
BODT				S	**Sb**	**12 28 25.0**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**160**	Pg	**Pg**	**12 28 13.3**	**0.0**
BODT				Sg	**Sb**	**12 28 24.8**	**+0.3**
BODT				AML	AML		
KRBN	**Karaburun**	**0.82**	**337**	Pg	**Pb**	**12 28 13.5**	**0.0**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.84**	**69**	P	**Pb**	**12 28 14.3**	**+0.5**
IZMR				S	**Sg**	**12 28 22.9**	**-1.6**
IZMR				IAML		12 28 27.0	
	comp=N,36nm,0.4s						
IZMR				IAML		12 28 28.0	
	comp=E,44nm,0.4s						
MLSB	**Milas**	**0.84**	**130**	Pg	**Pg**	**12 28 13.6**	**-0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.86**	**153**	P	**Pb**	**12 28 14.3**	**+0.1**

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BDRM                                  S    Sg      12 28 24.2 -1.1
BDRM                                  IAML          12 28 27.0
     comp=E,52nm,0.3s
BDRM                                  IAML          12 28 28.0
     comp=N,64nm,0.3s
BODA Bodrum-Mula          0.88 155    Pg   Pg      12 28 14.6 +0.2
FOCM Foa                  0.89 348    Pg   Pg      12 28 14.6  0.0
FOCM                                  AML  AML
CHOS Chios island         0.90 308    P    Pb      12 28 15.0 +0.1
CHOS                                  S    Sb      12 28 27.1 +0.1
CHOS                                  AML  AML
CHOS Chios island         0.90 308    Pg   Pn      12 28 15.8 -0.1
CHOS                                  AML  AML
KARB zmir-Karabur         0.93 332    P    Pb      12 28 15.4  0.0
KARB                                  S    Sb      12 28 28.2 +0.5
KARB                                  IAML          12 28 31.0
     comp=E,86nm,0.2s
KARB                                  IAML          12 28 31.0
     comp=N,89nm,0.4s
NAZL Nazilli-Aydin        1.06  83    Pg   Pg      12 28 17.7 -0.1
NAZL                                  AML  AML
ESEN Aydn-Nazilli         1.10  92    P    Pg      12 28 17.4 -1.1
ESEN                                  S    Sn      12 28 33.7 +0.2
ESEN                                  IAML          12 28 37.0
     comp=N,24nm,0.3s
ESEN                                  IAML          12 28 37.0
     comp=E,24nm,0.4s
ZEDA zmir-Bergama         1.13   4    P    Pg      12 28 19.0 -0.2
ZEDA                                  S    Sn      12 28 34.5 +0.1
ZEDA                                  IAML          12 28 37.0
     comp=N,79nm,0.4s
ZEDA                                  IAML          12 28 39.0
     comp=E,72nm,0.4s
GOMA Golmarmara-Man       1.15  41    Pn   Pn      12 28 19.7 +0.5
GOMA                                  AML  AML
KIRA zmir-Kiraz           1.19  72    P    Pn      12 28 20.4 +0.6
KIRA                                  S    Sg      12 28 34.3 -1.5
KIRA                                  IAML          12 28 46.0
     comp=E,32nm,0.5s
KIRA                                  IAML          12 28 55.0
     comp=N,34nm,0.8s
KTTT Salihli              1.23  46    P    Pg      12 28 21.0 -0.1
KTTT                                  S    Sb      12 28 35.3 -1.0
KTTT                                  IAML          12 28 39.0
     comp=N,54nm,0.3s
DKL  Dikili               1.23 358    Pn   Pg      12 28 21.4 +0.3
DKL                                   AML  AML
AKS  Akhisar              1.24  32    Pn   Pg      12 28 21.1 -0.1
AKS                                   AML  AML
YER  Yerkesik             1.26 123    P    Pn      12 28 20.9 +0.1
YER                                   S    Sb      12 28 37.3  0.0
YER  Yerkesik             1.26 123    Pn   Pn      12 28 21.3 +0.5
YER                                   AML  AML
APE  Apeiranthos          1.37 237    P    Pn      12 28 21.3 -1.0
APE                                   S    Sb      12 28 40.8 +0.3
APE                                   AML  AML
APE  Apeiranthos          1.37 237    Pn   Pb      12 28 23.5 +0.5
APE                                   AML  AML
SOMA Soma-Manisa          1.39  19    Pn   Pb      12 28 23.4 +0.1
SOMA                                  AML  AML
MANT Manisa               1.42  62    P    Pg      12 28 25.7 +1.1
MANT                                  S    Sb      12 28 40.7 -1.2
MANT                                  IAML          12 28 44.0
     comp=E,25nm,0.3s
MANT                                  IAML          12 28 48.0
     comp=N,19nm,0.3s
GORD Gordes-Manisa        1.43  41    Pn   Pn      12 28 23.9 +0.7
GORD                                  AML  AML
PRK  Paraskevi            1.51 339    P    Pn      12 28 22.6 -1.5
PRK                                   S    Sb      12 28 44.5 +0.2
STEP BALIKESIR_Sava       1.65  21    P    Pg      12 28 29.7 +0.7
STEP                                  S    Sb      12 28 49.4 +1.0
STEP                                  IAML          12 28 54.0
     comp=N,46nm,0.8s
STEP                                  IAML          12 28 56.0
     comp=E,56nm,0.6s
BUHA Balikesir, Bur       1.66   3    P    Pn      12 28 26.7 +0.4
BUHA                                  S    Sg      12 28 50.7 -0.3
BUHA                                  IAML          12 28 56.0
     comp=N,43nm,0.4s
BUHA                                  IAML          12 28 57.0
     comp=E,48nm,0.6s
```

IDC ***04*** *12:28:39.1±0.6,35˚.59S×104˚.12W,h0km,mb4.3/12, mbtmp4.3/12,MS4.6/40,Error ellipse: s-maj=22.0km s-min=17.0km az=85.0*

NEIC ***04*** *12:28:42.3±1.5,35˚.58S±0˚.07×104˚.0W±0˚.1,h10km±1km, mb5.0/95,Mww5.3/17,Error ellipse: s-maj=20.2km s-min=4.7km az=236.0*

GFZ ***04*** *12:28:42.3±0.3,36˚S±5˚×10˚4W±˚,h10km,M4.7/24, mb4.7/24,Mw5.3/65,confirmed*

GCMT ***04*** *12:28:44.3±0.1,35˚.71S±0˚.01×104˚.06W±0˚.01,h13km, MW5.4/148,Moment Tensor Solution. s113,c211; s148,c280; Duration: 1ŝ2 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.24±.02; $M_{\theta\theta}$-0.30±.02; $M_{\phi\phi}$0.53±.02; $M_{r\theta}$0.01±.03; $M_{\theta\phi}$-1.31±.02; $M_{\phi r}$-0.46±.05; Best double couple: $M_0$1.44900×10^{17} NP1:ϕ_s99.00000°,δ71.00000°, λ-178.00000°. NP2:ϕ_s8.00000°,δ88.00000°,λ-19.00000°. Principal axes: T 1.5720, Plg12.0000°, Azm55.0000°; N -0.2470, Plg71.0000°, Azm183.0000°; P -1.3250, Plg14.0000°, Azm322.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 04 12:28:41.3±0.3,35˚.56S±0˚.08×104˚.04W±0˚.06,h10km, n222,σ1ŝ40/182,mb4.9/70,MS4.5/40,5C-2D,Southeast of Easter Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RPN	**Rapa Nui**	**9.54**	**330**	LR	LR	12 33 42.3	
	comp=Z,6μm,20.0s,baz=118,slow=32						
H03S2	**Juan Fernandez**	**20.71**	**93**	T	T	12 54 45.0	
	baz=255,slow=73,SNR=39						
H03S1	**Juan Fernandez**	**20.72**	**93**	T	T	12 54 45.1	
	baz=255,slow=73,SNR=29						
H03S3	**Juan Fernandez**	**20.72**	**93**	T	T	12 54 43.5	
	baz=255,slow=73,SNR=30						
LL03	**Petrohue**	**25.34**	**112**	P	**P**	**12 34 10.0**	**+1.7**
LL02	**Futaleuf**	**25.91**	**117**		**P**	**12 34 14.6**	**+1.2**
LL02				IAmb	IAmb	12 34 20.2	
	comp=Z,75nm,1.4s						
LL02	**Futaleuf**	**25.91**	**117**	P	**P**	**12 34 16.3**	**+2.9**
	comp=Z,37nm,1.7s						
COYC	**Coyhaique**	**26.11**	**122**	P	**P**	**12 34 17.1**	**+1.9**
COYC	**Coyhaique**	**26.11**	**122**	P	**P**	**12 34 18.1**	**+3.0**
	comp=Z,22nm,1.3s						
BI02	**San Fabin de**	**26.43**	**102**		**P**	**12 34 19.1**	**+0.8**
BI02				IAmb	IAmb	12 34 24.1	
	comp=Z,70nm,1.5s						
BI02	**San Fabin de**	**26.43**	**102**	P	**P**	**12 34 18.6**	**+0.4**
	comp=Z,33nm,1.5s						
ML02	**Panimavida**	**26.44**	**100**	P	**P**	**12 34 19.1**	**+0.8**
ML02				IAmb	IAmb	12 34 23.8	
	comp=Z,46nm,1.1s						
PLCA	**Paso Flores**	**26.74**	**111**	P	**P**	**12 34 22.4**	**+1.4**
	comp=Z,3.7nm,0.9s,baz=276,slow=9.0,SNR=4.6						
PLCA				LR	LR	12 42 09.4	
	comp=Z,998nm,20.3s,baz=267,slow=30						
	comp=Z,3.7nm,0.9s						
PLCA	**Paso Flores**	**26.74**	**111**	P	**P**	**12 34 20.5**	**-0.5**
PLCA	**Paso Flores**	**26.74**	**111**	P	**P**	**12 34 24.0**	**+2.9**
	comp=Z,20nm,2.3s						
PLCA	**Paso Flores**	**26.74**	**111**	*eP*	**P**	**12 34 21.3**	**+0.2**
BO01	**Tunca**	**26.96**	**97**	P	**P**	**12 34 22.5**	**-0.5**
	comp=Z,24nm,2.2s						
BO02	**Sierra Bellavi**	**27.13**	**98**		**P**	**12 34 24.1**	**-0.5**
BO02				IAmb	IAmb	12 35 05.1	
	comp=Z,47nm,1.6s						
BO02	**Sierra Bellavi**	**27.13**	**98**	P	**P**	**12 34 26.1**	**+1.5**
	comp=Z,17nm,1.1s						
BO04	**La Punta**	**27.43**	**97**	P	**P**	**12 34 28.1**	**+0.7**
BO04				IAmb	IAmb	12 34 41.2	
	comp=Z,34nm,1.4s						
MT05	**Renca**	**27.47**	**95**	P	**P**	**12 34 27.7**	**0.0**
CO04	**Los Peladeros**	**27.63**	**92**	P	**P**	**12 34 27.9**	**-1.4**
CO04				IAmb	IAmb	12 34 53.1	
	comp=Z,43nm,1.4s						
MT03	**Universidad Ad**	**27.63**	**96**	P	**P**	**12 34 29.7**	**+0.6**
VA03	**San Esteban**	**27.78**	**94**	P	**P**	**12 34 31.2**	**+0.8**
VA03				IAmb	IAmb	12 34 32.7	
	comp=Z,15nm,0.7s						
MT08	**Bocatoma Ro**	**28.04**	**96**	P	**P**	**12 34 32.6**	**-0.4**
MT08				IAmb	IAmb	12 34 36.0	
	comp=Z,14nm,0.7s						
GO04	**Tololo Observa**	**28.35**	**89**	P	**P**	**12 34 35.9**	**+0.1**
	comp=Z,30nm,1.4s						
CO01	**Juntas del Tor**	**28.99**	**89**	P	**P**	**12 34 41.6**	**+0.2**
CO01	**Juntas del Tor**	**28.99**	**89**	P	**P**	**12 34 41.6**	**+0.2**
	comp=Z,8.3nm,1.2s						
ZON	**Zonda**	**29.64**	**92**		**P**	**12 34 46.9**	**-0.2**
ZON				IAmb	IAmb	12 35 06.1	
	comp=Z,33nm,1.4s						
ZON	**Zonda**	**29.64**	**92**	P	**P**	**12 34 48.0**	**+1.0**
	comp=E,14nm,1.2s						
CFA	**Coronel Fontan**	**29.98**	**93**	LR	LR	12 44 06.5	
	comp=E,932nm,19.0s,baz=282,slow=31						
AC02	**Maricunga**	**30.97**	**84**		**P**	**12 34 59.0**	**-0.4**
AC02	**Maricunga**	**30.97**	**84**	P	**P**	**12 34 58.7**	**-0.6**
	comp=Z,11nm,0.8s						
USHA	**Ushuaia**	**31.16**	**139**	LR	LR	12 44 29.2	
	comp=Z,3μm,19.1s,baz=329,slow=30						
PB05	**IPOC Station P**	**31.97**	**76**	P	**P**	**12 35 07.5**	**-0.2**
PB05				IAmb	IAmb	12 35 10.0	
	comp=Z,13nm,0.9s						
PB03	**IPOC Station P**	**32.74**	**75**	P	**P**	**12 35 14.8**	**+0.2**
PB03				IAmb	IAmb	12 35 23.0	
	comp=Z,40nm,1.7s						
PB03	**IPOC Station P**	**32.74**	**75**	P	**P**	**12 35 15.6**	**+1.1**
	comp=Z,12nm,1.1s						
PB09	**IPOC Station P**	**33.28**	**75**	P	**P**	**12 35 21.2**	**+2.0**
	comp=Z,25nm,1.3s						
NNA	**Nana**	**33.99**	**53**	LR	LR	12 45 54.8	
	comp=Z,4μm,19.3s,baz=232,slow=30						
PB11	**IPOC Station P**	**34.07**	**72**	P	**P**	**12 35 25.3**	**-0.8**
PB11				IAmb	IAmb	12 35 28.6	
	comp=Z,14nm,0.8s						
PB11	**IPOC Station P**	**34.07**	**72**	P	**P**	**12 35 25.7**	**-0.4**
	comp=Z,20nm,1.3s						
PB12	**IPOC Station P**	**34.22**	**69**	P	**P**	**12 35 26.6**	**-0.7**
PB12				IAmb	IAmb	12 35 29.7	
	comp=Z,17nm,0.8s						
PB08	**IPOC Station P**	**34.25**	**73**	P	**P**	**12 35 27.9**	**0.0**
PB08	**IPOC Station P**	**34.25**	**73**	P	**P**	**12 35 28.4**	**+0.5**
	comp=Z,11nm,1.1s						
SALTA		**34.39**	**81**	P	**P**	**12 35 29.8**	**+0.5**
	comp=Z,4.4nm,1.1s						
GO01	**Chusmiza**	**34.48**	**72**	P	**P**	**12 35 29.9**	**-0.1**
GO01				IAmb	IAmb	12 35 32.6	
	comp=Z,11nm,0.7s						
GO01	**Chusmiza**	**34.48**	**72**	P	**P**	**12 35 30.2**	**+0.1**
	comp=Z,18nm,0.7s						
PB16	**IPOC Station P**	**35.01**	**70**	P	**P**	**12 35 34.9**	**+0.1**
ATAH	**Atahualpa**	**36.78**	**46**	LR	LR	12 47 09.2	
	comp=Z,2μm,20.0s,baz=229,slow=30						
LPAZ	**La Paz**	**37.29**	**68**	P	**P**	**12 35 53.9**	**-0.4**
	comp=Z,4.7nm,0.8s,baz=224,slow=4.5,SNR=10						
LPAZ				LR	LR	12 48 19.5	
	comp=Z,899nm,19.6s,baz=248,slow=32						
	comp=Z,4.7nm,0.8s						
LPAZ	**La Paz**	**37.29**	**68**		**P**	**12 35 54.4**	**+0.1**
LPAZ	**La Paz**	**37.29**	**68**	P	**P**	**12 35 54.5**	**+0.2**
	comp=Z,9.9nm,1.1s						
LPAZ	**La Paz**	**37.29**	**68**	*eP*	**P**	**12 35 54.2**	**-0.1**
ANCO	**Parque Anchore**	**37.54**	**102**	*eP*	**P**	**12 35 54.7**	**-0.8**
PMSA	**Palmer Station**	**37.74**	**153**	LR	LR	12 47 31.4	
	comp=Z,2μm,19.4s,baz=296,slow=30						
PSAL	**Palomas, Salto**	**38.78**	**97**	*eP*	**P**	**12 36 05.7**	**-0.3**
CZSB	**Cruzeiro do Su**	**39.86**	**54**	*eP*	**P**	**12 36 14.7**	**-0.5**
ITQB	**Itaqui**	**40.06**	**95**	*eP*	**P**	**12 36 15.4**	**-1.3**
CPUP	**Villa Florida**	**40.79**	**90**	P	**P**	**12 36 22.8**	**0.0**
	comp=Z,1.6nm,0.5s,baz=254,slow=13,SNR=5.5						
CPUP				LR	LR	12 50 58.3	
	comp=Z,547nm,18.6s,baz=252,slow=33						
	comp=Z,1.6nm,0.5s						
CPUP	**Villa Florida**	**40.79**	**90**	P	**P**	**12 36 23.3**	**+0.5**
CPUP	**Villa Florida**	**40.79**	**90**	*eP*	**P**	**12 36 23.4**	**+0.5**
TBI	**Tubuai**	**41.05**	**275**	*eS*	**S**	**12 42 37.9**	**+0.3**
	comp=Z,3μm,27.0s						
TBI				*e*SS	**SS**	**12 45 39.6**	**-0.2**
	comp=Z,16μm,34.2s						
TBI				*e*LR	LR	12 47 41.3	
	comp=Z,1μm,25.8s						
TBI				*e*LR	LR	12 47 43.1	
	comp=Z,5μm,25.8s						
TAOE	**Nuku Hiva Isla**	**42.31**	**300**	*eS*	**S**	**12 42 49.6**	**-7.0**
	comp=Z,352nm,26.2s						
TAOE				*e*SS	**SS**	**12 46 11.6**	**+6.4**
	comp=Z,2μm,25.3s						
TAOE				*e*LR	LR	12 48 19.0	
	comp=Z,1μm,24.4s						
TAOE	**Nuku Hiva Isla**	**42.31**	**300**	P	**P**	**12 36 35.0**	**-0.5**
SJPY	**San Joaquin**	**42.35**	**89**	*eP*	**P**	**12 36 35.0**	**-0.7**
CPSB	**Cacapava Do Su**	**42.38**	**98**		**P**	**12 36 35.6**	**-0.3**
CPSB	**Cacapava Do Su**	**42.38**	**98**	P	**P**	**12 36 35.1**	**-0.8**
	comp=Z,21nm,1.0s						
CPSB	**Cacapava Do Su**	**42.38**	**98**	*eP*	**P**	**12 36 35.0**	**-0.8**
BBSD	**Serra de San D**	**42.60**	**76**	*eP*	**P**	**12 36 36.5**	**-1.3**
MURT	**Porto Murtinho**	**42.67**	**84**	*eP*	**P**	**12 36 37.9**	**-0.4**
OTAV	**Otavalo**	**42.86**	**39**	P	**P**	**12 36 39.9**	**-0.5**
OTAV	**Otavalo**	**42.86**	**39**	P	**P**	**12 36 39.9**	**-0.5**
	comp=Z,8.6nm,1.2s						
OTAV	**Otavalo**	**42.86**	**39**	*eP*	**P**	**12 36 39.8**	**-0.5**
COIM	**Forte Coimbra**	**43.40**	**82**	*eP*	**P**	**12 36 42.8**	**-1.4**
PPT2	**Papeete2**	**44.06**	**282**	*eS*	S	12 43 14.0	-8.2
	comp=Z,109nm,25.0s						
PPT2				*e*SS	**SS**	**12 46 37.6**	**-1.7**
	comp=Z,2μm,34.2s						
PPT2				*e*LR	LR	12 48 59.4	
	comp=Z,420nm,22.8s						
PPT2				*e*LR	LR	12 49 00.1	
	comp=Z,448nm,26.2s						
PPT	**Papeete**	**44.07**	**282**	LR	LR	12 49 49.0	
	comp=Z,451nm,19.2s,baz=113,slow=29						
PTLB	**Pontes e Lacer**	**44.75**	**75**	P	**P**	**12 36 54.3**	**-0.8**
PTLB	**Pontes e Lacer**	**44.75**	**75**	*eP*	**P**	**12 36 54.6**	**-0.5**
AQDB	**Aquidauana**	**44.81**	**84**		**P**	**12 36 55.5**	**0.0**
AQDB				IAmb	IAmb	12 36 57.1	
	comp=Z,32nm,1.4s						
AQDB	**Aquidauana**	**44.81**	**84**	P	**P**	**12 36 56.6**	**+1.1**
	comp=Z,18nm,0.9s						
AQDB	**Aquidauana**	**44.81**	**84**	*eP*	**P**	**12 36 56.2**	**+0.7**
VILB	**Vilhena**	**45.39**	**72**	P	**P**	**12 37 00.1**	**-0.2**
VILB				IAmb	IAmb	12 37 09.2	
	comp=Z,14nm,0.9s						
VILB	**Vilhena**	**45.39**	**72**	*eP*	**P**	**12 37 00.0**	**-0.2**
PP1B	**Ponte de Pedra**	**46.95**	**81**	*eP*	**P**	**12 37 11.6**	**-0.9**
LDASE	**Londrina, Braz**	**47.14**	**90**	*eP*	**P**	**12 37 14.3**	**+0.3**
SALV	**Santo Antonio**	**47.23**	**78**	*eP*	**P**	**12 37 13.5**	**-1.1**
PCMB	**Pacaembu**	**47.86**	**88**	*eP*	**P**	**12 37 19.1**	**-0.4**
PDRB	**Porto dos Gac**	**48.89**	**73**	*eP*	**P**	**12 37 26.7**	**-0.9**
ROSC	**El Rosal**	**48.92**	**41**	P	**P**	**12 37 27.7**	**-0.4**
	comp=Z,9.1nm,0.5s,baz=244,slow=7.1,SNR=4.7						
ROSC				LR	LR	12 54 28.7	
	comp=Z,2μm,20.9s,baz=207,slow=32						
	comp=Z,9.1nm,0.5s						
ROSC	**El Rosal**	**48.92**	**41**	P	**P**	**12 37 27.7**	**-0.4**
JTS	**Las Juntas de**	**49.04**	**25**	LR	LR	12 53 20.9	
	comp=Z,1μm,18.4s,baz=203,slow=30						
CARN	**Rivas**	**49.68**	**24**	P	**P**	**12 37 33.5**	**+0.2**
CLDB	**Colider**	**50.06**	**73**	P	**P**	**12 37 35.1**	**-1.4**
	comp=Z,8.6nm,1.4s						
CLDB	**Colider**	**50.06**	**73**	*eP*	**P**	**12 37 35.0**	**-1.5**
ARAG	**Araguaiana, MT**	**50.45**	**81**	*eP*	**P**	**12 37 38.1**	**-1.3**
RAR	**Rarotonga**	**50.46**	**271**	LR	LR	12 53 29.1	
	comp=Z,102nm,20.7s,baz=115,slow=30						
RUSC	**La Rusia**	**50.46**	**42**		**P**	**12 37 39.8**	**-0.2**
RUSC				IAmb	IAmb	12 37 54.1	
	comp=Z,30nm,1.2s						
BELA	**Belgrano 2**	**51.21**	**165**	P	**P**	**12 37 44.6**	**+0.3**
ESQI	**Esquipulas**	**51.75**	**18**	P	**P**	**12 37 50.2**	**+1.1**
CANS	**Sao Roque de M**	**52.47**	**89**	*eP*	**P**	**12 37 53.8**	**-0.8**
NPGB	**Novo Progresso**	**52.78**	**69**	*eP*	**P**	**12 37 56.0**	**-0.8**
SJCC	**San Jacinto, C**	**52.79**	**37**	P	**P**	**12 37 56.9**	**+0.1**
SNDB	**Serra Nova Dou**	**52.96**	**77**	*eP*	**P**	**12 37 57.0**	**-1.2**
CMIG	**Matias Romero**	**53.07**	**11**	LR	LR	12 54 58.5	
	comp=Z,515nm,19.2s,baz=180,slow=30						
TLIG	**Tlapa**	**53.08**	**7**	P	**P**	**12 37 59.4**	**+0.4**
TLIG				IAmb	IAmb	12 38 20.1	
	comp=Z,42nm,1.5s						
PMNB	**Patos De Minas**	**53.31**	**87**	*eP*	**P**	**12 38 01.0**	**+0.2**
BDFB	**Brasilia**	**53.55**	**83**	P	**P**	**12 38 01.4**	**-1.2**
	comp=Z,5.2nm,0.8s,baz=223,slow=6.8,SNR=5.2						
BDFB				LR	LR	12 59 34.3	
	comp=Z,903nm,18.3s,baz=235,slow=35						
	comp=Z,5.2nm,0.8s						
BDFB	**Brasilia**	**53.55**	**83**	P	**P**	**12 38 02.2**	**-0.4**
BDFB				IAmb	IAmb	12 38 07.1	
	comp=Z,17nm,1.3s						
ITTB	**Itaituba**	**54.22**	**67**	*eP*	**P**	**12 38 05.2**	**-2.2**
SDV	**Santo Domingo**	**54.28**	**42**	LR	LR	12 58 10.6	
	comp=Z,498nm,21.2s,baz=220,slow=33						
QSPA	**South Pole Qui**	**54.65**	**180**	P	**P**	**12 38 08.9**	**-1.2**
	comp=Z,2.9nm,0.9s,baz=109,slow=2.9,SNR=7.7						
QSPA				LR	LR	12 58 51.0	
	comp=Z,251nm,18.7s,baz=113,slow=33						
	comp=Z,2.9nm,0.9s						
QSPA	**South Pole Qui**	**54.65**	**180**		**P**	**12 38 10.8**	**+0.7**
QSPA				IAmb	IAmb	12 38 22.9	
	comp=Z,39nm,1.7s						
QSPA	**South Pole Qui**	**54.65**	**180**	P	**P**	**12 38 10.9**	**+0.9**
	comp=Z,14nm,2.3s						
VNDA	**Vanda**	**56.47**	**195**	P	**P**	**12 38 21.4**	**-1.3**
	comp=Z,0.4nm,0.8s,baz=114,slow=7.1,SNR=1.2						
VNDA				LR	LR	12 57 56.9	
	comp=Z,378nm,18.2s,baz=96,slow=31						
	comp=Z,0.4nm,0.8s						
VNDA	**Vanda**	**56.47**	**195**	P	**P**	**12 38 23.6**	**+0.8**
SMTB	**Santa Maria do**	**57.73**	**77**	P	**P**	**12 38 32.5**	**-0.1**
SMTB	**Santa Maria do**	**57.73**	**77**	*eP*	**P**	**12 38 32.2**	**-0.4**
SDBA	**SAO DESIDERIO**	**57.84**	**82**	*eP*	**P**	**12 38 33.1**	**-0.3**
RIB01	**Linhares ES**	**57.85**	**92**	*eP*	**P**	**12 38 31.7**	**-1.6**
ZAIG	**Zacatecas**	**58.02**	**2**	P	**P**	**12 38 35.5**	**+0.8**
ZAIG				IAmb	IAmb	12 38 42.5	
	comp=Z,17nm,1.5s						
VNA3	**Neumayer Olymp**	**58.15**	**158**	⇑P	**P**	**12 38 33.5**	**-1.3**
	comp=Z,11nm,0.8s						
VNA3	**Neumayer Olymp**	**58.15**	**158**	P	**P**	**12 38 34.7**	**0.0**
	comp=Z,17nm,0.9s						
VNA2	**Neumayer--Watz**	**58.95**	**158**	⇑P	**P**	**12 38 39.1**	**-1.2**
	comp=Z,8.7nm,0.8s,baz=254,slow=6.8						
VNA2	**Neumayer--Watz**	**58.95**	**158**	P	**P**	**12 38 39.5**	**-0.9**
	comp=Z,18nm,1.0s						
SNAA	**Sanae**	**60.06**	**159**	P	**P**	**12 38 47.3**	**-0.8**
	comp=Z,3.2nm,0.7s,baz=249,slow=5.0,SNR=0.5						
SNAA				LR	LR	13 01 55.0	
	comp=Z,455nm,18.1s,baz=255,slow=33						
	comp=Z,3.2nm,0.7s						
SNAA	**Sanae**	**60.06**	**159**	P	**P**	**12 38 47.4**	**-0.6**
URZ	**Urewera**	**61.24**	**242**	LR	LR	12 58 55.4	
	comp=Z,864nm,21.4s,baz=108,slow=30						
TROLL	**Troll, Antarti**	**61.45**	**160**	⇑P	**P**	**12 38 57.9**	**+0.4**
	comp=Z,322nm,1.0s						
MDP	**Montagnes des**	**62.90**	**61**	LR	LR	13 03 30.6	
	comp=Z,1μm,20.9s,baz=271,slow=33						
RPZ	**Rata Peaks**	**63.18**	**234**	LR	LR	12 59 57.9	
	comp=Z,204nm,20.9s,baz=169,slow=30						
AFI	**Afiamalu**	**64.01**	**271**	LR	LR	13 00 10.2	
	comp=Z,164nm,21.7s,baz=128,slow=30						
SJG	**San Juan**	**64.33**	**40**	LR	LR	13 06 07.9	
	comp=Z,392nm,18.2s,baz=243,slow=35						
TX31	**Lajitas Ar. Si**	**64.55**	**0**		**P**	**12 39 19.4**	**+0.9**
TXAR	**Lajitas Array**	**64.55**	**0**	P	**P**	**12 39 18.3**	**-0.2**
	comp=Z,1.2nm,0.7s,baz=181,slow=8.7,SNR=14						
	comp=Z,1.2nm,0.7s						
TXAR	**Lajitas Array**	**64.55**	**0**	P	**P**	**12 39 18.6**	**+0.1**
HSIG		**64.56**	**353**	P	**P**	**12 39 19.8**	**+1.3**
HSIG				IAmb	IAmb	12 39 26.1	
	comp=Z,20nm,1.8s						
HNDO	**Hondo**	**64.89**	**5**	P	**P**	**12 39 22.4**	**+1.7**
HNDO				IAmb	IAmb	12 39 42.5	
	comp=Z,11nm,1.0s						
SAND	**Sanderson**	**65.19**	**2**		**P**	**12 39 23.7**	**+1.1**
SAND				IAmb	IAmb	12 41 23.9	
	comp=Z,10nm,0.7s						
ALPN	**Alpine**	**65.58**	**0**	P	**P**	**12 39 26.7**	**+1.5**
GDSD	**La Dsirade Is**	**65.71**	**46**	P	**P**	**12 39 27.4**	**+1.1**
JCT	**Junction City**	**65.81**	**4**	P	**P**	**12 39 28.1**	**+1.4**
JCT				IAmb	IAmb	12 39 47.9	
	comp=Z,7.9nm,0.8s						
OZNA	**Ozona**	**66.18**	**3**	P	**P**	**12 39 30.3**	**+1.2**
MNHN	**Monahans**	**66.56**	**1**	P	**P**	**12 39 33.0**	**+1.6**
MNHN				IAmb	IAmb	12 39 53.7	
	comp=Z,22nm,1.3s						
ELIB	**Princess Elisa**	**66.69**	**164**	*d*P	**P**	**12 39 29.4**	**-2.6**
	comp=Z,4.2nm,1.3s						
TUC	**Tucson**	**67.81**	**354**	P	**P**	**12 39 39.8**	**+0.4**
APMT	**Aspermont**	**68.62**	**4**		**P**	**12 39 45.4**	**+1.0**
Z35A	**Perchaven, San**	**68.82**	**6**	P	**P**	**12 39 47.2**	**+1.6**
RCBR	**Riachuelo**	**68.87**	**82**	LR	LR	13 10 10.1	
	comp=Z,116nm,18.1s,baz=244,slow=36						
PFO	**Pinyon Flats O**	**69.78**	**349**	LR	LR	13 03 32.0	
	comp=Z,152nm,18.4s,baz=160,slow=30						
MSVF	**Nonsavu**	**70.25**	**262**	LR	LR	13 02 58.8	
	comp=Z,271nm,21.7s,baz=51,slow=29						
SYO	**Syowa Base**	**72.33**	**167**	⇑*eP*	**P**	**12 40 09.0**	**+2.3**
SYO	**Syowa Base**	**72.33**	**167**	⇑*eP*	P	12 40 12.8	+6.1
MPMC	**Manual Prospec**	**72.34**	**349**	IAmb	IAmb	12 40 30.7	
	comp=Z,21nm,1.7s						
MVCO	**Mesa Verde**	**72.52**	**356**		**P**	**12 40 09.5**	**+1.1**
MVCO				IAmb	IAmb	12 40 31.2	
	comp=Z,23nm,1.2s						
MVCO	**Mesa Verde**	**72.52**	**356**	P	**P**	**12 40 08.6**	**+0.2**
KAN01	**Argonia South**	**72.58**	**5**	P	**P**	**12 40 10.5**	**+2.1**
WCT	**Wildcat Mounta**	**72.93**	**349**	IAmb	IAmb	12 40 31.2	
	comp=Z,26nm,2.0s						
TPNV	**Topopah Spring**	**73.03**	**350**	P	**P**	**12 40 12.3**	**+1.1**
GRAC	**Grapevine Rang**	**73.24**	**349**	P	**P**	**12 40 13.3**	**+0.9**
GRAC				IAmb	IAmb	12 40 36.2	
	comp=Z,29nm,1.6s						
SZCU	**Shurtz Canyon**	**73.27**	**353**	P	**P**	**12 40 13.8**	**+1.0**
SZCU				IAmb	IAmb	12 40 44.1	
	comp=Z,24nm,1.7s						
TKL	**Tuckaleechee C**	**73.33**	**17**	LR	LR	13 08 56.9	
	comp=Z,261nm,19.0s,baz=197,slow=33						
PV14	**Lion Creek, Pa**	**73.70**	**356**	IAmb	IAmb	12 40 35.9	
	comp=Z,24nm,1.2s						
MZP	**Montezuma Peak**	**73.93**	**349**	P	**P**	**12 40 17.2**	**+0.4**
CCM	**Cathedral Cave**	**74.20**	**10**	P	**P**	**12 40 20.8**

HLID	**Hailey**	**79.31**	**352**			**P**		**12 40 47.0**	**0.0**
HLID	**Hailey**	**79.31**	**352**	P		**P**		**12 40 46.7**	**-0.2**
	comp=Z,9.8nm,2.0s								
J08A	**Circle Bar Ran**	**79.64**	**349**	IAmb		IAmb		12 41 08.8	
	comp=Z,30nm,1.6s								
SADO	**Sadowa**	**83.08**	**18**	LR		LR		13 14 24.0	
	comp=Z,265nm,20.8s,baz=201,slow=33								
NEW	**Newport**	**84.26**	**351**	LR		LR		13 13 57.1	
	comp=Z,186nm,18.6s,baz=168,slow=32								
NEW	**Newport**	**84.26**	**351**	P		**P**		**12 41 13.4**	**+0.6**
	comp=Z,15nm,2.9s								
HNR	**Honiara**	**89.43**	**259**	LR		LR		13 14 55.9	
	comp=Z,97nm,19.4s,baz=224,slow=31								
CTA	**Charters Tower**	**93.48**	**242**	LR		LR		13 18 00.4	
	comp=Z,376nm,20.0s,baz=93,slow=32								
SCHQ	**Schefferville**	**95.53**	**21**	LR		LR		13 17 11.3	
	comp=Z,547nm,21.6s,baz=276,slow=30								
YKA	**Yellowknife Ar**	**98.08**	**355**	LR		LR		13 21 16.4	
	comp=Z,263nm,18.3s,baz=156,slow=32								
PMG	**Port Moresby**	**99.52**	**251**	LR		LR		13 19 10.3	
	comp=Z,170nm,21.6s,baz=140,slow=30								
ASAR	**Alice Springs**	**99.54**	**232**	LR		LR		13 20 57.6	
	comp=Z,656nm,20.3s,baz=117,slow=32								
H01W1	**Cape Leeuwin H**	**101.37**	**211**	T		T		14 36 33.1	
	baz=149,slow=76,SNR=20								
H01W2	**Cape Leeuwin H**	**101.37**	**211**	T		T		14 36 31.8	
	baz=149,slow=76,SNR=23								
H01W3	**Cape Leeuwin H**	**101.38**	**211**	T		T		14 36 33.8	
	baz=149,slow=76,SNR=19								
CLL	**Collm**	**133.11**	**50**	*e*SSS		SSS		13 13 05.0	
CLL				L		L		13 32 00.0	
CLL				AMS		AMS		13 36 00.0	
	comp=N,100nm,26.1s								
CLL				AMS		AMS		13 36 00.0	
	comp=E,200nm,29.9s								
CLL				AMS		AMS		13 36 00.0	
	comp=Z,300nm,24.8s								
GERES	**GERESS Array B**	**133.26**	**53**	PKP		**PKPdf**		**12 47 57.7**	**+0.7**
	comp=Z,0.3nm,0.3s,baz=270,slow=2.9,SNR=4.4								
NJ2	**Nanjing**	**144.39**	**277**	*e*PKP		**PKPdf**		**12 48 19.1**	**+1.3**
HILR	**Hailar Array B**	**145.35**	**308**	PKPbc		**PKPbc**		**12 48 18.6**	**-0.3**
	comp=Z,1.1nm,0.3s,baz=77,slow=3.8,SNR=4.6								
NRIK	**Noril'sk**	**145.56**	**353**	PKPbc		**PKPdf**		**12 48 17.5**	**-1.1**
	comp=Z,13nm,1.2s,baz=13,slow=3.4,SNR=7.5								
BRTR	**Keskin Array B**	**146.46**	**70**	PKPbc		**PKPdf**		**12 48 21.9**	**+0.6**
	comp=Z,3.0nm,0.9s,baz=279,slow=2.8,SNR=6.4								
BRTR	**Keskin Array B**	**146.46**	**70**			**PKPdf**		**12 48 20.4**	**-0.9**
HNS	**HongShan**	**148.94**	**285**	||PKPbc	**PKPbc**		**12 48 29.4**	**+0.2**
HHC	**Hu-ho-hao-te**	**151.66**	**292**	*e*PKPbc		**PKPdf**		**12 48 26.8**	**-2.8**
XAN	**Xi'an**	**152.96**	**276**	*e*PKPbc		**PKPdf**		**12 48 33.1**	**+1.5**
KBZ	**Khabaz**	**153.40**	**62**	PKPbc		**PKiKP**		**12 48 40.1**	**+0.5**
	comp=Z,2.6nm,0.8s,baz=270,slow=1.6,SNR=4.7								
CMAR	**Chiang Mai Arr**	**153.47**	**236**	PKPbc		**PKPbc**		**12 48 38.6**	**-1.8**
	comp=Z,0.8nm,0.9s,baz=213,slow=1.1,SNR=6.0								
CMAR	**Chiang Mai Arr**	**153.47**	**236**			**PKPdf**		**12 48 32.4**	**-0.4**
CMAR				PKPbc		**pPKPbc**		**12 48 42.3**	**-0.4**
CMAR				PKPab		**PKPab**		**12 48 52.0**	**-0.6**
SONM	**Songino Array**	**154.35**	**308**	PKPbc		**PKiKP**		**12 48 42.1**	**+0.5**
	comp=Z,1.5nm,0.8s,baz=94,slow=4.3,SNR=5.7								
LZH	**Lanzhou**	**157.41**	**280**	*e*PKP		**PKPdf**		**12 48 30.3**	**-7.5**
LZH				sPKP		sPKPdf		12 48 47.6	+6.8
ZALV	**Zalesovo Beam**	**160.59**	**344**	PKP		**PKPdf**		**12 48 39.9**	**-0.8**
	comp=Z,0.5nm,0.5s,baz=0.0,slow=0.4,SNR=3.8								
ZALV	**Zalesovo Beam**	**160.59**	**344**			**PKPdf**		**12 48 40.4**	**-0.3**
HYB	**Hyderabad**	**161.79**	**188**	*e*PKPab		**PKPab**		**12 49 28.6**	**+0.2**
HYB				*e*PP		**PP**		**12 53 13.0**	**+2.2**
BVAR	**Borovoye Array**	**162.09**	**11**	PKPab		**PKPab**		**12 49 27.6**	**-1.3**
	comp=Z,1.4nm,0.8s,baz=353,slow=4.9,SNR=4.1								
KURBB	**Kurchatov Arra**	**164.83**	**354**	PKP		**PKPdf**		**12 48 45.0**	**0.0**
	comp=Z,0.5nm,1.0s,baz=14,slow=1.3,SNR=2.4								
KURBB				PKPab		**PKPab**		**12 49 40.0**	**-0.8**
	comp=Z,0.4nm,0.9s,baz=18,slow=3.6,SNR=2.4								
WMQ	**Urumqi**	**167.77**	**316**	*e*PKP		**PKPdf**		**12 48 47.8**	**+0.2**
WMQ				L		L			
	comp=Z,250nm,24.2s								
KSH2	**Kashi**	**176.40**	**5**	PKP		**PKPdf**		**12 48 53.3**	**+1.5**

IDC 04 12:40:39.5±2.6, 25°.93S×176°.50W, h0km, mb3.8/4, mbtmp3.8/5, ML3.4/1, Error ellipse: s-maj=77.6km s-min=40.7km az=133.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
URZ	**Urewera**	**13.43**	**202**	Pn	Pn	12 43 50.8		-0.4
	0.2nm,0.3s,baz=16,slow=7.4,SNR=3.2							
URZ				Sn	Sn	12 46 15.2		-6.0
	0.4nm,0.3s,baz=180,slow=22,SNR=1.1							
	4.5nm,0.8s							
URZ				AML	AML			
ASAR	**Alice Springs**	**44.87**	**262**	P	P	12 48 55.5		-0.3
	0.7nm,0.8s,baz=91,slow=8.0,SNR=8.2							
	0.7nm,0.8s							
WRA	**Warramunga Arr**	**45.46**	**267**	P	P	12 49 00.3		-0.3
	0.5nm,0.8s,baz=106,slow=7.7,SNR=5.1							
	0.5nm,0.8s							
CMAR	**Chiang Mai Arr**	**93.19**	**289**	P	P	12 53 57.1		+0.9
	0.3nm,0.4s,baz=126,slow=3.7,SNR=1.9							
	0.3nm,0.4s							
ILAR	**Eielson Array**	**93.29**	**12**	P	P	12 53 55.1		-0.4
	0.5nm,1.0s,baz=204,slow=6.4,SNR=4.2							
	0.5nm,1.0s							

*AFAD **04** 12:43:14.5, 37°.86N×26°.83E, h7km±2km, ML2.6*
*THE **04** 12:43:14.9, 37°.9N±0°.8×2°.7E±°, h9km±1km, M2.9/8, MLh2.9/8*
*ISK **04** 12:43:14.8, 37°.86N×26°.90E, h9km, ML2.6/21*
ISC 04 12:43:14.8±0.9, 37°.86N±0°.02×26°.84E±0°.02, h11km±6km, n49, σ0°53/78, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
SMG	**Samos**	**0.15**	**182**	P	**Pg**	**12 43 18.2**		**-0.1**
SMG				S	**Sg**	**12 43 20.9**		**+0.3**
SMG				AML	AML			
DGB	**zmir**	**0.20**	**9**	P	**Pg**	**12 43 18.9**		**-0.1**
DGB				S	**Sg**	**12 43 21.5**		**-0.4**
DGB				IAML		12 43 22.0		
	comp=E,984nm,0.3s							
GMLD	**Gumuldur**	**0.23**	**15**	Pg	**Pg**	**12 43 19.6**		**+0.1**
GMLD				Sg	**Sg**	**12 43 23.4**		**+0.7**
GCAM	**G?zelcaml?**	**0.35**	**117**	P	**Pg**	**12 43 21.8**		**0.0**
GCAM				S	**Sg**	**12 43 27.4**		**+1.0**
GCAM				IAML		12 43 28.0		
	comp=E,1μm,0.2s							
GCAM				IAML		12 43 29.0		
	comp=N,1μm,0.2s							
GCAM	**G?zelcaml?**	**0.35**	**117**	Pg	**Pg**	**12 43 21.4**		**-0.4**
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.35**	**90**	Pg	**Pg**	**12 43 21.1**		**-0.8**
KUSD				AML	AML			
BEYE	**izmir**	**0.37**	**10**	P	**Pg**	**12 43 22.2**		**-0.1**
BEYE				S	**Sg**	**12 43 27.4**		**+0.2**
BEYE				IAML		12 43 29.0		
	comp=N,492nm,0.3s							
BEYE				IAML		12 43 29.0		
	comp=E,407nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.46**	**325**	P	**Pg**	**12 43 23.4**		**-0.6**
ZEYE				S	**Sg**	**12 43 30.5**		**+0.4**
ZEYE				IAML		12 43 31.0		
	comp=N,934nm,0.6s							
ZEYE				IAML		12 43 32.0		
	comp=E,508nm,0.4s							
DDIM	**Aydin, Didim**	**0.51**	**142**	P	**Pg**	**12 43 23.2**		**-1.6**
DDIM				S	**Sg**	**12 43 32.4**		**+0.8**
BLCB	**Balcova**	**0.55**	**17**	P	**Pg**	**12 43 25.5**		**-0.1**
BLCB				S	**Sg**	**12 43 33.1**		**+0.3**
BLCB				AML	AML			
BLCB	**Balcova**	**0.55**	**17**	Pg	**Pg**	**12 43 25.1**		**-0.4**
BLCB				AML	AML			
DUVT	**Torbali**	**0.60**	**53**	P	**Pg**	**12 43 26.2**		**-0.3**
DUVT				S	**Sg**	**12 43 33.1**		**-1.3**
DUVT				IAML		12 43 38.0		
	comp=E,643nm,0.4s							
CESE	**eme**	**0.64**	**318**	Pg	**Pb**	**12 43 28.5**		**+0.5**
CESE				AML	AML			
KRBN	**Karaburun**	**0.77**	**343**	Pg	**Pb**	**12 43 30.4**		**+0.2**
KRBN				AML	AML			
BAGT	**Foa**	**0.80**	**1**	P	**Pg**	**12 43 29.7**		**-0.5**
BAGT				S	**Sb**	**12 43 42.3**		**+0.9**
BAGT				IAML		12 43 44.0		
	comp=E,293nm,0.5s							
BAGT				IAML		12 43 44.0		
	comp=N,337nm,0.4s							

YKAV	**Yalikavak-Bodr**	**0.81**	**154**	Pg		**Pg**		**12 43 30.6**	**+0.1**
YKAV				AML		AML			
CHOS	**Chios island**	**0.81**	**311**	P		**Pg**		**12 43 30.3**	**-0.3**
CHOS				S		**Sb**		**12 43 41.8**	**-0.3**
CHOS				AML		AML			
CHOS	**Chios island**	**0.81**	**311**	Pg		**Pb**		**12 43 31.1**	**0.0**
CHOS				AML		AML			
AYDB	**Zeytinkoy-Aydi**	**0.83**	**84**	Pg		**Pg**		**12 43 30.8**	**-0.2**
AYDB				AML		AML			
AYDN	**Tasoluk**	**0.84**	**103**	P		**Pg**		**12 43 30.9**	**-0.3**
AYDN				S		**Sg**		**12 43 42.7**	**+0.5**
AYDN				IAML				12 43 46.0	
	comp=E,218nm,0.2s								
AYDN				IAML				12 43 46.0	
	comp=N,128nm,0.3s								
KARB	**zmir-Karabur**	**0.87**	**337**	P		**Pg**		**12 43 30.8**	**-0.8**
KARB				S		**Sb**		**12 43 43.6**	**-0.1**
KARB				IAML				12 43 45.0	
	comp=N,192nm,0.4s								
KARB				IAML				12 43 46.0	
	comp=E,299nm,0.1s								
BODT	**Bodrum**	**0.88**	**155**	P		**Pg**		**12 43 31.6**	**-0.2**
BODT				S		**Sb**		**12 43 43.7**	**-0.2**
BODT				AML		AML			
BODT	**Bodrum**	**0.88**	**155**	Pg		**Pg**		**12 43 31.8**	**0.0**
BODT				Sg		**Sb**		**12 43 44.3**	**+0.4**
BODT				AML		AML			
IZMR	**zmir-demi**	**0.92**	**72**	P		**Pg**		**12 43 32.8**	**+0.2**
IZMR				S		**Sg**		**12 43 43.3**	**-1.3**
IZMR				IAML				12 43 47.0	
	comp=N,96nm,0.7s								
BDRM	**Kayabasi**	**0.93**	**149**	P		**Pg**		**12 43 32.7**	**0.0**
BDRM				S		**Sg**		**12 43 44.8**	**0.0**
BDRM				IAML				12 43 48.0	
	comp=E,246nm,0.6s								
BDRM				IAML				12 43 49.0	
	comp=N,276nm,0.7s								
MLSB	**Milas**	**0.93**	**127**	Pg		**Pg**		**12 43 32.5**	**-0.3**
MLSB				Sg		**Sg**		**12 43 45.3**	**+0.4**
MLSB				AML		AML			
BODA	**Bodrum-Mula**	**0.95**	**150**	Pg		**Pg**		**12 43 33.1**	**0.0**
CAMT	**Merkez**	**0.96**	**22**	P		**Pg**		**12 43 33.4**	**+0.1**
CAMT				S		**Sb**		**12 43 47.3**	**+1.0**
CAMT				IAML				12 43 49.0	
	comp=E,704nm,0.6s								
CAMT				IAML				12 43 49.0	
	comp=N,726nm,0.3s								
ZEDA	**zmir-Bergama**	**1.12**	**9**	P		**Pg**		**12 43 35.8**	**-0.6**
ZEDA				S		**Sg**		**12 43 50.9**	**-0.1**
ZEDA				IAML				12 43 56.0	
	comp=E,101nm,0.3s								
ZEDA				IAML				12 43 58.0	
	comp=N,105nm,0.4s								
IZMD	**zmir-Dikili-**	**1.12**	**3**	P		**Pg**		**12 43 36.3**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.15**	**84**	Pn		**Pb**		**12 43 36.1**	**-0.7**
NAZL				AML		AML			
ESEN	**Aydn-Nazilli**	**1.19**	**92**	P		**Pb**		**12 43 36.5**	**-1.0**
ESEN				S		**Sn**		**12 43 54.9**	**+1.2**
GOMA	**Golmarmara-Man**	**1.20**	**45**	Pn		**Pb**		**12 43 37.5**	**-0.1**
GOMA				AML		AML			
DKL	**Dikili**	**1.21**	**2**	Pn		**Pg**		**12 43 38.4**	**+0.3**
DKL				AML		AML			
DAT	**Datca**	**1.27**	**152**	P		**Pn**		**12 43 38.1**	**-0.5**
DAT				S		**Sb**		**12 43 55.3**	**0.0**
DAT				AML		AML			
AKS	**Akhisar**	**1.27**	**37**	Pn		**Pb**		**12 43 39.0**	**+0.1**
AKS				AML		AML			
AKHS	**Akhisar**	**1.27**	**37**	P		**Pn**		**12 43 38.0**	**-0.6**
AKHS				S		**Sn**		**12 43 56.5**	**+0.8**
YAZI	**Mula-Dat§a-**	**1.27**	**157**	P		**Pg**		**12 43 39.8**	**+0.5**
YAZI				S		**Sn**		**12 43 56.0**	**+0.4**
KIRA	**zmir-Kiraz**	**1.28**	**74**	P		**Pn**		**12 43 38.2**	**-0.5**
KIRA				S		**Sb**		**12 43 55.6**	**+0.2**
KIRA				IAML				12 43 58.0	
	comp=N,55nm,0.5s								
APE	**Apeiranthos**	**1.31**	**233**	P		**Pn**		**12 43 38.5**	**-0.6**
APE				S		**Sb**		**12 43 56.3**	**0.0**
APE				AML		AML			
APE	**Apeiranthos**	**1.31**	**233**	Pn		**Pg**		**12 43 39.8**	**-0.2**
APE				AML		AML			
YER	**Yerkesik**	**1.35**	**122**	P		**Pn**		**12 43 39.3**	**-0.5**
YER				S		**Sn**		**12 43 58.1**	**+0.3**
YER	**Yerkesik**	**1.35**	**122**	Pn		**Pn**		**12 43 40.1**	**+0.3**
YER				AML		AML			
SOMA	**Soma-Manisa**	**1.40**	**23**	Pn		**Pb**		**12 43 41.0**	**-0.1**
SOMA				AML		AML			
PRK	**Paraskevi**	**1.46**	**342**	P		**Pn**		**12 43 40.8**	**-0.3**
PRK				S		**Sn**		**12 43 60.0**	**-0.2**
GORD	**Gordes-Manisa**	**1.48**	**45**	Pn		**Pn**		**12 43 41.9**	**+0.4**
GORD				AML		AML			
BUHA	**Balikesir, Bur**	**1.65**	**6**	P		**Pn**		**12 43 43.5**	**-0.3**
STEP	**BALIKESIR_Sava**	**1.66**	**24**	P		**Pg**		**12 43 46.5**	**-0.3**
STEP				S		**Sg**		**12 44 07.9**	**-0.5**
STEP				IAML				12 44 14.0	
	comp=N,76nm,0.4s								
STEP				IAML				12 44 15.0	
	comp=E,107nm,0.4s								
SIMA	**Simav-Kutahya**	**2.08**	**53**	Pn		**Pn**		**12 43 50.3**	**+0.5**
SIMA				AML		AML			

*NEIC **04** 12:50:52.4±1.5, 17°.3S±0°.1×177°.7W±0°.04, h416km±8km, mb4.0/36, Error ellipse: s-maj=19.9km s-min=5.4km az=176.0*
*IDC **04** 12:50:53.7±1.3, 17°.27S×178°.03W, h426km±11km, mb3.4/16, mbtmp4.2/18, Error ellipse: s-maj=17.3km s-min=12.2km az=142.0*
ISC 04 12:50:51.1±0.5, 17°.31S±0°.1×177°.83W±0°.07, h400km, n70, σ1°26/73, mb3.9/33, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
MSVF	**Nonsavu**	**3.96**	**263**	P	**Pn**	**12 52 05.7**		**+2.8**
	78nm,0.6s,baz=84,slow=8.2,SNR=70							
MSVF				S	**S**	**12 53 04.1**		**+3.0**
	32nm,1.1s,baz=167,slow=22,SNR=1.9							
MSVF	**Nonsavu**	**3.96**	**263**	P	**Pn**	**12 52 07.0**		**+4.1**
AFI	**Afiamalu**	**6.74**	**61**	P	Pn	12 52 28.9		-3.1
	54nm,0.6s,baz=256,slow=4.2,SNR=12							
AFI				S	S	12 53 47.4		-7.0
	40nm,0.9s,baz=211,slow=21,SNR=1.5							
NIUE	**Niue**	**7.71**	**104**		**Pn**	**12 52 42.9**		**0.0**
MARNC	**Mare, Loyalty**	**13.97**	**250**	P	**P**	**12 53 53.9**		**+1.3**
PINNC	**Pines Island,**	**14.81**	**247**	P	**P**	**12 54 03.0**		**+1.3**
OUENC	**Ouen Island, N**	**15.29**	**248**	P	**P**	**12 54 07.7**		**+0.9**
DZM	**Mont Dzumac**	**15.55**	**250**	P	**P**	**12 54 09.1**		**-0.7**
	3.9nm,0.5s,baz=86,slow=16,SNR=16							
URZ	**Urewera**	**21.34**	**191**	P	**P**	**12 55 05.5**		**-2.1**
	5.9nm,0.7s,baz=4.8,slow=12,SNR=2.1							
EIDS	**Eidsvold**	**30.00**	**249**	P	**P**	**12 56 24.5**		**-0.5**
EIDS				IAmb	IAmb	12 56 24.8		
	comp=Z,5.5nm,0.8s							
ARMA	**Armidale**	**30.72**	**239**	P	**P**	**12 56 31.4**		**0.0**
ARMA				IAmb	IAmb	12 56 43.7		
	comp=Z,5.8nm,1.0s							
CTA	**Charters Tower**	**34.10**	**260**	P	**P**	**12 56 59.2**		**-1.2**
	comp=Z,2.6nm,0.7s,baz=76,slow=12,SNR=2.1							
	comp=Z,2.6nm,0.7s							
CTAO	**Charters Tower**	**34.10**	**260**	P	**P**	**12 56 59.7**		**-0.7**
CTAO				IAmb	IAmb	12 57 12.2		
	comp=Z,4.9nm,1.0s							
CAN	**Canberra**	**34.51**	**232**	P	**P**	**12 57 03.8**		**+0.1**
CAN				IAmb	IAmb	12 57 25.1		
	comp=Z,6.2nm,1.0s							
TOO	**Toolangi**	**37.98**	**230**	P	**P**	**12 57 32.8**		**+0.1**
TOO				IAmb	IAmb	12 57 39.5		
	comp=Z,3.9nm,1.1s							
STKA	**Stephens Creek**	**39.41**	**241**	P	**P**	**12 57 43.6**		**-0.8**
	comp=Z,2.8nm,0.4s,baz=97,slow=8.9,SNR=6.6							
	comp=Z,2.8nm,0.4s							
INKA	**Innaminka**	**39.49**	**247**	P	**P**	**12 57 45.1**		**0.0**
JAY	**Jayapura**	**43.28**	**285**	P	**P**	**12 58 15.4**		**-0.4**
	comp=Z,8.8nm,0.8s,baz=112,slow=8.7,SNR=4.3							
	comp=Z,8.8nm,0.8s							
BBOO	**Buckleboo**	**44.18**	**241**	P	**P**	**12 58 21.4**		**-1.1**
BBOO				IAmb	IAmb	12 58 50.0		
	comp=Z,12nm,1.1s							
WR8	**Warramunga Arr**	**45.14**	**259**	P	**P**	**12 58 29.2**		**-1.0**
WB0	**Warramunga Arr**	**45.26**	**259**	P	**P**	**12 58 29.8**		**-1.3**
WB0				IAmb	IAmb	12 58 48.2		
	comp=Z,3.5nm,1.1s							
WRAB	**Tennant Creek**	**45.28**	**259**	P	**P**	**12 58 29.7**		**-1.6**
WRA	**Warramunga Arr**	**45.29**	**259**	P	**P**	**12 58 29.4**		**-2.0**

	comp=Z,0.7nm,0.7s,baz=80,slow=5.9,SNR=23								
WRA				PcP		**PcP**		**13 00 04.0**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=95,slow=3.5,SNR=5.2								
	comp=Z,0.7nm,0.7s								
WRA	**Warramunga Arr**	**45.29**	**259**	P		**P**		**12 58 29.4**	**-2.0**
AS31	**Alice Springs**	**45.49**	**254**	P		**P**		**12 58 31.8**	**-1.1**
AS31				IAmb		IAmb		12 58 32.3	
	comp=Z,4.0nm,0.5s								
ASAR	**Alice Springs**	**45.49**	**254**	P		**P**		**12 58 31.5**	**-1.4**
	comp=Z,8.3nm,0.5s,baz=90,slow=7.9,SNR=317								
ASAR				PcP		**PcP**		**13 00 04.6**	**+0.5**
	comp=Z,0.9nm,0.5s,baz=100,slow=3.7,SNR=6.2								
ASAR				S		**S**		**13 04 40.1**	**-4.2**
	comp=Z,1.1nm,0.8s,baz=85,slow=16,SNR=4.8								
	comp=Z,8.3nm,0.5s								
FORT	**Forrest**	**50.77**	**244**	P		**P**		**12 59 11.2**	**-1.3**
FORT				IAmb		IAmb		12 59 20.6	
	comp=Z,8.7nm,1.0s								
KNRA	**Kununurra**	**51.10**	**264**	P		**P**		**12 59 15.0**	**-0.3**
SIJI	**Sorong**	**52.65**	**282**	P		**P**		**12 59 25.9**	**-0.7**
	comp=Z,8.8nm,0.8s,baz=109,slow=7.5,SNR=4.4								
	comp=Z,8.8nm,0.8s								
FITZ	**Fitzroy Crossi**	**53.68**	**260**	P		**P**		**12 59 33.8**	**-0.1**
MBWA	**Marble Bar**	**58.76**	**255**	P		**P**		**13 00 07.8**	**-1.6**
MBWA				IAmb		IAmb		13 00 09.2	
	comp=Z,9.7nm,1.1s								
SBA	**Scott Base**	**61.05**	**184**	P		**P**		**13 00 25.7**	**+1.9**
VNDA	**Vanda**	**61.09**	**185**	P		**P**		**13 00 24.9**	**+0.9**
	comp=Z,0.6nm,0.7s,baz=22,slow=6.7,SNR=2.5								
	comp=Z,0.6nm,0.7s								
VNDA	**Vanda**	**61.09**	**185**	P		**P**		**13 00 25.5**	**+1.5**
JAGI	**Jajag, Banyuwa**	**66.61**	**268**	P		**P**		**13 00 59.9**	**-0.8**
JGF	**Kuroka**	**67.61**	**322**	P		**P**		**13 01 06.5**	**0.0**
MJAR	**Matsushiro Arr**	**67.77**	**323**	P		**P**		**13 01 06.3**	**-1.0**
	comp=Z,2.1nm,0.6s,baz=141,slow=6.4,SNR=6.8								
	comp=Z,2.1nm,0.6s								
JKA	**Kamikawa-asahi**	**71.02**	**331**	P		**P**		**13 01 28.1**	**+1.2**
QSPA	**South Pole Qui**	**72.74**	**180**	P		**P**		**13 01 36.7**	**-0.1**
	comp=Z,3.4nm,0.8s,baz=43,slow=1.6,SNR=12								
	comp=Z,3.4nm,0.8s								
QSPA	**South Pole Qui**	**72.74**	**180**	P		**P**		**13 01 36.9**	**0.0**
QSPA				IAmb		IAmb		13 01 38.9	
	comp=Z,3.2nm,0.8s								
PET	**Petropavlovsk**	**72.94**	**345**	P		**P**		**13 01 37.0**	**-0.8**
PEA0B	**Petropavlovsk-**	**73.25**	**345**	P		**P**		**13 01 39.5**	**-0.2**
PETK	**Petropavlovsk-**	**73.25**	**345**	P		**P**		**13 01 39.0**	**-0.7**
	comp=Z,2.2nm,0.6s,baz=152,slow=5.5,SNR=8.0								
	comp=Z,2.2nm,0.6s								
PETK	**Petropavlovsk-**	**73.25**	**345**	P		**P**		**13 01 39.6**	**-0.1**
KSRS	**Korea Array**	**74.63**	**318**	P		**P**		**13 01 48.2**	**+0.3**
	comp=Z,0.5nm,0.6s,baz=129,slow=6.2,SNR=2.2								
	comp=Z,0.5nm,0.6s								
NVAR	**Mina Array Bea**	**78.61**	**44**	P		**P**		**13 02 10.8**	**+0.6**
	comp=Z,0.7nm,0.6s,baz=222,slow=9.7,SNR=7.4								
	comp=Z,0.7nm,0.6s								
K15K	**Wolf Creek Mou**	**80.38**	**8**	P		**P**		**13 02 19.6**	**+0.8**
K15K				IAmb		IAmb		13 02 20.0	
	comp=Z,3.5nm,0.8s								
L18K	**Granite Mounta**	**81.01**	**10**	P		**P**		**13 02 22.6**	**+0.4**
L18K				IAmb		IAmb		13 02 29.9	
	comp=Z,5.0nm,1.1s								
M19K	**Big River Lodg**	**81.11**	**11**	P		**P**		**13 02 22.3**	**-0.4**
STLK	**Strandline Lak**	**81.23**	**12**	P		**P**		**13 02 22.0**	**-1.4**
STLK				IAmb		IAmb		13 02 22.2	
	comp=Z,1.6nm,0.7s								
L20K	**Farewell, AK**	**81.74**	**11**	P		**P**		**13 02 25.3**	**-0.7**
L20K				IAmb		IAmb		13 02 39.7	
	comp=Z,1.2nm,0.8s								
GHO	**Glory Hole Cre**	**82.10**	**13**	P		**P**		**13 02 27.2**	**-0.7**
BELA	**Belgrano 2**	**82.68**	**173**	P		**P**		**13 02 30.8**	**+0.1**
BELA				IAmb		IAmb		13 02 32.8	
	comp=Z,2.9nm,0.8s								
J19K	**Poorman**	**82.85**	**10**	P		**P**		**13 02 31.4**	**-0.1**
J20K	**Nowinta River**	**83.26**	**10**	P		**P**		**13 02 33.4**	**-0.2**
J20K				IAmb		IAmb		13 02 34.1	
	comp=Z,2.5nm,0.7s								
**TRF

DIDI				AML	AML				
BLCB	**Balcova**	**0.53**	**7**	P	**Pg**	**12 58 08.2**	**0.0**		
BLCB				S	**Sg**	**12 58 15.7**	**+0.5**		
BLCB				AML	AML				
BLCB	**Balcova**	**0.53**	**7**	Pg	**Pg**	**12 58 08.1**	**0.0**		
CESE	**eme**	**0.71**	**312**	Pg	**Pg**	**12 58 11.4**	**-0.1**		
CESE				AML	AML				
AYDB	**Zeytinkoy-Aydi**	**0.74**	**83**	Pg	**Pb**	**12 58 12.5**	**-0.2**		
AYDB				Sg	**Sb**	**12 58 23.6**	**+0.8**		
AYDB				AML	AML				
AYDN	**Tasoluk**	**0.75**	**105**	P	**Pb**	**12 58 12.6**	**-0.3**		
AYDN				S	**Sb**	**12 58 22.8**	**-0.4**		
AYDN				IAML		12 58 26.0			
	comp=E,1μm,0.3s								
AYDN				IAML		12 58 26.0			
	comp=N,818nm,0.3s								
YKAV	**Yalikavak-Bodr**	**0.77**	**161**	Pg	**Pg**	**12 58 13.0**	**+0.2**		
YKAV				AML	AML				
BAGT	**Foa**	**0.80**	**354**	P	**Pb**	**12 58 13.8**	**+0.1**		
BAGT				S	**Sg**	**12 58 23.9**	**+0.1**		
BAGT				IAML		12 58 25.0			
	comp=E,498nm,0.6s								
BAGT				IAML		12 58 28.0			
	comp=N,790nm,0.8s								
KRBN	**Karaburun**	**0.80**	**336**	Pg	**Pg**	**12 58 13.0**	**-0.3**		
KRBN				AML	AML				
IZMR	**zmir-demi**	**0.83**	**70**	P	**Pg**	**12 58 13.8**	**0.0**		
IZMR				S	**Sg**	**12 58 24.0**	**-0.6**		
IZMR				IAML		12 58 27.0			
	comp=N,456nm,0.5s								
BODT	**Bodrum**	**0.84**	**161**	P	**Pg**	**12 58 13.7**	**-0.3**		
BODT				S	**Sb**	**12 58 25.7**	**0.0**		
BODT				AML	AML				
BODT	**Bodrum**	**0.84**	**161**	Pg	**Pg**	**12 58 13.8**	**-0.3**		
BODT				AML	AML				
MLSB	**Milas**	**0.85**	**131**	Pg	**Pb**	**12 58 15.0**	**+0.3**		
MLSB				AML	AML				
FOCM	**Foa**	**0.87**	**348**	Pg	**Pg**	**12 58 14.5**	**-0.1**		
FOCM				AML	AML				
BDRM	**Kayabasi**	**0.88**	**154**	P	**Pg**	**12 58 14.6**	**-0.2**		
BDRM				S	**Sg**	**12 58 24.3**	**-1.9**		
BDRM				IAML		12 58 30.0			
	comp=E,310nm,0.3s								
BDRM				IAML		12 58 30.0			
	comp=N,698nm,0.4s								
CHOS	**Chios island**	**0.89**	**307**	P	**Pg**	**12 58 15.1**	**+0.1**		
CHOS				S	**Sb**	**12 58 27.6**	**+0.4**		
CHOS				AML	AML				
CHOS	**Chios island**	**0.89**	**307**	Pg	**Pg**	**12 58 14.6**	**-0.4**		
CHOS				AML	AML				
CHOS	**Chios island**	**0.89**	**307**	P	**Pb**	**12 58 15.2**	**-0.1**		
CHOS				S	**Sg**	**12 58 26.9**	**+0.2**		
CHOS				AML	AML				
KLNA	**Kalymnos**	**0.90**	**180**	P	**Pg**	**12 58 14.9**	**-0.3**		
KLNA				S	**Sg**	**12 58 27.2**	**+0.3**		
BODA	**Bodrum-Mula**	**0.90**	**156**	Pg	**Pb**	**12 58 15.6**	**+0.2**		
KARB	**zmir-Karabur**	**0.91**	**332**	P	**Pg**	**12 58 15.3**	**-0.1**		
KARB				S	**Sg**	**12 58 27.1**	**-0.2**		
KARB				IAML		12 58 30.0			
	comp=N,341nm,0.4s								
KARB				IAML		12 58 30.0			
	comp=E,370nm,0.9s								
CAMT	**Merkez**	**0.93**	**17**	P	**Pb**	**12 58 16.1**	**+0.2**		
CAMT				S	**Sb**	**12 58 28.9**	**+0.7**		
CAMT				IAML		12 58 33.0			
	comp=N,1μm,0.6s								
CAMT				IAML		12 58 33.0			
	comp=E,758nm,0.7s								
EAG2	**Marmaro, Chios**	**0.96**	**316**	P	**Pb**	**12 58 16.5**	**0.0**		
EAG2				S	**Sg**	**12 58 28.9**	**0.0**		
NAZL	**Nazilli-Aydin**	**1.05**	**84**	Pg	**Pb**	**12 58 18.1**	**0.0**		
NAZL				AML	AML				
ESEN	**Aydn-Nazilli**	**1.10**	**93**	P	**Pb**	**12 58 18.9**	**+0.2**		
ESEN				S	**Sb**	**12 58 33.3**	**+0.3**		
ZEDA	**zmir-Bergama**	**1.11**	**4**	P	**Pg**	**12 58 18.7**	**-0.5**		
ZEDA				S	**Sg**	**12 58 32.4**	**-1.2**		
ZEDA				IAML		12 58 36.0			
	comp=N,368nm,0.3s								
ZEDA				IAML		12 58 39.0			
	comp=E,376nm,0.4s								
GOMA	**Golmarmara-Man**	**1.13**	**41**	Pn	**Pn**	**12 58 19.7**	**+0.2**		
GOMA				AML	AML				
KIRA	**zmir-Kiraz**	**1.18**	**73**	P	**Pn**	**12 58 21.0**	**+0.7**		
KIRA				S	**Sg**	**12 58 34.1**	**-1.8**		
KIRA				IAML		12 58 39.0			
	comp=N,298nm,0.4s								
DKL	**Dikili**	**1.21**	**358**	Pn	**Pg**	**12 58 21.2**	**+0.1**		
DKL				AML	AML				
DKL	**Dikili**	**1.21**	**358**	P	**Pb**	**12 58 20.4**	**-0.3**		
DKL				S	**Sg**	**12 58 36.5**	**-0.4**		
KTTT	**Salihli**	**1.21**	**47**	P	**Pg**	**12 58 21.0**	**-0.2**		
AKHS	**Akhisar**	**1.22**	**33**	P	**Pg**	**12 58 21.0**	**-0.2**		
AKHS				S	**Sb**	**12 58 36.4**	**-0.2**		
AKHS				IAML		12 58 41.0			
	comp=N,231nm,0.2s								
AKS	**Akhisar**	**1.22**	**33**	Pn	**Pn**	**12 58 20.9**	**+0.1**		
AKS				AML	AML				
DAT	**Datca**	**1.23**	**156**	P	**Pg**	**12 58 21.5**	**+0.1**		
MULA	**Mugla, Merkez-**	**1.23**	**119**	P	**Pb**	**12 58 21.0**	**-0.1**		
MULA				S	**Sb**	**12 58 36.7**	**-0.4**		
MULA				IAML		12 58 41.0			
	comp=N,138nm,0.8s								
MULA				IAML		12 58 46.0			
	comp=E,149nm,0.5s								
YAZI	**Mula-Datşa-**	**1.24**	**162**	P	**Pn**	**12 58 21.0**	**0.0**		
YAZI				S	**Sb**	**12 58 36.2**	**-0.9**		
YER	**Yerkesik**	**1.27**	**124**	P	**Pn**	**12 58 21.8**	**+0.2**		
YER				AML	AML				
YER	**Yerkesik**	**1.27**	**124**	Pn	**Pn**	**12 58 21.7**	**+0.2**		
YER				AML	AML				
SOMA	**Soma-Manisa**	**1.37**	**19**	Pn	**Pb**	**12 58 23.6**	**+0.2**		
SOMA				AML	AML				
APE	**Apeiranthos**	**1.39**	**236**	P	**Pn**	**12 58 23.6**	**+0.5**		
APE				AML	AML				
APE	**Apeiranthos**	**1.39**	**236**	Pn	**Pn**	**12 58 23.3**	**+0.2**		
APE				AML	AML				
APE	**Apeiranthos**	**1.39**	**236**	P	**Pn**	**12 58 21.7**	**-1.4**		
APE				S	**Sn**	**12 58 42.0**	**+0.5**		
APE				AML	AML				
ASTA	**Astypalaia**	**1.40**	**201**	P	**Pn**	**12 58 23.4**	**+0.2**		
ASTA				S	**Sg**	**12 58 42.7**	**-0.1**		
ASTA				AML	AML				
MANT	**Manisa**	**1.41**	**63**	P	**Pg**	**12 58 25.1**	**+0.3**		
MANT				S	**Sb**	**12 58 39.8**	**-2.3**		
MANT				IAML		12 58 46.0			
	comp=N,141nm,0.3s								
MANT				IAML		12 58 46.0			
	comp=E,195nm,0.3s								
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn	**Pb**	**12 58 24.5**	**+0.2**		
GORD				AML	AML				
AYVA	**Ayvalik**	**1.46**	**352**	P	**Pg**	**12 58 25.5**	**-0.4**		
AYVA				S	**Sn**	**12 58 42.7**	**-0.5**		
AYVA				IAML		12 58 47.0			
	comp=E,167nm,1.1s								
AYVA				IAML		12 58 49.0			
	comp=N,264nm,0.4s								
NAX1	**Naxos Island**	**1.47**	**240**	P	**Pn**	**12 58 23.8**	**-0.5**		
NAX1				AML	AML				
PRK	**Paraskevi**	**1.49**	**339**	P	**Pb**	**12 58 25.3**	**-0.1**		
PRK	**Paraskevi**	**1.49**	**339**	P	**Pn**	**12 58 24.6**	**+0.1**		
PRK				S	**Sn**	**12 58 44.1**	**+0.2**		
STEP	**BALIKESIR_Sava**	**1.63**	**21**	P	**Pb**	**12 58 28.2**	**+0.4**		
STEP				S	**Sb**	**12 58 48.3**	**-0.1**		
STEP				IAML		12 58 59.0			
	comp=E,211nm,0.5s								
STEP				IAML		12 59 01.0			
	comp=N,202nm,0.7s								
BUHA	**Balikesir, Bur**	**1.64**	**3**	P	**Pb**	**12 58 28.2**	**+0.2**		
BUHA				S	**Sb**	**12 58 49.0**	**+0.2**		
BUHA				IAML		12 58 54.0			
	comp=E,280nm,0.6s								
BUHA				IAML		12 58 56.0			
	comp=N,203nm,1.0s								
THR8	**Santorini-Mono**	**1.87**	**220**	P	**Pn**	**12 58 30.6**	**+0.9**		
APMY	**Acipayam-Deniz**	**1.89**	**101**	Pn	**Pb**	**12 58 31.6**	**-0.8**		
APMY				AML	AML				
THERA	**Ancient Thera,**	**1.91**	**219**	P	**Pn**	**12 58 29.4**	**-0.8**		
THERA				AML	AML				
BALB	**Balikesir**	**1.92**	**22**	P	**Pn**	**12 58 31.0**	**+0.7**		
BALB				S	**Sn**	**12 58 54.4**	**-0.1**		
BALB				AML	AML				
SAP3	**Santorini-Thir**	**1.92**	**223**	P	**Pn**	**12 58 31.8**	**+1.3**		
SAP3				S	**Sn**	**12 58 55.6**	**+1.1**		
THR5	**Thira Island,**	**1.93**	**222**	P	**Pn**	**12 58 31.3**	**+0.7**		
THR6	**Thira Island,**	**1.96**	**220**	P	**Pn**	**12 58 31.3**	**+0.4**		
SIMA	**Simav-Kutahya**	**2.00**	**52**	Pn	**Pn**	**12 58 32.9**	**+1.3**		
SIMA				AML	AML				
KARY	**Karystos**	**2.01**	**276**	P	**Pn**	**12 58 32.2**	**+0.6**		
CAME	**Cameli-Denizli**	**2.07**	**115**	Pn	**Pn**	**12 58 34.0**	**+1.4**		
CAME				AML	AML				
GEDZ	**Gediz**	**2.25**	**58**	Pn	**Pn**	**12 58 36.6**	**+1.5**		
GEDZ				AML	AML				
KARP	**Karpathos**	**2.31**	**176**	P	**Pn**	**12 58 35.1**	**-0.7**		
DION	**Dionisos Attik**	**2.41**	**276**	P	**Pn**	**12 58 37.4**	**+0.3**		
LIA	**Limnos Island**	**2.47**	**326**	P	**Pn**	**12 58 37.3**	**-0.6**		
ELL	**Elmali**	**2.55**	**114**	P	**Pn**	**12 58 40.7**	**+0.9**		
NPS	**Neapolis**	**2.81**	**203**	P	**Pn**	**12 58 42.3**	**-0.3**		
SMTH	**Samothraki Isl**	**2.84**	**337**	P	**Pn**	**12 58 43.0**	**-0.1**		
MET6	**Megalochori,Me**	**2.87**	**266**	P	**Pn**	**12 58 44.2**	**+0.7**		
VIL2	**Platees**	**2.94**	**278**	P	**Pn**	**12 58 45.0**	**+0.5**		
IDI	**Anoyia**	**3.06**	**214**	P	**Pn**	**12 58 45.7**	**-0.4**		
IDI				AML	AML				
ALN	**Alexandroupoli**	**3.12**	**347**	P	**Pn**	**12 58 46.9**	**+0.1**		
ALN				AML	AML				
KLV	**Kalavryta, Ach**	**3.81**	**274**	P	**Pn**	**12 58 57.5**	**+1.1**		
ANX	**Ano Chora**	**4.04**	**282**	P	**Pn**	**12 59 00.2**	**+0.6**		

*IDC **04** 12:58:43.0±1.7,5.°94S×146.°10E,h64km±15km,mb3.8/15, mbtmp4.1/18,MS4.1/4,Error ellipse: s-maj=19.8km s-min=9.8km az=65.0*

*NEIC **04** 12:58:46.6±0.8,6.°09S±0.°04×146.°1E±0.°1,h95km±6km, mb4.1/22,Error ellipse: s-maj=18.3km s-min=5.6km az=82.0*

ISC 04 12:58:46.7±0.5,**6.°08S**±0.°05×**145.°99E**±0.°06,**h100**km,**n59,** σ1**832**/62,**mb4.1**/17,**New Guinea**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.50**	**161**	P		P	**Pn**	**12 59 38.0**	**-1.2**
	143nm,0.3s,baz=1.4,slow=6.0,SNR=175								
PMG				S			**Sn**	**13 00 17.6**	**-2.1**
	195nm,0.3s,baz=137,slow=21,SNR=28								
PMG	**Port Moresby**	**3.50**	**161**				**Pn**	**12 59 38.3**	**-0.8**
PMG				Sn			**Sn**	**13 00 17.9**	**-1.8**
MANU	**Manus Island**	**4.24**	**19**	Pn			**Pn**	**12 59 48.4**	**-0.7**
KRVT	**Keravat (AS076**	**6.27**	**74**	P			**Pn**	**13 00 17.5**	**+0.9**
	172nm,0.3s,baz=112,slow=9.8,SNR=5.0								
JAY	**Jayapura**	**6.35**	**304**	P			**Pn**	**13 00 15.1**	**-2.7**
	12nm,0.9s,baz=114,slow=2.7,SNR=6.4								
JAY				S			**Sn**	**13 01 26.1**	**-2.8**
	18nm,1.0s,baz=168,slow=6.8,SNR=1.7								
RABL	**Rabaul**	**6.43**	**73**	Pn			**Pn**	**13 00 16.0**	**-2.9**
CTA	**Charters Tower**	**13.92**	**179**	P			**P**	**13 02 02.5**	**-2.0**
	1.6nm,0.3s,baz=351,slow=13,SNR=7.0								
CTAO	**Charters Tower**	**13.92**	**179**	Pn			**Pn**	**13 01 58.6**	**-1.1**
CTAO				P			**P**	**13 02 03.4**	**-1.1**
SIJI	**Sorong**	**15.57**	**289**	P			**Pn**	**13 02 22.4**	**+1.7**
	7.8nm,0.4s,baz=112,slow=11,SNR=7.7								
MTN	**Manton Dam**	**16.11**	**244**				**Pn**	**13 02 28.4**	**+1.0**
MTN					IAmb		IAmb	13 02 30.5	
	comp=Z,9.3nm,1.4s								
WB0	**Warramunga Arr**	**17.66**	**219**	P			**P**	**13 02 46.5**	**+0.5**
WB0					IAmb		IAmb	13 03 15.0	
	comp=Z,8.6nm,1.2s								
WR8	**Warramunga Arr**	**17.74**	**218**	P			**P**	**13 02 47.1**	**+0.3**
WR8					IAmb		IAmb	13 03 15.8	
	comp=Z,6.8nm,1.1s								
WRAB	**Tennant Creek**	**17.82**	**218**	P			**P**	**13 02 48.0**	**+0.4**
WRAB					IAmb		IAmb	13 03 17.4	
	comp=Z,12nm,1.4s								
WRA	**Warramunga Arr**	**17.83**	**218**	P			**P**	**13 02 48.0**	**+0.1**
	comp=Z,0.4nm,0.3s,baz=48,slow=12,SNR=11								
WRA				PcP			**PcP**	**13 07 21.9**	**+1.7**
	comp=Z,0.3nm,0.7s,baz=33,slow=2.3,SNR=2.4								
WRA				ScP			**ScP**	**13 10 51.8**	**+5.3**
	comp=Z,0.5nm,0.9s,baz=41,slow=1.8,SNR=3.0								
WRA	**Warramunga Arr**	**17.83**	**218**	P			**P**	**13 02 46.0**	**-1.8**
KNRA	**Kununurra**	**19.40**	**239**	P			**P**	**13 03 05.6**	**+0.7**
KNRA					IAmb		IAmb	13 03 34.3	
	comp=Z,13nm,1.4s								
EIDS	**Eidsvold**	**19.79**	**166**	P			**P**	**13 03 08.8**	**-0.4**
EIDS					IAmb		IAmb	13 03 46.7	
	comp=Z,10.0nm,1.2s								
AS31	**Alice Springs**	**20.99**	**212**	P			**P**	**13 03 23.2**	**+1.1**
ASAR	**Alice Springs**	**20.99**	**212**	P			**P**	**13 03 22.7**	**+0.5**
	comp=Z,0.5nm,0.5s,baz=51,slow=8.2,SNR=17								
ASAR				PcP			**PcP**	**13 07 26.9**	**+1.1**
	comp=Z,0.4nm,0.7s,baz=20,slow=3.0,SNR=2.8								
	comp=Z,0.5nm,0.5s								
ASAR	**Alice Springs**	**20.99**	**212**	P			**P**	**13 03 22.3**	**+0.1**
INKA	**Innaminka**	**22.11**	**192**	P			**P**	**13 03 33.3**	**-0.7**
FITZ	**Fitzroy Crossi**	**23.17**	**237**	P			**P**	**13 03 45.7**	**+0.9**
	comp=Z,6.5nm,0.9s,baz=57,slow=11,SNR=17								
	comp=Z,6.5nm,0.9s								
FITZ	**Fitzroy Crossi**	**23.17**	**237**	P			**P**	**13 03 45.5**	**+0.8**
DZM	**Mont Dzumac**	**25.37**	**131**	P			**P**	**13 04 06.4**	**+1.6**
	comp=Z,1.7nm,0.6s,baz=294,slow=20,SNR=1.9								
	comp=Z,1.7nm,0.6s								
STKA	**Stephens Creek**	**25.99**	**189**	P			**P**	**13 04 12.2**	**+2.0**
	comp=Z,1.2nm,0.4s,baz=14,slow=12,SNR=3.9								
	comp=Z,1.2nm,0.4s								
STKA	**Stephens Creek**	**25.99**	**189**	P			**P**	**13 04 10.2**	**0.0**
STKA					IAmb		IAmb	13 04 38.8	
	comp=Z,28nm,1.4s								
MBWA	**Marble Bar**	**29.51**	**237**	P			**P**	**13 04 41.9**	**+0.2**
MBWA					IAmb		IAmb	13 05 06.7	
	comp=Z,14nm,1.1s								
KSRS	**Korea Array**	**46.48**	**340**	P			**P**	**13 07 02.9**	**-0.9**
	comp=Z,1.9nm,0.7s,baz=166,slow=10,SNR=6.9								
	comp=Z,1.9nm,0.7s								
KULM	**Kulim**	**46.65**	**283**	P			**P**	**13 07 06.4**	**+0.9**
USRK	**Ussuriysk Ar.**	**51.62**	**347**	P			**P**	**13 07 42.2**	**-0.6**
	comp=Z,3.4nm,0.6s,baz=164,slow=7.1,SNR=6.9								
	comp=Z,3.4nm,0.6s								
CM31	**Chiang Mai Arr**	**52.40**	**299**	P			**P**	**13 07 49.5**	**+0.3**
CMAR	**Chiang Mai Arr**	**52.40**	**299**	P			**P**	**13 07 50.8**	**+1.6**
	comp=Z,4.2nm,0.7s,baz=122,slow=6.0,SNR=30								
	comp=Z,4.2nm,0.7s								
CMAR	**Chiang Mai Arr**	**52.40**	**299**	P			**P**	**13 07 49.4**	**+0.2**
CHTO	**Chiang Mai**	**52.54**	**299**	P			**P**	**13 07 50.4**	**+0.2**
CHTO					IAmb		IAmb	13 07 52.0	
	comp=Z,2.2nm,0.6s								
PEA0B	**Petropavlovsk-**	**59.80**	**8**	P			**P**	**13 08 41.6**	**+0.4**
PETK	**Petropavlovsk-**	**59.80**	**8**	P			**P**	**13 08 40.8**	**-0.4**
	comp=Z,1.9nm,0.6s,baz=168,slow=6.0,SNR=7.7								
PETK					LR		LR	13 29 20.3	
	comp=Z,217nm,21.6s,baz=104,slow=31								
	comp=Z,1.9nm,0.6s								
PETK	**Petropavlovsk-**	**59.80**	**8**	P			**P**	**13 08 40.9**	**-0.3**
SONM	**Songino Array**	**63.99**	**331**	P			**P**	**13 09 09.5**	**-0.1**
	comp=Z,0.5nm,0.4s,baz=151,slow=6.3,SNR=2.5								
	comp=Z,0.5nm,0.4s								
SONM	**Songino Array**	**63.99**	**331**	P			**P**	**13 09 09.4**	**-0.2**
SONM					IAmb		IAmb	13 09 22.0	
	comp=Z,3.0nm,1.4s								
YAK	**Yakutsk**	**69.08**	**352**	LR			LR	13 38 59.8	
	comp=Z,112nm,22.0s,baz=50,slow=35								
MKAR	**Makanchi Array**	**76.92**	**321**	P			**P**	**13 10 28.0**	**-0.1**
	comp=Z,0.7nm,0.4s,baz=107,slow=5.9,SNR=9.5								
	comp=Z,0.7nm,0.4s								
MKAR	**Makanchi Array**	**76.92**	**321**	P			**P**	**13 10 28.7**	**+0.6**
MAKZ	**Makanchi**	**77.12**	**321**	P			**P**	**13 10 29.5**	**+0.2**
MAKZ					IAmb		IAmb	13 10 59.0	
	comp=Z,4.6nm,1.1s								
ZALV	**Zalesovo Beam**	**78.55**	**328**	P			**P**	**13 10 36.1**	**-0.9**
	comp=Z,0.7nm,0.4s,baz=112,slow=5.6,SNR=4.5								
	comp=Z,0.7nm,0.4s								
ZALV	**Zalesovo Beam**	**78.55**	**328**	P			**P**	**13 10 36.6**	**-0.3**
O16K	**Kokwok River B**	**78.88**	**25**	P			**P**	**13 10 39.0**	**+0.3**
K15K	**Wolf Creek Mou**	**79.05**	**22**	P			**P**	**13 10 39.9**	**+0.3**
MAW	**Mawson**	**81.78**	**203**	P			**P**	**13 10 54.6**	**+0.5**
	comp=Z,1.4nm,0.9s,baz=90,slow=4.0,SNR=2.2								
	comp=Z,1.4nm,0.9s								
MAW	**Mawson**	**81.78**	**203**	P			**P**	**13 10 54.9**	**+0.8**
QSPA	**South Pole Qui**	**83.89**	**180**	P			**P**	**13 11 06.3**	**+1.1**
	comp=Z,0.8nm,0.5s,baz=346,slow=7.5,SNR=11								
	comp=Z,0.8nm,0.5s								
QSPA	**South Pole Qui**	**83.89**	**180**	P			**P**	**13 11 05.4**	**+0.1**
QSPA					IAmb		IAmb	13 11 17.0	
	comp=Z,3.9nm,1.3s								
IMAR	**Indian Mountai**	**83.93**	**21**	P			**P**	**13 11 05.4**	**+0.2**
NRIK	**Noril'sk**	**85.05**	**342**	LR			LR	13 50 26.7	
	comp=Z,116nm,20.7s,baz=7.0,slow=36								
ILAR	**Eielson Array**	**85.95**	**23**	P			**P**	**13 11 13.8**	**-1.6**
	comp=Z,2.4nm,0.7s,baz=251,slow=5.1,SNR=32								
	comp=Z,2.4nm,0.7s								
BVAR	**Borovoye Array**	**86.24**	**324**	P			**P**	**13 11 16.4**	**-0.6**
	comp=Z,0.6nm,0.4s,baz=100,slow=6.3,SNR=4.1								
	comp=Z,0.6nm,0.4s								
ARTI	**Arti**	**93.69**	**326**	LR		LR		13 56 17.5	
	comp=Z,72nm,20.4s,baz=298,slow=37								
TORD	**Torodi Ar. Bea**	**144.13**	**284**	PKP			**PKPdf**	**13 18 11.3**	**-0.5**
	comp=Z,2.1nm,0.4s,baz=62,slow=3.7,SNR=21								
TORD	**Torodi Ar. Bea**	**144.13**	**284**	PKPdf			PKPbc	13 18 11.0	+0.9
DBIC	**Dimbokro**	**151.02**	**273**	PKPbc			**PKiKP**	**13 18 30.3**	**+0.7**
	comp=Z,9.2nm,0.7s,baz=110,slow=1.2,SNR=11								

*IDC **04** 13:13:38.1±2.3,13.°71N×89.°55W,h33km±17km,mb3.6/3, mbtmp3.9/6,ML3.5/3,MS3.5/6,Error ellipse: s-maj=51.6km s-min=12.8km az=38.0*

*CATAC **04** 13:13:38.5±0.4,13.°N±2.°×9.°0W±.°,h27km±2km,M4.5/37, MLv4.5/37,Error ellipse: s-maj=4.6km s-min=2.6km az=30.3,confirmed*

*GCG **04** 13:13:38.0±0.7,13.°26N×89.°98W,h38km±29km,ML4.5, Presumed earthquake*

*SNET **04** 13:13:39.0±1.7,13.°30N×89.°93W,h32km,ML4.3, Presumed earthquake*

ISC 04 13:13:38.4±1.5,**13.°25N**±0.°07×**89.°96W**±0.°07,**h42**km±14km, **n102,**σ0**971**/129,**MS3.4**/5,**El Salvador**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
FAME	**Alcaldia de Sa**	**0.60**	**355**	P		P	**Pn**	**13 13 50.0**	**-0.5**
JAYA	**Jayaque - finc**	**0.64**	**51**	P		P	**Pn**	**13 13 50.9**	**-0.4**
JAYA				S			**Sn**	**13 14 00.6**	**+0.1**
JAYA	**Jayaque - finc**	**0.64**	**51**	*e*P		P	**Pn**	**13 13 50.7**	**-0.6**
JAYA				*e*S			**Sn**	**13 13 60.0**	**-0.4**
JAYA				IAML				13 14 07.9	
	comp=N,22μm,0.3s								
JAYA	**Jayaque - finc**	**0.64**	**51**	*e*P		P	**Pn**	**13 13 51.0**	**-0.4**
JAYA				*e*S			**Sn**	**13 14 01.4**	**+0.9**
CEVE	**Cerro Verde**	**0.66**	**29**	P		P	**Pn**	**13 13 51.3**	**-0.3**
CEVE				S			**Sn**	**13 14 01.6**	**+0.5**
CEVE	**Cerro Verde**	**0.66**	**29**	*e*P		P	**Pn**	**13 13 51.0**	**-0.7**
LALI	**Alcalda de L**	**0.67**	**69**	P		P	**Pn**	**13 13 51.0**	**-0.4**
LALI				S			**Sn**	**13 14 01.1**	**+0.4**
LALI	**Alcalda de L**	**0.67**	**69**	*e*P		P	**Pn**	**13 13 51.0**	**-0.4**
LALI	**Alcalda de L**	**0.67**	**69**	*e*P		P	**Pn**	**13 13 51.1**	**-0.4**
SBLS	**San Blas**	**0.68**	**29**	*e*P		P	**Pn**	**13 13 51.4**	**-0.4**
SBLS				*e*S			**Sn**	**13 14 01.7**	**+0.4**
NUBE	**Las Nubes**	**0.68**	**15**	P		P	**Pn**	**13 13 51.4**	**-0.3**
NUBE				S			**Sn**	**13 14 01.8**	**+0.6**
NUBE	**Las Nubes**	**0.68**	**15**	*e*P		P	**Pn**	**13 13 51.3**	**-0.5**
NUBE	**Las Nubes**	**0.68**	**15**	*e*P		P	**Pn**	**13 13 51.4**	**-0.3**
SNJE	**San Jose**	**0.71**	**29**	*e*P		P	**Pn**	**13 13 51.9**	**-0.3**
LOAL	**Lomas de Alarc**	**0.77**	**13**	P		P	**Pn**	**13 13 52.9**	**0.0**
LOAL				S			**Sn**	**13 14 04.2**	**+0.8**
LOAL	**Lomas de Alarc**	**0.77**	**13**	*e*P		P	**Pn**	**13 13 52.8**	**0.0**
CEDA	**San Andres**	**0.78**	**45**	P		P	**Pn**	**13 13 52.8**	**-0.2**
CEDA	**San Andres**	**0.78**	**45**	*e*P		P	**Pn**	**13 13 52.7**	**-0.4**
CEDA				*e*S			**Sn**	**13 14 04.7**	**+1.0**
PMON	**Piamonte**	**0.78**	**53**	P		P	**Pn**	**13 13 52.8**	**-0.3**
PMON				S			**Sn**	**13 14 04.0**	**+0.3**
PMON	**Piamonte**	**0.78**	**53**	*e*P		P	**Pn**	**13 13 52.9**	**-0.3**
MAGS	**Ministerio de**	**0.79**	**56**	*e*P		P	**Pn**	**13 13 52.8**	**-0.4**
SLOZ	**Alcaldia de Sa**	**0.80**	**12**	P		P	**Pn**	**13 13 53.1**	**-0.1**
SLOZ	**Alcaldia de Sa**	**0.80**	**12**	*e*P		P	**Pn**	**13 13 53.0**	**-0.2**
BOQS	**Boqueron**	**0.82**	**54**	*e*P		P	**Pn**	**13 13 53.6**	**-0.2**
UNIC	**Universidad Ca**	**0.83**	**29**	P		P	**Pn**	**13 13 53.6**	**-0.2**
UNIC				S			**Sn**	**13 14 05.6**	**+0.6**
UNIC	**Universidad Ca**	**0.83**	**29**	*e*P		P	**Pn**	**13

RCPN	**Sur Rio San Ju**	**3.77**	**85**	P		**Pn**	**13 14 35.3**	**+1.1**	
JTS	**Las Juntas de**	**5.71**	**120**	Pn		**Pn**	**13 15 01.0**	**+0.2**	
	comp=N,4.2nm,0.3s,baz=312,slow=4.1,SNR=16								
JTS				Sn		Sn	13 15 58.3	-6.9	
	comp=N,1.9nm,0.3s,baz=311,slow=20,SNR=1.0								
JTS				Lg		Lg	13 16 25.3		
	comp=N,3.5nm,0.3s,baz=59,slow=19,SNR=7.8								
	comp=N,5.0nm,0.3s								
JTS				AML		AML			
CMIG	**Matias Romero**	**6.10**	**309**	Pn		**Pn**	**13 15 08.3**	**+2.2**	
	comp=N,1.2nm,0.3s,baz=103,slow=9.8,SNR=12								
CMIG				Sn		**Sn**	**13 16 14.7**	**0.0**	
	comp=N,1.0nm,0.3s,baz=138,slow=15,SNR=1.7								
CMIG				LR		LR	13 17 48.3		
	comp=N,278nm,21.1s,baz=132,slow=41								
	comp=N,7.5nm,0.5s								
CMIG				AML		AML			
SDV	**Santo Domingo**	**19.45**	**101**	P		**P**	**13 17 60.0**	**-1.9**	
	comp=N,0.6nm,0.3s,baz=286,slow=13,SNR=5.3								
	comp=N,2.9nm,0.3s								
SDV				AML		AML			
TXAR	**Lajitas Array**	**20.45**	**324**	P		**P**	**13 18 13.3**	**+0.7**	
	comp=N,0.5nm,0.5s,baz=152,slow=11,SNR=8.4								
	comp=N,0.5nm,0.5s								
TKL	**Tuckaleechee C**	**23.00**	**13**	LR		LR	13 27 38.3		
	comp=N,149nm,20.9s,baz=163,slow=37								
SJG	**San Juan**	**23.42**	**75**	LR		LR	13 26 19.6		
	comp=N,90nm,19.2s,baz=282,slow=33								
SADO	**Sadowa**	**32.75**	**14**	LR		LR	13 33 05.0		
	comp=N,130nm,19.2s,baz=186,slow=36								
NVAR	**Mina Array Bea**	**35.51**	**320**	P		**P**	**13 20 32.2**	**+0.6**	
	comp=N,2.9nm,0.8s,baz=136,slow=12,SNR=15								
NVAR				PcP		**PcP**	**13 23 00.2**	**-0.2**	
	comp=N,1.4nm,0.8s,baz=155,slow=3.8,SNR=7.2								
	comp=N,2.9nm,0.8s								
ULM	**Lac du Bonnet**	**37.22**	**354**	P		P	13 20 42.0	-3.7	
	comp=N,1.7nm,0.8s,baz=172,slow=15,SNR=2.1								
	comp=N,1.7nm,0.8s								
NEW	**Newport**	**41.56**	**333**	LR		LR	13 40 16.6		
	comp=N,107nm,21.5s,baz=107,slow=39								
RPN	**Rapa Nui**	**44.32**	**205**	LR		LR	13 34 22.0		
	comp=N,42nm,19.1s,baz=54,slow=28								
HUDS	**Hudson**	**60.91**	**166**	*eP*		**PKiKP**	**13 30 44.5**	**-2.2**	
WRA	**Warramunga Arr**	**137.12**	**255**	PKP		**PKPdf**	**13 32 57.7**	**-0.3**	
	comp=N,0.7nm,0.9s,baz=95,slow=1.9,SNR=3.8								
ASAR	**Alice Springs**	**137.27**	**249**	PKP		**PKiKP**	**13 33 00.5**	**+0.5**	
	comp=N,0.3nm,1.0s,baz=90,slow=2.6,SNR=1.1								
CMAR	**Chiang Mai Arr**	**147.30**	**344**	PKPbc		**PKPdf**	**13 33 16.6**	**+0.5**	
	comp=N,2.0nm,0.8s,baz=333,slow=3.5,SNR=14								

*CATAC **04** 13:16:11.1±0.5, 13˚N±3˚×9˚0W±˚, h22km±2km, M3.7/18, MLv3.7/18, Error ellipse: s-maj=5.9km s-min=3.1km az=26.5, confirmed*
*GCG **04** 13:16:11.1±1.0, 13˚.34N×89˚.97W, h45km±15km, MD4.0, ML3.9, Presumed earthquake*
*SNET **04** 13:16:12.3±1.6, 13˚.33N×89˚.91W, h28km, ML3.6, Presumed earthquake*

ISC 04 13:16:12.8±1.6, **13°.35N**±0°.06×**89°.88W**±0°.05, **h28**km±11km, **n44**, σ0**977**/69, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
FAME	**Alcaldia de Sa**	**0.51**	**345**	P		**Pb**	**13 16 22.5**	**-1.0**
JAYA	**Jayaque - finc**	**0.52**	**53**	P		**Pb**	**13 16 23.3**	**-0.3**
JAYA				S		**Sn**	**13 16 32.8**	**+0.3**
JAYA	**Jayaque - finc**	**0.52**	**53**	*i* P		**Pb**	**13 16 23.2**	**-0.3**
JAYA				IAML			13 16 41.8	
	comp=N,4μm,0.3s							
JAYA	**Jayaque - finc**	**0.52**	**53**	*e*P		**Pb**	**13 16 23.3**	**-0.3**
JAYA				*e*S		**Sn**	**13 16 33.3**	**+0.8**
CEVE	**Cerro Verde**	**0.54**	**27**	P		**Pb**	**13 16 23.2**	**-0.8**
SBLS	**San Blas**	**0.55**	**26**	*e*P		**Pb**	**13 16 23.9**	**-0.3**
SBLS				*e*S		**Sn**	**13 16 34.1**	**+0.7**
LALI	**Alcalda de L**	**0.56**	**75**	P		**Pb**	**13 16 23.6**	**-0.6**
LALI	**Alcalda de L**	**0.56**	**75**	*e*P		**Pb**	**13 16 23.5**	**-0.6**
LALI				*e*S		**Sb**	**13 16 32.5**	**+0.6**
LALI	**Alcalda de L**	**0.56**	**75**	*e*P		**Pb**	**13 16 23.5**	**-0.6**
LALI				*e*S		**Sn**	**13 16 33.5**	**+0.2**
NUBE	**Las Nubes**	**0.56**	**9**	P		**Pb**	**13 16 23.8**	**-0.5**
NUBE	**Las Nubes**	**0.56**	**9**	*i* P		**Pb**	**13 16 23.8**	**-0.5**
NUBE				*e*S		**Sb**	**13 16 33.1**	**+1.0**
NUBE				IAML			13 16 33.9	
	comp=N,6μm,0.3s							
NUBE	**Las Nubes**	**0.56**	**9**	*e*P		**Pb**	**13 16 23.9**	**-0.5**
NUBE				*e*S		**Sb**	**13 16 33.5**	**+1.3**
CEDA	**San Andres**	**0.65**	**46**	P		**Pb**	**13 16 25.6**	**-0.2**
CEDA				S		**Sn**	**13 16 36.4**	**+0.6**
LOAL	**Lomas de Alarc**	**0.66**	**8**	P		**Pb**	**13 16 25.5**	**-0.4**
LOAL	**Lomas de Alarc**	**0.66**	**8**	*e*P		**Pb**	**13 16 25.3**	**-0.5**
LOAL				*e*S		**Sn**	**13 16 36.6**	**+0.8**
PMON	**Piamonte**	**0.66**	**56**	P		**Pb**	**13 16 25.3**	**-0.6**
PMON				S		**Sn**	**13 16 36.3**	**+0.4**
PMON	**Piamonte**	**0.66**	**56**	*e*P		**Pb**	**13 16 25.3**	**-0.6**
PMON				*e*S		**Sn**	**13 16 37.2**	**+1.3**
SLOZ	**Alcaldia de Sa**	**0.68**	**7**	P		**Pn**	**13 16 25.6**	**-1.2**
SLOZ				S		**Sn**	**13 16 37.1**	**+0.6**
SLOZ	**Alcaldia de Sa**	**0.68**	**7**	*e*P		**Pn**	**13 16 25.5**	**-1.2**
BOQS	**Boqueron**	**0.70**	**56**	*e*P		**Pn**	**13 16 26.0**	**-1.1**
UNIC	**Universidad Ca**	**0.71**	**27**	P		**Pn**	**13 16 26.3**	**-0.8**
UNIC				S		**Sn**	**13 16 37.6**	**+0.5**
UEES	**Universidad Ev**	**0.72**	**59**	P		**Pn**	**13 16 26.4**	**-0.8**
UEES				S		**Sn**	**13 16 37.9**	**+0.4**
SEMO	**Seminario San**	**0.73**	**61**	P		**Pn**	**13 16 27.0**	**-0.3**
SEMO				S		**Sn**	**13 16 37.8**	**+0.2**
UTEC	**Universidad Te**	**0.74**	**62**	P		**Pn**	**13 16 27.1**	**-0.5**
UTEC				S		**Sn**	**13 16 38.5**	**+0.5**
RBDL	**Robledal**	**0.79**	**13**	*e*P		**Pn**	**13 16 27.2**	**-1.0**
RBDL				*e*S		**Sn**	**13 16 39.9**	**+0.7**
UDBS	**Universidad Do**	**0.79**	**62**	P		**Pn**	**13 16 27.5**	**-0.7**
UDBS				S		**Sn**	**13 16 39.7**	**+0.5**
LFRS	**El Faro**	**0.84**	**71**	*e*P		**Pn**	**13 16 27.6**	**-1.3**
PAVA	**Las Pavas**	**0.98**	**68**	P		**Pn**	**13 16 31.2**	**+0.3**
PAVA				S		**Sb**	**13 16 44.9**	**+0.8**
PAVA	**Las Pavas**	**0.98**	**68**	*e*P		**Pn**	**13 16 30.7**	**-0.2**
JUAM	**Asuncion Mita**	**1.00**	**9**	*e*P		**Pn**	**13 16 30.0**	**-1.1**
TECO	**Alcaldia de Te**	**1.08**	**80**	P		**Pn**	**13 16 31.5**	**-0.7**
TECO				S		**Sn**	**13 16 46.0**	**-0.3**
FG8	**Yepocapa, Chim**	**1.13**	**324**	*e*P		**Pb**	**13 16 35.1**	**+1.2**
MTO3	**Montecristo**	**1.16**	**25**	P		**Pn**	**13 16 32.5**	**-1.0**
MTO3				S		**Sn**	**13 16 48.9**	**+0.3**
MTO3	**Montecristo**	**1.16**	**25**	*e*P		**Pn**	**13 16 32.0**	**-1.5**
SCLA	**Alcaldia de Sa**	**1.17**	**72**	S		**Sb**	**13 16 50.0**	**+0.7**
LLGN	**La Laguna**	**1.22**	**48**	P		**Pn**	**13 16 33.5**	**-0.6**
LLGN				S		**Sn**	**13 16 50.1**	**+0.4**
P5NO	**Presa 5 de nov**	**1.26**	**59**	P		**Pn**	**13 16 34.1**	**-0.5**
P5NO				S		**Sn**	**13 16 51.7**	**+1.1**
ALJI	**Alcalda de J**	**1.27**	**91**	S		**Sn**	**13 16 50.8**	**-0.1**
ESQI	**Esquipulas**	**1.31**	**23**	P		**Pn**	**13 16 34.8**	**-0.7**
ESQI				S		**Sn**	**13 16 53.0**	**+0.8**
PACA	**Pacayal**	**1.52**	**85**	S		**Sb**	**13 16 58.7**	**-0.5**
STG8	**El Palmar, Qui**	**1.81**	**308**	*e*P		**Pb**	**13 16 44.7**	**-0.7**
LCND	**La Caada**	**1.93**	**91**	P		**Pn**	**13 16 43.4**	**-0.5**
CNCH	**Conchagua**	**1.99**	**92**	P		**Pn**	**13 16 44.4**	**-0.3**
CNCH				S		**Sn**	**13 17 10.5**	**+1.6**
CNCH	**Conchagua**	**1.99**	**92**	*e*P		**Pn**	**13 16 45.4**	**+0.7**

*TAP **04** 13:19:36.9, 24˚.66N×121˚.98E, h61km, ML4.1, B*
*JMA **04** 13:19:36.4±0.2, 24˚.6N±0˚.5×122˚.0E±0˚.4, h67km±2km, MV3.5/13, TAIWAN REGION*

ISC 04 13:19:36.7±1.2, **24°.67N**±0°.02×**122°.01E**±0°.02, **h65**km±4km, **n169**, σ1**918**/292, **31C-8D**, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
TWC	**Suao**	**0.15**	**246**	⇑*i*P		**Pn**	**13 19 46.5**	**-0.1**
TWC				*i* S		**Sn**	**13 19 53.4**	**-0.4**
ESAO	**Su ao**	**0.17**	**237**	⇑*i*P		**Pn**	**13 19 46.6**	**0.0**
ESAO				*e*S		**Sn**	**13 19 53.4**	**-0.4**
EGS		**0.18**	**339**	*e*P		**Pn**	**13 19 47.1**	**+0.3**
EGS				*e*S		**Sn**	**13 19 54.1**	**+0.1**
NTC	**Toucheng**	**0.24**	**319**	*e*P		**Pn**	**13 19 47.2**	**+0.1**
NTC				*i* S		**Sn**	**13 19 54.4**	**-0.1**
ILA	**Ilan**	**0.25**	**292**	⇑*i*P		**Pn**	**13 19 47.0**	**-0.1**
NDS	**Dongshan**	**0.27**	**262**	⇑*i*P		**Pn**	**13 19 47.4**	**+0.2**
NDS				S		**Sn**	**13 19 54.9**	**+0.1**
EWUT	**Wuta**	**0.31**	**223**	⇑*i*P		**Pn**	**13 19 47.5**	**+0.1**
EWUT				*i* S		**Sn**	**13 19 55.2**	**0.0**
TWE	**Neicheng**	**0.31**	**279**	⇑*i*P		**Pn**	**13 19 47.7**	**+0.3**
EOS2	**EOS2**	**0.33**	**141**	⇓P		**Pn**	**13 19 48.1**	**+0.7**
EOS2				*i* S		**Sn**	**13 19 56.7**	**+1.5**
TWB1	**Santiao Chiao**	**0.34**	**357**	⇓*i*P		**Pn**	**13 19 47.5**	**-0.2**
TWB1				S		**Sn**	**13 19 55.0**	**-0.7**
TIPB	**Shuangxi**	**0.34**	**331**	⇑*i*P		**Pn**	**13 19 47.7**	**-0.1**
TIPB				*i* S		**Sn**	**13 19 55.1**	**-0.7**
ENA	**Nanau**	**0.34**	**225**	⇑*i*P		**Pn**	**13 19 47.8**	**+0.1**
ENA				S		**Sn**	**13 19 56.0**	**+0.3**
FUSB	**Fushanzhiwuyua**	**0.39**	**283**	⇑*i*P		**Pn**	**13 19 48.4**	**+0.2**
FUSB				*e*S		**Sn**	**13 19 56.5**	**0.0**
ENTT	**Nioudou**	**0.40**	**266**	⇑*i*P		**Pn**	**13 19 48.6**	**+0.4**
ENTT				S		**Sn**	**13 19 57.3**	**+0.6**
EAHA	**Aohua**	**0.42**	**215**	⇑*i*P		**Pn**	**13 19 48.2**	**-0.1**
EAHA				*i* S		**Sn**	**13 19 57.2**	**+0.4**
EHP	**Heping Village**	**0.43**	**214**	*e*P		**Pn**	**13 19 48.6**	**0.0**
SXI1	**Grass Mountain**	**0.44**	**344**	P		**Pn**	**13 19 48.5**	**-0.2**
SXI1				S		**Sn**	**13 19 57.6**	**+0.2**
NWF	**Wu-fen Shan**	**0.45**	**333**	P		**Pn**	**13 19 48.7**	**0.0**
NWF				*i* S		**Sn**	**13 19 56.9**	**-0.6**
WFSB	**Wu-fen Shan**	**0.45**	**333**	*i* P		**Pn**	**13 19 48.7**	**+0.1**
WFSB				*i* S		**Sn**	**13 19 57.0**	**-0.3**
NDT	**Datong Townshi**	**0.45**	**261**	⇑*i*P		**Pn**	**13 19 49.1**	**+0.4**
LATG	**Datong**	**0.46**	**253**	⇑*i*P		**Pn**	**13 19 49.1**	**+0.3**
LATG				S		**Sn**	**13 19 58.2**	**+0.5**
NWLT	**Wulai**	**0.47**	**283**	⇑*i*P		**Pn**	**13 19 49.1**	**+0.3**
NWLT				*i* S		**Sn**	**13 19 57.7**	**0.0**
EOS3	**EOS3**	**0.48**	**143**	⇓P		**Pn**	**13 19 49.7**	**+1.0**
EOS3				S		**Sn**	**13 19 59.7**	**+2.2**
TWA	**Mucha**	**0.49**	**309**	⇑*i*P		**Pn**	**13 19 49.1**	**0.0**
TWA				S		**Sn**	**13 19 57.2**	**-0.8**
TNOU	**National Taiwa**	**0.52**	**336**	⇑P		**Pn**	**13 19 49.2**	**-0.1**
TNOU				*i* S		**Sn**	**13 19 58.0**	**-0.6**
NHDH	**Xindian Distri**	**0.52**	**304**	⇑*i*P		**Pn**	**13 19 49.6**	**+0.2**
NHDH				*e*S		**Sn**	**13 19 58.4**	**+0.2**
NHY	**Taipei**	**0.54**	**313**	*e*P		**Pn**	**13 19 49.8**	**+0.2**
TATO	**Taipei**	**0.56**	**303**	P		**Pn**	**13 19 49.5**	**-0.2**
TATO	**Taipei**	**0.56**	**303**	S		**Sn**	**13 19 56.6**	**-2.7**
TATO	**Taipei**	**0.56**	**303**	⇑P		**Pn**	**13 19 49.7**	**0.0**
TATO				S		**Sn**	**13 19 59.6**	**+0.3**
YHNB	**Yeheng**	**0.57**	**270**	P		**Pn**	**13 19 49.8**	**-0.2**
YHNB	**Yeheng**	**0.57**	**270**	S		**Sn**	**13 19 57.1**	**-2.6**
YHNB	**Yeheng**	**0.57**	**270**	⇑*i*P		**Pn**	**13 19 50.3**	**+0.3**
YHNB				*i* S		**Sn**	**13 19 59.8**	**+0.1**
TAP	**Taipei**	**0.58**	**309**	P		**Pn**	**13 19 50.1**	**+0.1**
TAP				*e*S		**Sn**	**13 19 59.5**	**-0.2**
NSK	**Sanguang**	**0.59**	**271**	⇑*i*P		**Pn**	**13 19 50.3**	**+0.2**
NSK				*i* S		**Sn**	**13 19 59.7**	**-0.2**
NNSB	**Datong**	**0.62**	**247**	⇑*i*P		**Pn**	**13 19 50.8**	**+0.3**
NNSB				S		**Sn**	**13 20 00.7**	**+0.1**
YM01	**YM01**	**0.62**	**320**	⇑P		**Pn**	**13 19 50.3**	**-0.1**
YM01				*i* S		**Sn**	**13 20 00.3**	**-0.2**
EOS4	**EOS4**	**0.62**	**152**	*e*P		**Pn**	**13 19 50.3**	**+0.3**
EOS4				*e*S		**Sn**	**13 20 00.1**	**+0.4**
ETL	**Fush Village**	**0.62**	**214**	*e*P		**Pn**	**13 19 50.1**	**-0.4**
ETL				*e*S		**Sn**	**13 20 00.4**	**-0.1**
NNS	**Nan Shan**	**0.62**	**248**	⇑*i*P		**Pn**	**13 19 50.8**	**+0.2**
NNS				*i* S		**Sn**	**13 20 00.7**	**0.0**
NACB	**Ninganchiao**	**0.62**	**217**	P		**Pn**	**13 19 50.1**	**-0.3**
NACB	**Ninganchiao**	**0.62**	**217**	S		**Sn**	**13 19 59.5**	**-0.9**
NACB	**Ninganchiao**	**0.62**	**217**	⇑*i*P		**Pn**	**13 19 49.9**	**-0.6**
NACB				S		**Sn**	**13 20 00.5**	**+0.1**
YM08	**YM08**	**0.64**	**324**	*i* P		**Pn**	**13 19 50.3**	**-0.4**
YM08				*i* S		**Sn**	**13 19 59.9**	**-0.9**
ZUZH	**Zhuzihu**	**0.64**	**320**	⇑*i*P		**Pn**	**13 19 50.6**	**-0.1**
ZUZH				*i* S		**Sn**	**13 20 00.2**	**-0.7**
ETLH	**Xiulin Townshi**	**0.67**	**226**	P		**Pn**	**13 19 50.7**	**-0.3**
ETLH				S		**Sn**	**13 20 01.1**	**-0.3**
ANP	**Anpu**	**0.68**	**319**	*e*P		**Pn**	**13 19 50.8**	**-0.3**
TWS1	**Kuangyinshan**	**0.68**	**309**	⇑P		**Pn**	**13 19 51.4**	**+0.3**
TWS1				*e*S		**Sn**	**13 20 00.0**	**+0.3**
TWD	**Chiawan**	**0.70**	**212**	P		**Pn**	**13 19 50.9**	**-0.4**
TWD				S		**Sn**	**13 20 01.6**	**-0.3**
NTST	**Danshui**	**0.70**	**314**	*e*P		**Pn**	**13 19 51.5**	**+0.1**
NTST				*e*S		**Sn**	**13 20 02.3**	**+0.2**
TWY	**Chenhua**	**0.70**	**329**	*e*S		**Sn**	**13 20 01.9**	**-0.2**
KSHI	**Guanxi Townshi**	**0.76**	**278**	⇑*i*P		**Pn**	**13 19 52.5**	**+0.5**
KSHI				*e*S		**Sn**	**13 20 04.0**	**+0.6**
HWA	**Hwalien**	**0.78**	**208**	*e*P		**Pn**	**13 19 52.5**	**+0.2**
HWA				*e*S		**Sn**	**13 20 04.6**	**+0.8**
NCU	**National Centr**	**0.80**	**292**	⇑*i*P		**Pn**	**13 19 53.0**	**+0.5**
NCU				*e*S		**Sn**	**13 20 04.5**	**+0.3**
NFF	**Wufeng Townshi**	**0.81**	**267**	⇑*i*P		**Pn**	**13 19 53.0**	**+0.3**
NFF				*i* S		**Sn**	**13 20 04.7**	**+0.3**
FUSS	**Fushou**	**0.81**	**239**	*e*P		**Pn**	**13 19 53.2**	**+0.3**
FUSS				*e*S		**Sn**	**13 20 05.0**	**+0.2**
LXIB	**Xiulin Townshi**	**0.84**	**220**	⇑P		**Pn**	**13 19 52.5**	**-0.7**
LXIB				*e*S		**Sn**	**13 20 04.5**	**-0.2**
ETM	**Tongmen**	**0.84**	**214**	⇓*i*P		**Pn**	**13 19 52.4**	**-0.7**
ETM				S		**Sn**	**13 20 04.2**	**-0.9**
WHF	**Hehuan Shan**	**0.85**	**232**	P		**Pn**	**13 19 53.7**	**+0.1**
WHF				*e*S		**Sn**	**13 20 07.1**	**+1.1**
TWT	**Tachien**	**0.86**	**241**	P		**Pn**	**13 19 54.4**	**+0.9**
TWT				*i* S		**Sn**	**13 20 06.0**	**+0.3**
TDCB	**Techi**	**0.88**	**242**	P		**Pn**	**13 19 54.3**	**+0.7**
TDCB				*i* S		**Sn**	**13 20 06.4**	**+0.3**
TEYL	**Yanliau Villag**	**0.88**	**205**	*e*P		**Pn**	**13 19 53.2**	**-0.3**
TEYL				S		**Sn**	**13 20 06.1**	**+0.2**
JYNG	**Yonagunijimaku**	**0.88**	**104**	*i* P		**Pn**	**13 19 53.8**	**+0.3**
JYNG				S		**Sn**	**13 20 06.0**	**+0.1**
LIOB	**Emei**	**0.90**	**269**	⇑*i*P		**Pn**	**13 19 54.1**	**+0.4**
LIOB				*e*S		**Sn**	**13 20 06.9**	**+0.5**
NSTT	**Nanjuang**	**0.92**	**268**	*i* P		**Pn**	**13 19 54.2**	**+0.2**
NSTT				*i* S		**Sn**	**13 20 07.0**	**+0.3**
SBCB	**Hsinchu**	**0.94**	**278**	*e*P		**Pn**	**13 19 54.4**	**+0.2**
SBCB				*e*S		**Sn**	**13 20 07.7**	**+0.6**
YOJ	**Yonaguni jima**	**0.94**	**103**	P		**Pn**	**13 19 54.4**	**+0.2**
YOJ	**Yonaguni jima**	**0.94**	**103**	S		**Sn**	**13 20 07.4**	**+0.2**
YOJ	**Yonaguni jima**	**0.94**	**103**	⇓*i*P		**Pn**	**13 19 54.4**	**+0.2**
YOJ				S		**Sn**	**13 20 07.3**	**+0.2**
YOJ	**Yonaguni jima**	**0.94**	**103**	P		**Pn**	**13 19 54.5**	**+0.2**
YOJ				S		**Sn**	**13 20 07.2**	**0.0**
HSN	**Hsinchu**	**0.95**	**278**	P		**Pn**	**13 19 54.2**	**-0.2**
HSN				S		**Sn**	**13 20 07.0**	**-0.4**
PCYT	**Pengchaiyu**	**0.96**	**4**	*e*P		**Pn**	**13 19 54.5**	**0.0**
PCYT				*e*S		**Sn**	**13 20 08.4**	**+0.9**
SHUL	**Shoufeng**	**0.97**	**205**	*e*P		**Pn**	**13 19 54.5**	**-0.1**
SHUL				*e*S		**Sn**	**13 20 07.7**	**-0.1**
ESL	**Shilin**	**1.00**	**212**	*e*P		**Pn**	**13 19 53.8**	**-1.2**
ESL				*e*S		**Sn**	**13 20 07.1**	**-1.5**
OWD	**Renai**	**1.04**	**227**	*e*P		**Pn**	**13 19 55.8**	**+0.1**
OWD				*i* S		**Sn**	**13 20 09.2**	**-0.5**
WHP	**Taichung City**	**1.04**	**248**	⇓*i*P		**Pn**	**13 19 56.4**	**+1.2**
WHP				*e*S		**Sn**	**13 20 10.8**	**+1.2**
WUSB	**Renai**	**1.05**	**230**	⇓*i*P		**Pn**	**13 19 56.3**	**+0.4**
WUSB				*e*S		**Sn**	**13 20 10.2**	**+0.1**
WARBT	**Fenglin Townsh**	**1.10**	**211**	⇓*e*P		**Pn**	**13 19 55.0**	**-1.4**
WARBT				*e*S		**Sn**	**13 20 09.2**	**-1.8**
NMLH	**Miaoli**	**1.11**	**263**	*e*P		**Pn**	**13 19 57.3**	**+0.8**
NMLH				*e*S		**Sn**	**13 20 12.0**	**+0.8**
TWQ1	**Liyutan**	**1.17**	**254**	*e*P		**Pn**	**13 19 57.7**	**+0.5**
TWQ1				*e*S		**Sn**	**13 20 13.0**	**+0.5**
WCS	**Beigang Elemen**	**1.17**	**239**	*e*P		**Pn**	**13 19 58.6**	**+1.4**
WCS				*e*S		**Sn**	**13 20 13.7**	**+1.2**
VWDT	**VWDT**	**1.21**	**221**	*e*P		**Pn**	**13 19 58.1**	**+0.4**
VWDT				*e*S		**Sn**	**13 20 13.7**	**+0.4**
SMLT	**Sun Moon Lake**	**1.28**	**232**	*e*P		**Pn**	**13 19 60.0**	**+1.2**
SMLT				*e*S		**Sn**	**13 20 17.7**	**+2.5**
WDJ	**Dajia District**	**1.28**	**256**	P		**Pn**	**13 19 59.3**	**+0.6**
WDJ				S		**Sn**	**13 20 15.7**	**+0.5**
HGSD	**Ruisui**	**1.29**	**204**	*e*P		**Pn**	**13 20 15.6**	**+0.4**
HGSD				*e*S		**Sn**	**13 20 15.6**	**+0.4**
TYC	**Yuchr**	**1.30**	**234**	*e*P		**Pn**	**13 20 00.0**	**+1.1**
TYC				*e*S		**Sn**	**13 20 16.5**	**+1.0**
SSLB	**Suanglung**	**1.30**	**228**	P		**Pn**	**13 19 59.7**	**+0.7**
SSLB	**Suanglung**	**1.30**	**228**	S		**Sn**	**13 20 15.9**	**+0.3**
SSLB	**Suanglung**	**1.30**	**228**	P		**Pn**	**13 20 00.1**	**+1.1**
SSLB				*e*S		**Sn**	**13 20 16.5**	**+0.9**
EHY	**Hungye**	**1.32**	**208**	*e*P		**Pn**	**13 19 58.1**	**-1.1**
EHY				*e*S		**Sn**	**13 20 14.3**	**-1.7**
EHYH	**Wanrong**	**1.32**	**207**	*e*P		**Pn**	**13 19 58.0**	**-1.2**
EHYH				*e*S		**Sn**	**13 20 14.0**	**-1.9**
TCU	**Taichung**	**1.32**	**247**	*e*P		**Pn**	**13 19 59.5**	**+0.3**
YULB	**Yu-li**	**1.43**	**207**	P		**Pn**	**13 20 00.0**	**-0.6**
YULB	**Yu-li**	**1.43**	**207**	*e*P		**Pn**	**13 19 59.2**	**-1.4**
YULB				*e*S		**Sn**	**13 20 16.4**	**-2.2**
WHYT	**Xinyi Township**	**1.43**	**228**	*e*P		**Pn**	**13 20 02.1**	**+1.4**
WHYT				S		**Sn**	**13 20 20.9**	**+2.2**
WJS	**Zhushan**	**1.44**	**234**	*e*P		**Pn**	**13 20 01.7**	**+0.9**
WJS				*e*S		**Sn**	**13 20 21.1**	**+2.2**
ECBN	**Changbin**	**1.44**	**201**	*e*P		**Pn**	**13 20 00.1**	**-0.7**
ECBN				*e*S		**Sn**	**13 20 17.3**	**-1.6**
WNT	**Mingjian**	**1.44**	**237**	*e*P		**Pn**	**13 20 01.6**	**+0.8**
WNT				*e*S		**Sn**	**13 20 20.6**	**+1.7**
WCHH	**Zhanghua**	**1.45**	**246**	*e*P		**Pn**	**13 20 01.2**	**+0.3**
WCHH				*e*S		**Sn**	**13 20 19.4**	**+0.5**
WCH1	**Changhua City**	**1.46**	**246**	*e*S		**Sn**	**13 20 20.3**	**+1.0**
EYUL	**Yuli**	**1.46**	**206**	*e*P		**Pn**	**13 20 01.2**	**+0.1**
TWF1	**Yuli**	**1.46**	**206**	*e*P		**Pn**	**13 19 60.0**	**-1.1**
YUS	**Yu-Shan**	**1.52**	**220**	*e*P		**Pn**	**13 20 03.6**	**+1.3**
CHKH	**Chenggong**	**1.57**	**201**	*e*S		**Sn**	**13 20 20.7**	**-1.3**
ALS	**Alishan**	**1.59**	**224**	P		**Pn**	**13 20 04.2**	**+1.1**
ALS				*e*S		**Sn**	**13 20 24.4**	**+1.5**
FULB	**Fuli**	**1.60**	**204**	*e*P		**Pn**	**13 20 02.7**	**-0.3**
FULB				*e*S		**Sn**	**13 20 22.7**	**-0.1**
IRIF	**Iriomote-Funau**	**1.61**	**102**	*i* P		**Pn**	**13 20 03.3**	**+0.3**
IRIF				S		**Sn**	**13 20 22.9**	**+0.1**
CHN5	**Tsauling**	**1.62**	**229**	P		**Pn**	**13 20 04.4**	**+1.1**
CHN5				S		**Sn**	**13 20 25.0**	**+1.8**
WDL	**Douliou City**	**1.64**	**235**	*e*S		**Sn**	**13 20 25.3**	**+1.6**
WGK	**Gukeng**	**1.64**	**234**	*e*P		**Pn**	**13 20 04.4**	**+1.0**
WGK				*e*S		**Sn**	**13 20 25.6**	**+1.9**
WDLH	**Douliu**	**1.66**	**234**	P		**Pn**	**13 20 04.6**	**+0.9**
WDLH				S		**Sn**	**13 20 25.9**	**+1.8**
CHKT	**Chengkung**	**1.67**	**201**	*e*P		**Pn**	**13 20 02.7**	**-1.2**
CHKT				S		**Sn**	**13 20 21.4**	**-3.0**
EHD	**Haiduan**	**1.68**	**206**	*e*P		**Pn**	**13 20 03.2**	**-0.8**
RLNB	**Erlin**	**1.69**	**243**	*e*P		**Pn**	**13 20 04.2**	**+0.1**
RLN

GMLD	**Gumuldur**	**0.49**	**2**	Pg	**Pg**	**13 21 41.3**	**+0.5**
GMLD				Sg	**Sb**	**13 21 48.9**	**0.0**
GMLD				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.55**	**146**	Pg	**Pb**	**13 21 43.1**	**+0.3**
YKAV				AML	AML		
BODT	**Bodrum**	**0.62**	**148**	P	**Pg**	**13 21 43.8**	**+0.6**
BODT				S	**Sb**	**13 21 52.7**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.62**	**148**	Pg	**Pg**	**13 21 43.5**	**+0.4**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.63**	**174**	P	**Pb**	**13 21 44.0**	**-0.1**
KLNA				S	**Sb**	**13 21 53.0**	**+0.1**
BEYE	**izmir**	**0.64**	**2**	Pg	**Pg**	**13 21 43.4**	**-0.2**
BEYE				S	**Sb**	**13 21 53.1**	**-0.2**
BDRM	**Kayabasi**	**0.68**	**140**	P	**Pg**	**13 21 44.6**	**+0.3**
BDRM				S	**Sb**	**13 21 54.5**	**+0.2**
BODA	**Bodrum-Mula**	**0.69**	**142**	Pg	**Pb**	**13 21 45.8**	**+0.6**
ZEYE	**Izmir, Urla-Ze**	**0.72**	**335**	P	**Pg**	**13 21 44.4**	**-0.8**
ZEYE				S	**Sb**	**13 21 55.6**	**0.0**
MLSB	**Milas**	**0.76**	**112**	Pg	**Pg**	**13 21 46.0**	**+0.2**
MLSB				Sg	**Sn**	**13 21 58.9**	**-0.3**
MLSB				AML	AML		
DUVT	**Torbali**	**0.77**	**34**	P	**Pg**	**13 21 45.9**	**-0.2**
DUVT				S	**Sg**	**13 21 56.6**	**+0.5**
DUVT				IAML		13 22 00.0	
	comp=E,4μm,0.5s						
AYDN	**Tasoluk**	**0.79**	**84**	P	**Pb**	**13 21 46.9**	**+0.1**
AYDN				S	**Sb**	**13 21 57.8**	**+0.3**
DAGE	**izmir**	**0.80**	**58**	S	**Sb**	**13 21 57.9**	**+0.1**
BLCB	**Balcova**	**0.81**	**8**	Pg	**Pg**	**13 21 46.8**	**+0.1**
BLCB				S	**Sb**	**13 21 58.2**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.81**	**8**	Pg	**Pg**	**13 21 46.6**	**-0.1**
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.87**	**65**	Pg	**Pb**	**13 21 48.8**	**+0.6**
AYDB				AML	AML		
CESE	**eme**	**0.88**	**328**	Pg	**Pg**	**13 21 48.4**	**+0.3**
CESE				AML	AML		
IZMR	**zmir-demi**	**1.00**	**56**	P	**Pb**	**13 21 50.7**	**+0.3**
IZMR				S	**Sg**	**13 22 02.7**	**-0.8**
IZMR				IAML		13 22 06.0	
	comp=N,2μm,0.5s						
IZMR				IAML		13 22 09.0	
	comp=E,1μm,0.5s						
YAZI	**Mula-Datşa-**	**1.01**	**154**	P	**Pg**	**13 21 50.3**	**-0.1**
DAT	**Datca**	**1.01**	**147**	Pg	**Pn**	**13 21 51.7**	**+0.4**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.03**	**143**	Pg	**Pn**	**13 21 51.9**	**+0.5**
DATC				AML	AML		
CHOS	**Chios island**	**1.04**	**321**	P	**Pg**	**13 21 50.7**	**-0.5**
CHOS				S	**Sb**	**13 22 05.8**	**+1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**1.04**	**321**	Pg	**Pb**	**13 21 51.5**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.04**	**321**	P	**Pg**	**13 21 50.8**	**-0.5**
CHOS				S	**Sg**	**13 22 04.5**	**-0.2**
CHOS				AML	AML		
KRBN	**Karaburun**	**1.04**	**345**	Pg	**Pb**	**13 21 51.6**	**+0.4**
KRBN				Sg	**Sn**	**13 22 07.0**	**+0.8**
KRBN				AML	AML		
BAGT	**Foa**	**1.07**	**358**	P	**Pg**	**13 21 50.8**	**-0.9**
ASTA	**Astypalaia**	**1.12**	**203**	P	**Pg**	**13 21 52.6**	**-0.2**
ASTA				S	**Sb**	**13 22 07.9**	**+0.8**
ASTA				AML	AML		
FOCM	**Foa**	**1.13**	**353**	Pn	**Pb**	**13 21 53.1**	**+0.4**
FOCM				AML	AML		
EAG2	**Marmaro, Chios**	**1.14**	**327**	P	**Pg**	**13 21 52.5**	**-0.5**
EAG2				S	**Sg**	**13 22 07.7**	**-0.3**
KARB	**zmir-Karabur**	**1.14**	**341**	P	**Pg**	**13 21 52.0**	**-1.1**
NAZL	**Nazilli-Aydin**	**1.17**	**71**	Pn	**Pg**	**13 21 53.7**	**+0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.17**	**79**	P	**Pg**	**13 21 53.7**	**0.0**
MULA	**Mugla, Merkez-**	**1.18**	**106**	P	**Pg**	**13 21 53.8**	**-0.1**
YER	**Yerkesik**	**1.19**	**112**	P	**Pn**	**13 21 54.5**	**+0.7**
YER	**Yerkesik**	**1.19**	**112**	Pn	**Pn**	**13 21 54.9**	**+1.1**
YER				AML	AML		
APE	**Apeiranthos**	**1.20**	**245**	P	**Pg**	**13 21 54.0**	**-0.2**
APE				S	**Sn**	**13 22 11.0**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.20**	**245**	Pn	**Pn**	**13 21 54.9**	**+1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.20**	**245**	P	**Pg**	**13 21 54.1**	**-0.1**
APE				AML	AML		
CAMT	**Merkez**	**1.21**	**16**	P	**Pg**	**13 21 54.0**	**-0.4**
CAMT				S	**Sn**	**13 22 11.0**	**+0.8**
CAMT				IAML		13 22 14.0	
	comp=N,2μm,1.0s						
CAMT				IAML		13 22 18.0	
	comp=E,2μm,0.6s						
KIRA	**zmir-Kiraz**	**1.34**	**62**	P	**Pn**	**13 21 55.7**	**-0.1**
TURN	**Turunc**	**1.35**	**126**	P	**Pn**	**13 21 55.6**	**-0.1**
TURN	**Turunc**	**1.35**	**126**	Pn	**Pg**	**13 21 57.9**	**+0.9**
TURN				Sn	**Sn**	**13 22 17.9**	**+4.3**
TURN				AML	AML		
TNSA	**Tinos**	**1.38**	**269**	P	**Pn**	**13 21 56.8**	**+0.6**
TNSA				S	**Sb**	**13 22 13.4**	**-1.0**
TNSA				AML	AML		
GOMA	**Golmarmara-Man**	**1.38**	**35**	Pn	**Pg**	**13 21 58.3**	**+0.7**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.39**	**6**	P	**Pn**	**13 21 55.6**	**-0.8**
KTTT	**Salihli**	**1.45**	**40**	P	**Pg**	**13 21 59.0**	**+0.1**
AKHS	**Akhisar**	**1.48**	**29**	P	**Pn**	**13 21 58.1**	**+0.4**
AKS	**Akhisar**	**1.48**	**29**	Pn	**Pg**	**13 21 59.6**	**+0.1**
AKS				AML	AML		
DKL	**Dikili**	**1.48**	**0**	Pn	**Pg**	**13 21 59.4**	**-0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.48**	**0**	P	**Pn**	**13 21 57.2**	**-0.5**
SULTU	**Buldan**	**1.56**	**72**	P	**Pn**	**13 21 59.1**	**+0.3**
SULTU				S	**Sn**	**13 22 19.4**	**+0.4**
MANT	**Manisa**	**1.59**	**55**		**Pb**	**13 22 01.4**	**+0.7**
DALY	**Dalyan (Mula)**	**1.60**	**118**	Pn	**Pg**	**13 22 01.6**	**-0.2**
DALY				AML	AML		
THR8	**Santorini-Mono**	**1.63**	**224**	P	**Pn**	**13 22 00.4**	**+0.6**
SOMA	**Soma-Manisa**	**1.65**	**18**	Pn	**Pb**	**13 22 01.9**	**+0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.66**	**37**	Pn	**Pb**	**13 22 02.3**	**+0.5**
GORD				AML	AML		
THERA	**Ancient Thera,**	**1.67**	**224**	P	**Pn**	**13 22 01.5**	**+1.3**
THERA	**Ancient Thera,**	**1.67**	**224**	P	**Pn**	**13 22 00.4**	**+0.2**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.69**	**144**	Pn	**Pn**	**13 21 59.9**	**-0.6**
ARG	**Arkhangelos**	**1.69**	**144**	P	**Pn**	**13 22 01.0**	**+0.5**
ARG				AML	AML		
SAP3	**Santorini-Thir**	**1.69**	**228**	P	**Pn**	**13 22 00.6**	**+0.1**
PRK	**Paraskevi**	**1.73**	**344**	P	**Pn**	**13 22 00.6**	**-0.5**
PRK				AML	AML		
KARP	**Karpathos**	**2.04**	**174**	Pn	**Pn**	**13 22 04.4**	**-1.0**
KARP	**Karpathos**	**2.04**	**174**	P	**Pn**	**13 22 05.6**	**+0.2**
KARP				AML	AML		
MHLO	**Agia Marina, M**	**2.18**	**247**	P	**Pn**	**13 22 07.2**	**-0.1**
MHLO				AML	AML		
BALB	**Balikesir**	**2.19**	**20**	Pn	**Pn**	**13 22 09.3**	**+1.9**
BALB	**Balikesir**	**2.19**	**20**	Pn	**Pb**	**13 22 09.9**	**-0.8**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.22**	**47**	Pn	**Pb**	**13 22 10.4**	**-0.9**
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**2.23**	**47**	Pn	**Pb**	**13 22 10.9**	**-0.6**
SMAA				AML	AML		
DION	**Dionisos Attik**	**2.40**	**283**	P	**Pn**	**13 22 10.2**	**-0.1**
DION				AML	AML		
DST	**Dursunbey**	**2.43**	**33**	Pn	**Pn**	**13 22 12.8**	**+2.1**
DST				AML	AML		
KYMI	**Kymi, Euboea I**	**2.44**	**296**	P	**Pn**	**13 22 10.7**	**-0.2**
PTL	**Penteli**	**2.44**	**282**	P	**Pn**	**13 22 10.9**	**0.0**
PTL				AML	AML		
ATHU	**Athens Univers**	**2.49**	**280**	P	**Pn**	**13 22 11.4**	**-0.2**
ZKR	**Zakros**	**2.52**	**193**	P	**Pn**	**13 22 12.3**	**+0.3**
ZKR				AML	AML		
ELL	**Elmali**	**2.55**	**108**	Pn	**Pn**	**13 22 11.0**	**-1.4**
AKAS	**Kas**	**2.56**	**121**	Pn	**Pn**	**13 22 09.8**	**-2.8**
IDI	**Anoyia**	**2.81**	**216**	Pn	**Pn**	**13 22 15.9**	**0.0**
	9.8nm,0.6s,baz=32,slow=13,SNR=13						
IDI				Sn	**Sn**	**13 22 48.4**	**-1.4**
	5.9nm,0.3s,baz=261,slow=14,SNR=8.4						
IDI				Lg	Lg	13 23 00.4	
	14nm,0.3s,baz=312,slow=17,SNR=8.1						
IDI	**Anoyia**	**2.81**	**216**		**Pn**	**13 22 15.5**	**-0.4**
ALN	**Alexandroupoli**	**3.37**	**349**		**Pn**	**13 22 23.8**	**+0.2**
ITM	**Ithomi**	**3.98**	**266**	Pn	**Pn**	**13 22 33.8**	**+1.7**
BR131	**Keskin Array S**	**5.69**	**66**		**Pn**	**13 22 55.3**	**-0.4**
BRTR	**Keskin Array B**	**5.69**	**66**	Pn	**Pn**	**13 22 57.0**	**+1.3**
	0.6nm,0.3s,baz=247,slow=15,SNR=13						
BRTR				Sn	**Sn**	**13 23 59.1**	**-2.0**
	0.5nm,0.3s,baz=247,slow=26,SNR=2.0						
	3.1nm,0.6s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**5.69**	**66**		**Pn**	**13 22 55.0**	**-0.7**
TIP	**Timpagrande**	**8.12**	**284**		**Pn**	**13 23 31.1**	**+2.1**
MMAI	**Mount Meron Ar**	**8.31**	**121**	Pn	**Pn**	**13 23 29.7**	**-1.9**
	2.6nm,0.5s,baz=309,slow=14,SNR=4.2						
MMAI				Sn	**Sn**	**13 24 59.3**	**-6.2**
	3.8nm,0.3s,baz=246,slow=24,SNR=4.3						
ACER	**Acerenza**	**9.09**	**294**	Pn	**Pn**	**13 23 44.5**	**+2.3**
ASF	**Jabal al Asfar**	**9.79**	**121**	Pn	**Pn**	**13 23 50.7**	**-1.7**
	0.4nm,0.3s,baz=307,slow=5.1,SNR=4.0						
	1.9nm,0.7s						
ASF				AML	AML		
EIL	**Elat**	**10.36**	**137**	Pn	**Pn**	**13 23 58.4**	**-1.2**
	0.4nm,0.3s,baz=322,slow=12,SNR=1.8						
EIL				Sn	Sn	13 25 46.1	-10
	0.3nm,0.3s,baz=112,slow=20,SNR=1.9						
	2.4nm,0.5s						
EIL				AML	AML		
NC405	**NORSAR Array S**	**25.41**	**343**	P	**P**	**13 27 00.3**	**+1.9**
NC405				IAmb	IAmb	13 27 25.9	
	comp=Z,21nm,1.5s						
TORD	**Torodi Ar. Bea**	**33.12**	**229**	P	**P**	**13 28 07.2**	**-0.1**
	comp=Z,0.3nm,0.5s,baz=39,slow=9.1,SNR=2.1						
	comp=Z,0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**38.53**	**53**	P	**P**	**13 28 53.4**	**+0.1**
	comp=Z,0.9nm,0.2s,baz=277,slow=8.7,SNR=7.7						
	comp=Z,0.9nm,0.2s						
KURK	**Kurchatov**	**38.59**	**53**	P	**P**	**13 28 53.1**	**-0.7**
BORG	**Borgarnes**	**39.13**	**330**	P	**P**	**13 28 59.7**	**+1.5**
MKAR	**Makanchi Array**	**41.30**	**59**	P	**P**	**13 29 17.2**	**+0.7**
	comp=Z,1.2nm,0.7s,baz=278,slow=8.3,SNR=7.1						
	comp=Z,1.2nm,0.7s						
MKAR	**Makanchi Array**	**41.30**	**59**	P	**P**	**13 29 15.3**	**-1.1**
ZAA0	**Zalesovo Array**	**42.33**	**48**	P	**P**	**13 29 24.2**	**-0.5**
ZAA0				IAmb	IAmb	13 29 30.2	
	comp=Z,5.2nm,1.4s						
ZALV	**Zalesovo Beam**	**42.33**	**48**	P	**P**	**13 29 25.6**	**+0.9**
	comp=Z,0.4nm,0.3s,baz=276,slow=8.3,SNR=3.7						
	comp=Z,0.4nm,0.3s						
ZALV	**Zalesovo Beam**	**42.33**	**48**	P	**P**	**13 29 24.2**	**-0.5**
SONM	**Songino Array**	**56.88**	**52**	P	**P**	**13 31 16.5**	**+0.6**
	comp=Z,0.3nm,0.4s,baz=299,slow=6.5,SNR=1.4						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**56.88**	**52**	P	**P**	**13 31 15.8**	**-0.1**
SONM				IAmb	IAmb	13 31 35.3	
	comp=Z,1.4nm,1.3s						

*IDC **04** 13:34:53.1±0.7, 17°.38S×175°.57E, h0km, mb4.1/11, mbtmp4.1/13, ML5.4/1, MS3.8/30, Error ellipse: s-maj=23.4km s-min=13.6km az=169.0*
*NEIC **04** 13:34:54.3±0.7, 17°.28S±0°.07×175°.68E±0°.06, h10km±1km, mb4.5/13, Error ellipse: s-maj=12.2km s-min=7.6km az=30.0*

ISC 04 13:34:54.0±0.5, 17°.28S±0°.09×175°.66E±0°.06, h10km, n74, σ0s.88/46, mb4.2/16, MS3.9/29, 1C-1D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.32**	**101**	Pn	**Pn**	**13 35 32.0**	**-0.4**
	40nm,0.3s,baz=268,slow=15,SNR=101						
MSVF				Sn	**Sn**	**13 36 00.8**	**-0.2**
	28nm,0.3s,baz=252,slow=20,SNR=4.4						
	118nm,0.6s						
MSVF				AML	AML		
SANVU	**Saraoutou**	**8.32**	**281**	Pn	**Pn**	**13 36 55.0**	**+0.1**
MARNC	**Mare, Loyalty**	**8.33**	**239**	Pn	**Pn**	**13 36 54.2**	**-0.6**
FUNA	**Funafuti**	**9.36**	**22**	Pn	**Pn**	**13 37 08.7**	**-0.3**
PINNC	**Pines Island,**	**9.37**	**234**		**Pn**	**13 37 09.6**	**+0.4**
OUENC	**Ouen Island, N**	**9.74**	**237**		**Pn**	**13 37 14.5**	**+0.1**
DZM	**Mont Dzumac**	**9.90**	**240**	Pn	**Pn**	**13 37 17.0**	**+0.4**
	2.2nm,0.9s,baz=81,slow=13,SNR=6.2						
ONTNC	**Ouen Toro**	**10.01**	**239**		**Pn**	**13 37 17.3**	**-0.5**
KOUNC	**Koumac, New Ca**	**11.25**	**251**	Pn	**Pn**	**13 37 34.9**	**0.0**
HNR	**Honiara**	**17.16**	**295**	LR	LR	13 44 29.7	
	comp=Z,247nm,19.2s,baz=206,slow=34						
URZ	**Urewera**	**20.94**	**177**	P	**P**	**13 39 38.3**	**+1.4**
	6.6nm,0.8s,baz=328,slow=4.1,SNR=5.2						
URZ				LR	LR	13 45 42.2	
	comp=Z,294nm,20.5s,baz=1.0,slow=31						
	6.6nm,0.8s						
RAR	**Rarotonga**	**23.51**	**103**	LR	LR	13 47 10.2	
	comp=Z,141nm,21.4s,baz=270,slow=31						
KRVT	**Keravat (AS076**	**26.51**	**296**	LR	LR	13 50 22.4	
	comp=Z,228nm,20.5s,baz=110,slow=35						
RPZ	**Rata Peaks**	**26.64**	**187**	LR	LR	13 49 34.3	
	comp=Z,66nm,20.5s,baz=158,slow=33						
CTA	**Charters Tower**	**27.98**	**260**	LR	LR	13 50 46.3	
	comp=Z,66nm,18.1s,baz=67,slow=34						
PMG	**Port Moresby**	**28.79**	**282**	LR	LR	13 51 31.2	
	comp=Z,323nm,18.3s,baz=120,slow=35						
PPT2	**Papeete2**	**33.14**	**96**	*e*S	**S**	**13 46 47.9**	**-2.6**
	74nm,25.2s						
PPT2				*e*LR	LR	13 50 13.1	
	465nm,26.2s						
PPT2				*e*LR	LR	13 50 17.1	
	347nm,27.2s						
PPT	**Papeete**	**33.14**	**96**	LR	LR	13 51 48.1	
	comp=Z,138nm,20.8s,baz=238,slow=31						
TBI	**Tubuai**	**33.20**	**106**	*e*LR	LR	13 50 19.9	
	4μm,37.2s						
STKA	**Stephens Creek**	**34.05**	**238**	P	**P**	**13 41 38.5**	**-0.1**
	3.2nm,0.9s,baz=85,slow=17,SNR=2.9						
STKA				LR	LR	13 53 51.0	
	comp=Z,151nm,18.8s,baz=50,slow=34						
	3.2nm,0.9s						
STKA	**Stephens Creek**	**34.05**	**238**	P	**P**	**13 41 38.2**	**-0.4**
STKA				IAmb	IAmb	13 41 58.2	
	comp=Z,29nm,0.9s						
H11S2	**WAKE ISLAND Hy**	**36.62**	**346**	T	T	14 20 37.8	
	baz=166,slow=76,SNR=15						
H11S3	**WAKE ISLAND Hy**	**36.63**	**346**	T	T	14 20 56.9	
	baz=166,slow=76,SNR=9.9						
H11S1	**WAKE ISLAND Hy**	**36.64**	**346**	T	T	14 20 47.0	
	baz=166,slow=76,SNR=12						
H11N1	**WAKE ISLAND Hy**	**37.76**	**346**	T	T	14 22 08.3	
	baz=164,slow=76,SNR=5.5						
H11N3	**WAKE ISLAND Hy**	**37.76**	**346**	T	T	14 22 08.7	
	baz=164,slow=76,SNR=4.3						
H11N2	**WAKE ISLAND Hy**	**37.78**	**346**	T	T	14 22 12.4	
	baz=164,slow=76,SNR=4.8						
BBOO	**Buckleboo**	**38.82**	**239**	P	**P**	**13 42 18.4**	**-0.9**
BBOO				IAmb	IAmb	13 42 35.5	
	comp=Z,18nm,1.1s						
WR8	**Warramunga Arr**	**39.03**	**259**	P	**P**	**13 42 20.0**	**-1.3**
WR8				IAmb	IAmb	13 42 20.5	
	comp=Z,9.0nm,1.4s						
WB0	**Warramunga Arr**	**39.14**	**260**	P	**P**	**13 42 21.4**	**-0.8**
WB0				IAmb	IAmb	13 42 21.9	
	comp=Z,4.0nm,0.7s						
WRA	**Warramunga Arr**	**39.18**	**259**	P	**P**	**13 42 21.5**	**-1.1**
	comp=Z,2.3nm,0.7s,baz=93,slow=8.9,SNR=40						
	comp=Z,2.3nm,0.7s						
WRA	**Warramunga Arr**	**39.18**	**259**	P	**P**	**13 42 21.9**	**-0.7**
AS31	**Alice Springs**	**39.53**	**254**	P	**P**	**13 42 25.5**	**+0.1**
ASAR	**Alice Springs**	**39.53**	**254**	P	**P**	**13 42 24.8**	**-0.7**
	comp=Z,4.7nm,0.8s,baz=82,slow=9.2,SNR=52						
ASAR				PcP	**PcP**	**13 44 32.8**	**-0.3**
	comp=Z,0.6nm,0.8s,baz=93,slow=3.1,SNR=3.5						
ASAR				LR	LR	13 58 01.1	
	comp=Z,192nm,18.9s,baz=100,slow=35						
	comp=Z,4.7nm,0.8s						
ASAR	**Alice Springs**	**39.53**	**254**	P	**P**	**13 42 25.2**	**-0.2**
ASAR					**PcP**	**13 44 32.6**	**-0.4**
MTN	**Manton Dam**	**43.16**	**270**	P	**P**	**13 42 55.2**	**0.0**
MTN				IAmb	IAmb	13 43 04.9	
	comp=Z,10nm,1.5s						
GUMO	**Guam**	**43.19**	**313**	LR	LR	13 59 57.7	
	comp=Z,45nm,20.0s,baz=108,slow=35						
TAOE	**Nuku Hiva Isla**	**43.77**	**85**	*e*LR	LR	13 55 16.5	
	comp=Z,171nm,26.7s						
KNRA	**Kununurra**	**44.92**	**265**	P	**P**	**13 43 09.7**	**+0.4**
KNRA				IAmb	IAmb	13 43 12.0	
	comp=Z,8.7nm,1.4s						
SIJI	**Sorong**	**46.60**	**286**	LR	LR	14 03 01.0	
	comp=Z,90nm,19.8s,baz=136,slow=36						
FITZ	**Fitzroy Crossi**	**47.55**	**261**	LR	LR	14 02 43.5	
	comp=Z,148nm,18.6s,baz=94,slow=35						
FITZ	**Fitzroy Crossi**	**47.55**	**261**	P	**P**	**13 43 29.3**	**-0.7**
BATI	**Baumata**	**50.88**	**271**	LR	LR	14 04 15.0	
	comp=Z,142nm,18.5s,baz=165,slow=35						
DAV	**Davao City (W)**	**55.09**	**292**	LR	LR	14 07 10.0	
	comp=Z,66nm,19.1s,baz=246,slow=35						
VNDA	**Vanda**	**60.66**	**183**	LR	LR	14 07 35.4	
	comp=Z,85nm,20.1s,baz=348,slow=32						
BBJI	**Bungbulang**	**66.87**	**269**	P	**P**	**13 45 46.2**	**-0.8**
RPN	**Rapa Nui**	**69.25**	**113**	LR	LR	14 08 51.8	
	comp=Z,64nm,21.4s,baz=102,slow=29						
QSPA	**South Pole Qui**	**72.76**	**180**	P	**P**	**13 46 22.7**	**+0.3**
	comp=Z,2.8nm,1.0s,baz=20,slow=5.3,SNR=5.7						
	comp=Z,2.8nm,1.0s						
QSPA	**South Pole Qui**	**72.76**	**180**		**P**	**13 46 23.0**	**+0.6**
QSPA				IAmb	IAmb	13 46 29.3	
	comp=Z,9.3nm,1.2s						
O15K	**Ungalikthiuk R**	**78.78**	**13**	P	**P**	**13 46 55.6**	**-1.0**
K13K	**Kusilvak Mount**	**80.48**	**9**	P	**P**	**13 47 06.7**	**+1.0**
PFO	**Pinyon Flats O**	**82.09**	**51**	LR	LR	14 15 21.2	
	comp=Z,56nm,20.0s,baz=287,slow=30						
MAW	**Mawson**	**82.48**	**201**	P	**P**	**13 47 17.1**	**+0.7**
	comp=Z,1.9nm,0.9s,baz=106,slow=5.1,SNR=4.0						
MAW				LR	LR	14 21 06.4	
	comp=Z,125nm,18.1s,baz=15,slow=34						
	comp=Z,1.9nm,0.9s						
NVAR	**Mina Array Bea**	**82.99**	**46**	P	**P**	**13 47 22.4**	**+2.5**
	comp=Z,0.3nm,0.6s,baz=223,slow=8.3,SNR=4.4						
NVAR				LR	LR	14 18 12.8	
	comp=Z,60nm,18.2s,baz=288,slow=31						
	comp=Z,0.3nm,0.6s						
NVAR	**Mina Array Bea**	**82.99**	**46**	P	**P**	**13 47 19.4**	**-0.4**
LPIG	**La Paz**	**83.09**	**62**	LR	LR	14 15 07.3	
	comp=Z,64nm,20.2s,baz=279,slow=29						
CMAR	**Chiang Mai Arr**	**83.37**	**292**	P	**P**	**13 47 22.3**	**+0.3**
	comp=Z,0.5nm,0.3s,baz=109,slow=6.7,SNR=3.0						
CMAR				LR	LR	14 21 18.4	
	comp=Z,23nm,21.8s,baz=305,slow=33						
	comp=Z,0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**83.37**	**292**	P	**P**	**13 47 21.1**	**-1.0**
BBB	**Bella Bella**	**84.59**	**31**	LR	LR	14 17 52.7	
	comp=Z,67nm,19.4s,baz=226,slow=30						
LZDM	**Lanzhou Array**	**86.14**	**309**	LR	LR	14 22 42.9	
	comp=Z,62nm,21.6s,baz=55,slow=33						
IMAR	**Indian Mountai**	**86.15**	**12**	P	**P**	**13 47 35.4**	**+0.5**
ILAR	**Eielson Array**	**86.66**	**15**	P	**P**	**13 47 39.3**	**+1.9**
	comp=Z,0.8nm,0.7s,baz=230,slow=5.6,SNR=7.5						
ILAR				LR	LR	14 18 41.2	
	comp=Z,82nm,21.1s,baz=258,slow=30						
	comp=Z,0.8nm,0.7s						
ILAR	**Eielson Array**	**86.66**	**15**	P	**P**	**13 47 37.8**	**+0.3**
DLBC	**Dease Lake**	**87.59**	**25**	LR	LR	14 26 18.4	
	comp=Z,39nm,18.1s,baz=113,slow=35						
ELIB	**Princess Elisa**	**89.04**	**188**	*d*P	**P**	**13 47 49.3**	**+0.2**
	comp=Z,2.0nm,1.2s						
TXAR	**Lajitas Array**	**90.50**	**60**	P	**P**	**13 47 57.4**	**+0.7**
	comp=Z,0.3nm,0.7s,baz=235,slow=4.4,SNR=3.6						
TXAR				LR	LR	14 20 15.0	
	comp=Z,54nm,19.1s,baz=279,slow=30						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**90.50**	**60**	P	P	13 47 55.1	-1.6
TROLL	**Troll, Antarti**	**90.81**	**182**	⇑P	**P**	**13 47 57.6**	**+0.2**
	comp=Z,118nm,0.7s						
PDAR	**Pinedale Array**	**90.86**	**45**	LR	LR	14 20 24.2	
	comp=Z,16nm,20.9s,baz=4.5,slow=30						
TIXI	**Tiksi**	**94.18**	**347**	LR	LR	14 27 54.5	
	comp=Z,46nm,18.8s,baz=333,slow=34						
PLCA	**Paso Flores**	**95.79**	**136**	LR	LR	14 24 19.0	
	comp=Z,31nm,18.8s,baz=172,slow=31						
YKA	**Yellowknife Ar**	**96.19**	**26**	P	**P**	**13 48 22.2**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=236,slow=6.8,SNR=3.7						
	comp=Z,0.8nm,0.8s						
GERES	**GERESS Array B**	**145.26**	**339**	PKPbc	**PKPbc**	**13 54 32.9**	**+1.0**
	comp=Z,0.4nm,0.4s,baz=50,slow=4.2,SNR=5.9						
GERES	**GERESS Array B**	**145.26**	**339**		**PKPbc**	**13 54 31.1**	**-0.7**

*GFZ **04** 13:44:18.0±0.5, 17°S±5°×7°W±°, h48km, M4.5/7, mb4.5/7, confirmed*

ISC 04 13:44:17.7±1.2, 16°.79S±0°.07×72°.54W±0°.09, h49km, n33, σ0s.77/39, Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB12	**IPOC Station P**	**2.78**	**131**	P	**Pn**	**13 44 59.7**	**-0.1**
PB12	**IPOC Station P**	**2.78**	**131**	P	**Pn**	**13 45 00.1**	**+0.3**
PB18	**Visviri**	**3.03**	**106**	P	**Pn**	**13 45 05.5**	**+1.9**
PB16	**IPOC Station P**	**3.27**	**119**	P	**Pn**	**13 45 07.0**	**0.0**
**P

GMLD	**Gumuldur**	**0.49**	**5**	Pg	**Pg**	13 52 55.9	+0.3		
GMLD				Sg	**Sb**	**13 53 03.5**	**-0.2**		
GMLD				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.57**	**144**	Pg	**Pg**	13 52 57.3	+0.2		
BODT	**Bodrum**	**0.63**	**146**	P	**Pg**	13 52 58.2	-0.1		
BODT				S	**Sb**	**13 53 07.6**	**-0.3**		
BODT				AML	AML				
BODT	**Bodrum**	**0.63**	**146**	Pg	**Pg**	13 52 58.3	-0.1		
BODT				AML	AML				
KLNA	**Kalymnos**	**0.64**	**172**	P	**Pg**	13 52 58.3	0.0		
KLNA				S	**Sg**	**13 53 06.6**	**-0.1**		
BEYE	**izmir**	**0.64**	**4**	P	**Pg**	13 52 58.3	-0.1		
BEYE				S	**Sb**	**13 53 07.8**	**-0.3**		
BEYE				IAML		13 53 10.0			
	comp=E,898nm,0.2s								
BEYE				IAML		13 53 10.0			
	comp=N,1μm,0.4s								
BDRM	**Kayabasi**	**0.70**	**138**	P	**Pg**	13 52 59.6	+0.1		
BDRM				S	**Sg**	**13 53 09.4**	**+0.7**		
BDRM				IAML		13 53 11.0			
	comp=E,1μm,0.5s								
BDRM				IAML		13 53 13.0			
	comp=N,1μm,0.3s								
ZEYE	**Izmir, Urla-Ze**	**0.71**	**336**	P	**Pg**	13 52 59.8	+0.1		
ZEYE				S	**Sb**	**13 53 10.6**	**+0.5**		
ZEYE				IAML		13 53 14.0			
	comp=N,913nm,0.5s								
ZEYE				IAML		13 53 14.0			
	comp=E,634nm,0.3s								
BODA	**Bodrum-Mula**	**0.71**	**141**	Pg	**Pg**	13 53 00.1	+0.3		
DUVT	**Torbali**	**0.78**	**36**	P	**Pg**	13 53 01.3	+0.1		
DUVT				S	**Sg**	**13 53 11.1**	**-0.3**		
DUVT				IAML		13 53 15.0			
	comp=E,896nm,0.5s								
MLSB	**Milas**	**0.78**	**112**	Pg	**Pg**	13 53 00.8	-0.3		
MLSB				AML	AML				
BLCB	**Balcova**	**0.81**	**10**	P	**Pg**	13 53 01.4	-0.2		
BLCB				S	**Sb**	**13 53 13.2**	**+0.3**		
BLCB				AML	AML				
BLCB	**Balcova**	**0.81**	**10**	Pg	**Pg**	13 53 01.4	-0.2		
BLCB				AML	AML				
AYDN	**Tasoluk**	**0.81**	**85**	P	**Pg**	13 53 02.0	+0.4		
AYDN				S	**Sg**	**13 53 12.5**	**+0.3**		
AYDN				IAML		13 53 16.0			
	comp=N,795nm,0.3s								
AYDN				IAML		13 53 17.0			
	comp=E,618nm,0.2s								
DAGE	**izmir**	**0.81**	**59**	P	**Pn**	13 53 03.6	+0.2		
DAGE				S	**Sg**	**13 53 12.0**	**-0.5**		
DAGE				IAML		13 53 15.0			
	comp=E,1μm,0.2s								
CESE	**eme**	**0.86**	**329**	Pg	**Pg**	13 53 03.1	+0.4		
CESE				AML	AML				
AYDB	**Zeytinkoy-Aydi**	**0.89**	**66**	Pg	**Pg**	13 53 03.3	+0.1		
AYDB				AML	AML				
IZMR	**zmir-demi**	**1.02**	**57**	P	**Pb**	13 53 06.1	+0.5		
IZMR				S	**Sg**	**13 53 17.8**	**-1.1**		
IZMR				IAML		13 53 20.0			
	comp=N,238nm,0.6s								
IZMR				IAML		13 53 23.0			
	comp=E,234nm,0.4s								
YAZI	**Mula-Datşa-**	**1.02**	**152**	P	**Pg**	13 53 05.6	-0.1		
YAZI				S	**Sb**	**13 53 19.3**	**+0.3**		
YAZI				IAML		13 53 23.0			
	comp=E,488nm,0.3s								
YAZI				IAML		13 53 24.0			
	comp=N,241nm,0.8s								
CHOS	**Chios island**	**1.02**	**321**	P	**Pg**	13 53 05.5	-0.2		
CHOS				S	**Sb**	**13 53 20.3**	**+1.1**		
CHOS				AML	AML				
CHOS	**Chios island**	**1.02**	**321**	Pg	**Pg**	13 53 05.9	+0.2		
CHOS				AML	AML				
CHOS	**Chios island**	**1.02**	**321**	P	**Pg**	13 53 05.5	-0.2		
CHOS				S	**Sg**	**13 53 19.6**	**+0.6**		
CHOS				AML	AML				
DAT	**Datca**	**1.03**	**146**	P	**Pg**	13 53 06.0	+0.2		
DAT				S	**Sb**	**13 53 20.4**	**+1.0**		
DAT				IAML		13 53 25.0			
	comp=E,227nm,0.2s								
DAT				IAML		13 53 25.0			
	comp=N,201nm,0.2s								
DAT	**Datca**	**1.03**	**146**	Pg	**Pb**	13 53 06.2	+0.3		
DAT				AML	AML				
KRBN	**Karaburun**	**1.03**	**346**	Pg	**Pg**	13 53 06.1	+0.2		
KRBN				AML	AML				
BAGT	**Foa**	**1.06**	**359**	P	**Pb**	13 53 06.9	+0.5		
BAGT				S	**Sn**	**13 53 21.8**	**+0.2**		
BAGT				IAML		13 53 23.0			
	comp=E,266nm,0.3s								
BAGT				IAML		13 53 25.0			
	comp=N,193nm,0.6s								
ASTA	**Astypalaia**	**1.12**	**202**	P	**Pg**	13 53 07.0	-0.5		
ASTA				S	**Sg**	**13 53 21.4**	**-0.7**		
EAG2	**Marmaro, Chios**	**1.12**	**328**	P	**Pg**	13 53 07.4	-0.2		
EAG2				S	**Sg**	**13 53 22.5**	**+0.2**		
FOCM	**Foa**	**1.13**	**355**	Pn	**Pg**	13 53 07.8	+0.1		
FOCM				AML	AML				
KARB	**zmir-Karabur**	**1.13**	**342**	P	**Pg**	13 53 06.6	-1.2		
KARB				S	**Sb**	**13 53 23.2**	**+1.0**		
KARB				IAML		13 53 27.0			
	comp=N,140nm,0.3s								
KARB				IAML		13 53 30.0			
	comp=E,141nm,0.4s								
APE	**Apeiranthos**	**1.18**	**244**	P	**Pb**	13 53 07.8	-0.6		
APE	**Apeiranthos**	**1.18**	**244**	Pn	**Pb**	13 53 09.0	+0.6		
APE				AML	AML				
APE	**Apeiranthos**	**1.18**	**244**	P	**Pb**	13 53 08.5	+0.1		
APE				S	**Sg**	**13 53 23.5**	**-0.7**		
NAZL	**Nazilli-Aydin**	**1.19**	**71**	Pn	**Pb**	13 53 08.3	-0.3		
NAZL				AML	AML				
ESEN	**Aydn-Nazilli**	**1.20**	**79**	P	**Pb**	13 53 08.4	-0.2		
ESEN				S	**Sg**	**13 53 23.6**	**-0.9**		
ESEN				IAML		13 53 30.0			
	comp=N,77nm,0.3s								
ESEN				IAML		13 53 30.0			
	comp=E,124nm,0.3s								
MULA	**Mugla, Merkez-**	**1.21**	**106**	P	**Pb**	13 53 08.8	0.0		
MULA				S	**Sn**	**13 53 25.3**	**+0.2**		
MULA				IAML		13 53 28.0			
	comp=E,130nm,0.5s								
MULA				IAML		13 53 30.0			
	comp=N,90nm,0.7s								
CAMT	**Merkez**	**1.21**	**17**	P	**Pb**	13 53 08.7	-0.2		
CAMT				S	**Sg**	**13 53 25.1**	**+0.1**		
CAMT				IAML		13 53 30.0			
	comp=N,221nm,0.3s								
CAMT				IAML		13 53 32.0			
	comp=E,428nm,0.4s								
YER	**Yerkesik**	**1.22**	**111**	P	**Pb**	13 53 09.0	0.0		
YER	**Yerkesik**	**1.22**	**111**	Pn	**Pb**	13 53 09.0	0.0		
YER				AML	AML				
TNSA	**Tinos**	**1.35**	**268**	P	**Pn**	13 53 11.0	+0.2		
KIRA	**zmir-Kiraz**	**1.36**	**63**	P	**Pg**	13 53 12.5	+0.4		
KIRA				S	**Sb**	**13 53 27.3**	**-1.6**		
KIRA				IAML		13 53 31.0			
	comp=N,164nm,0.2s								
KIRA				IAML		13 53 33.0			
	comp=E,108nm,0.6s								
TURN	**Turunc**	**1.37**	**126**	P	**Pn**	13 53 11.1	+0.2		
TURN				S	**Sg**	**13 53 30.1**	**0.0**		
TURN				IAML		13 53 35.0			
	comp=N,148nm,0.5s								
TURN				IAML		13 53 38.0			
	comp=E,147nm,0.3s								
TURN	**Turunc**	**1.37**	**126**	Pn	**Pg**	13 53 12.2	-0.1		
TURN				AML	AML				
ZEDA	**zmir-Bergama**	**1.39**	**7**	P	**Pn**	13 53 10.7	-0.5		
ZEDA				S	**Sb**	**13 53 28.5**	**-1.0**		
ZEDA				IAML		13 53 37.0			
	comp=E,87nm,0.4s								
ZEDA				IAML		13 53 39.0			
	comp=N,80nm,0.3s								
GOMA	**Golmarmara-Man**	**1.39**	**36**	Pn	**Pg**	13 53 12.9	+0.2		
KTTT	**Salihli**	**1.46**	**41**	P	**Pb**	13 53 13.9	+0.7		
KTTT				S	**Sn**	**13 53 30.1**	**-1.3**		
KTTT				IAML		13 53 34.0			
	comp=N,92nm,0.3s								
DKL	**Dikili**	**1.48**	**1**	Pn	**Pb**	13 53 14.1	+0.6		
DKL				AML	AML				
DKL	**Dikili**	**1.48**	**1**	P	**Pn**	13 53 12.5	0.0		
AKHS	**Akhisar**	**1.49**	**30**	P	**Pb**	13 53 13.9	+0.3		
AKHS				S	**Sn**	**13 53 32.5**	**+0.4**		
AKHS				IAML		13 53 37.0			
	comp=N,214nm,0.3s								
AKS	**Akhisar**	**1.49**	**30**	Pn	**Pb**	13 53 14.0	+0.4		
AKS				AML	AML				
MANT	**Manisa**	**1.61**	**56**	P	**Pg**	13 53 17.9	+1.0		
MANT				S	**Sn**	**13 53 33.9**	**-1.5**		
TAVA	**DENIZLI_Tavas**	**1.63**	**94**	P	**Pn**	13 53 15.0	+0.3		
TAVA				S	**Sg**	**13 53 38.9**	**+0.3**		
TAVA				IAML		13 53 45.0			
	comp=E,31nm,1.0s								
TAVA				IAML		13 53 47.0			
	comp=N,40nm,0.6s								
SOMA	**Soma-Manisa**	**1.65**	**18**	Pn	**Pb**	13 53 16.4	0.0		
SOMA				AML	AML				
THERA	**Ancient Thera,**	**1.65**	**223**	P	**Pn**	13 53 15.2	+0.4		
THERA				AML	AML				
GORD	**Gordes-Manisa**	**1.67**	**38**	Pn	**Pb**	13 53 16.7	-0.1		
GORD				AML	AML				
SAP3	**Santorini-Thir**	**1.68**	**227**	P	**Pn**	13 53 15.3	+0.1		
ARG	**Arkhangelos**	**1.70**	**143**	P	**Pn**	13 53 15.8	+0.2		
ARG				AML	AML				
PRK	**Paraskevi**	**1.72**	**344**	P	**Pn**	13 53 16.4	+0.6		
PRK				AML	AML				
KARY	**Karystos**	**1.97**	**284**	P	**Pn**	13 53 19.5	+0.2		
KARP	**Karpathos**	**2.05**	**173**	P	**Pn**	13 53 20.3	-0.1		
IZZE	**Mula-Seydike**	**2.21**	**121**	P	**Pn**	13 53 24.2	+1.6		
IZZE				S	**Sb**	**13 53 53.2**	**-0.1**		
IZZE				IAML		13 53 56.0			
	comp=N,145nm,0.4s								
IZZE				IAML		13 53 57.0			
	comp=E,94nm,0.3s								
DION	**Dionisos Attik**	**2.37**	**283**	P	**Pn**	13 53 25.0	+0.2		

*TIF **04** 14:04:23.4, 42°.46N×43°.49E, h7km*
*MOS **04** 14:04:24.4, 42°.48N×43°.37E, h4km, MPVA4.1*
*NORS **04** 14:04:24.0, 42°.52N×43°.40E, h7km, MPVA4.1*
*DRS **04** 14:04:25.0, 42°.06N×43°.12E, h22km*

ISC 04 14:04:23.8±1.1, **42°.42N**±0°.01×**43°.40E**±0°.01, **h3**km±9km, **n98**,σ**1°23**/177, **Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
					Op			
TKB	**Tkibuli**	**0.31**	**256**	P		**Pb**	**14 04 31.5**	**-0.5**
TKB				S		**Sb**	**14 04 38.3**	**+0.9**
TKB	**Tkibuli**	**0.31**	**256**	PG		**Pb**	**14 04 31.5**	**-0.5**
TKB				S		**Sb**	**14 04 38.3**	**+0.9**
ALIG	**Mtskhetisjvari**	**0.37**	**150**	PG		**Pg**	**14 04 31.5**	**+0.6**
DIGR	**Digorskoe uzhe**	**0.49**	**16**	*e*Pg		**Pg**	**14 04 32.5**	**-0.9**
DIGR				*e*Sg		**Sg**	**14 04 39.6**	**-0.2**
DIGR	**Digorskoe uzhe**	**0.49**	**16**	*e*PG		**Pg**	**14 04 32.5**	**-0.9**
LACR	**Lac**	**0.78**	**58**	*e*Pg		**Pg**	**14 04 37.5**	**-1.2**
LACR				*e*Sg		**Sg**	**14 04 47.7**	**-1.1**
LACR	**Lac**	**0.78**	**58**	*e*PG		**Pg**	**14 04 37.6**	**-1.2**
LACR				*e*S		**Sg**	**14 04 47.7**	**-1.1**
KORR	**Kora**	**0.83**	**36**	*e*Pg		**Pg**	**14 04 39.1**	**-0.6**
KORR				*e*Sg		**Sb**	**14 04 51.1**	**-1.2**
KORR	**Kora**	**0.83**	**36**	*e*PG		**Pg**	**14 04 39.1**	**-0.6**
KORR				*e*S		**Sb**	**14 04 51.2**	**-1.2**
LSNR	**Lesken**	**0.91**	**20**	*e*Pg		**Pg**	**14 04 40.6**	**-0.7**
LSNR				*e*Sg		**Sg**	**14 04 53.4**	**+0.3**
LSNR	**Lesken**	**0.91**	**20**	*e*PG		**Pg**	**14 04 40.6**	**-0.7**
LSNR				*e*S		**Sg**	**14 04 53.4**	**+0.3**
NEUR	**Neytrino**	**0.98**	**329**	*e*Pg		**Pg**	**14 04 42.6**	**-0.1**
NEUR				*e*Sg		**Sb**	**14 04 56.5**	**-0.5**
NEUR	**Neytrino**	**0.98**	**329**	*e*PG		**Pg**	**14 04 42.6**	**-0.1**
NEUR				*e*S		**Sb**	**14 04 56.5**	**-0.5**
ARNR	**Ardon**	**1.00**	**40**	*e*Pg		**Pg**	**14 04 43.1**	**+0.1**
ARNR				*e*Sg		**Sn**	**14 04 58.0**	**-1.3**
ARNR	**Ardon**	**1.00**	**40**	*e*PG		**Pg**	**14 04 43.1**	**+0.1**
ARNR				*e*S		**Sn**	**14 04 58.0**	**-1.3**
AKH	**Akhalkalaki**	**1.01**	**176**	P		**Pb**	**14 04 43.7**	**-0.4**
AKH				S		**Sn**	**14 04 58.9**	**-1.1**
AKH	**Akhalkalaki**	**1.01**	**176**	PG		**Pb**	**14 04 43.7**	**-0.4**
AKH				S		**Sn**	**14 04 58.8**	**-1.1**
TRLG	**Trialeti**	**1.03**	**149**	P		**Pg**	**14 04 43.6**	**+0.1**
TRLG				S		**Sn**	**14 04 58.9**	**-1.3**
TRLG	**Trialeti**	**1.03**	**149**	PG		**Pg**	**14 04 43.6**	**+0.1**
TRLG				S		**Sn**	**14 04 58.9**	**-1.3**
STDR	**Stavd-Durt**	**1.06**	**27**	*e*Pg		**Pg**	**14 04 44.1**	**-0.1**
STDR				*e*Sg		**Sn**	**14 05 01.0**	**+0.1**
STDR	**Stavd-Durt**	**1.06**	**27**	*e*PG		**Pg**	**14 04 44.1**	**-0.1**
STDR				*e*S		**Sn**	**14 05 01.0**	**+0.1**
NCK	**Nalchik**	**1.08**	**8**	*e*PG		**Pg**	**14 04 44.2**	**-0.4**
NCK				*e*S		**Sn**	**14 05 00.4**	**-1.0**
VLKR	**Vladikavkaz**	**1.13**	**56**	*e*Pg		**Pn**	**14 04 45.9**	**-0.6**
VLKR				*e*Sg		**Sn**	**14 05 02.5**	**0.0**
VLKR	**Vladikavkaz**	**1.13**	**56**	*e*PG		**Pn**	**14 04 45.9**	**-0.6**
VLKR				*e*S		**Sn**	**14 05 02.5**	**0.0**
CHRG	**Chargali**	**1.14**	**94**	P		**Pb**	**14 04 44.7**	**-1.4**
CHRG				S		**Sg**	**14 04 60.0**	**-0.4**
BGD	**Bogdanovka**	**1.17**	**173**	P		**Pg**	**14 04 46.5**	**+0.3**
BGD				S		**Sn**	**14 05 04.1**	**+0.4**
BGD	**Bogdanovka**	**1.17**	**173**	*e*Pg		**Pg**	**14 04 46.5**	**+0.3**
BGD				*e*Sg		**Sn**	**14 05 04.0**	**+0.4**
BGD	**Bogdanovka**	**1.17**	**173**	*e*PG		**Pg**	**14 04 46.5**	**+0.3**
BGD				*e*S		**Sn**	**14 05 04.1**	**+0.4**
TBLG	**Delisi**	**1.21**	**124**	P		**Pn**	**14 04 46.1**	**-1.6**
TBLG				S		**Sg**	**14 05 03.1**	**+0.3**
TBLG	**Delisi**	**1.21**	**124**	PG		**Pn**	**14 04 46.1**	**-1.6**
TBLG				S		**Sg**	**14 05 03.1**	**+0.3**
SEAG	**Tbilisi Sea**	**1.24**	**122**	P		**Pn**	**14 04 47.1**	**-0.9**
SEAG				S		**Sn**	**14 05 04.4**	**-0.8**
SEAG	**Tbilisi Sea**	**1.24**	**122**	PG		**Pn**	**14 04 47.1**	**-0.9**
SEAG				S		**Sn**	**14 05 04.4**	**-0.8**
KMGR	**Komgaron**	**1.25**	**59**	*e*PG		**Pg**	**14 04 50.0**	**+2.2**
KMGR				*e*S		**Sn**	**14 05 07.7**	**+2.1**
BTKR	**Batakoyurt**	**1.27**	**41**	*e*Pg		**Pg**	**14 04 50.2**	**+2.1**
BTKR				*e*Sg		**Sn**	**14 05 06.7**	**+0.8**
BTKR	**Batakoyurt**	**1.27**	**41**	*e*PG		**Pg**	**14 04 50.2**	**+2.1**
BTKR				*e*S		**Sn**	**14 05 06.7**	**+0.8**
KZRT	**Kazreti**	**1.28**	**144**	P		Pn	14 04 40.9	-7.7
KZRT				S		**Sb**	**14 04 58.6**	**-6.7**
KZRT	**Kazreti**	**1.28**	**144**	PG		Pn	14 04 40.9	-7.7
BTNK	**Botanikuri**	**1.28**	**125**	PG		**Pn**	**14 04 47.6**	**-1.0**
SHTL	**Shatili**	**1.32**	**79**	P		**Pn**	**14 04 48.2**	**-1.0**
SHTL	**Shatili**	**1.32**	**79**	PG		**Pn**	**14 04 48.2**	**-1.0**
KBZ	**Khabaz**	**1.35**	**344**	*e*Pg		**Pb**	**14 04 49.2**	**-0.6**
KBZ				*e*Sg		**Sg**	**14 05 07.5**	**+0.1**
KBZ	**Khabaz**	**1.35**	**344**	*e*PG		**Pg**	**14 04 50.2**	**+0.4**
KBZ				*e*S		**Sg**	**14 05 07.5**	**+0.1**
KBTC	**Kuba-Taba**	**1.39**	**0**	*e*Pg		**Pg**	**14 04 50.5**	**0.0**
KBTC				*e*Sg		**Sg**	**14 05 09.7**	**+1.1**
KBTC	**Kuba-Taba**	**1.39**	**0**	*e*PG		**Pg**	**14 04 50.5**	**0.0**
KBTC				*e*S		**Sg**	**14 05 09.7**	**+1.1**
SHA1	**Shidzhatmaz**	**1.42**	**338**	*e*Pg		**Pb**	**14 04 50.5**	**-0.6**
SHA1				*e*Sg		**Sg**	**14 05 09.3**	**+0.3**
SHA1	**Shidzhatmaz**	**1.42**	**338**	*e*PG		**Pg**	**14 04 51.0**	**-0.1**
SHA1				*e*S		**Sg**	**14 05 10.6**	**+1.1**
PRTR	**Priterechnaya**	**1.48**	**26**	*e*Pg		**Pg**	**14 04 52.7**	**+0.6**
PRTR				*e*Sg		**Sg**	**14 05 13.6**	**+2.3**
PRTR	**Priterechnaya**	**1.48**	**26**	*e*PG		**Pg**	**14 04 52.7**	**+0.6**
PRTR				*e*S		**Sg**	**14 05 13.6**	**+2.3**
BATM	**Batumi**	**1.51**	**238**	P		**Pb**	**14 04 52.3**	**-0.2**
BATM				S		**Sg**	**14 05 14.9**	**+2.6**
BATM	**Batumi**	**1.51**	**238**	PG		**Pb**	**14 04 52.3**	**-0.2**
BATM				S		**Sg**	**14 05 14.9**	**+2.6**
DOMR	**Dombai**	**1.57**	**304**	*e*Pg		**Pg**	**14 04 55.4**	**+1.5**
DOMR				*e*Sg		**Sg**	**14 05 14.7**	**+0.5**
DOMR	**Dombai**	**1.57**	**304**	*e*PG		**Pg**	**14 04 55.4**	**+1.5**
DOMR				*e*S		**Sg**	**14 05 14.7**	**+0.5**
KIV	**Kislovodsk**	**1.62**	**341**	*e*Pg		**Pb**	**14 04 53.8**	**-0.5**
KIV				*e*Sg		**Sg**	**14 05 16.5**	**+0.7**
KIV	**Kislovodsk**	**1.62**	**341**	*e*PG		**Pb**	**14 04 53.8**	**-0.5**
KIV				*e*S		**Sg**	**14 05 16.5**	**+0.7**
TRKR	**Terskaya**	**1.63**	**37**	*e*Pg		**Pg**	**14 04 54.6**	**-0.4**
TRKR				*e*Sg		**Sg**	**14 05 16.4**	**+0.3**
TRKR	**Terskaya**	**1.63**	**37**	*e*PG		**Pg**	**14 04 54.6**	**-0.4**
TRKR				*e*S		**Sg**	**14 05 16.4**	**+0.3**
BEYR	**Belyy Ugol+**	**1.64**	**345**	*e*Pg		**Pg**	**14 04 54.9**	**-0.4**
BEYR				*e*Sg		**Sg**	**14 05 16.8**	**+0.2**
BEYR	**Belyy Ugol+**	**1.64**	**345**	*e*PN		**Pg**	**14 04 54.9**	**-0.4**
BEYR				*e*S		**Sg**	**14 05 16.8**	**+0.2**
PYA1	**Pyatigorsk**	**1.65**	**352**	*e*Pg		**Pb**	**14 04 54.5**	**-0.4**
PYA1				*e*Sg		**Sg**	**14 05 16.7**	**-0.2**
PYA1	**Pyatigorsk**	**1.65**	**352**	*e*PN		**Pb**	**14 04 54.5**	**-0.4**
PYA1				*e*S		**Sg**	**14 05 16.7**	**-0.2**
GROC	**Groznyy**	**1.93**	**65**	*e*PN		**Pb**	**14 04 59.1**	**-0.5**
GROC				*e*S		**Sg**	**14 05 29.4**	**+3.6**
DVE	**Vedeno**	**2.08**	**74**	*e*PN		**Pg**	**14 05 03.8**	**+0.1**
BTLR	**Botlikh**	**2.10**	**82**	*e*Pg		**Pb**	**14 05 02.8**	**+0.2**
BTLR				*e*Sg		**Sg**	**14 05 32.9**	**+1.6**
BTLR	**Botlikh**	**2.10**	**82**	*e*PN		**Pb**	**14 05 02.8**	**+0.2**
BTLR				*e*S		**Sg**	**14 05 32.9**	**+1.6**
LGD	**Lagodekhi**	**2.20**	**105**	P		**Pb**	**14 05 03.1**	**-1.0**
LGD				S		**Sb**	**14 05 32.3**	**+0.6**
LGD	**Lagodekhi**	**2.20**	**105**	PN		**Pb**	**14 05 03.1**	**-1.0**
LGD				S		**Sb**	**14 05 32.3**	**+0.6**
TLTR	**Tlyarata**	**2.22**	**97**	*e*Pg		**Pb**	**14 05 04.0**	**-0.6**
TLTR				*e*Sg		**Sb**	**14 05 33.2**	**+0.8**
TLTR	**Tlyarata**	**2.22**	**97**	*e*PN		**Pb**	**14 05 04.0**	**-0.6**
TLTR				*e*S		**Sb**	**14 05 33.2**	**+0.8**
DDFL	**Dedoflistskaro**	**2.25**	**115**	P		**Pb**	**14 05 05.9**	**+0.8**
DDFL	**Dedoflistskaro**	**2.25**	**115**	PN		**Pb**	**14 05 05.9**	**+0.8**
XNZR	**Khunzakh**	**2.45**	**86**	*e*Pn		**Pb**	**14 05 09.3**	**+0.8**
XNZR				*e*Sn		**Sg**	**14 05 40.8**	**-1.7**
HNZR	**Khunzah**	**2.46**	**86**	*e*PN		**Pb**	**14 05 09.3**	**+0.6**
HNZR				*e*S		**Sb**	**14 05 40.8**	**+1.4**
GNI	**Garni**	**2.49**	**156**	*e*Pn		**Pg**	**14 05 10.4**	**-1.1**
GNI	**Garni**	**2.49**	**156**	*e*PN		**Pg**	**14 05 10.4**	**-1.1**
UNCR	**Uncukul**	**2.52**	**82**	*e*PN		**Pb**	**14 05 10.1**	**+0.3**
UNCR				*e*S		**Sb**	**14 05 42.7**	**+1.5**
DBC	**Dubki**	**2.60**	**76**	*e*Pn		**Pb**	**14 05 11.6**	**+0.5**
DBC	**Dubki**	**2.60**	**76**	PN		**Pb**	**14 05 11.3**	**+0.3**
DBC				S		**Sg**	**14 05 46.0**	**-1.3**
KRNR	**Karanay**	**2.62**	**80**	*e*Pn		**Pb**	**14 05 12.3**	**+0.8**
KRNR	**Karanay**	**2.62**	**80**	*e*PN		**Pb**	**14 05 12.2**	**+0.8**
KRNR				*e*S		**Sg**	**14 05 47.6**	**-0.4**
KRNR				pmax		pmax		
	comp=Z,17nm,0.4s							
RPOR	**Krasnaya Polya**	**2.63**	**300**	*e*Pn		**Pb**	**14 05 10.3**	**-1.2**
RPOR				*e*Sn		**Sb**	**14 05 42.0**	**-2.1**
RPOR	**Krasnaya Polya**	**2.63**	**300**	*e*PN		**Pb**	**14 05 10.3**	**-1.2**
RPOR				*e*S		**Sb**	**14 05 42.0**	**-2.1**
GNBR	**Gunib**	**2.64**	**90**	*e*Pn		**Pg**	**14 05 13.2**	**-1.2**
GNBR	**Gunib**	**2.64**	**90**	PN		**Pb**	**14 05 10.9**	**-0.9**
GNBR				S		**Sb**	**14 05 45.7**	**+1.1**
ARKR	**Arakani**	**2.67**	**85**	*e*Pn		**Pb**	**14 05 12.3**	**+0.2**
ARKR				*e*Sn		**Sb**	**14 05 46.3**	**+1.0**
ARKR	**Arakani**	**2.67**	**85**	*e*PN		**Pb**	**14 05 12.4**	**+0.2**
ARKR				*e*S		**Sb**	**14 05 46.3**	**+1.0**
VSLR	**Vesyoloye**	**2.68**	**294**	*e*PN		**Pg**	**14 05 14.5**	**-0.7**
VSLR				*e*S		**Sg**	**14 05 49.3**	**-0.6**
KMKR	**Kumukh**	**2.76**	**95**	*e*Pn		**Pb**	**14 05 13.0**	**-0.9**
KMKR				*e*Sn		**Sb**	**14 05 48.8**	**+0.6**
KMKR	**Kumukh**	**2.76**	**95**	*e*PN		**Pb**	**14 05 13.0**	**-0.9**
KMKR				*e*S		**Sb**	**14 05 48.8**	**+0.6**
GANJ	**Ganja**	**2.82**	**128**	PN		**Pn**	**14 05 11.6**	**+1.8**
GUZR	**Guzeripl'**	**2.87**	**304**	*e*Pn		**Pb**	**14 05 13.5**	**-2.1**
GUZR				*e*Sn		**Sb**	**14 05 49.1**	**-2.0**
GUZR	**Guzeripl'**	**2.87**	**304**	*e*PN		**Pb**	**14 05 13.5**	**-2.1**
GUZR				*e*S		**Sb**	**14 05 49.1**	**-2.0**
SOC	**Sochi**	**2.94**	**294**	*e*PN		**Pn**	**14 05 12.2**	**+0.8**
SOC				*e*			14 05 18.8	
SOC				*e*PPP		PPP	14 05 22.8	
SOC				*e*		**Sn**	**14 05 48.6**	**+1.5**
SOC				MLR		MLR		
	comp=Z,36nm,6.0s							
SOC	**Sochi**	**2.94**	**294**	*e*PN		**Sn**	**14 05 48.6**	**+1.5**
LABN	**Labinsk**	**2.95**	**320**	*e*PN		**Pb**	**14 05 16.5**	**-0.5**
LABN				*e*S		**Sn**	**14 05 47.0**	**-0.4**
LABN				pmax		pmax		
	comp=Z,19nm,0.6s							
SEKA	**Sheki**	**3.09**	**112**	PN		**Pb**	**14 05 16.7**	**-2.7**

DOMR	**Dombai**	**1.55**	**304**	*e*PG	Pn	14 05 17.8	-11
DOMR				*e*S	**Sg**	**14 05 51.8**	**+0.9**
KIV	**Kislovodsk**	**1.61**	**342**	*e*Sg	**Sb**	**14 05 51.8**	**+0.2**
TRKR	**Terskaya**	**1.63**	**37**	*e*Pg	**Pb**	**14 05 31.2**	**-0.1**
TRKR				*e*Sg	**Sg**	**14 05 53.7**	**+0.5**
TRKR	**Terskaya**	**1.63**	**37**	*e*PN	**Pb**	**14 05 31.2**	**-0.1**
TRKR				*e*S	**Sg**	**14 05 53.7**	**+0.5**
BEYR	**Belyy Ugol+**	**1.64**	**346**	*e*Pg	**Pn**	**14 05 29.7**	**-0.5**
BEYR				*e*Sg	**Sg**	**14 05 52.8**	**-0.6**
BEYR	**Belyy Ugol+**	**1.64**	**346**	*e*PG	**Pn**	**14 05 29.7**	**-0.5**
BEYR				*e*S	**Sg**	**14 05 52.8**	**-0.6**
PYA1	**Pyatigorsk**	**1.65**	**353**	*e*Pg	**Pn**	**14 05 30.3**	**-0.1**
PYA1				*e*Sg	**Sb**	**14 05 53.0**	**+0.4**
PYA1	**Pyatigorsk**	**1.65**	**353**	*e*PN	**Pn**	**14 05 30.3**	**-0.1**
PYA1				*e*S	**Sb**	**14 05 53.0**	**+0.4**
GROC	**Groznyy**	**1.94**	**66**	*e*Pg	**Pg**	**14 05 37.8**	**-0.2**
GROC				*e*Sg	**Sg**	**14 06 05.2**	**+2.1**
GROC	**Groznyy**	**1.94**	**66**	*e*PN	**Pg**	**14 05 37.8**	**-0.2**
GROC				*e*S	**Sg**	**14 06 05.2**	**+2.1**
DVE	**Vedeno**	**2.09**	**74**	*e*PN	**Pg**	**14 05 40.4**	**-0.5**
DVE				*e*S	**Sg**	**14 06 07.9**	**-0.1**
BTLR	**Botlikh**	**2.11**	**83**	*e*PN	**Pg**	**14 05 40.6**	**-0.7**
BTLR				*e*S	**Sg**	**14 06 07.8**	**-0.9**
TLTR	**Tlyarata**	**2.23**	**97**	*e*Pn	**Pn**	**14 05 39.8**	**+1.3**
TLTR				*e*Sn	**Sb**	**14 06 09.1**	**-0.4**
TLTR	**Tlyarata**	**2.23**	**97**	*e*PN	**Pn**	**14 05 39.8**	**+1.3**
TLTR				*e*S	**Sb**	**14 06 09.1**	**-0.4**
DDFL	**Dedoflistskaro**	**2.27**	**115**	P	**Pb**	**14 05 42.5**	**+0.3**
DDFL	**Dedoflistskaro**	**2.27**	**115**	PN	**Pb**	**14 05 42.5**	**+0.3**
GNI	**Garni**	**2.50**	**155**	*e*Pn	**Pb**	**14 05 46.7**	**+0.5**
GNI				*e*Sn	**Sg**	**14 06 20.8**	**-0.3**
GNI	**Garni**	**2.50**	**155**	*e*PN	**Pb**	**14 05 46.7**	**+0.5**
GNI				*e*S	**Sg**	**14 06 20.8**	**-0.3**
UNCR	**Uncukul**	**2.54**	**82**	*e*Pn	**Pb**	**14 05 46.7**	**-0.1**
UNCR				*e*Sn	**Sb**	**14 06 18.6**	**+0.4**
UNCR	**Uncukul**	**2.54**	**82**	*e*PN	**Pb**	**14 05 46.7**	**-0.1**
UNCR				*e*S	**Sb**	**14 06 18.6**	**+0.4**
KRNR	**Karanay**	**2.63**	**80**	*e*Pn	**Pb**	**14 05 49.0**	**+0.5**
KRNR				*e*Sn	**Sb**	**14 06 22.6**	**+1.6**
KRNR	**Karanay**	**2.63**	**80**	*e*PN	**Pb**	**14 05 49.0**	**+0.5**
KRNR				*e*S	**Sb**	**14 06 22.6**	**+1.6**
GNBR	**Gunib**	**2.65**	**90**	*e*PN	**Pb**	**14 05 49.0**	**+0.2**
GNBR				*e*S	**Sb**	**14 06 20.9**	**-0.7**
VSLR	**Vesyoloye**	**2.67**	**294**	*e*Pn	**Pb**	**14 05 47.5**	**-1.5**
VSLR				*e*Sn	**Sb**	**14 06 20.3**	**-1.7**
VSLR	**Vesyoloye**	**2.67**	**294**	*e*PN	**Pb**	**14 05 47.5**	**-1.5**
VSLR				*e*S	**Sb**	**14 06 20.3**	**-1.7**
ARKR	**Arakani**	**2.68**	**85**	*e*Pn	**Pb**	**14 05 50.0**	**+0.8**
ARKR				*e*Sn	**Sb**	**14 06 20.5**	**-1.8**
ARKR	**Arakani**	**2.68**	**85**	*e*PN	**Pb**	**14 05 50.0**	**+0.8**
ARKR				*e*S	**Sb**	**14 06 20.5**	**-1.8**
SOC	**Sochi**	**2.93**	**294**	*e*	**Pg**	**14 05 57.0**	**+0.1**
SOC				*e*		14 06 24.5	
SOC				*e*		14 06 26.5	
SOC				pmax	pmax		
	comp=Z,25nm,0.6s						
SOC				MLR	MLR		
	comp=Z,36nm,6.0s						
LABN	**Labinsk**	**2.94**	**320**	*e*PN	**Pn**	**14 05 48.9**	**+0.9**
LABN				pmax	pmax		
	comp=Z,39nm,0.7s						
AKT	**Akhty**	**3.38**	**105**	*e*Pn	**Pn**	**14 05 56.9**	**+2.7**
AKT	**Akhty**	**3.38**	**105**	*e*PN	**Pn**	**14 05 56.9**	**+2.7**
ERBR	**Yeremizino-Bor**	**3.89**	**329**	*e*PN	**Pn**	**14 06 02.7**	**+1.5**
ERBR				pmax	pmax		
	comp=Z,18nm,0.7s						

*IDC **04** 14:21:30.7±6.3,36°.20N×140°.12E,h56km±48km,mb3.3/5, mbtmp3.6/5,Error ellipse: s-maj=58.2km s-min=22.8km az=63.0*
*JMA **04** 14:21:31.6±0.1,36°.1N±0°.2×139°.9E±0°.2,h46km,MV3.3/40, SW IBARAKI PREF*
JMA Felt I J1 at SW IBARAKI PREF .
ISC 04 14:21:31.0±1.0,36°.05N±0°.05×139°.95E±0°.06,h49km±9km, n15,σ0°.80/21,mb3.5/5,6D,Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JYT	**Yasato**	**0.27**	**48**	P	**Pn**	**14 21 40.1**	**+0.3**
JYT				S	**Sn**	**14 21 46.0**	**0.0**
JAG	**Ashikaga**	**0.55**	**313**	⇓P	**Pn**	**14 21 43.0**	**+0.1**
JAG				⇓S	**Sn**	**14 21 51.1**	**-0.2**
JRY	**Ryogami san**	**0.85**	**268**	⇓P	**Pn**	**14 21 46.7**	**-0.1**
JRY				⇓S	**Sn**	**14 21 57.4**	**-0.8**
JKT	**Katashina**	**0.91**	**322**	⇓P	**Pn**	**14 21 47.6**	**-0.1**
JOD2	**Odawara 2**	**1.05**	**222**	*e*P	**Pn**	**14 21 50.0**	**+0.5**
JOD2				*e*S	**Sn**	**14 22 03.2**	**+0.1**
JYN	**Shimob**	**1.27**	**245**	P	**Pn**	**14 21 53.4**	**+1.0**
BSO3	**Boso 3**	**1.33**	**160**	P	**Pn**	**14 21 53.4**	**+0.4**
JUON	**Uonuma**	**1.36**	**328**	P	**Pn**	**14 21 54.1**	**+0.5**
JUON				*e*S	**Sn**	**14 22 11.7**	**+1.1**
JFY	**Yanaizu**	**1.37**	**352**	⇓P	**Pn**	**14 21 54.6**	**+0.8**
MJAR	**Matsushiro Arr**	**1.49**	**290**	P	**Pn**	**14 21 55.8**	**+0.4**
	33nm,0.3s,baz=97,slow=8.8,SNR=186						
MJAR				S	**Sn**	**14 22 15.1**	**+1.4**
	20nm,0.3s,baz=78,slow=18,SNR=4.3						
ZALV	**Zalesovo Beam**	**41.72**	**313**	P	**P**	**14 29 14.2**	**-0.6**
	1.2nm,0.6s,baz=96,slow=9.1,SNR=4.9						
	1.2nm,0.6s						
MKAR	**Makanchi Array**	**43.65**	**303**	P	**P**	**14 29 29.6**	**-1.0**
	0.4nm,0.6s,baz=80,slow=7.9,SNR=2.2						
	0.4nm,0.6s						
KURBB	**Kurchatov Arra**	**45.68**	**309**	P	**P**	**14 29 45.7**	**-1.1**
	1.0nm,0.4s,baz=84,slow=8.2,SNR=5.5						
	1.0nm,0.4s						
WRA	**Warramunga Arr**	**55.94**	**186**	P	**P**	**14 31 03.5**	**-0.7**
	0.2nm,0.5s,baz=3.3,slow=7.2,SNR=7.7						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**59.67**	**186**	P	**P**	**14 31 31.4**	**+1.1**
	0.3nm,0.9s,baz=9.9,slow=7.1,SNR=1.6						
	0.3nm,0.9s						

*KRSZO **04** 14:33:19.6±1.0,47°.28N×23°.37E,h8km±12km,ML2.6/13, Error ellipse: s-maj=7.7km s-min=7.3km az=4.0*
*BUC **04** 14:33:20.1±0.2,47°.31N×23°.45E,h2km,ml2.2/12,Error ellipse: s-maj=1.6km s-min=1.3km az=136.0*
ISC 04 14:33:20.2±1.0,47°.31N±0°.02×23°.41E±0°.03,h11km±9km, n28,σ0°.78/42,15C-7D,Romania

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MESR	**Meseseni**	**0.35**	**243**	⇓P	**Pg**	**14 33 27.1**	**0.0**
MESR				⇓S	**Sg**	**14 33 32.2**	**+0.4**
MESR				AML	AML		
MESR				AML	AML		
BMR	**Baia Mare**	**0.37**	**9**	Pg	**Pg**	**14 33 27.5**	**0.0**
BMR				Lg	Lg	14 33 32.1	
BMR				AML	AML		
BMR	**Baia Mare**	**0.37**	**9**	⇑P	**Pg**	**14 33 27.5**	**0.0**
BMR				⇓S	**Sg**	**14 33 32.1**	**-0.3**
BMR				AML	AML		
BMR				AML	AML		
CJR	**Cluj-Napoca**	**0.61**	**168**	Pg	**Pg**	**14 33 31.8**	**-0.2**
CJR				Lg	Lg	14 33 39.8	
CJR				AML	AML		
CJR	**Cluj-Napoca**	**0.61**	**168**	⇓P	**Pg**	**14 33 31.8**	**-0.2**
CJR				⇓S	**Sg**	**14 33 39.9**	**-0.1**
CJR				AML	AML		
CJR				AML	AML		
ARCR	**ARCALIA**	**0.68**	**109**	Pg	**Pg**	**14 33 33.5**	**+0.1**
ARCR				Lg	Lg	14 33 43.0	
ARCR				AML	AML		
ARCR	**ARCALIA**	**0.68**	**109**	⇑P	**Pg**	**14 33 33.2**	**-0.2**
ARCR				⇓S	**Sg**	**14 33 42.3**	**0.0**
ARCR				AML	AML		
ARCR				AML	AML		
DRGR		**0.70**	**223**	Pg	**Pg**	**14 33 33.4**	**-0.4**
DRGR				Lg	Lg	14 33 42.1	
DRGR				AML	AML		
DRGR		**0.70**	**223**	⇑P	**Pb**	**14 33 34.6**	**+0.1**
DRGR				AML	AML		
TRPA	**Tarpa**	**1.01**	**325**	Pn	**Pg**	**14 33 39.5**	**-0.1**
TRPA				Lg	Lg	14 33 52.8	
TRPA				AML	AML		
BURAR	**Bucovina Array**	**1.26**	**75**	⇑P	**Pg**	**14 33 43.5**	**-1.0**
BURAR				⇑S	**Sg**	**14 34 00.1**	**-0.7**
MDB	**Medias**	**1.34**	**150**	⇑S	**Sn**	**14 34 04.0**	**+1.3**
MDB				AML	AML		
DEV	**Deva**	**1.47**	**194**	Sn	**Sb**	**14 34 05.6**	**-0.5**
SIRR	**Siria**	**1.59**	**230**	Pg	**Pb**	**14 33 49.8**	**+0.2**
SIRR				Sn	**Sn**	**14 34 09.6**	**+0.8**
SIRR				AML	AML		
SIRR	**Siria**	**1.59**	**230**	⇑P	**Pb**	**14 33 49.6**	**0.0**
SIRR				AML	AML		
ABAH	**Abaujker**	**1.77**	**305**	Pn	**Pn**	**14 33 50.0**	**-0.6**
ABAH				Sn	**Sn**	**14 34 11.1**	**-2.0**
ABAH				AML	AML		
SURR	**Surduc**	**1.79**	**210**	⇑P	**Pb**	**14 33 52.5**	**-0.4**
SURR				⇓S	**Sb**	**14 34 16.0**	**+0.6**
KOLS	**Kolonicke sedl**	**1.79**	**335**	Pg	**Pb**	**14 33 53.9**	**+0.9**
KOLS	**Kolonicke sedl**	**1.79**	**335**	*e*PG	**Pg**	**14 33 55.2**	**+0.6**
KOLS				*e*SG	**Sg**	**14 34 18.8**	**+1.0**
KOLS				eLG	Lg	14 34 22.2	
LOT	**Lotru**	**1.88**	**172**	Pg	**Pb**	**14 33 54.3**	**-0.2**
LOT				Sn	**Sb**	**14 34 18.1**	**+0.1**
LOT				AML	AML		
LOT	**Lotru**	**1.88**	**172**	⇑P	**Pb**	**14 33 54.1**	**-0.4**
LOT				⇑S	**Sb**	**14 34 18.4**	**+0.4**
LOT				AML	AML		
LOT				AML	AML		
GZR	**Gura Zlata**	**1.97**	**193**	Pg	**Pb**	**14 33 56.5**	**+0.5**
GZR				Lg	Lg	14 34 21.6	
GZR				AML	AML		
GZR	**Gura Zlata**	**1.97**	**193**	⇑S	**Sg**	**14 34 21.7**	**-1.6**
GZR				AML	AML		
BZS	**Buzias**	**2.10**	**217**	Lg	Lg	14 34 25.4	
BZS	**Buzias**	**2.10**	**217**	⇑P	**Pn**	**14 33 56.1**	**+0.9**
BZS				⇑S	**Sb**	**14 34 24.1**	**-0.1**
VOIR		**2.19**	**148**	⇓P	**Pn**	**14 33 58.1**	**+1.5**
VOIR				⇑S	**Sb**	**14 34 25.8**	**-1.1**
KECS	**Kecovo**	**2.29**	**302**	Pn	**Pn**	**14 33 58.5**	**+0.6**
KECS				Sn	**Sn**	**14 34 24.8**	**-1.3**
KECS				AML	AML		
KECS	**Kecovo**	**2.29**	**302**	*e*PG	**Pn**	**14 33 57.9**	**0.0**
KECS				*e*SG	**Sn**	**14 34 24.8**	**-1.3**

*AFAD **04** 16:17:14.5,37°.85N×26°.81E,h7km±2km,ML2.2*
*ISK **04** 16:17:14.9,37°.88N×26°.85E,h5km,ML2.3/10*
*THE **04** 16:17:15.6,38°.N±1°×2°.7E±°,h3km±2km,M2.7/5,MLh2.7/5*
ISC 04 16:17:15.3±0.9,37.89N±0°.02×26.86E±0°.03,h10km±8km, n19,σ0°.43/32,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.16**	**8**	P	**Pg**	**16 17 19.0**	**+0.2**
DGB				IAML		16 17 21.0	
	comp=N,367nm,0.3s						
DGB				S	**Sg**	**16 17 21.0**	**-0.3**
SMG	**Samos**	**0.19**	**185**	P	**Pg**	**16 17 19.2**	**-0.1**
SMG				S	**Sg**	**16 17 21.9**	**-0.1**
SMG				AML	AML		
BEYE	**izmir**	**0.34**	**10**	P	**Pg**	**16 17 22.2**	**+0.1**
BEYE				IAML		16 17 28.0	
	comp=E,265nm,0.1s						
BEYE				S	**Sb**	**16 17 28.1**	**-0.8**
GCAM	**G?zelcaml?**	**0.36**	**123**	P	**Pg**	**16 17 22.4**	**-0.1**
GCAM				S	**Sg**	**16 17 27.6**	**+0.5**
GCAM				IAML		16 17 28.0	
	comp=E,245nm,0.2s						
GCAM	**G?zelcaml?**	**0.36**	**123**	Pg	**Pg**	**16 17 22.3**	**-0.1**
GCAM				Sg	**Sg**	**16 17 27.8**	**+0.7**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.44**	**321**	P	**Pg**	**16 17 23.9**	**-0.2**
ZEYE				S	**Sg**	**16 17 30.1**	**+0.2**
ZEYE				IAML		16 17 31.0	
	comp=N,268nm,0.3s						
BLCB	**Balcova**	**0.51**	**17**	P	**Pg**	**16 17 25.4**	**+0.1**
BLCB				S	**Sg**	**16 17 32.8**	**+0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**17**	Pg	**Pg**	**16 17 25.6**	**+0.3**
BLCB				Sg	**Sb**	**16 17 33.4**	**-0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**55**	P	**Pg**	**16 17 26.3**	**-0.1**
CHOS	**Chios island**	**0.80**	**308**	P	**Pb**	**16 17 31.3**	**-0.1**
CHOS				S	**Sb**	**16 17 42.6**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.80**	**308**	Pg	**Pb**	**16 17 31.1**	**-0.3**
CHOS				Sg	**Sb**	**16 17 42.8**	**+0.5**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**86**	Pg	**Pb**	**16 17 31.3**	**-0.4**
AYDB				Sg	**Sb**	**16 17 43.2**	**+0.3**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.84**	**156**	Pg	**Pb**	**16 17 31.4**	**-0.6**
YKAV				AML	AML		
BODT	**Bodrum**	**0.91**	**156**	P	**Pb**	**16 17 32.6**	**-0.5**
BODT				S	**Sb**	**16 17 46.1**	**+0.8**
BODT	**Bodrum**	**0.91**	**156**	Pg	**Pb**	**16 17 32.5**	**-0.6**
BODT				Sg	**Sb**	**16 17 45.5**	**+0.3**
BODT				AML	AML		
MLSB	**Milas**	**0.94**	**129**	Pg	**Pb**	**16 17 33.4**	**-0.4**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.14**	**86**	Pn	**Pb**	**16 17 37.1**	**0.0**
DAT	**Datca**	**1.30**	**153**	Pn	**Pb**	**16 17 39.9**	**0.0**
DAT				AML	AML		
YER	**Yerkesik**	**1.36**	**123**	Pn	**Pg**	**16 17 41.3**	**-0.2**

*NEIC **04** 16:26:13.2±1.5,18°.2N±0°.1×64°.26W±0°.03,h10km±2km, ML3.0/22,Md3.5/6(RSPR),Error ellipse: s-maj=20.8km s-min=4.5km az=189.0*
*RSPR **04** 16:26:16.3,17°.87N×64°.25W,h6km±3km,MD3.5/6*
ISC 04 16:26:11.6±0.9,18°.2N±0°.1×64°.24W±0°.03,h10km,n25, σ1°.44/35,11C,Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SABA	**Saba**	**1.09**	**119**		**Pn**	**16 26 33.9**	**+1.0**
SABA				Sg	**Sn**	**16 26 50.3**	**+2.3**
SABA	**Saba**	**1.09**	**119**	⇑eP	**Pg**	**16 26 30.3**	**-2.2**
SABA				*e*S	**Sb**	**16 26 46.5**	**-0.2**
SMRT	**St. Maarten**	**1.11**	**95**		**Pn**	**16 26 34.9**	**+1.6**
SMRT					**Sn**	**16 26 50.3**	**+1.7**
SMRT	**St. Maarten**	**1.11**	**95**	⇑eP	**Pb**	**16 26 31.7**	**-1.2**
SMRT				*e*S	**Sn**	**16 26 50.9**	**+2.3**
HUMP	**Col San Antoni**	**1.53**	**270**	Pn	**Pb**	**16 26 39.6**	**-0.5**
HUMP				IAML		16 27 02.8	
	159nm,0.3s						
HUMP				IAML		16 27 07.1	
	140nm,0.2s						
HUMP	**Col San Antoni**	**1.53**	**270**	⇑eP	**Pg**	**16 26 41.2**	**+0.1**
PDPR	**Patillas Dam,**	**1.70**	**266**	Pn	**Pb**	**16 26 42.5**	**-0.5**
PDPR	**Patillas Dam,**	**1.70**	**266**	⇑eP	**Pb**	**16 26 43.1**	**+0.1**
GCPR	**Guaynabo City**	**1.76**	**275**	Pn	**Pb**	**16 26 43.1**	**-0.9**
GCPR				IAML		16 27 08.5	
	79nm,0.7s						
IGPR	**InterUniversit**	**1.79**	**264**		**Pb**	**16 26 44.2**	**-0.2**
IGPR					**Sb**	**16 27 06.2**	**-0.8**
IGPR	**InterUniversit**	**1.79**	**264**	⇑eP	**Pb**	**16 26 44.2**	**-0.2**
SJG	**San Juan**	**1.82**	**269**	Pn	**Pb**	**16 26 44.8**	**-0.2**
SJG				IAML		16 27 12.3	
	80nm,0.3s						
SJG				IAML		16 27 14.5	
	103nm,0.4s						
SJG	**San Juan**	**1.82**	**269**	⇑eP	**Pg**	**16 26 45.8**	**-0.7**
ECPR	**Experimental S**	**2.03**	**275**	Pn	**Pb**	**16 26 47.1**	**-1.4**
ECPR				IAML		16 27 16.3	
	198nm,0.2s						
ECPR				IAML		16 27 23.5	
	180nm,0.3s						
ECPR	**Experimental S**	**2.03**	**275**	⇑eP	**Pb**	**16 26 48.4**	**-0.1**
EMPR	**Esperanza - Ma**	**2.20**	**279**		**Pb**	**16 26 50.0**	**-1.5**
EMPR					**Sb**	**16 27 17.5**	**-1.3**
EMPR	**Esperanza - Ma**	**2.20**	**279**	⇑eP	**Pb**	**16 26 50.0**	**-1.5**
EMPR				*e*S	**Sb**	**16 27 17.5**	**-1.3**
CELP	**Cerrillos**	**2.23**	**268**	Pn	**Pn**	**16 26 48.6**	**-0.1**
AOPR	**Arecibo Observ**	**2.40**	**275**	Pn	**Pn**	**16 26 52.5**	**+1.6**
AOPR					**Pb**	**16 26 53.0**	**-1.9**
AOPR				IAML		16 27 30.5	
	181nm,0.4s						
AOPR	**Arecibo Observ**	**2.40**	**275**	⇑eP	**Pb**	**16 26 55.1**	**+0.2**
MLPR	**Magueyes Islan**	**2.68**	**266**	Pn	**Pn**	**16 26 55.9**	**+1.2**
LSP	**Las Mesas**	**2.71**	**271**		**Pb**	**16 26 57.6**	**-2.5**
LSP					**Sn**	**16 27 29.9**	**+1.8**
LSP	**Las Mesas**	**2.71**	**271**	⇑eP	**Pb**	**16 26 57.6**	**-2.5**
LSP				*e*S	**Sn**	**16 27 29.9**	**+1.8**
CRPR	**Cabo Rojo, PR**	**2.74**	**267**	Pn	**Pn**	**16 26 56.2**	**+0.6**
CRPR	**Cabo Rojo, PR**	**2.74**	**267**	⇑eP	**Pn**	**16 26 57.2**	**+1.7**

*IDC **04** 16:38:04.1±2.2,21°.21S×178°.32W,h474km±21km,mb2.8/6, mbtmp3.7/8,Error ellipse: s-maj=33.9km s-min=22.4km az=140.0*
ISC 04 16:38:05.6±0.8,21°.2S±0°.2×178°.5W±0°.2,h500km,n13, σ1°.36/15,mb3.2/6,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.73**	**316**	P	**P**	**16 39 29.1**	**-1.3**
	19nm,0.5s,baz=132,slow=8.3,SNR=26						
URZ	**Urewera**	**17.45**	**192**	P	**P**	**16 41 39.1**	**-1.6**
	2.4nm,0.5s,baz=15,slow=18,SNR=1.1						
ASAR	**Alice Springs**	**43.93**	**257**	P	**P**	**16 45 29.2**	**+1.4**
	0.3nm,0.7s,baz=94,slow=8.6,SNR=2.5						
ASAR				PcP	**pwP**	**16 47 05.7**	**+1.4**
	0.4nm,0.7s,baz=93,slow=3.3,SNR=6.1						
	0.3nm,0.7s						
WRA	**Warramunga Arr**	**44.06**	**263**	P	**P**	**16 45 30.0**	**+1.1**
	0.4nm,0.8s,baz=96,slow=7.7,SNR=8.3						
WRA				PcP	**pwP**	**16 47 06.2**	**+1.0**
	0.3nm,0.8s,baz=101,slow=4.0,SNR=2.0						
	0.4nm,0.8s						
TXAR	**Lajitas Array**	**87.80**	**57**	P	**P**	**16 50 02.4**	**+0.9**
	0.3nm,0.8s,baz=235,slow=4.4,SNR=3.6						
	0.3nm,0.8s						
ILAR	**Eielson Array**	**89.06**	**13**	P	**P**	**16 50 06.6**	**+0.1**
	0.2nm,0.4s,baz=217,slow=5.0,SNR=5.9						
	0.2nm,0.4s						
PDAR	**Pinedale Array**	**89.76**	**43**	P	**P**	**16 50 11.2**	**+0.8**
	0.5nm,0.8s,baz=234,slow=4.3,SNR=2.4						
	0.5nm,0.8s						
CMAR	**Chiang Mai Arr**	**89.91**	**290**	P	**P**	**16 50 11.5**	**0.0**
	0.6nm,0.7s,baz=115,slow=2.8,SNR=4.8						
	0.6nm,0.7s						
BVAR	**Borovoye Array**	**119.30**	**320**	PKP	**PKiKP**	**16 55 58.1**	**+0.6**
	0.6nm,0.4s,baz=90,slow=2.6,SNR=5.3						
AKASG	**Malin Array Be**	**143.37**	**330**	PKP	**PKPdf**	**16 56 41.7**	**-0.8**
	2.1nm,0.5s,baz=44,slow=4.2,SNR=12						
BRTR	**Keskin Array B**	**146.94**	**311**	PKPbc	**PKiKP**	**16 56 51.8**	**-2.2**
	0.4nm,0.6s,baz=85,slow=3.3,SNR=2.0						
MMAI	**Mount Meron Ar**	**147.74**	**299**	PKPbc	**PKPab**	**16 56 56.3**	**-2.0**
	1.1nm,0.8s,baz=59,slow=5.6,SNR=1.6						
GERES	**GERESS Array B**	**150.72**	**343**	PKPbc	**PKiKP**	**16 57 02.2**	**+0.8**
	0.3nm,0.3s,baz=17,slow=5.8,SNR=2.1						

*IDC **04** 16:38:40.2±2.0,29°.48N×80°.58E,h0km,mb3.5/5, mbtmp3.5/6,ML3.4/1,Error ellipse: s-maj=85.8km s-min=23.7km az=66.0*
ISC 04 16:38:43.4±1.8,29°.6N±0°.2×80°.7E±0°.4,h19km,n6,σ0°.80/6, mb3.4/5,Nepal-India border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**17.25**	**4**	P	**Pn**	**16 42 42.5**	**-0.8**
	0.1nm,0.3s,baz=198,slow=13,SNR=5.0						
	0.7nm,0.8s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**21.10**	**356**	P	**P**	**16 43 26.9**	**+0.3**
	0.3nm,0.4s,baz=183,slow=10,SNR=4.7						
	0.3nm,0.4s						
ZALV	**Zalesovo Beam**	**24.56**	**6**	P	**P**	**16 44 02.9**	**+1.1**
	0.7nm,0.4s,baz=187,slow=7.8,SNR=2.2						
	0.7nm,0.4s						
FINES	**FINESS Array B**	**47.69**	**328**	P	**P**	**16 47 18.3**	**-0.1**
	2.0nm,0.8s,baz=104,slow=7.9,SNR=1.4						
	2.0nm,0.8s						
WRA	**Warramunga Arr**	**71.40**	**127**	P	**P**	**16 50 02.6**	**0.0**
	0.3nm,0.8s,baz=321,slow=6.0,SNR=6.1						
	0.3nm,0.8s						
ASAR	**Alice Springs**	**73.62**	**130**	P	**P**	**16 50 15.6**	**-0.2**
	0.2nm,0.8s,baz=309,slow=6.6,SNR=1.6						
	0.2nm,0.8s						

*NOU **04** 16:46:07.5,40°.87S×176°.22E,h36km,MLv3.8/15,North Island, New Zealand*
*WEL **04** 16:46:08.4±0.5,41°.S±2°×17°.6E±°,h7km±3km,M3.7/18, ML3.7/18,MLv3.7/18,Error ellipse: s-maj=2.8km s-min=1.8km az=129.2*
ISC 04 16:46:08.5±0.8,40°.65S±0°.02×175°.85E±0°.02,h16km±5km, n89,σ0°.86/110,North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EKTS	**Eketahuna Scho**	**0.10**	**272**	P	**Pb**	**16 46 11.4**	**-0.8**
EKTS				S	**Sb**	**16 46 13.7**	**-0.9**
TRMS	**Tiraumea**	**0.11**	**100**	P	**Pg**	**16 46 12.1**	**+0.1**
TRMS				S	**Sg**	**16 46 15.1**	**+0.7**
TIWZ	**Tintock**	**0.13**	**167**	P	**Pg**	**16 46 12.7**	**+0.4**
TIWZ				S	**Sg**	**16 46 15.9**	**+1.1**
TIWZ				AML	AML		
TIWZ				AML	AML		
PRWZ	**Pori Road**	**0.14**	**44**	P	**Pb**	**16 46 11.9**	**-0.8**
PRWZ				S	**Sb**	**16 46 14.9**	**-0.6**
PRWZ				AML	AML		
PRWZ				AML	AML		
MRZ	**Mangatainoka R**	**0.20**	**268**	P	**Pg**	**16 46 12.8**	**-0.5**
MRZ				S	**Sg**	**16 46 16.2**	**-0.4**
MRZ				AML	AML		
MRZ				AML	AML		
POWZ	**Post Office Ro**	**0.27**	**347**	P	**Pg**	**16 46 13.6**	**-0.7**
POWZ				S	**Sg**	**16 46 17.5**	**-0.8**
POWZ				AML	AML		
POWZ			

PNHZ	**Pukenui**	**0.79**	**20**	P	**Pb**	**16 46 23.1**	**-0.7**
PNHZ				S	**Sb**	**16 46 33.6**	**-0.6**
PNHZ				AML	AML		
PNHZ				AML	AML		
PAWZ	**Paruwai Farm**	**0.80**	**203**	P	**Pg**	**16 46 24.7**	**+0.7**
PAWZ				S	**Sn**	**16 46 36.8**	**+0.2**
PAWZ				AML	AML		
PAWZ				AML	AML		
MSWZ	**Moikau Station**	**0.89**	**210**	P	**Pb**	**16 46 25.8**	**+0.3**
MSWZ				S	**Sg**	**16 46 38.4**	**+1.0**
MSWZ				AML	AML		
MSWZ				AML	AML		
PXZ	**Pawanui**	**0.99**	**52**	P	**Pb**	**16 46 27.3**	**0.0**
PLWZ	**Palliser**	**1.02**	**206**	P	**Pb**	**16 46 27.5**	**-0.3**
PLWZ				S	**Sg**	**16 46 42.2**	**+0.5**
WEL	**Wellington**	**1.03**	**232**	P	**Pb**	**16 46 27.8**	**-0.2**
WEL				S	**Sn**	**16 46 42.7**	**+0.3**
BHW	**Baring Head**	**1.06**	**224**	P	**Pb**	**16 46 28.2**	**-0.2**
KRHZ	**Kereru**	**1.08**	**22**	P	**Pb**	**16 46 28.7**	**-0.2**
SNZO	**South Karori**	**1.09**	**232**	P	**Pn**	**16 46 28.5**	**-0.5**
SNZO	**South Karori**	**1.09**	**232**	S	**Sn**	**16 46 44.1**	**+0.4**
WAZ	**Wanganui**	**1.11**	**323**	P	**Pn**	**16 46 29.8**	**+0.4**
KAHZ	**Kahuranaki**	**1.17**	**43**	P	**Pn**	**16 46 30.0**	**-0.2**
BHHZ	**Black Hill Sta**	**1.17**	**8**	P	**Pn**	**16 46 29.8**	**-0.6**
MOVZ	**Moawhango**	**1.25**	**357**	P	**Pn**	**16 46 31.2**	**-0.1**
MTVZ	**Mangateitei**	**1.30**	**347**	P	**Pn**	**16 46 32.7**	**+0.6**
KWHZ	**Kaweka Forest**	**1.30**	**20**	P	**Pn**	**16 46 32.2**	**+0.1**
TCW	**Tory Channel**	**1.31**	**244**	P	**Pn**	**16 46 32.3**	**+0.1**
WNVZ	**Wahianoa**	**1.34**	**352**	P	**Pn**	**16 46 33.0**	**+0.4**
CKHZ	**Cape Kidnapper**	**1.37**	**44**	P	**Pn**	**16 46 32.3**	**-0.7**
MCHZ	**McNeill Hill**	**1.37**	**29**	P	**Pn**	**16 46 33.0**	**0.0**
TRVZ	**Turoa**	**1.37**	**350**	P	**Pn**	**16 46 34.3**	**+1.1**
WHVZ	**Whangaehu Hut**	**1.38**	**352**	P	**Pn**	**16 46 33.9**	**+0.5**
TUVZ	**Tukino**	**1.39**	**354**	P	**Pn**	**16 46 34.1**	**+0.7**
MAVZ	**Matarangi**	**1.40**	**351**	P	**Pn**	**16 46 34.8**	**+1.1**
FWVZ	**Far West T-bar**	**1.41**	**351**	P	**Pn**	**16 46 34.5**	**+0.7**
PKVZ	**Pokaka**	**1.42**	**344**	P	**Pn**	**16 46 34.5**	**+0.9**
COVZ	**Chateau Observ**	**1.47**	**351**	P	**Pn**	**16 46 35.4**	**+1.0**
DUWZ	**D'Urville Isla**	**1.47**	**264**	P	**Pn**	**16 46 34.6**	**+0.3**
SNVZ	**South Ngauruho**	**1.47**	**354**	P	**Pn**	**16 46 35.5**	**+1.0**
NGZ	**Ngauruhoe**	**1.49**	**353**	P	**Pn**	**16 46 35.3**	**+0.6**
OTVZ	**Oturere**	**1.49**	**355**	P	**Pn**	**16 46 35.9**	**+1.1**
ETVZ	**East Tongariro**	**1.52**	**356**	P	**Pn**	**16 46 36.1**	**+1.0**
TMVZ	**Te Maari**	**1.54**	**356**	P	**Pn**	**16 46 36.4**	**+1.0**
WTVZ	**West Tongariro**	**1.55**	**353**	P	**Pn**	**16 46 36.8**	**+1.3**
NTVZ	**North Tongarir**	**1.56**	**355**	P	**Pn**	**16 46 36.6**	**+1.0**
KRVZ	**Karewarewa**	**1.56**	**354**	P	**Pn**	**16 46 37.0**	**+1.3**
BKZ	**Black Stump Fm**	**1.57**	**19**	P	**Pn**	**16 46 35.4**	**-0.3**
BKZ	**Black Stump Fm**	**1.57**	**19**	S	**Sn**	**16 46 56.2**	**+0.5**
BKZ	**Black Stump Fm**	**1.57**	**19**	P	**Pn**	**16 46 35.5**	**-0.2**
TWVZ	**Taurewa**	**1.61**	**349**	P	**Pn**	**16 46 37.9**	**+1.5**
LREZ	**Lake Rotokare**	**1.63**	**317**	P	**Pb**	**16 46 38.6**	**+0.5**
ARHZ	**Aropaoanui**	**1.65**	**33**	P	**Pn**	**16 46 36.7**	**0.0**
CMWZ	**Cape Campbell**	**1.65**	**228**	P	**Pn**	**16 46 36.3**	**-0.5**
RITZ	**Rihia Road**	**1.67**	**0**	P	**Pn**	**16 46 38.2**	**+1.1**
KATZ	**Kakaramea**	**1.68**	**356**	P	**Pb**	**16 46 39.6**	**+0.4**
NMHZ	**Naumai**	**1.72**	**26**	P	**Pn**	**16 46 38.4**	**+0.5**
VRZ	**Vera Road**	**1.74**	**331**	P	**Pn**	**16 46 39.4**	**+1.3**
BSWZ	**Blackbirch Sta**	**1.83**	**234**	P	**Pn**	**16 46 38.7**	**-0.5**
PREZ	**Palmer Road**	**1.84**	**315**	P	**Pb**	**16 46 42.3**	**+0.5**
MRHZ	**Matea Rd**	**1.87**	**14**	P	**Pn**	**16 46 39.8**	**0.0**
NEZ	**North Egmont**	**1.93**	**315**	P	**Pb**	**16 46 43.2**	**-0.1**
WATZ	**Wairara**	**1.94**	**357**	P	**Pn**	**16 46 41.4**	**+0.5**
NNZ	**Nelson**	**1.95**	**252**	P	**Pn**	**16 46 41.1**	**+0.2**
KHEZ	**Kahui Hut**	**1.96**	**313**	P	**Pb**	**16 46 43.5**	**-0.3**
KHEZ	**Kahui Hut**	**1.96**	**313**	S	**Sb**	**16 47 11.0**	**+3.1**
MTHZ	**Maungataniwha**	**1.96**	**23**	P	**Pn**	**16 46 40.0**	**-0.2**
RAHZ	**Arahi**	**1.98**	**29**	P	**Pn**	**16 46 41.8**	**+0.4**
HIZ	**Hauiti**	**2.27**	**340**	P	**Pn**	**16 46 47.3**	**+2.0**
HIZ	**Hauiti**	**2.27**	**340**	S	**Sb**	**16 47 17.6**	**+0.7**
KHZ	**Kahutara**	**2.47**	**224**	P	**Pn**	**16 46 46.3**	**-1.8**
KHZ	**Kahutara**	**2.47**	**224**	S	**Sn**	**16 47 16.4**	**-1.5**
QRZ	**Quartz Range**	**2.53**	**265**	P	**Pn**	**16 46 49.8**	**+0.9**
URZ	**Urewera**	**2.58**	**23**	P	**Pn**	**16 46 47.8**	**-1.8**
RPZ	**Rata Peaks**	**4.70**	**228**	P	**Pn**	**16 47 17.3**	**-1.4**
ODZ	**Otahua Downs**	**5.82**	**219**	P	**Pn**	**16 47 31.5**	**-2.6**

*THE **04** 17:08:39.8, 38°N±1"×2"7E±", h9km±1km, M3.2/8, MLh3.2/8*
*AFAD **04** 17:08:39.7, 37°.84N×26°.83E, h7km±1km, ML3.2*
*ISK **04** 17:08:39.6, 37°.83N×26°.83E, h8km, ML3.3/18*
*ATH **04** 17:08:39.6, 37°.80N×26°.78E, h12km±1km, ML3.1/16,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km

ISC 04 17:08:39.5±0.8, **37°.82N**±0'.01×**26°.81E**±0'.02, **h13**km±5km, **n99**, σ0**s51**/135, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.09**	**255**	P	**Pg**	**17 08 42.2**	**-0.1**
KRL1				S	**Sg**	**17 08 44.2**	**-0.1**
KRL1				AML	AML		
SMG	**Samos**	**0.11**	**169**	P	**Pg**	**17 08 42.5**	**-0.1**
SMG				S	**Sg**	**17 08 44.6**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.11**	**169**	P	**Pg**	**17 08 42.6**	**-0.1**
SMG				S	**Sg**	**17 08 44.8**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**14**	P	**Pg**	**17 08 44.3**	**-0.4**
GMLD	**Gumuldur**	**0.27**	**18**	Pg	**Pg**	**17 08 45.0**	**-0.2**
GMLD				Sg	**Sg**	**17 08 49.6**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**109**	P	**Pg**	**17 08 46.8**	**+0.1**
GCAM				IAML		17 08 52.0	
	comp=E,3μm,0.6s						
GCAM				S	**Sb**	**17 08 52.6**	**-0.5**
GCAM				IAML		17 08 53.0	
	comp=N,3μm,0.5s						
GCAM	**G?zelcaml?**	**0.35**	**109**	Pg	**Pg**	**17 08 46.8**	**+0.1**
GCAM				Sg	**Sb**	**17 08 52.4**	**-0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.38**	**83**	Pg	**Pg**	**17 08 47.1**	**0.0**
KUSD				Sg	**Sg**	**17 08 52.8**	**+0.5**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**13**	P	**Pg**	**17 08 47.7**	**-0.2**
BEYE				S	**Sg**	**17 08 53.3**	**-0.3**
ZEYE	**Izmir, Urla-Ze**	**0.49**	**330**	P	**Pg**	**17 08 49.1**	**0.0**
ZEYE				S	**Sg**	**17 08 56.5**	**+0.9**
ZEYE				IAML		17 08 57.0	
	comp=N,2μm,0.3s						
DDIM	**Aydin, Didim**	**0.50**	**136**	P	**Pg**	**17 08 49.6**	**+0.3**
DDIM				S	**Sb**	**17 08 57.4**	**+0.2**
DDIM				IAML		17 08 58.0	
	comp=N,2μm,0.4s						
DDIM				IAML		17 08 58.0	
	comp=E,2μm,0.3s						
DIDI	**Didim-Aydin**	**0.56**	**142**	Pg	**Pg**	**17 08 50.7**	**+0.3**
DIDI				AML	AML		
BLCB	**Balcova**	**0.60**	**18**	P	**Pg**	**17 08 51.1**	**-0.1**
BLCB				S	**Sg**	**17 08 59.3**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**18**	Pg	**Pg**	**17 08 51.1**	**-0.1**
BLCB				Sg	**Sb**	**17 08 59.7**	**-0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.65**	**51**	P	**Pg**	**17 08 51.7**	**-0.4**
DUVT				S	**Sg**	**17 09 00.1**	**-0.5**
DUVT				IAML		17 09 05.0	
	comp=E,1μm,0.2s						
CESE	**eme**	**0.65**	**322**	Pg	**Pg**	**17 08 52.7**	**+0.5**
CESE				AML	AML		
DAGE	**izmir**	**0.77**	**76**	P	**Pb**	**17 08 55.7**	**+1.0**
YKAV	**Yalikavak-Bodr**	**0.79**	**151**	Pg	**Pb**	**17 08 55.5**	**+0.5**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**345**	Pg	**Pg**	**17 08 55.3**	**+0.2**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**314**	P	**Pg**	**17 08 55.3**	**-0.2**
CHOS				S	**Sb**	**17 09 07.5**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**314**	Pg	**Pb**	**17 08 56.1**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**314**	P	**Pg**	**17 08 55.4**	**-0.2**
CHOS				S	**Sg**	**17 09 06.0**	**-0.3**
CHOS				AML	AML		
BAGT	**Foa**	**0.84**	**2**	P	**Pg**	**17 08 55.6**	**-0.1**
BODT	**Bodrum**	**0.85**	**152**	P	**Pg**	**17 08 55.9**	**-0.1**
BODT				S	**Sb**	**17 09 08.7**	**+1.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**152**	Pg	**Pb**	**17 08 56.6**	**+0.5**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.86**	**100**	P	**Pg**	**17 08 56.1**	**-0.1**
AYDN				S	**Sg**	**17 09 06.9**	**-0.5**
AYDB	**Zeytinkoy-Aydi**	**0.86**	**81**	Pg	**Pb**	**17 08 56.4**	**0.0**
AYDB				AML	AML		
KLNA	**Kalymnos**	**0.87**	**171**	P	**Pg**	**17 08 56.4**	**+0.1**
KLNA				S	**Sg**	**17 09 07.9**	**+0.3**
FOCM	**Foa**	**0.90**	**356**	Pg	**Pb**	**17 08 57.1**	**+0.2**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**340**	P	**Pg**	**17 08 56.6**	**-0.4**
KARB				S	**Sb**	**17 09 09.8**	**+0.9**
KARB				IAML		17 09 11.0	
	comp=N,662nm,0.6s						
KARB				IAML		17 09 11.0	
	comp=E,634nm,0.5s						
BDRM	**Kayabasi**	**0.90**	**146**	P	**Pb**	**17 08 57.5**	**+0.5**
BDRM				S	**Sb**	**17 09 10.1**	**+1.2**
BDRM				IAML		17 09 13.0	
	comp=N,703nm,0.6s						
EAG2	**Marmaro, Chios**	**0.91**	**323**	P	**Pb**	**17 08 58.2**	**+1.0**
EAG2				S	**Sb**	**17 09 09.8**	**+0.6**
BODA	**Bodrum-Mula**	**0.92**	**148**	Pg	**Pb**	**17 08 57.9**	**+0.6**
MLSB	**Milas**	**0.93**	**124**	Pg	**Pg**	**17 08 57.6**	**+0.2**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.96**	**70**	P	**Pg**	**17 08 57.6**	**-0.4**
IZMR				P	**Pb**	**17 08 58.1**	**+0.1**
IZMR				S	**Sg**	**17 09 09.3**	**-1.2**
IZMR				S	**Sb**	**17 09 09.5**	**-0.9**
IZMR				IAML		17 09 10.0	
	comp=N,326nm,0.4s						
CAMT	**Merkez**	**1.01**	**23**	P	**Pb**	**17 08 59.3**	**+0.5**
CAMT				S	**Sn**	**17 09 13.4**	**0.0**
CAMT				IAML		17 09 15.0	
	comp=N,828nm,0.3s						
CAMT				IAML		17 09 15.0	
	comp=E,1μm,0.3s						
ZEDA	**zmir-Bergama**	**1.17**	**10**	P	**Pb**	**17 09 01.5**	**0.0**
NAZL	**Nazilli-Aydin**	**1.18**	**82**	Pn	**Pb**	**17 09 01.7**	**-0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.22**	**90**	P	**Pb**	**17 09 02.5**	**+0.1**
YAZI	**Mula-Dat§a-**	**1.24**	**155**	P	**Pn**	**17 09 01.8**	**-0.8**
GOMA	**Golmarmara-Man**	**1.25**	**44**	Pn	**Pg**	**17 09 03.3**	**-0.2**
GOMA				AML	AML		
DAT	**Datca**	**1.25**	**150**	P	**Pn**	**17 09 02.5**	**-0.2**
DAT				AML	AML		
DKL	**Dikili**	**1.25**	**3**	Pn	**Pg**	**17 09 03.9**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**3**	P	**Pn**	**17 09 02.7**	**0.0**
DKL				S	**Sg**	**17 09 19.9**	**-0.1**
APE	**Apeiranthos**	**1.26**	**234**	P	**Pn**	**17 09 02.4**	**-0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.26**	**234**	P	**Pn**	**17 09 02.2**	**-0.6**
APE				S	**Sb**	**17 09 18.2**	**-1.1**
APE				AML	AML		
KIRA	**zmir-Kiraz**	**1.31**	**73**	P	**Pg**	**17 09 04.7**	**0.0**
ASTA	**Astypalaia**	**1.32**	**196**	P	**Pn**	**17 09 04.2**	**+0.7**
ASTA				S	**Sb**	**17 09 20.5**	**-0.4**
ASTA				AML	AML		
AKHS	**Akhisar**	**1.32**	**36**	P	**Pb**	**17 09 04.4**	**+0.3**
AKS	**Akhisar**	**1.32**	**36**	Pn	**Pb**	**17 09 04.5**	**+0.3**
MULA	**Mugla, Merkez-**	**1.32**	**115**	P	**Pn**	**17 09 03.9**	**+0.1**
KTTT	**Salihli**	**1.33**	**49**	P	**Pb**	**17 09 04.5**	**+0.1**
TNSA	**Tinos**	**1.34**	**259**	P	**Pn**	**17 09 03.3**	**-0.5**
TNSA				S	**Sb**	**17 09 20.1**	**-1.2**
NAX1	**Naxos Island**	**1.35**	**238**	P	**Pn**	**17 09 04.6**	**+0.6**
NAX1				S	**Sb**	**17 09 21.1**	**-0.6**
NAX1				AML	AML		
YER	**Yerkesik**	**1.35**	**120**	P	**Pn**	**17 09 04.6**	**+0.4**
SOMA	**Soma-Manisa**	**1.45**	**23**	Pn	**Pb**	**17 09 06.7**	**+0.3**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.49**	**344**	P	**Pn**	**17 09 06.0**	**+0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.49**	**344**	P	**Pn**	**17 09 05.7**	**-0.3**
PRK				S	**Sn**	**17 09 25.4**	**+0.2**
PRK				AML	AML		
AYVA	**Ayvalik**	**1.49**	**356**	P	**Pg**	**17 09 07.9**	**-0.3**
GORD	**Gordes-Manisa**	**1.53**	**44**	Pn	**Pb**	**17 09 07.8**	**0.0**
GORD				AML	AML		
MANT	**Manisa**	**1.53**	**63**	P	**Pb**	**17 09 08.4**	**+0.5**
CMBO	**Columbo, Santo**	**1.75**	**220**	P	**Pn**	**17 09 08.9**	**-0.6**
CMBO				S	**Sn**	**17 09 31.6**	**0.0**
THR2	**Thira island,**	**1.75**	**219**	P	**Pn**	**17 09 10.3**	**+0.7**
THR8	**Santorini-Mono**	**1.76**	**218**	P	**Pn**	**17 09 10.0**	**+0.3**
THERA	**Ancient Thera,**	**1.80**	**217**	P	**Pn**	**17 09 10.3**	**+0.1**
THERA	**Ancient Thera,**	**1.80**	**217**	P	**Pn**	**17 09 09.5**	**-0.7**
THERA				S	**Sn**	**17 09 33.1**	**+0.2**
THERA				AML	AML		
THR3	**Thira Island,**	**1.80**	**219**	P	**Pn**	**17 09 10.4**	**+0.2**
SAP3	**Santorini-Thir**	**1.81**	**221**	P	**Pn**	**17 09 10.6**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.81**	**219**	P	**Pn**	**17 09 10.0**	**-0.3**
SNT5				S	**Sn**	**17 09 32.1**	**-0.9**
THR5	**Thira Island,**	**1.82**	**220**	P	**Pn**	**17 09 10.8**	**+0.4**
THR6	**Thira Island,**	**1.84**	**218**	P	**Pn**	**17 09 11.3**	**+0.5**
KARY	**Karystos**	**1.89**	**277**	P	**Pn**	**17 09 10.7**	**-0.8**
ARG	**Arkhangelos**	**1.91**	**146**	P	**Pn**	**17 09 11.6**	**-0.1**
ARG				AML	AML		
BALB	**Balikesir**	**2.00**	**24**	P	**Pn**	**17 09 14.4**	**+1.4**
BALB				AML	AML		
MHLO	**Agia Marina, M**	**2.23**	**240**	P	**Pn**	**17 09 16.5**	**+0.4**
MHLO				S	**Sn**	**17 09 42.9**	**-0.5**
DION	**Dionisos Attik**	**2.29**	**277**	P	**Pn**	**17 09 17.4**	**+0.4**
PTL	**Penteli**	**2.34**	**277**	P	**Pn**	**17 09 17.9**	**+0.2**
PTL				S	**Sn**	**17 09 44.9**	**-1.4**
VLY	**Voula,Athens**	**2.39**	**272**	P	**Pn**	**17 09 18.4**	**+0.2**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.40**	**275**	P	**Pn**	**17 09 18.4**	**0.0**
LIA	**Limnos Island**	**2.44**	**329**	P	**Pn**	**17 09 18.6**	**-0.4**
LIA				AML	AML		
STFN	**Stefani**	**2.60**	**279**	P	**Pn**	**17 09 21.5**	**+0.1**
AOS2	**Alonissos-2**	**2.68**	**301**	P	**Pn**	**17 09 22.6**	**+0.3**
NPS	**Neapolis**	**2.73**	**201**	P	**Pn**	**17 09 22.1**	**-0.9**
NPS				AML	AML		
ZKR	**Zakros**	**2.74**	**190**	P	**Pn**	**17 09 22.8**	**-0.3**
MET5	**Makryloggos,Me**	**2.75**	**267**	P	**Pn**	**17 09 23.9**	**+0.6**
MET6	**Megalochori,Me**	**2.75**	**266**	P	**Pn**	**17 09 23.6**	**+0.4**
MET2	**Kameni Chora,**	**2.77**	**267**	P	**Pn**	**17 09 24.0**	**+0.5**
VIL2	**Platees**	**2.83**	**279**	P	**Pn**	**17 09 24.0**	**-0.3**
SMTH	**Samothraki Isl**	**2.83**	**340**	P	**Pn**	**17 09 24.5**	**+0.1**
MET3	**Ano Fanari,Met**	**2.85**	**266**	P	**Pn**	**17 09 24.9**	**+0.2**
EPID	**Epidavros**	**2.93**	**267**	P	**Pn**	**17 09 25.9**	**+0.1**
IDI	**Anoyia**	**2.96**	**212**	P	**Pn**	**17 09 27.2**	**+1.0**
IDI				AML	AML		
LOUT	**Loutraki**	**3.04**	**274**	P	**Pn**	**17 09 26.8**	**-0.5**
LTK	**Loutraki**	**3.05**	**275**	P	**Pn**	**17 09 28.0**	**+0.6**
ACOR	**Acrocorinthos**	**3.12**	**273**	P	**Pn**	**17 09 27.7**	**-0.7**
ALN	**Alexandroupoli**	**3.13**	**349**	P	**Pn**	**17 09 28.8**	**+0.3**
ALN				AML	AML		
VLI	**Veliai**	**3.28**	**252**	P	**Pn**	**17 09 30.4**	**-0.2**
GUR	**Goura**	**3.54**	**273**	P	**Pn**	**17 09 34.3**	**+0.1**
KLV	**Kalavryta, Ach**	**3.69**	**275**	P	**Pn**	**17 09 37.0**	**+0.7**

*IDC **04** 17:09:58.9±0.9, 42°.50N×43°.61E, h0km, mb3.5/6,*
mbtmp3.6/8, ML3.5/2, MS3.0/3, Error ellipse: s-maj=17.9km
s-min=10.2km az=66.0
*TIF **04** 17:09:58.6, 42°.47N×43°.48E, h14km*
*NORS **04** 17:09:58.7, 42°.50N×43°.40E, h8km, MPVA4.6*
*MOS **04** 17:09:59.2, 42°.44N×43°.34E, h6km, MPVA4.7*
*AFAD **04** 17:10:00.2, 42°.40N×43°.31E, h6km±2km, ML3.5*
*ISK **04** 17:10:00.0, 42°.46N×43°.13E, h5km, ML3.7/10*

ISC 04 17:09:58.7±1.1, **42°.43N**±0'.01×**43°.43E**±0'.01, **h1**km±8km, **n162**, σ1**s48**/260, **mb3.5**/4, **1C-2D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TKB	**Tkibuli**	**0.33**	**256**	P	**Pb**	**17 10 06.8**	**-0.6**
TKB				S	**Sb**	**17 10 13.1**	**-0.1**
TKB	**Tkibuli**	**0.33**	**256**	PG	**Pb**	**17 10 06.8**	**-0.6**
TKB				S	**Sb**	**17 10 13.1**	**-0.1**
DIGR	**Digorskoe uzhe**	**0.48**	**14**	*e*Pg	**Pg**	**17 10 07.7**	**-0.2**
DIGR				*e*Sg	**Sg**	**17 10 14.6**	**+0.5**
DIGR	**Digorskoe uzhe**	**0.48**	**14**	*i* PG	**Pg**	**17 10 08.1**	**+0.2**
LACR	**Lac**	**0.75**	**58**	*e*Pg	**Pg**	**17 10 12.7**	**-0.4**
LACR				*e*Sg	**Sg**	**17 10 22.9**	**+0.1**
LACR	**Lac**	**0.75**	**58**	*e*PG	**Pg**	**17 10 12.8**	**-0.4**
LACR				*e*S	**Sg**	**17 10 23.0**	**+0.1**
GUDG	**Gudauri**	**0.78**	**87**	P	**Pg**	**17 10 13.3**	**-0.3**
GUDG				S	**Sg**	**17 10 24.0**	**+0.3**
GUDG	**Gudauri**	**0.78**	**87**	PG	**Pg**	**17 10 13.3**	**-0.3**
GUDG				S	**Sg**	**17 10 24.0**	**+0.3**
KORR	**Kora**	**0.81**	**36**	*e*Pg	**Pg**	**17 10 14.2**	**+0.1**
KORR				*e*Sg	**Sb**	**17 10 25.8**	**-1.1**
KORR	**Kora**	**0.81**	**36**	*e*PG	**Pg**	**17 10 14.3**	**+0.1**
KORR				*e*S	**Sb**	**17 10 26.5**	**-0.4**
LSNR	**Lesken**	**0.89**	**19**	*e*Pg	**Pg**	**17 10 15.8**	**0.0**
LSNR				*e*Sg	**Sb**	**17 10 28.9**	**-0.5**
LSNR	**Lesken**	**0.89**	**19**	*e*PG	**Pg**	**17 10 15.8**	**0.0**
LSNR				*e*S	**Sb**	**17 10 28.9**	**-0.5**
ARNR	**Ardon**	**0.98**	**40**	*e*Pg	**Pb**	**17 10 18.1**	**-0.3**
ARNR				*e*Sg	**Sn**	**17 10 32.9**	**-1.2**
ARNR	**Ardon**	**0.98**	**40**	*e*PG	**Pb**	**17 10 18.1**	**-0.3**
ARNR				*e*S	**Sn**	**17 10 32.8**	**-1.2**
NEUR	**Neytrino**	**0.99**	**327**	*e*Pg	**Pg**	**17 10 17.5**	**-0.1**
NEUR				*e*Sg	**Sb**	**17 10 30.7**	**-1.5**
NEUR	**Neytrino**	**0.99**	**327**	*e*PG	**Pb**	**17 10 18.1**	**-0.6**
NEUR				*e*S	**Sb**	**17 10 31.2**	**-1.0**
AKH	**Akhalkalaki**	**1.02**	**177**	P	**Pg**	**17 10 19.0**	**+0.7**
AKH				S	**Sn**	**17 10 33.9**	**-1.5**
AKH	**Akhalkalaki**	**1.02**	**177**	PG	**Pg**	**17 10 19.0**	**+0.7**
AKH				S	**Sn**	**17 10 33.9**	**-1.5**
TRLG	**Trialeti**	**1.02**	**150**	P	**Pg**	**17 10 18.9**	**+0.5**
TRLG				S	**Sb**	**17 10 33.7**	**+0.4**
TRLG	**Trialeti**	**1.02**	**150**	PG	**Pg**	**17 10 18.9**	**+0.5**
TRLG				S	**Sb**	**17 10 33.7**	**+0.4**
STDR	**Stavd-Durt**	**1.04**	**26**	*e*Pg	**Pn**	**17 10 19.7**	**-0.8**
STDR				*e*Sg	**Sn**	**17 10 35.9**	**+0.2**
STDR	**Stavd-Durt**	**1.04**	**26**	*e*PG	**Pn**	**17 10 19.7**	**-0.8**
STDR				*e*S	**Sn**	**17 10 35.9**	**+0.2**
EPOS	**Posof**	**1.07**	**210**	P	**Pn**	**17 10 20.0**	**-0.8**
NCK	**Nalchik**	**1.07**	**7**	*e*Pg	**Pn**	**17 10 19.6**	**-1.2**
NCK				*e*Sg	**Sn**	**17 10 35.1**	**-1.2**
NCK	**Nalchik**	**1.07**	**7**	*e*PG	**Pn**	**17 10 19.8**	**-1.0**
NCK				*e*S	**Sn**	**17 10 35.5**	**-0.8**
VLKR	**Vladikavkaz**	**1.11**	**56**	*e*Pg	**Pn**	**17 10 20.8**	**-0.6**
VLKR				*e*Sg	**Sn**	**17 10 36.2**	**-1.0**
VLKR	**Vladikavkaz**	**1.11**	**56**	*e*PG	**Pn**	**17 10 20.8**	**-0.6**
VLKR				*e*S	**Sn**	**17 10 36.2**	**-1.0**
BGD	**Bogdanovka**	**1.18**	**174**	P	**Pb**	**17 10 21.8**	**-0.1**
BGD				S	**Sn**	**17 10 38.8**	**-0.3**
BGD	**Bogdanovka**	**1.18**	**174**	*i* Pg	**Pb**	**17 10 21.8**	**-0.1**
BGD				*e*Sg	**Sn**	**17 10 38.7**	**-0.5**
BGD	**Bogdanovka**	**1.18**	**174**	*i* PG	**Pb**	**17 10 21.8**	**-0.1**
BGD				*e*S	**Sn**	**17 10 38.7**	**-0.5**
SEAG	**Tbilisi Sea**	**1.22**	**123**	P	**Pn**	**17 10 22.1**	**-0.8**
SEAG				S	**Sn**	**17 10 39.4**	**-0.7**
SEAG	**Tbilisi Sea**	**1.22**	**123**	PG	**Pn**	**17 10 22.1**	**-0.8**
SEAG				S	**Sn**	**17 10 39.4**	**-0.7**
KMGR	**Komgaron**	**1.23**	**59**	*e*Pg	**Pg**	**17 10 23.0**	**+0.7**
KMGR				*e*Sg	**Sn**	**17 10 41.6**	**+1.3**
KMGR	**Komgaron**	**1.23**	**59**	*e*PG	**Pg**	**17 10 23.0**	**+0.7**
KMGR				*e*S	**Sn**	**17 10 41.6**	**+1.3**
BTKR	**Batakoyurt**	**1.25**	**41**	*e*Pg	**Pg**	**17 10 24.1**	**+1.6**
BTKR				*e*Sg	**Sn**	**17 10 42.2**	**+1.5**
BTKR	**Batakoyurt**	**1.25**	**41**	*e*PG	**Pg**	**17 10 24.2**	**+1.6**
BTKR				*e*S	**Sn**	**17 10 42.2**	**+1.5**
BTNK	**Botanikuri**	**1.27**	**126**	PG	**Pn**	**17 10 22.6**	**-0.9**
BTNK				S	**Sg**	**17 10 40.0**	**+0.6**
KZRT	**Kazreti**	**1.27**	**145**	P	Pn	17 10 16.6	-7.0
KZRT				S	**Sb**	**17 10 33.6**	**-6.7**
KZRT	**Kazreti**	**1.27**	**145**	PG	Pn	17 10 16.6	-7.0

TLTR					*e*Sn	**Sb**	**17 11 06.8**	**-0.2**
TLTR	**Tlyarata**	**2.20**	**98**		*e*PN	**Pb**	**17 10 37.5**	**-1.8**
TLTR					*e*S	**Sb**	**17 11 06.8**	**-0.2**
GRYR	**Gornoye**	**2.40**	**315**		*e*Pn	**Pn**	**17 10 39.9**	**+0.8**
GRYR					*e*Sn	**Sb**	**17 11 09.4**	**-3.2**
GRYR	**Gornoye**	**2.40**	**315**		*e*PN	**Pb**	**17 10 42.2**	**-0.4**
GRYR					*e*S	**Sb**	**17 11 11.6**	**-1.0**
CHOM	**Cayeli-Rize**	**2.40**	**237**		Pn	**Pn**	**17 10 39.6**	**+0.5**
CHOM					Sn	**Sn**	**17 11 08.5**	**-0.6**
CHOM					AML	AML		
XNZR	**Khunzakh**	**2.43**	**86**		*e*Pn	**Pb**	**17 10 42.8**	**-0.4**
XNZR					*e*Sn	**Sg**	**17 11 15.1**	**-1.6**
HNZR	**Khunzah**	**2.44**	**86**		*e*PN	**Pb**	**17 10 42.8**	**-0.6**
HNZR					*e*S	**Sb**	**17 11 15.1**	**+1.2**
DLMR	**Dylym**	**2.44**	**74**		*e*PN	**Pg**	**17 10 44.5**	**-1.0**
DLMR					*e*S	**Sg**	**17 11 15.4**	**-1.8**
GNI	**Garni**	**2.49**	**156**		Pn	**Pb**	**17 10 44.1**	**-0.2**
	comp=Z,41nm,0.3s,baz=341,slow=10,SNR=63							
GNI					Lg	Lg	17 11 18.2	
	comp=Z,39nm,0.3s,baz=63,slow=16,SNR=3.9							
	comp=Z,220nm,0.6s							
GNI					AML	AML		
GNI	**Garni**	**2.49**	**156**		*e*Pn	**Pb**	**17 10 42.5**	**-1.8**
GNI					*e*Sn	**Sb**	**17 11 15.3**	**-0.1**
GNI	**Garni**	**2.49**	**156**		*e*PN	**Pb**	**17 10 44.5**	**+0.3**
GNI					*e*S	**Sg**	**17 11 18.4**	**-0.2**
GNI	**Garni**	**2.49**	**156**		Pn	**Pb**	**17 10 44.9**	**+0.7**
GNI					AML	AML		
UNCR	**Uncukul**	**2.50**	**82**		*e*Pn	**Pb**	**17 10 43.5**	**-0.9**
UNCR					*e*Sn	**Sb**	**17 11 13.8**	**-1.9**
UNCR	**Uncukul**	**2.50**	**82**		*e*PN	**Pb**	**17 10 43.5**	**-0.9**
UNCR					*e*S	**Sb**	**17 11 13.8**	**-1.9**
TASB	**TASBURUN-IGDIR**	**2.52**	**166**		Pn	**Pb**	**17 10 44.9**	**+0.1**
TASB					AML	AML		
VSHL	**Vashlovani**	**2.53**	**117**		P	**Pb**	**17 10 42.5**	**-2.3**
VSHL					S	**Sb**	**17 11 16.6**	**+0.2**
DBC	**Dubki**	**2.58**	**76**		*e*Pn	**Pb**	**17 10 44.4**	**-1.3**
DBC					*e*Sn	**Sb**	**17 11 17.8**	**-0.1**
DBC	**Dubki**	**2.58**	**76**		*e*PN	**Pb**	**17 10 46.2**	**+0.5**
DBC					*e*S	**Sg**	**17 11 20.7**	**-0.7**
KRNR	**Karanay**	**2.60**	**80**		*e*PN	**Pb**	**17 10 44.7**	**-1.4**
KRNR					*e*S	**Sb**	**17 11 16.2**	**-2.3**
IGDI	**IGDIR**	**2.61**	**169**		P	**Pb**	**17 10 45.2**	**-1.1**
GNBR	**Gunib**	**2.62**	**90**		*e*Pn	**Pb**	**17 10 45.8**	**-0.6**
GNBR					*e*Sn	**Sb**	**17 11 20.6**	**+1.5**
GNBR	**Gunib**	**2.62**	**90**		*e*PN	**Pb**	**17 10 45.8**	**-0.6**
GNBR					*e*S	**Sb**	**17 11 20.6**	**+1.5**
KOTA	**Agri, Merkez-K**	**2.63**	**184**		P	**Pb**	**17 10 45.2**	**-1.6**
RPOR	**Krasnaya Polya**	**2.64**	**300**		*e*Pn	**Pb**	**17 10 44.2**	**-2.6**
RPOR					*e*Sn	**Sn**	**17 11 15.2**	**+0.2**
RPOR	**Krasnaya Polya**	**2.64**	**300**		*e*PN	**Pb**	**17 10 44.2**	**-2.6**
RPOR					*e*S	**Sn**	**17 11 15.2**	**+0.2**
ARKR	**Arakani**	**2.64**	**85**		*e*Pn	**Pb**	**17 10 44.9**	**-1.9**
ARKR					*e*Sn	**Sb**	**17 11 18.4**	**-1.3**
ARKR	**Arakani**	**2.64**	**85**		*e*PN	**Pb**	**17 10 44.9**	**-1.9**
ARKR					*e*S	**Sb**	**17 11 18.4**	**-1.3**
HOMI	**Horasan**	**2.65**	**206**		P	**Pg**	**17 10 50.0**	**+0.5**
EATA	**Eleskirt**	**2.66**	**196**		P	**Pb**	**17 10 46.9**	**-0.5**
VSLR	**Vesyoloye**	**2.70**	**294**		*e*Pn	**Pb**	**17 10 45.4**	**-2.3**
VSLR					*e*Sn	**Sn**	**17 11 16.0**	**-0.4**
VSLR	**Vesyoloye**	**2.70**	**294**		*e*PN	**Pb**	**17 10 45.4**	**-2.3**
VSLR					*e*S	**Sn**	**17 11 16.0**	**-0.4**
IZDR	**Rize**	**2.71**	**233**		P	**Pb**	**17 10 43.8**	**+0.5**
IZDR					S	**Sn**	**17 11 18.2**	**+1.5**
KOPR	**Koprukoy-ERZUR**	**2.71**	**206**		Pn	**Pb**	**17 10 45.5**	**-2.6**
KOPR					AML	AML		
KMKR	**Kumukh**	**2.74**	**95**		*e*Pn	**Pb**	**17 10 47.0**	**-1.6**
KMKR					*e*Sn	**Sb**	**17 11 21.4**	**-1.3**
KMKR	**Kumukh**	**2.74**	**95**		*e*PN	**Pb**	**17 10 47.0**	**-1.6**
KMKR					*e*S	**Sb**	**17 11 21.4**	**-1.3**
GANJ	**Ganja**	**2.81**	**128**		PN	**Pb**	**17 10 47.0**	**-2.7**
KRIK	**Erzurum-spir**	**2.81**	**223**		P	**Pb**	**17 10 47.5**	**-2.4**
AGRB	**Hanur-Agry**	**2.87**	**187**		Pn	**Pb**	**17 10 48.9**	**-2.0**
GUZR	**Guzeripl'**	**2.88**	**304**		*e*Pn	**Pn**	**17 10 46.2**	**+0.5**
GUZR					*e*Sn	**Sn**	**17 11 20.2**	**-0.8**
GUZR	**Guzeripl'**	**2.88**	**304**		*e*PN	**Pn**	**17 10 46.2**	**+0.5**
GUZR					*e*S	**Sn**	**17 11 20.2**	**-0.8**
SOC	**Sochi**	**2.95**	**294**		*e*PN	**Pb**	**17 10 51.1**	**-1.0**
SOC					*e*		17 10 57.2	
SOC					*e*PPP	PPP	17 10 58.8	
SOC					*e*		17 11 28.1	
SOC					pmax	pmax		
	comp=Z,11nm,0.7s							
SOC					MLR	MLR		
	comp=Z,44nm,6.0s							
LABN	**Labinsk**	**2.96**	**319**		*e*PN	**Pb**	**17 10 51.0**	**-1.1**
LABN					*e*S	**Sb**	**17 11 25.9**	**-2.8**
LABN					pmax	pmax		
	comp=Z,32nm,0.5s							
ERZM	**Erzurum**	**2.97**	**212**		P	**Pb**	**17 10 50.5**	**-1.9**
MAK	**Makhachkala**	**3.05**	**79**	⇓	*e*PN	**Pb**	**17 10 52.5**	**-1.2**
MAK					*e*S	**Sb**	**17 11 33.0**	**+1.6**
MAK					pmax	pmax		
	comp=Z,182nm,1.1s							
MAK					MLR	MLR		
	comp=Z,256nm,7.0s							
SEKA	**Sheki**	**3.07**	**112**		PN	**Pn**	**17 10 49.4**	**+1.0**
DORK	**Agr/Tutak/Do**	**3.08**	**189**		P	**Pg**	**17 10 56.4**	**-1.4**
BAYT	**Aydıntepe-Bayb**	**3.20**	**232**		Pn	**Pn**	**17 10 51.4**	**+1.1**
BAYT					AML	AML		
MNGR	**Mingechevir, A**	**3.21**	**120**		PN	**Pn**	**17 10 52.8**	**+2.7**
BAYB	**BAYBURT**	**3.23**	**229**		P	**Pb**	**17 10 54.2**	**-2.7**
BAYB					S	**Sb**	**17 11 33.1**	**-3.7**
BAYB					IAML		17 11 51.0	
	comp=Z,127nm,1.3s							
MRNR	**Maryino**	**3.25**	**299**		PN	**Pb**	**17 10 58.3**	**+1.1**
MRNR					SG	**Sg**	**17 11 43.6**	**+0.4**
CLDR	**Calderan**	**3.31**	**173**		Pn	**Pb**	**17 10 55.7**	**-2.6**
CLDR					AML	AML		
AKT	**Akhty**	**3.35**	**105**		*e*Pn	**Pn**	**17 10 54.4**	**+2.2**
AKT					*e*Sn	**Sn**	**17 11 34.7**	**+2.1**
AKT	**Akhty**	**3.35**	**105**		*e*PN	**Pn**	**17 10 54.4**	**+2.2**
AKT					*e*S	**Sn**	**17 11 34.7**	**+2.1**
GOYR	**Goytkh**	**3.47**	**303**		PN	**Pg**	**17 11 05.8**	**+0.7**
GOYR					SG	**Sg**	**17 11 54.7**	**+4.7**
NAX	**Nakhchivan**	**3.62**	**154**		PN	**Pb**	**17 11 01.2**	**-2.2**
DRN	**Derbent**	**3.66**	**95**	⇓	*e*PN	**Pb**	**17 11 02.5**	**-1.7**
YEDI	**Yedisu-Bingol**	**3.71**	**217**		Pn	**Pn**	**17 10 59.1**	**+1.9**
YEDI					AML	AML		
ERBR	**Yeremizino-Bor**	**3.91**	**328**		*e*Pn	**Pn**	**17 11 00.0**	**+0.2**
ERBR					*e*Sn	**Sn**	**17 11 45.8**	**-0.4**
ERBR	**Yeremizino-Bor**	**3.91**	**328**		*e*PN	**Pg**	**17 11 12.0**	**-1.5**
ERBR					*e*S	**Sg**	**17 12 01.6**	**-2.5**
ERBR					pmax	pmax		
	comp=Z,93nm,1.1s							
ERBR					MLR	MLR		
	comp=Z,209nm,13.0s							
ANN	**Anapa**	**4.95**	**301**		*e*PN	Pn	17 11 18.1	+4.0
ANN					*e*S	**Sn**	**17 12 16.6**	**+4.6**
ANN					pmax	pmax		
	comp=Z,39nm,1.2s							
LKRN	**Lenkeran, Azer**	**5.52**	**131**		P	**Pn**	**17 11 24.1**	**+2.2**
BRTR	**Keskin Array B**	**7.87**	**253**		Pn	**Pn**	**17 11 57.0**	**+2.6**
	comp=Z,0.2nm,0.3s,baz=48,slow=11,SNR=2.2							
	comp=Z,0.7nm,0.7s							
BRTR					AML	AML		
BRTR	**Keskin Array B**	**7.87**	**253**		P	**Pn**	**17 11 57.0**	**+2.6**
VRH	**Novokhopyorsk**	**8.85**	**353**		*e*P	Pn	17 12 13.9	+6.3
VRH					pmax	pmax		
	comp=Z,2.0nm,0.4s							
VORD	**Divnogorie**	**8.99**	**343**		*e*P	Pn	17 12 14.0	+4.4
VORD					pmax	pmax		
	comp=Z,5.0nm,0.8s							
VSR	**Storozhevoye**	**9.26**	**343**		*e*P	Pn	17 12 17.6	+4.4
VSR					pmax	pmax		
	comp=Z,10.0nm,1.0s							
VORR	**Voronezh**	**9.68**	**344**		*e*P	**Pn**	**17 12 20.9**	**+2.0**
VORR					pmax	pmax		
	comp=Z,20nm,0.4s							
LPSR	**Galich'ya Gora**	**10.62**	**345**		*e*P	**Pn**	**17 12 27.6**	**-4.2**
LPSR					pmax	pmax		
	comp=Z,7.0nm,0.6s							
AKTO	**Aktyubinsk**	**12.84**	**46**		LR	LR	17 20 01.9	
	comp=Z,68nm,18.4s,baz=31,slow=48							
EIL	**Elat**	**14.45**	**211**		LR	LR	17 19 45.3	
	comp=Z,67nm,18.7s,baz=321,slow=40							
SVE	**Sverdlovsk**	**18.14**	**32**		*e*P	**Pn**	**17 14 09.2**	**-2.4**
KLMR	**Klimovskoe**	**18.60**	**354**		*e*P	**Pn**	**17 14 20.8**	**+3.6**
KLMR					pmax	pmax		
	comp=Z,32nm,1.5s							
BVAR	**Borovoye Array**	**20.88**	**50**		P	**P**	**17 14 41.5**	**-0.6**
	comp=Z,3.0nm,0.8s,baz=245,slow=9.4,SNR=11							
	comp=Z,3.0nm,0.8s							
GERES	**GERESS Array B**	**21.66**	**297**		P	**P**	**17 14 53.6**	**+3.0**
	comp=Z,0.6nm,0.8s,baz=98,slow=8.2,SNR=4.4							
	comp=Z,0.6nm,0.8s							
FINES	**FINESS Array B**	**21.70**	**337**		P	**P**	**17 14 51.6**	**+0.9**
	comp=Z,2.3nm,0.8s,baz=141,slow=12,SNR=3.4							
	comp=Z,2.3nm,0.8s							
KURBB	**Kurchatov Arra**	**25.31**	**59**		P	**P**	**17 15 23.6**	**-2.9**
	comp=Z,0.7nm,0.2s,baz=273,slow=11,SNR=5.0							
	comp=Z,0.7nm,0.2s							
KURK	**Kurchatov**	**25.37**	**59**		P	**P**	**17 15 23.7**	**-3.4**
NOA	**NORSAR Array B**	**26.86**	**325**		LR	LR	17 25 40.7	
	comp=Z,25nm,20.5s,baz=350,slow=35							
MKAR	**Makanchi Array**	**27.81**	**68**		P	**P**	**17 15 48.8**	**-0.5**
	comp=Z,0.3nm,0.5s,baz=271,slow=9.5,SNR=5.8							
	comp=Z,0.3nm,0.5s							
TORD	**Torodi Ar. Bea**	**46.36**	**244**		P	**P**	**17 18 28.0**	**+1.5**
	comp=Z,0.4nm,0.7s,baz=38,slow=4.1,SNR=2.5							
	comp=Z,0.4nm,0.7s							

*NNC **04** 17:27:37.9±5.6, 37.°16N×71.°31E, h161km±115km, mb2.7, mpv3.5, Error ellipse: s-maj=58.6km s-min=48.0km az=1.0*
ISC 04 17:27:30.6±1.5, **36.°68N**±0.°09×**71.°3E**±0.°2, **h114**km, **n6, σ1°56/11, 2C, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TSSA	**Tissa**	**5.51**	**133**	*i* P	**Pn**	**17 28 50.2**	**-0.3**
TSSA				*i* S	**Sn**	**17 29 54.6**	**+1.8**
DHRM	**DHARAMSHALA**	**6.03**	**136**	*i* P	**Pn**	**17 28 57.2**	**-0.4**
DHRM				*i* S	**Sn**	**17 30 04.0**	**-1.3**
AAK	**Ala-Archa**	**6.42**	**21**	⇑P	**Pn**	**17 29 04.9**	**+2.1**
	2.5nm,0.6s						
AAK				⇑S	**Sn**	**17 30 13.0**	**-1.7**
	4.5nm,0.9s						
KK31	**Karatay Array**	**6.44**	**355**	P	**Pn**	**17 29 04.0**	**+1.1**
	2.4nm,0.3s,baz=182,slow=13,SNR=39						
KK31				S	**Sn**	**17 30 13.2**	**-1.8**
	1.9nm,0.4s,baz=183,slow=23,SNR=3.9						
SMLA	**Simla**	**7.36**	**137**	*i* P	**Pn**	**17 29 15.6**	**+0.3**
SMLA				*i* S	**Sn**	**17 30 35.8**	**-1.5**
AB31	**Akbulak array**	**15.06**	**330**	P	**Pn**	**17 30 57.0**	**-0.2**
	0.3nm,0.3s,baz=153,slow=9.9,SNR=14						

*AFAD **04** 17:38:56.8, 37.°71N×27.°03E, h7km±3km, ML3.0*
*ISK **04** 17:38:56.9, 37.°73N×27.°07E, h14km, ML3.2/14*
*ATH **04** 17:38:57.4, 37.°70N×27.°09E, h8km±1km, ML3.2/6, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*THE **04** 17:38:57.4, 38.°N±2.°×2.°7E±.°, h9km±3km, M3.3/6, MLh3.3/6*
ISC 04 17:38:57.1±0.8, **37.°71N**±0.°02×**27.°07E**±0.°2, **h15**km±5km, **n63, σ0°54/90, Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.13**	**96**	P	**Pg**	**17 39 00.8**	**0.0**
GCAM	**G?zelcaml?**	**0.13**	**96**	Pg	**Pg**	**17 39 00.8**	**0.0**
GCAM				Sg	**Sg**	**17 39 03.5**	**+0.3**
GCAM				AML	AML		
SMG	**Samos**	**0.18**	**269**	P	**Pg**	**17 39 01.2**	**-0.4**
SMG				S	**Sg**	**17 39 03.7**	**-0.9**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**269**	P	**Pg**	**17 39 01.1**	**-0.4**
SMG				S	**Sg**	**17 39 04.0**	**-0.6**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**49**	Pg	**Pg**	**17 39 02.2**	**0.0**
KUSD				Sg	**Sg**	**17 39 05.8**	**+0.1**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.29**	**152**	P	**Pb**	**17 39 03.5**	**-0.5**
DDIM				S	**Sg**	**17 39 07.3**	**-0.2**
DDIM				IAML		17 39 09.0	
	comp=N,3μm,0.2s						
DIDI	**Didim-Aydin**	**0.36**	**158**	Pg	**Pb**	**17 39 05.1**	**-0.1**
DIDI				Sg	**Sb**	**17 39 10.9**	**+0.2**
DIDI				AML	AML		
DGB	**zmir**	**0.37**	**336**	P	**Pg**	**17 39 04.2**	**-0.5**
DGB				S	**Sg**	**17 39 09.3**	**-0.5**
DGB				IAML		17 39 10.0	
	comp=N,1μm,0.4s						
DGB				IAML		17 39 10.0	
	comp=E,2μm,0.2s						
GMLD	**Gumuldur**	**0.38**	**341**	Pg	**Pg**	**17 39 05.1**	**+0.2**
GMLD				AML	AML		
BEYE	**izmir**	**0.53**	**348**	P	**Pg**	**17 39 07.6**	**0.0**
BEYE				S	**Sg**	**17 39 14.0**	**-0.6**
BEYE				IAML		17 39 15.0	
	comp=E,1μm,0.2s						
DUVT	**Torbali**	**0.59**	**30**	P	**Pg**	**17 39 08.7**	**0.0**
DUVT				S	**Sg**	**17 39 16.4**	**-0.2**
DUVT				IAML		17 39 21.0	
	comp=E,846nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.61**	**164**	Pg	**Pb**	**17 39 09.8**	**+0.3**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.64**	**94**	P	**Pg**	**17 39 09.7**	**-0.1**
AYDN				S	**Sg**	**17 39 17.6**	**-0.7**
AYDN				IAML		17 39 22.0	
	comp=E,598nm,0.3s						
BLCB	**Balcova**	**0.67**	**358**	P	**Pg**	**17 39 10.2**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.67**	**358**	Pg	**Pg**	**17 39 09.9**	**-0.4**
BLCB				Sg	**Sb**	**17 39 19.6**	**-0.1**
BODT	**Bodrum**	**0.68**	**164**	P	**Pg**	**17 39 10.0**	**-0.4**
BODT				S	**Sb**	**17 39 20.1**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.68**	**164**	Pg	**Pb**	**17 39 10.9**	**+0.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.69**	**70**	Pg	**Pb**	**17 39 10.8**	**-0.1**
AYDB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.69**	**320**	P	**Pg**	**17 39 09.9**	**-0.8**
ZEYE				S	**Sg**	**17 39 19.6**	**-0.2**
ZEYE				IAML		17 39 20.0	
	comp=N,3μm,0.5s						
ZEYE				IAML		17 39 22.0	
	comp=E,1μm,0.8s						
MLSB	**Milas**	**0.70**	**126**	Pg	**Pg**	**17 39 10.7**	**-0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.71**	**155**	P	**Pb**	**17 39 11.2**	**-0.1**
BDRM				S	**Sg**	**17 39 20.1**	**-0.3**
BDRM				IAML		17 39 23.0	
	comp=N,593nm,0.3s						
BODA	**Bodrum-Mula**	**0.73**	**157**	Pg	**Pb**	**17 39 11.9**	**+0.3**
KLNA	**Kalymnos**	**0.76**	**186**	P	**Pg**	**17 39 11.2**	**-0.7**
KLNA				S	**Sg**	**17 39 21.5**	**-0.4**
KLNA				AML	AML		
IZMR	**zmir-demi**	**0.81**	**58**	P	**Pb**	**17 39 13.6**	**+0.6**
IZMR				P	**Pn**	**17 39 14.0**	**-0.1**
IZMR				S	**Sg**	**17 39 22.6**	**-1.1**
IZMR				S	**Sb**	**17 39 22.8**	**-1.0**
IZMR				IAML		17 39 26.0	
	comp=N,579nm,0.5s						
IZMR				IAML		17 39 26.0	
	comp=N,527nm,0.5s						
BAGT	**Foa**	**0.96**	**350**	P	**Pn**	**17 39 16.1**	**+0.1**
BAGT				S	**Sb**	**17 39 28.6**	**+0.7**
BAGT				IAML		17 39 29.0	
	comp=E,863nm,0.8s						
NAZL	**Nazilli-Aydin**	**1.00**	**75**	Pg	**Pb**	**17 39 16.6**	**+0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.02**	**85**	P	**Pg**	**17 39 16.5**	**-0.3**
CHOS	**Chios island**	**1.05**	**310**	P	**Pg**	**17 39 16.8**	**-0.6**
CHOS				S	**Sn**	**17 39 31.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.05**	**310**	Pg	**Pb**	**17 39 17.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.05**	**310**	P	**Pn**	**17 39 17.6**	**+0.2**
CHOS				S	**Sn**	**17 39 31.9**	**+0.2**
CHOS				AML	AML		
CAMT	**Merkez**	**1.05**	**10**	P	**Pb**	**17 39 17.3**	**+0.2**
CAMT				S	**Sn**	**17 39 32.2**	**+0.4**
CAMT				IAML		17 39 34.0	
	comp=N,433nm,0.6s						
DAT	**Datca**	**1.06**	**157**	Pg	**Pn**	**17 39 18.0**	**+0.4**
DAT				AML	AML		
KARB	**zmir-Karabur**	**1.08**	**332**	P	**Pg**	**17 39 17.7**	**-0.4**
KARB				S	**Sb**	**17 39 32.1**	**+0.6**
KARB				IAML		17 39 35.0	
	comp=E,411nm,0.6s						
MULA	**Mugla, Merkez-**	**1.09**	**114**	P	**Pg**	**17 39 17.9**	**-0.3**
EAG2	**Marmaro, Chios**	**1.12**	**318**	P	**Pn**	**17 39 19.1**	**+0.8**
EAG2				S	**Sn**	**17 39 33.8**	**+0.3**
YER	**Yerkesik**	**1.12**	**121**	P	**Pb**	**17 39 18.7**	**+0.4**
YER	**Yerkesik**	**1.12**	**121**	Pn	**Pn**	**17 39 18.9**	**+0.5**
YER				AML	AML		
KIRA	**zmir-Kiraz**	**1.16**	**65**	P	**Pb**	**17 39 19.1**	**+0.2**
KIRA				S	**Sg**	**17 39 32.7**	**-1.9**
GOMA	**Golmarmara-Man**	**1.20**	**34**	Pn	**Pb**	**17 39 19.7**	**+0.2**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.25**	**0**	P	**Pg**	**17 39 20.8**	**-0.5**
KTTT	**Salihli**	**1.26**	**39**	P	**Pg**	**17 39 21.1**	**-0.4**
ASTA	**Astypalaia**	**1.30**	**206**	P	**Pn**	**17 39 21.3**	**+0.6**
AKHS	**Akhisar**	**1.30**	**26**	P	**Pg**	**17 39 21.8**	**-0.5**
TURN	**Turunc**	**1.32**	**135**	P	**Pn**	**17 39 20.6**	**-0.5**
TURN	**Turunc**	**1.32**	**135**	Pn	**Pn**	**17 39 21.3**	**+0.3**
TURN				AML	AML		
DKL	**Dikili**	**1.36**	**355**	P	**Pn**	**17 39 21.6**	**0.0**
APE	**Apeiranthos**	**1.39**	**243**	P	**Pb**	**17 39 23.0**	**+0.3**
APE				S	**Sg**	**17 39 41.4**	**-0.5**
APE				AML	AML		
SULTU	**Buldan**	**1.39**	**75**	P	**Pn**	**17 39 22.4**	**+0.4**
SULTU				S	**Sb**	**17 39 39.9**	**-0.5**
MANT	**Manisa**	**1.41**	**56**	P	**Pg**	**17 39 24.2**	**-0.1**
TAVA	**DENIZLI_Tavas**	**1.48**	**99**	P	**Pn**	**17 39 23.8**	**+0.4**
HARTU	**Esme**	**1.50**	**65**	P	**Pn**	**17 39 24.4**	**+0.8**
DNIZ	**Denizli-Tavas-**	**1.56**	**93**	P	**Pn**	**17 39 25.0**	**+0.6**
PRK	**Paraskevi**	**1.65**	**338**	P	**Pn**	**17 39 25.7**	**+0.1**
PRK	**Paraskevi**	**1.65**	**338**	P	**Pn**	**17 39 26.4**	**+0.8**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.72**	**150**	P	**Pn**	**17 39 27.5**	**+1.1**
ARG				AML	AML		
STEP	**BALIKESIR_Sava**	**1.74**	**17**	P	**Pb**	**17 39 29.3**	**+0.5**
BUHA	**Balikesir, Bur**	**1.79**	**0**	P	**Pn**	**17 39 27.8**	**+0.3**
CMBO	**Columbo, Santo**	**1.82**	**228**	P	**Pn**	**17 39 27.6**	**-0.3**
THERA	**Ancient Thera,**	**1.85**	**224**	P	**Pn**	**17 39 29.0**	**+0.7**
SAP3	**Santorini-Thir**	**1.88**	**228**	P	**Pn**	**17 39 29.7**	**+1.0**
BAYC	**CANAKKALE_Bayr**	**2.07**	**349**	P	**Pn**	**17 39 30.0**	**-1.3**
KARY	**Karystos**	**2.11**	**279**	P	**Pn**	**17 39 32.6**	**+0.8**
DION	**Dionisos Attik**	**2.51**	**279**	P	**Pn**	**17 39 37.5**	**+0.1**

*ISK **04** 17:41:56.5, 37.°91N×26.°46E, h5km, ML2.4/15*
*THE **04** 17:41:57.3, 38.°N±3.°×2.°6E±.°, h11km±4km, M2.7/5, MLh2.7/5*
*AFAD **04** 17:41:57.4, 37.°89N×26.°49E, h7km±3km, ML2.5*
*ATH **04** 17:41:57.2, 37.°86N×26.°44E, h11km±2km, ML2.6/5, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
ISC 04 17:41:57.4±1.0, **37.°89N**±0.°02×**26.°47E**±0.°02, **h10**km±8km, **n58, σ0°71/92, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.34**	**122**	P	**Pg**	**17 42 04.3**	**0.0**
SMG				S	**Sg**	**17 42 09.5**	**+0.7**
SMG				AML	AML		
SMG	**Samos**	**0.34**	**122**	P	**Pg**	**17 42 04.3**	**0.0**
SMG				S	**Sg**	**17 42 09.4**	**+0.6**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.35**	**5**	P	**Pg**	**17 42 04.2**	**-0.1**
ZEYE				S	**Sb**	**17 42 10.4**	**-0.9**
ZEYE				IAML		17 42 11.0	
	comp=N,431nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.35**	**5**	P	**Pg**	**17 42 04.1**	**-0.3**
ZEYE				S	**Sb**	**17 42 10.2**	**-1.0**
ZEYE				IAML		17 42 11.0	
	comp=N,431nm,0.2s						
DGB	**zmir**	**0.37**	**64**	P	**Pg**	**17 42 04.5**	**-0.1**
DGB				S	**Sg**	**17 42 09.4**	**-0.1**
DGB				IAML		17 42 10.0	
	comp=E,597nm,0.4s						
DGB				IAML		17 42 11.0	
	comp=N,624nm,0.4s						
DGB	**zmir**	**0.37**	**64**	P	**Pg**	**17 42 04.7**	**+0.1**
DGB				S	**Sg**	**17 42 10.2**	**+0.7**
DGB				IAML		17 42 11.0	
	comp=N,624nm,0.4s						
GMLD	**Gumuldur**	**0.40**	**62**	Pg	**Pg**	**17 42 04.8**	**-0.5**
GMLD				Sg	**Sb**	**17 42 11.8**	**-0.9**
GMLD				AML	AML		
BEYE	**izmir**	**0.49**	**47**	P	**Pg**	**17 42 06.7**	**-0.4**
BEYE				S	**Sg**	**17 42 13.0**	**-0.6**
BEYE	**izmir**	**0.49**	**47**	P	**Pg**	**17 42 07.0**	**-0.1**
BEYE				S	**Sg**	**17 42 14.2**	**+0.6**
CHOS	**Chios island**	**0.59**	**327**	P	**Pg**	**17 42 08.4**	**-0.5**
CHOS				S	**Sb**	**17 42 17.9**	**-0.5**
CHOS				AML	AML

ZEDA					IAML			17 42 39.0	
	comp=E,110nm,0.5s								
ZEDA					IAML			17 42 40.0	
	comp=N,97nm,0.3s								
IZMR	**zmir-demi**	**1.20**	**78**	P		**Pn**		**17 42 19.0**	**-1.2**
IZMR				S		**Sb**		**17 42 34.9**	**-0.8**
MLSB	**Milas**	**1.20**	**119**	Pn		**Pg**		**17 42 20.9**	**+0.5**
MLSB				AML		AML			
DKL	**Dikili**	**1.23**	**16**	P		**Pg**		**17 42 20.7**	**-0.3**
PRK	**Paraskevi**	**1.36**	**354**	P		**Pg**		**17 42 23.1**	**-0.4**
GOMA	**Golmarmara-Man**	**1.40**	**54**	Pn		**Pg**		**17 42 24.1**	**-0.2**
GOMA				AML		AML			
AYVA	**Ayvalik**	**1.43**	**7**	P		**Pb**		**17 42 23.9**	**-0.1**
AYVA				S		**Sg**		**17 42 44.5**	**+1.2**
AYVA				IAML				17 42 46.0	
	comp=N,72nm,0.4s								
AYVA				IAML				17 42 50.0	
	comp=E,75nm,0.6s								
YAZI	**Mula-Dat§a-**	**1.44**	**147**	P		**Pb**		**17 42 24.1**	**-0.2**
YAZI				S		**Sg**		**17 42 43.9**	**+0.2**
YAZI				IAML				17 42 48.0	
	comp=E,46nm,0.7s								
NAZL	**Nazilli-Aydin**	**1.45**	**87**	Pn		**Pg**		**17 42 25.0**	**-0.1**
NAZL				AML		AML			
DAT	**Datca**	**1.46**	**142**	Pn		**Pg**		**17 42 25.4**	**0.0**
DAT				AML		AML			
ESEN	**Aydn-Nazilli**	**1.49**	**93**	P		**Pb**		**17 42 25.3**	**+0.1**
KTTT	**Salihli**	**1.51**	**58**	P		**Pg**		**17 42 26.0**	**-0.3**
KTTT				S		**Sb**		**17 42 44.4**	**-0.3**
KIRA	**zmir-Kiraz**	**1.56**	**78**	P		**Pb**		**17 42 26.3**	**0.0**
YER	**Yerkesik**	**1.63**	**117**	Pn		**Pb**		**17 42 27.8**	**+0.3**
YER				AML		AML			
BUHA	**Balikesir, Bur**	**1.68**	**16**	P		**Pb**		**17 42 27.7**	**-0.6**
BUHA				S		**Sg**		**17 42 52.3**	**+1.0**
BUHA				IAML				17 42 54.0	
	comp=N,56nm,0.7s								
BUHA				IAML				17 42 56.0	
	comp=E,147nm,0.6s								
MANT	**Manisa**	**1.75**	**69**	P		**Pg**		**17 42 30.7**	**-0.3**
MANT				S		**Sb**		**17 42 52.5**	**+0.6**
STEP	**BALIKESIR_Sava**	**1.78**	**33**	P		**Pb**		**17 42 30.2**	**+0.2**
STEP				S		**Sg**		**17 42 55.2**	**+0.6**
STEP				IAML				17 43 03.0	
	comp=E,53nm,0.9s								
TURN	**Turunc**	**1.80**	**128**	Pn		**Pb**		**17 42 30.3**	**-0.1**
TURN				AML		AML			

*OTT **04** 17:43:47.9±0.3, 73°.79N×70°.58W, h18km, ML3.2/5, 268km northeast from Pond Inlet, Nu Baffin Bay Seismic Zone.*
*DNK **04** 17:43:51.2±1.1, 73°.97N×69°.19W, h0km±35km, ML2.7, Presumed earthquake*
ISC 04 17:43:44.4±1.1, **73°.91N**±0°.06×**70°.44W**±0°.05, **h10**km, **n10**, σ**2s81**/18, **Baffin Bay**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
POIN	**Pond Inlet**	**2.49**	**245**	PN		**Pn**	**17 44 27.1**	**+2.3**
POIN				SN		**Sn**	**17 44 54.1**	**-1.1**
POIN				Trac			17 44 55.3	
	comp=Z,21nm,0.1s							
CLRN	**Clyde River**	**3.50**	**170**	PN		**Pn**	**17 44 40.1**	**+1.4**
CLRN				SN		**Sn**	**17 45 17.3**	**-2.8**
CLRN				Trac			17 45 19.5	
	comp=Z,19nm,0.1s							
KULLO	**Kullorsuaq**	**3.67**	**73**	PN		**Pn**	**17 44 44.4**	**+3.3**
KULLO				SN		**Sn**	**17 45 24.1**	**-0.1**
KULLO				Trac			17 45 24.8	
	comp=Z,25nm,0.2s							
KULLO	**Kullorsuaq**	**3.67**	**73**	*i* P		**Pn**	**17 44 43.4**	**+2.4**
KULLO				*i* S		**Sn**	**17 45 22.6**	**-1.6**
KULLO				IAML			17 45 24.9	
	comp=Z,34nm,0.2s							
UPNV	**Upernavik**	**4.26**	**98**	*i* P		**Pn**	**17 44 51.9**	**+2.6**
UPNV				*i* S		**Sn**	**17 45 37.0**	**-2.0**
NUUG	**Nuugaatsiaq**	**5.65**	**106**	*i* P		**Pn**	**17 45 11.9**	**+3.7**
NUUG				*i* S		**Sn**	**17 46 10.0**	**-3.0**
NUUG				IAML			17 46 29.2	
	comp=Z,47nm,1.4s							
ILON	**Igloolik, Nuna**	**5.80**	**224**	PN		**Pn**	**17 45 12.2**	**+1.9**
ILON				SN		**Sn**	**17 46 12.6**	**-4.1**
ILON				Trac			17 46 16.1	
	comp=Z,3.9nm,0.1s							
NEEM	**North Greenlan**	**5.95**	**44**	*i* P		**Pn**	**17 45 15.2**	**+2.6**
NEEM				*i* S		**Sn**	**17 46 18.5**	**-2.3**
RES	**Resolute Bay**	**6.66**	**288**	PN		**Pn**	**17 45 24.5**	**+2.4**
RES				SN		**Sn**	**17 46 34.5**	**-3.4**
RES				Trac			17 46 49.6	
	comp=Z,8.6nm,0.3s							
FRB	**Frobisher Bay**	**10.23**	**175**	SN		Sn	17 47 57.7	-7.9

*IDC **04** 17:45:08.9±1.6, 18°.40N×68°.23W, h67km±16km, mb3.8/19, mbtmp4.2/22, MS3.3/4, Error ellipse: s-maj=14.3km s-min=11.3km az=5.0*
*CATAC **04** 17:45:09.2±0.2, 18°.N±4°×6°.8W±°, h114km±6km, M4.9/9, mb4.7/9, mB5.5/4, MLv5.0/9, Mw(mB)5.0/4, Error ellipse: s-maj=8.4km s-min=2.7km az=15.3, confirmed*
*NEIC **04** 17:45:10.6±1.1, 18°.13N±0°.06×68°.21W±0°.05, h84km±6km, mb4.6/128, ML4.6/51, ML4.4/16(RSPR), Error ellipse: s-maj=9.9km s-min=5.2km az=209.0*
*GFZ **04** 17:45:10.7±0.2, 18°.N±3°×6°.8W±°, h96km, M4.5/18, mb4.5/18*
*RSPR **04** 17:45:11.4, 18°.08N×68°.23W, h79km±1km, MD3.9/16*
*SDD **04** 17:45:12.0±2.4, 18°.05N×68°.21W, h80km±10km, MD3.9, ML4.7, MW4.5, Presumed earthquake*
ISC 04 17:45:09.6±0.6, **18°.10N**±0°.04×**68°.22W**±0°.03, **h88**km±6km, **n309**, σ**2s08**/331, **mb4.5**/83, **42C-6D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PCDR	**Punta Cana, DR**	**0.45**	**340**			**Pn**	**17 45 23.8**	**0.0**
PCDR						**Sn**	**17 45 34.1**	**-0.1**
PCDR				IAML			17 45 35.8	
	comp=E,21μm,0.8s							
PCDR	**Punta Cana, DR**	**0.45**	**340**	⇓ *i* P		**Pn**	**17 45 23.8**	**0.0**
PCDR				⇑ *i* S		**Sn**	**17 45 34.4**	**+0.1**
PCDR				IAML			17 45 35.9	
	comp=N,22μm,0.6s							
PCDR	**Punta Cana, DR**	**0.45**	**340**	⇓ *i* P		**Pn**	**17 45 23.9**	**+0.1**
PCDR				*eS*		**Sn**	**17 45 34.2**	**-0.1**
SADR	**Isla Saona**	**0.54**	**280**	⇑ *i* P		**Pn**	**17 45 25.8**	**+1.3**
SADR				⇑ *i* S		**Sn**	**17 45 36.2**	**+0.6**
SADR				IAML			17 45 40.7	
	comp=N,53μm,0.4s							
IDE	**Isla Desecheo**	**0.77**	**68**			**Pn**	**17 45 27.0**	**+0.4**
IDE						**Sn**	**17 45 39.6**	**+0.2**
IDE	**Isla Desecheo**	**0.77**	**68**	⇓ *eP*		**Pn**	**17 45 27.0**	**+0.4**
IDE				*eS*		**Sn**	**17 45 39.6**	**+0.2**
PRSN	**Puerto Rico Se**	**1.03**	**83**			**Pn**	**17 45 30.0**	**+0.5**
PRSN				IAML			17 45 49.5	
	comp=N,14μm,0.3s							
PRSN				IAML			17 45 54.6	
	comp=N,18μm,0.3s							
PRSN	**Puerto Rico Se**	**1.03**	**83**			**Sn**	**17 45 45.3**	**+0.8**
PRSN	**Puerto Rico Se**	**1.03**	**83**	⇑ *iP*		**Pn**	**17 45 30.0**	**+0.5**
PRSN				IAML			17 45 54.5	
	comp=N,11μm,0.2s							
PRSN	**Puerto Rico Se**	**1.03**	**83**	⇑ *eP*		**Pn**	**17 45 30.0**	**+0.5**
CRPR	**Cabo Rojo, PR**	**1.06**	**95**			**Pn**	**17 45 30.5**	**+0.7**
CRPR	**Cabo Rojo, PR**	**1.06**	**95**			**Sn**	**17 45 45.1**	**0.0**
CRPR	**Cabo Rojo, PR**	**1.06**	**95**	⇑ *iP*		**Pn**	**17 45 30.7**	**+0.8**
CRPR				⇑ *iS*		**Sn**	**17 45 43.3**	**-1.7**
CRPR				IAML			17 45 46.3	
	comp=N,4μm,1.1s							
CRPR	**Cabo Rojo, PR**	**1.06**	**95**	⇑ *iP*		**Pn**	**17 45 30.9**	**+1.1**
LSP	**Las Mesas**	**1.08**	**86**			**Pn**	**17 45 30.9**	**+0.7**
LSP	**Las Mesas**	**1.08**	**86**	⇑ *eP*		**Pn**	**17 45 30.9**	**+0.7**
AGPR	**Aguadilla, PR**	**1.12**	**70**			**Pn**	**17 45 31.3**	**+0.7**
AGPR				IAML			17 45 49.3	
	comp=N,11μm,0.8s							
AGPR				IAML			17 45 52.4	
	comp=N,12μm,0.3s							
AGPR	**Aguadilla, PR**	**1.12**	**70**			**Sn**	**17 45 47.8**	**+1.5**
AGPR	**Aguadilla, PR**	**1.12**	**70**	⇑ *iP*		**Pn**	**17 45 31.4**	**+0.9**
AGPR				⇑ *iS*		**Sn**	**17 45 47.6**	**+1.4**
AGPR				IAML			17 45 49.2	
	comp=N,8μm,1.0s							
AGPR	**Aguadilla, PR**	**1.12**	**70**	⇑ *iP*		**Pn**	**17 45 31.7**	**+1.1**
MLPR	**Magueyes Islan**	**1.12**	**96**			**Pn**	**17 45 31.4**	**+0.7**
MLPR	**Magueyes Islan**	**1.12**	**96**			**Sn**	**17 45 46.7**	**+0.3**
MLPR	**Magueyes Islan**	**1.12**	**96**	⇑ *iP*		**Pn**	**17 45 31.3**	**+0.7**
MLPR				⇑ *iS*		**Sn**	**17 45 46.8**	**+0.3**
MLPR				IAML			17 45 48.1	
	comp=N,968nm,0.3s							
MLPR	**Magueyes Islan**	**1.12**	**96**	⇑ *eP*		**Pn**	**17 45 31.6**	**+1.0**
GBPR	**Guanica, Bosqu**	**1.28**	**95**			**Pn**	**17 45 33.6**	**+1.1**
GBPR						**Sn**	**17 45 50.1**	**+0.3**
GBPR	**Guanica, Bosqu**	**1.28**	**95**	⇓ *eP*		**Pn**	**17 45 33.6**	**+1.1**
GBPR				*eS*		**Sn**	**17 45 50.1**	**+0.3**
AOPR	**Arecibo Observ**	**1.42**	**80**			**Pn**	**17 45 34.5**	**+0.3**
AOPR	**Arecibo Observ**	**1.42**	**80**			**Sn**	**17 45 53.9**	**+1.1**
AOPR	**Arecibo Observ**	**1.42**	**80**	⇑ *iP*		**Pn**	**17 45 34.6**	**+0.3**
AOPR				⇑ *iS*		**Sn**	**17 45 53.9**	**+1.1**
AOPR				IAML			17 45 57.1	
	comp=N,14μm,0.3s							
AOPR	**Arecibo Observ**	**1.42**	**80**	⇑ *eP*		**Pn**	**17 45 35.1**	**+0.9**
SMDR	**Samana, DR**	**1.50**	**322**			**Pn**	**17 45 35.9**	**+0.6**
SMDR						**Sn**	**17 45 55.6**	**+0.9**
SMDR	**Samana, DR**	**1.50**	**322**	⇓ *iP*		**Pn**	**17 45 35.5**	**+0.2**
SMDR				⇑ *iS*		**Sn**	**17 45 54.1**	**-0.6**
SMDR				IAML			17 45 58.2	
	comp=N,22μm,0.6s							
SMDR	**Samana, DR**	**1.50**	**322**	⇑ *eP*		**Pn**	**17 45 35.9**	**+0.6**
SMDR				*eS*		**Sn**	**17 45 55.6**	**+0.9**
OBIP	**Obispado Ponce**	**1.54**	**92**			**Pn**	**17 45 36.2**	**+0.5**
OBIP	**Obispado Ponce**	**1.54**	**92**			**Sn**	**17 45 55.5**	**-0.1**
OBIP	**Obispado Ponce**	**1.54**	**92**	⇑ *eP*		**Pn**	**17 45 36.8**	**+1.1**
OBIP				*eS*		**Sn**	**17 45 55.5**	**-0.1**
CELP	**Cerrillos**	**1.56**	**90**			**Pn**	**17 45 36.6**	**+0.6**
CELP				IAML			17 46 05.0	
	comp=N,4μm,0.4s							
CELP	**Cerrillos**	**1.56**	**90**			**Sn**	**17 45 56.7**	**+0.6**
CELP	**Cerrillos**	**1.56**	**90**	⇑ *iP*		**Pn**	**17 45 36.6**	**+0.6**
CELP				⇑ *iS*		**Sn**	**17 45 54.5**	**-1.6**
CELP				IAML			17 46 02.5	
	comp=N,1μm,0.3s							
CELP	**Cerrillos**	**1.56**	**90**	⇑ *eP*		**Pn**	**17 45 36.9**	**+0.8**
EMPR	**Esperanza - Ma**	**1.65**	**76**			**Pn**	**17 45 38.0**	**+0.9**
EMPR						**Sn**	**17 45 58.4**	**+0.2**
EMPR	**Esperanza - Ma**	**1.65**	**76**	⇑ *eP*		**Pn**	**17 45 38.0**	**+0.9**
EMPR				*eS*		**Sn**	**17 45 58.4**	**+0.2**
SDD	**Santo Domingo**	**1.65**	**283**	P		**Pn**	**17 45 39.1**	**+1.9**
SDD				S		**Sn**	**17 46 00.1**	**+2.0**
SDD	**Santo Domingo**	**1.65**	**283**	Pn		**Pn**	**17 45 37.9**	**+0.7**
SDD	**Santo Domingo**	**1.65**	**283**	⇑ *iP*		**Pn**	**17 45 38.3**	**+1.1**
SDD				⇑ *iS*		**Sn**	**17 45 58.9**	**+0.8**
SDD				IAML			17 46 00.7	
	comp=N,3μm,0.7s							
ECPR	**Experimental S**	**1.78**	**83**			**Pn**	**17 45 39.2**	**+0.3**
ECPR	**Experimental S**	**1.78**	**83**			**Sn**	**17 46 00.1**	**-1.0**
ECPR	**Experimental S**	**1.78**	**83**	⇑ *eP*		**Pn**	**17 45 39.5**	**+0.6**
SJG	**San Juan**	**1.97**	**89**	P		**Pn**	**17 45 41.8**	**+0.5**
	comp=N,683nm,0.3s,baz=313,slow=11,SNR=145							
SJG				S		**Sn**	**17 46 04.7**	**-0.8**
	comp=N,305nm,0.3s,baz=45,slow=18,SNR=6.6							
SJG	**San Juan**	**1.97**	**89**	P		**Pn**	**17 45 41.9**	**+0.6**
SJG				S		**Sn**	**17 46 07.3**	**+1.8**
SJG	**San Juan**	**1.97**	**89**			**Pn**	**17 45 41.6**	**+0.3**
SJG				IAML			17 46 09.5	
	comp=N,5μm,0.3s							
SJG				IAML			17 46 09.5	
	comp=N,5μm,0.2s							
SJG	**San Juan**	**1.97**	**89**	P		**Pn**	**17 45 41.5**	**+0.2**
SJG	**San Juan**	**1.97**	**89**	⇑ *iP*		**Pn**	**17 45 41.5**	**+0.2**
SJG				⇑ *iS*		**Sn**	**17 46 05.6**	**+0.1**
SJG	**San Juan**	**1.97**	**89**	x		**Sn**	**17 46 03.7**	**-2.3**
SJG	**San Juan**	**1.97**	**89**	P		**Sn**	**17 46 41.2**	**-0.1**
IGPR	**InterUniversit**	**2.01**	**93**			**Pn**	**17 45 42.4**	**+0.5**
IGPR						**Sn**	**17 46 06.0**	**-0.6**
IGPR	**InterUniversit**	**2.01**	**93**	⇑ *eP*		**Pn**	**17 45 42.4**	**+0.5**
GCPR	**Guaynabo City**	**2.04**	**84**			**Pn**	**17 45 42.4**	**+0.1**
GCPR				Sn		**Sn**	**17 46 04.6**	**-2.6**
GCPR				IAML			17 46 08.4	
	comp=N,2μm,0.4s							
BANI	**BANI**	**2.05**	**279**			**Pn**	**17 45 43.4**	**+0.8**
BANI	**BANI**	**2.05**	**279**	⇑ *iP*		**Pn**	**17 45 44.6**	**+2.1**
BANI				⇑ *iS*		**Sn**	**17 46 09.9**	**+2.1**
BANI				IAML			17 46 19.7	
	comp=N,13μm,0.5s							
PDPR	**Patillas Dam,**	**2.09**	**92**			**Pn**	**17 45 43.1**	**+0.1**
PDPR				IAML			17 46 12.7	
	comp=N,3μm,0.3s							
PDPR				IAML			17 46 13.5	
	comp=N,2μm,0.2s							
PDPR	**Patillas Dam,**	**2.09**	**92**			**Sn**	**17 46 07.7**	**-0.7**
PDPR	**Patillas Dam,**	**2.09**	**92**	⇑ *eP*		**Pn**	**17 45 43.5**	**+0.5**
HUMP	**Col San Antoni**	**2.25**	**88**			**Pn**	**17 45 45.5**	**+0.4**
HUMP				IAML			17 46 14.8	
	comp=N,4μm,0.2s							
HUMP				IAML			17 46 16.4	
	comp=N,4μm,0.4s							
CADR	**Cabrera**	**2.26**	**314**	⇑ *iP*		**Pn**	**17 45 45.9**	**+0.7**
CADR				⇑ *iS*		**Sn**	**17 46 13.7**	**+1.3**
CADR				IAML			17 46 22.2	
	comp=N,13μm,0.5s							
ABDR	**Alto Bandera**	**2.39**	**288**	⇑ *iP*		**Pn**	**17 45 48.1**	**+0.8**
ABDR				⇑ *iS*		**Sn**	**17 46 15.4**	**-0.8**
ABDR				IAML			17 46 26.4	
	comp=N,5μm,0.8s							
SC01	**Santiago de lo**	**2.72**	**300**			**Pn**	**17 45 53.0**	**+1.7**
SC01	**Santiago de lo**	**2.72**	**300**	⇑ *iP*		**Pn**	**17 45 53.8**	**+2.4**
SC01				IAML			17 46 31.1	
	comp=N,7μm,0.6s							
PODR	**Polo**	**2.91**	**272**			**Pn**	**17 45 54.5**	**+0.4**
PODR				IAML			17 46 39.8	
	comp=N,2μm,0.6s							
PODR				IAML			17 46 42.2	
	comp=E,2μm,0.4s							
PODR	**Polo**	**2.91**	**272**	⇑ *iP*		**Pn**	**17 45 54.5**	**+0.4**
PODR				IAML			17 46 39.6	
	comp=N,2μm,0.6s							
SDDR	**Presa de Saban**	**3.04**	**287**			**Pn**	**17 45 57.9**	**+2.2**
SDDR				IAML			17 46 43.3	
	comp=N,3μm,0.7s							
SDDR				IAML			17 46 44.9	
	comp=N,3μm,0.7s							
SDDR	**Presa de Saban**	**3.04**	**287**	P		**Pn**	**17 45 57.9**	**+2.2**
SDDR	**Presa de Saban**	**3.04**	**287**	⇑ *iP*		**Pn**	**17 45 58.1**	**+2.4**
SDDR				IAML			17 46 43.1	
	comp=N,3μm,0.7s							
SDDR	**Presa de Saban**	**3.04**	**287**	⇓ *iP*		**Pn**	**17 45 59.1**	**+3.4**
SDDR				*iS*		**Sn**	**17 46 35.4**	**+4.2**
SDDR	**Presa de Saban**	**3.04**	**287**	*eP*		**Pn**	**17 45 58.2**	**+2.4**
SDDR				*eS*		**Sn**	**17 46 34.4**	**+3.2**
SDDR				IAML			17 46 42.9	
	comp=N,3μm,1.0s							
SDDR				IAML			17 46 45.0	
	comp=N,3μm,0.5s							
SDDR	**Presa de Saban**	**3.04**	**287**	P		**Pn**	**17 45 58.7**	**+2.9**
MADR	**Mao Valverde**	**3.10**	**299**	⇑ *iP*		**Pn**	**17 45 57.5**	**+1.1**
MADR				IAML			17 46 49.7	
	comp=N,5μm,0.7s							
REDR	**Restauracion**	**3.19**	**290**	⇑ *iP*		Pn	17 46 03.0	+5.3
REDR				IAML			17 46 53.5	
	comp=N,2μm,0.2s							
LGNH	**Logne**	**4.19**	**276**	S		**Sn**	**17 47 00.5**	**+1.5**
GRTK	**Grand Turk**	**4.37**	**322**	P		**Pn**	**17 46 10.2**	**-3.4**
GRTK				S		**Sn**	**17 46 58.3**	**-5.0**
GRTK	**Grand Turk**	**4.37**	**322**			**Pn**	**17 46 11.9**	**-1.7**
GRTK				IAML			17 47 00.2	
	comp=N,853nm,0.5s							
GRTK	**Grand Turk**	**4.37**	**322**	P		**Pn**	**17 46 11.7**	**-1.9**
GRTK	**Grand Turk**	**4.37**	**322**	*eP*		**Pn**	**17 46 11.9**	**-1.7**
GRTK				*eS*		**Sn**	**17 46 56.9**	**-6.4**
GRTK				IAML			17 46 59.6	
	comp=N,1μm,0.3s							
GRTK				IAML			17 47 00.4	
	comp=N,838nm,0.5s							
GRTK	**Grand Turk**	**4.37**	**322**	P		**Pn**	**17 46 14.4**	**+0.8**
SABA	**Saba**	**4.76**	**95**	P		**Pn**	**17 46 20.4**	**+1.4**
SABA				S		**Sn**	**17 47 14.1**	**+1.1**
SABA	**Saba**	**4.76**	**95**			**Pn**	**17 46 19.4**	**+0.3**
SABA	**Saba**	**4.76**	**95**	*eP*		**Pn**	**17 46 20.4**	**+1.4**
SABA				*eS*		**Sn**	**17 47 13.0**	**0.0**
SABA	**Saba**	**4.76**	**95**	P		**Pn**	**17 46 19.2**	**+0.2**
SMRT	**St. Maarten**	**4.89**	**90**			**Pn**	**17 46 20.2**	**-0.6**
SMRT				IAML			17 47 18.7	
	comp=N,498nm,0.2s							
SMRT				IAML			17 47 23.3	
	comp=E,414nm,0.2s							
SMRT	**St. Maarten**	**4.89**	**90**	*eP*		**Pn**	**17 46 21.0**	**+0.2**
SMRT				*eS*		**Sn**	**17 47 13.9**	**-2.3**
SMRT	**St. Maarten**	**4.89**	**90**	P		**Pn**	**17 46 20.1**	**-0.7**
SEUS	**St. Eustatius**	**5.03**	**96**	S		**Sn**	**17 47 20.6**	**+1.2**
SEUS	**St. Eustatius**	**5.03**	**96**	Pn		**Pn**	**17 46 22.5**	**-0.1**
SKI	**Saint Kitts**	**5.28**	**97**	*eP*		**Pn**	**17 46 27.3**	**+1.2**
SKI				*eS*		**Sn**	**17 47 18.8**	**-6.8**
ANWB	**Willy Bob**	**6.14**	**93**	P		**Pn**	**17 46 38.4**	**+0.7**
ANWB	**Willy Bob**	**6.14**	**93**	P		**Pn**	**17 46 38.3**	**+0.5**
	comp=E,169nm,1.0s							
ANWB				AML		AML		
ANWB	**Willy Bob**	**6.14**	**93**	*eP*		Pn	17 46 31.3	-6.5
ANWB				*eS*		**Sn**	**17 47 44.6**	**-2.0**
DHSZ	**Broadband at M**	**6.43**	**105**	*eP*		**Pn**	**17 46 41.5**	**-0.2**
DHSZ				*eS*		**Sn**	**17 47 50.2**	**-3.5**
GDHS	**Morne Mazeau,**	**6.43**	**105**			**Pn**	**17 46 40.1**	**-1.7**
GDHS	**Morne Mazeau,**	**6.43**	**105**	P		**Pn**	**17 46 40.1**	**-1.7**
	comp=Z,166nm,0.8s							
QMBU	**Quimbuelo**	**6.57**	**290**	P		**Pn**	**17 46 41.4**	**-2.3**
QMBU				S		**Sn**	**17 47 53.4**	**-3.8**
QMBU	**Quimbuelo**	**6.57**	**290**	*eP*		**Pn**	**17 46 40.7**	**-3.0**
QMBU				*eS*		**Sn**	**17 47 51.9**	**-5.4**
ABD	**La Joyeuse, An**	**6.63**	**103**	Pn		**Pn**	**17 46 44.2**	**-0.2**
CBE	**Ff, Capester**	**6.64**	**107**	P		**Pn**	**17 46 45.9**	**+1.3**
CBE				S		**Sn**	**17 48 00.4**	**+1.6**
CBE	**Ff, Capester**	**6.64**	**107**			**Pn**	**17 46 45.1**	**+0.5**
TDBA	**Terre de Bas,**	**6.68**	**109**	Pn		**Pn**	**17 46 42.9**	**-2.3**
GTBY	**Guantanamo Bay**	**6.77**	**287**	P		**Pn**	**17 46 45.1**	**-1.2**
GTBY				S		**Sn**	**17 47 58.9**	**-3.1**
GTBY	**Guantanamo Bay**	**6.77**	**287**	Pn		**Pn**	**17 46 44.7**	**-1.6**
GTBY	**Guantanamo Bay**	**6.77**	**287**	P		**Pn**	**17 46 44.5**	**-1.8**
	comp=Z,101nm,1.2s							
GTBY	**Guantanamo Bay**	**6.77**	**287**	*i* P		**Pn**	**17 46 43.6**	**-2.8**
GTBY	**Guantanamo Bay**	**6.77**	**287**	*eP*		**Pn**	**17 46 45.7**	**-0.7**
GTBY				*eS*		**Sn**	**17 47 59.4**	**-2.6**
NMDO	**Nuevo Mundo**	**6.84**	**292**	P		**Pn**	**17 46 46.6**	**-0.7**
NMDO				S		**Sn**	**17 48 01.0**	**-2.7**
NMDO	**Nuevo Mundo**	**6.84**	**292**	Pn		**Pn**	**17 46 44.4**	**-2.9**
NMDO	**Nuevo Mundo**	**6.84**	**292**	*eP*		**Pn**	**17 46 44.2**	**-3.1**
NMDO				*eS*		**Sn**	**17 47 58.8**	**-4.8**
MOAC	**Moa**	**6.86**	**293**	*eP*		**Pn**	**17 46 46.0**	**-1.5**
MOAC				*eS*		**Sn**	**17 47 58.1**	**-5.9**
MAGL	**Barre de l'ile**	**6.97**	**107**	*eP*		**Pn**	**17 46 49.9**	**+0.8**
MAGL				*eS*		**Sn**	**17 48 03.0**	**-3.9**
DSLB	**Salisbury**	**7.03**	**111**	*eP*		**Pn**	**17 46 49.3**	**-0.6**
DSLB				*eS*		**Sn**	**17 48 00.4**	**-7.9**
GDSD	**La Dsirade Is**	**7.06**	**103**			**Pn**	**17 46 49.6**	**-0.7**
GDSD	**La Dsirade Is**	**7.06**	**103**	P		**Pn**	**17 46 50.7**	**+0.3**
	comp=Z,93nm,0.9s							
H05N1	**Guadeloupe/Mar**	**7.07**	**103**	P		**Pn**	**17 46 51.0**	**+0.5**
H05N1				S		**Sn**	**17 48 04.5**	**-4.9**
	SNR=14							
URIC	**Uribia, Colomb**	**7.33**	**210**			**Pn**	**17 46 54.6**	**+0.6**
URIC	**Uribia, Colomb**	**7.33**	**210**	P		**Pn**	**17 46 53.1**	**-0.9**
URI	**Uribia**	**7.33**	**210**	P		**Pn**	**17 46 55.2**	**+1.2**
SVN	**Savane Anatole**	**7.50**	**115**	P		**Pn**	**17 46 57.5**	**+1.1**
	comp=Z,338nm,0.6s							
MARVS	**Santiago de Cu**	**7.51**	**286**	*eP*		**Pn**	**17 46 55.5**	**-0.9**
MARVS				*eS*		**Sn**	**17 48 17.1**	**-2.9**
CXM	**Morne La Croix**	**7.51**	**115**	Pn		**Pn**	**17 46 56.4**	**-0.2**
PINC	**Pinares de May**	**7.54**	**290**	*eP*		**Pn**	**17 46 53.4**	**-3.4**
PINC				*eS*		**Sn**	**17 48 15.0**	**-5.7**
FDFM	**Morne la Roset**	**7.55**	**115**	P		**Pn**	**17 46 58.1**	**+1.0**
BIM	**Bigot**	**7.73**	**116**	*eP*		**Pn**	**17 47 00.1**	**+0.6**
BIM				*eS*		**Sn**	**17 48 19.1**	**-6.4**
BIM	**Bigot**	**7.73**	**116**	P		**Pn**	**17 47 00.4**	**+0.9**
	comp=Z,281nm,0.6s							
HLGC	**Holguin**	**7.90**	**292**	*eP*		**Pn**	**17 47 00.3**	**-1.4**
HLGC				*eS*		**Sn**

GUY2C P Pn 17 48 35.3 +3.4
comp=Z,731nmcomp=Z,72nm,0.8s
GUY2C P P 17 48 36.0 0.0
comp=Z,731nmcomp=Z,72nm,0.8s
VILC Villavicencio, 14.89 202 P **P** **17 48 39.6 +0.4**
BOAV Boa Vista 17.33 153 P **P** **17 49 07.5 +1.4**
JTS Las Juntas de 17.97 247 P **Pn** **17 49 15.9 +2.1**
comp=Z,25nm,0.8s,baz=44,slow=5.2,SNR=7.7
JTS Las Juntas de 17.97 247 P **Pn** **17 49 15.9 +2.1**
comp=Z,55nm,1.2s
MDP Montagnes des 19.96 128 LR LR 17 57 53.8
comp=Z,60nm,18.7s,baz=94,slow=38
OTAV Otavalo 20.40 211 P Pn 17 49 41.9 -1.0
OTAV IAmb IAmb 17 49 50.0
comp=Z,43nm,1.0s
152A Waverly Hall 20.76 317 P **P** **17 49 43.1 -0.3**
SLOR San Lorenzo - 21.27 209 P **P** **17 49 51.2 +1.8**
BG3 Lake Jocassee 21.32 325 P **P** **17 49 49.5 +0.1**
R58B Mineral 21.53 339 P **P** **17 49 51.3 -0.2**
TKL Tuckaleechee C 22.27 325 P **P** **17 49 56.8 -2.7**
comp=Z,1.2nm,0.5s,baz=134,slow=9.7,SNR=3.6
TKL S **S** **17 53 58.4 -0.5**
comp=Z,7.9nm,0.7s,baz=42,slow=17,SNR=5.3
comp=Z,1.2nm,0.5s
TZTN Tazewell 22.82 327 P **P** **17 50 05.7 +0.5**
T50A Nancy 23.86 326 P **P** **17 50 14.5 -0.4**
SSPA Standing Stone 23.96 342 P **P** **17 50 15.7 0.0**
comp=Z,11nm,1.8s
HRV Adam Dziewonsk 24.50 354 P **P** **17 50 21.0 +0.5**
comp=Z,36nm,2.3s
R50A Paris 24.55 328 P **P** **17 50 22.1 +1.0**
R50A IAmb IAmb 17 50 26.9
comp=Z,18nm,1.1s
BINY Binghamton 24.92 346 P **P** **17 50 25.0 +0.6**
WVT Waverly 24.96 320 P **P** **17 50 25.6 +0.7**
WVT Waverly 24.96 320 P **P** **17 50 25.6 +0.7**
comp=Z,14nm,0.7s
ATAH Atahualpa 27.01 203 LR LR 18 02 09.7
comp=Z,57nm,21.0s,baz=43,slow=37
MIAR Mount Ida 27.90 311 P **P** **17 50 53.1 +1.8**
CCM Cathedral Cave 28.29 319 P **P** **17 50 55.3 +0.6**
comp=Z,12nm,1.2s
TUL3 Leonard 30.15 312 IAmb IAmb 17 51 13.5
comp=Z,19nm,0.9s
PLPT Palo Pinto 30.74 304 **P** **17 51 17.6 +1.1**
PLPT IAmb IAmb 17 51 18.6
comp=Z,14nm,0.8s
BRDY Brady 30.78 301 **P** **17 51 17.4 +0.5**
BRDY IAmb IAmb 17 51 18.2
comp=Z,6.2nm,0.8s
T35A Sooner Cattle 31.14 313 **P** **17 51 20.6 +0.6**
T35A IAmb IAmb 17 51 21.9
comp=Z,12nm,0.8s
CLDB Colider 31.29 156 P **P** **17 51 22.6 +1.1**
ABTX Abilene, Hawle 31.73 303 **P** **17 51 25.9 +0.7**
OZNA Ozona 32.42 299 IAmb IAmb 17 51 33.5
comp=Z,7.8nm,0.9s
SAND Sanderson 33.02 297 IAmb IAmb 17 51 37.8
comp=Z,14nm,1.4s
MNHN Monahans 33.89 300 IAmb IAmb 17 51 45.9
comp=Z,13nm,1.0s
LPAZ La Paz 34.17 180 P **P** **17 51 51.8 +4.6**
comp=Z,0.5nm,0.4s,baz=11,slow=10,SNR=2.7
comp=Z,0.5nm,0.4s
LPAZ La Paz 34.17 180 P **P** **17 51 48.2 +1.0**
TXAR Lajitas Array 34.20 296 P **P** **17 51 47.9 +1.0**
comp=Z,1.6nm,0.6s,baz=111,slow=9.6,SNR=25
comp=Z,1.6nm,0.6s
TXAR Lajitas Array 34.20 296 P **P** **17 51 47.7 +0.7**
TPB05 Hovey Rd 34.25 299 P **P** **17 51 47.9 +0.6**
ALPN Alpine 34.39 298 **P** **17 51 49.0 +0.4**
TPB01 Permian Basin 34.64 298 IAmb IAmb 17 51 52.9
comp=Z,8.4nm,0.6s
EYMN Ely 35.32 333 P **P** **17 51 56.0 -0.2**
comp=Z,13nm,2.4s
TPB28 35.41 299 IAmb IAmb 17 51 60.0
comp=Z,12nm,0.9s
HPIG 35.59 291 P **P** **17 51 59.3 +0.3**
comp=Z,8.1nm,2.2s
MNTX Cornudas Mount 36.14 299 IAmb IAmb 17 52 05.5
comp=Z,8.9nm,0.9s
MNTX Cornudas Mount 36.14 299 P **P** **17 52 04.1 +0.6**
comp=Z,12nm,1.2s
PB16 IPOC Station P 36.22 182 P **P** **17 52 05.1 +0.3**
comp=Z,5.3nm,0.9s
SCHQ Schefferville 36.69 1 P **P** **17 52 04.8 -2.9**
comp=Z,7.2nm,0.9s,baz=223,slow=7.7,SNR=4.1
comp=Z,7.2nm,0.9s
SCHQ Schefferville 36.69 1 P **P** **17 52 08.1 +0.4**
PSGCX Pisagua 37.50 183 P **P** **17 52 14.7 -0.4**
comp=Z,14nm,1.1s
GO01 Chusmiza 37.54 182 P **P** **17 52 14.1 -1.8**
comp=Z,6.8nm,1.4s
PB11 IPOC Station P 37.65 182 P **P** **17 52 15.4 -1.0**
comp=Z,14nm,1.4s
ALQ Albuquerque 37.84 304 IAmb IAmb 17 52 20.2
comp=Z,6.0nm,0.9s
ALQ Albuquerque 37.84 304 IAmb IAmb 17 52 20.2
comp=Z,5.5nm,0.9s
ANMO Albuquerque 37.84 304 **P** **17 52 18.4 +0.4**
ANMO Albuquerque 37.84 304 P **P** **17 52 19.4 +1.4**
comp=Z,10.0nm,2.7s
TASM ASL Pad, Albuq 37.84 304 IAmb IAmb 17 52 20.2
comp=Z,6.2nm,1.0s
TASM ASL Pad, Albuq 37.84 304 IAmb IAmb 17 52 20.2
comp=Z,6.6nm,1.0s
Y22A Socorro 37.97 302 IAmb IAmb 17 52 21.3
comp=Z,8.8nm,1.1s
SDCO Great Sand Dun 37.99 309 IAmb IAmb 17 52 21.4
comp=Z,7.0nm,0.8s
121A Cookes Peak, D 38.32 300 IAmb IAmb 17 52 24.6
comp=Z,5.9nm,0.8s
ISCO Idaho Springs 38.83 312 P **P** **17 52 27.1 +0.7**
ULM Lac du Bonnet 38.96 332 P **P** **17 52 25.5 -1.5**
comp=Z,1.8nm,0.5s,baz=89,slow=5.0,SNR=3.4
comp=Z,1.8nm,0.5s
PB07 IPOC Station P 39.61 182 P **P** **17 52 32.7 -0.1**
comp=Z,13nm,2.1s
PB03 IPOC Station P 39.92 182 P **P** **17 52 35.6 +0.2**
comp=Z,6.9nm,2.6s
PV15 Paradox Valley 40.41 308 P **P** **17 52 40.6 +1.1**
PV02 Paradox Valley 40.56 308 P **P** **17 52 42.4 +1.7**
PV02 IAmb IAmb 17 52 43.7
comp=Z,15nm,1.0s
PV07 Paradox Valley 40.56 308 P **P** **17 52 41.9 +1.2**
PV22 Blue Mesa, Par 40.70 309 IAmb IAmb 17 52 44.4
comp=Z,12nm,0.8s
PV04 Paradox Valley 40.74 308 IAmb IAmb 17 52 50.4
comp=Z,6.8nm,1.1s
TUC Tucson 40.76 299 P **P** **17 52 43.5 +1.2**
comp=Z,6.5nm,2.6s
PV10 Paradox Valley 40.83 308 IAmb IAmb 17 52 50.4
comp=Z,8.3nm,0.9s
PV21 Cone Mtn., Par 40.84 309 IAmb IAmb 17 52 45.6
comp=Z,12nm,0.9s
SRIG Santa Rosalia 41.46 291 P **P** **17 52 49.3 +1.4**
comp=Z,21nm,0.6s
WUAZ Wupatki 41.88 303 IAmb IAmb 17 52 54.9
comp=Z,18nm,1.4s
SALTA 42.10 177 P **P** **17 52 53.6 0.0**
comp=Z,2.1nm,1.0s
PDAR Pinedale Array 42.71 314 P **P** **17 52 57.7 -0.5**
comp=Z,0.6nm,0.7s,baz=116,slow=10,SNR=6.6
comp=Z,0.6nm,0.7s
PDAR Pinedale Array 42.71 314 P **P** **17 52 58.1 -0.2**
PIX Pinacate 42.90 297 IAmb IAmb 17 53 01.8
comp=Z,9.8nm,1.0s
W13A Hualapai Mount 43.80 302 IAmb IAmb 17 53 10.4
comp=Z,11nm,1.0s
PSUT Pine Spring 44.51 307 IAmb IAmb 17 53 16.0
comp=Z,11nm,1.0s
IRM Iron Mountain 44.67 300 IAmb IAmb 17 53 16.9
comp=Z,11nm,0.9s
BC3 Big Chuckawall 44.85 300 IAmb IAmb 17 53 17.9
comp=Z,5.5nm,0.7s
VTX Valle De La Tr 44.86 297 IAmb IAmb 17 53 19.0
comp=Z,10nm,1.1s
SHPR Sheep Range 45.08 304 IAmb IAmb 17 53 21.8
comp=Z,11nm,1.2s
YUH Yuha Desert 45.11 298 IAmb IAmb 17 53 20.2
comp=Z,7.3nm,0.9s
MTPC Mountain Pass 45.21 302 IAmb IAmb 17 53 21.2
comp=Z,8.2nm,0.9s
CPUP Villa Florida 45.41 166 P P 17 53 24.6 +5.0
comp=Z,0.5nm,0.4s,baz=16,slow=14,SNR=1.5
comp=Z,0.5nm,0.4s
CPUP Villa Florida 45.41 166 P **P** **17 53 20.5 +0.9**

BORC Borrego Spring 45.60 299 P **P** **17 53 22.8 +1.7**
BORC IAmb IAmb 17 53 23.8
comp=Z,6.4nm,0.8s
DPP Dos Picos Cty 46.00 299 IAmb IAmb 17 53 27.5
comp=Z,12nm,1.0s
TPNV Topopah Spring 46.03 304 IAmb IAmb 17 53 28.1
comp=Z,15nm,0.9s
GSC Goldstone, Bar 46.19 302 IAmb IAmb 17 53 29.0
comp=Z,14nm,1.1s
GWY Greenwater Val 46.22 303 IAmb IAmb 17 53 29.1
comp=Z,6.5nm,0.8s
QSM Queen of Sheba 46.35 303 IAmb IAmb 17 53 30.1
comp=Z,11nm,1.0s
CCCA Chr Cany lake 46.68 302 IAmb IAmb 17 53 32.6
comp=Z,12nm,1.0s
BFSC Mount Baldy Ra 46.74 300 IAmb IAmb 17 53 35.9
comp=Z,5.2nm,0.9s
MPMC Manual Prospec 46.86 303 IAmb IAmb 17 53 34.1
comp=Z,5.8nm,1.0s
LRMC Laurel Mtn Rad 46.93 302 IAmb IAmb 17 53 34.5
comp=Z,9.7nm,1.0s
TPH Tonopah 47.00 305 IAmb IAmb 17 53 35.1
comp=Z,9.9nm,1.1s
MZP Montezuma Peak 47.05 305 IAmb IAmb 17 53 35.5
comp=Z,8.8nm,1.0s
TPO Tropico Hills 47.29 301 IAmb IAmb 17 53 37.2
comp=Z,8.5nm,0.8s
CWC Cottonwood Cre 47.39 303 IAmb IAmb 17 53 39.3
comp=Z,11nm,1.4s
NV11 Mina Array Sit 47.79 306 IAmb IAmb 17 53 41.1
comp=Z,7.3nm,0.8s
NVAR Mina Array Bea 47.90 306 P **P** **17 53 40.3 +1.1**
comp=Z,3.2nm,1.0s,baz=97,slow=6.2,SNR=14
comp=Z,3.2nm,1.0s
NVAR Mina Array Bea 47.90 306 P **P** **17 53 40.2 +1.0**
LHV Little Huntoon 48.02 305 IAmb IAmb 17 53 42.4
comp=Z,4.0nm,0.7s
MDPB Devils Postpil 48.37 305 IAmb IAmb 17 53 45.9
comp=Z,8.6nm,1.1s
WAKR Walker 48.79 306 IAmb IAmb 17 53 49.2
comp=Z,5.8nm,1.1s
NEW Newport 49.65 319 LR LR 18 13 55.9
comp=Z,68nm,18.1s,baz=63,slow=35
YKA Yellowknife Ar 54.69 336 P **P** **17 54 28.5 -0.8**
comp=Z,2.2nm,0.8s,baz=121,slow=6.7,SNR=5.4
comp=Z,2.2nm,0.8s
ESDC Sonseca Array 58.99 54 P **P** **17 55 01.1 +0.8**
comp=Z,2.1nm,0.7s,baz=266,slow=7.8,SNR=9.6
comp=Z,2.1nm,0.7s
ESDC Sonseca Array 58.99 54 P **P** **17 55 00.3 +0.1**
LL06 Loncomilla 60.21 185 P **P** **17 55 08.7 +0.5**
EKA Eskdalemuir Ar 61.15 36 P **P** **17 55 14.3 -0.3**
comp=Z,2.3nm,0.9s,baz=277,slow=6.3,SNR=3.2
comp=Z,2.3nm,0.9s
TORD Torodi Ar. Bea 67.17 83 P **P** **17 55 55.2 +0.5**
comp=Z,0.6nm,0.3s,baz=296,slow=6.6,SNR=8.3
comp=Z,0.6nm,0.3s
ILAR Eielson Array 68.96 333 P **P** **17 56 04.7 -0.3**
comp=Z,0.3nm,0.6s,baz=106,slow=4.8,SNR=4.6
comp=Z,0.3nm,0.6s
ILAR Eielson Array 68.96 333 P **P** **17 56 05.8 +0.7**
PPLA Purkeypile 71.33 331 P **P** **17 56 19.4 -0.3**
PPLA IAmb IAmb 17 56 26.1
comp=Z,19nm,1.4s
GERES GERESS Array B 71.33 44 P **P** **17 56 20.9 +0.9**
comp=Z,0.8nm,0.9s,baz=278,slow=6.8,SNR=4.5
comp=Z,0.8nm,0.9s
GERES GERESS Array B 71.33 44 P **P** **17 56 20.1 +0.1**
ARCES ARCESS Array B 74.50 21 P **P** **17 56 38.2 +0.1**
comp=Z,4.4nm,0.9s,baz=257,slow=6.9,SNR=2.5
comp=Z,4.4nm,0.9s
ARCES ARCESS Array B 74.50 21 P **P** **17 56 37.0 -1.1**
ARCES IAmb IAmb 17 56 40.0
comp=Z,6.0nm,0.9s
FINES FINESS Array B 76.32 30 P **P** **17 56 49.7 +1.0**
comp=Z,4.0nm,0.9s,baz=264,slow=5.6,SNR=4.3
comp=Z,4.0nm,0.9s
AKASG Malin Array Be 80.80 40 P **P** **17 57 15.3 +1.7**
comp=Z,0.3nm,0.3s,baz=308,slow=9.1,SNR=3.2
comp=Z,0.3nm,0.3s
BRTR Keskin Array B 87.38 49 P **P** **17 57 49.0 +1.6**
comp=Z,0.6nm,0.6s,baz=305,slow=4.6,SNR=3.1
comp=Z,0.6nm,0.6s
PETK Petropavlovsk- 98.78 334 P Pdif 17 58 40.3 +0.9
comp=Z,1.2nm,0.5s,baz=36,slow=2.7,SNR=1.8
comp=Z,1.2nm,0.5s
WMQ Urumqi 114.55 19 PKP PKPdf 18 03 42.1 +2.3
WMQ LR LR
comp=N,290nm,18.5s
WMQ LR LR
comp=E,530nm,23.8s
WMQ LR LR
comp=Z,170nm,23.9s
HHC Hu-ho-hao-te 121.36 0 *e*P **PKPdf** **18 03 52.4 -0.6**
HHC LR LR
comp=N,490nm,16.1s
HHC LR LR
comp=E,360nm,16.9s
HHC LR LR
comp=Z,310nm,16.9s
WRA Warramunga Arr 158.59 261 PKP **PKPdf** **18 04 59.4 +1.7**
comp=Z,0.2nm,0.8s,baz=66,slow=1.1,SNR=1.0
WRA PKPab **PKPab** **18 05 32.8 -0.5**
comp=Z,0.3nm,0.6s,baz=85,slow=4.0,SNR=5.0
ASAR Alice Springs 158.61 251 PKP **PKPdf** **18 04 58.4 +0.7**
comp=Z,0.3nm,0.8s,baz=194,slow=0.9,SNR=2.4
ASAR PKPab **PKPab** **18 05 32.8 -0.4**
comp=Z,0.5nm,0.8s,baz=103,slow=4.0,SNR=7.6

*THR **04** 17:51:54.2±0.4, 40.˚15N×48.˚39E, h10km, ML4.1, Presumed earthquake*
*MOS **04** 17:51:55.1±1.0, 39.˚97N×48.˚32E, h65km, mb4.6/9, Error ellipse: s-maj=6.5km s-min=3.4km az=116.4*
*AZER **04** 17:51:55.8, 39.˚99N×48.˚21E, h52km, ml4.2*
*TIF **04** 17:51:55.7, 39.˚99N×48.˚13E, h68km±2km*
*TEH **04** 17:51:55.8, 39.˚97N×48.˚39E, h50km, ML4.2, Presumed earthquake*
*GFZ **04** 17:51:56.4±0.4, 40.˚N±5.˚×4.˚8E±.˚, h48km±6km, M4.2/23, mb4.2/23, Error ellipse: s-maj=9.9km s-min=4.7km az=6.6, confirmed*
*IDC **04** 17:51:57.0±1.0, 40.˚20N×48.˚22E, h62km±7km, mb3.8/16, mbtmp4.1/27, MS2.8/7, Error ellipse: s-maj=17.7km s-min=8.2km az=1.0*
*NEIC **04** 17:51:57.1±1.1, 40.˚16N±0.˚08×48.˚28E±0.˚09, h60km±6km, mb4.5/48, Error ellipse: s-maj=11.5km s-min=9.5km az=207.0*
*DRS **04** 17:51:57.8, 40.˚55N×47.˚99E, h63km*
*NNC **04** 17:52:08.2±3.4, 40.˚77N×49.˚18E, h92km±24km, mb3.9, Error ellipse: s-maj=48.8km s-min=23.8km az=112.0*

ISC 04 17:51:55.8±0.5, 40.02N±0.02×48.25E±0.02, h62km±4km, n306, σ2≥15/390, mb4.4/58, 12C-12D, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time			Res
				Op	ISC	h	m	s	ISC
SAAT	**Saatly**	**0.21**	**140**	P	**Pn**	**17**	**52**	**06.3**	**+0.8**
SAAT				S	**Sn**	**17**	**52**	**14.7**	**+2.2**
KDMR	**Kurdemir**	**0.36**	**352**	Pg	**Pn**	**17**	**52**	**07.8**	**+1.3**
KDMR	**Kurdemir**	**0.36**	**352**	P	**Pn**	**17**	**52**	**07.8**	**+1.3**
KDMR				S	**Sn**	**17**	**52**	**17.5**	**+3.1**
ZRD	**Zardab**	**0.50**	**301**	Pg	**Pn**	**17**	**52**	**09.2**	**+1.3**
ZRD	**Zardab**	**0.50**	**301**	P	**Pn**	**17**	**52**	**09.2**	**+1.3**
ZRD				S	**Sn**	**17**	**52**	**19.0**	**+2.3**
ALIB	**&Aumlli-Bayram**	**0.59**	**96**	P	**Pn**	**17**	**52**	**11.9**	**+3.1**
ALIB				S	**Sn**	**17**	**52**	**20.7**	**+2.3**
BLQ	**Beylaqan**	**0.61**	**240**	Pg	**Pn**	**17**	**52**	**09.6**	**+0.5**
BLQ	**Beylaqan**	**0.61**	**240**	P	**Pn**	**17**	**52**	**09.6**	**+0.5**
BLQ				S	**Sn**	**17**	**52**	**19.8**	**+0.9**
GBS	**Qobustan**	**0.74**	**46**	P	**Pn**	**17**	**52**	**13.5**	**+2.8**
GBS				S	**Sn**	**17**	**52**	**23.9**	**+2.3**
IML	**Ismayilli**	**0.77**	**356**	Pg	**Pn**	**17**	**52**	**12.0**	**+1.0**
IML	**Ismayilli**	**0.77**	**356**	P	**Pn**	**17**	**52**	**12.1**	**+1.0**
IML				S	**Sn**	**17**	**52**	**24.0**	**+1.7**
GLBA	**Clilabad**	**0.79**	**172**	P	**Pn**	**17**	**52**	**12.7**	**+1.5**
GLBA				S	**Sn**	**17**	**52**	**24.9**	**+2.3**
PQL	**Pirkuli**	**0.81**	**19**	Pg	**Pn**	**17**	**52**	**13.1**	**+1.4**
PQL	**Pirkuli**	**0.81**	**19**	P	**Pn**	**17**	**52**	**13.2**	**+1.5**
PQL				S	**Sn**	**17**	**52**	**26.3**	**+3.0**
BRDA	**Brd**	**0.85**	**287**	P	**Pn**	**17**	**52**	**13.4**	**+1.4**
BRDA				S	**Sn**	**17**	**52**	**25.9**	**+1.9**
AGDM	**Agdam**	**0.88**	**276**	P	**Pn**	**17**	**52**	**13.0**	**+0.7**
AGDM				S	**Sn**	**17**	**52**	**26.5**	**+1.9**
QRD	**Qoradiz**	**0.91**	**232**	P	**Pn**	**17**	**52**	**13.2**	**+0.5**
QRD				S	**Sn**	**17**	**52**	**25.8**	**+0.5**

QBL Gabala 0.97 341 P **Pn** **17 52 14.4 +0.8**
QBL S **Sn** **17 52 27.9 +1.1**
ATGJ Altiaghaj 0.99 32 P **Pn** **17 52 16.2 +2.3**
ATGJ S **Sn** **17 52 31.2 +4.0**
YRD Yardimli 1.10 180 P **Pn** **17 52 16.3 +0.9**
YRD S **Sn** **17 52 31.2 +1.2**
XNQ Khinaliq 1.15 356 P **Pn** **17 52 16.8 +0.7**
XNQ S **Sn** **17 52 32.2 +1.1**
MNGR Mingechevir, A 1.16 311 P **Pn** **17 52 17.2 +1.2**
MNGR Mingechevir, A 1.16 311 P **Pn** **17 52 17.2 +1.2**
MNGR S **Sn** **17 52 33.9 +2.8**
SIZA Siyzn 1.16 25 P **Pn** **17 52 18.0 +1.9**
SIZA S **Sn** **17 52 35.1 +3.9**
GOBA Gobu 1.20 71 P **Pn** **17 52 19.8 +3.3**
GOBA S **Sn** **17 52 34.5 +2.5**
GRMI Germi 1.24 193 *e*Pg **Pn** **17 52 18.3 +1.1**
GRMI IAML 17 52 36.2
comp=Z,4μm,1.0s
GRMI Germi 1.24 193 Pg **Pn** **17 52 17.8 +0.6**
QUBA Quba, Azerbaij 1.34 8 Pn **Pn** **17 52 20.6 +2.1**
QUBA Sn **Sn** **17 52 38.0 +2.6**
LKRN Lenkeran, Azer 1.38 162 P **Pn** **17 52 19.4 +0.6**
LKRN Lenkeran, Azer 1.38 162 Pn **Pn** **17 52 19.4 +0.6**
LKRN Sn **Sn** **17 52 36.2 +0.1**
LRK Lerik 1.38 177 Pn **Pn** **17 52 20.0 +1.0**
LRK Sn **Sn** **17 52 38.2 +1.7**
SEKA Sheki 1.43 326 P **Pn** **17 52 20.2 +0.6**
SEKA Sheki 1.43 326 Pn **Pn** **17 52 20.2 +0.6**
SEKA Sn **Sn** **17 52 38.2 +0.7**
NDR Nardaran 1.44 67 Pn **Pn** **17 52 22.5 +2.8**
NDR Sn **Sn** **17 52 42.7 +5.0**
QSAR Qusar 1.49 1 Pn **Pn** **17 52 22.4 +2.0**
QSAR Sn **Sn** **17 52 41.4 +2.5**
AKT Akhty 1.51 345 *e*Pg **Pn** **17 52 22.0 +1.2**
comp=Z,741nm,0.5s
AKT *e*Sg **Sn** **17 52 40.0 +0.5**
comp=Z,2μm,0.3s
AKT Akhty 1.51 345 *e*P **Pn** **17 52 21.9 +1.2**
AKT *e*S **Sn** **17 52 39.9 +0.5**
AKT pmax pmax
comp=Z,741nm,0.5s
GALA Gala 1.51 75 Sn **Sn** **17 52 44.8 +5.4**
ASTR Astara 1.52 164 Pn **Pn** **17 52 21.3 +0.5**
ASTR Sn **Sn** **17 52 40.0 +0.3**
KSMR Kasumkent 1.58 357 *e*P **Pn** **17 52 23.7 +2.0**
KSMR *e*S **Sn** **17 52 43.3 +2.1**
KSMR pmax pmax
comp=Z,597nm,0.4s
GANJ Ganja 1.60 294 P **Pn** **17 52 21.8 0.0**
GANJ Ganja 1.60 294 Pn **Pn** **17 52 21.8 0.0**
GANJ Sn **Sn** **17 52 41.3 -0.2**
GAS1 Astara - Iran 1.70 164 Pg **Pn** **17 52 23.4 +0.2**
VSHL Vashlovani 1.85 311 P **Pn** **17 52 27.0 +1.7**
VSHL S **Sn** **17 52 51.0 +3.3**
IHRS Heris 1.94 209 Pn **Pn** **17 52 28.3 +1.6**
DRN Derbent 2.01 2 *e*Pg **Pn** **17 52 28.6 +1.2**
comp=Z,119nm,0.5s
DRN *e*Sg **Sn** **17 52 52.1 +0.8**
comp=Z,2μm,0.4s
DRN Derbent 2.01 2 *e*P **Pn** **17 52 28.5 +1.2**
DRN *e*S **Sn** **17 52 52.1 +0.8**
DRN pmax pmax
comp=Z,119nm,0.5s
GDB GEDABAY 2.03 291 Pn **Pn** **17 52 27.8 0.0**
GDB Sn **Sn** **17 52 52.8 +0.7**
ZKTA Zakatala 2.03 323 P **Pn** **17 52 29.0 +1.3**
ZKTA Sn **Sn** **17 52 53.1 +1.1**
ORD Ordubad 2.06 239 Pn **Pn** **17 52 29.3 +1.2**
ORD Sn **Sn** **17 52 54.1 +1.3**
SBZ Shahbuz 2.17 254 Pn **Pn** **17 52 31.4 +1.7**
SBZ Sn **Sn** **17 52 58.3 +2.8**
URKR Urkarakh 2.19 348 *e*Pg **Pn** **17 52 32.2 +2.3**
comp=Z,197nm,0.4s
URKR *e*Sg **Sn** **17 52 58.7 +2.7**
comp=Z,910nm,0.5s
URKR Urkarakh 2.19 348 *e*P **Pn** **17 52 32.2 +2.3**
URKR *e*S **Sn** **17 52 58.7 +2.7**
URKR pmax pmax
comp=Z,197nm,0.4s
ISRB Sarab 2.24 192 Pn **Pn** **17 52 32.4 +1.7**
KMKR Kumukh 2.28 338 *e*Pg **Pn** **17 52 33.4 +2.2**
comp=Z,366nm,0.4s
KMKR *e*Sg **Sn** **17 53 01.0 +2.7**
comp=Z,1μm,0.5s
KMKR Kumukh 2.28 338 *e*P **Pn** **17 52 33.4 +2.2**
KMKR *e*S **Sn** **17 53 00.9 +2.7**
KMKR pmax pmax
comp=Z,366nm,0.4s
NAX Nakhchivan 2.29 249 P **Pn** **17 52 33.5 +2.2**
NAX Nakhchivan 2.29 249 Pn **Pn** **17 52 33.5 +2.2**
NAX Sn **Sn** **17 53 00.2 +1.8**
LGD Lagodekhi 2.36 321 P **Pn** **17 52 33.4 +1.2**
LGD S **Sn** **17 53 01.7 +1.7**
LGD Lagodekhi 2.36 321 P **Pn** **17 52 33.4 +1.2**
LGD S **Sn** **17 53 01.7 +1.7**
IMRD Marand 2.37 237 Pn **Pn** **17 52 34.5 +2.1**
ITBZ Tabriz 2.42 223 Pn **Pn** **17 52 34.2 +1.1**
QZX Qazax, Azerbai 2.42 296 Pn **Pn** **17 52 33.4 +0.4**
QZX Sn **Sn** **17 53 02.3 +0.8**
SGKR Sergokala 2.47 350 *e*Pg **Pn** **17 52 35.8 +2.1**
comp=Z,148nm,0.4s
SGKR *e*Sg **Sn** **17 53 05.5 +2.6**
comp=Z,902nm,0.5s
SGKR Sergokala 2.47 350 *e*P **Pn** **17 52 35.8 +2.1**
SGKR *e*S **Sn** **17 53 05.4 +2.6**
SGKR pmax pmax
comp=Z,148nm,0.4s
TLTR Tlyarata 2.52 326 *e*Pg **Pn** **17 52 36.1 +1.5**
comp=Z,123nm,0.4s
TLTR *e*Sg **Sn** **17 53 05.9 +1.7**
comp=Z,414nm,0.5s
TLTR Tlyarata 2.52 326 *e*P **Pn** **17 52 36.0 +1.5**
TLTR *e*S **Sn** **17 53 05.9 +1.7**
TLTR pmax pmax
comp=Z,123nm,0.4s
CSN1 Caspian 2.54 165 Pn **Pn** **17 52 35.0 +0.3**
GNBR Gunib 2.55 338 *e*Pg **Pn** **17 52 37.6 +2.7**
comp=Z,242nm,0.5s
GNBR *e*Sg **Sn** **17 53 07.5 +2.6**
comp=Z,353nm,0.5s
GNBR Gunib 2.55 338 *e*P **Pn** **17 52 37.5 +2.7**
GNBR *e*S **Sn** **17 53 07.4 +2.6**
GNBR pmax pmax
comp=Z,242nm,0.5s
HYR Heyderabad 2.63 264 Pn **Pn** **17 52 37.9 +2.0**
HYR Sn **Sn** **17 53 08.4 +1.8**
ISHB Shabestar 2.68 230 Pn **Pn** **17 52 39.0 +2.2**
GNI Garni 2.69 274 P **Pn** **17 52 38.3 +1.5**
comp=Z,272nm,0.7s,baz=65,slow=2.2,SNR=49
GNI S **Sn** **17 53 09.9 +1.6**
comp=Z,211nm,0.5s,baz=277,slow=16,SNR=3.7
GNI LR LR 17 53 42.0
comp=Z,75nm,21.6s,baz=65,slow=39
GNI Garni 2.69 274 P **Pn** **17 52 38.7 +1.9**
GNI 17 53 09.9
GNI Garni 2.69 274 **Pn** **17 52 38.7 +1.9**
GNI Garni 2.69 274 P **Pn** **17 52 39.1 +2.3**
ARKR Arakani 2.74 340 *e*Pg **Pn** **17 52 40.1 +2.7**
comp=Z,226nm,0.6s
ARKR *e*Sg **Sn** **17 53 12.9 +3.5**
comp=Z,788nm,0.5s
ARKR Arakani 2.74 340 *e*P **Pn** **17 52 40.1 +2.7**
ARKR *e*S **Sn** **17 53 12.9 +3.5**
ARKR pmax pmax
comp=Z,226nm,0.6s
XNZR Khunzakh 2.77 336 *e*Pg **Pn** **17 52 40.7 +2.8**
comp=Z,288nm,0.4s
XNZR *e*Sg **Sn** **17 53 13.1 +2.8**
comp=Z,257nm,0.6s
HNZR Khunzah 2.78 336 *e*P **Pn** **17 52 40.6 +2.5**
HNZR *e*S **Sn** **17 53 13.1 +2.5**
HNZR pmax pmax
comp=Z,288nm,0.4s
IHSH Hashtrud 2.82 196 Pn **Pn** **17 52 39.9 +1.2**
UNCR Uncukul 2.90 338 *e*Pn **Pn** **17 52 41.9 +2.3**
comp=Z,195nm,0.7s
UNCR *e*Sn **Sn** **17 53 15.3 +2.0**
comp=Z,461nm,0.6s
UNCR Uncukul 2.90 338 *e*P **Pn** **17 52 41.9 +2.3**
UNCR *e*S **Sn** **17 53 15.2 +2.0**
UNCR pmax pmax
comp=Z,195nm,0.7s
BUJR Buynaksk 2.93 343 *e*Pn **Pn** **17 52 42.9 +3.0**

comp=Z,213nm,0.6s
BUJR eSn Sn 17 53 16.9 +3.0
comp=Z,1µm,0.4s
BUJR Buynaksk 2.93 343 eP Pn 17 52 42.9 +3.0
BUJR eS Sn 17 53 16.9 +3.0
BUJR pmax pmax
comp=Z,213nm,0.6s
IAZR Azarshahr 2.93 218 Pn Pn 17 52 42.2 +1.9
KRNR Karanay 2.98 341 ePn Pn 17 52 43.4 +2.7
comp=Z,88nm,0.5s
KRNR eSn Sn 17 53 18.2 +2.9
comp=Z,374nm,0.3s
KRNR Karanay 2.98 341 eP Pn 17 52 43.3 +2.7
KRNR eS Sn 17 53 18.1 +2.9
KRNR pmax pmax
comp=Z,88nm,0.5s
MAK Makhachkala 2.99 350 ePn Pn 17 52 43.6 +2.9
comp=Z,311nm,0.4s
MAK eSn Sn 17 53 18.7 +3.5
comp=Z,1µm,0.6s
MAK Makhachkala 2.99 350⇑ iP Pn 17 52 42.9 +2.2
MAK eS Sn 17 53 17.5 +2.2
MAK pmax pmax
comp=Z,312nm,0.4s
MAK smax smax
comp=E,2µm,0.8s
MAK smax smax
comp=E,2µm,0.5s
MAK MLR MLR
comp=Z,203nm,11.0s
BTLR Botlikh 3.05 331 ePn Pn 17 52 43.8 +2.3
comp=Z,217nm,0.4s
BTLR eSn Sn 17 53 19.7 +2.8
comp=Z,342nm,0.4s
BTLR Botlikh 3.05 331 eP Pn 17 52 43.8 +2.3
BTLR eS Sn 17 53 19.6 +2.8
BTLR pmax pmax
comp=Z,217nm,0.4s
BTNK Botanikuri 3.10 304 P Pn 17 52 42.8 +0.6
DBC Dubki 3.18 341 ePn Pn 17 52 45.9 +2.5
comp=Z,104nm,0.4s
DBC eSn Sn 17 53 22.3 +2.2
comp=Z,737nm,0.4s
DBC Dubki 3.18 341 eP Pn 17 52 45.9 +2.5
DBC eS Sn 17 53 22.2 +2.2
DBC pmax pmax
comp=Z,104nm,0.4s
LHJ2 Lahijan - Gila 3.19 153 Pn Pn 17 52 42.8 -0.6
KZRT Kazreti 3.23 296 P Pn 17 52 38.8 -5.2
KZRT Kazreti 3.23 296 P Pn 17 52 38.8 -5.2
DLMR Dylym 3.28 339 ePn Pn 17 52 47.9 +3.2
comp=Z,161nm,0.4s
DLMR eSn Sn 17 53 25.8 +3.4
comp=Z,1µm,0.6s
DLMR Dylym 3.28 339 eP Pn 17 52 47.8 +3.2
DLMR eS Sn 17 53 25.8 +3.4
DLMR pmax pmax
comp=Z,161nm,0.4s
DVE Vedeno 3.34 332 *c iP* Pn 17 52 47.9 +2.4
DVE pmax pmax
comp=Z,421nm,0.6s
GIDE GILAN DEYLAMAN 3.36 157 Pn Pn 17 52 45.6 -0.4
ZNJK Zanjan 3.37 174 ePn Pn 17 52 47.8 +1.7
ZNJK IAML 17 53 42.7
comp=Z,80nm,1.0s
ZNJK Zanjan 3.37 174 Pn Pn 17 52 47.2 +1.1
TRLG Trialeti 3.49 297 P Pn 17 52 48.0 +0.3
TRLG Trialeti 3.49 297 P Pn 17 52 48.0 +0.3
SHTL Shatili 3.51 319 P Pn 17 52 49.4 +1.4
SHTL S Sn 17 53 29.2 +0.8
SHTL Shatili 3.51 319 P Pn 17 52 49.4 +1.4
SHTL S Sn 17 53 29.2 +0.8
GROC Groznyy 3.67 331 eP Pn 17 52 52.6 +2.6
GROC eS Sn 17 53 34.3 +2.3
GROC pmax pmax
comp=Z,143nm,0.4s
BGD Bogdanovka 3.75 291 P Pn 17 52 52.4 +1.1
BGD Bogdanovka 3.75 291 P Pn 17 52 52.4 +1.1
DIGO Kars 3.75 278 P Pn 17 52 53.4 +2.0
AKH Akhalkalaki 3.87 293 P Pn 17 52 54.6 +1.7
AKH Akhalkalaki 3.87 293 P Pn 17 52 54.6 +1.7
IGZV Ghazvin 3.95 156 Pn Pn 17 52 54.4 +0.3
HAKT HAKKARI 4.32 237 P Pn 17 53 01.7 +2.6
GEVA Gevas 4.38 249 Pn Pn 17 53 01.6 +1.7
SRSL SARDASHT 4.40 211 ePn Pn 17 53 03.5 +3.2
SRSL IAML 17 54 13.5
comp=Z,44nm,1.0s
MZPU Pul - Mazandar 4.43 143 Pn Pn 17 53 00.9 +0.2
QABG Abgarm-Qazvin 4.43 166 Pn Pn 17 53 01.6 +0.9
EPOS Posof 4.44 291 P Pn 17 53 02.5 +1.7
TRKR Terskaya 4.53 326 P Pn 17 53 03.9 +2.1
TRKR S Sn 17 53 53.5 +0.3
TKB Tkibuli 4.59 302 P Pn 17 53 03.9 +1.2
TKB Tkibuli 4.59 302 P Pn 17 53 03.9 +1.2
CHTH Charan 4.70 150 ePn Pn 17 53 05.7 +1.4
CHTH IAML 17 53 58.8
comp=Z,50nm,1.0s
PRTR Priterechnaya 4.76 323 P Pn 17 53 07.1 +2.2
PRTR S Sn 17 53 59.1 +0.5
NCK Nalchik 4.91 316‖ eP Pn 17 53 09.2 +2.2
IPRN Peran 4.96 138 Pn Pn 17 53 08.1 +0.2
SNGE Sanandaj 4.97 189 ePn Pn 17 53 11.6 +3.5
SNGE IAML 17 54 49.3
comp=Z,28nm,1.0s
NEUR Neytrino 5.26 310‖ iP Pn 17 53 14.5 +2.5
DAMV Damavand 5.28 145 ePn Pn 17 53 14.7 +2.3
DAMV IAML 17 54 15.2
comp=Z,130nm,1.0s
KBZ Khabaz 5.44 315 P Pn 17 53 14.3 +0.1
comp=Z,1.6nm,0.3s,baz=141,slow=7.1,SNR=53
KBZ S Sn 17 54 14.8 -0.7
comp=Z,5.8nm,0.3s,baz=300,slow=17,SNR=1.5
KBZ LR LR 17 56 03.4
comp=Z,55nm,19.0s,baz=102,slow=46
PYA1 Pyatigorsk 5.57 318 *c iP* Pn 17 53 17.9 +1.9
SHA1 Shidzhatmaz 5.58 313 *d iP* Pn 17 53 18.3 +1.9
IGLO Ghaloghah 5.63 127 Pn Pn 17 53 17.0 0.0
ASAO Ashtian 5.65 165 ePn Pn 17 53 19.8 +2.5
ASAO IAML 17 54 47.9
comp=Z,17nm,1.0s
KVAR Kislovodsk Arr 5.70 315 P Pn 17 53 17.9 -0.1
comp=Z,3.7nm,0.4s,baz=85,slow=22,SNR=4.2
KVAR S Sn 17 54 19.9 -2.1
comp=Z,8.9nm,0.4s,baz=319,slow=22,SNR=3.1
KIV Kislovodsk 5.71 315 eP Pn 17 53 19.1 +1.1
KIV eS Sn 17 54 25.0 +2.8
KIV pmax pmax
comp=Z,15nm,1.1s
KIV Kislovodsk 5.71 315 Pn 17 53 17.3 -0.7
KIV Kislovodsk 5.71 315 P Pn 17 53 17.7 -0.3
comp=Z,37nm,0.6s
DOMR Dombai 5.94 306‖ eP Pn 17 53 23.6 +2.4
GHVR GHOM 6.04 155 ePn Pn 17 53 24.8 +2.2
GHVR IAML 17 55 06.2
comp=Z,32nm,1.0s
IMND Minoodasht 6.25 114 Pn Pn 17 53 25.1 -0.2
KHMZ Khomeyn 6.42 167 ePn Pn 17 53 31.3 +3.4
KHMZ IAML 17 55 07.5
comp=Z,10.0nm,1.0s
MRVT Maraveh tapeh 6.56 109 ePn Pn 17 53 29.6 -0.1
MRVT IAML 17 54 41.0
comp=Z,190nm,1.0s
MRVT Maraveh tapeh 6.56 109 Pn Pn 17 53 29.5 -0.1
KELT Kelkit 6.89 274 P Pn 17 53 36.4 +2.1
comp=Z,74nm,1.3s
RPOR Krasnaya Polya 7.00 304‖ eP Pn 17 53 37.4 +1.8
VSLR Vesyoloye 7.04 302‖ eP Pn 17 53 39.7 +3.6
GUZR Guzeripl' *d iP* Pn 17 53 41.6 +2.7
SOC Sochi 7.30 302 eP Pn 17 53 41.5 +1.9
SOC e 17 55 04.4
SOC MLR MLR
comp=Z,21nm,7.0s
SHRO Shahrood 7.33 121 ePn Pn 17 53 40.6 +0.3
SHRO IAML 17 54 22.6
comp=Z,2.5nm,1.0s
SHRO Shahrood 7.33 121 Pn Pn 17 53 40.5 +0.3
BJRD Bojnurd 7.52 105 ePn Pn 17 53 42.6 -0.2
BJRD IAML 17 55 06.5
comp=Z,100nm,1.0s
KEMA Kemaliye 7.56 267 P Pn 17 53 46.7 +3.3
comp=Z,94nm,1.0s
SBZV Sabzevar 8.22 113 ePn Pn 17 53 52.7 +0.2
SBZV Sabzevar 8.22 113 Pn Pn 17 53 52.4 -0.1
YZKH Yazd 9.18 144 ePn Pn 17 54 07.6 +2.1

TABS Tabas 9.54 129 ePn Pn 17 54 11.4 +1.0
ANDN Andirin 9.61 259 P Pn 17 54 14.0 +2.6
comp=Z,45nm,1.7s
BR131 Keskin Array S 11.23 273‖ eP Pn 17 54 37.8 +4.2
BRTR Keskin Array B 11.23 273 P Pn 17 54 34.2 +0.6
comp=Z,1.7nm,0.9s,baz=98,slow=8.5,SNR=7.6
BRTR LR LR 17 59 09.9
comp=Z,64nm,21.8s,baz=74,slow=39
SHRT Shahrakht 11.55 120 ePn Pn 17 54 38.3 +0.4
BSRN Basiran 11.92 129 ePn Pn 17 54 45.0 +2.0
VRH Novokhopyorsk 12.07 340 eP Pn 17 54 42.8 -2.0
VRH pmax pmax
comp=Z,9.0nm,0.6s
GEM Giv'at Ha'Em 12.18 240 P Pn 17 54 48.9 +2.6
comp=Z,16953µm,1.6s
BELG Belogornoye 12.38 358 P Pn 17 54 46.2 -2.8
comp=Z,8.7nm,0.3s,baz=249,slow=22,SNR=9.3
BELG S Sn 17 56 52.6 -12
comp=Z,73nm,0.6s,baz=352,slow=16,SNR=15
BELG Belogornoye 12.38 358‖ eP Pn 17 54 50.6 +1.6
AB31 Akbulak array 12.42 38 P Pn 17 54 46.3 -3.3
comp=Z,1.6nm,0.3s,baz=221,slow=13,SNR=98
AB31 ⇑S Sn 17 56 56.8 -9.3
comp=Z,6.0nm,0.5s,baz=226,slow=22,SNR=10
AB31 Akbulak array 12.42 38 P Pn 17 54 46.3 -3.3
AB31 Akbulak array 12.42 38 Pn 17 54 45.9 -3.6
ABKAR Akbulak array 12.42 38 Pn 17 54 45.8 -3.7
MMAI Mount Meron Ar 12.47 240 LR LR 18 00 25.1
comp=Z,56nm,19.2s,baz=54,slow=40
AKTO Aktyubinsk 12.47 30 P Pn 17 54 47.8 -2.4
comp=Z,6.7nm,0.3s,baz=221,slow=10,SNR=24
AKTO S Sn 17 56 58.6 -8.7
comp=Z,17nm,0.6s,baz=336,slow=18,SNR=12
AKTO Aktyubinsk 12.47 30⇑ P Pn 17 54 47.4 -2.9
comp=Z,5.6nm,0.6s
AKTO ⇓S Sn 17 56 56.6 -11
comp=Z,21nm,0.8s
MMC7 Mount Meron ar 12.47 240 P Pn 17 54 54.2 +3.8
comp=Z,8.7nm,1.2s
MMC6 Mount Meron ar 12.48 240 P Pn 17 54 54.2 +3.7
comp=Z,13nm,1.1s
VORD Divnogorie 12.61 333 eP Pn 17 54 48.1 -3.9
VORD pmax pmax
comp=Z,10.0nm,0.4s
VSR Storozhevoye 12.86 334 eP Pn 17 54 53.5 -2.0
VSR pmax pmax
comp=Z,3.0nm,0.4s
VORR Voronezh 13.23 335 eP Pn 17 54 59.3 -1.2
VORR pmax pmax
comp=Z,20nm,0.3s
LPSR Galich'ya Gora 14.12 336 eP Pn 17 55 09.4 -3.0
LPSR pmax pmax
comp=Z,10.0nm,0.6s
ELL Elmali 14.75 263 P Pn 17 55 23.1 +2.2
ELL Elmali 14.75 263 Pn Pn 17 55 23.1 +2.2
EIL Elat 15.01 231 LR LR 18 01 16.1
comp=Z,44nm,20.2s,baz=166,slow=37
UOSS Minazif 16.45 154 Pn Pn 17 55 43.5 +0.9
UOSS Minazif 16.45 154 P Pn 17 55 43.2 +0.6
comp=Z,8.2nm,0.9s
KK31 Karatay Array 16.94 72 P Pn 17 55 47.4 -1.1
comp=Z,1.6nm,0.5s,baz=275,slow=14,SNR=26
KK31 S Sn 17 58 46.4 -10
comp=Z,6.9nm,0.5s,baz=278,slow=20,SNR=21
KK31 Karatay Array 16.94 72 P Pn 17 55 47.4 -1.1
KK31 S Sn 17 58 46.4 -10
KK31 Karatay Array 16.94 72 Pn Pn 17 55 47.3 -1.1
KKAR Karatay Array 16.94 72 P Pn 17 55 47.3 -1.2
KKAR Karatay Array 16.94 72 Pn 17 55 47.3 -1.2
AKASG Malin Array Be 17.06 315 P Pn 17 55 48.1 -1.7
comp=Z,0.3nm,0.3s,baz=123,slow=13,SNR=7.3
AKASG Malin Array Be 17.06 315 *i* P 17 55 51.7 +0.9
AKASG pmax pmax
comp=Z,1.0nm,0.4s
BTK Batken 17.28 83 P Pn 17 55 51.9 -1.0
BTK pmax pmax
comp=Z,10.0nm,1.4s
BTK Batken 17.28 83 Pn Pn 17 55 51.9 -1.0
BTK Batken 17.28 83 P Pn 17 55 52.0 -0.8
comp=Z,4.6nm,0.8s
ARTI Arti 17.68 19 P Pn 17 55 54.4 -3.1
comp=Z,16nm,0.4s,baz=208,slow=9.0,SNR=20
ARTI S Sn 17 58 57.8 -16
comp=Z,5.0nm,0.4s,baz=232,slow=20,SNR=5.8
ARTI Arti 17.68 19*c iP* Pn 17 55 54.8 -2.7
ARTI S Sn 17 59 06.4 -7.2
ARTI pmax pmax
comp=Z,12nm,0.6s
ARTI Arti 17.68 19 Pn 17 55 54.0 -3.5
ARTI Sn 17 59 01.0 -13
VOIR 17.86 295 P Pn 17 56 01.9 +2.1
comp=Z,3.8nm,1.3s
ARK Arkit 18.01 77 P Pn 17 56 01.6 -0.1
comp=Z,10nm,0.8s
BURAR Bucovina Array 18.23 302 P P 17 56 03.9 0.0
BUR08 Bucovina Ar. S 18.24 302 P 17 56 03.3 -0.7
KIRV Kirov 18.59 2 P P 17 56 06.7 -0.9
comp=Z,11nm,0.3s,baz=348,slow=3.5,SNR=8.0
KIRV S Sn 17 59 23.6 -12
comp=Z,7.9nm,0.5s,baz=77,slow=19,SNR=3.6
SVE Sverdlovsk 18.67 22 eP P 17 56 08.0 -0.5
SVE eS S 17 59 23.8 -14
SVE pmax pmax
comp=Z,13nm,0.5s
OHH Osh 18.72 81 P P 17 56 07.9 -1.4
comp=Z,8.5nm,0.8s
IDI Anoyia 19.07 263 P Pn 17 56 14.4 0.0
comp=Z,9.6nm,1.0s,baz=267,slow=20,SNR=1.0
AAK Ala-Archa 19.86 74 P Pn 17 56 22.6 -1.3
comp=Z,2.2nm,0.5s,baz=256,slow=5.5,SNR=8.2
AAK S S 18 00 03.5 +1.5
comp=Z,0.9nm,0.5s,baz=299,slow=13,SNR=2.5
AAK Ala-Archa 19.86 74 P 17 56 22.2 +0.5
AAK Ala-Archa 19.86 74 P P 17 56 22.3 +0.5
comp=Z,4.0nm,0.6s
BORK Borovoye 19.90 42 P P 17 56 22.1 +0.1
BORK pmax pmax
comp=Z,15nm,0.6s
BORK Borovoye 19.90 42 P 17 56 22.1 +0.1
BORK IAmb IAmb 17 56 26.9
comp=Z,15nm,0.6s
BVA1 Borovoye Array 19.93 42⇑ P P 17 56 22.8 +0.5
comp=Z,9.4nm,0.6s
BVA1 ⇑S S 17 59 51.2 -12
comp=Z,5.1nm,0.7s
BVAR Borovoye Array 19.93 42 P P 17 56 22.2 -0.1
comp=Z,11nm,0.6s,baz=243,slow=9.8,SNR=26
BVAR S S 17 59 53.0 -10
comp=Z,3.9nm,0.8s,baz=226,slow=24,SNR=4.6
TRPA Tarpa 20.10 302 P Pn 17 56 26.3 -0.2
comp=Z,6.2nm,1.6s
BOOM Boomskoye usch 20.93 74 P P 17 56 34.2 +0.7
comp=Z,9.2nm,1.0s
KSH2 Kashi 21.05 84 P P 17 56 36.7 +2.0
KSH2 pmax pmax
comp=Z,3.0nm,0.6s
PHP Peshkopia 21.07 284 P P 17 56 36.6 +1.9
comp=Z,9.4nm,1.0s
ASAI AK-SAY(Kyrgyzs 21.50 78 P P 17 56 39.3 -0.4
comp=Z,4.5nm,1.3s
FRGS Fruska Gora 21.50 293 P P 17 56 41.5 +2.2
comp=Z,4.8nm,0.9s
KLMR Klimovskoe 21.55 348 eP P 17 56 40.2 +0.6
KLMR pmax pmax
comp=Z,16nm,1.0s
PSZ Piszkesteto 21.79 301 P P 17 56 45.5 +3.1
comp=Z,3.5nm,1.2s
TARG Taragay, Kyrgy 22.37 76 P P 17 56 47.1 -2.0
comp=Z,6.8nm,1.7s
VSU Vasula 23.01 330⇑ eP P 17 57 00.3 +5.2
VSU pmax pmax
comp=Z,132nm,3.8s
PDGK Podgornoye 23.50 72 P P 17 57 00.7 +0.5
PDGK Podgornoye 23.50 72 P 17 57 00.7 +0.5
KURBB Kurchatov Arra 23.63 53 P P 17 57 02.5 +1.5
comp=Z,5.3nm,0.4s,baz=263,slow=8.7,SNR=26
comp=Z,5.3nm,0.4s
KURK Kurchatov 23.70 53*d iP* P 17 57 03.2 +1.4
KURK pmax pmax
comp=Z,11nm,0.6s
KURK Kurchatov 23.70 53 P 17 57 02.5 +0.8
KURK IAmb IAmb 17 57 04.1
comp=Z,11nm,0.6s
KURK Kurchatov 23.70 53 P P 17 57 02.7 +1.0
comp=Z,20nm,0.9s
KIJV Kijevo 23.91 290 P P 17 57 05.8 +2.1

comp=Z,17nm,0.9s
KRUC Moravsky 24.28 302 P P 17 57 08.7 +1.7
CUC Castrocucco 24.77 280 P P 17 57 13.7 +2.1
comp=Z,4.1nm,1.0s
CHVC Chvalec 24.80 306 P P 17 57 14.8 +3.0
comp=Z,20nm,1.6s
PVF Pernaja 24.80 333 P P 17 57 13.5 +1.9
comp=Z,75nm,2.7s
SESA Seetaler Alpe, 25.27 297 eP P 17 57 17.7 +1.5
comp=Z,7.0nm,0.7s
MAKZ Makanchi 25.28 63 P P 17 57 17.0 +0.8
MAKZ pmax pmax
comp=Z,8.0nm,0.6s
MAKZ Makanchi 25.28 63 P 17 57 16.9 +0.8
MAKZ IAmb IAmb 17 57 20.3
comp=Z,7.6nm,0.6s
MAKZ Makanchi 25.28 63 P P 17 57 17.1 +0.9
comp=Z,12nm,0.7s
FINES FINESS Array B 25.38 335 P P 17 57 17.1 +0.2
comp=Z,3.7nm,0.8s,baz=143,slow=12,SNR=14
FINES pP pP 17 57 31.3 -0.6
comp=Z,2.5nm,0.5s,baz=136,slow=10,SNR=2.2
comp=Z,3.7nm,0.8s
MK31 Makanchi Array 25.50 63 P P 17 57 19.4 +1.2
comp=Z,4.9nm,0.6s,baz=265,slow=6.5,SNR=56
MK31 Makanchi Array 25.50 63*d iP* P 17 57 19.6 +1.5
MKAR Makanchi Array 25.50 63 P P 17 57 19.6 +1.5
comp=Z,8.9nm,0.6s,baz=267,slow=7.3,SNR=39
MKAR LR LR 18 09 13.0
comp=Z,40nm,18.7s,baz=282,slow=41
comp=Z,8.9nm,0.6s
MKAR Makanchi Array 25.50 63 P 17 57 19.1 +0.9
GERES GERESS Array B 26.01 301 P P 17 57 23.1 +0.3
comp=Z,0.9nm,0.6s,baz=104,slow=9.7,SNR=6.9
GERES pP pP 17 57 38.8 +0.9
comp=Z,4.3nm,0.7s,baz=104,slow=8.0,SNR=13
comp=Z,0.9nm,0.6s
GERES GERESS Array B 26.01 301 P P 17 57 23.4 +0.6
GERES *PP pP 17 57 38.8 +0.9
GERES GERESS Array B 26.01 301 P P 17 57 23.4 +0.6
LESA Schwarzleotal 26.57 298 eP P 17 57 28.0 +0.1
comp=Z,0.3nm,0.2s
ZALV Zalesovo Beam 28.21 48 P P 17 57 42.2 -0.2
comp=Z,1.7nm,0.3s,baz=270,slow=12,SNR=6.0
ZALV pP pP 17 57 58.0 +0.4
comp=Z,1.1nm,0.5s,baz=249,slow=11,SNR=2.2
comp=Z,1.7nm,0.3s
WMQ Urumqi 29.40 70 eP P 17 57 55.8 +2.6
WMQ pmax pmax
comp=Z,16nm,0.7s
HFS Hagfors 29.41 325 P P 17 57 52.5 -0.5
comp=Z,0.9nm,0.4s,baz=112,slow=12,SNR=1.5
comp=Z,0.9nm,0.4s
NB2 NORSAR Subarra 30.91 325 P P 17 58 05.9 -0.4
comp=Z,1.7nm,0.6s,baz=114,slow=8.6
NOA NORSAR Array B 30.91 325 P P 17 58 05.9 -0.4
comp=Z,0.8nm,0.8s,baz=106,slow=10,SNR=3.9
NOA LR LR 18 11 18.7
comp=Z,28nm,18.1s,baz=345,slow=38
comp=Z,0.8nm,0.8s
EVN Everest 33.92 99 P P 17 58 34.3 +0.7
comp=Z,6.6nm,1.1s
NRIK Noril'sk 35.93 23 P P 17 58 49.9 +0.2
comp=Z,2.3nm,0.6s,baz=222,slow=8.0,SNR=3.5
comp=Z,2.3nm,0.6s
NRIK Noril'sk 35.93 23 P P 17 58 49.9 +0.2
NRIK pmax pmax
comp=Z,8.0nm,1.3s
NRIK Noril'sk 35.93 23 IAmb IAmb 17 58 54.0
comp=Z,7.7nm,1.2s
ESDC Sonseca Array 39.60 287 P P 17 59 20.6 -0.5
comp=Z,0.5nm,0.5s,baz=62,slow=8.3,SNR=4.6
ESDC pP pP 17 59 36.3 -0.4
comp=Z,1.3nm,0.7s,baz=66,slow=8.2,SNR=4.8
comp=Z,0.5nm,0.5s
SPITS Spitsbergen Ar 40.42 350 P P 17 59 27.4 +0.1
comp=Z,6.3nm,0.9s,baz=145,slow=5.3,SNR=1.7
comp=Z,6.3nm,0.9s
SONM Songino Array 41.72 59 P P 17 59 39.1 +0.5
comp=Z,0.7nm,0.5s,baz=284,slow=6.0,SNR=4.8
comp=Z,0.7nm,0.5s
ULN Ulaanbaatar 42.15 59*ce* P P 17 59 44.5 +2.4
ULN pmax pmax
comp=Z,10.0nm,2.5s
HHC Hu-ho-hao-te 47.24 67 eP P 18 00 23.1 +0.5
HHC pmax pmax
comp=Z,13nm,0.7s
HHC pmax pmax
comp=Z,130nm,5.4s
XAN Xi'an 47.99 77 eP P 18 00 26.2 -2.3
CMAR Chiang Mai Arr 48.45 101 P P 18 00 33.0 +0.9
comp=Z,0.4nm,0.4s,baz=304,slow=9.0,SNR=6.0
comp=Z,0.4nm,0.4s
CMAR Chiang Mai Arr 48.45 101*ce* P P 18 00 33.0 +0.9
CMAR pmax pmax
comp=Z,1.0nm,0.7s
TIXI Tiksi 49.67 24*ce* P P 18 00 43.4 +2.7
TIXI pmax pmax
comp=Z,14nm,2.5s
NJ2 Nanjing 56.30 74 eP P 18 01 30.8 +0.7
NJ2 pmax pmax
comp=Z,11nm,0.5s
USRK Ussuriysk Ar. 59.65 56 P P 18 01 53.6 +0.3
comp=Z,1.8nm,0.7s,baz=270,slow=5.2,SNR=2.3
comp=Z,1.8nm,0.7s
KSRS Korea Array 60.17 64 P P 18 01 57.9 +0.9
comp=Z,1.5nm,0.6s,baz=296,slow=6.9,SNR=6.8
comp=Z,1.5nm,0.6s
C18K Utukok River 69.44 11 P P 18 02 57.0 +0.2
C24K Franklin Bluff 69.86 6 P P 18 03 00.4 +1.1
C26K Camden Bay 69.95 5 P P 18 03 00.7 +0.9
C26K IAmb IAmb 18 03 18.9
comp=Z,4.2nm,1.1s
D20K Etivluk River 70.01 9 P P 18 03 01.1 +0.9
D19K Kuna River 70.02 10 P P 18 03 01.9 +1.5
D22K Ayikyak River 70.30 8 P P 18 03 03.5 +1.4
C27K Jago River 70.31 4 P P 18 03 03.9 +1.8
C27K IAmb IAmb 18 03 04.6
comp=Z,4.0nm,0.6s
D24K Happy Valley 70.41 6 P P 18 03 03.8 +1.1
D24K IAmb IAmb 18 03 31.7
comp=Z,7.0nm,1.2s
D23K Nanushuk River 70.42 7 P P 18 03 04.1 +1.3
D23K IAmb IAmb 18 03 11.3
comp=Z,15nm,1.5s
D25K Kavik River 70.44 5 P P 18 03 04.1 +1.1
D25K IAmb IAmb 18 03 05.5
comp=Z,4.4nm,0.9s
D27M Malcolm River 70.84 3 P P 18 03 06.5 +1.1
TOLK Toolik Lake Re 70.84 7 P P 18 03 07.0 +1.6
TOLK IAmb IAmb 18 03 07.4
comp=Z,6.0nm,0.7s
E19K Redstone River 71.11 10 P P 18 03 08.1 +1.1
E19K IAmb IAmb 18 03 09.0
comp=Z,8.5nm,0.8s
F17K Baldwin Pennin 71.46 12 P P 18 03 10.0 +0.9
E24K Your Creek 71.49 7 P P 18 03 10.7 +1.3
E24K IAmb IAmb 18 03 11.8
comp=Z,6.8nm,1.3s
E29M Blow River 71.81 2 P P 18 03 12.3 +1.1
E29M IAmb IAmb 18 03 13.0
comp=Z,4.7nm,0.6s
E27K Coleen River 71.86 4 P P 18 03 12.3 +0.8
E27K IAmb IAmb 18 03 13.7
comp=Z,6.2nm,1.2s
F24K Squaw Lake 72.08 6 P P 18 03 13.6 +0.7
F24K IAmb IAmb 18 03 44.6
comp=Z,4.5nm,1.3s
F25K Christian Rive 72.19 6 P P 18 03 14.8 +1.2
F26K Sheenjek River 72.20 5 P P 18 03 14.7 +1.1
G19K Purcell Mounta 72.37 11 P P 18 03 15.6 +1.1
G19K IAmb IAmb 18 03 48.9
comp=Z,12nm,1.4s
BMAR Burnt Mountain 72.43 5 P P 18 03 16.5 +1.6
G21K Allakaket 72.48 9 P P 18 03 16.6 +1.3
G21K IAmb IAmb 18 03 47.3
comp=Z,11nm,1.4s
IMAR Indian Mountai 72.96 9 P P 18 03 19.2 +1.1
MLY Manley 74.23 8 P P 18 03 26.7 +1.1
MLY IAmb IAmb 18 03 28.3
comp=Z,8.4nm,1.4s
ILAR Eielson Array 74.87 7 P P 18 03 29.2 0.0
comp=Z,0.6nm,0.7s,baz=342,slow=5.9,SNR=5.4
comp=Z,0.6nm,0.7s
CCB Clear Creek Bu 74.91 7 P P 18 03 30.1 +0.7
CCB IAmb IAmb 18 04 05.7
comp=Z,8.9nm,1.4s

CAST	**Castle Rocks**	**75.63**	**9**	P	**P**	**18 03 34.8**	**+1.1**
CAST				IAmb	IAmb	18 03 35.6	
	comp=Z,8.2nm,1.1s						
KTH	**Kantishna Hill**	**75.64**	**9**	P	**P**	**18 03 33.9**	**+0.1**
KTH				IAmb	IAmb	18 03 50.0	
	comp=Z,14nm,1.5s						
RIDG	**Independent Ri**	**76.06**	**6**	P	**P**	**18 03 37.2**	**+1.0**
RIDG				IAmb	IAmb	18 03 37.5	
	comp=Z,5.2nm,1.1s						
PPLA	**Purkeypile**	**76.12**	**9**	P	**P**	**18 03 37.6**	**+1.0**
DOT	**Dot Lake**	**76.21**	**6**	P	**P**	**18 03 37.3**	**+0.4**
YKA	**Yellowknife Ar**	**76.90**	**352**	P	**P**	**18 03 41.3**	**+0.5**
	comp=Z,1.1nm,0.8s,baz=15,slow=5.6,SNR=2.8						
	comp=Z,1.1nm,0.8s						
BCAR	**Beaver Creek A**	**76.94**	**5**	P	**P**	**18 03 42.7**	**+1.6**
SKT	**Skwentna**	**77.09**	**9**	P	**P**	**18 03 42.3**	**+0.4**
SKT				IAmb	IAmb	18 03 58.8	
	comp=Z,6.6nm,1.1s						
KLU	**Klutina**	**78.18**	**7**	P	**P**	**18 03 48.8**	**+0.7**
KLU				IAmb	IAmb	18 03 51.9	
	comp=Z,5.7nm,0.9s						
WRA	**Warramunga Arr**	**99.67**	**108**	*i* P	**Pdif**	**18 05 35.7**	**+2.9**

IDC 04 18:06:04.3±3.4, 24°.01S×179°.85E, h512km±44km, mb2.9/4, mbtmp3.8/5, Error ellipse: s-maj=47.5km s-min=25.9km az=167.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**6.46**	**345**	P	P	18 07 45.8	-0.1
	1.7nm,0.3s,baz=145,slow=12,SNR=1.0						
ASAR	**Alice Springs**	**41.88**	**261**	P	P	18 13 09.8	+0.3
	0.4nm,0.3s,baz=97,slow=7.5,SNR=23						
	0.4nm,0.3s						
WRA	**Warramunga Arr**	**42.26**	**266**	P	P	18 13 12.1	-0.5
	0.9nm,0.4s,baz=97,slow=8.2,SNR=46						
	0.9nm,0.4s						
QSPA	**South Pole Qui**	**66.08**	**180**	P	P	18 15 59.6	-0.4
	1.1nm,1.0s,baz=26,slow=8.1,SNR=2.0						
	1.1nm,1.0s						
TXAR	**Lajitas Array**	**90.61**	**58**	P	P	18 18 12.4	+0.3
	0.3nm,0.8s,baz=237,slow=4.0,SNR=3.6						
	0.3nm,0.8s						

AFAD 04 18:11:01.1, 37°.92N×26°.53E, h7km±5km, ML1.5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.31**	**65**	P	Pg	18 11 05.3	-1.8
DGB				S	Sg	18 11 11.7	+0.4
ZEYE	**Izmir, Urla-Ze**	**0.32**	**357**	P	Pg	18 11 06.7	-0.6
ZEYE				S	Sg	18 11 12.8	+1.3
ZEYE				IAML		18 11 15.0	
	comp=N,25nm,0.2s						
BEYE	**izmir**	**0.44**	**46**	P	Pb	18 11 10.8	-0.4
BEYE				S	Sg	18 11 16.0	+0.6
DDIM	**Aydin, Didim**	**0.73**	**129**	P	Pg	18 11 15.4	+0.2

IDC 04 18:26:02.0±3.1, 6°.57S×149°.88E, h0km, mb3.9/4, mbtmp3.9/5, ML1.3/1, Error ellipse: s-maj=92.5km s-min=20.5km az=116.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.90**	**224**	Pn	Pn	18 27 03.9	+0.7
	1.5nm,0.3s,baz=50,slow=12,SNR=10						
PMG				Sn	Sn	18 27 47.6	-2.3
	2.9nm,0.3s,baz=156,slow=19,SNR=6.0						
	5.1nm,0.3s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**20.11**	**227**	P	P	18 30 37.1	-0.5
	0.6nm,0.5s,baz=52,slow=11,SNR=7.6						
	0.6nm,0.5s						
ASAR	**Alice Springs**	**22.91**	**220**	P	P	18 31 07.6	-0.2
	0.3nm,0.6s,baz=55,slow=9.7,SNR=10						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	**79.77**	**320**	P	P	18 38 13.8	+1.7
	5.3nm,0.7s,baz=114,slow=5.1,SNR=4.0						
	5.3nm,0.7s						
BVAR	**Borovoye Array**	**88.92**	**324**	P	P	18 38 56.6	-1.7
	3.4nm,0.5s,baz=116,slow=3.2,SNR=5.3						
	3.4nm,0.5s						

*GFZ **04** 18:27:45.1±0.2, 10°.2°N×12°.6°E±°, h10km, M5.0/38, mb5.1/38*
*BJI **04** 18:27:46.1, 9°.59N×126°.09E, h82km, mB5.3/23, mb5.0/73, Ms4.6/41, Ms7 4.5/44*
*MAN **04** 18:27:46.0, 10°.03N×126°.21E, h18km, MS5.1*
MAN INTENSITY IV - BURGOS STA. MONICA DAPA AND SAN ISIDRO SURIGAO DEL NORTE; . INTENSITY III - SAN BENITO SURIGAO DEL NORTE; . INTENSITY II - SURIGAO CITY.
*MOS **04** 18:27:47.4±0.9, 10°.03N×125°.92E, h60km, mb5.4/64, MS4.4/6, Error ellipse: s-maj=9.0km s-min=4.3km az=118.1*
*NEIC **04** 18:27:48.8±1.8, 10°.06N±0°.04×126°.01E±0°.10, h56km±5km, mb5.1/219, Mww5.0/10, Error ellipse: s-maj=14.1km s-min=5.6km az=82.0*
*IDC **04** 18:27:50.2±1.3, 10°.02N×126°.00E, h72km±12km, mb4.6/36, mbtmp4.9/40, MS4.1/62, Error ellipse: s-maj=13.2km s-min=6.8km az=78.0*
*GCMT **04** 18:27:50.2±0.2, 9°.99N±0°.01×126°.26E±0°.02, h44km±1km, MW5.1/90, Moment Tensor Solution. s78,c103; s90,c146; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.17±.16; $M_{\theta\theta}$1.01±.11; $M_{\phi\phi}$-5.18±.11; $M_{r\theta}$0.62±.10; $M_{\theta\phi}$0.55±.08; $M_{\phi r}$2.30±.15; Best double couple: M_o5.29100×10^{16} NP1:ϕ_s162.00000°, δ34.00000°, λ69.00000°. NP2:ϕ_s6.00000°, δ59.00000°, λ103.00000°. Principal axes: T°4.8440, Plg73.0000°, Azm309.0000°; N 0.8940, Plg11.0000°, Azm179.0000°; P -5.7390, Plg13.0000°, Azm87.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*DJA **04** 18:27:55.3±0.6, 10°.N±5°×12°.6E±°, h43km±6km, M4.8/45, mB5.3/36, mb5.1/45, MLv5.6/3, Mw(mB)4.7/36, MwMwp4.7/3, Mwp5.1/3*

ISC 04 18:27:48.8±0.3, 10°.06N±0°.03×126°.11E±0°.04, h59km±2km, h60km: pP-P, n712, σ1§49/652, mb5.1/261, MS4.2/78, 21C-13D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TSSP	**Tandag City**	**1.01**	**175**	*e*P	**Pn**	**18 28 04.1**	**-2.8**
TSSP				*e*S	**Sn**	**18 28 19.4**	**-0.9**
PLP	**Palo**	**1.56**	**315**	*e*P	**Pn**	**18 28 14.3**	**0.0**
PLP				*e*S	**Sn**	**18 28 36.7**	**+3.1**
BIPH	**Bislig**	**1.88**	**172**	*i* P	**Pn**	**18 28 16.4**	**-2.2**
BIPH				*i* S	**Sn**	**18 28 40.5**	**-0.7**
CGP	**Cagayan de Oro**	**2.12**	**221**	*i* P	**Pn**	**18 28 21.2**	**-0.6**
CGP				*i* S	**Sn**	**18 28 51.6**	**+4.5**
LLP	**Lapu-Lapu**	**2.13**	**277**	*i* P	**Pn**	**18 28 23.3**	**+1.4**
LLP				*i* S	**Sn**	**18 28 52.9**	**+5.6**
TBP	**Tagbilaran**	**2.25**	**261**	*i* P	**Pn**	**18 28 24.4**	**+0.9**
TBP				*i* S	**Sn**	**18 28 51.9**	**+1.7**
CDOP	**Cateel, Davao**	**2.28**	**172**	*i* P	**Pn**	**18 28 22.4**	**-1.6**
CDOP				*i* S	**Sn**	**18 28 49.9**	**-1.1**
BUKP	**Musuan**	**2.40**	**206**	*i* P	**Pn**	**18 28 26.0**	**+0.3**
BUKP				*i* S	**Sn**	**18 28 52.4**	**-1.6**
LSIP	**Lazi, Siquijor**	**2.61**	**250**	*e*P	**Pn**	**18 28 28.7**	**+0.1**
LSIP				*i* S	**Sn**	**18 28 53.9**	**-5.3**
SNPH	**Sibulan**	**2.92**	**256**	*e*P	**Pn**	**18 28 33.7**	**+0.9**
SNPH				*e*S	Sn	18 29 32.6	+26
DAV	**Davao City (W)**	**3.01**	**190**	P	**Pn**	**18 28 35.3**	**+1.2**
	214nm,0.3s,baz=52,slow=2.4,SNR=17						
DAV				S	**Sn**	**18 29 10.5**	**+1.5**
	2μm,0.7s,baz=315,slow=16,SNR=5.6						
DAV	**Davao City (W)**	**3.01**	**190**	P	**Pn**	**18 28 35.5**	**+1.4**
DAV				S	**Sn**	**18 29 12.6**	**+3.5**
DAV	**Davao City (W)**	**3.01**	**190**		**Pn**	**18 28 34.7**	**+0.6**
DAV	**Davao City (W)**	**3.01**	**190**	P	**Pn**	**18 28 36.8**	**+2.7**
DAV				S	**Sn**	**18 29 06.9**	**-2.1**
DAV				AML	AML		
DAV	**Davao City (W)**	**3.01**	**190**	P	**Pn**	**18 28 36.5**	**+2.4**
DAV	**Davao City (W)**	**3.01**	**190**	P	Pn	18 28 39.0	+4.9
DMPH	**Davao City--Mi**	**3.01**	**191**	*e*P	**Pn**	**18 28 36.5**	**+2.4**
DMPH				*i* S	**Sn**	**18 29 09.3**	**+0.3**
DCPH	**Dipolog City**	**3.09**	**242**	*i* P	**Pn**	**18 28 35.4**	**+0.3**
DCPH				*i* S	**Sn**	**18 29 12.1**	**+1.2**
KCP	**Kidapawan**	**3.19**	**199**	*i* P	**Pn**	**18 28 37.3**	**+0.7**
KCP				*i* S	**Sn**	**18 29 18.6**	**+5.1**
MMPH	**Masbate**	**3.34**	**313**	*e*P	**Pn**	**18 28 41.1**	**+2.5**
MMPH				*i* S	Sn	18 29 29.0	+12
CTBH	**Cotabato--PC H**	**3.37**	**213**	*i* P	**Pn**	**18 28 39.3**	**+0.4**
PAGZ	**Pagadian**	**3.48**	**231**	*i* P	**Pn**	**18 28 40.9**	**+0.5**
PAGZ				*i* S	**Sn**	**18 29 21.5**	**+1.1**
GUIM	**Jordan**	**3.51**	**280**	*i* P	**Pn**	**18 28 42.1**	**+1.2**
GUIM				*i* S	Sn	18 28 57.5	-24
DDMP	**Don Marcelino,**	**3.95**	**186**	*e*P	**Pn**	**18 28 46.2**	**-0.6**
DDMP				*e*S	**Sn**	**18 29 32.4**	**+0.5**
GSPH	**General Santos**	**4.11**	**196**	*i* P	**Pn**	**18 28 51.4**	**+2.2**
GSPH				*i* S	**Sn**	**18 29 35.6**	**-0.5**
JAP	**San Jose, Anti**	**4.15**	**280**	*e*P	**Pn**	**18 28 52.9**	**+3.2**
ZCP	**Zamboanga City**	**5.06**	**232**	*e*P	**Pn**	**18 29 02.4**	**+0.3**
GQP	**Guinayangan**	**5.24**	**317**	*i* P	**Pn**	**18 29 06.5**	**+1.9**
GQP				*e*S	Sn	18 30 14.8	+11
LQP	**Lukban**	**6.02**	**312**	*e*P	**Pn**	**18 29 17.5**	**+2.0**
PPR	**Puerto Princes**	**7.28**	**268**	*i* P	**Pn**	**18 29 35.1**	**+2.6**
PALP	**Palanan**	**7.83**	**333**	*e*P	**Pn**	**18 29 38.9**	**-1.2**
PALP				*i* S	Sn	18 30 49.7	-18
MNI	**Manado**	**8.65**	**188**	P	**Pn**	**18 29 54.7**	**+3.4**
I39PW	**PALAU INFRASON**	**8.71**	**106**	I	I	19 24 36.9	
	baz=284,slow=304,SNR=0.5						
SZP	**Santa**	**9.25**	**324**	Pn	**Pn**	**18 29 58.3**	**-1.2**
TNTI	**Ternate**	**9.31**	**172**		**Pn**	**18 29 59.9**	**-0.5**
TNTI	**Ternate**	**9.31**	**172**	P	**Pn**	**18 30 01.8**	**+1.5**
	879nm83nm,0.8s						
TNTI	**Ternate**	**9.31**	**172**	P	**Pn**	**18 30 02.1**	**+1.8**
	comp=Z,84nm,0.9s						
PACPP	**Pamplona Cagay**	**9.54**	**332**	*e*P	**Pn**	**18 30 04.0**	**+0.6**
KMSI	**Cibinong**	**9.65**	**193**	P	**Pn**	**18 30 07.2**	**+2.1**
GTOI	**Gorontalo**	**9.85**	**198**	P	**Pn**	**18 30 07.8**	**0.0**
	comp=Z,1μmcomp=Z,152nm,1.0s						
TOLI2	**Tolitoli**	**10.35**	**211**		**Pn**	**18 30 12.9**	**-1.6**
TOLI2	**Tolitoli**	**10.35**	**211**	P	Pn	18 30 19.4	+4.8
	comp=Z,26nm,1.2s						
KKM	**Kota Kinabalu**	**10.58**	**249**		**Pn**	**18 30 17.1**	**-0.6**
KKM	**Kota Kinabalu**	**10.58**	**249**	P	**Pn**	**18 30 22.1**	**+4.3**
	comp=Z,1μmcomp=Z,69nm,1.2s						
KKM	**Kota Kinabalu**	**10.58**	**249**	P	**Pn**	**18 30 21.1**	**+3.3**
	comp=Z,69nm,1.2s						
LUWI	**Luwuk**	**11.52**	**197**		**Pn**	**18 30 30.1**	**-0.4**
LUWI	**Luwuk**	**11.52**	**197**	P	**Pn**	**18 30 33.2**	**+2.7**
LUWI	**Luwuk**	**11.52**	**197**	P	**Pn**	**18 30 33.3**	**+2.8**
	comp=Z,263nm,0.9s						
SIJI	**Sorong**	**12.01**	**154**	P	**Pn**	**18 30 36.0**	**-1.3**
	comp=Z,9.6nm,0.5s,baz=120,slow=23,SNR=15						
SIJI				S	Sn	18 32 38.6	-11
	comp=Z,4.7nm,0.6s,baz=173,slow=21,SNR=1.2						
SIJI				LR	LR	18 35 52.9	
	comp=Z,540nm,19.3s,baz=332,slow=40						
SIJI	**Sorong**	**12.01**	**154**	P	**Pn**	**18 30 38.0**	**+0.8**
	comp=Z,1μmcomp=Z,679nmcomp=Z,35nm,0.9s						
SANI	**Sanana**	**12.03**	**181**	P	**Pn**	**18 30 39.0**	**+1.5**
	comp=Z,54nm,0.7s						
SANI	**Sanana**	**12.03**	**181**	P	**Pn**	**18 30 35.0**	**-2.5**
	comp=Z,54nm,0.7s						
PCI	**Palu**	**12.55**	**210**	P	**Pn**	**18 30 47.5**	**+2.8**
	comp=Z,55nm,1.1s						
NLAI	**Namlea**	**13.24**	**176**	P	**Pn**	**18 30 57.8**	**+3.7**
	comp=Z,902nmcomp=Z,74nm,0.9s						
MWPI	**Manokwari, Pap**	**13.47**	**144**	P	**Pn**	**18 30 59.7**	**+2.5**
	comp=Z,2μmcomp=Z,179nm,1.4s						
TWG	**Pinlang**	**13.58**	**340**		**Pn**	**18 30 56.0**	**-2.6**
YULB	**Yu-li**	**14.04**	**341**		**Pn**	**18 31 07.4**	**+2.7**
TPUB	**Ta-pu**	**14.17**	**339**		**Pn**	**18 31 05.9**	**-0.7**
FAKI	**Fak Fak**	**14.27**	**154**		**Pn**	**18 31 07.3**	**-0.5**
FAKI	**Fak Fak**	**14.27**	**154**	P	**Pn**	**18 31 08.7**	**+0.9**
	comp=Z,1μmcomp=Z,78nm,0.8s						
KDI	**Kendari**	**14.35**	**194**	P	**P**	**18 31 12.0**	**-2.3**
	comp=Z,31nm,1.2s						
TTSI	**Tana Toraja**	**14.45**	**206**	P	**Pn**	**18 31 12.5**	**+2.3**
	comp=Z,1μmcomp=Z,107nm,0.8s						
SSLB	**Suanglung**	**14.52**	**341**		**P**	**18 31 14.3**	**-1.9**
MMSI	**Mamuju**	**14.55**	**210**	P	**P**	**18 31 15.5**	**-1.1**
	comp=Z,46nm,0.8s						
BAKI	**Biak**	**14.96**	**138**	P	**P**	**18 31 21.9**	**+0.7**
	comp=Z,75nm,0.9s						
BNDI	**Bandanaira**	**14.97**	**165**	P	**P**	**18 31 20.9**	**-0.3**
	comp=Z,2μmcomp=Z,94nm,0.9s						
BNDI	**Bandanaira**	**14.97**	**165**	P	**P**	**18 31 21.5**	**+0.3**
	comp=Z,125nm,1.3s						
PMSI	**Majene**	**15.26**	**208**	P	**P**	**18 31 26.5**	**+2.0**
	comp=Z,1μmcomp=Z,1μmcomp=Z,51nm,1.1s						
SBUM	**Sibu**	**15.73**	**242**		**Pn**	**18 31 27.9**	**+1.2**
SBUM	**Sibu**	**15.73**	**242**	P	**P**	**18 31 33.0**	**+3.3**
	comp=Z,661nmcomp=Z,58nm,1.1s						
SBUM	**Sibu**	**15.73**	**242**	P	**P**	**18 31 30.5**	**+0.8**
	comp=Z,58nm,1.1s						
KAPI	**Kappang**	**16.26**	**203**	P	**Pn**	**18 31 33.4**	**0.0**
	comp=Z,111nm,0.4s,baz=26,slow=15,SNR=5.6						
KAPI				LR	LR	18 38 16.8	
	comp=Z,770nm,19.9s,baz=14,slow=39						
KAPI	**Kappang**	**16.26**	**203**	*c* P	**Pn**	**18 31 34.2**	**+0.8**
KAPI	**Kappang**	**16.26**	**203**		**Pn**	**18 31 31.3**	**-2.1**
KAPI	**Kappang**	**16.26**	**203**	P	**P**	**18 31 38.5**	**+3.0**
KAPI	**Kappang**	**16.26**	**203**	P	**P**	**18 31 34.6**	**-0.9**
	comp=Z,44nm,1.2s						
BKSI	**Bukumba**	**16.40**	**202**	P	**P**	**18 31 38.4**	**+1.3**
	comp=Z,32nm,0.9s						
JOW	**Kunigami**	**16.81**	**7**	P	**P**	**18 31 43.3**	**+1.7**
	comp=Z,56nm,1.0s,baz=157,slow=6.2,SNR=3.1						
JOW				LR	LR	18 37 06.1	
	comp=Z,679nm,21.8s,baz=190,slow=33						
JOW	**Kunigami**	**16.81**	**7**	P	**P**	**18 31 42.0**	**+0.4**
DLV	**Lat**	**17.40**	**278**	P	**P**	**18 31 49.1**	**+0.6**
QIZ	**Qiongzhong**	**18.08**	**301**	P	**Pn**	**18 31 56.6**	**+0.6**
QIZ				S	**Sn**	**18 35 16.5**	**-0.7**
QIZ				pmax	pmax		
	comp=Z,520nm,3.7s						
QIZ				L	L		
	comp=Z,690nm,11.1s						
QIZ				L	L		
	comp=Z,560nm,13.6s						
QIZ				L	L		
	comp=Z,1μm,14.4s						
GENI	**Genyem**	**18.81**	**131**	P	**Pn**	**18 32 08.2**	**+3.4**
	comp=Z,2μmcomp=Z,142nm,0.7s						
GENI	**Genyem**	**18.81**	**131**	P	**Pn**	**18 32 08.6**	**+3.8**
	comp=Z,144nm,0.7s						
MMRI	**Maumere**	**18.97**	**192**		**P**	**18 32 05.0**	**-0.4**
MMRI	**Maumere**	**18.97**	**192**	P	**Pn**	**18 32 10.1**	**+3.5**
MMRI	**Maumere**	**18.97**	**192**	P	**Pn**	**18 32 12.1**	**+5.4**
	comp=Z,66nm,0.8s						
JAY	**Jayapura**	**19.16**	**130**	P	**Pn**	**18 32 09.4**	**+0.4**
	comp=Z,16nm,0.7s,baz=303,slow=9.1,SNR=5.9						
JAY				LR	LR	18 39 12.3	
	comp=Z,832nm,19.1s,baz=320,slow=36						
JAY	**Jayapura**	**19.16**	**130**	P	**Pn**	**18 32 12.3**	**+3.3**
	comp=Z,40nm,0.9s						
EDFI	**Ende, Flores**	**19.19**	**193**	P	**Pn**	**18 32 11.0**	**+1.5**
	comp=Z,72nm,0.8s						
LBFI	**Labuhan Bajo,**	**19.43**	**199**	P	**Pn**	**18 32 15.3**	**+3.2**
SOEI	**Soe**	**19.77**	**185**		**P**	**18 32 14.4**	**+0.1**
SOEI				IAmb	IAmb	18 32 28.0	
	comp=Z,93nm,1.1s						
SOEI	**Soe**	**19.77**	**185**	P	**Pn**	**18 32 18.6**	**+2.4**
	comp=Z,2μmcomp=Z,207nm,1.1s						
DBNI	**Kabupaten Domp**	**20.00**	**203**	P	Pn	18 32 21.0	+2.1
	comp=Z,50nm,1.0s						
BATI	**Baumata**	**20.28**	**187**	P	**P**	**18 32 19.8**	**0.0**
	comp=Z,85nm,0.8s,baz=99,slow=1.3,SNR=11						
BATI				S	**S**	**18 36 05.2**	**+1.1**
	comp=Z,9.5nm,0.3s,baz=76,slow=6.3,SNR=1.7						
BATI				LR	LR	18 41 39.0	
	comp=Z,396nm,21.8s,baz=334,slow=41						
	comp=Z,85nm,0.8s						
BATI	**Baumata**	**20.28**	**187**	P	Pn	18 32 24.3	+2.1
JSU	**Suzuyama**	**21.72**	**10**	P	**P**	**18 32 34.3**	**-0.8**
JCJ	**Chichijima**	**22.74**	**40**	LR	LR	18 39 44.4	
	comp=Z,372nm,21.4s,baz=114,slow=31						
NJ2	**Nanjing**	**22.90**	**344**	⇓P	**P**	**18 32 48.8**	**+1.2**
NJ2				pmax	pmax		
	comp=Z,30nm,0.8s						
SMRI	**Semarang**	**23.07**	**223**	P	**P**	**18 32 47.6**	**-1.9**
SMRI	**Semarang**	**23.07**	**223**	P	**P**	**18 32 52.9**	**+3.3**
	comp=Z,134nm,1.4s						
WHN	**Wuhan**	**23.14**	**333**	⇓P	**P**	**18 32 50.6**	**+0.5**
WHN				pP	**sP**	**18 33 08.0**	**-2.7**
WHN				sP	pP	18 33 14.5	+11
WHN				pmax	pmax		
	comp=Z,150nm,1.1s						
WHN				L	L		
	comp=Z,2μm,18.0s						
MTN	**Manton Dam**	**23.29**	**168**	P	**P**	**18 32 51.8**	**+0.2**
	comp=Z,36nm,0.6s						
MTN	**Manton Dam**	**23.29**	**168**		**P**	**18 32 50.5**	**-1.2**
JNU	**Nakatsue**	**23.37**	**10**	LR	LR	18 41 36.4	
	comp=Z,249nm,21.9s,baz=173,slow=35						
KDU	**Kakadu**	**23.46**	**164**	P	**P**	**18 32 52.4**	**-0.9**
	comp=Z,53nm,0.9s						
KDU	**Kakadu**	**23.46**	**164**	P	**P**	**18 32 52.7**	**-0.5**
	comp=Z,53nm,0.9s						
SLVN	**Son La**	**24.10**	**300**	P	**P**	**18 32 59.3**	**+0.1**
SLVN	**Son La**	**24.10**	**300**	P	**P**	**18 32 59.8**	**+0.6**
	comp=Z,18nm,2.1s						
JMN	**Monobe**	**24.62**	**16**	P	**P**	**18 33 06.2**	**+2.5**
JMN				IAmb	IAmb	18 33 08.3	
	comp=Z,72nm,1.1s						
JMN	**Monobe**	**24.62**	**16**	P	**P**	**18 33 07.1**	**+3.4**
	comp=Z,60nm,1.3s						
LEM	**Lembang**	**24.91**	**228**	P	**P**	**18 33 06.6**	**-0.1**
	comp=Z,23nm,0.7s,baz=147,slow=22,SNR=6.4						
LEM				LR	LR	18 44 24.9	
	comp=Z,596nm,18.6s,baz=54,slow=40						
	comp=Z,23nm,0.7s						
ENH	**Enshi**	**25.39**	**325**	P	**P**	**18 33 09.8**	**-1.0**
IPM	**Ipoh**	**25.48**	**259**	P	**P**	**18 33 11.5**	**-0.3**
KULM	**Kulim**	**25.66**	**261**	P	**P**	**18 33 13.9**	**+0.6**
KNRA	**Kununurra**	**25.70**	**174**	P	**P**	**18 33 14.1**	**+0.5**
	comp=Z,44nm,0.6s						
KNRA	**Kununurra**	**25.70**	**174**	P	**P**	**18 33 13.8**	**+0.2**
	comp=Z,44nm,0.6s						
KNRA	**Kununurra**	**25.70**	**174**	P	**P**	**18 33 12.5**	**-1.1**
KNRA				IAmb	IAmb	18 33 26.2	
	comp=Z,29nm,0.6s						
BKNI	**Bangkinang**	**26.75**	**250**	P	**P**	**18 33 22.9**	**-0.2**
BKNI				IAmb	IAmb	18 33 39.6	
	comp=Z,46nm,0.7s						
KMI2	**Kunming**	**26.79**	**307**	P	**P**	**18 33 25.9**	**+2.2**
KMI2				pP	sP	18 33 42.5	-2.7
KMI2				PcP	**PcP**	**18 36 46.3**	**+0.7**
KMI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KMI2				L	L		
	comp=Z,330nm,20.4s						
KMI2				L	L		
	comp=Z,540nm,22.8s						
KMI2				L	L		
	comp=Z,680nm,19.1s						
TIA	**Tai'an**	**27.29**	**344**	P	**P**	**18 33 28.1**	**+0.3**
TIA				pmax	pmax		
	comp=Z,14nm,1.1s						
TIA				L	L		
	comp=Z,400nm,15.7s						
TIA				L	L		
	comp=Z,250nm,16.7s						
TIA				L	L		
	comp=Z,520nm,18.1s						
KSAR	**Wonju Array Be**	**27.31**	**3**	P	**P**	**18 33 28.1**	**+0.2**
KSAR	**Wonju Array Be**	**27.31**	**3**	P	**P**	**18 33 28.1**	**+0.2**
KSRS	**Korea Array**	**27.33**	**3**	P	**P**	**18 33 29.3**	**+1.2**
	comp=Z,5.6nm,0.9s,baz=181,slow=9.6,SNR=14						
KSRS				LR	LR	18 47 16.9	
	comp=Z,172nm,18.3s,baz=175,slow=43						
	comp=Z,5.6nm,0.9s						
KS19	**Wonju Array Si**	**27.37**	**3**	P	**P**	**18 33 28.1**	**-0.4**
LYN	**LuoYang**	**27.39**	**335**	P	**P**	**18 33 29.5**	**+0.8**
LYN				pmax	pmax		
	comp=Z,66nm,0.9s						
LYN				pmax	pmax		
	comp=Z,170nm,3.5s						
LYN				L	L		
	comp=Z,290nm,14.8s						
LYN				L	L		
	comp=Z,540nm,13.7s						
LYN				L	L		
	comp=Z,850nm,18.6s						
CM31	**Chiang Mai Arr**	**27.59**	**291**	P	**P**	**18 33 31.7**	**+1.0**
	SNR=18						
CM31	**Chiang Mai Arr**	**27.59**	**291**	IAmb	IAmb	18 33 47.7	
	comp=Z,41nm,1.0s						
CMAR	**Chiang Mai Arr**	**27.59**	**291**	P	**P**	**18 33 31.2**	**+0.5**
	comp=Z,24nm,1.0s,baz=104,slow=7.3,SNR=92						
CMAR				PcP	**PcP**	**18 36 47.5**	**+0.2**
	comp=Z,3.7nm,0.9s,baz=83,slow=0.9,SNR=7.8						
CMAR				ScP	**ScP**	**18 40 20.7**	**-2.4**
	comp=Z,0.6nm,0.7s,baz=51,slow=0.2,SNR=4.4						
CMAR				LR	LR	18 44 35.1	
	comp=Z,418nm,19.7s,baz=115,slow=36						
	comp=Z,24nm,1.0s						
CMAR	**Chiang Mai Arr**	**27.59**	**291**	*i* P	**P**	**18 33 31.2**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,25nm,1.0s						
CMAR	**Chiang Mai Arr**	**27.59**	**291**		**PcP**	**18 36 48.2**	**+0.9**
CHTO	**Chiang Mai**	**27.68**	**291**	P	**P**	**18 33 31.8**	**+0.3**
CHTO	**Chiang Mai**	**27.68**	**291**	P	**P**	**18 33 30.3**	**-1.2**
CHTO				pmax	pmax		
	comp=Z,24nm,1.0s						
CHTO	**Chiang Mai**	**27.68**	**291**	P	**P**	**18 33 30.3**	**-1.2**
CHTO	**Chiang Mai**	**27.68**	**291**	P	**P**	**18 33 31.6**	**+0.1**
	comp=Z,27nm,1.0s						
PSI	**Prapat**	**27.94**	**257**	P	**P**	**18 33 33.5**	**-0.5**
PSI				pmax	pmax		
	comp=Z,22nm,1.1s						
**RP

CD2 pmax pmax
comp=Z,230nm,6.8s
CD2 L L
comp=Z,1μm,18.4s
CD2 L L
comp=Z,1μm,19.0s
CD2 L L
comp=Z,2μm,18.4s
KRVT Keravat (AS076 29.50 118 LR LR 18 45 38.2
comp=Z,200nm,18.1s,baz=318,slow=36
GSI Gunungsitoli 29.67 255 P **P** **18 33 47.2 -2.0**
GSI IAmb IAmb 18 34 06.2
comp=Z,27nm,0.7s
TIY Taiyuan 30.17 338 P **P** **18 33 55.4 +2.0**
TIY pmax pmax
comp=Z,44nm,0.8s
NPW Naypyitaw 30.48 292 P **P** **18 33 57.2 +0.8**
comp=Z,53nm,1.1s
WRAB Tennant Creek 30.89 165⇓ *e*P **P** **18 33 58.7 -1.1**
WRAB pmax pmax
comp=Z,24nm,1.3s
WRAB Tennant Creek 30.89 165 P **P** **18 33 58.5 -1.4**
WRAB Tennant Creek 30.89 165 P **P** **18 33 58.8 -1.1**
comp=Z,12nm,1.0s
WRA Warramunga Arr 30.89 165 P **P** **18 33 58.2 -1.7**
comp=Z,4.2nm,0.7s,baz=342,slow=9.5,SNR=24
WRA PcP **PcP** **18 36 55.1 -0.5**
comp=Z,1.0nm,0.7s,baz=334,slow=2.8,SNR=2.0
WRA S **S** **18 38 53.1 -6.9**
comp=Z,3.7nm,1.0s,baz=338,slow=14,SNR=6.0
comp=Z,4.2nm,0.7s
WRA Warramunga Arr 30.89 165 P **P** **18 33 57.6 -2.3**
WRA 18 36 55.1
WRA S **S** **18 38 53.1 -6.9**
WRA Warramunga Arr 30.89 165 P **P** **18 33 57.6 -2.3**
BJI2 Beijing 31.12 345 P **P** **18 34 03.0 +1.3**
BJI2 pP **sP** **18 34 22.5 -0.2**
BJI2 S **S** **18 39 05.4 +2.2**
BJI2 pmax pmax
comp=Z,20nm,1.3s
BJI2 pmax pmax
comp=Z,68nm,3.5s
BJI2 L L
comp=Z,300nm,4.8s
BJI2 L L
comp=Z,220nm,5.0s
BJI2 L L
comp=Z,86nm,4.5s
BJT Baijiatuau 31.12 345 P **P** **18 34 02.4 +0.7**
BJT pmax pmax
comp=Z,61nm,1.4s
BJT Baijiatuau 31.12 345 P **P** **18 34 02.4 +0.7**
BJT IAmb IAmb 18 34 04.0
comp=Z,61nm,1.4s
MBWA Marble Bar 31.65 191 P **P** **18 34 07.3 +0.8**
MBWA Marble Bar 31.65 191 P **P** **18 34 04.4 -2.1**
PBA Port Blair 32.80 276 P **P** **18 34 18.7 +2.0**
LZDM Lanzhou Array 32.85 325 P **P** **18 34 16.6 -0.8**
comp=Z,1.8nm,0.3s,baz=129,slow=12,SNR=6.6
LZDM LR LR 18 48 12.2
comp=Z,633nm,21.5s,baz=260,slow=37
comp=Z,1.8nm,0.3s
LZH Lanzhou 32.86 326 *e*P **P** **18 34 17.9 +0.6**
LZH pP pP 18 34 33.5 +1.5
LZH sP sP 18 34 44.2 +5.3
LZH pmax pmax
comp=Z,50nm,1.0s
LZH L L
comp=Z,440nm,15.5s
LZH L L
comp=Z,610nm,15.6s
LZH L L
comp=Z,870nm,20.1s
QIS Mount Isa 33.19 156 P **P** **18 34 19.6 -0.5**
comp=Z,65nm,1.0s
QIS Mount Isa 33.19 156 P **P** **18 34 19.3 -0.9**
comp=Z,65nm,1.0s
HHC Hu-ho-hao-te 33.26 340 *e*P **P** **18 34 21.9 +1.3**
HHC pmax pmax
comp=Z,43nm,0.8s
HHC pmax pmax
comp=Z,82nm,3.9s
HHC L L
comp=Z,490nm,15.9s
HHC L L
comp=Z,210nm,15.5s
HHC L L
comp=Z,400nm,15.9s
MTSU Mount Surprise 33.28 147 P **P** **18 34 21.7 +0.8**
comp=Z,18nm,1.1s
CN2 Changchun 33.62 359 *e*P **P** **18 34 24.8 +1.2**
CN2 pmax pmax
comp=Z,10.0nm,1.2s
BTO2 Baotou 33.77 338 *e*P **P** **18 34 25.8 +0.7**
BTO2 pP **sP** **18 34 43.8 -2.9**
BTO2 sP pP 18 34 53.0 +13
BTO2 pmax pmax
comp=Z,20nm,1.0s
BTO2 pmax pmax
comp=Z,510nm,5.2s
BTO2 L L
comp=Z,1μm,18.4s
BTO2 L L
comp=Z,840nm,17.9s
AS15 Alice Springs 34.34 167 P **P** **18 34 29.6 -0.5**
comp=Z,16nm,0.8s
AS31 Alice Springs 34.37 167 P **P** **18 34 29.8 -0.6**
comp=Z,4.5nm,0.7s
AS31 Alice Springs 34.37 167 P **P** **18 34 30.7 +0.4**
comp=Z,4.5nm,0.7s
ASAR Alice Springs 34.37 167 P **P** **18 34 29.3 -1.0**
comp=Z,4.0nm,0.6s,baz=352,slow=7.0,SNR=92
ASAR PP **PnPn** **18 35 47.9 +1.1**
comp=Z,2.7nm,0.6s,baz=349,slow=9.9,SNR=4.3
ASAR PcP **PcP** **18 37 05.2 0.0**
comp=Z,3.7nm,0.7s,baz=355,slow=3.6,SNR=5.5
ASAR S **S** **18 39 49.3 -4.8**
comp=Z,5.9nm,1.0s,baz=355,slow=19,SNR=10
ASAR LR LR 18 50 18.6
comp=Z,171nm,18.6s,baz=307,slow=39
comp=Z,4.0nm,0.6s
ASAR Alice Springs 34.37 167 **P** **18 34 27.4 -3.0**
ASAR **PcP** **18 37 04.8 -0.4**
AS17 Alice Springs 34.39 167 P **P** **18 34 29.6 -0.8**
comp=Z,19nm,1.2s
USA0B Ussuriysk Arra 34.40 7⇓ *i*P **P** **18 34 32.4 +2.1**
USRK Ussuriysk Ar. 34.40 7 P **P** **18 34 31.1 +0.9**
comp=Z,5.2nm,0.7s,baz=180,slow=7.6,SNR=9.8
USRK LR LR 18 47 39.3
comp=Z,192nm,21.2s,baz=186,slow=34
comp=Z,5.2nm,0.7s
USRK Ussuriysk Ar. 34.40 7 P **P** **18 34 31.0 +0.7**
AS09 Alice Springs 34.41 167 P **P** **18 34 30.4 -0.3**
comp=Z,15nm,0.8s
MDJ Mudanjiang 34.56 4 P **P** **18 34 34.0 +2.3**
MDJ pmax pmax
comp=Z,44nm,1.2s
XLT XiLinHaoTe 34.82 347 *e*P **P** **18 34 35.2 +1.1**
XLT pP sP 18 34 52.2 -3.1
XLT pmax pmax
comp=Z,46nm,0.9s
WRKA Warakurna 34.95 177 P **P** **18 34 35.6 +0.3**
comp=Z,38nm,1.2s
WRKA Warakurna 34.95 177 P **P** **18 34 34.6 -0.6**
comp=Z,38nm,1.2s
BRDH Bariadhala 35.27 295 P **P** **18 34 37.3 -0.9**
comp=Z,111nm,0.3s,baz=65,slow=9.4,SNR=5.5
BRDH LR LR 18 50 02.0
comp=Z,352nm,19.3s,baz=161,slow=38
BNX BinXian 35.57 2⇓P **P** **18 34 41.7 +1.3**
BNX pmax pmax
comp=Z,26nm,1.0s
CTA Charters Tower 35.92 147 P P 18 34 54.0 +10
CTA Charters Tower 35.92 147 P **P** **18 34 44.8 +1.1**
comp=Z,12nm,1.1s
CTA Charters Tower 35.92 147 P **P** **18 34 44.2 +0.5**
comp=Z,3.7nm,0.7s,baz=337,slow=8.8,SNR=8.8
CTA LR LR 18 51 12.9
comp=Z,118nm,21.4s,baz=324,slow=39
comp=Z,3.7nm,0.7s
CTAO Charters Tower 35.92 147 P P 18 34 50.4 +6.6
comp=Z,31nm,1.1s
CTAO Charters Tower 35.92 147 P **P** **18 34 44.2 +0.5**
CTAO sP **sP** **18 35 05.6 +0.9**
CTAO ScP **ScP** **18 40 52.1 +1.0**
ASAJ Asahikawa 36.82 20 LR LR 18 49 52.7
comp=Z,222nm,19.8s,baz=106,slow=36

MEEK Meekatharra 37.20 191 P P 18 35 02.0 +7.5
MEEK Meekatharra 37.20 191 P P 18 35 02.0 +7.5
comp=Z,58nm,0.4s
GTA2 Gaotai 37.55 326 P **P** **18 34 57.8 +0.3**
GTA2 pP sP 18 35 15.8 -3.4
GTA2 pmax pmax
comp=Z,34nm,1.2s
GTA2 L L
comp=Z,290nm,13.4s
GTA2 L L
comp=Z,350nm,15.8s
GTA2 L L
comp=Z,700nm,18.9s
GOMU GeErMu 38.49 318 P **P** **18 35 06.1 +0.3**
GOMU S **S** **18 40 56.4 -1.1**
GOMU pmax pmax
comp=Z,10.0nm,1.2s
GOMU L L
comp=Z,330nm,17.7s
GOMU L L
comp=Z,470nm,17.4s
GOMU L L
comp=Z,760nm,17.4s
HNR Honiara 38.84 119 LR LR 18 49 04.7
comp=Z,176nm,21.5s,baz=24,slow=33
KLR Kul'dur 39.33 6 LR LR 18 50 12.6
comp=Z,143nm,21.4s,baz=193,slow=34
KLR Kul'dur 39.33 6‖ *e*P **P** **18 35 13.4 +1.3**
KLR pmax pmax
comp=Z,36nm,1.5s
YSS Yuzhno-Sakhali 39.40 18 *e*P **P** **18 35 15.5 +2.8**
YSS pmax pmax
comp=Z,40nm,1.2s
HIA Hailar 39.45 353 *c i*P **P** **18 35 14.2 +1.1**
HIA pmax pmax
comp=Z,26nm,1.0s
HIA Hailar 39.45 353 P **P** **18 35 13.8 +0.6**
HIA IAmb IAmb 18 35 15.3
comp=Z,22nm,0.9s
HIA Hailar 39.45 353 P **P** **18 35 14.2 +1.1**
HILR Hailar Array B 39.73 354 P **P** **18 35 16.3 +0.8**
comp=Z,17nm,0.7s,baz=171,slow=11,SNR=15
HILR PcP **PcP** **18 37 21.8 +0.8**
comp=Z,8.3nm,0.7s,baz=193,slow=4.4,SNR=5.4
HILR LR LR 18 51 02.5
comp=Z,180nm,21.9s,baz=35,slow=35
comp=Z,17nm,0.7s
HEH HeiHe 40.09 1 *e*P **P** **18 35 19.4 +1.0**
HEH pmax pmax
comp=Z,52nm,1.0s
MORW Morawa 40.09 194 P P 18 35 26.8 +8.1
H11S3 WAKE ISLAND Hy 40.13 73 T T 19 18 15.8
baz=261,slow=75,SNR=795
H11S1 WAKE ISLAND Hy 40.15 73 T T 19 18 17.5
baz=261,slow=75,SNR=248
H11S2 WAKE ISLAND Hy 40.15 73 T T 19 18 18.6
baz=261,slow=75,SNR=330
INKA Innaminka 40.16 160 P **P** **18 35 18.4 -0.9**
QLP Quilpie 40.45 155 P P 18 35 30.3 +8.6
QLP Quilpie 40.45 155 P P 18 35 30.3 +8.6
comp=Z,41nm,1.0s
H11N1 WAKE ISLAND Hy 40.47 71 T T 19 18 42.2
baz=265,slow=74,SNR=1040
H11N2 WAKE ISLAND Hy 40.48 71 T T 19 18 46.3
baz=265,slow=74,SNR=836
H11N3 WAKE ISLAND Hy 40.49 71 T T 19 18 43.5
baz=265,slow=74,SNR=884
FORT Forrest 40.64 177 P **P** **18 35 23.5 +0.3**
comp=Z,79nm,0.8s
FORT Forrest 40.64 177 P **P** **18 35 22.5 -0.7**
comp=Z,79nm,0.8s
ULN Ulaanbaatar 40.97 340 P **P** **18 35 26.9 +1.0**
ULN Ulaanbaatar 40.97 340 *c i*P **P** **18 35 27.1 +1.2**
ULN pmax pmax
comp=Z,45nm,1.1s
ULN Ulaanbaatar 40.97 340 P **P** **18 35 27.2 +1.3**
comp=Z,50nm,1.4s
ULN Ulaanbaatar 40.97 340 P **P** **18 35 26.9 +1.0**
ULN pP **pP** **18 35 41.4 +0.4**
ULN ScP **ScP** **18 41 11.8 +1.7**
SONM Songino Array 41.16 340 P **P** **18 35 28.3 +0.8**
comp=Z,15nm,1.0s,baz=160,slow=10.0,SNR=62
SONM PcP **PcP** **18 37 25.9 +0.1**
comp=Z,4.3nm,0.8s,baz=134,slow=3.7,SNR=3.8
SONM ScP **ScP** **18 41 10.7 -0.2**
comp=Z,2.6nm,0.9s,baz=148,slow=4.6,SNR=9.9
SONM LR LR 18 54 03.4
comp=Z,262nm,19.3s,baz=154,slow=38
comp=Z,15nm,1.0s
SONM Songino Array 41.16 340 P **P** **18 35 27.9 +0.4**
SONM 18 37 25.9
SONM pmax pmax
comp=Z,42nm,1.4s
SONM Songino Array 41.16 340 P **P** **18 35 27.9 +0.4**
SONM IAmb IAmb 18 35 29.5
comp=Z,42nm,1.4s
KMBL Kambalda 41.39 185 P **P** **18 35 29.7 +0.4**
KLBR Kellerberrin 42.18 191 P **P** **18 35 36.1 +0.4**
comp=Z,74nm,0.9s
KLBR Kellerberrin 42.18 191 P P 18 35 42.0 +6.2
comp=Z,73nm,0.9s
EIDS Eidsvold 42.80 146 P P 18 35 51.3 +10
EIDS Eidsvold 42.80 146 P P 18 35 50.0 +9.0
comp=Z,22nm,1.1s
CIT Chita 43.08 349 *e*P **P** **18 35 44.3 +1.4**
CIT *e* 18 36 00.1
CIT *e* 18 37 31.1
CIT pmax pmax
comp=Z,174nm,1.2s
NWAO Narrogin (SRO) 43.57 191 P P 18 35 54.8 +7.8
NWAO Narrogin (SRO) 43.57 191 P P 18 35 54.9 +7.8
NWAO Narrogin (SRO) 43.57 191 P **P** **18 35 47.9 +0.9**
NWAO Narrogin (SRO) 43.57 191 P **P** **18 35 47.0 0.0**
NWAO pmax pmax
comp=Z,49nm,0.9s
NWAO Narrogin (SRO) 43.57 191 P **P** **18 35 47.0 0.0**
NWAO IAmb IAmb 18 36 01.1
comp=Z,49nm,0.8s
NWAO Narrogin (SRO) 43.57 191 P **P** **18 35 51.5 +4.4**
NWAO Narrogin (SRO) 43.57 191 P **P** **18 35 47.2 +0.1**
ZEA Zeya 43.57 1 *e*P **P** **18 35 47.9 +1.1**
ZEA *e* 18 36 06.8
ZEA pmax pmax
comp=N,10.0nm,1.5s
ZEA pmax pmax
comp=Z,20nm,1.6s
BBOO Buckleboo 43.67 168 P **P** **18 35 48.3 +0.5**
comp=Z,128nm,1.1s
BBOO Buckleboo 43.67 168 P **P** **18 35 47.4 -0.5**
comp=Z,129nm,1.1s
BBOO Buckleboo 43.67 168 P **P** **18 35 47.5 -0.3**
BBOO Buckleboo 43.67 168 P P 18 35 57.2 +9.3
comp=Z,129nm,1.1s
STKA Stephens Creek 44.25 161 P **P** **18 35 52.8 +0.3**
comp=Z,106nm,0.7s
STKA Stephens Creek 44.25 161 P **P** **18 35 53.7 +1.2**
comp=Z,107nm,0.7s
STKA Stephens Creek 44.25 161 P **P** **18 35 52.2 -0.3**
comp=Z,9.1nm,0.6s,baz=350,slow=6.8,SNR=21
STKA LR LR 18 57 58.1
comp=Z,73nm,19.4s,baz=358,slow=41
comp=Z,9.1nm,0.6s
STKA Stephens Creek 44.25 161 P **P** **18 35 51.9 -0.6**
STKA pmax pmax
comp=Z,72nm,0.7s
STKA Stephens Creek 44.25 161 P **P** **18 35 51.9 -0.6**
ZAK Zakamensk 44.41 339 *e*P **P** **18 35 53.7 0.0**
ZAK *e* 18 37 36.9
ZAK pmax pmax
comp=Z,10.0nm,1.4s
HTT Hallett 44.93 165 P P 18 36 08.3 +10
TLY Talaya 45.38 340 LR LR 18 58 28.8
comp=Z,164nm,18.0s,baz=138,slow=40
TLY Talaya 45.38 340 P **P** **18 36 01.4 +0.1**
TLY Talaya 45.38 340 *c i*P **P** **18 36 02.2 +0.9**
TLY pmax pmax
comp=Z,40nm,0.9s
TLY Talaya 45.38 340 P **P** **18 36 01.6 +0.3**
TLY IAmb IAmb 18 36 04.0
comp=Z,29nm,0.9s
TLY Talaya 45.38 340 P **P** **18 36 02.6 +1.3**
comp=Z,42nm,1.1s
TLY Talaya 45.38 340 P **P** **18 36 02.3 +0.9**
CMSA Cobar Meteorol 45.41 156 P **P** **18 36 02.3 +0.6**
comp=Z,32nm,1.7s
CMSA Cobar Meteorol 45.41 156 P **P** **18 36 02.0 +0.3**
comp=Z,32nm,1.7s
IRK Irkutsk 45.66 341 *e*P **P** **18 36 03.2 -0.3**
IRK *e*S **S** **18 42 39.5 -2.5**
IRK pmax pmax
comp=Z,68nm,3.1s
MOY Mondy 46.28 339 *e*P **P** **18 36 09.3 +0.8**
MOY pmax pmax
comp=Z,41nm,1.6s
HYB Hyderabad 46.67 284 *e*P **P** **18 36 11.9 -0.2**
HYB IVmB_BB 18 36 12.8
comp=Z,280nm,3.1s
HYB *e*pP **pP** **18 36 25.4 -1.9**
HYB *e*PP **PP** **18 38 02.3 -0.2**
HYB *e*ScP **ScP** **18 41 33.9 0.0**
HYB *e*S **S** **18 42 56.0 -1.6**
KNGR Kungurtug, Tuv 46.79 335⇑ *e*P **P** **18 36 14.2 +1.7**
KNGR pmax pmax
comp=Z,9.0nm,1.0s
ARMA Armidale 47.13 149 P P 18 36 25.4 +10
WMQ Urumqi 47.29 322 *e*P **P** **18 36 17.5 +1.0**
WMQ pP pP 18 36 31.9 +0.1
WMQ pmax pmax
comp=Z,12nm,0.7s
WMQ L L
comp=Z,380nm,20.9s
WMQ L L
comp=Z,360nm,22.3s
WMQ L L
comp=Z,240nm,17.9s
BOD Bodaibo 48.56 351 *e*P **P** **18 36 26.9 +1.0**
BOD pmax pmax
comp=Z,44nm,1.1s
ARPS Mount Arapiles 48.87 163 P P 18 36 39.1 +10
PETK Petropavlovsk- 49.90 24 P **P** **18 36 37.1 +0.9**
comp=Z,8.9nm,0.8s,baz=262,slow=2.6,SNR=12
PETK LR LR 18 57 06.6
comp=Z,156nm,21.7s,baz=222,slow=35
comp=Z,8.9nm,0.8s
CNB Canberra Magne 50.20 155 P **P** **18 36 34.9 -4.0**
comp=Z,47nm,1.1s
NOUC Port Laguerre 50.74 129 P **P** **18 36 44.6 +1.5**
DZM Mont Dzumac 50.84 129 P **P** **18 36 44.9 +1.0**
comp=Z,16nm,0.7s,baz=206,slow=1.8,SNR=27
comp=Z,16nm,0.7s
ZSN Zaisan 50.95 325 *e*P **P** **18 36 44.3 0.0**
ZSN Zaisan 50.95 325 *e*P **P** **18 36 44.4 0.0**
PINNC Pines Island, 51.91 129 P **P** **18 36 51.8 0.0**
YAK Yakutsk 51.95 2 LR LR 19 01 32.7
comp=Z,109nm,19.0s,baz=190,slow=39
YAK Yakutsk 51.95 2 *e*P **P** **18 36 52.6 +1.1**
YAK *e**PP **sP** **18 37 13.8 +1.5**
YAK *e* 18 38 02.2
YAK *e*PPP PPP 18 39 55.8
YAK *e*S **S** **18 44 10.0 0.0**
YAK *e* 18 46 30.3
YAK *e*SS **SS** **18 47 39.2 -8.3**
YAK pmax pmax
comp=Z,111nm,0.9s
YAK pmax pmax
comp=N,73nm,1.5s
YAK pmax pmax
comp=E,33nm,1.8s
YAK smax smax
comp=N,892nm,3.5s
YAK smax smax
comp=E,880nm,3.5s
YAK Yakutsk 51.95 2 P **P** **18 36 51.5 +0.1**
YAK Yakutsk 51.95 2 P **P** **18 36 52.8 +1.3**
comp=Z,134nm,1.0s
YAK Yakutsk 51.95 2 P **P** **18 36 52.8 +1.3**
YAK pP **pwP** **18 37 08.8 -1.4**
MK31 Makanchi Array 52.10 323 *c i*P **P** **18 36 52.9 -0.1**
MKAR Makanchi Array 52.10 323 P **P** **18 36 52.9 0.0**
comp=Z,27nm,0.8s,baz=122,slow=7.9,SNR=146
MKAR LR LR 19 00 39.8
comp=Z,439nm,21.1s,baz=114,slow=38
comp=Z,27nm,0.8s
MKAR Makanchi Array 52.10 323 P **P** **18 36 52.4 -0.5**
SHLS Shalkode 52.20 318 *e*P **P** **18 36 51.7 -2.1**
SHLS Shalkode 52.20 318 *e*P **P** **18 36 51.8 -2.1**
MAKZ Makanchi 52.30 323 P **P** **18 36 53.5 -0.9**
MAKZ pmax pmax
comp=Z,30nm,1.1s
MAKZ Makanchi 52.30 323 P **P** **18 36 53.5 -0.9**
MAKZ IAmb IAmb 18 36 55.4
comp=Z,30nm,1.1s
MAKZ Makanchi 52.30 323 P **P** **18 36 54.1 -0.3**
comp=Z,28nm,1.0s
MAKZ Makanchi 52.30 323 P **P** **18 36 54.3 -0.1**
MAKZ pP **pP** **18 37 09.2 -0.7**
MAKZ PcP **PcP** **18 38 04.8 -0.2**
HMDM Hanimaadhoo 52.42 271 P **P** **18 36 57.1 +1.3**
UZB Uzynbulak 52.48 317 *e*P **P** **18 36 55.8 -0.2**
UZB Uzynbulak 52.48 317 *e*P **P** **18 36 55.9 -0.2**
KPKS Kokpek 52.84 318 *e*P **P** **18 36 58.3 -0.3**
KPKS Kokpek 52.84 318 *e*P **P** **18 36 58.4 -0.3**
SATY Saty 52.86 317 *e*P **P** **18 36 58.5 -0.3**
SATY Saty 52.86 317 *e*P **P** **18 36 58.5 -0.3**
ASAI AK-SAY(Kyrgyzs 53.34 314 P **P** **18 37 03.2 +0.6**
comp=Z,10.0nm,1.0s
KSH2 Kashi 53.43 312 P **P** **18 37 03.0 -0.1**
KSH2 pP pP 18 37 21.6 +2.9
KSH2 pmax pmax
comp=Z,8.0nm,1.1s
KAAM Kaadhehdhoo 53.66 263 P **P** **18 37 06.2 +1.2**
TDK Taldyqorghan 53.67 319 *e*P **P** **18 37 04.5 0.0**
TDK pmax pmax
comp=Z,24nm,0.9s
TDK Taldyqorghan 53.67 319 *e*P **P** **18 37 04.5 0.0**
comp=Z,24nm,0.9s
NIL Nilore 53.72 304 P **P** **18 37 05.4 +0.2**
NIL Nilore 53.72 304 P **P** **18 37 03.9 -1.3**
NIL pmax pmax
comp=Z,25nm,0.9s
NIL Nilore 53.72 304 P **P** **18 37 03.9 -1.3**
NIL IAmb IAmb 18 37 07.3
comp=Z,25nm,0.8s
NIL Nilore 53.72 304 P **P** **18 37 04.9 -0.2**
comp=Z,34nm,0.9s
MDOK Medeo 53.81 317 *e*P **P** **18 37 05.7 -0.1**
MDOK Medeo 53.81 317 *e*P **P** **18 37 05.7 -0.1**
TNSS Tian-Shan 53.83 317 *e*P **P** **18 37 05.8 -0.4**
TNSS Tian-Shan 53.83 317 *e*P **P** **18 37 05.8 -0.4**
KUU Kurty 54.57 317 *e*P **P** **18 37 10.8 -0.3**
KUU pmax pmax
comp=Z,10.0nm,0.9s
KUU Kurty 54.57 317 *e*P **P** **18 37 10.8 -0.3**
comp=Z,10nm,0.9s
ZAA0 Zalesovo Array 54.74 331 IAmb IAmb 18 37 12.4
comp=Z,14nm,0.8s
ZALV Zalesovo Beam 54.74 331 P **P** **18 37 11.4 -0.7**
comp=Z,13nm,0.8s,baz=116,slow=6.6,SNR=42
ZALV LR LR 19 03 14.2
comp=Z,234nm,18.3s,baz=112,slow=39
comp=Z,13nm,0.8s
ZALV Zalesovo Beam 54.74 331 *i*P **P** **18 37 11.3 -0.8**
ZALV pmax pmax
comp=Z,13nm,0.8s
ZALV Zalesovo Beam 54.74 331 P **P** **18 37 10.8 -1.3**
AAK Ala-Archa 55.37 315 LR LR 19 03 45.5
comp=Z,312nm,20.5s,baz=99,slow=39
AAK Ala-Archa 55.37 315 P **P** **18 37 15.8 -1.2**
AAK Ala-Archa 55.37 315 P **P** **18 37 16.6 -0.5**
AAK Ala-Archa 55.37 315‖ *e*P **P** **18 37 14.6 -2.5**
AAK pmax pmax
comp=Z,8.0nm,1.4s
SEY Seymchan 56.06 14⇓ *e*P **P** **18 37 24.9 +3.4**
SEY pmax pmax
comp=Z,66nm,2.0s
KURK Kurchatov 56.15 326 P **P** **18 37 22.1 -0.3**
KURK Kurchatov 56.15 326 *c i*P **P** **18 37 22.1 -0.3**
KURK pmax pmax
comp=Z,61nm,1.0s
KURK Kurchatov 56.15 326 P **P** **18 37 21.9 -0.4**
KURK Kurchatov 56.15 326 P **P** **18 37 22.3 -0.1**
comp=Z,59nm,1.0s
KURK Kurchatov 56.15 326 P **P** **18 37 22.1 -0.3**
KURK pP **pP** **18 37 37.4 -0.6**
KURBB Kurchatov Arra 56.16 326 P **P** **18 37 22.1 -0.2**
comp=Z,23nm,0.8s,baz=125,slow=6.7,SNR=127
KURBB LR LR 19 03 02.4
comp=Z,148nm,20.6s,baz=166,slow=38
comp=Z,23nm,0.8s
BTLS Baital 56.52 318 *e*P **P** **18 37 25.3 +0.2**
BTLS Baital 56.52 318 *e*P **P** **18 37 25.3 +0.2**

BTK Batken 57.21 311 IAmb IAmb 18 37 31.1
comp=Z,26nm,1.6s
KBL Kabul 57.32 305 P **P** **18 37 31.4 +0.2**
SNR=5.8
KBL Kabul 57.32 305 P **P** **18 37 30.1 -1.2**
KBL pmax pmax
comp=Z,8.0nm,0.8s
KBL Kabul 57.32 305 P **P** **18 37 30.1 -1.2**
KBL Kabul 57.32 305 P **P** **18 37 30.8 -0.4**
comp=Z,15nm,1.0s
DZA Taraz 57.65 315 *e*P **P** **18 37 32.9 -0.2**
DZA Taraz 57.65 315 *e*P **P** **18 37 33.0 -0.2**
MSVF Nonsavu 58.26 118 LR LR 19 03 17.8
comp=Z,88nm,18.2s,baz=349,slow=36
KK31 Karatay Array 58.29 315 IAmb IAmb 18 37 38.2
comp=Z,27nm,1.4s
KKAR Karatay Array 58.29 315 P **P** **18 37 36.6 -1.0**
KKAR Karatay Array 58.29 315 P **P** **18 37 36.6 -1.0**
IUG Iuzhnay 58.35 314 *e*P **P** **18 37 38.0 -0.2**
IUG pmax pmax
comp=Z,31nm,1.6s
IUG Iuzhnay 58.35 314 *e*P **P** **18 37 38.0 -0.2**
comp=Z,31nm,1.6s
CHM Chimkent 58.71 314 *e*P **P** **18 37 40.4 -0.1**
CHM Chimkent 58.71 314 *e*P **P** **18 37 40.4 -0.1**
BRLS Borolday 58.74 314 *e*P **P** **18 37 40.5 -0.3**
BRLS Borolday 58.74 314 *e*P **P** **18 37 40.5 -0.3**
TIXI Tiksi 61.57 1 LR LR 19 05 15.9
comp=Z,141nm,22.0s,baz=194,slow=36
TIXI Tiksi 61.57 1*c e*P **P** **18 38 00.3 +0.8**
TIXI pmax pmax
comp=Z,85nm,0.9s
TIXI Tiksi 61.57 1 P **P** **18 37 59.2 -0.3**
TIXI Tiksi 61.57 1 P **P** **18 38 00.3 +0.8**
comp=Z,95nm,1.0s
BVAR Borovoye Array 61.75 325 P **P** **18 38 01.0 -0.1**
comp=Z,20nm,0.9s,baz=111,slow=8.1,SNR=43
comp=Z,20nm,0.9s
BVAR Borovoye Array 61.75 325 P **P** **18 38 01.0 -0.1**
BORK Borovoye 61.80 325*c i*P **P** **18 38 01.0 -0.4**
BORK pmax pmax
comp=Z,31nm,0.9s
BORK Borovoye 61.80 325 P **P** **18 38 00.4 -1.0**
BORK IAmb IAmb 18 38 02.0
comp=Z,20nm,0.8s
HRA Herat 62.85 303 IAmb IAmb 18 38 09.7
comp=Z,31nm,1.6s
NRIK Noril'sk 64.18 346 P **P** **18 38 17.3 +0.4**
comp=Z,14nm,1.0s,baz=120,slow=6.6,SNR=9.5
NRIK LR LR 19 09 44.9
comp=Z,305nm,18.3s,baz=150,slow=39
comp=Z,14nm,1.0s
NRIK Noril'sk 64.18 346*c i*P **P** **18 38 17.0 +0.1**
NRIK pmax pmax
comp=Z,25nm,1.3s
NRIK Noril'sk 64.18 346 IAmb IAmb 18 38 53.7
comp=Z,32nm,1.3s
JLN Jalan Bani Buh 64.78 290 P **P** **18 38 20.6 -1.1**
WBK Wadi Bani Khal 65.17 290 P **P** **18 38 23.3 -1.0**
WSAR Wadi Sarin 65.48 291 P **P** **18 38 25.5 -0.8**
BIDO Bidbid 65.94 291 P **P** **18 38 29.4 +0.2**
SNR=7.6
JMDO Jabal Madar 65.98 290 P **P** **18 38 28.7 -0.8**
SNR=5.1
SMDO Samad 66.02 291 P **P** **18 38 29.6 -0.2**
AFI Afiamalu 66.06 110 LR LR 19 01 47.5
comp=Z,254nm,22.0s,baz=325,slow=31
MHTO MHTO 66.15 289 P **P** **18 38 29.6 -1.0**
SNR=5.1
JASK Jask - Hormozg 66.16 294 P **P** **18 38 30.9 +0.3**
DQM DQM 66.59 287 P **P** **18 38 33.2 -0.3**
HOQ Hoqain 66.69 291 P **P** **18 38 33.8 -0.2**
SNR=5.1
ABKAR Akbulak array 66.93 319 P **P** **18 38 34.0 -1.0**
RPZ Rata Peaks 67.30 146 LR LR 19 08 57.0
comp=Z,43nm,19.1s,baz=250,slow=37
SOHO SOHO 67.39 292 *i* P **P** **18 38 38.0 -0.4**
SNR=9.3
SOHO SOHO 67.39 292 P **P** **18 38 37.9 -0.5**
ARQ Araqi 67.42 291 P **P** **18 38 38.2 -0.5**
BANOM Banah 67.57 294 P **P** **18 38 40.2 +0.6**
BANOM Banah 67.57 294 P **P** **18 38 40.2 +0.6**
MDH Madha 67.58 293 P **P** **18 38 40.8 +1.2**
URZ Urewera 67.61 139 LR LR 19 05 30.3
comp=Z,120nm,21.4s,baz=306,slow=33
UOSS Minazif 67.67 293 P **P** **18 38 39.2 -1.0**
UOSS Minazif 67.67 293 P **P** **18 38 39.2 -1.0**
UOSS Minazif 67.67 293 **P** **18 38 38.6 -1.6**
MSFE Esma-Masafi 67.71 293 P **P** **18 38 41.1 +0.6**
SHME Shamm 67.71 294 P **P** **18 38 40.6 +0.1**
SHME Shamm 67.71 294 P **P** **18 38 40.8 +0.3**
RTZ Ruatahuna 67.72 139 P **P** **18 38 39.7 -0.6**
RTZ IAmb IAmb 18 39 13.5
comp=Z,30nm,0.9s
HATD Hatta, Dubai 67.74 293 *i* P **P** **18 38 40.5 -0.2**
SNR=9.7
HATD Hatta, Dubai 67.74 293 P **P** **18 38 40.5 -0.2**
ASHO Ashiyiah 67.81 293 *i* P **P** **18 38 40.6 -0.5**
SNR=8.2
ASHO Ashiyiah 67.81 293 P **P** **18 38 40.6 -0.5**
ALNE Al Ain 68.10 292 *i* P **P** **18 38 42.6 -0.3**
SNR=10
ALNE Al Ain 68.10 292 P **P** **18 38 42.9 -0.1**
SNR=8.9
NAZ Nazwa, Dubai 68.16 293 P **P** **18 38 42.7 -0.6**
FAQ Al Faqa, Dubai 68.23 293 P **P** **18 38 43.1 -0.6**
SVE Sverdlovsk 68.31 327 *e*P **P** **18 38 43.4 -0.2**
SVE pmax pmax
comp=Z,33nm,1.1s
AKTO Aktyubinsk 68.39 320 LR LR 19 10 25.8
comp=Z,356nm,19.6s,baz=70,slow=37
ASUD Al Ashush, Dub 68.47 293 P **P** **18 38 45.5 +0.3**
SHAO Shalim 68.51 285 *i* P **P** **18 38 46.3 +0.8**
SNR=5.5
SHAO Shalim 68.51 285 P **P** **18 38 45.7 +0.2**
AJN Ajban 68.79 292 P **P** **18 38 47.8 +0.7**
DMTO DMTO 69.17 285 P **P** **18 38 50.0 +0.4**
ARTI Arti 69.40 327 LR LR 19 10 53.7
comp=Z,184nm,19.5s,baz=112,slow=37
ARTI Arti 69.40 327*c i*P **P** **18 38 49.4 -1.0**
ARTI *PP **sP** **18 39 10.9 -2.2**
ARTI S **S** **18 47 50.3 -2.7**
ARTI pmax pmax
comp=Z,14nm,0.7s
ARTI Arti 69.40 327 P **P** **18 38 48.5 -1.9**
DOK Doka 69.88 286 P **P** **18 38 53.7 -0.3**
SNR=6.1
MZR Muzera 70.23 291 *i* P **P** **18 38 56.0 -0.1**
SNR=15
MZR Muzera 70.23 291 P **P** **18 38 56.0 -0.1**
SNR=7.0
WHFO Wadi Hawf 70.28 285 P **P** **18 38 55.8 -0.7**
JRN Qarnain Island 70.72 293 P **P** **18 38 58.6 -0.5**
GHWR Ruwais 70.73 292 P **P** **18 38 58.9 -0.2**
ABTO Aybut 70.77 285 P **P** **18 38 59.5 0.0**
SLWR Sila 71.81 292 P **P** **18 39 06.0 +0.3**
MSEY Mahe Island 71.85 262 P **P** **18 39 07.2 +1.1**
SAKB Bahrain 72.76 294 P **P** **18 39 11.5 +0.2**
N15K Kwethluk River 73.28 30 IAmb IAmb 18 39 17.9
comp=Z,51nm,1.3s
LKRN Lenkeran, Azer 73.92 307 P **P** **18 39 17.4 -0.5**
M16K Timber Creek 73.97 29 IAmb IAmb 18 39 21.2
comp=Z,31nm,1.0s
H17K Granite Mounta 74.17 25 IAmb IAmb 18 39 22.4
comp=Z,28nm,1.0s
J17K VABM Dome 74.27 27 IAmb IAmb 18 39 22.7
comp=Z,28nm,1.0s
C18K Utukok River 74.41 21 IAmb IAmb 18 39 22.9
comp=Z,26nm,0.8s
KIRV Kirov 74.54 328 LR LR 19 13 57.2
comp=Z,158nm,19.8s,baz=108,slow=37
KIRV Kirov 74.54 328*ce*P **P** **18 39 20.4 -0.7**
M17K Holitna River 74.75 29 IAmb IAmb 18 39 26.2
comp=Z,35nm,1.0s
MAK Makhachkala 74.89 312 *e*P **P** **18 39 23.4 0.0**
MAK *e**PP **sP** **18 39 44.7 -1.6**
MAK *e* 18 42 13.7
MAK *e*PPP PPP 18 43 54.9
MAK *e*S **S** **18 48 54.3 -2.0**
MAK *e**SS **ScS** **18 49 31.5 +0.8**
MAK *e*SS **SS** **18 53 45.9 +0.5**
MAK *e*SSS SSS 18 57 05.5
MAK pmax pmax
comp=Z,54nm,1.0s
MAK MLR MLR
comp=Z,262nm,19.0s
BELG Belogornoye 75.08 322*d i*P **P** **18 39 23.8 -0.5**
BELG pmax pmax
comp=Z,14nm,0.9s
SEKA Sheki 75.12 310 P **P** **18 39 24.0 -0.9**
L18K Granite Mounta 75.20 28 IAmb IAmb 18 39 28.6
comp=Z,34nm,1.3s
MNGR Mingechevir, A 75.21 310 P **P** **18 39 24.8 -0.5**
N18K Kilae Creek 75.42 30 IAmb IAmb 18 39 29.3
comp=Z,25nm,1.1s
G19K Purcell Mounta 75.53 24 IAmb IAmb 18 39 29.8
comp=Z,23nm,1.1s
H19K Roundabout Mou 75.70 25 IAmb IAmb 18 39 31.2
comp=Z,36nm,0.9s
GANJ Ganja 75.79 309 P **P** **18 39 28.3 -0.4**
L19K White Mountain 76.05 28 IAmb IAmb 18 39 33.3
comp=Z,19nm,1.0s
N19K Bonanza Creek 76.11 30 IAmb IAmb 18 39 45.6
comp=Z,26nm,1.0s
F20K Avaraart Lake 76.18 23 IAmb IAmb 18 39 33.3
comp=Z,17nm,0.8s
NAX Nakhchivan 76.47 308 P **P** **18 39 31.9 -0.8**
J20K Nowinta River 76.54 26 IAmb IAmb 18 39 36.1
comp=Z,24nm,1.3s
M20K Styx River 76.84 29 IAmb IAmb 18 39 39.4
comp=Z,24nm,1.2s
IMAR Indian Mountai 76.86 24 P **P** **18 39 35.6 +1.3**
KDAK Kodiak Island 76.92 33 P **P** **18 39 36.2 +1.5**
KDAK PcP **PcP** **18 39 46.7 +1.0**
CASY Casey 76.99 186 P **P** **18 39 34.7 -0.1**
CASY IAmb IAmb 18 39 36.0
comp=Z,24nm,0.8s
CASY Casey 76.99 186 P **P** **18 39 35.2 +0.4**
comp=Z,36nm,0.9s
CASY Casey 76.99 186 P **P** **18 39 34.8 -0.1**
CASY PcP **PcP** **18 39 46.0 +0.5**
GNI Garni 77.01 309 LR LR 19 18 28.5
comp=Z,120nm,21.7s,baz=80,slow=40
GNI Garni 77.01 309 P **P** **18 39 35.4 -0.4**
GNI Garni 77.01 309*c i*P **P** **18 39 36.1 +0.3**
GNI pmax pmax
comp=Z,18nm,0.8s
GNI Garni 77.01 309 P **P** **18 39 35.0 -0.9**
GNI IAmb IAmb 18 39 47.6
comp=Z,16nm,0.8s
GNI Garni 77.01 309 P **P** **18 39 35.8 0.0**
comp=Z,23nm,0.9s
GNI Garni 77.01 309 P **P** **18 39 34.9 -0.9**
comp=Z,23nm,0.9s
DRV Dumont d'Urvil 77.19 174 P **P** **18 39 35.2 -0.7**
DRV PKP **PcP** **18 39 46.0 -0.3**
DRV pP **pP** **18 39 50.9 -1.3**
H21K Melozitna Rive 77.22 25 IAmb IAmb 18 39 39.3
comp=Z,17nm,0.9s
CAST Castle Rocks 77.40 27 IAmb IAmb 18 39 40.4
comp=Z,23nm,0.9s
STLK Strandline Lak 77.44 29 IAmb IAmb 18 39 40.5
comp=Z,26nm,1.6s
RAYN Ar Rayn 77.50 292 *i* P **P** **18 39 38.4 -0.3**
SNR=21
RAYN Ar Rayn 77.50 292 P **P** **18 39 38.5 -0.3**
RAYN Ar Rayn 77.50 292 P **P** **18 39 37.8 -1.0**
RAYN pmax pmax
comp=Z,13nm,0.8s
RAYN Ar Rayn 77.50 292 P **P** **18 39 37.8 -1.0**
RAYN IAmb IAmb 18 39 56.1
comp=Z,12nm,0.8s
RAYN Ar Rayn 77.50 292 P **P** **18 39 38.5 -0.3**
comp=Z,25nm,1.2s
RAYN Ar Rayn 77.50 292 P **P** **18 39 38.1 -0.7**
RAYN PcP **PcP** **18 39 48.5 -0.4**
RAYN pP **pP** **18 39 54.9 -0.2**
I21K Tanana 77.54 25 IAmb IAmb 18 39 41.6
comp=Z,30nm,0.9s
SKT Skwentna 77.60 29 IAmb IAmb 18 39 50.6
comp=Z,58nm,1.9s
NCK Nalchik 77.74 312*i* P **P** **18 39 39.6 0.0**
NCK pmax pmax
comp=Z,9.0nm,0.3s
H22K Ishtalitna Cre 77.83 25 IAmb IAmb 18 39 43.5
comp=Z,24nm,1.0s
MLY Manley 78.06 26 IAmb IAmb 18 39 44.0
comp=Z,18nm,0.9s
TRF Thorofare Moun 78.21 27 IAmb IAmb 18 39 44.4
comp=Z,18nm,1.0s
KBZ Khabaz 78.24 313 P **P** **18 39 41.5 -0.9**
comp=Z,15nm,1.0s,baz=116,slow=2.7,SNR=25
KBZ LR LR 19 18 43.8
comp=Z,179nm,18.4s,baz=66,slow=39
comp=Z,15nm,1.0s
KBZ Khabaz 78.24 313*c i*P **P** **18 39 41.9 -0.4**
KBZ pmax pmax
comp=Z,25nm,1.0s
D23K Nanushuk River 78.24 21 IAmb IAmb 18 39 45.2
comp=Z,23nm,0.8s
KVAR Kislovodsk Arr 78.37 313 LR LR 19 18 21.8
comp=Z,129nm,19.8s,baz=230,slow=39
KIV Kislovodsk 78.38 313 *i* P **P** **18 39 43.9 +0.6**
SNR=12
KIV Kislovodsk 78.38 313 P **P** **18 39 43.0 -0.3**
KIV Kislovodsk 78.38 313 *e*P **P** **18 39 43.2 -0.1**
KIV pmax pmax
comp=Z,37nm,1.1s
KIV MLR MLR
comp=Z,128nm,19.0s
KIV Kislovodsk 78.38 313 P **P** **18 39 42.3 -0.9**
KIV Kislovodsk 78.38 313 P **P** **18 39 43.1 -0.2**
comp=Z,37nm,1.0s
KIV Kislovodsk 78.38 313 P **P** **18 39 43.7 +0.4**
comp=Z,48nm,1.0s
KIV Kislovodsk 78.38 313 P **P** **18 39 43.5 +0.2**
NEUR Neytrino 78.40 312*i e*P **P** **18 39 44.0 +0.5**
NEUR pmax pmax
comp=Z,9.0nm,1.2s
G23K Bananza Creek 78.40 24 IAmb IAmb 18 39 46.6
comp=Z,34nm,1.2s
SHA1 Shidzhatmaz 78.41 313*de*P **P** **18 39 44.2 +0.6**
TOLK Toolik Lake Re 78.63 22 IAmb IAmb 18 39 47.5
comp=Z,20nm,0.8s
I23K Minto, Yukon-K 78.64 25 IAmb IAmb 18 39 48.1
comp=Z,14nm,0.6s
VRH Novokhopyorsk 78.73 320 *e*P **P** **18 39 43.7 -1.2**
VRH pmax pmax
comp=Z,38nm,1.0s
PMR Palmer 78.73 29 IAmb IAmb 18 39 46.8
comp=Z,20nm,1.0s
NEA2 Nenana 78.76 26 IAmb IAmb 18 39 47.7
comp=Z,19nm,0.8s
RND Reindeer 78.86 27 IAmb IAmb 18 39 59.2
comp=Z,22nm,1.1s
C24K Franklin Bluff 78.97 21 IAmb IAmb 18 39 48.5
comp=Z,20nm,0.8s
E24K Your Creek 79.02 22 IAmb IAmb 18 39 49.7
comp=Z,22nm,1.0s
KNK Knik Glacier 79.06 29 IAmb IAmb 18 39 49.2
comp=Z,32nm,1.0s
RAR Rarotonga 79.10 114 LR LR 19 08 28.7
comp=Z,116nm,20.4s,baz=176,slow=31
SML Sawmill 79.11 29 IAmb IAmb 18 39 49.5
comp=Z,39nm,1.1s
F24K Squaw Lake 79.25 23 IAmb IAmb 18 39 51.1
comp=Z,24nm,0.8s
COLA College 79.28 26*d i*P **P** **18 39 48.8 +1.2**
COLA pmax pmax
comp=Z,50nm,2.8s
COLA College 79.28 26 P **P** **18 39 49.0 +1.4**
comp=Z,19nm,1.4s
CCB Clear Creek Bu 79.31 26 IAmb IAmb 18 39 49.8
comp=Z,57nm,1.8s
G24K Hadweenzic Riv 79.42 24 IAmb IAmb 18 39 51.9
comp=Z,20nm,0.9s
SCM Sheep Creek Mo 79.59 29 IAmb IAmb 18 39 52.2
comp=Z,36nm,1.0s
KLMR Klimovskoe 79.63 330 *e*P **P** **18 39 47.5 -2.1**
KLMR pmax pmax
comp=Z,26nm,0.9s
HDA Harding Lake 79.68 26 IAmb IAmb 18 39 50.8
comp=Z,12nm,0.6s
ILAR Eielson Array 79.70 26 P **P** **18 39 50.0 +0.1**
comp=Z,5.3nm,0.7s,baz=243,slow=4.7,SNR=66
comp=Z,5.3nm,0.7s
ILAR Eielson Array 79.70 26 P **P** **18 39 50.3 +0.3**
ILAR Eielson Array 79.70 26 P **P** **18 39 50.3 +0.3**
LABN Labinsk 79.75 314 *e*P **P** **18 39 50.0 -0.6**
LABN pmax pmax
comp=Z,21nm,0.7s
D25K Kavik River 79.78 21 IAmb IAmb 18 39 53.6
comp=Z,22nm,0.9s
ERBR Yeremizino-Bor 79.84 315 *e*P **P** **18 39 50.0 -1.1**
ERBR pmax pmax
comp=Z,43nm,1.0s
F25K Christian Rive 80.11 23 IAmb IAmb 18 39 56.0
comp=Z,18nm,0.9s
K24K Donnelly Dome 80.22 27 IAmb IAmb 18 39 55.7
comp=Z,32nm,1.1s
KOPT Kop Dagi 80.27 309 IAmb IAmb 18 39 56.5
comp=Z,34nm,1.2s
VORD Divnogorie 80.27 320 *e*P **P** **18 39 51.5 -1.8**
VORD pmax pmax
comp=Z,10.0nm,0.4s
VORR Voronezh 80.28 321 *e*P **P** **18 39 52.0 -1.3**
VORR pmax pmax
comp=Z,40nm,0.5s
VSLR Vesyoloye 80.33 313*c i*P **P** **18 39 53.0 -0.8**
VSLR pmax pmax
comp=Z,51nm,1.2s
VSR Storozhevoye 80.33 320 *e*P **P** **18 39 52.5 -1.1**
VSR pmax pmax
comp=Z,23nm,1.0s
LPSR Galich'ya Gora 80.39 322 *e*P **P** **18 39 53.0 -0.8**
LPSR pmax pmax
comp=Z,47nm,0.9s
BMAR Burnt Mountain 80.52 23 P **P** **18 39 56.3 +1.9**
SOC Sochi 80.55 313 *e*P **P** **18 39 53.1 -1.8**
SOC *e* 18 43 00.5
SOC *e*PPP PPP 18 44 47.6
SOC *e*S **S** **18 49 51.7 -5.7**
SOC *e*SS **SS** **18 55 08.0 -2.5**
SOC *e*SSS SSS 18 58 37.7
SOC pmax pmax
comp=Z,11nm,0.7s
SOC MLR MLR
comp=Z,83nm,15.0s
RIDG Independent Ri 80.64 27 IAmb IAmb 18 39 57.5
comp=Z,29nm,0.9s
C27K Jago River 80.71 21 IAmb IAmb 18 39 59.0
comp=Z,21nm,1.0s
MOS Moscow 80.92 325 *e*P **P** **18 39 55.2 -1.4**
MOS *e* 18 40 14.9
MOS pmax pmax
comp=Z,36nm,1.0s
L26K Log Cabin Wild 81.36 27 IAmb IAmb 18 40 02.7
comp=Z,38nm,1.7s
ATD Arta Tunnel 81.51 280 P **P** **18 40 01.4 +0.7**
ATD Arta Tunnel 81.51 280 IAmb IAmb 18 40 02.9
comp=Z,30nm,1.1s
ATD Arta Tunnel 81.51 280 P **P** **18 40 00.9 +0.2**
comp=Z,30nm,0.9s
OBN Obninsk 81.58 324 *e*P **P** **18 39 57.5 -2.6**
OBN *i* 18 43 07.2
OBN pmax pmax
comp=Z,37nm,1.3s
OBN MLR MLR
comp=Z,188nm,17.0s
M26K Nabesna, AK 81.58 28 IAmb IAmb 18 40 03.3
comp=Z,19nm,1.1s
E27K Coleen River 81.59 22 IAmb IAmb 18 40 03.7
comp=Z,18nm,1.0s
MCARA McCarthy VSAT 81.67 29 IAmb IAmb 18 40 25.4
comp=Z,21nm,1.0s
D27M Malcolm River 81.71 21 IAmb IAmb 18 40 04.3
comp=Z,24nm,1.0s
APA Apatity 81.81 337 *e*P **P** **18 39 59.4 -1.8**
APA pmax pmax
comp=Z,10.0nm,1.1s
APA MLR MLR
comp=Z,3µm,4.8s
L27K Beaver Creek, 82.05 27 IAmb IAmb 18 40 06.2
comp=Z,28nm,1.2s
ANN Anapa 82.07 314 *e*P **P** **18 40 01.6 -1.3**
ANN pmax pmax
comp=Z,49nm,0.8s
BCAR Beaver Creek A 82.07 27 P **P** **18 40 03.8 +1.2**
M27K Edge Creek, AK 82.11 28 IAmb IAmb 18 40 06.9
comp=Z,18nm,1.0s
E28M Babbage River 82.30 22 IAmb IAmb 18 40 07.2
comp=Z,16nm,0.9s
F28M Old Crow 82.31 23 IAmb IAmb 18 40 07.2
comp=Z,21nm,0.9s
GRNC Granite Creek 82.35 30 IAmb IAmb 18 40 07.9
comp=Z,22nm,1.0s
I28M Miner Creek 82.57 25 IAmb IAmb 18 40 09.0
comp=Z,28nm,0.8s
LOGN Logan Glacier 82.71 30 IAmb IAmb 18 40 09.8
comp=Z,23nm,0.8s
E29M Blow River 82.93 22 IAmb IAmb 18 40 38.3
comp=Z,40nm,1.9s
DAWY Dawson 83.00 26 IAmb IAmb 18 40 10.9
comp=Z,45nm,1.4s
H29M Whitestone 83.10 24 IAmb IAmb 18 40 10.7
comp=Z,15nm,0.8s
O28M Mount Upton 83.11 30 IAmb IAmb 18 40 12.1
comp=Z,18nm,0.9s
G29M Pine Creek 83.12 23 IAmb IAmb 18 40 10.8
comp=Z,22nm,0.8s
GAZ Gaziantep 83.14 306 IAmb IAmb 18 40 10.3
comp=Z,26nm,1.0s
M29M Somme Creek 83.67 28 IAmb IAmb 18 40 15.2
comp=Z,23nm,1.1s
K29M Barlow Dome 83.85 26 IAmb IAmb 18 40 15.7
comp=Z,31nm,1.1s
F30M Barrier River 83.85 22 IAmb IAmb 18 40 14.1
comp=Z,18nm,0.9s
O29M Mount Kennedy 83.97 30 IAmb IAmb 18 40 16.1
comp=Z,14nm,0.9s
BNN Bunyan 83.98 308 IAmb IAmb 18 40 14.4
comp=Z,25nm,1.0s
ASF Jabal al Asfar 84.06 302 LR LR 19 22 30.1
comp=Z,140nm,21.5s,baz=73,slow=39
I30M Mount Dempster 84.08 25 IAmb IAmb 18 40 16.2
comp=Z,23nm,0.9s
SPITS Spitsbergen Ar 84.19 349 P **P** **18 40 13.2 -0.1**
comp=Z,39nm,0.9s,baz=60,slow=8.5,SNR=8.8
SPITS LR LR 19 22 11.6
comp=Z,128nm,20.7s,baz=57,slow=39
comp=Z,39nm,0.9s
SPITS Spitsbergen Ar 84.19 349 P **P** **18 40 13.6 +0.3**
SPITS pmax pmax
comp=Z,47nm,0.9s
ARCES ARCESS Array B 84.34 340 P **P** **18 40 14.5 +0.3**
comp=Z,2.7nm,0.4s,baz=84,slow=6.0,SNR=31
ARCES LR LR 19 21 48.2
comp=Z,81nm,18.5s,baz=98,slow=38
comp=Z,2.7nm,0.4s
ARCES ARCESS Array B 84.34 340 P **P** **18 40 14.0 -0.2**
ARCES pmax pmax
comp=Z,50nm,1.5s
ARCES ARCESS Array B 84.34 340 P **P** **18 40 14.0 -0.2**
SIM Simferopol' 84.39 315 *e*P **P** **18 40 14.4 -0.5**
SIM *e*S **SKSac** **18 50 30.4 -3.4**
SIM pmax pmax
comp=Z,55nm,1.1s
SIM smax smax
comp=N,38nm,1.2s
F31M Tsiigehtchic 84.66 22 IAmb IAmb 18 40 17.7
comp=Z,21nm,1.0s
CCD Concordia, Ant 85.02 181 P **P** **18 40 18.0 +0.2**
MMAI Mount Meron Ar 85.19 303 P **P** **18 40 19.3 0.0**
comp=Z,3.8nm,0.7s,baz=111,slow=7.9,SNR=1.7
MMAI LR LR 19 24 14.4
comp=Z,60nm,18.9s,baz=88,slow=40
comp=Z,3.8nm,0.7s
BR131 Keskin Array S 85.54 309 P **P** **18 40 20.2 -0.8**
BR131 Keskin Array S 85.54 309*c i*P **P** **18 40 20.0 -1.0**
BR131 Keskin Array S 85.54 309 IAmb IAmb 18 40 21.2
comp=Z,11nm,0.9s
BRTR Keskin Array B 85.55 309 P **P** **18 40 20.1 -0.8**
comp=Z,8.0nm,0.8s,baz=104,slow=4.0,SNR=37
BRTR LR LR 19 24 28.1
comp=Z,76nm,18.6s,baz=116,slow=40
comp=Z,8.0nm,0.8s
BRTR Keskin Array B 85.55 309 P **P** **18 40 19.3 -1.7**
M31M Drury Creek, Y 85.58 28 IAmb IAmb 18 40 23.8
comp=Z,12nm,0.9s
CY604 RAF Akrotiri, 85.72 304 P **P** **18 40 21.9 +0.5**
PRNI Paran 85.94 300 P **P** **18 40 24.0 +1.0**
AQBJ Aqaba 86.00 299 P **P** **18 40 25.4 +2.1**
FINES FINESS Array B 86.00 332 P **P** **18 40 22.3 -0.3**
comp=Z,6.9nm,0.4s,baz=78,slow=4.7,SNR=129
FINES LR LR 19 23 03.0
comp=Z,120nm,18.0s,baz=68,slow=38
comp=Z,6.9nm,0.4s
EIL Elat 86.09 299 LR LR 19 25 29.9

comp=Z,110nm,19.2s,baz=90,slow=40
EIL Elat 86.09 299 P **P** **18 40 24.9 +1.1**
EIL Elat 86.09 299 P **P** **18 40 24.4 +0.6**
comp=Z,22nm,1.2s
KZIT Kziot 86.37 301 P **P** **18 40 26.5 +1.4**
VSU Vasula 86.37 329⇓ *eP* **P** **18 40 23.6 -0.9**
VSU pmax pmax
comp=Z,100nm,2.3s
AK09 Malin Array Si 86.61 321 P **P** **18 40 24.6 -1.2**
AK08 Malin Array Si 86.62 321 P **P** **18 40 24.7 -1.2**
AK03 Malin Array Si 86.62 321 P **P** **18 40 24.7 -1.2**
AKASG Malin Array Be 86.63 321 P **P** **18 40 24.6 -1.3**
comp=Z,18nm,1.0s,baz=65,slow=4.6,SNR=41
AKASG LR LR 19 21 05.8
comp=Z,120nm,20.1s,baz=74,slow=37
comp=Z,18nm,1.0s
AKASG Malin Array Be 86.63 321 *i* P **P** **18 40 25.0 -0.9**
AKASG pmax pmax
comp=Z,25nm,1.0s
AKBB Malin Array Si 86.63 321 *d* P **P** **18 40 25.2 -0.7**
AKBB pmax pmax
comp=Z,41nm,1.1s
AKBB Malin Array Si 86.63 321 P **P** **18 40 24.7 -1.2**
AK10 Malin Array Si 86.63 321 P **P** **18 40 24.7 -1.2**
MNK Minsk 86.63 325 *i* P **P** **18 40 25.8 -0.1**
MNK *i* *PP **sP** **18 40 47.4 -1.0**
MNK *i* 18 43 52.2
MNK *i* PPP PPP 18 45 42.7
MNK *i* S **SKSac** **18 50 43.4 -4.1**
MNK *i* SS **SS** **18 56 41.9 +2.1**
MNK *i* SSS SSS 19 00 14.8
MNK pmax pmax
comp=E,14nm,1.0s
MNK pmax pmax
comp=Z,25nm,1.0s
MNK pmax pmax
comp=N,21nm,1.0s
MNK MLR MLR
comp=Z,197nm,18.0s
MNK MLR MLR
comp=E,101nm,18.0s
MNK MLR MLR
comp=Z,229nm,18.0s
MNK Minsk 86.63 325 *i* P **P** **18 40 25.8 -0.1**
comp=E,14nm,1.0s
MNK *i* P **P** **18 40 25.8 -0.1**
comp=N,21nm,1.0s
MNK *i* P **P** **18 40 25.8 -0.1**
comp=Z,25nm,1.0s,baz=78
MNK *i* pP **sP** **18 40 47.4 -1.0**
MNK *i* PP **PP** **18 43 52.3 +4.0**
MNK *i* PPP PPP 18 45 42.8
MNK *i* S **SKSac** **18 50 43.5 -4.1**
MNK *i* SS **SS** **18 56 41.9 +2.1**
MNK *i* SSS SSS 19 00 14.8
MNK *i* LQ LQ 19 13 34.8
MNK *i* LR LR 19 19 06.1
MNK *i* LRM MLR 19 21 29.8
comp=N,197nm,18.3s
MNK *i* LRM MLR 19 21 39.2
comp=E,101nm,18.3s
MNK *i* LRM MLR 19 21 40.7
comp=Z,229nm,17.9s
AK01 Malin Array Si 86.64 321 P **P** **18 40 24.7 -1.3**
KIEV Kiev 86.64 321 *i* P **P** **18 40 25.1 -0.9**
SNR=13
KIEV Kiev 86.64 321 P **P** **18 40 24.0 -2.0**
KIEV pmax pmax
comp=Z,27nm,1.0s
KIEV Kiev 86.64 321 P **P** **18 40 24.0 -2.0**
KIEV Kiev 86.64 321 P **P** **18 40 24.7 -1.3**
comp=Z,164nm,1.1s
KIEV Kiev 86.64 321 P **P** **18 40 25.0 -0.9**
KIEV pP **pP** **18 40 41.0 -1.6**
AK02 Malin Array Si 86.65 321 P **P** **18 40 24.8 -1.2**
AK05 Malin Array Si 86.66 321 P **P** **18 40 24.8 -1.3**
AK04 Malin Array Si 86.66 321 P **P** **18 40 24.9 -1.2**
NOR Nord 86.78 355 *i* P **P** **18 40 26.8 +0.7**
NOR IAmb IAmb 18 40 28.0
comp=Z,11nm,0.7s
PURM Purcari 87.04 317 P **P** **18 40 27.2 -0.8**
ALE Alert 87.47 1 P **P** **18 40 30.6 +1.1**
ALE pP **pP** **18 40 46.6 +1.1**
C36M Paulatuk 87.49 20 IAmb IAmb 18 40 32.1
comp=Z,16nm,0.8s
PPT Papeete 87.65 108 LR LR 19 12 33.7
comp=Z,115nm,20.6s,baz=200,slow=31
PPT2 Papeete2 87.65 108 *eP* **P** **18 40 31.9 +0.3**
comp=Z,40nm,25.0s
PPT2 *eS* **S** **18 51 07.8 -1.7**
comp=Z,111nm,29.5s
PPT2 *e*LR LR 19 07 57.1
comp=Z,222nm,24.5s
PPT2 *e*LR LR 19 08 04.2
comp=Z,445nm,25.8s
LUBAR Lubar, Ukraine 87.71 320 P **P** **18 40 29.6 -1.6**
SORM Soroca 87.72 318 P **P** **18 40 29.7 -1.6**
comp=Z,20nm,1.5s
KIBK Kibwezi 88.50 267 P **P** **18 40 35.8 0.0**
KIBK Kibwezi 88.50 267 P **P** **18 40 34.3 -1.5**
KIBK IAmb IAmb 18 40 37.2
comp=Z,13nm,1.1s
KIBK Kibwezi 88.50 267 P **P** **18 40 36.2 +0.4**
comp=Z,14nm,1.4s
RNPP9 Sopachiv 88.52 322 P **P** **18 40 33.7 -1.3**
RNPP8 Varash 88.56 322 P **P** **18 40 34.0 -1.2**
RNPP5 Staryi Chortor 88.57 322 P **P** **18 40 34.0 -1.2**
TBI Tubuai 88.88 114 *e*LQ LQ 19 05 07.3
comp=Z,3μm,26.5s
TBI *e*LR LR 19 08 54.2
comp=Z,2μm,28.2s
KMBO Kilima Mbogo 89.07 269 P **P** **18 40 36.8 -1.9**
baz=69,slow=8.6
TESR Tescani 89.22 317 P **P** **18 40 38.1 -0.3**
comp=Z,22nm,1.9s
SUW Suwalki 89.43 325 *eP* **P** **18 40 38.5 -0.7**
MAW Mawson 89.45 200 P **P** **18 40 39.3 +0.5**
comp=Z,1.7nm,1.3s
MAW Mawson 89.45 200 P **P** **18 40 38.3 -0.5**
comp=Z,11nm,1.1s,baz=72,slow=3.1,SNR=16
MAW LR LR 19 15 12.8
comp=Z,56nm,21.4s,baz=70,slow=32
comp=Z,11nm,1.1s
MAW Mawson 89.45 200 P **P** **18 40 38.9 +0.1**
MAW pmax pmax
comp=Z,4.0nm,1.3s
MAW Mawson 89.45 200 P **P** **18 40 38.9 +0.1**
MANT Manisa 89.66 309 IAmb IAmb 18 40 41.2
comp=Z,14nm,1.1s
VNDA Vanda 89.74 173 P **P** **18 40 39.2 -0.8**
comp=Z,5.0nm,0.9s,baz=312,slow=6.0,SNR=30
VNDA LR LR 19 22 24.4
comp=Z,118nm,18.6s,baz=23,slow=36
comp=Z,5.0nm,0.9s
VNDA Vanda 89.74 173 P **P** **18 40 39.6 -0.4**
VNDA pmax pmax
comp=Z,15nm,1.4s
VNDA Vanda 89.74 173 P **P** **18 40 39.6 -0.4**
VNDA IAmb IAmb 18 40 59.6
comp=Z,15nm,1.4s
VNDA Vanda 89.74 173 P **P** **18 40 40.3 +0.3**
VNDA pP **pP** **18 40 57.1 +0.3**
BURAR Bucovina Array 89.89 318 P **P** **18 40 40.8 -0.8**
BURAR IAmb IAmb 18 40 43.4
comp=Z,13nm,0.8s
BUR08 Bucovina Ar. S 89.90 318 IAmb IAmb 18 40 42.7
comp=Z,13nm,1.0s
MLR Muntele Rosu 89.94 316 LR LR 19 25 29.6
comp=Z,288nm,21.5s,baz=66,slow=38
SBA Scott Base 90.65 172 P **P** **18 40 44.6 +0.4**
SBA pmax pmax
comp=Z,17nm,1.5s
SBA Scott Base 90.65 172 P **P** **18 40 44.6 +0.4**
SBA IAmb IAmb 18 40 57.1
comp=Z,17nm,1.4s
DAG Danmarks Havn 90.94 352 P **P** **18 40 45.7 -0.1**
DAG Danmarks Havn 90.94 352 *i* P **P** **18 40 45.0 -0.8**
DAG IAmb IAmb 18 40 47.0
comp=Z,20nm,1.0s
KWP Kalwaria Pacla 90.95 321 *eP* **P** **18 40 46.7 +0.3**
TRPA Tarpa 91.49 319 P **P** **18 40 48.1 -0.8**
comp=Z,5.0nm,1.2s
UZHM Uzhgorod 91.50 320 P **P** **18 40 48.0 -1.0**
RES Resolute Bay 91.73 10 LR LR 19 26 42.0
comp=Z,46nm,19.0s,baz=338,slow=38
RES Resolute Bay 91.73 10 IAmb IAmb 18 40 51.9
comp=Z,10nm,0.8s
HFS Hagfors 92.16 332 P **P** **18 40 50.4 -1.4**
comp=Z,7.8nm,0.9s,baz=114,slow=3.6,SNR=6.2
comp=Z,7.8nm,0.9s
ABAH Abaujker 92.27 320 P **P** **18 40 53.0 +0.5**
comp=Z,16nm,1.3s
NIE Niedzica 92.51 321 *eP* **P** **18 40 54.2 +0.5**
OJC Ojcow 92.56 322 *eP* **P** **18 40 54.0 +0.2**
OJC Ojcow 92.56 322 P **P** **18 40 54.2 +0.3**
OJC Ojcow 92.56 322 P **P** **18 40 54.1 +0.2**
comp=Z,25nm,2.8s
NEEM North Greenlan 92.63 359 *i* P **P** **18 40 54.9 +0.9**
NEEM IAmb IAmb 18 40 56.4
comp=Z,30nm,1.0s
NB2 NORSAR Subarra 92.88 334 P **P** **18 40 53.8 -1.3**
comp=Z,14nm,1.0s,baz=62,slow=4.6
NB2 NORSAR Subarra 92.88 334 P **P** **18 40 53.0 -2.1**
NOA NORSAR Array B 92.88 334 P **P** **18 40 54.1 -1.1**
comp=Z,2.1nm,0.7s,baz=64,slow=4.5,SNR=5.4
NOA LR LR 19 26 03.8
comp=Z,156nm,19.4s,baz=65,slow=38
comp=Z,2.1nm,0.7s
DBG Daneborg 93.22 351 *i* P **P** **18 40 56.9 +0.5**
DBG IAmb IAmb 18 41 01.4
comp=Z,40nm,1.3s
PSZ Piszkesteto 93.25 320 IAmb IAmb 18 40 58.4
comp=Z,12nm,1.4s
YKA Yellowknife Ar 94.01 24 P **P** **18 41 01.2 +1.0**
comp=Z,6.7nm,0.8s,baz=302,slow=4.6,SNR=21
comp=Z,6.7nm,0.8s
YKA Yellowknife Ar 94.01 24 *i* P **P** **18 41 01.7 +1.5**
YKA pmax pmax
comp=Z,7.0nm,0.8s
KSP Ksiaz 94.45 323 *eP* **P** **18 41 02.6 +0.1**
DPC Dobruska-Polom 94.61 323 *eP* **P** **18 41 03.8 +0.5**
DPC Dobruska-Polom 94.61 323 *eP* **P** **18 41 03.8 +0.5**
VRAC Vranov 94.83 322 LR LR 19 27 59.7
comp=Z,91nm,19.5s,baz=80,slow=38
TAOE Nuku Hiva Isla 95.17 98 *e*LR LR 19 11 49.6
comp=Z,575nm,25.7s
RUE Ruedersdorf 95.26 325 *eP* **P** **18 41 06.7 +0.6**
comp=Z,20nm,1.1s,baz=66,slow=4.5
MBAR Mbarara 95.39 270 LR LR 19 21 06.3
comp=Z,110nm,21.6s,baz=111,slow=34
TREC Trest 95.51 322 *eP* **P** **18 41 07.4 0.0**
TREC Trest 95.51 322 *eP* **P** **18 41 07.4 0.0**
WINA Aland / Wiene 95.59 321 *e*PcP **PcP** **18 41 08.4 +0.4**
comp=Z,14nm,1.2s
ABNA Allsteig Bun 95.78 321 *e*PcP **PcP** **18 41 08.9 0.0**
comp=Z,12nm,1.0s
CONA Conrad Observa 95.79 321 PcP **P** **18 41 08.3 -0.6**
comp=Z,9.9nm,1.4s
CLL Collm 96.17 324 *i* P **P** **18 41 09.8 -0.6**
CLL pmax pmax
comp=Z,10.0nm,1.4s
CLL Collm 96.17 324 *eP* **P** **18 41 10.4 0.0**
comp=Z,25nm,2.0s,baz=66,slow=4.5
CLL *eg*P **sP** **18 41 33.2 +0.1**
CLL Collm 96.17 324 *i* P **P** **18 41 09.8 -0.6**
comp=Z,10.0nm,1.4s
CLL LH 19 14 00.0
CLL LV 19 18 00.0
CLL AMS AMS 19 20 00.0
comp=N,200nm,17.0s
CLL AMS AMS 19 20 00.0
comp=E,200nm,14.6s
CLL AMS AMS 19 29 00.0
comp=N,100nm,16.9s
CLL AMS AMS 19 29 00.0
comp=E,200nm,17.6s
CLL AMS AMS 19 29 00.0
comp=Z,200nm,18.4s
ZVC Zvikov 96.23 322 *eP* **P** **18 41 10.7 0.0**
CKRC Cesky Krumlov 96.40 322 *eP* **P** **18 41 11.7 +0.2**
CKRC Cesky Krumlov 96.40 322 *eP* **P** **18 41 11.7 +0.2**
BSEG Bad Segeberg 96.52 328 *eP* **P** **18 41 12.2 +0.4**
comp=Z,12nm,0.9s,baz=66,slow=4.5
KHC Kasperske Hory 96.72 322 *eP* **P** **18 41 12.6 -0.4**
KHC Kasperske Hory 96.72 322 IAmb IAmb 18 41 14.6
comp=Z,9.2nm,1.2s
KHC Kasperske Hory 96.72 322 *eP* **P** **18 41 12.6 -0.4**
GEC2 GERESS Array S 96.76 322 *eP* **P** **18 41 12.8 -0.4**
comp=Z,12nm,1.1s,baz=66,slow=4.5
GERES GERESS Array B 96.76 322 P **P** **18 41 12.6 -0.6**
comp=Z,4.2nm,0.9s,baz=57,slow=4.9,SNR=24
GERES LR LR 19 26 50.4
comp=Z,131nm,19.8s,baz=60,slow=37
comp=Z,4.2nm,0.9s
GERES GERESS Array B 96.76 322 P **P** **18 41 12.5 -0.8**
MOA Molln 96.81 321 *e*PcP **P** **18 41 13.2 -0.2**
comp=Z,17nm,1.0s
TANN Tannenbergstha 96.86 324 *eP* **P** **18 41 13.3 -0.2**
comp=Z,35nm,2.1s,baz=66,slow=4.5
SESA Seetaler Alpe, 96.91 320 *eP* **P** **18 41 13.0 -1.1**
comp=Z,7.3nm,1.0s
PLN Plauen 97.00 324 *eP* **P** **18 41 14.1 0.0**
comp=Z,3.1nm,1.1s,baz=66,slow=4.5
WET Wettzell 97.14 323 *eP* Pdif 18 41 15.1 +0.2
comp=Z,27nm,1.8s,baz=66,slow=4.5
MOX Moxa 97.25 324 *eP* **P** **18 41 15.1 -0.2**
comp=Z,6.0nm,1.1s,baz=66,slow=4.5
CLZ Clausthal 97.43 326 *eP* **P** **18 41 16.1 0.0**
comp=Z,10nm,1.0s,baz=66,slow=4.5
KBA Koelnbreinsper 97.69 321 *e*PcP **P** **18 41 17.3 -0.3**
comp=Z,7.3nm,1.3s
GRF Grafenberg Arr 97.89 324 *eP* **P** **18 41 17.3 -0.9**
comp=Z,2.2nm,0.7s,baz=66,slow=4.5
LESA Schwarzleotal 97.97 321 *eP* **P** **18 41 17.7 -1.0**
comp=Z,4.2nm,0.8s
TIP Timpagrande 98.31 312 IAmb IAmb 18 41 42.1
comp=Z,12nm,1.5s
ABTA Abfaltersbach 98.35 320 *e*Pdiff **P** **18 41 19.3 -1.1**
comp=Z,8.4nm,1.1s
IBBN Ibbenburen 98.64 327 *eP* Pdif 18 41 21.6 +0.2
comp=Z,18nm,1.2s,baz=66,slow=4.5
WTTA Wattenberg 98.68 321 *e*Pdiff **P** **18 41 21.0 -1.0**
comp=Z,13nm,1.0s
WATA Walderalm 98.68 321 *i* Pdiff **P** **18 41 21.5 -0.4**
comp=Z,14nm,1.4s
YBH Yreka Blue Hor 98.70 45 LR LR 19 17 05.5
comp=Z,61nm,22.0s,baz=272,slow=30
KASTN Kahler Asten 98.81 326 *eP* Pdif 18 41 22.4 +0.1
comp=Z,15nm,1.3s,baz=66,slow=4.5
SQTA Sankt Quirin 98.96 321 *i* Pdiff **P** **18 41 22.9 -0.3**
comp=Z,11nm,1.1s
MOTA Moosalm 98.97 321 *e*Pdiff **P** **18 41 22.8 -0.4**
comp=Z,9.5nm,1.1s
FETA Feichten 99.34 321 *i* Pdiff **Pdif** **18 41 24.9 0.0**
comp=Z,7.9nm,1.1s
FUORN Ofenpass-Fuorn 99.80 321 IAmb IAmb 18 41 28.2
comp=Z,9.2nm,0.9s
QSPA South Pole Qui 99.92 180 P **Pdif** **18 41 26.2 -0.7**
comp=Z,1.8nm,1.0s,baz=0.0,slow=5.1,SNR=4.4
comp=Z,1.8nm,1.0s
QSPA South Pole Qui 99.92 180 IAmb IAmb 18 41 47.8
comp=Z,14nm,1.6s
DAVOX Davos/Dischmat 99.97 321 LR LR 19 30 29.9
comp=Z,160nm,18.8s,baz=64,slow=38
BFO Black Forest 100.20 323 *eP* **Pdif** **18 41 28.3 -0.3**
comp=Z,7.9nm,1.2s,baz=66,slow=4.5
WLF Walferdange 100.82 325 *eP* **Pdif** **18 41 31.6 +0.4**
comp=Z,6.1nm,0.9s,baz=66,slow=4.5
TXAR Lajitas Array 118.08 49 PKP **PKiKP** **18 46 30.5 +0.6**
comp=Z,0.8nm,0.8s,baz=336,slow=3.3,SNR=5.0
S39A Bolivar 119.86 36 **PKPdf** **18 46 32.3 -0.7**
TORD Torodi Ar. Bea 120.20 292 PKP **PKPdf** **18 46 33.4 -0.8**
comp=Z,3.6nm,0.8s,baz=54,slow=1.8,SNR=12
JCT Junction City 120.26 46 PKIKP **PKPdf** **18 46 32.4 -1.6**
JCT Junction City 120.26 46 **PKPdf** **18 46 32.4 -1.6**
DBIC Dimbokro 128.41 287 PKP **PKPdf** **18 46 49.0 -0.9**
comp=Z,7.1nm,1.0s,baz=14,slow=4.3,SNR=4.1
PLCA Paso Flores 146.07 157 PKPbc **PKPdf** **18 47 21.2 -0.5**
comp=Z,12nm,0.9s,baz=220,slow=3.7,SNR=10
GO06 Curarrehue 146.68 155 **PKPdf** **18 47 22.9 +0.1**
BI02 San Fabin de 149.19 152 **PKPbc** **18 47 31.5 +0.2**
SJG San Juan 149.50 23 PKPbc **PKPbc** **18 47 31.8 -0.5**
comp=Z,5.7nm,0.3s,baz=311,slow=19,SNR=1.3
SJCC San Jacinto, C 150.99 48 **PKPdf** **18 47 30.6 +0.2**
URIC Uribia, Colomb 151.88 40 PKPbc **PKPbc** **18 47 37.1 -1.0**
SDV Santo Domingo 154.86 42 PKPbc **PKiKP** **18 47 45.5 +0.6**
comp=Z,7.1nm,0.4s,baz=297,slow=7.0,SNR=3.7
ATAH Atahualpa 155.60 85 PKPab **PKPab** **18 48 04.5 +0.8**
comp=Z,2.0nm,0.5s,baz=87,slow=14,SNR=1.7
CPUP Villa Florida 163.49 169 PKP **PKPdf** **18 47 45.6 -0.1**
comp=Z,0.7nm,0.6s,baz=202,slow=5.4,SNR=1.9
CPUP PKPab **PKPab** **18 48 36.7 -0.1**
comp=Z,2.0nm,0.8s,baz=108,slow=5.4,SNR=4.7
LPAZ La Paz 164.82 116 PKP **PKPdf** **18 47 48.1 +0.3**
comp=Z,4.0nm,1.0s,baz=177,slow=3.0,SNR=7.1
LPAZ PKPab **PKPab** **18 48 45.0 +1.0**
comp=Z,2.4nm,0.8s,baz=207,slow=2.3,SNR=3.8
LPAZ La Paz 164.82 116 **PKPdf** **18 47 49.5 +1.6**
SIV San Ignacio 170.85 131 PKP **PKPdf** **18 47 51.6 +0.2**
comp=Z,3.3nm,0.9s,baz=198,slow=3.0,SNR=10

NNC 04 18:32:31.4±2.8, 37.73N×71.76E, h148km±49km, mb2.6, mpv3.5, 1C-2D, Error ellipse: s-maj=27.9km s-min=14.2km az=179.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AAK	**Ala-Archa**	**5.33**	**22**	⇑P	Pn	18 33 48.8	-0.4
	2.0nm,0.5s						
AAK				⇓S	Sn	18 34 50.8	+0.8
	4.4nm,0.5s						
KK31	**Karatay Array**	**5.45**	**350**	P	Pn	18 33 51.0	+0.3
	3.0nm,0.2s,baz=171,slow=12,SNR=118						
KK31				⇓S	Sn	18 34 52.8	+0.1
	4.4nm,0.3s,baz=169,slow=24,SNR=14						
MK31	**Makanchi Array**	**11.94**	**37**	P	Pn	18 35 16.7	-0.2
	0.3nm,0.6s,baz=246,slow=18,SNR=5.5						
AB31	**Akbulak array**	**14.34**	**327**	P	Pn	18 35 47.7	+0.2
	0.2nm,0.4s,baz=142,slow=12,SNR=10						

*IPEC **04** 18:46:06.4±0.1, 50.08N×18.48E, h1km, ML1.7/6, Error ellipse: s-maj=1.7km s-min=1.0km az=166.0*

PRU 04 18:46:09.0, 50.06N×18.31E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	**0.08**	**287**	*e*PG	Pg	18 46 10.5	0.0
RAC				*e*SG	Sg	18 46 14.2	+2.7
OKC	**Ostrava-Krasne**	**0.25**	**205**	*e*PG	Pg	18 46 13.3	-0.4
OKC				*e*SG	Sg	18 46 17.6	+0.7
	comp=Z,39nm,0.6s						
OKC				AML	AML		
STEB	**Steborice**	**0.37**	**250**	*e*PG	Pg	18 46 15.9	-0.1
STEB				*e*SG	Sg	18 46 21.9	+1.1
	comp=Z,44nm,0.4s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**0.57**	**241**	*e*Pg	Pg	18 46 19.3	-0.6
	baz=63						
MORC				*e*Sg	Sg	18 46 27.7	+0.4
	12nm,0.2s,baz=63						
MORC				AML	AML		
MORC	**Moravsky Berou**	**0.57**	**241**	*e*PG	Pg	18 46 19.4	-0.5
MORC				*e*SG	Sg	18 46 27.8	+0.5
ANAC	**Anensky vrch**	**0.60**	**272**	*e*Pg	Pg	18 46 19.7	-0.8
	baz=89						
ANAC				*e*Sg	Sg	18 46 28.8	+0.5
	13nm,0.3s,baz=89						
ANAC				AML	AML		
LOSC	**Losov**	**0.75**	**235**	*e*Pg	Pg	18 46 22.7	-0.6
	baz=57						
LOSC				*e*Sg	Sg	18 46 33.1	+0.1
	13nm,0.3s,baz=57						
LOSC				AML	AML		
LANS	**Liptovska Anna**	**1.18**	**140**	*e*PG	Pg	18 46 28.7	-2.9
LANS				*e*SG	Sg	18 46 45.6	-1.3
LANS				*e*LG	Lg	18 46 49.3	
JAVC	**Velka Javorina**	**1.27**	**199**	*e*Pg	Pg	18 46 31.2	-2.2
	baz=23						
JAVC	**Velka Javorina**	**1.27**	**199**	*e*PG	Pg	18 46 31.3	-2.1
DPC	**Dobruska-Polom**	**1.31**	**284**	*e*PG	Pg	18 46 32.6	-1.5
DPC				*e*SG	Sg	18 46 51.3	+0.2
	comp=Z,12nm,0.6s						
DPC				AML	AML		
DPC	**Dobruska-Polom**	**1.31**	**284**	*e*	Sg	18 46 51.3	+0.2
VRAC	**Vranov**	**1.34**	**237**	*e*Pg	Pg	18 46 33.0	-1.8
	baz=57						
VRAC				*e*Sg	Sg	18 46 51.8	-0.4
	7.5nm,0.4s,baz=57						
VRAC				AML	AML		
OSTC	**Ostas**	**1.43**	**291**	*e*PG	Pn	18 46 34.1	-2.2
OSTC				*e*SG	Sg	18 46 53.7	-1.3
NIE	**Niedzica**	**1.44**	**116**	*e*Pg	Pn	18 46 33.0	-3.4
NIE				*e*Sg	Sg	18 46 52.7	-2.6
CHVC	**Chvalec**	**1.54**	**291**	*e*PG	Pn	18 46 36.1	-1.6
UPC	**Upice**	**1.54**	**288**	*e*SG	Sn	18 46 58.3	-0.1
KRUC	**Moravsky**	**1.60**	**232**	*e*Pn	Pn	18 46 37.2	-1.3
	baz=52						
KRUC				*e*Sg	Sn	18 46 59.3	-0.5
	5.3nm,0.3s,baz=52						
KRUC				AML	AML		
VYHS	**Vyhne**	**1.60**	**167**	*e*PG	Pn	18 46 35.9	-2.7
VYHS				*e*SG	Sn	18 46 57.5	-2.5
TREC	**Trest**	**1.99**	**248**	*e*SG	Sb	18 47 10.9	-0.4
TREC	**Trest**	**1.99**	**248**	*e*	Sb	18 47 10.9	-0.4
PRU	**Pruhonice**	**2.43**	**270**	*e*SG	Sg	18 47 26.7	-0.4
PVCC	**Panska Ves**	**2.44**	**282**	*e*SG	Sg	18 47 26.6	-0.9
	comp=Z,7.6nm,0.5s						
PVCC				AML	AML		
CKRC	**Cesky Krumlov**	**2.89**	**246**	*e*SG	Sg	18 47 41.0	-0.8
KHC	**Kasperske Hory**	**3.22**	**255**	*e*SG	Sg	18 47 50.1	-2.2

*IDC **04** 18:47:31.5±0.4, 14.89N×61.54W, h157km±2km, mb3.8/26, mbtmp4.3/30, MS3.7/3, Error ellipse: s-maj=9.3km s-min=6.3km az=86.0*
*TRN **04** 18:47:31.4, 14.97N×61.37W, h169km, MD4.5, South of Guadeloupe.*
*NEIC **04** 18:47:32.7±2.2, 14.92N±0.03×61.55W±0.07, h162km±4km, mb4.5/22, Error ellipse: s-maj=10.1km s-min=5.0km az=87.0*
*GFZ **04** 18:47:32.6±0.8, 15.1N±4.6×61.1W±.7, h161km±10km, MA7.7/13, mb4.9/4, MLv4.6/13, Error ellipse: s-maj=19.4km s-min=6.5km az=76.4, confirmed*
*PTWC **04** 18:47:33, 14.90N×61.30W, h153km, MI4.0/17*

ISC 04 18:47:32.2±0.5, 14.91N±0.02×61.52W±0.04, h164km±4km, n196, σ1§09/221, mb4.2/51, 3C-5D, Windward Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SVN	**Savane Anatole**	**0.35**	**102**		Pn	**18 47 55.4**	**+0.9**
SVN	**Savane Anatole**	**0.35**	**102**	*eP*	Pn	**18 47 55.5**	**+0.9**
SVN				*eS*	Sn	**18 48 12.3**	**+0.7**
SVN	**Savane Anatole**	**0.35**	**102**	P	Pn	**18 47 55.7**	**+1.2**
SVN				AML	AML		
CXM	**Morne La Croix**	**0.35**	**107**		Pn	**18 47 55.1**	**+0.4**
FDFM	**Morne la Roset**	**0.39**	**117**		Pn	**18 47 55.2**	**+0.5**
FDFM	**Morne la Roset**	**0.39**	**117**	P	Pn	**18 47 55.3**	**+0.6**
DLPL	**La Plaine**	**0.49**	**32**	P	Pn	**18 47 55.7**	**+0.6**
DLPL				S	Sn	**18 48 13.1**	**+0.4**
DLPL	**La Plaine**	**0.49**	**32**	⇑*iP*	Pn	**18 47 55.5**	**+0.4**
DLPL				*eS*	Sn	**18 48 12.8**	**+0.1**
DSLB	**Salisbury**	**0.53**	**10**	P	Pn	**18 47 55.0**	**-0.3**
DSLB	**Salisbury**	**0.53**	**10**	*eP*	Pn	**18 47 55.6**	**+0.3**
DSLB				*eS*	Sn	**18 48 13.7**	**+0.7**
BIM	**Bigot**	**0.59**	**132**		Pn	**18 47 56.1**	**+0.5**
BIM	**Bigot**	**0.59**	**132**	P	Pn	**18 47 56.0**	**+0.5**
BIM	**Bigot**	**0.59**	**132**	*eP*	Pn	**18 47 56.0**	**+0.5**
BIM				*eS*	Sn	**18 48 13.7**	**+0.2**
BIM	**Bigot**	**0.59**	**132**	P	Pn	**18 47 56.5**	**+0.9**
BIM				AML	AML		
ILAM	**Ilet Lapin Mar**	**0.64**	**102**		Pn	**18 47 55.8**	**+0.1**
ILAM	**Ilet Lapin Mar**	**0.64**	**102**	P	Pn	**18 47 55.8**	**+0.1**
ILAM				S	Sn	**18 48 13.0**	**-0.8**
ILAM	**Ilet Lapin Mar**	**0.64**	**102**	P	Pn	**18 47 55.9**	**+0.1**
ILAM				AML	AML		
DWS	**Wesley**	**0.68**	**17**	*eP*	Pn	**18 47 56.2**	**+0.1**
DWS				*eS*	Sn	**18 48 15.0**	**+0.5**
MPOM	**Morne Pois Mar**	**0.79**	**126**		Pn	**18 47 56.9**	**+0.2**
MPOM	**Morne Pois Mar**	**0.79**	**126**	P	Pn	**18 47 56.6**	**-0.1**
MPOM				S	Sn	**18 48 15.1**	**-0.4**
MPOM	**Morne Pois Mar**	**0.79**	**126**	P	Pn	**18 47 57.1**	**+0.3**
MPOM				AML	AML		
H05S1	**Guadeloupe/Mar**	**0.82**	**126**	P	Pn	**18 47 56.9**	**0.0**
H05S1				S	Sn	**18 48 14.5**	**-1.4**
TDBA	**Terre de Bas,**	**0.94**	**353**		Pn	**18 47 58.8**	**+1.0**
TDBA	**Terre de Bas,**	**0.94**	**353**	P	Pn	**18 47 58.8**	**+1.0**
TDBA	**Terre de Bas,**	**0.94**	**353**	P	Pn	**18 47 58.6**	**+0.8**
TDBA				AML	AML		
SLBI	**Saint Lucia, B**	**1.03**	**149**	P	Pn	**18 47 58.7**	**+0.2**
SLBI	**Saint Lucia, B**	**1.03**	**149**	*eP*	Pn	**18 47 58.9**	**+0.3**
SLBI				*eS*	Sn	**18 48 18.1**	**-0.6**

SLCP	**Castries, St.**	**1.03**	**150**	*eP*		**Pn**	**18 47 58.3**	**-0.3**
SLCP				*eS*		**Sn**	**18 48 18.5**	**-0.3**
MAGL	**Barre de l'ile**	**1.05**	**12**			**Pn**	**18 47 58.9**	**+0.2**
MAGL	**Barre de l'ile**	**1.05**	**12**	P		**Pn**	**18 47 58.0**	**-0.7**
MAGL				S		**Sn**	**18 48 19.0**	**-0.2**
MAGL	**Barre de l'ile**	**1.05**	**12**	⇑*iP*		**Pn**	**18 47 58.7**	**0.0**
MAGL				*eS*		**Sn**	**18 48 18.9**	**-0.4**
MAGL	**Barre de l'ile**	**1.05**	**12**	P		**Pn**	**18 47 59.0**	**+0.2**
MAGL				AML		AML		
CBE	**Ff, Capester**	**1.15**	**356**			**Pn**	**18 48 00.2**	**+0.7**
CBE	**Ff, Capester**	**1.15**	**356**	P		**Pn**	**18 48 00.3**	**+0.7**
CBE	**Ff, Capester**	**1.15**	**356**	P		**Pn**	**18 48 00.2**	**+0.7**
CBE				AML		AML		
MCLT	**Moule a Chique**	**1.32**	**155**	*eP*		**Pn**	**18 48 01.5**	**+0.4**
MCLT				*eS*		**Sn**	**18 48 23.2**	**-0.2**
DHSZ	**Broadband at M**	**1.37**	**350**	*iP*		**Pn**	**18 48 02.8**	**+1.2**
DHSZ				*eS*		**Sn**	**18 48 23.9**	**-0.3**
GDHS	**Morne Mazeau,**	**1.37**	**350**			**Pn**	**18 48 02.6**	**+1.0**
GDHS	**Morne Mazeau,**	**1.37**	**350**	P		**Pn**	**18 48 02.6**	**+1.0**
GDHS	**Morne Mazeau,**	**1.37**	**350**	P		**Pn**	**18 48 02.5**	**+0.9**
GDHS				AML		AML		
DSDZ	**La Diserade, G**	**1.46**	**17**	*eP*		**Pn**	**18 48 02.1**	**-0.3**
DSDZ				*eS*		**Sn**	**18 48 24.1**	**-1.7**
GDSD	**La Dsirade Is**	**1.46**	**17**			**Pn**	**18 48 02.3**	**-0.1**
GDSD	**La Dsirade Is**	**1.46**	**17**	P		**Pn**	**18 48 01.8**	**-0.6**
GDSD				S		**Sn**	**18 48 24.1**	**-1.7**
GDSD	**La Dsirade Is**	**1.46**	**17**	P		**Pn**	**18 48 02.0**	**-0.4**
GDSD				AML		AML		
H05N1	**Guadeloupe/Mar**	**1.46**	**18**	P		**Pn**	**18 48 02.4**	**-0.1**
H05N1				S		**Sn**	**18 48 23.9**	**-2.0**
ABD	**La Joyeuse, An**	**1.55**	**1**			**Pn**	**18 48 03.4**	**+0.1**
ABD	**La Joyeuse, An**	**1.55**	**1**	P		**Pn**	**18 48 03.6**	**+0.3**
ABD				S		**Sn**	**18 48 26.9**	**-0.5**
ABD	**La Joyeuse, An**	**1.55**	**1**	P		**Pn**	**18 48 03.6**	**+0.3**
ABD				AML		AML		
SVB	**Belmont**	**1.65**	**171**	P		**Pn**	**18 48 05.1**	**+0.7**
SVB	**Belmont**	**1.65**	**171**	⇑*iP*		**Pn**	**18 48 05.1**	**+0.7**
SVB				*eS*		**Sn**	**18 48 28.7**	**-0.6**
BBGH	**Gun Hill**	**2.59**	**133**			**Pn**	**18 48 15.7**	**+0.6**
BBGH	**Gun Hill**	**2.59**	**133**	P		**Pn**	**18 48 15.5**	**+0.4**
BBGH				AML		AML		
GRSS	**Sisters**	**2.60**	**182**	*eP*		**Pn**	**18 48 15.6**	**+0.4**
GRSS				*eS*		**Sn**	**18 48 48.5**	**-0.1**
SKI	**Saint Kitts**	**2.68**	**334**	*eP*		**Pn**	**18 48 17.0**	**+0.9**
GRW	**Mount Saint Ca**	**2.74**	**183**	*eP*		**Pn**	**18 48 17.9**	**+0.8**
GRW				*eS*		**Sn**	**18 48 52.5**	**+0.6**
ANWB	**Willy Bob**	**2.75**	**355**			**Pn**	**18 48 16.4**	**-0.6**
ANWB	**Willy Bob**	**2.75**	**355**	*eP*		**Pn**	**18 48 15.6**	**-1.4**
ANWB				*eS*		**Sn**	**18 48 48.7**	**-3.2**
ANWB	**Willy Bob**	**2.75**	**355**	P		**Pn**	**18 48 16.4**	**-0.6**
ANWB				AML		AML		
GRGR	**Grenville**	**2.77**	**183**			**Pn**	**18 48 18.1**	**+0.9**
GRGR	**Grenville**	**2.77**	**183**	P		**Pn**	**18 48 18.2**	**+0.9**
GRGR	**Grenville**	**2.77**	**183**	*eP*		**Pn**	**18 48 17.8**	**+0.5**
GRGR				*eS*		**Sn**	**18 48 52.2**	**-0.1**
GRGR	**Grenville**	**2.77**	**183**	P		**Pn**	**18 48 17.8**	**+0.5**
GRGR				AML		AML		
SEUS	**St. Eustatius**	**2.92**	**331**	P		**Pn**	**18 48 20.1**	**+1.0**
SEUS				AML		AML		
SABA	**Saba**	**3.16**	**329**			**Pn**	**18 48 23.1**	**+1.0**
SABA	**Saba**	**3.16**	**329**	*eP*		**Pn**	**18 48 23.4**	**+1.3**
SABA	**Saba**	**3.16**	**329**	P		**Pn**	**18 48 22.8**	**+0.7**
SABA				AML		AML		
SMRT	**St. Maarten**	**3.46**	**335**			**Pn**	**18 48 25.6**	**-0.2**
SMRT	**St. Maarten**	**3.46**	**335**	*eP*		**Pn**	**18 48 25.6**	**-0.2**
SMRT				*eS*		**Sn**	**18 49 06.1**	**-1.6**
SMRT	**St. Maarten**	**3.46**	**335**	P		**Pn**	**18 48 25.8**	**-0.1**
SMRT				AML		AML		
PSKH	**Kent House, Po**	**4.21**	**180**	*eP*		**Pn**	**18 48 36.0**	**+0.5**
PSKH				*eS*		**Sn**	**18 49 24.0**	**-1.0**
PSMG	**Mucurapo Girls**	**4.22**	**180**	*eP*		**Pn**	**18 48 36.8**	**+1.1**
PSMG				*eS*		**Sn**	**18 49 24.6**	**-0.6**
PSQC	**Port of Spain**	**4.22**	**180**	*eP*		**Pn**	**18 48 37.2**	**+1.5**
PSQC				*eS*		**Sn**	**18 49 24.0**	**-1.2**
PSWS	**West Secondary**	**4.23**	**180**	*eP*		**Pn**	**18 48 36.9**	**+1.1**
PSWS				*eS*		**Sn**	**18 49 25.2**	**-0.2**
TRN	**Trinidad (W)**	**4.24**	**178**	*eP*		**Pn**	**18 48 36.3**	**+0.3**
TRN				*eS*		**Sn**	**18 49 23.8**	**-2.0**
HUMP	**Col San Antoni**	**5.25**	**308**			**Pn**	**18 48 49.4**	**+0.3**
SJG	**San Juan**	**5.46**	**306**	P		**Pn**	**18 48 51.4**	**-0.5**
	18nm,0.6s,baz=79,slow=9.6,SNR=18							
SJG				S		**Sn**	**18 49 55.4**	**+1.0**
	54nm,0.8s,baz=42,slow=23,SNR=3.4							
SJG	**San Juan**	**5.46**	**306**			**Pn**	**18 48 50.5**	**-1.5**
SJG	**San Juan**	**5.46**	**306**	x		**Pn**	**18 48 53.9**	**+2.0**
SJG	**San Juan**	**5.46**	**306**	P		**Pn**	**18 48 53.2**	**+1.3**
	comp=Z,124nm,0.6s,comp=Z,0.5nm							
SJG				AML		AML		
GCPR	**Guaynabo City**	**5.53**	**308**			**Pn**	**18 48 54.8**	**+2.0**
ECPR	**Experimental S**	**5.75**	**307**			**Pn**	**18 48 57.9**	**+2.2**
CELP	**Cerrillos**	**5.78**	**304**			**Pn**	**18 48 58.1**	**+2.0**
AOPR	**Arecibo Observ**	**6.07**	**305**			**Pn**	**18 49 02.9**	**+2.9**
MLPR	**Magueyes Islan**	**6.11**	**301**	Pn		**Pn**	**18 49 01.2**	**+0.7**
AGPR	**Aguadilla, PR**	**6.42**	**304**	Pn		**Pn**	**18 49 06.6**	**+2.0**
SDDR	**Presa de Saban**	**10.19**	**295**			**Pn**	**18 49 57.6**	**+3.1**
SDDR	**Presa de Saban**	**10.19**	**295**	P		**Pn**	**18 49 55.1**	**+0.6**
	comp=Z,65nm,0.5s							
URIC	**Uribia, Colomb**	**10.68**	**254**			**Pn**	**18 50 00.8**	**-0.3**
SDV	**Santo Domingo**	**10.74**	**237**	P		**Pn**	**18 50 01.0**	**-1.0**
	comp=Z,7.1nm,0.4s,baz=53,slow=10,SNR=1.3							
SDV				S		**Sn**	**18 51 59.6**	**-1.6**
	comp=Z,6.9nm,0.3s,baz=357,slow=22,SNR=1.4							
SDV	**Santo Domingo**	**10.74**	**237**	P		**Pn**	**18 50 04.5**	**+2.5**
	comp=Z,223nm,0.9s							
BOAV	**Boa Vista**	**12.48**	**175**			**Pn**	**18 50 21.5**	**-2.9**
BOAV	**Boa Vista**	**12.48**	**175**	*eP*		**Pn**	**18 50 21.0**	**-3.3**
MDP	**Montagnes des**	**13.09**	**137**	P		**Pn**	**18 50 30.6**	**-1.5**
	comp=Z,17nm,0.5s,baz=308,slow=16,SNR=20							
MDP				S		Sn	18 52 42.3	-15
	comp=Z,42nm,0.5s,baz=61,slow=22,SNR=15							
SJCC	**San Jacinto, C**	**14.24**	**251**	P		**P**	**18 50 48.7**	**-0.5**
RUSC	**La Rusia**	**14.47**	**233**			**Pn**	**18 50 50.3**	**+0.3**
ROSC	**El Rosal**	**16.09**	**233**	P		**Pn**	**18 51 08.6**	**-1.3**
	comp=Z,6.6nm,0.4s,baz=127,slow=10,SNR=9.0							
ROSC				S		**S**	**18 54 08.9**	**+0.2**
	comp=Z,7.6nm,0.5s,baz=107,slow=22,SNR=1.6							
ROSC	**El Rosal**	**16.09**	**233**			**Pn**	**18 51 07.2**	**-2.6**
HELC	**Santa Helena**	**16.26**	**239**	Pn		**P**	**18 51 08.9**	**-3.0**
MACA	**Manacapuru-AM**	**17.98**	**177**	P		**Pn**	**18 51 31.8**	**-0.3**
ITTB	**Itaituba**	**20.00**	**163**	*eP*		**P**	**18 51 52.9**	**+0.7**
OTAV	**Otavalo**	**22.20**	**230**			**P**	**18 52 14.8**	**-1.1**
OTAV				IAmb		IAmb	18 52 50.9	
	comp=Z,30nm,1.4s							
OTAV	**Otavalo**	**22.20**	**230**	*eP*		**P**	**18 52 16.1**	**+0.1**
NPGB	**Novo Progresso**	**22.66**	**164**	*eP*		**P**	**18 52 20.5**	**+0.7**
SMTB	**Santa Maria do**	**27.36**	**149**			**P**	**18 53 02.8**	**+0.5**
SMTB	**Santa Maria do**	**27.36**	**149**	*eP*		**P**	**18 53 02.8**	**+0.5**
ATAH	**Atahualpa**	**27.57**	**219**	P		**P**	**18 53 04.5**	**-0.1**
	comp=Z,7.5nm,0.6s,baz=41,slow=3.0,SNR=4.0							
	comp=Z,7.5nm,0.6s							
SNDB	**Serra Nova Dou**	**28.57**	**159**	*eP*		**P**	**18 53 14.0**	**+1.0**
PTLB	**Pontes e Lacer**	**30.26**	**175**	P		**P**	**18 53 29.1**	**+1.2**
PTLB				IAmb		IAmb	18 53 30.0	
	comp=Z,8.6nm,1.0s							
PTLB	**Pontes e Lacer**	**30.26**	**175**	*eP*		**P**	**18 53 29.0**	**+1.2**
SIV	**San Ignacio**	**30.71**	**179**	P		**P**	**18 53 32.2**	**+0.3**
	comp=Z,20nm,0.7s,baz=3.4,slow=8.4,SNR=61							
	comp=Z,20nm,0.7s							
SALV	**Santo Antonio**	**31.16**	**169**	*eP*		**P**	**18 53 37.1**	**+1.3**
LPAZ	**La Paz**	**31.68**	**192**	P		**P**	**18 53 39.9**	**-1.2**
	comp=Z,1.4nm,0.6s,baz=20,slow=10,SNR=5.2							
	comp=Z,1.4nm,0.6s							
BBSD	**Serra de San D**	**31.91**	**178**	*eP*		**P**	**18 53 43.3**	**+0.9**
BDFB	**Brasilia**	**33.16**	**156**	P		**P**	**18 53 52.7**	**-0.8**
	comp=Z,4.6nm,0.6s,baz=340,slow=10,SNR=6.4							
	comp=Z,4.6nm,0.6s							
BDFB	**Brasilia**	**33.16**	**156**	P		**P**	**18 53 52.5**	**-1.0**
BDFB				IAmb		IAmb	18 53 55.8	
	comp=Z,6.5nm,0.8s							
COIM	**Forte Coimbra**	**34.80**	**174**	*eP*		**P**	**18 54 08.6**	**+1.3**
PB11	**IPOC Station P**	**35.38**	**193**	P		**P**	**18 54 09.0**	**-3.5**
PB11				IAmb		IAmb	18 54 10.4	
	comp=Z,18nm,1.0s							
AQDB	**Aquidauana**	**35.63**	**171**	P		**P**	**18 54 16.2**	**+1.8**
AQDB				IAmb		IAmb	18 54 17.1	
	comp=Z,13nm,1.1s							
AQDB	**Aquidauana**	**35.63**	**171**	pP		pP	18 54 47.9	-0.6
	comp=Z,9.2nm,2.7s							
AQDB	**Aquidauana**	**35.63**	**171**	*eP*		**P**	**18 54 16.3**	**+1.8**
DIAM	**Diamantina, MG**	**37.40**	**151**	*eP*		**P**	**18 54 29.9**	**+0.3**
SJMB	**Sao Joao De Ma**	**38.95**	**148**	*eP*		**P**	**18 54 41.9**	**-0.5**
LDASE	**Londrina, Braz**	**39.41**	**165**	*eP*		**P**	**18 54 47.6**	**+1.3**

CPUP	**Villa Florida**	**41.20**	**174**	P		**P**	**18 55 00.5**	**-0.4**
	comp=Z,3.5nm,0.5s,baz=356,slow=9.4,SNR=12							
	comp=Z,3.5nm,0.5s							
CPUP	**Villa Florida**	**41.20**	**174**	P		**P**	**18 55 00.4**	**-0.4**
TXAR	**Lajitas Array**	**41.37**	**298**	P		**P**	**18 55 02.9**	**+0.4**
	comp=Z,0.2nm,0.6s,baz=60,slow=6.5,SNR=3.0							
TXAR	**Lajitas Array**	**41.37**	**298**	P		**P**	**18 55 02.1**	**-0.4**
AC02	**Maricunga**	**42.15**	**190**	P		**P**	**18 55 08.4**	**-0.8**
AC02				IAmb		IAmb	18 55 09.9	
	comp=Z,9.9nm,1.1s							
ULM	**Lac du Bonnet**	**44.89**	**329**	P		**P**	**18 55 29.5**	**-0.8**
	comp=Z,1.2nm,0.3s,baz=134,slow=10,SNR=4.0							
	comp=Z,1.2nm,0.3s							
ULM	**Lac du Bonnet**	**44.89**	**329**	P		**P**	**18 55 29.9**	**-0.4**
PDAR	**Pinedale Array**	**49.53**	**314**	P		**P**	**18 56 07.0**	**+0.4**
	comp=Z,0.4nm,0.7s,baz=128,slow=9.7,SNR=4.5							
PDAR				ScP		**ScP**	**19 01 06.5**	**+0.4**
	comp=Z,0.4nm,0.7s,baz=70,slow=5.3,SNR=3.5							
	comp=Z,0.4nm,0.7s							
PDAR	**Pinedale Array**	**49.53**	**314**	P		**P**	**18 56 06.4**	**-0.2**
ML02	**Panimavida**	**51.26**	**190**	P		**P**	**18 56 18.6**	**-0.7**
H10N3	**ASCENSION HYDR**	**51.80**	**113**	T		T	19 52 03.0	
	baz=296,slow=75,SNR=15							
H10N2	**ASCENSION HYDR**	**51.81**	**113**	T		T	19 52 07.6	
	baz=296,slow=75,SNR=14							
H10N1	**ASCENSION HYDR**	**51.83**	**113**	T		T	19 52 13.1	
	baz=296,slow=75,SNR=14							
H10S3	**ASCENSION HYDR**	**52.15**	**114**	T		T	19 52 32.4	
	baz=288,slow=74,SNR=11							
H10S2	**ASCENSION HYDR**	**52.17**	**114**	T		T	19 52 32.0	
	baz=292,slow=74,SNR=12							
PFO	**Pinyon Flats O**	**52.82**	**301**	LR		LR	19 23 50.8	
	comp=Z,48nm,18.8s,baz=242,slow=41							
ELK	**Elko**	**53.06**	**310**	LR		LR	19 21 22.2	
	comp=Z,82nm,19.8s,baz=282,slow=38							
MD31	**MD31**	**54.26**	**60**	P		**P**	**18 56 43.1**	**+1.5**
MD31				IAmb		IAmb	18 56 44.1	
	comp=Z,7.8nm,1.1s							
NVAR	**Mina Array Bea**	**54.95**	**307**	P		**P**	**18 56 47.1**	**+0.5**
	comp=Z,0.2nm,0.4s,baz=95,slow=12,SNR=1.2							
NVAR				LR		LR	19 20 02.0	
	comp=Z,80nm,21.7s,baz=268,slow=36							
	comp=Z,0.2nm,0.4s							
ESDC	**Sonseca Array**	**55.74**	**52**	P		**P**	**18 56 52.9**	**+0.8**
	comp=Z,2.8nm,0.8s,baz=260,slow=7.7,SNR=11							
	comp=Z,2.8nm,0.8s							
ESDC	**Sonseca Array**	**55.74**	**52**	P		**P**	**18 56 52.5**	**+0.4**
PLCA	**Paso Flores**	**55.99**	**188**	P		**P**	**18 56 53.2**	**-0.5**
	comp=Z,4.3nm,0.9s,baz=10.0,slow=6.6,SNR=5.2							
	comp=Z,4.3nm,0.9s							
DBIC	**Dimbokro**	**56.13**	**92**	P		**P**	**18 56 55.4**	**+0.2**
	comp=Z,1.9nm,0.6s,baz=289,slow=16,SNR=1.5							
	comp=Z,1.9nm,0.6s							
DBIC	**Dimbokro**	**56.13**	**92**	P		**P**	**18 56 52.5**	**-2.7**
NEW	**Newport**	**56.28**	**318**	P		**P**	**18 56 55.8**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=101,slow=10,SNR=3.1							
	comp=Z,0.5nm,0.4s							
EKA	**Eskdalemuir Ar**	**60.02**	**34**	P		**P**	**18 57 21.4**	**-0.1**
	comp=Z,1.2nm,0.6s,baz=263,slow=6.1,SNR=7.0							
	comp=Z,1.2nm,0.6s							
YKA	**Yellowknife Ar**	**60.26**	**335**	P		**P**	**18 57 22.3**	**-0.7**
	comp=Z,0.7nm,0.6s,baz=110,slow=7.3,SNR=3.5							
	comp=Z,0.7nm,0.6s							
TORD	**Torodi Ar. Bea**	**61.17**	**83**	P		**P**	**18 57 30.0**	**0.0**
	comp=Z,3.1nm,0.8s,baz=288,slow=6.9,SNR=12							
	comp=Z,3.1nm,0.8s							
TORD	**Torodi Ar. Bea**	**61.17**	**83**	P		**P**	**18 57 29.1**	**-0.9**
DOU	**Dourbes**	**63.40**	**41**	*dP*		**P**	**18 57 45.3**	**+1.1**
	comp=Z,4.3nm,1.3s							
TAM	**Tamanrasset**	**63.48**	**72**			**P**	**18 57 47.4**	**+2.0**
BMRD	**Maredsous**	**63.54**	**41**	*dP*		**P**	**18 57 46.2**	**+1.0**
	comp=Z,6.2nm,1.0s							
RCHB	**Rochefort**	**63.81**	**41**	*dP*		**P**	**18 57 47.6**	**+0.7**
	comp=Z,4.2nm,0.7s							
WLF	**Walferdange**	**64.34**	**42**	*dP*		**P**	**18 57 51.4**	**+1.1**
	comp=Z,5.4nm,0.8s							
WLF				*d*PcP		**PcP**	**18 58 23.9**	**+0.4**
KEST	**Kesra**	**66.01**	**57**	P		**P**	**18 58 02.0**	**+0.4**
	comp=Z,13nm,1.0s,baz=280,slow=8.9,SNR=10							
	comp=Z,13nm,1.0s							
KEST	**Kesra**	**66.01**	**57**	IAmb		IAmb	18 58 04.0	
	comp=Z,9.0nm,0.8s							
DAVA	**Damuels**	**66.59**	**45**	*eP*		**P**	**18 58 06.5**	**+1.4**
	comp=Z,8.8nm,0.7s							
FETA	**Feichten**	**67.16**	**45**	*eP*		**P**	**18 58 09.9**	**+1.3**
	comp=Z,6.6nm,0.6s							
RETA	**Reutte**	**67.20**	**44**	*eP*		**P**	**18 58 09.9**	**+1.1**
	comp=Z,2.3nm,0.7s							
MOTA	**Moosalm**	**67.43**	**45**	*eP*		**P**	**18 58 11.1**	**+0.8**
	comp=Z,1.5nm,0.5s							
SQTA	**Sankt Quirin,**	**67.49**	**45**	*eP*		**P**	**18 58 11.7**	**+1.0**
	comp=Z,3.0nm,0.5s							
ABTA	**Abfaltersbach**	**68.37**	**45**	*iP*		**P**	**18 58 16.9**	**+0.7**
	comp=Z,3.6nm,0.8s							
NB2	**NORSAR Subarra**	**68.71**	**30**	P		**P**	**18 58 19.1**	**+1.2**
	comp=Z,3.3nm,0.8s,baz=263,slow=6.5							
NOA	**NORSAR Array B**	**68.71**	**30**	P		**P**	**18 58 18.5**	**+0.6**
	comp=Z,2.4nm,0.7s,baz=262,slow=6.3,SNR=8.2							
	comp=Z,2.4nm,0.7s							
KBA	**Konbreinsper**	**68.95**	**45**	*eP*		**P**	**18 58 20.4**	**+0.5**
	comp=Z,4.9nm,0.7s							
MYKA	**Terra Mystica**	**69.15**	**45**	*iP*		**P**	**18 58 21.7**	**+0.7**
	comp=Z,5.0nm,0.8s							
BIOA	**Bad Ischl, Aus**	**69.15**	**44**	*iP*		**P**	**18 58 22.5**	**+1.6**
	comp=Z,2.0nm,0.6s							
GERES	**GERESS Array B**	**69.21**	**43**	P		**P**	**18 58 21.8**	**+0.4**
	comp=Z,1.4nm,0.6s,baz=273,slow=5.8,SNR=14							
	comp=Z,1.4nm,0.6s							
GERES	**GERESS Array B**	**69.21**	**43**	P		**P**	**18 58 21.4**	**0.0**
MOA	**Molln**	**69.58**	**44**	*eP*		**P**	**18 58 24.1**	**+0.5**
	comp=Z,1.4nm,0.5s							
OBKA	**Obir**	**69.77**	**46**	*eP*		**P**	**18 58 25.6**	**+0.7**
	comp=Z,4.7nm,0.7s							
SESA	**Seetaler Alpe,**	**69.78**	**45**	*iP*		**P**	**18 58 25.0**	**0.0**
	comp=Z,3.5nm,0.7s							
HFS	**Hagfors**	**69.82**	**31**	P		**P**	**18 58 25.1**	**+0.4**
	comp=Z,1.8nm,0.7s,baz=266,slow=3.9,SNR=4.5							
	comp=Z,1.8nm,0.7s							
SOKA	**Soboth**	**70.11**	**45**	*eP*		**P**	**18 58 26.9**	**+0.1**
	comp=Z,3.2nm,1.1s							
SPITS	**Spitsbergen Ar**	**73.02**	**12**	P		**P**	**18 58 45.5**	**+1.9**
	comp=Z,2.8nm,0.7s,baz=318,slow=1.9,SNR=6.3							
	comp=Z,2.8nm,0.7s							
ILAR	**Eielson Array**	**74.66**	**334**	P		**P**	**18 58 53.6**	**+0.2**
	comp=Z,0.3nm,0.5s,baz=88,slow=4.6,SNR=6.5							
	comp=Z,0.3nm,0.5s							
ILAR	**Eielson Array**	**74.66**	**334**	P		**P**	**18 58 52.6**	**-0.7**
ARCES	**ARCESS Array B**	**75.10**	**21**	P		**P**	**18 58 55.2**	**-0.7**
	comp=Z,4.3nm,0.9s,baz=343,slow=6.3,SNR=4.1							
	comp=Z,4.3nm,0.9s							
ARCES	**ARCESS Array B**	**75.10**	**21**	P		**P**	**18 58 55.6**	**-0.3**
ARCES				IAmb		IAmb	18 59 10.8	
	comp=Z,8.7nm,1.2s							
FINES	**FINESS Array B**	**75.89**	**30**	P		**P**	**18 59 01.2**	**+0.8**
	comp=Z,4.3nm,0.9s,baz=281,slow=5.7,SNR=7.5							
	comp=Z,4.3nm,0.9s							
FINES	**FINESS Array B**	**75.89**	**30**	P		**P**	**18 59 01.1**	**+0.7**
BUR08	**Bucovina Ar. S**	**76.95**	**44**	IAmb		IAmb	18 59 09.6	
	comp=Z,8.6nm,0.9s							
BURAR	**Bucovina Array**	**76.96**	**44**	P		**P**	**18 59 08.6**	**+1.7**
BURAR				IAmb		IAmb	18 59 09.9	
	comp=Z,6.8nm,0.9s							
AKASG	**Malin Array Be**	**79.08**	**40**	P		**P**	**18 59 17.7**	**-0.6**
	comp=Z,0.8nm,0.5s,baz=260,slow=5.5,SNR=2.9							
	comp=Z,0.8nm,0.5s							
BR131	**Keskin Array S**	**84.50**	**51**	IAmb		IAmb	18 59 49.0	
	comp=Z,5.2nm,1.1s							
BRTR	**Keskin Array B**	**84.50**	**51**	P		**P**	**18 59 47.5**	**+0.4**
	comp=Z,2.4nm,0.8s,baz=256,slow=4.7,SNR=10							
	comp=Z,2.4nm,0.8s							
BRTR	**Keskin Array B**	**84.50**	**51**	P		**P**	**18 59 47.4**	**+0.2**
MMAI	**Mount Meron Ar**	**87.66**	**57**	P		**P**	**19 00 02.8**	**+0.2**
	comp=Z,3.4nm,0.7s,baz=282,slow=6.8,SNR=1.7							
	comp=Z,3.4nm,0.7s							
HHC	**Hu-ho-hao-te**	**124.15**	**6**	*eP*		**PKiKP**	**19 06 12.8**	**+0.7**
LZH	**Lanzhou**	**127.42**	**15**	*eP*		**PKiKP**	**19 06 22.0**	**+3.2**
LZH				sP		sPKPdf	19 07 19.8	+2.8
LZH				pmax		pmax		
	comp=Z,18nm,1.3s							
NJ2	**Nanjing**	**133.30**	**360**	*eP*		**PKiKP**	**19 06 30.2**	**-0.3**
NJ2				pmax		pmax		
	comp=Z,7.0nm,0.5s							
ASAR	**Alice Springs**	**163.05**	**237**	PKPab		**PKPab**	**19 08 04.8**	**-1.7**
	comp=Z,0.3nm,0.6s,baz=103,slow=3.7,SNR=1.7							
WRA	**Warramunga Arr**	**164.07**	**249**	PKP		**PKPdf**	**19 07 16.5**	**-0.3**
	comp=Z,0.1nm,0.6s,baz=162,slow=3.6,SNR=2.8							
WRA				PKPab		**PKPab**	**19 08 10.2**	**-0.8**
	comp=Z,1.1nm,0.8s,baz=100,slow=4.2,SNR=7.3							

*IDC **04** 18:54:53.2±2.4,28°.49N×92°.67E,h0km,mb3.5/3, mbtmp3.5/4,ML3.4/1,Error ellipse: s-maj=164.5km s-min=27.2km az=62.0*

ISC 04 18:54:53.9±1.4,28°.39N±0°.09×92°.6E±0°.1,h10km,n11, σ2ˢ92/10,Eastern Xizang-India border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
ZIRO	**ZIRO**	**1.37**	**128**	*i* P		**Pn**	**18 55 14.8**	**-4.4**
ZIRO				*i* S		Sg	18 55 51.2	+13
ZIRO				IAML			18 55 56.6	
	comp=N,2μm,0.5s							
ITAN	**ITANAGAR**	**1.56**	**142**	*i* P		**Pn**	**18 55 18.1**	**-3.6**
MOKO	**MOKOCHONG**	**2.65**	**141**	*i* P		Pn	18 55 31.7	-5.1
MOKO				*i* S		**Sg**	**18 56 20.6**	**+1.6**
MOKO				IAML			18 56 32.8	
	comp=N,172nm,0.5s							
SHL	**Shillong**	**2.89**	**194**	*i* P		Pn	18 55 29.1	-11
SHL				*i* P		Pn	18 55 29.3	-11
SHL				*i* S		**Sn**	**18 56 15.7**	**+0.6**
SHL				IAML			18 56 20.4	
	comp=N,85nm,0.5s							
KOHI	**KOHIMA**	**2.96**	**153**	*i* P		**Pn**	**18 55 37.4**	**-3.7**
KOHI				*i* S		**Sg**	**18 56 28.1**	**-0.9**
IMP	**Imphal**	**3.73**	**161**	*i* P		Pn	18 55 45.4	-6.3
AZL	**Aizawl**	**4.63**	**179**	*i* P		Pn	18 55 54.0	-10
CMAR	**Chiang Mai Arr**	**11.45**	**148**	Pn		**Pn**	**18 57 39.9**	**+2.4**
	comp=N,0.1nm,0.3s,baz=326,slow=13,SNR=2.6							
	comp=N,0.3nm,0.6s							
CMAR				AML		AML		
MKAR	**Makanchi Array**	**20.09**	**339**	P		**P**	**18 59 27.2**	**-0.3**
	comp=N,0.2nm,0.4s,baz=147,slow=13,SNR=5.1							
	comp=N,0.2nm,0.4s							
WRA	**Warramunga Arr**	**62.71**	**135**	P		**P**	**19 05 20.4**	**+1.2**
	comp=N,0.8nm,0.6s,baz=325,slow=7.0,SNR=8.6							
	comp=N,0.8nm,0.6s							
ASAR	**Alice Springs**	**65.26**	**138**	P		**P**	**19 05 37.5**	**+1.5**

RUSC	**La Rusia**	**0.98**	**177**	P	**Pn**	**19 11 02.6**	**+0.3**
RUSC				S	**Sn**	**19 11 20.8**	**-1.3**
RUSC	**La Rusia**	**0.98**	**177**	P	**Pn**	**19 11 02.4**	**+0.1**
RUSC				S	**Sn**	**19 11 21.1**	**-1.0**
RUSC	**La Rusia**	**0.98**	**177**	*eP*	**Pn**	**19 11 02.6**	**+0.3**
RUSC				*eS*	**Sn**	**19 11 20.0**	**-2.1**
CAPV	**Capacho**	**1.28**	**40**	*eP*	**Pn**	**19 11 06.6**	**+2.0**
CAPV				*eS*	**Sn**	**19 11 26.2**	**0.0**
PTBC	**PUERTO BERRIO,**	**1.36**	**256**	P	**Pn**	**19 11 04.9**	**-0.2**
PTBC				S	**Sn**	**19 11 26.3**	**-0.8**
OCAC	**Ocana**	**1.37**	**352**	P	**Pn**	**19 11 06.7**	**+1.3**
OCAC				S	**Sn**	**19 11 28.6**	**+0.9**
SPBC	**San Pablo de B**	**1.53**	**218**	P	**Pn**	**19 11 07.6**	**+0.6**
SPBC				S	**Sn**	**19 11 29.4**	**-1.1**
CHIC	**Chingaza**	**2.31**	**195**	P	**Pn**	**19 11 16.4**	**+0.4**
CHIC				S	**Sn**	**19 11 46.2**	**-0.4**
HELC	**Santa Helena**	**2.48**	**254**	P	**Pn**	**19 11 18.9**	**+0.9**
HELC				S	**Sn**	**19 11 47.5**	**-2.5**
HELC	**Santa Helena**	**2.48**	**254**	P	**Pn**	**19 11 19.8**	**+1.8**
HELC				S	**Sn**	**19 11 50.3**	**+0.3**
HELC	**Santa Helena**	**2.48**	**254**	*eP*	**Pn**	**19 11 19.4**	**+1.5**
HELC				*eS*	**Sn**	**19 11 46.7**	**-3.3**
UREC	**San Jos de Ur**	**2.53**	**290**	P	**Pn**	**19 11 19.0**	**+0.7**
UREC				S	**Sn**	**19 11 49.7**	**-1.0**
GUY2C	**Guyana, Caldas**	**2.76**	**234**	P	**Pn**	**19 11 22.8**	**+1.3**
GUY2C				S	**Sn**	**19 11 57.7**	**+1.3**
VILC	**Villavicencio,**	**2.80**	**192**	P	**Pn**	**19 11 21.7**	**-0.1**
VILC				S	**Sn**	**19 11 56.2**	**-0.7**
CBOC	**Ciudad Bolivar**	**3.03**	**251**	P	**Pn**	**19 11 26.7**	**+2.1**
PRAC	**Prado**	**3.59**	**209**	P	**Pn**	**19 11 31.9**	**+0.2**
PRAC				S	**Sn**	**19 12 14.8**	**+0.2**
PRAC	**Prado**	**3.59**	**209**	P	**Pn**	**19 11 32.1**	**+0.4**
PRAC				S	**Sn**	**19 12 14.3**	**-0.4**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**19 11 32.6**	**+0.6**
ORTC				S	**Sn**	**19 12 15.9**	**+0.6**
SJCC	**San Jacinto, C**	**3.62**	**326**	*eP*	**Pn**	**19 11 32.7**	**+0.7**
SJCC				*eS*	**Sn**	**19 12 11.5**	**-3.8**
URMC	**La Uribe, Meta**	**3.81**	**199**	P	**Pn**	**19 11 35.4**	**+0.9**
URMC				S	**Sn**	**19 12 19.5**	**-0.3**
URI	**Uribia**	**4.92**	**13**	P	**Pn**	**19 11 48.8**	**-0.2**
URI				S	**Sn**	**19 12 44.7**	**-1.0**

*IDC **04** 19:14:14.0±1.0,32°.29S×179°.07W,h0km,mb4.0/5, mbtmp4.1/6,ML4.3/1,MS2.5/1,Error ellipse: s-maj=32.8km s-min=28.8km az=114.0*

*WEL **04** 19:14:25.9±0.7,33°S±5°×17°.9W±1°.4,h33km,mB5.6/12, ML4.8/17,MLv5.0/12,Mw(mB)5.0/12,Error ellipse: s-maj=18.8km s-min=3.9km az=109.0*

ISC 04 19:14:23.2±0.9,32°.99S±0°.07×178°.6W±0°.1,h35km,n52, σ3§05/57,mb4.0/5,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**3.76**	**9**	P	**Pn**	**19 15 19.1**	**+0.3**
GLKZ				S	**Sn**	**19 16 01.9**	**+0.1**
GLKZ				AML	AML		
GLKZ				AML	AML		
MXZ	**Matakaoa Point**	**5.22**	**208**	P	**Pn**	**19 15 41.3**	**+2.6**
MXZ				S	**Sn**	**19 16 37.7**	**+0.1**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.40**	**206**	P	**Pn**	**19 15 45.6**	**+4.4**
WMGZ				S	**Sn**	**19 16 44.0**	**+1.9**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.57**	**208**	P	**Pn**	**19 15 46.7**	**+3.1**
PKGZ				S	**Sn**	**19 16 48.1**	**+1.8**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.60**	**211**	P	**Pn**	**19 15 47.3**	**+3.4**
HAZ				S	**Sn**	**19 16 47.8**	**+0.8**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**5.68**	**206**	P	**Pn**	**19 15 47.8**	**+2.7**
PUZ				S	**Sn**	**19 16 48.6**	**-0.5**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.82**	**210**	P	**Pn**	**19 15 49.6**	**+2.5**
RUGZ				S	**Sn**	**19 16 52.2**	**-0.5**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.88**	**207**	P	**Pn**	**19 15 49.6**	**+1.8**
TWGZ				S	**Sn**	**19 16 55.4**	**+1.4**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.06**	**204**	P	**Pn**	**19 15 53.6**	**+3.2**
CNGZ				S	**Sn**	**19 17 01.7**	**+3.2**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**6.16**	**207**	P	**Pn**	**19 15 56.1**	**+4.5**
TKGZ				S	**Sn**	**19 17 01.1**	**+0.3**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**6.19**	**210**	P	**Pn**	**19 15 53.9**	**+1.7**
MWZ				S	**Sn**	**19 17 02.1**	**+0.3**
MWZ				AML	AML		
MWZ				AML	AML		
MARZ	**Manawahe**	**6.30**	**216**	P	**Pn**	**19 15 57.6**	**+3.9**
MARZ				AML	AML		
MARZ				AML	AML		
URZ	**Urewera**	**6.31**	**212**	Pn	**Pn**	**19 15 55.4**	**+1.7**
	6.1nm,0.3s,baz=255,slow=3.7,SNR=4.8						
URZ				Sn	**Sn**	**19 17 01.4**	**-3.2**
	10nm,0.3s,baz=253,slow=23,SNR=9.8 46nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**6.31**	**212**	P	**Pn**	**19 15 55.2**	**+1.5**
URZ				S	**Sn**	**19 17 01.6**	**-3.0**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**6.38**	**209**	P	**Pn**	**19 15 56.8**	**+2.1**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**6.42**	**206**	P	**Pn**	**19 15 59.1**	**+3.8**
RIGZ				S	**Sn**	**19 17 08.6**	**+1.2**
RIGZ				AML	AML		
RIGZ				AML	AML		
WCZ	**Waipu Caves**	**6.53**	**241**	P	**Pn**	**19 15 59.0**	**+2.2**
WCZ				AML	AML		
MKAZ	**Moumakai**	**6.56**	**230**	P	**Pn**	**19 16 00.8**	**+3.6**
MKAZ				AML	AML		
MUGZ	**Murupara**	**6.64**	**213**	P	**Pn**	**19 15 59.3**	**+1.0**
MUGZ				S	**Sn**	**19 17 09.1**	**-3.7**
MUGZ				AML	AML		
MUGZ				AML	AML		
KNZ	**Kokohu**	**6.73**	**206**	P	**Pn**	**19 16 03.1**	**+3.6**
KNZ				S	**Sn**	**19 17 12.9**	**-2.0**
KNZ				AML	AML		
TOZ	**Tahuroa Road**	**6.75**	**224**	P	**Pn**	**19 16 04.6**	**+4.8**
TOZ				AML	AML		
OUZ	**Omahuta**	**6.85**	**249**	P	**Pn**	**19 16 02.8**	**+1.6**
OUZ				AML	AML		
TLZ	**Tolley Road**	**7.15**	**220**	P	**Pn**	19 16 10.5	+5.2
BKZ	**Black Stump Fm**	**7.33**	**211**	P	**Pn**	**19 16 08.4**	**+0.6**
BKZ				S	**Sn**	**19 17 25.5**	**-4.3**
HIZ	**Hauiti**	**7.66**	**222**	P	**Pn**	**19 16 17.0**	**+4.8**
PWZ	**Pawanui**	**7.92**	**206**	P	**Pn**	**19 16 16.2**	**+0.4**
PWZ				S	**Sn**	**19 17 36.6**	**-7.5**
VRZ	**Vera Road**	**8.15**	**219**	P	**Pn**	**19 16 22.8**	**+3.9**
TSZ	**Takapari Road**	**8.30**	**210**	P	**Pn**	**19 16 21.8**	**+0.8**
WAZ	**Wanganui**	**8.50**	**216**	P	**Pn**	**19 16 25.8**	**+1.9**
BFZ	**Birch Farm**	**8.71**	**207**	P	**Pn**	**19 16 26.4**	**-0.4**
BFZ				S	**Sn**	**19 17 57.3**	**-6.4**
MRZ	**Mangatainoka R**	**8.96**	**210**	P	**Pn**	**19 16 29.5**	**-0.6**
MRZ				S	**Sn**	**19 18 02.6**	**-7.3**
RPZ	**Rata Peaks**	**13.43**	**214**	LR	LR	19 22 55.4	
	comp=Z,18nm,18.5s,baz=196,slow=38						
ASAR	**Alice Springs**	**42.53**	**270**	P	P	19 22 09.8	-5.8
	1.0nm,0.6s,baz=108,slow=7.5,SNR=15 1.0nm,0.6s						
WRA	**Warramunga Arr**	**43.76**	**275**	P	P	19 22 16.2	-9.3
	1.0nm,0.5s,baz=114,slow=8.1,SNR=18 1.0nm,0.5s						
FITZ	**Fitzroy Crossi**	**51.90**	**272**	P	P	19 23 20.9	-7.7
	2.2nm,1.0s,baz=113,slow=15,SNR=1.1 2.2nm,1.0s						
QSPA	**South Pole Qui**	**57.12**	**180**	P	**P**	**19 24 06.9**	**+0.9**
	0.9nm,0.5s,baz=285,slow=2.1,SNR=6.1 0.9nm,0.5s						

H03S2	**Juan Fernandez**	**79.46**	**123**	T	T	20 55 08.5		
	baz=233							
H03S1	**Juan Fernandez**	**79.47**	**123**	T	T	20 55 09.7		
	baz=233							
H03S3	**Juan Fernandez**	**79.48**	**123**	T	T	20 55 09.1		
	baz=233							
PETK	**Petropavlovsk-**	**88.19**	**346**	P	P	19 27 04.2	-5.8
	1.8nm,0.7s,baz=179,slow=7.9,SNR=1.4 1.8nm,0.7s							
MKAR	**Makanchi Array**	**119.03**	**309**	PKP	PKPdf	19 33 01.9	-6.0
	0.3nm,0.6s,baz=113,slow=3.7,SNR=3.3							
ZALV	**Zalesovo Beam**	**119.61**	**318**	PKP	PKPdf	19 33 02.4	-6.3
	0.4nm,0.3s,baz=123,slow=5.3,SNR=1.8							
KURBB	**Kurchatov Arra**	**122.49**	**313**	PKP	PKPdf	19 33 08.2	-6.1
	0.8nm,0.5s,baz=115,slow=2.1,SNR=7.3							
BVAR	**Borovoye Array**	**127.88**	**314**	PKP	**PKPdf**	**19 33 19.6**	**-5.0**
	0.8nm,0.4s,baz=117,slow=2.6,SNR=7.2							
H10N3	**ASCENSION HYDR**	**136.66**	**157**	T	T	22 07 31.6		
	baz=205							
H10N1	**ASCENSION HYDR**	**136.66**	**157**	T	T	22 07 23.8		
	baz=205							
H10N2	**ASCENSION HYDR**	**136.68**	**157**	T	T	22 07 26.2		
	baz=205							
FINES	**FINESS Array B**	**147.38**	**338**	PKPbc	**PKPdf**	**19 33 57.1**	**-2.9**
	5.7nm,0.8s,baz=50,slow=3.0,SNR=24							
NB2	**NORSAR Subarra**	**151.22**	**350**	PKP	**PKPdf**	**19 34 07.8**	**+1.6**
	comp=Z,0.7nm,0.5s,baz=19,slow=2.6							
NOA	**NORSAR Array B**	**151.22**	**350**	PKPbc	**PKPdf**	**19 34 07.0**	**+0.8**
	comp=Z,1.6nm,0.8s,baz=14,slow=4.1,SNR=4.5							
AKASG	**Malin Array Be**	**152.99**	**319**	PKPbc	**PKPdf**	**19 34 10.2**	**+1.1**
	comp=Z,1.5nm,0.8s,baz=62,slow=2.4,SNR=4.3							
BRTR	**Keskin Array B**	**153.28**	**294**	PKPbc	**PKPdf**	**19 34 11.7**	**+1.6**
	comp=Z,0.5nm,0.5s,baz=90,slow=2.9,SNR=2.6							

*TEH **04** 19:20:36.0,27°.78N×53°.26E,h10km±65km,ML2.9, Presumed earthquake*

*IDC **04** 19:20:36.1±1.9,27°.88N×53°.38E,h0km,mb3.6/12, mbtmp3.7/13,ML2.9/1,MS3.6/1,Error ellipse: s-maj=45.6km s-min=21.3km az=25.0*

ISC 04 19:20:37.2±1.1,27°.78N±0°.05×53°.34E±0°.09,h9km±8km, n22,σ1§28/22,mb3.5/11,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHL1	**Khalili_Fars**	**0.14**	**193**	Pg	**Pg**	**19 20 39.8**	**-0.6**
KHL1				Sg	**Sg**	**19 20 43.1**	**+0.4**
LMD1	**Lamerd**	**0.46**	**199**	Pg	**Pg**	**19 20 46.0**	**-0.3**
JHRM	**Jahrom**	**0.75**	**16**	Pg	**Pg**	**19 20 51.0**	**-0.8**
DSBU	**Dashti - Bushe**	**1.93**	**288**	Pn	**Pn**	**19 21 10.8**	**+0.6**
SHI	**Shiraz**	**1.99**	**339**	Pn	**Pn**	**19 21 12.3**	**+1.1**
KAZ2	**Kazeron-Fars-I**	**2.35**	**322**	Pn	**Pn**	**19 21 17.3**	**+1.3**
KLNJ	**Kolanjah**	**3.56**	**333**	Pn	**Pn**	**19 21 34.3**	**+1.3**
IMEH	**Mehriz**	**3.77**	**17**	Pn	**Pn**	**19 21 37.6**	**+1.9**
KBZ	**Khabsz**	**18.00**	**335**	P	**Pn**	**19 24 48.6**	**+0.9**
	baz=165,slow=12,SNR=1.8 1.3nm,1.0s							
BRTR	**Keskin Array B**	**20.20**	**311**	P	**P**	**19 25 14.2**	**+1.7**
	0.5nm,0.5s,baz=125,slow=15,SNR=3.7 0.5nm,0.5s							
BVAR	**Borovoye Array**	**28.22**	**22**	P	**P**	**19 26 30.5**	**+0.2**
	0.6nm,0.5s,baz=189,slow=8.2,SNR=5.0 0.6nm,0.5s							
AKASG	**Malin Array Be**	**29.30**	**328**	P	**P**	**19 26 37.9**	**-2.0**
	0.2nm,0.3s,baz=135,slow=7.9,SNR=1.6 0.2nm,0.3s							
MKAR	**Makanchi Array**	**29.59**	**42**	P	**P**	**19 26 41.1**	**-1.5**
	0.2nm,0.4s,baz=240,slow=11,SNR=4.9 0.2nm,0.4s							
KURBB	**Kurchatov Arra**	**29.76**	**33**	P	**P**	**19 26 44.3**	**+0.3**
	0.2nm,0.4s,baz=234,slow=8.8,SNR=2.5 0.2nm,0.4s							
FINES	**FINESS Array B**	**38.27**	**339**	P	**P**	**19 27 56.8**	**-0.8**
	3.6nm,0.9s,baz=141,slow=12,SNR=6.5 3.6nm,0.9s							
HFS	**Hagfors**	**42.02**	**332**	P	**P**	**19 28 28.0**	**-0.7**
	1.3nm,0.6s,baz=140,slow=7.6,SNR=6.2 1.3nm,0.6s							
CMAR	**Chiang Mai Arr**	**42.76**	**92**	P	**P**	**19 28 35.6**	**+0.4**
	0.5nm,0.8s,baz=283,slow=9.5,SNR=2.1 0.5nm,0.8s							
NOA	**NORSAR Array B**	**43.54**	**332**	P	**P**	**19 28 38.9**	**-2.2**
	0.5nm,0.7s,baz=106,slow=9.9,SNR=1.5 0.5nm,0.7s							
ARCES	**ARCESS Array B**	**44.80**	**347**	P	**P**	**19 28 50.2**	**-0.8**
	3.6nm,0.9s,baz=148,slow=7.7,SNR=1.9 3.6nm,0.9s							
EKA	**Eskdalemuir Ar**	**48.70**	**321**	P	**P**	**19 29 23.4**	**+1.7**
	0.2nm,0.4s,baz=108,slow=8.6,SNR=5.0 0.2nm,0.4s							
YAK	**Yakutsk**	**59.50**	**32**	LR	LR	19 58 35.8		
	comp=Z,45nm,19.5s,baz=316,slow=38							
WRA	**Warramunga Arr**	**91.54**	**112**	P	**P**	**19 33 44.7**	**-0.1**
	0.2nm,0.7s,baz=310,slow=4.2,SNR=1.3 0.2nm,0.7s							

IDC 04 19:49:23.1±3.3,30°.32S×137°.08E,h0km,mbtmp2.7/3, ML2.6/3,Error ellipse: s-maj=60.8km s-min=11.2km az=44.0,South Australia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**4.17**	**113**	Pn	Pn	19 50 27.9	-0.1
	0.2nm,0.3s,baz=285,slow=12,SNR=5.7						
STKA				Sn	Sn	19 51 15.1	-2.4
	0.5nm,0.3s,baz=288,slow=13,SNR=6.8						
STKA				Lg	Lg	19 51 34.2	
	0.4nm,0.3s,baz=297,slow=11,SNR=4.7 2.2nm,1.1s						
STKA				AML	AML		
ASAR	**Alice Springs**	**7.21**	**336**	Pn	Pn	19 51 08.6	-1.1
	0.1nm,0.3s,baz=157,slow=12,SNR=5.3						
ASAR				Sn	Sn	19 52 27.8	-4.6
	0.1nm,0.3s,baz=159,slow=21,SNR=4.8 0.3nm,0.8s						
ASAR				AML	AML		
WRA	**Warramunga Arr**	**10.62**	**346**	Pn	Pn	19 51 52.1	-4.6
	0.1nm,0.3s,baz=166,slow=14,SNR=8.2						
WRA				Sn	Sn	19 53 49.0	-7.4
	baz=170,slow=23,SNR=1.6 0.3nm,1.0s						
WRA				AML	AML		

*CATAC **04** 19:54:55.3±0.4,10°.N±2°×8°.7W±°,h13km±3km,M4.0/37, MLv4.0/37,Error ellipse: s-maj=5.4km s-min=2.8km az=39.1,confirmed*

*IDC **04** 19:54:57.0±1.0,10°.98N×86°.53W,h0km,mb3.5/5, mbtmp3.7/7,ML3.8/2,Error ellipse: s-maj=52.7km s-min=14.6km az=38.0*

*UCR **04** 19:54:57.9±0.6,10°.62N×86°.58W,h13km±7km,MW4.2, Presumed earthquake*

*NEIC **04** 19:54:58.3±1.5,10°.75N±0°.04×86°.54W±0°.07,h10km±1km, mb4.5/10,Error ellipse: s-maj=12.2km s-min=6.0km az=245.0*

ISC 04 19:54:56.3±1.5,10°.56N±0°.04×86°.64W±0°.05,h7km±9km, n110,σ1§08/134,mb4.4/11,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALIBA	**Liberia Airpor**	**1.07**	**88**	*eP*	**Pn**	**19 55 17.7**	**0.0**
SACU	**Santa Cruz**	**1.07**	**106**	*eP*	**Pn**	**19 55 17.1**	**-0.6**
SACU				*eS*	**Sb**	**19 55 30.7**	**-0.7**
LCRUZ	**La Cruz**	**1.11**	**62**	*eP*	**Pb**	**19 55 17.5**	**-0.4**
LAPC	**Finca la Perla**	**1.20**	**80**	*eP*	**Pg**	**19 55 18.8**	**-0.6**
NICO	**Nicoya**	**1.24**	**110**	*eP*	**Pb**	**19 55 19.4**	**-0.7**
CARN	**Rivas**	**1.26**	**60**	P	**Pn**	**19 55 19.9**	**-0.4**
CARN				S	**Sn**	**19 55 38.9**	**+1.3**
CARN	**Rivas**	**1.26**	**60**		**Pb**	**19 55 19.8**	**-0.6**
CARN	**Rivas**	**1.26**	**60**	*eP*	**Pb**	**19 55 19.1**	**-1.3**
GPS3	**Bodega del ICE**	**1.26**	**81**	*eP*	**Pg**	**19 55 21.9**	**+1.3**
VRLE	**La Escondida,**	**1.27**	**79**	*eP*	**Pb**	**19 55 19.9**	**-0.7**
VORI	**VORI**	**1.29**	**78**	*eP*	**Pb**	**19 55 20.4**	**-0.7**
CMARA	**Lajas Hojancha**	**1.31**	**114**	P	**Pn**	**19 55 20.5**	**-0.6**
CMARA				S	**Sb**	**19 55 36.8**	**-1.5**
CMARA	**Lajas Hojancha**	**1.31**	**114**	*eP*	**Pn**	**19 55 20.4**	**-0.6**
INDI	**Punta indio, G**	**1.31**	**121**	P	**Pn**	**19 55 20.6**	**-0.4**
INDI				S	**Sb**	**19 55 36.7**	**-1.5**
BUAI	**Buenos Aires**	**1.32**	**76**	*eP*	**Pg**	**19 55 21.0**	**-0.6**
NADN	**Granada**	**1.32**	**26**	P	**Pn**	**19 55 20.6**	**-0.7**
NADN				S	**Sn**	**19 55 40.9**	**+1.7**
NADN	**Granada**	**1.32**	**26**	*eP*	**Pn**	**19 55 20.4**	**-0.8**
JAPN	**Al SSO del Vol**	**1.34**	**44**	P	**Pb**	**19 55 21.6**	**-0.3**
JAPN	**Al SSO del Vol**	**1.34**	**44**	*eP*	**Pn**	**19 55 21.1**	**-0.4**

MORN	**Al O del Volca**	**1.38**	**44**	P	**Pn**	**19 55 21.4**	**-0.6**
COLC	**Colonia**	**1.41**	**85**	*eP*	**Pb**	**19 55 22.3**	**-0.7**
MESS	**Mesas**	**1.43**	**83**	*eP*	**Pn**	**19 55 22.5**	**-0.2**
CLARA	**Aguas Claras**	**1.45**	**81**	*eP*	**Pn**	**19 55 22.4**	**-0.6**
MASN	**Masaya**	**1.50**	**18**	P	**Pn**	**19 55 23.3**	**-0.4**
VMAR	**Armenia, Volca**	**1.52**	**80**	*eP*	**Pb**	**19 55 24.2**	**-0.6**
MAS3	**Al N del Volca**	**1.53**	**17**	P	**Pn**	**19 55 23.3**	**-0.8**
ABCN	**Banco Central**	**1.59**	**12**	P	**Pn**	**19 55 24.8**	**0.0**
ABCN				S	**Sg**	**19 55 47.7**	**+0.3**
TIMP	**Tierras Morena**	**1.59**	**89**	*eP*	**Pn**	**19 55 24.9**	**-0.1**
COPN	**Copaltepe**	**1.61**	**1**	P	**Pn**	**19 55 24.7**	**-0.6**
COPN	**Copaltepe**	**1.61**	**1**	*eP*	**Pn**	**19 55 24.6**	**-0.6**
TISN	**Laguna Tiscapa**	**1.62**	**13**	P	**Pn**	**19 55 24.1**	**-1.2**
MGAN	**Managua**	**1.62**	**13**	P	**Pg**	**19 55 27.3**	**-0.2**
MGAN				S	**Sg**	**19 55 50.8**	**+2.2**
MGAN	**Managua**	**1.62**	**13**		**Pn**	**19 55 23.5**	**-1.9**
UPAL	**Upala**	**1.63**	**78**	P	**Pb**	**19 55 25.8**	**-0.9**
UPAL	**Upala**	**1.63**	**78**	*eP*	**Pb**	**19 55 25.7**	**-0.9**
WILN	**Americas 2**	**1.65**	**15**	P	**Pb**	**19 55 27.1**	**0.0**
APQ2	**Apoyeque**	**1.66**	**11**	P	**Pn**	**19 55 25.3**	**-0.5**
APQ2	**Apoyeque**	**1.66**	**11**	P	**Pn**	**19 55 25.6**	**-0.2**
APQ2				S	**Sg**	**19 55 51.6**	**+2.0**
JTS	**Las Juntas de**	**1.68**	**99**	Pn	**Pn**	**19 55 25.9**	**-0.2**
	9.2nm,0.3s,baz=315,slow=12,SNR=7.2						
JTS				Sn	**Sg**	**19 55 50.5**	**+0.3**
	23nm,0.3s,baz=342,slow=13,SNR=7.4						
JTS	**Las Juntas de**	**1.68**	**99**	P	**Pn**	**19 55 25.9**	**-0.2**
JTS	**Las Juntas de**	**1.68**	**99**	*eP*	**Pn**	**19 55 25.9**	**-0.2**
AMTN	**Matearе**	**1.68**	**7**	P	**Pn**	**19 55 25.8**	**-0.4**
APYN	**Apoyeque**	**1.69**	**9**	P	**Pb**	**19 55 28.3**	**+0.6**
APYN				S	**Sg**	**19 55 50.3**	**-0.3**
QUEB	**Quebradon, Cot**	**1.71**	**88**	*eP*	**Pb**	**19 55 27.1**	**-1.0**
MTEVE	**Monteverde**	**1.79**	**97**	*eP*	**Pn**	**19 55 28.2**	**+0.3**
LEVN	**Ruinas Leon Vi**	**1.83**	**1**	P	**Pn**	**19 55 28.1**	**-0.2**
TABAC	**Tabacon**	**1.84**	**92**	*eP*	**Pg**	**19 55 32.9**	**+1.4**
MOMN	**Momotombo**	**1.84**	**3**	P	**Pn**	**19 55 27.4**	**-1.0**
MOMN				S	**Sb**	**19 55 53.5**	**-0.1**
MOM2	**El Cardon**	**1.88**	**4**	P	**Pn**	**19 55 28.0**	**-0.8**
VARE2	**V. Arenal**	**1.89**	**93**	*eP*	**Pb**	**19 55 30.0**	**-1.1**
CEDE	**Laguna Cedeo**	**1.90**	**92**	*eP*	**Pn**	**19 55 29.5**	**+0.3**
LCHIL	**Los Chiles**	**1.94**	**76**	*eP*	**Pb**	**19 55 31.8**	**-0.3**
MOM3	**MOM3**	**1.95**	**3**	P	**Pn**	**19 55 29.1**	**-0.7**
MOM3				S	**Sn**	**19 55 54.0**	**-0.5**
ACON	**Acoyapa**	**2.00**	**45**	P	**Pn**	**19 55 29.9**	**-0.7**
ARZA	**Esparza**	**2.02**	**106**	*eP*	**Pg**	**19 55 35.1**	**+0.1**
PLRN	**Geotermica Pol**	**2.02**	**356**	P	**Pn**	**19 55 30.2**	**-0.6**
QUEN	**Al S del Volca**	**2.03**	**354**	P	**Pn**	**19 55 30.7**	**-0.3**
QUEN				S	**Sn**	**19 55 56.4**	**-0.4**
BOAB	**BOACO BROADBAN**	**2.11**	**27**	P	**Pn**	**19 55 31.2**	**-0.8**
BOAB	**BOACO BROADBAN**	**2.11**	**27**		**Pn**	**19 55 31.0**	**-1.0**
PKGN	**Cerro Pekin**	**2.13**	**351**	P	**Pn**	**19 55 32.8**	**+0.5**
PKGN				S	**Sn**	**19 55 58.5**	**-0.5**
CRIN	**San Cristobal**	**2.17**	**349**	P	**Pn**	**19 55 32.6**	**-0.4**
CRIN				S	**Sn**	**19 56 00.7**	**+0.5**
CRIN	**San Cristobal**	**2.17**	**349**		**Pn**	**19 55 31.9**	**-1.0**
VPL2	**V. Platanar**	**2.23**	**96**	*eP*	**Pg**	**19 55 37.6**	**-1.5**
LIMN	**Finca el Limon**	**2.50**	**6**	P	**Pn**	**19 55 36.8**	**-0.8**
LIMN				S	**Sb**	**19 56 12.7**	**-0.1**
HDC	**Heredia**	**2.54**	**102**		**Pn**	**19 55 37.9**	**-0.2**
CSGN	**Cosiguina Volc**	**2.57**	**339**	P	**Pn**	**19 55 39.0**	**+0.6**
CSGN				S	**Sn**	**19 56 10.6**	**+0.6**
PICV	**PH. Pirrs**	**2.57**	**111**	*eP*	**Pn**	**19 55 39.9**	**+1.4**
LCR2	**La Lucha 2**	**2.71**	**107**		**Pn**	**19 55 42.5**	**+1.9**
LCR2	**La Lucha 2**	**2.71**	**107**	*eP*	**Pb**	**19 55 42.6**	**-2.7**
VICA	**Volcano Irazu**	**2.80**	**101**	*eP*	**Pb**	**19 55 45.0**	**-2.0**
RAFA	**San Farael, Vo**	**2.84**	**102**	Pn	**Pn**	**19 55 43.2**	**+0.8**
TRT2	**Tortugero**	**2.85**	**90**	P	**Pn**	**19 55 41.7**	**-0.5**
TRT2				S	**Sn**	**19 56 17.8**	**+0.9**
TRT2	**Tortugero**	**2.85**	**90**	*eP*	**Pn**	**19 55 44.0**	**+1.7**
CNCH	**Conchagua**	**2.95**	**337**	P	**Pn**	**19 55 43.7**	**+0.1**
CNCH				S	**Sn**	**19 56 18.3**	**-1.1**
RCPN	**Sur Rio San Ju**	**3.00**	**10**	P	**Pn**	**19 55 44.5**	**+0.2**
LCND	**La Caada**	**3.00**	**336**	P	**Pn**	**19 55 44.4**	**+0.1**
BUS1	**Rivas**	**3.01**	**109**	*eP*	**Pn**	**19 55 46.2**	**+1.4**
EGUB	**Earth Gu;pi**	**3.02**	**96**	Pn	**Pb**	**19 55 47.2**	**-3.2**
LCOCO	**El Coco**	**3.06**	**99**	*eP*	**Pn**	**19 55 46.3**	**+1.1**
RANC	**El Ranchito**	**3.29**	**331**	P	**Pn**	**19 55 48.5**	**+0.2**
RANC				S	**Sn**	**19 56 28.0**	**+0.2**
PACA	**P

TKB				S		Sb	19 57 18.2	+0.2
ALIG	**Mtskhetisjvari**	**0.38**	**151**	PG		Pg	19 57 12.3	+0.1
DIGR	**Digorskoe uzhe**	**0.48**	**15**	*i* Pg		Pg	19 57 13.4	-0.9
DIGR				*e*Sg		Sg	19 57 20.6	-0.1
DIGR	**Digorskoe uzhe**	**0.48**	**15**	*i* PG		Pg	19 57 13.4	-0.9
DIGR				*e*S		Sg	19 57 20.6	-0.1
LACR	**Lac**	**0.77**	**59**	*e*Pg		Pg	19 57 18.4	-1.2
LACR				*e*Sg		Sg	19 57 28.4	-1.2
LACR	**Lac**	**0.77**	**59**	*e*PG		Pg	19 57 18.5	-1.1
LACR				*e*S		Sg	19 57 28.6	-1.0
GUDG	**Gudauri**	**0.79**	**87**	P		Pg	19 57 19.1	-1.1
GUDG				S		Sg	19 57 29.7	-0.8
GUDG	**Gudauri**	**0.79**	**87**	PG		Pg	19 57 19.1	-1.1
GUDG				S		Sg	19 57 29.7	-0.8
KORR	**Kora**	**0.81**	**37**	*e*Pg		Pb	19 57 19.9	-1.4
KORR				*e*Sg		Sg	19 57 31.8	+0.7
KORR	**Kora**	**0.81**	**37**	*e*PG		Pb	19 57 20.1	-1.1
KORR				*e*S		Sg	19 57 32.0	+0.9
LSNR	**Lesken**	**0.90**	**20**	*e*Pg		Pb	19 57 21.6	-1.1
LSNR				*e*Sg		Sg	19 57 34.7	+0.8
LSNR	**Lesken**	**0.90**	**20**	*e*PG		Pb	19 57 21.6	-1.1
LSNR				*e*S		Sg	19 57 34.7	+0.8
NEUR	**Neytrino**	**0.98**	**328**	*e*Pg		Pb	19 57 23.1	-1.1
NEUR				*e*Sg		Sb	19 57 36.3	-0.9
NEUR	**Neytrino**	**0.98**	**328**	*e*PG		Pg	19 57 24.0	+0.3
NEUR				*e*S		Sb	19 57 36.4	-0.8
ARNR	**Ardon**	**0.99**	**41**	*e*PG		Pb	19 57 23.7	-0.5
ARNR				*e*S		Sn	19 57 38.4	-0.6
AKH	**Akhalkalaki**	**1.02**	**176**	P		Pb	19 57 24.7	-0.2
AKH				S		Sn	19 57 40.0	-0.2
AKH	**Akhalkalaki**	**1.02**	**176**	PG		Pb	19 57 24.7	-0.2
AKH				S		Sn	19 57 40.0	-0.2
TRLG	**Trialeti**	**1.03**	**150**	P		Pb	19 57 24.5	-0.5
TRLG				S		Sg	19 57 39.2	+1.1
TRLG	**Trialeti**	**1.03**	**150**	*e*Pg		Pb	19 57 24.5	-0.5
TRLG				*e*Sg		Sg	19 57 39.3	+1.1
STDR	**Stavd-Durt**	**1.05**	**27**	*e*Pg		Pn	19 57 25.2	-0.6
STDR				*e*Sg		Sn	19 57 40.9	+0.3
STDR	**Stavd-Durt**	**1.05**	**27**	*e*PG		Pg	19 57 25.6	+0.5
STDR				*e*S		Sn	19 57 41.4	+0.8
EPOS	**Posof**	**1.06**	**209**	P		Pg	19 57 26.0	+0.8
EPOS				S		Sn	19 57 40.2	-0.8
NCK	**Nalchik**	**1.07**	**7**	*e*Pg		Pn	19 57 25.4	-0.7
NCK				*e*Sg		Sn	19 57 40.8	-0.3
NCK	**Nalchik**	**1.07**	**7**	*e*PG		Pn	19 57 25.4	-0.7
NCK				*e*S		Sn	19 57 40.8	-0.3
VLKR	**Vladikavkaz**	**1.12**	**56**	*e*Pg		Pn	19 57 26.6	-0.2
VLKR				*e*Sg		Sg	19 57 42.2	+1.3
VLKR	**Vladikavkaz**	**1.12**	**56**	*e*PG		Pg	19 57 26.9	+0.6
VLKR				*e*S		Sg	19 57 42.2	+1.3
CHRG	**Chargali**	**1.13**	**95**	P		Pb	19 57 25.4	-1.2
CHRG				S		Sb	19 57 40.8	-0.7
BGD	**Bogdanovka**	**1.18**	**173**	P		Pn	19 57 27.4	-0.3
BGD				S		Sg	19 57 44.3	+1.6
BGD	**Bogdanovka**	**1.18**	**173**	*e*Pg		Pn	19 57 27.4	-0.3
BGD				*e*Sg		Sg	19 57 44.3	+1.6
BGD	**Bogdanovka**	**1.18**	**173**	*e*PG		Pn	19 57 27.4	-0.3
BGD				*e*S		Sg	19 57 44.3	+1.6
TBLG	**Delisi**	**1.22**	**125**	P		Pn	19 57 27.0	-1.1
TBLG				S		Sb	19 57 43.5	-0.4
TBLG	**Delisi**	**1.22**	**125**	PG		Pn	19 57 27.0	-1.1
TBLG				S		Sb	19 57 43.5	-0.4
TBLG	**Delisi**	**1.22**	**125**	Pn		Pn	19 57 27.0	-1.1
TBLG				Sn		Sn	19 57 44.3	-0.4
TBLG				AML		AML		
SEAG	**Tbilisi Sea**	**1.24**	**122**	P		Pn	19 57 27.8	-0.6
SEAG				S		Sn	19 57 44.8	-0.4
SEAG	**Tbilisi Sea**	**1.24**	**122**	PG		Pn	19 57 27.8	-0.6
SEAG				S		Sn	19 57 44.8	-0.4
KMGR	**Komgaron**	**1.24**	**59**	*e*Pg		Pg	19 57 28.9	+0.2
KMGR				*e*Sg		Sg	19 57 49.2	+4.3
KMGR	**Komgaron**	**1.24**	**59**	*e*PG		Pg	19 57 28.9	+0.2
KMGR				*e*S		Sg	19 57 49.2	+4.3
BTKR	**Batakoyurt**	**1.25**	**41**	*e*Pg		Pg	19 57 29.2	+0.2
BTKR				*e*Sg		Sg	19 57 46.5	+1.2
BTKR	**Batakoyurt**	**1.25**	**41**	*e*PG		Pg	19 57 30.0	+1.1
BTKR				*e*S		Sg	19 57 47.0	+1.8
BTNK	**Botanikuri**	**1.28**	**125**	PG		Pn	19 57 28.1	-0.9
BTNK				S		Sn	19 57 46.2	-0.1
KZRT	**Kazreti**	**1.28**	**144**	P		Pn	19 57 22.2	-6.8
KZRT				S		Sb	19 57 39.9	-5.9
KZRT	**Kazreti**	**1.28**	**144**	PG		Pn	19 57 22.2	-6.8
SHTL	**Shatili**	**1.31**	**80**	P		Pn	19 57 28.8	-0.7
SHTL				S		Sb	19 57 46.3	-0.4
SHTL	**Shatili**	**1.31**	**80**	PG		Pn	19 57 28.8	-0.7
SHTL				S		Sb	19 57 46.3	-0.4
KBZ	**Khabaz**	**1.35**	**344**	*e*Pg		Pb	19 57 29.7	-0.6
KBZ				*e*Sg		Sb	19 57 47.4	-0.2
KBZ	**Khabaz**	**1.35**	**344**	*e*PG		Pb	19 57 29.7	-0.6
KBZ				*e*S		Sb	19 57 47.4	-0.2
KBTC	**Kuba-Taba**	**1.38**	**0**	*e*Pg		Pb	19 57 30.8	-0.1
KBTC				*e*Sg		Sg	19 57 49.6	+0.2
KBTC	**Kuba-Taba**	**1.38**	**0**	*e*PG		Pb	19 57 31.0	+0.1
KBTC				*e*S		Sg	19 57 49.5	+0.2
AHAN	**Ardahan-Merkez**	**1.40**	**205**	P		Pn	19 57 24.8	-5.9
AHAN				S		Sn	19 57 44.1	-5.3
SHA1	**Shidzhatmaz**	**1.42**	**337**	*e*Pg		Pb	19 57 31.4	-0.1
SHA1				*e*Sg		Sg	19 57 50.3	-0.1
SHA1	**Shidzhatmaz**	**1.42**	**337**	*e*PG		Pg	19 57 31.8	-0.2
SHA1				*e*S		Sg	19 57 50.7	+0.3
PRTR	**Priterechnaya**	**1.47**	**26**	*e*Pg		Pg	19 57 32.7	-0.3
PRTR				*e*Sg		Sg	19 57 53.6	+1.7
PRTR	**Priterechnaya**	**1.47**	**26**	*e*PG		Pg	19 57 32.8	+0.1
PRTR				*e*S		Sg	19 57 54.2	+2.2
BATM	**Batumi**	**1.52**	**238**	P		Pb	19 57 32.8	-0.5
BATM				S		Sg	19 57 55.0	+1.3
BATM	**Batumi**	**1.52**	**238**	PG		Pb	19 57 32.8	-0.5
BATM				S		Sg	19 57 55.0	+1.3
BATM	**Batumi**	**1.52**	**238**	Pn		Pb	19 57 33.3	0.0
BATM				Sn		Sg	19 57 55.3	+1.5
BATM				AML		AML		
DOMR	**Dombai**	**1.57**	**304**	*e*Pg		Pg	19 57 35.2	+0.3
DOMR				*e*Sg		Sg	19 57 55.0	-0.2
DOMR	**Dombai**	**1.57**	**304**	*e*PG		Pg	19 57 35.2	+0.3
DOMR				*e*S		Sg	19 57 55.0	-0.2
KIV0	**Kislovodsk Arr**	**1.61**	**341**	*e*Pg		Pb	19 57 34.7	-0.1
KIV0				*e*Sg		Sg	19 57 56.3	-0.2
KIV	**Kislovodsk**	**1.61**	**341**	*e*Pg		Pb	19 57 34.8	0.0
KIV				*e*Sg		Sg	19 57 56.6	0.0
KIV	**Kislovodsk**	**1.61**	**341**	*e*PG		Pb	19 57 34.8	0.0
KIV				*e*S		Sg	19 57 56.6	0.0
TRKR	**Terskaya**	**1.61**	**37**	*e*Pg		Pg	19 57 35.5	-0.3
TRKR				*e*Sg		Sg	19 57 58.1	+1.4
TRKR	**Terskaya**	**1.61**	**37**	*e*PN		Pg	19 57 35.5	-0.3
TRKR				*e*S		Sg	19 57 58.1	+1.4
BEYR	**Belyy Ugol+**	**1.64**	**345**	*e*PN		Pb	19 57 34.8	-0.4
BEYR				*e*S		Sg	19 57 56.5	-0.9
PYA1	**Pyatigorsk**	**1.64**	**352**	*e*Pg		Pb	19 57 34.7	-0.7
PYA1				*e*Sg		Sg	19 57 56.8	-0.9
PYA1	**Pyatigorsk**	**1.64**	**352**	*e*PN		Pb	19 57 35.0	-0.4
PYA1				*e*S		Sg	19 57 56.8	-0.9
DBOC	**Borcka**	**1.69**	**231**	P		Pb	19 57 35.8	-0.4
DBOC				S		Sb	19 57 57.8	+0.2
DBOC				IAML			19 58 00.0	
	comp=E,564nm,0.3s							
GOLE	**Ardahan-G¶le**	**1.71**	**201**	P		Pb	19 57 36.8	+0.2
GOLE				S		Sg	19 58 01.4	+1.7
EAK	**Akyaka**	**1.75**	**175**	P		Pb	19 57 37.3	0.0
EAK				IAML			19 58 20.0	
	comp=E,214nm,0.7s							
DAGI	**Agillar**	**1.76**	**220**	P		Pb	19 57 37.3	0.0
DAGI				S		Sg	19 58 01.1	-0.2
DAGI				IAML			19 58 03.0	
	comp=N,294nm,0.8s							
DAGI				IAML			19 58 05.0	
	comp=E,291nm,0.8s							
KARS	**Kars**	**1.82**	**188**	PN		Pb	19 57 38.5	+0.1
KARS	**Kars**	**1.82**	**188**	Pn		Pb	19 57 38.9	+0.5
KARS				Sn		Sg	19 58 04.1	+0.7
KARS				AML		AML		
BOZK	**Kars-Merkez-Bo**	**1.87**	**190**	P		Pb	19 57 39.5	+0.2
DBAD	**Bademkaya**	**1.91**	**223**	P		Pb	19 57 39.9	0.0
DBAD				S		Sg	19 58 05.9	-0.3
DBAD				IAML			19 58 10.0	
	comp=N,717nm,0.5s							
DBAD				IAML			19 58 15.0	
	comp=E,469nm,0.7s							
GROC	**Groznyy**	**1.92**	**66**	*e*Pg		Pg	19 57 43.0	+1.4
GROC				*e*Sg		Sg	19 58 09.0	+2.5
GROC	**Groznyy**	**1.92**	**66**	*e*PN		Pg	19 57 43.0	+1.4
GROC				*e*S		Sg	19 58 09.0	+2.5
DDEM	**Demirkent**	**1.98**	**219**	P		Pb	19 57 41.2	+0.2
DDEM				S		Sg	19 58 07.6	-0.8
DDEM				IAML			19 58 12.0	
	comp=E,812nm,0.4s							
DDEM				IAML			19 58 13.0	
	comp=N,819nm,0.5s							
DIGO	**Kars**	**2.02**	**181**	P		Pb	19 57 41.9	+0.1
SENK	**Senkaya-Erzuru**	**2.03**	**203**	Pn		Pb	19 57 41.5	-0.6
SENK				Sn		Sg	19 58 09.2	-0.9
SENK				AML		AML		
DVE	**Vedeno**	**2.07**	**74**	*e*Pg		Pb	19 57 41.5	-1.2
DVE				*e*Sg		Sg	19 58 11.4	0.0
DVE	**Vedeno**	**2.07**	**74**	*e*PN		Pb	19 57 42.9	+0.2
DVE				*e*S		Sg	19 58 11.4	0.0
BTLR	**Botlikh**	**2.09**	**83**	*e*Pg		Pb	19 57 43.6	+0.6
BTLR				*e*Sg		Sg	19 58 11.6	-0.5
BTLR	**Botlikh**	**2.09**	**83**	*e*PN		Pb	19 57 43.8	+0.8
BTLR				*e*S		Sg	19 58 11.8	-0.3
EOLT	**Oltu**	**2.17**	**210**	P		Pb	19 57 45.0	+0.6
EOLT				IAML			19 58 21.0	
	comp=N,164nm,1.1s							
EOLT				IAML			19 58 23.0	
	comp=E,152nm,1.1s							
LGD	**Lagodekhi**	**2.19**	**105**	P		Pb	19 57 43.4	-1.3
LGD				S		Sb	19 58 12.8	+0.8
LGD	**Lagodekhi**	**2.19**	**105**	PN		Pb	19 57 43.4	-1.3
LGD				S		Sb	19 58 12.8	+0.8
TLTR	**Tlyarata**	**2.21**	**98**	*e*Pn		Pb	19 57 43.4	-1.7
TLTR				*e*Sn		Sb	19 58 12.9	+0.2
TLTR	**Tlyarata**	**2.21**	**98**	*e*PN		Pb	19 57 44.5	-0.6
TLTR				*e*S		Sb	19 58 13.4	+0.7
TLTR				pmax		pmax		
	comp=Z,18nm,0.5s							
DDFL	**Dedoflistskaro**	**2.25**	**115**	P		Pb	19 57 45.9	+0.2
DDFL				S		Sg	19 58 18.5	+1.3
DDFL	**Dedoflistskaro**	**2.25**	**115**	PN		Pb	19 57 45.9	+0.2
DDFL				S		Sg	19 58 18.5	+1.3
GRYR	**Gornoye**	**2.38**	**316**	*e*Pn		Pb	19 57 46.6	-1.4
GRYR				*e*Sn		Sb	19 58 18.0	+0.5
GRYR	**Gornoye**	**2.38**	**316**	*e*PN		Pb	19 57 47.2	-0.8
GRYR				*e*S		Sb	19 58 18.0	+0.5
CHOM	**Cayeli-Rize**	**2.39**	**237**	Pn		Pn	19 57 45.2	+1.0
CHOM				Sn		Sb	19 58 16.6	-1.0
CHOM				AML		AML		
XNZR	**Khunzakh**	**2.44**	**86**	*e*Pn		Pb	19 57 49.8	+0.8
XNZR				*e*Sn		Sg	19 58 22.6	-0.7
HNZR	**Khunzah**	**2.45**	**86**	*e*PN		Pb	19 57 49.8	+0.6
HNZR				*e*S		Sg	19 58 22.6	-1.0
DLMR	**Dylym**	**2.46**	**74**	*e*Pn		Pb	19 57 50.0	+0.8
DLMR				*e*Sn		Sb	19 58 19.4	-0.3
DLMR	**Dylym**	**2.46**	**74**	PN		Pb	19 57 50.4	+1.2
DLMR				S		Sg	19 58 23.4	-0.4
GNI	**Garni**	**2.49**	**156**	*e*PN		Pb	19 57 50.8	+0.9
GNI				*e*S		Sg	19 58 24.0	-1.0
GNI	**Garni**	**2.49**	**156**	Pn		Pn	19 57 47.0	+1.2
GNI				Sn		Sb	19 58 18.7	-2.1
GNI				AML		AML		
UNCR	**Uncukul**	**2.52**	**82**	*e*Pn		Pb	19 57 51.3	+1.0
UNCR				*e*Sn		Sg	19 58 24.9	-0.8
UNCR	**Uncukul**	**2.52**	**82**	*e*PN		Pb	19 57 51.3	+1.0
UNCR				*e*S		Sg	19 58 24.9	-0.8
TASB	**TASBURUN-IGDIR**	**2.53**	**165**	Pn		Pn	19 57 47.8	+1.6
TASB				AML		AML		
VSHL	**Vashlovani**	**2.54**	**117**	P		Pn	19 57 48.4	+2.1
DBC	**Dubki**	**2.59**	**76**	*e*Pn		Pb	19 57 50.9	-0.6
DBC				*e*Sn		Sb	19 58 24.9	+1.4
DBC	**Dubki**	**2.59**	**76**	*e*PN		Pb	19 57 52.5	+1.0
DBC				*e*S		Sg	19 58 27.4	-0.6
DBC				pmax		pmax		
	comp=Z,17nm,0.8s							
IGDI	**IGDIR**	**2.61**	**169**	P		Pb	19 57 51.3	-0.6
KRNR	**Karanay**	**2.61**	**80**	*e*Pn		Pb	19 57 52.4	+0.4
KRNR				*e*Sn		Sg	19 58 27.0	-1.8
KRNR	**Karanay**	**2.61**	**80**	*e*PN		Pb	19 57 52.3	+0.4
KRNR				*e*S		Sg	19 58 26.9	-1.8
KRNR				pmax		pmax		
	comp=Z,11nm,0.4s							
RPOR	**Krasnaya Polya**	**2.63**	**300**	*i* *e*PN		Pb	19 57 51.3	-0.8
KOTA	**Agri, Merkez-K**	**2.63**	**183**	P		Pb	19 57 50.6	-1.7
GNBR	**Gunib**	**2.63**	**90**	*e*Pn		Pb	19 57 52.9	+0.6
GNBR				*e*Sn		Sb	19 58 26.8	+2.0
GNBR	**Gunib**	**2.63**	**90**	*e*PN		Pb	19 57 52.9	+0.6
GNBR				*e*S		Sb	19 58 26.8	+2.0
GOF	**Gofitskoye**	**2.64**	**354**	*e*Pn		Pb	19 57 53.5	+1.3
GOF				*e*Sn		Sb	19 58 22.8	-1.9
ARKR	**Arakani**	**2.66**	**85**	*e*Pn		Pb	19 57 52.7	0.0
ARKR				*e*Sn		Sb	19 58 27.8	+2.4
ARKR	**Arakani**	**2.66**	**85**	*e*PN		Pb	19 57 52.7	0.0
ARKR				*e*S		Sb	19 58 27.8	+2.4
EAYA	**Eleskirt**	**2.66**	**195**	P		Pg	19 57 55.3	-0.6
VSLR	**Vesyoloye**	**2.68**	**294**	*e*Pn		Pb	19 57 49.9	+1.7
VSLR				*e*Sn		Sb	19 58 23.4	-2.6
VSLR	**Vesyoloye**	**2.68**	**294**	*e*PN		Pn	19 57 49.9	+1.7
VSLR				*e*S		Sb	19 58 23.4	-2.6
IZDR	**Rize**	**2.69**	**233**	P		Pn	19 57 49.6	+1.2
IZDR				S		Sn	19 58 20.9	-0.3
KOPR	**Koprukoy-ERZUR**	**2.71**	**206**	Pn		Pb	19 57 51.0	-2.6
KOPR				AML		AML		
KMKR	**Kumukh**	**2.76**	**95**	*e*PN		Pb	19 57 53.6	-0.8
KMKR				*e*S		Sb	19 58 28.9	+0.5
AKDA	**Akdag**	**2.79**	**214**	P		Pb	19 57 56.1	+1.1
AKDA				IAML			19 58 44.0	
	comp=Z,168nm,1.3s							
AKDA				IAML			19 58 48.0	
	comp=Z,197nm,0.6s							
KRIK	**Erzurum-spir**	**2.81**	**223**	P		Pb	19 57 55.1	-0.2
KRIK				S		Sb	19 58 31.9	+2.0
GANJ	**Ganja**	**2.83**	**128**	PN		Pb	19 57 52.9	-2.6
GUZR	**Guzeripl'**	**2.87**	**304**	*e*Pn		Pb	19 57 53.0	-3.2
GUZR				*e*Sn		Sb	19 58 30.2	-1.2
GUZR	**Guzeripl'**	**2.87**	**304**	*e*PN		Pb	19 57 53.0	-3.2
GUZR				*e*S		Sb	19 58 30.2	-1.2
AGRB	**Hanur-Agry**	**2.87**	**186**	Pn		Pn	19 57 53.3	+2.3
AGRB				AML		AML		
SOC	**Sochi**	**2.94**	**294**	*e*Pn		Pb	19 57 56.6	-0.8
SOC				*e*Sn		Sb	19 58 30.7	-2.8
SOC	**Sochi**	**2.94**	**294**	*e*PN		Pn	19 57 53.0	+1.2
SOC				*e*			19 58 00.6	
SOC				*e*PPP		PPP	19 58 06.0	
SOC				*e*			19 58 28.4	
SOC				MLR		MLR		
	comp=Z,71nm,11.0s							
LABN	**Labinsk**	**2.94**	**319**	*e*PN		Pg	19 57 59.7	-1.6
LABN				*e*S		Sb	19 58 34.2	+0.6
LABN				pmax		pmax		
	comp=Z,43nm,0.8s							
MAK	**Makhachkala**	**3.07**	**79**	*i* *e*PN		Pb	19 57 56.5	-3.1
MAK				*e*S		Sb	19 58 35.5	-1.6
MAK				pmax		pmax		
	comp=Z,72nm,0.3s							
MAK				smax		smax		
	comp=N,130nm,0.4s							
MAK				smax		smax		
	comp=N,137nm,0.6s							
MAK				MLR		MLR		
	comp=Z,192nm,2.0s							
KTUT	**Trabzon**	**3.08**	**243**	Pn		Pn	19 57 55.4	+1.7
KTUT				AML		AML		
SEKA	**Sheki**	**3.09**	**112**	PN		Pn	19 57 56.4	+2.6
BAYT	**Aydıntepe-Bayb**	**3.19**	**231**	Pn		Pn	19 57 57.4	+2.0
BAYT				AML		AML		
AKT	**Akhty**	**3.36**	**105**	*e*Pn		Pn	19 57 60.0	+2.3
AKT				*e*Sn		Sb	19 58 41.5	-4.3
AKT	**Akhty**	**3.36**	**105**	PN		Pn	19 58 00.5	+2.8
AKT				S		Sb	19 58 41.4	-4.3
ERBR	**Yeremizino-Bor**	**3.90**	**328**	*e*PN		Pn	19 58 08.5	+3.6
ERBR				*e*S		Sn	19 58 52.8	+2.0
ERBR				pmax		pmax		
	comp=Z,39nm,0.9s							

*JMA **04** 20:04:59.0±0.8, 44˚N±3˚×14˚9E±˚, h30km, MV3.5/12, SE OFF ETOROFU*
*SKHL **04** 20:04:59.0±0.9, 44˚.50N×149˚.50E, h52km±6km, mb4.2/3*
ISC 04 20:04:60.0±0.4, **44˚.5N**±0˚.1×**149˚.4E**±0˚.3, **h36**km, **n10, σ0§85/13, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**1.29**	**305**	*e*P	**Pn**	**20 05 21.2**	**-0.2**
KUR				AMB	AMB	20 05 22.0	
	130nm,0.4s						
KUR				*e*S	**Sn**	**20 05 37.1**	**-0.2**
KUR				A	A	20 05 38.0	
	280nm,0.3s						
KUR				A	A	20 05 38.0	
	200nm,0.3s						
SHO	**Shikotan**	**1.92**	**252**	*e*P	Pn	20 05 48.0	+18
SHO				AMB	AMB	20 05 52.3	
	30nm,0.2s						
SHO				*e*S	Sn	20 06 10.6	+18
SHO				A	A	20 06 16.0	
	110nm,0.3s						
SHO				A	A	20 06 16.0	
	130nm,0.3s						
YUK	**Yuzh-Kuril'sk**	**2.55**	**261**	*e*P	**Pn**	**20 05 39.0**	**+0.3**
YUK				AMB	AMB	20 05 40.9	
	100nm,0.8s						
YUK				*e*S	**Sn**	**20 06 09.3**	**+0.8**
YUK				A	A	20 06 14.0	
	210nm,0.7s						
YUK				A	A	20 06 14.0	
	210nm,0.7s						
NEM2	**Nemuro 2**	**2.85**	**248**	P	**Pn**	**20 05 41.9**	**-0.9**
NEM2				*e*S	**Sn**	**20 06 14.8**	**-0.9**
NMR	**Nemuro--Hokkai**	**2.85**	**248**	*e*P	**Pn**	**20 05 42.0**	**-0.9**
NMR				*e*S	**Sn**	**20 06 14.8**	**-1.2**
JRA	**Rausu**	**3.10**	**261**	P	**Pn**	**20 05 46.3**	**+0.1**
JNK	**Nakash**	**3.47**	**256**	*e*S	**Sn**	**20 06 31.4**	**+0.3**
AKK	**Akkeshi**	**3.59**	**247**	*e*P	**Pn**	**20 05 54.3**	**+1.3**
JAR	**Ashorobuto**	**4.21**	**255**	P	**Pn**	**20 06 02.2**	**+0.7**
JCH	**Churui**	**4.75**	**249**	P	**Pn**	**20 06 09.6**	**+0.7**

*MEX **04** 20:25:52.3±0.5, 14˚.63N×92˚.20W, h80km±10km, MD4.1, Presumed earthquake*
*GCG **04** 20:25:53.5±0.7, 14˚.56N×92˚.16W, h51km±10km, MD4.2, ML4.2, Presumed earthquake*
ISC 04 20:25:48.9±1.5, **14˚.42N**±0˚.07×**92˚.25W**±0˚.05, **h78**km±10km, **n22, σ1§73/36, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**0.49**	**358**	*i* P	**Pn**	**20 26 02.7**	**+0.2**
THIG		**0.49**	**358**	*e*P	**Pn**	**20 26 02.9**	**+0.5**
THIG				*e*S	**Sn**	**20 26 12.3**	**-0.1**
RTAL	**Retalhuleu**	**0.55**	**78**	*e*P	**Pn**	**20 26 04.7**	**+1.8**
RTAL				*e*S	**Sn**	**20 26 14.8**	**+1.5**
CHUJ	**Union Juarez**	**0.69**	**11**	*e*P	**Pn**	**20 26 04.7**	**0.0**
CHUJ				*e*S	**Sn**	**20 26 14.7**	**-1.6**
PATR	**El Naranjo**	**0.70**	**1**	*e*P	**Pn**	**20 26 04.6**	**-0.1**
PATR				*e*S	**Sn**	**20 26 14.5**	**-1.9**
PAVE	**Pavencul**	**0.78**	**5**	*e*P	**Pn**	**20 26 05.8**	**+0.2**
PAVE				*e*S	**Sn**	**20 26 16.4**	**-1.5**
QUEO	**Labor Ovalle**	**0.84**	**57**	*i* P	**Pn**	**20 26 08.4**	**+2.1**
QUEO				IAML		20 26 22.2	
	comp=N,9µm,0.2s						
STG8	**El Palmar, Qui**	**0.87**	**88**	*i* P	**Pn**	**20 26 06.4**	**-0.2**
STG8				*i* S	**Sn**	**20 26 17.4**	**-2.3**
STG8				IAML		20 26 18.7	
	comp=N,11µm,0.2s						
HUEH	**Huehuetenango**	**1.15**	**39**	*e*P	**Pn**	**20 26 07.7**	**-2.3**
HUEH				*e*S	**Sn**	**20 26 28.8**	**+3.1**
PCIG		**1.59**	**324**	*e*P	**Pn**	**20 26 16.1**	**+0.8**
PCIG				*e*S	**Sn**	**20 26 34.0**	**-1.4**
FG8	**Yepocapa, Chim**	**1.64**	**95**	*i* P	**Pn**	**20 26 14.4**	**-1.7**
FG16	**Alotenango, Sa**	**1.69**	**95**	*i* P	**Pn**	**20 26 15.5**	**-1.3**
APG	**El Apazote**	**1.82**	**71**	*i* P	**Pn**	**20 26 21.9**	**+3.3**
PCG5	**San Vicente Pa**	**1.82**	**96**	*i* P	**Pn**	**20 26 18.5**	**-0.1**
CCIG	**Comitan**	**1.86**	**3**	*e*P	**Pn**	**20 26 18.3**	**-0.8**
CCIG				*e*S	**Sn**	**20 26 41.8**	**-0.2**
TGIG		**2.50**	**340**	*e*P	**Pn**	**20 26 28.1**	**+0.6**
TGIG				*e*S	**Sn**	**20 26 54.8**	**-2.2**
UXUV	**UXUV**	**3.42**	**328**	*e*P	**Pn**	**20 26 41.8**	**+1.9**
UXUV				*e*S	**Sn**	**20 27 21.2**	**+1.9**
CMIG	**Matias Romero**	**3.68**	**317**	*e*P	**Pn**	**20 26 46.4**	**+2.9**
CMIG				*e*S	**Sn**	**20 27 25.9**	**

BOZ				IAML		20 28 49.0		
	comp=N,22nm,4.7s							
HWUT	**Hardware Ranch**	**4.94**	**246**	IAML		20 29 33.2		
	comp=N,16nm,2.6s							
BSUT	**Blindstream Ca**	**5.04**	**232**	IAML		20 29 41.0		
	comp=N,14nm,3.7s							
BSUT				IAML		20 29 50.6		
	comp=E,18nm,3.4s							
I10CA	**LAC DU BONNET**	**9.16**	**42**	I	I	21 20 20.0		
	baz=221,slow=288,SNR=0.9							
ULM	**Lac du Bonnet**	**9.26**	**42**	Pn	**Pn**	**20 28 55.0**	**+1.7**	
	comp=E,0.3nm,0.3s,baz=224,slow=13,SNR=3.4							
ULM				Lg	Lg	20 31 33.8		
	comp=E,0.2nm,0.3s,baz=148,slow=19,SNR=3.1 comp=E,0.8nm,0.3s							
ULM				AML	AML			

DJA 04 20:39:33.9±0.5,10°S±3°×11°7E±°,h35km±8km,M4.3/18, mB5.6/1,mb4.4/5,MLv4.3/18,Mw(mB)5.1/1,Sumbawa region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TWSI	**Taliwang, Sumb**	**0.77**	**352**	P	Pn	20 39 48.2	-0.2
TWSI				S	Sn	20 39 59.8	+1.0
TWSI				AML	AML		
PLAI	**Plampang**	**1.03**	**49**	P	Pn	20 39 51.0	-0.9
PLAI				S	Sn	20 40 04.5	-0.6
DBNI	**Kabupaten Domp**	**1.65**	**53**	P	Pn	20 40 00.4	0.0
DBNI				S	Sn	20 40 21.6	+1.3
KHKI	**Kahang-Kahang**	**1.78**	**310**	P	Pn	20 40 03.9	+1.8
KHKI				S	Sn	20 40 25.3	+1.8
KHKI				AML	AML		
DNP	**Denpasar**	**1.94**	**295**	P	Pn	20 40 04.8	+0.4
DNP				S	Sn	20 40 28.5	+0.9
IGBI	**Denpasar**	**1.95**	**291**	P	Pn	20 40 03.5	-1.0
IGBI				S	Sn	20 40 26.2	-1.5
IGBI				AML	AML		
SRBI	**Singaraja**	**2.26**	**309**	S	Sn	20 40 36.9	+1.5
JAGI	**Jajag, Banyuwa**	**2.99**	**290**	P	Pn	20 40 17.9	-0.9
JAGI				AML	AML		
LBFI	**Labuhan Bajo,**	**3.04**	**71**	P	Pn	20 40 19.6	0.0
WSI	**Waingapu**	**3.27**	**93**	P	Pn	20 40 23.1	+0.5
WSI				S	Sn	20 41 01.7	+1.4
WSI				AML	AML		
BLJI	**Banyuglugur**	**3.79**	**297**	P	Pn	20 40 30.3	+0.5
BLJI				S	Sn	20 41 14.5	+1.3
BLJI				AML	AML		
EDFI	**Ende, Flores**	**4.70**	**81**	P	Pn	20 40 42.2	-0.3
EDFI				S	Sn	20 41 36.4	+0.5
EDFI				AML	AML		
BSSI	**Bau Bau, Buton**	**4.82**	**46**	P	Pn	20 40 44.6	+0.6
BSSI				S	Sn	20 41 39.4	+0.8
BSSI				AML	AML		
MMRI	**Maumere**	**5.25**	**81**	P	Pn	20 40 51.2	+1.2
MMRI				S	Sn	20 41 51.0	+0.7
MMRI				AML	AML		
PWJI	**Pagerwojo**	**5.33**	**286**	P	Pn	20 40 51.2	+0.1
	0.5nm33nm,0.5s						
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**5.45**	**288**	P	Pn	20 40 53.2	+0.4
	0.3nm36nm,1.6s						
SNJI				AML	AML		
SJI	**Sawahan**	**5.46**	**288**	P	Pn	20 40 53.3	+0.4
SJI				S	Sn	20 41 54.9	+0.4

*ISK **04** 21:03:29.4,37°.73N×26°.98E,h9km±1km,ML1.9/7*
AFAD 04 21:03:30.2,37°.77N×27°.05E,h7km±4km,ML1.4,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.16**	**115**	P	Pg	21 03 33.4	-0.2
GCAM	**G?zelcaml?**	**0.16**	**115**	Pg	Pg	21 03 34.1	+0.6
GCAM				Sg	Sg	21 03 37.5	+1.7
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.21**	**65**	Pg	Pg	21 03 35.4	+1.0
KUSD				AML	AML		
DGB	**zmir**	**0.31**	**335**	P	Pb	21 03 37.6	-0.5
DGB				S	Sg	21 03 40.9	+0.5
DGB				IAML		21 03 42.0	
	comp=E,39nm,0.2s						
GMLD	**Gumuldur**	**0.32**	**341**	Pg	Pg	21 03 36.9	+0.4
GMLD				Sg	Sb	21 03 42.6	-1.1
GMLD				AML	AML		
BEYE	**izmir**	**0.47**	**348**	P	Pg	21 03 39.9	+0.6
BEYE				S	Sg	21 03 46.1	+0.8
BEYE				IAML		21 03 51.0	
	comp=N,32nm,0.2s						
DUVT	**Torbali**	**0.55**	**35**	P	Pg	21 03 41.0	+0.2
DUVT				S	Sg	21 03 48.6	+0.6
ZEYE	**Izmir, Urla-Ze**	**0.64**	**318**	P	Pb	21 03 43.3	-0.3
ZEYE				S	Sg	21 03 51.3	+0.6
ZEYE				IAML		21 03 52.0	
	comp=N,48nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.64**	**318**	P	Pn	21 03 49.6	+3.9
ZEYE				S	Sb	21 03 52.0	-0.7
ZEYE				IAML		21 03 52.0	
	comp=N,48nm,0.2s						
AYDN	**Tasoluk**	**0.67**	**99**	P	Pg	21 03 43.0	-0.1
AYDB	**Zeytinkoy-Aydi**	**0.69**	**75**	Pg	Pb	21 03 44.4	-0.3
AYDB				AML	AML		
BODT	**Bodrum**	**0.74**	**163**	Pg	Pg	21 03 43.7	-0.7
BODT				AML	AML		
MLSB	**Milas**	**0.75**	**129**	Pg	Pg	21 03 44.6	0.0
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.77**	**156**	P	Pg	21 03 45.1	+0.1
BDRM				S	Sg	21 03 54.0	-1.1
BDRM				IAML		21 03 58.0	
	comp=N,22nm,0.3s						
IZMR	**zmir-demi**	**0.80**	**63**	P	Pb	21 03 46.2	-0.3
IZMR				S	Sg	21 03 54.6	-1.5
CAMT	**Merkez**	**1.00**	**12**	P	Pb	21 03 49.6	-0.2
NAZL	**Nazilli-Aydin**	**1.00**	**79**	Pg	Pn	21 03 50.4	-0.3
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.03**	**88**	P	Pb	21 03 50.5	+0.1

AFAD 04 21:04:03.0,37°.84N×27°.02E,h7km±1km,ML1.4,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.22**	**129**	P	Pg	21 04 07.7	+0.3
GCAM				S	Sg	21 04 11.6	+1.3
GCAM				IAML		21 04 13.0	
	comp=N,90nm,0.1s						
GCAM				IAML		21 04 13.0	
	comp=E,91nm,0.6s						
DGB	**zmir**	**0.24**	**333**	P	Pg	21 04 08.2	+0.5
DGB				S	Sg	21 04 11.2	+0.3
DGB				IAML		21 04 31.0	
	comp=E,56nm,0.2s						
BEYE	**izmir**	**0.39**	**349**	P	Pg	21 04 10.8	+0.1
BEYE				S	Sg	21 04 16.8	+1.0

*IDC **04** 21:14:56.0±1.1,48°.77N×158°.10E,h0km,mb3.6/7, mbtmp3.7/11,ML3.7/2,MS3.2/2,Error ellipse: s-maj=23.7km s-min=15.7km az=123.0*
*MOS **04** 21:15:00.1±1.0,48°.94N×157°.93E,h44km,mb4.1/1,Error ellipse: s-maj=16.9km s-min=5.1km az=88.2*
*SKHL **04** 21:15:01.8±0.3,49°.00N×158°.20E,h52km±7km,mb5.1/2*
*KRSC **04** 21:15:01.6±1.6,49°.23N×158°.24E,h40km±43km,Ml4.5*
ISC 04 21:15:02.4±0.9,49°.02N±0°.07×158°.01E±0°.07,h50km,n65, σ1§18/75,mb3.8/7,East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**2.06**	**324**	*e*P	**Pn**	**21 15 34.5**	**-0.1**
SKR				*e*S	**Sn**	**21 15 58.4**	**-0.6**
SKR				pmax	pmax		
	comp=Z,429nm,0.4s						
SKR				smax	smax		
	comp=E,2µm,0.6s						
SKR				smax	smax		
	comp=N,3µm,0.7s						
SKR	**Severo-Kuril's**	**2.06**	**324**	*e*P	**Pn**	**21 15 34.4**	**-0.1**
SKR				*e*S	**Sn**	**21 15 58.7**	**-0.4**
SKR	**Severo-Kuril's**	**2.06**	**324**	*e*P	**Pn**	**21 15 34.3**	**-0.2**
SKR				AMB	AMB	21 15 35.0	
	comp=N,460nm,0.4s						
SKR				*e*S	**Sn**	**21 15 58.5**	**-0.6**
SKR				A	A	21 16 00.0	
	comp=N,2µm,0.4s						
SKR				A	A	21 16 00.0	
	comp=N,2µm,0.4s						
PAU	**Pauzhetka**	**2.56**	**343**	PN	**Pn**	**21 15 41.8**	**+0.4**
PAU				S	**Sn**	**21 16 11.4**	**+0.1**
PAU	**Pauzhetka**	**2.56**	**343**	*e*P	**Pn**	**21 15 41.8**	**+0.4**
PAU				*e*S	**Sn**	**21 16 11.5**	**+0.1**
PAU	**Pauzhetka**	**2.56**	**343**	*e*P	**Pn**	**21 15 41.6**	**+0.2**
PAU				AMB	AMB	21 15 42.5	
	comp=N,100nm,0.2s						
PAU				*e*S	**Sn**	**21 16 11.4**	**+0.1**
PAU				A	A	21 16 12.7	
	comp=N,740nm,0.4s						
PAU				A	A	21 16 12.7	
	comp=N,450nm,0.4s						
KDTR	**Khodutka, Kamc**	**2.79**	**1**	PN	**Pn**	**21 15 43.6**	**-0.9**
KDTR				S	**Sn**	**21 16 14.8**	**-2.0**
KDTR	**Khodutka, Kamc**	**2.79**	**1**	*e*P	**Pn**	**21 15 43.6**	**-0.9**
KDTR				*e*S	**Sn**	**21 16 14.8**	**-2.0**
KDTR	**Khodutka, Kamc**	**2.79**	**1**	*e*P	**Pn**	**21 15 43.6**	**-0.9**
KDTR				*e*S	**Sn**	**21 16 14.8**	**-2.0**
ASAK	**Asacha**	**3.36**	**359**	PN	**Pn**	**21 15 53.5**	**+1.1**
ASAK	**Asacha**	**3.36**	**359**	*e*P	**Pn**	**21 15 53.6**	**+1.1**
RUS	**Russkaya**	**3.43**	**5**	PN	**Pn**	**21 15 52.2**	**-1.0**
RUS	**Russkaya**	**3.43**	**5**	*e*P	**Pn**	**21 15 52.2**	**-1.0**
RUS				*e*S	**Sn**	**21 16 29.7**	**-2.9**
RUS	**Russkaya**	**3.43**	**5**	*e*P	**Pn**	**21 15 52.2**	**-1.0**
MTVR	**Mutnovka**	**3.46**	**2**	PN	**Pn**	**21 15 54.0**	**+0.2**
MTVR	**Mutnovka**	**3.46**	**2**	*e*P	**Pn**	**21 15 54.1**	**+0.2**
MTVR				*e*S	**Sn**	**21 16 32.1**	**-1.6**
GRL	**Gorelyy**	**3.53**	**1**	PN	**Pn**	**21 15 55.5**	**+0.7**
GRL	**Gorelyy**	**3.53**	**1**	*e*P	**Pn**	**21 15 55.6**	**+0.7**
KRMR	**Karymshinskiy**	**3.81**	**1**	PN	**Pn**	**21 15 59.6**	**+1.1**
KRMR				S	**Sn**	**21 16 42.1**	**+0.2**
KRMR	**Karymshinskiy**	**3.81**	**1**	*e*P	**Pn**	**21 15 59.7**	**+1.1**
KRMR				*e*S	**Sn**	**21 16 42.2**	**+0.2**
KRMR	**Karymshinskiy**	**3.81**	**1**	*e*P	**Pn**	**21 15 59.6**	**+1.1**
APC	**Apacha**	**3.94**	**352**	PN	**Pn**	**21 16 01.0**	**+0.7**
APC	**Apacha**	**3.94**	**352**	*e*P	**Pn**	**21 16 01.1**	**+0.7**
PET	**Petropavlovsk**	**4.03**	**6**	PN	**Pn**	**21 16 01.0**	**-0.4**
PET	**Petropavlovsk**	**4.03**	**6**	*e*P	**Pn**	**21 16 01.0**	**-0.4**
PET				*e*S	**Sn**	**21 16 45.6**	**-1.6**
PET	**Petropavlovsk**	**4.03**	**6**	*e*P	**Pn**	**21 16 01.0**	**-0.4**
PET				AMB	AMB	21 16 05.2	
	comp=N,20nm,0.2s						
PET				*e*S	**Sn**	**21 16 45.8**	**-1.4**
PET				A	A	21 16 47.9	
	comp=N,60nm,0.2s						
PET				A	A	21 16 47.9	
	comp=N,50nm,0.2s						
DALK	**Dalny**	**4.04**	**6**	PN	**Pn**	**21 16 01.5**	**-0.1**
DALK	**Dalny**	**4.04**	**6**	*e*P	**Pn**	**21 16 01.6**	**-0.1**
DALK				*e*S	**Sn**	**21 16 46.2**	**-1.4**
DALK	**Dalny**	**4.04**	**6**	*e*P	**Pn**	**21 16 01.5**	**-0.1**
PETK	**Petropavlovsk-**	**4.09**	**357**	Pn	**Pn**	**21 16 02.5**	**+0.1**
	comp=N,1.6nm,0.3s,baz=191,slow=14,SNR=8.4						
PETK				Sn	**Sn**	**21 16 51.4**	**+2.4**
	comp=N,1.7nm,0.3s,baz=201,slow=13,SNR=4.1						
UGLR	**Uglovaya**	**4.22**	**7**	PN	**Pn**	**21 16 04.8**	**+0.6**
UGLR	**Uglovaya**	**4.22**	**7**	*e*P	**Pn**	**21 16 04.8**	**+0.6**
AVH	**Avacha**	**4.27**	**6**	PN	**Pn**	**21 16 06.9**	**+2.0**
AVH	**Avacha**	**4.27**	**6**	*e*P	**Pn**	**21 16 06.9**	**+2.0**
AVH	**Avacha**	**4.27**	**6**	*e*P	**Pn**	**21 16 06.9**	**+2.0**
SPN	**Mys Shipunski**	**4.27**	**17**	*e*S	**Sn**	**21 16 52.3**	**-1.0**
SMAR	**Somma**	**4.27**	**6**	PN	**Pn**	**21 16 05.7**	**+0.7**
SMAR	**Somma**	**4.27**	**6**	*e*P	**Pn**	**21 16 05.8**	**+0.7**
KRER	**Koryakskii**	**4.31**	**6**	PN	**Pn**	**21 16 06.9**	**+1.4**
KRER	**Koryakskii**	**4.31**	**6**	*e*P	**Pn**	**21 16 06.9**	**+1.4**
KRX	**Arik**	**4.36**	**5**	PN	**Pn**	**21 16 07.0**	**+0.9**
KRX	**Arik**	**4.36**	**5**	*e*P	**Pn**	**21 16 07.0**	**+0.9**
KZV	**Kizimen**	**6.26**	**12**	PN	**Pn**	**21 16 32.8**	**+0.7**
KZV	**Kizimen**	**6.26**	**12**	*e*P	**Pn**	**21 16 32.9**	**+0.7**
TUMD	**Tumrok D**	**6.36**	**12**	*e*S	**Sn**	**21 17 41.9**	**-2.8**
ASAJ	**Asahikawa**	**11.69**	**251**	Pn	**Pn**	**21 17 44.7**	**-1.6**
	comp=N,1.2nm,0.3s,baz=76,slow=12,SNR=9.3 comp=N,13nm,0.6s						
ASAJ				AML	AML		
KLR	**Kul'dur**	**17.17**	**281**	P	**Pn**	**21 18 57.4**	**-1.1**
	comp=N,1.0nm,0.6s,baz=86,slow=15,SNR=1.7						
KLR				LR	LR	21 26 52.9	
	comp=N,30nm,18.5s,baz=46,slow=42						
MJAR	**Matsushiro Arr**	**19.08**	**237**	P	**P**	**21 19 18.6**	**-2.1**
	baz=38,slow=11,SNR=4.0 comp=N,0.6nm,0.4s						
KSRS	**Korea Array**	**24.62**	**253**	P	**P**	**21 20 19.1**	**+1.3**
	comp=N,0.7nm,0.7s,baz=47,slow=11,SNR=1.7 comp=N,0.7nm,0.7s						
H11N2	**WAKE ISLAND Hy**	**30.09**	**163**	T	T	21 53 28.8	
	baz=349,slow=74,SNR=4.6						
H11N3	**WAKE ISLAND Hy**	**30.10**	**163**	T	T	21 52 57.6	
	baz=349,slow=74,SNR=2.6						
H11N1	**WAKE ISLAND Hy**	**30.10**	**163**	T	T	21 52 39.8	
	baz=349,SNR=5.0						
H11S1	**WAKE ISLAND Hy**	**31.24**	**164**	T	T	21 56 08.3	
	baz=348,slow=76						
H11S3	**WAKE ISLAND Hy**	**31.25**	**164**	T	T	21 56 09.2	
	baz=348,slow=76						
H11S2	**WAKE ISLAND Hy**	**31.26**	**164**	T	T	21 55 49.4	
	baz=348,slow=76						
YKA	**Yellowknife Ar**	**47.10**	**39**	P	**P**	**21 23 30.8**	**+1.9**
	comp=N,0.4nm,0.7s,baz=329,slow=6.6,SNR=1.8 comp=N,0.4nm,0.7s						
MKAR	**Makanchi Array**	**48.81**	**298**	P	**P**	**21 23 42.9**	**+0.5**
	comp=N,0.9nm,0.9s,baz=60,slow=8.5,SNR=5.1 comp=N,0.9nm,0.9s						
KURK	**Kurchatov**	**48.84**	**304**	P	**P**	**21 23 43.5**	**+1.1**
KURK	**Kurchatov**	**48.84**	**304**	*e*P	**P**	**21 23 43.5**	**+1.1**
KURBB	**Kurchatov Arra**	**48.94**	**304**	P	**P**	**21 23 43.5**	**+0.3**
	comp=N,0.7nm,0.7s,baz=65,slow=7.7,SNR=3.6 comp=N,0.7nm,0.7s						
NOR	**Nord**	**49.59**	**359**	*i* P	**P**	**21 23 46.8**	**-1.0**
BVAR	**Borovoye Array**	**51.94**	**310**	P	**P**	**21 24 07.7**	**+1.8**
	comp=N,0.5nm,0.4s,baz=58,slow=8.7,SNR=2.7 comp=N,0.5nm,0.4s						
WRA	**Warramunga Arr**	**71.83**	**203**	P	**P**	**21 26 19.5**	**-0.1**
	comp=N,0.9nm,0.7s,baz=18,slow=5.8,SNR=4.5 comp=N,0.9nm,0.7s						
TXAR	**Lajitas Array**	**73.52**	**64**	P	**P**	**21 26 30.6**	**+0.7**
	comp=N,0.4nm,0.6s,baz=316,slow=4.7,SNR=6.4 comp=N,0.4nm,0.6s						
EIL	**Elat**	**86.66**	**313**	LR	LR	22 11 19.1	
	comp=N,30nm,18.0s,baz=234,slow=39						

*GII **04** 21:20:00.6±0.0,33°.974N±0°.003×28°.629E±0°.001,h0km, Mws3.6,confirmed*
NIC 04 21:20:04.5,33°.99N×28°.62E,h35km±36km,MI2.8/10, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KARP	**Karpathos**	**1.97**	**323**	P	Pn	21 20 35.0	-0.4
KARP				S	Sn	21 21 00.3	+1.4
ARG	**Arkhangelos**	**2.26**	**350**	P	Pn	21 20 39.0	-0.3
OSC1	**CSNet OBS 1**	**2.27**	**102**	P	Pn	21 20 39.5	+0.1
OSC1				AML	AML	21 21 06.5	
	0.1nm,0.5s						
OSC1				S	Sn	21 21 07.0	+0.9
OSC1				AML	AML	21 21 09.1	
	0.1nm,0.3s						
AKMS	**Akamas**	**3.23**	**70**	P	Pn	21 20 53.8	+1.0
AKMS				AML	AML	21 21 26.6	
	0.2nm,1.2s						
AKMS				AML	AML	21 21 34.5	
	0.1nm,0.3s						
NATA	**Nata**	**3.36**	**75**	P	Pn	21 20 55.6	+1.1
NATA				S	Sn	21 21 33.9	+0.7
NATA				AML	AML	21 21 35.5	
	0.2nm,0.7s						
NATA				AML	AML	21 21 38.5	
	0.3nm,1.0s						
ALFC	**Alefka**	**3.48**	**69**	P	Pn	21 20 57.0	+0.8
ALFC				AML	AML	21 21 40.0	
	0.1nm,0.4s						
ALFC				AML	AML	21 21 45.0	
	0.1nm,0.5s						
TROD	**Troodos**	**3.63**	**74**	P	Pn	21 21 00.1	+1.6
TROD				S	Sn	21 21 40.8	+0.5
TROD				AML	AML	21 21 47.9	
	0.1nm,0.5s						
TROD				AML	AML	21 21 50.2	
XYLS	**Xyliatos**	**3.80**	**73**	P	Pn	21 21 00.7	+0.1
XYLS				S	Sn	21 21 45.6	+1.6
XYLS				AML	AML	21 21 50.6	
	0.1nm,0.3s						
XYLS				AML	AML	21 21 53.8	
ASGA	**Asgata**	**3.91**	**77**	P	Pn	21 21 02.7	+0.7
ASGA				S	Sn	21 21 48.2	+1.5
ASGA				AML	AML	21 21 48.8	
	0.1nm,0.3s						
ASGA				AML	AML	21 21 51.2	
	0.1nm,0.5s						
CSS	**Mathiatis**	**4.01**	**75**	P	Pn	21 21 03.7	+0.3
CSS				AML	AML	21 21 48.2	
	0.1nm,1.1s						
CSS				S	Sn	21 21 50.4	+1.1
CSS				AML	AML	21 21 53.7	
	0.1nm,1.4s						
CSS	**Mathiatis**	**4.01**	**75**	P	Pn	21 21 00.3	-3.1
CSS				S	Sn	21 21 46.1	-3.1
MVOU	**Mavrovouni**	**4.26**	**75**	P	Pn	21 21 08.2	+1.4
MVOU				S	Sn	21 21 57.5	+2.1
MMA0B	**Mount Meron ar**	**5.75**	**98**	P	Pn	21 21 24.8	-2.6
MMA0B				S	Sn	21 22 29.4	-2.8
KZIT	**Kziot**	**5.77**	**121**	P	Pn	21 21 24.3	-3.3
KZIT				S	Sn	21 22 29.6	-2.9
AMAZ	**Amatzia**	**5.84**	**113**	P	Pn	21 21 25.8	-2.8
AMAZ				S	Sn	21 22 30.6	-3.7
MMLI	**Mount Malkishu**	**5.91**	**103**	P	Pn	21 21 25.8	-3.7
MMLI				S	Sn	21 22 33.4	-2.6
GEM	**Giv'at Ha'Em**	**5.93**	**96**	P	Pn	21 21 25.8	-3.9
GEM				S	Sn	21 22 33.1	-3.3
YITV	**Yitav**	**6.07**	**108**	P	Pn	21 21 28.3	-3.3
YITV				S	Sn	21 22 37.6	-2.2
RMNI	**Mount Ramon**	**6.20**	**121**	P	Pn	21 21 29.8	-3.8
RMNI				S	Sn	21 22 40.4	-3.0
MSBI	**Mazada**	**6.28**	**113**	P	Pn	21 21 30.6	-3.9
MSBI				S	Sn	21 22 42.1	-2.8
GHAJ	**Ghor Haditha**	**6.44**	**113**	P	Pn	21 21 33.8	-3.0
GHAJ				S	Sn	21 22 46.1	-2.9
IDAN	**Idan**	**6.44**	**117**	P	Pn	21 21 34.1	-2.8
IDAN				S	Sn	21 22 45.4	-3.8
HRFI	**Mount Harif**	**6.72**	**124**	P	Pn	21 21 37.3	-3.4
HRFI				S	Sn	21 22 52.9	-3.2
EIL	**Elat**	**6.89**	**127**	P	Pn	21 21 40.1	-3.0
EIL				S	Sn	21 22 57.4	-2.9

ISK 04 21:20:43.9,35°.62N×27°.77E,h20km,ML2.0/9, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KARP	**Karpathos**	**0.50**	**262**	Pg	Pg	21 20 54.4	+0.4
KARP				Sg	Sb	21 21 02.0	+1.1
KARP				AML	AML		
ARG	**Arkhangelos**	**0.67**	**26**	Pg	Pg	21 20 57.5	+0.4
ARG				Sg	Sn	21 21 07.4	-0.8
ARG				AML	AML		
ARG	**Arkhangelos**	**0.67**	**26**	S	Sn	21 21 07.3	-0.9
ARG	**Arkhangelos**	**0.67**	**26**	AML	AML	21 21 09.1	
	0.1nm,0.2s						
ARG	**Arkhangelos**	**0.67**	**26**	AML	AML	21 21 11.1	
	0.1nm,0.2s						
DAT	**Datca**	**1.12**	**352**	Pn	Pb	21 21 05.1	+0.4
DAT				AML	AML		
TURN	**Turunc**	**1.22**	**18**	Pn	Pb	21 21 06.5	+0.2
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.40**	**31**	Pn	Pb	21 21 09.1	-0.2
BODT	**Bodrum**	**1.49**	**346**	Pn	Pb	21 21 10.3	-0.6
BODT				AML	AML		
YER	**Yerkesik**	**1.57**	**15**	Pn	Pn	21 21 11.5	+0.7
YER				AML	AML		
MLSB	**Milas**	**1.68**	**0**	Pn	Pn	21 21 12.9	+0.7
MLSB				AML	AML		
APMY	**Acipayam-Deniz**	**2.23**	**33**	Pn	Pn	21 21 20.8	+1.0

*ISK **04** 22:00:14.9,37°.73N×26°.99E,h9km,ML2.5/19*
*AFAD **04** 22:00:15.5,37°.74N×27°.03E,h6km±2km,ML2.2*
THE 04 22:00:15.6,38°N±2°×2°7E±°,h8km±3km,M2.7/6,MLh2.7/6, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**263**	P	Pg	22 00 18.8	0.0
SMG				S	Sg	22 00 21.5	+0.6
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**99**	P	Pg	22 00 19.1	0.0
GCAM	**G?zelcaml?**	**0.17**	**99**	Pg	Pg	22 00 19.3	+0.2
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**57**	Pg	Pg	22 00 20.9	+0.3
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**147**	P	Pg	22 00 22.4	+0.5
DDIM				S	Sb	22 00 27.5	-1.3
DDIM				IAML		22 00 28.0	
	comp=N,250nm,0.2s						
DDIM	**Aydin, Didim**	**0.32**	**147**	P	Sb	22 00 27.8	-1.0
DGB	**zmir**	**0.34**	**342**	P	Pg	22 00 22.5	+0.1
DGB				S	Sg	22 00 26.4	-0.5
GMLD	**Gumuldur**	**0.36**	**347**	Pg	Pg	22 00 22.3	-0.4
GMLD				AML	AML		
BEYE	**izmir**	**0.51**	**352**	P	Pg	22 00 25.3	-0.1
BEYE				S	Sg	22 00 31.1	-0.9
BEYE				IAML		22 00 37.0	
	comp=E,170nm,0.3s						
DUVT	**Torbali**	**0.60**	**34**	P	Pg	22 00 26.7	-0.5
ZEYE	**Izmir, Urla-Ze**	**0.66**	**322**	P	Pg	22 00 28.7	+0.5
ZEYE				S	Sg	22 00 37.0	+0.2
BLCB	**Balcova**	**0.66**	**2**	P	Pg	22 00 28.2	-0.1
BLCB				AML	AML		
BLCB	**Balcova**	**0.66**	**2**	Pg	Pg	22 00 27.9	-0.4
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.69**	**95**	P	Pg	22 00 28.5	-0.3
AYDN				S	Sg	22 00 34.4	-3.4
BODT	**Bodrum**	**0.70**	**161**	P	Pg	22 00 29.3	+0.2
BODT				S	Sb	22 00 39.3	-0.5
BODT				AML	AML		
BODT	**Bodrum**	**0.70**	**161**	Pg	Pg	22 00 29.5	+0.4
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**72**	Pg	Pg	22 00 29.8	+0.3
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**125**	Pg	Pg	22 00 29.3	-0.5
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**153**	P	Pg	22 00 28.5	-1.3
IZMR	**zmir-demi**	**0.84**	**61**	P	Pg	22 00 31.7	-0.1
BAGT	**Foa**	**0.94**	**352**	P

TAVA	**DENIZLI_Tavas**	**1.53**	**99**	P	Pg	22 00 44.8	-0.1
HARTU	**Esme**	**1.53**	**66**	P	Pn	22 00 43.5	+0.2
DALY	**Dalyan (Mula)**	**1.59**	**124**	Pn	Pn	22 00 44.4	+0.5
DALY				AML	AML		
STEP	**BALIKESIR_Sava**	**1.74**	**18**	P	Pb	22 00 47.4	-0.3
BUHA	**Balikesir, Bur**	**1.77**	**1**	P	Pb	22 00 47.7	-0.6
APMY	**Acipayam-Deniz**	**1.83**	**97**	Pn	Pn	22 00 47.9	+0.5

AFAD 04 22:00:21.2, 37.75N×27.02E, h7km±5km, ML2.6, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.18**	**106**	P	Pg	22 00 26.2	+1.3
DGB	**zmir**	**0.32**	**341**	P	Pg	22 00 27.5	0.0
DGB				S	Sg	22 00 32.8	+1.0
DDIM	**Aydin, Didim**	**0.34**	**148**	IAML		22 00 33.0	
	comp=E,1μm,0.2s						
DDIM				S	Sg	22 00 33.1	+0.8
DDIM				IAML		22 00 34.0	
	comp=N,951nm,0.4s						
DUVT	**Torbali**	**0.58**	**36**	P	Pb	22 00 33.1	-0.6
DUVT				S	Sg	22 00 40.1	0.0
DUVT				IAML		22 00 42.0	
	comp=E,261nm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**0.64**	**320**	P	Pn	22 00 38.3	+1.7
ZEYE				IAML		22 00 43.0	
	comp=N,374nm,0.2s						
ZEYE				S	Sb	22 00 43.4	-0.3
AYDN	**Tasoluk**	**0.69**	**97**	P	Pb	22 00 35.2	-0.4
AYDN				S	Sg	22 00 41.6	-1.9
AYDN				IAML		22 00 48.0	
	comp=E,254nm,0.5s						
CAMT	**Merkez**	**1.02**	**13**	P	Pn	22 00 44.0	+2.1
CAMT				S	Sg	22 00 52.8	-1.4
CAMT				IAML		22 00 58.0	
	comp=E,199nm,0.5s						
ESEN	**Aydn-Nazilli**	**1.06**	**87**	P	Pn	22 00 43.6	+1.2

NEIC ***04*** *22:00:28.0±2.1, 15.°70S±0.°08×177.°01W±0.°09, h407km±6km, mb4.3/21, Error ellipse: s-maj=12.5km s-min=11.2km az=63.0*

IDC ***04*** *22:00:30.1±1.8, 15.°59S×177.°34W, h432km±18km, mb3.4/10, mbtmp4.1/12, Error ellipse: s-maj=24.4km s-min=16.1km az=137.0*

ISC 04 22:00:27.1±0.5, 15.°7S±0.°1×177.°03W±0.°08, h400km, n47, σ1s19/48, mb4.0/21, 3C, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	**1.71**	**322**		**Pn**	**22 01 22.9**	**+1.5**
MSVF	**Nonsavu**	**5.14**	**246**	P	**Pn**	**22 01 52.5**	**+1.8**
	53nm,0.7s,baz=100,slow=14,SNR=33						
MSVF				S	**S**	**22 03 01.2**	**+2.6**
	13nm,0.7s,baz=53,slow=20,SNR=1.8						
AFI	**Afiamalu**	**5.37**	**72**	P	**Pn**	**22 01 54.0**	**+0.9**
	188nm,0.6s,baz=267,slow=18,SNR=15						
SANVU	**Saraoutou**	**15.19**	**269**	P	**P**	**22 03 43.0**	**+1.3**
MARNC	**Mare, Loyalty**	**15.29**	**246**	P	**P**	**22 03 42.0**	**-0.7**
OUENC	**Ouen Island, N**	**16.65**	**244**	P	**P**	**22 03 58.1**	**+0.8**
OUENC				IAmb	IAmb	22 04 17.3	
	comp=Z,17nm,1.4s						
DZM	**Mont Dzumac**	**16.88**	**245**	P	**P**	**22 04 00.3**	**+0.4**
	comp=Z,2.4nm,0.4s,baz=37,slow=15,SNR=5.3						
CTAO	**Charters Tower**	**35.17**	**257**	P	**P**	**22 06 46.1**	**+0.7**
CTAO				IAmb	IAmb	22 06 59.3	
	comp=Z,19nm,1.5s						
STKA	**Stephens Creek**	**40.88**	**239**	P	**P**	**22 07 29.8**	**-2.6**
	comp=Z,0.8nm,0.4s,baz=61,slow=13,SNR=1.6						
	comp=Z,0.8nm,0.4s						
PTCN	**Pitcairn Islan**	**44.80**	**110**	P	**P**	**22 08 03.5**	**0.0**
BBOO	**Buckleboo**	**45.66**	**239**	P	**P**	**22 08 08.2**	**-1.8**
BBOO				IAmb	IAmb	22 08 26.8	
	comp=Z,43nm,1.4s						
WB0	**Warramunga Arr**	**46.33**	**257**	P	**P**	**22 08 13.2**	**-2.2**
WRA	**Warramunga Arr**	**46.37**	**257**	P	**P**	**22 08 13.9**	**-1.8**
	comp=Z,0.7nm,0.3s,baz=90,slow=7.8,SNR=13						
WRA				PcP	**PcP**	**22 09 41.2**	**-1.9**
	comp=Z,0.4nm,0.6s,baz=74,slow=2.7,SNR=2.1						
	comp=Z,0.7nm,0.3s						
AS31	**Alice Springs**	**46.70**	**252**		**P**	**22 08 16.7**	**-1.5**
AS31				IAmb	IAmb	22 08 17.5	
	comp=Z,3.5nm,0.5s						
ASAR	**Alice Springs**	**46.70**	**252**	P	**P**	**22 08 16.7**	**-1.4**
	comp=Z,8.7nm,0.5s,baz=91,slow=7.8,SNR=138						
ASAR				PcP	**PcP**	**22 09 42.8**	**-1.5**
	comp=Z,0.7nm,0.8s,baz=85,slow=6.5,SNR=2.1						
	comp=Z,8.7nm,0.5s						
ASAR	**Alice Springs**	**46.70**	**252**		**P**	**22 08 16.6**	**-1.5**
KNRA	**Kununurra**	**52.06**	**262**	P	**P**	**22 08 57.1**	**-1.0**
KNRA				IAmb	IAmb	22 09 14.1	
	comp=Z,12nm,1.4s						
FORT	**Forrest**	**52.18**	**243**	P	**P**	**22 08 56.9**	**-1.9**
FORT				IAmb	IAmb	22 09 24.0	
	comp=Z,8.8nm,1.1s						
FITZ	**Fitzroy Crossi**	**54.73**	**259**	P	**P**	**22 09 18.2**	**+0.9**
VNDA	**Vanda**	**62.78**	**185**	P	**P**	**22 10 11.7**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=34,slow=3.6,SNR=9.9						
	comp=Z,0.5nm,0.5s						
VNDA	**Vanda**	**62.78**	**185**	P	**P**	**22 10 11.3**	**+0.2**
QSPA	**South Pole Qui**	**74.38**	**180**	P	**P**	**22 11 22.6**	**+0.4**
	comp=Z,1.6nm,0.5s,baz=62,slow=0.8,SNR=6.8						
	comp=Z,1.6nm,0.5s						
QSPA	**South Pole Qui**	**74.38**	**180**	P	**P**	**22 11 22.3**	**+0.1**
KMRM	**Mail Ridge**	**74.45**	**40**	P	**P**	**22 11 24.4**	**+1.4**
KMRM				IAmb	IAmb	22 11 26.3	
	comp=Z,6.0nm,0.8s						
O16K	**Kokwok River B**	**76.56**	**10**	P	**P**	**22 11 33.3**	**-0.9**
N15K	**Kwethluk River**	**76.80**	**9**	P	**P**	**22 11 35.6**	**+0.1**
NVAR	**Mina Array Bea**	**76.90**	**44**	P	**P**	**22 11 37.4**	**+0.5**
	comp=Z,1.1nm,0.8s,baz=240,slow=7.3,SNR=7.8						
	comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**76.90**	**44**	P	**P**	**22 11 36.7**	**-0.1**
PINE	**Pine Mountain**	**78.22**	**38**	P	**P**	**22 11 43.9**	**-0.1**
PINE				IAmb	IAmb	22 11 47.3	
	comp=Z,11nm,1.3s						
K15K	**Wolf Creek Mou**	**78.66**	**7**	P	**P**	**22 11 46.0**	**+0.3**
K15K				IAmb	IAmb	22 12 09.1	
	comp=Z,22nm,1.4s						
CCB	**Clear Creek Bu**	**83.12**	**12**	P	**P**	**22 12 08.1**	**-0.7**
CCB				IAmb	IAmb	22 12 09.2	
	comp=Z,5.7nm,0.6s						
ILAR	**Eielson Array**	**83.42**	**13**	P	**P**	**22 12 09.8**	**-0.5**
	comp=Z,1.9nm,0.7s,baz=210,slow=5.4,SNR=2.0						
	comp=Z,1.9nm,0.7s						
TXAR	**Lajitas Array**	**83.68**	**57**	P	**P**	**22 12 14.1**	**+1.5**
	comp=Z,1.3nm,0.8s,baz=248,slow=4.4,SNR=13						
	comp=Z,1.3nm,0.8s						
TXAR	**Lajitas Array**	**83.68**	**57**	P	**P**	**22 12 13.6**	**+0.9**
PDAR	**Pinedale Array**	**84.82**	**43**	P	**P**	**22 12 18.2**	**0.0**
	comp=Z,0.3nm,0.5s,baz=235,slow=5.9,SNR=4.7						
	comp=Z,0.3nm,0.5s						
MAW	**Mawson**	**86.41**	**199**	P	**P**	**22 12 25.0**	**-0.2**
	comp=Z,1.4nm,0.7s,baz=184,slow=14,SNR=3.7						
	comp=Z,1.4nm,0.7s						
MAW	**Mawson**	**86.41**	**199**	P	**P**	**22 12 24.9**	**-0.2**
TROLL	**Troll, Antarti**	**92.54**	**180**	⇑P	**P**	**22 12 54.2**	**+0.3**
	comp=Z,48nm,0.7s						
VNA3	**Neumayer Olymp**	**92.88**	**176**	⇑P	**P**	**22 12 55.7**	**+0.4**
	comp=Z,1.6nm,0.7s						
VNA2	**Neumayer--Watz**	**93.33**	**177**	⇑P	**P**	**22 12 58.2**	**+0.9**
	comp=Z,1.0nm,0.6s,baz=179,slow=4.4						
MKAR	**Makanchi Array**	**108.52**	**315**	PKiKP	**PKiKP**	**22 18 08.5**	**-0.5**
	comp=Z,0.4nm,0.9s,baz=68,slow=3.9,SNR=2.2						
BVAR	**Borovoye Array**	**115.93**	**322**	PKP	**PKPdf**	**22 18 21.9**	**-1.0**
	comp=Z,0.7nm,0.4s,baz=62,slow=1.0,SNR=5.8						
ARCES	**ARCESS Array B**	**124.34**	**351**	PKP	**PKPdf**	**22 18 38.3**	**-0.3**
	comp=Z,3.3nm,0.9s,baz=26,slow=1.8,SNR=4.8						
BRTR	**Keskin Array B**	**144.08**	**318**	PKP	**PKPab**	**22 19 14.9**	**-0.4**
	comp=Z,3.4nm,0.8s,baz=74,slow=2.0,SNR=17						
BRTR	**Keskin Array B**	**144.08**	**318**		**PKPab**	**22 19 14.5**	**-0.8**
MLR	**Muntele Rosu**	**144.54**	**332**	PKP	PKPbc	22 19 16.3	-0.3
	comp=Z,4.1nm,0.8s,baz=76,slow=4.2,SNR=7.6						
MLR	**Muntele Rosu**	**144.54**	**332**		PKPbc	22 19 15.9	-0.7

IDC ***04*** *22:09:17.6±1.5, 0.°14N×126.°12E, h0km, mb3.4/4, mbtmp3.4/4, MS3.0/2, Error ellipse: s-maj=166.3km s-min=23.6km az=68.0*

DJA ***04*** *22:09:26.1±0.2, 0.°S±2.°×12.°5E±.°, h10km, M4.0/19, mB4.9/2, mb4.2/4, MLv3.9/19, Mw(mB)4.2/2*

ISC 04 22:09:27.9±0.9, 0.°00S±0.°05×125.°12E±0.°05, h53km, n13, σ2s52/14, mb3.3/4, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**1.28**	**297**	P	**Pn**	**22 09 48.6**	**-0.8**
KMSI				S	**Sn**	**22 10 08.4**	**+2.9**
KMSI				AML	AML		
MNI	**Manado**	**1.47**	**349**	P	**Pn**	**22 09 53.6**	**+1.6**
MNI				S	**Sn**	**22 10 12.3**	**+2.2**
MNI				AML	AML		
SANI	**Sanana**	**2.21**	**157**	P	**Pn**	**22 10 03.2**	**+1.1**
SANI				S	**Sn**	**22 10 30.9**	**+2.6**
SANI				AML	AML		
TNTI	**Ternate**	**2.37**	**71**	P	**Pn**	**22 10 06.6**	**+2.2**
TNTI				S	**Sn**	**22 10 33.7**	**+1.4**
LUWI	**Luwuk**	**2.57**	**246**	P	**Pn**	**22 10 09.9**	**+2.9**
APSI	**Ampana**	**3.59**	**255**	P	**Pn**	**22 10 23.9**	**+2.9**
TTSI	**Tana Toraja**	**6.10**	**240**	P	**Pn**	**22 10 55.7**	**+0.2**
	0.1nm2μm20nm,0.8s						
TTSI				AML	AML		
DAV	**Davao City (W)**	**7.04**	**4**	LR	LR	22 13 57.7	
	comp=Z,101nm,18.4s,baz=200,slow=40						
BATI	**Baumata**	**10.24**	**188**	LR	LR	22 16 38.2	
	comp=Z,87nm,18.0s,baz=40,slow=42						
WRA	**Warramunga Arr**	**21.77**	**156**	P	P	22 14 07.2	-8.2
	0.2nm,0.3s,baz=337,slow=11,SNR=2.0						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**25.02**	**161**	P	**P**	**22 14 42.8**	**-4.3**
	0.4nm,0.7s,baz=339,slow=9.3,SNR=4.4						
	0.4nm,0.7s						
SONM	**Songino Array**	**50.36**	**344**	P	**P**	**22 18 17.8**	**-1.9**
	0.3nm,0.4s,baz=168,slow=7.4,SNR=2.6						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**59.75**	**327**	P	**P**	**22 19 27.1**	**-0.3**
	0.6nm,0.6s,baz=121,slow=8.6,SNR=7.3						
	0.6nm,0.6s						

IDC ***04*** *22:16:49.1±1.2, 50.°16N×19.°17E, h0km, mbtmp3.2/4, ML3.0/3, Error ellipse: s-maj=22.0km s-min=8.6km az=155.0*

VIE ***04*** *22:16:50.5±0.7, 50.°26N×18.°96E, h0km, mb2.6/8, ml2.6/9, ml2.6/9, ms3.6/2, Error ellipse: s-maj=6.6km s-min=4.0km az=173.0 2 km WNW of Katowice Suspected Mining induced.*

IPEC ***04*** *22:16:50.8±0.2, 50.°23N×18.°98E, h1km, ML2.6/6, Error ellipse: s-maj=1.8km s-min=0.8km az=0.0*

ISC 04 22:16:49.9±0.7, 50.°25N±0.°03×18.°98E±0.°02, h0km, n47, σ1s42/79, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.53**	**93**	*e*Pg	**Pg**	**22 17 00.9**	**+0.9**
OJC				*e*Sg	**Sg**	**22 17 08.3**	**+1.5**
RAC	**Raciborz**	**0.53**	**252**	*e*PG	**Pb**	**22 17 02.6**	**+0.5**
RAC				*e*SG	**Sb**	**22 17 10.8**	**+0.5**
OKC	**Ostrava-Krasne**	**0.68**	**233**	*e*PG	**Pb**	**22 17 04.4**	**-0.1**
OKC				*e*SG	**Sb**	**22 17 13.5**	**-0.9**
	comp=Z,74nm,0.7s						
OKC				AML	AML		
STEB	**Steborice**	**0.84**	**248**	*e*PG	**Pg**	**22 17 06.5**	**+0.6**
STEB				*e*SG	**Sb**	**22 17 18.4**	**-0.7**
	comp=Z,100nm,0.6s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**1.04**	**244**	*e*Pg	**Pg**	**22 17 10.6**	**+0.8**
	baz=63						
MORC				*e*Sg	**Sg**	**22 17 23.1**	**-0.2**
	70nm,0.3s,baz=63						
MORC				AML	AML		
ANAC	**Anensky vrch**	**1.04**	**261**	*e*Pg	**Pg**	**22 17 10.9**	**+1.0**
	baz=81						
ANAC				*e*Sg	**Sg**	**22 17 23.4**	**0.0**
	94nm,0.2s,baz=81						
ANAC				AML	AML		
LANS	**Liptovska Anna**	**1.15**	**164**	*e*PG	**Pb**	**22 17 12.8**	**+0.2**
LANS				*e*SG	**Sb**	**22 17 27.9**	**-0.1**
LANS				*e*LG	Lg	22 17 31.3	
NIE	**Niedzica**	**1.19**	**134**	*e*Pg	**Pg**	**22 17 13.3**	**+0.6**
NIE				*e*Sg	**Sb**	**22 17 30.4**	**+1.0**
LOSC	**Losov**	**1.21**	**239**	*e*Pg	**Pg**	**22 17 13.8**	**+0.7**
	baz=59						
LOSC				*e*Sg	**Sg**	**22 17 28.4**	**-0.4**
	76nm,0.4s,baz=59						
LOSC				AML	AML		
JAVC	**Velka Javorina**	**1.63**	**212**	*e*Pn	**Pn**	**22 17 20.4**	**+0.5**
	baz=31						
DPC	**Dobruska-Polom**	**1.71**	**274**	*e*PG	**Pn**	**22 17 21.6**	**+0.7**
DPC				*e*SG	**Sg**	**22 17 46.0**	**+1.3**
	comp=Z,43nm,0.5s						
DPC				AML	AML		
VYHS	**Vyhne**	**1.76**	**183**	*e*PN	**Pn**	**22 17 21.7**	**+0.1**
VYHS				*e*SN	**Sn**	**22 17 43.9**	**-0.8**
VYHS				*e*LG	Lg	22 17 48.8	
OSTC	**Ostas**	**1.79**	**281**	*e*PG	**Pn**	**22 17 22.8**	**+0.7**
OSTC				*e*SG	**Sg**	**22 17 48.9**	**+1.4**
	comp=Z,26nm,0.7s						
OSTC				AML	AML		
VRAC	**Vranov**	**1.81**	**240**	Pg	**Pn**	**22 17 22.9**	**+0.6**
	4.2nm,0.3s,baz=62,slow=14,SNR=13						
VRAC				Lg	Lg	22 17 46.8	
	6.1nm,0.3s,baz=43,slow=19,SNR=11						
VRAC	**Vranov**	**1.81**	**240**	*e*Pn	**Pn**	**22 17 22.9**	**+0.6**
	baz=58						
VRAC				*e*Sg	**Sn**	**22 17 46.9**	**+0.9**
	51nm,0.8s,baz=58						
VRAC				AML	AML		
KSP	**Ksiaz**	**1.81**	**290**	*e*Pn	**Pn**	**22 17 23.0**	**+0.7**
KSP				*e*Pg	**Pg**	**22 17 25.5**	**+0.9**
KSP				*e*Sg	**Sg**	**22 17 48.7**	**+0.6**
CHVC	**Chvalec**	**1.90**	**281**	*e*PG	**Pn**	**22 17 24.3**	**+0.7**
CHVC				*e*SG	**Sg**	**22 17 52.0**	**+1.1**
KECS	**Kecovo**	**2.02**	**150**	*e*PN	**Pn**	**22 17 25.2**	**0.0**
KECS				*e*SN	**Sn**	**22 17 50.0**	**-1.2**
KECS				*e*LG	Lg	22 18 02.3	
KRUC	**Moravsky**	**2.06**	**236**	*e*Pn	**Pn**	**22 17 26.2**	**+0.5**
	baz=54						
KRUC				*e*Sg	**Sb**	**22 17 54.7**	**+0.5**
	20nm,0.6s,baz=54						
KRUC				AML	AML		
MODS	**Modra-Piesok**	**2.18**	**211**	*e*PN	**Pn**	**22 17 27.2**	**-0.2**
MODS				*e*SG	**Sb**	**22 17 58.3**	**+0.5**
TREC	**Trest**	**2.46**	**248**	*e*SG	**Sg**	**22 18 08.6**	**-0.2**
	comp=Z,12nm,0.4s						
TREC				AML	AML		
KOLS	**Kolonicke sedl**	**2.52**	**120**	*e*PN	**Pn**	**22 17 32.8**	**+0.8**
KOLS				*e*SN	**Sn**	**22 18 03.4**	**0.0**
KOLS				*e*LG	Lg	22 18 18.9	
ABNA	**Allensteig Bun**	**2.80**	**237**	*e*Pg	**Pg**	**22 17 43.1**	**-0.4**
	2.6nm,0.1s						
ABNA				*e*Sg	**Sg**	**22 18 18.1**	**-1.8**
	12nm,0.1s						
PVCC	**Panska Ves**	**2.84**	**277**	*e*SG	**Sg**	**22 18 21.5**	**+0.6**
	comp=Z,26nm,0.4s						
PVCC				AML	AML		
PRU	**Pruhonice**	**2.87**	**266**	*e*PG	**Pb**	**22 17 42.0**	**+0.1**
PRU				*e*SG	**Sg**	**22 18 20.7**	**-1.2**
	comp=Z,20nm,0.8s						
PRU				AML	AML		
WINA	**Alland / Wiene**	**2.87**	**223**	*i* Pn	**Pn**	**22 17 38.2**	**+1.3**
	0.8nm,0.2s						
WINA				*e*Sn	**Sn**	**22 18 10.6**	**-1.5**
	3.1nm,0.3s						
CONA	**Conrad Observa**	**3.10**	**223**	*e*Pn	**Pn**	**22 17 40.2**	**+0.2**
	0.9nm,0.3s						
CONA				*e*Sg	**Sg**	**22 18 34.2**	**+4.9**
	12nm,0.8s						
RONA	**Rosalia, Austr**	**3.10**	**216**	*i* Pn	**Pn**	**22 17 41.4**	**+1.3**
	0.7nm,0.2s						
ZVC	**Zvikov**	**3.20**	**257**	*e*PG	**Pb**	**22 17 48.3**	**+0.7**
CKRC	**Cesky Krumlov**	**3.36**	**247**	*e*SG	**Sg**	**22 18 36.9**	**-0.9**
KHC	**Kasperske Hory**	**3.68**	**254**	*e*PN	**Pn**	**22 17 48.4**	**+0.4**
KHC				*e*PG	**Pb**	**22 17 55.4**	**-0.4**
KHC				*e*SG	**Sg**	**22 18 46.0**	**-2.1**
	comp=Z,15nm,0.5s						
KHC				AML	AML		
GERES	**GERESS Array B**	**3.71**	**250**	Pn	**Pn**	**22 17 49.8**	**+1.3**
	0.4nm,0.3s,baz=68,slow=13,SNR=5.6						
GERES				Pg	**Pb**	**22 17 58.1**	**+1.8**
	0.1nm,0.3s,baz=65,slow=16,SNR=7.8						
GERES				Lg	Lg	22 18 47.6	
	0.4nm,0.3s,baz=64,slow=23,SNR=6.7						
MOA	**Molln**	**3.92**	**234**	*e*Pn	**Pn**	**22 17 52.5**	**+1.1**
	0.4nm,0.2s						
MOA				*e*Pg	**Pg**	**22 18 03.8**	**-1.2**
	0.6nm,0.2s						
MOA				*e*Sg	**Sg**	**22 18 53.0**	**-2.8**
	5.7nm,0.5s						
CLL	**Collm**	**3.94**	**288**	*e*Pg	**Pg**	**22 18 05.0**	**-0.3**
CLL				*e*Sg	**Sg**	**22 18 57.0**	**+0.7**
	comp=Z,14nm,0.6s						
SESA	**Seetaler Alpe,**	**4.29**	**225**	*e*Sg	**Sg**	**22 19 08.3**	**+0.8**
	comp=Z,5.5nm,0.7s						
BIOA	**Bad Ischl, Aus**	**4.35**	**236**	*e*Sg	**Sg**	**22 19 12.0**	**+2.4**
	comp=Z,1.1nm,0.5s						
KBA	**Koelnbreinsper**	**4.90**	**232**	*e*Sn	**Sn**	**22 19 02.9**	**+0.5**
	comp=Z,1.8nm,0.5s						
KBA				Sg	**Sg**	**22 19 27.3**	**+0.1**
	comp=Z,3.2nm,0.7s						
LESA	**Schwarzleotal**	**5.03**	**238**	*e*Sg	**Sg**	**22 19 31.8**	**+0.4**
	comp=Z,6.9nm,0.7s						
ABTA	**Abfaltersbach**	**5.54**	**233**	*e*Sg	**Sg**	**22 19 51.0**	**+3.1**
	comp=Z,3.8nm,0.7s						
WATA	**Walderalm**	**5.69**	**242**	*e*Sg	**Sg**	**22 19 49.0**	**-3.7**
	comp=Z,8.3nm,0.7s						
WTTA	**Wattenberg**	**5.70**	**241**	*e*Sg	**Sg**	**22 19 52.9**	**0.0**
	comp=Z,5.2nm,0.7s						
MOTA	**Moosalm**	**5.96**	**244**	*e*Sg	**Sg**	**22 19 59.7**	**-1.5**
	comp=Z,5.1nm,0.5s						
FETA	**Feichten**	**6.35**	**243**	*e*Sg	**Sg**	**22 20 14.1**	**+0.4**
	comp=Z,1.5nm,0.5s						
AKASG	**Malin Array Be**	**6.56**	**82**	Pn	**Pn**	**22 18 26.6**	**-0.9**
	comp=Z,0.5nm,0.3s,baz=273,slow=14,SNR=1.9						
AKASG				Sn	**Sn**	**22 19 40.8**	**-2.1**
	comp=Z,0.7nm,0.3s,baz=268,slow=22,SNR=2.1						
AKASG				Lg	Lg	22 20 11.8	
	comp=Z,0.7nm,0.3s,baz=272,slow=30,SNR=4.2						
	comp=Z,0.2nm,0.3s						
AKASG				AML	AML		
DAVA	**Damuels**	**6.70**	**247**	Sg	**Sg**	**22 20 30.6**	**+5.5**
	comp=Z,7.0nm,0.6s						
FINES	**FINESS Array B**	**11.90**	**17**	Pn	**Pn**	**22 19 38.0**	**-2.6**
	comp=Z,0.2nm,0.3s,baz=201,slow=11,SNR=9.3						
FINES				Sn	Sn	22 21 45.9	-8.0
	comp=Z,0.1nm,0.3s,baz=198,slow=22,SNR=2.3						
	comp=Z,1.7nm,0.7s						
FINES				AML	AML		
ARCES	**ARCESS Array B**	**19.60**	**7**	P	**P**	**22 21 19.9**	**+0.6**
	comp=Z,0.1nm,0.3s,baz=184,slow=9.9,SNR=3.5						
	comp=Z,1.0nm,0.6s						
ARCES				AML	AML		

MOS ***04*** *22:21:46.9±0.8, 7.°21S×106.°25E, h34km, mb5.4/68, Error ellipse: s-maj=9.2km s-min=4.4km az=117.7*

BJI ***04*** *22:21:46.0, 7.°50S×106.°00E, h29km, mB5.3/14, mb4.9/47, Ms4.6/8, Ms7 4.3/10*

IDC ***04*** *22:21:48.2±1.5, 7.°29S×106.°15E, h33km±10km, mb4.8/31, mbtmp5.0/33, ML5.2/2, MS3.8/50, Error ellipse: s-maj=12.3km s-min=9.4km az=64.0*

GFZ ***04*** *22:21:49.7, 7.°51S×105.°98E, h41km, Mw4.8/31, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}=1.22; $M_{\theta\theta}$=0.84; $M_{\phi\phi}$=0.38; $M_{r\theta}$=1.18; $M_{r\phi}$=-0.25; $M_{\theta\phi}$=-0.30; Fault plane solution: M_0=1.65075×10^{16} NP1: ϕ_s=116.17883°, δ21.04734°, λ-81.29864°. NP2: ϕ_s=286.86600°, δ69.20621°, λ-93.33177°. Principal axes: T 1.4926, Plg24.1360°, Azm19.4470°; N 0.2804, Plg3.1145°, Azm288.0500°; P -1.7730, Plg65.6381°, Azm191.1484°;*

NEIC ***04*** *22:21:49.7±1.6, 7.°31S±0.°07×106.°16E±0.°03, h40km±4km, mb5.2/114 Error ellipse: s-maj=10.9km s-min=0.7km az=200.0*

GFZ ***04*** *22:21:49.7±0.1, 8.°S±2.°×10.°6E±.°, h46km, M5.0/73, mb5.2/73*

DJA ***04*** *22:21:50.9±0.3, 8.°S±4.°×10.°6E±.°, h30km, M5.2/52, mB5.7/19, mb5.5/18, MLv5.3/52, Mw(mB)5.2/19*

ISC 04 22:21:49.4±0.3, 7.°42S±0.°04×106.°12E±0.°04, h44km±2km, h44km:pP-P, n731, σ1s45/721, mb5.1/168, MS3.9/54, 42C-41D, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKJI	**Sukabumi**	**0.60**	**46**	P	**Pn**	**22 22 03.9**	**+2.3**
SKJI				AML	AML		
SKJI	**Sukabumi**	**0.60**	**46**	P	**Pn**	**22 22 04.0**	**+2.3**
CGJI	**Cibinong**	**0.91**	**332**	P	**Pn**	**22 22 09.3**	**+3.5**
CGJI	**Cibinong**	**0.91**	**332**	P	**Pn**	**22 22 09.2**	**+3.5**
SBJI	**Serang**	**1.29**	**0**	P	Pn	22 22 15.2	+4.1
SBJI				AML	AML		
SBJI	**Serang**	**1.29**	**0**	P	**Pn**	**22 22 14.9**	**+3.8**
TNG	**Tangerang**	**1.35**	**23**	P	Pn	22 22 16.1	+4.3
TNG				P		22 22 16.2	
TNG				AML	AML		
TNG	**Tangerang**	**1.35**	**23**	P	**Pn**	**22 22 15.5**	**+3.7**
BBJI	**Bungbulang**	**1.52**	**92**	P	**Pn**	**22 22 16.1**	**+1.9**
BBJI	**Bungbulang**	**1.52**	**92**		**Pn**	**22 22 15.2**	**+1.1**
BBJI				Sn	**Sn**	**22 22 32.8**	**0.0**
BBJI	**Bungbulang**	**1.52**	**92**	P	**Pn**	**22 22 15.4**	**+1.2**
BBJI	**Bungbulang**	**1.52**	**92**	P	**Pn**	**22 22 15.5**	**+1.2**
LEM	**Lembang**	**1.60**	**68**	Pg	Pn	22 22 19.5	+4.1
	1μm,0.3s,baz=275,slow=4.0,SNR=464						
LEM				Lg	Lg	22 22 43.2	
	906nm,0.3s,baz=294,slow=20,SNR=14						
LEM				LR	LR	22 22 48.5	
	comp=Z,961nm,19.4s,baz=286,slow=39						
LEM	**Lembang**	**1.60**	**68**	P	Pn	22 22 19.7	+4.3
BLSI

comp=Z,141nm,0.5s
SDSI Sungai Dareh 7.96 324 P **Pn** **22 23 42.9 +0.2**
comp=Z,24nm,0.5s
JAGI Jajag, Banyuwa 8.02 98 P **Pn** **22 23 45.1 +1.6**
JAGI Jajag, Banyuwa 8.02 98 P **Pn** **22 23 44.9 +1.4**
JAGI Jajag, Banyuwa 8.02 98 P **Pn** **22 23 45.9 +2.4**
comp=Z,3µmcomp=Z,240nm,0.7s
JAGI Jajag, Banyuwa 8.02 98 P **Pn** **22 23 46.0 +2.4**
comp=Z,240nm,0.7s
ABJI Asem Bagus 8.05 93 P Pn 22 23 49.4 +5.5
comp=Z,440nm,0.9s
TPRI Tanjung Pinang 8.44 349 P Pn 22 23 54.2 +5.0
RTBI Rangdo, Negare 8.80 97 P **Pn** **22 23 55.3 +1.1**
PPI Padang Panjang 8.97 320 P **Pn** **22 23 59.0 +2.5**
BTDF Bukit Timah Da 9.03 345 P Pn 22 24 03.8 +6.4
comp=Z,163nm,0.7s
SRBI Singaraja 9.03 95 P **Pn** **22 24 00.8 +3.4**
comp=Z,2µmcomp=Z,192nm,0.7s
SRBI Singaraja 9.03 95 P **Pn** **22 23 59.2 +1.8**
comp=Z,178nm,0.6s
IGBI Denpasar 9.04 99 P **Pn** **22 23 59.8 +2.3**
comp=Z,4µmcomp=Z,135nm,0.6s
DNP Denpasar 9.09 99 P **Pn** **22 23 57.8 -0.3**
BKNI Bangkinang 9.21 326 Pn **Pn** **22 23 58.0 -1.9**
KHKI Kahang-Kahang 9.45 96 P **Pn** **22 24 05.8 +2.8**
comp=Z,152nm,0.7s
COCO West Island 10.30 242 P **Pn** **22 24 14.3 -0.4**
COCO West Island 10.30 242 Pn **Pn** **22 24 14.3 -0.4**
COCO West Island 10.30 242 P Pn 22 24 08.1 -6.6
comp=Z,158nm,1.2s
TWSI Taliwang, Sumb 10.74 98 P **Pn** **22 24 21.3 +0.6**
TWSI Taliwang, Sumb 10.74 98 P **Pn** **22 24 22.2 +1.5**
comp=Z,90nm,0.6s
SBUM Sibu 11.54 32 **Pn** **22 24 33.1 +1.4**
SBUM Sibu 11.54 32 P **Pn** **22 24 35.2 +3.4**
comp=Z,28nm,1.5s
PLAI Plampang 11.62 98 P **Pn** **22 24 34.3 +1.4**
DBNI Kabupaten Domp 12.12 96 P **Pn** **22 24 38.9 -0.7**
comp=Z,49nm,0.6s
GSI Gunungsitoli 12.16 315 P **Pn** **22 24 36.5 -3.6**
GSI Gunungsitoli 12.16 315 **Pn** **22 24 36.6 -3.6**
GSI Gunungsitoli 12.16 315 P **Pn** **22 24 37.2 -3.0**
comp=Z,178nm,0.6s
RPSI Rantau Prapat 12.35 324 **Pn** **22 24 40.2 -2.5**
RPSI Rantau Prapat 12.35 324 P **Pn** **22 24 40.6 -2.2**
comp=Z,9.4nm,0.6s
PSI Prapat 12.44 324 P **Pn** **22 24 40.3 -3.8**
IPM Ipoh 12.87 337 **Pn** **22 24 49.0 -0.9**
IPM Ipoh 12.87 337 P **Pn** **22 24 48.7 -1.2**
comp=Z,19nm,0.5s
MMSI Mamuju 13.58 70 P **Pn** **22 24 58.8 -0.7**
comp=Z,385nm,1.1s
LBFI Labuhan Bajo, 13.68 95 P **Pn** **22 25 00.3 -0.6**
comp=Z,58nm,0.6s
KULM Kulim 13.76 336 P **Pn** **22 25 01.3 -0.7**
KULM Kulim 13.76 336 **Pn** **22 25 00.7 -1.3**
KULM Kulim 13.76 336 P **Pn** **22 25 01.7 -0.3**
comp=Z,15nm,1.2s
KAPI Kappang 13.76 81 Pn **Pn** **22 25 04.8 +2.8**
comp=Z,2.8nm,0.3s,baz=253,slow=9.7,SNR=5.6
KAPI LR LR 22 31 09.1
comp=Z,430nm,20.0s,baz=261,slow=41
comp=Z,14nm,0.6s
KAPI AML AML
KAPI Kappang 13.76 81 P Pn 22 24 45.8 -16
KAPI Kappang 13.76 81 P **Pn** **22 25 00.2 -1.8**
KAPI Kappang 13.76 81 Pn **Pn** **22 25 00.2 -1.8**
TPTI 13.86 320 P **Pn** **22 24 58.7 -4.7**
comp=Z,298nm,0.4s
TTSI Tana Toraja 14.31 73 P **P** **22 25 14.6 -1.1**
comp=Z,23nm,0.9s
BSSI Bau Bau, Buton 14.33 86 P **Pn** **22 25 11.3 +1.6**
comp=Z,86nm,0.6s
MMRI Maumere 16.00 95 P **P** **22 25 34.1 -0.5**
MMRI Maumere 16.00 95 **Pn** **22 25 32.3 +0.6**
MMRI Maumere 16.00 95 P **P** **22 25 33.8 -0.8**
comp=Z,484nm,0.7s
BBSI Bau Bau 16.46 84 P **P** **22 25 40.0 +0.4**
comp=Z,94nm,1.1s
KKM Kota Kinabalu 16.74 37 P **P** **22 25 44.0 +1.1**
KKM Kota Kinabalu 16.74 37 P **Pn** **22 25 42.1 +1.0**
KKM Kota Kinabalu 16.74 37 P **Pn** **22 25 41.9 +0.8**
comp=Z,57nm,0.8s
TOLI2 Tolitoli 16.91 60 P **P** **22 25 46.1 +1.6**
TOLI2 Tolitoli 16.91 60 **Pn** **22 25 44.0 +1.0**
TOLI2 Tolitoli 16.91 60 P **P** **22 25 46.5 +1.9**
comp=Z,44nm,0.8s
BATI Baumata 17.55 100 P **Pn** **22 25 49.7 -1.4**
comp=Z,41nm,0.3s,baz=297,slow=2.3,SNR=17
BATI S Sn 22 28 55.0 -11
comp=Z,12nm,0.3s,baz=286,slow=7.4,SNR=1.7
comp=Z,89nm,0.4s
BATI AML AML
BATI Baumata 17.55 100 P **Pn** **22 25 50.8 -0.3**
comp=Z,186nm,0.7s
LUWI Luwuk 17.77 70 **P** **22 25 54.6 +0.5**
LUWI IAmb IAmb 22 25 59.9
comp=Z,157nm,1.1s
LUWI Luwuk 17.77 70 P **P** **22 25 57.1 +3.0**
comp=Z,132nm,1.2s
SOEI Soe 18.09 99 P **Pn** **22 25 57.7 -0.1**
SOEI IAmb IAmb 22 26 05.4
comp=Z,96nm,0.6s
SOEI Soe 18.09 99 P **P** **22 25 59.6 +1.8**
comp=Z,171nm,0.9s
MBWA Marble Bar 18.96 137 P **P** **22 26 06.7 -0.5**
MBWA Marble Bar 18.96 137 **P** **22 26 06.1 -1.0**
MBWA Marble Bar 18.96 137 P **Pn** **22 26 07.8 -0.4**
comp=Z,40nm,0.9s
SANI Sanana 20.50 76 P **P** **22 26 24.5 +0.5**
comp=Z,36nm,1.5s
NLAI Namlea 21.29 80 P **P** **22 26 34.5 +1.9**
comp=Z,55nm,0.9s
FITZ Fitzroy Crossi 21.77 121 P **P** **22 26 38.4 +0.7**
comp=Z,45nm,0.7s,baz=298,slow=7.2,SNR=70
FITZ S **S** **22 30 27.3 -8.9**
comp=Z,6.2nm,0.9s,baz=331,slow=19,SNR=1.6
FITZ LR LR 22 35 05.1
comp=Z,195nm,20.2s,baz=322,slow=36
comp=Z,45nm,0.7s
FITZ Fitzroy Crossi 21.77 121 P **P** **22 26 37.5 -0.1**
FITZ Fitzroy Crossi 21.77 121 P **P** **22 26 38.3 +0.7**
comp=Z,15nm,0.9s
MEEK Meekatharra 22.50 150 P **P** **22 26 45.0 -0.5**
TNTI Ternate 22.70 70 **P** **22 26 46.5 -1.2**
TNTI IAmb IAmb 22 26 51.8
comp=Z,83nm,0.9s
TNTI Ternate 22.70 70 P **P** **22 26 48.9 +1.2**
comp=Z,108nm,1.2s
PBA Port Blair 23.16 325 P **P** **22 26 53.7 +1.4**
PBA Port Blair 23.16 325 P **P** **22 26 50.7 -1.6**
MORW Morawa 23.48 158 P **P** **22 26 54.6 -0.7**
MORW Morawa 23.48 158 P **P** **22 26 53.8 -1.5**
MORW IAmb IAmb 22 26 57.2
comp=Z,50nm,0.9s
MORW Morawa 23.48 158 P **P** **22 26 55.0 -0.3**
comp=Z,71nm,0.9s
KNRA Kununurra 23.63 112 P **P** **22 26 56.2 -0.7**
DAV Davao City (W) 24.16 54 LR LR 22 37 06.2
comp=Z,148nm,19.9s,baz=243,slow=38
DAV Davao City (W) 24.16 54 P **P** **22 27 01.5 -0.3**
DAV IAmb IAmb 22 27 10.5
comp=Z,151nm,1.0s
BLDU Ballidu 25.12 158 P **P** **22 27 09.4 -0.9**
MTN Manton Dam 25.19 104 P **P** **22 27 11.5 +0.3**
SIJI Sorong 25.90 77 LR LR 22 40 23.3
comp=Z,73nm,18.8s,baz=114,slow=43
SIJI Sorong 25.90 77 P **P** **22 27 17.1 -0.5**
comp=Z,50nm,0.8s
KLBR Kellerberrin 26.39 157 P **P** **22 27 20.8 -1.0**
FAKI Fak Fak 26.40 82 P **P** **22 27 22.9 +0.8**
FAKI Fak Fak 26.40 82 P **P** **22 27 21.6 -0.6**
QIZ Qiongzhong 26.54 8 P **P** **22 27 26.4 +3.1**
QIZ S **S** **22 31 58.8 +4.0**
QIZ L L
comp=Z,620nm,16.5s
QIZ L L
comp=Z,390nm,9.9s
QIZ L L
comp=Z,620nm,14.8s
CM31 Chiang Mai Arr 26.67 345 P **P** **22 27 23.1 -1.4**
CM31 Chiang Mai Arr 26.67 345 P **P** **22 27 23.0 -1.5**
CMAR Chiang Mai Arr 26.67 345 P **P** **22 27 23.5 -1.0**
comp=Z,5.5nm,0.5s,baz=167,slow=9.3,SNR=69
CMAR ScP **ScP** **22 34 24.7 +0.3**
comp=Z,0.8nm,0.3s,baz=175,slow=2.7,SNR=8.9
comp=Z,5.5nm,0.5s
CMAR Chiang Mai Arr 26.67 345 *i*P **P** **22 27 23.7 -0.8**
CMAR pmax pmax
comp=Z,7.0nm,0.5s
CMAR Chiang Mai Arr 26.67 345 P **P** **22 27 22.8 -1.7**
CMAR **ScP** **22 34 23.4 -0.9**
CHTO Chiang Mai 27.01 345 P **P** **22 27 26.5 -1.0**
CHTO Chiang Mai 27.01 345 P **P** **22 27 25.9 -1.7**
CHTO Chiang Mai 27.01 345 P **P** **22 27 25.9 -1.7**
CHTO pmax pmax
comp=Z,12nm,0.8s
CHTO Chiang Mai 27.01 345 P **P** **22 27 25.9 -1.7**
CHTO Chiang Mai 27.01 345 P **P** **22 27 26.6 -1.0**
comp=Z,18nm,1.0s
NWAO Narrogin (SRO) 27.39 159 LR LR 22 37 02.2
comp=Z,480nm,21.4s,baz=308,slow=33
NWAO Narrogin (SRO) 27.39 159 P **P** **22 27 30.1 -0.8**
NWAO Narrogin (SRO) 27.39 159 P **P** **22 27 28.2 -2.7**
H01W3 Cape Leeuwin H 28.31 166 T T 22 57 20.6
baz=346,slow=76,SNR=287
H01W1 Cape Leeuwin H 28.32 166 T T 22 57 21.4
baz=346,slow=76,SNR=218
H01W2 Cape Leeuwin H 28.32 166 T T 22 57 21.2
baz=346,slow=76,SNR=334
NPW Naypyitaw 28.76 340 P **P** **22 27 41.9 -1.2**
comp=Z,9.1nm,1.0s
PALK Pallekele 29.25 299 LR LR 22 38 23.7
comp=Z,196nm,20.4s,baz=128,slow=34
PALK Pallekele 29.25 299 P **P** **22 27 50.9 +3.2**
WB0 Warramunga Arr 30.03 117 P **P** **22 27 53.9 -0.7**
WRA Warramunga Arr 30.05 117 P **P** **22 27 53.3 -1.4**
comp=Z,10nm,0.8s,baz=291,slow=8.4,SNR=46
WRA PcP **PcP** **22 30 56.6 +0.5**
comp=Z,1.6nm,0.5s,baz=313,slow=2.0,SNR=3.4
WRA ScP **ScP** **22 34 35.1 +0.2**
comp=Z,2.1nm,1.0s,baz=296,slow=2.3,SNR=4.3
comp=Z,10nm,0.8s
WRA Warramunga Arr 30.05 117 P **P** **22 27 54.0 -0.7**
WRA Warramunga Arr 30.05 117 **P** **22 27 54.0 -0.7**
WRAB Tennant Creek 30.05 117 P **P** **22 27 54.6 -0.1**
WRAB Tennant Creek 30.05 117 P **P** **22 27 55.0 +0.3**
WRAB pP **pP** **22 28 05.8 -0.6**
ASAR Alice Springs 31.16 124 P **P** **22 28 04.7 +0.2**
comp=Z,16nm,0.6s,baz=299,slow=8.7,SNR=118
ASAR PcP **PcP** **22 30 59.3 +0.3**
comp=Z,2.2nm,0.7s,baz=297,slow=3.5,SNR=6.1
ASAR ScP **ScP** **22 34 38.8 +0.2**
comp=Z,2.3nm,0.9s,baz=297,slow=3.5,SNR=7.7
ASAR LR LR 22 41 09.6
comp=Z,199nm,21.2s,baz=287,slow=37
comp=Z,16nm,0.6s
ASAR Alice Springs 31.16 124 P **P** **22 28 04.3 -0.2**
ASAR **PcP** **22 30 59.6 +0.7**
ASAR **ScP** **22 34 38.0 -0.6**
AS31 Alice Springs 31.16 124 P **P** **22 28 04.5 0.0**
KMI2 Kunming 32.54 354 P **P** **22 28 16.8 +0.1**
KMI2 pmax pmax
comp=Z,9.0nm,0.6s
KMI2 L L
comp=Z,360nm,24.3s
KMI2 L L
comp=Z,250nm,16.8s
KMI2 L L
comp=Z,640nm,17.4s
BRDH Bariadhala 33.10 335 LR LR 22 44 06.1
comp=Z,268nm,21.3s,baz=170,slow=40
H08S2 Diego Garcia H 33.33 267 T T 23 03 36.5
baz=92,slow=75,SNR=173
H08S3 Diego Garcia H 33.34 267 T T 23 03 45.2
baz=92,slow=75,SNR=184
H08S1 Diego Carcia H 33.35 267 T T 23 03 42.3
baz=92,slow=75,SNR=205
TPUB Ta-pu 33.67 25 P **P** **22 28 27.8 +1.4**
TPUB Ta-pu 33.67 25 P **P** **22 28 26.2 -0.2**
GYA Guiyang 33.68 1 ||P **P** **22 28 30.7 +4.1**
GYA pmax pmax
comp=Z,10.0nm,0.6s
SSLB Suanglung 34.24 25 P **P** **22 28 31.3 0.0**
JAY Jayapura 34.78 84 LR LR 22 45 39.1
comp=Z,84nm,20.7s,baz=212,slow=41
JAY Jayapura 34.78 84 P **P** **22 28 38.1 +1.8**
JAY pmax pmax
comp=Z,27nm,1.1s
JAY Jayapura 34.78 84 P **P** **22 28 38.1 +1.8**
comp=Z,27nm,1.1s
QIS Mount Isa 34.92 115 P **P** **22 28 38.3 +0.9**
QIS Mount Isa 34.92 115 P **P** **22 28 38.4 +0.9**
comp=Z,26nm,1.0s
SHL Shillong 35.59 338 P **P** **22 28 42.8 -0.4**
SNR=5.2
SHL Shillong 35.59 338 P **P** **22 28 41.2 -2.0**
SHL pmax pmax
comp=Z,16nm,0.7s
SHL Shillong 35.59 338 P **P** **22 28 41.2 -2.0**
SHL IAmb IAmb 22 28 42.9
comp=Z,16nm,0.7s
HYB Hyderabad 36.76 312 *e*P **P** **22 28 53.0 -0.1**
HYB IVmB_BB 22 28 55.3
comp=Z,215nm,2.3s
HYB *e*sP **sP** **22 29 09.5 +0.4**
HYB *e*ScS ScS 22 39 05.2 -0.4
BBOO Buckleboo 37.54 136 P **P** **22 28 59.4 -0.2**
BBOO Buckleboo 37.54 136 P **P** **22 28 58.5 -1.1**
BBOO IAmb IAmb 22 29 41.1
comp=Z,100nm,1.8s
ENH Enshi 37.62 5 P **P** **22 28 58.4 -1.8**
ENH IAmb IAmb 22 29 03.9
comp=Z,8.9nm,0.5s
CD2 Chengdu 38.18 357 *e*P **P** **22 29 06.4 +1.5**
MTSU Mount Surprise 38.66 110 P **P** **22 29 10.5 +1.3**
MTSU Mount Surprise 38.66 110 P **P** **22 29 10.8 +1.6**
comp=Z,9.5nm,0.8s
LSA Lhasa 39.62 339 P **P** **22 29 16.5 -1.0**
LSA pmax pmax
comp=Z,19nm,0.8s
LSA Lhasa 39.62 339 P **P** **22 29 17.1 -0.4**
LSA pmax pmax
comp=Z,25nm,1.0s
LSA Lhasa 39.62 339 P **P** **22 29 17.1 -0.4**
comp=Z,25nm,0.9s
EVN Everest 39.81 333 P **P** **22 29 18.1 -1.2**
EVN IAmb IAmb 22 29 20.6
comp=Z,15nm,0.4s
HTT Hallett 39.87 135 P **P** **22 29 19.5 +0.3**
PMG Port Moresby 40.63 96 P **P** **22 29 25.2 -0.4**
PMG pmax pmax
comp=Z,42nm,1.0s
PMG Port Moresby 40.63 96 P **P** **22 29 25.2 -0.4**
PMG IAmb IAmb 22 29 34.7
comp=Z,42nm,1.0s
PMG Port Moresby 40.63 96 P **P** **22 29 29.2 +3.6**
comp=Z,47nm,1.1s
CTA Charters Tower 40.85 112 LR LR 22 50 01.5
comp=Z,67nm,18.1s,baz=250,slow=41
CTAO Charters Tower 40.85 112 P **P** **22 29 27.4 0.0**
CTAO pmax pmax
comp=Z,22nm,0.9s
CTAO Charters Tower 40.85 112 P **P** **22 29 27.4 0.0**
CTAO Charters Tower 40.85 112 P **P** **22 29 28.9 +1.5**
comp=Z,28nm,0.9s
CTAO Charters Tower 40.85 112 P **P** **22 29 28.4 +1.0**
QLP Quilpie 40.90 122 P **P** **22 29 29.4 +1.7**
comp=Z,34nm,1.4s
STKA Stephens Creek 41.01 131 P **P** **22 29 29.2 +0.7**
comp=Z,73nm,0.8s,baz=303,slow=9.6,SNR=82
STKA LR LR 22 46 19.2
comp=Z,202nm,21.9s,baz=271,slow=36
comp=Z,73nm,0.8s
STKA Stephens Creek 41.01 131 P **P** **22 29 28.8 +0.2**
STKA Stephens Creek 41.01 131 P **P** **22 29 28.6 0.0**
STKA pmax pmax
comp=Z,266nm,0.8s
STKA Stephens Creek 41.01 131 P **P** **22 29 28.6 0.0**
STKA Stephens Creek 41.01 131 P **P** **22 29 29.6 +1.0**
comp=Z,369nm,1.3s
NJ2 Nanjing 41.09 17 *e*P **P** **22 29 32.8 +3.7**
NJ2 pmax pmax
comp=Z,11nm,0.6s
XAN Xi'an 41.32 4 P **P** **22 29 29.9 -1.1**
XAN pP pP 22 29 41.5 -0.9
XAN pmax pmax
comp=Z,17nm,1.1s
XAN L L
comp=Z,460nm,24.0s
XAN L L
comp=Z,340nm,20.6s
XAN L L
comp=Z,470nm,22.0s
MANU Manus Island 41.43 85 P **P** **22 29 32.7 +0.5**
MANU IAmb IAmb 22 30 22.5
comp=Z,15nm,0.6s
LYN LuoYang 42.17 8 P **P** **22 29 37.8 -0.1**
LYN pmax pmax
comp=Z,22nm,1.0s
LYN pmax pmax
comp=Z,300nm,5.5s
LZDM Lanzhou Array 43.21 357 P **P** **22 29 45.6 -1.1**
comp=Z,4.1nm,0.5s,baz=177,slow=9.7,SNR=8.4
LZDM PcP **PcP** **22 31 36.8 +1.3**
comp=Z,1.1nm,0.3s,baz=197,slow=4.5,SNR=4.6
LZDM ScP **ScP** **22 35 22.9 -0.5**
comp=Z,1.0nm,0.3s,baz=191,slow=5.9,SNR=1.7
comp=Z,4.1nm,0.5s
LZH Lanzhou 43.33 357 *e*P **P** **22 29 46.3 -1.2**
LZH pP pP 22 29 56.7 -2.2
LZH sP sP 22 30 04.8 +1.0
LZH pmax pmax
comp=Z,19nm,1.1s
GUMO Guam 43.77 62 LR LR 22 50 12.5
comp=Z,20nm,18.1s,baz=90,slow=39
CMSA Cobar Meteorol 43.98 128 P **P** **22 29 53.7 +1.0**
CMSA Cobar Meteorol 43.98 128 P **P** **22 29 54.2 +1.5**
comp=Z,70nm,0.9s
GOMU GeErMu 44.67 347 P **P** **22 29 57.1 -1.4**
GOMU pmax pmax
comp=Z,9.0nm,0.8s
JSU Suzuyama 45.16 30 P **P** **22 30 00.9 -1.2**
HNS HongShan 45.30 10 ⇑P **P** **22 30 02.7 -0.3**
KRVT Keravat (AS076 45.75 89 LR LR 22 53 13.0
comp=Z,30nm,18.2s,baz=282,slow=41
EIDS Eidsvold 46.41 118 P **P** **22 30 12.8 +0.8**
EIDS IAmb IAmb 22 31 28.1
comp=Z,41nm,1.9s
TOO Toolangi 46.60 136 P **P** **22 30 15.2 +1.8**
TOO pmax pmax
comp=Z,32nm,1.8s
TOO Toolangi 46.60 136 P **P** **22 30 15.2 +1.8**
TOO IAmb IAmb 22 31 12.9
comp=Z,32nm,1.8s
JNU Nakatsue 46.69 29 LR LR 22 50 00.2
comp=Z,26nm,20.7s,baz=196,slow=36
GTA2 Gaotai 47.04 353 P **P** **22 30 16.6 -0.2**
GTA2 pP pP 22 30 25.1 -3.3
GTA2 PcP **PcP** **22 31 50.7 +2.2**
GTA2 pmax pmax
comp=Z,16nm,0.8s
JTU Tsushima 47.17 26 P **P** **22 30 16.1 -1.7**
BTO2 Baotou 48.05 4 *e*P **P** **22 30 23.3 -1.4**
BTO2 pP **pP** **22 30 35.8 -0.4**
BTO2 sP **sP** **22 30 41.0 -0.1**
BTO2 pmax pmax
comp=Z,26nm,0.9s
BTO2 pmax pmax
comp=Z,460nm,6.4s
CAN Canberra 48.08 132 P **P** **22 30 26.3 +1.4**
CAN Canberra 48.08 132 P **P** **22 30 26.0 +1.1**
CAN pmax pmax
comp=Z,25nm,0.7s
CAN Canberra 48.08 132 P **P** **22 30 26.0 +1.1**
CAN IAmb IAmb 22 30 27.6
comp=Z,25nm,0.7s
CAN Canberra 48.08 132 P **P** **22 30 26.6 +1.6**
CAN PcP **PcP** **22 31 53.2 +0.9**
BJI2 Beijing 48.11 10 P **P** **22 30 26.2 +1.3**
BJI2 S **S** **22 37 26.0 +5.4**
BJI2 pmax pmax
comp=Z,14nm,0.6s
BJI2 pmax pmax
comp=Z,130nm,3.8s
BJI2 L L
comp=Z,380nm,5.6s
BJI2 L L
comp=Z,190nm,5.3s
BJI2 L L
comp=Z,110nm,5.8s
HHC Hu-ho-hao-te 48.29 6 *e*P P 22 30 31.1 +4.6
HHC pmax pmax
comp=Z,9.0nm,0.6s
HHC pmax pmax
comp=Z,320nm,5.4s
JMN Monobe 48.66 31 P **P** **22 30 27.9 -1.5**
JMN IAmb IAmb 22 30 50.2
comp=Z,40nm,1.3s
KSAR Wonju Array Be 49.05 23 P **P** **22 30 31.9 -0.3**
KSAR Wonju Array Be 49.05 23 P **P** **22 30 31.9 -0.3**
KSRS Korea Array 49.08 23 P **P** **22 30 31.2 -1.2**
comp=Z,6.6nm,0.8s,baz=206,slow=8.1,SNR=17
comp=Z,6.6nm,0.8s
NIL Nilore 51.39 325 P **P** **22 30 49.7 -0.3**
NIL Nilore 51.39 325 P **P** **22 30 49.6 -0.5**
NIL pmax pmax
comp=Z,108nm,1.3s
NIL Nilore 51.39 325 P **P** **22 30 49.6 -0.5**
NIL Nilore 51.39 325 P **P** **22 30 49.9 -0.2**
comp=Z,90nm,0.9s
MJAR Matsushiro Arr 53.09 32 P **P** **22 30 59.8 -2.8**
comp=Z,4.4nm,0.6s,baz=213,slow=8.0,SNR=12
MJAR LR LR 22 54 31.4
comp=Z,32nm,20.7s,baz=204,slow=37
comp=Z,4.4nm,0.6s
TATA Tatamba Isabel 53.15 95 P **P** **22 31 05.7 +2.2**
WMQ Urumqi 53.67 344 *e*P **P** **22 31 07.2 +0.4**
WMQ pmax pmax
comp=Z,13nm,0.9s
WMQ L L
comp=Z,100nm,24.1s
KSH2 Kashi 54.31 331 P **P** **22 31 10.7 -1.0**
KSH2 pmax pmax
comp=Z,27nm,0.7s
WUS Wushi 54.33 335 P **P** **22 31 10.8 -1.0**
WUS IAmb IAmb 22 31 12.3
comp=Z,34nm,0.8s
WUS Wushi 54.33 335 P **P** **22 31 11.3 -0.4**
comp=Z,47nm,0.7s
WUS Wushi 54.33 335 P **P** **22 31 11.1 -0.7**
JLN Jalan Bani Buh 54.39 304 P **P** **22 31 14.1 +1.7**
KBL Kabul 54.50 322 P **P** **22 31 13.0 -0.3**
SNR=16
KBL Kabul 54.50 322 P **P** **22 31 12.2 -1.0**
KBL pmax pmax
comp=Z,21nm,0.9s
KBL Kabul 54.50 322 P **P** **22 31 12.2 -1.0**
KBL IAmb IAmb 22 31 14.6
comp=Z,21nm,0.8s
KBL Kabul 54.50 322 P **P** **22 31 12.9 -0.3**
comp=Z,30nm,1.3s
NGCH Negor - Chabah 54.55 308 P **P** **22 31 15.3 +1.8**
WBK Wadi Bani Khal 54.96 304 P **P** **22 31 18.4 +1.9**
DQM DQM 54.98 301 P **P** **22 31 18.9 +2.2**
SONM Songino Array 55.02 0 P **P** **22 31 16.1 -0.4**
comp=Z,7.3nm,0.4s,baz=176,slow=9.3,SNR=64
SONM PcP **PcP** **22 32 17.6 -0.2**
comp=Z,3.7nm,0.4s,baz=178,slow=3.8,SNR=10
SONM ScP **ScP** **22 36 12.2 -0.9**
comp=Z,1.1nm,0.6s,baz=170,slow=5.0,SNR=4.6
SONM LR LR 22 56 31.0
comp=Z,249nm,21.8s,baz=181,slow=38
comp=Z,7.3nm,0.4s
SONM Songino Array 55.02 0 P **P** **22 31 16.2 -0.4**
SONM 22 32 17.7
SONM pmax pmax
comp=Z,11nm,1.0s
SONM Songino Array 55.02 0 P **P** **22 31 16.2 -0.4**
SONM **PcP** **22 32 17.7 -0.2**
SONM **ScP** **22 36 11.8 -1.3**
ULN Ulaanbaatar 55.05 1 ⇑*i*P **P** **22 31 16.3 -0.5**
ULN pmax pmax
comp=Z,7.0nm,0.6s
ULN Ulaanbaatar 55.05 1 P **P** **22 31 16.4 -0.5**
ULN Ulaanbaatar 55.05 1 P **P** **22 31 16.6 -0.3**
comp=Z,12nm,0.8s
ULN Ulaanbaatar 55.05 1 P **P** **22 31 16.4 -0.5**
ULN PcP **PcP** **22 32 18.0 -0.1**
MHTO MHTO 55.07 302 P **P** **22 31 18.8 +1.5**
ASAI AK-SAY(Kyrgyzs 55.27 333 P **P** **22 31 18.7 -0.1**
comp=Z,9.8nm,0.8s
ASAI pP **pP** **22 31 27.4 -3.2**
TARG Taragay, Kyrgy 55.36 334 P **P** **22 31 19.3 -0.3**
TARG pmax pmax
comp=Z,11nm,0.7s
TARG Taragay, Kyrgy 55.36 334 **P** **22 31 19.3 -0.3**

TARG IAmb IAmb 22 31 29.4
comp=Z,11nm,0.7s
TARG Taragay, Kyrgy 55.36 334 P **P** **22 31 20.3 +0.8**
comp=Z,16nm,0.9s
WSAR Wadi Sarin 55.52 305 P **P** **22 31 22.5 +1.9**
JMDO Jabal Madar 55.56 303 P **P** **22 31 22.7 +1.8**
SHLS Shalkode 55.87 337 *eP* **P** **22 31 21.5 -1.3**
SHLS pmax pmax
comp=Z,8.0nm,0.4s
SHLS Shalkode 55.87 337 *eP* **P** **22 31 21.6 -1.3**
comp=Z,8.2nm,0.4s
SHAO Shalim 55.89 298 P **P** **22 31 25.4 +2.1**
NRN Naryn 55.91 333 P **P** **22 31 22.5 -1.0**
NRN pmax pmax
comp=Z,17nm,0.6s
NRN Naryn 55.91 333 **P** **22 31 22.5 -1.0**
NRN IAmb IAmb 22 31 23.5
comp=Z,17nm,0.6s
SMDO Samad 55.92 304 P **P** **22 31 25.2 +1.7**
PDGK Podgornoye 56.00 337 P **P** **22 31 22.9 -0.9**
PDGK Podgornoye 56.00 337 P **P** **22 31 22.9 -0.9**
UZB Uzynbulak 56.03 336 *d iP* **P** **22 31 23.6 -0.4**
UZB pmax pmax
comp=Z,7.0nm,0.4s
UZB Uzynbulak 56.03 336 ⇓ *iP* **P** **22 31 23.7 -0.3**
comp=Z,7.0nm,0.4s
BIDO Bidbid 56.06 305 P **P** **22 31 26.4 +1.9**
SNR=6.2
SATY Saty 56.21 336 *d iP* **P** **22 31 24.9 -0.4**
SATY pmax pmax
comp=Z,7.0nm,0.7s
SATY Saty 56.21 336 ⇓ *iP* **P** **22 31 24.9 -0.4**
comp=Z,6.7nm,0.7s
BNX BinXian 56.25 18 ⇓P **P** **22 31 24.9 -0.4**
BNX pmax pmax
comp=Z,12nm,0.8s
DMTO DMTO 56.37 297 P **P** **22 31 28.9 +2.2**
KPKS Kokpek 56.44 336 *eP* **P** **22 31 26.4 -0.4**
KPKS Kokpek 56.44 336 *eP* **P** **22 31 26.5 -0.4**
USA0B Ussuriysk Arra 56.45 22 P **P** **22 31 25.7 -1.1**
USA0B pmax pmax
comp=Z,8.0nm,0.6s
USA0B Ussuriysk Arra 56.45 22 P **P** **22 31 25.7 -1.1**
USA0B IAmb IAmb 22 31 27.1
comp=Z,7.9nm,0.6s
USRK Ussuriysk Ar. 56.45 22 P **P** **22 31 25.6 -1.2**
comp=Z,6.7nm,0.5s,baz=206,slow=6.2,SNR=27
USRK LR LR 22 56 49.8
comp=Z,54nm,18.8s,baz=240,slow=37
comp=Z,6.7nm,0.5s
DRK Karamyk 56.45 328 P **P** **22 31 26.7 -0.6**
DRK pmax pmax
comp=Z,50nm,0.6s
DRK Karamyk 56.45 328 P **P** **22 31 26.7 -0.6**
DRK Karamyk 56.45 328 P **P** **22 31 27.6 +0.3**
comp=Z,80nm,0.6s
BSY Bisya 56.48 303 P **P** **22 31 29.1 +1.7**
OHH Osh 56.73 330 P **P** **22 31 27.4 -1.6**
OHH pmax pmax
comp=Z,68nm,0.7s
OHH Osh 56.73 330 P **P** **22 31 27.4 -1.6**
comp=Z,68nm,0.7s
HOQ Hoqain 56.76 304 P **P** **22 31 31.4 +2.0**
BOOM Boomskoye usch 56.79 334 P **P** **22 31 28.6 -0.9**
BOOM pmax pmax
comp=Z,16nm,0.7s
BOOM Boomskoye usch 56.79 334 P **P** **22 31 28.6 -0.9**
BOOM IAmb IAmb 22 31 30.0
comp=Z,16nm,0.7s
TNSS Tian-Shan 56.80 335 *eP* **P** **22 31 29.0 -0.7**
TNSS Tian-Shan 56.80 335 *eP* **P** **22 31 29.1 -0.7**
MDOK Medeo 56.86 335 *eP* **P** **22 31 29.5 -0.4**
MDOK Medeo 56.86 335 *eP* **P** **22 31 29.5 -0.4**
UCH Uchtor 57.22 332 P **P** **22 31 32.5 -0.4**
SNR=8.8
ARSB Arslanbob 57.24 331 P **P** **22 31 32.2 -0.5**
ARSB pmax pmax
comp=Z,51nm,0.5s
ARSB Arslanbob 57.24 331 **P** **22 31 32.2 -0.5**
TKM2 Tokmak 2 57.28 334 P **P** **22 31 32.3 -0.7**
SNR=70
ARQ Araqi 57.30 304 P **P** **22 31 35.0 +1.8**
KBK Karagaybulak 57.36 333 P **P** **22 31 33.4 -0.1**
SNR=27
JASK Jask - Hormozg 57.37 307 P **P** **22 31 35.5 +1.8**
BTK Batken 57.39 328 P **P** **22 31 33.2 -0.5**
BTK pmax pmax
comp=Z,26nm,0.5s
BTK Batken 57.39 328 P **P** **22 31 33.1 -0.5**
BTK IAmb IAmb 22 31 34.5
comp=Z,26nm,0.5s
BTK Batken 57.39 328 P **P** **22 31 33.5 -0.1**
comp=Z,44nm,0.7s
DOK Doka 57.42 298 P **P** **22 31 35.3 +1.1**
WHFO Wadi Hawf 57.48 297 P **P** **22 31 35.7 +1.0**
AAK Ala-Archa 57.55 333 LR LR 22 59 30.5
comp=Z,76nm,20.6s,baz=154,slow=39
AAK Ala-Archa 57.55 333 P **P** **22 31 34.0 -0.8**
SNR=8.1
AAK Ala-Archa 57.55 333 *i* P **P** **22 31 34.7 -0.1**
SNR=8.9
AAK Ala-Archa 57.55 333 P **P** **22 31 34.4 -0.4**
AAK Ala-Archa 57.55 333 *de*P **P** **22 31 34.6 -0.3**
AAK pmax pmax
comp=Z,7.0nm,0.7s
AAK Ala-Archa 57.55 333 P **P** **22 31 33.8 -1.0**
AAK Ala-Archa 57.55 333 P **P** **22 31 34.8 -0.1**
comp=Z,8.3nm,0.7s
AAK Ala-Archa 57.55 333 P **P** **22 31 34.4 -0.4**
FRU1 Bishkek 57.63 333 P **P** **22 31 34.2 -1.1**
FRU1 pmax pmax
comp=Z,26nm,0.6s
FRU1 Bishkek 57.63 333 P **P** **22 31 34.2 -1.1**
FRU1 IAmb IAmb 22 31 35.8
comp=Z,26nm,0.6s
SOHO SOHO 57.64 305 P **P** **22 31 36.7 +1.1**
SOHO SOHO 57.64 305 P **P** **22 31 36.9 +1.3**
ABTO Aybut 57.70 296 P **P** **22 31 38.3 +2.1**
CHMS Chumysh 57.72 333 P **P** **22 31 35.1 -0.8**
SNR=5.8
ZSN Zaisan 57.79 343 *eP* **P** **22 31 36.0 -0.2**
ZSN Zaisan 57.79 343 *eP* **P** **22 31 36.0 -0.2**
TDK Taldyqorghan 57.83 337 *eP* **P** **22 31 36.4 -0.2**
TDK pmax pmax
comp=Z,12nm,0.7s
TDK Taldyqorghan 57.83 337 *eP* **P** **22 31 36.4 -0.2**
comp=Z,12nm,0.7s
EKS2 Erkin-Say 57.90 332 P **P** **22 31 37.0 -0.3**
SNR=23
HILR Hailar Array B 57.98 10 P **P** **22 31 36.2 -1.4**
comp=Z,9.8nm,0.5s,baz=196,slow=9.0,SNR=8.5
comp=Z,9.8nm,0.5s
MK31 Makanchi Array 57.99 341 *d iP* **P** **22 31 36.6 -1.1**
MKAR Makanchi Array 57.99 341 P **P** **22 31 36.5 -1.2**
comp=Z,19nm,0.6s,baz=150,slow=8.2,SNR=160
MKAR LR LR 22 59 14.2
comp=Z,88nm,19.5s,baz=158,slow=39
comp=Z,19nm,0.6s
MKAR Makanchi Array 57.99 341 P **P** **22 31 36.7 -1.0**
MKAR Makanchi Array 57.99 341 P **P** **22 31 36.7 -1.0**
USP Ospenovka 58.05 333 P **P** **22 31 37.1 -1.0**
SNR=17
MAKZ Makanchi 58.11 341 P **P** **22 31 37.6 -0.9**
MAKZ pmax pmax
comp=Z,6.0nm,1.0s
MAKZ Makanchi 58.11 341 P **P** **22 31 37.6 -0.9**
MAKZ Makanchi 58.11 341 P **P** **22 31 37.5 -0.9**
comp=Z,7.7nm,1.2s
MAKZ Makanchi 58.11 341 P **P** **22 31 37.5 -0.9**
UMZA Um Al Zommool 58.16 302 P **P** **22 31 40.5 +1.2**
ABPO Ambohimpanom 58.24 252 P **P** **22 31 40.8 +0.6**
ABPO pmax pmax
comp=Z,15nm,1.2s
ABPO Ambohimpanom 58.24 252 P **P** **22 31 40.8 +0.6**
ABPO IAmb IAmb 22 31 42.8
comp=Z,15nm,1.2s
ALNE Al Ain 58.25 304 *i* P **P** **22 31 41.5 +1.6**
SNR=7.4
ALNE Al Ain 58.25 304 P **P** **22 31 41.7 +1.8**
UOSS Minazif 58.27 305 P **P** **22 31 41.3 +1.3**
UOSS Minazif 58.27 305 P **P** **22 31 41.4 +1.3**
UOSS Minazif 58.27 305 P **P** **22 31 39.9 -0.1**
UOSS IAmb IAmb 22 31 46.5
comp=Z,9.0nm,0.7s
UOSS Minazif 58.27 305 P **P** **22 31 40.2 +0.2**
comp=Z,16nm,0.9s
ASHO Ashiyiah 58.27 305 *i* P **P** **22 31 41.3 +1.2**
SNR=9.7
ASHO Ashiyiah 58.27 305 P **P** **22 31 41.6 +1.5**
HATD Hatta, Dubai 58.28 305 *i* P **P** **22 31 41.7 +1.6**
SNR=9.8
HATD Hatta, Dubai 58.28 305 P **P** **22 31 41.8 +1.6**
TRKS Terek-Say 58.31 330 P **P** **22 31 39.5 -0.7**
TRKS pmax pmax
comp=Z,40nm,0.9s
MDH Madha 58.36 306 P **P** **22 31 41.2 +0.6**
MDH Madha 58.36 306 P **P** **22 31 41.3 +0.6**
MSFE Esma-Masafi 58.50 306 P **P** **22 31 43.4 +1.8**
MASF Masafi 58.50 306 P **P** **22 31 43.3 +1.6**
BANOM Banah 58.64 306 P **P** **22 31 44.6 +2.0**
FAQ Al Faqa, Dubai 58.68 305 P **P** **22 31 44.6 +1.8**
FAQ Al Faqa, Dubai 58.68 305 P **P** **22 31 44.2 +1.3**
SNR=6.3
HRA Herat 58.73 318 P **P** **22 31 42.2 -1.1**
NAZ Nazwa, Dubai 58.73 305 P **P** **22 31 45.0 +1.8**
NAZ Nazwa, Dubai 58.73 305 P **P** **22 31 44.8 +1.6**
SHME Shamm 58.83 306 P **P** **22 31 45.7 +1.9**
VOI Vohitsoka 58.84 249 P **P** **22 31 46.0 +1.7**
VOI Vohitsoka 58.84 249 P **P** **22 31 44.4 +0.2**
ASUD Al Ashush, Dub 58.84 305 P **P** **22 31 46.0 +2.0**
ASUD Al Ashush, Dub 58.84 305 P **P** **22 31 45.7 +1.7**
CASY Casey 58.84 178 P **P** **22 31 43.3 0.0**
CASY IAmb IAmb 22 31 44.6
comp=Z,22nm,0.8s
CASY Casey 58.84 178 P **P** **22 31 43.7 +0.4**
comp=Z,30nm,1.0s
CASY Casey 58.84 178 P **P** **22 31 43.7 +0.4**
CASY pP **pwP** **22 31 56.4 -2.1**
TLY Talaya 58.91 358 LR LR 23 00 06.7
comp=Z,141nm,18.1s,baz=156,slow=39
TLY Talaya 58.91 358 *de*P **P** **22 31 44.7 +0.8**
TLY pmax pmax
comp=Z,6.0nm,1.1s
TLY Talaya 58.91 358 P **P** **22 31 43.2 -0.7**
UMQ Umm Al-Quwin 58.97 306 P **P** **22 31 46.7 +1.8**
AJN Ajban 59.10 304 P **P** **22 31 47.6 +1.8**
IUG Iuzhnay 59.32 329 *eP* **P** **22 31 46.8 -0.3**
IUG pmax pmax
comp=Z,13nm,0.7s
IUG Iuzhnay 59.32 329 *eP* **P** **22 31 46.9 -0.3**
comp=Z,13nm,0.7s
MZWR Madinat Zayed 59.67 303 P **P** **22 31 51.2 +1.5**
MZR Muzera 59.69 302 *i* P **P** **22 31 51.6 +1.7**
SNR=12
MZR Muzera 59.69 302 P **P** **22 31 51.7 +1.7**
KK31 Karatay Array 59.79 330 P **P** **22 31 48.9 -1.3**
KK31 pmax pmax
comp=Z,6.0nm,0.6s
KK31 Karatay Array 59.79 330 **P** **22 31 48.9 -1.3**
KK31 IAmb IAmb 22 31 50.7
comp=Z,6.0nm,0.6s
KKAR Karatay Array 59.79 330 P **P** **22 31 49.2 -1.0**
KKAR Karatay Array 59.79 330 **P** **22 31 49.2 -1.0**
OUENC Ouen Island, N 60.17 112 P **P** **22 31 54.9 +1.7**
OUENC Ouen Island, N 60.17 112 P **P** **22 31 53.8 +0.6**
OUENC IAmb IAmb 22 32 03.6
comp=Z,50nm,1.7s
H04N2 CROZET ISLANDS 60.38 220 T T 23 37 43.3
baz=66,slow=75,SNR=169
H04N1 CROZET ISLANDS 60.39 221 T T 23 37 53.9
baz=66,slow=75,SNR=223
H04N3 CROZET ISLANDS 60.39 220 T T 23 37 42.6
baz=66,slow=75,SNR=203
H04S1 CROZET ISLANDS 60.56 220 T T 23 38 23.2
baz=65,slow=74,SNR=43
H04S3 CROZET ISLANDS 60.58 220 T T 23 38 24.8
baz=65,slow=74,SNR=30
H04S2 CROZET ISLANDS 60.58 220 T T 23 38 01.5
baz=65,slow=74,SNR=22
KLR Kul'dur 60.71 19 LR LR 22 59 56.5
comp=Z,34nm,19.5s,baz=221,slow=38
KLR Kul'dur 60.71 19 ⇓ *iP* **P** **22 31 55.0 -1.3**
KLR pmax pmax
comp=Z,53nm,3.5s
ASAJ Asahikawa 60.97 29 LR LR 22 58 08.2
comp=Z,38nm,21.4s,baz=90,slow=36
ASAJ Asahikawa 60.97 29 P **P** **22 31 56.9 -1.3**
ASAJ pmax pmax
comp=Z,102nm,1.5s
JKA Kamikawa-asahi 60.97 29 P **P** **22 31 56.9 -1.3**
JRN Qarnain Island 61.02 304 P **P** **22 32 00.0 +1.1**
KURBB Kurchatov Arra 62.55 341 P **P** **22 32 07.7 -1.0**
comp=Z,25nm,0.7s,baz=151,slow=6.1,SNR=113
KURBB LR LR 23 03 12.6
comp=Z,85nm,18.2s,baz=159,slow=40
comp=Z,25nm,0.7s
KURK Kurchatov 62.60 341 P **P** **22 32 08.5 -0.6**
KURK Kurchatov 62.60 341 *d iP* **P** **22 32 08.9 -0.2**
KURK pmax pmax
comp=Z,23nm,0.6s
KURK Kurchatov 62.60 341 P **P** **22 32 08.4 -0.7**
KURK IAmb IAmb 22 32 09.9
comp=Z,27nm,0.7s
KURK Kurchatov 62.60 341 P **P** **22 32 08.7 -0.3**
comp=Z,47nm,0.8s
KURK Kurchatov 62.60 341 P **P** **22 32 08.4 -0.7**
YSS Yuzhno-Sakhali 63.15 27 *de*P **P** **22 32 12.1 -0.7**
YSS pmax pmax
comp=Z,107nm,1.8s
SAKB Bahrain 63.34 304 P **P** **22 32 16.1 +1.6**
ZEA Zeya 63.49 14 *eP* **P** **22 32 14.9 0.0**
ZEA pmax pmax
comp=Z,10.0nm,0.7s
DRV Dumont d'Urvil 63.53 166 P **P** **22 32 15.0 0.0**
ZAA0 Zalesovo Array 63.73 346 P **P** **22 32 15.0 -1.5**
ZAA0 IAmb IAmb 22 32 16.9
comp=Z,15nm,0.5s
ZALV Zalesovo Beam 63.73 346 P **P** **22 32 15.3 -1.2**
comp=Z,15nm,0.4s,baz=154,slow=6.0,SNR=42
ZALV LR LR 23 02 10.3
comp=Z,142nm,19.4s,baz=76,slow=38
comp=Z,15nm,0.4s
ZALV Zalesovo Beam 63.73 346 *i* P **P** **22 32 15.6 -0.8**
ZALV pmax pmax
comp=Z,15nm,0.4s
ZALV Zalesovo Beam 63.73 346 **P** **22 32 14.6 -1.8**
MLZ Mavora Lakes 65.21 137 P **P** **22 32 26.9 +0.3**
WKZ Wanaka 65.69 136 P **P** **22 32 29.5 -0.1**
RAYN Ar Rayn 66.69 299 *i* P **P** **22 32 37.6 +1.2**
SNR=10
RAYN Ar Rayn 66.69 299 P **P** **22 32 37.8 +1.4**
RAYN Ar Rayn 66.69 299 P **P** **22 32 36.0 -0.4**
RAYN pmax pmax
comp=Z,13nm,1.2s
RAYN Ar Rayn 66.69 299 P **P** **22 32 36.0 -0.4**
RAYN Ar Rayn 66.69 299 P **P** **22 32 35.5 -0.9**
comp=Z,7.6nm,1.0s
RAYN Ar Rayn 66.69 299 P **P** **22 32 37.4 +1.0**
RAYN sP **sP** **22 32 54.8 +1.7**
MAW Mawson 66.71 197 P **P** **22 32 35.7 +0.1**
comp=Z,16nm,0.8s,baz=44,slow=6.7,SNR=31
MAW LR LR 22 55 60.0
comp=Z,46nm,21.4s,baz=50,slow=31
comp=Z,16nm,0.8s
MAW Mawson 66.71 197 P **P** **22 32 36.3 +0.7**
MAW pmax pmax
comp=Z,5.0nm,1.1s
MAW Mawson 66.71 197 P **P** **22 32 36.3 +0.7**
MAW Mawson 66.71 197 P **P** **22 32 36.8 +1.2**
comp=Z,4.2nm,1.0s
RPZ Rata Peaks 66.86 134 LR LR 23 01 54.6
comp=Z,53nm,20.0s,baz=108,slow=36
BVAR Borovoye Array 67.42 338 P **P** **22 32 39.8 -0.5**
comp=Z,41nm,0.4s,baz=143,slow=8.7,SNR=300
comp=Z,41nm,0.4s
BORK Borovoye 67.46 338 P **P** **22 32 40.5 -0.1**
BORK pmax pmax
comp=Z,38nm,0.6s
BORK Borovoye 67.46 338 P **P** **22 32 40.5 -0.1**
MRNZ Matariki Terra 67.64 132 P **P** **22 32 42.3 +0.2**
THZ Tophouse 67.81 132 P **P** **22 32 43.6 +0.4**
THZ IAmb IAmb 22 32 45.3
comp=Z,31nm,0.7s
KIBK Kibwezi 67.96 270 P **P** **22 32 46.2 +1.5**
KIBK Kibwezi 67.96 270 P **P** **22 32 45.4 +0.7**
CCD Concordia, Ant 68.34 175 P **P** **22 32 47.5 +1.1**
KHZ Kahutara 68.39 133 P **P** **22 32 46.8 +0.1**
AB31 Akbulak array 69.33 330 **P** **22 32 52.4 0.0**
ABKAR Akbulak array 69.33 330 **P** **22 32 52.5 +0.1**
LKRN Lenkeran, Azer 70.20 316 P **P** **22 32 58.7 +0.8**
RTZ Ruatahuna 70.46 128 **P** **22 32 59.5 -0.2**
RTZ IAmb IAmb 22 33 01.3
comp=Z,53nm,1.0s
URZ Urewera 70.52 128 LR LR 23 04 45.7
comp=Z,110nm,19.7s,baz=283,slow=36
AKTO Aktyubinsk 71.04 330 LR LR 23 10 47.1
comp=Z,38nm,18.8s,baz=291,slow=41
LODK Lodwar 71.42 276 P **P** **22 33 07.1 +1.2**
LODK Lodwar 71.42 276 P **P** **22 33 06.8 +0.9**
YAK Yakutsk 71.61 11 LR LR 23 10 03.8
comp=Z,42nm,18.8s,baz=217,slow=40
YAK Yakutsk 71.61 11 *eP* **P** **22 33 04.9 -1.1**
YAK *e**PP **pP** **22 33 16.7 -1.5**
YAK *e* 22 33 25.3
YAK *e*PPP PPP 22 37 27.3
YAK *e*S **S** **22 42 21.7 -0.3**
YAK *e**SS **SKiKP** **22 42 42.3 +0.9**
YAK *e* 22 43 09.5
YAK *e*SS **SS** **22 46 59.3 +1.1**
YAK pmax pmax
comp=E,7.0nm,1.0s
YAK pmax pmax
comp=Z,47nm,1.0s
YAK pmax pmax
comp=N,19nm,1.6s
YAK smax smax
comp=N,1μm,4.7s
YAK smax smax
comp=E,734nm,3.6s
YAK Yakutsk 71.61 11 **P** **22 33 04.7 -1.3**
YAK IAmb IAmb 22 33 06.3
comp=Z,46nm,0.8s
YAK Yakutsk 71.61 11 P **P** **22 33 04.7 -1.3**
comp=Z,78nm,0.8s
YAK Yakutsk 71.61 11 P **P** **22 33 05.0 -1.1**
YAK pP **pP** **22 33 16.7 -1.5**
MNGR Mingechevir, A 72.30 317 P **P** **22 33 11.3 +0.7**
SEKA Sheki 72.42 317 P **P** **22 33 11.7 +0.3**
NAX Nakhchivan 72.70 315 P **P** **22 33 13.7 +0.6**
GANJ Ganja 72.76 316 P **P** **22 33 14.1 +0.7**
POGA Pongola 72.80 244 P **P** **22 33 14.7 +0.7**
POGA IAmb IAmb 22 33 16.7
comp=Z,20nm,0.7s
POGA Pongola 72.80 244 P **P** **22 33 16.0 +2.0**
HAKT HAKKARI 73.32 313 P **P** **22 33 16.3 -0.7**
comp=Z,37nm,1.0s
OZAP Van, Ozalp-Mer 73.55 314 ⇑P **P** **22 33 19.2 +0.8**
GNI Garni 73.64 315 P **P** **22 33 20.2 +1.4**
comp=Z,4.6nm,0.6s,baz=168,slow=14,SNR=5.1
GNI LR LR 23 09 37.2
comp=Z,26nm,18.4s,baz=122,slow=39
comp=Z,4.6nm,0.6s
GNI Garni 73.64 315 P **P** **22 33 19.3 +0.5**
GNI Garni 73.64 315 ⇓ *eP* **P** **22 33 20.0 +1.2**
GNI pmax pmax
comp=Z,8.0nm,0.7s
GNI Garni 73.64 315 **P** **22 33 19.3 +0.5**
GNI Garni 73.64 315 P **P** **22 33 18.4 -0.4**
comp=Z,11nm,1.1s
GNI Garni 73.64 315 P **P** **22 33 19.2 +0.5**
comp=Z,12nm,1.1s
SVE Sverdlovsk 74.03 336 *de*P **P** **22 33 21.1 +0.6**
SVE pmax pmax
comp=Z,80nm,1.1s
GEVA Gevas 74.08 313 P **P** **22 33 21.1 -0.4**
GEVA IAmb IAmb 22 33 28.9
comp=Z,16nm,1.1s
PEA0B Petropavlovsk- 74.39 29 P **P** **22 33 21.3 -1.3**
PEA0B pmax pmax
comp=Z,163nm,1.8s
PEA0B Petropavlovsk- 74.39 29 P **P** **22 33 21.3 -1.3**
PETK Petropavlovsk- 74.39 29 P **P** **22 33 21.3 -1.4**
comp=Z,3.5nm,0.5s,baz=238,slow=5.7,SNR=19
comp=Z,3.5nm,0.5s
PETK Petropavlovsk- 74.39 29 P **P** **22 33 21.7 -1.0**
PETK Petropavlovsk- 74.39 29 P **P** **22 33 21.6 -1.0**
ARTI Arti 74.67 335 LR LR 23 10 20.2
comp=Z,55nm,19.8s,baz=156,slow=39
ARTI Arti 74.67 335 *c iP* **P** **22 33 24.6 +0.4**
ARTI *PP **PcP** **22 33 38.4 +0.1**
ARTI S **S** **22 42 55.3 -1.6**
ARTI SS **SS** **22 47 37.5 -7.7**
ARTI pmax pmax
comp=Z,37nm,0.7s
ARTI Arti 74.67 335 **P** **22 33 24.4 +0.2**
ARTI Arti 74.67 335 P **P** **22 33 24.5 +0.2**
ARTI pP **pP** **22 33 36.4 0.0**
ARTI PcP **PcP** **22 33 39.0 +0.7**
DIGO Kars 74.70 315 P **P** **22 33 24.9 -0.1**
comp=Z,36nm,0.7s
SYO Syowa Base 74.81 200 ⇓ *eP* **P** **22 33 25.5 +0.7**
GURO Guroymak-BITLI 74.92 313 P **P** **22 33 26.5 +0.2**
GURO IAmb IAmb 22 33 28.3
comp=Z,16nm,0.8s
MBAR Mbarara 75.43 271 LR LR 23 01 34.3
comp=Z,64nm,20.1s,baz=108,slow=32
MBAR Mbarara 75.43 271 P **P** **22 33 29.3 -0.4**
MBAR pmax pmax
comp=Z,4.0nm,0.9s
MBAR Mbarara 75.43 271 P **P** **22 33 29.3 -0.4**
HOMI Horasan 75.59 314 ⇑P **P** **22 33 31.5 +1.4**
EPOS Posof 75.59 316 P **P** **22 33 29.4 -0.7**
comp=Z,14nm,1.6s
VNDA Vanda 75.72 169 P **P** **22 33 30.4 +0.5**
comp=Z,9.6nm,0.8s,baz=303,slow=7.3,SNR=69
VNDA LR LR 23 01 17.3
comp=Z,80nm,22.0s,baz=308,slow=31
comp=Z,9.6nm,0.8s
VNDA Vanda 75.72 169 P **P** **22 33 30.3 +0.4**
VNDA pmax pmax
comp=Z,13nm,0.9s
VNDA Vanda 75.72 169 **P** **22 33 30.3 +0.4**
VNDA Vanda 75.72 169 P **P** **22 33 30.8 +0.8**
comp=Z,17nm,0.9s
VNDA Vanda 75.72 169 P **P** **22 33 30.5 +0.5**
NCK Nalchik 75.82 318 ⇓ *iP* **P** **22 33 32.5 +1.4**
NCK pmax pmax
comp=Z,19nm,0.7s
MATP Matopo 75.88 251 LR LR 23 00 00.6
comp=Z,100nm,19.5s,baz=90,slow=30
NEUR Neytrino 76.32 318 ⇓ *eP* **P** **22 33 35.6 +1.4**
NEUR pmax pmax
comp=Z,9.0nm,1.0s
KBZ Khabaz 76.38 318 P **P** **22 33 35.2 +0.9**
comp=Z,17nm,0.8s,baz=143,slow=5.1,SNR=39
comp=Z,17nm,0.8s
KBZ Khabaz 76.38 318 *c iP* **P** **22 33 34.8 +0.6**
KBZ pmax pmax
comp=Z,19nm,0.8s
SHA1 Shidzhatmaz 76.54 318 *d iP* **P** **22 33 36.5 +1.0**
KOPT Kop Dagi 76.58 314 P **P** **22 33 34.6 -1.2**
KOPT IAmb IAmb 22 33 47.1
comp=Z,11nm,0.8s
KIV Kislovodsk 76.61 318 *i* P **P** **22 33 36.7 +1.0**
SNR=7.5
KIV Kislovodsk 76.61 318 P **P** **22 33 35.9 +0.2**
KIV Kislovodsk 76.61 318 *eP* **P** **22 33 36.1 +0.4**
KIV pmax pmax
comp=Z,17nm,1.1s
KIV Kislovodsk 76.61 318 **P** **22 33 35.9 +0.2**
KIV IAmb IAmb 22 33 42.5
comp=Z,17nm,0.7s
KIV Kislovodsk 76.61 318 ⇑P **P** **22 33 36.3 +0.6**
KIV Kislovodsk 76.61 318 P **P** **22 33 35.4 -0.3**
comp=Z,14nm,0.7s
KIV Kislovodsk 76.61 318 P **P** **22 33 36.8 +1.0**
comp=Z,18nm,0.7s
ASF Jabal al Asfar 76.68 305 LR LR 23 07 19.4
comp=Z,93nm,20.9s,baz=117,slow=36
SBA Scott Base 76.80 169 P **P** **22 33 36.8 +0.7**
SBA pmax pmax
comp=Z,12nm,0.9s
SBA Scott Base 76.80 169 **P** **22 33 36.8 +0.7**
SBA IAmb IAmb 22 33 38.7
comp=Z,12nm,0.9s
SBA Scott Base 76.80 169 P **P** **22 33 36.5 +0.4**
comp=Z,18nm,0.9s
SBA Scott Base 76.80 169 P **P** **22 33 37.5 +1.4**
BROLN Tlhalogang 76.94 250 P **P** **22 33 39.3 +1.2**
BELG Belogornoye 77.52 328 *c iP* **P** **22 33 40.3 -0.1**
BELG pmax pmax
comp=Z,7.0nm,0.8s
EIL Elat 77.56 302 LR LR 23 08 31.7
comp=Z,50nm,18.9s,baz=106,slow=36
NRIK Noril'sk 77.66 353 P **P** **22 33 39.5 -1.4**

comp=Z,19nm,0.3s,baz=143,slow=5.5,SNR=31
NRIK LR LR 23 12 04.0
comp=Z,105nm,18.3s,baz=158,slow=39
comp=Z,19nm,0.3s
NRIK Noril'sk 77.66 353 P **P** **22 33 40.5 -0.4**
NRIK pmax pmax
comp=Z,82nm,1.5s
NRIK Noril'sk 77.66 353 **P** **22 33 40.5 -0.4**
KEMA Kemaliye 77.75 313 P **P** **22 33 41.5 -0.7**
comp=Z,73nm,1.0s
ARPR Arapgir-MALATY 77.81 313 P **P** **22 33 42.5 -0.1**
ARPR IAmb IAmb 22 33 51.7
comp=Z,12nm,0.8s
MMAI Mount Meron Ar 78.14 306 P **P** **22 33 44.9 +0.4**
comp=Z,4.4nm,0.6s,baz=72,slow=9.8,SNR=14
MMAI LR LR 23 08 27.2
comp=Z,76nm,20.8s,baz=124,slow=36
comp=Z,4.4nm,0.6s
LABN Labinsk 78.18 318 *e*P **P** **22 33 44.9 +0.6**
LABN pmax pmax
comp=Z,23nm,0.7s
VSLR Vesyoloye 78.19 317⇑ *e*P **P** **22 33 44.8 +0.4**
VSLR pmax pmax
comp=Z,17nm,0.6s
LBTB Lobatse 78.34 246 LR LR 23 01 48.5
comp=Z,88nm,18.9s,baz=69,slow=31
LBTB Lobatse 78.34 246 P **P** **22 33 46.0 +0.1**
LBTB pmax pmax
comp=Z,8.0nm,0.7s
LBTB Lobatse 78.34 246 P **P** **22 33 46.0 +0.1**
LBTB Lobatse 78.34 246 P **P** **22 33 47.0 +1.1**
LBTB Lobatse 78.34 246 P **P** **22 33 46.9 +1.1**
LBTB PcP **PcP** **22 33 55.9 +0.8**
SOC Sochi 78.44 317 *e*P **P** **22 33 45.3 -0.5**
SOC *e* 22 36 43.0
SOC *e*S **S** **22 43 37.8 -0.9**
SOC *e*SS **SS** **22 48 44.8 +2.0**
SOC *e*SSS SSS 22 52 07.0
SOC pmax pmax
comp=Z,12nm,0.7s
SOC MLR MLR
comp=Z,71nm,13.0s
BOSA Boshof 78.49 242 P **P** **22 33 46.5 -0.1**
comp=Z,6.5nm,0.6s,baz=102,slow=6.2,SNR=24
comp=Z,6.5nm,0.6s
BOSA Boshof 78.49 242 P **P** **22 33 47.3 +0.6**
BOSA Boshof 78.49 242 **P** **22 33 47.3 +0.6**
BOSA IAmb IAmb 22 33 48.6
comp=Z,26nm,1.4s
BOSA Boshof 78.49 242 P **P** **22 33 44.7 -2.0**
comp=Z,17nm,1.1s
BOSA Boshof 78.49 242 P **P** **22 33 46.4 -0.2**
SEY Seymchan 78.49 20⇑ *e*P **P** **22 33 45.3 -0.3**
SEY pmax pmax
comp=Z,82nm,3.3s
ERBR Yeremizino-Bor 78.75 319 *e*P **P** **22 33 46.3 -1.2**
ERBR pmax pmax
comp=Z,14nm,0.7s
ANDN Andirin 78.79 311 P **P** **22 33 48.0 0.0**
comp=Z,76nm,1.0s
KSANE Kasane 79.19 253 **P** **22 33 51.8 +1.1**
KSANE IAmb IAmb 22 33 53.1
comp=Z,22nm,0.8s
KSANE Kasane 79.19 253 P **P** **22 33 52.5 +1.8**
KIRV Kirov 79.87 334 *c* *i*P **P** **22 33 53.9 +0.7**
SKOMA Sekoma 79.88 246 P **P** **22 33 55.6 +1.3**
VRH Novokhopyorsk 80.22 325 *e*P **P** **22 33 55.6 +0.3**
VRH pmax pmax
comp=Z,39nm,0.9s
TIXI Tiksi 80.33 7 LR LR 23 16 50.9
comp=Z,48nm,18.4s,baz=195,slow=41
TIXI Tiksi 80.33 7 P **P** **22 33 54.0 -1.5**
TIXI pmax pmax
comp=Z,32nm,0.8s
TIXI Tiksi 80.33 7 **P** **22 33 54.0 -1.5**
TIXI IAmb IAmb 22 33 55.1
comp=Z,32nm,0.8s
TIXI Tiksi 80.33 7 P **P** **22 33 53.5 -2.0**
comp=Z,62nm,0.9s
TIXI Tiksi 80.33 7 P **P** **22 33 54.2 -1.3**
CSS Mathiatis 80.34 307 P **P** **22 33 56.7 +0.3**
CSS IAmb IAmb 22 33 58.9
comp=Z,37nm,1.0s
CSS Mathiatis 80.34 307 P **P** **22 33 56.2 -0.2**
comp=Z,44nm,1.0s
PHPEN Phepeng 80.79 245 P **P** **22 33 59.5 +0.3**
PHPEN IAmb IAmb 22 34 23.4
comp=Z,41nm,1.9s
KIRS Kirsehir-Merke 81.08 311 ⇑P **P** **22 34 01.2 +0.9**
BR104 Keskin Array S 81.45 312 P **P** **22 34 02.0 -0.4**
comp=Z,137nmcomp=Z,15nm,0.9s
BR131 Keskin Array S 81.46 312 P **P** **22 34 02.7 +0.2**
BR131 Keskin Array S 81.46 312 P **P** **22 34 02.1 -0.3**
BR131 pmax pmax
comp=Z,15nm,0.8s
BR131 Keskin Array S 81.46 312 **P** **22 34 02.1 -0.3**
BR131 IAmb IAmb 22 34 03.7
comp=Z,15nm,0.8s
BRTR Keskin Array B 81.46 312 P **P** **22 34 02.7 +0.2**
comp=Z,13nm,0.9s,baz=133,slow=6.7,SNR=52
BRTR LR LR 23 11 51.7
comp=Z,54nm,21.4s,baz=106,slow=37
comp=Z,13nm,0.9s
BR105 Keskin Array S 81.47 312 P **P** **22 34 02.1 -0.4**
comp=Z,129nmcomp=Z,17nm,0.9s
BR106 Keskin Array S 81.48 312 P **P** **22 34 02.1 -0.4**
comp=Z,99nmcomp=Z,13nm,1.0s
VORD Divnogorie 81.53 324 *e*P **P** **22 34 01.9 -0.4**
VORD pmax pmax
comp=Z,20nm,0.5s
VSR Storozhevoye 81.70 324 *e*P **P** **22 34 03.4 +0.2**
VSR pmax pmax
comp=Z,39nm,1.2s
KKUL Konya-Kulu 81.83 311 P **P** **22 34 04.1 -0.3**
comp=Z,26nm,0.8s
VORR Voronezh 81.85 325 *e*P **P** **22 34 04.4 +0.4**
VORR pmax pmax
comp=Z,50nm,0.5s
SUR Sutherland 82.12 238 LR LR 23 03 55.7
comp=Z,142nm,20.4s,baz=114,slow=31
SUR Sutherland 82.12 238 P **P** **22 34 07.4 +1.2**
SUR Sutherland 82.12 238 P **P** **22 34 06.3 +0.1**
SUR Sutherland 82.12 238 P **P** **22 34 08.7 +2.4**
SUR Sutherland 82.12 238 P **P** **22 34 08.4 +2.2**
SUR pP **sP** **22 34 20.9 -2.4**
SUR sP **pwP** **22 34 25.7 +4.5**
KEPZ Antalya-Kepez 82.21 309 ⇑P **P** **22 34 07.3 +1.0**
LPSR Galich'ya Gora 82.37 325 *e*P **P** **22 34 06.7 0.0**
LPSR pmax pmax
comp=Z,30nm,0.6s
LKGWB Lokgwabe 82.38 247 P **P** **22 34 06.6 -1.0**
QSPA South Pole Qui 82.57 180 P **P** **22 34 08.0 +0.3**
comp=Z,18nm,0.9s,baz=322,slow=1.4,SNR=33
QSPA LR LR 23 07 11.2
comp=Z,34nm,19.7s,baz=304,slow=33
comp=Z,18nm,0.9s
QSPA South Pole Qui 82.57 180 P **P** **22 34 07.8 +0.1**
QSPA IAmb IAmb 22 34 09.2
comp=Z,19nm,0.9s
QSPA South Pole Qui 82.57 180 P **P** **22 34 08.1 +0.3**
QSPA PcP **PcP** **22 34 13.4 +0.7**
QSPA pP **pwP** **22 34 20.6 -2.4**
KHAM Kharkiv 82.98 322 P **P** **22 34 09.9 -0.1**
ISP Isparta 83.28 309 *ce*P **P** **22 34 12.3 +0.4**
ISP pmax pmax
comp=Z,19nm,0.7s
KOOLE Kule 83.41 248 **P** **22 34 13.7 +0.7**
KOOLE IAmb IAmb 22 34 15.1
comp=Z,24nm,0.6s
KOOLE Kule 83.41 248 P **P** **22 34 14.4 +1.4**
MOS Moscow 84.27 328 *e*P **P** **22 34 16.9 +0.5**
MOS pmax pmax
comp=Z,32nm,0.8s
OBN Obninsk 84.61 327 LR LR 23 16 06.5
comp=Z,55nm,18.8s,baz=192,slow=39
OBN Obninsk 84.61 327 *i* P **P** **22 34 19.1 +1.0**
OBN *i* 22 37 32.6
OBN pmax pmax
comp=Z,36nm,0.8s
OBN MLR MLR
comp=Z,101nm,16.0s
OBN Obninsk 84.61 327 **P** **22 34 18.0 0.0**
OBN Obninsk 84.61 327 P **P** **22 34 18.6 +0.5**
comp=Z,50nm,0.8s
OBN Obninsk 84.61 327 P **P** **22 34 18.9 +0.8**
comp=Z,51nm,0.8s
YLV Yalova 84.83 312 P **P** **22 34 19.7 0.0**
comp=Z,32nm,0.8s
KLMR Klimovskoe 85.36 333 *e*P **P** **22 34 20.3 -1.5**
KLMR pmax pmax
comp=Z,26nm,1.2s
KARP Karpathos 85.38 307 P **P** **22 34 23.6 +1.1**
KARP Karpathos 85.38 307 P **P** **22 34 22.6 +0.1**
comp=Z,108nm,1.3s
PURM Purcari 85.99 318 ⇑P **P** **22 34 27.0 +1.7**
PURM Purcari 85.99 318 P **P** **22 34 25.3 +0.1**
comp=Z,43nm,1.1s
WIN Windhoek 86.29 248 P **P** **22 34 28.2 +0.6**
WIN pmax pmax
comp=Z,9.0nm,0.8s
WIN Windhoek 86.29 248 P **P** **22 34 28.2 +0.6**
WIN IAmb IAmb 22 34 30.3
comp=Z,9.1nm,0.8s
TIRR Tirgusor 86.47 315 ⇑P P 22 34 13.8 -14
CFR Carcaliu 86.83 316 ⇓P **P** **22 34 29.0 -0.4**
CFR Carcaliu 86.83 316 ⇓P **P** **22 34 29.0 -0.4**
TROLL Troll, Antarti 87.16 198 ⇓P **P** **22 34 32.2 +1.4**
comp=Z,374nm,0.6s
SORM Soroca 87.39 319 ⇓P **P** **22 34 32.7 +0.6**
SORM Soroca 87.39 319 ⇓P **P** **22 34 32.7 +0.6**
SORM Soroca 87.39 319 P **P** **22 34 31.7 -0.4**
comp=Z,18nm,1.0s
VASR Vaslui 87.41 318 ⇓P **P** **22 34 33.8 +1.6**
AK09 Malin Array Si 87.42 322 P **P** **22 34 31.8 -0.3**
AK10 Malin Array Si 87.44 322 P **P** **22 34 31.5 -0.7**
AK08 Malin Array Si 87.45 322 P **P** **22 34 31.6 -0.6**
AK07 Malin Array Si 87.45 322 P **P** **22 34 31.6 -0.7**
AK06 Malin Array Si 87.47 322 P **P** **22 34 31.9 -0.5**
AK05 Malin Array Si 87.47 322 P **P** **22 34 31.9 -0.5**
AK02 Malin Array Si 87.48 322 P **P** **22 34 31.2 -1.2**
AKASG Malin Array Be 87.48 322 P **P** **22 34 31.8 -0.7**
comp=Z,2.0nm,0.5s,baz=85,slow=5.1,SNR=8.9
AKASG PP **PP** **22 37 56.2 -1.5**
comp=Z,0.2nm,0.3s,baz=93,slow=6.8,SNR=8.5
comp=Z,2.0nm,0.5s
AKASG Malin Array Be 87.48 322 *i* P **P** **22 34 32.0 -0.4**
AKASG pmax pmax
comp=Z,3.0nm,0.5s
AKBB Malin Array Si 87.48 322 *i* *e*P **P** **22 34 32.4 0.0**
AK01 Malin Array Si 87.49 322 P **P** **22 34 31.7 -0.7**
AK03 Malin Array Si 87.49 322 P **P** **22 34 31.5 -1.0**
KIEV Kiev 87.49 322 P **P** **22 34 31.9 -0.6**
KIEV pmax pmax
comp=Z,6.0nm,0.7s
KIEV Kiev 87.49 322 **P** **22 34 31.9 -0.6**
KIEV IAmb IAmb 22 34 37.0
comp=Z,6.2nm,0.7s
KIEV Kiev 87.49 322 P **P** **22 34 32.0 -0.4**
comp=Z,10nm,0.7s
LOZB Loznitsa 87.50 314 ⇑P **P** **22 34 34.0 +1.2**
AK12 Malin Array Si 87.51 322 P **P** **22 34 31.9 -0.7**
AK11 Malin Array Si 87.51 322 P **P** **22 34 31.7 -0.9**
GHRR 87.53 317 ⇑P **P** **22 34 34.7 +1.9**
GHRR 87.53 317 P **P** **22 34 32.8 0.0**
GHRR 87.53 317 P **P** **22 34 33.2 +0.5**
comp=Z,89nm,0.8s
AK14 Malin Array Si 87.53 322 P **P** **22 34 32.2 -0.5**
AK16 Malin Array Si 87.55 322 P **P** **22 34 31.8 -0.9**
PETR Petresti 87.58 317 ⇓P **P** **22 34 35.9 +2.9**
AK17 Malin Array Si 87.58 322 P **P** **22 34 32.0 -0.9**
MNTR Muntenesti 87.61 318 ⇑P **P** **22 34 34.4 +1.2**
NGRR Negresti 87.69 318 ⇓P **P** **22 34 34.9 +1.4**
DMBR Dumbraveni 87.73 318 ⇓P **P** **22 34 35.1 +1.3**
BISRR Bisoca 87.89 316 ⇑P **P** **22 34 37.8 +3.1**
SAHR Sahastru 87.95 316 ⇓P **P** **22 34 37.2 +2.3**
VRI Vrincioaia 87.95 317 ⇑P **P** **22 34 37.2 +2.3**
VRI Vrincioaia 87.95 317 ⇑P **P** **22 34 37.2 +2.3**
VRI Vrincioaia 87.95 317 P **P** **22 34 35.0 +0.2**
comp=Z,29nm,0.9s
PLOR Plostina 88.00 317 ⇑P **P** **22 34 38.1 +3.0**
PLOR Plostina 88.00 317 ⇑P **P** **22 34 38.1 +3.0**
TESR Tescani 88.15 317 ⇓P **P** **22 34 37.2 +1.5**
TESR Tescani 88.15 317 P **P** **22 34 36.4 +0.7**
comp=Z,23nm,1.3s
TESR Tescani 88.15 317 P **P** **22 34 35.2 -0.6**
comp=Z,20nm,1.1s
NEHR Nehoiu 88.15 316 ⇓P **P** **22 34 37.8 +2.0**
LUBAR Lubar, Ukraine 88.20 321 P **P** **22 34 35.7 -0.2**
MI29 MI29, Kamyanyy 88.26 321 P **P** **22 34 36.2 0.0**
comp=Z,72nm,0.8s
ONER Baraj Valea Uz 88.28 317 ⇓P **P** **22 34 38.1 +1.7**
COVR Voineasa-Covas 88.30 316 ⇓P **P** **22 34 37.8 +1.3**
GIRR Girov 88.34 318 ⇑P **P** **22 34 37.7 +1.1**
MLR Muntele Rosu 88.41 316 P **P** **22 34 37.6 +0.4**
MLR pmax pmax
comp=Z,16nm,0.8s
MLR Muntele Rosu 88.41 316 **P** **22 34 37.6 +0.4**
MLR IAmb IAmb 22 35 07.8
comp=Z,16nm,0.8s
MLR Muntele Rosu 88.41 316 ⇓P **P** **22 34 38.8 +1.7**
MLR Muntele Rosu 88.41 316 P **P** **22 34 37.3 +0.2**
comp=Z,17nm,1.6s
TURR Turia 88.48 317 ⇑P **P** **22 34 38.2 +0.8**
KMPD K-Podol'skiy 88.72 319 P **P** **22 34 37.3 -1.1**
SNAA Sanae 88.86 197 ⇓P **P** **22 34 40.3 +1.5**
comp=Z,237nm,0.6s
SNAA Sanae 88.86 197 P **P** **22 34 40.2 +1.5**
comp=Z,8.9nm,0.6s,baz=132,slow=7.9,SNR=24
SNAA LR LR 23 08 24.7
comp=Z,97nm,20.7s,baz=9.0,slow=31
comp=Z,8.9nm,0.6s
SNAA Sanae 88.86 197 P **P** **22 34 39.5 +0.8**
SNAA pmax pmax
comp=Z,11nm,0.7s
SNAA Sanae 88.86 197 **P** **22 34 39.5 +0.8**
SNAA IAmb IAmb 22 34 41.3
comp=Z,11nm,0.7s
SNAA Sanae 88.86 197 P **P** **22 34 40.2 +1.5**
comp=Z,18nm,0.9s
HUMR Humele 88.88 315 ⇓P **P** **22 34 40.3 +1.0**
DOPR Dopca 88.89 316 ⇑P **P** **22 34 41.1 +1.8**
VOIR 89.01 316 ⇓P **P** **22 34 40.7 +0.8**
VOIR 89.01 316 ⇓P **P** **22 34 40.7 +0.8**
MNK Minsk 89.22 325 *i* P **P** **22 34 40.4 -0.1**
MNK *i* 22 38 12.8
MNK *i* PPP PPP 22 40 06.3
MNK *i* S **SKSac** **22 45 05.2 -1.7**
MNK *i* SS **SS** **22 51 20.5 -0.9**
MNK *i* SSS SSS 22 54 54.7
MNK pmax pmax
comp=E,19nm,1.0s
MNK pmax pmax
comp=Z,20nm,1.0s
MNK pmax pmax
comp=N,16nm,1.0s
MNK Minsk 89.22 325 *i* P **P** **22 34 40.5 -0.1**
comp=E,19nm,1.0s
MNK *i* P **P** **22 34 40.5 -0.1**
comp=N,16nm,1.0s
MNK *i* P **P** **22 34 40.5 -0.1**
comp=Z,20nm,1.0s,baz=104
MNK *i* PP **PP** **22 38 12.8 +1.3**
MNK *i* PPP PPP 22 40 06.3
MNK *i* S **SKSac** **22 45 05.3 -1.7**
MNK *i* SS **SS** **22 51 20.6 -0.9**
MNK *i* SSS SSS 22 54 54.8
ARR Arges 89.28 316 ⇑P **P** **22 34 42.1 +0.9**
ARR Arges 89.28 316 P **P** **22 34 40.9 -0.3**
comp=Z,9.0nm,1.4s
BURAR Bucovina Array 89.34 318 ⇑P **P** **22 34 43.6 +2.2**
BURAR Bucovina Array 89.34 318 ⇑P **P** **22 34 43.6 +2.2**
RNPP9 Sopachiv 89.69 322 P **P** **22 34 42.8 0.0**
LIT Litokhoron 89.88 310 P **P** **22 34 44.3 +0.2**
LIT pmax pmax
comp=Z,26nm,0.6s
LIT Litokhoron 89.88 310 P **P** **22 34 44.2 +0.2**
LOT Lotru 89.90 316 ⇓P **P** **22 34 44.9 +0.8**
NACGM Naroch 89.93 325 *e*P **P** **22 34 46.3 +2.4**
comp=Z,17nm,0.8s,baz=103
APA Apatity 90.31 339 *e*P **P** **22 34 45.3 -0.1**
APA *e* 22 38 24.9
BLKB Belogradchik 90.34 314 ⇑P **P** **22 34 47.2 +1.1**
BMR Baia Mare 90.49 318 ⇑P **P** **22 34 50.5 +3.8**
BMR Baia Mare 90.49 318 ⇑P **P** **22 34 50.5 +3.8**
VNA2 Neumayer--Watz 90.51 198 ⇓P **P** **22 34 48.0 +1.6**
comp=Z,9.0nm,0.8s,baz=99,slow=4.6
VNA2 Neumayer--Watz 90.51 198 P **P** **22 34 48.1 +1.7**
comp=Z,17nm,0.8s
HERR Herculane 90.74 315 ⇑P **P** **22 34 49.1 +1.2**
VSU Vasula 90.75 329⇑ *e*P **P** **22 34 45.3 -2.3**
VSU pmax pmax
comp=Z,44nm,1.4s
VNA1 Neumayer--Stat 90.89 198 ⇓P **P** **22 34 49.9 +1.8**
comp=Z,10.0nm,0.9s
VNA3 Neumayer Olymp 91.04 197 ⇓P **P** **22 34 50.2 +1.3**
comp=Z,4.5nm,0.8s
VNA3 Neumayer Olymp 91.04 197 P **P** **22 34 49.2 +0.3**
comp=Z,9.5nm,0.9s
BOVS Bovan 91.04 314 ⇑P **P** **22 34 50.0 +0.6**
BZS Buzias 91.42 316 ⇑P **P** **22 34 51.9 +0.9**
BZS Buzias 91.42 316 ⇑P **P** **22 34 51.9 +0.9**
SIRR Siria 91.49 316 ⇓P **P** **22 34 52.6 +1.2**
KOLS Kolonicke sedl 91.51 319 *e*P **P** **22 34 53.0 +1.6**
KOLS Kolonicke sedl 91.51 319 *e*P **P** **22 34 53.0 +1.6**
FIA1 FINESS Array S 91.73 332 P **P** **22 34 51.5 -0.6**
FINES FINESS Array B 91.73 332 P **P** **22 34 51.9 -0.1**
comp=Z,3.6nm,0.5s,baz=101,slow=5.8,SNR=28
FINES LR LR 23 20 45.9
comp=Z,43nm,20.1s,baz=5.5,slow=39
comp=Z,3.6nm,0.5s
FINES FINESS Array B 91.73 332 *i* P **P** **22 34 52.4 +0.3**
FINES pmax pmax
comp=Z,4.0nm,0.5s
BELA Belgrano 2 92.12 188 P **P** **22 34 53.7 0.0**
BELA IAmb IAmb 22 34 55.2
comp=Z,8.0nm,1.0s
MORH Mrgy, Hungar 93.56 316 ⇑P **P** **22 35 01.4 +0.5**
ARCES ARCESS Array B 93.63 340 P **P** **22 34 58.5 -2.3**
comp=Z,5.2nm,0.7s,baz=106,slow=7.2,SNR=12
ARCES LR LR 23 23 38.6
comp=Z,105nm,18.2s,baz=134,slow=40
comp=Z,5.2nm,0.7s
ARCES ARCESS Array B 93.63 340 P **P** **22 34 59.5 -1.2**
ARCES pmax pmax
comp=Z,88nm,1.8s
ARCES ARCESS Array B 93.63 340 P **P** **22 34 59.5 -1.2**
UNV Unalaska Valle 94.39 36 P **P** **22 35 03.3 -1.2**
F15K North Star Dit 96.39 25 P **P** **22 35 12.2 -1.2**
GERES GERESS Array B 97.12 318 P Pdif 22 35 17.8 +0.5
comp=Z,0.3nm,0.5s,baz=98,slow=4.5,SNR=3.8
comp=Z,0.3nm,0.5s
SPITS Spitsbergen Ar 97.16 348 P **P** **22 35 14.9 -1.8**
comp=Z,4.7nm,0.7s,baz=106,slow=4.7,SNR=4.6
SPITS LR LR 23 26 38.0
comp=Z,82nm,18.9s,baz=90,slow=40
comp=Z,4.7nm,0.7s
KHC Kasperske Hory 97.22 319⇑ *e*P **P** **22 35 17.9 +0.3**
KHC pmax pmax
comp=Z,13nm,3.6s
G16K Koyuk River 97.33 25 **P** **22 35 17.4 -0.2**
G16K IAmb IAmb 22 35 18.7
comp=Z,12nm,0.8s
H17K Granite Mounta 98.36 25 P **P** **22 35 22.6 +0.2**
NOA NORSAR Array B 98.82 331 LR LR 23 25 11.8
comp=Z,33nm,18.5s,baz=340,slow=38
KEST Kesra 99.78 305 LR LR 23 25 02.7
comp=Z,31nm,18.5s,baz=322,slow=38
PPT2 Papeete2 101.25 110 *e*LR LR 23 08 39.0
comp=Z,74nm,23.0s
PPT2 *e*LR LR 23 08 49.7
comp=Z,116nm,26.8s
ILAR Eielson Array 103.90 25 PKKPbc PKKPbc 22 51 34.9 -5.0
comp=Z,0.7nm,0.9s,baz=132,slow=1.3,SNR=4.9
YKA Yellowknife Ar 117.56 20 PKP **PKiKP** **22 40 31.9 +1.6**
comp=Z,0.3nm,0.5s,baz=344,slow=1.9,SNR=4.3
YKA PKKPbc **PKKPbc** **22 50 53.1 -1.9**
comp=Z,0.5nm,0.6s,baz=129,slow=4.7,SNR=4.8
NVAR Mina Array Bea 129.47 45 PKP **PKiKP** **22 40 55.4 +0.5**
comp=Z,0.5nm,0.6s,baz=283,slow=5.5,SNR=4.0
NVAR SKPbc SKPab 22 44 10.8 -1.1
comp=Z,1.4nm,0.8s,baz=275,slow=4.2,SNR=6.4
ELK Elko 130.47 41 SKPbc **SKPab** **22 44 15.2 -0.9**
comp=Z,0.7nm,0.7s,baz=302,slow=9.5,SNR=5.0
PLCA Paso Flores 131.99 183 SKPbc **SKPbc** **22 44 21.5 0.0**
comp=Z,1.8nm,0.7s,baz=180,slow=7.1,SNR=2.9
SCHQ Schefferville 132.39 354 SKPbc **SKPbc** **22 44 20.3 -1.9**
comp=Z,4.4nm,0.7s,baz=12,slow=9.3,SNR=4.6
PDAR Pinedale Array 132.85 36 PKP **PKPdf** **22 41 00.8 +0.3**
comp=Z,0.4nm,0.5s,baz=321,slow=2.3,SNR=5.9
PDAR SKPbc **SKPbc** **22 44 22.9 -1.7**
comp=Z,1.0nm,0.6s,baz=332,slow=3.0,SNR=9.3
PDAR Pinedale Array 132.85 36 **PKPdf** **22 41 01.0 +0.6**
ULM Lac du Bonnet 133.53 19 SKPbc **SKPbc** **22 44 24.9 -1.4**
comp=Z,5.5nm,0.8s,baz=322,slow=6.0,SNR=5.3
ANMO Albuquerque 139.44 43 SKPbc **SKPbc** **22 44 44.3 -0.7**
comp=Z,3.6nm,1.0s,baz=322,slow=2.5,SNR=5.3
CFA Coronel Fontan 140.82 188 PKnKP PKPpre 22 41 07.3
comp=Z,1.3nm,0.5s,baz=175,slow=4.3,SNR=5.3
CPUP Villa Florida 142.80 205 PKnKP PKPpre 22 41 15.4
comp=Z,3.4nm,0.5s,baz=174,slow=2.8,SNR=8.1
TXAR Lajitas Array 144.50 48 PKP PKPbc 22 41 21.3 +0.7
comp=Z,3.5nm,0.6s,baz=328,slow=3.6,SNR=52
K57A Scipio Center 144.76 3 **PKPab** **22 41 20.4 -0.3**
L56A Greenwood 145.28 5 **PKPbc** **22 41 21.9 -0.7**
BDFB Brasilia 145.63 228 PKPbc **PKPab** **22 41 26.1 +1.3**
comp=Z,17nm,0.5s,baz=131,slow=3.8,SNR=34
SSPA Standing Stone 146.73 6 **PKPbc** **22 41 26.6 -0.4**
ADDB Aquidauana 147.01 212 PKPbc **PKPbc** **22 41 28.2 -0.2**
PB14 IPOC Station P 147.97 186 PKPbc **PKPbc** **22 41 31.8 +0.5**
WVT Waverly 148.71 22 PKP2 **PKPbc** **22 41 32.3 -0.2**
WVT Waverly 148.71 22 **PKPbc** **22 41 32.3 -0.2**
PTLB Pontes e Lacer 152.99 213 PKPbc **PKPbc** **22 41 42.7 -0.4**
LPAZ La Paz 155.76 194 PKP **PKPdf** **22 41 39.2 -1.3**
comp=Z,0.4nm,0.4s,baz=202,slow=5.4,SNR=1.6
LPAZ PKPab **PKPab** **22 42 08.3 +1.5**
comp=Z,2.6nm,0.7s,baz=150,slow=4.0,SNR=5.9

TAP 04 22:39:06.2, 22.42N×121.02E, h14km, ML3.7, 5C-5D, B,
Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
TAW	**Tawu**	**0.13**	**242**	⇑*i*P		Pg	22 39 10.0	+0.4
TAW				*i*S		Sg	22 39 12.6	+0.6
TAWH	**Dawu Township**	**0.14**	**237**	P		Pb	22 39 10.3	-0.4
TAWH				S		Sb	22 39 13.2	-0.5
EAST	**Anshuo**	**0.16**	**258**	⇓*i*P		Pb	22 39 10.6	-0.4
EAST				*i*S		Sb	22 39 13.8	-0.5
ECL	**Taimali**	**0.19**	**341**	⇓*i*P		Pg	22 39 10.6	+0.1
ECL				*i*S		Sb	22 39 14.4	-0.6
SLIU	**Shizi**	**0.29**	**225**	⇑*i*P		Pb	22 39 12.7	-0.4
SLIU				*i*S		Sb	22 39 17.2	-0.5
TTN	**Taitung**	**0.35**	**19**	P		Pb	22 39 14.8	+0.5
TTN				S		Sn	22 39 21.8	-2.0
SCZT	**Fangliau**	**0.37**	**263**	⇓*i*P		Pb	22 39 14.3	-0.3
SCZT				S		Sb	22 39 19.6	-0.6
TWGBT	**Beinan**	**0.40**	**8**	⇑*i*P		Pg	22 39 14.3	0.0
TWGBT				S		Sg	22 39 20.4	+0.7
TWG	**Pinlang**	**0.40**	**7**	⇑*i*P		Pg	22 39 14.3	0.0
TWG				S		Sg	22 39 20.2	+0.4
MASBT	**Mashibuluo**	**0.41**	**298**	⇓P		Pg	22 39 14.7	+0.4
MASBT				*e*S		Sg	22 39 20.1	+0.3
SSPT	**Xinbi**	**0.42**	**279**	*e*P		Pb	22 39 15.8	+0.4
SSPT				S		Sb	22 39 23.3	+1.6
SMST	**Manzhou Townsh**	**0.43**	**203**	*i*P		Pb	22 39 15.5	-0.1
SMST				S		Sb	22 39 22.3	+0.4
TSMG	**Majia**	**0.45**	**310**	P		Pg	22 39 15.4	+0.3
TSMG				S		Sg	22 39 21.5	+0.3
SSD	**Sandimen**	**0.48**	**312**	⇓*e*P		Pg	22 39 15.9	+0.2
SSD				S		Sg	22 39 22.3	0.0
HEN	**Hengchun**	**0.49**	**212**	P		Pb	22 39 17.1	+0.6
HEN				*e*S		Sb	22 39 24.9	+1.4
LDUT	**Ludao**	**0.49**	**59**	*e*P		Pb	22 39 16.3	-0.3
LDUT				S		Sb	22 39 24.2	+0.6
LONT	**Longtian**	**0.50**	**12**	*i*P		Pg	22 39 15.9	-0.1
LONT				S		Sg	22 39 23.2	+0.6
TWK1	**Hengchun**	**0.51**	**203**	*e*P		Pb	22 39 17.3	+0.3
TWK1				S		Sb	22 39 25.5	+1.2
TWKBT	**Hengchun**	**0.51**	**202**	P		Pb	22 39 17.0	+0.1
TWKBT				S		Sb	22 39 25.2	+1.0
TSEB	**Hengchuen, Pin**	**0.53**	**192**	P		Pb	22 39 17.7	+0.5
TSEB				S		Sn	22 39 26.5	-1.6
SGLT	**Jiouru**	**0.58**	**302**	*e*P		Pb	22 39 18.8	+0.8
WLCH	**Liuqiu**	**0.60**	**264**	*e*P		Pn	22 39 22.3	+2.0
EDH	**Donghe**	**0.61**	**25**	*e*P		Pg	22 39 18.0	-0.1
EDH				*e*S		Sb	22 39 28.3	+1.1
TWP	**Hsiaoliuchiu**	**0.61**	**263**	*e*P		Pn	22 39 22.4	+1.9
LAY	**Lan-yu**	**0.62**	**127**	*e*P		Pg	22 39 17.6	-0.7
LAY				*e*S		Sg	22 39 25.8	-0.8
LYUB	**Lan-yu**	**0.67**	**128**	*e*P		Pg	22 39 17.1	-2.1
LYUB				*e*S		Sg	22 39 25.3	-2.8
SLGT	**Liugui**	**0.67**	**329**	*e*P		Pg	22 39 19.4	+0.2

SLGT				*e*S	Sg	22 39 27.9	-0.2		
SCST	**Cishan**	**0.67**	**314**	*i* P	Pn	22 39 20.7	-0.6		
SCST				*e*S	Sn	22 39 32.0	+0.4		
TWM1	**Shoushan**	**0.68**	**306**	*e*P	Pn	22 39 21.3	-0.2		
ECS	**Chishang**	**0.70**	**15**	*e*P	Pg	22 39 19.2	-0.6		
WSSB	**Gushan**	**0.73**	**288**	*e*P	Pn	22 39 23.6	+1.4		
WSSB				*e*S	Sn	22 39 37.4	+4.2		
EHD	**Haiduan**	**0.75**	**13**	*e*P	Pg	22 39 19.5	-1.2		
EHD				S	Sb	22 39 32.0	+0.9		
CHKT	**Chengkung**	**0.75**	**25**	*e*P	Pg	22 39 19.8	-0.9		
ELDTW	**Lidau**	**0.77**	**360**	*e*P	Pg	22 39 20.1	-1.0		
SGST	**Jiashian**	**0.77**	**329**	*e*P	Pg	22 39 20.9	-0.3		
SGST				*e*S	Sb	22 39 32.3	+0.5		
STYH	**Taoyuan**	**0.78**	**343**⇑	*e*P	Pb	22 39 21.8	+0.2		
FULB	**Fuli**	**0.82**	**18**	*e*P	Pg	22 39 21.2	-0.8		
CHKH	**Chenggong**	**0.84**	**24**	*e*P	Pg	22 39 21.5	-1.1		
CHKH				*e*S	Sg	22 39 32.9	-0.7		
CHN1	**Nanshi**	**0.89**	**329**	P	Pn	22 39 25.1	+0.8		
CHN1				*e*S	Sn	22 39 39.0	+2.0		
WTP	**Ta-pu**	**0.91**	**336**	*e*P	Pn	22 39 24.8	+0.2		
WTP				*e*S	Sn	22 39 38.4	+0.9		
TPUB	**Ta-pu**	**0.95**	**338**	P	Pn	22 39 25.4	+0.3		
TPUB				*e*S	Sn	22 39 39.7	+1.1		
EYUL	**Yuli**	**0.96**	**17**	*e*P	Pb	22 39 23.2	-1.5		
TWF1	**Yuli**	**0.96**	**15**	*e*P	Pb	22 39 22.5	-2.2		
TWK	**Hsinying**	**0.98**	**330**	*e*P	Pn	22 39 26.5	+0.9		
TWK				*e*S	Sn	22 39 41.9	+2.6		
YULB	**Yu-li**	**1.00**	**15**	*e*P	Pb	22 39 23.3	-2.1		
CHN4	**Tsaushan**	**1.01**	**337**	*e*P	Pn	22 39 26.7	+0.7		
CHN4				*e*S	Sn	22 39 42.9	+2.9		
YUS	**Yu-Shan**	**1.07**	**357**	*e*P	Pb	22 39 26.6	-0.1		
WCKO	**Fanlu**	**1.08**	**339**	*e*P	Pg	22 39 27.9	+0.8		
WCKO				*e*S	Sn	22 39 44.3	+2.4		
ALS	**Alishan**	**1.10**	**350**	*e*P	Pb	22 39 27.4	+0.1		
EHYH	**Wanrong**	**1.11**	**16**	*e*P	Pb	22 39 26.2	-1.0		
EHY	**Hungye**	**1.12**	**14**	*e*P	Pb	22 39 26.6	-0.7		
TSCK	**Chigu Township**	**1.13**	**310**	*e*P	Pg	22 39 28.6	+0.8		
TSCK				*e*S	Sn	22 39 47.6	+4.8		
HGSD	**Ruisui**	**1.13**	**19**	*e*P	Pb	22 39 26.9	-0.7		
ICHU	**Yijhu**	**1.16**	**324**	*e*P	Pg	22 39 29.2	+0.7		
ICHU				*e*S	Sg	22 39 48.7	+5.1		
CHY	**Chiayi**	**1.21**	**333**	*e*P	Pg	22 39 29.8	+0.4		
CHY				*e*S	Sg	22 39 49.1	+3.9		
CHN5	**Tsauling**	**1.22**	**345**	P	Pg	22 39 30.6	+1.0		
CHN5				S	Sg	22 39 48.9	+3.4		
CHN2	**Minshiung**	**1.22**	**336**	*e*P	Pg	22 39 30.9	+1.2		
CHN2				*e*S	Sg	22 39 49.2	+3.7		
WHYT	**Xinyi Township**	**1.28**	**353**	*e*P	Pg	22 39 30.6	-0.3		
WHYT				*e*S	Sg	22 39 49.7	+2.2		
WSL	**Shuilin Townsh**	**1.32**	**327**	*e*P	Pb	22 39 30.7	0.0		
VWDT	**VWDT**	**1.33**	**5**	*e*P	Pn	22 39 29.9	-0.5		
WARBT	**Fenglin Townsh**	**1.34**	**15**	*e*P	Pn	22 39 29.8	-0.7		
WDLH	**Douliu**	**1.34**	**341**	*e*P	Pg	22 39 31.7	-0.2		
SSLB	**Suanglung**	**1.36**	**357**	*e*P	Pg	22 39 32.1	-0.4		
WTK	**Tuku**	**1.39**	**335**	*e*P	Pb	22 39 31.6	-0.4		
WTK				*e*S	Sg	22 39 52.8	+1.7		
WSF	**Szhu**	**1.42**	**329**	*e*P	Pn	22 39 31.6	0.0		
WSF				*e*S	Sg	22 39 53.6	+1.7		
WJS	**Zhushan**	**1.42**	**349**	*e*P	Pg	22 39 33.7	+0.1		
SHUL	**Shoufeng**	**1.45**	**20**	*e*P	Pn	22 39 31.4	-0.7		
SMLT	**Sun Moon Lake**	**1.46**	**356**	*e*P	Pg	22 39 34.3	0.0		
WNT	**Mingjian**	**1.49**	**348**	*e*P	Pb	22 39 33.7	+0.1		
WNT				*e*S	Sg	22 39 55.9	+1.8		
TYC	**Yuchr**	**1.49**	**354**	P	Pg	22 39 34.4	-0.4		
WDGT	**Dungji**	**1.51**	**304**	*e*P	Pn	22 39 32.8	0.0		
OWD	**Renai**	**1.54**	**5**	*e*P	Pn	22 39 33.0	-0.3		
WUSB	**Renai**	**1.57**	**3**	*e*P	Pn	22 39 33.8	0.0		
WCS	**Beigang Elemen**	**1.64**	**357**	*e*P	Pb	22 39 36.5	+0.4		
WCS				*e*S	Sg	22 39 59.7	+0.8		
LXIB	**Xiulin Townshi**	**1.64**	**13**	*e*P	Pn	22 39 34.2	-0.6		
VCHM	**Qimei**	**1.66**	**299**	*e*P	Pn	22 39 34.0	-0.9		
PHUB	**P'eng-hu**	**1.72**	**310**	*e*P	Pn	22 39 34.5	-1.2		
WHF	**Hehuan Shan**	**1.73**	**7**	*e*P	Pb	22 39 37.9	-0.2		
NACB	**Ninganchiao**	**1.83**	**17**	*e*P	Pn	22 39 36.9	-0.3		
ETLH	**Xiulin Townshi**	**1.83**	**13**	*e*P	Pb	22 39 38.8	-0.8		
TDCB	**Techi**	**1.83**	**4**	*e*P	Pb	22 39 38.8	-0.8		
TWT	**Tachien**	**1.83**	**4**	*e*P	Pb	22 39 38.9	-0.7		
FUSS	**Fushou**	**1.83**	**6**	*e*P	Pn	22 39 38.5	+1.0		
WHP	**Taichung City**	**1.85**	**358**	*e*P	Pb	22 39 39.5	-0.4		
TWQ1	**Liyutan**	**1.93**	**353**	*e*P	Pb	22 39 41.9	+0.6		
NNSB	**Datong**	**2.03**	**9**	*e*P	Pb	22 39 42.5	-0.4		
NNS	**Nan Shan**	**2.04**	**9**	*e*P	Pb	22 39 42.2	-0.9		
EOS4	**EOS4**	**2.07**	**35**	*e*P	Pn	22 39 39.9	-0.3		
EOS4				*e*S	Sn	22 40 03.0	-2.7		
LATG	**Datong**	**2.16**	**12**	*e*P	Pb	22 39 42.5	+0.6		
NFF	**Wufeng Townshi**	**2.21**	**2**	*e*P	Pb	22 39 44.2	-1.7		
EOS3	**EOS3**	**2.21**	**32**	*e*P	Pn	22 39 43.0	+0.7		
LIOB	**Emei**	**2.22**	**360**	*e*P	Pb	22 39 45.1	-0.9		
NDT	**Datong Townshi**	**2.22**	**12**	*e*P	Pb	22 39 45.7	-0.5		
YHNB	**Yeheng**	**2.27**	**8**	*e*P	Pn	22 39 44.6	+1.3		
ENTT	**Nioudou**	**2.27**	**13**	*e*P	Pb	22 39 45.1	-1.8		
NSK	**Sanguang**	**2.27**	**8**	*e*P	Pn	22 39 44.6	+1.3		
NDS	**Dongshan**	**2.30**	**16**	*e*P	Pb	22 39 46.0	-1.4		
TWE	**Neicheng**	**2.37**	**14**	*e*P	Pn	22 39 45.0	+0.4		
FUSB	**Fushanzhiwuyua**	**2.39**	**12**	*e*P	Pb	22 39 47.6	-1.5		
NWLT	**Wulai**	**2.39**	**11**	*e*P	Pn	22 39 45.9	+0.9		
TIPB	**Shuangxi**	**2.65**	**16**	*e*P	Pb	22 39 51.1	-2.3		
AXDP	**Jialang**	**3.73**	**312**	*e*P	Pn	22 40 03.1	-0.2		
MATB	**Ma-tsu**	**3.84**	**345**	*e*P	Pn	22 40 05.1	+0.1		
MHZQ	**Yeshan**	**4.09**	**334**	*e*P	Pn	22 40 08.8	+0.4		
LYJJ	**Jianjiangzhen**	**4.27**	**345**	*e*P	Pn	22 40 10.6	-0.2		
SXFK	**Yanhouchang**	**5.02**	**323**	*e*P	Pn	22 40 21.3	+0.2		

*THE **04** 22:53:15.7,37.7N±1.0×2.7E±°, h2km±2km, M3.0/8, MLh3.0/8*
*AFAD **04** 22:53:15.4, 37.74N×27.02E, h7km±2km, ML2.9*
*ISK **04** 22:53:15.5, 37.74N×27.04E, h7km, ML3.0/21*
*ATH **04** 22:53:15.8, 37.71N×27.00E, h10km±1km, ML3.1/7, Latitude uncertainty: 1 km; Longitude uncertainty: 3 km*

ISC 04 22:53:15.8±0.8,**37.74N**±0.02×**27.04E**±0.02,**h11**km±6km, **n60**,σ0**67**/92,**Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**257**	P	**Pg**	**22 53 18.9**	**-0.5**
SMG				S	**Sg**	**22 53 21.3**	**-0.6**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.16**	**105**	P	**Pg**	**22 53 19.2**	**-0.1**
GCAM				S	**Sg**	**22 53 22.3**	**+0.4**
GCAM				IAML		22 53 23.0	
	comp=N,3μm,0.2s						
GCAM	**G?zelcaml?**	**0.16**	**105**	Pg	**Pg**	**22 53 19.3**	**-0.1**
GCAM				Sg	**Sg**	**22 53 22.3**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**60**	Pg	**Pg**	**22 53 20.4**	**-0.2**
KUSD				Sg	**Sg**	**22 53 24.0**	**+0.2**
KUSD				AML	AML		
KRL1	**Karlovasi Samo**	**0.27**	**281**	P	**Pg**	**22 53 20.9**	**-0.3**
KRL1				S	**Sg**	**22 53 24.6**	**-0.2**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.33**	**150**	P	**Pg**	**22 53 22.4**	**0.0**
DDIM				S	**Sg**	**22 53 27.2**	**+0.4**
DDIM				IAML		22 53 28.0	
	comp=N,2μm,0.3s						
DDIM				IAML		22 53 28.0	
	comp=E,2μm,0.7s						
DGB	**zmir**	**0.33**	**339**	P	**Pg**	**22 53 22.5**	**+0.1**
DGB				S	**Sg**	**22 53 26.6**	**-0.2**
DGB				IAML		22 53 27.0	
	comp=N,1μm,0.3s						
DGB				IAML		22 53 27.0	
	comp=E,1μm,0.2s						
SAM2	**Drakei, Karlov**	**0.34**	**273**	P	**Pg**	**22 53 22.0**	**-0.5**
SAM2				S	**Sg**	**22 53 26.4**	**-0.6**
SAM2				AML	AML		
GMLD	**Gumuldur**	**0.34**	**344**	Pg	**Pg**	**22 53 23.2**	**+0.5**
GMLD				Sg	**Sg**	**22 53 28.6**	**+1.3**
GMLD				AML	AML		
DIDI	**Didim-Aydin**	**0.40**	**156**	Pg	**Pg**	**22 53 23.6**	**-0.1**
DIDI				Sg	**Sg**	**22 53 29.8**	**+0.8**
DIDI				AML	AML		
BEYE	**izmir**	**0.49**	**350**	P	**Pg**	**22 53 25.3**	**-0.1**
BEYE				S	**Sg**	**22 53 32.3**	**+0.4**
BEYE				IAML		22 53 36.0	
	comp=E,814nm,0.2s						
DUVT	**Torbali**	**0.58**	**34**	P	**Pg**	**22 53 26.5**	**-0.5**
DUVT				S	**Sg**	**22 53 34.2**	**-0.5**
DUVT				IAML		22 53 36.0	
	comp=E,489nm,0.1s						

BLCB	**Balcova**	**0.64**	**0**	P	**Pg**	**22 53 28.0**	**-0.2**		
BLCB				S	**Sg**	**22 53 37.3**	**+0.7**		
BLCB				AML	AML				
BLCB	**Balcova**	**0.64**	**0**	Pg	**Pg**	**22 53 27.7**	**-0.5**		
BLCB				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.65**	**162**	Pg	**Pg**	**22 53 28.6**	**+0.2**		
YKAV				AML	AML				
ZEYE	**Izmir, Urla-Ze**	**0.65**	**320**	P	**Pg**	**22 53 27.7**	**-0.6**		
ZEYE				S	**Sg**	**22 53 37.7**	**+0.8**		
ZEYE				IAML		22 53 38.0			
	comp=N,1μm,0.3s								
ZEYE				IAML		22 53 40.0			
	comp=E,671nm,0.3s								
AYDN	**Tasoluk**	**0.68**	**97**	P	**Pg**	**22 53 28.5**	**-0.4**		
AYDN				S	**Sg**	**22 53 37.5**	**-0.3**		
AYDN				IAML		22 53 42.0			
	comp=N,751nm,0.4s								
AYDB	**Zeytinkoy-Aydi**	**0.71**	**73**	Pg	**Pg**	**22 53 29.4**	**-0.1**		
AYDB				AML	AML				
BODT	**Bodrum**	**0.71**	**162**	P	**Pg**	**22 53 29.1**	**-0.5**		
BODT				S	**Sb**	**22 53 39.6**	**-0.6**		
BODT				AML	AML				
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pg**	**22 53 29.8**	**+0.2**		
BODT				AML	AML				
MLSB	**Milas**	**0.74**	**127**	Pg	**Pg**	**22 53 29.5**	**-0.6**		
MLSB				AML	AML				
BDRM	**Kayabasi**	**0.75**	**154**	P	**Pb**	**22 53 31.4**	**+0.4**		
BDRM				S	**Sg**	**22 53 39.9**	**-0.2**		
BDRM				IAML		22 53 43.0			
	comp=N,936nm,0.3s								
BODA	**Bodrum-Mula**	**0.78**	**156**	Pg	**Pg**	**22 53 30.9**	**+0.2**		
KLNA	**Kalymnos**	**0.79**	**184**	P	**Pg**	**22 53 30.3**	**-0.7**		
KLNA				S	**Sg**	**22 53 40.8**	**-0.4**		
KLNA				AML	AML				
IZMR	**zmir-demi**	**0.82**	**61**	P	**Pb**	**22 53 32.8**	**+0.6**		
IZMR				P	**Pn**	**22 53 33.0**	**-0.4**		
IZMR				S	**Sg**	**22 53 40.5**	**-2.0**		
IZMR				S	**Sb**	**22 53 40.8**	**-2.5**		
BAGT	**Foa**	**0.92**	**351**	P	**Pg**	**22 53 33.4**	**-0.1**		
KRBN	**Karaburun**	**0.93**	**336**	Pg	**Pg**	**22 53 33.7**	**0.0**		
KRBN				AML	AML				
FOCM	**Foa**	**1.00**	**346**	Pg	**Pg**	**22 53 35.1**	**+0.1**		
FOCM				AML	AML				
CHOS	**Chios island**	**1.00**	**310**	P	**Pg**	**22 53 35.0**	**-0.1**		
CHOS				S	**Sb**	**22 53 49.6**	**+1.0**		
CHOS				AML	AML				
CHOS	**Chios island**	**1.00**	**310**	P	**Pg**	**22 53 34.9**	**-0.3**		
CHOS				S	**Sb**	**22 53 48.8**	**+0.2**		
CHOS				AML	AML				
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pg**	**22 53 35.3**	**-0.1**		
NAZL				AML	AML				
CAMT	**Merkez**	**1.03**	**12**	P	**Pg**	**22 53 35.4**	**-0.1**		
CAMT				S	**Sb**	**22 53 49.4**	**+0.2**		
CAMT				IAML		22 53 54.0			
	comp=E,650nm,0.6s								
KARB	**zmir-Karabur**	**1.04**	**332**	P	**Pg**	**22 53 35.9**	**0.0**		
KARB				S	**Sg**	**22 53 49.3**	**-0.1**		
KARB				IAML		22 53 52.0			
	comp=N,318nm,0.3s								
ESEN	**Aydn-Nazilli**	**1.04**	**87**	P	**Pg**	**22 53 35.9**	**+0.1**		
ESEN				S	**Sb**	**22 53 50.4**	**+0.9**		
ESEN				IAML		22 53 52.0			
	comp=E,356nm,0.3s								
EAG2	**Marmaro, Chios**	**1.08**	**318**	P	**Pb**	**22 53 36.9**	**+0.3**		
EAG2				S	**Sb**	**22 53 51.1**	**+0.4**		
DAT	**Datca**	**1.10**	**157**	Pn	**Pg**	**22 53 36.9**	**-0.1**		
DAT				AML	AML				
YER	**Yerkesik**	**1.17**	**121**	P	**Pg**	**22 53 37.5**	**-0.7**		
YER	**Yerkesik**	**1.17**	**121**	Pn	**Pg**	**22 53 38.0**	**-0.2**		
YER				AML	AML				
KIRA	**zmir-Kiraz**	**1.17**	**67**	P	**Pg**	**22 53 37.9**	**-0.4**		
KIRA				S	**Sg**	**22 53 52.5**	**-1.0**		
KIRA				IAML		22 53 55.0			
	comp=N,168nm,0.4s								
GOMA	**Golmarmara-Man**	**1.19**	**36**	Pn	**Pn**	**22 53 38.8**	**+0.4**		
GOMA				AML	AML				
ZEDA	**zmir-Bergama**	**1.22**	**2**	P	**Pb**	**22 53 38.6**	**-0.4**		
ZEDA				S	**Sn**	**22 53 56.0**	**+0.6**		
ZEDA				IAML		22 53 57.0			
	comp=N,223nm,0.6s								
KTTT	**Salihli**	**1.26**	**41**	P	**Pn**	**22 53 39.8**	**+0.3**		
KTTT				S	**Sb**	**22 53 53.8**	**-2.1**		
AKHS	**Akhisar**	**1.29**	**28**	P	**Pn**	**22 53 39.5**	**-0.4**		
AKS	**Akhisar**	**1.29**	**28**	Pn	**Pg**	**22 53 40.6**	**+0.1**		
AKS				AML	AML				
DKL	**Dikili**	**1.33**	**356**	P	**Pb**	**22 53 40.0**	**-0.4**		
TURN	**Turunc**	**1.37**	**135**	Pn	**Pb**	**22 53 41.4**	**0.0**		
TURN				AML	AML				
APE	**Apeiranthos**	**1.38**	**241**	P	**Pb**	**22 53 41.6**	**0.0**		
APE				AML	AML				
APE	**Apeiranthos**	**1.38**	**241**	P	**Pn**	**22 53 40.8**	**-0.2**		
MANT	**Manisa**	**1.41**	**58**	P	**Pb**	**22 53 42.7**	**+0.4**		
MANT				S	**Sb**	**22 53 58.8**	**-1.7**		
MANT				IAML		22 54 03.0			
	comp=E,140nm,0.4s								
SOMA	**Soma-Manisa**	**1.46**	**15**	Pn	**Pn**	**22 53 42.9**	**+0.7**		
SOMA				AML	AML				
GORD	**Gordes-Manisa**	**1.47**	**37**	Pn	**Pn**	**22 53 43.0**	**+0.7**		
GORD				AML	AML				
AYVA	**Ayvalik**	**1.58**	**350**	P	**Pg**	**22 53 46.0**	**-0.2**		
DALY	**Dalyan (Mula)**	**1.59**	**125**	Pn	**Pn**	**22 53 44.6**	**+0.7**		
DALY				AML	AML				
PRK	**Paraskevi**	**1.61**	**338**	P	**Pb**	**22 53 46.0**	**+0.4**		
PRK				S	**Sb**	**22 54 06.4**	**+0.4**		
ARG	**Arkhangelos**	**1.76**	**150**	P	**Pn**	**22 53 46.7**	**+0.5**		
ARG	**Arkhangelos**	**1.76**	**150**	P	**Pn**	**22 53 46.6**	**+0.4**		
ARG				AML	AML				
APMY	**Acipayam-Deniz**	**1.82**	**98**	Pn	**Pn**	**22 53 48.1**	**+0.9**		
APMY				AML	AML				
DION	**Dionisos Attik**	**2.48**	**279**	P	**Pn**	**22 53 55.3**	**-0.9**		
ELL	**Elmali**	**2.50**	**113**	P	**Pn**	**22 53 58.5**	**+1.9**		
ATHU	**Athens Univers**	**2.58**	**276**	P	**Pn**	**22 53 57.0**	**-0.6**		

*ATH **04** 23:14:57.9, 37.87N×27.35E, h6km±1km, ML3.6/6, Latitude uncertainty: 2 km; Longitude uncertainty: 2 km*
*AFAD **04** 23:14:58.0, 37.85N×27.27E, h10km±3km, ML3.3*
*ISK **04** 23:14:58.2, 37.86N×27.33E, h6km, ML3.3/18*
*THE **04** 23:14:59.0, 38°N±3.2×2.7E±°, h1km±4km, M3.6/6, MLh3.6/6*
*IDC **04** 23:14:58.9±1.4, 37.53N×27.43E, h0km, mb3.8/1, mbtmp3.5/4, ML2.9/3, Error ellipse: s-maj=23.3km s-min=17.4km az=3.0*

ISC 04 23:14:58.3±0.9,**37.88N**±0.02×**27.34E**±0.02,**h9**km±6km, **n81**,σ1**03**/108,**Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.04**	**251**	Pg	**Pg**	**23 15 00.1**	**0.0**
GCAM	**G?zelcaml?**	**0.20**	**206**	P	**Pg**	**23 15 01.5**	**-0.8**
GCAM	**G?zelcaml?**	**0.20**	**206**	Pg	**Pg**	**23 15 02.3**	**0.0**
GCAM				Sg	**Sg**	**23 15 04.9**	**-0.1**
GCAM				AML	AML		
DUVT	**Torbali**	**0.35**	**14**	P	**Pg**	**23 15 05.2**	**-0.1**
GMLD	**Gumuldur**	**0.39**	**301**	Pg	**Pb**	**23 15 07.0**	**-0.4**
GMLD				AML	AML		
DGB	**zmir**	**0.40**	**296**	P	**Pg**	**23 15 05.8**	**-0.4**
DDIM	**Aydin, Didim**	**0.42**	**191**	P	**Pg**	**23 15 05.8**	**-0.8**
SMG	**Samos**	**0.43**	**248**	P	**Pg**	**23 15 06.4**	**-0.3**
SMG				S	**Sg**	**23 15 12.2**	**-0.2**
SMG				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.44**	**81**	Pg	**Pg**	**23 15 07.4**	**+0.5**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.48**	**117**	P	**Pg**	**23 15 08.8**	**-0.1**
BEYE	**izmir**	**0.48**	**317**	P	**Pg**	**23 15 08.3**	**+0.6**
KRL1	**Karlovasi Samo**	**0.51**	**261**	P	**Pg**	**23 15 08.0**	**-0.2**
KRL1				S	**Sg**	**23 15 15.1**	**+0.3**
KRL1				AML	AML		
IZMR	**zmir-demi**	**0.55**	**61**	P	**Pg**	**23 15 08.3**	**-0.7**
IZMR				P	**Pb**	**23 15 09.4**	**-0.7**
BLCB	**Balcova**	**0.56**	**335**	P	**Pg**	**23 15 09.4**	**+0.2**
BLCB				S	**Sn**	**23 15 20.8**	**-1.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**335**	Pg	**Pg**	**23 15 09.4**	**+0.2**
BLCB				AML	AML		
SAM2	**Drakei, Karlov**	**0.59**	**259**	P	**Pg**	**23 15 09.3**	**-0.4**
SAM2				S	**Sg**	**23 15 17.0**	**-0.5**
SAM2				AML	AML		
MLSB	**Milas**	**0.68**	**149**	Pg	**Pb**	**23 15 11.7**	**-0.6**
MLSB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.75**	**299**	P	**Pg**	**23 15 12.8**	**-0.1**
ZEYE				S	**Sg**	**23 15 21.5**	**-1.2**
ZEYE				IAML		23 15 25.0	
	comp=N,4μm,0.6s						
ZEYE				IAML		23 15 25.0	
	comp=E,1μm,0.2s						
NAZL	**Nazilli-Aydin**	**0.76**	**83**	Pg	**Pg**	**23 15 13.4**	**+0.5**
NAZL				Sg	**Sb**	**23 15 24.5**	**+0.3**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**0.80**	**95**	P	**Pb**	**23 15 15.0**	**+0.6**
BODT	**Bodrum**	**0.81**	**182**	P	**Pb**	**23 15 14.5**	**-0.1**
BODT				S	**Sb**	**23 15 26.8**	**+1.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**182**	Pg	**Pb**	**23 15 14.2**	**-0.4**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.81**	**174**	P	**Pn**	**23 15 15.6**	**-0.4**
BDRM				S	**Sb**	**23 15 25.1**	**-0.6**
BODA	**Bodrum-Mula**	**0.84**	**175**	Pg	**Pb**	**23 15 14.7**	**-0.4**
BODA				Sg	**Sb**	**23 15 26.5**	**0.0**
BAGT	**Foa**	**0.87**	**334**	P	**Pg**	**23 15 14.7**	**-0.3**
BAGT				S	**Sg**	**23 15 25.4**	**-0.9**
BAGT				IAML		23 15 30.0	
	comp=N,2μm,0.7s						
CAMT	**Merkez**	**0.87**	**359**	P	**Pb**	**23 15 15.6**	**-0.1**
CAMT				S	**Sg**	**23 15 25.1**	**-1.3**
CAMT				IAML		23 15 30.0	
	comp=N,2μm,0.6s						
KIRA	**zmir-Kiraz**	**0.90**	**69**	P	**Pg**	**23 15 15.9**	**+0.3**
KIRA				S	**Sg**	**23 15 27.1**	**-0.1**
KIRA				IAML		23 15 30.0	
	comp=N,561nm,0.9s						
GOMA	**Golmarmara-Man**	**0.95**	**28**	Pg	**Pb**	**23 15 17.3**	**+0.4**
GOMA				AML	AML		
KRBN	**Karaburun**	**0.95**	**319**	Pg	**Pb**	**23 15 16.9**	**0.0**
KRBN				AML	AML		
KLNA	**Kalymnos**	**0.96**	**198**	P	**Pg**	**23 15 16.3**	**-0.5**
FOCM	**Foa**	**0.96**	**330**	Pg	**Pg**	**23 15 16.9**	**0.0**
FOCM				AML	AML		
MULA	**Mugla, Merkez-**	**0.99**	**128**	P	**Pn**	**23 15 18.4**	**-0.2**
MULA				S	**Sb**	**23 15 31.3**	**+0.3**
KTTT	**Salihli**	**1.00**	**36**	P	**Pg**	**23 15 17.8**	**+0.2**
YER	**Yerkesik**	**1.05**	**134**	P	**Pn**	**23 15 19.5**	**+0.2**
YER	**Yerkesik**	**1.05**	**134**	Pg	**Pb**	**23 15 18.9**	**+0.1**
YER				Sg	**Sn**	**23 15 33.8**	**-0.4**
YER				AML	AML		
AKHS	**Akhisar**	**1.07**	**20**	P	**Pb**	**23 15 19.5**	**+0.5**
AKHS				S	**Sg**	**23 15 31.9**	**-0.9**
AKHS				IAML		23 15 41.0	
	comp=N,492nm,0.8s						
AKS	**Akhisar**	**1.07**	**20**	Pn	**Pb**	**23 15 19.2**	**+0.2**
AKS				AML	AML		
KARB	**zmir-Karabur**	**1.07**	**317**	P	**Pg**	**23 15 18.7**	**-0.3**
KARB				S	**Sg**	**23 15 31.9**	**-1.0**
KARB				IAML		23 15 33.0	
	comp=E,1μm,0.4s						
KARB				IAML		23 15 34.0	
	comp=N,916nm,0.5s						
ZEDA	**zmir-Bergama**	**1.11**	**349**	P	**Pg**	**23 15 19.2**	**-0.4**
ZEDA				S	**Sg**	**23 15 32.4**	**-1.6**
ZEDA				IAML		23 15 39.0	
	comp=N,909nm,0.8s						
ZEDA				IAML		23 15 39.0	
	comp=E,536nm,0.7s						
CHOS	**Chios island**	**1.14**	**297**	P	**Pb**	**23 15 20.2**	**0.0**
CHOS				S	**Sn**	**23 15 36.7**	**+0.4**
CHOS	**Chios island**	**1.14**	**297**	P	**Pb**	**23 15 20.3**	**+0.1**
CHOS				AML	AML		
MANT	**Manisa**	**1.14**	**57**	P	**Pg**	**23 15 20.1**	**-0.1**
MANT				S	**Sg**	**23 15 33.3**	**-1.8**
MANT				IAML		23 15 37.0	
	comp=N,405nm,1.0s						
SULTU	**Buldan**	**1.14**	**81**	P	**Pn**	**23 15 21.2**	**+0.6**
SULTU				S	**Sg**	**23 15 35.5**	**+0.4**
DAT	**Datca**	**1.16**	**171**	Pn	**Pb**	**23 15 20.5**	**-0.1**
DAT				AML	AML		
EAG2	**Marmaro, Chios**	**1.

PRZ				⇑*i*S		Sg	23 32 47.0	+0.8
KURS	**Kuram**		**0.52 359**	P		Pg	23 32 40.1	+0.3
	1.8nm,0.1s							
KURS				S		Sg	23 32 47.6	+1.0
	5.2nm,0.1s							
KURS	**Kuram**		**0.52 359**	*e*P		Pg	23 32 40.0	+0.3
	1.8nm,0.1s							
KURS				*e*S		Sg	23 32 47.6	+1.0
	5.2nm,0.1s							
KPKS	**Kokpek**		**0.62 36**	P		Pg	23 32 41.3	-0.4
	0.2nm,0.1s							
KPKS				S		Sg	23 32 49.6	-0.2
	10nm,0.2s							
KPKS	**Kokpek**		**0.62 36**	*e*P		Pg	23 32 41.3	-0.4
	0.2nm,0.1s							
KPKS				*e*S		Sg	23 32 49.6	-0.2
	10nm,0.2s							
UZB	**Uzynbulak**		**0.64 74**	P		Pg	23 32 40.8	-1.3
	3.5nm,0.2s							
UZB				S		Sg	23 32 49.1	-1.4
	30nm,0.2s							
UZB	**Uzynbulak**		**0.64 74**	*e*P		Pg	23 32 40.8	-1.3
	3.5nm,0.2s							
UZB				*e*S		Sg	23 32 49.1	-1.4
	30nm,0.2s							
SHLS	**Shalkode**		**0.96 78**	P		Pn	23 32 52.1	+1.9
	2.4nm,0.2s							
SHLS				S		Sn	23 33 08.6	+4.2
	8.5nm,0.3s							
SHLS	**Shalkode**		**0.96 78**	*e*P		Pn	23 32 52.1	+1.9
	2.4nm,0.2s							
SHLS				*e*S		Sn	23 33 08.6	+4.2
	8.5nm,0.3s							
PDGK	**Podgornoye**		**1.02 69**	⇑P		Pg	23 32 47.8	-1.6
	1.7nm,0.7s							
PDGK				⇑S		Sg	23 33 00.4	-2.3
	11nm,0.8s							
TARG	**Taragay, Kyrgy**		**1.27 193**	⇑*i*P		Pn	23 32 53.0	-1.7
TARG				⇑*e*S		Sg	23 33 09.9	-0.6
ARXS	**Arharly**		**1.27 349**	P		Pn	23 32 53.6	-0.8
	1.6nm,0.2s							
ARXS				S		Sg	23 33 11.0	+0.3
	7.7nm,0.1s							
ARXS	**Arharly**		**1.27 349**	*e*P		Pn	23 32 53.6	-0.8
	1.6nm,0.2s							
ARXS				*e*S		Sg	23 33 11.0	+0.3
	7.7nm,0.1s							
KTBS	**Karatobe**		**1.32 305**	P		Pn	23 32 54.3	-0.8
	1.3nm,0.0s							
KTBS				S		Sb	23 33 12.1	-0.4
	6.2nm,0.4s							
KTBS	**Karatobe**		**1.32 305**	*e*P		Pn	23 32 54.3	-0.8
	1.3nm,0.0s							
KTBS				*e*S		Sb	23 33 12.1	-0.4
	6.2nm,0.4s							
ULHL	**Ulahol**		**1.60 244**	⇑*e*P		Pn	23 32 58.6	-0.5
ULHL				⇑*e*S		Sn	23 33 19.5	-0.8
KST	**Kastek**		**1.63 273**	P		Pg	23 33 01.2	+0.2
	1.5nm,0.5s							
KST				S		Sg	23 33 23.8	+1.7
	3.4nm,0.3s							
KST	**Kastek**		**1.63 273**	*e*P		Pg	23 33 01.2	+0.2
	1.5nm,0.5s							
KST				*e*S		Sg	23 33 23.8	+1.7
	3.4nm,0.3s							
BOOM	**Boomskoye usch**		**1.72 255**	⇑*e*P		Pn	23 33 00.2	-0.4
BOOM				⇑*e*S		Sn	23 33 22.3	-0.8
TKM2	**Tokmak 2**		**1.90 269**	⇓*e*P		Pn	23 33 02.8	-0.3
TKM2				⇓*e*S		Sn	23 33 26.8	-0.8
KRBS	**Karabastau**		**1.97 293**	Pg		Pb	23 33 06.3	+0.1
	1.9nm,0.1s							
KRBS				Lg		Lg	23 33 32.7	
	15nm,0.3s							
KRBS	**Karabastau**		**1.97 293**	*e*P		Pb	23 33 06.3	+0.1
	1.9nm,0.1s							
KRBS				*e*S		Sg	23 33 32.7	-0.3
	15nm,0.3s							
NRN	**Naryn**		**2.23 227**	⇓*e*P		Pn	23 33 07.7	-0.1
NRN				⇓*e*S		Sn	23 33 35.2	-0.8
KBK	**Karagaybulak**		**2.40 264**	⇓*e*P		Pn	23 33 09.7	-0.3
KBK				⇑*e*S		Sn	23 33 38.7	-1.2
USP	**Ospenovka**		**2.71 278**	⇓*e*P		Pn	23 33 14.0	-0.2
USP				⇓*e*S		Sn	23 33 46.0	-1.4
AAK	**Ala-Archa**		**2.73 264**	⇑Pg		Pb	23 33 20.7	+1.4
	2.0nm,1.1s							
AAK				⇓Lg		Lg	23 33 58.8	
	2.6nm,0.9s							
AAK	**Ala-Archa**		**2.73 264**	⇓*e*P		Pn	23 33 14.3	-0.3
AAK				⇓*i*S		Sn	23 33 46.8	-1.3
UCH	**Uchtor**		**2.81 256**	⇓*e*P		Pn	23 33 15.5	-0.4
UCH				⇑*e*S		Sn	23 33 48.7	-1.7

*AFAD **04** 23:34:44.5,37.92N×26.67E,h7km±2km,ML2.4*
*ISK **04** 23:34:44.3,37.95N×26.67E,h5km,ML2.5/18*
*THE **04** 23:34:45.4,38.0N±0.9×2.7E±°,h11km±2km,M2.6/7, MLh2.6/7*
*ATH **04** 23:34:45.0,37.90N×26.66E,h18km±2km,ML2.6/4, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
ISC 04 23:34:45.1±0.8,37.95N±0.02×26.68E±0.02,h13km±6km, n51,σ0°51/77,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.15**	**171**	P	**Pg**	**23 34 48.9**	**+0.1**
KRL1				S	**Sg**	**23 34 51.4**	**+0.1**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.19**	**195**	P	**Pg**	**23 34 49.5**	**0.0**
SAM2				S	**Sg**	**23 34 52.3**	**-0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.20**	**57**	P	**Pg**	**23 34 49.2**	**-0.2**
DGB				IAML		23 34 52.0	
	comp=N,978nm,0.2s						
DGB				S	**Sg**	**23 34 52.4**	**0.0**
DGB				IAML		23 34 53.0	
	comp=E,645nm,0.2s						
GMLD	**Gumuldur**	**0.23**	**55**	Pg	**Pg**	**23 34 49.5**	**-0.6**
GMLD				AML	AML		
SMG	**Samos**	**0.27**	**152**	P	**Pg**	**23 34 50.9**	**+0.1**
SMG				S	**Sg**	**23 34 54.9**	**+0.3**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.32**	**335**	P	**Pg**	**23 34 51.5**	**-0.2**
ZEYE				S	**Sg**	**23 34 56.7**	**+0.5**
ZEYE				IAML		23 34 58.0	
	comp=N,408nm,0.1s						
BEYE	**izmir**	**0.34**	**35**	P	**Pg**	**23 34 51.5**	**-0.6**
BEYE				S	**Sg**	**23 34 56.7**	**-0.1**
BEYE				IAML		23 34 58.0	
	comp=N,312nm,0.3s						
BEYE				IAML		23 34 58.0	
	comp=E,352nm,0.2s						
KUSD	**Kusadasi-Aydin**	**0.49**	**100**	Pg	**Pg**	**23 34 55.0**	**+0.2**
KUSD				Sg	**Sb**	**23 35 03.2**	**+0.4**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.51**	**119**	P	**Pb**	**23 34 56.2**	**+0.3**
GCAM				S	**Sg**	**23 35 01.7**	**0.0**
GCAM	**G?zelcaml?**	**0.51**	**119**	Pg	**Pg**	**23 34 54.9**	**-0.2**
GCAM				AML	AML		
BLCB	**Balcova**	**0.53**	**33**	P	**Pg**	**23 34 55.2**	**-0.3**
BLCB				S	**Sg**	**23 35 02.6**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**33**	Pg	**Pg**	**23 34 54.9**	**-0.6**
BLCB				AML	AML		
KRBN	**Karaburun**	**0.65**	**352**	Pg	**Pb**	**23 34 58.5**	**+0.1**
KRBN				Sg	**Sb**	**23 35 08.4**	**+0.9**
KRBN				AML	AML		
CHOS	**Chios island**	**0.66**	**312**	P	**Pb**	**23 34 58.2**	**-0.4**
CHOS				S	**Sb**	**23 35 08.2**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.66**	**312**	Pg	**Pb**	**23 34 58.3**	**-0.3**
CHOS				Sg	**Sb**	**23 35 08.1**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.66**	**312**	P	**Pg**	**23 34 58.0**	**0.0**
CHOS				S	**Sb**	**23 35 07.8**	**+0.1**
CHOS				AML	AML		
DDIM	**Aydin, Didim**	**0.66**	**137**	P	**Pg**	**23 34 57.3**	**-0.8**
DUVT	**Torbali**	**0.67**	**66**	P	**Pg**	**23 34 58.0**	**-0.2**
DUVT				S	**Sg**	**23 35 05.8**	**-1.2**
DUVT				IAML		23 35 10.0	
	comp=E,189nm,0.4s						
BAGT	**Foa**	**0.72**	**11**	P	**Pg**	**23 34 58.7**	**-0.5**
BAGT				S	**Sg**	**23 35 09.0**	**+0.3**
BAGT				IAML		23 35 13.0	
	comp=N,159nm,0.3s						
BAGT				IAML		23 35 13.0	
	comp=E,134nm,0.4s						
EAG2	**Marmaro, Chios**	**0.75**	**323**	P	**Pg**	**23 34 59.7**	**+0.1**
KARB	**zmir-Karabur**	**0.75**	**344**	P	**Pg**	**23 34 59.4**	**-0.3**
KARB				S	**Sb**	**23 35 10.4**	**+0.2**
KARB				IAML		23 35 12.0	
	comp=N,227nm,0.3s						
KARB				IAML		23 35 12.0	
	comp=E,168nm,0.3s						
FOCM	**Foa**	**0.77**	**3**	Pg	**Pg**	**23 34 59.9**	**-0.1**
FOCM				AML	AML		
DAGE	**izmir**	**0.85**	**86**	P	**Pb**	**23 35 01.8**	**0.0**
CAMT	**Merkez**	**0.94**	**32**	P	**Pb**	**23 35 03.8**	**+0.4**
CAMT				S	**Sb**	**23 35 16.9**	**+1.0**
CAMT				IAML		23 35 18.0	
	comp=N,333nm,0.5s						
CAMT				IAML		23 35 20.0	
	comp=E,291nm,0.6s						
AYDB	**Zeytinkoy-Aydi**	**0.96**	**90**	Pg	**Pn**	**23 35 04.3**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.99**	**106**	P	**Pb**	**23 35 04.4**	**+0.1**
BODT	**Bodrum**	**1.02**	**150**	P	**Pg**	**23 35 04.5**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**1.02**	**150**	Pg	**Pb**	**23 35 04.9**	**+0.3**
BODT				AML	AML		
IZMR	**zmir-demi**	**1.03**	**79**	P	**Pg**	**23 35 04.7**	**-0.2**
IZMR				S	**Sg**	**23 35 16.3**	**-2.0**
ZEDA	**zmir-Bergama**	**1.07**	**17**	P	**Pb**	**23 35 04.3**	**-1.2**
ZEDA				S	**Sb**	**23 35 20.0**	**+0.6**
ZEDA				IAML		23 35 22.0	
	comp=E,74nm,0.8s						
ZEDA				IAML		23 35 23.0	
	comp=N,79nm,0.3s						
BDRM	**Kayabasi**	**1.07**	**145**	P	**Pb**	**23 35 04.7**	**-0.8**
BDRM				S	**Sb**	**23 35 19.7**	**+0.2**
MLSB	**Milas**	**1.09**	**126**	Pn	**Pn**	**23 35 06.2**	**0.0**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**1.09**	**146**	Pn	**Pn**	**23 35 06.5**	**+0.4**
DKL	**Dikili**	**1.14**	**9**	Pn	**Pg**	**23 35 07.1**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.14**	**9**	P	**Pb**	**23 35 06.5**	**-0.2**
GOMA	**Golmarmara-Man**	**1.24**	**52**	Pn	**Pg**	**23 35 08.9**	**-0.1**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.26**	**226**	Pn	**Pb**	**23 35 08.9**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.26**	**226**	P	**Pn**	**23 35 07.2**	**-1.3**
AKHS	**Akhisar**	**1.29**	**43**	P	**Pn**	**23 35 09.2**	**+0.2**
AKS	**Akhisar**	**1.29**	**43**	Pn	**Pg**	**23 35 10.3**	**+0.3**
ESEN	**Aydn-Nazilli**	**1.33**	**96**	P	**Pn**	**23 35 09.8**	**+0.3**
ESEN				S	**Sb**	**23 35 27.1**	**+0.2**
PRK	**Paraskevi**	**1.34**	**346**	P	**Pn**	**23 35 08.9**	**-0.6**
PRK	**Paraskevi**	**1.34**	**346**	P	**Pn**	**23 35 09.7**	**+0.1**
PRK				S	**Sn**	**23 35 27.6**	**+0.5**
PRK				AML	AML		
KTTT	**Salihli**	**1.34**	**56**	P	**Pb**	**23 35 10.2**	**0.0**
KTTT				S	**Sg**	**23 35 28.0**	**-0.3**
AYVA	**Ayvalik**	**1.36**	**0**	P	**Pb**	**23 35 10.6**	**+0.1**
AYVA				S	**Sn**	**23 35 28.2**	**+0.4**
AYVA				IAML		23 35 33.0	
	comp=N,53nm,0.3s						
KIRA	**zmir-Kiraz**	**1.38**	**79**	P	**Pn**	**23 35 10.2**	**-0.1**
SOMA	**Soma-Manisa**	**1.38**	**29**	Pn	**Pg**	**23 35 11.7**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.52**	**50**	Pn	**Pg**	**23 35 14.0**	**-0.4**
GORD				AML	AML		
MANT	**Manisa**	**1.58**	**69**	P	**Pb**	**23 35 14.2**	**-0.1**
YAYO	**Edremit-Balk**	**1.69**	**10**	Pn	**Pb**	**23 35 16.2**	**+0.1**
YAYO				Sn	**Sg**	**23 35 38.8**	**-0.8**
YAYO				AML	AML		
BALB	**Balikesir**	**1.94**	**29**	Pn	**Pb**	**23 35 20.1**	**-0.2**
BALB				Sn	**Sb**	**23 35 45.5**	**+1.1**
BALB				AML	AML		

*IDC **04** 23:49:00.6±1.2,23.13S×70.15W,h0km,mb3.7/3, mbtmp3.7/4,ML4.0/1,MS2.6/1,Error ellipse: s-maj=48.0km s-min=22.6km az=105.0*
*SJA **04** 23:49:04.4±0.7,22.95S×70.57W,h30km±6km,ML4.1, MW4.0*
*NEIC **04** 23:49:08.4±2.1,22.98S±0.04×70.26W±0.05,h46km±4km, mb4.2/5,ML4.2(GUC),Error ellipse: s-maj=7.9km s-min=4.0km az=117.0*
*GUC **04** 23:49:08.2±0.8,22.96S×70.21W,h49km±3km,ML4.2, Presumed earthquake*
ISC 04 23:49:07.5±0.7,22.97S±0.02×70.36W±0.04,h45km±5km, n83,σ1°88/106,mb4.1/4,7C-4D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB05	**IPOC Station P**	**0.19**	**52**	*e*P	**Pn**	**23 49 16.4**	**+1.0**
PB05				*e*S	**Sn**	**23 49 22.7**	**+1.8**
PB05	**IPOC Station P**	**0.19**	**52**		**Pn**	**23 49 16.4**	**+1.0**
PB05				Sn	**Sn**	**23 49 22.0**	**+1.1**
PB05	**IPOC Station P**	**0.19**	**52**	⇓*e*P	**Pn**	**23 49 16.6**	**+1.2**
PB05				*e*S	**Sn**	**23 49 22.2**	**+1.3**
PB05				IAML		23 49 22.6	
	comp=E,47µm,0.2s						
PB10	**IPOC Station P**	**0.57**	**198**	*e*P	**Pn**	**23 49 21.2**	**+1.8**
PB10	**IPOC Station P**	**0.57**	**198**		**Pn**	**23 49 21.1**	**+1.8**
PB10				Sn	**Sn**	**23 49 30.4**	**+2.5**
PB10	**IPOC Station P**	**0.57**	**198**	⇓*e*P	**Pn**	**23 49 21.2**	**+1.8**
PB10				*e*S	**Sn**	**23 49 30.7**	**+2.8**
PB06	**IPOC Station P**	**0.78**	**70**	*e*P	Pn	23 49 15.8	-6.4
PB06				*e*P		23 49 21.7	
PB06				*e*S	**Sn**	**23 49 31.5**	**-1.4**
PB06				IAML		23 49 32.5	
	comp=Z,8µm,0.3s						
PB06	**IPOC Station P**	**0.78**	**70**		**Pn**	**23 49 21.3**	**-0.9**
PB06				Sn	**Sn**	**23 49 31.0**	**-1.9**
PB06	**IPOC Station P**	**0.78**	**70**	⇑*e*P	**Pn**	**23 49 21.6**	**-0.6**
PB06				*e*S	**Sn**	**23 49 31.3**	**-1.6**
PB06				IAML		23 49 31.7	
	comp=N,31µm,0.4s						
PB03	**IPOC Station P**	**1.07**	**32**	*e*P	**Pn**	**23 49 27.0**	**+0.7**
PB03				*e*S	**Sn**	**23 49 40.7**	**+0.5**
PB03				IAML		23 49 43.7	
	comp=Z,5µm,0.2s						
PB03	**IPOC Station P**	**1.07**	**32**		**Pn**	**23 49 26.7**	**+0.5**
PB03				Sn	**Sn**	**23 49 40.0**	**-0.1**
PB03	**IPOC Station P**	**1.07**	**32**	⇓*e*P	**Pn**	**23 49 26.8**	**+0.5**
PB03				*e*S	**Sn**	**23 49 40.4**	**+0.2**
PB03				IAML		23 49 41.6	
	comp=E,6µm,0.4s						
PB07	**IPOC Station P**	**1.31**	**20**	*e*P	**Pn**	**23 49 30.5**	**+0.9**
PB07				*e*S	**Sn**	**23 49 48.2**	**+2.2**
PB07				IAML		23 49 50.9	
	comp=Z,3µm,0.3s						
PB07	**IPOC Station P**	**1.31**	**20**		**Pn**	**23 49 30.7**	**+1.1**
PB07				Sn	**Sn**	**23 49 47.0**	**+1.1**
PB07	**IPOC Station P**	**1.31**	**20**	⇑*e*P	**Pn**	**23 49 30.5**	**+0.9**
PB07				*e*S	**Sn**	**23 49 47.5**	**+1.5**
PB07				IAML		23 49 51.0	
	comp=N,4µm,0.4s						
PB09	**IPOC Station P**	**1.56**	**42**	*e*P	**Pn**	**23 49 34.0**	**+1.0**
PB09				*e*S	**Sn**	**23 49 53.3**	**+1.2**
PB09				IAML		23 49 57.0	
	comp=Z,2µm,0.3s						
PB09	**IPOC Station P**	**1.56**	**42**		**Pn**	**23 49 33.9**	**+1.0**
PB09				Sn	**Sn**	**23 49 52.8**	**+0.7**
PB09	**IPOC Station P**	**1.56**	**42**	⇓*e*P	**Pn**	**23 49 33.9**	**+0.9**
PB09				*e*S	**Sn**	**23 49 52.8**	**+0.7**
PB09				IAML		23 49 57.7	
	comp=E,3µm,0.4s						
PB14	**IPOC Station P**	**1.65**	**181**	*e*P	**Pn**	**23 49 34.8**	**+0.5**
PB14				*e*S	**Sn**	**23 49 59.1**	**+4.6**
PB14	**IPOC Station P**	**1.65**	**181**		**Pn**	**23 49 35.0**	**+0.6**
PB14				Sn	**Sn**	**23 49 54.8**	**+0.3**
PB14	**IPOC Station P**	**1.65**	**181**	⇑*e*P	**Pn**	**23 49 35.0**	**+0.6**
PB14				*e*S	**Sn**	**23 49 54.9**	**+0.3**
PB02	**IPOC Station P**	**1.70**	**15**	*e*P	**Pn**	**23 49 35.6**	**+0.8**
PB02				*e*S	**Sn**	**23 49 59.3**	**+4.0**
PB02				IAML		23 50 09.9	
	comp=Z,3µm,0.5s						
PB02	**IPOC Station P**	**1.70**	**15**		**Pn**	**23 49 35.6**	**+0.8**
PB02				Sn	**Sn**	**23 49 56.9**	**+1.6**
PB02	**IPOC Station P**	**1.70**	**15**	⇓*e*P	**Pn**	**23 49 35.6**	**+0.8**
PB02				*e*S	**Sn**	**23 49 56.9**	**+1.6**
PB02				IAML		23 50 05.1	
	comp=N,3µm,0.2s						
AF01	**San Pedro de A**	**2.01**	**90**	*e*P	**Pn**	**23 49 41.5**	**+2.2**
AF01				*e*S	**Sn**	**23 50 09.3**	**+5.9**
AF01				IAML		23 50 27.6	
	comp=Z,3µm,0.9s						
AF01	**San Pedro de A**	**2.01**	**90**		**Pn**	**23 49 41.3**	**+2.1**
AF01	**San Pedro de A**	**2.01**	**90**	⇓*e*P	**Pn**	**23 49 41.4**	**+2.2**
AF01				*e*S	**Sn**	**23 50 06.9**	**+3.5**
AF01				IAML		23 50 16.0	
	comp=N,7µm,0.3s						
TA01	**Diego Aracena**	**2.40**	**4**		**Pn**	**23 49 44.5**	**+0.2**
TA01	**Diego Aracena**	**2.40**	**4**	*e*P	**Pn**	**23 49 44.5**	**+0.2**
TA01				*e*S	**Sn**	**23 50 12.8**	**+0.4**
TA01				IAML		23 50 28.8	
	comp=N,884nm,0.4s						
PB08	**IPOC Station P**	**3.03**	**22**	*e*P	**Pn**	**23 49 54.7**	**+1.4**
PB08				*e*S	**Sn**	**23 50 31.3**	**+2.8**
PB08				IAML		23 50 48.4	
	comp=Z,562nm,1.0s						
PB08	**IPOC Station P**	**3.03**	**22**		**Pn**	**23 49 54.7**	**+1.4**
AC01	**Pan de Azucar**	**3.17**	**184**	*e*P	**Pn**	**23 49 54.7**	**-0.2**
AC01				*e*P		23 49 54.8	
AC01				*e*S	**Sn**	**23 50 31.1**	**-0.4**
AC01				IAML		23 50 55.6	
	comp=Z,270nm,0.8s						
AC01	**Pan de Azucar**	**3.17**	**184**		**Pn**	**23 49 54.8**	**-0.2**
AC01	**Pan de Azucar**	**3.17**	**184**	*e*P	**Pn**	**23 49 54.7**	**-0.2**
PB11	**IPOC Station P**	**3.26**	**12**		**Pn**	**23 49 56.5**	**+0.3**
PB11	**IPOC Station P**	**3.26**	**12**	*e*P	**Pn**	**23 49 56.3**	**+0.1**
PSGCX	**Pisagua**	**3.36**	**4**	*e*P	**Pn**	**23 49 57.8**	**+0.2**
PSGCX				*e*S	**Sn**	**23 50 43.8**	**+7.5**
PSGCX				IAML		23 50 53.6	
	comp=Z,195nm,0.3s						
PSGCX	**Pisagua**	**3.36**	**4**		**Pn**	**23 49 57.6**	**0.0**
PSGCX	**Pisagua**	**3.36**	**4**	⇑*e*P	**Pn**	**23 49 57.6**	**0.0**
GO01	**Chusmiza**	**3.46**	**19**	*e*P	**Pn**	**23 50 00.8**	**+1.5**
GO01				*e*S	**Sn**	**23 50 43.3**	**+4.0**
GO01				IAML		23 50 57.2	
	comp=Z,310nm,1.6s						
GO01	**Chusmiza**	**3.46**	**19**		**Pn**	**23 50 00.3**	**+1.0**
GO01	**Chusmiza**	**3.46**	**19**	*e*P	**Pn**	**23 50 01.1**	**+1.7**
GO01				IAML		23 50 59.2	
	comp=N,618nm,0.2s						
SALTA		**3.90**	**110**	*e*P	**Pn**	**23 50 08.8**	**+3.5**
AC02	**Maricunga**	**4.01**	**164**	*e*P	**Pn**	**23 50 08.6**	**+1.7**
AC02				*e*S	Sn	23 51 05.3	+12
AC02				IAML		23 51 14.0	
	comp=Z,524nm,0.6s						
AC02	**Maricunga**	**4.01**	**164**		**Pn**	**23 50 08.4**	**+1.5**
AC02	**Maricunga**	**4.01**	**164**	⇓*e*P	**Pn**	**23 50 08.8**	**+1.9**
PB12	**IPOC Station P**	**4.33**	**0**		**Pn**	**23 50 11.0**	**0.0**
AC06	**Mina Casimiro**	**4.37**	**180**		**Pn**	**23 50 10.9**	**-0.5**
AC06	**Mina Casimiro**	**4.37**	**180**	*e*P	**Pn**	**23 50 11.3**	**-0.1**
GO03	**Copiapo**	**4.61**	**179**	*e*P	**Pn**	**23 50 15.1**	**+0.4**
GO03				*e*S	**Sn**	**23 51 08.0**	**+1.1**
GO03				*e*S		23 51 21.8	
GO03				IAML		23 51 38.1	
	comp=Z,130nm,0.3s						
GO03	**Copiapo**	**4.61**	**179**		**Pn**	**23 50 14.1**	**-0.6**
GO03	**Copiapo**	**4.61**	**179**	*e*P	**Pn**	**23 50 14.2**	**-0.5**
PB16	**IPOC Station P**	**4.68**	**10**	*e*P	**Pn**	**23 50 17.2**	**+1.1**
PB16				*e*S	Sn	23 51 21.8	+12
PB16				IAML		23 51 46.0	
	comp=Z,84nm,0.6s						
PB16	**IPOC Station P**	**4.68**	**10**		**Pn**	**23 50 16.8**	**+0.6**
FSA	**Cafayete**	**5.07**	**129**	*e*P	**Pn**	**23 50 24.5**	**+3.3**
AC04	**Llanos de Chal**	**5.25**	**187**	*e*P	Pn	23 50 07.1	-16
AC04				IAML		23 51 56.6	
	comp=Z,58nm,0.5s						
AC05	**El Transito**	**5.84**	**179**		**Pn**	**23 50 31.6**	**-0.1**
LPAZ	**La Paz**	**6.97**	**18**	Pn	**Pn**	**23 50 50.0**	**+2.3**
	comp=Z,1.3nm,0.3s,baz=217,slow=3.2,SNR=25						
LPAZ				Sn	**Sn**	**23 52 10.3**	**+4.3**
	comp=Z,0.1nm,0.3s,baz=195,slow=20,SNR=0.9 comp=Z,2.3nm,0.3s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**6.97**	**18**	Pn	**Pn**	**23 50 49.3**	**+1.6**
CO01	**Juntas del Tor**	**6.99**	**178**	Pn	**Pn**	**23 50 47.2**	**-0.3**
CPUP	**Villa Florida**	**12.32**	**108**	LR	LR	23 57 06.6	
	comp=Z,35nm,21.7s,baz=246,slow=40						
H03N1	**Juan Fernandez**	**12.86**	**214**	Pn	**Pn**	**23 52 06.0**	**-1.5**
	baz=262,slow=74						
H03N1				T	T	00 04 55.7	
	baz=223,slow=74,SNR=78						
H03N2	**Juan Fernandez**	**12.87**	**214**	Pn	**Pn**	**23 52 05.9**	**-1.6**
	baz=0.1,slow=74						
H03N2				T	T	00 05 17.6	
	baz=38,slow=74,SNR=113						
H03S3	**Juan Fernandez**	**13.17**	**213**	Pn	**Pn**	**23 52 09.1**	**-2.5**
	baz=103,slow=20						
H03S1	**Juan Fernandez**	**13.18**	**213**	Pn	**Pn**	**23 52 09.0**	**-2.8**
	baz=103,slow=20						
H03S2	**Juan Fernandez**	**13.19**	**213**	Pn	**Pn**	**23 52 09.2**	**-2.6**
	baz=103,slow=20						
ITAB	**Concordia**	**17.05**	**108**	Pn	**Pn**	**23 53 01.8**	**-0.9**
ITAB				IAmb	IAmb	23 53 04.9	
	comp=Z,30nm,1.5s						
VAO	**Valinhos**	**21.54**	**95**	P	**P**	**23 53 51.3**	**-1.8**
BDFB	**Brasilia**	**22.30**	**75**	P	**P**	**23 53 59.5**	**-1.9**
SMTB	**Santa Maria do**	**25.95**	**61**	P	**P**	**23 54 34.5**	**-1.5**
SMTB				IAmb	IAmb	23 54 48.0	
	comp=Z,13nm,1.3s						
TXAR	**Lajitas Array**	**61.09**	**327**	P	**P**	**23 59 18.5**	**+1.4**
	comp=Z,0.2nm,0.6s,baz=125,slow=3.9,SNR=2.6 comp=Z,0.2nm,0.6s						
QSPA	**South Pole Qui**	**67.23**	**180**	P	**P**	**23 59 58.5**	**+1.5**
QSPA				IAmb	IAmb	00 00 20.6	
	comp=Z,1.6nm,1.2s						
TORD	**Torodi Ar. Bea**	**79.11**	**71**	P	**P**	**00 01 06.6**	**-1.1**
	comp=Z,0.4nm,0.4s,baz=253,slow=6.2,SNR=5.0 comp=Z,0.

MRHZ				S	**Sn**	00 02 20.1	-3.0
MRHZ				AML	AML		
MRHZ				AML	AML		
TLZ	**Tolley Road**	**0.49**	**331**	P	**Pn**	00 02 08.8	+1.0
TLZ				S	**Sn**	00 02 22.4	-0.9
TLZ				AML	AML		
TLZ				AML	AML		
HRRZ	**Handcock Road**	**0.50**	**44**	P	**Pn**	00 02 08.7	+0.7
HRRZ				AML	AML		
PRRZ	**Plateau Road**	**0.50**	**60**	P	**Pn**	00 02 08.4	+0.5
PRRZ				AML	AML		
HLRZ	**Highlands Stat**	**0.64**	**39**	P	**Pn**	00 02 10.2	+1.4
HLRZ				AML	AML		
HLRZ				AML	AML		
BKZ	**Black Stump Fm**	**0.65**	**129**	P	**Pn**	00 02 09.3	+0.5
BKZ	**Black Stump Fm**	**0.65**	**129**	S	**Sn**	00 02 23.5	-1.6
BKZ	**Black Stump Fm**	**0.65**	**129**	P	**Pn**	00 02 09.7	+0.9
BKZ				S	**Sn**	00 02 23.5	-1.6
BKZ				AML	AML		
BKZ				AML	AML		
RRRZ	**Republican Roa**	**0.67**	**52**	P	**Pn**	00 02 09.5	+0.6
RRRZ				AML	AML		
TARZ	**Mount Tarawera**	**0.73**	**45**	P	**Pn**	00 02 10.3	+0.8
TARZ				AML	AML		
MUGZ	**Murupara**	**0.78**	**70**	P	**Pn**	00 02 10.0	+0.3
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**0.79**	**98**	P	**Pn**	00 02 10.6	+0.9
MTHZ				S	**Sn**	00 02 25.6	-1.1
MTHZ				AML	AML		
KARZ	**Kaharoa**	**0.80**	**23**	P	**Pn**	00 02 10.8	+0.9
KARZ				AML	AML		
HIZ	**Hauiti**	**0.81**	**287**	P	**Pn**	00 02 10.7	+0.8
HIZ	**Hauiti**	**0.81**	**287**	S	**Sn**	00 02 27.2	+0.3
HIZ	**Hauiti**	**0.81**	**287**	P	**Pn**	00 02 11.3	+1.4
HIZ				AML	AML		
NMHZ	**Naumai**	**0.83**	**115**	P	**Pn**	00 02 11.8	+1.7
NMHZ				S	**Sn**	00 02 28.0	+0.7
NMHZ				AML	AML		
RTZ	**Ruatahuna**	**0.90**	**82**	P	**Pn**	00 02 11.4	+0.8
RTZ				AML	AML		
EDRZ	**Edgecumbe**	**0.96**	**48**	P	**Pn**	00 02 11.8	+0.7
EDRZ				AML	AML		
RAHZ	**Arahi**	**0.98**	**100**	P	**Pn**	00 02 12.9	+1.6
RAHZ				S	**Sn**	00 02 29.6	+0.1
RAHZ				AML	AML		
MARZ	**Manawahe**	**1.01**	**41**	P	**Pn**	00 02 12.5	+0.9
MARZ				AML	AML		
TOZ	**Tahuroa Road**	**1.05**	**345**	P	**Pn**	00 02 13.5	+1.5
TOZ				AML	AML		
OPRZ	**Ohinepanea**	**1.07**	**32**	P	**Pn**	00 02 12.9	+0.8
OPRZ				AML	AML		
TGRZ	**Tauranga**	**1.07**	**18**	P	**Pn**	00 02 13.2	+1.1
TGRZ				AML	AML		
URZ	**Urewera**	**1.11**	**64**	P	**Pn**	00 02 12.4	0.0
URZ	**Urewera**	**1.11**	**64**	P	**Pn**	00 02 12.9	+0.5
URZ				S	**Sn**	00 02 29.4	-2.0
URZ				AML	AML		
WHHZ	**Waihua**	**1.13**	**107**	P	**Pn**	00 02 14.6	+1.9
WHHZ				AML	AML		
PNHZ	**Pukenui**	**1.19**	**167**	P	**Pn**	00 02 14.7	+1.5
PNHZ				AML	AML		
WAZ	**Wanganui**	**1.20**	**213**	P	**Pn**	00 02 15.4	+2.1
WAZ				AML	AML		
RAGZ	**Rawiri**	**1.26**	**79**	P	**Pn**	00 02 15.5	+1.5
RAGZ				AML	AML		
TSZ	**Takapari Road**	**1.31**	**176**	P	**Pn**	00 02 16.0	+1.6
TSZ				AML	AML		
KAHZ	**Kahuranaki**	**1.31**	**143**	P	**Pn**	00 02 16.5	+2.0
KAHZ				AML	AML		
CKHZ	**Cape Kidnapper**	**1.32**	**134**	P	**Pn**	00 02 16.5	+2.0
CKHZ				AML	AML		
LREZ	**Lake Rotokare**	**1.32**	**237**	P	**Pn**	00 02 17.0	+2.5
MWZ	**Matawai**	**1.39**	**73**	P	**Pn**	00 02 16.1	+0.9
WPHZ	**Waipukurau**	**1.39**	**161**	P	**Pn**	00 02 16.9	+1.7
KNZ	**Kokohu**	**1.45**	**101**	P	**Pn**	00 02 17.3	+1.4
NEZ	**North Egmont**	**1.46**	**249**	P	**Pn**	00 02 18.8	+2.8
PXZ	**Pawanui**	**1.50**	**149**	P	**Pn**	00 02 18.1	+1.7
RIGZ	**Rimuhau**	**1.50**	**89**	P	**Pn**	00 02 18.0	+1.6
OHWZ	**Ohakea**	**1.51**	**196**	P	**Pn**	00 02 18.7	+2.3
PKE	**Pukeiti**	**1.51**	**253**	P	**Pn**	00 02 19.1	+2.6
KHEZ	**Kahui Hut**	**1.52**	**249**	P	**Pn**	00 02 19.4	+2.7
DVHZ	**Dannevirke**	**1.56**	**171**	P	**Pn**	00 02 18.5	+1.4
PRGZ	**Paritu Road**	**1.60**	**97**	P	**Pn**	00 02 18.9	+1.4
TKGZ	**Te Karaka**	**1.60**	**79**	P	**Pn**	00 02 19.3	+1.8
NBZ	**Newall Road No**	**1.62**	**251**	P	**Pn**	00 02 20.1	+2.5
PRHZ	**Porangahau**	**1.63**	**158**	P	**Pn**	00 02 19.5	+1.7
POWZ	**Post Office Ro**	**1.64**	**182**	P	**Pn**	00 02 19.3	+1.4
RUGZ	**Raukumara Rang**	**1.64**	**62**	P	**Pn**	00 02 18.2	+0.1
MHGZ	**Mahia Peninsul**	**1.66**	**105**	P	**Pn**	00 02 19.9	+1.8
NMEZ	**Namu Road**	**1.67**	**246**	P	**Pn**	00 02 20.8	+2.6
ANWZ	**Angora Road**	**1.77**	**164**	P	**Pn**	00 02 21.1	+1.8
TWGZ	**Tauwhareparae**	**1.77**	**72**	P	**Pn**	00 02 21.2	+1.7
PRWZ	**Pori Road**	**1.80**	**177**	P	**Pn**	00 02 21.4	+1.7
HAZ	**Te Kaha**	**1.82**	**58**	P	**Pn**	00 02 20.4	+0.4
CNGZ	**Carnagh Statio**	**1.87**	**82**	P	**Pn**	00 02 22.3	+1.7
MRZ	**Mangatainoka R**	**1.92**	**186**	P	**Pn**	00 02 22.3	+1.2
BFZ	**Birch Farm**	**1.95**	**171**	P	**Sn**	00 02 45.6	-2.0
BFZ	**Birch Farm**	**1.95**	**171**	P	**Pn**	00 02 22.0	+0.5
BFZ	**Birch Farm**	**1.95**	**171**	P	**Pn**	00 02 22.8	+1.3
PKGZ	**Pakihiroa**	**1.97**	**64**	P	**Pn**	00 02 22.9	+1.2
PUZ	**Puketitti**	**2.02**	**71**	P	**Pn**	00 02 23.3	+1.1
TIWZ	**Tintock**	**2.02**	**179**	P	**Pn**	00 02 23.6	+1.3
OGWZ	**Otaki Gorge**	**2.12**	**194**	P	**Pn**	00 02 24.9	+1.3
HOWZ	**Holdsworth Sta**	**2.16**	**187**	P	**Pn**	00 02 24.9	+0.9
CPWZ	**Castlepoint**	**2.17**	**173**	P	**Pn**	00 02 25.8	+1.7
KIW	**Kapiti Island**	**2.22**	**199**	P	**Pn**	00 02 25.7	+1.0
WMGZ	**Waiomatatini S**	**2.23**	**66**	P	**Pn**	00 02 25.9	+1.1
MXZ	**Matakaoa Point**	**2.28**	**59**	P	**Pn**	00 02 26.9	+1.5
TMWZ	**Te Maipa**	**2.35**	**179**	P	**Pn**	00 02 27.2	+0.8
MTW	**Mount Morrison**	**2.42**	**186**	P	**Pn**	00 02 27.7	+0.6
CAW	**Cannon Point**	**2.42**	**194**	P	**Pn**	00 02 28.0	+0.8
DUWZ	**D'Urville Isla**	**2.52**	**215**	P	**Pn**	00 02 29.6	+1.2
PAWZ	**Paruwai Farm**	**2.64**	**187**	P	**Pn**	00 02 30.4	+0.4
TRWZ	**Traveller**	**2.64**	**183**	P	**Pn**	00 02 30.5	+0.6
WEL	**Wellington**	**2.66**	**198**	P	**Pn**	00 02 30.8	+0.7
MSWZ	**Moikau Station**	**2.70**	**190**	P	**Pn**	00 02 31.0	+0.4
BHW	**Baring Head**	**2.75**	**195**	P	**Pn**	00 02 31.7	+0.4
PLWZ	**Palliser**	**2.85**	**189**	P	**Pn**	00 02 32.7	+0.2
TUWZ	**Tuamarina**	**3.04**	**208**	P	**Pn**	00 02 36.2	+1.2
NNZ	**Nelson**	**3.10**	**217**	P	**Pn**	00 02 36.6	+0.8
TKNZ	**Takaka Hill**	**3.18**	**223**	P	**Pn**	00 02 37.5	+0.8
QRZ	**Quartz Range**	**3.29**	**230**	P	**Pn**	00 02 38.8	+0.7
QRZ	**Quartz Range**	**3.29**	**230**	P	**Pn**	00 02 38.9	+0.8
BSWZ	**Blackbirch Sta**	**3.32**	**206**	P	**Pn**	00 02 39.4	+0.8
MRNZ	**Matariki Terra**	**3.55**	**221**	P	**Pn**	00 02 42.1	+0.6
THZ	**Tophouse**	**3.75**	**216**	P	**Pn**	00 02 44.8	+0.5
KHZ	**Kahutara**	**4.06**	**205**	P	**Pn**	00 02 48.3	+0.1
GVZ	**Greta Valley S**	**4.72**	**206**	P	**Pn**	00 02 56.6	-0.3
LTZ	**Lake Taylor**	**4.85**	**213**	P	**Pn**	00 02 58.0	-0.7
OKCZ	**Okains Bay**	**5.39**	**202**	P	**Pn**	00 03 05.2	-0.6
OXZ	**Oxford**	**5.40**	**211**	P	**Pn**	00 03 05.4	-0.6
AKCZ	**Akaroa Harbour**	**5.57**	**202**	P	**Pn**	00 03 07.5	-0.8
RACZ	**Rakaia**	**5.70**	**208**	P	**Pn**	00 03 09.0	-0.9
WACZ	**Wakanui South**	**6.00**	**209**	P	**Pn**	00 03 13.3	-0.5
RPZ	**Rata Peaks**	**6.13**	**215**	P	**Pn**	00 03 15.7	0.0
RPZ	**Rata Peaks**	**6.13**	**215**	P	**Pn**	00 03 15.4	-0.3
ARCZ	**Arundel**	**6.26**	**213**	P	**Pn**	00 03 17.2	-0.3
TMZ	**Timaru**	**6.69**	**211**	P	**Pn**	00 03 22.5	-0.7
ODZ	**Otahua Downs**	**7.38**	**210**	P	**Pn**	00 03 31.6	-0.9
CTZ	**Chatham Island**	**7.55**	**134**	P	**Pn**	00 03 38.2	+3.5

*IDC **05** 00:04:33.1±2.7,21°.67N×143°.20E,h297km±28km,mb3.1/8, mbtmp3.9/9,Error ellipse: s-maj=35.5km s-min=15.2km az=89.0*

ISC 05 00:04:33.6±1.0,**21°.8N**±0°.1×**143°.1E**±0°.3,**h300**km,**n9,** σ1§**47**/10,**mb3.3/8**,**Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**5.35**	**351**	P	**Pn**	00 05 55.9	**+0.8**
	126nm,0.9s,baz=288,slow=20,SNR=1.7						
JCJ				S	**S**	00 06 57.8	**-2.9**
	44nm,0.4s,baz=285,slow=22,SNR=6.4						
WRA	**Warramunga Arr**	**42.35**	**192**	P	**P**	00 11 58.0	**-1.1**
	1.3nm,0.5s,baz=16,slow=8.9,SNR=10 1.3nm,0.5s						
ASAR	**Alice Springs**	**46.06**	**192**	P	**P**	00 12 27.1	**-1.1**
	0.4nm,0.5s,baz=16,slow=9.4,SNR=7.2 0.4nm,0.5s						
MKAR	**Makanchi Array**	**54.58**	**313**	P	**P**	00 13 32.5	**+1.0**
	0.6nm,0.9s,baz=92,slow=13,SNR=2.1 0.6nm,0.9s						
KURBB	**Kurchatov Arra**	**57.40**	**317**	P	**P**	00 13 52.2	**+1.0**
	0.3nm,0.4s,baz=92,slow=7.1,SNR=4.9 0.3nm,0.4s						
ILAR	**Eielson Array**	**61.99**	**27**	P	**P**	00 14 22.4	**+0.3**
	0.3nm,0.7s,baz=254,slow=4.8,SNR=2.1 0.3nm,0.7s						
BVAR	**Borovoye Array**	**62.55**	**319**	P	**P**	00 14 27.0	**+1.0**
	0.6nm,0.4s,baz=77,slow=7.3,SNR=3.5 0.6nm,0.4s						
YKA	**Yellowknife Ar**	**76.41**	**28**	P	**P**	00 15 50.6	**+0.5**
	0.5nm,0.6s,baz=286,slow=5.6,SNR=2.8 0.5nm,0.6s						
FINES	**FINESS Array B**	**83.06**	**334**	P	**P**	00 16 25.0	**-0.6**
	3.7nm,1.1s,baz=72,slow=6.2,SNR=7.1 3.7nm,1.1s						

*AEIC **05** 00:15:13.1±1.2,66°.33N±0°.02×157°.20W±0°.04,h5km±6km, Error ellipse: s-maj=2.6km s-min=2.4km az=100.0*
*NEIC **05** 00:15:13.3,66°.33N×157°.19W,h7km*

NEIC 05 00:15:13.1±1.2,**66°.32N**±0°.01×**157°.20W**±0°.04,**h5**km±1km, **ML3.6**/152,**Mwr3.4**/28,**ML3.4**(AEIC),**Error ellipse: s-maj=2.7km s-min=2.0km az=94.0**,**Moment Tensor Solution. Moment tensor: Scale** 10^{14}**Nm;** M_{rr}-0.08; $M_{\theta\theta}$0.83; $M_{\phi\phi}$-0.75; $M_{r\theta}$0.28; $M_{\theta\phi}$-1.25; $M_{\phi r}$-0.41; **Fault plane solution:** $M_0$1.56000×10^{14} **NP1:**ϕ_s73.18000°, δ72.92000°,λ176.05000°. **NP2:**ϕ_s164.34000°,δ86.22000°, λ17.12000°. **Principal axes:** T 1.6363, Plg15.0000°, Azm30.0000°; N -0.1575, Plg72.0000°, Azm176.0000°; P -1.4788, Plg9.0000°, Azm298.0000°; **Northern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
G19K	**Purcell Mounta**	**0.18**	**166**		Pg	00 15 17.2	+0.6
G19K				Sg	Sg	00 15 20.1	+1.0
G19K				IAML		00 15 20.5	
	comp=N,13μm,0.4s						
F19K	**Shaleruckik Mo**	**0.56**	**336**		Pg	00 15 23.9	-0.1
F19K				Sg	Sg	00 15 31.7	+0.5
G18K	**Tagagawik**	**0.73**	**235**		Pg	00 15 27.1	0.0
G18K				Sg	Sg	00 15 37.3	+0.8
H19K	**Roundabout Mou**	**0.85**	**159**		Pg	00 15 29.4	0.0
H19K				Sg	Sg	00 15 41.1	+0.6
H19K				IAML		00 15 46.0	
	comp=N,2μm,0.4s						
F20K	**Avaraart Lake**	**0.94**	**38**		Pg	00 15 30.7	-0.4
F20K					Sg	00 15 42.8	-0.4
F20K				IAML		00 15 44.7	
	comp=N,2μm,0.3s						
F18K	**Selawik**	**1.02**	**287**		Pg	00 15 32.2	-0.5
F18K					Sg	00 15 46.4	+0.4
E19K	**Redstone River**	**1.14**	**359**		Pg	00 15 34.5	-0.5
E19K				Sg	Sg	00 15 48.9	-0.9
E19K				IAML		00 15 55.9	
	comp=N,1μm,0.4s						
E19K				IAML		00 15 56.5	
	comp=E,1μm,0.5s						
H20K	**Anotleneega Mo**	**1.26**	**130**		Pg	00 15 37.0	-0.2
H20K					Sb	00 15 53.9	0.0
H20K					Sg	00 15 54.1	+0.5
H18K	**Honhosa River**	**1.27**	**203**	Pg	Pg	00 15 36.4	-0.9
H18K				Sg	Sg	00 15 53.5	-0.3
IMAR	**Indian Mountai**	**1.44**	**102**		Pn	00 15 39.4	-0.5
IM01	**Indian Mountai**	**1.45**	**101**		Pn	00 15 39.4	-0.5
G21K	**Allakaket**	**1.50**	**81**		Pn	00 15 40.4	-0.3
G21K				Sn	Sn	00 16 00.6	0.0
GCSA	**Galena City Sc**	**1.59**	**175**		Pn	00 15 41.9	+0.1
GCSA					Sb	00 16 03.0	-0.1
F17K	**Baldwin Pennin**	**1.64**	**276**		Pn	00 15 42.2	-0.4
F17K					Sn	00 16 04.3	+0.3
F17K				IAML		00 16 07.6	
	comp=N,535nm,0.8s						
F17K				IAML		00 16 08.1	
	comp=E,634nm,0.7s						
G17K	**Kiwalik Mounta**	**1.64**	**241**		Pn	00 15 41.7	-0.8
G17K					Sb	00 16 04.6	-0.1
F21K	**Alatna River**	**1.73**	**57**		Pn	00 15 43.9	0.0
F21K				Sn	Sb	00 16 07.2	-0.2
F21K				IAML		00 16 11.6	
	comp=E,687nm,0.8s						
F21K				IAML		00 16 15.2	
	comp=N,508nm,0.6s						
H17K	**Granite Mounta**	**1.79**	**220**		Pn	00 15 44.2	-0.4
I20K	**Naaghedeneel**	**1.90**	**142**		Pn	00 15 46.7	+0.5
H21K	**Melozitna Rive**	**1.92**	**108**		Pn	00 15 46.1	-0.3
H21K				IAML		00 16 19.1	
	comp=N,464nm,0.5s						
E20K	**Nigu River**	**1.99**	**11**		Pn	00 15 48.1	+0.7
E20K					Pb	00 15 48.8	-1.0
E17K	**Hotham Inlet**	**1.99**	**295**		Pn	00 15 47.5	0.0
D19K	**Kuna River**	**2.21**	**351**		Pn	00 15 51.2	+0.7
D19K				IAML		00 16 24.4	
	comp=N,308nm,0.8s						
F22K	**John River**	**2.31**	**57**		Pn	00 15 52.0	+0.2
G16K	**Koyuk River**	**2.32**	**249**		Pn	00 15 50.6	-1.2
G16K				IAML		00 16 28.7	
	comp=N,355nm,0.7s						
G16K				IAML		00 16 30.3	
	comp=E,264nm,0.7s						
H22K	**Ishtalitna Cre**	**2.41**	**98**		Pn	00 15 53.2	0.0
H22K				IAML		00 16 33.4	
	comp=E,232nm,0.6s						
D20K	**Etivluk River**	**2.42**	**5**		Pn	00 15 53.9	+0.6
D20K				IAML		00 16 31.3	
	comp=E,253nm,0.5s						
D20K				IAML		00 16 31.8	
	comp=N,225nm,0.8s						
J19K	**Poorman**	**2.43**	**163**		Pn	00 15 53.7	+0.3
J19K				IAML		00 16 30.0	
	comp=N,232nm,0.5s						
J19K				IAML		00 16 34.3	
	comp=E,233nm,0.8s						
I21K	**Tanana**	**2.44**	**116**		Pn	00 15 53.6	+0.1
J20K	**Nowinta River**	**2.51**	**148**		Pn	00 15 54.4	-0.1
C18K	**Utukok River**	**2.80**	**328**		Pn	00 15 58.7	+0.1
RDOG	**Red Dog Mine**	**2.83**	**311**		Pn	00 15 59.3	+0.5
I17K	**Unalakleet**	**2.86**	**213**		Pn	00 15 59.4	+0.1
I17K				IAML		00 16 53.4	
	comp=E,274nm,0.5s						
J18K	**Innoko River**	**2.87**	**176**		Pn	00 15 59.2	-0.3
G23K	**Bananza Creek**	**2.90**	**79**		Pn	00 15 59.2	-0.8
G23K				IAML		00 16 48.4	
	comp=E,191nm,0.5s						
MLY	**Manley**	**2.97**	**113**		Pn	00 16 00.2	-0.7
J17K	**VABM Dome**	**3.04**	**196**		Pn	00 16 01.8	0.0
J17K				IAML		00 16 53.2	
	comp=E,137nm,0.7s						
J17K				IAML		00 16 56.6	
	comp=N,131nm,1.0s						
D22K	**Ayikyak River**	**3.10**	**32**		Pn	00 16 03.4	+0.7
D22K				IAML		00 17 00.5	
	comp=N,183nm,0.9s						
D22K				IAML		00 17 08.8	
	comp=E,226nm,0.9s						
F15K	**North Star Dit**	**3.11**	**262**		Pn	00 16 02.0	-0.7
F15K				IAML		00 16 52.8	
	comp=N,155nm,0.6s						
F15K				IAML		00 16 56.0	
	comp=E,134nm,0.7s						
H23K	**Yukon River**	**3.16**	**96**		Pn	00 16 03.3	-0.2
K20K	**Telida**	**3.26**	**154**	Pn	Pn	00 16 04.8	-0.1
K20K				IAML		00 17 01.1	
	comp=N,121nm,0.9s						
J16K	**Anvik River**	**3.38**	**207**	Pn	Pn	00 16 06.6	+0.1
J16K				IAML		00 17 08.4	
	comp=N,155nm,0.8s						
E23K	**Chandalar**	**3.43**	**56**		Pn	00 16 07.8	+0.6
E23K				IAML		00 17 10.2	
	comp=N,159nm,0.8s						
BPAW	**Bear Paw Mtn.**	**3.44**	**128**		Pn	00 16 07.1	-0.2
I23K	**Minto, Yukon-K**	**3.44**	**106**		Pn	00 16 07.1	-0.3
I23K				IAML		00 17 06.2	
	comp=N,173nm,0.9s						
CAST	**Castle Rocks**	**3.64**	**141**		Pn	00 16 11.0	+0.9
D23K	**Nanushuk River**	**3.64**	**40**		Pn	00 16 10.8	+0.7
D23K				IAML		00 17 18.4	
	comp=E,120nm,0.8s						
K17K	**Iditarod**	**3.65**	**188**		Pn	00 16 09.8	-0.4
K17K				IAML		00 17 20.9	
	comp=E,85nm,0.7s						
K17K				IAML		00 17 33.1	
	comp=N,82nm,0.8s						
TOLK	**Toolik Lake Re**	**3.75**	**48**		Pn	00 16 12.1	+0.6
TOLK				IAML		00 17 16.3	
	comp=E,121nm,1.1s						
PS07	**TAPS Pump Stn7**	**3.81**	**101**		Pn	00 16 13.0	+0.6
NEA2	**Nenana**	**3.81**	**113**		Pn	00 16 12.1	-0.2
NEA2				IAML		00 17 17.6	
	comp=N,81nm,0.9s						
NEA2				IAML		00 17 20.1	
	comp=E,83nm,0.9s						
E24K	**Your Creek**	**3.82**	**59**		Pn	00 16 13.0	+0.4
E24K				IAML		00 17 23.9	
	comp=N,114nm,1.0s						
E24K				IAML		00 17 31.6	
	comp=E,91nm,0.9s						
H24K	**Noodor Dome**	**3.83**	**93**		Pn	00 16 12.5	-0.2
H24K				IAML		00 17 22.4	
	comp=E,105nm,0.8s						
H24K				IAML		00 17 24.3	
	comp=N,90nm,0.7s						
ANM	**Nome**	**3.84**	**246**	Pn	Pn	00 16 13.4	+0.6
ANM				IAML		00 17 23.6	
	comp=E,72nm,0.9s						
ANM				IAML		00 17 24.5	
	comp=N,93nm,0.7s						
KTH	**Kantishna Hill**	**3.85**	**133**		Pn	00 16 13.2	+0.2
KTH				IAML		00 17 21.2	
	comp=N,72nm,1.1s						
F24K	**Squaw Lake**	**3.86**	**68**		Pn	00 16 12.6	-0.5
BWN	**Browne**	**3.90**	**120**	Pn	Pn	00 16 14.4	+0.7
G24K	**Hadweenzic Riv**	**3.91**	**80**		Pn	00 16 13.0	-0.8
PPLA	**Purkeypile**	**4.06**	**146**		Pn	00 16 16.6	+0.7
PPLA				IAML		00 17 30.2	
	comp=N,68nm,1.1s						
L20K	**Farewell, AK**	**4.12**	**158**		Pn	00 16 17.3	+0.7
L20K				IAML		00 17 07.5	
	comp=E,90nm,0.7s						
L20K				IAML		00 17 08.3	
	comp=N,60nm,0.7s						
TRF	**Thorofare Moun**	**4.12**	**131**		Pn	00 16 17.4	+0.6
TRF				IAML		00 17 26.0	
	comp=E,76nm,0.9s						
TRF				IAML		00 17 26.4	
	comp=N,85nm,1.0s						
L18K	**Granite Mounta**	**4.12**	**177**		Pn	00 16 16.8	+0.2
COLA	**College**	**4.14**	**106**		Pn	00 16 17.2	+0.3
POKR	**Poker Plat Res**	**4.21**	**102**		Pn	00 16 17.6	-0.3
POKR				IAML		00 17 29.6	
	comp=E,89nm,0.7s						
L17K	**Donlin**	**4.23**	**187**		Pn	00 16 18.2	+0.1
WRH	**Wood River Hil**	**4.24**	**112**		Pn	00 16 17.4	-0.8
WRH				IAML		00 17 29.0	
	comp=E,51nm,1.2s						
WRH				IAML		00 17 31.4	
	comp=N,60nm,1.2s						
CCB	**Clear Creek Bu**	**4.26**	**109**		Pn	00 16 18.0	-0.6
CCB				IAML		00 17 30.0	
	comp=N,49nm,0.8s						
CCB				IAML		00 17 31.8	
	comp=E,52nm,0.9s						
D24K	**Happy Valley**	**4.27**	**44**		Pn	00 16 18.8	+0.1
D24K				IAML		00 17 46.3	
	comp=N,76nm,0.7s						
L19K	**White Mountain**	**4.28**	**165**		Pn	00 16 18.8	0.0
L19K				IAML		00 17 32.9	
	comp=N,52nm,1.2s						
L19K				IAML		00 17 38.6	
	comp=E,60nm,0.9s						
MCK	**McKinley**	**4.36**	**123**		Pn	00 16 20.2	+0.3
TNA	**Tin City**	**4.46**	**265**	Pn	Pn	00 16 20.5	-0.7
TNA				IAML		00 17 53.2	
	comp=E,55nm,1.2s						
K15K	**Wolf Creek Mou**	**4.46**	**207**		Pn	00 16 21.7	+0.4
J14K	**Nanvaranak Lak**	**4.51**	**220**		Pn	00 16 20.6	-1.4
J14K				IAML		00 17 49.2	
	comp=N,60nm,1.0s						
J14K				IAML		00 17 54.6	
	comp=E,61nm,0.8s						
IL31		**4.56**	**105**		Pn	00 16 22.2	-0.4
ILAR	**Eielson Array**	**4.56**	**105**		Pn	00 16 22.4	-0.3
M19K	**Big River Lodg**	**4.60**	**163**		Pn	00 16 23.7	+0.4
M19K				IAML		00 17 45.4	
	comp=E,45nm,1.1s						
M19K				IAML		00 17 50.7	
	comp=N,41nm,1.2s						
RND	**Reindeer**	**4.61**	**126**		Pn	00 16 22.3	-1.0
C24K	**Franklin Bluff**	**4.67**	**39**		Pn	00 16 25.4	+1.2
C24K				IAML		00 17 50.4	
	comp=N,57nm,1.0s						
C24K				IAML		00 17 55.1	
	comp=E,43nm,1.0s						
PS08	**TAPS Pump Stn8**	**4.69**	**108**		Pn	00 16 24.4	0.0
HDA	**Harding Lake**	**4.70**	**109**		Pn	00 16 23.8	-0.8
HDA				IAML		00 17 47.2	
	comp=N,66nm,0.6s						
HDA				IAML		00 17 53.0	
	comp=E,38nm,0.5s						
F25K	**Christian Rive**	**4.72**	**69**		Pn	00 16 24.7	-0.2
F25K				IAML		00 17 50.8	
	comp=N,57nm,0.9s						
F25K				IAML		00 17 55.4	
	comp=E,62nm,1.1s						
M20K	**Styx River**	**4.80**	**156**		Pn	00 16 27.0	+1.0
M20K				IAML		00 17 25.1	
	comp=E,35nm,1.0s						
FYU	**Fort Yukon**	**4.81**	**82**		Pn	00 16 25.6	-0.4
PRP	**Porcupine Dome**	**4.85**	**94**		Pn	00 16 27.1	+0.3
PRP				IAML		00 17 46.6	
	comp=N,45nm,0.9s						
PRP				IAML		00 17 53.1	
	comp=E,48nm,0.7s						
SKT	**Skwentna**	**5

A36M	**Sachs Harbour**	**12.57**	**49**	Pn	Pn	00 18 11.0 -1.3

*INMG **05** 00:20:45.6±1.7, 36°.78N×7°.89W, h26km±5km, ML1.3 Error ellipse: s-maj=5.1km s-min=4.5km az=20.0, #DIST_RANGE: LOCAL #IPMA_REGION: Golfo de Cadiz*
*IGIL **05** 00:20:45.9, 36°.78N×7°.92W, h30km, ML1.2*
*SFS **05** 00:20:45.6, 36°.79N×7°.92W, h32km, ML1.7/11, ML2.3/11, MLv2.5/6*
*MDD **05** 00:20:45.3±0.9, 36°.82N×7°.93W, h34km±5km, mb_Lg2.2/6, Error ellipse: s-maj=9.3km s-min=4.6km az=171.0*

ISC 05 00:20:43.9±1.5, **36°.78N**±0°.06×**7°.88W**±0°.03, **h28**km±12km, **n30**, σ0§**74**/54, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PBDV	**Barranco-do-Ve**	**0.46**	**355**	Pg		**Pn**	**00 20 55.0**	**+0.3**
PBDV				Sg		**Sn**	**00 21 01.5**	**-0.6**
PBDV	**Barranco-do-Ve**	**0.46**	**355**	*eP*		**Pn**	**00 20 55.1**	**+0.3**
PBDV				*eS*		**Sn**	**00 21 01.8**	**-0.3**
PBDV				IAML			00 21 02.0	
PBDV				IAML			00 21 02.2	
PBDV				IAML			00 21 03.5	
PVAQ	**Vaqueiros**	**0.63**	**12**	*eP*		**Pn**	**00 20 57.4**	**+0.4**
PVAQ				*eS*		**Sn**	**00 21 06.0**	**-0.2**
PVAQ				IAML			00 21 06.9	
PVAQ				IAML			00 21 06.9	
PVAQ				IAML			00 21 08.0	
MORF	**Marmelete**	**0.81**	**310**	*eP*		**Pn**	**00 20 59.6**	**+0.1**
MORF				*eS*		**Sb**	**00 21 09.5**	**-0.5**
MORF				IAML			00 21 11.3	
	comp=E,7.9nm,0.1s							
MORF	**Marmelete**	**0.81**	**310**	*eP*		**Pb**	**00 20 58.8**	**-0.6**
MORF				*eS*		**Sn**	**00 21 10.4**	**-0.2**
MORF				IAML			00 21 12.8	
MORF				IAML			00 21 14.1	
MORF				IAML			00 21 17.9	
EGRO	**El Granado**	**0.81**	**23**	Pn		**Pn**	**00 21 00.2**	**+0.6**
EGRO				Sn		**Sn**	**00 21 10.9**	**+0.2**
EGRO	**El Granado**	**0.81**	**23**	Pg		**Pb**	**00 20 59.7**	**+0.2**
EGRO				Sg		**Sb**	**00 21 09.8**	**-0.3**
EGRO				IVmb_Lg			00 21 11.7	
PFVI	**Vila Bisbo**	**0.83**	**295**	Pn		**Pb**	**00 20 59.2**	**-0.6**
PFVI				Sn		**Sb**	**00 21 10.4**	**-0.2**
PFVI	**Vila Bisbo**	**0.83**	**295**	*eP*		**Pn**	**00 20 59.7**	**-0.1**
PFVI				*eS*		**Sn**	**00 21 11.0**	**-0.2**
PCVE	**Castro Verde**	**0.86**	**352**	Pn		**Pn**	**00 21 00.6**	**+0.4**
PCVE				Sn		**Sb**	**00 21 10.9**	**-0.4**
PCVE	**Castro Verde**	**0.86**	**352**	*eP*		**Pn**	**00 21 00.6**	**+0.4**
PCVE				*eS*		**Sb**	**00 21 11.1**	**-0.3**
PCVE				IAML			00 21 11.3	
PCVE				IAML			00 21 11.5	
PCVE				IAML			00 21 12.0	
PTEO	**Sao Teotonio**	**1.01**	**319**	*eP*		**Pb**	**00 21 04.8**	**+2.0**
PTEO				*eS*		**Sn**	**00 21 16.2**	**+0.5**
PTEO				IAML			00 21 17.9	
PTEO				IAML			00 21 20.7	
MESJ	**Messejana**	**1.09**	**346**	*eP*		**Pn**	**00 21 03.8**	**+0.5**
MESJ				*eS*		**Sn**	**00 21 16.7**	**-0.8**
MESJ				IAML			00 21 18.8	
	comp=E,2.6nm,0.1s							
MESJ	**Messejana**	**1.09**	**346**	*eP*		**Pn**	**00 21 03.9**	**+0.5**
MESJ				*eS*		**Sn**	**00 21 17.7**	**+0.2**
MESJ				IAML			00 21 18.8	
MESJ				IAML			00 21 19.4	
MESJ				IAML			00 21 20.9	
PLOUS	**Minas do Lousa**	**1.32**	**341**	*eP*		**Pn**	**00 21 06.5**	**+0.1**
PLOUS				*eS*		**Sn**	**00 21 23.4**	**+0.3**
EMIN	**Mina Concepcio**	**1.38**	**44**	Pn		**Pn**	**00 21 07.6**	**+0.3**
EMIN	**Mina Concepcio**	**1.38**	**44**	Pn		**Pn**	**00 21 07.4**	**+0.1**
EMIN				Sn		**Sn**	**00 21 24.8**	**+0.2**
EMIN				IVmb_Lg			00 21 30.1	
PBAR	**Barrancos**	**1.54**	**26**	Pn		**Pn**	**00 21 10.0**	**+0.5**
PBAR	**Barrancos**	**1.54**	**26**	*eP*		**Pn**	**00 21 10.1**	**+0.5**
PBAR				S		**Sn**	**00 21 28.3**	**-0.4**
PBAR				IAML			00 21 31.3	
PBAR				IAML			00 21 33.0	
PBAR				IAML			00 21 33.2	
ESPR	**Espera**	**1.63**	**86**	Sn		**Sn**	**00 21 31.5**	**+0.7**
EVO	**Evora**	**1.75**	**357**	Sn		**Sn**	**00 21 34.0**	**+0.2**
PARRA	**Arraiolos**	**2.03**	**357**	*eP*		**Pn**	**00 21 16.5**	**+0.2**
PARRA				S		**Sn**	**00 21 40.0**	**-0.8**
PARRA				IAML			00 21 41.9	
PARRA				IAML			00 21 42.4	
PARRA				IAML			00 21 42.8	
EBAD	**Badajoz**	**2.08**	**19**	Pn		**Pn**	**00 21 17.4**	**+0.3**
EBAD				Sn		**Sn**	**00 21 40.6**	**-1.5**
EBAD				IVmb_Lg			00 21 43.6	
PMTG	**Montargil**	**2.30**	**353**	*eP*		**Pn**	**00 21 21.1**	**+1.2**
PMTG				S		**Sn**	**00 21 46.4**	**-1.0**
ECAB	**El Cabril**	**2.35**	**56**	Pn		**Pn**	**00 21 21.1**	**+0.4**
ECAB	**El Cabril**	**2.35**	**56**	Pn		**Pn**	**00 21 21.1**	**+0.4**
ECAB				Sn		**Sn**	**00 21 46.7**	**-1.9**
ECAB				IVmb_Lg			00 21 52.8	
PMRV	**Marv??o**	**2.67**	**8**	*eP*		**Pn**	**00 21 26.5**	**+1.4**
PMRV				S		**Sn**	**00 21 56.0**	**-0.5**
EADA	**Adamuz**	**2.97**	**61**	Pn		**Pn**	**00 21 30.1**	**+0.9**
EADA	**Adamuz**	**2.97**	**61**	Pn		**Pn**	**00 21 29.8**	**+0.6**
EADA				Sn		**Sn**	**00 22 03.2**	**-0.8**
EADA				IVmb_Lg			00 22 05.8	
CIBOR	**Castaar de Ib**	**3.44**	**33**	Pn		**Pn**	**00 21 35.6**	**-0.1**
CIBOR				Sn		**Sn**	**00 22 13.6**	**-2.1**

*UPP **05** 00:25:25.6±0.1, 67°.85N×20°.21E, h0km, ML2.5, Suspected explosion*
*HEL **05** 00:25:26.8±0.1, 67°.84N×20°.31E, h0km, ML1.6, Suspected explosion*

ISC 05 00:25:25.9±0.8, **67°.83N**±0°.02×**20°.23E**±0°.02, **h0**km, **n27**, σ1§**43**/42, **Sweden**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.13**	**18**	P		**Pg**	**00 25 28.1**	**-0.3**
KUA				S		**Sg**	**00 25 30.0**	**0.0**
RATU	**Laukkuluspa**	**0.24**	**268**	P		**Pg**	**00 25 30.3**	**-0.3**
RATU				S		**Sg**	**00 25 33.6**	**0.0**
KOVU	**Salmi**	**0.39**	**356**	P		**Pg**	**00 25 32.9**	**-0.5**
KOVU				S		**Sg**	**00 25 38.0**	**-0.5**
NIKU	**Nikkaluokta**	**0.46**	**275**	P		**Pg**	**00 25 34.2**	**-0.4**
LANU	**Lannavaara**	**0.70**	**71**	P		**Pg**	**00 25 38.8**	**-0.5**
LANU	**Lannavaara**	**0.70**	**71**	PG		**Pg**	**00 25 38.9**	**-0.5**
LANU				SG		**Sg**	**00 25 45.2**	**-3.1**
MASU	**Masugnsbyn**	**0.77**	**118**	P		**Pg**	**00 25 40.5**	**-0.2**
SALU	**Saltoluokta**	**0.80**	**236**	P		**Pg**	**00 25 40.8**	**-0.5**
SALU	**Saltoluokta**	**0.80**	**236**	*eP*		**Pg**	**00 25 40.3**	**-1.0**
PAJU	**Pajala**	**1.38**	**125**	P		**Pg**	**00 25 51.1**	**-1.2**
PAJU	**Pajala**	**1.38**	**125**	PG		**Pg**	**00 25 51.1**	**-1.2**
PAJU				SN		**Sg**	**00 26 10.4**	**+0.3**
HEF	**Hetta**	**1.41**	**64**	*eP*		**Pg**	**00 25 51.9**	**-1.0**
HEF	**Hetta**	**1.41**	**64**	PG		**Pg**	**00 25 51.7**	**-1.2**
HEF				MSG			00 26 08.5	
	comp=Z,6.7nm,0.2s							
HEF				SN		**Sn**	**00 26 14.5**	**+2.5**
ERTU	**Ertsjaerv**	**1.50**	**148**	PG		**Pn**	**00 25 53.4**	**-0.6**
ERTU				SN		**Sn**	**00 26 14.5**	**+0.4**
KLF	**Kolari**	**1.56**	**111**	PG		**Pn**	**00 25 54.3**	**-0.5**
KLF				MSG			00 26 12.7	
	comp=Z,4.8nm,0.2s							
KLF				SN		**Sg**	**00 26 18.5**	**+2.7**
KTK1	**Kautokeino**	**1.62**	**42**	PG		**Pn**	**00 25 55.4**	**-0.4**
KTK1				SN		**Sg**	**00 26 19.3**	**+1.3**
TRO	**Tromso**	**1.87**	**346**	PG		**Pb**	**00 26 00.4**	**-0.5**
TRO				SN		**Sn**	**00 26 24.0**	**+0.7**
TOF	**Tornio**	**2.39**	**136**	PB		**Pn**	**00 26 07.7**	**+1.5**
TOF				MSG			00 26 37.0	
	comp=Z,2.8nm,0.2s							
TOF				SG		**Sb**	**00 26 39.9**	**+0.3**
RNF	**Rovaniemi**	**2.56**	**116**	PB		**Pn**	**00 26 10.6**	**+2.0**
RNF				SG		**Sb**	**00 26 45.0**	**+0.3**
ARA0	**ARCESS Array S**	**2.58**	**46**	PB		**Pn**	**00 26 10.6**	**+1.8**
ARA0				SG		**Sb**	**00 26 44.0**	**-1.1**
RAJF	**Raja-Jooseppi**	**3.09**	**74**	PB		**Pb**	**00 26 19.2**	**-2.5**
RAJF				SG		**Sb**	**00 27 01.5**	**+1.7**
KEV	**Kevo**	**3.13**	**49**	PB		**Pb**	**00 26 20.2**	**-2.1**
KEV				SN		**Sn**	**00 26 55.4**	**+1.1**
RANF	**Ranua**	**3.16**	**122**	PG		**Pb**	**00 26 23.3**	**+0.4**
BURU	**Burvik**	**3.30**	**171**	PB		**Pn**	**00 26 21.0**	**+2.3**
OLKF	**Oulanka, Finla**	**3.90**	**109**	PN		**Pn**	**00 26 27.9**	**+0.9**
UMAU	**Umeaa**	**3.97**	**177**	SG		**Sg**	**00 27 30.0**	**-3.4**
KU1	**Kurvinen**	**4.35**	**117**	PN		**Pn**	**00 26 34.8**	**+1.7**

*BJI **05** 00:32:00.0, 7°.74S×125°.98E, h438km, mB4.7/7, mb4.3/36*
*DJA **05** 00:32:02.4±0.1, 7°.S±2°×12°.6E±°, h431km±2km, M4.8/66, mb5.1/66, mB5.3/49, MLv5.4/34, Mw(mB)4.7/49, MwMwp5.1/1, Mwp5.3/1*
*IDC **05** 00:32:02.1±1.0, 7°.41S×126°.27E, h429km±12km, mb3.9/16, mbtmp4.8/22, Error ellipse: s-maj=15.1km s-min=7.6km az=69.0*
*NEIC **05** 00:32:02.2±1.0, 7°.41S±0°.09×126°.12E±0°.09, h423km±6km, mb4.5/51, Error ellipse: s-maj=14.0km s-min=12.1km az=58.0*
*GFZ **05** 00:32:02.5±0.2, 7°.S±3°×12°.6E±°, h431km±4km, M4.6/22, mb5.0/22*

ISC 05 00:32:03.1±0.3, **7°.49S**±0°.04×**126°.12E**±0°.04, **h450**km, **n235**, σ1§**69**/251, **mb4.5**/54, **1C-4D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SOEI	**Soe**	**2.90**	**219**	P		**P**	**00 33 08.4**	**-1.2**
SOEI	**Soe**	**2.90**	**219**	S		**S**	**00 33 59.2**	**-4.3**
SOEI	**Soe**	**2.90**	**219**	P		**P**	**00 33 08.7**	**-1.0**
SOEI				S		**S**	**00 33 58.5**	**-5.0**
SOEI	**Soe**	**2.90**	**219**	P		**P**	**00 33 09.0**	**-0.6**
SOEI				S		**S**	**00 34 00.5**	**-3.0**
SOEI				AML		AML		
SOEI	**Soe**	**2.90**	**219**	P		**P**	**00 33 09.2**	**-0.4**
BATI	**Baumata**	**3.63**	**222**	P		**P**	**00 33 14.8**	**-0.4**
	278nm,0.3s,baz=37,slow=1.0,SNR=17							
BATI				S		**S**	**00 34 06.7**	**-7.1**
	527nm,0.6s,baz=243,slow=2.3,SNR=5.3							
BATI	**Baumata**	**3.63**	**222**	P		**P**	**00 33 15.2**	**0.0**
BATI				S		**S**	**00 34 12.4**	**-1.3**
BATI				AML		AML		
MMRI	**Maumere**	**4.01**	**253**	P		**P**	**00 33 15.9**	**-2.5**
MMRI	**Maumere**	**4.01**	**253**	S		**S**	**00 34 15.2**	**-4.3**
MMRI	**Maumere**	**4.01**	**253**			**P**	**00 33 15.4**	**-2.9**
MMRI	**Maumere**	**4.01**	**253**	P		**P**	**00 33 16.3**	**-2.1**
MMRI				S		**S**	**00 34 15.8**	**-3.7**
MMRI				AML		AML		
MMRI	**Maumere**	**4.01**	**253**	P		**P**	**00 33 16.1**	**-2.3**
BBSI	**Bau Bau**	**4.04**	**299**	P		**P**	**00 33 18.7**	**0.0**
BBSI				AML		AML		
EDFI	**Ende, Flores**	**4.56**	**254**	P		**P**	**00 33 21.0**	**-2.5**
EDFI				AML		AML		
BNDI	**Bandanaira**	**4.78**	**52**	P		**P**	**00 33 23.4**	**-2.1**
BNDI	**Bandanaira**	**4.78**	**52**	P		**P**	**00 33 23.7**	**-1.8**
BNDI				AML		AML		
BNDI	**Bandanaira**	**4.78**	**52**	P		**P**	**00 33 23.8**	**-1.7**
KDI	**Kendari**	**4.94**	**315**	P		**P**	**00 33 26.3**	**-0.7**
KDI				AML		AML		
SAUI	**Saumlaki**	**5.16**	**96**	P		**P**	**00 33 27.3**	**-1.8**
SAUI	**Saumlaki**	**5.16**	**96**	S		**S**	**00 34 35.8**	**-3.4**
SAUI	**Saumlaki**	**5.16**	**96**			**P**	**00 33 27.1**	**-2.1**
SAUI	**Saumlaki**	**5.16**	**96**	P		**P**	**00 33 27.5**	**-1.6**
SAUI				S		**S**	**00 34 36.4**	**-2.8**
SAUI	**Saumlaki**	**5.16**	**96**	P		**P**	**00 33 27.6**	**-1.6**
	comp=Z,5µm,0.8s							
SANI	**Sanana**	**5.40**	**359**	P		**P**	**00 33 29.2**	**-2.3**
SANI	**Sanana**	**5.40**	**359**	P		**P**	**00 33 29.6**	**-1.9**
	comp=Z,1.7nmcomp=Z,5µmcomp=Z,553nm,0.7s							
SANI				S		**S**	**00 34 39.6**	**-3.9**
	comp=Z,1.7nmcomp=Z,5µmcomp=Z,553nm,0.7s							
SANI				AML		AML		
SANI	**Sanana**	**5.40**	**359**	P		**P**	**00 33 29.7**	**-1.8**
	comp=Z,553nm,0.6s							
KKSI	**Kolaka, Sulawe**	**5.53**	**306**	P		**P**	**00 33 32.6**	**-0.2**
	comp=Z,3.1nmcomp=Z,7µmcomp=Z,882nm,0.7s							
KKSI				AML		AML		
BSSI	**Bau Bau, Buton**	**5.74**	**283**	P		**P**	**00 33 34.3**	**-0.6**
	comp=Z,1.3nmcomp=Z,4µmcomp=Z,454nm,1.0s							
BSSI				AML		AML		
WSI	**Waingapu**	**6.15**	**249**	P		**P**	**00 33 37.7**	**-1.3**
	comp=Z,8µmcomp=Z,290nm,0.5s							
BKSI	**Bulukumba**	**6.33**	**289**	P		**P**	**00 33 40.5**	**-0.4**
	comp=Z,1.3nmcomp=Z,3µmcomp=Z,404nm,0.8s							
BKSI				AML		AML		
KAPI	**Kappang**	**6.79**	**291**	P		**P**	**00 33 45.9**	**+0.2**
	comp=Z,157nm,0.7s,baz=116,slow=6.9,SNR=52							
KAPI	**Kappang**	**6.79**	**291**	P		**P**	**00 33 45.0**	**-0.7**
KAPI	**Kappang**	**6.79**	**291**			**P**	**00 33 45.3**	**-0.4**
KAPI	**Kappang**	**6.79**	**291**	P		**P**	**00 33 45.8**	**+0.1**
	comp=Z,0.4nmcomp=Z,134nm,0.9s							
KAPI				AML		AML		
KAPI	**Kappang**	**6.79**	**291**	P		**P**	**00 33 46.0**	**+0.4**
	comp=Z,257nm,0.9s							
DRS	**Darwin Rock St**	**6.81**	**137**	P		**P**	**00 33 45.1**	**-0.8**
LUWI	**Luwuk**	**7.22**	**332**	P		**P**	**00 33 50.2**	**-0.1**
LUWI	**Luwuk**	**7.22**	**332**	S		**S**	**00 35 15.8**	**-2.1**
LUWI	**Luwuk**	**7.22**	**332**			**P**	**00 33 49.8**	**-0.5**
LUWI	**Luwuk**	**7.22**	**332**	P		**P**	**00 33 50.4**	**+0.1**
	comp=Z,1.4nmcomp=Z,4µmcomp=Z,473nm,1.0s							
LUWI				AML		AML		
LUWI	**Luwuk**	**7.22**	**332**	P		**P**	**00 33 50.6**	**+0.3**
	comp=Z,473nm,1.0s							
SPSI	**Sidrap Palu**	**7.22**	**299**	P		**P**	**00 33 49.8**	**-0.5**
	comp=Z,0.8nmcomp=Z,8µmcomp=Z,259nm,0.9s							
SPSI				AML		AML		
MTN	**Manton Dam**	**7.26**	**138**			**P**	**00 33 49.9**	**-0.8**
FAKI	**Fak Fak**	**7.61**	**54**	P		**P**	**00 33 50.7**	**-3.8**
FAKI	**Fak Fak**	**7.61**	**54**			**P**	**00 33 50.9**	**-3.5**
FAKI	**Fak Fak**	**7.61**	**54**	P		**P**	**00 33 50.7**	**-3.8**
	comp=Z,8µmcomp=Z,358nm,0.5s							
FAKI	**Fak Fak**	**7.61**	**54**	P		**P**	**00 33 50.7**	**-3.8**
	comp=Z,350nm,0.7s							
TTSI	**Tana Toraja**	**7.67**	**305**	P		**P**	**00 33 55.4**	**+0.4**
	comp=Z,1.3nmcomp=Z,5µmcomp=Z,345nm,0.7s							
TTSI				AML		AML		
DBNI	**Kabupaten Domp**	**7.79**	**262**	P		**P**	**00 33 53.7**	**-2.7**
	comp=Z,1.0nmcomp=Z,2µmcomp=Z,244nm,0.5s							
DBNI				AML		AML		
APSI	**Ampana**	**7.90**	**326**	P		**P**	**00 33 58.1**	**+0.5**
	comp=Z,0.7nmcomp=Z,2µmcomp=Z,207nm,1.1s							
APSI				AML		AML		
PMSI	**Majene**	**8.19**	**299**	P		**P**	**00 34 02.0**	**+1.3**
KMSI	**Cibinong**	**8.29**	**345**	P		**P**	**00 34 01.1**	**-0.6**
	comp=Z,334nm,0.5s							
TNTI	**Ternate**	**8.30**	**9**	P		**P**	**00 34 00.0**	**-1.9**
TNTI	**Ternate**	**8.30**	**9**			**P**	**00 33 59.4**	**-2.4**
TNTI	**Ternate**	**8.30**	**9**	P		**P**	**00 33 59.9**	**-1.9**
	comp=Z,115nm,0.7s							
TNTI	**Ternate**	**8.30**	**9**	P		**P**	**00 34 00.0**	**-1.9**
	comp=Z,111nm,0.8s							
SIJI	**Sorong**	**8.34**	**38**	P		P	00 33 56.1	-6.2
	comp=Z,126nm,0.3s,baz=220,slow=4.1,SNR=40							
SIJI				S		**S**	**00 35 34.4**	**-5.8**
	comp=Z,103nm,0.5s,baz=118,slow=22,SNR=20							
SIJI	**Sorong**	**8.34**	**38**	P		**P**	**00 33 59.5**	**-2.9**
	comp=Z,4µmcomp=Z,250nm,0.6s							
PLAI	**Plampang**	**8.36**	**260**	P		**P**	**00 33 59.6**	**-3.0**
PLAI	**Plampang**	**8.36**	**260**	P		**P**	**00 34 01.5**	**-1.1**
	comp=Z,5µmcomp=Z,626nm,0.7s							
PLAI	**Plampang**	**8.36**	**260**	P		**P**	**00 33 59.8**	**-2.8**
	comp=Z,626nm,0.7s							
KNRA	**Kununurra**	**8.54**	**163**			**P**	**00 34 04.5**	**+0.1**
MMSI	**Mamuju**	**8.61**	**303**	P		**P**	**00 34 06.8**	**+1.5**
GTOI	**Gorontalo**	**8.64**	**339**	P		**P**	**00 34 07.5**	**+1.9**
PCI	**Palu**	**9.05**	**316**	P		**P**	**00 34 12.0**	**+2.0**
	comp=Z,166nm,0.8s							
TOLI2	**Tolitoli**	**10.06**	**328**	P		**P**	**00 34 21.1**	**+0.1**
TOLI2	**Tolitoli**	**10.06**	**328**	S		**S**	**00 36 13.3**	**-1.2**
TOLI2	**Tolitoli**	**10.06**	**328**			**P**	**00 34 21.0**	**-0.1**
TOLI2	**Tolitoli**	**10.06**	**328**	P		**P**	**00 34 21.3**	**+0.2**
	comp=Z,272nm,0.7s							
KHKI	**Kahang-Kahang**	**10.44**	**264**	P		**P**	**00 34 25.0**	**-0.2**
	comp=Z,127nm,0.8s							
FITZ	**Fitzroy Crossi**	**10.56**	**182**	P		**P**	**00 34 26.2**	**-0.1**
	comp=Z,59nm,0.5s,baz=13,slow=9.5,SNR=406							
FITZ				S		**S**	**00 36 20.6**	**-3.7**
	comp=Z,96nm,1.0s,baz=246,slow=17,SNR=21							
FITZ	**Fitzroy Crossi**	**10.56**	**182**	P		**P**	**00 34 26.6**	**+0.2**
FITZ	**Fitzroy Crossi**	**10.56**	**182**	P		**P**	**00 34 26.4**	**0.0**
FITZ	**Fitzroy Crossi**	**10.56**	**182**	P		**P**	**00 34 26.8**	**+0.4**
	comp=Z,22nm,0.8s							
BKB	**Balikpapan**	**11.07**	**304**	P		**P**	**00 34 33.3**	**+1.2**
BKB	**Balikpapan**	**11.07**	**304**	P		**P**	**00 34 34.0**	**+2.0**
BKB	**Balikpapan**	**11.07**	**304**	P		P	00 34 36.2	+4.1
	comp=Z,486nm,1.1s							
BAKI	**Biak**	**11.76**	**58**	P		**P**	**00 34 39.5**	**0.0**
	comp=Z,4µmcomp=Z,594nm,1.0s							

Code	Station Name			Phase	ID	ISC	Time h m s	Res ISC
JAGI	**Jajag, Banyuwa**	**11.89**	**264**	P		**P**	**00 34 38.8**	**-2.1**
JAGI	**Jajag, Banyuwa**	**11.89**	**264**	P		**P**	**00 34 38.0**	**-2.9**
JAGI	**Jajag, Banyuwa**	**11.89**	**264**	P		**P**	**00 34 38.6**	**-2.3**
JAGI	**Jajag, Banyuwa**	**11.89**	**264**	P		**P**	**00 34 39.7**	**-1.2**
	comp=Z,77nm,1.0s							
BLJI	**Banyuglugur**	**12.41**	**268**	P		**P**	**00 34 47.3**	**+0.7**
	comp=Z,4µmcomp=Z,428nm,0.6s							
MMPI	**Merauke**	**14.16**	**95**	P		**P**	**00 35 05.6**	**+0.1**
SJI	**Sawahan**	**14.22**	**268**	P		**P**	**00 35 06.9**	**+0.7**
	comp=Z,78nm,0.7s							
SNJI	**Sawahan-Nganju**	**14.23**	**268**	P		**P**	**00 35 06.6**	**+0.2**
	comp=Z,101nm,0.8s							
WB0	**Warramunga Arr**	**14.61**	**147**			**P**	**00 35 09.4**	**-0.8**
WRAB	**Tennant Creek**	**14.73**	**148**	P		**P**	**00 35 10.9**	**-0.6**
WRAB	**Tennant Creek**	**14.73**	**148**	P		**P**	**00 35 11.3**	**-0.2**
	comp=Z,153nm,0.8s							
WRA	**Warramunga Arr**	**14.73**	**148**	P		**P**	**00 35 08.8**	**-2.7**
	comp=Z,71nm,0.5s,baz=326,slow=12,SNR=188							
WRA				S		**S**	**00 37 43.3**	**-3.8**
	comp=Z,58nm,0.9s,baz=324,slow=21,SNR=26							
WRA	**Warramunga Arr**	**14.73**	**148**			**P**	**00 35 07.5**	**-4.0**
WB1	**Warramunga Ar.**	**14.75**	**148**	P		**P**	**00 35 10.8**	**-0.9**
GENI	**Genyem**	**14.81**	**72**	P		**P**	**00 35 11.8**	**-0.7**
GENI	**Genyem**	**14.81**	**72**	P		**P**	**00 35 12.3**	**-0.2**
	comp=Z,215nm,0.9s							
MBWA	**Marble Bar**	**14.93**	**204**	P		**P**	**00 35 13.6**	**0.0**
MBWA	**Marble Bar**	**14.93**	**204**	S		**S**	**00 37 50.8**	**-0.1**
MBWA	**Marble Bar**	**14.93**	**204**			**P**	**00 35 13.7**	**+0.2**
MBWA	**Marble Bar**	**14.93**	**204**	P		**P**	**00 35 14.0**	**+0.4**
	comp=Z,142nm,1.0s							
JAY	**Jayapura**	**15.35**	**72**	P		**P**	**00 35 16.6**	**-1.6**
	comp=Z,36nm,0.8s,baz=222,slow=11,SNR=7.5							
KKM	**Kota Kinabalu**	**16.68**	**323**	P		**P**	**00 35 32.4**	**+0.1**
KKM	**Kota Kinabalu**	**16.68**	**323**			**P**	**00 35 31.2**	**-1.1**
KKM	**Kota Kinabalu**	**16.68**	**323**	P		**P**	**00 35 32.0**	**-0.3**
	comp=Z,80nm,1.0s							
KKM	**Kota Kinabalu**	**16.68**	**323**	P		**P**	**00 35 32.3**	**-0.1**
	comp=Z,80nm,1.0s							
SBUM	**Sibu**	**17.02**	**305**	P		**P**	**00 35 35.6**	**-0.2**
SBUM	**Sibu**	**17.02**	**305**	P		**P**	**00 35 34.7**	**-1.1**
SBUM				IAmb		IAmb	00 35 39.4	
	comp=Z,13nm,0.7s							
SBUM	**Sibu**	**17.02**	**305**	P		**P**	**00 35 35.8**	**0.0**
SBUM	**Sibu**	**17.02**	**305**	P		**P**	**00 35 35.8**	**0.0**
	comp=Z,21nm,0.8s							
AS31	**Alice Springs**	**17.74**	**156**			**P**	**00 35 43.4**	**+0.1**
AS31				IAmb		IAmb	00 35 46.4	
	comp=Z,15nm,0.6s							
ASAR	**Alice Springs**	**17.74**	**156**	P		**P**	**00 35 43.3**	**0.0**
	comp=Z,46nm,0.6s,baz=336,slow=12,SNR=111							
ASAR				S		**S**	**00 38 45.2**	**+0.9**
	comp=Z,48nm,0.7s,baz=330,slow=19,SNR=34							
ASAR	**Alice Springs**	**17.74**	**156**			**P**	**00 35 43.4**	**+0.1**
BBJI	**Bungbulang**	**18.31**	**269**	P		**P**	**00 35 48.1**	**-1.1**
BBJI	**Bungbulang**	**18.31**	**269**			**P**	**00 35 47.4**	**-1.7**
BBJI				IAmb		IAmb	00 35 49.8	
	comp=Z,20nm,0.6s							
BBJI	**Bungbulang**	**18.31**	**269**	P		**P**	**00 35 48.2**	**-1.0**
BBJI	**Bungbulang**	**18.31**	**269**	P		**P**	**00 35 48.5**	**-0.7**
	comp=Z,36nm,0.7s							
LEM	**Lembang**	**18.37**	**271**	P		**P**	**00 35 47.0**	**-2.8**
	comp=Z,28nm,0.7s,baz=15,slow=17,SNR=4.6							
LEM				S		**S**	**00 38 56.6**	**+1.2**
	comp=Z,12nm,0.5s,baz=144,slow=22,SNR=3.5							
QIS	**Mount Isa**	**18.42**	**136**	P		**P**	**00 35 49.5**	**-0.6**
QIS	**Mount Isa**	**18.42**	**136**	P		**P**	**00 35 50.1**	**-0.1**
	comp=Z,198nm,0.8s							
GIRL	**Giralia**	**18.92**	**216**			**P**	**00 35 55.8**	**+1.1**
CGJI	**Cibinong**	**20.29**	**271**	P		**P**	**00 36

PINNC Pines Island, 42.48 115 P **P** **00 39 18.1 +0.5**
PINNC IAmb IAmb 00 40 02.8
comp=Z,17nm,1.0s
MARNC Mare, Loyalty 42.75 114 P **P** **00 39 20.1 +0.4**
MARNC IAmb IAmb 00 39 45.6
comp=Z,67nm,1.2s
MORE Moreh 44.24 316 P **P** **00 39 30.4 -0.9**
TIA Tai'an 44.28 350 P **P** **00 39 30.9 -0.5**
TIA pmax pmax
comp=Z,9.0nm,0.8s
XAN Xi'an 44.40 339 P **P** **00 39 31.8 -0.6**
XAN pP pP 00 40 56.9 +0.2
XAN pmax pmax
comp=Z,18nm,0.6s
KSAR Wonju Array Be 44.72 2 P **P** **00 39 34.6 -0.2**
KSRS Korea Array 44.74 2 P **P** **00 39 35.2 +0.3**
comp=Z,3.5nm,0.8s,baz=174,slow=9.9,SNR=9.0
comp=Z,3.5nm,0.8s
MJAR Matsushiro Arr 45.24 14 P **P** **00 39 37.6 -1.3**
comp=Z,2.1nm,0.5s,baz=188,slow=8.4,SNR=5.7
comp=Z,2.1nm,0.5s
HNS HongShan 45.91 347 ⇑P **P** **00 39 43.7 -0.2**
HNS pmax pmax
comp=Z,33nm,0.7s
DL2 Dalian 46.34 355 *e*P P 00 39 51.6 +4.4
DL2 pmax pmax
comp=Z,88nm,1.3s
WAKE Wake Island 47.98 56 P **P** **00 39 59.9 -0.1**
LZDM Lanzhou Array 48.08 335 P **P** **00 40 00.7 -0.2**
comp=Z,2.9nm,0.4s,baz=168,slow=10,SNR=5.7
comp=Z,2.9nm,0.4s
LZH Lanzhou 48.13 336 *e*P **P** **00 40 03.0 +1.9**
LZH pmax pmax
comp=Z,53nm,1.0s
BJI2 Beijing 48.15 350 P **P** **00 40 04.3 +3.4**
BJI2 S **S** **00 46 29.4 +3.8**
BJI2 pmax pmax
comp=Z,3.0nm,0.5s
BJI2 pmax pmax
comp=Z,220nm,6.6s
HHC Hu-ho-hao-te 49.93 346 *e*P P 00 40 19.0 +4.7
HHC S S 00 47 00.5 +10
HHC pmax pmax
comp=Z,13nm,0.6s
HHC pmax pmax
comp=Z,210nm,5.5s
LSA Lhasa 49.97 319 P **P** **00 40 16.0 +0.8**
LSA IAmb IAmb 00 40 17.3
comp=Z,18nm,0.6s
USRK Ussuriysk Ar. 51.72 5 P **P** **00 40 27.4 +0.2**
comp=Z,1.6nm,0.6s,baz=202,slow=5.1,SNR=2.6
comp=Z,1.6nm,0.6s
EVN Everest 51.80 315 P **P** **00 40 29.5 +0.6**
EVN IAmb IAmb 00 40 30.4
comp=Z,20nm,0.6s
GTA2 Gaotai 52.73 334 *e*P **P** **00 40 35.8 +1.0**
GTA2 pP pwP 00 42 05.2 -4.0
GTA2 pmax pmax
comp=Z,11nm,0.8s
KHZ Kahutara 54.28 138 P **P** **00 40 46.7 +1.0**
KHZ IAmb IAmb 00 41 18.6
comp=Z,32nm,1.3s
ULN Ulaanbaatar 57.63 345 P **P** **00 41 09.6 +0.5**
ULN IAmb IAmb 00 41 10.8
comp=Z,12nm,0.9s
SONM Songino Array 57.77 344 P **P** **00 41 10.8 +0.8**
comp=Z,6.2nm,0.8s,baz=162,slow=9.2,SNR=24
comp=Z,6.2nm,0.8s
SONM Songino Array 57.77 344 P **P** **00 41 10.4 +0.3**
CASY Casey 59.68 187 P **P** **00 41 23.6 +1.1**
CASY IAmb IAmb 00 41 24.9
comp=Z,12nm,0.7s
KSH2 Kashi 65.88 319 P **P** **00 42 04.4 +1.0**
KSH2 pmax pmax
comp=Z,7.0nm,0.8s
PDGK Podgornoye 65.89 324 P **P** **00 42 04.1 +0.7**
MKAR Makanchi Array 66.58 329 P **P** **00 42 08.1 +0.6**
comp=Z,8.0nm,0.5s,baz=127,slow=5.5,SNR=60
comp=Z,8.0nm,0.5s
MAKZ Makanchi 66.75 329 P **P** **00 42 08.9 +0.4**
MAKZ IAmb IAmb 00 42 11.4
comp=Z,4.9nm,0.7s
BOOM Boomskoye usch 67.50 322 P **P** **00 42 14.1 +0.7**
BOOM IAmb IAmb 00 42 16.9
comp=Z,18nm,1.4s
KBL Kabul 68.17 312 **P** **00 42 18.2 +0.4**
AAK Ala-Archa 68.47 322 **P** **00 42 20.0 +0.6**
AAK IAmb IAmb 00 42 23.0
comp=Z,3.8nm,0.5s
ARSB Arslanbob 68.72 320 P **P** **00 42 21.6 +0.7**
ZAA0 Zalesovo Array 70.37 336 **P** **00 42 30.4 0.0**
ZALV Zalesovo Beam 70.37 336 P **P** **00 42 30.3 0.0**
comp=Z,4.9nm,0.5s,baz=132,slow=5.3,SNR=15
comp=Z,4.9nm,0.5s
KURBB Kurchatov Arra 70.96 330 P **P** **00 42 34.5 +0.6**
comp=Z,3.5nm,0.7s,baz=138,slow=5.1,SNR=39
comp=Z,3.5nm,0.7s
KURK Kurchatov 70.97 330 **P** **00 42 34.7 +0.7**
KURK IAmb IAmb 00 42 35.5
comp=Z,7.8nm,0.9s
VNDA Vanda 72.46 172 P **P** **00 42 43.5 +1.3**
comp=Z,3.3nm,0.7s,baz=320,slow=5.9,SNR=31
comp=Z,3.3nm,0.7s
VNDA Vanda 72.46 172 **P** **00 42 43.4 +1.1**
MAW Mawson 73.11 201 P **P** **00 42 47.9 +1.7**
comp=Z,5.0nm,0.5s,baz=78,slow=5.1,SNR=22
comp=Z,5.0nm,0.5s
MAW Mawson 73.11 201 **P** **00 42 48.0 +1.8**
SBA Scott Base 73.39 172 P **P** **00 42 49.8 +2.1**
BVAR Borovoye Array 76.46 329 P **P** **00 43 06.0 +0.6**
comp=Z,2.0nm,0.6s,baz=108,slow=9.5,SNR=8.0
comp=Z,2.0nm,0.6s
BORK Borovoye 76.50 329 P **P** **00 43 06.3 +0.7**
AB31 Akbulak array 80.52 323 **P** **00 43 27.4 +0.2**
ABKAR Akbulak array 80.52 323 P **P** **00 43 27.6 +0.3**
QSPA South Pole Qui 82.50 180 P **P** **00 43 38.6 +1.2**
comp=Z,12nm,0.5s,baz=263,slow=0.4,SNR=105
comp=Z,12nm,0.5s
QSPA South Pole Qui 82.50 180 P **P** **00 43 38.6 +1.2**
RAYN Ar Rayn 84.43 295 P **P** **00 43 48.1 +0.3**
ELIB Princess Elisa 86.87 198 *d*P **P** **00 44 01.1 +2.4**
comp=Z,13nm,0.9s
ELIB *d*pP **pP** **00 45 36.2 -4.0**
ELIB *d*sP **sP** **00 46 22.2 -4.3**
ELIB *d*PP **PP** **00 47 25.5 -3.5**
E19K Redstone River 91.78 22 P **P** **00 44 21.9 +0.5**
E19K IAmb IAmb 00 44 33.2
comp=Z,19nm,1.4s
TROLL Troll, Antarti 92.72 195 P **P** **00 44 28.1 +2.2**
comp=Z,140nm,0.6s
BELA Belgrano 2 94.09 184 P **P** **00 44 33.0 +1.1**
BELA IAmb IAmb 00 44 34.0
comp=Z,8.1nm,0.9s
VNA2 Neumayer--Watz 95.87 194 P **P** **00 44 40.8 +0.7**
comp=Z,1.6nm,0.8s,baz=152,slow=4.4
BOSA Boshof 95.89 240 P **P** **00 44 41.9 +0.6**
comp=Z,1.9nm,0.7s,baz=81,slow=4.7,SNR=5.3
comp=Z,1.9nm,0.7s
BOSA Boshof 95.89 240 P **P** **00 44 41.6 +0.3**
BOSA IAmb IAmb 00 44 59.4
comp=Z,7.5nm,1.4s
VNA3 Neumayer Olymp 96.17 193 P **P** **00 44 42.8 +1.3**
comp=Z,1.9nm,0.8s
PDAR Pinedale Array 119.96 45 PKP **PKiKP** **00 50 02.4 0.0**
comp=Z,0.3nm,0.6s,baz=311,slow=3.9,SNR=3.9
PDAR Pinedale Array 119.96 45 **PKiKP** **00 50 02.6 +0.3**
TXAR Lajitas Array 128.47 58 PKP **PKiKP** **00 50 19.5 +0.1**
comp=Z,0.4nm,0.7s,baz=216,slow=1.0,SNR=4.1
ITAB Concordia 145.44 183 **PKiKP** **00 50 52.5 -1.5**
CPUP Villa Florida 146.22 174 PKPbc **PKiKP** **00 50 54.6 -1.0**
comp=Z,5.2nm,0.5s,baz=206,slow=2.5,SNR=19
CPUP Villa Florida 146.22 174 **PKiKP** **00 50 54.3 -1.3**
PB07 IPOC Station P 147.00 152 **PKiKP** **00 50 56.7 -0.8**
LPAZ La Paz 152.49 149 PKPbc **PKiKP** **00 51 10.9 +1.4**
comp=Z,1.4nm,0.4s,baz=36,slow=2.4,SNR=9.8

*IDC **05** 00:41:36.6±1.4, 65°.34N×132°.65W, h0km, **mb3.0**/1, mbtmp2.8/3, ML2.2/3, Error ellipse: s-maj=18.1km s-min=14.3km az=61.0, Northern Yukon Territory*

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
INK	**Inuvik**	**3.00**	**354**	Pn	Pn	00 42 24.0	-1.3
	0.1nm,0.3s,baz=176,slow=14,SNR=6.9						
INK				Sn	Sn	00 43 00.9	-1.0
	0.4nm,0.3s,baz=199,slow=32,SNR=8.9						
INK				Lg	Lg	00 43 13.3	
	0.4nm,0.3s,baz=260,slow=15,SNR=6.2						
INK				AML	AML		
ILAR	**Eielson Array**	**6.05**	**271**	Pn	Pn	00 43 05.6	-1.6
	baz=82,slow=14,SNR=2.1						
ILAR				Sn	Sn	00 44 17.1	0.0
	0.1nm,0.3s,baz=77,slow=27,SNR=4.2						
	0.2nm,0.5s						
YKA	**Yellowknife Ar**	**8.44**	**101**	Pn	Pn	00 43 38.1	-1.9
	0.1nm,0.3s,baz=294,slow=13,SNR=4.5						
	0.4nm,0.5s						
YKA				AML	AML		
PDAR	**Pinedale Array**	**26.06**	**139**	P	P	00 47 11.3	-0.4
	0.1nm,0.3s,baz=337,slow=7.5,SNR=1.9						
	0.1nm,0.3s						

*IDC **05** 00:42:30.1±0.6, 49°.61N×108°.87E, h0km, mb4.0/16, mbtmp4.0/24, ML3.8/8, MS3.6/20, Error ellipse: s-maj=11.0km s-min=9.7km az=14.0*
*BYKL **05** 00:42:30.5±0.3, 49°.61N×108°.93E*
*BJI **05** 00:42:30.1, 49°.51N×109°.19E, h8km, mB4.8/2, mb4.3/15, ML4.6/1, Ms4.3/7, Ms7 4.1/7*
*MOS **05** 00:42:30.3±0.9, 49°.62N×109°.00E, h15km, mb4.3/11, Error ellipse: s-maj=9.4km s-min=5.7km az=103.7*
*NEIC **05** 00:42:31.7±1.0, 49°.65N±0°.07×108°.96E±0°.10, h10km±1km, mb4.3/12, Error ellipse: s-maj=11.4km s-min=10.6km az=167.0*
ISC 05 00:42:31.0±0.4, 49°.63N±0°.02×109°.09E±0°.02, h10km, n136, σ2s26/205, mb4.2/26, MS3.5/13, 4C-7D, Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KPC	**Khapcheranga**	**2.14**	**87**	⇓*i*Pn	**Pb**	**00 43 08.9**	**-1.0**
KPC				*e*Pg	**Pg**	**00 43 11.6**	**-0.4**
KPC				*e*		00 43 17.0	
KPC				max		00 43 21.1	
	370nm,0.7s						
KPC				*e*		00 43 37.7	
KPC				*e*Sg	**Sg**	**00 43 41.2**	**+1.5**
KPC				Smax		00 43 42.4	
	5μm,1.1s						
KPC				*e*SgSg	**SnSn**	**00 43 50.7**	**+6.5**
KPC	**Khapcheranga**	**2.14**	**87**	⇓*i*PN	**Pb**	**00 43 08.8**	**-1.1**
KPC				*e*		00 43 11.7	
KPC				*e*		00 43 41.4	
KPC				pmax	pmax		
	comp=Z,381nm,0.8s						
KPC				smax	smax		
	comp=N,5μm,1.0s						
ULN	**Ulaanbaatar**	**2.22**	**218**	⇑*i*Pg	**Pn**	**00 43 08.2**	**+0.2**
ULN				*e*		00 43 09.6	
ULN				max		00 43 11.0	
	comp=N,2μm,1.1s						
ULN				*e*Sg	**Sb**	**00 43 37.5**	**-1.3**
ULN				Smax		00 43 42.4	
	comp=N,6μm,1.9s						
ULN	**Ulaanbaatar**	**2.22**	**218**	*c i*PN	**Pn**	**00 43 08.2**	**+0.2**
ULN				*i* S	**Sb**	**00 43 37.7**	**-1.1**
ULN	**Ulaanbaatar**	**2.22**	**218**		**Pn**	**00 43 08.1**	**+0.1**
UUDB	**Ulan-Yde**	**2.42**	**339**	⇓*i*Pn	**Pn**	**00 43 11.2**	**+0.6**
UUDB				*e*Pg	**Pb**	**00 43 13.4**	**-1.2**
UUDB				Pmax		00 43 14.6	
	comp=N,2μm,0.7s						
UUDB				*e*		00 43 19.7	
UUDB				*e*Sn	**Sn**	**00 43 39.2**	**-1.1**
UUDB				*e*Sg	**Sg**	**00 43 45.2**	**-3.5**
UUDB				Smax		00 43 46.3	
	comp=N,4μm,1.6s						
UUDB				*e*SgSg	**SnSn**	**00 43 56.0**	**+4.5**
HRMR	**Khuramsha**	**2.42**	**327**	*e*Pn	**Pn**	**00 43 10.6**	**-0.1**
HRMR				*e*Pg	**Pb**	**00 43 13.2**	**-1.4**
HRMR				*e*Sn	**Sn**	**00 43 39.4**	**-0.9**
HRMR				*e*Sg	**Sb**	**00 43 44.4**	**-0.1**
SONM	**Songino Array**	**2.53**	**226**	Pn	**Pn**	**00 43 12.2**	**-0.1**
	comp=N,177nm,0.3s,baz=37,slow=15,SNR=246						
SONM				Pg	**Pb**	**00 43 15.0**	**-1.6**
	comp=N,181nm,0.3s,baz=40,slow=17,SNR=499						
SONM				Lg	Lg	00 43 47.0	
	comp=N,697nm,0.3s,baz=39,slow=28,SNR=72						
SONM				LR	LR	00 44 20.0	
	comp=N,647nm,19.1s,baz=34,slow=46						
	comp=N,1μm,0.6s						
SONM				AML	AML		
SONM	**Songino Array**	**2.53**	**226**		**Pn**	**00 43 12.3**	**0.0**
FFNB	**Fofonovo**	**2.84**	**330**	⇑*i*Pn	**Pn**	**00 43 16.5**	**+0.1**
FFNB				*e*Pg	**Pb**	**00 43 20.3**	**-1.4**
FFNB				*e*PgPg	**Pg**	**00 43 24.2**	**-1.1**
FFNB				*e*Sn	**Sn**	**00 43 48.6**	**-2.0**
FFNB				*e*Sg	**Sb**	**00 43 57.3**	**+0.8**
FFNB				*e*SgSg	**Sg**	**00 44 06.3**	**+4.3**
KAB	**Kabansk**	**2.88**	**328**	*e*Pn	**Pn**	**00 43 16.3**	**-0.6**
KAB				*e*Pg	**Pb**	**00 43 21.6**	**-0.8**
KAB				*e*PgPg	**Pg**	**00 43 25.7**	**-0.4**
KAB				max		00 43 26.3	
	comp=N,1μm,0.8s						
KAB				*e*Sg	**Sb**	**00 43 58.6**	**+1.0**
KAB				Smax		00 44 12.0	
	comp=N,9μm,1.2s						
KAB				*e*		00 44 31.6	
VBR	**Suhoy Ruchey**	**2.92**	**319**	*e*Pg	**Pb**	**00 43 22.6**	**-0.6**
VBR				*e*Sg	**Sb**	**00 43 59.8**	**+0.9**
STDB	**Stepnoy Dvoret**	**3.07**	**327**	*e*Pn	**Pn**	**00 43 20.3**	**+0.7**
STDB				*e*Pg	**Pb**	**00 43 25.7**	**-0.1**
STDB				*e*Sn	**Sn**	**00 43 55.6**	**-0.8**
STDB				*e*Sg	**Sg**	**00 44 05.7**	**-4.0**
KELR	**Kotokel**	**3.20**	**349**	*e*Pn	**Pn**	**00 43 22.5**	**+1.1**
KELR				*e*Pg	**Pb**	**00 43 27.8**	**-0.1**
KELR				*e*PgPg	**Pg**	**00 43 30.9**	**-1.4**
KELR				*e*Sn	**Sn**	**00 43 58.8**	**-0.7**
KELR				*e*Sg	**Sg**	**00 44 09.6**	**-4.1**
BGT	**Bolshoye Golou**	**3.36**	**317**	*e*Pn	**Pn**	**00 43 23.5**	**-0.1**
BGT				*e*Pg	**Pb**	**00 43 29.6**	**-1.1**
BGT				*e*PgPg	**PbPb**	**00 43 33.2**	**-0.6**
BGT				max		00 43 33.5	
	comp=N,241nm,0.8s						
BGT				*e*		00 43 58.6	
BGT				*e*Sg	**Sb**	**00 44 12.3**	**+0.7**
BGT				Smax		00 44 21.5	
	comp=N,3μm,1.6s						
BGT	**Bolshoye Golou**	**3.36**	**317**	*e*PN	**Pn**	**00 43 23.8**	**+0.2**
BGT				*e*		00 43 31.1	
BGT				*e*		00 44 12.9	
BGT				pmax	pmax		
	comp=Z,242nm,0.8s						
BGT				smax	smax		
	comp=E,3μm,1.5s						
GORB	**Goryachinsk**	**3.40**	**352**	*e*Pn	**Pn**	**00 43 25.0**	**+0.9**
GORB				*e*Pg	**Pb**	**00 43 30.5**	**-0.8**
GORB				Pmax		00 43 35.1	
	comp=E,340nm,1.1s						
GORB				*e*Sg	**Sg**	**00 44 15.6**	**-4.6**
GORB				Smax		00 44 21.7	
	comp=E,2μm,1.5s						
LSTR	**Listvyanka**	**3.51**	**311**	*e*Pn	**Pn**	**00 43 24.7**	**-0.9**
LSTR				*e*Pg	**Pb**	**00 43 32.4**	**-0.8**
LSTR				Pmax		00 43 47.3	
	comp=E,121nm,1.2s						
LSTR				*e*Sn	**Sn**	**00 44 04.5**	**-2.7**
LSTR				*e*Sg	**Sb**	**00 44 17.2**	**+1.3**
LSTR				Smax		00 44 24.4	
	comp=E,2μm,1.3s						
LSTR	**Listvyanka**	**3.51**	**311**	*e*PN	**Pb**	**00 43 33.9**	**+0.7**
LSTR				*e*		00 44 17.4	
LSTR				pmax	pmax		
	comp=Z,105nm,0.9s						
LSTR				smax	smax		
	comp=E,2μm,1.3s						
TRG	**Tyrgan**	**3.58**	**332**	*e*Pn	**Pn**	**00 43 26.4**	**-0.2**
TRG				*e*Pg	**Pb**	**00 43 35.2**	**+0.8**
TRG				*e*		00 43 40.6	
TRG				max		00 43 43.4	
	comp=E,283nm,0.8s						
TRG				*e*		00 44 03.3	
TRG				*e*Sg	**Sg**	**00 44 21.1**	**-4.8**
TRG				Smax		00 44 25.8	
	comp=E,1μm,1.0s						
TRG	**Tyrgan**	**3.58**	**332**	*e*PN	**Pn**	**00 43 26.3**	**-0.3**
TRG				*e*		00 43 34.9	
TRG				*e*S	**Sn**	**00 44 05.5**	**-3.4**
TRG				*e*		00 44 19.3	
TRG				pmax	pmax		
	comp=Z,285nm,0.8s						
TRG				smax	smax		
	comp=E,1μm,0.5s						
MXMB	**Maximikha**	**3.65**	**357**	*e*Pn	**Pn**	**00 43 28.3**	**+0.8**
MXMB				*e*Pg	**Pb**	**00 43 36.5**	**+1.0**
MXMB				*e*		00 44 11.7	
MXMB				*e*Sg	**Sg**	**00 44 24.2**	**-3.9**
MXMB				*e*		00 44 32.2	
IVK	**Ivanovka**	**3.68**	**308**	*e*Pn	**Pn**	**00 43 26.9**	**-1.1**
IVK				*e*Pg	**Pb**	**00 43 36.0**	**-0.1**
IVK				Pmax		00 43 46.0	
	comp=E,205nm,0.8s						
IVK				*e*Sg	**Sb**	**00 44 22.7**	**+1.9**
IVK				*e*SgSg	**Sg**	**00 44 29.5**	**+0.3**
IVK				max		00 44 29.7	
	comp=E,2μm,1.6s						
IVK	**Ivanovka**	**3.68**	**308**	*e*PN	**Pb**	**00 43 36.4**	**+0.3**
IVK				*e*		00 44 21.0	
IVK				pmax	pmax		
	comp=Z,203nm,0.9s						
IVK				smax	smax		
	comp=N,2μm,1.6s						
CIT	**Chita**	**3.71**	**48**	*e*Sg	**Sg**	**00 44 28.0**	**-2.0**
CIT				Smax		00 44 34.8	
	comp=N,3μm,1.0s						
UZR	**Uzur**	**3.80**	**348**	*e*Pn	**Pn**	**00 43 30.0**	**+0.5**
UZR				*e*		00 43 39.9	
UZR				max		00 43 40.7	
	comp=N,5.0nm,0.1s						
UZR				*e*Sg	**Sg**	**00 44 27.4**	**-5.4**
UZR				Smax		00 44 35.4	
	comp=N,558nm,0.7s						
ZAK	**Zakamensk**	**3.82**	**284**	*e*Pn	**Pn**	**00 43 28.8**	**-1.2**
ZAK				*e*Pg	**Pb**	**00 43 36.6**	**-2.0**
ZAK				Pmax		00 43 42.8	
	comp=N,208nm,0.6s						
ZAK				*e*Sn	**Sn**	**00 44 10.6**	**-4.4**
ZAK				*e*Sg	**Sb**	**00 44 25.0**	**+0.1**
ZAK				Smax		00 44 37.2	
	comp=N,2μm,1.3s						
ZAK	**Zakamensk**	**3.82**	**284**	*e*PN	**Pn**	**00 43 28.6**	**-1.4**
ZAK				*e*		00 43 36.6	
ZAK				*e*		00 44 25.9	
ZAK				pmax	pmax		
	comp=Z,203nm,0.3s						
ZAK				smax	smax		
	comp=N,2μm,1.2s						
IRK	**Irkutsk**	**4.02**	**313**	*e*Sg	**Sb**	**00 44 32.4**	**+2.0**
IRK				Smax		00 44 36.6	
	comp=N,3μm,0.7s						
IRK	**Irkutsk**	**4.02**	**313**	*e*PN	**Pn**	**00 43 31.1**	**-1.5**
IRK				*e*		00 43 42.3	
IRK				*e*		00 44 33.0	
IRK				pmax	pmax		
	comp=Z,289nm,1.0s						
IRK				smax	smax		
	comp=N,3μm,0.6s						
TLY	**Talaya**	**4.03**	**303**	Pn	**Pn**	**00 43 31.7**	**-1.0**
	comp=N,4.5nm,0.3s,baz=132,slow=13,SNR=10.0						
TLY				Pg	**Pb**	**00 43 40.9**	**-1.2**
	comp=N,18nm,0.3s,baz=134,slow=8.0,SNR=27						
TLY				Lg	Lg	00 44 33.1	
	comp=N,16nm,0.3s,baz=93,slow=20,SNR=3.2						
TLY				LR	LR	00 45 19.8	
	comp=N,329nm,22.0s,baz=126,slow=43						
	comp=N,11nm,0.3s						
TLY				AML	AML		
TLY	**Talaya**	**4.03**	**303**	*e*Pn	**Pn**	**00 43 31.8**	**-0.9**
TLY				*e*Pg	**Pb**	**00 43 41.2**	**-0.8**
TLY				Pmax		00 43 43.6	
	comp=N,200nm,0.9s						
TLY				*e*Sn	**Sn**	**00 44 17.1**	**-2.9**
TLY				*e*Sg	**Sb**	**00 44 33.1**	**+2.3**
TLY				Smax		00 44 41.3	
	comp=N,4μm,1.6s						
TLY				*e*		00 44 46.2	
TLY	**Talaya**	**4.03**	**303**	*e*PN	**Pn**	**00 43 31.1**	**-1.6**
TLY				*e*		00 43 41.0	
TLY				*e*		00 44 33.2	
TLY				pmax	pmax		
	comp=Z,201nm,0.9s						
TLY				smax	smax		
	comp=N,4μm,1.6s						
SYVR	**Suvo**	**4.08**	**8**	*e*Pn	**Pn**	**00 43 34.7**	**+1.3**
SYVR				*e*Pg	**Pb**	**00 43 43.7**	**+0.9**
SYVR				Pmax		00 43 52.4	
	comp=N,159nm,0.8s						
SYVR				*e*Sn	**Sn**	**00 44 22.0**	**+0.9**
SYVR				*e*Sg	**Sg**	**00 44 37.7**	**-4.1**
SYVR				Smax		00 44 55.1	
	comp=N,1μm,1.0s						
SYVR	**Suvo**	**4.08**	**8**	*e*PN	**Pn**	**00 43 34.9**	**+1.5**
SYVR				*e*		00 43 43.7	
SYVR				*e*		00 44 37.3	
SYVR				pmax	pmax		
	comp=Z,164nm,1.0s						
SYVR				smax	smax		
	comp=E,1μm,1.0s						
OGRR	**Ongureny**	**4.13**	**348**	*e*Pn	**Pn**	**00 43 34.5**	**+0.5**
OGRR				*e*Pg	**Pb**	**00 43 45.0**	**+1.3**
OGRR				Pmax		00 43 46.2	
	comp=E,147nm,1.0s						
OGRR				*e*Sn	**Sn**	**00 44 20.7**	**-1.7**
OGRR				*e*Sg	**Sg**	**00 44 38.2**	**-5.3**
OGRR				Smax		00 44 46.7	
	comp=E,451nm,1.1s						
OGRR	**Ongureny**	**4.13**	**348**	*e*PN	**Pn**	**00 43 34.6**	**+0.5**
OGRR				*e*		00 43 44.9	
OGRR				*e*		00 44 37.4	
OGRR				pmax	pmax		
	comp=Z,148nm,1.7s						
OGRR				smax	smax		
	comp=N,447nm,1.1s						
ARS	**Arshan**	**4.81**	**301**	*e*Pn	**Pn**	**00 43 43.1**	**-0.4**
ARS				*e*		00 43 46.0	
ARS				*e*Pg	**Pb**	**00 43 56.2**	**+0.8**
ARS				Pmax		00 44 09.1	
	comp=N,131nm,1.1s						
ARS				*e*Sn	**Sn**	**00 44 35.8**	**-3.5**
ARS				*e*Sg	**Sb**	**00 44 57.2**	**+3.9**
ARS				Smax		00 45 11.7	
	comp=N,3μm,1.3s						
ARS				*e*		00 45 18.5	
YLYR	**Ulyunkhan**	**5.41**	**13**	*e*Pn	**Pn**	**00 43 52.6**	**+0.9**
YLYR				*e*Pg	**Pb**	**00 44 08.0**	**+2.5**
YLYR				Pmax		00 44 08.9	
	comp=N,98nm,0.8s						
YLYR				*e*		00 44 55.1	
YLYR				*e*Sg	**Sg**	**00 45 19.6**	**-4.9**
YLYR				*e*		00 45 23.7	
YLYR				max		00 45 25.7	
	comp=N,737nm,0.8s						
YLYR	**Ulyunkhan**	**5.41**	**13**	*e*PN	**Pn**	**00 43 52.7**	**+1.0**
YLYR				*e*		00 44 08.0	
YLYR				*e*		00 45 19.9	
YLYR				pmax	pmax		
	comp=Z,98nm,0.8s						
YLYR				smax	smax		
	comp=N,733nm,0.8s						
MOY	**Mondy**	**5.54**	**295**	*e*	Pb	00 44 00.2	-7.6
MOY				*e*Pg	Pg	00 44 07.9	-9.1
MOY				Pmax		00 44 19.5	
	comp=N,100nm,0.9s						
MOY				*e*Sg	**Sb**	**00 45 20.0**	**+5.7**
MOY				*e*		00 45 43.2	
MOY				max		00 45 45.7	
	comp=N,3μm,1.4s						
NIZB	**Nizh Angarsk**	**6.16**	**2**	*e*Pn	**Pn**	**00 44 03.4**	**+1.4**
NIZB				*e*Pg	**Pb**	**00 44 20.9**	**+2.6**
NIZB				Pmax		00 44 24.6	
	comp=N,79nm,1.3s						
NIZB				*e*Sg	**Sg**	**00 45 42.4**	**-6.2**
NIZB				Smax		00 45 55.6	
	comp=N,219nm,1.0s						
KMO	**Kumora**	**6.40**	**11**	*e*Pn	**Pn**	**00 44 06.8**	**+1.5**
KMO				*e*Pg	**Pb**	**00 44 25.4**	**+3.0**
KMO				Pmax		00 44 29.4	
	comp=N,82nm,0.8s						
KMO				*e*		00 45 25.1	
KMO				*e*Sg	**Sg**	**00 45 48.9**	**-7.4**
KMO				Smax		00 46 05.8	
	comp=N,1μm,1.1s						

KMO	**Kumora**	**6.40**	**11**	*e*PN		**Pn**	**00 44 05.2**	**-0.1**
KMO				*e*			00 44 25.2	
KMO				*e*S		**Sn**	**00 45 16.2**	**-2.1**
KMO				*e*			00 45 48.2	
KMO				pmax	pmax			
	comp=Z,48nm,0.6s							
KMO				smax	smax			
	comp=N,1µm,1.1s							
UKT	**Uakit**	**6.49**	**23**	*e*Pn		**Pn**	**00 44 08.1**	**+1.5**
UKT				*e*Pg		Pg	00 44 29.0	-6.2
UKT				Pmax			00 44 33.0	
	comp=N,44nm,1.1s							
UKT				*e*			00 45 27.1	
UKT				*e*Sg		**Sg**	**00 45 53.2**	**-6.0**
UKT				Smax			00 46 13.0	
	comp=N,603nm,1.7s							
UKT	**Uakit**	**6.49**	**23**	*e*PG		Pg	00 44 29.5	-5.7
UKT				*e*			00 45 51.2	
UKT				pmax	pmax			
	comp=Z,44nm,1.0s							
UKT				smax	smax			
	comp=E,601nm,1.6s							
ORL	**Orlik**	**6.53**	**300**	*e*Pn		**Pn**	**00 44 06.6**	**-0.6**
ORL				*e*Pg		**Pb**	**00 44 26.7**	**+2.0**
ORL				Pmax			00 44 40.7	
	comp=E,93nm,1.8s							
ORL				*e*Sn		**Sn**	**00 45 16.7**	**-5.1**
ORL				*e*Sg		**Sb**	**00 45 50.0**	**+7.2**
ORL				Smax			00 46 08.3	
	comp=E,865nm,1.8s							
ORL	**Orlik**	**6.53**	**300**	*e*PG		**Pb**	**00 44 27.0**	**+2.3**
ORL				*e*			00 45 49.9	
ORL				pmax	pmax			
	comp=Z,87nm,1.1s							
ORL				smax	smax			
	comp=N,866nm,1.8s							
HILR	**Hailar Array B**	**6.93**	**87**	Pn		**Pn**	**00 44 14.1**	**+1.5**
	baz=270,slow=12							
HILR				Pg		**Pg**	**00 44 39.5**	**-4.2**
	baz=275,slow=17							
HILR				Sn		**Sn**	**00 45 35.5**	**+3.9**
	baz=269,slow=21							
HILR				Lg		Lg	00 46 14.3	
	baz=273,slow=29							
HILR				LR		LR	00 47 17.3	
	comp=N,345nm,18.1s,baz=15,slow=41							
	comp=N,2.8nm,0.3s							
HIA	**Hailar**	**6.96**	**89**	*e*Sn		**Sn**	**00 45 31.8**	**-0.3**
HIA				*e*Sg		**Sg**	**00 46 08.3**	**-5.9**
HIA				Smax			00 46 27.3	
	comp=N,744nm,1.5s							
HIA	**Hailar**	**6.96**	**89**	PN		**Pn**	**00 44 14.2**	**+1.3**
HIA	**Hailar**	**6.96**	**89**	Pn		**Pn**	**00 44 14.2**	**+1.3**
KNGR	**Kungurtug, Tuv**	**7.50**	**282**	⇓*e*PN		**Pn**	**00 44 21.0**	**+0.5**
NLYR	**Nelyaty**	**7.94**	**28**	*e*Pn		**Pn**	**00 44 28.4**	**+1.9**
NLYR				*e*			00 44 41.2	
NLYR				max			00 45 11.4	
	comp=N,58nm,2.0s							
NLYR				*e*Sn		**Sn**	**00 45 55.2**	**-1.1**
NLYR				*e*Sg		**Sg**	**00 46 39.0**	**-6.7**
NLYR				Smax			00 46 57.1	
	comp=N,1µm,1.7s							
TUP	**Tupik**	**8.24**	**50**	*e*Pn		**Pn**	**00 44 31.6**	**+1.0**
TUP				*e*Pg		Pg	00 45 01.0	-7.7
TUP				Pmax			00 45 03.3	
	comp=N,28nm,1.0s							
TUP				*e*Sn		**Sn**	**00 46 02.1**	**-1.6**
TUP				*e*Sg		**Sg**	**00 46 48.2**	**-7.1**
TUP				Smax			00 47 07.8	
	comp=N,739nm,1.4s							
BTO2	**Baotou**	**8.90**	**176**	*e*P		**Pn**	**00 44 40.5**	**+0.8**
BTO2				pmax	pmax			
	comp=N,57nm,1.0s							
BJT	**Baijiatuau**	**10.84**	**150**	P		**Pn**	**00 45 06.0**	**-0.1**
BJT	**Baijiatuau**	**10.84**	**150**			**Pn**	**00 45 06.0**	**-0.1**
ZEA	**Zeya**	**11.99**	**63**	*e*P		**Pn**	**00 45 23.9**	**+2.0**
ZEA				*e*S		**Sn**	**00 47 31.8**	**-3.8**
ZEA				pmax	pmax			
	comp=N,10.0nm,0.4s							
ZEA				pmax	pmax			
	comp=Z,20nm,0.7s							
ZEA				smax	smax			
	comp=E,20nm,0.9s							
ZEA				smax	smax			
	comp=N,40nm,1.0s							
ZEA				MLR	MLR			
	comp=E,900nm,5.0s							
ZEA				MLR	MLR			
	comp=Z,700nm,9.0s							
GTA2	**Gaotai**	**12.12**	**217**	P		**Pn**	**00 45 23.8**	**+0.1**
GTA2				sP			00 45 33.2	
GTA2				pmax	pmax			
	comp=Z,21nm,1.0s							
GTA2				L	L			
	comp=Z,490nm,11.3s							
GTA2				L	L			
	comp=Z,930nm,12.7s							
GTA2				L	L			
	comp=Z,290nm,9.6s							
DL2	**Dalian**	**13.96**	**135**	P		**P**	**00 45 59.5**	**+2.6**
DL2				pmax	pmax			
	comp=Z,38nm,0.9s							
LZDM	**Lanzhou Array**	**14.22**	**198**	Pn		**Pn**	**00 45 50.3**	**-2.3**
	baz=7.8,slow=12							
	comp=Z,1.4nm,0.3s							
KLR	**Kul'dur**	**14.75**	**83**	LR		LR	00 52 22.3	
	comp=Z,184nm,19.1s,baz=335,slow=40							
ZALV	**Zalesovo Beam**	**15.60**	**295**	Pn		**Pn**	**00 46 10.2**	**-0.5**
	comp=Z,0.3nm,0.3s,baz=119,slow=8.9,SNR=1.3							
ZALV				Lg		Lg	00 50 31.6	
	comp=Z,0.3nm,0.3s,baz=112,slow=22,SNR=9.2							
ZALV				LR		LR	00 52 02.5	
	comp=Z,152nm,18.4s,baz=46,slow=37							
	comp=Z,0.5nm,0.4s							
ZALV				AML		AML		
WMQ	**Urumqi**	**15.75**	**257**	*e*P		**P**	**00 46 17.2**	**+0.3**
WMQ				S		**Sn**	**00 49 12.2**	**+4.7**
WMQ				L		L		
	comp=Z,250nm,7.5s							
WMQ				L		L		
	comp=Z,400nm,6.9s							
WMQ				L		L		
	comp=Z,220nm,17.1s							
USRK	**Ussuriysk Ar.**	**16.54**	**100**	Lg		Lg	00 51 10.1	
	comp=Z,0.2nm,0.3s,baz=292,slow=25,SNR=1.2							
USRK				LR		LR	00 53 39.4	
	comp=Z,145nm,18.4s,baz=292,slow=40							
YAK	**Yakutsk**	**16.87**	**35**	Lg		Lg	00 51 14.7	
	comp=Z,2.8nm,0.3s,baz=334,slow=23,SNR=11							
YAK	**Yakutsk**	**16.87**	**35**	*e*P		**P**	**00 46 27.3**	**-1.7**
YAK				*e*S		**Sn**	**00 49 35.8**	**+1.6**
YAK				pmax	pmax			
	comp=Z,6.0nm,1.0s							
YAK				pmax	pmax			
	comp=N,5.0nm,1.3s							
YAK				pmax	pmax			
	comp=E,3.0nm,1.4s							
YAK				smax	smax			
	comp=E,498nm,4.3s							
YAK				smax	smax			
	comp=N,424nm,4.0s							
YAK				MLR	MLR			
	comp=Z,120nm,18.0s							
YAK				MLR	MLR			
	comp=N,170nm,25.0s							
YAK				MLR	MLR			
	comp=E,38nm,13.0s							
GOMU	**GeErMu**	**16.97**	**223**	P		**P**	**00 46 29.7**	**-1.0**
GOMU				pP		pP	00 46 33.2	-0.7
GOMU				sP		sP	00 46 36.7	+1.4
GOMU				pmax	pmax			
	comp=E,19nm,1.1s							
MKAR	**Makanchi Array**	**18.05**	**271**	Pn		**Pn**	**00 46 40.0**	**-1.8**
	comp=E,0.1nm,0.3s,baz=80,slow=10,SNR=3.1							
MKAR				Lg		Lg	00 51 49.2	
	baz=62,slow=24							
MKAR				LR		LR	00 53 39.4	
	comp=E,282nm,18.4s,baz=66,slow=37							
	comp=E,1.4nm,0.8s							
MKAR				AML		AML		
MKAR	**Makanchi Array**	**18.05**	**271**	P		**Pn**	**00 46 40.0**	**-1.8**
KSRS	**Korea Array**	**18.23**	**125**	Pn		**P**	**00 46 45.0**	**+0.9**
	comp=E,0.2nm,0.3s,baz=328,slow=11,SNR=5.5							
KSRS				LR		LR	00 54 26.9	
	comp=E,100nm,18.3s,baz=315,slow=39							
	comp=E,2.4nm,0.9s							
KSRS				AML		AML		
KURK	**Kurchatov**	**19.48**	**285**	P		**P**	**00 46 57.2**	**-0.7**
KURK	**Kurchatov**	**19.48**	**285**	P		**P**	**00 46 55.7**	**-2.2**
KURBB	**Kurchatov Arra**	**19.55**	**285**	Pn		**P**	**00 46 57.2**	**-1.4**
	comp=E,0.1nm,0.3s,baz=82,slow=11,SNR=11							
KURBB				Lg		Lg	00 52 44.7	
	comp=E,0.1nm,0.3s,baz=80,slow=31,SNR=4.9							
KURBB				LR		LR	00 54 43.4	
	comp=E,209nm,20.6s,baz=166,slow=38							
	comp=E,1.6nm,0.6s							
KURBB				AML		AML		
NRIK	**Noril'sk**	**22.34**	**340**	P		**P**	**00 47 28.4**	**-0.2**
	comp=E,3.1nm,0.8s,baz=134,slow=15,SNR=4.8							
	comp=E,3.1nm,0.8s							
NRIK	**Noril'sk**	**22.34**	**340**	⇓*e*P		**P**	**00 47 29.1**	**+0.5**
NRIK				pmax	pmax			
	comp=Z,26nm,2.9s							
NRIK	**Noril'sk**	**22.34**	**340**	P		**P**	**00 47 27.5**	**-1.1**
NRIK				IAmb		IAmb	00 48 01.7	
	comp=Z,9.7nm,1.2s							
WUS	**Wushi**	**22.48**	**259**	P		**P**	**00 47 30.0**	**-0.5**
WUS				IAmb		IAmb	00 47 33.3	
	comp=Z,19nm,1.2s							
ASAJ	**Asahikawa**	**23.43**	**91**	LR		LR	00 57 55.2	
	comp=Z,147nm,18.6s,baz=88,slow=39							
TIXI	**Tiksi**	**23.88**	**15**	⇓*e*P		**P**	**00 47 45.0**	**+0.8**
TIXI	**Tiksi**	**23.88**	**15**	P		**P**	**00 47 44.5**	**+0.3**
TIXI				IAmb		IAmb	00 48 00.7	
	comp=Z,12nm,1.2s							
BVAR	**Borovoye Array**	**24.22**	**293**	P		**P**	**00 47 47.1**	**-0.5**
	comp=Z,4.8nm,1.1s,baz=69,slow=8.4,SNR=6.5							
	comp=Z,4.8nm,1.1s							
BORK	**Borovoye**	**24.26**	**293**	⇓*e*P		**P**	**00 47 47.2**	**-0.8**
BORK				pmax	pmax			
	comp=Z,5.0nm,1.3s							
MJAR	**Matsushiro Arr**	**24.79**	**111**	LR		LR	00 57 28.0	
	comp=Z,67nm,19.5s,baz=332,slow=36							
AAK	**Ala-Archa**	**24.81**	**267**	⇓*e*P		**P**	**00 47 53.0**	**-0.2**
AAK				pmax	pmax			
	comp=Z,4.0nm,1.0s							
PETK	**Petropavlovsk-**	**30.08**	**64**	LR		LR	01 01 26.7	
	comp=Z,159nm,19.9s,baz=78,slow=38							
ARTI	**Arti**	**30.64**	**302**	LR		LR	01 02 01.7	
	comp=Z,106nm,18.9s,baz=48,slow=38							
CMAR	**Chiang Mai Arr**	**32.15**	**198**	P		**P**	**00 48 58.8**	**0.0**
	comp=Z,0.6nm,0.3s,baz=358,slow=8.6,SNR=7.1							
	comp=Z,0.6nm,0.3s							
CMAR	**Chiang Mai Arr**	**32.15**	**198**	*i* P		**P**	**00 48 59.7**	**+1.0**
CMAR				pmax	pmax			
	comp=Z,1.0nm,0.3s							
KIV	**Kislovodsk**	**44.48**	**289**	*e*P		**P**	**00 50 43.0**	**+0.7**
KIV				pmax	pmax			
	comp=Z,4.0nm,1.1s							
KIV				MLR	MLR			
	comp=Z,37nm,16.0s							
KIV	**Kislovodsk**	**44.48**	**289**	P		**P**	**00 50 42.4**	**+0.1**
KIV				IAmb		IAmb	00 50 58.7	
	comp=Z,7.0nm,1.0s							
DAV	**Davao City (W)**	**44.62**	**156**	LR		LR	01 11 46.4	
	comp=Z,56nm,18.1s,baz=116,slow=39							
FIA1	**FINESS Array S**	**45.23**	**318**	P		**P**	**00 50 47.8**	**-0.1**
FINES	**FINESS Array B**	**45.23**	**318**	P		**P**	**00 50 47.9**	**0.0**
	comp=Z,3.4nm,0.7s,baz=64,slow=9.1,SNR=9.6							
	comp=Z,3.4nm,0.7s							
FINES	**FINESS Array B**	**45.23**	**318**	*i* P		**P**	**00 50 48.5**	**+0.6**
FINES				pmax	pmax			
	comp=Z,3.0nm,0.7s							
FINES	**FINESS Array B**	**45.23**	**318**	P		**P**	**00 50 48.0**	**+0.2**
GNI	**Garni**	**45.27**	**283**	LR		LR	01 11 48.5	
	comp=Z,74nm,18.2s,baz=34,slow=39							
IMAR	**Indian Mountai**	**48.70**	**33**	P		**P**	**00 51 16.6**	**+1.6**
AKASG	**Malin Array Be**	**48.77**	**304**	P		**P**	**00 51 15.7**	**0.0**
	comp=Z,2.5nm,0.8s,baz=55,slow=8.3,SNR=6.5							
	comp=Z,2.5nm,0.8s							
AKASG	**Malin Array Be**	**48.77**	**304**	*i* P		**P**	**00 51 16.6**	**+0.9**
AKASG				pmax	pmax			
	comp=Z,3.0nm,0.8s							
BMAR	**Burnt Mountain**	**50.93**	**28**	P		**P**	**00 51 34.3**	**+2.3**
ILAR	**Eielson Array**	**51.77**	**32**	P		**P**	**00 51 40.9**	**+2.6**
	comp=Z,1.1nm,0.8s,baz=305,slow=6.5,SNR=11							
	comp=Z,1.1nm,0.8s							
BRTR	**Keskin Array B**	**52.44**	**290**	P		**P**	**00 51 42.5**	**-1.2**
	comp=Z,1.5nm,0.8s,baz=70,slow=5.4,SNR=6.8							
BRTR				LR		LR	01 17 21.6	
	comp=Z,36nm,18.9s,baz=91,slow=40							
	comp=Z,1.5nm,0.8s							
BRTR	**Keskin Array B**	**52.44**	**290**	*i* P		**P**	**00 51 45.0**	**+1.2**
BRTR				pmax	pmax			
	comp=Z,2.0nm,0.9s							
BRTR	**Keskin Array B**	**52.44**	**290**	P		**P**	**00 51 43.8**	**0.0**
BURAR	**Bucovina Array**	**52.67**	**302**	P		**P**	**00 51 45.7**	**+0.4**
BURAR				IAmb		IAmb	00 51 48.0	
	comp=Z,2.2nm,0.9s							
MLR	**Muntele Rosu**	**53.52**	**300**	LR		LR	01 15 57.4	
	comp=Z,118nm,18.5s,baz=16,slow=38							
RAYN	**Ar Rayn**	**55.46**	**266**	P		**P**	**00 52 05.3**	**-0.6**
RAYN				pmax	pmax			
	comp=Z,3.0nm,0.8s							
RAYN	**Ar Rayn**	**55.46**	**266**			**P**	**00 52 05.3**	**-0.6**
RAYN				IAmb		IAmb	00 52 06.4	
	comp=Z,2.8nm,0.8s							
MMAI	**Mount Meron Ar**	**55.57**	**282**	LR		LR	01 18 13.7	
	comp=Z,50nm,20.1s,baz=358,slow=39							
CLL	**Collm**	**56.76**	**312**	*i* P		**P**	**00 52 15.8**	**+1.0**
CLL	**Collm**	**56.76**	**312**	*i* P		**P**	**00 52 15.8**	**+1.0**
CLL				AMS		AMS	01 14 00.0	
	comp=N,200nm,16.3s							
CLL				AMS		AMS	01 14 00.0	
	comp=E,100nm,18.4s							
GERES	**GERESS Array B**	**57.99**	**309**	P		**P**	**00 52 23.2**	**-0.4**
	comp=E,0.7nm,0.8s,baz=28,slow=9.6,SNR=4.4							
	comp=E,0.7nm,0.8s							
MOTA	**Moosalm**	**60.29**	**309**	*e*pP		**P**	**00 52 41.2**	**+1.6**
	comp=E,2.1nm,0.7s							
SQTA	**Sankt Quirin**	**60.32**	**309**	*e*pP		**P**	**00 52 41.4**	**+1.6**
	comp=E,1.2nm,0.4s							
FETA	**Feichten**	**60.70**	**309**	*e*pP		**P**	**00 52 43.8**	**+1.4**
	comp=E,0.8nm,0.4s							
DAVA	**Damuels**	**60.95**	**310**	*e*pP		**P**	**00 52 45.6**	**+1.5**
	comp=E,3.5nm,0.7s							
EKA	**Eskdalemuir Ar**	**61.13**	**323**	P		**P**	**00 52 44.9**	**-0.2**
	comp=E,1.1nm,0.7s,baz=49,slow=5.7,SNR=1.9							
	comp=E,1.1nm,0.7s							
YKA	**Yellowknife Ar**	**62.97**	**21**	P		**P**	**00 52 58.4**	**+1.2**
	comp=E,1.1nm,0.7s,baz=332,slow=7.7,SNR=3.9							
	comp=E,1.1nm,0.7s							
WRA	**Warramunga Arr**	**72.80**	**155**	P		**P**	**00 54 00.1**	**+0.6**
	comp=E,2.2nm,0.8s,baz=347,slow=6.3,SNR=12							
	comp=E,2.2nm,0.8s							
WRA	**Warramunga Arr**	**72.80**	**155**	P		**P**	**00 53 59.7**	**+0.1**
WR8	**Warramunga Arr**	**72.86**	**155**	P		**P**	**00 54 00.1**	**+0.2**
ESDC	**Sonseca Array**	**73.35**	**312**	P		**P**	**00 54 02.9**	**0.0**
	comp=E,1.9nm,0.9s,baz=43,slow=6.5,SNR=7.5							
	comp=E,1.9nm,0.9s							
HNR	**Honiara**	**73.66**	**127**	LR		LR	01 24 40.1	
	comp=E,20nm,19.1s,baz=120,slow=34							
NEW	**Newport**	**74.66**	**30**	LR		LR	01 29 48.7	
	comp=E,116nm,19.4s,baz=56,slow=38							
AS31	**Alice Springs**	**76.23**	**157**	P		**P**	**00 54 19.8**	**+0.4**
ASAR	**Alice Springs**	**76.23**	**157**	P		**P**	**00 54 20.8**	**+1.3**
	comp=E,2.1nm,0.8s,baz=350,slow=5.4,SNR=20							
	comp=E,2.1nm,0.8s							
ASAR	**Alice Springs**	**76.23**	**157**	P		**P**	**00 54 20.6**	**+1.1**
PDAR	**Pinedale Array**	**81.95**	**28**	P		**P**	**00 54 51.9**	**+0.9**
	comp=E,0.4nm,0.9s,baz=16,slow=8.1,SNR=2.8							
	comp=E,0.4nm,0.9s							
PDAR	**Pinedale Array**	**81.95**	**28**	P		**P**	**00 54 52.1**	**+1.0**
NVAR	**Mina Array Bea**	**82.85**	**36**	P		**P**	**00 54 57.9**	**+2.1**
	comp=E,0.9nm,0.7s,baz=309,slow=4.0,SNR=5.3							
	comp=E,0.9nm,0.7s							
NVAR	**Mina Array Bea**	**82.85**	**36**	P		**P**	**00 54 57.4**	**+1.7**
TORD	**Torodi Ar. Bea**	**91.01**	**292**	P		**P**	**00 55 34.8**	**-0.8**
	comp=E,0.8nm,0.7s,baz=17,slow=3.9,SNR=4.7							
	comp=E,0.8nm,0.7s							
QSPA	**South Pole Qui**	**139.38**	**180**	PKP		**PKPdf**	**01 01 56.0**	**-1.0**
	comp=E,0.5nm,0.3s,baz=329,slow=4.1,SNR=8.4							
LPAZ	**La Paz**	**146.67**	**355**	PKPbc		**PKPab**	**01 02 13.6**	**-1.2**
	comp=E,2.0nm,0.8s,baz=345,slow=2.0,SNR=9.5							

SOME ***05*** *00:43:21.8, 39.50N×76.83E, h5km*
NNC ***05*** *00:43:23.6±1.1, 39.53N×76.91E, h0km, mb4.2, mpv3.8, Error ellipse: s-maj=7.4km s-min=4.9km az=161.0*
KRNET ***05*** *00:43:23.8±0.1, 39.49N×76.93E, mb3.8*
ISC 05 00:43:28.5±1.6**, 39.63N**±0.07×**76.80E**±0.04**, h10**km**, n55,**
σ2≥28/83, 22C-10D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
NRN	**Naryn**	**1.90**	**342**	⇑*e*P		**Pb**	**00 44 02.0**	**-1.5**
NRN				⇑*i*S		**Sg**	**00 44 29.8**	**0.0**
TARG	**Taragay, Kyrgy**	**2.24**	**20**	⇑*e*P		**Pn**	**00 44 05.9**	**-0.1**
TARG				⇑*i*S		**Sb**	**00 44 36.5**	**-0.7**
SFK	**Sufi-Kurgan**	**2.56**	**280**	⇑*e*P		**Pn**	**00 44 10.8**	**+0.5**
SFK				⇑*i*S		**Sb**	**00 44 45.1**	**-1.3**
SALK	**Salom-Alik**	**2.60**	**300**	⇑*e*P		**Pn**	**00 44 11.6**	**+0.8**
SALK				⇑*e*S		**Sb**	**00 44 46.6**	**-0.8**
ULHL	**Ulahol**	**2.65**	**351**	P		**Pb**	**00 44 15.0**	**-1.2**
	SNR=62							
ULHL	**Ulahol**	**2.65**	**351**	⇓*i*P		**Pn**	**00 44 12.4**	**+0.9**
ULHL				⇓*i*S		**Sb**	**00 44 47.7**	**-1.2**
BOOM	**Boomskoye usch**	**2.93**	**348**	⇑*i*P		**Pn**	**00 44 16.3**	**+0.9**
BOOM				⇑*i*S		**Sb**	**00 44 54.4**	**-2.6**
PRZ	**Przheval'sk**	**3.10**	**23**	⇑*e*P		**Pn**	**00 44 17.6**	**-0.1**
PRZ				⇑*e*S		**Sn**	**00 44 57.5**	**+2.6**
UCH	**Uchtor**	**3.12**	**327**	P		**Pb**	**00 44 24.7**	**+0.3**
	SNR=11							
ANVS	**Anan'yevo**	**3.22**	**12**	⇑*e*P		**Pn**	**00 44 19.9**	**+0.6**
ANVS				⇑*e*S		**Sn**	**00 45 00.5**	**+2.6**
KBK	**Karagaybulak**	**3.33**	**336**	P		**Pb**	**00 44 29.3**	**+1.5**
	SNR=9.1							
ARSB	**Arslanbob**	**3.37**	**301**	⇓*e*P		**Pn**	**00 44 22.6**	**+1.3**
ARSB				⇓*e*S		**Sb**	**00 45 05.2**	**-4.2**
TNSS	**Tian-Shan**	**3.41**	**2**	Pg		**Pb**	**00 44 27.5**	**-1.8**
	11nm,0.3s							
TNSS				Lg		Lg	00 45 16.1	
	11nm,0.4s							
TNSS	**Tian-Shan**	**3.41**	**2**	*e*P		**Pb**	**00 44 27.5**	**-1.8**
	11nm,0.3s							
TNSS				*e*S		**Sg**	**00 45 15.1**	**-3.0**
	11nm,0.4s							
TKM2	**Tokmak 2**	**3.41**	**345**	P		**Pn**	**00 44 24.2**	**+2.2**
	SNR=21							
TKM2	**Tokmak 2**	**3.41**	**345**	⇓*i*P		**Pn**	**00 44 23.0**	**+1.0**
TKM2				⇓*i*S		**Sn**	**00 45 06.1**	**+3.5**
KST	**Kastek**	**3.47**	**350**	Pg		**Pb**	**00 44 28.8**	**-1.4**
	5.4nm,0.4s							
KST				Lg		Lg	00 45 17.9	
	58nm,0.4s							
KST	**Kastek**	**3.47**	**350**	*e*P		**Pb**	**00 44 28.8**	**-1.4**
	5.4nm,0.4s							
KST				*e*S		**Sg**	**00 45 17.9**	**-2.0**
	58nm,0.4s							
AAK	**Ala-Archa**	**3.47**	**331**	P		**Pb**	**00 44 31.8**	**+1.5**
	SNR=8.0							
AAK	**Ala-Archa**	**3.47**	**331**	⇑Pg		**Pb**	**00 44 29.7**	**-0.5**
	13nm,0.9s							
AAK				⇓Lg		Lg	00 45 18.9	
	30nm,0.7s							
MTBS	**Maitube**	**3.51**	**356**	Pg		**Pb**	**00 44 29.2**	**-1.6**
	15nm,0.4s							
MTBS				Lg		Lg	00 45 18.4	
	44nm,0.3s							
MTBS	**Maitube**	**3.51**	**356**	*e*P		**Pb**	**00 44 29.2**	**-1.6**
	15nm,0.4s							
MTBS				*e*S		**Sg**	**00 45 18.4**	**-2.9**
	44nm,0.3s							
MDOK	**Medeo**	**3.54**	**3**	Pg		**Pb**	**00 44 29.8**	**-1.5**
	45nm,0.4s							
MDOK				Lg		Lg	00 45 18.4	
	40nm,0.5s							
MDOK	**Medeo**	**3.54**	**3**	*e*P		**Pb**	**00 44 29.4**	**-1.9**
	45nm,0.4s							
MDOK				*e*S		**Sg**	**00 45 18.4**	**-3.8**
	40nm,0.5s							
KNDC	**Almaty**	**3.59**	**2**	⇓Pg		**Pb**	**00 44 31.4**	**-0.8**
	45nm,0.7s							
KNDC				⇑Lg		Lg	00 45 21.6	
	137nm,0.8s							
SATY	**Saty**	**3.64**	**19**	Pg		**Pb**	**00 44 30.6**	**-2.4**
	18nm,0.4s							
SATY				Lg		Lg	00 45 20.6	
	60nm,0.4s							
SATY	**Saty**	**3.64**	**19**	*e*P		**Pb**	**00 44 30.6**	**-2.4**
	18nm,0.4s							
SATY				*e*S		**Sg**	**00 45 20.6**	**-4.7**
	60nm,0.4s							
CHMS	**Chumysh**	**3.70**	**336**	P		**Pb**	**00 44 32.7**	**-1.3**
	SNR=6.4							
DRK	**Karamyk**	**3.86**	**269**	⇑*e*P		**Pn**	**00 44 28.2**	**-0.1**
DRK				⇑*e*S		**Sn**	**00 45 15.5**	**+1.6**
UZB	**Uzynbulak**	**3.90**	**25**	Pg		**Pb**	**00 44 35.6**	**-1.8**
	26nm,0.4s							
UZB				Lg		Lg	00 45 29.4	
	24nm,0.4s							
UZB	**Uzynbulak**	**3.90**	**25**	*e*P		**Pb**	**00 44 35.6**	**-1.8**
	26nm,0.4s							
UZB				*e*S		**Sg**	**00 45 29.4**	**-4.2**
	24nm,0.4s							
KURS	**Kuram**	**3.99**	**15**	Pg		**Pb**	**00 44 39.7**	**+0.7**
	17nm,0.5s							
KURS				Lg		Lg	00 45 35.4	
	12nm,0.5s							
KURS	**Kuram**	**3.99**	**15**	*e*P		**Pb**	**00 44 39.7**	**+0.7**
	17nm,0.5s							
KURS				*e*S		**Sg**	**00 45 35.4**	**-1.4**
	12nm,0.5s							
SHLS	**Shalkode**	**4.06**	**29**	Pg		**Pb**	**00 44 41.2**	**+1.1**
	8.8nm,0.3s							
SHLS				Lg		Lg	00 45 39.0	
	41nm,0.4s							
KTBS	**Karatobe**	**4.08**	**359**	Pg		**Pb**	**00 44 41.4**	**+0.9**
	0.3nm,0.2s							
KTBS				Lg		Lg	00 45 39.0	
	30nm,0.4s							
KTBS	**Karatobe**	**4.08**	**359**	*e*P		**Pb**	**00 44 41.5**	**+0.9**
	0.3nm,0.2s							
KTBS				*e*S		**Sg**	**00 45 39.0**	**-0

	6.2nm,0.2s							
IUG				Lg	Lg	00 46 26.7		
	53nm,0.5s							
IUG	**luzhnay**	**5.71**	**298**	*e*P	**Pb**	**00 45 09.6**	**+1.3**	
	6.2nm,0.2s							
IUG				*e*S	**Sg**	**00 46 26.7**	**-5.1**	
	53nm,0.5s							
KK31	**Karatay Array**	**5.87**	**308**	⇓Pg	**Pb**	**00 45 13.9**	**+3.0**	
	1.3nm,0.4s,baz=136,slow=14,SNR=9.3							
KK31				⇓Lg	Lg	00 46 32.0		
	5.8nm,0.5s,baz=125,slow=29,SNR=9.4							
BRLS	**Borolday**	**6.24**	**305**	Pg	**Pb**	**00 45 19.2**	**+1.9**	
	2.0nm,0.5s							
BRLS				Lg	Lg	00 46 43.6		
	8.8nm,0.5s							
BRLS	**Borolday**	**6.24**	**305**	*e*P	**Pb**	**00 45 19.2**	**+1.9**	
	2.0nm,0.5s							
BRLS				*e*S	**Sg**	**00 46 43.6**	**-5.3**	
	8.8nm,0.5s							

*AEIC **05** 02:32:09.2±1.3,53.39N±0.09×160.10W±0.1,h25km±9km,*
Error ellipse: s-maj=14.0km s-min=7.9km az=146.0
NEIC 05 02:32:10.6±2.1,53.62N±0.04×160.11W±0.0,h25km±9km,
ML2.9/8,ML2.9(AEIC),Error ellipse: s-maj=6.5km
s-min=5.6km az=60.0,South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**1.24**	**14**				Pn	02 32 32.2	-0.1
CNBA							Sb	02 32 49.2	+0.3
SDPT	**Sand Point**	**1.75**	**353**				Pn	02 32 39.3	+0.1
SDPT							Sb	02 33 02.2	-1.2
SDPT				IAML				02 33 34.6	
	comp=N,102nm,0.3s								
DOL	**Dolgoi Island**	**1.84**	**327**				Pn	02 32 41.0	+0.4
DOL							Sb	02 33 05.5	-0.7
DT1	**Dutton Round H**	**1.96**	**320**				Pn	02 32 42.7	+0.6
DT1							Sb	02 33 08.4	-1.1
DTNA	**Dutton South F**	**1.98**	**322**				Pn	02 32 43.5	+1.0
DTNA							Sb	02 33 09.4	-0.7
PS4A	**Pavlof South-4**	**2.01**	**330**				Pn	02 32 43.2	+0.4
PS1A	**Pavlof South-1**	**2.04**	**333**				Pn	02 32 44.4	+1.1
PS1A							Sb	02 33 11.8	0.0
PN7A	**Pavlof North-7**	**2.12**	**330**				Pn	02 32 45.4	+0.9
PN7A							Pb	02 32 45.6	-2.8
PN7A							Sb	02 33 14.9	+0.6
S12K	**Black Hills**	**2.38**	**332**				Pn	02 32 47.9	0.0
S12K				IAML				02 33 21.8	
	comp=N,87nm,0.5s								
ISLZ	**Isanotski Laza**	**2.39**	**299**				Pn	02 32 47.5	-0.6
ISLZ							Sn	02 33 17.3	+0.7
ISNN	**Isanotski Nort**	**2.47**	**301**				Pn	02 32 49.4	+0.2
ISNN							Pb	02 32 49.7	-4.6
ISNN							Sn	02 33 19.7	+1.1
SSLS	**Shishaldin Sou**	**2.53**	**297**				Pn	02 32 50.0	-0.1
SSLS							Sn	02 33 20.8	+0.6
SSLN	**Shishaldin Nor**	**2.58**	**299**				Pn	02 32 50.5	-0.2
SSBA	**Shishaldin**	**2.63**	**298**				Pn	02 32 50.9	-0.5
WESP	**Westdahl Peak**	**2.85**	**290**				Pn	02 32 53.8	-0.7
AKBBA	**Akutan Broad B**	**3.48**	**280**				Pn	02 33 02.4	-0.7
UNV	**Unalaska Valle**	**3.80**	**276**				Pn	02 33 05.5	-2.0
MNAT	**Makushin Natee**	**3.91**	**277**				Pn	02 33 07.5	-1.5
MSW	**Makushin Switc**	**3.97**	**277**				Pn	02 33 08.6	-1.2

*NEIC **05** 02:37:02.8±1.2,10.56N±0.06×126.6E±0.1,h10km±1km,*
mb4.5/11,Error ellipse: s-maj=22.4km s-min=7.9km
az=73.0
*MAN **05** 02:37:09.0,10.23N×125.85E,h24km,MS3.9*
*IDC **05** 02:37:18.0±3.3,10.19N×125.99E,h143km±31km,mb3.4/7,*
mbtmp3.9/8,MS3.1/3,Error ellipse: s-maj=40.9km
s-min=16.2km az=61.0
ISC 05 02:37:03.5±1.3,10.31N±0.04×126.11E±0.05,h14km±8km,
n49,σ1s80/59,mb4.1/14,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SCPH	**Surigao**	**0.80**	**230**	*i* P			**Pn**	**02 37 21.8**	**+1.5**
SCPH				*i* S			**Sg**	**02 37 23.9**	**-5.7**
TSSP	**Tandag City**	**1.26**	**176**	*e*P			**Pg**	**02 37 30.6**	**+2.9**
TSSP				*e*S			**Sg**	**02 37 48.7**	**+4.5**
PLP	**Palo**	**1.40**	**308**	*e*P			**Pg**	**02 37 31.5**	**+1.0**
PLP				*e*S			**Sg**	**02 37 49.0**	**+0.3**
LLP	**Lapu-Lapu**	**2.10**	**271**	*e*P			**Pb**	**02 37 40.9**	**-0.5**
LLP				*i* S			**Sn**	**02 38 04.0**	**-0.3**
BIPH	**Bislig**	**2.12**	**173**	*e*P			**Pg**	**02 37 42.1**	**-2.2**
BIPH				*i* S			**Sg**	**02 38 09.7**	**-2.2**
TBP	**Tagbilaran**	**2.29**	**255**	*e*P			**Pb**	**02 37 43.6**	**-1.0**
TBP				*i* S			**Sn**	**02 38 09.0**	**+0.1**
CGP	**Cagayan de Oro**	**2.31**	**217**	*e*P			**Pb**	**02 37 43.3**	**-1.6**
CGP				*i* S			**Sn**	**02 38 09.6**	**+0.3**
CDOP	**Cateel, Davao**	**2.53**	**172**	*i* P			**Pb**	**02 37 47.9**	**-0.7**
CDOP				*i* S			**Sg**	**02 38 21.3**	**-3.5**
BUKP	**Musuan**	**2.62**	**203**	*e*P			**Pb**	**02 37 49.7**	**-0.6**
BUKP				*i* S			**Sb**	**02 38 20.7**	**-1.7**
LSIP	**Lazi, Siquijor**	**2.70**	**245**	*i* P			**Pn**	**02 37 48.5**	**+2.0**
LSIP				*e*S			**Sn**	**02 38 18.0**	**-1.1**
SNPH	**Sibulan**	**2.98**	**252**	*e*P			**Pn**	**02 37 53.3**	**+2.8**
SNPH				*e*S			**Sn**	**02 38 26.0**	**-0.2**
DCPH	**Dipolog City**	**3.21**	**238**	*i* P			**Pn**	**02 37 56.1**	**+2.6**
DCPH				*i* S			**Sn**	**02 38 30.6**	**-1.0**
DAV	**Davao City (W)**	**3.26**	**189**	P			**Pg**	**02 38 07.7**	**+1.7**
	193nm,0.5s,baz=232,slow=22,SNR=4.8								
DAV				S			**Sb**	**02 38 40.0**	**-0.6**
	294nm,0.3s,baz=288,slow=19,SNR=4.2								
DAV				LR		LR		02 39 48.2	
	comp=Z,241nm,18.5s,baz=5.5,slow=48								
DAV	**Davao City (W)**	**3.26**	**189**				**Pb**	**02 37 59.9**	**-1.2**
KCP	**Kidapawan**	**3.42**	**197**	*e*P			**Pb**	**02 38 03.6**	**-0.4**
KCP				*i* S			**Sb**	**02 38 44.4**	**-1.2**
DDMP	**Don Marcelino,**	**4.19**	**185**	*e*P			Pb	02 38 12.1	-5.0
DDMP				*e*S			**Sn**	**02 38 57.8**	**+2.0**
BBJI	**Bungbulang**	**25.48**	**227**	P			**P**	**02 42 35.5**	**+4.0**
BBJI				IAmb		IAmb		02 43 04.6	
	comp=Z,22nm,1.4s								
CMAR	**Chiang Mai Arr**	**27.50**	**290**	P			**P**	**02 42 50.3**	**+0.5**
	comp=Z,1.3nm,0.4s,baz=106,slow=6.8,SNR=8.1								
	comp=Z,1.3nm,0.4s								
CMAR	**Chiang Mai Arr**	**27.50**	**290**	P			**P**	**02 42 51.5**	**+1.7**
FITZ	**Fitzroy Crossi**	**28.23**	**181**	P			**P**	**02 42 56.7**	**+0.6**
WB0	**Warramunga Arr**	**30.98**	**165**	P			**P**	**02 43 30.3**	**-0.3**
WB0				IAmb		IAmb		02 43 52.4	
	comp=Z,9.2nm,1.4s								
WRA	**Warramunga Arr**	**31.13**	**165**	P			**P**	**02 43 21.1**	**-0.8**
	comp=Z,0.4nm,0.5s,baz=343,slow=9.4,SNR=6.2								
WRA				PcP			**PcP**	**02 46 16.1**	**-1.1**
	comp=Z,0.1nm,0.3s,baz=342,slow=3.3,SNR=2.1								
	comp=Z,0.4nm,0.5s								
WRA	**Warramunga Arr**	**31.13**	**165**	P			**P**	**02 43 22.0**	**+0.1**
WR8	**Warramunga Arr**	**31.18**	**165**	P			**P**	**02 43 21.9**	**-0.5**
WR8				IAmb		IAmb		02 43 35.6	
	comp=Z,3.1nm,1.0s								
ASAR	**Alice Springs**	**34.61**	**167**	P			**P**	**02 43 52.5**	**+0.1**
	comp=Z,0.5nm,0.3s,baz=351,slow=7.0,SNR=14								
ASAR				PcP			**PcP**	**02 46 26.3**	**-0.5**
	comp=Z,0.3nm,0.6s,baz=331,slow=2.9,SNR=1.9								
	comp=Z,0.5nm,0.3s								
ASAR	**Alice Springs**	**34.61**	**167**	P			**P**	**02 43 51.3**	**-1.1**
ASAR							**PcP**	**02 46 25.9**	**-0.9**
BRDH	**Bariadhala**	**35.16**	**295**	LR			LR	02 58 36.7	
	comp=Z,39nm,21.7s,baz=342,slow=36								
HNR	**Honiara**	**38.97**	**119**	LR			LR	02 57 19.7	
	comp=Z,36nm,21.0s,baz=43,slow=31								
H11S3	**WAKE ISLAND Hy**	**40.07**	**74**	T			T	03 27 49.5	
	baz=263,slow=74,SNR=8.9								
H11S1	**WAKE ISLAND Hy**	**40.08**	**74**	T			T	03 28 14.6	
	baz=263,SNR=4.2								
H11S2	**WAKE ISLAND Hy**	**40.08**	**74**	T			T	03 27 39.2	
	baz=263,slow=74,SNR=6.1								
H11N1	**WAKE ISLAND Hy**	**40.40**	**72**	T			T	03 28 07.3	
	baz=265,slow=74,SNR=8.0								
H11N2	**WAKE ISLAND Hy**	**40.41**	**72**	T			T	03 28 06.3	
	baz=265,slow=74,SNR=7.4								
H11N3	**WAKE ISLAND Hy**	**40.42**	**72**	T			T	03 28 12.1	
	baz=265,slow=74,SNR=10								
NWAO	**Narrogin (SRO)**	**43.81**	**191**	P			**P**	**02 45 10.4**	**+1.3**
NWAO				IAmb		IAmb		02 45 43.7	
	comp=Z,29nm,1.3s								
BBOO	**Buckleboo**	**43.91**	**168**	P			**P**	**02 45 10.3**	**+0.4**
BBOO				IAmb		IAmb		02 45 53.2	
	comp=Z,31nm,1.4s								
PEA0B	**Petropavlovsk-**	**49.67**	**24**	P			**P**	**02 45 51.5**	**-3.3**

MKAR	**Makanchi Array**	**51.90**	**323**	P		**P**	**02 46 12.9**	**+1.2**
	comp=Z,0.7nm,0.7s,baz=124,slow=7.5,SNR=6.2							
	comp=Z,0.7nm,0.7s							
MKAR	**Makanchi Array**	**51.90**	**323**	P		**P**	**02 46 12.0**	**+0.2**
MKAR				PcP		**PcP**	**02 47 22.8**	**-1.6**
PDGK	**Podgornoye**	**52.06**	**318**	P		**P**	**02 46 13.3**	**+0.2**
KAAM	**Kaadhehdhoo**	**53.69**	**263**	P		**P**	**02 46 27.7**	**+2.3**
KURK	**Kurchatov**	**55.95**	**326**	P		**P**	**02 46 40.9**	**-0.2**
KURK				IAmb		IAmb	02 46 42.5	
	comp=Z,2.1nm,0.8s							
KURBB	**Kurchatov Arra**	**55.95**	**325**	P		**P**	**02 46 40.4**	**-0.8**
	comp=Z,0.8nm,0.7s,baz=123,slow=7.3,SNR=2.6							
	comp=Z,0.8nm,0.7s							
AB31	**Akbulak array**	**66.74**	**319**	P		**P**	**02 47 53.9**	**-0.4**
AB31				IAmb		IAmb	02 48 19.9	
	comp=Z,2.9nm,1.4s							
ABKAR	**Akbulak array**	**66.74**	**319**	P		**P**	**02 47 54.6**	**+0.3**
ILAR	**Eielson Array**	**79.48**	**26**	P		**P**	**02 49 09.2**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=233,slow=4.9,SNR=6.9							
	comp=Z,0.6nm,0.8s							
ILAR	**Eielson Array**	**79.48**	**26**	P		**P**	**02 49 08.4**	**-0.9**
FINES	**FINESS Array B**	**85.78**	**332**	P		**P**	**02 49 40.5**	**-1.7**
	comp=Z,0.8nm,0.8s,baz=56,slow=6.1,SNR=4.3							
	comp=Z,0.8nm,0.8s							
FINES	**FINESS Array B**	**85.78**	**332**	P		**P**	**02 49 40.8**	**-1.4**

*SOME **05** 02:38:16.3,38.98N×70.88E,h15km*
*NNC **05** 02:38:21.4±3.1,39.14N×70.12E,h0km,mb4.3,mpv4.0,*
Error ellipse: s-maj=25.4km s-min=17.7km az=19.0
*IDC **05** 02:38:21.1±2.4,39.13N×70.46E,h0km,mb3.7/5,*
mbtmp3.7/7,ML3.2/1,Error ellipse: s-maj=55.9km
s-min=22.8km az=163.0
*KRNET **05** 02:38:24.1±0.1,39.30N×70.87E,h15km,mb3.8*
ISC 05 02:38:24.3±2.2,39.28N±0.08×70.87E±0.05,h0km±10km,
n40,σ2s01/56,mb3.6/4,28C-12D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**0.75**	**74**	⇑*e*P			**Pg**	**02 38 38.6**	**0.0**
DRK				⇑*i*S			**Sg**	**02 38 49.0**	**+0.7**
BTK	**Batken**	**0.78**	**357**	⇑*i*P			**Pg**	**02 38 38.6**	**-0.7**
BTK				⇑*i*S			**Sg**	**02 38 49.4**	**+0.1**
OHH	**Osh**	**1.93**	**49**	⇑*i*P			**Pn**	**02 38 59.7**	**+1.3**
OHH				⇑*e*S			**Sb**	**02 39 25.5**	**+0.6**
SFK	**Sufi-Kurgan**	**2.16**	**69**	⇑*i*P			**Pn**	**02 39 03.1**	**+1.4**
SFK				⇑*i*S			**Sb**	**02 39 31.7**	**-0.1**
ARSB	**Arslanbob**	**2.60**	**38**	⇑*e*P			**Pn**	**02 39 09.2**	**+1.4**
ARSB				⇑*i*S			**Sn**	**02 39 42.1**	**+2.0**
SALK	**Salom-Alik**	**2.77**	**54**	⇓*e*P			**Pn**	**02 39 11.5**	**+1.4**
SALK				⇓*e*S			**Sn**	**02 39 46.6**	**+2.3**
IUG	**luzhnay**	**2.94**	**348**	Pg			**Pn**	**02 39 16.0**	**+3.7**
	305nm,0.3s								
IUG				Lg		Lg		02 40 00.4	
	235nm,0.3s								
IUG	**luzhnay**	**2.94**	**348**	*e*P			**Pn**	**02 39 16.0**	**+3.7**
	305nm,0.3s								
IUG				*e*S			**Sg**	**02 40 00.5**	**+1.8**
	235nm,0.3s								
CHM	**Chimkent**	**3.19**	**343**	*e*P			**Pn**	**02 39 19.6**	**+3.9**
	48nm,0.1s								
CHM				*e*S			**Sg**	**02 40 06.1**	**-0.5**
	192nm,0.4s								
MNAS	**Manas**	**3.43**	**21**	⇑*e*P			**Pn**	**02 39 20.6**	**+1.4**
MNAS				⇑*e*S			**Sn**	**02 40 01.9**	**+1.2**
BRLS	**Borolday**	**3.83**	**349**	Pg			**Pn**	**02 39 26.0**	**+1.5**
	7.4nm,0.3s								
BRLS				Lg		Lg		02 40 17.2	
	34nm,0.4s								
BRLS	**Borolday**	**3.83**	**349**	*e*P			**Pn**	**02 39 26.0**	**+1.5**
	7.4nm,0.3s								
BRLS				*e*S			**Sb**	**02 40 17.2**	**-2.4**
	34nm,0.4s								
KK31	**Karatay Array**	**3.83**	**356**	⇓Pn			**Pn**	**02 39 25.2**	**+0.7**
	4.3nm,0.3s,baz=175,slow=12,SNR=159								
KK31				⇓Pg			**Pb**	**02 39 34.3**	**+1.6**
	11nm,0.3s,baz=176,slow=16,SNR=17								
KK31				⇑Lg			Lg	02 40 26.4	
	9.5nm,0.3s,baz=186,slow=30,SNR=4.5								
MRKS	**Merke**	**3.89**	**26**	Pg			**Pn**	**02 39 27.9**	**+2.4**
	9.5nm,0.4s								
MRKS				Lg			Lg	02 40 20.9	
	50nm,0.5s								
MRKS	**Merke**	**3.89**	**26**	*e*P			**Pb**	**02 39 31.8**	**-2.0**
	7.7nm,0.2s								
MRKS				*e*S			**Sg**	**02 40 26.9**	**-2.4**
	28nm,0.5s								
EKS2	**Erkin-Say**	**4.03**	**32**	⇓*e*P			**Pn**	**02 39 28.9**	**+1.5**
EKS2				⇓*e*S			**Sn**	**02 40 16.1**	**+0.8**
UCH	**Uchtor**	**4.04**	**42**	P			**Pn**	**02 39 30.9**	**+3.1**
	SNR=22								
UCH	**Uchtor**	**4.04**	**42**	⇑*e*P			**Pn**	**02 39 29.2**	**+1.4**
UCH				⇑*e*S			**Sn**	**02 40 17.0**	**+1.0**
AAK	**Ala-Archa**	**4.33**	**38**	P			**Pn**	**02 39 34.7**	**+3.2**
	SNR=17								
AAK	**Ala-Archa**	**4.33**	**38**	⇑Pn			**Pn**	**02 39 34.5**	**+3.0**
	8.8nm,0.7s								
AAK				⇑Pg			**Pg**	**02 39 47.6**	**+0.3**
	5.9nm,0.5s								
AAK				⇑Lg			Lg	02 40 53.9	
	27nm,1.1s								
AAK	**Ala-Archa**	**4.33**	**38**	*i* P			**Pn**	**02 39 33.3**	**+1.7**
AAK				*i* S			**Sn**	**02 40 23.6**	**+0.8**
NRN	**Naryn**	**4.47**	**60**	⇑*i*P			**Pn**	**02 39 34.9**	**+1.3**
NRN				⇑*i*S			**Sn**	**02 40 26.5**	**+0.1**
KBK	**Karagaybulak**	**4.57**	**41**	⇑*e*P			**Pn**	**02 39 36.4**	**+1.6**
KBK				⇑*e*S			**Sn**	**02 40 29.4**	**+0.7**
CHMS	**Chumysh**	**4.73**	**37**	Pg			Pn	02 39 19.6	-17
CHMS				Lg			Lg	02 40 06.1	
CHMS	**Chumysh**	**4.73**	**37**	⇑*i*P			**Pn**	**02 39 38.5**	**+1.6**
CHMS				⇑*e*S			**Sn**	**02 40 32.8**	**+0.3**
USP	**Ospenovka**	**4.83**	**33**	P			**Pn**	**02 39 40.8**	**+2.5**
	SNR=14								
USP	**Ospenovka**	**4.83**	**33**	⇓*i*P			**Pn**	**02 39 39.9**	**+1.6**
USP				⇓*i*S			**Sn**	**02 40 35.2**	**+0.3**
ULHL	**Ulahol**	**5.04**	**52**	P			**Pn**	**02 39 46.0**	**+4.7**
	SNR=6.4								
ULHL	**Ulahol**	**5.04**	**52**	⇑*e*P			**Pn**	**02 39 43.1**	**+1.8**
ULHL				⇑*e*S			**Sn**	**02 40 40.5**	**+0.2**
TKM2	**Tokmak 2**	**5.09**	**43**	P			**Pn**	**02 39 45.2**	**+3.2**
	SNR=20								
TKM2	**Tokmak 2**	**5.09**	**43**	⇓*e*P			**Pn**	**02 39 43.8**	**+1.7**
TKM2				⇓*e*S			**Sn**	**02 40 41.8**	**+0.1**
MKAR	**Makanchi Array**	**11.22**	**44**	Pn			**Pn**	**02 41 09.1**	**+3.1**
	0.6nm,0.6s,baz=233,slow=14,SNR=2.4								
AB31	**Akbulak array**	**12.67**	**325**	⇑Pn			Pn	02 41 20.9	-4.7
	1.1nm,0.5s,baz=152,slow=9.9,SNR=4.5								
AB31				⇑Sn			Sn	02 43 37.5	-10
	2.1nm,0.6s,baz=151,slow=22,SNR=7.4								
AKTO	**Aktyubinsk**	**14.38**	**325**	⇓Pn			Pn	02 41 46.2	-2.9
	2.9nm,0.9s								
AKTO				⇓Sn			Sn	02 44 19.8	-9.4
	3.5nm,1.1s								
ZALV	**Zalesovo Beam**	**17.47**	**28**	P			**Pn**	**02 42 27.6**	**-1.5**
	0.4nm,0.3s,baz=225,slow=12,SNR=5.4								
	0.6nm,0.3s								
ZALV						AML	AML		
KBZ	**Khabaz**	**21.37**	**291**	P		P		02 43 06.2	-7.0
	0.4nm,0.5s,baz=130,slow=7.9,SNR=1.3								
	0.4nm,0.5s								
SONM	**Songino Array**	**26.93**	**60**	P			**P**	**02 44 07.2**	**-0.1**
	0.5nm,0.7s,baz=253,slow=9.9,SNR=3.6								
	0.5nm,0.7s								
FINES	**FINESS Array B**	**35.15**	**324**	P			P	02 45 16.3	-3.1
	3.0nm,0.9s,baz=151,slow=4.4,SNR=4.5								
	3.0nm,0.9s								
ARCES	**ARCESS Array B**	**38.55**	**336**	P			**P**	**02 45 45.2**	**-3.0**
	2.3nm,0.9s,baz=116,slow=8.3,SNR=3.7								
	2.3nm,0.9s								
TORD	**Torodi Ar. Bea**	**65.72**	**267**	P			P	02 49 05.8	-5.3
	0.6nm,0.6s,baz=60,slow=6.3,SNR=3.0								
	0.6nm,0.6s								

*BJI **05** 03:01:28.7,49.64N×109.09E,h9km,mB5.2/28,mb4.8/63,*
ML4.9/3,Ms5.1/58,Ms7 4.8/58
*BYKL **05** 03:01:29.9±0.2,49.60N×108.92E,FELT I=III-IV MSK at*
Bichura; III at Zakamensk, Ulan-Ude.
*IDC **05** 03:01:30.0±0.4,49.56N×108.93E,h0km,mb4.6/26,*
mbtmp4.5/35,ML4.2/7,MS4.3/69,Error ellipse:
s-maj=9.2km s-min=7.4km az=18.0
*NEIC **05** 03:01:30.8±1.0,49.62N±0.05×108.92E±0.07,h4km±3km,*
mb4.9/216,Error ellipse: s-maj=7.3km s-min=6.2km
az=198.0
*MOS **05** 03:01:30.5±0.9,49.62N×108.93E,h14km,mb5.0/60,*
MS4.4/18,Error ellipse: s-maj=5.6km s-min=3.9km
az=120.4
MOS Felt (III-IV) at Bichura; (III) at Zakamensk, Ulan-Ude.
*GCMT **05** 03:01:31.8±0.2,49.53N±0.02×108.94E±0.02,h12km,*
MW4.8/93,Moment Tensor Solution. s19,c23; s93,c140;
Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.22±.07;
Mθθ1.28±.07; Mϕϕ-2.51±.05; Mrθ-0.42±.19; Mθϕ0.68±.06;
Mϕr~0.00±.18; Best double couple: Mo2.18200×10^16
NP1:ϕs208.00000°,δ63.00000°,λ151.00000°. NP2:
ϕs312.00000°,δ64.00000°,λ30.00000°. Principal axes: T
1.7330, Plg39.0000°, Azm171.0000°; N 0.8870,
Plg51.0000°, Azm349.0000°; P -2.6300, Plg1.0000°,
Azm80.0000°; nsta1 refers to body waves, cutoff=40s.
nsta2 refers to surface waves, cutoff=50s. Triangular
moment-rate function
*GFZ **05** 03:01:32.4±0.1,50.50N±2.50×10.59E±.5,h10km,M5.2/60,*
mb4.8/60 Error ellipse: s-maj=6.4km s-min=4.6km
az=58.4,confirmed
*BGR **05** 03:01:35.7,49.36N×109.09E,h33km,mb4.9,Ms4.4*
ISC 05 03:01:31.3±0.7,49.59N±0.02×108.94E±0.02,h9km±4km,
n686,σ1s77/673,mb4.8/253,MS4.3/74,23C-27D,
Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ULN	**Ulaanbaatar**	**2.13**	**217**	P			**Pb**	**03 02 07.8**	**-2.4**
ULN				S			**Sb**	**03 02 37.2**	**+0.3**
ULN	**Ulaanbaatar**	**2.13**	**217**	⇑*i*Pg			**Pb**	**03 02 07.7**	**-2.5**
ULN				*e*				03 02 09.2	
ULN				max				03 02 11.0	
	12μm,1.0s								
ULN				*e*Sg			**Sb**	**03 02 36.3**	**-0.5**
ULN				Smax				03 02 43.8	
	6μm,3.2s								
ULN	**Ulaanbaatar**	**2.13**	**217**	PN			**Pn**	**03 02 07.4**	**+0.2**
ULN								03 02 36.8	
ULN	**Ulaanbaatar**	**2.13**	**217**				**Pn**	**03 02 07.5**	**+0.3**
ULN				Sn			**Sb**	**03 02 34.5**	**-2.4**
ULN	**Ulaanbaatar**	**2.13**	**217**	P			**Pb**	**03 02 07.7**	**-2.5**
ULN				S			**Sb**	**03 02 37.1**	**+0.3**
ULN				AML			AML		
ULN	**Ulaanbaatar**	**2.13**	**217**	P			**Pb**	**03 02 07.8**	**-2.4**
KPC	**Khapcheranga**	**2.23**	**86**	⇓*i*Pn			**Pn**	**03 02 08.4**	**-0.1**
KPC				*e*Pg			**Pb**	**03 02 11.2**	**-0.7**
KPC				Pmax				03 02 13.2	
	7μm,0.8s								
KPC				*e*PgPg			**PnPn**	**03 02 15.8**	**+0.1**
KPC				*e*Sn			**Sn**	**03 02 35.6**	**-0.7**
KPC				*e*Sg			**Sg**	**03 02 40.8**	**-2.3**
KPC				Smax				03 02 47.3	
	42μm,1.5s								
KPC				*e*SgSg			**SnSn**	**03 02 53.2**	**+6.2**
KPC	**Khapcheranga**	**2.23**	**86**	⇓*i*PN			**Pn**	**03 02 08.4**	**-0.1**
KPC				*e*				03 02 11.4	
KPC				*e*S			**Sn**	**03 02 35.7**	**-0.6**
KPC				*e*				03 02 41.2	
KPC				pmax		pmax			
	comp=Z,7μm,0.7s								
KPC				smax		smax			
	comp=N,33μm,1.4s								
HRMR	**Khuramsha**	**2.40**	**329**	*e*Pn			**Pn**	**03 02 10.2**	**-0.6**
HRMR				*e*Pg			**Pb**	**03 02 13.1**	**-1.5**
HRMR				Pmax				03 02 14.2	
	comp=N,10μm,1.1s								
HRMR				*e*PgPg			**PnPn**	**03 02 17.4**	**-0.7**
HRMR				*e*Sn			**Sn**	**03 02 38.7**	**-1.6**
HRMR				*e*Sg			**Sb**	**03 02 43.9**	**-0.4**
HRMR				Smax				03 02 47.3	
	comp=N,48μm,1.4s								
UUDB	**Ulan-Yde**	**2.42**	**341**	⇓*i*Pn			**Pn**	**03 02 11.2**	**+0.2**
UUDB				*e*Pg			**Pb**	**03 02 13.2**	**-1.8**
UUDB				Pmax				03 02 14.6	
	comp=N,10μm,0.9s								
UUDB				*e*Sg			**Sg**	**03 02 45.4**	**-3.6**
UUDB				Smax				03 02 47.1	
	comp=N,33μm,1.7s								
UUDB				*e*				03 02 56.1	
SONM	**Songino Array**	**2.44**	**225**	Pn			**Pn**	**03 02 11.6**	**+0.2**
	comp=N,1μm,0.3s,baz=44,slow=13,SNR=814								

TRG				*e*S	**Sn**	**03 03 06.9**	**-2.2**	
TRG				*e*		03 03 20.5		
TRG				pmax	pmax			
	comp=Z,2μm,1.1s							
TRG				smax	smax			
	comp=N,10μm,1.0s							
IVK	**Ivanovka**	**3.63**	**309**	*e*Pn	**Pn**	**03 02 26.7**	**-0.9**	
IVK				*e*Pg	**Pb**	**03 02 34.8**	**-0.8**	
IVK				Pmax		03 02 54.7		
	comp=N,1μm,0.9s							
IVK				*e*Sg	**Sg**	**03 03 22.1**	**-5.7**	
IVK				*e*		03 03 28.4		
IVK				max		03 03 29.7		
	comp=N,21μm,1.7s							
MXMB	**Maximikha**	**3.68**	**358**	*e*Pn	**Pn**	**03 02 28.4**	**+0.1**	
MXMB				*e*Pg	**Pb**	**03 02 35.3**	**-1.1**	
MXMB				*e*Sg	**Sg**	**03 03 23.9**	**-5.4**	
MXMB				*e*SgSg	**SbSb**	**03 03 31.6**	**+5.4**	
ZAK	**Zakamensk**	**3.74**	**284**	*e*Pn	**Pn**	**03 02 28.0**	**-1.2**	
ZAK				*e*Pg	**Pb**	**03 02 36.5**	**-1.0**	
ZAK				Pmax		03 02 42.5		
	comp=N,1μm,0.8s							
ZAK				*e*Sn	**Sn**	**03 03 10.6**	**-2.8**	
ZAK				*e*Sg	**Sb**	**03 03 25.1**	**+2.2**	
ZAK				*e*		03 03 33.7		
ZAK				max		03 03 34.2		
	comp=N,14μm,2.3s							
ZAK	**Zakamensk**	**3.74**	**284**	*e*PN	**Pn**	**03 02 28.2**	**-1.0**	
ZAK				*e*		03 02 36.6		
ZAK				*e*		03 03 26.3		
ZAK				pmax	pmax			
	comp=Z,1μm,0.8s							
ZAK				smax	smax			
	comp=N,14μm,1.7s							
CIT	**Chita**	**3.80**	**48**	*e*Pn	**Pn**	**03 02 29.7**	**-0.3**	
CIT				*e*Pg	**Pb**	**03 02 37.9**	**-0.6**	
CIT				Pmax		03 02 43.6		
	comp=N,1μm,0.8s							
CIT				*e*Sn	**Sn**	**03 03 13.1**	**-1.7**	
CIT				*e*Sg	**Sb**	**03 03 27.5**	**+2.8**	
CIT				Smax		03 03 34.4		
	comp=N,20μm,1.0s							
CIT				*e*		03 03 42.9		
CIT	**Chita**	**3.80**	**48**	*e*PN	**Pn**	**03 02 29.9**	**-0.1**	
CIT				*e*		03 02 39.2		
CIT				*e*		03 03 27.2		
CIT				pmax	pmax			
	comp=Z,1μm,0.8s							
CIT				smax	smax			
	comp=N,20μm,1.0s							
UZR	**Uzur**	**3.81**	**349**	*e*Pn	**Pn**	**03 02 29.6**	**-0.5**	
UZR				*e*		03 02 39.6		
UZR				max		03 02 40.6		
	comp=N,23nm,0.3s							
UZR				*e*Sg	**Sg**	**03 03 28.5**	**-5.1**	
UZR				Smax		03 03 38.5		
	comp=N,4μm,0.5s							
TLY	**Talaya**	**3.97**	**304**	Pn	**Pn**	**03 02 31.5**	**-0.7**	
	comp=N,19nm,0.3s,baz=130,slow=12,SNR=38							
TLY				Pg	**Pb**	**03 02 41.7**	**+0.3**	
	comp=N,69nm,0.3s,baz=123,slow=9.8,SNR=24							
TLY				Lg	Lg	03 03 32.3		
	comp=N,176nm,0.3s,baz=28,slow=20,SNR=29							
TLY				LR	LR	03 04 00.4		
	comp=N,2μm,21.9s,baz=126,slow=38							
	comp=N,39nm,0.3s							
TLY				AML	AML			
TLY	**Talaya**	**3.97**	**304**	P	**Pn**	**03 02 32.3**	**-0.1**	
TLY				S	**Sn**	**03 03 19.8**	**+0.8**	
TLY	**Talaya**	**3.97**	**304**	*e*Pn	**Pn**	**03 02 31.4**	**-0.9**	
TLY				*e*Pg	**Pb**	**03 02 41.4**	**0.0**	
TLY				Pmax		03 02 44.5		
	comp=N,1μm,1.5s							
TLY				*e*Sn	**Sn**	**03 03 16.0**	**-2.9**	
TLY				*e*Sg	**Sg**	**03 03 32.6**	**-6.1**	
TLY				Smax		03 03 42.1		
	comp=N,26μm,1.6s							
TLY	**Talaya**	**3.97**	**304**	*e*PN	**Pn**	**03 02 31.6**	**-0.7**	
TLY				*e*		03 02 41.7		
TLY				*e*		03 03 32.6		
TLY				pmax	pmax			
	comp=Z,183nm,0.8s							
TLY				smax	smax			
	comp=N,3μm,1.4s							
TLY	**Talaya**	**3.97**	**304**		**Pn**	**03 02 31.7**	**-0.6**	
TLY	**Talaya**	**3.97**	**304**	P	**Pn**	**03 02 32.0**	**-0.3**	
IRK	**Irkutsk**	**3.97**	**314**	*e*Pn	**Pn**	**03 02 31.9**	**-0.4**	
IRK				*e*Pg	**Pb**	**03 02 40.3**	**-1.1**	
IRK				Pmax		03 02 47.9		
	comp=N,941nm,0.5s							
IRK				*e*		03 03 17.5		
IRK				*e*Sg	**Sb**	**03 03 31.7**	**+2.2**	
IRK				Smax		03 03 37.2		
	comp=N,14μm,1.2s							
IRK	**Irkutsk**	**3.97**	**314**	*e*PN	**Pn**	**03 02 31.0**	**-1.3**	
IRK				*e*		03 02 42.7		
IRK				*e*S	**Sn**	**03 03 17.2**	**-1.8**	
IRK				*e*		03 03 32.8		
IRK				pmax	pmax			
	comp=Z,897nm,0.4s							
IRK				smax	smax			
	comp=N,14μm,1.4s							
SYVR	**Suvo**	**4.12**	**9**	*e*Pn	**Pn**	**03 02 34.5**	**+0.1**	
SYVR				*e*Pg	**Pb**	**03 02 43.9**	**-0.1**	
SYVR				Pmax		03 02 45.6		
	comp=N,1μm,1.1s							
SYVR				*e*Sn	**Sn**	**03 03 21.1**	**-1.6**	
SYVR				*e*Sg	**Sg**	**03 03 38.3**	**-5.3**	
SYVR				*e*		03 03 54.3		
SYVR				max		03 03 55.9		
	comp=N,13μm,1.8s							
SYVR				*e*		03 04 10.1		
SYVR	**Suvo**	**4.12**	**9**	*e*PN	**Pn**	**03 02 34.6**	**+0.1**	
SYVR				*e*		03 02 43.9		
SYVR				*e*		03 03 38.3		
SYVR				pmax	pmax			
	comp=Z,1μm,1.1s							
SYVR				smax	smax			
	comp=N,13μm,1.8s							
OGRR	**Ongureny**	**4.14**	**349**	*e*Pn	**Pn**	**03 02 34.5**	**-0.2**	
OGRR				*e*Pg	**Pb**	**03 02 43.8**	**-0.5**	
OGRR				Pmax		03 02 46.3		
	comp=N,1μm,1.1s							
OGRR				*e*Sn	**Sn**	**03 03 21.0**	**-2.2**	
OGRR				*e*Sg	**Sg**	**03 03 37.5**	**-6.7**	
OGRR				Smax		03 03 44.1		
	comp=N,3μm,0.9s							
OGRR	**Ongureny**	**4.14**	**349**	*e*PN	**Pn**	**03 02 34.2**	**-0.5**	
OGRR				*e*		03 02 44.6		
OGRR				*e*		03 03 37.5		
OGRR				pmax	pmax			
	comp=Z,1μm,1.7s							
OGRR				smax	smax			
	comp=N,3μm,1.8s							
ARS	**Arshan**	**4.75**	**302**	*e*Pn	**Pn**	**03 02 42.5**	**-0.6**	
ARS				*e*Pg	**Pb**	**03 02 55.4**	**+0.7**	
ARS				*e*		03 03 01.4		
ARS				max		03 03 05.7		
	comp=N,931nm,0.7s							
ARS				Smax		03 03 11.6		
	comp=N,20μm,1.4s							
ARS				*e*Sn	**Sn**	**03 03 35.7**	**-2.5**	
ARS				*e*Sg	**Sg**	**03 03 56.9**	**-6.8**	
ARS	**Arshan**	**4.75**	**302**	*e*PN	**Pn**	**03 02 42.5**	**-0.6**	
ARS				*e*		03 02 55.9		
ARS				*e*		03 03 57.0		
ARS				pmax	pmax			
	comp=Z,926nm,0.7s							
ARS				smax	smax			
	comp=N,20μm,1.4s							
YLYR	**Ulyunkhan**	**5.46**	**14**	⇓*i*Pn	**Pn**	**03 02 52.4**	**-0.4**	
YLYR				*e*Pg	**Pb**	**03 03 07.8**	**+1.0**	
YLYR				Pmax		03 03 08.9		
	comp=N,473nm,0.9s							
YLYR				*e*Sn	**Sn**	**03 03 52.3**	**-3.4**	
YLYR				*e*Sg	**Sg**	**03 04 19.8**	**-6.8**	
YLYR				Smax		03 04 25.3		
	comp=N,6μm,0.8s							
YLYR	**Ulyunkhan**	**5.46**	**14**	*e*PN	**Pn**	**03 02 52.5**	**-0.4**	
YLYR				*e*		03 03 07.9		
YLYR				*e*		03 04 20.2		
YLYR				pmax	pmax			
	comp=Z,474nm,0.7s							
YLYR				smax	smax			

	comp=N,6μm,0.7s							
MOY	**Mondy**	**5.47**	**295**	*e*	Pb	03 02 59.2	-7.8	
MOY				*e*Pg	Pg	03 03 07.9	-8.1	
MOY				Pmax		03 03 20.9		
	comp=N,537nm,1.0s							
MOY				*e*Sn	**Sn**	**03 03 51.5**	**-4.5**	
MOY				*e*Sg	**Sg**	**03 04 19.1**	**-7.7**	
MOY				*e*		03 04 42.3		
MOY				max		03 04 45.7		
	comp=N,20μm,1.5s							
NIZB	**Nizh Angarsk**	**6.20**	**3**	*e*Pn	**Pn**	**03 03 03.2**	**+0.3**	
NIZB				*e*Pg	**Pb**	**03 03 20.6**	**+1.3**	
NIZB				Pmax		03 03 31.6		
	comp=N,523nm,1.7s							
NIZB				*e*		03 03 39.4		
NIZB				*e*Sn	**Sn**	**03 04 10.0**	**-3.8**	
NIZB				*e*Sg	**Sg**	**03 04 42.2**	**-7.9**	
NIZB				Smax		03 05 10.2		
	comp=N,2μm,1.9s							
NIZB	**Nizh Angarsk**	**6.20**	**3**	*e*PN	**Pn**	**03 03 03.3**	**+0.3**	
NIZB				*e*		03 03 21.0		
NIZB				*e*		03 04 41.8		
NIZB				pmax	pmax			
	comp=Z,484nm,1.0s							
NIZB				smax	smax			
	comp=E,1μm,0.8s							
KMO	**Kumora**	**6.45**	**11**	*e*Pn	**Pn**	**03 03 06.3**	**-0.1**	
KMO				*e*Pg	**Pb**	**03 03 25.0**	**+1.4**	
KMO				Pmax		03 03 29.0		
	comp=E,482nm,0.6s							
KMO				*e*Sg	**Sg**	**03 04 49.9**	**-8.3**	
KMO				*e*		03 05 12.5		
KMO				max		03 05 16.7		
	comp=E,9μm,1.4s							
KMO	**Kumora**	**6.45**	**11**	*e*PN	**Pn**	**03 03 05.8**	**-0.6**	
KMO				*e*		03 03 25.2		
KMO				*e*S	**Sn**	**03 04 16.1**	**-3.9**	
KMO				*e*		03 04 49.6		
KMO				pmax	pmax			
	comp=Z,479nm,0.6s							
KMO				smax	smax			
	comp=N,8μm,1.2s							
ORL	**Orlik**	**6.47**	**301**	*e*PG	**Pb**	**03 03 26.6**	**+2.6**	
ORL				*e*		03 04 49.7		
ORL				pmax	pmax			
	comp=Z,528nm,1.5s							
ORL				smax	smax			
	comp=N,6μm,1.8s							
UKT	**Uakit**	**6.56**	**24**	*e*Pn	**Pn**	**03 03 07.5**	**-0.4**	
UKT				*e*Pg	**Pb**	**03 03 27.3**	**+1.8**	
UKT				Pmax		03 03 41.1		
	comp=N,263nm,1.1s							
UKT				*e*		03 04 32.6		
UKT				*e*Sg	Sg	03 04 52.9	-8.8	
UKT				Smax		03 05 13.0		
	comp=N,5μm,1.8s							
HILR	**Hailar Array B**	**7.03**	**86**	Pn	**Pn**	**03 03 13.5**	**-0.8**	
	baz=271,slow=13							
HILR				Pg	Pg	03 03 39.0	-6.9	
	baz=275,slow=16							
HILR				Sn	**Sn**	**03 04 35.6**	**+1.2**	
	baz=295,slow=18							
HILR				Lg	Lg	03 05 10.7		
	baz=270,slow=31							
HILR				LR	LR	03 06 18.3		
	comp=N,5μm,20.1s,baz=80,slow=41							
	comp=N,38nm,0.5s							
HIA	**Hailar**	**7.05**	**89**	*e*Pn	**Pn**	**03 03 13.5**	**-1.2**	
HIA				*e*		03 03 39.1		
HIA				max		03 03 41.7		
	comp=N,246nm,1.0s							
HIA				*e*Sn	**Sn**	**03 04 32.0**	**-2.9**	
HIA				*e*Sg	Sg	03 05 08.6	-8.9	
HIA				Smax		03 05 27.3		
	comp=N,6μm,1.4s							
HIA	**Hailar**	**7.05**	**89**	PN	**Pn**	**03 03 13.4**	**-1.2**	
HIA	**Hailar**	**7.05**	**89**		**Pn**	**03 03 13.4**	**-1.3**	
HIA	**Hailar**	**7.05**	**89**	P	**Pn**	**03 03 13.8**	**-0.8**	
	comp=Z,160nm,0.7s							
SVKR	**Severomuysk**	**7.11**	**21**	*e*Pg	Pb	03 03 38.7	+3.9	
SVKR				Pmax		03 03 47.9		
	comp=Z,279nm,0.4s							
SVKR				*e*Sn	**Sn**	**03 04 32.9**	**-3.3**	
SVKR				*e*Sg	**Sg**	**03 05 11.6**	**-7.6**	
SVKR				Smax		03 05 31.4		
	comp=Z,15μm,1.1s							
KNGR	**Kungurtug, Tuv**	**7.42**	**282**	PG	**Pb**	**03 03 43.0**	**+2.8**	
KNGR						03 05 24.5		
XLT	**XiLinHaoTe**	**7.51**	**137**	*e*Pn	**Pn**	**03 03 20.6**	**-0.4**	
XLT				Sn	**Sn**	**03 04 42.2**	**-4.1**	
XLT				Sg	**Sg**	**03 05 26.0**	**-6.3**	
XLT				AML	AML			
	comp=Z,59nm,0.6s							
XLT				AML	AML			
	comp=Z,550nm,0.7s							
NLYR	**Nelyaty**	**8.02**	**28**	*e*Pn	**Pn**	**03 03 27.5**	**-0.3**	
NLYR				*e*Pg	Pb	03 03 54.6	+4.3	
NLYR				Pmax		03 04 20.3		
	comp=Z,156nm,1.0s							
NLYR				*e*Sn	**Sn**	**03 04 54.1**	**-4.5**	
NLYR				*e*Sg	Sg	03 05 38.9	-9.5	
NLYR				Smax		03 05 58.4		
	comp=Z,13μm,2.0s							
NLYR				*e*		03 06 08.7		
TUP	**Tupik**	**8.34**	**50**	*e*Pn	**Pn**	**03 03 31.2**	**-1.0**	
TUP				*e*Pg	Pb	03 04 00.5	+4.8	
TUP				Pmax		03 04 06.1		
	comp=Z,117nm,0.8s							
TUP				*e*		03 04 58.2		
TUP				*e*Sg	Sg	03 05 48.5	-10	
TUP				Smax		03 06 07.9		
	comp=Z,6μm,1.4s							
TDJR	**Todzha**	**8.57**	**294**	PG	Pg	03 04 04.4	-11	
TDJR						03 06 00.6		
BOD	**Bodaibo**	**8.77**	**18**	*e*Pn	**Pn**	**03 03 37.7**	**-0.4**	
BOD				*e*Pg	Pg	03 04 07.9	-11	
BOD				Pmax		03 04 11.1		
	comp=Z,136nm,1.5s							
BOD				*e*		03 05 47.4		
BOD				*e*Sg	Sg	03 06 01.3	-11	
BOD				Smax		03 06 28.8		
	comp=Z,3μm,1.6s							
BTO2	**Baotou**	**8.87**	**175**	*e*P	**Pn**	**03 03 40.0**	**+0.3**	
HHC	**Hu-ho-hao-te**	**8.94**	**167**	*e*P	**Pn**	**03 03 40.6**	**0.0**	
HHC				S	**Sn**	**03 05 21.6**	**+0.3**	
HHC				pmax	pmax			
	comp=Z,69nm,1.0s							
HHC				pmax	pmax			
	comp=Z,180nm,3.8s							
HHC				L	L			
	comp=Z,8μm,8.4s							
HHC				L	L			
	comp=Z,7μm,6.7s							
HHC				L	L			
	comp=Z,8μm,8.0s							
BJI2	**Beijing**	**10.86**	**149**	P	**Pn**	**03 04 05.3**	**-1.5**	
BJI2				pmax	pmax			
	comp=Z,36nm,1.0s							
BJI2				L	L			
	comp=Z,6μm,7.9s							
BJI2				L	L			
	comp=Z,3μm,8.1s							
BJT	**Baijiatuan**	**10.86**	**149**	P	**Pn**	**03 04 05.5**	**-1.2**	
BJT	**Baijiatuan**	**10.86**	**149**		**Pn**	**03 04 05.5**	**-1.2**	
BJT	**Baijiatuan**	**10.86**	**149**	P	**Pn**	**03 04 05.7**	**-1.0**	
	comp=Z,116nm,1.3s							
HEH	**HeiHe**	**11.93**	**80**	*e*P	**Pn**	**03 04 19.6**	**-1.7**	
HEH				S	**Sn**	**03 06 30.4**	**-3.9**	
GTA2	**Gaotai**	**12.03**	**216**	P	**Pn**	**03 04 23.1**	**+0.1**	
GTA2				pP		03 04 29.9		
GTA2				pmax	pmax			
	comp=Z,120nm,1.0s							
GTA2				L	L			
	comp=Z,7μm,13.7s							
GTA2				L	L			
	comp=Z,11μm,11.7s							
GTA2				L	L			
	comp=Z,4μm,12.0s							
ZEA	**Zeya**	**12.09**	**63**	*e*P	**Pn**	**03 04 24.2**	**+0.6**	
ZEA				pmax	pmax			
	comp=E,100nm,0.6s							
ZEA				pmax	pmax			
	comp=Z,200nm,0.7s							
ZEA				pmax	pmax			
	comp=E,190nm,0.7s							

ZEA				pmax	pmax			
	comp=Z,310nm,0.7s							
ZEA				pmax	pmax			
	comp=N,70nm,0.8s							
ZEA				MLR	MLR			
	comp=N,4μm,5.0s							
ZEA				MLR	MLR			
	comp=E,9μm,5.0s							
ZEA				MLR	MLR			
	comp=Z,10μm,6.0s							
CN2	**Changchun**	**12.71**	**111**	*e*P	**Pn**	**03 04 28.8**	**-3.3**	
CN2				PP	**PnPn**	**03 04 38.7**	**-1.0**	
CN2				*e*S	**Sn**	**03 06 45.9**	**-7.8**	
CN2				pmax	pmax			
	comp=Z,10.0nm,0.6s							
CN2				pmax	pmax			
	comp=Z,100nm,3.0s							
CN2				L	L			
	comp=Z,2μm,10.0s							
CN2				L	L			
	comp=Z,4μm,10.0s							
CN2				L	L			
	comp=Z,5μm,10.3s							
HNS	**HongShan**	**12.88**	**159**	⇓P	**Pn**	**03 04 35.8**	**+1.4**	
HNS				pmax	pmax			
	comp=Z,45nm,1.5s							
HNS				L	L			
	comp=Z,3μm,9.8s							
HNS				L	L			
	comp=Z,7μm,11.1s							
HNS				L	L			
	comp=Z,3μm,11.2s							
BNX	**BinXian**	**13.02**	**100**	⇓P	**Pn**	**03 04 33.3**	**-3.0**	
LZH	**Lanzhou**	**14.00**	**197**	*e*P	**Pn**	**03 04 51.8**	**+1.9**	
LZH				sP	P	03 05 00.4	+2.4	
LZH				pmax	pmax			
	comp=Z,64nm,0.9s							
LZH				L	L			
	comp=Z,4μm,7.4s							
LZH				L	L			
	comp=Z,3μm,11.2s							
DL2	**Dalian**	**14.01**	**135**	P	**Pn**	**03 04 51.3**	**+1.5**	
DL2				S	**Sn**	**03 07 31.9**	**+6.7**	
DL2				pmax	pmax			
	comp=Z,64nm,1.1s							
DL2				pmax	pmax			
	comp=Z,310nm,5.7s							
DL2				L	L			
	comp=Z,5μm,14.1s							
DL2				L	L			
	comp=Z,8μm,12.6s							
DL2				L	L			
	comp=Z,2μm,10.9s							
LZDM	**Lanzhou Array**	**14.16**	**198**	Pn	**Pn**	**03 04 52.1**	**-0.1**	
	baz=17,slow=12							
LZDM				Sn	**Sn**	**03 07 29.9**	**+0.4**	
	baz=32,slow=14							
LZDM				LR	LR	03 10 51.7		
	comp=Z,779nm,18.3s,baz=5.0,slow=40							
	comp=Z,5.8nm,0.5s							
TIA	**Tai'an**	**14.64**	**153**	P	Pn	03 04 52.5	-6.0	
TIA				LR	LR			
	comp=N,2μm,9.6s							
TIA				LR	LR			
	comp=E,4μm,9.3s							
TIA				LR	LR			
	comp=Z,4μm,10.0s							
KLR	**Kul'dur**	**14.84**	**83**	Pn	**Pn**	**03 04 59.8**	**-1.4**	
	comp=Z,0.3nm,0.3s,baz=280,slow=11,SNR=11							
KLR				Lg	Lg	03 09 15.5		
	comp=Z,0.9nm,0.3s,baz=22,slow=8.7,SNR=6.2							
KLR				LR	LR	03 11 22.1		
	comp=Z,3μm,18.3s,baz=266,slow=40							
	comp=Z,10nm,1.0s							
KLR				AML	AML			
KLR	**Kul'dur**	**14.84**	**83**⇑	*e*P	**Pn**	**03 05 00.8**	**-0.4**	
KLR				MLR	MLR			
	comp=Z,4μm,9.0s							
MDJ	**Mudanjiang**	**14.90**	**102**	P	**Pn**	**03 05 02.7**	**+0.7**	
MDJ				pmax	pmax			
	comp=Z,17nm,1.4s							
LYN	**LuoYang**	**15.25**	**169**	P	**Pn**	**03 05 06.7**	**0.0**	
LYN				sP	sP	03 05 17.0	+1.0	
LYN				S	**Sn**	**03 08 02.7**	**+7.0**	
LYN				pmax	pmax			
	comp=Z,15nm,1.0s							
LYN				L	L			
	comp=Z,4μm,10.0s							
LYN				L	L			
	comp=Z,3μm,5.8s							
LYN				L	L			
	comp=Z,4μm,12.0s							
ZALV	**Zalesovo Beam**	**15.53**	**296**	Pn	**P**	**03 05 12.4**	**-2.2**	
	comp=Z,0.8nm,0.4s,baz=110,slow=12,SNR=2.1							
ZALV				Lg	Lg	03 09 31.2		
	comp=Z,0.3nm,0.3s,baz=91,slow=19,SNR=4.9							
ZALV				LR	LR	03 11 12.3		
	comp=Z,2μm,21.9s,baz=96,slow=38							
ZALV	**Zalesovo Beam**	**15.53**	**296**	Pn	**Pn**	**03 05 08.7**	**-1.5**	
XAN	**Xi'an**	**15.54**	**180**	P	**Pn**	**03 05 09.5**	**-1.1**	
XAN				S	**Sn**	**03 08 01.8**	**-1.0**	
XAN				pmax	pmax			
	comp=Z,65nm,1.6s							
XAN				L	L			
	comp=Z,4μm,9.1s							
XAN				L	L			
	comp=Z,3μm,8.8s							
XAN				L	L			
	comp=Z,3μm,15.1s							
WMQ	**Urumqi**	**15.65**	**256**	*e*P	**P**	**03 05 13.2**	**-3.0**	
WMQ				sP	sP	03 05 20.2	-0.3	
WMQ				PP	**pP**	**03 05 25.2**	**+6.1**	
WMQ				pmax	pmax			
	comp=Z,17nm,0.7s							
WMQ				pmax	pmax			
	comp=Z,310nm,4.9s							
WMQ				L	L			
	comp=Z,4μm,15.7s							
WMQ				L	L			
	comp=Z,5μm,12.3s							
WMQ				L	L			
	comp=Z,3μm,17.3s							
ZSN	**Zaisan**	**16.08**	**272**	*e*P	**Pn**	**03 05 16.9**	**-0.5**	
ZSN				*e*S	**Sn**	**03 08 15.9**	**+0.2**	
ZSN	**Zaisan**	**16.08**	**272**	*e*P	**Pn**	**03 05 17.0**	**-0.5**	
ZSN				*e*S	**Sn**	**03 08 15.9**	**+0.2**	
USA0B	**Ussuriysk Arra**	**16.62**	**100**⇑	*e*P	**P**	**03 05 26.7**	**-0.1**	
USA0B	**Ussuriysk Arra**	**16.62**	**100**	Pn	**Pn**	**03 05 24.2**	**-0.1**	
USRK	**Ussuriysk Ar.**	**16.62**	**100**	Pn	**P**	**03 05 25.1**	**-1.7**	
	comp=Z,0.3nm,0.3s,baz=316,slow=11,SNR=10.0							
USRK				Lg	Lg	03 10 04.6		
	comp=Z,0.3nm,0.3s,baz=105,slow=18,SNR=1.8							
USRK				LR	LR	03 12 30.8		
	comp=Z,3μm,18.4s,baz=298,slow=40							
	comp=Z,8.4nm,0.7s							
USRK				AML	AML			
USRK	**Ussuriysk Ar.**	**16.62**	**100**		**Pn**	**03 05 24.0**	**-0.3**	
GOMU	**GeErMu**	**16.88**	**223**	P	**P**	**03 05 27.8**	**-2.3**	
GOMU				pP	pP	03 05 32.0	-1.1	
GOMU				sP	sP	03 05 35.5	+1.0	
GOMU				pmax	pmax			
	comp=Z,30nm,0.8s							
GOMU				L	L			
	comp=Z,2μm,8.6s							
GOMU				L	L			
	comp=Z,4μm,8.3s							
GOMU				L	L			
	comp=Z,6μm,8.9s							
MSHR	**Mys Shultsa**	**16.89**	**106**	*e*P	**P**	**03 05 28.2**	**-1.6**	
MSHR				pmax	pmax			
	comp=Z,33nm,1.2s							
YAK	**Yakutsk**	**16.95**	**35**	Lg	Lg	03 10 13.9		
	comp=Z,3.5nm,0.3s,baz=150,slow=23,SNR=8.2							
YAK				LR	LR	03 12 08.5		
	comp=Z,1μm,19.3s,baz=228,slow=38							
YAK	**Yakutsk**	**16.95**	**35**	*e*P	**Pn**	**03 05 27.0**	**-1.4**	
YAK				*e*S	**Sn**	**03 08 35.8**	**-0.8**	
YAK				pmax	pmax			
	comp=Z,21nm,1.6s							
YAK				pmax	pmax			
	comp=N,13nm,1.4s							
YAK				pmax	pmax			
	comp=E,21nm,1.4s							
YAK				smax	smax			
	comp=N,1μm,5.6s							
YAK				smax	smax			
	comp=E,599nm,5.6s							

YAK MLR MLR
comp=N,839nm,20.0s
YAK MLR MLR
comp=E,987nm,21.0s
YAK MLR MLR
comp=Z,2µm,23.0s
GRNR Gornyy 17.60 76⇑ *i*P **P 03 05 40.5 +2.9**
GRNR pmax pmax
comp=Z,5.0nm,0.7s
GRNR MLR MLR
comp=N,2µm,17.0s
GRNR MLR MLR
comp=Z,6µm,18.0s
MK31 Makanchi Array 17.96 271*c i*P **P 03 05 41.4 -0.2**
MKAR Makanchi Array 17.96 271 P **P 03 05 40.6 -1.0**
comp=Z,0.3nm,0.3s,baz=84,slow=13,SNR=11
MKAR Lg Lg 03 10 52.0
comp=Z,0.1nm,0.3s,baz=68,slow=20,SNR=7.8
MKAR LR LR 03 12 39.6
comp=Z,3µm,18.6s,baz=62,slow=37
comp=Z,3.6nm,0.7s
MKAR AML AML
MKAR Makanchi Array 17.96 271 P 03 05 40.2 -1.4
MAKZ Makanchi 18.16 271 P **P 03 05 42.4 -1.4**
MAKZ pmax pmax
comp=Z,14nm,1.2s
MAKZ Makanchi 18.16 271 P **P 03 05 42.4 -1.4**
MAKZ Makanchi 18.16 271 P **P 03 05 42.5 -1.2**
comp=Z,12nm,1.0s
KS19 Wonju Array Si 18.22 124 P **P 03 05 45.0 +0.5**
KSAR Wonju Array Be 18.27 125 P **P 03 05 44.7 -0.4**
KSAR Wonju Array Be 18.27 125 P 03 05 44.7 -0.4
KSRS Korea Array 18.29 124 P **P 03 05 45.8 +0.6**
comp=Z,16nm,0.9s,baz=316,slow=12,SNR=31
KSRS Lg Lg 03 11 07.5
comp=Z,0.8nm,0.3s,baz=250,slow=33,SNR=4.6
KSRS LR LR 03 13 18.4
comp=Z,804nm,19.9s,baz=335,slow=39
SEM Semipalatinsk 18.42 284 *e*P **Pn 03 05 45.7 -1.1**
SEM MLR MLR
comp=Z,1µm,9.0s
SEM Semipalatinsk 18.42 284 *e*P **Pn 03 05 45.8 -1.1**
SEM LR LR 03 12 47.1
comp=Z,1µm,9.2s
TJN Taejon 18.80 128⇓ *e*P **Pn 03 05 51.5 +0.1**
NJ2 Nanjing 19.03 153 ⇑P **Pn 03 05 56.7 +2.6**
NJ2 pmax pmax
comp=Z,31nm,0.9s
NJ2 L L
comp=Z,1µm,10.1s
NJ2 L L
comp=Z,1µm,10.5s
NJ2 L L
comp=Z,1µm,10.8s
CD2 Chengdu 19.07 194 P **Pn 03 05 55.0 +0.3**
CD2 pP pP 03 05 57.5 +0.6
CD2 sP sP 03 05 59.5 +1.2
CD2 S **S 03 09 32.5 +2.2**
CD2 pmax pmax
comp=Z,70nm,0.9s
CD2 L L
comp=Z,2µm,9.4s
CD2 L L
comp=Z,3µm,11.4s
CD2 L L
comp=Z,2µm,10.0s
TEY Ternei 19.25 93⇑ *e*P **Pn 03 05 56.1 -0.6**
TEY pmax pmax
comp=N,10.0nm,1.3s
TEY pmax pmax
comp=Z,40nm,1.0s
TEY pmax pmax
comp=E,20nm,0.9s
ENH Enshi 19.30 179 P **Pn 03 05 57.8 +0.3**
comp=Z,47nm,1.3s
KURK Kurchatov 19.40 285 P **P 03 05 56.2 -1.2**
KURK Kurchatov 19.40 285 P **Pn 03 05 57.4 -1.1**
KURK Kurchatov 19.40 285 Pn 03 05 56.6 -1.9
KURK Kurchatov 19.40 285 P **Pn 03 05 56.9 -1.6**
comp=Z,10nm,2.3s
WHN Wuhan 19.46 166 P Pn 03 06 07.0 +7.7
WHN S S 03 09 51.2 +13
WHN LR LR
comp=N,4µm,12.5s
WHN LR LR
comp=E,3µm,7.5s
WHN LR LR
comp=Z,6µm,12.1s
KURBB Kurchatov Arra 19.47 285 P **Pn 03 05 57.4 -2.0**
comp=Z,0.5nm,0.3s,baz=81,slow=11,SNR=45
KURBB Lg Lg 03 11 49.6
baz=76,slow=32,SNR=9.3
KURBB LR LR 03 13 33.7
comp=Z,3µm,18.0s,baz=93,slow=37
comp=Z,7.6nm,0.5s
KURBB AML AML
SSE Sheshan 20.65 149 P Pn 03 06 11.8 -1.6
SSE pP sP 03 06 15.9 +0.5
SSE S Sn 03 10 03.8 -2.4
SSE pmax pmax
comp=Z,12nm,0.7s
SSE pmax pmax
comp=Z,74nm,3.7s
SSE L L
comp=Z,530nm,14.3s
TDK Taldyqorghan 21.13 269 *e*P **P 03 06 15.7 -0.5**
TDK MLR MLR
comp=Z,896nm,9.0s
TDK Taldyqorghan 21.13 269 *e*P **P 03 06 15.8 -0.5**
TDK LR LR 03 14 28.5
comp=Z,896nm,9.4s
PDGK Podgornoye 21.15 264 P **P 03 06 15.9 -0.6**
PDGK Podgornoye 21.15 264 P 03 06 15.9 -0.6
SHLS Shalkode 21.25 264 *e*P **P 03 06 13.9 -3.7**
SHLS pmax pmax
comp=Z,31nm,0.9s
SHLS Shalkode 21.25 264 *e*P **P 03 06 13.9 -3.7**
comp=Z,31nm,0.9s
TYV Tymovskoe 21.50 74 *e*P P 03 06 27.9 +7.8
TYV pmax pmax
comp=Z,31nm,1.2s
TYV pmax pmax
comp=Z,500nm,3.5s
UZB Uzynbulak 21.54 264 *e*P **P 03 06 19.8 -0.9**
UZB *e*S **S 03 10 19.3 -0.1**
UZB Uzynbulak 21.54 264 *e*P **P 03 06 19.8 -0.9**
UZB *e*S **S 03 10 19.4 -0.1**
SATY Saty 21.98 264 *e*P **P 03 06 24.9 -0.6**
SATY Saty 21.98 264 *e*P **P 03 06 24.9 -0.6**
NRIK Noril'sk 22.34 340 P **P 03 06 28.2 -0.8**
comp=Z,18nm,0.8s,baz=139,slow=11,SNR=10
NRIK S Sn 03 10 40.0 -6.4
comp=Z,3.7nm,0.7s,baz=184,slow=23,SNR=1.5
NRIK Lg Lg 03 13 13.1
comp=Z,0.4nm,0.3s,baz=235,slow=21,SNR=5.6
NRIK LR LR 03 15 28.7
comp=Z,601nm,19.9s,baz=154,slow=38
comp=Z,18nm,0.8s
NRIK Noril'sk 22.34 340*c i*P **P 03 06 28.6 -0.4**
NRIK pmax pmax
comp=Z,19nm,0.8s
NRIK MLR MLR
comp=Z,647nm,15.0s
NRIK Noril'sk 22.34 340 P 03 06 28.0 -1.0
WUS Wushi 22.38 259 P 03 06 29.8 -0.1
WUS lAmb lAmb 03 06 33.3
comp=Z,46nm,0.9s
WUS Wushi 22.38 259 P **P 03 06 30.4 +0.5**
comp=Z,62nm,0.9s
YSS Yuzhno-Sakhali 22.55 84 *e*P **P 03 06 34.6 +3.2**
YSS pmax pmax
comp=Z,30nm,0.8s
YSS MLR MLR
comp=E,3µm,13.0s
YSS MLR MLR
comp=Z,3µm,13.0s
MDOK Medeo 22.81 266 *e*P **P 03 06 34.1 -0.2**
MDOK *e*S **S 03 10 44.1 +0.6**
MDOK Medeo 22.81 266 *e*P **P 03 06 34.1 -0.2**
MDOK *e*S **S 03 10 44.2 +0.6**
MDOK LR LR 03 15 32.5
AAA Alma-Ata 22.87 266 *e*P **P 03 06 34.1 -0.8**
AAA Alma-Ata 22.87 266 *e*P **P 03 06 34.1 -0.8**
AAA LR LR 03 15 25.3
TNSS Tian-Shan 22.93 266 *e*P **P 03 06 35.4 -0.5**
TNSS Tian-Shan 22.93 266 *e*P **P 03 06 35.4 -0.5**

KUU Kurty 22.94 268 *e*P **P 03 06 34.6 -1.0**
KUU MLR MLR
comp=Z,489nm,9.0s
KUU Kurty 22.94 268 *e*P **P 03 06 34.6 -1.0**
KUU LR LR 03 15 30.4
comp=Z,489nm,9.4s
TARG Taragay, Kyrgy 23.01 262 P **P 03 06 36.4 -0.4**
TARG pmax pmax
comp=Z,17nm,1.1s
TARG Taragay, Kyrgy 23.01 262 P 03 06 36.4 -0.4
TARG Taragay, Kyrgy 23.01 262 P **P 03 06 39.4 +2.6**
comp=Z,21nm,0.9s
JNU Nakatsue 23.15 127 LR LR 03 15 20.3
comp=Z,524nm,18.6s,baz=322,slow=36
GYA Guiyang 23.16 185⇓ P **P 03 06 38.9 +0.8**
GYA pP pP 03 06 41.3 +0.1
GYA S **S 03 10 49.6 -0.2**
GYA pmax pmax
comp=Z,26nm,1.5s
GYA pmax pmax
comp=Z,310nm,3.5s
GYA L L
comp=Z,2µm,14.0s
GYA L L
comp=Z,900nm,8.4s
GYA L L
comp=Z,2µm,13.4s
ASAJ Asahikawa 23.52 91 LR LR 03 16 06.8
comp=Z,915nm,20.3s,baz=260,slow=37
TIXI Tiksi 23.94 15 LR LR 03 16 28.7
comp=Z,1µm,20.8s,baz=236,slow=38
TIXI Tiksi 23.94 15⇓ *e*P **P 03 06 44.3 -0.9**
TIXI pmax pmax
comp=Z,28nm,0.9s
TIXI MLR MLR
comp=Z,1µm,15.0s
TIXI Tiksi 23.94 15 P 03 06 45.0 -0.1
TIXI lAmb lAmb 03 06 54.9
comp=Z,29nm,0.8s
TIXI Tiksi 23.94 15 P **P 03 06 44.8 -0.4**
comp=Z,45nm,1.0s
BTLS Baital 23.95 272 *e*P **P 03 06 45.5 -0.1**
BTLS Baital 23.95 272 *e*P **P 03 06 45.5 -0.1**
LSA Lhasa 24.02 221 P **P 03 06 49.2 +2.3**
comp=Z,18nm,1.0s
BVAR Borovoye Array 24.14 293 P **P 03 06 47.8 +0.4**
comp=Z,3.7nm,0.6s,baz=82,slow=11,SNR=11
comp=Z,3.7nm,0.6s
BORK Borovoye 24.18 293*c i*P **P 03 06 48.4 +0.7**
BORK pmax pmax
comp=Z,23nm,1.4s
BORK Borovoye 24.18 293 P **P 03 06 47.0 -0.7**
ASAI AK-SAY(Kyrgyzs 24.26 261 P **P 03 06 50.6 +1.7**
comp=Z,17nm,1.4s
JMN Monobe 24.30 121 P **P 03 06 50.2 +1.2**
JMN Monobe 24.30 121 P **P 03 06 50.6 +1.7**
comp=Z,78nm,1.2s
AAK Ala-Archa 24.71 267 P **P 03 06 53.3 +0.5**
comp=Z,6.9nm,0.9s,baz=91,slow=7.1,SNR=6.6
AAK Lg Lg 03 14 35.9
comp=Z,0.1nm,0.3s,baz=172,slow=20,SNR=4.1
AAK LR LR 03 17 45.7
comp=Z,420nm,21.3s,baz=58,slow=40
comp=Z,6.9nm,0.9s
AAK Ala-Archa 24.71 267*c i*P **P 03 06 53.9 +1.1**
AAK pmax pmax
comp=Z,12nm,1.0s
AAK MLR MLR
comp=Z,629nm,20.0s
AAK Ala-Archa 24.71 267 P 03 06 52.4 -0.4
AAK Ala-Archa 24.71 267 P **P 03 06 54.1 +1.3**
comp=Z,13nm,0.9s
MJB9 Matsu-Tunnel 24.86 111 P **P 03 06 55.5 +1.5**
MJB9 lAmb lAmb 03 06 56.5
comp=Z,25nm,1.1s
MAJO Matsushiro 24.86 111 P **P 03 06 54.3 +0.3**
MAJO pmax pmax
comp=Z,24nm,1.1s
MAJO Matsushiro 24.86 111 P **P 03 06 54.3 +0.3**
MAJO lAmb lAmb 03 06 55.6
comp=Z,24nm,1.1s
MJAR Matsushiro Arr 24.86 111 P **P 03 06 54.3 +0.3**
comp=Z,17nm,1.0s,baz=314,slow=9.6,SNR=30
MJAR LR LR 03 16 51.0
comp=Z,808nm,18.8s,baz=316,slow=37
comp=Z,17nm,1.0s
MJAR Matsushiro Arr 24.86 111 P **P 03 06 53.2 -0.9**
MJAR pmax pmax
comp=Z,18nm,1.2s
MJAR Matsushiro Arr 24.86 111 P 03 06 53.2 -0.9
KMI2 Kunming 24.88 193 P **P 03 06 55.1 +0.7**
KMI2 S **S 03 11 10.4 -7.2**
KMI2 pmax pmax
comp=Z,20nm,0.6s
KMI2 L L
comp=Z,480nm,9.7s
KMI2 L L
comp=Z,2µm,12.5s
KMI2 L L
comp=Z,820nm,16.6s
KSH2 Kashi 25.85 259 P **P 03 07 04.7 +1.6**
KSH2 pmax pmax
comp=Z,13nm,1.5s
KSH2 L L
comp=Z,2µm,16.2s
KSH2 L L
comp=Z,2µm,14.1s
KSH2 L L
comp=Z,4µm,19.6s
DZA Taraz 26.65 270 *e*P **P 03 07 09.2 -1.0**
DZA Taraz 26.65 270 *e*P **P 03 07 09.2 -1.0**
ARK Arkit 26.76 267 P **P 03 07 13.3 +2.0**
ARK pmax pmax
comp=Z,11nm,0.4s
ARK Arkit 26.76 267 P **P 03 07 13.3 +2.0**
comp=Z,11nm,0.4s
KK31 Karatay Array 27.09 271 *i* P P 03 07 27.2 +13
TRKS Terek-Say 27.43 267 P **P 03 07 18.5 +1.1**
TRKS pmax pmax
comp=Z,9.0nm,1.1s
EVN Everest 27.46 226 P 03 07 17.5 -0.7
EVN Everest 27.46 226 P **P 03 07 20.1 +1.9**
comp=Z,9.1nm,1.1s
IUG Iuzhnay 27.85 269 *e*P **P 03 07 20.1 -0.9**
IUG pmax pmax
comp=Z,40nm,2.2s
IUG Iuzhnay 27.85 269 *e*P **P 03 07 20.2 -0.9**
comp=Z,40nm,2.2s
CHM Chimkent 28.05 270 *e*P **P 03 07 22.0 -0.7**
CHM MLR MLR
comp=Z,587nm,10.0s
CHM Chimkent 28.05 270 *e*P **P 03 07 22.1 -0.7**
CHM LR LR 03 18 40.4
comp=Z,587nm,9.9s
SLVN Son La 28.48 190 P **P 03 07 26.7 -0.1**
SLVN Son La 28.48 190 P **P 03 07 27.7 +0.9**
comp=Z,12nm,1.6s
BRDH Bariadhala 30.13 213 LR LR 03 20 01.0
comp=Z,820nm,18.9s,baz=7.0,slow=37
PETK Petropavlovsk- 30.18 64 LR LR 03 21 03.0
comp=Z,1µm,18.5s,baz=279,slow=39
ARTI Arti 30.58 302 LR LR 03 20 50.8
comp=Z,428nm,18.3s,baz=79,slow=38
ARTI Arti 30.58 302*d i*P **P 03 07 45.4 +0.4**
ARTI S **S 03 12 47.0 +0.4**
ARTI pmax pmax
comp=Z,11nm,1.1s
ARTI Arti 30.58 302 P **P 03 07 43.4 -1.5**
ARTI lAmb lAmb 03 07 46.4
comp=Z,12nm,1.1s
NIL Nilore 30.72 252 P **P 03 07 45.6 -1.0**
NIL pmax pmax
comp=Z,32nm,1.0s
NIL Nilore 30.72 252 P **P 03 07 45.5 -1.0**
NIL Nilore 30.72 252 P **P 03 07 48.3 +1.7**
comp=Z,37nm,1.1s
AB31 Akbulak array 31.42 288 *e*P **P 03 07 52.4 -0.1**
AB31 Akbulak array 31.42 288 P 03 07 52.0 -0.5
ABKAR Akbulak array 31.42 288 P 03 07 51.8 -0.7
CHTO Chiang Mai 31.74 198 P **P 03 07 56.7 +1.2**
CHTO pmax pmax
comp=Z,13nm,1.7s
CHTO Chiang Mai 31.74 198 P **P 03 07 56.2 +0.7**
comp=Z,13nm,1.7s
CHTO Chiang Mai 31.74 198 P **P 03 07 56.7 +1.2**
comp=Z,12nm,1.7s

CMAR Chiang Mai Arr 32.09 198 P **P 03 07 59.0 +0.4**
comp=Z,3.7nm,0.9s,baz=0.8,slow=8.4,SNR=28
CMAR LR LR 03 22 27.5
comp=Z,153nm,19.3s,baz=20,slow=39
comp=Z,3.7nm,0.9s
CMAR Chiang Mai Arr 32.09 198*ce*P **P 03 07 59.0 +0.4**
CMAR pmax pmax
comp=Z,4.0nm,0.8s
CMAR Chiang Mai Arr 32.09 198 P 03 07 58.2 -0.4
AKTO Aktyubinsk 32.22 291 LR LR 03 20 32.7
comp=Z,542nm,19.3s,baz=34,slow=36
AKTO Aktyubinsk 32.22 291 P **P 03 07 59.4 -0.1**
KBL Kabul 32.79 258 P **P 03 08 05.1 +0.2**
comp=Z,7.5nm,0.8s
BILL Bilibino 33.31 35*c i*P **P 03 08 11.5 +2.6**
BILL pmax pmax
comp=Z,18nm,0.8s
BILL MLR MLR
comp=Z,363nm,16.0s
JCJ Chichijima 33.98 119 LR LR 03 22 39.2
comp=Z,356nm,18.8s,baz=65,slow=37
KIRV Kirov 34.95 308 LR LR 03 24 01.0
comp=Z,427nm,18.9s,baz=82,slow=39
BELG Belogornoye 37.68 298 LR LR 03 25 19.6
comp=Z,833nm,18.8s,baz=70,slow=38
BELG Belogornoye 37.68 298⇓ *e*P **P 03 08 48.5 +2.0**
BELG pmax pmax
comp=Z,6.0nm,1.0s
BELG MLR MLR
comp=Z,137nm,18.0s
KLMR Klimovskoe 39.28 314 *e*P **P 03 08 58.3 -1.6**
KLMR pmax pmax
comp=Z,42nm,1.2s
SHEM Shemya Is, Ala 39.73 60 LR LR 03 26 29.9
comp=Z,214nm,19.2s,baz=286,slow=38
APA Apatity 40.22 325 *e*P P 03 09 00.0 -7.6
APA pmax pmax
comp=Z,9.0nm,1.1s
MAK Makhachkala 41.93 285*d i*P P 03 09 16.9 -5.0
MAK *e*PPP PPP 03 11 26.6
MAK *e*S **S 03 15 31.7 -8.4**
MAK pmax pmax
comp=Z,186nm,1.3s
MAK MLR MLR
comp=Z,2µm,12.0s
LPSR Galich'ya Gora 42.49 302 *e*P **P 03 09 26.2 -0.2**
LPSR pmax pmax
comp=Z,20nm,1.0s
SPITS Spitsbergen Ar 42.53 342 LR LR 03 30 12.6
comp=Z,306nm,19.1s,baz=64,slow=40
ARCES ARCESS Array B 42.53 329 PcP **PcP 03 11 18.1 -0.7**
comp=Z,3.9nm,0.6s,baz=72,slow=2.9,SNR=18
ARCES LR LR 03 29 44.0
comp=Z,134nm,18.1s,baz=64,slow=40
OBN Obninsk 42.72 306 LR LR 03 26 59.6
comp=Z,219nm,19.8s,baz=36,slow=36
OBN Obninsk 42.72 306⇑ *e*P **P 03 09 27.3 -0.9**
OBN *e* 03 11 07.0
OBN *e*SS SS 03 19 24.2 +23
OBN MLR MLR
comp=Z,652nm,18.0s
VORR Voronezh 42.74 301 *e*P **P 03 09 28.6 +0.2**
VORR pmax pmax
comp=Z,30nm,0.5s
VSR Storozhevoye 42.96 300 *e*P **P 03 09 29.5 -0.8**
VSR pmax pmax
comp=Z,20nm,1.0s
VORD Divnogorie 43.00 300 *e*P **P 03 09 30.1 -0.5**
VORD pmax pmax
comp=Z,20nm,0.9s
KBZ Khabaz 44.39 289 P **P 03 09 42.8 +0.9**
comp=Z,1.1nm,0.5s,baz=302,slow=1.5,SNR=8.3
KBZ LR LR 03 28 53.1
comp=Z,535nm,18.2s,baz=66,slow=37
comp=Z,1.1nm,0.5s
KBZ Khabaz 44.39 289⇑ *e*P **P 03 09 43.1 +1.2**
KBZ pmax pmax
comp=Z,8.0nm,1.5s
KVAR Kislovodsk Arr 44.40 289 LR LR 03 28 56.2
comp=Z,524nm,18.2s,baz=286,slow=37
KIV Kislovodsk 44.41 289 P **P 03 09 41.6 -0.5**
KIV Kislovodsk 44.41 289 *e*P **P 03 09 42.9 +0.8**
KIV pmax pmax
comp=Z,14nm,1.0s
KIV MLR MLR
comp=Z,230nm,16.0s
KIV Kislovodsk 44.41 289 P 03 09 41.4 -0.7
KIV Kislovodsk 44.41 289 P **P 03 09 42.4 +0.3**
comp=Z,15nm,1.0s
KIV Kislovodsk 44.41 289 P **P 03 09 43.4 +1.2**
comp=Z,20nm,1.0s
SHA1 Shidzhatmaz 44.54 289*de*P **P 03 09 44.6 +1.3**
DAV Davao City (W) 44.63 156 LR LR 03 28 51.2
comp=Z,244nm,19.5s,baz=335,slow=37
NEUR Neytrino 44.76 288⇓ *e*P **P 03 09 46.7 +1.6**
NEUR pmax pmax
comp=Z,22nm,1.4s
NEUR MLR MLR
comp=Z,504nm,15.0s
ERBR Yeremizino-Bor 44.83 292 *e*P **P 03 09 45.9 +0.5**
ERBR pmax pmax
comp=Z,16nm,1.3s
ERBR MLR MLR
comp=Z,638nm,18.0s
FIA1 FINESS Array S 45.19 318 P **P 03 09 48.1 +0.1**
FINES FINESS Array B 45.19 318 P **P 03 09 48.5 +0.5**
comp=Z,26nm,0.7s,baz=76,slow=8.2,SNR=95
FINES LR LR 03 29 53.1
comp=Z,243nm,18.4s,baz=68,slow=38
comp=Z,26nm,0.7s
FINES FINESS Array B 45.19 318 P **P 03 09 47.9 -0.1**
GNI Garni 45.19 283 LR LR 03 30 48.1
comp=Z,736nm,18.5s,baz=68,slow=39
GNI Garni 45.19 283⇑ *e*P **P 03 09 50.8 +2.3**
GNI pmax pmax
comp=Z,22nm,1.2s
GNI Garni 45.19 283 P **P 03 09 48.9 +0.4**
comp=Z,15nm,1.3s
GNI Garni 45.19 283 P **P 03 09 51.2 +2.7**
comp=Z,15nm,1.3s
VSU Vasula 46.19 314⇑ *e*P **P 03 09 54.9 -1.0**
VSU pmax pmax
comp=Z,48nm,1.1s
GUMO Guam 46.40 128 LR LR 03 29 35.7
comp=Z,183nm,18.9s,baz=124,slow=36
SOC Sochi 46.42 290 *e*P P 03 10 04.0 +6.0
SOC *e* 03 11 42.3
SOC *e*S S 03 16 53.0 +7.4
SOC *e*SS **ScS 03 19 54.9 +1.8**
SOC pmax pmax
comp=Z,20nm,1.3s
SOC MLR MLR
comp=Z,470nm,16.0s
BANOM Banah 46.71 260 P **P 03 10 02.5 +2.0**
SHME Shamm 46.72 260 P **P 03 10 01.7 +1.2**
SNR=5.8
E19K Redstone River 46.85 32 P **P 03 10 01.9 +0.8**
E19K lAmb lAmb 03 10 03.7
comp=Z,10nm,0.8s
SBUM Sibu 47.05 176 P **P 03 10 02.8 -0.3**
SBUM lAmb lAmb 03 10 06.3
comp=Z,10nm,1.2s
SBUM Sibu 47.05 176 P **P 03 10 04.4 +1.3**
comp=Z,7.5nm,1.3s
SBUM Sibu 47.05 176 P **P 03 10 04.8 +1.6**
comp=Z,7.5nm,1.3s
ANN Anapa 47.15 293 *e*P **P 03 10 00.4 -3.2**
ANN pmax pmax
comp=Z,64nm,1.1s
MASF Masafi 47.19 259 P **P 03 10 05.8 +1.6**
PSI Prapat 47.40 194 P **P 03 10 06.8 +0.8**
PSI pmax pmax
comp=Z,29nm,1.0s
PSI Prapat 47.40 194 P **P 03 10 07.0 +1.0**
comp=Z,30nm,1.1s
JLN Jalan Bani Buh 47.45 253 P **P 03 10 06.6 +0.3**
UOSS Minazif 47.46 259 P **P 03 10 07.8 +1.5**
MNK Minsk 47.49 309 *i* P **P 03 10 07.7 +1.6**
MNK *i* 03 11 37.6
MNK *i* 03 11 59.2
MNK *i* PPP PPP 03 12 44.2
MNK *i* S **S 03 17 03.4 +2.9**
MNK *i* 03 20 01.7
MNK *i* SSS SSS 03 21 35.7
MNK pmax pmax
comp=E,9.0nm,0.8s

MNK pmax pmax
comp=Z,21nm,0.8s
MNK pmax pmax
comp=N,15nm,0.9s
MNK MLR MLR
comp=N,626nm,17.0s
MNK MLR MLR
comp=Z,535nm,17.0s
MNK MLR MLR
comp=E,367nm,16.0s
MNK Minsk 47.49 309 *i* P **P 03 10 07.8 +1.6**
comp=E,9.0nm,0.8s
MNK *i* P **P 03 10 07.8 +1.6**
comp=N,15nm,0.9s
MNK *i* P **P 03 10 07.8 +1.6**
comp=Z,21nm,0.8s,baz=61
MNK *i* PcP **PcP 03 11 37.7 +1.5**
MNK *i* PP **PP 03 11 59.2 +2.0**
MNK *i* PPP PPP 03 12 44.3
MNK *i* S **S 03 17 03.4 +2.9**
MNK *i* ScS **ScS 03 20 01.8 +2.1**
MNK *i* SS **SS 03 20 33.0 +5.3**
MNK *i* SSS SSS 03 21 35.8
MNK *i* LQ LQ 03 27 14.7
MNK *i* LR LR 03 30 19.3
MNK *i* LRM MLR 03 31 33.0
comp=N,626nm,17.2s
MNK *i* LRM MLR 03 31 45.7
comp=Z,535nm,16.7s
MNK *i* LRM MLR 03 31 52.0
comp=E,367nm,16.3s
RPSI Rantau Prapat 47.50 194 P 03 10 06.8 +0.2
RPSI Rantau Prapat 47.50 194 P P 03 10 06.3 -0.4
comp=Z,30nm,1.1s
SMDO Samad 47.64 255 P P 03 10 10.1 +2.2
ASHO Ashiyiah 47.74 259 P P 03 10 09.5 +1.0
SNR=11
NAZ Nazwa, Dubai 47.77 259 P P 03 10 10.1 +1.4
SOHO SOHO 47.83 258 P P 03 10 10.0 +0.9
GURO Guroymak-BITLI 47.83 283 IAmb IAmb 03 10 12.5
comp=Z,9.2nm,0.9s
NACGM Naroch 47.85 309 ⇑ *i*P **P 03 10 10.0 +1.1**
comp=Z,23nm,0.8s,baz=60
H19K Roundabout Mou 48.05 34 P P 03 10 11.9 +1.6
H19K IAmb IAmb 03 10 13.4
comp=Z,12nm,0.8s
ASUD Al Ashush, Dub 48.24 259 P P 03 10 14.0 +1.6
PALK Pallekele 48.38 219 LR LR 03 32 42.7
comp=Z,140nm,21.0s,baz=38,slow=39
PALK Pallekele 48.38 219 P P 03 10 15.5 +2.0
PALK Pallekele 48.38 219 ⇑ *i*P **P 03 10 14.5 +1.0**
PALK pmax pmax
comp=Z,23nm,1.1s
PALK Pallekele 48.38 219 P P 03 10 14.3 +0.8
comp=Z,10nm,1.4s
PALK Pallekele 48.38 219 P P 03 10 14.9 +1.4
comp=Z,20nm,1.4s
C24K Franklin Bluff 48.46 27 P P 03 10 14.6 +1.1
AK03 Malin Array Si 48.70 304 P P 03 10 15.0 -0.6
AKASG Malin Array Be 48.71 304 P P 03 10 15.3 -0.3
comp=Z,5.6nm,0.7s,baz=54,slow=8.6,SNR=22
AKASG LR LR 03 33 33.3
comp=Z,303nm,19.3s,baz=60,slow=40
comp=Z,5.6nm,0.7s
AKASG Malin Array Be 48.71 304 *ce*P **P 03 10 15.8 +0.1**
AKASG pmax pmax
comp=Z,5.0nm,0.6s
AKBB Malin Array Si 48.71 304 ⇓ *e*P **P 03 10 15.6 -0.1**
AKBB pmax pmax
comp=Z,11nm,0.8s
AKBB Malin Array Si 48.71 304 P P 03 10 15.0 -0.7
AK01 Malin Array Si 48.72 304 P P 03 10 15.1 -0.6
AK09 Malin Array Si 48.72 303 P P 03 10 15.1 -0.7
KIEV Kiev 48.72 304 P P 03 10 15.9 +0.1
KIEV pmax pmax
comp=Z,9.0nm,0.8s
KIEV Kiev 48.72 304 P 03 10 15.9 +0.1
KIEV IAmb IAmb 03 10 16.8
comp=Z,9.2nm,0.8s
KIEV Kiev 48.72 304 P P 03 10 15.0 -0.7
comp=Z,54nm,0.9s
D24K Happy Valley 48.73 28 P P 03 10 16.9 +1.3
D24K PcP **PcP 03 11 41.8 +1.4**
AK08 Malin Array Si 48.73 304 P P 03 10 15.2 -0.6
AK04 Malin Array Si 48.73 304 P P 03 10 15.2 -0.6
K17K Iditarod 48.74 38 P 03 10 17.2 +1.5
AK02 Malin Array Si 48.74 304 P P 03 10 15.3 -0.6
AK10 Malin Array Si 48.75 303 P P 03 10 15.4 -0.6
AK11 Malin Array Si 48.75 304 P P 03 10 15.4 -0.6
AK22 Malin Array Si 48.76 304 P P 03 10 15.4 -0.7
AK05 Malin Array Si 48.77 304 P P 03 10 15.5 -0.6
AK15 Malin Array Si 48.77 304 P P 03 10 15.5 -0.6
AK21 Malin Array Si 48.77 304 P P 03 10 15.5 -0.6
AK12 Malin Array Si 48.78 304 P P 03 10 15.6 -0.6
PABE Paberze 48.94 311 P P 03 10 18.0 +0.7
comp=Z,44nm,0.9s
J18K Innoko River 48.98 36 IAmb IAmb 03 10 20.0
comp=Z,8.0nm,0.8s
GSI Gunungsitoli 49.08 195 P P 03 10 20.1 +1.3
GSI Gunungsitoli 49.08 195 P P 03 10 18.6 -0.3
comp=Z,12nm,0.9s
MHTO MHTO 49.21 253 P P 03 10 20.9 +1.1
H21K Melozitna Rive 49.28 33 IAmb IAmb 03 10 22.5
comp=Z,11nm,0.8s
TOLI2 Tolitoli 49.35 164 P 03 10 20.9 0.0
TOLI2 Tolitoli 49.35 164 P P 03 10 22.4 +1.5
comp=Z,15nm,1.1s
D25K Kavik River 49.37 27 IAmb IAmb 03 10 25.0
comp=Z,7.8nm,0.8s
J20K Nowinta River 49.59 35 IAmb IAmb 03 10 45.3
comp=Z,16nm,1.3s
JRN Qarnain Island 49.61 262 P P 03 10 22.4 -0.5
LUBAR Lubar, Ukraine 49.92 303 P P 03 10 24.2 -0.7
C27K Jago River 49.96 26 IAmb IAmb 03 10 27.6
comp=Z,10nm,0.7s
RNPP9 Sopachiv 50.12 306 P P 03 10 25.8 -0.6
RNPP8 Varash 50.17 306 P P 03 10 26.2 -0.6
RNPP5 Staryi Chortor 50.22 306 P P 03 10 26.5 -0.6
GTOI Gorontalo 50.24 162 P P 03 10 27.5 -0.2
comp=Z,5.9nm,0.5s
H23K Yukon River 50.32 32 IAmb IAmb 03 10 30.8
comp=Z,8.4nm,0.8s
SAKB Bahrain 50.38 264 P P 03 10 27.7 -1.0
SORM Soroca 50.58 301 P P 03 10 28.7 -1.2
comp=Z,14nm,0.8s
F26K Sheenjek River 50.98 28 IAmb IAmb 03 10 35.4
comp=Z,8.2nm,0.7s
BMAR Burnt Mountain 51.01 28 P 03 10 34.2 +1.2
KTH Kantishna Hill 51.12 34 IAmb IAmb 03 10 37.0
comp=Z,20nm,1.0s
HFS Hagfors 51.13 320 P P 03 10 33.3 -0.6
comp=Z,5.9nm,0.6s,baz=69,slow=5.9,SNR=17
HFS LR LR 03 32 55.6
comp=Z,244nm,20.2s,baz=62,slow=37
comp=Z,5.9nm,0.6s
M20K Styx River 51.23 37 IAmb IAmb 03 10 38.2
comp=Z,8.2nm,0.7s
KMPD K-Podol'skiy 51.38 303 P P 03 10 35.1 -0.9
E27K Coleen River 51.45 27 IAmb IAmb 03 10 38.6
comp=Z,9.7nm,0.9s
COLA College 51.45 32 P P 03 10 38.5 +2.2
comp=Z,22nm,0.8s
POKR Poker Plat Res 51.45 32 IAmb IAmb 03 10 39.2
comp=Z,7.2nm,0.6s
APSI Ampana 51.48 164 P P 03 10 37.8 +0.8
G26K Porcupine Rive 51.55 29 IAmb IAmb 03 10 40.8
comp=Z,39nm,1.8s
CCB Clear Creek Bu 51.60 32 IAmb IAmb 03 10 39.8
comp=Z,10nm,0.9s
WRH Wood River Hil 51.61 33 IAmb IAmb 03 10 39.8
comp=Z,7.8nm,0.8s
NB2 NORSAR Subarra 51.63 322 P P 03 10 37.8 +0.1
comp=Z,4.6nm,0.7s,baz=55,slow=7.9
NOA NORSAR Array B 51.63 322 P P 03 10 37.5 -0.2
comp=Z,3.6nm,0.9s,baz=55,slow=7.5,SNR=5.1
NOA LR LR 03 34 18.8
comp=Z,192nm,18.3s,baz=60,slow=38
comp=Z,3.6nm,0.9s
NORES NORESS Array B 51.67 322 P P 03 10 38.4 +0.4
IL31 51.85 32 IAmb IAmb 03 10 41.6
comp=Z,10nm,0.8s
ILAR Eielson Array 51.85 32 P P 03 10 40.5 +1.3
comp=Z,8.8nm,0.9s,baz=302,slow=6.3,SNR=69
comp=Z,8.8nm,0.9s
ILAR Eielson Array 51.85 32 P P 03 10 38.7 -0.5
PRP Porcupine Dome 51.86 31 P 03 10 39.9 +0.4

HMDM Hanimaadhoo 52.17 227 P P 03 10 43.4 +1.3
BR131 Keskin Array S 52.36 290 P P 03 10 44.5 +0.8
BR131 Keskin Array S 52.36 290 ⇓ *i*P **P 03 10 44.2 +0.6**
BR131 Keskin Array S 52.36 290 IAmb IAmb 03 10 45.6
comp=Z,12nm,1.2s
BRTR Keskin Array B 52.36 290 P P 03 10 44.0 +0.4
comp=Z,2.8nm,0.6s,baz=84,slow=3.5,SNR=16
BRTR LR LR 03 35 35.2
comp=Z,293nm,20.2s,baz=45,slow=39
comp=Z,2.8nm,0.6s
BRTR Keskin Array B 52.36 290 *ce*P **P 03 10 44.4 +0.8**
BRTR pmax pmax
comp=Z,3.0nm,0.6s
BRTR Keskin Array B 52.36 290 P 03 10 43.3 -0.3
BR106 Keskin Array S 52.37 290 P P 03 10 43.1 -0.5
comp=Z,54nmcomp=Z,6.0nm,1.0s
BR104 Keskin Array S 52.37 290 P P 03 10 43.1 -0.6
comp=Z,73nmcomp=Z,6.2nm,1.0s
E29M Bow River 52.38 25 IAmb IAmb 03 10 45.5
comp=Z,9.8nm,0.8s
BR105 Keskin Array S 52.38 290 P P 03 10 43.2 -0.5
comp=Z,6.9nm,1.0s
BURAR Bucovina Array 52.61 302 P P 03 10 46.3 +1.0
BURAR pmax pmax
comp=Z,7.0nm,0.9s
BURAR Bucovina Array 52.61 302 P P 03 10 45.4 +0.1
DHY Denali Highway 52.70 34 IAmb IAmb 03 10 47.6
comp=Z,8.8nm,0.7s
H27K Steamboat Moun 52.70 29 IAmb IAmb 03 10 48.9
comp=Z,25nm,1.6s
KWP Kalwaria Pacla 52.80 305 *e*P **P 03 10 44.4 -2.2**
KWP Kalwaria Pacla 52.80 305 P P 03 10 46.1 -0.4
comp=Z,25nm,2.5s
SHAO Shalim 52.89 253 P P 03 10 48.7 +1.2
BISRR Bisoca 52.98 299 P P 03 10 47.6 -0.4
comp=Z,30nm,1.2s
I27K Kandik River 53.08 29 IAmb IAmb 03 11 30.4
comp=Z,24nm,1.6s
DOK Doka 53.38 255 P P 03 10 51.0 -0.2
SNR=12
KOLS Kolonicke sedl 53.44 305 *e*P **P 03 10 52.4 +1.2**
KOLS pmax pmax
comp=Z,7.0nm,0.7s
KOLS Kolonicke sedl 53.44 305 *e*P **P 03 10 52.4 +1.2**
PAX Paxson 53.45 33 IAmb IAmb 03 10 52.9
comp=Z,8.3nm,0.8s
MLR Muntele Rosu 53.45 300 LR LR 03 35 18.1
comp=Z,694nm,19.3s,baz=356,slow=38
F30M Barrier River 53.49 26 IAmb IAmb 03 11 08.1
comp=Z,22nm,1.4s
SANI Sanana 53.50 159 P P 03 10 51.8 -0.2
comp=Z,29nm,1.2s
SANI Sanana 53.50 159 P P 03 10 52.1 +0.1
comp=Z,29nm,1.2s
DOT Dot Lake 53.51 32 IAmb IAmb 03 10 53.1
comp=Z,8.2nm,0.9s
DMTO DMTO 53.54 253 P P 03 10 53.1 +0.8
INK Inuvik 53.63 24 LR LR 03 38 31.0
comp=Z,146nm,18.3s,baz=154,slow=41
INK Inuvik 53.63 24 IAmb IAmb 03 10 54.3
comp=Z,5.9nm,0.7s
TRPA Tarpa 53.77 304 P P 03 10 55.3 +1.7
comp=Z,15nm,1.4s
G30M tAoh Zraii Nji 53.80 26 IAmb IAmb 03 11 08.8
comp=Z,15nm,1.3s
KDAK Kodiak Island 53.86 41 LR LR 03 35 52.6
comp=Z,387nm,19.4s,baz=301,slow=38
OJC Ojcow 53.97 307 *e*P **P 03 10 55.9 +0.8**
OJC Ojcow 53.97 307 P P 03 10 55.7 +0.5
OJC Ojcow 53.97 307 P P 03 10 54.8 -0.3
comp=Z,12nm,1.6s
OJC Ojcow 53.97 307 P P 03 10 55.6 +0.5
comp=Z,12nm,1.6s
WHFO Wadi Hawf 54.12 255 P P 03 10 56.2 -0.4
SNR=12
NIE Niedzica 54.19 306 *e*P **P 03 10 58.1 +1.4**
NIE Niedzica 54.19 306 P P 03 10 55.8 -1.0
comp=Z,6.6nm,2.4s
ARR Arges 54.27 300 P P 03 10 59.2 +1.7
comp=Z,7.4nm,1.2s
I29M Ogilvie Camp, IAmb IAmb 03 11 12.9
comp=Z,34nm,1.9s
ABAH Abaujker 54.37 305 P P 03 11 00.1 +2.1
DRGR 54.48 303 P P 03 11 00.6 +1.7
DRGR pmax pmax
comp=Z,7.0nm,1.7s
DRGR 54.48 303 P P 03 11 00.6 +1.7
comp=Z,7.1nm,1.7s
KECS Kecovo 54.66 305 *e*P **P 03 11 02.1 +2.0**
KECS pmax pmax
comp=Z,12nm,0.8s
KECS Kecovo 54.66 305 *e*P **P 03 11 02.1 +2.0**
L27K Beaver Creek, 54.66 32 IAmb IAmb 03 11 02.6
comp=Z,6.0nm,0.8s
LANS Liptovska Anna 54.79 307 *e*P **P 03 11 02.6 +1.5**
LANS pmax pmax
comp=Z,4.0nm,1.4s
LANS Liptovska Anna 54.79 307 *e*P **P 03 11 02.6 +1.5**
ABTO Aybut 54.84 255 P P 03 11 01.5 -0.4
I30M Mount Dempster 54.97 28 IAmb IAmb 03 11 33.9
comp=Z,13nm,1.5s
RES Resolute Bay 54.98 8 LR LR 03 35 34.2
comp=Z,166nm,19.2s,baz=7.5,slow=37
RES Resolute Bay 54.98 8 IAmb IAmb 03 11 03.9
comp=Z,14nm,1.0s
RES Resolute Bay 54.98 8 P P 03 11 03.5 +1.4
comp=Z,19nm,1.7s
ASF Jabal al Asfar 55.08 280 LR LR 03 37 29.2
comp=Z,439nm,19.8s,baz=28,slow=39
M27K Edge Creek, AK 55.11 32 IAmb IAmb 03 11 06.5
comp=Z,14nm,1.0s
C36M Paulatuk 55.18 20 IAmb IAmb 03 11 04.6
comp=Z,14nm,0.9s
STEB Steborice 55.19 308 *e*P **P 03 11 03.1 -0.9**
KAPI Kappang 55.19 167 LR LR 03 36 16.4
comp=Z,114nm,18.5s,baz=348,slow=38
KAPI Kappang 55.19 167 P P 03 11 05.0 +0.7
KAPI pmax pmax
comp=Z,42nm,1.3s
KAPI Kappang 55.19 167 P P 03 11 05.0 +0.7
KAPI Kappang 55.19 167 P P 03 11 05.0 +0.7
comp=Z,306nmcomp=Z,14nm,1.4s
PSZ Piszkesteto 55.31 305 IAmb IAmb 03 12 02.5
comp=Z,19nm,1.5s
RAYN Ar Rayn 55.36 266 P P 03 11 05.7 +0.1
RAYN pmax pmax
comp=Z,11nm,0.7s
RAYN Ar Rayn 55.36 266 P 03 11 05.7 +0.1
RAYN IAmb IAmb 03 11 07.0
comp=Z,11nm,0.7s
RAYN Ar Rayn 55.36 266 P P 03 11 05.6 +0.1
comp=Z,21nm,1.2s
KSP Ksiaz 55.38 310 *e*P **P 03 11 05.3 0.0**
MORC Moravsky Berou 55.40 308 P P 03 11 07.2 +1.7
MORC pmax pmax
comp=Z,13nm,1.0s
MORC Moravsky Berou 55.40 308 IAmb IAmb 03 11 07.7
comp=Z,10nm,0.9s
MORC Moravsky Berou 55.40 308 *e*P **P 03 11 06.6 +1.0**
MORC Moravsky Berou 55.40 308 P P 03 11 07.2 +1.7
comp=Z,13nm,1.0s
MMAI Mount Meron Ar 55.48 282 LR LR 03 37 35.6
comp=Z,504nm,21.8s,baz=48,slow=39
VYHS Vyhne 55.52 306 *e*P **P 03 11 08.1 +1.7**
VYHS pmax pmax
comp=Z,11nm,1.0s
VYHS Vyhne 55.52 306 *e*P **P 03 11 08.1 +1.7**
VYHS Vyhne 55.52 306 P P 03 11 08.4 +2.0
comp=Z,3.6nm,1.3s
K29M Barlow Dome 55.56 30 IAmb IAmb 03 11 09.3
comp=Z,8.1nm,0.9s
CHVC Chvalec 55.66 310 *e*P **P 03 11 08.6 +1.2**
CHVC Chvalec 55.66 310 *e*P **P 03 11 08.6 +1.2**
DPC Dobruska-Polom 55.67 309 *e*P **P 03 11 08.3 +0.8**
DPC Dobruska-Polom 55.67 309 *e*P **P 03 11 08.3 +0.8**
DPC Dobruska-Polom 55.67 309 P P 03 11 08.9 +1.4
comp=Z,14nm,1.0s
UPC Upice 55.73 309 *e*P **P 03 11 08.5 +0.7**
UPC Upice 55.73 309 *e*P **P 03 11 08.5 +0.7**
UPC Upice 55.73 309 P P 03 11 07.7 -0.2
comp=Z,10nm,1.4s
BZS Buzias 55.79 302 P P 03 11 08.2 -0.2
comp=Z,7.8nm,1.1s
JAVC Velka Javorina 55.90 307 *e*P **P 03 11 10.4 +1.2**
SUMG Summit 56.02 349 P P 03 11 10.5 +0.4
SUMG pmax pmax
comp=Z,30nm,1.7s
SUMG Summit 56.02 349 P 03 11 10.4 +0.4
SUMG IAmb IAmb 03 12 05.7
comp=Z,30nm,1.7s
VRAC Vranov 56.18 308 LR LR 03 37 03.5
comp=Z,328nm,19.0s,baz=59,slow=38
VRAC Vranov 56.18 308 *e*P **P 03 11 12.4 +1.3**
LEM Lembang 56.20 182 LR LR 03 36 31.3
comp=Z,227nm,18.5s,baz=20,slow=37
SRO Srobarova 56.22 306 *e*P **P 03 11 12.7 +1.4**
SRO pmax pmax
comp=Z,11nm,1.0s
SRO Srobarova 56.22 306 *e*P **P 03 11 12.7 +1.4**
SMOL Smolenice 56.24 307 *e*P **P 03 11 13.5 +2.0**
SMOL pmax pmax
comp=Z,3.0nm,0.8s
BSEG Bad Segeberg 56.31 315 *e*P **P 03 11 13.6 +1.7**
comp=Z,12nm,0.9s,baz=49,slow=7.0
MODS Modra-Piesok 56.41 307 *e*P **P 03 11 14.5 +1.7**
MODS Modra-Piesok 56.41 307 *e*P **P 03 11 14.5 +1.7**
KRUC Moravsky 56.43 308 *e*P **P 03 11 14.1 +1.2**
KRUC Moravsky 56.43 308 P P 03 11 14.4 +1.5
comp=Z,13nm,1.1s
PVCC Panska Ves 56.44 310 *e*P **P 03 11 14.2 +1.3**
PVCC Panska Ves 56.44 310 *e*P **P 03 11 14.2 +1.3**
PVCC Panska Ves 56.44 310 P P 03 11 14.8 +1.9
comp=Z,27nm,0.9s
CLL Collm 56.72 312 ⇓ *i*P **P 03 11 15.5 +0.6**
CLL pmax pmax
comp=Z,11nm,0.8s
CLL Collm 56.72 312 IAmb IAmb 03 11 16.5
comp=Z,11nm,0.8s
CLL Collm 56.72 312 *e*P **P 03 11 15.4 +0.6**
comp=Z,10nm,0.8s,baz=49,slow=7.0
CLL Collm 56.72 312 P P 03 11 14.6 -0.2
comp=Z,19nm,0.8s
CLL pP **pP 03 11 18.3 +0.1**
comp=Z,19nm,0.8s
CLL Collm 56.72 312 P P 03 11 15.7 +0.9
comp=Z,19nm,0.8s
CLL Collm 56.72 312 ⇓ *i*P **P 03 11 15.5 +0.6**
comp=Z,11nm,0.8s
CLL *i* x x 03 11 49.7
CLL *i* PcP **PcP 03 12 10.0 -0.8**
comp=Z,14nm,1.4s
CLL LH 03 29 00.0
CLL AMS AMS 03 33 00.0
comp=N,2μm,17.9s
CLL AMS AMS 03 33 00.0
comp=E,1μm,18.1s
CLL AMS AMS 03 36 00.0
comp=Z,500nm,15.6s
TREC Trest 56.75 309 *e*P **P 03 11 16.2 +1.0**
TREC Trest 56.75 309 *e*P **P 03 11 16.2 +1.0**
TREC Trest 56.75 309 P P 03 11 16.7 +1.5
comp=Z,10nm,1.0s
PRU Pruhonice 56.79 310 AMS AMS 03 36 20.0
comp=Z,500nm,9.9s
PRU Pruhonice 56.79 310 P P 03 11 15.6 +0.1
comp=Z,9.5nm,1.6s
MPLH Magyarpolny 57.03 306 P P 03 11 18.6 +1.5
comp=Z,14nm,1.2s
MORH Mrgy, Hungar 57.04 304 P P 03 11 17.9 +0.7
comp=Z,6.5nm,1.1s
WINA Alland / Wiene 57.20 307 *e*pP **P 03 11 20.3 +1.9**
comp=Z,7.8nm,1.1s
ASSE Asse, Remlinge 57.30 314 *e*P **P 03 11 19.5 +0.6**
comp=Z,8.9nm,1.1s,baz=49,slow=7.0
ZVC Zvikov 57.31 309 *e*P **P 03 11 19.3 +0.2**
ZVC AMS AMS 03 37 20.0
comp=Z,1μm,7.4s
RONA Rosalia, Austr 57.34 307 *e*pP **P 03 11 21.3 +1.8**
comp=Z,7.1nm,0.9s
NEUB Neuenburg 57.37 312 *e*P **P 03 11 20.8 +1.3**
comp=Z,13nm,0.7s,baz=49,slow=7.0
CONA Conrad Observa 57.42 307 *i* pP **P 03 11 22.1 +2.0**
comp=Z,9.0nm,0.9s
RETH Rethem/Aller, 57.52 315 *e*P **P 03 11 21.5 +1.1**
baz=49,slow=7.0
RETH Rethem/Aller, 57.52 315 P P 03 11 21.6 +1.1
TANN Tannenbergstha 57.55 311 *e*P **P 03 11 21.7 +0.9**
comp=Z,5.2nm,1.1s,baz=49,slow=7.0
CKRC Cesky Krumlov 57.65 309 *e*P **P 03 11 21.8 +0.2**
CKRC Cesky Krumlov 57.65 309 *e*P **P 03 11 21.8 +0.2**
PLN Plauen 57.65 311 *e*P **P 03 11 22.8 +1.3**
comp=Z,3.3nm,0.8s,baz=49,slow=7.0
MOX Moxa 57.81 312 P P 03 11 24.3 +1.6
MOX pmax pmax
comp=Z,23nm,2.6s
MOX Moxa 57.81 312 *e*P **P 03 11 24.0 +1.4**
comp=Z,14nm,0.9s,baz=49,slow=7.0
MOX *e*L L 03 34 15.2
comp=Z,273nm,20.5s
MOX Moxa 57.81 312 P P 03 11 24.3 +1.6
comp=Z,23nm,2.6s
KHC Kasperske Hory 57.82 309 ⇓ *i*P **P 03 11 23.4 +0.7**
KHC pmax pmax
comp=Z,9.0nm,0.8s
KHC Kasperske Hory 57.82 309 IAmb IAmb 03 11 24.9
comp=Z,8.2nm,0.8s
KHC Kasperske Hory 57.82 309 *e*P **P 03 11 23.5 +0.7**
KHC AMS AMS 03 37 40.0
comp=Z,800nm,15.9s
KHC Kasperske Hory 57.82 309 P P 03 11 22.8 0.0
KHC pP **pP 03 11 26.0 -0.2**
KHC Kasperske Hory 57.82 309 P P 03 11 23.8 +1.0
comp=Z,12nm,0.9s
GEC2 GERESS Array S 57.94 309 *e*P **P 03 11 24.6 +0.9**
comp=Z,9.0nm,1.1s,baz=49,slow=7.0
GEC2 GERESS Array S 57.94 309 P P 03 11 24.8 +1.1
GERES GERESS Array B 57.94 309 P P 03 11 24.2 +0.5
comp=Z,3.2nm,0.8s,baz=45,slow=6.2,SNR=24
comp=Z,3.2nm,0.8s
GERES GERESS Array B 57.94 309 P P 03 11 23.9 +0.2
EIL Elat 57.99 279 LR LR 03 39 31.5
comp=Z,424nm,18.4s,baz=46,slow=39
GTTG Gottingen 58.02 313 *e*P **P 03 11 25.4 +1.4**
comp=Z,26nm,1.1s,baz=49,slow=7.0
GTTG Gottingen 58.02 313 P P 03 11 25.6 +1.5
comp=Z,32nm,0.9s
ARSA Arzberg 58.03 307 *e*pP **P 03 11 25.9 +1.6**
comp=Z,3.2nm,0.7s
WET Wettzell 58.16 310 *e*P **P 03 11 26.5 +1.4**
comp=Z,7.4nm,0.8s,baz=49,slow=7.0
WET Wettzell 58.16 310 P P 03 11 26.9 +1.7
comp=Z,13nm,1.4s
DBNI Kabupaten Domp 58.43 169 P P 03 11 27.3 +0.1
IBBN Ibbenburen 58.55 315 *e*P **P 03 11 28.4 +0.7**
comp=Z,11nm,0.6s,baz=49,slow=7.0
SESA Seetaler Alpe, 58.62 307 *e*pP **P 03 11 30.2 +1.6**
comp=Z,7.9nm,0.9s
GRA1 Grafenberg Arr 58.63 311 P P 03 11 29.1 +0.8
comp=Z,23nm,1.0s
GRF Grafenberg Arr 58.63 311 P P 03 11 29.1 +0.8
GRF pmax pmax
comp=Z,23nm,1.0s
GRF Grafenberg Arr 58.63 311 *e*P **P 03 11 29.7 +1.3**
comp=Z,16nm,0.9s,baz=49,slow=7.0
GRF *e*L L 03 43 19.9
comp=Z,258nm,18.2s
GRFO Grafenberg 58.63 311 P P 03 11 30.2 +1.9
SOKA Soboth 58.66 306 *i* pP **P 03 11 30.0 +1.2**
comp=Z,9.5nm,1.1s,SNR=5.7
BIOA Bad Ischl, Aus 58.72 308 pP **P 03 11 31.1 +2.1**
comp=Z,2.2nm,0.7s
GRC3 Grafenberg Arr 58.97 310 P P 03 11 31.7 +1.0
comp=Z,18nm,1.0s
OBKA Obir 59.02 307 *i* pP **P 03 11 32.9 +1.7**
comp=Z,19nm,1.4s,SNR=5.7
OBKA Obir 59.02 307 P P 03 11 33.0 +1.7
comp=Z,19nm,1.2s
RJOB Jochberg 59.12 309 P P 03 11 33.5 +1.6
PDG Podgorica 59.13 300 IAmb IAmb 03 11 35.2
comp=Z,11nm,1.1s
KBA Koelnbreinsper 59.28 308 *i* pP **P 03 11 35.1 +2.0**
comp=Z,17nm,0.8s,SNR=4.5
KBA Koelnbreinsper 59.28 308 P P 03 11 35.1 +2.0
comp=Z,25nm,1.1s
BUG Bochum-Univer 59.35 315 *e*P **P 03 11 34.1 +0.8**
comp=Z,12nm,0.8s,baz=49,slow=7.0
LESA Schwarzleotal 59.39 308 *i* pP **P 03 11 35.5 +1.7**
comp=Z,7.9nm,0.9s,SNR=6.2
MYKA Terra Mystica 59.42 307 *i* pP **P 03 11 35.4 +1.4**
comp=Z,9.1nm,0.8s,SNR=5.1
FUR Furstenfeldbru 59.61 310 *e*P **P 03 11 36.7 +1.5**
comp=Z,18nm,0.8s,baz=49,slow=7.0
TNS Taunus Mts 59.62 313 *e*P **P 03 11 36.6 +1.3**

comp=Z,7.2nm,0.9s,baz=49,slow=7.0
BORG Borgarnes 59.64 338 LR LR 03 38 36.6
comp=Z,117nm,21.0s,baz=39,slow=37
ABTA Abfaltersbach 59.92 308 *ep*P **P 03 11 38.5 +1.1**
comp=Z,9.0nm,1.2s
WATA Walderalm 60.01 309 *ep*P **P 03 11 39.6 +1.5**
comp=Z,18nm,1.3s,SNR=4.5
WTTA Wattenberg 60.03 309 *i* pP **P 03 11 39.8 +1.5**
comp=Z,15nm,1.3s
WTTA Wattenberg 60.03 309 P **P 03 11 39.4 +1.1**
comp=Z,13nm,1.0s
STAL STALIGIAL 60.15 307 P **P 03 11 38.8 -0.1**
STU Stuttgart 60.23 311 *ep*P **P 03 11 40.6 +1.2**
comp=Z,36nm,0.8s,baz=49,slow=7.0
MOTA Moosalm 60.24 309 *ep*P **P 03 11 41.1 +1.4**
comp=Z,14nm,0.9s,SNR=12
SQTA Sankt Quirin 60.27 309 *ep*P **P 03 11 41.5 +1.6**
comp=Z,11nm,0.7s,SNR=8.5
RETA Reutte 60.32 309 *i* pP **P 03 11 41.7 +1.6**
comp=Z,14nm,1.1s,SNR=7.1
MEM Membach 60.50 314 *d*P **P 03 11 41.9 +0.7**
comp=Z,6.0nm,0.9s
UBR Ueberruh 60.52 310 *ep* **P 03 11 42.5 +1.0**
comp=Z,3.2nm,0.8s,baz=49,slow=7.0
SOEI Soe 60.60 163 P **P 03 11 42.2 -0.2**
comp=Z,30nm,1.2s
SOEI Soe 60.60 163 P **P 03 11 41.6 -0.8**
comp=Z,31nm,1.3s
FETA Feichten 60.65 309 *i* pP **P 03 11 43.5 +1.0**
comp=Z,10nm,0.8s
CTI Castel Tesino 60.84 308 P **P 03 11 43.4 -0.3**
CTI pmax pmax
comp=Z,15nm,0.7s
CTI Castel Tesino 60.84 308 P 03 11 43.4 -0.3
CGRP Cima Grappa 60.87 307 P **P 03 11 44.0 -0.1**
DAVA Damuels 60.90 310 *i* pP **P 03 11 45.7 +1.5**
comp=Z,30nm,1.0s
DAVA Damuels 60.90 310 P **P 03 11 45.8 +1.6**
comp=Z,37nm,0.9s
BFO Black Forest 60.95 311 P **P 03 11 44.5 +0.1**
BFO pmax pmax
comp=Z,15nm,1.2s
BFO Black Forest 60.95 311 P 03 11 44.5 +0.1
BFO IAmb IAmb 03 11 46.0
comp=Z,15nm,1.2s
BFO Black Forest 60.95 311 *ep* **P 03 11 45.4 +1.0**
comp=Z,12nm,1.1s,baz=49,slow=7.0
WLF Walferdange 61.08 314 *d*P **P 03 11 46.4 +1.2**
WLF *d*PP **PP 03 13 59.2 0.0**
EKA Eskdalemuir Ar 61.10 323 P **P 03 11 45.4 +0.2**
comp=Z,5.7nm,0.7s,baz=46,slow=6.0,SNR=14
EKA LR LR 03 39 58.9
comp=Z,157nm,18.5s,baz=40,slow=38
comp=Z,5.7nm,0.7s
UCC Uccle 61.13 315 *d*P **P 03 11 45.9 +0.4**
FUORN Ofenpass-Fuorn 61.16 309 IAmb IAmb 03 11 48.0
comp=Z,8.9nm,0.8s
FUORN Ofenpass-Fuorn 61.16 309 P **P 03 11 47.2 +1.2**
comp=Z,13nm,0.8s
DAVOX Davos/Dischmat 61.24 309 LR LR 03 40 27.5
comp=Z,516nm,18.0s,baz=56,slow=38
BMRD Maredsous 61.29 315 *d*P **P 03 11 47.2 +0.6**
comp=Z,5.6nm,0.9s
DOU Dourbes 61.51 315 *d*P **P 03 11 48.6 +0.6**
comp=Z,5.8nm,1.3s
ECH Echery 61.60 312 P **P 03 11 50.0 +1.2**
ECH pmax pmax
comp=Z,18nm,2.4s
ECH Echery 61.60 312 P **P 03 11 50.0 +1.2**
comp=Z,18nm,2.4s
TUE Stuetta 61.72 309 IAmb IAmb 03 11 51.5
comp=Z,6.0nm,0.8s
TUE Stuetta 61.72 309 P **P 03 11 50.9 +1.0**
comp=Z,12nm,1.5s
BNALP Bannalp 61.91 310 P **P 03 11 51.9 +0.9**
comp=Z,20nm,2.5s
DLBC Dease Lake 62.01 31 LR LR 03 43 34.7
comp=Z,230nm,18.0s,baz=255,slow=41
BOURR Bourrignon 62.14 311 P **P 03 11 53.9 +1.5**
comp=Z,29nm,0.9s
MARCO Tramutola 62.49 301 P **P 03 11 56.0 +1.1**
comp=Z,13nm,1.1s
CESX Cesi 62.68 304 IAmb IAmb 03 11 57.6
comp=Z,8.2nm,1.0s
CUC Castrocucco 62.69 300 IAmb IAmb 03 11 58.6
comp=Z,11nm,0.9s
CUC Castrocucco 62.69 300 P **P 03 11 56.5 +0.2**
comp=Z,14nm,1.0s
SFJD Kangerlussuaq 62.71 351 LR LR 03 40 12.2
comp=Z,200nm,18.2s,baz=22,slow=37
TIP Timpagrande 62.71 299 P **P 03 11 57.1 +0.6**
comp=Z,19nm,1.2s
SENIN Lac Senin/Sane 62.82 310 IAmb IAmb 03 11 58.5
comp=Z,9.7nm,0.8s
YKA Yellowknife Ar 63.03 21 P **P 03 11 58.2 +0.2**
comp=Z,7.6nm,0.7s,baz=332,slow=6.6,SNR=14
YKA LR LR 03 43 04.8
comp=Z,167nm,19.2s,baz=290,slow=40
comp=Z,7.6nm,0.7s
YKA Yellowknife Ar 63.03 21 P P 03 11 57.7 -0.3
CEL Celeste 63.83 299 P **P 03 12 04.2 +0.4**
comp=Z,14nm,1.1s
LOR Lormes 63.85 313 P **P 03 12 03.2 -0.6**
comp=Z,19nm,1.4s
BNI Bardonecchia 64.05 310 IAmb IAmb 03 12 16.0
comp=Z,11nm,1.0s
BNI Bardonecchia 64.05 310 P **P 03 12 06.0 +0.7**
comp=Z,11nm,0.8s
ESCA l'Escarene 64.56 308 P **P 03 12 09.3 +0.8**
comp=Z,26nm,0.9s
VAE Valguarnera 65.22 299 LR LR 03 41 58.2
comp=Z,165nm,18.6s,baz=80,slow=37
ATD Arta Tunnel 65.84 259 LR LR 03 44 04.7
comp=Z,12nm,19.8s,baz=20,slow=39
BBB Bella Bella 67.64 34 LR LR 03 43 27.8
comp=Z,188nm,20.0s,baz=234,slow=37
FITZ Fitzroy Crossi 69.00 163 P **P 03 12 37.2 +0.4**
FITZ IAmb IAmb 03 12 39.6
comp=Z,6.2nm,1.1s
FITZ Fitzroy Crossi 69.00 163 P **P 03 12 37.2 +0.4**
comp=Z,7.0nm,1.2s
KEST Kesra 69.32 301 P **P 03 12 39.3 +0.3**
comp=Z,8.5nm,0.8s,baz=35,slow=1.8,SNR=9.6
KEST LR LR 03 44 54.1
comp=Z,136nm,19.1s,baz=324,slow=38
comp=Z,8.5nm,0.8s
KEST Kesra 69.32 301 P **P 03 12 39.1 +0.1**
KEST Kesra 69.32 301 IAmb IAmb 03 12 40.6
comp=Z,8.2nm,0.8s
WB0 Warramunga Arr 72.66 155 IAmb IAmb 03 13 00.9
comp=Z,18nm,1.2s
WRAB Tennant Creek 72.80 155⇓ *ep*P **P 03 13 00.3 +0.3**
WRAB pmax pmax
comp=Z,22nm,1.0s
WRA Warramunga Arr 72.81 155 P **P 03 12 59.8 -0.3**
comp=Z,6.2nm,0.7s,baz=346,slow=6.3,SNR=33
comp=Z,6.2nm,0.7s
WRA Warramunga Arr 72.81 155 P **P 03 13 00.0 0.0**
WRA pmax pmax
comp=Z,1.0nm,1.2s
WRA Warramunga Arr 72.81 155 P 03 13 00.0 0.0
FFC Flin Flon 72.86 18 P **P 03 13 00.3 +0.3**
FFC pmax pmax
comp=Z,12nm,0.8s
FFC Flin Flon 72.86 18 P 03 13 00.3 +0.3
WR8 Warramunga Arr 72.86 155 P 03 13 00.3 0.0
ESDC Sonseca Array 73.30 312 P **P 03 13 03.9 +0.9**
comp=Z,8.8nm,0.8s,baz=39,slow=5.5,SNR=38
ESDC LR LR 03 49 33.6
comp=Z,212nm,18.8s,baz=318,slow=39
comp=Z,8.8nm,0.8s
ESDC Sonseca Array 73.30 312 P 03 13 03.2 +0.3
MTSU Mount Surprise 74.35 145 P **P 03 13 11.5 +2.3**
comp=Z,8.6nm,1.4s
NEW Newport 74.74 30 LR LR 03 48 58.9
comp=Z,333nm,18.3s,baz=336,slow=38
C09A Chrisman Ranch 74.76 31 IAmb IAmb 03 13 13.9
comp=Z,12nm,0.7s
QIS Mount Isa 74.96 150 P **P 03 13 13.2 +0.5**
comp=Z,9.3nm,1.2s
SCHQ Schefferville 75.89 357 P **P 03 13 18.3 +0.6**
comp=Z,6.9nm,0.7s,baz=1.0,slow=4.4,SNR=6.4
comp=Z,6.9nm,0.7s
SCHQ Schefferville 75.89 357 P **P 03 13 18.1 +0.4**
ASAR Alice Springs 76.24 157 P **P 03 13 20.2 +0.3**
comp=Z,6.5nm,0.8s,baz=347,slow=5.0,SNR=42
comp=Z,6.5nm,0.8s
ASAR Alice Springs 76.24 157 P **P 03 13 20.5 +0.5**
ASAR Alice Springs 76.24 157 P 03 13 20.5 +0.5
F10A Beach Ranch, E 76.71 31 IAmb IAmb 03 13 25.5
comp=Z,9.8nm,0.7s
CTAO Charters Tower 76.87 144 P **P 03 13 25.0 +1.5**
CTAO pmax pmax
comp=Z,12nm,1.6s
CTAO Charters Tower 76.87 144 P P 03 13 25.0 +1.5
comp=Z,12nm,1.6s
PINE Pine Mountain 77.29 35 IAmb IAmb 03 13 29.4
comp=Z,2.2nm,0.7s
BMO Blue Mountains 77.66 32 IAmb IAmb 03 13 30.3
comp=Z,8.8nm,0.7s
ULM Lac du Bonnet 78.29 16 P **P 03 13 30.9 -0.2**
comp=Z,5.1nm,0.8s,baz=319,slow=5.0,SNR=5.7
ULM LR LR 03 48 45.3
comp=Z,96nm,21.8s,baz=24,slow=36
comp=Z,5.1nm,0.8s
ULM Lac du Bonnet 78.29 16 P P 03 13 31.0 -0.2
YBH Yreka Blue Hor 78.38 37 LR LR 03 47 37.0
comp=Z,246nm,20.1s,baz=326,slow=35
J08A Circle Bar Ran 78.56 33 IAmb IAmb 03 13 35.5
comp=Z,6.7nm,0.6s
DLMT Dillon 78.75 28 IAmb IAmb 03 13 36.2
comp=Z,8.6nm,0.9s
MDT Midelt 79.01 308 LR LR 03 49 49.6
comp=Z,150nm,19.2s,baz=38,slow=37
MD01 Midelt array s 79.05 308 P 03 13 36.0 +0.1
MD31 MD31 79.05 308 IAmb IAmb 03 13 37.9
comp=Z,11nm,0.8s
KIBK Kibwezi 79.52 254 P 03 13 39.2 +0.7
KIBK IAmb IAmb 03 13 41.7
comp=Z,18nm,1.5s
KIBK Kibwezi 79.52 254 P **P 03 13 37.7 -0.9**
comp=Z,8.0nm,1.6s
O02D Mt. Diablo Mer 79.68 38 IAmb IAmb 03 13 42.1
comp=Z,7.2nm,0.8s
YNE Yellowstone No 79.85 27 IAmb IAmb 03 13 42.5
comp=Z,35nm,1.9s
RLMT Red Lodge 79.97 26 IAmb IAmb 03 16 19.1
comp=Z,15nm,1.6s
YPP Pitchstone Pla 80.28 28 IAmb IAmb 03 13 47.0
comp=Z,21nm,1.9s
TAM Tamanrasset 81.19 295 P **P 03 13 48.1 +0.4**
TAM pmax pmax
comp=Z,5.0nm,1.2s
TAM Tamanrasset 81.19 295 P **P 03 13 48.0 +0.4**
comp=Z,5.1nm,1.2s
PAHR Pah Rah Range 81.41 36 IAmb IAmb 03 14 24.0
comp=Z,13nm,1.6s
PNTR Pine Nut 81.86 36 IAmb IAmb 03 13 59.1
comp=Z,7.1nm,0.8s
ELK Elko 82.00 32 LR LR 03 52 03.2
comp=Z,109nm,19.1s,baz=344,slow=37
PD31 Pinedale Array 82.03 28 IAmb IAmb 03 16 54.1
comp=Z,18nm,1.9s
PDAR Pinedale Array 82.03 28 P **P 03 13 52.1 +0.3**
comp=Z,1.6nm,0.6s,baz=18,slow=2.9,SNR=20
PDAR LR LR 03 57 15.0
comp=Z,42nm,18.0s,baz=340,slow=41
comp=Z,1.6nm,0.6s
PDAR Pinedale Array 82.03 28 P P 03 13 51.8 0.0
RSSD Black Hills 82.32 23 P **P 03 13 53.1 -0.2**
RSSD pmax pmax
comp=Z,14nm,1.3s
RSSD Black Hills 82.32 23 P 03 13 53.1 -0.2
RSSD IAmb IAmb 03 13 55.2
comp=Z,14nm,1.3s
RSSD Black Hills 82.32 23 P **P 03 13 54.4 +1.0**
comp=Z,10nm,1.1s
HWUT Hardware Ranch 82.46 29 IAmb IAmb 03 13 56.5
comp=Z,7.6nm,0.8s
HWUT Hardware Ranch 82.46 29 P **P 03 13 55.6 +1.6**
comp=Z,15nm,0.9s
MBAR Mbarara 82.81 261 LR LR 03 54 49.0
comp=Z,296nm,19.8s,baz=28,slow=39
NVAR Mina Array Bea 82.93 36 P **P 03 13 57.5 +0.9**
comp=Z,4.6nm,0.6s,baz=318,slow=4.5,SNR=32
comp=Z,4.6nm,0.6s
NVAR Mina Array Bea 82.93 36 P **P 03 13 56.8 +0.2**
LHV Little Huntoon 83.01 36 IAmb IAmb 03 14 00.1
comp=Z,9.3nm,1.2s
DUG Dugway, Tooele 83.32 31 IAmb IAmb 03 14 00.9
comp=Z,17nm,1.9s
TPH Tonopah 83.65 35 IAmb IAmb 03 16 56.4
comp=Z,6.8nm,1.3s
MZP Montezuma Peak 83.92 35 IAmb IAmb 03 14 04.3
comp=Z,4.8nm,0.7s
RDMU Red Mountain 84.03 28 IAmb IAmb 03 14 04.5
comp=Z,7.1nm,0.8s
ECSD EROS Data Cent 84.40 18 IAmb IAmb 03 14 05.8
comp=Z,9.9nm,1.0s
ECSD EROS Data Cent 84.40 18 P **P 03 14 04.4 +0.6**
comp=Z,14nm,1.0s
PSUT Pine Spring 84.46 32 IAmb IAmb 03 14 06.7
comp=Z,3.6nm,0.7s
P17A Butcher Ranch, 84.66 30 IAmb IAmb 03 14 07.1
comp=Z,5.9nm,1.0s
P18A Preston Nutter 84.67 29 IAmb IAmb 03 15 13.6
comp=Z,17nm,1.7s
O20A White River Ci 84.83 28 IAmb IAmb 03 14 08.7
comp=Z,3.1nm,0.6s
WCT Wildcat Mounta 85.00 35 IAmb IAmb 03 14 09.5
comp=Z,5.9nm,0.7s
MPMC Manual Prospec 85.32 36 IAmb IAmb 03 14 11.0
comp=Z,9.3nm,1.5s
LRMC Laurel Mtn Rad 85.76 37 IAmb IAmb 03 14 13.2
comp=Z,6.7nm,0.8s
SHPR Sheep Range 85.80 34 IAmb IAmb 03 14 14.5
comp=Z,21nm,1.9s
HMU Henry Mountain 86.05 30 IAmb IAmb 03 14 29.7
comp=Z,17nm,1.6s
TPO Tropico Hills 86.07 37 IAmb IAmb 03 14 15.4
comp=Z,11nm,0.8s
PV22 Blue Mesa, Par 86.13 29 IAmb IAmb 03 14 23.5
comp=Z,10nm,1.3s
PV23 Carpenter Ridg 86.14 29 IAmb IAmb 03 14 15.2
comp=Z,15nm,1.2s
STKA Stephens Creek 86.15 153 P **P 03 14 11.8 -0.6**
comp=Z,2.1nm,0.6s,baz=41,slow=4.2,SNR=3.9
comp=Z,2.1nm,0.6s
PV10 Paradox Valley 86.20 29 IAmb IAmb 03 15 17.0
comp=Z,7.5nm,1.0s
PV14 Lion Creek, Pa 86.21 29 IAmb IAmb 03 14 15.6
comp=Z,7.8nm,0.9s
PV07 Paradox Valley 86.26 29 IAmb IAmb 03 14 25.9
comp=Z,7.8nm,1.1s
PV13 Radium Mtn., P 86.47 29 IAmb IAmb 03 14 18.0
comp=Z,10.0nm,1.1s
PV01 Paradox Valley 86.57 29 IAmb IAmb 03 14 17.3
comp=Z,7.8nm,0.9s
OPO Ambohidratompo 87.03 237 LR LR 03 50 08.0
comp=Z,153nm,18.9s,baz=30,slow=34
SDCO Great Sand Dun 87.85 27 IAmb IAmb 03 14 23.0
comp=Z,9.8nm,1.5s
PFO Pinyon Flats O 87.88 36 LR LR 03 54 26.2
comp=Z,132nm,18.2s,baz=350,slow=36
TASM ASL Pad, Albuq 90.16 28 IAmb IAmb 03 14 34.6
comp=Z,4.5nm,1.2s
ANMO Albuquerque 90.16 28⇓ *iP* **P 03 14 32.5 +0.4**
ANMO Albuquerque 90.16 28 P 03 14 31.7 -0.4
ALQ Albuquerque 90.16 28 IAmb IAmb 03 14 34.6
comp=Z,7.0nm,1.4s
ALQ Albuquerque 90.16 28 IAmb IAmb 03 14 34.6
comp=Z,7.0nm,1.4s
Y22A Socorro 90.93 29 IAmb IAmb 03 14 38.2
comp=Z,7.9nm,1.4s
TORD Torodi Ar. Bea 90.94 291 P **P 03 14 34.8 -0.9**
comp=Z,3.7nm,0.7s,baz=33,slow=5.6,SNR=19
comp=Z,3.7nm,0.7s
TORD Torodi Ar. Bea 90.94 291 P P 03 14 35.7 0.0
TXAR Lajitas Array 96.23 28 P **P 03 15 00.8 +0.8**
comp=Z,0.2nm,0.6s,baz=354,slow=5.7,SNR=2.0
comp=Z,0.2nm,0.6s
MAW Mawson 121.89 199 PKP **PKiKP 03 20 24.0 -0.5**
comp=Z,0.6nm,0.6s,baz=225,slow=7.1,SNR=1.8
MAW Mawson 121.89 199 PKIKP **PKiKP 03 20 24.6 +0.1**
MAW Mawson 121.89 199 PKiKP 03 20 24.6 +0.1
VNA2 Neumayer--Watz 144.29 210⇑PKPdf PKPbc 03 21 03.2 -1.3
comp=Z,3.5nm,0.6s,baz=80,slow=3.0
PTLB Pontes e Lacer 144.59 340 *ep* **PKPdf 03 21 06.7 -1.6**
VNA1 Neumayer--Stat 144.59 211 PKPdf **PKPdf 03 21 06.6 +0.1**
comp=Z,5.9nm,1.2s
CANS Sao Roque de M 144.77 317 *ep* **PKPdf 03 21 08.4 -0.3**
VNA3 Neumayer Olymp 145.01 210⇑PKPdf **PKPdf 03 21 05.7 -1.6**
comp=Z,6.2nm,0.6s
PP1B Ponte de Pedra 145.51 332 *ep* **PKPab 03 21 09.6 -0.6**
BBSD Serra de San D 146.59 342 *ep* **PKPbc 03 21 11.4 -1.8**
LPAZ La Paz 146.70 355 PKPbc **PKPbc 03 21 13.1 -1.2**
comp=Z,8.7nm,0.7s,baz=346,slow=1.9,SNR=26
LPAZ La Paz 146.70 355 PKPbc 03 21 12.6 -1.7
LPAZ La Paz 146.70 355 *ep* **PKPdf 03 21 11.6 -1.0**
PCMB Pacaembu 147.97 324 *ep* **PKPdf 03 21 13.7 -0.2**
AQDB Aquidauana 148.47 332 *ep* **PKPdf 03 21 13.3 -1.4**
COIM Forte Coimbra 148.54 336 *ep* **PKPdf 03 21 14.8 0.0**
BDQN Bodoquena, MS 148.76 333 *ep* **PKPdf 03 21 14.9 -0.2**
LDASE Londrina, Braz 149.52 322 *ep* **PKPdf 03 21 16.1 -0.3**
CPUP Villa Florida 154.46 330 PKPbc **PKiKP 03 21 30.4 -1.6**
comp=Z,2.4nm,1.0s,baz=0.0,slow=2.0,SNR=3.2
CPUP Villa Florida 154.46 330 PKiKP 03 21 31.1 -0.9

AFAD 05 03:21:50.2, 37.83N×26.85E, h7km±3km, ML1.5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.22**	**7**	P	Pg	03 21 54.9	+0.2
GCAM	**G?zelcaml?**	**0.33**	**113**	P	Pg	03 21 57.5	+0.8
GCAM				S	Sg	03 22 01.8	+0.8
GCAM				IAML		03 22 03.0	
	comp=N,48nm,0.5s						
BEYE	**izmir**	**0.40**	**9**	P	Pg	03 21 58.2	+0.2
BEYE				S	Sg	03 22 04.4	+1.1
ZEYE	**Izmir, Urla-Ze**	**0.49**	**326**	P	Pg	03 22 00.4	+0.7
ZEYE				S	Sg	03 22 06.7	+0.6
ZEYE				IAML		03 22 12.0	
	comp=N,42nm,0.3s						
DUVT	**Torbali**	**0.61**	**50**	P	Pg	03 22 02.1	0.0
ZEDA	**zmir-Bergama**	**1.15**	**9**	P	Pg	03 22 06.7	-5.5
ZEDA				S	Sb	03 22 27.5	-0.1

ISK 05 03:22:41.6, 37.71N×27.05E, h9km±1km, ML1.8/6, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.15**	**93**	Pg	Pg	03 22 45.2	+0.4
GCAM				Sg	Sg	03 22 47.9	+0.9
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**51**	Pg	Pg	03 22 47.1	+0.6
KUSD				AML	AML		
BODT	**Bodrum**	**0.68**	**162**	Pg	Pg	03 22 54.9	+0.2
BODT				Sg	Sb	03 23 05.1	0.0
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**70**	Pg	Pg	03 22 55.7	+0.4
AYDB				AML	AML		
MLSB	**Milas**	**0.71**	**125**	Pg	Pb	03 22 55.8	-0.4
MLSB				Sg	Sb	03 23 06.1	0.0
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**75**	Pg	Pb	03 23 01.6	+0.1

*IDC **05** 03:23:54.3±1.4, 12.62N×143.66E, h0km, mb3.7/9, mbtmp3.7/9, MS3.7/4, Error ellipse: s-maj=47.5km s-min=23.4km az=88.0*

ISC 05 03:23:58.5±1.3, 12.6N±0.2×143.6E±0.3, h27km, n18, σ1§10/9, mb3.7/9, MS3.7/4, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H11S3	**WAKE ISLAND Hy**	**22.98**	**72**	T	T	03 52 28.4	
	baz=258,slow=75,SNR=4.6						
H11S1	**WAKE ISLAND Hy**	**23.00**	**72**	T	T	03 52 22.2	
	baz=258,slow=75,SNR=4.5						
H11S2	**WAKE ISLAND Hy**	**23.00**	**72**	T	T	03 52 24.3	
	baz=258,slow=75,SNR=5.2						
H11N1	**WAKE ISLAND Hy**	**23.44**	**69**	T	T	03 52 56.5	
	baz=255,slow=75,SNR=12						
H11N2	**WAKE ISLAND Hy**	**23.45**	**69**	T	T	03 52 57.6	
	baz=255,slow=75,SNR=12						
H11N3	**WAKE ISLAND Hy**	**23.46**	**69**	T	T	03 52 58.6	
	baz=255,slow=75,SNR=14						
WRA	**Warramunga Arr**	**33.61**	**196**	P	**P**	**03 30 36.0**	**-0.7**
	0.4nm,0.8s,baz=18,slow=9.0,SNR=2.5						
	0.4nm,0.8s						
ASAR	**Alice Springs**	**37.28**	**195**	P	**P**	**03 31 09.0**	**+0.7**
	0.3nm,0.7s,baz=20,slow=12,SNR=4.5						
ASAR				LR	LR	03 47 14.1	
	comp=Z,65nm,19.2s,baz=294,slow=38						
	0.3nm,0.7s						
CMAR	**Chiang Mai Arr**	**43.34**	**284**	P	**P**	**03 31 58.8**	**+0.1**
	0.5nm,0.3s,baz=83,slow=7.3,SNR=1.3						
	0.5nm,0.3s						
SONM	**Songino Array**	**46.84**	**326**	P	**P**	**03 32 25.4**	**-0.8**
	0.2nm,0.3s,baz=134,slow=10,SNR=1.6						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**61.34**	**317**	P	**P**	**03 34 13.0**	**+1.1**
	0.4nm,0.6s,baz=101,slow=7.8,SNR=2.2						
	0.4nm,0.6s						
KURBB	**Kurchatov Arra**	**64.58**	**320**	P	**P**	**03 34 35.1**	**+1.8**
	0.3nm,0.3s,baz=105,slow=6.9,SNR=3.7						
	0.3nm,0.3s						
BVAR	**Borovoye Array**	**69.93**	**322**	P	**P**	**03 35 06.5**	**-0.7**
	1.1nm,0.4s,baz=114,slow=8.6,SNR=3.5						
	1.1nm,0.4s						
ILAR	**Eielson Array**	**69.98**	**25**	P	**P**	**03 35 07.6**	**+0.3**
	0.3nm,0.8s,baz=239,slow=5.2,SNR=2.0						
	0.3nm,0.8s						
YBH	**Yreka Blue Hor**	**84.44**	**49**	LR	LR	04 06 27.8	
	comp=Z,88nm,20.4s,baz=191,slow=30						
FINES	**FINESS Array B**	**91.52**	**335**	P	**P**	**03 37 01.6**	**-0.8**
	1.9nm,0.8s,baz=57,slow=5.1,SNR=5.4						
	1.9nm,0.8s						
PDAR	**Pinedale Array**	**93.53**	**45**	LR	LR	04 18 23.1	
	comp=Z,21nm,19.6s,baz=164,slow=35						
ULM	**Lac du Bonnet**	**98.74**	**34**	LR	LR	04 23 36.3	
	comp=Z,31nm,19.5s,baz=175,slow=36						

*IDC **05** 03:25:28.0±1.0, 38.80N×13.95E, h0km, mb3.7/4, mbtmp3.6/7, ML2.8/3, Error ellipse: s-maj=23.8km s-min=13.0km az=95.0*

*ROM **05** 03:25:28.4±0.1, 38.699N±0.006×13.867E±0.006, h22km±1km, ML3.4/169, Mw3.6, Error ellipse: s-maj=0.6km s-min=0.5km az=320.0, Moment Tensor Solution. Moment tensor: Scale 10^14Nm; Mrr 0.09; Mθθ -0.97; Mφφ 0.88; Mrθ 0.05; Mrφ -2.85; Mθφ -0.24; Fault plane solution: M0 3.00630×10^14 NP1:φs 189.00000°, δ 88.00000°, λ 4.00000°. NP2:φs 99.00000°, δ 86.00000°, λ 178.00000°.*

ISC 05 03:25:27.8±1.0, 38.74N±0.02×13.89E±0.02, h10km±9km, n124, σ1§17/130, mb3.8/4, 18C-17D, Sicily

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IACL	**Alicudi**	**0.42**	**119**	⇓P	**Pn**	**03 25 38.0**	**-1.8**
IACL				S	**Sg**	**03 25 42.3**	**+0.7**
IACL				AML	AML		
	comp=E,31050μm,0.5s						
IACL				AML	AML		
	comp=E,31049μm,0.5s						
IACL				AML	AML		
	comp=N,35497μm,0.3s						
IACL				AML	AML		
	comp=N,6416μm,0.3s						
IACL				AML	AML		
	comp=E,31050μm,1.5s						
IACL				AML	AML		
	comp=N,35500μm,0.3s						
IFIL	**Filicudi I Eol**	**0.56**	**108**	⇑P	**Pn**	**03 25 40.5**	**-1.2**
IFIL				S	**Sn**	**03 25 48.3**	**-2.7**
IFIL				AML	AML		
	comp=N,18400μm,0.6s						
IFIL				AML	AML		
	comp=E,52250μm,1.3s						
IFIL				AML	AML		
	comp=E,48951μm,0.8s						
IFIL				AML	AML		
	comp=N,18435μm,0.6s						
IFIL				AML	AML		
	comp=N,13193μm,0.9s						
USI	**Ustica**	**0.56**	**267**	⇓P	**Pg**	**03 25 39.3**	**+0.6**
USI				S	**Sg**	**03 25 47.0**	**+1.0**
USI				AML	AML		
	comp=E,8635μm,0.9s						
USI				AML	AML		
	comp=N,30150μm,1.4s						
USI				AML	AML		
	comp=E,8630μm,0.9s						
USI				AML	AML		
	comp=E,8539μm,0.6s						
USI				AML	AML		
	comp=N,29520μm,0.3s						
SOLUN	**Solunto**	**0.70**	**204**	⇓P	**Pg**	**03 25 40.9**	**-0.5**

SOLUN S **Sg** **03 25 50.5 -0.1**
SOLUN AML AML
comp=E,12500µm,0.4s
SOLUN AML AML
comp=N,8065µm,1.0s
SOLUN AML AML
comp=E,12477µm,0.4s
SOLUN AML AML
comp=N,7854µm,0.4s
SOLUN AML AML
comp=E,12500µm,1.6s
MPG Monte Pellegri 0.71 216 ⇓P **Pg** **03 25 41.0 -0.5**
MPG S **Sg** **03 25 50.9 +0.1**
MPG AML AML
comp=E,4535µm,1.1s
MPG AML AML
comp=E,4530µm,1.1s
MPG AML AML
comp=N,4470µm,0.5s
MPG AML AML
comp=E,4142µm,0.3s
MPG AML AML
comp=N,4468µm,0.5s
MPG AML AML
comp=E,4530µm,0.9s
GIB Gibilmanna 0.75 172 ⇓P **Pb** **03 25 42.2 -0.8**
GIB S **Sg** **03 25 51.7 -0.5**
GIB AML AML
comp=N,9485µm,0.7s
GIB AML AML
comp=E,14278µm,0.5s
GIB AML AML
comp=N,9486µm,0.7s
GIB AML AML
comp=E,14300µm,0.5s
PLLN Pollina 0.77 165 ⇓P **Pb** **03 25 42.8 -0.5**
PLLN S **Sg** **03 25 53.6 +0.9**
PLLN AML AML
comp=E,10260µm,0.6s
PLLN AML AML
comp=N,34950µm,0.7s
PLLN AML AML
comp=E,10278µm,0.6s
PLLN AML AML
comp=N,34950µm,0.7s
PLLN AML AML
comp=E,10260µm,1.4s
SCIAR Sciara 0.80 188 ⇓P **Pb** **03 25 43.1 -0.7**
SCIAR S **Sb** **03 25 54.4 -0.3**
SCIAR AML AML
comp=E,4150µm,0.5s
SCIAR AML AML
comp=N,4940µm,0.6s
SCIAR AML AML
comp=E,4370µm,0.5s
SCIAR AML AML
comp=N,5340µm,0.7s
SCIAR AML AML
comp=E,4371µm,0.5s
SCIAR AML AML
comp=N,5340µm,0.7s
SCIAR AML AML
comp=E,4147µm,0.6s
SCIAR AML AML
comp=N,4942µm,0.6s
SCIAR AML AML
comp=N,4256µm,0.4s
SCIAR AML AML
comp=N,4067µm,0.4s
SCIAR AML AML
comp=E,3123µm,0.9s
SCIAR AML AML
comp=E,2842µm,0.4s
SCIAR AML AML
comp=N,4940µm,1.4s
SCIAR AML AML
comp=N,5340µm,1.3s
SCIAR AML AML
comp=E,4150µm,0.6s
CSLB Castelbuono 0.81 171 ⇓P **Pb** **03 25 43.0 -0.9**
CSLB S **Sb** **03 25 53.8 -1.1**
CSLB AML AML
comp=N,3640µm,1.4s
CSLB AML AML
comp=E,2356µm,0.5s
CSLB AML AML
comp=N,3479µm,0.7s
CSLB AML AML
comp=E,2545µm,0.9s
ILOS Lipari Osserat 0.88 109 ⇑P **Pn** **03 25 45.4 -0.8**
ILOS AML AML
comp=N,22600µm,0.7s
ILOS AML AML
comp=E,13650µm,0.5s
ILOS AML AML
comp=N,23500µm,0.7s
ILOS AML AML
comp=E,12900µm,0.5s
ILOS AML AML
comp=E,13665µm,0.5s
ILOS AML AML
comp=N,23497µm,0.7s
ILOS AML AML
comp=E,12887µm,0.5s
ILOS AML AML
comp=N,22640µm,0.7s
MSFR San Fratello 0.89 142 ⇓P **Pb** **03 25 44.9 -0.5**
MSFR S **Sb** **03 25 56.7 -0.6**
MSFR AML AML
comp=E,1605µm,1.0s
MSFR AML AML
comp=N,2070µm,0.7s
MSFR AML AML
comp=E,1234µm,0.5s
MSFR AML AML
comp=N,2070µm,0.7s
MSFR AML AML
comp=N,2070µm,1.3s
IVGP Vulcano Grotta 0.90 112 ⇑P **Pg** **03 25 45.3 +0.1**
PETRA Petralia Sopra 0.92 169 ⇓P **Pb** **03 25 45.0 -0.9**
PETRA AML AML
comp=N,13100µm,0.6s
PETRA AML AML
comp=E,7085µm,0.7s
PETRA AML AML
comp=E,7085µm,0.7s
PETRA AML AML
comp=N,13094µm,0.6s
IVUG Vulcano Grillo 0.92 111 ⇑P **Pg** **03 25 45.6 0.0**
VPL Vulcano Piano 0.93 112 ⇑P **Pg** **03 25 45.8 +0.1**
VPL S **Sg** **03 25 58.0 +0.2**
VPL AML AML
comp=N,3895µm,0.8s
VPL AML AML
comp=E,3915µm,0.5s
VPL AML AML
comp=E,3914µm,0.5s
VPL AML AML
comp=N,3892µm,0.8s
VPL AML AML
comp=E,3915µm,1.5s
CORL Corleone 0.96 209 ⇓P **Pb** **03 25 45.7 -0.8**
CORL AML AML
comp=E,4130µm,1.0s
CORL AML AML
comp=N,3200µm,1.1s
CORL AML AML
comp=E,4127µm,1.0s
CORL AML AML
comp=N,3173µm,0.7s
CORL AML AML
comp=N,3200µm,0.9s
CORL AML AML
comp=E,4130µm,1.0s
ISTR Stromboli Gino 1.02 87 ⇑P **Pn** **03 25 47.3 -0.9**
MUCR Ucria 1.04 132 ⇓P **Pb** **03 25 47.3 -0.6**
MUCR S **Sb** **03 26 00.4 -1.2**
MUCR AML AML
comp=E,6180µm,0.8s
MUCR AML AML
comp=N,8140µm,0.7s
MUCR AML AML
comp=E,6176µm,0.8s
MUCR AML AML
comp=N,8139µm,0.7s
IST3 Stromboli F 1.05 86 P **Pg** **03 25 48.0 0.0**
IST3 AML AML
comp=E,1175µm,0.6s
IST3 AML AML
comp=N,1165µm,0.3s
IST3 AML AML
comp=E,831µm,0.3s
IST3 AML AML
comp=N,1166µm,0.3s
MBFT Monte Bonifato 1.08 223 P **Pb** **03 25 47.4 -1.2**
MBFT S **Sb** **03 26 01.6 -1.1**
MBFT AML AML
comp=N,1565µm,0.7s
MBFT AML AML
comp=E,162µm,0.9s
MBFT AML AML
comp=N,203µm,0.6s
MBFT AML AML
comp=E,1139µm,0.7s
MBFT AML AML
comp=N,1567µm,0.7s
MBFT AML AML
comp=E,1225µm,1.2s
RESU Resuttano 1.09 173 P **Pn** **03 25 49.0 -0.3**
RESU AML AML
comp=E,2015µm,0.5s
RESU AML AML
comp=N,3330µm,0.5s
RESU AML AML
comp=E,2013µm,0.5s
RESU AML AML
comp=N,3328µm,0.5s
MCT Mte Cammarata 1.12 190 P **Pg** **03 25 50.3 +0.9**
MILZ Milazzo 1.15 113 P **Pn** **03 25 48.5 -1.4**
MILZ AML AML
comp=N,3770µm,1.6s
MILZ AML AML
comp=E,10035µm,0.4s
MILZ AML AML
comp=E,10033µm,0.4s
MILZ AML AML
comp=N,3701µm,0.5s
MILZ AML AML
comp=N,3770µm,0.4s
GALF Gagliano Caste 1.15 152 ⇓P **Pb** **03 25 49.6 -0.2**
GALF AML AML
comp=E,861µm,0.5s
GALF AML AML
comp=N,797µm,0.8s
GALF AML AML
comp=E,7835µm,0.5s
GALF AML AML
comp=N,6355µm,0.7s
GALF AML AML
comp=E,862µm,0.5s
GALF AML AML
comp=N,797µm,0.9s
GALF AML AML
comp=E,7833µm,0.5s
GALF AML AML
comp=N,6356µm,0.7s
GALF AML AML
comp=E,861µm,0.5s
GALF AML AML
comp=N,797µm,0.8s
T1573 Gallitello 1.15 221 P **Pn** **03 25 48.5 -1.4**
T1573 AML AML
comp=E,4170µm,0.6s
T1573 AML AML
comp=N,3315µm,0.6s
T1573 AML AML
comp=N,3515µm,0.7s
T1573 AML AML
comp=E,4180µm,0.6s
T1573 AML AML
comp=E,4172µm,0.6s
T1573 AML AML
comp=N,3312µm,0.6s
T1573 AML AML
comp=E,4181µm,0.6s
T1573 AML AML
comp=N,3518µm,0.7s
T1573 AML AML
comp=E,4170µm,1.4s
T1573 AML AML
comp=E,4180µm,1.4s
T1573 AML AML
comp=N,3315µm,1.4s
CRJA Costa Raja 1.16 217 P **Pn** **03 25 48.9 -1.3**
CRJA AML AML
comp=E,2285µm,0.8s
CRJA AML AML
comp=N,2429µm,0.7s
CRJA AML AML
comp=N,2430µm,0.7s
CRJA AML AML
comp=E,2285µm,0.8s
EPZF Pizzo Felice 1.19 140 P **Pg** **03 25 50.6 0.0**
EPZF AML AML
comp=E,7255µm,0.4s
EPZF AML AML
comp=N,5570µm,0.5s
EPZF AML AML
comp=E,7257µm,0.4s
EPZF AML AML
comp=N,5571µm,0.5s
NOV Novara 1.21 125 ⇑P **Pn** **03 25 49.6 -1.1**
NOV AML AML
comp=E,7841µm,0.5s
NOV AML AML
comp=N,7365µm,0.8s
NOV AML AML
comp=E,7840µm,0.5s
NOV AML AML
comp=N,7535µm,0.8s
CAGR Agira 1.21 156 P **Pg** **03 25 51.6 +0.5**
MFNL Monte Finestre 1.21 219 ⇓P **Pn** **03 25 50.2 -0.6**
MFNL AML AML
comp=E,1355µm,0.9s
MFNL AML AML
comp=N,1064µm,0.6s
MFNL AML AML
comp=E,1349µm,0.7s
MFNL AML AML
comp=N,1065µm,0.6s
MFNL AML AML
comp=E,1355µm,1.1s
MFNL AML AML
comp=N,1064µm,1.4s
MTGR Montagna Grand 1.22 227 ⇑P **Pn** **03 25 49.4 -1.6**
MTGR AML AML
comp=E,495µm,0.5s
MTGR AML AML
comp=N,782µm,0.5s
MTGR AML AML
comp=E,495µm,0.5s
MTGR AML AML
comp=N,782µm,0.5s
MTGR AML AML
comp=E,495µm,1.5s
T1574 Salemi 1.23 224 P **Pn** **03 25 50.3 -0.7**
T1574 AML AML
comp=E,1785µm,0.5s
T1574 AML AML
comp=E,1805µm,0.8s
T1574 AML AML
comp=N,1690µm,0.4s
T1574 AML AML
comp=N,1685µm,0.4s
T1574 AML AML
comp=E,1785µm,0.5s
T1574 AML AML
comp=N,1689µm,0.4s
T1574 AML AML
comp=E,1803µm,0.8s
T1574 AML AML
comp=N,1682µm,0.4s
EMSG Monte Spagnolo 1.24 137 P **Pg** **03 25 51.5 -0.1**
EMSG AML AML
comp=E,5675µm,0.4s
EMSG AML AML
comp=N,4465µm,1.4s
ERC Erice 1.24 236 P **Pn** **03 25 49.5 -1.8**
CLTB Caltabellotta 1.27 205 P **Pn** **03 25 51.5 -0.2**
CLTB AML AML
comp=E,7940µm,0.5s
CLTB AML AML
comp=N,13850µm,0.6s
ECTS Castiglione 1.29 131 P **Pn** **03 25 51.4 -0.5**
ECTS AML AML
comp=E,2210µm,0.9s
ECTS AML AML
comp=N,2505µm,0.9s
ECTS AML AML
comp=E,2209µm,0.9s
ECTS AML AML
comp=N,2244µm,0.4s
ECTS AML AML
comp=N,2505µm,1.1s
MPNC Port Mandanici 1.29 117 ⇑P **Pn** **03 25 50.7 -1.1**
MPNC AML AML
comp=E,5575µm,1.5s
MPNC AML AML
comp=N,4515µm,0.7s
MPNC AML AML
comp=N,4515µm,1.3s
MPNC AML AML
comp=E,5575µm,0.5s
MMGO Monte Magaggia 1.29 214 P **Pn** **03 25 51.1 -0.8**
T1581 Borgo Fazio 1.29 227 P **Pn** **03 25 50.8 -1.1**
T1581 AML AML
comp=E,1860µm,0.6s
T1581 AML AML
comp=N,1940µm,0.6s
T1581 AML AML
comp=E,1855µm,0.6s
T1581 AML AML
comp=N,1935µm,0.6s
T1581 AML AML
comp=E,805µm,0.9s
T1581 AML AML
comp=N,981µm,0.8s
T1581 AML AML
comp=E,1858µm,0.6s
T1581 AML AML
comp=N,1938µm,0.6s
EPIT Pozzo Pitarron 1.30 135 P **Pg** **03 25 52.6 -0.2**
AIO Antillo 1.30 125 P **Pn** **03 25 51.0 -1.1**
AIO AML AML
comp=E,1480µm,1.3s
AIO AML AML
comp=N,2285µm,0.4s
AIO AML AML
comp=E,1480µm,0.7s
EMCN Etna Monte Con 1.30 136 P **Pg** **03 25 53.1 +0.3**
EMCN AML AML
comp=E,4185µm,0.4s
EMCN AML AML
comp=N,4150µm,1.3s
EMCN AML AML
comp=E,4145µm,0.4s
EMCN AML AML
comp=N,3925µm,0.7s
EMCN AML AML
comp=N,3925µm,1.3s
T1582 S. Ninfa 1.32 222 P **Pn** **03 25 51.8 -0.5**
T1582 AML AML
comp=E,985µm,1.6s
T1582 AML AML
comp=N,1420µm,1.6s
T1582 AML AML
comp=E,3535µm,0.5s
T1582 AML AML
comp=N,3815µm,0.5s
VAE Valguarnera 1.32 162 Pg **Pb** **03 25 52.4 -0.3**
comp=N,7.8nm,0.3s,baz=6.9,slow=23,SNR=63
VAE Lg Lg 03 26 13.4
comp=N,24nm,0.3s,baz=185,slow=13,SNR=8.1
VAE Valguarnera 1.32 162 P **Pg** **03 25 53.7 +0.5**
VAE AML AML
comp=N,730µm,1.6s
VAE AML AML
comp=E,1034µm,0.8s
VAE AML AML
comp=N,730µm,0.4s
ECHR Santa Chiara 1.32 142 P **Pg** **03 25 53.8 +0.6**
ECBD Case Bada 1.34 135 P **Pg** **03 25 53.5 -0.1**
CPTP Pietraperzia 1.34 171 P **Pg** **03 25 54.4 +0.8**
CPTP AML AML
comp=E,1175µm,1.6s
CPTP AML AML
comp=N,1185µm,0.8s
MSRU Castanea 1.35 110 ⇑P **Pn** **03 25 51.7 -1.1**
MSRU AML AML
comp=E,1955µm,0.6s
MSRU AML AML
comp=N,2400µm,0.9s
ESML S. M. di Licod 1.36 145 P **Pg** **03 25 53.8 -0.1**
ESML AML AML
comp=N,2155µm,0.6s
ESML AML AML
comp=N,2155µm,1.4s
ESML AML AML
comp=E,2330µm,0.8s
SCIAC Sciacca 1.37 207 P **Pn** **03 25 52.3 -0.6**
SCIAC AML AML
comp=E,961µm,0.6s
SCIAC AML AML
comp=N,886µm,0.7s
CAVT Castelvetrano 1.38 221 P **Pn** **03 25 52.8 -0.4**
CAVT AML AML
comp=E,1830µm,1.0s
CAVT AML AML
comp=N,1360µm,1.0s
EFIU Fiumefreddo 1.40 132 P **Pb** **03 25 53.9 -0.2**
ENIC Nicolosi 1.42 141 P **Pb** **03 25 53.9 -0.5**
ENIC AML AML
comp=E,3335µm,0.6s
ENIC AML AML
comp=N,2940µm,0.8s
ENIC AML AML
comp=N,2555µm,0.6s
ENIC AML AML
comp=E,2720µm,0.5s
ENIC AML AML
comp=N,2555µm,1.4s
ENIC AML AML
comp=E,3335µm,1.4s
LEVAN Levanzo 1.42 239 P **Pn** **03 25 52.0 -1.7**
LEVAN AML AML
comp=E,454µm,0.8s
LEVAN AML AML
comp=N,460µm,0.5s
LEVAN AML AML
comp=E,454µm,1.2s
MARS Marsala (TP) I 1.43 227 P **Pn** **03 25 53.3 -0.5**
MARS AML AML
comp=E,1335µm,0.5s
MARS AML AML
comp=E,1335µm,1.5s
MARS AML AML
comp=N,1895µm,0.9s
EVRN Santa Venerina 1.43 136 P **Pb** **03 25 54.5 -0.1**
EVRN AML AML
comp=E,2665µm,0.6s
EVRN AML AML
comp=E,3095µm,0.7s
EVRN AML AML
comp=N,3095µm,0.9s
EVRN AML AML
comp=N,3020µm,0.6s
SICLA Scilla 1.51 108 P **Pn** **03 25 53.6 -1.2**
SICLA AML AML
comp=E,1070µm,0.3s
SICLA AML AML
comp=N,1260µm,0.4s
RAFF Raffo Rosso 1.56 166 ⇓P **Pb** **03 25 56.2 -0.5**
RAFF AML AML
comp=E,1845µm,0.4s
RAFF AML AML
comp=N,1082µm,0.5s
RAFF AML AML
comp=E,1845µm,1.6s
RAFF AML AML
comp=N,1082µm,1.5s
JOPP Joppolo 1.57 94 P **Pn** **03 25 54.9 -0.8**
JOPP AML AML
comp=E,290µm,1.5s
JOPP AML AML
comp=N,290µm,0.5s
JOPP AML AML
comp=E,290µm,0.5s
HLNI Lentini 1.59 150 ⇓P **Pn** **03 25 55.8 -0.1**
HLNI AML AML
comp=E,674µm,1.5s
HLNI AML AML

	comp=N,697µm,0.9s								
HLNI					AML	AML			
	comp=E,674µm,0.5s								
HLNI					AML	AML			
	comp=N,697µm,1.1s								
MTTG	**Motta San Giov**	**1.59**	**117**		P	**Pn**	**03 25 55.4**	**-0.7**
MTTG					AML	AML			
	comp=E,1208µm,1.0s								
MTTG					AML	AML			
	comp=N,949µm,0.4s								
MTTG					AML	AML			
	comp=E,1208µm,1.0s								
MTTG					AML	AML			
	comp=N,1390µm,0.5s								
CEL	**Celeste**	**1.64**	**106**	⇑	P	**Pn**	**03 25 55.8**	**-1.0**
CEL					AML	AML			
	comp=N,1082µm,0.9s								
CEL					AML	AML			
	comp=N,1068µm,0.9s								
CEL					AML	AML			
	comp=E,886µm,0.6s								
CEL					AML	AML			
	comp=E,876µm,0.6s								
CEL					AML	AML			
	comp=N,1082µm,1.1s								
CEL					AML	AML			
	comp=N,1068µm,1.1s								
HVZN	**Vizzini**	**1.69**	**157**		P	**Pn**	**03 25 57.1**	**-0.3**
HCRL	**Carlentini**	**1.71**	**148**		P	**Pn**	**03 25 57.4**	**-0.2**
HCRL					AML	AML			
	comp=N,763µm,0.9s								
HCRL					AML	AML			
	comp=E,892µm,0.8s								
HAGA	**Augusta**	**1.76**	**145**		P	**Pn**	**03 25 57.8**	**-0.5**
HAGA					AML	AML			
	comp=N,728µm,1.1s								
HAGA					AML	AML			
	comp=E,924µm,0.6s								
BULG	**Bulgheria - Ca**	**1.77**	**40**		P	**Pb**	**03 25 58.9**	**-1.5**
BULG					AML	AML			
	comp=E,220µm,1.6s								
BULG					AML	AML			
	comp=N,352µm,0.4s								
BULG					AML	AML			
	comp=N,373µm,0.4s								
BULG					AML	AML			
	comp=E,200µm,0.5s								
ACATE	**Acate (RG)**	**1.77**	**164**		P	**Pn**	**03 25 58.9**	**+0.3**
ACATE					AML	AML			
	comp=E,3770µm,0.5s								
ACATE					AML	AML			
	comp=N,2430µm,0.7s								
ACATE					AML	AML			
	comp=E,3610µm,0.5s								
ACATE					AML	AML			
	comp=N,2425µm,0.5s								
ACATE					AML	AML			
	comp=E,3770µm,1.5s								
ACATE					AML	AML			
	comp=E,3610µm,1.5s								
ACATE					AML	AML			
	comp=N,2430µm,1.3s								
ACATE					AML	AML			
	comp=N,2425µm,1.5s								
CET2	**Cetraro**	**1.79**	**63**	⇑	P	**Pn**	**03 25 58.9**	**+0.1**
CET2					AML	AML			
	comp=E,346µm,0.8s								
CET2					AML	AML			
	comp=N,738µm,0.5s								
AGST	**Augusta-Monte**	**1.81**	**144**		P	**Pn**	**03 25 58.3**	**-0.8**
AGST					AML	AML			
	comp=N,1255µm,1.0s								
AGST					AML	AML			
	comp=E,886µm,0.4s								
GRIS	**Grisolia**	**1.82**	**56**		P	**Pn**	**03 25 59.1**	**-0.1**
SOI	**Samo**	**1.82**	**111**		P	**Pn**	**03 25 58.6**	**-0.6**
SOI					AML	AML			
	comp=E,565µm,1.6s								
SOI					AML	AML			
	comp=N,788µm,0.7s								
SOI					AML	AML			
	comp=E,565µm,0.4s								
GIZZ	**Gizzeria**	**1.83**	**82**	⇑	P	**Pn**	**03 25 58.8**	**-0.5**
SSY	**Sortino**	**1.83**	**149**		P	**Pn**	**03 25 59.1**	**-0.3**
SSY					AML	AML			
	comp=E,2780µm,1.4s								
SSY					AML	AML			
	comp=N,5400µm,0.4s								
CAR1	**CAROLEI**	**1.88**	**73**	⇑	P	**Pn**	**03 26 00.1**	**0.0**
CAR1					AML	AML			
	comp=E,783µm,0.5s								
CAR1					AML	AML			
	comp=N,1115µm,0.6s								
CAR1					AML	AML			
	comp=N,993µm,0.6s								
CAR1					AML	AML			
	comp=E,911µm,0.6s								
MGR	**Morigerati**	**1.90**	**42**		P	**Pn**	**03 26 00.6**	**+0.3**
MGR					AML	AML			
	comp=E,166µm,0.5s								
MGR					AML	AML			
	comp=N,163µm,0.4s								
HMDC	**Modica**	**1.91**	**158**		P	**Pn**	**03 26 00.1**	**-0.4**
HMDC					AML	AML			
	comp=E,885µm,0.5s								
HMDC					AML	AML			
	comp=N,909µm,0.5s								
HMDC					AML	AML			
	comp=E,954µm,0.5s								
HMDC					AML	AML			
	comp=N,958µm,0.5s								
HMDC					AML	AML			
	comp=N,958µm,1.5s								
HMDC					AML	AML			
	comp=N,909µm,1.5s								
CUC	**Castrocucco**	**1.95**	**49**		P	**Pb**	**03 26 01.4**	**-2.0**
CUC					AML	AML			
	comp=E,314µm,0.6s								
CUC					AML	AML			
	comp=N,308µm,0.7s								
CUC					AML	AML			
	comp=N,297µm,0.5s								
CUC					AML	AML			
	comp=E,294µm,0.6s								
CUC					AML	AML			
	comp=N,308µm,1.3s								
IFOR	**Ischia Forio P**	**1.97**	**359**		P	**Pn**	**03 26 01.8**	**+0.5**
IFOR					AML	AML			
	comp=E,1090µm,0.4s								
IFOR					AML	AML			
	comp=N,1735µm,0.4s								
GRI	**Girifalco**	**1.98**	**87**		P	**Pn**	**03 26 01.0**	**-0.4**
GRI					AML	AML			
	comp=E,331µm,0.5s								
GRI					AML	AML			
	comp=N,308µm,0.4s								
GRI					AML	AML			
	comp=N,308µm,1.6s								
IMTC	**Ischia Forio M**	**1.98**	**360**		P	**Pn**	**03 26 01.9**	**+0.5**
IMTC					AML	AML			
	comp=E,262µm,1.0s								
IMTC					AML	AML			
	comp=N,16µm,1.6s								
IMTC					AML	AML			
	comp=E,262µm,1.0s								
IMTC					AML	AML			
	comp=N,16µm,0.4s								
SPS2	**Spezzano della**	**1.99**	**73**	⇑	P	**Pn**	**03 26 01.6**	**+0.1**
SPS2					AML	AML			
	comp=E,135µm,0.3s								
SPS2					AML	AML			
	comp=N,140µm,0.6s								
PLAC	**Placanica**	**2.02**	**97**	⇑	P	**Pn**	**03 26 01.9**	**0.0**
PLAC					AML	AML			
	comp=E,526µm,0.8s								
PLAC					AML	AML			
	comp=N,546µm,0.8s								
PLAC					AML	AML			
	comp=N,380µm,1.3s								
PLAC					AML	AML			
	comp=E,384µm,1.3s								
HAVL	**Avola**	**2.02**	**151**		P	**Pn**	**03 26 01.4**	**-0.6**
HAVL					AML	AML			
	comp=E,784µm,0.3s								
HAVL					AML	AML			
	comp=N,744µm,0.4s								
VENT	**Ventotene**	**2.09**	**350**		P	**Pn**	**03 26 02.9**	**0.0**
VENT					AML	AML			
	comp=E,252µm,1.6s								
VENT					AML	AML			
	comp=N,374µm,1.0s								
TDS	**Terranova Siba**	**2.11**	**63**		P	**Pn**	**03 26 03.7**	**+0.5**
TDS					AML	AML			
	comp=N,94µm,0.8s								
TDS					AML	AML			
	comp=E,73µm,0.7s								
VCRE	**Vesuvio Crater**	**2.12**	**11**		AML	AML			
	comp=N,314µm,0.6s								
VCRE					AML	AML			
	comp=E,331µm,0.8s								
SGO	**Sicignano**	**2.13**	**31**		P	**Pb**	**03 26 04.6**	**-1.9**
ALB1	**ALBI**	**2.13**	**81**		P	**Pn**	**03 26 03.6**	**+0.1**
CELI	**Celico**	**2.14**	**71**		P	**Pn**	**03 26 03.8**	**+0.1**
CELI					AML	AML			
	comp=E,116µm,0.6s								
CELI					AML	AML			
	comp=N,134µm,0.5s								
CELI					AML	AML			
	comp=N,134µm,1.5s								
SELL	**Sellia**	**2.15**	**83**		P	**Pn**	**03 26 03.9**	**+0.2**
SERS	**Sersale**	**2.20**	**81**	⇑	P	**Pn**	**03 26 04.8**	**+0.3**
SERS					AML	AML			
	comp=E,128µm,1.6s								
SERS					AML	AML			
	comp=N,132µm,1.6s								
SERS					AML	AML			
	comp=E,141µm,0.4s								
SERS					AML	AML			
	comp=N,120µm,0.7s								
SERS					AML	AML			
	comp=N,132µm,0.4s								
SERS					AML	AML			
	comp=E,128µm,0.4s								
SCHR	**S. Chirico Rap**	**2.24**	**48**		P	**Pb**	**03 26 06.0**	**-2.3**
HPAC	**Pachino**	**2.25**	**154**		P	**Pn**	**03 26 04.5**	**-0.6**
HPAC					AML	AML			
	comp=E,860µm,0.6s								
HPAC					AML	AML			
	comp=N,882µm,0.8s								
MCRV	**Calabrutti - M**	**2.27**	**25**		P	**Pb**	**03 26 06.5**	**-2.4**
TIP	**Timpagrande**	**2.28**	**78**	⇑	P	**Pn**	**03 26 06.1**	**+0.6**
TIP					AML	AML			
	comp=N,116µm,1.5s								
TIP					AML	AML			
	comp=N,101µm,0.7s								
TIP					AML	AML			
	comp=E,136µm,0.7s								
TIP					AML	AML			
	comp=E,113µm,0.7s								
LIO3	**Lioni**	**2.38**	**24**		P	**Pb**	**03 26 09.2**	**-1.5**
PIPA	**Pietrapaola**	**2.40**	**71**		P	**Pn**	**03 26 07.9**	**+0.8**
PIPA					AML	AML			
	comp=E,132µm,0.3s								
PIPA					AML	AML			
	comp=N,158µm,0.7s								
SNAL	**S. Angelo Dei**	**2.41**	**24**		P	**Pb**	**03 26 09.5**	**-1.8**
SNAL					AML	AML			
	comp=E,117µm,1.6s								
SNAL					AML	AML			
	comp=N,137µm,0.7s								
SNAL					AML	AML			
	comp=E,123µm,1.6s								
SNAL					AML	AML			
	comp=N,137µm,0.7s								
SNAL					AML	AML			
	comp=E,117µm,0.4s								
SNAL					AML	AML			
	comp=E,123µm,0.4s								
SNAL					AML	AML			
	comp=N,137µm,1.3s								
SNAL					AML	AML			
	comp=N,137µm,1.3s								
CRAC	**Craco**	**2.55**	**50**		AML	AML			
	comp=E,370µm,0.7s								
CRAC					AML	AML			
	comp=E,370µm,1.3s								
CRAC					AML	AML			
	comp=N,224µm,0.9s								
ACER	**Acerenza**	**2.59**	**37**		P	**Pb**	**03 26 12.5**	**-1.8**
ACER					AML	AML			
	comp=E,659µm,0.7s								
ACER					AML	AML			
	comp=N,502µm,1.1s								
ACER					AML	AML			
	comp=E,616µm,0.7s								
ACER					AML	AML			
	comp=N,460µm,1.0s								
MIGL	**Miglionico**	**2.71**	**46**		P	**Pb**	**03 26 14.2**	**-2.3**
GIUL	**Giuliano Di Ro**	**2.86**	**350**		P	**Pn**	**03 26 14.7**	**+1.1**
GIUL					AML	AML			
	comp=E,74µm,1.6s								
GIUL					AML	AML			
	comp=N,100µm,1.0s								
LRP	**Arpino**	**2.92**	**356**		P	**Pn**	**03 26 15.5**	**+1.3**
LRP					AML	AML			
	comp=E,62µm,1.4s								
LRP					AML	AML			
	comp=N,21µm,0.4s								
LRP					AML	AML			
	comp=E,62µm,0.6s								
LRP					AML	AML			
	comp=N,21µm,1.6s								
AMUR	**Altamura**	**3.01**	**43**		P	**Pn**	**03 26 17.4**	**+1.8**
AMUR					AML	AML			
	comp=N,178µm,0.5s								
AMUR					AML	AML			
	comp=N,178µm,1.5s								
AMUR					AML	AML			
	comp=E,175µm,0.6s								
MELA	**Melanico ??? S**	**3.12**	**17**		P	**Pb**	**03 26 19.9**	**-3.3**
VVLD	**Villa Vallelon**	**3.14**	**356**		P	**Pn**	**03 26 19.1**	**+1.7**
VVLD					AML	AML			
	comp=E,55µm,0.4s								
VVLD					AML	AML			
	comp=N,56µm,1.1s								
VVLD					AML	AML			
	comp=N,56µm,0.9s								
SGRT	**San Giovanni R**	**3.33**	**25**		P	**Pn**	**03 26 22.3**	**+2.2**
SGRT					AML	AML			
	comp=E,73µm,1.5s								
SGRT					AML	AML			
	comp=N,72µm,0.8s								
SGRT					AML	AML			
	comp=N,72µm,1.2s								
VSL	**Villasalto**	**3.59**	**284**		P	**Pn**	**03 26 21.1**	**-2.4**
VSL					AML	AML			
	comp=N,57µm,1.6s								
VSL					AML	AML			
	comp=N,57µm,0.4s								
VSL					AML	AML			
	comp=E,76µm,0.6s								
OT13	**Castello Viest**	**3.60**	**28**		AML	AML			
	comp=N,188µm,0.4s								
OT13					AML	AML			
	comp=E,141µm,0.8s								
OT13					AML	AML			
	comp=N,188µm,1.6s								
AGLI	**Aglientu**	**4.34**	**305**	⇓	P	**Pn**	**03 26 33.2**	**-0.6**
AGLI					AML	AML			
	comp=E,173µm,0.2s								
AGLI					AML	AML			
	comp=N,77µm,0.2s								
CSP1	**Cessapalombo**	**4.38**	**353**		P	Pn	03 26 39.1	+4.6
KEST	**Kesra**	**4.70**	**232**		Pn	**Pn**	**03 26 41.4**	**+2.5**
	comp=N,0.5nm,0.3s,baz=20,slow=4.2,SNR=9.1								
	comp=N,1.7nm,0.4s								
KEST					AML	AML			
OBKA	**Obir**	**7.79**	**3**		*e*Pn	**Pn**	**03 27 24.9**	**+3.8**
	comp=N,3.1nm,0.6s								
MYKA	**Terra Mystica**	**7.89**	**359**		*i* Pn	Pn	03 27 27.4	+4.8
	comp=N,1.7nm,0.4s								
ABTA	**Abfaltersbach**	**8.07**	**353**		*e*Pn	**Pn**	**03 27 28.8**	**+3.7**
	comp=N,3.2nm,0.6s								
DAVOX	**Davos/Dischmat**	**8.56**	**341**		Pn	**Pn**	**03 27 32.4**	**+0.5**
	comp=N,0.3nm,0.3s,baz=156,slow=17,SNR=3.6								
	comp=N,1.9nm,0.8s								
DAVOX					AML	AML			
LESA	**Schwarzleotal**	**8.73**	**355**		*e*Pn	Pn	03 27 38.9	+4.8
	comp=N,2.2nm,0.5s								
MOA	**Molln**	**9.12**	**2**		*e*Pn	Pn	03 27 43.9	+4.5
	comp=N,1.8nm,0.5s								
GERES	**GERESS Array B**	**10.11**	**359**		Pn	**Pn**	**03 27 54.6**	**+1.6**
	baz=172,slow=12,SNR=6.2								
	comp=N,0.7nm,0.6s								
HFS	**Hagfors**	**21.42**	**360**		P	**P**	**03 30 17.0**	**+1.4**
	comp=N,1.8nm,0.8s,baz=194,slow=12,SNR=4.1								
	comp=N,1.8nm,0.8s								
FINES	**FINESS Array B**	**23.96**	**14**		P	**P**	**03 30 43.4**	**+1.4**
	comp=N,2.2nm,0.7s,baz=181,slow=8.5,SNR=12								
	comp=N,2.2nm,0.7s								
KURBB	**Kurchatov Arra**	**46.07**	**53**		P	**P**	**03 33 53.1**	**+1.4**
	comp=N,0.6nm,0.6s,baz=297,slow=8.4,SNR=2.5								
	comp=N,0.6nm,0.6s								
MKAR	**Makanchi Array**	**49.41**	**57**		P	**P**	**03 34 19.1**	**+1.4**
	comp=N,0.8nm,0.5s,baz=288,slow=7.1,SNR=8.5								
	comp=N,0.8nm,0.5s								

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*THE **05** 03:25:41.0, 38°N±1°×2°7E±°, h9km±1km, M3.1/15, MLh3.1/15*
*AFAD **05** 03:25:40.4, 37°.83N×26°.86E, h7km±2km, ML3.3*
*ISK **05** 03:25:40.9, 37°.85N×26°.93E, h9km, ML3.5/14*
*ATH **05** 03:25:40.5, 37°.81N×26°.89E, h17km, ML3.5/6, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 05 03:25:40.4±0.8, 37.83N±0°.01×26.90E±0°.02, h16km±6km, n70, σ0.48/104, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**202**	P		**Pb**	**03 25 44.4**	**-0.2**
SMG				S		**Sb**	**03 25 47.0**	**-0.3**
SMG				AML		AML		
SMG	**Samos**	**0.14**	**202**	P		**Pb**	**03 25 44.2**	**-0.3**
SMG				S		**Sg**	**03 25 46.7**	**0.0**
SMG				AML		AML		
KRL1	**Karlovasi Samo**	**0.16**	**256**	P		**Pb**	**03 25 44.6**	**-0.4**
KRL1				S		**Sb**	**03 25 47.3**	**-0.7**
DGB	**zmir**	**0.22**	**356**	P		**Pg**	**03 25 45.3**	**-0.1**
SAM2	**Drakei, Karlov**	**0.24**	**252**	P		**Pg**	**03 25 45.9**	**+0.1**
SAM2				S		**Sg**	**03 25 49.4**	**-0.1**
SAM2				AML		AML		
GMLD	**Gumuldur**	**0.24**	**3**	Pg		**Pb**	**03 25 45.9**	**-0.5**
GMLD				Sg		**Sb**	**03 25 49.8**	**-0.7**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.29**	**117**	P		**Pb**	**03 25 47.0**	**-0.2**
GCAM	**G?zelcaml?**	**0.29**	**117**	Pg		**Pb**	**03 25 47.1**	**-0.2**
GCAM				Sg		**Sb**	**03 25 51.4**	**-0.5**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**85**	Pg		**Pb**	**03 25 47.3**	**-0.2**
KUSD				AML		AML		
BEYE	**izmir**	**0.39**	**3**	P		**Pg**	**03 25 48.4**	**0.0**
BEYE				IAML		**S**	**03 25 54.0**	**+0.1**
	comp=N,3µm,0.4s							
BEYE				IAML		**S**	**03 25 54.0**	**+0.1**
	comp=E,2µm,0.3s							
BEYE				S		**S**	**03 25 54.0**	**+0.1**
DDIM	**Aydin, Didim**	**0.46**	**144**	P		**Pb**	**03 25 50.0**	**-0.1**
DDIM				S		**Sb**	**03 25 57.2**	**+0.4**
DDIM				IAML			03 25 58.0	
	comp=N,3µm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.51**	**322**	P		**Pg**	**03 25 50.5**	**-0.1**
ZEYE				S		**Sg**	**03 25 57.3**	**-0.2**
BLCB	**Balcova**	**0.56**	**11**	P		**Pb**	**03 25 51.6**	**-0.2**
BLCB				S		**Sg**	**03 25 59.0**	**0.0**
BLCB				AML		AML		
BLCB	**Balcova**	**0.56**	**11**	Pg		**Pb**	**03 25 51.7**	**-0.2**
DUVT	**Torbali**	**0.58**	**48**	P		**Pb**	**03 25 52.1**	**0.0**
DUVT				S		**Sg**	**03 25 59.1**	**-0.5**
DUVT				IAML			03 26 04.0	
	comp=E,3µm,0.5s							
DAGE	**izmir**	**0.69**	**76**	P		**Pn**	**03 25 55.8**	**+0.2**
AYDB	**Zeytinkoy-Aydi**	**0.79**	**81**	Pg		**Pn**	**03 25 56.7**	**-0.3**
AYDB				Sg		**Sb**	**03 26 07.3**	**+0.9**
AYDN	**Tasoluk**	**0.79**	**102**	P		**Pb**	**03 25 56.5**	**+0.6**
BAGT	**Foa**	**0.82**	**357**	P		**Pb**	**03 25 56.8**	**+0.5**
BODT	**Bodrum**	**0.84**	**157**	P		**Pb**	**03 25 57.0**	**+0.5**
BODT				AML		AML		
BODT	**Bodrum**	**0.84**	**157**	Pg		**Pn**	**03 25 57.7**	**+0.2**
BODT				AML		AML		
CHOS	**Chios island**	**0.87**	**310**	P		**Pg**	**03 25 57.0**	**-0.3**
CHOS				AML		AML		
CHOS	**Chios island**	**0.87**	**310**	P		**Pb**	**03 25 57.3**	**+0.2**
CHOS				S		**Sb**	**03 26 09.5**	**+1.0**
CHOS				AML		AML		
KLNA	**Kalymnos**	**0.88**	**176**	P		**Pn**	**03 25 57.9**	**-0.2**
KLNA				S		**Sb**	**03 26 08.9**	**+0.3**
KLNA				AML		AML		
MLSB	**Milas**	**0.88**	**127**	Pg		**Pn**	**03 25 58.0**	**-0.1**
BDRM	**Kayabasi**	**0.88**	**150**	P		**Pb**	**03 25 57.8**	**+0.4**
BDRM				S		**Sn**	**03 26 10.2**	**-0.4**
BDRM				IAML			03 26 11.0	
	comp=N,890nm,0.4s							
IZMR	**zmir-demi**	**0.88**	**70**	P		**Pb**	**03 25 57.5**	**+0.1**
IZMR				P		**Pn**	**03 25 58.1**	**0.0**
IZMR				S		**Sg**	**03 26 08.1**	**-1.1**
IZMR				S		**Sg**	**03 26 08.1**	**-1.1**
FOCM	**Foa**	**0.89**	**351**	Pg		**Pn**	**03 25 58.1**	**-0.1**
BODA	**Bodrum-Mula**	**0.90**	**152**	Pg		**Pn**	**03 25 59.0**	**+0.6**
KARB	**zmir-Karabur**	**0.91**	**335**	P		**Pb**	**03 25 58.2**	**+0.3**
KARB				S		**Sg**	**03 26 09.7**	**-0.5**
KARB				IAML			03 26 12.0	
	comp=N,1µm,0.8s							
EAG2	**Marmaro, Chios**	**0.95**	**319**	P		**Pn**	**03 25 59.6**	**+0.6**
EAG2				S		**Sb**	**03 26 11.5**	**+0.8**
CAMT	**Merkez**	**0.97**	**19**	P		**Pn**	**03 25 59.6**	**+0.2**
CAMT				S		**Sg**	**03 26 11.4**	**-0.5**
CAMT				IAML			03 26 17.0	
	comp=N,1µm,0.3s							
NAZL	**Nazilli-Aydin**	**1.11**	**83**	Pn		**Pg**	**03 26 01.9**	**+0.1**
NAZL				AML		AML		
ZEDA	**zmir-Bergama**	**1.14**	**7**	P		**Pb**	**03 26 01.6**	**-0.1**
ZEDA				S		**Sg**	**03 26 16.8**	**-0.5**
ZEDA				IAML			03 26 20.0	
	comp=N,460nm,0.4s							
ZEDA				IAML			03 26 21.0	
	comp=E,673nm,0.4s							
ESEN	**Aydn-Nazilli**	**1.15**	**91**	P		**Pg**	**03 26 02.4**	**-0.1**
IZMD	**zmir-Dikili-**	**1.15**	**1**	P		**Pb**	**03 26 01.4**	**-0.6**
GOMA	**Golmarmara-Man**	**1.18**	**42**	Pn		**Pg**	**03 26 03.4**	**+0.2**
GOMA				AML		AML		
DAT	**Datca**	**1.23**	**154**	P		**Pg**	**03 26 04.0**	**-0.1**
DAT				AML		AML		
DAT	**Datca**	**1.23**	**154**	Pn		**Pg**	**03 26 05.0**	**+0.9**
DAT				AML		AML		
DKL	**Dikili**	**1.24**	**0**	P		**Pb**	**03 26 03.4**	**0.0**
DKL				S		**Sn**	**03 26 19.6**	**+0.3**
KIRA	**zmir-Kiraz**	**1.24**	**73**	P		**Pg**	**03 26 04.0**	**-0.3**
AKHS	**Akhisar**	**1.27**	**34**	P		**Pg**	**03 26 05.2**	**+0.4**
AKHS				S		**Sg**	**03 26 21.7**	**+0.4**
AKHS				IAML			03 26 25.0	
	comp=N,1µm,0.3s							
AKS	**Akhisar**	**1.27**	**34**	Pn		**Pg**	**03 26 04.9**	**+0.1**
AKS				AML		AML		
MULA	**Mugla, Merkez-**	**1.27**	**117**	P		**Pg**	**03 26 04.6**	**-0.2**
KTTT	**Salihli**	**1.27**	**47**	P		**Pg**	**03 26 05.3**	**+0.5**
KTTT				S		**Sb**	**03 26 19.9**	**-0.1**
KTTT				IAML			03 26 23.0	
	comp=N,995nm,0.4s							
YER	**Yerkesik**	**1.30**	**122**	P		**Pb**	**03 26 04.9**	**+0.4**
YER	**Yerkesik**	**1.30**	**122**	Pn		**Pg**	**03 26 05.4**	**-0.1**
YER				AML		AML		
APE	**Apeiranthos**	**1.33**	**235**	P		**Pn**	**03 26 03.9**	**-0.5**
APE				S		**Sg**	**03 26 24.1**	**+0.7**
APE				AML		AML		
APE	**Apeiranthos**	**1.33**	**235**	P		**Pn**	**03 26 04.2**	**-0.2**
APE				S		**Sb**	**03 26 21.5**	**-0.4**
APE				AML		AML		
TNSA	**Tinos**	**1.41**	**259**	P		**Pn**	**03 26 04.9**	**-0.5**
TNSA				S		**Sn**	**03 26 22.5**	**-1.1**
SOMA	**Soma-Manisa**	**1.41**	**20**	Pn		**Pg**	**03 26 06.9**	**-0.7**
SOMA				AML		AML		
MANT	**Manisa**	**1.46**	**63**	P		**Pg**	**03 26 08.1**	**-0.5**
GORD	**Gordes-Manisa**	**1.47**	**43**	Pn		**Pb**	**03 26 07.6**	**+0.2**
GORD				Sn		**Sg**	**03 26 27.6**	**-0.2**
GORD				AML		AML		
AYVA	**Ayvalik**	**1.48**	**354**	P		**Pg**	**03 26 08.9**	**0.0**
PRK	**Paraskevi**	**1.50**	**341**	P		**Pn**	**03 26 06.5**	**-0.1**
PRK				S		**Sb**	**03 26 26.6**	**+0.1**
PRK				AML		AML		
PRK	**Paraskevi**	**1.50**	**341**	P		**Pn**	**03 26 06.9**	**+0.3**
PRK				S		**Sb**	**03 26 26.8**	**+0.2**
PRK				AML		AML		
TURN	**Turunc**	**1.50**	**134**	Pn		**Pg**	**03 26 08.8**	**-0.5**
TURN				AML		AML		
DALY	**Dalyan (Mula)**	**1.73**	**125**	Pn		**Pb**	**03 26 12.2**	**+0.5**

DALY				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**218**	P	**Pn**	**03 26 11.6**	**0.0**
THT1	**Athinios (Pele**	**1.86**	**220**	P	**Pn**	**03 26 11.6**	**0.0**
THT1				AML	AML		
SAP3	**Santorini-Thir**	**1.87**	**222**	P	**Pb**	**03 26 13.3**	**-0.9**
ARG	**Arkhangelos**	**1.89**	**148**	P	**Pn**	**03 26 13.4**	**+1.4**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.94**	**100**	Pn	**Pb**	**03 26 14.6**	**-0.8**
APMY				AML	AML		
KARY	**Karystos**	**1.96**	**277**	P	**Pn**	**03 26 13.3**	**+0.3**
KARY				S	**Sn**	**03 26 37.5**	**+0.3**
DION	**Dionisos Attik**	**2.36**	**277**	P	**Pn**	**03 26 19.1**	**+0.6**
DION				AML	AML		
SMTH	**Samothraki Isl**	**2.84**	**338**	P	**Pn**	**03 26 25.4**	**+0.2**
SMTH				AML	AML		
ENEZ	**Enez**	**2.96**	**349**	P	**Pn**	**03 26 27.6**	**+0.9**
ENEZ				AML	AML		
ALN	**Alexandroupoli**	**3.13**	**348**	P	**Pn**	**03 26 29.5**	**+0.4**
ALN				AML	AML		
GUR	**Goura**	**3.61**	**273**	P	**Pn**	**03 26 36.6**	**+0.8**
GUR				AML	AML		
KLV	**Kalavryta, Ach**	**3.76**	**275**	P	**Pn**	**03 26 38.9**	**+1.1**

*IDC **05** 03:34:10.0±0.6,23˚.15S×114˚.56W,h0km,mb4.1/13, mbtmp4.1/13,MS4.1/42,Error ellipse: s-maj=27.0km s-min=17.3km az=72.0*

*GFZ **05** 03:34:12.3,23˚.15S×114˚.62W,h11km,Mw5.0/27,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=0.96; Mθθ=1.28; Mϕϕ2.23; Mrθ=0.33; Mθϕ4.05; Mϕr=0.38; Fault plane solution: M₀4.51590×10¹⁶ NP1: ϕs168.15572°,δ85.60434°,λ177.54510°. NP2: ϕs258.34398°,δ87.55232°,λ4.39968°. Principal axes: T 4.9317, Plg4.8412°, Azm123.3083°; N -0.9987, Plg84.9665°, Azm287.3772°; P -3.9330, Plg1.3750°, Azm33.1918°;*

*GFZ **05** 03:34:12.3±0.4,23˚S±5˚×11˚5W±˚,h10km,M4.7/27, mb4.7/27 Error ellipse: s-maj=17.0km s-min=8.4km az=65.3,confirmed*

*NEIC **05** 03:34:13.0±1.8,23˚.25S±0˚.03×114˚.5W±0˚.2,h10km±1km, mb4.8/68,Error ellipse: s-maj=26.3km s-min=4.8km az=274.0*

*GCMT **05** 03:34:17.0±0.2,23˚.10S±0˚.01×114˚.54W±0˚.01,h16km, MW5.1/125,Moment Tensor Solution. s62,c71; s125,c195; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-1.43±.11; Mθθ-2.08±.09; Mϕϕ3.51±.10; Mrθ0.04±.27; Mθϕ4.20±.09; Mϕr0.22±.27; Best double couple: M₀5.04900×10¹⁶ NP1:ϕs73.00000°,δ88.00000°, λ0.00000°. NP2:ϕs343.00000°,δ90.00000°,λ178.00000°. Principal axes: T 5.7660, Plg2.0000°, Azm298.0000°; N -1.4340, Plg88.0000°, Azm159.0000°; P -4.3320, Plg1.0000°, Azm28.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 05 03:34:11.5±0.5,23˚.20S±0˚.08×114˚.72W±0˚.09,h10km, n173,σ1§24/130,mb4.7/66,MS4.2/41,1C-1D,Easter Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VA02	**Isla de Pascua**	**6.20**	**131**	P	**Pn**	**03 35 42.6**	**-0.5**
	comp=Z,133nm,1.9s						
RPN	**Rapa Nui**	**6.25**	**130**	LR	LR	03 37 29.8	
	comp=Z,4μm,19.6s,baz=321,slow=32						
TAOE	**Nuku Hiva Isla**	**28.23**	**296**	*e*LR	LR	03 47 09.5	
	comp=Z,2μm,25.9s						
TBI	**Tubuai**	**31.87**	**263**	*e*LQ	LQ	03 47 32.8	
	comp=Z,4μm,32.2s						
TBI				*e*LR	LR	03 48 43.4	
	comp=Z,916nm,24.0s						
TBI				*e*LR	LR	03 48 51.0	
	comp=Z,4μm,26.8s						
H03N2	**Juan Fernandez**	**32.97**	**116**	T	T	04 15 25.5	
	baz=336,slow=74,SNR=76						
H03N3	**Juan Fernandez**	**32.98**	**116**	T	T	04 13 21.5	
	SNR=196						
H03N1	**Juan Fernandez**	**32.99**	**116**	T	T	04 15 28.5	
	baz=286,slow=74,SNR=81						
VA04	**Juan Fernndez**	**33.09**	**116**	P	**P**	**03 40 46.8**	**-0.8**
PPT2	**Papeete2**	**33.09**	**273**	*e*S	**S**	**03 46 02.1**	**-5.1**
	comp=Z,167nm,28.2s						
PPT2				*e*LQ	LQ	03 48 02.3	
	comp=Z,1μm,24.2s						
PPT2				*e*LR	LR	03 49 15.0	
	comp=Z,796nm,29.0s						
PPT2				*e*LR	LR	03 49 21.7	
	comp=Z,906nm,26.0s						
PPT	**Papeete**	**33.10**	**273**	LR	LR	03 50 30.8	
	comp=Z,410nm,19.4s,baz=91,slow=30						
NNA	**Nana**	**37.68**	**79**	LR	LR	03 52 51.9	
	comp=Z,465nm,18.2s,baz=248,slow=30						
BI05	**Punta Hualpn**	**38.13**	**120**	P	**P**	**03 41 30.1**	**-0.8**
ATAH	**Atahualpa**	**38.37**	**71**	LR	LR	03 53 05.4	
	comp=Z,422nm,20.9s,baz=242,slow=30						
LL05	**Los Muermos**	**38.87**	**128**	P	**P**	**03 41 38.1**	**+1.0**
	comp=Z,102nm,1.6s						
GO05	**Hualane**	**38.92**	**117**	P	**P**	**03 41 38.0**	**+0.4**
	comp=Z,16nm,1.5s						
ML02	**Panimavida**	**39.42**	**119**	P	**P**	**03 41 42.3**	**+0.6**
	comp=Z,28nm,1.4s						
CO04	**Los Peladeros**	**39.53**	**113**	P	**P**	**03 41 42.9**	**-0.1**
	comp=Z,26nm,0.9s						
BO01	**Tunca**	**39.56**	**116**	P	**P**	**03 41 43.0**	**+0.1**
	comp=Z,22nm,1.7s						
GO04	**Tololo Observa**	**39.66**	**110**	P	**P**	**03 41 44.6**	**+0.5**
	comp=Z,20nm,1.6s						
LCO	**Las Campanas**	**39.77**	**108**	P	**P**	**03 41 44.8**	**-0.3**
	comp=Z,21nm,1.3s						
AC01	**Pan de Azucar**	**40.06**	**104**	P	**P**	**03 41 48.6**	**+1.5**
	comp=Z,21nm,1.1s						
AC05	**El Transito**	**40.16**	**108**		**P**	**03 41 48.0**	**-0.1**
AC05				IAmb	IAmb	03 41 55.2	
	comp=Z,19nm,0.9s						
AC05	**El Transito**	**40.16**	**108**	P	**P**	**03 41 48.5**	**+0.4**
	comp=Z,20nm,1.0s						
AC06	**Mina Casimiro**	**40.17**	**105**	P	**P**	**03 41 48.2**	**+0.1**
AC06				IAmb	IAmb	03 41 55.7	
	comp=Z,20nm,1.1s						
PLCA	**Paso Flores**	**40.87**	**126**	P	**P**	**03 41 54.6**	**+0.8**
	comp=Z,5.5nm,1.1s,baz=313,slow=8.7,SNR=3.8						
PLCA				LR	LR	03 54 28.0	
	comp=Z,802nm,21.1s,baz=269,slow=30						
	comp=Z,5.5nm,1.1s						
PLCA	**Paso Flores**	**40.87**	**126**	P	**P**	**03 41 52.8**	**-1.0**
PLCA				IAmb	IAmb	03 42 06.8	
	comp=Z,28nm,1.6s						
AC02	**Maricunga**	**41.30**	**105**	P	**P**	**03 41 56.0**	**-2.1**
PB07	**IPOC Station P**	**41.33**	**97**	P	**P**	**03 41 57.7**	**-0.3**
PB07				IAmb	IAmb	03 41 59.0	
	comp=Z,29nm,1.2s						
PB07	**IPOC Station P**	**41.33**	**97**	P	**P**	**03 41 57.4**	**-0.5**
	comp=Z,20nm,1.4s						
PB02	**IPOC Station P**	**41.40**	**96**	P	**P**	**03 41 59.5**	**+1.1**
	comp=Z,16nm,1.1s						
RAR	**Rarotonga**	**41.64**	**264**	LR	LR	03 55 07.6	
	comp=Z,318nm,20.5s,baz=102,slow=30						
CFA	**Coronel Fontan**	**41.85**	**112**	LR	LR	03 55 02.5	
	comp=Z,701nm,21.5s,baz=264,slow=30						
PB09	**IPOC Station P**	**41.91**	**97**	P	**P**	**03 42 02.8**	**+0.1**
	comp=Z,21nm,1.4s						
OTAV	**Otavalo**	**42.25**	**62**	P	**P**	**03 42 04.3**	**-1.5**
OTAV	**Otavalo**	**42.25**	**62**	P	**P**	**03 42 06.5**	**+0.7**
	comp=Z,6.8nm,1.7s						
PB08	**IPOC Station P**	**42.33**	**95**	P	**P**	**03 42 05.8**	**-0.6**
PB08	**IPOC Station P**	**42.33**	**95**	P	**P**	**03 42 05.8**	**-0.6**
	comp=Z,9.5nm,1.1s						
GO01	**Chusmiza**	**42.39**	**94**	P	**P**	**03 42 06.9**	**-0.1**
	comp=Z,13nm,2.2s						
PB16	**IPOC Station P**	**42.42**	**92**	P	**P**	**03 42 06.7**	**-0.7**
	comp=Z,9.6nm,1.8s						
PB18	**Visviri**	**42.64**	**91**	P	**P**	**03 42 09.4**	**+0.4**
	comp=Z,11nm,2.6s						
TLIG	**Tlapa**	**43.48**	**23**	P	**P**	**03 42 16.8**	**+1.5**
SALTA		**44.13**	**101**	P	**P**	**03 42 20.3**	**-0.7**
	comp=Z,6.8nm,1.3s						
JTS	**Las Juntas de**	**44.23**	**44**	LR	LR	03 55 55.3	
	comp=Z,238nm,21.8s,baz=237,slow=30						
LPAZ	**La Paz**	**44.24**	**90**	P	**P**	**03 42 21.5**	**-0.5**
	comp=Z,3.1nm,0.9s,baz=289,slow=7.2,SNR=7.4						
LPAZ				LR	LR	03 56 25.3	
	comp=Z,342nm,20.1s,baz=252,slow=30						
	comp=Z,3.1nm,0.9s						
LPAZ	**La Paz**	**44.24**	**90**		**P**	**03 42 21.8**	**-0.2**
LPAZ	**La Paz**	**44.24**	**90**	P	**P**	**03 42 22.4**	**+0.3**
	comp=Z,7.4nm,1.3s						
CMIG	**Matias Romero**	**44.49**	**28**	LR	LR	03 54 44.0	
	comp=Z,47nm,21.4s,baz=206,slow=28						
ZAIG	**Zacatecas**	**47.20**	**15**	P	**P**	**03 42 45.7**	**+0.8**
	comp=Z,4.9nm,1.5s						
TEIG	**Tepich**	**50.28**	**33**	P	**P**	**03 43 08.5**	**+0.2**
	comp=Z,38nm,1.2s						
HPIG		**50.60**	**10**	P	**P**	**03 43 11.1**	**+0.2**
CPUP	**Villa Florida**	**51.84**	**106**	P	**P**	**03 43 18.2**	**-1.9**
	comp=Z,4.6nm,1.0s,baz=269,slow=6.9,SNR=7.2						
CPUP				LR	LR	04 02 35.9	
	comp=Z,214nm,19.1s,baz=254,slow=33						
	comp=Z,4.6nm,1.0s						
CPUP	**Villa Florida**	**51.84**	**106**	P	**P**	**03 43 18.6**	**-1.5**
CPUP	**Villa Florida**	**51.84**	**106**	P	**P**	**03 43 18.9**	**-1.3**
	comp=Z,8.5nm,1.2s						
PTLB	**Pontes e Lacer**	**52.76**	**92**		**P**	**03 43 26.3**	**-0.7**
PMSA	**Palmer Station**	**52.85**	**155**	LR	LR	04 00 34.4	
	comp=Z,444nm,18.3s,baz=318,slow=30						
TX31	**Lajitas Ar. Si**	**53.30**	**12**	P	**P**	**03 43 33.4**	**+2.6**
TX31				IAmb	IAmb	03 43 47.9	
	comp=Z,16nm,1.6s						
TXAR	**Lajitas Array**	**53.30**	**12**	P	**P**	**03 43 30.5**	**-0.4**
	comp=Z,1.0nm,0.9s,baz=190,slow=11,SNR=4.6						
	comp=Z,1.0nm,0.9s						
TXAR	**Lajitas Array**	**53.30**	**12**	P	**P**	**03 43 30.9**	**0.0**
833A	**Chaparral WMA,**	**53.31**	**17**		**P**	**03 43 33.4**	**+2.6**
833A				IAmb	IAmb	03 43 37.4	
	comp=Z,8.1nm,0.8s						
SDV	**Santo Domingo**	**53.63**	**59**	P	**P**	**03 43 32.4**	**-1.3**
	comp=Z,57nm,1.0s						
SAND	**Sanderson**	**54.22**	**13**		**P**	**03 43 39.0**	**+1.5**
VHRN	**Van Horn**	**54.49**	**10**	P	**P**	**03 43 39.7**	**+0.2**
HNDO	**Hondo**	**54.49**	**17**		**P**	**03 43 40.9**	**+1.5**
HNDO				IAmb	IAmb	03 43 46.9	
	comp=Z,8.1nm,1.0s						
AQDB	**Aquidauana**	**54.53**	**99**	P	**P**	**03 43 38.7**	**-1.3**
	comp=Z,5.9nm,1.3s						
AFI	**Afiamalu**	**54.59**	**269**	LR	LR	04 01 20.7	
	comp=Z,235nm,18.1s,baz=103,slow=30						
CPSB	**Cacapava Do Su**	**54.60**	**112**		**P**	**03 43 39.4**	**-1.1**
CPSB	**Cacapava Do Su**	**54.60**	**112**	P	**P**	**03 43 39.3**	**-1.1**
	comp=Z,15nm,0.9s						
TPB01	**Permian Basin**	**54.85**	**11**	P	**P**	**03 43 44.8**	**+2.7**
JCT	**Junction City**	**55.26**	**16**	P	**P**	**03 43 46.0**	**+1.0**
MNTX	**Cornudas Mount**	**55.32**	**10**	P	**P**	**03 43 47.5**	**+2.1**
MNTX				IAmb	IAmb	03 43 53.6	
	comp=Z,19nm,1.6s						
MNTX	**Cornudas Mount**	**55.32**	**10**	P	**P**	**03 43 45.2**	**-0.2**
	comp=Z,6.2nm,1.1s						
TUC	**Tucson**	**55.33**	**4**	P	**P**	**03 43 44.7**	**-0.8**
	comp=Z,4.2nm,1.1s						
OZNA	**Ozona**	**55.37**	**14**	P	**P**	**03 43 46.2**	**+0.4**
OZNA				IAmb	IAmb	03 43 57.1	
	comp=Z,11nm,1.1s						
MNHN	**Monahans**	**55.43**	**12**	P	**P**	**03 43 46.1**	**-0.2**
MNHN				IAmb	IAmb	03 43 53.0	
	comp=Z,21nm,1.6s						
TPB28		**55.43**	**11**	P	**P**	**03 43 47.3**	**+1.0**
TPB28				IAmb	IAmb	03 43 58.1	
	comp=Z,8.6nm,1.4s						
DUN6	**Lazy B Ranch**	**55.70**	**6**	P	**P**	**03 43 49.0**	**+0.7**
TPB11	**China Draw**	**55.77**	**11**	P	**P**	**03 43 49.5**	**+0.8**
TPB11				IAmb	IAmb	03 43 55.9	
	comp=Z,11nm,1.1s						
121A	**Cookes Peak, D**	**55.81**	**7**	P	**P**	**03 43 49.5**	**+0.4**
121A				IAmb	IAmb	03 44 05.6	
	comp=Z,8.6nm,1.1s						
HKT	**Hockley**	**55.88**	**20**		**P**	**03 43 50.2**	**+0.9**
HKT	**Hockley**	**55.88**	**20**	P	**P**	**03 43 50.5**	**+1.1**
	comp=Z,12nm,1.5s						
ODSA	**Odessa**	**56.23**	**12**	P	**P**	**03 43 51.1**	**-0.9**
BRDY	**Brady**	**56.23**	**16**		**P**	**03 43 52.2**	**+0.2**
BRDY				IAmb	IAmb	03 43 58.4	
	comp=Z,15nm,1.4s						
129A	**Stewart Farms,**	**56.86**	**13**	P	**P**	**03 43 56.7**	**+0.3**
129A				IAmb	IAmb	03 44 03.2	
	comp=Z,8.8nm,1.1s						
SBM	**South Baldy**	**57.31**	**7**	P	**P**	**03 44 00.1**	**+0.1**
LENM	**Lemitar**	**57.52**	**8**		**P**	**03 44 01.2**	**-0.1**
X18A	**Snowflake**	**57.59**	**5**	P	**P**	**03 44 02.2**	**+0.5**
X18A				IAmb	IAmb	03 44 13.3	
	comp=Z,7.3nm,1.0s						
PLPT	**Palo Pinto**	**57.86**	**16**	P	**P**	**03 44 04.6**	**+1.2**
PLPT				IAmb	IAmb	03 44 10.6	
	comp=Z,7.5nm,0.9s						
APMT	**Aspermont**	**57.91**	**14**		**P**	**03 44 04.6**	**+0.8**
APMT				IAmb	IAmb	03 44 10.4	
	comp=Z,12nm,0.9s						
MSTX	**Muleshoe**	**57.98**	**12**		**P**	**03 44 05.0**	**+0.6**
ANMO	**Albuquerque**	**58.36**	**8**	LR	LR	04 04 04.4	
	comp=Z,168nm,21.5s,baz=188,slow=31						
URZ	**Urewera**	**59.28**	**238**	LR	LR	04 05 23.1	
	comp=Z,117nm,18.1s,baz=224,slow=32						
U15A	**North Rim**	**59.35**	**2**		**P**	**03 44 14.9**	**+0.8**
SHPR	**Sheep Range**	**59.39**	**360**		**P**	**03 44 15.5**	**+1.3**
WMOK	**Wichita Mounta**	**59.58**	**15**	P	**P**	**03 44 16.5**	**+1.1**
WMOK				IAmb	IAmb	03 44 17.9	
	comp=Z,6.7nm,0.9s						
PRN	**Pahroc Range**	**60.28**	**360**	P	**P**	**03 44 21.4**	**+1.1**
PRN				IAmb	IAmb	03 44 36.3	
	comp=Z,11nm,1.3s						
CCUT	**Cedar City**	**60.44**	**1**		**P**	**03 44 22.8**	**+1.3**
CCUT				IAmb	IAmb	03 44 38.5	
	comp=Z,13nm,1.6s						
MZP	**Montezuma Peak**	**60.63**	**358**	P	**P**	**03 44 24.4**	**+1.6**
HMU	**Henry Mountain**	**60.93**	**4**	P	**P**	**03 44 25.9**	**+1.0**
SDCO	**Great Sand Dun**	**61.24**	**8**	P	**P**	**03 44 28.3**	**+1.2**
SDCO				IAmb	IAmb	03 44 35.5	
	comp=Z,15nm,1.6s						
NVAR	**Mina Array Bea**	**61.40**	**357**	P	**P**	**03 44 28.7**	**+0.7**
	comp=Z,1.0nm,0.7s,baz=185,slow=9.3,SNR=7.7						
	comp=Z,1.0nm,0.7s						
PSUT	**Pine Spring**	**61.41**	**1**	P	**P**	**03 44 29.4**	**+1.3**
GRTK	**Grand Turk**	**61.46**	**47**	P	**P**	**03 44 26.5**	**-2.0**
	comp=Z,221nm,1.9s						
PV14	**Lion Creek, Pa**	**61.48**	**5**	P	**P**	**03 44 29.3**	**+0.7**
PV04	**Paradox Valley**	**61.51**	**5**	P	**P**	**03 44 30.3**	**+1.6**
PV04				IAmb	IAmb	03 44 36.7	
	comp=Z,11nm,1.2s						
PV23	**Carpenter Ridg**	**61.56**	**5**	P	**P**	**03 44 30.2**	**+1.1**
PV23				IAmb	IAmb	03 44 36.2	
	comp=Z,7.2nm,1.0s						
PV22	**Blue Mesa, Par**	**61.66**	**5**	P	**P**	**03 44 30.4**	**+0.6**
PV21	**Cone Mtn., Par**	**61.67**	**5**	P	**P**	**03 44 30.4**	**+0.5**
YERR	**Yerington**	**62.01**	**356**	P	**P**	**03 44 33.8**	**+1.7**
YERR				IAmb	IAmb	03 44 40.6	
	comp=Z,5.5nm,1.0s						
MSVF	**Nonsavu**	**62.74**	**261**	LR	LR	04 04 38.2	
	comp=Z,134nm,20.6s,baz=110,slow=29						
BDFB	**Brasilia**	**62.90**	**96**	P	**P**	**03 44 37.6**	**-0.9**
	comp=Z,0.9nm,0.3s,baz=266,slow=13,SNR=1.5						
BDFB				LR	LR	04 08 47.5	
	comp=Z,215nm,21.8s,baz=302,slow=33						
	comp=Z,0.9nm,0.3s						
BDFB	**Brasilia**	**62.90**	**96**	P	**P**	**03 44 37.5**	**-0.9**
BDFB				IAmb	IAmb	03 44 53.5	
	comp=Z,9.7nm,1.2s						
RPZ	**Rata Peaks**	**63.19**	**231**	LR	LR	04 05 37.5	
	comp=Z,54nm,21.3s,baz=303,slow=30						
BELA	**Belgrano 2**	**65.39**	**167**	P	**P**	**03 44 55.7**	**+1.9**
BELA				IAmb	IAmb	03 44 56.2	
	comp=Z,11nm,1.3s						
TKL	**Tuckaleechee C**	**65.46**	**27**	LR	LR	04 10 40.7	
	comp=Z,122nm,19.5s,baz=266,slow=34						
PD31	**Pinedale Array**	**65.81**	**4**		**P**	**03 44 56.6**	**-0.5**
PD31				IAmb	IAmb	03 45 10.1	
	comp=Z,6.8nm,1.4s						
PDAR	**Pinedale Array**	**65.81**	**4**	P	**P**	**03 44 55.7**	**-1.4**
	comp=Z,1.1nm,0.7s,baz=170,slow=6.4,SNR=14						
PDAR				LR	LR	04 07 53.6	
	comp=Z,46nm,20.7s,baz=170,slow=31						
	comp=Z,1.1nm,0.7s						
PDAR	**Pinedale Array**	**65.81**	**4**	P	**P**	**03 44 56.2**	**-0.9**
VNDA	**Vanda**	**66.09**	**194**	P	**P**	**03 44 57.2**	**-1.0**
	comp=Z,0.2nm,0.5s,baz=90,slow=5.7,SNR=4.2						
VNDA				LR	LR	04 07 32.5	
	comp=Z,161nm,18.9s,baz=88,slow=30						
	comp=Z,0.2nm,0.5s						
VNDA	**Vanda**	**66.09**	**194**	P	**P**	**03 45 01.2**	**+2.9**
HLID	**Hailey**	**66.43**	**0**	P	**P**	**03 45 01.8**	**+0.8**
HLID				IAmb	IAmb	03 45 13.7	
	comp=Z,14nm,1.5s						
HLID	**Hailey**	**66.43**	**0**	P	**P**	**03 45 01.2**	**+0.2**
	comp=Z,4.8nm,1.1s						
MDP	**Montagnes des**	**66.76**	**73**	LR	LR	04 11 05.3	
	comp=Z,151nm,19.2s,baz=270,slow=33						
QSPA	**South Pole Qui**	**66.95**	**180**	P	**P**	**03 45 05.7**	**+1.6**
	comp=Z,2.3nm,0.8s,baz=125,slow=2.6,SNR=5.1						
QSPA				LR	LR	04 08 06.4	
	comp=Z,89nm,21.9s,baz=87,slow=30						
	comp=Z,2.3nm,0.8s						
QSPA	**South Pole Qui**	**66.95**	**180**	P	**P**	**03 45 05.8**	**+1.7**
QSPA				IAmb	IAmb	03 45 22.2	
	comp=Z,9.1nm,1.1s						
QSPA	**South Pole Qui**	**66.95**	**180**	P	**P**	**03 45 06.0**	**+1.9**
	comp=Z,11nm,1.1s						
NEW	**Newport**	**71.17**	**358**	LR	LR	04 11 58.7	
	comp=Z,102nm,18.4s,baz=129,slow=32						
DZM	**Mont Dzumac**	**71.85**	**253**	LR	LR	04 09 16.9	
	comp=Z,130nm,19.2s,baz=192,slow=29						
VNA3	**Neumayer Olymp**	**72.94**	**161**	⇑P	**P**	**03 45 40.7**	**0.0**
	comp=Z,5.3nm,0.9s						
VNA1	**Neumayer--Stat**	**73.59**	**161**	P	**P**	**03 45 43.1**	**-1.4**
	comp=Z,4.1nm,0.8s						
VNA2	**Neumayer--Watz**	**73.75**	**161**	P	**P**	**03 45 45.9**	**+0.5**
	comp=Z,4.1nm,1.0s,baz=238,slow=5.7						
VNA2	**Neumayer--Watz**	**73.75**	**161**	P	**P**	**03 45 45.7**	**+0.3**
	comp=Z,8.4nm,1.1s						
SNAA	**Sanae**	**74.74**	**162**	P	**P**	**03 45 50.4**	**-0.9**
	comp=Z,1.0nm,0.4s,baz=356,slow=6.8,SNR=3.0						
SNAA				LR	LR	04 12 56.0	
	comp=Z,92nm,21.5s,baz=198,slow=31						
	comp=Z,1.0nm,0.4s						
SNAA	**Sanae**	**74.74**	**162**	P	**P**	**03 45 49.6**	**-1.7**
SNAA				IAmb	IAmb	03 46 02.6	
	comp=Z,14nm,1.6s						
ULM	**Lac du Bonnet**	**75.01**	**12**	P	**P**	**03 45 52.2**	**-0.6**
	comp=Z,3.1nm,0.9s,baz=168,slow=3.9,SNR=3.1						
ULM				LR	LR	04 13 44.5	
	comp=Z,55nm,18.3s,baz=184,slow=32						
	comp=Z,3.1nm,0.9s						
ULM	**Lac du Bonnet**	**75.01**	**12**	P	**P**	**03 45 52.7**	**-0.1**
SADO	**Sadowa**	**75.04**	**25**	LR	LR	04 17 07.5	
	comp=Z,98nm,18.2s,baz=171,slow=34						
TROLL	**Troll, Antarti**	**76.03**	**163**	P	**P**	**03 45 59.5**	**+0.7**
	comp=Z,144nm,1.0s						
ELIB	**Princess Elisa**	**80.86**	**168**	*d*P	**P**	**03 46 25.4**	**0.0**
	comp=Z,2.7nm,0.9s						
HNR	**Honiara**	**82.09**	**263**	LR	LR	04 15 23.4	
	comp=Z,91nm,18.4s,baz=206,slow=30						
DLBC	**Dease Lake**	**82.32**	**352**	LR	LR	04 15 35.1	
	comp=Z,88nm,18.6s,baz=60,slow=30						
YKA	**Yellowknife Ar**	**85.40**	**0**	P	**P**	**03 46 47.4**	**-1.2**
	comp=Z,1.6nm,0.7s,baz=176,slow=4.9,SNR=3.3						
	comp=Z,1.6nm,0.7s						
YKA	**Yellowknife Ar**	**85.40**	**0**	P	**P**	**03 46 50.5**	**+1.9**
KDAK	**Kodiak Island**	**86.66**	**341**	LR	LR	04 16 43.1	
	comp=Z,217nm,20.6s,baz=151,slow=30						
H11S2	**WAKE ISLAND Hy**	**87.17**	**291**	T	T	05 23 26.2	
	baz=116,slow=75,SNR=98						
H11S1	**WAKE ISLAND Hy**	**87.18**	**291**	T	T	05 23 25.3	
	baz=116,slow=75,SNR=76						
H11S3	**WAKE ISLAND Hy**	**87.18**	**291**	T	T	05 23 26.8	
	baz=116,slow=75,SNR=80						
H11N3	**WAKE ISLAND Hy**	**87.52**	**293**	T	T	05 23 57.2	
	baz=116,slow=75,SNR=15						
H11N1	**WAKE ISLAND Hy**	**87.53**	**293**	T	T	05 23 51.7	
	baz=116,slow=75,SNR=5.1						
H11N2	**WAKE ISLAND Hy**	**87.53**	**293**	T	T	05 23 55.2	
	baz=116,slow=75,SNR=18						
SCHQ	**Schefferville**	**87.85**	**25**	LR	LR	04 24 19.3	
	comp=Z,95nm,20.8s,baz=237,slow=34						
SLKM	**Skilak Lake**	**88.27**	**343**	P	**P**	**03 47 03.8**	**+1.1**
STKA	**Stephens Creek**	**88.82**	**236**	LR	LR	04 24 00.0	
	comp=Z,159nm,18.4s,baz=170,slow=34						
MAW	**Mawson**	**89.45**	**179**	LR	LR	04 23 44.2	
	comp=Z,118nm,18.1s,baz=174,slow=33						
CTA	**Charters Tower**	**90.11**	**248**	LR	LR	04 21 01.8	
	comp=Z,52nm,20.3s,baz=50,slow=31						
ILAR	**Eielson Array**	**91.16**	**347**	P	**P**	**03 47 16.8**	**+0.7**
	comp=Z,0.3nm,0.7s,baz=178,slow=7.0,SNR=2.3						
ILAR				LR	LR	04 19 32.5	
	comp=Z,78nm,19.8s,baz=96,slow=30						
	comp=Z,0.3nm,0.7s						
KRVT	**Keravat (AS076**	**91.31**	**265**	LR	LR	04 23 48.8	
	comp=Z,59nm,18.4s,baz=128,slow=33						
INK	**Inuvik**	**92.28**	**353**	LR	LR	04 24 02.9	
	comp=Z,55nm,18.7s,baz=8.0,slow=32						
PMG	**Port Moresby**	**93.71**	**258**	LR	LR	04 21 20.7	
	comp=Z,114nm,21.9s,baz=146,slow=30						
FRB	**Frobisher Bay**	**93.87**	**19**	LR	LR	04 25 39.2	
	comp=Z,176nm,20.7s,baz=238,slow=33						
RES	**Resolute Bay**	**98.49**	**5**	LR	LR	04 27 55.4	
	comp=Z,96nm,21.5s,baz=6.5,slow=33						
ASAR	**Alice Springs**	**98.69**	**240**	LR	LR	04 32 30.3	
	comp=Z,103nm,18.1s,baz=106,slow=35						
NJ2	**Nanjing**	**132.13**	**293**	*e*P	**PKPdf**	**03 53 24.8**	**-1.1**
NJ2				pmax	pmax		
	comp=Z,12nm,0.

SNR=14
NAZ Nazwa, Dubai 2.89 138 *e*P **Pn** **04 06 31.7 +2.9**
SNR=30
NAZ Nazwa, Dubai 2.89 138 P **Pn** **04 06 31.9 +3.0**
SNR=5.0
NAZ S **Sn** **04 07 05.6 +1.9**
AJN Ajban 2.90 153 *e*P **Pn** **04 06 31.7 +2.6**
SNR=5.4
AJN Ajban 2.90 153 P **Pn** **04 06 32.2 +3.2**
SNR=5.4
KAZ2 Kazeron-Fars-I 2.94 326 Pn **Pn** **04 06 31.2 +1.5**
MASF Masafi 2.95 127 P **Pn** **04 06 32.2 +2.4**
SNR=17
MASF S **Sn** **04 07 05.5 +0.2**
MSFE Esma-Masafi 2.96 127 *e*P **Pn** **04 06 31.2 +1.3**
SNR=17
ASUD Al Ashush, Dub 3.00 147 P **Pn** **04 06 32.8 +2.4**
ASUD Al Ashush, Dub 3.00 147 P **Pn** **04 06 33.6 +3.2**
ASUD S **Sn** **04 07 10.0 +3.5**
FAQ Al Faqa, Dubai 3.04 142 P **Pn** **04 06 33.1 +2.2**
FAQ Al Faqa, Dubai 3.04 142 P **Pn** **04 06 34.0 +3.0**
FAQ S **Sn** **04 07 10.3 +2.9**
MDH Madha 3.10 126 *i* P **Pn** **04 06 33.3 +1.6**
SNR=11
MDH Madha 3.10 126 P **Pn** **04 06 33.9 +2.2**
SNR=17
MDH S **Sn** **04 07 08.9 +0.1**
GHWR Ruwais 3.25 191 P **Pn** **04 06 35.9 +2.0**
GHWR S **Sn** **04 07 15.2 +2.6**
UOSS Minazif 3.26 132 *i* P **Pn** **04 06 35.9 +1.9**
SNR=22
UOSS Minazif 3.26 132 P **Pn** **04 06 35.9 +1.9**
UOSS S **Sn** **04 07 13.2 +0.4**
UOSS Minazif 3.26 132 **Pn** **04 06 35.5 +1.5**
UOSS Minazif 3.26 132 Pn **Pn** **04 06 35.5 +1.5**
UOSS Minazif 3.26 132 P **Pn** **04 06 36.0 +1.9**
HATD Hatta, Dubai 3.30 135 *i* P **Pn** **04 06 36.6 +2.1**
SNR=21
HATD Hatta, Dubai 3.30 135 P **Pn** **04 06 37.2 +2.7**
SNR=8.2
HATD S **Sn** **04 07 14.9 +1.1**
ASHO Ashiyiah 3.35 137 *i* P **Pn** **04 06 37.6 +2.3**
SNR=88
ASHO S **Sn** **04 07 15.7 +0.5**
ASHO Ashiyiah 3.35 137 P **Pn** **04 06 37.6 +2.3**
SNR=88
ASHO S **Sn** **04 07 15.9 +0.7**
MZWR Madinat Zayed 3.41 175 P **Pn** **04 06 38.4 +2.4**
MZWR S **Sn** **04 07 17.5 +0.9**
SLWR Sila 3.51 209 P **Pn** **04 06 39.7 +2.2**
SLWR S **Sn** **04 07 21.8 +2.7**
ALNE Al Ain 3.69 147 *i* P **Pn** **04 06 42.3 +2.5**
SNR=7.2
ALNE Al Ain 3.69 147 P **Pn** **04 06 42.8 +3.0**
SNR=7.2
ALNE S **Sn** **04 07 25.5 +2.1**
KHNJ Kahnooj 3.77 77 Pn **Pn** **04 06 42.2 +1.2**
SOHO SOHO 4.05 138 *i* P **Pn** **04 06 46.2 +1.4**
SNR=37
SOHO SOHO 4.05 138 P **Pn** **04 06 47.0 +2.1**
SNR=37
SOHO S **Sn** **04 07 33.0 +0.6**
JASK Jask - Hormozg 4.08 108 P **Pn** **04 06 46.6 +1.3**
JASK S **Sn** **04 07 33.9 +0.8**
KHGB Koh Gabri 4.10 38 Pn **Pn** **04 06 47.6 +1.8**
MZR Muzera 4.15 181 *i* P **Pn** **04 06 48.1 +1.9**
SNR=6.8
MZR Muzera 4.15 181 P **Pn** **04 06 48.4 +2.1**
MZR S **Sn** **04 07 34.5 -0.4**
KLNJ Kolanjah 4.19 336 *e*Pn **Pn** **04 06 47.8 +0.7**
KLNJ IAML 04 08 20.5
comp=Z,120nm,1.0s
KLNJ Kolanjah 4.19 336 Pn **Pn** **04 06 48.3 +1.3**
IMEH Mehriz 4.31 12 Pn **Pn** **04 06 50.7 +2.1**
CHMN Cheshme madani 4.42 52 Pn **Pn** **04 06 52.4 +2.2**
TAFT Taft - Yazd 4.57 7 Pn **Pn** **04 06 54.2 +2.0**
ZRDN Zarand Kerman 4.60 34 Pn **Pn** **04 06 54.3 +1.7**
KRM1 Kerman Provinc 4.66 44 Pn **Pn** **04 06 55.3 +1.9**
ARQ Araqi 4.67 144 P **Pn** **04 06 55.3 +1.8**
SNR=39
ARQ S **Sn** **04 07 47.9 +0.2**
UMZA Um Al Zommool 4.67 161 P **Pn** **04 06 56.2 +2.8**
UMZA S **Sn** **04 07 47.9 +0.1**
IBAF Bafgh 4.74 21 Pn **Pn** **04 06 56.2 +1.7**
KBAM BAM 4.75 65 Pn **Pn** **04 06 56.8 +2.2**
HOQ Hoqain 4.94 136 P **Pn** **04 06 59.6 +2.5**
SNR=17
HOQ S **Sn** **04 07 55.5 +1.3**
YZKH Yazd 5.28 10 *e*Pn **Pn** **04 07 03.4 +1.6**
YZKH IAML 04 07 17.3
comp=Z,55nm,1.0s
BIDO Bidbid 5.51 130 P **Pn** **04 07 06.2 +1.3**
BSY Bisya 5.51 142 P **Pn** **04 07 07.3 +2.2**
SNR=19
BSY S **Sn** **04 08 07.3 -1.2**
SMDO Samad 5.78 134 P **Pn** **04 07 10.9 +2.1**
SNR=26
SMDO S **Sn** **04 08 13.1 -2.1**
WSAR Wadi Sarin 6.04 129 P **Pn** **04 07 13.5 +1.2**
JMDO Jabal Madar 6.32 138 P **Pn** **04 07 18.0 +1.8**
SNR=18
JMDO S **Sn** **04 08 28.9 +0.4**
CHBR Chabahar 6.42 103 *e*Pn **Pn** **04 07 18.0 +0.6**
CHBR IAML 04 07 32.5
comp=Z,36nm,1.0s
CHBR Chabahar 6.42 103 Pn **Pn** **04 07 18.3 +0.9**
GTMR Gotvand 6.54 325 *e*Pn **Pn** **04 07 19.1 +0.1**
GTMR IAML 04 08 41.7
comp=Z,38nm,1.0s
WBK Wadi Bani Khal 6.70 132 P **Pn** **04 07 22.4 +1.1**
SNR=35
WBK S **Sn** **04 08 36.1 -1.7**
BSRN Basiran 6.81 44 *e*Pn **Pn** **04 07 23.6 +0.6**
BSRN IAML 04 09 32.9
comp=Z,18nm,1.0s
NGCH Negor - Chabah 7.05 103 P **Pn** **04 07 27.7 +1.7**
SNR=9.9
NGCH Negor - Chabah 7.05 103 Pn **Pn** **04 07 27.5 +1.5**
TABS Tabas 7.15 25 *e*Pn **Pn** **04 07 28.5 +0.9**
TABS IAML 04 09 55.0
comp=Z,22nm,1.0s
KHMZ Khomeyn 7.24 336 *e*Pn **Pn** **04 07 29.4 +0.5**
KHMZ IAML 04 08 53.2
comp=Z,23nm,1.0s
MHTO MHTO 7.36 146 P **Pn** **04 07 32.3 +1.9**
SRVN Saravan 7.88 86 *e*Pn **Pn** **04 07 39.1 +1.5**
SRVN IAML 04 08 34.1
comp=Z,9.1nm,1.0s
SRVN Saravan 7.88 86 Pn **Pn** **04 07 39.2 +1.6**
ASAO Ashtian 7.95 338 *e*Pn **Pn** **04 07 39.6 +0.9**
ASAO IAML 04 09 12.5
comp=Z,18nm,1.0s
DQM DQM 8.09 152 P **Pn** **04 07 40.4 +0.1**
RAYN Ar Rayn 8.13 245 P **Pn** **04 07 41.8 +0.8**
RAYN Ar Rayn 8.13 245 P **Pn** **04 07 42.0 +1.0**
RAYN Ar Rayn 8.13 245 P **Pn** **04 07 41.8 +0.8**
RAYN Ar Rayn 8.13 245 **Pn** **04 07 41.8 +0.8**
RAYN Ar Rayn 8.13 245 Pn **Pn** **04 07 41.8 +0.8**
RAYN Ar Rayn 8.13 245 P **Pn** **04 07 42.0 +1.0**
comp=Z,22nm,0.7s
DOK Doka 8.53 176 P **Pn** **04 07 46.6 +0.2**
DAMV Damavand 8.54 351 *e*Pn **Pn** **04 07 47.3 +0.5**
SHRT Shahrakht 8.69 40 *e*Pn **Pn** **04 07 50.7 +2.1**
SHRO Shahrood 9.04 13 *e*Pn **Pn** **04 07 54.7 +1.2**
WHFO Wadi Hawf 9.21 179 P **Pn** **04 07 55.9 +0.1**
SNR=88
SHAO Shalim 9.30 168 P **Pn** **04 07 58.2 +1.1**
DMTO DMTO 9.50 172 P **Pn** **04 07 60.0 +0.3**
SNR=31
SNGE Sanandaj 9.51 328 *e*Pn **Pn** **04 08 01.2 +1.1**
RBK Rabkut 9.64 176 P **Pn** **04 08 02.1 +0.4**
SNR=5.5
ABTO Aybut 9.77 181 P **Pn** **04 08 04.0 +0.4**
SNR=19
HAKT HAKKARI 13.27 324 P **Pn** **04 08 49.9 -1.6**
comp=Z,22nm,0.6s
GNI Garni 14.86 333 Pn **Pn** **04 09 14.2 +1.0**
comp=Z,1.6nm,0.3s,baz=16,slow=20,SNR=1.8
comp=Z,7.9nm,0.3s
GNI AML AML
GNI Garni 14.86 333 Pn **Pn** **04 09 10.6 -2.6**
GNI Garni 14.86 333 P **Pn** **04 09 11.8 -1.4**
comp=Z,36nm,0.9s
GURO Guroymak-BITLI 14.90 322 Pn **Pn** **04 09 12.9 -0.7**

KBL Kabul 15.19 57 P **P** **04 09 21.3 -1.4**
ASF Jabal al Asfar 15.34 293 Pn **Pn** **04 09 18.3 -0.7**
comp=Z,0.5nm,0.3s,baz=84,slow=11,SNR=5.2
comp=Z,1.1nm,0.4s
ASF AML AML
EIL Elat 16.55 283 Pn **Pn** **04 09 34.1 -0.9**
comp=Z,0.5nm,0.3s,baz=69,slow=13,SNR=6.0
EIL LR LR 04 17 18.0
comp=Z,88nm,18.0s,baz=54,slow=42
comp=Z,4.4nm,0.7s
EIL AML AML
MMAI Mount Meron Ar 16.74 295 Pn **Pn** **04 09 36.2 -1.3**
comp=Z,1.8nm,0.3s,baz=94,slow=8.6,SNR=4.7
comp=Z,0.8nm,0.3s
MMAI AML AML
ARPR Arapgir-MALATY 17.40 317 Pn **Pn** **04 09 44.5 -1.3**
ARPR IAmb IAmb 04 09 51.4
comp=Z,15nm,0.8s
KEMA Kemaliye 17.41 318 P **Pn** **04 09 45.8 -0.1**
comp=Z,69nm,0.9s
ANDN Andirin 17.83 310 P **P** **04 09 51.8 0.0**
comp=Z,48nm,1.1s
NIL Nilore 18.17 64 P **Pn** **04 09 54.5 -0.8**
NIL pmax pmax
comp=Z,17nm,0.6s
NIL Nilore 18.17 64 **Pn** **04 09 54.5 -0.8**
NIL IAmb IAmb 04 10 05.3
comp=Z,17nm,0.6s
NIL Nilore 18.17 64 P **P** **04 09 56.3 +0.7**
comp=Z,26nm,0.9s
NCK Nalchik 18.18 336‖ *e*P **P** **04 09 57.6 +2.1**
NEUR Neytrino 18.31 334‖ *e*P **Pn** **04 09 56.8 -0.3**
NEUR pmax pmax
comp=Z,6.0nm,1.7s
KBZ Khabaz 18.63 335 P **Pn** **04 10 02.2 +1.4**
comp=Z,0.3nm,0.3s,baz=128,slow=12,SNR=11
comp=Z,8.3nm,1.0s
KBZ AML AML
KBZ Khabaz 18.63 335↑ *i*P **Pn** **04 10 02.7 +1.9**
KBZ pmax pmax
comp=Z,8.0nm,1.0s
SHA1 Shidzhatmaz 18.73 335‖ *e*P **Pn** **04 10 03.1 +0.9**
KVAR Kislovodsk Arr 18.90 335 P **Pn** **04 10 04.1 -0.1**
baz=239,slow=5.9
comp=Z,4.5nm,0.5s
KIV Kislovodsk 18.91 335 *e*P **P** **04 10 01.0 -2.6**
KIV pmax pmax
comp=Z,18nm,1.0s
KIV Kislovodsk 18.91 335 P **P** **04 10 02.7 -0.9**
KIV IAmb IAmb 04 10 07.5
comp=Z,22nm,0.8s
KIV Kislovodsk 18.91 335 P **Pn** **04 10 05.8 +1.6**
comp=Z,24nm,1.1s
BTK Batken 19.25 44 P **P** **04 10 07.9 +0.5**
BTK Batken 19.25 44 P **P** **04 10 07.9 +0.5**
comp=Z,12nm,0.5s
DRK Karamyk 19.53 46 P **P** **04 10 11.4 +0.6**
DRK Karamyk 19.53 46 P **P** **04 10 11.4 +0.6**
LABN Labinsk 20.25 333 *e*P Pn **04 10 19.7 -0.4**
LABN *e* **04 10 34.7**
LABN pmax pmax
comp=Z,56nm,0.7s
TRKS Terek-Say 20.34 41 P **P** **04 10 20.3 +0.9**
TRKS pmax pmax
comp=Z,35nm,0.9s
BR104 Keskin Array S 20.74 312 P **P** **04 10 24.0 +0.3**
comp=Z,10nm,0.9s
OHH Osh 20.74 45 P **P** **04 10 22.9 -0.8**
OHH pmax pmax
comp=Z,25nm,0.6s
OHH Osh 20.74 45 P **P** **04 10 22.9 -0.8**
comp=Z,25nm,0.6s
BR131 Keskin Array S 20.75 312 P **P** **04 10 23.2 -0.6**
BR131 pmax pmax
comp=Z,12nm,1.1s
BR131 Keskin Array S 20.75 312 **P** **04 10 23.2 -0.6**
BRTR Keskin Array B 20.75 312 P **P** **04 10 24.8 +0.9**
comp=Z,4.8nm,0.6s,baz=132,slow=12,SNR=31
comp=Z,4.8nm,0.6s
BRTR Keskin Array B 20.75 312 P **P** **04 10 23.3 -0.5**
BR105 Keskin Array S 20.76 312 P **P** **04 10 24.2 +0.3**
comp=Z,66nmcomp=Z,9.1nm,0.8s
BR106 Keskin Array S 20.77 312 P **P** **04 10 24.2 +0.2**
comp=Z,55nmcomp=Z,8.1nm,0.7s
KKUL Konya-Kulu 20.96 310 P Pn **04 10 27.9 -0.7**
comp=Z,16nm,1.0s
ARK Arkit 20.99 41 P **P** **04 10 26.8 +0.4**
ARK pmax pmax
comp=Z,18nm,0.6s
ARK Arkit 20.99 41 P **P** **04 10 26.8 +0.4**
comp=Z,18nm,0.7s
KK31 Karatay Array 21.03 37 P **P** **04 10 26.3 -0.4**
KK31 pmax pmax
comp=Z,8.0nm,0.9s
KK31 Karatay Array 21.03 37 **P** **04 10 26.3 -0.4**
KKAR Karatay Array 21.03 37 P **P** **04 10 25.4 -1.3**
KKAR Karatay Array 21.03 37 P **P** **04 10 25.4 -1.3**
ERBR Yeremizino-Bor 21.23 334 *e*P **P** **04 10 29.0 +0.2**
ERBR pmax pmax
comp=Z,13nm,0.6s
KSH2 Kashi 21.90 51 P **P** **04 10 34.7 -1.6**
KSH2 sP sP **04 10 43.4 +2.7**
KSH2 pmax pmax
comp=Z,6.0nm,0.5s
ELL Elmali 22.16 301 P **P** **04 10 38.5 -0.6**
ELL pmax pmax
comp=Z,21nm,0.8s
ELL Elmali 22.16 301 P **P** **04 10 38.5 -0.6**
ELL IAmb IAmb 04 10 41.7
comp=Z,21nm,0.8s
AB31 Akbulak array 22.60 11 P **P** **04 10 42.7 -0.7**
AB31 IAmb IAmb 04 10 46.9
comp=Z,6.7nm,0.7s
ABKAR Akbulak array 22.60 11 P **P** **04 10 42.7 -0.7**
AAK Ala-Archa 23.00 42 LR LR **04 21 39.8**
comp=Z,53nm,19.9s,baz=260,slow=42
AAK Ala-Archa 23.00 42 P **P** **04 10 47.2 -0.7**
AAK Ala-Archa 23.00 42 P **P** **04 10 47.2 -0.7**
AAK Ala-Archa 23.00 42 P **P** **04 10 48.9 +0.9**
comp=Z,9.0nm,1.1s
NRN Naryn 23.29 47 P **P** **04 10 49.5 -1.5**
NRN pmax pmax
comp=Z,8.0nm,0.7s
NRN Naryn 23.29 47 **P** **04 10 49.5 -1.5**
NRN IAmb IAmb 04 10 58.6
comp=Z,8.2nm,0.7s
ASAI AK-SAY(Kyrgyzs 23.37 48 P **P** **04 10 53.3 +1.4**
comp=Z,11nm,0.8s
YLV Yalova 24.02 310 P **P** **04 10 57.2 -0.7**
comp=Z,20nm,1.2s
TARG Taragay, Kyrgy 24.61 48 P **P** **04 11 01.3 -2.4**
TARG pmax pmax
comp=Z,30nm,0.4s
TARG Taragay, Kyrgy 24.61 48 P **P** **04 11 01.3 -2.4**
HYB Hyderabad 25.05 108 *e*P **P** **04 11 08.0 +0.6**
HYB eS **S** **04 15 32.5 +0.6**
BELG Belogornoye 25.58 352 *d i*P **P** **04 11 13.7 +1.9**
BELG pmax pmax
comp=Z,6.0nm,0.6s
VRH Novokhopyorsk 25.62 343 *e*P **P** **04 11 12.1 -0.2**
VRH pmax pmax
comp=Z,40nm,0.6s
VORD Divnogorie 26.12 339 *e*P **P** **04 11 16.5 -0.3**
VORD pmax pmax
comp=Z,30nm,0.6s
VSR Storozhevoye 26.38 339 *e*P **P** **04 11 18.1 -1.0**
VSR pmax pmax
comp=Z,10.0nm,0.6s
PDGK Podgornoye 26.47 46 P **P** **04 11 19.9 -0.4**
PDGK Podgornoye 26.47 46 P **P** **04 11 19.9 -0.4**
VORR Voronezh 26.76 340 *e*P **P** **04 11 21.3 -1.2**
LPSR Galich'ya Gora 27.66 341 *e*P **P** **04 11 28.5 -2.1**
LPSR pmax pmax
comp=Z,8.0nm,0.6s
GHRR 28.00 319 P **P** **04 11 35.3 +1.5**
comp=Z,61nm,1.1s
TESR Tescani 28.69 319 P **P** **04 11 39.0 -1.0**
comp=Z,16nm,1.7s
TESR Tescani 28.69 319 P **P** **04 11 40.5 +0.5**
comp=Z,16nm,1.7s
BORK Borovoye 28.71 21‖ *e*P **P** **04 11 40.2 +0.2**
BORK pmax pmax
comp=Z,3.0nm,0.7s
BVAR Borovoye Array 28.71 21 P **P** **04 11 40.0 -0.1**
comp=Z,1.2nm,0.4s,baz=224,slow=6.2,SNR=7.1
comp=Z,1.2nm,0.4s

BVAR Borovoye Array 28.71 21 P **P** **04 11 40.0 -0.1**
VOIR 29.09 316 P **P** **04 11 42.7 -0.9**
comp=Z,7.9nm,0.9s
ARTI Arti 29.40 5‖ *e*P **P** **04 11 45.4 -0.7**
ARTI pmax pmax
comp=Z,21nm,2.8s
EVN Everest 29.45 81 **P** **04 11 45.4 -2.3**
EVN IAmb IAmb 04 11 49.0
comp=Z,8.3nm,0.6s
EVN Everest 29.45 81 P **P** **04 11 48.5 +0.8**
comp=Z,11nm,0.6s
AK07 Malin Array Si 29.82 328 P **P** **04 11 48.5 -1.4**
AK09 Malin Array Si 29.82 328 P **P** **04 11 49.1 -0.8**
AK09 pP **pP** **04 11 52.1 -1.1**
AK10 Malin Array Si 29.83 328 P **P** **04 11 48.9 -1.1**
AK06 Malin Array Si 29.85 328 P **P** **04 11 49.0 -1.1**
AK08 Malin Array Si 29.85 328 P **P** **04 11 48.6 -1.5**
AK05 Malin Array Si 29.87 328 P **P** **04 11 48.7 -1.6**
AK02 Malin Array Si 29.89 328 P **P** **04 11 48.9 -1.6**
AK02 pP **pP** **04 11 52.9 -0.9**
AK12 Malin Array Si 29.91 328 P **P** **04 11 49.1 -1.5**
AK01 Malin Array Si 29.91 328 P **P** **04 11 49.4 -1.3**
AKASG Malin Array Be 29.91 328 P **P** **04 11 50.0 -0.7**
comp=Z,2.3nm,0.3s,baz=138,slow=8.3,SNR=30
comp=Z,2.3nm,0.3s
AKASG Malin Array Be 29.91 328 *i* P **P** **04 11 50.0 -0.7**
AKASG pmax pmax
comp=Z,4.0nm,0.5s
AKBB Malin Array Si 29.91 328 *d i*P **P** **04 11 50.0 -0.7**
AKBB pmax pmax
comp=Z,8.0nm,0.4s
KIEV Kiev 29.91 328 P **P** **04 11 49.7 -1.0**
KIEV pmax pmax
comp=Z,14nm,0.5s
KIEV Kiev 29.91 328 P **P** **04 11 49.7 -1.0**
KIEV Kiev 29.91 328 P **P** **04 11 49.4 -1.3**
comp=Z,63nm,1.9s
MK31 Makanchi Array 29.92 41 *c i*P **P** **04 11 51.4 +0.5**
MKAR Makanchi Array 29.92 41 P **P** **04 11 51.4 +0.5**
comp=Z,2.8nm,0.6s,baz=230,slow=9.0,SNR=21
MKAR PcP **PcP** **04 14 53.2 -0.3**
comp=Z,0.4nm,0.5s,baz=262,slow=2.5,SNR=2.5
comp=Z,2.8nm,0.6s
MKAR Makanchi Array 29.92 41 P **P** **04 11 50.5 -0.3**
MKAR **PcP** **04 14 52.5 -1.0**
AK04 Malin Array Si 29.95 328 P **P** **04 11 50.1 -1.0**
AK15 Malin Array Si 29.95 328 P **P** **04 11 50.1 -1.0**
AK17 Malin Array Si 29.98 328 P **P** **04 11 50.3 -1.0**
LUBAR Lubar, Ukraine 30.11 326 P **P** **04 11 51.2 -1.2**
BUR08 Bucovina Ar. S 30.14 320 P **P** **04 11 52.5 -0.4**
BUR08 IAmb IAmb 04 11 55.1
comp=Z,7.6nm,1.2s
KURBB Kurchatov Arra 30.17 32 P **P** **04 11 53.6 +0.6**
comp=Z,0.7nm,0.2s,baz=234,slow=8.9,SNR=4.8
comp=Z,0.7nm,0.2s
KURK Kurchatov 30.27 32 P **P** **04 11 53.9 0.0**
KURK pmax pmax
comp=Z,3.0nm,1.2s
KURK Kurchatov 30.27 32 P **P** **04 11 53.9 0.0**
OBN Obninsk 30.54 341 *e*P **P** **04 11 56.4 +0.3**
OBN pmax pmax
comp=Z,49nm,2.3s
DRGR 31.17 317 P **P** **04 12 03.3 +1.3**
DRGR pmax pmax
comp=Z,6.0nm,1.3s
DRGR 31.17 317 P **P** **04 12 03.3 +1.3**
comp=Z,6.1nm,1.3s
KIRV Kirov 31.53 356 *de*P **P** **04 12 05.5 +0.7**
WMQ Urumqi 32.10 50 *e*P **P** **04 12 12.6 +2.4**
UZHM Uzhgorod 32.31 320 P **P** **04 12 11.3 -0.6**
KOLS Kolonicke sedl 32.48 320 *e*P **P** **04 12 14.8 +1.4**
KOLS Kolonicke sedl 32.48 320 *e*P **P** **04 12 14.8 +1.4**
KOLS Kolonicke sedl 32.48 320 P **P** **04 12 15.2 +1.9**
comp=Z,14nm,0.8s
MNK Minsk 33.14 332 *i* P **P** **04 12 23.8 +4.8**
MNK *i* 04 13 35.1
MNK *i* PPP PPP 04 13 45.9
MNK *i* 04 15 04.3
MNK *i* S **S** **04 17 46.6 +8.4**
MNK *i* SSS SSS 04 20 05.9
MNK *i* 04 22 50.0
MNK pmax pmax
comp=E,12nm,0.9s
MNK pmax pmax
comp=N,8.0nm,1.1s
MNK pmax pmax
comp=Z,3.0nm,0.6s
MNK MLR MLR
comp=Z,239nm,23.0s
MNK MLR MLR
comp=N,112nm,16.0s
MNK MLR MLR
comp=Z,78nm,16.0s
MNK Minsk 33.14 332 *i* P **P** **04 12 23.9 +4.8**
comp=E,12nm,0.9s
MNK *i* P **P** **04 12 23.9 +4.8**
comp=N,8.0nm,1.1s
MNK *i* P **P** **04 12 23.9 +4.8**
comp=Z,3.0nm,0.6s,baz=133
MNK *i* PP **PP** **04 13 35.1 +1.2**
MNK *i* PPP PPP 04 13 46.0
MNK *i* S **S** **04 17 46.7 +8.4**
MNK *i* SS **SS** **04 19 50.2 -11**
MNK *i* SSS SSS 04 20 05.9
MNK *i* LQ LQ 04 23 29.0
MNK *i* LR LR 04 26 02.1
MNK *i* LRM MLR 04 26 50.2
comp=E,239nm,22.9s
MNK *i* LRM MLR 04 27 02.2
comp=N,112nm,16.3s
MNK *i* LRM MLR 04 27 20.0
comp=Z,78nm,15.7s
LANS Liptovska Anna 34.20 319 *e*P **P** **04 12 29.9 +1.5**
LANS Liptovska Anna 34.20 319 *e*P **P** **04 12 29.9 +1.5**
OJC Ojcow 34.52 321 P **P** **04 12 31.5 +0.4**
OJC Ojcow 34.52 321 P **P** **04 12 31.5 +0.4**
OJC Ojcow 34.52 321 P **P** **04 12 31.8 +0.7**
comp=Z,18nm,1.1s
ZAA0 Zalesovo Array 35.27 32 **P** **04 12 37.2 -0.3**
ZAA0 IAmb IAmb 04 12 38.2
comp=Z,4.5nm,0.6s
ZALV Zalesovo Beam 35.27 32 P **P** **04 12 37.6 +0.1**
comp=Z,4.6nm,0.6s,baz=238,slow=9.1,SNR=16
ZALV LR LR 04 28 20.7
comp=Z,13nm,18.3s,baz=62,slow=38
comp=Z,4.6nm,0.6s
ZALV Zalesovo Beam 35.27 32 *i* P **P** **04 12 37.5 0.0**
ZALV pmax pmax
comp=Z,5.0nm,0.6s
ZALV Zalesovo Beam 35.27 32 **P** **04 12 37.8 +0.3**
CHVC Chvalec 36.82 320 *e*P **P** **04 12 51.1 +0.2**
CHVC Chvalec 36.82 320 *e*P **P** **04 12 51.1 +0.2**
ZVC Zvikov 37.46 317 *e*P **P** **04 12 56.5 +0.2**
comp=Z,2.3nm,0.6s
GERES GERESS Array B 37.55 316 P **P** **04 12 56.6 -0.6**
comp=Z,0.3nm,0.5s,baz=93,slow=8.7,SNR=2.5
GERES PcP **PcP** **04 15 14.1 -1.1**
comp=Z,0.3nm,0.6s,baz=121,slow=5.1,SNR=4.5
comp=Z,0.3nm,0.5s
GERES GERESS Array B 37.55 316 P **P** **04 12 56.0 -1.1**
ABTA Abfaltersbach 37.64 312 *i* P **P** **04 12 58.0 0.0**
comp=Z,3.3nm,0.7s
KHC Kasperske Hory 37.72 316↓ *i*P **P** **04 12 58.7 +0.1**
KHC pmax pmax
comp=Z,16nm,3.1s
KHC Kasperske Hory 37.72 316 *e*P **P** **04 12 58.3 -0.3**
comp=Z,2.3nm,0.7s
KHC Kasperske Hory 37.72 316 P **P** **04 12 58.1 -0.5**
comp=Z,6.6nm,2.2s
LESA Schwarzleotal 37.73 313 *e*P **P** **04 12 58.3 -0.4**
comp=Z,3.0nm,0.4s
CTI Castel Tesino 38.02 311 P **P** **04 13 00.8 -0.4**
CTI pmax pmax
comp=Z,7.0nm,0.6s
CTI Castel Tesino 38.02 311 **P** **04 13 00.8 -0.4**
CTI IAmb IAmb 04 13 01.9
comp=Z,6.8nm,0.6s
HSKC Hora Svate Kat 38.35 319 *e*P **P** **04 13 02.5 -1.4**
WTTA Wattenberg 38.36 313 *e*P **P** **04 13 03.8 -0.3**
comp=Z,3.5nm,0.4s
WATA Walderalm 38.42 313 *i* P **P** **04 13 03.9 -0.7**
comp=Z,12nm,0.6s
SQTA Sankt Quirin 38.63 313 *i* P **P** **04 13 05.8 -0.5**
comp=Z,8.8nm,0.3s,SNR=12
MOTA Moosalm 38.73 313 *e*P **P** **04 13 06.4 -0.9**

	comp=Z,1.9nm,0.3s,SNR=7.5								
CLL	**Collm**	**38.87**	**319**	*e*P		**P**	**04 13 08.0**	**-0.2**	
CLL	**Collm**	**38.87**	**319**	P		**P**	**04 13 07.7**	**-0.5**	
	comp=Z,5.8nm,1.2s								
CLL	**Collm**	**38.87**	**319**	*e*P		**P**	**04 13 08.0**	**-0.2**	
FETA	**Feichten**	**38.89**	**312**	*i* P		**P**	**04 13 08.3**	**-0.3**	
	comp=Z,6.5nm,0.4s								
FINES	**FINESS Array B**	**38.91**	**339**	P		**P**	**04 13 08.0**	**-0.3**	
	comp=Z,6.1nm,0.5s,baz=142,slow=9.5,SNR=48								
	comp=Z,6.1nm,0.5s								
FINES	**FINESS Array B**	**38.91**	**339**	P		**P**	**04 13 07.7**	**-0.6**	
RETA	**Reutte**	**38.99**	**313**	*i* P		**P**	**04 13 08.5**	**-0.9**	
	comp=Z,1.7nm,0.3s,SNR=7.0								
DAVA	**Damuels**	**39.52**	**312**	*i* P		**P**	**04 13 13.3**	**-0.6**	
	comp=Z,21nm,0.4s,SNR=31								
DAVA	**Damuels**	**39.52**	**312**	P		**P**	**04 13 13.5**	**-0.4**	
	comp=Z,49nm,0.9s								
GTA2	**Gaotai**	**40.11**	**60**	*e*P		**P**	**04 13 19.9**	**+1.0**	
GTA2				pP		sP	04 13 25.9	+2.4	
GTA2				pmax		pmax			
	comp=Z,13nm,0.8s								
KNGR	**Kungurtug, Tuv**	**40.66**	**43**⇓	*e*P		**P**	**04 13 24.8**	**+1.6**	
KNGR				pmax		pmax			
	comp=Z,12nm,1.3s								
CHTO	**Chiang Mai**	**42.42**	**91**	P		**P**	**04 13 38.4**	**+0.4**	
CHTO				pmax		pmax			
	comp=Z,6.0nm,0.7s								
CHTO	**Chiang Mai**	**42.42**	**91**	P		**P**	**04 13 38.4**	**+0.4**	
CHTO				IAmb		IAmb	04 13 40.0		
	comp=Z,5.6nm,0.7s								
CMAR	**Chiang Mai Arr**	**42.55**	**92**	P		**P**	**04 13 39.9**	**+0.9**	
	comp=Z,1.2nm,0.3s,baz=281,slow=9.7,SNR=10								
	comp=Z,1.2nm,0.3s								
CMAR	**Chiang Mai Arr**	**42.55**	**92**	*i* P		**P**	**04 13 39.9**	**+0.9**	
CMAR				pmax		pmax			
	comp=Z,2.0nm,0.4s								
HFS	**Hagfors**	**42.65**	**332**	P		**P**	**04 13 38.5**	**-0.8**	
	comp=Z,2.5nm,0.5s,baz=150,slow=6.2,SNR=15								
	comp=Z,2.5nm,0.5s								
LZH	**Lanzhou**	**43.34**	**65**	*e*P		P	04 13 40.8	-4.6	
LZH				pP		pP	04 13 43.8	-4.8	
LZH				pmax		pmax			
	comp=Z,19nm,1.3s								
TAM	**Tamanrasset**	**43.55**	**275**	P		**P**	**04 13 46.3**	**-0.9**	
TAM				pmax		pmax			
	comp=Z,16nm,0.3s								
TAM	**Tamanrasset**	**43.55**	**275**			**P**	**04 13 46.3**	**-0.9**	
NB2	**NORSAR Subarra**	**44.16**	**332**	P		**P**	**04 13 50.5**	**-1.0**	
	comp=Z,6.5nm,0.7s,baz=119,slow=7.9								
NOA	**NORSAR Array B**	**44.16**	**332**	P		**P**	**04 13 50.6**	**-1.0**	
	comp=Z,1.3nm,0.6s,baz=120,slow=8.0,SNR=6.3								
	comp=Z,1.3nm,0.6s								
ARCES	**ARCESS Array B**	**45.43**	**347**	P		**P**	**04 14 00.7**	**-0.7**	
	comp=Z,2.7nm,0.8s,baz=142,slow=10,SNR=5.0								
	comp=Z,2.7nm,0.8s								
ARCES	**ARCESS Array B**	**45.43**	**347**	P		**P**	**04 14 00.4**	**-1.0**	
ARCES				pmax		pmax			
	comp=Z,19nm,1.4s								
ARCES	**ARCESS Array B**	**45.43**	**347**	P		**P**	**04 14 00.4**	**-1.0**	
ARCES				IAmb		IAmb	04 14 22.1		
	comp=Z,19nm,1.4s								
SONM	**Songino Array**	**45.72**	**49**	P		**P**	**04 14 04.5**	**+0.3**	
	comp=Z,0.9nm,0.6s,baz=257,slow=6.0,SNR=4.1								
	comp=Z,0.9nm,0.6s								
SONM	**Songino Array**	**45.72**	**49**	P		**P**	**04 14 03.3**	**-0.9**	
SONM				pmax		pmax			
	comp=Z,2.0nm,1.3s								
SONM	**Songino Array**	**45.72**	**49**	P		**P**	**04 14 03.3**	**-0.9**	
ULN	**Ulaanbaatar**	**46.16**	**49**⇓	*e*P		**P**	**04 14 07.5**	**-0.3**	
ULN				pmax		pmax			
	comp=Z,12nm,2.2s								
XAN	**Xi'an**	**47.67**	**68**	P		**P**	**04 14 20.1**	**+0.5**	
XAN				pP		sP	04 14 24.3	+0.1	
XAN				pmax		pmax			
	comp=Z,7.0nm,0.8s								
ESDC	**Sonseca Array**	**48.84**	**300**	P		**P**	**04 14 28.1**	**-0.5**	
	comp=Z,1.2nm,0.8s,baz=61,slow=7.2,SNR=5.3								
	comp=Z,1.2nm,0.8s								
ESDC	**Sonseca Array**	**48.84**	**300**	P		**P**	**04 14 28.6**	**+0.1**	
HHC	**Hu-ho-hao-te**	**49.16**	**58**	*e*P		**P**	**04 14 30.8**	**-0.3**	
HHC				pmax		pmax			
	comp=Z,15nm,0.5s								
HHC				pmax		pmax			
	comp=Z,190nm,5.2s								
EKA	**Eskdalemuir Ar**	**49.29**	**321**	P		**P**	**04 14 31.1**	**-0.5**	
	comp=Z,1.2nm,0.4s,baz=103,slow=7.8,SNR=18								
	comp=Z,1.2nm,0.4s								
TORD	**Torodi Ar. Bea**	**50.30**	**265**	P		**P**	**04 14 39.6**	**-0.3**	
	comp=Z,1.9nm,0.6s,baz=65,slow=6.8,SNR=9.9								
TORD				LR		LR	04 40 19.4		
	comp=Z,206nm,18.3s,baz=206,slow=41								
	comp=Z,1.9nm,0.6s								
TORD	**Torodi Ar. Bea**	**50.30**	**265**	P		**P**	**04 14 39.8**	**-0.1**	
TORD				IAmb		IAmb	04 14 45.1		
	comp=Z,2.5nm,0.8s								
SPITS	**Spitsbergen Ar**	**53.78**	**351**	P		**P**	**04 15 05.0**	**0.0**	
	comp=Z,3.3nm,0.5s,baz=128,slow=11,SNR=8.4								
	comp=Z,3.3nm,0.5s								
DBIC	**Dimbokro**	**58.93**	**261**	P		**P**	**04 15 42.5**	**-0.2**	
	comp=Z,6.2nm,0.7s,baz=50,slow=5.9,SNR=9.8								
	comp=Z,6.2nm,0.7s								
DBIC	**Dimbokro**	**58.93**	**261**	P		**P**	**04 15 42.8**	**+0.2**	
DBIC				pmax		pmax			
	comp=Z,20nm,1.5s								
DBIC	**Dimbokro**	**58.93**	**261**	P		**P**	**04 15 42.8**	**+0.2**	
ZEA	**Zeya**	**59.08**	**42**	*e*P		**P**	**04 15 43.3**	**+0.2**	
KSRS	**Korea Array**	**62.23**	**60**	P		**P**	**04 16 03.5**	**-1.3**	
	comp=Z,1.0nm,0.5s,baz=274,slow=7.1,SNR=5.4								
	comp=Z,1.0nm,0.5s								
LEM	**Lembang**	**62.26**	**115**	LR		LR	04 43 36.3		
	comp=Z,123nm,20.7s,baz=160,slow=37								
KLR	**Kul'dur**	**62.46**	**46**⇓	*e*P		**P**	**04 16 07.1**	**+0.9**	
A36M	**Sachs Harbour**	**81.11**	**360**			**P**	**04 17 57.9**	**+0.1**	
A36M				IAmb		IAmb	04 17 58.7		
	comp=Z,6.7nm,0.8s								
FITZ	**Fitzroy Crossi**	**83.09**	**114**	P		**P**	**04 18 08.5**	**-0.6**	
	comp=Z,5.9nm,1.1s,baz=262,slow=4.8,SNR=5.2								
	comp=Z,5.9nm,1.1s								
FITZ	**Fitzroy Crossi**	**83.09**	**114**	P		**P**	**04 18 09.0**	**-0.1**	
SCHQ	**Schefferville**	**83.70**	**330**	P		**P**	**04 18 11.5**	**-0.2**	
	comp=Z,6.8nm,0.7s,baz=67,slow=1.7,SNR=9.2								
	comp=Z,6.8nm,0.7s								
SCHQ	**Schefferville**	**83.70**	**330**	P		**P**	**04 18 12.1**	**+0.3**	
G24K	**Hadweenzic Riv**	**85.07**	**8**	P		**P**	**04 18 19.4**	**+0.9**	
H22K	**Ishtalitna Cre**	**85.28**	**10**	P		**P**	**04 18 20.5**	**+1.0**	
ILAR	**Eielson Array**	**86.98**	**9**	P		**P**	**04 18 27.2**	**-0.7**	
	comp=Z,1.3nm,0.6s,baz=323,slow=4.6,SNR=20								
	comp=Z,1.3nm,0.6s								
ILAR	**Eielson Array**	**86.98**	**9**	P		**P**	**04 18 27.4**	**-0.6**	
ILAR	**Eielson Array**	**86.98**	**9**	P		**P**	**04 18 27.4**	**-0.6**	
I30M	**Mount Dempster**	**87.59**	**4**	P		**P**	**04 18 30.8**	**-0.3**	
I30M				IAmb		IAmb	04 18 36.0		
	comp=Z,6.5nm,1.2s								
YKA	**Yellowknife Ar**	**90.14**	**355**	P		**P**	**04 18 43.2**	**+0.3**	
	comp=Z,2.0nm,0.6s,baz=8.9,slow=5.5,SNR=6.2								
	comp=Z,2.0nm,0.6s								
YKA	**Yellowknife Ar**	**90.14**	**355**	P		**P**	**04 18 43.0**	**+0.1**	
WRA	**Warramunga Arr**	**91.14**	**112**	P		**P**	**04 18 47.5**	**-0.9**	
	comp=Z,0.2nm,0.4s,baz=312,slow=4.1,SNR=2.1								
	comp=Z,0.2nm,0.4s								
WRA	**Warramunga Arr**	**91.14**	**112**	P		**P**	**04 18 48.4**	**+0.1**	
WRA	**Warramunga Arr**	**91.14**	**112**	P		**P**	**04 18 48.4**	**+0.1**	

*DNK **05** 04:52:48.2±0.6,51.21N×15.92E,h37km±26km,ML3.1, Presumed earthquake*
*IDC **05** 04:52:49.8±1.8,51.47N×16.12E,h0km,mbtmp3.4/3, ML2.2/3,Error ellipse: s-maj=32.5km s-min=15.1km az=122.0*
*PRU **05** 04:52:50.9,51.49N×16.09E,h0km*
*VIE **05** 04:52:52.0±0.8,51.31N×15.96E,h0km,mb2.5/4,mb2.5/4, ml2.5/6,ml2.5/6,Error ellipse: s-maj=6.4km s-min=4.4km az=104.0 77 km WNW of Wroclaw Suspected Mining induced.*

ISC 05 04:52:48.4±0.8,51.56N±0.03×16.11E±0.03,h0km,n31, σ0s92/57,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.72**	**171**	*e*Pg	**Pg**	**04 53 02.5**	**+0.3**
KSP				*e*Sg	**Sg**	**04 53 11.1**	**-0.5**
CHVC	**Chvalec**	**0.97**	**182**	*e*PG	**Pg**	**04 53 07.3**	**+0.3**
CHVC				*e*SG	**Sg**	**04 53 19.8**	**+0.3**
	comp=Z,17nm,0.5s						
CHVC				AML	AML		
OSTC	**Ostas**	**1.00**	**176**	*e*PG	**Pg**	**04 53 07.8**	**+0.2**
OSTC				*e*SG	**Sg**	**04 53 20.9**	**+0.3**
	comp=Z,25nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**1.05**	**184**	*e*PG	**Pg**	**04 53 08.5**	**0.0**
UPC				*e*SG	**Sg**	**04 53 22.6**	**+0.4**
	comp=Z,58nm,0.3s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.22**	**174**	*e*PG	**Pg**	**04 53 11.3**	**-0.4**
DPC				*e*SG	**Sb**	**04 53 28.1**	**-0.4**
	comp=Z,21nm,0.3s						
DPC				AML	AML		
PVCC	**Panska Ves**	**1.42**	**224**	*e*PG	**Pb**	**04 53 15.7**	**0.0**
PVCC				*e*SG	**Sb**	**04 53 34.5**	**+0.2**
	comp=Z,54nm,0.4s						
PVCC				AML	AML		
PRU	**Pruhonice**	**1.86**	**213**	*e*PG	**Pb**	**04 53 23.0**	**-0.2**
PRU				*e*SG	**Sb**	**04 53 46.9**	**-0.2**
	comp=Z,3.5nm,0.3s						
PRU				AML	AML		
STEB	**Steborice**	**1.94**	**146**	*e*PG	**Pb**	**04 53 24.4**	**-0.1**
STEB				*e*SG	**Sg**	**04 53 50.3**	**-0.3**
	comp=Z,20nm,0.3s						
STEB				AML	AML		
CLL	**Collm**	**1.96**	**264**	*e*Pn	**Pn**	**04 53 23.0**	**+0.1**
CLL				*e*Pg	**Pg**	**04 53 26.0**	**0.0**
CLL				*e*Sg	**Sg**	**04 53 52.0**	**+0.6**
	comp=Z,12nm,0.3s						
MORC	**Moravsky Berou**	**2.00**	**152**	*e*PN	**Pn**	**04 53 23.3**	**-0.2**
MORC				*e*SG	**Sn**	**04 53 49.6**	**+0.4**
VRAC	**Vranov**	**2.27**	**172**	*e*PN	**Pn**	**04 53 26.8**	**-0.4**
VRAC				*e*SG	**Sb**	**04 53 58.6**	**-0.3**
KRUC	**Moravsky**	**2.50**	**176**	*e*PN	**Pn**	**04 53 30.3**	**-0.1**
KRUC				*e*SG	**Sb**	**04 54 05.8**	**+0.2**
OJC	**Ojcow**	**2.69**	**118**	*e*Pg	**Pg**	**04 53 39.2**	**-0.7**
OJC				*e*Sg	**Sg**	**04 54 14.8**	**+0.1**
KHC	**Kasperske Hory**	**2.92**	**215**	*e*PN	**Pn**	**04 53 36.0**	**-0.1**
KHC				*e*PG	**Pb**	**04 53 42.4**	**+1.0**
KHC				*e*SN	**Sn**	**04 54 10.5**	**-1.4**
KHC				*e*SG	**Sg**	**04 54 20.7**	**-1.5**
	comp=Z,4.1nm,0.4s						
KHC				AML	AML		
ABNA	**Allensteig Bun**	**2.92**	**189**	Pg	**Pg**	**04 53 44.2**	**-0.2**
	comp=Z,5.3nm,0.2s						
ABNA				*e*Sg	**Sb**	**04 54 19.4**	**+1.7**
	comp=Z,8.8nm,0.1s						
GERES	**GERESS Array B**	**3.13**	**211**	Pn	**Pn**	**04 53 39.9**	**+0.9**
	comp=Z,0.1nm,0.3s,baz=27,slow=13,SNR=10.0						
GERES				Pg	**Pb**	**04 53 45.9**	**+1.0**
	comp=Z,0.2nm,0.3s,baz=30,slow=16,SNR=33						
GERES				Lg	Lg	04 54 25.2	
	comp=Z,0.3nm,0.3s,baz=30,slow=27,SNR=12						
	comp=Z,0.7nm,0.3s						
GERES				AML	AML		
LANS	**Liptovska Anna**	**3.23**	**137**	*e*	**Pg**	**04 53 50.5**	**+0.3**
LANS	**Liptovska Anna**	**3.23**	**137**	*e*SG	**Sg**	**04 54 30.1**	**-1.9**
MODS	**Modra-Piesok**	**3.27**	**166**	*e*	**Pg**	**04 53 52.1**	**+1.0**
MODS	**Modra-Piesok**	**3.27**	**166**	*e*SG	**Sg**	**04 54 34.4**	**+0.9**
WINA	**Alland / Wiene**	**3.45**	**180**	*e*Pg	**Pg**	**04 53 53.1**	**-1.4**
	comp=Z,1.8nm,0.3s						
WINA				*e*Sg	**Sg**	**04 54 36.7**	**-2.6**
	comp=Z,14nm,0.7s						
VYHS	**Vyhne**	**3.53**	**149**	*e*	**Pg**	**04 53 57.8**	**+1.7**
BSD	**Bornholm Skovb**	**3.63**	**349**	*i* P	**Pn**	**04 53 46.6**	**+0.7**
BSD				*i* S	**Sn**	**04 54 29.6**	**+0.2**
BSD				IAML		04 54 46.7	
	comp=Z,23nm,1.1s						
CONA	**Conrad Observa**	**3.64**	**183**	*e*Pn	**Pn**	**04 53 47.1**	**+1.1**
	comp=Z,0.6nm,0.2s						
CONA				*e*Pg	**Pg**	**04 53 57.0**	**-1.1**
	comp=Z,1.9nm,0.3s						
CONA				*e*Sg	**Sg**	**04 54 43.2**	**-1.9**
	comp=Z,4.0nm,0.3s						
MOA	**Molln**	**3.90**	**199**	*e*Pn	**Pn**	**04 53 50.0**	**+0.4**
	comp=Z,0.4nm,0.1s						
MOA				*e*Sg	**Sg**	**04 54 53.3**	**-0.4**
	comp=Z,0.3nm,0.1s						
ARSA	**Arzberg**	**4.33**	**185**	*e*Sg	**Sg**	**04 55 08.3**	**+0.9**
	comp=Z,4.1nm,0.6s						
LUNU	**Lund**	**4.38**	**340**	*i* P	**Pn**	**04 53 56.5**	**+0.4**
LUNU				*i* S	**Sn**	**04 54 47.0**	**-0.7**
BLEU	**Blekinge**	**4.76**	**358**	*i* P	**Pn**	**04 54 02.6**	**+1.4**
DEL	**Delary**	**5.10**	**346**	*i* P	**Pn**	**04 54 06.7**	**+0.7**
DEL				*i* S	**Sn**	**04 55 03.3**	**-2.1**
FINES	**FINESS Array B**	**11.32**	**25**	Pn	**Pn**	**04 55 31.0**	**-0.2**
	comp=Z,0.1nm,0.3s,baz=214,slow=13,SNR=3.3						
	comp=Z,6.8nm,1.0s						
FINES				AML	AML		
BRTR	**Keskin Array B**	**16.98**	**127**	Pn	**Pn**	**04 56 47.2**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=331,slow=15,SNR=1.8						
	comp=Z,0.6nm,0.7s						
BRTR				AML	AML		

*AFAD **05** 05:26:53.7,37.86N×26.95E,h7km±4km,ML2.0*
*ISK **05** 05:26:53.6,37.87N×26.95E,h9km,ML2.5/12*
*THE **05** 05:26:54.2,38°N±5°×27°E±°,h4km±3km,M2.4/4,MLh2.4/4*

ISC 05 05:26:54.1±0.9,37.87N±0.02×26.97E±0.03,h11km±7km, n32,σ0s43/48,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.19**	**214**	P	**Pg**	**05 26 58.1**	**-0.2**
SMG				S	**Sg**	**05 27 01.0**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**339**	P	**Pg**	**05 26 58.0**	**-0.4**
DGB				S	**Sg**	**05 27 00.5**	**-0.7**
DGB				IAML		05 27 01.0	
	comp=E,399nm,0.1s						
GMLD	**Gumuldur**	**0.21**	**348**	Pg	**Pg**	**05 26 58.8**	**+0.2**
GMLD				Sg	**Sg**	**05 27 01.6**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**92**	Pg	**Pg**	**05 26 59.3**	**0.0**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**129**	P	**Pg**	**05 26 59.8**	**+0.3**
GCAM				S	**Sg**	**05 27 03.4**	**+0.1**
GCAM				IAML		05 27 04.0	
	comp=N,407nm,0.2s						
GCAM	**G?zelcaml?**	**0.27**	**129**	Pg	**Pg**	**05 26 59.9**	**+0.3**
GCAM				Sg	**Sg**	**05 27 03.7**	**+0.5**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**354**	P	**Pg**	**05 27 01.2**	**-0.1**
BEYE				S	**Sg**	**05 27 05.8**	**-0.3**
BEYE				IAML		05 27 07.0	
	comp=N,219nm,0.2s						
BEYE				IAML		05 27 07.0	
	comp=E,248nm,0.2s						
DDIM	**Aydin, Didim**	**0.46**	**152**	P	**Pg**	**05 27 03.1**	**-0.1**
DDIM				S	**Sg**	**05 27 09.6**	**+0.3**
DDIM				IAML		05 27 10.0	
	comp=N,129nm,0.4s						
DUVT	**Torbali**	**0.52**	**47**	P	**Pg**	**05 27 04.0**	**-0.2**
DUVT				S	**Sg**	**05 27 10.9**	**-0.1**
DUVT				IAML		05 27 11.0	
	comp=E,229nm,0.2s						
BLCB	**Balcova**	**0.52**	**6**	P	**Pg**	**05 27 04.3**	**0.0**
BLCB				S	**Sg**	**05 27 11.8**	**+0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**6**	Pg	**Pg**	**05 27 04.2**	**0.0**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.52**	**315**	P	**Pg**	**05 27 03.9**	**-0.4**
ZEYE				S	**Sg**	**05 27 11.1**	**-0.2**
ZEYE				IAML		05 27 12.0	
	comp=N,249nm,0.5s						
AYDB	**Zeytinkoy-Aydi**	**0.73**	**84**	Pg	**Pg**	**05 27 08.4**	**+0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**106**	P	**Pg**	**05 27 08.7**	**+0.1**
AYDN				S	**Sg**	**05 27 17.8**	**-0.6**
AYDN				IAML		05 27 22.0	
	comp=N,41nm,0.3s						
AYDN				IAML		05 27 23.0	
	comp=E,56nm,0.2s						
BAGT	**Foa**	**0.79**	**353**	P	**Pb**	**05 27 09.7**	**-0.1**
BAGT				S	**Sb**	**05 27 21.0**	**+0.4**
BAGT				IAML		05 27 23.0	
	comp=E,59nm,0.3s						
IZMR	**zmir-demi**	**0.82**	**71**	P	**Pb**	**05 27 10.6**	**+0.2**
IZMR				S	**Sg**	**05 27 19.1**	**-1.5**
BODT	**Bodrum**	**0.85**	**161**	Pg	**Pg**	**05 27 10.3**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**132**	Pg	**Pb**	**05 27 10.8**	**-0.2**
MLSB				AML	AML		
FOCM	**Foa**	**0.86**	**347**	Pg	**Pb**	**05 27 10.7**	**-0.4**
FOCM				AML	AML		
BDRM	**Kayabasi**	**0.89**	**155**	P	**Pb**	**05 27 11.2**	**-0.3**
CHOS	**Chios island**	**0.89**	**306**	P	**Pb**	**05 27 11.9**	**+0.3**
CHOS				S	**Sb**	**05 27 23.9**	**+0.5**
KARB	**zmir-Karabur**	**0.91**	**331**	P	**Pb**	**05 27 12.1**	**+0.2**
KARB				S	**Sb**	**05 27 23.7**	**-0.2**
KARB				IAML		05 27 27.0	
	comp=N,38nm,0.3s						
CAMT	**Merkez**	**0.92**	**17**	P	**Pn**	**05 27 12.8**	**-0.2**
CAMT				S	**Sb**	**05 27 25.2**	**+1.0**
CAMT				IAML		05 27 27.0	
	comp=N,112nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.05**	**84**	Pg	**Pb**	**05 27 14.6**	**+0.3**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.09**	**93**	P	**Pg**	**05 27 14.5**	**-0.6**
ZEDA	**zmir-Bergama**	**1.10**	**4**	P	**Pn**	**05 27 15.6**	**+0.1**
GOMA	**Golmarmara-Man**	**1.12**	**41**	Pn	**Pb**	**05 27 15.7**	**+0.2**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.18**	**73**	P	**Pg**	**05 27 15.9**	**-0.8**
KTTT	**Salihli**	**1.20**	**47**	P	**Pg**	**05 27 17.0**	**-0.3**
YER	**Yerkesik**	**1.27**	**125**	P	**Pn**	**05 27 17.7**	**-0.2**
YER	**Yerkesik**	**1.27**	**125**	Pn	**Pg**	**05 27 18.3**	**-0.3**
GORD	**Gordes-Manisa**	**1.41**	**42**	Pn	**Pn**	**05 27 20.2**	**+0.5**
GORD				AML	AML		

*CFUSG **05** 05:46:45.0,40.80N×28.40E,h10km,Mb3.1/3,MD3.2/3, MSH3.3/3*
*AFAD **05** 05:46:45.6,40.85N×28.32E,h7km±3km,ML3.5*
*ISK **05** 05:46:45.3,40.84N×28.30E,h7km,ML3.8/44*
*IDC **05** 05:46:46.8±1.6,40.99N×28.64E,h0km,mb3.5/2, mbtmp3.3/5,ML3.3/3,Error ellipse: s-maj=25.3km s-min=11.0km az=41.0*
*SOF **05** 05:46:46.3,41.01N±0.03×28.09E±0.01,h6km±2km, MD3.3/7*

ISC 05 05:46:46.0±0.9,40.85N±0.02×28.30E±0.02,h15km±6km, n114,σ0s98/144,18C-8D,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SINB	**Sinanoba-Istan**	**0.23**	**51**	Pg	**Pg**	**05 46 51.4**	**+0.3**
SINB				AML	AML		
BOTS	**Marmara Eregli**	**0.28**	**300**	Pg	**Pg**	**05 46 51.9**	**0.0**
BOTS				Sg	**Sg**	**05 46 55.9**	**-0.1**
BOTS				AML	AML		
YKBL	**Yakuplu-Istanb**	**0.31**	**63**	Pg	**Pg**	**05 46 52.2**	**-0.3**
ELBA	**Catalca**	**0.31**	**18**	P	**Pg**	**05 46 52.1**	**-0.4**
ELBA				S	**Sg**	**05 46 56.3**	**-0.7**
IMRA	**Mudanya**	**0.34**	**149**	P	**Pg**	**05 46 52.6**	**-0.3**
IMRA				S	**Sb**	**05 46 57.9**	**-0.9**
SLVT	**Silivri**	**0.38**	**350**	Pg	**Pg**	**05 46 53.7**	**-0.1**
SLVT				AML	AML		
CTKS	**Kestanelik-??a**	**0.41**	**22**	Pg	**Pg**	**05 46 54.0**	**-0.3**
CTKS				AML	AML		
BGKT	**Bogazkoy**	**0.48**	**47**	Pg	**Pg**	**05 46 55.3**	**-0.3**
BGKT				AML	AML		
CATL	**atalca, ST**	**0.49**	**5**	P	**Pg**	**05 46 55.1**	**-0.6**
CATL				S	**Sg**	**05 47 01.2**	**-1.1**
CATL				IAML		05 47 02.0	
	comp=N,6μm,0.7s						
CATL				IAML		05 47 02.0	
	comp=E,3μm,0.3s						
ARMT	**Armutlu**	**0.51**	**124**	Pg	**Pg**	**05 46 55.7**	**-0.4**
ARMT				AML	AML		
BAND	**Balkesir-Ban**	**0.52**	**197**	P	**Pg**	**05 46 55.6**	**-0.7**
BAND				S	**Sg**	**05 47 02.4**	**-0.8**
BAND				IAML		05 47 03.0	
	comp=E,2μm,0.2s						
BAND	**Balkesir-Ban**	**0.52**	**197**	⇓P	**Pg**	**05 46 55.8**	**-0.5**
BRGA	**Burgazada-Ista**	**0.58**	**86**	Pg	**Pb**	**05 46 57.3**	**-0.5**
KCTX	**Karacabey (Bur**	**0.59**	**176**	Pg	**Pg**	**05 46 56.9**	**-0.6**
KCTX				AML	AML		
MRMT	**Marmara Adasi**	**0.59**	**245**	Pg	**Pg**	**05 46 57.4**	**-0.2**
MRMT				AML	AML		
HYBA	**Heybeliada-Ist**	**0.59**	**87**	Pg	**Pg**	**05 46 57.4**	**-0.3**
HYBA				Sg	**Sb**	**05 47 06.1**	**-0.2**
HYBA				AML	AML		
TKR	**Tekirdag**	**0.60**	**284**	Pg	**Pg**	**05 46 57.4**	**-0.3**
TKR				AML	AML		
EDC	**Edincik**	**0.60**	**214**	Pg	**Pg**	**05 46 57.3**	**-0.6**
EDC				AML	AML		
ISK	**Istanbul-Kandi**	**0.61**	**69**	Pg	**Pg**	**05 46 57.5**	**-0.5**
ISK				AML	AML		
KAVV	**Kandilli-Istan**	**0.61**	**69**	Pg	**Pg**	**05 46 57.7**	**-0.3**
KAVV				AML	AML		
CTYL	**Yalikoy Yolu**	**0.62**	**359**	⇓P	**Pg**	**05 46 57.8**	**-0.4**
CTYL				⇑S	**Sg**	**05 47 06.1**	**-0.4**
CTYL	**Yalikoy Yolu**	**0.62**	**359**	P	**Pg**	**05 46 57.4**	**-0.8**
CTYL	**Yalikoy Yolu**	**0.62**	**359**	Pg	**Pg**	**05 46 57.6**	**-0.6**
CTYL				AML	AML		
MADA	**Marmara adas**	**0.63**	**245**	P	**Pg**	**05 46 58.0**	**-0.2**
MDNY	**Mudanya-Bursa**	**0.66**	**137**	Pg	**Pg**	**05 46 58.2**	**-0.6**
MDNY				AML	AML		
YYLC	**Y

comp=N,1µm,0.5s
PHSR Pinarhisar 0.97 323 ⇑P **Pg** **05 47 03.9 -1.0**
PHSR ⇑S **Sg** **05 47 17.0 -0.6**
IZI Iznik 1.03 120 Pg **Pg** **05 47 04.9 -1.0**
IZI AML AML
HRT Hereke 1.04 91 Pg **Pb** **05 47 05.7 0.0**
HRT AML AML
SILT Sile 1.06 73 ⇑P **Pb** **05 47 05.9 0.0**
SILT ⇑S **Sb** **05 47 20.2 +0.5**
SILT Sile 1.06 73 Pg **Pb** **05 47 06.0 0.0**
SILT AML AML
SEMS Kocaeli-K¶rfe 1.09 89 P **Pg** **05 47 06.3 -0.7**
SEMS S **Sb** **05 47 21.3 +0.7**
SEMS IAML 05 47 22.0
comp=N,2µm,0.3s
SEMS IAML 05 47 23.0
comp=E,2µm,0.5s
OSMT Osmaniye 1.09 103 Pn **Pb** **05 47 06.6 0.0**
OSMT AML AML
BKES Balkesir-Mer 1.15 194 P **Pg** **05 47 07.7 -0.6**
ADVT Abdulvahap 1.17 110 Pn **Pb** **05 47 08.0 +0.1**
ADVT AML AML
ARMN Kirklareli, Me 1.21 327 P **Pg** **05 47 08.0 -1.2**
ARMN S **Sg** **05 47 23.1 -1.9**
ARMN IAML 05 47 25.0
comp=E,591nm,0.3s
YENI Yenice-Canakka 1.22 222 Pn **Pb** **05 47 08.7 -0.1**
KESN Edirne-Kesan 1.23 269 P **Pg** **05 47 08.3 -1.5**
KESN S **Sg** **05 47 24.7 -1.1**
KESN IAML 05 47 26.0
comp=E,1µm,0.5s
KESN IAML 05 47 27.0
comp=N,1µm,0.3s
BALB Balikesir 1.25 195 Pn **Pn** **05 47 08.9 0.0**
BALB AML AML
LPK Lapseki 1.27 248 Pn **Pn** **05 47 09.6 +0.5**
LPK AML AML
CANM Can-anakkale 1.27 229 Pn **Pn** **05 47 08.7 -0.5**
CANM AML AML
DST Dursunbey 1.27 169 Pn **Pn** **05 47 09.7 +0.5**
DST AML AML
GOKT Kean, EDRN 1.29 262 P **Pn** **05 47 08.9 -0.5**
GOKT S **Sb** **05 47 26.5 +0.3**
GOKT IAML 05 47 30.0
comp=E,678nm,0.4s
HISA Bilecik-Osmane 1.29 107 P **Pg** **05 47 10.2 -0.6**
HISA S **Sn** **05 47 27.2 +0.6**
HISA IAML 05 47 29.0
comp=N,1µm,0.4s
UKOP Uzunkopru-Edir 1.29 283 Pn **Pn** **05 47 10.2 +0.7**
UKOP AML AML
KIRK Kırklareli 1.30 316 P **Pn** **05 47 09.6 0.0**
KIRK S **Sb** **05 47 26.0 -0.6**
CAVI Cavuskoy 1.34 118 Pn **Pb** **05 47 10.8 0.0**
CAVI AML AML
ERIK Erikli-Kesan 1.37 263 Pn **Pn** **05 47 10.5 0.0**
ERIK AML AML
BILE Bilecik/Merkez 1.38 119 P **Pb** **05 47 11.7 +0.1**
BILE S **Sn** **05 47 30.8 +1.9**
SAUV Serdivan-Sakar 1.54 93 Pn **Pn** **05 47 13.5 +0.6**
SAUV AML AML
KAYN Sakarya, Kayna 1.55 85 P **Pn** **05 47 13.3 +0.3**
YAYO Edremit-Balk 1.56 218 Pn **Pn** **05 47 13.8 +0.7**
YAYO AML AML
CAVK Edirne/Enez-Ca 1.63 265 ⇑P **Pn** **05 47 15.1 +1.0**
GPA Golpazari 1.63 110 Pn **Pn** **05 47 14.9 +0.7**
GPA AML AML
TVSB Tavsanli 1.66 147 Pn **Pn** **05 47 15.0 +0.4**
TVSB AML AML
GULT Gulveren 1.73 103 Pn **Pn** **05 47 16.5 +0.8**
GULT AML AML
EZN Ezine 1.82 236 ⇑P **Pn** **05 47 16.5 -0.3**
SAHE Sakarya_HENDEK 1.94 89 ⇓P **Pn** **05 47 18.8 +0.5**
SRCK Saricakaya, Es 1.95 114 Pn **Pn** **05 47 19.3 +0.8**
SRCK AML AML
UVEZ Uvezbeli-DUZCE 1.97 88 Pn **Pn** **05 47 19.9 +1.0**
UVEZ AML AML
JMB Yambol 2.11 322 P **Pn** **05 47 20.9 +0.2**
KDZ Kurdzhali 2.37 290 P **Pn** **05 47 23.8 -0.5**
PRD Provadia 2.40 344 *eP* **Pb** **05 47 30.2 +1.3**
NEF NEVSHA 2.53 343 P **Pn** **05 47 27.0 +0.5**
ELND Elena 2.75 320 ⇑P **Pn** **05 47 29.8 +0.2**
KAVA Kavala 2.87 274 Pg Pn 05 46 57.4 -34
KAVA AML AML
RAZG Razgrad 3.02 334 ⇑P **Pn** **05 47 33.8 +0.5**
PVL Pavlikeni 3.25 315 P **Pn** **05 47 37.4 +0.9**
TIRR Tirgusor 3.60 1 ⇑P **Pn** **05 47 42.1 +0.9**
PLVB Pleven 3.73 314 ⇑P **Pn** **05 47 44.2 +1.2**
PLNA Plana 4.00 296 P **Pn** **05 47 48.0 +1.2**
TPGR Topolog 4.00 1 ⇑P **Pn** **05 47 47.2 +0.4**
VTS Vitosha 4.18 297 P **Pn** **05 47 50.1 +0.7**
MPEP Malo Peshtene 4.22 308 P **Pn** **05 47 50.0 +0.3**
BRTR Keskin Array B 4.23 104 Pn **Pn** **05 47 50.4 +0.3**
0.4nm,0.3s,baz=293,slow=15,SNR=8.4
BRTR Sn **Sn** **05 48 35.3 -4.0**
0.5nm,0.3s,baz=294,slow=19,SNR=3.8
BRTR Lg Lg 05 48 58.0
baz=272,slow=14
0.7nm,0.4s
BRTR AML AML
TLCR 4.35 5 ⇓P **Pn** **05 47 53.0 +1.5**
MLR Muntele Rosu 4.95 340 Pn **Pn** **05 48 01.8 +2.0**
1.2nm,0.3s,baz=90,slow=24,SNR=11
MLR Lg Lg 05 49 27.0
2.0nm,0.3s,baz=92,slow=23,SNR=4.8
3.7nm,0.3s
MLR AML AML
VRI Vrincioaia 5.14 348 ⇓P **Pn** **05 48 03.6 +1.2**
VOIR 5.16 334 ⇑P **Pn** **05 48 03.2 +0.4**
ARR Arges 5.25 330 ⇑P **Pn** **05 48 05.0 +1.0**
SEV Sevastopol' 5.41 45 ⇓*eP* **Pn** **05 48 06.5 +0.5**
SEV pmax pmax 05 48 07.7
comp=Z,3.0nm,0.2s
SEV *eS* **Sn** **05 49 07.6 -0.4**
SEV smax smax 05 49 13.1
comp=N,9.0nm,0.3s
SEV smax smax 05 49 13.1
comp=E,11nm,0.4s
TURR Turia 5.46 343 ⇓P **Pn** **05 48 07.9 +1.1**
DOPR Dopca 5.54 338 ⇑P **Pn** **05 48 09.0 +1.2**
BOVS Bovan 5.63 302 ⇑P **Pn** **05 48 09.7 +0.6**
DNZ2 Donuzlav2 5.78 37 *ex* x 05 48 09.2
DNZ2 pmax pmax 05 48 17.8
comp=Z,26nm,0.4s
DNZ2 *eS* **Sn** **05 49 16.1 -0.9**
DNZ2 smax smax 05 49 26.5
comp=N,22nm,0.3s
DNZ2 smax smax 05 49 26.5
comp=E,18nm,0.3s
SUDU Sudak 6.36 48 *ex* x 05 48 19.6
SUDU pmax pmax 05 48 27.0
comp=Z,9.0nm,0.2s
SUDU *eS* **Sn** **05 49 31.4 -0.1**
SUDU smax smax 05 49 33.6
comp=N,26nm,0.4s
SUDU smax smax 05 49 33.6
comp=E,21nm,0.4s
BURAR Bucovina Array 7.12 343 ⇓P **Pn** **05 48 31.1 +1.5**
AKASG Malin Array Be 9.87 3 Pn **Pn** **05 49 06.1 -1.2**
comp=E,1.0nm,0.3s,baz=181,slow=12,SNR=6.2
AKASG Sn **Sn** **05 50 52.7 -5.0**
comp=E,1.3nm,0.3s,baz=94,slow=20,SNR=3.2
comp=E,0.3nm,0.4s
AKASG AML AML
ESDC Sonseca Array 24.58 278 P **P** **05 52 10.6 +5.2**
comp=E,0.9nm,0.8s,baz=76,slow=9.7,SNR=4.2
comp=E,0.9nm,0.8s
MKAR Makanchi Array 38.75 63 P **P** **05 54 09.7 +0.1**
comp=E,0.5nm,0.6s,baz=274,slow=7.0,SNR=4.6
comp=E,0.5nm,0.6s

*NEIC **05** 05:52:40.2±0.8,5.°08S±0.°09×153.°72E±0.°10,h43km±7km, mb4.4/27, Error ellipse: s-maj=13.8km s-min=12.8km az=92.0*
*GFZ **05** 05:52:41.0±0.9,5.°5S±5.°×15.°4E±.°,h65km±5km,M4.8/24, mb4.8/24, Error ellipse: s-maj=18.0km s-min=9.6km az=73.6, confirmed*
*IDC **05** 05:52:42.9±1.6,5.°04S×153.°61E,h67km±12km,mb4.0/19, mbtmp4.4/23,MS3.5/29,Error ellipse: s-maj=15.4km s-min=10.2km az=61.0*

*DJA **05** 05:52:46.2±3.5,5.°S±12.°×15.°4E±2.°2,h136km±24km, M4.6/12,mb4.6/12,mB4.5/1,Mw(mB)3.7/1*
ISC 05 05:52:41.5±0.4,5.°01S±0.°05×153.°56E±0.°06,h56km,n130, σ1s31/111,mb4.6/58,MS3.5/27,New Ireland region

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
RABL	**Rabaul**	**1.61**	**300**		**Pn**	**05 53 09.0**	**+1.3**
KRVT	**Keravat (AS076**	**1.68**	**295**	P	**Pn**	**05 53 09.1**	**+0.6**
	1µm,0.3s,baz=261,slow=13,SNR=49						
KRVT				S	**Sn**	**05 53 33.2**	**+4.2**
	8µm,0.4s,baz=218,slow=22,SNR=7.6						
KRVT				LR	LR	05 54 04.4	
	comp=Z,3µm,18.4s,baz=136,slow=47						
PMG	**Port Moresby**	**7.71**	**235**	P	**Pn**	**05 54 33.0**	**+1.9**
	18nm,0.3s,baz=60,slow=7.5,SNR=7.0						
PMG				S	**Sn**	**05 56 00.8**	**+3.8**
	81nm,0.6s,baz=126,slow=15,SNR=8.6						
PMG	**Port Moresby**	**7.71**	**235**	Pn	**Pn**	**05 54 31.0**	**-0.1**
PMG	**Port Moresby**	**7.71**	**235**	P	**Pn**	**05 54 31.8**	**+0.7**
	comp=Z,52nm,1.0s						
HNR	**Honiara**	**7.71**	**125**	P	**Pn**	**05 54 33.3**	**+2.2**
	comp=Z,118nm,0.7s,baz=304,slow=4.6,SNR=5.4						
PATS	**Pohnpei**	**12.69**	**22**	Pn	**Pn**	**05 55 37.6**	**-1.6**
JAY	**Jayapura**	**13.06**	**280**	P	**P**	**05 55 48.4**	**-4.7**
	comp=Z,29nm,1.0s,baz=123,slow=5.0,SNR=8.0						
JAY				LR	LR	06 00 50.0	
	comp=Z,189nm,20.9s,baz=128,slow=37						
GENI	**Genyem**	**13.58**	**280**	P	**Pn**	**05 55 51.4**	**0.0**
	comp=Z,72nm,0.8s						
MTSU	**Mount Surprise**	**15.87**	**214**	P	**Pn**	**05 56 22.4**	**+1.1**
	comp=Z,14nm,1.1s						
CTA	**Charters Tower**	**16.59**	**205**	P	**P**	**05 56 32.1**	**0.0**
	comp=Z,6.2nm,0.8s,baz=22,slow=12,SNR=9.1						
CTA				LR	LR	06 02 01.5	
	comp=Z,126nm,21.4s,baz=34,slow=34						
CTAO	**Charters Tower**	**16.59**	**205**		**Pn**	**05 56 30.4**	**0.0**
CTAO	**Charters Tower**	**16.59**	**205**	P	**Pn**	**05 56 31.4**	**+0.9**
	comp=Z,19nm,1.6s						
GUMO	**Guam**	**20.39**	**335**	LR	LR	06 04 50.4	
	comp=Z,22nm,18.7s,baz=122,slow=36						
DZM	**Mont Dzumac**	**21.05**	**145**	P	**P**	**05 57 21.9**	**+0.8**
	comp=Z,8.0nm,0.5s,baz=304,slow=12,SNR=15						
DZM				LR	LR	06 04 47.2	
	comp=Z,128nm,20.9s,baz=314,slow=34						
	comp=Z,8.0nm,0.5s						
FAKI	**Fak Fak**	**21.36**	**275**		**P**	**05 57 24.8**	**+0.4**
FAKI	**Fak Fak**	**21.36**	**275**	P	**P**	**05 57 25.9**	**+1.5**
	comp=Z,57nm,1.1s						
FAKI	**Fak Fak**	**21.36**	**275**	P	**P**	**05 57 24.2**	**-0.1**
	comp=Z,56nm,0.9s						
OUENC	**Ouen Island, N**	**21.55**	**145**	P	**P**	**05 57 24.1**	**-2.2**
OUENC				IAmb	IAmb	05 57 32.4	
	comp=Z,9.7nm,0.8s						
SIJI	**Sorong**	**22.64**	**280**	P	**P**	**05 57 39.0**	**+0.9**
	comp=Z,7.4nm,0.4s,baz=99,slow=13,SNR=6.4						
SIJI				LR	LR	06 05 21.0	
	comp=Z,255nm,21.8s,baz=90,slow=33						
	comp=Z,7.4nm,0.4s						
SIJI	**Sorong**	**22.64**	**280**	P	**P**	**05 57 39.4**	**+1.3**
	comp=Z,24nm,0.9s						
SIJI	**Sorong**	**22.64**	**280**	P	**P**	**05 57 37.4**	**-0.7**
	comp=Z,23nm,0.9s						
QLP	**Quilpie**	**23.23**	**202**	P	**P**	**05 57 43.2**	**-0.7**
	comp=Z,34nm,2.1s						
MTN	**Manton Dam**	**23.47**	**249**		**P**	**05 57 45.5**	**-0.7**
MTN				IAmb	IAmb	05 58 01.7	
	comp=Z,5.5nm,0.8s						
WB0	**Warramunga Arr**	**23.74**	**230**		**P**	**05 57 48.8**	**0.0**
WB0				IAmb	IAmb	05 57 49.8	
	comp=Z,28nm,1.1s						
WR8	**Warramunga Arr**	**23.77**	**230**		**P**	**05 57 48.9**	**-0.1**
WR8				IAmb	IAmb	05 57 50.1	
	comp=Z,28nm,1.1s						
WRAB	**Tennant Creek**	**23.87**	**230**	P	**P**	**05 57 50.0**	**+0.1**
WRAB				IAmb	IAmb	05 57 51.0	
	comp=Z,19nm,1.1s						
WRAB	**Tennant Creek**	**23.87**	**230**	P	**P**	**05 57 49.1**	**-0.9**
	comp=Z,17nm,1.3s						
WRA	**Warramunga Arr**	**23.88**	**230**	P	**P**	**05 57 49.7**	**-0.4**
	comp=Z,14nm,1.1s,baz=53,slow=9.6,SNR=42						
WRA				PcP	**PcP**	**06 01 32.4**	**+0.5**
	comp=Z,1.0nm,0.6s,baz=55,slow=2.3,SNR=4.6						
WRA				ScP	**ScP**	**06 05 06.1**	**+0.3**
	comp=Z,0.4nm,0.5s,baz=49,slow=2.8,SNR=5.4						
WRA				LR	LR	06 08 44.5	
	comp=Z,96nm,18.0s,baz=268,slow=40						
	comp=Z,14nm,1.1s						
WRA	**Warramunga Arr**	**23.88**	**230**	P	**P**	**05 57 48.0**	**-2.1**
ARMA	**Armidale**	**25.34**	**184**	P	**P**	**05 58 01.4**	**-2.0**
ARMA				IAmb	IAmb	05 58 20.6	
	comp=Z,9.7nm,1.1s						
INKA	**Innaminka**	**25.69**	**207**		**P**	**05 58 05.5**	**-0.8**
AS31	**Alice Springs**	**26.51**	**224**		**P**	**05 58 13.2**	**-0.8**
ASAR	**Alice Springs**	**26.51**	**224**	P	**P**	**05 58 13.9**	**0.0**
	comp=Z,2.8nm,0.9s,baz=55,slow=8.8,SNR=20						
ASAR				PcP	**PcP**	**06 01 38.5**	**+0.6**
	comp=Z,1.5nm,0.7s,baz=61,slow=2.6,SNR=7.6						
ASAR				ScP	**ScP**	**06 05 14.1**	**+0.8**
	comp=Z,0.9nm,0.7s,baz=53,slow=3.2,SNR=6.3						
ASAR				LR	LR	06 08 19.9	
	comp=Z,135nm,20.5s,baz=102,slow=35						
	comp=Z,2.8nm,0.9s						
ASAR	**Alice Springs**	**26.51**	**224**	P	**P**	**05 58 13.6**	**-0.4**
KNRA	**Kununurra**	**26.56**	**245**	P	**P**	**05 58 14.2**	**-0.2**
KNRA				IAmb	IAmb	05 58 40.1	
	comp=Z,12nm,0.9s						
H11S3	**WAKE ISLAND Hy**	**26.70**	**29**	T	T	06 26 52.4	
	baz=208,slow=76,SNR=12						
H11S2	**WAKE ISLAND Hy**	**26.71**	**29**	T	T	06 26 47.0	
	baz=208,slow=76,SNR=15						
H11S1	**WAKE ISLAND Hy**	**26.72**	**29**	T	T	06 26 54.1	
	baz=208,slow=76,SNR=17						
LHI	**Lord Howe Isla**	**26.87**	**170**	P	**P**	**05 58 15.0**	**-2.1**
LHI				IAmb	IAmb	05 58 15.4	
	comp=Z,27nm,1.1s						
MSVF	**Nonsavu**	**27.09**	**120**	LR	LR	06 08 53.8	
	comp=Z,95nm,19.9s,baz=19,slow=36						
SANI	**Sanana**	**27.67**	**275**	P	**P**	**05 58 25.4**	**+0.9**
	comp=Z,13nm,0.8s						
H11N1	**WAKE ISLAND Hy**	**27.85**	**28**	T	T	06 28 14.2	
	baz=205						
H11N3	**WAKE ISLAND Hy**	**27.86**	**28**	T	T	06 28 26.3	
	baz=205						
H11N2	**WAKE ISLAND Hy**	**27.87**	**28**	T	T	06 27 54.0	
	baz=205						
STKA	**Stephens Creek**	**28.98**	**201**	P	**P**	**05 58 34.7**	**-1.3**
	comp=Z,1.8nm,0.6s,baz=27,slow=9.0,SNR=3.6						
STKA				LR	LR	06 10 25.7	
	comp=Z,100nm,20.1s,baz=24,slow=37						
	comp=Z,1.8nm,0.6s						
BATI	**Baumata**	**30.07**	**258**	LR	LR	06 12 56.9	
	comp=Z,305nm,19.7s,baz=79,slow=40						
FITZ	**Fitzroy Crossi**	**30.23**	**242**	LR	LR	06 12 43.3	
	comp=Z,119nm,19.8s,baz=24,slow=40						
FITZ	**Fitzroy Crossi**	**30.23**	**242**		**P**	**05 58 47.0**	**0.0**
FITZ				IAmb	IAmb	05 59 10.3	
	comp=Z,4.5nm,1.1s						
FITZ	**Fitzroy Crossi**	**30.23**	**242**	P	**P**	**05 58 46.2**	**-0.8**
	comp=Z,4.8nm,1.0s						
FITZ				pP	**pP**	**05 59 01.6**	**+1.4**
DAV	**Davao City (W)**	**30.39**	**293**	LR	LR	06 11 02.0	
	comp=Z,34nm,20.1s,baz=144,slow=36						
EDFI	**Ende, Flores**	**31.85**	**262**	P	**P**	**05 59 00.5**	**-1.1**
EDFI	**Ende, Flores**	**31.85**	**262**	P	**P**	**05 59 00.3**	**-1.2**
	comp=Z,28nm,1.0s						
BSSI	**Bau Bau, Buton**	**32.93**	**266**	P	**P**	**05 59 12.3**	**+1.4**
	comp=Z,43nm,1.5s						
KAPI	**Kappang**	**33.68**	**268**	LR	LR	06 16 24.9	
	comp=Z,17nm,18.7s,baz=102,slow=42						
KAPI	**Kappang**	**33.68**	**268**	P	**P**	**05 59 17.2**	**-0.3**
	comp=Z,11nm,1.1s						
MPSI	**Mapaga**	**34.04**	**278**	P	**P**	**05 59 19.8**	**-0.7**
	comp=Z,6.3nm,1.1s						
FORT	**Forrest**	**35.11**	**220**	P	**P**	**05 59 29.7**	**+0.1**
AFI	**Afiamalu**	**35.27**	**107**	LR	LR	06 11 20.2	
	comp=Z,76nm,18.2s,baz=80,slow=32						
MBWA	**Marble Bar**	**36.53**	**241**	P	**P**	**05 59 41.5**	**-0.4**
MBWA	**Marble Bar**	**36.53**	**241**	P	**P**	**05 59 41.0**	**-0.9**
	comp=Z,16nm,1.7s						
TWSI	**Taliwang, Sumb**	**36.59**	**262**	P	**P**	**05 59 41.4**	**-1.1**
	comp=Z,22nm,1.1s						
SZP	**Santa**	**39.63**	**305**	P	**P**	**06 00 07.7**	**-0.3**
	comp=Z,134nm,1.2s						
MEEK	**Meekatharra**	**39.68**	**233**	P	**P**	**06 00 08.4**	**-0.1**
	comp=Z,16nm,1.0s						
RPZ	**Rata Peaks**	**41.52**	**161**	P	**P**	**06 00 20.8**	**-2.5**
SBUM	**Sibu**	**41.96**	**279**	P	**P**	**06 00 27.4**	**+0.1**
JSU	**Suzuyama**	**42.48**	**330**	P	**P**	**06 00 29.7**	**-1.6**
	comp=Z,17nm,2.0s						
MORW	**Morawa**	**42.81**	**232**	P	**P**	**06 00 33.9**	**-0.1**
MORW				IAmb	IAmb	06 00 34.0	
	comp=Z,14nm,1.1s						
MJAR	**Matsushiro Arr**	**43.76**	**342**	LR	LR	06 15 29.5	
	comp=Z,35nm,22.0s,baz=144,slow=31						
KNMB	**Chin-men Tao**	**45.06**	**312**	P	**P**	**06 00 52.7**	**+0.6**
	comp=Z,101nm,1.4s						
BBJI	**Bungbulang**	**45.69**	**264**	P	**P**	**06 00 56.5**	**-0.8**
BBJI	**Bungbulang**	**45.69**	**264**	P	**P**	**06 00 55.6**	**-1.8**
	comp=Z,26nm,0.7s						
LEM	**Lembang**	**45.72**	**265**	LR	LR	06 22 33.6	
	comp=Z,68nm,21.7s,baz=2.5,slow=39						
LEM	**Lembang**	**45.72**	**265**	P	**P**	**06 00 57.4**	**-0.3**
	comp=Z,24nm,0.6s						
RAR	**Rarotonga**	**48.00**	**114**	LR	LR	06 19 12.9	
	comp=Z,9.3nm,20.4s,baz=228,slow=33						
KSRS	**Korea Array**	**48.53**	**333**	P	**P**	**06 01 18.7**	**-0.3**
	comp=Z,1.5nm,0.8s,baz=153,slow=9.5,SNR=5.0						
	comp=Z,1.5nm,0.8s						
MDSI	**Maura Dua**	**49.21**	**268**	P	**P**	**06 01 23.0**	**-1.7**
	comp=Z,8.0nm,2.0s						
MASI	**Maura Aman, Be**	**51.21**	**270**	P	**P**	**06 01 38.7**	**-1.2**
SDSI	**Sungai Dareh**	**52.20**	**273**	P	**P**	**06 01 46.0**	**-1.3**
	comp=Z,9.0nm,0.8s						
KULM	**Kulim**	**53.82**	**280**	P	**P**	**06 01 57.8**	**-1.4**
	comp=Z,9.6nm,1.2s						
MNSI	**Mandailing Nat**	**54.23**	**275**	P	**P**	**06 02 01.1**	**-1.0**
ENH	**Enshi**	**54.85**	**313**	P	**P**	**06 02 06.2**	**-0.2**
	comp=Z,19nm,1.1s						
RPSI	**Rantau Prapat**	**55.12**	**277**	P	**P**	**06 02 07.0**	**-1.6**
	comp=Z,7.2nm,1.1s						
PPT	**Papeete**	**56.94**	**108**	LR	LR	06 22 09.9	
	comp=Z,21nm,21.0s,baz=230,slow=31						
PPT2	**Papeete2**	**56.94**	**108**	*eLR*	LR	06 19 01.8	
	comp=Z,42nm,22.2s						
XAN	**Xi'an**	**57.30**	**316**	*eP*	**P**	**06 02 22.8**	**-1.0**
XAN				pP	pP	06 02 39.3	+1.9
XAN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
TBI	**Tubuai**	**57.78**	**114**	*eLR*	LR	06 19 29.1	
	comp=Z,1µm,37.8s						
MLSI	**Meulaboh, Aceh**	**57.83**	**278**	P	**P**	**06 02 25.7**	**-2.2**
	comp=Z,25nm,1.0s						
PETK	**Petropavlovsk-**	**58.01**	**3**	P	**P**	**06 02 29.3**	**+0.9**
	comp=Z,8.0nm,1.0s,baz=216,slow=7.4,SNR=2.4						
PETK				LR	LR	06 24 27.9	
	comp=Z,26nm,21.3s,baz=74,slow=33						
	comp=Z,8.0nm,1.0s						
PETK	**Petropavlovsk-**	**58.01**	**3**	P	**P**	**06 02 28.6**	**+0.2**
CM31	**Chiang Mai Arr**	**58.65**	**295**	P	**P**	**06 02 34.3**	**+0.8**
CMAR	**Chiang Mai Arr**	**58.65**	**295**	P	**P**	**06 02 34.8**	**+1.3**
	comp=Z,5.2nm,0.9s,baz=114,slow=5.2,SNR=26						
CMAR				LR	LR	06 29 22.8	
	comp=Z,21nm,18.2s,baz=125,slow=38						
	comp=Z,5.2nm,0.9s						
CMAR	**Chiang Mai Arr**	**58.65**	**295**	P	**P**	**06 02 33.7**	**+0.2**
CHTO	**Chiang Mai**	**58.76**	**295**	P	**P**	**06 02 34.4**	**+0.1**
CHTO				IAmb	IAmb	06 02 36.6	
	comp=Z,5.2nm,0.9s						
CHTO	**Chiang Mai**	**58.76**	**295**	P	**P**	**06 02 32.9**	**-1.4**
CHTO	**Chiang Mai**	**58.76**	**295**	P	**P**	**06 02 33.9**	**-0.4**
	comp=Z,6.3nm,1.3s						
HHC	**Hu-ho-hao-te**	**59.66**	**324**	*eP*	**P**	**06 02 44.4**	**+4.2**
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,4.6s						
LZDM	**Lanzhou Array**	**61.95**	**315**	P	**P**	**06 02 57.0**	**+0.8**
	comp=Z,5.0nm,0.5s,baz=132,slow=8.2,SNR=7.0						
	comp=Z,5.0nm,0.5s						
GTA2	**Gaotai**	**66.40**	**317**	P	**P**	**06 03 26.3**	**+1.3**
GTA2				sP	pwP	06 03 42.2	-2.9
GTA2				pmax	pmax		
	comp=Z,14nm,0.9s						
SONM	**Songino Array**	**66.91**	**328**	P	**P**	**06 03 28.8**	**+0.7**
	comp=Z,0.6nm,0.5s,baz=160,slow=4.7,SNR=4.1						
	comp=Z,0.6nm,0.5s						
SHL	**Shillong**	**67.07**	**300**	P	**P**	**06 03 29.6**	**+0.1**
VNDA	**Vanda**	**72.59**	**178**	P	**P**	**06 04 03.0**	**+0.6**
	comp=Z,2.5nm,0.7s,baz=329,slow=6.4,SNR=21						
	comp=Z,2.5nm,0.7s						
VNDA	**Vanda**	**72.59**	**178**	P	**P**	**06 04 03.4**	**+1.0**
VNDA				IAmb	IAmb	06 04 03.9	
	comp=Z,2.3nm,0.8s						
SBA	**Scott Base**	**73.13**	**177**	P	**P**	**06 04 05.5**	**-0.1**
SBA				IAmb	IAmb	06 04 08.3	
	comp=Z,3.1nm,1.0s						
MKAR	**Makanchi Array**	**80.98**	**319**	P	**P**	**06 04 50.8**	**+0.6**
	comp=Z,1.8nm,0.9s,baz=102,slow=7.1,SNR=10						
	comp=Z,1.8nm,0.9s						
MKAR	**Makanchi Array**	**80.98**	**319**	P	**P**	**06 04 50.5**	**+0.3**
ZALV	**Zalesovo Beam**	**81.75**	**326**	P	**P**	**06 04 53.9**	**-0.2**
	comp=Z,0.7nm,0.4s,baz=126,slow=7.5,SNR=3.7						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**81.75**	**326**	P	**P**	**06 04 53.8**	**-0.3**
ILAR	**Eielson Array**	**82.07**	**22**	P	**P**	**06 04 56.6**	**+1.1**
	comp=Z,0.4nm,0.6s,baz=241,slow=4.8,SNR=8.0						
ILAR				LR	LR	06 34 58.2	
	comp=Z,41nm,21.4s,baz=261,slow=31						
	comp=Z,0.4nm,0.6s						
KSH2	**Kashi**	**83.88**	**310**	P	**P**	**06 05 07.6**	**+1.9**
KSH2				sP	sP	06 05 23.7	-2.0
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.2s						
KURK	**Kurchatov**	**84.40**	**322**	P	**P**	**06 05 07.8**	**0.0**
KURK				IAmb	IAmb	06 05 35.5	
	comp=Z,4.0nm,1.1s						
KURBB	**Kurchatov Arra**	**84.43**	**322**	P	**P**	**06 05 07.2**	**-0.8**
	comp=Z,1.6nm,0.9s,baz=112,slow=4.1,SNR=10						
	comp=Z,1.6nm,0.9s						
QSPA	**South Pole Qui**	**84.95**	**180**	P	**P**	**06 05 10.6**	**+0.1**
	comp=Z,7.2nm,0.6s,baz=302,slow=0.6,SNR=42						
	comp=Z,7.2nm,0.6s						
QSPA	**South Pole Qui**	**84.95**	**180**	P	**P**	**06 05 10.9**	**+0.4**
AAK	**Ala-Archa**	**85.36**	**313**	P	**P**	**06 05 13.3**	**+0.2**
AAK				IAmb	IAmb	06 05 41.4	
	comp=Z,2.4nm,0.8s						
MAW	**Mawson**	**85.67**	**203**	P	**P**	**06 05 14.4**	**+0.6**
	comp=Z,1.8nm,0.6s,baz=82,slow=6.1,SNR=9.0						
	comp=Z,1.8nm,0.6s						
MAW	**Mawson**	**85.67**	**203**	P	**P**	**06 05 14.4**	**+0.6**
YBH	**Yreka Blue Hor**	**88.63**	**48**	LR	LR	06 38 04.4	
	comp=Z,56nm,20.4s,baz=282,slow=31						
BVAR	**Borovoye Array**	**89.86**	**323**	P	**P**	**06 05 33.2**	**-1.0**
	comp=Z,1.4nm,0.5s,baz=104,slow=4.7,SNR=5.1						
	comp=Z,1.4nm,0.5s						
NVAR	**Mina Array Bea**	**91.62**	**52**	P	**P**	**06 05 44.7**	**+1.7**
	comp=Z,0.3nm,0.6s,baz=240,slow=7.9,SNR=2.1						
NVAR				LR	LR	06 39 10.6	
	comp=Z,42nm,21.8s,baz=273,slow=30						
	comp=Z,0.3nm,0.6s					

	comp=E,205nm,0.2s							
DGB				S	**Sg**	**06 05 37.1**	**0.0**
DGB				IAML		06 05 39.0	
	comp=N,131nm,0.4s						
GMLD	**Gumuldur**	**0.22**	**4**	Pg	**Pg**	**06 05 34.6**	**+0.2**
GMLD				Sg	**Sg**	**06 05 38.2**	**+0.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**89**	Pg	**Pg**	**06 05 35.2**	**-0.7**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**120**	P	**Pg**	**06 05 35.7**	**-0.2**
GCAM				IAML		06 05 40.0	
	comp=E,439nm,0.4s						
GCAM				S	**Sg**	**06 05 40.6**	**+0.3**
GCAM				IAML		06 05 41.0	
	comp=N,538nm,0.3s						
GCAM	**G?zelcaml?**	**0.31**	**120**	Pg	**Pg**	**06 05 35.9**	**0.0**
GCAM				Sg	**Sg**	**06 05 40.4**	**+0.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**4**	P	**Pg**	**06 05 37.1**	**0.0**
BEYE				S	**Sg**	**06 05 41.6**	**-0.6**
BEYE				IAML		06 05 47.0	
	comp=N,92nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**321**	P	**Pg**	**06 05 39.1**	**-0.1**
ZEYE				IAML		06 05 47.0	
	comp=N,534nm,0.2s						
ZEYE				S	**Sb**	**06 05 47.3**	**+0.6**
ZEYE				IAML		06 05 51.0	
	comp=E,151nm,0.2s						
BLCB	**Balcova**	**0.54**	**12**	P	**Pb**	**06 05 40.5**	**-0.1**
BLCB				S	**Sb**	**06 05 48.8**	**+0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**12**	Pg	**Pg**	**06 05 39.9**	**-0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**50**	P	**Pg**	**06 05 40.4**	**-0.3**
DUVT				S	**Sg**	**06 05 48.3**	**+0.1**
DUVT				IAML		06 05 52.0	
	comp=E,228nm,0.4s						
AYDB	**Zeytinkoy-Aydi**	**0.79**	**83**	Pg	**Pg**	**06 05 44.5**	**-0.4**
AYDB				AML	AML		
BAGT	**Foa**	**0.80**	**358**	P	**Pg**	**06 05 43.8**	**-1.2**
BAGT				IAML		06 05 54.0	
	comp=N,188nm,1.1s						
BAGT				S	**Sn**	**06 05 58.1**	**+0.4**
BAGT				IAML		06 06 00.0	
	comp=E,83nm,0.9s						
AYDN	**Tasoluk**	**0.80**	**104**	P	**Pg**	**06 05 44.4**	**-0.7**
AYDN				S	**Sg**	**06 05 55.7**	**0.0**
AYDN				IAML		06 05 58.0	
	comp=N,32nm,0.3s						
AYDN				IAML		06 05 59.0	
	comp=E,92nm,0.3s						
CHOS	**Chios island**	**0.85**	**309**	P	**Pb**	**06 05 46.3**	**+0.4**
CHOS				S	**Sn**	**06 05 59.0**	**-0.2**
CHOS				AML	AML		
BODT	**Bodrum**	**0.86**	**157**	P	**Pg**	**06 05 46.1**	**-0.1**
BODT				S	**Sb**	**06 05 58.2**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**157**	Pg	**Pn**	**06 05 47.0**	**0.0**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.88**	**71**	P	**Pg**	**06 05 46.6**	**+0.1**
IZMR				P	**Pg**	**06 05 46.6**	**+0.1**
IZMR				IAML		06 06 04.0	
	comp=N,57nm,1.3s						
KARB	**zmir-Karabur**	**0.89**	**335**	P	**Pg**	**06 05 45.9**	**-0.8**
KARB				S	**Sn**	**06 06 00.3**	**+0.3**
KARB				IAML		06 06 02.0	
	comp=N,84nm,0.3s						
KARB				IAML		06 06 03.0	
	comp=E,76nm,0.5s						
MLSB	**Milas**	**0.90**	**128**	Pg	**Pg**	**06 05 46.3**	**-0.6**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.90**	**151**	P	**Pg**	**06 05 46.6**	**-0.4**
BDRM				S	**Sb**	**06 05 59.1**	**+0.4**
BDRM				IAML		06 06 02.0	
	comp=N,50nm,0.3s						
BDRM				IAML		06 06 02.0	
	comp=E,28nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.11**	**84**	Pg	**Pb**	**06 05 50.1**	**-0.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**43**	Pn	**Pn**	**06 05 50.9**	**-0.4**
GOMA				AML	AML		
YER	**Yerkesik**	**1.32**	**123**	Pn	**Pg**	**06 05 54.8**	**-0.1**
APE	**Apeiranthos**	**1.34**	**234**	P	**Pg**	**06 05 54.9**	**-0.4**
GORD	**Gordes-Manisa**	**1.45**	**43**	Pn	**Pb**	**06 05 56.4**	**+0.1**
GORD				AML	AML		

*IDC **05** 06:29:00.4±1.6,7°.46S×128°.42E,h139km±15km,mb3.7/7, mbtmp4.2/12,Error ellipse: s-maj=18.7km s-min=12.2km az=100.0*
*THE **05** 06:29:00.8±0.7,**7°.66S**±0°.06×**128°.60E**±0°.09,**h151**km,**n14**, σ=**2**°**81**/19,**mb3.8/7**,**Banda Sea***

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BATI	**Baumata**	**5.49**	**242**	P	**Pn**	**06 30 20.9**	**0.0**
	228nm,0.4s,baz=106,slow=2.2,SNR=22						
BATI				S	**Sn**	**06 31 21.0**	**-2.4**
	69nm,0.3s,baz=27,slow=21,SNR=5.8						
SIJI	**Sorong**	**7.25**	**22**	P	**Pn**	**06 30 43.0**	**-1.3**
	8.1nm,0.3s,baz=234,slow=19,SNR=1.6						
SIJI				S	**Sn**	**06 32 02.7**	**-2.9**
	4.6nm,0.3s,baz=228,slow=16,SNR=1.7						
FITZ	**Fitzroy Crossi**	**10.77**	**195**	P	**Pn**	**06 31 32.2**	**+1.3**
	1.8nm,0.3s,baz=23,slow=9.5,SNR=26						
FITZ				S	**Sn**	**06 33 24.6**	**-5.6**
	7.3nm,0.5s,baz=89,slow=17,SNR=8.5						
WRA	**Warramunga Arr**	**13.42**	**156**	P	**Pn**	**06 32 06.7**	**+1.3**
	0.6nm,0.4s,baz=330,slow=14,SNR=13						
WRA				S	**Sn**	**06 34 29.1**	**-4.9**
	3.2nm,0.7s,baz=325,slow=25,SNR=5.6						
ASAR	**Alice Springs**	**16.71**	**163**	P	**Pn**	**06 32 49.2**	**+3.0**
	6.6nm,0.5s,baz=340,slow=10,SNR=166						
ASAR				S	**S**	**06 35 48.0**	**-4.0**
	1.0nm,0.4s,baz=345,slow=24,SNR=6.1						
STKA	**Stephens Creek**	**26.97**	**155**	P	**P**	**06 34 31.9**	**+3.5**
	3.2nm,0.5s,baz=320,slow=6.4,SNR=6.9						
	3.2nm,0.5s						
PETK	**Petropavlovsk-**	**65.39**	**19**	P	**P**	**06 39 26.6**	**-0.4**
	6.3nm,1.0s,baz=208,slow=7.5,SNR=2.0						
	6.3nm,1.0s						
MKAR	**Makanchi Array**	**68.03**	**328**	P	**P**	**06 39 43.5**	**-0.4**
	1.0nm,0.7s,baz=123,slow=8.1,SNR=7.1						
	1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**71.57**	**334**	P	**P**	**06 40 04.2**	**-1.1**
	0.5nm,0.3s,baz=122,slow=5.4,SNR=1.4						
	0.5nm,0.3s						
VNDA	**Vanda**	**71.97**	**173**	P	**P**	**06 40 10.1**	**+2.7**
	0.3nm,0.5s,baz=335,slow=2.7,SNR=2.3						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**72.35**	**329**	P	**P**	**06 40 09.6**	**-0.5**
	0.7nm,0.6s,baz=131,slow=4.7,SNR=12						
	0.7nm,0.6s						
QSPA	**South Pole Qui**	**82.32**	**180**	P	**P**	**06 41 07.4**	**+1.9**
	0.7nm,0.5s,baz=22,slow=3.0,SNR=5.8						
	0.7nm,0.5s						
TXAR	**Lajitas Array**	**126.46**	**59**	PKP	**PKPdf**	**06 47 47.1**	**+0.4**
	0.3nm,0.8s,baz=323,slow=3.8,SNR=2.5						
LPAZ	**La Paz**	**151.01**	**145**	PKPbc	**PKiKP**	**06 48 39.7**	**+1.5**
	0.4nm,0.4s,baz=270,slow=1.0,SNR=4.4						

*AFAD **05** 06:43:00.4,37°.88N×26°.67E,h7km±2km,ML2.0*
*ISK **05** 06:43:00.1,37°.86N×26°.66E,h15km±1km,ML2.6/6*
ISC 05 06:43:00.7±1.2,**37°.89N**±0°.04×**26°.68E**±0°.04,**h15**km±7km, **n18**, σ=**63**/29,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.23**	**45**	P	**Pg**	**06 43 05.5**	**-0.3**
DGB				IAML		06 43 09.0	
	comp=N,163nm,0.6s						
DGB				S	**Sg**	**06 43 09.1**	**-0.1**
GMLD	**Gumuldur**	**0.27**	**45**	Pg	**Pg**	**06 43 06.3**	**-0.1**
GMLD				Sg	**Sg**	**06 43 10.9**	**+0.7**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**339**	P	**Pg**	**06 43 07.8**	**-0.5**
ZEYE				IAML		06 43 14.0	
	comp=N,180nm,0.3s						
ZEYE				IAML		06 43 14.0	
	comp=E,132nm,0.2s						
ZEYE				S	**Sg**	**06 43 14.2**	**+0.7**
BEYE	**izmir**	**0.39**	**30**	P	**Pg**	**06 43 08.2**	**-0.4**
BEYE				S	**Sg**	**06 43 14.6**	**+0.6**
GCAM	**G?zelcaml?**	**0.48**	**113**	P	**Pg**	**06 43 09.9**	**-0.3**
GCAM				IAML		06 43 17.0	
	comp=E,172nm,0.2s						
GCAM				S	**Sb**	**06 43 17.6**	**-0.1**
GCAM				IAML		06 43 19.0	
	comp=N,132nm,0.3s						
GCAM	**G?zelcaml?**	**0.48**	**113**	Pg	**Pg**	**06 43 10.2**	**0.0**
GCAM				AML	AML		
DUVT	**Torbali**	**0.69**	**61**	P	**Pg**	**06 43 14.0**	**-0.2**
DUVT				S	**Sg**	**06 43 23.4**	**0.0**
DUVT				IAML		06 43 24.0	
	comp=E,91nm,0.2s						
CHOS	**Chios island**	**0.70**	**316**	Pg	**Pb**	**06 43 14.4**	**-0.2**
CHOS				Sg	**Sb**	**06 43 24.8**	**+0.7**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.71**	**352**	Pg	**Pb**	**06 43 14.9**	**+0.1**
KRBN				Sg	**Sb**	**06 43 25.8**	**+1.4**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**10**	P	**Pn**	**06 43 16.8**	**-0.4**
BAGT				IAML		06 43 30.0	
	comp=N,84nm,1.0s						
BAGT				IAML		06 43 34.0	
	comp=E,51nm,1.4s						
KARB	**zmir-Karabur**	**0.80**	**345**	P	**Pg**	**06 43 15.4**	**-0.8**
KARB				S	**Sn**	**06 43 28.9**	**-0.3**
KARB				IAML		06 43 29.0	
	comp=N,38nm,0.1s						
KARB				IAML		06 43 30.0	
	comp=E,62nm,0.1s						
FOCM	**Foa**	**0.82**	**3**	Pg	**Pb**	**06 43 17.1**	**+0.4**
FOCM				Sg	**Sn**	**06 43 29.3**	**-0.5**
FOCM				AML	AML		
BODT	**Bodrum**	**0.97**	**148**	Pg	**Pb**	**06 43 18.8**	**-0.3**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.98**	**103**	P	**Pg**	**06 43 19.5**	**-0.1**
AYDN				IAML		06 43 33.0	
	comp=N,45nm,0.8s						
AYDN				IAML		06 44 02.0	
	comp=E,59nm,0.9s						
CAMT	**Merkez**	**0.99**	**30**	P	**Pn**	**06 43 20.7**	**+0.6**
CAMT				S	**Sn**	**06 43 34.4**	**+0.4**
CAMT				IAML		06 43 40.0	
	comp=E,40nm,0.3s						
CAMT				IAML		06 44 05.0	
	comp=N,80nm,0.4s						
BDRM	**Kayabasi**	**1.02**	**143**	P	**Pg**	**06 43 20.3**	**-0.2**
BDRM				IAML		06 43 36.0	
	comp=N,47nm,0.8s						
BDRM				IAML		06 44 04.0	
	comp=E,53nm,0.2s						
ZEDA	**zmir-Bergama**	**1.12**	**16**	P	**Pb**	**06 43 19.9**	**-2.0**
ZEDA				IAML		06 43 40.0	
	comp=N,21nm,0.5s						
KTTT	**Salihli**	**1.37**	**54**	P	**Pg**	**06 43 27.0**	**-0.1**

*ISK **05** 06:43:44.7,37°.85N×26°.85E,h4km,ML2.8/23*
*THE **05** 06:43:45.5,38°.N±1°×2°.7E±°,h8km±1km,M3.0/8,MLh3.0/8*
*AFAD **05** 06:43:45.2,37°.86N×26°.86E,h7km±3km,ML2.8*
ISC 05 06:43:45.6±0.9,**37°.86N**±0°.02×**26°.87E**±0°.02,**h11**km±6km, **n56**, σ=**59**/85,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**191**	P	**Pg**	**06 43 49.0**	**0.0**
SMG				S	**Sg**	**06 43 51.9**	**+0.4**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**2**	P	**Pg**	**06 43 49.5**	**-0.3**
DGB				S	**Sg**	**06 43 52.2**	**-0.5**
GMLD	**Gumuldur**	**0.22**	**9**	Pg	**Pg**	**06 43 49.9**	**-0.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.33**	**118**	P	**Pg**	**06 43 52.4**	**+0.3**
GCAM				S	**Sb**	**06 43 57.7**	**-0.9**
GCAM				IAML		06 43 58.0	
	comp=E,2μm,0.4s						
GCAM				IAML		06 43 59.0	
	comp=N,3μm,0.2s						
GCAM	**G?zelcaml?**	**0.33**	**118**	Pg	**Pg**	**06 43 52.0**	**-0.1**
GCAM				Sg	**Sg**	**06 43 57.5**	**+1.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**89**	Pg	**Pg**	**06 43 52.1**	**-0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.37**	**7**	P	**Pg**	**06 43 52.7**	**-0.3**
BEYE				S	**Sg**	**06 43 58.1**	**+0.1**
BEYE				IAML		06 44 04.0	
	comp=N,648nm,0.3s						
BEYE				IAML		06 44 04.0	
	comp=E,754nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**323**	P	**Pg**	**06 43 54.6**	**-0.4**
ZEYE				S	**Sg**	**06 44 01.3**	**-0.1**
ZEYE				IAML		06 44 02.0	
	comp=N,1μm,0.3s						
ZEYE				IAML		06 44 06.0	
	comp=E,512nm,0.2s						
DDIM	**Aydin, Didim**	**0.49**	**144**	P	**Pg**	**06 43 52.7**	**-2.6**
DDIM				S	**Sb**	**06 44 03.3**	**-0.2**
BLCB	**Balcova**	**0.55**	**14**	P	**Pg**	**06 43 56.2**	**0.0**
BLCB				S	**Sg**	**06 44 03.3**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**14**	Pg	**Pg**	**06 43 56.3**	**0.0**
BLCB				AML	AML		
DIDI	**Didim-Aydin**	**0.56**	**149**	Pg	**Pg**	**06 43 56.5**	**0.0**
DIDI				AML	AML		
DUVT	**Torbali**	**0.58**	**51**	P	**Pg**	**06 43 56.7**	**-0.2**
DUVT				S	**Sg**	**06 44 04.6**	**-0.1**
DUVT				IAML		06 44 09.0	
	comp=E,681nm,0.2s						
KRBN	**Karaburun**	**0.78**	**341**	Pg	**Pg**	**06 44 00.3**	**-0.3**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**156**	Pg	**Pg**	**06 44 00.7**	**-0.3**
YKAV				Sg	**Sb**	**06 44 12.4**	**+0.2**
YKAV				AML	AML		
BAGT	**Foa**	**0.80**	**359**	P	**Pg**	**06 44 00.2**	**-0.8**
BAGT				S	**Sb**	**06 44 13.2**	**+1.0**
AYDB	**Zeytinkoy-Aydi**	**0.81**	**83**	Pg	**Pg**	**06 44 01.3**	**+0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.82**	**103**	P	**Pg**	**06 44 01.4**	**-0.1**
AYDN				S	**Sg**	**06 44 11.7**	**-0.5**
AYDN				IAML		06 44 16.0	
	comp=N,327nm,0.3s						
AYDN				IAML		06 44 16.0	
	comp=E,345nm,0.3s						
CHOS	**Chios island**	**0.83**	**310**	P	**Pb**	**06 44 02.5**	**+0.4**
CHOS				S	**Sb**	**06 44 13.5**	**+0.1**
CHOS				AML	AML		
FOCM	**Foa**	**0.86**	**353**	Pg	**Pb**	**06 44 02.3**	**-0.2**
FOCM				AML	AML		
BODT	**Bodrum**	**0.86**	**156**	P	**Pg**	**06 44 01.9**	**-0.4**
BODT				S	**Sb**	**06 44 15.0**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**156**	Pg	**Pg**	**06 44 02.1**	**-0.2**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.89**	**336**	P	**Pg**	**06 44 01.7**	**-1.0**
KARB				S	**Sb**	**06 44 15.3**	**+0.6**
KARB				IAML		06 44 17.0	
	comp=N,487nm,0.4s						
KARB				IAML		06 44 17.0	
	comp=E,303nm,0.4s						
IZMR	**zmir-demi**	**0.90**	**71**	P	**Pb**	**06 44 03.7**	**+0.6**
IZMR				S	**Sg**	**06 44 13.9**	**-0.7**
IZMR				IAML		06 44 18.0	
	comp=E,190nm,0.7s						
BDRM	**Kayabasi**	**0.91**	**150**	P	**Pg**	**06 44 02.9**	**-0.2**
BDRM				S	**Sb**	**06 44 15.7**	**+0.3**
BDRM				IAML		06 44 17.0	
	comp=E,458nm,0.4s						
BDRM				IAML		06 44 19.0	
	comp=N,740nm,0.3s						
MLSB	**Milas**	**0.91**	**128**	Pg	**Pb**	**06 44 03.3**	**0.0**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**151**	Pg	**Pg**	**06 44 03.3**	**-0.2**
CAMT	**Merkez**	**0.96**	**21**	P	**Pb**	**06 44 04.1**	**0.0**
CAMT				S	**Sb**	**06 44 17.5**	**+0.7**
CAMT				IAML		06 44 20.0	
	comp=N,775nm,0.4s						
CAMT				IAML		06 44 20.0	
	comp=E,707nm,0.6s						
ZEDA	**zmir-Bergama**	**1.12**	**8**	P	**Pb**	**06 44 06.8**	**-0.1**
ZEDA				S	**Sb**	**06 44 22.3**	**+0.7**
ZEDA				IAML		06 44 25.0	
	comp=N,223nm,0.3s						
ZEDA				IAML		06 44 28.0	
	comp=E,162nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.13**	**84**	Pn	**Pg**	**06 44 06.8**	**-0.5**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.17**	**92**	P	**Pg**	**06 44 07.1**	**-1.0**
ESEN				S	**Sg**	**06 44 23.1**	**-0.2**
GOMA	**Golmarmara-Man**	**1.18**	**44**	Pn	**Pn**	**06 44 08.5**	**+0.5**
GOMA				AML	AML		
DKL	**Dikili**	**1.21**	**1**	Pn	**Pn**	**06 44 08.7**	**+0.3**
DKL				AML	AML		
KIRA	**zmir-Kiraz**	**1.25**	**74**	P	**Pg**	**06 44 09.8**	**+0.1**
KIRA				S	**Sb**	**06 44 26.2**	**+0.8**
KIRA				IAML		06 44 28.0	
	comp=N,109nm,0.4s						
KIRA				IAML		06 44 30.0	
	comp=E,112nm,0.3s						
DAT	**Datca**	**1.26**	**153**	P	**Pn**	**06 44 08.5**	**-0.7**
DAT				S	**Sn**	**06 44 27.4**	**+1.3**
DAT				AML	AML		
DAT	**Datca**	**1.26**	**153**	Pn	**Pn**	**06 44 09.4**	**+0.3**
DAT				AML	AML		
AKHS	**Akhisar**	**1.26**	**36**	P	**Pn**	**06 44 09.2**	**+0.1**
AKHS				IAML		06 44 28.0	
	comp=N,264nm,0.3s						
AKS	**Akhisar**	**1.26**	**36**	Pn	**Pg**	**06 44 09.8**	**0.0**
AKS				AML	AML		
KTTT	**Salihli**	**1.27**	**49**	P	**Pg**	**06 44 09.8**	**-0.2**
KTTT				S	**Sb**	**06 44 25.4**	**-0.4**
KTTT				IAML		06 44 29.0	
	comp=N,288nm,0.5s						
MULA	**Mugla, Merkez-**	**1.30**	**117**	P	**Pn**	**06 44 09.7**	**0.0**
MULA				S	**Sb**	**06 44 27.0**	**+0.3**
MULA				IAML		06 44 36.0	
	comp=E,102nm,0.9s						
APE	**Apeiranthos**	**1.33**	**234**	P	**Pn**	**06 44 09.9**	**-0.2**
APE				AML	AML		
YER	**Yerkesik**	**1.33**	**122**	P	**Pn**	**06 44 09.8**	**-0.3**
YER				S	**Sn**	**06 44 28.8**	**+0.9**
YER	**Yerkesik**	**1.33**	**122**	Pn	**Pg**	**06 44 10.9**	**-0.3**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.40**	**22**	Pn	**Pg**	**06 44 11.9**	**-0.5**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.46**	**354**	P	**Pn**	**06 44 12.2**	**+0.4**
AYVA				S	**Sn**	**06 44 30.6**	**-0.2**
PRK	**Paraskevi**	**1.47**	**341**	P	**Pn**	**06 44 11.8**	**-0.1**
PRK				S	**Sn**	**06 44 30.9**	**-0.1**
GORD	**Gordes-Manisa**	**1.47**	**44**	Pn	**Pg**	**06 44 13.3**	**-0.5**
GORD				AML	AML		
MANT	**Manisa**	**1.47**	**64**	S	**Sn**	**06 44 30.0**	**-1.5**
SULTU	**Buldan**	**1.51**	**82**	P	**Pn**	**06 44 13.0**	**+0.4**
SULTU				S	**Sn**	**06 44 32.6**	**+0.2**
SULTU				IAML		06 44 38.0	
	comp=E,92nm,0.7s						
SULTU				IAML		06 44 53.0	
	comp=N,41nm,0.6s						
TURN	**Turunc**	**1.54**	**134**	Pn	**Pn**	**06 44 13.5**	**+0.7**
TURN				AML	AML		
HARTU	**Esme**	**1.59**	**72**	P	**Pn**	**06 44 14.0**	**+0.3**
STEP	**BALIKESIR_Sava**	**1.66**	**23**	P	**Pg**	**06 44 17.2**	**-0.2**
STEP				S	**Sg**	**06 44 39.4**	**+0.5**
STEP				IAML		06 44 48.0	
	comp=N,167nm,0.7s						
STEP				IAML		06 44 48.0	
	comp=E,151nm,0.4s						
KOCA	**Canakkale, Ayv**	**1.74**	**341**	P	**Pn**	**06 44 16.1**	**+0.4**
KOCA				IAML		06 44 46.0	
	comp=E,131nm,0.6s						
KOCA				IAML		06 44 48.0	
	comp=N,86nm,0.6s						
DALY	**Dalyan (Mula)**	**1.76**	**126**	Pn	**Pb**	**06 44 17.1**	**-0.7**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.96**	**100**	Pn	**Pn**	**06 44 19.2**	**+0.4**
APMY				AML	AML		
SIMA	**Simav-Kutahya**	**2.06**	**53**	Pn	**Pb**	**06 44 21.9**	**-1.1**
SIMA				AML	AML		

*IDC **05** 06:47:03.7±1.4,36°.06N×28°.09E,h0km,mb3.8/3, mbtmp3.6/5,ML1.8/2,MS2.3/1,Error ellipse: s-maj=75.0km s-min=11.2km az=156.0*
*THE **05** 06:47:03.6,38°.N±1°×2°.6E±°,h7km±2km,M3.3/11, MLh3.3/11*
*AFAD **05** 06:47:03.7,37°.88N×26°.51E,h7km±4km,ML3.4*
*ATH **05** 06:47:03.0,37°.82N×26°.48E,h14km±1km,ML3.2/15, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*ISK **05** 06:47:03.5,37°.85N×26°.50E,h11km,ML3.5/19*
ISC 05 06:47:03.1±1.0,**37°.85N**±0°.02×**26°.46E**±0°.02,**h6**km±7km, **n83**, σ=**72**/113,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAM2	**Drakei, Karlov**	**0.15**	**126**	P	**Pg**	**06 47 06.1**	**0.0**
SAM2				S	**Sg**	**06 47 08.7**	**+0.5**
SAM2				AML	AML		
KRL1	**Karlovasi Samo**	**0.20**	**105**	P	**Pg**	**06 47 06.7**	**-0.4**
KRL1				S	**Sg**	**06 47 10.3**	**+0.4**
KRL1				AML	AML		
SMG	**Samos**	**0.33**	**115**	P	**Pg**	**06 47 09.6**	**0.0**
SMG				S	**Sg**	**06 47 14.3**	**+0.4**
SMG				AML	AML		
SMG	**Samos**	**0.33**	**115**	P	**Pg**	**06 47 09.5**	**0.0**
SMG				S	**Sg**	**06 47 13.9**	**0.0**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.39**	**5**	P	**Pg**	**06 47 10.2**	**-0.4**
ZEYE				S	**Sg**	**06 47 16.9**	**+1.0**
ZEYE				IAML		06 47 17.0	
	comp=E,3μm,0.2s						
ZEYE				IAML		06 47 22.0	
	comp=N,4μm,0.7s						
DGB	**zmir**	**0.39**	**59**	P	**Pg**	**06 47 10.0**	**-0.7**
DGB				S	**Sg**	**06 47 15.7**	**-0.2**
DGB				IAML		06 47 16.0	
	comp=N,5μm,0.5s						
DGB				IAML		06 47 16.0	
	comp=E,4μm,0.5s						
CESE	**eme**	**0.50**	**346**	Pg	**Pb**	**06 47 13.9**	**-0.3**
CESE				Sg	**Sb**	**06 47 21.2**	**-0.5**
CESE				AML	AML		
BEYE	**izmir**	**0.53**	**44**	P	**Pg**	**06 47 12.8**	**-0.5**
BEYE				S	**Sg**	**06 47 20.0**	**-0.2**
BEYE				IAML		06 47 20.0	
	comp=E,3μm,0.6s						
CHOS	**Chios island**	**0.62**	**330**	P	**Pb**	**06 47 16.5**	**+0.1**
CHOS				S	**Sb**	**06 47 26.0**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.62**	**330**	P	**Pb**	**06 47 16.3**	**-0.1**
CHOS				S	**Sb**	**06 47 25.0**	**-0.5**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.63**	**103**	P	**Pg**	**06 47 14.8**	**-0.5**
GCAM				S	**Sn**	**06 47 27.3**	**-1.6**
GCAM				IAML		06 47 29.0	
	comp=N,2μm,0.5s						
KUSD	**Kusadasi-Aydin**	**0.66**	**89**	Pg	**Pg**	**06 47 15.9**	**+0.2**
BLCB	**Balcova**	**0.71**	**41**	P	**Pb**	**06 47 17.4**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.71**	**41**	Pg	**Pb**	**06 47 17.2**	**-0.6**
DDIM	**Aydin, Didim**	**0.73**	**122**	P	**Pb**	**06 47 17.7**	**-0.5**
DDIM				S	**Sb**	**06 47 29.1**	**+0.6**
DDIM				IAML		06 47 30.0	
	comp=N,2μm,0.5s						
DDIM				IAML		06 47 30.0	
	comp=E,2μm,0.5s						
EAG2	**Marmaro, Chios**	**0.75**	**338

FOCM	**Foa**	**0.89**	**14**	Pg	**Pb**	**06 47 20.9**	**0.0**		
FOCM				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.97**	**138**	Pg	**Pb**	**06 47 22.2**	**-0.1**		
YKAV				AML	AML				
KLNA	**Kalymnos**	**0.98**	**155**	P	**Pg**	**06 47 21.6**	**-0.2**		
BODT	**Bodrum**	**1.04**	**139**	P	**Pg**	**06 47 22.9**	**0.0**		
BODT				AML	AML				
BODT	**Bodrum**	**1.04**	**139**	Pg	**Pn**	**06 47 23.9**	**-0.2**		
BODT				Sg	**Sn**	**06 47 38.1**	**-0.8**		
BODT				AML	AML				
APE	**Apeiranthos**	**1.07**	**224**	P	**Pg**	**06 47 23.3**	**-0.3**		
APE				S	**Sn**	**06 47 39.3**	**-0.6**		
APE				AML	AML				
APE	**Apeiranthos**	**1.07**	**224**	P	**Pg**	**06 47 23.4**	**-0.3**		
APE				S	**Sg**	**06 47 37.5**	**0.0**		
APE				AML	AML				
TNSA	**Tinos**	**1.07**	**254**	P	**Pg**	**06 47 23.4**	**-0.3**		
TNSA				S	**Sg**	**06 47 37.9**	**+0.3**		
TNSA				AML	AML				
BDRM	**Kayabasi**	**1.11**	**135**	P	**Pn**	**06 47 24.9**	**-0.2**		
BDRM				IAML		06 47 41.0			
	comp=N,1µm,0.7s								
BDRM				IAML		06 47 41.0			
	comp=E,755nm,0.6s								
BODA	**Bodrum-Mula**	**1.12**	**136**	Pn	**Pn**	**06 47 25.1**	**-0.1**		
CAMT	**Merkez**	**1.12**	**37**	P	**Pn**	**06 47 24.9**	**-0.4**		
CAMT				S	**Sn**	**06 47 40.5**	**-0.5**		
CAMT				IAML		06 47 41.0			
	comp=E,2µm,0.6s								
CAMT				IAML		06 47 46.0			
	comp=N,2µm,0.5s								
AYDB	**Zeytinkoy-Aydi**	**1.14**	**85**	Pn	**Pg**	**06 47 24.8**	**-0.1**		
AYDB				AML	AML				
AYDN	**Tasoluk**	**1.14**	**99**	P	**Pg**	**06 47 24.9**	**-0.1**		
AYDN				S	**Sn**	**06 47 41.2**	**-0.3**		
MLSB	**Milas**	**1.18**	**117**	Pn	**Pb**	**06 47 25.5**	**-0.4**		
MLSB				AML	AML				
IZMR	**zmir-demi**	**1.22**	**76**	P	**Pg**	**06 47 26.4**	**0.0**		
ZEDA	**zmir-Bergama**	**1.22**	**23**	P	**Pg**	**06 47 26.9**	**+0.5**		
ZEDA				IAML		06 47 51.0			
	comp=N,520nm,1.1s								
DKL	**Dikili**	**1.27**	**16**	Pn	**Pb**	**06 47 27.2**	**-0.2**		
DKL				AML	AML				
DKL	**Dikili**	**1.27**	**16**	P	**Pn**	**06 47 26.3**	**-1.0**		
PRK	**Paraskevi**	**1.40**	**354**	P	**Pb**	**06 47 29.3**	**-0.4**		
PRK				AML	AML				
PRK	**Paraskevi**	**1.40**	**354**	P	**Pn**	**06 47 28.4**	**-0.8**		
YAZI	**Mula-Dat§a-**	**1.41**	**145**	P	**Pn**	**06 47 28.4**	**-0.9**		
YAZI				S	**Sg**	**06 47 51.0**	**+2.6**		
YAZI				IAML		06 47 57.0			
	comp=E,350nm,0.8s								
DAT	**Datca**	**1.43**	**141**	P	**Pn**	**06 47 28.9**	**-0.7**		
DAT				AML	AML				
DAT	**Datca**	**1.43**	**141**	Pn	**Pb**	**06 47 29.6**	**-0.6**		
DAT				AML	AML				
GOMA	**Golmarmara-Man**	**1.43**	**53**	Pn	**Pb**	**06 47 30.0**	**-0.2**		
GOMA				AML	AML				
NAZL	**Nazilli-Aydin**	**1.46**	**85**	Pn	**Pb**	**06 47 30.2**	**-0.4**		
NAZL				AML	AML				
AYVA	**Ayvalik**	**1.47**	**7**	P	**Pg**	**06 47 31.3**	**0.0**		
AYVA				IAML		06 47 59.0			
	comp=N,873nm,0.6s								
AYVA				IAML		06 47 59.0			
	comp=E,478nm,0.9s								
AKS	**Akhisar**	**1.48**	**46**	Pn	**Pb**	**06 47 30.9**	**-0.1**		
AKS				AML	AML				
AKHS	**Akhisar**	**1.48**	**46**	P	**Pb**	**06 47 30.8**	**-0.2**		
AKHS				S	**Sg**	**06 47 50.9**	**+0.2**		
AKHS				IAML		06 47 52.0			
	comp=N,987nm,0.6s								
ESEN	**Aydn-Nazilli**	**1.50**	**91**	P	**Pn**	**06 47 29.4**	**-1.0**		
ESEN				S	**Sg**	**06 47 52.9**	**+1.7**		
KTTT	**Salihli**	**1.54**	**56**	P	**Pb**	**06 47 31.3**	**-0.6**		
KTTT				S	**Sb**	**06 47 51.4**	**-0.2**		
KTTT				IAML		06 47 57.0			
	comp=N,617nm,0.9s								
SOMA	**Soma-Manisa**	**1.56**	**33**	Pn	**Pn**	**06 47 31.4**	**+0.2**		
SOMA				AML	AML				
KIRA	**zmir-Kiraz**	**1.57**	**77**	P	**Pb**	**06 47 32.7**	**+0.1**		
KIRA				S	**Sg**	**06 47 52.9**	**-0.8**		
KARY	**Karystos**	**1.61**	**277**	P	**Pn**	**06 47 31.4**	**-0.5**		
KARY				AML	AML				
KARY	**Karystos**	**1.61**	**277**	P	**Pn**	**06 47 31.0**	**-1.0**		
YER	**Yerkesik**	**1.62**	**116**	Pn	**Pn**	**06 47 31.9**	**-0.2**		
YER				AML	AML				
THR3	**Thira Island,**	**1.67**	**211**	P	**Pn**	**06 47 31.9**	**-0.8**		
SAP3	**Santorini-Thir**	**1.67**	**213**	P	**Pn**	**06 47 31.5**	**-1.3**		
THR5	**Thira Island,**	**1.68**	**212**	P	**Pn**	**06 47 31.7**	**-1.3**		
THR6	**Thira Island,**	**1.71**	**210**	P	**Pn**	**06 47 32.4**	**-1.0**		
GORD	**Gordes-Manisa**	**1.72**	**51**	Pn	**Pn**	**06 47 33.7**	**+0.2**		
GORD				AML	AML				
MANT	**Manisa**	**1.77**	**68**	P	**Pg**	**06 47 36.6**	**-0.5**		
MANT				S	**Sb**	**06 47 58.0**	**-0.7**		
TURN	**Turunc**	**1.78**	**126**	Pn	**Pn**	**06 47 33.9**	**-0.4**		
TURN				AML	AML				
MHLO	**Agia Marina, M**	**2.01**	**235**	P	**Pn**	**06 47 37.9**	**+0.5**		
DION	**Dionisos Attik**	**2.01**	**277**	P	**Pn**	**06 47 37.4**	**-0.1**		
DION				AML	AML				
DION	**Dionisos Attik**	**2.01**	**277**	P	**Pn**	**06 47 36.9**	**-0.6**		
DION				AML	AML				
KYMI	**Kymi, Euboea I**	**2.02**	**294**	P	**Pn**	**06 47 36.1**	**-1.4**		
KYMI				AML	AML				
DALY	**Dalyan (Mula)**	**2.03**	**120**	Pn	**Pn**	**06 47 38.2**	**+0.5**		
PTL	**Penteli**	**2.06**	**276**	P	**Pn**	**06 47 37.5**	**-0.7**		
PTL				AML	AML				
ARG	**Arkhangelos**	**2.11**	**140**	P	**Pn**	**06 47 38.1**	**-0.7**		
ARG	**Arkhangelos**	**2.11**	**140**	P	**Pn**	**06 47 37.8**	**-1.1**		
ARG				AML	AML				
VLY	**Voula,Athens**	**2.11**	**271**	P	**Pn**	**06 47 38.0**	**-0.9**		
VLY				AML	AML				
ATHU	**Athens Univers**	**2.12**	**274**	P	**Pn**	**06 47 37.6**	**-1.4**		
ATH	**Athens Observa**	**2.17**	**274**	P	**Pn**	**06 47 39.5**	**-0.2**		
ATH				AML	AML				
LIA	**Limnos Island**	**2.28**	**334**	P	**Pn**	**06 47 41.0**	**-0.1**		
LIA				AML	AML				
APMY	**Acipayam-Deniz**	**2.29**	**99**	Pn	**Pn**	**06 47 40.9**	**-0.5**		
APMY				AML	AML				
SIMA	**Simav-Kutahya**	**2.33**	**57**	Pn	**Pn**	**06 47 42.5**	**+0.5**		
SIMA				AML	AML				
SMAA	**Simav-Kutahya**	**2.34**	**57**	Pn	**Pn**	**06 47 42.5**	**+0.4**		
IDI	**Anoyia**	**2.85**	**207**	Pn	**Pn**	**06 47 48.1**	**-1.0**		
	1.6nm,0.3s,baz=67,slow=9.1,SNR=12								
IDI				Pg	**Pb**	**06 47 54.5**	**+0.1**		
	2.8nm,0.3s,baz=18,slow=15,SNR=6.7								
IDI				Sn	**Sn**	**06 48 22.5**	**-1.3**		
	3.5nm,0.3s,baz=93,slow=18,SNR=2.4								
IDI				Lg	Lg	06 48 31.6			
	3.0nm,0.3s,baz=341,slow=19,SNR=1.9								
	5.3nm,0.3s								
IDI				AML	AML				
BRTR	**Keskin Array B**	**5.92**	**69**	Pn	**Pn**	**06 48 30.5**	**-0.8**		
	0.1nm,0.3s,baz=239,slow=8.9,SNR=5.6								
BRTR				LR	LR	06 50 40.7			
	comp=Z,29nm,19.7s,baz=306,slow=38								
	0.9nm,0.5s								
BRTR				AML	AML				
TORD	**Torodi Ar. Bea**	**33.04**	**228**	P	**P**	**06 53 39.6**	**+0.4**		
	0.9nm,0.5s,baz=36,slow=9.3,SNR=5.9								
	0.9nm,0.5s								
KURBB	**Kurchatov Arra**	**38.65**	**54**	P	**P**	**06 54 30.1**	**+3.0**		
	0.7nm,0.2s,baz=282,slow=9.4,SNR=2.1								
	0.7nm,0.2s								
MKAR	**Makanchi Array**	**41.46**	**59**	P	**P**	**06 54 50.4**	**-0.1**		
	0.5nm,0.6s,baz=277,slow=6.5,SNR=4.5								
	0.5nm,0.6s								

*IDC **05** 07:14:58.0±1.9,31°.21S×178°.50W,h0km,mb4.6/4, mbtmp4.5/5,Error ellipse: s-maj=45.9km s-min=31.2km az=51.0*

*NEIC **05** 07:15:12.8±0.8,31°.31S±0°.09×179°.0W±0°.2,h93km±12km, mb4.5/5,Error ellipse: s-maj=30.5km s-min=3.3km az=114.0*

ISC 05 07:15:12.6±0.8,31°.29S±0°.09×179°.0W±0°.2,h100km,n23, σ0§73/23,mb4.5/9,2C,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**2.22**	**24**	Pn	**Pn**	**07 15 47.6**	**-0.4**
RAO				Sn	**Sn**	**07 16 16.2**	**+1.2**
MXZ	**Matakaoa Point**	**6.66**	**199**	Pn	**Pn**	**07 16 47.8**	**+0.2**
URZ	**Urewera**	**7.67**	**204**	Pn	Pn	07 16 54.1	-7.4
	33nm,1.1s,baz=45,slow=10.0,SNR=2.2						
URZ				Sn	Sn	07 18 15.6	-11
	1.4nm,0.3s,baz=113,slow=9.7,SNR=7.1						
HIZ	**Hauiti**	**8.82**	**214**	Pn	**Pn**	**07 17 17.1**	**0.0**
MRZ	**Mangatainoka R**	**10.35**	**204**	Pn	**Pn**	**07 17 37.4**	**-0.4**
KHZ	**Kahutara**	**12.62**	**206**	Pn	**Pn**	**07 18 08.5**	**+0.2**
STKA	**Stephens Creek**	**33.49**	**258**	P	**P**	**07 21 43.0**	**+0.6**
	1.1nm,0.4s,baz=72,slow=9.6,SNR=3.7						
	1.1nm,0.4s						
STKA	**Stephens Creek**	**33.49**	**258**	P	**P**	**07 21 43.2**	**+0.8**
BBOO	**Buckleboo**	**37.95**	**256**	P	**P**	**07 22 19.9**	**-0.6**
AS31	**Alice Springs**	**42.25**	**268**	P	**P**	**07 22 56.2**	**0.0**
AS31				IAmb	IAmb	07 22 56.6	
	comp=Z,2.6nm,0.5s						
ASAR	**Alice Springs**	**42.25**	**268**	P	**P**	**07 22 56.0**	**-0.3**
	comp=Z,5.4nm,0.5s,baz=110,slow=8.3,SNR=108						
	comp=Z,5.4nm,0.5s						
ASAR	**Alice Springs**	**42.25**	**268**	P	**P**	**07 22 55.9**	**-0.3**
WR8	**Warramunga Arr**	**43.18**	**274**		**P**	**07 23 04.0**	**+0.3**
WR8				IAmb	IAmb	07 23 04.5	
	comp=Z,7.5nm,0.7s						
WRA	**Warramunga Arr**	**43.32**	**274**	P	**P**	**07 23 04.8**	**0.0**
	comp=Z,12nm,0.5s,baz=115,slow=8.0,SNR=109						
	comp=Z,12nm,0.5s						
WRA	**Warramunga Arr**	**43.32**	**274**		**P**	**07 23 05.0**	**+0.1**
QSPA	**South Pole Qui**	**58.82**	**180**	P	**P**	**07 24 58.5**	**-1.8**
	comp=Z,4.0nm,0.8s,baz=45,slow=0.8,SNR=13						
	comp=Z,4.0nm,0.8s						
QSPA	**South Pole Qui**	**58.82**	**180**	P	**P**	**07 25 01.3**	**+1.0**
QSPA				IAmb	IAmb	07 25 02.5	
	comp=Z,4.0nm,0.8s						
TROLL	**Troll, Antarti**	**76.98**	**180**	P	**P**	**07 26 54.4**	**+0.5**
	comp=Z,300nm,0.4s						
VNA3	**Neumayer Olymp**	**77.47**	**176**	⇑P	**P**	**07 26 57.3**	**+0.8**
	comp=Z,4.3nm,0.6s						
VNA2	**Neumayer--Watz**	**77.90**	**177**	⇑P	**P**	**07 26 59.8**	**+0.8**
	comp=Z,3.5nm,0.5s,baz=172,slow=5.2						
VNA1	**Neumayer--Stat**	**78.13**	**177**	P	**P**	**07 27 00.5**	**+0.4**
	comp=Z,3.2nm,0.8s						
FINES	**FINESS Array B**	**145.69**	**339**	PKPbc	**PKPdf**	**07 34 37.4**	**-1.0**
	comp=Z,2.3nm,0.8s,baz=46,slow=4.0,SNR=6.4						
FINES	**FINESS Array B**	**145.69**	**339**		**PKPdf**	**07 34 37.8**	**-0.6**

*IDC **05** 07:29:41.9±0.6,3°.40S×131°.02E,h0km,mb4.1/11, mbtmp4.1/15,ML3.9/4,MS3.1/5,Error ellipse: s-maj=22.9km s-min=11.5km az=85.0*

*NEIC **05** 07:29:43.2±1.4,3°.54S±0°.03×131°.14E±0°.06,h10km±1km, mb4.4/24,Error ellipse: s-maj=11.6km s-min=3.4km az=244.0*

*DJA **05** 07:29:45.6±0.3,3°.S±2°×13°.1E±°,h14km±2km,M4.3/14, mB4.7/1,mb4.5/1,MLv4.2/14,Mw(mB)4.0/1*

ISC 05 07:29:45.5±0.4,3°.48S±0°.04×131°.18E±0°.03,h30km,n63, σ1§71/65,mb4.3/19,1C,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FAKI	**Fak Fak**	**1.21**	**63**		**Pb**	**07 30 07.0**	**-0.7**
FAKI	**Fak Fak**	**1.21**	**63**	P	**Pb**	**07 30 07.1**	**-0.7**
FAKI				S	**Sb**	**07 30 23.2**	**+0.2**
FAKI				AML	AML		
BNDI	**Bandanaira**	**1.64**	**231**	P	**Pb**	**07 30 14.7**	**-0.4**
BNDI				AML	AML		
MSAI	**Masohi**	**2.25**	**273**	P	**Pb**	**07 30 24.6**	**-0.8**
MSAI				S	**Sb**	**07 30 50.1**	**-2.8**
MSAI				AML	AML		
KMPI	**Kaimana, Papua**	**2.53**	**94**	P	**Pn**	**07 30 26.9**	**+2.4**
KMPI				S	**Sb**	**07 30 57.7**	**-3.3**
KMPI				AML	AML		
SIJI	**Sorong**	**2.59**	**2**	Pn	**Pn**	**07 30 25.0**	**-0.5**
	13nm,0.3s,baz=200,slow=23,SNR=18						
SIJI				Sn	**Sn**	**07 30 53.0**	**-3.0**
	47nm,0.3s,baz=198,slow=19,SNR=8.8						
SIJI				LR	LR	07 31 20.5	
	comp=Z,202nm,19.3s,baz=58,slow=39						
	36nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.59**	**2**	P	**Pn**	**07 30 24.6**	**-0.9**
SIJI				AML	AML		
MWPI	**Manokwari, Pap**	**3.82**	**49**	P	**Pn**	**07 30 44.5**	**+2.2**
NLAI	**Namlea**	**4.08**	**273**	P	**Pn**	**07 30 48.4**	**+2.6**
NLAI				S	**Sn**	**07 31 35.8**	**+3.2**
NLAI				AML	AML		
MTN	**Manton Dam**	**9.30**	**180**		**Pn**	**07 31 57.9**	**+0.2**
JAY	**Jayapura**	**9.56**	**85**	Pn	**Pn**	**07 32 04.9**	**+3.6**
	0.7nm,0.3s,baz=292,slow=16,SNR=1.3						
JAY				LR	LR	07 37 00.9	
	comp=Z,57nm,19.9s,baz=332,slow=45						
	7.8nm,0.7s						
JAY				AML	AML		
BATI	**Baumata**	**10.01**	**228**	LR	LR	07 36 33.7	
	comp=Z,124nm,20.0s,baz=52,slow=41						
TOLI2	**Tolitoli**	**11.35**	**294**	Pn	**Pn**	**07 32 24.8**	**-0.9**
KAPI	**Kappang**	**11.49**	**262**	LR	LR	07 37 50.3	
	comp=Z,93nm,18.9s,baz=70,slow=43						
KNRA	**Kunumura**	**12.35**	**191**		**Pn**	**07 32 37.4**	**-2.0**
FITZ	**Fitzroy Crossi**	**15.51**	**200**	Pn	**Pn**	**07 33 18.8**	**-3.4**
	1.0nm,0.3s,baz=33,slow=12,SNR=22						
FITZ				Sn	Sn	07 36 00.9	-12
	0.3nm,0.3s,baz=358,slow=16,SNR=2.4						
	2.4nm,0.4s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.51**	**200**	Pn	**Pn**	**07 33 19.8**	**-2.4**
WRAB	**Tennant Creek**	**16.64**	**170**	Pn	**Pn**	**07 33 34.5**	**-2.3**
WRA	**Warramunga Arr**	**16.65**	**170**	Pn	**Pn**	**07 33 33.1**	**-3.7**
	0.4nm,0.3s,baz=353,slow=14,SNR=17						
WRA				Sn	Sn	07 36 29.2	-12
	0.4nm,0.3s,baz=345,slow=20,SNR=5.3						
	0.9nm,0.5s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.65**	**170**		**Pn**	**07 33 33.2**	**-3.7**
JAGI	**Jajag, Banyuwa**	**17.64**	**253**	Pn	**Pn**	**07 33 47.4**	**-1.8**
JAGI				IAmb	IAmb	07 34 13.2	
	comp=Z,68nm,1.4s						
AS31	**Alice Springs**	**20.24**	**173**	P	**P**	**07 34 17.5**	**-1.0**
ASAR	**Alice Springs**	**20.24**	**173**	P	Pn	07 34 19.8	-0.7
	comp=Z,4.9nm,0.5s,baz=353,slow=12,SNR=65						
ASAR				S	**S**	**07 37 59.6**	**-4.6**
	comp=Z,0.3nm,0.6s,baz=350,slow=14,SNR=1.8						
	comp=Z,4.9nm,0.5s						
ASAR	**Alice Springs**	**20.24**	**173**	P	**P**	**07 34 18.4**	**-0.1**
MBWA	**Marble Bar**	**20.80**	**211**	P	**P**	**07 34 23.9**	**-0.6**
MBWA				IAmb	IAmb	07 34 49.2	
	comp=Z,16nm,1.3s						
FORT	**Forrest**	**27.31**	**186**	P	**P**	**07 35 27.4**	**-0.3**
FORT				IAmb	IAmb	07 36 07.6	
	comp=Z,18nm,1.5s						
MORW	**Morawa**	**29.23**	**208**	P	**P**	**07 35 44.5**	**-0.3**
MORW				IAmb	IAmb	07 36 06.8	
	comp=Z,22nm,1.5s						
BBOO	**Buckleboo**	**29.54**	**172**	P	**P**	**07 35 46.6**	**-0.9**
STKA	**Stephens Creek**	**29.90**	**162**	P	**P**	**07 35 51.5**	**+0.7**
	comp=Z,1.2nm,0.5s,baz=356,slow=8.9,SNR=4.1						
	comp=Z,1.2nm,0.5s						
STKA	**Stephens Creek**	**29.90**	**162**	P	**P**	**07 35 49.3**	**-1.4**
KNMB	**Chin-men Tao**	**30.43**	**337**	P	**P**	**07 35 55.9**	**+0.4**
TOO	**Toolangi**	**36.38**	**161**	P	**P**	**07 36 47.0**	**-0.2**
TOO				IAmb	IAmb	07 37 01.1	
	comp=Z,8.4nm,1.4s						
JNU	**Nakatsue**	**36.40**	**360**	LR	LR	07 49 23.4	
	comp=Z,49nm,20.4s,baz=20,slow=32						
CMAR	**Chiang Mai Arr**	**38.51**	**306**	P	**P**	**07 37 06.0**	**+0.5**
	comp=Z,1.4nm,0.3s,baz=111,slow=8.5,SNR=4.2						
	comp=Z,1.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**38.51**	**306**	P	**P**	**07 37 05.3**	**-0.2**
MJAR	**Matsushiro Arr**	**40.35**	**9**	P	**P**	**07 37 21.3**	**+0.7**
BNX	**BinXian**	**49.12**	**357**	⇑P	**P**	**07 38 32.2**	**+1.9**
BNX				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MKAR	**Makanchi Array**	**65.97**	**325**	P	**P**	**07 40 29.6**	**+0.5**
	comp=Z,1.4nm,0.6s,baz=119,slow=8.1,SNR=12						
	comp=Z,1.4nm,0.6s						
MKAR	**Makanchi Array**	**65.97**	**325**	P	**P**	**07 40 29.9**	**+0.8**
ZAA0	**Zalesovo Array**	**68.99**	**333**	P	**P**	**07 40 47.4**	**-0.6**
ZAA0				IAmb	IAmb	07 40 48.9	
	comp=Z,3.1nm,1.0s						
ZALV	**Zalesovo Beam**	**68.99**	**333**	P	**P**	**07 40 46.9**	**-1.0**
	comp=Z,0.6nm,0.3s,baz=178,slow=4.5,SNR=5.2						
	comp=Z,0.6nm,0.3s						
ZALV	**Zalesovo Beam**	**68.99**	**333**	P	**P**	**07 40 46.8**	**-1.1**
KURBB	**Kurchatov Arra**	**70.17**	**327**	P	**P**	**07 40 55.4**	**+0.1**
	comp=Z,2.9nm,0.2s,baz=126,slow=5.6,SNR=14						
	comp=Z,2.9nm,0.2s						
KURK	**Kurchatov**	**70.17**	**328**	P	**P**	**07 40 55.8**	**+0.5**
KKAR	**Karatay Array**	**71.51**	**318**	P	**P**	**07 41 04.3**	**+0.7**
BVAR	**Borovoye Array**	**75.75**	**327**	P	**P**	**07 41 28.8**	**+0.5**
	comp=Z,1.8nm,0.5s,baz=114,slow=6.8,SNR=8.0						
	comp=Z,1.8nm,0.5s						
VNDA	**Vanda**	**75.78**	**173**	P	**P**	**07 41 28.9**	**+0.8**
	comp=Z,0.4nm,0.5s,baz=346,slow=7.1,SNR=6.0						
	comp=Z,0.4nm,0.5s						
VNDA	**Vanda**	**75.78**	**173**	P	**P**	**07 41 28.3**	**+0.2**
VNDA				IAmb	IAmb	07 42 04.6	
	comp=Z,3.1nm,1.4s						
BORK	**Borovoye**	**75.79**	**327**	P	**P**	**07 41 29.4**	**+0.9**
BORK				IAmb	IAmb	07 41 30.3	
	comp=Z,3.2nm,0.8s						
NRIK	**Noril'sk**	**78.46**	**346**	P	**P**	**07 41 43.7**	**+0.5**
NRIK				IAmb	IAmb	07 42 20.3	
	comp=Z,5.0nm,1.3s						
MAW	**Mawson**	**78.63**	**201**	P	**P**	**07 41 45.9**	**+1.7**
	comp=Z,1.0nm,0.7s,baz=35,slow=5.1,SNR=2.6						
	comp=Z,1.0nm,0.7s						
MAW	**Mawson**	**78.63**	**201**	P	**P**	**07 41 43.8**	**-0.4**
AB31	**Akbulak array**	**80.51**	**321**	P	**P**	**07 41 55.4**	**+0.6**
AB31				IAmb	IAmb	07 42 22.8	
	comp=Z,2.9nm,1.4s						
ABKAR	**Akbulak array**	**80.51**	**321**	P	**P**	**07 41 55.9**	**+1.2**
M16K	**Timber Creek**	**83.42**	**27**	P	**P**	**07 42 11.4**	**+1.6**
H17K	**Granite Mounta**	**84.35**	**24**	P	**P**	**07 42 14.5**	**0.0**
J18K	**Innoko River**	**85.19**	**25**	P	**P**	**07 42 19.8**	**+1.0**
J18K				IAmb	IAmb	07 42 49.2	
	comp=Z,6.8nm,1.2s						
QSPA	**South Pole Qui**	**86.47**	**180**	P	**P**	**07 42 26.8**	**+1.5**
	comp=Z,0.8nm,0.7s,baz=236,slow=3.6,SNR=3.0						
	comp=Z,0.8nm,0.7s						
QSPA	**South Pole Qui**	**86.47**	**180**	P	**P**	**07 42 25.8**	**+0.5**
QSPA				IAmb	IAmb	07 42 52.8	
	comp=Z,4.4nm,1.4s						
ILAR	**Eielson Array**	**89.68**	**25**	P	**P**	**07 42 40.2**	**-0.2**
	comp=Z,0.3nm,0.6s,baz=262,slow=6.3,SNR=4.1						
	comp=Z,0.3nm,0.6s						
ILAR	**Eielson Array**	**89.68**	**25**	P	**P**	**07 42 40.6**	**+0.2**
PB06	**IPOC Station P**	**147.02**	**143**	PKPdf	**PKPdf**	**07 49 23.6**	**-0.8**
LPAZ	**La Paz**	**152.61**	**136**	PKPbc	**PKiKP**	**07 49 43.1**	**+1.9**
	comp=Z,0.5nm,0.4s,baz=150,slow=5.5,SNR=3.9						

*SJA **05** 07:40:52.4±0.7,25°.46S×70°.64W,h63km±5km,ML4.4, MW4.4*

*VAO **05** 07:40:53.2±1.0,25°.42S×70°.35W,h41km,mb4.4, Presumed earthquake*

*NEIC **05** 07:40:54.0±1.3,25°.45S±0°.02×70°.36W±0°.06,h37km±6km, mb4.4/32,ML4.5(GUC),Error ellipse: s-maj=7.9km s-min=3.2km az=81.0*

*IDC **05** 07:40:55.0±2.3,25°.42S×70°.24W,h55km±20km,mb3.7/7, mbtmp4.0/12,ML3.8/5,MS3.3/8,Error ellipse: s-maj=25.4km s-min=12.7km az=89.0*

*GFZ **05** 07:40:54.0±0.2,25°.S±2°×.7°0W±°,h45km,M4.5/13, mb4.5/13,confirmed*

*GUC **05** 07:40:55.0±0.7,25°.47S×70°.30W,h32km±6km,ML4.5, Presumed earthquake*

ISC 05 07:40:53.3±0.6,25°.44S±0°.03×70°.49W±0°.05,h42km±6km, n198,σ1§88/207,mb4.4/25,MS3.4/5,8C-2D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AC01	**Pan de Azucar**	**0.71**	**188**	*eP*	**Pn**	**07 41 07.9**	**+0.8**
AC01				*eS*	**Sn**	**07 41 18.4**	**+1.4**
AC01				IAML		07 41 21.2	
	comp=Z,7µm,0.6s						
AC01	**Pan de Azucar**	**0.71**	**188**		**Pn**	**07 41 08.2**	**+1.2**
AC01					**Sn**	**07 41 18.0**	**+1.1**
AC01	**Pan de Azucar**	**0.71**	**188**	⇓*iP*	**Pn**	**07 41 08.2**	**+1.2**
AC01				*i* S	**Sn**	**07 41 18.1**	**+1.1**
AC01	**Pan de Azucar**	**0.71**	**188**	P	**Pn**	**07 41 08.3**	**+1.3**
AC01				S	**Sn**	**07 41 17.9**	**+0.9**
PB14	**IPOC Station P**	**0.81**	**6**	*eP*	**Pn**	**07 41 10.5**	**+1.8**
PB14				IAML		07 41 27.7	
	comp=Z,3µm,0.5s						
PB14	**IPOC Station P**	**0.81**	**6**		**Pn**	**07 41 10.3**	**+1.6**
PB14					**Sn**	**07 41 20.3**	**+0.6**
PB14	**IPOC Station P**	**0.81**	**6**	⇑*iP*	**Pn**	**07 41 10.3**	**+1.6**
PB14				*i* S	**Sn**	**07 41 21.7**	**+2.1**
PB14	**IPOC Station P**	**0.81**	**6**	P	**Pn**	**07 41 10.4**	**+1.8**
PB14				S	**Sn**	**07 41 22.0**	**+2.4**
AC02	**Maricunga**	**1.86**	**139**	*eP*	**Pn**	**07 41 24.8**	**+1.7**
AC02				*eS*	**Sn**	**07 41 46.9**	**+1.3**
AC02				IAML		07 41 47.1	
	comp=Z,4µm,0.3s						
AC02	**Maricunga**	**1.86**	**139**		**Pn**	**07 41 24.7**	**+1.7**
AC02	**Maricunga**	**1.86

TINO Tinogasta 3.70 136 *eP* **Pn 07 41 50.5 +2.4**
TINO IAML 07 42 59.2
comp=Z,241nm,1.1s
PB07 IPOC Station P 3.73 9 *eP* **Pn 07 41 49.2 +0.6**
PB07 *eS* Sn 07 42 41.3 +10
PB07 IAML 07 43 03.7
comp=Z,1μm,0.4s
PB07 IPOC Station P 3.73 9 Pn 07 41 49.1 +0.5
PB07 IPOC Station P 3.73 9 *i P* **Pn 07 41 48.8 +0.1**
PB07 IPOC Station P 3.73 9 P **Pn 07 41 49.3 +0.7**
PB09 IPOC Station P 3.80 18 *eP* **Pn 07 41 51.6 +2.0**
PB09 IAML 07 42 52.5
comp=Z,1μm,0.7s
PB09 IPOC Station P 3.80 18 *eP* **Pn 07 41 51.0 +1.5**
PB09 *eS* Sn 07 42 43.1 +10
PB09 IPOC Station P 3.80 18 P **Pn 07 41 51.5 +2.0**
VCA Vinchina 3.87 149 *eP* **Pn 07 41 49.0 -1.5**
VCA *eS* Sn 07 42 44.0 +9.2
VCA IAML 07 42 55.6
comp=Z,416nm,0.6s
VCA Vinchina 3.87 149↓ *eP* **Pn 07 41 54.3 +3.9**
SALTA 3.96 73 *eP* **Pn 07 41 50.8 -1.2**
SALTA *eP* 07 41 56.0
SALTA IAML 07 43 08.3
comp=Z,216nm,2.0s
FSA Cafayete 4.12 100 *eP* **Pn 07 41 57.4 +3.4**
PB02 IPOC Station P 4.13 8 *eP* **Pn 07 41 54.5 +0.4**
PB02 IAML 07 43 23.1
comp=Z,840nm,0.3s
PB02 IPOC Station P 4.13 8 Pn 07 41 54.0 0.0
PB02 IPOC Station P 4.13 8 P **Pn 07 41 55.3 +1.2**
CO05 La Serena 4.51 188 Pn 07 41 59.3 +0.1
CO01 Juntas del Tor 4.54 176 *eP* **Pn 07 42 01.0 +1.3**
CO01 *eS* **Sn 07 42 58.5 +7.2**
CO01 IAML 07 43 14.6
comp=Z,298nm,0.7s
CO01 Juntas del Tor 4.54 176 P **Pn 07 42 00.2 +0.5**
SLA San Lorenzo 4.58 82 *eP* Pn 07 42 07.0 +6.8
SLA San Lorenzo 4.58 82 *eP* Pn 07 42 04.2 +4.0
GO04 Tololo Observa 4.73 183 *eP* **Pn 07 42 02.1 -0.2**
GO04 *eS* Sn 07 43 10.0 +14
GO04 IAML 07 43 35.7
comp=Z,552nm,0.7s
GO04 Tololo Observa 4.73 183 Pn **Pn 07 42 02.6 +0.3**
GO04 Tololo Observa 4.73 183 P **Pn 07 42 01.9 -0.4**
AROD Rodeo 4.80 169 *eP* **Pn 07 42 06.7 +3.3**
AHML Horco Molle 4.83 107 *eP* **Pn 07 42 07.3 +3.7**
TA01 Diego Aracena 4.86 3 *eP* **Pn 07 42 03.3 -0.6**
TA01 *eS* Sn 07 43 11.7 +13
TA01 IAML 07 43 28.4
comp=Z,336nm,0.6s
TA01 Diego Aracena 4.86 3 P **Pn 07 42 03.6 -0.3**
ACDV Cuesta del Vie 4.87 166 *eP* **Pn 07 42 08.2 +4.0**
ACDV IAML 07 43 20.6
comp=Z,188nm,1.5s
ACLC CERRO LA CRUZ 5.07 142 *eP* **Pn 07 42 09.8 +2.8**
ACLC IAML 07 43 18.1
comp=Z,95nm,0.9s
CYA Choya 5.15 127 *eP* **Pn 07 42 10.6 +2.7**
CO06 Fray Jorge 5.32 191 Pn 07 42 08.3 -1.9
CO03 El Pedregal 5.39 182 Pn 07 42 11.2 0.0
CO03 El Pedregal 5.39 182 P **Pn 07 42 10.5 -0.7**
comp=Z,76nm,0.5s
PB08 IPOC Station P 5.41 13 Pn **Pn 07 42 12.1 +0.2**
YJA Yavi 5.60 56 *eP* Pn 07 42 21.4 +6.9
PB11 IPOC Station P 5.70 8 Pn 07 42 14.5 -1.1
PB11 IPOC Station P 5.70 8 P **Pn 07 42 14.6 -1.1**
comp=Z,61nm,0.6s
PSGCX Pisagua 5.82 3 Pn 07 42 16.1 -1.2
PSGCX Pisagua 5.82 3 P **Pn 07 42 16.7 -0.5**
comp=Z,74nm,0.6s
GO01 Chusmiza 5.86 12 Pn **Pn 07 42 17.9 -0.3**
CFA Coronel Fontan 6.46 163 P **Pn 07 42 27.6 +1.6**
comp=Z,2.4nm,0.3s,baz=352,slow=13,SNR=41
CFA S **Sn 07 43 39.0 +0.6**
comp=Z,223nm,1.0s,baz=323,slow=20,SNR=15
comp=Z,28nm,0.7s
CFA AML AML
PB12 IPOC Station P 6.79 1 Pn 07 42 30.1 -0.4
PB16 IPOC Station P 7.12 8 P **Pn 07 42 36.3 +0.7**
comp=Z,32nm,0.6s
VA03 San Esteban 7.30 180 Pn **Pn 07 42 36.8 -0.7**
LPAZ La Paz 9.37 14 P **Pn 07 43 07.5 +1.1**
comp=Z,0.3nm,0.3s,baz=185,slow=6.0,SNR=12
LPAZ S **Sn 07 44 48.4 -2.3**
comp=Z,2.5nm,0.6s,baz=207,slow=18,SNR=1.5
LPAZ LR LR 07 47 27.2
comp=Z,95nm,21.9s,baz=226,slow=42
comp=Z,1.2nm,0.5s
LPAZ AML AML
LPAZ La Paz 9.37 14 P **Pn 07 43 07.4 +1.1**
comp=Z,12nm,0.7s
LPAZ La Paz 9.37 14 *eP* **Pn 07 43 05.5 -0.9**
H03N1 Juan Fernandez 10.83 221 T T 07 54 18.5
baz=47,slow=74,SNR=235
H03N2 Juan Fernandez 10.85 221 T T 07 54 16.2
baz=215,slow=74,SNR=212
CPUP Villa Florida 11.89 97 P **Pn 07 43 39.5 -0.8**
comp=Z,0.2nm,0.3s,baz=277,slow=13,SNR=8.6
CPUP LR LR 07 48 33.0
comp=Z,169nm,21.7s,baz=254,slow=39
comp=Z,3.8nm,0.8s
CPUP AML AML
CPUP Villa Florida 11.89 97 Pn 07 43 39.8 -0.5
CPUP Villa Florida 11.89 97 P **Pn 07 43 39.6 -0.7**
comp=Z,12nm,0.9s
BBSD Serra de San D 12.33 50 *eP* **Pn 07 43 43.6 -2.8**
MURT Porto Murtinho 12.40 75 *eP* **Pn 07 43 45.9 -1.4**
PSAL Palomas, Salto 12.67 119 *eP* **Pn 07 43 49.6 -1.3**
SIV San Ignacio 12.88 45 P **Pn 07 43 53.3 -0.6**
comp=Z,0.1nm,0.3s,baz=221,slow=11,SNR=25
SIV S **Sn 07 46 08.2 -7.7**
comp=Z,3.5nm,0.9s,baz=218,slow=13,SNR=3.6
comp=Z,18nm,0.5s
SIV AML AML
COIM Forte Coimbra 12.95 67 *eP* **Pn 07 43 53.5 -1.3**
SJPY San Joaquin 13.04 91 *eP* **Pn 07 43 54.4 -1.6**
PTLB Pontes e Lacer 14.55 49 Pn 07 44 14.5 -2.1
PTLB Pontes e Lacer 14.55 49 *eP* **Pn 07 44 14.5 -2.1**
PLCA Paso Flores 15.26 180 P **Pn 07 44 27.6 +1.8**
comp=Z,0.1nm,0.3s,baz=356,slow=1.3,SNR=3.5
comp=Z,3.4nm,0.9s
PLCA AML AML
VILB Vilhena 15.76 40 Pn 07 44 31.4 -1.0
VILB IAmb IAmb 07 44 47.8
comp=Z,17nm,0.6s
VILB Vilhena 15.76 40 *eP* **Pn 07 44 31.5 -0.9**
CPSB Cacapava Do Su 15.86 112 Pn **Pn 07 44 32.2 -1.5**
ITAB Concordia 16.56 100 Pn **Pn 07 44 41.5 -1.0**
SALV Santo Antonio 16.77 58 *eP* **Pn 07 44 44.0 -1.3**
LL06 Loncomilla 16.93 188 P **Pn 07 44 46.2 -0.9**
comp=Z,37nm,0.8s
CZSB Cruzeiro do Su 17.73 353 Pn 07 44 57.2 0.0
CZSB Cruzeiro do Su 17.73 353 *eP* **Pn 07 44 57.0 -0.2**
PCMB Pacaembu 18.04 82 P **Pn 07 44 59.3 -1.6**
comp=Z,18nm,0.9s
PDRB Porto dos Gac 18.93 46 *eP* **P 07 45 09.9 -1.0**
ATAH Atahualpa 19.70 336 LR LR 07 53 04.3
comp=Z,54nm,19.0s,baz=47,slow=37
CLDB Colider 20.09 47 P **P 07 45 22.6 -0.9**
comp=Z,16nm,1.1s
CLDB Colider 20.09 47 *eP* **P 07 45 22.5 -1.0**
VAO Valinhos 21.59 89 P **P 07 45 38.4 -1.3**
VAO IAmb IAmb 07 45 41.5
comp=Z,21nm,0.8s
VAO Valinhos 21.59 89 *eP* **P 07 45 38.0 -1.7**
IPMB Ipameri, GO 21.97 75 *eP* **P 07 45 42.5 -1.4**
SNDB Serra Nova Dou 22.54 57 *eP* **P 07 45 47.3 -2.6**
CANS Sao Roque de M 22.78 82 *eP* **P 07 45 50.2 -2.3**
GO08 Villa O'Higgin 23.04 184 P **P 07 45 55.3 +0.4**
GO08 IAmb IAmb 07 46 08.6
comp=Z,26nm,1.4s
BDFB Brasilia 23.16 69 P **P 07 45 54.2 -2.3**
comp=Z,8.2nm,0.7s,baz=228,slow=12,SNR=16
BDFB LR LR 07 55 57.5
comp=Z,86nm,21.2s,baz=307,slow=39
comp=Z,8.2nm,0.7s
BDFB Brasilia 23.16 69 P 07 45 54.8 -1.6
BDFB IAmb IAmb 07 45 56.1
comp=Z,10.0nm,0.8s
NPGB Novo Progresso 23.31 41 *eP* **P 07 45 56.3 -1.5**
PMNB Patos De Minas 23.32 78 P **P 07 45 55.6 -2.3**
comp=Z,12nm,1.0s
ITTB Itaituba 25.29 36 *eP* **P 07 46 15.3 -0.7**

SMTB Santa Maria do 27.32 57 P 07 46 34.0 -0.4
SMTB IAmb IAmb 07 46 36.0
comp=Z,10nm,0.8s
SDBA SAO DESIDERIO 27.39 67 *eP* **P 07 46 33.5 -1.6**
ARCA Araşuai, MG 27.91 78 *eP* **P 07 46 38.1 -1.5**
BOAV Boa Vista 29.31 21 P **P 07 46 52.0 0.0**
RPN Rapa Nui 34.78 259 LR LR 07 58 11.6
comp=Z,66nm,18.2s,baz=44,slow=30
NBPS Pedro II - PI 34.85 58 *eP* **P 07 47 40.0 -0.7**
MDP Montagnes des 34.96 32 LR LR 08 04 25.9
comp=Z,60nm,21.3s,baz=117,slow=40
VNA3 Neumayer Olymp 56.85 160 P **P 07 50 33.4 +0.1**
comp=Z,0.8nm,0.7s
VNA3 pP **pP 07 50 46.3 +0.7**
comp=Z,2.1nm,0.6s
VNA2 Neumayer--Watz 57.46 160 P **P 07 50 38.2 +0.6**
comp=Z,0.7nm,0.6s,baz=293,slow=8.3
VNA2 pP **pP 07 50 50.3 +0.4**
comp=Z,2.5nm,0.6s,baz=277,slow=8.1
VNA2 Neumayer--Watz 57.46 160 P **P 07 50 37.9 +0.3**
comp=Z,4.8nm,0.7s
VNA2 pP **pP 07 50 50.0 +0.1**
TROLL Troll, Antarti 60.79 160 pP pP 07 51 13.7 +0.5
comp=Z,117nm,1.0s
BRDY Brady 62.64 333 P **P 07 51 15.1 +1.5**
BRDY IAmb IAmb 07 51 15.3
comp=Z,2.3nm,0.8s
SAND Sanderson 62.88 329 P 07 51 16.3 +1.1
TX31 Lajitas Ar. Si 63.09 328 P **P 07 51 18.5 +1.9**
TXAR Lajitas Array 63.09 328 P **P 07 51 17.6 +0.9**
comp=Z,0.5nm,0.7s,baz=155,slow=8.7,SNR=7.0
comp=Z,0.5nm,0.7s
TXAR Lajitas Array 63.09 328 P **P 07 51 17.7 +1.0**
WVT Waverly 63.38 344 P **P 07 51 18.2 -0.2**
WVT IAmb IAmb 07 51 39.3
comp=Z,6.0nm,1.2s
WVT Waverly 63.38 344 P **P 07 51 17.4 -0.9**
comp=Z,5.6nm,0.9s
MIAR Mount Ida 63.55 339 P **P 07 51 21.1 +1.6**
MIAR IAmb IAmb 07 51 21.4
comp=Z,3.0nm,1.0s
TPB05 Hovey Rd 64.24 329 P **P 07 51 25.8 +1.5**
TPB05 IAmb IAmb 07 51 31.4
comp=Z,1.3nm,0.4s
QSPA South Pole Qui 64.77 180 P **P 07 51 27.3 -0.1**
comp=Z,2.2nm,0.7s,baz=170,slow=1.1,SNR=14
comp=Z,2.2nm,0.7s
QSPA South Pole Qui 64.77 180 P **P 07 51 28.2 +0.8**
QSPA IAmb IAmb 07 51 46.3
comp=Z,4.2nm,1.2s
QSPA South Pole Qui 64.77 180 P **P 07 51 27.5 +0.1**
comp=Z,7.2nm,2.5s
TPB28 65.42 328 IAmb IAmb 07 51 35.1
comp=Z,5.1nm,1.1s
MNTX Cornudas Mount 65.87 328 P **P 07 51 35.3 +0.6**
comp=Z,7.6nm,1.7s
MSTX Muleshoe 66.56 331 P **P 07 51 39.9 +0.6**
R40A Maddies Statio 66.60 341 P **P 07 51 40.1 +0.8**
P40A Paris 67.69 342 IAmb IAmb 07 52 01.4
comp=Z,6.8nm,1.5s
ANMO Albuquerque 69.05 329 P **P 07 51 57.0 +2.1**
SDCO Great Sand Dun 70.93 331 P **P 07 52 07.7 +1.1**
SDCO IAmb IAmb 07 52 09.5
comp=Z,4.0nm,1.3s
F64A Sherman 70.98 2 P **P 07 52 07.2 +0.9**
DBIC Dimbokro 71.26 73 LR LR 08 21 31.6
comp=Z,35nm,20.6s,baz=124,slow=34
DBIC Dimbokro 71.26 73 P **P 07 52 08.1 -0.6**
comp=Z,12nm,1.2s
DBIC pP **pP 07 52 22.4 +0.9**
MVCO Mesa Verde 71.84 329 P **P 07 52 14.2 +2.1**
comp=Z,7.3nm,1.7s
HWUT Hardware Ranch 76.78 330 P 07 52 41.9 +1.2
HWUT IAmb IAmb 07 52 43.1
comp=Z,2.6nm,0.8s
HWUT Hardware Ranch 76.78 330 P **P 07 52 41.5 +0.9**
comp=Z,3.1nm,0.7s
PDAR Pinedale Array 76.82 332 P **P 07 52 41.4 +0.6**
comp=Z,0.2nm,0.5s,baz=115,slow=6.3,SNR=3.6
comp=Z,0.2nm,0.5s
PDAR Pinedale Array 76.82 332 P **P 07 52 41.5 +0.7**
NVAR Mina Array Bea 77.73 323 P **P 07 52 47.7 +1.6**
comp=Z,0.7nm,0.7s,baz=158,slow=7.2,SNR=5.7
comp=Z,0.7nm,0.7s
SUR Sutherland 77.86 120 LR LR 08 22 47.6
comp=Z,29nm,18.8s,baz=76,slow=32
SNOW Snow King Moun 77.90 331 P **P 07 52 48.7 +1.7**
KVN Kaiserville 78.07 324 P **P 07 52 50.0 +2.1**
PNTR Pine Nut 78.91 323 P **P 07 52 54.8 +2.3**
PNTR IAmb IAmb 07 52 55.7
comp=Z,5.0nm,0.8s
HLID Hailey 79.62 329 P **P 07 52 58.3 +2.0**
TORD Torodi Ar. Bea 80.05 70 P **P 07 52 58.3 -0.7**
comp=Z,1.0nm,0.5s,baz=262,slow=4.5,SNR=7.2
comp=Z,1.0nm,0.5s
MAW Mawson 80.99 164 P **P 07 53 03.4 +0.2**
comp=Z,1.6nm,0.9s,baz=207,slow=6.8,SNR=2.8
comp=Z,1.6nm,0.9s
MAW Mawson 80.99 164 P **P 07 53 03.6 +0.5**
PLID Pearl Lake 81.52 329 P **P 07 53 08.3 +1.7**
PLID IAmb IAmb 07 53 08.9
comp=Z,3.5nm,0.8s
ASAR Alice Springs 125.77 208 PKP **PKPdf 07 59 50.6 -0.5**
comp=Z,0.5nm,0.5s,baz=132,slow=1.4,SNR=5.8
H11S2 WAKE ISLAND Hyl 26.83 275 T T 10 19 42.4
baz=108,slow=75,SNR=70
H11S1 WAKE ISLAND Hyl 26.84 275 T T 10 19 38.9
baz=108,slow=75,SNR=75
H11S3 WAKE ISLAND Hyl 26.85 275 T T 10 19 42.9
baz=108,slow=75,SNR=79
H11N3 WAKE ISLAND Hyl 27.02 276 T T 10 19 45.7
baz=108,slow=75,SNR=11
H11N1 WAKE ISLAND Hyl 27.04 276 T T 10 19 56.2
baz=108,slow=75,SNR=6.7
H11N2 WAKE ISLAND Hyl 27.04 276 T T 10 19 47.3
baz=108,slow=75,SNR=8.0
WRA Warramunga Arr 128.84 210 PKP **PKPdf 07 59 56.6 -0.4**
comp=Z,0.6nm,0.6s,baz=162,slow=1.9,SNR=7.4
NRIK Noril'sk 134.19 11 PKP **PKPdf 08 00 03.5 -2.1**
comp=Z,3.4nm,0.4s,baz=0.0,slow=5.1,SNR=6.3
NRIK Noril'sk 134.19 11 PKiKP 08 00 06.8 -0.1
KURK Kurchatov 145.39 35 PKPbc 08 00 26.2 -0.1
KURBB Kurchatov Arra 145.40 35 PKPbc **PKPbc 08 00 26.5 +0.2**
comp=Z,0.7nm,0.3s,baz=309,slow=3.9,SNR=2.0
ZAA0 Zalesovo Array 146.11 26 PKPdf **PKPbc 08 00 28.9 +0.4**
ZALV Zalesovo Beam 146.11 26 PKPbc **PKPdf 08 00 27.1 -0.4**
comp=Z,1.2nm,0.4s,baz=304,slow=2.6,SNR=7.9
ZALV Zalesovo Beam 146.11 26 PKPbc 08 00 28.9 +0.4
MKAR Makanchi Array 149.63 38 PKPbc **PKPbc 08 00 38.2 0.0**
comp=Z,1.1nm,0.8s,baz=300,slow=2.9,SNR=6.2
MJAR Matsushiro Arr 153.12 301 PKPab **PKPab 08 00 58.6 +0.3**
comp=Z,1.2nm,0.7s,baz=116,slow=5.5,SNR=2.4
HHC Hu-ho-hao-te 164.53 354 *eP* **PKPdf 08 00 53.5 +0.8**

*IDC **05** 07:44:10.5±1.6,54.˙66N×159.˙85W,h0km,mb3.9/6,*
mbtmp3.8/9,ML3.3/3,MS3.0/1,Error ellipse: s-maj=33.2km
s-min=16.3km az=154.0
*AEIC **05** 07:44:14.8±1.6,54.˙58N±0.˙03×159.˙74W±0.˙04,h8km±4km,*
Error ellipse: s-maj=5.6km s-min=2.6km az=148.0
*NEIC **05** 07:44:14.5±1.3,54.˙58N±0.˙06×159.˙69W±0.˙07,h25km±6km,*
mb4.0/20,ML3.7/32,ML3.5(AEIC),Error ellipse:
s-maj=8.6km s-min=5.8km az=166.0
ISC 05 07:44:14.8±1.1,54.63N±0.07×159.62W±0.04,h29km±7km,
n106,σ1ş00/107,mb4.0/9,South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.19**	**5**				**Pb**	**07 44 20.4**	**-0.3**
CNBA							**Sb**	**07 44 25.1**	**+0.3**
SDPT	**Sand Point**	**0.87**	**326**				**Pb**	**07 44 30.2**	**-1.2**
SDPT							**Sb**	**07 44 42.3**	**-0.4**
SDPT				IAML				07 44 43.2	
	comp=E,3μm,0.9s								
VNKR	**Veniaminof 5**	**1.41**	**6**				**Pn**	**07 44 39.4**	**+0.8**
VNWF	**Veniaminof 8**	**1.52**	**1**				**Pn**	**07 44 41.5**	**+1.3**
PN7A	**Pavlof North-7**	**1.59**	**301**				**Pn**	**07 44 40.8**	**-0.2**
PN7A							**Sn**	**07 45 00.9**	**+0.2**
VNSS	**Veniaminof 8**	**1.60**	**3**				**Pn**	**07 44 42.5**	**+1.2**
VNFG	**Fog Glacier, M**	**1.66**	**1**				**Pn**	**07 44 43.5**	**+1.5**
S12K	**Black Hills**	**1.77**	**308**	Pn			**Pn**	**07 44 43.6**	**+0.2**
S12K				IAML				07 45 12.6	
	comp=N,590nm,0.8s								
S12K				IAML				07 45 15.9	
	comp=E,773nm,0.7s								

CHGN Chignik 1.81 22 Pn 07 44 44.7 +0.7
CHGN **Sb 07 45 09.1 -0.3**
CHGN IAML 07 45 12.2
comp=N,826nm,0.5s
BPBCA Veniaminof 2.07 18 Pn 07 44 48.6 +0.9
ANPB Aniakchak Plen 2.30 19 Pn 07 44 52.5 +1.6
SSLS Shishaldin Sou 2.55 274 Pn 07 44 53.8 -0.4
CHIR Chirikof Islan 2.58 61 Pn 07 44 55.6 +1.0
CHIR IAML 07 45 45.3
comp=E,427nm,1.0s
CHIR IAML 07 45 50.8
comp=N,347nm,1.1s
WTUG Tugumak 2.77 276 Pn 07 44 56.9 -0.4
WESN West Dahl Nort 2.89 271 Pn 07 44 58.6 -0.3
WESN **Sn 07 45 33.1 +0.4**
WESP Westdahl Peak 2.98 269 Pn 07 44 59.8 -0.3
WECS Westdahl Cape 3.00 270 Pn **Pn 07 45 00.5 0.0**
WECS IAML 07 45 47.1
comp=E,179nm,1.3s
WECS IAML 07 46 04.0
comp=N,259nm,1.3s
R16K Pilot Point 3.16 20 Pn **Pn 07 45 02.9 +0.5**
R17L Mt. Peulik Vol 3.52 30 Pn 07 45 09.2 +1.7
UNV Unalaska Valle 4.12 262 Pn 07 45 15.8 +0.1
CAHL Cahill 4.18 33 Pn 07 45 17.4 +0.7
Q17K Contact Creek 4.19 28 Pn 07 45 17.3 +0.6
ANCK Angle Creek 4.25 31 Pn 07 45 18.7 +1.2
ACHA Angle Creek He 4.31 32 Pn **Pn 07 45 20.4 +2.1**
OHAK Old Harbor 4.41 51 Pn **Pn 07 45 20.1 +0.5**
OHAK IAML 07 46 47.4
comp=E,43nm,1.1s
P16K Nushagak River 4.50 11 Pn 07 45 21.9 +1.0
O15K Ungalikthiuk R 4.56 359 Pn 07 45 22.4 +0.7
O15K IAML 07 46 53.8
comp=N,50nm,1.2s
O15K IAML 07 46 54.4
comp=E,42nm,1.2s
KAWH Katmai 4.61 33 Pn 07 45 22.9 +0.4
O14K Tigyukauivet M 4.72 350 Pn 07 45 24.6 +0.6
O14K IAML 07 46 58.8
comp=E,40nm,1.4s
O14K IAML 07 47 01.4
comp=N,62nm,1.2s
P17K Kvichak River 4.89 20 Pn **Pn 07 45 27.9 +1.6**
KDAK Kodiak Island 5.04 48 Pn **Pn 07 45 28.1 -0.2**
comp=N,0.6nm,0.3s,baz=245,slow=8.0,SNR=8.5
KDAK Sn **Sn 07 46 22.9 -2.5**
comp=N,1.2nm,0.3s,baz=294,slow=18,SNR=8.8
KDAK LR LR 07 47 45.5
comp=N,159nm,18.6s,baz=218,slow=42
comp=N,7.7nm,0.8s
KDAK AML AML
KDAK Kodiak Island 5.04 48 Pn **Pn 07 45 29.1 +0.8**
KDAK IAML 07 46 54.9
comp=N,45nm,1.4s
KDAK IAML 07 47 01.4
comp=N,39nm,1.2s
O16K Kokwok River B 5.04 9 Pn 07 45 30.2 +1.8
O16K IAML 07 47 08.7
comp=E,34nm,0.9s
O17K Koliganek Bris 5.33 14 Pn 07 45 32.4 0.0
N14K Kuskokwak Cree 5.42 349 Pn 07 45 34.4 +0.8
N15K Kwethluk River 5.56 358 Pn 07 45 37.5 +2.0
N16K Nishlik Lake 5.88 4 Pn 07 45 40.6 +0.8
N17K Nushagak Hills 6.05 11 Pn 07 45 44.4 +2.2
M15K Kasigluk River 6.11 355 Pn 07 45 43.3 +0.3
M13K Dall Lake 6.13 342 Pn **Pn 07 45 43.8 +0.4**
M14K Bethel 6.26 349 Pn 07 45 44.7 -0.4
O19K Port Alsworth 6.27 25 Pn **Pn 07 45 46.6 +1.4**
ILSW Iliamna Southw 6.41 31 Pn **Pn 07 45 48.1 +0.9**
M16K Timber Creek 6.42 3 Pn 07 45 48.8 +1.5
CNPM China Poor 6.70 40 Pn **Pn 07 45 53.3 +2.1**
N19K Bonanza Creek 6.78 22 Pn **Pn 07 45 53.7 +1.4**
M17K Holitna River 6.89 9 Pn 07 45 54.1 +0.4
L14K Kuka Creek 6.92 348 Pn 07 45 54.5 +0.4
K15K Wolf Creek Mou 7.75 353 Pn **Pn 07 46 06.7 +1.2**
L18K Granite Mounta 7.76 10 Pn **Pn 07 46 07.9 +2.2**
L19K White Mountain 7.97 16 Pn 07 46 08.6 0.0
K17K Iditarod 8.14 4 Pn **Pn 07 46 11.6 +0.7**
RC01 Rabbit Creek A 8.34 35 Pn **Pn 07 46 15.2 +1.6**
L20K Farewell, AK 8.42 18 Pn **Pn 07 46 14.8 0.0**
SKT Skwentna 8.50 27 Pn **Pn 07 46 16.1 +0.2**
PWL Port Wells 8.67 39 Pn **Pn 07 46 19.1 +0.9**
J17K VABM Dome 8.80 2 Pn **Pn 07 46 20.6 +0.7**
J18K Innoko River 8.98 8 Pn **Pn 07 46 23.3 +0.9**
KNK Knik Glacier 9.00 36 Pn **Pn 07 46 22.4 -0.4**
PPLA Purkeypile 9.13 22 Pn **Pn 07 46 25.6 +1.0**
J19K Poorman 9.61 11 Pn **Pn 07 46 32.2 +1.3**
SCM Sheep Creek Mo 9.69 37 Pn **Pn 07 46 32.7 +0.6**
KLIJ Klutina 9.98 41 Pn **Pn 07 46 36.3 -0.2**
YAH Yahtse 11.18 52 Pn **Pn 07 46 54.0 +1.3**
ILAR Eielson Array 12.00 27 Pn **Pn 07 47 02.8 -0.9**
comp=E,0.1nm,0.3s,baz=216,slow=13,SNR=8.6
ILAR Sn **Sn 07 49 16.8 +0.5**
baz=226,slow=18,SNR=3.3
comp=E,0.5nm,0.6s
ILAR AML AML
BMAR Burnt Mountain 14.69 23 Pn **Pn 07 47 40.4 0.0**
TOLK Toolik Lake Re 14.81 14 Pn **Pn 07 47 43.1 +1.2**
G27K Doyon Strip 14.96 28 Pn **Pn 07 47 44.7 +0.8**
D23K Nanushuk River 14.96 13 Pn **Pn 07 47 44.6 +0.6**
D23K IAmb IAmb 07 48 09.0
comp=Z,9.2nm,1.4s
J30M Hart River 15.33 40 Pn **Pn 07 47 49.7 +0.8**
I30M Mount Dempster 15.64 38 Pn **Pn 07 47 53.9 +0.9**
I30M IAmb IAmb 07 48 05.9
comp=Z,7.7nm,0.8s
G29M Pine Creek 16.08 32 Pn **Pn 07 47 58.6 +0.1**
EPYK Eagle Plains 16.16 34 Pn **Pn 07 48 01.2 +1.6**
EPYK IAmb IAmb 07 48 04.7
comp=Z,15nm,0.7s
H31M Peel River 16.67 38 Pn **Pn 07 48 06.7 +0.7**
H31M IAmb IAmb 07 48 08.1
comp=Z,19nm,1.4s
G30M tAoh Zraii Nji 16.68 33 Pn **Pn 07 48 06.2 0.0**
G30M IAmb IAmb 07 48 11.3
comp=Z,8.9nm,1.1s
F30M Barrier River 17.20 32 P **P 07 48 15.2 +1.2**
F30M IAmb IAmb 07 48 29.9
comp=Z,12nm,1.2s
INK Inuvik 18.30 31 P **P 07 48 25.9 -0.2**
comp=Z,0.1nm,0.3s,baz=245,slow=12,SNR=11
comp=Z,2.8nm,0.8s
INK AML AML
INK Inuvik 18.30 31 P **P 07 48 26.4 +0.3**
C36M Paulatuk 21.80 34 P **P 07 49 04.8 +0.8**
C36M IAmb IAmb 07 49 11.5
comp=Z,15nm,1.4s
A36M Sachs Harbour 22.70 27 P **P 07 49 12.3 -1.3**
A36M IAmb IAmb 07 49 43.5
comp=Z,4.5nm,1.1s
PEA0B Petropavlovsk- 24.93 284 P **P 07 49 35.0 -0.2**
PETK Petropavlovsk- 24.93 284 P **P 07 49 35.0 -0.2**
comp=Z,1.8nm,0.6s,baz=74,slow=11,SNR=1.5
comp=Z,1.8nm,0.6s
PETK Petropavlovsk- 24.93 284 P **P 07 49 35.4 +0.2**
BUCK Buck Mountain 25.73 99 P **P 07 49 43.5 +0.9**
NVAR Mina Array Bea 32.16 103 P **P 07 50 39.9 -0.1**
PDAR Pinedale Array 34.38 89 P **P 07 50 58.2 -1.1**
ALQ Albuquerque 41.38 96 P **P 07 51 57.7 -0.8**
H11N2 WAKE ISLAND Hy 43.13 229 T T 08 38 24.9
baz=27
H11N3 WAKE ISLAND Hy 43.13 229 T T 08 38 26.2
baz=27
H11N1 WAKE ISLAND Hy 43.15 229 T T 08 38 22.1
baz=27
H11S1 WAKE ISLAND Hy 44.29 229 T T 08 39 50.5
baz=28,slow=76,SNR=5.8
H11S2 WAKE ISLAND Hy 44.30 229 T T 08 39 49.8
baz=28,slow=76,SNR=5.2
H11S3 WAKE ISLAND Hy 44.31 229 T T 08 39 51.4
baz=28,slow=76,SNR=4.0
TXAR Lajitas Array 47.09 99 P **P 07 52 45.2 +1.1**
comp=Z,0.2nm,0.7s,baz=323,slow=7.7,SNR=3.3
comp=Z,0.2nm,0.7s
TXAR Lajitas Array 47.09 99 P **P 07 52 43.9 -0.2**
NRIK Noril'sk 47.11 333 P **P 07 52 42.2 -1.4**
comp=Z,1.3nm,0.4s,baz=66,slow=3.6,SNR=3.9
comp=Z,1.3nm,0.4s
NRIK Noril'sk 47.11 333 P **P 07 52 44.1 +0.6**
SONM Songino Array 54.97 305 P **P 07 53 42.5 -0.6**
comp=Z,1.1nm,0.6s,baz=35,slow=7.8,SNR=3.6
comp=Z,1.1nm,0.6s
SONM Songino Array 54.97 305 P **P 07 53 42.4 -0.7**

SONM					IAmb	IAmb	07 54 12.2	
	comp=Z,1.1nm,0.8s							
NC204	**NORSAR Array S**	**64.19**	**5**	**P**	**P**		**07 54 48.1**	**+1.9**
AKTO	**Aktyubinsk**	**70.67**	**336**	P	**P**		**07 55 26.5**	**-0.8**
	comp=Z,1.5nm,0.7s,baz=26,slow=5.6,SNR=4.6							
	comp=Z,1.5nm,0.7s							
AB31	**Akbulak array**	**71.28**	**334**	P	**P**		**07 55 31.1**	**0.0**
AB31					IAmb	IAmb	07 55 31.5	
	comp=Z,1.2nm,0.8s							
ABKAR	**Akbulak array**	**71.28**	**334**	P	**P**		**07 55 31.0**	**-0.1**
KKAR	**Karatay Array**	**73.68**	**324**	P	**P**		**07 55 45.5**	**0.0**
AKASG	**Malin Array Be**	**74.78**	**354**	P	**P**		**07 55 50.2**	**-1.5**
	comp=Z,0.6nm,0.4s,baz=12,slow=6.2,SNR=3.7							
	comp=Z,0.6nm,0.4s							
KIEV	**Kiev**	**74.78**	**354**	P	**P**		**07 55 52.0**	**+0.3**

*AEIC **05** 08:09:25.7±4.6,54.˚62N±0.˚04×159.˚83W±0.˚09,h8km±4km, Error ellipse: s-maj=8.0km s-min=5.5km az=115.0*
NEIC 05 08:09:23.7±1.5,**54.˚46N**±0.˚06×**159.˚62W**±0.˚08,**h20**km±7km, **mb4.1/8,ML3.6/26,ML3.4**(AEIC), **Error ellipse: s-maj=8.3km s-min=6.9km az=185.0, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.36**	**2**		Pb	08 09 31.8	+0.4
CNBA					Sb	08 09 37.0	+0.3
SDPT	**Sand Point**	**1.02**	**331**		Pb	08 09 41.5	-1.2
SDPT					Sb	08 09 53.6	-2.0
SDPT				IAML		08 09 54.5	
	comp=E,2μm,1.0s						
VNKR	**Veniaminof 5**	**1.58**	**5**		Pn	08 09 51.4	+0.8
PN7A	**Pavlof North-7**	**1.69**	**306**		Pn	08 09 52.5	+0.4
PN7A					Sn	08 10 12.3	-0.8
VNWF	**Veniaminof 8**	**1.70**	**1**		Pn	08 09 52.8	+0.6
VNSS	**Veniaminof 8**	**1.77**	**3**		Pn	08 09 54.2	+0.8
VNFG	**Fog Glacier, M**	**1.83**	**1**		Pn	08 09 55.1	+1.0
VNFG					Pb	08 09 55.6	-0.9
S12K	**Black Hills**	**1.88**	**313**		Pn	08 09 54.7	0.0
S12K					Sn	08 10 17.6	-0.2
S12K				IAML		08 10 25.6	
	comp=N,712nm,0.4s						
CHGN	**Chignik**	**1.97**	**20**		Pn	08 09 56.1	+0.3
CHGN				IAML		08 10 25.2	
	comp=N,287nm,0.7s						
CHGN				IAML		08 10 27.2	
	comp=E,561nm,0.6s						
BPBCA	**Veniaminof**	**2.24**	**17**		Pn	08 10 00.9	+1.3
BPBCA					Pb	08 10 02.1	-1.3
ANPB	**Aniakchak Plen**	**2.47**	**17**		Pb	08 10 05.3	-2.0
SSLS	**Shishaldin Sou**	**2.56**	**277**		Pn	08 10 05.0	+0.9
WESN	**West Dahl Nort**	**2.90**	**274**		Pn	08 10 10.1	+1.4
WESN					Sn	08 10 43.7	+0.8
WESP	**Westdahl Peak**	**2.98**	**273**		Pn	08 10 11.2	+1.3
WECS	**Westdahl Cape**	**3.01**	**273**		Pn	08 10 11.3	+1.1
WECS				IAML		08 11 58.7	
	comp=E,250nm,2.3s						
AKUT	**Akutan**	**3.62**	**267**	Pn	Pn	08 10 17.6	-0.9
AKUT				IAML		08 11 56.7	
	comp=N,133nm,3.4s						
ZRO	**Akutan Zero**	**3.75**	**267**		Pn	08 10 22.4	+2.1
UNV	**Unalaska Valle**	**4.10**	**264**	Pn	Pn	08 10 24.7	-0.4
UNV				IAML		08 11 37.1	
	comp=E,54nm,3.4s						
CAHL	**Cahill**	**4.33**	**32**		Pn	08 10 29.0	+0.7
ANCK	**Angle Creek**	**4.39**	**30**		Pn	08 10 30.2	+0.9
ACHA	**Angle Creek He**	**4.45**	**31**		Pn	08 10 29.7	-0.4
OHAK	**Old Harbor**	**4.51**	**50**	Pn	Pn	08 10 29.9	-0.9
OHAK				IAML		08 11 10.2	
	comp=N,58nm,2.9s						
OHAK				IAML		08 12 08.8	
	comp=E,60nm,3.0s						
O15K	**Ungalikthiuk R**	**4.73**	**359**		Pn	08 10 33.5	-0.4
O15K				IAML		08 12 15.0	
	comp=E,36nm,2.1s						
O14K	**Tigyukauivet M**	**4.89**	**350**		Pn	08 10 35.3	-0.7
O14K				IAML		08 11 57.9	
	comp=E,42nm,2.8s						
O14K				IAML		08 12 13.6	
	comp=N,43nm,2.7s						
KDAK	**Kodiak Island**	**5.15**	**47**	Pn	Pn	08 10 39.4	-0.2
O16K	**Kokwok River B**	**5.22**	**9**	Pn	Pn	08 10 40.4	-0.1
O16K				IAML		08 11 49.8	
	comp=E,25nm,3.0s						
O16K				IAML		08 12 42.7	
	comp=N,21nm,3.5s						
O17K	**Koliganek Bris**	**5.50**	**13**		Pn	08 10 45.9	+1.5
Q19K	**Cape Douglas,**	**5.56**	**34**	Pn	Pn	08 10 45.7	+0.5
N14K	**Kuskokwak Cree**	**5.59**	**349**	Pn	Pn	08 10 44.5	-1.1
N15K	**Kwethluk River**	**5.73**	**358**	Pn	Pn	08 10 47.3	-0.3
N17K	**Nushagak Hills**	**6.22**	**11**		Pn	08 10 54.7	+0.4
M15K	**Kasigluk River**	**6.28**	**355**		Pn	08 10 56.4	+1.4
M13K	**Dall Lake**	**6.30**	**343**		Pn	08 10 55.6	+0.3
M14K	**Bethel**	**6.43**	**350**		Pn	08 10 57.4	+0.3
N18K	**Kilae Creek**	**6.55**	**16**	Pn	Pn	08 10 59.6	+0.7
ILSW	**Iliamna Southw**	**6.56**	**30**	Pn	Pn	08 11 00.6	+1.6
M16K	**Timber Creek**	**6.59**	**3**		Pn	08 11 00.0	+0.7
N19K	**Bonanza Creek**	**6.94**	**21**	Pn	Pn	08 11 04.8	+0.6
M17K	**Holitna River**	**7.06**	**9**	Pn	Pn	08 11 06.9	+1.1
L14K	**Kuka Creek**	**7.09**	**348**	Pn	Pn	08 11 06.1	0.0
M18K	**Stony River**	**7.33**	**14**		Pn	08 11 11.3	+1.8
H29M	**Whitestone**	**15.68**	**33**	Pn	Pn	08 13 03.6	+0.4
I30M	**Mount Dempster**	**15.78**	**38**	Pn	Pn	08 13 04.6	+0.1
I30M				IAmb	IAmb	08 13 19.4	
	comp=Z,5.4nm,0.8s						
G29M	**Pine Creek**	**16.23**	**31**	Pn	Pn	08 13 10.2	0.0
G30M	**tAoh Zraii Nji**	**16.83**	**33**	Pn	Pn	08 13 17.4	-0.4
INK	**Inuvik**	**18.45**	**31**	P	P	08 13 36.9	-0.7
BBB	**Bella Bella**	**18.87**	**84**	P	P	08 13 42.2	-0.2
BBB				IAmb	IAmb	08 13 58.3	
	comp=Z,7.0nm,0.8s						
HOLB	**Holberg**	**19.43**	**88**	P	P	08 13 48.7	+0.2
PEA0B	**Petropavlovsk-**	**24.98**	**285**	P	P	08 14 43.5	-2.1
PEA0B				IAmb	IAmb	08 14 48.9	
	comp=Z,17nm,1.0s						
PETK	**Petropavlovsk-**	**24.98**	**285**	P	P	08 14 44.0	-1.7
EDM	**Edmonton**	**26.95**	**73**	P	P	08 15 03.5	0.0
EDM				IAmb	IAmb	08 15 07.7	
	comp=Z,7.8nm,0.7s						
NVAR	**Mina Array Bea**	**32.12**	**103**	P	P	08 15 48.5	-1.1
PDAR	**Pinedale Array**	**34.38**	**89**	P	P	08 16 08.4	-1.0
TWG	**Pinlang**	**65.61**	**275**	P	P	08 20 05.3	-0.8
MKAR	**Makanchi Array**	**66.36**	**319**	P	P	08 20 10.8	+0.1
AB31	**Akbulak array**	**71.44**	**334**	P	P	08 20 42.6	+0.5
AB31				IAmb	IAmb	08 20 42.6	
	comp=Z,0.8nm,0.8s						
ABKAR	**Akbulak array**	**71.44**	**334**	P	P	08 20 42.1	0.0
KKAR	**Karatay Array**	**73.82**	**324**	P	P	08 20 57.0	+0.5

*SJA **05** 08:19:43.2±0.6,40.˚55S×73.˚45W,h11km±3km,ML3.8, MW3.6*
*NEIC **05** 08:19:47.8±1.8,40.˚55S±0.˚03×73.˚33W±0.˚06,h51km±9km, mb4.3/5,ML3.9(GUC),Error ellipse: s-maj=6.2km s-min=3.7km az=85.0*
*GUC **05** 08:19:48.0±0.8,40.˚57S×73.˚30W,h41km±3km,ML3.9, Presumed earthquake*
ISC 05 08:19:47.2±1.0,**40.˚56S**±0.˚03×**73.˚41W**±0.˚05,**h42**km±14km, **n58,σ1°26/79,1C-5D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LR04	**Corral**	**0.68**	**359**	*eP*	**Pn**	**08 20 01.2**	**+0.8**
LR04				IAML		08 20 16.6	
	comp=Z,4μm,0.2s						
LR04	**Corral**	**0.68**	**359**		**Pn**	**08 20 01.1**	**+0.6**
LR04				Sn	**Sn**	**08 20 10.5**	**+0.6**
LR04	**Corral**	**0.68**	**359**	↑*iP*	**Pn**	**08 20 01.0**	**+0.6**
LR04				*i* S	**Sn**	**08 20 10.3**	**+0.5**
LR02	**Universidad Au**	**0.76**	**9**	↓*iP*	**Pn**	**08 20 02.3**	**+0.8**
LR02				*i* S	**Sn**	**08 20 12.6**	**+0.7**
LL04	**Puerto Octay**	**0.83**	**115**	*eP*	Pn	08 19 57.7	-4.8
LL04				*eS*	**Sn**	**08 20 12.8**	**-0.9**
LL04	**Puerto Octay**	**0.83**	**115**	*i* P	**Pn**	**08 20 02.3**	**-0.2**
LL04				*i* S	**Sn**	**08 20 12.3**	**-1.4**
LL05	**Los Muermos**	**0.84**	**184**		**Pn**	**08 20 03.7**	**+1.0**
LL05				Sn	**Sn**	**08 20 16.5**	**+2.6**
LL05	**Los Muermos**	**0.84**	**184**	*i* P	**Pn**	**08 20 03.6**	**+0.9**
LL05				*i* S	**Sn**	**08 20 16.0**	**+2.1**
LL03	**Petrohue**	**0.95**	**128**	*eP*	**Pn**	**08 20 04.0**	**-0.1**
LL03				*eS*	**Sn**	**08 20 15.9**	**-0.7**
LL03				IAML		08 20 26.7	
	comp=Z,3μm,0.8s						
LL03	**Petrohue**	**0.95**	**128**		**Pn**	**08 20 04.1**	**-0.1**
LL03				Sn	**Sn**	**08 20 16.4**	**-0.2**
LL03	**Petrohue**	**0.95**	**128**	↓*iP*	**Pn**	**08 20 04.0**	**-0.1**
LL03				*i* S	**Sn**	**08 20 15.7**	**-0.9**
LL03				IAML		08 20 25.3	
	comp=E,6μm,0.3s						
LR05	**Currie**	**1.12**	**73**	*eP*	Pn	08 20 01.2	-5.2
LR05				*eS*	**Sn**	**08 20 21.1**	**+0.5**
LR05				IAML		08 20 22.0	
	comp=Z,2μm,0.3s						
LR05	**Currie**	**1.12**	**73**		**Pn**	**08 20 06.3**	**-0.1**
LR05				Sn	**Sn**	**08 20 20.8**	**+0.1**
LR05	**Currie**	**1.12**	**73**	↓*iP*	**Pn**	**08 20 06.3**	**-0.1**
LR05				*i* S	**Sn**	**08 20 20.7**	**+0.1**
LR05				IAML		08 20 24.6	
	comp=N,5μm,0.3s						
LR03	**Panguipulli**	**1.23**	**42**	*eP*	**Pn**	**08 20 08.2**	**+0.2**
LR03				*eS*	**Sn**	**08 20 24.4**	**+0.9**
LR03				IAML		08 20 24.8	
	comp=Z,3μm,0.6s						
LR03	**Panguipulli**	**1.23**	**42**		**Pn**	**08 20 08.2**	**+0.2**
LR03				Sn	**Sn**	**08 20 23.5**	**+0.1**
LR03	**Panguipulli**	**1.23**	**42**	↓*iP*	**Pn**	**08 20 08.1**	**+0.2**
LR03				*i* S	**Sn**	**08 20 23.8**	**+0.4**
LR03				IAML		08 20 25.9	
	comp=N,5μm,0.5s						
LL06	**Loncomilla**	**1.66**	**186**	*eP*	**Pn**	**08 20 15.0**	**+1.2**
LL06				*eS*	**Sn**	**08 20 33.7**	**-0.2**
LL06				IAML		08 20 46.7	
	comp=N,2μm,0.1s						
GO06	**Curarrehue**	**1.78**	**57**	*eP*	**Pn**	**08 20 16.4**	**+0.9**
GO06				*eS*	**Sn**	**08 20 41.0**	**+4.0**
GO06	**Curarrehue**	**1.78**	**57**		**Pn**	**08 20 16.2**	**+0.7**
GO06	**Curarrehue**	**1.78**	**57**	↓*iP*	**Pn**	**08 20 16.3**	**+0.7**
GO06				*i* S	**Sn**	**08 20 37.3**	**+0.4**
LC01	**Cunco**	**2.04**	**36**	*i* P	**Pn**	**08 20 19.9**	**+0.9**
LC01				*i* S	**Sn**	**08 20 45.0**	**+1.7**
LC01				IAML		08 20 48.4	
	comp=E,2μm,0.1s						
BI04	**Isla Mocha**	**2.18**	**350**	*eP*	**Pn**	**08 20 20.4**	**-0.5**
PLCA	**Paso Flores**	**2.18**	**95**	*eP*	**Pn**	**08 20 21.9**	**+0.9**
PLCA				*eS*	**Sn**	**08 20 51.7**	**+4.9**
PLCA	**Paso Flores**	**2.18**	**95**		**Pn**	**08 20 21.7**	**+0.7**
PLCA	**Paso Flores**	**2.18**	**95**	*i* P	**Pn**	**08 20 21.8**	**+0.7**
LL07	**Hotel Espejo d**	**2.27**	**181**	Pn	**Pn**	**08 20 22.5**	**+0.3**
LL07	**Hotel Espejo d**	**2.27**	**181**	*eP*	**Pn**	**08 20 22.6**	**+0.5**
LL07				*eS*	**Sn**	**08 20 47.8**	**-1.1**
LL07				IAML		08 20 48.8	
	comp=N,512nm,0.5s						
GO07	**Milladeo Hill,**	**2.56**	**184**	*eP*	**Pn**	**08 20 27.2**	**+1.1**
GO07				IAML		08 21 06.7	
	comp=Z,440nm,0.5s						
GO07	**Milladeo Hill,**	**2.56**	**184**		**Pn**	**08 20 26.0**	**-0.1**
GO07	**Milladeo Hill,**	**2.56**	**184**	*eP*	**Pn**	**08 20 26.7**	**+0.6**
LL02	**Futaleuf**	**2.87**	**157**	*eP*	**Pn**	**08 20 31.9**	**+1.3**
LL02				*eS*	**Sn**	**08 21 06.8**	**+3.0**
LL02	**Futaleuf**	**2.87**	**157**	Pn	**Pn**	**08 20 29.8**	**-0.7**
LL02	**Futaleuf**	**2.87**	**157**	*eP*	**Pn**	**08 20 32.1**	**+1.6**
LJUN	**La Junta**	**3.50**	**169**	*eP*	**Pn**	**08 20 41.2**	**+2.1**
BI05	**Punta Hualpn**	**3.81**	**3**	Pn	**Pn**	**08 20 42.4**	**-0.9**
BI02	**San Fabin de**	**4.23**	**24**	Pn	**Pn**	**08 20 48.0**	**-1.3**
ML02	**Panimavida**	**5.04**	**19**	Pn	**Pn**	**08 20 58.6**	**-1.6**
COYC	**Coyhaique**	**5.10**	**169**	Pn	**Pn**	**08 20 59.9**	**-1.2**
GO05	**Hualane**	**5.66**	**12**	Pn	**Pn**	**08 21 07.9**	**-1.0**
BO02	**Sierra Bellavi**	**6.12**	**21**		**Pn**	**08 21 14.3**	**-0.9**
BO01	**Tunca**	**6.43**	**17**	Pn	**Pn**	**08 21 18.4**	**-0.9**
MT01	**Popeta**	**6.90**	**15**	Pn	**Pn**	**08 21 24.5**	**-1.4**
MT13	**San Alfonso**	**7.25**	**21**	Pn	**Pn**	**08 21 29.8**	**-0.9**
MT03	**Universidad Ad**	**7.42**	**19**	Pn	**Pn**	**08 21 32.0**	**-1.1**
MT05	**Renca**	**7.47**	**17**	Pn	**Pn**	**08 21 32.3**	**-1.3**
CO04	**Los Peladeros**	**8.72**	**14**	Pn	**Pn**	**08 21 50.6**	**-0.5**
CO02	**Combarbal**	**9.54**	**13**	Pn	**Pn**	**08 22 00.9**	**-1.2**
CO03	**El Pedregal**	**9.95**	**14**	Pn	**Pn**	**08 22 06.8**	**-0.9**
GO04	**Tololo Observa**	**10.58**	**12**	Pn	**Pn**	**08 22 15.2**	**-1.2**
CO05	**La Serena**	**10.76**	**10**	Pn	**Pn**	**08 22 16.6**	**-2.2**
CO01	**Juntas del Tor**	**10.90**	**15**	Pn	**Pn**	**08 22 19.7**	**-1.1**
LCO	**Las Campanas**	**11.73**	**12**	Pn	**Pn**	**08 22 31.1**	**-1.2**
PB02	**IPOC Station P**	**19.41**	**10**	Pn	**Pn**	**08 24 11.3**	**-0.1**
PB02				IAmb	IAmb	08 24 20.2	
	comp=Z,22nm,1.3s						
PSGCX	**Pisagua**	**21.08**	**9**	P	**P**	**08 24 28.6**	**+0.5**
PB18	**Visviri**	**23.14**	**10**	P	**P**	**08 24 50.3**	**-0.1**
PB18				IAmb	IAmb	08 25 10.3	
	comp=Z,16nm,1.2s						
SNAA	**Sanae**	**46.00**	**155**	P	**P**	**08 28 05.5**	**-0.4**
SNAA				IAmb	IAmb	08 28 11.3	
	comp=Z,4.2nm,1.2s						
QSPA	**South Pole Qui**	**49.69**	**180**	P	**P**	**08 28 34.0**	**-0.6**

*ISK **05** 08:25:47.2,37.˚89N×26.˚65E,h7km,ML3.3/12*
*THE **05** 08:25:47.6,38.˚N±1.˚×2.˚7E±.˚,h10km±2km,M2.9/9, MLh2.9/9*
*AFAD **05** 08:25:47.6,37.˚92N×26.˚64E,h7km±3km,ML2.9*
ISC 05 08:25:47.4±0.9,**37.˚90N**±0.˚02×**26.˚63E**±0.˚02,**h10**km±8km, **n41,σ0°47/63,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.25**	**53**	P	**Pg**	**08 25 52.1**	**-0.4**
DGB				IAML		08 25 55.0	
	comp=E,2μm,0.2s						
DGB				S	**Sg**	**08 25 55.8**	**-0.2**
DGB				IAML		08 25 56.0	
	comp=N,1μm,0.2s						
SMG	**Samos**	**0.25**	**139**	P	**Pg**	**08 25 52.9**	**+0.3**
SMG				S	**Sg**	**08 25 56.7**	**+0.6**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.29**	**52**	Pg	**Pg**	**08 25 53.2**	**0.0**
GMLD				Sg	**Sg**	**08 25 57.0**	**-0.1**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.35**	**344**	P	**Pg**	**08 25 54.1**	**-0.3**
ZEYE				IAML	**Sg**	**08 26 00.0**	**+0.8**
	comp=N,2μm,0.4s						
ZEYE				S	**Sg**	**08 26 00.0**	**+0.8**
ZEYE				IAML		08 26 01.0	
	comp=E,1μm,0.4s						
BEYE	**izmir**	**0.40**	**36**	P	**Pg**	**08 25 55.1**	**-0.3**
BEYE				S	**Sg**	**08 26 00.5**	**-0.3**
BEYE				IAML		08 26 01.0	
	comp=N,770nm,0.3s						
BEYE				IAML		08 26 01.0	
	comp=E,989nm,0.2s						
CESE	**eme**	**0.50**	**329**	Pg	**Pg**	**08 25 57.9**	**+0.7**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.52**	**112**	P	**Pg**	**08 25 57.4**	**-0.2**
GCAM				IAML		08 26 05.0	
	comp=E,822nm,0.4s						
GCAM				S	**Sb**	**08 26 05.9**	**-0.3**
GCAM				IAML		08 26 08.0	
	comp=N,802nm,0.4s						
GCAM	**G?zelcaml?**	**0.52**	**112**	Pg	**Pg**	**08 25 57.3**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.52**	**94**	Pg	**Pg**	**08 25 57.6**	**0.0**
BLCB	**Balcova**	**0.58**	**34**	P	**Pg**	**08 25 58.2**	**-0.6**
BLCB				S	**Sg**	**08 26 05.8**	**-0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**34**	Pg	**Pg**	**08 25 58.6**	**-0.2**
DDIM	**Aydin, Didim**	**0.66**	**132**	P	**Pg**	**08 26 00.6**	**+0.4**
DDIM				S	**Sb**	**08 26 10.7**	**+0.6**
DDIM				IAML		08 26 12.0	
	comp=E,719nm,0.6s						
DDIM				IAML		08 26 13.0	
	comp=N,671nm,0.4s						
CHOS	**Chios island**	**0.66**	**317**	P	**Pg**	**08 26 00.2**	**-0.2**
CHOS				S	**Sb**	**08 26 10.3**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.66**	**317**	Pg	**Pg**	**08 26 00.5**	**+0.2**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.69**	**355**	Pg	**Pb**	**08 26 01.6**	**0.0**
KRBN				Sg	**Sb**	**08 26 11.7**	**+0.4**
KRBN				AML	AML		
DUVT	**Torbali**	**0.72**	**64**	P	**Pg**	**08 26 00.9**	**-0.5**
DUVT				IAML		08 26 11.0	
	comp=E,626nm,0.2s						
BAGT	**Foa**	**0.77**	**13**	P	**Pb**	**08 26 03.3**	**+0.3**
BAGT				S	**Sb**	**08 26 14.6**	**+1.0**
BAGT				IAML		08 26 15.0	
	comp=N,690nm,0.6s						
BAGT				IAML		08 26 17.0	
	comp=E,474nm,0.7s						
KARB	**zmir-Karabur**	**0.78**	**347**	P	**Pg**	**08 26 01.8**	**-0.7**
KARB				S	**Sb**	**08 26 14.1**	**+0.4**
KARB				IAML		08 26 16.0	
	comp=E,383nm,0.4s						
KARB				IAML		08 26 22.0	
	comp=N,413nm,0.6s						
FOCM	**Foa**	**0.82**	**6**	Pg	**Pb**	**08 26 03.7**	**0.0**
FOCM				Sg	**Sb**	**08 26 15.1**	**+0.4**
FOCM				AML	AML		
BODT	**Bodrum**	**1.00**	**147**	P	**Pg**	**08 26 06.5**	**-0.1**
BODT				S	**Sn**	**08 26 22.3**	**+0.7**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.00**	**87**	Pg	**Pg**	**08 26 06.7**	**0.0**
AYDB				AML	AML		
CAMT	**Merkez**	**1.00**	**32**	P	**Pn**	**08 26 07.5**	**-0.1**
CAMT				S	**Sb**	**08 26 20.5**	**+0.3**
CAMT				IAML		08 26 23.0	
	comp=N,678nm,0.5s						
CAMT				IAML		08 26 25.0	
	comp=E,536nm,0.4s						
AYDN	**Tasoluk**	**1.02**	**103**	P	**Pg**	**08 26 06.5**	**-0.5**
AYDN				S	**Sb**	**08 26 21.4**	**+0.8**
AYDN				IAML		08 26 24.0	
	comp=E,240nm,0.6s						
BDRM	**Kayabasi**	**1.06**	**142**	P	**Pg**	**08 26 07.3**	**-0.4**
IZMR	**zmir-demi**	**1.07**	**77**	P	**Pg**	**08 26 07.8**	**-0.3**
ZEDA	**zmir-Bergama**	**1.12**	**18**	P	**Pb**	**08 26 08.9**	**0.0**
ZEDA				S	**Sn**	**08 26 24.4**	**-0.2**
DKL	**Dikili**	**1.19**	**10**	Pn	**Pn**	**08 26 10.6**	**+0.5**
DKL				AML	AML		
APE	**Apeiranthos**	**1.20**	**227**	P	**Pb**	**08 26 09.1**	**-1.3**
APE				S	**Sg**	**08 26 26.7**	**+0.5**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.30**	**51**	Pn	**Pg**	**08 26 12.3**	**0.0**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.32**	**87**	Pn	**Pn**	**08 26 11.8**	**-0.1**
NAZL				AML	AML		
AKHS	**Akhisar**	**1.35**	**43**	P	**Pg**	**08 26 13.5**	**+0.1**
AKS	**Akhisar**	**1.35**	**43**	Pn	**Pg**	**08 26 13.0**	**-0.4**
ESEN	**Aydn-Nazilli**	**1.36**	**94**	P	**Pn**	**08 26 11.9**	**-0.6**
ESEN				S	**Sg**	**08 26 31.6**	**+0.3**
PRK	**Paraskevi**	**1.37**	**348**	P	**Pn**	**08 26 12.4**	**-0.2**
PRK				S	**Sg**	**08 26 31.4**	**-0.2**
PRK				AML	AML		
DAT	**Datca**	**1.39**	**147**	P	**Pn**	**08 26 13.4**	**+0.4**
DAT				AML	AML		
KTTT	**Salihli**	**1.40**	**55**	P	**Pg**	**08 26 14.0**	**-0.2**
KIRA	**zmir-Kiraz**	**1.43**	**78**	P	**Pn**	**08 26 13.8**	**+0.2**
SOMA	**Soma-Manisa**	**1.44**	**29**	Pn	**Pg**	**08 26 14.7**	**-0.4**
SOMA				AML	AML		
YER	**Yerkesik**	**1.52**	**120**	P	**Pn**	**08 26 14.1**	**-0.7**
YER				S	**Sn**	**08 26 34.9**	**+0.3**
GORD	**Gordes-Manisa**	**1.58**	**50**	Pn	**Pb**	**08 26 16.3**	**-0.5**
GORD				AML	AML		
KARY	**Karystos**	**1.74**	**275**	P	**Pn**	**08 26 17.0**	**-0.6**

*NOU **05** 08:36:08.4,37.˚77S×178.˚27E,h111km,MLv3.7/10,Off E. Coast of N. Island, N.Z.*
*WEL **05** 08:36:12.4±0.7,38.˚S±3.˚×17.˚8E±.˚,h63km±6km,ML3.0/23, MLv3.0/18,Error ellipse: s-maj=5.5km s-min=4.3km az=113.9*
ISC 05 08:36:10.9±1.8,**37.˚58S**±0.˚05×**177.˚85E**±0.˚06,**h90**km±10km, **n63,σ1°31/88,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HAZ	**Te Kaha**	**0.19**	**196**	P	**Pn**	**08 36 23.1**	**-0.8**
HAZ				S	**Sn**	**08 36 31.4**	**-2.0**
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**0.34**	**147**	P	**Pn**	**08 36 25.2**	**+0.6**
PKGZ				S	**Sn**	**08 36 35.3**	**+0.4**
PKGZ				AML	AML		
PKGZ				AML	AML		
MXZ	**Matakaoa Point**	**0.37**	**88**	P	**Pn**	**08 36 24.7**	**0.0**
MXZ	**Matakaoa Point**	**0.37**	**88**	P	**Pn**	**08 36 24.8**	**0.0**
MXZ				S	**Sn**	**08 36 35.3**	**+0.4**
MXZ				AML	AML		
MXZ				AML	AML		
RUGZ	**Raukumara Rang**	**0.41**	**199**	P	**Pn**	**08 36 24.5**	**-0.7**
RUGZ				S	**Sn**	**08 36 34.7**	**-1.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
WMGZ	**Waiomatatini S**	**0.51**	**118**	P	**Pn**	**08 36 26.3**	**+0.6**
WMGZ				S	**Sn**	**08 36 38.1**	**+1.3**
WMGZ				AML	AML		
WMGZ				AML	AML		
WIZ	**White Island**	**0.52**	**275**	P	**Pn**	**08 36 24.6**	**-1.2**
WIZ				AML	AML		
PUZ	**Puketiti**	**0.59**	**147**	P	**Pn**	**08 36 27.1**	**+0.6**
PUZ				S	**Sn**	**08 36 38.8**	**+0.7**
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	**Tauwhareparae**	**0.61**	**170**	P	**Pn**	**08 36 27.9**	**+1.3**
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	**Matawai**	**0.80**	**198**	P	**Pn**	**08 36 29.2**	**+0.7**
MWZ				S	**Sn**	**08 36 42.0**	**+0.4**
MWZ				AML	AML		
MWZ				AML	AML		
TKGZ	**Te Karaka**	**0.86**	**180

BKZ				S	**Sn**	**08 37 05.7**	**+0.1**
BKZ				AML	AML		
MCHZ	**McNeill Hill**	**2.07**	**205**	P	**Pn**	**08 36 44.8**	**+0.8**
MCHZ				S	**Sn**	**08 37 10.7**	**+1.4**
KWHZ	**Kaweka Forest**	**2.16**	**211**	P	**Pn**	**08 36 45.8**	**+0.5**
KWHZ				S	**Sn**	**08 37 12.6**	**+1.2**
MKAZ	**Moumakai**	**2.19**	**282**	P	**Pn**	**08 36 45.9**	**+0.2**
MKAZ				AML	AML		
MKAZ				AML	AML		
TMVZ	**Te Maari**	**2.28**	**227**	P	**Pn**	**08 36 48.1**	**+1.2**
NTVZ	**North Tongariro**	**2.28**	**228**	P	**Pn**	**08 36 48.4**	**+1.4**
ETVZ	**East Tongariro**	**2.29**	**226**	P	**Pn**	**08 36 48.2**	**+1.1**
OTVZ	**Oturere**	**2.33**	**227**	P	**Pn**	**08 36 48.9**	**+1.2**
KAHZ	**Kahuranaki**	**2.34**	**199**	P	**Pn**	**08 36 48.0**	**+0.4**
KRHZ	**Kereru**	**2.37**	**209**	P	**Pn**	**08 36 47.9**	**-0.1**
KRHZ				S	**Sn**	**08 37 15.9**	**-0.5**
ETAZ	**East Tamaki Re**	**2.41**	**284**	P	**Pn**	**08 36 49.2**	**+0.7**
MOVZ	**Moawhango**	**2.46**	**221**	P	**Pn**	**08 36 49.4**	**+0.2**
MOVZ				AML	AML		
MOVZ				AML	AML		
WNVZ	**Wahianoa**	**2.48**	**225**	P	**Pn**	**08 36 50.4**	**+0.7**
HIZ	**Hauiti**	**2.54**	**247**	P	**Pn**	**08 36 53.0**	**+2.8**
HIZ	**Hauiti**	**2.54**	**247**	P	**Pn**	**08 36 52.2**	**+2.0**
PXZ	**Pawanui**	**2.57**	**197**	P	**Pn**	**08 36 49.8**	**-0.8**
PXZ				S	**Sn**	**08 37 20.1**	**-1.0**
PXZ				AML	AML		
PNHZ	**Pukenui**	**2.67**	**208**	P	**Pn**	**08 36 51.2**	**-0.7**
PRHZ	**Porangahau**	**2.85**	**199**	P	**Pn**	**08 36 53.4**	**-1.0**
VRZ	**Vera Road**	**2.88**	**237**	P	**Pn**	**08 36 56.8**	**+2.1**
DVHZ	**Dannevirke**	**3.02**	**205**	P	**Pn**	**08 36 55.1**	**-1.6**
WAZ	**Wanganui**	**3.12**	**225**	P	**Pn**	**08 36 59.0**	**+1.0**
WCZ	**Waipu Caves**	**3.25**	**299**	P	**Pn**	**08 37 01.5**	**+1.6**
WCZ				AML	AML		
BFZ	**Birch Farm**	**3.34**	**201**	P	**Pn**	**08 36 59.8**	**-1.2**
BFZ	**Birch Farm**	**3.34**	**201**	S	**Sn**	**08 37 37.9**	**-1.8**
BFZ	**Birch Farm**	**3.34**	**201**	P	**Pn**	**08 36 59.4**	**-1.7**
TIWZ	**Tintock**	**3.54**	**205**	P	**Pn**	**08 37 02.0**	**-1.7**
MRZ	**Mangatainoka R**	**3.55**	**209**	P	**Pn**	**08 37 01.9**	**-1.9**
HOWZ	**Holdsworth Sta**	**3.78**	**208**	P	**Pn**	**08 37 04.7**	**-2.2**
OGWZ	**Otaki Gorge**	**3.84**	**212**	P	**Pn**	**08 37 05.9**	**-1.9**
KIW	**Kapiti Island**	**3.99**	**214**	P	**Pn**	**08 37 07.9**	**-2.0**
SNZO	**South Karori**	**4.45**	**212**	P	**Pn**	**08 37 13.0**	**-3.0**
TKNZ	**Takaka Hill**	**5.12**	**226**	P	**Pn**	**08 37 23.8**	**-1.4**
QRZ	**Quartz Range**	**5.25**	**230**	P	**Pn**	**08 37 25.8**	**-1.1**
QRZ	**Quartz Range**	**5.25**	**230**	P	**Pn**	**08 37 25.4**	**-1.5**
KHZ	**Kahutara**	**5.86**	**213**	P	**Pn**	**08 37 32.3**	**-2.8**

*MEX **05** 08:41:43.7±0.5, 13.°66N×92.°44W, h10km, MD4.1, Presumed earthquake*
*GCG **05** 08:41:43.4±1.6, 13.°65N×92.°22W, h13km±17km, MD4.5, Presumed earthquake*
ISC 05 08:41:41.0±2.4, **13.°66N**±0.°09×**92.°23W**±0.°06, **h18**km±10km, **n19**, σ1°**33**/34, **Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTAL	**Retalhuleu**	**1.00**	**31**	*e*P	**Pn**	**08 42 02.2**	**+2.0**
RTAL				*e*S	**Sn**	**08 42 15.6**	**+1.6**
THIG		**1.24**	**358**	*i* P	**Pg**	**08 42 04.5**	**-0.5**
THIG				*i* S	**Sg**	**08 42 21.7**	**+0.5**
THIG		**1.24**	**358**	*e*P	**Pn**	**08 42 03.8**	**+0.3**
THIG				*e*S	**Sb**	**08 42 19.1**	**-0.5**
CHUJ	**Union Juarez**	**1.43**	**5**	*e*P	**Pn**	**08 42 06.4**	**0.0**
CHUJ				*e*S	**Sn**	**08 42 24.9**	**+0.1**
PAIR	**El Naranjo**	**1.45**	**360**	*e*P	**Pn**	**08 42 06.6**	**+0.1**
PATR				*e*S	**Sn**	**08 42 24.5**	**-0.7**
PAVE	**Pavencul**	**1.52**	**2**	*e*P	**Pn**	**08 42 07.9**	**+0.3**
PAVE				*e*S	**Sn**	**08 42 26.8**	**-0.4**
FG8	**Yepocapa, Chim**	**1.73**	**70**	*i* P	**Pn**	**08 42 09.3**	**-1.1**
FG16	**Alotenango, Sa**	**1.78**	**70**	*i* P	**Pn**	**08 42 10.6**	**-0.5**
HUEH	**Huehuetenango**	**1.79**	**23**	*i* P	**Pb**	**08 42 14.3**	**+0.8**
HUEH				*i* S	**Sg**	**08 42 38.2**	**-0.6**
HUEH	**Huehuetenango**	**1.79**	**23**	*e*P	**Pb**	**08 42 14.2**	**+0.8**
HUEH				*e*S	**Sg**	**08 42 38.0**	**-0.9**
APG	**El Apazote**	**2.17**	**52**	*i* P	**Pb**	**08 42 20.9**	**+0.9**
PCIG		**2.24**	**335**	*e*P	**Pn**	**08 42 17.6**	**+0.2**
PCIG				*e*S	**Sn**	**08 42 43.0**	**-1.6**
CCIG	**Comitan**	**2.61**	**2**	*i* P	**Pb**	**08 42 27.3**	**-0.1**
CCIG				*i* S	**Sb**	**08 42 59.4**	**+0.2**
CCIG	**Comitan**	**2.61**	**2**	*e*P	**Pb**	**08 42 26.9**	**-0.5**
CCIG				*e*S	**Sb**	**08 42 59.1**	**0.0**
TGIG		**3.21**	**345**	*i* P	**Pn**	**08 42 32.1**	**+2.4**
TGIG		**3.21**	**345**	*e*P	**Pn**	**08 42 32.6**	**+1.9**
TGIG				*e*S	**Sn**	**08 43 07.5**	**-1.2**
UXUV	**UXUV**	**4.08**	**333**	*e*P	**Pn**	**08 42 44.4**	**+1.9**
UXUV				*e*S	**Sn**	**08 43 27.3**	**-2.6**
CMIG	**Matias Romero**	**4.26**	**323**	*e*P	**Pn**	**08 42 45.8**	**+0.7**
CMIG				*e*S	**Sn**	**08 43 31.6**	**-2.8**
NEUV	**Arroyo Zacate**	**5.30**	**320**	*e*P	**Pn**	**08 43 02.1**	**+2.8**
NEUV				*e*S	**Sn**	**08 43 59.4**	**-0.6**

*IDC **05** 08:50:08.9±0.7, 62.°39S×57.°68W, h0km, mb4.1/10, mbtmp4.1/11, ML4.2/1, MS3.6/14, Error ellipse: s-maj=22.6km s-min=16.2km az=92.0*
*NEIC **05** 08:50:10.0±1.0, 62.°45S±0.°05×58.°1W±0.°2, h10km±1km, mb4.7/17, Error ellipse: s-maj=13.3km s-min=5.8km az=63.0*
ISC 05 08:50:10.0±0.5, **62.°44S**±0.°06×**58.°11W**±0.°08, **h10**km, **n58**, σ1°**03**/43, **mb4.5**/14, **MS3.6**/13, **5C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.09**	**152**	Pg	**Pb**	**08 50 30.6**	**-0.3**
PMSA	**Palmer Station**	**3.54**	**226**	Pn	**Pn**	**08 51 04.7**	**-0.1**
	18nm,0.3s,baz=59,slow=8.6,SNR=27						
PMSA				Sn	**Sb**	**08 51 54.4**	**-1.0**
	71nm,0.3s,baz=354,slow=9.2,SNR=6.2						
PMSA				LR	LR	08 52 21.5	
	comp=E,699nm,19.5s,baz=346,slow=36						
	37nm,0.3s						
PMSA				AML	AML		
ORCD	**Orcadas**	**6.61**	**81**	Pn	**Pn**	**08 51 46.4**	**-0.6**
SMAI	**San Martin Ant**	**6.83**	**209**	Pn	**Pn**	**08 51 50.1**	**0.0**
EFI	**East Falkland**	**10.80**	**0**	Pn	**Pn**	**08 52 43.7**	**-0.7**
MG02	**Cerro Sombrero**	**11.35**	**324**	Pn	**Pn**	**08 52 51.8**	**-0.2**
BELA	**Belgrano 2**	**17.17**	**163**	Pn	**Pn**	**08 54 08.7**	**-0.9**
VNA3	**Neumayer Olymp**	**20.37**	**136**	⇑P	Pn	08 54 47.9	-0.4
	comp=Z,46nm,0.8s						
VNA1	**Neumayer--Stat**	**20.84**	**134**	⇑P	Pn	08 54 53.7	0.0
	comp=Z,71nm,0.9s						
VNA2	**Neumayer--Watz**	**21.11**	**135**	⇑P	**P**	**08 54 56.2**	**+1.9**
	comp=Z,31nm,0.6s,baz=257,slow=9.5						
SNAA	**Sanae**	**22.54**	**137**	⇑P	**P**	**08 55 11.2**	**+1.5**
	comp=Z,542nm,0.9s						
SNAA	**Sanae**	**22.54**	**137**	P	**P**	**08 55 10.9**	**+1.2**
	comp=Z,40nm,1.1s,baz=256,slow=8.7,SNR=29						
SNAA				LR	LR	09 02 26.6	
	comp=Z,145nm,21.4s,baz=195,slow=33						
	comp=Z,40nm,1.1s						
SNAA	**Sanae**	**22.54**	**137**	P	**P**	**08 55 09.0**	**-0.7**
PLCA	**Paso Flores**	**22.99**	**335**	P	**P**	**08 55 16.7**	**+2.0**
	comp=Z,11nm,1.2s,baz=158,slow=8.8,SNR=6.3						
PLCA				LR	LR	09 02 54.8	
	comp=Z,135nm,21.1s,baz=162,slow=33						
	comp=Z,11nm,1.2s						
PLCA	**Paso Flores**	**22.99**	**335**	P	**P**	**08 55 14.8**	**+0.1**
PLCA				IAmb	IAmb	08 55 17.9	
	comp=Z,25nm,1.4s						
TROLL	**Troll, Antarti**	**24.18**	**139**	⇑P	**P**	**08 55 27.8**	**+1.7**
	comp=Z,934nm,0.9s						
GO06	**Curarrehue**	**24.28**	**334**	P	**P**	**08 55 27.3**	**-0.1**
GO06				IAmb	IAmb	08 55 30.0	
	comp=Z,34nm,1.1s						
QSPA	**South Pole Qui**	**27.78**	**180**	P	**P**	**08 56 00.3**	**+1.5**
	comp=Z,2.7nm,0.7s,baz=157,slow=3.0,SNR=15						
QSPA				LR	LR	09 08 43.0	
	comp=Z,81nm,20.9s,baz=170,slow=40						
	comp=Z,2.7nm,0.7s						
QSPA	**South Pole Qui**	**27.78**	**180**	P	**P**	**08 55 59.1**	**+0.3**
QSPA				IAmb	IAmb	08 56 08.7	
	comp=Z,14nm,1.1s						
BO02	**Sierra Bellavi**	**28.80**	**338**	P	**P**	**08 56 07.0**	**-1.0**
BO02				IAmb	IAmb	08 56 18.9	
	comp=Z,24nm,1.4s						
VA03	**San Esteban**	**30.74**	**339**	P	**P**	**08 56 25.9**	**+0.7**
CO01	**Juntas del Tor**	**33.40**	**341**	P	**P**	**08 56 48.3**	**-0.5**
CO01				IAmb	IAmb	08 56 49.5	
	comp=Z,13nm,1.4s						
AC05	**El Transito**	**34.55**	**341**	P	**P**	**08 56 58.8**	**+0.2**
AC04	**Llanos de Chal**	**35.29**	**340**	P	**P**	**08 57 04.3**	**-0.5**
CPUP	**Villa Florida**	**36.11**	**1**	P	**P**	**08 57 12.9**	**+1.0**
	comp=Z,1.3nm,0.8s,baz=193,slow=18,SNR=2.8						
	comp=Z,1.3nm,0.8s						
CPUP	**Villa Florida**	**36.11**	**1**	P	**P**	**08 57 12.2**	**+0.3**
CPUP				IAmb	IAmb	08 57 40.1	
	comp=Z,7.3nm,1.4s						
AC01	**Pan de Azucar**	**37.23**	**341**	P	**P**	**08 57 21.5**	**0.0**
AC01				IAmb	IAmb	08 57 39.9	
	comp=Z,21nm,1.1s						
VNDA	**Vanda**	**38.14**	**193**	P	**P**	**08 57 30.0**	**+1.4**
	comp=Z,0.2nm,0.4s,baz=143,slow=7.9,SNR=1.9						
VNDA				LR	LR	09 12 57.4	
	comp=Z,76nm,20.6s,baz=154,slow=36						
	comp=Z,0.2nm,0.4s						
VNDA	**Vanda**	**38.14**	**193**	P	**P**	**08 57 29.0**	**+0.5**
MAW	**Mawson**	**43.45**	**151**	P	**P**	**08 58 13.3**	**+0.9**
	comp=Z,6.0nm,0.9s,baz=208,slow=8.3,SNR=14						
MAW				LR	LR	09 15 53.1	
	comp=Z,173nm,20.9s,baz=216,slow=36						
	comp=Z,6.0nm,0.9s						
MAW	**Mawson**	**43.45**	**151**	P	**P**	**08 58 13.4**	**+0.9**
LPAZ	**La Paz**	**46.64**	**347**	P	**P**	**08 58 39.7**	**+0.7**
	comp=Z,0.5nm,0.3s,baz=152,slow=3.0,SNR=3.5						
LPAZ				LR	LR	09 19 14.2	
	comp=Z,40nm,18.4s,baz=166,slow=37						
	comp=Z,0.5nm,0.3s						
LPAZ	**La Paz**	**46.64**	**347**	P	**P**	**08 58 39.3**	**+0.2**
LPAZ				IAmb	IAmb	08 58 50.7	
	comp=Z,3.8nm,1.4s						
RPN	**Rapa Nui**	**48.62**	**292**	LR	LR	09 14 01.6	
	comp=Z,46nm,21.0s,baz=143,slow=29						
ATAH	**Atahualpa**	**57.17**	**336**	LR	LR	09 21 40.0	
	comp=Z,42nm,18.2s,baz=240,slow=33						
H10S2	**ASCENSION HYDR**	**61.94**	**50**	T	T	10 07 40.7	
	baz=17,slow=74,SNR=69						
H10S3	**ASCENSION HYDR**	**61.94**	**50**	T	T	10 07 38.7	
	baz=203,slow=74,SNR=74						
BOSA	**Boshof**	**62.03**	**99**	P	**P**	**09 00 29.8**	**-0.7**
	comp=Z,1.0nm,0.6s,baz=194,slow=8.3,SNR=3.3						
	comp=Z,1.0nm,0.6s						
BOSA	**Boshof**	**62.03**	**99**	P	**P**	**09 00 30.0**	**-0.4**
BOSA				IAmb	IAmb	09 00 56.1	
	comp=Z,12nm,1.4s						
H10N3	**ASCENSION HYDR**	**63.03**	**50**	T	T	10 08 57.9	
	baz=202,slow=75,SNR=35						
H10N1	**ASCENSION HYDR**	**63.03**	**50**	T	T	10 08 58.2	
	baz=202,slow=75,SNR=48						
H10N2	**ASCENSION HYDR**	**63.04**	**50**	T	T	10 08 59.2	
	baz=202,slow=75,SNR=48						
LBTB	**Lobatse**	**65.26**	**97**	LR	LR	09 23 36.2	
	comp=Z,72nm,20.5s,baz=178,slow=31						
SJG	**San Juan**	**80.54**	**352**	LR	LR	09 39 15.2	
	comp=Z,38nm,19.4s,baz=101,slow=37						
CMIG	**Matias Romero**	**84.39**	**325**	LR	LR	09 33 41.2	
	comp=Z,50nm,19.8s,baz=194,slow=31						
MBAR	**Mbarara**	**88.94**	**89**	LR	LR	09 37 54.3	
	comp=Z,43nm,18.9s,baz=144,slow=32						
ASAR	**Alice Springs**	**93.65**	**191**	P	**P**	**09 03 25.9**	**-0.6**
	comp=Z,0.5nm,0.9s,baz=176,slow=3.7,SNR=4.3						
	comp=Z,0.5nm,0.9s						
ASAR	**Alice Springs**	**93.65**	**191**	P	**P**	**09 03 25.1**	**-1.4**
WRA	**Warramunga Arr**	**97.30**	**192**	P	Pdif	09 03 43.6	+0.4
	comp=Z,0.2nm,0.7s,baz=173,slow=4.3,SNR=1.8						
	comp=Z,0.2nm,0.7s						
WRA	**Warramunga Arr**	**97.30**	**192**	P	Pdif	09 03 43.7	+0.5
TXAR	**Lajitas Array**	**98.46**	**321**	LR	LR	09 41 57.4	
	comp=Z,28nm,21.3s,baz=63,slow=32						
BRTR	**Keskin Array B**	**125.06**	**70**	PKP	**PKiKP**	**09 09 11.1**	**+1.1**
	comp=Z,0.3nm,0.4s,baz=269,slow=4.1,SNR=2.4						
CMAR	**Chiang Mai Arr**	**133.24**	**149**	PKP	**PKiKP**	**09 09 26.3**	**-0.7**
	comp=Z,0.7nm,0.4s,baz=192,slow=4.5,SNR=1.4						
ILAR	**Eielson Array**	**142.71**	**315**	PKP	**PKPdf**	**09 09 42.5**	**+0.8**
	comp=Z,0.3nm,0.7s,baz=153,slow=1.9,SNR=4.4						
BVAR	**Borovoye Array**	**151.69**	**85**	PKPbc	**PKPbc**	**09 10 01.1**	**-2.2**
	comp=Z,2.0nm,0.5s,baz=270,slow=1.4,SNR=8.0						
MKAR	**Makanchi Array**	**152.81**	**107**	PKPbc	**PKPbc**	**09 10 03.9**	**-2.1**
	comp=Z,1.1nm,0.9s,baz=187,slow=1.7,SNR=6.8						
KURBB	**Kurchatov Arra**	**153.88**	**97**	PKPbc	**PKPbc**	**09 10 07.7**	**-0.5**
	comp=Z,0.3nm,0.4s,baz=232,slow=3.0,SNR=2.0						
KURK	**Kurchatov**	**153.98**	**97**		**PKPbc**	**09 10 07.7**	**-0.7**

*GII **05** 08:51:57.6±0.0, 31.°168N±0.°002×35.°276E±0.°001, h0km, Md2.3/8, confirmed*
*JSO **05** 08:52:00.2±0.3, 31.°N±2.°×3.°5E±.°, h7km±4km, M2.8/11, MLv2.8/11*
ISC 05 08:51:57.9±0.8, **31.°14N**±0.°02×**35.°34E**±0.°04, **h0**km, **n31**, σ0°**59**/49, **Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSBI	**Mazada**	**0.17**	**5**	P	**Pg**	**08 52 01.4**	**+0.3**
MSBI				S	**Sg**	**08 52 04.3**	**+0.9**
GHAJ	**Ghor Haditha**	**0.25**	**50**	P	**Pb**	**08 52 05.0**	**-0.3**
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**0.25**	**50**	P	**Pb**	**08 52 04.8**	**-0.6**
IDAN	**Idan**	**0.31**	**191**	P	**Pg**	**08 52 04.6**	**+0.7**
IDAN				S	**Sb**	**08 52 11.3**	**-0.8**
MZS	**Mizpe Shalem**	**0.43**	**7**	P	**Pg**	**08 52 06.8**	**+0.6**
MZS				S	**Sg**	**08 52 13.6**	**+1.9**
AMAZ	**Amatzia**	**0.53**	**317**	P	**Pn**	**08 52 13.3**	**+0.5**
AMAZ				AML	AML		
AMAZ	**Amatzia**	**0.53**	**317**	P	**Pg**	**08 52 07.7**	**-0.4**
AMAZ				S	**Sg**	**08 52 16.1**	**+1.1**
JER	**Jerusalem**	**0.64**	**349**	P	**Pg**	**08 52 10.2**	**+0.1**
JER				S	**Sb**	**08 52 20.3**	**-1.3**
ALMO	**Almog**	**0.65**	**9**	P	**Pg**	**08 52 10.7**	**+0.2**
ALMO				S	**Sb**	**08 52 21.3**	**-0.6**
SWQJ	**Karak**	**0.70**	**68**	P	Pn	08 52 30.5	+16
RMNI	**Mount Ramon**	**0.74**	**223**	P	**Pg**	**08 52 12.4**	**+0.3**
RMNI				S	**Sb**	**08 52 24.3**	**0.0**
YITV	**Yitav**	**0.80**	**5**	P	**Pg**	**08 52 13.2**	**-0.1**
YITV				S	**Sb**	**08 52 25.7**	**-0.5**
PRNI	**Paran**	**0.84**	**200**	P	**Pb**	**08 52 15.8**	**+0.4**
PRNI				AML	AML		
KZIT	**Kziot**	**0.84**	**254**	P	**Pg**	**08 52 13.8**	**-0.2**
KZIT				S	**Sb**	**08 52 26.6**	**-0.7**
SALP	**Salfit**	**0.93**	**352**	P	Pn	08 52 31.2	+13
RGMN	**Argaman**	**1.03**	**9**	P	**Pg**	**08 52 17.4**	**-0.4**
RGMN				S	**Sb**	**08 52 32.8**	**0.0**
ROII	**Roi**	**1.11**	**6**	P	**Pg**	**08 52 18.6**	**-0.6**
ROII				S	**Sb**	**08 52 35.5**	**+0.5**
SLTI	**Sal'it**	**1.12**	**347**	P	**Pg**	**08 52 19.0**	**-0.5**
SLTI				S	**Sb**	**08 52 35.8**	**+0.4**
HRFI	**Mount Harif**	**1.13**	**193**	P	**Pn**	**08 52 20.6**	**-0.5**
HRFI				AML	AML		
HRFI	**Mount Harif**	**1.13**	**193**	P	**Pg**	**08 52 19.4**	**-0.2**
HRFI				S	**Sn**	**08 52 36.8**	**-0.5**
QRNJ	**Al-Qirein**	**1.21**	**9**	P	**Pn**	**08 52 22.0**	**0.0**
QRNJ				AML	AML		
YTVT	**Yotvata**	**1.27**	**191**	P	**Pg**	**08 52 22.1**	**-0.1**
YTVT				S	**Sn**	**08 52 41.5**	**+0.8**
MMLI	**Mount Malkishu**	**1.29**	**3**	P	**Pg**	**08 52 22.5**	**-0.2**
MMLI				S	**Sn**	**08 52 41.1**	**-0.2**
AQBJ	**Aqaba**	**1.43**	**190**	P	**Pb**	**08 52 25.5**	**0.0**
AQBJ				AML	AML		
OFRI	**`Ofer**	**1.50**	**348**	P	**Pn**	**08 52 25.3**	**-0.8**
OFRI				S	**Sg**	**08 52 45.7**	**-0.6**
EIL	**Elat**	**1.51**	**193**	P	**Pg**	**08 52 26.5**	**-0.3**
EIL				AML	AML		
EIL	**Elat**	**1.51**	**193**	P	**Pn**	**08 52 25.3**	**-0.9**
EIL				S	**Sn**	**08 52 46.9**	**+0.4**
ASF	**Jabal al Asfar**	**1.65**	**51**	P	**Pb**	**08 52 29.8**	**+0.1**
MMA0B	**Mount Meron ar**	**1.87**	**2**	P	**Pn**	**08 52 30.9**	**-0.3**
MMA0B				S	**Sn**	**08 52 55.6**	**0.0**
GEM	**Giv'at Ha'Em**	**2.08**	**7**	P	**Pn**	**08 52 33.8**	**-0.3**
GEM				S	**Sn**	**08 53 00.9**	**+0.2**
NATI	**Neve Ativ**	**2.14**	**9**	P	**Pn**	**08 52 34.9**	**0.0**
NATI				S	**Sn**	**08 53 02.6**	**+0.5**

*ISK **05** 08:53:45.8, 37.°85N×26.°92E, h5km, ML2.7/14*
*THE **05** 08:53:46.7, 37.°9N±0.°8×26.°9E±0.°9, h4km±2km, M2.6/6, MLh2.6/6*
*AFAD **05** 08:53:46.6, 37.°86N×26.°91E, h8km±2km, ML2.1*
ISC 05 08:53:47.0±0.8, **37.°86N**±0.°02×**26.°92E**±0.°02, **h12**km±6km, **n30**, σ0°**79**/51, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**203**	P	**Pg**	**08 53 50.0**	**-0.7**
SMG				S	**Sg**	**08 53 52.7**	**-0.6**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**352**	P	**Pg**	**08 53 50.7**	**-0.6**
DGB				IAML		08 53 54.0	
	comp=N,682nm,0.5s						
DGB				IAML		08 53 54.0	
	comp=E,460nm,0.3s						
DGB				S	**Sg**	**08 53 54.1**	**-0.2**
GMLD	**Gumuldur**	**0.22**	**360**	Pg	**Pg**	**08 53 51.3**	**-0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**89**	Pg	**Pg**	**08 53 52.8**	**-0.2**
KUSD				Sg	**Sg**	**08 53 57.6**	**+0.6**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**121**	P	**Pg**	**08 53 52.9**	**-0.1**
GCAM				IAML	**S**	**08 53 58.0**	**+1.0**
	comp=N,646nm,0.4s						
GCAM				IAML	**S**	**08 53 58.0**	**+1.0**
	comp=E,572nm,0.3s						
GCAM				S	**S**	**08 53 58.0**	**+1.0**
GCAM	**G?zelcaml?**	**0.29**	**121**	Pg	**Pg**	**08 53 52.7**	**-0.3**
GCAM				Sg	**Sb**	**08 53 57.8**	**-1.2**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**1**	P	**Pg**	**08 53 53.7**	**-0.7**
BEYE				S	**Sg**	**08 53 59.5**	**+0.1**
BEYE				IAML		08 54 00.0	
	comp=N,367nm,0.6s						
BEYE				IAML		08 54 00.0	
	comp=E,461nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**320**	P	**Pg**	**08 53 55.8**	**-1.0**
ZEYE				S	**Sg**	**08 54 03.5**	**0.0**
ZEYE				IAML		08 54 04.0	
	comp=N,684nm,0.1s						
ZEYE				IAML		08 54 04.0	
	comp=E,279nm,0.2s						
BLCB	**Balcova**	**0.54**	**11**	P	**Pg**	**08 53 57.1**	**-0.4**
BLCB				S	**Sg**	**08 54 04.6**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**11**	Pg	**Pg**	**08 53 56.8**	**-0.7**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**49**	P	**Pg**	**08 53 57.5**	**-0.4**
DUVT				S	**Sg**	**08 54 04.8**	**-0.5**
DUVT				IAML		08 54 09.0	
	comp=E,353nm,0.4s						
DUVT				IAML		08 54 25.0	
	comp=N,0.7nm,1.4s						
AYDB	**Zeytinkoy-Aydi**	**0.78**	**83**	Pg	**Pg**	**08 54 01.9**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.79**	**104**	P	**Pg**	**08 54 01.8**	**-0.4**
AYDN				S	**Sb**	**08 54 12.7**	**-0.6**
AYDN				IAML		08 54 16.0	
	comp=E,130nm,0.6s						
AYDN				IAML		08 54 17.0	
	comp=N,97nm,0.2s						
KRBN	**Karaburun**	**0.79**	**339**	Pg	**Pb**	**08 54 02.5**	**-0.2**
BODT	**Bodrum**	**0.85**	**158**	P	**Pg**	**08 54 02.7**	**-0.7**
BODT				S	**Sb**	**08 54 15.1**	**+0.1**
BODT				AML	AML		
CHOS	**Chios island**	**0.86**	**308**	P	**Pg**	**08 54 03.4**	**-0.2**
CHOS				S	**Sg**	**08 54 15.2**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**308**	Pg	**Pg**	**08 54 03.6**	**-0.1**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.87**	**71**	P	**Pb**	**08 54 03.8**	**-0.2**
IZMR				P	**Pg**	**08 54 03.9**	**+0.2**
IZMR				S	**Sg**	**08 54 13.8**	**-1.2**
IZMR				S	**Sb**	**08 54 14.2**	**-1.3**
IZMR				IAML		08 54 17.0	
	comp=N,34nm,0.3s						
IZMR				IAML		08 54 18.0	
	comp=E,45nm,0.5s						
IZMR				IAML		08 54 20.0	
	comp=E,37nm,0.8s						
IZMR				IAML		08 54 23.0	
	comp=N,32nm,0.5s						
FOCM	**Foa**	**0.87**	**350**	Pg	**Pb**	**08 54 03.9**	**-0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**334**	P	**Pg**	**08 54 04.2**	**-0.1**
KARB				S	**Sb**	**08 54 17.4**	**+0.9**
KARB				IAML		08 54 19.0	
	comp=N,81nm,0.4s						
KARB				IAML		08 54 19.0	
	comp=E,99nm,0.4s						
CAMT	**Merkez**	**0.94**	**19**	P	**Pg**	**08 54 02.2**	**-3.1**
CAMT				S	**Sb**	**08 54 18.9**	**+1.1**
CAMT				IAML		08 54 21.0	
	comp=N,165nm,0.4s						
CAMT				IAML		08 54 22.0	
	comp=E,130nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.09**	**84**	Pn	**Pb**	**08 54 07.7**	**-0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.16**	**42**	Pn	**Pn**	**08 54 09.5**

BLCB				S	**Sg**	**09 04 34.4**	**0.0**		
BLCB				AML	AML				
BLCB	**Balcova**	**0.61**	**9**	Pg	**Pg**	**09 04 25.9**	**-0.5**		
BLCB				AML	AML				
AYDN	**Tasoluk**	**0.77**	**99**	P	**Pg**	**09 04 29.1**	**-0.3**		
AYDN				S	**Sn**	**09 04 42.8**	**-0.5**		
AYDN				IAML		09 04 43.0			
	comp=N,143nm,0.3s								
AYDN				IAML		09 04 43.0			
	comp=E,197nm,0.4s								
AYDB	**Zeytinkoy-Aydi**	**0.78**	**78**	Pg	**Pg**	**09 04 29.6**	**-0.1**		
AYDB				AML	AML				
BODT	**Bodrum**	**0.78**	**157**	P	**Pg**	**09 04 29.2**	**-0.4**		
BODT				S	**Sb**	**09 04 40.9**	**-0.2**		
BODT				AML	AML				
BDRM	**Kayabasi**	**0.83**	**150**	P	**Pb**	**09 04 31.0**	**-0.2**		
BDRM				S	**Sb**	**09 04 43.3**	**+0.9**		
BDRM				IAML		09 04 46.0			
	comp=N,218nm,0.6s								
BDRM				IAML		09 04 46.0			
	comp=E,146nm,0.5s								
KRBN	**Karaburun**	**0.86**	**340**	Pg	**Pb**	**09 04 31.9**	**+0.1**		
KRBN				AML	AML				
BAGT	**Foa**	**0.87**	**356**	P	**Pb**	**09 04 31.9**	**-0.1**		
BAGT				S	**Sb**	**09 04 44.9**	**+1.1**		
BAGT				IAML		09 04 45.0			
	comp=E,351nm,0.7s								
BAGT				IAML		09 04 46.0			
	comp=N,403nm,0.5s								
IZMR	**zmir-demi**	**0.88**	**66**	P	**Pb**	**09 04 32.0**	**-0.1**		
IZMR				S	**Sg**	**09 04 42.9**	**-0.2**		
IZMR				IAML		09 04 48.0			
	comp=N,136nm,0.7s								
CHOS	**Chios island**	**0.92**	**312**	P	**Pg**	**09 04 31.5**	**-0.8**		
CHOS				S	**Sb**	**09 04 45.3**	**+0.2**		
CHOS				AML	AML				
CHOS	**Chios island**	**0.92**	**312**	Pg	**Pg**	**09 04 31.8**	**-0.5**		
CHOS				AML	AML				
FOCM	**Foa**	**0.94**	**351**	Pg	**Pb**	**09 04 33.2**	**+0.1**		
FOCM				AML	AML				
KARB	**zmir-Karabur**	**0.97**	**335**	P	**Pb**	**09 04 33.5**	**-0.1**		
KARB				S	**Sb**	**09 04 47.2**	**+0.6**		
KARB				IAML		09 04 49.0			
	comp=N,184nm,0.3s								
KARB				IAML		09 04 50.0			
	comp=E,285nm,0.5s								
CAMT	**Merkez**	**1.01**	**17**	P	**Pn**	**09 04 34.8**	**-0.2**		
CAMT				S	**Sn**	**09 04 49.0**	**-0.4**		
CAMT				IAML		09 04 50.0			
	comp=E,322nm,0.4s								
CAMT				IAML		09 04 55.0			
	comp=N,350nm,0.5s								
NAZL	**Nazilli-Aydin**	**1.09**	**80**	Pn	**Pg**	**09 04 35.1**	**-0.6**		
NAZL				AML	AML				
ESEN	**Aydn-Nazilli**	**1.13**	**89**	P	**Pg**	**09 04 36.0**	**-0.3**		
ESEN				S	**Sn**	**09 04 53.3**	**+1.1**		
ZEDA	**zmir-Bergama**	**1.19**	**6**	P	**Pg**	**09 04 36.8**	**-0.7**		
ZEDA				S	**Sn**	**09 04 53.6**	**-0.1**		
ZEDA				IAML		09 04 55.0			
	comp=N,127nm,0.6s								
ZEDA				IAML		09 04 56.0			
	comp=E,201nm,0.6s								
GOMA	**Golmarmara-Man**	**1.21**	**40**	Pn	**Pn**	**09 04 37.9**	**+0.2**		
GOMA				AML	AML				
KIRA	**zmir-Kiraz**	**1.23**	**70**	P	**Pg**	**09 04 38.0**	**-0.4**		
YER	**Yerkesik**	**1.26**	**121**	P	**Pn**	**09 04 38.5**	**0.0**		
DKL	**Dikili**	**1.29**	**359**	Pn	**Pb**	**09 04 38.9**	**-0.1**		
DKL				AML	AML				
KTTT	**Salihli**	**1.29**	**45**	P	**Pg**	**09 04 39.7**	**+0.3**		
KTTT				S	**Sb**	**09 04 55.8**	**0.0**		
AKHS	**Akhisar**	**1.30**	**32**	P	**Pg**	**09 04 39.3**	**-0.3**		
AKHS				S	**Sn**	**09 04 56.9**	**+0.4**		
AKHS				IAML		09 05 00.0			
	comp=N,133nm,0.4s								
AKS	**Akhisar**	**1.30**	**32**	Pn	**Pg**	**09 04 39.5**	**-0.1**		
AKS				AML	AML				
APE	**Apeiranthos**	**1.32**	**238**	P	**Pn**	**09 04 38.7**	**-0.6**		
APE				S	**Sn**	**09 04 58.4**	**+1.3**		
APE				AML	AML				
SOMA	**Soma-Manisa**	**1.45**	**19**	Pn	**Pb**	**09 04 41.7**	**-0.2**		
SOMA				AML	AML				
GORD	**Gordes-Manisa**	**1.49**	**41**	Pn	**Pb**	**09 04 42.2**	**-0.4**		
GORD				AML	AML				
AYVA	**Ayvalik**	**1.54**	**353**	P	**Pg**	**09 04 44.3**	**+0.2**		
AYVA				S	**Sg**	**09 05 05.7**	**+1.7**		
AYVA				IAML		09 05 08.0			
	comp=N,114nm,0.4s								
AYVA				IAML		09 05 14.0			
	comp=E,68nm,0.6s								
PRK	**Paraskevi**	**1.55**	**341**	P	**Pn**	**09 04 42.6**	**+0.2**		
PRK				S	**Sg**	**09 05 04.0**	**-0.5**		

*EST **05** 09:17:18.9±0.1,59°.25N×27°.70E,h0km,ML1.6(HEL), Explosion*
*LVSN **05** 09:17:18.6±2.6,59°.40N×27°.72E,h0km±15km,ML1.6, Presumed earthquake*

HEL 05 09:17:17.7±0.4,59°.24N×27°.82E,h0km,ML1.7, Suspected explosion,Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
EE04	**Vaivara Sinima**	**0.14**	**11**	*e*P		Pg	09 17 21.7	+1.3
EE04				*e*S		Sg	09 17 24.4	+2.1
EE03	**Tooma soojaam,**	**0.88**	**246**	*e*P		Pg	09 17 33.8	-0.7
EE03				*e*S		Sg	09 17 44.3	-1.6
VSU	**Vasula**	**0.96**	**217**	*e*S		Sn	09 17 53.8	+1.1
VSU				AML		AML	09 17 55.2	
	comp=Z,11nm,0.9s							
VSU				AML		AML	09 17 56.6	
	comp=N,17nm,0.5s							
VSU				AML		AML	09 17 56.8	
	comp=E,16nm,0.4s							
VSU	**Vasula**	**0.96**	**217**	*e*P		Pg	09 17 35.5	-0.6
VJF	**Virojoki**	**1.31**	**354**	*e*P		Pg	09 17 42.1	-0.7
VJF				MSG			09 17 57.4	
	comp=Z,6.5nm,0.2s							
VJF				*e*SB		Sg	09 17 59.3	-0.6
EE08	**Sarghaua, Vand**	**1.46**	**248**	*e*PG		Pn	09 17 44.3	-0.9
EE08				*e*SB		Sg	09 18 02.6	-1.9
EE02	**Kiisa, Saku**	**1.61**	**270**	*e*PG		Pn	09 17 47.1	-0.2
EE02				*e*S		Sn	09 18 06.1	-2.6
PVF	**Pernaja**	**1.64**	**324**	*e*PG		Pn	09 17 47.6	-0.2
PVF				MSG			09 18 07.0	
	comp=Z,3.0nm,0.2s							
PVF				*e*S		Sn	09 18 07.7	-2.0
LAUT	**Lauttasaari He**	**1.76**	**303**	*e*PN		Pn	09 17 49.7	+0.3
LAUT				MSG			09 18 10.3	
	comp=Z,4.8nm,0.2s							
LAUT				*e*SG		Sn	09 18 11.4	-1.1
HEL5	**Espoo, Suvisaa**	**1.80**	**301**	*e*PN		Pn	09 17 50.4	+0.5
HEL5				MSG			09 18 11.3	
	comp=Z,5.9nm,0.2s							
HEL5				*e*SG		Sn	09 18 12.6	-0.8
MEF	**Metsahovi**	**2.00**	**301**	*e*P		Pb	09 17 53.8	-1.0
MEF				*e*S		Sn	09 18 17.9	-0.3
MEF				AML		AML	09 18 19.1	
	comp=E,9.7nm,0.3s							
MEF				AML		AML	09 18 19.1	
	comp=N,23nm,0.3s							
MEF				AML		AML	09 18 32.5	
	comp=Z,9.5nm,0.8s							
MEF	**Metsahovi**	**2.00**	**301**	*e*PG		Pb	09 17 53.8	-1.0
MEF				MSG			09 18 17.1	
	comp=Z,3.7nm,0.2s							
MEF				*e*S		Sn	09 18 17.6	-0.6
NUR	**Nurmijarvi**	**2.05**	**310**	*e*PG		Pb	09 17 54.6	-1.1
NUR				MSG			09 18 18.6	
	comp=Z,4.5nm,0.2s							
NUR				*e*SG		Sn	09 18 19.9	+0.4
MTSE	**Matsula**	**2.14**	**258**	*e*PG		Pb	09 17 56.1	-1.1
MTSE				*e*SG		Sn	09 18 22.8	+1.0
EE01	**Perakula, Nova**	**2.16**	**271**	*e*PB		Pn	09 17 56.0	+1.2
EE01				*e*SG		Sn	09 18 23.2	+0.9
RUF	**Ruokolahti**	**2.27**	**14**	*e*PB		Pb	09 17 58.3	-1.1
RUF				MSG			09 18 24.8	
	comp=Z,1.6nm,0.2s							
RUF				*e*SG		Sg	09 18 29.3	-1.2
FIA0	**FINESS Array S**	**2.38**	**339**	*e*P		Pn	09 17 58.5	+0.5
FIA0				*e*PB		Pb	09 17 59.8	-1.6
FIA0				MSG			09 18 27.9	
	comp=Z,2.0nm,0.2s							
FIA0				*e*SG		Sb	09 18 30.7	-0.5
FIA0				MSG			09 18 32.6	
	comp=Z,1.8nm,0.1s							
FIA1	**FINESS Array S**	**2.38**	**339**	*e*PB		Pb	09 17 59.8	-1.6
FIA1				*e*SG		Sb	09 18 30.7	-0.5
FIA1				MSG			09 18 32.1	
	comp=Z,1.5nm,0.1s							
TVF	**Tvarminne**	**2.41**	**287**	*e*PB		Pb	09 18 00.1	-1.8
TVF				MSG			09 18 29.0	
	comp=Z,3.0nm,0.2s							
TVF				*e*SB		Sn	09 18 29.8	+1.4
EE06	**Soera, Palade,**	**2.58**	**266**	*e*SB		Sb	09 18 34.9	-2.1
RAF	**Rauma**	**3.52**	**303**	*e*P		Pn	09 18 14.6	+1.0
RAF				AML		AML	09 18 20.6	
	comp=E,4.1nm,0.7s							
RAF				AML		AML	09 18 56.3	
	comp=N,3.7nm,0.8s							
RAF				*e*S		Sn	09 18 57.6	+1.8
RAF				AML		AML	09 19 13.0	
	comp=Z,5.1nm,0.8s							
RAF	**Rauma**	**3.52**	**303**	*e*P		Pn	09 18 15.0	+1.5
JOF	**Joensuu**	**4.07**	**23**	*e*P		Pn	09 18 23.1	+2.0

EST 05 09:18:04.5±0.1,59°.40N×26°.53E,h0km,ML1.1(HEL), Explosion,Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
ARBE	**Arbavere**	**0.28**	**278**	*e*P		Pg	09 18 09.8	0.0
ARBE				*e*S		Sg	09 18 12.4	-1.0
EE03	**Tooma soojaam,**	**0.55**	**194**	*e*P		Pg	09 18 14.3	-0.6
EE03				*e*S		Sg	09 18 21.1	-0.8
EE08	**Sarghaua, Vand**	**1.00**	**222**	*e*SB		Sg	09 18 36.2	-0.3
VJF	**Virojoki**	**1.25**	**24**	*e*SN		Sb	09 18 46.0	+0.3
VJF				MSG			09 18 47.0	
	comp=Z,1.6nm,0.1s							
MEF	**Metsahovi**	**1.35**	**308**	*e*S		Sg	09 18 46.0	-1.9
NUR	**Nurmijarvi**	**1.46**	**320**	*e*SN		Sn	09 18 52.0	+0.2
NUR				MSG			09 18 53.1	
	comp=Z,1.1nm,0.1s							
MTSE	**Matsula**	**1.56**	**245**	*e*S		Sn	09 18 52.4	-1.9
TVF	**Tvarminne**	**1.72**	**286**	*e*S		Sn	09 18 56.9	-1.4
FIA0	**FINESS Array S**	**2.06**	**354**	*e*SB		Sn	09 19 06.9	+0.1
RUF	**Ruokolahti**	**2.36**	**30**	*e*SG		Sb	09 19 17.0	-0.5
RUF				MSG			09 19 17.1	
	comp=Z,0.5nm,0.1s							

*NOU **05** 09:19:27.5,38°.12S×175°.77E,h228km,mb3.9/13,North Island, New Zealand*
*WEL **05** 09:19:28.6±0.9,38°.5S±5°.1×177°.6E±1°.1,h228km±8km,M2.9/16, MLv2.9/16,Error ellipse: s-maj=8.6km s-min=6.1km az=88.2*

ISC 05 09:19:24.5±2.2,38°.05S±0°.06×175°.89E±0°.07, h257km±13km,n54,σ1°.47/73,North Island

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
TLZ	**Tolley Road**	**0.39**	**225**	P		**Pn**	**09 19 59.4**	**+1.4**
TOZ	**Tahuroa Road**	**0.44**	**316**	P		**Pn**	**09 19 59.6**	**+1.4**
URZ	**Urewera**	**0.98**	**103**	P		**Pn**	**09 20 00.2**	**0.0**
URZ	**Urewera**	**0.98**	**103**	S		**S**	**09 20 25.2**	**-3.1**
URZ	**Urewera**	**0.98**	**103**	P		**Pn**	**09 20 00.4**	**+0.2**
URZ				S		**S**	**09 20 25.7**	**-2.6**
KRVZ	**Karewarewa**	**1.06**	**191**	P		**Pn**	**09 20 01.0**	**+0.2**
KRVZ				AML		AML		
MTHZ	**Maungataniwha**	**1.09**	**137**	P		**Pn**	**09 20 02.0**	**+1.1**
MTHZ				S		**S**	**09 20 28.3**	**-1.3**
MTHZ				AML		AML		
MKAZ	**Moumakai**	**1.11**	**328**	P		**Pn**	**09 20 02.5**	**+1.5**
SNVZ	**South Ngauruho**	**1.15**	**190**	P		**Pn**	**09 20 03.3**	**+1.9**
BKZ	**Black Stump Fm**	**1.21**	**157**	P		**Pn**	**09 20 02.9**	**+1.3**
BKZ	**Black Stump Fm**	**1.21**	**157**	S		**S**	**09 20 29.0**	**-1.9**
BKZ	**Black Stump Fm**	**1.21**	**157**	P		**Pn**	**09 20 02.8**	**+1.3**
BKZ				S		**S**	**09 20 29.9**	**-1.0**
NMHZ	**Naumai**	**1.27**	**146**	P		**Pn**	**09 20 04.1**	**+2.2**
RAHZ	**Arahi**	**1.27**	**133**	P		**Pn**	**09 20 03.7**	**+1.8**
RAHZ				AML		AML		
MWZ	**Matawai**	**1.32**	**103**	P		**Pn**	**09 20 03.3**	**+1.0**
MWZ				S		**S**	**09 20 30.3**	**-1.8**
ETAZ	**East Tamaki Re**	**1.34**	**325**	P		**Pn**	**09 20 03.8**	**+1.4**
ETAZ				AML		AML		
WIAZ	**Waiheke Island**	**1.39**	**334**	P		**Pn**	**09 20 04.3**	**+1.4**
AWAZ	**Awhitu Peninsu**	**1.40**	**314**	P		**Pn**	**09 20 04.5**	**+1.6**
AWAZ				AML		AML		
KWHZ	**Kaweka Forest**	**1.43**	**163**	P		**Pn**	**09 20 05.1**	**+2.1**
KWHZ				S		**S**	**09 20 33.1**	**-0.5**
ARHZ	**Aropaoanui**	**1.49**	**145**	P		**Pn**	**09 20 05.4**	**+2.0**
ARHZ				S		**S**	**09 20 33.7**	**-0.4**
ARHZ				AML		AML		
MCHZ	**McNeill Hill**	**1.53**	**156**	P		**Pn**	**09 20 05.9**	**+2.2**
MCHZ				S		**S**	**09 20 34.8**	**+0.1**
TKGZ	**Te Karaka**	**1.59**	**105**	P		**Pn**	**09 20 05.3**	**+1.2**
TKGZ				S		**S**	**09 20 33.6**	**-1.8**
TKGZ				AML		AML		
RIGZ	**Rimuhau**	**1.61**	**115**	P		**Pn**	**09 20 05.9**	**+1.5**
RIGZ				S		**S**	**09 20 34.4**	**-1.5**
RIGZ				AML		AML		
KRHZ	**Kereru**	**1.63**	**167**	P		**Pn**	**09 20 06.3**	**+1.7**
KRHZ				S		**S**	**09 20 35.6**	**-0.7**
KRHZ				AML		AML		
TWGZ	**Tauwhareparae**	**1.65**	**95**	P		**Pn**	**09 20 05.9**	**+1.1**
TWGZ				S		**S**	**09 20 35.7**	**-0.8**
TWGZ				AML		AML		
KNZ	**Kokohu**	**1.70**	**125**	P		**Pn**	**09 20 06.4**	**+1.4**
WAZ	**Wanganui**	**1.84**	**202**	P		**Pn**	**09 20 08.0**	**+1.8**
WAZ				AML		AML		
CNGZ	**Carnagh Statio**	**1.87**	**104**	P		**Pn**	**09 20 08.3**	**+1.8**
CNGZ				AML		AML		
PNHZ	**Pukenui**	**1.88**	**173**	P		**Pn**	**09 20 07.9**	**+1.4**
PNHZ				S		**S**	**09 20 38.5**	**-1.3**
PNHZ				AML		AML		
KAHZ	**Kahuranaki**	**1.90**	**156**	P		**Pn**	**09 20 08.7**	**+1.9**
KAHZ				AML		AML		
TSZ	**Takapari Road**	**2.00**	**178**	P		**Pn**	**09 20 09.1**	**+1.4**
TSZ				S		**S**	**09 20 40.5**	**-1.3**
TSZ				AML		AML		
WPHZ	**Waipukurau**	**2.06**	**168**	P		**Pn**	**09 20 09.6**	**+1.5**
WPHZ				S		**S**	**09 20 41.8**	**-0.8**
WPHZ				AML		AML		
OHWZ	**Ohakea**	**2.20**	**192**	P		**Pn**	**09 20 11.5**	**+2.2**
OHWZ				S		**S**	**09 20 45.3**	**+0.5**
OHWZ				AML		AML		
DVHZ	**Dannevirke**	**2.25**	**175**	P		**Pn**	**09 20 10.9**	**+1.1**
DVHZ				AML		AML		
POWZ	**Post Office Ro**	**2.34**	**182**	P		**Pn**	**09 20 11.9**	**+1.3**
POWZ				AML		AML		
ANWZ	**Angora Road**	**2.45**	**170**	P		**Pn**	**09 20 13.3**	**+1.6**
ANWZ				S		**S**	**09 20 48.6**	**-0.5**
ANWZ				AML		AML		
PRWZ	**Pori Road**	**2.50**	**179**	P		**Pn**	**09 20 13.9**	**+1.7**
MRZ	**Mangatainoka R**	**2.62**	**185**	P		**Pn**	**09 20 14.4**	**+1.0**
MRZ				S		**S**	**09 20 50.9**	**-1.3**
BFZ	**Birch Farm**	**2.64**	**174**	P		**Pn**	**09 20 15.2**	**+1.6**
BFZ	**Birch Farm**	**2.64**	**174**	P		**S**	**09 20 51.3**	**-1.4**
BFZ	**Birch Farm**	**2.64**	**174**	P		**Pn**	**09 20 14.9**	**+1.2**
TIWZ	**Tintock**	**2.72**	**180**	P		**Pn**	**09 20 15.7**	**+1.2**
TIWZ				S		**S**	**09 20 53.0**	**-1.2**
OGWZ	**Otaki Gorge**	**2.82**	**191**	P		**Pn**	**09 20 16.8**	**+1.4**
OGWZ				S		**S**	**09 20 54.6**	**-1.3**
HOWZ	**Holdsworth Sta**	**2.86**	**186**	P		**Pn**	**09 20 17.0**	**+1.1**
KIW	**Kapiti Island**	**2.91**	**195**	P		**Pn**	**09 20 17.5**	**+1.1**
PAWZ	**Paruwai Farm**	**3.34**	**186**	P		**Pn**	**09 20 21.9**	**+0.7**
SNZO	**South Karori**	**3.38**	**195**	P		**Pn**	**09 20 22.1**	**+0.6**
SNZO	**South Karori**	**3.38**	**195**	P		**S**	**09 21 05.5**	**-1.3**
TCW	**Tory Channel**	**3.39**	**201**	P		**Pn**	**09 20 22.7**	**+1.1**
QRZ	**Quartz Range**	**3.80**	**222**	P		**Pn**	**09 20 27.1**	**+0.8**
QRZ	**Quartz Range**	**3.80**	**222**	S		**S**	**09 21 13.8**	**-1.6**
KHZ	**Kahutara**	**4.72**	**202**	P		**Pn**	**09 20 37.7**	**+0.7**
KHZ	**Kahutara**	**4.72**	**202**	S		**S**	**09 21 32.6**	**-2.3**
ODZ	**Otahua Downs**	**8.02**	**208**	P		**Pn**	**09 21 18.4**	**+0.5**

*SFS **05** 09:26:04.0,36°.77N×8°.04W,h44km,ML2.8/7,MLv2.8/7, MLv2.7/7*
*MDD **05** 09:26:03.8±0.8,36°.79N×8°.04W,h35km±10km,mb_Lg2.7/6, Error ellipse: s-maj=7.5km s-min=4.0km az=16.0*
*IGIL **05** 09:26:04.5,36°.79N×8°.03W,h22km,ML1.6*
*INMG **05** 09:26:04.3±1.6,36°.79N×8°.02W,h24km±5km,ML1.7,Error ellipse: s-maj=4.9km s-min=3.6km az=24.0, #DIST_RANGE: LOCAL #IPMA_REGION: SW Faro*

ISC 05 09:26:02.8±1.3,36°.78N±0°.06×7°.99W±0°.03,h31km±11km, n36,σ0°.67/58,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
PBDV	**Barranco-do-Ve**	**0.46**	**6**	Pn		**Pn**	**09 26 14.0**	**+0.6**
PBDV	**Barranco-do-Ve**	**0.46**	**6**	*e*P		**Pn**	**09 26 14.0**	**+0.6**
PBDV				*e*S		**Sb**	**09 26 19.9**	**+0.4**
PBDV				IAML			09 26 21.4	
PBDV				IAML			09 26 21.6	
PBDV				IAML			09 26 21.7	
EXAYA	**Ayamonte**	**0.64**	**47**	P		**Pb**	**09 26 15.0**	**-0.6**
EXAYA				S		**Sn**	**09 26 25.2**	**+0.2**
PVAQ	**Vaqueiros**	**0.66**	**19**	*e*P		**Pn**	**09 26 16.6**	**+0.6**
PVAQ				*e*S		**Sn**	**09 26 25.5**	**+0.2**
PVAQ				IAML			09 26 25.9	
PVAQ				IAML			09 26 26.1	
PVAQ				IAML			09 26 26.5	
MORF	**Marmelete**	**0.74**	**315**	*e*P		**Pn**	**09 26 17.4**	**+0.2**
MORF				*e*S		**Sb**	**09 26 26.8**	**-0.3**
MORF				IAML			09 26 27.4	
	comp=E,26nm,0.2s							
MORF	**Marmelete**	**0.74**	**315**	*e*P		**Pn**	**09 26 17.4**	**+0.2**
MORF				*e*S		**Sb**	**09 26 27.0**	**-0.2**
MORF				IAML			09 26 27.4	
MORF				IAML			09 26 28.0	
MORF				IAML			09 26 28.6	
PFVI	**Vila Bisbo**	**0.75**	**298**	Pn		**Pb**	**09 26 17.4**	**0.0**
PFVI				Sn		**Sb**	**09 26 26.9**	**-0.6**
PFVI	**Vila Bisbo**	**0.75**	**298**	*e*P		**Pb**	**09 26 17.5**	**0.0**
PFVI				*e*S		**Sb**	**09 26 27.1**	**-0.3**
PFVI				IAML			09 26 27.7	
PFVI				IAML			09 26 30.0	
PFVI				IAML			09 26 32.5	
PCVE	**Castro Verde**	**0.85**	**358**	Sn		**Sn**	**09 26 30.3**	**+0.2**
PCVE	**Castro Verde**	**0.85**	**358**	*e*S		**Sn**	**09 26 30.4**	**+0.3**
PCVE				IAML			09 26 30.8	
PCVE				IAML			09 26 30.9	
PCVE				IAML			09 26 31.5	
EGRO	**El Granado**	**0.85**	**28**	Pn		**Pb**	**09 26 19.5**	**+0.4**
EGRO				Sn		**Sn**	**09 26 30.4**	**+0.2**
EGRO	**El Granado**	**0.85**	**28**	P		**Pb**	**09 26 19.5**	**+0.4**
EGRO				S		**Sn**	**09 26 30.2**	**0.0**
EGRO				IVmb_Lg			09 26 31.4	
MESJ	**Messejana**	**1.07**	**350**	*e*P		**Pb**	**09 26 22.5**	**-0.3**
MESJ				*e*S		**Sn**	**09 26 35.6**	**+0.1**
MESJ				IAML			09 26 36.7	
	comp=N,6.5nm,0.1s							
MESJ	**Messejana**	**1.07**	**350**	*e*P		**Pb**	**09 26 22.8**	**0.0**
MESJ				*e*S		**Sn**	**09 26 35.8**	**+0.2**
MESJ				IAML			09 26 36.0	
MESJ				IAML			09 26 37.0	
MESJ				IAML			09 26 38.0	
PBEJ	**Beja**	**1.25**	**5**	*e*S		**Sn**	**09 26 40.0**	**+0.2**
PLOUS	**Minas do Lousa**	**1.29**	**345**	*e*P		**Pn**	**09 26 25.3**	**+0.6**
PLOUS				IAML			09 26 37.4	
PLOUS				*e*S		**Sn**	**09 26 40.2**	**-0.8**
PLOUS				IAML			09 26 52.2	
PLOUS				IAML			09 26 54.2	
EMIN	**Mina Concepcio**	**1.44**	**47**	Pn		**Pn**	**09 26 27.2**	**+0.4**
EMIN	**Mina Concepcio**	**1.44**	**47**	P		**Pn**	**09 26 27.2**	**+0.4**
EMIN				S		**Sn**	**09 26 44.9**	**+0.2**
PBAR	**Barrancos**	**1.58**	**28**	Pn		**Pn**	**09 26 29.2**	**+0.5**
PBAR	**Barrancos**	**1.58**	**28**	*e*P		**Pn**	**09 26 29.3**	**+0.5**
PBAR				*e*S		**Sn**	**09 26 48.0**	**-0.2**
PBAR				IAML			09 26 52.6	
ESPR	**Espera**	**1.72**	**86**	Pn		**Pn**	**09 26 31.3**	**+0.8**
ESPR				Sn		**Sn**	**09 26 51.9**	**+0.5**
ESPR	**Espera**	**1.72**	**86**	P		**Pn**	**09 26 31.4**	**+0.8**
ESPR				S		**Sn**	**09 26 51.3**	**-0.1**
ESPR				IVmb_Lg			09 26 52.5	
EVO	**Evora**	**1.75**	**359**	Sn		**Sn**	**09 26 52.0**	**-0.2**
EVO	**Evora**	**1.75**	**359**	*e*S		**Sn**	**09 26 52.2**	**0.0**
PARRA	**Arraiolos**	**2.03**	**359**	*e*P		**Pn**	**09 26 35.5**	**+0.6**
PARRA				*e*S		**Sn**	**09 26 58.2**	**-0.9**
PARRA				IAML			09 26 59.6	
PARRA				IAML			09 27 00.0	
EBAD	**Badajoz**	**2.12**	**21**	Pn		**Pn**	**09 26 36.5**	**+0.4**
EBAD	**Badajoz**	**2.12**	**21**	P		**Pn**	**09 26 36.5**	**+0.4**
EBAD				S		**Sn**	**09 27 00.2**	**-1.1**
EBAD				IVmb_Lg			09 27 06.0	
PMTG	**Montargil**	**2.29**	**355**	*e*P		**Pn**	**09 26 39.1**	**+0.7**
PMTG				*e*S		**Sn**	**09 27 05.6**	**0.0**
PMTG				IAML			09 27 06.0	
PMTG				IAML			09 27 06.1	
PMTG				IAML			09 27 06.3	
ECAB	**El Cabril**	**2.42**	**57**	Pn		**Pn**	**09 26 40.7**	**+0.4**
ECAB	**El Cabril**	**2.42**	**57**	P		**Pn**	**09 26 40.7**	**+0.4**
ECAB				S		**Sn**	**09 27 07.8**	**-1.1**
ECAB				IVmb_Lg			09 27 10.0	
PMRV	**Marv??o**	**2.68**	**10**	*e*S		**Sn**	**09 27 15.3**	**-0.1**
PMRV				IAML			09 27 15.9	
PMRV				IAML			09 27 16.6	
PSBE	**So Bento**	**2.80**	**347**	*e*P		**Pn**	**09 26 46.5**	**+1.0**
EADA	**Adamuz**	**3.05**	**62**	Pn		**Pn**	**09 26 49.5**	**+0.6**
EADA	**Adamuz**	**3.05**	**62**	P		**Pn**	**09 26 49.1**	**+0.2**
EADA				S		**Sn**	**09 27 24.0**	**-0.4**
EADA				IVmb_Lg			09 27 25.5	
PCBR	**Castelo Branco**	**3.08**	**7**	*e*S		**Sn**	**09 27 24.8**

TKGZ	**Te Karaka**	**7.24**	**195**	P	Pn	10 07 42.5	+0.7
TKGZ				S	S	10 09 06.5	0.0
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	**Urewera**	**7.26**	**200**	P	Pn	10 07 41.7	-0.3
URZ				S	S	10 09 07.1	+0.3
URZ				AML	AML		
TOZ	**Tahuroa Road**	**7.37**	**210**	P	Pn	10 07 45.9	+2.5
TOZ				AML	AML		
TOZ				AML	AML		
KNZ	**Kokohu**	**7.84**	**195**	P	Pn	10 07 48.3	-0.6
KNZ				S	S	10 09 19.8	+0.2
KNZ				AML	AML		
RAHZ	**Arahi**	**7.88**	**198**	P	Pn	10 07 48.7	-0.9
RAHZ				S	S	10 09 20.1	-0.5
RAHZ				AML	AML		
RAHZ				AML	AML		
WHHZ	**Waihua**	**7.99**	**197**	P	Pn	10 07 51.0	+0.2
WHHZ				S	S	10 09 23.7	+0.6
NMHZ	**Naumai**	**8.12**	**199**	P	Pn	10 07 51.7	-0.8
NMHZ				S	S	10 09 27.2	+1.0
NMHZ				AML	AML		
BKZ	**Black Stump Fm**	**8.28**	**200**	P	Pn	10 07 52.0	-2.4
BKZ				S	S	10 09 30.2	+0.6
MCHZ	**McNeill Hill**	**8.48**	**199**	P	Pn	10 07 55.2	-1.6
MCHZ				S	S	10 09 32.7	-1.3
KWHZ	**Kaweka Forest**	**8.54**	**200**	P	Pn	10 07 55.0	-2.6
KWHZ				S	S	10 09 35.0	-0.4
KRHZ	**Kereru**	**8.76**	**200**	P	Pn	10 07 56.6	-3.6
KRHZ				S	S	10 09 36.6	-3.6
VRZ	**Vera Road**	**8.86**	**209**	P	Pn	10 08 00.2	-1.2

*AFAD **05** 10:24:46.8,37.°84N×26.°86E,h7km±2km,ML2.4*
*ISK **05** 10:24:47.5,37.°87N×26.°93E,h12km,ML2.7/13*
*THE **05** 10:24:47.4,37.°9N±0.°8×2.°7E±°,h5km±2km,M2.7/8,*
ML2.7/8
ISC 05 10:24:47.4±0.8,**37.°85N**±0.°02×**26.°90E**±0.°02,**h12**km±6km,
n34,σ0**s53**/53,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**198**	P	**Pg**	**10 24 50.6**	**-0.4**
SMG				S	**Sg**	**10 24 52.9**	**-0.6**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**357**	P	**Pg**	**10 24 51.4**	**-0.4**
DGB				S	**Sg**	**10 24 54.9**	**+0.1**
DGB				IAML		10 24 56.0	
	comp=N,400nm,0.3s						
DGB				IAML		10 24 56.0	
	comp=E,720nm,0.2s						
GMLD	**Gumuldur**	**0.23**	**4**	Pg	**Pg**	**10 24 52.5**	**+0.3**
GMLD				Sg	**Sg**	**10 24 56.3**	**+0.8**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**119**	P	**Pg**	**10 24 53.6**	**0.0**
GCAM				S	**Sb**	**10 24 58.9**	**-0.8**
GCAM				IAML		10 24 59.0	
	comp=N,1μm,0.2s						
GCAM				IAML		10 24 59.0	
	comp=E,908nm,0.4s						
GCAM	**G?zelcaml?**	**0.31**	**119**	Pg	**Pg**	**10 24 54.1**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**88**	Pg	**Pg**	**10 24 53.4**	**-0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**4**	P	**Pg**	**10 24 54.5**	**-0.4**
BEYE				S	**Sg**	**10 25 00.4**	**+0.4**
BEYE				IAML		10 25 04.0	
	comp=E,333nm,0.2s						
BEYE				IAML		10 25 05.0	
	comp=N,305nm,0.3s						
DDIM	**Aydin, Didim**	**0.48**	**145**	P	**Pg**	**10 24 56.7**	**-0.1**
DDIM				S	**Sb**	**10 25 04.7**	**0.0**
DDIM				IAML		10 25 05.0	
	comp=N,540nm,0.8s						
DDIM				IAML		10 25 07.0	
	comp=E,313nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**322**	P	**Pg**	**10 24 56.3**	**-0.8**
ZEYE				S	**Sg**	**10 25 03.7**	**-0.1**
ZEYE				IAML		10 25 04.0	
	comp=N,618nm,0.2s						
ZEYE				IAML		10 25 08.0	
	comp=E,276nm,0.4s						
BLCB	**Balcova**	**0.55**	**12**	P	**Pg**	**10 24 57.8**	**-0.3**
BLCB				S	**Sg**	**10 25 05.3**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**12**	Pg	**Pg**	**10 24 57.8**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**50**	P	**Pg**	**10 24 58.3**	**-0.3**
DUVT				S	**Sg**	**10 25 05.9**	**-0.2**
DUVT				IAML		10 25 11.0	
	comp=E,528nm,0.5s						
DUVT				IAML		10 25 26.0	
	comp=N,1.0nm,1.1s						
CESE	**eme**	**0.67**	**316**	Pg	**Pb**	**10 25 01.6**	**+0.6**
CESE				AML	AML		
DAGE	**izmir**	**0.69**	**77**	P	**Pg**	**10 25 00.9**	**0.0**
DAGE				IAML		10 25 13.0	
	comp=N,203nm,0.2s						
DAGE				IAML		10 25 13.0	
	comp=E,240nm,0.2s						
KRBN	**Karaburun**	**0.79**	**340**	Pg	**Pb**	**10 25 03.2**	**+0.2**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**83**	Pg	**Pg**	**10 25 02.6**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.80**	**103**	P	**Pg**	**10 25 02.2**	**-0.8**
AYDN				S	**Sb**	**10 25 14.3**	**+0.3**
AYDN				IAML		10 25 18.0	
	comp=N,127nm,0.3s						
AYDN				IAML		10 25 19.0	
	comp=E,102nm,0.3s						
BAGT	**Foa**	**0.81**	**358**	P	**Pg**	**10 25 01.4**	**-1.5**
BAGT				IAML		10 25 17.0	
	comp=N,412nm,0.5s						
BAGT				IAML		10 25 17.0	
	comp=E,351nm,0.6s						
CHOS	**Chios island**	**0.85**	**309**	P	**Pg**	**10 25 03.2**	**-0.6**
CHOS				S	**Sb**	**10 25 15.6**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**309**	Pg	**Pg**	**10 25 04.1**	**+0.2**
CHOS				AML	AML		
BODT	**Bodrum**	**0.85**	**157**	P	**Pg**	**10 25 03.3**	**-0.6**
BODT				S	**Sb**	**10 25 16.3**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**157**	Pg	**Pb**	**10 25 04.3**	**+0.2**
BODT				AML	AML		
FOCM	**Foa**	**0.87**	**352**	Pg	**Pg**	**10 25 04.4**	**+0.2**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.88**	**71**	P	**Pg**	**10 25 03.9**	**-0.5**
IZMR				P	**Pb**	**10 25 04.2**	**-0.4**
IZMR				S	**Sg**	**10 25 15.6**	**-0.4**
IZMR				IAML		10 25 19.0	
	comp=N,60nm,0.4s						
IZMR				IAML		10 25 19.0	
	comp=E,73nm,0.5s						
IZMR				IAML		10 25 19.0	
	comp=N,75nm,0.4s						
IZMR				IAML		10 25 19.0	
	comp=E,69nm,0.5s						
MLSB	**Milas**	**0.89**	**128**	Pg	**Pb**	**10 25 04.9**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.90**	**151**	P	**Pg**	**10 25 04.3**	**-0.4**
BDRM				S	**Sb**	**10 25 17.6**	**+0.9**
BDRM				IAML		10 25 20.0	
	comp=E,274nm,0.4s						
BDRM				IAML		10 25 21.0	
	comp=N,308nm,0.8s						
KARB	**zmir-Karabur**	**0.90**	**335**	P	**Pg**	**10 25 03.4**	**-1.3**
KARB				S	**Sg**	**10 25 16.7**	**+0.3**
KARB				IAML		10 25 19.0	
	comp=N,133nm,0.3s						
KARB				IAML		10 25 20.0	
	comp=E,219nm,0.5s						
CAMT	**Merkez**	**0.95**	**20**	P	**Pg**	**10 25 05.4**	**-0.4**
CAMT				S	**Sn**	**10 25 20.4**	**+0.3**
CAMT				IAML		10 25 22.0	
	comp=N,350nm,0.6s						
CAMT				IAML		10 25 24.0	
	comp=E,254nm,0.3s						
GOMA	**Golmarmara-Man**	**1.18**	**43**	Pn	**Pb**	**10 25 10.0**	**+0.4**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**0**	Pn	**Pg**	**10 25 10.7**	**-0.1**
DKL				AML	AML		
DAT	**Datca**	**1.25**	**154**	P	**Pg**	**10 25 11.0**	**-0.3**
DAT				AML	AML		
YER	**Yerkesik**	**1.31**	**122**	P	**Pn**	**10 25 11.6**	**0.0**
APE	**Apeiranthos**	**1.34**	**235**	P	**Pn**	**10 25 11.4**	**-0.5**
APE				S	**Sb**	**10 25 30.3**	**+0.9**
APE				AML	AML		
PRK	**Paraskevi**	**1.48**	**341**	P	**Pn**	**10 25 13.7**	**0.0**
PRK				S	**Sg**	**10 25 34.6**	**-0.3**

*AFAD **05** 10:37:15.0,37.°91N×26.°91E,h7km±1km,ML2.2*
*THE **05** 10:37:15.6,38.°N±1.°×2.°7E±°,h3km±2km,M2.5/6,MLh2.5/6*
*ISK **05** 10:37:15.5,37.°95N×26.°98E,h5km,ML2.6/12*
ISC 05 10:37:15.7±0.9,**37.°94N**±0.°02×**26.°94E**±0.°03,**h12**km±6km,
n28,σ0**s59**/47,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.12**	**340**	P	**Pg**	**10 37 18.6**	**-0.3**
DGB				S	**Sg**	**10 37 20.6**	**-0.5**
DGB				IAML		10 37 21.0	
	comp=N,713nm,0.2s						
DGB				IAML		10 37 21.0	
	comp=E,517nm,0.2s						
GMLD	**Gumuldur**	**0.14**	**354**	Pg	**Pg**	**10 37 19.0**	**-0.1**
GMLD				Sg	**Sg**	**10 37 21.5**	**-0.1**
GMLD				AML	AML		
SMG	**Samos**	**0.24**	**199**	P	**Pg**	**10 37 20.5**	**-0.3**
SMG				S	**Sg**	**10 37 24.2**	**+0.1**
SMG				AML	AML		
BEYE	**izmir**	**0.29**	**359**	P	**Pg**	**10 37 21.4**	**-0.3**
BEYE				S	**Sg**	**10 37 26.0**	**+0.3**
BEYE				IAML		10 37 26.0	
	comp=E,248nm,0.2s						
BEYE				IAML		10 37 28.0	
	comp=N,251nm,0.4s						
GCAM	**G?zelcaml?**	**0.33**	**135**	P	**Pg**	**10 37 22.1**	**-0.3**
GCAM				IAML		10 37 27.0	
	comp=N,973nm,0.4s						
GCAM				IAML		10 37 27.0	
	comp=E,568nm,0.1s						
GCAM				S	**Sg**	**10 37 27.2**	**+0.3**
GCAM	**G?zelcaml?**	**0.33**	**135**	Pg	**Pg**	**10 37 22.2**	**-0.2**
GCAM				Sg	**Sg**	**10 37 27.2**	**+0.3**
GCAM				AML	AML		
BLCB	**Balcova**	**0.46**	**11**	P	**Pg**	**10 37 24.3**	**-0.4**
BLCB				S	**Sg**	**10 37 30.5**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.46**	**11**	Pg	**Pg**	**10 37 24.4**	**-0.3**
BLCB				Sg	**Sg**	**10 37 30.9**	**+0.1**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.46**	**312**	P	**Pg**	**10 37 24.0**	**-0.7**
ZEYE				S	**Sg**	**10 37 31.0**	**+0.2**
ZEYE				IAML		10 37 31.0	
	comp=N,1μm,0.2s						
ZEYE				IAML		10 37 31.0	
	comp=E,620nm,0.2s						
DUVT	**Torbali**	**0.49**	**55**	P	**Pg**	**10 37 25.0**	**-0.4**
DUVT				S	**Sg**	**10 37 31.8**	**-0.3**
DUVT				IAML		10 37 32.0	
	comp=E,276nm,0.2s						
DDIM	**Aydin, Didim**	**0.54**	**153**	P	**Pg**	**10 37 25.8**	**-0.4**
DDIM				S	**Sg**	**10 37 33.3**	**+0.1**
DDIM				IAML		10 37 34.0	
	comp=N,124nm,0.3s						
DDIM				IAML		10 37 34.0	
	comp=E,167nm,0.2s						
CESE	**eme**	**0.64**	**308**	Pg	**Pb**	**10 37 28.7**	**-0.1**
CESE				AML	AML		
KRBN	**Karaburun**	**0.72**	**336**	Pg	**Pg**	**10 37 29.9**	**+0.2**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.76**	**89**	Pg	**Pg**	**10 37 29.7**	**-0.7**
AYDB				AML	AML		
FOCM	**Foa**	**0.79**	**348**	Pg	**Pg**	**10 37 31.1**	**0.0**
FOCM				AML	AML		
CHOS	**Chios island**	**0.83**	**303**	P	**Pg**	**10 37 31.2**	**-0.5**
CHOS				S	**Sb**	**10 37 43.3**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**303**	Pg	**Pb**	**10 37 32.4**	**+0.3**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.84**	**331**	P	**Pg**	**10 37 30.8**	**-1.1**
KARB				S	**Sb**	**10 37 43.3**	**-0.1**
KARB				IAML		10 37 45.0	
	comp=N,99nm,0.2s						
KARB				IAML		10 37 47.0	
	comp=E,80nm,0.4s						
CAMT	**Merkez**	**0.86**	**20**	P	**Pg**	**10 37 31.6**	**-0.9**
CAMT				S	**Sb**	**10 37 44.8**	**+0.5**
CAMT				IAML		10 37 46.0	
	comp=E,143nm,0.7s						
CAMT				IAML		10 37 51.0	
	comp=N,113nm,0.5s						
BODT	**Bodrum**	**0.92**	**161**	P	**Pg**	**10 37 32.5**	**-0.9**
BODT				S	**Sb**	**10 37 46.0**	**+0.2**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.96**	**155**	P	**Pg**	**10 37 32.5**	**-1.6**
BDRM				IAML		10 37 46.0	
	comp=E,69nm,0.7s						
BDRM				S	**Sg**	**10 37 46.9**	**+0.2**
BDRM				IAML		10 37 49.0	
	comp=N,73nm,0.2s						
ZEDA	**zmir-Bergama**	**1.04**	**6**	P	**Pg**	**10 37 33.8**	**-1.9**
ZEDA				S	**Sb**	**10 37 50.2**	**+1.1**
ZEDA				IAML		10 37 53.0	
	comp=N,45nm,0.4s						
ZEDA				IAML		10 37 53.0	
	comp=E,65nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.07**	**88**	Pg	**Pg**	**10 37 36.0**	**-0.4**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.09**	**45**	Pg	**Pg**	**10 37 36.1**	**-0.6**
AKS	**Akhisar**	**1.17**	**36**	Pn	**Pg**	**10 37 37.6**	**-0.6**
AKS				AML	AML		
GORD	**Gordes-Manisa**	**1.38**	**45**	Pn	**Pb**	**10 37 41.6**	**+0.2**
GORD				AML	AML		
PRK	**Paraskevi**	**1.41**	**339**	P	**Pb**	**10 37 42.2**	**+0.3**
PRK				S	**Sg**	**10 38 00.8**	**-0.3**
PRK				AML	AML		
APE	**Apeiranthos**	**1.41**	**233**	P	**Pn**	**10 37 41.7**	**+0.4**
APE				S	**Sg**	**10 38 01.2**	**0.0**

*IDC **05** 10:39:27.5±0.7,31.°96N×49.°06E,h0km,mb4.2/27,*
mbtmp4.2/33,ML4.1/6,MS3.6/17,Error ellipse:
s-maj=16.7km s-min=8.9km az=173.0
*BJI **05** 10:39:27.0,31.°90N×49.°00E,h5km,mb4.6/14*
*MOS **05** 10:39:28.2±1.3,31.°96N×49.°01E,h13km,mb4.7/27,Error*
ellipse: s-maj=7.9km s-min=4.1km az=111.5
*TEH **05** 10:39:29.5,31.°92N×49.°02E,h11km±14km,ML4.4,*
Presumed earthquake
*NEIC **05** 10:39:29.8±2.3,31.°92N±0.°07×49.°08E±0.°07,h10km±1km,*
mb4.7/27,Error ellipse: s-maj=12.8km s-min=9.8km
az=204.0
*GFZ **05** 10:39:30.9±0.3,32.°N±5.°×4.°9E±°,h10km,M4.7/23,*
mb4.7/23
*THR **05** 10:39:31.6±0.0,31.°91N×49.°10E,h23km±2km,ML4.5,*
Presumed earthquake
*OMAN **05** 10:39:37.1±0.3,31.°60N×49.°23E,h112km±5km,mb4.0/31,*
Error ellipse: s-maj=3.4km s-min=1.9km az=17.0
*DSN **05** 10:39:39.3±2.0,31.°27N×49.°23E,h30km,ML4.2/12,Error*
ellipse: s-maj=26.2km s-min=9.4km az=1.0
ISC 05 10:39:29.8±0.9,**31.°85N**±0.°03×**48.°99E**±0.°03,**h16**km±5km,
n357,σ1**s84**/376,**mb4.5**/89,**MS3.7**/16,**22C-19D**,**Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AMIS	**Naft Sefid**	**0.32**	**126**	Pg	**Pb**	**10 39 37.5**	**+0.4**
AHWZ	**Ahwaz**	**0.60**	**209**	Pg	**Pn**	**10 39 43.7**	**+0.2**
GTMR	**Gotvand**	**0.62**	**10**	*e*Pg	**Pg**	**10 39 41.0**	**-1.1**
GTMR				*i* S	**Sg**	**10 39 49.3**	**-1.1**
GTMR				IAML		10 39 55.7	
	comp=Z,43μm,1.0s						
JHBN	**Jahan bin**	**1.47**	**75**	Pg	**Pb**	**10 39 57.2**	**+0.2**
ZNGN	**Zangian**	**1.61**	**80**	Pg	**Pg**	**10 40 00.4**	**-0.3**
ZNGN				Sg	**Sg**	**10 40 23.6**	**+1.9**
ABEH	**Behbahan**	**1.65**	**139**	Pg	**Pg**	**10 40 01.7**	**+0.1**
IPIR	**Pirpir**	**1.81**	**62**	Pg	**Pb**	**10 40 03.1**	**+0.3**
IKFM	**Kafar-mosalman**	**1.92**	**330**	Pn	**Pb**	**10 40 04.7**	**+0.3**
IBRJ	**Brojen**	**1.93**	**88**	Pn	**Pb**	**10 40 05.3**	**+0.5**
IDOB	**Doab**	**2.05**	**341**	Pn	**Pb**	**10 40 06.2**	**-0.4**
KHMZ	**Khomeyn**	**2.05**	**23**	*e*Pn	**Pb**	**10 40 07.1**	**+0.3**
KHMZ				IAML		10 40 38.5	
	comp=Z,3μm,1.0s						
KLNJ	**Kolanjah**	**2.38**	**110**	*e*Pn	**Pb**	**10 40 11.1**	**-1.3**
KLNJ				IAML		10 40 59.0	
	comp=Z,720nm,1.0s						
KLNJ	**Kolanjah**	**2.38**	**110**	Pn	**Pb**	**10 40 11.7**	**-0.8**
IKLH	**Kolahrood**	**2.63**	**56**	Pn	**Pb**	**10 40 14.5**	**-2.1**
ASAO	**Ashtian**	**2.82**	**18**	*e*Pn	**Pb**	**10 40 18.1**	**-1.9**
ASAO				IAML		10 41 07.3	
	comp=Z,2μm,1.0s						
IRAM	**Rameshеh**	**2.89**	**90**	Pn	**Pn**	**10 40 18.1**	**+2.8**
KBD	**Kabd**	**2.89**	**203**	P	**Pb**	**10 40 20.1**	**-0.9**
KBD				S	**Sb**	**10 40 53.8**	**-2.4**
KCHF	**Cheshme Sefid,**	**2.92**	**326**	Pn	**Pn**	**10 40 18.3**	**+2.6**
ILBA	**Ilam Banvizeh**	**2.93**	**308**	*e*Pn	**Pn**	**10 40 18.0**	**+2.2**
ILBA				IAML		10 41 18.5	
	comp=Z,1μm,1.0s						
ILBA	**Ilam Banvizeh**	**2.93**	**308**	Pn	**Pn**	**10 40 18.0**	**+2.2**
IGHG	**Ghaleghazi**	**3.20**	**321**	Pn	**Pn**	**10 40 22.7**	**+3.1**
KAZ2	**Kazeron-Fars-I**	**3.21**	**133**	Pn	**Pn**	**10 40 23.1**	**+3.6**
IQOM	**Qom**	**3.45**	**30**	Pn	**Pn**	**10 40 25.6**	**+2.5**
SNGE	**Sanandaj**	**3.51**	**337**	*e*Pn	**Pn**	**10 40 26.4**	**+2.6**
SNGE				IAML		10 41 30.5	
	comp=Z,1μm,1.0s						
ISFB	**Sefidab**	**3.70**	**47**	Pn	**Pn**	**10 40 28.4**	**+2.1**
QABG	**Abgarm-Qazvin**	**3.88**	**7**	Pn	**Pn**	**10 40 31.4**	**+2.5**
IVRN	**Varamin**	**3.88**	**35**	Pn	**Pn**	**10 40 31.3**	**+2.5**
DSBU	**Dashti - Bushe**	**4.00**	**150**	Pn	**Pn**	**10 40 33.7**	**+3.3**
TAFT	**Taft - Yazd**	**4.42**	**90**	Pn	**Pn**	**10 40 38.9**	**+2.6**
CHTH	**Charan**	**4.42**	**23**	*e*Pn	**Pn**	**10 40 38.6**	**+2.2**
CHTH				IAML		10 41 49.2	
	comp=Z,240nm,1.0s						
DAMV	**Damavand**	**4.51**	**33**	*e*Pn	**Pn**	**10 40 40.0**	**+2.3**
DAMV				IAML		10 41 56.8	
	comp=Z,540nm,1.0s						
IGZV	**Ghazvin**	**4.63**	**12**	Pn	**Pn**	**10 40 41.3**	**+1.9**
YZKH	**Yazd**	**4.78**	**82**	*e*Pn	**Pn**	**10 40 43.7**	**+2.5**
YZKH				IAML		10 42 13.5	
	comp=Z,110nm,1.0s						
ZNJK	**Zanjan**	**4.81**	**357**	*e*Pn	**Pn**	**10 40 44.0**	**+2.2**
ZNJK				IAML		10 42 17.2	
	comp=Z,73nm,1.0s						
ZNJK	**Zanjan**	**4.81**	**357**	Pn	**Pn**	**10 40 43.7**	**+2.0**
IMEH	**Mehriz**	**4.82**	**94**	Pn	**Pn**	**10 40 44.9**	**+3.0**
GIDE	**GILAN DEYLAMAN**	**5.11**	**8**	*e*Pn	**Pn**	**10 40 48.2**	**+2.4**
GIDE				IAML		10 42 31.3	
	comp=Z,730nm,1.0s						
GIDE	**GILAN DEYLAMAN**	**5.11**	**8**	Pn	**Pn**	**10 40 48.3**	**+2.4**
SRSL	**SARDASHT**	**5.25**	**327**	*e*Pn	**Pn**	**10 40 50.4**	**+2.6**
SRSL				IAML		10 41 53.3	
	comp=Z,890nm,1.0s						
IHSH	**Hashtrud**	**5.62**	**346**	Pn	**Pn**	**10 40 55.5**	**+2.5**
ISRB	**Sarab**	**6.06**	**350**	Pn	**Pn**	**10 41 01.5**	**+2.7**
GRMI	**Germi**	**7.00**	**353**	*e*Pn	**Pn**	**10 41 13.5**	**+1.8**
GRMI				IAML		10 43 27.5	
	comp=Z,50nm,1.0s						
GRMI	**Germi**	**7.00**	**353**	Pn	**Pn**	**10 41 13.9**	**+2.3**
TABS	**Tabas**	**7.08**	**73**	*e*Pn	**Pn**	**10 41 15.0**	**+2.2**
TABS				IAML		10 43 34.1	
	comp=Z,49nm,1.0s						
SHRO	**Shahrood**	**7.15**	**53**	*e*Pn	**Pn**	**10 41 15.8**	**+2.1**
SHRO				IAML		10 41 55.9	
	comp=Z,2.1nm,1.0s						
HAKT	**HAKKARI**	**7.16**	**324**	P	**Pn**	**10 41 14.9**	**+0.9**
	comp=Z,187nm,0.8s						
BNDS	**Bandar-Abbas**	**7.67**	**124**	*e*Pn	**Pn**	**10 41 22.4**	**+1.5**
JRN	**Qarnain Island**	**7.68**	**153**	P	**Pn**	**10 41 22.5**	**+1.6**
	SNR=8.0						
JRN				S	**Sn**	**10 42 45.2**	**-2.3**
OZAP	**Van, Ozalp-Mer**	**7.92**	**330**	⇑P	**Pn**	**10 41 26.4**	**+2.0**
GEVA	**Gevas**	**8.07**	**325**	Pn	**Pn**	**10 41 28.3**	**+1.9**
SBZV	**Sabzevar**	**8.46**	**55**	*e*Pn	**Pn**	**10 41 33.8**	**+2.0**
SHME	**Shamm**	**8.53**	**131**	P	**Pn**	**10 41 33.3**	**+0.8**
SHME	**Shamm**	**8.53**	**131**	P	**Pn**	**10 41 33.5**	**+1.0**
GHWR	**Ruwais**	**8.58**	**155**	P	**Pn**	**10 41 34.8**	**+1.6**
UMQ	**Umm Al-Quwin**	**8.61**	**135**	P	**Pn**	**10 41 34.5**	**+0.9**
BSRN	**Basiran**	**8.62**	**87**	*e*Pn	**Pn**	**10 41 36.7**	**+2.7**
BANOM	**Banah**	**8.71**	**131**	*i* P	**Pn**	**10 41 35.5**	**+0.3**
	SNR=13						
BANOM				S	**Sn**	**10 43 07.7**	**-5.5**
BANOM	**Banah**	**8.71**	**131**	P	**Pn**	**10 41 36.2**	**+1.0**
	SNR=5.3						
BANOM				S	**Sn**	**10 43 10.1**	**-3.1**
	SNR=7.8						
RAYN	**Ar Rayn**	**8.85**	**201**	P	**Pn**	**10 41 38.2**	**+1.1**
RAYN	**Ar Rayn**	**8.85**	**201**	P	**Pn**	**10 41 38.4**	**+1.3**
RAYN				S	**Sn**	**10 43 18.0**	**+1.4**
RAYN	**Ar Rayn**	**8.85**	**201**	P	**Pn**	**10 41 38.2**	**+1.1**
RAYN	**Ar Rayn**	**8.85**	**201**		**Pn**	**10 41 38.0**	**+0.9**
RAYN	**Ar Rayn**	**8.85**	**201**	P	**Pn**	**10 41 38.2**	**+1.1**
	comp=Z,22nm,0.7s						
GNI	**Garni**	**8.96**	**339**	Pn	**Pn**	**10 41 38.6**	**-0.1**
	comp=Z,1.5nm,0.3s,baz=166,slow=9.5,SNR=1.4						
	comp=Z,6.2nm,0.3s						
GNI				AML	AML		
GNI	**Garni**	**8.96**	**339**	P	**Pn**	**10 41 39.4**	**+0.7**
	comp=Z,18nm,0.7s						
AJN	**Ajban**	**8.98**	**142**	*i* P	**Pn**	**10 41 40.2**	**+1.3**
	SNR=11						
AJN	**Ajban**	**8.98**	**142**	P	**Pn**	**10 41 41.2**	**+2.4**
	SNR=11						
NAZ	**Nazwa, Dubai**	**9.01**	**138**	P	**Pn**	**10 41 40.0**	**+0.7**
NAZ	**Nazwa, Dubai**	**9.01**	**138**	P	**Pn**	**10 41 40.3**	**+1.0**
	SNR=5.7						
NAZ				S	**Sn**	**10 43 17.2**	**-3.2**
	SNR=6.5						
MASF	**Masafi**	**9.02**	**134**	P	**Pn**	**10 41 40.4**	**+1.0**
	SNR=6.0						
MASF				S	**Sn**	**10 43 17.2**	**-3.5**
	SNR=15						
MSFE	**Esma-Masafi**	**9.03**	**134**	*i* P	**Pn**	**10 41 39.5**	**-0.1**
	SNR=6.0						
BJRD	**Bojnurd**	**9.05**	**48**	*i* P	**Pn**	**10 41 42.8**	**+2.9**
ASUD	**Al Ashush, Dub**	**9.11**	**141**	*i* P	**Pn**	**10 41 42.9**	**+2.3**
	SNR=20						
ASUD	**Al Ashush, Dub**	**9.11**	**141**	P	**Pn**	**10 41 42.9**	**+2.3**
	SNR=20						
ASUD				S	**Sn**	**10 43 19.7**	**-3.2**
MZWR	**Madinat Zayed**	**9.15**	**151**	P	**Pn**	**10 41 42.5**	**+1.4**
MDH	**Madha**	**9.16**	**134**	*i* P	**Pn**	**10 41 41.0**	**-0.3**
	SNR=6.5						
MDH	**Madha**	**9.16**	**134**	P	**Pn**	**10 41 41.4**	**+0.1**
	SNR=6.9						
MDH				S	**Sn**	**10 43 19.5**	**-4.5**
	SNR=9.9						
FAQ	**Al Faqa, Dubai**	**9.16**	**139**	S	**Sn**	**10 43 21.0**	**-3.2**
UOSS	**Minaz

ASF Lg Lg 10 45 00.6
comp=Z,1.6nm,0.3s,baz=73,slow=19,SNR=3.6
ASF LR LR 10 47 09.9
comp=Z,143nm,20.3s,baz=83,slow=45
comp=Z,11nm,0.3s
ASF AML AML
ARQ Araqi 10.79 140 P **Pn 10 42 04.5 +0.9**
SNR=13
ARQ S **Sn 10 44 00.7 -3.5**
HOQ Hoqain 11.05 136 P **Pn 10 42 08.0 +0.8**
HOQ S **Sn 10 44 06.7 -3.8**
MAK Makhachkala 11.15 354 *e*P Pn 10 42 03.2 -5.2
MAK *e*S **Sn 10 44 05.1 -7.6**
MAK pmax pmax
comp=Z,44nm,0.3s
MAK MLR MLR
comp=Z,239nm,17.0s
KEMA Kemaliye 11.30 314 P **Pn 10 42 11.6 +1.1**
comp=Z,34nm,0.8s
KELT Kelkit 11.42 319 P **Pn 10 42 16.1 +3.7**
comp=Z,42nm,1.2s
MMAI Mount Meron Ar 11.54 279 Pn **Pn 10 42 16.3 +2.4**
comp=Z,1.8nm,0.3s,baz=91,slow=12,SNR=1.7
MMAI Sn **Sn 10 44 23.5 +1.0**
comp=Z,2.8nm,0.3s,baz=85,slow=18,SNR=1.8
MMAI Lg Lg 10 45 38.8
baz=93,slow=29
MMAI LR LR 10 48 10.5
comp=Z,135nm,19.4s,baz=87,slow=45
comp=Z,1.9nm,0.5s
MMAI AML AML
BIDO Bidbid 11.59 133 P **Pn 10 42 15.2 +0.7**
BSY Bisya 11.64 139 P **Pn 10 42 15.9 +0.6**
SNR=9.8
BSY S **Sn 10 44 20.8 -4.1**
ANDN Andirin 11.86 302 P **Pn 10 42 21.1 +2.8**
comp=Z,46nm,0.7s
SMDO Samad 11.89 135 P **Pn 10 42 19.2 +0.4**
SNR=9.4
SMDO S **Sn 10 44 26.9 -4.2**
SNR=6.3
WSAR Wadi Sarin 12.11 133 P **Pn 10 42 21.9 +0.2**
WSAR S **Sn 10 44 30.8 -5.6**
EIL Elat 12.27 263 Pn **Pn 10 42 25.5 +1.7**
comp=Z,1.4nm,0.3s,baz=13,slow=17,SNR=2.3
EIL Lg Lg 10 46 09.7
comp=Z,0.7nm,0.3s,baz=68,slow=19,SNR=3.9
EIL LR LR 10 48 23.9
comp=Z,289nm,21.5s,baz=89,slow=44
comp=Z,5.9nm,0.5s
EIL AML AML
NEUR Neytrino 12.43 338 *i* P **Pn 10 42 24.8 -1.3**
JMDO Jabal Madar 12.45 137 P **Pn 10 42 26.6 +0.3**
SNR=12
JMDO S **Sn 10 44 40.5 -4.2**
NGCH Negor - Chabah 12.48 118 P **Pn 10 42 25.9 -0.7**
NGCH S **Sn 10 44 41.4 -3.9**
WBK Wadi Bani Khal 12.78 134 P **Pn 10 42 29.9 -1.0**
WBK S **Sn 10 44 49.1 -3.8**
KBZ Khabaz 12.79 340 Pn **P 10 42 37.5 -4.3**
comp=Z,0.1nm,0.3s,baz=140,slow=8.9,SNR=7.9
KBZ Khabaz 12.79 340 *i* P **Pn 10 42 31.7 +0.9**
SHA1 Shidzhatmaz 12.87 339 *i* P **Pn 10 42 31.3 -0.9**
KIV Kislovodsk 13.06 339 *e*P **Pn 10 42 33.3 -1.3**
KIV pmax pmax
comp=Z,8.0nm,1.0s
KIV MLR MLR
comp=Z,43nm,13.0s
KIV Kislovodsk 13.06 339 P **Pn 10 42 35.3 +0.7**
comp=Z,16nm,1.0s
JLN Jalan Bani Buh 13.40 134 P **Pn 10 42 39.1 -0.1**
MHTO MHTO 13.48 141 P **Pn 10 42 41.1 +0.8**
SNR=15
MHTO S **Sn 10 45 05.0 -4.8**
SNR=8.8
RPOR Krasnaya Polya 13.68 332 *e*P **Pn 10 42 43.2 +0.2**
SOC Sochi 13.81 331 *e*P **Pn 10 42 43.1 -1.6**
SOC *e* 10 45 16.0
SOC pmax pmax
comp=Z,11nm,0.6s
SOC MLR MLR
comp=Z,232nm,18.0s
DOK Doka 13.97 159 P **Pn 10 42 47.2 +0.1**
SNR=5.1
GUZR Guzeripl' 13.99 333 *e*P **Pn 10 42 45.8 -1.5**
DQM DQM 14.14 145 P **Pn 10 42 48.8 -0.6**
WHFO Wadi Hawf 14.53 162 P **Pn 10 42 54.5 -0.4**
WHFO S **Sn 10 45 30.1 -5.6**
SNR=11
BR104 Keskin Array S 14.70 306 P **Pn 10 42 58.7 +1.5**
comp=Z,76nmcomp=Z,9.2nm,1.0s
BR131 Keskin Array S 14.71 307 P **P 10 43 04.5 +1.1**
SNR=5.3
BR131 Keskin Array S 14.71 307 *e*P **Pn 10 42 55.4 -1.9**
BRTR Keskin Array B 14.71 307 Pn **Pn 10 42 58.2 +0.9**
comp=Z,0.4nm,0.3s,baz=132,slow=13,SNR=20
comp=Z,0.7nm,0.7s
BRTR AML AML
BRTR Keskin Array B 14.71 307 P **Pn 10 42 59.9 +2.6**
BRTR Keskin Array B 14.71 307 Pn **Pn 10 42 59.9 +2.6**
BR105 Keskin Array S 14.72 306 P **Pn 10 42 59.1 +1.6**
comp=Z,94nmcomp=Z,11nm,0.9s
BR106 Keskin Array S 14.73 307 P **Pn 10 42 59.0 +1.4**
comp=Z,9.2nm,1.0s
ABTO Aybut 14.96 164 P **Pn 10 42 59.9 -0.7**
ABTO S **Sn 10 45 42.6 -3.4**
KKUL Konya-Kulu 14.97 304 P **Pn 10 43 01.2 +0.4**
comp=Z,12nm,1.0s
SHAO Shalim 15.02 155 P **Pn 10 43 00.6 -0.9**
DMTO DMTO 15.07 158 P **Pn 10 43 01.3 -0.8**
SNR=17
KBL Kabul 17.00 76 P **P 10 43 31.1 +2.2**
KBL Kabul 17.00 76 P **P 10 43 31.1 +2.2**
comp=Z,12nm,1.0s
YLV Yalova 18.03 304 P **P 10 43 40.7 +0.6**
comp=Z,23nm,1.0s
KARP Karpathos 18.52 287 P **Pn 10 43 47.2 +1.5**
comp=Z,119nm,1.5s
AB31 Akbulak array 19.24 22 **Pn 10 43 54.2 +0.1**
ABKAR Akbulak array 19.24 22 **Pn 10 43 53.8 -0.4**
AKTO Aktyubinsk 19.74 17 P **P 10 43 58.7 0.0**
comp=Z,0.5nm,0.3s,baz=209,slow=10,SNR=8.4
AKTO LR LR 10 53 34.5
comp=Z,112nm,18.2s,baz=32,slow=43
comp=Z,4.5nm,0.8s
AKTO AML AML
EZN Ezine 19.99 300 P **Pn 10 44 02.9 -0.3**
comp=Z,22nm,2.1s
VRH Novokhopyorsk 20.06 347 *e*P **P 10 44 02.4 +0.3**
VRH pmax pmax
comp=Z,50nm,0.6s
MFTR Murfatlar 20.28 313 ⇓P Pn 10 44 07.4 +0.8
IDI Anoyia 20.36 286 P Pn 10 44 06.9 -0.7
comp=Z,13nm,0.6s,baz=104,slow=9.8,SNR=7.2
comp=Z,13nm,0.6s
KK31 Karatay Array 20.38 50 P Pn 10 44 07.1 -0.8
KK31 pmax pmax
comp=Z,9.0nm,1.1s
KK31 Karatay Array 20.38 50 P Pn 10 44 07.1 -0.7
KKAR Karatay Array 20.38 50 P **P 10 44 05.3 -0.4**
KKAR Karatay Array 20.38 50 **P 10 44 05.3 -0.4**
VORD Divnogorie 20.40 342 *e*P **P 10 44 04.7 -1.1**
VORD pmax pmax
comp=Z,30nm,0.2s
TIRR Tirgusor 20.43 314 P Pn 10 44 08.0 -0.3
TIRR pmax pmax
comp=Z,40nm,1.0s
TIRR Tirgusor 20.43 314 P Pn 10 44 08.0 -0.3
TIRR IAmb IAmb 10 44 13.4
comp=Z,40nm,1.0s
TIRR Tirgusor 20.43 314 ⇑P **P 10 44 07.2 +1.1**
TIRR Tirgusor 20.43 314 P **P 10 44 07.3 +1.1**
comp=Z,40nm,1.7s
ALN Alexandroupoli 20.51 303 P Pn 10 44 09.2 -0.2
ALN pmax pmax
comp=Z,25nm,0.8s
ALN Alexandroupoli 20.51 303 P Pn 10 44 09.2 -0.2
ALN IAmb IAmb 10 44 09.8
comp=Z,25nm,0.8s
BELG Belogornoye 20.55 358 P **P 10 44 07.6 +0.1**
comp=Z,93nm,0.9s,baz=176,slow=16,SNR=19
BELG Belogornoye 20.55 358 *de*P **P 10 44 07.5 +0.1**
BELG pmax pmax
comp=Z,17nm,0.9s
TPGR Topolog 20.63 315 ⇑P Pn 10 44 09.8 -0.9
VSR Storozhevoye 20.66 342 *e*P **P 10 44 07.5 -1.1**
VSR pmax pmax
comp=Z,40nm,0.6s
CFR Carcaliu 20.98 315 P **P 10 44 13.0 +1.0**
CFR Carcaliu 20.98 315 ⇑P **P 10 44 13.1 +1.0**
ATD Arta Tunnel 21.00 197 LR LR 10 53 05.5
comp=Z,7.7nm,19.4s,baz=14,slow=39
VORR Voronezh 21.07 343 *e*P **P 10 44 12.4 -0.6**
VORR pmax pmax
comp=Z,50nm,0.9s
ISR Istrita 21.91 314 P **P 10 44 23.9 +1.6**
comp=Z,42nm,0.9s
LPSR Galich'ya Gora 21.99 343 *e*P **P 10 44 22.8 -0.1**
LPSR pmax pmax
comp=Z,120nm,0.9s
SAHR Sahastru 22.13 315 ⇑P **P 10 44 26.3 +1.7**
VRI Vrincioaia 22.18 315 P **P 10 44 26.8 +1.8**
VRI Vrincioaia 22.18 315 ⇑P **P 10 44 26.9 +1.8**
VRI Vrincioaia 22.18 315 P **P 10 44 26.1 +1.0**
comp=Z,17nm,0.8s
PLOR Plostina 22.22 315 P **P 10 44 27.2 +1.7**
PLOR Plostina 22.22 315 ⇓P **P 10 44 27.2 +1.7**
DMBR Dumbraveni 22.30 318 ⇓P **P 10 44 26.9 +0.5**
MLR Muntele Rosu 22.46 314 P **P 10 44 30.5 +2.3**
MLR pmax pmax
comp=Z,16nm,0.8s
MLR Muntele Rosu 22.46 314 **P 10 44 30.5 +2.3**
MLR IAmb IAmb 10 44 42.2
comp=Z,16nm,0.8s
MLR Muntele Rosu 22.46 314 ⇓P **P 10 44 30.4 +2.1**
MLR Muntele Rosu 22.46 314 P **P 10 44 29.8 +1.6**
comp=Z,22nm,0.7s
MLR Muntele Rosu 22.46 314 P **P 10 44 30.9 +2.7**
comp=Z,22nm,0.7s
COVR Voineasa-Covas 22.48 315 ⇓P **P 10 44 30.0 +1.6**
TESR Tescani 22.57 317 ⇓P **P 10 44 29.9 +0.6**
TESR Tescani 22.57 317 P **P 10 44 30.0 +0.8**
comp=Z,25nm,1.0s
TESR Tescani 22.57 317 P **P 10 44 30.7 +1.5**
comp=Z,25nm,1.0s
ONER Baraj Valea Uz 22.62 316 ⇑P **P 10 44 31.0 +1.2**
KSH2 Kashi 22.78 64 P **P 10 44 34.5 +2.8**
KSH2 sP sP 10 44 43.6 +5.1
KSH2 pmax pmax
comp=Z,14nm,1.4s
AGG Agios Georgios 22.82 296 P **P 10 44 29.8 -2.2**
AGG pmax pmax
comp=Z,31nm,1.6s
AGG Agios Georgios 22.82 296 P **P 10 44 29.8 -2.2**
comp=Z,31nm,1.6s
ITM Ithomi 22.88 291 **P 10 44 34.1 +1.4**
ITM IAmb IAmb 10 45 17.7
comp=Z,14nm,0.8s
LIT Litokhoron 22.91 298 P **P 10 44 35.0 +2.1**
comp=Z,16nm,1.2s
VOIR 22.99 313 P **P 10 44 35.1 +1.4**
VOIR 22.99 313 ⇓P **P 10 44 35.1 +1.4**
VOIR 22.99 313 P **P 10 44 35.1 +1.4**
VOIR 22.99 313 P **P 10 44 35.7 +1.9**
comp=Z,46nm,1.0s
DOPR Dopca 23.04 314 ⇑P **P 10 44 35.6 +1.5**
BIZ Bicaz 23.11 317 ⇑P **P 10 44 35.6 +0.7**
GRG Griva 23.18 301 P **P 10 44 36.6 +1.0**
comp=Z,32nm,0.8s
ARR Arges 23.22 312 ⇑P **P 10 44 37.3 +1.3**
ARR Arges 23.22 312 P **P 10 44 37.6 +1.5**
AK07 Malin Array Si 23.75 328 P **P 10 44 41.6 +0.4**
AK09 Malin Array Si 23.76 328 P **P 10 44 40.6 -0.7**
AK10 Malin Array Si 23.77 328 P **P 10 44 40.2 -1.1**
AK06 Malin Array Si 23.78 328 P **P 10 44 40.4 -1.1**
AK08 Malin Array Si 23.79 328 P **P 10 44 41.7 +0.2**
BLKB Belogradchik 23.79 307 ⇑P **P 10 44 43.1 +1.4**
AK05 Malin Array Si 23.80 328 P **P 10 44 41.9 +0.2**
AK02 Malin Array Si 23.83 328 P **P 10 44 42.1 +0.2**
KMPD K-Podol'skiy 23.83 321 P **P 10 44 41.1 -0.8**
AK12 Malin Array Si 23.84 328 P **P 10 44 41.9 -0.1**
AK12 pP **pP 10 44 46.0 -1.0**
AKASG Malin Array Be 23.85 328 P **P 10 44 41.1 -1.0**
comp=Z,1.6nm,0.6s,baz=142,slow=9.0,SNR=8.2
comp=Z,1.6nm,0.6s
AKASG Malin Array Be 23.85 328 *i* P **P 10 44 42.7 +0.6**
AKASG pmax pmax
comp=Z,1.0nm,0.4s
AKBB Malin Array Si 23.85 328 *e*P **P 10 44 40.3 -1.8**
AKBB pmax pmax
comp=Z,5.0nm,0.9s
KIEV Kiev 23.85 328 P **P 10 44 42.2 +0.1**
KIEV pmax pmax
comp=Z,14nm,1.3s
KIEV Kiev 23.85 328 **P 10 44 42.2 +0.1**
KIEV IAmb IAmb 10 44 47.7
comp=Z,14nm,1.2s
BURAR Bucovina Array 23.99 318 P **P 10 44 44.3 +0.7**
BURAR Bucovina Array 23.99 318 P **P 10 44 44.0 +0.4**
BURAR Bucovina Array 23.99 318 ⇓P **P 10 44 44.3 +0.7**
BUR08 Bucovina Ar. S 24.01 318 **P 10 44 45.5 +1.7**
LKD2 Lefkada island 24.07 295 P **P 10 44 45.0 +0.6**
comp=Z,29nm,0.7s
KBN Korca 24.29 299 P **P 10 44 48.5 +2.1**
KBN pmax pmax
comp=Z,39nm,1.0s
KBN Korca 24.29 299 P **P 10 44 48.5 +2.1**
comp=Z,39nm,0.9s
GZR Gura Zlata 24.41 311 P **P 10 44 48.1 +0.7**
GZR Gura Zlata 24.41 311 ⇑P **P 10 44 48.1 +0.7**
HERR Herculane 24.43 310 ⇑P **P 10 44 48.9 +1.3**
BOVS Bovan 24.46 306 ⇓P **P 10 44 49.3 +1.5**
PHP Peshkopia 24.79 301 P **P 10 44 52.2 +1.3**
PHP pmax pmax
comp=Z,23nm,1.0s
PHP Peshkopia 24.79 301 P **P 10 44 52.2 +1.3**
comp=Z,23nm,0.9s
MDVR Moldovita 24.86 309 ⇑P **P 10 44 52.6 +1.1**
OBN Obninsk 24.86 343 P **P 10 44 50.7 -0.5**
comp=Z,20nm,0.3s,baz=186,slow=10,SNR=5.0
comp=Z,20nm,0.3s
OBN Obninsk 24.86 343 ⇓*e*P **P 10 44 51.9 +0.6**
OBN *e* 10 45 22.2
OBN pmax pmax
comp=Z,25nm,0.9s
OBN MLR MLR
comp=Z,90nm,14.0s
OBN Obninsk 24.86 343 IAmb IAmb 10 44 56.7
comp=Z,96nm,0.4s
KEK Kerkira 24.87 297 P **P 10 44 50.7 -0.9**
KEK IAmb IAmb 10 44 56.9
comp=Z,18nm,0.7s
DRGR 25.06 314 P **P 10 44 53.7 +0.4**
DRGR 25.06 314 ⇑P **P 10 44 53.8 +0.4**
DRGR 25.06 314 P **P 10 44 54.9 +1.6**
comp=Z,26nm,0.8s
MOS Moscow 25.18 345 *e*P **P 10 44 54.8 +0.6**
MOS pmax pmax
comp=Z,78nm,1.0s
BZS Buzias 25.24 311 P **P 10 44 55.7 +0.8**
BZS Buzias 25.24 311 ⇑P **P 10 44 55.7 +0.8**
BZS Buzias 25.24 311 P **P 10 44 56.5 +1.6**
comp=Z,8.8nm,1.7s
ARTI Arti 25.39 12 P **P 10 44 55.9 -0.2**
comp=Z,5.9nm,0.9s,baz=225,slow=6.1,SNR=5.3
comp=Z,5.9nm,0.9s
ARTI Arti 25.39 12 *c* *i*P **P 10 44 57.1 +1.0**
ARTI 10 45 28.6
ARTI S **S 10 49 26.2 +4.3**
ARTI SS **SnSn 10 50 15.6 +1.5**
ARTI pmax pmax
comp=Z,17nm,1.2s
SIRR Siria 25.48 312 ⇓P **P 10 44 58.5 +1.4**
TRPA Tarpa 25.80 317 P **P 10 45 02.0 +2.1**
comp=Z,14nm,1.6s
PDG Podgorica 25.82 303 ⇓P **P 10 45 01.4 +1.2**
BORK Borovoye 26.20 30 ⇑*e*P **P 10 45 04.7 +1.2**
BORK pmax pmax
comp=Z,9.0nm,1.0s
BVAR Borovoye Array 26.21 30 P **P 10 45 02.7 -0.9**
comp=Z,3.7nm,0.6s,baz=224,slow=8.3,SNR=11
comp=Z,3.7nm,0.6s
KOLS Kolonicke sedl 26.35 318 *e*P **P 10 45 09.7 +4.8**
KOLS Kolonicke sedl 26.35 318 *e*P **P 10 45 09.7 +4.8**
KOLS Kolonicke sedl 26.35 318 P **P 10 45 07.3 +2.3**
comp=Z,23nm,0.9s
KIRV Kirov 26.73 0 P **P 10 45 07.3 -0.9**
comp=Z,14nm,0.7s,baz=162,slow=6.4,SNR=2.6
comp=Z,14nm,0.7s
KIRV Kirov 26.73 0 ⇑*e*P **P 10 45 08.4 +0.2**
TIP Timpagrande 27.13 295 IAmb IAmb 10 45 22.4
comp=Z,13nm,1.1s
TIP Timpagrande 27.13 295 ⇑P **P 10 45 13.8 +1.6**
TIP Timpagrande 27.13 295 P **P 10 45 13.8 +1.6**
comp=Z,13nm,1.1s
MNK Minsk 27.17 333 *i* P **P 10 45 11.8 -0.4**
MNK *i* 10 45 54.4
MNK *i* 10 48 32.5
MNK *i* S **S 10 49 50.6 +0.6**
MNK *i* SS **SnSn 10 50 58.2 +0.7**
MNK pmax pmax
comp=E,26nm,1.0s
MNK pmax pmax
comp=N,19nm,0.9s
MNK pmax pmax
comp=Z,66nm,0.9s
MNK MLR MLR
comp=Z,52nm,15.0s
MNK MLR MLR
comp=N,577nm,22.0s
MNK MLR MLR
comp=E,371nm,18.0s
MNK Minsk 27.17 333 *i* P **P 10 45 11.9 -0.4**
comp=E,26nm,1.0s
MNK *i* P **P 10 45 11.9 -0.4**
comp=N,19nm,0.9s
MNK *i* P **P 10 45 11.9 -0.4**
comp=Z,66nm,0.9s,baz=138
MNK *i* PP **PnPn 10 45 54.4 -1.1**
MNK *i* PcP **PcP 10 48 32.6 +0.3**
MNK *i* S **S 10 49 50.7 +0.6**
MNK *i* SS **SnSn 10 50 58.2 +0.7**
MNK *i* SSS SSS 10 51 12.3
MNK *i* LQ LQ 10 53 17.0
MNK *i* LR LR 10 55 52.4
MNK *i* LRM MLR 10 57 05.6
comp=Z,52nm,15.2s
MNK *i* LRM MLR 10 57 07.5
comp=N,577nm,22.4s
MNK *i* LRM MLR 10 57 08.1
comp=E,371nm,17.9s
PSZ Piszkesteto 27.27 314 P **P 10 45 14.4 +1.1**
PSZ Piszkesteto 27.27 314 ⇓P **P 10 45 14.5 +1.1**
MORH Mrgy, Hungar 27.39 310 ⇑P **P 10 45 15.3 +1.0**
MORH Mrgy, Hungar 27.39 310 P **P 10 45 16.1 +1.8**
comp=Z,9.6nm,1.7s
NACGM Naroch 27.90 332 *e*P **P 10 45 23.1 +4.3**
comp=Z,22nm,1.0s,baz=137
VYHS Vyhne 28.16 315 *e*P **P 10 45 22.8 +1.6**
VYHS Vyhne 28.16 315 *e*P **P 10 45 22.8 +1.6**
KURBB Kurchatov Arra 28.78 41 P **P 10 45 25.6 -1.1**
comp=Z,1.8nm,0.7s,baz=244,slow=9.3,SNR=8.8
KURBB PcP **PcP 10 48 35.3 -1.0**
comp=Z,0.9nm,0.2s,baz=224,slow=3.9,SNR=4.2
comp=Z,1.8nm,0.7s
KURK Kurchatov 28.88 41 ⇑*e*P **P 10 45 29.6 +2.1**
KURK pmax pmax
comp=Z,6.0nm,1.0s
KURK Kurchatov 28.88 41 P **P 10 45 25.6 -1.9**
KURK Kurchatov 28.88 41 **PcP 10 48 35.3 -1.2**
KURK Kurchatov 28.88 41 IAmb IAmb 10 45 30.5
comp=Z,5.2nm,0.9s
RONA Rosalia, Austr 29.42 312 *e*P **P 10 45 33.6 +1.1**
comp=Z,3.6nm,0.7s
MKAR Makanchi Array 29.51 50 P **P 10 45 33.5 +0.3**
comp=Z,0.7nm,0.6s,baz=249,slow=7.7,SNR=4.3
MKAR PcP **PcP 10 48 38.1 -0.1**
comp=Z,1.1nm,0.8s,baz=244,slow=1.4,SNR=3.6
MKAR LR LR 10 59 32.2
comp=Z,94nm,18.9s,baz=221,slow=41
comp=Z,0.7nm,0.6s
KLMR Klimovskoe 29.67 351 *e*P **P 10 45 32.6 -1.8**
KLMR pmax pmax
comp=Z,14nm,1.0s
WINA Alland / Wiene 29.71 313 *e*P **P 10 45 35.7 +0.7**
comp=Z,11nm,1.3s
CONA Conrad Observa 29.78 312 *e*P **P 10 45 36.3 +0.7**
comp=Z,6.0nm,1.0s
SOKA Soboth 29.90 310 *e*pP P 10 45 42.3 +5.5
comp=Z,12nm,1.7s
ABNA Allensteig Bun 30.31 313 *i* P **P 10 45 41.3 +1.0**
comp=Z,7.3nm,1.2s
SESA Seetaler Alpe, 30.34 310 *e*P **P 10 45 42.0 +1.3**
comp=Z,3.1nm,0.9s
MOA Molln 30.76 311 *i* P **P 10 45 45.5 +1.2**
comp=Z,10nm,1.0s
MOA Molln 30.76 311 P **P 10 45 45.7 +1.4**
comp=Z,13nm,1.2s
BIOA Bad Ischl, Aus 31.11 311 *i* P **P 10 45 48.4 +1.0**
comp=Z,9.7nm,1.2s
KBA Koelnbreinsper 31.13 310 *i* P **P 10 45 49.0 +1.3**
comp=Z,2nm,1.7s
KBA Koelnbreinsper 31.13 310 P **P 10 45 49.3 +1.6**
comp=Z,18nm,0.9s
GERES GERESS Array B 31.44 313 P **P 10 45 49.7 -0.7**
comp=Z,0.4nm,0.4s,baz=125,slow=6.7,SNR=5.9
comp=Z,0.4nm,0.4s
ABTA Abfaltersbach 31.59 309 *i* P **P 10 45 53.5 +1.8**
comp=Z,6.4nm,1.1s
KHC Kasperske Hory 31.62 313 ⇓*e*P **P 10 45 52.5 +0.7**
KHC pmax pmax
comp=Z,4.0nm,1.1s
LESA Schwarzleotal 31.66 310 *i* P **P 10 45 52.8 +0.6**
comp=Z,5.5nm,0.9s
WTTA Wattenberg 32.30 309 *i* P **P 10 45 58.6 +0.6**
comp=Z,21nm,1.2s
WTTA Wattenberg 32.30 309 P **P 10 45 58.8 +0.8**
comp=Z,18nm,1.2s
WATA Walderalm 32.36 309 *i* P **P 10 45 59.5 +1.0**
comp=Z,18nm,1.3s
WMQ Urumqi 32.54 57 *e*P **P 10 46 03.0 +3.0**
SQTA Sankt Quirin 32.57 309 *i* P **P 10 46 00.7 +0.4**
comp=Z,8.9nm,0.7s
MOTA Moosalm 32.67 309 *i* P **P 10 46 01.3 +0.1**
comp=Z,16nm,1.1s
CLL Collm 32.75 317 *e*P **P 10 46 02.0 +0.4**
CLL Collm 32.75 317 *e*P **P 10 46 02.0 +0.4**
FETA Feichten 32.84 309 *e*P **P 10 46 03.4 +0.7**
comp=Z,12nm,1.2s
RETA Reutte 32.93 309 *i* P **P 10 46 03.3 -0.1**
comp=Z,5.0nm,0.8s
KEST Kesra 33.02 288 P **P 10 46 03.7 -0.6**
comp=Z,4.0nm,0.8s,baz=7.6,slow=3.5,SNR=4.9
comp=Z,4.0nm,0.8s
KEST Kesra 33.02 288 P **P 10 46 03.6 -0.7**
KEST Kesra 33.02 288 IAmb IAmb 10 46 32.7
comp=Z,15nm,1.4s
FIA1 FINESS Array S 33.15 340 P **P 10 46 05.1 +0.1**
FINES FINESS Array B 33.15 340 P **P 10 46 03.9 -1.1**
comp=Z,5.0nm,0.6s,baz=144,slow=7.9,SNR=11
comp=Z,5.0nm,0.6s
FINES FINESS Array B 33.15 340 *i* P **P 10 46 06.5 +1.5**
FINES pmax pmax
comp=Z,4.0nm,0.6s
FINES FINESS Array B 33.15 340 P **P 10 46 05.5 +0.5**
DAVOX Davos/Dischmat 33.35 308 P **P 10 46 07.4 +0.2**
comp=Z,1.2nm,0.4s,baz=135,slow=18,SNR=1.9
DAVOX LR LR 11 02 57.4
comp=Z,64nm,18.4s,baz=259,slow=42
comp=Z,1.2nm,0.4s
UBR Ueberruh 33.41 310 P **P 10 46 07.8 +0.3**
comp=Z,26nm,1.2s
DAVA Damuels 33.46 309 *i* P **P 10 46 08.2 +0.1**
comp=Z,12nm,0.7s
ZALV Zalesovo Beam 33.75 39 P **P 10 46 10.3 -0.1**
comp=Z,5.5nm,0.8s,baz=255,slow=9.1,SNR=14
ZALV PcP **PcP 10 48 48.8 -0.7**
comp=Z,0.8nm,0.3s,baz=205,slow=3.0,SNR=2.2
ZALV LR LR 11 01 52.7
comp=Z,42nm,19.4s,baz=182,slow=40
comp=Z,5.5nm,0.8s
ZALV Zalesovo Beam 33.75 39 *i* P **P 10 46 11.1 +0.7**
ZALV pmax pmax
comp=Z,5.0nm,0.8s
ZALV Zalesovo Beam 33.75 39 P **P 10 46 11.5 +1.1**
BNALP Bannalp 34.35 308 P **P 10 46 17.1 +1.3**
comp=Z,17nm,1.3s
BNI Bardonecchia 35.26 304 IAmb IAmb 10 47 02.7
comp=Z,6.7nm,0.8s
BNI Bardonecchia 35.26 304 P **P 10 46 24.6 +0.8**
comp=Z,7.1nm,1.0s
MBAR Mbarara 36.62 212 LR LR 11 02 13.2
comp=Z,119nm,18.2s,baz=112,slow=37
HFS Hagfors 36.65 331 P **P 10 46 34.5 -0.7**
comp=Z,5.8nm,1.0s,baz=116,slow=10,SNR=6.0
HFS LR LR 11 02 31.5
comp=Z,132nm,18.1s,baz=346,slow=38
comp=Z,5.8nm,1.0s

BMRD	**Maredsous**	**37.43**	**313**	*d*P	**P**	**10 46 45.1**	**+3.1**
BMRD				*d*PcP	**PcP**	**10 49 02.0**	**+1.6**
DOU	**Dourbes**	**37.50**	**312**	*d*P	**P**	**10 46 43.6**	**+1.0**
DOU				*d*PcP	**PcP**	**10 49 00.4**	**-0.2**
NOA	**NORSAR Array B**	**38.17**	**331**	P	**P**	**10 46 47.3**	**-0.9**
	comp=Z,2.6nm,1.0s,baz=111,slow=9.8,SNR=1.9						
NOA				LR	LR	11 03 39.3	
	comp=Z,47nm,20.2s,baz=350,slow=38						
	comp=Z,2.6nm,1.0s						
ARCES	**ARCESS Array B**	**39.99**	**347**	P	**P**	**10 47 02.7**	**-0.6**
	comp=Z,8.6nm,1.1s,baz=143,slow=8.2,SNR=4.7						
	comp=Z,8.6nm,1.1s						
ARCES	**ARCESS Array B**	**39.99**	**347**	P	**P**	**10 47 02.7**	**-0.6**
ARCES				pmax	pmax		
	comp=Z,15nm,1.3s						
ARCES	**ARCESS Array B**	**39.99**	**347**	IAmb	IAmb	10 47 22.5	
	comp=Z,14nm,1.2s						
KNGR	**Kungurtug, Tuv**	**40.19**	**48**	*e*P	**P**	**10 47 07.4**	**+2.1**
KNGR				pmax	pmax		
	comp=Z,8.0nm,1.0s						
ESDC	**Sonseca Array**	**43.14**	**296**	P	**P**	**10 47 29.9**	**+0.4**
	comp=Z,1.7nm,0.7s,baz=71,slow=8.0,SNR=7.7						
	comp=Z,1.7nm,0.7s						
EKA	**Eskdalemuir Ar**	**43.16**	**319**	P	**P**	**10 47 29.3**	**-0.1**
	comp=Z,0.2nm,0.3s,baz=88,slow=8.4,SNR=2.2						
	comp=Z,0.2nm,0.3s						
NRIK	**Noril'sk**	**43.35**	**19**	P	**P**	**10 47 30.4**	**-0.4**
	comp=Z,3.5nm,0.9s,baz=260,slow=1.6,SNR=4.3						
NRIK				LR	LR	11 09 36.6	
	comp=Z,78nm,18.5s,baz=270,slow=42						
	comp=Z,3.5nm,0.9s						
NRIK	**Noril'sk**	**43.35**	**19**	*e*P	**P**	**10 47 31.6**	**+0.8**
NRIK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
TLY	**Talaya**	**44.15**	**47**	LR	LR	11 07 32.2	
	comp=Z,91nm,19.6s,baz=280,slow=38						
SONM	**Songino Array**	**45.82**	**52**	P	**P**	**10 47 50.4**	**-0.5**
	comp=Z,0.5nm,0.5s,baz=262,slow=9.8,SNR=3.5						
	comp=Z,0.5nm,0.5s						
SONM	**Songino Array**	**45.82**	**52**	P	**P**	**10 47 50.4**	**-0.5**
SONM				pmax	pmax		
	comp=Z,2.0nm,1.2s						
SONM	**Songino Array**	**45.82**	**52**	IAmb	IAmb	10 47 52.7	
	comp=Z,1.6nm,1.2s						
ULN	**Ulaanbaatar**	**46.26**	**52**	*e*P	**P**	**10 47 55.6**	**+1.2**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**46.77**	**94**	P	**P**	**10 47 58.0**	**-0.6**
	comp=Z,1.7nm,0.7s,baz=296,slow=8.3,SNR=12						
CMAR				LR	LR	11 12 52.5	
	comp=Z,17nm,18.1s,baz=285,slow=43						
	comp=Z,1.7nm,0.7s						
CMAR	**Chiang Mai Arr**	**46.77**	**94**	*i* P	**P**	**10 47 59.4**	**+0.8**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TORD	**Torodi Ar. Bea**	**47.08**	**258**	P	**P**	**10 48 02.2**	**+1.1**
	comp=Z,2.2nm,0.8s,baz=56,slow=8.2,SNR=9.1						
	comp=Z,2.2nm,0.8s						
SPITS	**Spitsbergen Ar**	**48.57**	**351**	P	**P**	**10 48 11.0**	**-0.8**
	comp=Z,4.1nm,0.6s,baz=148,slow=8.5,SNR=11						
	comp=Z,4.1nm,0.6s						
XAN	**Xi'an**	**49.71**	**70**	*e*P	**P**	**10 48 18.4**	**-2.8**
XAN				pmax	pmax		
	comp=Z,9.0nm,0.9s						
HHC	**Hu-ho-hao-te**	**50.24**	**61**	*e*P	**P**	**10 48 25.4**	**+0.1**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
DBIC	**Dimbokro**	**55.99**	**255**	P	**P**	**10 49 09.0**	**+1.2**
	comp=Z,4.0nm,0.8s,baz=51,slow=6.1,SNR=3.5						
	comp=Z,4.0nm,0.8s						
DBIC	**Dimbokro**	**55.99**	**255**	P	**P**	**10 49 09.0**	**+1.2**
DBIC				pmax	pmax		
	comp=Z,8.0nm,1.0s						
DBIC	**Dimbokro**	**55.99**	**255**	IAmb	IAmb	10 49 09.7	
	comp=Z,8.3nm,1.0s						
TIXI	**Tiksi**	**56.94**	**22**	LR	LR	11 17 32.7	
	comp=Z,55nm,18.2s,baz=10.0,slow=40						
TIXI	**Tiksi**	**56.94**	**22**	*e*P	**P**	**10 49 13.3**	**-0.4**
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.0s						
YAK	**Yakutsk**	**58.13**	**33**	LR	LR	11 18 39.7	
	comp=Z,60nm,19.1s,baz=272,slow=41						
YAK	**Yakutsk**	**58.13**	**33**	*e*P	**P**	**10 49 22.1**	**-0.1**
YAK				pmax	pmax		
	comp=Z,8.0nm,1.0s						
NJ2	**Nanjing**	**58.26**	**70**	*e*P	**P**	**10 49 22.9**	**-0.7**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
TSUM	**Tsumeb**	**59.02**	**215**	LR	LR	11 14 33.1	
	comp=Z,250nm,21.9s,baz=162,slow=36						
LBTB	**Lobatse**	**60.80**	**204**	LR	LR	11 15 37.8	
	comp=Z,249nm,20.7s,baz=216,slow=36						
KSRS	**Korea Array**	**63.38**	**61**	P	**P**	**10 49 57.2**	**-1.2**
	comp=Z,1.2nm,0.6s,baz=271,slow=7.0,SNR=5.2						
	comp=Z,1.2nm,0.6s						
SEY	**Seymchan**	**67.86**	**29**	*e*P	**P**	**10 50 28.4**	**+1.5**
SEY				pmax	pmax		
	comp=Z,5.0nm,1.1s						
A36M	**Sachs Harbour**	**76.37**	**358**	P	**P**	**10 51 18.0**	**+0.4**
D25K	**Kavik River**	**78.49**	**6**	IAmb	IAmb	10 51 31.4	
	comp=Z,12nm,1.3s						
TOLK	**Toolik Lake Re**	**78.86**	**7**	P	**P**	**10 51 33.0**	**+1.2**
TOLK				IAmb	IAmb	10 51 33.4	
	comp=Z,7.5nm,0.8s						
G19K	**Purcell Mounta**	**80.28**	**10**	IAmb	IAmb	10 51 40.6	
	comp=Z,9.6nm,0.9s						
G30M	**tAoh Zraii Nji**	**81.40**	**2**	IAmb	IAmb	10 51 45.8	
	comp=Z,7.5nm,1.1s						
ILAR	**Eielson Array**	**82.89**	**7**	P	**P**	**10 51 53.0**	**-0.2**
	comp=Z,1.2nm,0.8s,baz=335,slow=5.0,SNR=9.9						
	comp=Z,1.2nm,0.8s						
CAST	**Castle Rocks**	**83.58**	**9**	P	**P**	**10 51 57.8**	**+0.9**
SCRK	**Sand Creek**	**83.94**	**6**	P	**P**	**10 51 59.5**	**+0.7**
ASAR	**Alice Springs**	**98.08**	**113**	P	**P**	**10 53 05.4**	**-0.5**
	comp=Z,0.2nm,0.6s,baz=314,slow=5.2,SNR=1.9						
	comp=Z,0.2nm,0.6s						
QSPA	**South Pole Qui**	**121.69**	**180**	PKP	**PKiKP**	**10 58 22.3**	**+0.2**
	comp=Z,1.7nm,0.9s,baz=270,slow=1.0,SNR=3.9						

*AFAD **05** 10:44:56.8, 37.˚88N×26.˚87E, h6km±2km, ML2.8*
*THE **05** 10:44:57.0, 37.˚9N±0.˚7×2.˚7E±˚, h9km±1km, M3.0/8, MLh3.0/8*
*ISK **05** 10:44:57.2, 37.˚92N×26.˚88E, h12km, ML3.0/14*

ISC 05 10:44:57.2±0.9, 37.˚89N±0.˚02×26.˚88E±0.˚02, h10km±6km, n40, σ0s76/68, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.16**	**0**	P	**Pg**	**10 45 00.8**	**-0.1**
DGB				IAML		10 45 03.0	
	comp=N,2μm,0.1s						
DGB				S	**Sg**	**10 45 03.5**	**+0.2**
DGB				IAML		10 45 04.0	
	comp=E,2μm,0.4s						
SMG	**Samos**	**0.18**	**191**	P	**Pg**	**10 45 00.9**	**-0.3**
SMG				S	**Sg**	**10 45 04.2**	**+0.3**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.19**	**8**	Pg	**Pg**	**10 45 01.2**	**-0.1**
GMLD				Sg	**Sg**	**10 45 04.6**	**+0.6**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.32**	**95**	Pg	**Pb**	**10 45 04.2**	**-0.9**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**124**	P	**Pg**	**10 45 04.0**	**0.0**
GCAM				S	**Sb**	**10 45 15.4**	**+4.7**
BEYE	**izmir**	**0.34**	**6**	P	**Pg**	**10 45 03.7**	**-0.3**
BEYE				S	**Sg**	**10 45 08.9**	**+0.4**
BEYE				IAML		10 45 10.0	
	comp=N,1μm,0.3s						
BEYE				IAML		10 45 10.0	
	comp=E,754nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**319**	P	**Pg**	**10 45 05.9**	**-0.3**
ZEYE				IAML		10 45 13.0	
	comp=E,839nm,0.2s						
ZEYE				S	**Sg**	**10 45 13.0**	**+0.7**
BLCB	**Balcova**	**0.51**	**14**	P	**Pg**	**10 45 07.0**	**-0.3**
BLCB				S	**Sg**	**10 45 14.0**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**14**	Pg	**Pg**	**10 45 06.9**	**-0.3**
BLCB				Sg	**Sg**	**10 45 14.4**	**+0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**54**	P	**Pg**	**10 45 07.9**	**-0.1**
DUVT				S	**Sg**	**10 45 15.0**	**-0.4**
DUVT				IAML		10 45 19.0	
	comp=E,1μm,0.3s						
DIDI	**Didim-Aydin**	**0.59**	**151**	Pg	**Pb**	**10 45 09.5**	**-0.1**
DIDI				AML	AML		
CESE	**eme**	**0.64**	**314**	Pg	**Pg**	**10 45 09.6**	**0.0**
CESE				AML	AML		
KRBN	**Karaburun**	**0.75**	**340**	Pg	**Pg**	**10 45 11.5**	**-0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.76**	**358**	P	**Pg**	**10 45 11.8**	**-0.2**
BAGT				S	**Sb**	**10 45 23.3**	**+0.2**
BAGT				IAML		10 45 25.0	
	comp=N,670nm,0.6s						
BAGT				IAML		10 45 25.0	
	comp=E,488nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.80**	**86**	Pg	**Pb**	**10 45 13.1**	**-0.2**
AYDB				AML	AML		
CHOS	**Chios island**	**0.82**	**307**	P	**Pg**	**10 45 12.9**	**-0.2**
CHOS				S	**Sb**	**10 45 24.9**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**307**	Pg	**Pg**	**10 45 13.1**	**0.0**
CHOS				AML	AML		
AYDN	**Tasoluk**	**0.82**	**106**	P	**Pb**	**10 45 13.5**	**-0.2**
AYDN				S	**Sg**	**10 45 24.1**	**+0.2**
AYDN				IAML		10 45 27.0	
	comp=N,160nm,0.4s						
AYDN				IAML		10 45 27.0	
	comp=E,206nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.83**	**157**	Pg	**Pb**	**10 45 14.0**	**+0.3**
YKAV				AML	AML		
FOCM	**Foa**	**0.83**	**352**	Pg	**Pg**	**10 45 13.1**	**-0.2**
FOCM				Sg	**Sb**	**10 45 24.8**	**-0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.86**	**335**	P	**Pg**	**10 45 12.6**	**-1.1**
KARB				S	**Sb**	**10 45 25.4**	**-0.3**
KARB				IAML		10 45 27.0	
	comp=N,246nm,0.8s						
KARB				IAML		10 45 28.0	
	comp=E,347nm,0.5s						
IZMR	**zmir-demi**	**0.88**	**73**	P	**Pg**	**10 45 14.1**	**-0.1**
IZMR				S	**Sg**	**10 45 24.6**	**-1.1**
BODT	**Bodrum**	**0.90**	**157**	P	**Pg**	**10 45 13.8**	**-0.6**
BODT				S	**Sb**	**10 45 26.4**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.90**	**157**	Pg	**Pb**	**10 45 15.2**	**+0.4**
BODT				AML	AML		
CAMT	**Merkez**	**0.92**	**21**	P	**Pb**	**10 45 15.3**	**0.0**
CAMT				S	**Sb**	**10 45 28.6**	**+1.0**
CAMT				IAML		10 45 30.0	
	comp=N,768nm,0.3s						
CAMT				IAML		10 45 30.0	
	comp=E,804nm,0.6s						
MLSB	**Milas**	**0.93**	**130**	Pg	**Pn**	**10 45 15.9**	**-0.4**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.94**	**151**	P	**Pg**	**10 45 15.1**	**-0.2**
BDRM				S	**Sb**	**10 45 27.9**	**-0.1**
BDRM				IAML		10 45 29.0	
	comp=N,308nm,0.5s						
BDRM				IAML		10 45 30.0	
	comp=E,311nm,0.4s						
ZEDA	**zmir-Bergama**	**1.08**	**8**	P	**Pn**	**10 45 18.5**	**0.0**
ZEDA				S	**Sn**	**10 45 34.3**	**+0.8**
ZEDA				IAML		10 45 35.0	
	comp=N,266nm,0.3s						
ZEDA				IAML		10 45 35.0	
	comp=E,254nm,0.7s						
GOMA	**Golmarmara-Man**	**1.15**	**45**	Pn	**Pn**	**10 45 19.4**	**0.0**
GOMA				AML	AML		
ESEN	**Aydn-Nazilli**	**1.17**	**94**	P	**Pb**	**10 45 18.2**	**-1.2**
ESEN				S	**Sn**	**10 45 36.3**	**+0.8**
DKL	**Dikili**	**1.18**	**1**	Pn	**Pg**	**10 45 19.7**	**-0.2**
DKL				AML	AML		
AKHS	**Akhisar**	**1.23**	**36**	P	**Pg**	**10 45 20.7**	**-0.1**
AKHS				S	**Sn**	**10 45 38.0**	**+0.9**
AKHS				IAML		10 45 39.0	
	comp=N,271nm,0.4s						
KIRA	**zmir-Kiraz**	**1.24**	**75**	P	**Pg**	**10 45 21.2**	**+0.1**
KIRA				S	**Sb**	**10 45 36.3**	**-0.5**
KIRA				IAML		10 45 41.0	
	comp=N,84nm,0.3s						
KTTT	**Salihli**	**1.24**	**50**	P	**Pb**	**10 45 20.7**	**-0.1**
KTTT				S	**Sb**	**10 45 36.5**	**-0.4**
KTTT				IAML		10 45 39.0	
	comp=N,288nm,0.6s						
DAT	**Datca**	**1.29**	**154**	P	**Pn**	**10 45 21.1**	**-0.2**
DAT				AML	AML		
MULA	**Mugla, Merkez-**	**1.31**	**119**	P	**Pn**	**10 45 20.9**	**-0.7**
MULA				S	**Sn**	**10 45 39.9**	**+0.7**
MULA				IAML		10 45 43.0	
	comp=E,130nm,0.4s						
YER	**Yerkesik**	**1.35**	**124**	P	**Pn**	**10 45 21.0**	**-1.1**
YER				S	**Sb**	**10 45 39.0**	**-0.8**
APE	**Apeiranthos**	**1.35**	**233**	P	**Pn**	**10 45 21.7**	**-0.5**
APE				S	**Sg**	**10 45 40.6**	**-0.2**
APE				AML	AML		
PRK	**Paraskevi**	**1.44**	**341**	P	**Pn**	**10 45 22.8**	**-0.4**
PRK				S	**Sb**	**10 45 42.8**	**+0.5**
MANT	**Manisa**	**1.45**	**65**	P	**Pg**	**10 45 25.5**	**+0.4**
MANT				S	**Sn**	**10 45 42.6**	**-0.3**

*BGSI **05** 10:50:56.2±1.0, 24.˚90S×24.˚24E, h1km±464km, ML2.1, Presumed earthquake*

PRE 05 10:50:55.7±1.1, 25.˚06S×27.˚07E, h2km, ML2.2, Presumed earthquake, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**1.00**	**146**	*e*P	Pg	10 51 15.3	+0.4
HRAO				*e*S	Sg	10 51 28.2	+0.4
LBTB	**Lobatse**	**1.34**	**272**	*i* P	Pg	10 51 17.8	-3.6
LBTB				*i* S	Sg	10 51 35.1	-3.6
LBTB				IAML		10 51 39.2	
	comp=N,30nm,0.8s						
LBTB	**Lobatse**	**1.34**	**272**	*e*P	Pb	10 51 21.9	+0.4
LBTB				*e*S	Sn	10 51 39.6	-0.3
LBTB				IAML		10 51 47.7	
	comp=Z,17nm,0.7s						
LEPH	**Lephalale, Lim**	**1.36**	**29**	*e*P	Pn	10 51 21.6	-0.3
LEPH				*e*S	Sn	10 51 40.6	0.0
LEPH				IAML		10 51 53.6	
	comp=Z,12nm,0.7s						
LPHEP	**Lephephe**	**2.02**	**327**	*i* P	Pn	10 51 31.5	+0.7
LPHEP				*i* S	Sn	10 51 56.5	-0.2
LPHEP				IAML		10 51 59.6	
	comp=E,23nm,0.3s						
CRAIL	**Swartwater, Li**	**2.49**	**26**	*e*P	Pn	10 51 37.8	+0.4
CRAIL				*e*S	Sn	10 52 09.7	+1.4
CRAIL				IAML		10 52 20.8	
	comp=Z,159nm,0.2s						
NWCL	**Newcastle**	**3.68**	**137**	*e*P	Pn	10 51 54.4	+0.6
NWCL				*e*S	Sn	10 52 38.1	+0.3
NWCL				IAML		10 52 54.2	
	comp=Z,6.5nm,1.1s						
BROLN	**Tlhalogang**	**3.95**	**4**	*i* P	Pb	10 52 06.9	+0.8
BROLN				IAML		10 52 59.1	
	comp=E,12nm,0.5s						

KRSC 05 10:53:28.0±1.7, 49.˚47N×155.˚66E, h110km±18km, Ml4.2, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**1.25**	**14**	*e*P	Pn	10 53 52.6	+0.8
SKR				*e*S	Sn	10 54 11.6	+1.7
PAU	**Pauzhetka**	**2.13**	**20**	*e*P	Pn	10 54 03.5	+1.0
PAU				*e*S	Sn	10 54 31.5	+2.5
KDTR	**Khodutka, Kamc**	**2.80**	**32**	*e*P	Pn	10 54 12.5	+1.3
KDTR				*e*S	Sn	10 54 45.1	+0.6
ASAK	**Asacha**	**3.24**	**25**	*e*P	Pn	10 54 19.4	+2.2
MTVR	**Mutnovka**	**3.41**	**27**	*e*P	Pn	10 54 21.8	+2.4
MTVR				*e*S	Sn	10 55 02.4	+3.1
GRL	**Gorelyy**	**3.44**	**25**	*e*P	Pn	10 54 22.5	+2.6
GRL				*e*S	Sn	10 55 02.4	+2.5
RUS	**Russkaya**	**3.47**	**30**	*e*P	Pn	10 54 21.4	+1.3
RUS				*e*S	Sn	10 55 01.2	+0.7
APC	**Apacha**	**3.58**	**15**	*e*P	Pn	10 54 22.3	+0.7
KRMR	**Karymshinskiy**	**3.71**	**24**	*e*P	Pn	10 54 25.4	+2.1
UGLR	**Uglovaya**	**4.24**	**27**	*e*P	Pn	10 54 33.2	+2.7
KOK	**Koryaka**	**4.25**	**25**	*e*P	Pn	10 54 33.7	+2.9
AVH	**Avacha**	**4.26**	**26**	*e*P	Pn	10 54 34.1	+3.3
SMAR	**Somma**	**4.28**	**26**	*e*P	Pn	10 54 33.7	+2.6
KRER	**Koryakskii**	**4.30**	**26**	*e*P	Pn	10 54 34.1	+2.7
SDLR	**Sedlovina**	**4.31**	**27**	*e*P	Pn	10 54 33.8	+2.2
KRX	**Arik**	**4.32**	**25**	*e*P	Pn	10 54 34.3	+2.6
SPN	**Mys Shipunski**	**4.55**	**35**	*e*P	Pn	10 54 36.8	+2.3
KZV	**Kizimen**	**6.32**	**25**	*e*P	Pn	10 55 00.8	+2.1
TUMD	**Tumrok D**	**6.43**	**25**	*e*P	Pn	10 55 03.2	+3.1

HEL 05 10:53:36.1±0.4, 67.˚64N×20.˚89E, h0km, ML1.2, Explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LANU	**Lannavaara**	**0.59**	**45**	PG	Pg	10 53 46.5	-0.8
LANU				SG	Sg	10 53 54.6	-0.3
SALU	**Saltoluokta**	**0.95**	**255**	*e*P	Pg	10 53 54.9	+0.5
PAJU	**Pajala**	**1.06**	**125**	PG	Pg	10 53 54.8	-1.5
PAJU				SG	Sg	10 54 09.1	-1.0
ERTU	**Ertsjaerv**	**1.20**	**154**	PG	Pg	10 53 57.6	-1.4
ERTU				SG	Sg	10 54 14.7	+0.1
KLF	**Kolari**	**1.25**	**107**	PG	Pg	10 53 58.6	-1.5
	baz=293						
KLF				MSG		10 54 13.9	
	comp=Z,1.5nm,0.2s						
KLF				SG	Sg	10 54 14.9	-1.3
HEF	**Hetta**	**1.30**	**52**	*e*P	Pg	10 53 58.9	-2.0
HEF	**Hetta**	**1.30**	**52**	PG	Pg	10 53 59.1	-1.8
HEF				MSG		10 54 15.2	
	comp=Z,1.9nm,0.2s						
HEF				SG	Sg	10 54 15.9	-1.8
KTK1	**Kautokeino**	**1.63**	**31**	PN	Pn	10 54 06.2	+0.2
KTK1				SN	Sg	10 54 28.6	+0.2
TOF	**Tornio**	**2.07**	**137**	PB	Pn	10 54 12.8	+0.7
TOF				MSG		10 54 37.8	
	comp=Z,1.5nm,0.2s						
TOF				SG	Sb	10 54 39.6	-1.1
RNF	**Rovaniemi**	**2.25**	**115**	PG	Pn	10 54 15.5	+0.9
RNF				SG	Sb	10 54 44.5	-1.4
ARA0	**ARCESS Array S**	**2.55**	**40**	PB	Pn	10 54 20.0	+1.4
	baz=220						
ARA0				SB	Sn	10 54 51.6	+1.3
RANF	**Ranua**	**2.84**	**122**	SB	Sb	10 55 01.7	-1.3
RAJF	**Raja-Jooseppi**	**2.91**	**70**	SB	Sb	10 55 03.0	-1.8
KEV	**Kevo**	**3.08**	**44**	PB	Pn	10 54 27.1	+1.2
KEV				SN	Sn	10 55 03.1	-0.3

*HEL **05** 10:54:23.5±0.3, 67.˚63N×20.˚93E, h0km, ML1.7, Suspected explosion*

UPP 05 10:54:22.6±0.4, 67.˚63N×20.˚95E, h0km, ML2.3, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MASU	**Masugnsbyn**	**0.44**	**113**	P	Pg	10 54 31.0	0.0
MASU				S	Sg	10 54 37.1	+0.4
LANU	**Lannavaara**	**0.58**	**43**	P	Pg	10 54 33.5	-0.1
LANU				S	Sg	10 54 41.7	+0.5
LANU	**Lannavaara**	**0.58**	**43**	PG	Pg	10 54 33.6	-0.1
LANU				SG	Sg	10 54 41.8	+0.7
PAJU	**Pajala**	**1.04**	**125**	P	Pg	10 54 41.7	-0.8
PAJU				S	Sg	10 54 55.5	-0.4
PAJU	**Pajala**	**1.04**	**125**	PG	Pg	10 54 41.8	-0.6
PAJU				SG	Sg	10 54 55.4	-0.4
ERTU	**Ertsjaerv**	**1.19**	**155**	P	Pg	10 54 44.7	-0.6
ERTU	**Ertsjaerv**	**1.19**	**155**	PG	Pg	10 54 45.1	-0.2
ERTU				SB	Sg	10 55 01.0	+0.4
KLF	**Kolari**	**1.23**	**107**	PG	Pg	10 54 45.7	-0.4
KLF				MSG		10 55 01.1	
	comp=Z,3.9nm,0.2s						
KLF				SG	Sg	10 55 02.1	+0.1
HEF	**Hetta**	**1.29**	**51**	PG	Pg	10 54 46.3	-0.9
	baz=233						
HEF				MSG		10 55 02.4	
	comp=Z,5.4nm,0.2s						
HEF				SG	Sg	10 55 03.1	-0.8
KTK1	**Kautokeino**	**1.63**	**30**	PG	Pb	10 54 53.1	-0.4
KTK1				SN	Sg	10 55 15.8	+1.0
TOF	**Tornio**	**2.05**	**138**	PG	Pb	10 54 59.9	-0.8
TOF				MSG		10 55 24.7	
	comp=Z,7.6nm,0.2s						
TOF				SG	Sb	10 55 26.0	-0.6
TRO	**Tromso**	**2.14**	**341**	SG	Sg	10 55 30.9	-0.5
RNF	**Rovaniemi**	**2.23**	**115**	PB	Pb	10 55 02.3	-1.4
RNF				SG	Sb	10 55 31.8	0.0
ARA0	**ARCESS Array S**	**2.54**	**39**	PB	Pb	10 55 07.3	-1.8
	baz=227						
ARA0				SB	Sn	10 55 38.7	+2.0
RANF	**Ranua**	**2.82**	**122**	SG	Sb	10 55 49.0	+0.2
RAJF	**Raja-Jooseppi**	**2.89**	**70**	SG	Sb	10 55 50.9	0.0
BURU	**Burvik**	**3.06**	**177**	PB	Pb	10 55 16.9	-1.0
BURU				SB	Sn	10 55 52.2	+2.7
KEV	**Kevo**	**3.08**	**43**	SB	Sn	10 55 51.1	+1.4
OUL	**Oulu**	**3.24**	**140**	SB	Sb	10 56 00.8	0.0
OBF4	**Vikkela, Lumij**	**3.29**	**147**	PN	Pn	10 55 15.9	+0.6
VRF	**Varrio**	**3.31**	**84**	PN	Pn	10 55 17.3	+1.7
VRF				SG	Sb	10 56 04.8	+2.0
OLKF	**Oulanka, Finla**	**3.57**	**108**	PG	Pg	10 55 28.8	-2.2
UMAU	**Umeaa**	**3.77**	**182**	PN	Pn	10 55 23.6	+1.8
UMAU				SN	Sn	10 56 08.6	+1.9
KU6	**Riekki**	**3.88**	**110**	PN	Pn	10 55 24.0	+0.5
KU1	**Kurvinen**	**4.01**	**117**	PN	Pn	10 55 26.7	+1.5
	baz=307						
KU1				SN	Sn	10 56 13.3	+0.4
HUSU	**Husum**	**4.37**	**190**	SN	Sn	10 56 21.7	+0.2
VAF	**Ylistaro**	**4.66**	**170**	SN	Sn	10 56 30.3	+1.5

*IDC **05** 11:02:08.1±0.8, 3.˚39S×131.˚08E, h0km, mb4.0/9, mbtmp4.1/14, ML3.7/4, MS3.1/8, Error ellipse: s-maj=22.5km s-min=11.7km az=90.0*
*DJA **05** 11:02:11.9±0.3, 3.˚5S±2.˚2×13.˚1E±˚, h12km±2km, M4.1/13, ML4.1/13*

ISC 05 11:02:11.6±0.6, 3.˚46S±0.˚06×131.˚24E±0.˚05, h30km, n22, σ2s60/25, mb3.9/8, MS3.0/4, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FAKI	**Fak Fak**	**1.15**	**62**	P	**Pn**	**11 02 33.4**	**+1.7**
FAKI				S	**Sn**	**11 02 47.9**	**+1.5**
FAKI				AML	AML		
BNDI	**Bandanaira

	5.3nm,0.7s						
KRVT	**Keravat (AS076**	**20.76**	**93**	LR	LR	11 16 05.4	
	comp=Z,51nm,20.5s,baz=284,slow=40						
GUMO	**Guam**	**21.68**	**38**	LR	LR	11 16 14.8	
	comp=Z,29nm,19.3s,baz=118,slow=39						
CTA	**Charters Tower**	**22.08**	**140**	P	**P**	**11 07 06.2**	**+1.8**
	3.2nm,0.8s,baz=327,slow=9.6,SNR=4.7						
CTA				LR	LR	11 17 12.7	
	comp=Z,72nm,21.8s,baz=298,slow=41						
	3.2nm,0.8s						
CMAR	**Chiang Mai Arr**	**38.55**	**306**	P	**P**	**11 09 31.1**	**-0.8**
	0.9nm,0.8s,baz=130,slow=6.3,SNR=7.2						
	0.9nm,0.8s						
MJAR	**Matsushiro Arr**	**40.33**	**9**	LR	LR	11 23 46.1	
	comp=Z,38nm,21.1s,baz=206,slow=32						
SONM	**Songino Array**	**55.53**	**340**	P	**P**	**11 11 44.5**	**+0.3**
	1.0nm,0.8s,baz=164,slow=6.0,SNR=3.7						
	1.0nm,0.8s						
ZALV	**Zalesovo Beam**	**69.00**	**333**	P	**P**	**11 13 14.6**	**+0.5**
	0.8nm,0.2s,baz=108,slow=4.7,SNR=6.1						
	0.8nm,0.2s						
KURBB	**Kurchatov Arra**	**70.18**	**327**	P	**P**	**11 13 21.6**	**+0.1**
	5.1nm,0.8s,baz=128,slow=5.6,SNR=34						
	5.1nm,0.8s						
BVAR	**Borovoye Array**	**75.77**	**327**	P	**P**	**11 13 55.1**	**+0.6**
	4.4nm,0.9s,baz=139,slow=5.7,SNR=10						
	4.4nm,0.9s						
VNDA	**Vanda**	**75.79**	**173**	P	**P**	**11 13 56.1**	**+1.9**
	0.9nm,0.8s,baz=306,slow=7.4,SNR=6.8						
	0.9nm,0.8s						
ILAR	**Eielson Array**	**89.64**	**25**	P	**P**	**11 15 05.7**	**-0.6**
	0.3nm,0.8s,baz=264,slow=3.4,SNR=1.7						
	0.3nm,0.8s						

*MOS **05** 11:05:54.6±1.8,45˚.02N×150˚.19E,h76km,mb4.5/1,Error ellipse: s-maj=12.6km s-min=10.8km az=137.4*
*SKHL **05** 11:05:54.4±0.5,45˚.20N×150˚.30E,h72km×3km,mb5.2/3*
*JMA **05** 11:05:57.5±0.5,45˚N×150˚0E±˚,h119km,MV3.8/17, KURILE ISLANDS REGION*
*IDC **05** 11:05:58.0±3.0,45˚.28N×149˚.98E,h86km±26km,mb3.5/13, mbtmp3.8/16,MS3.3/5,Error ellipse: s-maj=23.7km s-min=17.4km az=141.0*
*NEIC **05** 11:05:58.2±1.5,45˚.2N±0˚.1×150˚.0E±0˚.2,h89km±4km, mb4.3/8,Error ellipse: s-maj=20.4km s-min=12.7km az=133.0*

ISC 05 11:05:54.5±0.6,**45˚.14N**±0˚.07×**150˚.20E**±0˚.07,**h51**km,**n66,**
σ1§38/60,mb3.8/15,MS3.2/4,1C,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
KUR	**Kuril'sk**	**1.65**	**274**	*e*PN		**Pn**	**11 06 20.5**	**-0.5**
KUR				*e*S		**Sn**	**11 06 39.9**	**-1.2**
KUR				pmax		pmax		
	comp=Z,726nm,0.3s							
KUR				pmax		pmax		
	comp=N,305nm,0.2s							
KUR				pmax		pmax		
	comp=E,105nm,0.2s							
KUR				smax		smax		
	comp=N,952nm,0.3s							
KUR				smax		smax		
	comp=E,263nm,0.4s							
KUR	**Kuril'sk**	**1.65**	**274**	*e*P		**Pn**	**11 06 20.9**	**-0.1**
KUR				AMB		AMB	11 06 21.8	
	comp=E,810nm,0.3s							
KUR				*e*S		**Sn**	**11 06 40.4**	**-0.7**
KUR				A		A	11 06 44.6	
	comp=E,830nm,0.3s							
KUR				A		A	11 06 44.6	
	comp=E,740nm,0.3s							
SHO	**Shikotan**	**2.73**	**243**	*e*P		Pn	11 06 55.4	+20
SHO				AMB		AMB	11 06 56.7	
	comp=E,40nm,0.3s							
SHO				*e*S		Sn	11 07 24.6	+17
SHO				A		A	11 07 34.8	
	comp=E,340nm,0.3s							
SHO				A		A	11 07 34.8	
	comp=E,400nm,0.3s							
YUK	**Yuzh-Kuril'sk**	**3.29**	**252**	*i* PN		**Pn**	**11 06 44.7**	**+1.3**
YUK				*i* S		**Sn**	**11 07 23.9**	**+2.6**
YUK	**Yuzh-Kuril'sk**	**3.29**	**252**	*e*P		**Pn**	**11 06 44.8**	**+1.3**
YUK				AMB		AMB	11 06 47.5	
	comp=E,360nm,0.3s							
YUK				*e*S		**Sn**	**11 07 22.5**	**+1.2**
YUK				A		A	11 07 28.0	
	comp=E,430nm,0.3s							
YUK				A		A	11 07 28.0	
	comp=E,530nm,0.3s							
NEM2	**Nemuro 2**	**3.66**	**243**	*e*P		**Pn**	**11 06 47.8**	**-0.8**
NEM2				*e*S		**Sn**	**11 07 29.6**	**-0.8**
NMR	**Nemuro--Hokkai**	**3.67**	**243**	⇑*i*PN		**Pn**	**11 06 47.7**	**-1.0**
NMR				*i* S		**Sn**	**11 07 28.3**	**-2.3**
NMR	**Nemuro--Hokkai**	**3.67**	**243**	*i* P		**Pn**	**11 06 49.3**	**+0.6**
NMR				*i* S		**Sn**	**11 07 29.5**	**-1.1**
RUSJ	**Misakicho**	**3.68**	**255**	*e*PN		**Pn**	**11 06 50.9**	**+2.0**
JRA	**Rausu**	**3.82**	**253**	*e*P		**Pn**	**11 06 52.6**	**+1.8**
JNK	**Nakash**	**4.23**	**250**	*e*P		**Pn**	**11 06 58.1**	**+1.7**
JNK				*e*S		**Sn**	**11 07 45.9**	**+1.5**
AKK	**Akkeshi**	**4.41**	**243**	*e*P		**Pn**	**11 06 59.7**	**+0.9**
JAK	**Akkeshi**	**4.51**	**244**	*e*P		**Pn**	**11 07 00.6**	**+0.5**
JAK				*e*S		**Sn**	**11 07 51.1**	**-0.2**
JTKR	**Abashiri--Toko**	**4.65**	**258**	*e*P		**Pn**	**11 07 04.8**	**+2.8**
JAR	**Ashorobuto**	**4.97**	**250**	P		**Pn**	**11 07 08.8**	**+2.2**
JAR				*e*S		**Sn**	**11 08 05.8**	**+3.0**
JOB	**Onbets**	**5.11**	**246**	P		**Pn**	**11 07 09.2**	**+0.9**
YSS	**Yuzhno-Sakhali**	**5.49**	**292**	*i* PN		**Pn**	**11 07 14.8**	**+1.1**
YSS	**Yuzhno-Sakhali**	**5.49**	**292**	Pn		**Pn**	**11 07 14.2**	**+0.6**
YSS	**Yuzhno-Sakhali**	**5.49**	**292**	*e*P		**Pn**	**11 07 14.7**	**+1.1**
YSS				AMB		AMB	11 07 15.0	
	comp=E,20nm,0.3s							
JKA	**Kamikawa-asahi**	**5.52**	**262**			**Pn**	**11 07 14.8**	**+0.8**
ASAJ	**Asahikawa**	**5.52**	**262**	P		**Pn**	**11 07 14.8**	**+0.8**
	comp=E,6.2nm,0.4s,baz=159,slow=18,SNR=2.1							
JCH	**Churui**	**5.55**	**245**	*e*P		**Pn**	**11 07 15.3**	**+0.8**
JCH				*e*S		**Sn**	**11 08 16.0**	**-0.9**
ERM	**Erimo**	**5.99**	**241**	*i* PN		**Pn**	**11 07 22.5**	**+2.0**
TYV	**Tymovskoe**	**7.64**	**321**	*e*PN		Pn	11 07 51.1	+8.1
TYV				pmax		pmax		
	comp=Z,13nm,1.3s							
TYV				pmax		pmax		
	comp=Z,300nm,4.0s							
TYV	**Tymovskoe**	**7.64**	**321**	*e*P		**Pn**	**11 07 43.9**	**+0.9**
JTM	**Tenmabayashi**	**7.98**	**240**	Pn		**Pn**	**11 07 48.1**	**+0.3**
PETK	**Petropavlovsk-**	**9.36**	**29**	P		**Pn**	**11 08 10.7**	**+4.0**
	comp=Z,3.6nm,0.8s,baz=216,slow=14,SNR=4.9							
KLR	**Kul'dur**	**13.19**	**295**	LR		LR	11 13 37.5	
	comp=Z,70nm,19.2s,baz=120,slow=35							
KSRS	**Korea Array**	**18.38**	**253**	P		**P**	**11 10 05.2**	**+0.2**
	comp=Z,0.9nm,0.6s,baz=57,slow=12,SNR=4.7							
KSRS	**Korea Array**	**18.38**	**253**	*e*P		**Pn**	**11 10 06.3**	**+0.8**
KSRS	**Korea Array**	**18.38**	**253**	*e*P		**Pn**	**11 10 06.3**	**+0.8**
YAK	**Yakutsk**	**20.68**	**332**	P		**P**	**11 10 29.7**	**-0.2**
	comp=Z,15nm,0.7s,baz=349,slow=1.5,SNR=4.7							
	comp=Z,15nm,0.7s							
YAK	**Yakutsk**	**20.68**	**332**	*e*P		Pn	11 10 33.2	+0.5
YAK				pmax		pmax		
	comp=Z,17nm,0.9s							
YAK	**Yakutsk**	**20.68**	**332**	*e*P		**P**	**11 10 30.9**	**+1.0**
HILR	**Hailar Array B**	**21.02**	**293**	LR		LR	11 19 53.6	
	comp=Z,76nm,21.4s,baz=50,slow=40							
H11N2	**WAKE ISLAND Hy**	**28.88**	**146**	T		T	11 42 25.3	
	baz=336,slow=76,SNR=598							
H11N1	**WAKE ISLAND Hy**	**28.89**	**146**	T		T	11 42 36.2	
	baz=336,slow=76,SNR=539							
H11N3	**WAKE ISLAND Hy**	**28.89**	**146**	T		T	11 42 33.2	
	baz=336,slow=76,SNR=545							
H11S1	**WAKE ISLAND Hy**	**29.91**	**147**	T		T	11 43 47.9	
	baz=336,slow=76,SNR=946							
H11S3	**WAKE ISLAND Hy**	**29.91**	**147**	T		T	11 43 43.1	
	baz=336,slow=76,SNR=718							
H11S2	**WAKE ISLAND Hy**	**29.93**	**147**	T		T	11 43 43.5	
	baz=336,slow=76,SNR=758							
E19K	**Redstone River**	**35.14**	**32**	P		**P**	**11 12 43.1**	**+0.3**
IMAR	**Indian Mountai**	**36.26**	**35**	P		**P**	**11 12 52.4**	**+0.1**
D22K	**Ayikyak River**	**37.09**	**30**	P		**P**	**11 12 59.6**	**+0.2**
TOLK	**Toolik Lake Re**	**38.18**	**31**	P		**P**	**11 13 08.9**	**+0.2**
TOLK				IAmb		IAmb	11 13 22.8	
	comp=Z,6.7nm,1.4s							
E24K	**Your Creek**	**38.52**	**32**	P		**P**	**11 13 12.1**	**+0.5**
E24K				IAmb		IAmb	11 13 12.8	
	comp=Z,6.0nm,1.3s							
G24K	**Hadweenzic Riv**	**38.84**	**34**	P		**P**	**11 13 14.9**	**+0.8**
ILAR	**Eielson Array**	**39.07**	**37**	P		**P**	**11 13 14.7**	**-1.4**
	comp=Z,0.5nm,0.8s,baz=273,slow=8.5,SNR=3.7							
	comp=Z,0.5nm,0.8s							
MKAR	**Makanchi Array**	**45.88**	**298**	LR		LR	11 36 15.0	
	comp=Z,37nm,18.6s,baz=359,slow=40							
KRVT	**Keravat (AS076**	**49.26**	**178**	LR		LR	11 32 29.1	
	comp=Z,17nm,20.5s,baz=162,slow=32							
FINES	**FINESS Array B**	**64.61**	**334**	P		**P**	**11 16 24.5**	**-1.6**
	comp=Z,1.1nm,0.6s,baz=40,slow=11,SNR=1.0							
	comp=Z,1.1nm,0.6s							
NVAR	**Mina Array Bea**	**64.99**	**60**	P		**P**	**11 16 29.8**	**+0.5**
	comp=Z,0.4nm,0.6s,baz=309,slow=7.3,SNR=2.6							
	comp=Z,0.4nm,0.6s							
WR8	**Warramunga Arr**	**66.34**	**196**	P		**P**	**11 16 38.6**	**+0.8**
WR8				IAmb		IAmb	11 16 53.9	
	comp=Z,5.4nm,1.3s							
WRA	**Warramunga Arr**	**66.36**	**196**	P		**P**	**11 16 37.1**	**-0.8**
	comp=Z,0.2nm,0.6s,baz=8.8,slow=6.6,SNR=2.0							
	comp=Z,0.2nm,0.6s							
PDAR	**Pinedale Array**	**67.34**	**52**	P		**P**	**11 16 44.1**	**-0.2**
	comp=Z,0.4nm,0.8s,baz=316,slow=8.4,SNR=2.9							
	comp=Z,0.4nm,0.8s							
ULM	**Lac du Bonnet**	**69.06**	**39**	P		**P**	**11 16 52.8**	**-1.8**
	comp=Z,3.3nm,1.0s,baz=13,slow=13,SNR=2.7							
	comp=Z,3.3nm,1.0s							
ULM	**Lac du Bonnet**	**69.06**	**39**	IAmb		IAmb	11 16 56.4	
	comp=Z,18nm,1.5s							
ASAR	**Alice Springs**	**70.07**	**196**	P		**P**	**11 17 02.6**	**+1.5**
	comp=Z,0.2nm,0.7s,baz=9.5,slow=6.5,SNR=1.9							
	comp=Z,0.2nm,0.7s							
KBZ	**Khabaz**	**70.48**	**313**	P		**P**	**11 17 01.6**	**-1.9**
	comp=Z,2.0nm,0.9s,baz=41,slow=3.0,SNR=4.0							
	comp=Z,2.0nm,0.9s							
AKASG	**Malin Array Be**	**71.72**	**325**	P		**P**	**11 17 09.1**	**-1.7**
	comp=Z,0.7nm,0.5s,baz=40,slow=6.3,SNR=4.9							
	comp=Z,0.7nm,0.5s							
GNI	**Garni**	**71.99**	**309**	LR		LR	11 51 27.7	
	comp=Z,48nm,20.3s,baz=206,slow=38							
EKA	**Eskdalemuir Ar**	**77.39**	**345**	P		**P**	**11 17 42.7**	**-0.9**
	comp=Z,0.4nm,0.4s,baz=24,slow=7.1,SNR=1.3							
	comp=Z,0.4nm,0.4s							
GERES	**GERESS Array B**	**78.97**	**332**	P		**P**	**11 17 51.6**	**-1.1**
	comp=Z,0.5nm,0.5s,baz=23,slow=7.2,SNR=4.5							
	comp=Z,0.5nm,0.5s							
TXAR	**Lajitas Array**	**80.06**	**58**	P		**P**	**11 17 59.3**	**+0.4**
	comp=Z,0.5nm,0.5s,baz=296,slow=4.4,SNR=14							
	comp=Z,0.5nm,0.5s							
H03N2	**Juan Fernandez**	**140.78**	**90**	T		T	14 02 27.4	
	baz=313,slow=76,SNR=12							
H03N1	**Juan Fernandez**	**140.79**	**90**	T		T	14 02 28.7	
	baz=309,slow=76,SNR=13							

*SOME **05** 11:11:09.5,44˚.10N×82˚.12E,h20km*
*NNC **05** 11:11:11.0±1.2,44˚.15N×81˚.97E,h0km,mb3.6,mpv3.2, Error ellipse: s-maj=13.1km s-min=5.0km az=131.0*

ISC 05 11:11:06.3±1.6,**44˚.08N**±0˚.06×**82˚.30E**±0˚.06,**h4**km±13km,
n31,σ1§50/48,8C-6D,Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DJR	**Jarkent**	**1.82**	**279**	P		**Pg**	**11 11 41.1**	**0.0**
	16nm,0.2s							
DJR				S		**Sb**	**11 12 04.4**	**+1.0**
	138nm,0.4s							
DJR	**Jarkent**	**1.82**	**279**	*e*P		**Pg**	**11 11 41.1**	**0.0**
	16nm,0.2s							
DJR				*e*S		**Sb**	**11 12 04.4**	**+1.0**
	138nm,0.4s							
PDGK	**Podgornoye**	**2.17**	**251**	⇓Pn		**Pb**	**11 11 46.4**	**+0.2**
	8.8nm,0.4s							
PDGK				⇑Sn		**Sb**	**11 12 13.6**	**+0.1**
	52nm,0.4s							
SHLS	**Shalkode**	**2.26**	**247**	P		**Pn**	**11 11 44.1**	**-0.3**
	86nm,0.4s							
SHLS				S		**Sn**	**11 12 09.2**	**-3.6**
	140nm,0.3s							
KAPS	**Kapalarasan**	**2.42**	**301**	Pg		**Pb**	**11 11 50.3**	**-0.1**
	5.1nm,0.0s							
KAPS				Lg		Lg	11 12 19.7	
	84nm,0.2s							
KAPS	**Kapalarasan**	**2.42**	**301**	*e*P		**Pb**	**11 11 50.3**	**-0.1**
	5.1nm,0.0s							
KAPS				*e*S		**Sb**	**11 12 19.7**	**-0.8**
	84nm,0.2s							
UZB	**Uzynbulak**	**2.56**	**250**	Pg		**Pb**	**11 11 52.3**	**-0.5**
	9.8nm,0.3s							
UZB				Lg		Lg	11 12 24.2	
	38nm,0.2s							
UZB	**Uzynbulak**	**2.56**	**250**	*e*P		**Pb**	**11 11 52.3**	**-0.5**
	9.8nm,0.3s							
UZB				*e*S		**Sb**	**11 12 24.2**	**-0.3**
	38nm,0.2s							
KPKS	**Kokpek**	**2.69**	**258**	Pg		**Pb**	**11 11 53.5**	**-1.5**
	0.2nm,0.1s							
KPKS				Lg		Lg	11 12 25.3	
	224nm,0.4s							
KPKS	**Kokpek**	**2.69**	**258**	*e*P		**Pb**	**11 11 53.5**	**-1.5**
	0.2nm,0.1s							
KPKS				*e*S		**Sn**	**11 12 25.3**	**+1.9**
	224nm,0.4s							
MK31	**Makanchi Array**	**2.71**	**360**	⇑Pn		**Pb**	**11 11 54.4**	**-1.0**
	0.3nm,0.5s,baz=183,slow=13,SNR=127							
MK31				⇓Pg		**Pg**	**11 12 00.0**	**+1.8**
	1.8nm,0.3s,baz=184,slow=17,SNR=18							
MK31				⇑Lg		Lg	11 12 33.4	
	3.2nm,0.3s,baz=186,slow=28,SNR=5.9							
MAKZ	**Makanchi**	**2.74**	**355**	⇑Pn		**Pb**	**11 11 54.5**	**-1.2**
	3.0nm,0.6s							
MAKZ				⇑Pg		**Pg**	**11 12 00.9**	**+2.2**
	12nm,0.6s							
MAKZ				⇑Lg		Lg	11 12 34.2	
	13nm,0.6s							
SATY	**Saty**	**3.01**	**252**	Pg		**Pb**	**11 12 00.8**	**+0.4**
	2.7nm,0.2s							
SATY				Lg		Lg	11 12 37.4	
	32nm,0.2s							
SATY	**Saty**	**3.01**	**252**	*e*P		**Pb**	**11 12 00.8**	**+0.4**
	2.7nm,0.2s							
SATY				*e*S		**Sb**	**11 12 37.4**	**-0.1**
	32nm,0.2s							
KURS	**Kuram**	**3.05**	**260**	Pg		**Pb**	**11 12 01.9**	**+0.8**
	3.3nm,0.6s							
KURS				Lg		Lg	11 12 39.1	
	14nm,0.4s							
KURS	**Kuram**	**3.05**	**260**	*e*P		**Pb**	**11 12 01.9**	**+0.8**
	3.3nm,0.6s							
KURS				*e*S		**Sb**	**11 12 39.1**	**+0.5**
	14nm,0.4s							
ARXS	**Arharly**	**3.22**	**274**	Pg		**Pb**	**11 12 04.5**	**+0.5**
	1.8nm,0.2s							
ARXS				Lg		Lg	11 12 44.4	
	49nm,0.5s							
ARXS	**Arharly**	**3.22**	**274**	*e*P		**Pb**	**11 12 04.5**	**+0.5**
	1.8nm,0.2s							
ARXS				*e*S		**Sb**	**11 12 44.4**	**+0.7**
	49nm,0.5s							
ZSN	**Zaisan**	**3.82**	**27**	Pg		**Pg**	**11 12 19.4**	**0.0**
	4.9nm,0.3s							
ZSN				Lg		Lg	11 13 09.3	
	20nm,0.3s							
ZSN	**Zaisan**	**3.82**	**27**	*e*P		**Pg**	**11 12 19.4**	**0.0**
	4.9nm,0.3s							
ZSN				*e*S		**Sg**	**11 13 09.3**	**+0.5**
	20nm,0.3s							
MDOK	**Medeo**	**3.92**	**258**	Pg		**Pb**	**11 12 17.5**	**+1.5**
	19nm,0.4s							
MDOK				Lg		Lg	11 13 06.4	
	23nm,0.7s							
MDOK	**Medeo**	**3.92**	**258**	*e*P		**Pb**	**11 12 17.5**	**+1.5**
	19nm,0.4s							
MDOK				*e*S		**Sb**	**11 13 06.4**	**+2.5**
	23nm,0.7s							
TNSS	**Tian-Shan**	**4.03**	**257**	Pg		**Pg**	**11 12 22.2**	**-1.2**
	1.2nm,0.3s							
TNSS				Lg		Lg	11 13 14.2	
	6.5nm,0.5s							
TNSS	**Tian-Shan**	**4.03**	**257**	*e*P		**Pg**	**11 12 22.2**	**-1.2**
	1.2nm,0.3s							
TNSS				*e*S		**Sg**	**11 13 14.2**	**-1.5**
	6.5nm,0.5s							
KTBS	**Karatobe**	**4.08**	**267**	Pg		**Pb**	**11 12 18.9**	**+0.3**
	0.2nm,0.1s							
KTBS				Lg		Lg	11 13 08.6	
	40nm,0.5s							
KTBS	**Karatobe**	**4.08**	**267**	*e*P		**Pb**	**11 12 18.9**	**+0.3**
	0.2nm,0.1s							
KTBS				*e*S		**Sb**	**11 13 08.6**	**+0.4**
	40nm,0.5s							
KRBS	**Karabastau**	**4.80**	**268**	Pg		**Pb**	**11 12 32.8**	**+1.8**
	1.5nm,0.4s							
KRBS				Lg		Lg	11 13 32.5	
	8.6nm,0.5s							
KRBS	**Karabastau**	**4.80**	**268**	*e*P		**Pb**	**11 12 32.8**	**+1.8**
	1.5nm,0.4s							
KRBS				*e*S		**Sb**	**11 13 32.5**	**+3.4**
	8.6nm,0.5s							
AAK	**Ala-Archa**	**5.87**	**258**	⇑Pg		**Pb**	**11 12 53.7**	**+4.5**
	2.4nm,0.8s							
AAK				⇓Lg		Lg	11 14 11.0	
	2.6nm,0.7s							
KURBB	**Kurchatov Arra**	**7.03**	**340**	⇓Pg		**Pg**	**11 13 19.2**	**-1.6**
	3.8nm,0.7s							
KURBB				⇓Lg		Lg	11 14 48.4	
	12nm,0.6s							
KURK	**Kurchatov**	**7.09**	**341**	⇓Pg		**Pg**	**11 13 19.8**	**-2.2**
	2.1nm,0.9s							
KURK				⇑Lg		Lg	11 14 53.0	
	5.2nm,0.7s							

*IDC **05** 11:23:50.6±4.5,13˚.02S×170˚.31E,h595km±83km,mb3.1/4, mbtmp4.1/6,Error ellipse: s-maj=100.3km s-min=23.0km az=155.0*
*NOU **05** 11:24:01.9,14˚.21S×170˚.48E,h548km,MLv4.5/11, Vanuatu Islands Region*

ISC 05 11:23:53.0±1.1,**13˚.45S**±0˚.1×**170˚.3E**±0˚.1,**h635**km,**n29,**
σ1§50/31,mb3.9/4,Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SANVU	**Saraoutou**	**3.61**	**236**	P		**P**	**11 25 19.0**	**+0.4**
SANVU	**Saraoutou**	**3.61**	**236**	P		**P**	**11 25 19.0**	**+0.4**
SANVU				S		**S**	**11 26 26.3**	**-2.1**
SANVU				AML		AML		
DVP	**Devils Point**	**4.73**	**205**	P		**P**	**11 25 25.7**	**-0.4**
MARNC	**Mare, Loyalty**	**8.29**	**195**	P		**P**	**11 25 55.4**	**-0.8**
MSVF	**Nonsavu**	**8.60**	**121**	P		**P**	**11 25 57.7**	**-1.5**
	1.3nm,0.2s,baz=299,slow=13,SNR=1.3							
MSVF	**Nonsavu**	**8.60**	**121**	P		**P**	**11 26 01.1**	**+1.8**
MSVF				S		**S**	**11 27 45.1**	**+2.5**
YATNC	**Mamie plateau,**	**9.17**	**200**	P		**P**	**11 26 05.1**	**+0.5**
DZM	**Mont Dzumac**	**9.34**	**203**	P		**P**	**11 26 06.6**	**+0.3**
	5.2nm,0.5s,baz=259,slow=13,SNR=19							
NOUC	**Port Laguerre**	**9.42**	**203**	P		**P**	**11 26 07.8**	**+0.8**
PINNC	**Pines Island,**	**9.52**	**196**	P		**P**	**11 26 07.7**	**-0.2**
ONTNC	**Ouen Toro**	**9.55**	**202**	P		**P**	**11 26 08.9**	**+0.7**
BKZ	**Black Stump Fm**	**26.20**	**169**	P		**P**	**11 26 38.1**	**-1.9**
QRZ	**Quartz Range**	**27.36**	**176**	P		**P**	**11 28 51.1**	**+1.1**
DUWZ	**D'Urville Isla**	**27.45**	**174**	P		**P**	**11 28 50.1**	**-0.7**
MRZ	**Mangatainoka R**	**27.51**	**171**	P		**P**	**11 28 49.7**	**-1.6**
OGWZ	**Otaki Gorge**	**27.61**	**172**	P		**P**	**11 28 49.9**	**-2.2**
CAW	**Cannon Point**	**27.88**	**172**	P		**P**	**11 28 52.2**	**-2.3**
TCW	**Tory Channel**	**27.89**	**174**	P		**P**	**11 28 53.1**	**-1.5**
TUWZ	**Tuamarina**	**28.07**	**174**	P		**P**	**11 28 55.1**	**-1.0**
BHW	**Baring Head**	**28.15**	**173**	P		**P**	**11 28 54.5**	**-2.3**
MSWZ	**Moikau Station**	**28.21**	**172**	P		**P**	**11 28 55.1**	**-2.3**
THZ	**Tophouse**	**28.31**	**176**	P		**P**	**11 28 57.8**	**-0.6**
KHZ	**Kahutara**	**29.01**	**175**	P		**P**	**11 29 02.0**	**-2.2**
INZ	**Inchbonnie**	**29.20**	**178**	P		**P**	**11 29 05.3**	**-0.6**
LTZ	**Lake Taylor**	**29.29**	**177**	P		**P**	**11 29 05.6**	**-1.1**
STKA	**Stephens Creek**	**32.08**	**230**	P		**P**	**11 29 32.1**	**+1.5**
	0.7nm,0.3s,baz=87,slow=12,SNR=4.3							
	0.7nm,0.3s							
WRA	**Warramunga Arr**	**35.01**	**254**	P		**P**	**11 29 56.0**	**+0.8**
	3.2nm,0.5s,baz=83,slow=8.3,SNR=31							
	3.2nm,0.5s							
ASAR	**Alice Springs**	**35.89**	**248**	P		**P**	**11 30 03.3**	**+0.9**
	3.1nm,0.3s,baz=79,slow=8.6,SNR=126							
	3.1nm,0.3s							
ILAR	**Eielson Array**	**84.42**	**17**	P		**P**	**11 35 19.0**	**-0.9**
	0.5nm,0.7s,baz=226,slow=5.4,SNR=5.7							
	0.5nm,0.7s							

*HEL **05** 11:44:59.5±0.1,64˚.79N×30˚.79E,h0km,ML2.2,Explosion*
*KOLA **05** 11:45:00.6,64˚.77N×30˚.84E,h0km,ML2.6,Error ellipse: s-maj=13.4km s-min=9.1km az=150.0,Kostomuksha, Karelia*

ISC 05 11:44:59.1±1.0,**64˚.82N**±0˚.03×**30˚.84E**±0˚.04,**h0**km,**n40,**
σ1§36/50,Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
RMF	**Romuvaara**	**0.72**	**213**	*e*P		**Pg**	**11 45 11.7**	**-1.1**
KU1	**Kurvinen**	**0.92**	**325**	*e*P		**Pg**	**11 45 16.0**	**-0.7**
KU1				*e*S		**Sg**	**11 45 27.8**	**-0.9**
KU6	**Riekki**	**1.27**	**342**	*e*P		**Pg**	**11 45 22.7**	**-0.8**
KU6				*e*S		**Sg**	**11 45 39.6**	**-0.3**
MSF	**Maaselka**	**1.33**	**326**	*e*P		**Pg**	**11 45 23.5**	**-1.0**
MSF				*e*S		**Sg**	**11 45 41.5**	**-0.3**
KU2	**Taivalkoski**	**1.42**	**310**	*e*P		**Pn**	**11 45 24.6**	**-1.5**
KU2				*e*S		**Sg**	**11 45 43.2**	**-1.3**
OLKF

MORC	**Moravsky Berou**	**2.65**	**105**	*e*PN	**Pn**	**11 57 56.7**	**-0.3**
MOA	**Molln**	**2.71**	**170**	*e*Pn	**Pn**	**11 57 57.8**	**-0.1**
	0.5nm,0.2s						
MOA				*e*Pg	**Pb**	**11 58 03.3**	**+1.0**
	1.1nm,0.1s						
MOA				*e*Sn	**Sn**	**11 58 31.1**	**-0.2**
	1.1nm,0.1s						
MOA				*e*Sg	**Sg**	**11 58 38.7**	**-1.3**
	12nm,0.4s						
BIOA	**Bad Ischl, Aus**	**2.83**	**179**	*e*Pg	**Pg**	**11 58 07.0**	**-0.3**
	1.5nm,0.2s						
BIOA				Sg	**Sg**	**11 58 44.4**	**+0.4**
	8.8nm,0.4s						
WINA	**Alland / Wiene**	**2.91**	**145**	*e*Pg	**Pg**	**11 58 07.5**	**-1.3**
	2.1nm,0.2s						
WINA				*e*Sg	**Sg**	**11 58 44.8**	**-1.7**
	10nm,0.3s						
CONA	**Conrad Observa**	**2.99**	**149**	*e*Pn	**Pn**	**11 58 02.8**	**+1.0**
	0.2nm,0.1s						
CONA				*e*Pg	**Pg**	**11 58 10.3**	**0.0**
	1.3nm,0.1s						
CONA				*e*Sg	**Sb**	**11 58 45.7**	**+1.3**
	9.0nm,0.4s						
JAVC	**Velka Javorina**	**3.13**	**121**	*e*PN	**Pn**	**11 58 03.3**	**-0.3**
LESA	**Schwarzleotal**	**3.16**	**191**	*e*Pg	**Pb**	**11 58 11.3**	**+1.3**
	3.8nm,0.4s						
LESA				*e*Sg	**Sg**	**11 58 53.3**	**-1.1**
	6.4nm,0.3s						
MODS	**Modra-Piesok**	**3.23**	**130**	*e*SG	**Sg**	**11 58 58.7**	**+2.1**
RONA	**Rosalia, Austr**	**3.34**	**147**	*e*Sg	**Sg**	**11 58 58.0**	**-2.1**
	4.3nm,0.3s						
WATA	**Walderalm**	**3.45**	**203**	*e*Pn	**Pn**	**11 58 07.8**	**-0.4**
	2.1nm,0.2s						
WTTA	**Wattenberg**	**3.50**	**202**	*i* Pn	**Pn**	**11 58 08.5**	**-0.4**
	0.7nm,0.1s						
MOTA	**Moosalm**	**3.58**	**208**	*e*Pn	**Pn**	**11 58 09.4**	**-0.4**
	0.6nm,0.1s						

NNC ***05*** *11:59:12.8±9.3, 37°.67N×68°.40E, h22km±41km, mb3.7, mpv3.3, Error ellipse: s-maj=62.9km s-min=37.5km az=27.0*

ISC 05 11:59:01.7±4.9, 37°.0N±0°.3×68°.1E±0°.2, h10km, n9, σ2°.79/12, 3C-1D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
KK31	**Karatay Array**	**6.41**	**16**	Pn		**Pn**	**12 00 38.6**	**+2.4**
	0.8nm,0.3s,baz=191,slow=13,SNR=4.4							
KK31				Pg		**Pb**	**12 00 56.6**	**+3.3**
	1.4nm,0.4s,baz=192,slow=16,SNR=5.3							
KK31				Lg		Lg	12 02 11.3	
	13nm,0.7s,baz=194,slow=29,SNR=4.6							
UCH	**Uchtor**	**7.22**	**41**	P		**Pn**	**12 00 46.2**	**-1.5**
	SNR=18							
AAK	**Ala-Archa**	**7.50**	**39**	P		**Pn**	**12 00 49.9**	**-1.5**
	SNR=8.5							
AAK	**Ala-Archa**	**7.50**	**39**	⇑Pn		**Pn**	**12 00 49.5**	**-1.8**
	2.9nm,0.7s							
AAK				⇑Lg		Lg	12 02 47.7	
	3.1nm,0.8s							
KBK	**Karagaybulak**	**7.75**	**41**	P		**Pn**	**12 00 53.6**	**-1.1**
	SNR=21							
USP	**Ospenovka**	**7.98**	**36**	P		**Pn**	**12 00 55.6**	**-2.2**
	SNR=8.0							
TKM2	**Tokmak 2**	**8.28**	**42**	P		**Pn**	**12 01 00.4**	**-1.6**
	SNR=8.6							
AB31	**Akbulak array**	**13.65**	**337**	Pn		**Pn**	**12 02 15.5**	**+0.3**
	0.7nm,0.5s,baz=156,slow=12,SNR=19							
AB31				⇑Sn		**Sn**	**12 04 41.1**	**-5.7**
	1.2nm,0.7s,baz=169,slow=22,SNR=2.7							
AKTO	**Aktyubinsk**	**15.30**	**335**	Pn		**Pn**	**12 02 39.1**	**+1.5**
	1.0nm,0.7s							
AKTO				⇓Sn		**Sn**	**12 05 25.6**	**-1.4**
	2.1nm,1.1s							

THE ***05*** *12:02:28.7, 38°.N±2°.×2°.7E±°, h8km±3km, M3.4/7, MLh3.4/7*
AFAD ***05*** *12:02:28.3, 37°.79N×26°.91E, h7km±3km, ML3.2*
ISK ***05*** *12:02:28.7, 37°.80N×26°.93E, h8km, ML3.4/11*
ATH ***05*** *12:02:28.7, 37°.79N×26°.91E, h11km±2km, ML3.5/5, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 05 12:02:28.5±0.8, 37°.78N±0°.02×26°.90E±0°.02, h15km±5km, n44, σ0°42/72, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
SMG	**Samos**	**0.09**	**217**	P		**Pg**	**12 02 31.6**	**-0.1**
SMG				S		**Sg**	**12 02 33.6**	**-0.2**
SMG				AML		AML		
SMG	**Samos**	**0.09**	**217**	P		**Pg**	**12 02 31.5**	**-0.2**
SMG				S		**Sg**	**12 02 33.4**	**-0.4**
SMG				AML		AML		
KRL1	**Karlovasi Samo**	**0.16**	**276**	P		**Pg**	**12 02 32.5**	**0.0**
KRL1				S		**Sg**	**12 02 35.5**	**+0.3**
KRL1				AML		AML		
SAM2	**Drakei, Karlov**	**0.23**	**265**	P		**Pg**	**12 02 33.8**	**+0.1**
SAM2				S		**Sg**	**12 02 36.7**	**-0.6**
DGB	**zmir**	**0.27**	**356**	P		**Pg**	**12 02 34.1**	**-0.2**
DGB				S		**Sg**	**12 02 37.9**	**-0.4**
DGB				IAML			12 02 38.0	
	comp=N,1μm,0.3s							
DGB				IAML			12 02 38.0	
	comp=E,2μm,0.2s							
GCAM	**G?zelcaml?**	**0.27**	**107**	P		**Pg**	**12 02 34.4**	**+0.1**
GCAM				S		**Sg**	**12 02 38.8**	**+0.5**
GCAM				IAML			12 02 39.0	
	comp=N,5μm,0.7s							
GCAM				IAML			12 02 39.0	
	comp=E,6μm,0.3s							
GCAM	**G?zelcaml?**	**0.27**	**107**	Pg		**Pg**	**12 02 34.4**	**+0.1**
GCAM				Sg		**Sg**	**12 02 38.5**	**+0.2**
GCAM				AML		AML		
GMLD	**Gumuldur**	**0.30**	**2**	Pg		**Pg**	**12 02 34.8**	**0.0**
GMLD				Sg		**Sg**	**12 02 39.1**	**+0.1**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**75**	Pg		**Pg**	**12 02 34.9**	**-0.2**
DDIM	**Aydin, Didim**	**0.42**	**140**	P		**Pg**	**12 02 36.4**	**-0.5**
DDIM				S		**Sb**	**12 02 43.4**	**-0.4**
DDIM				IAML			12 02 44.0	
	comp=N,2μm,0.4s							
DDIM				IAML			12 02 44.0	
	comp=E,2μm,0.3s							
BEYE	**izmir**	**0.45**	**2**	P		**Pg**	**12 02 37.4**	**-0.1**
BEYE				S		**Sg**	**12 02 43.0**	**-0.5**
BEYE				IAML			12 02 44.0	
	comp=N,1μm,0.4s							
DIDI	**Didim-Aydin**	**0.48**	**146**	Pg		**Pb**	**12 02 38.8**	**+0.1**
DIDI				Sg		**Sb**	**12 02 46.1**	**+0.5**
DIDI				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**326**	P		**Pg**	**12 02 39.2**	**-0.3**
ZEYE				S		**Sb**	**12 02 47.7**	**0.0**
ZEYE				IAML			12 02 49.0	
	comp=E,3μm,0.5s							
ZEYE				IAML			12 02 50.0	
	comp=N,6μm,0.3s							
BLCB	**Balcova**	**0.61**	**10**	P		**Pg**	**12 02 40.1**	**-0.5**
BLCB				S		**Sg**	**12 02 48.4**	**-0.4**
BLCB				AML		AML		
BLCB	**Balcova**	**0.61**	**10**	Pg		**Pg**	**12 02 40.6**	**0.0**
BLCB				Sg		**Sb**	**12 02 49.3**	**-0.1**
DUVT	**Torbali**	**0.61**	**44**	P		**Pg**	**12 02 40.3**	**-0.3**
DUVT				S		**Sg**	**12 02 48.6**	**-0.2**
DUVT				IAML			12 02 49.0	
	comp=E,1μm,0.3s							
DAGE	**izmir**	**0.71**	**71**	P		**Pb**	**12 02 42.9**	**+0.3**
DAGE				S		**Sg**	**12 02 51.3**	**-0.4**
DAGE				IAML			12 02 54.0	
	comp=E,902nm,0.2s							
DAGE				IAML			12 02 55.0	
	comp=N,821nm,0.9s							
CESE	**eme**	**0.73**	**319**	Pg		**Pb**	**12 02 43.6**	**+0.7**
CESE				AML		AML		
AYDN	**Tasoluk**	**0.78**	**98**	P		**Pg**	**12 02 43.3**	**-0.5**
AYDN				S		**Sb**	**12 02 54.3**	**0.0**
BODT	**Bodrum**	**0.79**	**156**	P		**Pg**	**12 02 43.3**	**-0.6**
BODT				S		**Sb**	**12 02 55.3**	**+1.0**
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.80**	**78**	Pg		**Pb**	**12 02 44.4**	**+0.2**
AYDB				Sg		**Sb**	**12 02 55.2**	**+0.4**
AYDB				AML		AML		
KLNA	**Kalymnos**	**0.82**	**176**	P		**Pb**	**12 02 44.7**	**+0.2**
KLNA				S		**Sb**	**12 02 56.5**	**+1.1**
BDRM	**Kayabasi**	**0.83**	**149**	P		**Pg**	**12 02 44.2**	**-0.5**
BDRM				S		**Sb**	**12 02 56.7**	**+1.0**
BDRM				IAML			12 02 59.0	
	comp=N,645nm,0.3s							
KRBN	**Karaburun**	**0.86**	**341**	Pg		**Pb**	**12 02 45.3**	**+0.2**
KRBN				AML		AML		
CHOS	**Chios island**	**0.90**	**312**	P		**Pb**	**12 02 45.8**	**-0.1**
CHOS				S		**Sb**	**12 02 58.4**	**+0.6**
CHOS				AML		AML		
CHOS	**Chios island**	**0.90**	**312**	Pg		**Pn**	**12 02 46.6**	**-0.1**
CHOS				AML		AML		
CHOS	**Chios island**	**0.90**	**312**	P		**Pg**	**12 02 46.2**	**+0.1**
CHOS				S		**Sb**	**12 02 58.2**	**+0.4**
CHOS				AML		AML		
FOCM	**Foa**	**0.94**	**352**	Pg		**Pb**	**12 02 46.5**	**0.0**
KARB	**zmir-Karabur**	**0.96**	**336**	P		**Pb**	**12 02 46.4**	**-0.5**
KARB				S		**Sn**	**12 03 00.7**	**-0.2**
KARB				IAML			12 03 02.0	
	comp=N,568nm,0.6s							
EAG2	**Marmaro, Chios**	**0.99**	**321**	P		**Pn**	**12 02 47.8**	**0.0**
EAG2				S		**Sb**	**12 03 00.1**	**0.0**
CAMT	**Merkez**	**1.02**	**18**	P		**Pb**	**12 02 47.9**	**0.0**
CAMT				S		**Sn**	**12 03 02.8**	**+0.4**
CAMT				IAML			12 03 04.0	
	comp=E,967nm,0.3s							
CAMT				IAML			12 03 05.0	
	comp=N,915nm,0.5s							
NAZL	**Nazilli-Aydin**	**1.11**	**80**	Pn		**Pb**	**12 02 49.3**	**-0.2**
NAZL				AML		AML		
GOMA	**Golmarmara-Man**	**1.22**	**40**	Pn		**Pg**	**12 02 51.9**	**-0.2**
GOMA				AML		AML		
YER	**Yerkesik**	**1.27**	**120**	P		**Pn**	**12 02 51.8**	**0.0**
DKL	**Dikili**	**1.29**	**0**	Pn		**Pg**	**12 02 53.2**	**-0.2**
DKL	**Dikili**	**1.29**	**0**	P		**Pn**	**12 02 51.7**	**-0.2**
DKL				S		**Sn**	**12 03 09.4**	**+0.4**
APE	**Apeiranthos**	**1.30**	**237**	P		**Pn**	**12 02 50.8**	**-1.4**
APE				AML		AML		
AKS	**Akhisar**	**1.31**	**33**	Pn		**Pg**	**12 02 53.3**	**-0.5**
SOMA	**Soma-Manisa**	**1.46**	**20**	Pn		**Pb**	**12 02 55.7**	**+0.3**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.51**	**41**	Pn		**Pb**	**12 02 56.2**	**0.0**
GORD				AML		AML		
PRK	**Paraskevi**	**1.55**	**341**	P		**Pn**	**12 02 56.0**	**+0.5**
PRK	**Paraskevi**	**1.55**	**341**	P		**Pb**	**12 02 57.0**	**+0.1**
PRK				S		**Sb**	**12 03 16.4**	**+0.2**
DION	**Dionisos Attik**	**2.37**	**278**	P		**Pn**	**12 03 07.0**	**+0.1**
ALN	**Alexandroupoli**	**3.18**	**348**	P		**Pn**	**12 03 17.9**	**-0.1**

DJA ***05*** *12:06:49.8±0.5, 2°.N±4°.×12°.8E±°, h147km±4km, M4.0/12, mb4.3/4, MLv3.8/12*
IDC ***05*** *12:06:49.5±3.7, 2°.25N×128°.21E, h163km±42km, mb3.4/6, mbtmp3.8/7, Error ellipse: s-maj=86.4km s-min=15.4km az=69.0*
NEIC ***05*** *12:06:49.8±1.4, 2°.3N±0°.1×128°.3E±0°.1, h161km±10km, mb4.1/7, Error ellipse: s-maj=21.2km s-min=12.5km az=218.0*

ISC 05 12:06:48.2±0.8, 2°.40N±0°.07×128°.29E±0°.07, h150km, n25, σ1s26/29, mb3.9/10, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
TNTI	**Ternate**	**1.86**	**210**			**Pn**	**12 07 22.7**	**+0.9**
TNTI	**Ternate**	**1.86**	**210**	P		**Pn**	**12 07 22.9**	**+1.1**
SIJI	**Sorong**	**4.41**	**137**	P		**Pn**	**12 07 54.6**	**+0.8**
	10nm,0.3s,baz=330,slow=17,SNR=13							
SIJI				S		**Sn**	**12 08 46.0**	**+1.1**
	4.0nm,0.7s,baz=197,slow=21,SNR=1.4							
SIJI	**Sorong**	**4.41**	**137**	P		**Pn**	**12 07 55.2**	**+1.4**
SIJI				AML		AML		
DDMP	**Don Marcelino,**	**4.49**	**325**	*e*P		**Pn**	**12 07 57.1**	**+2.2**
DDMP				*e*S		**Sn**	**12 08 46.3**	**-0.6**
KMSI	**Cibinong**	**4.67**	**247**	P		**Pn**	**12 07 57.7**	**+0.4**
SANI	**Sanana**	**4.98**	**208**	P		**Pn**	**12 08 00.4**	**-1.1**
SANI				AML		AML		
GTOI	**Gorontalo**	**5.56**	**252**	P		**Pn**	**12 08 11.2**	**+2.1**
	0.1nm38nm,0.7s							
GTOI				S		**Sn**	**12 09 13.2**	**+0.9**
	0.1nm38nm,0.7s							
GTOI				AML		AML		
LUWI	**Luwuk**	**6.49**	**238**	Pn		**Pn**	**12 08 23.4**	**+1.9**
FAKI	**Fak Fak**	**6.60**	**143**			**Pn**	**12 08 24.3**	**+1.3**
FAKI	**Fak Fak**	**6.60**	**143**	P		**Pn**	**12 08 24.8**	**+1.8**
FAKI				S		**Sn**	**12 09 38.5**	**+1.2**
TOLI2	**Tolitoli**	**7.61**	**260**			**Pn**	**12 08 36.8**	**+0.3**
KNRA	**Kununurra**	**17.97**	**179**	P		**P**	**12 10 46.9**	**-0.3**
KNRA				IAmb	IAmb		12 11 13.5	
	comp=Z,16nm,1.4s							
WB0	**Warramunga Arr**	**22.83**	**165**	P		**P**	**12 11 37.2**	**-1.3**
WB0				IAmb	IAmb		12 11 39.5	
	comp=Z,7.2nm,1.2s							
WRA	**Warramunga Arr**	**22.98**	**165**	P		**P**	**12 11 38.8**	**-1.1**
	comp=Z,1.2nm,0.6s,baz=343,slow=10,SNR=14							
	comp=Z,1.2nm,0.6s							
WRA	**Warramunga Arr**	**22.98**	**165**	P		**P**	**12 11 37.8**	**-2.1**
WR8	**Warramunga Arr**	**23.04**	**165**	P		**P**	**12 11 39.8**	**-0.7**
WR8				IAmb	IAmb		12 11 60.0	
	comp=Z,5.5nm,1.2s							
ASAR	**Alice Springs**	**26.48**	**168**	P		**P**	**12 12 10.3**	**-1.3**
	comp=Z,0.4nm,0.5s,baz=354,slow=8.2,SNR=15							
ASAR				PcP		**PcP**	**12 15 31.9**	**-1.0**
	comp=Z,0.3nm,0.5s,baz=341,slow=2.1,SNR=4.1							
	comp=Z,0.4nm,0.5s							
BBOO	**Buckleboo**	**35.78**	**169**	P		**P**	**12 13 31.9**	**-1.1**
BBOO				IAmb	IAmb		12 13 59.5	
	comp=Z,34nm,1.5s							
STKA	**Stephens Creek**	**36.36**	**161**	P		**P**	**12 13 37.1**	**-0.8**
	comp=Z,1.3nm,0.4s,baz=338,slow=9.9,SNR=12							
	comp=Z,1.3nm,0.4s							
MKAR	**Makanchi Array**	**59.53**	**325**	P		**P**	**12 16 36.4**	**+0.6**
	comp=Z,0.5nm,0.4s,baz=117,slow=8.4,SNR=7.8							
	comp=Z,0.5nm,0.4s							
KURBB	**Kurchatov Arra**	**63.69**	**327**	P		**P**	**12 17 04.2**	**+0.6**
	comp=Z,0.7nm,0.5s,baz=127,slow=5.8,SNR=7.8							
	comp=Z,0.7nm,0.5s							
KURK	**Kurchatov**	**63.69**	**327**	P		**P**	**12 17 04.2**	**+0.6**
KURK	**Kurchatov**	**63.69**	**327**	IAmb	IAmb		12 17 13.0	
	comp=Z,4.5nm,1.5s							
BVAR	**Borovoye Array**	**69.28**	**327**	P		**P**	**12 17 39.0**	**-0.1**
	comp=Z,0.4nm,0.4s,baz=107,slow=9.2,SNR=3.7							
	comp=Z,0.4nm,0.4s							

NNC ***05*** *12:09:17.8±1.5, 40°.35N×76°.90E, h0km, mb3.4, mpv3.0, Error ellipse: s-maj=10.2km s-min=6.3km az=169.0*
SOME ***05*** *12:09:17.0, 40°.25N×76°.88E, h15km*
KRNET ***05*** *12:09:18.8±0.1, 40°.28N×76°.52E, mb2.9*

ISC 05 12:09:11.9±2.0, 40°.18N±0°.07×76°.87E±0°.04, h2km±14km, n31, σ1s31/50, 14C-8D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
NRN	**Naryn**	**1.42**	**333**	⇓*i*P		**Pg**	**12 09 41.8**	**+2.8**
NRN				⇓*i*S		**Sg**	**12 09 59.0**	**+1.6**
BOOM	**Boomskoye usch**	**2.41**	**343**	⇑*e*P		**Pg**	**12 09 59.6**	**+1.5**
BOOM				⇑*i*S		**Sg**	**12 10 29.2**	**-0.2**
SALK	**Salom-Alik**	**2.43**	**288**	⇑*i*P		**Pg**	**12 09 57.7**	**-0.7**
SALK				⇑*i*S		**Sb**	**12 10 25.6**	**-1.1**
SFK	**Sufi-Kurgan**	**2.59**	**267**	⇑*e*P		**Pb**	**12 10 00.5**	**+1.4**
SFK				⇑*e*S		**Sb**	**12 10 31.0**	**-0.4**
ANVS	**Anan'yevo**	**2.67**	**13**	⇓*e*P		**Pg**	**12 10 04.5**	**+1.5**
ANVS				⇓*e*S		**Sg**	**12 10 38.2**	**+0.5**
UCH	**Uchtor**	**2.71**	**320**	⇑*e*P		**Pb**	**12 10 02.4**	**+1.1**
UCH				⇑*i*S		**Sb**	**12 10 33.9**	**-1.3**
TNSS	**Tian-Shan**	**2.86**	**1**	Pg		**Pg**	**12 10 07.4**	**+0.8**
	1.1nm,0.2s							
TNSS				Lg		Lg	12 10 43.5	
	3.3nm,0.2s							
TNSS	**Tian-Shan**	**2.86**	**1**	*e*P		**Pg**	**12 10 07.4**	**+0.8**
	1.1nm,0.2s							
TNSS				*e*S		**Sg**	**12 10 43.5**	**-0.2**
	3.3nm,0.2s							
TKM2	**Tokmak 2**	**2.90**	**341**	⇑*i*P		**Pg**	**12 10 06.2**	**-1.3**
TKM2				⇑*i*S		**Sb**	**12 10 40.5**	**+0.1**
KST	**Kastek**	**2.94**	**347**	Pg		**Pg**	**12 10 09.2**	**+0.9**
	0.9nm,0.1s							
KST				Lg		Lg	12 10 46.6	
	9.2nm,0.3s							
KST	**Kastek**	**2.94**	**347**	*e*P		**Pg**	**12 10 09.2**	**+0.9**
	0.9nm,0.1s							
KST				*e*S		**Sg**	**12 10 46.6**	**+0.3**
	9.2nm,0.3s							
AAK	**Ala-Archa**	**3.04**	**325**	⇑Pg		**Pg**	**12 10 10.3**	**+0.3**
	0.6nm,0.4s							
AAK				⇓Lg		Lg	12 10 49.0	
	5.2nm,0.8s							
SATY	**Saty**	**3.10**	**21**	Pg		**Pg**	**12 10 11.9**	**+0.7**
	1.6nm,0.2s							
SATY				Lg		Lg	12 10 51.4	
	11nm,0.3s							
SATY	**Saty**	**3.10**	**21**	*e*P		**Pg**	**12 10 11.9**	**+0.7**
	1.6nm,0.2s							
SATY				*e*S		**Sg**	**12 10 51.4**	**-0.1**
	11nm,0.3s							
ARSB	**Arslanbob**	**3.17**	**292**	⇑*e*P		**Pb**	**12 10 08.1**	**-0.8**
ARSB				⇑*e*S		**Sb**	**12 10 44.0**	**-4.0**
UZB	**Uzynbulak**	**3.38**	**28**	Pg		**Pg**	**12 10 16.4**	**-0.2**
	1.6nm,0.1s							
UZB				Lg		Lg	12 10 59.2	
	4.4nm,0.3s							
UZB	**Uzynbulak**	**3.38**	**28**	*e*P		**Pg**	**12 10 16.4**	**-0.2**
	1.6nm,0.1s							
UZB				*e*S		**Sg**	**12 10 59.2**	**-1.1**
	4.4nm,0.3s							
KURS	**Kuram**	**3.45**	**16**	Pg		**Pg**	**12 10 17.8**	**-0.1**
	4.2nm,0.3s							
KURS				Lg		Lg	12 11 01.7	
	9.0nm,0.4s							
KURS	**Kuram**	**3.45**	**16**	*e*P		**Pg**	**12 10 17.8**	**-0.1**
	4.2nm,0.3s							
KURS				*e*S		**Sg**	**12 11 01.7**	**-0.9**
	9.0nm,0.4s							
KTBS	**Karatobe**	**3.53**	**358**	Pg		**Pg**	**12 10 19.1**	**-0.4**
	0.1nm,0.0s							
KTBS				Lg		Lg	12 11 03.5	
	3.8nm,0.3s							
KTBS	**Karatobe**	**3.53**	**358**	*e*P		**Pg**	**12 10 19.1**	**-0.4**
	0.1nm,0.0s							
KTBS				*e*S		**Sg**	**12 11 03.5**	**-1.8**
	3.8nm,0.3s							
KPKS	**Kokpek**	**3.55**	**22**	Pg		**Pg**	**12 10 19.8**	**-0.2**
	0.2nm,0.1s							
KPKS				Lg		Lg	12 11 05.1	
	7.5nm,0.4s							
KPKS	**Kokpek**	**3.55**	**22**	*e*P		**Pg**	**12 10 19.8**	**-0.2**
	0.2nm,0.1s							
KPKS				*e*S		**Sg**	**12 11 05.1**	**-0.9**
	7.5nm,0.4s							
KRBS	**Karabastau**	**3.63**	**346**	Pg		**Pg**	**12 10 21.0**	**-0.3**
	2.1nm,0.3s							
KRBS				Lg		Lg	12 11 07.4	
	24nm,0.5s							
KRBS	**Karabastau**	**3.63**	**346**	*e*P		**Pg**	**12 10 21.0**	**-0.3**
	2.1nm,0.3s							
KRBS				*e*S		**Sg**	**12 11 07.4**	**-0.9**
	24nm,0.5s							
PDGK	**Podgornoye**	**3.71**	**31**	⇓Pg		**Pb**	**12 10 19.6**	**+1.4**
PDGK				⇑Lg		Lg	12 11 09.5	
	1.8nm,0.6s							
MRKS	**Merke**	**3.75**	**314**	Pg		**Pg**	**12 10 24.8**	**+1.1**
	1.8nm,0.2s							
MRKS				Lg		Lg	12 11 13.5	
	5.1nm,0.2s							
MRKS	**Merke**	**3.75**	**314**	*e*P		**Pg**	**12 10 24.8**	**+1.1**
	1.8nm,0.2s							
MRKS				*e*S		**Sg**	**12 11 13.5**	**+1.2**
	5.1nm,0.2s							
MNAS	**Manas**	**4.01**	**306**	⇓*e*P		**Pb**	**12 10 19.7**	**-3.6**
MNAS				⇓*e*S		**Sn**	**12 11 04.7**	**+2.6**
ARXS	**Arharly**	**4.09**	**10**	Pg		**Pg**	**12 10 29.9**	**-0.4**
	1.9nm,0.5s							
ARXS				Lg		Lg	12 11 22.3	
	4.8nm,0.3s							
ARXS	**Arharly**	**4.09**	**10**	*e*P		**Pg**	**12 10 29.9**	**-0.4**
	1.9nm,0.5s							
ARXS				*e*S		**Sg**	**12 11 22.4**	**-1.0**
	4.8nm,0.3s							

IDC ***05*** *12:21:46.0±0.7, 15°.06S×173°.64W, h0km, mb3.9/9, mbtmp3.9/10, ML4.4/1, MS3.4/7, Error ellipse: s-maj=36.6km s-min=16.0km az=143.0*
NEIC ***05*** *12:21:47.0±1.9, 15°.08S±0°.10×173°.4W±0°.1, h10km±1km, mb4.4/8, Error ellipse: s-maj=22.7km s-min=11.5km az=307.0*

ISC 05 12:21:50.1±0.7, 15°.1S±0°.1×173°.4W±0°.1, h30km, n30, σ1s47/16, mb4.1/11, MS3.6/5, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
AFI	**Afiamalu**	**1.99**	**53**	Pn		**Pn**	**12 22 19.4**	**-2.4**
	126nm,0.3s,baz=216,slow=3.0,SNR=101							
AFI				Sn		Sn	12 22 38.7	-7.1
	534nm,0.3s,baz=219,slow=22,SNR=12							
AFI				LR		LR	12 22 54.4	
	comp=Z,218nm,19.0s,baz=203,slow=32							
	530nm,0.3s							
AFI				AML		AML		
NIUE	**Niue**	**5.16**	**140**			**Pn**	**12 23 03.6**	**-1.8**
MSVF	**Nonsavu**	**8.59**	**251**	LR		LR	12 26 51.7	
	comp=Z,340nm,18.4s,baz=102,slow=36							
DZM	**Mont Dzumac**	**20.29**	**247**	P		**P**	**12 26 23.1**	**-0.5**
	3.4nm,0.9s,baz=209,slow=18,SNR=2.4							
	3.4nm,0.9s							
URZ	**Urewera**	**24.52**	**198**	LR		LR	12 35 24.6	
	comp=Z,96nm,20.5s,baz=16,slow=33							
RPZ	**Rata Peaks**	**31.43**	**202**	LR		LR	12 40 19.3	
	comp=Z,30nm,19.4s,baz=246,slow=35							
H11S2	**WAKE ISLAND Hy**	**38.71**	**329**	T		T	13 10 03.9	
	baz=147,slow=76,SNR=6.9							
H11S3	**WAKE ISLAND Hy**	**38.72**	**329**	T		T	13 09 56.5	
	baz=147,slow=76,SNR=18							
H11S1	**WAKE ISLAND Hy**	**38.73**	**329**	T		T	13 09 55.1	
	baz=147,slow=76,SNR=6.6							
H11N3	**WAKE ISLAND Hy**	**39.66**	**330**	T		T	13 11 32.4

mbtmp4.2/6,MS3.5/12,Error ellipse: s-maj=46.5km s-min=20.4km az=67.0
*NEIC **05** 12:33:38.5±1.5,2°.2N±0°.1×102°.0W±0°.2,h10km±1km, mb4.5/42,Error ellipse: s-maj=26.0km s-min=18.4km az=257.0*
ISC 05 12:33:38.3±0.6,**2°.21N**±0°.09×**101°.9W**±0°.1,**h10**km,**n76,** σ1°**08**/66,**mb4.5**/24,**MS3.5**/10,**Galapagos Triple Junction region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**16.31**	**25**	LR	LR	12 42 38.1	
	comp=Z,40nm,19.1s,baz=194,slow=33						
CCIG	**Comitan**	**16.96**	**34**	Pn	**Pn**	**12 37 36.4**	**+0.4**
JTS	**Las Juntas de**	**18.63**	**64**	LR	LR	12 43 01.9	
	comp=Z,200nm,20.8s,baz=254,slow=30						
LPIG	**La Paz**	**23.24**	**340**	LR	LR	12 45 50.8	
	comp=Z,75nm,18.9s,baz=196,slow=32						
ATAH	**Atahualpa**	**25.21**	**112**	LR	LR	12 46 31.6	
	comp=Z,206nm,20.1s,baz=311,slow=31						
TX31	**Lajitas Ar. Si**	**27.03**	**357**	P	**P**	**12 39 19.4**	**-1.5**
TXAR	**Lajitas Array**	**27.03**	**357**	P	**P**	**12 39 22.9**	**+1.9**
	1.4nm,1.0s,baz=181,slow=12,SNR=9.6						
TXAR				PcP	**PcP**	**12 42 43.4**	**+1.1**
	0.7nm,0.8s,baz=188,slow=3.3,SNR=5.0						
TXAR				LR	LR	12 48 35.8	
	comp=Z,80nm,19.6s,baz=180,slow=33 1.4nm,1.0s						
TXAR	**Lajitas Array**	**27.03**	**357**	P	**P**	**12 39 19.2**	**-1.7**
TXAR					**PcP**	**12 42 41.2**	**-1.2**
ROSC	**El Rosal**	**27.63**	**84**	LR	LR	12 48 39.6	
	comp=Z,119nm,19.1s,baz=218,slow=32						
TPB05	**Hovey Rd**	**28.59**	**357**	P	**P**	**12 39 34.5**	**-0.3**
TPB05				IAmb	IAmb	12 39 57.3	
	comp=Z,7.8nm,0.8s						
PECS	**Pecos**	**29.07**	**356**	P	**P**	**12 39 38.4**	**-0.7**
PECS				IAmb	IAmb	12 40 00.2	
	comp=Z,6.4nm,1.0s						
TPB06	**Permian Basin**	**29.31**	**358**	P	**P**	**12 39 39.8**	**-1.5**
TPB06				IAmb	IAmb	12 40 02.5	
	comp=Z,10nm,0.7s						
MNTX	**Cornudas Mount**	**29.52**	**354**	P	**P**	**12 39 41.5**	**-1.5**
CAIB	**Caibarien**	**29.66**	**45**	P	**P**	**12 39 43.7**	**-0.7**
SDV	**Santo Domingo**	**31.78**	**77**	LR	LR	12 50 28.1	
	comp=Z,86nm,20.9s,baz=260,slow=32						
ANMO	**Albuquerque**	**32.85**	**353**	LR	LR	12 52 03.3	
	comp=Z,83nm,21.1s,baz=176,slow=34						
TPO	**Tropico Hills**	**35.89**	**337**	P	**P**	**12 40 37.6**	**-1.2**
TPO				IAmb	IAmb	12 40 47.5	
	comp=Z,7.8nm,0.7s						
T42A	**Van Buren**	**36.05**	**15**	P	**P**	**12 40 40.2**	**+0.2**
WVT	**Waverly**	**36.17**	**19**	P	**P**	**12 40 41.4**	**+0.3**
WVT				IAmb	IAmb	12 40 44.6	
	comp=Z,9.8nm,1.3s						
PV02	**Paradox Valley**	**36.38**	**351**	P	**P**	**12 40 42.4**	**-0.7**
PV02				IAmb	IAmb	12 40 46.5	
	comp=Z,8.7nm,0.9s						
PV18	**Skein Mesa, Pa**	**36.44**	**351**	P	**P**	**12 40 42.2**	**-1.4**
PV18				IAmb	IAmb	12 40 46.6	
	comp=Z,8.8nm,1.1s						
TMUT	**Trail Mountain**	**37.88**	**348**		**P**	**12 40 55.1**	**-0.8**
LPAZ	**La Paz**	**38.07**	**120**	P	**P**	**12 40 59.9**	**+1.7**
	comp=Z,4.4nm,0.8s,baz=327,slow=7.4,SNR=16						
LPAZ				LR	LR	12 52 46.3	
	comp=Z,46nm,21.5s,baz=298,slow=30 comp=Z,4.4nm,0.8s						
LPAZ	**La Paz**	**38.07**	**120**	P	**P**	**12 40 57.0**	**-1.2**
PB11	**IPOC Station P**	**38.43**	**126**	P	**P**	**12 40 59.5**	**-1.2**
PB11				IAmb	IAmb	12 41 09.2	
	comp=Z,10nm,0.8s						
BBGB	**Big Mountain B**	**38.51**	**335**	P	**P**	**12 40 59.6**	**-1.4**
BBGB				IAmb	IAmb	12 41 23.3	
	comp=Z,14nm,0.9s						
BSUT	**Blindstream Ca**	**38.99**	**349**		**P**	**12 41 04.7**	**-0.6**
PB08	**IPOC Station P**	**39.03**	**126**	P	**P**	**12 41 05.3**	**-0.7**
NVAR	**Mina Array Bea**	**39.06**	**339**	P	**P**	**12 41 08.4**	**+2.6**
	comp=Z,1.1nm,0.8s,baz=141,slow=6.6,SNR=6.9 comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**39.06**	**339**	P	**P**	**12 41 04.9**	**-0.8**
BW06	**Boulder Array**	**40.96**	**351**	P	**P**	**12 41 21.2**	**-0.4**
BW06				IAmb	IAmb	12 41 24.6	
	comp=Z,5.5nm,0.9s						
PD31	**Pinedale Array**	**40.96**	**351**		**P**	**12 41 20.5**	**-1.0**
PD31				IAmb	IAmb	12 41 24.6	
	comp=Z,6.0nm,0.9s						
PDAR	**Pinedale Array**	**40.96**	**351**	P	**P**	**12 41 23.4**	**+1.9**
	comp=Z,5.4nm,1.0s,baz=154,slow=7.6,SNR=32						
PDAR				PcP	**PcP**	**12 43 21.4**	**-0.4**
	comp=Z,0.6nm,0.9s,baz=187,slow=2.1,SNR=4.1 comp=Z,5.4nm,1.0s						
PDAR	**Pinedale Array**	**40.96**	**351**		**P**	**12 41 20.7**	**-0.8**
PDAR					**PcP**	**12 43 21.1**	**-0.7**
BOAV	**Boa Vista**	**41.32**	**89**	P	**P**	**12 41 24.8**	**+0.2**
BOAV				IAmb	IAmb	12 41 40.2	
	comp=Z,12nm,1.4s						
H03N2	**Juan Fernandez**	**41.54**	**151**	T	T	13 25 45.4	
	baz=315,slow=75,SNR=13						
H03N1	**Juan Fernandez**	**41.55**	**151**	T	T	13 25 45.5	
	baz=307,slow=75,SNR=15						
PTLB	**Pontes e Lacer**	**45.77**	**114**	P	**P**	**12 42 00.6**	**+0.2**
PTLB				IAmb	IAmb	12 42 04.0	
	comp=Z,4.6nm,1.0s						
EYMN	**Ely**	**46.44**	**10**	P	**P**	**12 42 06.1**	**+0.8**
BI05	**Punta Hualpn**	**47.05**	**148**	P	**P**	**12 42 09.9**	**-0.3**
EPLO	**Experimental L**	**47.80**	**7**	P	**P**	**12 42 17.0**	**+1.1**
MDP	**Montagnes des**	**49.21**	**85**	LR	LR	13 02 19.9	
	comp=Z,43nm,18.2s,baz=67,slow=35						
PPT	**Papeete**	**50.94**	**245**	LR	LR	12 57 56.6	
	comp=Z,68nm,19.6s,baz=202,slow=29						
PLCA	**Paso Flores**	**51.41**	**150**	LR	LR	12 59 13.9	
	comp=Z,68nm,20.0s,baz=296,slow=30						
R33M	**Jennings River**	**61.34**	**344**	P	**P**	**12 43 54.8**	**+0.7**
R33M				IAmb	IAmb	12 44 08.2	
	comp=Z,6.5nm,1.3s						
N31M	**Braeburn, Yuko**	**64.44**	**343**	P	**P**	**12 44 14.5**	**-0.1**
HYT	**Haines Junctio**	**64.45**	**342**	P	**P**	**12 44 14.5**	**-0.4**
L29M	**L29M**	**66.39**	**343**	P	**P**	**12 44 27.8**	**+0.4**
K29M	**Barlow Dome**	**66.78**	**344**	P	**P**	**12 44 29.4**	**-0.5**
K29M				IAmb	IAmb	12 44 32.5	
	comp=Z,6.2nm,1.1s						
DAWY	**Dawson**	**67.49**	**343**	P	**P**	**12 44 33.6**	**-0.7**
DAWY				IAmb	IAmb	12 44 36.7	
	comp=Z,3.1nm,1.1s						
K27K	**Chicken**	**68.26**	**342**	P	**P**	**12 44 39.8**	**+0.7**
K27K				IAmb	IAmb	12 45 18.5	
	comp=Z,8.8nm,1.4s						
SML	**Sawmill**	**68.86**	**338**	P	**P**	**12 44 43.3**	**+0.3**
INK	**Inuvik**	**69.40**	**348**	P	**P**	**12 44 46.2**	**+0.2**
IL31		**70.28**	**341**	P	**P**	**12 44 51.6**	**+0.1**
IL31				IAmb	IAmb	12 44 53.6	
	comp=Z,9.8nm,1.4s						
ILAR	**Eielson Array**	**70.28**	**341**	P	**P**	**12 44 52.4**	**+0.8**
	comp=Z,2.8nm,1.0s,baz=147,slow=4.7,SNR=14 comp=Z,2.8nm,1.0s						
ILAR	**Eielson Array**	**70.28**	**341**	P	**P**	**12 44 51.7**	**+0.1**
PRP	**Porcupine Dome**	**70.36**	**342**	P	**P**	**12 44 52.2**	**-0.1**
PRP				IAmb	IAmb	12 44 55.2	
	comp=Z,9.1nm,1.2s						
M20K	**Styx River**	**70.73**	**337**	P	**P**	**12 44 54.1**	**-0.5**
H11S2	**WAKE ISLAND Hy**	**90.65**	**288**	T	T	14 27 15.0	
	baz=86						
H11S1	**WAKE ISLAND Hy**	**90.66**	**288**	T	T	14 27 14.5	
	baz=86						
H11S3	**WAKE ISLAND Hy**	**90.67**	**288**	T	T	14 27 17.0	
	baz=86						
QSPA	**South Pole Qui**	**92.22**	**180**	P	**P**	**12 46 50.1**	**+1.8**
	comp=Z,3.4nm,1.0s,baz=142,slow=2.3,SNR=5.9 comp=Z,3.4nm,1.0s						
QSPA	**South Pole Qui**	**92.22**	**180**	P	**P**	**12 46 48.6**	**+0.3**
MCQ	**Macquarie Isla**	**97.12**	**215**	P	**P**	**12 47 10.0**	**-0.7**
ASAR	**Alice Springs**	**122.04**	**243**	PKP	**PKPdf**	**12 52 34.1**	**0.0**
	comp=Z,0.8nm,0.9s,baz=120,slow=2.4,SNR=7.3						
WRA	**Warramunga Arr**	**122.39**	**248**	PKP	**PKPdf**	**12 52 34.6**	**-0.2**
	comp=Z,0.3nm,0.8s,baz=88,slow=1.8,SNR=6.5						
ZALV	**Zalesovo Beam**	**123.77**	**355**	PKP	**PKPdf**	**12 52 36.9**	**+0.5**
	comp=Z,1.0nm,0.7s,baz=349,slow=1.5,SNR=3.8						
BVAR	**Borovoye Array**	**124.59**	**6**	PKP	**PKPdf**	**12 52 39.0**	**+0.9**
	comp=Z,1.0nm,0.5s,baz=356,slow=4.3,SNR=4.8						
KURK	**Kurchatov**	**127.28**	**360**		**PKPdf**	**12 52 43.3**	**+0.1**
KURBB	**Kurchatov Arra**	**127.37**	**360**	PKP	**PKPdf**	**12 52 43.3**	**-0.1**
	comp=Z,1.0nm,0.2s,baz=336,slow=1.4,SNR=1.7						
MKAR	**Makanchi Array**	**131.07**	**356**	PKP	**PKPdf**	**12 52 50.8**	**+0.1**
	comp=Z,1.3nm,1.0s,baz=347,slow=5.0,SNR=5.6						
NIL	**Nilore**	**144.04**	**7**	PKPdf	**PKPab**	**12 53 13.3**	**+1.1**
SBUM	**Sibu**	**145.60**	**278**	PKPdf	**PKPdf**	**12 53 15.7**	**-2.4**
UOSS	**Minazif**	**145.64**	**37**	PKPdf	**PKPdf**	**12 53 15.7**	**-2.2**
CMAR	**Chiang Mai Arr**	**150.99**	**316**	PKP	**PKPdf**	**12 53 27.7**	**+0.9**
	comp=Z,1.4nm,1.0s,baz=42,slow=2.2,SNR=8.4						
CMAR				PKPbc	**PKPbc**	**12 53 34.4**	**+1.9**
	comp=Z,5.8nm,0.9s,baz=36,slow=2.6,SNR=25						
CMAR	**Chiang Mai Arr**	**150.99**	**316**		**PKPdf**	**12 53 28.6**	**+1.8**

*ATH **05** 12:40:06.9,37°.87N×27°.34E,h6km±2km,ML3.6/6,Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **05** 12:40:07.8,38°.N±2°.×2°.7E±°,h0km±2km,M3.6/9,MLh3.6/9*
*AFAD **05** 12:40:07.6,37°.87N×27°.27E,h7km±3km,ML3.4*
*ISK **05** 12:40:07.2,37°.87N×27°.29E,h8km,ML3.5/17*
ISC 05 12:40:07.6±0.8,**37°.87N**±0°.02×**27°.30E**±0°.02,**h8**km±5km, **n52,** σ0°**47**/79,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.01**	**245**	Pg	**Pg**	**12 40 08.9**	**-0.2**
KUSD				Sg	**Sg**	**12 40 09.9**	**-0.1**
GCAM	**G?zelcaml?**	**0.17**	**197**	P	**Pg**	**12 40 11.2**	**0.0**
GCAM				IAML		12 40 14.0	
	comp=E,1μm,0.4s						
GCAM				S	**Sg**	**12 40 14.4**	**+0.9**
GCAM	**G?zelcaml?**	**0.17**	**197**	Pg	**Pg**	**12 40 11.3**	**+0.1**
GCAM				Sg	**Sg**	**12 40 14.1**	**+0.5**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.37**	**305**	Pg	**Pg**	**12 40 15.4**	**+0.5**
GMLD				Sg	**Sg**	**12 40 20.6**	**+0.8**
GMLD				AML	AML		
DUVT	**Torbali**	**0.37**	**19**	P	**Pg**	**12 40 15.0**	**0.0**
DGB	**zmir**	**0.38**	**300**	P	**Pg**	**12 40 15.0**	**0.0**
DGB				S	**Sg**	**12 40 20.2**	**+0.2**
DGB				IAML		12 40 21.0	
	comp=N,4μm,0.2s						
DGB				IAML		12 40 21.0	
	comp=E,6μm,0.2s						
SMG	**Samos**	**0.40**	**247**	P	**Pg**	**12 40 15.2**	**-0.2**
SMG				S	**Sg**	**12 40 21.0**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.40**	**247**	P	**Pg**	**12 40 15.3**	**-0.1**
SMG				S	**Sg**	**12 40 20.9**	**+0.3**
SMG				AML	AML		
DDIM	**Aydin, Didim**	**0.41**	**186**	P	**Pg**	**12 40 15.8**	**+0.2**
DDIM				S	**Sb**	**12 40 22.5**	**-1.0**
BEYE	**izmir**	**0.47**	**321**	P	**Pg**	**12 40 17.0**	**+0.3**
BEYE				S	**Sg**	**12 40 23.0**	**+0.2**
BEYE				IAML		12 40 24.0	
	comp=E,2μm,0.3s						
BEYE				IAML		12 40 25.0	
	comp=N,3μm,0.6s						
KRL1	**Karlovasi Samo**	**0.47**	**262**	P	**Pg**	**12 40 16.8**	**-0.1**
KRL1				S	**Sg**	**12 40 23.9**	**+0.8**
KRL1				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.48**	**80**	Pg	**Pg**	**12 40 17.1**	**+0.2**
AYDB				AML	AML		
DIDI	**Didim-Aydin**	**0.49**	**185**	Pg	**Pg**	**12 40 17.1**	**0.0**
DIDI				Sg	**Sg**	**12 40 24.7**	**+1.2**
DIDI				AML	AML		
AYDN	**Tasoluk**	**0.50**	**114**	P	**Pg**	**12 40 18.1**	**+0.7**
SAM2	**Drakei, Karlov**	**0.56**	**259**	P	**Pg**	**12 40 18.7**	**+0.3**
SAM2				S	**Sg**	**12 40 26.3**	**+0.7**
SAM2				AML	AML		
BLCB	**Balcova**	**0.56**	**339**	P	**Pg**	**12 40 18.2**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**339**	Pg	**Pg**	**12 40 18.5**	**+0.1**
BLCB				AML	AML		
IZMR	**zmir-demi**	**0.58**	**62**	P	**Pg**	**12 40 18.9**	**0.0**
IZMR				P	**Pb**	**12 40 19.1**	**-1.1**
IZMR				S	**Sg**	**12 40 26.2**	**-0.4**
MLSB	**Milas**	**0.68**	**146**	Pg	**Pg**	**12 40 21.2**	**+0.4**
MLSB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.73**	**301**	P	**Pg**	**12 40 21.2**	**-0.5**
ZEYE				S	**Sb**	**12 40 32.0**	**-0.8**
ZEYE				IAML		12 40 32.0	
	comp=E,4μm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.74**	**181**	Pg	**Pg**	**12 40 22.1**	**+0.2**
YKAV				AML	AML		
NAZL	**Nazilli-Aydin**	**0.79**	**82**	Pg	**Pg**	**12 40 23.0**	**+0.1**
NAZL				AML	AML		
BODT	**Bodrum**	**0.80**	**179**	P	**Pg**	**12 40 23.5**	**+0.5**
BODT				S	**Sb**	**12 40 35.3**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**179**	Pg	**Pg**	**12 40 23.1**	**0.0**
BODT				AML	AML		
BAGT	**Foa**	**0.86**	**336**	P	**Pb**	**12 40 24.6**	**-0.3**
BAGT				S	**Sb**	**12 40 36.8**	**+0.2**
CAMT	**Merkez**	**0.88**	**1**	P	**Pg**	**12 40 24.7**	**+0.1**
CAMT				S	**Sb**	**12 40 38.1**	**+0.9**
CAMT				IAML		12 40 41.0	
	comp=E,4μm,0.4s						
CAMT				IAML		12 40 46.0	
	comp=N,2μm,0.6s						
CESE	**eme**	**0.92**	**301**	Pg	**Pg**	**12 40 25.2**	**0.0**
CESE				AML	AML		
KRBN	**Karaburun**	**0.94**	**321**	Pg	**Pg**	**12 40 25.5**	**-0.1**
KLNA	**Kalymnos**	**0.94**	**196**	P	**Pg**	**12 40 25.4**	**-0.4**
KLNA				S	**Sg**	**12 40 38.2**	**+0.3**
FOCM	**Foa**	**0.96**	**332**	Pg	**Pg**	**12 40 25.9**	**-0.2**
FOCM				AML	AML		
GOMA	**Golmarmara-Man**	**0.97**	**30**	Pg	**Pg**	**12 40 26.3**	**0.0**
GOMA				AML	AML		
KARB	**zmir-Karabur**	**1.06**	**319**	P	**Pb**	**12 40 28.1**	**-0.2**
KARB				S	**Sb**	**12 40 42.0**	**-0.3**
KARB				IAML		12 40 44.0	
	comp=N,1μm,0.4s						
KARB				IAML		12 40 45.0	
	comp=E,1μm,0.3s						
YER	**Yerkesik**	**1.07**	**133**	P	**Pb**	**12 40 28.6**	**+0.1**
YER				S	**Sb**	**12 40 43.4**	**+0.8**
AKS	**Akhisar**	**1.09**	**22**	Pn	**Pg**	**12 40 28.5**	**-0.1**
AKS				AML	AML		
CHOS	**Chios island**	**1.11**	**298**	P	**Pb**	**12 40 29.3**	**+0.1**
CHOS				S	**Sb**	**12 40 44.1**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.11**	**298**	Pn	**Pb**	**12 40 29.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.11**	**298**	P	**Pg**	**12 40 28.7**	**-0.3**
CHOS				S	**Sb**	**12 40 44.1**	**+0.2**
CHOS				AML	AML		
ZEDA	**zmir-Bergama**	**1.11**	**351**	P	**Pb**	**12 40 29.2**	**0.0**
ZEDA				S	**Sn**	**12 40 44.9**	**-0.2**
ZEDA				IAML		12 40 46.0	
	comp=N,1μm,0.6s						
ZEDA				IAML		12 40 50.0	
	comp=E,950nm,0.7s						
EAG2	**Marmaro, Chios**	**1.16**	**306**	P	**Pg**	**12 40 29.3**	**-0.6**
EAG2				S	**Sb**	**12 40 44.8**	**-0.3**
DKL	**Dikili**	**1.24**	**346**	Pn	**Pg**	**12 40 31.5**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**346**	P	**Pg**	**12 40 31.6**	**0.0**
GORD	**Gordes-Manisa**	**1.25**	**33**	Pn	**Pb**	**12 40 31.4**	**-0.2**
GORD				AML	AML		
SOMA	**Soma-Manisa**	**1.30**	**8**	Pn	**Pb**	**12 40 32.3**	**-0.1**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.60**	**330**	P	**Pb**	**12 40 37.6**	**+0.2**
PRK				S	**Sg**	**12 40 59.5**	**+0.5**
PRK				AML	AML		
PRK	**Paraskevi**	**1.60**	**330**	P	**Pb**	**12 40 37.0**	**-0.5**
PRK				AML	AML		
APE	**Apeiranthos**	**1.61**	**241**	P	**Pb**	**12 40 37.9**	**+0.1**
APE				S	**Sg**	**12 40 59.0**	**-0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.61**	**241**	P	**Pn**	**12 40 36.7**	**+0.2**
ARG	**Arkhangelos**	**1.77**	**158**	P	**Pb**	**12 40 40.0**	**-0.4**
ARG				AML	AML		
KARY	**Karystos**	**2.27**	**275**	P	**Pn**	**12 40 46.0**	**+0.6**
KARP	**Karpathos**	**2.31**	**183**	P	**Pb**	**12 40 48.4**	**-1.3**
KARP	**Karpathos**	**2.31**	**183**	P	**Pn**	**12 40 45.1**	**-1.1**
LIA	**Limnos Island**	**2.62**	**322**	P	**Pn**	**12 40 50.5**	**+0.3**
LIA				AML	AML		

*NEIC **05** 12:41:30.3±0.9,25°.1S±0°.1×178°.5E±0°.2,h602km±9km, mb4.2/22,Error ellipse: s-maj=23.3km s-min=19.5km az=88.0*
*IDC **05** 12:41:31.2±2.2,9.24°.75S×178°.38E,h629km±85km,mb3.1/4, mbtmp4.2/5,Error ellipse: s-maj=89.1km s-min=25.3km az=19.0*
ISC 05 12:41:28.9±0.9,**25°.1S**±0°.1×**178°.5E**±0°.1,**h579**km,**n30,** σ0°**87**/27,**mb4.1**/13,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**7.37**	**357**	P	**P**	**12 43 22.5**	**+0.8**
	3.2nm,0.3s,baz=90,slow=7.1,SNR=12						
MARNC	**Mare, Loyalty**	**10.25**	**289**	P	**P**	**12 43 51.0**	**+1.1**
PINNC	**Pines Island,**	**10.39**	**282**	P	**P**	**12 43 52.7**	**+1.5**
OUENC	**Ouen Island, N**	**10.98**	**282**	P	**P**	**12 43 58.4**	**+1.2**
MRZ	**Mangatainoka R**	**15.67**	**188**	P	**P**	**12 44 43.0**	**-0.9**
MRZ				IAmb	IAmb	12 44 58.0	
	comp=Z,32nm,1.5s						
QRZ	**Quartz Range**	**16.41**	**196**	P	**P**	**12 44 51.0**	**+0.2**
SNZO	**South Karori**	**16.43**	**190**	P	**P**	**12 44 50.4**	**-0.5**
THZ	**Tophouse**	**17.21**	**194**	P	**P**	**12 44 58.5**	**+0.4**
INZ	**Inchbonnie**	**18.48**	**197**	P	**P**	**12 45 10.6**	**+1.1**
EIDS	**Eidsvold**	**24.75**	**264**	P	**P**	**12 46 05.3**	**-0.7**
EIDS				IAmb	IAmb	12 46 11.0	
	comp=Z,17nm,1.4s						
CTAO	**Charters Tower**	**30.11**	**273**	P	**P**	**12 46 52.6**	**-0.3**
CTAO				IAmb	IAmb	12 47 00.2	
	comp=Z,20nm,1.5s						
TOO	**Toolangi**	**30.61**	**238**	P	**P**	**12 46 57.2**	**+0.3**
TOO				IAmb	IAmb	12 47 06.7	
	comp=Z,19nm,1.5s						
STKA	**Stephens Creek**	**32.98**	**250**	P	**P**	**12 47 16.9**	**-0.1**
	comp=Z,2.1nm,0.6s,baz=114,slow=15,SNR=4.9 comp=Z,2.1nm,0.6s						
STKA	**Stephens Creek**	**32.98**	**250**	IAmb	IAmb	12 47 17.8	
	comp=Z,9.7nm,0.6s						
INKA	**Innaminka**	**33.79**	**257**	P	**P**	**12 47 24.4**	**+0.5**
BBOO	**Buckleboo**	**37.68**	**248**	P	**P**	**12 47 55.7**	**-0.3**
BBOO				IAmb	IAmb	12 48 02.2	
	comp=Z,24nm,1.4s						
ASAR	**Alice Springs**	**40.47**	**262**	P	**P**	**12 48 17.8**	**-0.8**
	comp=Z,1.3nm,0.5s,baz=99,slow=8.2,SNR=18 comp=Z,1.3nm,0.5s						
WR8	**Warramunga Arr**	**40.80**	**268**	P	**P**	**12 48 20.3**	**-0.9**
WR8				IAmb	IAmb	12 48 30.7	
	comp=Z,4.0nm,1.1s						
WB0	**Warramunga Arr**	**40.95**	**268**	P	**P**	**12 48 21.3**	**-1.1**
WB0				IAmb	IAmb	12 48 22.1	
	comp=Z,3.8nm,0.6s						
WRA	**Warramunga Arr**	**40.95**	**268**	P	**P**	**12 48 21.1**	**-1.3**
	comp=Z,2.6nm,0.5s,baz=104,slow=7.9,SNR=26 comp=Z,2.6nm,0.5s						
WRA	**Warramunga Arr**	**40.95**	**268**	IAmb	IAmb	12 48 30.3	
	comp=Z,0.2nm,1.4s						
FORT	**Forrest**	**44.58**	**251**	P	**P**	**12 48 49.7**	**-0.8**
FORT				IAmb	IAmb	12 48 58.1	
	comp=Z,6.5nm,1.0s						
KNRA	**Kununurra**	**47.30**	**272**	P	**P**	**12 49 10.5**	**-0.8**
KNRA				IAmb	IAmb	12 49 25.9	
	comp=Z,12nm,1.4s						
FITZ	**Fitzroy Crossi**	**49.36**	**267**	P	**P**	**12 49 25.8**	**-0.8**
MIDW	**Midway**	**53.19**	**5**	P	**P**	**12 49 52.7**	**-1.1**
CASY	**Casey**	**58.40**	**206**	P	**P**	**12 50 28.6**	**-0.6**
CASY				IAmb	IAmb	12 50 38.4	
	comp=Z,6.9nm,1.1s						
QSPA	**South Pole Qui**	**64.95**	**180**	P	**P**	**12 51 13.0**	**+0.9**
	comp=Z,2.1nm,0.7s,baz=31,slow=0.7,SNR=13 comp=Z,2.1nm,0.7s						
QSPA	**South Pole Qui**	**64.95**	**180**	IAmb	IAmb	12 51 14.8	
	comp=Z,5.0nm,1.2s						
BELA	**Belgrano 2**	**75.39**	**173**	P	**P**	**12 52 13.8**	**+0.4**
MAW	**Mawson**	**76.11**	**201**	P	**P**	**12 52 17.7**	**+0.2**

*ISK **05** 12:42:48.9,37°.89N×26°.90E,h5km,ML2.5/12*
*AFAD **05** 12:42:49.4,37°.88N×26°.85E,h7km±2km,ML2.1*
ISC 05 12:42:49.4±1.1,**37°.88N**±0°.03×**26°.87E**±0°.04,**h10**km±8km, **n23,** σ0°**44**/30,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**3**	P	**Pg**	**12 42 53.0**	**-0.1**
DGB				S	**Sg**	**12 42 55.8**	**+0.1**
DGB				IAML		12 42 56.0	
	comp=N,330nm,0.2s						
DGB				IAML		12 42 56.0	
	comp=E,284nm,0.2s						
GMLD	**Gumuldur**	**0.20**	**11**	Pg	**Pg**	**12 42 53.4**	**-0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**122**	P	**Pg**	**12 42 56.2**	**0.0**
GCAM				IAML		12 43 01.0	
	comp=E,201nm,0.4s						
GCAM				IAML		12 43 02.0	
	comp=N,299nm,0.3s						
GCAM				S	**Sb**	**12 43 02.1**	**-0.9**
GCAM	**G?zelcaml?**	**0.34**	**122**	Pg	**Pg**	**12 42 56.2**	**0.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**7**	P	**Pg**	**12 42 56.1**	**-0.3**
BEYE				S	**Sg**	**12 43 01.6**	**+0.5**
BEYE				IAML		12 43 02.0	
	comp=N,173nm,0.3s						
BEYE				IAML		12 43 02.0	
	comp=E,210nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**321**	P	**Pg**	**12 42 58.3**	**-0.2**
ZEYE				S	**Sg**	**12 43 05.1**	**+0.6**
ZEYE				IAML		12 43 08.0	
	comp=N,176nm,0.3s						
ZEYE				IAML		12 43 08.0	
	comp=E,196nm,0.1s						
DUVT	**Torbali**	**0.57**	**53**	P	**Pg**	**12 43 00.4**	**-0.1**
DUVT				IAML		12 43

λ-128.42000°. Principal axes: T 4.2633, Plg27.0000°, Azm120.0000°; N -0.4355, Plg38.0000°, Azm7.0000°; P -3.8278, Plg41.0000°, Azm235.0000°;
NEIC **05** 12:56:31.8, 54.13N 159.78W, h17km
AEIC **05** 12:56:32.5±1.7, 54.06N±0.05 159.72W±0.08, h20km±4km, Error ellipse: s-maj=7.4km s-min=6.3km az=141.0
GCMT **05** 12:56:33.5±0.2, 54.13N±0.01 159.84W±0.02, h22km±1km, MW5.0/114, Moment Tensor Solution. s34,c43; s114,c182; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr=0.60±.14; Mθθ-0.56±.12; Mϕϕ1.16±.12; Mrθ2.01±.23; Mθϕ4.13±.10; Mϕr0.87±.20; Best double couple: Mo4.71100×10^16 NP1:ϕs353.00000°,δ64.00000°, λ179.00000°. NP2:ϕs83.00000°,δ89.00000°,λ26.00000°. Principal axes: T 5.1850, Plg19.0000°, Azm311.0000°; N -0.9520, Plg64.0000°, Azm85.0000°; P -4.2360, Plg17.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function
GFZ **05** 12:56:34.0±0.1, 54°N±3°×16°W±°, h27km, M5.3/114, mb5.2/114, confirmed
NEIC **05** 12:56:36.3, 54.03N×159.78W, h16km, Moment Tensor Solution. Duration: 1s9 Moment tensor: Scale 10^16Nm; Mrr-1.23; Mθθ-0.03; Mϕϕ1.26; Mrθ1.03; Mθϕ3.99; Mϕr-3.48; Fault plane solution: Mo5.53000×10^16 NP1: ϕs260.09000°,δ49.00000°,λ-14.04000°. NP2: ϕs359.41000°,δ79.45000°,λ-138.14000°. Principal axes: T 5.3655, Plg20.0000°, Azm123.0000°; N 0.3242, Plg47.0000°, Azm11.0000°; P -5.6897, Plg36.0000°, Azm229.0000°;
BGR **05** 12:56:44.2, 55.97N×162.89W, h34km±5km, mb5.0, Ms4.3
ISC 05 12:56:32.1±0.6, **54.13N**±0.04×**159.79W**±0.03, **h20**km±2km, **h19**km:**pP-P, n1066,** σ1**20**/823, **mb5.2**/476, **MS4.3**/91, **40C-27D, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.71**	**10**	Op		**Pb**	**12 56 45.7**	**0.0**
CNBA					IAML		12 56 58.7	
	comp=N,66μm,0.6s							
CNBA	**Chernabura Isl**	**0.71**	**10**			**Sn**	**12 56 57.5**	**+0.2**
CHNA	**Chernabura Isl**	**0.72**	**10**	P		**Pb**	**12 56 45.5**	**-0.4**
CHNA	**Chernabura Isl**	**0.72**	**10**	S		**Sb**	**12 56 54.7**	**-0.6**
SDPT	**Sand Point**	**1.29**	**342**	P		**Pn**	**12 56 54.1**	**-0.8**
SDPT	**Sand Point**	**1.29**	**342**			**Pn**	**12 56 54.2**	**-0.8**
SDPT					IAML		12 57 23.4	
	comp=N,30μm,1.1s							
SDPT					IAML		12 57 30.1	
	comp=E,34μm,0.8s							
SDPT	**Sand Point**	**1.29**	**342**			**Sb**	**12 57 11.9**	**+0.2**
PN7A	**Pavlof North-7**	**1.83**	**317**			**Pn**	**12 57 02.6**	**+0.1**
PN7A						**Sn**	**12 57 25.4**	**+0.4**
VNKR	**Veniaminof 5**	**1.93**	**7**			**Pn**	**12 57 03.8**	**0.0**
VNWF	**Veniaminof 8**	**2.04**	**4**			**Pn**	**12 57 05.5**	**+0.2**
S12K	**Black Hills**	**2.05**	**321**			**Pn**	**12 57 05.5**	**0.0**
S12K					IAML		12 57 42.7	
	comp=E,14μm,0.6s							
S12K					IAML		12 57 46.9	
	comp=N,14μm,0.7s							
S12K	**Black Hills**	**2.05**	**321**			**Sn**	**12 57 31.2**	**+0.7**
VNSS	**Veniaminof 8**	**2.11**	**5**			**Pn**	**12 57 06.8**	**+0.3**
VNFG	**Fog Glacier, M**	**2.17**	**4**			**Pn**	**12 57 07.6**	**+0.4**
VNFG	**Fog Glacier, M**	**2.17**	**4**			**Pn**	**12 57 07.8**	**+0.6**
CHGN	**Chignik**	**2.32**	**19**			**Pn**	**12 57 09.1**	**0.0**
CHGN					IAML		12 57 52.8	
	comp=N,9μm,0.8s							
CHGN	**Chignik**	**2.32**	**19**			**Sn**	**12 57 36.9**	**-0.1**
ISNN	**Isanotski Nort**	**2.43**	**289**			**Pn**	**12 57 11.3**	**+0.6**
ISNN						**Sn**	**12 57 40.7**	**+0.9**
SSLS	**Shishaldin Sou**	**2.53**	**285**			**Pn**	**12 57 12.3**	**+0.2**
SSLS						**Sn**	**12 57 42.6**	**+0.3**
BPBCA	**Veniaminof**	**2.58**	**17**			**Pn**	**12 57 12.5**	**-0.4**
WTUG	**Tugumak**	**2.77**	**287**			**Pn**	**12 57 15.7**	**+0.3**
ANPB	**Aniakchak Plen**	**2.82**	**17**			**Pn**	**12 57 15.9**	**-0.2**
WESN	**West Dahl Nort**	**2.84**	**281**			**Pn**	**12 57 16.4**	**+0.1**
WESN						**Sn**	**12 57 49.7**	**-0.2**
WESP	**Westdahl Peak**	**2.91**	**279**			**Pn**	**12 57 16.9**	**-0.4**
CHIR	**Chirikof Islan**	**2.94**	**53**	P		**Pn**	**12 57 16.2**	**-1.5**
CHIR	**Chirikof Islan**	**2.94**	**53**			**Pn**	**12 57 16.2**	**-1.5**
CHIR					IAML		12 58 28.5	
	comp=E,5μm,1.0s							
CHIR					IAML		12 58 31.9	
	comp=N,5μm,0.9s							
WECS	**Westdahl Cape**	**2.95**	**280**			**Pn**	**12 57 18.3**	**+0.5**
WECS					IAML		12 58 00.9	
	comp=E,3μm,0.6s							
WECS					IAML		12 58 47.5	
	comp=N,6μm,0.9s							
WECS	**Westdahl Cape**	**2.95**	**280**			**Sn**	**12 57 52.6**	**0.0**
ANNW	**Aniakchak Nort**	**2.98**	**17**			**Pn**	**12 57 19.2**	**+0.8**
AKUT	**Akutan**	**3.52**	**273**	P		**Pn**	**12 57 25.4**	**-0.2**
AKUT	**Akutan**	**3.52**	**273**			**Pn**	**12 57 25.7**	**+0.1**
AKUT	**Akutan**	**3.52**	**273**			**Sn**	**12 58 04.2**	**-2.4**
AHB	**Akutan Harbor**	**3.54**	**272**			**Pn**	**12 57 26.0**	**0.0**
AKLV	**Akutan Long Va**	**3.62**	**273**			**Pn**	**12 57 26.9**	**-0.2**
AKLV						**Sn**	**12 58 07.4**	**-1.9**
ZRO	**Akutan Zero**	**3.64**	**272**			**Pn**	**12 57 27.3**	**0.0**
ZRO						**Sn**	**12 58 07.4**	**-2.3**
R16K	**Pilot Point**	**3.67**	**19**	Pn		**Pn**	**12 57 28.1**	**+0.4**
R16K					IAML		12 58 52.7	
	comp=N,5μm,1.1s							
LVA	**Lava Point**	**3.67**	**273**			**Pn**	**12 57 28.2**	**+0.5**
LVA					IAML		12 58 13.1	
	comp=N,3μm,0.7s							
UNV	**Unalaska Valle**	**3.97**	**269**	P		**Pn**	**12 57 31.0**	**-0.8**
UNV	**Unalaska Valle**	**3.97**	**269**			**Pn**	**12 57 30.6**	**-1.2**
UNV	**Unalaska Valle**	**3.97**	**269**			**Sn**	**12 58 15.3**	**-2.5**
R17L	**Mt. Peulik Vol**	**4.01**	**27**			**Pn**	**12 57 32.1**	**0.0**
SII	**Sitkinak Islan**	**4.03**	**50**	P		**Pn**	**12 57 30.5**	**-2.1**
SII	**Sitkinak Islan**	**4.03**	**50**			**Pn**	**12 57 31.3**	**-1.3**
SII					IAML		12 59 01.1	
	comp=E,3μm,1.0s							
MTBL	**Makushin Table**	**4.06**	**271**			**Pn**	**12 57 33.1**	**-0.1**
MTBL						**Sn**	**12 58 19.2**	**-0.9**
MNAT	**Makushin Natee**	**4.07**	**269**			**Pn**	**12 57 32.8**	**-0.5**
PLK1	**Peulik 1**	**4.10**	**25**			**Pn**	**12 57 33.4**	**-0.2**
MSW	**Makushin Switc**	**4.13**	**270**			**Pn**	**12 57 33.6**	**-0.4**
PLK2	**Peulik 2**	**4.13**	**27**			**Pn**	**12 57 34.3**	**+0.2**
MGOD	**Makushin Gods**	**4.19**	**268**			**Pn**	**12 57 34.6**	**-0.3**
PLK5	**Peulik 5**	**4.21**	**22**			**Pn**	**12 57 35.1**	**0.0**
Q17K	**Contact Creek**	**4.69**	**26**			**Pn**	**12 57 41.1**	**-0.6**
ANCK	**Angle Creek**	**4.74**	**29**			**Pn**	**12 57 41.6**	**-0.9**
ACHA	**Angle Creek He**	**4.79**	**30**			**Pn**	**12 57 42.8**	**-0.5**
OHAK	**Old Harbor**	**4.81**	**47**	P		**Pn**	**12 57 41.2**	**-2.2**
OHAK	**Old Harbor**	**4.81**	**47**			**Pn**	**12 57 41.6**	**-1.8**
OHAK					IAML		12 59 34.4	
	comp=N,784nm,1.2s							
OKTU	**Okmok Mt. Tuli**	**4.95**	**265**			**Pn**	**12 57 44.6**	**-0.8**
OKCE	**Okmok Cone E**	**5.01**	**265**			**Pn**	**12 57 45.7**	**-0.5**
P16K	**Nushagak River**	**5.02**	**11**			**Pn**	**12 57 46.0**	**-0.2**
O15K	**Ungalikthiuk R**	**5.06**	**360**			**Pn**	**12 57 46.5**	**-0.4**
O15K					IAML		12 59 29.9	
	comp=E,931nm,1.0s							
O15K					IAML		12 59 37.0	
	comp=N,684nm,1.1s							
O14K	**Tigyukauivet M**	**5.20**	**352**			**Pn**	**12 57 49.1**	**+0.3**
O14K					IAML		12 59 36.3	
	comp=E,1μm,1.3s							
O14K					IAML		12 59 40.6	
	comp=N,1μm,1.0s							
KAHG	**Katmai Hook Gl**	**5.26**	**32**			**Pn**	**12 57 48.8**	**-0.9**
P17K	**Kvichak River**	**5.41**	**19**			**Pn**	**12 57 51.2**	**-0.3**
KDAK	**Kodiak Island**	**5.46**	**45**	Pn		**Pn**	**12 57 50.4**	**-1.9**
	comp=N,8.9nm,0.3s,baz=215,slow=2.7,SNR=178							
KDAK					Sn	**Sn**	**12 58 49.2**	**-5.2**
	baz=53,slow=23							
KDAK					Lg	Lg	12 59 28.4	
	comp=N,18nm,0.3s,baz=97,slow=15,SNR=4.1							
	comp=N,101nm,0.7s							
KDAK					AML	AML		
KDAK	**Kodiak Island**	**5.46**	**45**			**Pn**	**12 57 49.4**	**-2.9**
KDAK	**Kodiak Island**	**5.46**	**45**	P		**Pn**	**12 57 50.4**	**-1.9**
	comp=Z,441nm,1.0s							
O16K	**Kokwok River B**	**5.56**	**9**			**Pn**	**12 57 53.1**	**-0.6**
P18K	**Big Mountain,**	**5.84**	**24**			**Pn**	**12 57 57.2**	**-0.4**
O17K	**Koliganek Bris**	**5.85**	**14**			**Pn**	**12 57 57.4**	**-0.2**
Q19K	**Cape Douglas,**	**5.89**	**33**			**Pn**	**12 57 57.9**	**-0.4**
N15K	**Kwethluk River**	**6.06**	**359**			**Pn**	**12 58 00.7**	**+0.2**
CLCO	**Concord Point,**	**6.08**	**261**			**Pn**	**12 58 00.3**	**-0.5**
CLES	**Cleveland East**	**6.17**	**262**			**Pn**	**12 58 02.4**	**+0.3**
AUI	**Augustine Isla**	**6.29**	**31**			**Pn**	**12 58 03.1**	**-0.5**
AUJK	**Augustine Jueg**	**6.30**	**31**			**Pn**	**12 58 03.5**	**-0.3**
N16K	**Nishlik Lake**	**6.39**	**5**			**Pn**	**12 58 05.0**	**-0.1**
N17K	**Nushagak Hills**	**6.57**	**11**			**Pn**	**12 58 07.2**	**-0.3**
M13K	**Dall Lake**	**6.59**	**344**			**Pn**	**12 58 07.8**	**0.0**
P19K	**Oil Pt**	**6.60**	**30**			**Pn**	**12 58 07.5**	**-0.5**
M15K	**Kasigluk River**	**6.60**	**356**			**Pn**	**12 58 07.1**	**-0.9**
M14K	**Bethel**	**6.75**	**351**			**Pn**	**12 58 09.6**	**-0.3**
O19K	**Port Alsworth**	**6.77**	**24**			**Pn**	**12 58 09.8**	**-0.4**
N18K	**Kilae Creek**	**6.90**	**16**			**Pn**	**12 58 12.1**	**0.0**
M16K	**Timber Creek**	**6.93**	**3**			**Pn**	**12 58 12.2**	**-0.2**
IVE	**Iliamna Volcan**	**6.96**	**29**			**Pn**	**12 58 12.4**	**-0.6**
HOM	**Homer**	**7.12**	**36**	Pn		**Pn**	**12 58 14.4**	**-0.6**
O20K	**Slope Mountain**	**7.13**	**30**			**Pn**	**12 58 14.5**	**-0.7**
CNPM	**China Poot**	**7.16**	**37**			**Pn**	**12 58 14.2**	**-1.5**
N19K	**Bonanza Creek**	**7.29**	**21**			**Pn**	**12 58 17.6**	**+0.1**
M17K	**Holitna River**	**7.40**	**9**			**Pn**	**12 58 18.9**	**-0.1**
NCT	**North Crescent**	**7.44**	**27**			**Pn**	**12 58 18.8**	**-0.7**
BRSE	**Bradley Lake S**	**7.49**	**38**			**Pn**	**12 58 18.2**	**-1.9**
DFR	**Drift River**	**7.53**	**28**			**Pn**	**12 58 19.6**	**-1.2**
RDT	**Redoubt**	**7.59**	**29**			**Pn**	**12 58 21.1**	**-0.5**
L15K	**Ungalak Mounta**	**7.63**	**354**			**Pn**	**12 58 20.5**	**-1.4**
M18K	**Stony River**	**7.68**	**14**			**Pn**	**12 58 22.2**	**-0.5**
L17K	**Donlin**	**8.07**	**5**			**Pn**	**12 58 27.1**	**-1.0**
SPBG	**Spurr Blockage**	**8.18**	**26**			**Pn**	**12 58 29.6**	**0.0**
SPU	**Mount Spurr**	**8.20**	**27**			**Pn**	**12 58 28.9**	**-1.0**
SEW	**Seward**	**8.21**	**39**			**Pn**	**12 58 29.1**	**-0.9**
SLKM	**Skilak Lake**	**8.22**	**35**			**Pn**	**12 58 29.2**	**-1.1**
K15K	**Wolf Creek Mou**	**8.24**	**354**			**Pn**	**12 58 30.1**	**-0.3**
L18K	**Granite Mounta**	**8.28**	**10**			**Pn**	**12 58 30.3**	**-0.6**
SPCG	**Spurr Capps Gl**	**8.30**	**27**			**Pn**	**12 58 30.4**	**-0.9**
M19K	**Big River Lodg**	**8.31**	**18**			**Pn**	**12 58 31.5**	**+0.1**
L19K	**White Mountain**	**8.49**	**16**			**Pn**	**12 58 33.3**	**-0.5**
STLK	**Strandline Lak**	**8.52**	**27**			**Pn**	**12 58 33.6**	**-0.7**
K17K	**Iditarod**	**8.65**	**5**			**Pn**	**12 58 35.3**	**-0.7**
KOSE	**Korovin Southe**	**8.74**	**264**			**Pn**	**12 58 36.7**	**-0.6**
KOFP	**Korovin Flat P**	**8.79**	**264**			**Pn**	**12 58 37.4**	**-0.6**
RC01	**Rabbit Creek A**	**8.81**	**34**			**Pn**	**12 58 37.1**	**-1.2**
KOWE	**Korovin West**	**8.85**	**264**			**Pn**	**12 58 38.2**	**-0.6**
ATKA	**Atka Island**	**8.87**	**263**	P		**Pn**	**12 58 39.2**	**+0.2**
ATKA	**Atka Island**	**8.87**	**263**			**Pn**	**12 58 38.3**	**-0.6**
L20K	**Farewell, AK**	**8.93**	**18**			**Pn**	**12 58 39.5**	**-0.4**
P23K	**Montague Islan**	**8.95**	**44**			**Pn**	**12 58 38.9**	**-1.1**
SKT	**Skwentna**	**9.00**	**26**			**Pn**	**12 58 40.3**	**-0.6**
PWL	**Port Wells**	**9.13**	**38**			**Pn**	**12 58 41.1**	**-1.5**
J16K	**Anvik River**	**9.20**	**358**			**Pn**	**12 58 43.0**	**-0.4**
J17K	**VABM Dome**	**9.31**	**2**			**Pn**	**12 58 44.0**	**-1.0**
PMR	**Palmer**	**9.39**	**33**	P		**Pn**	**12 58 45.2**	**-0.9**
PMR	**Palmer**	**9.39**	**33**	P		**Pn**	**12 58 44.5**	**-1.6**
PMR	**Palmer**	**9.39**	**33**			**Pn**	**12 58 44.5**	**-1.6**
KNK	**Knik Glacier**	**9.48**	**35**			**Pn**	**12 58 45.2**	**-2.1**
HIN	**Hinchinbrook I**	**9.54**	**44**			**Pn**	**12 58 46.3**	**-2.0**
GHO	**Glory Hole Cre**	**9.59**	**33**			**Pn**	**12 58 47.4**	**-1.5**
GLI	**Glacier Island**	**9.61**	**40**			**Pn**	**12 58 46.4**	**-2.7**
FID	**Port Fidalgo**	**9.76**	**42**			**Pn**	**12 58 48.0**	**-3.3**
SML	**Sawmill**	**9.80**	**34**	P		**Pn**	**12 58 51.0**	**-0.9**
SML	**Sawmill**	**9.80**	**34**			**Pn**	**12 58 51.0**	**-0.9**
EYAK	**Cordova Ski Ar**	**9.94**	**44**	P		**Pn**	**12 58 51.6**	**-2.0**
EYAK	**Cordova Ski Ar**	**9.94**	**44**			**Pn**	**12 58 51.5**	**-2.2**
SCM	**Sheep Creek Mo**	**10.16**	**36**	P		**Pn**	**12 58 55.9**	**-0.8**
SCM	**Sheep Creek Mo**	**10.16**	**36**			**Pn**	**12 58 55.9**	**-0.8**
ADK	**Adak**	**10.42**	**264**	P		**Pn**	**12 59 01.3**	**+1.0**
ADK	**Adak**	**10.42**	**264**	P		**Pn**	**12 58 59.7**	**-0.6**
ADK	**Adak**	**10.42**	**264**			**Pn**	**12 58 59.7**	**-0.6**
ADK	**Adak**	**10.42**	**264**	P		**Pn**	**12 59 01.3**	**+1.0**
	comp=Z,289nm,0.5s							
KIWB	**Kanaga Island**	**10.71**	**265**			**Pn**	**12 59 03.8**	**-0.4**
BPAW	**Bear Paw Mtn.**	**10.96**	**21**			**Pn**	**12 59 06.9**	**-0.8**
TGL	**Tana Glacier**	**11.28**	**47**			**Pn**	**12 59 10.5**	**-1.6**
HARP	**HAARP**	**11.29**	**37**			**Pn**	**12 59 12.1**	**-0.1**
BWN	**Browne**	**11.36**	**23**			**Pn**	**12 59 13.1**	**-0.1**
G16K	**Koyuk River**	**11.38**	**355**			**Pn**	**12 59 13.4**	**+0.2**
MENT	**Mentasta**	**12.15**	**37**	P		**Pn**	**12 59 24.4**	**+0.5**
PCA	**Pinnacle**	**12.16**	**53**			**Pn**	**12 59 24.0**	**-0.1**
IMAR	**Indian Mountai**	**12.26**	**12**			**Pn**	**12 59 25.5**	**+0.1**
COLA	**College**	**12.34**	**24**	P		**Pn**	**12 59 26.4**	**0.0**
COLA	**College**	**12.34**	**24**	*e*P		**Pn**	**12 59 23.1**	**-3.3**
COLA	**College**	**12.34**	**24**	P		**Pn**	**12 59 28.4**	**+2.0**
	comp=Z,57nm,0.9s							
PNL	**Peninsula**	**12.43**	**55**	P		**Pn**	**12 59 27.6**	**-0.1**
O28M	**Mount Upton**	**12.45**	**50**			**Pn**	**12 59 27.5**	**-0.7**
ILAR	**Eielson Array**	**12.50**	**26**	Pn		**Pn**	**12 59 24.2**	**-4.4**
	comp=Z,1.0nm,0.3s,baz=217,slow=13,SNR=33							
ILAR					Sn	**Sn**	**13 01 40.9**	**-6.2**
	comp=Z,0.4nm,0.3s,baz=212,slow=8.3,SNR=1.4							
ILAR					LR	LR	13 05 07.0	
	comp=Z,2μm,20.6s,baz=220,slow=41							
	comp=Z,7.2nm,0.6s							
ILAR					AML	AML		
ILAR	**Eielson Array**	**12.50**	**26**			**Pn**	**12 59 25.1**	**-3.5**
BCAR	**Beaver Creek A**	**12.93**	**39**			**Pn**	**12 59 33.1**	**-1.5**
AMKA	**Amchitka**	**12.95**	**266**			**Pn**	**12 59 33.7**	**-1.1**
S31K	**Pelican**	**13.69**	**64**			**Pn**	**12 59 43.2**	**-1.7**
DAWY	**Dawson**	**14.38**	**38**			**Pn**	**12 59 53.5**	**-0.9**
SKAG	**Skagway**	**14.38**	**58**	P		**Pn**	**12 59 54.0**	**-0.3**
SKAG	**Skagway**	**14.38**	**58**			**Pn**	**12 59 54.4**	**+0.1**
JIS	**Juneau Island**	**14.70**	**63**	P		**Pn**	**12 59 58.3**	**-0.3**
E24K	**Your Creek**	**14.98**	**17**			**Pn**	**13 00 01.7**	**-0.8**
TOLK	**Toolik Lake Re**	**15.33**	**14**	IAmb	IAmb		13 00 12.8	
	comp=Z,226nm,1.9s							
D23K	**Nanushuk River**	**15.48**	**12**			**Pn**	**13 00 08.1**	**-0.9**
P33M	**Teslin, Yukon**	**15.77**	**56**	IAmb	IAmb		13 00 20.2	
	comp=Z,344nm,1.6s							
N32M	**Quiet Lake**	**15.85**	**53**	IAmb	IAmb		13 00 21.0	
	comp=Z,164nm,1.4s							
H29M	**Whitestone**	**16.02**	**32**	IAmb	IAmb		13 00 23.9	
	comp=Z,486nm,1.6s							
S34M	**Telegraph Cree**	**16.40**	**65**	IAmb	IAmb		13 00 28.2	
	comp=Z,208nm,1.5s							
DLBC	**Dease Lake**	**17.00**	**63**	Pn		**Pn**	**13 00 28.0**	**-0.5**
	comp=Z,2.2nm,0.3s,baz=247,slow=15,SNR=22							
	comp=Z,6.6nm,0.6s							
DLBC					AML	AML		
H31M	**Peel River**	**17.13**	**37**	IAmb	IAmb		13 00 39.2	
	comp=Z,102nm,0.8s							
G30M	**tAoh Zraii Nji**	**17.17**	**32**	IAmb	IAmb		13 00 39.8	
	comp=Z,260nm,0.8s							
F30M	**Barrier River**	**17.69**	**31**	IAmb	IAmb		13 00 46.5	
	comp=Z,123nm,0.8s							
WTLY	**Watson Lake, Y**	**17.75**	**58**	IAmb	IAmb		13 00 41.9	
	comp=Z,162nm,1.1s							
INK	**Inuvik**	**18.79**	**31**	P		**P**	**13 00 49.0**	**-0.7**
	comp=Z,3.4nm,0.3s,baz=232,slow=11,SNR=55							
INK					S	**Sn**	**13 04 13.3**	**-6.4**
	comp=Z,10nm,1.1s,baz=162,slow=21,SNR=1.0							
INK					LR	LR	13 08 12.0	
	comp=Z,780nm,21.0s,baz=232,slow=37							
	comp=Z,27nm,0.7s							
INK					AML	AML		
INK	**Inuvik**	**18.79**	**31**	P		**P**	**13 00 49.1**	**-0.7**
INK					pmax	pmax		
	comp=Z,72nm,0.8s							
INK	**Inuvik**	**18.79**	**31**	P		**P**	**13 00 49.1**	**-0.7**
INK	**Inuvik**	**18.79**	**31**	P		**Pn**	**13 00 50.1**	**-0.2**
	comp=Z,100nm,0.8s							
BBB	**Bella Bella**	**19.02**	**83**	LR		LR	13 06 22.4	
	comp=Z,600nm,18.9s,baz=285,slow=31							
BILI	**Bilibino, Chuk**	**21.08**	**325**	P		**P**	**13 01 14.8**	**0.0**
	comp=Z,102nm,1.2s							
BILL	**Bilibino**	**21.13**	**324**	*ce*P		**P**	**13 01 14.4**	**-0.9**
BILL					pmax	pmax		
	comp=Z,90nm,1.2s							
C36M	**Paulatuk**	**22.27**	**33**	P		**P**	**13 01 27.5**	**0.0**
A36M	**Sachs Harbour**	**23.20**	**27**	P		**P**	**13 01 36.5**	**-0.7**
A36M					IAmb	IAmb	13 01 50.3	
	comp=Z,80nm,0.8s							
A05A	**Maple Falls**	**23.79**	**87**	IAmb	IAmb		13 01 47.4	
	comp=Z,180nm,1.6s							
PET	**Petropavlovsk**	**24.45**	**284**	P		**P**	**13 01 51.3**	**+2.0**
PET	**Petropavlovsk**	**24.45**	**284**	*e*P		**P**	**13 01 49.7**	**+0.4**
PET					pmax	pmax		
	comp=Z,251nm,1.1s							
PET	**Petropavlovsk**	**24.45**	**284**	P		**P**	**13 01 49.2**	**0.0**
PET	**Petropavlovsk**	**24.45**	**284**	P		**P**	**13 01 49.0**	**-0.3**
	comp=Z,223nm,1.2s							
PET	**Petropavlovsk**	**24.45**	**284**	P		**P**	**13 01 49.5**	**+0.2**
	comp=Z,236nm,1.2s							
YKA	**Yellowknife Ar**	**24.69**	**52**	P		**P**	**13 01 51.7**	**+0.4**
	comp=Z,7.1nm,0.6s,baz=278,slow=6.3,SNR=18							
YKA					LR	LR	13 12 36.0	
	comp=Z,749nm,21.1s,baz=246,slow=39							
	comp=Z,7.1nm,0.6s							
YKA	**Yellowknife Ar**	**24.69**	**52**	*i* P		**P**	**13 01 51.4**	**+0.1**
YKA					pmax	pmax		
	comp=Z,5.0nm,0.6s							
YKA	**Yellowknife Ar**	**24.69**	**52**	P		**P**	**13 01 52.5**	**+1.2**
PEA0B	**Petropavlovsk-**	**24.96**	**285**	*e*P		**P**	**13 01 54.6**	**+0.6**
PETK	**Petropavlovsk-**	**24.96**	**285**	P		**P**	**13 01 54.0**	**0.0**
	comp=Z,16nm,0.5s,baz=74,slow=12,SNR=47							
	comp=Z,16nm,0.5s							
PETK	**Petropavlovsk-**	**24.96**	**285**	P		**P**	**13 01 54.2**	**+0.2**
PETK	**Petropavlovsk-**	**24.96**	**285**	P		**P**	**13 01 54.2**	**+0.2**
J01E	**Myrtle Point**	**25.83**	**100**	P		**P**	**13 02 01.6**	**-0.3**
J01E					IAmb	IAmb	13 02 06.7	
	comp=Z,113nm,1.2s							
SEY	**Seymchan**	**25.89**	**309**	LR		LR	13 12 43.6	
	comp=Z,811nm,19.1s,baz=86,slow=38							
SEY	**Seymchan**	**25.89**	**309**	*e*P		**P**	**13 02 00.9**	**-1.3**
SEY					pmax	pmax		
	comp=Z,33nm,0.9s							
EPH	**Ephrata**	**26.04**	**88**	P		**P**	**13 02 03.5**	**-0.3**
EPH					IAmb	IAmb	13 02 24.9	
	comp=Z,41nm,1.1s							
I04A	**Tendick Farm,**	**26.34**	**98**	IAmb		IAmb	13 02 37.3	
	comp=Z,49nm,1.1s							
WAH2	**Wahluke Slope**	**26.36**	**90**	IAmb		IAmb	13 02 17.4	
	comp=Z,36nm,0.9s							
WIFE	**Three Sisters-**	**26.53**	**97**	IAmb		IAmb	13 02 19.5	
	comp=Z,35nm,1.0s							
D08A	**Wollman Farm,**	**26.59**	**89**	IAmb		IAmb	13 02 36.6	
	comp=Z,55nm,1.3s							
C09A	**Chrisman Ranch**	**26.60**	**87**	IAmb		IAmb	13 02 12.6	
	comp=Z,103nm,1.7s							
I05D	**Terrebonne, OR**	**26.64**	**96**	IAmb		IAmb	13 02 33.2	
	comp=Z,46nm,1.1s							
MA2	**Magadan**	**27.04**	**302**	P		**P**	**13 02 15.3**	**+2.6**
MA2	**Magadan**	**27.04**	**302**	*de*P		**P**	**13 02 14.9**	**+2.2**
MA2					pmax	pmax		
	comp=Z,74nm,1.0s							
MA2	**Magadan**	**27.04**	**302**	P		**P**	**13 02 12.4**	**-0.2**
MA2					IAmb	IAmb	13 02 16.3	
	comp=Z,84nm,1.0s							
MA2	**Magadan**	**27.04**	**302**	P		**P**	**13 02 12.0**	**-0.7**
	comp=Z,93nm,1.1s							
NEW	**Newport**	**27.05**	**85**	LR		LR	13 10 47.5	
	comp=Z,308nm,19.1s,baz=300,slow=32							
NEW	**Newport**	**27.05**	**85**	P		**P**	**13 02 14.4**	**+1.5**
NEW					pmax	pmax		
	comp=Z,31nm,1.0s							
NEW	**Newport**	**27.05**	**85**	IAmb		IAmb	13 02 16.5	
	comp=Z,40nm,1.1s							
NEW	**Newport**	**27.05**	**85**	P		**P**	**13 02 14.4**	**+1.5**
	comp=Z,31nm,1.0s							
EDM	**Edmonton**	**27.15**	**73**	P		**P**	**13 02 13.7**	**-0.1**
EDM					pmax	pmax		
	comp=Z,224nm,1.7s							
EDM	**Edmonton**	**27.15**	**73**	P		**P**	**13 02 13.7**	**-0.1**
J05D	**Fort Rock, OR**	**27.33**	**97**	IAmb		IAmb	13 02 27.5	
	comp=Z,31nm,

TYV **Tymovskoe** 34.36 289 eP **P** 13 03 16.8 -0.5
TYV eS **S** 13 08 44.2 +0.6
TYV pmax pmax
comp=Z,400nm,3.5s
TYV pmax pmax
comp=Z,45nm,1.2s
TYV smax smax
comp=N,42nm,1.8s
TYV smax smax
comp=E,31nm,1.8s
TYV smax smax
comp=N,300nm,4.1s
TYV smax smax
comp=E,400nm,4.1s
CLC **China Lake** 34.37 105 IAmb IAmb 13 03 33.0
comp=Z,27nm,1.1s
DGMT **Dagmar** 34.44 76 P **P** **13 03 18.3 +0.2**
DGMT IAmb IAmb 13 03 20.5
comp=Z,35nm,1.1s
POHA **Pohakuloa** 34.46 173 P **P** **13 03 18.9 +0.2**
PDAR **Pinedale Array** 34.49 88 P **P** **13 03 19.4 +0.5**
comp=Z,7.8nm,0.9s,baz=308,slow=3.3,SNR=46
PDAR LR LR 13 15 00.7
comp=Z,104nm,18.4s,baz=304,slow=32
comp=Z,7.8nm,0.9s
PDAR **Pinedale Array** 34.49 88 P **P** **13 03 18.9 +0.1**
LRMC **Laurel Mtn Rad** 34.56 105 IAmb IAmb 13 03 22.9
comp=Z,52nm,1.9s
GWY **Greenwater Val** 34.64 103 IAmb IAmb 13 03 35.2
comp=Z,58nm,1.2s
PSUT **Pine Spring** 34.66 98 IAmb IAmb 13 03 23.8
comp=Z,48nm,1.5s
QSM **Queen of Sheba** 34.68 104 IAmb IAmb 13 03 35.5
comp=Z,59nm,1.4s
PRN **Pahroc Range** 34.72 100 IAmb IAmb 13 03 25.3
comp=Z,73nm,1.4s
MLH **Mauna Loa** 34.74 173 P **P** **13 03 21.8 +0.7**
GSC **Goldstone, Bar** 35.19 105 IAmb IAmb 13 03 40.0
comp=Z,24nm,1.0s
BFSC **Mount Baldy Ra** 35.48 107 IAmb IAmb 13 03 34.5
comp=Z,28nm,1.2s
RDMU **Red Mountain** 35.84 91 IAmb IAmb 13 03 34.6
comp=Z,21nm,0.8s
Q16A **Castle Valley** 35.97 95 IAmb IAmb 13 03 35.4
comp=Z,32nm,1.2s
SRU **San Rafael Swe** 36.23 94 IAmb IAmb 13 03 54.5
comp=Z,39nm,0.8s
PKCU **Pink Cliffs** 36.29 98 IAmb IAmb 13 03 38.4
comp=Z,34nm,1.2s
YSS **Yuzhno-Sakhali** 36.30 283 P **P** **13 03 36.5 +2.5**
YSS **Yuzhno-Sakhali** 36.30 283 eP **P** **13 03 34.4 +0.4**
YSS eS **S** **13 09 12.0 -1.5**
YSS pmax pmax
comp=Z,50nm,1.0s
YSS MLR MLR
comp=Z,900nm,15.0s
YSS MLR MLR
comp=E,1μm,16.0s
YAK **Yakutsk** 36.34 311 LR LR 13 20 12.5
comp=E,833nm,19.5s,baz=75,slow=39
YAK **Yakutsk** 36.34 311 ceP **P** **13 03 32.2 -2.0**
YAK e*PP **pP** **13 03 34.7 -5.1**
YAK e 13 04 52.2
YAK e 13 05 57.2
YAK eS **S** **13 09 13.2 -0.6**
YAK eSS **SnSn** **13 11 39.8 -1.5**
YAK e 13 13 45.7
YAK pmax pmax
comp=N,5.0nm,0.9s
YAK pmax pmax
comp=Z,109nm,1.0s
YAK pmax pmax
comp=E,33nm,1.3s
YAK pmax pmax
comp=Z,409nm,6.3s
YAK pmax pmax
comp=N,204nm,3.4s
YAK pmax pmax
comp=E,424nm,4.8s
YAK smax smax
comp=N,53nm,2.2s
YAK smax smax
comp=E,338nm,4.5s
YAK MLR MLR
comp=N,370nm,14.0s
YAK MLR MLR
comp=Z,879nm,28.0s
YAK MLR MLR
comp=E,753nm,25.0s
YAK **Yakutsk** 36.34 311 P **P** **13 03 32.8 -1.5**
YAK **Yakutsk** 36.34 311 P **P** **13 03 32.7 -1.5**
comp=Z,146nm,0.8s
K22A **Casper** 36.35 86 IAmb IAmb 13 03 37.4
comp=Z,40nm,0.8s
DNR **Dunn Ranch,Anz** 36.55 106 IAmb IAmb 13 03 53.8
comp=Z,39nm,0.8s
PFO **Pinyon Flats O** 36.61 106 LR LR 13 15 39.8
comp=Z,386nm,19.5s,baz=310,slow=31
PFO **Pinyon Flats O** 36.61 106 eP **P** **13 03 37.7 +0.7**
PFO pmax pmax
comp=Z,11nm,1.1s
PFO **Pinyon Flats O** 36.61 106 P **P** **13 03 36.7 -0.3**
PFO **Pinyon Flats O** 36.61 106 P **P** **13 03 37.3 +0.3**
comp=Z,13nm,1.4s
DPP **Dos Picos Cty** 36.79 107 IAmb IAmb 13 03 53.7
comp=Z,33nm,1.1s
HMU **Henry Mountain** 36.88 96 IAmb IAmb 13 03 50.5
comp=Z,26nm,0.7s
O20A **White River Ct** 36.90 91 IAmb IAmb 13 03 42.4
comp=Z,26nm,0.7s
RSSD **Black Hills** 36.93 82 P **P** **13 03 39.8 +0.1**
RSSD pmax pmax
comp=Z,22nm,0.7s
RSSD **Black Hills** 36.93 82 P **P** **13 03 39.8 +0.1**
RSSD IAmb IAmb 13 03 42.3
comp=Z,22nm,0.7s
RSSD **Black Hills** 36.93 82 P **P** **13 03 41.2 +1.5**
comp=Z,48nm,0.8s
IRM **Iron Mountain** 36.96 104 IAmb IAmb 13 03 55.7
comp=Z,40nm,1.1s
CBX **Cerro Bola** 37.46 108 IAmb IAmb 13 03 59.7
comp=Z,41nm,1.2s
PV21 **Cone Mtn., Par** 37.50 93 IAmb IAmb 13 04 11.6
comp=Z,26nm,0.9s
PV23 **Carpenter Ridg** 37.55 93 IAmb IAmb 13 04 27.3
comp=Z,29nm,1.0s
PV10 **Paradox Valley** 37.58 94 IAmb IAmb 13 04 01.5
comp=Z,44nm,1.0s
PV14 **Lion Creek, Pa** 37.59 94 IAmb IAmb 13 03 59.1
comp=Z,27nm,0.7s
BLYC **Blythe** 37.61 104 IAmb IAmb 13 03 49.7
comp=Z,49nm,1.4s
PV20 **West Nyswonger** 37.65 94 IAmb IAmb 13 04 06.7
comp=Z,23nm,0.7s
PV17 **East Wray Mesa** 37.69 94 IAmb IAmb 13 03 49.0
comp=Z,93nm,1.5s
PV16 **Nyswonger Mesa** 37.70 94 IAmb IAmb 13 04 22.9
comp=Z,68nm,1.4s
PV11 **David Mesa, Pa** 37.73 94 IAmb IAmb 13 03 58.4
comp=Z,44nm,0.8s
PV18 **Skein Mesa, Pa** 37.74 94 IAmb IAmb 13 04 04.6
comp=Z,31nm,0.9s
PV05 **Paradox Valley** 37.74 94 IAmb IAmb 13 03 49.1
comp=Z,31nm,0.8s
PV12 **Saucer Basin,** 37.76 93 IAmb IAmb 13 04 24.0
comp=Z,45nm,1.2s
PV07 **Paradox Valley** 37.77 93 IAmb IAmb 13 04 01.3
comp=Z,29nm,0.8s
PV03 **Paradox Valley** 37.77 94 IAmb IAmb 13 03 56.9
comp=Z,35nm,0.8s
GRNR **Gornyy** 37.85 292⇑ iP **P** **13 03 46.0 -1.2**
GRNR pmax pmax
comp=Z,30nm,0.9s
PV02 **Paradox Valley** 37.87 94 IAmb IAmb 13 03 57.9
comp=Z,46nm,0.8s
PV15 **Paradox Valley** 37.93 93 IAmb IAmb 13 03 51.0
comp=Z,36nm,0.8s
JKA **Kamikawa-asahi** 38.01 279 P **P** **13 03 48.1 -0.4**
JKA IAmb IAmb 13 03 51.5
comp=Z,65nm,1.1s
ASAJ **Asahikawa** 38.01 279 LR LR 13 20 23.5
comp=Z,186nm,18.2s,baz=85,slow=38
ASAJ **Asahikawa** 38.01 279 P **P** **13 03 48.2 -0.4**
ASAJ pmax pmax
comp=Z,65nm,1.1s
WUAZ **Wupatki** 38.17 99 IAmb IAmb 13 04 01.2
comp=Z,24nm,0.9s

ULM **Lac du Bonnet** 38.19 69 P **P** **13 03 50.8 +0.7**
comp=Z,25nm,0.8s,baz=303,slow=7.5,SNR=33
ULM LR LR 13 19 08.0
comp=Z,383nm,18.6s,baz=293,slow=36
comp=Z,25nm,0.8s
ULM **Lac du Bonnet** 38.19 69 IAmb IAmb 13 03 52.4
comp=Z,91nm,1.4s
ISCO **Idaho Springs** 38.67 89 P **P** **13 03 55.5 +0.9**
comp=Z,12nm,1.4s
MVCO **Mesa Verde** 38.68 95 P **P** **13 03 54.3 -0.3**
comp=Z,15nm,1.1s
ERM **Erimo** 38.95 276‖ eP **P** **13 03 58.0 +1.5**
ERM pmax pmax
comp=Z,112nm,1.1s
AGMN **Agassiz Nation** 39.24 71 IAmb IAmb 13 04 01.1
comp=Z,59nm,0.8s
AGMN **Agassiz Nation** 39.24 71 P **P** **13 03 59.8 +0.9**
comp=Z,65nm,0.9s
EPLO **Experimental L** 39.67 68 IAmb IAmb 13 04 04.9
comp=Z,72nm,1.2s
OGNE **Ogallala** 40.04 85 IAmb IAmb 13 04 08.3
comp=Z,58nm,0.8s
F33A **5 Mile Ranch,** 40.39 75 IAmb IAmb 13 04 11.1
comp=Z,57nm,1.7s
TUC **Tucson** 40.80 102 P **P** **13 04 12.6 +0.5**
TUC pmax pmax
comp=Z,11nm,1.0s
TUC **Tucson** 40.80 102 P **P** **13 04 12.6 +0.5**
KSCO **Kaye Shedlock'** 40.94 88 IAmb IAmb 13 04 16.1
comp=Z,62nm,0.8s
T25A **Trinidad** 41.13 91 IAmb IAmb 13 04 18.4
comp=Z,69nm,1.2s
ZEA **Zeya** 41.17 300 eP **P** **13 04 13.5 -1.2**
ZEA pmax pmax
comp=N,10.0nm,0.5s
ZEA pmax pmax
comp=Z,20nm,0.6s
ZEA MLR MLR
comp=E,200nm,15.0s
ZEA MLR MLR
comp=Z,400nm,17.0s
KLR **Kul'dur** 41.22 292 LR LR 13 24 00.4
comp=Z,222nm,18.3s,baz=64,slow=40
KLR **Kul'dur** 41.22 292‖ eP **P** **13 04 14.5 -0.7**
KLR pmax pmax
comp=Z,18nm,1.4s
ANMO **Albuquerque** 41.44 95 LR LR 13 20 05.7
comp=Z,139nm,19.5s,baz=311,slow=34
ANMO **Albuquerque** 41.44 95 P **P** **13 04 17.7 +0.3**
ANMO pmax pmax
comp=Z,12nm,1.3s
ANMO **Albuquerque** 41.44 95 P **P** **13 04 17.7 +0.3**
ANMO **Albuquerque** 41.44 95 P **P** **13 04 18.2 +0.8**
comp=Z,7.1nm,1.2s
ALQ **Albuquerque** 41.44 95 IAmb IAmb 13 04 49.5
comp=Z,6.4nm,1.0s
ECSD **EROS Data Cent** 41.46 78 P **P** **13 04 17.9 +0.6**
comp=Z,18nm,0.8s
DUN6 **Lazy B Ranch** 41.60 100 IAmb IAmb 13 04 32.7
comp=Z,31nm,0.9s
NEEM **North Greenlan** 41.62 18 iP **P** **13 04 18.7 +0.1**
NEEM IAmb IAmb 13 04 20.2
comp=Z,41nm,0.8s
EYMN **Ely** 41.86 69 IAmb IAmb 13 04 22.8
comp=Z,63nm,0.8s
EYMN **Ely** 41.86 69 P **P** **13 04 21.6 +1.0**
comp=Z,94nm,1.0s
BGNE **Belgrade** 42.02 81 IAmb IAmb 13 04 24.3
comp=Z,53nm,0.9s
121A **Cookes Peak, D** 42.38 99 IAmb IAmb 13 04 28.7
comp=Z,56nm,1.7s
RTBA **Rita Blanca** 42.59 91 IAmb IAmb 13 04 29.6
comp=Z,56nm,1.1s
E38A **The Farm, Brul** 42.61 71 IAmb IAmb 13 04 28.1
comp=Z,59nm,0.8s
L34A **Svendsen Farm,** 42.69 80 IAmb IAmb 13 04 36.6
comp=Z,35nm,0.8s
H11N2 **WAKE ISLAND Hy** 42.72 230 T T 13 50 27.3
baz=28,slow=76,SNR=370
H11N3 **WAKE ISLAND Hy** 42.73 230 T T 13 50 24.0
baz=28,slow=76,SNR=1403
SPMN **Marine on St.** 42.73 73 IAmb IAmb 13 04 29.2
comp=Z,23nm,0.7s
H11N1 **WAKE ISLAND Hy** 42.74 230 T T 13 50 17.5
baz=28,slow=76,SNR=302
CBKS **Cedar Bluff** 42.76 86 IAmb IAmb 13 04 30.5
comp=Z,45nm,0.8s
HEH **HeiHe** 42.98 296 eP **P** **13 04 27.3 -2.2**
HEH pmax pmax
comp=Z,24nm,1.3s
NOR **Nord** 43.08 7 P **P** **13 04 31.1 +1.0**
comp=Z,32nm,1.2s
NOR **Nord** 43.08 7 iP **P** **13 04 29.8 -0.2**
NOR IAmb IAmb 13 04 31.4
comp=Z,19nm,1.0s
R32A **Long Quarter,** 43.62 85 IAmb IAmb 13 04 37.4
comp=Z,35nm,0.8s
H11S1 **WAKE ISLAND Hy** 43.88 229 T T 13 52 02.8
baz=28,slow=76,SNR=297
H11S2 **WAKE ISLAND Hy** 43.89 229 T T 13 51 37.2
baz=28,slow=76,SNR=109
H11S3 **WAKE ISLAND Hy** 43.90 229 T T 13 51 50.5
baz=28,slow=76,SNR=84
USRK **Ussuriysk Ar.** 44.05 286 P **P** **13 04 36.9 -1.3**
comp=Z,4.2nm,0.6s,baz=52,slow=6.3,SNR=7.2
USRK LR LR 13 22 40.9
comp=Z,207nm,21.6s,baz=56,slow=36
comp=Z,4.2nm,0.6s
FRB **Frobisher Bay** 44.08 40 LR LR 13 24 48.4
comp=Z,1μm,18.7s,baz=298,slow=38
G40A **Rib Lake** 44.16 72 IAmb IAmb 13 04 41.1
comp=Z,39nm,1.0s
MSTX **Muleshoe** 44.28 93 IAmb IAmb 13 04 43.8
comp=Z,60nm,1.2s
AMTX **Amarillo** 44.28 91 IAmb IAmb 13 04 43.2
comp=Z,58nm,1.1s
MNTX **Cornudas Mount** 44.38 98 P **P** **13 04 42.5 +1.4**
comp=Z,12nm,1.0s
OK038 **West end E0370** 44.91 87 IAmb IAmb 13 04 47.7
comp=Z,33nm,0.8s
TPB28 44.92 97 IAmb IAmb 13 04 49.4
comp=Z,25nm,1.4s
TPB11 **China Draw** 45.00 96 IAmb IAmb 13 04 50.2
comp=Z,54nm,1.4s
MDJ **Mudanjiang** 45.14 288 P **P** **13 04 49.4 +2.5**
MDJ **Mudanjiang** 45.14 288 P **P** **13 04 45.6 -1.3**
MDJ pmax pmax
comp=Z,11nm,0.8s
N38A **Joes South For** 45.26 79 IAmb IAmb 13 04 49.1
comp=Z,29nm,0.8s
BOD **Bodaibo** 45.27 311 eP **P** **13 04 45.7 -2.1**
BOD pmax pmax
comp=Z,27nm,1.1s
VHRN **Van Horn** 45.28 98 IAmb IAmb 13 04 52.2
comp=Z,26nm,1.2s
CROK **Carrier** 45.34 87 IAmb IAmb 13 04 50.6
comp=Z,35nm,1.0s
MAJO **Matsushiro** 45.43 273 P **P** **13 04 49.7 +0.3**
MAJO **Matsushiro** 45.43 273 eP **P** **13 04 50.2 +0.8**
MAJO pmax pmax
comp=Z,37nm,1.0s
MAJO **Matsushiro** 45.43 273 P **P** **13 04 49.0 -0.4**
MAJO **Matsushiro** 45.43 273 P **P** **13 04 49.9 +0.5**
comp=Z,26nm,1.0s
MJAR **Matsushiro Arr** 45.43 273 P **P** **13 04 49.2 -0.1**
comp=Z,7.6nm,0.8s,baz=41,slow=6.6,SNR=17
MJAR LR LR 13 25 04.8
comp=Z,242nm,19.9s,baz=57,slow=38
comp=Z,7.6nm,0.8s
MJAR **Matsushiro Arr** 45.43 273 P **P** **13 04 49.3 -0.1**
MJAR pmax pmax
comp=Z,21nm,0.9s
MJAR **Matsushiro Arr** 45.43 273 P **P** **13 04 49.3 -0.1**
MJAR IAmb IAmb 13 05 01.8
comp=Z,21nm,0.9s
DKNS **Dickens** 45.59 92 IAmb IAmb 13 04 52.6
comp=Z,25nm,0.8s
BNX **BinXian** 45.66 291 ⇑P **P** **13 04 50.0 -1.0**
BNX pmax pmax
comp=Z,14nm,0.8s
POST **Post** 45.67 93 IAmb IAmb 13 04 53.9
comp=Z,45nm,1.1s
ODSA **Odessa** 45.73 95 IAmb IAmb 13 05 02.0
comp=Z,19nm,0.9s
129A **Stewart Farms,** 45.77 94 IAmb IAmb 13 04 55.3
comp=Z,45nm,1.3s
P38A **Dawn** 45.85 80 IAmb IAmb 13 04 53.4
comp=Z,19nm,0.7s

TPB01 **Permian Basin** 45.87 97 IAmb IAmb 13 04 56.8
comp=Z,30nm,1.5s
T35A **Sooner Cattle** 45.93 85 IAmb IAmb 13 04 55.0
comp=Z,30nm,1.2s
OK048 **Pawnee Station** 46.01 86 IAmb IAmb 13 04 55.9
comp=Z,33nm,0.9s
WMOK **Wichita Mounta** 46.09 89 P **P** **13 04 55.1 +0.5**
comp=Z,82nm,0.8s
OK029 **Liberty Lake** 46.14 87 IAmb IAmb 13 05 04.3
comp=Z,29nm,0.9s
APMT **Aspermont** 46.30 92 IAmb IAmb 13 04 57.9
comp=Z,23nm,1.0s
TMB01 **Midkiff** 46.33 95 IAmb IAmb 13 04 59.4
comp=Z,25nm,1.2s
L42A **Oliver, Polo** 46.52 75 IAmb IAmb 13 04 58.9
comp=Z,32nm,1.2s
JGF **Kuroka** 46.57 273 P **P** **13 04 59.6 +1.2**
JGF **Kuroka** 46.57 273 P **P** **13 04 59.4 +1.0**
comp=Z,58nm,1.0s
N41A **Harden Midland** 46.68 77 IAmb IAmb 13 05 00.5
comp=Z,27nm,1.0s
X34A **Smith Ranch, M** 46.75 88 IAmb IAmb 13 05 10.0
comp=Z,34nm,1.0s
P40A **Paris** 46.77 79 IAmb IAmb 13 05 15.3
comp=Z,18nm,0.7s
INU **Inuyama** 46.95 273 P **P** **13 05 02.7 +1.4**
INU **Inuyama** 46.95 273 IAmb IAmb 13 05 12.4
comp=Z,21nm,1.0s
WTFS **Witchita Falls** 46.96 90 IAmb IAmb 13 05 03.1
comp=Z,16nm,0.8s
TUL3 **Leonard** 47.04 86 IAmb IAmb 13 05 03.3
comp=Z,24nm,0.9s
DAG **Danmarks Havn** 47.07 11 P **P** **13 05 02.2 +0.5**
DAG pmax pmax
comp=Z,119nm,1.2s
DAG **Danmarks Havn** 47.07 11 P **P** **13 05 02.1 +0.5**
comp=Z,118nm,1.2s
DAG **Danmarks Havn** 47.07 11 iP **P** **13 05 01.9 +0.2**
DAG IAmb IAmb 13 05 03.1
comp=Z,68nm,0.7s
TX31 **Lajitas Ar. Si** 47.12 98 IAmb IAmb 13 05 19.1
comp=Z,23nm,0.9s
TXAR **Lajitas Array** 47.12 98 P **P** **13 05 03.5 +0.7**
comp=Z,10nm,0.8s,baz=308,slow=4.7,SNR=53
TXAR LR LR 13 23 45.2
comp=Z,218nm,18.1s,baz=314,slow=35
comp=Z,10nm,0.8s
TXAR **Lajitas Array** 47.12 98 P **P** **13 05 03.7 +0.9**
TXAR **Lajitas Array** 47.12 98 P **P** **13 05 03.7 +0.9**
SUMG **Summit** 47.26 21 P **P** **13 05 03.7 -0.1**
SUMG pmax pmax
comp=Z,62nm,1.0s
SUMG **Summit** 47.26 21 P **P** **13 05 03.7 -0.1**
LPIG **La Paz** 47.34 109 LR LR 13 20 12.6
comp=Z,111nm,21.8s,baz=324,slow=30
HILR **Hailar Array B** 47.38 299 P **P** **13 05 02.5 -2.1**
comp=Z,3.6nm,0.5s,baz=350,slow=8.1,SNR=4.5
comp=Z,3.6nm,0.5s
OZNA **Ozona** 47.44 95 IAmb IAmb 13 05 08.5
comp=Z,20nm,1.0s
R40A **Maddies Statio** 47.47 81 IAmb IAmb 13 05 37.0
comp=Z,8.8nm,0.6s
U38A **Gravette** 47.50 84 IAmb IAmb 13 05 06.8
comp=Z,51nm,1.5s
NRIK **Noril'sk** 47.52 334 P **P** **13 05 04.5 -0.8**
comp=Z,50nm,0.7s,baz=67,slow=7.2,SNR=55
NRIK LR LR 13 27 16.8
comp=Z,543nm,19.7s,baz=56,slow=39
comp=Z,50nm,0.7s
NRIK **Noril'sk** 47.52 334 ceP **P** **13 05 05.1 -0.2**
NRIK pmax pmax
comp=Z,48nm,0.9s
SAND **Sanderson** 47.56 96 IAmb IAmb 13 05 09.8
comp=Z,45nm,1.5s
HIA **Hailar** 47.57 299 P **P** **13 05 08.5 +2.5**
SPITS **Spitsbergen Ar** 47.94 1 P **P** **13 05 08.0 -0.5**
comp=Z,3.5nm,0.4s,baz=43,slow=6.2,SNR=15
SPITS LR LR 13 25 33.8
comp=Z,274nm,20.3s,baz=2.0,slow=36
comp=Z,3.5nm,0.4s
SPITS **Spitsbergen Ar** 47.94 1 P **P** **13 05 08.0 -0.5**
CN2 **Changchun** 47.96 290 eP **P** **13 05 08.3 -0.8**
CN2 eS **S** **13 12 04.5 -1.0**
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,100nm,4.0s
CN2 L L
comp=Z,100nm,16.0s
CN2 L L
comp=Z,200nm,16.0s
SFJD **Kangerlussuaq** 48.13 30 LR LR 13 28 26.0
comp=Z,321nm,18.7s,baz=318,slow=40
CCM **Cathedral Cave** 48.23 80 P **P** **13 05 10.1 -1.1**
CCM pmax pmax
comp=Z,8.0nm,0.9s
CCM **Cathedral Cave** 48.23 80 P **P** **13 05 10.1 -1.1**
CCM **Cathedral Cave** 48.23 80 P **P** **13 05 11.2 0.0**
BRDY **Brady** 48.42 93 IAmb IAmb 13 05 14.9
comp=Z,31nm,1.0s
FVM **French Village** 48.75 80 IAmb IAmb 13 05 16.4
comp=Z,49nm,1.8s
CIT **Chita** 48.94 305 eP **P** **13 05 16.0 -0.6**
CIT e 13 05 25.6
CIT e 13 07 09.6
CIT pmax pmax
comp=Z,59nm,1.4s
Q44A **Meyer Farm, Va** 48.94 78 IAmb IAmb 13 05 18.1
comp=Z,44nm,1.3s
DBG **Daneborg** 49.01 14 P **P** **13 05 17.6 +0.8**
comp=Z,48nm,1.9s
DBG **Daneborg** 49.01 14 iP **P** **13 05 16.6 -0.1**
DBG IAmb IAmb 13 05 17.9
comp=Z,35nm,0.9s
VLDQ **Val d'Or** 49.26 61 IAmb IAmb 13 05 25.9
comp=Z,43nm,1.3s
MIAR **Mount Ida** 49.29 85 IAmb IAmb 13 05 21.3
comp=Z,45nm,1.6s
MIAR **Mount Ida** 49.29 85 P **P** **13 05 20.3 +0.9**
comp=Z,17nm,1.1s
S44A **Carbondale** 49.62 79 IAmb IAmb 13 05 22.4
comp=Z,16nm,0.7s
NUUK **Nuuk** 49.69 33 iP P 13 05 31.1 +9.1
NUUK IAmb IAmb 13 05 34.5
comp=Z,44nm,1.1s
JMN **Monobe** 49.93 274 P **P** **13 05 26.9 +2.6**
JMN **Monobe** 49.93 274 P **P** **13 05 24.8 +0.5**
comp=Z,36nm,1.1s
BUKO **Buck Lake** 49.96 65 IAmb IAmb 13 05 26.1
comp=Z,44nm,1.2s
SCHQ **Schefferville** 50.07 49 P **P** **13 05 25.5 +0.4**
comp=Z,6.2nm,0.9s,baz=325,slow=7.4,SNR=6.8
SCHQ LR LR 13 28 14.3
comp=Z,604nm,18.3s,baz=300,slow=38
comp=Z,6.2nm,0.9s
SCHQ **Schefferville** 50.07 49 IAmb IAmb 13 05 40.9
comp=Z,45nm,1.5s
SADO **Sadowa** 50.54 66 LR LR 13 25 56.6
comp=Z,278nm,18.4s,baz=346,slow=35
SADO **Sadowa** 50.54 66 IAmb IAmb 13 05 29.7
comp=Z,21nm,0.8s
O49A **Covington** 50.74 73 IAmb IAmb 13 05 30.5
comp=Z,25nm,0.8s
KS19 **Wonju Array Si** 50.80 282 IAmb IAmb 13 05 43.9
comp=Z,33nm,0.8s
KSRS **Korea Array** 50.80 282 P **P** **13 05 31.6 +0.8**
comp=Z,12nm,0.6s,baz=44,slow=6.8,SNR=45
KSRS LR LR 13 30 04.8
comp=Z,73nm,18.1s,baz=65,slow=40
comp=Z,12nm,0.6s
KSAR **Wonju Array Be** 50.83 282 P **P** **13 05 31.0 0.0**
KSAR **Wonju Array Be** 50.83 282 P **P** **13 05 31.0 0.0**
HKT **Hockley** 51.26 91 P **P** **13 05 36.3 +2.0**
HKT pmax pmax
comp=Z,29nm,0.9s
HKT **Hockley** 51.26 91 P **P** **13 05 35.3 +1.0**
comp=Z,48nm,1.3s
N51A **Ashland** 51.34 71 IAmb IAmb 13 05 36.0
comp=Z,45nm,1.2s
INCN **Inchon** 51.52 283 P **P** **13 05 38.2 +1.9**
INCN **Inchon** 51.52 283 P **P** **13 05 37.8 +1.6**
comp=Z,37nm,1.1s
WVT **Waverly** 51.53 79 P **P** **13 05 35.5 -0.8**
WVT pmax pmax
comp=Z,27nm,0.9s
WVT **Waverly** 51.53 79 P **P** **13 05 35.5 -0.8**
WVT IAmb IAmb 13 05 37.4

comp=Z,27nm,0.8s
WVT Waverly 51.53 79 P **P** **13 05 36.6 +0.3**
comp=Z,42nm,1.1s
TJN Taejon 51.86 281 P **P** **13 05 40.7 +1.9**
TJN Taejon 51.86 281 *ce*P **P** **13 05 40.1 +1.3**
TJN Taejon 51.86 281 P **P** **13 05 40.6 +1.8**
comp=Z,189nm,1.2s
JTU Tsushima 51.99 278 P **P** **13 05 42.3 +2.6**
JTU Tsushima 51.99 278 P **P** **13 05 39.8 +0.1**
JTU IAmb IAmb 13 05 43.4
comp=Z,48nm,1.0s
JTU Tsushima 51.99 278 P **P** **13 05 41.1 +1.4**
comp=Z,57nm,1.2s
TRQ Mont Tremblant 51.99 61 IAmb IAmb 13 05 47.2
comp=Z,68nm,1.4s
R50A Paris 52.05 75 IAmb IAmb 13 05 40.9
comp=Z,22nm,0.8s
O52A Adamsville 52.19 72 IAmb IAmb 13 05 42.4
comp=Z,53nm,1.1s
N53A Lisbon 52.28 70 IAmb IAmb 13 05 42.4
comp=Z,21nm,0.8s
PAOC Oil Creek Stat 52.43 69 IAmb IAmb 13 05 44.2
comp=Z,29nm,1.0s
WBO Williamsburg 52.44 63 IAmb IAmb 13 05 44.5
comp=Z,52nm,1.2s
LDAQ Lac Daran 52.51 58 IAmb IAmb 13 05 54.0
comp=Z,23nm,1.0s
MMNY Mt. Morris Dam 52.57 67 IAmb IAmb 13 05 45.0
comp=Z,31nm,0.9s
T50A Nancy 52.63 77 IAmb IAmb 13 05 45.4
comp=Z,20nm,0.9s
Q52A Bidwell 52.74 73 IAmb IAmb 13 05 45.7
comp=Z,17nm,0.9s
ZAIG Zacatecas 52.76 103 P **P** **13 05 47.7 +1.7**
comp=Z,11nm,1.0s
P53A Whipple 52.87 72 IAmb IAmb 13 05 46.8
comp=Z,24nm,1.0s
S51A Beattyville 52.91 75 IAmb IAmb 13 05 47.6
comp=Z,22nm,0.9s
MNTQ Montreal, Queb 52.96 62 IAmb IAmb 13 05 55.9
comp=Z,22nm,0.9s
XLT XiLinHaoTe 52.98 296 *e*P **P** **13 05 47.3 +0.2**
XLT pP pP 13 05 52.9 +0.3
XLT sP sP 13 05 54.1 -0.6
XLT pmax pmax
comp=Z,47nm,0.9s
XLT pmax pmax
comp=Z,280nm,4.9s
LONY Lake Ozonia 53.06 63 IAmb IAmb 13 05 55.1
comp=Z,21nm,1.1s
IRK Irkutsk 53.12 310 *e*P **P** **13 05 47.0 -0.9**
IRK pmax pmax
comp=Z,44nm,1.8s
LMQ La Malbaie 53.25 58 IAmb IAmb 13 06 04.6
comp=Z,16nm,0.8s
DL2 Dalian 53.37 288 P **P** **13 05 50.4 +0.5**
DL2 S **S** **13 13 18.7 -2.0**
DL2 pmax pmax
comp=Z,68nm,1.2s
DL2 pmax pmax
comp=Z,150nm,5.5s
DL2 L L
comp=Z,550nm,16.3s
DL2 L L
comp=Z,640nm,17.8s
DL2 L L
comp=Z,510nm,15.7s
Z47A Carrollton 53.46 82 IAmb IAmb 13 05 51.8
comp=Z,34nm,1.1s
JMIC Jan Mayen 53.52 11 LR LR 13 30 43.1
comp=Z,123nm,18.8s,baz=251,slow=38
Q54A Coxs Mills 53.53 72 IAmb IAmb 13 05 51.8
comp=Z,15nm,0.9s
W50A Signal Mountai 53.64 78 IAmb IAmb 13 06 00.4
comp=Z,22nm,0.9s
TZTN Tazewell 53.70 76 IAmb IAmb 13 05 53.3
comp=Z,23nm,0.8s
TZTN Tazewell 53.70 76 P **P** **13 05 52.9 +0.4**
comp=Z,30nm,0.9s
TLY Talaya 53.79 310 LR LR 13 29 21.8
comp=Z,325nm,19.5s,baz=34,slow=37
TLY Talaya 53.79 310 *ce*P **P** **13 05 52.7 -0.1**
TLY pmax pmax
comp=Z,15nm,0.9s
TLY Talaya 53.79 310 P **P** **13 05 52.8 -0.1**
TLY IAmb IAmb 13 05 54.0
comp=Z,13nm,0.7s
TLY Talaya 53.79 310 P **P** **13 05 53.0 +0.1**
comp=Z,27nm,1.3s
J59A Piesco 53.89 64 IAmb IAmb 13 05 54.8
comp=Z,22nm,0.7s
M57A Sunshine Farm, 53.95 67 IAmb IAmb 13 05 55.2
comp=Z,26nm,0.8s
BINY Binghamton 53.97 66 IAmb IAmb 13 05 55.7
comp=Z,28nm,0.9s
BINY Binghamton 53.97 66 P **P** **13 05 55.0 +0.7**
comp=Z,39nm,1.6s
SSPA Standing Stone 54.02 69 P **P** **13 05 54.1 -0.6**
SSPA Standing Stone 54.02 69 P **P** **13 05 55.2 +0.5**
comp=Z,49nm,1.0s
D62A Allapoint, All 54.20 57 IAmb IAmb 13 05 57.4
comp=Z,52nm,1.4s
TKL Tuckaleechee C 54.20 77 LR LR 13 28 23.5
comp=Z,292nm,19.2s,baz=323,slow=35
TKL Tuckaleechee C 54.20 77 IAmb IAmb 13 05 58.4
comp=Z,24nm,1.1s
X51A Calhoun 54.35 79 IAmb IAmb 13 05 58.3
comp=Z,36nm,1.3s
R55A Marlinton 54.42 72 IAmb IAmb 13 05 59.3
comp=Z,31nm,1.1s
L59A Walton 54.48 65 IAmb IAmb 13 05 59.5
comp=Z,29nm,1.0s
N58A Sunbury 54.52 68 IAmb IAmb 13 05 59.3
comp=Z,27nm,0.9s
KSPA Keystone Colle 54.53 66 IAmb IAmb 13 06 07.5
comp=Z,28nm,1.1s
U54A Nelsons Funny 54.70 75 IAmb IAmb 13 06 01.4
comp=Z,35nm,0.9s
LBNH Lisbon 54.70 62 IAmb IAmb 13 06 00.7
comp=Z,17nm,0.8s
V53A Saluda 54.74 76 IAmb IAmb 13 06 01.5
comp=Z,33nm,1.0s
G62A West of Eustis 54.74 60 IAmb IAmb 13 06 10.3
comp=Z,24nm,1.0s
ULN Ulaanbaatar 54.84 305 *ce*P **P** **13 06 00.5 -0.2**
ULN pmax pmax
comp=Z,18nm,0.9s
ULN Ulaanbaatar 54.84 305 P **P** **13 06 00.5 -0.2**
ULN IAmb IAmb 13 06 01.4
comp=Z,19nm,0.8s
ULN Ulaanbaatar 54.84 305 P **P** **13 05 59.0 -1.7**
ULN Ulaanbaatar 54.84 305 P **P** **13 06 00.7 -0.1**
comp=Z,28nm,0.9s
TRY Troy 54.84 64 IAmb IAmb 13 06 02.6
comp=Z,27nm,1.0s
ZAK Zakamensk 54.86 309 *e*P **P** **13 05 59.9 -0.9**
ZAK pmax pmax
comp=Z,10.0nm,1.5s
H62A Milan 54.87 61 IAmb IAmb 13 06 01.8
comp=Z,30nm,0.8s
HNH Hanover 54.89 62 IAmb IAmb 13 06 11.6
comp=Z,41nm,1.2s
MOY Mondy 54.98 311 *e*P **P** **13 06 02.1 +0.4**
MOY pmax pmax
comp=Z,31nm,1.6s
BG3 Lake Jocassee 55.16 77 IAmb IAmb 13 06 04.7
comp=Z,47nm,1.4s
SONM Songino Array 55.18 305 P **P** **13 06 03.2 0.0**
comp=Z,21nm,0.7s,baz=57,slow=6.6,SNR=79
SONM LR LR 13 31 04.9
comp=Z,505nm,18.4s,baz=39,slow=38
comp=Z,21nm,0.7s
SONM Songino Array 55.18 305 P **P** **13 06 02.7 -0.5**
SONM pmax pmax
comp=Z,24nm,0.8s
SONM Songino Array 55.18 305 P **P** **13 06 02.7 -0.5**
SONM IAmb IAmb 13 06 04.2
comp=Z,24nm,0.8s
NPNY Mohonk Preserv 55.27 65 IAmb IAmb 13 06 05.1
comp=Z,15nm,0.7s
MVL Millersville 55.30 68 IAmb IAmb 13 06 05.5
comp=Z,53nm,1.5s
PKME Peaks-Kenny Pk 55.34 59 IAmb IAmb 13 06 34.1
comp=Z,45nm,1.3s
SDMD Soldier's Deli 55.45 69 IAmb IAmb 13 06 06.2
comp=Z,16nm,1.0s
ODNJ Ogdensburg 55.49 66 P **P** **13 06 05.4 0.0**

V55A Taylorsville 55.52 75 IAmb IAmb 13 06 06.9
comp=Z,29nm,1.0s
BJI2 Beijing 55.61 292 P **P** **13 06 06.0 -0.2**
BJI2 pmax pmax
comp=Z,5.0nm,1.6s
BJI2 L L
comp=Z,450nm,25.0s
BJI2 L L
comp=Z,310nm,24.0s
BJI2 L L
comp=Z,330nm,16.5s
BJT Baijiatuau 55.62 292 P **P** **13 06 08.1 +1.9**
U56A King 55.64 74 IAmb IAmb 13 06 07.8
comp=Z,38nm,1.2s
R58B Mineral 55.90 71 IAmb IAmb 13 06 10.0
comp=Z,38nm,1.3s
PAULI Pauline 55.92 76 IAmb IAmb 13 06 08.7
comp=Z,19nm,0.9s
KMSC Kings Mountain 55.96 76 IAmb IAmb 13 06 09.1
comp=Z,25nm,0.8s
HODGE Hodges 56.09 77 IAmb IAmb 13 06 09.8
comp=Z,18nm,0.9s
WSPT Westport, CT 56.11 65 IAmb IAmb 13 06 18.9
comp=Z,44nm,1.2s
KEV Kevo 56.33 357 P **P** **13 06 10.1 -0.8**
KEV pmax pmax
comp=Z,41nm,0.7s
KEV Kevo 56.33 357 P **P** **13 06 10.1 -0.8**
KEV Kevo 56.33 357 P **P** **13 06 10.8 -0.1**
comp=Z,77nm,1.5s
ARCES ARCESS Array B 56.59 358 P **P** **13 06 11.4 -1.4**
comp=Z,9.7nm,0.7s,baz=28,slow=7.7,SNR=35
comp=Z,9.7nm,0.7s
ARCES ARCESS Array B 56.59 358 P **P** **13 06 11.7 -1.1**
ARCES pmax pmax
comp=Z,82nm,1.5s
ARCES ARCESS Array B 56.59 358 P **P** **13 06 11.7 -1.1**
JSC Jenkinsville 56.62 76 IAmb IAmb 13 06 14.2
comp=Z,41nm,1.3s
V58A Windy Hill, Pi 56.75 74 IAmb IAmb 13 06 15.7
comp=Z,43nm,1.2s
T59A Double "B" Far 56.79 72 IAmb IAmb 13 06 23.4
comp=Z,22nm,0.7s
BORG Borgarnes 57.23 20 LR LR 13 32 13.7
comp=Z,171nm,21.8s,baz=336,slow=38
KNGR Kungurtug, Tuv 57.27 312 *de*P **P** **13 06 19.8 +1.8**
KNGR pmax pmax
comp=Z,30nm,1.1s
HHC Hu-ho-hao-te 57.50 296 *e*P **P** **13 06 20.7 +0.9**
HHC pmax pmax
comp=Z,23nm,0.7s
HHC pmax pmax
comp=Z,150nm,5.2s
HHC L L
comp=Z,350nm,16.8s
HHC L L
comp=Z,280nm,16.8s
HHC L L
comp=Z,310nm,16.8s
TIA Tai'an 57.80 288 P **P** **13 06 22.1 +0.3**
TIA pmax pmax
comp=Z,20nm,0.6s
LVZ Lovozero 57.82 354‖ *e*P **P** **13 06 21.8 +0.3**
LVZ pmax pmax
comp=Z,42nm,1.0s
LVZ Lovozero 57.82 354 P **P** **13 06 21.0 -0.5**
LVZ Lovozero 57.82 354 P **P** **13 06 20.6 -0.9**
comp=Z,71nm,1.7s
LVZ Lozero 57.82 354 P **P** **13 06 21.4 -0.1**
comp=Z,65nm,1.7s
APA Apatity 58.22 354 *e*P **P** **13 06 22.4 -1.9**
APA *e* 13 07 13.4
APA pmax pmax
comp=Z,12nm,1.2s
HNS HongShan 58.28 291 ⇑P **P** **13 06 24.5 -0.6**
HNS pmax pmax
comp=Z,69nm,1.3s
HNS L L
comp=Z,280nm,20.8s
HNS L L
comp=Z,470nm,22.2s
HNS L L
comp=Z,470nm,20.4s
BTO2 Baotou 58.46 297 *e*P **P** **13 06 25.9 -0.7**
BTO2 pmax pmax
comp=Z,36nm,1.3s
BTO2 pmax pmax
comp=Z,400nm,5.4s
BTO2 L L
comp=Z,1μm,11.3s
BTO2 L L
comp=Z,920nm,17.4s
BTO2 L L
comp=Z,1μm,13.7s
SGF Sodankyl 58.66 357 P **P** **13 06 27.7 +0.4**
comp=Z,80nm,1.8s
GUMO Guam 59.05 249 LR LR 13 28 29.7
comp=Z,86nm,20.3s,baz=92,slow=33
TLIG Tlapa 59.16 103 IAmb IAmb 13 06 56.5
comp=Z,38nm,1.2s
ZAA0 Zalesovo Array 59.81 322 IAmb IAmb 13 06 36.5
comp=Z,44nm,1.6s
ZALV Zalesovo Beam 59.81 322 P **P** **13 06 35.2 -0.2**
comp=Z,4.2nm,0.6s,baz=40,slow=5.6,SNR=24
ZALV LR LR 13 34 48.0
comp=Z,980nm,19.3s,baz=36,slow=38
comp=Z,4.2nm,0.6s
ZALV Zalesovo Beam 59.81 322 P **P** **13 06 34.7 -0.8**
NJ2 Nanjing 59.86 284 *e*P **P** **13 06 36.1 -0.1**
NJ2 pmax pmax
comp=Z,7.0nm,0.5s
OUL Oulu 61.04 357 P **P** **13 06 44.1 +0.4**
comp=Z,71nm,1.2s
LYN LuoYang 61.60 290 P **P** **13 06 48.1 +0.1**
LYN sP pwP 13 06 57.2 +0.3
LYN pmax pmax
comp=Z,53nm,0.7s
LYN pmax pmax
comp=Z,390nm,5.2s
LYN L L
comp=Z,620nm,17.9s
LYN L L
comp=Z,340nm,13.4s
LYN L L
comp=Z,350nm,18.2s
CMIG Matias Romero 61.65 100 LR LR 13 30 16.4
comp=Z,103nm,22.0s,baz=350,slow=33
WHN Wuhan 63.55 286 P **P** **13 07 03.3 +2.3**
XAN Xi'an 63.93 292 P **P** **13 07 04.5 +0.9**
XAN pP sP 13 07 11.4 +0.2
XAN pmax pmax
comp=Z,27nm,1.1s
XAN L L
comp=Z,520nm,24.0s
XAN L L
comp=Z,510nm,24.0s
XAN L L
comp=Z,560nm,20.6s
KLMR Klimovskoe 64.34 350 *e*P **P** **13 07 04.0 -1.8**
KLMR pmax pmax
comp=Z,58nm,1.0s
GTA2 Gaotai 64.57 303 P **P** **13 07 07.4 -0.4**
GTA2 sP pwP 13 07 16.0 -0.8
GTA2 pmax pmax
comp=Z,25nm,1.2s
GTA2 pmax pmax
comp=Z,190nm,7.9s
GTA2 L L
comp=Z,280nm,15.1s
GTA2 L L
comp=Z,620nm,16.8s
GTA2 L L
comp=Z,730nm,16.8s
SVE Sverdlovsk 64.59 337 *e*P **P** **13 07 07.7 +0.2**
SVE pmax pmax
comp=Z,60nm,1.2s
KURK Kurchatov 64.66 323 *ce*P **P** **13 07 07.8 -0.2**
KURK pmax pmax
comp=Z,21nm,1.3s
KURK Kurchatov 64.66 323 P **P** **13 07 07.6 -0.4**
KURK IAmb IAmb 13 07 20.6
comp=Z,26nm,1.0s
KURK Kurchatov 64.66 323 P **P** **13 07 08.0 0.0**
comp=Z,32nm,1.2s
FINES FINESS Array B 64.68 357 P **P** **13 07 07.8 -0.1**
comp=Z,13nm,0.6s,baz=19,slow=7.5,SNR=54
comp=Z,13nm,0.6s

FINES FINESS Array B 64.68 357 *i* P **P** **13 07 07.9 -0.1**
FINES pmax pmax
comp=Z,14nm,0.6s
FINES FINESS Array B 64.68 357 P **P** **13 07 07.4 -0.6**
KURBB Kurchatov Arra 64.76 323 P **P** **13 07 08.3 -0.4**
comp=Z,4.7nm,0.5s,baz=13,slow=7.5,SNR=28
comp=Z,4.7nm,0.5s
TAOE Nuku Hiva Isla 64.90 158 *e*LR LR 13 26 01.9
comp=Z,362nm,26.4s
NB2 NORSAR Subarra 64.96 5 P **P** **13 07 10.0 +0.1**
comp=Z,5.1nm,0.8s,baz=354,slow=6.5
NOA NORSAR Array B 64.96 5 P **P** **13 07 10.0 +0.1**
comp=Z,6.6nm,0.8s,baz=355,slow=6.5,SNR=16
comp=Z,6.6nm,0.8s
ZSN Zaisan 64.99 317 *e*P **P** **13 07 10.4 +0.1**
ZSN pmax pmax
comp=Z,11nm,0.7s
ZSN Zaisan 64.99 317 *e*P **P** **13 07 10.4 +0.1**
comp=Z,11nm,0.7s
LZH Lanzhou 65.09 297 *e*P **P** **13 07 12.7 +1.4**
LZH pP pwP 13 07 20.1 -0.1
LZH PcP **PcP** **13 07 39.1 -4.8**
LZH pmax pmax
comp=Z,67nm,1.0s
LZH L L
comp=Z,670nm,15.5s
LZH L L
comp=Z,510nm,14.8s
LZH L L
comp=Z,680nm,15.5s
KIRV Kirov 65.19 344 LR LR 13 39 54.3
comp=Z,301nm,18.2s,baz=14,slow=40
KIRV Kirov 65.19 344 *ce*P **P** **13 07 10.9 -0.4**
LZDM Lanzhou Array 65.26 297 P **P** **13 07 12.9 +0.3**
comp=Z,15nm,0.5s,baz=14,slow=3.1,SNR=8.7
LZDM LR LR 13 38 21.7
comp=Z,292nm,18.3s,baz=315,slow=38
comp=Z,15nm,0.5s
NORES NORESS Array B 65.28 5 P **P** **13 07 11.9 0.0**
NORES pmax pmax
comp=Z,1.0nm,0.4s
QZH2 Quanzhou 65.35 279 *e*P **P** **13 07 14.6 +1.7**
BVAR Borovoye Array 65.38 329 P **P** **13 07 12.8 +0.1**
comp=Z,37nm,0.7s,baz=39,slow=7.0,SNR=127
comp=Z,37nm,0.7s
BORK Borovoye 65.38 329‖ *e*P **P** **13 07 13.1 +0.4**
BORK pmax pmax
comp=Z,26nm,0.9s
BORK Borovoye 65.38 329 P **P** **13 07 12.6 -0.1**
ARTI Arti 65.51 338 LR LR 13 39 55.1
comp=Z,390nm,18.2s,baz=28,slow=40
ARTI Arti 65.51 338 *c* iP **P** **13 07 13.1 -0.4**
ARTI 13 07 44.2
ARTI S **S** **13 15 56.1 -0.8**
ARTI pmax pmax
comp=Z,41nm,0.8s
ARTI Arti 65.51 338 P **P** **13 07 13.0 -0.5**
HFS Hagfors 65.97 4 P **P** **13 07 16.6 +0.2**
comp=Z,7.4nm,0.5s,baz=46,slow=6.4,SNR=11
comp=Z,7.4nm,0.5s
ENH Enshi 66.48 289 P **P** **13 07 22.8 +2.7**
ENH Enshi 66.48 289 IAmb IAmb 13 07 29.5
comp=Z,29nm,1.2s
MK31 Makanchi Array 66.54 319 *i* P **P** **13 07 19.7 -0.6**
MKAR Makanchi Array 66.54 319 P **P** **13 07 19.6 -0.8**
comp=Z,5.5nm,0.6s,baz=45,slow=5.9,SNR=59
MKAR LR LR 13 38 41.8
comp=Z,510nm,18.3s,baz=18,slow=38
comp=Z,5.5nm,0.6s
MKAR Makanchi Array 66.54 319 P **P** **13 07 18.7 -1.6**
MAKZ Makanchi 66.65 319 P **P** **13 07 19.8 -1.2**
MAKZ pmax pmax
comp=Z,11nm,0.6s
MAKZ Makanchi 66.65 319 P **P** **13 07 19.8 -1.2**
MAKZ IAmb IAmb 13 07 31.5
comp=Z,11nm,0.6s
MAKZ Makanchi 66.65 319 P **P** **13 07 20.4 -0.6**
comp=Z,17nm,0.6s
WMQ Urumqi 66.75 313 *e*P **P** **13 07 22.5 +0.7**
WMQ pP pwP 13 07 31.6 +1.8
WMQ pmax pmax
comp=Z,20nm,1.3s
DRUM Mains of Drumt 67.78 13 P **P** **13 07 28.8 +0.9**
comp=Z,164nm,1.0s
AFI Afiamalu 68.53 193 LR LR 13 30 55.6
comp=Z,100nm,20.9s,baz=83,slow=30
ONAU Onsala 68.63 5 *i* P P 13 07 42.6 +9.4
FABU Falkenberg 69.06 4 *i* P P 13 07 45.7 +10
CD2 Chengdu 69.12 294 P **P** **13 07 37.2 +0.4**
CD2 pmax pmax
comp=Z,80nm,0.8s
EKA Eskdalemuir Ar 69.22 14 P **P** **13 07 37.4 +0.4**
comp=Z,11nm,0.7s,baz=337,slow=4.5,SNR=18
EKA LR LR 13 39 42.8
comp=Z,61nm,18.4s,baz=354,slow=38
comp=Z,11nm,0.7s
TDK Taldyqorghan 69.53 320 *e*P **P** **13 07 39.1 0.0**
TDK pmax pmax
comp=Z,16nm,1.0s
TDK Taldyqorghan 69.53 320 *e*P **P** **13 07 39.2 0.0**
comp=Z,16nm,1.0s
MOS Moscow 69.57 350 *e*P **P** **13 07 38.6 -0.5**
GOMU GeErMu 69.57 304 P **P** **13 07 38.5 -1.4**
GOMU pP pP 13 07 42.2 -3.4
GOMU sP sP 13 07 46.1 -1.5
GOMU S S 13 16 35.9 -11
GOMU pmax pmax
comp=Z,4.0nm,0.8s
GOMU L L
comp=Z,490nm,13.8s
GOMU L L
comp=Z,250nm,13.7s
GOMU L L
comp=Z,560nm,13.1s
OBN Obninsk 70.29 350 LR LR 13 42 59.3
comp=Z,170nm,19.3s,baz=3.0,slow=40
OBN Obninsk 70.29 350‖ *e*P **P** **13 07 43.4 -0.1**
OBN *e* 13 08 04.8
OBN *e*PPP PPP 13 11 57.1
OBN *e*S **S** **13 16 55.8 +1.8**
OBN pmax pmax
comp=Z,18nm,1.0s
OBN MLR MLR
comp=Z,281nm,18.0s
PDGK Podgornoye 70.53 318 P **P** **13 07 45.4 0.0**
PDGK Podgornoye 70.53 318 P **P** **13 07 45.2 -0.1**
KRVT Keravat (AS076 70.67 232 LR LR 13 33 28.2
comp=Z,88nm,20.4s,baz=24,slow=31
SHLS Shalkode 70.68 318 *e*P **P** **13 07 45.5 -0.8**
SHLS pmax pmax
comp=Z,11nm,0.8s
SHLS Shalkode 70.68 318 *e*P **P** **13 07 45.5 -0.8**
comp=Z,11nm,0.8s
KPKS Kokpek 70.72 319 *e*P **P** **13 07 46.9 +0.4**
KPKS Kokpek 70.72 319 *e*P **P** **13 07 47.0 +0.4**
UZB Uzynbulak 70.86 318 *e*P **P** **13 07 47.5 +0.1**
UZB Uzynbulak 70.86 318 *e*P **P** **13 07 47.6 +0.1**
AKTO Aktyubinsk 71.09 336 LR LR 13 42 28.3
comp=Z,299nm,18.8s,baz=72,slow=39
AKTO Aktyubinsk 71.09 336 P **P** **13 07 48.5 0.0**
BTLS Baital 71.10 323 *e*P **P** **13 07 48.9 +0.3**
BTLS Baital 71.10 323 *e*P **P** **13 07 48.9 +0.3**
SATY Saty 71.18 319 *e*P **P** **13 07 49.5 +0.2**
SATY Saty 71.18 319 *e*P **P** **13 07 49.5 +0.2**
BELG Belogornoye 71.42 343 *e*P **P** **13 07 49.8 -0.6**
BELG pmax pmax
comp=Z,13nm,1.3s
MNK Minsk 71.55 355 *i* P P **13 07 51.7 +0.6**
MNK *i* 13 08 11.0
MNK *i* 13 10 30.0
MNK *i* PPP PPP 13 12 13.3
MNK *i* S **S** **13 17 11.0 +2.3**
MNK *i* 13 17 56.6
MNK *i* SS **SS** **13 21 46.7 +4.2**
MNK pmax pmax
comp=Z,34nm,0.8s
MNK pmax pmax
comp=E,38nm,1.1s
MNK pmax pmax
comp=N,28nm,1.1s
MNK MLR MLR
comp=Z,227nm,15.0s
MNK MLR MLR
comp=N,298nm,17.0s
MNK MLR MLR
comp=E,244nm,17.0s

MNK Minsk 71.55 355 *i* P **P 13 07 51.8 +0.6**
comp=E,38nm,1.1s
MNK *i* P **P 13 07 51.8 +0.6**
comp=N,28nm,1.1s
MNK *i* P **P 13 07 51.8 +0.6**
comp=Z,34nm,0.8s,baz=4.6
MNK *i* PcP **PcP 13 08 11.1 +0.6**
MNK *i* PP **PP 13 10 30.1 +0.8**
MNK *i* PPP PPP 13 12 13.4
MNK *i* S **S 13 17 11.0 +2.3**
MNK *i* ScS **ScS 13 17 56.6 +1.9**
MNK *i* SS **SS 13 21 46.7 +4.2**
MNK *i* SSS SSS 13 25 06.0
MNK *i* LQ LQ 13 35 39.4
MNK *i* LR LR 13 40 44.6
MNK *i* LRM MLR 13 42 59.5
comp=Z,227nm,15.4s
MNK *i* LRM MLR 13 43 05.2
comp=N,298nm,17.0s
MNK *i* LRM MLR 13 43 10.3
comp=E,244nm,16.7s
MDOK Medeo 71.61 320 *e*P **P 13 07 52.1 +0.1**
MDOK Medeo 71.61 320 *e*P **P 13 07 52.1 +0.1**
AAA Alma-Ata 71.62 320 *e*P **P 13 07 52.1 +0.2**
AAA pmax pmax
comp=Z,14nm,0.5s
AAA Alma-Ata 71.62 320 *e*P **P 13 07 52.2 +0.2**
comp=Z,14nm,0.5s
PRZ Przheval'sk 71.67 319 IAmb IAmb 13 08 14.2
comp=Z,26nm,1.0s
PRZ Przheval'sk 71.67 319 P **P 13 07 53.5 +1.1**
comp=Z,30nm,1.0s
AB31 Akbulak array 71.69 334 *i* P **P 13 07 52.3 +0.2**
ABKAR Akbulak array 71.69 334 P **P 13 07 52.0 -0.1**
TNSS Tian-Shan 71.75 320 *e*P **P 13 07 53.0 -0.2**
TNSS Tian-Shan 71.75 320 *e*P **P 13 07 53.0 -0.2**
HNR Honiara 71.85 222 LR LR 13 33 57.6
comp=Z,103nm,20.7s,baz=103,slow=31
PPT Papeete 71.94 170 LR LR 13 33 56.3
comp=Z,110nm,21.2s,baz=337,slow=31
PPT2 Papeete2 71.96 170 *e*S **S 13 17 14.1 -0.1**
comp=Z,61nm,27.0s
PPT2 *e*SS **SS 13 21 47.9 -3.7**
comp=Z,69nm,27.8s
PPT2 *e*LR LR 13 29 26.1
comp=Z,231nm,30.2s
PPT2 *e*LR LR 13 29 33.5
comp=Z,255nm,24.8s
BSEG Bad Segeberg 71.99 6 *e*P **P 13 07 54.7 +0.9**
comp=Z,18nm,0.9s,baz=357,slow=5.8
SUW Suwalki 72.20 358 *e*P **P 13 07 54.5 -0.6**
TKM2 Tokmak 2 72.36 321 P **P 13 07 57.0 +0.4**
SNR=10
WUS Wushi 72.44 317 IAmb IAmb 13 08 11.8
comp=Z,20nm,0.7s
LPSR Galich'ya Gora 72.50 348 *e*P **P 13 07 56.7 -0.2**
LPSR pmax pmax
comp=Z,33nm,1.0s
ULHL Ulahol 72.70 320 P **P 13 07 59.4 +0.8**
SNR=9.0
KBK Karagaybulak 72.83 321 P **P 13 08 00.0 +0.7**
SNR=10
AAK Ala-Archa 73.02 321 LR LR 13 43 01.8
comp=Z,1µm,18.5s,baz=26,slow=38
AAK Ala-Archa 73.02 321 P **P 13 08 00.9 +0.5**
SNR=8.3
AAK Ala-Archa 73.02 321 *ce*P **P 13 08 00.8 +0.5**
AAK pmax pmax
comp=Z,11nm,1.2s
AAK Ala-Archa 73.02 321 P **P 13 08 00.3 -0.1**
AAK IAmb IAmb 13 08 13.8
comp=Z,14nm,0.9s
AAK Ala-Archa 73.02 321 P **P 13 08 01.0 +0.5**
comp=Z,20nm,1.0s
EKS2 Erkin-Say 73.26 322 P **P 13 08 02.3 +0.5**
SNR=7.8
VORR Voronezh 73.38 348 P **P 13 08 01.6 -0.6**
VORR pmax pmax
comp=Z,14nm,0.7s
IBBN Ibbenburen 73.43 8 *e*P **P 13 08 03.0 +0.6**
comp=Z,27nm,1.2s,baz=357,slow=5.8
NRN Naryn 73.49 320 IAmb IAmb 13 08 16.9
comp=Z,15nm,0.8s
VRH Novokhopyorsk 73.51 346 *e*P **P 13 08 02.3 -0.6**
VRH pmax pmax
comp=Z,22nm,1.1s
RUE Ruedersdorf 73.63 4 *e*P **P 13 08 04.0 +0.4**
comp=Z,22nm,0.7s,baz=357,slow=5.8
FLTG Flechtingen 73.65 6 *e*P **P 13 08 04.8 +1.1**
comp=Z,11nm,1.0s,baz=357,slow=5.8
FLTG *ep*P **pwP 13 08 13.1 +1.3**
baz=2.2,slow=6.0
FLTG Flechtingen 73.65 6 P **P 13 08 03.5 -0.2**
comp=Z,23nm,1.3s
ASAI AK-SAY(Kyrgyzs 73.73 319 P **P 13 08 05.8 +0.9**
comp=Z,15nm,0.9s
ASSE Asse, Remlinge 73.81 6 *e*P **P 13 08 05.9 +1.3**
comp=Z,8.6nm,1.0s,baz=357,slow=5.8
ASSE Asse, Remlinge 73.81 6 P **P 13 08 05.3 +0.7**
comp=Z,17nm,1.1s
VSR Storozhevoye 73.83 348 *e*P **P 13 08 04.0 -0.8**
VSR pmax pmax
comp=Z,20nm,0.6s
KK31 Karatay Array 74.03 324 P **P 13 08 04.9 -1.3**
KK31 Karatay Array 74.03 324 IAmb IAmb 13 08 18.6
comp=Z,38nm,1.4s
KKAR Karatay Array 74.03 324 P **P 13 08 05.4 -0.8**
KKAR Karatay Array 74.03 324 P **P 13 08 05.4 -0.8**
MSVF Nonsavu 74.05 202 LR LR 13 32 06.6
comp=Z,212nm,21.9s,baz=18,slow=29
VORD Divnogorie 74.06 348 *e*P **P 13 08 05.0 -1.2**
VORD pmax pmax
comp=Z,20nm,0.7s
CLZ Clausthal 74.08 6 *e*P **P 13 08 07.0 +0.6**
comp=Z,23nm,1.3s,baz=357,slow=5.8
CLZ Clausthal 74.08 6 P **P 13 08 06.8 +0.5**
comp=Z,32nm,1.1s
KMI2 Kunming 74.19 291 P **P 13 08 09.5 +1.9**
KMI2 pmax pmax
comp=Z,16nm,0.9s
KMI2 L L
comp=Z,220nm,17.1s
BUG Bochum--Univer 74.25 8 *e*P **P 13 08 08.0 +0.8**
comp=Z,16nm,0.9s,baz=357,slow=5.8
BUG *ep*P **PcP 13 08 19.0 -3.0**
baz=2.2,slow=6.0
BUG Bochum--Univer 74.25 8 P **P 13 08 08.1 +0.9**
comp=Z,34nm,1.3s
GTTG Gottingen 74.35 7 *e*P **P 13 08 08.5 +0.7**
comp=Z,12nm,0.8s,baz=357,slow=5.8
GTTG *ep*P **pwP 13 08 18.4 +2.4**
baz=2.2,slow=6.0
GTTG Gottingen 74.35 7 P **P 13 08 09.3 +1.4**
comp=Z,70nm,1.2s
WIMM Wimmelburg 74.47 6 P **P 13 08 09.2 +0.7**
comp=Z,44nm,1.0s
KASTN Kahler Asten 74.58 8 *e*P **P 13 08 10.0 +0.8**
comp=Z,12nm,1.3s,baz=357,slow=5.8
RNPP9 Sopachiv 74.72 356 P **P 13 08 09.5 -0.5**
JAY Jayapura 74.74 243 LR LR 13 36 22.5
comp=Z,192nm,21.0s,baz=1.0,slow=32
CLL Collm 74.76 5 *i* P **P 13 08 10.3 +0.1**
CLL *i* 13 08 17.8
CLL pmax pmax
comp=Z,10.0nm,0.9s
CLL Collm 74.76 5 IAmb IAmb 13 08 21.5
comp=Z,14nm,0.9s
CLL Collm 74.76 5 *e*P **P 13 08 10.2 -0.1**
comp=Z,9.6nm,0.9s,baz=357,slow=5.8
CLL Collm 74.76 5 P **P 13 08 10.1 -0.1**
comp=Z,12nm,1.1s
CLL Collm 74.76 5 P **P 13 08 10.6 +0.3**
comp=Z,12nm,1.1s
CLL Collm 74.76 5 *i* P **P 13 08 10.3 +0.1**
comp=Z,10.0nm,0.9s
CLL *i* pP **pwP 13 08 17.8 -0.6**
CLL *e*PcP **PcP 13 08 25.0 +0.7**
CLL *ex* x 13 11 15.0
CLL *e*PPP PPP 13 12 42.0
CLL LH 13 29 00.0
CLL LV 13 35 00.0
HGN Heimansgroeve 74.80 9 P **P 13 08 11.0 +0.6**
comp=Z,19nm,2.3s
NEUB Neuenburg 74.80 5 *e*P **P 13 08 11.5 +1.1**
comp=Z,19nm,0.9s,baz=357,slow=5.8
NEUB Neuenburg 74.80 5 P **P 13 08 10.8 +0.4**
comp=Z,41nm,1.2s
RNPP8 Varash 74.80 356 P **P 13 08 09.9 -0.6**
RNPP5 Staryi Chortor 74.91 356 P **P 13 08 10.8 -0.3**
MEM Membach 74.96 9 *d*P **P 13 08 11.2 -0.1**
MEM *dx* x 13 08 19.1
RAR Rarotonga 75.03 180 LR LR 13 34 42.7
comp=Z,86nm,19.9s,baz=104,slow=31
CHM Chimkent 75.04 324 *e*P **P 13 08 12.3 +0.3**
CHM pmax pmax
comp=Z,6.0nm,0.5s
CHM Chimkent 75.04 324 *e*P **P 13 08 12.3 +0.3**
comp=Z,6.2nm,0.5s
IUG Iuzhnay 75.04 324 *e*P **P 13 08 12.3 +0.1**
IUG pmax pmax
comp=Z,21nm,1.5s
IUG Iuzhnay 75.04 324 *e*P **P 13 08 12.3 +0.1**
comp=Z,21nm,1.5s
BCLA Clavier 75.08 10 *d*P **P 13 08 11.7 -0.3**
BCLA *dx* x 13 08 22.5
BMRD Maredsous 75.14 10 *dx* x 13 08 20.3
AK21 Malin Array Si 75.21 354 P **P 13 08 12.2 -0.6**
AK23 Malin Array Si 75.22 354 P **P 13 08 12.3 -0.5**
AK22 Malin Array Si 75.22 354 P **P 13 08 12.3 -0.6**
AK20 Malin Array Si 75.24 354 P **P 13 08 12.4 -0.6**
AK03 Malin Array Si 75.25 354 P **P 13 08 12.5 -0.5**
AK04 Malin Array Si 75.25 354 P **P 13 08 12.4 -0.7**
AK18 Malin Array Si 75.26 354 P **P 13 08 12.4 -0.7**
AK19 Malin Array Si 75.26 354 P **P 13 08 12.5 -0.6**
AKASG Malin Array Be 75.27 354 P **P 13 08 12.7 -0.5**
comp=Z,18nm,0.7s,baz=8.0,slow=5.5,SNR=42
AKASG LR LR 13 44 24.1
comp=Z,162nm,19.3s,baz=3.0,slow=38
comp=Z,18nm,0.7s
AKBB Malin Array Si 75.27 354 *ce*P **P 13 08 12.5 -0.7**
AKBB pmax pmax
comp=Z,29nm,0.9s
AKBB Malin Array Si 75.27 354 P **P 13 08 12.5 -0.7**
KIEV Kiev 75.28 354 P **P 13 08 12.3 -0.9**
KIEV pmax pmax
comp=Z,58nm,1.2s
KIEV Kiev 75.28 354 P **P 13 08 12.3 -0.9**
KIEV Kiev 75.28 354 ⇑P **P 13 08 13.0 -0.2**
KIEV Kiev 75.28 354 P **P 13 08 12.5 -0.7**
comp=Z,155nm,1.3s
KIEV Kiev 75.28 354 P **P 13 08 12.9 -0.3**
comp=Z,39nm,1.3s
AK01 Malin Array Si 75.28 354 P **P 13 08 12.6 -0.6**
AK15 Malin Array Si 75.28 354 P **P 13 08 12.6 -0.6**
AK17 Malin Array Si 75.30 354 P **P 13 08 12.7 -0.6**
AK11 Malin Array Si 75.30 354 P **P 13 08 12.7 -0.6**
DAV Davao City (W) 75.30 262 LR LR 13 36 00.3
comp=Z,220nm,20.4s,baz=76,slow=32
AK16 Malin Array Si 75.31 354 P **P 13 08 12.7 -0.7**
AK02 Malin Array Si 75.31 354 P **P 13 08 12.8 -0.6**
DOU Dourbes 75.32 10 *d*P **P 13 08 13.6 +0.2**
DOU *dx* x 13 08 19.1
RCHB Rochefort 75.33 10 P **P 13 08 13.8 +0.3**
comp=Z,18nm,0.7s
AK12 Malin Array Si 75.33 354 P **P 13 08 12.9 -0.6**
AK08 Malin Array Si 75.34 354 P **P 13 08 12.9 -0.6**
AK14 Malin Array Si 75.35 354 P **P 13 08 13.0 -0.6**
KSP Ksiaz 75.35 3 *e*P **P 13 08 14.1 +0.5**
KSP Ksiaz 75.35 3 P **P 13 08 13.0 -0.7**
comp=Z,13nm,1.0s
AK09 Malin Array Si 75.35 354 P **P 13 08 13.0 -0.6**
MOX Moxa 75.35 6 *e*P **P 13 08 14.0 +0.4**
comp=Z,30nm,1.4s,baz=357,slow=5.8
MOX *ep*P **pwP 13 08 24.1 +2.3**
baz=2.2,slow=6.0
MOX *e*L L 13 39 12.4
comp=Z,158nm,18.0s
MOX Moxa 75.35 6 P **P 13 08 14.2 +0.5**
comp=Z,28nm,1.1s
AK05 Malin Array Si 75.35 354 P **P 13 08 13.0 -0.6**
AK13 Malin Array Si 75.37 354 P **P 13 08 13.1 -0.6**
AK10 Malin Array Si 75.37 354 P **P 13 08 13.1 -0.6**
AK06 Malin Array Si 75.39 354 P **P 13 08 13.2 -0.6**
AK07 Malin Array Si 75.42 354 P **P 13 08 13.4 -0.6**
HSKC Hora Svate Kat 75.48 4 *e*P **P 13 08 14.4 -0.1**
HSKC Hora Svate Kat 75.48 4 P **P 13 08 15.3 +0.9**
comp=Z,32nm,1.2s
OHH Oeh 75.49 321 P **P 13 08 14.8 0.0**
comp=Z,14nm,0.9s
TNS Taunus Mts 75.56 8 *e*P **P 13 08 16.0 +1.1**
comp=Z,18nm,1.4s,baz=357,slow=5.8
TNS *ep*P **PcP 13 08 26.4 -1.4**
baz=2.2,slow=6.0
TNS Taunus Mts 75.56 8 P **P 13 08 15.4 +0.5**
comp=Z,18nm,1.1s
CHVC Chvalec 75.60 3 *e*P **P 13 08 15.8 +0.7**
CHVC Chvalec 75.60 3 *e*P **P 13 08 15.8 +0.7**
PVCC Panska Ves 75.61 4 P **P 13 08 16.3 +1.2**
comp=Z,37nm,0.7s
TANN Tannenbergstha 75.63 5 *e*P **P 13 08 16.6 +1.3**
comp=Z,13nm,1.4s,baz=357,slow=5.8
TANN Tannenbergstha 75.63 5 P **P 13 08 16.5 +1.2**
comp=Z,20nm,1.0s
KSH2 Kashi 75.63 319 P **P 13 08 16.0 +0.3**
KSH2 sP pwP 13 08 23.9 -0.8
KSH2 pmax pmax
comp=Z,19nm,1.1s
KSH2 L L
comp=Z,450nm,15.5s
KSH2 L L
comp=Z,650nm,16.5s
KSH2 L L
comp=Z,880nm,17.2s
UPC Upice 75.68 3 P **P 13 08 15.5 -0.1**
comp=Z,17nm,1.2s
NKC Novy Kostel 75.81 5 P **P 13 08 17.0 +0.6**
comp=Z,18nm,1.1s
DPC Dobruska-Polom 75.84 3 *e*P **P 13 08 17.8 +1.2**
DPC *e* 13 08 24.6
DPC Dobruska-Polom 75.84 3 *e*P **P 13 08 17.8 +1.2**
DPC *ep*P **pwP 13 08 24.6 -0.1**
DPC Dobruska-Polom 75.84 3 P **P 13 08 17.9 +1.4**
comp=Z,28nm,1.2s
WLF Walferdange 75.91 9 *dx* x 13 08 25.1
WLF Walferdange 75.91 9 *e*P **P 13 08 19.0 +2.2**
comp=Z,4.2nm,0.6s,baz=357,slow=5.8
OJC Ojcow 76.03 0 *e*P **P 13 08 17.8 +0.3**
OJC Ojcow 76.03 0 P **P 13 08 18.0 +0.5**
comp=Z,16nm,1.3s
KRLC Kraliky 76.13 2 *e*P **P 13 08 19.1 +0.9**
KRLC Kraliky 76.13 2 *e*P **P 13 08 19.1 +0.9**
KRLC Kraliky 76.13 2 P **P 13 08 18.9 +0.7**
comp=Z,30nm,1.2s
LUBAR Lubar, Ukraine 76.13 355 P **P 13 08 16.9 -1.2**
PRU Pruhonice 76.15 4 P **P 13 08 18.9 +0.7**
comp=Z,9.6nm,0.6s
GRA3 Grafenberg Arr 76.21 6 P **P 13 08 20.0 +1.4**
comp=Z,24nm,1.3s
GRF Grafenberg Arr 76.28 6 *e*P **P 13 08 20.0 +1.0**
comp=Z,9.1nm,0.8s,baz=357,slow=5.8
GRF *ep*P **PcP 13 08 29.0 -2.0**
baz=2.2,slow=6.0
GRF *e*L L 13 39 51.7
comp=Z,160nm,18.2s
STEB Steborice 76.29 2 *e*P **P 13 08 17.9 -1.1**
GRA2 Grafenberg Arr 76.32 6 P **P 13 08 20.3 +1.0**
comp=Z,29nm,1.3s
OKC Ostrava-Krasne 76.39 1 P **P 13 08 20.8 +1.2**
comp=Z,38nm,1.2s
MORC Moravsky Berou 76.45 2 P **P 13 08 19.7 -0.3**
MORC pmax pmax
comp=Z,36nm,1.6s
MORC Moravsky Berou 76.45 2 P **P 13 08 19.7 -0.3**
MORC IAmb IAmb 13 08 31.0
comp=Z,36nm,1.6s
MORC Moravsky Berou 76.45 2 *e*P **P 13 08 20.3 +0.3**
MORC Moravsky Berou 76.45 2 ⇓P **P 13 08 19.9 0.0**
MORC Moravsky Berou 76.45 2 P **P 13 08 20.6 +0.7**
comp=Z,14nm,1.4s
GRB4 Grafenberg Arr 76.52 6 P **P 13 08 21.0 +0.6**
comp=Z,41nm,1.1s
SLVN Son La 76.58 288 P **P 13 08 23.6 +2.4**
SLVN Son La 76.58 288 IAmb IAmb 13 08 36.1
comp=Z,12nm,0.7s
SLVN Son La 76.58 288 P **P 13 08 23.2 +2.0**
comp=Z,19nm,0.7s
KWP Kalwaria Pacla 76.59 358 *e*P **P 13 08 21.6 +0.8**
BTK Batken 76.61 322 P **P 13 08 21.2 0.0**
comp=Z,20nm,1.2s
GRB3 Grafenberg Arr 76.66 6 P **P 13 08 21.9 +0.7**
comp=Z,29nm,1.1s
ZVC Zvikov 76.68 4 *e*P **P 13 08 22.2 +0.9**
GRB2 Grafenberg Arr 76.72 6 P **P 13 08 22.8 +1.3**
comp=Z,35nm,0.9s
DRK Karamyk 76.76 321 P **P 13 08 23.2 +0.9**
comp=Z,33nm,0.9s
NIE Niedzica 76.83 360 *e*P **P 13 08 23.3 +1.2**
VRAC Vranov 76.89 2 P **P 13 08 23.4 +0.9**
VRAC Vranov 76.89 2 *e*P **P 13 08 23.0 +0.5**
VRAC Vranov 76.89 2 ⇓P **P 13 08 23.5 +0.9**
VRAC Vranov 76.89 2 P **P 13 08 23.4 +0.9**
comp=Z,5.6nm,1.2s
WET Wettzell 76.92 5 *e*P **P 13 08 23.2 +0.6**
comp=Z,6.7nm,1.0s,baz=357,slow=5.8
WET Wettzell 76.92 5 P **P 13 08 23.9 +1.3**
comp=Z,12nm,1.2s
KHC Kasperske Hory 76.96 4 ⇓*e*P **P 13 08 24.3 +1.4**
KHC pmax pmax
comp=Z,10.0nm,1.0s
KHC Kasperske Hory 76.96 4 IAmb IAmb 13 08 35.1
comp=Z,33nm,1.2s
KHC Kasperske Hory 76.96 4 *e*P **P 13 08 23.6 +0.7**
KHC *ex* x 13 08 33.6
KHC Kasperske Hory 76.96 4 P **P 13 08 24.1 +1.1**
comp=Z,26nm,1.1s
STU Stuttgart 77.06 7 *e*P **P 13 08 24.6 +1.2**
comp=Z,34nm,0.3s,baz=357,slow=5.8
LANS Liptovska Anna 77.09 0 *e*P **P 13 08 25.3 +1.6**
LANS pmax pmax
comp=Z,8.0nm,0.8s
LANS Liptovska Anna 77.09 0 *e*P **P 13 08 25.3 +1.6**
KRUC Moravsky 77.14 3 *e*P **P 13 08 24.2 +0.4**
KRUC Moravsky 77.14 3 P **P 13 08 24.8 +1.0**
comp=Z,16nm,1.4s
GEC2 GERESS Array S 77.25 4 *e*P **P 13 08 24.9 +0.3**
comp=Z,6.7nm,1.0s,baz=357,slow=5.8
GEC2 GERESS Array S 77.25 4 P **P 13 08 25.6 +1.0**
comp=Z,13nm,0.9s
GEC2 pP **pwP 13 08 33.6 +0.8**
GERES GERESS Array B 77.25 4 P **P 13 08 25.1 +0.4**
comp=Z,2.8nm,0.7s,baz=351,slow=4.2,SNR=16
comp=Z,2.8nm,0.7s
GERES GERESS Array B 77.25 4 P **P 13 08 24.7 0.0**
KOLS Kolonicke sedl 77.30 359 *e*P **P 13 08 26.2 +1.4**
KOLS pmax pmax
comp=Z,9.0nm,0.9s
KOLS Kolonicke sedl 77.30 359 *e*P **P 13 08 26.2 +1.4**
KOLS Kolonicke sedl 77.30 359 P **P 13 08 26.1 +1.3**
comp=Z,28nm,0.8s
CKRC Cesky Krumlov 77.31 4 *e*P P 13 08 35.2 +10
CKRC Cesky Krumlov 77.31 4 *e*P P 13 08 35.2 +10
JAVC Velka Javorina 77.37 2 *e*P **P 13 08 26.6 +1.4**
JAVC Velka Javorina 77.37 2 P **P 13 08 27.4 +2.2**
comp=Z,32nm,1.3s
JAVC pP **PcP 13 08 35.8 +0.1**
PMG Port Moresby 77.42 234 LR LR 13 37 16.4
comp=Z,148nm,21.7s,baz=14,slow=32
PMG Port Moresby 77.42 234 *de*P **P 13 08 24.6 -1.1**
PMG pmax pmax
comp=Z,20nm,1.1s
BFO Black Forest 77.42 8 *e*P **P 13 08 27.6 +2.1**
comp=Z,5.1nm,0.9s,baz=357,slow=5.8
ECH Echery 77.44 9 P **P 13 08 25.9 +0.3**
ECH pmax pmax
comp=Z,17nm,1.0s
ECH Echery 77.44 9 P **P 13 08 25.9 +0.3**
ECH IAmb IAmb 13 08 48.3
comp=Z,17nm,1.0s
ECH Echery 77.44 9 P **P 13 08 26.4 +0.9**
comp=Z,18nm,1.1s
ABNA Allensteig Bun 77.50 3 *i* P **P 13 08 25.0 -0.9**
comp=Z,10nm,1.2s
GCPR Guaynabo City 77.51 76 P **P 13 08 28.4 +2.0**
KMPD K-Podol'skiy 77.55 356 P **P 13 08 25.2 -0.9**
SJG San Juan 77.63 76 LR LR 13 42 18.4
comp=Z,83nm,21.6s,baz=356,slow=35
TBI Tubuai 77.67 170 *e*LR LR 13 32 28.3
comp=Z,1µm,29.0s
SMOL Smolenice 77.71 2 *e*P **P 13 08 28.3 +1.3**
SMOL pmax pmax
comp=Z,4.0nm,1.1s
VYHS Vyhne 77.75 1 *e*P **P 13 08 28.0 +0.7**
VYHS pmax pmax
comp=Z,20nm,1.3s
VYHS Vyhne 77.75 1 *e*P **P 13 08 28.0 +0.7**
VYHS Vyhne 77.75 1 P **P 13 08 28.3 +1.0**
comp=Z,5.0nm,1.1s
FUR Furstenfeldbru 77.80 6 *e*P **P 13 08 28.2 +0.6**
baz=357,slow=5.8
MODS Modra-Piesok 77.84 2 *e*P **P 13 08 29.1 +1.3**
MODS pmax pmax
comp=Z,49nm,1.3s
MODS Modra-Piesok 77.84 2 *e*P **P 13 08 29.1 +1.3**
MODS Modra-Piesok 77.84 2 P **P 13 08 29.3 +1.5**
comp=Z,49nm,1.1s
SORM Soroca 77.88 354 P **P 13 08 27.8 -0.1**
SORM Soroca 77.88 354 ⇑P **P 13 08 27.9 -0.1**
SORM Soroca 77.88 354 P **P 13 08 27.3 -0.7**
comp=Z,46nm,1.2s
ABAH Abaujker 77.95 359 P **P 13 08 29.2 +0.9**
comp=Z,24nm,1.2s
WINA Alland / Wiene 78.08 3 *i* P **P 13 08 29.0 -0.1**
comp=Z,7.8nm,0.9s
TRPA Tarpa 78.10 358 P **P 13 08 30.2 +1.0**
comp=Z,32nm,0.8s
MFF Saint Martin d 78.17 14 P **P 13 08 29.8 +0.2**
comp=Z,14nm,0.9s
UBR Ueberruh 78.21 7 *e*P **P 13 08 30.7 +0.8**
comp=Z,12nm,1.3s,baz=357,slow=5.8
CONA Conrad Observa 78.25 3 *i* P **P 13 08 30.4 +0.2**
comp=Z,10.0nm,0.9s
MOA Molln 78.27 4 *e*P **P 13 08 30.8 +0.5**
comp=Z,9.6nm,1.4s
MOA Molln 78.27 4 P **P 13 08 30.1 -0.1**
comp=Z,12nm,2.2s
RJOB Jochberg 78.32 5 P **P 13 08 31.7 +1.2**
comp=Z,16nm,0.8s
PSZ Piszkesteto 78.33 0 P **P 13 08 30.3 -0.3**
PSZ pmax pmax
comp=Z,12nm,0.9s
PSZ Piszkesteto 78.33 0 P **P 13 08 30.3 -0.3**
PSZ Piszkesteto 78.33 0 ⇑P **P 13 08 30.8 +0.2**
PSZ Piszkesteto 78.33 0 P **P 13 08 32.2 +1.6**
comp=Z,20nm,1.2s
PSZ pP **PcP 13 08 40.0 +0.1**
BIOA Bad Ischl, Aus 78.41 5 *e*P **P 13 08 30.9 -0.1**
comp=Z,5.0nm,0.7s
RETA Reutte 78.44 7 *e*P **P 13 08 29.7 -1.6**
comp=Z,4.0nm,1.0s
RONA Rosalia, Austr 78.50 3 *e*P **P 13 08 30.1 -1.4**
comp=Z,2.9nm,0.6s
SIJI Sorong 78.50 252 LR LR 13 38 22.9
comp=Z,70nm,19.9s,baz=56,slow=32
BUR08 Bucovina Ar. S 78.52 357 IAmb IAmb 13 08 45.4
comp=Z,37nm,1.4s
BURAR Bucovina Array 78.55 357 P **P 13 08 32.2 +0.4**
BURAR Bucovina Array 78.55 357 P **P 13 08 31.9 +0.1**
BURAR IAmb IAmb 13 08 43.2
comp=Z,14nm,0.7s
BURAR Bucovina Array 78.55 357 ⇓P **P 13 08 32.2 +0.4**
DAVA Damuels 78.58 7 *e*P **P 13 08 30.8 -1.3**
comp=Z,2.4nm,0.7s
MOTA Moosalm 78.61 6 *i* P **P 13 08 33.0 +0.7**
comp=Z,13nm,1.0s
LESA Schwarzleotal 78.62 5 *e*P **P 13 08 32.2 0.0**
comp=Z,8.1nm,0.6s
WATA Walderalm 78.65 6 *i* P **P 13 08 32.7 +0.3**
comp=Z,31nm,1.2s
WTTA Wattenberg 78.72 6 *i* P **P 13 08 33.0 +0.1**
comp=Z,7.1nm,0.6s
WTTA Wattenberg 78.72 6 P **P 13 08 33.5 +0.6**
comp=Z,31nm,0.7s
SQTA Sankt Quirin 78.74 6 *i* P **P 13 08 33.4 +0.5**
comp=Z,20nm,1.3s
BNALP Bannalp 78.88 8 P **P 13 08 34.7 +1.0**
comp=Z,15nm,0.9s
FETA Feichten 78.91 7 *i* P **P 13 08 33.0 -0.9**
comp=Z,8.0nm,1.0s
ARSA Arzberg 78.92 3 IAmb IAmb 13 08 47.9
comp=Z,18nm,1.1s
ARSA Arzberg 78.92 3 *i* P **P 13 08 34.3 +0.5**
comp=Z,11nm,1.1s
ARSA Arzberg 78.92 3 P **P 13 08 34.9 +1.1**
comp=Z,22nm,0.9s
KBA Koelnbreinsper 79.00 5 *e*P **P 13 08 35.4 +0.9**
comp=Z,20nm,1.1s,baz=357,slow=5.8
KBA Koelnbreinsper 79.00 5 *i* P **P 13 08 33.2 -1.2**

	comp=Z,13nm,0.8s							
KBA	**Koelnbreinsper**	**79.00**	**5**	P		**P**	**13 08 36.0**	**+1.6**
	comp=Z,50nm,1.1s							
SESA	**Seetaler Alpe,**	**79.02**	**4**	*i* P		**P**	**13 08 34.0**	**-0.6**
	comp=Z,12nm,0.9s							
ERBR	**Yeremizino-Bor**	**79.05**	**346**	*eP*		**P**	**13 08 34.4**	**-0.1**
ERBR				pmax	pmax			
	comp=Z,27nm,1.0s							
MPLH	**Magyarpolny**	**79.05**	**2**	P		**P**	**13 08 36.2**	**+1.8**
	comp=Z,21nm,1.0s							
DAVOX	**Davos/Dischmat**	**79.09**	**7**	LR		LR	13 48 15.3	
	comp=Z,79nm,18.6s,baz=3.5,slow=39							
BIZ	**Bicaz**	**79.19**	**356**	⇑P		**P**	**13 08 35.7**	**+0.5**
FUORN	**Ofenpass-Fuorn**	**79.27**	**7**	P		**P**	**13 08 37.2**	**+1.2**
	comp=Z,16nm,0.6s							
ABTA	**Abfaltersbach**	**79.29**	**5**	*i* P		**P**	**13 08 36.1**	**+0.2**
	comp=Z,9.6nm,1.0s							
TUE	**Stuetta**	**79.35**	**8**	P		**P**	**13 08 37.7**	**+1.3**
	comp=Z,8.0nm,1.6s							
DRGR		**79.44**	**358**	P		**P**	**13 08 37.2**	**+0.6**
DRGR		**79.44**	**358**	⇑P		**P**	**13 08 37.3**	**+0.6**
DRGR		**79.44**	**358**	P		**P**	**13 08 37.2**	**+0.6**
	comp=Z,19nm,1.1s							
MYKA	**Terra Mystica**	**79.46**	**5**	*i* P		**P**	**13 08 36.0**	**-0.9**
	comp=Z,4.6nm,1.0s							
SOKA	**Soboth**	**79.47**	**4**	*eP*		**P**	**13 08 35.9**	**-1.0**
	comp=Z,20nm,1.4s							
OBKA	**Obir**	**79.62**	**4**	*eP*		**P**	**13 08 38.4**	**+0.7**
	comp=Z,20nm,0.7s,baz=357,slow=5.8							
OBKA	**Obir**	**79.62**	**4**	*i* P		**P**	**13 08 37.6**	**-0.1**
	comp=Z,20nm,0.7s							
OBKA	**Obir**	**79.62**	**4**	P		**P**	**13 08 38.6**	**+0.8**
	comp=Z,84nm,0.7s							
FAKI	**Fak Fak**	**79.65**	**250**	P		**P**	**13 08 37.9**	**-0.2**
FAKI	**Fak Fak**	**79.65**	**250**	P		**P**	**13 08 37.4**	**-0.7**
FAKI	**Fak Fak**	**79.65**	**250**	P		**P**	**13 08 37.7**	**-0.5**
	comp=Z,64nm,1.0s							
GROS	**Grobnik**	**79.71**	**3**	*i* P		**P**	**13 08 38.8**	**+0.6**
ONER	**Baraj Valea Uz**	**79.78**	**356**	⇑P		**P**	**13 08 39.4**	**+0.9**
CADS	**Cadrg**	**79.87**	**5**	*i* P		**P**	**13 08 38.8**	**-0.2**
DRE	**Drenchia**	**79.92**	**5**	P		**P**	**13 08 39.4**	**+0.1**
	comp=Z,25nm,1.1s							
MORH	**Mrgy, Hungar**	**80.03**	**1**	⇓P		**P**	**13 08 40.0**	**+0.2**
MORH	**Mrgy, Hungar**	**80.03**	**1**	P		**P**	**13 08 40.1**	**+0.4**
LABN	**Labinsk**	**80.06**	**345**	*eP*		**P**	**13 08 38.6**	**-1.4**
LABN				pmax	pmax			
	comp=Z,24nm,0.5s							
DOPR	**Dopca**	**80.18**	**356**	⇑P		**P**	**13 08 41.8**	**+1.1**
VRI	**Vrincioaia**	**80.23**	**355**	P		**P**	**13 08 41.3**	**+0.4**
VRI	**Vrincioaia**	**80.23**	**355**	⇑P		**P**	**13 08 41.3**	**+0.4**
VRI	**Vrincioaia**	**80.23**	**355**	P		**P**	**13 08 41.1**	**+0.2**
	comp=Z,23nm,1.1s							
PLOR	**Plostina**	**80.25**	**355**	P		**P**	**13 08 41.7**	**+0.7**
PLOR	**Plostina**	**80.25**	**355**	⇑P		**P**	**13 08 41.7**	**+0.7**
SAHR	**Sahastru**	**80.37**	**355**	⇓P		**P**	**13 08 42.8**	**+1.0**
KVAR	**Kislovodsk Arr**	**80.42**	**344**	LR		LR	13 48 40.8	
	comp=Z,164nm,20.1s,baz=262,slow=39							
KIV	**Kislovodsk**	**80.42**	**344**	*eP*		**P**	**13 08 42.6**	**+0.5**
KIV				pmax	pmax			
	comp=Z,21nm,1.1s							
KIV				MLR		MLR		
	comp=Z,113nm,19.0s							
KIV	**Kislovodsk**	**80.42**	**344**	P		**P**	**13 08 42.8**	**+0.7**
KIV	**Kislovodsk**	**80.42**	**344**	⇑P		**P**	**13 08 42.8**	**+0.7**
KIV	**Kislovodsk**	**80.42**	**344**	P		**P**	**13 08 43.1**	**+1.0**
	comp=Z,44nm,1.0s							
SURR	**Surduc**	**80.48**	**359**	⇓P		**P**	**13 08 42.7**	**+0.4**
MAK	**Makhachkala**	**80.50**	**340**	*eP*		**P**	**13 08 37.7**	**-4.7**
MAK				*eS*		**S**	**13 18 40.0**	**-7.6**
MAK				*e*SS		**SS**	**13 24 01.5**	**+3.2**
MAK				*e*SSS		SSS	13 27 21.4	
MAK				pmax	pmax			
	comp=Z,85nm,1.1s							
BNI	**Bardonecchia**	**80.53**	**10**	P		**P**	**13 08 44.7**	**+2.0**
	comp=Z,15nm,0.8s							
KBZ	**Khabaz**	**80.61**	**344**	P		**P**	**13 08 43.5**	**+0.6**
	comp=Z,16nm,1.0s,baz=327,slow=3.3,SNR=19							
KBZ				LR		LR	13 48 41.3	
	comp=Z,128nm,18.9s,baz=9.0,slow=39							
	comp=Z,16nm,1.0s							
KBZ	**Khabaz**	**80.61**	**344**	*ce*P		**P**	**13 08 43.5**	**+0.6**
KBZ				pmax	pmax			
	comp=Z,13nm,1.0s							
BZS	**Buzias**	**80.62**	**359**	P		**P**	**13 08 43.3**	**+0.3**
BZS	**Buzias**	**80.62**	**359**	⇑P		**P**	**13 08 43.3**	**+0.3**
BZS	**Buzias**	**80.62**	**359**	P		**P**	**13 08 43.0**	**0.0**
	comp=Z,18nm,1.1s							
BZS				pP		**pwP**	**13 08 52.1**	**+0.9**
MLR	**Muntele Rosu**	**80.64**	**356**	LR		LR	13 46 59.1	
	comp=Z,200nm,19.0s,baz=0.0,slow=38							
MLR	**Muntele Rosu**	**80.64**	**356**	P		**P**	**13 08 44.0**	**+0.8**
MLR	**Muntele Rosu**	**80.64**	**356**	⇑P		**P**	**13 08 44.1**	**+0.8**
NCK	**Nalchik**	**80.72**	**343**	*eP*		**P**	**13 08 44.4**	**+0.8**
NCK				pmax	pmax			
	comp=Z,35nm,1.0s							
VOIR		**80.73**	**357**	P		**P**	**13 08 44.3**	**+0.6**
VOIR		**80.73**	**357**	⇓P		**P**	**13 08 44.3**	**+0.6**
VOIR		**80.73**	**357**	P		**P**	**13 08 45.2**	**+1.5**
	comp=Z,11nm,1.7s							
TLCR		**80.79**	**354**	P		**P**	**13 08 44.3**	**+0.4**
TLCR		**80.79**	**354**	⇑P		**P**	**13 08 44.3**	**+0.4**
ARR	**Arges**	**80.81**	**357**	⇑P		**P**	**13 08 45.1**	**+1.0**
ARR	**Arges**	**80.81**	**357**	P		**P**	**13 08 45.4**	**+1.2**
	comp=Z,33nm,1.1s							
GZR	**Gura Zlata**	**80.83**	**358**	P		**P**	**13 08 44.7**	**+0.5**
GZR	**Gura Zlata**	**80.83**	**358**	⇑P		**P**	**13 08 44.8**	**+0.5**
NEUR	**Neytrino**	**81.09**	**344**	⇑*eP*		**P**	**13 08 45.6**	**-0.2**
NEUR				pmax	pmax			
	comp=Z,12nm,1.3s							
TPGR	**Topolog**	**81.14**	**354**	⇑P		**P**	**13 08 46.4**	**+0.5**
DZM	**Mont Dzumac**	**81.27**	**211**	P		**P**	**13 08 46.4**	**-0.3**
	comp=Z,10nm,1.1s,baz=90,slow=13,SNR=3.8							
DZM				LR		LR	13 38 20.3	
	comp=Z,179nm,19.2s,baz=24,slow=31							
	comp=Z,10nm,1.1s							
NIL	**Nilore**	**81.33**	**318**	P		**P**	**13 08 46.9**	**-0.1**
NIL				pmax	pmax			
	comp=Z,27nm,0.8s							
NIL	**Nilore**	**81.33**	**318**	P		**P**	**13 08 46.9**	**-0.1**
NIL				IAmb	IAmb		13 09 02.3	
	comp=Z,27nm,0.8s							
NIL	**Nilore**	**81.33**	**318**	P		**P**	**13 08 47.5**	**+0.5**
	comp=Z,37nm,1.1s							
HERR	**Herculane**	**81.35**	**358**	⇑P		**P**	**13 08 47.2**	**+0.3**
CHTO	**Chiang Mai**	**81.36**	**290**	P		**P**	**13 08 49.9**	**+2.6**
CHTO	**Chiang Mai**	**81.36**	**290**	P		**P**	**13 08 45.4**	**-2.0**
CHTO				pmax	pmax			
	comp=Z,6.0nm,0.8s							
CHTO	**Chiang Mai**	**81.36**	**290**	P		**P**	**13 08 45.4**	**-2.0**
CHTO	**Chiang Mai**	**81.36**	**290**	P		**P**	**13 08 51.7**	**+4.4**
	comp=Z,9.0nm,0.8s							
CHTO	**Chiang Mai**	**81.36**	**290**	P		**P**	**13 08 45.6**	**-1.7**
	comp=Z,9.0nm,0.8s							
ISO	**Isola**	**81.42**	**10**	P		**P**	**13 08 49.7**	**+2.3**
	comp=Z,16nm,0.9s							
MDVR	**Moldovita**	**81.46**	**359**	⇑P		**P**	**13 08 48.2**	**+0.7**
TIRR	**Tirgusor**	**81.54**	**354**	P		**P**	**13 08 48.3**	**+0.4**
TIRR	**Tirgusor**	**81.54**	**354**	⇑P		**P**	**13 08 48.3**	**+0.4**
CMAR	**Chiang Mai Arr**	**81.65**	**290**	P		**P**	**13 08 49.0**	**+0.1**
	comp=Z,3.2nm,0.8s,baz=17,slow=5.5,SNR=23							
CMAR				LR		LR	13 48 10.2	
	comp=Z,38nm,19.1s,baz=55,slow=38							
	comp=Z,3.2nm,0.8s							
CMAR	**Chiang Mai Arr**	**81.65**	**290**	*i* P		**P**	**13 08 49.0**	**+0.1**
CMAR				pmax	pmax			
	comp=Z,3.0nm,0.8s							
CMAR	**Chiang Mai Arr**	**81.65**	**290**	P		**P**	**13 08 49.1**	**+0.2**
PBRG	**Braganca**	**81.69**	**20**	*eP*		P	13 08 58.6	+10
MTLF	**Montolieu**	**81.69**	**13**	P		**P**	**13 08 48.4**	**-0.4**
	comp=Z,29nm,1.3s							
PVRL	**Vila Real**	**81.99**	**21**	*eP*		**P**	**13 08 52.9**	**+2.4**
NPW	**Naypyitaw**	**82.11**	**293**	P		**P**	**13 08 51.9**	**+0.6**
	comp=Z,39nm,1.0s							
KBL	**Kabul**	**82.16**	**321**	P		**P**	**13 08 50.3**	**-1.3**
KBL				pmax	pmax			
	comp=Z,21nm,1.1s							
KBL	**Kabul**	**82.16**	**321**	P		**P**	**13 08 50.3**	**-1.3**
KBL				IAmb	IAmb		13 09 04.9	
	comp=Z,21nm,1.1s							
KBL	**Kabul**	**82.16**	**321**	P		**P**	**13 08 50.7**	**-0.9**
	comp=Z,22nm,1.1s							
SANI	**Sanana**	**82.46**	**256**	P		**P**	**13 08 51.7**	**-1.4**
	comp=Z,33nm,1.1s							
BLKB	**Belogradchik**	**82.60**	**358**	⇑P		**P**	**13 08 54.1**	**+0.5**
BOVS	**Bovan**	**82.61**	**359**	⇑P		**P**	**13 08 53.9**	**+0.4**

EPOS	**Posof**	**82.80**	**343**	P		**P**	**13 08 56.1**	**+1.4**
	comp=Z,28nm,1.3s							
MTE	**Manteigas**	**82.87**	**21**	*eP*		**P**	**13 08 57.0**	**+2.0**
MTE				IAmb	IAmb		13 09 08.5	
	comp=Z,70nm,1.2s							
MTE	**Manteigas**	**82.87**	**21**	P		**P**	**13 08 57.0**	**+2.0**
	comp=Z,57nm,0.9s							
PGF	**Pioggiola**	**83.22**	**8**	P		**P**	**13 08 57.6**	**+0.7**
	comp=Z,25nm,0.7s							
RUSC	**La Rusia**	**83.34**	**89**	P		**P**	**13 08 57.1**	**-1.2**
RUSC				IAmb	IAmb		13 09 09.1	
	comp=Z,22nm,1.2s							
PCBR	**Castelo Branco**	**83.42**	**21**	*eP*		**P**	**13 08 58.6**	**+0.8**
PCBR				IAmb	IAmb		13 09 08.5	
	comp=Z,53nm,1.0s							
ROSC	**El Rosal**	**83.45**	**91**	LR		LR	13 50 11.6	
	comp=Z,28nm,18.6s,baz=343,slow=39							
PSARD	**Sardoal**	**83.50**	**22**	*eP*		**P**	**13 08 59.6**	**+1.4**
PSARD				IAmb	IAmb		13 09 09.0	
	comp=Z,68nm,1.0s							
DIGO	**Kars**	**83.75**	**342**	P		**P**	**13 09 02.2**	**+2.4**
	comp=Z,95nm,1.3s							
GNI	**Garni**	**83.75**	**341**	LR		LR	13 50 52.5	
	comp=Z,137nm,19.8s,baz=18,slow=39							
PMRV	**Marv??o**	**83.83**	**21**	*eP*		**P**	**13 09 02.0**	**+2.0**
PMRV				IAmb	IAmb		13 09 16.1	
	comp=Z,41nm,1.6s							
PMAFR	**Mafra**	**83.87**	**23**	*eP*		**P**	**13 09 02.0**	**+1.8**
PMAFR				IAmb	IAmb		13 09 32.7	
	comp=Z,228nm,1.7s							
PMTG	**Montargil**	**84.00**	**22**	*eP*		P	13 09 09.3	+8.5
PMTG				IAmb	IAmb		13 09 23.8	
	comp=Z,53nm,1.7s							
ESDC	**Sonseca Array**	**84.28**	**19**	P		**P**	**13 09 02.4**	**0.0**
	comp=Z,6.3nm,0.9s,baz=341,slow=4.7,SNR=16							
ESDC				LR		LR	13 49 53.2	
	comp=Z,115nm,18.3s,baz=339,slow=38							
	comp=Z,6.3nm,0.9s							
ESDC	**Sonseca Array**	**84.28**	**19**	P		**P**	**13 09 02.7**	**+0.4**
PARRA	**Arraiolos**	**84.28**	**22**	*eP*		**P**	**13 09 03.3**	**+1.0**
PARRA				IAmb	IAmb		13 09 28.9	
	comp=Z,52nm,1.7s							
HOMI	**Horasan**	**84.36**	**343**	⇓P		**P**	**13 09 04.2**	**+1.2**
EVO	**Evora**	**84.56**	**22**	*eP*		**P**	**13 09 04.7**	**+1.0**
EVO				IAmb	IAmb		13 09 23.9	
	comp=Z,38nm,1.9s							
PHP	**Peshkopia**	**84.56**	**360**	P		**P**	**13 09 04.6**	**+0.9**
	comp=Z,17nm,1.1s							
KELT	**Kelkit**	**84.68**	**345**	P		**P**	**13 09 05.6**	**+1.1**
	comp=Z,110nm,1.0s							
PLOUS	**Minas do Lousa**	**84.95**	**22**	*eP*		**P**	**13 09 07.9**	**+2.3**
PLOUS				IAmb	IAmb		13 09 16.6	
	comp=Z,75nm,1.6s							
KNT	**Kendrikon**	**85.06**	**358**	P		**P**	**13 09 07.0**	**+0.9**
	comp=Z,39nm,1.1s							
SRS	**Serrai**	**85.08**	**357**	P		**P**	**13 09 07.3**	**+1.0**
	comp=Z,35nm,1.1s							
PBAR	**Barrancos**	**85.11**	**21**	*eP*		**P**	**13 09 07.9**	**+1.5**
PBAR				IAmb	IAmb		13 09 33.9	
	comp=Z,56nm,1.5s							
GRG	**Griva**	**85.27**	**358**	P		**P**	**13 09 08.7**	**+1.4**
	comp=Z,89nm,1.0s							
SOH	**Sokhos**	**85.39**	**358**	P		**P**	**13 09 08.4**	**+0.6**
	comp=Z,24nm,1.7s							
KEMA	**Kemaliye**	**85.65**	**346**	P		**P**	**13 09 10.2**	**+1.0**
	comp=Z,57nm,0.8s							
BR131	**Keskin Array S**	**85.81**	**350**	⇓*eP*		**P**	**13 09 09.6**	**-0.5**
BR131	**Keskin Array S**	**85.81**	**350**	IAmb	IAmb		13 09 21.8	
	comp=Z,25nm,1.1s							
BRTR	**Keskin Array B**	**85.81**	**350**	P		**P**	**13 09 10.8**	**+0.8**
	comp=Z,7.7nm,0.9s,baz=26,slow=3.1,SNR=20							
BRTR				LR		LR	13 55 29.4	
	comp=Z,90nm,18.3s,baz=356,slow=41							
	comp=Z,7.7nm,0.9s							
BRTR	**Keskin Array B**	**85.81**	**350**	P		**P**	**13 09 09.9**	**-0.1**
ARPR	**Arapgir-MALATY**	**85.85**	**346**	IAmb	IAmb		13 09 22.9	
	comp=Z,25nm,1.0s							
CUC	**Castrocucco**	**86.18**	**3**	IAmb	IAmb		13 09 22.6	
	comp=Z,14nm,0.9s							
CUC	**Castrocucco**	**86.18**	**3**	P		**P**	**13 09 11.5**	**-0.2**
	comp=Z,19nm,0.9s							
MTSU	**Mount Surprise**	**86.34**	**232**	P		**P**	**13 09 12.2**	**-0.4**
	comp=Z,15nm,0.8s							
MTSU	**Mount Surprise**	**86.34**	**232**	P		**P**	**13 09 12.7**	**+0.1**
MTSU	**Mount Surprise**	**86.34**	**232**	P		**P**	**13 09 12.2**	**-0.4**
	comp=Z,15nm,0.8s							
SRN	**Sarande**	**86.37**	**0**	P		**P**	**13 09 11.6**	**-1.0**
	comp=Z,13nm,1.2s							
KKUL	**Konya-Kulu**	**86.43**	**350**	P		**P**	**13 09 14.7**	**+1.6**
	comp=Z,46nm,1.1s							
SBUM	**Sibu**	**86.85**	**270**	P		**P**	**13 09 18.5**	**+3.2**
TIP	**Timpagrande**	**87.02**	**3**	⇑P		**P**	**13 09 17.0**	**+1.1**
TIP	**Timpagrande**	**87.02**	**3**	P		**P**	**13 09 17.1**	**+1.2**
	comp=Z,21nm,1.1s							
CTA	**Charters Tower**	**87.16**	**230**	LR		LR	13 41 36.7	
	comp=Z,66nm,20.9s,baz=35,slow=31							
CTAO	**Charters Tower**	**87.16**	**230**	P		**P**	**13 09 16.0**	**-0.6**
CTAO	**Charters Tower**	**87.16**	**230**	P		**P**	**13 09 15.3**	**-1.3**
CTAO				pmax	pmax			
	comp=Z,18nm,1.1s							
CTAO	**Charters Tower**	**87.16**	**230**	P		**P**	**13 09 15.3**	**-1.3**
CTAO				IAmb	IAmb		13 09 30.1	
	comp=Z,18nm,1.1s							
CTAO	**Charters Tower**	**87.16**	**230**	P		**P**	**13 09 16.0**	**-0.6**
	comp=Z,18nm,1.0s							
LKD2	**Lefkada island**	**87.45**	**360**	P		**P**	**13 09 17.0**	**-0.9**
	comp=Z,27nm,0.8s							
ANDN	**Andirin**	**87.61**	**347**	P		**P**	**13 09 19.5**	**+0.7**
	comp=Z,42nm,1.2s							
KAPI	**Kappang**	**88.45**	**259**	LR		LR	13 44 30.4	
	comp=Z,56nm,21.8s,baz=32,slow=33							
KEST	**Kesra**	**90.02**	**9**	P		**P**	**13 09 32.1**	**+1.9**
	comp=Z,1.3nm,0.4s,baz=326,slow=5.0,SNR=6.6							
KEST				LR		LR	13 54 59.3	
	comp=Z,128nm,18.6s,baz=344,slow=39							
	comp=Z,1.3nm,0.4s							
KEST	**Kesra**	**90.02**	**9**	IAmb	IAmb		13 09 43.0	
	comp=Z,11nm,1.0s							
BATI	**Baumata**	**90.43**	**253**	LR		LR	13 43 25.0	
	comp=Z,37nm,20.7s,baz=32,slow=31							
QIS	**Mount Isa**	**90.66**	**235**	P		**P**	**13 09 31.9**	**-1.2**
QIS	**Mount Isa**	**90.66**	**235**	P		**P**	**13 09 35.2**	**+2.1**
MDT	**Midelt**	**90.79**	**21**	LR		LR	13 53 29.4	
	comp=Z,76nm,18.6s,baz=43,slow=38							
RPN	**Rapa Nui**	**91.87**	**137**	LR		LR	13 42 21.3	
	comp=Z,62nm,18.8s,baz=341,slow=30							
WB0	**Warramunga Arr**	**92.56**	**239**	IAmb	IAmb		13 11 29.5	
	comp=Z,29nm,2.0s							
WR8	**Warramunga Arr**	**92.66**	**239**	P		**P**	**13 09 40.0**	**-2.4**
WR8				IAmb	IAmb		13 09 41.6	
	comp=Z,11nm,1.0s							
WRA	**Warramunga Arr**	**92.73**	**239**	P		**P**	**13 09 40.9**	**-1.8**
	comp=Z,4.9nm,0.9s,baz=38,slow=5.3,SNR=28							
	comp=Z,4.9nm,0.9s							
WRA	**Warramunga Arr**	**92.73**	**239**	*i* P		**P**	**13 09 41.2**	**-1.5**
WRA				pmax	pmax			
	comp=Z,6.0nm,0.9s							
WRA	**Warramunga Arr**	**92.73**	**239**	P		**P**	**13 09 41.2**	**-1.5**
ASF	**Jabal al Asfar**	**92.85**	**346**	LR		LR	13 54 13.6	
	comp=Z,46nm,21.7s,baz=0.8,slow=37							
HYB	**Hyderabad**	**93.12**	**306**	*eP*		**P**	**13 09 44.8**	**0.0**
HYB				*es*P		**sP**	**13 09 52.5**	**-0.1**
QLP	**Quilpie**	**93.72**	**228**	P		**P**	**13 09 49.4**	**+2.3**
PSI	**Prapat**	**94.34**	**281**	P		**P**	**13 09 52.1**	**+1.6**
PSI	**Prapat**	**94.34**	**281**	P		P	13 09 57.5	+7.0
	comp=Z,8.5nm,0.8s							
EIL	**Elat**	**95.58**	**347**	LR		LR	13 57 46.3	
	comp=Z,58nm,20.1s,baz=26,slow=38							
FITZ	**Fitzroy Crossi**	**95.78**	**247**	LR		LR	13 49 13.9	
	comp=Z,135nm,21.5s,baz=16,slow=33							
MDP	**Montagnes des**	**95.83**	**73**	LR		LR	13 51 16.9	
	comp=Z,119nm,21.9s,baz=330,slow=34							
ASAR	**Alice Springs**	**96.07**	**238**	P		**P**	**13 09 56.4**	**-1.6**
	comp=Z,2.1nm,0.8s,baz=34,slow=4.0,SNR=15							
ASAR				PKKP		**PKKPbc**	**13 26 44.3**	**+0.6**
	comp=Z,0.2nm,0.8s,baz=197,slow=2.0,SNR=4.5							
ASAR				LR		LR	13 46 30.1	
	comp=Z,156nm,21.6s,baz=34,slow=31							
	comp=Z,2.1nm,0.8s							
STKA	**Stephens Creek**	**99.44**	**227**	LR		LR	13 51 48.0	
	comp=Z,134nm,20.1s,baz=25,slow=33							
RAYN	**Ar Rayn**	**99.65**	**337**	P		**Pdif**	**13 10 13.9**	**-0.4**
TORD	**Torodi Ar. Bea**	**111.16**	**19**	PKKPbc		PKKPbc	13 25 57.1	-1.2
	comp=Z,1.2nm,0.6s,baz=156,slow=2.9,SNR=5.9							
H03N2	**Juan Fernandez**	**111.42**	**118**	T		T	15 16 24.4	
	baz=308,slow=76,SNR=23							
H03N1	**Juan Fernandez**	**111.44**	**118**	T		T	15 16 20.0	
	baz=314,slow=76,SNR=27							
QSPA	**South Pole Qui**	**143.90**	**180**	PKhKP		PKPpre	13 16 00.9	
	comp=Z,15nm,0.7s,baz=303,slow=0.4,SNR=92							
TSUM	**Tsumeb**	**145.08**	**4**			**PKPbc**	**13 16 07.0**	**-0.5**
KOOLE	**Kule**	**148.91**	**0**			**PKPbc**	**13 16 18.1**	**-0.4**
BELA	**Belgrano 2**	**149.52**	**160**			**PKPdf**	**13 16 14.8**	**+1.2**
LBTB	**Lobatse**	**150.65**	**350**	PKIKP		**PKPbc**	**13 16 21.5**	**-1.0**
LBTB	**Lobatse**	**150.65**	**350**			**PKPbc**	**13 16 21.5**	**-1.0**
BOSA	**Boshof**	**154.24**	**350**	PKPbc		**PKiKP**	**13 16 31.7**	**+1.1**
	comp=Z,3.8nm,1.0s,baz=133,slow=1.8,SNR=3.7							
MAW	**Mawson**	**155.86**	**219**	PKP		**PKPdf**	**13 16 23.5**	**+0.4**
	comp=Z,1.8nm,0.5s,baz=87,slow=4.2,SNR=12							
VNA3	**Neumayer Olymp**	**158.45**	**154**	PKPdf		**PKPdf**	**13 16 23.7**	**-2.6**
	comp=Z,3.4nm,0.7s							
VNA2	**Neumayer--Watz**	**159.23**	**155**	PKPdf		**PKPdf**	**13 16 24.4**	**-2.8**
	comp=Z,3.4nm,0.6s,baz=224,slow=5.2							
TROLL	**Troll, Antarti**	**160.51**	**164**	PKPdf		**PKPdf**	**13 16 26.3**	**-2.6**
	comp=Z,208nm,1.0s							

UPP ***05*** *12:58:55.1±0.9, 59.°99N×10.°90E, h0km, ML2.2, Presumed earthquake*
DNK ***05*** *12:58:57.8±2.0, 59.°89N×11.°17E, h0km, ML2.2(UPP), Suspected explosion*

BER 05 12:58:55.5±0.6, 59.°98N×10.°95E, h0km, ML1.2, Suspected explosion, Southern Norway

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
OSL	**Oslo**	**0.12**	**249**	*eP*		Pg	12 58 57.8	0.0
OSL				*eS*		Sg	12 58 59.6	+0.2
OSL				IAML			12 59 01.0	
	comp=Z,212nm,0.7s							
KONO	**Kongsberg**	**0.76**	**245**	*eP*		Pg	12 59 09.3	-0.7
KONO				*eS*		Sg	12 59 18.9	-0.9
KONO				IAML			12 59 27.1	
	comp=Z,4.5nm,0.8s							
NC602	**NORSAR Array S**	**0.81**	**21**	*eP*		Pg	12 59 10.5	-0.6
NC602				*eS*		Sg	12 59 20.6	-1.0
NC602				IAML			12 59 27.0	
	comp=Z,12nm,0.3s							
STRU	**Stroemstad**	**0.96**	**173**	P		Pg	12 59 13.3	-0.5
STRU				S		Sg	12 59 26.2	0.0
STRU	**Stroemstad**	**0.96**	**173**	*eP*		Pg	12 59 12.6	-1.2
STRU	**Stroemstad**	**0.96**	**173**	P		Pg	12 59 13.3	-0.5
STRU				*i* S		Sg	12 59 25.4	-0.7
STRU				S		Sb	12 59 26.2	-1.9
FINU	**Finntorp**	**0.97**	**126**	P		Pg	12 59 13.8	-0.2
FINU	**Finntorp**	**0.97**	**126**	P		Pg	12 59 13.8	-0.2
NBO00	**NORSAR Array S**	**1.06**	**355**	*eP*		Pg	12 59 14.2	-1.5
NB201	**NORSAR Array S**	**1.09**	**9**	*eP*		Pg	12 59 15.2	-1.1
UDD	**Uddeholm**	**1.34**	**84**	P		Pg	12 59 20.3	-0.8
UDD	**Uddeholm**	**1.34**	**84**	P		Pg	12 59 20.3	-0.8
NASU	**Vaermlandsnaes**	**1.56**	**132**	P		Pn	12 59 23.9	-0.5
NASU	**Vaermlandsnaes**	**1.56**	**132**	P		Pn	12 59 23.9	-0.5
VANU	**Vaenersborg**	**1.60**	**158**	P		Pn	12 59 24.5	-0.5
VANU	**Vaenersborg**	**1.60**	**158**	P		Pn	12 59 24.5	-0.5
TJOU	**Tjoern**	**1.99**	**170**	*i* P		Pn	12 59 29.6	-0.6
TJOU				*i* S		Sn	12 59 51.6	-4.2
HOMB	**Homborsund**	**2.13**	**217**	*i* P		Pb	12 59 35.1	+0.2
HOMB				*i* S		Sn	12 59 56.2	-3.2

HEL 05 12:59:31.2±0.2, 61.°50N×23.°41E, h0km, ML1.3, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
KPF	**Kankaanpaa**	**0.72**	**299**	PG		Pg	12 59 44.4	-0.6
	baz=118							
KPF				MSG			12 59 53.8	
	comp=Z,2.2nm,0.2s							
KPF				SG		Sb	12 59 55.8	-1.2
RAF	**Rauma**	**0.93**	**240**	*eP*		Pg	12 59 48.2	-0.7
RAF	**Rauma**	**0.93**	**240**	PB		Pg	12 59 48.1	-0.8
RAF				MSG			12 59 59

SMG	**Samos**	**0.10**	**219**	S	**Sg**	**13 05 01.9**	**-0.5**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**109**	P	**Pg**	**13 05 02.7**	**0.0**
GCAM				S	**Sb**	**13 05 07.7**	**-0.5**
GCAM				IAML		13 05 08.0	
	comp=E,463nm,0.2s						
GCAM				IAML		13 05 09.0	
	comp=N,484nm,0.2s						
GCAM	**G?zelcaml?**	**0.27**	**109**	Pg	**Pg**	**13 05 02.8**	**0.0**
GCAM				Sg	**Sg**	**13 05 06.9**	**+0.4**
GCAM				AML	AML		
DGB	**zmir**	**0.27**	**354**	P	**Pg**	**13 05 02.6**	**-0.2**
DGB				IAML		13 05 06.0	
	comp=N,147nm,0.4s						
DGB				S	**Sg**	**13 05 06.7**	**0.0**
DGB				IAML		13 05 08.0	
	comp=E,131nm,0.4s						
GMLD	**Gumuldur**	**0.29**	**360**	Pg	**Pg**	**13 05 03.6**	**+0.4**
GMLD				Sg	**Sg**	**13 05 07.9**	**+0.6**
GMLD				AML	AML		
BEYE	**izmir**	**0.44**	**1**	P	**Pg**	**13 05 05.7**	**-0.3**
BEYE				S	**Sb**	**13 05 12.9**	**-0.5**
BEYE				IAML		13 05 13.0	
	comp=N,113nm,0.3s						
BEYE				IAML		13 05 15.0	
	comp=E,104nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.56**	**324**	P	**Pg**	**13 05 08.0**	**-0.2**
ZEYE				S	**Sb**	**13 05 16.8**	**+0.1**
ZEYE				IAML		13 05 18.0	
	comp=E,267nm,0.5s						
DUVT	**Torbali**	**0.60**	**44**	P	**Pg**	**13 05 08.6**	**-0.5**
DUVT				S	**Sg**	**13 05 17.2**	**+0.2**
DUVT				IAML		13 05 18.0	
	comp=E,193nm,0.1s						
BLCB	**Balcova**	**0.60**	**9**	P	**Pg**	**13 05 08.6**	**-0.5**
BLCB	**Balcova**	**0.60**	**9**	Pg	**Pg**	**13 05 08.9**	**-0.2**
BLCB				Sg	**Sg**	**13 05 17.5**	**+0.4**
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**78**	Pg	**Pg**	**13 05 12.3**	**-0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.79**	**157**	P	**Pg**	**13 05 12.8**	**+0.3**
BODT				S	**Sb**	**13 05 23.5**	**+0.1**
BODT	**Bodrum**	**0.79**	**157**	Pg	**Pb**	**13 05 13.2**	**+0.4**
BODT				AML	AML		
MLSB	**Milas**	**0.84**	**126**	Pg	**Pb**	**13 05 13.8**	**+0.1**
MLSB				Sg	**Sg**	**13 05 24.7**	**+0.2**
MLSB				AML	AML		
CHOS	**Chios island**	**0.91**	**312**	P	**Pg**	**13 05 14.6**	**-0.2**
CHOS	**Chios island**	**0.91**	**312**	Pg	**Pn**	**13 05 16.1**	**+0.4**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**336**	P	**Pb**	**13 05 16.3**	**+0.5**
KARB				S	**Sn**	**13 05 29.6**	**-0.3**
KARB				IAML		13 05 30.0	
	comp=N,74nm,0.6s						
KARB				IAML		13 05 34.0	
	comp=E,23nm,0.3s						
CAMT	**Merkez**	**1.01**	**18**	P	**Pg**	**13 05 16.7**	**0.0**
CAMT				S	**Sn**	**13 05 31.3**	**+0.2**
CAMT				IAML		13 05 32.0	
	comp=E,99nm,0.3s						
CAMT				IAML		13 05 38.0	
	comp=N,67nm,0.8s						
NAZL	**Nazilli-Aydin**	**1.10**	**80**	Pg	**Pb**	**13 05 18.2**	**+0.1**
NAZL				AML	AML		
APE	**Apeiranthos**	**1.32**	**237**	P	**Pn**	**13 05 20.8**	**-0.6**
GORD	**Gordes-Manisa**	**1.49**	**41**	Pn	**Pb**	**13 05 24.9**	**0.0**
GORD				AML	AML		

*AFAD **05** 13:10:29.6,37.˚78N×26.˚89E, h7km±2km, ML2.7*
*THE **05** 13:10:29.8,38.˚3N×27.˚7E±.˚, h4km±4km, M3.1/7, MLh3.1/7*
*ISK **05** 13:10:29.8,37.˚79N×26.˚92E, h5km, ML3.0/21*
*ATH **05** 13:10:29.2,37.˚74N×26.˚89E, h17km, ML3.2/5, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 05 13:10:29.7±0.8,**37.˚7N**±0.˚02×**26.˚89E**±0.˚02,**h16**km±5km, **n51**,σ0**°69**/76,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.07**	**211**	P	**Pg**	**13 10 32.5**	**-0.3**
SMG				S	**Sg**	**13 10 34.6**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.07**	**211**	P	**Pg**	**13 10 32.5**	**-0.3**
SMG				S	**Sg**	**13 10 34.8**	**-0.1**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.14**	**279**	P	**Pg**	**13 10 33.5**	**-0.1**
KRL1				S	**Sg**	**13 10 36.6**	**+0.4**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.22**	**266**	P	**Pg**	**13 10 34.5**	**-0.2**
SAM2				S	**Sg**	**13 10 38.1**	**0.0**
DGB	**zmir**	**0.28**	**360**	P	**Pg**	**13 10 35.2**	**-0.5**
DGB				IAML		13 10 39.0	
	comp=N,545nm,0.3s						
DGB				IAML		13 10 39.0	
	comp=E,640nm,0.2s						
DGB				S	**Sg**	**13 10 39.6**	**-0.2**
GCAM	**G?zelcaml?**	**0.28**	**104**	Pg	**Pg**	**13 10 35.5**	**-0.3**
GCAM				Sg	**Sg**	**13 10 39.9**	**-0.1**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.30**	**5**	Pg	**Pg**	**13 10 36.1**	**-0.1**
GMLD				Sg	**Sg**	**13 10 40.4**	**-0.2**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**74**	Pg	**Pg**	**13 10 36.2**	**-0.4**
KUSD				Sg	**Sg**	**13 10 40.9**	**-0.4**
BEYE	**izmir**	**0.46**	**4**	P	**Pg**	**13 10 38.5**	**-0.4**
BEYE				S	**Sg**	**13 10 44.4**	**-0.6**
BEYE				IAML		13 10 46.0	
	comp=N,652nm,0.3s						
BEYE				IAML		13 10 47.0	
	comp=E,536nm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**0.56**	**327**	P	**Pg**	**13 10 40.2**	**-0.5**
ZEYE				S	**Sb**	**13 10 49.0**	**+0.2**
ZEYE				IAML		13 10 50.0	
	comp=E,1μm,0.4s						
BLCB	**Balcova**	**0.62**	**11**	P	**Pg**	**13 10 41.4**	**-0.6**
BLCB				S	**Sg**	**13 10 49.5**	**-0.9**
BLCB				AML	AML		
BLCB	**Balcova**	**0.62**	**11**	Pg	**Pg**	**13 10 41.6**	**-0.4**
BLCB				Sg	**Sg**	**13 10 50.2**	**-0.1**
YKAV	**Yalikavak-Bodr**	**0.72**	**154**	Pg	**Pg**	**13 10 44.0**	**+0.2**
YKAV				AML	AML		
BODT	**Bodrum**	**0.79**	**154**	P	**Pg**	**13 10 44.6**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**154**	Pg	**Pb**	**13 10 45.5**	**+0.5**
BODT				Sg	**Sb**	**13 10 56.6**	**+1.1**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.80**	**98**	P	**Pg**	**13 10 44.8**	**-0.4**
AYDN				S	**Sg**	**13 10 55.2**	**-0.5**
AYDN				IAML		13 10 57.0	
	comp=N,372nm,0.3s						
AYDN				IAML		13 10 59.0	
	comp=E,377nm,0.6s						
AYDB	**Zeytinkoy-Aydi**	**0.81**	**77**	Pg	**Pb**	**13 10 45.4**	**-0.2**
AYDB				Sg	**Sb**	**13 10 56.8**	**+0.4**
AYDB				AML	AML		
KLNA	**Kalymnos**	**0.82**	**175**	P	**Pg**	**13 10 44.6**	**-1.0**
KLNA				S	**Sg**	**13 10 54.9**	**-1.4**
BDRM	**Kayabasi**	**0.83**	**148**	P	**Pb**	**13 10 46.3**	**+0.4**
BDRM				S	**Sb**	**13 10 58.1**	**+1.2**
BDRM				IAML		13 11 00.0	
	comp=N,501nm,0.3s						
BDRM				IAML		13 11 01.0	
	comp=E,291nm,0.3s						
MLSB	**Milas**	**0.85**	**124**	Pg	**Pg**	**13 10 46.3**	**0.0**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.85**	**149**	Pg	**Pb**	**13 10 46.8**	**+0.6**
KRBN	**Karaburun**	**0.86**	**342**	Pg	**Pb**	**13 10 46.7**	**+0.4**
KRBN				AML	AML		
CHOS	**Chios island**	**0.90**	**313**	P	**Pg**	**13 10 47.0**	**-0.1**
CHOS				S	**Sg**	**13 10 59.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**313**	Pg	**Pb**	**13 10 47.8**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**313**	P	**Pg**	**13 10 47.0**	**-0.1**
CHOS				S	**Sg**	**13 10 59.4**	**+0.4**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.92**	**66**	P	**Pb**	**13 10 47.5**	**+0.3**
IZMR				S	**Sg**	**13 10 57.5**	**-2.1**
IZMR				IAML		13 11 01.0	
	comp=N,133nm,0.4s						
IZMR				IAML		13 11 01.0	
	comp=E,166nm,0.4s						
FOCM	**Foa**	**0.95**	**353**	Pg	**Pb**	**13 10 48.3**	**+0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**337**	P	**Pg**	**13 10 47.4**	**-1.0**
KARB				S	**Sg**	**13 11 00.9**	**-0.1**
KARB				IAML		13 11 03.0	
	comp=N,368nm,0.5s						
KARB				IAML		13 11 03.0	
	comp=E,253nm,0.7s						
EAG2	**Marmaro, Chios**	**0.98**	**322**	P	**Pg**	**13 10 48.8**	**0.0**
EAG2				S	**Sg**	**13 11 01.9**	**+0.2**
CAMT	**Merkez**	**1.03**	**19**	P	**Pg**	**13 10 49.1**	**-0.5**
CAMT				S	**Sb**	**13 11 03.7**	**+1.1**
CAMT				IAML		13 11 05.0	
	comp=E,577nm,0.3s						
CAMT				IAML		13 11 06.0	
	comp=N,476nm,0.6s						
NAZL	**Nazilli-Aydin**	**1.13**	**80**	Pn	**Pb**	**13 10 51.2**	**+0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.18**	**152**	Pn	**Pb**	**13 10 52.6**	**+0.8**
DAT				AML	AML		
ZEDA	**zmir-Bergama**	**1.20**	**7**	P	**Pg**	**13 10 51.9**	**-1.0**
ZEDA				S	**Sb**	**13 11 08.4**	**+1.0**
ZEDA				IAML		13 11 10.0	
	comp=N,102nm,0.5s						
ZEDA				IAML		13 11 12.0	
	comp=E,80nm,0.5s						
YER	**Yerkesik**	**1.28**	**119**	P	**Pn**	**13 10 53.3**	**+0.3**
YER	**Yerkesik**	**1.28**	**119**	Pn	**Pg**	**13 10 54.6**	**+0.2**
YER				AML	AML		
APE	**Apeiranthos**	**1.29**	**237**	P	**Pn**	**13 10 52.2**	**-0.9**
APE				AML	AML		
APE	**Apeiranthos**	**1.29**	**237**	Pn	**Pg**	**13 10 55.1**	**+0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.29**	**237**	P	**Pn**	**13 10 52.2**	**-0.9**
APE				S	**Sb**	**13 11 09.1**	**-0.8**
DKL	**Dikili**	**1.30**	**1**	Pn	**Pg**	**13 10 54.6**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.30**	**1**	P	**Pn**	**13 10 53.0**	**-0.2**
AKHS	**Akhisar**	**1.32**	**33**	P	**Pg**	**13 10 54.6**	**-0.6**
AKHS				IAML		13 11 14.0	
	comp=N,347nm,0.6s						
AKS	**Akhisar**	**1.32**	**33**	Pn	**Pg**	**13 10 55.1**	**-0.1**
AKS				AML	AML		
GORD	**Gordes-Manisa**	**1.52**	**41**	Pn	**Pg**	**13 10 58.3**	**-0.7**
GORD				AML	AML		
PRK	**Paraskevi**	**1.55**	**342**	P	**Pb**	**13 10 58.5**	**+0.5**
PRK	**Paraskevi**	**1.55**	**342**	P	**Pn**	**13 10 57.0**	**+0.4**
THERA	**Ancient Thera,**	**1.80**	**219**	P	**Pn**	**13 10 58.4**	**-1.8**
YAYO	**Edremit-Balk**	**1.84**	**5**	Pn	**Pb**	**13 11 03.4**	**+0.4**
YAYO				AML	AML		
BALB	**Balikesir**	**2.02**	**22**	Pn	**Pb**	**13 11 05.4**	**-0.7**
BALB				AML	AML		
EZN	**Ezine**	**2.10**	**348**	Pn	**Pb**	**13 11 06.9**	**-0.5**
EZN				AML	AML		
SIMA	**Simav-Kutahya**	**2.10**	**51**	Pn	**Pn**	**13 11 06.4**	**+2.0**
SIMA				AML	AML		
BOZC	**Bozcaada**	**2.17**	**343**	Pn	**Pb**	**13 11 08.0**	**-0.6**
BOZC				AML	AML		

*NOU **05** 13:11:29.5,40.˚34S×176.˚79E, h20km, MLv3.7/11, North Island, New Zealand*
*WEL **05** 13:11:31.5±0.5,40.˚S±2.˚×17.˚7E±.˚, h18km±3km, M3.6/14, ML3.6/14, MLv3.6/14, Error ellipse: s-maj=3.3km s-min=3.0km az=126.2*

ISC 05 13:11:31.3±1.0,**40.˚28S**±0.˚03×**176.˚58E**±0.˚04,**h29**km±5km, **n54**,σ0**°67**/67,**North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PGFS	**Porangahau Fir**	**0.03**	**125**	P	**Pb**	**13 11 35.7**	**-0.5**
PGFS				S	**Sb**	**13 11 39.6**	**+0.2**
PRHZ	**Porangahau**	**0.05**	**71**	P	**Pb**	**13 11 36.0**	**-0.3**
PRHZ				S	**Sb**	**13 11 39.9**	**+0.3**
PRHZ				AML	AML		
PRHZ				AML	AML		
ANWZ	**Angora Road**	**0.19**	**203**	P	**Pn**	**13 11 37.7**	**-0.7**
ANWZ				S	**Sn**	**13 11 42.3**	**+0.9**
ANWZ				AML	AML		
ANWZ				AML	AML		
WPHZ	**Waipukurau**	**0.24**	**335**	P	**Pb**	**13 11 37.3**	**-0.6**
WPHZ				S	**Sb**	**13 11 41.7**	**-0.7**
WPHZ				AML	AML		
WPHZ				AML	AML		
DVHZ	**Dannevirke**	**0.31**	**267**	P	**Pb**	**13 11 38.4**	**-0.5**
DVHZ				S	**Sb**	**13 11 43.9**	**-0.1**
DVHZ				AML	AML		
DVHZ				AML	AML		
PXZ	**Pawanui**	**0.33**	**41**	P	**Pn**	**13 11 39.8**	**-0.5**
PXZ				S	**Sn**	**13 11 47.2**	**+1.1**
PXZ				AML	AML		
PXZ				AML	AML		
DVHS	**Dannevirke Hig**	**0.37**	**282**	P	**Pb**	**13 11 39.6**	**-0.1**
DVHS				S	**Sb**	**13 11 45.7**	**+0.3**
PNHZ	**Pukenui**	**0.47**	**322**	P	**Pb**	**13 11 40.7**	**-0.5**
PNHZ				S	**Sb**	**13 11 47.3**	**-0.6**
PNHZ				AML	AML		
PNHZ				AML	AML		
BFZ	**Birch Farm**	**0.47**	**212**	P	**Pn**	**13 11 41.8**	**-0.4**
BFZ	**Birch Farm**	**0.47**	**212**	S	**Sn**	**13 11 49.4**	**-0.2**
BFZ	**Birch Farm**	**0.47**	**212**	P	**Pn**	**13 11 41.8**	**-0.4**
BFZ				S	**Sn**	**13 11 50.2**	**+0.6**
BFZ				AML	AML		
BFZ				AML	AML		
TSZ	**Takapari Road**	**0.52**	**295**	P	**Pb**	**13 11 41.5**	**-0.6**
TSZ				S	**Sb**	**13 11 49.0**	**-0.4**
TSZ				AML	AML		
TSZ				AML	AML		
PRWZ	**Pori Road**	**0.54**	**239**	P	**Pn**	**13 11 43.0**	**-0.1**
PRWZ				AML	AML		
PRWZ				AML	AML		
KAHZ	**Kahuranaki**	**0.54**	**26**	P	**Pn**	**13 11 43.1**	**-0.1**
KAHZ				S	**Sn**	**13 11 53.1**	**+1.8**
KAHZ				AML	AML		
KAHZ				AML	AML		
POWZ	**Post Office Ro**	**0.63**	**260**	P	**Pn**	**13 11 43.9**	**-0.4**
POWZ				S	**Sn**	**13 11 53.7**	**+0.3**
POWZ				AML	AML		
POWZ				AML	AML		
KRHZ	**Kereru**	**0.66**	**346**	P	**Pb**	**13 11 44.2**	**-0.1**
KRHZ				S	**Sn**	**13 11 54.1**	**-0.1**
KRHZ				AML	AML		
KRHZ				AML	AML		
CPWZ	**Castlepoint**	**0.69**	**204**	P	**Pn**	**13 11 45.9**	**+0.7**
CPWZ				AML	AML		
CPWZ				AML	AML		
TIWZ	**Tintock**	**0.72**	**227**	P	**Pn**	**13 11 45.7**	**0.0**
TIWZ				AML	AML		
TIWZ				AML	AML		
CKHZ	**Cape Kidnapper**	**0.73**	**32**	P	**Pn**	**13 11 45.7**	**0.0**
CKHZ				AML	AML		
CKHZ				AML	AML		
MCHZ	**McNeill Hill**	**0.84**	**6**	P	**Pb**	**13 11 47.7**	**+0.3**
MCHZ				AML	AML		
MCHZ				AML	AML		
MRZ	**Mangatainoka R**	**0.85**	**243**	P	**Pb**	**13 11 47.3**	**-0.2**
MRZ				AML	AML		
MRZ				AML	AML		
KWHZ	**Kaweka Forest**	**0.86**	**352**	P	**Pn**	**13 11 47.5**	**-0.1**
KWHZ				AML	AML		
KWHZ				AML	AML		
OHWZ	**Ohakea**	**0.97**	**274**	P	**Pb**	**13 11 50.1**	**+0.6**
TMWZ	**Te Maipa**	**0.97**	**212**	P	**Pn**	**13 11 48.9**	**-0.2**
HOWZ	**Holdsworth Sta**	**1.01**	**232**	P	**Pn**	**13 11 49.3**	**-0.3**
ARHZ	**Aropaoanui**	**1.07**	**18**	P	**Pb**	**13 11 50.7**	**-0.5**
MOVZ	**Moawhango**	**1.08**	**324**	P	**Pn**	**13 11 51.0**	**+0.3**
BKZ	**Black Stump Fm**	**1.12**	**357**	P	**Pn**	**13 11 50.9**	**-0.2**
BKZ	**Black Stump Fm**	**1.12**	**357**	S	**Sb**	**13 12 06.3**	**+0.1**
BKZ	**Black Stump Fm**	**1.12**	**357**	P	**Pn**	**13 11 51.2**	**+0.1**
MTW	**Mount Morrison**	**1.20**	**223**	P	**Pn**	**13 11 51.4**	**-0.7**
OGWZ	**Otaki Gorge**	**1.20**	**243**	P	**Pn**	**13 11 52.2**	**0.0**
NMHZ	**Naumai**	**1.20**	**9**	P	**Pn**	**13 11 52.8**	**-0.7**
WNVZ	**Wahianoa**	**1.22**	**321**	P	**Pb**	**13 11 53.4**	**-0.4**
TUVZ	**Tukino**	**1.24**	**325**	P	**Pb**	**13 11 53.9**	**-0.3**
WHVZ	**Whangaehu Hut**	**1.25**	**322**	P	**Pb**	**13 11 54.1**	**-0.4**
MAVZ	**Matarangi**	**1.28**	**322**	P	**Pb**	**13 11 54.4**	**-0.6**
FWVZ	**Far West T-bar**	**1.29**	**322**	P	**Pb**	**13 11 54.5**	**-0.7**
WHHZ	**Waihua**	**1.31**	**23**	P	**Pn**	**13 11 53.7**	**0.0**
SNVZ	**South Ngauruho**	**1.31**	**326**	P	**Pn**	**13 11 54.1**	**+0.3**
NGZ	**Ngauruhoe**	**1.34**	**326**	P	**Pb**	**13 11 55.3**	**-0.6**
COVZ	**Chateau Observ**	**1.34**	**323**	P	**Pb**	**13 11 55.1**	**-0.8**
TMVZ	**Te Maari**	**1.34**	**330**	P	**Pb**	**13 11 55.3**	**-0.6**
NTVZ	**North Tongarir**	**1.37**	**329**	P	**Pn**	**13 11 54.3**	**-0.4**
KIW	**Kapiti Island**	**1.39**	**245**	P	**Pn**	**13 11 55.0**	**+0.1**
PAWZ	**Paruwai Farm**	**1.40**	**218**	P	**Pn**	**13 11 54.3**	**-0.7**
CAW	**Cannon Point**	**1.41**	**234**	P	**Pn**	**13 11 54.4**	**-0.7**
SNZO	**South Karori**	**1.75**	**234**	P	**Pn**	**13 11 58.8**	**-1.0**
URZ	**Urewera**	**2.06**	**12**	P	**Pn**	**13 12 03.2**	**-0.8**
URZ	**Urewera**	**2.06**	**12**	S	**Sn**	**13 12 29.6**	**+0.8**
KHEZ	**Kahui Hut**	**2.21**	**296**	P	**Pn**	**13 12 08.0**	**+1.9**
HIZ	**Hauiti**	**2.21**	**322**	P	**Pb**	**13 12 08.5**	**-2.2**
KHZ	**Kahutara**	**3.12**	**226**	P	**Pn**	**13 12 19.9**	**+1.3**
QRZ	**Quartz Range**	**3.13**	**259**	P	**Pn**	**13 12 19.5**	**+0.8**

*THE **05** 13:20:06.3,38˚N±5˚×2˚7E±˚, h8km±3km, M2.6/4, MLh2.6/4*
*AFAD **05** 13:20:06.2,37.˚84N×26.˚88E, h7km±2km, ML2.1*
*ISK **05** 13:20:06.2,37.˚84N×26.˚86E, h5km, ML2.4/13*

ISC 05 13:20:06.1±0.9,**37.˚83N**±0.˚02×**26.˚85E**±0.˚03,**h14**km±6km, **n28**,σ0**°89**/42,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.12**	**186**	P	**Pg**	**13 20 09.1**	**-0.4**
SMG				S	**Sg**	**13 20 11.4**	**-0.4**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**6**	P	**Pg**	**13 20 10.6**	**-0.5**
DGB				IAML		13 20 14.0	
	comp=N,256nm,0.2s						
DGB				IAML		13 20 14.0	
	comp=E,446nm,0.2s						
DGB				S	**Sg**	**13 20 14.1**	**-0.4**
GCAM	**G?zelcaml?**	**0.33**	**113**	P	**Pg**	**13 20 12.6**	**-0.2**
GCAM				S	**Sb**	**13 20 18.9**	**+0.1**
GCAM				IAML		13 20 19.0	
	comp=N,426nm,0.4s						
GCAM				IAML		13 20 19.0	
	comp=E,176nm,0.2s						
GCAM	**G?zelcaml?**	**0.33**	**113**	Pg	**Pg**	**13 20 12.8**	**0.0**
GCAM				Sg	**Sb**	**13 20 18.4**	**-0.4**
GCAM				AML	AML		
BEYE	**izmir**	**0.40**	**8**	P	**Pg**	**13 20 13.8**	**-0.4**
BEYE				IAML		13 20 20.0	
	comp=E,118nm,0.4s						
BEYE				S	**Sg**	**13 20 20.0**	**+0.3**
BEYE				IAML		13 20 23.0	
	comp=N,114nm,0.4s						
DDIM	**Aydin, Didim**	**0.48**	**140**	P	**Pg**	**13 20 14.1**	**-1.5**
DDIM				S	**Sb**	**13 20 23.4**	**+0.2**
DDIM				IAML		13 20 24.0	
	comp=N,152nm,0.8s						
DDIM				IAML		13 20 25.0	
	comp=E,143nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**326**	P	**Pg**	**13 20 15.7**	**-0.2**
ZEYE				IAML		13 20 23.0	
	comp=N,256nm,0.4s						
ZEYE				IAML		13 20 23.0	
	comp=E,138nm,0.2s						
ZEYE				S	**Sb**	**13 20 23.5**	**-0.2**
BLCB	**Balcova**	**0.58**	**15**	P	**Pg**	**13 20 17.4**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**15**	Pg	**Pg**	**13 20 17.3**	**-0.1**
BLCB				Sg	**Sb**	**13 20 25.6**	**-0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**50**	P	**Pg**	**13 20 17.7**	**-0.4**
DUVT				S	**Sg**	**13 20 25.8**	**-0.5**
DUVT				IAML		13 20 30.0	
	comp=E,290nm,0.4s						
KRBN	**Karaburun**	**0.80**	**343**	Pg	**Pb**	**13 20 22.6**	**+0.8**
KRBN				Sg	**Sb**	**13 20 33.0**	**+0.5**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**81**	Pg	**Pb**	**13 20 22.7**	**+0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.83**	**101**	P	**Pg**	**13 20 21.9**	**-0.3**
AYDN				S	**Sg**	**13 20 33.5**	**+0.3**
AYDN				IAML		13 20 37.0	
	comp=N,42nm,0.6s						
AYDN				IAML		13 20 37.0	
	comp=E,54nm,0.4s						
CHOS	**Chios island**	**0.84**	**312**	P	**Pg**	**13 20 22.7**	**+0.3**
CHOS				S	**Sb**	**13 20 34.6**	**+0.8**
CHOS	**Chios island**	**0.84**	**312**	Pg	**Pb**	**13 20 22.9**	**+0.4**
CHOS				AML	AML		
BODT	**Bodrum**	**0.85**	**154**	P	**Pb**	**13 20 23.4**	**+0.8**
BODT	**Bodrum**	**0.85**	**154**	Pg	**Pg**	**13 20 22.8**	**+0.3**
BODT				AML	AML		
FOCM	**Foa**	**0.89**	**354**	Pg	**Pb**	**13 20 23.9**	**+0.6**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**338**	P	**Pg**	**13 20 22.9**	**-0.8**
KARB				S	**Sb**	**13 20 36.6**	**+1.1**
KARB				IAML		13 20 39.0	
	comp=N,118nm,0.9s						
KARB				IAML		13 20 40.0	
	comp=E,125nm,0.6s						
MLSB	**Milas**	**0.91**	**126**	Pg	**Pb**	**13 20 24.2**	**+0.6**
MLSB				AML	AML		
CAMT	**Merkez**	**0.99**	**21**	P	**Pg**	**13 20 24.9**	**-0.3**
CAMT				S	**Sb**	**13 20 39.4**	**+1.5**
CAMT				IAML		13 20 41.0	
	comp=N,92nm,0.7s						
CAMT				IAML		13 20 44.0	
	comp=E,97nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.15**	**83**	Pn	**Pn**	**13 20 28.6**	**+0.9**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**43**	Pn	**Pn**	**13 20 29.6**	**+1.0**
APE	**Apeiranthos**	**1.30**	**235**	P	**Pn**	**13 20 30.2**	**+0.4**
SOMA	**Soma-Manisa**	**1.43**	**22**	Pn	**Pg**	**13 20 33.3**	**-0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**44**	Pn	**Pg**	**13 20 34.4**	**-0.5**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**5**	Pn	**Pb**	**13 20 38.5**	**-0.2**
YAYO				AML	AML		
CLL	**Collm**	**16.66**	**328**	*e*Sg	**S**	**13 27 11.0**	**-4.0**

*NEIC **05** 13:56:18.9±1.6,52.˚0N±0.˚1×178.˚99E±0.˚08, h122km±5km, mb4.1/42, ML3.9/14, ML3.6(AEIC), Error ellipse: s-maj=19.5km s-min=7.3km az=182.0*
*IDC **05** 13:56:19.2±1.8,52.˚06N×179.˚07E, h122km±14km, mb3.7/17, mbtmp4.1/20, Error ellipse: s-maj=20.2km s-min=9.8km az=168.0*
*AEIC **05** 13:56:19.8±2.0,51.˚9N±0.˚1×178.˚97E±0.˚04, h123km±4km, Error ellipse: s-maj=19.7km s-min=3.3km az=179.0*

ISC 05 13:56:18.8±0.6,**52.˚00N**±0.˚09×**179.˚01E**±0.˚03,**h122**km±5km, **n109**,σ0**°97**/119,**mb4.0**/30,**Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LSPA	**Little Sitkin**	**0.27**	**261**		**Pn**	**13 56 36.5**	**+0.6**
LSPA					**Sn**	**13 56 49.2**	**+0.5**

ADK					IAML			13 57 40.4	
	comp=E,371nm,0.3s								
ADK					IAML			13 57 41.2	
	comp=E,328nm,0.3s								
ADAG	**Mount Adagdak**	**2.72**	**89**			**Pn**		**13 57 01.4**	**+0.1**
ETKA	**Kagalaska Isla**	**2.84**	**91**			**Pn**		**13 57 02.7**	**-0.4**
ETKA						**Sn**		**13 57 37.0**	**-0.1**
GSTR	**Great Sitkin T**	**3.05**	**86**	Pn		**Pn**		**13 57 05.9**	**+0.2**
GSTR					IAML			13 57 57.2	
	comp=E,382nm,0.5s								
SHEM	**Shemya Is, Ala**	**3.10**	**286**	P		**Pn**		**13 57 06.6**	**+0.3**
	comp=E,63nm,0.3s,baz=290,slow=0.7,SNR=7.9								
SHEM				S		**Sn**		**13 57 44.5**	**+1.6**
	comp=E,115nm,0.3s,baz=260,slow=17,SNR=12								
SHEM	**Shemya Is, Ala**	**3.10**	**286**	Pn		**Pn**		**13 57 06.9**	**+0.7**
SMY	**Shemya**	**3.10**	**286**	Pn		**Pn**		**13 57 06.7**	**+0.4**
SMY					IAML			13 57 45.4	
	comp=E,250nm,0.3s								
SMY	**Shemya**	**3.10**	**286**			**Sn**		**13 57 42.5**	**-0.4**
GSIG	**Igitkin Island**	**3.13**	**88**			**Pn**		**13 57 06.6**	**-0.2**
KOWE	**Korovin West**	**4.17**	**82**			**Pn**		**13 57 21.2**	**+0.6**
ATKA	**Atka Island**	**4.20**	**85**	Pn		**Pn**		**13 57 22.8**	**+1.9**
ATKA					IAML			13 58 16.8	
	comp=E,76nm,1.1s								
ATKA					IAML			13 58 34.3	
	comp=N,120nm,1.2s								
UNV	**Unalaska Valle**	**8.95**	**72**	Pn		**Pn**		**13 58 25.0**	**+0.2**
SDPT	**Sand Point**	**12.61**	**67**	Pn		**Pn**		**13 59 12.4**	**-1.2**
PETK	**Petropavlovsk-**	**13.01**	**283**	P		**Pn**		**13 59 20.0**	**+1.2**
	comp=N,6.8nm,1.1s,baz=58,slow=23,SNR=1.6								
PETK				S		**Sn**		**14 01 37.7**	**-4.3**
	comp=N,7.0nm,1.1s,baz=326,slow=34,SNR=1.7								
CNBA	**Chernabura Isl**	**13.07**	**69**	Pn		**Pn**		**13 59 17.8**	**-1.8**
O14K	**Tigyukauivet M**	**13.27**	**49**	Pn		**Pn**		**13 59 22.3**	**+0.2**
CHGN	**Chignik**	**13.89**	**63**	Pn		**Pn**		**13 59 29.6**	**-0.5**
CHIR	**Chirikof Islan**	**15.39**	**66**	Pn		**Pn**		**13 59 46.8**	**-2.4**
P17K	**Kvichak River**	**15.57**	**53**	Pn		**Pn**		**13 59 48.8**	**-2.4**
J17K	**VABM Dome**	**16.25**	**37**	Pn		**Pn**		**13 59 57.9**	**-1.7**
J17K					IAmb	IAmb		14 00 06.5	
	comp=Z,10nm,1.2s								
L18K	**Granite Mounta**	**16.59**	**42**	Pn		**Pn**		**14 00 02.6**	**-1.2**
OHAK	**Old Harbor**	**16.81**	**61**			**Pn**		**14 00 05.0**	**-1.4**
OHAK					IAmb	IAmb		14 00 13.5	
	comp=Z,13nm,1.0s								
KDAK	**Kodiak Island**	**17.25**	**59**	P		**P**		**14 00 11.2**	**-0.3**
	comp=Z,11nm,0.7s,baz=127,slow=1.1,SNR=52								
KDAK	**Kodiak Island**	**17.25**	**59**	P		**P**		**14 00 10.4**	**-1.1**
KDAK					IAmb	IAmb		14 00 14.8	
	comp=Z,12nm,0.8s								
CNPM	**China Poot**	**18.23**	**54**	P		**P**		**14 00 22.7**	**+0.4**
CNPM					IAmb	IAmb		14 00 41.0	
	comp=Z,23nm,1.1s								
SPU	**Mount Spurr**	**18.25**	**48**	P		**P**		**14 00 22.5**	**+0.1**
SPU					IAmb	IAmb		14 00 28.8	
	comp=Z,7.0nm,0.7s								
STLK	**Strandline Lak**	**18.44**	**48**	P		**P**		**14 00 25.0**	**+0.4**
STLK					IAmb	IAmb		14 00 29.9	
	comp=Z,11nm,0.8s								
BRLK	**Bradley Lake**	**18.45**	**53**	P		**P**		**14 00 24.3**	**-0.4**
SUA	**Susitna One**	**18.93**	**48**	P		**P**		**14 00 28.5**	**-1.5**
SUA					IAmb	IAmb		14 00 37.5	
	comp=Z,18nm,1.0s								
SEW	**Seward**	**19.23**	**53**	P		**P**		**14 00 32.4**	**-0.7**
SEW					IAmb	IAmb		14 00 37.2	
	comp=Z,18nm,1.0s								
IMAR	**Indian Mountai**	**19.59**	**34**	P		**P**		**14 00 36.3**	**-0.7**
GHO	**Glory Hole Cre**	**19.85**	**48**	P		**P**		**14 00 39.5**	**-0.4**
GHO					IAmb	IAmb		14 00 44.5	
	comp=Z,7.8nm,1.0s								
GLI	**Glacier Island**	**20.52**	**51**	P		**P**		**14 00 47.5**	**+0.5**
FID	**Port Fidalgo**	**20.79**	**52**	P		**P**		**14 00 49.1**	**-0.8**
D22K	**Ayikyak River**	**21.59**	**28**	P		**P**		**14 01 00.3**	**+1.9**
ILAR	**Eielson Array**	**21.64**	**41**	P		**P**		**14 00 56.9**	**-2.0**
	comp=Z,0.4nm,0.6s,baz=258,slow=12,SNR=6.5								
	comp=Z,0.4nm,0.6s								
GLB	**Gilahina Butte**	**22.18**	**50**	P		**P**		**14 01 04.3**	**-0.4**
GLB					IAmb	IAmb		14 01 05.9	
	comp=Z,4.7nm,0.7s								
D23K	**Nanushuk River**	**22.23**	**29**	P		**P**		**14 01 06.3**	**+1.3**
F24K	**Squaw Lake**	**22.37**	**33**	P		**P**		**14 01 08.0**	**+1.4**
TOLK	**Toolik Lake Re**	**22.39**	**30**	P		**P**		**14 01 08.1**	**+1.4**
CRQM	**Cirque**	**22.42**	**52**	P		**P**		**14 01 06.7**	**-0.5**
CRQM					IAmb	IAmb		14 01 12.1	
	comp=Z,15nm,0.8s								
MENT	**Mentasta**	**22.48**	**46**	P		**P**		**14 01 07.6**	**-0.1**
MENT					IAmb	IAmb		14 01 17.1	
	comp=Z,5.5nm,0.9s								
DOT	**Dot Lake**	**22.49**	**45**	P		**P**		**14 01 08.0**	**+0.2**
GRNC	**Granite Creek**	**23.09**	**52**	P		**P**		**14 01 14.4**	**+0.6**
L27K	**Beaver Creek,**	**23.36**	**47**	P		**P**		**14 01 15.6**	**-0.4**
L27K					IAmb	IAmb		14 01 19.1	
	comp=Z,6.7nm,0.8s								
K27K	**Chicken**	**23.44**	**44**	P		**P**		**14 01 17.0**	**+0.3**
LOGN	**Logan Glacier**	**23.47**	**52**	P		**P**		**14 01 17.8**	**+0.6**
LOGN					IAmb	IAmb		14 01 19.6	
	comp=Z,13nm,0.8s								
G26K	**Porcupine Rive**	**23.60**	**37**	P		**P**		**14 01 18.3**	**+0.2**
G26K					IAmb	IAmb		14 01 20.7	
	comp=Z,8.7nm,1.0s								
PCA	**Pinnacle**	**23.80**	**54**	P		**P**		**14 01 20.4**	**+0.3**
O28M	**Mount Upton**	**23.86**	**52**	P		**P**		**14 01 21.7**	**+0.8**
C26K	**Camden Bay**	**24.46**	**29**	P		**P**		**14 01 27.6**	**+1.8**
C26K					IAmb	IAmb		14 01 28.9	
	comp=Z,5.5nm,0.6s								
I28M	**Miner Creek**	**24.65**	**41**	P		**P**		**14 01 27.8**	**0.0**
I28M					IAmb	IAmb		14 01 28.7	
	comp=Z,4.0nm,0.8s								
C27K	**Jago River**	**24.70**	**31**	P		**P**		**14 01 28.7**	**+0.7**
C27K					IAmb	IAmb		14 01 31.5	
	comp=Z,5.2nm,1.0s								
L29M	**L29M**	**25.03**	**47**	P		**P**		**14 01 31.8**	**+0.7**
HYT	**Haines Junctio**	**25.18**	**52**	P		**P**		**14 01 32.4**	**-0.3**
HYT					IAmb	IAmb		14 01 37.8	
	comp=Z,5.9nm,0.8s								
H29M	**Whitestone**	**25.45**	**40**	P		**P**		**14 01 34.9**	**0.0**
USRK	**Ussuriysk Ar.**	**31.87**	**275**	P		**P**		**14 02 32.0**	**0.0**
	comp=Z,1.2nm,0.5s,baz=57,slow=11,SNR=1.8								
	comp=Z,1.2nm,0.5s								
USRK	**Ussuriysk Ar.**	**31.87**	**275**	P		**P**		**14 02 30.1**	**-2.0**
MJAR	**Matsushiro Arr**	**32.56**	**258**	P		**P**		**14 02 39.0**	**+0.8**
	comp=Z,1.7nm,0.6s,baz=40,slow=6.4,SNR=5.0								
	comp=Z,1.7nm,0.6s								
H11N2	**WAKE ISLAND Hy**	**33.57**	**201**	T		T		14 38 14.5	
	baz=11,slow=76,SNR=5.1								
H11N3	**WAKE ISLAND Hy**	**33.58**	**201**	T		T		14 38 15.5	
	baz=11,slow=76,SNR=4.3								
H11N1	**WAKE ISLAND Hy**	**33.59**	**201**	T		T		14 38 17.8	
	baz=11,slow=76,SNR=3.8								
H11S1	**WAKE ISLAND Hy**	**34.80**	**201**	T		T		14 40 13.1	
	baz=11								
H11S3	**WAKE ISLAND Hy**	**34.81**	**201**	T		T		14 39 59.5	
	baz=11								
H11S2	**WAKE ISLAND Hy**	**34.82**	**201**	T		T		14 39 55.9	
	baz=11								
YKA	**Yellowknife Ar**	**35.79**	**47**	P		**P**		**14 03 05.9**	**+0.1**
	comp=Z,1.5nm,0.8s,baz=283,slow=9.3,SNR=8.6								
	comp=Z,1.5nm,0.8s								
KSRS	**Korea Array**	**38.28**	**268**	P		**P**		**14 03 28.6**	**+1.6**
	comp=Z,2.1nm,0.9s,baz=53,slow=8.3,SNR=5.9								
	comp=Z,2.1nm,0.9s								
JNU	**Nakatsue**	**39.31**	**261**	P		**P**		**14 03 36.8**	**+1.1**
	comp=Z,3.8nm,0.8s,baz=30,slow=3.3,SNR=5.0								
	comp=Z,3.8nm,0.8s								
PNTR	**Pine Nut**	**43.62**	**82**	P		**P**		**14 04 12.5**	**+1.5**
NVAR	**Mina Array Bea**	**44.82**	**82**	P		**P**		**14 04 21.5**	**+0.9**
	comp=Z,1.2nm,0.6s,baz=298,slow=7.5,SNR=12								
	comp=Z,1.2nm,0.6s								
MDPB	**Devils Postpil**	**44.85**	**83**	P		**P**		**14 04 20.5**	**-0.4**
MDPB					IAmb	IAmb		14 04 23.1	
	comp=Z,3.0nm,0.8s								
SONM	**Songino Array**	**45.15**	**295**	P		**P**		**14 04 23.5**	**+0.6**
	comp=Z,1.7nm,0.6s,baz=61,slow=6.9,SNR=5.5								
SONM				PcP		**PcP**		**14 06 00.9**	**-0.3**
	comp=Z,0.8nm,0.7s,baz=85,slow=3.0,SNR=2.5								
	comp=Z,1.7nm,0.6s								
SONM	**Songino Array**	**45.15**	**295**	P		**P**		**14 04 22.6**	**-0.3**
SONM				PcP		**PcP**		**14 06 00.9**	**-0.3**
ELK	**Elko**	**45.26**	**77**	P		**P**		**14 04 24.4**	**+0.3**
YHB	**Horse Butte**	**45.28**	**70**	P		**P**		**14 04 22.5**	**-1.7**
YHB					IAmb	IAmb		14 04 28.4	
	comp=Z,3.0nm,1.1s								
TPNV	**Topopah Spring**	**47.02**	**82**	P		**P**		**14 04 36.9**	**-0.9**
TPNV					IAmb	IAmb		14 04 39.1	
	comp=Z,3.3nm,0.8s								
PDAR	**Pinedale Array**	**47.41**	**71**	P		**P**		**14 04 40.5**	**-0.3**
	comp=Z,0.6nm,0.5s,baz=318,slow=3.6,SNR=17								
	comp=Z,0.6nm,0.5s								
PDAR	**Pinedale Array**	**47.41**	**71**	P		**P**		**14 04 39.9**	**-0.9**
SPITS	**Spitsbergen Ar**	**49.65**	**355**	P		**P**		**14 04 57.3**	**0.0**
	comp=Z,4.2nm,0.6s,baz=50,slow=6.6,SNR=5.3								
	comp=Z,4.2nm,0.6s								
KURK	**Kurchatov**	**57.59**	**312**	P		**P**		**14 05 55.7**	**+0.2**
KURBB	**Kurchatov Arra**	**57.70**	**312**	P		**P**		**14 05 56.7**	**+0.6**
	comp=Z,3.1nm,0.6s,baz=42,slow=6.6,SNR=36								
	comp=Z,3.1nm,0.6s								
MKAR	**Makanchi Array**	**58.57**	**307**	P		**P**		**14 06 02.0**	**-0.4**
	comp=Z,0.8nm,0.3s,baz=48,slow=6.3,SNR=13								
	comp=Z,0.8nm,0.3s								
MKAR	**Makanchi Array**	**58.57**	**307**	P		**P**		**14 06 02.2**	**-0.2**
BVAR	**Borovoye Array**	**59.52**	**318**	P		**P**		**14 06 09.2**	**+0.5**
	comp=Z,3.1nm,0.4s,baz=53,slow=6.8,SNR=18								
	comp=Z,3.1nm,0.4s								
TXAR	**Lajitas Array**	**59.90**	**80**	P		**P**		**14 06 11.8**	**0.0**
	comp=Z,0.5nm,0.5s,baz=306,slow=4.8,SNR=8.6								
	comp=Z,0.5nm,0.5s								
TXAR	**Lajitas Array**	**59.90**	**80**	P		**P**		**14 06 10.9**	**-0.9**
CMAR	**Chiang Mai Arr**	**69.60**	**274**	P		**P**		**14 07 15.2**	**+0.5**
	comp=Z,1.0nm,0.5s,baz=28,slow=6.3,SNR=7.6								
	comp=Z,1.0nm,0.5s								
WRA	**Warramunga Arr**	**81.54**	**222**	P		**P**		**14 08 22.3**	**-0.3**
	comp=Z,0.9nm,0.5s,baz=33,slow=5.7,SNR=12								
	comp=Z,0.9nm,0.5s								
ASAR	**Alice Springs**	**85.05**	**221**	P		**P**		**14 08 41.0**	**+0.5**
	comp=Z,0.6nm,0.4s,baz=22,slow=5.4,SNR=15								
	comp=Z,0.6nm,0.4s								
ASAR	**Alice Springs**	**85.05**	**221**	P		**P**		**14 08 40.9**	**+0.3**
MAW	**Mawson**	**146.14**	**218**	PKPbc		**PKPbc**		**14 15 43.9**	**+0.8**
	comp=Z,2.0nm,0.7s,baz=58,slow=4.3,SNR=7.2								
MAW	**Mawson**	**146.14**	**218**	PKPdf		**PKPbc**		**14 15 43.4**	**+0.3**

*RSNC **05** 13:57:31.9±0.0, 8.°N±2.°×7.°2W±.°, h2km±3km, M2.9, mb4.0, ML2.6*
*FUNV **05** 13:57:32.0, 7.°42N×71.°86W, h24km, MW3.9, Presumed earthquake*
ISC 05 13:57:30.8±0.7, 8.°35N±0.°03×71.°69W±0.°03, h10km, n32, σ2°32/60, 2C-1D, Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
CAPV	**Capacho**	**0.79**	**232**	*eP*		**Pg**	**13 57 44.8**	**-1.4**
CAPV				*eS*		**Sg**	**13 57 53.5**	**-3.0**
OCAC	**Ocana**	**1.62**	**266**	P		**Pn**	**13 57 59.3**	**-0.3**
OCAC				S		**Sn**	**13 58 30.6**	**-1.0**
TAMC	**Tame, Arauca**	**1.91**	**183**	P		**Pg**	**13 58 06.4**	**-1.1**
TAMC				S		**Sg**	**13 58 32.5**	**+0.2**
BARC	**Barichara**	**2.29**	**220**	P		**Pb**	**13 58 12.0**	**-0.5**
BARC				S		**Sb**	**13 58 41.6**	**+0.6**
BRJC	**Barrancabermej**	**2.46**	**236**	P		**Pb**	**13 58 12.8**	**-2.3**
BRJC				S		**Sb**	**13 58 45.1**	**-0.4**
RUSC	**La Rusia**	**2.81**	**210**	P		**Pn**	**13 58 18.3**	**+2.0**
RUSC				S		**Sb**	**13 58 53.3**	**-2.8**
CRJC	**Cerrejon, Guaj**	**2.90**	**336**	P		**Pn**	**13 58 18.5**	**+1.3**
CRJC				S		**Sb**	**13 58 54.8**	**-3.5**
ARGC	**Ariguani, Magd**	**2.94**	**301**	P		**Pn**	**13 58 19.3**	**+1.7**
ARGC				S		**Sn**	**13 58 54.6**	**+1.6**
TEPV	**Terepaima**	**2.94**	**57**	*eP*		**Pg**	**13 58 25.9**	**-1.3**
TEPV				*eS*		**Sg**	**13 59 05.8**	**+0.6**
PTBC	**PUERTO BERRIO,**	**3.29**	**237**	P		**Pn**	**13 58 22.6**	**+0.2**
PTBC				S		**Sn**	**13 59 03.9**	**+2.3**
URIC	**Uribia, Colomb**	**3.34**	**355**	P		**Pn**	**13 58 24.5**	**+1.4**
URIC				S		**Sn**	**13 59 04.0**	**+1.1**
MAPV	**Macapo**	**3.51**	**65**	*iP*		**Pb**	**13 58 32.1**	**-1.0**
MAPV				*eS*		**Sb**	**13 59 16.8**	**+0.9**
SPBC	**San Pablo de B**	**3.58**	**222**	P		**Pn**	**13 58 28.3**	**+1.8**
SPBC				S		**Sn**	**13 59 11.7**	**+2.7**
BAUV	**El Baul**	**3.65**	**81**	*eP*		**Pn**	**13 58 31.1**	**+3.7**
BAUV				*eS*		**Sb**	**13 59 15.8**	**-4.1**
SMRC	**Santa Marta, M**	**3.75**	**318**	P		**Pn**	**13 58 28.7**	**-0.1**
SMRC				S		**Sn**	**13 59 13.2**	**+0.2**
SJCC	**San Jacinto, C**	**3.77**	**294**	P		**Pn**	**13 58 31.5**	**+2.3**
SJCC				S		**Sn**	**13 59 17.3**	**+3.6**
SJCC	**San Jacinto, C**	**3.77**	**294**	*eP*		**Pn**	**13 58 31.9**	**+2.7**
SJCC				*eS*		**Sn**	**13 59 16.6**	**+2.9**
UREC	**San Jos de Ur**	**3.86**	**261**	P		**Pn**	**13 58 32.8**	**+2.5**
UREC				S		**Sn**	**13 59 17.8**	**+2.1**
JACV	**Jacura**	**3.91**	**46**	*eP*		**Pb**	**13 58 39.7**	**-0.2**
JACV				*eS*		**Sb**	**13 59 30.5**	**+3.1**
PTGC	**Puerto Gaitan,**	**4.15**	**186**	P		**Pn**	**13 58 35.3**	**+1.0**
PTGC				S		**Sn**	**13 59 23.4**	**+0.4**
NORC	**Norcasia**	**4.20**	**229**	P		**Pn**	**13 58 36.5**	**+1.4**
NORC				S		**Sn**	**13 59 26.2**	**+1.9**
CHIC	**Chingaza**	**4.22**	**209**	P		**Pn**	**13 58 38.1**	**+2.5**
CHIC				S		**Sn**	**13 59 26.9**	**+1.7**
TURV	**Turiamo**	**4.33**	**61**	*eP*		**Pb**	**13 58 43.7**	**-3.3**
TURV				*eS*		**Sb**	**13 59 36.8**	**-2.6**
BENV	**Beln**	**4.34**	**68**	*iP*		**Pb**	**13 58 42.8**	**-4.5**
BENV				*eS*		**Sb**	**13 59 35.3**	**-4.5**
VILC	**Villavicencio,**	**4.66**	**205**	P		**Pn**	**13 58 43.0**	**+1.5**
VILC				S		**Sn**	**13 59 37.8**	**+2.0**
GUY2C	**Guyana, Caldas**	**4.80**	**230**	P		**Pn**	**13 58 46.0**	**+2.4**
GUY2C				S		**Sn**	**13 59 42.6**	**+3.1**
TACV	**Tcata**	**4.93**	**69**	*eP*		Pn	13 58 50.6	+5.5
CBOC	**Ciudad Bolivar**	**4.96**	**240**	P		**Pn**	**13 58 48.9**	**+3.4**
CBOC				S		**Sn**	**13 59 46.0**	**+3.0**
MERV	**Las Mercedes**	**5.40**	**80**	*eS*		**Sn**	**13 59 56.1**	**+2.3**
ORTC	**Ortega, Tolima**	**5.66**	**219**	P		**Pn**	**13 58 56.2**	**+1.1**
	5.6nm,0.7s							
ORTC				S		**Sn**	**14 00 02.0**	**+1.8**
	5.6nm,0.7s							
ORTC				AML		AML		
URMC	**La Uribe, Meta**	**5.74**	**208**	P		**Pn**	**13 58 57.4**	**+1.2**
PCRV	**Puerto La Cruz**	**7.19**	**75**	*eP*		**Pn**	**13 59 20.0**	**+3.9**
PCRV				*eS*		**Sn**	**14 00 40.5**	**+2.5**

*IDC **05** 14:03:52.5±5.0, 0.°67S×100.°34E, h0km, mb3.5/5, mbtmp3.5/5, MS2.7/1, Error ellipse: s-maj=265.7km s-min=22.6km az=54.0*
*DJA **05** 14:03:57.1±1.3, 1.°S×3.°×10.°0E±.°, h23km±13km, M3.9/4, MLv3.9/4*
ISC 05 14:03:55.8±1.3, 1.°3S±0.°1×99.°70E±0.°08, h35km, n19, σ1°13/10, mb3.6/5, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
PPI	**Padang Panjang**	**1.07**	**41**	P		**Pn**	**14 04 15.0**	**+0.6**
PPI				S		**Sn**	**14 04 28.2**	**+0.2**
PBSI	**Pulau Batu**	**1.87**	**311**	P		**Pn**	**14 04 26.8**	**+1.5**
BKNI	**Bangkinang**	**2.08**	**40**	P		**Pn**	**14 04 29.4**	**+1.1**
GSI	**Gunungsitoli**	**3.33**	**320**	P		**Pn**	**14 04 45.9**	**+0.5**
GSI				AML		AML		
CMAR	**Chiang Mai Arr**	**19.63**	**358**	LR		LR	14 14 48.4	
	comp=Z,24nm,20.0s,baz=295,slow=34							
H08S2	**Diego Garcia H**	**27.84**	**256**	T		T	14 37 48.2	
	baz=76,slow=74							
H08S3	**Diego Garcia H**	**27.84**	**256**	T		T	14 37 50.3	
	baz=76,slow=74							
H08S1	**Diego Carcia H**	**27.86**	**256**	T		T	14 37 50.3	
	baz=76							
WRA	**Warramunga Arr**	**38.62**	**121**	P		**P**	**14 11 16.2**	**+0.1**
	0.2nm,0.4s,baz=298,slow=9.0,SNR=2.0							
	0.2nm,0.4s							
ASAR	**Alice Springs**	**39.92**	**127**	P		**P**	**14 11 27.2**	**+0.3**
	0.2nm,0.8s,baz=304,slow=8.0,SNR=5.8							
	0.2nm,0.8s							
MKAR	**Makanchi Array**	**50.26**	**344**	P		**P**	**14 12 47.8**	**-0.9**
	0.4nm,0.4s,baz=160,slow=8.6,SNR=6.1							
	0.4nm,0.4s							
KURBB	**Kurchatov Arra**	**54.78**	**344**	P		**P**	**14 13 20.7**	**-1.3**
	0.2nm,0.3s,baz=170,slow=6.6,SNR=4.3							
	0.2nm,0.3s							
ZALV	**Zalesovo Beam**	**56.41**	**350**	P		**P**	**14 13 32.1**	**-1.5**
	0.8nm,0.5s,baz=180,slow=5.3,SNR=5.1							
	0.8nm,0.5s							
H04N2	**CROZET ISLANDS**	**61.20**	**216**	T		T	15 19 53.0	
	baz=59,slow=75,SNR=14							
H04N1	**CROZET ISLANDS**	**61.21**	**216**	T		T	15 19 53.4	
	baz=59,slow=75,SNR=15							
H04N3	**CROZET ISLANDS**	**61.22**	**216**	T		T	15 19 52.1	
	baz=59,slow=75,SNR=15							
H04S1	**CROZET ISLANDS**	**61.49**	**215**	T		T	15 20 10.0	
	baz=57							
H04S3	**CROZET ISLANDS**	**61.51**	**215**	T		T	15 20 09.7	
	baz=57							
H04S2	**CROZET ISLANDS**	**61.51**	**215**	T		T	15 20 13.0	
	baz=57							

*KRSC **05** 14:05:38.8±1.1, 50.°76N×155.°45E, h205km±9km, Ml4.0*
*IDC **05** 14:05:40.0±2.0, 50.°99N×154.°86E, h198km±15km, mb3.2/11, mbtmp3.8/12, MS2.7/1, Error ellipse: s-maj=26.4km s-min=13.9km az=178.0*
ISC 05 14:05:39.2±0.9, 50.°9N±0.°1×155.°0E±0.°1, h194km±8km, n30, σ1°04/29, mb3.3/11, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**0.74**	**107**	*eP*		**Pn**	**14 06 06.8**	**+0.2**
SKR				*eS*		**S**	**14 06 28.3**	**+0.5**
PAU	**Pauzhetka**	**1.27**	**63**	*eP*		**Pn**	**14 06 10.7**	**+0.5**
KDTR	**Khodutka, Kamc**	**2.13**	**64**	*eP*		**Pn**	**14 06 18.5**	**+0.1**
KDTR				*eS*		**S**	**14 06 47.0**	**-2.1**
APC	**Apacha**	**2.42**	**33**	*eP*		**Pn**	**14 06 23.0**	**+1.3**
MTVR	**Mutnovka**	**2.53**	**50**	*eP*		**Pn**	**14 06 23.5**	**+0.4**
MTVR				*eS*		**S**	**14 06 57.1**	**-0.3**
RUS	**Russkaya**	**2.67**	**54**	*eP*		**Pn**	**14 06 25.8**	**+1.3**
RUS				*eS*		**S**	**14 06 59.0**	**-0.9**
PETK	**Petropavlovsk-**	**2.77**	**36**	P		**Pn**	**14 06 27.4**	**+1.7**
	5.1nm,0.8s,baz=193,slow=9.3,SNR=6.7							
PETK				S		**S**	**14 07 03.1**	**+1.1**
	2.4nm,0.5s,baz=152,slow=9.8,SNR=1.4							
DALK	**Dalny**	**3.15**	**46**	*eP*		**Pn**	**14 06 29.5**	**-0.6**
SMAR	**Somma**	**3.33**	**43**	*eP*		**Pn**	**14 06 33.0**	**+0.5**
SDLR	**Sedlovina**	**3.37**	**44**	*eP*		**Pn**	**14 06 34.0**	**+1.0**
SPN	**Mys Shipunski**	**3.80**	**53**	*eS*		**S**	**14 07 21.8**	**-2.5**
YAK	**Yakutsk**	**17.74**	**319**	P		**P**	**14 09 31.4**	**-0.8**
	13nm,0.6s,baz=74,slow=4.0,SNR=6.5							
KSRS	**Korea Array**	**23.46**	**245**	LR		LR	14 18 55.7	
	comp=Z,18nm,19.6s,baz=35,slow=34							
H11N2	**WAKE ISLAND Hy**	**32.50**	**159**	T		T	14 46 12.9	
	baz=347							
H11N1	**WAKE ISLAND Hy**	**32.52**	**159**	T		T	14 46 17.5	
	baz=347							
H11N3	**WAKE ISLAND Hy**	**32.52**	**159**	T		T	14 46 13.4	
	baz=347							
ILAR	**Eielson Array**	**32.58**	**43**	P		**P**	**14 11 51.8**	**0.0**
	0.4nm,0.6s,baz=269,slow=5.9,SNR=4.4							
	0.4nm,0.6s							
H11S1	**WAKE ISLAND Hy**	**33.64**	**160**	T		T	14 47 39.7	
	baz=345							
H11S3	**WAKE ISLAND Hy**	**33.65**	**160**	T		T	14 47 40.1	
	baz=345,slow=74							
H11S2	**WAKE ISLAND Hy**	**33.66**	**160**	T		T	14 47 31.0	
	baz=345							
ZALV	**Zalesovo Beam**	**41.30**	**303**	P		**P**	**14 13 05.0**	**-0.3**
	0.4nm,0.4s,baz=62,slow=6.5,SNR=1.9							
	0.4nm,0.4s							
MKAR	**Makanchi Array**	**46.23**	**295**	P		**P**	**14 13 44.0**	**-0.6**
	0.2nm,0.3s,baz=61,slow=6.5,SNR=4.7							
	0.2nm,0.3s							
KURBB	**Kurchatov Arra**	**46.28**	**301**	P		**P**	**14 13 44.5**	**-0.4**
	0.7nm,0.6s,baz=64,slow=8.1,SNR=5.0							
KURBB				PcP		**PcP**	**14 15 16.7**	**-0.2**
	0.1nm,0.3s,baz=70,slow=1.4,SNR=1.9							
	0.7nm,0.6s							
YKA	**Yellowknife Ar**	**46.88**	**39**	P		**P**	**14 13 49.8**	**+0.3**
	1.3nm,0.8s,baz=297,slow=6.7,SNR=5.5							
	1.3nm

VNDA Vanda 80.75 173 P **P** **14 26 05.7 -0.3**
0.3nm,0.5s,baz=306,slow=11,SNR=2.1
0.3nm,0.5s
ILAR Eielson Array 86.63 25 P **P** **14 26 34.4 -2.0**
0.2nm,0.6s,baz=259,slow=5.5,SNR=1.7
0.2nm,0.6s
QSPA South Pole Qui 91.15 180 P **P** **14 26 58.9 +1.1**
0.5nm,0.7s,baz=193,slow=12,SNR=1.6
0.5nm,0.7s
CPUP Villa Florida 154.44 168 PKPbc **PKPbc** **14 33 55.4 +1.0**
2.3nm,0.8s,baz=29,slow=14,SNR=3.7

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*AFAD **05** 14:19:00.7, 37.77N×27.01E, h7km±2km, ML2.2*
*THE **05** 14:19:01.3, 38.9°×2.7E±°, h2km±4km, M2.6/5, MLh2.6/5*
*ISK **05** 14:19:02.1, 37.80N×27.11E, h8km, ML2.3/16*
ISC 05 14:19:01.5±0.9, 37.78N±0.02×27.02E±0.02, h8km±8km, n31, σ0s52/47, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**246**	P	**Pg**	**14 19 04.5**	**-0.4**
SMG				S	**Sg**	**14 19 07.0**	**-0.2**
SMG				AML	AML		
GCAM	**G?zelcami?**	**0.18**	**114**	P	**Pg**	**14 19 05.1**	**-0.2**
GCAM				IAML		14 19 08.0	
	comp=E,630nm,0.2s						
GCAM				S	**Sg**	**14 19 08.2**	**+0.3**
GCAM				IAML		14 19 09.0	
	comp=N,563nm,0.2s						
GCAM	**G?zelcami?**	**0.18**	**114**	Pg	**Pg**	**14 19 05.5**	**+0.2**
GCAM				Sg	**Sg**	**14 19 08.4**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**68**	Pg	**Pg**	**14 19 05.9**	**-0.2**
KUSD				AML	AML		
DGB	**zmir**	**0.30**	**339**	P	**Pg**	**14 19 07.4**	**0.0**
DGB				S	**Sg**	**14 19 11.4**	**0.0**
DGB				IAML		14 19 12.0	
	comp=E,215nm,0.2s						
DGB				IAML		14 19 13.0	
	comp=N,143nm,0.6s						
GMLD	**Gumuldur**	**0.31**	**345**	Pg	**Pb**	**14 19 09.3**	**-0.1**
GMLD				AML	AML		
DDIM	**Aydin, Didim**	**0.36**	**151**	P	**Pg**	**14 19 07.8**	**-0.8**
DDIM				S	**Sg**	**14 19 13.9**	**+0.5**
DDIM				IAML		14 19 15.0	
	comp=N,322nm,0.7s						
DDIM				IAML		14 19 15.0	
	comp=E,250nm,0.4s						
BEYE	**izmir**	**0.46**	**351**	P	**Pg**	**14 19 10.0**	**-0.4**
BEYE				S	**Sg**	**14 19 16.8**	**+0.4**
BEYE				IAML		14 19 20.0	
	comp=N,161nm,0.4s						
BEYE				IAML		14 19 20.0	
	comp=E,145nm,0.3s						
DUVT	**Torbali**	**0.56**	**37**	P	**Pg**	**14 19 12.0**	**-0.4**
DUVT				S	**Sg**	**14 19 20.0**	**+0.3**
DUVT				IAML		14 19 20.0	
	comp=N,6μm,0.7s						
DUVT				IAML		14 19 24.0	
	comp=E,198nm,0.3s						
BLCB	**Balcova**	**0.61**	**2**	P	**Pg**	**14 19 13.1**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.61**	**2**	Pg	**Pb**	**14 19 13.9**	**-0.6**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.62**	**319**	P	**Pg**	**14 19 11.9**	**-1.6**
ZEYE				IAML		14 19 22.0	
	comp=N,407nm,0.5s						
ZEYE				S	**Sg**	**14 19 22.3**	**+0.8**
ZEYE				IAML		14 19 26.0	
	comp=E,133nm,0.3s						
AYDN	**Tasoluk**	**0.69**	**99**	P	**Pg**	**14 19 14.4**	**-0.5**
AYDN				S	**Sb**	**14 19 26.6**	**+1.1**
AYDN				IAML		14 19 27.0	
	comp=E,174nm,0.3s						
AYDN				IAML		14 19 28.0	
	comp=N,166nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.71**	**76**	Pg	**Pg**	**14 19 14.8**	**-0.4**
AYDB				Sg	**Sg**	**14 19 23.9**	**-0.6**
AYDB				AML	AML		
BODT	**Bodrum**	**0.75**	**162**	P	**Pb**	**14 19 17.0**	**+0.2**
BODT				S	**Sg**	**14 19 25.9**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.75**	**162**	Pg	**Pb**	**14 19 17.0**	**+0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.77**	**128**	Pg	**Pb**	**14 19 16.7**	**-0.5**
MLSB				Sg	**Sb**	**14 19 27.2**	**-0.6**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.81**	**156**	Pg	**Pb**	**14 19 18.1**	**+0.3**
IZMR	**zmir-demi**	**0.82**	**64**	P	**Pg**	**14 19 16.6**	**-0.7**
IZMR				S	**Sg**	**14 19 27.6**	**-0.5**
IZMR				IAML		14 19 31.0	
	comp=E,66nm,0.5s						
IZMR				IAML		14 19 33.0	
	comp=N,35nm,0.5s						
FOCM	**Foa**	**0.96**	**346**	Pg	**Pn**	**14 19 21.1**	**-0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**0.98**	**309**	P	**Pn**	**14 19 21.6**	**-0.1**
CHOS				S	**Sb**	**14 19 34.2**	**+0.4**
CHOS	**Chios island**	**0.98**	**309**	Pg	**Pn**	**14 19 22.3**	**+0.7**
CHOS				AML	AML		
CAMT	**Merkez**	**1.00**	**13**	P	**Pg**	**14 19 20.3**	**-0.5**
CAMT				S	**Sb**	**14 19 35.4**	**+0.9**
CAMT				IAML		14 19 38.0	
	comp=N,157nm,0.3s						
CAMT				IAML		14 19 41.0	
	comp=E,107nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.02**	**79**	Pg	**Pg**	**14 19 20.6**	**-0.6**
NAZL				Sg	**Sb**	**14 19 35.1**	**-0.1**
NAZL				AML	AML		
DAT	**Datca**	**1.14**	**157**	Pn	**Pn**	**14 19 23.8**	**0.0**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**37**	Pn	**Pg**	**14 19 23.7**	**-0.3**
YER	**Yerkesik**	**1.19**	**122**	P	**Pg**	**14 19 24.0**	**-0.3**
YER	**Yerkesik**	**1.19**	**122**	Pn	**Pb**	**14 19 24.3**	**-0.1**
DKL	**Dikili**	**1.30**	**356**	Pn	**Pg**	**14 19 26.9**	**+0.5**
DKL				AML	AML		
TURN	**Turunc**	**1.40**	**135**	Pn	**Pb**	**14 19 27.8**	**0.0**
TURN				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**38**	Pn	**Pn**	**14 19 28.5**	**+0.3**
GORD				AML	AML		

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*IDC **05** 14:21:20.6±1.2, 7.29S×120.58E, h526km±12km, mb2.8/2, mbtmp3.8/6, Error ellipse: s-maj=101.1km s-min=16.0km az=55.0*
ISC 05 14:21:20.4±1.4, 7.1S±0.5×120.8E±0.8, h550km, n6, σ1s99/9, Flores Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KAPI	**Kappang**	**2.29**	**332**	P	**P**	**14 22 31.7**	**+0.1**
	9.0nm,0.3s,baz=151,slow=10,SNR=3.6						
KAPI				S	**S**	**14 23 26.8**	**-2.6**
	14nm,0.3s,baz=163,slow=19,SNR=6.7						
BATI	**Baumata**	**4.21**	**138**	P	**P**	**14 22 42.5**	**-1.4**
	18nm,0.3s,baz=285,slow=7.2,SNR=4.9						
BATI				S	**S**	**14 23 49.2**	**-2.8**
	13nm,0.3s,baz=270,slow=20,SNR=10						
FITZ	**Fitzroy Crossi**	**11.94**	**157**	P	**P**	**14 23 57.8**	**-0.6**
	1.8nm,0.3s,baz=353,slow=9.2,SNR=21						
WRA	**Warramunga Arr**	**18.33**	**136**	P	**P**	**14 25 03.0**	**+1.5**
	1.3nm,0.5s,baz=312,slow=10,SNR=13						
ASAR	**Alice Springs**	**20.75**	**144**	P	**P**	**14 25 24.4**	**+1.0**
	0.8nm,0.5s,baz=320,slow=8.2,SNR=33						
ASAR				PcP	**PcP**	**14 29 10.1**	**+1.6**
	0.3nm,0.9s,baz=323,slow=2.0,SNR=2.0						
	0.8nm,0.5s						
STKA	**Stephens Creek**	**31.39**	**145**	P	**P**	**14 26 58.0**	**+1.2**
	1.0nm,0.5s,baz=318,slow=12,SNR=4.3						
	1.0nm,0.5s						

NOU 05 14:37:25.3, 16.89S×167.27E, h7km, MLv4.0/17, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DVP	**Devils Point**	**1.21**	**134**	P	Pg	14 37 47.7	-0.8
DVP	**Devils Point**	**1.21**	**134**	S	Sg	14 38 03.0	-1.2
RTV	**Rentapao**	**1.42**	**129**	P	Pg	14 37 52.5	-0.1
SANVU	**Saraoutou**	**1.44**	**357**	P	Pn	14 37 51.2	-0.6
SANVU	**Saraoutou**	**1.44**	**357**	S	Sn	14 38 09.4	-1.5
YATNC	**Mamie plateau,**	**5.15**	**184**	P	Pn	14 38 42.2	-0.7
PINNC	**Pines Island,**	**5.70**	**178**	P	Pn	14 38 51.2	+0.8

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*AUST **05** 14:46:22.9±0.8, 32.2°×11.9E±°, h7km±6km, ML2.5/13, Error ellipse: s-maj=5.9km s-min=5.3km az=101.2, confirmed*
*CUPWA **05** 14:46:23.3±1.4, 32.38S×119.23E, h14km±13km, Region: WESTERN AUSTRALIA*
ISC 05 14:46:22.2±1.8, 32.37S±0.04×119.25E±0.04, h5km±13km, n30, σ0s71/40, Western Australia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AUKUL	**Kulin High Sch**	**0.97**	**252**	P	**Pg**	**14 46 41.1**	**+0.2**
AUKUL				S	**Sg**	**14 46 53.7**	**+0.1**
KLBR	**Kellerberrin**	**1.49**	**301**	P	**Pn**	**14 46 50.1**	**+0.5**
KLBR				AML	AML		
KLBR	**Kellerberrin**	**1.49**	**301**	P	**Pn**	**14 46 50.2**	**+0.5**
KLBR				AML	AML		
KLBR	**Kellerberrin**	**1.49**	**301**	P	**Pn**	**14 46 50.2**	**+0.5**
KLBR				S	**Sb**	**14 47 10.0**	**+0.4**
ONGER	**Ongerup, WA**	**1.65**	**206**	P	**Pn**	**14 46 52.4**	**+0.5**
ONGER				S	**Sn**	**14 47 12.8**	**-0.7**
ONGER				AML	AML		
ONGER	**Ongerup, WA**	**1.65**	**206**	P	**Pn**	**14 46 52.3**	**+0.4**
ONGER				S	**Sn**	**14 47 12.7**	**-0.7**
ONGER				AML	AML		
NWAO	**Narrogin (SRO)**	**1.79**	**252**	P	**Pb**	**14 46 55.0**	**-0.4**
NWAO				AML	AML		
NWAO				AML	AML		
NWAO				AML	AML		
NWAO	**Narrogin (SRO)**	**1.79**	**252**	P	**Pb**	**14 46 54.9**	**-0.6**
NWAO				S	**Sb**	**14 47 17.7**	**-0.4**
NWAO				AML	AML		
NWAO				AML	AML		
NWAO				AML	AML		
NWAO	**Narrogin (SRO)**	**1.79**	**252**	P	**Pb**	**14 46 54.9**	**-0.6**
NWAO				S	**Sb**	**14 47 17.7**	**-0.4**
WATNG	**Wattoning, WA**	**1.87**	**331**	P	**Pn**	**14 46 56.0**	**+1.2**
WATNG				AML	AML		
WATNG	**Wattoning, WA**	**1.87**	**331**	S	**Sb**	**14 47 20.4**	**-0.1**
WATNG	**Wattoning, WA**	**1.87**	**331**	P	**Pn**	**14 46 55.3**	**+0.5**
WATNG				AML	AML		
KORDA	**Koorda, Wester**	**2.11**	**315**	P	**Pn**	**14 46 58.7**	**+0.5**
KORDA				AML	AML		
KORDA	**Koorda, Wester**	**2.11**	**315**	S	**Sb**	**14 47 27.2**	**-0.2**
KORDA	**Koorda, Wester**	**2.11**	**315**	P	**Pn**	**14 46 58.6**	**+0.5**
KORDA				AML	AML		
BCON	**Beacon, Wester**	**2.40**	**328**	P	**Pn**	**14 47 03.3**	**+1.1**
BCON				S	**Sb**	**14 47 34.8**	**-0.9**
BCON				AML	AML		
BCON	**Beacon, Wester**	**2.40**	**328**	P	**Pn**	**14 47 02.4**	**+0.3**
BCON				AML	AML		
KMBL	**Kambalda**	**2.45**	**67**	P	**Pn**	**14 47 02.5**	**-0.4**
KMBL				S	**Sn**	**14 47 32.9**	**-0.4**
KMBL				AML	AML		
KMBL	**Kambalda**	**2.45**	**67**	P	**Pn**	**14 47 02.5**	**-0.4**
KMBL				S	**Sn**	**14 47 32.9**	**-0.4**
KANBL	**Kanowna Belle,**	**2.69**	**49**	P	**Pn**	**14 47 08.0**	**+1.8**
KANBL				AML	AML		
KANBL	**Kanowna Belle,**	**2.69**	**49**	S	**Sn**	**14 47 40.5**	**+1.3**
BLDU	**Ballidu**	**2.79**	**308**	P	**Pn**	**14 47 06.5**	**-1.0**
BLDU				AML	AML		
BLDU	**Ballidu**	**2.79**	**308**	P	**Pn**	**14 47 06.9**	**-0.7**
BLDU				AML	AML		
BLDU	**Ballidu**	**2.79**	**308**	P	**Pn**	**14 47 06.9**	**-0.7**
BLDU				AML	AML		
RKGY	**Rocky Gully**	**2.93**	**220**	P	**Pn**	**14 47 10.0**	**+0.6**
RKGY				AML	AML		
RKGY	**Rocky Gully**	**2.93**	**220**	P	**Pn**	**14 47 10.3**	**+0.8**
RKGY				S	**Sn**	**14 47 46.3**	**+1.3**
RKGY				AML	AML		
MEEK	**Meekatharra**	**5.74**	**354**	P	**Pn**	**14 47 47.8**	**-0.3**
MEEK				AML	AML		
MEEK	**Meekatharra**	**5.74**	**354**	P	**Pn**	**14 47 47.9**	**-0.2**
MEEK				AML	AML		
FORT	**Forrest**	**7.68**	**80**	P	**Pn**	**14 48 15.2**	**+0.4**
	comp=Z,0.0nmcomp=Z,12nm,1.0s						
FORT				AML	AML		
FORT	**Forrest**	**7.68**	**80**	P	**Pn**	**14 48 14.6**	**-0.2**
	comp=Z,12nm,1.0s,comp=Z,0.0nm						
FORT				AML	AML		

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*ISK **05** 14:56:25.8, 37.86N×26.97E, h12km, ML2.5/8*
*AFAD **05** 14:56:26.1, 37.87N×26.98E, h7km±4km, ML1.8*
ISC 05 14:56:25.8±1.0, 37.85N±0.03×26.93E±0.05, h15km±8km, n15, σ0s51/23, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.21**	**350**	P	**Pg**	**14 56 30.7**	**+0.1**
DGB				S	**Sg**	**14 56 33.3**	**-0.5**
DGB				IAML		14 56 34.0	
	comp=E,186nm,0.1s						
DGB				IAML		14 56 35.0	
	comp=N,167nm,0.3s						
GMLD	**Gumuldur**	**0.23**	**357**	Pg	**Pb**	**14 56 31.3**	**-0.3**
GMLD				Sg	**Sg**	**14 56 34.8**	**+0.4**
GMLD				AML	AML		
GCAM	**G?zelcami?**	**0.28**	**121**	P	**Pg**	**14 56 32.1**	**+0.3**
GCAM				S	**Sg**	**14 56 35.4**	**-0.4**
GCAM				IAML		14 56 37.0	
	comp=N,235nm,0.6s						
GCAM				IAML		14 56 37.0	
	comp=E,174nm,0.1s						
GCAM	**G?zelcami?**	**0.28**	**121**	Pg	**Pg**	**14 56 31.7**	**-0.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.38**	**360**	P	**Pg**	**14 56 33.8**	**+0.2**
BEYE				S	**Sg**	**14 56 38.9**	**+0.1**
BEYE				IAML		14 56 39.0	
	comp=N,129nm,0.2s						
BEYE				IAML		14 56 39.0	
	comp=E,140nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.52**	**320**	P	**Pb**	**14 56 36.0**	**-0.5**
ZEYE				S	**Sb**	**14 56 43.9**	**+0.1**
ZEYE				IAML		14 56 45.0	
	comp=E,108nm,0.2s						
BLCB	**Balcova**	**0.55**	**9**	Pg	**Pg**	**14 56 36.8**	**+0.2**
BLCB				Sg	**Sg**	**14 56 44.5**	**+0.6**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**48**	P	**Pg**	**14 56 36.6**	**-0.1**
DUVT				S	**Sg**	**14 56 42.5**	**-1.7**
AYDB	**Zeytinkoy-Aydi**	**0.77**	**82**	Pg	**Pg**	**14 56 40.5**	**-0.2**
AYDB				Sg	**Sg**	**14 56 51.3**	**+0.4**
AYDB				AML	AML		
BODT	**Bodrum**	**0.84**	**159**	Pg	**Pg**	**14 56 41.9**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.87**	**129**	Pg	**Pb**	**14 56 42.7**	**+0.2**
MLSB				AML	AML		
CHOS	**Chios island**	**0.88**	**308**	Pg	**Pn**	**14 56 43.8**	**+0.2**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.08**	**83**	Pg	**Pb**	**14 56 46.5**	**+0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.23**	**155**	Pn	**Pg**	**14 56 49.3**	**-0.2**
YER	**Yerkesik**	**1.29**	**123**	Pn	**Pb**	**14 56 49.9**	**+0.2**

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*ISK **05** 14:59:50.2, 37.87N×26.64E, h8km, ML2.9/15*
*AFAD **05** 14:59:50.4, 37.90N×26.64E, h7km±2km, ML2.5*
*THE **05** 14:59:50.4, 38.2°×7.7E±°, h8km±3km, M2.9/5, MLh2.9/5*
ISC 05 14:59:50.4±1.0, 37.88N±0.03×26.63E±0.04, h12km±9km, n25, σ0s43/38, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.24**	**137**	P	**Pg**	**14 59 55.4**	**0.0**
SMG				S	**Sg**	**14 59 59.0**	**+0.3**
SMG				AML	AML		
DGB	**zmir**	**0.26**	**49**	P	**Pg**	**14 59 55.7**	**-0.1**
DGB				S	**Sg**	**14 59 59.2**	**-0.2**
GMLD	**Gumuldur**	**0.30**	**49**	Pg	**Pg**	**14 59 56.3**	**-0.2**
GMLD				Sg	**Sg**	**15 00 00.7**	**+0.2**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.37**	**344**	P	**Pg**	**14 59 57.6**	**-0.2**
ZEYE				S	**Sg**	**15 00 03.2**	**+0.4**
ZEYE				IAML		15 00 04.0	
	comp=N,916nm,0.2s						
ZEYE				IAML		15 00 04.0	
	comp=E,513nm,0.2s						
BEYE	**izmir**	**0.42**	**34**	P	**Pg**	**14 59 57.9**	**-0.8**
BEYE				IAML		15 00 04.0	
	comp=N,422nm,0.3s						
BEYE				S	**Sg**	**15 00 04.4**	**+0.2**
BEYE				IAML		15 00 07.0	
	comp=E,476nm,0.4s						
GCAM	**G?zelcami?**	**0.51**	**111**	P	**Pg**	**15 00 00.8**	**+0.5**
GCAM				S	**Sb**	**15 00 08.4**	**-0.3**
GCAM				IAML		15 00 09.0	
	comp=N,478nm,0.2s						
GCAM				IAML		15 00 11.0	
	comp=E,271nm,0.4s						
GCAM	**G?zelcami?**	**0.51**	**111**	Pg	**Pg**	**15 00 00.2**	**-0.2**
GCAM				Sg	**Sb**	**15 00 08.2**	**-0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.52**	**92**	Pg	**Pg**	**15 00 00.7**	**+0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.60**	**33**	P	**Pg**	**15 00 01.6**	**-0.4**
BLCB				S	**Sg**	**15 00 10.3**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**33**	Pg	**Pg**	**15 00 01.9**	**-0.2**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.64**	**131**	P	**Pg**	**15 00 02.8**	**-0.1**
DDIM				S	**Sb**	**15 00 12.9**	**+0.3**
DDIM				IAML		15 00 15.0	
	comp=N,311nm,0.7s						
DDIM				IAML		15 00 15.0	
	comp=E,255nm,0.4s						
CHOS	**Chios island**	**0.68**	**318**	P	**Pg**	**15 00 03.1**	**-0.5**
CHOS				S	**Sb**	**15 00 13.3**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.68**	**318**	Pg	**Pb**	**15 00 04.1**	**-0.2**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.71**	**355**	Pg	**Pb**	**15 00 04.9**	**+0.1**
KRBN				Sg	**Sb**	**15 00 15.5**	**+0.9**
KRBN				AML	AML		
DUVT	**Torbali**	**0.73**	**62**	P	**Pg**	**15 00 04.0**	**-0.5**
DUVT				S	**Sg**	**15 00 12.9**	**-1.2**
DUVT				IAML		15 00 18.0	
	comp=E,196nm,0.3s						
FOCM	**Foa**	**0.83**	**5**	Pg	**Pb**	**15 00 07.2**	**+0.3**
FOCM				Sg	**Sb**	**15 00 18.8**	**+0.8**
FOCM				AML	AML		
BODT	**Bodrum**	**0.98**	**146**	Pg	**Pg**	**15 00 08.9**	**-0.4**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.00**	**86**	Pg	**Pg**	**15 00 09.5**	**-0.2**
AYDB				AML	AML		
MLSB	**Milas**	**1.08**	**122**	Pg	**Pg**	**15 00 10.9**	**-0.3**
MLSB				AML	AML		
GOMA	**Golmarmara-Man**	**1.30**	**50**	Pn	**Pg**	**15 00 15.4**	**-0.1**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.32**	**86**	Pn	**Pg**	**15 00 15.6**	**-0.1**
NAZL				AML	AML		
AKS	**Akhisar**	**1.36**	**43**	Pn	**Pg**	**15 00 16.4**	**-0.2**
AKS				AML	AML		
DAT	**Datca**	**1.38**	**146**	Pn	**Pn**	**15 00 15.9**	**+0.3**
DAT				AML	AML		
PRK	**Paraskevi**	**1.39**	**348**	P	**Pb**	**15 00 16.5**	**+0.2**
YER	**Yerkesik**	**1.51**	**119**	Pn	**Pn**	**15 00 17.2**	**-0.2**
YER				AML	AML		

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*IDC **05** 15:03:45.3±2.1, 13.65N×92.44W, h0km, mb3.6/4, mbtmp3.5/7, ML3.3/3, MS3.3/1, Error ellipse: s-maj=35.6km s-min=18.3km az=6.0*
*MEX **05** 15:03:46.7±0.4, 13.62N×92.29W, h10km, MD4.2, Presumed earthquake*
*GCG **05** 15:03:47.7±1.4, 13.72N×92.25W, h23km±13km, MD4.5, Presumed earthquake*
ISC 05 15:03:44.8±2.0, 13.71N±0.06×92.26W±0.03, h7km±12km, n40, σ2s24/64, mb3.7/4, Off coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RTAL	**Retalhuleu**	**0.97**	**34**	*eP*	**Pb**	**15 04 04.2**	**+0.1**
RTAL				*eS*	**Sn**	**15 04 17.2**	**-1.8**
STGB	**El Palmar, Qui**	**1.15**	**50**	*eP*	**Pn**	**15 04 08.5**	**+1.0**
THIG		**1.19**	**360**	*i P*	**Pn**	**15 04 07.8**	**0.0**
THIG				*eS*	**Sn**	**15 04 23.2**	**-1.1**
THIG		**1.19**	**360**	*eP*	**Pn**	**15 04 07.9**	**0.0**
THIG				*eS*	**Sn**	**15 04 24.1**	**-0.2**
CHUJ	**Union Juarez**	**1.38**	**6**	*eP*	**Pn**	**15 04 09.8**	**-0.9**
CHUJ				*eS*	**Sn**	**15 04 27.6**	**-1.8**
PATR	**El Naranjo**	**1.40**	**1**	*eP*	**Pn**	**15 04 10.0**	**-0.9**
PATR				*eS*	**Sn**	**15 04 27.9**	**-1.9**
PAVE	**Pavencul**	**1.47**	**3**	*eP*	**Pn**	**15 04 11.3**	**-0.7**
PAVE				*eS*	**Sb**	**15 04 29.1**	**-2.7**
FG8	**Yepocapa, Chim**	**1.74**	**72**	*i P*	**Pn**	**15 04 12.8**	**-2.7**
FG8				*eS*	**Sn**	**15 04 32.6**	**-5.4**
HUEH	**Huehuetenango**	**1.76**	**25**	*i P*	**Pg**	**15 04 17.8**	**-0.7**
HUEH	**Huehuetenango**	**1.76**	**25**	*eP*	**Pn**	**15 04 15.5**	**-0.4**
HUEH				*eS*	**Sg**	**15 04 42.3**	**+1.0**
FG16	**Alotenango, Sa**	**1.79**	**72**	*i P*	**Pn**	**15 04 14.1**	**-2.2**
PCG5	**San Vicente Pa**	**1.90**	**74**	*i P*	**Pn**	**15 04 16.8**	**-0.9**
APG	**El Apazote**	**2.16**	**53**	Pn	**Pb**	**15 04 24.4**	**-0.1**
	1.0nm,0.3s,baz=200,slow=13,SNR=90						
APG				Sn	**Sb**	**15 04 52.3**	**+0.7**
	2.5nm,0.3s,baz=97,slow=14,SNR=5.5						
	16nm,0.7s						
APG				AML	AML		
APG	**El Apazote**	**2.16**	**53**	*i* P	**Pb**	**15 04 23.9**	**-0.5**
PCIG		**2.19**	**335**	*eP*	**Pn**	**15 04 20.9**	**-0.7**
PCIG				*eS*	**Sn**	**15 04 45.9**	**-3.0**
NUBE	**Las Nubes**	**2.42**	**85**	*eP*	**Pn**	**15 04 27.0**	**+2.0**
CCIG	**Comitan**	**2.56**	**3**	*e*	**Pb**	**15 04 29.9**	**-1.3**
CCIG				*eP*	**Pb**	**15 04 29.9**	**-1.3**
CCIG				*eS*	**Sb**	**15 05 02.2**	**-0.7**
CCIG	**Comitan**	**2.56**	**3**	*eP*	**Pb**	**15 04 29.7**	**-1.4**
CCIG				*eS*	**Sb**	**15 05 00.9**	**-1.9**
MTO3	**Montecristo**	**2.90**	**76**	*i* P	**Pn**	**15 04 33.1**	**+1.6**
TGIG		**3.16**	**345**	*i* P	**Pn**	**15 04 36.3**	**+1.2**
TGIG		**3.16**	**345**	*eP*	**Pn**	**15 04 35.5**	**+0.4**
TGIG				*eS*	**Sn**	**15 05 11.5**	**-1.6**
UXUV	**UXUV**	**4.02**	**333**	*eP*	**Pn**	**15 04 49.0**	**+2.2**
UXUV				*eS*	**Sn**	**15 05 35.3**	**+1.1**
CMIG	**Matias Romero**	**4.21**	**323**	Pn	**Pn**	**15 04 50.0**	**+0.6**
	2.5nm,0.3s,baz=136,slow=8.0,SNR=14						
CMIG				Sn	**Sn**	**15 05 36.8**	**-2.0**
	3.4nm,0.3s,baz=113,slow=12,SNR=5.2						
	4.5nm,0.3s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**4.21**	**323**	*eP*	**Pn**	**15 04 50.0**	**+0.6**
CMIG				*eS*	**Sn**	**15 05 38.1**	**-0.7**
HUIG	**Huatulco**	**4.25**	**299**	*eP*	**Pn**	**15 04 48.7**	**-1.3**
HUIG				*eS*	**Sn**	**15 05 32.4**	**-7.5**
NEUV	**Arroyo Zacate**	**5.24**	**320**	*eP*	**Pn**	**15 05 04.5**	**+0.9**
NEUV				*eS*	**Sn**	**15 06 00.1**	**-4.2**
PEIG	**Puerto Escondi**	**5.24**	**296**	*eP*	**Pn**	**15 05 02.9**	**-0.8**
PEIG				*eS*	**Sn**	**15 05 59.9**	**-4.6**
YOIG	**Yosondua**	**5.98**	**302**	*eP*	**Pn**	**15 05 16.8**	**+2.7**
YOIG				*eS*	**Sn**	**15 06 20.0**	**-3.0**
PNIG	**Pinotepa**	**6.26**	**296**	*eP*	**Pn**	**15 05 18.1**	**+0.4**
PNIG				*eS*	**Sn**	**15 06 22.8**	**-6.9**
TOIG	**

*ISK **05** 15:06:08.9, 37°.82N×26°.82E, h5km, ML2.5/10*
*AFAD **05** 15:06:09.0, 37°.84N×26°.85E, h7km±2km, ML2.1*
ISC 05 15:06:09.4±1.1, 37°.84N±0°.03×26°.85E±0°.04, h11km±9km, n16, σ0°41/26, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.22**	**7**	P	**Pg**	**15 06 13.6**	**-0.4**
DGB				IAML	**Sg**	**15 06 17.0**	**-0.2**
	comp=N,184nm,0.5s						
DGB				S	**Sg**	**15 06 17.0**	**-0.2**
DGB				IAML		15 06 19.0	
	comp=E,302nm,0.5s						
GMLD	**Gumuldur**	**0.25**	**12**	Pg	**Pg**	**15 06 14.6**	**+0.1**
GMLD				Sg	**Sg**	**15 06 18.6**	**+0.6**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.33**	**114**	P	**Pg**	**15 06 16.2**	**0.0**
GCAM				S	**Sg**	**15 06 21.5**	**+0.9**
GCAM				IAML		15 06 22.0	
	comp=N,351nm,0.4s						
GCAM	**G?zelcaml?**	**0.33**	**114**	Pg	**Pg**	**15 06 16.0**	**-0.1**
GCAM				Sg	**Sb**	**15 06 21.6**	**-1.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.40**	**9**	P	**Pg**	**15 06 17.2**	**-0.1**
BEYE				S	**Sg**	**15 06 22.2**	**-0.4**
BEYE				IAML		15 06 24.0	
	comp=N,180nm,0.4s						
BEYE				IAML		15 06 25.0	
	comp=E,142nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**326**	P	**Pg**	**15 06 18.8**	**-0.2**
ZEYE				S	**Sg**	**15 06 25.7**	**+0.3**
ZEYE				IAML		15 06 26.0	
	comp=N,352nm,0.3s						
ZEYE				IAML		15 06 28.0	
	comp=E,188nm,0.5s						
DDIM	**Aydin, Didim**	**0.49**	**140**	P	**Pg**	**15 06 18.7**	**-0.3**
DDIM				S	**Sg**	**15 06 25.9**	**+0.4**
DDIM				IAML		15 06 27.0	
	comp=N,154nm,0.6s						
DDIM				IAML		15 06 40.0	
	comp=E,163nm,1.6s						
BLCB	**Balcova**	**0.57**	**15**	Pg	**Pg**	**15 06 20.4**	**-0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**51**	P	**Pg**	**15 06 20.9**	**-0.3**
DUVT				S	**Sg**	**15 06 29.2**	**-0.2**
KRBN	**Karaburun**	**0.79**	**343**	Pg	**Pg**	**15 06 24.6**	**-0.1**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**82**	Pg	**Pb**	**15 06 26.1**	**+0.2**
AYDB				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	Pg	**Pg**	**15 06 25.3**	**-0.2**
CHOS				Sg	**Sb**	**15 06 37.3**	**+0.1**
CHOS				AML	AML		
BODT	**Bodrum**	**0.86**	**154**	Pg	**Pb**	**15 06 25.9**	**-0.4**
BODT				AML	AML		
FOCM	**Foa**	**0.88**	**354**	Pg	**Pb**	**15 06 26.7**	**0.0**
FOCM				AML	AML		
MLSB	**Milas**	**0.91**	**126**	Pg	**Pb**	**15 06 27.2**	**-0.1**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.15**	**83**	Pn	**Pn**	**15 06 32.0**	**+0.6**
NAZL				AML	AML		

*THE **05** 15:22:47.6, 37°.9N±0°.9×27°.0E±1°.0, h5km±2km, M2.9/6, MLh2.9/6*
*AFAD **05** 15:22:47.1, 37°.87N×26°.95E, h7km±4km, ML2.6*
*ISK **05** 15:22:47.3, 37°.89N×26°.96E, h5km, ML2.9/16*
ISC 05 15:22:47.6±0.9, 37°.89N±0°.02×26°.96E±0°.02, h10km±7km, n33, σ0°46/50, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.18**	**340**	P	**Pg**	**15 22 51.2**	**-0.2**
DGB				S	**Sg**	**15 22 53.7**	**-0.3**
DGB				IAML		15 22 54.0	
	comp=N,1μm,0.1s						
DGB				IAML		15 22 54.0	
	comp=E,1μm,0.1s						
GMLD	**Gumuldur**	**0.19**	**349**	Pg	**Pg**	**15 22 51.8**	**+0.1**
GMLD				Sg	**Sg**	**15 22 54.7**	**+0.2**
GMLD				AML	AML		
SMG	**Samos**	**0.20**	**209**	P	**Pg**	**15 22 51.5**	**-0.4**
SMG				S	**Sg**	**15 22 54.9**	**+0.1**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**96**	Pg	**Pg**	**15 22 53.0**	**+0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**131**	P	**Pg**	**15 22 53.3**	**-0.1**
GCAM				S	**Sg**	**15 22 57.4**	**+0.2**
GCAM				IAML		15 22 58.0	
	comp=E,1μm,0.2s						
GCAM				IAML		15 22 59.0	
	comp=N,866nm,0.2s						
GCAM	**G?zelcaml?**	**0.28**	**131**	Pg	**Pg**	**15 22 53.6**	**+0.3**
GCAM				Sg	**Sg**	**15 22 58.1**	**+0.9**
GCAM				AML	AML		
BEYE	**izmir**	**0.34**	**355**	P	**Pg**	**15 22 54.4**	**-0.1**
BEYE				S	**Sg**	**15 22 59.3**	**+0.3**
BEYE				IAML		15 23 00.0	
	comp=N,1μm,0.2s						
BEYE				IAML		15 23 00.0	
	comp=E,1μm,0.2s						
DDIM	**Aydin, Didim**	**0.48**	**152**	P	**Pg**	**15 22 56.9**	**-0.2**
DDIM				S	**Sg**	**15 23 03.2**	**-0.2**
DDIM				IAML		15 23 05.0	
	comp=E,433nm,0.5s						
BLCB	**Balcova**	**0.50**	**7**	P	**Pg**	**15 22 57.2**	**-0.3**
BLCB				S	**Sg**	**15 23 03.5**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.50**	**7**	Pg	**Pg**	**15 22 57.4**	**0.0**
BLCB				Sg	**Sg**	**15 23 04.7**	**+0.6**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.51**	**314**	P	**Pg**	**15 22 57.6**	**+0.2**
ZEYE				S	**Sg**	**15 23 04.2**	**+0.1**
ZEYE				IAML		15 23 06.0	
	comp=N,431nm,0.3s						
ZEYE				IAML		15 23 06.0	
	comp=E,367nm,0.2s						
DUVT	**Torbali**	**0.51**	**49**	P	**Pg**	**15 22 57.5**	**0.0**
DUVT				S	**Sg**	**15 23 03.1**	**-1.2**
DUVT				IAML		15 23 05.0	
	comp=E,331nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.74**	**85**	Pg	**Pg**	**15 23 02.1**	**+0.2**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.78**	**336**	Pg	**Pg**	**15 23 02.6**	**0.0**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.82**	**72**	P	**Pn**	**15 23 05.2**	**0.0**
IZMR				S	**Sg**	**15 23 12.6**	**-1.6**
FOCM	**Foa**	**0.85**	**348**	Pg	**Pg**	**15 23 03.9**	**0.0**
FOCM				Sg	**Sb**	**15 23 15.6**	**-0.2**
FOCM				AML	AML		
BODT	**Bodrum**	**0.87**	**161**	P	**Pg**	**15 23 03.8**	**-0.5**
BODT				S	**Sb**	**15 23 17.2**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**161**	Pg	**Pg**	**15 23 04.3**	**0.0**
BODT				AML	AML		
CHOS	**Chios island**	**0.87**	**305**	P	**Pg**	**15 23 04.2**	**-0.2**
CHOS				S	**Sb**	**15 23 16.9**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**305**	Pg	**Pb**	**15 23 04.6**	**-0.3**
CHOS				AML	AML		
MLSB	**Milas**	**0.88**	**132**	Pg	**Pb**	**15 23 04.8**	**-0.1**
MLSB				AML	AML		
KARB	**zmir-Karabur**	**0.89**	**331**	P	**Pb**	**15 23 05.1**	**-0.1**
KARB				S	**Sb**	**15 23 18.4**	**+1.4**
KARB				IAML		15 23 20.0	
	comp=N,234nm,0.5s						
KARB				IAML		15 23 20.0	
	comp=E,281nm,0.5s						
CAMT	**Merkez**	**0.90**	**18**	P	**Pb**	**15 23 05.1**	**-0.3**
CAMT				S	**Sb**	**15 23 17.8**	**+0.3**
BODA	**Bodrum-Mula**	**0.93**	**156**	Pg	**Pb**	**15 23 05.8**	**0.0**
NAZL	**Nazilli-Aydin**	**1.06**	**85**	Pg	**Pb**	**15 23 07.9**	**-0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.11**	**42**	Pn	**Pb**	**15 23 09.0**	**0.0**
GOMA				AML	AML		
DKL	**Dikili**	**1.18**	**358**	Pn	**Pb**	**15 23 10.3**	**+0.1**
DKL				AML	AML		
AKS	**Akhisar**	**1.20**	**34**	Pn	**Pn**	**15 23 10.8**	**+0.4**
AKS				AML	AML		
YER	**Yerkesik**	**1.29**	**125**	P	**Pg**	**15 23 11.5**	**-0.3**
SOMA	**Soma-Manisa**	**1.35**	**19**	Pn	**Pg**	**15 23 13.3**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.40**	**43**	Pn	**Pb**	**15 23 13.9**	**0.0**
GORD				AML	AML		
APE	**Apeiranthos**	**1.40**	**235**	P	**Pn**	**15 23 12.9**	**-0.3**
PRK	**Paraskevi**	**1.46**	**339**	P	**Pg**	**15 23 15.5**	**-0.1**

IDC 05 16:03:34.3±4.9, 17°.84S×178°.52W, h624km±24km, mb3.1/4, mbtmp4.0/5, Error ellipse: s-maj=90.2km s-min=64.9km az=106.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.27**	**271**	P	P	16 04 57.0	-0.1
	4.9nm,0.7s,baz=219,slow=21,SNR=2.6						
STKA	**Stephens Creek**	**38.57**	**241**	P	P	16 10 06.2	+0.3
	0.8nm,0.5s,baz=86,slow=15,SNR=1.5						
	0.8nm,0.5s						
WRA	**Warramunga Arr**	**44.54**	**259**	P	P	16 10 52.7	-0.1
	0.6nm,0.3s,baz=94,slow=7.4,SNR=9.3						
	0.6nm,0.3s						
ASAR	**Alice Springs**	**44.70**	**254**	P	P	16 10 54.0	-0.1
	2.6nm,0.5s,baz=89,slow=8.5,SNR=75						
ASAR				PcP	PcP	16 12 22.2	-0.4
	0.2nm,0.5s,baz=96,slow=3.5,SNR=1.9						
	2.6nm,0.5s						
SIJI	**Sorong**	**52.12**	**283**	P	P	16 11 49.1	+0.2
	1.4nm,0.3s,baz=112,slow=22,SNR=3.8						
	1.4nm,0.3s						

IDC 05 16:05:20.1±1.5, 5°.59S×149°.53E, h0km, mb3.2/2, mbtmp3.5/4, ML1.5/1, MS1.9/1, Error ellipse: s-maj=57.1km s-min=13.1km az=139.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.80**	**63**	Pn	Pn	16 06 06.0	-0.2
	28nm,0.3s,baz=234,slow=8.7,SNR=7.4						
KRVT				Sn	Sn	16 06 40.5	-0.2
	27nm,0.3s,baz=297,slow=21,SNR=4.7						
KRVT				LR	LR	16 06 59.7	
	comp=Z,22nm,20.2s,baz=140,slow=36						
PMG	**Port Moresby**	**4.46**	**212**	Pn	Pn	16 06 31.7	+2.6
	1.7nm,0.3s,baz=44,slow=11,SNR=9.3						
PMG				Sn	Sn	16 07 20.4	-1.3
	4.2nm,0.3s,baz=112,slow=17,SNR=7.4						
	4.8nm,0.4s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**20.54**	**225**	P	P	16 10 01.1	+0.7
	0.7nm,0.5s,baz=52,slow=10,SNR=7.9						
	0.7nm,0.5s						
ASAR	**Alice Springs**	**23.44**	**218**	P	P	16 10 30.2	-1.1
	0.9nm,1.1s,baz=55,slow=9.3,SNR=11						
	0.9nm,1.1s						
TORD	**Torodi Ar. Bea**	**147.42**	**286**	PKPbc	PKPdf	16 25 05.7	+1.0
	0.2nm,0.4s,baz=102,slow=1.9,SNR=1.8						

*IDC **05** 16:06:09.6±1.4, 10°.35N×13°.09W, h0km, mb3.9/2, mbtmp4.1/4, ML4.4/2, Error ellipse: s-maj=32.7km s-min=18.5km az=13.0*
ISC 05 16:06:12.5±1.4, 10°.6N±0°.2×12°.6W±0°.1, h10km, n7, σ2s21/9, Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DBIC	**Dimbokro**	**8.61**	**116**	Pn	**Pn**	**16 08 19.2**	**+2.0**
	7.0nm,0.3s,baz=303,slow=13,SNR=63						
DBIC				Sn	**Sn**	**16 09 54.9**	**+0.5**
	6.9nm,0.3s,baz=143,slow=7.5,SNR=12						
DBIC				Lg	Lg	16 10 46.0	
	2.8nm,0.3s,baz=347,slow=9.1,SNR=4.7						
	15nm,0.4s						
DBIC				AML	AML		
TORD	**Torodi Ar. Bea**	**14.24**	**78**	Pn	**Pn**	**16 09 34.8**	**+0.3**
	0.8nm,0.3s,baz=254,slow=14,SNR=16						
TORD				Sn	**Sn**	**16 12 09.6**	**-3.1**
	0.9nm,0.3s,baz=271,slow=22,SNR=8.2						
TORD				Lg	Lg	16 13 50.0	
	0.4nm,0.3s,baz=255,slow=27,SNR=4.9						
	2.2nm,0.4s						
TORD				AML	AML		
BRTR	**Keskin Array B**	**50.18**	**47**	P	**P**	**16 15 11.5**	**+2.8**
	0.8nm,0.7s,baz=237,slow=8.4,SNR=2.9						
	0.8nm,0.7s						
BOSA	**Boshof**	**53.46**	**138**	P	**P**	**16 15 32.5**	**-0.7**
	2.0nm,0.8s,baz=282,slow=6.4,SNR=4.3						
	2.0nm,0.8s						
ASAR	**Alice Springs**	**145.57**	**117**	PKPbc	**PKPdf**	**16 25 50.7**	**-1.3**
	1.1nm,0.7s,baz=260,slow=2.3,SNR=16						
WRA	**Warramunga Arr**	**146.85**	**110**	PKPbc	**PKPbc**	**16 25 54.2**	**-1.8**
	0.4nm,0.5s,baz=261,slow=2.5,SNR=5.0						
STKA	**Stephens Creek**	**148.11**	**136**	PKPbc	**PKPbc**	**16 25 57.8**	**-1.4**
	1.8nm,0.6s,baz=274,slow=4.4,SNR=4.6						

*NEIC **05** 16:17:44.6±1.8, 54°.47N±0°.06×165°.32W±0°.08, h120km±3km, mb4.5/223, ML4.5/24, ML4.1(AEIC), Error ellipse: s-maj=9.5km s-min=5.1km az=151.0*
*IDC **05** 16:17:45.2±0.5, 54°.51N×165°.39W, h125km±2km, mb4.0/34, mbtmp4.4/34, MS3.0/1, Error ellipse: s-maj=12.4km s-min=8.3km az=11.0*
*AEIC **05** 16:17:46.1±2.2, 54°.45N±0°.06×165°.34W±0°.07, h112km±3km, Error ellipse: s-maj=9.8km s-min=4.6km az=150.0*
ISC 05 16:17:44.6±0.3, 54°.43N±0°.05×165°.23W±0°.03, h124km±2km, h124km:pP-P, n456, σ1s19/512, mb4.5/139, 1C-2D, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WECS	**Westdahl Cape**	**0.29**	**68**		**Pn**	**16 18 01.4**	**-0.6**
WECS				Sn	**Sn**	**16 18 13.7**	**-1.5**
WESP	**Westdahl Peak**	**0.31**	**77**		**Pn**	**16 18 01.5**	**-0.7**
WESP					**Sn**	**16 18 14.2**	**-1.2**
WEBT	**Westdahl Beart**	**0.33**	**59**		**Pn**	**16 18 01.5**	**-0.6**
WEBT					**Sn**	**16 18 14.2**	**-1.2**
WESN	**West Dahl Nort**	**0.41**	**69**		**Pn**	**16 18 02.0**	**-0.5**
WESN					**Sn**	**16 18 14.7**	**-1.3**
AKUT	**Akutan**	**0.43**	**227**		**Pn**	**16 18 01.6**	**-1.0**
AKUT				Sn	**Sn**	**16 18 14.5**	**-1.6**
AKUT				IAML		16 18 15.7	
	comp=N,11μm,0.6s						
AHB	**Akutan Harbor**	**0.46**	**228**		**Pn**	**16 18 02.0**	**-0.8**
AHB					**Sn**	**16 18 15.3**	**-1.2**
AKGG	**Akutan Green G**	**0.50**	**243**		**Pn**	**16 18 02.3**	**-0.7**
AKLV	**Akutan Long Va**	**0.50**	**238**		**Pn**	**16 18 02.1**	**-0.9**
AKLV					**Sn**	**16 18 15.0**	**-1.9**
AKBBA	**Akutan Broad B**	**0.53**	**232**		**Sn**	**16 18 15.8**	**-1.3**
LVA	**Lava Point**	**0.54**	**241**		**Pn**	**16 18 02.5**	**-0.7**
LVA				Sn	**Sn**	**16 18 15.9**	**-1.5**
LVA				IAML		16 18 17.9	
	comp=E,11μm,0.7s						
ZRO	**Akutan Zero**	**0.55**	**233**		**Sn**	**16 18 16.3**	**-1.2**
AKMO	**Akutan Morgan**	**0.57**	**234**		**Sn**	**16 18 16.4**	**-1.2**
AKRB	**Akutan Reef Bi**	**0.57**	**239**		**Sn**	**16 18 16.6**	**-1.1**
WTUG	**Tugumak**	**0.65**	**49**		**Sn**	**16 18 17.8**	**-0.8**
SSLS	**Shishaldin Sou**	**0.77**	**68**		**Pn**	**16 18 04.7**	**-0.3**
SSLS					**Sn**	**16 18 20.8**	**+0.3**
MNAT	**Makushin Natee**	**1.01**	**238**		**Sn**	**16 18 22.8**	**-1.3**
MGOD	**Makushin Gods**	**1.15**	**237**		**Sn**	**16 18 25.7**	**-1.0**
MAPS	**Pakushin South**	**1.18**	**239**		**Sn**	**16 18 26.4**	**-0.8**
OKNC	**Okmok New Cone**	**1.97**	**242**	Pn	**Pn**	**16 18 16.8**	**-1.0**
OKWE	**Okmok W'ng Wal**	**2.02**	**243**		**Pn**	**16 18 18.2**	**-0.3**
PN7A	**Pavlof North-7**	**2.12**	**60**		**Sn**	**16 18 49.0**	**+2.3**
S12K	**Black Hills**	**2.23**	**54**		**Pn**	**16 18 21.3**	**+0.3**
S12K				Sn	**Sn**	**16 18 49.1**	**+0.1**
S12K				IAML		16 18 50.4	
	comp=N,2μm,0.9s						
S12K				IAML		16 18 55.3	
	comp=E,1μm,0.7s						
SDPT	**Sand Point**	**2.90**	**69**	P	**Pn**	**16 18 29.4**	**-0.2**
SDPT	**Sand Point**	**2.90**	**69**	S	**Sn**	**16 19 01.9**	**-2.4**
SDPT	**Sand Point**	**2.90**	**69**		**Pn**	**16 18 29.8**	**+0.2**
SDPT				Sn	**Sn**	**16 19 02.5**	**-1.8**
SDPT				IAML		16 19 10.8	
	comp=E,1μm,0.4s						
SDPT				IAML		16 19 11.5	
	comp=N,1μm,0.4s						
CLES	**Cleveland East**	**3.21**	**242**	Pn	**Pn**	**16 18 32.4**	**-1.3**
CLES				Sn	**Sn**	**16 19 12.0**	**+0.4**
CLES				IAML		16 19 26.7	
	comp=E,1μm,0.3s						
CNBA	**Chernabura Isl**	**3.31**	**81**		**Pn**	**16 18 34.2**	**-0.7**
CNBA				Sn	**Sn**	**16 19 10.1**	**-3.7**
CHNA	**Chernabura Isl**	**3.31**	**81**	P	**Pn**	**16 18 34.2**	**-0.7**
CHNA	**Chernabura Isl**	**3.31**	**81**	S	**Sn**	**16 19 11.4**	**-2.4**
VNWF	**Veniaminof 8**	**3.67**	**60**		**Pn**	**16 18 41.5**	**+1.6**
VNFG	**Fog Glacier, M**	**3.74**	**58**		**Pn**	**16 18 40.3**	**-0.5**
VNFG				IAML		16 19 50.8	
	comp=E,823nm,0.8s						
VNFG				IAML		16 19 56.5	
	comp=N,730nm,0.9s						
VNSS	**Veniaminof 8**	**3.76**	**59**		**Pn**	**16 18 42.7**	**+1.5**
SPIA	**Saint Paul Isl**	**3.95**	**316**	Pn	**Pn**	**16 18 42.2**	**-1.3**
SPIA				IAML		16 21 26.3	
	comp=E,902nm,2.0s						
CHGN	**Chignik**	**4.32**	**61**		**Pn**	**16 18 48.7**	**+0.4**
CHGN				Sn	**Sn**	**16 19 36.6**	**-1.4**
CHGN				IAML		16 19 44.6	
	comp=N,293nm,0.5s						
CHGN				IAML		16 19 46.1	
	comp=E,385nm,0.3s						
ANPB	**Aniakchak Plen**	**4.61**	**56**		**Pn**	**16 18 53.3**	**+1.0**
AZAC	**Aniakchak**	**4.67**	**55**		**Pn**	**16 18 54.8**	**+1.6**
O14K	**Tigyukauivet M**	**5.31**	**23**		**Pn**	**16 19 02.9**	**+1.3**
R16K	**Pilot Point**	**5.33**	**51**	Pn	**Pn**	**16 19 01.4**	**-0.4**
O15K	**Ungalikthiuk R**	**5.61**	**30**		**Pn**	**16 19 06.4**	**+0.7**
CHIR	**Chirikof Islan**	**5.69**	**72**	P	**Pn**	**16 19 05.7**	**-1.1**
CHIR	**Chirikof Islan**	**5.69**	**72**	Pn	**Pn**	**16 19 05.9**	**-0.9**
CHIR				Sn	**Sn**	**16 20 05.5**	**-5.3**
KONE	**Korovin Northe**	**5.69**	**253**		**Pn**	**16 19 08.0**	**+1.2**
KOFP	**Korovin Flat P**	**5.73**	**252**		**Pn**	**16 19 08.6**	**+1.2**
KOWE	**Korovin West**	**5.78**	**253**		**Pn**	**16 19 09.0**	**+1.0**
ATKA	**Atka Island**	**5.81**	**251**	P	**Pn**	**16 19 09.1**	**+0.6**
ATKA	**Atka Island**	**5.81**	**251**	Pn	**Pn**	**16 19 08.0**	**-0.4**
ATKA				Sn	**Sn**	**16 20 12.3**	**-1.6**
N14K	**Kuskokwak Cree**	**5.84**	**18**		**Pn**	**16 19 10.4**	**+1.7**
M11K	**Mekoryuk**	**6.00**	**355**		**Pn**	**16 19 12.2**	**+1.4**
M13K	**Dall Lake**	**6.09**	**9**		**Pn**	**16 19 14.2**	**+2.1**
P16K	**Nushagak River**	**6.10**	**38**	Pn	**Pn**	**16 19 13.2**	**+1.0**
N15K	**Kwethluk River**	**6.39**	**24**		**Pn**	**16 19 18.1**	**+1.9**
Q17K	**Contact Creek**	**6.46**	**50**		**Pn**	**16 19 18.7**	**+1.4**
O16K	**Kokwok River B**	**6.48**	**34**		**Pn**	**16 19 18.9**	**+1.5**
KJL	**Kejulik**	**6.50**	**52**		**Pn**	**16 19 18.7**	**+1.1**
ANCK	**Angle Creek**	**6.61**	**51**		**Pn**	**16 19 20.5**	**+1.3**
CAHL	**Cahill**	**6.62**	**53**		**Pn**	**16 19 20.3**	**+0.9**
SII	**Sitkinak Islan**	**6.63**	**67**	P	**Pn**	**16 19 18.3**	**-1.2**
SII	**Sitkinak Islan**	**6.63**	**67**	S	**Sn**	**16 20 30.5**	**-3.1**
SII	**Sitkinak Islan**	**6.63**	**67**		**Pn**	**16 19 17.7**	**-1.8**
SII				Sn	**Sn**	**16 20 29.5**	**-4.1**
ACHA	**Angle Creek He**	**6.69**	**51**		**Pn**	**16 19 20.9**	**+0.6**
P17K	**Kvichak River**	**6.79**	**42**		**Pn**	**16 19 22.4**	**+0.8**
GSTR	**Great Sitkin T**	**6.90**	**255**	Pn	**Pn**	**16 19 24.1**	**+1.0**
O17K	**Koliganek Bris**	**6.95**	**36**		**Pn**	**16 19 24.9**	**+1.2**
N16K	**Nishlik Lake**	**6.99**	**27**		**Pn**	**16 19 26.2**	**+1.9**
GSCK	**Great Sitkin C**	**6.99**	**254**		**Pn**	**16 19 25.2**	**+0.8**
Q18K	**Katmai Hardscr**	**7.06**	**49**		**Pn**	**16 19 26.9**	**+1.6**
L14K	**Kuka Creek**	**7.07**	**10**		**Pn**	**16 19 25.7**	**+0.5**
KAHG	**Katmai Hook Gl**	**7.19**	**51**		**Pn**	**16 19 27.7**	**+0.7**
ETKA	**Kagalaska Isla**	**7.19**	**254**		**Pn**	**16 19 27.1**	**+0.1**
OHAK	**Old Harbor**	**7.29**	**63**	P	**Pn**	**16 19 26.4**	**-1.9**
OHAK	**Old Harbor**	**7.29**	**63**		**Pn**	**16 19 26.7**	**-1.6**
ADK	**Adak**	**7.34**	**254**	P	**Pn**	**16 19 30.1**	**+1.1**
ADK	**Adak**	**7.34**	**254**	Pn	**Pn**	**16 19 29.4**	**+0.3**
P18K	**Big Mountain,**	**7.40**	**44**		**Pn**	**16 19 31.6**	**+1.8**
M16K	**Timber Creek**	**7.41**	**24**	Pn	**Pn**	**16 19 31.2**	**+1.3**
K13K	**Kusilvak Mount**	**7.54**	**2**	Pn	**Pn**	**16 19 32.3**	**+0.7**
L15K	**Ungalak Mounta**	**7.54**	**14**		**Pn**	**16 19 32.6**	**+1.0**
KIWB	**Kanaga Island**	**7.62**	**255**	Pn	**Pn**	**16 19 33.0**	**+0.2**
Q19K	**Cape Douglas,**	**7.81**	**50**		**Pn**	**16 19 35.6**	**+0.2**
KDAK	**Kodiak Island**	**7.83**	**59**	P	**Pn**	**16 19 34.1**	**-1.5**
	comp=E,14nm,0.3s,baz=180,slow=2.5,SNR=111						
KDAK				S	**Sn**	**16 20 55.6**	**-6.8**
	comp=E,8.9nm,0.4s,baz=177,slow=23,SNR=7.0						
KDAK	**Kodiak Island**	**7.83**	**59**	Pn	**Pn**	**16 19 33.6**	**-2.0**
N18K	**Kilae Creek**	**8.03**	**35**	Pn	**Pn**	**16 19 38.8**	**+0.5**
K15K	**Wolf Creek Mou**	**8.12**	**12**		**Pn**	**16 19 40.7**	**+1.1**
M17K	**Holitna River**	**8.13**	**28**		**Pn**	**16 19 40.6**	**+1.0**
P19K	**Oil Pt**	**8.38**	**46**		**Pn**	**16 19 44.3**	**+1.3**
GANE	**Gareloi Northe**	**8.55**	**258**		**Pn**	**16 19 45.4**	**0.0**
ILSW	**Iliamna Southw**	**8.60**	**45**	Pn	**Pn**	**16 19 45.6**	**-0.4**
N19K	**Bonanza Creek**	**8.61**	**38**		**Pn**	**16 19 46.4**	**+0.2**
ILS	**Iliamna Low So**	**8.62**	**45**		**Pn**	**16 19 47.5**	**+1.2**
M18K	**Stony River**	**8.66**	**31**		**Pn**	**16 19 48.2**	**+1.4**
RED	**Redoubt Volcan**	**9.01**	**43**	Pn	**Pn**	**16 19 52.0**	**+0.5**
L18K	**Granite Mounta**	**9.01**	**26**	Pn	**Pn**	**16 19 51.8**	**+0.4**
HOM	**Homer**	**9.07**	**49**	Pn	**Pn**	**16 19 51.1**	**-1.1**
CNPM	**China Poot**	**9.19**	**51**	Pn	**Pn**	**16 19 52.7**	**-1.2**
RDT	**Redoubt**	**9.24**	**43**		**Pn**	**16 19 56.0**	**+1.3**
BRLK	**Bradley Lake**	**9.45**	**50**	Pn	**Pn**	**16 19 55.8**	**-1.7**
L19K	**White Mountain**	**9.49**	**31**		**Pn**	**16 19 59.2**	**+1.2**
J17K	**VABM Dome**	**9.54**	**17**		**Pn**	**16 19 59.3**	**+0.7**
SPU	**Mount Spurr**	**9.75**	**41**	Pn	**Pn**	**16 20 00.4**	**-1.1**
AMKA	**Amchitka**	**9.83**	**258**		**Pn**	**16 20 02.4**	**-0.2**
L20K	**Farewell, AK**	**10.01**	**32**	Pn	**Pn**	**16 20 05.5**	**+0.5**
SLKM	**Skilak Lake**	**10.11**	**47**		**Pn**	**16 20 04.8**	**-1.6**
SEW	**Seward**	**10.25**	**50**	Pn	**Pn**	**16 20 06.8**	**-1.3**
O22K	**Cooper Landing**	**10.31**	**48**	Pn	**Pn**	**16 20 08.4**	**-0.5**
SUA	**Susitna One**	**10.42**	**42**	Pn	**Pn**	**16 20

C24K **Franklin Bluff** **17.08** **20** P **P** **16 21 35.5 +0.3**
C24K IAmb IAmb 16 21 37.8
comp=Z,25nm,1.4s
I29M **Ogilvie Camp,** **17.22** **40** **P** **16 21 36.8 -0.1**
R32K **Eaglecrest** **17.37** **65** P **Pn** **16 21 40.1 +1.1**
R32K IAmb IAmb 16 21 42.2
comp=Z,40nm,1.4s
P32M **Atlin** **17.81** **60** P **Pn** **16 21 44.5 +0.1**
M31M **Drury Creek, Y** **17.82** **52** IAmb IAmb 16 21 47.4
comp=Z,20nm,0.8s
C26K **Camden Bay** **18.04** **23** **P** **16 21 46.3 +0.5**
C26K IAmb IAmb 16 21 50.1
comp=Z,51nm,1.5s
EPYK **Eagle Plains** **18.26** **38** **P** **16 21 47.6 -0.7**
P33M **Teslin, Yukon** **18.30** **58** P **P** **16 21 49.8 +1.0**
CRAG **Craig** **18.39** **74** P **Pn** **16 21 54.4 +3.2**
CRAG **Craig** **18.39** **74** P **P** **16 21 50.4 +0.8**
H31M **Peel River** **18.91** **41** IAmb IAmb 16 21 59.4
comp=Z,19nm,1.0s
F30M **Barrier River** **19.17** **35** P **P** **16 21 57.2 -0.9**
F30M IAmb IAmb 16 22 03.9
comp=Z,12nm,0.8s
R33M **Jennings River** **19.21** **61** P **P** **16 21 58.5 -0.3**
R33M IAmb IAmb 16 22 05.0
comp=Z,26nm,1.4s
V35K **Ketchikan** **19.26** **74** P **P** **16 21 59.2 +0.1**
INK **Inuvik** **20.25** **34** P **P** **16 22 08.7 -1.1**
comp=Z,5.7nm,0.4s,baz=211,slow=12,SNR=32
INK pP **pP** **16 22 31.4 -0.8**
comp=Z,5.1nm,0.8s,baz=251,slow=12,SNR=1.4
INK PcP **PcP** **16 26 18.7 +0.8**
comp=Z,1.4nm,0.6s,baz=293,slow=3.0,SNR=4.4
INK ScP **ScP** **16 29 44.2 +1.7**
comp=Z,1.3nm,0.5s,baz=199,slow=3.7,SNR=6.5
comp=Z,5.7nm,0.4s
INK **Inuvik** **20.25** **34** **P** **16 22 08.2 -1.5**
INK IAmb IAmb 16 22 13.3
comp=Z,23nm,1.2s
PET **Petropavlovsk** **21.27** **281** P **P** **16 22 20.7 -0.1**
PEA0B **Petropavlovsk-** **21.79** **282** P **P** **16 22 24.9 -1.4**
PETK **Petropavlovsk-** **21.79** **282** P **P** **16 22 25.8 -0.5**
comp=Z,19nm,0.5s,baz=73,slow=13,SNR=71
PETK pP **pP** **16 22 50.0 +0.9**
comp=Z,8.4nm,0.5s,baz=80,slow=11,SNR=3.6
comp=Z,19nm,0.5s
PETK **Petropavlovsk-** **21.79** **282** P **P** **16 22 26.1 -0.3**
C36M **Paulatuk** **23.82** **35** P **P** **16 22 45.3 -0.4**
A36M **Sachs Harbour** **24.42** **29** **P** **16 22 50.1 -0.9**
A36M IAmb IAmb 16 22 53.7
comp=Z,26nm,0.9s
LLLB **Lillooet** **26.34** **80** P **P** **16 23 08.8 +0.1**
LLLB IAmb IAmb 16 23 22.6
comp=Z,19nm,1.5s
YKAW3 **Yellowknife Wh** **27.01** **52** P **P** **16 23 14.6 +0.1**
YKAW3 IAmb IAmb 16 23 15.1
comp=Z,15nm,1.1s
YKA **Yellowknife Ar** **27.02** **52** P **P** **16 23 15.6 +1.0**
comp=Z,2.2nm,0.3s,baz=276,slow=8.9,SNR=40
YKA pP **pP** **16 23 41.2 0.0**
comp=Z,1.0nm,0.6s,baz=278,slow=9.4,SNR=2.5
comp=Z,2.2nm,0.3s
YKA **Yellowknife Ar** **27.02** **52** P **P** **16 23 14.2 -0.4**
YKAW1 **Yellowknife Wh** **27.08** **52** P **P** **16 23 15.1 -0.1**
YKAW1 IAmb IAmb 16 23 21.9
comp=Z,19nm,1.1s
NEW **Newport** **30.18** **82** **P** **16 23 45.1 +2.2**
NEW IAmb IAmb 16 23 46.2
comp=Z,14nm,0.8s
JTMT **Jette** **32.08** **81** P **P** **16 24 02.0 +2.3**
TIXI **Tiksi** **32.30** **327** P **P** **16 24 00.8 -0.2**
MSO **Missoula** **32.77** **82** **P** **16 24 06.0 +0.4**
MSO IAmb IAmb 16 24 08.1
comp=Z,6.3nm,0.5s
RES **Resolute Bay** **33.43** **27** P **P** **16 24 10.7 -0.1**
RES IAmb IAmb 16 24 16.7
comp=Z,4.5nm,0.8s
GBMT **Granite Butte,** **33.61** **81** P **P** **16 24 13.0 -0.1**
PNTR **Pine Nut** **34.15** **98** P **P** **16 24 17.7 -0.1**
BCYI **Bear Canyon** **34.49** **85** P **P** **16 24 21.4 +0.6**
BCYI IAmb IAmb 16 24 24.6
comp=Z,6.0nm,1.0s
MCMT **McKenzie Canyo** **34.52** **84** P **P** **16 24 22.3 +1.3**
WAKR **Walker** **34.63** **98** P **P** **16 24 23.4 +1.4**
BOZ **Bozeman (W)** **34.78** **82** P **P** **16 24 25.2 +2.1**
BOZ IAmb IAmb 16 24 26.2
comp=Z,6.8nm,0.6s
JKA **Kamikawa-asahi** **34.80** **275** P **P** **16 24 22.4 -0.8**
BLKN **Baker Lake** **34.84** **45** P **P** **16 24 23.1 -0.1**
NVAR **Mina Array Bea** **35.34** **97** P **P** **16 24 29.8 +1.7**
comp=Z,0.4nm,0.5s,baz=322,slow=10,SNR=2.3
NVAR pP **pP** **16 24 56.4 +1.1**
comp=Z,4.5nm,0.7s,baz=301,slow=9.0,SNR=18
NVAR sP **sP** **16 25 11.3 +1.8**
comp=Z,0.4nm,0.3s,baz=311,slow=12,SNR=2.9
NVAR PcP **PcP** **16 26 56.8 +1.3**
comp=Z,0.3nm,0.4s,baz=251,slow=1.0,SNR=2.0
NVAR ScP **ScP** **16 30 30.1 +0.7**
comp=Z,0.5nm,0.6s,baz=310,slow=5.2,SNR=3.5
comp=Z,0.4nm,0.5s
NVAR **Mina Array Bea** **35.34** **97** pP 16 24 56.2 +0.9
YHL **Hebgen Lake** **35.47** **83** **P** **16 24 31.4 +2.2**
YHL IAmb IAmb 16 24 32.4
comp=Z,10nm,0.8s
MLH **Mauna Loa** **35.68** **164** P **P** **16 24 33.1 +2.1**
YHH **Holmes Hill** **35.70** **83** **P** **16 24 32.9 +1.7**
DAH **Dandelion** **35.77** **164** P **P** **16 24 33.9 +1.9**
PUH **Pauahi** **35.82** **164** P **P** **16 24 33.0 +0.8**
YNE **Yellowstone No** **36.06** **82** P **P** **16 24 35.5 +1.3**
YNE IAmb IAmb 16 24 38.6
comp=Z,11nm,1.2s
H17A **Grant Village** **36.09** **83** P **P** **16 24 36.2 +1.8**
H17A IAmb IAmb 16 24 41.4
comp=Z,7.3nm,0.7s
HVU **Hansel Valley** **36.39** **88** P **P** **16 24 38.8 +1.8**
HVU IAmb IAmb 16 24 40.2
comp=Z,4.8nm,0.9s
AHID **Auburn Hatcher** **36.76** **86** P **P** **16 24 41.2 +1.1**
AHID IAmb IAmb 16 24 46.9
comp=Z,8.9nm,1.1s
TPNV **Topopah Spring** **37.54** **97** P **P** **16 24 47.4 +0.7**
TPNV IAmb IAmb 16 24 52.0
comp=Z,8.6nm,1.5s
TPNV pP **pP** **16 25 14.3 +0.2**
BW06 **Boulder Array** **37.66** **85** P **P** **16 24 48.3 +0.6**
BW06 IAmb IAmb 16 24 50.5
comp=Z,5.7nm,1.1s
PD31 **Pinedale Array** **37.66** **85** **P** **16 24 48.4 +0.7**
PD31 IAmb IAmb 16 24 50.5
comp=Z,5.7nm,1.1s
PDAR **Pinedale Array** **37.66** **85** P **P** **16 24 49.7 +2.0**
comp=Z,1.8nm,0.6s,baz=305,slow=4.3,SNR=22
PDAR pP **pP** **16 25 15.8 +0.6**
comp=Z,0.4nm,0.5s,baz=295,slow=5.6,SNR=1.7
PDAR sP **sP** **16 25 30.6 +1.3**
comp=Z,3.2nm,1.2s,baz=288,slow=8.1,SNR=2.5
PDAR ScP **ScP** **16 30 38.8 +0.8**
comp=Z,1.2nm,0.9s,baz=300,slow=3.7,SNR=6.0
comp=Z,1.8nm,0.6s
PDAR **Pinedale Array** **37.66** **85** **P** **16 24 49.3 +1.5**
PDAR pP **pP** **16 25 13.8 -1.4**
PDAR **sP** **16 25 28.9 -0.4**
FCC **Fort Churchill** **37.72** **54** P **P** **16 24 48.8 +1.1**
GWY **Greenwater Val** **37.83** **99** P **P** **16 24 50.4 +1.3**
GWY **pP** **16 25 16.0 -0.6**
QSM **Queen of Sheba** **37.87** **99** P **P** **16 24 50.4 +1.1**
QSM **pP** **16 25 17.0 +0.3**
CCCA **Chr Cany lake** **37.89** **100** P **P** **16 24 50.3 +0.8**
CCCA IAmb IAmb 16 24 53.1
comp=Z,7.5nm,0.6s
CCCA **pP** **16 25 17.2 +0.3**
BSUT **Blindstream Ca** **38.36** **88** **P** **16 24 55.0 +1.3**
TMUT **Trail Mountain** **38.90** **90** **P** **16 24 59.1 +0.9**
TMUT IAmb IAmb 16 25 02.1
comp=Z,8.8nm,1.2s
P18A **Preston Nutter** **39.25** **89** P **P** **16 25 02.0 +0.9**
K22A **Casper** **39.49** **82** P **P** **16 25 04.7 +1.7**
K22A IAmb IAmb 16 25 05.3
comp=Z,13nm,1.1s
RSSD **Black Hills** **40.03** **79** P **P** **16 25 08.8 +1.4**
RSSD IAmb IAmb 16 25 10.3
comp=Z,5.5nm,0.5s
HMU **Henry Mountain** **40.08** **91** **P** **16 25 09.2 +1.3**
HMU IAmb IAmb 16 25 11.0
comp=Z,7.2nm,0.8s
O20A **White River Ci** **40.09** **87** **P** **16 25 08.9 +1.0**
O20A IAmb IAmb 16 25 10.6
comp=Z,11nm,0.8s
H11N2 **WAKE ISLAND Hy** **40.63** **223** T T 17 09 04.2
baz=26,slow=76,SNR=42
H11N3 **WAKE ISLAND Hy** **40.64** **223** T T 17 09 10.5
baz=26,slow=76,SNR=43
H11N1 **WAKE ISLAND Hy** **40.65** **223** T T 17 09 11.4
baz=26,slow=76,SNR=49
PV21 **Cone Mtn., Par** **40.69** **89** P **P** **16 25 13.7 +0.7**
PV21 IAmb IAmb 16 25 18.2
comp=Z,10nm,0.8s
PV23 **Carpenter Ridg** **40.74** **89** P **P** **16 25 14.4 +1.0**
PV23 IAmb IAmb 16 25 24.7
comp=Z,5.5nm,0.9s
PV10 **Paradox Valley** **40.78** **89** P **P** **16 25 15.0 +1.3**
PV10 IAmb IAmb 16 25 16.7
comp=Z,9.1nm,0.9s
PV22 **Blue Mesa, Par** **40.82** **89** **P** **16 25 15.5 +1.6**
PV22 IAmb IAmb 16 25 17.0
comp=Z,17nm,1.3s
PV04 **Paradox Valley** **40.84** **89** IAmb IAmb 16 25 18.2
comp=Z,5.5nm,0.8s
USRK **Ussuriysk Ar.** **40.88** **282** PcP **PcP** **16 27 12.7 +0.4**
comp=Z,1.8nm,0.5s,baz=24,slow=4.9,SNR=6.9
PV17 **East Wray Mesa** **40.89** **89** P **P** **16 25 15.7 +1.2**
PV17 IAmb IAmb 16 25 17.0
comp=Z,12nm,0.9s
PV16 **Nyswonger Mesa** **40.89** **89** IAmb IAmb 16 25 17.0
comp=Z,13nm,1.0s
PV18 **Skein Mesa, Pa** **40.94** **89** **P** **16 25 16.1 +1.1**
PV18 IAmb IAmb 16 25 17.4
comp=Z,12nm,0.8s
PV05 **Paradox Valley** **40.94** **90** IAmb IAmb 16 25 17.6
comp=Z,11nm,0.9s
PV12 **Saucer Basin,** **40.95** **89** P **P** **16 25 16.1 +1.0**
PV12 IAmb IAmb 16 25 22.9
comp=Z,5.7nm,0.7s
PV03 **Paradox Valley** **40.97** **89** IAmb IAmb 16 25 17.6
comp=Z,9.6nm,0.8s
ULM **Lac du Bonnet** **41.02** **66** P **P** **16 25 16.0 +0.8**
comp=Z,2.1nm,0.5s,baz=304,slow=7.9,SNR=4.1
comp=Z,2.1nm,0.5s
ULM **Lac du Bonnet** **41.02** **66** P **P** **16 25 16.3 +1.1**
ULM IAmb IAmb 16 25 20.0
comp=Z,9.4nm,1.2s
PV13 **Radium Mtn., P** **41.05** **90** P **P** **16 25 17.0 +1.1**
PV02 **Paradox Valley** **41.07** **89** P **P** **16 25 16.8 +0.7**
PV02 IAmb IAmb 16 25 18.5
comp=Z,14nm,0.8s
PV15 **Paradox Valley** **41.13** **89** IAmb IAmb 16 25 19.5
comp=Z,9.4nm,0.7s
PV01 **Paradox Valley** **41.21** **89** IAmb IAmb 16 25 19.6
comp=Z,9.2nm,0.8s
H11S1 **WAKE ISLAND Hy** **41.81** **222** T T 17 10 35.9
baz=26,slow=76,SNR=227
H11S2 **WAKE ISLAND Hy** **41.83** **222** T T 17 10 35.2
baz=26,slow=76,SNR=130
H11S3 **WAKE ISLAND Hy** **41.83** **222** T T 17 10 35.4
baz=26,slow=76,SNR=34
MJAR **Matsushiro Arr** **42.23** **269** P **P** **16 25 24.1 -1.1**
comp=Z,0.9nm,0.4s,baz=52,slow=9.3,SNR=2.3
MJAR PcP **PcP** **16 27 16.7 -0.2**
comp=Z,1.6nm,0.7s,baz=76,slow=5.3,SNR=4.4
comp=Z,0.9nm,0.4s
MAJO **Matsushiro** **42.23** **269** P **P** **16 25 27.1 +1.8**
MAJO IAmb IAmb 16 25 27.3
comp=Z,4.9nm,0.9s
MJB9 **Matsu-Tunnel** **42.23** **269** P **P** **16 25 25.9 +0.6**
MJB9 IAmb IAmb 16 25 26.5
comp=Z,6.7nm,1.0s
NEEM **North Greenlan** **42.31** **17** *i* P **P** **16 25 25.9 +0.2**
NEEM IAmb IAmb 16 25 26.6
comp=Z,5.8nm,0.5s
EPLO **Experimental L** **42.49** **66** P **P** **16 25 28.1 +0.9**
EPLO IAmb IAmb 16 25 29.1
comp=Z,4.2nm,0.5s
NOR **Nord** **43.16** **6** *i* P **P** **16 25 32.7 +0.5**
NOR IAmb IAmb 16 25 33.2
comp=Z,4.9nm,0.9s
SDCO **Great Sand Dun** **43.27** **87** P **P** **16 25 34.8 +0.9**
JGF **Kuroka** **43.38** **269** P **P** **16 25 34.7 +0.1**
JGF IAmb IAmb 16 25 39.9
comp=Z,13nm,1.4s
T25A **Trinidad** **44.32** **87** **P** **16 25 43.3 +1.1**
T25A IAmb IAmb 16 25 45.3
comp=Z,8.5nm,0.8s
EYMN **Ely** **44.70** **67** P **P** **16 25 45.8 +0.9**
NRIK **Noril'sk** **45.79** **332** P **P** **16 25 53.2 +0.1**
comp=Z,1.6nm,0.3s,baz=329,slow=3.7,SNR=4.4
NRIK pP **pP** **16 26 20.7 -0.8**
comp=Z,5.2nm,0.8s,baz=55,slow=7.5,SNR=2.2
comp=Z,1.6nm,0.3s
NRIK **Noril'sk** **45.79** **332** P **P** **16 25 53.2 +0.1**
NRIK IAmb IAmb 16 25 54.3
comp=Z,12nm,1.2s
I37A **Lemond, Waseca** **46.10** **72** P **P** **16 25 57.0 +1.0**
I37A IAmb IAmb 16 25 58.3
comp=Z,19nm,1.3s
DAG **Danmarks Havn** **47.36** **10** *i* P **P** **16 26 05.0 -0.3**
DAG IAmb IAmb 16 26 05.9
comp=Z,10nm,0.6s
MNTX **Cornudas Mount** **47.59** **93** P **P** **16 26 08.1 +0.4**
MNTX **pP** **16 26 35.5 -0.7**
KSRS **Korea Array** **47.60** **278** P **P** **16 26 06.8 -0.9**
comp=Z,1.5nm,0.8s,baz=47,slow=8.4,SNR=5.7
KSRS PcP **PcP** **16 27 36.5 +1.1**
comp=Z,3.6nm,0.7s,baz=58,slow=3.8,SNR=14
KSRS LR LR 16 46 07.9
comp=Z,16nm,20.5s,baz=350,slow=36
comp=Z,1.5nm,0.8s
SPITS **Spitsbergen Ar** **47.65** **360** P **P** **16 26 06.8 -0.8**
comp=Z,3.9nm,0.5s,baz=50,slow=6.6,SNR=9.5
SPITS PcP **PcP** **16 27 34.4 -0.5**
comp=Z,4.3nm,0.6s,baz=79,slow=4.3,SNR=8.5
comp=Z,3.9nm,0.5s
SUMG **Summit** **48.06** **19** **P** **16 26 11.3 0.0**
SUMG PcP **PcP** **16 27 37.7 +0.8**
SMWD **Samnorwood** **48.15** **86** P **P** **16 26 12.8 +0.8**
VHRN **Van Horn** **48.48** **94** P **P** **16 26 15.5 +0.8**
128A **Castleberry Fa** **48.61** **90** P **P** **16 26 16.5 +0.9**
128A IAmb IAmb 16 26 17.9
comp=Z,11nm,1.1s
I42A **Draeger Farm,** **48.66** **69** P **P** **16 26 16.0 +0.3**
I42A IAmb IAmb 16 26 32.5
comp=Z,11nm,1.2s
POST **Post** **48.87** **89** P **P** **16 26 18.9 +1.3**
POST IAmb IAmb 16 26 20.1
comp=Z,9.1nm,0.9s
OK048 **Pawnee Station** **49.16** **82** P **P** **16 26 20.8 +1.2**
OK048 IAmb IAmb 16 26 21.4
comp=Z,5.8nm,0.9s
WMOK **Wichita Mounta** **49.26** **85** P **P** **16 26 21.6 +1.0**
WMOK IAmb IAmb 16 26 22.6
comp=Z,6.2nm,0.7s
DBG **Daneborg** **49.41** **12** *i* P **P** **16 26 21.0 0.0**
DBG IAmb IAmb 16 26 22.3
comp=Z,11nm,0.5s
E46A **Sault Ste Mari** **49.51** **64** P **P** **16 26 23.1 +0.9**
P40A **Paris** **49.82** **76** **P** **16 26 24.4 -0.2**
SGCY **Sterling City** **49.91** **90** P **P** **16 26 20.6 +0.5**
SGCY IAmb IAmb 16 26 27.3
comp=Z,6.8nm,0.6s
W35A **Tecumseh** **50.08** **83** P **P** **16 26 26.9 +0.2**
TX31 **Lajitas Ar. Si** **50.32** **94** P **P** **16 26 30.4 +1.8**
TX31 **pP** **16 26 55.9 -1.6**
TX31 PcP **PcP** **16 27 45.8 +0.2**
TXAR **Lajitas Array** **50.32** **94** P **P** **16 26 30.5 +1.8**
comp=Z,3.5nm,0.5s,baz=297,slow=5.5,SNR=80
TXAR pP **pP** **16 26 57.7 +0.3**
comp=Z,7.7nm,1.0s,baz=302,slow=5.7,SNR=11
TXAR PcP **PcP** **16 27 45.9 +0.3**
comp=Z,0.5nm,0.6s,baz=320,slow=3.1,SNR=1.6
TXAR ScP **ScP** **16 31 30.6 +1.0**
comp=Z,0.6nm,0.8s,baz=287,slow=1.7,SNR=7.3
comp=Z,3.5nm,0.5s
TXAR **Lajitas Array** **50.32** **94** P **P** **16 26 30.2 +1.5**
TXAR **pP** **16 26 55.9 -1.5**
TXAR PcP **PcP** **16 27 46.0 +0.4**
R40A **Maddies Statio** **50.54** **77** P **P** **16 26 29.5 -0.6**
R40A **pP** **16 26 56.8 -2.1**
OZNA **Ozona** **50.64** **90** P **P** **16 26 31.7 +0.7**
OZNA IAmb IAmb 16 26 42.9
comp=Z,9.2nm,1.4s
BRDY **Brady** **51.61** **88** **P** **16 26 38.1 -0.1**
BRDY IAmb IAmb 16 26 40.0
comp=Z,5.3nm,0.8s
SCHQ **Schefferville** **52.23** **46** P **P** **16 26 42.4 0.0**
SCHQ IAmb IAmb 16 26 50.0
comp=Z,12nm,1.2s
SONM **Songino Array** **52.35** **302** P **P** **16 26 43.6 0.0**
comp=Z,1.0nm,0.6s,baz=52,slow=9.5,SNR=5.2
SONM pP **pP** **16 27 13.5 +1.0**
comp=Z,1.7nm,0.6s,baz=51,slow=6.4,SNR=6.4
SONM PcP **PcP** **16 27 52.9 0.0**
comp=Z,1.7nm,0.6s,baz=73,slow=2.7,SNR=6.9
comp=Z,1.0nm,0.6s
SCO **Scoresbysund** **52.63** **15** P **P** **16 26 46.1 +0.9**
BUKO **Buck Lake** **52.68** **62** P **P** **16 26 46.9 +1.0**
SADO **Sadowa** **53.28** **62** P **P** **16 26 50.1 -0.2**
SADO IAmb IAmb 16 26 51.5
comp=Z,8.2nm,0.8s
833A **Chaparral WMA,** **53.57** **91** P **P** **16 26 54.1 +1.5**
833A IAmb IAmb 16 26 54.9
comp=Z,4.7nm,0.7s
735A **Kenedy** **54.10** **89** P **P** **16 26 57.9 +1.5**
DELO **Deloro Mine** **54.24** **62** P **P** **16 26 58.1 +0.9**
DPSS **Saipan** **54.39** **244** P **P** **16 26 58.1 -0.6**
IVI **Ivigtut** **54.45** **32** P **P** **16 26 59.0 +0.5**
HHC **Hu-ho-hao-te** **54.46** **292** *eP* **P** **16 26 58.4 -0.7**
HHC pmax pmax
comp=Z,13nm,0.6s
HHC pmax pmax
comp=Z,120nm,5.7s
TRQ **Mont Tremblant** **54.60** **58** P **P** **16 26 59.9 -0.1**
TRQ IAmb IAmb 16 27 00.4
comp=Z,10nm,1.1s
OXF **Oxford** **54.84** **78** P **P** **16 27 02.1 +0.4**
PECO **Prince Edward** **54.97** **62** P **P** **16 27 02.8 +0.4**
LDAQ **Lac Daran** **55.00** **55** P **P** **16 27 02.9 +0.1**
LDAQ IAmb IAmb 16 27 14.2
comp=Z,9.8nm,1.2s
O53A **New Philadelph** **55.33** **68** P **P** **16 27 05.6 +0.4**
O53A IAmb IAmb 16 27 21.9
comp=Z,9.1nm,1.0s
MMNY **Mt. Morris Dam** **55.34** **63** P **P** **16 27 05.1 0.0**
WCNY **West Carthage** **55.62** **61** P **P** **16 27 07.8 +0.6**
LMQ **La Malbaie** **55.73** **55** P **P** **16 27 07.1 -0.9**
LMQ IAmb IAmb 16 27 20.5
comp=Z,8.6nm,1.0s
ICQ **Pointe Anglais** **55.75** **51** P **P** **16 27 08.1 +0.1**
KEV **Kevo** **55.81** **355** P **P** **16 27 07.0 -1.1**
KEV IAmb IAmb 16 27 08.7
comp=Z,6.0nm,1.0s
O54A **Avella** **55.83** **67** P **P** **16 27 08.1 -0.7**
L56A **Greenwood** **55.94** **64** P **P** **16 27 10.3 +0.7**
ARCES **ARCESS Array B** **56.10** **355** P **P** **16 27 09.5 -0.7**
comp=Z,3.3nm,0.7s,baz=8.6,slow=6.8,SNR=18
ARCES PcP **PcP** **16 28 06.8 +0.1**
comp=Z,1.3nm,0.3s,baz=15,slow=3.8,SNR=11
comp=Z,3.3nm,0.7s
ARCES **ARCESS Array B** **56.10** **355** P **P** **16 27 09.6 -0.7**
ARCES IAmb IAmb 16 27 17.7
comp=Z,3.5nm,0.9s
ARCES PcP **PcP** **16 28 06.2 -0.5**
J59A **Piesco** **56.57** **61** P **P** **16 27 14.1 0.0**
D62A **Allapoint, All** **56.67** **54** P **P** **16 27 14.5 -0.1**
NJ2 **Nanjing** **56.68** **280** *eP* **P** **16 27 13.5 -1.3**
NJ2 pmax pmax
comp=Z,11nm,0.5s
E62A **Clayton Lake** **56.78** **55** P **P** **16 27 15.2 -0.1**
E62A IAmb IAmb 16 27 16.2
comp=Z,6.7nm,0.7s
LVZ **Lovozero** **57.10** **351** P **P** **16 27 17.1 -0.2**
L59A **Walton** **57.21** **62** P **P** **16 27 20.0 +1.4**
G62A **West of Eustis** **57.30** **57** P **P** **16 27 19.8 +0.7**
G62A IAmb IAmb 16 27 34.6
comp=Z,14nm,1.4s
ZAA0 **Zalesovo Array** **57.54** **319** P **P** **16 27 19.9 -0.7**
ZAA0 PcP **PcP** **16 28 11.6 -1.0**
ZALV **Zalesovo Beam** **57.54** **319** P **P** **16 27 20.1 -0.5**
comp=Z,0.9nm,0.3s,baz=38,slow=6.6,SNR=6.8
ZALV pP **pP** **16 27 50.9 +0.9**
comp=Z,0.5nm,0.3s,baz=54,slow=7.5,SNR=2.6
ZALV PcP **PcP** **16 28 12.1 -0.5**
comp=Z,1.7nm,0.4s,baz=46,slow=5.0,SNR=7.6
comp=Z,0.9nm,0.3s
ZALV **Zalesovo Beam** **57.54** **319** P **P** **16 27 19.7 -0.9**
ZALV PcP **PcP** **16 28 12.1 -0.5**
F64A **Sherman** **57.89** **55** P **P** **16 27 23.1 -0.1**
BATG **Bathurst New B** **57.93** **52** P **P** **16 27 23.7 +0.3**
NPNY **Mohonk Preserv** **57.99** **62** P **P** **16 27 25.0 +1.1**
ODNJ **Ogdensburg** **58.24** **63** P **P** **16 27 26.5 +0.8**
WSPT **Westport, CT** **58.83** **62** P **P** **16 27 29.9 +0.2**
LMN **Caledonia Moun** **59.57** **53** P **P** **16 27 34.8 0.0**
T59A **Double "B" Far** **59.67** **68** P **P** **16 27 36.1 +0.5**
XAN **Xi'an** **60.84** **288** *eP* **P** **16 27 43.3 -0.4**
XAN PcP **PcP** **16 28 26.2 0.0**
NACB **Ninganchiao** **60.99** **272** P **P** **16 27 45.6 +0.9**
GBN **Guysborough** **61.42** **51** P **P** **16 27 48.1 +0.8**
SSLB **Suanglung** **61.66** **272** P **P** **16 27 48.5 -0.8**
KURK **Kurchatov** **62.44** **320** P **P** **16 27 53.9 -0.1**
KURK **Kurchatov** **62.44** **320** IAmb IAmb 16 27 54.5
comp=Z,9.5nm,1.5s
KURBB **Kurchatov Arra** **62.55** **320** P **P** **16 27 53.9 -0.9**
comp=Z,1.3nm,0.2s,baz=46,slow=6.6,SNR=5.4
KURBB pP **pP** **16 28 24.7 0.0**
comp=Z,0.4nm,0.3s,baz=37,slow=6.4,SNR=1.5
comp=Z,1.3nm,0.2s
ENH **Enshi** **63.34** **285** P **P** **16 27 59.2 -1.2**
BVAR **Borovoye Array** **63.42** **326** P **P** **16 28 00.5 -0.1**
comp=Z,2.5nm,0.6s,baz=45,slow=7.4,SNR=15
BVAR pP **pP** **16 28 31.8 +1.3**
comp=Z,2.6nm,0.4s,baz=38,slow=7.1,SNR=7.9
comp=Z,2.5nm,0.6s
BORK **Borovoye** **63.42** **326** P **P** **16 28 00.4 -0.1**
KIRV **Kirov** **63.93** **341** P **P** **16 28 03.2 -0.5**
comp=Z,9.4nm,0.5s,baz=39,slow=3.6,SNR=8.9
comp=Z,9.4nm,0.5s
ARTI **Arti** **63.95** **335** P **P** **16 28 03.5 -0.4**
comp=Z,7.8nm,0.5s,baz=17,slow=4.3,SNR=15
ARTI pP **pP** **16 28 35.3 +1.4**
comp=Z,8.5nm,0.7s,baz=71,slow=2.1,SNR=5.9
comp=Z,7.8nm,0.5s
ARTI **Arti** **63.95** **335** **P** **16 28 03.0 -0.9**
ARTI pP **pP** **16 28 35.1 +1.1**
FIA1 **FINESS Array S** **64.13** **354** P **P** **16 28 04.5 -0.5**
FIA1 pP **pP** **16 28 35.2 +0.2**
FINES **FINESS Array B** **64.13** **354** P **P** **16 28 04.5 -0.5**
comp=Z,3.6nm,0.4s,baz=25,slow=6.4,SNR=31
FINES pP **pP** **16 28 35.4 +0.4**
comp=Z,2.6nm,0.5s,baz=5.7,slow=6.0,SNR=1.8
comp=Z,3.6nm,0.4s
FINES **FINESS Array B** **64.13** **354** P **P** **16 28 04.2 -0.7**
FINES pP **pP** **16 28 34.5 -0.5**
MK31 **Makanchi Array** **64.14** **315** P **P** **16 28 04.2 -1.2**
MKAR **Makanchi Array** **64.14** **315** P **P** **16 28 04.6 -0.8**
comp=Z,0.3nm,0.4s,baz=42,slow=6.6,SNR=11
comp=Z,0.3nm,0.4s
MKAR **Makanchi Array** **64.14** **315** P **P** **16 28 04.3 -1.1**
MAKZ **Makanchi** **64.26** **315** P **P** **16 28 04.9 -1.2**
NC204 **NORSAR Array S** **64.60** **2** P **P** **16 28 07.8 -0.3**
NC303 **NORSAR Array S** **64.66** **2** P **P** **16 28 08.0 -0.5**
NC303 IAmb IAmb 16 28 23.7
comp=Z,16nm,1.4s
NC303 pP **pP** **16 28 39.9 +1.3**
NC405 **NORSAR Array S** **64.78** **2** P **P** **16 28 08.8 -0.5**
NC405 PcP **PcP** **16 28 41.3 -0.5**
NOA **NORSAR Array B** **64.84** **2** P **P** **16 28 09.7 -0.1**
comp=Z,1.3nm,0.8s,baz=359,slow=6.2,SNR=2.7
NOA pP **PcP** **16 28 41.5 -0.5**
comp=Z,0.5nm,0.4s,baz=350,slow=4.0,SNR=2.2
comp=Z,1.3nm,0.8s
HFS **Hagfors** **65.78** **1** P **P** **16 28 15.4 -0.4**
comp=Z,3.7nm,0.4s,baz=44,slow=4.1,SNR=22
HFS pP **PcP** **16 28 45.7 -0.2**
comp=Z,1.4nm,0.4s,baz=73,slow=6.5,SNR=1.8
comp=Z,3.7nm,0.4s
AKTO **Aktyubinsk** **69.41** **332** P **P** **16 28 38.6 -0.1**
comp=Z,14nm,0.6s,baz=40,slow=4.6,SNR=49
comp=Z,14nm,0.6s
EKA **Eskdalemuir Ar** **69.61** **11** P **P** **16 28 40.1 +0.3**
comp=Z,4.3nm,0.7s,baz=339,slow=4.7,SNR=13
comp=Z,4.3nm,0.7s
ESK **Eskdalemuir** **69.63** **11** P **P** **16 28 39.9 0.0**
ESK IAmb IAmb 16 28 54.6
comp=Z,8.8nm,1.2s
AB31 **Akbulak array** **69.93** **330** **P** **16 28 41.9 0.0**
AB31 IAmb IAmb 16 28 42.7
comp=Z,5.6nm,0.8s
ABKAR **Akbulak array** **69.93** **330** **P** **16 28 41.4 -0.5**
ABKAR pP **pP** **16 29 14.0 +1.7**

BELG	**Belogornoye**	**70.09**	**339**	P	**P**	**16 28 42.4**	**-0.4**
	comp=Z,12nm,0.6s,baz=17,slow=2.8,SNR=11						
	comp=Z,12nm,0.6s						
PABE	**Paberze**	**70.17**	**354**	P	**P**	**16 28 43.0**	**-0.2**
AAK	**Ala-Archa**	**70.71**	**318**	P	**P**	**16 28 46.9**	**-0.1**
AAK				IAmb	IAmb	16 28 47.8	
	comp=Z,3.2nm,0.6s						
NRN	**Naryn**	**71.12**	**316**	P	**P**	**16 28 49.4**	**-0.3**
KK31	**Karatay Array**	**71.84**	**320**		**P**	**16 28 52.6**	**-1.0**
KK31				IAmb	IAmb	16 28 54.0	
	comp=Z,4.8nm,0.8s						
KKAR	**Karatay Array**	**71.84**	**320**		**P**	**16 28 52.5**	**-1.1**
ARSB	**Arslanbob**	**72.42**	**318**		**P**	**16 28 56.8**	**-0.5**
ARSB				IAmb	IAmb	16 28 58.0	
	comp=Z,5.7nm,0.5s						
KSH2	**Kashi**	**73.23**	**315**	P	**P**	**16 29 02.4**	**+0.4**
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MTDJ	**Mount Denham**	**74.06**	**81**	P	**P**	**16 29 07.3**	**+0.2**
RNPP9	**Sopachiv**	**74.12**	**353**	P	**P**	**16 29 06.3**	**-0.5**
RNPP8	**Varash**	**74.20**	**353**	P	**P**	**16 29 06.5**	**-0.8**
RNPP5	**Staryi Chortor**	**74.30**	**353**	P	**P**	**16 29 07.2**	**-0.7**
BTK	**Batken**	**74.35**	**319**	P	**P**	**16 29 08.3**	**-0.2**
BTK				IAmb	IAmb	16 29 09.1	
	comp=Z,7.3nm,0.6s						
DRK	**Karamyk**	**74.47**	**318**	P	**P**	**16 29 09.4**	**0.0**
AK21	**Malin Array Si**	**74.49**	**351**	P	**P**	**16 29 07.2**	**-1.7**
AK23	**Malin Array Si**	**74.49**	**351**	P	**P**	**16 29 07.4**	**-1.6**
AK03	**Malin Array Si**	**74.52**	**351**	P	**P**	**16 29 07.8**	**-1.3**
AKASG	**Malin Array Be**	**74.55**	**351**	P	**P**	**16 29 08.4**	**-0.8**
	comp=Z,5.3nm,0.5s,baz=14,slow=5.8,SNR=24						
	comp=Z,5.3nm,0.5s						
AKBB	**Malin Array Si**	**74.55**	**351**	P	**P**	**16 29 08.0**	**-1.3**
KIEV	**Kiev**	**74.55**	**351**		**P**	**16 29 08.3**	**-1.1**
KIEV				IAmb	IAmb	16 29 08.9	
	comp=Z,9.7nm,0.6s						
KIEV	**Kiev**	**74.55**	**351**	P	**P**	**16 29 08.2**	**-1.1**
	comp=Z,58nm,1.1s						
AK11	**Malin Array Si**	**74.57**	**351**	P	**P**	**16 29 08.4**	**-1.0**
AK16	**Malin Array Si**	**74.59**	**351**	P	**P**	**16 29 08.6**	**-0.9**
CLL	**Collm**	**74.62**	**1**	P	**P**	**16 29 08.9**	**-0.8**
AK10	**Malin Array Si**	**74.64**	**350**	P	**P**	**16 29 08.7**	**-1.1**
BMRD	**Maredsous**	**75.31**	**7**	*d*P	**P**	**16 29 13.8**	**+0.2**
BMRD				*d*PcP	**PcP**	**16 29 26.5**	**+0.1**
LUBAR	**Lubar, Ukraine**	**75.45**	**351**	P	**P**	**16 29 13.7**	**-0.8**
DPC	**Dobruska-Polom**	**75.59**	**359**	P	**P**	**16 29 15.5**	**+0.2**
	comp=Z,6.4nm,2.8s						
OJC	**Ojcow**	**75.64**	**357**	P	**P**	**16 29 15.4**	**-0.2**
LANS	**Liptovska Anna**	**76.72**	**357**	*e*P	**P**	**16 29 23.2**	**+1.4**
FAKI	**Fak Fak**	**76.81**	**246**	P	**P**	**16 29 22.6**	**-0.1**
KOLS	**Kolonicke sedl**	**76.82**	**355**	*e*P	**P**	**16 29 23.0**	**+0.7**
KMPD	**K-Podol'skiy**	**76.91**	**352**	P	**P**	**16 29 22.0**	**-0.7**
GERES	**GERESS Array B**	**77.10**	**1**	P	**P**	**16 29 23.2**	**-0.7**
	comp=Z,0.9nm,0.7s,baz=0.0,slow=5.3,SNR=7.8						
	comp=Z,0.9nm,0.7s						
SORM	**Soroca**	**77.17**	**351**	P	**P**	**16 29 23.3**	**-0.9**
	comp=Z,12nm,2.0s						
VYHS	**Vyhne**	**77.39**	**357**	*e*P	**P**	**16 29 26.4**	**+0.9**
MODS	**Modra-Piesok**	**77.55**	**358**	*e*P	**P**	**16 29 27.6**	**+1.2**
WINA	**Alland / Wiene**	**77.83**	**359**	*e*P	**P**	**16 29 27.1**	**-0.8**
	comp=Z,1.7nm,0.4s						
BUR08	**Bucovina Ar. S**	**77.92**	**353**		**P**	**16 29 28.0**	**-0.6**
BURAR	**Bucovina Array**	**77.95**	**353**	P	**P**	**16 29 28.2**	**-0.5**
CONA	**Conrad Observa**	**78.02**	**359**	*e*P	**P**	**16 29 29.6**	**+0.6**
	comp=Z,4.7nm,1.0s						
SRO	**Srobarova**	**78.09**	**358**	*e*P	**P**	**16 29 29.2**	**-0.1**
MOA	**Molln**	**78.10**	**0**	*e*P	**P**	**16 29 28.8**	**-0.6**
	comp=Z,5.7nm,1.2s						
RONA	**Rosalia, Austr**	**78.24**	**359**	*e*P	**P**	**16 29 29.4**	**-0.9**
	comp=Z,5.4nm,1.3s						
RETA	**Reutte**	**78.40**	**3**	*e*P	**P**	**16 29 31.1**	**-0.1**
	comp=Z,4.9nm,1.1s						
KKM	**Kota Kinabalu**	**78.45**	**264**	P	**P**	**16 29 31.7**	**-0.2**
LESA	**Schwarzleotal**	**78.51**	**1**	*e*P	**P**	**16 29 32.1**	**+0.3**
	comp=Z,3.2nm,1.1s						
CMAR	**Chiang Mai Arr**	**78.52**	**286**	P	**P**	**16 29 31.4**	**-0.8**
	comp=Z,2.9nm,1.0s,baz=17,slow=5.1,SNR=20						
CMAR				pP	**pP**	**16 30 02.8**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=25,slow=5.0,SNR=1.8						
	comp=Z,2.9nm,1.0s						
CMAR	**Chiang Mai Arr**	**78.52**	**286**		**P**	**16 29 31.6**	**-0.5**
MOTA	**Moosalm**	**78.56**	**3** *i* P		**P**	**16 29 32.2**	**+0.1**
	comp=Z,10nm,1.4s						
WTTA	**Wattenberg**	**78.65**	**2**	*e*P	**P**	**16 29 33.5**	**+0.9**
	comp=Z,2.8nm,0.7s						
SQTA	**Sankt Quirin**	**78.68**	**2**	*e*P	**P**	**16 29 33.5**	**+0.7**
	comp=Z,12nm,1.3s						
ARSA	**Arzberg**	**78.69**	**359**	P	**P**	**16 29 31.6**	**-1.2**
ARSA	**Arzberg**	**78.69**	**359**	*e*P	**P**	**16 29 31.8**	**-0.9**
	comp=Z,4.1nm,1.2s						
MPLH	**Magyarpolny**	**78.75**	**358**	P	**P**	**16 29 32.3**	**-0.7**
	comp=Z,21nm,1.4s						
SESA	**Seetaler Alpe,**	**78.83**	**0**	*e*P	**P**	**16 29 33.2**	**-0.5**
	comp=Z,3.1nm,0.7s						
KBA	**Koelnbreinsper**	**78.86**	**1**	*e*P	**P**	**16 29 34.3**	**+0.5**
	comp=Z,11nm,1.1s						
FETA	**Feichten**	**78.87**	**3**	*e*P	**P**	**16 29 34.2**	**+0.3**
	comp=Z,6.1nm,1.3s						
TESR	**Tesceni**	**78.93**	**352**	P	**P**	**16 29 33.3**	**-0.7**
KIV	**Kislovodsk**	**79.14**	**340**	P	**P**	**16 29 34.8**	**-0.5**
	comp=Z,11nm,0.9s						
ABTA	**Abfaltersbach**	**79.18**	**2**	*e*P	**P**	**16 29 33.9**	**-1.5**
	comp=Z,2.5nm,0.8s						
FUORN	**Ofenpass-Fuorn**	**79.25**	**3**	P	**P**	**16 29 34.9**	**-1.2**
FUORN				IAmb	IAmb	16 29 40.5	
	comp=Z,4.7nm,0.8s						
SOKA	**Soboth**	**79.27**	**360**	*e*P	**P**	**16 29 36.9**	**+1.0**
	comp=Z,5.1nm,0.7s						
MYKA	**Terra Mystica**	**79.31**	**1**	*e*P	**P**	**16 29 34.1**	**-2.1**
	comp=Z,3.5nm,1.0s						
KBZ	**Khabaz**	**79.31**	**340**	P	**P**	**16 29 36.5**	**+0.5**
	comp=Z,5.1nm,0.9s,baz=319,slow=3.0,SNR=10						
KBZ				pP	**pP**	**16 30 08.2**	**+1.0**
	comp=Z,2.0nm,0.8s,baz=281,slow=6.9,SNR=2.7						
	comp=Z,5.1nm,0.9s						
OBKA	**Obir**	**79.44**	**0**	*e*P	**P**	**16 29 37.5**	**+0.6**
	comp=Z,5.1nm,0.5s						
TOLI2	**Tolitoli**	**79.82**	**258**	P	**P**	**16 29 38.0**	**-1.2**
TOLI2				IAmb	IAmb	16 29 38.9	
	comp=Z,4.7nm,0.7s						
KBL	**Kabul**	**79.84**	**317**	P	**P**	**16 29 39.3**	**-0.1**
KBL				IAmb	IAmb	16 29 41.0	
	comp=Z,3.3nm,0.5s						
TIRR	**Tirgusor**	**80.81**	**350**	P	**P**	**16 29 44.0**	**-0.1**
BR131	**Keskin Array S**	**84.83**	**345**		**P**	**16 30 05.2**	**+0.1**
BR131				IAmb	IAmb	16 30 06.4	
	comp=Z,6.0nm,0.8s						
BRTR	**Keskin Array B**	**84.83**	**345**	P	**P**	**16 30 05.6**	**+0.4**
	comp=Z,4.4nm,0.8s,baz=33,slow=3.3,SNR=17						
BRTR				pP	**pP**	**16 30 36.7**	**0.0**
	comp=Z,1.5nm,0.8s,baz=54,slow=1.9,SNR=3.0						
	comp=Z,4.4nm,0.8s						
BRTR	**Keskin Array B**	**84.83**	**345**		**P**	**16 30 05.2**	**+0.1**
ESDC	**Sonseca Array**	**84.90**	**14**	P	**P**	**16 30 06.1**	**+0.7**
	comp=Z,1.1nm,0.7s,baz=352,slow=5.7,SNR=6.0						
	comp=Z,1.1nm,0.7s						
ACER	**Acerenza**	**85.15**	**359**		**P**	**16 30 06.9**	**+0.2**
BNN	**Bunyan**	**85.34**	**344**	P	**P**	**16 30 08.0**	**+0.3**
BNN				IAmb	IAmb	16 30 09.6	
	comp=Z,7.7nm,0.8s						
MTN	**Manton Dam**	**85.77**	**241**	P	**P**	**16 30 09.8**	**0.0**
MTN				IAmb	IAmb	16 30 10.8	
	comp=Z,4.9nm,0.5s						
CUC	**Castrocucco**	**85.95**	**359**	P	**P**	**16 30 10.2**	**-0.4**
CUC				IAmb	IAmb	16 30 10.9	
	comp=Z,7.5nm,0.9s						
TIP	**Timpagrande**	**86.75**	**358**	P	**P**	**16 30 14.7**	**+0.2**
TIP				IAmb	IAmb	16 30 17.2	
	comp=Z,14nm,1.4s						
KULM	**Kulim**	**88.13**	**276**	P	**P**	**16 30 21.3**	**-0.1**
ITM	**Ithomi**	**88.55**	**354**	P	**P**	**16 30 22.4**	**-0.7**
IPM	**Ipoh**	**88.57**	**276**		**P**	**16 30 22.4**	**-1.1**
PMOZ	**Porto Moniz, M**	**88.83**	**26**	P	**P**	**16 30 25.4**	**+0.8**
CY604	**RAF Akrotiri,**	**89.97**	**344**		**P**	**16 30 29.9**	**+0.6**
KEST	**Kesra**	**90.08**	**4**		**P**	**16 30 30.9**	**+0.5**
KEST				IAmb	IAmb	16 30 48.7	
	comp=Z,8.7nm,1.5s						
WRA	**Warramunga Arr**	**90.22**	**235**	P	**P**	**16 30 30.4**	**-0.6**
	comp=Z,1.0nm,0.8s,baz=43,slow=5.0,SNR=6.2						
	comp=Z,1.0nm,0.8s						
WRA	**Warramunga Arr**	**90.22**	**235**	IAmb	IAmb	16 30 32.0	
	comp=Z,0.2nm,1.2s						
MD01	**Midelt array s**	**91.44**	**16**	P	**P**	**16 30 36.1**	**-0.7**
ASF	**Jabal al Asfar**	**91.66**	**341**	P	**P**	**16 30 37.2**	**-0.6**
	comp=Z,1.3nm,0.5s,baz=54,slow=17,SNR=1.6						
	comp=Z,1.3nm,0.5s						
FITZ	**Fitzroy Crossi**	**93.01**	**243**	P	**P**	**16 30 44.0**	**+0.1**
FITZ				IAmb	IAmb	16 30 45.7	
	comp=Z,2.6nm,1.3s						
GSI	**Gunungsitoli**	**93.14**	**277**	P	**P**	**16 30 44.1**	**-0.6**
ASAR	**Alice Springs**	**93.61**	**233**	P	**P**	**16 30 46.8**	**+0.2**
	comp=Z,0.5nm,0.6s,baz=27,slow=4.7,SNR=12						
ASAR				pP	**pP**	**16 31 18.2**	**-0.3**
	comp=Z,0.2nm,0.7s,baz=20,slow=5.3,SNR=1.4						
	comp=Z,0.5nm,0.6s						
ASAR	**Alice Springs**	**93.61**	**233**	P	**P**	**16 30 46.6**	**0.0**
H03N2	**Juan Fernandez**	**114.43**	**114**	T	T	18 40 08.1	
	baz=313						
H03N1	**Juan Fernandez**	**114.44**	**114**	T	T	18 40 09.4	
	baz=313						
H03N3	**Juan Fernandez**	**114.45**	**114**	T	T	18 40 10.9	
	baz=313						
VNDA	**Vanda**	**133.26**	**189**	PKP	**PKPdf**	**16 36 42.5**	**-1.5**
	comp=Z,3.9nm,0.4s,baz=112,slow=23,SNR=98						
VNDA				SKPbc	**SKPbc**	**16 40 00.0**	**-0.3**
	comp=Z,0.5nm,0.8s,baz=322,slow=4.9,SNR=4.0						
VNDA	**Vanda**	**133.26**	**189**		**PKPdf**	**16 36 42.1**	**-1.8**
QSPA	**South Pole Qui**	**144.20**	**180**	PKP	**PKPdf**	**16 37 04.0**	**-0.2**
	comp=Z,2.9nm,0.6s,baz=295,slow=0.8,SNR=20						
QSPA				pPKP	**pPKPdf**	**16 37 36.4**	**-1.1**
	comp=Z,1.9nm,0.8s,baz=137,slow=1.9,SNR=2.4						
QSPA				SKPbc	**SKiKP**	**16 40 31.9**	**-0.3**
	comp=Z,3.9nm,1.1s,baz=346,slow=3.5,SNR=5.6						
QSPA	**South Pole Qui**	**144.20**	**180**		**PKPdf**	**16 37 04.1**	**-0.1**
BOSA	**Boshof**	**153.10**	**339**	PKPbc	**PKPbc**	**16 37 27.1**	**-0.3**
	comp=Z,2.8nm,0.4s,baz=357,slow=1.9,SNR=26						
BOSA				PKPab	**PKPab**	**16 37 39.3**	**0.0**
	comp=Z,4.0nm,0.6s,baz=14,slow=4.0,SNR=8.4						
VNA3	**Neumayer Olymp**	**160.05**	**157**	PKPab	**PKPab**	**16 38 08.2**	**+0.2**
	comp=Z,3.1nm,0.8s						
VNA2	**Neumayer--Watz**	**160.79**	**158**	⇑PKPab	**PKPab**	**16 38 11.4**	**+0.1**
	comp=Z,5.3nm,0.6s,baz=218,slow=4.1						
TROLL	**Troll, Antarti**	**161.59**	**168**	PKPab	**PKPab**	**16 38 15.4**	**+0.5**
	comp=Z,70nm,1.0s						

*IDC **05** 16:19:10.2±1.2,0˚.25S×123˚.55E,h0km,mb3.6/4, mbtmp3.7/5,ML4.0/1,Error ellipse: s-maj=37.1km s-min=21.2km az=46.0*
*DJA **05** 16:19:21.0±0.2,0˚S±2˚×12˚4E±˚,h41km±13km, M4.2/32, mB4.3/2,mb4.3/8,MLv4.2/32,Mw(mB)3.5/2*
ISC 05 16:19:19.7±1.2,0.54S±0.06×123.87E±0.06,h35km,n18, σ2§00/17,mb3.5/4,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMSI	**Cibinong**	**1.11**	**6**	P	**Pn**	**16 19 39.6**	**+0.8**
KMSI				AML	AML		
LUWI	**Luwuk**	**1.21**	**246**	P	**Pn**	**16 19 42.1**	**+2.0**
LUWI				AML	AML		
MNI	**Manado**	**2.20**	**26**	P	**Pn**	**16 19 56.7**	**+2.9**
MNI				AML	AML		
APSI	**Ampana**	**2.25**	**261**	P	**Pn**	**16 19 55.1**	**+0.6**
APSI				AML	AML		
SANI	**Sanana**	**2.59**	**125**	P	**Pn**	**16 19 59.3**	**+0.1**
KDI	**Kendari**	**3.62**	**200**	P	**Pn**	**16 20 14.3**	**+1.1**
PCI	**Palu**	**4.05**	**265**	P	**Pn**	**16 20 20.2**	**+1.0**
PCI				AML	AML		
NLAI	**Namlea**	**4.19**	**130**	P	**Pn**	**16 20 23.3**	**+2.1**
NLAI				AML	AML		
KKSI	**Kolaka, Sulawe**	**4.23**	**212**	P	**Pn**	**16 20 23.4**	**+1.7**
KKSI				AML	AML		
TTSI	**Tana Toraja**	**4.75**	**238**	P	**Pn**	**16 20 30.0**	**+1.1**
TTSI				AML	AML		
BBSI	**Bau Bau**	**5.08**	**195**	P	**Pn**	**16 20 35.3**	**+1.9**
	0.1nm31nm,1.0s						
BBSI				AML	AML		
MMSI	**Mamuju**	**5.40**	**247**	P	**Pn**	**16 20 38.4**	**+0.6**
	0.1nm16nm,0.5s						
MMSI				AML	AML		
BSSI	**Bau Bau, Buton**	**6.50**	**211**	P	**Pn**	**16 20 55.5**	**+2.5**
BSSI				AML	AML		
SIJI	**Sorong**	**7.40**	**93**	Pn	**Pn**	**16 21 07.2**	**+1.9**
	2.0nm,0.3s,baz=274,slow=15,SNR=12						
	3.4nm,0.3s						
SIJI				AML	AML		
WRA	**Warramunga Arr**	**21.84**	**153**	P	**P**	**16 24 06.9**	**-2.4**
	0.4nm,0.6s,baz=333,slow=10,SNR=6.1						
	0.4nm,0.6s						
ASAR	**Alice Springs**	**24.96**	**158**	P	**P**	**16 24 40.2**	**+0.1**
	0.3nm,0.4s,baz=337,slow=8.3,SNR=13						
ASAR				PcP	**PcP**	**16 28 11.6**	**-3.5**
	0.3nm,1.0s,baz=350,slow=2.7,SNR=1.9						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**59.53**	**328**	P	P	16 29 13.2	-6.4
	0.4nm,0.6s,baz=132,slow=8.3,SNR=1.5						
	0.4nm,0.6s						
KURBB	**Kurchatov Arra**	**63.87**	**330**	P	P	16 29 41.0	-7.7
	1.3nm,0.2s,baz=124,slow=7.4,SNR=1.1						
	1.3nm,0.2s						

*NEIC **05** 16:28:37.2±1.9,18˚.98S±0˚.08×169˚.5E±0˚.1,h249km±9km, mb4.2/25,Error ellipse: s-maj=17.4km s-min=11.6km az=94.0*
*NOU **05** 16:28:41.1,19˚.13S×169˚.43E,h214km,MLv3.8/10, Vanuatu Islands*
*IDC **05** 16:28:45.6±7.4,19˚.17S×168˚.67E,h258km±35km,mb3.9/4, mbtmp4.5/4,Error ellipse: s-maj=92.4km s-min=64.4km az=85.0*
ISC 05 16:28:37.0±0.9,19˚.06S±0˚.06×169˚.5E±0˚.1,h246km,n48, σ1§23/50,mb4.2/15,1C,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	**Rentapao**	**1.59**	**322**	P	**Pn**	**16 29 19.0**	**+3.3**
MARNC	**Mare, Loyalty**	**2.76**	**209**	P	**Pn**	**16 29 27.8**	**+1.2**
MARNC	**Mare, Loyalty**	**2.76**	**209**	S	**S**	**16 30 04.9**	**-0.9**
MARNC	**Mare, Loyalty**	**2.76**	**209**		**Pn**	**16 29 28.1**	**+1.5**
MARNC				Sn	**S**	**16 30 05.5**	**-0.3**
YATNC	**Mamie plateau,**	**3.83**	**218**	P	**Pn**	**16 29 40.2**	**+1.6**
YATNC	**Mamie plateau,**	**3.83**	**218**	S	**S**	**16 30 27.8**	**+0.2**
PINNC	**Pines Island,**	**4.00**	**208**	Pn	**Pn**	**16 29 42.6**	**+2.0**
DZM	**Mont Dzumac**	**4.12**	**223**	P	**Pn**	**16 29 44.9**	**+2.9**
	7.1nm,0.4s,baz=108,slow=13,SNR=21						
DZM				S	**S**	**16 30 32.1**	**-1.7**
	7.7nm,0.5s,baz=81,slow=20,SNR=3.7						
OUENC	**Ouen Island, N**	**4.14**	**216**		**Pn**	**16 29 44.0**	**+1.8**
SANVU	**Saraoutou**	**4.19**	**329**	P	**Pn**	**16 29 46.0**	**+3.1**
SANVU	**Saraoutou**	**4.19**	**329**	Pn	**Pn**	**16 29 40.7**	**-2.2**
KOUNC	**Koumac, New Ca**	**5.09**	**252**	Pn	**Pn**	**16 29 53.2**	**-0.6**
EIDS	**Eidsvold**	**18.13**	**246**	P	**P**	**16 32 31.2**	**-0.1**
EIDS				IAmb	IAmb	16 33 11.3	
	comp=Z,16nm,1.3s						
ARMA	**Armidale**	**19.72**	**232**	P	**P**	**16 32 48.2**	**-0.2**
CTA	**Charters Tower**	**21.89**	**263**	P	**P**	**16 33 11.8**	**+1.4**
	comp=Z,3.9nm,0.6s,baz=95,slow=9.0,SNR=7.0						
	comp=Z,3.9nm,0.6s						
CTAO	**Charters Tower**	**21.89**	**263**	P	**P**	**16 33 09.5**	**-0.9**
CTAO				IAmb	IAmb	16 33 52.4	
	comp=Z,11nm,1.3s						
MRZ	**Mangatainoka R**	**22.16**	**168**	P	**P**	**16 33 12.0**	**-0.7**
NNZ	**Nelson**	**22.34**	**172**	P	**P**	**16 33 14.1**	**-0.1**
TCW	**Tory Channel**	**22.46**	**170**	P	**P**	**16 33 14.7**	**-0.7**
MSWZ	**Moikau Station**	**22.83**	**169**	P	**P**	**16 33 18.3**	**-0.5**
PLWZ	**Palliser**	**22.98**	**169**	P	**P**	**16 33 19.4**	**-0.7**
LTZ	**Lake Taylor**	**23.77**	**175**	P	**P**	**16 33 27.5**	**+0.1**
INKA	**Innaminka**	**27.68**	**246**	P	**P**	**16 34 02.3**	**-0.2**
INKA				IAmb	IAmb	16 34 07.4	
	comp=Z,5.4nm,1.5s						
TOO	**Toolangi**	**27.89**	**224**	P	**P**	**16 34 04.6**	**+0.3**
STKA	**Stephens Creek**	**28.11**	**238**	P	**P**	**16 34 08.1**	**+1.7**
	comp=Z,5.4nm,0.7s,baz=69,slow=8.0,SNR=9.9						
	comp=Z,5.4nm,0.7s						
STKA	**Stephens Creek**	**28.11**	**238**	P	**P**	**16 34 07.5**	**+1.1**
MGBR	**Mount Gambier**	**31.30**	**227**	P	**P**	**16 34 34.3**	**0.0**
BBOO	**Buckleboo**	**32.86**	**239**	P	**P**	**16 34 48.4**	**+0.5**
WR8	**Warramunga Arr**	**32.93**	**263**	P	**P**	**16 34 49.0**	**+0.3**
WR8				IAmb	IAmb	16 34 49.6	
	comp=Z,3.0nm,0.6s						
WB0	**Warramunga Arr**	**33.04**	**263**		**P**	**16 34 49.7**	**0.0**
WB0				IAmb	IAmb	16 34 50.8	
	comp=Z,4.8nm,0.6s						
WRA	**Warramunga Arr**	**33.08**	**263**	P	**P**	**16 34 50.5**	**+0.5**
	comp=Z,2.2nm,0.6s,baz=93,slow=9.2,SNR=24						
	comp=Z,2.2nm,0.6s						
WRA	**Warramunga Arr**	**33.08**	**263**	P	**P**	**16 34 49.2**	**-0.8**
AS31	**Alice Springs**	**33.37**	**256**	P	**P**	**16 34 53.5**	**+0.9**
ASAR	**Alice Springs**	**33.37**	**256**	P	**P**	**16 34 53.5**	**+0.9**
	comp=Z,15nm,0.5s,baz=81,slow=9.1,SNR=582						
	comp=Z,15nm,0.5s						
ASAR	**Alice Springs**	**33.37**	**256**		**P**	**16 34 53.2**	**+0.6**
MTN	**Manton Dam**	**37.31**	**274**	P	**P**	**16 35 26.2**	**+0.1**
MTN				IAmb	IAmb	16 35 48.0	
	comp=Z,11nm,1.3s						
KNRA	**Kununurra**	**38.92**	**268**	P	**P**	**16 35 40.1**	**+0.6**
KNRA				IAmb	IAmb	16 36 18.9	
	comp=Z,14nm,1.5s						
FORT	**Forrest**	**39.11**	**244**	P	**P**	**16 35 41.1**	**+0.2**
FORT				IAmb	IAmb	16 36 09.7	
	comp=Z,7.3nm,1.1s						
FAKI	**Fak Fak**	**39.76**	**289**	P	**P**	**16 35 45.9**	**-0.5**
FAKI				IAmb	IAmb	16 36 04.6	
	comp=Z,20nm,1.3s						
FITZ	**Fitzroy Crossi**	**41.47**	**264**	P	**P**	**16 36 00.8**	**+0.6**
MBWA	**Marble Bar**	**46.59**	**259**	P	**P**	**16 36 41.1**	**+0.2**
MBWA				IAmb	IAmb	16 37 16.4	
	comp=Z,17nm,1.2s						
NWAO	**Narrogin (SRO)**	**48.48**	**243**	P	**P**	**16 36 55.4**	**+0.2**
VNDA	**Vanda**	**58.62**	**182**	P	**P**	**16 38 07.3**	**-0.6**
SBA	**Scott Base**	**58.85**	**181**	P	**P**	**16 38 08.2**	**-1.2**
CASY	**Casey**	**60.37**	**203**	P	**P**	**16 38 19.8**	**-0.2**
CASY				IAmb	IAmb	16 38 21.7	
	comp=Z,3.6nm,0.8s						
TROLL	**Troll, Antarti**	**88.73**	**184**	P	**P**	**16 41 01.4**	**-1.0**
	comp=Z,97nm,0.8s						
VNA3	**Neumayer Olymp**	**89.93**	**180**	⇑P	**P**	**16 41 06.5**	**-1.5**
	comp=Z,1.2nm,0.3s						
VNA2	**Neumayer--Watz**	**90.23**	**181**	P	**P**	**16 41 08.4**	**-0.9**
	comp=Z,1.7nm,0.6s,baz=168,slow=4.9						

*THE **05** 16:36:19.9,37˚.9N±1˚.0×2˚7E±˚,h10km±2km,M2.8/8, MLh2.8/8*
*AFAD **05** 16:36:19.5,37˚.89N×26˚.97E,h7km±3km,ML2.5*
*ISK **05** 16:36:19.3,37˚.86N×26˚.93E,h10km,ML2.8/15*
ISC 05 16:36:19.6±0.8,37.87N±0.02×26.93E±0.03,h15km±6km, n33,σ0§49/49,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**204**	P	**Pg**	**16 36 23.7**	**-0.2**
SMG				S	**Sg**	**16 36 27.1**	**+0.4**
SMG				AML	AML		
DGB	**zmir**	**0.19**	**349**	P	**Pg**	**16 36 23.5**	**-0.5**
DGB				IAML		16 36 26.0	
	comp=E,1µm,0.2s						
DGB				S	**Sg**	**16 36 26.2**	**-0.8**
DGB				IAML		16 36 27.0	
	comp=N,648nm,0.3s						
GMLD	**Gumuldur**	**0.21**	**358**	Pg	**Pg**	**16 36 24.4**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**91**	Pg	**Pg**	**16 36 25.4**	**-0.3**
KUSD				Sg	**Sg**	**16 36 29.9**	**+0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**124**	P	**Pg**	**16 36 25.4**	**-0.4**
GCAM				S	**Sg**	**16 36 30.0**	**0.0**
GCAM				IAML		16 36 31.0	
	comp=N,1µm,0.2s						
GCAM				IAML		16 36 31.0	
	comp=E,1µm,0.1s						
GCAM	**G?zelcaml?**	**0.29**	**124**	Pg	**Pg**	**16 36 26.1**	**+0.3**
GCAM				Sg	**Sg**	**16 36 30.3**	**+0.3**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**0**	P	**Pg**	**16 36 26.9**	**-0.1**
BEYE				IAML		16 36 32.0	
	comp=E,594nm,0.2s						
BEYE				IAML		16 36 32.0	
	comp=N,492nm,0.4s						
BEYE				S	**Sg**	**16 36 32.1**	**+0.1**
DDIM	**Aydin, Didim**	**0.48**	**149**	P	**Pg**	**16 36 29.3**	**+0.1**
DDIM				S	**Sb**	**16 36 36.7**	**0.0**
DDIM				IAML		16 36 39.0	
	comp=N,352nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**318**	P	**Pg**	**16 36 29.2**	**-0.4**
ZEYE				S	**Sb**	**16 36 36.9**	**-0.4**
ZEYE		

YOGI	**Yogyakarta**	**2.25 207**	P	**P**	**16 47 02.8 +2.1**
YOGI			S	**S**	**16 47 58.3 +3.6**
YOGI			AML	AML	
PWJI	**Pagerwojo**	**2.27 168**	P	**P**	**16 47 03.6 +2.8**
PWJI			AML	AML	
CTJI	**Waduk Cacaban**	**2.44 240**	P	**P**	**16 47 05.5 +3.7**
CTJI			S	**S**	**16 48 01.8 +5.2**
KPJI	**Karang Pucung**	**2.82 237**	P	**P**	**16 47 06.4 +2.3**
KPJI			S	**S**	**16 48 04.9 +4.1**
KPJI			AML	AML	
SCJI	**Gunung Srandil**	**2.84 229**	P	**P**	**16 47 06.6 +2.4**
SCJI			S	**S**	**16 48 02.2 +1.1**
BLJI	**Banyuglugur**	**2.98 131**	P	**P**	**16 47 09.5 +4.4**
BLJI			AML	AML	
CMJI	**Cimerak**	**3.47 235**	P	**P**	**16 47 09.5 +0.9**
CMJI			S	**S**	**16 48 07.4 -1.7**
CMJI			AML	AML	
LEM	**Lembang**	**3.82 254**	P	**P**	**16 47 14.8 +3.3**
	33nm,0.6s,baz=60,slow=8.1,SNR=9.8				
LEM			S	**S**	**16 48 18.4 +4.2**
	24nm,0.6s,baz=328,slow=23,SNR=1.9				
LEM	**Lembang**	**3.82 254**	P	**P**	**16 47 14.4 +2.9**
LEM			AML	AML	
JAGI	**Jajag, Banyuwa**	**3.87 134**	P	**P**	**16 47 14.1 +2.4**
JAGI	**Jajag, Banyuwa**	**3.87 134**	S	**S**	**16 48 17.4 +2.7**
JAGI	**Jajag, Banyuwa**	**3.87 134**	P	**P**	**16 47 14.0 +2.4**
JAGI				**S**	**16 48 16.7 +2.0**
JAGI	**Jajag, Banyuwa**	**3.87 134**	P	**P**	**16 47 14.3 +2.6**
JAGI			AML	AML	
BBJI	**Bungbulang**	**4.00 245**	P	**P**	**16 47 14.3 +1.4**
BBJI	**Bungbulang**	**4.00 245**	S	**S**	**16 48 17.7 +0.9**
BBJI	**Bungbulang**	**4.00 245**	P	**P**	**16 47 14.3 +1.4**
BBJI			S	**S**	**16 48 16.5 -0.3**
BBJI	**Bungbulang**	**4.00 245**	P	**P**	**16 47 14.4 +1.5**
BBJI			S	**S**	**16 48 17.6 +0.8**
BBJI			AML	AML	
SKJI	**Sukabumi**	**4.88 255**	P	**P**	**16 47 22.0 +1.7**
KHKI	**Kahang-Kahang**	**4.96 121**	P	**P**	**16 47 25.1 +4.1**
KHKI			AML	AML	
CGJI	**Cibinong**	**5.65 261**	P	**P**	**16 47 28.1 +0.8**
TWSI	**Taliwang, Sumb**	**6.25 118**	P	**P**	**16 47 35.1 +2.1**
	0.1nm9.2nm,0.5s				
TWSI			AML	AML	
KASI	**Kota Agung**	**6.80 272**	P	**P**	**16 47 39.8 +1.3**
KASI			AML	AML	
PLAI	**Plampang**	**7.08 116**	P	**P**	**16 47 42.9 +1.6**
SBUM	**Sibu**	**8.24 6**	P	**P**	**16 47 53.7 +0.4**
KAPI	**Kappang**	**8.43 85**	P	**P**	**16 47 57.3 +2.0**
MNAI	**Manna**	**8.45 279**	P	**P**	**16 47 56.4 +0.9**
TOLI2	**Tolitoli**	**11.68 54**	P	**P**	**16 48 31.9 +2.4**
TOLI2	**Tolitoli**	**11.68 54**	P	**P**	**16 48 31.4 +1.9**
KKM	**Kota Kinabalu**	**12.73 23**	P	**P**	**16 48 44.7 +3.9**
KKM	**Kota Kinabalu**	**12.73 23**	S	**S**	**16 51 02.5 +4.4**
KKM	**Kota Kinabalu**	**12.73 23**	P	**P**	**16 48 39.3 -1.5**
BATI	**Baumata**	**12.98 111**	P	**P**	**16 48 44.0 +0.6**
	5.6nm,0.3s,baz=250,slow=10,SNR=1.7				
SOEI	**Soe**	**13.42 108**	P	**P**	**16 48 48.2 +0.1**
SOEI	**Soe**	**13.42 108**	P	**P**	**16 48 47.1 -1.0**
TNTI	**Ternate**	**17.30 68**	P	**P**	**16 49 27.5 -0.8**
MBWA	**Marble Bar**	**17.32 153**	P	**P**	**16 49 29.2 +0.8**
MBWA	**Marble Bar**	**17.32 153**	P	**P**	**16 49 27.9 -0.5**
FITZ	**Fitzroy Crossi**	**18.58 132**	P	**P**	**16 49 40.5 +0.5**
	1.1nm,0.3s,baz=336,slow=7.7,SNR=10				
FITZ	**Fitzroy Crossi**	**18.58 132**	P	**P**	**16 49 40.2 +0.2**
SAUI	**Saumlaki**	**19.95 97**	P	**P**	**16 49 52.5 -0.2**
SIJI	**Sorong**	**20.50 77**	P	**P**	**16 49 58.6 +0.9**
	5.9nm,0.7s,baz=289,slow=5.6,SNR=12				
	5.9nm,0.7s				
MTN	**Manton Dam**	**20.76 111**	P	**P**	**16 50 00.6 +0.6**
MTN			IAmb	IAmb	16 50 05.0
	comp=Z,8.0nm,1.3s				
FAKI	**Fak Fak**	**21.06 83**	P	**P**	**16 50 03.1 +0.3**
FAKI			IAmb	IAmb	16 50 42.5
	comp=Z,12nm,0.9s				
MORW	**Morawa**	**23.58 170**	P	**P**	**16 50 26.0 +0.8**
MORW			IAmb	IAmb	16 50 33.6
	comp=Z,19nm,1.1s				
KLBR	**Kellerberrin**	**26.36 168**	P	**P**	**16 50 50.7 +0.9**
WB0	**Warramunga Arr**	**26.39 124**	P	**P**	**16 50 50.0 -0.2**
WB0			IAmb	IAmb	16 51 16.1
	comp=Z,3.5nm,1.1s				
WRA	**Warramunga Arr**	**26.43 124**	P	**P**	**16 50 51.3 +0.7**
	comp=Z,0.7nm,0.6s,baz=304,slow=9.3,SNR=7.1				
WRA			S	S	16 54 38.5 -10
	comp=Z,0.3nm,0.5s,baz=296,slow=18,SNR=2.2				
	comp=Z,0.7nm,0.6s				
WRA	**Warramunga Arr**	**26.43 124**	P	**P**	**16 50 50.0 -0.6**
WRAB	**Tennant Creek**	**26.43 124**	P	**P**	**16 50 51.4 +0.8**
WRAB	**Tennant Creek**	**26.43 124**	S	**S**	**16 54 48.3 -0.4**
WR8	**Warramunga Arr**	**26.57 124**	P	**P**	**16 50 51.1 -0.7**
WR8			IAmb	IAmb	16 51 00.8
	comp=Z,3.6nm,1.1s				
CMAR	**Chiang Mai Arr**	**27.01 333**	P	**P**	**16 50 55.8 +0.1**
	comp=Z,0.4nm,0.3s,baz=150,slow=8.5,SNR=4.3				
	comp=Z,0.4nm,0.3s				
CMAR	**Chiang Mai Arr**	**27.01 333**	P	**P**	**16 50 55.0 -0.7**
NWAO	**Narrogin (SRO)**	**27.55 169**	P	**P**	**16 51 01.5 +1.2**
NWAO	**Narrogin (SRO)**	**27.55 169**	P	**P**	**16 51 00.8 +0.5**
AS31	**Alice Springs**	**28.07 132**	P	**P**	**16 51 05.5 +0.5**
AS31			IAmb	IAmb	16 51 06.3
	comp=Z,1.5nm,0.5s				
ASAR	**Alice Springs**	**28.07 132**	P	**P**	**16 51 05.7 +0.6**
	comp=Z,2.5nm,0.5s,baz=302,slow=8.3,SNR=101				
ASAR			PcP	**PcP**	**16 54 02.7 -1.1**
	comp=Z,0.3nm,0.6s,baz=316,slow=1.7,SNR=2.3				
ASAR			S	**S**	**16 55 09.0 -5.4**
	comp=Z,0.3nm,0.9s,baz=302,slow=14,SNR=4.8				
ASAR			ScP	**ScP**	**16 56 53.9 -3.4**
	comp=Z,0.3nm,0.8s,baz=293,slow=2.6,SNR=2.3				
	comp=Z,2.5nm,0.5s				
ASAR	**Alice Springs**	**28.07 132**	P	**P**	**16 51 05.4 +0.4**
AS01	**Alice Springs**	**28.11 132**	P	**P**	**16 51 06.0 +0.6**
FORT	**Forrest**	**29.41 150**	P	**P**	**16 51 17.1 +0.6**
FORT			IAmb	IAmb	16 51 40.6
	comp=Z,8.6nm,1.1s				
SSLB	**Suanglung**	**30.87 17**	P	**P**	**16 51 28.2 -1.1**
BBOO	**Buckleboo**	**35.41 143**	P	**P**	**16 52 07.7 +0.1**
INKA	**Innaminka**	**35.46 131**	P	**P**	**16 52 08.8 +0.7**
STKA	**Stephens Creek**	**38.40 136**	P	**P**	**16 52 33.1 +0.8**
	comp=Z,3.4nm,0.3s,baz=310,slow=6.7,SNR=21				
	comp=Z,3.4nm,0.3s				
STKA	**Stephens Creek**	**38.40 136**	P	**P**	**16 52 32.9 +0.6**
ARMA	**Armidale**	**45.10 128**	P	**P**	**16 53 25.0 -0.5**
CAN	**Canberra**	**45.44 135**	P	**P**	**16 53 28.1 +0.1**
KSRS	**Korea Array**	**45.73 19**	P	**P**	**16 53 31.0 +1.0**
	comp=Z,0.9nm,0.7s,baz=198,slow=8.7,SNR=2.3				
	comp=Z,0.9nm,0.7s				
PATS	**Pohnpei**	**48.54 76**	P	**P**	**16 53 49.0 -2.8**
MJAR	**Matsushiro Arr**	**49.06 29**	P	**P**	**16 53 53.8 -1.5**
	comp=Z,2.0nm,0.8s,baz=188,slow=7.4,SNR=5.3				
	comp=Z,2.0nm,0.8s				
MJAR	**Matsushiro Arr**	**49.06 29**	IAmb	IAmb	16 54 02.9
	comp=Z,4.3nm,1.5s				
USRK	**Ussuriysk Ar.**	**53.14 18**	P	**P**	**16 54 23.9 -0.8**
	comp=Z,1.3nm,0.6s,baz=250,slow=4.3,SNR=4.8				
	comp=Z,1.3nm,0.6s				
SONM	**Songino Array**	**53.57 356**	P	**P**	**16 54 27.7 -0.2**
	comp=Z,0.6nm,0.7s,baz=172,slow=10,SNR=2.9				
	comp=Z,0.6nm,0.7s				
MKAR	**Makanchi Array**	**58.34 337**	P	**P**	**16 55 00.2 -0.7**
	comp=Z,0.1nm,0.5s,baz=132,slow=8.1,SNR=1.7				
	comp=Z,0.1nm,0.5s				
MKAR	**Makanchi Array**	**58.34 337**	P	**P**	**16 54 59.2 -1.7**
ZALV	**Zalesovo Beam**	**63.55 343**	P	**P**	**16 55 33.9 -1.1**
	comp=Z,0.4nm,0.5s,baz=145,slow=5.3,SNR=2.5				
	comp=Z,0.4nm,0.5s				
MAW	**Mawson**	**69.79 198**	P	**P**	**16 56 13.8 +0.3**
	comp=Z,2.0nm,0.6s,baz=52,slow=5.2,SNR=9.9				
	comp=Z,2.0nm,0.6s				
MAW	**Mawson**	**69.79 198**	P	**P**	**16 56 13.6 +0.2**
ABKAR	**Akbulak array**	**70.66 327**	P	**P**	**16 56 17.4 -1.6**
VNDA	**Vanda**	**76.38 170**	P	**P**	**16 56 51.0 -0.2**
VNDA			IAmb	IAmb	16 56 52.4
	comp=Z,6.4nm,1.3s				
SBA	**Scott Base**	**77.43 170**	P	**P**	**16 56 57.6 +0.6**
POGA	**Pongola**	**78.15 243**	P	**P**	**16 57 01.5 -0.3**
POGA			IAmb	IAmb	16 57 34.5
	comp=Z,12nm,1.1s				
BOSA	**Boshof**	**83.81 242**	P	**P**	**16 57 30.1 -1.1**
BOSA			IAmb	IAmb	16 58 13.5
	comp=Z,14nm,1.4s				
QSPA	**South Pole Qui**	**84.19 180**	P	**P**	**16 57 32.0 -0.3**
	comp=Z,1.1nm,0.5s,baz=101,slow=1.1,SNR=8.8				
	comp=Z,1.1nm,0.5s				
QSPA	**South Pole Qui**	**84.19 180**	P	**P**	**16 57 32.0 -0.3**
QSPA			IAmb	IAmb	16 57 32.5
	comp=Z,1.3nm,0.7s				

*IDC **05** 16:55:55.6±1.3,28°.07N×57°.48E,h0km,mb3.7/7, mbtmp3.7/7, Error ellipse: s-maj=33.5km s-min=27.6km az=15.0*
*DSN **05** 16:55:57.5±1.6,28°.42N×57°.41E,h10km,ML3.4/12, Error ellipse: s-maj=21.9km s-min=14.7km az=94.0*
*TEH **05** 16:56:00.7,28°.16N×57°.60E,h24km±26km,ML3.6, Presumed earthquake*
*OMAN **05** 16:56:01.2±1.9,27°.97N×57°.67E,h10km,mb3.3/7, ml3.5/20, Error ellipse: s-maj=21.9km s-min=14.5km az=155.0*

ISC 05 16:56:00.1±1.1,**28°.18N**±0°.04×**57°.65E**±0°.06,**h30**km±9km, **n69**,σ2**916**/76,**mb3.7**/6,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KHNJ	**Kahnooj**	**0.23**	**167**	Pg	**Pb**	**16 56 07.4**	**+0.6**
KBAM	**BAM**	**1.19**	**36**	Pg	**Pn**	**16 56 22.4**	**+1.7**
IBND	**Bandar-abas**	**1.22**	**234**	Pg	**Pb**	**16 56 23.3**	**+0.8**
IBND				Sg	**Sb**	**16 56 39.1**	**+1.2**
GENO	**Geno**	**1.52**	**240**	Pg	**Pb**	**16 56 27.4**	**-0.3**
CHMN	**Cheshme madani**	**1.68**	**357**	Pg	**Pn**	**16 56 30.1**	**+2.4**
JASK	**Jask - Hormozg**	**2.31**	**175**	P	**Pn**	**16 56 38.3**	**+2.2**
	SNR=17						
JASK	**Jask - Hormozg**	**2.31**	**175**	Pn	**Pn**	**16 56 38.1**	**+2.0**
KRM1	**Kerman Provinc**	**2.34**	**352**	Pn	**Pb**	**16 56 40.5**	**-1.3**
KHGB	**Koh Gabri**	**2.42**	**335**	Pn	**Pn**	**16 56 40.6**	**+2.8**
SHME	**Shamm**	**2.51**	**213**	P	**Pn**	**16 56 41.0**	**+2.3**
SHME				S	**Sb**	**16 57 12.3**	**-2.6**
SHME	**Shamm**	**2.51**	**213**	P	**Pn**	**16 56 41.4**	**+2.7**
	SNR=8.6						
SHME				S	**Sn**	**16 57 09.7**	**+1.4**
BANOM	**Banah**	**2.55**	**208**	P	**Pn**	**16 56 41.6**	**+2.3**
BANOM				S	**Sb**	**16 57 14.3**	**-1.7**
BANOM	**Banah**	**2.55**	**208**	P	**Pb**	**16 56 43.1**	**-2.0**
	SNR=14						
BANOM				S	**Sn**	**16 57 10.4**	**+1.0**
MASF	**Masafi**	**3.10**	**206**	P	**Pn**	**16 56 48.9**	**+2.0**
MASF				S	**Sn**	**16 57 23.6**	**+0.6**
MSFE	**Esma-Masafi**	**3.11**	**206**	P	**Pn**	**16 56 49.6**	**+2.6**
MDH	**Madha**	**3.11**	**203**	P	**Pn**	**16 56 47.6**	**+0.5**
MDH	**Madha**	**3.11**	**203**	P	**Pn**	**16 56 47.4**	**+0.3**
MDH				S	**Sn**	**16 57 22.6**	**-0.7**
UMQ	**Umm Al-Quwin**	**3.18**	**214**	P	**Pn**	**16 56 51.0**	**+2.9**
UOSS	**Minazif**	**3.47**	**202**	P	**Pn**	**16 56 54.3**	**+2.3**
UOSS	**Minazif**	**3.47**	**202**	P	**Pn**	**16 56 54.3**	**+2.3**
HATD	**Hatta, Dubai**	**3.60**	**202**	P	**Pn**	**16 56 56.4**	**+2.5**
HATD	**Hatta, Dubai**	**3.60**	**202**	P	**Pn**	**16 56 55.0**	**+1.1**
CHBR	**Chabahar**	**3.61**	**135**	Pn	**Pn**	**16 56 56.6**	**+2.6**
NAZ	**Nazwa, Dubai**	**3.64**	**210**	P	**Pn**	**16 56 56.8**	**+2.5**
NAZ	**Nazwa, Dubai**	**3.64**	**210**	P	**Pn**	**16 56 58.4**	**+4.0**
ASHO	**Ashiyiah**	**3.76**	**203**	P	**Pn**	**16 56 58.5**	**+2.4**
ASHO	**Ashiyiah**	**3.76**	**203**	P	**Pn**	**16 56 59.1**	**+3.0**
	SNR=13						
NHDN	**Nehbandan**	**3.82**	**33**	Pn	**Pn**	**16 57 00.4**	**+3.4**
FAQ	**Al Faqa, Dubai**	**3.88**	**209**	P	**Pn**	**16 57 02.1**	**+4.4**
FAQ				S	**Sn**	**16 57 43.4**	**+1.1**
ASUD	**Al Ashush, Dub**	**4.10**	**211**	P	**Pn**	**16 57 02.7**	**+2.0**
IMEH	**Mehriz**	**4.15**	**321**	Pn	**Pn**	**16 57 04.4**	**+2.9**
SOHO	**SOHO**	**4.15**	**194**	P	**Pn**	**16 57 01.2**	**-0.2**
SOHO	**SOHO**	**4.15**	**194**	P	**Pn**	**16 57 00.8**	**-0.6**
	SNR=12						
NGCH	**Negor - Chabah**	**4.20**	**131**	P	**Pn**	**16 57 02.2**	**+0.2**
SRVN	**Saravan**	**4.28**	**99**	Pn	**Pn**	**16 57 07.1**	**+3.8**
AJN	**Ajban**	**4.32**	**214**	P	**Pn**	**16 57 02.0**	**-1.7**
IKOO	**Kooshah**	**4.39**	**15**	Pn	**Pn**	**16 57 08.5**	**+3.6**
ALNE	**Al Ain**	**4.45**	**203**	P	**Pn**	**16 57 08.7**	**+3.3**
HOQ	**Hoqain**	**4.59**	**184**	P	**Pn**	**16 57 07.1**	**-0.3**
	SNR=16						
TAFT	**Taft - Yazd**	**4.64**	**320**	Pn	**Pn**	**16 57 11.1**	**+2.7**
BIDO	**Bidbid**	**4.66**	**175**	P	**Pn**	**16 57 07.1**	**-1.3**
ARQ	**Araqi**	**4.93**	**192**	P	**Pn**	**16 57 15.1**	**+3.0**
	SNR=33						
WSAR	**Wadi Sarin**	**5.00**	**170**	P	**Pn**	**16 57 14.4**	**+1.4**
	SNR=56						
SMDO	**Samad**	**5.11**	**176**	P	**Pn**	**16 57 15.8**	**+1.2**
JRN	**Qarnain Island**	**5.37**	**234**	P	**Pn**	16 57 24.9	+6.7
BSY	**Bisya**	**5.42**	**184**	P	**Pn**	**16 57 20.9**	**+2.0**
MZWR	**Madinat Zayed**	**5.55**	**218**	P	**Pn**	**16 57 22.1**	**+1.4**
WBK	**Wadi Bani Khal**	**5.67**	**168**	P	**Pn**	**16 57 22.3**	**0.0**
	SNR=70						
JMDO	**Jabal Madar**	**5.80**	**176**	P	**Pn**	**16 57 25.2**	**+1.2**
IRAM	**Rameshed**	**5.83**	**310**	Pn	**Pn**	**16 57 26.9**	**+2.3**
UMZA	**Um Al Zommool**	**5.89**	**203**	P	**Pn**	**16 57 26.5**	**+1.3**
KLNJ	**Kolanjah**	**5.98**	**300**	Pn	**Pn**	**16 57 29.4**	**+2.6**
JLN	**Jalan Bani Buh**	**6.21**	**165**	P	**Pn**	**16 57 30.8**	**+1.1**
	SNR=8.9						
MZR	**Muzera**	**6.38**	**217**	P	**Pn**	**16 57 33.6**	**+1.5**
MZR	**Muzera**	**6.38**	**217**	P	**Pn**	**16 57 34.2**	**+2.2**
ZNGN	**Zangian**	**7.07**	**305**	Pn	**Pn**	**16 57 44.3**	**+2.6**
MHTO	**MHTO**	**7.17**	**178**	P	**Pn**	**16 57 44.7**	**+1.9**
DOK	**Doka**	**10.05**	**199**	P	**Pn**	**16 58 22.4**	**+0.1**
DMTO	**DMTO**	**10.71**	**194**	P	**Pn**	**16 58 29.3**	**-2.0**
ABTO	**Aybut**	**11.49**	**201**	P	**Pn**	**16 58 40.0**	**-2.2**
RAYN	**Ar Rayn**	**11.88**	**250**	P	**Pn**	**16 58 44.4**	**-3.1**
RAYN	**Ar Rayn**	**11.88**	**250**	P	**Pn**	**16 58 43.5**	**-4.0**
BRTR	**Keskin Array B**	**22.93**	**306**	P	**P**	**17 01 00.9**	**-0.9**
	1.9nm,0.9s,baz=119,slow=9.8,SNR=8.3						
	1.9nm,0.9s						
BVAR	**Borovoye Array**	**26.56**	**17**	P	**P**	**17 01 37.1**	**+2.0**
	0.6nm,0.6s,baz=196,slow=9.0,SNR=2.2						
	0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**32.53**	**30**	P	**P**	**17 02 29.1**	**+1.1**
	0.6nm,0.5s,baz=229,slow=11,SNR=2.3						
	0.6nm,0.5s						
FINES	**FINESS Array B**	**39.34**	**337**	P	**P**	**17 03 26.3**	**+0.1**
	1.7nm,0.9s,baz=111,slow=8.0,SNR=3.4						
	1.7nm,0.9s						
TORD	**Torodi Ar. Bea**	**54.01**	**266**	P	**P**	**17 05 20.9**	**-0.9**
	0.7nm,0.4s,baz=63,slow=8.2,SNR=5.6						
	0.7nm,0.4s						
WRA	**Warramunga Arr**	**88.17**	**114**	P	**P**	**17 08 49.8**	**+1.3**
	0.2nm,0.4s,baz=305,slow=4.6,SNR=2.1						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**89.72**	**117**	P	**P**	**17 08 55.9**	**+0.2**
	0.2nm,0.6s,baz=317,slow=4.1,SNR=2.0						
	0.2nm,0.6s						

*HEL **05** 16:57:01.4±0.3,67°.82N×20°.10E,h0km,ML1.1,Suspected explosion*
*UPP **05** 16:57:01.9±0.1,67°.83N×20°.21E,h0km,ML2.6,Confirmed Induced event*

ISC 05 16:57:02.1±0.9,**67°.83N**±0°.03×**20°.24E**±0°.03,**h0**km,**n22**, σ0**95**/35,**Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.13**	**17**	P	**Pg**	**16 57 04.7**	**+0.1**
	baz=205						
KUA				S	**Sg**	**16 57 06.7**	**+0.4**
RATU	**Laukkuluspa**	**0.24**	**269**	P	**Pg**	**16 57 06.5**	**-0.3**
RATU				S	**Sg**	**16 57 09.9**	**0.0**
KOVU	**Salmi**	**0.40**	**356**	P	**Pg**	**16 57 09.4**	**-0.2**
KOVU				S	**Sg**	**16 57 14.9**	**+0.1**
NIKU	**Nikkaluokta**	**0.46**	**275**	P	**Pg**	**16 57 10.4**	**-0.5**
NIKU				S	**Sg**	**16 57 16.7**	**0.0**
LANU	**Lannavaara**	**0.70**	**71**	P	**Pg**	**16 57 15.2**	**-0.3**
LANU	**Lannavaara**	**0.70**	**71**	PB	**Pg**	**16 57 15.3**	**-0.2**
	baz=257						
LANU				SG	**Sg**	**16 57 24.4**	**-0.1**
MASU	**Masugnsbyn**	**0.77**	**118**	P	**Pg**	**16 57 16.7**	**-0.2**
SALU	**Saltoluokta**	**0.80**	**237**	*eP*	**Pg**	**16 57 17.1**	**-0.3**
PAJU	**Pajala**	**1.37**	**125**	PG	**Pg**	**16 57 26.8**	**-1.6**
	baz=303						
PAJU				SG	**Sg**	**16 57 45.5**	**-0.7**
HEF	**Hetta**	**1.41**	**64**	*eP*	**Pn**	**16 57 27.8**	**-1.2**
HEF	**Hetta**	**1.41**	**64**	PG	**Pn**	**16 57 27.8**	**-1.2**
	baz=248						
HEF				MSG		16 57 45.2	
	comp=Z,1.6nm,0.2s						
HEF				SB	**Sg**	**16 57 46.7**	**-0.6**
ERTU	**Ertsjaerv**	**1.49**	**148**	P	**Pn**	**16 57 29.5**	**-0.6**
ERTU	**Ertsjaerv**	**1.49**	**148**	PN	**Pn**	**16 57 29.4**	**-0.8**
ERTU				SN	**Sb**	**16 57 49.9**	**-0.2**
KLF	**Kolari**	**1.55**	**111**	PG	**Pn**	**16 57 30.2**	**-0.8**
KLF				MSG		16 57 49.1	
	comp=Z,1.0nm,0.2s						
KLF				SN	**Sn**	**16 57 51.7**	**0.0**
KTK1	**Kautokeino**	**1.62**	**42**	PG	**Pn**	**16 57 31.7**	**-0.3**
KTK1				SN	**Sg**	**16 57 55.7**	**+1.4**
TOF	**Tornio**	**2.38**	**136**	PG	**Pn**	**16 57 43.5**	**+1.1**
TOF				MSG		16 58 12.7	
	comp=Z,0.7nm,0.2s						
TOF				SG	**Sb**	**16 58 15.4**	**-0.3**
RNF	**Rovaniemi**	**2.56**	**116**	PG	**Pn**	**16 57 46.6**	**+1.8**
RNF				SG	**Sb**	**16 58 21.2**	**+0.3**
ARA0	**ARCESS Array S**	**2.58**	**46**	PN	**Pn**	**16 57 44.6**	**-0.4**
ARA0				SB	**Sb**	**16 58 19.6**	**-1.7**
RAJF	**Raja-Jooseppi**	**3.09**	**74**	SB	**Sb**	**16 58 35.8**	**-0.2**
KEV	**Kevo**	**3.13**	**49**	SN	**Sn**	**16 58 32.0**	**+1.5**
RANF	**Ranua**	**3.16**	**122**	SG	**Sb**	**16 58 39.2**	**+1.2**
KU2	**Taivalkoski**	**3.81**	**120**	PB	**Pn**	**16 58 04.7**	**+2.6**

*THE **05** 17:04:32.9,39°.2N±0°.7×2°.1E±°,h0km±1km,M2.5/30, MLh2.5/30*
*TIR **05** 17:04:32.8,39°.14N×20°.39E,h14km±1km,MD2.4,ML2.8, ML2.8,Presumed earthquake*

ATH 05 17:04:32.5,39°.19N×20°.63E,h12km,ML2.6/19,**Latitude uncertainty: 0 km; Longitude uncertainty: 0 km, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ART2	**Arta**	**0.29**	**98**	P	**Pg**	**17 04 38.2**	**-0.2**
TSLK	**Tsoukalades, L**	**0.37**	**177**	P	**Pg**	**17 04 40.1**	**+0.3**
TSLK				S	**Sb**	**17 04 46.4**	**-0.2**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**0.37**	**177**	P	**Pg**	**17 04 40.0**	**+0.1**
TSLK				S	**Sg**	**17 04 45.3**	**+0.6**
TSLK				AML	AML		
LKD2	**Lefkada island**	**0.40**	**177**	P	**Pg**	**17 04 40.7**	**+0.2**
LKD2				S	**Sb**	**17 04 47.2**	**-0.5**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.40**	**177**	P	**Pg**	**17 04 40.1**	**-0.4**
LKD2				S	**Sb**	**17 04 47.2**	**-0.4**
LKD2				A	A	**17 05 33.4**	
LKD2				END		**17 05 33.4**	
LKD2	**Lefkada island**	**0.40**	**177**	P	**Pg**	**17 04 40.4**	**-0.1**
LKD2				S	**Sg**	**17 04 46.7**	**+0.8**
IGT	**Igoumenitsa**	**0.41**	**326**	P	**Pg**	**17 04 40.8**	**+0.2**
IGT				S	**Sb**	**17 04 47.8**	**-0.1**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.41**	**326**	P	**Pg**	**17 04 40.7**	**0.0**
IGT				S	**Sg**	**17 04 45.9**	**-0.3**
IGT				A	A	**17 05 24.6**	
IGT				END		**17 05 24.6**	
IGT	**Igoumenitsa**	**0.41**	**326**	P	**Pg**	**17 04 41.0**	**+0.3**
IGT				S	**Sg**	**17 04 46.8**	**+0.6**
IGT				AML	AML		
NYDR	**Nydri-Lefkada**	**0.48**	**173**	P	**Pg**	**17 04 41.8**	**-0.1**
NYDR				S	**Sb**	**17 04 49.3**	**-0.5**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.48**	**173**	P	**Pg**	**17 04 41.7**	**-0.2**
NYDR				S	**Sg**	**17 04 48.9**	**+0.6**
JAN	**Janina**	**0.50**	**20**	P	**Pb**	**17 04 42.8**	**-0.4**
JAN				S	**Sb**	**17 04 51.5**	**+1.1**
JAN	**Janina**	**0.50**	**20**	P	**Pg**	**17 04 42.4**	**+0.1**
JAN				S	**Sb**	**17 04 49.8**	**-0.6**
PRMD	**Pramanda**	**0.50**	**47**	P	**Pg**	**17 04 42.7**	**+0.4**
PRMD				S	**Sb**	**17 04 51.7**	**+1.2**
PRMD				AML	AML		
PRMD	**Pramanda**	**0.50**	**47**	P	**Pb**	**17 04 42.8**	**-0.4**
PRMD				S	**Sg**	**17 04 49.5**	**+0.6**
PRMD				AML	AML		
DRAG	**Dragano-Lefkad**	**0.51**	**185**	P	**Pg**	**17 04 42.2**	**-0.3**
DRAG				S	**Sb**	**17 04 50.5**	**-0.2**
DRAG				AML	AML		
DRAG	**Dragano-Lefkad**	**0.51**	**185**	P	**Pg**	**17 04 41.9**	**-0.6**
DRAG				S	**Sg**	**17 04 49.4**	**+0.2**
DRAG				AML	AML		
TETR	**Tetrakomo, Epi**	**0.53**	**73**	P	**Pg**	**17 04 42.5**	**-0.3**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**0.53**	**73**	P	**Pg**	**17 04 42.4**	**-0.4**
TETR				S	**Sg**	**17 04 50.3**	**+0.5**
TETR				AML	AML		
AMPL	**Ampelaki**	**0.53**	**120**	P	**Pg**	**17 04 42.8**	**0.0**
AMPL				S	**Sg**	**17 04 50.6**	**+0.7**
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.53**	**120**	P	**Pg**	**17 04 42.9**	**0.0**
AMPL				S	**Sg**	**17 04 50.1**	**+0.2**
AMPL				AML	AML		
EVGI	**Lefkada island**	**0.57**	**178**	P	**Pg**	**17 04

ANX	**Ano Chora**	**1.17**	**120**	P	Pg	17 04 55.2	+0.2
ANX				AML	AML		
VVK	**Vomvokou**	**1.20**	**129**	P	Pg	17 04 55.8	+0.1
EFP	**Efpalio**	**1.26**	**127**	P	Pb	17 04 56.0	0.0
EFP				AML	AML		
NEST	**Nestorio**	**1.27**	**15**	P	Pg	17 04 57.3	+0.4
NEST				AML	AML		
NEST	**Nestorio**	**1.27**	**15**	P	Pn	17 04 56.2	+0.1
NEST				AML	AML		
MG00	**Magoula, Dorid**	**1.29**	**126**	P	Pb	17 04 56.9	+0.2
RLS	**Riolos of Patr**	**1.31**	**150**	P	Pb	17 04 56.8	-0.2
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.31**	**150**	P	Pn	17 04 56.4	-0.2
AGG	**Agios Georgios**	**1.34**	**97**	P	Pb	17 04 57.8	+0.3
AGG				AML	AML		
AGG	**Agios Georgios**	**1.34**	**97**	P	Pn	17 04 57.2	+0.3
TYRN	**Tyrnavos**	**1.35**	**67**	P	Pg	17 04 58.0	-0.3
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.35**	**67**	P	Pb	17 04 57.4	-0.2
TYRN				AML	AML		
SERG	**Sergoula**	**1.36**	**124**	P	Pg	17 04 58.8	+0.1
SERG				AML	AML		
SERG	**Sergoula**	**1.36**	**124**	P	Pb	17 04 58.0	+0.1
SERG				AML	AML		
KZN	**Kozani**	**1.42**	**38**	P	Pb	17 04 59.0	+0.1
KZN				AML	AML		
LAKA	**Lakka**	**1.42**	**131**	P	Pn	17 04 58.2	+0.1
KALE	**Kalithea**	**1.43**	**124**	P	Pg	17 05 00.9	+1.0
KALE				AML	AML		
KALE	**Kalithea**	**1.43**	**124**	P	Pn	17 04 58.6	+0.3
KBN	**Korca**	**1.44**	**5**	P	Pg	17 05 00.9	+0.7
KBN				A	A	17 06 05.0	
KBN				END		17 06 05.0	
DRO	**Drossia**	**1.50**	**145**	P	Pb	17 04 59.9	-0.3
DRO	**Drossia**	**1.50**	**145**	P	Pn	17 04 59.3	+0.1
BERA	**Berati**	**1.60**	**341**	P	Pg	17 05 02.6	-0.6
BERA				S	Sg	17 05 25.2	+1.3
BERA				IAML		17 05 30.6	
	143nm,0.5s						
KLV	**Kalavryta, Ach**	**1.65**	**133**	P	Pg	17 05 03.6	-0.6
OHR	**Ohrid**	**1.92**	**4**	*i* Pn	Pg	17 05 09.7	+0.3
OHR				*i* Sn	Sg	17 05 37.8	+3.5

*ISK **05** 17:04:54.9, 37˚.89N×26˚.94E, h12km, ML2.8/13*
*THE **05** 17:04:55.5, 37˚.9N±1˚.0×2˚7E±˚, h9km±2km, M2.8/7, MLh2.8/7*
*AFAD **05** 17:04:55.4, 37˚.89N×26˚.94E, h7km±2km, ML2.3*

ISC 05 17:04:55.5±0.9, **37˚.88N**±0˚.02×**26˚.93E**±0˚.02, **h11**km±7km, **n29**, σ0°**40**/49, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.17**	**347**	P	**Pg**	**17 04 59.3**	**-0.1**
DGB				S	**Sg**	**17 05 01.5**	**-0.5**
DGB				IAML		17 05 02.0	
	comp=E,932nm,0.1s						
SMG	**Samos**	**0.19**	**204**	P	**Pg**	**17 04 59.3**	**-0.3**
SMG				S	**Sg**	**17 05 02.5**	**+0.1**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.19**	**356**	Pg	**Pg**	**17 04 59.8**	**+0.1**
GMLD				Sg	**Sg**	**17 05 02.8**	**+0.2**
KUSD	**Kusadasi-Aydin**	**0.28**	**94**	Pg	**Pg**	**17 05 01.2**	**-0.1**
KUSD				Sg	**Sg**	**17 05 05.4**	**+0.3**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**127**	P	**Pg**	**17 05 01.8**	**+0.1**
GCAM				S	**Sg**	**17 05 06.5**	**+0.8**
GCAM	**G?zelcaml?**	**0.30**	**127**	Pg	**Pg**	**17 05 01.5**	**-0.1**
GCAM				Sg	**Sg**	**17 05 06.3**	**+0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.34**	**359**	P	**Pg**	**17 05 02.4**	**-0.1**
BEYE				IAML		17 05 07.0	
	comp=E,318nm,0.7s						
BEYE				S	**Sg**	**17 05 07.5**	**+0.4**
BEYE				IAML		17 05 13.0	
	comp=N,298nm,0.2s						
DDIM	**Aydin, Didim**	**0.49**	**150**	P	**Pg**	**17 05 05.5**	**+0.4**
DDIM				S	**Sg**	**17 05 11.7**	**+0.1**
ZEYE	**Izmir, Urla-Ze**	**0.49**	**316**	P	**Pg**	**17 05 05.2**	**0.0**
ZEYE				S	**Sg**	**17 05 12.2**	**+0.5**
ZEYE				IAML		17 05 16.0	
	comp=N,433nm,0.3s						
ZEYE				IAML		17 05 16.0	
	comp=E,349nm,0.2s						
BLCB	**Balcova**	**0.51**	**10**	P	**Pg**	**17 05 05.5**	**0.0**
BLCB				S	**Sg**	**17 05 12.6**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**10**	Pg	**Pg**	**17 05 05.5**	**0.0**
BLCB				Sg	**Sg**	**17 05 12.8**	**+0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.53**	**50**	P	**Pg**	**17 05 06.0**	**+0.1**
DUVT				S	**Sg**	**17 05 12.9**	**0.0**
DUVT				IAML		17 05 18.0	
	comp=E,370nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.76**	**85**	Pg	**Pb**	**17 05 10.9**	**0.0**
AYDB				Sg	**Sb**	**17 05 21.1**	**-0.2**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.77**	**337**	Pg	**Pg**	**17 05 10.3**	**-0.2**
KRBN				Sg	**Sb**	**17 05 21.6**	**+0.1**
KRBN				AML	AML		
FOCM	**Foa**	**0.84**	**349**	Pg	**Pg**	**17 05 11.8**	**-0.1**
FOCM				Sg	**Sb**	**17 05 24.7**	**+1.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.86**	**306**	P	**Pb**	**17 05 12.5**	**+0.1**
CHOS				S	**Sb**	**17 05 24.7**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**306**	Pg	**Pg**	**17 05 12.0**	**-0.1**
CHOS				Sg	**Sb**	**17 05 24.5**	**+0.5**
CHOS				AML	AML		
BODT	**Bodrum**	**0.87**	**160**	P	**Pb**	**17 05 12.8**	**+0.1**
BODT				S	**Sb**	**17 05 25.0**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**160**	Pg	**Pg**	**17 05 12.3**	**-0.1**
BODT				Sg	**Sb**	**17 05 24.7**	**+0.3**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**332**	P	**Pn**	**17 05 13.8**	**-0.1**
KARB				S	**Sb**	**17 05 24.5**	**-0.1**
KARB				IAML		17 05 27.0	
	comp=N,131nm,0.3s						
KARB				IAML		17 05 27.0	
	comp=E,88nm,0.5s						
MLSB	**Milas**	**0.89**	**131**	Pg	**Pg**	**17 05 12.5**	**-0.2**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.08**	**85**	Pg	**Pg**	**17 05 15.8**	**-0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.13**	**43**	Pn	**Pg**	**17 05 17.0**	**-0.3**
AKS	**Akhisar**	**1.21**	**35**	Pn	**Pb**	**17 05 18.2**	**-0.3**
AKS				AML	AML		
DAT	**Datca**	**1.26**	**156**	Pn	**Pn**	**17 05 18.9**	**-0.3**
DAT				AML	AML		
YER	**Yerkesik**	**1.31**	**124**	P	**Pn**	**17 05 19.5**	**-0.4**
YER	**Yerkesik**	**1.31**	**124**	Pn	**Pn**	**17 05 19.4**	**-0.4**
APE	**Apeiranthos**	**1.38**	**234**	P	**Pn**	**17 05 19.9**	**-0.9**
TURN	**Turunc**	**1.52**	**136**	Pn	**Pn**	**17 05 22.1**	**-0.6**
TURN				AML	AML		

*VIE **05** 17:05:10.9±0.2, 46˚.33N×13˚.60E, h2km, ml0.3/1, Error ellipse: s-maj=2.0km s-min=1.2km az=94.0 4 km E of Bovec*

LJU 05 17:05:10.4, 46˚.32N×13˚.60E, h8km, **ML1.1, 2C-1D, Presumed earthquake, Austria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROBS	**Robic**	**0.10**	**221**	*i* Pg	Pg	17 05 12.9	+0.2
ROBS				*i* Sg	Sg	17 05 14.5	+0.2
ROBS				IAML		17 05 14.7	
	comp=Z,30nm,0.1s						
PRED	**Cave del Predi**	**0.13**	**349**	*e*Pg	Pg	17 05 13.4	+0.1
PRED				*e*Sg	Sg	17 05 15.4	+0.2
CADS	**Cadrg**	**0.13**	**133**	*i* Pg	Pg	17 05 13.4	+0.1
CADS				*i* Sg	Sg	17 05 15.6	+0.3
CADS				IAML		17 05 15.6	
	comp=Z,11nm,0.1s						
DRE	**Drenchia**	**0.15**	**168**	*e*Pg	Pg	17 05 13.6	+0.1
DRE				*e*Sg	Sg	17 05 16.2	+0.4
LSR	**Lussari**	**0.17**	**342**	*e*Pg	Pg	17 05 14.1	+0.2
LSR				*e*Sg	Sg	17 05 16.6	+0.2
VINO	**Villanova**	**0.23**	**255**	*e*Pg	Pg	17 05 15.2	+0.1
VINO				*e*Sg	Sg	17 05 18.8	+0.7
ACOM	**Acomizza, Ital**	**0.24**	**345**	*e*Pg	Pg	17 05 15.3	+0.1
ACOM				*e*Sg	Sg	17 05 19.0	+0.5
GORS	**Gorjuse**	**0.27**	**90**	*i* Pg	Pg	17 05 15.9	+0.1
GORS				*i* Sg	Sg	17 05 20.4	+0.8
MYKA	**Terra Mystica**	**0.31**	**5**	*i* Pg	Pg	17 05 16.8	+0.2
	comp=Z,0.1nm,0.1s						
MYKA				*i* Sg	Sg	17 05 21.5	+0.7
	comp=Z,0.5nm,0.1s						

*THE **05** 17:14:08.2, 38˚N±1˚×2˚7E±˚, h12km±2km, M2.6/8, MLh2.6/8*
*ISK **05** 17:14:15.7, 37˚.85N×26˚.92E, h8km, ML2.2/14*

ISC 05 17:14:14.9±1.1, **37˚.83N**±0˚.03×**26˚.86E**±0˚.05, **h13**km, **n21**, σ2°**53**/20, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.12**	**189**	P	Pg	17 14 12.1	-6.1
SMG				S	**Sg**	**17 14 15.2**	**-5.2**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.25**	**10**	Pg	**Pg**	**17 14 20.9**	**+0.6**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.32**	**113**	Pg	**Pg**	**17 14 21.9**	**+0.4**
GCAM				Sg	**Sg**	**17 14 26.6**	**+0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**84**	Pg	**Pg**	**17 14 21.9**	**+0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.58**	**14**	P	Pg	17 14 18.7	-7.6
BLCB				S	**Sg**	**17 14 26.4**	**-7.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**14**	Pg	**Pg**	**17 14 26.9**	**+0.7**
BLCB				Sg	**Sg**	**17 14 34.8**	**+0.9**
BLCB				AML	AML		
BODT	**Bodrum**	**0.84**	**155**	P	Pg	17 14 25.5	-5.7
BODT				S	**Sg**	**17 14 38.6**	**-3.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**155**	Pg	**Pg**	**17 14 32.3**	**+1.1**
BODT				AML	AML		
CHOS	**Chios island**	**0.85**	**312**	P	Pg	17 14 23.9	-7.4
CHOS				S	Sg	17 14 34.6	-7.8
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**312**	Pg	**Pb**	**17 14 33.2**	**+1.7**
CHOS				AML	AML		
FOCM	**Foa**	**0.89**	**353**	Pg	**Pg**	**17 14 33.0**	**+0.8**
FOCM				AML	AML		
MLSB	**Milas**	**0.90**	**126**	Pg	**Pg**	**17 14 32.9**	**+0.6**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.91**	**150**	Pg	**Pg**	**17 14 33.5**	**+1.0**
NAZL	**Nazilli-Aydin**	**1.14**	**83**	Pn	**Pb**	**17 14 37.0**	**+0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**43**	Pn	**Pn**	**17 14 38.4**	**+0.8**
GOMA				AML	AML		
DAT	**Datca**	**1.23**	**152**	Pn	**Pb**	**17 14 39.5**	**+1.3**
DAT				AML	AML		
AKS	**Akhisar**	**1.29**	**35**	Pn	**Pb**	**17 14 39.7**	**+0.6**
APE	**Apeiranthos**	**1.30**	**235**	P	Pn	17 14 30.9	-8.0
APE				AML	AML		
YER	**Yerkesik**	**1.32**	**121**	Pn	**Pb**	**17 14 40.5**	**+0.8**
YER				AML	AML		
PRK	**Paraskevi**	**1.49**	**342**	P	Pn	17 14 35.4	-6.0
TURN	**Turunc**	**1.52**	**133**	Pn	**Pb**	**17 14 43.8**	**+0.8**
TURN				AML	AML		

ISK 05 17:16:45.4, 37˚.82N×26˚.72E, h8km, **ML1.8**/11, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.42**	**106**	Pg	Pg	17 16 54.1	+0.5
GCAM				Sg	Sb	17 17 00.5	-1.1
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.45**	**84**	Pg	Pg	17 16 54.3	+0.2
KUSD				AML	AML		
BLCB	**Balcova**	**0.62**	**24**	Pg	Pg	17 16 57.3	-0.1
BLCB				AML	AML		
CHOS	**Chios island**	**0.78**	**317**	Pg	Pb	17 17 01.2	0.0
CHOS				Sg	Sb	17 17 11.9	-0.1
CHOS				AML	AML		
BODT	**Bodrum**	**0.89**	**148**	Pg	Pb	17 17 02.8	-0.3
BODT				Sg	Sb	17 17 15.6	+0.6
BODT				AML	AML		
FOCM	**Foa**	**0.90**	**0**	Pg	Pb	17 17 03.3	+0.1
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.93**	**82**	Pg	Pb	17 17 03.9	0.0
AYDB				Sg	Sb	17 17 17.5	+1.0
AYDB				AML	AML		
MLSB	**Milas**	**0.98**	**122**	Pg	Pb	17 17 04.7	-0.1
MLSB				AML	AML		
DAT	**Datca**	**1.28**	**148**	Pn	Pg	17 17 10.2	+0.2
YER	**Yerkesik**	**1.42**	**118**	Pn	Pb	17 17 12.2	+0.1
TURN	**Turunc**	**1.60**	**130**	Pn	Pb	17 17 14.7	-0.5

AFAD 05 17:17:07.0, 37˚.90N×27˚.12E, h7km±3km, **ML1.6, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.22**	**157**	P	Pg	17 17 12.1	+0.7
GCAM				IAML		17 17 15.0	
	comp=N,138nm,0.5s						
GCAM				S	Sg	17 17 15.1	+0.8
GCAM				IAML		17 17 16.0	
	comp=E,133nm,0.1s						
DGB	**zmir**	**0.24**	**308**	P	Pg	17 17 12.6	+0.8
DGB				S	Sg	17 17 16.0	+0.9
DGB				IAML		17 17 17.0	
	comp=E,81nm,0.2s						
BEYE	**izmir**	**0.36**	**334**	P	Pb	17 17 15.1	-0.7
BEYE				S	Sg	17 17 19.8	+1.0
DUVT	**Torbali**	**0.41**	**39**	P	Pg	17 17 15.3	+0.4
DUVT				S	Sg	17 17 20.7	+0.4
DUVT				IAML		17 17 21.0	
	comp=E,79nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.59**	**305**	P	Pb	17 17 19.9	+0.2
ZEYE				S	Sg	17 17 27.3	+1.1
ZEYE				IAML		17 17 32.0	
	comp=E,35nm,0.8s						
ZEYE				IAML		17 17 47.0	
	comp=N,63nm,1.9s						

*IDC **05** 17:21:56.8±0.8, 7˚.21S×124˚.09E, h606km±11km, mb3.4/16, mbtmp4.4/23, Error ellipse: s-maj=16.9km s-min=9.1km az=64.0*
*NEIC **05** 17:21:56.5±2.4, 7˚.2S±0˚.1×124˚.1E±0˚.1, h601km±8km, mb4.4/24, Error ellipse: s-maj=16.7km s-min=14.2km az=66.0*
*GFZ **05** 17:21:56.6±0.3, 7˚S±5˚×12˚4E±˚, h592km±4km, M4.2/13, mb4.2/13, Error ellipse: s-maj=11.9km s-min=9.4km az=152.1, confirmed*
*DJA **05** 17:21:57.1±0.3, 7˚S±3˚×12˚4E±˚, h589km±4km, M4.1/27, mb4.3/21, mB4.6/7, MLv4.3/27, Mw(mB)3.8/7*

ISC 05 17:21:55.8±0.5, **7˚25S**±0˚.06×**124˚.05E**±0˚.08, **h598**km±6km, **n102**, σ1°**23**/111, **mb4.0**/28, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMRI	**Maumere**	**2.26**	**232**		**P**	**17 23 10.8**	**-0.3**
MMRI					**S**	**17 24 10.1**	**-2.3**
MMRI	**Maumere**	**2.26**	**232**	P	**P**	**17 23 11.5**	**+0.4**
MMRI				S	**S**	**17 24 12.8**	**+0.5**
MMRI				AML	AML		
MMRI	**Maumere**	**2.26**	**232**	P	**P**	**17 23 11.6**	**+0.5**
MMRI				P	**S**	**17 24 10.5**	**-1.8**
BBSI	**Bau Bau**	**2.29**	**320**	P	**P**	**17 23 10.9**	**-0.4**
BBSI				S	**S**	**17 24 12.3**	**-0.2**
SOEI	**Soe**	**2.50**	**175**		**P**	**17 23 12.9**	**+0.5**
SOEI				S	**S**	**17 24 12.8**	**-1.8**
SOEI	**Soe**	**2.50**	**175**	P	**P**	**17 23 13.5**	**+1.1**
SOEI				S	**S**	**17 24 15.7**	**+1.1**
SOEI				AML	AML		
SOEI	**Soe**	**2.50**	**175**	P	**P**	**17 23 14.0**	**+1.6**
SOEI				P	**S**	**17 24 15.2**	**+0.5**
EDFI	**Ende, Flores**	**2.77**	**237**	P	**P**	**17 23 13.5**	**-0.2**
EDFI				S	**S**	**17 24 15.4**	**-1.7**
EDFI				AML	AML		
BATI	**Baumata**	**2.96**	**187**	P	**P**	**17 23 16.5**	**+1.8**
	457nm,0.3s,baz=5.1,slow=0.9,SNR=176						
BATI				S	**S**	**17 24 16.3**	**-2.6**
	104nm,0.4s,baz=125,slow=0.3,SNR=5.4						
BATI	**Baumata**	**2.96**	**187**	P	**P**	**17 23 16.6**	**+1.9**
BATI				S	**S**	**17 24 20.2**	**+1.3**
BATI				AML	AML		
LBFI	**Labuhan Bajo,**	**4.30**	**253**	P	**P**	**17 23 23.8**	**+0.5**
BKSI	**Bulukumba**	**4.35**	**296**	P	**P**	**17 23 25.4**	**+1.7**
BKSI				AML	AML		
WSI	**Waingapu**	**4.42**	**237**	P	**P**	**17 23 24.9**	**+0.7**
WSI				AML	AML		
KAPI	**Kappang**	**4.82**	**297**	P	**P**	**17 23 29.6**	**+2.4**
	26nm,0.6s,baz=122,slow=4.9,SNR=9.8						
KAPI	**Kappang**	**4.82**	**297**	P	**P**	**17 23 29.1**	**+1.9**
KAPI	**Kappang**	**4.82**	**297**	P	**P**	**17 23 29.5**	**+2.3**
NLAI	**Namlea**	**5.01**	**37**	P	**P**	**17 23 29.2**	**+0.5**
SANI	**Sanana**	**5.51**	**21**	P	**P**	**17 23 33.0**	**+0.2**
	0.1nm36nm,0.8s						
SANI				AML	AML		
SANI	**Sanana**	**5.51**	**21**	P	**P**	**17 23 33.3**	**+0.4**
	comp=Z,37nm,0.8s						
DBNI	**Kabupaten Domp**	**5.82**	**257**	P	**P**	**17 23 35.1**	**-0.3**
	comp=Z,0.2nmcomp=Z,58nm,0.6s						
DBNI				AML	AML		
PLAI	**Plampang**	**6.41**	**255**	P	**P**	**17 23 40.0**	**-0.5**
	comp=Z,0.3nmcomp=Z,77nm,0.9s						
PLAI				AML	AML		
PLAI	**Plampang**	**6.41**	**255**	P	**P**	**17 23 39.7**	**-0.7**
	comp=Z,77nm,0.9s						
BNDI	**Bandanaira**	**6.42**	**65**	P	**P**	**17 23 42.3**	**+1.7**
	comp=Z,2µmcomp=Z,183nm,0.8s						
BNDI	**Bandanaira**	**6.42**	**65**	P	**P**	**17 23 42.5**	**+1.8**
	comp=Z,183nm,0.8s						
MMSI	**Mamuju**	**6.83**	**311**	P	**P**	**17 23 46.3**	**+1.9**
MMSI				AML	AML		
SAUI	**Saumlaki**	**7.22**	**96**	P	**P**	**17 23 48.0**	**+0.1**
TWSI	**Taliwang, Sumb**	**7.25**	**258**	P	**P**	**17 23 48.1**	**0.0**
	comp=Z,0.2nmcomp=Z,30nm,0.7s						
TWSI				AML	AML		
PCI	**Palu**	**7.57**	**326**	P	**P**	**17 23 53.1**	**+1.9**
	comp=Z,0.2nmcomp=Z,53nm,1.0s						
PCI				AML	AML		
KMSI	**Cibinong**	**7.77**	**359**	P	**P**	**17 23 54.5**	**+1.5**
	comp=Z,102nm,0.7s						
GTOI	**Gorontalo**	**7.90**	**352**	P	**P**	**17 23 56.1**	**+1.9**
	comp=Z,0.2nmcomp=Z,825nmcomp=Z,49nm,0.7s						
GTOI				AML	AML		
MTN	**Manton Dam**	**8.92**	**129**		**P**	**17 24 05.0**	**+1.0**
TOLI2	**Tolitoli**	**8.92**	**338**		**P**	**17 24 03.9**	**-0.2**
TOLI2	**Tolitoli**	**8.92**	**338**	P	**P**	**17 24 04.1**	**+0.1**
	comp=Z,33nm,0.6s						
IGBI	**Denpasar**	**8.96**	**259**	P	**P**	**17 24 04.3**	**0.0**
	comp=Z,93nm,1.1s						
FAKI	**Fak Fak**	**9.23**	**63**		**P**	**17 24 05.6**	**-1.5**
FAKI	**Fak Fak**	**9.23**	**63**	P	**P**	**17 24 07.5**	**+0.5**
FAKI	**Fak Fak**	**9.23**	**63**	P	**P**	**17 24 06.1**	**-1.0**
	comp=Z,161nm,0.6s						
KNRA	**Kununurra**	**9.56**	**152**		**P**	**17 24 11.5**	**+1.3**
SIJI	**Sorong**	**9.59**	**49**	P	**P**	**17 24 10.8**	**+0.2**
	comp=Z,20nm,0.4s,baz=226,slow=8.6,SNR=32						
SIJI	**Sorong**	**9.59**	**49**	P	**P**	**17 24 10.6**	**0.0**
	comp=Z,32nm,0.6s						
JAGI	**Jajag, Banyuwa**	**9.88**	**262**		**P**	**17 24 11.8**	**-1.6**
JAGI	**Jajag, Banyuwa**	**9.88**	**262**	P	**P**	**17 24 12.1**	**-1.4**
	comp=Z,74nm,0.6s						
FITZ	**Fitzroy Crossi**	**10.89**	**172**	P	**P**	**17 24 24.7**	**+1.3**
	comp=Z,19nm,0.4s,baz=351,slow=8.3,SNR=175						
FITZ	**Fitzroy Crossi**	**10.89**	**172**		**P**	**17 24 24.5**	**+1.1**
FITZ	**Fitzroy Crossi**	**10.89**	**172**	P	**P**	**17 24 24.8**	**+1.4**
	comp=Z,8.0nm,0.9s						
KKM	**Kota Kinabalu**	**15.35**	**329**	P	**P**	**17 25 06.6**	**-0.8**
KKM				IAmb	IAmb	17 25 46.0	
	comp=Z,28nm,1.1s						
WB0	**Warramunga Arr**	**15.99**	**142**		**P**	**17 25 14.3**	**+1.1**
WB0				IAmb	IAmb	17 25 15.1	
	comp=Z,9.2nm,0.5s						
WRA	**Warramunga Arr**	**16.09**	**143**	P	**P**	**17 25 13.2**	**-0.9**
	comp=Z,4.9nm,0.7s,baz=320,slow=11,SNR=54						
WRA				S	**S**	**17 27 51.2**	**-4.5**
	comp=Z,1.6nm,0.7s,baz=319,slow=19,SNR=6.5						
WRA	**Warramunga Arr**	**16.09**	**143**		**P**	**17 25 14.2**	**+0.1**
WR8	**Warramunga Arr**	**16.20**	**142**		**P**	**17 25 16.4**	**+1.3**
WR8				IAmb	IAmb	17 25 17.7	
	comp=Z,9.5nm,0.8s						
BBJI	**Bungbulang**	**16.27**	**268**	P	**P**	**17 25 14.9**	**-0.9**
BBJI				IAmb	IAmb	17 25 17.2	
	comp=Z,13nm,0.7s						
BBJI	**Bungbulang**	**16.27**	**268**	P	**P**	**17 25 15.4**	**-0.4**
	comp=Z,22nm,0.7s						
LEM	**Lembang**	**16.32**	**270**	P	**P**	**17 25 16.2**	**-0.2**
	comp=Z,8.8nm,0.3s,baz=341,slow=22,SNR=1.5						
JAY	**Jayapura**	**17.24**	**75**	P	**P**	**17 25 24.1**	**-0.7**
	comp=Z,14nm,1.0s,baz=80,slow=20,SNR=6.4						
AS31	**Alice Springs**	**18.87**	**151**		**P**	**17 25 40.5**	**+1.0**
ASAR	**Alice Springs**	**18.87**	**151**	P	**P**	**17 25 40.7**	**+1.3**
	comp=Z,1.7nm,0.3s,baz=325,slow=8.3,SNR=82						
ASAR				S	**S**	**17 28 43.6**	**+2.8**
	comp=Z,0.6nm,0.7s,baz=345,slow=2.1,SNR=3.8						
ASAR				PcP	**PcP**	**17 29 35.9**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=344,slow=1.6,SNR=4.7						
ASAR				ScP	**ScP**	**17 32 15.2**	**-0.4**
	comp=Z,0.5nm,0.5s,baz=346,slow=1.9,SNR=11						
ASAR	**Alice Springs**	**18.87**	**151**	P	**P**	**17 25 41.0**	**+1.5**
PMG	**Port Moresby**	**22.96**	**97**	P	**P**	**17 26 15.9**	**-0.4**
PMG				IAmb	IAmb	17 26 58.1	
	comp=Z,9.8nm,0.9s						
FORT	**Forrest**	**23.71**	**171**	P	**P**	**17 26 23.9**	**+1.3**
FORT				IAmb	IAmb	17 26 41.2	
	comp=Z,15nm,1.4s						
NWAO	**Narrogin (SRO)**	**26.32**	**193**	P	**P**	**17 26 44.5**	**-1.2**
BBOO	**Buckleboo**	**27.77**	**158**	P	**P**	**17 26 59.6**	**+1.2**
STKA	**Stephens Creek**	**29.46**	**149**	P	**P**	**17 27 13.7**	**+0.7**
	comp=Z,1.4nm,0.4s,baz=316,slow=13,SNR=5.6						
	comp=Z,1.4nm,0.4s						
STKA	**Stephens Creek**	**29.46**	**149**	P	**P**	**17 27 13.6**	**+0.6**
TPUB	**Ta-pu**	**30.55**	**354**	P	**P**	**17 27 20.9**	**-1.5**
SSLB	**Suanglung**	**30.99**	**354**	P	**P**	**17 27 24.1**	**-2.1**
YHNB	**Yeheng**	**31.83**	**355**	P	**P**	**17 27 31.0**	**-2.4**
CMAR	**Chiang Mai Arr**	**35.58**	**316**	P	**P**	**17 28 05.5**	**+0.7**
	comp=Z,1.7nm,0.7s,baz=145,slow=6.8,SNR=20						
	comp=Z,1.7nm,0.7s						
CHTO	**Chiang Mai**	**35.83**	**317**	P	**P**	**17 28 07.6**	**+0.8**
	comp=Z,4.6n

comp=Z,1.9nm,0.5s
ARSB Arslanbob 67.22 321 IAmb IAmb 17 31 52.9
comp=Z,4.2nm,0.5s
ZAA0 Zalesovo Array 69.32 336 P 17 32 03.5 -0.7
ZALV Zalesovo Beam 69.32 336 P **P** **17 32 03.6 -0.6**
comp=Z,3.1nm,0.5s,baz=127,slow=4.3,SNR=17
comp=Z,3.1nm,0.5s
ZALV Zalesovo Beam 69.32 336 P 17 32 03.2 -1.0
KURBB Kurchatov Arra 69.75 331 P **P** **17 32 07.0 +0.2**
comp=Z,1.6nm,0.6s,baz=139,slow=4.9,SNR=19
comp=Z,1.6nm,0.6s
KURK Kurchatov 69.77 331 P 17 32 06.7 -0.2
SEY Seymchan 73.26 13 P **P** **17 32 27.7 +0.8**
comp=Z,3.6nm,0.5s,baz=147,slow=3.7,SNR=5.5
comp=Z,3.6nm,0.5s
BVAR Borovoye Array 75.21 330 P **P** **17 32 38.5 +0.4**
comp=Z,1.5nm,0.6s,baz=116,slow=6.8,SNR=8.9
comp=Z,1.5nm,0.6s
AKTO Aktyubinsk 80.71 324 P 17 33 07.8 +0.1
comp=Z,2.0nm,0.4s,baz=94,slow=3.2,SNR=2.7
comp=Z,2.0nm,0.4s
ARTI Arti 82.92 329 P **P** **17 33 17.9 -0.8**
comp=Z,1.3nm,0.5s,baz=86,slow=19,SNR=2.4
comp=Z,1.3nm,0.5s
ARTI Arti 82.92 329 IAmb IAmb 17 33 49.4
comp=Z,6.3nm,1.2s
PPT Papeete 84.41 107 P **P** **17 33 25.4 -1.6**
comp=Z,48nm,0.8s,baz=55,slow=8.9,SNR=2.3
SNAA Sanae 93.99 195 P **P** **17 34 10.5 0.0**
comp=Z,0.8nm,0.4s,baz=272,slow=16,SNR=1.5
comp=Z,0.8nm,0.4s
SNAA Sanae 93.99 195 IAmb IAmb 17 34 40.1
comp=Z,5.3nm,1.4s
BGU Big Grassy Mou 119.36 47 PKPdf 17 39 38.3 -0.4
TXAR Lajitas Array 130.09 58 PKP **PKPdf** **17 39 59.2 -0.2**
comp=Z,0.3nm,0.8s,baz=211,slow=1.7,SNR=1.5

*ISK **05** 17:23:11.5,37.88N×26.81E,h9km,ML2.3/12*
*THE **05** 17:23:11.9,38.1×2.7E±,h6km±3km,M2.6/7,MLh2.6/7*
*AFAD **05** 17:23:11.7,37.89N×26.81E,h7km±2km,ML2.0*
ISC 05 17:23:12.0±0.9,37.89N±0.02×26.81E±0.03,h11km±7km,
n22,σ0.33/39,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
DGB	**zmir**	**0.18**	**19**	P	**Pg**		**17 23 15.9**	**0.0**
DGB				S	**Sg**		**17 23 18.5**	**-0.1**
DGB				IAML			17 23 19.0	
	comp=N,454nm,0.3s							
DGB				IAML			17 23 19.0	
	comp=E,753nm,0.2s							
SMG	**Samos**	**0.18**	**173**	P	**Pg**		**17 23 15.6**	**-0.3**
SMG				S	**Sg**		**17 23 18.8**	**+0.2**
SMG				AML	AML			
GMLD	**Gumuldur**	**0.21**	**24**	Pg	**Pg**		**17 23 16.5**	**0.0**
GMLD				Sg	**Sg**		**17 23 19.8**	**+0.3**
GMLD				AML	AML			
BEYE	**izmir**	**0.35**	**15**	P	**Pg**		**17 23 19.1**	**0.0**
BEYE				S	**Sg**		**17 23 23.6**	**-0.3**
BEYE				IAML			17 23 24.0	
	comp=E,147nm,0.3s							
BEYE				IAML			17 23 25.0	
	comp=N,123nm,0.4s							
KUSD	**Kusadasi-Aydin**	**0.38**	**94**	Pg	**Pg**		**17 23 19.3**	**-0.3**
KUSD				Sg	**Sg**		**17 23 24.8**	**+0.2**
KUSD				AML	AML			
GCAM	**G?zelcaml?**	**0.38**	**119**	P	**Pg**		**17 23 19.4**	**-0.2**
GCAM				IAML			17 23 25.0	
	comp=E,172nm,0.2s							
GCAM				S	**Sg**		**17 23 25.4**	**+0.7**
GCAM				IAML			17 23 26.0	
	comp=N,301nm,0.2s							
GCAM	**G?zelcaml?**	**0.38**	**119**	Pg	**Pg**		**17 23 19.4**	**-0.2**
GCAM				Sg	**Sg**		**17 23 25.3**	**+0.6**
GCAM				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.43**	**326**	P	**Pg**		**17 23 20.4**	**-0.1**
ZEYE				S	**Sg**		**17 23 26.4**	**+0.3**
ZEYE				IAML			17 23 27.0	
	comp=N,182nm,0.4s							
ZEYE				IAML			17 23 33.0	
	comp=E,117nm,0.4s							
BLCB	**Balcova**	**0.53**	**20**	P	**Pg**		**17 23 22.1**	**-0.3**
BLCB				S	**Sg**		**17 23 29.5**	**0.0**
BLCB				AML	AML			
BLCB	**Balcova**	**0.53**	**20**	Pg	**Pg**		**17 23 22.5**	**+0.1**
BLCB				Sg	**Sg**		**17 23 29.9**	**+0.4**
BLCB				AML	AML			
DUVT	**Torbali**	**0.61**	**56**	P	**Pg**		**17 23 23.3**	**-0.5**
DUVT				S	**Sg**		**17 23 31.0**	**-0.9**
DUVT				IAML			17 23 34.0	
	comp=E,115nm,0.3s							
CHOS	**Chios island**	**0.78**	**310**	P	**Pb**		**17 23 27.5**	**-0.1**
CHOS				S	**Sb**		**17 23 37.9**	**-0.4**
CHOS				AML	AML			
CHOS	**Chios island**	**0.78**	**310**	Pg	**Pg**		**17 23 27.1**	**0.0**
CHOS				Sg	**Sb**		**17 23 38.4**	**+0.2**
CHOS				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.86**	**86**	Pg	**Pg**		**17 23 28.5**	**-0.1**
AYDB				Sg	**Sb**		**17 23 40.7**	**+0.1**
AYDB				AML	AML			
BODT	**Bodrum**	**0.91**	**154**	Pg	**Pg**		**17 23 29.3**	**-0.3**
BODT				Sg	**Sb**		**17 23 42.1**	**+0.1**
BODT				AML	AML			
MLSB	**Milas**	**0.97**	**127**	Pg	**Pg**		**17 23 30.3**	**-0.4**
MLSB				Sg	**Sb**		**17 23 44.1**	**+0.5**
MLSB				AML	AML			
NAZL	**Nazilli-Aydin**	**1.18**	**86**	Pn	**Pn**		**17 23 34.5**	**0.0**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.20**	**46**	Pn	**Pn**		**17 23 35.1**	**+0.4**
GOMA				AML	AML			
APE	**Apeiranthos**	**1.30**	**232**	P	**Pn**		**17 23 36.2**	**-0.1**
APE				S	**Sn**		**17 23 53.9**	**+0.3**
APE				AML	AML			
DAT	**Datca**	**1.31**	**152**	Pn	**Pn**		**17 23 36.2**	**-0.1**
DAT				AML	AML			
YER	**Yerkesik**	**1.39**	**122**	Pn	**Pn**		**17 23 37.7**	**+0.3**
PRK	**Paraskevi**	**1.42**	**343**	P	**Pb**		**17 23 38.3**	**-0.3**

*ISK **05** 17:26:21.4,37.84N×26.98E,h15km,ML2.4/12*
*AFAD **05** 17:26:21.4,37.86N×26.96E,h7km±1km,ML2.4*
*THE **05** 17:26:22.1,38.1×2.7E±,h7km±3km,M2.5/6,MLh2.5/6*
ISC 05 17:26:21.1±0.9,37.87N±0.03×27.00E±0.03,h16km±7km,
n24,σ0.41/36,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
DGB	**zmir**	**0.20**	**334**	P	**Pb**		**17 26 25.9**	**-0.5**
DGB				S	**Sg**		**17 26 28.7**	**-0.4**
DGB				IAML			17 26 29.0	
	comp=E,754nm,0.2s							
SMG	**Samos**	**0.21**	**217**	P	**Pg**		**17 26 25.7**	**-0.2**
SMG				S	**Sg**		**17 26 29.4**	**+0.3**
SMG				AML	AML			
GMLD	**Gumuldur**	**0.21**	**343**	Pg	**Pb**		**17 26 27.3**	**+0.7**
GMLD				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.23**	**93**	Pg	**Pb**		**17 26 27.1**	**+0.2**
KUSD				Sg	**Sb**		**17 26 31.1**	**+0.3**
KUSD				AML	AML			
GCAM	**G?zelcaml?**	**0.26**	**132**	P	**Pb**		**17 26 27.2**	**-0.1**
GCAM				IAML			17 26 31.0	
	comp=E,914nm,0.3s							
GCAM				S	**Sb**		**17 26 31.5**	**0.0**
GCAM				IAML			17 26 32.0	
	comp=N,888nm,0.1s							
GCAM	**G?zelcaml?**	**0.26**	**132**	Pg	**Pb**		**17 26 27.2**	**-0.1**
GCAM				Sg	**Sb**		**17 26 31.5**	**0.0**
GCAM				AML	AML			
BEYE	**izmir**	**0.36**	**351**	P	**Pb**		**17 26 29.1**	**+0.1**
BEYE				S	**Sb**		**17 26 34.2**	**-0.3**
DDIM	**Aydin, Didim**	**0.46**	**155**	P	**Pb**		**17 26 30.8**	**0.0**
DDIM				S	**Sb**		**17 26 37.5**	**+0.2**
DUVT	**Torbali**	**0.50**	**46**	P	**Pb**		**17 26 31.7**	**+0.2**
BLCB	**Balcova**	**0.51**	**4**	P	**Pb**		**17 26 32.0**	**+0.3**
BLCB				S	**Sb**		**17 26 39.1**	**+0.2**
BLCB				AML	AML			
BLCB	**Balcova**	**0.51**	**4**	Pg	**Pn**		**17 26 32.5**	**-1.2**
BLCB				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.53**	**313**	P	**Pb**		**17 26 32.0**	**0.0**
ZEYE				S	**Sb**		**17 26 39.3**	**-0.2**
ZEYE				IAML			17 26 40.0	
	comp=N,331nm,0.1s							
AYDB	**Zeytinkoy-Aydi**	**0.71**	**84**	Pg	**Pn**		**17 26 36.1**	**-0.5**
AYDB				Sg	**Sn**		**17 26 46.7**	**-0.6**
AYDB				AML	AML			
BODT	**Bodrum**	**0.85**	**163**	Pg	**Pb**		**17 26 37.6**	**+0.2**
BODT				AML	AML			
MLSB	**Milas**	**0.85**	**133**	Pg	**Pn**		**17 26 38.2**	**-0.2**
MLSB				AML	AML			
CHOS	**Chios island**	**0.90**	**305**	P	**Pn**		**17 26 39.4**	**+0.2**
CHOS				S	**Sn**		**17 26 51.7**	**-0.2**
CHOS				AML	AML			
CHOS	**Chios island**	**0.90**	**305**	Pg	**Pn**		**17 26 39.5**	**+0.3**
CHOS				AML	AML			
KARB	**zmir-Karabur**	**0.91**	**330**	P	**Pn**		**17 26 39.8**	**+0.5**
KARB				S	**Sn**		**17 26 52.1**	**0.0**
KARB				IAML			17 26 54.0	
	comp=N,102nm,0.4s							
KARB				IAML			17 26 55.0	
	comp=E,149nm,0.6s							
NAZL	**Nazilli-Aydin**	**1.03**	**84**	Pg	**Pg**		**17 26 41.9**	**+0.9**
NAZL				AML	AML			
DAT	**Datca**	**1.23**	**158**	Pn	**Pb**		**17 26 44.2**	**+0.2**
DAT				AML	AML			
YER	**Yerkesik**	**1.26**	**125**	P	**Pg**		**17 26 45.4**	**0.0**
YER	**Yerkesik**	**1.26**	**125**	Pn	**Pb**		**17 26 45.0**	**+0.5**
APE	**Apeiranthos**	**1.41**	**236**	P	**Pb**		**17 26 47.3**	**+0.2**
TURN	**Turunc**	**1.48**	**137**	Pn	**Pb**		**17 26 47.9**	**-0.3**

*MOS **05** 17:27:06.4±0.7,51.14N×151.60E,h432km,mb4.1/28,*
Error ellipse: s-maj=7.8km s-min=5.6km az=62.5
*KRSC **05** 17:27:06.1±1.2,50.16N×153.91E,h515km±14km,Ml4.8*
*SKHL **05** 17:27:06.0±0.0,51.00N×151.70E,h426km±6km,mb4.8/9,*
msha5.1/7
*GFZ **05** 17:27:07.5±0.5,51.9N×15.2E±,h424km±5km,M4.3/16,*
mb4.3/16,Error ellipse: s-maj=20.4km s-min=8.5km
az=165.8,confirmed
*NEIC **05** 17:27:07.6±2.0,51.16N±0.09×151.6E±0.1,h430km±6km,*
mb4.2/88,Error ellipse: s-maj=12.9km s-min=12.4km
az=84.0
*IDC **05** 17:27:07.8±1.1,51.14N×151.55E,h431km±12km,*
mb3.6/35,mbtmp4.5/42,Error ellipse: s-maj=9.9km
s-min=7.8km az=152.0
ISC 05 17:27:07.0±0.5,51.08N±0.06×151.70E±0.05,h429km±6km,
n296,σ1.36/342,mb4.1/90,10C,Sea of Okhotsk

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
SKR	**Severo-Kuril's**	**2.82**	**96**	*e*PN	**P**		**17 28 10.9**	**-0.1**
SKR				*e*S	**S**		**17 29 06.6**	**+3.6**
SKR				pmax	pmax			
	comp=Z,238nm,0.7s							
SKR				smax	smax			
	comp=N,210nm,0.7s							
SKR				smax	smax			
	comp=E,215nm,0.9s							
SKR	**Severo-Kuril's**	**2.82**	**96**	*e*P	**P**		**17 28 10.4**	**-0.5**
SKR				*e*S	**S**		**17 29 02.8**	**-0.2**
SKR	**Severo-Kuril's**	**2.82**	**96**	*e*P	**P**		**17 28 10.3**	**-0.7**
SKR				AMB	AMB		17 28 11.2	
	comp=E,170nm,0.6s							
SKR				*e*S	**S**		**17 29 01.7**	**-1.3**
SKR				A	A		17 29 09.1	
	comp=E,150nm,0.2s							
SKR				A	A		17 29 09.1	
	comp=E,140nm,0.2s							
PAU	**Pauzhetka**	**3.23**	**81**	PN	**P**		**17 28 14.1**	**+0.1**
PAU	**Pauzhetka**	**3.23**	**81**	*e*P	**P**		**17 28 14.2**	**+0.1**
PAU	**Pauzhetka**	**3.23**	**81**	*e*P	**P**		**17 28 14.2**	**+0.1**
PAU				AMB	AMB		17 28 15.2	
	comp=E,180nm,0.7s							
PAU				*e*S	**S**		**17 29 07.4**	**-1.3**
PAU				A	A		17 29 13.8	
	comp=E,90nm,0.8s							
PAU				A	A		17 29 13.8	
	comp=E,90nm,0.8s							
KDTR	**Khodutka, Kamc**	**4.05**	**77**	PN	**P**		**17 28 20.6**	**-0.5**
KDTR	**Khodutka, Kamc**	**4.05**	**77**	*e*P	**P**		**17 28 20.7**	**-0.5**
KDTR				*e*S	**S**		**17 29 15.9**	**-5.7**
KDTR	**Khodutka, Kamc**	**4.05**	**77**	*e*P	**P**		**17 28 20.6**	**-0.5**
ASAK	**Asacha**	**4.07**	**69**	PN	**P**		**17 28 22.3**	**+0.9**
ASAK				S	**S**		**17 28 21.6**	**-0.4**
ASAK	**Asacha**	**4.07**	**69**	*e*P	**P**		**17 28 22.3**	**+0.9**
ASAK				*e*S	**S**		**17 29 21.7**	**-0.4**
GRL	**Gorelyy**	**4.22**	**67**	PN	**P**		**17 28 23.8**	**+1.0**
GRL				S	**S**		**17 29 24.0**	**-0.6**
GRL	**Gorelyy**	**4.22**	**67**	*e*P	**P**		**17 28 23.9**	**+1.0**
GRL				*e*S	**S**		**17 29 24.1**	**-0.6**
PEA0B	**Petropavlovsk-**	**4.22**	**59**	PN	**P**		**17 28 22.9**	**+0.2**
PEA0B	**Petropavlovsk-**	**4.22**	**59**		**P**		**17 28 22.9**	**+0.2**
PETK	**Petropavlovsk-**	**4.22**	**59**	P	**P**		**17 28 22.8**	**+0.1**
	comp=E,48nm,0.8s,baz=229,slow=9.7,SNR=67							
PETK	**Petropavlovsk-**	**4.22**	**59**		**P**		**17 28 21.9**	**-0.8**
MTVR	**Mutnovka**	**4.26**	**68**	PN	**P**		**17 28 23.5**	**+0.3**
MTVR				S	**S**		**17 29 24.7**	**-0.7**
MTVR	**Mutnovka**	**4.26**	**68**	*e*P	**P**		**17 28 23.6**	**+0.3**
MTVR				*e*S	**S**		**17 29 24.7**	**-0.7**
RUS	**Russkaya**	**4.44**	**70**	PN	**P**		**17 28 25.1**	**+0.4**
RUS				S	**S**		**17 29 24.8**	**-3.4**
RUS	**Russkaya**	**4.44**	**70**	*e*P	**P**		**17 28 25.2**	**+0.4**
RUS				*e*S	**S**		**17 29 24.8**	**-3.4**
RUS	**Russkaya**	**4.44**	**70**	*e*P	**P**		**17 28 25.1**	**+0.4**
RUS				*e*S	**S**		**17 29 24.8**	**-3.4**
INSR	**Institute**	**4.70**	**62**	PN	**P**		**17 28 27.8**	**+0.7**
INSR				S	**S**		**17 29 31.8**	**-0.9**
INSR	**Institute**	**4.70**	**62**	*e*P	**P**		**17 28 27.9**	**+0.7**
INSR				*e*S	**S**		**17 29 31.8**	**-0.9**
PET	**Petropavlovsk**	**4.71**	**63**	*e*PN	**P**		**17 28 27.6**	**+0.3**
PET				*e*S	**S**		**17 29 31.3**	**-1.6**
PET				pmax	pmax			
	comp=Z,117nm,0.9s							
PET				smax	smax			
	comp=E,250nm,0.6s							
PET				smax	smax			
	comp=N,278nm,0.7s							
PET	**Petropavlovsk**	**4.71**	**63**	P	**P**		**17 28 26.2**	**-1.1**
PET				S	**S**		**17 29 31.8**	**-1.1**
PET	**Petropavlovsk**	**4.71**	**63**	*e*P	**P**		**17 28 26.2**	**-1.1**
PET				*e*S	**S**		**17 29 30.4**	**-2.4**
PET	**Petropavlovsk**	**4.71**	**63**	P	**P**		**17 28 28.6**	**+1.3**
PET	**Petropavlovsk**	**4.71**	**63**	*e*P	**P**		**17 28 27.8**	**+0.5**
PET				AMB	AMB		17 28 30.7	
	comp=N,60nm,0.4s							
PET				*e*S	**S**		**17 29 32.0**	**-0.9**
PET				A	A		17 29 35.8	
	comp=N,160nm,0.5s							
PET				A	A		17 29 35.8	
	comp=N,180nm,0.5s							
PET	**Petropavlovsk**	**4.71**	**63**	P	**P**		**17 28 27.6**	**+0.3**
PET				S	**S**		**17 29 34.1**	**+1.2**
DALK	**Dalny**	**4.77**	**63**	PN	**P**		**17 28 28.1**	**+0.3**
DALK				S	**S**		**17 29 32.1**	**-1.8**
DALK	**Dalny**	**4.77**	**63**	*e*P	**P**		**17 28 28.2**	**+0.3**
DALK				*e*S	**S**		**17 29 32.1**	**-1.8**
DALK	**Dalny**	**4.77**	**63**	*e*P	**P**		**17 28 28.1**	**+0.3**
DALK				*e*S	**S**		**17 29 32.1**	**-1.8**
KOK	**Koryaka**	**4.81**	**60**	PN	**P**		**17 28 29.6**	**+1.3**
KOK				S	**S**		**17 29 34.9**	**+0.1**
KOK	**Koryaka**	**4.81**	**60**	*e*P	**P**		**17 28 29.7**	**+1.3**
KOK				*e*S	**S**		**17 29 34.9**	**+0.1**
KOK	**Koryaka**	**4.81**	**60**	*e*P	**P**		**17 28 29.6**	**+1.3**
KOK				*e*S	**S**		**17 29 34.9**	**+0.1**
KRX	**Arik**	**4.84**	**59**	PN	**P**		**17 28 29.9**	**+1.2**
KRX				S	**S**		**17 29 35.7**	**+0.2**
KRX	**Arik**	**4.84**	**59**	*e*P	**P**		**17 28 29.9**	**+1.2**
KRX				*e*S	**S**		**17 29 35.7**	**+0.2**
AVH	**Avacha**	**4.85**	**60**	PN	**P**		**17 28 29.3**	**+0.6**
AVH				S	**S**		**17 29 34.9**	**-0.7**
AVH	**Avacha**	**4.85**	**60**	*e*P	**P**		**17 28 29.4**	**+0.6**
AVH				*e*S	**S**		**17 29 35.0**	**-0.7**
AVH	**Avacha**	**4.85**	**60**	*e*P	**P**		**17 28 29.3**	**+0.6**
AVH				*e*S	**S**		**17 29 34.9**	**-0.7**
KRER	**Koryakskii**	**4.87**	**60**	PN	**P**		**17 28 29.9**	**+0.8**
KRER				S	**S**		**17 29 35.2**	**-1.0**
KRER	**Koryakskii**	**4.87**	**60**	*e*P	**P**		**17 28 30.0**	**+0.8**
KRER				*e*S	**S**		**17 29 35.3**	**-1.0**
UGLR	**Uglovaya**	**4.88**	**61**	PN	**P**		**17 28 29.7**	**+0.7**
UGLR				S	**S**		**17 29 34.8**	**-1.3**
UGLR	**Uglovaya**	**4.88**	**61**	*e*P	**P**		**17 28 29.8**	**+0.7**
UGLR				*e*S	**S**		**17 29 34.9**	**-1.3**
SMAR	**Somma**	**4.88**	**61**	PN	**P**		**17 28 30.4**	**+1.2**
SMAR				S	**S**		**17 29 35.5**	**-0.9**
SMAR	**Somma**	**4.88**	**61**	*e*P	**P**		**17 28 30.4**	**+1.2**
SMAR				*e*S	**S**		**17 29 35.6**	**-0.9**
SDLR	**Sedlovina**	**4.94**	**61**	PN	**P**		**17 28 30.4**	**+0.8**
SDLR				S	**S**		**17 29 35.6**	**-1.6**
SDLR	**Sedlovina**	**4.94**	**61**	*e*P	**P**		**17 28 30.5**	**+0.8**
SDLR				*e*S	**S**		**17 29 35.7**	**-1.6**
NLC	**Nalytchevo**	**5.15**	**63**	*e*S	**S**		**17 29 36.8**	**-4.0**
SPN	**Mys Shipunski**	**5.51**	**65**	PN	**P**		**17 28 34.8**	**-0.5**
SPN				S	**S**		**17 29 42.3**	**-5.2**
SPN	**Mys Shipunski**	**5.51**	**65**	*e*P	**P**		**17 28 34.8**	**-0.5**
SPN				*e*S	**S**		**17 29 42.4**	**-5.2**
KII	**Karymskiy**	**5.58**	**55**	PN	**P**		**17 28 37.1**	**+1.1**
KII				S	**S**		**17 29 46.9**	**-1.9**
KII	**Karymskiy**	**5.58**	**55**	*e*P	**P**		**17 28 37.2**	**+1.1**
KII				*e*S	**S**		**17 29 47.0**	**-1.9**
TYV	**Tymovskoe**	**5.72**	**271**	*e*PN	**P**		**17 28 38.9**	**+1.4**
TYV				pmax	pmax			
	comp=Z,41nm,1.2s							
TYV				pmax	pmax			
	comp=Z,300nm,2.2s							
TYV	**Tymovskoe**	**5.72**	**271**	*e*P	**P**		**17 28 38.6**	**+1.1**
TYV				AMB	AMB		17 28 39.8	
	comp=Z,30nm,0.4s							
TYV				*e*S	**S**		**17 29 50.6**	**-0.9**
TYV				A	A		17 29 54.6	
	comp=Z,10.0nm,0.5s							
TYV				A	A		17 29 54.6	
	comp=Z,20nm,0.5s							
KZV	**Kizimen**	**6.56**	**49**	PN	**P**		**17 28 47.9**	**+1.2**
KZV				S	**S**		**17 30 06.1**	**-1.8**
KZV	**Kizimen**	**6.56**	**49**	*e*P	**P**		**17 28 47.9**	**+1.2**
KZV				*e*S	**S**		**17 30 06.2**	**-1.8**
TUMR	**Tumrok**	**6.59**	**47**	PN	**P**		**17 28 49.5**	**+2.5**
TUMR				S	**S**		**17 30 08.6**	**+0.2**
TUMR	**Tumrok**	**6.59**	**47**	*e*P	**P**		**17 28 49.5**	**+2.5**
TUMR				*e*S	**S**		**17 30 08.7**	**+0.2**
TUMD	**Tumrok D**	**6.66**	**48**	PN	**P**		**17 28 48.7**	**+1.1**
TUMD	**Tumrok D**	**6.66**	**48**	*e*P	**P**		**17 28 48.8**	**+1.1**
MKZ	**Mys Kozlova**	**7.00**	**56**	PN	**P**		**17 28 50.5**	**-0.7**
MKZ				S	**S**		**17 30 09.8**	**-6.5**
MKZ	**Mys Kozlova**	**7.00**	**56**	*e*P	**P**		**17 28 50.6**	**-0.7**
MKZ				*e*S	**S**		**17 30 09.9**	**-6.5**
MKZ	**Mys Kozlova**	**7.00**	**56**	*e*P	**P**		**17 28 50.5**	**-0.7**
NKL	**Nikolayevsk**	**7.10**	**291**	*e*P	**P**		**17 28 52.6**	**+0.3**
NKL				AMB	AMB		17 28 54.4	
	comp=Z,80nm,0.4s							
YSS	**Yuzhno-Sakhali**	**7.19**	**238**	*e*PN	**P**		**17 28 53.7**	**+0.3**
YSS				pmax	pmax			
	comp=Z,30nm,0.9s							
YSS	**Yuzhno-Sakhali**	**7.19**	**238**	*e*P	**P**		**17 28 52.6**	**-0.8**
YSS				AMB	AMB		17 28 55.2	
	comp=Z,30nm,0.7s							
YSS				*e*S	**S**		**17 30 17.7**	**-2.6**
YSS				A	A		17 30 24.5	
	comp=Z,30nm,0.3s							
YSS				A	A		17 30 24.5	
	comp=Z,20nm,0.3s							
BDR	**Baidarnaya**	**7.86**	**42**	PN	**P**		**17 29 02.4**	**+1.8**
BDR	**Baidarnaya**	**7.86**	**42**	*e*P	**P**		**17 29 02.4**	**+1.8**
SHO	**Shikotan**	**7.93**	**206**	*e*P	P		17 29 18.1	+17
SHO				AMB	AMB		17 29 19.1	
	comp=Z,30nm,0.4s							
SHO				*e*S	**S**		**17 30 43.8**	**+8.5**
SHO				A	A		17 30 49.3	
	comp=Z,90nm,0.5s							
SHO				A	A		17 30 49.3	
	comp=Z,80nm,0.5s							
YUK	**Yuzh-Kuril'sk**	**8.08**	**211**	PN	**P**		**17 29 02.7**	**-0.4**
YUK				*e*S	**S**		**17 30 37.7**	**-0.6**
YUK				pmax	pmax			
	comp=Z,34nm,0.2s							
YUK	**Yuzh-Kuril'sk**	**8.08**	**211**	*e*P	**P**		**17 29 02.6**	**-0.5**
YUK				AMB	AMB		17 29 05.2	
	comp=Z,60nm,0.5s							
YUK				*e*S	**S**		**17 30 34.8**	**-3.5**
YUK				A	A		17 30 39.0	
	comp=Z,140nm,0.6s							
YUK				A	A		17 30 39.0	
	comp=Z,270nm,0.6s							
KBTR	**Krutoberegovo**	**8.36**	**48**	PN	**P**		**17 29 06.3**	**+0.4**
KBTR	**Krutoberegovo**	**8.36**	**48**	*e*P	**P**		**17 29 06.3**	**+0.4**
MA2	**Magadan**	**8.53**	**357**	*i* PN	**P**		**17 29 07.3**	**-0.5**
MA2	**Magadan**	**8.53**	**357**	*e*P	**P**		**17 29 07.3**	**-0.5**
NMR	**Nemuro--Hokkai**	**8.72**	**210**	*e*PN	P		17 29 05.2	-4.9
JKA	**Kamikawa-asahi**	**9.29**	**225**	P	**P**		**17 29 17.2**	**+0.9**
JKA	**Kamikawa-asahi**	**9.29**	**225**	*e*P	**P**		**17 29 17.6**	**+1.2**
ASAJ	**Asahikawa**	**9.29**	**225**	P	**P**		**17 29 17.6**	**+1.2**
	comp=Z,15nm,0.6s,baz=58,slow=9.4,SNR=19							
ERM	**Erimo**	**10.80**	**216**	PN	**P**		**17 29 31.5**	**-1.5**
ERM	**Erimo**	**10.80**	**216**	P	**P**		**17 29 31.5**	**-1.5**
SEY	**Seymchan**	**11.89**	**2**	P	**P**		**17 29 46.2**	**+1.6**
	comp=Z,6.1nm,0.4s,baz=180,slow=10.0,SNR=18							
SEY	**Seymchan**	**11.89**	**2**	*i* PN	**P**		**17 29 45.0**	**+0.5**
JTM	**Tenmabayashi**	**12.66**	**220**	P	**P**		**17 29 53.0**	**-0.3**
KLR	**Kul'dur**	**12.99**	**270**	P	**P**		**17 29 56.9**	**+0.9**
	comp=Z,7.7nm,0.6s,baz=78,slow=10,SNR=16							
KLR	**Kul'dur**	**12.93**	**270**	*i* PN	**P**		**17 29 57.4**	**+1.3**
KLR	**Kul'dur**	**12.93**	**270**	*e*P	**P**		**17 29 57.4**	**+1.3**
USA0B	**Ussuriysk Arra**	**14.94**	**250**	P	**P**		**17 30 18.8**	**+0.9**
USA0B	**Ussuriysk Arra**	**14.94**	**250**		**P**		**17 30 18.8**	**+0.9**
USRK	**Ussuriysk Ar.**	**14.94**	**250**	P	**P**		**17 30 18.1**	**+0.2**
	comp=Z,18nm,0.7s,baz=47,slow=11,SNR=27							
USRK	**Ussuriysk Ar.**	**14.94**	**250**	P	**P**		**17 30 17.6**	**-0.3**
ZEA	**Zeya**	**15.14**	**290**	*e*P	**P**		**17 30 19.7**	**-0.2**
ZEA	**Zeya**	**15.14**	**290**	*e*P	**P**		**17 30 19.7**	**-0.2**
HEH	**HeiHe**	**15.41**	**276**	*e*P	**P**		**17 30 22.3**	**-0.5**
HEH				pmax	pmax	

TLY pmax pmax
comp=Z,6.0nm,0.7s
TLY Talaya 29.58 290 P P 17 32 35.6 +0.8
TLY lAmb lAmb 17 32 36.5
comp=Z,5.5nm,0.6s
TLY Talaya 29.58 290 P P 17 32 35.9 +1.0
comp=Z,9.0nm,1.1s
E19K Redstone River 29.68 37 P P 17 32 36.2 +0.7
E19K lAmb lAmb 17 32 39.5
comp=Z,14nm,1.3s
H19K Roundabout Mou 29.80 41 P P 17 32 37.4 +0.8
H19K lAmb lAmb 17 32 38.7
comp=Z,9.4nm,0.8s
J19K Poorman 30.11 44 P P 17 32 40.1 +0.9
J19K lAmb lAmb 17 33 12.8
comp=Z,16nm,1.5s
ZAK Zakamensk 30.22 288 eP P 17 32 41.0 +0.5
ZAK pmax pmax
comp=Z,6.0nm,1.0s
ZAK Zakamensk 30.22 288 eP P 17 32 41.0 +0.5
L19K White Mountain 30.51 48 P P 17 32 43.9 +1.1
L19K lAmb lAmb 17 33 02.9
comp=Z,20nm,1.5s
J20K Nowinta River 30.75 44 P P 17 32 44.5 -0.3
IMAR Indian Mountai 30.94 40 P P 17 32 46.4 0.0
G21K Allakaket 31.05 39 P P 17 32 47.7 +0.2
G21K lAmb lAmb 17 33 21.2
comp=Z,10nm,1.4s
F21K Alatna River 31.10 38 P P 17 32 48.0 +0.2
M20K Styx River 31.34 48 P P 17 32 52.0 +1.9
M20K lAmb lAmb 17 32 59.2
comp=Z,18nm,1.3s
PPLA Purkeypile 31.69 46 P P 17 32 54.8 +1.7
CAST Castle Rocks 31.70 45 P P 17 32 54.7 +1.6
KDAK Kodiak Island 32.27 56 P P 17 32 58.4 +0.5
KDAK pmax pmax
comp=Z,74nm,1.5s
KDAK Kodiak Island 32.27 56 P P 17 32 58.4 +0.5
TRF Thorofare Moun 32.50 45 P P 17 33 00.6 +0.5
TRF lAmb lAmb 17 33 43.2
comp=Z,16nm,1.5s
SUA Susitna One 32.52 49 P P 17 33 00.7 +0.4
E23K Chandalar 32.62 37 P P 17 33 01.9 +1.0
E23K lAmb lAmb 17 33 15.8
comp=Z,12nm,1.4s
TOLK Toolik Lake Re 32.65 35 P P 17 33 01.7 +0.5
I23K Minto, Yukon-K 32.77 42 P P 17 33 03.1 +1.0
I23K lAmb lAmb 17 33 07.7
comp=Z,12nm,1.2s
BWN Browne 32.80 44 P P 17 33 04.7 +2.3
E24K Your Creek 33.04 37 P 17 33 05.5 +1.0
MCK McKinley 33.08 45 P P 17 33 05.9 +1.0
MCK pmax pmax
comp=Z,10.0nm,1.1s
MCK McKinley 33.08 45 P 17 33 05.9 +1.0
MCK lAmb lAmb 17 33 07.9
comp=Z,9.8nm,1.1s
COLA College 33.43 42 *i* P **P 17 33 08.3 +0.5**
COLA pmax pmax
comp=Z,9.0nm,0.8s
COLA College 33.43 42 P P 17 33 09.3 +1.5
comp=Z,13nm,0.9s
KNGR Kungurtug, Tuv 33.57 291 *i* P **P 17 33 09.1 -0.2**
KNGR pmax pmax
comp=Z,5.0nm,1.0s
D25K Kavik River 33.82 34 P P 17 33 11.6 +0.6
D25K lAmb lAmb 17 33 12.9
comp=Z,9.1nm,1.2s
IL31 33.85 42 P P 17 33 12.1 +0.8
ILAR Eielson Array 33.85 42 P P 17 33 12.2 +0.8
comp=Z,2.4nm,0.7s,baz=272,slow=9.9,SNR=34
comp=Z,2.4nm,0.7s
ILAR Eielson Array 33.85 42 P P 17 33 11.5 +0.1
PRP Porcupine Dome 34.35 41 P 17 33 16.8 +1.0
PRP lAmb lAmb 17 33 17.9
comp=Z,7.2nm,0.8s
WHN Wuhan 34.42 248 P P 17 33 15.5 -1.1
NRIK Noril'sk 34.61 326 P P 17 33 17.5 -0.2
comp=Z,1.3nm,0.6s,baz=239,slow=7.3,SNR=2.0
comp=Z,1.3nm,0.6s
NRIK Noril'sk 34.61 326 P P 17 33 17.5 -0.2
NRIK pmax pmax
comp=Z,5.0nm,1.3s
NRIK Noril'sk 34.61 326 lAmb lAmb 17 33 21.7
comp=Z,5.2nm,1.2s
C27K Jago River 34.75 34 P P 17 33 19.9 +1.0
SCRK Sand Creek 35.21 44 P 17 33 23.1 +0.1
SCRK lAmb lAmb 17 33 23.9
comp=Z,6.5nm,0.7s
DOT Dot Lake 35.24 44 P P 17 33 22.7 -0.4
DOT lAmb lAmb 17 33 24.9
comp=Z,7.5nm,0.7s
K27K Chicken 36.03 43 P P 17 33 30.6 +0.8
K27K lAmb lAmb 17 33 31.4
comp=Z,4.0nm,0.6s
CRQM Cirque 36.28 49 P P 17 33 33.9 +1.9
L27K Beaver Creek, 36.34 45 lAmb lAmb 17 33 35.5
comp=Z,14nm,1.0s
BCAR Beaver Creek A 36.36 45 P 17 33 34.0 +1.5
M27K Edge Creek, AK 36.48 46 lAmb lAmb 17 33 36.5
comp=Z,12nm,0.8s
LZDM Lanzhou Array 37.25 265 P P 17 33 40.6 0.0
comp=Z,2.4nm,0.3s,baz=24,slow=11,SNR=1.5
comp=Z,2.4nm,0.3s
ENH Enshi 37.50 253 P P 17 33 41.9 -0.5
comp=Z,15nm,0.7s
GTA2 Gaotai 37.59 273 *eP* **P 17 33 43.7 +0.5**
GTA2 pP pP 17 33 47.5 -75
GTA2 pmax pmax
comp=Z,7.0nm,1.0s
L29M L29M 37.96 44 lAmb lAmb 17 33 48.9
comp=Z,10nm,0.9s
HYT Haines Junctio 38.91 47 P 17 33 55.9 +2.2
HYT lAmb lAmb 17 33 57.3
comp=Z,11nm,0.9s
ZALV Zalesovo Beam 39.44 301 P P 17 33 57.6 -0.3
comp=Z,3.9nm,0.5s,baz=62,slow=6.7,SNR=19
ZALV PcP **PcP 17 35 54.6 -0.9**
comp=Z,0.5nm,0.3s,baz=92,slow=4.1,SNR=3.0
comp=Z,3.9nm,0.5s
ZALV Zalesovo Beam 39.44 301 P 17 33 57.0 -0.9
ZALV **PcP 17 35 54.9 -0.7**
MK31 Makanchi Array 44.26 293 *ce* P **P 17 34 36.8 +0.4**
MKAR Makanchi Array 44.26 293 P P 17 34 36.3 -0.1
comp=Z,5.5nm,0.7s,baz=60,slow=7.4,SNR=39
MKAR PcP **PcP 17 36 10.5 -1.3**
comp=Z,0.1nm,0.3s,baz=65,slow=4.6,SNR=1.4
MKAR ScP **ScP 17 39 20.7 -1.3**
comp=Z,0.4nm,0.9s,baz=48,slow=6.6,SNR=1.5
comp=Z,5.5nm,0.7s
MKAR Makanchi Array 44.26 293 *i* P **P 17 34 36.2 -0.2**
MKAR pmax pmax
comp=Z,6.0nm,0.7s
MKAR Makanchi Array 44.26 293 P 17 34 36.1 -0.3
MKAR Makanchi Array 44.26 293 *eP* **P 17 34 36.2 -0.2**
KURK Kurchatov 44.30 299 *ce* **P 17 34 36.7 +0.1**
KURK pmax pmax
comp=Z,22nm,1.3s
KURK Kurchatov 44.30 299 P 17 34 36.3 -0.3
KURK Kurchatov 44.30 299 *eP* **P 17 34 36.7 +0.1**
KURK Kurchatov 44.30 299 P P 17 34 36.8 +0.1
comp=Z,21nm,0.7s
KURBB Kurchatov Arra 44.40 299 P P 17 34 37.4 0.0
comp=Z,9.6nm,0.6s,baz=65,slow=8.3,SNR=50
comp=Z,9.6nm,0.6s
MAKZ Makanchi 44.43 293 P P 17 34 36.4 -1.3
MAKZ pmax pmax
comp=Z,5.0nm,0.7s
MAKZ Makanchi 44.43 293 P 17 34 36.4 -1.3
MAKZ lAmb lAmb 17 34 38.0
comp=Z,5.0nm,0.7s
MAKZ Makanchi 44.43 293 P P 17 34 36.8 -1.0
comp=Z,8.1nm,1.2s
BVAR Borovoye Array 47.47 306 P P 17 35 01.1 +0.1
comp=Z,5.0nm,0.6s,baz=54,slow=8.2,SNR=19
BVAR PcP **PcP 17 36 22.2 -0.9**
comp=Z,0.8nm,0.3s,baz=87,slow=4.3,SNR=4.3
comp=Z,5.0nm,0.6s
BORK Borovoye 47.50 306 *i* P **P 17 34 59.8 -1.3**
BORK pmax pmax
comp=Z,6.0nm,0.9s
BORK Borovoye 47.50 306 P P 17 35 00.1 -1.0
YKA Yellowknife Ar 48.06 39 P P 17 35 06.0 +0.8
comp=Z,2.5nm,0.5s,baz=306,slow=7.0,SNR=6.8
comp=Z,2.5nm,0.5s
YKA Yellowknife Ar 48.06 39 P P 17 35 06.0 +0.8

SPITS Spitsbergen Ar 48.18 349 P P 17 35 05.7 -0.2
comp=Z,20nm,1.1s,baz=74,slow=11,SNR=2.2
SPITS PcP **PcP 17 36 25.1 -0.2**
comp=Z,4.5nm,0.8s,baz=38,slow=5.6,SNR=1.4
comp=Z,20nm,1.1s
ASAI AK-SAY(Kyrgyzs 51.06 290 P P 17 35 29.2 +1.0
comp=Z,7.3nm,0.9s
AAK Ala-Archa 51.19 293 *ce* **P P 17 35 29.7 +0.8**
AAK pmax pmax
comp=Z,5.0nm,1.7s
AAK Ala-Archa 51.19 293 *eP* **P 17 35 29.7 +0.8**
AAK Ala-Archa 51.19 293 P P 17 35 29.3 +0.4
comp=Z,6.0nm,0.8s
ARTI Arti 51.35 315 P P 17 35 29.6 -0.1
comp=Z,7.9nm,0.7s,baz=42,slow=4.2,SNR=13
comp=Z,7.9nm,0.7s
ARTI Arti 51.35 315 *ce* **P P 17 35 30.5 +0.8**
ARTI pmax pmax
comp=Z,18nm,2.5s
ARTI Arti 51.35 315 P 17 35 29.0 -0.7
ARTI lAmb lAmb 17 35 30.1
comp=Z,10nm,0.7s
CMAR Chiang Mai Arr 52.66 252 P P 17 35 40.2 +0.5
comp=Z,0.8nm,0.6s,baz=25,slow=6.4,SNR=7.6
CMAR PcP **PcP 17 36 43.3 +0.4**
comp=Z,0.4nm,0.6s,baz=8.6,slow=2.1,SNR=5.1
comp=Z,0.8nm,0.6s
CMAR Chiang Mai Arr 52.66 252 P P 17 35 40.1 +0.3
KSH2 Kashi 52.74 288 P P 17 35 40.6 +0.3
KSH2 pmax pmax
comp=Z,3.0nm,0.9s
EVN Everest 53.22 270 P P 17 35 43.8 -0.6
EVN Everest 53.22 270 P P 17 35 44.5 +0.1
comp=Z,6.9nm,0.7s
NPW Naypyitaw 53.35 255 P P 17 35 45.2 +0.6
comp=Z,10.0nm,1.0s
ARCES ARCESS Array B 53.46 339 P P 17 35 44.2 -0.5
comp=Z,7.2nm,1.1s,baz=25,slow=6.8,SNR=2.1
comp=Z,7.2nm,1.1s
ARCES ARCESS Array B 53.46 339 P P 17 35 43.1 -1.6
ARCES pmax pmax
comp=Z,12nm,1.3s
ARCES ARCESS Array B 53.46 339 P P 17 35 43.1 -1.6
ARCES lAmb lAmb 17 35 44.4
comp=Z,12nm,1.2s
BTK Batken 54.96 292 P P 17 35 56.2 +0.2
BTK pmax pmax
comp=Z,7.0nm,0.7s
BTK Batken 54.96 292 P P 17 35 56.2 +0.2
comp=Z,6.8nm,0.7s
AB31 Akbulak array 55.01 307 lAmb lAmb 17 35 56.6
comp=Z,5.6nm,0.6s
ABKAR Akbulak array 55.01 307 P 17 35 55.7 -0.3
AKTO Aktyubinsk 55.21 309 P P 17 35 57.0 -0.4
comp=Z,2.3nm,0.4s,baz=58,slow=4.8,SNR=6.5
comp=Z,2.3nm,0.4s
NIL Nilore 57.77 285 P P 17 36 15.1 -0.4
NIL pmax pmax
comp=Z,15nm,0.9s
NIL Nilore 57.77 285 P P 17 36 15.1 -0.4
NIL Nilore 57.77 285 P P 17 36 15.6 +0.1
comp=Z,23nm,0.8s
PLID Pearl Lake 58.01 57 P 17 36 18.6 +1.4
PLID lAmb lAmb 17 36 19.5
comp=Z,6.3nm,0.8s
FFC Flin Flon 58.05 41 *i* P **P 17 36 19.2 +2.2**
BELG Belogornoye 58.72 316 P P 17 36 20.6 -0.9
comp=Z,9.5nm,0.8s,baz=155,slow=3.6,SNR=4.1
comp=Z,9.5nm,0.8s
BELG Belogornoye 58.72 316 *i* P **P 17 36 20.4 -1.2**
FINES FINESS Array B 59.74 333 P P 17 36 28.0 -0.3
comp=Z,5.3nm,0.8s,baz=24,slow=5.5,SNR=13
comp=Z,5.3nm,0.8s
FINES FINESS Array B 59.74 333 *i* P **P 17 36 26.7 -1.6**
FINES pmax pmax
comp=Z,5.0nm,0.8s
FINES FINESS Array B 59.74 333 P P 17 36 28.3 0.0
YERR Yerington 60.38 64 lAmb lAmb 17 36 35.8
comp=Z,5.2nm,0.9s
KVN Kaiserville 60.97 63 lAmb lAmb 17 36 39.8
comp=Z,5.5nm,1.0s
NVAR Mina Array Bea 61.29 64 P P 17 36 40.5 +1.2
comp=Z,2.0nm,0.7s,baz=297,slow=7.5,SNR=11
comp=Z,2.0nm,0.7s
NVAR Mina Array Bea 61.29 64 P P 17 36 40.0 +0.7
PDAR Pinedale Array 62.97 55 P P 17 36 51.4 +1.1
comp=Z,3.7nm,0.8s,baz=328,slow=1.4,SNR=28
comp=Z,3.7nm,0.8s
PDAR Pinedale Array 62.97 55 P P 17 36 51.1 +0.9
TPNV Topopah Spring 63.49 63 P P 17 36 53.2 -0.4
TPNV pmax pmax
comp=Z,5.0nm,0.9s
TPNV Topopah Spring 63.49 63 P 17 36 53.2 -0.4
TPNV lAmb lAmb 17 36 56.0
comp=Z,4.8nm,0.8s
PSUT Pine Spring 63.70 61 lAmb lAmb 17 36 57.4
comp=Z,3.4nm,0.8s
LRMC Laurel Mtn Rad 63.71 66 lAmb lAmb 17 36 52.0
comp=Z,6.5nm,1.2s
NB2 NORSAR Subarra 63.83 340 P P 17 36 54.9 -0.4
comp=Z,1.4nm,0.5s,baz=25,slow=6.5
NOA NORSAR Array B 63.83 340 P P 17 36 55.0 -0.2
comp=Z,1.6nm,0.6s,baz=38,slow=8.3,SNR=12
comp=Z,1.6nm,0.6s
NORES NORESS Array B 64.03 340 P P 17 36 59.7 +3.2
HFS Hagfors 64.08 338 P P 17 36 56.6 -0.2
comp=Z,3.0nm,0.4s,baz=46,slow=4.3,SNR=17
comp=Z,3.0nm,0.4s
TMUT Trail Mountain 64.59 58 lAmb lAmb 17 37 03.1
comp=Z,3.8nm,0.7s
RSSD Black Hills 64.76 51 P P 17 37 02.6 +0.9
RSSD pmax pmax
comp=Z,4.0nm,0.8s
RSSD Black Hills 64.76 51 P P 17 37 02.6 +0.9
RSSD lAmb lAmb 17 37 03.7
comp=Z,4.0nm,0.8s
SRU San Rafael Swe 65.09 58 lAmb lAmb 17 37 06.1
comp=Z,5.2nm,0.7s
PV23 Carpenter Ridg 66.38 58 lAmb lAmb 17 37 13.9
comp=Z,7.2nm,0.9s
PV22 Blue Mesa, Par 66.44 58 P P 17 37 13.8 +1.4
KVAR Kislovodsk Arr 67.15 312 P P 17 37 17.2 +0.7
comp=Z,3.3nm,0.8s,baz=80,slow=12,SNR=2.4
comp=Z,3.3nm,0.8s
KBZ Khabaz 67.23 312 P P 17 37 16.9 0.0
comp=Z,5.5nm,0.8s,baz=80,slow=5.6,SNR=15
comp=Z,5.5nm,0.8s
KBZ Khabaz 67.23 312 *ce* **P P 17 37 17.2 +0.3**
KBZ pmax pmax
comp=Z,5.0nm,0.8s
KBZ Khabaz 67.23 312 *eP* **P 17 37 17.2 +0.3**
SHA1 Shidzhatmaz 67.33 312 *ce* **P P 17 37 19.2 +1.3**
AKASG Malin Array Be 67.45 324 P P 17 37 17.3 -0.8
comp=Z,1.9nm,0.4s,baz=34,slow=6.3,SNR=9.9
comp=Z,1.9nm,0.4s
AKBB Malin Array Si 67.45 324 *ce* **P P 17 37 17.5 -0.6**
KIEV Kiev 67.46 324 P P 17 37 17.1 -1.1
KIEV pmax pmax
comp=Z,4.0nm,0.7s
KIEV Kiev 67.46 324 P P 17 37 17.1 -1.1
KIEV lAmb lAmb 17 37 17.9
comp=Z,4.2nm,0.7s
X16A Lo Mia Camp, P 68.02 62 lAmb lAmb 17 37 25.0
comp=Z,2.8nm,0.8s
ECSD EROS Data Cent 68.56 46 P P 17 37 25.5 +0.4
comp=Z,10nm,1.1s
SCHQ Schefferville 69.67 23 P P 17 37 30.9 -0.7
comp=Z,3.9nm,0.8s,baz=234,slow=19,SNR=1.8
comp=Z,3.9nm,0.8s
ANMO Albuquerque 70.36 59 *i* P **P 17 37 36.8 +0.5**
KOLS Kolonicke sedl 71.39 327 *eP* **P 17 37 42.1 +0.1**
KOLS Kolonicke sedl 71.39 327 *eP* **P 17 37 42.1 +0.1**
BUR08 Bucovina Ar. S 71.46 325 P 17 37 42.1 -0.4
BURAR Bucovina Array 71.48 325 P P 17 37 42.1 -0.5
BURAR pmax pmax
comp=Z,2.0nm,0.8s
BURAR Bucovina Array 71.48 325 P P 17 37 42.1 -0.5
EKA Eskdalemuir Ar 71.91 345 P P 17 37 44.6 -0.3
comp=Z,1.7nm,0.4s,baz=16,slow=5.0,SNR=18
comp=Z,1.7nm,0.4s
TRPA Tarpa 71.99 327 P P 17 37 45.6 +0.2
comp=Z,11nm,0.7s
LANS Liptovska Anna 72.13 329 *eP* **P 17 37 47.5 +1.2**
LANS Liptovska Anna 72.13 329 *eP* **P 17 37 47.5 +1.2**
CLL Collm 72.15 334 *i* P **P 17 37 46.0 -0.3**
CLL Collm 72.15 334 *i* P **P 17 37 46.0 -0.3**
WRA Warramunga Arr 72.35 197 P P 17 37 48.2 +0.4
comp=Z,1.7nm,0.4s,baz=14,slow=5.9,SNR=21
comp=Z,1.7nm,0.4s
WRA Warramunga Arr 72.35 197 P P 17 37 48.1 +0.3
VRAC Vranov 72.89 331 P P 17 37 50.5 -0.2
comp=Z,2.9nm,0.8s,baz=81,slow=6.7,SNR=3.7
comp=Z,2.9nm,0.8s
VRAC Vranov 72.89 331 P P 17 37 51.0 +0.3
VYHS Vyhne 72.91 329 *eP* **P 17 37 51.2 +0.4**
VYHS Vyhne 72.91 329 *eP* **P 17 37 51.2 +0.4**
MLR Muntele Rosu 73.01 323 P P 17 37 52.3 +0.7
comp=Z,3.6nm,0.5s,baz=144,slow=4.9,SNR=4.9
comp=Z,3.6nm,0.5s
MLR Muntele Rosu 73.01 323 lAmb lAmb 17 37 53.1
comp=Z,4.1nm,0.6s
MNTX Cornudas Mount 73.41 60 P P 17 37 55.5 +1.5
GRA1 Grafenberg Arr 74.09 335 P P 17 37 58.3 +0.6
comp=Z,15nm,2.5s
GRF Grafenberg Arr 74.09 335 P P 17 37 58.3 +0.6
GRF pmax pmax
comp=Z,15nm,2.5s
GERES GERESS Array B 74.17 333 P P 17 37 57.9 -0.3
comp=Z,1.0nm,0.5s,baz=28,slow=5.9,SNR=10
comp=Z,1.0nm,0.5s
GERES GERESS Array B 74.17 333 P P 17 37 57.5 -0.6
WMOK Wichita Mounta 74.54 54 P P 17 38 01.0 +0.6
WMOK pmax pmax
comp=Z,6.0nm,1.2s
WMOK Wichita Mounta 74.54 54 P P 17 38 01.0 +0.6
comp=Z,6.2nm,1.2s
BR131 Keskin Array S 74.63 315 P P 17 37 59.4 -1.6
BR131 pmax pmax
comp=Z,8.0nm,1.4s
BR131 Keskin Array S 74.63 315 P P 17 37 59.4 -1.6
BR131 lAmb lAmb 17 38 42.8
comp=Z,8.3nm,1.4s
BRTR Keskin Array B 74.63 315 P P 17 38 00.9 0.0
comp=Z,1.8nm,0.7s,baz=94,slow=1.7,SNR=9.6
comp=Z,1.8nm,0.7s
BRTR Keskin Array B 74.63 315 *i* P **P 17 38 01.0 0.0**
BRTR pmax pmax
comp=Z,2.0nm,0.7s
BRTR Keskin Array B 74.63 315 P P 17 38 01.2 +0.2
ASAR Alice Springs 76.06 197 P P 17 38 10.2 +1.2
comp=Z,1.5nm,0.7s,baz=12,slow=5.2,SNR=31
comp=Z,1.5nm,0.7s
ASAR Alice Springs 76.06 197 P P 17 38 10.0 +1.1
TXAR Lajitas Array 76.17 60 P P 17 38 11.2 +1.5
comp=Z,1.2nm,0.6s,baz=300,slow=4.5,SNR=18
comp=Z,1.2nm,0.6s
MMAI Mount Meron Ar 79.28 310 P P 17 38 27.2 +0.6
comp=Z,5.9nm,0.8s,baz=30,slow=8.9,SNR=2.6
comp=Z,5.9nm,0.8s
MVL Millersville 80.04 35 P 17 38 28.9 -1.5
QSPA South Pole Qui 140.82 180 PKhKP PKPpre 17 45 38.6
comp=Z,0.5nm,0.4s,baz=3.6,slow=9.7,SNR=2.9
QSPA SKP **SKPdf 17 48 37.9 -0.6**
comp=Z,1.0nm,0.8s,baz=289,slow=3.7,SNR=2.6
PLCA Paso Flores 149.22 87 PKPbc PKPbc 17 46 06.0 +0.5
comp=Z,2.2nm,0.7s,baz=257,slow=4.9,SNR=3.5

SJA 05 17:33:29.2 0.9, 30.62S × 67.29W, h23 km, ML3.3, MW3.6,
San Juan Province

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
AVFE	**Valle Fertil**	**0.15**	**253**	*eP*		Pn	17 33 37.9	+1.6
AVFE				*i* S		Sb	17 33 42.8	+5.2
AVFE				IAML			17 33 43.0	
	comp=Z,3μm,0.1s							
ACLC	**CERRO LA CRUZ**	**1.22**	**14**	*eP*		Pb	17 33 52.9	+1.2
ACLC				*eS*		Sb	17 34 09.8	+2.7
ACLC				IAML			17 34 11.9	
	comp=Z,765nm,0.2s							
RTLL	**Cerro Villicun**	**1.24**	**235**	*eP*		Pb	17 33 52.9	+0.9
RTLL				IAML			17 34 13.1	
	comp=Z,829nm,0.3s							
CFA	**Coronel Fontan**	**1.28**	**219**	*eP*		Pb	17 33 53.8	+1.2
CFA				*eS*		Sb	17 34 11.2	+2.5
CFA				IAML			17 34 11.7	
	comp=Z,550nm,0.2s							
SJA	**San Juan**	**1.42**	**230**	*eP*		Pb	17 33 56.4	+1.4
SJA				*eS*		Sb	17 34 16.8	+4.0
SJA				IAML			17 34 18.0	
	comp=Z,214nm,0.2s							
ZON	**Zonda**	**1.51**	**232**	*eP*		Pb	17 33 57.4	+0.8
ZON				*eS*		Sb	17 34 17.3	+1.9
ZON				IAML			17 34 18.2	
	comp=Z,306nm,0.5s							
ACCO	**Cerro Coronel**	**1.53**	**271**	*eP*		Pb	17 33 57.4	+0.2
ACCO				*eS*		Sb	17 34 18.2	+1.9
ACCO				IAML			17 34 19.0	
	comp=Z,331nm,0.4s							
DOCA	**Reserva Natura**	**1.58**	**257**	*eP*		Pb	17 33 57.9	-0.1
DOCA				*eS*		Sb	17 34 19.1	+1.5
ACDV	**Cuesta del Vie**	**1.64**	**285**	*eP*		Pb	17 33 59.5	+0.6
ACDV				*eS*		Sn	17 34 14.8	-2.5
ACDV				IAML			17 34 21.1	
	comp=Z,505nm,0.4s							
ACAN	**Cantantal**	**1.66**	**177**	*eP*		Pb	17 34 00.5	+1.4
AROD	**Rodeo**	**1.94**	**283**	*eP*		Pb	17 34 03.8	-0.3
AROD				*eS*		Sn	17 34 22.8	-2.1
AROD				*eS*		Sb	17 34 29.2	+1.2
VCA	**Vinchina**	**2.04**	**337**	*eP*		Pb	17 34 05.3	-0.3
VCA				*eS*		Sn	17 34 27.8	+0.8
VCA				IAML			17 34 44.0	
	comp=Z,317nm,0.3s							
RTLS	**Leoncito**	**2.09**	**235**	*eP*		Pb	17 34 06.1	-0.4
RTLS				*eS*		Sb	17 34 35.2	+3.0
RTLS				IAML			17 34 43.0	
	comp=Z,191nm,0.5s							
MRA	**San Martin**	**2.24**	**144**	*eP*		Pb	17 34 07.7	-1.4
MRA				*eS*		Sb	17 34 36.3	-0.1
MRA				IAML			17 34 42.1	
	comp=Z,273nm,1.0s							
TCA	**Tanti**	**2.42**	**108**	*eP*		Pb	17 34 10.3	-1.8
TCA				*eS*		Sb	17 34 39.3	-2.3
TCA				IAML			17 34 49.4	
	comp=Z,253nm,0.6s							
ACAN	**Cantantal**	**1.66**	**177**	*eP*		Pb	17 34 00.5	+1.4
AROD	**Rodeo**	**1.94**	**283**	*eP*		Pb	17 34 03.8	-0.3
AROD				*eS*		Sn	17 34 22.8	-2.1
AROD				*eS*		Sb	17 34 29.2	+1.2
VCA	**Vinchina**	**2.04**	**337**	*eP*		Pb	17 34 05.3	-0.3
VCA				*eS*		Sn	17 34 27.8	+0.8
VCA				IAML			17 34 44.0	
	comp=Z,317nm,0.3s							
RTLS	**Leoncito**	**2.09**	**235**	*eP*		Pb	17 34 06.1	-0.4
RTLS				*eS*		Sb	17 34 35.2	+3.0
RTLS				IAML			17 34 43.0	
	comp=Z,191nm,0.5s							
MRA	**San Martin**	**2.24**	**144**	*eP*		Pb	17 34 07.7	-1.4
MRA				*eS*		Sb	17 34 36.3	-0.1
MRA				IAML			17 34 42.1	
	comp=Z,273nm,1.0s							
TCA	**Tanti**	**2.42**	**108**	*eP*		Pb	17 34 10.3	-1.8
TCA				*eS*		Sb	17 34 39.3	-2.3
TCA				IAML			17 34 49.4	
	comp=Z,253nm,0.6s							
CO01	**Juntas del Tor**	**2.51**	**284**	*eP*		Pb	17 34 12.4	-1.3
CO01				*eS*		Sn	17 34 39.8	+1.0
CO01				IAML			17 34 50.9	
	comp=Z,68nm,0.6s							
CYA	**Choya**	**2.52**	**31**	*eP*		Pn	17 34 11.2	+2.3
CYA				*eS*		Sb	17 34 49.8	+5.4
CYA				IAML			17 35 01.3	
	comp=Z,144nm,0.5s							
TINO	**Tinogasta**	**2.56**	**354**	*eP*		Pb	17 34 13.1	-1.4
TINO				*eS*		Sb	17 34 43.3	-2.1
TINO				IAML			17 34 51.6	
	comp=Z,169nm,0.6s							
ARCO	**CERRO ARCO**	**2.62**	**212**	*eP*		Pb	17 34 14.1	-1.6
ARCO				*eS*		Sb	17 34 58.6	+11
ARCO				IAML			17 34 59.9	
	comp=Z,159nm,0.3s							
AAGR	**Agrelo**	**2.79**	**208**	*eP*		Pb	17 34 15.6	-2.9
AAGR				*eS*		Sb	17 35 00.0	+7.8
AAGR				IAML			17 35 02.4	
	comp=Z,105nm,0.2s							
CO03	**El Pedregal**	**2.94**	**265**	*eP*		Pb	17 34 18.4	-2.6
CO03				*eS*		Sn	17 34 49.8	+0.7
CO03				IAML			17 35 04.4	
	comp=Z,66nm,0.2s							
GO04	**Tololo Observa**	**3.07**	**277**	*eP*		Pb	17 34 20.7	-2.5
GO04				*eS*		Sn	17 34 54.8	+2.3
GO04				IAML			17 35 04.3	
	comp=Z,180nm,0.3s							
AC05	**El Transito**	**3.15**	**304**	*eP*		Pn	17 34 20.3	+2.9
AC05				*eS*		Sb	17 35 06.7	+4.3
AC05				IAML			17 35 07.6	
	comp=Z,55nm,0.3s							
CO02	**Combarbal**	**3.25**	**259**	*eP*		Pn	17 34 21.8	+3.0
CO02				*eS*		Sb	17 35 02.3	-3.0
CO02				IAML			17 35 08.5	
	comp=Z,191nm,0.5s							
LCO	**Las Campanas**	**3.37**	**297**	*eP*		Pn	17 34 23.3	+2.7
LCO				*eS*		Sn	17 35 04.4	+4.3
LCO				IAML			17 35 16.8	
	comp=Z,132nm,0.3s							
VA03	**San Esteban**	**3.51**	**232**	*eP*		Pn	17 34 26.5	+4.1
VA03				IAML			17 35 32.9	
	comp=Z,76nm,0.7s							
MT08	**Bocatoma Ro**	**3.65**	**219**	*eP*		Pn	17 34 28.6	+4.1
MT08				*eS*		Sb	17 35 22.3	+5.2
MT08				IAML			17 35 27.6	

	comp=Z,29nm,0.5s							
MT04	**Ro Olivares**	**3.69**	**220**	*e*P	Pb	17 34 29.6	-4.2	
MT04				*e*S	Sb	17 35 22.8	+4.7	
MT04				IAML		17 35 28.1		
	comp=Z,28nm,0.3s							
AC02	**Maricunga**	**4.10**	**336**	*e*P	Pn	17 34 34.7	+3.8	
AC02				*e*S	Sb	17 35 38.0	+7.8	
AHML	**Horco Molle**	**4.18**	**25**	*e*P	Pn	17 34 34.3	+2.7	
AHML				*e*S	Sn	17 35 19.8	0.0	
AHML				IAML		17 35 55.1		
	comp=Z,54nm,0.5s							
MT02	**Curacav**	**4.20**	**230**	*e*P	Pn	17 34 34.3	+2.5	
MT02				IAML		17 35 53.2		
	comp=Z,31nm,1.1s							
RFA	**San Rafael**	**4.26**	**193**	*e*P	Pn	17 34 22.3	-10	
RFA				*e*P	Pb	17 34 34.7	-8.7	
RFA				*e*S	Sb	17 35 38.8	+4.3	
RFA				IAML		17 35 48.8		
	comp=Z,157nm,0.4s							
FSA	**Cafayete**	**4.63**	**15**	*e*P	Pn	17 34 40.8	+2.9	
FSA				*e*S	Sb	17 35 50.8	+5.5	
MT01	**Popeta**	**4.67**	**225**	*e*P	Pn	17 34 40.2	+2.0	
MT01				IAML		17 36 12.7		
	comp=Z,24nm,3.3s							
BO01	**Tunca**	**4.95**	**219**	*e*P	Pn	17 34 44.7	+2.6	
BO01				IAML		17 36 01.8		
	comp=Z,21nm,2.7s							
BO02	**Sierra Bellavi**	**5.10**	**214**	*e*P	Pn	17 34 48.3	+4.0	
BO02				IAML		17 36 16.4		
	comp=Z,15nm,0.6s							

*AFAD **05** 17:51:24.4,37.90N×26.94E,h7km±2km,ML1.5*
ISK 05 17:51:10.4,38.06N×26.12E,h16km,ML1.8/5,Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHOS	**Chios island**	**0.33**	**351**	Pg	Pb	17 51 17.8	-0.2
CHOS				Sg	Sb	17 51 23.0	-0.2
CHOS				AML	AML		
DGB	**zmir**	**0.60**	**90**	P	Pn	17 51 28.1	+3.8
DGB				S	Sb	17 51 30.6	-0.2
GMLD	**Gumuldur**	**0.63**	**88**	Pg	Pg	17 51 22.6	-0.2
GMLD				Sg	Sb	17 51 31.5	-0.1
GMLD				AML	AML		
BEYE	**izmir**	**0.66**	**75**	P	Pn	17 51 31.9	+6.8
BEYE				S	Sn	17 51 36.1	+0.9
GCAM	**G?zelcaml?**	**0.95**	**112**	P	Pn	17 51 31.0	+1.9
GCAM				S	Sb	17 51 35.1	-5.8
GCAM				IAML		17 51 38.0	
	comp=E,59nm,1.3s						
GCAM				IAML		17 51 39.0	
	comp=N,94nm,1.7s						
DUVT	**Torbali**	**1.06**	**81**	P	Pg	17 51 35.0	+4.0
DUVT				S	Sb	17 51 41.6	-2.4
DUVT				IAML		17 51 42.0	
	comp=E,28nm,0.5s						
MLSB	**Milas**	**1.52**	**120**	Pn	Pb	17 51 37.7	-0.5
NAZL	**Nazilli-Aydin**	**1.72**	**92**	Pn	Pn	17 51 40.5	+0.8
NAZL				AML	AML		
GORD	**Gordes-Manisa**	**1.82**	**62**	Pn	Pn	17 51 42.1	+0.9

*AFAD **05** 17:55:22.7,37.79N×26.91E,h7km±3km,ML3.2*
*ISK **05** 17:55:22.6,37.77N×26.89E,h5km,ML3.1/38*
*ATH **05** 17:55:22.7,37.79N×26.92E,h15km,ML3.1/13,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **05** 17:55:23.2,38°№1°×2°7E±°,h12km±1km,M3.3/10, ML3.3/10*
ISC 05 17:55:22.8±0.8,37.79N±0.01×26.92E±0.02,h15km±5km, n103,σ0§54/145,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.10**	**220**	P	**Pg**	**17 55 26.0**	**-0.1**
SMG				S	**Sg**	**17 55 28.2**	**-0.1**
SMG				AML	AML		
SMG	**Samos**	**0.10**	**220**	P	**Pg**	**17 55 26.1**	**-0.1**
SMG				S	**Sg**	**17 55 28.4**	**0.0**
KRL1	**Karlovasi Samo**	**0.17**	**273**	P	**Pb**	**17 55 27.1**	**-0.5**
KRL1				S	**Sg**	**17 55 30.2**	**+0.5**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.25**	**264**	P	**Pg**	**17 55 28.2**	**0.0**
SAM2				S	**Sg**	**17 55 32.0**	**+0.1**
SAM2				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**109**	P	**Pb**	**17 55 29.0**	**-0.3**
GCAM				S	**Sb**	**17 55 33.0**	**-0.5**
GCAM				IAML		17 55 34.0	
	comp=E,4μm,0.2s						
GCAM				IAML		17 55 35.0	
	comp=N,5μm,0.2s						
GCAM	**G?zelcaml?**	**0.26**	**109**	Pg	**Pb**	**17 55 28.9**	**-0.3**
GCAM				Sg	**Sb**	**17 55 33.4**	**-0.1**
GCAM				AML	AML		
DGB	**zmir**	**0.27**	**354**	P	**Pg**	**17 55 28.7**	**+0.1**
DGB				S	**Sg**	**17 55 32.1**	**-0.5**
DGB				IAML		17 55 33.0	
	comp=E,1μm,0.2s						
GMLD	**Gumuldur**	**0.29**	**359**	Pg	**Pb**	**17 55 29.3**	**-0.4**
GMLD				Sg	**Sb**	**17 55 33.8**	**-0.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**75**	Pg	**Pb**	**17 55 29.6**	**-0.3**
KUSD				Sg	**Sb**	**17 55 34.4**	**-0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.42**	**142**	P	**Pg**	**17 55 31.0**	**-0.2**
DDIM				S	**Sg**	**17 55 37.4**	**+0.6**
DDIM				IAML		17 55 38.0	
	comp=N,3μm,0.7s						
DDIM				IAML		17 55 39.0	
	comp=E,2μm,0.5s						
BEYE	**izmir**	**0.44**	**1**	P	**Pg**	**17 55 31.7**	**0.0**
BEYE				S	**Sb**	**17 55 38.8**	**+0.1**
BEYE				IAML		17 55 39.0	
	comp=N,1μm,0.3s						
DIDI	**Didim-Aydin**	**0.48**	**148**	Pg	**Pg**	**17 55 32.6**	**+0.2**
DIDI				Sg	**Sb**	**17 55 40.3**	**+0.5**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**324**	P	**Pg**	**17 55 33.5**	**-0.4**
ZEYE				S	**Sb**	**17 55 41.8**	**-0.2**
ZEYE				IAML		17 55 44.0	
	comp=E,2μm,0.5s						
ZEYE				IAML		17 55 44.0	
	comp=N,5μm,0.3s						
DUVT	**Torbali**	**0.60**	**44**	P	**Pg**	**17 55 34.8**	**+0.1**
DUVT				S	**Sg**	**17 55 42.7**	**0.0**
DUVT				IAML		17 55 44.0	
	comp=E,2μm,0.4s						
BLCB	**Balcova**	**0.61**	**9**	P	**Pb**	**17 55 35.0**	**-0.1**
BLCB				S	**Sb**	**17 55 43.4**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.61**	**9**	Pg	**Pb**	**17 55 35.0**	**-0.1**
BLCB				Sg	**Sb**	**17 55 43.7**	**+0.3**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.72**	**156**	Pg	**Pg**	**17 55 36.9**	**+0.1**
YKAV				Sg	**Sb**	**17 55 46.9**	**+0.3**
YKAV				AML	AML		
CESE	**eme**	**0.73**	**318**	Pg	**Pb**	**17 55 37.4**	**+0.2**
CESE				Sg	**Sb**	**17 55 47.5**	**+0.5**
CESE				AML	AML		
AYDN	**Tasoluk**	**0.77**	**99**	P	**Pg**	**17 55 37.0**	**-0.8**
AYDN				S	**Sg**	**17 55 47.9**	**-0.2**
AYDN				IAML		17 55 51.0	
	comp=N,569nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.79**	**78**	Pg	**Pb**	**17 55 38.9**	**+0.7**
AYDB				Sg	**Sn**	**17 55 50.8**	**-0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.79**	**157**	P	**Pg**	**17 55 38.1**	**0.0**
BODT				S	**Sn**	**17 55 50.7**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**157**	Pg	**Pg**	**17 55 38.1**	**0.0**
BODT				Sg	**Sb**	**17 55 49.6**	**+1.0**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.83**	**177**	P	**Pg**	**17 55 38.8**	**-0.1**
KLNA				S	**Sb**	**17 55 49.9**	**+0.2**
MLSB	**Milas**	**0.84**	**125**	Pg	**Pb**	**17 55 39.5**	**+0.4**
MLSB				AML	AML		
KRBN	**Karaburun**	**0.86**	**340**	Pg	**Pb**	**17 55 39.9**	**+0.6**
KRBN				Sg	**Sn**	**17 55 52.6**	**+0.1**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.89**	**66**	P	**Pg**	**17 55 39.9**	**-0.1**
IZMR				S	**Sg**	**17 55 51.0**	**-0.7**
CHOS	**Chios island**	**0.91**	**312**	P	**Pg**	**17 55 40.0**	**-0.4**
CHOS				S	**Sb**	**17 55 53.2**	**+1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**312**	Pg	**Pb**	**17 55 40.6**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**312**	P	**Pb**	**17 55 40.5**	**+0.3**
CHOS				S	**Sb**	**17 55 52.4**	**+0.2**
CHOS				AML	AML		
FOCM	**Foa**	**0.94**	**351**	Pg	**Pb**	**17 55 41.1**	**+0.4**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**336**	P	**Pg**	**17 55 40.8**	**-0.7**
KARB				S	**Sb**	**17 55 54.5**	**+0.8**
KARB				IAML		17 55 56.0	
	comp=N,603nm,0.5s						
EAG2	**Marmaro, Chios**	**0.99**	**320**	P	**Pb**	**17 55 41.9**	**+0.2**
EAG2				S	**Sb**	**17 55 55.0**	**+0.6**
CAMT	**Merkez**	**1.01**	**18**	P	**Pn**	**17 55 42.5**	**+0.1**
CAMT				S	**Sb**	**17 55 56.1**	**+1.0**
CAMT				IAML		17 55 59.0	
	comp=E,1μm,0.3s						
CAMT				IAML		17 56 00.0	
	comp=N,802nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.10**	**80**	Pn	**Pg**	**17 55 43.9**	**-0.2**
NAZL				AML	AML		
DAT	**Datca**	**1.18**	**153**	P	**Pb**	**17 55 45.0**	**+0.1**
DAT				AML	AML		
DAT	**Datca**	**1.18**	**153**	Pn	**Pg**	**17 55 45.5**	**0.0**
DAT				AML	AML		
ZEDA	**zmir-Bergama**	**1.19**	**6**	P	**Pn**	**17 55 44.9**	**+0.1**
ZEDA				S	**Sn**	**17 56 01.5**	**+0.8**
ZEDA				IAML		17 56 08.0	
	comp=N,230nm,0.4s						
GOMA	**Golmarmara-Man**	**1.21**	**40**	Pn	**Pg**	**17 55 46.7**	**+0.6**
GOMA				AML	AML		
YER	**Yerkesik**	**1.27**	**120**	P	**Pn**	**17 55 46.5**	**+0.5**
YER				AML	AML		
YER	**Yerkesik**	**1.27**	**120**	Pn	**Pg**	**17 55 47.0**	**-0.2**
YER				AML	AML		
DKL	**Dikili**	**1.28**	**360**	Pn	**Pg**	**17 55 47.7**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.28**	**360**	P	**Pn**	**17 55 46.1**	**-0.1**
KTTT	**Salihli**	**1.29**	**45**	P	**Pg**	**17 55 47.5**	**-0.2**
KTTT				S	**Sb**	**17 55 53.3**	**+0.1**
KTTT				IAML		17 56 09.0	
	comp=N,272nm,0.7s						
AKS	**Akhisar**	**1.30**	**32**	Pn	**Pg**	**17 55 48.5**	**+0.7**
AKS				AML	AML		
APE	**Apeiranthos**	**1.32**	**238**	P	**Pn**	**17 55 45.6**	**-1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.32**	**238**	Pn	**Pn**	**17 55 47.1**	**+0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.32**	**238**	P	**Pn**	**17 55 45.6**	**-1.0**
APE				S	**Sg**	**17 56 04.9**	**-0.4**
APE				AML	AML		
ASTA	**Astypalaia**	**1.32**	**200**	P	**Pn**	**17 55 46.6**	**+0.1**
ASTA				S	**Sb**	**17 56 04.3**	**+0.4**
ASTA				AML	AML		
NAX1	**Naxos Island**	**1.41**	**241**	P	**Pb**	**17 55 48.6**	**-0.1**
NAX1				S	**Sn**	**17 56 06.4**	**+0.4**
NAX1				AML	AML		
TNSA	**Tinos**	**1.42**	**261**	P	**Pn**	**17 55 47.2**	**-0.7**
TNSA				S	**Sn**	**17 56 05.1**	**-1.1**
SOMA	**Soma-Manisa**	**1.45**	**19**	Pn	**Pg**	**17 55 50.5**	**-0.2**
SOMA				AML	AML		
TURN	**Turunc**	**1.46**	**133**	Pn	**Pg**	**17 55 50.5**	**-0.4**
TURN				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**41**	Pn	**Pg**	**17 55 51.4**	**-0.2**
GORD				AML	AML		
PRK	**Paraskevi**	**1.54**	**341**	P	**Pn**	**17 55 49.5**	**-0.1**
PRK	**Paraskevi**	**1.54**	**341**	P	**Pn**	**17 55 49.6**	**-0.1**
PRK				S	**Sn**	**17 56 10.2**	**+0.7**
PRK				AML	AML		
DALY	**Dalyan (Mula)**	**1.69**	**124**	Pn	**Pb**	**17 55 53.8**	**+0.3**
DALY				AML	AML		
BUHA	**Balikesir, Bur**	**1.72**	**4**	P	**Pb**	**17 55 54.2**	**+0.1**
BUHA				S	**Sg**	**17 56 19.0**	**+0.9**
BUHA				IAML		17 56 22.0	
	comp=N,274nm,0.5s						
BUHA				IAML		17 56 23.0	
	comp=E,313nm,0.5s						
THR2	**Thira island,**	**1.79**	**222**	P	**Pn**	**17 55 53.0**	**-0.1**
THR8	**Santorini-Mono**	**1.79**	**220**	P	**Pn**	**17 55 53.6**	**+0.4**
THERA	**Ancient Thera,**	**1.83**	**220**	P	**Pn**	**17 55 54.2**	**+0.5**
THERA				AML	AML		
YAYO	**Edremit-Balk**	**1.83**	**4**	Pn	**Pb**	**17 55 55.7**	**-0.2**
YAYO				AML	AML		
THR3	**Thira Island,**	**1.83**	**222**	P	**Pn**	**17 55 54.6**	**+0.9**
ARG	**Arkhangelos**	**1.84**	**148**	P	**Pn**	**17 55 54.4**	**+0.7**
ARG				S	**Sn**	**17 56 16.3**	**-0.5**
ARG				AML	AML		
SNT5	**Nea Kammeni, S**	**1.84**	**222**	P	**Pn**	**17 55 53.9**	**+0.1**
SAP3	**Santorini-Thir**	**1.84**	**224**	P	**Pn**	**17 55 54.7**	**+0.9**
SAP3				S	**Sn**	**17 56 17.3**	**+0.4**
THR5	**Thira Island,**	**1.85**	**223**	P	**Pn**	**17 55 53.9**	**-0.1**
THR6	**Thira Island,**	**1.88**	**221**	P	**Pn**	**17 55 53.6**	**-0.6**
THR9	**Santorini-Faro**	**1.90**	**222**	P	**Pn**	**17 55 55.1**	**+0.6**
APMY	**Acipayam-Deniz**	**1.92**	**99**	Pn	**Pn**	**17 55 56.2**	**+1.3**
APMY				AML	AML		
KARY	**Karystos**	**1.98**	**278**	P	**Pn**	**17 55 55.6**	**-0.1**
BALB	**Balikesir**	**2.00**	**22**	Pn	**Pb**	**17 55 58.7**	**-0.1**
BALB				AML	AML		
BALB	**Balikesir**	**2.00**	**22**	P	**Pn**	**17 55 57.0**	**+1.0**
BALB				AML	AML		
EZNE	**Ezine-Canakkal**	**2.02**	**348**	Pn	**Pb**	**17 55 58.6**	**-0.5**
FETY	**Fethiye**	**2.07**	**123**	Pn	**Pb**	**17 55 59.0**	**-1.1**
FETY				AML	AML		
SIMA	**Simav-Kutahya**	**2.08**	**51**	Pn	**Pb**	**17 55 59.9**	**-0.3**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.08**	**113**	Pn	**Pb**	**17 55 59.1**	**-1.1**
EZN	**Ezine**	**2.09**	**347**	Pn	**Pb**	**17 55 59.7**	**-0.7**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.16**	**342**	Pn	**Pb**	**17 56 00.8**	**-0.8**
BOZC				AML	AML		
YENI	**Yenice-Canakka**	**2.16**	**7**	Pn	**Pb**	**17 56 00.8**	**-0.8**
SHAP	**Saphane-Kutahy**	**2.19**	**55**	Pn	**Pb**	**17 56 01.4**	**-0.8**
SHAP				AML	AML		
CANM	**Can-anakkale**	**2.23**	**3**	Pn	**Pb**	**17 56 01.7**	**-1.0**
CANM				AML	AML		
KARP	**Karpathos**	**2.24**	**175**	P	**Pn**	**17 55 59.2**	**-0.1**
KARP				S	**Sn**	**17 56 27.0**	**+0.2**
DST	**Dursunbey**	**2.25**	**36**	Pn	**Pb**	**17 56 02.2**	**-1.0**
DST				AML	AML		
MHLO	**Agia Marina, M**	**2.29**	**242**	P	**Pn**	**17 55 59.7**	**-0.2**
MHLO				S	**Sn**	**17 56 27.2**	**-0.6**
GONE	**Gonen-Balikesi**	**2.34**	**15**	Pn	**Pb**	**17 56 03.4**	**-1.2**
GONE				AML	AML		
SUSR	**Susurluk-Balik**	**2.36**	**22**	Pn	**Pb**	**17 56 03.6**	**-1.3**
SUSR				AML	AML		
KYMI	**Kymi, Euboea I**	**2.38**	**292**	P	**Pn**	**17 56 01.6**	**+0.5**
DION	**Dionisos Attik**	**2.38**	**278**	P	**Pn**	**17 56 01.3**	**0.0**
PTL	**Penteli**	**2.43**	**277**	P	**Pn**	**17 56 01.4**	**-0.5**
VLY	**Voula,Athens**	**2.48**	**273**	P	**Pn**	**17 56 02.1**	**-0.4**
VLY				AML	AML		
BASM	**Basmaki-Afyon**	**2.48**	**86**	Pn	**Pb**	**17 56 05.4**	**-1.7**
ATHU	**Athens Univers**	**2.49**	**275**	P	**Pn**	**17 56 02.5**	**-0.2**
LIA	**Limnos Island**	**2.51**	**328**	P	**Pn**	**17 56 03.3**	**+0.3**
NPS	**Neapolis**	**2.73**	**203**	P	**Pn**	**17 56 06.2**	**+0.2**
MET6	**Megalochori,Me**	**2.83**	**267**	P	**Pn**	**17 56 07.5**	**0.0**
MET2	**Kameni Chora,**	**2.85**	**268**	P	**Pn**	**17 56 08.2**	**+0.5**
SMTH	**Samothraki Isl**	**2.89**	**338**	P	**Pn**	**17 56 07.9**	**-0.4**
VIL2	**Platees**	**2.92**	**280**	P	**Pn**	**17 56 08.4**	**-0.2**
ALN	**Alexandroupoli**	**3.18**	**348**	P	**Pn**	**17 56 12.6**	**+0.4**
THAS	**Thassos island**	**3.29**	**329**	P	**Pn**	**17 56 13.6**	**-0.2**
KLV	**Kalavryta, Ach**	**3.78**	**275**	P	**Pn**	**17 56 21.2**	**+0.7**
ANX	**Ano Chora**	**4.02**	**283**	P	**Pn**	**17 56 24.9**	**+1.0**
DRO	**Drossia**	**4.12**	**274**	P	**Pn**	**17 56 25.8**	**+0.6**

*IDC **05** 18:03:16.5±3.0,54.66N×159.90W,h0km,mb3.9/2, mbtmp3.8/5,ML3.8/3,MS4.0/2,Error ellipse: s-maj=65.1km s-min=17.1km az=152.0*
*NEIC **05** 18:03:17.7±1.1,54.26N±0.04×159.6W±0.1,h23km±9km, ML3.4/30,ML3.3(AEIC),Error ellipse: s-maj=10.5km s-min=3.2km az=121.0*
*AEIC **05** 18:03:18.5±1.1,54.25N±0.08×159.7W±0.1,h15km±6km, Error ellipse: s-maj=12.9km s-min=7.3km az=151.0*
ISC 05 18:03:18.2±1.1,54.30N±0.08×159.49W±0.06,h35km, n108,σ1§46/105,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.52**	**354**		**Pn**	**18 03 29.3**	**+0.2**
CNBA				IAML		18 03 39.2	
	comp=N,1μm,0.2s						
CNBA				IAML		18 03 39.3	
	comp=E,2μm,0.6s						
CNBA	**Chernabura Isl**	**0.52**	**354**		**Sn**	**18 03 38.2**	**+1.4**
CHNA	**Chernabura Isl**	**0.53**	**354**	P	**Pn**	**18 03 29.4**	**+0.1**
CHNA	**Chernabura Isl**	**0.53**	**354**	S	**Sn**	**18 03 36.8**	**-0.2**
SDPT	**Sand Point**	**1.19**	**332**	P	**Pn**	**18 03 38.1**	**-0.2**
SDPT	**Sand Point**	**1.19**	**332**	S	**Sn**	**18 03 53.9**	**+0.6**
SDPT	**Sand Point**	**1.19**	**332**		**Pn**	**18 03 38.1**	**-0.2**
SDPT				IAML		18 03 54.0	
	comp=E,798nm,0.8s						
SDPT				IAML		18 03 54.0	
	comp=N,869nm,0.4s						
SDPT				Sn	**Sn**	**18 03 54.0**	**+0.7**
VNKR	**Veniaminof 5**	**1.73**	**2**		**Pn**	**18 03 47.5**	**+1.6**
PN7A	**Pavlof North-7**	**1.84**	**309**		**Pn**	**18 03 47.5**	**+0.2**
PN7A					**Sn**	**18 04 09.7**	**+0.3**
VNWF	**Veniaminof 8**	**1.85**	**359**		**Pn**	**18 03 49.2**	**+1.7**
S12K	**Black Hills**	**2.04**	**314**	Pn	**Pn**	**18 03 49.9**	**-0.1**
S12K	**Black Hills**	**2.04**	**314**		**Sn**	**18 03 58.5**	**+0.9**
CHGN	**Chignik**	**2.10**	**17**	Pn	**Pn**	**18 03 52.0**	**+1.3**
CHGN				IAML		18 04 20.8	
	comp=N,222nm,0.1s						
ISNN	**Isanotski Nort**	**2.55**	**284**		**Pn**	**18 03 57.1**	**+0.1**
ISNN					**Sn**	**18 04 26.9**	**0.0**
ANPB	**Aniakchak Plen**	**2.60**	**15**		**Pn**	**18 03 59.4**	**+1.7**
SSLS	**Shishaldin Sou**	**2.66**	**281**		**Pn**	**18 03 58.5**	**-0.1**
AZAC	**Aniakchak**	**2.69**	**15**		**Pn**	**18 04 00.7**	**+1.6**
CHIR	**Chirikof Islan**	**2.69**	**54**	P	**Pn**	**18 04 00.0**	**+1.0**
CHIR	**Chirikof Islan**	**2.69**	**54**	Pn	**Pn**	**18 03 59.8**	**+0.9**
CHIR				IAML		18 04 34.0	
	comp=N,98nm,1.1s						
WTUG	**Tugumak**	**2.90**	**283**		**Pn**	**18 04 01.5**	**-0.3**
WESN	**West Dahl Nort**	**2.99**	**277**		**Pn**	**18 04 02.8**	**-0.2**
WESP	**Westdahl Peak**	**3.06**	**276**		**Pn**	**18 04 03.6**	**-0.5**
WECS	**Westdahl Cape**	**3.10**	**276**	Pn	**Pn**	**18 04 04.4**	**-0.1**
R16K	**Pilot Point**	**3.44**	**17**	Pn	**Pn**	**18 04 11.0**	**+1.8**
R16K				IAML		18 05 05.9	
	comp=E,74nm,1.0s						
R16K				IAML		18 06 01.5	
	comp=N,85nm,1.2s						
AKUT	**Akutan**	**3.69**	**270**	Pn	**Pn**	**18 04 12.2**	**-0.5**
AKUT				IAML		18 06 23.3	
	comp=E,100nm,1.1s						
R17L	**Mt. Peulik Vol**	**3.77**	**27**		**Pn**	**18 04 16.1**	**+2.3**
SII	**Sitkinak Islan**	**3.77**	**51**	P	**Pn**	**18 04 15.1**	**+1.3**
SII	**Sitkinak Islan**	**3.77**	**51**	Pn	**Pn**	**18 04 15.1**	**+1.3**
SII				IAML		18 04 57.9	
	comp=E,69nm,1.2s						
SII				IAML		18 05 01.8	
	comp=N,82nm,1.2s						
ZRO	**Akutan Zero**	**3.82**	**269**		**Pn**	**18 04 13.6**	**-0.8**
UNV	**Unalaska Valle**	**4.16**	**267**	P	**Pn**	**18 04 17.8**	**-1.3**
UNV	**Unalaska Valle**	**4.16**	**267**	Pn	**Pn**	**18 04 17.8**	**-1.3**
UNV				IAML		18 05 04.6	
	comp=E,30nm,0.8s						
ANCK	**Angle Creek**	**4.50**	**28**		**Pn**	**18 04 25.6**	**+1.8**
ACHA	**Angle Creek He**	**4.55**	**29**	Pn	**Pn**	**18 04 26.5**	**+1.9**
OHAK	**Old Harbor**	**4.56**	**48**	P	**Pn**	**18 04 25.7**	**+1.1**
OHAK	**Old Harbor**	**4.56**	**48**		**Pn**	**18 04 26.0**	**+1.4**
OHAK				IAML		18 05 21.9	
	comp=E,20nm,0.7s						
P16K	**Nushagak River**	**4.81**	**9**	Pn	**Pn**	**18 04 28.9**	**+0.9**
P16K				IAML		18 05 19.5	
	comp=N,38nm,1.1s						
O15K	**Ungalikthiuk R**	**4.89**	**358**	Pn	**Pn**	**18 04 30.0**	**+0.9**
O15K				IAML		18 06 06.6	
	comp=E,18nm,0.9s						
KARR	**Katmai Rainbow**	**4.97**	**30**		**Pn**	**18 04 31.9**	**+1.6**
Q18K	**Katmai Hardscr**	**5.01**	**28**		**Pn**	**18 04 32.5**	**+1.6**
KDAK	**Kodiak Island**	**5.21**	**45**	Pn	**Pn**	**18 04 34.4**	**+0.9**
	comp=E,3.0nm,0.3s,baz=212,slow=8.6,SNR=100						
KDAK				Sn	**Sn**	**18 05 29.8**	**-2.4**
	comp=E,0.8nm,0.3s,baz=319,slow=18,SNR=1.5						
	comp=E,7.7nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.21**	**45**		**Pn**	**18 04 34.5**	**+0.9**
KDAK				IAML		18 05 38.7	
	comp=E,15nm,1.0s						
O16K	**Kokwok River B**	**5.36**	**8**	Pn	**Pn**	**18 04 36.7**	**+1.1**
Q19K	**Cape Douglas,**	**5.65**	**32**	Pn	**Pn**	**18 04 42.4**	**+2.9**
N17K	**Nushagak Hills**	**6.36**	**10**	Pn	**Pn**	**18 04 50.7**	**+1.4**
ILSW	**Iliamna Southw**	**6.66**	**29**	Pn	**Pn**	**18 04 55.5**	**+2.0**
CNPM	**China Poot**	**6.91**	**37**	Pn	**Pn**	**18 04 57.8**	**+0.9**
RED	**Redoubt Volcan**	**7.12**	**28**	Pn	**Pn**	**18 05 01.4**	**+1.6**
M17K	**Holitna River**	**7.20**	**8**	Pn	**Pn**	**18 05 01.8**	**+0.9**
BRLK	**Bradley Lake**	**7.21**	**37**	Pn	**Pn**	**18 05 01.1**	**+0.2**
SEW	**Seward**	**7.96**	**39**	Pn	**Pn**	**18 05 13.3**	**+2.1**
SLKM	**Skilak Lake**	**7.98**	**35**	Pn	**Pn**	**18 05 14.3**	**+2.9**
L18K	**Granite Mounta**	**8.07**	**9**	Pn	**Pn**	**18 05 14.0**	**+1.2**
M19K	**Big River Lodg**	**8.08**	**17**	Pn	**Pn**	**18 05 14.1**	**+1.2**
RC01	**Rabbit Creek A**	**8.57**	**34**		**Pn**	**18 05 21.1**	**+1.5**
PWL	**Port Wells**	**8.88**	**38**		**Pn**	**18 05 24.4**	**+0.6**
PMR	**Palmer**	**9.14**	**33**	P	**Pn**	**18 05 29.1**	**+1.8**
KNK	**Knik Glacier**	**9.23**	**35**		**Pn**	**18 05 30.0**	**+1.4**
HIN	**Hinchinbrook I**	**9.29**	**44**	Pn	**Pn**	**18 05 30.9**	**+1.4**
GHO	**Glory Hole Cre**	**9.34**	**32**		**Pn**	**18 05 31.1**	**+0.9**
GLI	**Glacier Island**	**9.35**	**40**	Pn	**Pn**	**18 05 31.6**	**+1.3**
FID	**Port Fidalgo**	**9.51**	**42**	Pn	**Pn**	**18 05 33.3**	**+

baz=28,slow=76,SNR=28
MKAR Makanchi Array 66.53 319 P **P** 18 14 03.8 -0.3
comp=E,0.5nm,0.7s,baz=10.0,slow=4.2,SNR=4.0
comp=E,0.5nm,0.7s
MKAR Makanchi Array 66.53 319 P **P** 18 14 04.7 +0.6
LEM Lembang 97.18 268 LR LR 18 58 24.1
comp=E,98nm,20.5s,baz=137,slow=34

*IDC **05** 18:06:57.1±7.9,35.°12S×179.°58E,h154km±104km, mb3.2/3,mbtmp3.6/4,Error ellipse: s-maj=140.0km s-min=52.4km az=155.0*
*WEL **05** 18:07:02.2±1.6,36.°5S±42.°×17.°9E±3.°1,h232km±42km, M3.4/6,ML3.3/6,MLv3.4/6,Error ellipse: s-maj=60.9km s-min=29.7km az=148.9*
ISC 05 18:07:03.2±2.2,35.°4S±0.°1×179.°3E±0.°3,h200km,n13, σ1°53/20,mb3.3/3,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
WMGZ	**Waiomatatini S**	**2.54**	**196**	P	**Pn**	**Pn**	**18 07 47.3**	**-0.2**
WMGZ				S	**Sn**	**Sn**	**18 08 24.5**	**+2.2**
WMGZ				AML	AML			
WMGZ				AML	AML			
HAZ	**Te Kaha**	**2.67**	**206**	P	**Pn**	**Pn**	**18 07 49.2**	**+0.3**
HAZ				S	**Sn**	**Sn**	**18 08 26.1**	**+1.3**
HAZ				AML	AML			
HAZ				AML	AML			
PKGZ	**Pakihiroa**	**2.67**	**201**	P	**Pn**	**Pn**	**18 07 48.5**	**-0.5**
PKGZ				S	**Sn**	**Sn**	**18 08 24.8**	**-0.2**
PKGZ				AML	AML			
PKGZ				AML	AML			
PUZ	**Puketiti**	**2.82**	**197**	P	**Pn**	**Pn**	**18 07 49.9**	**-0.8**
PUZ				S	**Sn**	**Sn**	**18 08 27.3**	**-0.7**
PUZ				AML	AML			
PUZ				AML	AML			
RUGZ	**Raukumara Rang**	**2.89**	**206**	P	**Pn**	**Pn**	**18 07 51.2**	**-0.5**
RUGZ				AML	AML			
RUGZ				AML	AML			
CNGZ	**Carnagh Statio**	**3.23**	**195**	P	**Pn**	**Pn**	**18 07 55.3**	**-0.2**
CNGZ				AML	AML			
MWZ	**Matawai**	**3.28**	**205**	P	**Pn**	**Pn**	**18 07 55.4**	**-0.7**
MWZ				S	**Sn**	**Sn**	**18 08 38.3**	**+0.6**
MWZ				AML	AML			
MWZ				AML	AML			
URZ	**Urewera**	**3.37**	**210**	P	**Pn**	**Pn**	**18 07 55.3**	**-1.9**
	3.4nm,0.3s,baz=255,slow=2.9,SNR=11							
URZ				S	**Sn**	**Sn**	**18 08 37.1**	**-2.5**
	14nm,0.8s,baz=266,slow=6.2,SNR=7.1							
URZ	**Urewera**	**3.37**	**210**	P	**Pn**	**Pn**	**18 07 56.1**	**-1.1**
URZ				S	**Sn**	**Sn**	**18 08 39.8**	**+0.2**
URZ				AML	AML			
STKA	**Stephens Creek**	**31.45**	**265**	P	**P**	**P**	**18 13 07.9**	**+2.0**
	0.7nm,0.5s,baz=98,slow=8.2,SNR=1.4							
	0.7nm,0.5s							
ASAR	**Alice Springs**	**40.85**	**274**	P	**P**	**P**	**18 14 25.6**	**-0.1**
	0.2nm,0.5s,baz=120,slow=8.2,SNR=7.7							
	0.2nm,0.5s							
WRA	**Warramunga Arr**	**42.30**	**279**	P	**P**	**P**	**18 14 36.8**	**-0.7**
	0.6nm,0.6s,baz=118,slow=8.0,SNR=8.2							
	0.6nm,0.6s							
ILAR	**Eielson Array**	**103.28**	**14**	P	**Pdif**	**Pdif**	**18 20 35.3**	**-3.9**
	1.0nm,1.1s,baz=190,slow=4.5,SNR=3.1							

*ISK **05** 18:11:09.6,37.°87N×26.°90E,h9km,ML3.5/7*
*THE **05** 18:11:09.9,38.°N±1.°×2.°7E±.°,h11km±2km,M3.1/9, MLh3.1/9*
*AFAD **05** 18:11:09.7,37.°87N×26.°88E,h7km±2km,ML2.4*
ISC 05 18:11:09.4±1.0,37.°87N±0.°03×26.°89E±0.°03,h18km±3km, n22,σ0°25/33,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**196**	P	**Pg**	**Pg**	**18 11 13.7**	**-0.1**
SMG				S	**Sg**	**Sg**	**18 11 16.8**	**-0.1**
SMG				AML	AML			
DGB	**zmir**	**0.18**	**357**	P	**Pg**	**Pg**	**18 11 14.0**	**-0.1**
DGB				S	**Sb**	**Sb**	**18 11 16.4**	**-0.2**
DGB				IAML			18 11 17.0	
	comp=N,658nm,0.1s							
DGB				IAML			18 11 17.0	
	comp=E,870nm,0.2s							
GMLD	**Gumuldur**	**0.21**	**5**	Pg	**Pg**	**Pg**	**18 11 14.4**	**0.0**
GMLD				Sg	**Sb**	**Sb**	**18 11 17.5**	**-0.1**
GMLD				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.31**	**91**	Pg	**Pb**	**Pb**	**18 11 16.3**	**-0.1**
KUSD				Sg	**Sg**	**Sg**	**18 11 20.6**	**-0.1**
KUSD				AML	AML			
GCAM	**G?zelcaml?**	**0.32**	**122**	P	**Pb**	**Pb**	**18 11 16.5**	**+0.1**
GCAM				IAML			18 11 21.0	
	comp=N,1μm,0.3s							
GCAM				IAML			18 11 21.0	
	comp=E,570nm,0.2s							
GCAM				S	**Sb**	**Sb**	**18 11 21.3**	**0.0**
GCAM	**G?zelcaml?**	**0.32**	**122**	Pg	**Pg**	**Pg**	**18 11 16.3**	**+0.1**
GCAM				Sg	**Sb**	**Sb**	**18 11 21.3**	**0.0**
GCAM				AML	AML			
BEYE	**izmir**	**0.36**	**4**	P	**Pg**	**Pg**	**18 11 17.0**	**+0.1**
BEYE				IAML			18 11 22.0	
	comp=N,338nm,0.4s							
BEYE				S	**Sg**	**Sg**	**18 11 22.1**	**0.0**
BEYE				IAML			18 11 23.0	
	comp=E,385nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.48**	**320**	P	**Pg**	**Pg**	**18 11 19.2**	**+0.1**
ZEYE				S	**Sg**	**Sg**	**18 11 26.0**	**+0.3**
ZEYE				IAML			18 11 43.0	
	comp=E,752nm,0.7s							
BLCB	**Balcova**	**0.53**	**13**	P	**Pg**	**Pg**	**18 11 20.1**	**+0.1**
BLCB				S	**Sb**	**Sb**	**18 11 27.3**	**-0.1**
BLCB				AML	AML			
BLCB	**Balcova**	**0.53**	**13**	Pg	**Pb**	**Pb**	**18 11 20.2**	**+0.1**
DUVT	**Torbali**	**0.56**	**51**	P	**Pg**	**Pg**	**18 11 20.8**	**+0.2**
DUVT				S	**Sb**	**Sb**	**18 11 27.4**	**-0.8**
AYDB	**Zeytinkoy-Aydi**	**0.79**	**84**	Pg	**Pg**	**Pg**	**18 11 25.2**	**+0.3**
AYDB				AML	AML			
CHOS	**Chios island**	**0.84**	**308**	P	**Pg**	**Pg**	**18 11 26.2**	**+0.5**
CHOS				S	**Sn**	**Sn**	**18 11 38.1**	**-0.2**
CHOS				AML	AML			
BODT	**Bodrum**	**0.87**	**157**	P	**Pn**	**Pn**	**18 11 27.0**	**+0.3**
BODT				AML	AML			
BODT	**Bodrum**	**0.87**	**157**	Pg	**Pn**	**Pn**	**18 11 26.7**	**0.0**
BODT				AML	AML			
MLSB	**Milas**	**0.91**	**129**	Pg	**Pn**	**Pn**	**18 11 27.3**	**+0.1**
MLSB				AML	AML			
NAZL	**Nazilli-Aydin**	**1.11**	**85**	Pn	**Pg**	**Pg**	**18 11 31.2**	**+0.3**
NAZL				AML	AML			
DAT	**Datca**	**1.26**	**154**	P	**Pb**	**Pb**	**18 11 32.8**	**+0.1**
DAT				AML	AML			
DAT	**Datca**	**1.26**	**154**	Pn	**Pg**	**Pg**	**18 11 33.9**	**+0.2**
YER	**Yerkesik**	**1.32**	**123**	P	**Pb**	**Pb**	**18 11 33.8**	**+0.1**
YER				AML	AML			
YER	**Yerkesik**	**1.32**	**123**	Pn	**Pg**	**Pg**	**18 11 34.7**	**-0.2**
APE	**Apeiranthos**	**1.35**	**234**	P	**Pn**	**Pn**	**18 11 33.0**	**-0.3**

*ISK **05** 18:11:25.5,37.°87N×26.°92E,h9km,ML2.9/34*
*AFAD **05** 18:11:26.6,37.°89N×26.°96E,h7km±2km,ML2.7*
ISC 05 18:11:26.1±0.9,37.°86N±0.°02×26.°92E±0.°03,h12km±8km, n40,σ0°68/53,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.20**	**352**	P	**Pg**	**Pg**	**18 11 30.5**	**+0.2**
DGB				S	**Sg**	**Sg**	**18 11 32.4**	**-0.9**
DGB				IAML			18 11 33.0	
	comp=N,2μm,0.5s							
DGB				IAML			18 11 33.0	
	comp=E,2μm,0.2s							
GMLD	**Gumuldur**	**0.22**	**360**	Pg	**Pg**	**Pg**	**18 11 30.9**	**+0.2**
GMLD				Sg	**Sg**	**Sg**	**18 11 33.9**	**0.0**
GMLD				AML	AML			
GCAM	**G?zelcaml?**	**0.30**	**122**	P	**Pb**	**Pb**	**18 11 32.9**	**-0.4**
GCAM				IAML			18 11 37.0	
	comp=N,2μm,0.2s							
GCAM				IAML			18 11 37.0	
	comp=E,1μm,0.5s							
GCAM				S	**Sg**	**Sg**	**18 11 37.1**	**+1.1**
BEYE	**izmir**	**0.37**	**1**	P	**Pg**	**Pg**	**18 11 33.7**	**+0.2**
BEYE				S	**Sg**	**Sg**	**18 11 38.7**	**+0.3**
BEYE				IAML			18 11 39.0	
	comp=E,1μm,0.2s							
BEYE				IAML			18 11 44.0	
	comp=N,824nm,0.3s							
BLCB	**Balcova**	**0.54**	**11**	Pg	**Pg**	**Pg**	**18 11 36.3**	**-0.2**
BLCB				Sg	**Sb**	**Sb**	**18 11 43.9**	**-1.2**
BLCB				AML	AML			
DIDI	**Didim-Aydin**	**0.54**	**152**	Pg	**Pg**	**Pg**	**18 11 36.0**	**-0.7**
DIDI				AML	AML			
DUVT	**Torbali**	**0.55**	**49**	P	**Pg**	**Pg**	**18 11 36.7**	**-0.2**
DUVT				S	**Sg**	**Sg**	**18 11 43.8**	**-0.4**
DUVT				IAML			18 11 45.0	
	comp=E,1μm,0.1s							
AYDB	**Zeytinkoy-Aydi**	**0.78**	**83**	Pg	**Pg**	**Pg**	**18 11 40.5**	**-0.6**
AYDB				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.79**	**158**	Pg	**Pg**	**Pg**	**18 11 41.0**	**-0.3**
YKAV				Sg	**Sb**	**Sb**	**18 11 53.4**	**+1.1**
YKAV				AML	AML			
KRBN	**Karaburun**	**0.79**	**339**	Pg	**Pg**	**Pg**	**18 11 40.7**	**-0.6**
KRBN				Sg	**Sb**	**Sb**	**18 11 52.9**	**+0.5**
KRBN				AML	AML			
BODT	**Bodrum**	**0.85**	**158**	Pg	**Pg**	**Pg**	**18 11 42.3**	**-0.2**
BODT				Sg	**Sb**	**Sb**	**18 11 54.9**	**+0.6**
BODT				AML	AML			
CHOS	**Chios island**	**0.86**	**308**	Pg	**Pg**	**Pg**	**18 11 41.9**	**-0.8**
CHOS				Sg	**Sb**	**Sb**	**18 11 55.1**	**+0.5**
CHOS				AML	AML			
FOCM	**Foa**	**0.87**	**350**	Pg	**Pg**	**Pg**	**18 11 42.4**	**-0.4**
FOCM				Sg	**Sb**	**Sb**	**18 11 54.9**	**+0.3**
FOCM				AML	AML			
MLSB	**Milas**	**0.88**	**129**	Pg	**Pg**	**Pg**	**18 11 42.8**	**-0.3**
MLSB				Sg	**Sb**	**Sb**	**18 11 56.3**	**+1.1**
MLSB				AML	AML			
KARB	**zmir-Karabur**	**0.90**	**334**	P	**Pn**	**Pn**	**18 11 46.4**	**+1.9**
KARB				S	**Sb**	**Sb**	**18 11 55.7**	**+0.1**
KARB				IAML			18 12 03.0	
	comp=N,200nm,0.4s							
KARB				IAML			18 12 03.0	
	comp=E,251nm,0.5s							
NAZL	**Nazilli-Aydin**	**1.09**	**84**	Pn	**Pg**	**Pg**	**18 11 45.7**	**-1.4**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.16**	**43**	Pn	**Pg**	**Pg**	**18 11 47.6**	**-0.7**
GOMA				AML	AML			
DKL	**Dikili**	**1.21**	**360**	Pn	**Pb**	**Pb**	**18 11 48.3**	**-0.7**
DKL				AML	AML			
AKS	**Akhisar**	**1.24**	**34**	Pn	**Pb**	**Pb**	**18 11 49.1**	**-0.3**
AKS				AML	AML			
DAT	**Datca**	**1.24**	**155**	Pn	**Pn**	**Pn**	**18 11 48.9**	**-0.5**
DAT				AML	AML			
YER	**Yerkesik**	**1.30**	**123**	Pn	**Pn**	**Pn**	**18 11 50.5**	**+0.3**
YER				AML	AML			
APE	**Apeiranthos**	**1.36**	**235**	Pn	**Pn**	**Pn**	**18 11 50.6**	**-0.3**
APE				AML	AML			
SOMA	**Soma-Manisa**	**1.38**	**20**	Pn	**Pn**	**Pn**	**18 11 51.5**	**+0.2**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.44**	**43**	Pn	**Pb**	**Pb**	**18 11 52.6**	**-0.3**
GORD				AML	AML			
TURN	**Turunc**	**1.51**	**135**	Pn	**Pn**	**Pn**	**18 11 53.6**	**+0.6**
TURN				AML	AML			
DALY	**Dalyan (Mula)**	**1.73**	**126**	Pn	**Pn**	**Pn**	**18 11 56.6**	**+0.6**
DALY				AML	AML			
YAYO	**Edremit-Balk**	**1.75**	**4**	Pn	**Pn**	**Pn**	**18 11 56.8**	**+0.5**
YAYO				AML	AML			
APMY	**Acipayam-Deniz**	**1.93**	**101**	Pn	**Pn**	**Pn**	**18 11 59.4**	**+0.5**
APMY				AML	AML			
BALB	**Balikesir**	**1.93**	**23**	Pn	**Pn**	**Pn**	**18 11 59.4**	**+0.6**
BALB				AML	AML			
EZNE	**Ezine-Canakkal**	**1.94**	**347**	Pn	**Pn**	**Pn**	**18 11 59.2**	**+0.3**
EZN	**Ezine**	**2.02**	**347**	Pn	**Pn**	**Pn**	**18 12 00.3**	**+0.3**
EZN				AML	AML			
SIMA	**Simav-Kutahya**	**2.03**	**52**	Pn	**Pn**	**Pn**	**18 12 00.8**	**+0.6**
SIMA				AML	AML			
YENI	**Yenice-Canakka**	**2.09**	**7**	Pn	**Pn**	**Pn**	**18 12 01.6**	**+0.6**
BOZC	**Bozcaada**	**2.09**	**341**	Pn	**Pn**	**Pn**	**18 12 01.3**	**+0.3**
BOZC				AML	AML			
CAME	**Cameli-Denizli**	**2.11**	**115**	Pn	**Pn**	**Pn**	**18 12 01.9**	**+0.6**
CAME				AML	AML			
CANM	**Can-anakkale**	**2.15**	**3**	Pn	**Pn**	**Pn**	**18 12 02.4**	**+0.6**
CANM				AML	AML			
DST	**Dursunbey**	**2.19**	**37**	Pn	**Pn**	**Pn**	**18 12 03.2**	**+0.8**
DST				AML	AML			
GONE	**Gonen-Balikesi**	**2.27**	**15**	Pn	**Pn**	**Pn**	**18 12 03.9**	**+0.5**
SUSR	**Susurluk-Balik**	**2.29**	**23**	Pn	**Pn**	**Pn**	**18 12 04.6**	**+0.9**
GADA	**Gvkgeada**	**2.46**	**342**	Pn	**Pn**	**Pn**	**18 12 07.0**	**+0.9**
GADA				AML	AML			

*IDC **05** 18:26:14.6±1.2,43.°47S×172.°46E,h0km,mb4.1/4, mbtmp4.0/5,ML3.8/1,MS3.4/1,Error ellipse: s-maj=27.0km s-min=12.7km az=149.0*
*NOU **05** 18:26:15.6,43.°69S×172.°60E,h3km,MLv4.7/14,South Island, New Zealand*
*WEL **05** 18:26:17.3,43.°61S×172.°38E,ML4.6,Mw4.1,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr1.39; Mθθ0.93; Mφφ0.23; Mrθ0.72; Mθφ-0.61; Mφr0.21; Fault plane solution: M₀1.54000×10¹⁵ NP1:θs62.00000°, δ72.00000°,λ125.00000°. NP2:θs176.00000°,δ39.00000°, λ30.00000°. Principal axes: T 1.0917, Plg50.0000°, Azm11.0000°; N 0.0763, Plg33.0000°, Azm230.0000°; P -1.1680, Plg19.0000°, Azm127.0000°; Stations used: CVZ DSZ EAZ FOZ INZ JCZ KHZ LBZ LTZ MQZ NNZ OPZ REVERSE FAULTING*
*NEIC **05** 18:26:17.7±1.6,43.°61S±0.°01×172.°36E±0.°02,h10km±1km, mb4.0/3 Error ellipse: s-maj=2.9km s-min=2.6km az=44.0*
*WEL **05** 18:26:17.3±0.3,44.°5S±2.°×17.°2E±.°,h10km±1km,M4.5/18, ML4.4/18,MLv4.5/18,Error ellipse: s-maj=2.5km s-min=1.8km az=152.7*
ISC 05 18:26:17.4±0.7,43.°61S±0.°02×172.°40E±0.°02,h15km±4km, n166,σ1°16/196,mb4.0/5,South Island

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
ROLC	**Rolleston Scho**	**0.02**	**324**	P	**Pg**	**Pg**	**18 26 19.5**	**-0.4**
ROLC				S	**Sg**	**Sg**	**18 26 21.4**	**-0.3**
LINC	**Lincoln Crop a**	**0.05**	**106**	P	**Pg**	**Pg**	**18 26 20.3**	**+0.2**
LINC				S	**Sg**	**Sg**	**18 26 21.5**	**-0.5**
TPLC	**Templeton Scho**	**0.08**	**43**	P	**Pg**	**Pg**	**18 26 20.6**	**+0.2**
TPLC				S	**Sg**	**Sg**	**18 26 23.1**	**+0.8**
HALL	**Halswell Schoo**	**0.13**	**82**	P	**Pb**	**Pb**	**18 26 21.6**	**+0.1**
HALL				S	**Sb**	**Sb**	**18 26 24.2**	**0.0**
DSLC	**Dunsandel Scho**	**0.16**	**248**	P	**Pg**	**Pg**	**18 26 21.4**	**0.0**
DSLC				S	**Sg**	**Sg**	**18 26 24.4**	**+0.5**
CACS	**Harewood**	**0.16**	**38**	P	**Pg**	**Pg**	**18 26 21.9**	**+0.5**
CACS				S	**Sb**	**Sb**	**18 26 25.3**	**+0.2**
MOOR	**Moorhouse Ave**	**0.18**	**67**	P	**Pb**	**Pb**	**18 26 22.4**	**+0.1**
MOOR				S	**Sb**	**Sb**	**18 26 25.8**	**+0.1**
GOVS	**Living Springs**	**0.18**	**104**	P	**Pb**	**Pb**	**18 26 22.4**	**0.0**
GOVS				S	**Sb**	**Sb**	**18 26 25.5**	**-0.2**
CBGS	**Christchurch**	**0.18**	**65**	P	**Pb**	**Pb**	**18 26 22.4**	**+0.1**
CBGS				S	**Sb**	**Sb**	**18 26 25.8**	**+0.1**
MQZ	**McQueen's Vall**	**0.21**	**118**	Pg	**Pg**	**Pg**	**18 26 22.7**	**+0.5**
MQZ				Sg	**Sg**	**Sg**	**18 26 26.1**	**+0.8**
MQZ	**McQueen's Vall**	**0.21**	**118**	P	**Pg**	**Pg**	**18 26 22.7**	**+0.5**
MQZ				S	**Sb**	**Sb**	**18 26 26.6**	**0.0**
MQZ				AML	AML			
MQZ				AML	AML			
RACZ	**Rakaia**	**0.22**	**237**	P	**Pg**	**Pg**	**18 26 22.6**	**+0.3**
RACZ				S	**Sg**	**Sg**	**18 26 26.3**	**+0.6**
RACZ				AML	AML			
RACZ				AML	AML			
OXZ	**Oxford**	**0.38**	**317**	Pg	**Pg**	**Pg**	**18 26 25.1**	**0.0**
OXZ				Sg	**Sg**	**Sg**	**18 26 30.1**	**-0.4**
OXZ	**Oxford**	**0.38**	**317**	P	**Pg**	**Pg**	**18 26 25.1**	**0.0**
OXZ				S	**Sg**	**Sg**	**18 26 30.2**	**-0.2**
OXZ				AML	AML			
OXZ				AML	AML			
AKCZ	**Akaroa Harbour**	**0.46**	**125**	P	**Pb**	**Pb**	**18 26 27.4**	**+0.2**
AKCZ				S	**Sg**	**Sg**	**18 26 33.4**	**+0.8**
AKCZ				AML	AML			
AKCZ				AML	AML			
AMCZ	**Amberley**	**0.47**	**23**	Pg	**Pb**	**Pb**	**18 26 27.9**	**+0.6**
AMCZ				Sg	**Sb**	**Sb**	**18 26 34.7**	**+0.6**
AMCZ	**Amberley**	**0.47**	**23**	P	**Pb**	**Pb**	**18 26 27.9**	**+0.6**
AMCZ				S	**Sb**	**Sb**	**18 26 34.9**	**+0.8**
AMCZ				AML	AML			
AMCZ				AML	AML			
OKCZ	**Okains Bay**	**0.49**	**104**	P	**Pb**	**Pb**	**18 26 28.4**	**+0.6**
OKCZ				S	**Sb**	**Sb**	**18 26 35.9**	**+1.0**
OKCZ				AML	AML			
OKCZ				AML	AML			

WACZ	**Wakanui South**	**0.52**	**230**	P	**Pb**	**Pb**	**18 26 28.5**	**+0.2**
WACZ				S	**Sb**	**Sb**	**18 26 36.1**	**+0.5**
WACZ				AML	AML			
WACZ				AML	AML			
MHCZ	**Mount Hutt**	**0.61**	**277**	P	**Pg**	**Pg**	**18 26 29.5**	**+0.2**
MHCZ				S	**Sg**	**Sg**	**18 26 37.6**	**+0.3**
MHCZ				AML	AML			
MHCZ				AML	AML			
GVZ	**Greta Valley S**	**0.79**	**36**	Pg	**Pg**	**Pg**	**18 26 33.3**	**+0.5**
GVZ				Sg	**Sg**	**Sg**	**18 26 44.5**	**+1.3**
GVZ	**Greta Valley S**	**0.79**	**36**	P	**Pg**	**Pg**	**18 26 33.2**	**+0.5**
GVZ				S	**Sn**	**Sn**	**18 26 44.8**	**-0.8**
GVZ				AML	AML			
GVZ				AML	AML			
LTZ	**Lake Taylor**	**0.83**	**354**	Pg	**Pg**	**Pg**	**18 26 33.9**	**+0.4**
LTZ				Sg	**Sg**	**Sg**	**18 26 45.2**	**+0.8**
LTZ	**Lake Taylor**	**0.83**	**354**	P	**Pg**	**Pg**	**18 26 33.9**	**+0.4**
LTZ				S	**Sg**	**Sg**	**18 26 45.2**	**+0.8**
LTZ				AML	AML			
LTZ				AML	AML			
ARCZ	**Arundel**	**0.95**	**249**	P	**Pb**	**Pb**	**18 26 35.6**	**+0.1**
ARCZ				S	**Sb**	**Sb**	**18 26 48.1**	**+0.3**
ARCZ				AML	AML			
ARCZ				AML	AML			
RPZ	**Rata Peaks**	**0.98**	**263**	Pg	**Pb**	**Pb**	**18 26 35.5**	**-0.5**
	214nm,0.3s,baz=84,slow=5.5,SNR=1322							
RPZ				Lg	Lg		18 26 48.8	
	301nm,0.3s,baz=29,slow=22,SNR=12							
RPZ	**Rata Peaks**	**0.98**	**263**	P	**Pb**	**Pb**	**18 26 36.4**	**+0.3**
RPZ	**Rata Peaks**	**0.98**	**263**	Pg	**Pb**	**Pb**	**18 26 36.3**	**+0.2**
RPZ				Sg	**Sb**	**Sb**	**18 26 48.6**	**-0.3**
RPZ	**Rata Peaks**	**0.98**	**263**	P	**Pb**	**Pb**	**18 26 36.2**	**+0.1**
RPZ				AML	AML			
RPZ				AML	AML			
INZ	**Inchbonnie**	**1.12**	**321**		**Pg**	**Pg**	**18 26 39.0**	**0.0**
INZ				Sg	**Sn**	**Sn**	**18 26 53.6**	**-0.2**
INZ	**Inchbonnie**	**1.12**	**321**	P	**Pb**	**Pb**	**18 26 38.0**	**-0.5**
INZ				S	**Sg**	**Sg**	**18 26 54.0**	**+0.2**
INZ				AML	AML			
INZ				AML	AML			
TMZ	**Timaru**	**1.27**	**232**	P	**Pn**	**Pn**	**18 26 40.2**	**-0.4**
TMZ				S	**Sn**	**Sn**	**18 26 57.9**	**+0.5**
TMZ				AML	AML			
TMZ				AML	AML			
WVZ	**Waitaha Valley**	**1.32**	**293**	P	**Pn**	**Pn**	**18 26 41.4**	**+0.1**
WVZ				S	**Sg**	**Sg**	**18 26 59.6**	**-0.5**
WVZ				AML	AML			
WVZ				AML	AML			
KHZ	**Kahutara**	**1.46**	**36**	P	**Pn**	**Pn**	**18 26 42.3**	**-0.8**
KHZ	**Kahutara**	**1.46**	**36**		**Pn**	**Pn**	**18 26 42.7**	**-0.4**
KHZ	**Kahutara**	**1.46**	**36**	P	**Pn**	**Pn**	**18 26 42.7**	**-0.4**
KHZ				S	**Sn**	**Sn**	**18 27 01.5**	**-0.5**
KHZ				AML	AML			
KHZ				AML	AML			
LBZ	**Lake Benmore**	**1.77**	**243**		**Pn**	**Pn**	**18 26 47.8**	**+0.2**
LBZ	**Lake Benmore**	**1.77**	**243**	P	**Pn**	**Pn**	**18 26 47.5**	**-0.1**
LBZ				AML	AML			
LBZ				AML	AML			
FOZ	**Fox Glacier**	**1.88**	**271**		**Pb**	**Pb**	**18 26 50.2**	**-1.1**
FOZ	**Fox Glacier**	**1.88**	**271**	P	**Pb**	**Pb**	**18 26 50.2**	**-1.1**
FOZ				AML	AML			
FOZ				AML	AML			
THZ	**Tophouse**	**1.88**	**12**		**Pn**	**Pn**	**18 26 48.7**	**-0.4**
THZ	**Tophouse**	**1.88**	**12**	P	**Pn**	**Pn**	**18 26 48.7**	**-0.4**
THZ				AML	AML			
THZ				AML	AML			
ODZ	**Otahua Downs**	**1.91**	**221**	P	**Pn**	**Pn**	**18 26 49.7**	**+0.3**
ODZ	**Otahua Downs**	**1.91**	**221**		**Pn**	**Pn**	**18 26 49.3**	**-0.1**
ODZ	**Otahua Downs**	**1.91**	**221**	P	**Pn**	**Pn**	**18 26 48.9**	**-0.4**
ODZ				AML	AML			
ODZ				AML	AML			
DSZ	**Denniston Nort**	**1.91**	**347**		**Pn**	**Pn**	**18 26 49.3**	**-0.2**
DSZ	**Denniston Nort**	**1.91**	**347**	P	**Pn**	**Pn**	**18 26 49.3**	**-0.2**
DSZ				AML	AML			
DSZ				AML	AML			
BSWZ	**Blackbirch Sta**	**2.18**	**30**		**Pn**	**Pn**	**18 26 52.8**	**-0.4**
BSWZ	**Blackbirch Sta**	**2.18**	**30**	P	**Pn**	**Pn**	**18 26 53.1**	**-0.1**
MRNZ	**Matariki Terra**	**2.22**	**7**		**Pn**	**Pn**	**18 26 53.6**	**-0.1**
MRNZ	**Matariki Terra**	**2.22**	**7**	P	**Pn**	**Pn**	**18 26 53.9**	**+0.1**
CMWZ	**Cape Campbell**	**2.29**	**36**	P	**Pn**	**Pn**	**18 26 54.5**	**-0.2**
TUWZ	**Tuamarina**	**2.46**	**28**		**Pn**	**Pn**	**18 26 57.0**	**+0.1**
TUWZ	**Tuamarina**	**2.46**	**28**	P	**Pn**	**Pn**	**18 26 57.6**	**+0.7**
NNZ	**Nelson**	**2.50**	**17**		**Pn**	**Pn**	**18 26 57.6**	**+0.1**
NNZ	**Nelson**	**2.50**	**17**	P	**Pn**	**Pn**	**18 26 57.7**	**+0.3**
TKNZ	**Takaka Hill**	**2.61**	**9**		**Pn**	**Pn**	**18 26 59.3**	**+0.3**
TKNZ	**Takaka Hill**	**2.61**	**9**	P	**Pn**	**Pn**	**18 26 59.4**	**+0.4**
HHSZ	**Highcliff Hill**	**2.61**	**209**	P	**Pn**	**Pn**	**18 26 58.2**	**-0.8**
JCZ	**Jackson Bay**	**2.65**	**259**	P	**Pn**	**Pn**	**18 27 00.6**	**+0.9**
JCZ	**Jackson Bay**	**2.65**	**259**	P	**Pn**	**Pn**	**18 27 00.6**	**+0.9**
WKZ	**Wanaka**	**2.72**	**242**		**Pn**	**Pn**	**18 27 00.4**	**-0.1**
WKZ	**Wanaka**	**2.72**	**242**	P	**Pn**	**Pn**	**18 27 00.2**	**-0.4**
EAZ	**Earnscleugh**	**2.74**	**233**	P	**Pn**	**Pn**	**18 27 00.5**	**-0.4**
TCW	**Tory Channel**	**2.77**	**31**		**Pn**	**Pn**	**18 27 00.4**	**-0.8**
TCW

NGZ	**Ngauruhoe**	**5.04**	**30**	P		**Pn**	**18 27 33.0**	**+0.4**
KAHZ	**Kahuranaki**	**5.08**	**43**	P		**Pn**	**18 27 31.7**	**-1.3**
OTVZ	**Oturere**	**5.08**	**30**	P		**Pn**	**18 27 34.9**	**+1.8**
TWVZ	**Taurewa**	**5.08**	**28**	P		**Pn**	**18 27 36.5**	**+3.5**
WTVZ	**West Tongariro**	**5.09**	**29**	P		**Pn**	**18 27 34.0**	**+0.7**
ETVZ	**East Tongariro**	**5.12**	**30**	P		**Pn**	**18 27 35.4**	**+1.8**
KRVZ	**Karewarewa**	**5.13**	**30**	P		**Pn**	**18 27 37.5**	**+3.8**
TMVZ	**Te Maari**	**5.13**	**30**	P		**Pn**	**18 27 34.3**	**+0.5**
BKZ	**Black Stump Fm**	**5.40**	**36**	P		**Pn**	**18 27 36.2**	**-1.3**
BKZ	**Black Stump Fm**	**5.40**	**36**	P		**Pn**	**18 27 36.5**	**-1.0**
HIZ	**Hauiti**	**5.42**	**21**	P		**Pn**	**18 27 36.9**	**-0.7**
HIZ	**Hauiti**	**5.42**	**21**	P		**Pn**	**18 27 37.3**	**-0.4**
PRGZ	**Paritu Road**	**6.24**	**43**	P		**Pn**	**18 27 47.6**	**-1.4**
TOZ	**Tahuroa Road**	**6.33**	**23**	Pn		**Pn**	**18 27 48.4**	**-1.7**
TOZ	**Tahuroa Road**	**6.33**	**23**	P		**Pn**	**18 27 49.2**	**-0.9**
URZ	**Urewera**	**6.42**	**35**	Pn		Pn	18 27 45.5	-5.9
	2.4nm,0.3s,baz=252,slow=7.5,SNR=8.0							
URZ				Sn		**Sn**	**18 28 57.4**	**-7.1**
	6.7nm,0.3s,baz=66,slow=15,SNR=7.0							
	5.8nm,0.4s							
URZ				AML		AML		
AWAZ	**Awhitu Peninsu**	**6.76**	**15**	P		**Pn**	**18 27 56.4**	**+0.3**
MKAZ	**Moumakai**	**6.83**	**19**	P		**Pn**	**18 27 56.4**	**-0.6**
MBAZ	**Motutapu North**	**7.09**	**16**	P		**Pn**	**18 28 01.5**	**+0.9**
WIAZ	**Waiheke Island**	**7.12**	**18**	P		**Pn**	**18 28 01.2**	**+0.1**
PKQZ	**Pakihiroa**	**7.18**	**39**	P		**Pn**	**18 28 00.3**	**-1.5**
CTZ	**Chatham Island**	**7.97**	**95**	P		**Pn**	**18 28 10.1**	**-2.5**
CTZ	**Chatham Island**	**7.97**	**95**	Pn		**Pn**	**18 28 09.8**	**-2.8**
OUZ	**Omahuta**	**8.43**	**7**	P		**Pn**	**18 28 20.1**	**+1.2**
DZM	**Mont Dzumac**	**22.04**	**345**	LR		LR	18 38 54.3	
	comp=Z,98nm,18.6s,baz=156,slow=35							
ASAR	**Alice Springs**	**37.29**	**290**	P		**P**	**18 33 29.2**	**+0.3**
	1.2nm,0.7s,baz=130,slow=7.5,SNR=18							
	1.2nm,0.7s							
ASAR	**Alice Springs**	**37.29**	**290**	P		**P**	**18 33 28.6**	**-0.3**
WR8	**Warramunga Arr**	**39.43**	**295**	P		**P**	**18 33 44.2**	**-2.6**
WR8				IAmb		IAmb	18 34 08.2	
	comp=Z,9.8nm,1.4s							
WRA	**Warramunga Arr**	**39.55**	**294**	P		**P**	**18 33 46.4**	**-1.5**
	comp=Z,1.2nm,1.0s,baz=139,slow=8.4,SNR=8.1							
	comp=Z,1.2nm,1.0s							
WRA	**Warramunga Arr**	**39.55**	**294**	P		**P**	**18 33 47.3**	**-0.5**
WRA				IAmb		IAmb	18 34 04.0	
	comp=Z,0.1nm,0.9s							
QSPA	**South Pole Qui**	**46.52**	**180**	P		**P**	**18 34 44.8**	**+0.8**
	comp=Z,0.5nm,0.5s,baz=19,slow=4.9,SNR=3.2							
	comp=Z,0.5nm,0.5s							
QSPA	**South Pole Qui**	**46.52**	**180**	P		**P**	**18 34 45.0**	**+1.1**
QSPA				IAmb		IAmb	18 35 20.8	
	comp=Z,4.0nm,1.3s							
JAY	**Jayapura**	**49.65**	**316**	P		**P**	**18 35 08.8**	**+0.2**
	comp=Z,23nm,1.2s,baz=151,slow=20,SNR=1.8							
	comp=Z,23nm,1.2s							
TORD	**Torodi Ar. Bea**	**148.61**	**198**	PKPbc		**PKPbc**	**18 46 04.4**	**+0.3**
	comp=Z,0.4nm,0.5s,baz=174,slow=3.0,SNR=3.0							
ARCES	**ARCESS Array B**	**149.02**	**338**	PKPbc		**PKPdf**	**18 46 01.2**	**+1.7**
	comp=Z,4.7nm,1.0s,baz=45,slow=0.3,SNR=6.1							

*IDC **05** 18:30:12.7±1.1,13.0°N×143.6°E,h208km±12km, mb3.5/10,mbtmp4.0/10,MS4.3/1,Error ellipse: s-maj=28.1km s-min=14.7km az=98.0*

ISC 05 18:30:12.0±0.8,13.1°N±0.2°×143.2°E±0.1°,h200km,n12, σ0.80/14,mb3.8/10,South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.72**	**74**	P	**Pn**	**18 30 48.5**	**+0.8**
	50nm,0.3s,baz=309,slow=11,SNR=42						
GUMO				S	**Sn**	**18 31 14.8**	**-0.7**
	136nm,0.2s,baz=169,slow=22,SNR=16						
WRA	**Warramunga Arr**	**33.97**	**195**	P	**P**	**18 36 36.8**	**-0.1**
	1.5nm,0.7s,baz=16,slow=9.6,SNR=5.9						
	1.5nm,0.7s						
ASAR	**Alice Springs**	**37.66**	**194**	P	**P**	**18 37 08.0**	**-0.1**
	0.5nm,0.7s,baz=17,slow=12,SNR=8.8						
	0.5nm,0.7s						
HILR	**Hailar Array B**	**41.13**	**337**	LR	LR	18 53 55.8	
	comp=Z,396nm,19.5s,baz=235,slow=34						
MKAR	**Makanchi Array**	**60.70**	**317**	P	**P**	**18 40 02.8**	**+0.5**
	0.3nm,0.5s,baz=98,slow=7.2,SNR=3.3						
MKAR				PcP	**PcP**	**18 40 43.4**	**-0.9**
	0.3nm,0.7s,baz=98,slow=2.9,SNR=1.7						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**61.06**	**325**	P	**P**	**18 40 04.5**	**-0.1**
	0.3nm,0.4s,baz=79,slow=9.0,SNR=1.9						
ZALV				PcP	**PcP**	**18 40 44.9**	**-0.7**
	0.6nm,0.3s,baz=106,slow=4.7,SNR=3.7						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**63.93**	**320**	P	**P**	**18 40 24.7**	**+1.0**
	1.0nm,0.7s,baz=101,slow=6.5,SNR=9.0						
	1.0nm,0.7s						
BVAR	**Borovoye Array**	**69.28**	**322**	P	**P**	**18 40 58.7**	**+1.2**
	2.8nm,0.5s,baz=110,slow=7.4,SNR=12						
	2.8nm,0.5s						
ILAR	**Eielson Array**	**69.71**	**25**	P	**P**	**18 40 59.0**	**-0.8**
	1.2nm,0.6s,baz=250,slow=5.7,SNR=21						
	1.2nm,0.6s						
ARCES	**ARCESS Array B**	**87.03**	**342**	P	**P**	**18 42 34.7**	**+0.2**
	2.4nm,0.9s,baz=76,slow=6.0,SNR=1.5						
	2.4nm,0.9s						
NVAR	**Mina Array Bea**	**88.51**	**51**	P	**P**	**18 42 43.0**	**+0.5**
	0.5nm,0.5s,baz=289,slow=4.5,SNR=3.7						
	0.5nm,0.5s						
FINES	**FINESS Array B**	**90.89**	**335**	P	**P**	**18 42 52.0**	**-0.8**
	1.1nm,0.4s,baz=51,slow=3.8,SNR=12						
	1.1nm,0.4s						

*RSNC **05** 18:32:30.3±0.0,7.7°N±3.7°×77.2°W±.°,h16km±7km,M2.6,ML2.3*
*FUNV **05** 18:32:31.4,7.7°N×72.1°W,h5km,MW3.2,Presumed earthquake*

ISC 05 18:32:29.4±1.3,7.43°N±0.03°×72.07°W±0.03°,h9km±10km, n22,σ1.9°69/36,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CAPV	**Capacho**	**0.50**	**331**	*eP*	**Pg**	**18 32 39.2**	**+0.1**
CAPV				*eS*	**Sg**	**18 32 46.5**	**+0.7**
TAMC	**Tame, Arauca**	**1.02**	**164**	P	**Pn**	**18 32 50.3**	**+0.2**
TAMC				S	**Sn**	**18 33 05.0**	**+0.4**
BARC	**Barichara**	**1.38**	**233**	P	**Pn**	**18 32 54.7**	**-0.5**
BARC				S	**Sb**	**18 33 12.0**	**-1.5**
SOCV	**Socops**	**1.47**	**55**	*eP*	**Pg**	**18 32 59.0**	**+1.4**
OCAC	**Ocana**	**1.48**	**303**	P	**Pn**	**18 32 56.7**	**+0.3**
OCAC				S	**Sn**	**18 33 16.1**	**+0.1**
BRJC	**Barrancabermej**	**1.72**	**255**	P	**Pb**	**18 33 00.9**	**-0.4**
BRJC				S	**Sn**	**18 33 22.6**	**+0.8**
RUSC	**La Rusia**	**1.83**	**214**	P	**Pb**	**18 33 02.8**	**-0.6**
RUSC				S	**Sg**	**18 33 27.4**	**-1.0**
RUSC	**La Rusia**	**1.83**	**214**	*eP*	**Pb**	**18 33 02.7**	**-0.6**
RUSC				*eS*	**Sb**	**18 33 26.0**	**-0.6**
PTBC	**PUERTO BERRIO,**	**2.53**	**250**	P	**Pb**	**18 33 14.1**	**-1.0**
PTBC				S	**Sb**	**18 33 46.1**	**-0.2**
PTGC	**Puerto Gaitan,**	**3.21**	**181**	P	**Pb**	**18 33 25.7**	**-1.0**
CHIC	**Chingaza**	**3.24**	**211**	P	**Pn**	**18 33 23.3**	**+2.5**
CHIC				S	**Sn**	**18 34 02.2**	**+2.5**
NORC	**Norcasia**	**3.34**	**237**	P	**Pb**	**18 33 25.9**	**-3.1**
UREC	**San Jos de Ur**	**3.45**	**276**	P	**Pn**	**18 33 23.1**	**-0.3**
TEPV	**Terepaima**	**3.80**	**48**	*eP*	**Pn**	**18 33 29.8**	**+1.6**
TEPV				*eS*	**Sn**	**18 34 14.3**	**+1.2**
SJCC	**San Jacinto, C**	**3.93**	**309**	P	**Pn**	**18 33 32.5**	**+2.4**
GUY2C	**Guyana, Caldas**	**3.94**	**236**	P	**Pn**	**18 33 33.9**	**+3.3**
URIC	**Uribia, Colomb**	**4.25**	**1**	P	**Pn**	**18 33 34.4**	**0.0**
URIC				S	**Sn**	**18 34 22.8**	**-1.3**
MAPV	**Macapo**	**4.29**	**56**	*eP*	**Pn**	**18 33 37.1**	**+2.1**
MAPV				*eS*	**Sn**	**18 34 26.4**	**+1.0**
BENV	**Beln**	**5.08**	**60**	*eP*	**Pn**	**18 33 47.3**	**+1.3**
BENV				*eS*	**Sn**	**18 34 45.0**	**0.0**
TURV	**Turiamo**	**5.14**	**54**	*eP*	**Pn**	**18 33 48.1**	**+1.4**
TURV				*eS*	**Sn**	**18 34 45.8**	**-0.5**
CACV	**CAICARA DEL OR**	**5.48**	**88**	*eP*	Pb	18 33 59.6	-5.9
CACV				*eS*	**Sb**	**18 35 06.4**	**-4.9**
TACV	**Tcata**	**5.66**	**61**	*eP*	**Pn**	**18 33 55.7**	**+1.8**

JMA 05 18:35:28.7±0.2,24.3°N±0.4°×123.7°E±0.6°,h17km±1km, MV1.5/6,NEAR ISHIGAKIJIMA ISLAND,Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	**0.03**	**340**	P	Pg	18 35 31.7	0.0
IRIF				*eS*	Sg	18 35 33.9	0.0
JKRS	**Kuro-shima**	**0.26**	**106**	*eP*	Pg	18 35 34.5	0.0
JKRS				*eS*	Sb	18 35 38.7	-0.3
HATJ	**Hateruma jima**	**0.26**	**167**	*eP*	Pg	18 35 34.3	-0.2
HATJ				*eS*	Sg	18 35 38.2	-0.2
JIJ	**Ishigaki jima**	**0.37**	**82**	*eP*	Pg	18 35 36.2	-0.2
JIJ				*eS*	Sg	18 35 41.2	-0.4
JISG	**Ishigakijimahi**	**0.59**	**62**	*eP*	Pg	18 35 40.3	-0.1
JISG				*eS*	Sg	18 35 48.4	+0.1

*MOS **05** 18:36:09.5±1.0,22.4°N×121.4°E,h19km,mb5.0/51, MS4.3/5,Error ellipse: s-maj=7.0km s-min=4.4km az=114.3*
*JMA **05** 18:36:10.0±0.1,22.5°N±0.5°×122.1°E±.°,h47km±2km, MV5.4/16,MW4.9/16,TAIWAN REGION*
*NIED **05** 18:36:10.0,22.5°N×121.2°E,h47km,MW4.9,Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁶Nm; Mrr1.94; Mθθ0.75; Mϕϕ-2.69; Mrθ-0.48; Mθϕ-0.72; Mϕr0.78; Fault plane solution: M₀2.62000×10¹⁶ NP1: φs215.00000°,δ42.00000°,λ126.00000°. NP2: φs350.00000°,δ57.00000°,λ62.00000°.*
*GFZ **05** 18:36:10.8,22.4°N×121.5°E,h30km,Mw4.9/41,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr1.26; Mθθ1.13; Mϕϕ-2.39; Mrθ-1.34; Mθϕ-0.93; Mϕr0.15; Fault plane solution: M₀2.63791×10¹⁶ NP1: φs338.16806°,δ58.18002°,λ32.32751°. NP2: φs229.71578°,δ62.97439°,λ143.70920°. Principal axes: T 2.6484, Plg43.9575°, Azm192.0651°; N -0.0211, Plg45.8903°, Azm17.9672°; P -2.6273, Plg2.9533°, Azm284.9166°;*
*BJI **05** 18:36:11.8,22.6°N×121.3°E,h11km,mB4.9/26,mb4.4/58, ML5.1/5,Ms4.7/58,Ms7 4.5/59*
*TAP **05** 18:36:12.2,22.6°N×121.3°E,h26km,ML5.4,C*
*GFZ **05** 18:36:12.8±0.1,23.1°N±2.2°×121.1°E±.°,h30km,M4.9/55, mb4.9/55*
*ASIES **05** 18:36:12.5,22.5°N×121.3°E,h25km,Mw4.9,Fault plane solution: NP1:φs201.00000°,δ45.00000°,λ134.00000°. NP2:φs328.00000°,δ59.00000°,λ56.00000°.*
*NEIC **05** 18:36:13.1±1.9,22.6°N±0.4°×121.3°E±0.5°,h27km±4km, mb4.9/93,Error ellipse: s-maj=7.0km s-min=5.4km az=96.0*
*GCMT **05** 18:36:14.1±0.3,22.5°N±0.2°×121.4°E±0.2°,h27km, MW5.0/87,Moment Tensor Solution. s26,c31; s87,c129; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr1.60±.15; Mθθ1.34±.09; Mϕϕ-2.94±.12; Mrθ-1.63±.16; Mθϕ-1.32±.06; Mϕr0.63±.16; Best double couple: M₀3.36000×10¹⁶ NP1:φs232.00000°,δ59.00000°,λ147.00000°. NP2: φs340.00000°,δ62.00000°,λ36.00000°. Principal axes: T 3.4000, Plg44.0000°, Azm197.0000°; N -0.0800, Plg46.0000°, Azm13.0000°; P -3.3200, Plg2.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*IDC **05** 18:36:15.2±2.2,22.5°N×121.6°E,h54km±22km,mb4.3/33, mbtmp4.5/36,ML4.1/3,MS4.1/56 Error ellipse: s-maj=15.0km s-min=9.7km az=62.0*

ISC 05 18:36:12.1±0.2,22.55°N±0.01°×121.45°E±0.02°,h21km±2km, n792,σ1.39°/898,mb4.8/178,MS4.2/71,31C-28D,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TTN	**Taitung**	**0.35**	**305**	*i*P	**Pb**	**18 36 19.1**	**-0.3**
TTN				*e*S	**Sn**	**18 36 27.3**	**-0.9**
TWGBT	**Beinan**	**0.43**	**307**	P	**Pb**	**18 36 20.2**	**-0.8**
TWGBT	**Beinan**	**0.43**	**307**	*i*P	**Pb**	**18 36 20.1**	**-0.9**
TWGBT				S	**Sb**	**18 36 26.1**	**-0.9**
TWG	**Pinlang**	**0.44**	**307**		**Pb**	**18 36 20.1**	**-1.1**
TWG				Sg	**Sb**	**18 36 24.5**	**-2.8**
TWG	**Pinlang**	**0.44**	**307**	P	**Pb**	**18 36 20.2**	**-1.0**
TWG	**Pinlang**	**0.44**	**307**	*i*P	**Pb**	**18 36 20.1**	**-1.1**
TWG				*i*S	**Sb**	**18 36 26.1**	**-1.2**
ECL	**Taimali**	**0.47**	**275**	*i*P	**Pb**	**18 36 20.2**	**-1.3**
ECL				*e*S	**Sb**	**18 36 26.1**	**-1.8**
LAY	**Lan-yu**	**0.52**	**170**	*i*P	**Pb**	**18 36 24.4**	**+0.8**
LAY				S	**Sb**	**18 36 30.6**	**+0.9**
CHKT	**Chengkung**	**0.55**	**351**	*i*P	**Pb**	**18 36 21.9**	**-1.3**
CHKT				*i*S	**Sb**	**18 36 29.9**	**-0.7**
TAW	**Tawu**	**0.55**	**249**	P	**Pb**	**18 36 22.1**	**-1.1**
TAW				*i*S	**Sb**	**18 36 29.3**	**-1.3**
LYUB	**Lan-yu**	**0.56**	**168**	*i*P	**Pb**	**18 36 22.8**	**-0.5**
LYUB				S	**Sb**	**18 36 31.0**	**0.0**
ECS	**Chishang**	**0.58**	**338**	P	**Pb**	**18 36 23.0**	**-0.7**
ECS				*e*S	**Sb**	**18 36 32.6**	**+1.0**
EAST	**Anshuo**	**0.59**	**253**	*i*P	**Pb**	**18 36 22.5**	**-1.3**
EAST				*i*S	**Sb**	**18 36 30.0**	**-1.7**
EHD	**Haiduan**	**0.64**	**339**	*i*eP	**Pb**	**18 36 23.0**	**-1.6**
EHD				*e*S	**Sb**	**18 36 33.5**	**+0.4**
CHKH	**Chenggong**	**0.64**	**355**	P	**Pb**	**18 36 23.2**	**-1.4**
CHKH				S	**Sb**	**18 36 32.0**	**-1.2**
FULB	**Fuli**	**0.66**	**347**	*i*eP	**Pb**	**18 36 23.5**	**-1.5**
FULB				*e*S	**Sb**	**18 36 32.8**	**-1.0**
ELDTW	**Lidau**	**0.75**	**328**	*i*P	**Pb**	**18 36 24.3**	**-2.2**
ELDTW				S	**Sb**	**18 36 35.8**	**-0.6**
ECBN	**Changbin**	**0.76**	**360**	*e*P	**Pb**	**18 36 25.3**	**-1.3**
ECBN				*e*S	**Sb**	**18 36 35.7**	**-0.9**
MASBT	**Mashibuluo**	**0.76**	**275**	*i*P	**Pb**	**18 36 25.0**	**-1.6**
SMST	**Manzhou Townsh**	**0.78**	**227**	*i*P	**Pb**	**18 36 26.0**	**-0.9**
SMST				S	**Sb**	**18 36 36.5**	**-0.6**
SSD	**Sandimen**	**0.78**	**284**	*i*eP	**Pb**	**18 36 25.0**	**-2.0**
SCZT	**Fangliau**	**0.79**	**257**	*i*P	**Pb**	**18 36 25.7**	**-1.4**
SCZT				*e*S	**Sb**	**18 36 35.6**	**-1.8**
TWF1	**Yuli**	**0.81**	**350**	*e*P	**Pb**	**18 36 25.8**	**-1.7**
TWF1				*e*S	**Sb**	**18 36 37.0**	**-1.0**
SSPT	**Xinbi**	**0.82**	**265**	*i*eP	**Pb**	**18 36 26.9**	**-0.8**
SSPT				*e*S	**Sb**	**18 36 38.3**	**0.0**
TSEB	**Hengchuen, Pin**	**0.83**	**218**	*i*P	**Pb**	**18 36 27.5**	**-0.3**
TSEB				S	**Sn**	**18 36 39.3**	**-0.8**
YULB	**Yu-li**	**0.85**	**350**	P	**Pb**	**18 36 26.7**	**-1.4**
YULB	**Yu-li**	**0.85**	**350**	S	**Sn**	**18 36 39.8**	**-0.9**
YULB	**Yu-li**	**0.85**	**350**		**Pb**	**18 36 26.1**	**-2.0**
YULB				Sg	**Sb**	**18 36 37.6**	**-1.5**
YULB	**Yu-li**	**0.85**	**350**	P	**Pb**	**18 36 26.4**	**-1.7**
YULB	**Yu-li**	**0.85**	**350**	*i*P	**Pb**	**18 36 26.1**	**-2.0**
YULB				*i*S	**Sb**	**18 36 38.3**	**-0.8**
TWKBT	**Hengchun**	**0.85**	**224**	*i*P	**Pb**	**18 36 27.2**	**-1.0**
TWKBT				*e*S	**Sb**	**18 36 38.5**	**-0.7**
TWK1	**Hengchun**	**0.85**	**225**	*i*P	**Pb**	**18 36 27.3**	**-0.9**
TWK1				*e*S	**Sb**	**18 36 38.3**	**-1.0**
HEN	**Hengchun**	**0.86**	**231**	*e*P	**Pb**	**18 36 27.6**	**-0.7**
SLGT	**Liugui**	**0.86**	**301**	P	**Pb**	**18 36 26.6**	**-1.8**
STYH	**Taoyuan**	**0.88**	**315**	*i*eP	**Pb**	**18 36 26.9**	**-1.7**
SGLT	**Jiouru**	**0.91**	**281**	*e*P	**Pb**	**18 36 28.4**	**-0.7**
HGSD	**Ruisui**	**0.94**	**358**	P	**Pb**	**18 36 27.6**	**-2.0**
EHYH	**Wanrong**	**0.94**	**354**	*e*P	**Pb**	**18 36 28.0**	**-1.7**
EHYH				*e*S	**Sb**	**18 36 40.9**	**-0.9**
EHY	**Hungye**	**0.96**	**353**	P	**Pb**	**18 36 28.0**	**-2.0**
SGST	**Jiashian**	**0.96**	**303**	*i*P	**Pb**	**18 36 28.1**	**-1.9**
SGST				S	**Sb**	**18 36 41.6**	**-0.7**
TWM1	**Shoushan**	**0.99**	**286**	*i*eP	**Pb**	**18 36 30.4**	**-0.2**
WLCH	**Liuqiu**	**1.01**	**259**	P	**Pn**	**18 36 33.0**	**+1.9**
TWP	**Hsiaoliuchiu**	**1.03**	**259**	*i*eP	**Pn**	**18 36 33.1**	**+1.7**
WTP	**Ta-pu**	**1.04**	**312**	*i*P	**Pb**	**18 36 30.2**	**-1.2**
YUS	**Yu-Shan**	**1.04**	**334**	P	**Pb**	**18 36 30.0**	**-1.7**
YUS				*e*S	**Sb**	**18 36 44.5**	**-0.5**
SNJT	**Kaohsiung City**	**1.05**	**281**	P	**Pb**	**18 36 32.9**	**+1.3**
SNJT				*e*S	**Sn**	**18 36 48.8**	**+3.1**
KAU	**Kaohsiung**	**1.06**	**271**	*e*P	**Pb**	**18 36 33.7**	**+2.0**
CHN1	**Nanshi**	**1.06**	**307**	*i*P	**Pn**	**18 36 31.1**	**-0.6**
CHN1				*i*S	**Sb**	**18 36 45.2**	**0.0**
TPUB	**Ta-pu**	**1.06**	**315**	P	**Pn**	**18 36 31.1**	**-0.7**
TPUB	**Ta-pu**	**1.06**	**315**	S	**Sb**	**18 36 44.8**	**-0.5**
TPUB	**Ta-pu**	**1.06**	**315**		**Pn**	**18 36 30.4**	**-1.4**
TPUB					**Sb**	**18 36 43.6**	**-1.7**
TPUB	**Ta-pu**	**1.06**	**315**	P	**Pn**	**18 36 30.8**	**-1.0**
TPUB	**Ta-pu**	**1.06**	**315**	*i*P	**Pn**	**18 36 30.6**	**-1.2**
WSSB	**Gushan**	**1.11**	**275**	P	**Pb**	**18 36 33.6**	**+1.0**
WSSB				S	**Sn**	**18 36 49.9**	**+2.9**
CHN4	**Tsaushan**	**1.12**	**315**	P	**Pn**	**18 36 31.8**	**-0.8**
CHN4				*e*S	**Sn**	**18 36 47.2**	**-0.3**
ALS	**Alishan**	**1.12**	**328**	P	**Pn**	**18 36 31.4**	**-1.5**
CHN3	**Shinhua**	**1.13**	**298**	*i*P	**Pb**	**18 36 33.6**	**+0.7**
CHN3				*i*S	**Sn**	**18 36 51.1**	**+3.5**
TWK	**Hsinying**	**1.14**	**309**	*i*P	**Pn**	**18 36 32.1**	**-0.8**
TWK				*e*S	**Sb**	**18 36 47.2**	**-0.3**
TEGC	**Jichi Village**	**1.15**	**4**	*e*P	**Pn**	**18 36 31.9**	**-1.1**
TEGC				S	**Sb**	**18 36 47.0**	**-0.8**
WARBT	**Fenglin Townsh**	**1.16**	**357**	*e*P	**Pn**	**18 36 30.8**	**-2.3**
WCKO	**Fanlu**	**1.18**	**319**	*e*P	**Pn**	**18 36 32.7**	**-0.6**
WCKO				*e*S	**Sb**	**18 36 48.4**	**-0.2**
SSHA	**Shanhua**	**1.22**	**299**	P	**Pb**	**18 36 34.8**	**+0.3**
SSHA				*i*S	**Sb**	**18 36 52.2**	**+2.4**
VWDT	**VWDT**	**1.23**	**346**	P	**Pn**	**18 36 32.8**	**-1.2**
VWDT				*e*S	**Sn**	**18 36 47.7**	**-2.3**
TAI1	**Yung-k'ang**	**1.23**	**293**	P	**Pb**	**18 36 34.8**	**+0.1**
TAI1				S	**Sb**	**18 36 52.0**	**+2.0**
SHUL	**Shoufeng**	**1.23**	**5**	*e*P	**Pn**	**18 36 32.6**	**-1.4**
SHUL				S	**Sn**	**18 36 48.7**	**-1.4**
ESL	**Shilin**	**1.25**	**359**	P	**Pb**	**18 36 32.8**	**-1.7**
ESL				*e*S	**Sn**	**18 36 50.2**	**-0.4**
CHN5	**Tsauling**	**1.26**	**326**	*i*P	**Pn**	**18 36 34.3**	**-0.3**
CHN5				S	**Sb**	**18 36 51.9**	**+0.8**
WHYT	**Xinyi Township**	**1.27**	**334**	*e*P	**Pn**	**18 36 34.2**	**-0.3**
WHYT				*e*S	**Sn**	**18 36 49.8**	**-1.2**
SSLB	**Suanglung**	**1.31**	**340**	P	**Pn**	**18 36 34.8**	**-0.4**
SSLB	**Suanglung**	**1.31**	**340**		**Pn**	**18 36 34.0**	**-1.3**
SSLB	**Suanglung**	**1.31**	**340**	P	**Pn**	**18 36 34.5**	**-0.8**
SSLB	**Suanglung**	**1.31**	**340**	*e*P	**Pn**	**18 36 34.4**	**-0.8**
TEYL	**Yanliau Villag**	**1.31**	**6**	P	**Pn**	**18 36 34.6**	**-0.6**
TEYL				*e*S	**Sn**	**18 36 52.0**	**-0.2**
SCLT	**Jiali**	**1.32**	**298**	*i*P	**Pn**	**18 36 35.2**	**0.0**
SCLT				S	**Sb**	**18 36 53.8**	**+1.3**
CHN2	**Minshiung**	**1.33**	**317**	*i*P	**Pb**	**18 36 35.9**	**-0.4**
CHN2				*i*S	**Sb**	**18 36 53.8**	**+0.9**
CHY	**Chiayi**	**1.34**	**315**	P	**Pn**	**18 36 35.8**	**+0.2**
CHY				S	**Sb**	**18 36 53.4**	**+0.3**
CSNB	**Yiju**	**1.39**	**305**	*i*P	**Pb**	**18 36 36.4**	**+0.1**
CHN8				*i*S	**Sb**	**18 36 54.9**	**+0.2**
TSCK	**Chigu Township**	**1.39**	**295**	*i*P	**Pn**	**18 36 36.4**	**+0.1**
TSCK				*i*S	**Sb**	**18 36 54.2**	**-0.5**
WGK	**Gukeng**	**1.40**	**324**	*i*eP	**Pb**	**18 36 37.1**	**-0.3**
WGK				*e*S	**Sb**	**18 36 56.3**	**+1.5**
ETM	**Tongmen**	**1.41**	**1**	*e*P	**Pn**	**18 36 34.9**	**-1.6**
WDLH	**Douliu**	**1.41**	**323**	P	**Pn**	**18 36 37.0**	**+0.5**
WDLH				S	**Sb**	**18 36 55.6**	**+0.3**
OWD	**Renai**	**1.42**	**350**	*e*P	**Pn**	**18 36 36.2**	**-0.5**
SMLT	**Sun Moon Lake**	**1.42**	**339**	*e*P	**Pn**	**18 36 36.8**	**0.0**
SMLT				*i*S	**Sb**	**18 36 55.9**	**+0.3**
HWA	**Hwalien**	**1.42**	**6**	*e*P	**Pn**	**18 36 35.9**	**-0.8**
HWA				*e*S	**Sb**	**18 36 55.6**	**0.0**
WJS	**Zhushan**	**1.43**	**332**	P	**Pb**	**18 36 37.7**	**-0.4**
WJS				*e*S	**Sb**	**18 36 57.0**	**+1.2**
WDL	**Douliou City**	**1.43**	**324**	*e*P	**Pn**	**18 36 36.9**	**0.0**
WDL				S	**Sb**	**18 36 56.9**	**+1.0**
TYC	**Yuchr**	**1.45**	**338**	*i*P	**Pn**	**18 36 37.7**	**+0.6**
TYC				*e*S	**Sb**	**18 36 57.1**	**+0.7**
LXIB	**Xiulin Townshi**	**1.46**	**359**	*i*P	**Pn**	**18 36 35.5**	**-1.9**
LXIB				*i*S	**Sn**	**18 36 55.6**	**-0.4**
WUSB	**Renai**	**1.47**	**348**	P	**Pn**	**18 36 36.5**	**-0.9**
WUSB				S	**Sn**	**18 36 56.0**	**0.0**
WSL	**Shuilin Townsh**	**1.49**	**311**	*i*P	**Pn**	**18 36 37.5**	**-0.1**
WSL				*i*S	**Sb**	**18 36 57.4**	**0.0**
WNT	**Mingjian**	**1.50**	**332**	*i*P	**Pb**	**18 36 38.6**	**-0.6**
WNT				*i*S	**Sb**	**18 36 57.9**	**+0.1**
TWD	**Chiawan**	**1.52**	**5**	*i*P	**Pn**	**18 36 36.6**	**-1.5**
TWD				*e*S	**Sn**	**18 36 56

YOJ Yonaguni jima 2.38 37 Pn 18 36 50.4 +0.5
YOJ Yonaguni jima 2.38 37 P Pn 18 36 50.6 +0.8
YOJ Yonaguni jima 2.38 37 *i* P **Pn 18 36 50.5 +0.7**
YOJ S **Sn 18 37 17.7 -0.6**
YOJ Yonaguni jima 2.38 37 P **Pn 18 36 50.5 +0.7**
YOJ S **Sn 18 37 17.6 -0.8**
NHDH Xindian Distri 2.40 2 *e*P **Pn 18 36 51.2 +1.0**
NHDH *e*S **Sn 18 37 19.4 +0.4**
TATO Taipei 2.41 1 P **Pn 18 36 51.0 +0.7**
TATO Taipei 2.41 1 S **Sn 18 37 18.9 -0.3**
TATO Taipei 2.41 1 Pn 18 36 50.5 +0.2
TATO Taipei 2.41 1 P **Pn 18 36 51.5 +1.2**
NCU National Centr 2.42 354 *e*S **Sn 18 37 20.7 +1.3**
TWA Mucha 2.42 3 *e*P **Pn 18 36 50.7 +0.3**
TWA *e*S **Sn 18 37 21.2 +1.8**
TIPB Shuangxi 2.43 8 *e*P **Pn 18 36 51.0 +0.3**
TIPB *e*S **Sn 18 37 19.4 -0.4**
TAP Taipei 2.48 1 *e*P **Pn 18 36 52.0 +0.8**
TAP *e*S **Sn 18 37 22.1 +1.3**
TWB1 Santiao Chiao 2.49 11 *e*P **Pn 18 36 51.8 +0.3**
NWF Wu-fen Shan 2.52 7 *e*P **Pn 18 36 52.9 +1.0**
NWF *e*S **Sn 18 37 22.2 0.0**
WFSB Wu-fen Shan 2.52 7 *e*P **Pn 18 36 52.6 +0.7**
WFSB *e*S **Sn 18 37 23.0 +1.0**
TWS1 Kuangyinshan 2.54 359 *e*P **Pn 18 36 52.8 +0.8**
TWS1 *e*S **Sn 18 37 23.8 +1.5**
SXI1 Grass Mountain 2.56 9 *e*P **Pn 18 36 53.1 +0.7**
SXI1 *e*S **Sn 18 37 23.1 +0.1**
YM01 YM01 2.58 2 *e*P **Pn 18 36 52.3 -0.4**
ZUZH Zhuzihu 2.60 2 *e*P **Pn 18 36 52.8 -0.1**
ZUZH *e*S **Sn 18 37 22.7 -1.2**
TNOU National Taiwa 2.60 6 *e*P **Pn 18 36 53.3 +0.4**
ANP Anpu 2.62 1 *e*P **Pn 18 36 53.5 +0.2**
YM08 YM08 2.63 3 *e*P **Pn 18 36 52.7 -0.6**
HATJ Hateruma jima 2.63 55 P **Pn 18 36 53.4 +0.1**
HATJ S **Sn 18 37 23.1 -1.4**
IRIF Iriomote-Funau 2.74 49 P **Pn 18 36 55.0 +0.2**
IRIF A A 18 36 55.0
comp=N,15nm,0.9s,comp=E,11nm,1.2s
IRIF S **Sn 18 37 27.6 +0.3**
JKRS Kuro-shima 2.88 54 P **Pn 18 36 57.2 +0.4**
JKRS S **Sn 18 37 29.4 -1.5**
VWUC VWUC 3.04 323 *i* P **Pn 18 36 58.3 -0.7**
VWUC *e*S **Sn 18 37 31.9 -2.9**
JIJ Ishigaki jima 3.06 53 P **Pn 18 36 58.9 -0.3**
JIJ S **Sn 18 37 33.3 -1.8**
PCYT Pengchaiyu 3.11 10 *e*P **Pn 18 37 00.1 +0.1**
PTMZ Houxiangcun 3.27 320 *i* P **Pn 18 37 01.4 -0.7**
PTMZ S **Sn 18 37 37.8 -2.6**
CICP Calayan Island 3.27 180 *e*P **Pn 18 37 00.8 -1.3**
CICP *i* S **Sb 18 37 49.3 +0.4**
JISG Ishigakijimahi 3.31 52 P **Pn 18 37 02.4 -0.3**
JISG S **Sn 18 37 39.7 -1.7**
KNM Kinmen 3.34 304 *i* P **Pn 18 37 03.6 +0.6**
KNM S **Sn 18 37 41.5 -0.5**
KNMB Chin-men Tao 3.40 305 Pn 18 37 02.6 -1.2
KNMB Chin-men Tao 3.40 305 P **Pn 18 37 03.0 -0.9**
KNMB Chin-men Tao 3.40 305 *i* P **Pn 18 37 03.0 -0.9**
KNMB *i* S **Sn 18 37 41.8 -1.8**
QZH2 Quanzhou 3.54 313 Pn **Pn 18 37 04.3 -1.5**
QZH2 Sn **Sn 18 37 43.2 -3.8**
QZH2 AML AML
comp=E,2μm,0.4s
QZH2 AML AML
comp=E,3μm,0.7s
QZH2 L L
comp=E,8μm,15.8s
QZH2 L L
comp=E,6μm,17.5s
QZH2 L L
comp=E,6μm,15.9s
JTJ Tarama 3.63 54 P **Pn 18 37 07.5 +0.4**
JTJ S **Sn 18 37 48.2 -1.1**
ZPLA Ao Xicun 3.67 293 P **Pn 18 37 02.0 -0.6**
ZPLA S **Sn 18 37 47.1 -3.2**
MATB Ma-tsu 3.84 339 P **Pn 18 37 09.1 -0.8**
DSXP Dongshan 3.88 288 *e*P **Pn 18 37 09.9 -0.6**
AXDP Jialang 3.96 307 *e*P **Pn 18 37 11.1 -0.5**
AXDP *e*S **Sn 18 37 53.6 -3.7**
PACPP Pamplona Cagay 4.08 181 *i* P **Pn 18 37 13.5 +0.3**
PACPP *i* S **Sn 18 37 59.9 -0.4**
JIRJ Irabujima 4.11 56 P **Pn 18 37 13.9 +0.3**
JIRJ *e*S **Sn 18 37 59.6 -1.5**
JMJ2 Miyako jima3 4.17 58 P **Pn 18 37 14.8 +0.3**
JMJ2 *e*S **Sn 18 38 01.4 -1.1**
MHZQ Yeshan 4.17 328 *e*P **Pn 18 37 12.9 -1.5**
JMJ Miyako jima 2 4.18 57 P **Pn 18 37 14.8 +0.2**
JIKM Ikemajima 4.20 55 *e*P **Pn 18 37 15.0 +0.1**
JIKM *e*S **Sn 18 38 02.6 -0.8**
JOGS Gusukube 4.24 58 P **Pn 18 37 15.8 +0.4**
JOGS *e*S **Sn 18 38 03.6 -0.7**
LYJJ Jianjiangzhen 4.27 339 *e*P **Pn 18 37 14.8 -1.0**
PIP Pasuquin 4.28 191 *e*P **Pn 18 37 16.1 +0.1**
PIP *e*S **Sn 18 38 00.3 -5.1**
XPSS Dashiqiu 4.51 345 *e*P **Pn 18 37 18.1 -1.1**
XPSS *e*S **Sn 18 38 08.0 -2.9**
SIPP Brgy, Tapao 4.70 192 *e*P **Pn 18 37 23.1 +1.3**
SIPP *e*S **Sn 18 38 15.0 -0.8**
SZP Santa 5.06 191 Pn 18 37 29.6 +2.7
SZP Santa 5.06 191 P **Pn 18 37 27.0 +0.2**
comp=Z,148nm,0.7s
SXFK Yanhouchang 5.17 319 *e*P **Pn 18 37 26.7 -1.6**
SXFK *e*S **Sn 18 38 23.1 -4.2**
PALP Palanan 5.54 170 *i* S **Sn 18 38 33.4 -2.9**
PALP Palanan 5.54 170 *i* P **Pn 18 37 35.7 +2.4**
BOLP Bolinao 6.31 194 *e*P **Pn 18 37 45.6 +1.6**
BOLP *i* S **Sb** 18 39 09.2 -10
HKPS Hong Kong Po S 6.77 269 P **Pn 18 37 49.8 -0.5**
HKPS Hong Kong Po S 6.77 269 Pn 18 37 49.8 -0.5
HKPS Hong Kong Po S 6.77 269 P **Pn 18 37 50.4 +0.1**
comp=Z,270nm,0.8s
JOW Kunigami 7.52 54 P **Pn 18 37 58.8 -1.8**
comp=Z,14nm,0.3s,baz=168,slow=10,SNR=13
JOW S **Sn 18 39 21.1 -4.2**
comp=Z,38nm,0.3s,baz=108,slow=28,SNR=5.7
comp=Z,29nm,0.3s
JOW AML AML
JOW Kunigami 7.52 54 P **Pn 18 38 00.9 +0.3**
PCPS Palayan City 7.87 183 *e*P Pn 18 37 55.2 -10
GQP Guinayangan 8.65 174 *e*P **Pn 18 38 19.0 +2.9**
GQP *i* S **Sn 18 39 53.2 +0.1**
JMZ Minamidaito 2 9.49 68 P **Pn 18 38 29.7 +2.1**
CNSH ChangSha 9.53 308 P **Pn 18 38 27.3 -0.8**
CNSH S **Sn 18 40 15.4 +0.9**
CNSH pmax pmax
comp=Z,63nm,0.4s
CNSH SMN
comp=Z,330nm,1.6s
CNSH SME
comp=Z,680nm,1.3s
NJ2 Nanjing 9.74 347 *e*P **Pn 18 38 31.6 +0.6**
NJ2 pP 18 38 34.5
NJ2 S **Sn 18 40 16.4 -3.3**
NJ2 pmax pmax
comp=Z,45nm,0.5s
NJ2 L L
comp=Z,2μm,10.9s
NJ2 L L
comp=Z,1μm,11.6s
NJ2 L L
comp=Z,3μm,13.3s
WHN Wuhan 10.18 323 P **Pn 18 38 36.9 -0.2**
WHN S **Sn 18 40 27.1 -3.5**
WHN L L
comp=Z,4μm,12.3s
WHN L L
comp=Z,6μm,14.5s
WHN L L
comp=Z,5μm,17.6s
QIZ Qiongzhong 11.41 254 P **Pn 18 38 54.1 +0.2**
QIZ Qiongzhong 11.41 254 P **Pn 18 38 53.3 -0.6**
QIZ S **Sn 18 40 58.7 -2.2**
QIZ pmax pmax
comp=Z,39nm,2.1s
QIZ L L
comp=Z,2μm,16.3s
QIZ L L
comp=Z,2μm,14.0s
QIZ L L
comp=Z,3μm,14.6s
PLP Palo 11.81 163 *e*P **Pn 18 39 02.5 +3.1**
TBP Tagbilaran 13.00 169 *e*P **P 18 39 26.8 +0.9**

ENH Enshi 13.19 308 P **Pn 18 39 18.9 +0.7**
ENH Enshi 13.19 308 Pn 18 39 16.7 -1.5
ENH Enshi 13.19 308 P **Pn 18 39 18.2 0.0**
comp=Z,25nm,1.1s
SNPH Sibulan 13.25 172 *e*P **P 18 39 25.9 -2.9**
JNU Nakatsue 13.42 36 P **Pn 18 39 22.4 +1.0**
comp=Z,0.3nm,0.3s,baz=183,slow=11,SNR=4.7
comp=Z,7.7nm,0.8s
JNU AML AML
LSIP Lazi, Siquijor 13.51 171 *i* P **P 18 39 32.9 +1.2**
JTU Tsushima 13.81 29 P **Pn 18 39 28.3 +1.6**
JTU Tsushima 13.81 29 Pn 18 39 27.9 +1.2
JTU Tsushima 13.81 29 P **Pn 18 39 28.0 +1.4**
comp=Z,41nm,1.3s
GYA Guiyang 14.01 289 ⇑P **Pn 18 39 29.6 0.0**
GYA pP P 18 39 34.5 -2.9
GYA S **Sn 18 42 02.0 -2.6**
GYA pmax pmax
comp=Z,20nm,1.7s
GYA pmax pmax
comp=Z,270nm,4.0s
GYA L L
comp=Z,2μm,18.3s
GYA L L
comp=Z,2μm,11.6s
GYA L L
comp=Z,3μm,12.1s
TIA Tai'an 14.12 346 P **Pn 18 39 31.9 +1.0**
TIA pmax pmax
comp=Z,3.0nm,0.4s
TIA pmax pmax
comp=Z,370nm,5.5s
TIA L L
comp=Z,2μm,15.1s
TIA L L
comp=Z,1μm,13.7s
TIA L L
comp=Z,3μm,13.7s
LYN LuoYang 14.32 329 P **P 18 39 40.5 0.0**
LYN sP Pn 18 39 47.3 +14
LYN S **Sn 18 42 17.9 +6.2**
LYN pmax pmax
comp=Z,20nm,0.8s
LYN pmax pmax
comp=Z,410nm,4.5s
LYN LR LR
comp=N,4μm,9.6s
LYN LR LR
comp=E,2μm,11.2s
LYN LR LR
comp=Z,4μm,11.6s
TJN Taejon 14.70 19 *i* P **Pn 18 39 38.8 0.0**
TJN Taejon 14.70 19 Pn 18 39 38.0 -0.7
INCN Inchon 15.54 16 P **Pn 18 39 49.0 -0.9**
INCN pmax pmax
comp=Z,50nm,1.6s
INCN Inchon 15.54 16 Pn **Pn 18 39 49.0 -0.9**
KSAR Wonju Array Be 15.84 19 P **P 18 39 56.4 -1.1**
KSAR Wonju Array Be 15.84 19 P 18 39 56.4 -1.1
KSRS Korea Array 15.86 19 P **Pn 18 39 55.4 +1.2**
comp=Z,0.8nm,0.3s,baz=198,slow=12,SNR=26
comp=Z,5.5nm,0.7s
KSRS AML AML
XAN Xi'an 15.88 319 P **Pn 18 39 55.1 +0.7**
XAN sP sP 18 40 06.8 +0.1
XAN S **Sn 18 42 51.5 +1.6**
XAN pmax pmax
comp=Z,32nm,1.3s
XAN L L
comp=Z,3μm,18.6s
XAN L L
comp=Z,3μm,17.0s
XAN L L
comp=Z,2μm,14.9s
KS19 Wonju Array Si 15.89 19 P **P 18 39 56.9 -1.1**
DAV Davao City (W) 15.90 165 LR LR 18 45 55.7
comp=Z,1μm,21.7s,baz=352,slow=37
HNS HongShan 15.90 340 ⇓P **P 18 39 59.5 +1.4**
HNS S **Sn 18 42 47.1 -3.1**
HNS pmax pmax
comp=Z,24nm,1.2s
HNS L L
comp=Z,3μm,14.0s
HNS L L
comp=Z,2μm,13.7s
HNS L L
comp=Z,3μm,13.8s
DLV Lat 16.26 232 P **Pn 18 40 00.1 +0.6**
DLV Lat 16.26 232 P **P 18 40 01.1 -1.4**
DLV IAmb IAmb 18 40 02.3
comp=Z,121nm,1.7s
DLV Lat 16.26 232 P **Pn 18 39 58.3 -1.2**
comp=Z,38nm,1.3s
DL2 Dalian 16.30 0 *e*P **P 18 40 01.7 -0.9**
DL2 *e*S **Sn 18 43 02.4 +2.4**
DL2 pmax pmax
comp=Z,22nm,0.9s
DL2 pmax pmax
comp=Z,350nm,3.6s
DL2 L L
comp=Z,1μm,13.9s
DL2 L L
comp=Z,820nm,15.0s
DL2 L L
comp=Z,2μm,13.5s
SLVN Son La 16.33 269 P **Pn 18 40 01.4 +1.1**
SLVN Son La 16.33 269 Pn 18 40 00.0 -0.3
SLVN Son La 16.33 269 P **Pn 18 40 00.7 +0.4**
comp=Z,21nm,1.1s
TIY Taiyuan 16.99 335 P **P 18 40 15.5 +5.2**
TIY S **Sn 18 43 16.4 -0.4**
TIY pmax pmax
comp=Z,520nm,5.7s
TIY LR LR
comp=N,3μm,13.1s
TIY LR LR
comp=E,3μm,11.9s
TIY LR LR
comp=Z,4μm,12.5s
KKM Kota Kinabalu 17.18 198 Pn 18 40 10.7 -0.3
KKM IAmb IAmb 18 40 18.9
comp=Z,326nm,1.8s
KKM Kota Kinabalu 17.18 198 P **P 18 40 13.0 +0.5**
comp=Z,1μmcomp=Z,85nm,1.5s
KKM Kota Kinabalu 17.18 198 P **Pn 18 40 10.8 -0.2**
comp=Z,85nm,1.5s
KMI2 Kunming 17.31 282 P **P 18 40 15.2 +1.1**
KMI2 pmax pmax
comp=Z,15nm,1.2s
KMI2 L L
comp=Z,2μm,19.3s
KMI2 L L
comp=Z,410nm,17.4s
KMI2 L L
comp=Z,1μm,19.7s
BJI2 Beijing 17.98 347 P **P 18 40 24.0 +2.9**
BJI2 pP **sP 18 40 29.3 -0.4**
BJI2 S **Sn 18 43 40.3 -0.4**
BJI2 pmax pmax
comp=Z,8.0nm,0.9s
BJI2 pmax pmax
comp=Z,330nm,8.6s
BJI2 L L
comp=Z,810nm,11.7s
BJI2 L L
comp=Z,550nm,13.4s
BJI2 L L
comp=Z,1μm,13.7s
BJT Baijiatuau 17.98 347 P **P 18 40 21.2 0.0**
comp=Z,16nm,0.8s
INU Inuyama 18.62 43 P **Pn 18 40 30.8 +2.2**
INU Inuyama 18.62 43 Pn 18 40 29.0 +0.3
INU Inuyama 18.62 43 P **Pn 18 40 28.7 +0.1**
comp=Z,37nm,0.8s
JGF Kuroka 19.00 43 P **Pn 18 40 33.2 0.0**
JGF Kuroka 19.00 43 Pn 18 40 34.1 +0.9
JGF Kuroka 19.00 43 P **Pn 18 40 33.1 0.0**
comp=Z,33nm,0.9s
JHJ2 Mitsune 19.32 53 P **P 18 40 36.3 +0.4**
JCJ Chichijima 19.35 72 LR LR 18 47 12.6
comp=Z,215nm,20.7s,baz=52,slow=34
HHC Hu-ho-hao-te 20.06 338 *e*P Pn 18 40 46.4 +0.5
HHC pP sP 18 40 52.5 -0.1
HHC PP **PnPn 18 41 06.3 +5.8**
HHC S **S 18 44 27.6 -1.1**
HHC pmax pmax
comp=Z,17nm,0.6s
HHC pmax pmax
comp=Z,250nm,5.7s
HHC L L
comp=Z,1μm,11.5s
HHC L L
comp=Z,520nm,11.1s
HHC L L
comp=Z,1μm,11.1s
MAJO Matsushiro 20.12 42 P Pn 18 40 46.3 -0.3
MAJO Matsushiro 20.12 42 *i* P Pn 18 40 46.4 -0.2
MAJO pmax pmax
comp=Z,29nm,1.3s
MAJO Matsushiro 20.12 42 P **P 18 40 45.6 +0.9**
MAJO Matsushiro 20.12 42 P **P 18 40 43.3 -1.4**
comp=Z,30nm,1.0s
MJAR Matsushiro Arr 20.12 42 P **P 18 40 45.5 +0.8**
comp=Z,11nm,0.8s,baz=229,slow=9.6,SNR=25
MJAR LR LR 18 48 52.8
comp=Z,450nm,19.8s,baz=218,slow=38
comp=Z,11nm,0.8s
MJAR Matsushiro Arr 20.12 42 P Pn 18 40 47.4 +0.8
MJAR pmax pmax
comp=Z,21nm,1.0s
MJAR Matsushiro Arr 20.12 42 Pn 18 40 47.4 +0.7
MJB9 Matsu-Tunnel 20.12 42 P 18 40 44.9 +0.2
LZH Lanzhou 20.39 315 *e*P Pn 18 40 50.5 +0.6
LZH pP sP 18 41 01.4 +5.3
LZH S Sn 18 44 40.3 +1.1
LZH pmax pmax
comp=Z,49nm,1.0s
LZH pmax pmax
comp=Z,610nm,4.0s
LZH L L
comp=Z,2μm,13.9s
LZH L L
comp=Z,1μm,11.7s
LZH L L
comp=Z,2μm,16.2s
LZDM Lanzhou Array 20.41 315 P Pn 18 40 50.0 -0.3
comp=Z,13nm,0.7s,baz=144,slow=11,SNR=7.2
LZDM LR LR 18 49 18.0
comp=Z,862nm,19.4s,baz=130,slow=38
comp=Z,13nm,0.7s
BTO2 Baotou 20.61 334 *e*P Pn 18 40 51.4 -0.9
BTO2 pP pP 18 40 55.9 +0.3
BTO2 sP sP 18 40 58.3 -0.2
BTO2 S Sn 18 44 42.0 -2.2
BTO2 pmax pmax
comp=Z,14nm,0.8s
BTO2 pmax pmax
comp=Z,420nm,6.1s
BTO2 L L
comp=Z,6μm,13.2s
BTO2 L L
comp=Z,5μm,14.9s
BTO2 L L
comp=Z,8μm,13.5s
TNCH TengChong 21.13 281 P **P 18 40 56.6 +0.7**
TNCH pP pP 18 41 00.3 -1.2
TNCH sP sP 18 41 03.6 -1.0
TNCH pmax pmax
comp=Z,28nm,1.1s
TNCH pmax pmax
comp=Z,100nm,3.0s
TNCH L L
comp=Z,410nm,8.7s
TNCH L L
comp=Z,710nm,10.9s
TNCH L L
comp=Z,2μm,17.7s
MNI Manado 21.24 171 P **P 18 40 57.8 +0.9**
comp=Z,2μmcomp=Z,146nm,1.1s
TOLI2 Tolitoli 21.32 182 P **P 18 40 58.2 +0.4**
TOLI2 Tolitoli 21.32 182 P 18 40 57.8 0.0
TOLI2 Tolitoli 21.32 182 P **P 18 40 57.4 -0.4**
comp=Z,67nm,1.3s
CHTO Chiang Mai 21.38 264 P **P 18 40 57.6 -0.8**
CHTO pmax pmax
comp=Z,14nm,0.8s
CHTO Chiang Mai 21.38 264 P 18 40 57.6 -0.8
CHTO Chiang Mai 21.38 264 P **P 18 40 59.9 +1.5**
CHTO Chiang Mai 21.38 264 P **P 18 40 59.3 +0.9**
comp=Z,23nm,1.4s
CN2 Changchun 21.45 8 *e*P **P 18 41 00.7 +1.8**
CN2 *e*S **S 18 44 58.4 +2.5**
CN2 pmax pmax
comp=Z,10.0nm,0.4s
CN2 pmax pmax
comp=Z,100nm,5.5s
CN2 L L
comp=Z,500nm,16.0s
CN2 L L
comp=Z,300nm,16.0s
CN2 L L
comp=Z,600nm,16.5s
CMAR Chiang Mai Arr 21.47 263 P **P 18 41 01.1 +1.8**
comp=Z,11nm,0.8s,baz=70,slow=8.7,SNR=81
CMAR PcP **PcP 18 45 02.5 +0.3**
comp=Z,0.4nm,0.3s,baz=58,slow=2.2,SNR=4.1
CMAR LR LR 18 50 19.4
comp=Z,1μm,18.7s,baz=75,slow=39
comp=Z,11nm,0.8s
CMAR Chiang Mai Arr 21.47 263 P 18 40 59.5 +0.1
XLT XiLinHaoTe 21.75 349 *e*P **P 18 41 07.1 +4.9**
XLT pP sP 18 41 11.9 +1.2
XLT sP pP 18 41 17.3 +9.2
XLT S **S 18 44 58.7 -3.3**
XLT SS **SnSn 18 45 38.2 +11**
XLT pmax pmax
comp=Z,9.0nm,1.0s
XLT pmax pmax
comp=Z,200nm,4.3s
XLT L L
comp=Z,87nm,14.5s
XLT L L
comp=Z,570nm,13.6s
XLT L L
comp=Z,980nm,14.9s
GTOI Gorontalo 21.84 176 P **P 18 41 03.6 +0.3**
comp=Z,1μmcomp=Z,175nm,1.3s
SBUM Sibu 21.90 205 P **P 18 41 04.8 +0.8**
SBUM Sibu 21.90 205 P 18 41 04.6 +0.6
SBUM IAmb IAmb 18 41 09.9
comp=Z,62nm,1.8s
SBUM Sibu 21.90 205 P **P 18 41 04.2 +0.2**
SBUM Sibu 21.90 205 P **P 18 41 04.2 +0.2**
comp=Z,19nm,0.8s
KMSI Cibinong 21.98 173 P **P 18 41 08.3 +3.4**
comp=Z,3μmcomp=Z,342nm,1.3s
TNTI Ternate 22.40 164 P **P 18 41 10.4 +1.0**
TNTI Ternate 22.40 164 IAmb IAmb 18 41 11.9
comp=Z,63nm,0.9s
TNTI Ternate 22.40 164 P **P 18 41 08.3 -1.1**
comp=Z,997nmcomp=Z,74nm,1.2s
TNTI Ternate 22.40 164 P **P 18 41 08.0 -1.4**
comp=Z,73nm,1.2s
MDJ Mudanjiang 23.00 15 P **P 18 41 18.7 +3.2**
MDJ pmax pmax
comp=Z,10.0nm,1.3s
MDJ L L
comp=Z,760nm,21.9s
MDJ Mudanjiang 23.00 15 P **P 18 41 15.1 -0.4**
comp=Z,19nm,0.9s
USA0B Ussuriysk Arra 23.27 19 *i* P **P 18 41 20.5 +2.3**
USRK Ussuriysk Ar. 23.27 19 P **P 18 41 19.0 +0.8**
comp=Z,5.3nm,0.6s,baz=204,slow=7.3,SNR=9.0
USRK LR LR 18 50 42.0
comp=Z,359nm,20.5s,baz=195,slow=37
comp=Z,5.3nm,0.6s
USRK Ussuriysk Ar. 23.27 19 P **P 18 41 18.3 +0.1**
APSI Ampana 23.32 180 P **P 18 41 20.5 +1.6**
comp=Z,4μmcomp=Z,322nm,1.4s
PCI Palu 23.37 184 P **P 18 41 20.2 +0.8**
comp=Z,2μmcomp=Z,136nm,1.6s
LUWI Luwuk 23.49 177 P **P 18 41 21.1 +0.5**
LUWI Luwuk 23.49 177 P **P 18 41 19.5 -1.1**
LUWI Luwuk 23.49 177 P **P 18 41 21.6 +1.0**
comp=Z,2μmcomp=Z,143nm,1.3s
LUWI Luwuk 23.49 177 P **P 18 41 20.5 -0.1**
comp=Z,143nm,1.3s
BNX BinXian 23.63 10 ⇑P **P 18 41 25.3 +3.6**
BNX pmax pmax
comp=Z,6.0nm,0.8s
NPW Naypyitaw 23.76 268 P **P 18 41 22.8 -0.5**
comp=Z,29nm,1.0s

GUMO Guam 23.95 108 LR LR 18 51 27.6
comp=Z,241nm,18.6s,baz=292,slow=38
BKB Balikpapan 24.08 191 **P** **18 41 26.3 0.0**
BKB Balikpapan 24.08 191 P **P** **18 41 27.2 +1.0**
BKB Balikpapan 24.08 191 P **P** **18 41 24.5 -1.8**
comp=Z,299nm,1.1s
JTM Tenmabayashi 24.58 38 P **P** **18 41 32.1 +1.5**
JTM Tenmabayashi 24.58 38 P **P** **18 41 31.9 +1.3**
SANI Sanana 24.85 169 P **P** **18 41 32.9 -0.3**
SANI Sanana 24.85 169 P **P** **18 41 31.0 -2.2**
comp=Z,36nm,0.9s
SANI Sanana 24.85 169 P **P** **18 41 30.3 -2.9**
comp=Z,36nm,0.9s
MORE Moreh 24.96 279 **P** **18 41 32.4 -1.9**
MORE IAmb IAmb 18 41 45.3
comp=Z,43nm,1.3s
GTA2 Gaotai 25.01 317 *eP* **P** **18 41 35.8 +1.1**
GTA2 pP pP 18 41 38.7 -2.0
GTA2 ScP **ScP** **18 48 47.3 -0.1**
GTA2 pmax pmax
comp=Z,4.0nm,0.9s
GTA2 L L
comp=Z,800nm,18.2s
GTA2 L L
comp=Z,740nm,20.6s
GTA2 L L
comp=Z,920nm,15.8s
SIJI Sorong 25.17 156 P **P** **18 41 36.4 +0.3**
comp=Z,13nm,0.5s,baz=349,slow=16,SNR=22
comp=Z,13nm,0.5s
SIJI Sorong 25.17 156 P **P** **18 41 37.2 +1.0**
comp=Z,16nm,0.5s
MMSI Mamuju 25.21 186 P **P** **18 41 38.3 +1.8**
comp=Z,2µmcomp=Z,173nm,1.7s
TTSI Tana Toraja 25.49 184 P **P** **18 41 41.1 +2.1**
comp=Z,780nmcomp=Z,56nm,1.1s
PMSI Majene 26.01 186 P **P** **18 41 46.1 +2.3**
comp=Z,2µmcomp=Z,166nm,1.4s
NLAI Namlea 26.22 167 P **P** **18 41 46.2 +0.5**
KDI Kendari 26.37 177 P **P** **18 41 47.4 +0.4**
comp=Z,17nm,1.2s
KULM Kulim 26.43 233 P **P** **18 41 49.5 +1.9**
JEM Erimo 26.57 38 P **P** **18 41 50.3 +1.6**
IPM Ipoh 26.71 231 **P** **18 41 49.6 -0.6**
IPM Ipoh 26.71 231 P **P** **18 41 52.2 +2.0**
comp=Z,14nm,1.1s
IPM Ipoh 26.71 231 P **P** **18 41 47.7 -2.5**
comp=Z,14nm,1.1s
GOMU GeErMu 26.80 306 P **P** **18 41 56.3 +5.1**
GOMU pP sP 18 42 00.2 +0.2
GOMU sP pP 18 42 03.4 +6.1
GOMU S **S** **18 46 28.4 +1.8**
GOMU pmax pmax
comp=Z,2.0nm,0.6s
GOMU L L
comp=Z,630nm,14.6s
GOMU L L
comp=Z,1µm,14.9s
GOMU L L
comp=Z,1µm,14.6s
HILR Hailar Array B 26.98 358 P **P** **18 41 53.7 +1.4**
comp=Z,2.2nm,0.5s,baz=171,slow=10,SNR=2.0
comp=Z,2.2nm,0.5s
TPRI Tanjung Pinang 27.09 220 P **P** **18 41 56.5 +3.0**
comp=Z,31nm,1.2s
SHL Shillong 27.14 282 P **P** **18 41 52.9 -1.3**
SHL pmax pmax
comp=Z,43nm,0.9s
SHL Shillong 27.14 282 P **P** **18 41 52.9 -1.3**
SHL IAmb IAmb 18 42 07.2
comp=Z,43nm,0.9s
BTDF Bukit Timah Da 27.19 222 P **P** **18 41 57.4 +3.0**
comp=Z,38nm,1.1s
FAKI Fak Fak 27.42 156 P **P** **18 41 56.5 0.0**
FAKI Fak Fak 27.42 156 **P** **18 41 58.1 +1.6**
FAKI IAmb IAmb 18 42 00.5
comp=Z,65nm,1.4s
KAPI Kappang 27.45 184 LR LR 18 53 03.7
comp=Z,385nm,21.8s,baz=2.0,slow=37
KAPI Kappang 27.45 184 *i* P **P** **18 41 55.1 -1.6**
KAPI pmax pmax
comp=Z,71nm,1.6s
KAPI Kappang 27.45 184 P **P** **18 41 56.3 -0.5**
KAPI Kappang 27.45 184 P **P** **18 42 00.9 +4.2**
KAPI Kappang 27.45 184 P **P** **18 41 54.8 -1.9**
comp=Z,30nm,1.0s
BRDH Bariadhala 27.50 276 LR LR 18 55 51.5
comp=Z,356nm,18.9s,baz=150,slow=42
MKS Makassar 27.67 184 P **P** **18 42 00.1 +1.4**
comp=Z,108nm,1.1s
ASAJ Asahikawa 27.68 34 LR LR 18 53 59.4
comp=Z,352nm,20.7s,baz=264,slow=39
BKSI Bulukumba 27.73 183 P **P** **18 42 00.1 +0.8**
comp=Z,14nm,1.0s
ULN Ulaanbaatar 27.77 339 *ce* P **P** **18 42 00.2 +0.7**
ULN pmax pmax
comp=Z,10.0nm,1.0s
ULN Ulaanbaatar 27.77 339 P **P** **18 41 57.7 -1.8**
ULN Ulaanbaatar 27.77 339 P **P** **18 42 00.6 +1.1**
comp=Z,38nm,1.0s
ULN Ulaanbaatar 27.77 339 P **P** **18 42 00.3 +0.8**
comp=Z,9.7nm,1.0s
KLR Kul'dur 27.84 15 LR LR 18 54 04.6
comp=Z,523nm,18.6s,baz=200,slow=38
KLR Kul'dur 27.84 15 *i* P **P** **18 42 02.6 +2.6**
KLR pmax pmax
comp=Z,21nm,1.8s
SONM Songino Array 27.96 338 P **P** **18 42 01.7 +0.4**
comp=Z,3.1nm,0.7s,baz=157,slow=11,SNR=10
SONM LR LR 18 54 34.9
comp=Z,2µm,18.4s,baz=152,slow=39
comp=Z,3.1nm,0.7s
SONM Songino Array 27.96 338 P **P** **18 42 00.6 -0.6**
SONM pmax pmax
comp=Z,5.0nm,1.0s
SONM Songino Array 27.96 338 P **P** **18 42 00.6 -0.6**
HEH HeiHe 28.04 8 *eP* **P** **18 42 04.3 +2.6**
HEH pmax pmax
comp=Z,3.0nm,1.0s
HEH L L
comp=Z,680nm,12.9s
HEH L L
comp=Z,560nm,13.3s
HEH L L
comp=Z,1µm,12.5s
LSA Lhasa 28.07 291 P **P** **18 42 02.7 -0.1**
LSA pmax pmax
comp=Z,19nm,0.5s
LSA Lhasa 28.07 291 P **P** **18 42 02.7 -0.1**
LSA IAmb IAmb 18 42 19.9
comp=Z,19nm,0.5s
LSA Lhasa 28.07 291 P **P** **18 42 03.4 +0.6**
comp=Z,25nm,0.7s
PSI Prapat 29.38 231 P **P** **18 42 14.4 +0.3**
PSI pmax pmax
comp=Z,17nm,1.2s
PSI Prapat 29.38 231 P **P** **18 42 15.8 +1.7**
comp=Z,11nm,1.1s
RPSI Rantau Prapat 29.45 231 **P** **18 42 14.4 -0.2**
RPSI Rantau Prapat 29.45 231 P **P** **18 42 13.5 -1.2**
comp=Z,11nm,1.1s
YSS Yuzhno-Sakhali 29.79 30 *eP* **P** **18 42 19.3 +2.0**
YSS *eS* **S** **18 47 14.4 +1.7**
YSS pmax pmax
comp=Z,10.0nm,0.8s
YSS MLR MLR
comp=Z,700nm,18.0s
PPI Padang Panjang 30.72 225 P **P** **18 42 30.4 +4.5**
LBFI Labuhan Bajo, 30.88 183 P **P** **18 42 27.2 0.0**
MMRI Maumere 31.01 178 **P** **18 42 27.5 -0.8**
MMRI Maumere 31.01 178 P **P** **18 42 28.2 -0.1**
comp=Z,119nm,1.6s
MMRI Maumere 31.01 178 P **P** **18 42 28.3 -0.1**
comp=Z,119nm,1.6s
EDFI Ende, Flores 31.11 180 P **P** **18 42 28.2 -1.2**
comp=Z,1µmcomp=Z,91nm,1.3s
KHKI Kahang-Kahang 31.26 191 P P 18 42 36.5 +6.0
KRJI Kerinci 31.31 221 P **P** **18 42 33.1 +1.9**
PLAI Plampang 31.39 187 P **P** **18 42 33.0 +1.3**
TWSI Taliwang, Sumb 31.42 189 P **P** **18 42 33.1 +1.1**
comp=Z,35nm,1.6s
ZEA Zeya 31.45 7 *eP* P 18 42 37.4 +5.5
ZEA *e* 18 47 45.8
ZEA pmax pmax
comp=Z,10.0nm,1.2s
ZEA MLR MLR
comp=N,500nm,15.0s
ZEA MLR MLR
comp=Z,500nm,15.0s
SNJI Sawahan-Nganju 31.61 199 P **P** **18 42 36.7 +2.9**
comp=Z,43nm,0.8s
MASI Maura Aman, Be 31.69 219 P P 18 42 39.8 +5.3
EVN Everest 31.72 287 P **P** **18 42 35.2 -0.1**
EVN IAmb IAmb 18 42 46.5
comp=Z,14nm,0.8s
EVN Everest 31.72 287 P **P** **18 42 34.8 -0.5**
comp=Z,19nm,0.9s
MDSI Maura Dua 31.74 214 P **P** **18 42 35.7 +0.9**
comp=Z,22nm,1.5s
PWJI Pagerwojo 31.82 198 P **P** **18 42 37.7 +2.2**
KSI Kapahiang 31.91 218 P **P** **18 42 38.8 +2.4**
comp=Z,42nm,0.6s
TLY Talaya 32.18 339 LR LR 18 57 20.4
comp=Z,749nm,18.4s,baz=140,slow=39
SOEI Soe 32.23 175 P **P** **18 42 40.3 +1.1**
comp=Z,46nm,1.0s
SOEI Soe 32.23 175 P **P** **18 42 35.5 -3.7**
comp=Z,46nm,1.0s
BATI Baumata 32.63 176 LR LR 18 57 24.2
comp=Z,211nm,19.1s,baz=348,slow=39
BATI Baumata 32.63 176 P **P** **18 42 41.0 -1.6**
KNGR Kungurtug, Tuv 33.66 332 *i* P **P** **18 42 52.8 +1.3**
KNGR pmax pmax
comp=Z,7.0nm,1.0s
WMQ Urumqi 34.97 315 *eP* **P** **18 43 03.8 +0.9**
WMQ L L
comp=Z,170nm,19.9s
MTN Manton Dam 36.44 164 P **P** **18 43 13.4 -2.1**
comp=Z,9.8nm,0.7s
MTN Manton Dam 36.44 164 P **P** **18 43 13.9 -1.6**
comp=Z,9.9nm,0.7s
MTN Manton Dam 36.44 164 P **P** **18 43 12.9 -2.6**
KDU Kakadu 36.65 162 P **P** **18 43 16.0 -1.3**
comp=Z,5.8nm,1.2s
ZSN Zaisan 38.39 319 *eP* **P** **18 43 32.4 +0.6**
ZSN Zaisan 38.39 319 *eP* **P** **18 43 32.5 +0.6**
KNRA Kununurra 38.66 169 P **P** **18 43 32.8 -1.6**
comp=Z,17nm,1.0s
KNRA Kununurra 38.66 169 P **P** **18 43 32.6 -1.7**
KNRA IAmb IAmb 18 43 33.4
comp=Z,27nm,1.3s
MK31 Makanchi Array 39.69 317 *ce* P **P** **18 43 44.3 +1.5**
MKAR Makanchi Array 39.69 317 P **P** **18 43 43.4 +0.6**
comp=Z,11nm,0.6s,baz=106,slow=9.7,SNR=91
MKAR PcP **PcP** **18 45 48.1 -1.1**
comp=Z,0.7nm,0.6s,baz=108,slow=4.7,SNR=3.5
MKAR LR LR 19 00 29.3
comp=Z,174nm,21.0s,baz=112,slow=36
comp=Z,11nm,0.6s
MKAR Makanchi Array 39.69 317 **P** **18 43 42.7 -0.1**
YAK Yakutsk 39.86 6 *eP* **P** **18 43 44.2 +0.3**
YAK pmax pmax
comp=Z,8.0nm,1.0s
YAK pmax pmax
comp=N,8.0nm,1.2s
YAK pmax pmax
comp=E,6.0nm,1.2s
YAK Yakutsk 39.86 6 P **P** **18 43 45.0 +1.1**
comp=Z,20nm,0.9s
MAKZ Makanchi 39.89 317 P **P** **18 43 44.3 -0.2**
MAKZ pmax pmax
comp=Z,16nm,0.8s
MAKZ Makanchi 39.89 317 **P** **18 43 44.3 -0.2**
MAKZ IAmb IAmb 18 43 47.5
comp=Z,16nm,0.8s
MAKZ Makanchi 39.89 317 P **P** **18 43 45.3 +0.9**
comp=Z,25nm,0.9s
WUS Wushi 39.94 308 P **P** **18 43 44.6 -0.5**
WUS Wushi 39.94 308 P **P** **18 43 45.5 +0.4**
comp=Z,13nm,1.0s
KRVT Keravat (AS076 40.07 128 LR LR 18 56 53.7
comp=Z,166nm,21.3s,baz=324,slow=31
RABL Rabaul 40.09 128 P **P** **18 43 45.9 -0.5**
RABL IAmb IAmb 18 43 48.9
comp=Z,25nm,0.8s
SHLS Shalkode 40.30 311 *eP* **P** **18 43 45.9 -2.1**
SHLS Shalkode 40.30 311 *eP* **P** **18 43 45.9 -2.1**
PDGK Podgornoye 40.33 311 P **P** **18 43 49.1 +0.8**
PMG Port Moresby 40.54 139 *ce* P **P** **18 43 49.1 -1.0**
PMG pmax pmax
comp=Z,17nm,1.3s
UZB Uzynbulak 40.60 311 *eP* **P** **18 43 50.7 +0.1**
UZB pmax pmax
comp=Z,29nm,1.8s
UZB Uzynbulak 40.60 311 *eP* **P** **18 43 50.7 +0.1**
comp=Z,28nm,1.8s
FITZ Fitzroy Crossi 40.61 174 P **P** **18 43 48.3 -2.3**
comp=Z,72nm,1.2s
FITZ Fitzroy Crossi 40.61 174 P **P** **18 43 49.2 -1.4**
comp=Z,7.3nm,1.2s
FITZ Fitzroy Crossi 40.61 174 LR LR 19 04 36.6
comp=Z,48nm,18.1s,baz=354,slow=42
FITZ Fitzroy Crossi 40.61 174 P **P** **18 43 51.3 +0.8**
FITZ Fitzroy Crossi 40.61 174 P **P** **18 43 47.6 -3.0**
comp=Z,7.3nm,1.2s
SATY Saty 41.01 310 *eP* **P** **18 43 54.2 +0.3**
SATY Saty 41.01 310 *eP* **P** **18 43 54.2 +0.3**
PEA0B Petropavlovsk- 41.09 33 *ce* P **P** **18 43 55.0 +0.8**
PETK Petropavlovsk- 41.09 33 P **P** **18 43 52.2 -1.9**
comp=Z,4.4nm,0.7s,baz=272,slow=2.8,SNR=6.5
PETK LR LR 19 01 12.7
comp=Z,231nm,20.4s,baz=236,slow=36
comp=Z,4.4nm,0.7s
TDK Taldyqorghan 41.58 313 *eP* **P** **18 43 58.9 +0.5**
TDK pmax pmax
comp=Z,12nm,1.0s
TDK Taldyqorghan 41.58 313 *eP* **P** **18 43 59.0 +0.5**
comp=Z,12nm,1.0s
ZAA0 Zalesovo Array 41.75 328 IAmb IAmb 18 44 07.6
comp=Z,19nm,0.8s
ZALV Zalesovo Beam 41.75 328 P **P** **18 43 59.3 -0.3**
comp=Z,13nm,0.6s,baz=115,slow=8.2,SNR=44
ZALV LR LR 19 02 25.1
comp=Z,224nm,21.5s,baz=124,slow=38
comp=Z,13nm,0.6s
ZALV Zalesovo Beam 41.75 328 **P** **18 43 58.7 -0.9**
ASAI AK-SAY(Kyrgyzs 41.86 307 P **P** **18 44 00.8 -0.4**
comp=Z,9.2nm,1.4s
MDOK Medeo 42.00 310 *eP* **P** **18 44 02.3 +0.3**
MDOK Medeo 42.00 310 *eP* **P** **18 44 02.3 +0.3**
TNSS Tian-Shan 42.04 310 *eP* **P** **18 44 02.5 -0.2**
TNSS Tian-Shan 42.04 310 *eP* **P** **18 44 02.5 -0.2**
PALK Pallekele 42.04 255 LR LR 19 03 39.5
comp=Z,435nm,18.4s,baz=60,slow=39
AAA Alma-Ata 42.10 310 *eP* **P** **18 44 03.3 +0.5**
AAA Alma-Ata 42.10 310 *eP* **P** **18 44 03.3 +0.5**
KSH2 Kashi 42.26 304 P **P** **18 44 04.9 +0.7**
KSH2 pP sP 18 44 14.9 +2.1
KSH2 pmax pmax
comp=Z,8.0nm,1.5s
NRN Naryn 42.35 307 IAmb IAmb 18 44 16.8
comp=Z,24nm,1.1s
H11N1 WAKE ISLAND Hy 42.35 85 T T 19 29 16.8
baz=282,slow=75,SNR=515
H11N2 WAKE ISLAND Hy 42.36 85 T T 19 29 17.9
baz=282,slow=75,SNR=896
H11N3 WAKE ISLAND Hy 42.37 85 T T 19 29 19.0
baz=282,slow=75,SNR=790
H11S3 WAKE ISLAND Hy 42.44 87 T T 19 29 24.8
baz=284,slow=75,SNR=1226
H11S1 WAKE ISLAND Hy 42.44 87 T T 19 29 25.9
baz=284,slow=75,SNR=727
H11S2 WAKE ISLAND Hy 42.45 87 T T 19 29 26.5
baz=284,slow=75,SNR=586
KUU Kurty 42.69 311 *eP* **P** **18 44 07.6 +0.2**
KUU Kurty 42.69 311 *eP* **P** **18 44 07.6 +0.2**
MBWA Marble Bar 43.48 182 P **P** **18 44 13.9 -0.1**
comp=Z,8.7nm,1.4s
MBWA Marble Bar 43.48 182 P **P** **18 44 14.6 +0.6**
KURK Kurchatov 43.50 321 P **P** **18 44 13.4 -0.5**
KURK 18 45 58.7
KURK pmax pmax
comp=Z,16nm,0.9s
KURK Kurchatov 43.50 321 **P** **18 44 13.4 -0.5**
KURK IAmb IAmb 18 44 18.8
comp=Z,16nm,0.9s
KURK Kurchatov 43.50 321 P **P** **18 44 12.3 -1.6**
comp=Z,24nm,0.9s
KURBB Kurchatov Arra 43.52 321 P **P** **18 44 14.3 +0.3**
comp=Z,19nm,0.9s,baz=119,slow=7.6,SNR=46
KURBB PcP **PcP** **18 45 58.7 -3.0**
comp=Z,1.6nm,0.8s,baz=120,slow=3.2,SNR=2.6
comp=Z,19nm,0.9s
KURBB Kurchatov Arra 43.52 321 P **P** **18 44 14.2 +0.2**
NIL Nilore 43.59 296 P **P** **18 44 14.9 0.0**
comp=Z,28nm,1.0s
AAK Ala-Archa 43.70 309 P **P** **18 44 16.3 +0.5**
comp=Z,4.1nm,0.8s,baz=128,slow=7.3,SNR=15
AAK LR LR 19 02 57.5
comp=Z,354nm,19.7s,baz=99,slow=37
comp=Z,4.1nm,0.8s
AAK Ala-Archa 43.70 309 P **P** **18 44 15.6 -0.2**
AAK pmax pmax
comp=Z,6.0nm,1.0s
AAK Ala-Archa 43.70 309 **P** **18 44 15.6 -0.2**
AAK Ala-Archa 43.70 309 P **P** **18 44 15.3 -0.6**
comp=Z,6.6nm,1.5s
WB0 Warramunga Arr 43.92 162 IAmb IAmb 18 44 16.6
comp=Z,23nm,0.9s
WRAB Tennant Creek 44.07 162 P **P** **18 44 18.3 -0.4**
WRAB Tennant Creek 44.07 162 *ce* P **P** **18 44 17.8 -0.9**
WRAB pmax pmax
comp=Z,37nm,1.3s
WRA Warramunga Arr 44.07 162 P **P** **18 44 16.8 -2.0**
comp=Z,14nm,0.8s,baz=344,slow=8.7,SNR=52
WRA PcP **PP** **18 46 01.0 -0.8**
comp=Z,2.5nm,0.9s,baz=343,slow=3.4,SNR=3.1
comp=Z,14nm,0.8s
WRA Warramunga Arr 44.07 162 P **P** **18 44 15.7 -3.1**
WRA 18 46 01.0
WRA pmax pmax
comp=Z,1.0nm,1.1s
WRA Warramunga Arr 44.07 162 **P** **18 44 15.7 -3.1**
WR8 Warramunga Arr 44.13 162 IAmb IAmb 18 44 18.4
comp=Z,18nm,0.8s
BTLS Baital 44.56 312 *eP* **P** **18 44 23.0 +0.5**
BTLS Baital 44.56 312 *eP* **P** **18 44 23.1 +0.5**
ARSB Arslanbob 44.56 307 IAmb IAmb 18 44 34.3
comp=Z,13nm,1.2s
OHH Osh 44.59 305 P **P** **18 44 23.2 +0.3**
comp=Z,31nm,0.9s
OHH pP **sP** **18 44 31.8 +0.3**
DRK Karamyk 45.20 304 P **P** **18 44 27.5 -0.5**
comp=Z,15nm,1.0s
SEY Seymchan 45.42 19 LR LR 19 05 36.2
comp=Z,193nm,18.2s,baz=314,slow=39
SEY Seymchan 45.42 19 *i* P **P** **18 44 30.6 +1.5**
SEY pmax pmax
comp=Z,22nm,1.8s
GIRL Giralia 45.47 189 P **P** **18 44 30.7 +0.8**
GIRL Giralia 45.47 189 **P** **18 44 30.3 +0.4**
BTK Batken 46.02 304 IAmb IAmb 18 44 42.9
comp=Z,38nm,1.8s
BTK Batken 46.02 304 P **P** **18 44 32.7 -1.6**
comp=Z,7.7nm,1.4s
MTSU Mount Surprise 46.21 149 P **P** **18 44 36.6 +0.8**
comp=Z,40nm,0.9s
MTSU Mount Surprise 46.21 149 P **P** **18 44 36.3 +0.5**
comp=Z,40nm,0.9s
MTSU Mount Surprise 46.21 149 P **P** **18 44 36.0 +0.2**
MTSU Mount Surprise 46.21 149 P **P** **18 44 35.2 -0.6**
comp=Z,40nm,0.9s
QIS Mount Isa 46.37 156 P **P** **18 44 36.2 -0.8**
comp=Z,37nm,1.1s
QIS Mount Isa 46.37 156 P **P** **18 44 36.4 -0.6**
QIS Mount Isa 46.37 156 P **P** **18 44 36.1 -0.8**
comp=Z,37nm,1.1s
KK31 Karatay Array 46.66 309 P **P** **18 44 39.6 +0.4**
KK31 Karatay Array 46.66 309 IAmb IAmb 18 44 49.4
comp=Z,12nm,1.1s
KKAR Karatay Array 46.66 309 P **P** **18 44 39.3 +0.1**
KKAR Karatay Array 46.66 309 **P** **18 44 39.3 +0.1**
IUG luzhnay 46.87 307 *eP* **P** **18 44 41.6 +0.7**
IUG pmax pmax
comp=Z,13nm,0.9s
IUG luzhnay 46.87 307 *eP* **P** **18 44 41.7 +0.7**
comp=Z,13nm,0.9s
KBL Kabul 47.10 297 P **P** **18 44 43.3 +0.3**
KBL pmax pmax
comp=Z,34nm,1.5s
KBL Kabul 47.10 297 **P** **18 44 43.3 +0.3**
KBL IAmb IAmb 18 44 53.9
comp=Z,34nm,1.4s
KBL Kabul 47.10 297 P **P** **18 44 42.1 -0.8**
comp=Z,12nm,0.9s
BRLS Borolday 47.14 308 *eP* **P** **18 44 43.9 +1.0**
BRLS Borolday 47.14 308 *eP* **P** **18 44 44.0 +1.0**
CHM Chimkent 47.21 307 *eP* **P** **18 44 43.7 +0.2**
CHM pmax pmax
comp=Z,14nm,1.1s
CHM Chimkent 47.21 307 *eP* **P** **18 44 43.8 +0.2**
comp=Z,14nm,1.1s
AS15 Alice Springs 47.48 164 P **P** **18 44 44.9 -0.8**
comp=Z,14nm,1.1s
AS31 Alice Springs 47.51 164 P **P** **18 44 45.6 -0.3**
comp=Z,4.4nm,0.9s
AS31 Alice Springs 47.51 164 P **P** **18 44 45.6 -0.3**
comp=Z,4.4nm,0.9s
AS31 Alice Springs 47.51 164 IAmb IAmb 18 44 47.3
comp=Z,4.2nm,0.4s
ASAR Alice Springs 47.51 164 P **P** **18 44 44.9 -1.1**
comp=Z,7.3nm,0.8s,baz=340,slow=6.7,SNR=76
ASAR PcP **PcP** **18 46 14.1 -1.9**
comp=Z,2.4nm,0.7s,baz=349,slow=2.8,SNR=5.9
comp=Z,7.3nm,0.8s
ASAR Alice Springs 47.51 164 **P** **18 44 43.9 -2.0**
ASAR **PcP** **18 46 14.4 -1.6**
AS01 Alice Springs 47.52 164 P **P** **18 44 45.8 -0.2**
AS17 Alice Springs 47.53 164 P **P** **18 44 45.8 -0.3**
comp=Z,9.8nm,0.7s
AS09 Alice Springs 47.55 164 P **P** **18 44 45.5 -0.8**
comp=Z,16nm,1.0s
WRKA Warakurna 47.77 172 P **P** **18 44 47.1 -0.8**
comp=Z,15nm,1.3s
TATA Tatamba Isabel 48.54 125 P **P** **18 44 55.6 +1.5**
CTA Charters Tower 48.81 148 P **P** **18 44 56.5 +0.5**
comp=Z,13nm,1.2s
CTA Charters Tower 48.81 148 P **P** **18 44 56.2 +0.2**
comp=Z,13nm,1.2s
CTA Charters Tower 48.81 148 LR LR 19 04 31.8
comp=Z,124nm,19.8s,baz=10,slow=35
CTA Charters Tower 48.81 148 P **P** **18 44 57.7 +1.7**
CTA Charters Tower 48.81 148 P **P** **18 44 56.4 +0.4**
CTAO Charters Tower 48.81 148 P **P** **18 44 57.3 +1.3**
CTAO Charters Tower 48.81 148 P **P** **18 44 56.3 +0.3**
CTAO pmax pmax
comp=Z,19nm,0.7s
CTAO Charters Tower 48.81 148 P **P** **18 44 56.3 +0.3**
CTAO IAmb IAmb 18 44 57.0
comp=Z,19nm,0.7s
CTAO Charters Tower 48.81 148 P **P** **18 44 55.8 -0.2**
comp=Z,33nm,1.2s
MEEK Meekatharra 48.98 183 P **P** **18 44 55.4 -1.8**
comp=Z,73nm,1.0s
MEEK Meekatharra 48.98 183 P **P** **18 44 55.8 -1.4**
comp=Z,73nm,1.0s
MEEK Meekatharra 48.98 183 P **P** **18 44 56.5 -0.7**
MEEK Meekatharra 48.98 183 P **P** **18 44 54.8 -2.4**
comp=Z,73nm,1.0s
BVAR Borovoye Array 49.09 322 P **P** **18 44 58.5 +0.7**
comp=Z,6.1nm,0.5s,baz=108,slow=8.1,SNR=34
BVAR PcP **PcP** **18 46 20.8 -0.4**
comp=Z,5.6nm,0.8s,baz=104,slow=6.3,SNR=5.0
comp=Z,6.1nm,0.5s
BORK Borovoye 49.14 322 *i* P **P** **18 44 58.7 +0.5**
BORK pmax pmax
comp=Z,6.0nm,0.6s
BORK Borovoye 49.14 322 **P** **18 44 57.9 -0.3**
BORK IAmb IAmb 18 45 06.5
comp=Z,7.5nm,0.6s
TIXI Tiksi 49.30 3 *i* P **P** **18 44 58.0 -1.1**
TIXI pmax pmax
comp=Z,29nm,3.4s
TIXI Tiksi 49.30 3 **P** **18 44 57.8 -1.4**
TIXI IAmb IAmb 18 45 00.6
comp=Z,16nm,1.7s
HNR Honiara 49.32 126 LR LR 19 04 52.4
comp=Z,115nm,19.0s,baz=38,slow=35
NRIK Noril'sk 51.03 345 P **P** **18 45 11.0 -1.3**
comp=Z,4.9nm,0.6s,baz=119,slow=7.1,SNR=5.8
comp=Z,4.9nm,0.6s
NRIK Noril'sk 51.03 345 *i* P **P** **18 45 11.6 -0.7**
NRIK pmax pmax
comp=Z,19nm,1.5s
NRIK Noril'sk 51.03 345 IAmb IAmb 18 45 13.5
comp=Z,36nm,1.6s
MORW Morawa 51.59 186 P **P** **18 45 16.3 -0.6**
comp=Z,40nm,1.0s

MORW Morawa 51.59 186 P **P** **18 45 17.5 +0.6**
MORW Morawa 51.59 186 P **P** **18 45 16.1 -0.8**
MORW Morawa 51.59 186 P **P** **18 45 16.3 -0.6**
comp=Z,40nm,1.0s
BLDU Ballidu 53.06 185 P **P** **18 45 28.1 +0.3**
FORT Forrest 53.41 173 P **P** **18 45 29.2 -1.1**
comp=Z,25nm,0.9s
FORT Forrest 53.41 173 **P** **18 45 28.8 -1.6**
FORT IAmb IAmb 18 45 30.5
comp=Z,17nm,0.8s
QLP Quilpie 53.59 154 P **P** **18 45 31.4 -0.4**
comp=Z,34nm,1.5s
QLP Quilpie 53.59 154 P **P** **18 45 32.9 +1.1**
QLP Quilpie 53.59 154 P **P** **18 45 30.9 -0.9**
comp=Z,34nm,1.5s
KMBL Kambalda 53.62 180 P **P** **18 45 30.4 -1.5**
comp=Z,19nm,1.4s
KLBR Kellerberrin 53.95 184 P **P** **18 45 33.4 -1.0**
comp=Z,88nm,0.8s
KLBR Kellerberrin 53.95 184 P **P** **18 45 32.9 -1.4**
KLBR Kellerberrin 53.95 184 P **P** **18 45 32.9 -1.4**
comp=Z,88nm,0.8s
AB31 Akbulak array 54.76 315 *e*P **P** **18 45 40.2 +0.1**
ABKAR Akbulak array 54.76 315 **P** **18 45 38.8 -1.4**
NWAO Narrogin (SRO) 55.32 184 P **P** **18 45 43.9 -0.3**
comp=Z,51nm,1.4s
NWAO Narrogin (SRO) 55.32 184 P **P** **18 45 43.9 -0.3**
NWAO Narrogin (SRO) 55.32 184 P **P** **18 45 44.3 +0.1**
NWAO Narrogin (SRO) 55.32 184 P **P** **18 45 43.9 -0.3**
NWAO pmax pmax
comp=Z,35nm,0.9s
NWAO Narrogin (SRO) 55.32 184 **P** **18 45 43.9 -0.3**
AKTO Aktyubinsk 56.12 316 P **P** **18 45 50.4 +0.5**
comp=Z,1.7nm,0.4s,baz=109,slow=5.7,SNR=11
AKTO LR LR 19 11 32.0
comp=Z,354nm,19.4s,baz=69,slow=38
comp=Z,1.7nm,0.4s
ARTI Arti 56.65 325 P **P** **18 45 53.0 -0.5**
comp=Z,5.4nm,0.4s,baz=148,slow=4.7,SNR=17
ARTI LR LR 19 10 11.2
comp=Z,347nm,21.5s,baz=104,slow=36
comp=Z,5.4nm,0.4s
ARTI Arti 56.65 324 *c i*P **P** **18 45 53.1 -0.5**
ARTI 18 47 55.5
ARTI S **S** **18 53 45.8 +1.2**
ARTI SS **SS** **18 57 26.4 -5.6**
ARTI pmax pmax
comp=Z,6.0nm,0.6s
ARTI Arti 56.65 324 **P** **18 45 52.2 -1.4**
BBOO Buckleboo 56.79 165 P **P** **18 45 54.5 -0.3**
comp=Z,44nm,1.0s
BBOO Buckleboo 56.79 165 P **P** **18 45 55.0 +0.2**
BBOO Buckleboo 56.79 165 P **P** **18 45 53.6 -1.2**
comp=Z,44nm,1.0s
STKA Stephens Creek 57.45 160 P **P** **18 45 59.1 -0.4**
comp=Z,57nm,1.3s
STKA Stephens Creek 57.45 160 P **P** **18 45 57.5 -1.9**
comp=Z,8.5nm,0.9s,baz=347,slow=6.4,SNR=10
STKA LR LR 19 13 12.8
comp=Z,50nm,20.4s,baz=6.2,slow=39
comp=Z,8.5nm,0.9s
STKA Stephens Creek 57.45 160 P **P** **18 46 00.1 +0.6**
STKA Stephens Creek 57.45 160 P **P** **18 45 58.6 -0.9**
STKA pmax pmax
comp=Z,52nm,1.1s
STKA Stephens Creek 57.45 160 **P** **18 45 58.5 -0.9**
STKA Stephens Creek 57.45 160 P **P** **18 45 59.1 -0.4**
comp=Z,57nm,1.3s
HTT Hallett 58.11 163 P **P** **18 46 04.1 0.0**
comp=Z,5.6nm,2.7s
HTT Hallett 58.11 163 P **P** **18 46 04.0 -0.1**
CMSA Cobar Meteorol 58.58 156 P **P** **18 46 07.6 +0.3**
comp=Z,39nm,1.1s
CMSA Cobar Meteorol 58.58 156 P **P** **18 46 07.5 +0.1**
CMSA Cobar Meteorol 58.58 156 P **P** **18 46 07.7 +0.3**
comp=Z,39nm,1.1s
SANVU Saraoutou 58.59 126 **P** **18 46 08.4 +0.7**
ARMA Armidale 60.12 150 P **P** **18 46 18.9 +0.7**
ARMA Armidale 60.12 150 P **P** **18 46 19.2 +1.0**
KIRV Kirov 61.70 326 P **P** **18 46 28.0 -0.4**
comp=Z,14nm,0.6s,baz=60,slow=5.3,SNR=7.9
KIRV LR LR 19 15 32.0
comp=Z,430nm,18.3s,baz=94,slow=38
comp=Z,14nm,0.6s
BELG Belogornoye 62.67 319 P **P** **18 46 33.9 -1.2**
comp=Z,10nm,0.7s,baz=95,slow=3.6,SNR=5.0
comp=Z,10nm,0.7s
BELG Belogornoye 62.67 319 *i* P **P** **18 46 35.7 +0.6**
BELG pmax pmax
comp=Z,4.0nm,0.9s
OUENC Ouen Island, N 62.86 132 P **P** **18 46 36.5 -0.2**
CNB Canberra Magne 63.34 155 P **P** **18 46 40.4 +0.6**
comp=Z,53nm,1.3s
TOO Toolangi 63.94 159 IAmb IAmb 18 46 44.8
comp=Z,18nm,1.2s
GNI Garni 65.94 305 LR LR 19 20 46.7
comp=Z,86nm,18.5s,baz=80,slow=40
GNI Garni 65.94 305 *i* P **P** **18 46 56.6 -0.4**
GNI pmax pmax
comp=Z,21nm,1.4s
GNI Garni 65.94 305 P **P** **18 46 56.9 -0.1**
comp=Z,13nm,0.8s
VRH Novokhopyorsk 66.42 318 *e*P **P** **18 46 58.2 -1.4**
VRH pmax pmax
comp=Z,10.0nm,0.7s
KLMR Klimovskoe 66.67 328 *e*P **P** **18 46 58.6 -2.5**
KLMR pmax pmax
comp=Z,35nm,1.3s
KBZ Khabaz 66.69 309 P **P** **18 47 01.6 +0.1**
comp=Z,2.9nm,0.6s,baz=104,slow=6.2,SNR=11
KBZ LR LR 19 18 34.5
comp=Z,114nm,19.2s,baz=63,slow=38
comp=Z,2.9nm,0.6s
KBZ Khabaz 66.69 309 *i* P **P** **18 47 02.3 +0.8**
KBZ pmax pmax
comp=Z,11nm,1.8s
KIV Kislovodsk 66.81 310 *e*P **P** **18 47 03.0 +0.5**
KIV pmax pmax
comp=Z,11nm,1.0s
KIV MLR MLR
comp=Z,114nm,17.0s
KIV Kislovodsk 66.81 310 **P** **18 47 02.3 -0.1**
KIV IAmb IAmb 18 47 14.7
comp=Z,15nm,0.7s
KIV Kislovodsk 66.81 310 ⇑P **P** **18 47 04.1 +1.7**
KIV Kislovodsk 66.81 310 P **P** **18 47 02.9 +0.5**
comp=Z,18nm,0.9s
KIV Kislovodsk 66.81 310 P **P** **18 47 02.2 -0.2**
comp=Z,23nm,0.9s
SHA1 Shidzhatmaz 66.86 309 *i* P **P** **18 47 02.3 -0.6**
VORR Voronezh 67.91 318 *e*P **P** **18 47 07.6 -1.5**
VORR pmax pmax
comp=Z,20nm,0.3s
LPSR Galich'ya Gora 67.94 319 *e*P **P** **18 47 08.5 -0.8**
LPSR pmax pmax
comp=Z,10.0nm,0.6s
VORD Divnogorie 67.97 317 *e*P **P** **18 47 09.3 -0.1**
VSR Storozhevoye 68.01 318 *e*P **P** **18 47 08.9 -0.8**
VSR pmax pmax
comp=Z,8.0nm,0.4s
MSVF Nonsavu 68.31 121 *i* P **P** **18 47 12.6 +0.4**
MSVF pmax pmax
comp=Z,36nm,1.3s
H22K Ishtalitna Cre 68.50 26 P **P** **18 47 13.4 +0.8**
H22K IAmb IAmb 18 47 41.7
comp=Z,13nm,1.2s
CAST Castle Rocks 68.52 29 **P** **18 47 13.2 +0.4**
OHAK Old Harbor 68.80 36 P **P** **18 47 15.5 +0.9**
OBN Obninsk 68.93 322 ⇓*e*P **P** **18 47 14.4 -1.0**
OBN *i* 18 47 41.3
OBN *i* 18 49 47.6
OBN *i* PPP PPP 18 51 31.1
OBN *i* S **PnS** **18 56 48.5 +4.2**
OBN pmax pmax
comp=Z,11nm,1.2s
OBN MLR MLR
comp=Z,332nm,16.0s
RAYN Ar Rayn 69.06 288 P **P** **18 47 16.2 -0.7**
RAYN pmax pmax
comp=Z,9.0nm,1.1s
RAYN Ar Rayn 69.06 288 **P** **18 47 16.2 -0.7**
RAYN IAmb IAmb 18 47 21.5
comp=Z,8.9nm,1.1s
RAYN Ar Rayn 69.06 288 P **P** **18 47 15.6 -1.3**
comp=Z,10nm,0.9s
KDAK Kodiak Island 69.09 35 LR LR 19 16 35.3
comp=Z,48nm,21.3s,baz=246,slow=35
F24K Squaw Lake 69.64 24 IAmb IAmb 18 47 21.3
comp=Z,6.2nm,0.8s
RND Reindeer 69.95 29 P **P** **18 47 21.0 -0.7**
RND pmax pmax
comp=Z,11nm,0.8s
RND Reindeer 69.95 29 P **P** **18 47 21.0 -0.7**
RND IAmb IAmb 18 47 28.8
comp=Z,11nm,0.8s
COLA College 70.12 27 *i* P **P** **18 47 21.2 -1.3**
COLA pmax pmax
comp=Z,13nm,1.9s
F25K Christian Rive 70.47 24 IAmb IAmb 18 47 26.4
comp=Z,4.8nm,0.7s
ILAR Eielson Array 70.54 27 P **P** **18 47 24.0 -1.2**
comp=Z,0.9nm,0.6s,baz=294,slow=6.3,SNR=12
ILAR LR LR 19 22 06.5
comp=Z,56nm,18.7s,baz=264,slow=39
comp=Z,0.9nm,0.6s
ILAR Eielson Array 70.54 27 P **P** **18 47 23.4 -1.8**
SPITS Spitsbergen Ar 71.12 348 P **P** **18 47 27.6 -1.0**
comp=Z,1.9nm,0.3s,baz=94,slow=8.4,SNR=13
SPITS LR LR 19 22 46.6
comp=Z,226nm,18.4s,baz=66,slow=39
comp=Z,1.9nm,0.3s
ARCES ARCESS Array B 71.14 338 P **P** **18 47 28.1 -0.6**
comp=Z,3.1nm,0.6s,baz=70,slow=7.2,SNR=9.7
ARCES LR LR 19 21 06.7
comp=Z,53nm,20.7s,baz=60,slow=38
comp=Z,3.1nm,0.6s
ARCES ARCESS Array B 71.14 338 P **P** **18 47 27.9 -0.8**
ARCES pmax pmax
comp=Z,81nm,1.8s
ARCES ARCESS Array B 71.14 338 P **P** **18 47 27.9 -0.8**
G26K Porcupine Rive 71.32 24 IAmb IAmb 18 47 36.8
comp=Z,39nm,1.8s
D27M Malcolm River 71.77 22 IAmb IAmb 18 48 05.6
comp=Z,17nm,1.6s
M26K Nabesna, AK 72.79 29 IAmb IAmb 18 47 54.6
comp=Z,8.9nm,1.0s
ANDN Andirin 72.89 304 P **P** **18 47 39.8 -0.1**
comp=Z,31nm,1.0s
FINES FINESS Array B 72.97 330 P **P** **18 47 39.1 -0.8**
comp=Z,11nm,0.9s,baz=59,slow=5.6,SNR=27
FINES LR LR 19 23 57.4
comp=Z,491nm,18.4s,baz=70,slow=39
comp=Z,11nm,0.9s
FINES FINESS Array B 72.97 330 *i* P **P** **18 47 38.2 -1.6**
FINES pmax pmax
comp=Z,11nm,0.9s
FINES FINESS Array B 72.97 330 P **P** **18 47 39.4 -0.4**
MNK Minsk 73.97 323 *i* P **P** **18 47 46.7 +0.9**
MNK *i* 18 48 01.6
MNK *i* 18 50 31.7
MNK *i* PPP PPP 18 52 16.8
MNK *i* S **S** **18 57 20.2 +3.4**
MNK *i* 18 57 56.8
MNK *i* SS **SS** **19 02 05.9 +5.1**
MNK pmax pmax
comp=E,33nm,1.2s
MNK pmax pmax
comp=N,12nm,0.9s
MNK pmax pmax
comp=Z,15nm,1.0s
MNK MLR MLR
comp=Z,221nm,17.0s
MNK MLR MLR
comp=N,279nm,17.0s
MNK MLR MLR
comp=E,246nm,16.0s
MNK Minsk 73.97 323 *i* P **P** **18 47 46.8 +0.9**
comp=E,33nm,1.2s
MNK *i* P **P** **18 47 46.8 +0.9**
comp=N,12nm,0.9s
MNK *i* P **P** **18 47 46.8 +0.9**
comp=Z,15nm,1.0s,baz=74
MNK *i* PcP **PcP** **18 48 01.7 +0.6**
MNK *i* PP **PP** **18 50 31.8 +1.2**
MNK *i* PPP PPP 18 52 16.9
MNK *i* S **S** **18 57 20.2 +3.4**
MNK *i* ScS **ScS** **18 57 56.9 +2.3**
MNK *i* SS **SS** **19 02 06.0 +5.1**
MNK *i* SSS SSS 19 05 27.5
MNK *i* LRM MLR 19 21 15.7
comp=N,279nm,16.6s
MNK *i* LRM MLR 19 21 47.3
comp=E,246nm,16.0s
G30M tAoh Zraii Nji 74.16 24 IAmb IAmb 18 47 46.3
comp=Z,15nm,1.3s
AK09 Malin Array Si 74.24 319 P **P** **18 47 47.9 +0.4**
AK03 Malin Array Si 74.25 319 P **P** **18 47 47.1 -0.4**
AKASG Malin Array Be 74.25 319 P **P** **18 47 46.1 -1.4**
comp=Z,1.3nm,0.5s,baz=61,slow=6.2,SNR=6.5
comp=Z,1.3nm,0.5s
AKASG Malin Array Be 74.25 319 *i* P **P** **18 47 50.0 +2.5**
AKASG pmax pmax
comp=Z,3.0nm,0.7s
AKBB Malin Array Si 74.25 319 *i* P **P** **18 47 47.0 -0.5**
AKBB pmax pmax
comp=Z,44nm,3.2s
AKBB Malin Array Si 74.25 319 P **P** **18 47 47.1 -0.5**
AK08 Malin Array Si 74.25 319 P **P** **18 47 47.2 -0.3**
AK01 Malin Array Si 74.26 319 P **P** **18 47 47.2 -0.4**
AK10 Malin Array Si 74.26 319 P **P** **18 47 47.2 -0.4**
KIEV Kiev 74.26 319 P **P** **18 47 46.6 -1.0**
KIEV pmax pmax
comp=Z,44nm,2.0s
KIEV Kiev 74.26 319 P **P** **18 47 46.6 -1.0**
KIEV IAmb IAmb 18 48 06.8
comp=Z,44nm,2.0s
KIEV Kiev 74.26 319 ⇓P **P** **18 47 47.2 -0.5**
KIEV Kiev 74.26 319 P **P** **18 47 47.1 -0.5**
AK02 Malin Array Si 74.27 319 P **P** **18 47 47.3 -0.4**
AK04 Malin Array Si 74.28 319 P **P** **18 47 47.3 -0.4**
AK05 Malin Array Si 74.29 319 P **P** **18 47 47.4 -0.4**
AK11 Malin Array Si 74.29 319 P **P** **18 47 47.4 -0.4**
AK23 Malin Array Si 74.29 319 P **P** **18 47 47.4 -0.4**
AK06 Malin Array Si 74.30 319 P **P** **18 47 47.4 -0.4**
AK07 Malin Array Si 74.31 319 P **P** **18 47 47.5 -0.4**
AK12 Malin Array Si 74.31 319 P **P** **18 47 47.5 -0.4**
AK15 Malin Array Si 74.31 319 P **P** **18 47 47.5 -0.4**
AK22 Malin Array Si 74.33 319 P **P** **18 47 47.6 -0.4**
AK16 Malin Array Si 74.33 319 P **P** **18 47 47.6 -0.4**
AK18 Malin Array Si 74.34 319 P **P** **18 47 47.7 -0.4**
AK21 Malin Array Si 74.34 319 P **P** **18 47 47.7 -0.4**
BR131 Keskin Array S 74.34 307 *i* P **P** **18 47 47.2 -1.3**
BR131 Keskin Array S 74.34 307 P **P** **18 47 47.8 -0.7**
BR131 IAmb IAmb 18 50 24.2
comp=Z,34nm,1.9s
BRTR Keskin Array B 74.34 307 P **P** **18 47 47.9 -0.7**
comp=Z,2.0nm,0.9s,baz=110,slow=6.7,SNR=6.4
comp=Z,2.0nm,0.9s
BRTR Keskin Array B 74.34 307 *i* P **P** **18 47 48.7 +0.2**
BRTR pmax pmax
comp=Z,2.0nm,0.9s
AK14 Malin Array Si 74.34 319 P **P** **18 47 47.7 -0.4**
AK17 Malin Array Si 74.36 319 P **P** **18 47 47.8 -0.4**
AK20 Malin Array Si 74.37 319 P **P** **18 47 47.8 -0.4**
AK19 Malin Array Si 74.37 319 P **P** **18 47 47.9 -0.4**
AK13 Malin Array Si 74.38 319 P **P** **18 47 47.9 -0.4**
INK Inuvik 74.54 22 LR LR 19 24 17.4
comp=Z,163nm,18.6s,baz=354,slow=39
AFI Afiamalu 74.75 112 LR LR 19 17 47.2
comp=Z,78nm,18.9s,baz=120,slow=33
MMAI Mount Meron Ar 74.91 300 LR LR 19 27 10.3
comp=Z,121nm,18.6s,baz=60,slow=41
KKUL Konya-Kulu 75.03 306 P **P** **18 47 51.6 -0.9**
comp=Z,26nm,2.0s
LUBAR Lubar, Ukraine 75.38 318 P **P** **18 47 52.7 -1.4**
RNPP9 Sopachiv 76.04 320 P **P** **18 47 58.3 +0.4**
EIL Elat 76.30 297 LR LR 19 27 16.9
comp=Z,191nm,18.2s,baz=64,slow=40
KMPD K-Podol'skiy 76.61 317 P **P** **18 48 02.1 +1.0**
SUW Suwalki 76.74 323 *e*P **P** 18 47 54.5 -7.3
VRI Vrincioaia 77.32 314 ⇑P **P** **18 48 05.8 +0.6**
VRI Vrincioaia 77.32 314 ⇑P **P** **18 48 05.8 +0.6**
PLOR Plostina 77.37 314 ⇑P **P** **18 48 06.7 +1.1**
PLOR Plostina 77.37 314 ⇑P **P** **18 48 06.7 +1.1**
ONER Baraj Valea Uz 77.38 315 ⇑P **P** **18 48 05.6 +0.1**
BURAR Bucovina Array 77.71 316 ⇑P **P** **18 48 07.3 -0.2**
BURAR Bucovina Array 77.71 316 ⇑P **P** **18 48 07.3 -0.2**
BUR08 Bucovina Ar. S 77.71 317 **P** **18 48 07.0 -0.5**
BUR08 IAmb IAmb 18 48 07.8
comp=Z,29nm,1.8s
TURR Turia 77.72 315 ⇓P **P** **18 48 07.7 +0.2**
MLR Muntele Rosu 77.96 314 LR LR 19 27 51.9
comp=Z,256nm,19.9s,baz=359,slow=40
MLR Muntele Rosu 77.96 314 ⇑P **P** **18 48 09.8 +0.8**
MLR Muntele Rosu 77.96 314 ⇑P **P** **18 48 09.8 +0.8**
DAG Danmarks Havn 78.01 351 P **P** **18 48 07.7 -0.8**
DAG Danmarks Havn 78.01 351 P **P** **18 48 06.5 -2.0**
KWP Kalwaria Pacla 78.56 319 *e*P **P** **18 48 12.4 +0.4**
ARR Arges 78.87 314 ⇑P **P** **18 48 14.7 +0.8**
QRZ Quartz Range 78.91 143 P **P** **18 48 13.5 -0.4**
KOLS Kolonicke sedl 79.08 318 *e*P **P** **18 48 15.9 +1.0**
KOLS Kolonicke sedl 79.08 318 *e*P **P** **18 48 15.9 +1.0**
HFS Hagfors 79.10 331 P **P** **18 48 13.7 -1.1**
comp=Z,1.7nm,0.4s,baz=122,slow=5.4,SNR=9.1
HFS LR LR 19 26 03.2
comp=Z,589nm,18.1s,baz=64,slow=38
comp=Z,1.7nm,0.4s
MARR Marisel-Cluj 79.38 316 ⇑P **P** **18 48 16.3 -0.4**
LOT Lotru 79.41 315 ⇑P **P** **18 48 17.0 +0.1**
DRGR 79.60 316 ⇑P **P** **18 48 18.4 +0.5**
DRGR 79.60 316 ⇑P **P** **18 48 18.4 +0.5**
DRGR 79.60 316 P **P** **18 48 18.0 +0.1**
comp=Z,4.9nm,1.0s
NB2 NORSAR Subarra 79.78 332 P **P** **18 48 16.8 -1.7**
comp=Z,1.5nm,0.4s,baz=56,slow=5.9
NOA NORSAR Array B 79.78 332 P **P** **18 48 17.0 -1.5**
comp=Z,1.6nm,0.4s,baz=72,slow=8.9,SNR=18
comp=Z,1.6nm,0.4s
NORES NORESS Array B 79.78 332 P **P** **18 48 17.2 -1.3**
ABAH Abaujker 79.96 318 P **P** **18 48 20.3 +0.6**
comp=Z,13nm,0.6s
OJC Ojcow 80.08 320 *e*P **P** **18 48 19.3 -1.0**
OJC Ojcow 80.08 320 P **P** **18 48 18.9 -1.4**
OJC Ojcow 80.08 320 **P** **18 48 18.9 -1.4**
OJC Ojcow 80.08 320 P **P** **18 48 19.2 -1.1**
comp=Z,17nm,2.1s
NIE Niedzica 80.09 319 *e*P **P** **18 48 18.4 -2.1**
BKZ Black Stump Fm 80.10 140 P **P** **18 48 21.4 +0.9**
RPZ Rata Peaks 80.11 146 P **P** **18 48 20.7 +0.3**
RPZ Rata Peaks 80.11 146 **P** **18 48 20.2 -0.2**
LBZ Lake Benmore 80.13 147 P **P** **18 48 20.6 0.0**
DLBC Dease Lake 80.22 30 LR LR 19 25 54.2
comp=Z,47nm,19.0s,baz=358,slow=37
RES Resolute Bay 80.22 9 LR LR 19 28 02.7
comp=Z,76nm,19.5s,baz=22,slow=39
JMIC Jan Mayen 80.46 345 LR LR 19 27 42.9
comp=Z,88nm,18.0s,baz=42,slow=38
LANS Liptovska Anna 80.70 319 *e*P **P** **18 48 25.9 +2.2**
LANS Liptovska Anna 80.70 319 *e*P **P** **18 48 25.9 +2.2**
BFZ Birch Farm 80.93 141 P **P** **18 48 24.5 -0.3**
BFZ Birch Farm 80.93 141 P **P** **18 48 24.0 -0.9**
MDVR Moldovita 81.01 315 ⇓P **P** **18 48 25.6 +0.1**
VYHS Vyhne 81.35 319 *e*P **P** **18 48 27.7 +0.5**
VYHS Vyhne 81.35 319 *e*P **P** **18 48 27.7 +0.5**
KSP Ksiaz 81.86 322 *e*P **P** **18 48 30.1 +0.3**
VRAC Vranov 82.35 320 LR LR 19 25 57.1
comp=Z,234nm,19.7s,baz=56,slow=36
MORH Mrgy, Hungar 82.41 317 P **P** **18 48 32.7 -0.1**
TREC Trest 83.00 321 P **P** **18 48 35.2 -0.6**
comp=Z,8.1nm,1.4s
WINA Alland / Wiene 83.18 319 *i* PcP **P** **18 48 38.2 +1.4**
comp=Z,8.5nm,1.3s
RONA Rosalia, Austr 83.23 319 *i* P **P** **18 48 37.7 +0.6**
comp=Z,6.2nm,1.2s
PRU Pruhonice 83.24 322 P **P** **18 48 37.6 +0.6**
comp=Z,11nm,1.8s
ABNA Allensteig Bun 83.32 320 *e*PcP **P** **18 48 39.2 +1.8**
comp=Z,12nm,1.7s
CONA Conrad Observa 83.39 319 *e*PcP **P** **18 48 39.4 +1.4**
comp=Z,12nm,1.7s
CLL Collm 83.50 323 *e*P **P** **18 48 37.0 -1.3**
CLL Collm 83.50 323 *e*P **P** **18 48 37.0 -1.3**
CLL LH 19 18 00.0
CLL AMS AMS 19 30 00.0
comp=N,400nm,15.7s
CLL AMS AMS 19 30 00.0
comp=E,200nm,23.1s
CLL AMS AMS 19 30 00.0
comp=Z,600nm,17.9s
ARSA Arzberg 83.90 319 *e*PcP **PcP** **18 48 44.0 -0.4**
comp=Z,4.8nm,1.0s
SUMG Summit 84.14 354 P **P** **18 48 41.0 -0.7**
SUMG pmax pmax
comp=Z,24nm,1.0s
SUMG Summit 84.14 354 **P** **18 48 41.0 -0.7**
KHC Kasperske Hory 84.19 321 *i* P **P** **18 48 39.6 -2.4**
KHC pmax pmax
comp=Z,20nm,3.5s
GEC2 GERESS Array S 84.26 321 P **P** **18 48 41.7 -0.7**
GEC2 IAmb IAmb 18 48 45.9
comp=Z,8.4nm,1.2s
GERES GERESS Array B 84.26 321 P **P** **18 48 42.2 -0.1**
comp=Z,1.8nm,0.7s,baz=60,slow=4.6,SNR=15
GERES LR LR 19 27 35.7
comp=Z,167nm,20.5s,baz=59,slow=36
comp=Z,1.8nm,0.7s
GERES GERESS Array B 84.26 321 P **P** **18 48 41.5 -0.9**
YKA Yellowknife Ar 84.37 23 P **P** **18 48 41.6 -0.9**
comp=Z,1.4nm,0.7s,baz=313,slow=5.2,SNR=4.2
YKA LR LR 19 29 24.3
comp=Z,70nm,18.4s,baz=330,slow=38
comp=Z,1.4nm,0.7s
YKA Yellowknife Ar 84.37 23 *i* P **P** **18 48 43.5 +1.0**
YKA pmax pmax
comp=Z,1.0nm,0.7s
MOA Molln 84.38 320 *i* PcP **P** **18 48 43.9 +0.9**
comp=Z,21nm,1.8s
MOA Molln 84.38 320 P **P** **18 48 43.2 +0.2**
comp=Z,17nm,1.4s
SOKA Soboth 84.46 318 *i* PcP **PcP** **18 48 45.8 -1.2**
comp=Z,9.7nm,1.6s
SESA Seetaler Alpe, 84.54 319 *e*PcP **P** **18 48 44.7 +0.7**
comp=Z,14nm,1.4s
OBKA Obir 84.83 318 *i* PcP **P** **18 48 46.3 +0.9**
comp=Z,13nm,1.3s
BIOA Bad Ischl, Aus 84.83 320 *e*P **P** **18 48 45.1 -0.1**
comp=Z,8.6nm,1.4s
KBA Koelnbreinsper 85.30 319 *e*PcP **PcP** **18 48 50.7 -0.2**
comp=Z,9.3nm,1.4s
MYKA Terra Mystica 85.33 319 *i* PcP **PcP** **18 48 51.7 +0.8**
comp=Z,12nm,1.7s
LESA Schwarzleotal 85.53 320 *i* PcP **P** **18 48 49.5 +0.7**
comp=Z,5.7nm,1.0s
ABTA Abfaltersbach 85.96 319 *e*PcP **PcP** **18 48 54.4 +0.8**
comp=Z,6.2nm,0.9s
WATA Walderalm 86.23 320 *e*PcP **PcP** **18 48 55.0 +0.1**
comp=Z,3.4nm,0.9s
WTTA Wattenberg 86.23 320 *e*PcP **PcP** **18 48 53.7 -1.3**
comp=Z,0.5nm,0.4s
MOTA Moosalm 86.50 320 *e*PcP **P** **18 48 53.5 -0.2**
comp=Z,5.3nm,1.0s
SQTA Sankt Quirin 86.50 320 *e*PcP **P** **18 48 54.6 +0.9**
comp=Z,3.6nm,1.0s
RETA Reutte 86.64 321 *e*PcP **PcP** **18 48 57.0 +0.4**
comp=Z,9.1nm,1.7s
FETA Feichten 86.89 320 *e*P **P** **18 48 53.9 -1.7**
comp=Z,4.7nm,1.4s
DAVA Damuels 87.25 321 *e*PcP **P** **18 48 58.2 +0.9**
comp=Z,7.4nm,1.1s
DAVOX Davos/Dischmat 87.51 320 LR LR 19 33 07.1
comp=Z,200nm,19.4s,baz=48,slow=39
CEL Celeste 87.71 311 P **P** **18 49 00.0 +0.4**
comp=Z,18nm,1.2s
BORG Borgarnes 88.36 345 LR LR 19 31 40.1
comp=Z,193nm,20.0s,baz=347,slow=38
CASY Casey 88.94 184 **P** **18 49 03.7 -0.8**
CASY IAmb IAmb 18 49 04.5
comp=Z,14nm,1.1s
CASY Casey 88.94 184 P **P** **18 49 03.9 -0.6**
comp=Z,12nm,1.3s
EKA Eskdalemuir Ar 89.26 332 P **P** **18 49 06.1 -0.4**
comp=Z,0.7nm,0.5s,baz=43,slow=4.4,SNR=5.3
EKA LR LR 19 33 34.6
comp=Z,397nm,18.9s,baz=44,slow=38
comp=Z,0.7nm,0.5s
MBAR Mbarara 90.89 270 LR LR 19 29 28.0
comp=Z,85nm,21.6s,baz=72,slow=35
MBAR Mbarara 90.89 270 *i* P **P** **18 49 12.3 -2.8**
MBAR pmax pmax
comp=Z,3.0nm,1.0s
FRB Frobisher Bay 93.63 4 LR LR 19 33 29.8
comp=Z,82nm,21.6s,baz=333,slow=37
BMN Battle Mountai 96.92 41 P **P** **18 49 40.3 -2.1**
BMN pmax pmax
comp=Z,6.0nm,0.8s
BMN Battle Mountai 96.92 41 P **P** **18 49 40.3 -2.1**
BMN IAmb IAmb 18 49 45.6

comp=Z,5.6nm,0.8s
NVAR Mina Array Bea 97.45 43 LR LR 19 29 40.4
comp=Z,40nm,19.3s,baz=289,slow=33
MAW Mawson 99.65 199 LR LR 19 33 29.9
comp=Z,57nm,18.7s,baz=35,slow=34
PDAR Pinedale Array 99.81 36 LR LR 19 38 24.9
comp=Z,36nm,18.6s,baz=357,slow=37
ESDC Sonseca Array 99.84 320 LR LR 19 38 54.7
comp=Z,161nm,18.5s,baz=31,slow=38
VNDA Vanda 102.66 172 P **Pdif 18 50 05.3 -1.4**
comp=Z,0.3nm,0.7s,baz=334,slow=5.9,SNR=3.8
DBIC Dimbokro 119.98 292 PKP **PKPdf 18 54 59.0 -3.0**
comp=Z,2.9nm,0.9s,baz=63,slow=2.3,SNR=3.6
TROLL Troll, Antarti 120.09 198 ⇓PKiKP **PKPdf 18 54 59.7 -1.0**
comp=Z,63nm,0.4s
VNA2 Neumayer--Watz 123.42 198 PKiKP **PKPdf 18 55 06.1 -0.8**
comp=Z,2.8nm,0.7s,baz=102,slow=2.2
VNA3 Neumayer Olymp 123.89 197 PKiKP **PKPdf 18 55 06.8 -1.0**
comp=Z,0.7nm,0.4s
BDFB Brasilia 167.91 303 PKP **PKPdf 18 56 16.3 -1.6**
comp=Z,1.1nm,0.4s,baz=225,slow=8.6,SNR=1.6
BDFB Brasilia 167.91 303 PKPdf 18 56 15.5 -2.4
LPAZ La Paz 169.02 57 PKP **PKPdf 18 56 18.7 -0.5**
comp=Z,1.1nm,0.6s,baz=239,slow=5.0,SNR=4.3
LPAZ La Paz 169.02 57 PKPdf 18 56 16.8 -2.4
SIV San Ignacio 173.05 21 PKP **PKPdf 18 56 19.9 -0.7**
comp=Z,0.7nm,0.3s,baz=2.9,slow=6.0,SNR=3.8
CPUP Villa Florida 176.08 196 PKP **PKPdf 18 56 21.7 +0.4**
comp=Z,2.6nm,0.9s,baz=215,slow=3.4,SNR=4.1
CPUP Villa Florida 176.08 196 PKPdf 18 56 21.3 +0.1

IDC 05 18:50:24.6±1.7, 4°.55S×152°.30E, h157km±5km, mb3.3/3, mbtmp3.7/4, Error ellipse: s-maj=49.1km s-min=19.2km az=116.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**0.36**	**312**	P	Pn	18 50 47.0	+0.9
	165nm,0.3s,baz=62,slow=4.4,SNR=17						
KRVT				S	Sn	18 51 03.9	+1.2
	328nm,0.5s,baz=354,slow=23,SNR=16						
PMG	**Port Moresby**	**7.02**	**226**	P	Pn	18 52 05.6	+0.6
	5.3nm,0.4s,baz=8.7,slow=2.5,SNR=8.6						
PMG				S	Sn	18 53 23.9	+0.1
	13nm,0.5s,baz=280,slow=21,SNR=7.7						
WRA	**Warramunga Arr**	**23.24**	**227**	P	P	18 55 18.3	+0.2
	1.9nm,0.4s,baz=53,slow=9.6,SNR=24						
	1.9nm,0.4s						
ASAR	**Alice Springs**	**26.00**	**221**	P	P	18 55 43.0	-0.1
	0.2nm,0.4s,baz=52,slow=8.9,SNR=13						
	0.2nm,0.4s						
CMAR	**Chiang Mai Arr**	**57.31**	**295**	P	P	18 59 56.9	+0.2
	0.5nm,0.6s,baz=121,slow=5.7,SNR=6.9						
	0.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**149.75**	**288**	PKPbc	PKPbc	19 09 55.9	-1.2
	0.5nm,0.4s,baz=74,slow=2.4,SNR=6.0						

*ISK **05** 18:56:58.8, 37°.87N×26°.95E, h13km, ML3.3/10*
*THE **05** 18:56:59.1, 37°.9N±0°.9×27°.7E±°, h1km±3km, M2.9/9, MLh2.9/9*
*AFAD **05** 18:56:59.1, 37°.89N×26°.95E, h7km±3km, ML2.7*
*ATH **05** 18:56:59.0, 37°.85N×26°.97E, h11km±2km, ML3.0/6, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 05 18:56:59.1±0.8, 37°.87N±0°.02×26°.95E±0°.02, h12km±6km, n42, σ0°36/63, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**210**	P	**Pg**	**18 57 02.9**	**-0.2**
SMG				S	**Sg**	**18 57 06.2**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**210**	P	**Pg**	**18 57 03.0**	**-0.2**
SMG				S	**Sg**	**18 57 05.9**	**-0.1**
DGB	**zmir**	**0.19**	**344**	P	**Pg**	**18 57 03.3**	**-0.1**
DGB				S	**Sg**	**18 57 05.2**	**-1.0**
KRL1	**Karlovasi Samo**	**0.21**	**250**	P	**Pg**	**18 57 03.3**	**-0.3**
KRL1				S	**Sg**	**18 57 06.9**	**+0.2**
KRL1				AML	AML		
GMLD	**Gumuldur**	**0.21**	**352**	Pg	**Pg**	**18 57 03.7**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**91**	Pg	**Pg**	**18 57 04.9**	**+0.3**
KUSD				Sg	**Sb**	**18 57 09.3**	**-1.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**127**	P	**Pg**	**18 57 05.2**	**+0.3**
GCAM				S	**Sg**	**18 57 09.4**	**+0.7**
GCAM				IAML		18 57 10.0	
	comp=N,2μm,0.1s						
GCAM				IAML		18 57 10.0	
	comp=E,1μm,0.3s						
GCAM	**G?zelcaml?**	**0.28**	**127**	Pg	**Pg**	**18 57 05.3**	**+0.4**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.29**	**248**	P	**Pg**	**18 57 04.5**	**-0.6**
SAM2				S	**Sg**	**18 57 09.1**	**0.0**
SAM2				AML	AML		
BEYE	**izmir**	**0.36**	**357**	P	**Pg**	**18 57 06.4**	**0.0**
BEYE				S	**Sg**	**18 57 11.3**	**+0.1**
BEYE				IAML		18 57 12.0	
	comp=E,627nm,0.3s						
BEYE				IAML		18 57 16.0	
	comp=N,677nm,0.2s						
DDIM	**Aydin, Didim**	**0.47**	**151**	P	**Pb**	**18 57 09.0**	**-0.4**
DDIM				S	**Sg**	**18 57 14.8**	**+0.2**
DDIM				IAML		18 57 20.0	
	comp=E,486nm,0.7s						
DDIM				IAML		18 57 21.0	
	comp=N,483nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**316**	P	**Pg**	**18 57 09.3**	**+0.1**
ZEYE				S	**Sg**	**18 57 16.0**	**0.0**
ZEYE				IAML		18 57 17.0	
	comp=N,635nm,0.2s						
ZEYE				IAML		18 57 17.0	
	comp=E,497nm,0.2s						
BLCB	**Balcova**	**0.52**	**8**	P	**Pg**	**18 57 09.3**	**-0.1**
BLCB				S	**Sg**	**18 57 16.3**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**8**	Pg	**Pg**	**18 57 09.3**	**-0.1**
DUVT	**Torbali**	**0.53**	**48**	P	**Pg**	**18 57 09.5**	**+0.1**
DUVT				S	**Sg**	**18 57 16.3**	**-0.2**
DUVT				IAML		18 57 17.0	
	comp=E,632nm,0.1s						
AYDB	**Zeytinkoy-Aydi**	**0.75**	**84**	Pg	**Pb**	**18 57 13.9**	**-0.3**
AYDB				Sg	**Sb**	**18 57 24.7**	**+0.3**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**161**	Pg	**Pb**	**18 57 14.7**	**0.0**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**337**	Pg	**Pb**	**18 57 14.6**	**-0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.79**	**354**	P	**Pg**	**18 57 14.1**	**-0.4**
BAGT				S	**Sg**	**18 57 25.0**	**+0.2**
BAGT				IAML		18 57 26.0	
	comp=E,352nm,0.3s						
BAGT				IAML		18 57 28.0	
	comp=N,354nm,0.6s						
BODT	**Bodrum**	**0.85**	**160**	P	**Pg**	**18 57 15.2**	**-0.4**
BODT				S	**Sb**	**18 57 27.9**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**160**	Pg	**Pg**	**18 57 15.5**	**-0.1**
BODT				AML	AML		
FOCM	**Foa**	**0.86**	**348**	Pg	**Pb**	**18 57 16.0**	**0.0**
MLSB	**Milas**	**0.87**	**131**	Pg	**Pb**	**18 57 16.2**	**0.0**
MLSB				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	P	**Pb**	**18 57 16.6**	**+0.2**
CHOS				S	**Sb**	**18 57 28.4**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	Pg	**Pb**	**18 57 16.7**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**307**	P	**Pb**	**18 57 16.9**	**+0.5**
CHOS				S	**Sb**	**18 57 28.4**	**+0.3**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**332**	P	**Pb**	**18 57 16.9**	**+0.2**
KARB				S	**Sb**	**18 57 28.6**	**-0.1**
KARB				IAML		18 57 31.0	
	comp=N,218nm,0.2s						
KARB				IAML		18 57 31.0	
	comp=E,348nm,0.8s						
KLNA	**Kalymnos**	**0.91**	**179**	P	**Pg**	**18 57 16.3**	**-0.4**
KLNA				S	**Sg**	**18 57 28.0**	**-0.5**
KLNA				AML	AML		
BODA	**Bodrum-Mula**	**0.91**	**155**	Pg	**Pb**	**18 57 16.9**	**0.0**
CAMT	**Merkez**	**0.92**	**18**	P	**Pb**	**18 57 17.0**	**-0.1**
CAMT				S	**Sn**	**18 57 30.6**	**-0.6**
CAMT				IAML		18 57 32.0	
	comp=N,604nm,0.3s						
CAMT				IAML		18 57 32.0	
	comp=E,524nm,0.4s						
EAG2	**Marmaro, Chios**	**0.95**	**316**	P	**Pb**	**18 57 17.5**	**0.0**
EAG2				S	**Sb**	**18 57 30.8**	**+0.8**
NAZL	**Nazilli-Aydin**	**1.06**	**84**	Pg	**Pg**	**18 57 19.6**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.13**	**42**	Pn	**Pn**	**18 57 21.1**	**+0.3**
AKS	**Akhisar**	**1.22**	**34**	Pn	**Pn**	**18 57 21.9**	**-0.1**
DAT	**Datca**	**1.24**	**156**	P	**Pb**	**18 57 22.6**	**0.0**
DAT				AML	AML		
DAT	**Datca**	**1.24**	**156**	Pn	**Pb**	**18 57 22.6**	**0.0**
YER	**Yerkesik**	**1.29**	**124**	P	**Pn**	**18 57 23.0**	**0.0**
YER				AML	AML		
YER	**Yerkesik**	**1.29**	**124**	Pn	**Pb**	**18 57 23.2**	**-0.1**
PRK	**Paraskevi**	**1.48**	**339**	P	**Pb**	**18 57 26.1**	**-0.4**
PRK	**Paraskevi**	**1.48**	**339**	P	**Pn**	**18 57 26.0**	**+0.5**
TURN	**Turunc**	**1.50**	**136**	Pn	**Pn**	**18 57 26.3**	**+0.4**
DION	**Dionisos Attik**	**2.40**	**276**	P	**Pn**	**18 57 38.4**	**+0.2**

*IDC **05** 19:00:46.2±1.4, 7°.14S×126°.86E, h326km±15km, mb3.1/6, mbtmp4.0/10, Error ellipse: s-maj=24.4km s-min=12.8km az=88.0*
*NEIC **05** 19:00:47.6±2.0, 7°.25S±0°.10×126°.66E±0°.09, h335km±4km, mb4.3/8, Error ellipse: s-maj=14.1km s-min=12.6km az=195.0*
*DJA **05** 19:00:48.7±0.4, 7°.S±4°×12°.7E±°, h319km±6km, M4.1/15, mB4.8/3, mb4.0/7, MLv4.1/15, Mw(mB)4.0/3*
ISC 05 19:00:46.6±0.5, 7°.31S±0°.05×126°.75E±0°.07, h350km, n45, σ2°62/51, mb3.6/8, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SOEI	**Soe**	**3.46**	**225**	P	**Pn**	**19 01 49.7**	**-0.6**
SOEI	**Soe**	**3.46**	**225**	P	**Pn**	**19 01 50.1**	**-0.3**
SOEI				S	**S**	**19 02 39.3**	**-2.4**
SOEI				AML	AML		
NLAI	**Namlea**	**4.05**	**5**	P	**Pn**	**19 01 57.5**	**+1.3**
NLAI				AML	AML		
BATI	**Baumata**	**4.20**	**226**	P	**Pn**	**19 01 58.1**	**+0.4**
	274nm,0.4s,baz=103,slow=1.1,SNR=102						
BATI				S	**S**	**19 02 50.4**	**-4.7**
	321nm,0.6s,baz=120,slow=3.1,SNR=8.9						
BATI	**Baumata**	**4.20**	**226**	P	**Pn**	**19 01 58.0**	**+0.3**
BATI				AML	AML		
SAUI	**Saumlaki**	**4.56**	**99**	Pn	**Pn**	**19 02 03.2**	**+1.7**
SAUI	**Saumlaki**	**4.56**	**99**	P	**Pn**	**19 02 04.5**	**+3.0**
SAUI				AML	AML		
MMRI	**Maumere**	**4.66**	**253**		**Pn**	**19 02 01.9**	**-0.7**
MMRI	**Maumere**	**4.66**	**253**	P	**Pn**	**19 02 01.3**	**-1.3**
MMRI				AML	AML		
EDFI	**Ende, Flores**	**5.21**	**254**	P	**Pn**	**19 02 07.5**	**-1.2**
EDFI				AML	AML		
SANI	**Sanana**	**5.28**	**352**	P	**Pn**	**19 02 09.4**	**+0.1**
	0.1nm23nm,0.5s						
SANI				AML	AML		
WSI	**Waingapu**	**6.80**	**249**	P	**Pn**	**19 02 25.4**	**-1.3**
FAKI	**Fak Fak**	**7.00**	**52**	Pn	**Pn**	**19 02 27.4**	**-1.6**
SIJI	**Sorong**	**7.82**	**35**	P	**Pn**	**19 02 37.3**	**-1.4**
	8.7nm,0.3s,baz=197,slow=19,SNR=44						
SIJI				S	**S**	**19 04 02.4**	**-7.7**
	6.5nm,0.3s,baz=102,slow=23,SNR=14						
KNRA	**Kununurra**	**8.55**	**167**	Pn	**P**	**19 02 48.6**	**-1.4**
TOLI2	**Tolitoli**	**10.27**	**324**	P	**P**	**19 03 09.6**	**+0.5**
FITZ	**Fitzroy Crossi**	**10.78**	**186**	P	**P**	**19 03 14.5**	**-0.2**
	2.4nm,0.3s,baz=14,slow=19,SNR=35						
FITZ				S	**S**	**19 05 07.5**	**-7.4**
	3.1nm,0.9s,baz=288,slow=20,SNR=1.8						
FITZ	**Fitzroy Crossi**	**10.78**	**186**	P	**P**	**19 03 14.8**	**0.0**
JAGI	**Jajag, Banyuwa**	**12.53**	**264**	P	**P**	**19 03 32.1**	**-2.1**
WB0	**Warramunga Arr**	**14.44**	**150**		**Pn**	**19 03 57.5**	**+0.4**
WRAB	**Tennant Creek**	**14.56**	**150**	P	**P**	**19 03 53.3**	**-3.1**
WRA	**Warramunga Arr**	**14.56**	**150**	P	**P**	**19 03 56.2**	**-0.2**
	1.2nm,0.3s,baz=327,slow=12,SNR=41						
WRA				S	**S**	**19 06 27.7**	**-6.2**
	0.3nm,0.6s,baz=323,slow=21,SNR=0.9						
WRA	**Warramunga Arr**	**14.56**	**150**	P	**Pn**	**19 03 57.8**	**-0.6**
WR8	**Warramunga Arr**	**14.65**	**150**		**Pn**	**19 03 59.5**	**0.0**
MBWA	**Marble Bar**	**15.35**	**206**	P	**Pn**	**19 04 06.8**	**-0.8**
MBWA				IAmb	IAmb	19 04 12.5	
	comp=Z,17nm,1.1s						
AS31	**Alice Springs**	**17.66**	**158**		**P**	**19 04 33.2**	**+3.2**
AS31				IAmb	IAmb	19 04 33.8	
	comp=Z,6.8nm,0.3s						
ASAR	**Alice Springs**	**17.66**	**158**	P	**P**	**19 04 33.1**	**+3.1**
	comp=Z,9.5nm,0.3s,baz=335,slow=11,SNR=344						
ASAR				S	**S**	**19 07 35.6**	**+0.4**
	comp=Z,1.0nm,0.8s,baz=342,slow=22,SNR=8.0						
ASAR	**Alice Springs**	**17.66**	**158**	P	**P**	**19 04 32.9**	**+2.9**
STKA	**Stephens Creek**	**28.09**	**152**	P	**P**	**19 06 10.2**	**+2.8**
	comp=Z,1.9nm,0.5s,baz=325,slow=8.5,SNR=3.8						
	comp=Z,1.9nm,0.5s						
STKA	**Stephens Creek**	**28.09**	**152**	P	**P**	**19 06 09.7**	**+2.3**
JWT	**Wachi**	**43.14**	**10**	P	**P**	**19 08 11.3**	**-2.5**
JWT				IAmb	IAmb	19 08 11.7	
	comp=Z,11nm,0.6s						
MKAR	**Makanchi Array**	**66.75**	**328**	P	**P**	**19 11 02.9**	**+1.7**
	comp=Z,0.1nm,0.4s,baz=116,slow=8.5,SNR=4.4						
	comp=Z,0.1nm,0.4s						
MKAR	**Makanchi Array**	**66.75**	**328**	P	**P**	**19 11 02.1**	**+0.9**
MAKZ	**Makanchi**	**66.93**	**328**	P	**P**	**19 11 04.9**	**+2.6**
MAKZ				IAmb	IAmb	19 11 15.8	
	comp=Z,5.4nm,1.2s						
DRK	**Karamyk**	**68.84**	**317**	P	**P**	**19 11 17.8**	**+3.1**
ZALV	**Zalesovo Beam**	**70.47**	**335**	P	**P**	**19 11 24.7**	**+1.0**
	comp=Z,1.0nm,0.7s,baz=138,slow=6.7,SNR=4.2						
	comp=Z,1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**70.47**	**335**	P	**P**	**19 11 24.1**	**+0.4**
VNDA	**Vanda**	**72.55**	**172**	P	**P**	**19 11 38.6**	**+2.9**
	comp=Z,0.4nm,0.6s,baz=316,slow=7.7,SNR=6.2						
	comp=Z,0.4nm,0.6s						
VNDA	**Vanda**	**72.55**	**172**	P	**P**	**19 11 38.2**	**+2.4**
BVAR	**Borovoye Array**	**76.63**	**329**	P	**P**	**19 12 01.2**	**+1.9**
	comp=Z,0.4nm,0.4s,baz=108,slow=9.3,SNR=4.5						
	comp=Z,0.4nm,0.4s						
QSPA	**South Pole Qui**	**82.67**	**180**	P	**P**	**19 12 33.3**	**+1.8**
	comp=Z,0.3nm,0.4s,baz=334,slow=3.3,SNR=2.1						
	comp=Z,0.3nm,0.4s						
QSPA	**South Pole Qui**	**82.67**	**180**	P	**P**	**19 12 33.1**	**+1.6**
BOZ	**Bozeman (W)**	**117.07**	**42**		**PKiKP**	**19 18 50.4**	**-0.4**
TCRU	**Three Creeks R**	**118.45**	**50**		**PKiKP**	**19 18 57.5**	**+3.7**
MLDN	**Muldoon**	**133.21**	**56**		**PKiKP**	**19 19 22.5**	**-0.6**

THE 05 19:15:58.5, 38°N±2°×2°6E±°, h8km±3km, M2.3/5, MLh2.3/5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.35**	**112**	P	Pg	19 16 05.5	+0.1
SMG				S	Sg	19 16 10.4	+0.5
SMG				AML	AML		
CHOS	**Chios island**	**0.62**	**332**	P	Pg	19 16 10.4	-0.2
CHOS				S	Sb	19 16 19.9	-0.7
CHOS				AML	AML		
APE	**Apeiranthos**	**1.05**	**223**	P	Pg	19 16 18.4	-0.3

*AFAD **05** 19:16:12.7, 37°.97N×27°.21E, h7km±4km, ML2.1*
*ISK **05** 19:16:12.5, 37°.97N×27°.20E, h11km, ML2.4/11*
ISC 05 19:16:12.8±0.9, 37°.98N±0°.02×27°.20E±0°.03, h14km±7km, n18, σ0°40/30, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.14**	**149**	Pg	**Pg**	**19 16 16.1**	**-0.2**
KUSD				Sg	**Sg**	**19 16 18.7**	**0.0**
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.24**	**294**	Pg	**Pb**	**19 16 18.7**	**-0.3**
GMLD				Sg	**Sb**	**19 16 22.9**	**-0.3**
GMLD				AML	AML		
DGB	**zmir**	**0.26**	**287**	P	**Pb**	**19 16 19.2**	**-0.1**
DGB				S	**Sg**	**19 16 22.5**	**+0.4**
GCAM	**G?zelcaml?**	**0.28**	**174**	P	**Pb**	**19 16 18.9**	**-0.6**
GCAM				S	**Sg**	**19 16 22.3**	**-0.1**
GCAM				IAML		19 16 23.0	
	comp=N,434nm,0.2s						
GCAM				IAML		19 16 24.0	
	comp=E,344nm,0.4s						
GCAM	**G?zelcaml?**	**0.28**	**174**	Pg	**Pg**	**19 16 18.7**	**+0.1**
GCAM				Sg	**Sg**	**19 16 22.8**	**+0.4**
GCAM				AML	AML		
DUVT	**Torbali**	**0.31**	**39**	P	**Pg**	**19 16 19.1**	**-0.1**
DUVT				S	**Sg**	**19 16 23.0**	**-0.6**
DUVT				IAML		19 16 24.0	
	comp=E,554nm,0.2s						
BEYE	**izmir**	**0.33**	**319**	P	**Pb**	**19 16 20.4**	**-0.1**
BEYE				S	**Sg**	**19 16 24.3**	**+0.2**
BEYE				IAML		19 16 27.0	
	comp=N,216nm,0.3s						
BLCB	**Balcova**	**0.43**	**343**	Pg	**Pg**	**19 16 21.7**	**+0.4**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.52**	**176**	P	**Pb**	**19 16 23.8**	**+0.1**
DDIM				S	**Sg**	**19 16 30.4**	**+0.5**
DDIM				IAML		19 16 34.0	
	comp=E,144nm,0.3s						
DDIM				IAML		19 16 39.0	
	comp=N,225nm,1.6s						
AYDB	**Zeytinkoy-Aydi**	**0.55**	**93**	Pg	**Pg**	**19 16 23.7**	**+0.1**
AYDB				Sg	**Sg**	**19 16 31.2**	**+0.3**
AYDB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.61**	**296**	P	**Pn**	**19 16 27.0**	**0.0**
ZEYE				S	**Sb**	**19 16 34.2**	**+0.5**
ZEYE				IAML		19 16 37.0	
	comp=N,111nm,0.3s						
ZEYE				IAML		19 16 38.0	
	comp=E,98nm,0.4s						
BAGT	**Foa**	**0.73**	**338**	P	**Pb**	**19 16 27.4**	**+0.1**
BAGT				S	**Sg**	**19 16 35.5**	**-1.1**
MLSB	**Milas**	**0.82**	**146**	Pg	**Pb**	**19 16 28.8**	**0.0**
MLSB				Sg	**Sb**	**19 16 40.5**	**+0.7**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**0.86**	**90**	Pg	**Pb**	**19 16 29.6**	**0.0**
NAZL				AML	AML		
BODT	**Bodrum**	**0.92**	**174**	Pg	**Pb**	**19 16 30.4**	**-0.1**
BODT				AML	AML		
GOMA	**Golmarmara-Man**	**0.92**	**37**	Pg	**Pb**	**19 16 30.9**	**+0.3**
GOMA				AML	AML		
YER	**Yerkesik**	**1.20**	**134**	Pn	**Pg**	**19 16 35.7**	**-0.2**
YER				AML	AML		
TURN	**Turunc**	**1.46**	**145**	Pn	**Pn**	**19 16 38.3**	**-0.4**
TURN				AML	AML		

*SJA **05** 19:23:18.6±0.7, 31°.20S×72°.16W, h29km±3km, ML3.6, MW4.0*
*GUC **05** 19:23:21.5±0.9, 31°.18S×72°.01W, h52km±5km, ML3.9, Presumed earthquake*
ISC 05 19:23:19.4±1.5, 31°.16S±0°.03×72°.13W±0°.07, h21km±5km, n43, σ1°55/65, 3D, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.65**	**42**	*e*P	**Pn**	**19 23 34.0**	**+0.6**
CO06				*e*S	**Sn**	**19 23 42.9**	**-0.2**
CO06				IAML		19 23 44.4	
	comp=E,4μm,0.3s						
CO02	**Combarbal**	**0.97**	**93**	*e*P	**Pn**	**19 23 37.9**	**-0.1**
CO02				*e*S	**Sn**	**19 23 50.5**	**-0.8**
CO02				IAML		19 23 50.5	
	comp=Z,5μm,0.3s						
CO02	**Combarbal**	**0.97**	**93**	⇓*i*P	**Pn**	**19 23 38.1**	**+0.1**
CO02				*e*S	**Sn**	**19 23 49.8**	**-1.4**
CO03	**El Pedregal**	**1.28**	**76**	*e*P	**Pb**	**19 23 43.0**	**+0.1**
CO03				IAML		19 24 03.1	
	comp=Z,1μm,0.3s						
CO03	**El Pedregal**	**1.28**	**76**	⇓*i*P	**Pb**	**19 23 42.8**	**-0.1**
CO03				*e*S	**Sn**	**19 23 58.2**	**-0.6**
CO03				IAML		19 23 59.8	
	comp=N,4μm,0.1s						
CO04	**Los Peladeros**	**1.32**	**132**	⇓*i*P	**Pb**	**19 23 43.2**	**-0.6**
CO04				*e*S	**Sn**	**19 23 58.8**	**-1.4**
CO04				IAML		19 23 59.7	
	comp=E,5μm,0.2s						
CO05	**La Serena**	**1.46**	**32**	*e*P	**Pb**	**19 23 46.0**	**+0.2**
CO05				*e*S	**Sb**	**19 24 04.0**	**0.0**
GO04	**Tololo Observa**	**1.51**	**50**	*e*P	**Pb**	**19 23 46.7**	**-0.3**
GO04				IAML		19 24 10.3	
	comp=Z,2μm,0.1s						
GO04	**Tololo Observa**	**1.51**	**50**	*e*P	**Pb**	**19 23 46.6**	**-0.3**
GO04				*e*S	**Sn**	**19 24 04.8**	**0.0**
GO04				IAML		19 24 09.8	
	comp=N,4μm,0.3s						
VA01	**Torpederas**	**1.90**	**168**	*e*P	**Pn**	**19 23 50.5**	**-0.2**
VA01				*e*S	**Sn**	**19 24 12.2**	**-1.8**
VA01				IAML		19 24 13.1	
	comp=Z,229nm,0.2s						
VA01	**Torpederas**	**1.90**	**168**	*e*P	**Pn**	**19 23 50.5**	**-0.2**
ROCH	**El Roble**	**2.04**	**152**	*e*P	**Pn**	**19 23 53.5**	**+0.6**
ROCH				IAML		19 24 17.9	
	comp=N,828nm,0.4s						
VA03	**San Esteban**	**2.09**	**140**	*e*P	**Pb**	**19 23 54.9**	**-1.8**
VA03				IAML		19 24 25.6	
	comp=Z,712nm,0.8s						
VA03	**San Esteban**	**2.09**	**140**	*e*P	**Pn**	**19 23 54.5**	**+1.1**
VA03				*i* S	**Sn**	**19 24 18.5**	**-0.4**
VA03				IAML		19 24 21.5	
	comp=E,2μm,0.2s						
CO01	**Juntas del Tor**	**2.12**	**57**	*e*P	**Pb**	**19 23 56.0**	**-1.3**
CO01				*e*S	**Sb**	**19 24 22.0**	**-1.2**
CO01				IAML		19 24 23.7	
	comp=Z,254nm,0.1s						
CO01	**Juntas del Tor**	**2.12**	**57**	*e*P	**Pb**	**19 23 56.1**	**-1.2**
CO01				*e*S	**Sb**	**19 24 21.2**	**-2.0**
MT02	**Curacav**	**2.26**	**158**	*e*P	**Pn**	**19 23 55.8**	**+0.3**
MT02				*e*S	**Sn**	**19 24 23.5**	**+0.7**
MT02				IAML		19 24 42.8	
	comp=Z,167nm,0.6s						
MT02	**Curacav**	**2.26**	**158**	*e*P	**Pn**	**19 23 55.9**	**+0.3**
PEL	**Peldehue**	**2.33**	**149**	*e*P	**Pn**	**19 23 57.8**	**+1.2**
PEL				*e*S	**Sn**	**19 24 24.6**	**0.0**
PEL				IAML		19 24 33.9	
	comp=Z,319nm,0.6s						
PEL	**Peldehue**	**2.33**	**149**	*e*P	**Pn**	**19 23 57.4**	**+0.8**
PEL				IAML		19 24 24.7	
	comp=E,538nm,0.3s						
LCO	**Las Campanas**	**2.48**	**30**	*e*P	**Pn**	**19 24 00.4**	**+1.6**
LCO				*e*S	**Sn**	**19 24 24.6**	**-4.0**
LCO				IAML		19 24 46.9	
	comp=Z,316nm,0.3s						
LCO	**Las Campanas**	**2.48**	**30**	*e*P	**Pn**	**19 24 00.1**	**+1.3**
LCO				IAML		19 24 31.3	
	comp=Z,2μm,0.2s						
AROD	**Rodeo**	**2.50**	**67**	*e*P	**Pb**	**19 24

MT13	**San Alfonso**	**3.01**	**149**	*eP*	**Pn**	**19 24 08.3**	**+2.2**
MT13				*eS*	**Sn**	**19 24 41.8**	**+0.2**
MT13				IAML		19 25 01.4	
	comp=Z,203nm,0.7s						
SJA	**San Juan**	**3.08**	**98**	*eP*	Pb	19 24 24.1	+11
SJA				*eS*	**Sb**	**19 24 57.8**	**+7.1**
SJA				IAML		19 24 58.4	
	comp=Z,161nm,0.1s						
AC04	**Llanos de Chal**	**3.09**	**18**	*eP*	**Pn**	**19 24 08.3**	**+1.3**
RTLL	**Cerro Villicun**	**3.14**	**94**	*eP*	**Pn**	**19 24 07.3**	**-0.5**
RTLL				*eS*	**Sn**	**19 24 46.8**	**+2.1**
RTLL				IAML		19 25 05.2	
	comp=Z,339nm,0.4s						
BO01	**Tunca**	**3.34**	**165**	*eP*	**Pn**	**19 24 11.3**	**+0.8**
BO01				IAML		19 25 11.2	
	comp=Z,92nm,0.6s						
CFA	**Coronel Fontan**	**3.36**	**99**	*eP*	**Pn**	**19 24 09.7**	**-1.1**
CFA				IAML		19 25 12.2	
	comp=Z,99nm,0.4s						
AAGR	**Agrelo**	**3.40**	**125**	*eP*	**Pn**	**19 24 10.8**	**-0.5**
AAGR				IAML		19 25 19.0	
	comp=Z,154nm,1.7s						
GO03	**Copiapo**	**3.92**	**25**	*eP*	**Pn**	**19 24 20.4**	**+1.8**
GO03				IAML		19 25 35.0	
	comp=Z,70nm,0.4s						

*MOS **05** 19:29:59.9,41˚.77N×48˚.80E,h21km, MPVA3.9*
*AZER **05** 19:30:01.9,41˚.65N×48˚.67E,h6km,ml2.6*
*DRS **05** 19:30:01.8,41˚.79N×48˚.84E,h24km*

ISC 05 19:30:02.5±1.2, 41˚.77N±0˚.02×48˚.74E±0˚.03, h9km±9km, n46,σ1§30/89, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRN	**Derbent**	**0.41**	**310**	*eP*g	**Pg**	**19 30 10.3**	**-0.1**
DRN				*eS*g	**Sg**	**19 30 17.1**	**+1.3**
QSAR	**Qusar**	**0.44**	**235**	P	**Pg**	**19 30 10.9**	**-0.2**
QSAR				S	**Sg**	**19 30 18.3**	**+1.4**
QUBA	**Quba, Azerbaij**	**0.45**	**205**	P	**Pg**	**19 30 11.2**	**-0.1**
QUBA				S	**Sg**	**19 30 18.6**	**+1.2**
KSMR	**Kasumkent**	**0.49**	**250**	*eP*g	**Pg**	**19 30 11.9**	**-0.2**
KSMR				*eS*g	**Sg**	**19 30 20.2**	**+1.7**
SIZA	**Siyzn**	**0.70**	**170**	P	**Pb**	**19 30 15.4**	**-1.5**
SIZA				S	**Sb**	**19 30 26.6**	**-0.2**
XNQ	**Khinaliq**	**0.75**	**217**	P	**Pg**	**19 30 16.8**	**-0.2**
XNQ				S	**Sb**	**19 30 28.9**	**+0.7**
AKT	**Akhty**	**0.81**	**250**	*eP*g	**Pg**	**19 30 17.8**	**-0.4**
AKT				*eS*g	**Sg**	**19 30 30.3**	**+1.5**
URKR	**Urkarakh**	**0.92**	**296**	*eP*g	**Pg**	**19 30 19.5**	**-0.7**
URKR				*eS*g	**Sg**	**19 30 33.2**	**+1.0**
ATGJ	**Altiaghaj**	**0.92**	**171**	P	**Pb**	**19 30 19.7**	**-1.0**
ATGJ				S	**Sn**	**19 30 33.2**	**-1.8**
PQL	**Pirkuli**	**0.98**	**187**	P	**Pn**	**19 30 21.5**	**-1.1**
PQL				S	**Sn**	**19 30 36.2**	**-0.6**
IML	**Ismayilli**	**1.06**	**204**	P	**Pb**	**19 30 22.3**	**-0.8**
IML				S	**Sb**	**19 30 37.2**	**+0.1**
QBL	**Gabala**	**1.07**	**220**	P	**Pg**	**19 30 22.0**	**-1.0**
QBL				S	**Sg**	**19 30 37.7**	**+0.8**
GBS	**Qobustan**	**1.24**	**173**	P	**Pn**	**19 30 27.4**	**+1.3**
GBS				S	**Sn**	**19 30 43.8**	**+0.8**
KMKR	**Kumukh**	**1.28**	**287**	*eP*g	**Pn**	**19 30 25.7**	**-1.0**
KMKR				*eS*g	**Sg**	**19 30 44.4**	**+0.6**
SEKA	**Sheki**	**1.29**	**245**	P	**Pn**	**19 30 25.6**	**-1.1**
SEKA				S	**Sg**	**19 30 43.9**	**-0.1**
KDMR	**Kurdemir**	**1.45**	**197**	Pn	**Pn**	**19 30 28.6**	**-0.3**
KDMR				Sn	**Sg**	**19 30 50.8**	**+1.5**
GNBR	**Gunib**	**1.46**	**296**	*eP*g	**Pn**	**19 30 28.6**	**-0.5**
GNBR				*eS*g	**Sn**	**19 30 48.9**	**+0.4**
NDR	**Nardaran**	**1.51**	**141**	Pn	**Pg**	**19 30 31.2**	**-0.3**
NDR				Sn	**Sg**	**19 30 54.8**	**+3.6**
ARKR	**Arakani**	**1.54**	**303**	*eP*g	**Pn**	**19 30 30.1**	**-0.2**
ARKR				*eS*g	**Sb**	**19 30 52.0**	**+1.0**
ZKTA	**Zakatala**	**1.59**	**266**	Pn	**Pn**	**19 30 31.2**	**+0.3**
ZKTA				Sn	**Sg**	**19 30 54.9**	**+1.1**
MNGR	**Mingechevir, A**	**1.60**	**232**	Pn	**Pg**	**19 30 32.8**	**-0.3**
MNGR				Sn	**Sb**	**19 30 54.0**	**+1.6**
BUJR	**Buynaksk**	**1.61**	**312**	*eP*g	**Pn**	**19 30 30.2**	**-1.0**
BUJR				*eS*g	**Sg**	**19 30 54.2**	**0.0**
ZRD	**Zardab**	**1.69**	**209**	Pn	**Pb**	**19 30 32.7**	**-1.0**
ZRD				Sn	**Sg**	**19 30 56.4**	**-0.4**
XNZR	**Khunzakh**	**1.70**	**298**	*eP*g	**Pn**	**19 30 32.2**	**-0.3**
XNZR				*eS*g	**Sn**	**19 30 56.0**	**+1.5**
KRNR	**Karanay**	**1.73**	**308**	*eP*g	**Pn**	**19 30 32.8**	**0.0**
KRNR				*eS*g	**Sb**	**19 30 57.0**	**+0.7**
UNCR	**Uncukul**	**1.73**	**304**	*eP*g	**Pn**	**19 30 33.0**	**+0.3**
UNCR				*eS*g	**Sb**	**19 30 57.4**	**+1.1**
TLTR	**Tlyarata**	**1.81**	**281**	*eP*g	**Pn**	**19 30 34.0**	**-0.1**
TLTR				*eS*g	**Sn**	**19 30 59.2**	**+1.9**
DBC	**Dubki**	**1.89**	**312**	*eP*g	**Pn**	**19 30 34.5**	**-0.6**
DBC				*eS*g	**Sn**	**19 31 00.6**	**+1.5**
BRDA	**Brd**	**1.91**	**219**	Pn	**Pn**	**19 30 35.7**	**+0.5**
BRDA				Sn	**Sb**	**19 31 02.3**	**+0.7**
SAAT	**Saatly**	**1.92**	**187**	Pn	**Pb**	**19 30 36.2**	**-1.5**
DLMR	**Dylym**	**2.04**	**310**	*eP*g	**Pn**	**19 30 36.8**	**-0.1**
DLMR				*eS*g	**Sn**	**19 31 04.6**	**+2.1**
AGDM	**Agdam**	**2.07**	**217**	Pn	**Pn**	**19 30 37.7**	**+0.2**
AGDM				Sn	**Sb**	**19 31 06.1**	**0.0**
BTLR	**Botlikh**	**2.08**	**296**	*eP*g	**Pn**	**19 30 37.3**	**-0.3**
BTLR				*eS*g	**Sn**	**19 31 05.2**	**+1.6**
GANJ	**Ganja**	**2.14**	**239**	Pn	**Pn**	**19 30 38.2**	**-0.2**
GANJ				Sn	**Sn**	**19 31 06.4**	**+1.1**
BLQ	**Beylaqan**	**2.23**	**204**	Pn	**Pn**	**19 30 40.8**	**+1.1**
BLQ				Sn	**Sn**	**19 31 09.3**	**+1.9**
DVE	**Vedeno**	**2.27**	**302**	*eP*n	**Pg**	**19 30 45.7**	**-0.4**
DVE				*eS*n	**Sg**	**19 31 15.0**	**-0.6**
GDB	**GEDABAY**	**2.49**	**246**	Pn	**Pn**	**19 30 43.6**	**+0.3**
GDB				Sn	**Sn**	**19 31 15.0**	**+1.2**
QRD	**Qoradiz**	**2.55**	**206**	Pn	**Pn**	**19 30 44.4**	**+0.4**
QRD				Sn	**Sn**	**19 31 16.0**	**+0.9**
QZX	**Qazax, Azerbai**	**2.63**	**255**	Pn	**Pn**	**19 30 47.7**	**+2.5**
QZX				Sn	**Sn**	**19 31 19.5**	**+2.2**
YRD	**Yardimli**	**2.88**	**188**	Pn	**Pb**	**19 30 50.6**	**-3.5**
YRD				Sn	**Sn**	**19 31 23.2**	**-0.2**
LKRN	**Lenkeran, Azer**	**3.06**	**179**	Pn	**Pb**	**19 30 54.0**	**-3.0**
LKRN				Sn	**Sn**	**19 31 26.9**	**-0.7**
LRK	**Lerik**	**3.14**	**186**	Pn	**Pn**	**19 30 53.6**	**+1.4**
LRK				Sn	**Sn**	**19 31 31.4**	**+1.5**
ASTR	**Astara**	**3.21**	**179**	Pn	**Pn**	**19 30 54.2**	**+1.2**
ASTR				Sn	**Sn**	**19 31 31.0**	**-0.3**
SBZ	**Shahbuz**	**3.39**	**227**	Pn	**Pb**	**19 30 59.6**	**-3.5**
TRLG	**Trialeti**	**3.49**	**268**	*eP*n	**Pn**	**19 30 58.4**	**+1.3**
TRLG				*eS*n	**Sn**	**19 31 35.7**	**-2.8**
ORD	**Ordubad**	**3.53**	**217**	Pn	**Pn**	**19 30 58.4**	**+0.8**

JMA 05 19:33:49.5±0.2, 31˚.3N±0˚.4×128˚.8E±0˚.6, h12km±1km, MV3.2/29, SW OFF KYUSHU, Northwest of Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	**0.88**	**67**	P	Pg	19 34 06.0	-0.5
JSJ				*eS*	Sg	19 34 18.0	0.0
JFU	**Fukue jima 2**	**1.31**	**360**	P	Pn	19 34 13.4	-0.2
JFU				S	Sn	19 34 31.3	+0.3
JSU	**Suzuyama**	**1.46**	**83**	P	Pn	19 34 15.8	+0.1
JKC	**Kuchinoerabu**	**1.51**	**125**	P	Pb	19 34 17.3	-0.2
JYAK	**Yakushimahirau**	**1.86**	**126**	*eP*	Pn	19 34 20.4	-0.8
JTN	**Tanegashima 3**	**2.02**	**109**	P	Pn	19 34 23.0	-0.4

ISK 05 19:34:24.1, 37˚.99N×27˚.15E, h5km, ML1.6/5, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMLD	**Gumuldur**	**0.21**	**296**	Pg	Pg	19 34 29.4	+1.2
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**167**	Pg	Pg	19 34 30.3	+0.5
GCAM				AML	AML		
BLCB	**Balcova**	**0.41**	**348**	Pg	Pg	19 34 32.6	+0.6
BLCB				Sg	Sg	19 34 38.7	+1.3
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.59**	**94**	Pg	Pg	19 34 35.9	+0.5
AYDB				Sg	Sb	19 34 44.6	-1.0
AYDB				AML	AML		
MLSB	**Milas**	**0.85**	**144**	Pg	Pb	19 34 41.0	-0.3
MLSB				AML	AML		

AFAD 05 19:35:21.7, 37˚.89N×26˚.91E, h7km±1km, ML1.3,

Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.16**	**352**	P	Pg	19 35 25.3	+0.2
DGB				IAML		19 35 28.0	
	comp=E,72nm,0.1s						
DGB				S	Sg	19 35 28.3	+1.0
GCAM	**G?zelcaml?**	**0.32**	**126**	P	Pg	19 35 28.3	+0.4
GCAM				S	Sg	19 35 33.3	+1.2
GCAM				IAML		19 35 37.0	
	comp=E,42nm,0.8s						
BEYE	**izmir**	**0.34**	**2**	P	Pg	19 35 28.4	+0.1
BEYE				S	Sg	19 35 33.5	+0.7
DUVT	**Torbali**	**0.54**	**52**	P	Pg	19 35 32.4	+0.3
DUVT				IAML		19 35 43.0	
	comp=E,31nm,1.0s						

*ISK **05** 19:42:25.7, 37˚.92N×26˚.65E, h17km, ML2.5/13*
*AFAD **05** 19:42:26.2, 37˚.93N×26˚.67E, h7km±2km, ML2.2*
*THE **05** 19:42:26.2, 38˚N±1˚×27˚E±˚, h10km±3km, M2.7/8, MLh2.7/8*

ISC 05 19:42:26.0±1.0, 37˚.92N±0˚.03×26˚.64E±0˚.03, h12km±8km, n26,σ0§47/41, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.24**	**55**	P	**Pg**	**19 42 30.9**	**-0.2**
DGB				IAML		19 42 34.0	
	comp=N,472nm,0.3s						
DGB				IAML		19 42 34.0	
	comp=E,472nm,0.1s						
DGB				S	**Sg**	**19 42 34.1**	**-0.4**
SMG	**Samos**	**0.26**	**142**	P	**Pg**	**19 42 31.5**	**+0.1**
SMG				S	**Sg**	**19 42 35.6**	**+0.5**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.27**	**54**	Pg	**Pg**	**19 42 31.5**	**-0.2**
GMLD				Sg	**Sg**	**19 42 35.8**	**+0.3**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.34**	**342**	P	**Pg**	**19 42 32.8**	**-0.1**
ZEYE				S	**Sg**	**19 42 38.0**	**+0.5**
ZEYE				IAML		19 42 38.0	
	comp=N,582nm,0.4s						
ZEYE				IAML		19 42 38.0	
	comp=E,340nm,0.2s						
BEYE	**izmir**	**0.39**	**36**	P	**Pg**	**19 42 33.5**	**-0.3**
BEYE				S	**Sg**	**19 42 38.3**	**-0.7**
BEYE				IAML		19 42 39.0	
	comp=N,292nm,0.2s						
BEYE				IAML		19 42 39.0	
	comp=E,372nm,0.2s						
KUSD	**Kusadasi-Aydin**	**0.52**	**96**	Pg	**Pg**	**19 42 36.4**	**+0.2**
KUSD				Sg	**Sg**	**19 42 43.4**	**+0.3**
GCAM	**G?zelcaml?**	**0.52**	**114**	P	**Pg**	**19 42 35.3**	**-0.9**
GCAM				S	**Sg**	**19 42 43.8**	**+0.6**
GCAM				IAML		19 42 44.0	
	comp=E,218nm,0.4s						
GCAM				IAML		19 43 01.0	
	comp=N,189nm,0.9s						
GCAM	**G?zelcaml?**	**0.52**	**114**	Pg	**Pg**	**19 42 36.3**	**+0.1**
GCAM				Sg	**Sb**	**19 42 43.9**	**-0.7**
GCAM				AML	AML		
BLCB	**Balcova**	**0.57**	**34**	P	**Pg**	**19 42 36.9**	**-0.3**
BLCB				S	**Sg**	**19 42 44.5**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**34**	Pg	**Pg**	**19 42 36.8**	**-0.3**
BLCB				AML	AML		
CHOS	**Chios island**	**0.66**	**316**	P	**Pg**	**19 42 38.5**	**-0.4**
CHOS				S	**Sb**	**19 42 48.7**	**+0.1**
CHOS				AML	AML		
DDIM	**Aydin, Didim**	**0.66**	**133**	P	**Pb**	**19 42 40.1**	**+0.6**
DDIM				S	**Sb**	**19 42 48.6**	**-0.1**
DUVT	**Torbali**	**0.71**	**64**	P	**Pg**	**19 42 39.6**	**-0.2**
DUVT				S	**Sg**	**19 42 48.6**	**-0.6**
DUVT				IAML		19 42 50.0	
	comp=E,175nm,0.4s						
DIDI	**Didim-Aydin**	**0.72**	**138**	Pg	**Pg**	**19 42 40.2**	**+0.2**
FOCM	**Foa**	**0.80**	**5**	Pg	**Pg**	**19 42 41.6**	**+0.1**
FOCM				Sg	**Sb**	**19 42 53.1**	**+0.4**
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.99**	**88**	Pg	**Pg**	**19 42 45.1**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**1.01**	**148**	P	**Pb**	**19 42 45.7**	**+0.3**
BODT				S	**Sn**	**19 43 00.7**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**1.01**	**148**	Pg	**Pg**	**19 42 45.5**	**+0.1**
BODT				AML	AML		
MLSB	**Milas**	**1.10**	**124**	Pn	**Pg**	**19 42 46.7**	**-0.5**
MLSB				AML	AML		
APE	**Apeiranthos**	**1.22**	**226**	P	**Pn**	**19 42 47.6**	**-1.3**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.28**	**51**	Pn	**Pn**	**19 42 49.5**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.31**	**87**	Pn	**Pn**	**19 42 49.8**	**-0.4**
NAZL				AML	AML		
PRK	**Paraskevi**	**1.36**	**348**	P	**Pn**	**19 42 51.1**	**+0.3**
PRK				S	**Sb**	**19 43 09.0**	**+0.2**
DAT	**Datca**	**1.40**	**147**	Pn	**Pn**	**19 42 51.1**	**-0.4**
YER	**Yerkesik**	**1.52**	**120**	Pn	**Pn**	**19 42 52.8**	**-0.3**
TURN	**Turunc**	**1.71**	**131**	Pn	**Pn**	**19 42 55.1**	**-0.6**
TURN				AML	AML		

JMA 05 19:42:42.1±0.1, 40˚.0N±0˚.1×140˚.6E±0˚.2, h4km±1km, MV3.3/20, 1D, NORTHERN AKITA PREF, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAH	**Hinai**	**0.17**	**13**	P	Pg	19 42 45.6	+0.3
JKZ	**Kuzumaki**	**0.57**	**94**	⇓*i* P	Pg	19 42 53.2	+0.1
JRG	**Rokugo**	**0.63**	**177**	*i* P	Pg	19 42 54.4	+0.3

*IDC **05** 19:42:43.5±0.8, 40˚.05N×140˚.48E, h0km, mb3.5/7, mbtmp3.6/11, ML3.9/3, MS2.8/2, Error ellipse: s-maj=15.7km s-min=11.3km az=113.0*
*NIED **05** 19:42:45.1, 40˚.03N×140˚.59E, h6km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr0.49; Mθθ4.52; Mφφ -5.01; Mrθ1.77; Mθφ0.03; Mφr0.09; Fault plane solution: M₀5.10000×10¹⁴ NP1: φs137.00000°, δ75.00000°, λ14.00000°. NP2:φs43.00000°, δ76.00000°, λ164.00000°.*
*JMA **05** 19:42:45.1±0.0, 40˚.0N±0˚.1×140˚.6E±0˚.2, h6km±1km, MD4.1/19, MV4.0/19, NORTHERN AKITA PREF*
JMA Felt II J1 at NORTHERN AKITA PREF .
*NEIC **05** 19:42:49.6±1.8, 40˚.13N±0˚.07×140˚.57E±0˚.08, h35km±5km, mb4.3/9, Error ellipse: s-maj=11.3km s-min=7.1km az=135.0*

ISC 05 19:42:45.6±0.9, 40˚.06N±0˚.03×140˚.61E±0˚.03, h12km±6km, n53,σ1§26/58, mb3.9/12, 4D, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAH	**Hinai**	**0.13**	**10**	P	**Pg**	**19 42 48.7**	**-0.1**
JAH				A	A	19 42 48.7	
	comp=N,60nm,0.3s,comp=E,94nm,1.0s						
JAH				S	**Sg**	**19 42 51.2**	**0.0**
JNTW	**Noshirotokiwa**	**0.40**	**302**	A	A	19 42 53.2	
	comp=N,71nm,4.0s,comp=E,58nm,5.2s						
JSZI	**Iwateshizukuis**	**0.42**	**140**	A	A	19 42 53.1	
	comp=N,18nm,5.4s,comp=E,16nm,3.0s						
JKZ	**Kuzumaki**	**0.56**	**98**	⇓P	**Pg**	**19 42 56.2**	**-0.4**
JKZ				⇓S	**Sg**	**19 43 03.9**	**-0.1**
JYW	**Yuwa**	**0.60**	**211**	A	A	19 42 56.2	
	comp=N,24nm,0.4s,comp=E,74nm,0.3s						
JHHS	**Hirosakihyakuz**	**0.62**	**342**	A	A	19 42 57.8	
	comp=N,14nm,3.2s,comp=E,15nm,3.3s						
JRG	**Rokugo**	**0.67**	**178**	P	**Pg**	**19 42 57.5**	**-0.9**
JRG				A	A	19 42 57.5	
	comp=N,10.0nm,0.7s,comp=E,9.0nm,0.3s						
JRG				S	**Sg**	**19 43 06.3**	**-1.0**
JIW	**Iwasaki**	**0.70**	**319**	P	**Pg**	**19 42 58.7**	**-0.5**
JIW				A	A	19 42 58.7	
	comp=N,10.0nm,1.2s,comp=E,9.0nm,0.4s						
JIW				S	**Sg**	**19 43 08.1**	**-0.3**
JANG	**Nango**	**0.76**	**66**	⇓P	**Pg**	**19 43 00.1**	**-0.3**
JANG				A	A	19 43 00.1	
	comp=N,4.0nm,0.6s,comp=E,4.0nm,0.2s						
JANG				⇓S	**Sg**	**19 43 10.0**	**-0.3**
JOM	**Ohasama**	**0.79**	**138**	S	**Sg**	**19 43 10.4**	**-0.8**
JTM	**Tenmabayashi**	**0.81**	**26**	Pn	**Pg**	**19 43 01.1**	**-0.2**
JTM				S	**Sg**	**19 43 11.8**	**+0.1**
JKEN	**Kujiedanarisaw**	**0.86**	**80**	A	A	19 43 02.0	
	comp=N,11nm,0.3s,comp=E,9.0nm,0.9s						
JYA	**Atsumi**	**1.62**	**206**	A	A	19 43 13.9	
	comp=N,9.0nm,0.6s,comp=E,8.0nm,1.5s						
ERM	**Erimo**	**2.74**	**44**	Pn	**Pn**	**19 43 30.5**	**+1.1**
ERM				Sn	**Sn**	**19 44 02.6**	**+0.1**
MJB9	**Matsu-Tunnel**	**3.99**	**209**		**Pn**	**19 43 48.3**	**+1.8**
MAJO	**Matsushiro**	**3.99**	**209**		**Pn**	**19 43 47.3**	**+0.7**
MJAR	**Matsushiro Arr**	**3.99**	**209**	Pn	**Pn**	**19 43 47.7**	**+1.1**
	comp=E,2.6nm,0.3s,baz=22,slow=15,SNR=14						
MJAR				Lg	Lg	19 44 44.0	
	comp=E,0.8nm,0.3s,baz=24,slow=31,SNR=8.3						
MJAR				LR	LR	19 45 34.4	
	comp=E,93nm,18.8s,baz=124,slow=44						
MJAR	**Matsushiro Arr**	**3.99**	**209**		**Pn**	**19 43 48.5**	**+1.9**
ASAJ	**Asahikawa**	**4.31**	**19**	Pn	**Pn**	**19 43 52.9**	**+1.9**
	comp=E,4.3nm,0.3s,baz=226,slow=8.9,SNR=23						
ASAJ				Sn	**Sn**	**19 44 38.4**	**-2.8**
	comp=E,0.2nm,0.3s,baz=278,slow=25,SNR=1.7						
	comp=E,12nm,0.4s						
ASAJ				AML	AML		
JKA	**Kamikawa-asahi**	**4.31**	**19**		**Pn**	**19 43 52.9**	**+1.9**
JKA					**Sn**	**19 44 38.4**	**-2.8**
JGF	**Kuroka**	**5.14**	**211**		**Pn**	**19 44 04.9**	**+2.5**
USRK	**Ussuriysk Ar.**	**7.62**	**306**	Pn	**Pn**	**19 44 34.0**	**-2.4**
	comp=E,1.2nm,0.3s,baz=106,slow=14,SNR=37						
USRK				Sn	**Sn**	**19 46 00.8**	**-1.9**
	comp=E,0.7nm,0.3s,baz=101,slow=26,SNR=4.4						
	comp=E,1.8nm,0.3s						
USRK				AML	AML		
USRK	**Ussuriysk Ar.**	**7.62**	**306**		**Pn**	**19 44 36.9**	**+0.5**
USRK	**Ussuriysk Ar.**	**7.62**	**306**		**Sn**	**19 46 00.8**	**-1.9**
USA0B	**Ussuriysk Arra**	**7.62**	**306**	Pn	**Pn**	**19 44 36.6**	**+0.2**
KSRS	**Korea Array**	**10.24**	**259**	Pn	**Pn**	**19 45 13.1**	**+0.8**
	comp=E,1.8nm,0.3s,baz=66,slow=14,SNR=30						
KSRS				Sn	**Sn**	**19 47 08.2**	**+1.1**
	comp=E,1.5nm,0.3s,baz=74,slow=24,SNR=14						
KSRS				LR	LR	19 48 34.8	
	comp=E,61nm,19.0s,baz=40,slow=34						
	comp=E,9.9nm,0.7s						
KSRS				AML	AML		
KSRS	**Korea Array**	**10.24**	**259**		**Pn**	**19 45 13.1**	**+0.8**
KSRS					**Sn**	**19 47 08.2**	**+1.1**
KS19	**Wonju Array Si**	**10.27**	**260**		**Pn**	**19 45 14.0**	**+1.3**
KSAR	**Wonju Array Be**	**10.28**	**259**		**Pn**	**19 45 15.2**	**+2.4**
TJN	**Taejon**	**11.05**	**255**		**Pn**	**19 45 25.3**	**+1.9**
MKAR	**Makanchi Array**	**42.03**	**299**	P	**P**	**19 50 36.1**	**-0.7**
	comp=E,0.3nm,0.7s,baz=83,slow=10,SNR=2.5						
	comp=E,0.3nm,0.7s						
MKAR	**Makanchi Array**	**42.03**	**299**	P	**P**	**19 50 36.1**	**-0.7**
KURK	**Kurchatov**	**43.61**	**306**	P	**P**	**19 50 50.0**	**+0.5**
KURK	**Kurchatov**	**43.61**	**306**	IAmb	IAmb	19 50 54.4	
	comp=Z,1.4nm,0.8s						
KURBB	**Kurchatov Arra**	**43.69**	**305**	P	**P**	**19 50 50.0**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=80,slow=8.3,SNR=5.0						
	comp=Z,0.5nm,0.3s						
ILAR	**Eielson Array**	**47.31**	**34**	P	**P**	**19 51 18.9**	**+0.3**
	comp=Z,0.4nm,0.6s,baz=277,slow=6.9,SNR=4.6						
	comp=Z,0.4nm,0.6s						
ILAR	**Eielson Array**	**47.31**	**34**	P	**P**	**19 51 18.9**	**+0.3**
BVAR	**Borovoye Array**	**48.10**	**310**	P	**P**	**19 51 24.1**	**-0.9**
	comp=Z,0.5nm,0.5s,baz=46,slow=6.2,SNR=1.6						
	comp=Z,0.5nm,0.5s						
BVAR	**Borovoye Array**	**48.10**	**310**	P	**P**	**19 51 24.1**	**-0.9**
F26K	**Sheenjek River**	**48.15**	**30**	P	**P**	**19 51 26.9**	**+1.6**
F26K				IAmb	IAmb	19 51 28.5	
	comp=Z,3.0nm,0.7s						
C27K	**Jago River**	**48.17**	**27**	P	**P**	**19 51 27.1**	**+1.9**
SCRK	**Sand Creek**	**48.65**	**35**	P	**P**	**19 51 29.8**	**+0.6**
SCRK				IAmb	IAmb	19 51 30.6	
	comp=Z,1.9nm,0.8s						
G27K	**Doyon Strip**	**49.22**	**31**	P	**P**	**19 51 33.1**	**-0.3**
G27K				IAmb	IAmb	19 51 37.6	
	comp=Z,5.5nm,1.4s						
E28M	**Babbage River**	**49.76**	**28**	P	**P**	**19 51 39.2**	**+1.7**
E28M				IAmb	IAmb	19 51 57.1	
	comp=Z,2.9nm,1.1s						
G30M	**tAoh Zraii Nji**	**51.30**	**30**	P	**P**	**19 51 49.9**	**+0.8**
INK	**Inuvik**	**52.00**	**28**	P	**P**	**19 51 55.2**	**+0.9**
INK				IAmb	IAmb	19 52 10.8	
	comp=Z,4.2nm,1.1s						
WRA	**Warramunga Arr**	**59.98**	**187**	P	**P**	**19 52 51.3**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=6.2,slow=7.3,SNR=4.9						
	comp=Z,0.7nm,0.8s						
WRA	**Warramunga Arr**	**59.98**	**187**	P	**P**	**19 52 51.0**	**-0.9**
ASAR	**Alice Springs**	**63.70**	**187**	P	**P**	**19 53 16.3**	**-0.7**
	comp=Z,0.7nm,0.8s,baz=15,slow=6.0,SNR=6.5						
	comp=Z,0.7nm,0.8s						
ASAR	**Alice Springs**	**63.70**	**187**	P	**P**	**19 53 16.2**	**-0.7**
PDAR	**Pinedale Array**	**76.00**	**46**	P	**P**	**19 54 32.8**	**0.0**
	comp=Z,0.2nm,0.6s,baz=296,slow=4.2,SNR=2.7						
	comp=Z,0.2nm,0.6s						
PDAR	**Pinedale Array**	**76.00**	**46**	P	**P**	**19 54 32.8**	**0.0**

*IDC **05** 19:51:20.2±0.8, 40˚.09N×140˚.62E, h0km, mb3.6/6, mbtmp3.8/12, ML3.5/6, MS3.1/6, Error ellipse: s-maj=15.5km s-min=10.6km az=118.0*
*JMA **05** 19:51:22.5±0.0, 40˚.03N±0˚.09×140˚.6E±0˚.1, h6km

USRK				AML	AML				
KSRS	**Korea Array**	**10.27**	**259**	Pn	**Pn**	**19 53 52.6**	**+3.1**		
	comp=E,2.4nm,0.3s,baz=65,slow=14,SNR=50								
KSRS				Sn	**Sn**	**19 55 47.1**	**+2.7**		
	comp=E,1.9nm,0.3s,baz=74,slow=24,SNR=26								
KSRS				LR	LR	19 57 22.4			
	comp=E,99nm,19.3s,baz=70,slow=35								
	comp=E,16nm,0.7s								
KSRS				AML	AML				
JNU	**Nakatsue**	**10.46**	**232**	Pn	**Pn**	**19 53 54.7**	**+2.4**		
	comp=E,0.3nm,0.3s,baz=90,slow=11,SNR=4.2								
	comp=E,3.8nm,0.8s								
JNU				AML	AML				
JCJ	**Chichijima**	**13.00**	**174**	LR	LR	19 59 09.2			
	comp=E,31nm,20.5s,baz=76,slow=36								
PETK	**Petropavlovsk-**	**17.48**	**36**	P	**P**	**19 55 26.3**	**+0.5**		
	comp=E,0.1nm,0.3s,baz=216,slow=9.0,SNR=1.4								
	comp=E,3.3nm,0.9s								
PETK				AML	AML				
YAK	**Yakutsk**	**22.98**	**347**	LR	LR	20 05 01.4			
	comp=E,64nm,20.6s,baz=86,slow=36								
DAV	**Davao City (W)**	**35.52**	**206**	LR	LR	20 12 07.6			
	comp=E,30nm,20.4s,baz=310,slow=35								
NRIK	**Noril'sk**	**40.27**	**334**	LR	LR	20 15 21.7			
	comp=E,56nm,18.2s,baz=324,slow=36								
MKAR	**Makanchi Array**	**42.05**	**299**	P	**P**	**19 59 12.5**	**-1.2**		
	comp=E,0.5nm,0.7s,baz=80,slow=9.9,SNR=2.6								
	comp=E,0.5nm,0.7s								
ILAR	**Eielson Array**	**47.29**	**34**	P	**P**	**19 59 53.2**	**-2.0**		
	comp=E,0.3nm,0.7s,baz=260,slow=5.5,SNR=4.3								
	comp=E,0.3nm,0.7s								
BVAR	**Borovoye Array**	**48.12**	**310**	P	**P**	**19 59 59.9**	**-1.9**		
	comp=E,0.6nm,0.6s,baz=79,slow=7.7,SNR=4.5								
	comp=E,0.6nm,0.6s								
WRA	**Warramunga Arr**	**59.98**	**187**	P	**P**	**20 01 29.1**	**+0.4**		
	comp=E,1.0nm,0.9s,baz=6.4,slow=7.3,SNR=7.7								
	comp=E,1.0nm,0.9s								
ASAR	**Alice Springs**	**63.71**	**187**	P	**P**	**20 01 54.7**	**+0.9**		
	comp=E,1.2nm,0.8s,baz=5.8,slow=6.4,SNR=11								
	comp=E,1.2nm,0.8s								
PDAR	**Pinedale Array**	**75.98**	**46**	P	**P**	**20 03 10.6**	**+1.1**		
	comp=E,0.4nm,0.7s,baz=308,slow=7.9,SNR=3.7								
	comp=E,0.4nm,0.7s								

*IDC **05** 20:08:53.4±1.9, 45°.19N×107°.04W, h0km, mbtmp3.9/2, ML3.6/2, Error ellipse: s-maj=62.0km s-min=12.7km az=135.0*
*NEIC **05** 20:08:54.5±2.4, 45°.13N±0°.05×106°.85W±0°.04, h0km±1km, ML3.3/40, Error ellipse: s-maj=9.0km s-min=4.4km az=154.0*
ISC 05 20:08:53.6±1.0, **45°.04N**±0°.05×**106°.92W**±0°.04, **h0km, n26,** σ1§**62/23, Montana**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
RLMT	**Red Lodge**	**1.66**	**274**			**Pg**	**20 09 25.6**	**+0.1**
RLMT				IAML			20 09 49.7	
	229nm,0.6s							
RLMT				IAML			20 09 50.0	
	263nm,0.5s							
LAO	**LASA Array**	**1.72**	**16**			**Pb**	**20 09 25.0**	**-1.1**
LAO				IAML			20 09 50.4	
	483nm,1.4s							
LAO				IAML			20 09 54.4	
	313nm,0.6s							
GCMT	**Greycliff**	**2.07**	**292**			**Pb**	**20 09 31.4**	**-0.8**
RSSD	**Black Hills**	**2.26**	**113**			**Pb**	**20 09 34.4**	**-1.0**
RSSD				IAML			20 10 09.9	
	236nm,0.6s							
YMP	**Mirror Lake Pl**	**2.32**	**264**			**Pn**	**20 09 34.5**	**+1.2**
K22A	**Casper**	**2.41**	**173**			**Pb**	**20 09 36.8**	**-1.1**
K22A				IAML			20 10 11.2	
	110nm,0.6s							
K22A				IAML			20 10 14.2	
	199nm,0.7s							
H17A	**Grant Village**	**2.68**	**257**			**Pn**	**20 09 38.8**	**+0.5**
H17A				IAML			20 10 21.5	
	comp=N,93nm,0.7s							
YNR	**Norris Junctio**	**2.69**	**264**			**Pb**	**20 09 42.7**	**-0.1**
YNR				IAML			20 10 19.8	
	comp=E,148nm,0.5s							
YNR				IAML			20 10 22.3	
	comp=N,130nm,0.6s							
YNM	**Yellowstone No**	**2.71**	**265**			**Pb**	**20 09 41.9**	**-1.1**
YHH	**Holmes Hill**	**2.80**	**266**			**Pb**	**20 09 42.6**	**-2.1**
YHH				IAML			20 10 34.8	
	comp=E,75nm,0.7s							
YFT	**Old Faithful**	**2.85**	**259**			**Pb**	**20 09 45.2**	**-0.3**
YPP	**Pitchstone Pla**	**2.87**	**256**			**Pb**	**20 09 44.8**	**-1.1**
YMR	**Madison River**	**2.90**	**264**			**Pb**	**20 09 44.5**	**-1.8**
YMR				IAML			20 10 35.2	
	comp=E,114nm,0.6s							
YMR				IAML			20 10 36.0	
	comp=N,112nm,0.8s							
BW06	**Boulder Array**	**2.96**	**221**	IAML			20 10 31.2	
	comp=N,61nm,0.5s							
PD31	**Pinedale Array**	**2.96**	**221**			**Pb**	**20 09 45.5**	**-1.9**
PDAR	**Pinedale Array**	**2.96**	**221**	Pn		**Pn**	**20 09 44.3**	**+2.1**
	comp=N,5.9nm,0.3s,baz=42,slow=15,SNR=84							
PDAR				Lg		Lg	20 10 26.3	
	comp=N,11nm,0.3s,baz=38,slow=30,SNR=3.9							
	comp=N,8.0nm,0.3s							
PDAR				AML	AML			
PDAR	**Pinedale Array**	**2.96**	**221**			**Pb**	**20 09 46.9**	**-0.6**
YHL	**Hebgen Lake**	**3.03**	**268**			**Pb**	**20 09 46.5**	**-2.1**
YHL				IAML			20 10 39.4	
	comp=N,101nm,1.4s							
YHL				IAML			20 10 41.9	
	comp=E,107nm,0.6s							
YHB	**Horse Butte**	**3.05**	**266**			**Pn**	**20 09 45.7**	**+2.4**
SNOW	**Snow King Moun**	**3.17**	**242**			**Pb**	**20 09 48.1**	**-2.8**
SNOW				IAML			20 10 55.6	
	comp=E,55nm,1.9s							
SNOW				IAML			20 11 41.0	
	comp=E,53nm,4.1s							
QLMT	**Earthquake Lak**	**3.21**	**268**			**Pn**	**20 09 47.9**	**+2.4**
BOZ	**Bozeman (W)**	**3.37**	**281**			**Pn**	**20 09 48.6**	**+1.1**
BOZ				IAML			20 10 45.9	
	comp=E,57nm,1.1s							
DGMT	**Dagmar**	**3.91**	**28**			**Pn**	**20 09 56.4**	**+1.5**
MSO	**Missoula**	**5.21**	**293**	IAML			20 11 45.7	
	comp=E,29nm,1.9s							
I10CA	**LAC DU BONNET**	**8.99**	**51**	I		I	20 59 30.0	
	baz=237,slow=319,SNR=0.6							
ULM	**Lac du Bonnet**	**9.10**	**51**	Pn		**Pn**	**20 11 05.2**	**-0.9**
	comp=E,1.4nm,0.3s,baz=236,slow=12,SNR=13							
ULM				Lg		Lg	20 13 33.0	
	comp=E,0.3nm,0.3s,baz=288,slow=16,SNR=3.1							
	comp=E,3.8nm,0.3s							
ULM				AML	AML			

*SKO **05** 20:18:04.5, 41°.89N×20°.87E, h13km, ML2.3*
*BEO **05** 20:18:06.5±0.5, 41°.92N×20°.90E, h0km, ML2.1/11*
PDG 05 20:18:05.4±0.1, **42°.00N×20°.91E, h0km, ML2.6/11, 8C-4D, Error ellipse: s-maj=0.3km s-min=0.3km az=0.0, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
SKO	**Skopje**	**0.40**	**94**	*i* Pg		Pg	20 18 13.0	0.0
SKO				*i* Sg		Sg	20 18 19.3	+1.1
PVY	**Plav**	**0.92**	**310**	⇑*i* Pg		Pg	20 18 22.4	-0.6
PVY				*i* Sg		Sb	20 18 36.7	-0.4
BARS	**Barje**	**1.06**	**39**	*e*Pg		Pb	20 18 26.9	+0.3
BARS				*e*Sg		Sn	20 18 43.3	+0.4
IVA	**Berane**	**1.15**	**320**	*e*Pg		Pg	20 18 26.8	-0.6
IVA				*e*Sg		Sn	20 18 44.5	-0.8
SELS	**Selova**	**1.23**	**7**	*e*Pg		Pn	20 18 29.9	+0.1
SELS				*e*Sg		Sn	20 18 47.7	+0.5
ULC	**Ulcinj**	**1.24**	**269**	⇑*i* Pg		Pg	20 18 28.2	-1.0
ULC				*i* Sg		Sn	20 18 47.9	+0.4
BOSS	**Bosilegrad**	**1.27**	**67**	*e*Pg		Pn	20 18 30.3	-0.1
BOSS				*e*Sg		Sn	20 18 48.2	+0.1
DRME	**Dracevica, Mon**	**1.30**	**279**	⇓*i* Pg		Pg	20 18 29.3	-0.9
DRME				*i* Sg		Sn	20 18 49.6	+0.8
PDG	**Podgorica**	**1.30**	**290**	*e*Pg		Pg	20 18 29.9	-0.4
PDG				*e*Sg		Sn	20 18 48.8	-0.1
PDG	**Podgorica**	**1.30**	**290**	⇑*i* Pg		Pg	20 18 29.4	-0.9
PDG				*i* Sg		Sn	20 18 49.7	+0.8
KOME	**Kolasin**	**1.33**	**310**	⇑*i* Pg		Pg	20 18 29.9	-1.1
KOME				*i* Sg		Sn	20 18 51.2	+1.3
VAY	**Valandovo**	**1.42**	**118**	⇑*i* Pg		Pn	20 18 31.0	-1.4
VAY				*i* Sg		Sg	20 18 48.7	-2.2
VAY				*e*Lg		Lg	20 18 48.9	
	comp=E,29nm,0.5s							
VAY				*e*Lg		Lg	20 18 50.8	
	comp=N,58nm,0.8s							
SJES	**Sjenica**	**1.44**	**332**	*e*Pg		Pn	20 18 32.8	0.0
SJES				*e*Sg		Sn	20 18 55.4	+3.0
PEHC	**Pehcevo**	**1.50**	**98**	⇑*i* Pg		Pn	20 18 33.2	-0.5
PEHC				*i* Sg		Sg	20 18 52.9	-0.9
PEHC				*e*Lg		Lg	20 18 53.8	
	comp=N,69µm,0.5s							
PEHC				*e*Lg		Lg	20 18 55.7	
	comp=E,3µm,0.1s							
BUM	**Brajici-Budva**	**1.53**	**282**	⇓*i* Pg		Pn	20 18 33.5	-0.5
BUM				*i* Sg		Sn	20 18 57.6	+3.0
GOCS	**Kraljevo Serbi**	**1.56**	**359**	*e*Pg		Pn	20 18 34.7	+0.2
GOCS				*e*Sg		Sb	20 18 58.5	+3.0
CEME	**Cevo**	**1.57**	**291**	⇑*i* Pg		Pn	20 18 34.2	-0.4
CEME				*i* Sg		Sg	20 18 59.2	+3.2
NKME	**Niksic**	**1.64**	**298**	⇓*i* Pn		Pn	20 18 35.7	+0.2
NKME				*i* Sn		Sg	20 19 01.2	+3.2
IVAS	**Ivanjica**	**1.67**	**341**	*e*Pg		Pn	20 18 35.5	-0.5
IVAS				*e*Sg		Sg	20 19 00.9	+1.9
BOVS	**Bovan**	**1.73**	**20**	*e*Pg		Pb	20 18 37.9	-0.2
BOVS				*e*Sg		Sg	20 19 04.7	+3.6
PLE	**Pljevlja**	**1.74**	**320**	⇓*i* Pn		Pn	20 18 37.4	+0.5
PLE				*i* Sn		Sg	20 19 03.4	+2.2
ZAPS	**Zavoj**	**1.80**	**44**	*e*Pg		Pg	20 18 40.6	+0.7
ZAPS				*e*Sg		Sg	20 19 03.6	+0.4
HCY	**Herceg Novi**	**1.85**	**285**	⇑*i* Pn		Pb	20 18 39.3	-0.7
HCY				*i* Sn		Sg	20 19 06.3	+1.6
GRUS	**Gruza**	**1.89**	**356**	*e*Pg		Pg	20 18 42.7	+1.1
GRUS				*e*Sg		Sg	20 19 09.3	+3.1
UPM	**Unac-Piva**	**1.90**	**310**	*e*Pn		Pb	20 18 40.3	-0.8
UPM				*i* Sn		Sg	20 19 07.4	+0.8
BRY	**Bratogost**	**1.97**	**298**	*e*Pn		Pn	20 18 41.0	+0.8
BRY				*i* Sn		Sg	20 19 09.1	+0.4
ZAGS	**Zajecar**	**2.06**	**28**	*e*Pg		Pg	20 18 44.9	+0.1
ZAGS				*e*Sg		Sg	20 19 13.9	+2.5
DBRK	**Dubrovnik**	**2.15**	**289**	*e*Pn		Pn	20 18 43.8	+1.3
DBRK				Sn		Sb	20 19 12.2	-0.3
TRUS	**Trudelj**	**2.25**	**351**	*e*Pn		Pb	20 18 46.6	-0.3
STON	**Ston**	**2.53**	**291**	*e*Pn		Pn	20 18 47.7	0.0
STON				Sn		Sb	20 19 21.4	-1.9
LSTV	**Lastovo**	**3.07**	**286**	*e*Pn		Pn	20 18 55.7	+0.6
LSTV				Sn		Sn	20 19 34.0	+1.4
MAKA	**Makarska**	**3.14**	**295**	*e*Pn		Pn	20 18 56.6	+0.5
MAKA				Sn		Sn	20 19 36.2	+1.9
RICI	**Ricice**	**3.15**	**299**	*e*Pn		Pn	20 18 57.3	+0.9
RICI				Sn		Sn	20 19 36.3	+1.6
HVAR	**Hvar**	**3.50**	**291**	*e*Pn		Pn	20 19 01.3	+0.4
HVAR				Sn		Sn	20 19 43.8	+0.7
KIJV	**Kijevo**	**3.86**	**303**	*e*Pn		Pn	20 19 07.1	+1.0
KIJV				Sn		Sn	20 19 53.4	+1.3
MORI	**Morici**	**4.25**	**298**	*e*Pn		Pn	20 19 11.1	-0.3
MORI				Sn		Sn	20 20 02.4	+0.8
UDBI	**Udbina**	**4.53**	**306**	*e*Pn		Pn	20 19 15.3	+0.1
UDBI				Sn		Sn	20 20 08.7	+0.1
DUGI	**Dugi Otok**	**4.73**	**297**	*e*Pn		Pn	20 19 18.6	+0.7
DUGI				Sn		Sn	20 20 13.7	+0.3

*IDC **05** 20:21:36.6±3.9, 40°.00N×140°.56E, h0km, mbtmp3.3/3, ML2.8/3, Error ellipse: s-maj=43.1km s-min=19.7km az=88.0*
*JMA **05** 20:21:37.8±0.0, 40°.0N±0°.1×140°.6E±0°.1, h5km±1km, MV3.4/20, NORTHERN AKITA PREF*
JMA Felt I J1 at NORTHERN AKITA PREF .
ISC 05 20:21:37.6±1.4, **40°.02N**±0°.05×**140°.60E**±0°.05, **h2**km±17km, **n10,** σ1§**12/16, 3D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
JAH	**Hinai**	**0.17**	**9**	*i* P		**Pg**	**20 21 41.4**	**+0.4**
JAH				S		**Sg**	**20 21 43.9**	**+0.6**
JKZ	**Kuzumaki**	**0.56**	**93**	⇓*i* P		**Pg**	**20 21 49.0**	**+0.6**
JRG	**Rokugo**	**0.62**	**178**	*i* P		**Pb**	**20 21 50.1**	**-1.1**
JRG				S		**Sb**	**20 21 58.5**	**-1.9**
JIW	**Iwasaki**	**0.73**	**322**	*i* P		**Pg**	**20 21 51.4**	**-0.3**
JIW				S		**Sg**	**20 22 00.8**	**-0.4**
JOM	**Ohasama**	**0.76**	**135**	*i* P		**Pg**	**20 21 52.4**	**+0.2**
JANG	**Nango**	**0.79**	**63**	⇓*i* P		**Pg**	**20 21 52.8**	**+0.1**
JANG				⇓S		**Sg**	**20 22 03.0**	**+0.2**
JTM	**Tenmabayashi**	**0.85**	**25**	*i* P		**Pg**	**20 21 53.8**	**-0.1**
JTM				S		**Sg**	**20 22 04.4**	**-0.5**
MJAR	**Matsushiro Arr**	**3.95**	**209**	Pn		**Pn**	**20 22 39.5**	**+0.3**
	0.1nm,0.3s,baz=24,slow=15,SNR=4.9							
MJAR				Lg		Lg	20 23 36.9	
	0.2nm,0.3s,baz=15,slow=21,SNR=5.3							
	0.7nm,0.5s							
MJAR				AML	AML			
USRK	**Ussuriysk Ar.**	**7.64**	**306**	Pn		**Pn**	**20 23 29.3**	**-0.7**
	0.2nm,0.3s,baz=112,slow=15,SNR=5.2							
	2.0nm,0.7s							
USRK				AML	AML			
KSRS	**Korea Array**	**10.23**	**260**	Pn		**Pn**	**20 24 08.3**	**+2.8**
	0.4nm,0.3s,baz=66,slow=13,SNR=6.0							
KSRS				Sn		**Sn**	**20 26 01.1**	**+0.4**
	0.3nm,0.3s,baz=70,slow=24,SNR=2.2							
	1.7nm,0.6s							
KSRS				AML	AML			

*THE **05** 20:23:52.5, 37°.9N±1°.0×2°.7E±°, h11km±3km, M2.5/10, MLh2.5/10*
*ISK **05** 20:23:52.5, 37°.91N×26°.91E, h8km, ML2.6/13*
*AFAD **05** 20:23:52.3, 37°.89N×26°.87E, h7km±2km, ML2.1*
ISC 05 20:23:52.6±0.9, **37°.89N**±0°.02×**26°.88E**±0°.03, **h13**km±7km, **n29,** σ0§**38/43, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
DGB	**zmir**	**0.16**	**0**	P		**Pg**	**20 23 56.2**	**-0.1**
DGB				S		**Sg**	**20 23 58.7**	**-0.3**
DGB				IAML			20 24 00.0	
	comp=N,440nm,0.5s							
DGB				IAML			20 24 00.0	
	comp=E,539nm,0.1s							
GMLD	**Gumuldur**	**0.18**	**8**	Pg		**Pg**	**20 23 56.7**	**-0.1**
GMLD				Sg		**Sg**	**20 23 59.8**	**+0.2**
GMLD				AML	AML			
SMG	**Samos**	**0.19**	**191**	P		**Pg**	**20 23 56.5**	**-0.3**
SMG				S		**Sg**	**20 23 59.9**	**+0.2**
SMG				AML	AML			
BEYE	**izmir**	**0.33**	**6**	P		**Pg**	**20 23 59.2**	**-0.2**
BEYE				IAML			20 24 04.0	
	comp=E,231nm,0.3s							
BEYE				S		**Sg**	**20 24 04.1**	**+0.1**
BEYE				IAML			20 24 05.0	
	comp=N,250nm,0.3s							
GCAM	**G?zelcaml?**	**0.34**	**125**	P		**Pg**	**20 23 59.4**	**0.0**
GCAM				S		**Sg**	**20 24 04.1**	**0.0**
GCAM				IAML			20 24 05.0	
	comp=N,386nm,0.3s							
GCAM				IAML			20 24 05.0	
	comp=E,306nm,0.1s							
GCAM	**G?zelcaml?**	**0.34**	**125**	Pg		**Pg**	**20 23 59.5**	**0.0**
GCAM				Sg		**Sg**	**20 24 04.4**	**+0.4**
GCAM				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.46**	**319**	P		**Pg**	**20 24 01.5**	**-0.1**
ZEYE				S		**Sg**	**20 24 07.8**	**+0.1**
ZEYE				IAML			20 24 09.0	
	comp=E,279nm,0.2s							
BLCB	**Balcova**	**0.51**	**14**	P		**Pg**	**20 24 02.4**	**-0.2**
BLCB				S		**Sg**	**20 24 09.2**	**-0.1**
BLCB				AML	AML			
BLCB	**Balcova**	**0.51**	**14**	Pg		**Pg**	**20 24 02.5**	**0.0**
BLCB				Sg		**Sg**	**20 24 09.4**	**+0.1**
BLCB				AML	AML			
DDIM	**Aydin, Didim**	**0.52**	**147**	P		**Pg**	**20 24 03.1**	**+0.3**
DDIM				S		**Sg**	**20 24 10.3**	**+0.6**
DDIM				IAML			20 24 13.0	
	comp=N,205nm,0.3s							
DDIM				IAML			20 24 23.0	
	comp=E,120nm,0.8s							
DUVT	**Torbali**	**0.55**	**54**	P		**Pg**	**20 24 03.3**	**-0.2**
DUVT				S		**Sg**	**20 24 10.0**	**-0.8**
DUVT				IAML			20 24 14.0	
	comp=E,137nm,0.3s							
AYDB	**Zeytinkoy-Aydi**	**0.80**	**86**	Pg		**Pg**	**20 24 07.9**	**-0.2**
AYDB				AML	AML			
CHOS	**Chios island**	**0.82**	**307**	P		**Pg**	**20 24 08.4**	**0.0**
CHOS				S		**Sb**	**20 24 20.1**	**+0.4**
CHOS				AML	AML			
CHOS	**Chios island**	**0.82**	**307**	Pg		**Pb**	**20 24 08.7**	**0.0**
CHOS				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.83**	**158**	Pg		**Pb**	**20 24 09.1**	**+0.2**
YKAV				AML	AML			
KARB	**zmir-Karabur**	**0.85**	**334**	P		**Pb**	**20 24 09.7**	**+0.4**
KARB				S		**Sg**	**20 24 20.4**	**+0.2**
KARB				IAML			20 24 23.0	
	comp=N,107nm,0.4s							
KARB				IAML			20 24 26.0	
	comp=E,116nm,1.6s							
BODT	**Bodrum**	**0.90**	**158**	P		**Pg**	**20 24 09.8**	**-0.1**
BODT				S		**Sb**	**20 24 22.4**	**+0.5**
BODT				AML	AML			
BODT	**Bodrum**	**0.90**	**158**	Pg		**Pb**	**20 24 10.0**	**0.0**
BODT				AML	AML			
MLSB	**Milas**	**0.93**	**130**	Pg		**Pb**	**20 24 10.8**	**+0.2**
MLSB				AML	AML			
BODA	**Bodrum-Mula**	**0.96**	**153**	Pg		**Pb**	**20 24 11.6**	**+0.5**
NAZL	**Nazilli-Aydin**	**1.12**	**86**	Pn		**Pg**	**20 24 13.0**	**-1.1**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.15**	**45**	Pn		**Pn**	**20 24 14.8**	**+0.4**
GOMA				AML	AML			
DAT	**Datca**	**1.29**	**154**	P		**Pn**	**20 24 15.9**	**-0.5**
DAT				AML	AML			
DAT	**Datca**	**1.29**	**154**	Pn		**Pg**	**20 24 17.2**	**-0.2**
DAT				AML	AML			
YER	**Yerkesik**	**1.35**	**124**	P		**Pb**	**20 24 17.9**	**+0.2**
YER				AML	AML			
YER	**Yerkesik**	**1.35**	**124**	Pn		**Pb**	**20 24 18.1**	**+0.4**
YER				AML	AML			
APE	**Apeiranthos**	**1.35**	**233**	P		**Pn**	**20 24 16.3**	**-1.0**
APE				AML	AML			
PRK	**Paraskevi**	**1.43**	**341**	P		**Pb**	**20 24 19.4**	**+0.2**
TURN	**Turunc**	**1.56**	**135**	Pn		**Pb**	**20 24 21.1**	**-0.2**
TURN				AML	AML			

*ISK **05** 20:43:50.5, 37°.87N×26°.86E, h4km, ML2.7/14*
*AFAD **05** 20:43:50.8, 37°.88N×26°.85E, h7km±3km, ML2.3*
*THE **05** 20:43:51.1, 37°.9N±0°.8×2°.7E±°, h10km±2km, M2.7/8, MLh2.7/8*
ISC 05 20:43:51.1±0.9, **37°.88N**±0°.02×**26°.87E**±0°.03, **h13**km±7km, **n31,** σ0§**41/45, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
							h m s	ISC
DGB	**zmir**	**0.17**	**4**	P		**Pg**	**20 43 55.0**	**-0.1**
DGB				S		**Sg**	**20 43 57.4**	**-0.5**
SMG	**Samos**	**0.17**	**188**	P		**Pg**	**20 43 55.0**	**-0.1**
SMG				S		**Sg**	**20 43 58.2**	**+0.3**
SMG				AML	AML			
GMLD	**Gumuldur**	**0.20**	**11**	Pg		**Pg**	**20 43 55.3**	**-0.3**
GMLD				Sg		**Sg**	**20 43 58.9**	**+0.3**
GMLD				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.33**	**93**	Pg		**Pg**	**20 43 57.5**	**-0.4**
KUSD				AML	AML			
GCAM	**G?zelcaml?**	**0.34**	**122**	P		**Pg**	**20 43 58.1**	**+0.1**
GCAM				S		**Sg**	**20 44 03.1**	**+0.4**
GCAM				IAML			20 44 04.0	
	comp=N,481nm,0.4s							
GCAM	**G?zelcaml?**	**0.34**	**122**	Pg		**Pg**	**20 43 57.8**	**-0.2**
GCAM				Sg		**Sg**	**20 44 03.2**	**+0.5**
GCAM				AML	AML			
BEYE	**izmir**	**0.35**	**8**	P		**Pg**	**20 43 58.1**	**-0.1**
BEYE				S		**Sg**	**20 44 02.6**	**-0.3**
BEYE				IAML			20 44 05.0	
	comp=E,275nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.46**	**321**	P		**Pg**	**20 43 59.8**	**-0.4**
ZEYE				S		**Sg**	**20 44 06.2**	**-0.1**
ZEYE				IAML			20 44 07.0	
	comp=E,310nm,0.2s							
DDIM	**Aydin, Didim**	**0.52**	**145**	P		**Pb**	**20 44 01.7**	**-0.3**
DDIM				S		**Sg**	**20 44 08.3**	**+0.2**
DDIM				IAML			20 44 12.0	
	comp=N,282nm,0.4s							
DDIM				IAML			20 44 13.0	
	comp=E,271nm,0.6s							
BLCB	**Balcova**	**0.52**	**15**	P		**Pg**	**20 44 01.1**	**-0.3**
BLCB				S		**Sg**	**20 44 08.4**	**0.0**
BLCB				AML	AML			
BLCB	**Balcova**	**0.52**	**15**	Pg		**Pg**	**20 44 01.1**	**-0.3**
BLCB				AML	AML			
DUVT	**Torbali**	**0.57**	**53**	P		**Pg**	**20 44 02.3**	**0.0**
DUVT				S		**Sg**	**20 44 09.1**	**-0.8**
KRBN	**Karaburun**	**0.75**	**341**	Pg		**Pb**	**20 44 05.8**	**-0.2**
KRBN				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.81**	**85**	Pg		**Pg**	**20 44 06.9**	**+0.1**
AYDB				AML	AML			
CHOS	**Chios island**	**0.82**	**309**	P		**Pb**	**20 44 06.9**	**-0.2**
CHOS				S		**Sb**	**20 44 18.2**	**+0.1**
CHOS				AML	AML			
CHOS	**Chios island**	**0.82**	**309**	Pg		**Pb**	**20 44 06.9**	**-0.2**
CHOS				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.82**	**156**	Pg		**Pg**	**20 44 06.7**	**-0.3**
YKAV				AML	AML			
FOCM	**Foa**	**0.84**	**353**	Pg		**Pb**	**20 44 07.6**	**+0.2**
FOCM				AML	AML			
KARB	**zmir-Karabur**	**0.86**	**336**	P		**Pb**	**20 44 07.9**	**0.0**
KARB				S		**Sg**	**20 44 18.9**	**-0.1**
KARB				IAML			20 44 21.0	
	comp=N,156nm,0.8s							
KARB				IAML			20 44 21.0	
	comp=E,119nm,0.2s							
BODT	**Bodrum**	**0.89**	**157**	P		**Pg**	**20 44 08.1**	**-0.2**
BODT				AML	AML			
**BODT

TGIG		**2.34**	**350**	*eP*	**Pn**	**20 59 47.3 +1.1**
TGIG				*eS*	**Sn**	**21 00 11.1 -2.7**
NUBE	**Las Nubes**	**2.88**	**101**	*eP*	**Pn**	**20 59 56.8 +3.2**
UXUV	**UXUV**	**3.17**	**334**	*eP*	**Pn**	**20 59 58.4 +1.0**
UXUV				*eS*	**Sn**	**21 00 31.0 -3.0**
CMIG	**Matias Romero**	**3.36**	**321**	*eP*	**Pn**	**21 00 00.3 +0.2**
CMIG				*eS*	**Sn**	**21 00 40.5 +1.6**
NEUV	**Arroyo Zacate**	**4.41**	**318**	*eP*	**Pn**	**21 00 14.6 +0.2**
NEUV				*eS*	**Sn**	**21 01 04.0 -0.5**

*NNC **05** 21:00:37.8±3.5, 48°.59N×84°.42E, h0km, mb2.9, mpv2.5, Error ellipse: s-maj=34.1km s-min=16.2km az=81.0*
*SOME **05** 21:00:38.0, 48°.53N×84°.62E, h15km*
ISC 05 21:00:36.0±4.3, 48°.53N±0'.09×84°.8E±0'.3, h10km, n6, σ1ᵎ18/8, 3C-7D, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZSN	**Zaisan**	**1.08**	**176**	*eP*	Pb	21 00 53.4	-3.3
	41nm,0.2s						
ZSN				*eS*	Sb	21 01 05.9	-5.0
	28nm,0.2s						
MK31	**Makanchi Array**	**2.40**	**225**	⇓Pn	**Pn**	**21 01 16.2**	**+0.8**
	0.9nm,0.6s,baz=56,slow=16,SNR=77						
MK31				⇓Pg	**Pg**	**21 01 20.8**	**-1.3**
	0.5nm,0.2s,baz=55,slow=17,SNR=20						
MK31				⇓Lg	Lg	21 01 49.0	
	2.3nm,0.5s,baz=48,slow=22,SNR=11						
MAKZ	**Makanchi**	**2.54**	**229**	⇓Pn	**Pn**	**21 01 18.7**	**+1.4**
	0.9nm,0.6s						
MAKZ				⇑Pg	**Pg**	**21 01 23.9**	**-0.8**
	3.9nm,0.7s						
MAKZ				⇑Lg	Lg	21 01 53.3	
	4.7nm,0.3s						
SEM	**Semipalatinsk**	**3.49**	**304**	*eP*	**Pg**	**21 01 41.8**	**-1.0**
	3.4nm,0.1s						
SEM				*eS*	**Sg**	**21 02 28.9**	**+0.9**
	13nm,0.2s						
KURK	**Kurchatov**	**4.55**	**301**	⇑Pg	**Pb**	**21 01 56.0**	**+0.1**
	0.2nm,0.6s						
KURK				⇓Lg	Lg	21 02 55.3	
	4.3nm,0.8s						
KURBB	**Kurchatov Arra**	**4.56**	**300**	⇓Pg	**Pb**	**21 01 55.5**	**-0.6**
	3.2nm,0.4s						
KURBB				⇓Lg	Lg	21 02 56.1	
	15nm,0.7s						

NNC 05 21:22:28.9±5.0, 38°.76N×72°.04E, h0km, mb4.2, mpv3.9, 1C-3D, Error ellipse: s-maj=34.7km s-min=24.3km az=5.0, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IUG	**Iuzhnay**	**3.71**	**336**	Pg	Pg	21 23 38.7	-1.3
	7.8nm,0.1s						
IUG				Lg	Lg	21 24 29.7	
	26nm,0.3s						
UCH	**Uchtor**	**3.94**	**28**	P	Pb	21 23 41.7	+2.2
	SNR=11						
MRKS	**Merke**	**4.08**	**12**	Pg	Pg	21 23 44.4	-2.6
	14nm,0.3s						
MRKS				Lg	Lg	21 24 39.7	
	10nm,0.4s						
EKS2	**Erkin-Say**	**4.11**	**18**	P	Pb	21 23 44.8	+2.6
	SNR=21						
AAK	**Ala-Archa**	**4.30**	**25**	P	Pb	21 23 46.8	+1.4
	SNR=10						
AAK	**Ala-Archa**	**4.30**	**25**	⇓Pg	Pb	21 23 46.3	+1.0
	1.6nm,0.4s						
AAK				⇓Lg	Lg	21 24 45.5	
	3.4nm,0.9s						
KK31	**Karatay Array**	**4.49**	**346**	⇑Pg	Pb	21 23 49.3	+0.8
	11nm,0.3s,baz=170,slow=12,SNR=132						
KK31				⇓Lg	Lg	21 24 49.8	
	1.3nm,0.2s,baz=170,slow=18,SNR=11						
BRLS	**Borolday**	**4.58**	**339**	Pg	Pb	21 23 47.6	-2.5
	16nm,0.3s						
BRLS				Lg	Lg	21 24 45.0	
	13nm,0.3s						
CHMS	**Chumysh**	**4.70**	**25**	P	Pb	21 23 51.7	-0.6
	SNR=14						
USP	**Ospenovka**	**4.87**	**22**	P	Pb	21 23 53.9	-1.1
	SNR=7.7						

JMA 05 21:31:22.6±0.4, 31°.N±2°×14°.1E±°, h108km, MV3.7/27, NEAR TORISHIMA IS, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAOM	**Aogashimamukai**	**1.88**	**329**	*eP*	Pn	21 31 55.0	+1.1
JAOM				S	Sn	21 32 18.8	+0.9
JHCJ	**Hachijojimakas**	**2.40**	**337**	*eP*	Pn	21 32 01.4	+0.7
JHCJ				*eS*	Sn	21 32 30.8	+0.9
JHJ2	**Mitsune**	**2.43**	**338**	P	Pn	21 32 01.4	+0.3
BSO1	**Boso 1**	**3.79**	**1**	*eP*	Pn	21 32 19.7	+1.2
BSO3	**Boso 3**	**3.95**	**355**	*eP*	Pn	21 32 21.9	+0.9
TTO1	**TONANKAI O.B.S**	**4.45**	**309**	*eP*	Pn	21 32 29.4	+1.7
JOD2	**Odawara 2**	**4.65**	**341**	*eP*	Pn	21 32 33.6	+2.9
JIE	**Ise**	**5.00**	**316**	*eP*	Pn	21 32 37.4	+2.1
JAG	**Ashikaga**	**5.68**	**348**	*eP*	Pn	21 32 46.1	+1.4
JHO	**Hitachi**	**5.75**	**357**	P	Pn	21 32 45.9	+0.4
JHO				*eS*	Sn	21 33 52.0	+1.9

*IDC **05** 21:32:25.8±3.3, 12°.43S×166°.72E, h108km±27km, mb3.6/9, mbtmp4.1/11, MS3.0/3, Error ellipse: s-maj=27.5km s-min=18.4km az=72.0*
ISC 05 21:32:25.0±1.0, 12°.40S±0'.09×166°.8E±0'.1, h100km, n13, σ1ᵎ14/13, mb3.8/9, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**7.32**	**293**	P	**Pn**	**21 34 10.4**	**+1.1**
	43nm,0.4s,baz=73,slow=0.3,SNR=1.2						
HNR				S	**Sn**	**21 35 30.5**	**-0.4**
	58nm,0.4s,baz=341,slow=4.1,SNR=5.9						
HNR				LR	LR	21 36 38.3	
	comp=Z,102nm,21.4s,baz=259,slow=35						
DZM	**Mont Dzumac**	**9.62**	**182**	P	**Pn**	**21 34 42.3**	**+1.7**
	16nm,0.5s,baz=39,slow=19,SNR=20						
DZM				S	**Sn**	**21 36 25.5**	**-1.5**
	4.4nm,0.6s,baz=300,slow=23,SNR=1.9						
KRVT	**Keravat (AS076**	**16.65**	**298**	LR	LR	21 42 34.5	
	comp=Z,53nm,18.5s,baz=134,slow=37						
CTA	**Charters Tower**	**21.11**	**246**	LR	LR	21 45 01.0	
	comp=Z,36nm,18.6s,baz=50,slow=36						
STKA	**Stephens Creek**	**30.19**	**226**	P	**P**	**21 38 26.6**	**+0.6**
	1.2nm,0.5s,baz=45,slow=11,SNR=3.1						
	1.2nm,0.5s						
WRA	**Warramunga Arr**	**32.00**	**252**	P	**P**	**21 38 40.8**	**-1.2**
	0.7nm,0.7s,baz=84,slow=8.6,SNR=5.6						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**33.12**	**246**	P	**P**	**21 38 50.6**	**-1.2**
	1.1nm,0.7s,baz=69,slow=9.7,SNR=13						
	1.1nm,0.7s						
FITZ	**Fitzroy Crossi**	**40.02**	**257**	P	**P**	**21 39 49.3**	**-1.2**
	1.3nm,0.7s,baz=62,slow=9.8,SNR=2.1						
	1.3nm,0.7s						
KSRS	**Korea Array**	**61.56**	**325**	P	**P**	**21 42 31.6**	**-0.1**
	0.7nm,0.6s,baz=130,slow=8.9,SNR=2.4						
	0.7nm,0.6s						
CMAR	**Chiang Mai Arr**	**73.57**	**294**	P	**P**	**21 43 48.7**	**+0.9**
	0.9nm,0.6s,baz=130,slow=5.4,SNR=9.1						
	0.9nm,0.6s						
SONM	**Songino Array**	**80.35**	**324**	P	**P**	**21 44 25.7**	**+0.4**
	0.5nm,0.6s,baz=149,slow=7.5,SNR=2.8						
	0.5nm,0.6s						
ILAR	**Eielson Array**	**84.48**	**18**	P	**P**	**21 44 45.3**	**-1.0**
	0.7nm,0.7s,baz=251,slow=5.7,SNR=6.9						
	0.7nm,0.7s						
MKAR	**Makanchi Array**	**95.19**	**317**	P	**P**	**21 45 37.1**	**-0.2**
	1.4nm,0.7s,baz=99,slow=7.6,SNR=7.5						
	1.4nm,0.7s						

	comp=Z,0.8nm,0.2s						
VNA3	**Neumayer Olymp**	**14.16**	**163**	P	**P**	**21 37 44.9**	**+0.6**
	comp=Z,0.9nm,0.2s						
VNA3				⇓S	**Sn**	**21 40 12.6**	**-0.9**
	comp=E,0.3nm,0.2s						
VNA2	**Neumayer--Watz**	**14.28**	**159**	P	**P**	**21 37 47.2**	**+1.6**
	comp=Z,0.7nm,0.2s,baz=327,slow=13						
TROLL	**Troll, Antarti**	**17.22**	**153**	P	P	21 38 30.2	+12
	comp=Z,25nm,0.3s						
VNDA	**Vanda**	**44.48**	**181**	P	**P**	**21 42 25.6**	**-1.4**
	comp=Z,0.8nm,0.6s,baz=203,slow=7.7,SNR=4.7						
	comp=Z,0.8nm,0.6s						
H04S2	**CROZET ISLANDS**	**44.51**	**109**	T	T	22 33 09.8	
	baz=226,slow=76,SNR=14						
H04S3	**CROZET ISLANDS**	**44.52**	**109**	T	T	22 33 15.1	
	baz=226,slow=76,SNR=11						
H04S1	**CROZET ISLANDS**	**44.52**	**109**	T	T	22 33 13.7	
	baz=226,slow=76,SNR=14						
H10S2	**ASCENSION HYDR**	**49.55**	**11**	T	T	22 37 40.6	
	baz=187,slow=74,SNR=13						
H10S3	**ASCENSION HYDR**	**49.55**	**11**	T	T	22 37 41.2	
	baz=33,slow=74,SNR=17						
H10N1	**ASCENSION HYDR**	**50.67**	**11**	T	T	22 39 01.4	
	baz=187,slow=75,SNR=4.7						
H10N3	**ASCENSION HYDR**	**50.67**	**11**	T	T	22 39 03.3	
	baz=187,slow=75,SNR=11						
H10N2	**ASCENSION HYDR**	**50.68**	**11**	T	T	22 39 05.4	
	baz=187,slow=75,SNR=7.6						
DBIC	**Dimbokro**	**66.28**	**19**	P	**P**	**21 45 03.6**	**-1.0**
	comp=Z,3.2nm,0.7s,baz=173,slow=4.2,SNR=6.7						
	comp=Z,3.2nm,0.7s						
TORD	**Torodi Ar. Bea**	**73.90**	**25**	P	**P**	**21 45 51.2**	**-0.1**
	comp=Z,0.5nm,0.5s,baz=192,slow=6.1,SNR=4.0						
	comp=Z,0.5nm,0.5s						
SONM	**Songino Array**	**148.45**	**87**	PKPbc	**PKPbc**	**21 54 02.3**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=244,slow=3.1,SNR=4.4						
ILAR	**Eielson Array**	**153.36**	**308**	PKPbc	**PKPdf**	**21 54 07.5**	**+2.0**
	comp=Z,1.1nm,0.9s,baz=129,slow=2.4,SNR=7.9						

*ATH **05** 21:47:22.7, 37°.88N×26°.61E, h14km, ML2.6/5, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*ISK **05** 21:47:22.8, 37°.88N×26°.66E, h10km, ML2.8/13*
*THE **05** 21:47:23.2, 38°.N±1°×2°.7E±°, h11km±3km, M2.8/8, MLh2.8/8*
*AFAD **05** 21:47:23.5, 37°.92N×26°.68E, h7km±2km, ML2.4*
ISC 05 21:47:22.9±0.8, 37°.90N±0'.02×26°.66E±0'.02, h14km±6km, n42, σ0ᵎ40/64, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.11**	**159**	P	**Pg**	**21 47 25.9**	**-0.2**
KRL1				S	**Sg**	**21 47 28.1**	**-0.1**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.14**	**195**	P	**Pg**	**21 47 26.6**	**0.0**
SAM2				S	**Sg**	**21 47 28.4**	**-0.6**
SAM2				AML	AML		
SMG	**Samos**	**0.23**	**143**	P	**Pg**	**21 47 28.3**	**+0.3**
SMG				S	**Sg**	**21 47 32.1**	**+0.6**
SMG				AML	AML		
SMG	**Samos**	**0.23**	**143**	P	**Pg**	**21 47 28.2**	**+0.2**
SMG				S	**Sg**	**21 47 32.0**	**+0.6**
DGB	**zmir**	**0.24**	**49**	P	**Pg**	**21 47 27.9**	**0.0**
DGB				S	**Sg**	**21 47 31.3**	**-0.2**
GMLD	**Gumuldur**	**0.27**	**48**	Pg	**Pg**	**21 47 28.5**	**-0.1**
GMLD				Sg	**Sg**	**21 47 32.7**	**+0.2**
IZEYE	**Izmir, Urla-Ze**	**0.36**	**340**	P	**Pg**	**21 47 30.3**	**+0.1**
ZEYE				S	**Sg**	**21 47 35.7**	**+0.5**
ZEYE				IAML		21 47 37.0	
	comp=N,612nm,0.5s						
ZEYE				IAML		21 47 38.0	
	comp=E,462nm,0.2s						
BEYE	**izmir**	**0.39**	**33**	P	**Pg**	**21 47 30.7**	**-0.1**
BEYE				S	**Sg**	**21 47 36.0**	**-0.2**
GCAM	**G?zelcaml?**	**0.50**	**113**	P	**Pb**	**21 47 33.2**	**-0.2**
GCAM				S	**Sb**	**21 47 40.0**	**-0.5**
GCAM				IAML		21 47 41.0	
	comp=N,416nm,0.7s						
GCAM				IAML		21 47 41.0	
	comp=E,378nm,0.2s						
GCAM	**G?zelcaml?**	**0.50**	**113**	Pg	**Pg**	**21 47 32.9**	**+0.2**
GCAM				Sg	**Sb**	**21 47 40.3**	**-0.2**
GCAM				AML	AML		
BLCB	**Balcova**	**0.57**	**32**	P	**Pg**	**21 47 34.1**	**-0.1**
BLCB				S	**Sg**	**21 47 42.0**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**32**	Pg	**Pb**	**21 47 34.6**	**-0.1**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.64**	**133**	P	**Pb**	**21 47 36.3**	**+0.5**
DDIM				S	**Sb**	**21 47 45.7**	**+1.1**
DDIM				IAML		21 47 48.0	
	comp=N,182nm,0.5s						
DDIM				IAML		21 47 51.0	
	comp=E,210nm,0.9s						
CHOS	**Chios island**	**0.68**	**316**	P	**Pg**	**21 47 36.4**	**+0.2**
CHOS				S	**Sb**	**21 47 46.6**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.68**	**316**	Pg	**Pb**	**21 47 36.7**	**+0.1**
CHOS				Sg	**Sb**	**21 47 46.7**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.68**	**316**	P	**Pg**	**21 47 35.8**	**-0.4**
CHOS				S	**Sg**	**21 47 45.7**	**+0.5**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.70**	**353**	Pg	**Pb**	**21 47 37.0**	**+0.1**
KRBN				AML	AML		
DUVT	**Torbali**	**0.70**	**62**	P	**Pb**	**21 47 36.8**	**-0.1**
DUVT				S	**Sg**	**21 47 45.5**	**-0.3**
DUVT				IAML		21 47 48.0	
	comp=E,191nm,0.2s						
BAGT	**Foa**	**0.77**	**11**	P	**Pn**	**21 47 39.6**	**+0.2**
BAGT				S	**Sb**	**21 47 48.7**	**+0.2**
BAGT				IAML		21 47 52.0	
	comp=N,274nm,0.7s						
BAGT				IAML		21 47 52.0	
	comp=E,177nm,0.7s						
EAG2	**Marmaro, Chios**	**0.78**	**326**	P	**Pg**	**21 47 38.0**	**0.0**
EAG2				S	**Sg**	**21 47 47.8**	**-0.4**
KARB	**zmir-Karabur**	**0.79**	**346**	P	**Pb**	**21 47 38.6**	**+0.1**
KARB				S	**Sb**	**21 47 49.4**	**+0.4**
KARB				IAML		21 47 52.0	
	comp=N,208nm,0.4s						
KARB				IAML		21 47 52.0	
	comp=E,152nm,0.6s						
FOCM	**Foa**	**0.82**	**4**	Pg	**Pb**	**21 47 39.2**	**+0.3**
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.98**	**87**	Pg	**Pb**	**21 47 41.9**	**+0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.98**	**148**	P	**Pb**	**21 47 42.2**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.98**	**148**	Pg	**Pb**	**21 47 42.0**	**+0.3**
BODT				AML	AML		
MLSB	**Milas**	**1.07**	**124**	Pg	**Pg**	**21 47 43.6**	**0.0**
MLSB				AML	AML		
DKL	**Dikili**	**1.19**	**9**	Pn	**Pg**	**21 47 46.4**	**+0.6**
DKL				AML	AML		
DKL	**Dikili**	**1.19**	**9**	P	**Pb**	**21 47 45.3**	**+0.1**
DKL				S	**Sn**	**21 48 01.4**	**+0.3**
APE	**Apeiranthos**	**1.22**	**228**	P	**Pn**	**21 47 44.8**	**-0.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.22**	**228**	P	**Pn**	**21 47 44.9**	**-0.7**
APE				S	**Sb**	**21 48 00.9**	**-0.5**
GOMA	**Golmarmara-Man**	**1.28**	**50**	Pn	**Pg**	**21 47 47.5**	**0.0**
NAZL	**Nazilli-Aydin**	**1.29**	**87**	Pn	**Pg**	**21 47 47.4**	**-0.4**
NAZL				AML	AML		
AKS	**Akhisar**	**1.34**	**42**	Pn	**Pg**	**21 47 48.4**	**-0.2**
AKS				AML	AML		
PRK	**Paraskevi**	**1.38**	**347**	P	**Pb**	**21 47 48.8**	**+0.3**
PRK	**Paraskevi**	**1.38**	**347**	P	**Pb**	**21 47 48.3**	**-0.2**
PRK				S	**Sn**	**21 48 05.9**	**0.0**
SOMA	**Soma-Manisa**	**1.43**	**28**	Pn	**Pg**	**21 47 49.9**	**-0.5**
SOMA				AML	AML		
YER	**Yerkesik**	**1.50**	**120**	P	**Pn**	**21 47 48.9**	**-0.5**
GORD	**Gordes-Manisa**	**1.56**	**49**	Pn	**Pb**	**21 47 51.4**	**-0.3**
KARY	**Karystos**	**1.76**	**275**	P	**Pn**	**21 47 52.2**	**-0.8**
ARG	**Arkhangelos**	**2.05**	**145**	P	**Pn**	**21 47 56.6**	**-0.3**
DION	**Dionisos Attik**	**2.16**	**276**	P	**Pn**	**21 47 58.2**	**-0.3**
VLY	**Voula,Athens**	**2.27**	**270**	P	**Pn**	**21 47 59.9**	**0.0**

*IGQ **05** 21:47:47.8±0.2, 0°.N±2°×8°.0W±°, h10km±2km, M4.2/34, Mjma4.3/34, MLv4.1/34, Ms(BB)4.3/13*
*RSNC **05** 21:47:49.0±0.5, 0°.N±3°×8°.0W±°, h0km, M4.4, mB5.0, mb4.7, ML3.6, Mw(mB)4.4*
*CATAC **05** 21:47:55.9±0.5, 0°.N±6°×7°.9W±°, h1km, M4.5/7, mb5.2/3, mB6.2/1, MLv4.2/7, Mw(mB)5.9/1, Error ellipse: s-maj=14.0km s-min=6.2km az=34.8, confirmed*
ISC 05 21:47:46.7±1.5, 0°.19N±0'.03×80°.01W±0'.04, h5km±13km, n113, σ1ᵎ09/118, 4C-40D, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FLF1	**Flavio Alfaro-**	**0.57**	**163**	⇓P	**Pn**	**21 48 01.3**	**-0.3**
FLF1				S	**Sn**	**21 48 12.8**	**+1.4**
FLF1	**Flavio Alfaro-**	**0.57**	**163**	P	**Pn**	**21 48 01.3**	**-0.3**
AATC	**Ecuador-Atacam**	**0.68**	**12**	⇑P	**Pg**	**21 47 60.0**	**+0.1**
AATC				S	**Sb**	**21 48 10.6**	**-0.3**
CAB1	**Cabo Pasado-Ma**	**0.71**	**216**	⇑P	**Pb**	**21 48 01.4**	**-0.3**
CAB1				S	**Sn**	**21 48 13.2**	**-1.7**
ATON	**Ecuador-Tonsup**	**0.72**	**16**	⇑P	**Pg**	**21 47 59.8**	**-0.7**
ATON				S	**Sb**	**21 48 11.6**	**-0.3**
AES2	**Ecuador-Puerto**	**0.87**	**25**	⇑P	**Pb**	**21 48 03.0**	**-1.4**
AES2				S	**Sn**	**21 48 17.3**	**-1.5**
ABH2	**Ecuador-Univer**	**0.93**	**205**	P	**Pg**	**21 48 05.3**	**+0.7**
ABH2				S	**Sn**	**21 48 20.5**	**+0.2**
PECV	**Mancha de Ca P**	**0.96**	**182**	P	**Pn**	**21 48 07.4**	**+0.4**
ASDO	**Santo Domingo**	**0.99**	**117**	P	**Pb**	**21 48 06.5**	**-0.1**
RVRD	**Rio Verde**	**1.07**	**36**	⇓P	**Pb**	**21 48 07.0**	**-0.7**
RVRD				S	**Sn**	**21 48 23.1**	**-0.6**
PAC1	**Pacto, Paraso**	**1.22**	**87**	⇓P	**Pn**	**21 48 09.8**	**-0.9**
PAC1	**Pacto, Paraso**	**1.22**	**87**	P	**Pn**	**21 48 09.7**	**-0.9**
GGPT	**Toaza - Volcan**	**1.45**	**107**	⇓P	**Pn**	**21 48 13.6**	**-0.4**
TERV	**Terraza Guagua**	**1.45**	**105**	⇓P	**Pn**	**21 48 13.8**	**-0.4**
GGPC	**Guagua Pichinc**	**1.46**	**105**	P	**Pn**	**21 48 14.1**	**-0.2**
GGPC	**Guagua Pichinc**	**1.46**	**105**	⇓P	**Pn**	**21 48 14.0**	**-0.4**
JUA2	**San Juan 2**	**1.46**	**106**	⇓P	**Pn**	**21 48 14.1**	**-0.1**
YANA	**Yana**	**1.47**	**102**	⇓P	**Pn**	**21 48 14.1**	**-0.3**
PULU	**Pululahua**	**1.52**	**96**	P	**Pn**	**21 48 14.8**	**-0.2**
PULU	**Pululahua**	**1.52**	**96**	⇓P	**Pn**	**21 48 14.6**	**-0.4**
OTAV	**Otavalo**	**1.56**	**88**	P	**Pn**	**21 48 15.2**	**-0.4**
OTAV	**Otavalo**	**1.56**	**88**	⇓P	**Pn**	**21 48 15.0**	**-0.6**
OTAV	**Otavalo**	**1.56**	**88**	P	**Pn**	**21 48 14.9**	**-0.7**
ILLI	**Illinizas Sur**	**1.57**	**125**	⇓P	**Pn**	**21 48 15.5**	**-0.2**
ALOR	**Ecuador-San Lo**	**1.60**	**47**	P	**Pb**	**21 48 17.0**	**+0.2**
SNLR	**San Lorenzo-Es**	**1.60**	**47**	⇓P	**Pb**	**21 48 16.2**	**-0.5**
CUSE	**Cuicocha Este**	**1.61**	**86**	⇓P	**Pn**	**21 48 16.1**	**-0.2**
CUSE	**Cuicocha Este**	**1.61**	**86**	P	**Pn**	**21 48 16.1**	**-0.2**
TING	**Casa Alexandra**	**1.63**	**107**	P	**Pb**	**21 48 17.5**	**-0.1**
JIPI	**JIPIJAPA**	**1.64**	**200**	P	**Pg**	**21 48 18.8**	**+0.6**
CUIC	**Cuicocha-Domo**	**1.65**	**86**	⇓P	**Pn**	**21 48 16.7**	**-0.1**
PUEM	**Granja Avicola**	**1.67**	**101**	⇓P	**Pb**	**21 48 17.8**	**-0.4**
COTA	**Cotacachi**	**1.68**	**85**	⇓P	**Pn**	**21 48 17.1**	**-0.1**
TOMA	**Boca Toma-Volc**	**1.72**	**114**	P	**Pb**	**21 48 18.2**	**-0.9**
SRAM	**San Ramn-Vol**	**1.72**	**123**	P	**Pb**	**21 48 18.7**	**-0.4**
SUCR	**Mariscal Sucre**	**1.73**	**119**	⇓P	**Pb**	**21 48 18.9**	**-0.3**
PITA	**Cotopaxi Volc**	**1.75**	**115**	⇓P	**Pb**	**21 48 19.1**	**-0.5**
NAS2	**Nasa**	**1.75**	**118**	⇓P	**Pb**	**21 48 19.4**	**-0.4**
ALIT	**Ecuador-Imbabu**	**1.75**	**70**	P	**Pn**	**21 48 17.9**	**-0.1**
LITE1	**Lita**	**1.75**	**70**	P	**Pn**	**21 48 16.3**	**-1.7**
SLOR	**San Lorenzo -**	**1.77**	**121**	P	**Pb**	**21 48 20.0**	**0.0**
SLOR	**San Lorenzo -**	**1.77**	**121**	⇓P	**Pb**	**21 48 19.7**	**-0.3**
URCU	**Urcuqui**	**1.77**	**82**	⇓P	**Pn**	**21 48 19.0**	**+0.5**
BREF	**Cotopaxi Volca**	**1.79**	**119**	⇓P	**Pb**	**21 48 20.0**	**-0.4**
ISPT	**Isla de la Pla**	**1.79**	**216**	P	**Pb**	**21 48 20.5**	**+0.4**
BMOR	**Cotopaxi Volca**	**1.80**	**121**	⇓P	**Pb**	**21 48 20.4**	**-0.6**
BVC2	**Cotopaxi Volca**	**1.81**	**118**	⇓P	**Pb**	**21 48 20.4**	**-0.3**
VC1	**Cotopaxi 1**	**1.81**	**117**	⇓P	**Pb**	**21 48 20.3**	**-0.4**
IMBA	**Imbabura, San**	**1.81**	**87**	P	**Pb**	**21 48 21.3**	**+0.6**
BRRN	**Barrancas-Volc**	**1.81**	**122**	⇓P	**Pb**	**21 48 20.2**	**-0.6**
BTAM	**Cotopaxi Volca**	**1.83**	**118**	⇓P	**Pb**	**21 48 20.8**	**-0.3**
TAMB	**Tambo**	**1.86**	**118**	⇓P	**Pb**	**21 48 21.0**	**-0.6**
ANTG	**Antisana-Guama**	**1.89**	**111**	⇓P	**Pb**	**21 48 21.0**	**-1.0**
PPLP	**Puerto Lpez**	**1.89**	**204**	P	**Pb**	**21 48 20.4**	**-1.3**
PPLP	**Puerto Lpez**	**1.89**	**204**	P	**Pb**	**21 48 20.8**	**-1.0**
VCES	**Cotopaxi**	**1.89**	**121**	⇓P	**Pb**	**21 48 21.5**	**-0.6**
ANTM	**Antisana-La Mi**	**1.93**	**112**	⇓P	**Pb**	**21 48 21.7**	**-1.0**
YAHU	**Yahuarcocha**	**1.95**	**85**	P	**Pb**	**21 48 23.4**	**+0.4**
ANTI	**Antisana**	**1.96**	**109**	⇓P	**Pb**	**21 48 22.2**	**-1.0**
ANTS	**Antisana-Sarah**	**1.96**	**110**	P	**Pb**	**21 48 22.6**	**-0.8**
ANTS	**Antisana-Sarah**	**1.96**	**110**	⇓P	**Pb**	**21 48 22.4**	**-0.9**
ANGU	**Angureal**	**2.01**	**94**	⇓P	**Pb**	**21 48 23.6**	**-0.5**
CAYR	**Refugio Cayamb**	**2.01**	**95**	P	**Pb**	**21 48 23.2**	**-1.0**
CHSH	**Refugio Sur-Vo**	**2.03**	**146**	P	**Pb**	**21 48 23.7**	**-0.8**
PIS1	**Pisayambo**	**2.04**	**127**	P	**Pb**	**21 48 24.1**	**-0.6**
CHMA	**Chilma**	**2.06**	**71**	⇓P	**Pn**	**21 48 22.2**	**-0.1**
PORT	**Chimborazo Vol**	**2.06**	**143**	⇓P	**Pn**	**21 48 23.1**	**+0.5**
LNGL	**El Angel-Carch**	**2.08**	**75**	P	**Pn**	**21 48 22.3**	**-0.5**
PIAT	**Ana Tenorio**	**2.11**	**124**	P	**Pb**	**21 48 24.6**	**-1.2**
PIAT	**Ana Tenorio**	**2.11**	**124**	P	**Pb**	**21 48 24.4**	**-1.4**
TAMH	**Tambohuasha Ch**	**2.12**	**144**	P	**Pn**	**21 48 23.9**	**+0.6**
ECEN	**Cerro

MORN	Al O del Volca	0.32	90	⇓P		Pn	21 50 22.1	0.0
NANN	Nandasmo	0.41	340	⇑P		Pn	21 50 23.4	+0.9
NANN				S		Sn	21 50 37.6	+0.8
SABN	Sabanita	0.45	336	⇑P		Pn	21 50 22.6	0.0
MASN	Masaya	0.47	339	P		Pn	21 50 22.7	-0.1
MAS3	Al N del Volca	0.51	338	⇑P		Pn	21 50 23.3	+0.3
CARN	Rivas	0.57	129	⇓P		Pn	21 50 23.4	+0.1
CARN				S		Sn	21 50 38.1	-0.1
CARN	Rivas	0.57	129	eP		Pn	21 50 22.7	-0.6
LCRUZ	La Cruz	0.58	144	eP		Pn	21 50 23.1	-0.3
LCRUZ				eS		Sn	21 50 37.8	-0.5
WILN	Americas 2	0.64	341	⇑P		Pn	21 50 23.8	+0.1
WILN				S		Sn	21 50 39.3	+0.2
TISN	Laguna Tiscapa	0.66	334	⇑P		Pn	21 50 23.6	-0.3
APQ2	Apoyeque	0.73	332	⇑P		Pn	21 50 24.5	+0.1
APQ2				S		Sn	21 50 39.9	-0.3
APYN	Apoyeque	0.77	332	P		Pn	21 50 25.8	+1.0
ACON	Acoyapa	0.89	62	P		Pn	21 50 25.5	-0.2
ACON	Acoyapa	0.89	62	eP		Pn	21 50 23.9	-1.8
BUAI	Buenos Aires	0.92	136	eP		Pn	21 50 26.1	+0.1
LAPC	Finca la Perla	0.94	145	eP		Pn	21 50 25.0	-1.2
BOAB	BOACO BROADBAN	0.94	19	⇓P		Pn	21 50 26.1	-0.1
VORI	VORI	0.95	140	eP		Pn	21 50 26.7	+0.2
VRLE	La Escondida,	0.96	141	eP		Pn	21 50 26.7	+0.2
GPS2	Hotel Rincn d	1.00	142	eP		Pn	21 50 26.8	0.0
MOM2	El Cardon	1.01	331	⇑P		Pn	21 50 26.8	0.0
MOM2				S		Sn	21 50 44.5	0.0
ALIBA	Liberia Airpor	1.04	156	eP		Pn	21 50 27.3	+0.2
LEVN	Ruinas Leon Vi	1.05	324	S		Sn	21 50 47.2	+2.1
CLARA	Aguas Claras	1.09	134	eP		Pn	21 50 27.7	+0.1
MOM3	MOM3	1.09	331	⇓P		Pn	21 50 27.7	+0.1
MESS	Mesas	1.11	136	eP		Pn	21 50 27.7	-0.2
HORC	Hornillas	1.11	137	eP		Pn	21 50 28.1	-0.1
CANAL	Canalete	1.15	128	eP		Pn	21 50 28.0	-0.1
COLC	Colonia	1.16	139	eP		Pn	21 50 28.4	+0.1
CUI	Cuipilapa	1.19	138	eP		Pn	21 50 28.8	+0.1
BAGA	Bagaces	1.23	145	eP		Pn	21 50 29.2	+0.1
TENO	El Achiote	1.29	130	eP		Pn	21 50 29.8	+0.2
TIMP	Tierras Morena	1.34	135	eP		Pn	21 50 30.1	-0.1
QUEN	Al S del Volca	1.34	321	⇑P		Pn	21 50 30.4	+0.2
QUEN				S		Sn	21 50 50.7	+0.3
QUEB	Quebradon, Cot	1.40	131	eP		Pn	21 50 31.1	+0.3
CNAS	Canas	1.41	142	eP		Pn	21 50 31.4	+0.6
JUD3	Juan Diaz 3	1.44	163	eP		Pn	21 50 31.4	+0.2
NICO	Nicoya	1.50	160	eP		Pn	21 50 32.0	+0.1
CHIK	Chiripa	1.52	136	eP		Pn	21 50 32.4	+0.2
LIMN	Finca el Limon	1.55	346	P		Pn	21 50 32.8	+0.3
CRIN	San Cristobal	1.55	318	⇑P		Pn	21 50 32.5	-0.1
CRIN				S		Sn	21 50 55.6	+1.0
TABAC	Tabacon	1.58	131	eP		Pn	21 50 33.3	+0.5
JTS	Las Juntas de	1.60	141	P		Pn	21 50 33.2	+0.1
JTS				S		Sn	21 50 55.2	-0.3
JTS	Las Juntas de	1.60	141	eP		Pn	21 50 32.7	-0.3
REZ	Monterrey de S	1.61	129	eP		Pn	21 50 33.4	+0.2
CMARA	Lajas Hojancha	1.61	160	P		Pn	21 50 33.3	+0.1
CMARA				S		Sn	21 50 55.2	-0.6
CMARA	Lajas Hojancha	1.61	160	eP		Pn	21 50 33.3	+0.1
CEDE	Laguna Cedeo	1.64	130	eP		Pn	21 50 33.8	+0.3
ARE1	Arenal 1	1.64	131	eP		Pn	21 50 34.1	+0.6
VARE2	V. Arenal	1.64	131	eP		Pn	21 50 33.9	+0.3
CASO	Castillo	1.65	132	eP		Pn	21 50 34.0	+0.4
VACR	Volcan Arenal	1.66	130	eP		Pn	21 50 34.0	+0.2
VPL2	V. Platanar	1.99	128	eP		Pn	21 50 38.1	+0.3
VPL1	V. Platanar	2.04	129	eP		Pn	21 50 38.4	0.0
VPS8	V Poas	2.18	128	eP		Pn	21 50 40.8	+0.5
TRT2	Tortugero	2.41	114	P		Pn	21 50 42.5	-0.3
TRT2	Tortugero	2.41	114	eP		Pn	21 50 42.6	-0.1
CVTG	V. Turrialba,	2.57	123	eP		Pn	21 50 44.4	+0.5
VICA	Volcano Irazu	2.61	126	eP		Pn	21 50 46.0	+0.2
LCR2	La Lucha 2	2.64	133	P		Pn	21 50 46.8	+0.9
LCR2				S		Sn	21 51 19.1	+0.6
CVTQ	Turrialba Volc	2.66	125	eP		Pn	21 50 46.7	+0.4
CVTV	Tajo	2.67	125	eP		Pn	21 50 46.5	+0.1
PACA	Pacayal	2.98	310	P		Pn	21 50 50.9	+0.7
PACA				S		Sn	21 51 26.4	+0.2
PMON	Piamonte	3.90	304	P		Sn	21 51 46.9	-0.8
JAYA	Jayaque - finc	3.98	302	P		Sn	21 51 47.6	-2.1
CEVE	Cerro Verde	4.22	303	P		Sn	21 51 55.1	-0.3
NUBE	Las Nubes	4.39	303	P		Sn	21 51 57.6	-1.7

*BJI **05** 21:56:57.2, 6.57S×147.59E, h16km, mB5.3/14, mb4.9/56, Ms4.8/23, Ms7 4.5/23*

*MOS **05** 21:57:01.0±0.9, 6.53S×146.95E, h21km, mb5.4/49, Error ellipse: s-maj=8.6km s-min=4.9km az=110.1*

*GFZ **05** 21:57:01.8, 6.52S×147.04E, h29km, Mw5.2/17, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.19; $M_{\theta\theta}$-4.07; $M_{\phi\phi}$2.88; $M_{r\theta}$4.65; $M_{\theta\phi}$-2.20; $M_{\phi r}$-3.41; Fault plane solution: $M_0$7.15804×10^{16} NP1: ϕ_s117.02186°, δ84.01139°, λ125.83251°. NP2: ϕ_s215.24336°, δ36.26330°, λ10.15922°. Principal axes: T 7.4765, Plg40.0846°, Azm59.7769°; N -0.6863, Plg35.6070°, Azm292.7136°; P -6.7902, Plg29.7603°, Azm178.5424°;*

*GFZ **05** 21:57:02.7±0.2, 7°S±2°×14°7E±°, h24km, M5.2/62, mb5.3/62*

*NEIC **05** 21:57:02.7±2.2, 6.59S±0.05×146.97E±0.07, h19km±3km, mb5.4/188, Mww5.1/10, Error ellipse: s-maj=9.8km s-min=7.6km az=90.0*

*IDC **05** 21:57:03.8±1.6, 6.60S×146.95E, h31km±11km, mb4.7/23, mbtmp4.9/29, ML4.3/4, MS4.5/55, Error ellipse: s-maj=12.3km s-min=8.0km az=93.0*

*GCMT **05** 21:57:05.8±0.2, 6.70S±0.01×147.08E±0.01, h25km, MW5.2/120, Moment Tensor Solution. s72,c95; s120,c188; Duration: 1§0 Moment tensor: Scale 10^{16} Nm; M_{rr}-0.28±.14; $M_{\theta\theta}$-3.94±.10; $M_{\phi\phi}$4.22±.11; $M_{r\theta}$6.29±.22; $M_{\theta\phi}$-2.50±.09; $M_{\phi r}$-4.47±.25; Best double couple: $M_0$9.06200×10^{16} NP1:ϕ_s211.00000°, δ32.00000°, λ-2.00000°. NP2:ϕ_s303.00000°, δ89.00000°, λ-122.00000°. Principal axes: T 9.4190, Plg36.0000°, Azm60.0000°; N -0.7180, Plg32.0000°, Azm303.0000°; P -8.7050, Plg38.0000°, Azm185.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **05** 21:57:11.8±0.4, 7°S±3°×14°7E±°, h86km±3km, M5.1/82, mb5.3/82, mB5.6/51, MLv6.0/6, Mw(mB)5.1/51, MwMwp4.9/6, Mwp5.2/6*

ISC 05 21:57:02.9±0.4, 6°59S±0°03×147°01E±0°04, h23km±2km, h23km:pP-P, n723, σ1§60/645, mb5.3/208, MS4.5/63, 10C-12D, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
PMG	**Port Moresby**	**2.81**	**177**	Pn	**Pn**	**21 57 47.9**	**+1.6**
	450nm,0.3s,baz=28,slow=5.1,SNR=315						
PMG				Sn	**Sn**	**21 58 20.6**	**+1.1**
	172nm,0.3s,baz=351,slow=6.3,SNR=4.3						
PMG				LR	LR	21 59 22.7	
	comp=Z,14μm,20.8s,baz=14,slow=50						
PMG	**Port Moresby**	**2.81**	**177**	P	**Pn**	**21 57 47.7**	**+1.4**
PMG	**Port Moresby**	**2.81**	**177**	P	**Pn**	**21 57 47.4**	**+1.1**
PMG	**Port Moresby**	**2.81**	**177**		**Pn**	**21 57 47.4**	**+1.1**
PMG				Pg	**Pb**	**21 57 54.9**	**+2.6**
PMG	**Port Moresby**	**2.81**	**177**	P	**Pn**	**21 57 47.6**	**+1.3**
PMG	**Port Moresby**	**2.81**	**177**	P	**Pn**	**21 57 48.1**	**+1.8**
MANU	**Manus Island**	**4.53**	**4**		**Pn**	**21 58 11.7**	**+1.6**
I40PG	**Keravat**	**5.47**	**66**	I	I	22 27 27.7	
	91nm,0.5s,baz=248,slow=317,SNR=1.1						
KRVT	**Keravat (AS076**	**5.48**	**66**	Pn	**Pn**	**21 58 25.6**	**+2.4**
	172nm,0.3s,baz=155,slow=6.9,SNR=5.0						
KRVT				LR	LR	22 00 24.1	
	comp=Z,9μm,19.4s,baz=248,slow=36						
RABL	**Rabaul**	**5.66**	**65**		**Pn**	**21 58 27.4**	**+1.8**
MMPI	**Merauke**	**6.83**	**254**	P	**Pn**	**21 58 46.5**	**+4.8**
JAY	**Jayapura**	**7.47**	**302**	Pn	**Pn**	**21 58 52.4**	**+1.7**
	2.6nm,0.3s,baz=160,slow=9.4,SNR=7.3						
JAY				LR	LR	22 01 59.3	
	comp=Z,6μm,21.8s,baz=96,slow=40						
	16nm,0.9s						
JAY				AML	AML		
JAY	**Jayapura**	**7.47**	**302**	P	Pn	21 59 01.5	+11
	0.8nm2μm196nm,0.9s						
JAY				AML	AML		
GENI	**Genyem**	**7.89**	**300**	P	Pn	21 59 04.9	+8.6
GENI	**Genyem**	**7.89**	**300**	P	Pn	21 59 05.1	+8.8
	2.0nm3μm5μm372nm,0.8s						
GENI				AML	AML		
GENI	**Genyem**	**7.89**	**300**	P	**Pn**	**21 58 58.5**	**+2.2**
	comp=Z,397nm,0.9s						
MTSU	**Mount Surprise**	**11.77**	**193**	P	**Pn**	**21 59 50.8**	**+1.3**
	comp=Z,47nm,0.8s						
MTSU	**Mount Surprise**	**11.77**	**193**	P	Pn	21 59 55.0	+5.4
	comp=Z,47nm,0.8s						
MTSU	**Mount Surprise**	**11.77**	**193**	P	**Pn**	**21 59 50.9**	**+1.3**
MTSU	**Mount Surprise**	**11.77**	**193**	P	**Pn**	**21 59 50.0**	**+0.4**
	comp=Z,47nm,0.8s						
TATA	**Tatamba Isabel**	**12.81**	**99**	P	**Pn**	**22 00 06.8**	**+3.1**
SAVO	**Savo Central**	**12.93**	**102**	P	**Pn**	**22 00 08.3**	**+2.9**
HNR	**Honiara**	**13.12**	**103**	Pn	**Pn**	**22 00 10.3**	**+2.4**
	comp=Z,23nm,0.3s,baz=228,slow=9.5,SNR=12						
HNR	**Honiara**	**13.12**	**103**	P	**Pn**	**22 00 09.9**	**+2.0**
HNR	**Honiara**	**13.12**	**103**		**Pn**	**22 00 09.3**	**+1.4**
CTA	**Charters Tower**	**13.44**	**183**	P	**Pn**	**22 00 15.3**	**+3.0**
CTA	**Charters Tower**	**13.44**	**183**	Pn	**Pn**	**22 00 14.2**	**+1.9**
	comp=Z,2.4nm,0.3s,baz=357,slow=13,SNR=41						
CTA				LR	LR	22 05 13.2	
	comp=Z,5μm,20.4s,baz=2.0,slow=36						
	comp=Z,27nm,0.6s						
CTA				AML	AML		
CTAO	**Charters Tower**	**13.44**	**183**	P	**Pn**	**22 00 13.2**	**+0.9**
CTAO	**Charters Tower**	**13.44**	**183**	P	**Pn**	**22 00 12.7**	**+0.4**
CTAO	**Charters Tower**	**13.44**	**183**	Pn	**Pn**	**22 00 12.7**	**+0.4**
CTAO	**Charters Tower**	**13.44**	**183**	P	**Pn**	**22 00 13.7**	**+1.3**
	comp=Z,72nm,1.3s						
NGOA	**Tingoa Renbel**	**13.80**	**112**	P	**Pn**	**22 00 19.8**	**+2.6**
FAKI	**Fak Fak**	**15.15**	**283**	P	**P**	**22 00 42.8**	**+2.2**
FAKI	**Fak Fak**	**15.15**	**283**		**Pn**	**22 00 37.0**	**+1.3**
FAKI	**Fak Fak**	**15.15**	**283**	P	**P**	**22 00 45.8**	**+5.2**
	comp=Z,2μmcomp=Z,129nm,1.2s						
FAKI	**Fak Fak**	**15.15**	**283**	P	**P**	**22 00 38.4**	**-2.2**
	comp=Z,130nm,1.2s						
HURO	**Huro Makira**	**15.22**	**106**	P	**P**	**22 00 38.4**	**-2.9**
KDU	**Kakadu**	**15.56**	**246**	P	**Pn**	**22 00 41.9**	**+1.0**
	comp=Z,222nm,1.1s						
QIS	**Mount Isa**	**15.63**	**207**	P	**Pn**	**22 00 42.0**	**+0.1**
	comp=Z,152nm,1.1s						
QIS				S	**Sn**	**22 03 34.4**	**-0.3**
QIS	**Mount Isa**	**15.63**	**207**	P	**Pn**	**22 00 43.1**	**+1.2**
QIS	**Mount Isa**	**15.63**	**207**	P	**Pn**	**22 00 42.2**	**+0.2**
	comp=Z,152nm,1.1s						
SAUI	**Saumlaki**	**15.65**	**264**	P	**P**	**22 00 47.5**	**+1.5**
SAUI	**Saumlaki**	**15.65**	**264**		**Pn**	**22 00 42.6**	**+0.5**
SAUI				IAmb	IAmb	22 00 49.0	
	comp=Z,198nm,0.8s						
SAUI	**Saumlaki**	**15.65**	**264**	P	**P**	**22 00 49.5**	**+3.5**
SAUI	**Saumlaki**	**15.65**	**264**	P	**P**	**22 00 45.0**	**-1.0**
	comp=Z,454nm,0.9s						
SIJI	**Sorong**	**16.70**	**289**	Pn	**Pn**	**22 00 56.8**	**+1.2**
	comp=Z,0.7nm,0.3s,baz=93,slow=8.7,SNR=15						
SIJI				LR	LR	22 08 46.6	
	comp=Z,3μm,20.6s,baz=95,slow=42						
	comp=Z,29nm,0.6s						
SIJI				AML	AML		
MTN	**Manton Dam**	**16.83**	**247**	P	**Pn**	**22 00 57.5**	**+0.3**
	comp=Z,50nm,1.1s,comp=Z,0.0nm						
MTN	**Manton Dam**	**16.83**	**247**		**Pn**	**22 00 55.8**	**-1.5**
DRS	**Darwin Rock St**	**16.91**	**249**	P	**P**	**22 01 00.7**	**+0.6**
BNDI	**Bandanaira**	**17.15**	**276**	P	**P**	**22 01 07.6**	**+4.9**
BNDI	**Bandanaira**	**17.15**	**276**	P	**Pn**	**22 01 01.9**	**+0.7**
	comp=Z,490nm,1.2s						
PATS	**Pohnpei**	**17.46**	**40**	P	**P**	**22 01 07.8**	**+1.6**
	comp=Z,274nm,1.8s						
PATS	**Pohnpei**	**17.46**	**40**		**Pn**	**22 01 04.7**	**-0.4**
PATS				IAmb	IAmb	22 01 11.2	
	comp=Z,632nm,1.6s						
WB0	**Warramunga Arr**	**17.94**	**222**		**Pn**	**22 01 10.1**	**-1.0**
WB0				IAmb	IAmb	22 01 18.5	
	comp=Z,386nm,1.3s						
WR8	**Warramunga Arr**	**18.00**	**221**		**Pn**	**22 01 10.5**	**-1.3**
WRAB	**Tennant Creek**	**18.09**	**222**	P	**P**	**22 01 13.2**	**+0.1**
WRAB	**Tennant Creek**	**18.09**	**222**	eP	**P**	**22 01 13.0**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,197nm,1.7s						
WRAB	**Tennant Creek**	**18.09**	**222**	Pn	**Pn**	**22 01 10.6**	**-2.2**
WRAB				IAmb	IAmb	22 01 20.1	
	comp=Z,224nm,1.1s						
WRAB	**Tennant Creek**	**18.09**	**222**	P	**P**	**22 01 12.9**	**-0.1**
	comp=Z,186nm,1.0s						
WRA	**Warramunga Arr**	**18.10**	**222**	P	**Pn**	**22 01 12.7**	**-0.3**
	comp=Z,1.0nm,0.3s,baz=47,slow=12,SNR=29						
WRA				S	**Sn**	**22 04 24.4**	**-10**
	comp=Z,4.4nm,0.8s,baz=47,slow=24,SNR=2.4						
WRA				LR	LR	22 09 06.8	
	comp=Z,4μm,20.0s,baz=76,slow=40						
	comp=Z,67nm,1.0s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**18.10**	**222**	P	**Pn**	**22 01 10.8**	**-2.2**
EIDS	**Eidsvold**	**19.08**	**169**	P	**Pn**	**22 01 25.3**	**+0.5**
	comp=Z,68nm,0.8s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**19.08**	**169**	P	**Pn**	**22 01 25.0**	**+0.2**
EIDS	**Eidsvold**	**19.08**	**169**		**P**	**22 01 22.4**	**-1.5**
EIDS	**Eidsvold**	**19.08**	**169**	P	**P**	**22 01 23.7**	**-0.2**
	comp=Z,68nm,0.8s						
RMQ	**Roma**	**19.86**	**175**	P	**Pn**	**22 01 34.6**	**+0.5**
	comp=Z,82nm,1.0s						
RMQ	**Roma**	**19.86**	**175**	P	**Pn**	**22 01 33.6**	**-0.5**
RMQ	**Roma**	**19.86**	**175**	P	**P**	**22 01 32.9**	**+0.5**
	comp=Z,82nm,1.0s						
KNRA	**Kununurra**	**20.04**	**242**	P	Pn	22 01 37.3	+1.0
	comp=Z,147nm,0.9s,comp=Z,0.0nm						
KNRA	**Kununurra**	**20.04**	**242**		**P**	**22 01 33.0**	**-1.5**
KNRA				IAmb	IAmb	22 01 43.8	
	comp=Z,99nm,0.8s						
QLP	**Quilpie**	**20.06**	**187**	P	Pn	22 01 35.7	-0.8
	comp=Z,476nm,0.8s						
QLP	**Quilpie**	**20.06**	**187**	P	Pn	22 01 35.6	-0.9
QLP	**Quilpie**	**20.06**	**187**	P	Pn	22 01 35.7	-0.8
	comp=Z,476nm,0.8s						
NLAI	**Namlea**	**20.11**	**279**	P	Pn	22 01 40.6	+3.4
	comp=Z,2μmcomp=Z,3μmcomp=Z,197nm,1.1s						
GUMO	**Guam**	**20.16**	**354**	P	**P**	**22 01 34.6**	**-1.1**
	comp=Z,150nm,1.0s,baz=173,slow=19,SNR=3.8						
GUMO				LR	LR	22 09 09.4	
	comp=Z,1μm,18.8s,baz=190,slow=36						
	comp=Z,150nm,1.0s						
GUMO	**Guam**	**20.16**	**354**	P	**P**	**22 01 34.1**	**-1.6**
GUMO				pmax	pmax		
	comp=Z,175nm,0.9s						
GUMO	**Guam**	**20.16**	**354**	P	**P**	**22 01 34.1**	**-1.6**
GUMO				IAmb	IAmb	22 01 37.8	
	comp=Z,175nm,0.8s						
TNTI	**Ternate**	**20.93**	**290**	P	Pn	22 01 50.7	+4.0
TNTI	**Ternate**	**20.93**	**290**		**P**	**22 01 44.7**	**+0.6**
TNTI				IAmb	IAmb	22 01 56.5	
	comp=Z,230nm,1.4s						
TNTI	**Ternate**	**20.93**	**290**	P	Pn	22 01 50.8	+4.1
	comp=Z,2μmcomp=Z,123nm,1.3s						
TNTI	**Ternate**	**20.93**	**290**	P	Pn	22 01 46.1	-0.6
	comp=Z,122nm,1.3s						
AUBSH	**Beerwah State**	**20.94**	**165**	P	**P**	**22 01 45.0**	**+0.9**
AS06	**Alice Springs**	**21.09**	**215**	P	**P**	**22 01 47.3**	**+1.4**
	comp=Z,162nm,0.8s						
AS17	**Alice Springs**	**21.09**	**215**	P	**P**	**22 01 47.3**	**+1.4**
	comp=Z,149nm,1.0s						
AS15	**Alice Springs**	**21.12**	**215**	P	**P**	**22 01 46.4**	**+0.2**
	comp=Z,207nm,0.8s						
AS01	**Alice Springs**	**21.12**	**215**	P	**P**	**22 01 48.0**	**+1.8**
	comp=Z,157nm,0.9s						
AS01	**Alice Springs**	**21.12**	**215**	P	**P**	**22 01 47.5**	**+1.4**
	comp=Z,157nm,0.9s						
AS01	**Alice Springs**	**21.12**	**215**	P	**P**	**22 01 48.2**	**+2.0**
AS31	**Alice Springs**	**21.14**	**215**	P	**P**	**22 01 48.5**	**+2.0**
	comp=Z,57nm,0.8s						
AS31	**Alice Springs**	**21.14**	**215**		**P**	**22 01 46.6**	**+0.1**
ASAR	**Alice Springs**	**21.15**	**215**	P	**P**	**22 01 46.1**	**-0.3**
	comp=Z,14nm,0.8s,baz=54,slow=8.8,SNR=56						
ASAR				S	**S**	**22 05 37.7**	**-3.1**
	comp=Z,11nm,1.0s,baz=42,slow=21,SNR=4.8						
ASAR				LR	LR	22 10 48.1	
	comp=Z,3μm,18.8s,baz=45,slow=39						
	comp=Z,14nm,0.8s						
ASAR	**Alice Springs**	**21.15**	**215**	P	**P**	**22 01 45.9**	**-0.6**
AS09	**Alice Springs**	**21.15**	**215**	P	**P**	**22 01 47.6**	**+1.1**
	comp=Z,113nm,0.8s						
AUALC	**St Philip's Co**	**21.18**	**215**	P	**P**	**22 01 49.9**	**+3.1**
TW1H	**Toowoomba 1 Ha**	**21.37**	**168**	P	**P**	**22 01 49.4**	**+0.6**
SANI	**Sanana**	**21.44**	**281**	P	**P**	**22 01 54.9**	**+5.2**
SANI	**Sanana**	**21.44**	**281**	P	**P**	**22 01 51.7**	**+2.0**
	comp=Z,2μmcomp=Z,138nm,1.0s						
SANI	**Sanana**	**21.44**	**281**	P	**P**	**22 01 51.1**	**+1.4**
	comp=Z,140nm,0.9s						
SANVU	**Saraoutou**	**21.67**	**116**	P	**P**	**22 01 53.8**	**+1.7**
SANVU	**Saraoutou**	**21.67**	**116**		**P**	**22 01 52.6**	**+0.5**
SANVU	**Saraoutou**	**21.67**	**116**	P	**P**	**22 01 52.3**	**+0.2**
SANVU	**Saraoutou**	**21.67**	**116**	P	**P**	**22 01 51.3**	**-0.8**
	comp=Z,77nm,0.9s						
KOUNC	**Koumac, New Ca**	**21.75**	**131**	P	**P**	**22 01 52.7**	**-0.2**
INKA	**Innaminka**	**21.86**	**195**		**P**	**22 01 53.6**	**-0.4**
SOEI	**Soe**	**22.73**	**261**	P	**P**	**22 02 08.9**	**+5.3**
SOEI	**Soe**	**22.73**	**261**	P	**P**	**22 02 05.7**	**+2.0**
	comp=Z,132nm,0.9s						
AULRC	**Lightning Ridg**	**22.74**	**178**	P	**P**	**22 02 04.4**	**+1.0**
BATI	**Baumata**	**23.37**	**260**	P	**P**	**22 02 10.3**	**+0.2**
	comp=Z,28nm,0.8s,baz=117,slow=6.8,SNR=8.6						
BATI				LR	LR	22 13 48.8	
	comp=Z,4μm,19.7s,baz=88,slow=43						
	comp=Z,28nm,0.8s						
BATI	**Baumata**	**23.37**	**260**	P	**P**	**22 02 13.1**	**+3.0**
	comp=Z,1μmcomp=Z,2μmcomp=Z,203nm,1.2s						
MNI	**Manado**	**23.52**	**289**	P	**P**	**22 02 16.3**	**+4.7**
FITZ	**Fitzroy Crossi**	**23.77**	**239**	P	**P**	**22 02 13.7**	**-0.3**
FITZ	**Fitzroy Crossi**	**23.77**	**239**	P	**P**	**22 02 13.5**	**-0.4**
FITZ	**Fitzroy Crossi**	**23.77**	**239**	P	**P**	**22 02 11.7**	**-2.2**
	comp=Z,25nm,0.7s,baz=60,slow=8.3,SNR=49						
FITZ				LR	LR	22 12 59.7	
	comp=Z,3μm,19.6s,baz=58,slow=40						
	comp=Z,25nm,0.7s						
FITZ	**Fitzroy Crossi**	**23.77**	**239**	P	**P**	**22 02 16.1**	**+2.2**
FITZ	**Fitzroy Crossi**	**23.77**	**239**		**P**	**22 02 12.6**	**-1.3**
FITZ	**Fitzroy Crossi**	**23.77**	**239**	P	**P**	**22 02 13.7**	**-0.3**
KMSI	**Cibinong**	**24.06**	**286**	P	**P**	**22 02 20.1**	**+3.4**
ARMA	**Armidale**	**24.10**	**170**	P	**P**	**22 02 18.2**	**+1.1**
ARMA	**Armidale**	**24.10**	**170**	P	**P**	**22 02 18.1**	**+1.1**
ARMA	**Armidale**	**24.10**	**170**	P	**P**	**22 02 18.2**	**+1.1**
ARMA	**Armidale**	**24.10**	**170**	P	**P**	**22 02 17.7**	**+0.6**
ARMA				IAmb	IAmb	22 02 26.2	
	comp=Z,62nm,0.8s						
ARMA	**Armidale**	**24.10**	**170**	P	**P**	**22 02 16.7**	**-0.3**
	comp=Z,84nm,1.0s						
NOUC	**Port Laguerre**	**24.18**	**132**	P	**P**	**22 02 19.0**	**+1.3**
ONTNC	**Ouen Toro**	**24.42**	**132**	P	**P**	**22 02 20.5**	**+0.6**
ONTNC	**Ouen Toro**	**24.42**	**132**	P	**P**	**22 02 19.0**	**-0.9**
YATNC	**Mamie plateau,**	**24.60**	**131**	P	**P**	**22 02 22.5**	**+1.0**
MMRI	**Maumere**	**24.64**	**264**	P	**P**	**22 02 24.7**	**+2.7**
MMRI	**Maumere**	**24.64**	**264**		**P**	**22 02 21.7**	**-0.3**
MMRI	**Maumere**	**24.64**	**264**	P	**P**	**22 02 22.5**	**+0.5**
	comp=Z,2μmcomp=Z,113nm,0.7s						
MMRI	**Maumere**	**24.64**	**264**	P	**P**	**22 02 22.1**	**+0.1**
	comp=Z,112nm,0.7s						
AUPHS	**Peel High Scho**	**24.66**	**172**	P	**P**	**22 02 23.5**	**+1.5**
OUENC	**Ouen Island, N**	**24.77**	**131**	P	**P**	**22 02 25.4**	**+2.3**
OUENC	**Ouen Island, N**	**24.77**	**131**	P	**P**	**22 02 22.6**	**-0.4**
LUWI	**Luwuk**	**24.80**	**282**	P	**P**	**22 02 28.3**	**+4.9**
LUWI	**Luwuk**	**24.80**	**282**	P	**P**	**22 02 22.5**	**-1.0**
LUWI	**Luwuk**	**24.80**	**282**	P	**P**	**22 02 25.9**	**+2.5**
LUWI	**Luwuk**	**24.80**	**282**	P	**P**	**22 02 24.1**	**+0.7**
	comp=Z,492nm,0.9s						
CMSA	**Cobar Meteorol**	**24.85**	**183**	P	**P**	**22 02 23.9**	**+0.2**
	comp=Z,108nm,1.0s						
CMSA	**Cobar Meteorol**	**24.85**	**183**	P	**P**	**22 02 23.7**	**0.0**
	comp=Z,108nm,1.0s						
CMSA	**Cobar Meteorol**	**24.85**	**183**	P	**P**	**22 02 24.4**	**+0.7**
CMSA	**Cobar Meteorol**	**24.85**	**183**	P	**P**	**22 02 23.8**	**+0.2**
	comp=Z,108nm,1.0s						
MARNC	**Mare, Loyalty**	**25.15**	**128**	P	**P**	**22 02 28.4**	**+1.9**
MARNC	**Mare, Loyalty**	**25.15**	**128**	P	**P**	**22 02 25.7**	**-0.8

	comp=Z,35nm,1.1s						
KKM	**Kota Kinabalu**	**33.20 292**	P		**P**	**22 03 38.7**	**+0.3**
	comp=Z,35nm,1.1s						
DGTI	**Dogotuki**	**33.45 110**	P		**P**	**22 03 42.5**	**+2.1**
MEEK	**Meekatharra**	**33.59 230**	P		**P**	**22 03 41.2**	**-0.4**
	comp=Z,48nm,0.8s						
MEEK	**Meekatharra**	**33.59 230**	P		**P**	**22 03 41.0**	**-0.6**
	comp=Z,48nm,0.8s						
MEEK	**Meekatharra**	**33.59 230**	P		**P**	**22 03 43.3**	**+1.7**
MEEK	**Meekatharra**	**33.59 230**	P		**P**	**22 03 41.2**	**-0.4**
	comp=Z,48nm,0.8s						
KMBL	**Kambalda**	**34.06 220**	P		P	22 03 51.5	+5.8
KMBL	**Kambalda**	**34.06 220**	P		**P**	**22 03 45.5**	**-0.2**
	comp=Z,15nm,1.0s						
SNJI	**Sawahan-Nganju**	**34.99 266**	P		**P**	**22 03 57.9**	**+3.9**
	comp=Z,34nm,1.6s						
GIRL	**Giralia**	**35.38 240**	P		P	22 04 04.1	+7.0
MOO	**Moorlands**	**35.71 180**	P		**P**	**22 04 00.1**	**+0.5**
WOJI	**Wonogiri, Jawa**	**35.82 266**	P		**P**	**22 04 04.2**	**+3.2**
	comp=Z,85nm,1.1s						
SBUM	**Sibu**	**35.87 283**	P		P	22 04 06.8	+5.4
SBUM	**Sibu**	**35.87 283**	P		**P**	**22 04 01.9**	**+0.5**
SBUM	**Sibu**	**35.87 283**	P		**P**	**22 04 03.2**	**+1.8**
SBUM	**Sibu**	**35.87 283**	P		**P**	**22 04 02.5**	**+1.1**
	comp=Z,22nm,1.5s						
SBUM			pP		**pP**	**22 04 08.1**	**-0.4**
MORW	**Morawa**	**36.79 229**	P		P	22 04 14.3	+5.2
MORW	**Morawa**	**36.79 229**	P		**P**	**22 04 11.9**	**+2.8**
KLBR	**Kellerberrin**	**36.96 224**	P		**P**	**22 04 09.5**	**-1.0**
	comp=Z,84nm,0.8s						
KLBR	**Kellerberrin**	**36.96 224**	P		**P**	**22 04 09.3**	**-1.2**
	comp=Z,84nm,0.8s						
KLBR	**Kellerberrin**	**36.96 224**	P		**P**	**22 04 12.8**	**+2.3**
KLBR	**Kellerberrin**	**36.96 224**	P		**P**	**22 04 09.5**	**-1.0**
	comp=Z,84nm,0.8s						
BLDU	**Ballidu**	**37.13 226**	P		**P**	**22 04 12.5**	**+0.5**
	comp=Z,31nm,1.1s						
BLDU	**Ballidu**	**37.13 226**	P		**P**	**22 04 12.3**	**+0.3**
	comp=Z,31nm,1.1s						
BLDU	**Ballidu**	**37.13 226**	P		**P**	**22 04 15.6**	**+3.6**
AUKUL	**Kulin High Sch**	**37.34 222**	P		**P**	**22 04 14.0**	**+0.3**
KPJI	**Karang Pucung**	**37.80 267**	P		**P**	**22 04 21.1**	**+3.2**
	comp=Z,48nm,1.0s						
JOW	**Kunigami**	**37.86 332**	LR		LR	22 16 17.2	
	comp=Z,601nm,22.0s,baz=187,slow=30						
JOW	**Kunigami**	**37.86 332**	P		P	22 04 24.4	+6.3
JOW	**Kunigami**	**37.86 332**			**P**	**22 04 17.3**	**-0.8**
JOW			IAmb		IAmb	22 04 19.4	
	comp=Z,81nm,0.8s						
NWAO	**Narrogin (SRO)**	**38.11 223**	P		**P**	**22 04 18.3**	**-1.9**
	comp=Z,45nm,1.5s						
NWAO	**Narrogin (SRO)**	**38.11 223**	P		**P**	**22 04 19.5**	**-0.7**
	comp=Z,28nm,1.5s						
NWAO	**Narrogin (SRO)**	**38.11 223**	LR		LR	22 21 20.1	
	comp=Z,4µm,19.0s,baz=52,slow=38						
BBJI	**Bungbulang**	**39.07 266**	P		P	22 04 33.8	+5.2
BBJI	**Bungbulang**	**39.07 266**	P		**P**	**22 04 27.2**	**-1.4**
BBJI	**Bungbulang**	**39.07 266**	P		**P**	**22 04 28.8**	**+0.2**
	comp=Z,37nm,0.7s						
BBJI	**Bungbulang**	**39.07 266**	P		**P**	**22 04 27.4**	**-1.2**
	comp=Z,37nm,0.7s						
LEM	**Lembang**	**39.12 267**	LR		LR	22 24 59.7	
	comp=Z,221nm,18.1s,baz=130,slow=43						
NACB	**Ninganchiao**	**39.36 322**	P		P	22 04 37.3	+6.5
NACB	**Ninganchiao**	**39.36 322**	P		**P**	**22 04 30.1**	**-0.7**
NACB			IAmb		IAmb	22 04 42.0	
	comp=Z,85nm,1.1s						
NACB	**Ninganchiao**	**39.36 322**	P		**P**	**22 04 29.9**	**-0.9**
	comp=Z,77nm,1.2s						
YHNB	**Yeheng**	**39.86 322**	P		P	22 04 41.8	+6.7
YHNB	**Yeheng**	**39.86 322**			**P**	**22 04 38.0**	**+2.9**
YHNB	**Yeheng**	**39.86 322**	P		**P**	**22 04 35.9**	**+0.8**
	comp=Z,146nm,1.2s						
RAO	**Raoul Island**	**40.01 129**	LR		LR	22 17 40.7	
	comp=Z,379nm,19.2s,baz=316,slow=31						
TATO	**Taipei**	**40.02 323**	P		P	22 04 42.0	+5.7
QRZ	**Quartz Range**	**41.01 150**	P		**P**	**22 04 44.4**	**+0.1**
QRZ			IAmb		IAmb	22 04 58.2	
	comp=Z,77nm,1.2s						
CGJI	**Cibinong**	**41.04 268**	P		**P**	**22 04 46.2**	**+1.3**
AFI	**Afiamalu**	**41.15 104**	LR		LR	22 20 26.2	
	comp=Z,301nm,18.2s,baz=243,slow=34						
TKNZ	**Takaka Hill**	**41.38 150**	P		**P**	**22 04 47.5**	**+0.2**
TKNZ	**Takaka Hill**	**41.38 150**	P		**P**	**22 04 49.5**	**+2.2**
URZ	**Urewera**	**41.68 144**	LR		LR	22 23 27.5	
	comp=Z,466nm,18.1s,baz=315,slow=38						
DUWZ	**D'Urville Isla**	**41.69 149**	P		**P**	**22 04 51.8**	**+1.9**
THZ	**Tophouse**	**41.91 151**			**P**	**22 04 51.6**	**-0.1**
JCZ	**Jackson Bay**	**41.93 156**	P		**P**	**22 04 52.9**	**+1.0**
JMN	**Monobe**	**41.98 344**	P		P	22 04 57.8	+5.4
JMN	**Monobe**	**41.98 344**			**P**	**22 04 51.9**	**-0.5**
JMN			IAmb		IAmb	22 04 53.2	
	comp=Z,47nm,1.0s						
JMN	**Monobe**	**41.98 344**	P		**P**	**22 04 52.2**	**-0.2**
	comp=Z,54nm,1.2s						
TCW	**Tory Channel**	**42.18 149**	P		**P**	**22 04 54.9**	**+1.1**
PNHZ	**Pukenui**	**42.27 146**	P		**P**	**22 04 56.0**	**+1.2**
BSWZ	**Blackbirch Sta**	**42.35 150**	P		**P**	**22 04 54.8**	**-0.5**
BSWZ	**Blackbirch Sta**	**42.35 150**	P		**P**	**22 04 55.8**	**+0.6**
OGWZ	**Otaki Gorge**	**42.35 148**	P		**P**	**22 04 56.6**	**+1.3**
JNU	**Nakatsue**	**42.36 340**	LR		LR	22 21 35.2	
	comp=Z,530nm,19.4s,baz=145,slow=35						
LTZ	**Lake Taylor**	**42.39 152**	P		**P**	**22 04 56.6**	**+1.0**
MRZ	**Mangatainoka R**	**42.46 147**			**P**	**22 04 55.6**	**-0.6**
MRZ			IAmb		IAmb	22 05 09.2	
	comp=Z,132nm,1.1s						
MRZ	**Mangatainoka R**	**42.46 147**	P		**P**	**22 04 57.0**	**+0.8**
DCZ	**Deep Cove**	**42.49 159**			**P**	**22 04 57.2**	**+0.9**
DCZ			IAmb		IAmb	22 05 08.2	
	comp=Z,79nm,1.2s						
RPZ	**Rata Peaks**	**42.58 154**	LR		LR	22 20 12.2	
	comp=Z,109nm,21.7s,baz=34,slow=33						
RPZ	**Rata Peaks**	**42.58 154**			**P**	**22 04 58.1**	**+1.0**
RPZ			IAmb		IAmb	22 04 58.9	
	comp=Z,34nm,0.7s						
RPZ	**Rata Peaks**	**42.58 154**	P		**P**	**22 04 57.8**	**+0.7**
HOWZ	**Holdsworth Sta**	**42.59 148**	P		**P**	**22 04 58.0**	**+0.7**
PRWZ	**Pori Road**	**42.60 147**	P		**P**	**22 04 59.0**	**+1.7**
MDSI	**Maura Dua**	**42.67 271**	P		**P**	**22 04 58.7**	**+0.4**
	comp=Z,19nm,1.1s						
KHZ	**Kahutara**	**42.71 151**	P		**P**	**22 04 58.2**	**+0.1**
TIWZ	**Tintock**	**42.71 147**	P		**P**	**22 04 59.3**	**+1.1**
LBZ	**Lake Benmore**	**42.75 155**	P		**P**	**22 04 58.4**	**-0.1**
LBZ			IAmb		IAmb	22 05 21.2	
	comp=Z,56nm,1.2s						
MLZ	**Mavora Lakes**	**42.76 158**			**P**	**22 04 58.6**	**0.0**
INU	**Inuyama**	**42.76 348**	P		P	22 05 03.7	+5.1
INU	**Inuyama**	**42.76 348**	P		**P**	**22 04 58.3**	**-0.3**
	comp=Z,17nm,1.1s						
MTW	**Mount Morrison**	**42.77 148**	P		**P**	**22 04 59.5**	**+0.8**
MSWZ	**Moikau Station**	**42.83 148**	P		**P**	**22 04 59.4**	**+0.2**
BFZ	**Birch Farm**	**42.84 147**	P		**P**	**22 04 59.9**	**+0.7**
GVZ	**Greta Valley S**	**42.89 152**	P		**P**	**22 05 00.3**	**+0.7**
PAWZ	**Paruwai Farm**	**42.90 148**	P		**P**	**22 05 00.1**	**+0.3**
JGF	**Kuroka**	**42.94 348**	P		P	22 05 05.8	+5.7
JGF	**Kuroka**	**42.94 348**			**P**	**22 04 58.5**	**-1.6**
JGF	**Kuroka**	**42.94 348**	P		**P**	**22 04 59.2**	**-0.9**
PLWZ	**Palliser**	**42.94 149**	P		**P**	**22 05 00.0**	**-0.1**
PLWZ	**Palliser**	**42.94 149**	P		**P**	**22 05 00.2**	**+0.1**
TMWZ	**Te Maipa**	**42.94 148**	P		**P**	**22 05 00.7**	**+0.5**
MJAR	**Matsushiro Arr**	**43.69 350**	P		**P**	**22 05 04.8**	**-1.3**
	comp=Z,8.8nm,1.0s,baz=182,slow=9.5,SNR=20						
MJAR			PcP		**PcP**	**22 06 52.3**	**-0.7**
	comp=Z,5.3nm,0.9s,baz=147,slow=3.1,SNR=4.3						
MJAR			LR		LR	22 22 43.9	
	comp=Z,330nm,19.1s,baz=154,slow=35						
	comp=Z,8.8nm,1.0s						
MJAR	**Matsushiro Arr**	**43.69 350**	P		**P**	**22 05 05.4**	**-0.7**
MJAR			pmax		pmax		
	comp=Z,20nm,1.2s						
MJAR	**Matsushiro Arr**	**43.69 350**			**P**	**22 05 05.4**	**-0.7**
MAJO	**Matsushiro**	**43.69 350**	P		**P**	**22 05 05.2**	**-1.0**
MAJO			pmax		pmax		
	comp=Z,122nm,1.8s						
MAJO	**Matsushiro**	**43.69 350**	P		**P**	**22 05 05.2**	**-1.0**
MAJO			IAmb		IAmb	22 05 19.1	
	comp=Z,122nm,1.8s						
MAJO	**Matsushiro**	**43.69 350**	P		**P**	**22 05 05.2**	**-1.0**
	comp=Z,36nm,1.4s						
MJB9	**Matsu-Tunnel**	**43.69 350**			**P**	**22 05 06.4**	**+0.3**
MJB9			IAmb		IAmb	22 05 20.0	
	comp=Z,121nm,1.8s						
BTDF	**Bukit Timah Da**	**43.87 279**	P		P	22 05 13.1	+5.1
BTDF	**Bukit Timah Da**	**43.87 279**	P		**P**	**22 05 11.5**	**+3.5**
TJN	**Taejon**	**46.54 338**	P		P	22 05 34.2	+5.4
TJN	**Taejon**	**46.54 338**	*i* P		**P**	**22 05 27.4**	**-1.4**
TJN	**Taejon**	**46.54 338**	P		**P**	**22 05 28.3**	**-0.5**
	comp=Z,143nm,1.2s						
NJ2	**Nanjing**	**46.87 327**	*e*P		**P**	**22 05 32.3**	**+0.9**
NJ2			pmax		pmax		
	comp=Z,12nm,0.6s						
IPM	**Ipoh**	**47.20 282**	P		**P**	**22 05 38.7**	**+4.3**
IPM	**Ipoh**	**47.20 282**	P		**P**	**22 05 34.1**	**-0.3**
IPM			IAmb		IAmb	22 05 46.6	
	comp=Z,50nm,0.9s						
IPM	**Ipoh**	**47.20 282**	P		**P**	**22 05 35.0**	**+0.5**
	comp=Z,611nmcomp=Z,60nm,1.0s						
IPM	**Ipoh**	**47.20 282**	P		**P**	**22 05 34.9**	**+0.5**
	comp=Z,60nm,1.0s						
KSRS	**Korea Array**	**47.30 339**	P		**P**	**22 05 34.6**	**-0.1**
	comp=Z,40nm,0.9s,baz=156,slow=8.9,SNR=103						
KSRS			LR		LR	22 23 59.3	
	comp=Z,659nm,21.6s,baz=145,slow=34						
	comp=Z,40nm,0.9s						
KSAR	**Wonju Array Be**	**47.30 339**	P		**P**	**22 05 33.9**	**-0.8**
KSAR	**Wonju Array Be**	**47.30 339**			**P**	**22 05 33.9**	**-0.8**
KS19	**Wonju Array Si**	**47.36 339**	IAmb		IAmb	22 05 35.7	
	comp=Z,53nm,0.9s						
JTM	**Tenmabayashi**	**47.46 354**	P		P	22 05 41.5	+5.7
JTM	**Tenmabayashi**	**47.46 354**			**P**	**22 05 35.6**	**-0.2**
JTM	**Tenmabayashi**	**47.46 354**	P		**P**	**22 05 36.0**	**+0.2**
	comp=Z,97nm,1.3s						
KULM	**Kulim**	**47.76 283**	P		**P**	**22 05 42.4**	**+3.7**
KULM	**Kulim**	**47.76 283**	IAmb		IAmb	22 05 51.9	
	comp=Z,59nm,1.1s						
KULM	**Kulim**	**47.76 283**	P		**P**	**22 05 40.3**	**+1.6**
	comp=Z,512nmcomp=Z,55nm,1.2s						
KULM	**Kulim**	**47.76 283**	P		**P**	**22 05 39.2**	**+0.5**
	comp=Z,55nm,1.2s						
INCN	**Inchon**	**47.79 338**	P		**P**	**22 05 38.2**	**-0.4**
INCN			pmax		pmax		
	comp=Z,77nm,1.0s						
INCN	**Inchon**	**47.79 338**	P		**P**	**22 05 38.1**	**-0.4**
INCN	**Inchon**	**47.79 338**	P		**P**	**22 05 39.1**	**+0.5**
	comp=Z,97nm,0.9s						
WHN	**Wuhan**	**48.40 321**	P		**P**	**22 05 44.5**	**+1.2**
RPSI	**Rantau Prapat**	**48.88 279**			**P**	**22 05 46.7**	**-0.7**
RPSI			IAmb		IAmb	22 06 06.1	
	comp=Z,55nm,1.2s						
RPSI	**Rantau Prapat**	**48.88 279**	P		**P**	**22 05 46.9**	**-0.5**
	comp=Z,41nm,1.1s						
PSI	**Prapat**	**48.90 279**	P		**P**	**22 05 52.2**	**+4.6**
PSI	**Prapat**	**48.90 279**	P		**P**	**22 05 46.7**	**-1.0**
PSI			pmax		pmax		
	comp=Z,55nm,1.2s						
PSI	**Prapat**	**48.90 279**	P		**P**	**22 05 52.3**	**+4.6**
	comp=Z,655nmcomp=Z,41nm,1.1s						
GSI	**Gunungsitoli**	**49.96 277**	P		**P**	**22 05 59.8**	**+4.2**
GSI	**Gunungsitoli**	**49.96 277**			**P**	**22 05 54.5**	**-1.2**
GSI	**Gunungsitoli**	**49.96 277**	P		**P**	**22 05 58.8**	**+3.2**
	comp=Z,80nm,1.0s						
GSI	**Gunungsitoli**	**49.96 277**	P		**P**	**22 05 54.7**	**-0.9**
	comp=Z,79nm,1.1s						
KCSI	**Kotacane, Aceh**	**50.17 280**	P		**P**	**22 05 57.8**	**+0.6**
	comp=Z,62nm,0.8s						
SLVN	**Son La**	**50.58 304**	P		P	22 06 05.6	+5.4
SLVN	**Son La**	**50.58 304**	P		**P**	**22 05 57.8**	**-2.5**
SLVN	**Son La**	**50.58 304**	P		**P**	**22 05 60.0**	**-0.2**
	comp=Z,26nm,1.0s						
ASAJ	**Asahikawa**	**50.62 356**	LR		LR	22 25 04.9	
	comp=Z,288nm,21.8s,baz=246,slow=33						
ASAJ	**Asahikawa**	**50.62 356**	P		**P**	**22 05 59.9**	**-0.2**
ASAJ			pmax		pmax		
	comp=Z,145nm,1.6s						
JKA	**Kamikawa-asahi**	**50.62 356**	P		**P**	**22 05 59.9**	**-0.2**
TPTI		**50.70 280**	P		**P**	**22 06 04.0**	**+2.8**
	comp=Z,53nm,0.8s						
TIA	**Tai'an**	**50.98 329**	P		**P**	**22 06 02.5**	**-0.4**
TIA			pmax		pmax		
	comp=Z,18nm,0.7s						
DL2	**Dalian**	**51.02 335**	*e*P		P	22 06 08.6	+5.5
DL2			pP		sP	22 06 20.4	+7.1
DL2			S		**S**	**22 13 27.3**	**+8.1**
DL2			pmax		pmax		
	comp=Z,62nm,1.2s						
DL2			pmax		pmax		
	comp=Z,380nm,6.1s						
DL2			LR		LR		
	comp=N,580nm,22.5s						
DL2			LR		LR		
	comp=E,550nm,20.8s						
DL2			LR		LR		
	comp=Z,770nm,22.4s						
ENH	**Enshi**	**51.36 318**	P		**P**	**22 06 05.2**	**-0.7**
ENH	**Enshi**	**51.36 318**	P		**P**	**22 06 05.8**	**-0.1**
	comp=Z,20nm,1.6s						
MLSI	**Meulaboh, Aceh**	**51.66 281**	P		**P**	**22 06 12.6**	**+4.2**
LYN	**LuoYang**	**52.33 324**	P		**P**	**22 06 13.2**	**+0.2**
LYN			pmax		pmax		
	comp=Z,27nm,0.5s						
LYN			L		L		
	comp=Z,630nm,17.2s						
LYN			L		L		
	comp=Z,340nm,17.5s						
LYN			L		L		
	comp=Z,630nm,20.2s						
USRK	**Ussuriysk Ar.**	**52.34 346**	P		**P**	**22 06 12.8**	**-0.1**
	comp=Z,24nm,0.9s,baz=165,slow=7.3,SNR=16						
USRK			LR		LR	22 27 56.0	
	comp=Z,211nm,18.1s,baz=151,slow=35						
	comp=Z,24nm,0.9s						
USRK	**Ussuriysk Ar.**	**52.34 346**	P		**P**	**22 06 12.3**	**-0.6**
USA0B	**Ussuriysk Arra**	**52.34 346**	P		**P**	**22 06 11.7**	**-1.2**
USA0B			pmax		pmax		
	comp=Z,27nm,1.1s						
USA0B	**Ussuriysk Arra**	**52.34 346**	P		**P**	**22 06 11.7**	**-1.2**
BSI	**Banda Aceh**	**52.99 282**	P		**P**	**22 06 22.6**	**+4.2**
	comp=Z,55nm,0.9s						
HNS	**HongShan**	**53.14 328**	⇓P		**P**	**22 06 18.9**	**-0.1**
HNS			S		**S**	**22 13 50.6**	**+2.2**
HNS			pmax		pmax		
	comp=Z,25nm,0.8s						
HNS			L		L		
	comp=Z,320nm,15.9s						
HNS			L		L		
	comp=Z,300nm,18.5s						
HNS			L		L		
	comp=Z,530nm,21.4s						
MDJ	**Mudanjiang**	**53.33 345**	P		**P**	**22 06 19.8**	**-0.4**
MDJ			pmax		pmax		
	comp=Z,36nm,1.0s						
MDJ	**Mudanjiang**	**53.33 345**	IAmb		IAmb	22 06 21.0	
	comp=Z,26nm,0.9s						
MDJ	**Mudanjiang**	**53.33 345**	P		**P**	**22 06 20.0**	**-0.3**
	comp=Z,32nm,1.1s						
KMI2	**Kunming**	**53.37 308**	P		**P**	**22 06 23.4**	**+2.2**
KMI2			S		S	22 14 01.5	+9.1
KMI2			pmax		pmax		
	comp=Z,20nm,1.6s						
KMI2			L		L		
	comp=Z,220nm,20.2s						
KMI2			L		L		
	comp=Z,300nm,14.6s						
KMI2			L		L		
	comp=Z,310nm,23.1s						
RAR	**Rarotonga**	**53.41 111**	LR		LR	22 28 39.4	
	comp=Z,65nm,18.2s,baz=270,slow=36						
YSS	**Yuzhno-Sakhali**	**53.44 356**	*e*P		**P**	**22 06 21.8**	**+0.8**
YSS			*e*S		**S**	**22 13 53.0**	**+1.0**
YSS			pmax		pmax		
	comp=Z,40nm,0.9s						
YSS			MLR		MLR		
	comp=N,600nm,16.0s						
YSS			MLR		MLR		
	comp=Z,300nm,16.0s						
CM31	**Chiang Mai Arr**	**53.54 299**	P		**P**	**22 06 22.5**	**+0.2**
CMAR	**Chiang Mai Arr**	**53.54 299**	P		**P**	**22 06 23.1**	**+0.8**
	comp=Z,6.6nm,0.7s,baz=123,slow=5.9,SNR=49						
	comp=Z,6.6nm,0.7s						
CMAR	**Chiang Mai Arr**	**53.54 299**	*i* P		**P**	**22 06 24.2**	**+1.9**
CMAR			pmax		pmax		
	comp=Z,11nm,0.8s						
CMAR	**Chiang Mai Arr**	**53.54 299**			**P**	**22 06 22.6**	**+0.3**
CHTO	**Chiang Mai**	**53.68 299**	P		**P**	**22 06 27.8**	**+4.5**
CHTO	**Chiang Mai**	**53.68 299**	P		**P**	**22 06 24.9**	**+1.6**
CHTO			pmax		pmax		
	comp=Z,46nm,1.0s						
CHTO	**Chiang Mai**	**53.68 299**			**P**	**22 06 24.9**	**+1.6**
CHTO			IAmb		IAmb	22 06 31.4	
	comp=Z,46nm,1.0s						
CHTO	**Chiang Mai**	**53.68 299**	P		**P**	**22 06 25.7**	**+2.4**
	comp=Z,640nmcomp=Z,53nm,1.2s						
CHTO	**Chiang Mai**	**53.68 299**	P		**P**	**22 06 25.0**	**+1.6**
	comp=Z,52nm,1.2s						
CN2	**Changchun**	**53.81 341**	*e*P		**P**	**22 06 23.2**	**-0.6**
CN2			*e*S		**S**	**22 13 54.4**	**-2.9**
CN2			pmax		pmax		
	comp=Z,10.0nm,1.0s						
CN2			pmax		pmax		
	comp=Z,100nm,5.5s						
CN2			L		L		
	comp=Z,200nm,16.0s						
CN2			L		L		
	comp=Z,300nm,16.0s						
CN2			L		L		
	comp=Z,300nm,16.5s						
XAN	**Xi'an**	**54.14 321**	P		**P**	**22 06 26.2**	**-0.3**
XAN			S		**S**	**22 14 02.6**	**+0.4**
XAN			pmax		pmax		
	comp=Z,32nm,1.2s						
XAN			L		L		
	comp=Z,340nm,18.5s						
XAN			L		L		
	comp=Z,300nm,15.8s						
XAN			L		L		
	comp=Z,390nm,19.9s						
BJI2	**Beijing**	**54.40 331**	P		**P**	**22 06 27.9**	**-0.3**
BJI2			S		**S**	**22 14 10.1**	**+4.7**
BJI2			pmax		pmax		
	comp=Z,16nm,1.2s						
BJI2			pmax		pmax		
	comp=Z,100nm,4.3s						
BJI2			L		L		
	comp=Z,360nm,21.0s						
BJI2			L		L		
	comp=Z,210nm,25.0s						
BJI2			L		L		
	comp=Z,550nm,21.3s						
BJT	**Baijiatuao**	**54.40 331**	P		**P**	**22 06 27.9**	**-0.3**
BJT			pmax		pmax		
	comp=Z,22nm,0.9s						
BJT	**Baijiatuao**	**54.40 331**	P		**P**	**22 06 27.9**	**-0.3**
BJT			IAmb		IAmb	22 06 34.4	
	comp=Z,22nm,0.9s						
BJT	**Baijiatuao**	**54.40 331**	P		**P**	**22 06 28.2**	**0.0**
	comp=Z,28nm,1.2s						
TIY	**Taiyuan**	**54.60 326**	P		P	22 06 37.9	+8.2
TIY			S		**S**	**22 14 12.6**	**+4.3**
TIY			pmax		pmax		
	comp=Z,270nm,4.9s						
TIY			LR		LR		
	comp=N,310nm,17.2s						
TIY			LR		LR		
	comp=E,270nm,8.2s						
TIY			LR		LR		
	comp=Z,330nm,18.5s						
BNX	**BinXian**	**54.97 343**	⇑P		**P**	**22 06 31.2**	**-0.9**
BNX			pmax		pmax		
	comp=Z,53nm,1.1s						
XMAS	**Kiritimati**	**56.10 83**	P		**P**	**22 06 39.5**	**-1.4**
XMAS	**Kiritimati**	**56.10 83**	P		**P**	**22 06 38.7**	**-2.3**
	comp=Z,173nm,1.0s						
NPW	**Naypyitaw**	**56.49 299**	P		**P**	**22 06 45.7**	**+2.1**
	comp=Z,54nm,0.9s						
KLR	**Kul'dur**	**57.16 348**	LR		LR	22 28 51.9	
	comp=Z,277nm,21.2s,baz=208,slow=33						
KLR	**Kul'dur**	**57.16 348**	*c*eP		**P**	**22 06 48.1**	**+0.3**
KLR			pmax		pmax		
	comp=Z,47nm,1.7s						
HHC	**Hu-ho-hao-te**	**57.34 328**	*e*P		**P**	**22 06 53.2**	**+3.9**
HHC			pmax		pmax		
	comp=Z,12nm,0.7s						
HHC			L		L		
	comp=Z,270nm,15.3s						
HHC			L		L		
	comp=Z,300nm,17.6s						
HHC			L		L		
	comp=Z,370nm,18.3s						
TYV	**Tymovskoe**	**57.34 357**	*e*P		**P**	**22 06 48.7**	**-0.3**
TYV			pmax		pmax		
	comp=Z,32nm,1.2s						
TYV			pmax		pmax		
	comp=Z,200nm,3.5s						
XLT	**XiLinHaoTe**	**57.50 334**	*e*P		**P**	**22 06 49.0**	**-1.4**
XLT			pP		sP	22 07 01.1	+0.4
XLT			pmax		pmax		
	comp=Z,8.0nm,0.7s						
XLT			pmax		pmax		
	comp=Z,230nm,4.9s						
XLT			L		L		
	comp=Z,410nm,14.7s						
XLT			L		L		
	comp=Z,320nm,17.7s						
LZH	**Lanzhou**	**58.66 320**	*e*P		**P**	**22 06 57.1**	**-1.7**
LZH			pmax		pmax		
	comp=Z,26nm,1.0s						
LZH			L		L		
	comp=Z,310nm,15.1s						
LZH			L		L		
	comp=Z,330nm,14.8s						
LZH			L		L		
	comp=Z,290nm,14.6s						
LZDM	**Lanzhou Array**	**58.68 319**	P		**P**	**22 06 59.4**	**+0.3**
	comp=Z,0.8nm,0.3s,baz=113,slow=11,SNR=3.7						
LZDM			LR		LR	22 31 30.7	
	comp=Z,150nm,21.5s,baz=255,slow=35						
	comp=Z,0.8nm,0.3s						
HEH	**HeiHe**	**59.11 345**	*e*P		**P**	**22 07 00.5**	**-0.9**
HEH			pmax		pmax		
	comp=Z,26nm,0.8s						
MORE	**Moreh**	**59.80 303**			**P**	**22 07 06.5**	**-0.2**
PEA0B	**Petropavlovsk-**	**60.16 7**	*c*eP		**P**	**22 07 10.3**	**+1.7**
PETK	**Petropavlovsk-**	**60.16 7**	P		**P**	**22 07 09.0**	**+0.4**
	comp=Z,47nm,0.9s,baz=171,slow=4.9,SNR=24						
PETK			LR		LR	22 28 35.5	
	comp=Z,892nm,21.7s,baz=194,slow=31						
	comp=Z,47nm,0.9s						
PETK	**Petropavlovsk-**	**60.16 7**	P		**P**	**22 07 08.8**	**+0.2**
HIA	**Hailar**	**60.51 340**	P		**P**	**22 07 10.6**	**-0.5**
HIA			pmax		pmax		
	comp=Z,55nm,1.0s						
HIA	**Hailar**	**60.51 340**	P		**P**	**22 07 10.6**	**-0.5**
HIA	**Hailar**	**60.51 340**	P		**P**	**22 07 11.0**	**-0.1**
	comp=Z,62nm,1.0s						
HILR	**Hailar Array B**	**60.75 340**	P		**P**	**22 07 12.9**	**+0.1**
	comp=Z,20nm,0.8s,baz=134,slow=11,SNR=13						
	comp=Z,20nm,0.8s						
BRDH	**Bariadhala**	**61.46 300**	LR		LR	22 37 17.4	
	comp=Z,131nm,18.2s,baz=168,slow=39						
SHL	**Shillong**	**62.35 303**	P		**P**	**22 07 24.5**	**+0.3**
SHL	**Shillong**	**62.35 303**			**P**	**22 07 24.5**	**+0.3**
ZEA	**Zeya**	**62.37 347**	*e*P		**P**	**22 07 23.1**	**-0.4**

comp=Z,21nm,1.7s
ULN Ulaanbaatar 64.63 331 P P 22 07 38.0 -0.8
ULN IAmb IAmb 22 07 54.0
comp=Z,19nm,1.1s
ULN Ulaanbaatar 64.63 331 P P 22 07 39.2 +0.4
comp=Z,78nm,0.9s
ULN Ulaanbaatar 64.63 331 P P 22 07 39.4 +0.6
comp=Z,20nm,0.9s
CASY Casey 64.70 195 P P 22 07 38.2 -0.6
CASY IAmb IAmb 22 07 44.9
comp=Z,25nm,1.1s
CASY Casey 64.70 195 P P 22 07 38.4 -0.3
comp=Z,30nm,1.0s
GOMU GeErMu 64.81 315 P P 22 07 40.8 +0.3
GOMU pmax pmax
comp=Z,4.0nm,0.7s
SONM Songino Array 64.92 331 P P 22 07 40.9 +0.2
comp=Z,4.4nm,0.9s,baz=148,slow=6.7,SNR=19
SONM PKPPKP **P'P'df 22 36 30.5 +6.4**
comp=Z,0.9nm,1.0s,baz=182,slow=4.3,SNR=5.2
comp=Z,4.4nm,0.9s
SONM Songino Array 64.92 331 P P 22 07 40.5 -0.2
SONM pmax pmax
comp=Z,16nm,1.2s
SONM Songino Array 64.92 331 P 22 07 40.5 -0.2
CIT Chita 65.00 338 *e*P **P 22 07 40.8 -0.2**
CIT *e* 22 07 46.4
CIT *e* 22 07 53.4
MA2 Magadan 66.02 2 P P 22 07 52.5 +5.1
MA2 Magadan 66.02 2*ce*P **P 22 07 47.9 +0.5**
MA2 pmax pmax
comp=Z,99nm,1.7s
MA2 Magadan 66.02 2 P 22 07 46.5 -0.8
MA2 Magadan 66.02 2 P **P 22 07 47.2 -0.2**
comp=Z,93nm,1.3s
GSTR Great Sitkin T 66.41 24 P **P 22 07 51.5 +1.4**
EVN Everest 67.44 304 P 22 07 57.3 -0.5
EVN Everest 67.44 304 P **P 22 07 57.4 -0.4**
comp=Z,61nm,1.1s
PALK Pallekele 67.56 281 LR LR 22 42 32.3
comp=Z,128nm,18.5s,baz=101,slow=40
PALK Pallekele 67.56 281 P **P 22 07 57.1 -1.1**
PALK pmax pmax
comp=Z,32nm,1.2s
PALK Pallekele 67.56 281 P 22 07 57.1 -1.1
PALK IAmb IAmb 22 08 05.7
comp=Z,32nm,1.1s
PALK Pallekele 67.56 281 P **P 22 07 58.1 -0.1**
comp=Z,28nm,1.2s
MALK Mahakanadarawa 67.92 282 P **P 22 08 00.7 +0.3**
comp=Z,36nm,1.2s
ZAK Zakamensk 68.16 332 *e*P **P 22 08 00.4 -0.9**
ZAK pmax pmax
comp=Z,23nm,1.1s
TLY Talaya 68.87 333 LR LR 22 36 54.4
comp=Z,426nm,21.8s,baz=127,slow=35
TLY Talaya 68.87 333 *i* P **P 22 08 05.7 +0.1**
TLY pmax pmax
comp=Z,4.0nm,0.9s
TLY Talaya 68.87 333 P P 22 08 07.3 +1.7
SEY Seymchan 69.44 3 LR LR 22 38 05.8
comp=Z,414nm,19.4s,baz=158,slow=35
SEY Seymchan 69.44 3*ce*P **P 22 08 09.4 +0.5**
SEY pmax pmax
comp=Z,55nm,2.5s
BOD Bodaibo 69.54 342 *e*P **P 22 08 08.0 -1.6**
BOD pmax pmax
comp=Z,37nm,1.7s
YAK Yakutsk 69.72 351 LR LR 22 39 18.2
comp=Z,141nm,18.2s,baz=164,slow=36
YAK Yakutsk 69.72 351 *e*P **P 22 08 09.9 -0.7**
YAK *e**PP **pP 22 08 16.7 -1.6**
YAK *e* 22 08 29.5
YAK *e* 22 10 40.0
YAK *e*PPP PPP 22 12 25.6
YAK *e*S **S 22 17 17.2 -0.7**
YAK *e* 22 18 08.1
YAK *e*SS **SS 22 21 46.6 -0.1**
YAK pmax pmax
comp=Z,44nm,1.4s
YAK pmax pmax
comp=N,18nm,1.5s
YAK pmax pmax
comp=E,9.0nm,1.6s
YAK pmax pmax
comp=Z,254nm,4.3s
YAK pmax pmax
comp=N,326nm,4.0s
YAK pmax pmax
comp=E,135nm,3.3s
YAK smax smax
comp=E,263nm,4.7s
YAK smax smax
comp=N,200nm,4.1s
YAK Yakutsk 69.72 351 P 22 08 10.3 -0.3
YAK IAmb IAmb 22 08 22.2
comp=Z,32nm,0.8s
YAK Yakutsk 69.72 351 P **P 22 08 10.3 -0.3**
comp=Z,44nm,0.8s
KNGR Kungurtug, Tuv 71.13 329 *i* P **P 22 08 20.1 +0.4**
KNGR pmax pmax
comp=Z,13nm,1.1s
VNDA Vanda 71.33 177 P **P 22 08 20.4 +0.1**
comp=Z,11nm,0.8s,baz=331,slow=6.7,SNR=57
VNDA LR LR 22 38 28.4
comp=Z,345nm,18.0s,baz=346,slow=35
comp=Z,11nm,0.8s
VNDA Vanda 71.33 177 IAmb IAmb 22 08 27.7
comp=Z,20nm,0.8s
VNDA Vanda 71.33 177 P P 22 08 20.6 +0.3
comp=Z,32nm,0.9s
HYB Hyderabad 71.68 291 *e*P **P 22 08 23.1 -0.4**
HYB *e*pP **pP 22 08 29.0 -2.1**
HYB *e*S **S 22 17 42.9 +0.4**
SBA Scott Base 71.97 176 P **P 22 08 24.3 +0.1**
SBA pmax pmax
comp=Z,21nm,1.2s
SBA Scott Base 71.97 176 P P 22 08 24.3 +0.1
SBA Scott Base 71.97 176 P **P 22 08 25.4 +1.3**
comp=Z,24nm,3.0s
TAOE Nuku Hiva Isla 72.12 97 *e*LR LR 22 30 31.4
comp=Z,171nm,22.5s
WMQ Urumqi 73.24 319 *e*P **P 22 08 32.5 +0.1**
WMQ sP PcP 22 08 47.5 -1.3
WMQ pmax pmax
comp=Z,15nm,1.1s
BILL Bilibino 75.69 7*ce*P **P 22 08 47.7 +1.7**
BILL pmax pmax
comp=Z,44nm,1.7s
BILL Bilibino 75.69 7 P **P 22 08 46.1 +0.1**
BILL IAmb IAmb 22 09 00.5
comp=Z,31nm,1.1s
ZSN Zaisan 76.62 322 *e*P **P 22 08 52.1 +0.3**
ZSN Zaisan 76.62 322 *e*P **P 22 08 52.2 +0.3**
MK31 Makanchi Array 77.95 321*ce*P **P 22 08 59.4 +0.1**
MKAR Makanchi Array 77.95 321 P **P 22 08 59.0 -0.3**
comp=Z,7.3nm,0.9s,baz=105,slow=6.3,SNR=28
comp=Z,7.3nm,0.9s
MKAR Makanchi Array 77.95 321 P 22 08 58.7 -0.6
WUS Wushi 77.96 314 P **P 22 08 59.8 +0.2**
comp=Z,14nm,1.0s
MAKZ Makanchi 78.16 320 P **P 22 09 00.1 -0.3**
MAKZ pmax pmax
comp=Z,22nm,1.2s
MAKZ Makanchi 78.16 320 P 22 09 00.1 -0.3
MAKZ Makanchi 78.16 320 P **P 22 09 00.4 0.0**
comp=Z,18nm,1.0s
SHLS Shalkode 78.47 316 *e*P **P 22 09 00.8 -1.5**
SHLS pmax pmax
comp=Z,12nm,1.3s
SHLS Shalkode 78.47 316 *e*P **P 22 09 00.9 -1.5**
comp=Z,12nm,1.3s
UZB Uzynbulak 78.76 316 *e*P **P 22 09 04.0 0.0**
UZB pmax pmax
comp=Z,12nm,1.2s
UZB Uzynbulak 78.76 316 *e*P **P 22 09 04.0 0.0**
comp=Z,12nm,1.2s
PRZ Przheval'sk 78.97 315 P **P 22 09 04.3 -0.9**
PRZ pmax pmax
comp=Z,36nm,1.2s
PRZ Przheval'sk 78.97 315 P **P 22 09 04.3 -0.9**
PRZ IAmb IAmb 22 09 18.4
comp=Z,36nm,1.2s
PRZ Przheval'sk 78.97 315 P **P 22 09 05.4 +0.2**
comp=Z,29nm,1.3s
TIXI Tiksi 78.99 354 LR LR 22 41 16.7
comp=Z,132nm,22.0s,baz=182,slow=34
TIXI Tiksi 78.99 354 *i* P **P 22 09 03.4 -1.0**
TIXI pmax pmax
comp=Z,14nm,1.4s
TIXI Tiksi 78.99 354 P 22 09 02.2 -2.2
TIXI Tiksi 78.99 354 P **P 22 09 03.2 -1.2**
comp=Z,16nm,0.9s
TIXI pP **pP 22 09 10.8 -1.4**
SII Sitkinak Islan 79.05 29 P **P 22 09 04.5 -0.6**
KPKS Kokpek 79.11 316 *e*P **P 22 09 05.8 0.0**
KPKS Kokpek 79.11 316 *e*P **P 22 09 05.9 0.0**
SATY Saty 79.16 316 *e*P **P 22 09 06.3 +0.2**
SATY Saty 79.16 316 *e*P **P 22 09 06.3 +0.2**
ZAA0 Zalesovo Array 79.51 328 P 22 09 05.4 -2.2
ZALV Zalesovo Beam 79.51 328 P **P 22 09 06.0 -1.6**
comp=Z,9.0nm,0.7s,baz=111,slow=5.4,SNR=43
comp=Z,9.0nm,0.7s
ZALV Zalesovo Beam 79.51 328 P 22 09 05.2 -2.4
ASAI AK-SAY(Kyrgyzs 79.80 313 P **P 22 09 09.8 -0.2**
comp=Z,9.2nm,1.2s
TDK Taldyqorghan 79.82 318 *e*P **P 22 09 09.4 -0.1**
TDK Taldyqorghan 79.82 318 *e*P **P 22 09 09.5 -0.1**
KSH2 Kashi 79.97 312 P **P 22 09 10.4 -0.3**
KSH2 pP pP 22 09 18.8 +0.4
KSH2 pmax pmax
comp=Z,12nm,1.3s
MDOK Medeo 80.13 316 *e*P **P 22 09 11.4 0.0**
MDOK Medeo 80.13 316 *e*P **P 22 09 11.4 0.0**
TNSS Tian-Shan 80.16 316 *e*P **P 22 09 11.6 -0.3**
TNSS Tian-Shan 80.16 316 *e*P **P 22 09 11.6 -0.3**
AAA Alma-Ata 80.24 316 *e*P **P 22 09 12.1 +0.2**
AAA Alma-Ata 80.24 316 *e*P **P 22 09 12.1 +0.2**
NIL Nilore 80.28 306 P **P 22 09 10.6 -1.7**
NIL pmax pmax
comp=Z,52nm,0.9s
NIL Nilore 80.28 306 P 22 09 10.6 -1.7
NIL IAmb IAmb 22 09 20.1
comp=Z,52nm,0.9s
NIL Nilore 80.28 306 P **P 22 09 12.6 +0.3**
comp=Z,86nm,0.9s
NRN Naryn 80.33 314 P **P 22 09 12.6 -0.2**
NRN pmax pmax
comp=Z,9.0nm,1.2s
NRN Naryn 80.33 314 P 22 09 12.6 -0.2
KDAK Kodiak Island 80.41 28 LR LR 22 37 55.4
comp=Z,271nm,21.6s,baz=245,slow=30
BOOM Boomskoye usch 80.70 315 P **P 22 09 14.0 -0.5**
BOOM pmax pmax
comp=Z,23nm,1.2s
BOOM Boomskoye usch 80.70 315 P 22 09 14.0 -0.5
BOOM Boomskoye usch 80.70 315 P **P 22 09 14.4 -0.2**
comp=Z,15nm,1.1s
KURK Kurchatov 81.69 323 P **P 22 09 18.3 -1.1**
KURK pmax pmax
comp=Z,11nm,1.1s
KURK Kurchatov 81.69 323 P 22 09 18.3 -1.1
KURK Kurchatov 81.69 323 P **P 22 09 18.5 -0.9**
comp=Z,14nm,1.1s
KURBB Kurchatov Arra 81.70 323 P **P 22 09 18.8 -0.7**
comp=Z,3.1nm,0.9s,baz=109,slow=4.3,SNR=26
comp=Z,3.1nm,0.9s
FRU1 Bishkek 81.71 315 P **P 22 09 18.9 -0.9**
FRU1 pmax pmax
comp=Z,17nm,0.4s
FRU1 Bishkek 81.71 315 P **P 22 09 18.9 -0.9**
FRU1 IAmb IAmb 22 11 05.3
comp=Z,17nm,0.4s
MAW Mawson 81.71 203 P **P 22 09 18.8 -0.4**
comp=Z,2.7nm,1.1s
MAW Mawson 81.71 203 P **P 22 09 18.9 -0.3**
comp=Z,4.3nm,0.8s,baz=68,slow=5.9,SNR=13
MAW LR LR 22 44 51.1
comp=Z,313nm,19.2s,baz=77,slow=35
comp=Z,4.3nm,0.8s
MAW Mawson 81.71 203 P **P 22 09 18.5 -0.7**
MAW pmax pmax
comp=Z,2.0nm,1.1s
MAW Mawson 81.71 203 P 22 09 18.5 -0.7
MAW Mawson 81.71 203 P **P 22 09 18.8 -0.4**
comp=Z,2.7nm,1.1s
AAK Ala-Archa 81.76 315 LR LR 22 46 07.3
comp=Z,145nm,21.8s,baz=98,slow=36
AAK Ala-Archa 81.76 315*ce*P **P 22 09 20.5 +0.3**
AAK pmax pmax
comp=Z,11nm,1.3s
AAK Ala-Archa 81.76 315 P 22 09 20.4 +0.2
AAK Ala-Archa 81.76 315 P **P 22 09 20.7 +0.5**
comp=Z,13nm,1.3s
L20K Farewell, AK 82.18 24 P **P 22 09 21.2 -0.5**
L20K IAmb IAmb 22 10 37.7
comp=Z,65nm,1.7s
M20K Styx River 82.18 24 IAmb IAmb 22 09 40.6
comp=Z,86nm,2.0s
OHH Osh 82.41 312 P **P 22 09 22.3 -1.2**
OHH pmax pmax
comp=Z,25nm,0.9s
OHH Osh 82.41 312 P **P 22 09 22.4 -1.2**
comp=Z,25nm,0.9s
ARSB Arslanbob 82.48 313 IAmb IAmb 22 09 34.0
comp=Z,85nm,1.8s
SLKM Skilak Lake 82.77 26 P 22 09 24.0 -0.8
SLKM IAmb IAmb 22 09 25.9
comp=Z,71nm,1.6s
DRK Karamyk 82.87 311 P **P 22 09 25.0 -1.3**
DRK pmax pmax
comp=Z,21nm,1.3s
DRK Karamyk 82.87 311 P 22 09 24.9 -1.3
DRK Karamyk 82.87 311 P **P 22 09 26.3 0.0**
comp=Z,12nm,1.1s
J20K Nowinta River 82.95 22 P P 22 09 25.6 -0.1
J20K IAmb IAmb 22 09 28.8
comp=Z,67nm,1.7s
G19K Purcell Mounta 82.97 20 P **P 22 09 26.0 +0.2**
G19K IAmb IAmb 22 09 27.9
comp=Z,41nm,1.2s
RC01 Rabbit Creek A 83.24 26 P **P 22 09 26.6 -0.7**
RC01 IAmb IAmb 22 09 57.6
comp=Z,31nm,1.2s
CAST Castle Rocks 83.36 23 IAmb IAmb 22 09 57.2
comp=Z,61nm,2.0s
M22K Willow 83.38 25 P **P 22 09 26.8 -1.1**
QSPA South Pole Qui 83.38 180 P **P 22 09 27.5 -0.6**
comp=Z,23nm,0.8s,baz=326,slow=0.9,SNR=102
QSPA LR LR 22 46 57.0
comp=Z,604nm,18.5s,baz=7.5,slow=36
comp=Z,23nm,0.8s
QSPA South Pole Qui 83.38 180 P 22 09 27.6 -0.6
E19K Redstone River 83.66 19 IAmb IAmb 22 09 39.1
comp=Z,23nm,0.9s
PMR Palmer 83.73 26 P **P 22 09 34.2 +4.5**
PMR Palmer 83.73 26 P **P 22 09 28.6 -1.1**
PMR pmax pmax
comp=Z,54nm,1.7s
PMR Palmer 83.73 26 P 22 09 28.6 -1.1
PMR IAmb IAmb 22 09 43.6
comp=Z,54nm,1.7s
BTK Batken 83.75 311 P **P 22 09 29.8 -0.7**
BTK pmax pmax
comp=Z,12nm,1.9s
BTK Batken 83.75 311 P **P 22 09 29.8 -0.7**
comp=Z,12nm,1.9s
TRKS Terek-Say 83.87 313 P **P 22 09 31.4 +0.2**
TRKS pmax pmax
comp=Z,31nm,0.9s
KBL Kabul 83.88 306 P **P 22 09 31.1 -0.3**
KBL pmax pmax
comp=Z,10.0nm,0.9s
KBL Kabul 83.88 306 P 22 09 31.1 -0.3
KBL Kabul 83.88 306 P **P 22 09 30.8 -0.7**
comp=Z,14nm,1.3s
F20K Avaraart Lake 83.92 19 IAmb IAmb 22 09 32.2
comp=Z,66nm,1.9s
IMAR Indian Mountai 84.03 21 P **P 22 09 30.8 -0.5**
I21K Tanana 84.26 22 IAmb IAmb 22 09 43.4
comp=Z,31nm,1.3s
GLI Glacier Island 84.31 27 P **P 22 09 33.0 +0.3**
GLI IAmb IAmb 22 10 25.9
comp=Z,43nm,1.2s
RND Reindeer 84.65 24 IAmb IAmb 22 09 52.0
comp=Z,15nm,0.8s
KK31 Karatay Array 84.71 314 IAmb IAmb 22 09 43.8
comp=Z,48nm,1.6s
KKAR Karatay Array 84.71 314 P **P 22 09 34.4 -0.8**
KKAR Karatay Array 84.71 314 P 22 09 34.4 -0.8
IUG luzhnay 84.82 313 *e*P **P 22 09 35.9 0.0**
IUG pmax pmax
comp=Z,19nm,1.4s
IUG luzhnay 84.82 313 *e*P **P 22 09 35.9 0.0**
comp=Z,18nm,1.4s
H22K Ishtalitna Cre 84.83 21 IAmb IAmb 22 09 36.5
comp=Z,61nm,1.8s
DHY Denali Highway 85.11 25 IAmb IAmb 22 09 51.5
comp=Z,32nm,1.2s
BRLS Borolday 85.17 314 *e*P **P 22 09 37.5 0.0**
BRLS Borolday 85.17 314 *e*P **P 22 09 37.6 0.0**
CHM Chimkent 85.17 313 *e*P **P 22 09 37.7 +0.2**
CHM Chimkent 85.17 313 *e*P **P 22 09 37.8 +0.2**
I23K Minto, Yukon-K 85.23 22 IAmb IAmb 22 09 40.2
comp=Z,50nm,1.8s
WRH Wood River Hil 85.42 23 IAmb IAmb 22 09 52.6
comp=Z,30nm,1.3s
H23K Yukon River 85.47 22 IAmb IAmb 22 09 50.8
comp=Z,52nm,1.7s
CCB Clear Creek Bu 85.60 23 IAmb IAmb 22 09 52.7
comp=Z,30nm,1.2s
COLA College 85.68 23 *i* P **P 22 09 37.3 -2.2**
COLA pmax pmax
comp=Z,40nm,1.7s
COLA College 85.68 23 P **P 22 09 37.9 -1.6**
comp=Z,25nm,1.5s
G23K Bananza Creek 85.70 21 IAmb IAmb 22 09 49.2
comp=Z,15nm,0.9s
NRIK Noril'sk 85.83 342 P **P 22 09 39.7 -0.5**
comp=Z,15nm,0.9s,baz=117,slow=4.4,SNR=15
comp=Z,15nm,0.9s
NRIK Noril'sk 85.83 342 *i* P **P 22 09 39.2 -1.0**
NRIK pmax pmax
comp=Z,31nm,1.0s
NRIK Noril'sk 85.83 342 IAmb IAmb 22 09 46.8
comp=Z,37nm,1.2s
D22K Ayikyak River 85.86 18 P 22 09 40.2 -0.2
GLB Gilahina Butte 86.00 27 IAmb IAmb 22 09 53.2
comp=Z,50nm,1.4s
ILAR Eielson Array 86.01 23 P **P 22 09 39.5 -1.6**
comp=Z,6.3nm,0.7s,baz=252,slow=4.7,SNR=69
ILAR LR LR 22 43 18.5
comp=Z,320nm,21.3s,baz=259,slow=32
comp=Z,6.3nm,0.7s
ILAR Eielson Array 86.01 23 P 22 09 38.3 -2.9
E23K Chandalar 86.46 20 IAmb IAmb 22 09 45.0
comp=Z,70nm,1.8s
MENT Mentasta 86.59 25 P **P 22 09 48.1 +4.0**
G24K Hadweenzic Riv 86.60 21 IAmb IAmb 22 10 03.8
comp=Z,16nm,1.2s
DOT Dot Lake 86.71 25 IAmb IAmb 22 09 59.3
comp=Z,25nm,1.1s
L26K Log Cabin Wild 86.78 25 IAmb IAmb 22 09 59.4
comp=Z,31nm,1.5s
F24K Squaw Lake 86.81 20 IAmb IAmb 22 09 47.4
comp=Z,14nm,0.8s
SCRK Sand Creek 86.86 24 IAmb IAmb 22 09 47.1
comp=Z,43nm,1.9s
BVAR Borovoye Array 87.25 324 P **P 22 09 46.2 -1.3**
comp=Z,7.7nm,0.8s,baz=95,slow=6.7,SNR=15
comp=Z,7.7nm,0.8s
BORK Borovoye 87.29 324 P **P 22 09 46.8 -0.9**
BORK pmax pmax
comp=Z,19nm,1.3s
BORK Borovoye 87.29 324 P 22 09 46.8 -0.9
BORK IAmb IAmb 22 09 54.1
comp=Z,19nm,1.3s
L27K Beaver Creek, 87.44 26 IAmb IAmb 22 09 50.1
comp=Z,32nm,1.4s
BCAR Beaver Creek A 87.46 26 P 22 09 48.0 -0.4
F25K Christian Rive 87.62 21 IAmb IAmb 22 12 20.1
comp=Z,35nm,1.9s
I26K Coal Creek Min 87.68 23 IAmb IAmb 22 10 03.7
comp=Z,40nm,1.6s
BMAR Burnt Mountain 87.94 21 P 22 09 50.6 0.0
O29M Mount Kennedy 88.05 29 IAmb IAmb 22 10 03.3
comp=Z,31nm,1.1s
D25K Kavik River 88.08 19 IAmb IAmb 22 10 10.5
comp=Z,23nm,1.0s
F26K Sheenjek River 88.19 21 IAmb IAmb 22 09 53.5
comp=Z,39nm,1.4s
HYT Haines Junctio 88.70 28 IAmb IAmb 22 10 06.4
comp=Z,31nm,1.1s
G27K Doyon Strip 88.78 22 IAmb IAmb 22 09 56.0
comp=Z,23nm,1.5s
I28M Miner Creek 89.00 24 IAmb IAmb 22 09 58.3
comp=Z,42nm,1.7s
L29M L29M 89.06 26 IAmb IAmb 22 09 57.3
comp=Z,48nm,1.5s
E27K Coleen River 89.27 21 IAmb IAmb 22 09 58.3
comp=Z,57nm,1.6s
O30N Mendenhall 89.36 29 IAmb IAmb 22 10 09.1
comp=Z,34nm,1.4s
HRA Herat 89.38 305 IAmb IAmb 22 10 05.5
comp=Z,46nm,1.4s
K29M Barlow Dome 89.52 25 IAmb IAmb 22 10 12.4
comp=Z,58nm,1.8s
I29M Ogilvie Camp, 89.62 24 IAmb IAmb 22 09 59.2
comp=Z,32nm,1.6s
F28M Old Crow 89.70 22 IAmb IAmb 22 09 59.8
comp=Z,39nm,1.8s
E28M Babbage River 90.12 21 IAmb IAmb 22 10 02.9
comp=Z,33nm,1.6s
G29M Pine Creek 90.18 22 IAmb IAmb 22 10 16.0
comp=Z,46nm,1.6s
I30M Mount Dempster 90.37 24 IAmb IAmb 22 10 02.7
comp=Z,27nm,1.6s
G30M tAoh Zraii Nji 90.88 23 IAmb IAmb 22 10 04.7
comp=Z,17nm,1.2s
F30M Barrier River 91.20 22 IAmb IAmb 22 10 07.0
comp=Z,32nm,1.4s
DLBC Dease Lake 91.89 31 LR LR 22 45 04.3
comp=Z,204nm,20.1s,baz=255,slow=31
F31M Tsiigehtchic 91.93 22 IAmb IAmb 22 10 23.3
comp=Z,22nm,1.3s
BBB Bella Bella 92.02 38 LR LR 22 44 09.0
comp=Z,305nm,20.1s,baz=272,slow=31
INK Inuvik 92.19 21 LR LR 22 52 35.5
comp=Z,170nm,18.2s,baz=250,slow=36
INK Inuvik 92.19 21 IAmb IAmb 22 10 19.3
comp=Z,13nm,1.1s
INK Inuvik 92.19 21 P **P 22 10 09.6 -0.7**
comp=Z,12nm,1.0s
AB31 Akbulak array 93.03 319 IAmb IAmb 22 10 21.6
comp=Z,9.5nm,1.1s
ABKAR Akbulak array 93.03 319 P 22 10 13.0 -1.7
ELIB Princess Elisa 93.64 195 *d*P **P 22 10 16.4 -0.9**
comp=Z,6.0nm,1.1s
YBH Yreka Blue Hor 94.54 49 LR LR 22 45 55.9
comp=Z,681nm,21.0s,baz=295,slow=31
ARTI Arti 94.67 326 LR LR 22 53 01.9
comp=Z,194nm,22.0s,baz=74,slow=36
ARTI Arti 94.67 326 P **P 22 10 22.4 +0.4**
ARTI 22 14 11.0
ARTI S **SKSac 22 20 54.3 -1.7**
ARTI SS **SS 22 27 53.6 -3.9**
BELA Belgrano 2 95.66 180 P 22 10 25.0 -1.2
BELA IAmb IAmb 22 10 32.6
comp=Z,8.0nm,0.9s
AFDM Forest Hills D 95.66 52 P 22 10 27.8 +0.8
RYN Ryan 97.55 52 P Pdif 22 10 38.0 +2.1
NVAR Mina Array Bea 97.72 52 P Pdif 22 10 37.5 +0.9
comp=Z,0.7nm,0.6s,baz=248,slow=5.5,SNR=4.4
NVAR LR LR 22 48 14.9
comp=Z,322nm,20.3s,baz=272,slow=31
comp=Z,0.7nm,0.6s
NVAR Mina Array Bea 97.72 52 P Pdif 22 10 36.3 -0.3
TROLL Troll, Antarti 98.22 191 Pdiff **P 22 10 36.8 -1.3**
comp=Z,167nm,0.7s
NEW Newport 98.78 42 LR LR 22 49 43.2
comp=Z,269nm,19.9s,baz=268,slow=32
PFO Pinyon Flats O 99.04 57 LR LR 22 47 09.0
comp=Z,414nm,21.6s,baz=268,slow=30
RPN Rapa Nui 99.05 119 LR LR 22 47 46.2
comp=Z,92nm,21.5s,baz=261,slow=31
SNAA Sanae 99.42 189 LR LR 22 55 20.5
comp=Z,777nm,19.8s,baz=152,slow=35
KIRV Kirov 99.55 328 LR LR 22 56 19.1
comp=Z,301nm,21.4s,baz=76,slow=36
YKA Yellowknife Ar 99.68 28 LR LR 22 48 11.2
comp=Z,176nm,21.4s,baz=266,slow=31
VNA2 Neumayer--Watz 100.78 188 Pdiff **Pdif 22 10 47.8 -1.5**
comp=Z,2.1nm,0.6s,baz=166,slow=6.6
VNA3 Neumayer Olymp 100.80 187 Pdiff **Pdif 22 10 47.9 -1.6**
comp=Z,3.1nm,0.8s
VNA3 PP **PP 22 14 54.8 -1.7**
comp=Z,2.2nm,0.8s
PDAR Pinedale Array 104.30 48 PKiKP **PKiKP 22 15 24.0 +1.5**

comp=Z,0.7nm,0.9s,baz=301,slow=4.6,SNR=3.7
ARCES ARCESS Array B 106.81 342 Pdiff **Pdif 22 11 14.2 -2.0**
comp=Z,4.6nm,0.8s,baz=321,slow=1.7,SNR=4.6
TXAR Lajitas Array 110.03 61 PKiKP **PKiKP 22 15 33.0 -0.3**
comp=Z,0.5nm,0.8s,baz=180,slow=0.3,SNR=4.1
FINES FINESS Array B 110.20 334 Pdiff **Pdif 22 11 31.3 0.0**
comp=Z,5.5nm,1.0s,baz=150,slow=3.1,SNR=3.6
FINES PKiKP **PKiKP 22 15 31.7 -0.8**
comp=Z,2.9nm,0.9s,baz=354,slow=3.8,SNR=3.9
MNK Minsk 112.00 327 *i* P **Pdif 22 11 38.9 -0.5**
MNK *i* 22 16 20.1
MNK *i* PPP PPP 22 18 42.1
MNK *i* 22 22 44.0
MNK *i* PS **PS 22 25 54.1 +0.9**
MNK *i* SS SS 22 31 57.3 +1.4
MNK *i* SSS SSS 22 36 08.2
MNK pmax pmax
comp=N,8.0nm,0.8s
MNK pmax pmax
comp=E,19nm,1.1s
MNK pmax pmax
comp=Z,7.0nm,0.8s
MNK MLR MLR
comp=Z,216nm,16.0s
MNK MLR MLR
comp=N,352nm,19.0s
MNK MLR MLR
comp=E,455nm,18.0s
MNK Minsk 112.00 327 *i* P **Pdif 22 11 39.0 -0.5**
comp=E,19nm,1.1s
MNK *i* P **Pdif 22 11 39.0 -0.5**
comp=N,8.0nm,0.8s
MNK *i* P **Pdif 22 11 39.0 -0.5**
comp=Z,7.0nm,0.8s,baz=69
MNK *i* pP **sPdif 22 11 51.3 +1.2**
MNK *i* PP **PP 22 16 20.1 +0.4**
MNK *i* PPP PPP 22 18 42.1
MNK *i* SKS **SKSdf 22 22 44.1 -2.8**
MNK *i* PS **PS 22 25 54.2 +0.9**
MNK *i* SS **SS 22 31 57.3 +1.5**
MNK *i* SKKS **SKKSdf 22 33 53.3 -7.4**
MNK *i* SSS SSS 22 36 08.3
MNK *i* LQ LQ 22 58 08.4
MNK *i* LRM MLR 23 02 59.7
comp=Z,216nm,16.5s
MNK *i* LRM MLR 23 03 12.9
comp=E,455nm,18.3s
MNK *i* LRM MLR 23 03 12.9
comp=N,352nm,19.3s
NOA NORSAR Array B 116.50 338 PKiKP **PKiKP 22 15 44.6 -0.1**
comp=N,1.2nm,0.8s,baz=291,slow=15,SNR=3.3
U38A Gravette 116.80 52 PKPdf 22 15 45.6 -0.4
KOLS Kolonicke sedl 117.32 322 *e*PKIKP **PKiKP 22 15 47.6 +1.0**
KOLS *e* 22 15 53.2
KOLS Kolonicke sedl 117.32 322 *e*PKP **PKiKP 22 15 47.6 +1.0**
KOLS *e* 22 15 53.2
CCM Cathedral Cave 118.85 50 PKIKP **PKPdf 22 15 49.3 -0.6**
CCM Cathedral Cave 118.85 50 PKPdf 22 15 49.3 -0.6
LANS Liptovska Anna 118.91 324 *e*PKIKP **PKiKP 22 15 50.9 +1.1**
LANS *e* 22 15 57.2
LANS Liptovska Anna 118.91 324 *e*PKP **PKiKP 22 15 50.9 +1.1**
LANS *e* 22 15 57.2
STEB Steborice 119.54 325 *e*PKP **PKPdf 22 15 50.5 -0.3**
STEB *ep*PKP **pPKPdf 22 15 57.4 -1.7**
MORC Moravsky Berou 119.75 325 *e*PKP **PKPdf 22 15 49.9 -1.4**
KRLC Kraliky 120.04 325 *e*PKIKP **PKiKP 22 15 51.7 -0.2**
KRLC *e* 22 15 57.0
KRLC Kraliky 120.04 325 *e*PKP **PKiKP 22 15 51.7 -0.2**
KRLC *ep*PKP **pPKPdf 22 15 57.0 -3.2**
JAVC Velka Javorina 120.10 324 *e*PKP **PKiKP 22 15 52.0 -0.1**
DPC Dobruska-Polom 120.16 326 *e*PKIKP **PKPdf 22 15 51.7 -0.4**
DPC *e* 22 15 58.6
DPC Dobruska-Polom 120.16 326 *e*PKP **PKPdf 22 15 51.7 -0.4**
DPC *ex* x 22 15 58.6
VRAC Vranov 120.51 325 PKP **PKPdf 22 15 52.1 -0.7**
comp=N,3.2nm,0.8s,baz=276,slow=2.5,SNR=3.8
VRAC Vranov 120.51 325 *e*PKP **PKPdf 22 15 52.3 -0.4**
MODS Modra-Piesok 120.56 323 *e*PKIKP **PKiKP 22 15 53.1 +0.1**
MODS Modra-Piesok 120.56 323 *e*PKP **PKiKP 22 15 53.1 +0.1**
KRUC Moravsky 120.75 324 *e*PKP **PKPdf 22 15 52.6 -0.6**
E46A Sault Ste Mari 120.81 39 PKPdf 22 15 52.8 -0.5
WINA Alland / Wiene 121.39 324 *i* PKiKP **PKiKP 22 15 54.9 +0.3**
comp=N,4.0nm,0.7s
RONA Rosalia, Austr 121.45 323 *e*PKP **PKPdf 22 15 54.0 -0.6**
comp=N,8.0nm,1.1s
CLL Collm 121.47 328 *e*PKIKP **PKiKP 22 15 55.0 +0.4**
CLL *i* 22 16 01.4
CLL pmax pmax
comp=Z,6.0nm,1.0s
CLL MLR MLR
comp=Z,300nm,18.7s
CLL Collm 121.47 328 *e*PKPdf **PKiKP 22 15 55.0 +0.4**
comp=Z,6.0nm,1.0s
CLL *i* pPKPdf **pPKPdf 22 16 01.4 -1.4**
comp=Z,11nm,1.0s
CLL *i* sPKPdf **sPKPdf 22 16 05.3 -0.3**
CLL LH 22 54 00.0
CLL L L 23 02 00.0
CLL AMS AMS 23 08 00.0
comp=Z,300nm,20.0s
CLL AMS AMS 23 09 00.0
comp=N,200nm,18.4s
CLL AMS AMS 23 09 00.0
comp=E,300nm,18.3s
CLL AMS AMS 23 09 00.0
comp=Z,300nm,18.7s
ABNA Allensteig Bun 121.49 324 *e*PKiKP **PKiKP 22 15 55.3 +0.5**
comp=Z,6.3nm,1.2s
CONA Conrad Observa 121.60 324 *e*PKP **PKPdf 22 15 54.5 -0.5**
comp=Z,3.8nm,0.8s
PLCA Paso Flores 121.63 147 PKP **PKiKP 22 15 55.5 +0.1**
comp=Z,2.0nm,0.7s,baz=103,slow=0.2,SNR=4.6
ZVC Zvikov 121.81 326 *e*PKP **PKPdf 22 15 54.9 -0.3**
CKRC Cesky Krumlov 122.06 325 *e*PKIKP **PKiKP 22 15 55.7 -0.2**
CKRC *e* 22 16 02.1
CKRC Cesky Krumlov 122.06 325 *e*PKP **PKiKP 22 15 55.7 -0.2**
CKRC *ex* x 22 16 02.1
ARSA Arzberg 122.13 323 *e*PKP **PKiKP 22 15 55.9 -0.2**
comp=Z,1.0nm,0.6s
KHC Kasperske Hory 122.31 326 *e*PKIKP **PKiKP 22 15 56.4 0.0**
KHC *e* 22 16 01.9
KHC Kasperske Hory 122.31 326 PKiKP 22 15 56.6 +0.2
KHC Kasperske Hory 122.31 326 *e*PKP **PKiKP 22 15 56.4 0.0**
KHC *ep*PKP **pPKPdf 22 16 01.9 -2.7**
GERES GERESS Array B 122.39 325 PKP **PKPdf 22 15 55.8 -0.7**
comp=Z,2.7nm,0.6s,baz=78,slow=1.1,SNR=25
GERES GERESS Array B 122.39 325 PKIKP **PKPdf 22 15 56.1 -0.4**
GERES GERESS Array B 122.39 325 PKPdf 22 15 56.1 -0.4
WCI Wyandotte Cave 122.53 49 PKIKP **PKPdf 22 15 56.0 -0.9**
WCI Wyandotte Cave 122.53 49 PKPdf 22 15 56.0 -0.9
MOA Molln 122.58 324 *e*PKiKP **PKiKP 22 15 57.2 +0.3**
comp=Z,6.9nm,1.3s
SOKA Soboth 122.69 323 *i* PKiKP **PKiKP 22 15 57.1 -0.2**
comp=Z,7.3nm,1.0s
SESA Seetaler Alpe, 122.76 323 *i* PKP **PKPdf 22 15 56.5 -0.9**
comp=Z,5.8nm,0.8s
BIOA Bad Ischl, Aus 123.02 324 *i* PKP **PKPdf 22 15 56.3 -1.3**
comp=Z,4.0nm,0.8s
KBA Koelnbreinsper 123.50 324 *i* PKP **PKPdf 22 15 57.7 -1.1**
comp=Z,7.4nm,1.3s
MYKA Terra Mystica 123.56 323 *e*PKP **PKPdf 22 15 57.8 -0.9**
comp=Z,3.2nm,0.8s
LESA Schwarzleotal 123.72 324 *e*PKP **PKPdf 22 15 57.8 -1.3**
comp=Z,4.1nm,0.6s
VLDQ Val d'Or 124.04 35 PKiKP 22 15 59.4 -0.4
ABTA Abfaltersbach 124.17 324 *i* PKP **PKPdf 22 15 59.4 -0.5**
comp=Z,5.7nm,0.7s
WATA Walderalm 124.40 325 *e*PKP **PKPdf 22 16 00.2 -0.2**
comp=Z,7.3nm,1.2s
WTTA Wattenberg 124.40 325 *i* PKiKP **PKPdf 22 16 00.4 -0.1**
comp=Z,13nm,0.9s
MOTA Moosalm 124.67 325 *i* PKP **PKPdf 22 16 00.3 -0.7**
comp=Z,6.7nm,0.8s
SQTA Sankt Quirin 124.67 325 *i* PKiKP **PKPdf 22 16 00.9 -0.1**
comp=Z,9.8nm,1.0s
RETA Reutte 124.78 325 *e*PKP **PKPdf 22 16 00.8 -0.2**
comp=Z,4.3nm,1.1s
FETA Feichten 125.06 325 *e*PKiKP **PKPdf 22 16 01.6 -0.1**
comp=Z,5.9nm,0.9s
DAVA Damuels 125.39 325 *i* PKiKP **PKPdf 22 16 02.4 0.0**
comp=Z,9.1nm,0.8s
DAVOX Davos/Dischmat 125.67 325 PKP **PKPdf 22 16 02.5 -0.5**
comp=Z,5.0nm,0.7s,baz=170,slow=3.9,SNR=8.5
EKA Eskdalemuir Ar 125.87 339 PKP **PKPdf 22 16 02.4 -0.4**
comp=Z,2.5nm,0.7s,baz=20,slow=3.3,SNR=8.0
BCLA Clavier 125.90 331 *d*PKP **PKPdf 22 16 02.7 -0.3**
BCLA *dp*PKP **pPKPdf 22 16 09.9 -1.4**
WLF Walferdange 125.97 330 *d*PKP **PKiKP 22 16 04.4 +0.8**
WLF *dp*PKP **pPKPdf 22 16 10.6 -0.8**
TUE Stuetta 126.15 325 PKiKP 22 16 04.2 -0.2
BMRD Maredsous 126.24 331 *d*PKP **PKiKP 22 16 04.4 +0.3**
BMRD *dp*PKP **pPKPdf 22 16 10.7 -1.2**
BMRD *ds*PKP **sPKPdf 22 16 14.2 -0.6**
DOU Dourbes 126.46 331 *d*PKP **PKiKP 22 16 04.4 -0.1**
DOU *dp*PKP **pPKPdf 22 16 11.3 -1.0**
DOU *ds*PKP **sPKPdf 22 16 15.6 +0.3**
SSPA Standing Stone 127.55 43 PKPdf 22 16 06.2 -0.3
BNI Bardonecchia 128.50 325 PKIKP **PKiKP 22 16 08.5 -0.5**
BNI Bardonecchia 128.50 325 PKiKP 22 16 08.5 -0.5
ESDC Sonseca Array 137.98 326 PKP **PKPdf 22 16 24.8 -1.5**
comp=Z,1.1nm,1.0s,baz=38,slow=1.7,SNR=3.0
LPAZ La Paz 138.46 124 PKP **PKPdf 22 16 27.4 -1.0**
comp=Z,1.5nm,0.6s,baz=328,slow=2.9,SNR=5.8
ROSC El Rosal 138.84 90 PKP **PKPdf 22 16 28.4 -0.5**
comp=Z,16nm,0.7s,baz=64,slow=14,SNR=5.1
ROSC El Rosal 138.84 90 PKIKP **PKiKP 22 16 31.2 0.0**
ROSC El Rosal 138.84 90 PKiKP 22 16 31.2 0.0
TAM Tamanrasset 139.58 298 PKIKP **PKiKP 22 16 31.4 -0.7**
CPUP Villa Florida 139.65 145 PKP **PKPdf 22 16 29.1 -0.5**
comp=Z,1.9nm,0.7s,baz=189,slow=3.9,SNR=3.9
RUSC La Rusia 140.14 89 PKPdf 22 16 31.3 -0.1
MLPR Magueyes Islan 144.92 68 PKPab 22 16 37.5 -0.8
AOPR Arecibo Observ 145.09 67 PKPbc 22 16 38.1 -0.8
TOA0 Torodi Ar. Sit 145.24 284 PKPbc 22 16 37.5 -2.0
TORD Torodi Ar. Bea 145.24 284 PKPbc **PKPdf 22 16 39.7 -0.1**
comp=Z,66nm,0.9s,baz=76,slow=3.1,SNR=133
TORD SKP **SKPdf 22 20 08.9 -4.0**
comp=Z,1.1nm,0.7s,baz=98,slow=2.0,SNR=2.5
TORD SKPbc **SKPbc 22 20 17.7 -0.6**
comp=Z,1.8nm,0.8s,baz=45,slow=2.3,SNR=4.5
TORD Torodi Ar. Bea 145.24 284 PKPbc 22 16 37.5 -2.0
CELP Cerrillos 145.32 68 PKPbc 22 16 39.0 -0.6
SJG San Juan 145.71 67 PKP2 **PKPdf 22 16 40.1 -0.4**
SJG San Juan 145.71 67 PKPdf 22 16 40.1 -0.4
HUMP Col San Antoni 145.98 67 PKPbc 22 16 41.5 -0.2
VAO Valinhos 147.57 155 PKPbc **PKPbc 22 16 46.3 +0.1**
DBIC Dimbokro 152.06 272 PKPbc **PKPbc 22 16 57.0 -0.4**
comp=Z,8.8nm,0.7s,baz=94,slow=2.3,SNR=10
DBIC Dimbokro 152.06 272 PKIKP **PKiKP 22 16 57.5 -0.3**
DBIC Dimbokro 152.06 272 PKiKP 22 16 57.5 -0.3
BDFB Brasilia 153.37 146 PKPbc **PKiKP 22 17 00.7 +0.1**
comp=Z,8.8nm,0.9s,baz=138,slow=1.3,SNR=7.8

NEIC ***05*** *21:57:06.5±1.5, 42.32N×0.02×126.06W±0.1, h10km±2km, ML3.4/103, Error ellipse: s-maj=16.6km s-min=3.1km az=261.0*
IDC ***05*** *21:57:07.3±2.4, 42.46N×125.96W, h0km, mb3.6/4, mbtmp3.7/10, ML3.7/5, MS3.2/9, Error ellipse: s-maj=45.2km s-min=15.5km az=43.0*
ISC 05 21:57:07.2±1.2, 42.32N±0.05×126.06W±0.09, h10km, n84, σ1§10/76, mb3.6/4, MS3.1/3, Off coast of Oregon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSXB	**Camp Six Broad**	**1.70**	**106**		**Pn**	**21 57 35.1**	**-1.9**
J01E	**Myrtle Point**	**1.77**	**61**		**Pn**	**21 57 35.9**	**-2.1**
J01E				IAML		21 58 01.3	
	comp=N,322nm,0.3s						
J01E				IAML		21 58 02.2	
	comp=E,342nm,0.6s						
KRMB	**Red Mountain**	**1.79**	**116**		**Pn**	**21 57 36.5**	**-1.8**
K02D	**Willamette Mer**	**1.81**	**77**		**Pn**	**21 57 37.0**	**-1.5**
JCC	**Jacoby Creek,**	**2.14**	**134**		**Pn**	**21 57 42.4**	**-0.6**
KHMM	**Horse Mountain**	**2.27**	**129**		**Pn**	**21 57 43.4**	**-1.5**
KHMM				IAML		21 58 13.9	
	comp=N,114nm,1.2s						
KHMM				IAML		21 58 14.0	
	comp=E,131nm,0.9s						
KMPM	**Mount Pierce**	**2.40**	**142**		**Pn**	**21 57 45.6**	**-1.1**
KMPM				IAML		21 58 18.4	
	comp=E,107nm,0.7s						
KMPM				IAML		21 58 20.1	
	comp=N,100nm,1.1s						
I02E	**Swisshome, OR**	**2.41**	**41**		**Pn**	**21 57 44.4**	**-2.3**
I02E				IAML		21 58 13.9	
	comp=N,233nm,0.4s						
I02E				IAML		21 58 17.2	
	comp=E,324nm,0.5s						
BBOR	**Butler Butte**	**2.56**	**76**		**Pn**	**21 57 47.3**	**-1.6**
BBOR				IAML		21 58 05.8	
	comp=N,182nm,0.6s						
BBOR				IAML		21 58 27.0	
	comp=E,142nm,0.6s						
YBH	**Yreka Blue Hor**	**2.56**	**102**	Pn	**Pn**	**21 57 48.6**	**-0.3**
	comp=E,10nm,0.3s,baz=304,slow=12,SNR=34						
YBH				LR	LR	21 58 17.9	
	comp=E,96nm,21.2s,baz=10.0,slow=28						
YBH				Sn	**Sn**	**21 58 20.7**	**+0.5**
	comp=E,6.9nm,0.3s,baz=163,slow=22,SNR=5.8						
	comp=E,33nm,0.5s						
YBH				AML	AML		
YBH	**Yreka Blue Hor**	**2.56**	**102**		**Pn**	**21 57 48.0**	**-0.9**
M02C	**Callahan**	**2.57**	**110**		**Pn**	**21 57 48.0**	**-1.0**
KHBM	**Hayfork Bally**	**2.70**	**127**	Pn	**Pn**	**21 57 49.6**	**-1.3**
KMRM	**Mail Ridge**	**2.75**	**139**		**Pn**	**21 57 50.5**	**-0.9**
KMRM				IAML		21 58 32.1	
	comp=N,80nm,1.4s						
KMRM				IAML		21 58 32.2	
	comp=E,82nm,0.8s						
L04D	**Klamath Falls**	**2.79**	**91**		**Pn**	**21 57 51.9**	**-0.1**
L04D				IAML		21 58 26.7	
	comp=E,106nm,1.3s						
L04D				IAML		21 58 40.7	
	comp=N,84nm,1.1s						
BUCK	**Buck Mountain**	**2.92**	**49**		**Pn**	**21 57 52.5**	**-1.3**
BUCK				IAML		21 58 29.6	
	comp=N,183nm,0.6s						
BUCK				IAML		21 58 32.1	
	comp=E,155nm,0.5s						
COR	**Corvallis**	**3.02**	**41**		**Pn**	**21 57 55.3**	**+0.2**
COR				IAML		21 58 36.4	
	comp=E,195nm,0.7s						
J04A	**Umpqua Nationa**	**3.05**	**71**		**Pn**	**21 57 55.9**	**+0.3**
I04A	**Tendick Farm,**	**3.05**	**60**		**Pn**	**21 57 54.9**	**-0.7**
I04A				IAML		21 58 36.6	
	comp=E,151nm,0.9s						
I04A				IAML		21 58 40.1	
	comp=N,124nm,0.8s						
M03C	**McCloud**	**3.12**	**108**		**Pn**	**21 57 57.0**	**+0.4**
M03C				IAML		21 58 38.3	
	comp=E,91nm,1.6s						
M03C				IAML		21 58 41.0	
	comp=N,54nm,1.5s						
KCPM	**Cahto Peak**	**3.23**	**144**		**Pn**	**21 57 56.8**	**-1.3**
KCPM				IAML		21 58 38.1	
	comp=E,82nm,0.4s						
KCPM				IAML		21 58 41.2	
	comp=N,95nm,0.7s						
H04D	**Lebanon**	**3.27**	**47**		**Pn**	**21 57 57.8**	**-0.7**
O02D	**Mt. Diablo Mer**	**3.27**	**130**		**Pn**	**21 57 58.0**	**-0.6**
DCMP	**DeCamp, Califo**	**3.52**	**143**	Pn	**Pn**	**21 58 00.9**	**-1.1**
G03D	**McMinnville, O**	**3.52**	**34**		**Pn**	**21 58 01.4**	**-0.6**
G03D				IAML		21 58 43.5	
	comp=N,131nm,1.2s						
G03D				IAML		21 59 15.3	
	comp=E,127nm,1.9s						
WIFE	**Three Sisters-**	**3.55**	**59**		**Pn**	**21 58 01.4**	**-1.2**
WIFE				IAML		21 58 49.7	
	comp=N,100nm,0.5s						
WIFE				IAML		21 58 51.5	
	comp=E,91nm,0.6s						
J05D	**Fort Rock, OR**	**3.68**	**73**		**Pn**	**21 58 02.6**	**-1.7**
J05D				IAML		21 59 01.3	
	comp=N,69nm,4.9s						
J05D				IAML		21 59 31.1	
	comp=E,39nm,3.3s						
HATC	**Hat Creek Radi**	**3.76**	**112**		**Pn**	**21 58 03.6**	**-1.7**
HATC				IAML		21 59 19.4	
	comp=E,84nm,3.1s						
HATC				IAML		21 59 47.0	
	comp=N,82nm,2.3s						
O03E	**Paynes Creek**	**3.79**	**121**		**Pn**	**21 58 04.1**	**-1.7**
K05A	**Summer Lake**	**3.84**	**82**		**Pn**	**21 58 06.3**	**-0.3**
K05A				IAML		21 59 22.4	
	comp=E,45nm,4.7s						
K05A				IAML		21 59 46.6	
	comp=N,35nm,4.8s						
G04A	**Mulino**	**3.88**	**41**		**Pn**	**21 58 06.9**	**+0.1**
I05D	**Terrebonne, OR**	**3.99**	**58**		**Pn**	**21 58 07.9**	**-0.5**
I05D				IAML		21 59 13.8	
	comp=N,87nm,3.3s						
I05D				IAML		21 59 18.2	
	comp=E,66nm,4.7s						
PINE	**Pine Mountain**	**4.03**	**67**		**Pn**	**21 58 08.5**	**-0.6**
PINE				IAML		21 59 28.8	
	comp=N,38nm,4.0s						
PINE				IAML		22 00 21.9	
	comp=E,31nm,4.9s						
F03A	**Seaside**	**4.03**	**26**	Pn	**Pn**	**21 58 08.3**	**-0.7**
MOD	**Modoc Plateau**	**4.30**	**94**		**Pn**	**21 58 11.0**	**-1.8**
HOOD	**Mount Hood Mea**	**4.37**	**45**		**Pn**	**21 58 13.6**	**-0.3**
HOOD				IAML		21 59 10.9	
	comp=N,59nm,0.8s						
RADR	**Rader Ridge**	**4.41**	**21**	Pn	**Pn**	**21 58 12.6**	**-1.6**
ORV	**Oroville**	**4.42**	**127**		**Pn**	**21 58 14.8**	**+0.5**
ORV				IAML		21 59 10.3	
	comp=N,33nm,1.3s						
ORV				IAML		21 59 12.6	
	comp=E,26nm,0.8s						
F04A	**Amboy**	**4.46**	**35**	Pn	**Pn**	**21 58 14.1**	**-0.7**
F04A				IAML		21 59 06.2	
	comp=N,53nm,0.4s						
G05A	**Wamic**	**4.50**	**48**		**Pn**	**21 58 14.7**	**-0.8**
JRO	**Jston Ridge Ob**	**4.81**	**34**		**Pn**	**21 58 18.5**	**-1.4**
G06A	**Carlson Farm,**	**4.89**	**52**	IAML		21 59 15.8	
	comp=N,26nm,4.9s						
G06A				IAML		21 59 36.3	
	comp=E,26nm,3.5s						
BEKR	**Beckwith**	**4.96**	**118**		**Pn**	**21 58 21.1**	**-0.8**
AFDM	**Forest Hills D**	**5.13**	**129**		**Pn**	**21 58 23.9**	**-0.3**
LON	**Longmire**	**5.37**	**33**		**Pn**	**21 58 26.9**	**-0.5**
LON				IAML		21 59 35.7	
	comp=E,29nm,2.4s						
MPK	**Martis Peak**	**5.48**	**121**	Pn	**Pn**	**21 58 28.9**	**-0.3**
WVOR	**Wild Horse Val**	**5.50**	**86**		**Pn**	**21 58 27.2**	**-2.1**
D05A	**Enumclaw**	**5.66**	**29**	Pn	**Pn**	**21 58 31.5**	**+0.1**
J08A	**Circle Bar Ran**	**5.67**	**77**		**Pn**	**21 58 30.0**	**-1.6**
PAHR	**Pah Rah Range**	**5.68**	**115**	Pn	**Pn**	**21 58 31.8**	**-0.1**
GNW	**Green Mountain**	**5.72**	**23**		**Pn**	**21 58 30.9**	**-1.2**
PNTR	**Pine Nut**	**5.88**	**121**		**Pn**	**21 58 35.1**	**+0.6**
MXC	**Moxie City**	**5.92**	**42**	Pn	**Pn**	**21 58 35.0**	**0.0**
G08A	**Pilot Rock**	**5.93**	**58**		**Pn**	**21 58 35.1**	**-0.1**
CMB	**Columbia Colle**	**6.10**	**133**		**Pn**	**21 58 36.6**	**-0.9**
E07A	**Sunnyside**	**6.13**	**44**	Pn	**Pn**	**21 58 36.7**	**-1.2**
YERR	**Yerington**	**6.16**	**121**		**Pn**	**21 58 37.9**	**-0.6**
HAWA	**Hanford**	**6.20**	**47**	Pn	**Pn**	**21 58 37.1**	**-1.7**
LTY	**Liberty**	**6.25**	**36**		**Pn**	**21 58 39.4**	**-0.1**
YPT	**Yellepit**	**6.31**	**51**		**Pn**	**21 58 39.1**	**-1.3**
WAKR	**Walker**	**6.33**	**125**		**Pn**	**21 58 39.8**	**-1.0**
WAH2	**Wahluke Slope**	**6.41**	**44**	Pn	**Pn**	**21 58 41.3**	**-0.4**
E08A	**Dider Farm, El**	**6.51**	**48**		**Pn**	**21 58 41.4**	**-1.7**
LNOR	**Lincton Mounta**	**6.62**	**55**		**Pn**	**21 58 43.6**	**-1.0**
CLRS	**Cowichan Lake**	**6.63**	**11**	Pn	**Pn**	**21 58 43.8**	**-1.0**
EPH	**Ephrata**	**6.81**	**40**		**Pn**	**21 58 46.6**	**-0.5**
BMO	**Blue Mountains**	**6.84**	**65**		**Pn**	**21 58 46.4**	**-1.2**
NVAR	**Mina Array Bea**	**7.08**	**121**	Pn	**Pn**	**21 58 51.0**	**-0.1**
	comp=E,1.9nm,0.6s,baz=301,slow=14,SNR=4.3						
NVAR				LR	LR	22 01 47.1	
	comp=E,210nm,19.9s,baz=284,slow=39						
ELK	**Elko**	**8.27**	**97**	Pn	**Pn**	**21 59 07.2**	**-0.2**
	comp=E,0.2nm,0.3s,baz=292,slow=13,SNR=6.2						
ELK				LR	LR	22 02 09.7	
	comp=E,64nm,21.3s,baz=312,slow=37						
	comp=E,1.5nm,0.7s						
ELK				AML	AML		
PFO	**Pinyon Flats O**	**11.53**	**136**	LR	LR	22 04 20.0	
	comp=E,118nm,19.5s,baz=263,slow=37						
PDAR	**Pinedale Array**	**12.18**	**82**	Pn	**Pn**	**22 00 02.0**	**+1.0**
	comp=E,0.1nm,0.3s,baz=273,slow=7.9,SNR=9.5						
PDAR				LR	LR	22 05 13.0	
	comp=E,221nm,18.5s,baz=262,slow=40						
	comp=E,1.0nm,0.8s						
PDAR				AML	AML		
DLBC	**Dease Lake**	**16.32**	**353**	Pn	**Pn**	**22 00 56.5**	**+0.1**
	comp=E,0.4nm,0.3s,baz=172,slow=14,SNR=3.6						
DLBC				LR	LR	22 06 27.9	
	comp=E,66nm,18.4s,baz=264,slow=35						
	comp=E,1.3nm,0.4s						
DLBC				AML	AML		
ANMO	**Albuquerque**	**16.97**	**109**	Pn	**P**	**22 01 06.3**	**-0.6**
	comp=E,0.1nm,0.3s,baz=308,slow=14,SNR=3.6						
ANMO				LR	LR	22 08 09.9	
	comp=E,179nm,19.4s,baz=304,slow=39						
	comp=E,0.9nm,0.5s						
ANMO				AML	AML		
YKA	**Yellowknife Ar**	**21.31**	**15**	P	**P**	**22 01 54.1**	**+0.3**
	comp=E,3.0nm,0.8s,baz=205,slow=12,SNR=4.4						
	comp=E,3.0nm,0.8s						
ULM	**Lac du Bonnet**	**22.20**	**59**	P	**P**	**22 02 03.4**	**-0.1**
	comp=E,5.3nm,0.7s,baz=259,slow=13,SNR=4.8						
	comp=E,5.3nm,0.7s						
TXAR	**Lajitas Array**	**22.23**	**118**	P	**P**	**22 02 06.5**	**+2.4**
	comp=E,1.3nm,0.7s,baz=294,slow=9.9,SNR=14						
TXAR				LR	LR	22 10 55.1	
	comp=E,67nm,21.5s,baz=320,slow=37						
	comp=E,1.3nm,0.7s						
ILAR	**Eielson Array**	**25.42**	**339**	P	**P**	**22 02 35.2**	**+0.5**
	comp=E,0.9nm,0.9s,baz=138,slow=6.8,SNR=6.5						
ILAR				LR	LR	22 10 23.6	
	comp=E,63nm,20.6s,baz=282,slow=31						
	comp=E,0.9nm,0.9s						
H11N3	**WAKE ISLAND Hy**	**60.16**	**270**	T	T	23 12 08.8	
	baz=51,slow=75						
H11N2	**WAKE ISLAND Hy**	**60.16**	**270**	T	T	23 12 06.7	
	baz=51,slow=75						
H11N1	**WAKE ISLAND Hy**	**60.17**	**270**	T	T	23 12 08.0	
	baz=51,slow=75						
H11S1	**WAKE ISLAND Hy**	**61.06**	**269**	T	T	23 13 16.5	
	baz=50,slow=75						
H11S2	**WAKE ISLAND Hy**	**61.07**	**269**	T	T	23 13 16.6	
	baz=50,slow=75						
H11S3	**WAKE ISLAND Hy**	**61.08**	**269**	T	T	23 13 15.9	
	baz=50,slow=75						
KURBB	**Kurchatov Arra**	**84.97**	**345**	LR	LR	22 50 37.0	
	comp=E,346nm,20.4s,baz=229,slow=38						

AFAD ***05*** *22:10:55.8, 37.88N×26.95E, h7km±2km, ML2.6*
THE ***05*** *22:10:55.8, 38°N±1°×2°7E±°, h10km±3km, M2.9/9, MLh2.9/9*
ISK ***05*** *22:10:55.5, 37.88N×26.94E, h5km, ML2.8/17*
ISC 05 22:10:55.9±0.9, 37.87N±0.02×26.93E±0.03, h11km±7km, n31, σ0§44/44, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**205**	P	**Pg**	**22 10 59.6**	**-0.1**
SMG				S	**Sg**	**22 11 02.9**	**+0.4**
SMG				AML	AML		
DGB	**zmir**	**0.19**	**349**	P	**Pg**	**22 10 59.8**	**-0.2**
DGB				S	**Sg**	**22 11 02.1**	**-0.8**
GMLD	**Gumuldur**	**0.21**	**357**	Pg	**Pg**	**22 11 00.3**	**-0.1**
GMLD				Sg	**Sg**	**22 11 03.2**	**-0.3**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**91**	Pg	**Pg**	**22 11 01.5**	**-0.2**
KUSD				Sg	**Sg**	**22 11 05.9**	**+0.3**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**124**	P	**Pg**	**22 11 02.1**	**+0.2**
GCAM				S	**Sg**	**22 11 06.3**	**+0.5**
GCAM				IAML		22 11 07.0	
	comp=N,1μm,0.2s						
GCAM				IAML		22 11 07.0	
	comp=E,628nm,0.1s						
GCAM	**G?zelcaml?**	**0.29**	**124**	Pg	**Pg**	**22 11 01.9**	**+0.1**
GCAM				Sg	**S

DUVT					S	**Sg**	**22 11 13.0**	**-0.6**
DUVT					IAML		22 11 14.0	
	comp=E,587nm,0.2s							
AYDB	**Zeytinkoy-Aydi**	**0.77**	**84**	Pg	**Pg**	**22 11 10.4**	**-0.3**
AYDB				AML	AML			
KRBN	**Karaburun**	**0.79**	**338**	Pg	**Pg**	**22 11 11.1**	**0.0**
KRBN				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.79**	**159**	Pg	**Pg**	**22 11 11.2**	**0.0**
YKAV				AML	AML			
BODT	**Bodrum**	**0.86**	**159**	P	**Pg**	**22 11 11.9**	**-0.5**
BODT				S	**Sb**	**22 11 25.1**	**+0.9**
BODT				AML	AML			
BODT	**Bodrum**	**0.86**	**159**	Pg	**Pg**	**22 11 11.9**	**-0.5**
BODT				AML	AML			
FOCM	**Foa**	**0.86**	**350**	Pg	**Pg**	**22 11 12.4**	**-0.1**
FOCM				AML	AML			
CHOS	**Chios island**	**0.86**	**307**	P	**Pb**	**22 11 13.4**	**+0.4**
CHOS				S	**Sb**	**22 11 25.2**	**+0.7**
CHOS				AML	AML			
CHOS	**Chios island**	**0.86**	**307**	Pg	**Pb**	**22 11 13.0**	**+0.1**
CHOS				AML	AML			
MLSB	**Milas**	**0.88**	**130**	Pg	**Pg**	**22 11 12.8**	**-0.1**
MLSB				AML	AML			
BODA	**Bodrum-Mula**	**0.92**	**154**	Pg	**Pg**	**22 11 13.6**	**0.0**
NAZL	**Nazilli-Aydin**	**1.08**	**84**	Pg	**Pg**	**22 11 16.4**	**-0.3**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.15**	**42**	Pn	**Pn**	**22 11 17.9**	**+0.1**
GOMA				AML	AML			
DKL	**Dikili**	**1.20**	**359**	Pn	**Pn**	**22 11 18.9**	**+0.3**
DKL				AML	AML			
AKS	**Akhisar**	**1.23**	**34**	Pn	**Pn**	**22 11 19.5**	**+0.5**
AKS				AML	AML			
DAT	**Datca**	**1.25**	**155**	P	**Pb**	**22 11 18.9**	**-0.6**
DAT				AML	AML			
YER	**Yerkesik**	**1.30**	**124**	P	**Pn**	**22 11 19.8**	**-0.2**
APE	**Apeiranthos**	**1.37**	**235**	P	**Pn**	**22 11 19.7**	**-1.2**
APE				AML	AML			
SOMA	**Soma-Manisa**	**1.37**	**20**	Pn	**Pg**	**22 11 21.8**	**-0.5**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.43**	**43**	Pn	**Pg**	**22 11 22.9**	**-0.5**
GORD				AML	AML			
PRK	**Paraskevi**	**1.47**	**340**	P	**Pb**	**22 11 23.3**	**0.0**

*SJA **05** 22:11:59.4±0.6, 30.°21S×72.°09W, h32km±16km, ML3.3, MW3.6*
*GUC **05** 22:12:04.1±0.7, 30.°42S×71.°64W, h27km±3km, ML3.2, Presumed earthquake*
ISC 05 22:12:04.4±1.2, **30.°43S**±0.°03×**71.°53W**±0.°05, **h10**km±9km, **n30**, σ1**s59**/44, **4D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.26**	**200**	⇓*iP*		**Pg**		**22 12 10.0**	**+0.2**
CO06				*eS*		**Sg**		**22 12 14.8**	**+1.4**
CO05	**La Serena**	**0.57**	**26**	*eP*		**Pg**		**22 12 15.4**	**0.0**
CO05				*eS*		**Sb**		**22 12 24.1**	**-0.4**
CO05				IAML				22 12 24.9	
	comp=N,2μm,0.3s								
GO04	**Tololo Observa**	**0.68**	**68**	⇓*iP*		**Pb**		**22 12 18.4**	**-0.1**
GO04				*eS*		**Sb**		**22 12 29.0**	**+0.9**
GO04				IAML				22 12 34.1	
	comp=N,2μm,0.5s								
CO03	**El Pedregal**	**0.83**	**120**	⇓*iP*		**Pb**		**22 12 20.8**	**-0.3**
CO03				*eS*		**Sb**		**22 12 32.5**	**+0.1**
CO03				IAML				22 12 34.9	
	comp=N,1μm,0.4s								
CO02	**Combarbal**	**0.90**	**150**	⇓*iP*		**Pg**		**22 12 21.4**	**-0.3**
CO02				*eS*		**Sb**		**22 12 34.3**	**0.0**
CO02				IAML				22 12 38.6	
	comp=E,3μm,0.2s								
CO01	**Juntas del Tor**	**1.32**	**71**	*eP*		**Pg**		**22 12 28.8**	**-1.0**
CO01				*eS*		**Sn**		**22 12 47.3**	**+0.3**
CO01				IAML				22 12 50.1	
	comp=N,349nm,0.4s								
CO04	**Los Peladeros**	**1.68**	**164**	*eP*		**Pn**		**22 12 33.3**	**-0.9**
CO04				*eS*		**Sn**		**22 12 56.0**	**+0.1**
CO04				IAML				22 13 01.0	
	comp=N,493nm,0.3s								
AROD	**Rodeo**	**1.80**	**82**	*eP*		**Pg**		**22 12 37.7**	**-1.2**
AROD				*eS*		**Sg**		**22 13 04.7**	**+2.4**
AC05	**El Transito**	**1.93**	**35**	*eP*		**Pn**		**22 12 37.1**	**-0.3**
AC05				IAML				22 13 12.2	
	comp=N,144nm,0.7s								
ACCO	**Cerro Coronel**	**2.13**	**95**	*eP*		**Pb**		**22 12 43.5**	**+0.1**
ACCO				*eS*		**Sg**		**22 13 15.5**	**+2.5**
AC04	**Llanos de Chal**	**2.25**	**10**	*eP*		**Pn**		**22 12 41.0**	**-0.7**
AC04				IAML				22 13 17.2	
	comp=N,65nm,0.5s								
RTLS	**Leoncito**	**2.35**	**126**	*eP*		**Pb**		**22 12 46.8**	**-0.3**
RTLS				*eS*		**Sg**		**22 13 21.1**	**+1.0**
RTLS				IAML				22 13 30.1	
	comp=Z,181nm,0.7s								
VA03	**San Esteban**	**2.47**	**161**	*eP*		**Pn**		**22 12 45.6**	**+0.7**
VA03				*eS*		**Sn**		**22 13 16.2**	**+0.9**
VA03				IAML				22 13 28.0	
	comp=Z,128nm,0.4s								
VA03	**San Esteban**	**2.47**	**161**	*eP*		**Pn**		**22 12 45.3**	**+0.4**
VA03				IAML				22 13 27.6	
	comp=E,208nm,0.4s								
AUSP	**Uspallata**	**2.56**	**135**	*eP*		**Pb**		**22 12 49.0**	**-1.7**
AUSP				*eS*		**Sb**		**22 13 20.7**	**-1.7**
ROCH	**El Roble**	**2.58**	**170**	IAML				22 13 30.7	
	comp=E,67nm,0.6s								
ZON	**Zonda**	**2.69**	**115**	*eP*		**Pb**		**22 12 50.7**	**-2.0**
ZON				*eS*		**Sg**		**22 13 29.5**	**-1.4**
RTLL	**Cerro Villicun**	**2.78**	**110**	*eP*		**Pb**		**22 12 51.8**	**-2.4**
RTLL				*eS*		**Sg**		**22 13 30.6**	**-3.1**
RTLL				IAML				22 13 40.0	
	comp=Z,65nm,0.8s								
PEL	**Peldehue**	**2.80**	**165**	*eP*		**Pn**		**22 12 49.7**	**+0.3**
PEL				IAML				22 13 34.7	
MT02	**Curacav**	**2.84**	**173**	*eP*		**Pn**		**22 12 49.7**	**-0.2**
MT02				IAML				22 13 33.9	
	comp=E,53nm,0.3s								
MT10	**Hacienda Santa**	**2.96**	**164**	*eP*		**Pn**		**22 12 52.0**	**+0.3**
FCH	**Farellones**	**3.08**	**160**	*eP*		**Pn**		**22 12 54.9**	**+1.5**
MT04	**Ro Olivares**	**3.20**	**159**	*eP*		**Pn**		**22 12 55.7**	**+0.8**
MT04				IAML				22 13 46.3	
	comp=E,62nm,0.4s								
VCA	**Vinchina**	**3.35**	**61**	*eP*		**Pn**		**22 12 55.7**	**-1.3**
VCA				*eS*		**Sn**		**22 13 40.7**	**+3.7**
VCA				IAML				22 13 54.8	
	comp=Z,85nm,0.4s								
MT09	**Talagante**	**3.37**	**172**	IAML				22 13 58.2	
	comp=E,55nm,0.6s								
AAGR	**Agrelo**	**3.51**	**140**	*eP*		**Pn**		**22 13 01.7**	**+2.5**
AAGR				IAML				22 14 10.5	
	comp=Z,33nm,0.5s								
AVFE	**Valle Fertil**	**3.52**	**95**	*eP*		**Pn**		**22 13 02.0**	**+2.8**
AVFE				*eS*		**Sb**		**22 13 50.2**	**+0.4**
AVFE				IAML				22 13 59.5	
	comp=Z,30nm,0.4s								
LMEL	**Las Melosas**	**3.59**	**162**	IAML				22 13 58.5	
	comp=N,43nm,0.2s								
ACLC	**CERRO LA CRUZ**	**4.10**	**77**	*eP*		**Pn**		**22 13 09.6**	**+2.3**
ACLC				*eS*		**Sb**		**22 14 02.7**	**-3.8**
ACLC				IAML				22 14 14.4	
	comp=Z,16nm,0.4s								
AC02	**Maricunga**	**4.16**	**31**	*eP*		**Pn**		**22 13 08.6**	**+0.2**

*IDC **05** 22:16:08.3±1.5, 3.°22N×128.°73E, h0km, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=141.9km s-min=18.4km az=70.0*
*DJA **05** 22:16:33.3±0.7, 3.°7N±6.°×12.°8E±.°, h72km±8km, M4.1/9, mb4.5/4, mB5.9/3, MLv3.8/9, Mw(mB)5.4/3*
ISC 05 22:16:20.1±1.1, **3.°2N**±0.°1×**128.°7E**±0.°2, **h100**km, **n11**, σ1**s23**/11, **mb3.7/6**, **North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**2.74**	**208**	P		**Pn**		**22 17 04.3**	**+1.9**
DDMP	**Don Marcelino,**	**4.11**	**315**	*eP*		Pn		22 17 27.0	+6.2
DDMP				*eS*		**Sn**		**22 18 08.4**	**+0.5**
MNI	**Manado**	**4.19**	**245**	P		**Pn**		**22 17 21.3**	**-0.7**
MNI				AML		AML			
SANI	**Sanana**	**5.86**	**207**	P		**Pn**		**22 17 45.2**	**+0.6**
	0.1nm5.7nm,0.6s								
SANI				AML		AML			
GTOI	**Gorontalo**	**6.19**	**246**	P		**Pn**		**22 17 48.8**	**-0.2**
	0.1nm461nm44nm,0.8s								
GTOI				AML		AML			
WRA	**Warramunga Arr**	**23.67**	**167**	P		**P**		**22 21 21.6**	**-1.2**
	2.0nm,0.6s,baz=346,slow=10.0,SNR=14 2.0nm,0.6s								
ASAR	**Alice Springs**	**27.20**	**169**	P		**P**		**22 21 53.5**	**-1.2**
	0.3nm,0.5s,baz=352,slow=7.9,SNR=5.9 0.3nm,0.5s								
STKA	**Stephens Creek**	**37.00**	**162**	P		**P**		**22 23 19.4**	**-0.7**
	0.9nm,0.3s,baz=331,slow=8.5,SNR=3.9 0.9nm,0.3s								
SONM	**Songino Array**	**48.42**	**340**	P		**P**		**22 24 51.6**	**-0.8**
	0.3nm,0.4s,baz=147,slow=8.2,SNR=1.9 0.3nm,0.4s								
MKAR	**Makanchi Array**	**59.08**	**325**	P		**P**		**22 26 11.3**	**+1.3**
	0.4nm,0.5s,baz=118,slow=8.1,SNR=5.8 0.4nm,0.5s								
KURBB	**Kurchatov Array**	**63.22**	**327**	P		**P**		**22 26 39.2**	**+1.4**
	0.6nm,0.5s,baz=121,slow=6.4,SNR=3.1 0.6nm,0.5s								

*ISK **05** 22:16:21.6, 39.°83N×23.°65E, h7km, ML4.8/16*
*AFAD **05** 22:16:22.8, 39.°94N×23.°58E, h8km±3km, MW4.5*
*IDC **05** 22:16:26.0±0.4, 39.°93N×24.°04E, h0km, mb4.2/27, mbtmp4.2/41, ML3.6/11, MS3.8/23, Error ellipse: s-maj=8.2km s-min=7.8km az=111.0*
*PDG **05** 22:16:26.8±0.7, 39.°93N×23.°94E, h22km±1km, ML4.1/13, Error ellipse: s-maj=0.5km s-min=0.7km az=0.0*
*MCSM **05** 22:16:26.2±0.5, 40.°N×2.°×2.°4E±.°, h11km±4km, mb4.8, mB4.8, MLv4.9, Mw(mB)4.1*
*SOF **05** 22:16:26.7, 39.°90N±0.°03×24.°00E±0.°02, h19km±2km, MD4.8/10*
*MOS **05** 22:16:26.0±1.0, 39.°96N×24.°03E, h13km, mb4.7/30, Error ellipse: s-maj=4.6km s-min=2.8km az=85.0*
*NAO **05** 22:16:27.3, 39.°94N×23.°95E, h10km, MB4.1*
*ATH **05** 22:16:27.3, 39.°94N×23.°95E, h24km, Mw4.3, Moment Tensor Solution. s10 Moment tensor: Mrr=2.31; Mθθ2.56; Mθφ-0.25; Mrθ1.96; Mθφ-2.48; Mφr0.98; Fault plane solution: NP1:φs268.00000°, δ66.00000°, λ-131.00000°. NP2:φs153.00000°, δ47.00000°, λ-34.00000°.*
*THE **05** 22:16:27.1, 39.°9N±0.°8×24.°0E±1.°0, h10km±1km, M4.2/64, MLh4.2/64*
*NEIC **05** 22:16:27.2±1.6, 39.°92N±0.°06×23.°97E±0.°06, h10km±1km, mb4.9/87, Error ellipse: s-maj=9.6km s-min=8.3km az=170.0*
*MED_RC **05** 22:16:27.0, 39.°94N×23.°95E, h21km, Mw4.6, Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr-0.84±.14; Mθθ0.70±.09; Mφφ0.00±.07; Mrθ0.11±.07; Mθφ-0.67±.03; Mφr0.08±.06; Fault plane solution: M0 1.00000×10^16 NP1:φs136.00000°, δ45.00000°, λ-72.00000°. NP2:φs291.00000°, δ48.00000°, λ-107.00000°. Principal axes: T 1.1400, Plg1.0000°, Azm33.0000°; N -0.2800, Plg13.0000°, Azm303.0000°; P -0.8600, Plg77.0000°, Azm130.0000°;*
*GFZ **05** 22:16:28.2, 39.°92N×23.°97E, h17km, Mw4.5/29, Moment Tensor Solution. Moment tensor: Scale 10^15Nm; Mrr-7.13; Mθθ5.30; Mφφ1.83; Mrθ1.97; Mθφ-2.42; Mφr-0.61; Fault plane solution: M0 7.15968×10^15 NP1: φs119.60432°, δ36.79109°, λ-85.98044°. NP2: φs294.58964°, δ53.31423°, λ-93.00083°. Principal axes: T 6.8387, Plg8.2692°, Azm26.7334°; N 0.6036, Plg2.4060°, Azm296.3835°; P -7.4424, Plg81.3831°, Azm190.2856°;*
*GFZ **05** 22:16:28.4±0.2, 40.°N±2.°×2.°4E±.°, h10km, M4.8/26, mb4.9/26*
ISC 05 22:16:27.5±0.8, **39.°94N**±0.°02×**23.°97E**±0.°01, **h14**km±5km, **n747**, σ1**s29**/798, **mb4.7**/83, **MS3.9**/12, **64C-69D**, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
PAIG	**Paliouri**	**0.22**	**268**	P		**Pg**		**22 16 31.9**	**-0.5**
PAIG				S		**Sg**		**22 16 35.2**	**-0.4**
PAIG				AML		AML			
PAIG	**Paliouri**	**0.22**	**268**	P		**Pg**		**22 16 32.1**	**-0.3**
OUR	**Ouranopolis**	**0.40**	**2**	P		**Pg**		**22 16 35.7**	**+0.2**
OUR				S		**Sg**		**22 16 41.1**	**+0.1**
OUR				AML		AML			
OUR	**Ouranopolis**	**0.40**	**2**	P		**Pg**		**22 16 35.0**	**-0.5**
OUR				S		**Sg**		**22 16 41.0**	**+0.1**
OUR	**Ouranopolis**	**0.40**	**2**	Pg		**Pg**		**22 16 33.5**	**-2.0**
OUR				Sg		**Sg**		**22 16 41.2**	**+0.3**
OUR	**Ouranopolis**	**0.40**	**2**	P		**Pg**		**22 16 35.8**	**+0.2**
OUR				S		**Sb**		**22 16 41.4**	**-0.9**
PLG	**Polygyros**	**0.59**	**318**	P		**Pg**		**22 16 38.0**	**-1.1**
PLG				S		**Sg**		**22 16 46.4**	**-0.6**
PLG				AML		AML			
PLG	**Polygyros**	**0.59**	**318**	P		**Pg**		**22 16 38.0**	**-1.1**
AOS	**Alonnisos**	**0.77**	**185**	P		**Pg**		**22 16 42.2**	**-0.2**
AOS				S		**Sb**		**22 16 53.3**	**+0.4**
AOS				AML		AML			
AOS2	**Alonissos-2**	**0.79**	**187**	P		**Pg**		**22 16 41.8**	**-1.1**
AOS2				S		**Sg**		**22 16 53.0**	**-0.3**
XOR	**Xorichti**	**0.83**	**227**	P		**Pg**		**22 16 42.6**	**-0.9**
XOR				S		**Sb**		**22 16 54.5**	**-0.1**
XOR				AML		AML			
XOR	**Xorichti**	**0.83**	**227**	P		**Pg**		**22 16 42.8**	**-0.7**
XOR	**Xorichti**	**0.83**	**227**	P		**Pg**		**22 16 43.0**	**-0.5**
XOR				S		**Sg**		**22 16 54.0**	**-0.4**
LMN1	**MIRINA LIMNOU**	**0.84**	**94**	P		**Pb**		**22 16 43.7**	**-0.1**
LMN1				S		**Sg**		**22 16 54.7**	**-0.2**
LMN1				AML		AML			
NEO	**Neokhori**	**0.85**	**223**	P		**Pg**		**22 16 43.1**	**-0.9**
NEO				S		**Sb**		**22 16 55.3**	**0.0**
NEO				AML		AML			
NEO	**Neokhori**	**0.85**	**223**	P		**Pg**		**22 16 43.1**	**-0.9**
NEO				S		**Sg**		**22 16 54.5**	**-0.6**
EFSA	**Agios Efstrati**	**0.88**	**116**	P		**Pg**		**22 16 44.3**	**-0.3**
EFSA				S		**Sb**		**22 16 56.7**	**+0.6**
EFSA				AML		AML			
THAS	**Thassos island**	**0.88**	**40**	P		**Pg**		**22 16 43.8**	**-0.8**
THAS				S		**Sn**		**22 16 57.8**	**-0.3**
THAS				AML		AML			
THAS	**Thassos island**	**0.88**	**40**	P		**Pg**		**22 16 43.7**	**-0.9**
THAS				S		**Sg**		**22 16 55.1**	**-1.0**
THAS				AML		AML			
THS1	**Thassos, Thass**	**0.93**	**30**	P		**Pg**		**22 16 44.8**	**-0.6**
THS1				AML		AML			
LIA	**Limnos Island**	**0.94**	**92**	P		**Pb**		**22 16 45.1**	**-0.4**
LIA				S		**Sg**		**22 16 57.6**	**-0.2**
LIA				AML		AML			
LIA	**Limnos Island**	**0.94**	**92**	P		**Pb**		**22 16 45.0**	**-0.4**
LIA				S		**Sb**		**22 16 57.8**	**+0.1**
LIA				AML		AML			
VOL2	**Volos**	**0.97**	**234**	P		**Pb**		**22 16 45.2**	**-0.8**
VOL2				AML		AML			
SOH	**Sokhos**	**1.00**	**332**	P		**Pb**		**22 16 45.9**	**-0.8**
SOH				AML		AML			
SOH	**Sokhos**	**1.00**	**332**	P		**Pb**		**22 16 45.0**	**-1.6**
SOH	**Sokhos**	**1.00**	**332**	P		**Pb**		**22 16 46.0**	**-0.6**
SOH	**Sokhos**	**1.00**	**332**	P		**Pb**		**22 16 45.9**	**-0.8**
SOH				AML		AML			
THE	**Thessaloniki**	**1.03**	**313**	P		**Pb**		**22 16 45.8**	**-1.3**
THE				AML		AML			
THE	**Thessaloniki**	**1.03**	**313**	P		**Pb**		**22 16 46.0**	**-1.2**
THE	**Thessaloniki**	**1.03**	**313**	P		**Pb**		**22 16 45.9**	**-1.3**
THE	**Thessaloniki**	**1.03**	**313**	P		**Pb**		**22 16 46.2**	**-0.9**
KAVA	**Kavala**	**1.14**	**21**	P		**Pb**		**22 16 47.8**	**-1.2**
KAVA				AML		AML			
KAVA	**Kavala**	**1.14**	**21**	P		**Pb**		**22 16 47.8**	**-1.2**
KAVA				AML		AML			
SKY	**Skiros Island**	**1.15**	**157**	P		**Pb**		**22 16 48.3**	**-0.8**
SKY				AML		AML			
SRS	**Serrai**	**1.21**	**347**	P		**Pn**		**22 16 49.2**	**-0.9**
SRS				AML		AML			
SRS	**Serrai**	**1.21**	**347**	P		**Pn**		**22 16 49.0**	**-1.1**
SRS	**Serrai**	**1.21**	**347**	P		**Pn**		**22 16 49.3**	**-0.8**
SRS	**Serrai**	**1.21**	**347**	P		**Pn**		**22 16 49.1**	**-0.9**
SRS				AML		AML			
GINA	**Giannouli**	**1.24**	**258**	P		**Pn**		**22 16 49.7**	**-0.7**
GINA				AML		AML			
KYMI	**Kymi, Euboea I**	**1.30**	**175**	P		**Pn**		**22 16 50.2**	**-1.1**
KYMI				AML		AML			
KYMI	**Kymi, Euboea I**	**1.30**	**175**	P		**Pn**		**22 16 49.8**	**-1.5**
KYMI				AML		AML			
SMTH	**Samothraki Isl**	**1.31**	**65**	P		**Pn**		**22 16 50.0**	**-1.4**
SMTH				AML		AML			
SMTH	**Samothraki Isl**	**1.31**	**65**	P		**Pn**		**22 16 50.0**	**-1.4**
SMTH				AML		AML			
TYRN	**Tyrnavos**	**1.35**	**261**	P		**Pn**		**22 16 51.3**	**-0.7**
TYRN				AML		AML			
TYRN	**Tyrnavos**	**1.35**	**261**	P		**Pn**		**22 16 51.2**	**-0.7**
NVR	**Nevrokopi**	**1.42**	**357**	P		**Pn**		**22 16 52.3**	**-0.6**
NVR				AML		AML			
NVR	**Nevrokopi**	**1.42**	**357**	P		**Pn**		**22 16 51.9**	**-0.9**
NVR				AML		AML			
ATAL	**Atalanti**	**1.44**	**211**	P		**Pn**		**22 16 52.1**	**-1.0**
ATAL	**Atalanti**	**1.44**	**211**	P		**Pn**		**22 16 51.7**	**-1.5**
KNT	**Kendrikon**	**1.47**	**327**	P		**Pn**		**22 16 53.6**	**0.0**
KNT				AML		AML			
KNT	**Kendrikon**	**1.47**	**327**	P		**Pn**		**22 16 53.0**	**-0.6**
KNT	**Kendrikon**	**1.47**	**327**	P		**Pn**		**22 16 53.4**	**-0.2**
KNT	**Kendrikon**	**1.47**	**327**	P		**Pn**		**22 16 53.4**	**-0.2**
KNT				AML		AML			
LKR	**Lokris**	**1.49**	**211**	P		**Pn**		**22 16 52.5**	**-1.3**
LKR				AML		AML			
LKR	**Lokris**	**1.49**	**211**	P		**Pn**		**22 16 52.3**	**-1.4**
KTI	**Kastanea**	**1.49**	**288**	P		**Pn**		**22 16 54.1**	**+0.1**
GADA	**Gvkgeada**	**1.50**	**80**	P		**Pn**		**22 16 53.2**	**-0.8**
GADA				AML		AML			
GADA	**Gvkgeada**	**1.50**	**80**	Pn		**Pn**		**22 16 53.0**	**-1.0**
GADA				Sn		**Sg**		**22 17 16.7**	**+0.8**
GOAD	**anakkale-G¶**	**1.51**	**81**	P		**Pn**		**22 16 54.4**	**+0.3**
AXAR	**Agios Charalam**	**1.55**	**221**	P		**Pn**		**22 16 53.6**	**-1.1**
AXAR				AML		AML			
THL	**Klokotos Trika**	**1.55**	**257**	P		**Pn**		**22 16 53.8**	**-0.8**
THL				AML		AML			
THL	**Klokotos Trika**	**1.55**	**257**	P		**Pn**		**22 16 53.4**	**-1.3**
THL				AML		AML			
AGG	**Agios Georgios**	**1.56**	**235**	P		**Pn**		**22 16 54.1**	**-0.8**
AGG				AML		AML			
AGG	**Agios Georgios**	**1.56**	**235**	P		**Pn**		**22 16 53.0**	**-1.8**
AGG	**Agios Georgios**	**1.56**	**235**	P		**Pn**		**22 16 54.2**	**-0.7**
AGG	**Agios Georgios**	**1.56**	**235**	P		**Pn**		**22 16 53.6**	**-1.3**
AGG				AML		AML			
GRG	**Griva**	**1.57**	**311**	P		**Pn**		**22 16 55.2**	**+0.2**
GRG				AML		AML			
GRG	**Griva**	**1.57**	**311**	P		**Pb**		**22 16 55.7**	**-0.6**
GRG	**Griva**	**1.57**	**311**	P		**Pn**		**22 16 54.6**	**-0.4**
GRG				AML		AML			
BOZC	**Bozcaada**	**1.61**	**93**	P		**Pn**		**22 16 55.1**	**-0.3**
BOZC				S		**Sg**		**22 17 18.4**	**-0.8**
BOZC	**Bozcaada**	**1.61**	**93**	Pn		**Pn**		**22 16 54.4**	**-1.0**
BOZC				Sn		**Sg**		**22 17 18.7**	**-0.5**
BOZC				AML		AML			
MMB	**Musomishta**	**1.62**	**354**	P		**Pn**		**22 16 55.2**	**-0.5**
MMB				AML		AML			
MMB	**Musomishta**	**1.62**	**354**	P		**Pn**		**22 16 55.3**	**-0.3**
MMB				S		**Sg**		**22 17 19.0**	**-0.6**
ECEA	**Canakkale, Ece**	**1.70**	**86**	P		**Pg**		**22 16 59.9**	**-0.2**
ECEA				S		**Sg**		**22 17 22.3**	**+0.1**
KZN	**Kozani**	**1.72**	**283**	P		**Pn**		**22 16 57.2**	**+0.1**
KZN				AML		AML			
KZN	**Kozani**	**1.72**	**283**	P		**Pn**		**22 16 56.0**	**-1.1**
KZN	**Kozani**	**1.72**	**283**	P		**Pn**		**22 16 56.9**	**-0.2**
KZN				AML		AML			
KOCA	**Canakkale, Ayv**	**1.73**	**104**	P		**Pn**		**22 16 56.9**	**-0.3**
KOCA				S		**Sg**		**22 17 22.8**	**-0.3**
VAY	**Valandovo**	**1.75**	**323**	*i* Pn		**Pn**		**22 16 57.0**	**-0.3**
VAY				*i* Sn		**Sg**		**22 17 22.7**	**-1.0**
STFN	**Stefani**	**1.79**	**191**	P		**Pn**		**22 16 57.2**	**-0.8**
STFN				AML		AML			
STFN	**Stefani**	**1.79**	**191**	P		**Pn**		**22 16 56.5**	**-1.5**
STFN				AML		AML			
ENZZ	**Sultanice-Enez**	**1.79**	**67**	Pn		**Pn**		**22 16 57.6**	**-0.4**
ENZZ				AML		AML			
VIL2	**Platees**	**1.81**	**198**	P		**Pn**		**22 16 57.5**	**-0.7**
VIL2				AML		AML			
EZN	**Ezine**	**1.82**	**93**	P		**Pn**		**22 16 57.8**	**-0.6**
EZN				AML		AML			
EZN	**Ezine**	**1.82**	**93**	⇑P		**Pn**		**22 16 58.3**	**0.0**
EZN	**Ezine**	**1.82**	**93**	⇑P		**Pn**		**22 16 58.3**	**0.0**
EZN	**Ezine**	**1.82**	**93**	P		**Pn**		**22 16 57.4**	**-0.9**
EZN				AML		AML			
EZN	**Ezine**	**1.82**	**93**	Pn		**Pn**		**22 16 57.5**	**-0.9**
EZN				Sn		**Sb**		**22 17 24.1**	**+1.0**
EZN				AML		AML			
VILL	**Villia**	**1.84**	**196**	P		**Pn**		**22 16 57.9**	**-0.8**
VILL				AML		AML			
CAVK	**Edirne/Enez-Ca**	**1.84**	**65**	P		**Pn**		**22 16 58.0**	**-0.7**
CAVK				S		**Sg**		**22 17 25.8**	**-1.0**
CAVK	**Edirne/Enez-Ca**	**1.84**	**65**	⇑P		**Pb**		**22 17 00.9**	**0.0**
ENEZ	**Enez**	**1.85**	**64**	P		**Pn**		**22 16 58.2**	**-0.6**
ENEZ				AML		AML			
ENEZ	**Enez**	**1.85**	**64**	Pn		**Pn**		**22 16 58.1**	**-0.7**
ENEZ				AML		AML			
RZN	**Rozhen**	**1.85**	**18**	P		**Pn**		**22 16 58.6**	**-0.4**
RZN				AML		AML			
RZN	**Rozhen**	**1.85**	**18**	P		**Pn**		**22 16 58.7**	**-0.3**
RZN				S		**Sn**		**22 17 22.8**	**+0.5**
ALN	**Alexandroupoli**	**1.85**	**58**	P		**Pn**		**22 16 57.7**	**-1.1**
ALN				AML		AML			
ALN	**Alexandroupoli**	**1.85**	**58**	P		**Pn**		**22 16 57.4**	**-1.4**
ALN	**Alexandroupoli**	**1.85**	**58**			**Pn**		**22 16 57.4**	**-1.4**
ALN	**Alexandroupoli**	**1.85**	**58**	Pn		**Pn**		**22 16 57.9**	**-0.9**
ALN				Sn		**Sg**		**22 17 26.1**	**-1.1**
ALN				AML		AML			
DION

PENT	**Pentalofos**	**2.19**	**278**	P	**Pn**	**22 17 03.8**	**+0.3**
PENT				AML	AML		
AYVA	**Ayvalik**	**2.19**	**106**	P	**Pn**	**22 17 03.2**	**-0.3**
EFP	**Efpalio**	**2.20**	**227**	P	**Pn**	**22 17 03.1**	**-0.5**
EFP				AML	AML		
LAPS	**Lapseki, ANA**	**2.23**	**81**	P	**Pn**	**22 17 03.8**	**-0.2**
LAPS				S	**Sn**	**22 17 29.2**	**-2.1**
CHOS	**Chios island**	**2.24**	**133**	P	**Pn**	**22 17 04.0**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**2.24**	**133**	Pn	**Pn**	**22 17 02.5**	**-1.7**
CHOS				AML	AML		
PRMD	**Pramanda**	**2.25**	**261**	P	**Pn**	**22 17 04.5**	**+0.1**
PRMD				AML	AML		
KESN	**Edirne-Kesan**	**2.25**	**66**	P	**Pn**	**22 17 03.6**	**-1.1**
VVK	**Vomvokou**	**2.26**	**229**	P	**Pn**	**22 17 04.5**	**0.0**
VVK				AML	AML		
NEST	**Nestorio**	**2.29**	**283**	P	**Pn**	**22 17 05.3**	**+0.4**
NEST				AML	AML		
PLD	**Plovdiv**	**2.29**	**15**	P	**Pn**	**22 17 04.6**	**-0.1**
PLD				AML	AML		
PLD	**Plovdiv**	**2.29**	**15**	P	**Pn**	**22 17 04.8**	**0.0**
PLD	**Plovdiv**	**2.29**	**15**	Pn	**Pn**	**22 17 03.2**	**-1.6**
LAKA	**Lakka**	**2.29**	**223**	P	**Pn**	**22 17 04.2**	**-0.7**
LAKA				AML	AML		
PVO	**Paravola**	**2.31**	**236**	P	**Pn**	**22 17 05.2**	**+0.1**
PVO				AML	AML		
UKOP	**Uzunkopru-Edir**	**2.35**	**59**	Pn	**Pn**	**22 17 05.5**	**-0.2**
AMPL	**Ampelaki**	**2.36**	**245**	P	**Pn**	**22 17 06.4**	**+0.6**
AMPL				AML	AML		
KLV	**Kalavryta, Ach**	**2.36**	**217**	P	**Pn**	**22 17 05.0**	**-0.8**
KLV				AML	AML		
GUR	**Goura**	**2.37**	**213**	P	**Pn**	**22 17 05.3**	**-0.7**
GUR				AML	AML		
CANM	**Can-anakkale**	**2.37**	**87**	Pn	**Pn**	**22 17 05.7**	**-0.2**
CANM				AML	AML		
EPID	**Epidavros**	**2.41**	**196**	P	**Pn**	**22 17 06.0**	**-0.5**
EPID				AML	AML		
YAYO	**Edremit-Balk**	**2.42**	**97**	Pn	**Pn**	**22 17 06.0**	**-0.5**
JAN	**Janina**	**2.42**	**264**	P	**Pb**	**22 17 09.0**	**-1.8**
DKL	**Dikili**	**2.43**	**110**	Pn	**Pn**	**22 17 05.8**	**-0.9**
DKL				AML	AML		
DIM	**Dimitrovgrad**	**2.44**	**30**	P	**Pn**	**22 17 06.6**	**-0.2**
DIM	**Dimitrovgrad**	**2.44**	**30**	P	**Pn**	**22 17 06.6**	**-0.2**
BUHA	**Balikesir, Bur**	**2.44**	**99**	P	**Pn**	**22 17 08.2**	**+1.3**
BUHA				S	**Sg**	**22 17 44.6**	**-1.2**
BIGA	**Biga-Canakkale**	**2.46**	**81**	Pn	**Pn**	**22 17 07.2**	**0.0**
YENI	**Yenice-Canakka**	**2.52**	**89**	Pn	**Pn**	**22 17 07.9**	**-0.1**
KBN	**Korca**	**2.53**	**287**	P	**Pn**	**22 17 09.7**	**+1.6**
KBN	**Korca**	**2.53**	**287**	P	**Pn**	**22 17 09.8**	**+1.6**
RKY	**Sarkoy-Tekirda**	**2.57**	**72**	Pn	**Pn**	**22 17 08.3**	**-0.4**
RKY				AML	AML		
PLNA	**Plana**	**2.57**	**351**	P	**Pn**	**22 17 09.5**	**+0.7**
PGB	**Panagyurishte**	**2.58**	**3**	P	**Pn**	**22 17 08.8**	**-0.1**
KRBG	**Karabiga-Canak**	**2.59**	**79**	Pn	**Pn**	**22 17 08.9**	**-0.1**
KRBG				AML	AML		
ZEDA	**zmir-Bergama**	**2.59**	**111**	P	**Pn**	**22 17 08.7**	**-0.3**
ZEDA				S	**Sg**	**22 17 49.3**	**-1.5**
OHR	**Ohrid**	**2.69**	**297**	*i* Pn	**Pn**	**22 17 11.9**	**+1.5**
OHR				*i* Sn	**Sn**	**22 17 45.1**	**+2.4**
GAZK	**Gazikoy-TEKIRD**	**2.69**	**71**	Pn	**Pn**	**22 17 10.1**	**-0.2**
GAZK				AML	AML		
VTS	**Vitosha**	**2.74**	**349**	P	**Pn**	**22 17 11.2**	**+0.1**
SKO	**Skopje**	**2.79**	**318**	*i* Pn	**Pn**	**22 17 12.4**	**+0.7**
LKD2	**Lefkada island**	**2.81**	**247**	P	**Pn**	**22 17 14.1**	**+2.1**
BALY	**Balya**	**2.82**	**93**	P	**Pn**	**22 17 12.3**	**+0.2**
BALY				S	**Sg**	**22 17 56.0**	**-2.1**
BALY	**Balya**	**2.82**	**93**	P	**Pn**	**22 17 12.6**	**+0.5**
EDRB	**Edirne**	**2.84**	**47**	Pn	**Pn**	**22 17 12.1**	**-0.3**
EDRB				AML	AML		
MURA	**Muratl, TEK**	**2.94**	**65**	P	**Pn**	**22 17 14.0**	**+0.2**
MURA				S	**Sb**	**22 17 57.9**	**+2.4**
STEP	**BALIKESIR_Sava**	**2.95**	**100**	P	**Pn**	**22 17 15.4**	**+1.5**
BALB	**Balikesir**	**3.03**	**94**		**Pn**	**22 17 14.6**	**-0.4**
SRN	**Sarande**	**3.05**	**270**	P	**Pn**	**22 17 17.9**	**+2.7**
CMHT	**Manyas**	**3.08**	**87**	P	**Pn**	**22 17 17.0**	**+1.4**
APE	**Apeiranthos**	**3.11**	**156**	*i* P	**Pn**	**22 17 15.9**	**-0.3**
ITM	**Ithomi**	**3.18**	**211**		**Pn**	**22 17 17.4**	**+0.3**
ITM	**Ithomi**	**3.18**	**211**	P	**Pn**	**22 17 18.2**	**+1.1**
PHSR	**Pinarhisar**	**3.19**	**57**	⇑P	**Pb**	**22 17 23.4**	**-0.4**
BAND	**Balkesir-Ban**	**3.19**	**81**	⇓P	**Pn**	**22 17 19.8**	**+2.5**
PHP	**Peshkopia**	**3.20**	**304**	P	**Pn**	**22 17 18.5**	**+1.2**
KEK	**Kerkira**	**3.22**	**267**		**Pn**	**22 17 16.6**	**-1.0**
KEK	**Kerkira**	**3.22**	**267**	P	**Pn**	**22 17 17.8**	**+0.3**
PVL	**Pavlikeni**	**3.31**	**15**	P	**Pn**	**22 17 19.2**	**+0.4**
ELND	**Elena**	**3.32**	**25**	⇓P	**Pn**	**22 17 19.0**	**+0.1**
VLO	**Vlora**	**3.47**	**280**	P	**Pn**	**22 17 23.4**	**+2.5**
VLO	**Vlora**	**3.47**	**280**	P	**Pn**	**22 17 23.5**	**+2.5**
PLVB	**Pleven**	**3.48**	**8**	⇑P	**Pn**	**22 17 21.3**	**+0.1**
CTYL	**Yalikoy Yolu**	**3.63**	**64**	⇓P	**Pn**	**22 17 25.4**	**+2.2**
CTYL	**Yalikoy Yolu**	**3.63**	**64**	P	**Pn**	**22 17 22.2**	**-1.0**
CTYL				AML	AML		
ORLT	**Orhaneli**	**3.79**	**87**	P	**Pn**	**22 17 26.1**	**+0.7**
AYDN	**Tasoluk**	**3.81**	**125**	P	**Pn**	**22 17 26.8**	**+1.1**
BLKB	**Belogradchik**	**3.81**	**346**	⇑P	**Pn**	**22 17 25.6**	**-0.1**
MANT	**Manisa**	**3.85**	**111**		**Pn**	**22 17 27.0**	**+0.5**
ZIMR		**3.86**	**15**	⇑P	**Pn**	**22 17 26.3**	**-0.1**
ZIMR		**3.86**	**15**	⇑P	**Pn**	**22 17 26.3**	**-0.1**
LOZB	**Loznitsa**	**3.96**	**29**	⇑P	**Pn**	**22 17 27.7**	**0.0**
PVY	**Plav**	**4.02**	**313**	*e*Pn	**Pn**	**22 17 28.9**	**+0.1**
PVY				*i* Sn	**Sn**	**22 18 14.3**	**-1.4**
BOVS	**Bovan**	**4.07**	**336**	⇓P	**Pn**	**22 17 29.2**	**-0.1**
VLAD	**Vladila**	**4.07**	**4**	⇓P	**Pn**	**22 17 29.5**	**+0.2**
KLY	**Kilyos**	**4.08**	**70**	⇑P	**Pn**	**22 17 31.4**	**+2.0**
KLYT	**Kilyos**	**4.08**	**70**	P	**Pn**	**22 17 28.4**	**-1.0**
KLYT				AML	AML		
RAZG	**Razgrad**	**4.09**	**27**	⇓P	**Pn**	**22 17 30.0**	**+0.3**
BAIL	**Bailesti**	**4.11**	**354**	⇓P	**Pn**	**22 17 29.8**	**0.0**
ULC	**Ulcinj**	**4.11**	**301**	*e*Pn	**Pn**	**22 17 29.8**	**-0.1**
ULC				*i* Sn	**Sn**	**22 18 16.5**	**-1.3**
IVA	**Berane**	**4.24**	**315**	*e*Pn	**Pn**	**22 17 32.0**	**+0.3**
IVA				*i* Sn	**Sn**	**22 18 19.9**	**-1.2**
DRME	**Dracevica, Mon**	**4.26**	**303**	*e*Pn	**Pn**	**22 17 34.9**	**+3.0**
DRME	**Dracevica, Mon**	**4.26**	**303**	*e*Pn	**Pn**	**22 17 32.2**	**+0.3**
DRME				*i* Sn	**Sn**	**22 18 20.2**	**-1.2**
COPA	**Copaceanca**	**4.30**	**12**	⇓P	**Pn**	**22 17 32.4**	**0.0**
PDG	**Podgorica**	**4.34**	**307**		**Pn**	**22 17 34.1**	**+1.1**
PDG	**Podgorica**	**4.34**	**307**	⇑P	**Pn**	**22 17 36.3**	**+3.3**
PDG	**Podgorica**	**4.34**	**307**	*e*Pn	**Pn**	**22 17 35.3**	**+2.3**
PDG	**Podgorica**	**4.34**	**307**	*e*Pn	**Pn**	**22 17 33.2**	**+0.2**
PDG				*i* Sn	**Sn**	**22 18 21.8**	**-1.6**
CRAR	**CRAIOVA**	**4.39**	**358**	⇑P	**Pn**	**22 17 33.5**	**-0.1**
CRAR	**CRAIOVA**	**4.39**	**358**	⇑P	**Pn**	**22 17 33.5**	**-0.1**
YER	**Yerkesik**	**4.39**	**128**	P	**Pn**	**22 17 34.9**	**+1.1**
KOME	**Kolasin**	**4.44**	**312**	*e*Pn	**Pn**	**22 17 34.5**	**+0.1**
KOME				*i* Sn	**Sn**	**22 18 24.4**	**-1.5**
SJES	**Sjenica**	**4.47**	**319**	*e*Pn	**Pn**	**22 17 35.1**	**+0.2**
BUM	**Brajici-Budva**	**4.50**	**303**	*e*Pn	**Pn**	**22 17 35.7**	**+0.4**
BUM				*i* Sn	**Sn**	**22 18 25.8**	**-1.7**
SGRR	**Singureni**	**4.54**	**19**	⇓P	**Pn**	**22 17 35.7**	**0.0**
TAVA	**DENIZLI_Tavas**	**4.59**	**121**	⇑P	**Pn**	**22 17 38.0**	**+1.5**
CEME	**Cevo**	**4.61**	**306**	*e*Pn	**Pn**	**22 17 37.0**	**+0.2**
CEME				*i* Sn	**Sn**	**22 18 28.8**	**-1.4**
HUMR	**Humele**	**4.65**	**9**	⇓P	**Pn**	**22 17 37.2**	**-0.1**
HUMR	**Humele**	**4.65**	**9**	P	**Pn**	**22 17 37.5**	**+0.3**
IDI	**Anoyia**	**4.70**	**171**	Pn	**Pn**	**22 17 38.8**	**+0.8**
	46nm,0.6s,baz=347,slow=12,SNR=18						
IDI				Lg	Lg	22 18 54.2	
	baz=67,slow=17						
IDI				LR	LR	22 19 25.3	
	comp=Z,446nm,18.9s,baz=294,slow=38						
IDI	**Anoyia**	**4.70**	**171**	P	**Pn**	**22 17 36.8**	**-1.2**
IDI	**Anoyia**	**4.70**	**171**		**Pn**	**22 17 37.4**	**-0.6**
NKME	**Niksic**	**4.72**	**308**	*e*Pn	**Pn**	**22 17 38.3**	**+0.1**
NKME				*i* Sn	**Sn**	**22 18 31.0**	**-1.7**
SRE	**Strehaia**	**4.76**	**353**	⇑P	**Pn**	**22 17 38.7**	**-0.1**
SRE	**Strehaia**	**4.76**	**353**	⇑P	**Pn**	**22 17 38.7**	**-0.1**
INCR	**INCERC-Sediu C**	**4.79**	**19**	⇓P	**Pn**	**22 17 39.4**	**+0.3**
RMGR	**Halanga-Turnu**	**4.82**	**349**	⇑P	**Pn**	**22 17 39.5**	**0.0**
PLE	**Pljevlja**	**4.82**	**316**	*e*Pn	**Pn**	**22 17 39.8**	**0.0**
PLE				*i* Sn	**Sn**	**22 18 33.7**	**-1.8**
CICN	**Ciocanesti**	**4.83**	**27**	⇓P	**Pn**	**22 17 45.4**	**+5.7**
HCY	**Herceg Novi**	**4.83**	**303**	*e*Pn	**Pn**	**22 17 42.1**	**+2.3**
HCY	**Herceg Novi**	**4.83**	**303**	*e*Pn	**Pn**	**22 17 40.2**	**+0.4**
HCY				*i* Sn	**Sn**	**22 18 33.9**	**-1.6**
DJES	**Djerdap**	**4.85**	**348**	⇓P	**Pn**	**22 17 39.1**	**-0.9**
STFAR	**Stefanesti-Arg**	**4.98**	**8**	⇓P	**Pn**	**22 17 42.4**	**+0.6**
LEHL	**Lehliu**	**5.00**	**24**	⇑P	**Pn**	**22 17 42.4**	**+0.3**
UPM	**Unac-Piva**	**5.01**	**312**	*e*Pn	**Pn**	**22 17 46.8**	**+4.5**
UPM	**Unac-Piva**	**5.01**	**312**	*e*Pn	**Pn**	**22 17 42.4**	**+0.1**
UPM				*i* Sn	**Sn**	**22 18 37.9**	**-2.2**
SULR		**5.03**	**19**	⇓P	**Pn**	**22 17 42.6**	**+0.1**
SULR		**5.03**	**19**	P	**Pn**	**22 17 43.3**	**+0.8**
	comp=Z,554nm,1.2s						
BRY	**Bratogost**	**5.04**	**308**	*e*Pn	**Pn**	**22 17 44.8**	**+2.0**
BRY	**Bratogost**	**5.04**	**308**	*e*Pn	**Pn**	**22 17 43.0**	**+0.2**
BRY				*i* Sn	**Sn**	**22 18 39.1**	**-1.8**
KARP	**Karpathos**	**5.06**	**149**		**Pn**	**22 17 43.0**	**0.0**
KARP	**Karpathos**	**5.06**	**149**	P	**Pn**	**22 17 41.4**	**-1.5**
	comp=Z,0.7nmcomp=Z,131nm,0.7s						
KARP				AML	AML		
KARP	**Karpathos**	**5.06**	**149**	P	**Pg**	**22 18 00.8**	**-3.6**
ICOR	**Ion Corvin**	**5.06**	**33**	⇓P	**Pn**	**22 17 43.2**	**+0.3**
TREB	**Trebinje**	**5.06**	**305**	*e*Pn	**Pn**	**22 17 44.1**	**+1.2**
HERR	**Herculane**	**5.07**	**347**	⇓P	**Pn**	**22 17 42.2**	**-0.8**
RMVG	**GOVORA**	**5.10**	**3**	⇑P	**Pn**	**22 17 43.7**	**+0.3**
MDVR	**Moldovita**	**5.12**	**342**	⇓P	**Pn**	**22 17 43.4**	**-0.4**
DBRK	**Dubrovnik**	**5.16**	**304**	*e*Pn	**Pn**	**22 17 45.4**	**+1.1**
DBRK					**Sn**	**22 18 43.7**	**0.0**
KLINJ	**Klinje**	**5.17**	**310**	*e*Pn	**Pn**	**22 17 47.0**	**+2.5**
BBLS	**Lazi&#263i**	**5.20**	**321**	*e*Pn	**Pn**	**22 17 45.2**	**+0.4**
CVDA	**Cernavoda**	**5.33**	**33**	⇑P	**Pn**	**22 17 46.9**	**+0.2**
MTUR	**Matau**	**5.35**	**8**	⇑P	**Pn**	**22 17 47.7**	**+0.7**
MTUR	**Matau**	**5.35**	**8**	⇑P	**Pn**	**22 17 47.7**	**+0.7**
MFTR	**Murfatlar**	**5.38**	**37**	⇑P	**Pn**	**22 17 47.7**	**+0.4**
PGOR	**Pogoanele**	**5.45**	**23**	⇑P	**Pn**	**22 17 48.8**	**+0.6**
ARR	**Arges**	**5.45**	**5**	⇑P	**Pn**	**22 17 47.7**	**-0.6**
ARR	**Arges**	**5.45**	**5**	P	**Pn**	**22 17 48.6**	**+0.3**
	comp=Z,561nm,0.7s						
LOT	**Lotru**	**5.51**	**359**	⇓P	**Pn**	**22 17 48.7**	**-0.5**
LOT	**Lotru**	**5.51**	**359**	P	**Pn**	**22 17 48.9**	**-0.3**
	comp=Z,158nm,0.6s						
TLBR	**Topalu**	**5.51**	**32**	⇓P	**Pn**	**22 17 49.3**	**+0.2**
ISR	**Istrita**	**5.52**	**19**	⇑P	**Pn**	**22 17 50.1**	**+0.9**
ISR	**Istrita**	**5.52**	**19**	⇑P	**Pn**	**22 17 50.1**	**+0.9**
ISR	**Istrita**	**5.52**	**19**	P	**Pn**	**22 17 49.0**	**-0.2**
	comp=Z,3.2nmcomp=Z,4μmcomp=Z,257nm,0.7s						
ISR				AML	AML		
GZR	**Gura Zlata**	**5.52**	**351**	⇑P	**Pn**	**22 17 48.7**	**-0.6**
GZR	**Gura Zlata**	**5.52**	**351**	⇑P	**Pn**	**22 17 48.7**	**-0.6**
ISP	**Isparta**	**5.53**	**110**	*ce*P	**Pn**	**22 17 51.2**	**+1.7**
ISP				pmax	pmax		
	comp=Z,34nm,0.7s						
ISP	**Isparta**	**5.53**	**110**		**Pn**	**22 17 49.6**	**+0.1**
STON	**Ston**	**5.55**	**304**	*e*Pn	**Pn**	**22 17 49.0**	**-0.6**
STON				*i* Sn	**Sn**	**22 18 51.0**	**-2.2**
VOIR		**5.56**	**8**	⇑P	**Pn**	**22 17 49.9**	**+0.1**
VOIR		**5.56**	**8**	⇑P	**Pn**	**22 17 49.9**	**+0.1**
VOIR		**5.56**	**8**	P	**Pn**	**22 17 49.4**	**-0.4**
	comp=Z,1.9nmcomp=Z,5μmcomp=Z,515nm,0.8s						
VOIR				AML	AML		
VOIR		**5.56**	**8**	P	**Pn**	**22 17 50.1**	**+0.3**
	comp=Z,496nm,0.8s						
MDUB	**Mudurnu**	**5.56**	**82**		**Pn**	**22 17 50.0**	**+0.1**
HARR	**Harsova**	**5.59**	**30**	⇓P	**Pn**	**22 17 50.5**	**+0.4**
HARR	**Harsova**	**5.59**	**30**	⇓P	**Pn**	**22 17 50.5**	**+0.4**
TIRR	**Tirgusor**	**5.60**	**35**	⇑P	**Pn**	**22 17 50.4**	**+0.2**
TIRR	**Tirgusor**	**5.60**	**35**		**Pn**	**22 17 49.2**	**-1.0**
TIRR	**Tirgusor**	**5.60**	**35**	⇑P	**Pn**	**22 17 50.4**	**+0.2**
TIRR	**Tirgusor**	**5.60**	**35**	P	**Pn**	**22 17 49.9**	**-0.3**
	comp=Z,1.3nmcomp=Z,255nm,0.9s						
TIRR				AML	AML		
TIRR	**Tirgusor**	**5.60**	**35**	P	**Pn**	**22 17 50.8**	**+0.5**
	comp=Z,256nm,0.9s						
MATE	**Matera**	**5.60**	**280**	⇑P	**Pn**	**22 17 50.7**	**+0.4**
TIP	**Timpagrande**	**5.62**	**265**		**Pn**	**22 17 50.6**	**-0.1**
TIP	**Timpagrande**	**5.62**	**265**	⇓P	**Pn**	**22 17 51.3**	**+0.6**
TIP	**Timpagrande**	**5.62**	**265**	P	**Pn**	**22 17 50.2**	**-0.5**
	comp=Z,0.2nmcomp=Z,707nmcomp=Z,43nm,0.6s						
TIP				AML	AML		
ELL	**Elmali**	**5.65**	**122**	P	**Pn**	**22 17 50.6**	**-0.5**
ELL	**Elmali**	**5.65**	**122**		**Pn**	**22 17 50.6**	**-0.5**
TEKS	**Tekeris**	**5.67**	**326**	*e*Pn	**Pn**	**22 17 50.8**	**-0.4**
TNR	**Turnu Rosu**	**5.72**	**2**	⇓P	**Pn**	**22 17 52.4**	**+0.5**
TNR	**Turnu Rosu**	**5.72**	**2**	⇓P	**Pn**	**22 17 52.4**	**+0.5**
MLR	**Muntele Rosu**	**5.74**	**14**	Pn	**Pn**	**22 17 53.1**	**+0.7**
	comp=Z,5.4nm,0.3s,baz=90,slow=24,SNR=52						
MLR				Lg	Lg	22 19 30.0	
	baz=118,slow=19						
MLR				LR	LR	22 20 00.5	
	comp=Z,509nm,19.7s,baz=179,slow=37						
MLR				AML	AML		
MLR	**Muntele Rosu**	**5.74**	**14**		**Pn**	**22 17 52.8**	**+0.4**
MLR	**Muntele Rosu**	**5.74**	**14**	⇓P	**Pn**	**22 17 52.8**	**+0.4**
MLR	**Muntele Rosu**	**5.74**	**14**	P	**Pn**	**22 17 52.4**	**+0.1**
	comp=Z,1.5nmcomp=Z,267nm,0.8s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**5.74**	**14**	P	**Pn**	**22 17 53.3**	**+1.0**
	comp=Z,268nm,0.8s						
NEHR	**Nehoiu**	**5.75**	**17**	⇓P	**Pn**	**22 17 53.4**	**+1.0**
AKAS	**Kas**	**5.78**	**128**		**Pn**	**22 17 53.0**	**0.0**
AKAS	**Kas**	**5.78**	**128**	P	**Pn**	**22 17 55.0**	**+2.0**
	comp=Z,264nm,0.7s						
GRER		**5.88**	**21**	⇑P	**Pn**	**22 17 56.5**	**+2.5**
TPGR	**Topolog**	**5.92**	**32**	⇓P	**Pn**	**22 17 55.2**	**+0.5**
BZS	**Buzias**	**5.94**	**344**	P	**Pn**	**22 17 54.2**	**-0.7**
	comp=Z,66nm,1.1s						
BISRR	**Bisoca**	**5.96**	**19**	⇓P	**Pn**	**22 17 56.4**	**+1.1**
BISRR	**Bisoca**	**5.96**	**19**	P	**Pn**	**22 17 55.6**	**+0.3**
	comp=Z,2.5nmcomp=Z,580nm,0.7s						
BISRR				AML	AML		
SURR	**Surduc**	**5.97**	**348**	⇓P	**Pn**	**22 17 55.7**	**+0.3**
DEV	**Deva**	**6.00**	**353**	⇓P	**Pn**	**22 17 55.6**	**-0.1**
DEV	**Deva**	**6.00**	**353**	⇓P	**Pn**	**22 17 55.6**	**-0.1**
DEV	**Deva**	**6.00**	**353**	P	**Pn**	**22 17 56.4**	**+0.6**
	comp=Z,160nm,0.5s						
LSTV	**Lastovo**	**6.03**	**300**	*e*Pn	**Pn**	**22 17 54.1**	**-2.1**
LSTV					**Sn**	**22 18 58.9**	**-6.1**
FRGS	**Fruska Gora**	**6.05**	**331**	*e*Pn	**Pn**	**22 17 56.0**	**-0.6**
CFR	**Carcaliu**	**6.08**	**29**	⇑P	**Pn**	**22 17 56.8**	**0.0**
CFR	**Carcaliu**	**6.08**	**29**	⇑P	**Pn**	**22 17 56.8**	**0.0**
DOPR	**Dopca**	**6.12**	**9**	⇓P	**Pn**	**22 17 58.2**	**+0.7**
SAHR	**Sahastru**	**6.12**	**18**	⇑P	**Pn**	**22 17 58.7**	**+1.2**
COVR	**Voineasa-Covas**	**6.13**	**15**	⇑P	**Pn**	**22 17 58.8**	**+1.1**
ACER	**Acerenza**	**6.19**	**280**		**Pn**	**22 17 58.8**	**+0.3**
MAKA	**Makarska**	**6.19**	**305**	*e*Pn	**Pn**	**22 17 58.1**	**-0.2**
MAKA				*i* Sn	**Sn**	**22 19 07.5**	**-1.4**
MDB	**Medias**	**6.21**	**3**	⇓P	**Pn**	**22 17 59.5**	**+0.8**
MDB	**Medias**	**6.21**	**3**	⇓P	**Pn**	**22 17 59.5**	**+0.8**
RICI	**Ricice**	**6.23**	**307**	*e*Pn	**Pn**	**22 17 59.8**	**+0.8**
RICI				*i* Sn	**Sn**	**22 19 09.9**	**0.0**
PLOR	**Plostina**	**6.23**	**18**	⇓P	**Pn**	**22 18 00.0**	**+1.0**
PLOR	**Plostina**	**6.23**	**18**	⇓P	**Pn**	**22 17 60.0**	**+1.0**
ODBI	**Odobesti**	**6.25**	**20**	⇑P	**Pn**	**22 18 00.3**	**+1.1**
BOSR	**Bodos**	**6.26**	**11**	⇓P	**Pn**	**22 18 00.3**	**+0.9**
CUC	**Castrocucco**	**6.26**	**273**		**Pn**	**22 18 01.1**	**+1.6**
CUC	**Castrocucco**	**6.26**	**273**	P	**Pn**	**22 18 01.6**	**+2.2**
	comp=Z,98nm,0.6s						
VRI	**Vrincioaia**	**6.26**	**18**	⇓P	**Pn**	**22 18 00.4**	**+1.0**
VRI	**Vrincioaia**	**6.26**	**18**	⇓P	**Pn**	**22 18 00.4**	**+1.0**
VRI	**Vrincioaia**	**6.26**	**18**	P	**Pn**	**22 17 59.4**	**0.0**
	comp=Z,0.9nmcomp=Z,2μmcomp=Z,212nm,0.7s						
VRI				AML	AML		
VRI	**Vrincioaia**	**6.26**	**18**	P	**Pn**	**22 18 01.0**	**+1.6**
	comp=Z,212nm,0.7s						
MARCO	**Tramutola**	**6.27**	**276**	P	**Pn**	**22 18 01.1**	**+1.6**
	comp=Z,154nm,0.6s						
TURR	**Turia**	**6.30**	**13**	⇑P	**Pn**	**22 18 00.8**	**+0.9**
OZUR		**6.30**	**12**	⇑P	**Pn**	**22 18 00.9**	**+0.9**
TLCR		**6.35**	**33**	⇓P	**Pn**	**22 18 00.8**	**+0.2**
TLCR		**6.35**	**33**	⇓P	**Pn**	**22 18 00.8**	**+0.2**
PANC	**Panciu**	**6.38**	**20**	⇓P	**Pn**	**22 18 02.1**	**+1.2**
TATR	**Tatarca**	**6.41**	**27**	⇑P	**Pn**	**22 18 02.3**	**+0.9**
SCTR	**Scanteiesti**	**6.45**	**26**	⇓P	**Pn**	**22 18 02.2**	**+0.2**
CEL	**Celeste**	**6.50**	**258**	P	**Pn**	**22 18 02.2**	**-0.5**
	comp=Z,0.5nmcomp=Z,1μmcomp=Z,171nm,0.9s						
CEL				AML	AML		
HVAR	**Hvar**	**6.50**	**302**	*e*Pn	**Pn**	**22 18 00.6**	**-2.1**
HVAR				*i* Sn	**Sn**	**22 19 11.3**	**-5.3**
SIRR	**Siria**	**6.55**	**346**	⇑P	**Pn**	**22 18 02.7**	**-0.7**
TGMR	**Targu Mures**	**6.60**	**3**	⇓P	**Pn**	**22 18 04.2**	**+0.1**
VARL	**Varlezi**	**6.61**	**24**	⇓P	**Pn**	**22 18 05.1**	**+1.0**
GHRR		**6.62**	**21**	⇑P	**Pn**	**22 18 05.0**	**+0.7**
GHRR		**6.62**	**21**	P	**Pn**	**22 18 03.2**	**-1.1**
GHRR		**6.62**	**21**	P	**Pn**	**22 18 06.4**	**+2.1**
	comp=Z,307nm,0.8s						
VLDR	**Vladesti**	**6.63**	**26**	⇑P	**Pn**	**22 18 05.0**	**+0.6**
ONER	**Baraj Valea Uz**	**6.64**	**15**	⇑P	**Pn**	**22 18 05.4**	**+0.8**
MARR	**Marisel-Cluj**	**6.77**	**355**	⇓P	**Pn**	**22 18 06.2**	**-0.2**
CJR	**Cluj-Napoca**	**6.78**	**358**	⇓P	**Pn**	**22 18 06.5**	**0.0**
CJR	**Cluj-Napoca**	**6.78**	**358**	⇓P	**Pn**	**22 18 06.5**	**0.0**
TESR	**Tescani**	**6.86**	**16**	⇑P	**Pn**	**22 18 05.8**	**+0.5**
TESR	**Tescani**	**6.86**	**16**	P	**Pn**	**22 18 07.0**	**-0.6**
	comp=Z,0.7nmcomp=Z,152nm,0.6s						
TESR				AML	AML		
TESR	**Tescani**	**6.86**	**16**	P	**Pn**	**22 18 08.4**	**+0.8**
	comp=Z,148nm,0.6s						
BIR	**Birlad**	**6.87**	**22**	⇑P	**Pn**	**22 18 08.8**	**+1.1**
BIR	**Birlad**	**6.87**	**22**	⇑P	**Pn**	**22 18 08.8**	**+1.1**
DRGR		**6.91**	**353**	⇑P	**Pn**	**22 18 08.0**	**-0.4**
DRGR		**6.91**	**353**	⇑P	**Pn**	**22 18 08.0**	**-0.4**
DRGR		**6.91**	**353**	P	**Pn**	**22 18 11.9**	**+3.5**
	comp=Z,48nm,0.9s						
KIJV	**Kijevo**	**6.95**	**308**	*e*Pn	**Pn**	**22 18 10.5**	**+1.7**
KIJV				*i* Sn	**Sn**	**22 19 27.2**	**-0.4**
KIJV	**Kijevo**	**6.95**	**308**	P	**Pn**	**22 18 08.4**	**-0.4**
	comp=Z,113nm,0.7s						
BLY	**Banja Luka**	**6.95**	**316**		**Pn**	**22 18 09.2**	**+0.3**
BLY	**Banja Luka**	**6.95**	**316**	*e*Pn	**Pn**	**22 18 09.7**	**+0.8**
ARCR	**ARCALIA**	**7.15**	**2**	⇓P	**Pn**	**22 18 11.9**	**+0.3**
BIZ	**Bicaz**	**7.17**	**12**	⇓P	**Pn**	**22 18 12.7**	**+0.8**
MESR	**Meseseni**	**7.25**	**354**	⇓P	**Pn**	**22 18 13.8**	**+0.9**
PAOL	**Paolisi**	**7.25**	**282**		**Pn**	**22 18 12.8**	**-0.2**
DMBR	**Dumbraveni**	**7.25**	**19**	⇓P	**Pn**

comp=Z,0.2nm,0.3s,baz=156,slow=18,SNR=3.0
comp=Z,0.9nm,0.4s
VRAC AML AML
VRAC Vranov 10.74 333 *e*PN **Pn** **22 18 59.8 -0.9**
BIOA Bad Ischl, Aus 10.75 320 *i* Pn **Pn** **22 19 01.8 +0.8**
comp=Z,1.5nm,0.5s
ABTA Abfaltersbach 10.76 313 *i* Pn **Pn** **22 19 01.5 +0.3**
comp=Z,5.1nm,0.6s
CTI Castel Tesino 10.89 308 P **Pn** **22 19 03.3 +0.4**
CTI Castel Tesino 10.89 308 **Pn** **22 19 03.3 +0.4**
LESA Schwarzleotal 11.08 316 *i* Pn **Pn** **22 19 05.8 +0.3**
comp=Z,4.6nm,0.6s
RJOB Jochberg 11.21 318 P **Pn** **22 19 10.9 +3.7**
comp=Z,10nm,0.9s
AK07 Malin Array Si 11.23 17 P **Pn** **22 19 06.0 -1.5**
AK13 Malin Array Si 11.26 17 P **Pn** **22 19 06.4 -1.4**
AK06 Malin Array Si 11.27 17 P **Pn** **22 19 06.2 -1.7**
AK14 Malin Array Si 11.29 17 P **Pn** **22 19 06.8 -1.4**
AK10 Malin Array Si 11.29 17 P **Pn** **22 19 06.9 -1.4**
AK05 Malin Array Si 11.30 17 P **Pn** **22 19 07.4 -1.0**
AK12 Malin Array Si 11.31 17 P **Pn** **22 19 07.3 -1.2**
AK09 Malin Array Si 11.31 18 P **Pn** **22 19 07.3 -1.3**
AK08 Malin Array Si 11.32 17 P **Pn** **22 19 07.5 -1.2**
AK16 Malin Array Si 11.32 17 P **Pn** **22 19 07.5 -1.2**
AK17 Malin Array Si 11.33 17 P **Pn** **22 19 07.5 -1.3**
AK02 Malin Array Si 11.33 17 P **Pn** **22 19 07.6 -1.3**
KRLC Kraliky 11.34 336 *e*P Pn 22 19 20.0 +11
KRLC Kraliky 11.34 336 *e*P Pn 22 19 20.0 +11
AK11 Malin Array Si 11.35 17 P **Pn** **22 19 07.8 -1.2**
AK15 Malin Array Si 11.35 17 P **Pn** **22 19 07.9 -1.2**
AK19 Malin Array Si 11.35 16 P **Pn** **22 19 07.9 -1.2**
AK18 Malin Array Si 11.36 17 P **Pn** **22 19 08.0 -1.3**
AK01 Malin Array Si 11.37 17 P **Pn** **22 19 08.1 -1.2**
KIEV Kiev 11.37 17 P **Pn** **22 19 08.6 -0.8**
KIEV Kiev 11.37 17 ⇑P **Pn** **22 19 08.9 -0.4**
KIEV Kiev 11.37 17 **Pn** **22 19 08.2 -1.1**
KIEV Kiev 11.37 17 ⇑P **Pn** **22 19 08.9 -0.4**
KIEV Kiev 11.37 17 P **Pn** **22 19 08.3 -1.1**
comp=Z,100nm,1.2s
KIEV Kiev 11.37 17 P **Pn** **22 19 09.2 -0.2**
comp=Z,25nm,1.2s
AK20 Malin Array Si 11.37 16 P **Pn** **22 19 08.1 -1.3**
RNPP5 Staryi Chortor 11.37 6 P **Pn** **22 19 08.1 -1.3**
AKASG Malin Array Be 11.38 17 Pn **Pn** **22 19 08.9 -0.6**
comp=Z,2.2nm,0.4s,baz=198,slow=13,SNR=14
AKASG LR LR 22 23 24.1
comp=Z,292nm,18.3s,baz=188,slow=37
AKBB Malin Array Si 11.38 17 *i* P **Pn** **22 19 08.7 -0.8**
AKBB Malin Array Si 11.38 17 P **Pn** **22 19 08.3 -1.2**
AK04 Malin Array Si 11.39 17 P **Pn** **22 19 08.3 -1.3**
AK22 Malin Array Si 11.40 17 P **Pn** **22 19 07.8 -2.0**
AK03 Malin Array Si 11.40 17 P **Pn** **22 19 08.0 -1.8**
RNPP8 Varash 11.48 6 P **Pn** **22 19 09.5 -1.3**
MMAI Mount Meron Ar 11.50 123 Pn **Pn** **22 19 12.0 +0.7**
comp=Z,0.8nm,0.3s,baz=313,slow=14,SNR=2.7
MMAI LR LR 22 24 24.0
comp=Z,160nm,20.1s,baz=314,slow=42
comp=Z,1.4nm,0.5s
MMAI AML AML
GERES GERESS Array B 11.53 324 Pn **Pn** **22 19 14.7 +3.0**
baz=142,slow=13,SNR=6.7
GERES LR LR 22 23 53.9
comp=Z,273nm,18.1s,baz=182,slow=39
comp=Z,1.4nm,0.8s
GERES GERESS Array B 11.53 324 **Pn** **22 19 11.6 -0.1**
WTTA Wattenberg 11.55 313 *e*Pn **Pn** **22 19 12.1 +0.1**
comp=Z,5.4nm,0.5s
RNPP9 Sopachiv 11.56 6 P **Pn** **22 19 10.8 -1.1**
WATA Walderalm 11.62 314 *e*Pn **Pn** **22 19 13.2 +0.2**
comp=Z,8.0nm,0.7s
DPC Dobruska-Polom 11.72 335 *e*P Pn 22 19 27.1 +13
DPC Dobruska-Polom 11.72 335 *e*P Pn 22 19 27.1 +13
SQTA Sankt Quirin 11.76 312 *e*Pn **Pn** **22 19 15.3 +0.4**
comp=Z,9.2nm,1.1s
ZVC Zvikov 11.77 327 *e*P Pn 22 19 26.6 +12
KHC Kasperske Hory 11.80 325 *e*P **Pn** **22 19 18.8 +3.5**
KHC Kasperske Hory 11.80 325 *e*P **Pn** **22 19 18.8 +3.5**
KHC *ex* x 22 19 32.0
MOTA Moosalm 11.89 313 *e*Pn **Pn** **22 19 17.0 +0.3**
comp=Z,6.4nm,0.9s
FETA Feichten 11.93 311 *e*Pn **Pn** **22 19 17.9 +0.6**
comp=Z,3.6nm,1.0s
RETA Reutte 12.16 313 *e*Pn **Pn** **22 19 21.4 +1.0**
comp=Z,5.2nm,1.0s
KEST Kesra 12.30 255 Pn **Pn** **22 19 23.7 +1.5**
comp=Z,0.7nm,0.3s,baz=62,slow=11,SNR=11
KEST LR LR 22 25 37.7
comp=Z,175nm,20.2s,baz=349,slow=45
comp=Z,14nm,0.9s
KEST AML AML
KEST Kesra 12.30 255 **Pn** **22 19 22.9 +0.7**
SOC Sochi 12.31 68 *e*P **Pn** **22 19 25.2 +2.9**
SOC *e* 22 21 45.5
SOC MLR MLR
comp=Z,85nm,9.0s
DAVOX Davos/Dischmat 12.32 308 Pn **Pn** **22 19 23.4 +0.8**
comp=Z,0.6nm,0.3s,baz=108,slow=18,SNR=6.1
DAVOX Sn **Sn** **22 21 33.6 -6.0**
baz=106,slow=22,SNR=1.6
DAVOX LR LR 22 24 49.8
comp=Z,385nm,18.2s,baz=109,slow=41
comp=Z,1.3nm,0.4s
DAVOX AML AML
KZIT Kziot 12.38 133 P **Pn** **22 19 24.7 +1.4**
comp=Z,39nm,0.8s
DAVA Damuels 12.57 310 *e*Pn **Pn** **22 19 26.7 +0.8**
comp=Z,7.3nm,1.2s
ASF Jabal al Asfar 12.97 123 Pn **Pn** **22 19 32.2 +0.2**
comp=Z,0.1nm,0.3s,baz=305,slow=12,SNR=1.4
ASF LR LR 22 25 21.7
comp=Z,162nm,20.5s,baz=305,slow=41
comp=Z,2.5nm,0.8s
ASF AML AML
LABN Labinsk 13.26 64 *e*P **Pn** **22 19 36.9 +1.6**
LABN pmax pmax
comp=Z,18nm,0.8s
ERBR Yeremizino-Bor 13.42 59 *e*P **Pn** **22 19 40.6 +3.2**
ERBR pmax pmax
comp=Z,16nm,1.2s
EIL Elat 13.64 135 Pn **Pn** **22 19 40.0 -0.5**
comp=Z,0.4nm,0.3s,baz=331,slow=14,SNR=5.0
EIL LR LR 22 26 50.7
comp=Z,125nm,20.1s,baz=319,slow=46
comp=Z,6.5nm,0.7s
EIL AML AML
CLL Collm 13.70 330 *e*P **P** **22 19 47.0 -2.9**
CLL Collm 13.70 330 *es*P **P** **22 19 47.0 -2.9**
CLL *i* sPP 22 19 54.7
comp=Z,8.0nm,0.9s
CLL *i* sPPP 22 20 01.7
CLL *ex* x 22 22 49.0
CLL LH 22 23 00.0
CLL AMS AMS 22 23 00.0
comp=N,300nm,20.2s
CLL AMS AMS 22 23 00.0
comp=E,500nm,19.9s
CLL AMS AMS 22 25 00.0
comp=Z,400nm,13.3s
SUW Suwalki 14.09 358 P **P** **22 19 50.8 -3.4**
SUW Suwalki 14.09 358 P **P** **22 19 50.8 -3.4**
EPOS Posof 14.32 78 P **P** **22 19 54.4 -2.6**
comp=Z,21nm,1.3s
NEUR Neytrino 14.41 71 *i* P **Pn** **22 19 50.9 -0.2**
SHA1 Shidzhatmaz 14.44 69 *ce*P **Pn** **22 19 52.7 +1.1**
KIV Kislovodsk 14.49 68 P **P** **22 19 57.8 -1.1**
KIV Kislovodsk 14.49 68 *e*P **Pn** **22 19 52.8 +0.6**
KIV pmax pmax
comp=Z,10.0nm,1.1s
KIV Kislovodsk 14.49 68 **P** **22 19 58.7 -0.2**
KBZ Khabaz 14.61 69 Pn **Pn** **22 19 52.2 -1.5**
comp=Z,0.1nm,0.3s,baz=289,slow=12,SNR=5.0
comp=Z,0.8nm,0.7s
KBZ AML AML
KBZ Khabaz 14.61 69 *ce*P **Pn** **22 19 55.6 +1.9**
MNK Minsk 14.81 9 *i* P **Pn** **22 19 55.3 -1.0**
MNK *i* S **Sn** **22 22 39.6 -0.4**
MNK pmax pmax
comp=N,11nm,1.0s
MNK pmax pmax
comp=E,40nm,1.0s
MNK pmax pmax
comp=Z,25nm,0.7s
MNK MLR MLR
comp=N,189nm,10.0s
OBN Obninsk 17.36 25 **Pn** **22 20 28.2 -1.0**
OBN lAmb lAmb 22 20 35.0
comp=Z,42nm,0.5s
OBN Obninsk 17.36 25 P **Pn** **22 20 27.5 -1.6**
comp=Z,34nm,1.9s
MOS Moscow 18.22 25 *e*P **P** **22 20 41.1 +1.2**
MOS pmax pmax
comp=Z,61nm,1.1s
VSU Vasula 18.63 5 *i* P **Pn** **22 20 44.8 +0.1**
ECHE Chera 19.16 277 P **Pn** **22 20 54.6 +3.3**
CART Cartagena 19.60 271 P **Pn** **22 20 56.4 -0.1**
ETOB Tobarra 19.77 274 P **Pn** **22 20 60.0 +1.2**
PUL Pulkovo 20.26 9 *i* P Pn 22 21 03.6 -0.5
PUL pmax pmax
comp=Z,34nm,1.0s
BELG Belogornoye 20.47 45 P **P** **22 21 03.7 -0.9**
comp=Z,28nm,1.2s,baz=350,slow=5.2,SNR=4.7
comp=Z,28nm,1.2s
BELG Belogornoye 20.47 45 *i* P **P** **22 21 03.0 -1.5**
BELG pmax pmax
comp=Z,14nm,1.3s
UCM Universidad Co 20.79 280 P Pn 22 21 09.5 -1.1
HFS Hagfors 21.22 346 P **P** **22 21 13.6 +1.0**
comp=Z,3.5nm,0.7s,baz=153,slow=10.0,SNR=7.4
HFS LR LR 22 31 06.1
comp=Z,409nm,18.8s,baz=148,slow=41
comp=Z,3.5nm,0.7s
ESDC Sonseca Array 21.43 278 P **P** **22 21 14.9 -0.2**
comp=Z,1.8nm,0.7s,baz=76,slow=11,SNR=20
comp=Z,1.8nm,0.7s
ESDC Sonseca Array 21.43 278 P **P** **22 21 15.1 0.0**
FINES FINESS Array B 21.57 3 P **P** **22 21 15.8 -0.6**
comp=Z,9.5nm,0.7s,baz=176,slow=8.3,SNR=16
FINES LR LR 22 30 46.3
comp=Z,494nm,18.7s,baz=203,slow=40
comp=Z,9.5nm,0.7s
FINES FINESS Array B 21.57 3 *i* P **P** **22 21 18.2 +1.8**
FINES pmax pmax
comp=Z,10.0nm,0.7s
FINES FINESS Array B 21.57 3 P **P** **22 21 16.1 -0.2**
FIA1 FINESS Array S 21.57 3 P **P** **22 21 16.3 -0.1**
FIA1 lAmb lAmb 22 21 30.4
comp=Z,53nm,1.1s
NORES NORESS Array B 22.21 344 P **P** **22 21 25.3 +2.1**
NORES pmax pmax
comp=Z,3.0nm,0.5s
NB2 NORSAR Subarra 22.55 344 P **P** **22 21 28.0 +1.1**
comp=Z,7.7nm,0.8s,baz=154,slow=11
NOA NORSAR Array B 22.55 344 P **P** **22 21 27.8 +0.9**
comp=Z,5.0nm,0.7s,baz=148,slow=9.2,SNR=15
NOA LR LR 22 30 31.0
comp=Z,77nm,19.5s,baz=295,slow=37
comp=Z,5.0nm,0.7s
NBO00 NORSAR Array S 22.64 343 P **P** **22 21 27.9 +0.1**
NBO00 lAmb lAmb 22 21 35.5
comp=Z,39nm,0.9s
KLMR Klimovskoe 23.05 20 *e*P **P** **22 21 30.5 -1.6**
KLMR pmax pmax
comp=Z,52nm,1.3s
TAM Tamanrasset 23.16 228 P **P** **22 21 34.1 +0.4**
TAM pmax pmax
comp=Z,16nm,0.7s
TAM Tamanrasset 23.16 228 P **P** **22 21 34.1 +0.4**
TAM lAmb lAmb 22 21 43.8
comp=Z,16nm,0.7s
TAM Tamanrasset 23.16 228 P **P** **22 21 37.0 +3.3**
comp=Z,11nm,0.9s
PBRG Braganca 23.24 285 *e*P **P** **22 21 33.4 -0.9**
EKA Eskdalemuir Ar 23.69 320 P **P** **22 21 38.8 +0.3**
comp=Z,2.0nm,0.6s,baz=115,slow=10,SNR=10
comp=Z,2.0nm,0.6s
MDT Midelt 24.01 262 P **P** **22 21 42.7 +0.8**
comp=Z,3.1nm,0.5s,baz=81,slow=4.9,SNR=5.1
comp=Z,3.1nm,0.5s
MTE Manteigas 24.02 281 P **P** **22 21 41.0 -0.9**
MTE lAmb lAmb 22 21 46.3
comp=Z,27nm,1.0s
MTE Manteigas 24.02 281 *e*P **P** **22 21 42.2 +0.2**
MTE lAmb lAmb 22 21 46.4
comp=Z,66nm,1.4s
PCBR Castelo Branco 24.07 280 *e*P **P** **22 21 44.0 +1.8**
PCBR lAmb lAmb 22 21 52.2
comp=Z,32nm,1.7s
PMRV Marv??o 24.08 279 *e*P **P** **22 21 39.7 -2.7**
MD01 Midelt array s 24.11 262 P **P** **22 21 41.0 -1.9**
MD31 MD31 24.11 262 P **P** **22 21 42.7 -0.1**
PCAB Cabril 24.21 285 *e*P **P** **22 21 42.9 -0.7**
PVIS Viseu 24.24 282 *e*P **P** **22 21 45.5 +1.6**
PESTR Estremoz 24.35 278 *e*P **P** **22 21 46.7 +1.8**
PESTR lAmb lAmb 22 21 48.9
comp=Z,45nm,1.7s
RAYN Ar Rayn 24.46 126 *i* P **P** **22 21 47.7 +1.7**
SNR=13
RAYN Ar Rayn 24.46 126 P **P** **22 21 43.6 -2.5**
RAYN pmax pmax
comp=Z,9.0nm,1.1s
RAYN Ar Rayn 24.46 126 P **P** **22 21 43.6 -2.5**
PSARD Sardoal 24.63 280 *e*P **P** **22 21 49.1 +1.6**
PSARD lAmb lAmb 22 21 53.4
comp=Z,39nm,1.5s
PARRA Arraiolos 24.70 278 *e*P **P** **22 21 48.9 +0.8**
PARRA lAmb lAmb 22 22 09.3
comp=Z,31nm,2.0s
KIRV Kirov 24.73 33 *i* P **P** **22 21 46.8 -1.2**
AKTO Aktyubinsk 25.98 55 LR LR 22 33 18.5
comp=Z,159nm,18.3s,baz=287,slow=39
TIO Tiouine 26.88 260 P **P** **22 22 10.9 +2.9**
AB31 Akbulak array 27.04 58 P **P** **22 22 08.4 -0.7**
ARTI Arti 27.85 42 LR LR 22 34 37.3
comp=Z,124nm,21.2s,baz=286,slow=39
ARTI Arti 27.85 42 *d* P **P** **22 22 15.3 -1.0**
ARTI S **S** **22 26 57.4 -1.6**
ARTI pmax pmax
comp=Z,44nm,3.5s
ARTI Arti 27.85 42 P **P** **22 22 15.8 -0.6**
ARTI lAmb lAmb 22 22 21.4
comp=Z,11nm,1.1s
ARCES ARCESS Array B 29.67 1 P **P** **22 22 32.0 -0.4**
comp=Z,3.8nm,1.0s,baz=185,slow=7.9,SNR=1.9
ARCES LR LR 22 34 55.3
comp=Z,264nm,18.3s,baz=182,slow=37
comp=Z,3.8nm,1.0s
ARCES ARCESS Array B 29.67 1 P **P** **22 22 32.0 -0.4**
ARCES ARCESS Array B 29.67 1 P **P** **22 22 31.8 -0.5**
SHME Shamm 30.15 107 P **P** **22 22 37.8 +0.8**
BANOM Banah 30.34 108 P **P** **22 22 40.2 +1.4**
ASUD Al Ashush, Dub 30.40 111 P **P** **22 22 40.8 +1.6**
NAZ Nazwa, Dubai 30.43 110 P **P** **22 22 40.8 +1.4**
HRA Herat 30.84 88 P **P** **22 22 43.7 +0.4**
UOSS Minazif 30.84 109 P **P** **22 22 43.8 +0.7**
UOSS Minazif 30.84 109 P **P** **22 22 42.8 -0.3**
UOSS lAmb lAmb 22 22 44.8
comp=Z,7.9nm,0.9s
HATD Hatta, Dubai 30.86 109 *i* P **P** **22 22 44.6 +1.2**
SNR=6.2
ASHO Ashiyiah 30.89 110 *i* P **P** **22 22 44.7 +1.0**
SNR=6.7
ALNE Al Ain 31.06 111 *i* P **P** **22 22 46.3 +1.3**
SNR=11
SOHO SOHO 31.57 110 *i* P **P** **22 22 50.6 +1.1**
SNR=11
TORD Torodi Ar. Bea 33.11 223 P **P** **22 23 03.0 -0.1**
comp=Z,1.6nm,0.5s,baz=32,slow=8.1,SNR=21
comp=Z,1.6nm,0.5s
TORD Torodi Ar. Bea 33.11 223 P **P** **22 23 03.4 +0.3**
BORK Borovoye 33.89 52 *i* P **P** **22 23 10.4 +0.8**
BORK pmax pmax
comp=Z,9.0nm,1.1s
BORK Borovoye 33.89 52 P **P** **22 23 10.2 +0.7**
BORK lAmb lAmb 22 23 16.3
comp=Z,7.5nm,1.1s
BVAR Borovoye Array 33.93 52 P **P** **22 23 09.8 -0.1**
comp=Z,1.9nm,1.0s,baz=204,slow=3.3,SNR=10.0
comp=Z,1.9nm,1.0s
BTK Batken 35.56 74 P **P** **22 23 23.2 -1.1**
BTK pmax pmax
comp=Z,4.0nm,1.1s
BTK Batken 35.56 74 P **P** **22 23 23.2 -1.1**
KBL Kabul 35.99 84 P **P** **22 23 27.0 -1.2**
KBL pmax pmax
comp=Z,3.0nm,0.6s
KBL Kabul 35.99 84 P **P** **22 23 27.0 -1.2**
DRK Karamyk 36.45 75 P **P** **22 23 32.3 +0.1**
DRK pmax pmax
comp=Z,4.0nm,0.7s
DRK Karamyk 36.45 75 P **P** **22 23 32.3 +0.1**
ARSB Arslanbob 36.83 72 P **P** **22 23 36.0 +0.8**
ARSB pmax pmax
comp=Z,3.0nm,0.8s
ARSB Arslanbob 36.83 72 **P** **22 23 36.0 +0.8**
AAK Ala-Archa 37.61 69 *ce*P **P** **22 23 44.3 +2.5**
AAK pmax pmax
comp=Z,11nm,1.7s
AAK Ala-Archa 37.61 69 P **P** **22 23 42.0 +0.2**
FRU1 Bishkek 37.66 69 P **P** **22 23 42.8 +0.6**
FRU1 pmax pmax
comp=Z,22nm,1.1s
FRU1 Bishkek 37.66 69 P **P** **22 23 42.8 +0.6**
FRU1 lAmb lAmb 22 23 49.4
comp=Z,22nm,1.1s
NRN Naryn 38.99 70 P **P** **22 23 54.2 +0.5**
NRN pmax pmax
comp=Z,3.0nm,0.9s
NRN Naryn 38.99 70 **P** **22 23 54.2 +0.5**
KURBB Kurchatov Arra 39.03 56 P **P** **22 23 54.4 +1.0**
comp=Z,4.0nm,0.9s,baz=284,slow=8.8,SNR=22
comp=Z,4.0nm,0.9s
KURK Kurchatov 39.07 55 *ce*P **P** **22 23 55.1 +1.3**
KURK pmax pmax
comp=Z,9.0nm,1.3s
KURK Kurchatov 39.07 55 **P** **22 23 53.4 -0.4**
KSH2 Kashi 39.34 74 P **P** **22 23 57.6 +1.2**
KSH2 pmax pmax
comp=Z,4.0nm,1.4s
NIL Nilore 39.55 83 P **P** **22 23 57.9 -0.2**
NIL pmax pmax
comp=Z,9.0nm,0.9s
NIL Nilore 39.55 83 P **P** **22 23 57.9 -0.2**
PRZ Przheval'sk 40.44 68 P **P** **22 24 05.5 -0.1**
PRZ pmax pmax
comp=Z,9.0nm,0.9s
PRZ Przheval'sk 40.44 68 P **P** **22 24 05.5 -0.1**
PDGK Podgornoye 40.99 66 P **P** **22 24 10.5 +0.4**
PDGK Podgornoye 40.99 66 P **P** **22 24 10.5 +0.4**
MAKZ Makanchi 41.89 61 P **P** **22 24 17.4 +0.2**
MAKZ pmax pmax
comp=Z,10.0nm,0.9s
MAKZ Makanchi 41.89 61 P **P** **22 24 17.4 +0.2**
MAKZ lAmb lAmb 22 24 23.6
comp=Z,10nm,0.9s
DBIC Dimbokro 42.02 226 P **P** **22 24 20.1 +1.6**
comp=Z,6.6nm,1.1s,baz=35,slow=8.2,SNR=5.1
DBIC LR LR 22 43 59.1
comp=Z,60nm,18.1s,baz=70,slow=39
comp=Z,6.6nm,1.1s
DBIC Dimbokro 42.02 226 P **P** **22 24 19.2 +0.7**
DBIC pmax pmax
comp=Z,12nm,1.2s
DBIC Dimbokro 42.02 226 P **P** **22 24 19.1 +0.7**
DBIC lAmb lAmb 22 24 21.8
comp=Z,12nm,1.1s
MK31 Makanchi Array 42.10 61 *ce*P **P** **22 24 20.4 +1.5**
MKAR Makanchi Array 42.10 61 P **P** **22 24 20.0 +1.1**
comp=Z,11nm,0.7s,baz=273,slow=7.6,SNR=43
MKAR LR LR 22 45 49.5
comp=Z,141nm,18.3s,baz=94,slow=42
comp=Z,11nm,0.7s
MKAR Makanchi Array 42.10 61 P **P** **22 24 19.2 +0.3**
ZAA0 Zalesovo Array 42.52 50 P **P** **22 24 23.2 +1.1**
ZAA0 lAmb lAmb 22 24 28.4
comp=Z,9.8nm,0.9s
ZALV Zalesovo Beam 42.52 50 P **P** **22 24 22.9 +0.7**
comp=Z,6.6nm,0.8s,baz=275,slow=9.0,SNR=22
comp=Z,6.6nm,0.8s
NRIK Noril'sk 44.02 27 P **P** **22 24 35.8 +1.7**
comp=Z,2.7nm,0.7s,baz=278,slow=2.8,SNR=6.1
comp=Z,2.7nm,0.7s
NRIK Noril'sk 44.02 27 *i* P **P** **22 24 37.0 +2.9**
NRIK pmax pmax
comp=Z,14nm,1.4s
NRIK Noril'sk 44.02 27 P **P** **22 24 36.3 +2.3**
WMQ Urumqi 46.57 63 *e*P **P** **22 24 57.0 +2.2**
EVN Everest 52.52 83 **P** **22 25 41.4 +0.4**
EVN lAmb lAmb 22 25 42.6
comp=Z,12nm,0.8s
LSA Lhasa 54.93 78 lAmb lAmb 22 26 04.9
comp=Z,9.9nm,0.9s
GTA2 Gaotai 56.56 64 *e*P **P** **22 26 10.6 +0.9**
GTA2 pP sP 22 26 15.2 -0.5
GTA2 pmax pmax
comp=Z,3.0nm,1.0s
TIXI Tiksi 57.05 21 *i* P **P** **22 26 11.7 -0.8**
SONM Songino Array 57.27 53 P **P** **22 26 15.1 +0.5**
comp=Z,1.4nm,0.8s,baz=279,slow=6.4,SNR=10
comp=Z,1.4nm,0.8s
SONM Songino Array 57.27 53 P **P** **22 26 15.1 +0.5**
SONM pmax pmax
comp=Z,3.0nm,1.0s
SONM Songino Array 57.27 53 lAmb lAmb 22 26 20.2
comp=Z,2.5nm,1.0s
SHL Shillong 57.62 82 P **P** **22 26 17.2 -0.2**
SHL pmax pmax
comp=Z,12nm,0.8s
SHL Shillong 57.62 82 **P** **22 26 17.2 -0.2**

SHL					IAmb	IAmb	22 26 22.9	
	comp=Z,12nm,0.8s							
ULN	**Ulaanbaatar**	**57.65**	**52**	*ce*P	**P**	**P**	**22 26 19.0**	**+1.7**
ULN					pmax	pmax		
	comp=Z,6.0nm,1.3s							
RES	**Resolute Bay**	**58.82**	**344**		LR	LR	22 54 04.5	
	comp=Z,150nm,20.4s,baz=338,slow=38							
SCHQ	**Schefferville**	**58.98**	**318**		P	**P**	**22 26 27.2**	**+0.9**
	comp=Z,5.6nm,0.7s,baz=47,slow=3.4,SNR=5.3							
	comp=Z,5.6nm,0.7s							
SCHQ	**Schefferville**	**58.98**	**318**		IAmb	IAmb	22 26 29.9	
	comp=Z,8.7nm,1.1s							
MORE	**Moreh**	**60.18**	**82**			**P**	**22 26 36.0**	**+0.9**
MORE					IAmb	IAmb	22 26 41.3	
	comp=Z,13nm,1.1s							
LZH	**Lanzhou**	**61.02**	**66**	*e*P		**P**	**22 26 39.4**	**-1.4**
LZH					pmax	pmax		
	comp=Z,10.0nm,1.0s							
GRTLG	**Ghanzi**	**61.03**	**183**		P	**P**	**22 26 39.9**	**-0.8**
GRTLG					IAmb	IAmb	22 26 42.4	
	comp=Z,9.9nm,0.8s							
KOOLE	**Kule**	**62.70**	**184**			**P**	**22 26 52.2**	**+0.2**
KOOLE					IAmb	IAmb	22 26 53.6	
	comp=Z,11nm,0.8s							
HHC	**Hu-ho-hao-te**	**63.83**	**58**	*e*P		**P**	**22 26 59.2**	**-0.2**
HHC					pmax	pmax		
	comp=Z,12nm,0.5s							
HHC					pmax	pmax		
	comp=Z,170nm,4.9s							
XAN	**Xi'an**	**65.64**	**65**	P	P	**P**	**22 27 12.2**	**+0.9**
XAN					pmax	pmax		
	comp=Z,9.0nm,1.3s							
CHTO	**Chiang Mai**	**66.81**	**84**	P	P	**P**	**22 27 19.1**	**+0.2**
CHTO					pmax	pmax		
	comp=Z,6.0nm,0.8s							
CHTO	**Chiang Mai**	**66.81**	**84**			**P**	**22 27 19.1**	**+0.2**
CHTO					IAmb	IAmb	22 27 24.2	
	comp=Z,5.5nm,0.8s							
CMAR	**Chiang Mai Arr**	**67.02**	**85**	P	P	**P**	**22 27 20.3**	**0.0**
	comp=Z,3.0nm,0.6s,baz=304,slow=7.9,SNR=30							
	comp=Z,3.0nm,0.6s							
HEH	**HeiHe**	**67.94**	**42**	*e*P		**P**	**22 27 26.3**	**+0.7**
HEH					pmax	pmax		
	comp=Z,12nm,0.9s							
VLDQ	**Val d'Or**	**68.13**	**315**	P	P	**P**	**22 27 28.3**	**+1.6**
BOSA	**Boshof**	**68.21**	**179**	P	P	**P**	**22 27 28.3**	**+0.8**
	comp=Z,4.0nm,0.8s,baz=348,slow=4.4,SNR=6.5							
BOSA					LR	LR	22 59 34.3	
	comp=Z,374nm,19.2s,baz=132,slow=38							
	comp=Z,4.0nm,0.8s							
KLR	**Kul'dur**	**70.80**	**41**	P	P	**P**	**22 27 43.7**	**+0.4**
	comp=Z,2.0nm,0.7s,baz=313,slow=9.2,SNR=4.1							
	comp=Z,2.0nm,0.7s							
WHN	**Wuhan**	**71.40**	**66**	P	P		22 27 53.5	+6.2
F30M	**Barrier River**	**71.68**	**352**	P	P	**P**	**22 27 48.0**	**-0.3**
F30M					IAmb	IAmb	22 27 50.1	
	comp=Z,13nm,1.0s							
SUR	**Sutherland**	**72.01**	**183**	LR	LR		23 00 07.3	
	comp=Z,531nm,18.8s,baz=138,slow=36							
USRK	**Ussuriysk Ar.**	**74.15**	**45**	P	P	**P**	**22 28 03.1**	**-0.3**
	comp=Z,1.6nm,0.7s,baz=270,slow=7.3,SNR=4.9							
	comp=Z,1.6nm,0.7s							
PRP	**Porcupine Dome**	**74.56**	**355**	P	P	**P**	**22 28 06.2**	**+0.7**
PRP					IAmb	IAmb	22 28 09.0	
	comp=Z,18nm,1.1s							
ILAR	**Eielson Array**	**75.38**	**356**	P	P	**P**	**22 28 10.7**	**+0.6**
	comp=Z,0.5nm,0.8s,baz=353,slow=3.0,SNR=14							
	comp=Z,0.5nm,0.8s							
ILAR	**Eielson Array**	**75.38**	**356**	P	P	**P**	**22 28 10.4**	**+0.3**
ULM	**Lac du Bonnet**	**75.84**	**325**	P	P	**P**	**22 28 14.2**	**+1.2**
	comp=Z,6.4nm,0.9s,baz=43,slow=7.2,SNR=4.6							
	comp=Z,6.4nm,0.9s							
ULM	**Lac du Bonnet**	**75.84**	**325**		IAmb	IAmb	22 28 21.1	
	comp=Z,4.6nm,0.7s							
KSAR	**Wonju Array Be**	**76.12**	**53**	P	P	**P**	**22 28 14.0**	**-0.8**
KSAR	**Wonju Array Be**	**76.12**	**53**			**P**	**22 28 13.9**	**-0.8**
ACSO	**Alum Creek Sta**	**76.13**	**311**	P	P	**P**	**22 28 15.5**	**+0.6**
ACSO					IAmb	IAmb	22 28 20.6	
	comp=Z,14nm,1.0s							
KSRS	**Korea Array**	**76.14**	**53**	P	P	**P**	**22 28 15.2**	**+0.4**
	comp=Z,2.0nm,0.7s,baz=315,slow=6.0,SNR=8.0							
	comp=Z,2.0nm,0.7s							
L40A	**Anamosa**	**79.45**	**317**	P	P	**P**	**22 28 33.0**	**-0.3**
L40A					IAmb	IAmb	22 28 33.9	
	comp=Z,16nm,1.1s							
TKL	**Tuckaleechee C**	**79.61**	**308**	LR	LR	LR	23 04 37.8	
	comp=Z,263nm,19.8s,baz=284,slow=36							
CCM	**Cathedral Cave**	**82.30**	**314**	P	P	**P**	**22 28 48.1**	**-0.5**
CCM					pmax	pmax		
	comp=Z,5.0nm,0.7s							
CCM	**Cathedral Cave**	**82.30**	**314**	P	P	**P**	**22 28 48.1**	**-0.5**
CCM					IAmb	IAmb	22 28 52.9	
	comp=Z,4.6nm,0.7s							
R40A	**Maddies Statio**	**82.70**	**315**	P	P	**P**	**22 28 50.6**	**0.0**
T42A	**Van Buren**	**82.95**	**313**	P	P	**P**	**22 28 51.0**	**-1.0**
T42A					IAmb	IAmb	22 28 56.6	
	comp=Z,12nm,1.0s							
FCAR	**Ozark Folk Cen**	**84.34**	**313**	P	P	**P**	**22 28 59.5**	**+0.3**
FCAR					IAmb	IAmb	22 29 03.7	
	comp=Z,7.3nm,0.9s							
KSU1	**Kansas State U**	**84.42**	**318**	P	P	**P**	**22 28 59.3**	**-0.2**
WHAR	**Wooly Hollow**	**84.87**	**313**	P	P	**P**	**22 29 01.8**	**0.0**
U38A	**Gravette**	**85.20**	**315**	P	P	**P**	**22 29 01.9**	**-1.6**
T35A	**Sooner Cattle**	**86.00**	**316**	P	P	**P**	**22 29 07.4**	**-0.1**
T35A					IAmb	IAmb	22 29 13.0	
	comp=Z,12nm,1.0s							
R32A	**Long Quarter,**	**86.01**	**318**	P	P	**P**	**22 29 07.9**	**+0.4**
BDFB	**Brasilia**	**86.69**	**247**	P	P	**P**	**22 29 11.5**	**+0.4**
	comp=Z,2.9nm,0.7s,baz=54,slow=3.2,SNR=3.2							
	comp=Z,2.9nm,0.7s							
BDFB	**Brasilia**	**86.69**	**247**	P	P	**P**	**22 29 10.8**	**-0.4**
BDFB					pmax	pmax		
	comp=Z,9.0nm,1.1s							
BDFB	**Brasilia**	**86.69**	**247**	P	P	**P**	**22 29 10.8**	**-0.4**
BDFB					IAmb	IAmb	22 29 17.1	
	comp=Z,9.1nm,1.1s							
PDAR	**Pinedale Array**	**87.56**	**328**	P	P	**P**	**22 29 14.7**	**-0.5**
	comp=Z,0.6nm,1.0s,baz=64,slow=10,SNR=4.9							
	comp=Z,0.6nm,1.0s							
WMOK	**Wichita Mounta**	**88.84**	**316**		IAmb	IAmb	22 29 26.1	
	comp=Z,6.5nm,1.0s							
SDCO	**Great Sand Dun**	**89.87**	**322**		IAmb	IAmb	22 29 30.6	
	comp=Z,6.3nm,1.1s							
PV22	**Blue Mesa, Par**	**90.72**	**325**			**P**	**22 29 30.5**	**+0.2**
PV07	**Paradox Valley**	**90.74**	**325**	P	P	**P**	**22 29 30.2**	**-0.1**
PV07					IAmb	IAmb	22 29 34.3	
	comp=Z,12nm,1.1s							
PV01	**Paradox Valley**	**90.96**	**324**	P	P	**P**	**22 29 30.3**	**-1.1**
PV01					IAmb	IAmb	22 29 35.8	
	comp=Z,8.3nm,1.0s							
PV11	**David Mesa, Pa**	**90.96**	**325**	P	P	**P**	**22 29 30.9**	**-0.4**
PV14	**Lion Creek, Pa**	**90.96**	**325**	P	P	**P**	**22 29 31.0**	**-0.4**
PV20	**West Nyswonger**	**90.96**	**325**	P	P	**P**	**22 29 30.2**	**-1.2**
PV20					IAmb	IAmb	22 29 35.9	
	comp=Z,8.8nm,1.0s							
PV10	**Paradox Valley**	**90.97**	**325**	P	P	**P**	**22 29 32.4**	**+0.9**
PV16	**Nyswonger Mesa**	**90.97**	**325**	P	P	**P**	**22 29 31.1**	**-0.3**
PV02	**Paradox Valley**	**90.97**	**325**	P	P	**P**	**22 29 30.9**	**-0.5**
PV03	**Paradox Valley**	**90.98**	**325**	P	P	**P**	**22 29 30.9**	**-0.5**
PV17	**East Wray Mesa**	**91.01**	**325**	P	P	**P**	**22 29 31.3**	**-0.3**
PV18	**Skein Mesa, Pa**	**91.02**	**325**	P	P	**P**	**22 29 31.6**	**0.0**
PV13	**Radium Mtn., P**	**91.05**	**325**	P	P	**P**	**22 29 31.1**	**-0.7**
PV13					IAmb	IAmb	22 29 36.2	
	comp=Z,8.2nm,1.0s							
BRDY	**Brady**	**91.59**	**314**		IAmb	IAmb	22 29 38.7	
	comp=Z,7.5nm,1.0s							
TPB01	**Permian Basin**	**94.43**	**317**		IAmb	IAmb	22 29 51.4	
	comp=Z,8.3nm,1.0s							
ALPN	**Alpine**	**94.81**	**317**	P	P	**P**	**22 29 47.8**	**-1.3**
ALPN					IAmb	IAmb	22 29 53.2	
	comp=Z,6.0nm,0.9s							
TX31	**Lajitas Ar. Si**	**95.64**	**316**	P	P	**P**	**22 29 51.8**	**-1.1**
TX31					IAmb	IAmb	22 29 57.2	
	comp=Z,2.7nm,0.9s							
TXAR	**Lajitas Array**	**95.64**	**316**	P	P	**P**	**22 29 52.9**	**0.0**
	comp=Z,2.2nm,0.9s,baz=63,slow=3.1,SNR=7.4							
	comp=Z,2.2nm,0.9s							
TXAR	**Lajitas Array**	**95.64**	**316**	P	P	**P**	**22 29 52.4**	**-0.5**
CCCA	**Chr Cany lake**	**96.88**	**329**	P	P	**P**	**22 29 59.0**	**+0.7**

*GII **05** 22:19:35.2±0.0,37°.843N±0°.003×26°.895E±0°.001,h0km, Mws4.0, confirmed*
*IDC **05** 22:19:38.4±1.0,37°.80N×26°.86E,h0km,mb3.9/5, mbtmp3.8/10,ML3.0/3,Error ellipse: s-maj=16.4km*

s-min=11.7km az=151.0
*ATH **05** 22:19:39.6,37°.84N×26°.89E,h15km,ML3.6/20,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*AFAD **05** 22:19:39.9,37°.87N×26°.91E,h9km±1km,ML3.7*
*ISK **05** 22:19:39.4,37°.85N×26°.88E,h11km,ML3.9/23*
*THE **05** 22:19:40.1,37°.9N±0°.8×2°.7E±°,h6km±1km,M3.6/23, ML3.6/23*

ISC 05 22:19:39.1±0.8,37°.83N±0°.01×26°.89E±0°.02,h16km±6km, n118,σ1$37/177,mb3.5/4,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.13**	**197**	P	**Pb**	**22 19 43.5**	**+0.4**
SMG				S	**Sb**	**22 19 46.1**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.13**	**197**	P	**Pb**	**22 19 43.5**	**+0.4**
SMG				S	**Sb**	**22 19 46.3**	**+0.5**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.14**	**256**	P	**Pb**	**22 19 43.6**	**+0.2**
KRL1				S	**Sb**	**22 19 46.7**	**+0.4**
KRL1				AML	AML		
DGB	**zmir**	**0.22**	**360**	P	**Pg**	**22 19 44.1**	**-0.1**
DGB				S	**Sg**	**22 19 47.2**	**-0.4**
SAM2	**Drakei, Karlov**	**0.23**	**252**	P	**Pb**	**22 19 44.9**	**0.0**
SAM2				S	**Sb**	**22 19 48.7**	**0.0**
SAM2				AML	AML		
GMLD	**Gumuldur**	**0.25**	**6**	Pg	**Pg**	**22 19 44.7**	**+0.1**
GMLD				Sg	**Sg**	**22 19 48.4**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**115**	P	**Pb**	**22 19 46.2**	**0.0**
GCAM				S	**Sb**	**22 19 50.9**	**-0.1**
GCAM				IAML		22 19 51.0	
	comp=E,1μm,0.5s						
GCAM				IAML		22 19 52.0	
	comp=N,8μm,0.2s						
GCAM	**G?zelcaml?**	**0.30**	**115**	Pg	**Pb**	**22 19 46.3**	**+0.1**
GCAM				Sg	**Sb**	**22 19 51.4**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.32**	**84**	Pg	**Pb**	**22 19 46.5**	**+0.1**
KUSD				Sg	**Sb**	**22 19 51.3**	**-0.1**
BEYE	**izmir**	**0.40**	**5**	P	**Pg**	**22 19 47.4**	**+0.1**
BEYE				S	**Sg**	**22 19 52.7**	**0.0**
DDIM	**Aydin, Didim**	**0.47**	**143**	P	**Pb**	**22 19 49.6**	**+0.7**
DDIM				S	**Sb**	**22 19 57.1**	**+1.5**
DDIM				IAML		22 19 59.0	
	comp=N,6μm,0.6s						
DDIM				IAML		22 20 01.0	
	comp=E,6μm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**324**	P	**Pb**	**22 19 49.5**	**-0.1**
ZEYE				S	**Sb**	**22 19 56.9**	**+0.1**
ZEYE				IAML		22 19 57.0	
	comp=N,1μm,0.6s						
ZEYE				IAML		22 20 02.0	
	comp=E,4μm,0.2s						
DIDI	**Didim-Aydin**	**0.53**	**148**	Pg	**Pb**	**22 19 50.6**	**+0.5**
DIDI				AML	AML		
BLCB	**Balcova**	**0.57**	**13**	P	**Pg**	**22 19 50.4**	**+0.1**
BLCB				S	**Sg**	**22 19 57.6**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**13**	Pg	**Pb**	**22 19 50.6**	**-0.1**
BLCB				Sg	**Sg**	**22 19 58.5**	**+0.5**
DUVT	**Torbali**	**0.59**	**49**	P	**Pg**	**22 19 50.9**	**+0.1**
DUVT				S	**Sg**	**22 19 57.9**	**-0.8**
DUVT				IAML		22 19 59.0	
	comp=E,3μm,0.2s						
CESE	**eme**	**0.68**	**317**	Pg	**Pb**	**22 19 52.8**	**+0.2**
CESE				Sg	**Sn**	**22 20 02.9**	**-1.5**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.77**	**156**	Pg	**Pn**	**22 19 54.9**	**-0.4**
YKAV				Sg	**Sn**	**22 20 06.6**	**+0.1**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.81**	**81**	Pg	**Pb**	**22 19 55.4**	**+0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.81**	**102**	P	**Pb**	**22 19 55.2**	**+0.4**
AYDN				S	**Sn**	**22 20 07.3**	**-0.2**
AYDN				IAML		22 20 10.0	
	comp=N,2μm,0.7s						
KRBN	**Karaburun**	**0.81**	**341**	Pg	**Pb**	**22 19 55.1**	**+0.4**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**358**	P	**Pb**	**22 19 55.3**	**+0.2**
BAGT				S	**Sn**	**22 20 07.3**	**-0.6**
BAGT				IAML		22 20 10.0	
	comp=E,6μm,0.8s						
BAGT				IAML		22 20 11.0	
	comp=N,5μm,0.8s						
BODT	**Bodrum**	**0.84**	**156**	P	**Pn**	**22 19 55.9**	**-0.3**
BODT				S	**Sn**	**22 20 08.6**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**156**	Pg	**Pn**	**22 19 55.9**	**-0.3**
BODT				AML	AML		
CHOS	**Chios island**	**0.86**	**311**	P	**Pn**	**22 19 56.4**	**-0.3**
CHOS				S	**Sn**	**22 20 08.4**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**311**	Pg	**Pn**	**22 19 56.3**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**311**	P	**Pn**	**22 19 56.1**	**-0.5**
CHOS				S	**Sn**	**22 20 08.4**	**-0.5**
KLNA	**Kalymnos**	**0.87**	**175**	P	**Pn**	**22 19 57.0**	**+0.3**
KLNA				S	**Sn**	**22 20 10.0**	**+1.0**
BDRM	**Kayabasi**	**0.88**	**150**	P	**Pn**	**22 19 57.3**	**+0.4**
BDRM				S	**Sn**	**22 20 09.2**	**-0.2**
BDRM				IAML		22 20 12.0	
	comp=E,3μm,0.5s						
BDRM				IAML		22 20 14.0	
	comp=N,4μm,0.6s						
MLSB	**Milas**	**0.89**	**127**	Pg	**Pn**	**22 19 56.9**	**0.0**
MLSB				AML	AML		
FOCM	**Foa**	**0.89**	**352**	Pg	**Pb**	**22 19 56.1**	**-0.1**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.90**	**70**	P	**Pg**	**22 19 56.8**	**+0.3**
IZMR				S	**Sb**	**22 20 07.3**	**-0.7**
BODA	**Bodrum-Mula**	**0.90**	**151**	Pg	**Pn**	**22 19 57.5**	**+0.4**
KARB	**zmir-Karabur**	**0.91**	**336**	P	**Pg**	**22 19 56.5**	**-0.3**
KARB				S	**Sg**	**22 20 09.1**	**+0.3**
KARB				IAML		22 20 12.0	
	comp=N,3μm,0.5s						
KARB				IAML		22 20 13.0	
	comp=E,5μm,0.9s						
EAG2	**Marmaro, Chios**	**0.94**	**320**	P	**Pn**	**22 19 57.2**	**-0.4**
EAG2				S	**Sn**	**22 20 10.4**	**-0.4**
CAMT	**Merkez**	**0.98**	**20**	P	**Pb**	**22 19 57.8**	**+0.1**
CAMT				S	**Sn**	**22 20 13.0**	**+1.3**
CAMT				IAML		22 20 14.0	
	comp=N,5μm,1.5s						
CAMT				IAML		22 20 19.0	
	comp=E,3μm,0.5s						
NAZL	**Nazilli-Aydin**	**1.12**	**83**	Pn	**Pg**	**22 20 01.4**	**+0.6**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.15**	**8**	P	**Pn**	**22 20 00.2**	**-0.3**
ZEDA				S	**Sg**	**22 20 17.1**	**+0.9**
ZEDA				IAML		22 20 18.0	
	comp=N,1μm,1.0s						
ZEDA				IAML		22 20 19.0	
	comp=E,2μm,0.6s						
ESEN	**Aydn-Nazilli**	**1.16**	**91**	P	**Pn**	**22 20 00.8**	**+0.1**
ESEN				S	**Sg**	**22 20 17.7**	**+1.1**
ESEN				IAML		22 20 21.0	
	comp=E,285nm,0.3s						
GOMA	**Golmarmara-Man**	**1.20**	**43**	Pn	**Pg**	**22 20 02.4**	**+0.2**
GOMA				AML	AML		
DAT	**Datca**	**1.23**	**153**	P	**Pg**	**22 20 03.3**	**+0.5**
DAT				AML	AML		
DAT	**Datca**	**1.23**	**153**	Pn	**Pg**	**22 20 03.1**	**+0.3**
DAT				AML	AML		
DKL	**Dikili**	**1.24**	**1**	Pn	**Pg**	**22 20 02.8**	**-0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**1**	P	**Pg**	**22 20 02.7**	**-0.3**
DKL				S	**Sb**	**22 20 18.0**	**+0.1**
KIRA	**zmir-Kiraz**	**1.25**	**73**	P	**Pb**	**22 20 02.8**	**+0.4**
KIRA				S	**Sg**	**22 20 19.8**	**+0.2**
KIRA				IAML		22 20 26.0	
	comp=N,543nm,0.6s						
AKHS	**Akhisar**	**1.28**	**35**	P	**Pb**	**22 20 03.0**	**+0.2**
AKHS				S	**Sn**	**22 20 19.9**	**+0.8**
AKHS				IAML		22 20 23.0	
	comp=N,2μm,0.6s						
AKS	**Akhisar**	**1.28**	**35**	Pn	**Pb**	**22 20 03.2**	**+0.4**
AKS				AML	AML		
KTTT	**Salihli**	**1.28**	**48**	P	**Pb**	**22 20 03.0**	**+0.2**
KTTT				S	**Sb**	**22 20 18.1**	**-1.0**
KTTT				IAML		22 20 24.0	
	comp=N,1μm,0.5s						
YER	**Yerkesik**	**1.31**	**122**	P	**Pg**	**22 20 04.4**	**0.0**
YER				S	**Sg**	**22 20 21.7**	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.31**	**122**	Pn	**Pg**	**22 20 04.4**	**0.0**
YER				AML	AML		
APE	**Apeiranthos**	**1.32**	**235**	P	**Pg**	**22 20 03.6**	**-0.8**
APE				S	**Sg**	**22 20 23.7**	**+2.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.32**	**235**	Pn	**Pg**	**22 20 03.7**	**-0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.32**	**235**	P	**Pg**	**22 20 03.6**	**-0.8**
APE				S	**Sg**	**22 20 21.4**	**-0.3**
APE				AML	AML		
TNSA	**Tinos**	**1.40**	**259**	P	**Pb**	**22 20 04.5**	**-0.3**
TNSA				AML	AML		
NAX1	**Naxos Island**	**1.40**	**239**	P	**Pg**	**22 20 07.6**	**+1.5**
NAX1				AML	AML		
SOMA	**Soma-Manisa**	**1.42**	**21**	Pn	**Pb**	**22 20 05.7**	**+0.5**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**43**	Pn	**Pb**	**22 20 06.6**	**+0.3**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.48**	**354**	P	**Pg**	**22 20 07.0**	**-0.7**
AYVA				S	**Sg**	**22 20 28.4**	**+1.4**
AYVA				IAML		22 20 30.0	
	comp=E,1μm,0.7s						
AYVA				IAML		22 20 32.0	
	comp=N,1μm,0.7s						
PRK	**Paraskevi**	**1.49**	**341**	P	**Pb**	**22 20 06.5**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.49**	**341**	P	**Pb**	**22 20 06.7**	**+0.3**
PRK				S	**Sn**	**22 20 24.8**	**+0.4**
TURN	**Turunc**	**1.51**	**134**	Pn	**Pb**	**22 20 06.6**	**-0.1**
TURN				AML	AML		
BUHA	**Balikesir, Bur**	**1.68**	**5**	P	**Pn**	**22 20 08.3**	**+0.5**
BUHA				S	**Sb**	**22 20 31.9**	**+1.4**
BUHA				IAML		22 20 37.0	
	comp=E,2μm,0.8s						
BUHA				IAML		22 20 37.0	
	comp=N,2μm,0.5s						
STEP	**BALIKESIR_Sava**	**1.68**	**23**	P	**Pb**	**22 20 09.8**	**+0.2**
STEP				S	**Sg**	**22 20 32.8**	**-0.3**
STEP				IAML		22 20 46.0	
	comp=N,1μm,0.8s						
STEP				IAML		22 20 47.0	
	comp=E,1μm,0.8s						
KOCA	**Canakkale, Ayv**	**1.77**	**341**	P	**Pn**	**22 20 09.4**	**+0.3**
KOCA				S	**Sg**	**22 20 37.3**	**+1.2**
YAYO	**Edremit-Balk**	**1.79**	**5**	Pn	**Pb**	**22 20 10.7**	**-0.7**
YAYO				AML	AML		
THR8	**Santorini-Mono**	**1.81**	**219**	P	**Pg**	**22 20 12.3**	**-1.5**
THERA	**Ancient Thera,**	**1.84**	**218**	P	**Pb**	**22 20 12.2**	**-0.2**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**218**	P	**Pb**	**22 20 12.3**	**-0.2**
THERA				AML	AML		
THT1	**Athinios (Pele**	**1.85**	**219**	P	**Pg**	**22 20 14.4**	**-0.2**
THT1				AML	AML		
THR5	**Thira Island,**	**1.87**	**222**	P	**Pg**	**22 20 13.6**	**-1.4**
ARG	**Arkhangelos**	**1.89**	**148**	P	**Pb**	**22 20 13.0**	**-0.2**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.89**	**148**	P	**Pb**	**22 20 12.5**	**-0.7**
ARG				AML	AML		
KARY	**Karystos**	**1.95**	**277**	P	**Pn**	**22 20 11.8**	**+0.4**
EZNE	**Ezine-Canakkal**	**1.97**	**348**	Pn	**Pb**	**22 20 13.5**	**-1.0**
BALB	**Balikesir**	**1.97**	**23**	Pn	**Pb**	**22 20 13.5**	**-1.0**
BALB				AML	AML		
BALB	**Balikesir**	**1.97**	**23**	P	**Pb**	**22 20 13.8**	**-0.7**
BALB				AML	AML		
EZN	**Ezine**	**2.04**	**348**	P	**Pb**	**22 20 14.3**	**-1.5**
EZN				AML	AML		
KARP	**Karpathos**	**2.29**	**174**	P	**Pb**	**22 20 18.3**	**-1.7**
KARP				AML	AML		
KARP	**Karpathos**	**2.29**	**174**	P	**Pn**	**22 20 16.9**	**+0.7**
KARP				AML	AML		
KYMI	**Kymi, Euboea I**	**2.33**	**291**	P	**Pn**	**22 20 17.6**	**+0.8**
DION	**Dionisos Attik**	**2.35**	**277**	P	**Pb**	**22 20 18.6**	**-2.4**
DION				AML	AML		
DION	**Dionisos Attik**	**2.35**	**277**	P	**Pn**	**22 20 18.2**	**+1.2**
DION				AML	AML		
PTL	**Penteli**	**2.40**	**276**	P	**Pb**	**22 20 19.4**	**-2.5**
PTL				AML	AML		
PTL	**Penteli**	**2.40**	**276**	P	**Pn**	**22 20 18.9**	**+1.2**
VLY	**Voula,Athens**	**2.45**	**271**	P	**Pb**	**22 20 20.1**	**-2.6**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.45**	**271**	P	**Pn**	**22 20 19.4**	**+1.0**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.46**	**274**	P	**Pn**	**22 20 20.0**	**+1.5**
ATHU				AML	AML		
ATHU	**Athens Univers**	**2.46**	**274**	P	**Pn**	**22 20 19.6**	**+1.1**
LIA	**Limnos Island**	**2.46**	**328**	P	**Pn**	**22 20 19.7**	**+1.2**
LIA				AML	AML		
LIA	**Limnos Island**	**2.46**	**328**	P	**Pn**	**22 20 19.0**	**+0.5**
LIA				AML	AML		
GADA	**Gvkgeada**	**2.48**	**342**	P	**Pn**	**22 20 19.5**	**+0.7**
GADA				AML	AML		
ATH	**Athens Observa**	**2.51**	**274**	P	**Pn**	**22 20 20.8**	**+1.6**
ATH				AML	AML		
ATH	**Athens Observa**	**2.51**	**274**	P	**Pn**	**22 20 20.5**	**+1.3**
ATH				AML	AML		
NPS	**Neapolis**	**2.76**	**202**	P	**Pn**	**22 20 23.8**	**+1.1**
NPS				AML	AML		
MET6	**Megalochori,Me**	**2.81**	**266**	P	**Pn**	**22 20 24.0**	**+0.6**
SMTH	**Samothraki Isl**	**2.84**	**339**	P	**Pn**	**22 20 24.8**	**+1.0**
SMTH				AML	AML		
IDI	**Anoyia**	**3.00**	**213**	Pn	**Pn**	**22 20 27.6**	**+1.6**
	20nm,0.9s,baz=50,slow=13,SNR=6.2						
IDI		

0.6nm,0.6s,baz=267,slow=9.1,SNR=4.0
0.6nm,0.6s

ZALV Zalesovo Beam 42.17 48 P **P** **22 27 31.2 +0.5**
0.7nm,0.6s,baz=268,slow=9.8,SNR=2.2
0.7nm,0.6s

DBIC Dimbokro 42.32 231 P **P** **22 27 34.0 +1.7**
5.8nm,0.8s,baz=45,slow=7.1,SNR=3.5
5.8nm,0.8s

AUST 05 22:23:01.1±0.2, 36°S±1°×14°4E±°, h10km, ML3.1/24, Error ellipse: s-maj=3.0km s-min=2.6km az=45.4, confirmed, Victoria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRAT	**Ballarat**	**1.29**	**172**	P	Pn	22 23 23.3	-1.9
BRAT				S	Sb	22 23 39.4	-2.7
BRAT				AML	AML		
BRAT	**Ballarat**	**1.29**	**172**	P	Pn	22 23 23.4	-1.8
BRAT				S	Sb	22 23 38.7	-3.4
BRAT				AML	AML		
AUMTC	**Mt Clear Colle**	**1.35**	**174**	P	Pn	22 23 24.4	-1.5
AUMTC				S	Sb	22 23 42.7	-1.0
AUMTC				AML	AML		
AUMTC	**Mt Clear Colle**	**1.35**	**174**	P	Pn	22 23 24.6	-1.3
AUMTC				S	Sb	22 23 40.1	-3.6
AUMTC				AML	AML		
ARPS	**Mount Arapiles**	**1.59**	**251**	P	Pn	22 23 28.8	-0.5
ARPS				S	Sn	22 23 50.0	+0.2
ARPS				AML	AML		
ARPS	**Mount Arapiles**	**1.59**	**251**	P	Pn	22 23 28.7	-0.6
ARPS				S	Sn	22 23 49.3	-0.5
ARPS				AML	AML		
GVL	**Greenvale**	**1.65**	**145**	P	Pn	22 23 30.2	0.0
GVL				S	Sn	22 23 50.5	-1.0
GVL				AML	AML		
GVL	**Greenvale**	**1.65**	**145**	P	Pn	22 23 29.9	-0.3
GVL				S	Sn	22 23 50.5	-1.0
GVL				AML	AML		
MLBS	**Spotswood, Mel**	**1.83**	**149**	P	Pn	22 23 32.0	-0.5
MLBS				AML	AML		
TOO	**Toolangi**	**1.93**	**133**	P	Pn	22 23 34.0	-0.1
TOO				S	Sb	22 24 00.4	-0.3
TOO				AML	AML		
TOO	**Toolangi**	**1.93**	**133**	P	Pn	22 23 33.8	-0.2
TOO				S	Sb	22 23 59.6	-1.0
TOO				AML	AML		
GEXS	**Deakin Univers**	**1.98**	**167**	P	Pn	22 23 35.6	+0.9
GEXS				S	Sb	22 24 01.6	-0.5
GEXS				AML	AML		
GEXS	**Deakin Univers**	**1.98**	**167**	P	Pn	22 23 35.7	+1.0
GEXS				S	Sb	22 24 01.4	-0.7
GEXS				AML	AML		
AUHPC	**Hawkesdale P12**	**2.15**	**211**	P	Pb	22 23 39.6	-0.4
AUHPC				S	Sb	22 24 05.8	-0.9
AUHPC				AML	AML		
MGBR	**Mount Gambier**	**2.90**	**239**	P	Pn	22 23 46.9	-0.4
MGBR				AML	AML		
MGBR	**Mount Gambier**	**2.90**	**239**	P	Pn	22 23 46.8	-0.5
MGBR				AML	AML		
SDAN	**Sedan**	**3.98**	**295**	P	Pn	22 24 02.3	+0.2
SDAN				S	Sn	22 24 47.9	-0.9
SDAN				AML	AML		
SDAN	**Sedan**	**3.98**	**295**	P	Pn	22 24 02.0	-0.1
SDAN				S	Sn	22 24 46.4	-2.4
SDAN				AML	AML		
GHSS	**Government Hou**	**4.37**	**286**	P	Pn	22 23 51.5	-16
CAN	**Canberra**	**4.41**	**79**	P	Pn	22 24 08.1	0.0
CAN				AML	AML		
MILA	**Mila**	**4.45**	**102**	P	Pn	22 24 09.8	+1.1
MILA				S	Sn	22 25 00.3	-0.2
MILA				AML	AML		
MILA	**Mila**	**4.45**	**102**	P	Pn	22 24 09.1	+0.4
MILA				AML	AML		
CNB	**Canberra Magne**	**4.70**	**80**	P	Pn	22 24 12.3	+0.3
CNB				S	Sn	22 25 08.0	+1.3
CNB				AML	AML		
CNB	**Canberra Magne**	**4.70**	**80**	P	Pn	22 24 12.2	+0.1
CNB				S	Sn	22 25 07.6	+1.0
CNB				AML	AML		
STKA	**Stephens Creek**	**4.72**	**338**	P	Pn	22 24 13.5	+1.2
STKA				S	Sn	22 25 06.9	-0.1
STKA				AML	AML		
STKA	**Stephens Creek**	**4.72**	**338**	P	Pn	22 24 12.9	+0.7
STKA				S	Sn	22 25 05.2	-1.8
STKA				AML	AML		
HTT	**Hallett**	**4.85**	**304**	P	Pn	22 24 14.7	+0.6
HTT				S	Sn	22 25 09.6	-0.7
HTT				AML	AML		
HTT	**Hallett**	**4.85**	**304**	P	Pn	22 24 14.3	+0.2
HTT				S	Sn	22 25 09.2	-1.1
HTT				AML	AML		
CMSA	**Cobar Meteorol**	**5.00**	**20**	S	Sn	22 25 14.4	+0.4
CMSA	**Cobar Meteorol**	**5.00**	**20**	P	Pn	22 24 17.0	+0.8
	comp=Z,8.6nm,1.2s,comp=Z,0.1nm						
CMSA				AML	AML		
CMSA	**Cobar Meteorol**	**5.00**	**20**	P	Pn	22 24 16.7	+0.5
	comp=Z,8.6nm,1.2s,comp=Z,0.1nm						
CMSA				S	Sn	22 25 12.3	-1.7
CMSA				AML	AML		
AUBRN	**Burnie High Sc**	**5.06**	**161**	P	Pn	22 24 17.2	+0.3
	comp=Z,47nm,1.9s,comp=Z,0.2nm						
AUBRN				AML	AML		
KELC	**Kelly Hill Cav**	**5.51**	**271**	P	Pn	22 24 23.1	0.0
	comp=Z,19nm,1.3s,comp=Z,0.0nm						
KELC				AML	AML		
KELC	**Kelly Hill Cav**	**5.51**	**271**	P	Pn	22 24 22.5	-0.7
	comp=Z,19nm,1.3s,comp=Z,0.0nm						
KELC				AML	AML		
NAPP	**Napperby**	**5.51**	**302**	P	Pn	22 24 23.9	+0.7
	comp=Z,8.4nm,0.9s,comp=Z,0.0nm						
NAPP				AML	AML		
NAPP	**Napperby**	**5.51**	**302**	P	Pn	22 24 24.1	+0.8
	comp=Z,8.4nm,0.9s,comp=Z,0.0nm						
NAPP				AML	AML		
YAPP	**Yappala Statio**	**6.27**	**313**	P	Pn	22 24 34.6	+1.0
	comp=Z,3.0nm,1.5s,comp=Z,0.0nm						
YAPP				AML	AML		
YAPP	**Yappala Statio**	**6.27**	**313**	P	Pn	22 24 33.7	0.0
	comp=Z,2.9nm,1.5s,comp=Z,0.0nm						
YAPP				AML	AML		
BBOO	**Buckleboo**	**7.19**	**296**	P	Pn	22 24 45.7	-0.6
	comp=Z,21nm,2.5s,comp=Z,0.1nm						
BBOO				AML	AML		
BBOO	**Buckleboo**	**7.19**	**296**	P	Pn	22 24 45.6	-0.6
	comp=Z,21nm,2.5s,comp=Z,0.1nm						
BBOO				AML	AML		
LCRK	**Leigh Creek**	**7.40**	**320**	P	Pn	22 24 50.0	+0.8
	comp=Z,7.6nm,2.5s,comp=Z,0.0nm						
LCRK				AML	AML		
LCRK	**Leigh Creek**	**7.40**	**320**	P	Pn	22 24 49.7	+0.6
	comp=Z,7.7nm,2.5s,comp=Z,0.0nm						
LCRK				AML	AML		
OOD	**Oodnadatta**	**10.84**	**319**	P	Pn	22 25 36.2	-0.2
	comp=Z,3.7nm,2.1s,comp=Z,0.0nm						
OOD				AML	AML		
OOD	**Oodnadatta**	**10.84**	**319**	P	Pn	22 25 36.5	+0.2
	comp=Z,3.7nm,2.1s,comp=Z,0.0nm						
OOD				AML	AML		
GC1S	**Gold Coast 1 S**	**11.58**	**49**	P	Pn	22 25 46.0	-0.4
GC1S	**Gold Coast 1 S**	**11.58**	**49**	P	Pn	22 25 46.1	-0.3
KDU	**Kakadu**	**25.57**	**334**	P	P	22 28 27.4	-2.8

*IDC **05** 22:23:59.0±2.0, 0°.88N×126°.42E, h0km, mb3.4/4, mbtmp3.4/4, Error ellipse: s-maj=228.4km s-min=22.8km az=66.0*
*DJA **05** 22:24:07.9±0.3, 1°N±3°×12°7E±°, h43km±9km, M3.4/7, MLv3.4/7*
ISC 05 22:24:06.9±1.1, 1°.0N±0°.1×126°.81E±0°.07, h50km, n8, σ2s62/9, mb3.4/4, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**0.61**	**115**	P	**Pn**	**22 24 21.0**	**+1.4**
TNTI				S	**Sn**	**22 24 32.0**	**+3.3**
TNTI				AML	AML		
MNI	**Manado**	**2.01**	**282**	P	**Pn**	**22 24 40.3**	**+1.8**
MNI				S	**Sn**	**22 25 04.7**	**+2.2**
SANI	**Sanana**	**3.17**	**195**	P	**Pn**	**22 24 55.5**	**+1.2**
SANI				AML	AML		
GTOI	**Gorontalo**	**3.82**	**264**	P	Pn	22 25 07.5	+4.3
WRA	**Warramunga Arr**	**22.11**	**161**	P	**P**	**22 28 54.8**	**-3.5**
	0.5nm,0.5s,baz=338,slow=10,SNR=1.8						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**25.50**	**165**	P	**P**	**22 29 29.7**	**-1.1**
	0.4nm,0.5s,baz=345,slow=11,SNR=6.4						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**59.81**	**326**	P	**P**	**22 34 05.4**	**-1.8**
	0.2nm,0.4s,baz=128,slow=6.9,SNR=5.5						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**64.05**	**328**	P	**P**	**22 34 34.1**	**-1.4**
	0.7nm,0.7s,baz=126,slow=6.0,SNR=6.1						
	0.7nm,0.7s						

*NEIC **05** 22:54:27.0±1.6, 14°.39N±0°.03×92°.86W±0°.05, h19km±7km, mb4.6/4, Md4.3/53(MEX), Error ellipse: s-maj=6.9km s-min=3.6km az=103.0*
*MEX **05** 22:54:29.9±1.4, 14°.45N×92°.91W, h17km±17km, MD4.3, Presumed earthquake*
*CATAC **05** 22:54:29.0±0.6, 14°N±3°×9°.3W±°, h32km±6km, M4.4/17, mb4.5/1, MLv4.4/17, Error ellipse: s-maj=8.3km s-min=4.9km az=41.0, confirmed*
*GCG **05** 22:54:29.8±1.8, 14°.43N×92°.72W, h43km±46km, MD4.5, ML4.5, Presumed earthquake*
ISC 05 22:54:25.6±1.4, 14°.49N±0°.05×92°.84W±0°.03, h8km±10km, n87, σ1s72/126, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THIG		**0.69**	**54**		**Pn**	**22 54 42.1**	**+0.5**
THIG					**Sn**	**22 54 51.9**	**-0.7**
THIG		**0.69**	**54**	*i* P	**Pn**	**22 54 42.2**	**+0.5**
THIG				*i* S	**Sn**	**22 54 51.5**	**-1.1**
THIG				IAML		22 54 54.0	
	comp=E,16μm,0.3s						
THIG		**0.69**	**54**	*eP*	**Pn**	**22 54 42.1**	**+0.5**
THIG				*eS*	**Sn**	**22 54 51.9**	**-0.7**
PATR	**El Naranjo**	**0.85**	**44**		**Pn**	**22 54 44.3**	**+0.2**
PATR	**El Naranjo**	**0.85**	**44**	*eP*	**Pn**	**22 54 44.3**	**+0.2**
PATR				*eS*	**Sn**	**22 54 56.1**	**-0.8**
CHUJ	**Union Juarez**	**0.93**	**50**	*eP*	**Pn**	**22 54 45.1**	**0.0**
CHUJ				*eS*	**Sn**	**22 54 57.8**	**-0.9**
PAVE	**Pavencul**	**0.95**	**43**		**Pn**	**22 54 45.9**	**+0.5**
PAVE	**Pavencul**	**0.95**	**43**	*eP*	**Pn**	**22 54 45.9**	**+0.5**
PAVE				*eS*	**Sn**	**22 54 58.1**	**-1.1**
RTAL	**Retalhuleu**	**1.11**	**88**	P	**Pg**	**22 54 48.0**	**+1.0**
RTAL	**Retalhuleu**	**1.11**	**88**		**Pg**	**22 54 48.1**	**+1.1**
RTAL	**Retalhuleu**	**1.11**	**88**	*i* P	**Pg**	**22 54 48.0**	**+1.0**
RTAL				*i* S	**Sn**	**22 55 03.0**	**0.0**
PCIG		**1.26**	**343**		**Pb**	**22 54 49.1**	**-0.5**
PCIG		**1.26**	**343**	*eP*	**Pb**	**22 54 49.1**	**-0.5**
PCIG				*eS*	**Sg**	**22 55 04.7**	**-1.4**
QUEO	**Labor Ovalle**	**1.34**	**74**	*i* P	**Pg**	**22 54 51.7**	**+0.4**
QUEO				*i* S	**Sn**	**22 55 08.4**	**-0.6**
QUEO				IAML		22 55 10.2	
	comp=E,18μm,0.2s						
STG8	**El Palmar, Qui**	**1.45**	**92**	*i* P	**Pn**	**22 54 49.4**	**-2.9**
STG8				IAML		22 55 07.7	
	comp=N,9μm,0.2s						
HUEH	**Huehuetenango**	**1.53**	**58**	P	**Pg**	**22 54 55.2**	**+0.2**
HUEH				S	**Sg**	**22 55 16.1**	**+1.1**
HUEH	**Huehuetenango**	**1.53**	**58**		**Pg**	**22 54 55.4**	**+0.3**
HUEH	**Huehuetenango**	**1.53**	**58**	*i* P	**Pg**	**22 54 55.5**	**+0.4**
HUEH				*i* S	**Sg**	**22 55 14.8**	**-0.1**
HUEH				IAML		22 55 21.5	
	comp=E,7μm,0.8s						
HUEH	**Huehuetenango**	**1.53**	**58**	*i* P	**Pg**	**22 54 55.2**	**+0.2**
HUEH				*i* S	**Sb**	**22 55 12.4**	**-1.7**
CCIG	**Comitan**	**1.90**	**21**		**Pg**	**22 55 01.5**	**-0.6**
CCIG	**Comitan**	**1.90**	**21**	*i* P	**Pg**	**22 55 01.5**	**-0.6**
CCIG	**Comitan**	**1.90**	**21**	*eP*	**Pg**	**22 55 01.5**	**-0.5**
CCIG				*eS*	**Sg**	**22 55 26.7**	**-0.2**
FG8	**Yepocapa, Chim**	**2.22**	**96**	*i* P	Pn	22 54 58.0	-4.9
FG16	**Alotenango, Sa**	**2.27**	**95**	*i* P	Pn	22 54 58.7	-4.9
TGIG		**2.29**	**353**		**Pb**	**22 55 05.2**	**-1.9**
TGIG					**Sn**	**22 55 31.8**	**-0.3**
TGIG		**2.29**	**353**	*i* P	**Pn**	**22 55 05.1**	**+1.4**
TGIG		**2.29**	**353**	*eP*	**Pb**	**22 55 05.2**	**-1.9**
TGIG				*eS*	**Sn**	**22 55 31.8**	**-0.3**
APG	**El Apazote**	**2.36**	**77**	*i* P	**Pn**	**22 55 06.5**	**+1.7**
PCG5	**San Vicente Pa**	**2.41**	**96**	*i* P	**Pn**	**22 55 02.5**	**-2.9**
FAME	**Alcaldia de Sa**	**2.82**	**103**	P	**Pn**	**22 55 11.3**	**+0.4**
SLOZ	**Alcaldia de Sa**	**3.00**	**99**	P	**Pn**	**22 55 14.5**	**+1.0**
LOAL	**Lomas de Alarc**	**3.01**	**99**	P	**Pn**	**22 55 14.9**	**+1.3**
LOAL				S	**Sn**	**22 55 49.5**	**-0.4**
NUBE	**Las Nubes**	**3.03**	**101**	P	**Pn**	**22 55 14.6**	**+0.7**
NUBE				S	**Sn**	**22 55 48.2**	**-2.3**
NUBE	**Las Nubes**	**3.03**	**101**	*i* P	**Pn**	**22 55 14.4**	**+0.5**
UXUV	**UXUV**	**3.08**	**336**		**Pn**	**22 55 16.5**	**+2.0**
UXUV					**Sn**	**22 55 51.3**	**-0.1**
UXUV	**UXUV**	**3.08**	**336**	*eP*	**Pn**	**22 55 16.5**	**+2.0**
UXUV				*eS*	**Sn**	**22 55 51.3**	**-0.1**
CEVE	**Cerro Verde**	**3.19**	**102**	P	**Pn**	**22 55 17.7**	**+1.4**
CEVE				S	**Sn**	**22 55 54.2**	**-0.5**
UNIC	**Universidad Ca**	**3.23**	**99**	P	**Pn**	**22 55 17.6**	**+0.8**
UNIC				S	**Sn**	**22 55 54.5**	**-1.0**
CMIG	**Matias Romero**	**3.24**	**323**		**Pn**	**22 55 17.3**	**+0.5**
CMIG					**Sn**	**22 55 55.2**	**-0.4**
CMIG	**Matias Romero**	**3.24**	**323**	*eP*	**Pn**	**22 55 17.3**	**+0.5**
CMIG				*eS*	**Sn**	**22 55 55.2**	**-0.4**
MTO3	**Montecristo**	**3.38**	**91**	P	**Pn**	**22 55 19.4**	**+0.6**
MTO3	**Montecristo**	**3.38**	**91**		**Pn**	**22 55 18.7**	**-0.1**
MTO3	**Montecristo**	**3.38**	**91**	*i* P	**Pn**	**22 55 19.4**	**+0.6**
ESQI	**Esquipulas**	**3.39**	**88**		**Pn**	**22 55 18.6**	**-0.3**
HUIG	**Huatulco**	**3.40**	**292**		**Pn**	**22 55 17.8**	**-1.2**
HUIG	**Huatulco**	**3.40**	**292**	*eP*	**Pn**	**22 55 17.8**	**-1.2**
HUIG				*eS*	**Sn**	**22 55 53.1**	**-6.4**
JAYA	**Jayaque - finc**	**3.40**	**104**	P	**Pn**	**22 55 19.4**	**+0.4**
JAYA	**Jayaque - finc**	**3.40**	**104**	*i* P	**Pn**	**22 55 19.5**	**+0.4**
JAYA				*i* S	**Sn**	**22 55 55.0**	**-4.7**
PMON	**Piamonte**	**3.51**	**102**	P	**Pn**	**22 55 21.5**	**+1.0**
PETF	**Flores**	**3.74**	**50**		**Pn**	**22 55 24.5**	**+0.8**
PETF	**Flores**	**3.74**	**50**	*eP*	**Pn**	**22 55 25.4**	**+1.7**
PETF				*eS*	**Sn**	**22 56 07.2**	**-0.7**
NEUV	**Arroyo Zacate**	**4.28**	**319**		**Pn**	**22 55 31.5**	**+0.5**
NEUV					**Sn**	**22 56 19.8**	**-1.4**
NEUV	**Arroyo Zacate**	**4.28**	**319**	*eP*	**Pn**	**22 55 31.5**	**+0.5**
NEUV				*eS*	**Sn**	**22 56 19.8**	**-1.4**
PEIG	**Puerto Escondi**	**4.42**	**290**		**Pn**	**22 55 32.6**	**-0.3**
PEIG	**Puerto Escondi**	**4.42**	**290**	*eP*	**Pn**	**22 55 32.6**	**-0.3**
PEIG				*eS*	Sn	22 56 15.0	-10
PACA	**Pacayal**	**4.50**	**103**	P	**Pn**	**22 55 35.7**	**+1.5**
OXIG	**Oaxaca**	**4.54**	**305**		**Pn**	**22 55 35.8**	**+1.0**
VHO	**Vista Hermosa**	**4.54**	**305**	*eP*	**Pn**	**22 55 35.8**	**+1.1**
VHO				*eS*	**Sn**	**22 56 23.9**	**-4.0**
SCIG	**Sabancuy**	**4.72**	**19**	*eP*	**Pn**	**22 55 36.8**	**-0.3**
SCIG				*eS*	**Sn**	**22 56 25.8**	**-6.3**
LCND	**La Caada**	**4.95**	**103**	P	**Pn**	**22 55 42.0**	**+1.7**
CNCH	**Conchagua**	**5.01**	**103**	P	**Pn**	**22 55 42.0**	**+0.7**
YOIG	**Yosondua**	**5.10**	**298**		**Pn**	**22 55 44.5**	**+1.9**
YOIG					**Sn**	**22 56 42.9**	**+1.1**
YOIG	**Yosondua**	**5.10**	**298**	*eP*	**Pn**	**22 55 44.5**	**+1.9**
YOIG				*eS*	**Sn**	**22 56 42.9**	**+1.1**
TOIG	**Toxpalan**	**5.41**	**312**		**Pn**	**22 55 47.1**	**+0.4**
TOIG	**Toxpalan**	**5.41**	**312**	*eP*	**Pn**	**22 55 47.1**	**+0.4**
TOIG				*eS*	**Sn**	**22 56 45.6**	**-3.6**
PNIG	**Pinotepa**	**5.43**	**291**		**Pn**	**22 55 47.2**	**+0.3**
PNIG	**Pinotepa**	**5.43**	**291**	*eP*	**Pn**	**22 55 47.2**	**+0.3**
PNIG				*eS*	Sn	22 56 42.3	-7.4
TXIG	**Tlaxiaco**	**5.47**	**301**		**Pn**	**22 55 50.4**	**+2.7**
TXIG					**Sn**	**22 56 52.9**	**+1.8**
TXIG	**Tlaxiaco**	**5.47**	**301**	*eP*	**Pn**	**22 55 50.4**	**+2.7**
TXIG				*eS*	**Sn**	**22 56 52.9**	**+1.8**
HLIG	**Huajuapan de L**	**5.81**	**305**		**Pn**	**22 55 55.0**	**+2.7**
HLIG					**Sn**	**22 56 57.2**	**-2.0**
HLIG	**Huajuapan de L**	**5.81**	**305**	*eP*	**Pn**	**22 55 55.0**	**+2.7**
HLIG				*eS*	**Sn**	**22 56 57.2**	**-2.0**
TPIG	**Tehuac#an**	**5.83**	**313**		**Sn**	**22 57 03.0**	**+3.2**
TPIG	**Tehuac#an**	**5.83**	**313**	*eS*	**Sn**	**22 57 03.0**	**+3.2**
FTIG	**Fresnillo de T**	**6.11**	**304**		**Pn**	**22 55 58.8**	**+2.4**
FTIG	**Fresnillo de T**	**6.11**	**304**	*eP*	**Pn**	**22 55 58.8**	**+2.4**
FTIG				*eS*	**Sn**	**22 57 03.5**	**-3.0**
MGIG	**Malinaltepec**	**6.20**	**297**		**Pn**	**22 55 59.1**	**+1.4**
MGIG	**Malinaltepec**	**6.20**	**297**	*eP*	**Pn**	**22 55 59.1**	**+1.4**
MGIG				*eS*	**Sn**	**22 57 05.8**	**-3.0**
CRIG	**Cruz Grande**	**6.46**	**291**		**Pn**	**22 56 01.5**	**+0.5**
CRIG	**Cruz Grande**	**6.46**	**291**	*eP*	**Pn**	**22 56 01.5**	**+0.5**
CRIG				*eS*	Sn	22 57 06.7	-8.1
PPM	**Popocatepetl**	**7.17**	**310**	*eP*	**Pn**	**22 56 11.8**	**+0.7**
PPM				*eS*	**Sn**	**22 57 35.8**	**+2.8**
PPIG	**Popocatepetl**	**7.17**	**310**		**Pn**	**22 56 11.8**	**+0.7**
PPIG					**Sn**	**22 57 35.8**	**+2.7**
BOAB	**BOACO BROADBAN**	**7.27**	**105**	Pn	**Pn**	**22 56 11.7**	**-0.5**
BILN	**Bilwi Airport**	**9.19**	**92**	Pn	**Pn**	**22 56 38.3**	**-0.2**
CAIB	**Caibarien**	**14.96**	**56**	Pn	**Pn**	**22 57 57.9**	**+0.4**
CAIB				IAmb	IAmb	22 58 11.2	
	comp=Z,19nm,1.0s						
129A	**Stewart Farms,**	**19.84**	**337**	P	**P**	**22 58 58.0**	**+1.0**
LRMC	**Laurel Mtn Rad**	**30.56**	**318**	P	**P**	**23 00 43.4**	**+3.5**
PNTR	**Pine Nut**	**33.98**	**321**	P	**P**	**23 01 09.7**	**-0.3**
PNTR				IAmb	IAmb	23 01 21.0	
	comp=Z,9.2nm,0.7s						

*IDC **05** 23:04:35.8±2.6, 54°.18N×159°.73E, h0km, mb3.7/6, mbtmp3.7/7, ML3.4/1, Error ellipse: s-maj=62.5km s-min=30.6km az=71.0*
ISC 05 23:04:41.4±2.3, 54°.2N±0°.2×159°.6E±0°.3, h35km, n7, σ1s02/7, mb3.7/6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KLR	**Kul'dur**	**17.89**	**265**	P	**Pn**	**23 08 47.6**	**+0.4**
	0.1nm,0.3s,baz=55,slow=15,SNR=1.5						
	0.7nm,0.5s						
KLR				AML	AML		
MJAR	**Matsushiro Arr**	**23.00**	**229**	P	**P**	**23 09 42.6**	**-0.3**
	3.0nm,0.6s,baz=18,slow=10.0,SNR=10						
	3.0nm,0.6s						
KURBB	**Kurchatov Arra**	**47.03**	**301**	P	**P**	**23 13 09.7**	**+0.7**
	0.3nm,0.6s,baz=61,slow=7.3,SNR=2.4						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	**47.44**	**294**	P	**P**	**23 13 11.2**	**-1.0**
	0.3nm,0.4s,baz=52,slow=6.9,SNR=6.6						
	0.3nm,0.4s						
BVAR	**Borovoye Array**	**49.51**	**307**	P	**P**	**23 13 27.9**	**-0.1**
	0.6nm,0.6s,baz=54,slow=7.3,SNR=2.1						
	0.6nm,0.6s						
WRA	**Warramunga Arr**	**76.92**	**204**	P	**P**	**23 16 31.1**	**+1.2**
	0.6nm,0.5s,baz=19,slow=6.0,SNR=4.9						
	0.6nm,0.5s						
ASAR	**Alice Springs**	**80.60**	**204**	P	**P**	**23 16 49.1**	**-0.9**
	0.4nm,0.5s,baz=22,slow=5.4,SNR=2.9						
	0.4nm,0.5s						

*ISK **05** 23:09:16.3, 37°.92N×26°.97E, h22km, ML3.4/18*
*AFAD **05** 23:09:16.7, 37°.85N×26°.87E, h7km±1km, ML2.3*
ISC 05 23:09:16.5±1.5, 37°.92N±0°.03×26°.97E±0°.04, h14km±14km, n30, σ0s43/37, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.15**	**333**	P	**Pb**	**23 09 21.1**	**0.0**
DGB				S	**Sb**	**23 09 24.0**	**-0.2**
DGB				IAML		23 09 24.0	
	comp=E,924nm,0.2s						
DGB				IAML		23 09 24.0	
	comp=N,549nm,0.3s						
GMLD	**Gumuldur**	**0.17**	**345**	Pg	**Pb**	**23 09 21.8**	**+0.4**
GMLD				Sg	**Sb**	**23 09 25.3**	**+0.7**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**102**	Pg	**Pb**	**23 09 23.1**	**+0.3**
KUSD				Sg	**Sb**	**23 09 27.6**	**+0.5**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**136**	P	**Pb**	**23 09 23.4**	**-0.2**
GCAM				IAML		23 09 28.0	
	comp=N,321nm,0.2s						
GCAM				S	**Sb**	**23 09 28.4**	**+0.1**
GCAM				IAML		23 09 30.0	
	comp=E,232nm,0.3s						
GCAM	**G?zelcaml?**	**0.30**	**136**	Pg	**Pb**	**23 09 23.3**	**-0.2**
GCAM				Sg	**Sb**	**23 09 28.7**	**+0.4**
BEYE	**izmir**	**0.31**	**353**	P	**Pb**	**23 09 24.4**	**+0.5**
BEYE				S	**Sb**	**23 09 29.9**	**+1.0**
BEYE				IAML		23 09 30.0	
	comp=N,338nm,0.2s						
BEYE				IAML		23 09 30.0	
	comp=E,397nm,0.2s						
BLCB	**Balcova**	**0.47**	**7**	Pg	**Pb**	**23 09 26.7**	**+0.1**
ZEYE	**Izmir, Urla-Ze**	**0.49**	**311**	P	**Pg**	**23 09 26.3**	**0.0**
ZEYE				S	**Sb**	**23 09 33.8**	**-0.1**
ZEYE				IAML		23 09 34.0	
	comp=E,349nm,0.2s						
ZEYE				IAML		23 09 35.0	
	comp=N,466nm,0.3s						
CESE	**eme**	**0.67**	**308**	Pg	**Pb**	**23 09 29.8**	**-0.2**
AYDB	**Zeytinkoy-Aydi**	**0.73**	**87**	Pg	**Pb**	**23 09 31.0**	**0.0**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.75**	**334**	Pg	**Pb**	**23 09 31.5**	**+0.1**
KRBN				AML	AML		
FOCM	**Foa**	**0.82**	**347**	Pg	**Pb**	**23 09 32.9**	**+0.4**
YKAV	**Yalikavak-Bodr**	**0.83**	**163**	Pg	**Pn**	**23 09 33.2**	**-0.4**
CHOS	**Chios island**	**0.86**	**303**	Pg	**Pb**	**23 09 33.4**	**+0.1**
CHOS				AML	AML		
MLSB	**Milas**	**0.89**	**134**	Pg	**Pb**	**23 09 34.1**	**+0.4**
MLSB				AML	AML		
BODT	**Bodrum**	**0.89**	**162**	Pg	**Pn**	**23 09 34.2**	**-0.4**
BODT				AML	AML		
BODA	**Bodrum-Mula**	**0.95**	**157**	Pg	**Pg**	**23 09 34.8**	**-0.1**
NAZL	**Nazilli-Aydin**	**1.04**	**87**	Pg	**Pb**	**23 09 36.6**	**+0.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1

ZEYE				S		**Sb**	**23 09 52.1**	**-0.4**
BEYE	**izmir**	**0.37**	**33**	P		**Pg**	**23 09 46.8**	**-0.2**
BEYE				S		**Sg**	**23 09 52.1**	**-0.2**
BEYE				IAML			23 09 53.0	
	comp=E,4μm,0.4s							
BEYE				IAML			23 09 53.0	
	comp=N,3μm,0.4s							
KUSD	**Kusadasi-Aydin**	**0.49**	**96**	Pg		**Pg**	**23 09 49.3**	**+0.1**
KUSD				Sg		**Sb**	**23 09 56.4**	**-0.3**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.50**	**115**	P		**Pg**	**23 09 49.2**	**-0.1**
GCAM				S		**Sg**	**23 09 56.3**	**+0.3**
GCAM				IAML			23 09 59.0	
	comp=E,1μm,0.6s							
GCAM				IAML			23 10 00.0	
	comp=N,1μm,0.3s							
GCAM	**G?zelcaml?**	**0.50**	**115**	Pg		**Pg**	**23 09 49.2**	**-0.1**
GCAM				Sg		**Sb**	**23 09 56.9**	**+0.2**
GCAM				AML		AML		
BLCB	**Balcova**	**0.55**	**32**	P		**Pg**	**23 09 50.1**	**-0.2**
BLCB				S		**Sg**	**23 09 58.0**	**+0.2**
BLCB				AML		AML		
BLCB	**Balcova**	**0.55**	**32**	Pg		**Pg**	**23 09 50.3**	**0.0**
BLCB				Sg		**Sb**	**23 09 58.5**	**+0.1**
CHOS	**Chios island**	**0.68**	**314**	P		**Pg**	**23 09 52.6**	**0.0**
CHOS				S		**Sb**	**23 10 02.8**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.68**	**314**	Pg		**Pg**	**23 09 52.4**	**-0.2**
CHOS				Sg		**Sb**	**23 10 02.7**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.68**	**314**	P		**Pg**	**23 09 52.6**	**0.0**
CHOS				S		**Sg**	**23 10 01.7**	**+0.1**
CHOS				AML		AML		
KRBN	**Karaburun**	**0.68**	**352**	Pg		**Pg**	**23 09 52.7**	**-0.1**
KRBN				AML		AML		
DUVT	**Torbali**	**0.69**	**64**	P		**Pg**	**23 09 52.8**	**0.0**
DUVT				S		**Sg**	**23 10 01.3**	**-0.7**
DUVT				IAML			23 10 02.0	
	comp=E,2μm,0.3s							
EAG2	**Marmaro, Chios**	**0.77**	**325**	P		**Pb**	**23 09 54.4**	**+0.1**
EAG2				S		**Sb**	**23 10 05.2**	**+0.7**
KARB	**zmir-Karabur**	**0.77**	**345**	P		**Pg**	**23 09 53.5**	**-1.0**
KARB				S		**Sb**	**23 10 04.9**	**+0.1**
KARB				IAML			23 10 07.0	
	comp=E,1μm,0.5s							
KARB				IAML			23 10 08.0	
	comp=N,700nm,0.7s							
FOCM	**Foa**	**0.80**	**4**	Pg		**Pg**	**23 09 54.7**	**-0.2**
YKAV	**Yalikavak-Bodr**	**0.93**	**148**	Pg		**Pg**	**23 09 57.2**	**-0.1**
YKAV				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.97**	**88**	Pg		**Pn**	**23 09 58.6**	**+0.2**
AYDB				AML		AML		
BODT	**Bodrum**	**0.99**	**149**	P		**Pn**	**23 09 59.4**	**+0.7**
BODT				S		**Sn**	**23 10 12.6**	**+0.2**
BODT				AML		AML		
BODT	**Bodrum**	**0.99**	**149**	Pg		**Pn**	**23 09 59.4**	**+0.7**
BODT				AML		AML		
IZMR	**zmir-demi**	**1.04**	**77**	P		**Pb**	**23 09 58.8**	**-0.2**
IZMR				S		**Sb**	**23 10 11.4**	**-1.0**
IZMR				IAML			23 10 14.0	
	comp=E,399nm,0.5s							
IZMR				IAML			23 10 15.0	
	comp=N,498nm,0.4s							
BODA	**Bodrum-Mula**	**1.07**	**145**	Pg		**Pn**	**23 10 00.3**	**+0.6**
MLSB	**Milas**	**1.08**	**125**	Pg		**Pb**	**23 09 59.9**	**+0.3**
MLSB				AML		AML		
DKL	**Dikili**	**1.17**	**9**	Pn		**Pg**	**23 10 02.4**	**+0.5**
DKL				AML		AML		
DKL	**Dikili**	**1.17**	**9**	P		**Pn**	**23 10 01.5**	**+0.4**
DKL				S		**Sn**	**23 10 17.6**	**+0.9**
APE	**Apeiranthos**	**1.24**	**227**	P		**Pn**	**23 10 01.1**	**-1.0**
APE				AML		AML		
APE	**Apeiranthos**	**1.24**	**227**	Pn		**Pg**	**23 10 03.2**	**0.0**
APE				AML		AML		
APE	**Apeiranthos**	**1.24**	**227**	P		**Pn**	**23 10 00.9**	**-1.2**
APE				AML		AML		
GOMA	**Golmarmara-Man**	**1.26**	**51**	Pn		**Pg**	**23 10 04.0**	**+0.3**
GOMA				AML		AML		
NAZL	**Nazilli-Aydin**	**1.28**	**87**	Pn		**Pg**	**23 10 04.1**	**0.0**
NAZL				AML		AML		
AKS	**Akhisar**	**1.32**	**43**	Pn		**Pg**	**23 10 04.4**	**-0.4**
PRK	**Paraskevi**	**1.36**	**347**	P		**Pb**	**23 10 04.7**	**+0.2**
PRK				S		**Sb**	**23 10 22.6**	**+0.8**
PRK	**Paraskevi**	**1.36**	**347**	P		**Pg**	**23 10 05.5**	**-0.2**
DAT	**Datca**	**1.39**	**148**	Pn		**Pg**	**23 10 05.7**	**-0.4**
SOMA	**Soma-Manisa**	**1.41**	**28**	Pn		**Pg**	**23 10 06.1**	**-0.5**
SOMA				AML		AML		
YER	**Yerkesik**	**1.50**	**121**	Pn		**Pg**	**23 10 07.7**	**-0.6**
GORD	**Gordes-Manisa**	**1.55**	**50**	Pn		**Pb**	**23 10 07.7**	**0.0**
GORD				AML		AML		
BUHA	**Balikesir, Bur**	**1.61**	**11**	P		**Pn**	**23 10 05.5**	**-1.8**
BUHA				S		**Sg**	**23 10 31.0**	**-0.5**
TURN	**Turunc**	**1.69**	**132**	Pn		**Pb**	**23 10 10.1**	**-0.1**
TURN				AML		AML		
YAYO	**Edremit-Balk**	**1.72**	**10**	Pn		**Pb**	**23 10 10.6**	**-0.1**
YAYO				AML		AML		
KARY	**Karystos**	**1.77**	**274**	P		**Pn**	**23 10 08.7**	**-0.7**
EZNE	**Ezine-Canakkal**	**1.85**	**353**	Pn		**Pn**	**23 10 11.9**	**+1.4**
BALB	**Balikesir**	**1.96**	**28**	Pn		**Pb**	**23 10 14.0**	**-0.8**
BALB				AML		AML		
DION	**Dionisos Attik**	**2.17**	**275**	P		**Pn**	**23 10 14.9**	**0.0**
ATHU	**Athens Univers**	**2.28**	**272**	P		**Pn**	**23 10 15.5**	**-0.9**
LIA	**Limnos Island**	**2.29**	**330**	P		**Pn**	**23 10 16.7**	**+0.2**

*ISK **05** 23:14:10.9, 37°.90N×26°.67E, h9km, ML2.6/16*
*AFAD **05** 23:14:10.8, 37°.89N×26°.67E, h7km±2km, ML2.3*
*THE **05** 23:14:11.6, 38°.N±2°×2°.7E±°, h11km±3km, M2.7/7, MLh2.7/7*

ISC 05 23:14:10.8±1.0, 37°.89N±0°.03×26°.67E±0°.03, h13km±9km, n28, σ0s36/41, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
SMG	**Samos**	**0.22**	**143**	P		**Pb**	**23 14 16.9**	**+0.3**
SMG				S		**Sb**	**23 14 20.6**	**+0.1**
SMG				AML		AML		
DGB	**zmir**	**0.23**	**45**	P		**Pg**	**23 14 15.9**	**0.0**
DGB				IAML			23 14 19.0	
	comp=N,493nm,0.5s							
DGB				S		**Sg**	**23 14 19.4**	**0.0**
DGB				IAML			23 14 20.0	
	comp=E,433nm,0.4s							
GMLD	**Gumuldur**	**0.27**	**45**	Pg		**Pg**	**23 14 16.7**	**+0.2**
GMLD				Sg		**Sg**	**23 14 20.5**	**+0.2**
GMLD				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**339**	P		**Pg**	**23 14 18.4**	**0.0**
ZEYE				S		**Sg**	**23 14 23.8**	**+0.2**
ZEYE				IAML			23 14 24.0	
	comp=N,747nm,0.7s							
ZEYE				IAML			23 14 27.0	
	comp=E,307nm,0.2s							
BEYE	**izmir**	**0.40**	**30**	P		**Pg**	**23 14 18.5**	**-0.2**
BEYE				S		**Sg**	**23 14 23.4**	**-0.8**
BEYE				IAML			23 14 25.0	
	comp=N,313nm,0.5s							
BEYE				IAML			23 14 25.0	
	comp=E,320nm,0.3s							
GCAM	**G?zelcaml?**	**0.48**	**112**	Pg		**Pb**	**23 14 21.1**	**0.0**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.49**	**93**	Pg		**Pb**	**23 14 20.8**	**-0.4**
KUSD				Sg		**Sb**	**23 14 27.9**	**-0.3**
KUSD				AML		AML		
BLCB	**Balcova**	**0.58**	**30**	P		**Pg**	**23 14 22.0**	**-0.2**
BLCB				S		**Sg**	**23 14 29.9**	**0.0**
BLCB				AML		AML		
BLCB	**Balcova**	**0.58**	**30**	Pg		**Pg**	**23 14 22.2**	**0.0**
BLCB				Sg		**Sb**	**23 14 30.3**	**-0.6**
BLCB				AML		AML		
CHOS	**Chios island**	**0.70**	**316**	P		**Pg**	**23 14 24.5**	**+0.1**
CHOS				S		**Sb**	**23 14 34.8**	**+0.4**
CHOS				AML		AML		
CHOS	**Chios island**	**0.70**	**316**	Pg		**Pg**	**23 14 24.5**	**+0.1**
CHOS				Sg		**Sb**	**23 14 34.9**	**+0.4**
CHOS				AML		AML		
KRBN	**Karaburun**	**0.71**	**352**	Pg		**Pb**	**23 14 25.1**	**0.0**
KRBN				Sg		**Sb**	**23 14 34.9**	**+0.1**
KRBN				AML		AML		
KARB	**zmir-Karabur**	**0.80**	**345**	P		**Pg**	**23 14 25.8**	**-0.6**
KARB				S		**Sb**	**23 14 37.9**	**+0.5**
KARB				IAML			23 14 39.0	
	comp=E,156nm,0.6s							
KARB				IAML			23 14 40.0	
	comp=N,78nm,0.5s							
FOCM	**Foa**	**0.83**	**3**	Pg		**Pb**	**23 14 27.4**	**+0.4**
FOCM				Sg		**Sb**	**23 14 38.8**	**+0.7**
FOCM				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.90**	**147**	Pg		**Pn**	**23 14 29.0**	**-0.1**
YKAV				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.96**	**86**	Pg		**Pn**	**23 14 30.1**	**0.0**
AYDB				AML		AML		
BODT	**Bodrum**	**0.96**	**148**	P		**Pn**	**23 14 30.2**	**+0.1**
BODT				AML		AML		
BODT	**Bodrum**	**0.96**	**148**	Pg		**Pn**	**23 14 30.4**	**+0.4**
BODT				AML		AML		
BODA	**Bodrum-Mula**	**1.04**	**144**	Pg		**Pn**	**23 14 31.7**	**+0.7**
MLSB	**Milas**	**1.05**	**124**	Pg		**Pg**	**23 14 31.2**	**0.0**
MLSB				AML		AML		
DKL	**Dikili**	**1.20**	**9**	Pn		**Pg**	**23 14 33.8**	**-0.1**
DKL				AML		AML		
APE	**Apeiranthos**	**1.22**	**228**	P		**Pn**	**23 14 32.7**	**-0.9**
GOMA	**Golmarmara-Man**	**1.28**	**50**	Pn		**Pg**	**23 14 35.5**	**+0.1**
GOMA				AML		AML		
NAZL	**Nazilli-Aydin**	**1.28**	**86**	Pn		**Pg**	**23 14 35.8**	**+0.3**
NAZL				AML		AML		
PRK	**Paraskevi**	**1.40**	**347**	P		**Pb**	**23 14 36.7**	**0.0**
SOMA	**Soma-Manisa**	**1.44**	**28**	Pn		**Pb**	**23 14 37.6**	**+0.2**
YER	**Yerkesik**	**1.48**	**120**	P		**Pb**	**23 14 37.9**	**-0.3**
GORD	**Gordes-Manisa**	**1.56**	**49**	Pn		**Pb**	**23 14 39.4**	**-0.2**
GORD				AML		AML		

MEX 05 23:24:16.2±1.0, 16°.76N×94°.53W, h118km±12km, MD3.6, Presumed earthquake, Oaxaca

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
CMIG	**Matias Romero**	**0.47**	**314**	*i* P		Pn	23 24 32.8	-0.9
CMIG				*i* S		Sn	23 24 44.8	-2.1
CMIG	**Matias Romero**	**0.47**	**314**	*e*P		Pn	23 24 32.7	-1.0
CMIG				*e*S		Sn	23 24 44.7	-2.2
UXUV	**UXUV**	**0.66**	**34**	*e*P		Pn	23 24 34.5	-0.5
UXUV				*e*S		Sn	23 24 47.3	-1.9
UXUV	**UXUV**	**0.66**	**34**	*e*P		Pn	23 24 34.5	-0.5
UXUV				*e*S		Sn	23 24 47.4	-1.8
TGIG		**1.35**	**89**	*e*P		Pn	23 24 39.8	-2.0
TGIG				*e*S		Sn	23 24 59.4	-1.8
TGIG		**1.35**	**89**	*e*P		Pn	23 24 39.3	-2.5
TGIG				*e*S		Sn	23 24 59.6	-1.6
NEUV	**Arroyo Zacate**	**1.54**	**308**	*e*P		Pn	23 24 42.8	-1.2
NEUV				*e*S		Sn	23 25 02.2	-2.9
NEUV	**Arroyo Zacate**	**1.54**	**308**	*e*P		Pn	23 24 42.8	-1.1
NEUV				*e*S		Sn	23 25 03.0	-2.1
HUIG	**Huatulco**	**1.81**	**237**	*i* P		Pn	23 24 44.8	-2.5
HUIG				*i* S		Sn	23 25 08.4	-2.4

ISK 05 23:25:15.2, 37°.75N×27°.01E, h22km, ML1.9/7, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.18**	**104**	Pg		Pb	23 25 20.3	-0.5
GCAM				AML		AML		
GMLD	**Gumuldur**	**0.34**	**347**	Pg		Pb	23 25 23.2	+0.7
GMLD				Sg		Sb	23 25 29.0	+1.5
GMLD				AML		AML		
BLCB	**Balcova**	**0.64**	**2**	Pg		Pn	23 25 29.3	+0.3
BLCB				AML		AML		
BODT	**Bodrum**	**0.72**	**161**	Pg		Pn	23 25 30.1	0.0
BODT				Sg		Sn	23 25 40.7	+0.2
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**74**	Pg		Pn	23 25 30.1	-0.2
AYDB				AML		AML		
CHOS	**Chios island**	**0.99**	**311**	Pg		Pn	23 25 34.0	+0.1
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.04**	**77**	Pg		Pn	23 25 34.9	+0.4
NAZL				AML		AML		

AFAD 05 23:25:44.5, 37°.87N×26°.79E, h7km±1km, ML1.3, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
DGB	**zmir**	**0.19**	**23**	P		Pg	23 25 49.1	+0.7
DGB				S		Sg	23 25 51.9	+0.8
DGB				IAML			23 25 52.0	
	comp=E,116nm,0.5s							
DGB				IAML			23 25 52.0	
	comp=N,94nm,0.3s							
BEYE	**izmir**	**0.37**	**17**	P		Pg	23 25 52.0	+0.3
BEYE				S		Sg	23 25 57.2	+0.5
BEYE				IAML			23 26 00.0	
	comp=E,18nm,0.3s							
BEYE				IAML			23 26 01.0	
	comp=N,20nm,0.5s							
GCAM	**G?zelcaml?**	**0.40**	**116**	P		Pg	23 25 52.5	+0.4
ZEYE	**Izmir, Urla-Ze**	**0.43**	**329**	P		Pg	23 25 52.9	+0.1
ZEYE				S		Sg	23 25 59.6	+1.2
ZEYE				IAML			23 26 00.0	
	comp=N,69nm,0.4s							
ZEYE				IAML			23 26 00.0	
	comp=E,45nm,0.2s							

*MEX **05** 23:32:23.0±0.7, 28°.96N×113°.14W, h10km, MD4.1, Presumed earthquake*
*IDC **05** 23:32:23.4±1.3, 28°.88N×112°.80W, h0km, mb3.7/1, mbtmp3.5/6, ML4.5/2, MS3.1/7, Error ellipse: s-maj=17.9km s-min=10.5km az=54.0*

ISC 05 23:32:19.2±1.2, 28°.82N±0°.03×113°.03W±0°.03, h3km±10km, n24, σ1s98/29, 5C-5D, Baja California

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
BAHB	**Baha de los**	**0.48**	**285**	*e*P		**Pb**	**23 32 29.2**	**-1.1**
BAHB				*e*S		**Sg**	**23 32 35.2**	**+0.5**
BAHB	**Baha de los**	**0.48**	**285**	*i* P		**Pb**	**23 32 29.8**	**-0.5**
BAHB				*e*S		**Sg**	**23 32 35.1**	**+0.3**
PLIB	**Puerto Liberta**	**1.13**	**15**	*e*P		**Pg**	**23 32 41.8**	**+0.9**
PLIB				*e*S		**Sn**	**23 32 58.2**	**+0.3**
PLIB				⇑*e*			23 33 04.7	
PLIB				IAML			23 33 04.7	
	comp=N,1μm,0.4s							
PLIB				IAML			23 33 08.3	
	comp=E,4μm,0.6s							
PLIB				⇓*e*			23 33 08.3	
NE74	**Guerrero Negro**	**1.19**	**227**	⇑*e*P		**Pg**	**23 32 43.1**	**+1.2**
NE74				*e*S		**Sn**	**23 32 58.1**	**-1.2**
NE74				IAML			23 32 59.5	
	comp=N,6μm,0.4s							
NE74				⇓*e*			23 32 59.5	
NE74				IAML			23 32 59.7	
	comp=E,6μm,0.7s							
NE74				*e*			23 32 59.7	
SLGB	**San Luis Gonza**	**1.57**	**310**	*e*P		**Pn**	**23 32 46.0**	**-1.9**
SLGB				*e*S		**Sn**	**23 33 05.5**	**-3.2**
SLGB				⇓*e*			23 33 16.0	
SLGB				IAML			23 33 16.0	
	comp=N,2μm,0.9s							
SLGB				⇓*e*			23 33 16.1	
SLGB				IAML			23 33 16.1	
	comp=E,1μm,0.7s							
SRIG	**Santa Rosalia**	**1.65**	**155**	*e*P		**Pb**	**23 32 48.2**	**-2.0**
SRIG				*e*S		**Sg**	**23 33 09.6**	**-2.7**
SRIG				IAML			23 33 17.4	
	comp=E,624nm,0.4s							
SRIG				⇑*e*			23 33 17.4	
SRIG				⇑*e*			23 33 18.7	
SRIG				IAML			23 33 18.7	
	comp=N,643nm,0.7s							
SRIG	**Santa Rosalia**	**1.65**	**155**	*e*P		**Pg**	**23 32 52.0**	**+1.2**
SRIG				*i* S		**Sg**	**23 33 12.3**	**+0.1**
LAPR	**La Primavera**	**1.78**	**20**	*e*P		**Pn**	**23 32 51.4**	**+0.5**
LAPR				*e*S		**Sn**	**23 33 13.2**	**-0.9**
HSIG		**1.83**	**83**	*e*P		**Pb**	**23 32 52.5**	**-0.9**
HSIG		**1.83**	**83**	*e*P		**Pb**	**23 32 52.5**	**-0.9**
HSIG				*e*S		**Sb**	**23 33 14.8**	**-1.9**
GUYB	**Guaymas**	**2.11**	**115**	*e*P		**Pb**	**23 32 56.0**	**-2.1**
GUYB				IAML			23 33 38.1	
	comp=N,520nm,0.7s							
GUYB				⇑*e*			23 33 38.1	
GUYB	**Guaymas**	**2.11**	**115**	*e*P		**Pb**	**23 32 56.5**	**-1.5**
GUYB				*e*S		**Sb**	**23 33 23.6**	**-1.1**

SQX	**San Quintin**	**3.03**	**306**	*e*P		**Pn**	**23 33 07.9**	**-0.2**
SQX				*e*S		**Sn**	**23 33 43.9**	**-1.0**
LPIG	**La Paz**	**5.29**	**152**	Pn		Pb	23 33 45.2	-7.2
	comp=N,21nm,0.3s,baz=182,slow=2.7,SNR=3.0							
LPIG				Lg		Lg	23 35 09.8	
	comp=N,14nm,0.3s,baz=206,slow=1.0,SNR=1.5							
LPIG				LR		LR	23 35 34.7	
	comp=N,184nm,19.0s,baz=250,slow=36 comp=N,39nm,0.3s							
LPIG				AML		AML		
PFO	**Pinyon Flats O**	**5.61**	**329**	Pg		**Pg**	**23 34 05.1**	**-1.5**
	comp=N,1.9nm,0.3s,baz=163,slow=16,SNR=13							
PFO				Lg		Lg	23 35 20.6	
	comp=N,1.5nm,0.3s,baz=206,slow=13,SNR=16							
PFO				LR		LR	23 35 51.4	
	comp=N,101nm,21.9s,baz=114,slow=37							
TXAR	**Lajitas Array**	**8.21**	**84**	Pn		**Pn**	**23 34 23.0**	**+3.7**
	comp=N,1.2nm,0.4s,baz=264,slow=13,SNR=57							
TXAR				Lg		Lg	23 36 33.2	
	comp=N,0.2nm,0.3s,baz=252,slow=28,SNR=2.5							
TXAR				LR		LR	23 36 35.6	
	comp=N,142nm,21.6s,baz=258,slow=32 comp=N,3.1nm,0.6s							
TXAR				AML		AML		
ANMO	**Albuquerque**	**8.27**	**41**	Pn		**Pn**	**23 34 24.3**	**+4.0**
	comp=N,0.4nm,0.3s,baz=230,slow=17,SNR=3.0							
ANMO				LR		LR	23 36 39.3	
	comp=N,55nm,19.1s,baz=244,slow=32							
ANMO				Lg		Lg	23 36 40.5	
	comp=N,0.6nm,0.3s,baz=340,slow=22,SNR=5.7							
NVAR	**Mina Array Bea**	**10.54**	**337**	Pn		Pn	23 34 57.2	+5.8
	comp=N,0.2nm,0.4s,baz=156,slow=13,SNR=2.6							
ELK	**Elko**	**12.03**	**352**	LR		LR	23 39 55.3	
	comp=N,89nm,18.8s,baz=46,slow=38							
PDAR	**Pinedale Array**	**14.20**	**10**	Pn		**P**	**23 35 46.2**	**-2.8**
	comp=N,0.3nm,0.6s,baz=180,slow=11,SNR=9.9							
YBH	**Yreka Blue Hor**	**15.10**	**331**	LR		LR	23 41 25.4	
	comp=N,92nm,20.9s,baz=255,slow=36							
ILAR	**Eielson Array**	**41.79**	**339**	P		**P**	**23 40 13.1**	**+3.4**
	comp=N,1.0nm,0.9s,baz=148,slow=6.6,SNR=8.3 comp=N,1.0nm,0.9s							
BORG	**Borgarnes**	**65.04**	**28**	LR		LR	00 12 44.3	
	comp=N,235nm,21.0s,baz=317,slow=37							
ZALV	**Zalesovo Beam**	**96.14**	**350**	LR		LR	00 36 18.0	
	comp=N,37nm,18.2s,baz=312,slow=40							

IDC 05 23:45:16.6±605.0, 29°.67N×77°.50W, h0km, Error ellipse: s-maj=290.7km s-min=159.9km az=35.0, Off east coast of United States

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
I51GB	**BERMUDA INFRAS**	**1.30**	**73**	I		I	00 52 40.0	
	0.2nm,1.0s,baz=259,slow=323,SNR=1.7							
I10CA	**LAC DU BONNET**	**24.82**	**331**	I		I	02 15 40.0	
	baz=137,slow=321,SNR=0.6							
I42PT	**GRACIOSA ISLAN**	**41.48**	**63**	I		I	04 02 50.0	
	baz=273,slow=318,SNR=1.7							
I18DK	**QAANAAQ INFRAS**	**48.04**	**2**	I		I	04 39 50.0	
	baz=185,slow=327,SNR=1.7							

*TAP **05** 23:48:48.2, 24°.72N×122°.33E, h105km, ML3.3, C*
*JMA **05** 23:48:48.2±0.2, 25°.N±1°×122°.3E±0°.4, h103km±2km, MV2.2/9, TAIWAN REGION*

ISC 05 23:48:48.8±1.7, 24°.70N±0°.05×122°.35E±0°.04, h99km±9km, n62, σ0s77/109, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
EOS2	**EOS2**	**0.30**	**201**	*e*P		**Pn**	**23 49 03.8**	**+0.7**
EOS2				*e*S		**Sn**	**23 49 15.2**	**+1.4**
EOS3	**EOS3**	**0.41**	**184**	P		**Pn**	**23 49 04.4**	**+0.7**
EOS3				*e*S		**Sn**	**23 49 16.4**	**+1.5**
TWB1	**Santiao Chiao**	**0.45**	**313**	P		**Pn**	**23 49 04.2**	**+0.1**
TWC	**Suao**	**0.47**	**259**	*i* P		**Pn**	**23 49 04.1**	**-0.1**
TWC				*e*S		**Sn**	**23 49 14.7**	**-1.1**
TIPB	**Shuangxi**	**0.55**	**299**	*i* P		**Pn**	**23 49 05.0**	**+0.1**
TIPB				*i* S		**Sn**	**23 49 16.9**	**-0.1**
EOS4	**EOS4**	**0.58**	**183**	P		**Pn**	**23 49 04.7**	**0.0**
EOS4				S		**Sn**	**23 49 17.4**	**+0.9**
EWUT	**Wuta**	**0.58**	**244**	P		**Pn**	**23 49 05.3**	**+0.2**
EWUT				S		**Sn**	**23 49 17.4**	**+0.1**
SXI1	**Grass Mountain**	**0.58**	**312**	*i* P		**Pn**	**23 49 05.2**	**0.0**
SXI1				*i* S		**Sn**	**23 49 17.6**	**0.0**
NDS	**Dongshan**	**0.58**	**263**	*i* P		**Pn**	**23 49 05.2**	**+0.1**
NDS				S		**Sn**	**23 49 16.7**	**-0.7**
JYNG	**Yonagunijimaku**	**0.59**	**115**	P		**Pn**	**23 49 05.2**	**-0.1**
ENA	**Nanau**	**0.62**	**244**	P		**Pn**	**23 49 05.5**	**+0.1**
ENA				*e*S		**Sn**	**23 49 18.0**	**+0.1**
TWE	**Neicheng**	**0.62**	**272**	P		**Pn**	**23 49 05.5**	**+0.1**
NWF	**Wu-fen Shan**	**0.64**	**305**	P		**Pn**	**23 49 05.8**	**+0.1**
WFSB	**Wu-fen Shan**	**0.64**	**305**	P		**Pn**	**23 49 05.8**	**+0.2**
YOJ	**Yonaguni jima**	**0.65**	**112**	P		**Pn**	**23 49 05.4**	**-0.3**
YOJ				S		**Sn**	**23 49 18.4**	**+0.2**
YOJ	**Yonaguni jima**	**0.65**	**112**	P		**Pn**	**23 49 05.5**	**-0.1**
FUSB	**Fushanzhiwuyua**	**0.70**	**275**	P		**Pn**	**23 49 06.1**	**-0.1**
FUSB				S		**Sn**	**23 49 18.6**	**-0.6**
ENTT	**Nioudou**	**0.72**	**265**	*i* P		**Pn**	**23 49 06.8**	**+0.4**
ENTT				*e*S		**Sn**	**23 49 19.7**	**+0.2**
TWA	**Mucha**	**0.75**	**292**	*e*P		**Pn**	**23 49 05.9**	**-0.8**
LATG	**Datong**	**0.77**	**258**	P		**Pn**	**23 49 07.1**	**+0.2**
LATG				S		**Sn**	**23 49 20.7**	**+0.2**
NDT	**Datong Townshi**	**0.77**	**263**	*i* P		**Pn**	**23 49 07.5**	**+0.6**
NDT				S		**Sn**	**23 49 21.1**	**+0.8**
NWLT	**Wulai**	**0.78**	**276**	P		**Pn**	**23 49 06.7**	**-0.2**
NWLT				S		**Sn**	**23 49 20.2**	**-0.2**
TATO	**Taipei**	**0.83**	**289**	P		**Pn**	**23 49 07.0**	**-0.4**
TATO				*e*S		**Sn**	**23 49 19.1**	**-2.2**
YM01	**YM01**	**0.84**	**302**	P		**Pn**	**23 49 07.3**	**-0.2**
YM01

SMLT	**Sun Moon Lake**	**1.56**	**239**	*eP*	**Pn**	**23 49 16.5**	**+0.7**
SMLT				*eS*	**Sn**	**23 49 38.2**	**+1.9**
SSLB	**Suanglung**	**1.57**	**235**	P	**Pn**	**23 49 16.1**	**+0.2**
SSLB				S	**Sn**	**23 49 36.4**	**0.0**
JKRS	**Kuro-shima**	**1.58**	**107**	*eP*	**Pn**	**23 49 16.2**	**+0.2**
JKRS				S	**Sn**	**23 49 36.6**	**0.0**
TYC	**Yuchr**	**1.58**	**240**	P	**Pn**	**23 49 16.9**	**+0.9**
TYC				S	**Sn**	**23 49 37.7**	**+1.0**
YULB	**Yu-li**	**1.62**	**217**	P	**Pn**	**23 49 15.0**	**-1.6**
YULB				*eS*	**Sn**	**23 49 35.2**	**-2.4**
JIJ	**Ishigaki jima**	**1.67**	**101**	P	**Pn**	**23 49 16.8**	**-0.2**
WHYT	**Xinyi Township**	**1.70**	**234**	S	**Sn**	**23 49 40.6**	**+1.3**
WJS	**Zhushan**	**1.72**	**240**	S	**Sn**	**23 49 41.8**	**+1.9**
FULB	**Fuli**	**1.78**	**213**	S	**Sn**	**23 49 40.5**	**-0.8**
ALS	**Alishan**	**1.85**	**230**	P	**Pn**	**23 49 20.3**	**+0.6**
ALS				S	**Sn**	**23 49 44.2**	**+1.1**
TPUB	**Ta-pu**	**2.10**	**229**	*eS*	**Sn**	**23 49 51.0**	**+2.3**

*AFAD **06** 00:22:47.6, 37°.88N×27°.28E, h7km±3km, ML1.9*
*THE **06** 00:22:48.9, 38°N±4°×2°.7E±°, h3km±5km, M2.3/6, MLh2.3/6*

ISK 06 00:22:47.7, 37.87N×27.27E, h7km, ML2.3/13, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.02**	**124**	Pg	Pg	00 22 49.4	+0.3
KUSD				Sg	Sg	00 22 50.3	+0.2
GCAM	**G?zelcaml?**	**0.17**	**188**	P	Pg	00 22 51.7	+0.5
GCAM				IAML		00 22 54.0	
	comp=N,979nm,0.5s						
GCAM				IAML		00 22 54.0	
	comp=E,536nm,0.7s						
GCAM				S	Sg	00 22 54.3	+0.7
GCAM	**G?zelcaml?**	**0.17**	**188**	Pg	Pg	00 22 51.7	+0.5
GCAM				Sg	Sg	00 22 54.7	+1.1
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.34**	**307**	Pg	Pb	00 22 55.6	-0.5
GMLD				Sg	Sb	00 23 00.7	-1.0
GMLD				AML	AML		
DGB	**zmir**	**0.35**	**301**	P	Pg	00 22 55.1	+0.6
DGB				S	Sg	00 23 00.2	+0.9
DGB				IAML		00 23 01.0	
	comp=E,279nm,0.2s						
DUVT	**Torbali**	**0.38**	**23**	P	Pg	00 22 55.2	+0.2
DUVT				S	Sg	00 22 59.9	-0.1
DUVT				IAML		00 23 00.0	
	comp=E,226nm,0.4s						
DUVT	**Torbali**	**0.38**	**23**	P	Pg	00 22 55.4	+0.3
DUVT				S	Sg	00 22 59.9	-0.1
DUVT				IAML		00 23 00.0	
	comp=E,214nm,0.4s						
SMG	**Samos**	**0.38**	**244**	P	Pg	00 22 55.7	+0.7
SMG				S	Sb	00 23 01.4	-1.3
SMG				AML	AML		
BEYE	**izmir**	**0.44**	**323**	P	Pg	00 22 57.0	+0.7
BEYE				S	Sg	00 23 02.8	+0.6
BEYE				IAML		00 23 03.0	
	comp=N,97nm,0.2s						
BEYE				IAML		00 23 04.0	
	comp=E,140nm,0.4s						
BEYE	**izmir**	**0.44**	**323**	P	Pg	00 22 57.1	+0.8
BEYE				IAML		00 23 03.0	
	comp=E,132nm,0.3s						
BEYE				S	Sg	00 23 03.1	+0.9
BEYE				IAML		00 23 05.0	
	comp=N,137nm,0.4s						
AYDB	**Zeytinkoy-Aydi**	**0.50**	**81**	Pg	Pg	00 22 57.9	+0.5
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.53**	**113**	P	Pb	00 22 58.7	-0.7
AYDN				S	Sg	00 23 05.1	+0.2
AYDN				IAML		00 23 08.0	
	comp=E,61nm,0.3s						
AYDN				IAML		00 23 08.0	
	comp=N,69nm,0.3s						
BLCB	**Balcova**	**0.54**	**341**	P	Pg	00 22 58.7	+0.5
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**341**	Pg	Pb	00 22 58.9	-0.6
BLCB				AML	AML		
IZMR	**zmir-demi**	**0.60**	**64**	P	Pg	00 22 57.1	-2.2
IZMR				S	Sg	00 23 06.1	-1.2
IZMR				IAML		00 23 07.0	
	comp=N,44nm,0.3s						
IZMR				IAML		00 23 09.0	
	comp=E,71nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.70**	**302**	P	Pb	00 23 01.8	-0.5
ZEYE				S	Sb	00 23 12.0	-0.2
ZEYE				IAML		00 23 12.0	
	comp=N,578nm,0.4s						
ZEYE				IAML		00 23 13.0	
	comp=E,187nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.70**	**302**	P	Pb	00 23 01.8	-0.5
ZEYE				S	Sb	00 23 11.9	-0.2
ZEYE				IAML		00 23 12.0	
	comp=N,550nm,0.4s						
ZEYE				IAML		00 23 13.0	
	comp=E,187nm,0.2s						
MLSB	**Milas**	**0.70**	**145**	Pg	Pg	00 23 01.4	+0.1
MLSB				AML	AML		
BODT	**Bodrum**	**0.81**	**177**	P	Pb	00 23 04.7	+0.6
BODT				S	Sb	00 23 16.3	+1.1
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**177**	Pg	Pb	00 23 03.9	-0.2
BODT				AML	AML		
NAZL	**Nazilli-Aydin**	**0.82**	**83**	Pg	Pb	00 23 03.9	-0.3
NAZL				AML	AML		
BODA	**Bodrum-Mula**	**0.85**	**171**	Pg	Pb	00 23 04.6	-0.1
ESEN	**Aydn-Nazilli**	**0.86**	**95**	P	Pg	00 23 04.4	+0.1
ESEN				S	Sb	00 23 16.2	-0.4
ESEN				IAML		00 23 19.0	
	comp=N,24nm,0.5s						
ESEN				IAML		00 23 21.0	
	comp=E,25nm,0.4s						
CAMT	**Merkez**	**0.88**	**2**	P	Pg	00 23 04.5	0.0
CAMT				S	Sb	00 23 17.0	-0.1
CAMT				IAML		00 23 21.0	
	comp=E,120nm,0.5s						
CAMT				IAML		00 23 23.0	
	comp=N,50nm,0.3s						
CAMT	**Merkez**	**0.88**	**2**	P	Pg	00 23 04.5	-0.1
CAMT				S	Sb	00 23 17.9	+0.8
CAMT				IAML		00 23 21.0	
	comp=E,120nm,0.5s						
GOMA	**Golmarmara-Man**	**0.98**	**31**	Pg	Pb	00 23 07.0	0.0
GOMA				AML	AML		
KTTT	**Salihli**	**1.04**	**38**	P	Pg	00 23 07.2	-0.5
KTTT				S	Sg	00 23 19.8	-1.5
KTTT				IAML		00 23 23.0	
	comp=N,30nm,0.4s						
KTTT	**Salihli**	**1.04**	**38**	P	Pg	00 23 07.2	-0.6
KTTT				S	Sg	00 23 21.3	0.0
KTTT				IAML		00 23 23.0	
	comp=N,30nm,0.4s						
CHOS	**Chios island**	**1.08**	**299**	P	Pn	00 23 10.0	+0.7
CHOS				S	Sn	00 23 24.5	-0.2
CHOS	**Chios island**	**1.08**	**299**	Pn	Pb	00 23 08.9	+0.1
CHOS				AML	AML		
YER	**Yerkesik**	**1.09**	**132**	P	Pn	00 23 09.5	+0.1
ZEDA	**zmir-Bergama**	**1.10**	**352**	P	Pg	00 23 08.3	-0.6
ZEDA				IAML		00 23 24.0	
	comp=N,45nm,1.0s						
ZEDA				S	Sn	00 23 24.9	-0.1
ZEDA				IAML		00 23 28.0	
	comp=E,35nm,0.4s						
SULTU	**Buldan**	**1.20**	**81**	P	Pg	00 23 10.2	-0.6
SULTU				S	Sb	00 23 27.1	+0.5
SULTU				IAML		00 23 31.0	
	comp=E,27nm,0.3s						
SULTU				IAML		00 23 35.0	
	comp=N,20nm,0.6s						
DKL	**Dikili**	**1.23**	**347**	Pn	Pg	00 23 11.7	+0.4
DKL				AML	AML		
GORD	**Gordes-Manisa**	**1.26**	**34**	Pn	Pn	00 23 11.5	-0.2
SOMA	**Soma-Manisa**	**1.30**	**9**	Pn	Pg	00 23 12.6	0.0

*IDC **06** 00:23:01.2±0.8, 34°.65N×26°.27E, h0km, mb4.0/11,*
mbtmp3.9/19, ML3.3/7, MS3.2/3, Error ellipse:
s-maj=16.3km s-min=9.0km az=20.0
*GII **06** 00:23:03.3±0.0, 34°.321N±0°.001×26°.476E±0°.001, h0km,*
Mws3.5, confirmed
*ISK **06** 00:23:04.7, 34°.51N×26°.39E, h22km, ML3.3/15*
*ATH **06** 00:23:05.6, 34°.51N×26°.40E, h11km±4km, ML3.5/6,*

Latitude uncertainty: 2 km; Longitude uncertainty: 2 km
*THE **06** 00:23:11.0, 35°N±6°×2°6E±°, h61km±4km, M3.2/9,*
MLh3.2/9

ISC 06 00:23:01.0±1.4, 34°.48N±0°.04×26°.57E±0°.03, h8km±9km, n93, σ1s46/125, mb4.0/10, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZKR	**Zakros**	**0.70**	**336**	P	Pn	**00 23 20.3**	**+3.0**
ZKR				S	Sn	**00 23 28.6**	**+0.3**
ZKR	**Zakros**	**0.70**	**336**	Pg	Pn	**00 23 17.8**	**+0.5**
ZKR				Sg	Sn	**00 23 26.6**	**-1.7**
ZKR				AML	AML		
ZKR	**Zakros**	**0.70**	**336**	P	Pn	**00 23 17.7**	**+0.5**
ZKR				S	Sb	**00 23 25.9**	**+0.6**
ZKR				AML	AML		
SIT2	**Siteia**	**0.82**	**333**	P	Pn	**00 23 19.7**	**+0.8**
SIT2				S	Sb	**00 23 29.2**	**+0.4**
NPS	**Neapolis**	**1.11**	**315**	P	Pn	**00 23 25.0**	**+2.1**
NPS				S	Sg	**00 23 36.2**	**-0.6**
NPS				AML	AML		
NPS	**Neapolis**	**1.11**	**315**	P	Pn	**00 23 24.8**	**+1.8**
KARP	**Karpathos**	**1.17**	**24**	P	Pn	00 23 28.9	+5.0
KARP				S	Sn	**00 23 42.6**	**+2.5**
KARP				AML	AML		
KARP	**Karpathos**	**1.17**	**24**	Pn	Pn	**00 23 26.9**	**+3.0**
KARP				Sn	Sn	**00 23 43.4**	**+3.3**
KARP				AML	AML		
KARP	**Karpathos**	**1.17**	**24**	P	Pn	00 23 28.6	+4.7
KARP				AML	AML		
SIVA	**Sivas**	**1.54**	**291**	P	Pg	**00 23 32.1**	**+1.4**
SIVA				S	Sn	**00 23 47.9**	**-1.2**
SIVA				AML	AML		
SIVA	**Sivas**	**1.54**	**291**	P	Pg	**00 23 31.6**	**+0.9**
SIVA				AML	AML		
IDI	**Anoyia**	**1.60**	**301**	Pg	Pb	**00 23 31.1**	**+0.2**
	6.9nm,0.3s,baz=165,slow=8.0,SNR=16						
IDI				Lg	Lg	00 23 49.1	
	16nm,0.3s,baz=49,slow=22,SNR=9.0						
IDI	**Anoyia**	**1.60**	**301**	P	Pb	**00 23 31.6**	**+0.7**
IDI				S	Sn	**00 23 47.6**	**-3.1**
IDI				AML	AML		
IDI	**Anoyia**	**1.60**	**301**	Pn	Pn	**00 23 30.3**	**+0.6**
IDI				AML	AML		
IDI	**Anoyia**	**1.60**	**301**	P	Pb	**00 23 31.6**	**+0.7**
IDI				AML	AML		
GVD	**Gavdhos**	**2.08**	**281**	Pn	Pn	**00 23 37.4**	**+1.2**
GVD				AML	AML		
THERA	**Ancient Thera,**	**2.09**	**335**	P	Pn	**00 23 37.7**	**+1.4**
THERA				AML	AML		
THR8	**Santorini-Mono**	**2.12**	**336**	P	Pb	**00 23 38.5**	**-1.3**
THR3	**Thira Island,**	**2.15**	**334**	P	Pn	**00 23 38.2**	**+1.0**
ARG	**Arkhangelos**	**2.15**	**36**	P	Pg	**00 23 42.8**	**+0.5**
ARG				S	Sg	**00 24 08.3**	**-1.9**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.15**	**36**	Pn	Pb	**00 23 40.9**	**+0.6**
ARG				AML	AML		
THR5	**Thira Island,**	**2.18**	**333**	P	Pn	**00 23 38.5**	**+0.9**
SAP3	**Santorini-Thir**	**2.19**	**333**	P	Pn	**00 23 38.7**	**+0.8**
DAT	**Datca**	**2.39**	**20**	Pn	Pb	**00 23 43.9**	**-0.6**
DAT				AML	AML		
BODT	**Bodrum**	**2.65**	**13**	Pn	Pb	**00 23 47.2**	**-1.6**
BODT				AML	AML		
TURN	**Turunc**	**2.67**	**30**	Pn	Pb	**00 23 48.4**	**-0.7**
TURN				AML	AML		
APE	**Apeiranthos**	**2.72**	**342**	P	Pn	**00 23 46.3**	**+1.2**
APE				AML	AML		
APE	**Apeiranthos**	**2.72**	**342**	Pn	Pn	**00 23 46.5**	**+1.4**
APE				AML	AML		
DALY	**Dalyan (Mula)**	**2.89**	**35**	Pn	Pb	**00 23 51.8**	**-1.0**
DALY				AML	AML		
FETY	**Fethiye**	**2.98**	**43**	Pn	Pb	**00 23 52.9**	**-1.4**
FETY				AML	AML		
MLSB	**Milas**	**2.98**	**19**	Pn	Pb	**00 23 52.4**	**-2.0**
MLSB				AML	AML		
YER	**Yerkesik**	**3.00**	**27**	Pn	Pb	**00 23 52.6**	**-2.1**
YER				AML	AML		
KTHA	**Kythira Island**	**3.37**	**303**	Pn	Pn	**00 23 55.6**	**+1.6**
KTHA				AML	AML		
ATHU	**Athens Univers**	**4.15**	**328**	P	Pn	**00 24 06.3**	**+1.6**
ATHU				AML	AML		
DION	**Dionisos Attik**	**4.18**	**330**	P	Pn	**00 24 07.5**	**+2.4**
ITM	**Ithomi**	**4.63**	**307**	Pn	Pn	**00 24 13.6**	**+2.2**
ITM				AML	AML		
CSS	**Mathiatis**	**5.59**	**83**	P	Pn	**00 24 26.5**	**+1.9**
CSS				S	Sn	**00 25 31.1**	**+2.0**
OFRI	**`Ofer**	**7.27**	**102**	P	Pn	**00 24 48.8**	**+1.2**
OFRI				S	Sn	**00 26 11.1**	**+0.7**
SLTI	**Sal'it**	**7.43**	**105**	P	Pn	**00 24 50.8**	**+1.0**
SLTI				S	Sn	**00 26 15.1**	**+0.7**
KZIT	**Kziot**	**7.50**	**116**	P	Pn	**00 24 51.5**	**+0.8**
KZIT				S	Sn	**00 26 15.8**	**-0.2**
MMA0B	**Mount Meron ar**	**7.50**	**99**	P	Pn	**00 24 52.3**	**+1.4**
MMA0B				S	Sn	**00 26 17.9**	**+1.6**
MMAI	**Mount Meron Ar**	**7.50**	**99**	Pn	Pn	**00 24 55.3**	**+4.4**
	1.2nm,0.3s,baz=239,slow=12,SNR=10						
MMAI				Sn	Sn	**00 26 17.6**	**+1.3**
	4.4nm,0.3s,baz=277,slow=26,SNR=7.9						
	0.6nm,0.2s						
MMAI				AML	AML		
AMAZ	**Amatzia**	**7.60**	**110**	P	Pn	**00 24 53.4**	**+1.2**
AMAZ				S	Sn	**00 26 18.9**	**+0.3**
GEM	**Giv'at Ha'Em**	**7.67**	**97**	P	Pn	**00 24 54.6**	**+1.5**
GEM				S	Sn	**00 26 21.6**	**+1.4**
MMLI	**Mount Malkishu**	**7.67**	**103**	P	Pn	**00 24 54.6**	**+1.4**
MMLI				S	Sn	**00 26 20.9**	**+0.5**
BRTR	**Keskin Array B**	**7.70**	**45**	Pn	Pn	**00 24 56.0**	**+2.3**
	0.1nm,0.3s,baz=215,slow=9.3,SNR=2.8						
BRTR				Sn	Sn	**00 26 21.3**	**+0.1**
	0.1nm,0.3s,baz=211,slow=24,SNR=4.2						
BRTR				AML	AML		
JER	**Jerusalem**	**7.72**	**108**	P	Pn	**00 24 55.4**	**+1.5**
JER				S	Sn	**00 26 22.2**	**+0.5**
YITV	**Yitav**	**7.84**	**106**	P	Pn	**00 24 56.7**	**+1.3**
YITV				S	Sn	**00 26 24.9**	**+0.6**
KSHT	**Keshet**	**7.84**	**98**	P	Pn	**00 24 56.7**	**+1.1**
KSHT				S	Sn	**00 26 25.7**	**+1.1**
UJAP	**Al Uja**	**7.87**	**106**	P	Pn	**00 24 57.2**	**+1.4**
UJAP				S	Sn	**00 26 25.7**	**+0.6**
RMNI	**Mount Ramon**	**7.93**	**117**	P	Pn	**00 24 57.4**	**+0.7**
RMNI				S	Sn	**00 26 27.0**	**+0.3**
MZS	**Mizpe Shalem**	**7.96**	**109**	P	Pn	**00 24 57.9**	**+0.8**
MZS				S	Sn	**00 26 27.7**	**+0.3**
MSBI	**Mazada**	**8.04**	**111**	P	Pn	**00 24 58.9**	**+0.8**
MSBI				S	Sn	**00 26 29.2**	**0.0**
IDAN	**Idan**	**8.19**	**114**	P	Pn	**00 25 00.7**	**+0.5**
IDAN				S	Sn	**00 26 33.0**	**0.0**
GHAJ	**Ghor Haditha**	**8.20**	**110**	P	Pn	**00 25 01.5**	**+1.1**
GHAJ				S	Sn	**00 26 33.8**	**+0.5**
HZVA	**Hazeva**	**8.23**	**114**	P	Pn	**00 25 01.7**	**+1.0**
HZVA				S	Sn	**00 26 33.8**	**-0.1**
ZFRI	**Zfri**	**8.26**	**116**	P	Pn	**00 25 01.7**	**+0.6**
ZFRI				S	Sn	**00 26 34.3**	**-0.3**
HRFI	**Mount Harif**	**8.43**	**119**	P	Pn	**00 25 04.0**	**+0.5**
HRFI				S	Sn	**00 26 38.1**	**-0.8**
EIL	**Elat**	**8.58**	**122**	Pn	Pn	**00 25 09.7**	**+4.1**
	0.5nm,0.3s,baz=309,slow=4.3,SNR=10.0						
EIL				Sn	Sn	**00 26 41.9**	**-0.6**
	2.2nm,0.3s,baz=249,slow=4.8,SNR=5.8						
	2.4nm,0.5s						
EIL				AML	AML		
EIL	**Elat**	**8.58**	**122**	P	Pn	**00 25 06.0**	**+0.5**
EIL				S	Sn	**00 26 41.9**	**-0.6**
ASF	**Jabal al Asfar**	**8.90**	**102**	Pn	Pn	**00 25 15.3**	**+4.6**
	0.1nm,0.3s,baz=270,slow=16,SNR=1.9						
ASF				Sn	Sn	**00 26 51.9**	**+0.1**
	0.2nm,0.3s,baz=331,slow=22,SNR=0.9						
	2.6nm,0.9s						
ASF				AML	AML		
VAE	**Valguarnera**	**10.29**	**290**	Pn	Pn	**00 25 27.1**	**-2.1**
	4.5nm,0.7s,baz=34,slow=11,SNR=3.1						
VAE				Sn	Sn	00 27 11.4	-13
	0.3nm,0.3s,baz=78,slow=20,SNR=1.5						
MLR	**Muntele Rosu**	**11.01**	**358**	LR	LR	00 30 49.0	
	comp=Z,163nm,19.5s,baz=1.0,slow=43						
RONA	**Rosalia, Austr**	**15.29**	**333**	*i* P	**P**	**00 26 41.7**	**-0.4**
	3.7nm,0.4s						
SESA	**Seetaler Alpe,**	**15.53**	**328**	*i* P	**P**	**00 26 45.1**	**+0.1**
	1.8nm,0.5s						
KVAR	**Kislovodsk Arr**	**15.66**	**48**	Pn	**P**	**00 26 44.2**	**-2.1**
	baz=274,slow=14						
	2.7nm,1.0s						
KBZ	**Khabaz**	**15.66**	**49**	Pn	**P**	**00 26 48.3**	**+2.1**
	0.1nm,0.3s,baz=231,slow=11,SNR=6.3						
KBZ				LR	LR	00 34 38.7	
	comp=Z,58nm,20.4s,baz=0.5,slow=44						
KBA	**Koelnbreinsper**	**16.06**	**326**	*i* P	**P**	**00 26 50.6**	**-0.2**
	3.1nm,0.5s						
ABTA	**Abfaltersbach**	**16.22**	**323**	*i* P	**P**	**00 26 52.2**	**-0.3**
	1.7nm,0.4s						
AKASG	**Malin Array Be**	**16.33**	**6**	Pn	**Pn**	**00 26 50.5**	**-0.1**
	0.7nm,0.3s,baz=205,slow=11,SNR=10						
LESA	**Schwarzleotal**	**16.62**	**325**	*i* P	**P**	**00 26 56.5**	**-0.4**
	2.1nm,0.4s						
KRLC	**Kraliky**	**17.16**	**338**	*e*P	**Pn**	**00 27 01.1**	**-0.1**
GERES	**GERESS Array B**	**17.24**	**330**	Pn	**Pn**	**00 27 00.1**	**-2.1**
	0.1nm,0.3s,baz=140,slow=12,SNR=21						
	1.9nm,0.5s						
GERES				AML	AML		
FETA	**Feichten**	**17.31**	**321**	*e*P	**P**	**00 27 05.1**	**+0.5**
	0.6nm,0.3s						
KHC	**Kasperske Hory**	**17.52**	**331**	*e*P	**Pn**	**00 27 04.7**	**-0.9**
DPC	**Dobruska-Polom**	**17.55**	**338**	*e*P	**Pn**	**00 27 05.7**	**-0.3**
RETA	**Reutte**	**17.60**	**322**	*i* Pn	**P**	**00 27 07.6**	**-0.1**
	1.1nm,0.4s						
DAVOX	**Davos/Dischmat**	**17.60**	**319**	P	**Pn**	**00 27 06.2**	**-0.6**
	0.1nm,0.3s,baz=149,slow=5.9,SNR=3.0						
DAVOX				LR	LR	00 35 03.5	
	comp=Z,80nm,18.0s,baz=338,slow=42						
	1.0nm,0.4s						
DAVOX				AML	AML		
UPC	**Upice**	**17.78**	**337**	*e*P	**Pn**	**00 27 08.2**	**-0.6**
CHVC	**Chvalec**	**17.84**	**338**	*e*P	**Pn**	**00 27 09.9**	**+0.3**
DAVA	**Damuels**	**17.92**	**321**	*i* P	**Pn**	**00 27 10.8**	**0.0**
	1.7nm,0.5s						
DEL	**Delary**	**23.65**	**342**	*i* P	**P**	**00 28 09.6**	**-3.0**
ESDC	**Sonseca Array**	**24.84**	**291**	P	**P**	**00 28 23.6**	**-0.3**
	0.5nm,0.8s,baz=86,slow=11,SNR=1.5						
	0.5nm,0.8s						
FINES	**FINESS Array B**	**26.99**	**359**	P	**P**	**00 28 42.3**	**-0.8**
	2.8nm,0.8s,baz=165,slow=11,SNR=7.3						
	2.8nm,0.8s						
HFS	**Hagfors**	**27.01**	**346**	P	**P**	**00 28 42.1**	**-1.2**
	2.1nm,0.6s,baz=116,slow=10,SNR=12						
	2.1nm,0.6s						
NOA	**NORSAR Array B**	**28.36**	**344**	P	**P**	**00 28 53.6**	**-1.9**
	0.6nm,0.6s,baz=149,slow=9.4,SNR=3.4						
	0.6nm,0.6s						
EKA	**Eskdalemuir Ar**	**29.27**	**325**	P	**P**	**00 29 02.2**	**-1.2**
	0.3nm,0.4s,baz=128,slow=9.8,SNR=6.4						
	0.3nm,0.4s						
TORD	**Torodi Ar. Bea**	**30.97**	**233**	P	**P**	**00 29 18.8**	**-0.1**
	0.9nm,0.8s,baz=40,slow=12,SNR=6.2						
	0.9nm,0.8s						
ARCES	**ARCESS Array B**	**35.12**	**359**	P	**P**	**00 29 53.8**	**-0.8**
	5.4nm,0.9s,baz=173,slow=9.1,SNR=11						
	5.4nm,0.9s						
MKAR	**Makanchi Array**	**43.19**	**56**	P	**P**	**00 31 04.9**	**+2.5**
	1.2nm,0.5s,baz=272,slow=6.9,SNR=20						
	1.2nm,0.5s						
SPITS	**Spitsbergen Ar**	**44.02**	**357**	P	**P**	**00 31 08.7**	**0.0**
	3.2nm,0.6s,baz=120,slow=9.9,SNR=6.8						
	3.2nm,0.6s						
ZALV	**Zalesovo Beam**	**44.65**	**46**	P	**P**	**00 31 15.5**	**+1.6**
	0.9nm,0.4s,baz=276,slow=7.9,SNR=6.0						
	0.9nm,0.4s						
SCHQ	**Schefferville**	**64.45**	**320**	P	**P**	**00 33 37.3**	**-0.5**
	2.5nm,0.5s,baz=220,slow=19,SNR=5.7						
	2.5nm,0.5s						

*IDC **06** 00:42:08.0±2.1, 4°.33S×127°.98E, h0km, mb3.4/2,*
mbtmp3.4/3, ML2.9/1, Error ellipse: s-maj=169.9km
s-min=28.3km az=66.0
*DJA **06** 00:42:10.5±0.3, 4°S±3°×12°9E±°, h10km, M3.7/11,*
MLv3.7/11

ISC 06 00:42:10.5±1.0, 3°.88S±0°.08×129°.36E±0°.07, h35km, n9, σ2s07/10, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSAI	**Masohi**	**0.68**	**321**	P	Pn	**00 42 21.8**	**-1.9**
MSAI				S	Sn	**00 42 32.0**	**-1.1**
BNDI	**Bandanaira**	**0.84**	**140**	P	Pn	**00 42 26.5**	**+0.7**
BNDI				AML	AML		
NLAI	**Namlea**	**2.34**	**286**	P	Pn	**00 42 49.5**	**+3.0**
NLAI				AML	AML		
FAKI	**Fak Fak**	**3.04**	**72**	P	Pn	**00 42 56.8**	**+0.7**
SIJI	**Sorong**	**3.55**	**33**	P	Pn	**00 43 05.2**	**+2.1**
SANI	**Sanana**	**3.83**	**298**	P	Pn	**00 43 08.3**	**+1.4**
SANI				AML	AML		
WRA	**Warramunga Arr**	**16.69**	**163**	Pn	Pn	**00 45 58.8**	**-2.9**
	baz=341,slow=13,SNR=3.9						
	0.4nm,0.7s						
ASAR	**Alice Springs**	**20.15**	**168**	P	**P**	**00 46 42.4**	**+0.5**
	0.6nm,0.5s,baz=345,slow=10,SNR=7.4						
	0.6nm,0.5s						
MKAR	**Makanchi Array**	**65.29**	**326**	P	**P**	**00 52 49.3**	**+0.4**
	0.5nm,0.6s,baz=114,slow=7.5,SNR=5.2						
	0.5nm,0.6s						

*SNET **06** 00:44:43.0±0.9, 12°.57N×87°.58W, h54km±8km, ML3.4,*
Presumed earthquake
*CATAC **06** 00:44:43.6±0.5, 13°N±5°×8°8W±°, h35km±5km, M3.6/20,*
MLv3.6/20, Error ellipse: s-maj=12.2km s-min=3.3km
az=20.5, confirmed

ISC 06 00:44:41.2±1.6, 12°.45N±0°.08×87°.65W±0°.04, h10km±12km, n31, σ0s62/39, 8C-6D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRIN	**San Cristobal**	**0.64**	**67**	⇓P	Pn	**00 44 56.9**	**+0.5**
CRIN				S	Sn	**00 45 07.6**	**+0.9**
CNCH	**Conchagua**	**0.84**	**348**	⇓	Pb	**00 44 58.6**	**+0.7**
CNCH				eS	Sn	**00 45 10.8**	**-0.8**
PLRN	**Geotermica Pol**	**0.88**	**81**	⇑P	Pb	**00 44 59.1**	**+0.6**
PLRN				S	Sb	**00 45 11.1**	**+0.8**
LCND	**La Caada**	**0.88**	**345**	P	Pb	**00 44 59.2**	**+0.5**
LCND	**La Caada**	**0.88**	**345**	*e*P	Pb	**00 44 59.0**	**+0.4**
LCND				*e*S	Sn	**00 45 11.9**	**-0.7**
JUCU	**Jucuarn**	**0.98**	**324**	*e*P	Pb	**00 45 00.9**	**+0.5**
JUCU				*e*S	Sb	**00 45 13.6**	**+0.1**
LEVN	**Ruinas Leon Vi**	**1.01**	**93**

TIR					IAML		01 04 15.2	
	929nm,0.4s							
BERA	**Berati**	**0.48**	**191**		Pg	**Pg**	**01 04 15.1**	**-0.8**
BERA					Sg	**Sg**	**01 04 22.5**	**+0.3**
BERA					IAML		01 04 23.7	
	393nm,0.2s							
OHR	**Ohrid**	**0.55**	**96**	*i*	Pg	**Pg**	**01 04 16.9**	**-0.4**
OHR				*i*	Sg	**Sg**	**01 04 25.2**	**+0.5**
OHR				*e*	Lg	Lg	01 04 25.4	
	comp=N,50nm,0.3s							
OHR				*e*	Lg	Lg	01 04 26.8	
	comp=E,36nm,0.4s							
PHP	**Peshkopia**	**0.58**	**29**		Pg	**Pg**	**01 04 17.1**	**-0.8**
PHP					Sg	**Sb**	**01 04 26.6**	**-0.8**
PHP					IAML		01 04 27.5	
	comp=E,357nm,0.2s							
KBN	**Korca**	**0.77**	**135**		Pg	**Pg**	**01 04 20.4**	**-1.1**
KBN					Sg	**Sg**	**01 04 31.8**	**+0.2**
VLO	**Vlora**	**0.83**	**212**		Pg	**Pg**	**01 04 22.7**	**+0.2**
VLO					Sg	**Sg**	**01 04 33.1**	**-0.2**
VLO					IAML		01 04 39.9	
	comp=E,250nm,0.4s							
SDA	**Shkodra**	**0.98**	**334**		Pg	**Pg**	**01 04 24.2**	**-1.1**
SDA					Sg	**Sb**	**01 04 39.8**	**+1.1**
SDA					IAML		01 04 41.2	
	comp=E,214nm,0.2s							
ULC	**Ulcinj**	**1.00**	**322**	*e*	Pg	**Pg**	**01 04 24.9**	**-1.0**
ULC				*i*	Sg	**Sb**	**01 04 40.7**	**+1.2**
NEST	**Nestorio**	**1.06**	**135**		Pn	**Pg**	**01 04 26.5**	**-0.5**
LSK	**Leskovik**	**1.10**	**158**		Pg	**Pg**	**01 04 26.3**	**-1.4**
LSK					Sg	**Sn**	**01 04 44.3**	**+0.8**
DRME	**Dracevica, Mon**	**1.21**	**327**	*e*	Pg	**Pg**	**01 04 28.7**	**-1.1**
DRME				*i*	Sg	**Sn**	**01 04 47.5**	**+1.3**
SRN	**Sarande**	**1.29**	**182**		Pn	**Pb**	**01 04 31.5**	**+0.4**
SRN					Sn	**Sn**	**01 04 50.2**	**+2.0**
PDG	**Podgorica**	**1.40**	**334**	*e*	Pg	**Pn**	**01 04 32.1**	**-0.2**
PDG				*e*	Sg	**Sg**	**01 04 53.8**	**+2.3**
PDG	**Podgorica**	**1.40**	**334**		Pg	**Pn**	**01 04 31.5**	**-0.7**
PDG					Sg	**Sg**	**01 04 53.7**	**+2.2**
PDG	**Podgorica**	**1.40**	**334**	*e*	Pg	**Pn**	**01 04 32.0**	**-0.2**
PDG				*i*	Sg	**Sg**	**01 04 53.7**	**+2.2**
PVY	**Plav**	**1.42**	**357**	⇓	*i* Pg	**Pn**	**01 04 32.5**	**-0.2**
PVY				*i*	Sg	**Sg**	**01 04 54.1**	**+1.7**
BUM	**Brajici-Budva**	**1.43**	**322**	⇓	*i* Pg	**Pn**	**01 04 32.9**	**+0.1**
BUM				*i*	Sg	**Sg**	**01 04 54.8**	**+2.2**
CEME	**Cevo**	**1.62**	**328**	*e*	Pn	**Pn**	**01 04 35.9**	**+0.5**
CEME				*i*	Sn	**Sg**	**01 04 59.2**	**+0.5**
IGT	**Igoumenitsa**	**1.65**	**173**		Pn	**Pb**	**01 04 37.0**	**-0.2**
IGT					Sn	**Sg**	**01 05 00.5**	**+0.8**
IVA	**Berane**	**1.70**	**356**	⇑	*i* Pn	**Pn**	**01 04 37.0**	**+0.5**
IVA				*i*	Sn	**Sg**	**01 05 00.9**	**-0.4**
KOME	**Kolasin**	**1.73**	**346**	*e*	Pn	**Pn**	**01 04 37.2**	**+0.3**
KOME				*i*	Sn	**Sg**	**01 05 01.6**	**-0.5**
HCY	**Herceg Novi**	**1.73**	**318**	⇓	*i* Pn	**Pn**	**01 04 37.7**	**+0.8**
HCY				*i*	Sn	**Sg**	**01 05 02.2**	**-0.1**
NKME	**Niksic**	**1.80**	**333**	*e*	Pn	**Pn**	**01 04 38.7**	**+0.9**
NKME				*i*	Sn	**Sb**	**01 05 03.5**	**+1.2**
BRY	**Bratogost**	**2.07**	**327**	*e*	Pn	**Pn**	**01 04 42.3**	**+0.7**
BRY				*i*	Sn	**Sb**	**01 05 10.2**	**-0.1**
DBRK	**Dubrovnik**	**2.07**	**317**	*i*	Pn	**Pn**	**01 04 41.1**	**-0.4**
DBRK					Sn	**Sn**	**01 05 08.4**	**+0.9**
SJES	**Sjenica**	**2.09**	**358**	*e*	Pg	**Pb**	**01 04 44.9**	**+0.2**
SJES				*e*	Sg	**Sg**	**01 05 12.8**	**-0.9**
BARS	**Barje**	**2.09**	**38**	*e*	Pg	**Pb**	**01 04 44.1**	**-0.7**
BARS				*e*	Sg	**Sn**	**01 05 08.5**	**+0.4**
SELS	**Selova**	**2.19**	**21**	*e*	Pn	**Pn**	**01 04 44.4**	**+1.2**
PLE	**Pljevlja**	**2.21**	**347**	*e*	Pn	**Pn**	**01 04 44.1**	**+0.5**
PLE				*i*	Sn	**Sb**	**01 05 13.2**	**-1.2**
IVAS	**Ivanjica**	**2.40**	**1**	*e*	Pn	**Pn**	**01 04 47.2**	**+1.1**
STON	**Ston**	**2.45**	**315**	*e*	Pn	**Pn**	**01 04 46.5**	**-0.1**
STON					Sn	**Sn**	**01 05 15.5**	**-1.2**
STON	**Ston**	**2.45**	**315**	*e*	Pn	**Pn**	**01 04 47.9**	**+1.2**
LSTV	**Lastovo**	**2.85**	**305**	*e*	Pn	**Pn**	**01 04 52.0**	**-0.3**
LSTV					Sn	**Sn**	**01 05 25.7**	**-1.1**
MAKA	**Makarska**	**3.10**	**314**	*e*	Pn	**Pn**	**01 04 54.5**	**-1.1**
MAKA					Sn	**Sn**	**01 05 31.4**	**-1.3**
RICI	**Ricice**	**3.18**	**318**	*e*	Pn	**Pn**	**01 04 56.4**	**-0.4**
RICI					Sn	**Sn**	**01 05 34.7**	**-0.1**
HVAR	**Hvar**	**3.35**	**308**	*e*	Pn	**Pn**	**01 04 57.5**	**-1.6**
HVAR					Sn	**Sn**	**01 05 38.2**	**-0.9**
KIJV	**Kijevo**	**3.91**	**317**	*i*	Pn	**Pn**	**01 05 07.6**	**+0.7**
KIJV					Sn	**Sn**	**01 05 53.5**	**+0.6**
MORI	**Morici**	**4.20**	**311**	*e*	Pn	**Pn**	**01 05 10.1**	**-0.7**
MORI					Sn	**Sn**	**01 05 59.2**	**-0.7**
DUGI	**Dugi Otok**	**4.65**	**309**	*e*	Pn	**Pn**	**01 05 15.9**	**-1.0**
DUGI					Sn	**Sn**	**01 06 09.8**	**-1.2**

*ISK **06** 01:09:29.8, 37°.71N×27°.00E, h8km, ML2.7/17*
*AFAD **06** 01:09:30.2, 37°.73N×27°.01E, h7km±2km, ML2.5*
*THE **06** 01:09:30.7, 37°.7N±0°.9×27°.0E±0°.9, h4km±2km, M2.8/9, MLh2.8/9*

ISC 06 01:09:30.6±0.8, 37°.73N±0°.02×27°.01E±0°.02, h11km±6km, n34, σ0s50/53, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SMG	**Samos**	**0.14**	**260**	P		**Pg**	**01 09 33.5**	**-0.4**
SMG				S		**Sg**	**01 09 35.9**	**-0.3**
SMG				AML		AML		
GCAM	**G?zelcaml?**	**0.18**	**101**	P		**Pg**	**01 09 34.3**	**-0.1**
GCAM				S		**Sg**	**01 09 37.5**	**+0.4**
GCAM				IAML			01 09 38.0	
	comp=E,1μm,0.7s							
GCAM				IAML			01 09 39.0	
	comp=N,1μm,0.3s							
GCAM	**G?zelcaml?**	**0.18**	**101**	Pg		**Pg**	**01 09 34.4**	**-0.1**
GCAM				Sg		**Sg**	**01 09 37.2**	**+0.1**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**59**	Pg		**Pg**	**01 09 35.8**	**0.0**
KUSD				Sg		**Sg**	**01 09 39.6**	**+0.4**
KUSD				AML		AML		
DDIM	**Aydin, Didim**	**0.33**	**147**	P		**Pg**	**01 09 37.2**	**0.0**
DDIM				S		**Sg**	**01 09 42.2**	**+0.6**
DDIM				IAML			01 09 43.0	
	comp=N,565nm,0.6s							
DDIM				IAML			01 09 44.0	
	comp=E,562nm,1.0s							
DGB	**zmir**	**0.34**	**342**	P		**Pg**	**01 09 36.9**	**-0.4**
DGB				S		**Sg**	**01 09 41.7**	**-0.1**
DGB				IAML			01 09 42.0	
	comp=E,436nm,0.5s							
GMLD	**Gumuldur**	**0.35**	**347**	Pg		**Pg**	**01 09 37.7**	**+0.1**
GMLD				Sg		**Sg**	**01 09 42.9**	**+0.6**
GMLD				AML		AML		
BEYE	**izmir**	**0.50**	**352**	P		**Pg**	**01 09 40.2**	**-0.1**
BEYE				S		**Sg**	**01 09 47.3**	**+0.4**
BEYE				IAML			01 09 49.0	
	comp=E,301nm,0.7s							
BEYE				IAML			01 09 51.0	
	comp=N,322nm,0.3s							
YKAV	**Yalikavak-Bodr**	**0.64**	**161**	Pg		**Pg**	**01 09 42.5**	**-0.5**
YKAV				Sg		**Sg**	**01 09 51.3**	**-0.2**
YKAV				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**322**	P		**Pg**	**01 09 43.0**	**-0.2**
ZEYE				IAML			01 09 52.0	
	comp=N,290nm,0.3s							
ZEYE				S		**Sb**	**01 09 52.4**	**-0.5**
BLCB	**Balcova**	**0.65**	**2**	P		**Pg**	**01 09 43.1**	**-0.1**
BLCB				S		**Sb**	**01 09 52.4**	**-0.6**
BLCB				AML		AML		
BLCB	**Balcova**	**0.65**	**2**	Pg		**Pg**	**01 09 43.3**	**+0.1**
BLCB				AML		AML		
BODT	**Bodrum**	**0.71**	**160**	P		**Pg**	**01 09 44.1**	**-0.2**
BODT				S		**Sb**	**01 09 54.6**	**-0.1**
BODT				AML		AML		
BODT	**Bodrum**	**0.71**	**160**	Pg		**Pg**	**01 09 43.3**	**-1.0**
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**73**	Pg		**Pg**	**01 09 44.7**	**+0.1**
AYDB				AML		AML		
MLSB	**Milas**	**0.75**	**126**	Pg		**Pg**	**01 09 44.1**	**-0.9**
MLSB				AML		AML		
BODA	**Bodrum-Mula**	**0.77**	**154**	Pg		**Pg**	**01 09 44.7**	**-0.8**
IZMR	**zmir-demi**	**0.84**	**61**	P		**Pg**	**01 09 45.8**	**-1.1**
IZMR				S		**Sg**	**01 09 56.8**	**-1.1**
KRBN	**Karaburun**	**0.93**	**337**	Pg		**Pg**	**01 09 48.4**	**-0.1**
KRBN				AML		AML		
CHOS	**Chios island**	**1.00**	**311**	P		**Pb**	**01 09 50.1**	**+0.2**
CHOS				S		**Sn**	**01 10 04.6**	**-0.1**
CHOS				AML		AML		
CHOS	**Chios island**	**1.00**	**311**	Pg		**Pb**	**01 09 49.7**	**-0.2**
CHOS				AML		AML		
FOCM	**Foa**	**1.00**	**347**	Pg		**Pb**	**01 09 49.9**	**-0.1**
FOCM				AML		AML		
NAZL	**Nazilli-Aydin**	**1.04**	**77**	Pg		**Pb**	**01 09 50.5**	**-0.1**
NAZL				AML		AML		
CAMT	**Merkez**	**1.04**	**13**	P		**Pg**	**01 09 49.8**	**-0.8**
CAMT				S		**Sn**	**01 10 06.1**	**+0.5**
CAMT				IAML			01 10 08.0	
	comp=E,214nm,0.4s							
CAMT				IAML			01 10 08.0	
	comp=N,334nm,0.3s							
DAT	**Datca**	**1.10**	**156**	P		**Pb**	**01 09 51.8**	**+0.2**
DAT				AML		AML		
YER	**Yerkesik**	**1.17**	**120**	P		**Pg**	**01 09 52.7**	**-0.4**
YER				S		**Sn**	**01 10 09.8**	**+0.8**
GOMA	**Golmarmara-Man**	**1.21**	**36**	Pn		**Pn**	**01 09 54.1**	**+0.7**
GOMA				AML		AML		
ZEDA	**zmir-Bergama**	**1.23**	**2**	P		**Pb**	**01 09 53.7**	**-0.2**
ZEDA				S		**Sn**	**01 10 10.8**	**+0.5**
ZEDA				IAML			01 10 15.0	
	comp=E,144nm,0.5s							
AKS	**Akhisar**	**1.31**	**29**	Pn		**Pg**	**01 09 55.3**	**-0.3**
AKS				AML		AML		
DKL	**Dikili**	**1.34**	**356**	Pn		**Pg**	**01 09 55.8**	**-0.5**
DKL				AML		AML		
APE	**Apeiranthos**	**1.35**	**241**	P		**Pb**	**01 09 55.9**	**-0.1**
APE				S		**Sn**	**01 10 14.5**	**+1.0**
APE				AML		AML		
SOMA	**Soma-Manisa**	**1.48**	**16**	Pn		**Pn**	**01 09 56.9**	**-0.2**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.49**	**38**	Pn		**Pb**	**01 09 58.0**	**-0.3**
GORD				AML		AML		
PRK	**Paraskevi**	**1.62**	**339**	P		**Pb**	**01 09 59.8**	**-0.7**
PRK				S		**Sb**	**01 10 21.4**	**+0.5**

AFAD 06 01:25:22.5, 37°.92N×26°.98E, h7km±3km, ML1.1, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DGB	**zmir**	**0.15**	**330**	P		Pg	01 25 25.5	-0.1
DGB				S		Sg	01 25 28.6	+0.9
GCAM	**G?zelcaml?**	**0.30**	**138**	P		Pg	01 25 28.4	0.0
GCAM				S		Sg	01 25 33.9	+1.5
GCAM				IAML			01 25 34.0	
	comp=N,30nm,0.2s							
BEYE	**izmir**	**0.30**	**352**	P		Pg	01 25 28.8	+0.3
BEYE				S		Sg	01 25 33.8	+1.3
BEYE				IAML			01 25 34.0	
	comp=E,29nm,0.8s							
BEYE				IAML			01 25 35.0	
	comp=N,19nm,0.2s							

*NNC **06** 01:25:25.6±1.0, 44°.54N×81°.59E, h0km, mb2.7, mpv2.2,*
Error ellipse: s-maj=16.7km s-min=4.9km az=124.0
*SOME **06** 01:25:30.0, 44°.50N×81°.27E, h10km*

ISC 06 01:25:29.4±1.9, 44°.6N±0°.1×81°.5E±0°.1, h33km, n6, σ0s69/10, 2C-3D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DJR	**Jarkent**	**1.23**	**259**	*e*	P	**Pn**	**01 25 50.9**	**+0.6**
	1.9nm,0.2s							
DJR				*e*	S	**Sn**	**01 26 06.0**	**+0.3**
	1.5nm,0.2s							
PDGK	**Podgornoye**	**1.90**	**229**	⇓	Pn	**Pn**	**01 26 00.5**	**+0.9**
	1.4nm,0.3s							
PDGK				⇑	Sn	**Sb**	**01 26 25.8**	**-1.0**
	6.7nm,0.8s							
MAKZ	**Makanchi**	**2.25**	**9**	Pn		**Pn**	**01 26 04.8**	**+0.4**
MAKZ				⇓	Lg	Lg	01 26 37.3	
	2.8nm,0.4s							
MK31	**Makanchi Array**	**2.29**	**14**	⇑	Pn	**Pn**	**01 26 05.1**	**+0.3**
	0.3nm,0.3s,baz=192,slow=15,SNR=20							
MK31				⇓	Lg	Lg	01 26 37.7	
	0.4nm,0.2s,baz=192,slow=29							
KPKS	**Kokpek**	**2.29**	**242**	*e*	P	**Pb**	**01 26 09.6**	**-0.6**
	0.2nm,0.1s							
KPKS				*e*	S	**Sb**	**01 26 38.3**	**+0.1**
	21nm,0.5s							
ARXS	**Arharly**	**2.63**	**263**	*e*	P	**Pb**	**01 26 15.4**	**-0.6**
	0.8nm,0.3s							
ARXS				*e*	S	**Sb**	**01 26 47.8**	**-0.1**
	3.5nm,0.1s							

ISK 06 01:26:10.9, 37°.86N×26°.96E, h5km, ML1.7/9, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
GMLD	**Gumuldur**	**0.22**	**350**	Pg		Pg	01 26 16.1	+0.9
GMLD				Sg		Sg	01 26 19.4	+1.3
GCAM	**G?zelcaml?**	**0.27**	**127**	Pg		Pg	01 26 16.4	+0.3
GCAM				Sg		Sg	01 26 21.2	+1.6
GCAM				AML		AML		
BLCB	**Balcova**	**0.53**	**7**	Pg		Pg	01 26 21.6	+0.5
BLCB				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**83**	Pg		Pb	01 26 26.1	-0.2
AYDB				AML		AML		
BODT	**Bodrum**	**0.84**	**161**	Pg		Pb	01 26 27.7	-0.3
MLSB	**Milas**	**0.86**	**131**	Pg		Pb	01 26 27.9	-0.4
CHOS	**Chios island**	**0.89**	**307**	Pg		Pb	01 26 28.9	+0.1
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.06**	**84**	Pg		Pb	01 26 31.7	0.0
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn		Pg	01 26 38.2	+0.1

*THE **06** 01:37:29.3, 37°.9N±0°.8×27°.7E±°, h12km±1km, M3.0/6, MLh3.0/6*
*AFAD **06** 01:37:29.1, 37°.85N×26°.97E, h8km±1km, ML2.8*
*ATH **06** 01:37:29.8, 37°.80N×26°.95E, h13km±1km, ML2.9/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*ISK **06** 01:37:29.3, 37°.85N×26°.98E, h7km, ML3.3/12*

ISC 06 01:37:29.4±0.8, 37°.85N±0°.01×26°.98E±0°.02, h15km±5km, n70, σ0s50/116, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SMG	**Samos**	**0.18**	**218**	P		**Pg**	**01 37 33.3**	**-0.3**
SMG				S		**Sg**	**01 37 36.7**	**+0.2**
SMG	**Samos**	**0.18**	**218**	P		**Pg**	**01 37 33.4**	**-0.3**
SMG				S		**Sg**	**01 37 35.6**	**-0.9**
SMG				AML		AML		
DGB	**zmir**	**0.22**	**340**	P		**Pg**	**01 37 33.9**	**-0.4**
DGB				S		**Sg**	**01 37 37.0**	**-0.5**
DGB				IAML			01 37 37.0	
	comp=N,1μm,0.3s							
DGB				IAML			01 37 37.0	
	comp=E,1μm,0.3s							
GMLD	**Gumuldur**	**0.23**	**348**	Pg		**Pg**	**01 37 34.5**	**0.0**
GMLD				Sg		**Sg**	**01 37 38.0**	**0.0**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**87**	Pg		**Pg**	**01 37 34.8**	**+0.1**
KUSD				Sg		**Sg**	**01 37 38.6**	**+0.3**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.25**	**126**	P		**Pg**	**01 37 34.9**	**+0.1**
GCAM				S		**Sg**	**01 37 39.0**	**+0.5**
GCAM				IAML			01 37 39.0	
	comp=E,2μm,0.5s							
GCAM				IAML			01 37 39.0	
	comp=N,2μm,0.1s							
GCAM	**G?zelcaml?**	**0.25**	**126**	Pg		**Pg**	**01 37 34.9**	**+0.1**
GCAM				Sg		**Sg**	**01 37 38.9**	**+0.5**
GCAM				AML		AML		
SAM2	**Drakei, Karlov**	**0.30**	**253**	P		**Pg**	**01 37 35.5**	**-0.2**
SAM2				S		**Sg**	**01 37 39.4**	**-0.7**
BEYE	**izmir**	**0.38**	**354**	P		**Pg**	**01 37 37.1**	**0.0**
BEYE				S		**Sg**	**01 37 42.8**	**+0.5**
BEYE				IAML			01 37 43.0	
	comp=E,505nm,0.3s							
BEYE				IAML			01 37 45.0	
	comp=N,613nm,0.6s							
DDIM	**Aydin, Didim**	**0.44**	**152**	P		**Pg**	**01 37 38.2**	**0.0**
DDIM				S		**Sb**	**01 37 45.0**	**-0.3**
DDIM				IAML			01 37 48.0	
	comp=N,624nm,0.6s							
DUVT	**Torbali**	**0.53**	**45**	P		**Pg**	**01 37 39.6**	**-0.2**
DUVT				S		**Sg**	**01 37 46.6**	**-0.2**
DUVT				IAML			01 37 51.0	
	comp=E,1μm,0.4s							
BLCB	**Balcova**	**0.54**	**5**	P		**Pg**	**01 37 39.8**	**-0.2**
BLCB				S		**Sg**	**01 37 47.5**	**+0.4**
BLCB	**Balcova**	**0.54**	**5**	Pg		**Pg**	**01 37 39.9**	**-0.1**
BLCB				Sg		**Sb**	**01 37 47.7**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.54**	**316**	P		**Pg**	**01 37 39.5**	**-0.5**
ZEYE				IAML			01 37 47.0	
	comp=N,2μm,0.2s							
ZEYE				S		**Sg**	**01 37 47.4**	**+0.2**
ZEYE				IAML			01 37 51.0	
	comp=E,918nm,0.2s							
AYDB	**Zeytinkoy-Aydi**	**0.73**	**82**	Pg		**Pb**	**01 37 44.1**	**+0.2**
AYDB				AML		AML		
AYDN	**Tasoluk**	**0.74**	**104**	P		**Pg**	**01 37 43.8**	**0.0**
AYDN				S		**Sb**	**01 37 54.4**	**+0.4**
AYDN				IAML			01 37 57.0	
	comp=E,456nm,0.5s							
AYDN				IAML			01 37 57.0	
	comp=N,322nm,0.4s							
YKAV	**Yalikavak-Bodr**	**0.76**	**161**	Pg		**Pb**	**01 37 44.7**	**+0.4**
YKAV				Sg		**Sb**	**01 37 55.5**	**+1.0**
YKAV				AML		AML		
BAGT	**Foa**	**0.81**	**353**	P		**Pg**	**01 37 44.8**	**-0.4**
BAGT				S		**Sb**	**01 37 56.5**	**+0.5**
BAGT				IAML			01 37 57.0	
	comp=E,396nm,0.5s							
BAGT				IAML			01 37 59.0	
	comp=N,694nm,0.6s							
KRBN	**Karaburun**	**0.81**	**336**	Pg		**Pb**	**01 37 45.4**	**+0.1**
KRBN				Sg		**Sb**	**01 37 57.3**	**+1.2**
IZMR	**zmir-demi**	**0.82**	**69**	P		**Pg**	**01 37 44.8**	**-0.5**
IZMR				S		**Sg**	**01 37 54.9**	**-1.3**
BODT	**Bodrum**	**0.83**	**161**	P		**Pg**	**01 37 45.1**	**-0.3**
BODT				S		**Sb**	**01 37 57.1**	**+0.7**
BODT				AML		AML		
BODT	**Bodrum**	**0.83**	**161**	Pg		**Pg**	**01 37 45.3**	**-0.2**
BODT				Sg		**Sb**	**01 37 57.2**	**+0.7**
BODT				AML		AML		
MLSB	**Milas**	**0.84**	**131**	Pg		**Pn**	**01 37 46.6**	**-0.2**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.87**	**154**	P		**Pg**	**01 37 45.7**	**-0.4**
BDRM				S		**Sg**	**01 37 57.2**	**-0.3**
BDRM				IAML			01 38 01.0	
	comp=N,337nm,0.3s							
BDRM				IAML			01 38 01.0	
	comp=E,423nm,0.3s							
FOCM	**Foa**	**0.88**	**347**	Pg		**Pg**	**01 37 46.4**	**-0.1**
BODA	**Bodrum-Mula**	**0.89**	**156**	Pg		**Pb**	**01 37 47.0**	**+0.5**
KLNA	**Kalymnos**	**0.89**	**180**	P		**Pg**	**01 37 46.1**	**-0.5**
CHOS	**Chios island**	**0.90**	**307**	P		**Pg**	**01 37 46.7**	**-0.1**
CHOS				S		**Sb**	**01 37 59.5**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.90**	**307**	Pg		**Pb**	**01 37 47.4**	**+0.6**
CHOS				AML		AML		
CHOS	**Chios island**	**0.90**	**307**	P		**Pn**	**01 37 47.6**	**-0.1**
CHOS				S		**Sn**	**01 38 00.0**	**-0.5**
CHOS				AML		AML		
KARB	**zmir-Karabur**	**0.93**	**331**	P		**Pg**	**01 37 46.2**	**-1.1**
KARB				S		**Sn**	**01 38 00.7**	**-0.3**
KARB				IAML			01 38 02.0	
	comp=E,266nm,0.3s							
KARB				IAML			01 38 03.0	
	comp=N,311nm,0.5s							
CAMT	**Merkez**	**0.94**	**16**	P		**Pg**	**01 37 47.4**	**-0.1**
CAMT				S		**Sb**	**01 38 00.2**	**+0.6**
CAMT				IAML			01 38 03.0	
	comp=N,526nm,0.4s							
CAMT				IAML			01 38 03.0	
	comp=E,924nm,0.6s							
EAG2	**Marmaro, Chios**	**0.97**	**316**	P		**Pn**	**01 37 48.9**	**+0.4**
EAG2				S		**Sn**	**01 38 02.0**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.05**	**83**	Pg		**Pg**	**01 37 49.6**	**0.0**
NAZL				AML		AML		
ESEN	**Aydn-Nazilli**	**1.09**	**92**	P		**Pb**	**01 37 49.9**	**0.0**
ESEN				S		**Sn**	**01 38 05.3**	**+0.4**
ZEDA	**zmir-Bergama**	**1.12**	**4**	P		**Pn**	**01 37 50.7**	**+0.1**
ZEDA				S		**Sn**	**01 38 06.6**	**+0.9**
ZEDA				IAML			01 38 08.0	
	comp=E,225nm,0.8s							
ZEDA				IAML			01 38 10.0	
	comp=N,114nm,0.5s							
GOMA	**Golmarmara-Man**	**1.13**	**41**	Pn		**Pg**	**01 37 51.2**	**0.0**
GOMA				AML		AML		
KIRA	**zmir-Kiraz**	**1.18**	**72**	P		**Pb**	**01 37 51.3**	**-0.2**
KIRA				S		**Sb**	**01 38 06.3**	**-0.3**
KTTT	**Salihli**	**1.21**	**46**	P		**Pb**	**01 37 52.3**	**+0.2**
KTTT				S		**Sb**	**01 38 07.2**	**-0.4**
KTTT				IAML			01 38 10.0	
	comp=N,147nm,0.7s							
DAT	**Datca**	**1.22**	**157**	P		**Pn**	**01 37 51.5**	**-0.5**
DAT				S		**Sb**	**01 38 08.2**	**+0.5**
AKS	**Akhisar**	**1.22**	**32**	Pn		**Pg**	**01 37 52.7**	**-0.2**
AKHS	**Akhisar**	**1.22**	**32**	P		**Pn**	**01 37 52.7**	**+0.2**
AKHS				S		**Sg**	**01 38 08.8**	**0.0**
AKHS				IAML			01 38 14.0	
	comp=N,162nm,0.3s							
MULA	**Mugla, Merkez-**	**1.22**	**119**	P		**Pn**	**01 37 51.9**	**-0.1**
MULA				S		**Sb**	**01 38 07.8**	**-0.1**
DKL	**Dikili**	**1.22**	**357**	Pn		**Pg**	**01 37 53.1**	**+0.2**
DKL	**Dikili**	**1.22**	**357**	P		**Pn**	**01 37 52.2**	**+0.2**
DKL				S		**Sg**	**01 38 09.3**	**+0.5**
YAZI	**Mula-Dat§a-**	**1.23**	**162**	P		**Pn**	**01 37 50.2**	**-1.8**
YAZI				S		**Sg**	**01 38 09.3**	**+0.4**
YER	**Yerkesik**	**1.26**	**124**	P		**Pn**	**01 37 52.8**	**+0.2**
YER				S		**Sb**	**01 38 09.4**	**+0.5**
SOMA	**Soma-Manisa**	**1.38**	**18**	Pn		**Pg**	**01 37 55.4**	**-0.5**
SOMA				AML		AML		
APE	**Apeiranthos**	**1.39**	**236**	P	

az=35.9,confirmed
*IDC **06** 01:39:36.6±0.6, 11˚.61N×85˚.58W, h0km, mb4.2/7, mbtmp4.2/7, ML2.4/1, MS3.7/11, Error ellipse: s-maj=49.4km s-min=11.6km az=55.0*
*UCR **06** 01:39:36.7±0.5, 10˚.57N×86˚.50W, h15km±6km, MW4.9, Presumed earthquake*
*NEIC **06** 01:39:37.4±2.3, 10˚.72N±0˚.07×86˚.38W±0˚.07, h10km±1km, mb4.6/136, Error ellipse: s-maj=14.0km s-min=7.0km az=223.0*
*GFZ **06** 01:39:38.8±0.3, 11˚N±5˚×8˚6W±˚, h31km, M4.6/13, mb4.6/13, confirmed*

ISC 06 01:39:37.0±0.6, 10˚.62N±0˚.03×86˚.45W±0˚.03, h19km±1km, n230, σ1$36/207, mb4.6/81, MS3.6/9, 16C-1D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALIBA	**Liberia Airpor**	**0.89**	**92**	*eP*	**Pn**	**01 39 55.1**	**+0.6**
ALIBA				*eS*	**Sn**	**01 40 09.1**	**+2.2**
LCRUZ	**La Cruz**	**0.92**	**61**	*eP*	**Pn**	**01 39 55.1**	**+0.1**
SACU	**Santa Cruz**	**0.93**	**113**	*eP*	**Pb**	**01 39 53.9**	**-0.5**
ERIA	**Liberia**	**0.99**	**89**	*eP*	**Pn**	**01 39 56.3**	**+0.4**
JUD3	**Juan Diaz 3**	**1.01**	**117**		**Pb**	**01 39 55.6**	**-0.3**
JUD3	**Juan Diaz 3**	**1.01**	**117**	*eP*	**Pb**	**01 39 55.5**	**-0.3**
LAPC	**Finca la Perla**	**1.01**	**82**	*eP*	**Pb**	**01 39 55.3**	**-0.6**
CARN	**Rivas**	**1.07**	**58**	↑↑P	**Pn**	**01 39 57.7**	**+0.7**
CARN				S	**Sn**	**01 40 15.6**	**+4.3**
CARN	**Rivas**	**1.07**	**58**		**Pn**	**01 39 57.7**	**+0.7**
CARN	**Rivas**	**1.07**	**58**	*eP*	**Pn**	**01 39 57.7**	**+0.7**
GPS3	**Bodega del ICE**	**1.07**	**83**	*eP*	**Pn**	**01 39 57.6**	**+0.5**
GPS2	**Hotel Rincn d**	**1.09**	**83**	*eP*	**Pn**	**01 39 57.6**	**+0.3**
NICO	**Nicoya**	**1.10**	**116**	*eP*	**Pb**	**01 39 56.9**	**-0.5**
BUAI	**Buenos Aires**	**1.13**	**77**	*eP*	**Pn**	**01 39 58.5**	**+0.7**
BAGA	**Bagaces**	**1.17**	**95**	*eP*	**Pn**	**01 39 58.6**	**+0.2**
JAPN	**Al SSO del Vol**	**1.17**	**40**	↑↑P	**Pn**	**01 39 59.6**	**+1.2**
JAPN	**Al SSO del Vol**	**1.17**	**40**	*eP*	**Pn**	**01 39 59.5**	**+1.2**
CMARA	**Lajas Hojancha**	**1.18**	**121**	P	**Pg**	**01 39 59.5**	**-0.3**
CMARA				S	**Sg**	**01 40 14.0**	**-1.3**
CMARA	**Lajas Hojancha**	**1.18**	**121**	*eP*	**Pb**	**01 39 58.1**	**-0.7**
NADN	**Granada**	**1.19**	**20**	↑↑P	**Pn**	**01 39 58.8**	**+0.1**
NADN				S	**Sn**	**01 40 18.9**	**+4.6**
MORN	**Al O del Volca**	**1.21**	**41**	↑↑P	**Pn**	**01 39 59.6**	**+0.7**
MORN				S	**Sn**	**01 40 18.4**	**+3.6**
COLC	**Colonia**	**1.23**	**88**	*eP*	**Pg**	**01 39 59.6**	**-1.2**
MESS	**Mesas**	**1.24**	**85**	*eP*	**Pg**	**01 39 59.8**	**-1.2**
CLARA	**Aguas Claras**	**1.26**	**83**	*eP*	**Pg**	**01 40 00.4**	**-1.1**
CUI	**Cuipilapa**	**1.27**	**88**	*eP*	**Pg**	**01 40 00.3**	**-1.2**
VMAR	**Armenia, Volca**	**1.33**	**82**	*eP*	**Pg**	**01 40 01.5**	**-1.2**
NANN	**Nandasmo**	**1.35**	**14**	↑↑P	**Pg**	**01 40 02.4**	**-0.6**
NANN				S	**Sg**	**01 40 21.9**	**+1.2**
CNAS	**Canas**	**1.35**	**98**	*eP*	**Pg**	**01 40 01.5**	**-1.6**
SABN	**Sabanita**	**1.35**	**12**	P	**Pn**	**01 40 00.6**	**-0.4**
MASN	**Masaya**	**1.39**	**12**	P	**Pg**	**01 40 02.0**	**-1.8**
MASN				S	**Sg**	**01 40 23.6**	**+1.6**
CANAL	**Canalete**	**1.39**	**81**	*eP*	**Pg**	**01 40 02.2**	**-1.6**
MAS3	**Al N del Volca**	**1.42**	**11**	P	**Pg**	**01 40 02.5**	**-1.9**
MAS3				S	**Sg**	**01 40 23.8**	**+0.8**
UPAL	**Upala**	**1.44**	**79**	↑↑P	**Pg**	**01 40 03.3**	**-1.5**
UPAL				S	**Sg**	**01 40 24.0**	**+0.4**
UPAL	**Upala**	**1.44**	**79**	*eP*	**Pg**	**01 40 02.8**	**-2.0**
ABCN	**Banco Central**	**1.50**	**5**	P	**Pb**	**01 40 03.3**	**-0.9**
ABCN				S	**Sg**	**01 40 25.5**	**+0.1**
COTE	**Lago Cote**	**1.51**	**92**	*eP*	**Pg**	**01 40 04.1**	**-2.1**
JTS	**Las Juntas de**	**1.51**	**103**	Pg	**Pb**	**01 40 03.4**	**-1.0**
	83nm,0.3s,baz=311,slow=17,SNR=47						
JTS				Lg	Lg	01 40 26.1	
	141nm,0.3s,baz=3.5,slow=21,SNR=5.1						
JTS				LR	LR	01 40 39.9	
	comp=Z,789nm,18.5s,baz=357,slow=44						
JTS	**Las Juntas de**	**1.51**	**103**	↑↑P	**Pb**	**01 40 03.4**	**-1.0**
JTS				S	**Sg**	**01 40 25.4**	**-0.5**
JTS	**Las Juntas de**	**1.51**	**103**		**Pn**	**01 40 03.3**	**+0.2**
JTS	**Las Juntas de**	**1.51**	**103**	*eP*	**Pb**	**01 40 03.4**	**-1.0**
JTS	**Las Juntas de**	**1.51**	**103**	P	**Pb**	**01 40 03.4**	**-1.0**
TISN	**Laguna Tiscapa**	**1.52**	**7**	↑↑P	**Pn**	**01 40 03.3**	**+0.1**
MGAN	**Managua**	**1.53**	**7**	P	**Pb**	**01 40 03.7**	**-1.0**
MGAN				S	**Sg**	**01 40 26.5**	**+0.1**
MGAN	**Managua**	**1.53**	**7**		**Pb**	**01 40 03.6**	**-1.0**
MGAN	**Managua**	**1.53**	**7**	P	**Pb**	**01 40 03.9**	**-0.8**
WILN	**Americas 2**	**1.55**	**10**	P	**Pb**	**01 40 04.2**	**-0.9**
WILN				S	**Sg**	**01 40 26.6**	**-0.5**
APQ2	**Apoyeque**	**1.57**	**4**	P	**Pb**	**01 40 04.3**	**-1.1**
APQ2	**Apoyeque**	**1.57**	**4**	↑↑P	**Pb**	**01 40 04.4**	**-1.1**
APQ2				S	**Sg**	**01 40 25.9**	**-1.8**
APQ2				S	**Sb**	**01 40 27.5**	**+2.7**
AMTN	**Mateare**	**1.60**	**1**	P	**Pb**	**01 40 05.0**	**-1.0**
AMTN				S	**Sg**	**01 40 28.1**	**-0.7**
APYN	**Apoyeque**	**1.60**	**4**	P	**Pb**	**01 40 05.6**	**-0.4**
APYN				S	**Sg**	**01 40 28.1**	**-0.8**
TABAC	**Tabacon**	**1.66**	**94**	*eP*	**Pb**	**01 40 06.3**	**-0.8**
CASO	**Castillo**	**1.70**	**96**	*eP*	**Pb**	**01 40 06.8**	**-0.9**
VARE2	**V. Arenal**	**1.71**	**95**	*eP*	**Pb**	**01 40 07.1**	**-0.8**
CEDE	**Laguna Cedeo**	**1.72**	**94**	*eP*	**Pb**	**01 40 07.3**	**-0.8**
LEVN	**Ruinas Leon Vi**	**1.77**	**355**	P	**Pb**	**01 40 08.0**	**-1.0**
MOM2	**El Cardon**	**1.80**	**359**	↑↑P	**Pn**	**01 40 07.5**	**+0.5**
MOM2				S	**Sg**	**01 40 32.9**	**-2.3**
ACON	**Acoyapa**	**1.83**	**43**	P	**Pb**	**01 40 08.0**	**-1.9**
ACON				S	**Sg**	**01 40 35.2**	**-0.9**
ACON	**Acoyapa**	**1.83**	**43**	*eP*	**Pn**	**01 40 07.7**	**+0.3**
MOM3	**MOM3**	**1.88**	**358**	↑↑P	**Pn**	**01 40 08.6**	**+0.5**
BOAB	**BOACO BROADBAN**	**.97**	**23**	↑↑P	**Pn**	**01 40 09.6**	**+0.3**
BOAB	**BOACO BROADBAN**	**.97**	**23**		**Pn**	**01 40 09.7**	**+0.3**
BOAB	**BOACO BROADBAN**	**.97**	**23**	P	**Pn**	**01 40 09.9**	**+0.5**
PLRN	**Geotermica Pol**	**1.97**	**351**	P	**Pn**	**01 40 09.7**	**+0.3**
QUEN	**Al S del Volca**	**1.99**	**349**	↑↑P	**Pn**	**01 40 10.1**	**+0.3**
COVE	**Coope Vega, Sa**	**2.02**	**87**	↑↑P	**Pn**	**01 40 10.2**	**+0.2**
COVE				S	**Sg**	**01 40 38.6**	**-3.4**
TRB2	**Turrubares**	**2.09**	**110**	P	**Pn**	**01 40 10.8**	**-0.3**
TRB2				S	**Sb**	**01 40 38.7**	**-1.3**
PKGN	**Cerro Pekin**	**2.10**	**346**	P	**Pn**	**01 40 12.4**	**+1.3**
PKGN				S	**Sb**	**01 40 39.0**	**-1.1**
CRIN	**San Cristobal**	**2.15**	**344**	P	**Pn**	**01 40 12.3**	**+0.4**
CRIN				S	**Sb**	**01 40 40.3**	**-1.2**
CRIN	**San Cristobal**	**2.15**	**344**		**Pn**	**01 40 12.0**	**+0.2**
CRIN	**San Cristobal**	**2.15**	**344**	P	**Pn**	**01 40 12.2**	**+0.4**
ARTO	**Ro Cuarto**	**2.22**	**97**	*eP*	**Pn**	**01 40 13.6**	**+0.8**
HDC	**Heredia**	**2.38**	**105**		**Pb**	**01 40 17.0**	**-2.4**
HDC	**Heredia**	**2.38**	**105**	P	**Pn**	**01 40 15.4**	**+0.3**
ACOS	**Acosta**	**2.40**	**110**	*eP*	**Pn**	**01 40 16.0**	**+0.7**
AMPA	**Desamparados**	**2.46**	**107**	*eP*	**Pn**	**01 40 17.1**	**+0.9**
ABE2	**San Pablo**	**2.53**	**111**	*eP*	**Pn**	**01 40 17.3**	**0.0**
LCR2	**La Lucha 2**	**2.56**	**110**	P	**Pn**	**01 40 18.7**	**+1.0**
LCR2	**La Lucha 2**	**2.56**	**110**		**Pn**	**01 40 19.1**	**+1.4**
LCR2	**La Lucha 2**	**2.56**	**110**	*eP*	**Pn**	**01 40 18.4**	**+0.7**
CSGN	**Cosiguina Volc**	**2.58**	**335**	P	**Pn**	**01 40 17.8**	**0.0**
CSGN				S	**Sn**	**01 40 50.2**	**+1.6**
CVTG	**V. Turrialba,**	**2.68**	**100**	*eP*	**Pn**	**01 40 19.2**	**+0.1**
RAFA	**San Farael, Vo**	**2.68**	**104**		**Pn**	**01 40 20.7**	**+1.3**
CVTQ	**Turrialba Volc**	**2.71**	**103**	*eP*	**Pn**	**01 40 21.4**	**+1.5**
CVTR	**Volcan Turrial**	**2.72**	**103**	*eP*	**Pn**	**01 40 21.3**	**+1.3**
CVTV	**Tajo**	**2.73**	**103**	*eP*	**Pn**	**01 40 21.2**	**+1.1**
ABRB	**Las Abras (San**	**2.76**	**103**	*eP*	**Pn**	**01 40 21.9**	**+1.4**
EGUB	**Earth Gu¡pi**	**2.84**	**98**		**Pb**	**01 40 24.6**	**-2.5**
BUS1	**Rivas**	**2.87**	**112**	*eP*	**Pn**	**01 40 23.0**	**+0.9**
RCFN	**Al S de San Ju**	**2.90**	**5**	P	**Pn**	**01 40 23.8**	**+1.5**
RCPN	**Sur Rio San Ju**	**2.91**	**7**	P	**Pn**	**01 40 23.7**	**+1.3**
RCVN	**Varillal2**	**2.95**	**5**	↓↓P	**Pn**	**01 40 23.9**	**+0.9**
BLUN	**Bluefields**	**2.96**	**62**	P	**Pn**	**01 40 23.8**	**+0.8**
BLUN				S	**Sb**	**01 41 01.3**	**-3.7**
CNCH	**Conchagua**	**2.96**	**333**	↑↑P	**Pn**	**01 40 23.5**	**+0.3**
CNCH				S	**Sn**	**01 40 59.7**	**+1.5**
RANC	**El Ranchito**	**3.32**	**327**	P	**Pn**	**01 40 27.5**	**+0.6**
RANC				S	**Sn**	**01 41 08.2**	**+1.1**
PACA	**Pacayal**	**3.37**	**327**	P	**Pn**	**01 40 29.6**	**+0.8**
PACA				S	**Sn**	**01 41 09.4**	**+1.1**
ALJI	**Alcalda de J**	**3.39**	**323**	P	**Pn**	**01 40 28.3**	**-0.7**
ALJI				S	**Sn**	**01 41 09.5**	**+0.8**
SIUN	**Universidad Ur**	**3.48**	**28**		**Pn**	**01 40 31.4**	**+1.2**
TGUH	**Tegucigalpa,Un**	**3.50**	**347**	↑↑P	**Pn**	**01 40 31.8**	**+1.2**
TGUH	**Tegucigalpa,Un**	**3.50**	**347**		**Pn**	**01 40 30.7**	**+0.1**
TGUH	**Tegucigalpa,Un**	**3.50**	**347**	P	**Pn**	**01 40 31.8**	**+1.2**
TECO	**Alcaldia de Te**	**3.68**	**322**	P	**Pn**	**01 40 33.3**	**+0.4**
PIRO	**Carate, Puerto**	**3.78**	**125**	P	**Pn**	**01 40 36.6**	**+2.3**
PIRO	**Carate, Puerto**	**3.78**	**125**		**Pn**	**01 40 36.1**	**+1.8**
PAVA	**Las Pavas**	**3.92**	**322**	P	**Pn**	**01 40 35.3**	**-1.0**
P5NO	**Presa 5 de nov**	**4.03**	**326**	P	**Pn**	**01 40 37.6**	**-0.1**
CDITO	**Canoas**	**4.08**	**120**	P	**Pn**	**01 40 38.8**	**+0.5**
JAVA	**Jayaque - finc**	**4.20**	**316**	P	**Pn**	**01 40 39.6**	**-0.7**
NUBE	**Las Nubes**	**4.60**	**315**	P	**Pn**	**01 40 46.4**	**+0.7**
NUBE				S	**Sn**	**01 41 38.7**	**-0.1**
MTO3	**Montecristo**	**4.71**	**323**		**Pn**	**01 40 48.0**	**+0.8**
APG	**El Apazote**	**5.85**	**318**	Pn	**Pn**	**01 41 06.0**	**+3.0**
	0.1nm,0.3s,baz=141,slow=12,SNR=2.9						
APG				AML	AML		
CMIG	**Matias Romero**	**10.41**	**309**	Pn	**Pn**	**01 42 07.4**	**+2.1**
	0.7nm,0.3s,baz=156,slow=9.7,SNR=7.5						
CMIG				Sn	Sn	01 43 49.4	-12
	0.4nm,0.3s,baz=110,slow=20,SNR=6.2						
ROSC	**El Rosal**	**13.32**	**115**	LR	LR	01 48 44.0	
	comp=Z,193nm,19.4s,baz=307,slow=42						
ATAH	**Atahualpa**	**19.38**	**155**	LR	LR	01 50 41.4	
	comp=Z,298nm,18.1s,baz=336,slow=33						
441A	**DeRidder**	**20.98**	**344**	P	**P**	**01 44 19.4**	**+0.2**
HKT	**Hockley**	**21.12**	**337**	P	**P**	**01 44 21.9**	**+1.3**
	comp=Z,22nm,1.5s						
MLDN	**Muldoon**	**21.48**	**334**	IAmb	IAmb	01 44 27.4	
	comp=Z,27nm,0.9s						
HNVL	**Huntsville, TX**	**21.71**	**339**	IAmb	IAmb	01 44 46.1	
	comp=Z,26nm,1.0s						
SNAG	**San Augustine**	**21.99**	**342**	IAmb	IAmb	01 44 36.9	
	comp=Z,30nm,0.9s						
152A	**Waverly Hall**	**22.00**	**4**	P	**P**	**01 44 30.5**	**+0.4**
152A				IAmb	IAmb	01 44 33.0	
	comp=Z,20nm,0.8s						
LRAL	**Lakeview Retre**	**22.31**	**359**	P	**P**	**01 44 33.6**	**+0.2**
LRAL				IAmb	IAmb	01 44 36.5	
	comp=Z,18nm,1.1s						
NATX	**Nacogdoches**	**22.36**	**341**	P	**P**	**01 44 33.8**	**-0.2**
NATX				IAmb	IAmb	01 44 43.1	
	comp=Z,26nm,0.8s						
Z47A	**Carrollton**	**22.52**	**356**	IAmb	IAmb	01 44 37.4	
	comp=Z,23nm,0.9s						
GOGA	**Godfrey**	**22.84**	**6**	P	**P**	**01 44 39.5**	**+0.4**
GOGA				IAmb	IAmb	01 44 40.8	
	comp=Z,30nm,1.2s						
GOGA	**Godfrey**	**22.84**	**6**	P	**P**	**01 44 39.9**	**+0.8**
	comp=Z,25nm,1.1s						
Y49A	**Blount Mountai**	**23.12**	**0**	P	**P**	**01 44 41.8**	**-0.3**
Y49A				IAmb	IAmb	01 44 43.2	
	comp=Z,15nm,0.9s						
Y52A	**Lilburn**	**23.23**	**5**	P	**P**	**01 44 43.0**	**-0.2**
Y52A				IAmb	IAmb	01 44 44.0	
	comp=Z,21nm,0.9s						
Z41A	**Richland Creek**	**23.27**	**346**	IAmb	IAmb	01 44 43.8	
	comp=Z,28nm,1.1s						
JCT	**Junction City**	**23.34**	**330**	IAmb	IAmb	01 44 59.5	
	comp=Z,12nm,0.8s						
WHTX	**Lake Whitney,**	**23.57**	**336**	P	**P**	**01 44 45.4**	**-1.1**
WHTX				IAmb	IAmb	01 44 47.1	
	comp=Z,16nm,0.9s						
BRDY	**Brady**	**23.62**	**332**	P	**P**	**01 44 46.2**	**-0.8**
WLAR	**White Oak Lake**	**23.75**	**346**	IAmb	IAmb	01 44 48.7	
	comp=Z,19nm,0.9s						
HODGE	**Hodges**	**23.81**	**9**	P	**P**	**01 44 48.3**	**-0.5**
HODGE				IAmb	IAmb	01 44 49.4	
	comp=Z,16nm,0.8s						
FPAL	**Fort Paine**	**23.82**	**2**	P	**P**	**01 44 48.4**	**-0.5**
OXF	**Oxford**	**23.93**	**354**	P	**P**	**01 44 48.5**	**-1.4**
JSC	**Jenkinsville**	**24.02**	**11**	IAmb	IAmb	01 44 51.5	
	comp=Z,19nm,0.8s						
OZNA	**Ozona**	**24.36**	**328**	P	**P**	**01 44 53.8**	**-0.2**
PAULI	**Pauline**	**24.45**	**9**	IAmb	IAmb	01 44 55.5	
	comp=Z,19nm,0.9s						
X40A	**Basin Creek Fa**	**24.46**	**347**	P	**P**	**01 44 54.7**	**-0.1**
W52A	**Murphy**	**24.47**	**5**	IAmb	IAmb	01 44 55.6	
	comp=Z,16nm,0.8s						
BG3	**Lake Jocassee**	**24.47**	**7**	P	**P**	**01 44 54.2**	**-0.7**
BG3				IAmb	IAmb	01 44 56.1	
	comp=Z,20nm,0.9s						
SWET	**Sewanee**	**24.48**	**1**	P	**P**	**01 44 54.0**	**-1.1**
SWET				IAmb	IAmb	01 44 56.3	
	comp=Z,22nm,1.2s						
W50A	**Signal Mountai**	**24.49**	**2**	P	**P**	**01 44 54.3**	**-0.8**
W50A				IAmb	IAmb	01 45 09.1	
	comp=Z,12nm,0.7s						
TXAR	**Lajitas Array**	**24.60**	**322**	P	**P**	**01 44 57.1**	**+0.8**
	comp=Z,4.6nm,0.7s,baz=136,slow=10,SNR=38						
TXAR				PcP	**PcP**	**01 48 35.5**	**+1.5**
	comp=Z,1.4nm,0.8s,baz=169,slow=3.0,SNR=9.9						
	comp=Z,4.6nm,0.7s						
PLPT	**Palo Pinto**	**24.64**	**335**	IAmb	IAmb	01 45 22.4	
	comp=Z,14nm,1.0s						
MIAR	**Mount Ida**	**24.68**	**346**	P	**P**	**01 44 56.0**	**-0.9**
CPCT	**Cooper Cave**	**24.78**	**4**	IAmb	IAmb	01 44 59.8	
	comp=Z,18nm,0.9s						
KMSC	**Kings Mountain**	**24.85**	**10**	IAmb	IAmb	01 44 59.0	
	comp=Z,20nm,0.9s						
V48A	**Smith Brothers**	**25.00**	**359**	IAmb	IAmb	01 45 06.8	
	comp=Z,15nm,1.2s						
ABTX	**Abilene, Hawle**	**25.05**	**333**	IAmb	IAmb	01 45 02.4	
	comp=Z,12nm,0.7s						
WTFS	**Witchita Falls**	**25.53**	**336**	IAmb	IAmb	01 45 07.0	
	comp=Z,19nm,1.0s						
229A	**Bryant Ranch,**	**25.55**	**329**	IAmb	IAmb	01 45 06.0	
	comp=Z,9.8nm,0.7s						
MNHN	**Monahans**	**25.56**	**326**	IAmb	IAmb	01 45 07.1	
	comp=Z,16nm,1.0s						
FCAR	**Ozark Folk Cen**	**25.68**	**349**	IAmb	IAmb	01 45 04.8	
	comp=Z,11nm,1.1s						
LCAR	**Lake Charles**	**25.69**	**351**	IAmb	IAmb	01 45 04.9	
	comp=Z,9.0nm,0.9s						
U49A	**Red Boiling Sp**	**25.78**	**1**	IAmb	IAmb	01 45 09.3	
	comp=Z,26nm,1.3s						
APMT	**Aspermont**	**25.85**	**333**	IAmb	IAmb	01 45 10.3	
	comp=Z,18nm,1.0s						
POST	**Post**	**26.28**	**330**	IAmb	IAmb	01 45 22.8	
	comp=Z,10nm,0.8s						
LPIG	**La Paz**	**26.36**	**304**	LR	LR	01 56 45.5	
	comp=Z,84nm,21.4s,baz=87,slow=39						
WMOK	**Wichita Mounta**	**26.51**	**337**	P	**P**	**01 45 14.0**	**+0.6**
	comp=Z,26nm,0.9s						
TUL3	**Leonard**	**26.56**	**343**	IAmb	IAmb	01 45 13.5	
	comp=Z,13nm,0.9s						
T42A	**Van Buren**	**26.62**	**352**	IAmb	IAmb	01 45 13.2	
	comp=Z,8.7nm,0.8s						
U38A	**Gravette**	**26.69**	**346**	IAmb	IAmb	01 45 14.1	
	comp=Z,9.4nm,0.9s						
S51A	**Beattyville**	**27.02**	**5**	IAmb	IAmb	01 45 17.9	
	comp=Z,12nm,0.9s						
S44A	**Carbondale**	**27.07**	**355**	IAmb	IAmb	01 45 17.8	
	comp=Z,13nm,0.9s						
SMWD	**Samnorwood**	**27.42**	**335**	IAmb	IAmb	01 45 25.7	
	comp=Z,14nm,0.9s						
WCI	**Wyandotte Cave**	**27.49**	**0**	P	**P**	**01 45 20.5**	**-1.6**
WCI				IAmb	IAmb	01 45 21.6	
	comp=Z,13nm,0.8s						
WCI	**Wyandotte Cave**	**27.49**	**0**	P	**P**	**01 45 21.0**	**-1.1**
	comp=Z,22nm,0.9s						
WCI				pP	**sP**	**01 45 30.3**	**+0.3**
R49A	**Shelbyville**	**27.57**	**2**	IAmb	IAmb	01 45 22.0	
	comp=Z,8.6nm,0.8s						
R50A	**Paris**	**27.61**	**4**	IAmb	IAmb	01 45 22.9	
	comp=Z,12nm,1.2s						
S39A	**Bolivar**	**27.65**	**348**	IAmb	IAmb	01 45 33.4	
	comp=Z,7.1nm,0.8s						
CCM	**Cathedral Cave**	**27.65**	**352**	P	**P**	**01 45 22.1**	**-1.5**
CCM				IAmb	IAmb	01 45 33.6	
	comp=Z,7.3nm,0.8s						
CCM	**Cathedral Cave**	**27.65**	**352**	P	**P**	**01 45 21.9**	**-1.7**
	comp=Z,9.2nm,0.9s						
AMTX	**Amarillo**	**27.86**	**332**	IAmb	IAmb	01 45 39.6	
	comp=Z,16nm,1.2s						
ELIS	**Ellis County**	**27.93**	**337**	IAmb	IAmb	01 45 42.3	
	comp=Z,14nm,0.9s						
P48A	**Milroy**	**28.73**	**2**	IAmb	IAmb	01 45 32.1	
	comp=Z,13nm,0.8s						
P51A	**Williamsport**	**28.90**	**5**	IAmb	IAmb	01 45 34.3	
	comp=Z,11nm,0.8s						
P38A	**Dawn**	**29.56**	**349**	IAmb	IAmb	01 45 46.0	
	comp=Z,8.0nm,0.7s						
SFIN	**Lafayette**	**29.64**	**359**	IAmb	IAmb	01 45 40.0	
	comp=Z,17nm,1.1s						
ALQ	**Albuquerque**	**30.31**	**326**	IAmb	IAmb	01 45 50.8	
	comp=Z,3.2nm,0.9s						
ANMO	**Albuquerque**	**30.31**	**326**	P	**P**	**01 45 49.4**	**+1.9**
ANMO	**Albuquerque**	**30.31**	**326**	P	**P**	**01 45 49.3**	**+1.9**
ANMO				pP	**sP**	**01 45 56.7**	**+1.2**
TASM	**ASL Pad, Albuq**	**30.31**	**326**	IAmb	IAmb	01 45 50.9	
	comp=Z,3.4nm,0.9s						
SSPA	**Standing Stone**	**30.84**	**13**	P	**P**	**01 45 51.2**	**-0.7**
	comp=Z,14nm,1.3s						
LPAZ	**La Paz**	**32.31**	**146**	LR	LR	01 59 51.6	
	comp=Z,102nm,18.9s,baz=22,slow=37						
BINY	**Binghamton**	**32.76**	**14**	P	**P**	**01 46 07.6**	**-1.2**
	comp=Z,15nm,1.7s						
MVCO	**Mesa Verde**	**33.09**	**327**	P	**P**	**01 46 12.4**	**+0.4**
	comp=Z,5.9nm,1.4s						
MVCO				pP	**sP**	**01 46 20.5**	**+0.5**
MDP	**Montagnes des**	**33.92**	**97**	LR	LR	02 00 58.1	
	comp=Z,56nm,18.5s,baz=347,slow=39						
PV15	**Paradox Valley**	**33.93**	**328**	IAmb	IAmb	01 46 35.4	
	comp=Z,7.8nm,0.9s						
PV13	**Radium Mtn., P**	**33.97**	**328**	IAmb	IAmb	01 46 32.3	
	comp=Z,8.4nm,0.9s						
PV03	**Paradox Valley**	**34.05**	**328**	IAmb	IAmb	01 46 33.3	
	comp=Z,8.4nm,0.8s						
PV05	**Paradox Valley**	**34.05**	**327**	IAmb	IAmb	01 46 32.8	
	comp=Z,8.5nm,0.8s						
PV16	**Nyswonger Mesa**	**34.13**	**328**	IAmb	IAmb	01 46 39.4	
	comp=Z,7.1nm,0.8s						
ECSD	**EROS Data Cent**	**34.15**	**347**	P	**P**	**01 46 18.5**	**-2.4**
	comp=Z,12nm,1.2s						
PV04	**Paradox Valley**	**34.19**	**328**	IAmb	IAmb	01 46 34.5	
	comp=Z,8.6nm,0.8s						
SADO	**Sadowa**	**34.60**	**9**	LR	LR	02 00 30.4	
	comp=Z,120nm,19.1s,baz=224,slow=37						
HMU	**Henry Mountain**	**34.85**	**325**	IAmb	IAmb	01 46 37.5	
	comp=Z,8.2nm,1.0s						
SPMN	**Marine on St.**	**34.91**	**352**	IAmb	IAmb	01 46 34.8	
	comp=Z,9.3nm,0.7s						
SRU	**San Rafael Swe**	**35.57**	**327**	IAmb	IAmb	01 46 46.4	
	comp=Z,5.8nm,0.9s						
PB07	**IPOC Station P**	**36.03**	**153**	P	**P**	**01 46 37.0**	**-0.5**
	comp=Z,23nm,1.5s						
SIV	**San Ignacio**	**36.48**	**136**	P	**P**	**01 46 44.9**	**+3.7**
	comp=Z,3.2nm,0.8s,baz=302,slow=10.0,SNR=13						
SIV				PcP	**PcP**	**01 49 07.5**	**+2.4**
	comp=Z,1.6nm,0.7s,baz=296,slow=1.7,SNR=5.9						
	comp=Z,3.2nm,0.8s						
RSSD	**Black Hills**	**36.68**	**339**	P	**P**	**01 46 41.2**	**-1.6**
	comp=Z,5.2nm,2.2s						
CLDB	**Colider**	**37.21**	**124**	P	**P**	**01 46 48.1**	**+0.6**
	comp=Z,6.8nm,1.3s						
CLDB				pP	**sP**	**01 46 55.4**	**-0.1**
DUG	**Dugway, Tooele**	**37.58**	**326**	P	**P**	**01 46 52.4**	**+1.9**
	comp=Z,2.6nm,1.4s						
PDAR	**Pinedale Array**	**37.84**	**332**	P	**P**	**01 46 51.9**	**-0.8**
	comp=Z,1.0nm,0.7s,baz=124,slow=9.9,SNR=11						
PDAR				PcP	**PcP**	**01 49 09.8**	**+0.7**
	comp=Z,0.4nm,0.7s,baz=170,slow=3.9,SNR=4.3						
	comp=Z,1.0nm,0.7s						
HWUT	**Hardware Ranch**	**37.93**	**329**	P	**P**	**01 46 52.9**	**-0.6**
	comp=Z,8.2nm,0.8s						
AGMN	**Agassiz Nation**	**38.38**	**350**	P	**P**	**01 46 54.5**	**-2.4**
	comp=Z,12nm,1.5s						
NVAR	**Mina Array Bea**	**39.72**	**320**	P	**P**	**01 47 10.5**	**+2.0**
	comp=Z,3.2nm,0.8s,baz=137,slow=7.3,SNR=15						
NVAR				PcP	**PcP**	**01 49 17.8**	**+2.7**
	comp=Z,3.5nm,0.7s,baz=137,slow=4.5,SNR=23						
	com

YULB	**Yu-li**	**0.79**	**288**	⇓	*i*	P	**Pb**	01 40 32.4	-1.0
YULB						S	**Sb**	01 40 44.4	+0.6
EHY	**Hungye**	**0.81**	**296**	⇓	*i*	P	**Pb**	01 40 32.6	-1.2
EHY						eS	**Sb**	01 40 44.3	-0.1
SHUL	**Shoufeng**	**0.82**	**321**	⇓	*i*	P	**Pb**	01 40 33.1	-0.8
SHUL						*i* S	**Sb**	01 40 44.0	-0.4
ECS	**Chishang**	**0.83**	**267**	⇓	*i*	P	**Pb**	01 40 33.1	-0.9
ECS						eS	**Sb**	01 40 44.6	-0.2
EHD	**Haiduan**	**0.84**	**270**	⇓	*i*	P	**Pb**	01 40 32.8	-1.4
EHD						eS	**Sb**	01 40 44.1	-1.0
TEYL	**Yanliau Villag**	**0.86**	**326**		*e*	P	**Pb**	01 40 34.0	-0.6
TEYL						eS	**Sb**	01 40 45.8	+0.1
WARBT	**Fenglin Townsh**	**0.88**	**310**	⇓	*i*	P	**Pb**	01 40 33.6	-1.3
WARBT						*i* S	**Sb**	01 40 45.2	-1.1
ESL	**Shilin**	**0.92**	**317**	⇓	*i*	P	**Pb**	01 40 33.9	-1.6
ESL						S	**Sb**	01 40 45.0	-2.3
HWA	**Hwalien**	**0.95**	**330**			P	**Pb**	01 40 34.9	-1.2
HWA						*i* S	**Sb**	01 40 46.8	-1.5
TTN	**Taitung**	**0.98**	**247**		*e*	P	**Pb**	01 40 35.0	-1.6
TTN						*i* S	**Sb**	01 40 47.2	-1.8
EOS4	**EOS4**	**0.99**	**11**	⇑	*i*	P	**Pn**	01 40 35.7	-0.5
EOS4						S	**Sb**	01 40 47.8	-1.2
ETM	**Tongmen**	**1.00**	**325**		*e*	P	**Pb**	01 40 35.2	-1.7
ETM						S	**Sb**	01 40 47.4	-2.2
TWGBT	**Beinan**	**1.01**	**251**			P	**Pb**	01 40 35.5	-1.6
TWGBT	**Beinan**	**1.01**	**251**			S	**Sb**	01 40 48.7	-1.3
TWGBT	**Beinan**	**1.01**	**251**		*e*	P	**Pb**	01 40 35.3	-1.9
TWGBT						eS	**Sb**	01 40 47.8	-2.3
ELDTW	**Lidau**	**1.01**	**273**	⇓	*i*	P	**Pb**	01 40 35.4	-1.9
ELDTW						eS	**Sb**	01 40 47.1	-3.2
TWG	**Pinlang**	**1.02**	**252**				**Pb**	01 40 35.2	-2.0
TWG						Sg	**Sb**	01 40 48.6	-1.7
TWG	**Pinlang**	**1.02**	**252**			P	**Pb**	01 40 35.3	-2.0
TWG	**Pinlang**	**1.02**	**252**		*i*	P	**Pb**	01 40 35.3	-2.0
TWG						S	**Sb**	01 40 48.5	-1.7
TWD	**Chiawan**	**1.04**	**333**	⇑	*i*	P	**Pn**	01 40 36.1	-1.2
TWD						eS	**Sb**	01 40 48.9	-2.1
VWDT	**VWDT**	**1.08**	**304**	⇓	*i*	P	**Pn**	01 40 37.4	-0.4
VWDT						S	**Sb**	01 40 51.4	-0.7
LXIB	**Xiulin Townshi**	**1.08**	**324**	⇓	*i*	P	**Pn**	01 40 36.8	-1.2
LXIB						S	**Sb**	01 40 50.4	-1.9
ETL	**Fush Village**	**1.10**	**336**		*i*	P	**Pn**	01 40 37.0	-1.1
ETL						S	**Sb**	01 40 51.2	-1.6
YUS	**Yu-Shan**	**1.12**	**288**		*e*	P	**Pn**	01 40 38.1	-0.8
YUS						eS	**Sb**	01 40 52.5	-1.3
NACB	**Ninganchiao**	**1.13**	**335**			P	**Pn**	01 40 37.5	-1.0
NACB	**Ninganchiao**	**1.13**	**335**				**Pn**	01 40 37.2	-1.3
NACB							**Sb**	01 40 51.0	-2.4
NACB	**Ninganchiao**	**1.13**	**335**			P	**Pn**	01 40 37.3	-1.3
NACB	**Ninganchiao**	**1.13**	**335**	⇑	*i*	P	**Pn**	01 40 37.2	-1.3
NACB						S	**Sb**	01 40 51.3	-2.1
EOS3	**EOS3**	**1.15**	**9**	⇑	*i*	P	**Pn**	01 40 38.6	0.0
EOS3						*i* S	**Sb**	01 40 53.1	-0.7
OWD	**Renai**	**1.18**	**313**	⇓	*i*	P	**Pn**	01 40 38.5	-0.8
OWD						*i* S	**Sb**	01 40 52.9	-2.1
ECL	**Taimali**	**1.21**	**243**	⇓	*i*	P	**Pn**	01 40 37.9	-1.6
ECL						*i* S	**Sn**	01 40 52.1	-2.9
ETLH	**Xiulin Townshi**	**1.21**	**331**			P	**Pn**	01 40 38.6	-1.0
ETLH						eS	**Sn**	01 40 53.9	-1.4
EHP	**Heping Village**	**1.21**	**343**		*e*	P	**Pn**	01 40 38.8	-0.8
EHP						*i* S	**Sn**	01 40 53.1	-2.1
LAY	**Lan-yu**	**1.22**	**206**	⇑	*i*	P	**Pn**	01 40 37.4	-2.4
LAY						S	**Sn**	01 40 50.0	-5.4
EAHA	**Aohua**	**1.23**	**344**	⇑	*i*	P	**Pn**	01 40 39.0	-0.8
EAHA						*i* S	**Sn**	01 40 54.1	-1.5
STYH	**Taoyuan**	**1.24**	**271**	⇓	*i*	P	**Pn**	01 40 39.2	-0.7
STYH						S	**Sn**	01 40 54.5	-1.3
LYUB	**Lan-yu**	**1.24**	**204**	⇑	*i*	P	**Pn**	01 40 37.5	-2.5
LYUB						*i* S	**Sn**	01 40 50.7	-5.3
SSLB	**Suanglung**	**1.25**	**301**			P	**Pn**	01 40 39.3	-0.8
SSLB	**Suanglung**	**1.25**	**301**				**Pn**	01 40 39.5	-0.5
SSLB	**Suanglung**	**1.25**	**301**			P	**Pn**	01 40 39.6	-0.5
SSLB	**Suanglung**	**1.25**	**301**	⇓	*i*	P	**Pn**	01 40 39.6	-0.5
SSLB						eS	**Sn**	01 40 54.3	-1.8
WUSB	**Renai**	**1.25**	**313**	⇓	*i*	P	**Pn**	01 40 39.8	-0.4
WUSB						eS	**Sn**	01 40 54.2	-2.0
ALS	**Alishan**	**1.26**	**287**	⇓	*i*	P	**Pn**	01 40 40.4	-0.1
WHF	**Hehuan Shan**	**1.27**	**322**	⇓	*i*	P	**Pn**	01 40 39.8	-1.0
WHF						S	**Sn**	01 40 54.8	-2.3
EOS2	**EOS2**	**1.27**	**5**	⇑	*i*	P	**Pn**	01 40 40.5	+0.2
EOS2						eS	**Sn**	01 40 56.6	+0.1
WHYT	**Xinyi Township**	**1.28**	**295**	⇓	*e*	P	**Pn**	01 40 40.7	0.0
ENA	**Nanau**	**1.32**	**345**	⇑	*i*	P	**Pn**	01 40 40.5	-0.6
ENA						*i* S	**Sn**	01 40 56.5	-1.4
EWUT	**Wuta**	**1.33**	**347**	⇑	*i*	P	**Pn**	01 40 40.8	-0.5
EWUT						eS	**Sn**	01 40 57.4	-0.8
SMLT	**Sun Moon Lake**	**1.34**	**303**	⇓	*i*	P	**Pn**	01 40 41.3	-0.2
SMLT						eS	**Sn**	01 40 58.7	+0.2
SLGT	**Liugui**	**1.36**	**264**		*e*	P	**Pn**	01 40 41.7	0.0
SLGT						eS	**Sn**	01 40 58.7	-0.3
TAW	**Tawu**	**1.38**	**235**		*e*	P	**Pn**	01 40 40.6	-1.2
TAW						S	**Sn**	01 40 56.4	-2.8
TPUB	**Ta-pu**	**1.38**	**277**			P	**Pn**	01 40 42.0	+0.1
TPUB	**Ta-pu**	**1.38**	**277**			S	**Sb**	01 41 00.8	+0.2
TPUB	**Ta-pu**	**1.38**	**277**				**Pn**	01 40 42.4	+0.5
TPUB	**Ta-pu**	**1.38**	**277**			P	**Pn**	01 40 42.5	+0.5
TPUB	**Ta-pu**	**1.38**	**277**	⇓	*i*	P	**Pn**	01 40 42.4	+0.5
TPUB						eS	**Sb**	01 41 00.4	-0.2
TYC	**Yuchr**	**1.38**	**303**	⇓	*i*	P	**Pn**	01 40 42.0	0.0
TYC						*i* S	**Sn**	01 40 59.6	+0.2
WTP	**Ta-pu**	**1.39**	**274**	⇓	*i*	P	**Pn**	01 40 42.5	+0.4
WTP						eS	**Sb**	01 41 00.9	0.0
CHN5	**Tsauling**	**1.40**	**289**	⇓	*i*	P	**Pn**	01 40 42.9	+0.7
CHN5						*i* S	**Sb**	01 41 00.9	-0.3
EAST	**Anshuo**	**1.40**	**237**	⇑	*i*	P	**Pn**	01 40 41.0	-1.2
EAST						S	**Sn**	01 40 57.2	-2.6
TWT	**Tachien**	**1.40**	**322**		*i*	P	**Pn**	01 40 42.4	+0.1
TWT						S	**Sn**	01 40 59.7	-0.5
TDCB	**Techi**	**1.41**	**322**	⇓	*i*	P	**Pn**	01 40 42.5	0.0
TDCB						S	**Sn**	01 40 58.5	-1.8
SGST	**Jiashian**	**1.42**	**268**	⇓	*i*	P	**Pn**	01 40 42.0	-0.4
SGST						*i* S	**Sn**	01 41 00.3	+0.1
CHN4	**Tsaushan**	**1.42**	**279**	⇓	*i*	P	**Pb**	01 40 43.2	-0.8
CHN4						*i* S	**Sb**	01 41 02.0	+0.2
WCKO	**Fanlu**	**1.42**	**282**	⇓	*i*	P	**Pb**	01 40 43.3	-0.8
WCKO						eS	**Sb**	01 41 01.7	-0.2
SSD	**Sandimen**	**1.43**	**254**	⇓	*i*	P	**Pn**	01 40 41.8	-0.8
SSD						eS	**Sn**	01 40 59.5	-1.1
WCS	**Beigang Elemen**	**1.43**	**310**	⇓	*i*	P	**Pn**	01 40 42.8	+0.1
WCS						eS	**Sn**	01 41 00.3	+0.3
WJS	**Zhushan**	**1.44**	**298**	⇓	*i*	P	**Pb**	01 40 43.7	-0.7
WJS						eS	**Sb**	01 41 02.6	+0.2
NNSB	**Datong**	**1.44**	**332**	⇑		P	**Pn**	01 40 42.6	-0.3
NNSB						S	**Sn**	01 41 00.1	-1.0
ESAO	**Su ao**	**1.44**	**350**		*e*	P	**Pn**	01 40 42.8	0.0
ESAO						eS	**Sn**	01 41 00.2	-0.7
NNS	**Nan Shan**	**1.46**	**332**	⇑	*e*	P	**Pn**	01 40 42.9	-0.2
NNS						eS	**Sn**	01 41 00.0	-1.5
CHN1	**Nanshi**	**1.46**	**272**	⇓		P	**Pb**	01 40 44.0	-0.9
CHN1						eS	**Sn**	01 41 02.3	+0.8
MASBT	**Mashibuluo**	**1.47**	**249**	⇓	*i*	P	**Pn**	01 40 42.5	-0.7
TWC	**Suao**	**1.48**	**350**	⇑	*i*	P	**Pn**	01 40 43.2	0.0
LATG	**Datong**	**1.48**	**339**	⇑	*i*	P	**Pn**	01 40 43.1	-0.4
LATG						S	**Sn**	01 41 01.5	-0.6
JYNG	**Yonagunijimaku**	**1.50**	**30**			P	**Pn**	01 40 43.2	-0.4
JYNG						A	A	01 40 43.2	
	comp=N,24nm,0.7s,comp=E,24nm,1.4s								
JYNG						S	**Sn**	01 41 01.1	-1.3
TWK	**Hsinying**	**1.50**	**275**	⇓	*i*	P	**Pn**	01 40 44.5	+0.8
TWK						S	**Sb**	01 41 05.2	+0.9
WNT	**Mingjian**	**1.50**	**299**	⇓	*i*	P	**Pb**	01 40 44.8	-0.7
WNT						S	**Sn**	01 41 03.5	+1.0
NDS	**Dongshan**	**1.52**	**346**			P	**Pn**	01 40 43.7	-0.2
NDS						eS	**Sn**	01 41 02.3	-0.7
WGK	**Gukeng**	**1.53**	**291**			P	**Pb**	01 40 45.0	-0.9
WGK						eS	**Sb**	01 41 04.7	-0.1
YOJ	**Yonaguni jima**	**1.54**	**32**			P	**Pn**	01 40 43.7	-0.4
YOJ	**Yonaguni jima**	**1.54**	**32**			P	**Pn**	01 40 43.8	-0.4
YOJ	**Yonaguni jima**	**1.54**	**32**				**Pn**	01 40 43.8	-0.4
YOJ	**Yonaguni jima**	**1.54**	**32**			P	**Pn**	01 40 44.0	-0.2
YOJ	**Yonaguni jima**	**1.54**	**32**	⇑	*i*	P	**Pn**	01 40 43.9	-0.2
YOJ						S	**Sn**	01 41 02.1	-1.3
YOJ	**Yonaguni jima**	**1.54**	**32**			P	**Pn**	01 40 43.8	-0.4
YOJ						A	A	01 40 43.8	
	comp=N,26nm,0.9s,comp=E,21nm,0.9s								
YOJ						S	**Sn**	01 41 02.0	-1.3
WDLH	**Douliu**	**1.55**	**291**	⇓	*i*	P	**Pb**	01 40 45.4	-0.9
WDLH						eS	**Sb**	01 41 05.6	+0.2
NDT	**Datong Townshi**	**1.55**	**339**		*e*	P	**Pn**	01 40 44.4	+0.1
NDT						eS	**Sn**	01 41 02.7	-0.9
WHP	**Taichung City**	**1.56**	**317**		*e*	P	**Pn**	01 40 44.9	+0.4
WHP						eS	**Sn**	01 41 04.1	+0.2
WDL	**Douliou City**	**1.56**	**292**		*e*	P	**Pb**	01 40 45.7	-0.7
WDL						eS	**Sb**	01 41 06.5	+0.8
CHN2	**Minshiung**	**1.56**	**285**			P	**Pb**	01 40 46.0	-0.4
CHN2						eS	**Sb**	01 41 06.1	+0.4
SGLT	**Jiouru**	**1.56**	**255**		*e*	P	**Pb**	01 40 46.6	+0.1
ENTT	**Nioudou**	**1.57**	**341**	⇑	*i*	P	**Pn**	01 40 44.4	-0.1
ENTT						S	**Sn**	01 41 03.5	-0.6
SSPT	**Xinbi**	**1.57**	**246**		*e*	P	**Pn**	01 40 44.6	0.0
SSPT						eS	**Sn**	01 41 04.3	+0.2
SCZT	**Fangliau**	**1.58**	**241**		*e*	P	**Pn**	01 40 44.2	-0.5
TWM1	**Shoushan**	**1.59**	**259**		*i*	P	**Pb**	01 40 46.8	-0.3
TWM1						S	**Sb**	01 41 08.6	+1.7
CHY	**Chiayi**	**1.60**	**283**	⇓	*i*	P	**Pb**	01 40 46.0	-1.1
CHY						eS	**Sb**	01 41 07.0	+0.2
CHN3	**Shinhua**	**1.62**	**268**	⇓	*i*	P	**Pb**	01 40 47.5	+0.1
CHN3						eS	**Sb**	01 41 08.5	+1.1
TWE	**Neicheng**	**1.62**	**345**			P	**Pn**	01 40 45.4	+0.1
TWE						eS	**Sn**	01 41 04.7	-0.6
SMST	**Manzhou Townsh**	**1.63**	**227**		*e*	P	**Pn**	01 40 44.5	-0.9
SMST						eS	**Sn**	01 41 03.0	-2.5
ILA	**Ilan**	**1.65**	**348**		*e*	P	**Pn**	01 40 46.2	+0.7
ILA						eS	**Sn**	01 41 06.2	+0.2
TCU	**Taichung**	**1.66**	**307**	⇓		P	**Pb**	01 40 47.1	-1.0
TCU						S	**Sb**	01 41 08.0	-0.6
YHNB	**Yeheng**	**1.66**	**336**			P	**Pn**	01 40 45.8	-0.1
YHNB	**Yeheng**	**1.66**	**336**				**Pn**	01 40 46.0	+0.1
YHNB	**Yeheng**	**1.66**	**336**			P	**Pn**	01 40 46.2	+0.2
YHNB	**Yeheng**	**1.66**	**336**	⇑	*i*	P	**Pn**	01 40 46.1	+0.2
YHNB						S	**Sn**	01 41 05.5	-1.0
NSK	**Sanguang**	**1.67**	**336**	⇑	*i*	P	**Pn**	01 40 46.2	+0.1
NSK						S	**Sn**	01 41 05.5	-1.2
TSEB	**Hengchuen, Pin**	**1.68**	**222**		*e*	P	**Pb**	01 40 46.9	-1.6
TSEB						eS	**Sn**	01 41 06.5	-0.2
FUSB	**Fushanzhiwuyua**	**1.68**	**343**	⇑	*i*	P	**Pn**	01 40 46.2	+0.1
FUSB						eS	**Sn**	01 41 06.7	-0.1
SSHA	**Shanhua**	**1.69**	**270**		*e*	P	**Pb**	01 40 48.0	-0.6
SSHA						eS	**Sb**	01 41 10.2	+0.9
SNJT	**Kaohsiung City**	**1.69**	**257**		*e*	P	**Pb**	01 40 49.1	+0.4
SNJT						eS	**Sb**	01 41 11.7	+2.2
EGS				**1.70**	**354**	⇑	*e*	P	**Pn**	01 40 47.0	+0.7
EGS						eS	**Sn**	01 41 07.7	+0.5
TWKBT	**Hengchun**	**1.70**	**225**			P	**Pn**	01 40 45.6	-0.8
TWKBT						S	**Sn**	01 41 05.8	-1.6
TWK1	**Hengchun**	**1.71**	**226**		*e*	P	**Pn**	01 40 45.7	-0.7
TWK1						eS	**Sn**	01 41 05.2	-2.2
WCHH	**Zhanghua**	**1.71**	**303**			P	**Pb**	01 40 47.8	-1.2
WCHH						S	**Sb**	01 41 10.3	+0.3
HEN	**Hengchun**	**1.71**	**229**		*e*	P	**Pn**	01 40 46.6	+0.2
HEN						eS	**Sn**	01 41 06.2	-1.2
WCH1	**Changhua City**	**1.71**	**303**			P	**Pb**	01 40 47.8	-1.2
WCH1						S	**Sb**	01 41 10.8	+0.6
TWQ1	**Liyutan**	**1.72**	**314**	⇓	*i*	P	**Pb**	01 40 48.2	-1.0
TWQ1						eS	**Sb**	01 41 10.0	-0.4
NWLT	**Wulai**	**1.72**	**341**			P	**Pn**	01 40 46.7	+0.1
NWLT						S	**Sn**	01 41 06.9	-0.9
NTC	**Toucheng**	**1.72**	**351**		*e*	P	**Pb**	01 40 49.2	-0.1
NTC						eS	**Sn**	01 41 08.2	+0.4
NFF	**Wufeng Townshi**	**1.74**	**328**		*e*	P	**Pn**	01 40 47.8	+0.8
NFF						S	**Sb**	01 41 10.1	-1.0
TAI1	**Yung-k'ang**	**1.74**	**267**		*e*	S	**Sb**	01 41 11.3	+0.2
CHN8	**Yiju**	**1.77**	**277**		*i*	P	**Pn**	01 40 48.3	+1.1
CHN8						*i* S	**Sn**	01 41 10.4	+1.6
KAU	**Kaohsiung**	**1.77**	**251**			eS	**Sb**	01 41 13.3	+1.6
SCLT	**Jiali**	**1.77**	**271**			P	**Pb**	01 40 48.7	-1.4
SCLT						*i* S	**Sb**	01 41 11.5	+0.4
RLNB	**Erlin**	**1.78**	**295**		*e*	P	**Pn**	01 40 48.7	+1.4
RLNB						*i* S	**Sb**	01 41 11.7	-0.3
WSL	**Shuilin Townsh**	**1.78**	**283**		*i*	P	**Pn**	01 40 48.2	+0.9
WSL						S	**Sb**	01 41 11.1	-0.9
WSSB	**Gushan**	**1.78**	**254**		*e*	P	**Pb**	01 40 49.4	-0.9
WSSB						eS	**Sb**	01 41 12.2	-0.1
WLCH	**Liuqiu**	**1.79**	**244**		*e*	P	**Pb**	01 40 49.5	-1.0
HATJ	**Hateruma jima**	**1.79**	**59**			P	**Pn**	01 40 47.1	-0.5
HATJ						A	A	01 40 47.1	
	comp=N,55nm,2.5s,comp=E,48nm,0.7s								
HATJ						S	**Sn**	01 41 07.7	-1.9
NSTT	**Nanjuang**	**1.80**	**326**			P	**Pb**	01 40 49.2	-1.3
NSTT						S	**Sn**	01 41 09.7	0.0
LIOB	**Emei**	**1.80**	**326**			P	**Pn**	01 40 49.2	+1.4
LIOB						eS	**Sn**	01 41 10.4	+0.6
TWP	**Hsiaoliuchiu**	**1.81**	**244**		*i*	P	**Pb**	01 40 51.5	+0.8
TWP						S	**Sb**	01 41 15.5	+2.7
WDJ	**Dajia District**	**1.81**	**312**		*i*	P	**Pb**	01 40 49.5	-1.2
WDJ						S	**Sb**	01 41 12.1	-0.8
WSF	**Szhu**	**1.81**	**286**		*i*	P	**Pn**	01 40 48.6	+0.8
WSF						S	**Sn**	01 41 11.4	+1.5
WTCT	**Ta-ch'eng**	**1.83**	**293**		*i*	P	**Pb**	01 40 50.0	-1.1
WTCT						eS	**Sb**	01 41 13.3	-0.3
TIPB	**Shuangxi**	**1.84**	**352**	⇑	*i*	P	**Pn**	01 40 49.0	+0.7
TIPB						*i* S	**Sn**	01 41 10.4	-0.3
KSHI	**Guanxi Townshi**	**1.84**	**332**			P	**Pb**	01 40 50.0	-1.2
KSHI						S	**Sn**	01 41 12.3	+1.6
NMLH	**Miaoli**	**1.84**	**319**		*e*	P	**Pb**	01 40 50.0	-1.3
NMLH						eS	**Sb**	01 41 13.1	-0.9
TWB1	**Santiao Chiao**	**1.86**	**356**		*i*	P	**Pn**	01 40 48.8	+0.3
TWB1						eS	**Sn**	01 41 10.6	-0.6
TSCK	**Chigu Township**	**1.87**	**270**		*i*	P	**Pn**	01 40 49.8	+1.1
TSCK						S	**Sb**	01 41 13.5	-1.2
NHDH	**Xindian Distri**	**1.89**	**343**		*e*	P	**Pn**	01 40 50.0	+1.1
NHDH						eS	**Sn**	01 41 12.3	+0.4
TWA	**Mucha**	**1.89**	**345**	⇑	*i*	P	**Pn**	01 40 49.8	+0.8
TWA						*i* S	**Sn**	01 41 12.5	+0.5
IRIF	**Iriomote-Funau**	**1.89**	**51**			P	**Pn**	01 40 48.6	-0.3
IRIF						A	A	01 40 48.6	
	comp=N,43nm,1.5s,comp=E,33nm,1.8s								
IRIF						S	**Sn**	01 41 10.8	-1.2
TATO	**Taipei**	**1.91**	**343**			P	**Pn**	01 40 49.9	+0.7
TATO	**Taipei**	**1.91**	**343**			S	**Sn**	01 41 12.8	+0.4
TATO	**Taipei**	**1.91**	**343**				**Pn**	01 40 49.9	+0.7
TATO	**Taipei**	**1.91**	**343**			P	**Pn**	01 40 49.4	+0.2
SBCB	**Hsinchu**	**1.94**	**328**			P	**Pb**	01 40 51.8	-1.1
SBCB						*i* S	**Sb**	01 41 15.7	-1.0
NWF	**Wu-fen Shan**	**1.94**	**351**		*i*	P	**Pn**	01 40 50.7	+1.0
NWF						*i* S	**Sn**	01 41 14.6	+1.3
WFSB	**Wu-fen Shan**	**1.94**	**351**			P	**Pn**	01 40 50.4	+0.7
WFSB						eS	**Sn**	01 41 15.3	+2.1
NHY	**Taipei**	**1.95**	**345**		*e*	P	**Pn**	01 40 51.0	+1.2
NHY						eS	**Sn**	01 41 14.4	+1.0
SXI1	**Grass Mountain**	**1.95**	**354**		*i*	P	**Pn**	01 40 50.2	+0.3
SXI1						*i* S	**Sn**	01 41 13.5	-0.1
HSN	**Hsinchu**	**1.95**	**328**		*e*	P	**Pb**	01 40 51.9	-1.3
HSN						*i* S	**Sn**	01 41 15.6	+2.1
TAP	**Taipei**	**1.96**	**344**		*e*	P	**Pn**	01 40 50.8	+0.8
TAP						S	**Sn**	01 41 14.1	+0.3
NCU	**National Centr**	**2.00**	**335**		*e*	P	**Pn**	01 40 51.8	+1.3
NCU						eS	**Sn**	01 41 16.2	+1.4
TNOU	**National Taiwa**	**2.02**	**351**		*e*	P	**Pn**	01 40 51.3	+0.6
TNOU						eS	**Sn**	01 41 15.9	+0.7
JKRS	**Kuro-shima**	**2.04**	**58**			P	**Pn**	01 40 50.8	-0.2
JKRS						A	A	01 40 50.8	
	comp=N,46nm,2.2s,comp=E,34nm,1.8s								
JKRS						eS	**Sn**	01 41 15.0	-0.8
TWS1	**Kuangyinshan**	**2.05**	**342**		*e*	P	**Pn**	01 40 51.9	+0.8
TWS1						S	**Sn**	01 41 16.5	+0.6
YM01	**YM01**	**2.05**	**346**		*i*	P	**Pn**	01 40 51.5	+0.3
YM01						eS	**Sn**	01 41 16.6	+0.5
ZUZH	**Zhuzihu**	**2.07**	**345**		*i*	P	**Pn**	01 40 52.2	+0.7
ZUZH						*i* S	**Sn**	01 41 16.5	0.0
YM08	**YM08**	**2.09**	**347**		*e*	P	**Pn**	01 40 52.1	+0.4
YM08						eS	**Sn**	01 41 16.6	-0.4
NTST	**Danshui**	**2.10**	**343**		*i*	P	**Pn**	01 40 52.5	+0.7
NTST						eS	**Sn**	01 41 17.5	+0.4
ANP	**Anpu**	**2.10**	**345**		*i*	P	**Pn**	01 40 52.4	+0.4
ANP						eS	**Sn**	01 41 18.6	+1.2
TWY	**Chenhua**	**2.17**	**348**		*e*	P	**Pn**	01 40 54.1	+1.2
TWY						eS	**Sn**	01 41 20.2	+1.3
JIJ	**Ishigaki jima**	**2.22**	**56**			P	**Pn**	01 40 52.6	-0.8
JIJ						A	A	01 40 52.6	
	comp=N,21nm,1.6s,comp=E,14nm,1.5s								
JIJ						S	**Sn**	01 41 18.0	-2.0
WDGT	**Dungji**	**2.26**	**273**		*i*	P	**Pn**	01 40 54.4	+0.3
WDGT						*i* S	**Sn**	01 41 20.4	-0.8
PHUB	**P'eng-hu**	**2.37**	**279**		*e*	P	**Pn**	01 40 55.8	+0.3
PHUB						eS	**Sn**	01 41 22.5	-1.3
PNG	**Penghu**	**2.39**	**281**			P	**Pn**	01 40 56.2	+0.4
PNG						eS	**Sn**	01 41 23.4	-1.0
JISG	**Ishigakijimahi**	**2.47**	**54**			P	**Pn**	01 40 55.8	-1.1
JISG						A	A	01 40 55.8	
	comp=N,14nm,0.5s,comp=E,12nm,0.6s								
JISG						eS	**Sn**	01 41 24.7	-1.5
PCYT	**Pengchaiyu**	**2.47**	**359**		*e*	P	**Pn**	01 40 57.1	+0.1
VCHM	**Qimei**	**2.48**	**272**			P	**Pn**	01 40 57.1	+0.1
VCHM						S	**Sn**	01 41 24.8	-1.6
JTJ	**Tarama**	**2.79**	**57**			P	**Pn**	01 41 01.0	-0.4
JTJ						A	A	01 41 01.0	
	comp=N,22nm,3.6s,comp=E,15nm,3.3s								
JTJ						S	**Sn**	01 41 32.5	-1.8
VWUC	**VWUC**	**3.05**	**308**			P	**Pn**	01 41 04.9	0.0
VWUC						S	**Sn**	01 41 38.6	-2.0
JIRJ	**Irabujima**	**3.28**	**59**			P	**Pn**	01 41 07.5	-0.5
JIRJ						S	**Sn**	01 41 43.9	-2.3
PTMZ	**Houxiangcun**	**3.33**	**305**			P	**Pn**	01 41 08.1	-0.6
PTMZ						S	**Sn**	01 41 45.9	-1.4
JMJ2	**Miyako jima3**	**3.34**	**61**			P	**Pn**	01 41 09.0	+0.1
JMJ2						S	**Sn**	01 41 46.2	-1.5
JMJ	**Miyako jima 2**	**3.34

GYA pmax pmax
comp=Z,330nm,4.0s
GYA L L
comp=Z,2μm,12.6s
GYA L L
comp=Z,790nm,7.7s
GYA L L
comp=Z,1μm,13.6s
INCN Inchon 14.81 14 P **Pn** **01 43 47.4 +1.4**
INCN Inchon 14.81 14 P **Pn** **01 43 46.6 +0.5**
INCN Inchon 14.81 14 **Pn** **01 43 46.6 +0.5**
INCN Inchon 14.81 14 P **Pn** **01 43 47.4 +1.4**
comp=Z,146nm,0.6s
KSAR Wonju Array Be 15.09 18 P **Pn** **01 43 50.5 +0.7**
KSAR Wonju Array Be 15.09 18 **Pn** **01 43 50.5 +0.7**
KSRS Korea Array 15.11 18 Pn **Pn** **01 43 50.9 +0.9**
comp=Z,4.9nm,0.3s,baz=200,slow=13,SNR=153
KSRS LR LR 01 50 38.6
comp=Z,312nm,19.4s,baz=170,slow=41
KSRS AML AML
KS19 Wonju Array Si 15.14 18 **Pn** **01 43 50.9 +0.4**
HNS HongShan 15.57 338 ⇑P **Pn** **01 43 58.3 +2.2**
HNS S **Sn** **01 46 51.8 +4.0**
HNS pmax pmax
comp=Z,44nm,1.4s
HNS L L
comp=Z,920nm,14.1s
HNS L L
comp=Z,1μm,13.6s
HNS L L
comp=Z,870nm,17.1s
DL2 Dalian 15.72 359 P **P** **01 44 02.9 +1.2**
DL2 *e*S **S** **01 47 01.8 -3.9**
DL2 pmax pmax
comp=Z,68nm,0.9s
DL2 pmax pmax
comp=Z,340nm,6.0s
DL2 LR LR
comp=N,570nm,13.8s
DL2 LR LR
comp=E,2μm,14.7s
DL2 LR LR
comp=Z,930nm,12.0s
XAN Xi'an 15.86 316 ⇑P **Pn** **01 44 00.1 +0.2**
XAN pP P 01 44 05.1 +1.6
XAN S **Sn** **01 46 52.8 -2.2**
XAN pmax pmax
comp=Z,32nm,1.0s
XAN pmax pmax
comp=Z,210nm,3.8s
XAN L L
comp=Z,2μm,16.0s
XAN L L
comp=Z,3μm,18.3s
XAN L L
comp=Z,1μm,11.0s
DAV Davao City (W) 16.33 168 LR LR 01 49 37.4
comp=Z,414nm,19.9s,baz=337,slow=35
SLVN Son La 16.96 267 P **Pn** **01 44 14.8 +0.8**
SLVN Son La 16.96 267 **Pn** **01 44 14.3 +0.3**
SLVN Son La 16.96 267 P **P** **01 44 15.7 0.0**
comp=Z,39nm,0.9s
BJI2 Beijing 17.56 345 P **P** **01 44 23.4 +1.2**
BJI2 S **Sn** **01 47 38.9 +2.9**
BJI2 pmax pmax
comp=Z,18nm,1.0s
BJI2 pmax pmax
comp=Z,160nm,4.9s
BJI2 L L
comp=Z,280nm,22.3s
BJI2 L L
comp=Z,610nm,21.2s
BJI2 L L
comp=Z,420nm,14.5s
BJT Baijiatuau 17.56 345 P **P** **01 44 23.2 +1.0**
BJT Baijiatuau 17.56 345 P **Pn** **01 44 21.2 -0.1**
BJT pmax pmax
comp=Z,32nm,1.2s
BJT Baijiatuau 17.56 345 P **Pn** **01 44 21.2 -0.1**
INU Inuyama 17.77 44 P **P** **01 44 26.0 +1.4**
INU Inuyama 17.77 44 P **P** **01 44 25.2 +0.6**
INU Inuyama 17.77 44 P **Pn** **01 44 22.3 -1.7**
comp=Z,22nm,0.7s
KMI2 Kunming 17.79 280 P **Pn** **01 44 23.0 -1.5**
KMI2 pP pP 01 44 29.1 -1.7
KMI2 PP **pwP** **01 44 40.6 +4.2**
KMI2 pmax pmax
comp=Z,27nm,0.9s
KMI2 L L
comp=Z,520nm,9.2s
KMI2 L L
comp=Z,500nm,15.8s
KMI2 L L
comp=Z,490nm,16.0s
KKM Kota Kinabalu 17.93 199 P **P** **01 44 27.1 +0.6**
KKM Kota Kinabalu 17.93 199 **Pn** **01 44 24.9 -1.2**
KKM IAmb IAmb 01 44 30.1
comp=Z,257nm,1.8s
KKM Kota Kinabalu 17.93 199 P **P** **01 44 27.6 +1.1**
comp=Z,1μmcomp=Z,80nm,1.6s
KKM Kota Kinabalu 17.93 199 P **P** **01 44 27.7 +1.2**
comp=Z,80nm,1.6s
CD2 Chengdu 18.08 299 P **Pn** **01 44 27.5 -0.3**
CD2 S **Sn** **01 47 48.4 -0.4**
CD2 pmax pmax
comp=Z,20nm,0.4s
CD2 L L
comp=Z,2μm,8.6s
CD2 L L
comp=Z,2μm,11.0s
JHJ2 Mitsune 18.48 54 P **Pn** **01 44 34.6 +2.1**
JHJ2 Mitsune 18.48 54 IAmb IAmb 01 44 37.4
comp=Z,239nm,0.9s
JHJ2 Mitsune 18.48 54 P **Pn** **01 44 36.8 +4.3**
comp=Z,342nm,1.3s
JCJ Chichijima 18.59 74 LR LR 01 51 05.5
comp=Z,281nm,19.1s,baz=114,slow=35
PZH PanZhiHua 18.79 284 P **P** **01 44 33.5 -2.5**
PZH S **Sn** **01 48 04.8 -1.5**
PZH pmax pmax
comp=Z,10.0nm,0.8s
PZH pmax pmax
comp=Z,240nm,5.1s
PZH L L
comp=Z,420nm,14.7s
PZH L L
comp=Z,520nm,14.1s
MAJO Matsushiro 19.28 43 P **Pn** **01 44 43.3 +1.1**
MAJO Matsushiro 19.28 43 *i* P **P** **01 44 40.1 -1.0**
MAJO pmax pmax
comp=Z,14nm,1.0s
MAJO Matsushiro 19.28 43 P **P** **01 44 41.5 +0.4**
MAJO Matsushiro 19.28 43 P **Pn** **01 44 42.1 -0.1**
comp=Z,13nm,0.7s
MJAR Matsushiro Arr 19.28 43 P **Pn** **01 44 43.0 -0.8**
comp=Z,0.1nm,0.3s,baz=231,slow=8.7,SNR=21
comp=Z,14nm,1.0s
MJAR AML AML
MJAR Matsushiro Arr 19.28 43 P **Pn** **01 44 42.0 -0.2**
MJB9 Matsu-Tunnel 19.28 43 P **Pn** **01 44 42.9 +0.6**
HHC Hu-ho-hao-te 19.76 336 ⇓ *i* P **Pn** **01 44 48.9 +0.8**
HHC pP sP 01 44 54.6 -0.2
HHC sP pwP 01 45 00.5 +2.4
HHC S **S** **01 48 28.2 +0.3**
HHC L L
comp=Z,610nm,13.9s
HHC L L
comp=Z,380nm,13.0s
HHC L L
comp=Z,410nm,16.8s
BTO2 Baotou 20.35 332 *e*P **P** **01 44 53.0 +0.1**
BTO2 sP **sP** **01 45 01.8 +0.5**
BTO2 PP **PnPn** **01 45 13.0 +2.8**
BTO2 S Sn 01 48 43.5 -0.2
BTO2 pmax pmax
comp=Z,10.0nm,0.6s
BTO2 pmax pmax
comp=Z,500nm,6.2s
BTO2 L L
comp=Z,2μm,18.9s
BTO2 L L
comp=Z,4μm,15.2s
BTO2 L L
comp=Z,2μm,15.4s
LZH Lanzhou 20.42 313 *e*P Pn 01 44 56.1 +0.2
LZH sP pwP 01 45 06.7 +1.3
LZH S Sn 01 48 47.1 +1.7
LZH pmax pmax
comp=Z,47nm,1.1s
LZH L L
comp=Z,1μm,15.8s
LZH L L
comp=Z,1μm,15.3s
LZH L L
comp=Z,1μm,17.2s
LZDM Lanzhou Array 20.44 313 P Pn 01 44 55.7 -0.7
comp=Z,23nm,0.9s,baz=129,slow=12,SNR=8.5
LZDM LR LR 01 52 55.3
comp=Z,208nm,18.0s,baz=90,slow=37
comp=Z,23nm,0.9s
CN2 Changchun 20.78 7 ⇑P **P** **01 44 56.2 -1.2**
CN2 *e*sP sP 01 45 04.9 -0.9
CN2 *e*S **S** **01 48 42.6 -5.5**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,4.0s
CN2 L L
comp=Z,200nm,14.0s
CN2 L L
comp=Z,200nm,14.0s
CN2 L L
comp=Z,300nm,13.0s
XLT XiLinHaoTe 21.29 348 *e*P **P** **01 45 02.9 -0.1**
XLT pP pP 01 45 06.3 -2.4
XLT sP pwP 01 45 14.9 +0.3
XLT S Sn 01 49 06.0 -0.1
XLT pmax pmax
comp=Z,70nm,0.9s
XLT pmax pmax
comp=Z,190nm,3.8s
XLT L L
comp=Z,55nm,16.7s
XLT L L
comp=Z,460nm,12.4s
XLT L L
comp=Z,540nm,12.6s
CHTO Chiang Mai 22.05 263 P **P** **01 45 12.7 +1.3**
CHTO Chiang Mai 22.05 263 P **P** **01 45 12.4 +1.0**
CHTO pmax pmax
comp=Z,12nm,1.0s
CHTO Chiang Mai 22.05 263 P **P** **01 45 12.4 +1.0**
CHTO Chiang Mai 22.05 263 P **P** **01 45 11.6 +0.2**
CHTO Chiang Mai 22.05 263 P **P** **01 45 13.8 +2.5**
comp=Z,15nm,0.9s
CMAR Chiang Mai Arr 22.15 262 P **P** **01 45 13.3 +0.9**
comp=Z,2.1nm,0.7s,baz=66,slow=8.0,SNR=19
CMAR LR LR 01 55 08.0
comp=Z,370nm,18.2s,baz=85,slow=40
comp=Z,2.1nm,0.7s
CMAR Chiang Mai Arr 22.15 262 P **P** **01 45 12.7 +0.3**
CMAR Chiang Mai Arr 22.15 262 P **P** **01 45 12.7 +0.3**
MDJ Mudanjiang 22.28 14 P **P** **01 45 13.3 -0.2**
MDJ Mudanjiang 22.28 14 P **P** **01 45 12.3 -1.2**
MDJ sP sP 01 45 21.0 -0.9
MDJ PP **PnPn** **01 45 35.8 -0.6**
MDJ S **S** **01 49 21.2 +4.0**
MDJ pmax pmax
comp=Z,36nm,0.6s
MDJ L L
comp=Z,820nm,12.7s
GTOI Gorontalo 22.39 178 P **P** **01 45 13.0 -1.9**
comp=Z,1μmcomp=Z,91nm,0.9s
USA0B Ussuriysk Arra 22.51 19 P **P** **01 45 13.7 -2.3**
USA0B pmax pmax
comp=Z,22nm,0.9s
USA0B Ussuriysk Arra 22.51 19 P **P** **01 45 13.7 -2.3**
USRK Ussuriysk Ar. 22.51 19 P **P** **01 45 14.5 -1.5**
comp=Z,21nm,0.7s,baz=202,slow=11,SNR=34
comp=Z,21nm,0.7s
USRK Ussuriysk Ar. 22.51 19 **P** **01 45 13.9 -2.1**
SBUM Sibu 22.70 206 P **P** **01 45 17.6 -0.6**
SBUM Sibu 22.70 206 P **P** **01 45 16.4 -1.8**
SBUM Sibu 22.70 206 P **P** **01 45 16.8 -1.4**
SBUM Sibu 22.70 206 P **P** **01 45 17.1 -1.2**
comp=Z,26nm,0.8s
MPSI Mapaga 22.77 186 P **P** **01 45 19.3 +0.3**
comp=Z,73nm,0.8s
TNTI Ternate 22.82 166 P **P** **01 45 21.4 +2.0**
TNTI Ternate 22.82 166 P **P** **01 45 17.3 -2.1**
TNTI IAmb IAmb 01 45 25.4
comp=Z,40nm,0.8s
TNTI Ternate 22.82 166 P **P** **01 45 22.9 +3.5**
comp=Z,53nm,1.2s
BNX BinXian 22.95 10 ⇑P **P** **01 45 20.0 -0.5**
BNX pmax pmax
comp=Z,35nm,1.1s
GUMO Guam 23.56 110 LR LR 01 54 19.1
comp=Z,155nm,18.8s,baz=98,slow=36
APSI Ampana 23.92 181 P **P** **01 45 30.7 +0.4**
comp=Z,2μmcomp=Z,156nm,1.0s
SMKI Samarinda 23.93 192 P **P** **01 45 32.2 +1.7**
comp=Z,109nm,0.9s
LUWI Luwuk 24.05 178 P **P** **01 45 32.0 +0.4**
LUWI Luwuk 24.05 178 P **P** **01 45 31.3 -0.3**
comp=Z,7μmcomp=Z,153nm,0.9s
LBMI Labuha 24.21 167 P **P** **01 45 33.9 +0.8**
NPW Naypyitaw 24.40 267 P **P** **01 45 36.6 +1.8**
comp=Z,26nm,0.5s
BKB Balikpapan 24.79 193 P **P** **01 45 35.0 -3.3**
GTA2 Gaotai 25.00 316 *e*P **P** **01 45 41.6 +1.4**
GTA2 pmax pmax
comp=Z,4.0nm,0.6s
GTA2 L L
comp=Z,830nm,17.5s
GTA2 L L
comp=Z,610nm,17.1s
GTA2 L L
comp=Z,570nm,16.5s
SANI Sanna 25.33 171 P **P** **01 45 45.1 +1.9**
SANI Sanana 25.33 171 P **P** **01 45 44.7 +1.5**
comp=Z,21nm,0.7s
SIJI Sorong 25.48 158 LR LR 01 58 28.7
comp=Z,47nm,18.1s,baz=324,slow=43
SIJI Sorong 25.48 158 P **P** **01 45 44.7 +0.1**
MORE Moreh 25.48 278 P **P** **01 45 43.6 -0.9**
MMSI Mamuju 25.87 187 P **P** **01 45 50.8 +2.7**
comp=Z,111nm,0.9s
HIA Hailar 26.14 356 P **P** **01 45 51.3 +1.0**
HIA Hailar 26.14 356 *i* P **P** **01 45 49.7 -0.6**
HIA pmax pmax
comp=Z,30nm,1.3s
HIA Hailar 26.14 356 P **P** **01 45 49.2 -1.1**
HILR Hailar Array B 26.42 357 P **P** **01 45 52.2 -0.7**
comp=Z,4.8nm,0.5s,baz=163,slow=11,SNR=4.9
comp=Z,4.8nm,0.5s
PMSI Majene 26.67 187 P **P** **01 45 55.4 0.0**
comp=Z,111nm,1.0s
NLAI Namlea 26.67 169 P **P** **01 45 57.4 +2.0**
comp=Z,863nmcomp=Z,57nm,0.7s
ASAJ Asahikawa 26.85 34 P **P** **01 45 56.0 -0.7**
comp=Z,13nm,0.5s,baz=222,slow=9.7,SNR=5.0
ASAJ LR LR 01 57 57.3
comp=Z,301nm,20.2s,baz=254,slow=40
comp=Z,13nm,0.5s
JKA Kamikawa-asahi 26.85 34 IAmb IAmb 01 45 57.2
comp=Z,110nm,1.7s
GOMU GeErMu 26.95 305 P **P** **01 45 57.4 -0.8**
GOMU pP pP 01 46 00.9 -3.4
GOMU sP sP 01 46 04.4 -2.5
GOMU S **S** **01 50 31.1 -3.1**
GOMU pmax pmax
comp=Z,2.0nm,0.5s
GOMU L L
comp=Z,970nm,15.1s
GOMU L L
comp=Z,340nm,15.4s
GOMU L L
comp=Z,580nm,15.7s
SPSI Sidrap Palu 27.04 185 P **P** **01 45 58.4 -0.3**
comp=Z,5μmcomp=Z,36nm,0.9s
KLR Kul'dur 27.12 14 P **P** **01 45 58.8 -0.4**
comp=Z,5.8nm,0.5s,baz=202,slow=8.7,SNR=23
KLR LR LR 01 57 23.6
comp=Z,362nm,20.7s,baz=188,slow=38
comp=Z,5.8nm,0.5s
KLR Kul'dur 27.12 14 *ce*P **P** **01 45 59.3 +0.2**
KLR pmax pmax
comp=Z,27nm,1.3s
HEH HeiHe 27.37 7 *e*P **P** **01 46 01.6 +0.2**
HEH pmax pmax
comp=Z,28nm,1.2s
HEH L L
comp=Z,460nm,12.3s
HEH L L
comp=Z,670nm,12.5s
HEH L L
comp=Z,700nm,11.7s
BBKI Banjar Baru 27.38 196 P **P** **01 46 03.0 +1.2**
ULN Ulaanbaatar 27.44 338 *ce*P **P** **01 46 02.4 +0.1**
ULN pmax pmax
comp=Z,38nm,1.3s
ULN Ulaanbaatar 27.44 338 P **P** **01 46 02.0 -0.2**
ULN Ulaanbaatar 27.44 338 P **P** **01 46 02.3 0.0**
comp=Z,117nm,0.8s
ULN Ulaanbaatar 27.44 338 P **P** **01 46 02.2 0.0**
comp=Z,30nm,0.8s
IPM Ipoh 27.56 231 P **P** **01 46 03.2 -0.2**
IPM Ipoh 27.56 231 P **P** **01 46 02.5 -0.9**
IPM Ipoh 27.56 231 P **P** **01 46 03.0 -0.4**
comp=Z,33nm,0.9s
IPM Ipoh 27.56 231 P **P** **01 46 03.0 -0.4**
comp=Z,34nm,0.9s
SONM Songino Array 27.65 337 P **P** **01 46 04.3 +0.2**
comp=Z,13nm,0.8s,baz=153,slow=11,SNR=43
SONM LR LR 01 58 20.8
comp=Z,386nm,18.5s,baz=148,slow=39
comp=Z,13nm,0.8s
SONM Songino Array 27.65 337 P **P** **01 46 03.5 -0.6**
SONM pmax pmax
comp=Z,16nm,0.9s
SONM Songino Array 27.65 337 P **P** **01 46 03.5 -0.6**
FAKI Fak Fak 27.73 158 P **P** **01 46 07.2 +2.3**
FAKI Fak Fak 27.73 158 P **P** **01 46 07.6 +2.7**
comp=Z,34nm,1.0s
BRDH Bariadhala 28.05 275 LR LR 01 59 15.4
comp=Z,141nm,21.1s,baz=172,slow=41
KAPI Kappang 28.08 185 LR LR 01 58 09.1
comp=Z,90nm,19.4s,baz=352,slow=38
YSS Yuzhno-Sakhali 28.98 30 *e*P **P** **01 46 16.0 +0.3**
YSS *e*S **S** **01 51 05.1 0.0**
YSS pmax pmax
comp=Z,20nm,1.0s
YSS MLR MLR
comp=Z,300nm,13.0s
YSS MLR MLR
comp=N,600nm,16.0s
YSS MLR MLR
comp=E,600nm,17.0s
PSI Prapat 30.23 231 P **P** **01 46 27.5 +0.2**
PSI Prapat 30.23 231 P **P** **01 46 27.9 +0.6**
PSI pmax pmax
comp=Z,22nm,1.0s
PSI Prapat 30.23 231 P **P** **01 46 27.7 +0.4**
comp=Z,22nm,1.0s
RPSI Rantau Prapat 30.30 231 P **P** **01 46 27.9 +0.2**
comp=Z,22nm,1.0s
ZEA Zeya 30.79 6 *e*P **P** **01 46 30.8 -0.9**
ZEA *e* 01 57 12.1
ZEA pmax pmax
comp=Z,30nm,0.7s
ZEA MLR MLR
comp=Z,200nm,6.0s
MNSI Mandailing Nat 31.19 228 P **P** **01 46 36.0 +0.4**
EDFI Ende, Flores 31.70 181 P **P** **01 46 38.0 -2.2**
comp=Z,87nm,0.7s
TLY Talaya 31.85 338 *ce*P **P** **01 46 42.2 +1.1**
TLY pmax pmax
comp=Z,6.0nm,0.6s
TYV Tymovskoe 31.94 25 *e*P **P** **01 46 37.6 -4.2**
TYV pmax pmax
comp=Z,300nm,2.2s
TYV pmax pmax
comp=Z,23nm,1.2s
EVN Everest 32.14 286 P **P** **01 46 43.6 -1.0**
EVN Everest 32.14 286 P **P** **01 46 45.6 +1.0**
comp=Z,12nm,1.0s
MDSI Maura Dua 32.58 215 P **P** **01 46 49.0 +1.2**
comp=Z,14nm,1.1s
PWJI Pagerwojo 32.58 199 P **P** **01 46 47.6 -0.2**
WOJI Wonogiri, Jawa 32.68 201 P **P** **01 46 48.6 -0.1**
comp=Z,121nm,1.1s
KPJI Karang Pucung 32.92 205 P **P** **01 46 52.4 +1.6**
comp=Z,36nm,1.8s
BATI Baumata 33.18 177 LR LR 02 00 47.5
comp=Z,90nm,18.8s,baz=14,slow=37
WMQ Urumqi 34.99 314 *e*P **P** **01 47 09.0 +0.4**
WMQ pP sP 01 47 15.8 -1.6
WMQ pmax pmax
comp=Z,12nm,0.6s
WMQ L L
comp=Z,150nm,16.9s
YAK Yakutsk 39.21 6 LR LR 02 04 47.1
comp=Z,152nm,18.7s,baz=183,slow=38
YAK Yakutsk 39.21 6 *e*P **P** **01 47 43.4 -0.6**
YAK *e* 01 49 14.0
YAK *e*PPP PPP 01 49 34.4
YAK *e* 01 49 52.6
YAK *e*S **S** **01 53 44.2 +1.6**
YAK *e*SSS SSS 01 56 58.3
YAK *e* 01 57 54.1
YAK pmax pmax
comp=Z,61nm,0.9s
YAK pmax pmax
comp=N,32nm,1.2s
YAK pmax pmax
comp=E,6.0nm,1.1s
YAK pmax pmax
comp=Z,143nm,3.4s
YAK pmax pmax
comp=N,122nm,3.3s
YAK smax smax
comp=N,194nm,3.5s
YAK smax smax
comp=E,177nm,3.2s
YAK MLR MLR
comp=Z,384nm,15.0s
YAK MLR MLR
comp=N,236nm,16.0s
YAK MLR MLR
comp=E,144nm,14.0s
YAK Yakutsk 39.21 6 P **P** **01 47 42.9 -1.1**
YAK IAmb IAmb 01 47 45.1
comp=Z,68nm,0.8s
YAK Yakutsk 39.21 6 P **P** **01 47 43.2 -0.9**
comp=Z,92nm,1.0s
MK31 Makanchi Array 39.67 316 *ce*P **P** **01 47 49.2 +0.9**
MKAR Makanchi Array 39.67 316 P **P** **01 47 48.3 +0.1**
comp=Z,6.7nm,0.7s,baz=109,slow=9.2,SNR=31
comp=Z,6.7nm,0.7s
MKAR Makanchi Array 39.67 316 *ce*P **P** **01 47 48.2 -0.1**
MKAR pmax pmax
comp=Z,7.0nm,0.7s
MKAR Makanchi Array 39.67 316 P **P** **01 47 48.0 -0.3**
MAKZ Makanchi 39.88 316 P **P** **01 47 50.1 +0.1**
MAKZ pmax pmax
comp=Z,11nm,0.9s
MAKZ Makanchi 39.88 316 P **P** **01 47 50.1 +0.1**
KRVT Keravat (AS076 39.96 129 LR LR 02 02 31.7
comp=Z,134nm,19.9s,baz=292,slow=34
PETK Petropavlovsk- 40.26 33 P **P** **01 47 52.4 -0.6**
comp=Z,15nm,1.1s,baz=246,slow=6.0,SNR=2.9
PETK LR LR 02 06 35.4
comp=Z,121nm,18.1s,baz=230,slow=39
comp=Z,15nm,1.1s
PDGK Podgornoye 40.41 310 P **P** **01 47 53.1 -1.4**
PDGK Podgornoye 40.41 310 P **P** **01 47 53.1 -1.4**
FITZ Fitzroy Crossi 41.14 175 P **P** **01 47 58.6 -1.9**
ZAA0 Zalesovo Array 41.58 327 P **P** **01 48 02.2 -1.5**
ZALV Zalesovo Beam 41.58 327 P **P** **01 48 02.8 -1.0**
comp=Z,3.6nm,0.4s,baz=118,slow=8.7,SNR=27
comp=Z,3.6nm,0.4s
ZALV Zalesovo Beam 41.58 327 P **P** **01 48 02.2 -1.5**
MA2 Magadan 41.62 22 LR LR 02 06 53.0
comp=Z,151nm,18.2s,baz=238,slow=38
H11N1 WAKE ISLAND Hy 41.70 86 T T 02 33 25.4
baz=282,slow=74,SNR=28
H11N2 WAKE ISLAND Hy 41.70 86 T T 02 33 41.9
baz=282,slow=74,SNR=30
H11N3 WAKE ISLAND Hy 41.71 86 T T 02 33 39.3
baz=282,slow=74,SNR=29
H11S3 WAKE ISLAND Hy 41.80 88 T T 02 33 37.0
baz=284,slow=75,SNR=28
H11S1 WAKE ISLAND Hy 41.80 88 T T 02 33 45.3
baz=284,slow=75,SNR=23
H11S2 WAKE ISLAND Hy 41.81 88 T T 02 33 45.9
baz=284,slow=75,SNR=30
ASAI AK-SAY(Kyrgyzs 42.01 306 P **P** **01 48 09.2 +1.3**

comp=Z,3.9nm,1.2s
KSH2 Kashi 42.44 303 P **P** **01 48 12.8 +1.5**
KSH2 sP pwP 01 48 21.6 -1.9
KSH2 pmax pmax
comp=Z,4.0nm,0.9s
PALK Pallekele 42.78 255 LR LR 02 08 17.7
comp=Z,122nm,18.2s,baz=58,slow=39
KURK Kurchatov 43.43 320*ce*P **P** **01 48 19.0 +0.1**
KURK pmax pmax
comp=Z,4.0nm,0.7s
KURK Kurchatov 43.43 320 P **P** **01 48 17.4 -1.5**
KURK Kurchatov 43.43 320 P **P** **01 48 18.8 -0.1**
comp=Z,11nm,1.0s
KURBB Kurchatov Arra 43.45 320 P **P** **01 48 18.7 -0.4**
comp=Z,2.7nm,0.6s,baz=112,slow=9.3,SNR=24
comp=Z,2.7nm,0.6s
AAK Ala-Archa 43.81 308 LR LR 02 07 04.5
comp=Z,210nm,19.2s,baz=93,slow=37
AAK Ala-Archa 43.81 308*ce*P **P** **01 48 23.8 +1.4**
AAK pmax pmax
comp=Z,8.0nm,1.7s
AAK Ala-Archa 43.81 308 P **P** **01 48 21.8 -0.6**
NIL Nilore 43.89 295 P **P** **01 48 20.3 -2.7**
NIL pmax pmax
comp=Z,16nm,1.0s
NIL Nilore 43.89 295 P **P** **01 48 20.3 -2.7**
NIL Nilore 43.89 295 P **P** **01 48 27.3 +4.3**
comp=Z,18nm,1.0s
WB0 Warramunga Arr 44.30 163 P **P** **01 48 24.7 -1.5**
WRAB Tennant Creek 44.45 163 P **P** **01 48 28.8 +1.4**
WRA Warramunga Arr 44.46 163 P **P** **01 48 25.8 -1.6**
comp=Z,4.3nm,0.8s,baz=344,slow=9.0,SNR=22
comp=Z,4.3nm,0.8s
WRA Warramunga Arr 44.46 163 *i* P **P** **01 48 25.7 -1.8**
WRA pmax pmax
comp=Z,3.0nm,0.5s
WRA Warramunga Arr 44.46 163 P **P** **01 48 24.4 -3.1**
WR8 Warramunga Arr 44.51 163 P **P** **01 48 26.4 -1.5**
MTSU Mount Surprise 46.41 150 P **P** **01 48 44.3 +1.3**
MTSU Mount Surprise 46.41 150 P **P** **01 48 43.9 +1.0**
comp=Z,18nm,0.9s
QIS Mount Isa 46.67 157 P **P** **01 48 45.4 +0.4**
QIS Mount Isa 46.67 157 P **P** **01 48 45.3 +0.4**
comp=Z,34nm,1.2s
KKAR Karatay Array 46.78 308 P **P** **01 48 45.5 -0.2**
KKAR Karatay Array 46.78 308 P **P** **01 48 45.5 -0.2**
KBL Kabul 47.38 296 P **P** **01 48 50.5 -0.3**
KBL pmax pmax
comp=Z,32nm,1.2s
KBL Kabul 47.38 296 P **P** **01 48 50.5 -0.3**
KBL IAmb IAmb 01 49 05.0
comp=Z,32nm,1.1s
AS31 Alice Springs 47.92 165 P **P** **01 48 54.0 -0.7**
ASAR Alice Springs 47.92 165 P **P** **01 48 53.7 -1.0**
comp=Z,1.1nm,0.4s,baz=354,slow=14,SNR=17
comp=Z,1.1nm,0.4s
ASAR Alice Springs 47.92 165 P **P** **01 48 53.3 -1.4**
AS01 Alice Springs 47.93 165 P **P** **01 48 55.7 +0.9**
TIXI Tiksi 48.68 3 LR LR 02 12 27.8
comp=Z,264nm,19.0s,baz=196,slow=40
TIXI Tiksi 48.68 3 P **P** **01 48 58.8 -1.1**
TIXI pmax pmax
comp=Z,79nm,1.0s
TIXI Tiksi 48.68 3 P **P** **01 48 58.8 -1.1**
CTA Charters Tower 49.00 149 LR LR 02 07 40.8
comp=Z,128nm,21.3s,baz=354,slow=34
CTA Charters Tower 49.00 149 P **P** **01 49 04.8 +1.7**
CTAO Charters Tower 49.00 149 P **P** **01 49 04.9 +1.8**
BVAR Borovoye Array 49.02 321 P **P** **01 49 02.7 -0.1**
comp=Z,5.6nm,0.6s,baz=101,slow=8.6,SNR=21
comp=Z,5.6nm,0.6s
BORK Borovoye 49.06 321 P **P** **01 49 02.3 -0.9**
BORK pmax pmax
comp=Z,6.0nm,0.8s
BORK Borovoye 49.06 321 P **P** **01 49 02.3 -0.9**
HNR Honiara 49.18 127 LR LR 02 06 37.1
comp=Z,67nm,21.7s,baz=31,slow=32
MEEK Meekatharra 49.61 184 P **P** **01 49 09.1 +1.5**
NRIK Noril'sk 50.62 345 P **P** **01 49 14.8 +0.1**
comp=Z,3.4nm,0.6s,baz=120,slow=6.5,SNR=5.5
NRIK LR LR 02 14 14.4
comp=Z,150nm,18.3s,baz=144,slow=40
comp=Z,3.4nm,0.6s
NRIK Noril'sk 50.62 345 *i* P **P** **01 49 13.9 -0.9**
NRIK pmax pmax
comp=Z,15nm,1.4s
BILL Bilibino 52.37 19*ce*P **P** **01 49 29.1 +1.2**
BILL pmax pmax
comp=Z,25nm,1.0s
QLP Quilpie 53.87 155 P **P** **01 49 41.6 +2.2**
AB31 Akbulak array 54.78 315 P **P** **01 49 45.5 -0.3**
ABKAR Akbulak array 54.78 315 P **P** **01 49 45.7 -0.1**
SVE Sverdlovsk 55.38 324 *eP* **P** **01 49 49.7 -0.4**
SVE pmax pmax
comp=Z,14nm,0.8s
ARTI Arti 56.54 323 P **P** **01 49 57.6 -0.7**
comp=Z,10nm,0.6s,baz=197,slow=16,SNR=16
ARTI LR LR 02 15 35.9
comp=Z,160nm,18.3s,baz=108,slow=38
comp=Z,10nm,0.6s
ARTI Arti 56.54 323*c* *i* P **P** **01 49 57.7 -0.7**
ARTI 01 50 51.1
ARTI S **S** **01 57 50.9 +2.6**
ARTI SS **SS** **02 01 32.3 -3.2**
ARTI pmax pmax
comp=Z,11nm,0.7s
ARTI Arti 56.54 323 P **P** **01 49 57.3 -1.0**
ARTI IAmb IAmb 01 49 58.3
comp=Z,18nm,0.7s
DGAR Diego Garcia 57.27 244*ce*P **P** **01 50 02.1 -2.0**
DGAR pmax pmax
comp=Z,120nm,1.7s
STKA Stephens Creek 57.80 160 P **P** **01 50 06.5 -0.9**
comp=Z,2.6nm,0.6s,baz=334,slow=6.9,SNR=4.3
comp=Z,2.6nm,0.6s
STKA Stephens Creek 57.80 160 IAmb IAmb 01 50 20.9
comp=Z,38nm,0.8s
SANVU Saraoutou 58.45 127 P **P** **01 50 12.6 +0.3**
CMSA Cobar Meteorol 58.88 156 P **P** **01 50 17.4 +2.4**
KIRV Kirov 61.55 325*ce*P **P** **01 50 33.0 0.0**
YATNC Mamie plateau, 62.60 133 P **P** **01 50 42.8 +2.2**
BELG Belogornoye 62.63 318 P **P** **01 50 40.5 +0.1**
comp=Z,9.0nm,0.7s,baz=22,slow=17,SNR=3.1
comp=Z,9.0nm,0.7s
BELG Belogornoye 62.63 318 *i* P **P** **01 50 41.7 +1.3**
BELG pmax pmax
comp=Z,4.0nm,1.0s
LKRN Lenkeran, Azer 63.26 303 P **P** **01 50 44.1 -0.8**
SEKA Sheki 64.07 306 P **P** **01 50 48.7 -1.6**
MNGR Mingechevir, A 64.23 305 P **P** **01 50 50.3 -0.9**
GANJ Ganja 64.82 305 P **P** **01 50 53.8 -1.3**
D19K Kuna River 64.94 24 IAmb IAmb 01 50 60.0
comp=Z,24nm,0.7s
E19K Redstone River 65.27 25 IAmb IAmb 01 51 16.7
comp=Z,18nm,0.9s
D20K Etivluk River 65.49 23 IAmb IAmb 01 51 00.8
comp=Z,19nm,0.8s
NAX Nakhchivan 65.70 304 P **P** **01 51 00.0 -1.0**
J19K Poorman 66.08 29 IAmb IAmb 01 51 07.8
comp=Z,17nm,0.9s
GNI Garni 66.09 305 LR LR 02 21 52.7
comp=Z,70nm,21.6s,baz=80,slow=38
GNI Garni 66.09 305 *eP* **P** **01 51 05.9 +2.3**
GNI pmax pmax
comp=Z,16nm,1.2s
VRH Novokhopyorsk 66.39 317 *eP* **P** **01 51 09.8 +4.8**
VRH pmax pmax
comp=Z,10.0nm,0.7s
KLMR Klimovskoe 66.49 328 *eP* **P** **01 51 03.6 -1.9**
KLMR pmax pmax
comp=Z,42nm,1.5s
IMAR Indian Mountai 66.73 26 P **P** **01 51 07.3 +0.4**
F21K Alatna River 66.73 25 IAmb IAmb 01 51 10.6
comp=Z,17nm,1.2s
KBZ Khabaz 66.79 309 P **P** **01 51 08.0 +0.3**
comp=Z,1.8nm,0.8s,baz=205,slow=20,SNR=4.3
KBZ LR LR 02 22 14.7
comp=Z,100nm,18.1s,baz=67,slow=38
comp=Z,1.8nm,0.8s
KBZ Khabaz 66.79 309 *i* P **P** **01 51 07.6 -0.1**
KBZ pmax pmax
comp=Z,13nm,1.1s
KIV Kislovodsk 66.90 309 *eP* **P** **01 51 08.9 +0.3**
KIV pmax pmax
comp=Z,9.0nm,1.0s
KIV MLR MLR
comp=Z,86nm,17.0s
SHA1 Shidzhatmaz 66.96 309 *i* P **P** **01 51 08.6 -0.5**
I21K Tanana 67.53 27 P **P** **01 51 13.5 +1.5**
CAST Castle Rocks 67.70 29 P **P** **01 51 14.2 +1.0**
CAST IAmb IAmb 01 51 29.9
comp=Z,29nm,1.0s
H22K Ishtalitna Cre 67.70 26 P **P** **01 51 14.4 +1.3**
VORR Voronezh 67.88 318 *eP* **P** **01 51 13.4 -1.0**
VORR pmax pmax
comp=Z,10.0nm,0.4s
LPSR Galich'ya Gora 67.89 319 *eP* **P** **01 51 13.7 -0.8**
LPSR pmax pmax
comp=Z,7.0nm,0.6s
VORD Divnogorie 67.94 317 *eP* **P** **01 51 11.7 -3.2**
VSR Storozhevoye 67.98 318 *eP* **P** **01 51 12.9 -2.2**
VSR pmax pmax
comp=Z,3.0nm,0.5s
SPU Mount Spurr 68.02 31 P **P** **01 51 15.5 +0.3**
SPU IAmb IAmb 01 51 31.4
comp=Z,22nm,1.0s
TOLK Toolik Lake Re 68.06 23 IAmb IAmb 01 51 19.4
comp=Z,17nm,0.8s
STLK Strandline Lak 68.08 31 IAmb IAmb 01 51 31.4
comp=Z,9.6nm,0.8s
MSVF Nonsavu 68.09 122 LR LR 02 17 15.9
comp=Z,45nm,20.5s,baz=153,slow=33
E23K Chandalar 68.12 24 IAmb IAmb 01 51 32.8
comp=Z,31nm,1.1s
G23K Bananza Creek 68.14 25 IAmb IAmb 01 51 20.6
comp=Z,21nm,1.0s
MOS Moscow 68.14 323 *eP* **P** **01 51 19.7 +3.7**
KTH Kantishna Hill 68.20 29 IAmb IAmb 01 51 32.3
comp=Z,19nm,0.9s
D24K Happy Valley 68.26 23 IAmb IAmb 01 51 33.7
comp=Z,27nm,0.8s
APA Apatity 68.35 336 *eP* **P** **01 51 15.9 -1.2**
APA *e* 01 51 41.2
APA *e* 01 53 48.3
APA pmax pmax
comp=Z,8.0nm,1.2s
APA MLR MLR
comp=Z,2µm,7.2s
E24K Your Creek 68.54 24 IAmb IAmb 01 51 35.2
comp=Z,31nm,1.0s
I23K Minto, Yukon-K 68.64 27 IAmb IAmb 01 51 35.7
comp=Z,19nm,1.0s
BRLK Bradley Lake 68.81 33 IAmb IAmb 01 51 36.6
comp=Z,29nm,1.0s
OBN Obninsk 68.84 322 *eP* **P** **01 51 19.6 -0.8**
OBN *e* 01 53 52.5
OBN *eS* **S** **02 00 25.9 +3.3**
OBN *eSS* **SS** **02 04 44.9 -2.6**
OBN pmax pmax
comp=Z,37nm,2.2s
OBN MLR MLR
comp=Z,209nm,17.0s
D25K Kavik River 69.10 22 IAmb IAmb 01 51 38.8
comp=Z,26nm,1.0s
WRH Wood River Hil 69.29 28 IAmb IAmb 01 51 40.1
comp=Z,25nm,1.0s
COLA College 69.31 27 P **P** **01 51 25.6 +2.4**
COLA College 69.31 27 *i* P **P** **01 51 23.3 +0.1**
COLA pmax pmax
comp=Z,17nm,0.9s
PMR Palmer 69.34 31 P **P** **01 51 25.4 +2.0**
PMR Palmer 69.34 31 IAmb IAmb 01 51 38.9
comp=Z,39nm,1.4s
CCB Clear Creek Bu 69.38 27 IAmb IAmb 01 51 39.4
comp=Z,17nm,1.3s
GHO Glory Hole Cre 69.40 31 IAmb IAmb 01 51 39.7
comp=Z,32nm,1.2s
RAYN Ar Rayn 69.47 288 P **P** **01 51 25.0 0.0**
RAYN pmax pmax
comp=Z,7.0nm,1.1s
RAYN Ar Rayn 69.47 288 P **P** **01 51 25.0 0.0**
SML Sawmill 69.67 30 IAmb IAmb 01 51 41.5
comp=Z,26nm,1.0s
F25K Christian Rive 69.68 24 IAmb IAmb 01 51 42.8
comp=Z,20nm,0.9s
ILAR Eielson Array 69.74 27 P **P** **01 51 24.9 -1.0**
comp=Z,2.2nm,0.5s,baz=270,slow=4.9,SNR=22
comp=Z,2.2nm,0.5s
HDA Handling Lake 69.78 28 IAmb IAmb 01 51 41.4
comp=Z,32nm,1.0s
C27K Jago River 69.96 22 IAmb IAmb 01 51 44.0
comp=Z,37nm,1.2s
BMAR Burnt Mountain 70.12 24 P **P** **01 51 29.3 +1.1**
F26K Sheenjek River 70.22 24 IAmb IAmb 01 51 46.6
comp=Z,29nm,1.0s
J25K Salcha River, 70.41 27 IAmb IAmb 01 52 11.2
comp=Z,24nm,1.5s
G26K Porcupine Rive 70.53 25 IAmb IAmb 01 51 47.9
comp=Z,32nm,0.9s
SPITS Spitsbergen Ar 70.67 348 P **P** **01 51 30.8 -0.6**
comp=Z,7.5nm,0.9s,baz=86,slow=11,SNR=5.0
SPITS LR LR 02 27 11.2
comp=Z,175nm,18.4s,baz=52,slow=40
comp=Z,7.5nm,0.9s
PAX Paxson 70.73 29 IAmb IAmb 01 51 35.9
comp=Z,15nm,0.9s
ARCES ARCESS Array B 70.81 338 P **P** **01 51 33.3 +1.0**
comp=Z,5.2nm,1.1s,baz=31,slow=2.8,SNR=4.8
comp=Z,5.2nm,1.1s
KLU Klutina 70.86 30 IAmb IAmb 01 51 49.2
comp=Z,21nm,0.8s
D27M Malcolm River 70.99 22 IAmb IAmb 01 51 50.4
comp=Z,21nm,1.1s
E27K Coleen River 71.04 23 IAmb IAmb 01 51 50.6
comp=Z,22nm,1.0s
SCRK Sand Creek, 71.14 28 IAmb IAmb 01 51 51.4
comp=Z,46nm,1.5s
I26K Coal Creek Min 71.17 26 IAmb IAmb 01 51 50.6
comp=Z,48nm,1.4s
DOT Dot Lake 71.19 28 IAmb IAmb 01 51 50.6
comp=Z,27nm,0.9s
G27K Doyon Strip 71.38 25 IAmb IAmb 01 51 53.5
comp=Z,32nm,1.4s
MENT Mentasta 71.52 29 P **P** **01 51 38.9 +2.2**
MENT Mentasta 71.52 29 IAmb IAmb 01 51 41.5
comp=Z,26nm,0.8s
H27K Steamboat Moun 71.58 25 IAmb IAmb 01 51 54.4
comp=Z,31nm,1.2s
BMRM Bremner River 71.61 31 IAmb IAmb 01 51 53.8
comp=Z,41nm,1.1s
L26K Log Cabin Wild 71.66 29 IAmb IAmb 01 51 54.3
comp=Z,21nm,0.9s
E28M Babbage River 71.67 22 IAmb IAmb 01 51 54.8
comp=Z,28nm,1.2s
I27K Kandik River 71.71 26 IAmb IAmb 01 51 55.0
comp=Z,37nm,1.0s
F28M Old Crow 71.83 24 IAmb IAmb 01 51 55.4
comp=Z,29nm,0.9s
K27K Chicken 71.94 27 IAmb IAmb 01 51 56.3
comp=Z,33nm,1.0s
VRDI Verde Repeater 72.08 30 IAmb IAmb 01 51 44.8
comp=Z,21nm,0.7s
L27K Beaver Creek, 72.32 28 IAmb IAmb 01 51 58.8
comp=Z,30nm,0.9s
BCAR Beaver Creek A 72.33 28 P **P** **01 51 42.7 +1.1**
I28M Miner Creek 72.43 26 IAmb IAmb 01 51 46.9
comp=Z,15nm,0.8s
M27K Edge Creek, AK 72.49 29 IAmb IAmb 01 51 47.4
comp=Z,16nm,0.6s
TGL Tana Glacier 72.50 31 IAmb IAmb 01 51 59.6
comp=Z,35nm,1.1s
G29M Pine Creek 72.72 24 IAmb IAmb 01 52 01.2
comp=Z,44nm,1.1s
FINES FINESS Array B 72.77 330 P **P** **01 51 43.4 -0.8**
comp=Z,1.3nm,0.5s,baz=51,slow=6.5,SNR=15
FINES LR LR 02 25 55.5
comp=Z,284nm,19.8s,baz=71,slow=38
comp=Z,1.3nm,0.5s
FINES FINESS Array B 72.77 330 *i* P **P** **01 51 43.7 -0.5**
FINES pmax pmax
comp=Z,2.0nm,0.7s
H29M Whitestone 72.81 25 IAmb IAmb 01 52 01.7
comp=Z,49nm,1.4s
BARN Barnard Glacie 72.96 30 IAmb IAmb 01 51 50.5
comp=Z,21nm,0.6s
DAWY Dawson 73.06 27 IAmb IAmb 01 52 02.6
comp=Z,22nm,0.9s
F30M Barrier River 73.31 23 IAmb IAmb 01 51 51.6
comp=Z,40nm,1.1s
LOGN Logan Glacier 73.34 31 IAmb IAmb 01 52 04.6
comp=Z,42nm,1.2s
G30M tAoh Zraii Nji 73.37 24 IAmb IAmb 01 52 03.7
comp=Z,29nm,1.1s
EPYK Eagle Plains 73.39 24 IAmb IAmb 01 51 52.0
comp=Z,24nm,0.7s
O28M Mount Upton 73.73 30 IAmb IAmb 01 52 08.1
comp=Z,28nm,0.9s
INK Inuvik 73.86 22 LR LR 02 26 24.3
comp=Z,42nm,18.2s,baz=345,slow=38
INK Inuvik 73.86 22 IAmb IAmb 01 51 54.4
comp=Z,16nm,0.9s
MNK Minsk 73.87 323 *i* P **P** **01 51 50.0 -0.8**
MNK *i* 01 52 05.0
MNK *i* 01 54 34.9
MNK *i* PPP PPP 01 56 19.9
MNK *i* S **S** **02 01 22.3 +1.5**
MNK pmax pmax
comp=E,6.0nm,0.8s
MNK pmax pmax
comp=Z,8.0nm,0.9s
MNK pmax pmax
comp=N,5.0nm,0.9s
MNK MLR MLR
comp=N,274nm,12.0s
MNK MLR MLR
comp=E,224nm,12.0s
MNK Minsk 73.87 323 *i* P **P** **01 51 50.0 -0.8**
comp=E,6.0nm,0.8s
MNK *i* P **P** **01 51 50.0 -0.8**
comp=N,5.0nm,0.9s
MNK *i* P **P** **01 51 50.0 -0.8**
comp=Z,8.0nm,0.9s,baz=73
MNK *i* PcP **PcP** **01 52 05.0 -1.2**
MNK *i* PP **PP** **01 54 34.9 -0.5**
MNK *i* PPP PPP 01 56 19.9
MNK *i* S **S** **02 01 22.4 +1.5**
MNK *i* PS **PnS** **02 01 44.3 -11**
MNK *i* SS SS 02 06 37.1 +33
MNK *i* SSS SSS 02 10 27.9
MNK *i* LQ LQ 02 18 49.2
L29M L29M 73.91 28 IAmb IAmb 01 51 56.6
comp=Z,23nm,0.7s
I30M Mount Dempster 73.91 25 IAmb IAmb 01 52 07.7
comp=Z,28nm,1.1s
K29M Barlow Dome 73.92 27 IAmb IAmb 01 52 08.1
comp=Z,22nm,1.1s
M29M Somme Creek 73.98 29 IAmb IAmb 01 52 09.1
comp=Z,19nm,0.8s
F31M Tsiigehtchic 74.11 23 IAmb IAmb 01 51 56.0
comp=Z,18nm,0.8s
ASF Jabal al Asfar 74.21 299 LR LR 02 30 57.6
comp=Z,77nm,18.2s,baz=88,slow=41
AKASG Malin Array Be 74.21 319 P **P** **01 51 54.1 +1.2**
comp=Z,0.5nm,0.4s,baz=61,slow=6.4,SNR=4.4
comp=Z,0.5nm,0.4s
AKBB Malin Array Si 74.21 319 *i* P **P** **01 51 55.8 +2.9**
AK10 Malin Array Si 74.22 319 P **P** **01 51 52.2 -0.7**
AK06 Malin Array Si 74.26 319 P **P** **01 51 51.7 -1.5**
AK07 Malin Array Si 74.27 319 P **P** **01 51 52.4 -0.8**
AK21 Malin Array Si 74.30 319 P **P** **01 51 52.9 -0.5**
AFI Afiamalu 74.41 113 LR LR 02 19 05.2
comp=Z,24nm,21.2s,baz=358,slow=31
PNL Peninsula 74.46 31 P **P** **01 51 56.8 +2.6**
BR131 Keskin Array S 74.47 307 *i* P **P** **01 51 56.9 +2.1**
BRTR Keskin Array B 74.48 307 P **P** **01 51 54.5 -0.4**
comp=Z,0.8nm,0.5s,baz=123,slow=2.3,SNR=8.2
BRTR LR LR 02 27 36.2
comp=Z,59nm,19.3s,baz=32,slow=38
comp=Z,0.8nm,0.5s
BRTR Keskin Array B 74.48 307*ce*P **P** **01 51 54.2 -0.6**
BRTR pmax pmax
comp=Z,1.0nm,0.5s
BR106 Keskin Array S 74.49 307 P **P** **01 51 54.0 -0.9**
comp=Z,6.7nm,1.1s
BR105 Keskin Array S 74.49 307 P **P** **01 51 54.1 -0.8**
comp=Z,6.6nm,1.0s
H31M Peel River 74.50 25 IAmb IAmb 01 52 10.4
comp=Z,17nm,1.0s
M30M Minto, Yukon 74.66 28 IAmb IAmb 01 52 12.9
comp=Z,39nm,1.2s
HYT Haines Junctio 74.96 30 IAmb IAmb 01 52 02.7
comp=Z,10nm,0.7s
MMAI Mount Meron Ar 75.15 300 LR LR 02 30 36.1
comp=Z,76nm,19.3s,baz=41,slow=40
LUBAR Lubar, Ukraine 75.34 318 P **P** **01 51 58.6 -0.9**
N31M Braeburn, Yuko 75.50 29 IAmb IAmb 01 52 25.2
comp=Z,24nm,1.1s
O30N Mendenhall 75.63 30 IAmb IAmb 01 52 06.5
comp=Z,14nm,0.9s
RNPP9 Sopachiv 75.98 320 P **P** **01 52 02.3 -0.8**
RNPP8 Varash 76.03 320 P **P** **01 52 02.8 -0.5**
WHY Whitehorse 76.22 30 IAmb IAmb 01 52 09.6
comp=Z,22nm,0.6s
SKAG Skagway 76.47 31 P **P** **01 52 08.3 +2.6**
SKAG Skagway 76.47 31 IAmb IAmb 01 52 11.6
comp=Z,18nm,0.7s
C36M Paulatuk 76.49 20 IAmb IAmb 01 52 21.1
comp=Z,22nm,1.2s
MLR Muntele Rosu 77.98 314 LR LR 02 29 29.0
comp=Z,166nm,19.5s,baz=0.0,slow=38
VOIR 78.59 315 P **P** **01 52 16.9 -1.0**
comp=Z,6.3nm,2.6s
HFS Hagfors 78.88 331 P **P** **01 52 18.0 -1.1**
comp=Z,1.6nm,0.8s,baz=94,slow=4.5,SNR=5.0
comp=Z,1.6nm,0.8s
QRZ Quartz Range 79.01 143 P **P** **01 52 22.6 +2.6**
KOLS Kolonicke sedl 79.04 319 *eP* **P** **01 52 23.6 +3.3**
KOLS Kolonicke sedl 79.04 319 *eP* **P** **01 52 23.6 +3.3**
WTLY Watson Lake, Y 79.19 29 IAmb IAmb 01 52 22.2
comp=Z,27nm,0.8s
DLBC Dease Lake 79.40 31 LR LR 02 29 38.7
comp=Z,57nm,19.9s,baz=274,slow=37
NB2 NORSAR Subarra 79.54 332 P **P** **01 52 21.3 -1.5**
comp=Z,6.7nm,1.2s,baz=62,slow=5.6
NOA NORSAR Array B 79.54 332 P **P** **01 52 21.6 -1.2**
comp=Z,1.4nm,0.8s,baz=57,slow=5.6,SNR=3.6
NOA LR LR 02 31 01.2
comp=Z,257nm,18.5s,baz=60,slow=38
comp=Z,1.4nm,0.8s
RES Resolute Bay 79.54 9 LR LR 02 32 41.3
comp=Z,37nm,18.5s,baz=358,slow=40
OJC Ojcow 80.02 320 P **P** **01 52 25.1 -0.4**
comp=Z,17nm,1.6s
RPZ Rata Peaks 80.25 146 LR LR 02 29 04.4
comp=Z,9.2nm,18.0s,baz=340,slow=36
KHZ Kahutara 80.66 144 P **P** **01 52 31.0 +2.2**
VYHS Vyhne 81.31 319 *eP* **P** **01 52 32.9 +0.4**
VYHS Vyhne 81.31 319 *eP* **P** **01 52 32.9 +0.4**
STEB Steborice 81.32 321 *eP* **P** **01 52 31.8 -0.7**
OSTC Ostas 81.94 322 *eP* **P** **01 52 38.4 +2.6**
OSTC Ostas 81.94 322 *eP* **P** **01 52 38.4 +2.6**
DPC Dobruska-Polom 81.97 321 *eP* **P** **01 52 33.9 -2.1**
DPC Dobruska-Polom 81.97 321 *eP* **P** **01 52 33.9 -2.1**
DPC Dobruska-Polom 81.97 321 P **P** **01 52 35.3 -0.7**
comp=Z,7.7nm,2.7s
MPLH Magyarpolny 82.66 318 P **P** **01 52 38.8 -0.8**
comp=Z,22nm,2.1s
WINA Alland / Wiene 83.13 320 *ePcP* **P** **01 52 43.7 +1.6**
comp=Z,20nm,2.0s
RONA Rosalia, Austr 83.18 319 *eP* **P** **01 52 42.4 0.0**
comp=Z,6.1nm,1.4s
ABNA Allensteig Bun 83.25 320 *eP* **P** **01 52 42.5 -0.2**
comp=Z,6.3nm,1.1s
CONA Conrad Observa 83.34 319 *eP* **P** **01 52 42.7 -0.5**
comp=Z,7.1nm,1.3s
CLL Collm 83.39 323 *i* P **P** **01 52 42.4 -0.9**
CLL Collm 83.39 323 P **P** **01 52 42.4 -0.9**
CLL Collm 83.39 323 *i* P **P** **01 52 42.4 -0.9**
CLL *i* pP **pP** **01 52 49.6 -0.5**
CLL *i* x x 01 52 55.1
CLL AMS AMS 02 26 00.0
comp=N,300nm,23.0s
YKA Yellowknife Ar 83.59 23 P **P** **01 52 43.9 -0.2**
comp=N,6.7nm,0.7s,baz=313,slow=5.1,SNR=8.8
comp=N,6.7nm,0.7s
ZVC Zvikov 83.62 321 *eP* **P** **01 52 43.6 -0.9**
ARSA Arzberg 83.86 319 *eP* **P** **01 52 44.7 -1.1**
comp=N,6.9nm,1.5s
KHC Kasperske Hory 84.12 321 *eP* **P** **01 52 47.6 +0.5**
KHC Kasperske Hory 84.12 321 *eP* **P** **01 52 47.6 +0.5**
comp=N,0.3nm,0.3s
GERES GERESS Array B 84.18 321 P **P** **01 52 47.2 -0.3**
comp=N,2.0nm,0.8s,baz=46,slow=3.9,SNR=13
GERES LR LR 02 34 19.8
comp=N,120nm,19.6s,baz=7.5,slow=38
comp=N,2.0nm,0.8s
MOA Molln 84.33 320 *eP* **P** **01 52 49.1 +0.9**
comp=N,7.9nm,1.0s
SOKA Soboth 84.42 319 *eP* **P** **01 52 48.1 -0.6**

	comp=N,13nm,1.5s								
SESA	**Seetaler Alpe,** comp=N,7.6nm,1.2s	**84.50**	**319**	*i*	P	**P**	**01 52 49.1**	**-0.2**
BIOA	**Bad Ischl, Aus** comp=N,5.2nm,1.3s	**84.78**	**320**	*e*	P	**P**	**01 52 49.7**	**-0.8**
OBKA	**Obir** comp=N,14nm,1.5s	**84.79**	**319**	*e*	P	**P**	**01 52 47.5**	**-3.2**
KBA	**Koelnbreinsper** comp=N,7.9nm,1.3s	**85.25**	**320**	*e*	P	**P**	**01 52 52.2**	**-0.9**
MYKA	**Terra Mystica** comp=N,2.0nm,0.6s	**85.28**	**319**	*e*	PcP	**P**	**01 52 54.3**	**+1.2**
LESA	**Schwarzleotal** comp=N,4.6nm,1.2s	**85.47**	**320**	*e*	P	**P**	**01 52 53.4**	**-0.6**
ABTA	**Abfaltersbach** comp=N,6.4nm,1.4s	**85.91**	**320**	*e*	P	**P**	**01 52 54.7**	**-1.5**
DAVOX	**Davos/Dischmat** comp=N,171nm,18.4s,baz=44,slow=36	**87.45**	**320**		LR	LR	02 32 47.1	
RAR	**Rarotonga** comp=N,10.0nm,18.6s,baz=251,slow=34	**87.92**	**114**		LR	LR	02 30 44.2	
BMRD	**Maredsous**	**88.35**	**325**	*d*	P	**P**	**01 53 08.1**	**+0.3**
EKA	**Eskdalemuir Ar** comp=N,0.3nm,0.5s,baz=57,slow=3.1,SNR=3.7 comp=N,0.3nm,0.5s	**89.02**	**332**		P	**P**	**01 53 10.2**	**-0.7**
EDM	**Edmonton** comp=Z,14nm,0.8s	**90.08**	**30**		IAmb	IAmb	01 53 22.7	
MXC	**Moxie City** comp=Z,15nm,0.8s	**90.63**	**38**		IAmb	IAmb	01 53 26.4	
E07A	**Sunnyside** comp=Z,19nm,1.2s	**90.89**	**38**		IAmb	IAmb	01 53 27.7	
YBH	**Yreka Blue Hor** comp=Z,34nm,19.9s,baz=346,slow=35	**91.94**	**43**		LR	LR	02 33 49.0	
J08A	**Circle Bar Ran** comp=Z,10nm,1.2s	**93.57**	**40**		IAmb	IAmb	01 53 53.2	
PPT	**Papeete** comp=Z,43nm,21.0s,baz=206,slow=30	**95.24**	**107**		LR	LR	02 27 45.9	
PPT2	**Papeete2** comp=Z,98nm,28.0s	**95.25**	**107**		eLR	LR	02 24 17.2	
PPT2	comp=Z,116nm,24.5s				eLR	LR	02 24 29.7	
NVAR	**Mina Array Bea** comp=Z,0.2nm,0.6s,baz=283,slow=5.6,SNR=6.5 comp=Z,0.2nm,0.6s	**96.60**	**43**		P	**P**	**01 53 47.5**	**+1.0**
PDAR	**Pinedale Array** comp=Z,0.1nm,0.3s,baz=346,slow=4.6,SNR=2.4 comp=Z,0.1nm,0.3s	**98.97**	**36**		P	**P**	**01 53 57.1**	**0.0**
ULM	**Lac du Bonnet** comp=Z,60nm,18.6s,baz=27,slow=38	**99.56**	**24**		LR	LR	02 43 39.0	
TROLL	**Troll, Antarti** comp=Z,90nm,0.7s	**120.85**	**198**	⇑	sPKPdf	sPKPdf	01 59 20.9	+4.1
VNA2	**Neumayer--Watz** comp=Z,3.9nm,0.6s,baz=91,slow=1.5	**124.17**	**198**	⇑	sPKPdf	sPKPdf	01 59 27.0	+3.9
VNA1	**Neumayer--Stat** comp=Z,2.8nm,0.9s	**124.56**	**198**	⇑	sPKPdf	sPKPdf	01 59 27.7	+4.0
VNA3	**Neumayer Olymp** comp=Z,1.8nm,0.7s	**124.63**	**197**	⇑	sPKPdf	sPKPdf	01 59 27.6	+3.6

CATAC ***06*** *01:44:57.8±0.5, 10°N±3°×8°7W±°, h11km±4km, M4.1/22, MLv4.1/22, Error ellipse: s-maj=7.5km s-min=3.7km az=42.0, confirmed*

UCR ***06*** *01:45:01.8±0.7, 10°.58N×86°.48W, h15km±10km, MW4.6, Presumed earthquake*

ISC 06 01:44:59.8±2.0, 10.47N±0°.05×86.55W±0°.07, h11km±11km, n53, σ0°89/74, 10C, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALIBA	**Liberia Airpor**	**0.99**	**83**	*e*P	**Pg**	**01 45 19.3**	**+0.4**
ALIBA				*e*S	**Sn**	**01 45 33.6**	**-0.1**
JUD3	**Juan Diaz 3**	**1.04**	**107**	*e*P	**Pn**	**01 45 20.4**	**+0.1**
LCRUZ	**La Cruz**	**1.08**	**56**	*e*P	**Pb**	**01 45 19.9**	**-0.7**
NICO	**Nicoya**	**1.13**	**107**	*e*P	**Pg**	**01 45 21.9**	**+0.4**
LAPC	**Finca la Perla**	**1.13**	**75**	*e*P	**Pb**	**01 45 20.0**	**-1.5**
CMARA	**Lajas Hojancha**	**1.19**	**112**	P		**Pn**	**01 45 20.2**	**-2.3**
CMARA				S		**Sb**	**01 45 37.8**	**-0.2**
VRLE	**La Escondida,**	**1.20**	**75**	*e*P		**Pn**	**01 45 22.1**	**-0.6**
GPS2	**Hotel Rincn d**	**1.21**	**76**	*e*P		**Pn**	**01 45 22.5**	**-0.2**
CARN	**Rivas**	**1.23**	**55**	⇑P		**Pn**	**01 45 22.7**	**-0.3**
CARN				S		**Sg**	**01 45 40.3**	**+0.7**
CARN	**Rivas**	**1.23**	**55**	*e*P		**Pn**	**01 45 22.4**	**-0.6**
COLC	**Colonia**	**1.33**	**81**	*e*P		**Pn**	**01 45 24.2**	**-0.2**
JAPN	**Al SSO del Vol**	**1.35**	**39**	⇑P		**Pn**	**01 45 24.4**	**-0.3**
JAPN	**Al SSO del Vol**	**1.35**	**39**	*e*P		**Pn**	**01 45 24.5**	**-0.1**
MESS	**Mesas**	**1.36**	**78**	*e*P		**Pn**	**01 45 24.7**	**0.0**
NADN	**Granada**	**1.37**	**22**	P		**Pn**	**01 45 23.9**	**-0.9**
NADN				S		**Sg**	**01 45 44.1**	**+0.2**
CUI	**Cuipilapa**	**1.37**	**82**	*e*P		**Pn**	**01 45 25.1**	**+0.1**
CLARA	**Aguas Claras**	**1.38**	**77**	*e*P		**Pn**	**01 45 25.2**	**+0.1**
MORN	**Al O del Volca**	**1.39**	**39**	⇑P		**Pn**	**01 45 24.6**	**-0.6**
MORN				S		**Sg**	**01 45 44.5**	**0.0**
VMAR	**Armenia, Volca**	**1.45**	**76**	*e*P		**Pb**	**01 45 26.4**	**-0.4**
CANAL	**Canalete**	**1.51**	**76**	*e*P		**Pn**	**01 45 27.0**	**+0.2**
NANN	**Nandasmo**	**1.52**	**16**	⇑P		**Pn**	**01 45 27.3**	**+0.3**
NANN				S		**Sg**	**01 45 48.7**	**-0.1**
SABN	**Sabanita**	**1.53**	**14**	⇑P		**Pn**	**01 45 26.2**	**-0.8**
MASN	**Masaya**	**1.56**	**14**	P		**Pb**	**01 45 29.0**	**+0.3**
MASN				S		**Sg**	**01 45 49.7**	**-0.3**
TENO	**El Achiote**	**1.56**	**81**	*e*P		**Pn**	**01 45 27.3**	**-0.2**
UPAL	**Upala**	**1.57**	**74**	P		**Pb**	**01 45 28.3**	**-0.5**
UPAL				S		**Sg**	**01 45 50.3**	**+0.1**
UPAL	**Upala**	**1.57**	**74**	*e*P		**Pn**	**01 45 27.8**	**+0.2**
JTS	**Las Juntas de**	**1.58**	**96**	*e*P		**Pn**	**01 45 28.0**	**+0.3**
MAS3	**Al N del Volca**	**1.59**	**13**	P		**Pb**	**01 45 28.8**	**-0.4**
MAS3				S		**Sg**	**01 45 50.3**	**-0.6**
COTE	**Lago Cote**	**1.61**	**86**	*e*P		**Pb**	**01 45 29.0**	**-0.6**
ABCN	**Banco Central**	**1.66**	**8**	P		**Pn**	**01 45 28.9**	**0.0**
ABCN				S		**Sb**	**01 45 52.3**	**+1.0**
TISN	**Laguna Tiscapa**	**1.69**	**9**	P		**Pn**	**01 45 28.6**	**-0.7**
MGAN	**Managua**	**1.69**	**10**	P		**Pn**	**01 45 28.9**	**-0.4**
MTEVE	**Monteverde**	**1.70**	**95**	*e*P		**Pn**	**01 45 30.2**	**+0.7**
WILN	**Americas 2**	**1.72**	**12**	P		**Pn**	**01 45 29.6**	**0.0**
WILN				S		**Sb**	**01 45 53.1**	**+0.1**
APQ2	**Apoyeque**	**1.73**	**7**	P		**Pn**	**01 45 29.5**	**-0.3**
APQ2				S		**Sb**	**01 45 52.9**	**-0.6**
APQ2	**Apoyeque**	**1.73**	**7**	⇑P		**Pn**	**01 45 29.4**	**-0.4**
APQ2				S		**Sb**	**01 45 54.3**	**+0.9**
APYN	**Apoyeque**	**1.77**	**6**	P		**Pn**	**01 45 30.1**	**-0.3**
APYN				S		**Sb**	**01 45 55.1**	**+0.7**
CASO	**Castillo**	**1.78**	**91**	*e*P		**Pb**	**01 45 32.1**	**-0.4**
VARE2	**V. Arenal**	**1.80**	**90**	*e*P		**Pb**	**01 45 31.9**	**-1.0**
CEDE	**Laguna Cedeo**	**1.81**	**89**	*e*P		**Pn**	**01 45 31.9**	**+0.9**
VACR	**Volcan Arenal**	**1.84**	**90**	*e*P		**Pb**	**01 45 32.6**	**-0.9**
LEVN	**Ruinas Leon Vi**	**1.92**	**358**	P		**Pn**	**01 45 33.2**	**+0.7**
LEVN				S		**Sb**	**01 45 58.5**	**-0.4**
MOM2	**El Cardon**	**1.96**	**2**	⇑P		**Pn**	**01 45 32.3**	**-0.6**
MOM2				S		**Sb**	**01 46 00.6**	**+0.7**
ACON	**Acoyapa**	**2.01**	**42**	P		**Pn**	**01 45 32.6**	**-1.0**
ACON				S		**Sb**	**01 46 01.3**	**-0.1**
MOM3	**MOM3**	**2.03**	**1**	⇑P		**Pn**	**01 45 33.4**	**-0.6**
MOM3				S		**Sb**	**01 46 02.1**	**0.0**
QUEN	**Al S del Volca**	**2.13**	**352**	⇑P		**Pn**	**01 45 35.5**	**+0.1**
QUEN				S		**Sn**	**01 46 02.5**	**+0.6**
VPL2	**V. Platanar**	**2.13**	**94**	*e*P		**Pn**	**01 45 36.9**	**+1.4**
TRB2	**Turrubares**	**2.14**	**105**	P		**Pn**	**01 45 31.2**	**-4.2**
TRB2				S		**Sn**	**01 46 03.0**	**+0.9**
BOAB	**BOACO BROADBAN**	**2.15**	**24**	⇑P		**Pn**	**01 45 34.8**	**-0.8**
BOAB				S		**Sb**	**01 46 04.4**	**-1.1**
VPL1	**V. Platanar**	**2.16**	**95**	*e*P		**Pn**	**01 45 37.4**	**+1.5**
ABE2	**San Pablo**	**2.57**	**107**	*e*P		**Pn**	**01 45 43.0**	**+1.4**
LCR2	**La Lucha 2**	**2.60**	**106**	*e*P		**Pn**	**01 45 43.4**	**+1.3**
CVTG	**V. Turrialba,**	**2.75**	**96**	*e*P		**Pn**	**01 45 45.9**	**+2.0**

FUNV ***06*** *02:04:30.2, 12°.06N×70°.15W, h35km, MW4.1, Presumed earthquake*

RSNC ***06*** *02:04:32.7±0.8, 12°N±5°×7°0W±°, h76km±22km, M4.2, mB4.8, mb4.4, ML3.4, Mw(mB)4.1*

ISC 06 02:04:28.8±1.3, 11.79N±0°.07×70.22W±0°.04, h25km, n27, σ2s09/52, 4C, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JACV	**Jacura**	**1.53**	**117**	*e*S	**Sb**	**02 05 15.1**	**-0.5**
URIC	**Uribia, Colomb**	**1.74**	**267**	P	**Pn**	**02 04 57.4**	**0.0**
URIC				S	**Sn**	**02 05 19.9**	**+1.1**
URIC	**Uribia, Colomb**	**1.74**	**267**	*e*P	**Pn**	**02 04 57.7**	**+0.3**
URIC				*e*S	**Sn**	**02 05 19.8**	**+1.0**
TEPV	**Terepaima**	**2.08**	**151**	*e*P	**Pb**	**02 05 05.2**	**-0.7**
TEPV				*e*S	**Sb**	**02 05 30.3**	**-1.0**
MAPV	**Macapo**	**2.61**	**138**	⇑*i*P	**Pn**	**02 05 11.5**	**+2.1**
MAPV				*e*S	**Sn**	**02 05 42.1**	**+1.8**
TURV	**Turiamo**	**2.69**	**120**	*e*P	**Pn**	**02 05 10.8**	**+0.4**
TURV				*e*S	**Sn**	**02 05 41.4**	**-0.9**
CRJC	**Cerrejon, Guaj**	**2.72**	**254**	P	**Pn**	**02 05 10.8**	**-0.2**
CRJC				S	**Sn**	**02 05 41.6**	**-1.6**
BENV	**Beln**	**3.15**	**125**	⇑*e*P	**Pn**	**02 05 18.2**	**+1.3**
BENV				*e*S	**Sn**	**02 05 52.9**	**-0.9**
TACV	**Tcata**	**3.54**	**117**	⇑*e*P	**Pn**	**02 05 22.6**	**+0.4**
TACV				*e*S	**Sn**	**02 06 01.3**	**-2.1**
FUNV	**FUNVISIS**	**3.59**	**111**	*e*P	**Pn**	**02 05 23.1**	**0.0**
FUNV				*e*S	**Sn**	**02 06 01.9**	**-2.8**
SMRC	**Santa Marta, M**	**3.98**	**261**	P	**Pn**	**02 05 28.9**	**+0.7**
SMRC				S	**Sn**	**02 06 15.4**	**+1.4**
ARGC	**Ariguani, Magd**	**4.40**	**244**	P	**Pn**	**02 05 34.8**	**+0.8**
ARGC				S	**Sn**	**02 06 26.6**	**+2.1**
CAPV	**Capacho**	**4.42**	**208**	*e*P	**Pn**	**02 05 36.2**	**+1.8**
CAPV				*e*S	**Sn**	**02 06 26.5**	**+1.3**
MERV	**Las Mercedes**	**4.61**	**123**	⇑*e*P	**Pn**	**02 05 37.0**	**+0.1**
MERV				*e*S	**Sn**	**02 06 26.7**	**-3.0**
OCAC	**Ocana**	**4.67**	**221**	P	**Pn**	**02 05 39.2**	**+1.4**
OCAC				S	**Sn**	**02 06 30.5**	**-0.8**
SJCC	**San Jacinto, C**	**5.22**	**249**	P	**Pn**	**02 05 47.2**	**+1.8**
SJCC				S	**Sn**	**02 06 47.7**	**+2.8**
SJCC	**San Jacinto, C**	**5.22**	**249**	*e*P	**Pn**	**02 05 47.1**	**+1.8**
SJCC				*e*S	**Sn**	**02 06 43.0**	**-2.0**
TAMC	**Tame, Arauca**	**5.54**	**196**	P	**Pn**	**02 05 54.6**	**+4.8**
TAMC				S	**Sn**	**02 06 52.8**	**0.0**
CACV	**CAICARA DEL OR**	**5.55**	**139**	*e*P	Pn	02 05 56.3	+6.5
CACV				*e*S	**Sn**	**02 06 59.1**	**+6.3**
PCRV	**Puerto La Cruz**	**5.71**	**106**	*e*P	**Pn**	**02 05 51.8**	**-0.3**
PCRV				*e*S	**Sn**	**02 06 52.1**	**-4.8**
RUSC	**La Rusia** 20nm,0.5s	**6.51**	**206**	P	**Pn**	**02 06 04.4**	**+0.9**
RUSC	20nm,0.5s			S	**Sn**	**02 07 16.4**	**-0.8**
RUSC	**La Rusia**	**6.51**	**206**	*e*P	**Pn**	**02 06 05.0**	**+1.6**
RUSC				*e*S	**Sn**	**02 07 15.1**	**-2.2**
URMC	**San Jos de Ur** 12nm,0.8s	**6.60**	**233**	P	**Pn**	**02 06 05.4**	**+1.1**
URMC	12nm,0.8s			S	**Sn**	**02 07 19.1**	**+0.3**
PTBC	**PUERTO BERRIO,** 499nm21nm,0.6s	**6.69**	**219**	P	**Pn**	**02 06 06.2**	**+0.7**
PTBC	499nm21nm,0.6s			S	**Sn**	**02 07 19.9**	**-1.1**
GUY2C	**Guyana, Caldas** 28nm,0.8s	**8.28**	**218**	P	**Pn**	**02 06 28.9**	**+1.2**
GUY2C	28nm,0.8s			S	**Sn**	**02 07 58.3**	**-2.4**
VILC	**Villavicencio,**	**8.37**	**205**	P	**Pn**	**02 06 28.5**	**-0.2**
VILC				S	**Sn**	**02 07 56.6**	**-6.0**
URMC	**La Uribe, Meta**	**9.44**	**206**	P	**Pn**	**02 06 44.3**	**+1.0**
URMC				S	**Sn**	**02 08 27.8**	**-0.9**

ISK ***06*** *02:23:10.2, 37°.91N×26°.70E, h3km, ML2.7/16*

THE ***06*** *02:23:10.4, 38°N±1°×2°7E±°, h10km±1km, M2.7/9, MLh2.7/9*

AFAD ***06*** *02:23:10.1, 37°.90N×26°.68E, h7km±4km, ML2.3*

ISC 06 02:23:10.2±0.9, 37.90N±0°.02×26.66E±0°.03, h13km±8km, n35, σ0s67/53, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.23**	**143**	P	**Pg**	**02 23 15.5**	**+0.3**
SMG				S	**Sg**	**02 23 19.2**	**+0.5**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**49**	P	**Pg**	**02 23 14.9**	**-0.4**
DGB				IAML		02 23 18.0	
	comp=N,466nm,0.3s						
DGB				IAML		02 23 18.0	
	comp=E,626nm,0.2s						
DGB				S	**Sg**	**02 23 18.4**	**-0.3**
GMLD	**Gumuldur**	**0.27**	**48**	Pg	**Pg**	**02 23 15.5**	**-0.4**
GMLD				Sg	**Sg**	**02 23 19.8**	**0.0**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.36**	**341**	P	**Pg**	**02 23 17.0**	**-0.6**
ZEYE				S	**Sg**	**02 23 23.2**	**+0.7**
ZEYE				IAML		02 23 24.0	
	comp=E,298nm,0.2s						
ZEYE				IAML		02 23 25.0	
	comp=N,306nm,0.2s						
BEYE	**izmir**	**0.39**	**33**	P	**Pg**	**02 23 17.7**	**-0.5**
BEYE				S	**Sg**	**02 23 23.3**	**-0.2**
BEYE				IAML		02 23 24.0	
	comp=E,213nm,0.2s						
BEYE				IAML		02 23 25.0	
	comp=N,184nm,0.3s						
GCAM	**G?zelcaml?**	**0.50**	**113**	Pg	**Pg**	**02 23 19.9**	**-0.1**
GCAM				Sg	**Sb**	**02 23 27.5**	**-0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.50**	**94**	Pg	**Pg**	**02 23 20.1**	**0.0**
KUSD				Sg	**Sb**	**02 23 27.3**	**-0.8**
KUSD				AML	AML		
BLCB	**Balcova**	**0.58**	**32**	P	**Pg**	**02 23 21.3**	**-0.2**
BLCB				S	**Sg**	**02 23 29.1**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**32**	Pg	**Pg**	**02 23 21.3**	**-0.2**
BLCB				Sg	**Sg**	**02 23 29.3**	**+0.1**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.64**	**133**	P	**Pg**	**02 23 20.9**	**-1.8**
DDIM				S	**Sb**	**02 23 32.0**	**0.0**
DDIM				IAML		02 23 35.0	
	comp=E,275nm,1.1s						
DDIM				IAML		02 23 38.0	
	comp=N,166nm,0.8s						
CHOS	**Chios island**	**0.68**	**316**	P	**Pg**	**02 23 23.4**	**-0.1**
CHOS				S	**Sb**	**02 23 33.7**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.68**	**316**	Pg	**Pb**	**02 23 24.7**	**+0.6**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.70**	**353**	Pg	**Pb**	**02 23 24.3**	**0.0**
KRBN				AML	AML		
DUVT	**Torbali**	**0.70**	**62**	P	**Pg**	**02 23 23.4**	**-0.6**
DUVT				S	**Sg**	**02 23 32.4**	**-0.8**
DUVT				IAML		02 23 37.0	
	comp=E,199nm,0.4s						
BAGT	**Foa**	**0.77**	**11**	P	**Pb**	**02 23 25.6**	**+0.1**
BAGT				S	**Sg**	**02 23 35.2**	**-0.2**
BAGT				IAML		02 23 38.0	
	comp=E,166nm,0.4s						
BAGT				IAML		02 23 39.0	
	comp=N,240nm,0.5s						
KARB	**zmir-Karabur**	**0.79**	**346**	P	**Pg**	**02 23 24.3**	**-1.2**
KARB				S	**Sb**	**02 23 37.0**	**+0.4**
KARB				IAML		02 23 39.0	
	comp=E,149nm,0.7s						
KARB				IAML		02 23 41.0	
	comp=N,76nm,0.1s						
FOCM	**Foa**	**0.82**	**4**	Pg	**Pb**	**02 23 26.5**	**+0.2**
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.98**	**87**	Pg	**Pb**	**02 23 29.3**	**+0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.98**	**148**	P	**Pb**	**02 23 29.3**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.98**	**148**	Pg	**Pb**	**02 23 29.9**	**+0.8**
BODT				AML	AML		
CAMT	**Merkez**	**1.00**	**31**	P	**Pn**	**02 23 30.1**	**+0.2**
CAMT				S	**Sb**	**02 23 43.6**	**+1.2**
CAMT				IAML		02 23 47.0	
	comp=N,280nm,0.6s						
CAMT				IAML		02 23 49.0	
	comp=E,282nm,0.4s						
IZMR	**zmir-demi**	**1.05**	**76**	P	**Pg**	**02 23 30.1**	**-0.4**
IZMR				S	**Sg**	**02 23 43.1**	**-1.1**
IZMR				IAML		02 23 47.0	
	comp=N,20nm,0.3s						
IZMR				IAML		02 23 48.0	
	comp=E,73nm,0.5s						
BODA	**Bodrum-Mula**	**1.06**	**144**	Pg	**Pb**	**02 23 30.8**	**+0.4**
MLSB	**Milas**	**1.07**	**124**	Pg	**Pb**	**02 23 31.1**	**+0.4**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**17**	P	**Pg**	**02 23 30.0**	**-1.8**
ZEDA				S	**Sb**	**02 23 46.9**	**+1.0**
ZEDA				IAML		02 23 50.0	
	comp=N,92nm,0.3s						
ZEDA				IAML		02 23 50.0	
	comp=E,79nm,0.4s						
DKL	**Dikili**	**1.19**	**9**	Pn	**Pn**	**02 23 33.4**	**+0.8**
DKL				AML	AML		
APE	**Apeiranthos**	**1.22**	**228**	P	**Pb**	**02 23 32.1**	**-1.1**
APE				S	**Sb**	**02 23 50.1**	**+1.3**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.28**	**50**	Pn	**Pg**	**02 23 35.0**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.29**	**86**	Pn	**Pg**	**02 23 35.1**	**0.0**
NAZL				AML	AML		
AKS	**Akhisar**	**1.34**	**42**	Pn	**Pg**	**02 23 35.7**	**-0.3**
AKS				AML	AML		
PRK	**Paraskevi**	**1.38**	**347**	P	**Pn**	**02 23 34.7**	**-0.5**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**28**	Pn	**Pg**	**02 23 37.7**	**-0.1**
SOMA				AML	AML		
YER	**Yerkesik**	**1.50**	**120**	P	**Pn**	**02 23 37.0**	**+0.1**
GORD	**Gordes-Manisa**	**1.56**	**49**	Pn	**Pg**	**02 23 39.8**	**-0.5**
GORD				AML	AML		
DION	**Dionisos Attik**	**2.16**	**276**	P	**Pn**	**02 23 46.1**	**+0.2**

WEL 06 02:30:04.6±0.5, 40°S±3°×17°9E±°, h33km, ML3.6/40, MLv3.6/34, Error ellipse: s-maj=5.0km s-min=3.7km az=94.2, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MHGZ	**Mahia Peninsul**	**1.16**	**304**	P	Pn	02 30 24.2	-0.3
MHGZ				AML	AML		
MHGZ				AML	AML		
PRGZ	**Paritu Road**	**1.32**	**312**	P	Pn	02 30 27.2	+0.5
PRGZ				AML	AML		
PRGZ				AML	AML		
KNZ	**Kokohu**	**1.38**	**304**	P	Pn	02 30 27.6	+0.1
KNZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.51**	**331**	P	Pn	02 30 29.2	0.0
CNGZ				S	Sb	02 30 49.7	-1.0
CNGZ				AML	AML		
CNGZ				AML	AML		
RIGZ	**Rimuhau**	**1.54**	**315**	P	Pn	02 30 29.9	+0.2
RIGZ				S	Sn	02 30 48.6	+0.1
RIGZ				AML	AML		
RIGZ				AML	AML		
CKHZ	**Cape Kidnapper**	**1.60**	**275**	P	Pn	02 30 31.1	+0.6
CKHZ				S	Sn	02 30 50.1	0.0
CKHZ				AML	AML		
CKHZ				AML	AML		
WHHZ	**Waihua**	**1.65**	**296**	P	Pn	02 30 32.1	+0.9
WHHZ				S	Sn	02 30 52.4	+1.1
WHHZ				AML	AML		
WHHZ				AML	AML		
TKGZ	**Te Karaka**	**1.70**	**323**	P	Pn	02 30 32.1	+0.2
TKGZ				S	Sn	02 30 53.4	+1.0
TKGZ				AML	AML		
TKGZ				AML	AML		
ARHZ	**Aropaoanui**	**1.75**	**287**	P	Pn	02 30 33.4	+0.8
ARHZ				S	Sn	02 30 54.5	+0.8
ARHZ				AML	AML		
ARHZ				AML	AML		
KAHZ	**Kahuranaki**	**1.75**	**270**	P	Pn	02 30 33.1	+0.5
KAHZ				AML	AML		
KAHZ				AML	AML		
PXZ	**Pawanui**	**1.77**	**262**	P	Pn	02 30 32.9	0.0
PXZ				S	Sn	02 30 53.0	-1.2
PXZ				AML	AML		
RAHZ	**Arahi**	**1.83**	**298**	P	Pn	02 30 34.4	+0.7
RAHZ				S	Sn	02 30 55.7	+0.1
RAHZ				AML	AML		
RAHZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.86**	**330**	P	Pn	02 30 34.1	0.0
TWGZ				S	Sn	02 30 55.6	-1.0
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	**Puketiti**	**1.86**	**338**	P	Pn	02 30 33.2	-1.0
PUZ				S	Sn	02 30 55.3	-1.3
PUZ				AML	AML		
RAGZ	**Rawiri**	**1.88**	**314**	P	Pn	02 30 34.8	+0.4
RAGZ				S	Sn	02 30 56.4	-0.6
RAGZ				AML	AML		
RAGZ				AML	AML		
MCHZ	**McNeill Hill**	**1.93**	**280**	P	Pn	02 30 35.8	+0.8
MCHZ				S	Sn	02 30 59.1	+1.0
MCHZ				AML	AML		
MCHZ				AML	AML		
MWZ	**Matawai**	**1.93**	**319**	P	Pn	02 30 35.2	0.0
MWZ				S	Sn	02 30 57.6	-0.8
MWZ				AML	AML		
MWZ				AML	AML		
NMHZ	**Naumai**	**1.94**	**291**	P	Pn	02 30 36.5	+1.2
NMHZ				S	Sn	02 30 59.0	+0.4
NMHZ				AML	AML		
NMHZ				AML	AML		
MTHZ	**Maungataniwha**	**2.02**	**297**	P	Pn	02 30 36.8	+0.4
MTHZ				S	Sn	02 31 00.2	-0.4
MTHZ				AML	AML		
MTHZ				AML	AML		
RTZ	**Ruatahuna**	**2.06**	**305**	P	Pn	02 30 37.5	+0.5
RTZ				AML	AML		
RTZ				AML	AML		
WMGZ	**Waiomatatini S**	**2.06**	**344**	P	Pn	02 30 37.2	+0.3
WMGZ				S	Sn	02 31 01.6	+0.2
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**2.11**	**336**	P	Pn	02 30 37.0	-0.6
PKGZ				AML	AML		
PKGZ				AML	AML		
KWHZ	**Kaweka Forest**	**2.14**	**279**	P	Pn	02 30 38.5	+0.5
KWHZ				S	Sn	02 31 04.2	+0.8
KWHZ				AML	AML		
KWHZ				AML	AML		
KRHZ	**Kereru**	**2.15**	**273**	P	Pn	02 30 38.4	+0.3
KRHZ				S	Sn	02 31 04.0	+0.4
KRHZ				AML	AML		
KRHZ				AML	AML		
BKZ	**Black Stump Fm**	**2.15**	**286**	P	Pn	02 30 38.7	+0.6
BKZ				S	Sn	02 31 03.8	+0.1
BKZ				AML	AML		
BKZ				AML	AML		
RUGZ	**Raukumara Rang**	**2.16**	**328**	P	Pn	02 30 38.0	-0.4
RUGZ				S	Sn	02 31 02.5	-1.6
RUGZ				AML	AML		
RUGZ			

TUVZ	**Tukino**	**2.75**	**280**	P	Pn	02 30 48.3	+1.8	
TUVZ				AML	AML			
TUVZ				AML	AML			
SNVZ	**South Ngauruho**	**2.78**	**282**	P	Pn	02 30 48.3	+1.4	
SNVZ				AML	AML			
SNVZ				AML	AML			
KRVZ	**Karewarewa**	**2.80**	**284**	P	Pn	02 30 48.7	+1.5	
KRVZ				AML	AML			
KRVZ				AML	AML			
TMWZ	**Te Maipa**	**2.80**	**241**	P	Pn	02 30 45.2	-1.9	
TMWZ				AML	AML			
TMWZ				AML	AML			
TRVZ	**Turoa**	**2.83**	**279**	P	Pn	02 30 49.1	+1.5	
TRVZ				AML	AML			
COVZ	**Chateau Observ**	**2.85**	**281**	P	Pn	02 30 49.1	+1.2	
COVZ				AML	AML			
COVZ				AML	AML			
MRZ	**Mangatainoka R**	**2.86**	**251**	P	Pn	02 30 46.5	-1.4	
MRZ				AML	AML			
MRZ				AML	AML			
MTW	**Mount Morrison**	**3.09**	**243**	P	Pn	02 30 49.2	-1.8	
MTW				AML	AML			
MTW				AML	AML			
CTZ	**Chatham Island**	**5.05**	**142**	P	Pn	02 31 16.6	-1.3	
CTZ				S	Sn	02 32 12.0	-3.0	
CTZ				AML	AML			

*AFAD **06** 02:50:48.8, 37.82N×26.80E, h9km±3km, ML2.5*
*THE **06** 02:50:49.5, 37.8N±0.8×2.7E±°, h7km±2km, M2.9/10, MLh2.9/10*
*ATH **06** 02:50:49.2, 37.81N×26.82E, h10km±1km, ML2.6/5, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*ISK **06** 02:50:49.0, 37.83N×26.84E, h7km, ML2.7/18*
ISC 06 02:50:49.3±0.8, 37.83N±0.02×26.84E±0.02, h11km±5km, n48, σ0s48/73, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.11**	**253**	P	**Pg**	**02 50 51.9**	**-0.3**
KRL1				S	**Sg**	**02 50 54.0**	**-0.2**
KRL1				AML	AML		
SMG	**Samos**	**0.12**	**180**	P	**Pg**	**02 50 52.2**	**-0.1**
SMG				S	**Sg**	**02 50 54.5**	**-0.1**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**180**	P	**Pg**	02 50 52.1	-0.2
SMG				S	**Sg**	02 50 54.4	-0.1
SAM2	**Drakei, Karlov**	**0.19**	**249**	P	**Pg**	**02 50 53.1**	**-0.4**
SAM2				S	**Sg**	**02 50 56.2**	**-0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.23**	**9**	P	**Pg**	**02 50 53.6**	**-0.5**
DGB				S	**Sg**	**02 50 58.6**	**+1.3**
DGB				IAML		02 51 00.0	
	comp=E,645nm,0.5s						
DGB				IAML		02 51 01.0	
	comp=N,364nm,0.2s						
GMLD	**Gumuldur**	**0.26**	**14**	Pg	**Pg**	**02 50 54.3**	**-0.3**
GMLD				Sg	**Sg**	**02 50 58.7**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**112**	P	**Pg**	**02 50 55.7**	**-0.4**
GCAM				IAML		02 51 02.0	
	comp=E,863nm,0.8s						
GCAM				S	**Sb**	**02 51 02.2**	**-0.5**
GCAM				IAML		02 51 03.0	
	comp=N,790nm,0.3s						
GCAM	**G?zelcaml?**	**0.34**	**112**	Pg	**Pg**	**02 50 56.2**	**+0.1**
GCAM				Sg	**Sb**	**02 51 01.8**	**-0.9**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**85**	Pg	**Pg**	**02 50 56.5**	**0.0**
KUSD				Sg	**Sg**	**02 51 02.0**	**+0.7**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**10**	P	**Pg**	**02 50 56.9**	**-0.4**
BEYE				S	**Sg**	**02 51 02.5**	**-0.3**
BEYE				IAML		02 51 06.0	
	comp=E,387nm,0.5s						
BEYE				IAML		02 51 08.0	
	comp=N,541nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**327**	P	**Pg**	**02 50 58.2**	**-0.6**
ZEYE				S	**Sg**	**02 51 05.4**	**0.0**
ZEYE				IAML		02 51 11.0	
	comp=E,273nm,0.2s						
ZEYE				IAML		02 51 11.0	
	comp=N,316nm,0.3s						
DDIM	**Aydin, Didim**	**0.49**	**139**	P	**Pg**	**02 50 59.1**	**+0.2**
DDIM				S	**Sb**	**02 51 06.7**	**-0.4**
DDIM				IAML		02 51 08.0	
	comp=E,468nm,0.8s						
DDIM				IAML		02 51 08.0	
	comp=N,606nm,0.5s						
BLCB	**Balcova**	**0.58**	**16**	P	**Pg**	**02 51 00.5**	**-0.2**
BLCB				S	**Sg**	**02 51 08.8**	**+0.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**16**	Pg	**Pg**	**02 51 00.4**	**-0.2**
BLCB				Sg	**Sg**	**02 51 08.8**	**+0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.62**	**51**	P	**Pg**	**02 51 01.1**	**-0.3**
DUVT				S	**Sg**	**02 51 09.0**	**-0.6**
YKAV	**Yalikavak-Bodr**	**0.79**	**153**	Pg	**Pb**	**02 51 05.1**	**+0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**344**	Pg	**Pb**	**02 51 05.4**	**+0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**1**	P	**Pg**	**02 51 03.5**	**-1.8**
BAGT				S	**Sb**	**02 51 17.6**	**+0.9**
BAGT				IAML		02 51 20.0	
	comp=E,416nm,1.0s						
BAGT				IAML		02 51 21.0	
	comp=N,178nm,0.3s						
CHOS	**Chios island**	**0.83**	**312**	P	**Pb**	**02 51 05.7**	**-0.1**
CHOS				S	**Sb**	**02 51 17.6**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	Pg	**Pb**	**02 51 05.7**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**02 51 05.4**	**0.0**
CHOS				S	**Sb**	**02 51 16.7**	**-0.3**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**82**	Pg	**Pb**	**02 51 06.1**	**+0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.85**	**154**	P	**Pg**	**02 51 05.6**	**-0.1**
BODT				S	**Sn**	**02 51 19.6**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**154**	Pg	**Pg**	**02 51 05.5**	**-0.2**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.88**	**173**	P	**Pb**	**02 51 06.7**	**+0.2**
KLNA				S	**Sb**	**02 51 18.4**	**+0.3**
FOCM	**Foa**	**0.89**	**355**	Pg	**Pb**	**02 51 06.8**	**+0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**338**	P	**Pg**	**02 51 06.0**	**-0.6**
KARB				S	**Sn**	**02 51 20.2**	**-0.6**
KARB				IAML		02 51 21.0	
	comp=N,376nm,0.5s						
KARB				IAML		02 51 23.0	
	comp=E,187nm,0.8s						
MLSB	**Milas**	**0.92**	**125**	Pg	**Pg**	**02 51 07.1**	**+0.1**
MLSB				AML	AML		
EAG2	**Marmaro, Chios**	**0.92**	**321**	P	**Pb**	**02 51 07.5**	**+0.3**
BODA	**Bodrum-Mula**	**0.92**	**149**	Pg	**Pb**	**02 51 07.2**	**0.0**
IZMR	**zmir-demi**	**0.93**	**70**	P	**Pb**	**02 51 07.5**	**+0.1**
IZMR				S	**Sg**	**02 51 17.9**	**-1.6**
IZMR				IAML		02 51 21.0	
	comp=E,82nm,0.7s						
IZMR				IAML		02 51 25.0	
	comp=N,106nm,0.6s						
CAMT	**Merkez**	**0.99**	**22**	P	**Pg**	**02 51 08.4**	**-0.1**
CAMT				S	**Sb**	**02 51 22.0**	**+0.4**
CAMT				IAML		02 51 26.0	
	comp=N,978nm,0.5s						
ZEDA	**zmir-Bergama**	**1.15**	**9**	P	**Pb**	**02 51 11.3**	**+0.1**
ZEDA				S	**Sb**	**02 51 26.8**	**+0.7**
ZEDA				IAML		02 51 29.0	
	comp=E,239nm,0.6s						
ZEDA				IAML		02 51 31.0	
	comp=N,123nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.16**	**83**	Pn	**Pb**	**02 51 11.3**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**44**	Pn	**Pg**	**02 51 12.9**	**+0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.24**	**2**	Pn	**Pg**	**02 51 13.1**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**2**	P	**Pg**	**02 51 13.0**	**-0.1**
DAT	**Datca**	**1.25**	**151**	P	**Pn**	**02 51 12.3**	**-0.4**
DAT				AML	AML		

APE	**Apeiranthos**	**1.29**	**234**	P	**Pn**	**02 51 13.2**	**+0.1**	
YER	**Yerkesik**	**1.34**	**121**	P	**Pn**	**02 51 14.3**	**+0.3**	
SOMA	**Soma-Manisa**	**1.44**	**22**	Pn	**Pb**	**02 51 16.2**	**+0.2**	
SOMA				AML	AML			
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**02 51 15.9**	**0.0**	
PRK				AML	AML			
PRK	**Paraskevi**	**1.48**	**343**	P	**Pb**	**02 51 16.6**	**-0.2**	
GORD	**Gordes-Manisa**	**1.51**	**44**	Pn	**Pb**	**02 51 17.1**	**-0.2**	
GORD				AML	AML			
ARG	**Arkhangelos**	**1.91**	**147**	P	**Pn**	**02 51 22.2**	**+0.5**	
ARG				S	**Sb**	**02 51 48.0**	**0.0**	
ARG				AML	AML			
ARG	**Arkhangelos**	**1.91**	**147**	P	**Pn**	**02 51 22.0**	**+0.3**	
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**02 51 27.9**	**+0.6**	
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**02 51 27.6**	**+0.3**	

*IDC **06** 03:06:43.3±0.7, 25.11N×96.25E, h0km, mb4.0/15, mbtmp4.0/16, ML4.3/1, MS3.5/5, Error ellipse: s-maj=25.3km s-min=11.2km az=62.0*
*NEIC **06** 03:06:45.5±1.6, 25.20N±0.09×96.46E±0.09, h10km±1km, mb4.3/15, Error ellipse: s-maj=16.8km s-min=11.6km az=43.0*
*BKK **06** 03:06:46.6±1.2, 25.1°N±11.9×9.6E±°, h3km, M4.2/12, mB4.6/7, mb4.3/7, Mjma4.0/12, ML4.6/8, MLv4.5/11, Mw(mB)3.8/7*
ISC 06 03:06:46.6±0.6, 25.11N±0.07×96.38E±0.07, h21km, n63, σ1s35/58, mb4.2/24, MS3.5/5, Myanmar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MORE	**Moreh**	**2.08**	**246**		**Pn**	**03 07 21.5**	**+1.2**
KOHI	**KOHIMA**	**2.14**	**287**	*i* P	**Pb**	**03 07 25.0**	**+0.3**
KOHI				*i* S	Sn	03 07 36.8	-10
KOHI				IAML		03 07 57.2	
	comp=N,1μm,0.8s						
IMP	**Imphal**	**2.22**	**263**	*i* P	**Pn**	**03 07 23.2**	**+1.0**
PASG	**PASIGHAT**	**3.08**	**342**	*i* P	Pb	03 07 59.0	+18
PASG				IAML		03 09 31.9	
	comp=Z,49nm,0.8s						
ITAN	**ITANAGAR**	**3.13**	**311**	*i* P	Pb	03 07 47.1	+5.6
ITAN				IAML		03 08 22.9	
	comp=Z,526nm,0.8s						
SILR	**SILCHAR**	**3.26**	**265**	*i* P	**Pn**	**03 07 39.8**	**+3.3**
SILR				*i* S	Sn	03 08 01.5	-13
SILR				IAML		03 08 31.1	
	comp=N,249nm,0.5s						
ZIRO	**ZIRO**	**3.30**	**317**	*i* P	Pb	03 07 52.1	+7.6
ZIRO				*i* S	**Sb**	**03 08 24.0**	**-0.4**
ZIRO				IAML		03 08 25.4	
	comp=Z,250nm,0.3s						
ZIRO				IAML		03 08 29.9	
	comp=N,1μm,1.1s						
AZL	**Aizawl**	**3.63**	**249**	*i* P	**Pb**	**03 07 48.0**	**-2.1**
SHL	**Shillong**	**4.09**	**277**	*i* P	**Pn**	**03 07 52.4**	**+4.4**
CMAI	**Chiengmai2**	**5.72**	**154**	P	**Pn**	**03 08 10.7**	**+0.3**
	comp=N,0.5nmcomp=N,0.4nmcomp=N,0.8nmcomp=N,47nm,1.5s						
CMAI				AML	AML		
CMAI				AML	AML		
DHUB	**DHUBRI**	**5.83**	**280**	*i* P	**Pn**	**03 08 16.1**	**+4.3**
LSA	**Lhasa**	**6.51**	**316**	P	**Pn**	**03 08 23.3**	**+1.7**
LSA	**Lhasa**	**6.51**	**316**		**Pn**	**03 08 22.7**	**+1.0**
CHTO	**Chiang Mai**	**6.71**	**159**		**Pn**	**03 08 24.0**	**+0.1**
CM31	**Chiang Mai Arr**	**7.04**	**160**		**Pn**	**03 08 30.8**	**+2.4**
CMAR	**Chiang Mai Arr**	**7.04**	**160**	Pn	**Pn**	**03 08 29.4**	**+1.0**
	comp=N,1.5nm,0.3s,baz=332,slow=13,SNR=17						
CMAR				Lg	Lg	03 10 27.0	
	comp=N,1.5nm,0.3s,baz=336,slow=29,SNR=4.2 comp=N,2.5nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**7.04**	**160**		**Pn**	**03 08 29.7**	**+1.3**
CM02	**Chiang Mai Arr**	**7.06**	**160**	P	**Pn**	**03 08 29.8**	**+1.0**
	comp=N,0.2nmcomp=N,0.2nmcomp=N,251nmcomp=N,16nm,0.9s						
CM02				AML	AML		
CM01	**Chiang Mai Arr**	**7.08**	**160**	P	**Pn**	**03 08 30.0**	**+1.0**
	comp=N,0.2nmcomp=N,0.2nmcomp=N,273nmcomp=N,18nm,0.8s						
CM01				AML	AML		
CM05	**Chiang Mai Arr**	**7.09**	**160**	P	**Pn**	**03 08 27.4**	**-1.8**
	comp=N,0.1nmcomp=N,0.1nmcomp=N,205nmcomp=N,3.8nm,0.4s						
CM05				AML	AML		
CM04	**Chiang Mai Arr**	**7.11**	**160**	P	**Pn**	**03 08 29.8**	**+0.4**
	comp=N,0.1nmcomp=N,0.2nmcomp=N,305nmcomp=N,12nm,0.7s						
CM04				AML	AML		
LAMP	**Lampang**	**7.22**	**155**	P	**Pn**	**03 08 32.9**	**+1.9**
	comp=N,0.3nmcomp=N,1μmcomp=N,24nm,0.7s						
LAMP				Pg	Pb	03 09 02.0	+11
	comp=N,0.3nmcomp=N,1μmcomp=N,24nm,0.7s						
LAMP				AML	AML		
EVN	**Everest**	**9.02**	**290**		**Pn**	**03 08 57.4**	**+1.2**
NIL	**Nilore**	**21.84**	**298**	P	**P**	**03 11 35.5**	**-2.2**
NIL				IAmb	IAmb	03 11 47.9	
	comp=Z,12nm,0.8s						
PDGK	**Podgornoye**	**22.84**	**327**	P	**P**	**03 11 49.3**	**+0.9**
SONM	**Songino Array**	**24.02**	**17**	P	**P**	**03 12 00.5**	**+0.4**
	comp=Z,0.6nm,0.6s,baz=187,slow=8.6,SNR=2.7						
SONM				LR	LR	03 22 12.4	
	comp=Z,48nm,19.3s,baz=32,slow=39 comp=Z,0.6nm,0.6s						
BOOM	**Boomskoye usch**	**24.16**	**321**	P	**P**	**03 11 59.8**	**-1.7**
BOOM				IAmb	IAmb	03 12 12.2	
	comp=Z,13nm,1.4s						
MKAR	**Makanchi Array**	**24.38**	**336**	P	**P**	**03 12 03.5**	**+0.2**
	comp=Z,3.3nm,0.4s,baz=137,slow=9.5,SNR=42						
MKAR				LR	LR	03 21 30.7	
	comp=Z,61nm,18.7s,baz=270,slow=36 comp=Z,3.3nm,0.4s						
MKAR	**Makanchi Array**	**24.38**	**336**	P	**P**	**03 12 02.9**	**-0.4**
MAKZ	**Makanchi**	**24.51**	**336**	P	**P**	**03 12 04.0**	**-0.4**
DRK	**Karamyk**	**25.13**	**311**	P	**P**	**03 12 10.4**	**0.0**
KBL	**Kabul**	**25.44**	**298**	P	**P**	**03 12 12.8**	**-0.4**
KBL				IAmb	IAmb	03 12 42.1	
	comp=Z,9.8nm,0.9s						
BTK	**Batken**	**26.07**	**311**	P	**P**	**03 12 19.2**	**+0.5**
BTK				IAmb	IAmb	03 12 20.9	
	comp=Z,13nm,1.1s						
KKAR	**Karatay Array**	**27.77**	**317**	P	**P**	**03 12 32.0**	**-1.9**
KURBB	**Kurchatov Arra**	**28.95**	**336**	P	**P**	**03 12 44.1**	**-0.1**
	comp=Z,1.1nm,0.5s,baz=155,slow=7.7,SNR=9.9 comp=Z,1.1nm,0.5s						
KURK	**Kurchatov**	**28.99**	**336**	P	**P**	**03 12 43.8**	**-0.9**
KURK				IAmb	IAmb	03 12 44.8	
	comp=Z,1.7nm,0.6s						
ZAA0	**Zalesovo Array**	**30.07**	**346**	P	**P**	**03 12 54.3**	**+0.2**
ZAA0				IAmb	IAmb	03 12 56.4	
	comp=Z,2.1nm,0.5s						
ZALV	**Zalesovo Beam**	**30.07**	**346**	P	**P**	**03 12 54.2**	**+0.1**
	comp=Z,2.2nm,0.5s,baz=167,slow=8.0,SNR=12 comp=Z,2.2nm,0.5s						
ZALV	**Zalesovo Beam**	**30.07**	**346**	P	**P**	**03 12 54.0**	**-0.1**
BVAR	**Borovoye Array**	**34.04**	**332**	P	**P**	**03 13 29.0**	**-0.1**
	comp=Z,1.5nm,0.4s,baz=127,slow=10.0,SNR=2.5 comp=Z,1.5nm,0.4s						
USRK	**Ussuriysk Ar.**	**34.58**	**48**	P	**P**	**03 13 34.3**	**+0.5**
	comp=Z,3.3nm,0.8s,baz=269,slow=7.6,SNR=4.3 comp=Z,3.3nm,0.8s						
AB31	**Akbulak array**	**37.18**	**320**	P	**P**	**03 13 56.2**	**+0.2**
AB31				IAmb	IAmb	03 13 57.1	
	comp=Z,2.5nm,0.7s						
ABKAR	**Akbulak array**	**37.18**	**320**	P	**P**	**03 13 56.7**	**+0.7**
MJAR	**Matsushiro Arr**	**37.42**	**62**	P	**P**	**03 13 59.2**	**+0.9**
	comp=Z,4.3nm,1.1s,baz=262,slow=9.7,SNR=8.2 comp=Z,4.3nm,1.1s						
ARTI	**Arti**	**41.57**	**329**	P	**P**	**03 14 32.1**	**-0.5**
ARTI				IAmb	IAmb	03 14 35.6	
	comp=Z,7.0nm,1.0s						
BATI	**Baumata**	**44.05**	**140**	LR	LR	03 37 17.5	
	comp=Z,82nm,18.2s,baz=327,slow=42						
BRTR	**Keskin Array B**	**53.92**	**302**	P	**P**	**03 16 08.1**	**-0.7**
	comp=Z,0.5nm,0.7s,baz=123,slow=6.7,SNR=3.2 comp=Z,0.5nm,0.7s						
EIL	**Elat**	**54.18**	**290**	LR	LR	03 44 07.9	
	comp=Z,42nm,20.3s,baz=30,slow=42						
AKASG	**Malin Array Be**	**56.66**	**315**	P	**P**	**03 16 27.5**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=79,slow=6.9,SNR=1.9 comp=Z,0.3nm,0.3s						
WRA	**Warramunga Arr**	**58.04**	**137**	P	**P**	**03 16 38.6**	**+0.3**
	comp=Z,0.4nm,0.6s,baz=324,slow=7.5,SNR=4.9 comp=Z,0.4nm,0.6s						
WRA	**Warramunga Arr**	**58.04**	**137**	P	**P**	**03 16 38.4**	**+0.1**
WR8	**Warramunga Arr**	**58.15**	**137**	P	**P**	**03 16 39.3**	**+0.3**
WR8				IAmb	IAmb	03 17 15.7	
	comp=Z,7.1nm,1.2s						
FINES	**FINESS Array B**	**58.87**	**328**	P	**P**	**03 16 43.1**	**-0.4**
	comp=Z,1.8nm,0.8s,baz=97,slow=9.9,SNR=1.7 comp=Z,1.8nm,0.8s						

MLR	**Muntele Rosu**	**59.10**	**309**	P	**P**	**03 16 45.4**	**-0.2**	
BURAR	**Bucovina Array**	**59.41**	**312**	P	**P**	**03 16 46.3**	**-1.4**	
ARCES	**ARCESS Array B**	**60.03**	**337**	P	**P**	**03 16 51.2**	**-0.2**	
	comp=Z,2.6nm,0.8s,baz=81,slow=8.3,SNR=7.6 comp=Z,2.6nm,0.8s							
ARCES	**ARCESS Array B**	**60.03**	**337**	P	**P**	**03 16 50.7**	**-0.7**	
ASAR	**Alice Springs**	**60.61**	**140**	P	**P**	**03 16 56.5**	**+0.5**	
	comp=Z,0.5nm,0.6s,baz=320,slow=6.7,SNR=6.6 comp=Z,0.5nm,0.6s							
GERES	**GERESS Array B**	**66.84**	**315**	P	**P**	**03 17 36.1**	**-0.9**	
	comp=Z,0.9nm,0.7s,baz=59,slow=5.6,SNR=7.6 comp=Z,0.9nm,0.7s							
GERES	**GERESS Array B**	**66.84**	**315**	P	**P**	**03 17 35.7**	**-1.3**	
DAVOX	**Davos/Dischmat**	**69.84**	**313**	LR	LR	03 53 43.3		
	comp=Z,112nm,18.1s,baz=342,slow=40							
EKA	**Eskdalemuir Ar**	**74.89**	**324**	P	**P**	**03 18 25.5**	**-0.1**	
	comp=Z,0.5nm,0.5s,baz=76,slow=5.0,SNR=5.1 comp=Z,0.5nm,0.5s							
BMAR	**Burnt Mountain**	**77.32**	**20**	P	**P**	**03 18 39.1**	**-0.2**	

*ISK **06** 03:13:21.3, 37.90N×26.84E, h8km, ML2.3/13*
*THE **06** 03:13:21.9, 37.9N±0.9×2.7E±°, h9km±2km, M2.5/7, MLh2.5/7*
*AFAD **06** 03:13:21.0, 37.89N×26.81E, h7km±2km, ML1.9*
ISC 06 03:13:21.7±0.9, 37.91N±0.02×26.85E±0.03, h13km±7km, n24, σ0s36/36, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.15**	**10**	P	**Pg**	**03 13 25.2**	**-0.1**
DGB				IAML		03 13 27.0	
	comp=E,843nm,0.2s						
DGB				S	**Sg**	**03 13 27.5**	**-0.4**
GMLD	**Gumuldur**	**0.18**	**17**	Pg	**Pg**	**03 13 25.8**	**0.0**
GMLD				Sg	**Sg**	**03 13 29.0**	**+0.4**
GMLD				AML	AML		
SMG	**Samos**	**0.20**	**183**	P	**Pg**	**03 13 26.0**	**-0.1**
SMG				S	**Sg**	**03 13 29.2**	**0.0**
SMG				AML	AML		
BEYE	**izmir**	**0.33**	**11**	P	**Pg**	**03 13 28.1**	**-0.3**
BEYE				S	**Sg**	**03 13 33.3**	**+0.4**
BEYE				IAML		03 13 35.0	
	comp=N,98nm,0.3s						
BEYE				IAML		03 13 36.0	
	comp=E,96nm,0.4s						
GCAM	**G?zelcaml?**	**0.37**	**124**	P	**Pg**	**03 13 28.9**	**-0.2**
GCAM				S	**Sg**	**03 13 34.6**	**+0.6**
GCAM				IAML		03 13 35.0	
	comp=E,81nm,0.2s						
GCAM				IAML		03 13 36.0	
	comp=N,112nm,0.5s						
GCAM	**G?zelcaml?**	**0.37**	**124**	Pg	**Pg**	**03 13 28.9**	**-0.2**
GCAM				Sg	**Sb**	**03 13 34.9**	**-0.8**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.43**	**321**	P	**Pg**	**03 13 29.7**	**-0.6**
ZEYE				S	**Sg**	**03 13 35.7**	**-0.4**
ZEYE				IAML		03 13 36.0	
	comp=N,288nm,0.2s						
ZEYE				IAML		03 13 39.0	
	comp=E,183nm,0.2s						
BLCB	**Balcova**	**0.50**	**18**	P	**Pg**	**03 13 31.6**	**0.0**
BLCB				S	**Sb**	**03 13 39.4**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.50**	**18**	Pg	**Pg**	**03 13 31.7**	**+0.1**
BLCB				Sg	**Sb**	**03 13 39.2**	**-0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**56**	P	**Pg**	**03 13 32.2**	**-0.6**
DUVT				S	**Sg**	**03 13 40.3**	**0.0**
DUVT				IAML		03 13 43.0	
	comp=E,124nm,0.2s						
KRBN	**Karaburun**	**0.72**	**341**	Pg	**Pg**	**03 13 35.7**	**-0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**0.79**	**308**	P	**Pb**	**03 13 37.2**	**-0.1**
CHOS				S	**Sb**	**03 13 48.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.79**	**308**	Pg	**Pb**	**03 13 37.2**	**-0.1**
CHOS				AML	AML		
FOCM	**Foa**	**0.81**	**353**	Pg	**Pb**	**03 13 37.5**	**-0.1**
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**87**	Pg	**Pb**	**03 13 37.9**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.92**	**156**	P	**Pb**	**03 13 39.7**	**+0.2**
BODT				S	**Sb**	**03 13 52.3**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.92**	**156**	Pg	**Pb**	**03 13 39.1**	**-0.4**
BODT				AML	AML		
MLSB	**Milas**	**0.96**	**129**	Pg	**Pb**	**03 13 39.9**	**-0.3**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.14**	**87**	Pn	**Pb**	**03 13 43.6**	**+0.3**
NAZL				AML	AML		
DKL	**Dikili**	**1.16**	**2**	Pn	**Pn**	**03 13 44.2**	**+0.5**
DKL				AML	AML		
SOMA	**Soma-Manisa**	**1.36**	**23**	Pn	**Pg**	**03 13 47.5**	**-0.3**
SOMA				AML	AML		
YER	**Yerkesik**	**1.38**	**124**	P	**Pn**	**03 13 46.7**	**0.0**
PRK	**Paraskevi**	**1.41**	**341**	P	**Pn**	**03 13 47.5**	**+0.4**
GORD	**Gordes-Manisa**	**1.45**	**46**	Pn	**Pb**	**03 13 48.6**	**+0.1**
GORD				AML	AML		

IDC 06 03:28:34.7±4.3, 5.77S×146.97E, h0km, mb3.0/1, mbtmp3.1/2, ML3.3/1, MS3.5/2, Error ellipse: s-maj=151.0km s-min=50.2km az=110.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.69**	**220**	P	P	03 32 54.9	+0.1
	0.1nm,0.3s,baz=44,slow=12,SNR=2.4						
WRA				LR	LR	03 40 16.0	
	comp=Z,145nm,19.9s,baz=89,slow=38 0.3nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.79**	**214**	P	P	03 33 28.4	-0.1
	0.3nm,0.4s,baz=46,slow=8.4,SNR=14 0.3nm,0.4s						
MSVF	**Nonsavu**	**32.61**	**114**	LR	LR	03 46 54.9	
	comp=Z,86nm,19.7s,baz=224,slow=34						
TORD	**Torodi Ar. Bea**	**145.00**	**285**	PKPbc	PKPab	03 48 13.6	-0.8
	0.6nm,0.8s,baz=87,slow=4.3,SNR=2.3						

*IDC **06** 03:29:26.2±6.3, 36.04N×71.72E, h110km±56km, mb3.6/6, mbtmp3.9/11

SNR=5.3
USP Ospenovka 7.00 21 P **Pn 03 31 12.3 +1.1**
SNR=13
TKM2 Tokmak 2 7.06 28 P **Pn 03 31 12.8 +0.6**
SNR=15
KST Kastek 7.31 30 P **Pn 03 31 16.0 +0.5**
DGS Degeres 7.41 28 P **Pn 03 31 16.7 0.0**
MTBS Maitube 7.57 31 P **Pn 03 31 19.5 +0.4**
MKAR Makanchi Array 13.04 36 P **Pn 03 32 31.2 -1.5**
0.7nm,0.7s,baz=199,slow=11,SNR=3.2
KURBB Kurchatov Arra 14.85 19 P **P 03 32 57.9 -1.3**
1.0nm,0.7s,baz=204,slow=10,SNR=7.1
AB31 Akbulak array 14.87 331 P **P 03 32 59.4 0.0**
1.2nm,0.4s,baz=136,slow=13,SNR=55
BVAR Borovoye Array 16.26 359 P **P 03 33 16.4 +1.6**
1.6nm,0.5s,baz=165,slow=12,SNR=5.5
AKTO Aktyubinsk 16.57 330 P **P 03 33 22.5 +4.3**
3.2nm,0.5s,baz=124,slow=7.3,SNR=8.5
AKTO S **Sn 03 36 18.0 -3.1**
1.2nm,0.5s,baz=157,slow=19,SNR=3.7
ZALV Zalesovo Beam 19.65 25 P **P 03 33 51.0 -1.0**
1.2nm,0.4s,baz=219,slow=11,SNR=6.3
1.2nm,0.4s
AKASG Malin Array Be 32.81 308 P **P 03 35 56.6 +1.6**
1.0nm,0.7s,baz=84,slow=6.8,SNR=4.5
1.0nm,0.7s
FINES FINESS Array B 37.28 326 P **P 03 36 34.5 +1.3**
2.1nm,0.8s,baz=126,slow=9.7,SNR=6.4
2.1nm,0.8s
HFS Hagfors 42.88 322 P **P 03 37 20.6 +1.2**
1.7nm,0.4s,baz=90,slow=12,SNR=12
1.7nm,0.4s
NB2 NORSAR Subarra 44.19 323 P **P 03 37 31.4 +1.4**
comp=Z,1.3nm,0.5s,baz=97,slow=7.9
NOA NORSAR Array B 44.19 323 P **P 03 37 31.0 +0.9**
comp=Z,1.3nm,0.5s,baz=96,slow=7.7,SNR=6.5
comp=Z,1.3nm,0.5s
TORD Torodi Ar. Bea 65.77 269 P **P 03 40 03.1 -2.9**
comp=Z,0.5nm,0.5s,baz=57,slow=6.3,SNR=6.0
comp=Z,0.5nm,0.5s

*JSN **06** 03:31:44.6±0.5, 18°.16N×76°.67W, h16km±3km, MD2.3, Confirmed Earthquake*
*SSNC **06** 03:31:45.6±0.7, 18°.33N×76°.73W, h12km±6km, MD3.6, ML2.0, Presumed earthquake*
ISC 06 03:31:39.8±1.5, 18°.29N±0°.05×76°.56W±0°.06, h7km±13km, n12, σ0°.93/21, 2C-3D, Jamaica region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GWJ	**Greenwich**	**0.27**	**217**	⇑*iP*		**Pb**	**03 31 48.0**	**+1.0**
STH	**Stony Hill**	**0.32**	**228**	⇓*iP*		**Pb**	**03 31 48.4**	**+0.7**
STH				*i* P		**Pb**	**03 31 48.5**	**+0.7**
STH				*i* S		**Sb**	**03 31 51.5**	**-1.7**
HOJ	**Hope**	**0.34**	**212**	⇓*iP*		**Pb**	**03 31 48.7**	**+0.7**
PCJ	**Portland Cotta**	**0.79**	**226**	⇑*iP*		**Pb**	**03 31 55.6**	**-0.2**
CVJ	**Coleyville**	**0.93**	**266**	*iP*		**Pn**	**03 31 59.2**	**-0.1**
CVJ				*i* S		**Sb**	**03 32 10.3**	**-0.5**
MCJ	**Malvern**	**1.13**	**252**	⇓*iP*		**Pn**	**03 32 02.5**	**+0.4**
CHIV	**Chivirico**	**1.68**	**5**	*eP*		**Pg**	**03 32 12.5**	**+0.4**
CHIV				*eS*		**Sn**	**03 32 31.9**	**+0.5**
CHIV				IAML			03 32 34.6	
	comp=E,8.5nm,0.1s							
CHIV				IAML			03 32 34.7	
	comp=N,6.8nm,0.1s							
MARVS	**Santiago de Cu**	**1.81**	**20**	*eP*		**Pg**	**03 32 14.9**	**+0.3**
MARVS				*eS*		**Sg**	**03 32 37.7**	**-0.4**
MARVS				*eSg*		**Sb**	**03 32 38.7**	**+2.5**
MARVS				IAML			03 32 39.2	
	comp=E,4.3nm,0.1s							
MARVS				IAML			03 32 39.7	
	comp=N,8.0nm,0.2s							
LMGC	**Las Mercedes**	**1.81**	**347**	*eP*		**Pb**	**03 32 13.3**	**0.0**
LMGC				*eS*		**Sn**	**03 32 33.4**	**-1.2**
LMGC				IAML			03 32 36.7	
	comp=N,68nm,0.1s							
LMGC				IAML			03 32 37.0	
	comp=E,49nm,0.1s							
GTBY	**Guantanamo Bay**	**2.13**	**40**	*eP*		**Pg**	**03 32 19.9**	**-0.7**
GTBY				*eS*		**Sb**	**03 32 45.2**	**0.0**
GTBY				IAML			03 32 48.7	
	comp=E,5.3nm,0.1s							
GTBY				IAML			03 32 48.7	
	comp=E,6.8nm,0.1s							
PINC	**Pinares de May**	**2.30**	**18**	*eP*		**Pb**	**03 32 21.4**	**-0.2**
PINC				IAML			03 32 51.1	
	comp=N,12nm,0.1s							
PINC				IAML			03 32 52.1	
	comp=E,19nm,0.1s							
PINC				IAML				
QMBU	**Quimbuelo**	**2.52**	**41**	*eP*		**Pb**	**03 32 24.7**	**-0.6**
QMBU				*eS*		**Sn**	**03 32 52.0**	**0.0**
QMBU				IAML			03 32 56.1	
	comp=E,7.3nm,0.2s							
QMBU				IAML			03 32 56.4	
	comp=N,7.0nm,0.2s							

AFAD 06 04:00:23.2, 37°.85N×26°.96E, h7km±2km, ML1.5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.21**	**344**	P		Pg	04 00 28.2	+0.9
DGB				S		Sg	04 00 30.9	+0.8
DGB	**zmir**	**0.21**	**344**	P		Pg	04 00 27.9	+0.6
DGB				IAML			04 00 31.0	
	comp=E,70nm,0.7s							
DGB				IAML			04 00 31.0	
	comp=N,59nm,0.1s							
DGB				S		Sg	04 00 31.1	+1.0
GCAM	**G?zelcaml?**	**0.27**	**125**	P		Pg	04 00 29.1	+0.6
GCAM				S		Sg	04 00 32.8	+0.8
GCAM				IAML			04 00 33.0	
	comp=N,91nm,0.4s							
GCAM				IAML			04 00 33.0	
	comp=E,71nm,0.1s							
GCAM	**G?zelcaml?**	**0.27**	**125**	P		Pg	04 00 28.9	+0.4
GCAM				IAML			04 00 33.0	
	comp=N,97nm,0.4s							
GCAM				S		Sg	04 00 33.2	+1.1
GCAM				IAML			04 00 34.0	
	comp=E,64nm,0.3s							
BEYE	**izmir**	**0.37**	**357**	P		Pb	04 00 31.4	-0.7
BEYE				S		Sg	04 00 36.2	+0.8
BEYE	**izmir**	**0.37**	**357**	P		Pg	04 00 30.0	-0.5
BEYE				S		Sg	04 00 36.5	+1.0
BEYE				IAML			04 00 37.0	
	comp=E,50nm,0.4s							
BEYE				IAML			04 00 39.0	
	comp=N,21nm,0.3s							
ZEYE	**Izmir, Urla-Ze**	**0.53**	**317**	P		Pg	04 00 33.4	0.0
ZEYE				S		Sg	04 00 41.3	+1.1
ZEYE				IAML			04 00 42.0	
	comp=N,69nm,0.2s							
ZEYE				IAML			04 00 59.0	
	comp=E,33nm,1.5s							

AFAD 06 04:07:20.8, 38°.77N×38°.19E, h7km±1km, ML1.6, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
HEKM	**Malatya_Hekimh**	**0.21**	**301**	P		Pg	04 07 24.6	-0.5
HEKM				S		Sg	04 07 27.9	-0.2
HEKM				IAML			04 07 28.0	
	comp=E,421nm,0.3s							
MAYA	**Malatya/Merkez**	**0.48**	**157**	P		Pg	04 07 30.5	+0.5
MAYA				S		Sb	04 07 37.8	-1.1
MAYA	**Malatya/Merkez**	**0.48**	**157**	P		Pg	04 07 29.9	-0.2
MAYA				S		Sb	04 07 37.8	-1.1
MAYA				IAML			04 07 38.0	
	comp=E,17nm,0.2s							
MAYA				IAML			04 07 38.0	
	comp=N,28nm,0.2s							
AKCD	**Akcadag**	**0.52**	**204**	P		Pg	04 07 30.7	-0.1
AKCD				S		Sb	04 07 39.2	-0.8
AKCD				IAML			04 07 40.0	
	comp=N,50nm,0.4s							
AKCD				IAML			04 07 42.0	
	comp=E,48nm,0.2s							
KEMA	**Kemaliye**	**0.55**	**25**	P		Pg	04 07 28.5	-2.9
KEMA				S		Sg	04 07 39.2	+0.5
ELZG	**Elazig**	**0.68**	**113**	P		Pg	04 07 34.1	+0.2
ELZG				S		Sb	04 07 44.1	-0.6
ELZG				IAML			04 07 47.0	
	comp=N,29nm,0.5s							
ELZG				IAML			04 07 47.0	
	comp=E,34nm,0.5s							
ELZG	**Elazig**	**0.68**	**113**	P		Pg	04 07 33.7	-0.1
ELZG				S		Sb	04 07 44.0	-0.7
CNGT	**ngs**	**1.03**	**122**	P		Pg	04 07 40.2	-0.4

*ISK **06** 04:16:36.2, 37°.82N×26°.97E, h10km, ML2.5/11*
*AFAD **06** 04:16:36.6, 37°.81N×26°.98E, h7km±1km, ML1.9*
ISC 06 04:16:36.6±1.0, 37°.81N±0°.04×26°.98E±0°.05, h14km±8km, n16, σ0°.29/22, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.23**	**119**	P		**Pg**	**04 16 41.8**	**+0.1**
GCAM				S		**Sg**	**04 16 45.1**	**0.0**
GCAM	**G?zelcaml?**	**0.23**	**119**	Pg		**Pg**	**04 16 41.5**	**-0.2**
GCAM				Sg		**Sg**	**04 16 45.0**	**0.0**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**79**	Pg		**Pg**	**04 16 41.5**	**-0.5**
KUSD				AML		AML		
DGB	**zmir**	**0.25**	**343**	P		**Pg**	**04 16 42.2**	**+0.2**
DGB				S		**Sg**	**04 16 45.5**	**-0.1**
DGB				IAML			04 16 46.0	
	comp=N,165nm,0.3s							
DGB				IAML			04 16 46.0	
	comp=E,203nm,0.2s							
GMLD	**Gumuldur**	**0.27**	**349**	Pg		**Pg**	**04 16 42.2**	**-0.1**
GMLD				Sg		**Sg**	**04 16 46.2**	**+0.1**
GMLD				AML		AML		
BEYE	**izmir**	**0.41**	**354**	P		**Pg**	**04 16 45.1**	**+0.1**
BEYE				IAML			04 16 51.0	
	comp=N,112nm,0.7s							
BEYE				S		**Sg**	**04 16 51.1**	**+0.5**
BEYE				IAML			04 16 52.0	
	comp=E,111nm,0.3s							
DUVT	**Torbali**	**0.55**	**42**	P		**Pg**	**04 16 47.3**	**-0.2**
DUVT				IAML			04 16 56.0	
	comp=E,121nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.57**	**319**	P		**Pg**	**04 16 47.9**	**+0.1**
ZEYE				S		**Sb**	**04 16 56.1**	**-0.3**
ZEYE				IAML			04 16 59.0	
	comp=E,126nm,0.3s							
BLCB	**Balcova**	**0.57**	**5**	Pg		**Pg**	**04 16 47.6**	**-0.3**
BLCB				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**79**	Pg		**Pb**	**04 16 51.3**	**0.0**
AYDB				AML		AML		
BODT	**Bodrum**	**0.80**	**160**	Pg		**Pb**	**04 16 52.4**	**+0.1**
BODT				AML		AML		
MLSB	**Milas**	**0.82**	**129**	Pg		**Pb**	**04 16 52.7**	**0.0**
MLSB				AML		AML		
CHOS	**Chios island**	**0.93**	**308**	Pg		**Pg**	**04 16 54.1**	**-0.5**
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.05**	**81**	Pg		**Pb**	**04 16 56.7**	**+0.1**
DKL	**Dikili**	**1.26**	**357**	Pn		**Pn**	**04 16 59.5**	**-0.3**
DKL				AML		AML		
GORD	**Gordes-Manisa**	**1.44**	**40**	Pn		**Pn**	**04 17 03.1**	**+0.6**

*ISK **06** 04:28:47.3, 37°.89N×26°.66E, h3km, ML2.4/13*
*THE **06** 04:28:48.0, 37°.9N±0°.9×2°.7E±°, h13km±1km, M2.6/9, MLh2.6/9*
*AFAD **06** 04:28:48.0, 37°.92N×26°.69E, h7km±3km, ML2.0*
ISC 06 04:28:48.0±0.9, 37°.91N±0°.03×26°.67E±0°.03, h13km±8km, n26, σ0°.47/38, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.22**	**51**	P		**Pg**	**04 28 52.5**	**-0.3**
DGB				S		**Sg**	**04 28 55.8**	**-0.2**
DGB				IAML			04 28 56.0	
	comp=N,289nm,0.5s							
DGB				IAML			04 28 56.0	
	comp=E,291nm,0.4s							
SMG	**Samos**	**0.24**	**147**	P		**Pg**	**04 28 53.2**	**0.0**
SMG				S		**Sg**	**04 28 57.1**	**+0.4**
SMG				AML		AML		
GMLD	**Gumuldur**	**0.26**	**50**	Pg		**Pg**	**04 28 52.9**	**-0.5**
GMLD				Sg		**Sg**	**04 28 57.4**	**+0.4**
GMLD				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.35**	**338**	P		**Pg**	**04 28 55.1**	**0.0**
ZEYE				IAML			04 29 00.0	
	comp=N,314nm,0.4s							
ZEYE				S		**Sg**	**04 29 00.2**	**+0.3**
ZEYE				IAML			04 29 02.0	
	comp=E,203nm,0.5s							
BEYE	**izmir**	**0.38**	**33**	P		**Pg**	**04 28 55.6**	**0.0**
BEYE				S		**Sg**	**04 29 00.5**	**-0.1**
BEYE				IAML			04 29 01.0	
	comp=N,225nm,0.5s							
BEYE				IAML			04 29 01.0	
	comp=E,168nm,0.3s							
KUSD	**Kusadasi-Aydin**	**0.49**	**96**	Pg		**Pg**	**04 28 57.7**	**0.0**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.50**	**115**	P		**Pg**	**04 28 57.7**	**0.0**
GCAM				S		**Sg**	**04 29 04.7**	**+0.3**
GCAM				IAML			04 29 05.0	
	comp=N,122nm,0.3s							
GCAM				IAML			04 29 08.0	
	comp=E,107nm,0.3s							
GCAM	**G?zelcaml?**	**0.50**	**115**	Pg		**Pg**	**04 28 57.4**	**-0.3**
GCAM				Sg		**Sb**	**04 29 05.0**	**-0.7**
GCAM				AML		AML		
BLCB	**Balcova**	**0.56**	**32**	P		**Pg**	**04 28 58.4**	**-0.5**
BLCB				S		**Sg**	**04 29 06.0**	**-0.3**
BLCB				AML		AML		
BLCB	**Balcova**	**0.56**	**32**	Pg		**Pg**	**04 28 58.7**	**-0.2**
BLCB				AML		AML		
CHOS	**Chios island**	**0.68**	**315**	P		**Pg**	**04 29 00.9**	**-0.3**
CHOS				S		**Sb**	**04 29 11.7**	**+0.6**
CHOS				AML		AML		
CHOS	**Chios island**	**0.68**	**315**	Pg		**Pg**	**04 29 00.9**	**-0.3**
CHOS				AML		AML		
KRBN	**Karaburun**	**0.69**	**353**	Pg		**Pb**	**04 29 01.9**	**+0.1**
KRBN				AML		AML		
DUVT	**Torbali**	**0.69**	**63**	P		**Pb**	**04 29 01.5**	**-0.4**
DUVT				S		**Sg**	**04 29 10.0**	**-0.5**
DUVT				IAML			04 29 11.0	
	comp=E,94nm,0.1s							
BAGT	**Foa**	**0.76**	**11**	P		**Pb**	**04 29 03.5**	**+0.4**
BAGT				S		**Sg**	**04 29 12.5**	**-0.1**
BAGT				IAML			04 29 17.0	
	comp=E,96nm,0.8s							
FOCM	**Foa**	**0.80**	**4**	Pg		**Pb**	**04 29 04.1**	**+0.3**
FOCM				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.97**	**88**	Pg		**Pb**	**04 29 06.9**	**+0.2**
AYDB				AML		AML		
BODT	**Bodrum**	**0.99**	**149**	P		**Pg**	**04 29 06.4**	**-0.7**
BODT				S		**Sb**	**04 29 21.0**	**+1.0**
BODT				AML		AML		
BODT	**Bodrum**	**0.99**	**149**	Pg		**Pg**	**04 29 06.9**	**-0.2**
BODT				AML		AML		
MLSB	**Milas**	**1.07**	**125**	Pg		**Pg**	**04 29 08.5**	**-0.2**
MLSB				AML		AML		
DKL	**Dikili**	**1.17**	**9**	Pn		**Pn**	**04 29 11.2**	**+1.1**
DKL				AML		AML		
PRK	**Paraskevi**	**1.37**	**347**	P		**Pn**	**04 29 12.0**	**-0.8**
PRK				AML		AML		
SOMA	**Soma-Manisa**	**1.42**	**28**	Pn		**Pg**	**04 29 15.3**	**+0.1**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.55**	**50**	Pn		**Pb**	**04 29 16.8**	**+0.2**
GORD				AML		AML		
THERA	**Ancient Thera,**	**1.81**	**212**	P		**Pn**	**04 29 19.1**	**+0.2**
THERA				AML		AML		
DION	**Dionisos Attik**	**2.17**	**275**	P		**Pn**	**04 29 22.9**	**-0.9**

NOU 06 04:58:08.2, 16°.89S×167°.24E, h0km, MLv4.2/19, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DVP	**Devils Point**	**1.23**	**133**	P		Pb	04 58 32.1	-0.2
DVP	**Devils Point**	**1.23**	**133**	S		Sg	04 58 46.8	-0.9
SANVU	**Saraoutou**	**1.44**	**359**	P		Pn	04 58 34.7	-0.8
SANVU	**Saraoutou**	**1.44**	**359**	S		Sg	04 58 53.3	-1.1
RTV	**Rentapao**	**1.44**	**129**	P		Pn	04 58 34.8	-0.8
RTV	**Rentapao**	**1.44**	**129**	S		Sg	04 58 52.4	-2.3
KOUNC	**Koumac, New Ca**	**4.59**	**217**	P		Pn	04 59 19.8	+0.9
KOUNC	**Koumac, New Ca**	**4.59**	**217**	S		Sn	05 00 12.6	-0.4
MARNC	**Mare, Loyalty**	**4.63**	**171**	P		Pn	04 59 19.9	+0.5
YATNC	**Mamie plateau,**	**5.15**	**184**	P		Pn	04 59 25.9	-0.8
NOUC	**Port Laguerre**	**5.26**	**190**	P		Pn	04 59 28.9	+0.8
OUENC	**Ouen Island, N**	**5.51**	**184**	P		Pn	04 59 32.4	+0.8

*IDC **06** 05:15:31.1±0.7, 5°.60S×146°.70E, h0km, mb4.2/10, mbtmp4.2/14, ML4.2/2, MS3.3/10, Error ellipse: s-maj=25.9km s-min=13.8km az=81.0*
*NEIC **06** 05:15:39.5±1.4, 5°.80S±0°.06×146°.66E±0°.07, h54km±8km, mb4.4/26, Error ellipse: s-maj=13.7km s-min=2.6km az=129.0*
ISC 06 05:15:38.9±0.5, 5°.81S±0°.06×146°.57E±0°.08, h52km, n63, σ1°.21/54, mb4.3/19, MS3.1/7, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.62**	**171**	P		**Pn**	**05 16 32.7**	**+0.1**
	122nm,0.4s,baz=337,slow=7.7,SNR=37							
PMG				Sn		**Sn**	**05 17 13.9**	**-0.2**
	68nm,0.3s,baz=175,slow=22,SNR=9.8							
PMG				LR		LR	05 18 19.4	
	comp=Z,457nm,18.6s,baz=296,slow=44							
RABL	**Rabaul**	**5.80**	**74**	Pn		**Pn**	**05 17 01.4**	**-1.1**
JAY	**Jayapura**	**6.70**	**299**	Pn		**Pn**	**05 17 14.4**	**-0.5**
	7.4nm,1.0s,baz=128,slow=19,SNR=1.5							
CTA	**Charters Tower**	**14.20**	**181**	Pn		**Pn**	**05 18 58.8**	**+1.5**
	0.7nm,0.3s,baz=11,slow=16,SNR=1.0							
CTA				LR		LR	05 24 29.3	
	comp=Z,101nm,19.1s,baz=31,slow=37							
	3.6nm,0.6s							
CTA				AML		AML		
CTAO	**Charters Tower**	**14.20**	**181**	Pn		**Pn**	**05 18 58.9**	**+1.5**
FAKI	**Fak Fak**	**14.56**	**281**	Pn		**Pn**	**05 19 02.9**	**+0.7**
SIJI	**Sorong**	**16.04**	**287**	LR		LR	05 26 09.6	
	comp=Z,88nm,18.4s,baz=92,slow=40							
WB0	**Warramunga Arr**	**18.24**	**219**	P		**Pn**	**05 19 48.3**	**-0.2**
WR8	**Warramunga Arr**	**18.31**	**219**	P		**Pn**	**05 19 49.1**	**-0.3**
WRA	**Warramunga Arr**	**18.41**	**219**	P		**Pn**	**05 19 50.3**	**-0.2**
	0.8nm,0.3s,baz=38,slow=11,SNR=23							
WRA				S		**Sn**	**05 23 09.0**	**-6.4**
	0.8nm,0.8s,baz=42,slow=22,SNR=3.3							
WRA				PcP		**PcP**	**05 24 19.6**	**+0.2**
	1.1nm,0.6s,baz=26,slow=1.9,SNR=5.7							
	2.3nm,0.5s							
WRA				AML		AML		
WRA	**Warramunga Arr**	**18.41**	**219**	P		**P**	**05 19 48.5**	**-1.5**
EIDS	**Eidsvold**	**19.92**	**168**	P		**Pn**	**05 20 07.3**	**-1.2**
EIDS				IAmb		IAmb	05 20 25.6	
	comp=Z,32nm,1.5s							
AS31	**Alice Springs**	**21.54**	**213**	P		**P**	**05 20 24.0**	**0.0**
ASAR	**Alice Springs**	**21.54**	**213**	P		**P**	**05 20 24.9**	**+0.9**
	comp=Z,1.5nm,0.6s,baz=54,slow=8.1,SNR=18							
ASAR				S		Sn	05 24 22.2	-8.6
	comp=Z,1.6nm,0.9s,baz=29,slow=22,SNR=6.5							
ASAR				LR		LR	05 30 09.5	
	comp=Z,126nm,18.3s,baz=79,slow=40							
	comp=Z,1.5nm,0.6s							
ASAR	**Alice Springs**	**21.54**	**213**	P		**P**	**05 20 24.4**	**+0.4**
INKA	**Innaminka**	**22.50**	**194**	P		**P**	**05 20 33.3**	**-1.0**
INKA				IAmb		IAmb	05 20 59.3	
	comp=Z,7.1nm,1.2s							
BATI	**Baumata**	**23.09**	**258**	LR		LR	05 30 12.2	
	comp=Z,96nm,18.3s,baz=96,slow=38							
FITZ	**Fitzroy Crossi**	**23.80**	**237**	P		**P**	**05 20 47.9**	**+0.6**
	comp=Z,7.9nm,0.6s,baz=65,slow=8.1,SNR=27							
FITZ				LR		LR	05 31 05.0	
	comp=Z,78nm,21.1s,baz=13,slow=39							
	comp=Z,7.9nm,0.6s							
FITZ	**Fitzroy Crossi**	**23.80**	**237**	P		**P**	**05 20 47.8**	**+0.6**
LUWI	**Luwuk**	**24.22**	**280**	P		**P**	**05 20 52.7**	**+1.7**
ARMA	**Armidale**	**24.94**	**170**	P		**P**	**05 20 57.9**	**+0.3**
ARMA				IAmb		IAmb	05 21 21.1	
	comp=Z,22nm,1.1s							
DZM	**Mont Dzumac**	**25.11**	**132**	LR		LR	05 28 50.1	
	comp=Z,56nm,20.8s,baz=195,slow=32							
STKA	**Stephens Creek**	**26.35**	**190**	P		**P**	**05 21 10.7**	**+0.5**
	comp=Z,1.2nm,0.3s,baz=12,slow=9.3,SNR=6.1							
STKA				LR		LR	05 33 52.1	
	comp=Z,47nm,18.0s,baz=25,slow=41							
	comp=Z,1.2nm,0.3s							
STKA	**Stephens Creek**	**26.35**	**190**	P		**P**	**05 21 09.8**	**-0.4**
STKA				IAmb		IAmb	05 21 21.6	
	comp=Z,31nm,1.2s							
MBWA	**Marble Bar**	**30.15**	**237**	P		**P**	**05 21 45.7**	**+1.4**
MBWA				IAmb		IAmb	05 22 08.8	
	comp=Z,12nm,1.1s							
FORT	**Forrest**	**30.32**	**213**	P		**P**	**05 21 45.8**	**+0.2**
FORT				IAmb		IAmb	05 22 16.4	
	comp=Z,7.0nm,1.1s							
H11S3	**WAKE ISLAND Hy**	**31.25**	**39**	T		T	05 54 46.9	
	baz=220							
H11S2	**WAKE ISLAND Hy**	**31.26**	**39**	T		T	05 54 46.6	
	baz=220							
H11S1	**WAKE ISLAND Hy**	**31.27**	**39**	T		T	05 54 49.8	
	baz=220							
H11N1	**WAKE ISLAND Hy**	**32.30**	**38**	T		T	05 56 06.6	
	baz=218,slow=76,SNR=5.5							
H11N3	**WAKE ISLAND Hy**	**32.31**	**38**	T		T	05 56 06.8	
	baz=218,slow=76,SNR=6.7							
H11N2	**WAKE ISLAND Hy**	**32.32**	**38**	T		T	05 56 07.8	
	baz=218,slow=76,SNR=8.5							
BBJI	**Bungbulang**	**38.69**	**265**	P		**P**	**05 22 58.2**	**0.0**
MRNZ	**Matariki Terra**	**42.44**	**151**	P		**P**	**05 23 27.9**	**-0.9**
RTZ	**Ruatahuna**	**42.72**	**144**	P		**P**	**05 23 31.6**	**+0.5**
TUWZ	**Tuamarina**	**43.06**	**150**	P		**P**	**05 23 34.5**	**+0.8**
KSRS	**Korea Array**	**46.42**	**339**	LR		LR	05 41 05.6	
	comp=Z,15nm,20.3s,baz=175,slow=33							
SONM	**Songino Array**	**64.03**	**331**	P		**P**	**05 26 07.4**	**0.0**
	comp=Z,0.5nm,0.5s,baz=132,slow=8.5,SNR=3.6							
	comp=Z,0.5nm,0.5s							
SONM	**Songino Array**	**64.03**	**331**	P		**P**	**05 26 07.6**	**+0.2**
SONM				IAmb		IAmb	05 26 10.8	
	comp=Z,2.1nm,1.1s							
EVN	**Everest**	**66.64**	**304**	P		**P**	**05 26 26.0**	**+0.6**
EVN				IAmb		IAmb	05 26 40.9	
	comp=Z,2.1nm,0.9s							
VNDA	**Vanda**	**72.12**	**177**	P		**P**	**05 26 58.1**	**+0.6**
	comp=Z,2.6nm,0.7s,baz=334,slow=6.8,SNR=21							
	comp=Z,2.6nm,0.7s							
VNDA	**Vanda**	**72.12**	**177**	P		**P**	**05 26 57.6**	**+0.1**
VNDA				IAmb		IAmb	05 26 58.7	
	comp=Z,2.5nm,0.7s							
SBA	**Scott Base**	**72.78**	**176**	P		**P**	**05 27 02.7**	**+1.3**
SBA				IAmb		IAmb	05 27 14.3	
	comp=Z,3.5nm,1.3s							
MKAR	**Makanchi Array**	**77.08**	**321**	P		**P**	**05 27 26.5**	**-0.3**
	comp=Z,0.5nm,0.6s,baz=107,slow=6.3,SNR=3.2							
	comp=Z,0.5nm,0.6s							
ZALV	**Zalesovo Beam**	**78.63**	**328**	P		**P**	**05 27 34.1**	**-1.0**
	comp=Z,0.6nm,0.4s,baz=110,slow=7.2,SNR=2.9							
	comp=Z,0.6nm,0.4s							
M16K	**Timber Creek**	**78.83**	**24**	P		**P**	**05 27 35.1**	**-1.1**
ACHA	**Angle Creek He**	**78.88**	**27**	P		**P**	**05 27 36

DBIC	**Dimbokro**	**151.59 273**	PKPbc	**PKPbc**	**05 35 27.8**	**-0.8**
	comp=Z,3.6nm,0.8s,baz=89,slow=4.4,SNR=4.5					
BDFB	**Brasilia**	**154.25 146**	PKPbc	**PKPbc**	**05 35 34.6**	**0.0**
	comp=Z,1.1nm,0.3s,baz=225,slow=4.3,SNR=4.0					

*RSNC **06** 05:38:30.5±0.0, 7°N±1°×7°3W±°, h142km±2km, M2.7, mb2.8, ML2.3*
*FUNV **06** 05:38:32.5, 7.01N×73.51W, h3km, MW3.3, Presumed earthquake*

ISC 06 05:38:29.0±1.4, **6.85N**±0.03×**73.13W**±0.05, **h149**km±9km, **n27**, σ1**9**s**27**/53, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.27**	**192**	P	**Pn**	**05 38 49.8**	**+0.2**
BARC				S	**Sn**	**05 39 04.6**	**-0.6**
BRJC	**Barrancabermej**	**0.62**	**281**	P	**Pn**	**05 38 51.5**	**+0.7**
BRJC				S	**Sn**	**05 39 08.1**	**+0.6**
RUSC	**La Rusia**	**0.95**	**177**	P	**Pn**	**05 38 53.7**	**-0.1**
RUSC				S	**Sn**	**05 39 12.1**	**-0.7**
RUSC	**La Rusia**	**0.95**	**177**	*e*P	**Pn**	**05 38 54.0**	**+0.1**
RUSC				*e*S	**Sn**	**05 39 10.9**	**-1.8**
CAPV	**Capacho**	**1.29**	**39**	*e*S	**Sn**	**05 39 19.5**	**+1.9**
PTBC	**PUERTO BERRIO,**	**1.36**	**257**	P	**Pn**	**05 38 56.2**	**-0.8**
PTBC				S	**Sn**	**05 39 17.3**	**-1.0**
OCAC	**Ocana**	**1.39**	**352**	P	**Pn**	**05 38 57.8**	**+0.3**
OCAC				S	**Sn**	**05 39 19.9**	**+0.6**
TAMC	**Tame, Arauca**	**1.39**	**107**	P	**Pn**	**05 38 58.1**	**+0.8**
TAMC				S	**Sn**	**05 39 19.3**	**+0.3**
SPBC	**San Pablo de B**	**1.52**	**218**	P	**Pn**	**05 38 58.8**	**0.0**
SPBC				S	**Sn**	**05 39 20.8**	**-0.7**
NORC	**Norcasia**	**2.15**	**234**	P	**Pn**	**05 39 06.2**	**+0.3**
NORC				S	**Sn**	**05 39 34.5**	**+0.2**
CHIC	**Chingaza**	**2.29**	**195**	P	**Pn**	**05 39 08.1**	**+0.2**
CHIC				S	**Sn**	**05 39 37.6**	**-0.2**
ROSC	**El Rosal**	**2.33**	**211**	P	**Pn**	**05 39 10.1**	**+1.8**
ROSC				S	**Sn**	**05 39 39.7**	**+1.2**
CVER	**Cruz Verde, Cu**	**2.50**	**202**	P	**Pn**	**05 39 10.4**	**-0.1**
CVER				S	**Sn**	**05 39 41.7**	**-0.8**
UREC	**San Jos de Ur**	**2.55**	**291**	P	**Pn**	**05 39 10.2**	**-0.4**
UREC				S	**Sn**	**05 39 42.0**	**-0.8**
GUY2C	**Guyana, Caldas**	**2.75**	**234**	P	**Pn**	**05 39 14.8**	**+1.2**
GUY2C				S	**Sn**	**05 39 48.2**	**+0.2**
VILC	**Villavicencio,**	**2.78**	**192**	P	**Pn**	**05 39 14.4**	**+0.7**
VILC				S	**Sn**	**05 39 48.6**	**+0.4**
PTGC	**Puerto Gaitan,**	**2.82**	**159**	P	**Pn**	**05 39 12.7**	**-1.3**
PTGC				S	**Sn**	**05 39 45.7**	**-3.1**
CBOC	**Ciudad Bolivar**	**3.03**	**251**	P	**Pn**	**05 39 18.0**	**+1.1**
CBOC				S	**Sn**	**05 39 53.4**	**-0.4**
ARGC	**Ariguani, Magd**	**3.18**	**340**	P	**Pn**	**05 39 20.3**	**+1.6**
ARGC				S	**Sn**	**05 39 58.3**	**+1.1**
PRAC	**Prado**	**3.58**	**209**	P	**Pn**	**05 39 24.4**	**+0.6**
PRAC				S	**Sn**	**05 40 05.9**	**-0.4**
APAC	**Apartado, Choc**	**3.58**	**287**	P	**Pn**	**05 39 24.3**	**+0.6**
APAC				S	**Sn**	**05 40 06.5**	**+0.3**
ORTC	**Ortega, Tolima**	**3.61**	**216**	P	**Pn**	**05 39 25.2**	**+1.1**
ORTC				S	**Sn**	**05 40 06.6**	**-0.3**
SJCC	**San Jacinto, C**	**3.64**	**326**	P	**Pn**	**05 39 24.1**	**-0.5**
SJCC				S	**Sn**	**05 40 06.0**	**-1.8**
SJCC	**San Jacinto, C**	**3.64**	**326**	*e*P	**Pn**	**05 39 24.7**	**+0.1**
SJCC				*e*S	**Sn**	**05 40 02.2**	**-5.6**
LCBC	**Los crdobas,**	**3.78**	**302**	P	**Pn**	**05 39 26.2**	**-0.1**
LCBC				S	**Sn**	**05 40 11.5**	**+0.7**
URMC	**La Uribe, Meta**	**3.79**	**199**	P	**Pn**	**05 39 28.1**	**+1.5**
URMC				S	**Sn**	**05 40 12.7**	**+1.3**
POPC	**Popayan, Colom**	**5.55**	**220**	P	**Pn**	**05 39 50.2**	**+0.2**
POPC				S	**Sn**	**05 40 52.7**	**-0.6**

*PRE **06** 05:44:50.7±0.9, 26.34S×29.26E, h0km, ML2.6, Suspected explosion*
*BUL **06** 05:44:55.6±1.9, 26.46S×29.71E, h10km, MD3.4, Presumed earthquake*
*BGSI **06** 05:45:06.7±1.4, 26.37S×28.76E, h0km±28km, ML2.5, Presumed earthquake*

ISC 06 05:44:50.6±0.9, **26.35S**±0.03×**29.24E**±0.03, **h0**km, **n28**, σ2**s37**/51, **South Africa**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**1.47**	**288**	*e*P	**Pb**	**05 45 19.1**	**+0.1**
HRAO				*e*S	**Sn**	**05 45 39.7**	**+1.1**
NWCL	**Newcastle**	**1.50**	**157**	*e*P	**Pb**	**05 45 19.1**	**-0.3**
NWCL				*e*S	**Sn**	**05 45 40.8**	**+1.5**
NWCL				IAML		05 45 44.5	
	comp=Z,77nm,0.7s						
PILG	**Pilgrimsrest,**	**1.93**	**44**	*e*P	**Pb**	**05 45 25.8**	**-1.1**
PILG				*e*S	**Sn**	**05 45 50.2**	**+0.1**
PILG				IAML		05 45 54.5	
	comp=Z,57nm,0.8s						
LEPH	**Lephalale, Lim**	**2.80**	**332**	*e*P	**Pn**	**05 45 38.5**	**+1.6**
LEPH				*e*S	**Sn**	**05 46 12.1**	**+0.7**
LEPH				IAML		05 46 27.1	
	comp=Z,28nm,0.4s						
MOPA	**Mopani**	**3.43**	**35**	*i* P	**Pn**	**05 45 44.7**	**-0.7**
MOPA				*i* S	**Sn**	**05 46 25.6**	**-1.2**
MOPA	**Mopani**	**3.43**	**35**	*e*P	**Pn**	**05 45 45.3**	**-0.1**
MOPA				*e*S	**Sn**	**05 46 26.1**	**-0.6**
MOPA				IAML		05 46 40.7	
	comp=Z,31nm,0.5s						
MPHEP	**Siloam, Limpop**	**3.53**	**14**	*e*S	**Sn**	**05 46 29.4**	**0.0**
LBTB	**Lobatse**	**3.55**	**291**	*i* P	**Pb**	**05 45 55.7**	**+1.4**
LBTB				*i* S	**Sb**	**05 46 40.2**	**+2.1**
LBTB	**Lobatse**	**3.55**	**291**	*i* P	**Pb**	**05 45 54.6**	**+0.3**
LBTB				*i* S	**Sn**	**05 46 32.4**	**+2.6**
LBTB				IAML		05 46 42.9	
	comp=N,62nm,0.7s						
LBTB	**Lobatse**	**3.55**	**291**	*i* P	**Pb**	**05 45 51.7**	**-2.6**
LBTB				*i* S	**Sn**	**05 46 29.8**	**0.0**
LBTB				IAML		05 46 42.9	
	comp=N,61nm,0.7s						
LBTB	**Lobatse**	**3.55**	**291**	*e*P	**Pn**	**05 45 48.3**	**+1.2**
LBTB				*e*S	**Sn**	**05 46 29.6**	**-0.2**
LBTB				IAML		05 46 41.8	
	comp=Z,43nm,0.7s						
CRAIL	**Swartwater, Li**	**3.65**	**345**	*e*P	**Pn**	**05 45 49.1**	**+0.7**
CRAIL				*e*S	**Sn**	**05 46 32.5**	**+0.3**
CRAIL				IAML		05 46 52.6	
	comp=Z,675nm,0.6s						
MUSN	**Musina, Limpop**	**4.08**	**8**	*i* P	**Pb**	**05 45 59.3**	**-4.1**
MUSN				*i* S	**Sn**	**05 46 45.0**	**+2.2**
BOSA	**Boshof**	**4.20**	**237**	*i* P	**Pb**	**05 46 04.0**	**-1.4**
BOSA				*i* S	**Sb**	**05 46 53.6**	**-3.2**
BOSA	**Boshof**	**4.20**	**237**	*i* P	**Pb**	**05 46 05.0**	**-0.5**
BOSA				*i* S	**Sn**	**05 46 48.8**	**+2.9**
BOSA				IAML		05 47 02.1	
	comp=N,15nm,0.7s						
BOSA	**Boshof**	**4.20**	**237**	*i* P	**Pn**	**05 45 59.6**	**+3.5**
BOSA				*i* S	**Sn**	**05 46 45.8**	**-0.1**
BOSA				IAML		05 47 02.1	
	comp=N,15nm,0.6s						
BOSA	**Boshof**	**4.20**	**237**	*e*P	**Pn**	**05 45 57.7**	**+1.6**
BOSA				*e*S	**Sn**	**05 46 45.0**	**-0.9**
BOSA				IAML		05 47 10.3	
	comp=Z,12nm,0.5s						
KSTD	**Kokstad**	**4.25**	**179**	*e*P	**Pn**	**05 45 58.5**	**+1.7**
KSTD				*e*S	**Sn**	**05 46 47.3**	**-0.1**
KSTD				IAML		05 47 04.9	
	comp=Z,7.1nm,0.6s						
LPHEP	**Lephephe**	**4.28**	**313**	*i* P	**Pb**	**05 46 07.8**	**+1.0**
LPHEP				*i* S	**Sn**	**05 46 52.1**	**+4.4**
LPHEP				IAML		05 47 06.5	
	comp=E,20nm,0.6s						
LPHEP	**Lephephe**	**4.28**	**313**	*i* P	**Pn**	**05 46 00.3**	**+3.2**
LPHEP				*i* S	**Sn**	**05 46 46.7**	**-1.0**
LPHEP				IAML		05 47 06.5	
	comp=E,20nm,0.7s						
SKOMA	**Sekoma**	**5.14**	**290**	*i* P	**Pb**	**05 46 17.7**	**-3.7**
SKOMA				*i* S	**Sn**	**05 47 09.2**	**+0.2**
SKOMA				IAML		05 47 37.0	
	comp=E,22nm,0.7s						
SKOMA	**Sekoma**	**5.14**	**290**	*i* P	**Pn**	**05 46 13.4**	**+4.5**
SKOMA				*i* S	**Sn**	**05 47 06.2**	**-2.8**
SKOMA				IAML		05 47 37.0	
	comp=E,22nm,0.8s						
MATP	**Matopo**	**5.93**	**353**	*i* P	Pn	05 46 24.9	+5.0
BLWY	**Bulawayo**	**6.21**	**354**	*i* P	Pn	05 46 29.7	+6.0
SOOWA	**Sowa**	**6.39**	**334**	*i* P	**Pn**	**05 46 26.7**	**+0.5**
SOOWA				*i* S	**Sn**	**05 47 32.3**	**-7.7**
SOOWA				IAML		05 48 13.6	
	comp=E,36nm,0.6s						
ALKP	**Alkanpan, Nort**	**7.14**	**238**	*e*P	**Pn**	**05 46 38.8**	**+2.3**
ALKP				*e*S	**Sn**	**05 47 55.7**	**-2.7**
ALKP				IAML		05 47 58.0	
	comp=Z,3.5nm,0.6s						
ARMS	**Ukamas**	**8.63**	**257**	*e*P	**Pn**	**05 46 58.5**	**+1.6**
ARMS				*e*S	**Sn**	**05 48 31.2**	**-3.8**
FRAZ	**Fraserburg**	**8.82**	**229**	*e*P	**Pn**	**05 47 00.8**	**+1.3**
FRAZ				*e*S	**Sn**	**05 48 36.5**	**-3.3**
FRAZ				IAML		05 48 43.8	
	comp=Z,1.5nm,0.8s						

*FUNV **06** 05:47:33.9, 12.34N×70.09W, h29km, MW3.1, Presumed earthquake*
*RSNC **06** 05:47:36.5±0.0, 12°N±9°×7°0W±°, h0km±9km, M2.5, mb3.4, ML2.3*

ISC 06 05:47:31.4±2.5, **12.0N**±0.1×**70.20W**±0.04, **h4**km±17km, **n13**, σ2**s39**/23, **Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JACV	**Jacura**	**1.62**	**124**	*e*S	**Sn**	**05 48 22.8**	**+0.8**
URIC	**Uribia, Colomb**	**1.78**	**261**	P	**Pb**	**05 48 05.3**	**+0.7**
URIC				S	**Sg**	**05 48 27.7**	**-1.0**
URIC	**Uribia, Colomb**	**1.78**	**261**	*e*P	**Pn**	**05 48 04.9**	**+1.9**
URIC				*e*S	**Sg**	**05 48 27.4**	**-1.4**
TEPV	**Terepaima**	**2.25**	**154**	*e*P	**Pn**	**05 48 11.2**	**+1.7**
TEPV				*e*S	**Sb**	**05 48 41.0**	**+0.1**
MAPV	**Macapo**	**2.75**	**141**	*e*P	**Pn**	**05 48 18.8**	**+2.5**
MAPV				*e*S	**Sn**	**05 48 50.5**	**+0.5**
TURV	**Turiamo**	**2.78**	**123**	*e*P	**Pn**	**05 48 17.3**	**+0.7**
TURV				*e*S	**Sn**	**05 48 48.4**	**-2.2**
CRJC	**Cerrejon, Guaj**	**2.81**	**250**	P	**Pn**	**05 48 19.7**	**+2.6**
CRJC				S	**Sb**	**05 48 51.0**	**-5.9**
BENV	**Beln**	**3.25**	**128**	*e*P	**Pn**	**05 48 24.3**	**+1.0**
BENV				*e*S	**Sn**	**05 49 01.4**	**-1.1**
TACV	**Tcata**	**3.62**	**120**	*e*P	Pn	05 48 27.9	-0.4
TACV				*e*S	**Sn**	**05 49 08.7**	**-2.8**
ARGC	**Ariguani, Magd**	**4.51**	**242**	P	**Pn**	**05 48 42.0**	**+1.5**
ARGC				S	**Sn**	**05 49 33.1**	**-0.4**
OCAC	**Ocana**	**4.84**	**220**	P	**Pn**	**05 48 47.8**	**+2.6**
OCAC				S	**Sn**	**05 49 39.5**	**-2.3**
SJCC	**San Jacinto, C**	**5.32**	**247**	P	**Pn**	**05 48 55.0**	**+3.3**
	13nm,1.9s						
SJCC				S	**Sn**	**05 49 55.2**	**+1.7**
	13nm,1.9s						
SJCC				AML	AML		
RUSC	**La Rusia**	**6.70**	**205**	P	**Pn**	**05 49 13.5**	**+2.4**

*BER **06** 05:56:40.7±2.0, 71.42N×4.22W, h10km, Mw3.3, Confirmed Earthquake*
*IDC **06** 05:56:41.9±2.9, 71.47N×3.20W, h0km, mb3.6/2, mbtmp3.7/7, ML3.2/5, MS3.2/8, Error ellipse: s-maj=48.4km s-min=19.6km az=97.0*

ISC 06 05:56:38.8±0.8, **71.62N**±0.08×**4.03W**±0.07, **h12**km, **n33**, σ2**s14**/28, **MS3.1**/6, **Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JNE	**Jan Mayen East**	**1.51**	**247**	*e*S	**Sn**	**05 57 25.4**	**+0.2**
JNE				IAML		05 57 38.1	
	comp=Z,82nm,0.3s						
JNW	**Jan Mayen West**	**1.53**	**250**	IAML		05 57 35.5	
	comp=Z,44nm,0.6s						
JMIC	**Jan Mayen**	**1.57**	**248**	*e*S	**Sn**	**05 57 25.9**	**-0.8**
JMIC				IAML		05 57 35.4	
	comp=Z,38nm,0.6s						
DBG	**Daneborg**	**5.46**	**307**	*e*P	**Pn**	**05 58 01.6**	**+1.8**
DBG				*e*S	**Sn**	**05 58 58.9**	**-3.5**
DAG	**Danmarks Havn**	**6.52**	**329**	*e*P	**Pn**	**05 58 16.1**	**+1.9**
DAG				*e*S	Sn	05 59 17.2	-11
LOF	**Lofoten**	**6.98**	**111**	*e*P	**Pn**	**05 58 20.0**	**-0.7**
STEI	**Steigen**	**7.61**	**110**	*e*P	**Pn**	**05 58 27.8**	**-1.5**
TRO	**Tromso**	**7.87**	**94**	*e*P	**Pn**	**05 58 30.4**	**-2.3**
KONS	**Konsvik**	**7.98**	**122**	*e*P	**Pn**	**05 58 31.8**	**-2.5**
BRBB	**Barentsburg B**	**8.02**	**28**	*e*P	**Pn**	**05 58 36.0**	**+1.2**
STOK	**Stokkvaagen**	**8.08**	**123**	*e*P	**Pn**	**05 58 34.0**	**-1.7**
LEIR	**Leirfjorden**	**8.27**	**123**	*e*P	**Pn**	**05 58 36.2**	**-2.1**
LEIR				*e*S	Sn	06 00 00.2	-11
RAUS	**Rausandaksla**	**8.28**	**120**	*e*P	**Pn**	**05 58 36.0**	**-2.5**
JETT	**Jettan, Norway**	**8.37**	**92**	*e*P	**Pn**	**05 58 37.8**	**-1.9**
SPA0	**Spitsbergen Ar**	**8.40**	**29**	*e*P	**Pn**	**05 58 43.0**	**+2.9**
SPITS	**Spitsbergen Ar**	**8.40**	**29**	Pn	**Pn**	**05 58 43.5**	**+3.4**
	baz=214,slow=15						
	comp=Z,1.4nm,0.4s						
SALU	**Saltoluokta**	**8.94**	**107**	*e*P	**Pn**	**05 58 46.3**	**-1.1**
KTK1	**Kautokeino**	**9.51**	**93**	*e*P	**Pn**	**05 58 53.6**	**-1.7**
HEF	**Hetta**	**9.95**	**95**	*e*P	**Pn**	**05 58 60.0**	**-1.3**
ARA0	**ARCESS Array S**	**9.99**	**88**	*e*P	**Pn**	**05 58 59.1**	**-2.8**
ARCES	**ARCESS Array B**	**9.99**	**88**	Pn	**Pn**	**05 59 00.5**	**-1.5**
	comp=Z,0.2nm,0.3s,baz=293,slow=12,SNR=9.4						
	comp=Z,5.9nm,0.9s						
ARCES				AML	AML		
MOL	**Molde**	**10.12**	**148**	*e*	**Pn**	**05 59 01.6**	**-2.0**
NOR	**Nord**	**10.41**	**350**	*e*P	**Pn**	**05 59 06.0**	**-1.5**
NOA	**NORSAR Array B**	**12.20**	**143**	Pn	**Pn**	**05 59 30.3**	**-1.8**
	baz=329,slow=14,SNR=1.9						
NOA				LR	LR	06 03 55.0	
	comp=Z,102nm,18.9s,baz=335,slow=36						
	comp=Z,0.9nm,0.8s						
HFS	**Hagfors**	**13.52**	**139**	Pn	**Pn**	**05 59 48.5**	**-1.6**
	comp=Z,0.2nm,0.3s,baz=283,slow=14,SNR=3.8						
HFS				LR	LR	06 04 24.1	
	comp=Z,115nm,18.4s,baz=327,slow=35						
	comp=Z,2.5nm,0.6s						
HFS				AML	AML		
EKA	**Eskdalemuir Ar**	**16.35**	**178**	Pn	**Pn**	**06 00 26.7**	**-1.2**
	baz=354,slow=13						
	comp=Z,1.1nm,0.6s						
RES	**Resolute Bay**	**24.09**	**319**	LR	LR	06 10 53.4	
	comp=Z,42nm,18.3s,baz=30,slow=35						
GERES	**GERESS Array B**	**24.27**	**151**	P	**P**	**06 01 58.6**	**+3.0**
	comp=Z,0.8nm,0.8s,baz=354,slow=1,SNR=4.4						
GERES				LR	LR	06 12 11.8	
	comp=Z,52nm,18.2s,baz=284,slow=39						
	comp=Z,0.8nm,0.8s						
VRAC	**Vranov**	**24.31**	**146**	LR	LR	06 10 55.6	
	comp=Z,59nm,18.3s,baz=344,slow=36						
AKASG	**Malin Array Be**	**25.76**	**127**	P	**P**	**06 02 10.9**	**+2.0**
	comp=Z,1.2nm,0.6s,baz=339,slow=9.5,SNR=4.5						
	comp=Z,1.2nm,0.6s						
DAVOX	**Davos/Dischmat**	**25.77**	**158**	LR	LR	06 10 24.1	
	comp=Z,32nm,21.8s,baz=286,slow=32						
MLR	**Muntele Rosu**	**29.84**	**135**	LR	LR	06 14 57.2	
	comp=Z,76nm,18.6s,baz=320,slow=37						
ILAR	**Eielson Array**	**41.55**	**337**	LR	LR	06 23 20.6	
	comp=Z,26nm,18.3s,baz=286,slow=38						

*VAO **06** 05:55:27.4±1.3, 25.08S×71.99W, h10km, mb4.4, Presumed earthquake*
*SJA **06** 05:56:52.7±0.7, 21.09S×67.30W, h196km±6km, ML3.4, MW3.5*
*SCB **06** 05:56:52.7±1.6, 21.08S×67.29W, h194km±17km, ML4.0/2, Error ellipse: s-maj=5.2km s-min=4.3km az=0.0*
*GUC **06** 05:56:53.9±0.7, 21.05S×67.56W, h216km±10km, ML4.0, Presumed earthquake*
*IDC **06** 05:56:55.4±1.8, 20.78S×67.08W, h207km±16km, mb3.0/4, mbtmp3.7/7, Error ellipse: s-maj=21.9km s-min=16.3km az=56.0*

ISC 06 05:56:52.0±0.7, **21.03S**±0.04×**67.27W**±0.04, **h194**km±7km, **n69**, σ1**966**/95, **11C-1D**, **Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MOCB	**Mochara**	**1.54**	**99**	P	**Pn**	**05 57 27.6**	**+1.5**
PB08	**IPOC Station P**	**1.97**	**296**	*e*P	**Pn**	**05 57 31.6**	**+1.3**
PB08				IAML		05 58 03.0	
	comp=Z,96nm,0.5s						
PB08	**IPOC Station P**	**1.97**	**296**	⇑*i*P	**Pn**	**05 57 31.6**	**+1.3**
PB08				*i* S	**Sn**	**05 58 00.5**	**+0.6**
PB08	**IPOC Station P**	**1.97**	**296**	P	**Pn**	**05 57 31.6**	**+1.3**
PB09	**IPOC Station P**	**1.99**	**247**	*e*P	**Pn**	**05 57 31.6**	**+1.4**
PB09				IAML		05 58 02.2	
	comp=Z,88nm,0.9s						
PB09				*e*S	**Sn**	**05 58 02.4**	**+2.5**
PB09	**IPOC Station P**	**1.99**	**247**	⇑*i*P	**Pn**	**05 57 31.6**	**+1.4**
PB09				*i* S	**Sn**	**05 58 00.5**	**+0.6**
PB09	**IPOC Station P**	**1.99**	**247**	P	**Pn**	**05 57 31.1**	**+0.9**
YJA	**Yavi**	**2.00**	**125**	*e*P	**Pn**	**05 57 32.7**	**+2.1**
YJA				*e*S	**Sn**	**05 58 01.4**	**+0.9**
YJA	**Yavi**	**2.00**	**125**	⇑*e*P	**Pn**	**05 57 32.4**	**+1.8**
YJA	**Yavi**	**2.00**	**125**	P	**Pn**	**05 57 32.5**	**+2.0**
AF01	**San Pedro de A**	**2.09**	**204**	*e*P	**Pn**	**05 57 31.6**	**+0.2**
AF01				*e*S	Sn	05 58 16.0	+14
AF01				IAML		05 58 26.9	
	comp=Z,71nm,1.4s						
AF01	**San Pedro de A**	**2.09**	**204**	⇑*e*P	**Pn**	**05 57 33.7**	**+2.3**
GO01	**Chusmiza**	**2.25**	**307**	*e*P	**Pn**	**05 57 35.0**	**+1.6**
GO01				IAML		05 58 13.0	
	comp=Z,60nm,0.3s						
GO01	**Chusmiza**	**2.25**	**307**	⇑*i*P	**Pn**	**05 57 34.5**	**+1.1**
GO01				*i* S	**Sn**	**05 58 06.0**	**+0.5**
GO01	**Chusmiza**	**2.25**	**307**	P	**Pn**	**05 57 34.5**	**+1.1**
AOVT	**TarijaAcel**	**2.44**	**102**	P	**Pn**	**05 57 36.7**	**+1.5**
PB02	**IPOC Station P**	**2.47**	**263**	*e*P	**Pn**	**05 57 36.3**	**+1.0**
PB02				*e*S	**Sn**	**05 58 08.6**	**-0.4**
PB02				IAML		05 58 12.9	
	comp=Z,354nm,0.3s						
PB02	**IPOC Station P**	**2.47**	**263**	*i* P	**Pn**	**05 57 35.8**	**+0.5**
PB02				*i* S	**Sn**	**05 58 07.6**	**-1.4**
PB02				IAML		05 58 09.7	
	comp=E,568nm,0.2s						
PB02	**IPOC Station P**	**2.47**	**263**	P	**Pn**	**05 57 36.0**	**+0.7**
PB02				S	**Sn**	**05 58 08.3**	**-0.7**
PB02				IAML		05 58 09.3	
	comp=E,369nm,0.3s						
SOEO	**Opoqueri**	**2.52**	**347**	P	**Pn**	**05 57 38.5**	**+2.1**
PB03	**IPOC Station P**	**2.52**	**246**	*e*P	**Pn**	**05 57 36.7**	**+0.7**
PB03				*e*S	**Sn**	**05 58 09.8**	**-0.5**
PB03				IAML		05 58 10.0	
	comp=Z,182nm,0.4s						
PB03	**IPOC Station P**	**2.52**	**246**	*i* P	**Pn**	**05 57 36.8**	**+0.8**
PB03				*i* S	**Sn**	**05 58 09.1**	**-1.2**
PB03				IAML		05 58 10.1	
	comp=N,216nm,0.4s						
PB07	**IPOC Station P**	**2.53**	**254**	*e*P	Pn	05 57 24.4	-12
PB07				*e*S	**Sn**	**05 58 09.5**	**-1.0**
PB07				IAML		05 58 10.6	
	comp=Z,362nm,0.3s						
PB07	**IPOC Station P**	**2.53**	**254**	⇑*i*P	**Pn**	**05 57 36.5**	**+0.3**
PB07				*i* S	**Sn**	**05 58 08.9**	**-1.6**
PB07				IAML		05 58 10.1	
	comp=E,589nm,0.2s						
PB11	**IPOC Station P**	**2.57**	**299**	*e*P	**Pn**	**05 57 37.3**	**+0.7**
PB11				*e*S	**Sn**	**05 58 11.0**	**-0.2**
PB11				IAML		05 58 13.9	
	comp=Z,180nm,0.3s						
PB11	**IPOC Station P**	**2.57**	**299**	⇑*i*P	**Pn**	**05 57 37.0**	**+0.5**
PB11				*i* S	**Sn**	**05 58 09.9**	**-1.3**
PB11				IAML		05 58 13.1	
	comp=N,524nm,0.4s						
PB11	**IPOC Station P**	**2.57**	**299**	P	**Pn**	**05 57 37.1**	**+0.5**
PB11				S	**Sn**	**05 58 11.5**	**+0.3**
PB11				IAML		05 58 12.0	
	comp=N,414nm,0.3s						
PB06	**IPOC Station P**	**2.71**	**232**	*e*P	**Pn**	**05 57 39.0**	**+0.8**
PB06				*e*S	**Sn**	**05 58 14.3**	**+0.1**
PB06				IAML		05 58 14.8	
	comp=Z,113nm,1.2s						
PB06	**IPOC Station P**	**2.71**	**232**	⇑*i*P	**Pn**	**05 57 38.9**	**+0.8**
PB06				*i* S	**Sn**	**05 58 13.2**	**-0.9**
PB06				IAML		05 58 16.4	
	comp=E,196nm,0.2s						
PB06	**IPOC Station P**	**2.71**	**232**	P	**Pn**	**05 57 39.1**	**+0.9**
TA01	**Diego Aracena**	**2.76**	**279**	*e*P	**Pn**	**05 57 38.8**	**+0.3**
TA01				IAML		05 58 17.8	
	comp=Z,92nm,0.6s						
TA01	**Diego Aracena**	**2.76**	**279**	⇑*i*P	**Pn**	**05 57 38.5**	**-0.1**
TA01				*i* S	**Sn**	**05 58 12.4**	**-2.4**
TA01				IAML		05 58 13.8	
	comp=E,403nm,0.3s						
PSGCX	**Pisagua**	**3.03**	**298**	*e*P	**Pn**	**05 57 41.9**	**0.0**
PSGCX				*e*S	**Sn**	**05 58 19.3**	**-1.5**
PSGCX				IAML		05 58 20.6	
	comp=Z,170nm,0.8s						
PSGCX	**Pisagua**	**3.03**	**298**	⇑*i*P	**Pn**	**05 57 41.6**	**-0.3**
PSGCX				*i* S	**Sn**	**05 58 17.7**	**-3.1**
SOET	**ToroToro**	**3.21**	**26**	P	**Pn**	**05 57 45.7**	**+1.4**
PB05	**IPOC Station P**	**3.27**	**236**	*e*P	**Pn**	**05 57 45.5**	**+0.7**
PB05				*e*S	**Sn**	**05 58 24.4**	**-1.7**
PB05				IAML		05 58 26.0	
	comp=Z,70nm,0.3s						
PB05	**IPOC Station P**	**3.27**	**236**	⇑*i*P	**Pn**	**05 57 45.4**	**+0.7**
PB05				*i* S	**Sn**	**05 58 23.5**	**-2.5**
SALTA		**3.29**	**165**	*e*P	**Pn**	**05 57 42.7**	**-2.7**
SALTA				*e*P		05 57 44.2	
SALTA				*e*P		05 57 44.6	
PB16	**IPOC Station P**	**3.41**	**321**	*e*P	**Pn**	**05 57 48.8**	**+1.9**
PB16				IAML		05 58 35.8	
	comp=Z,40nm,0.5s						
PB16	**IPOC Station P**	**3.41**	**321**	⇑*i*P	**Pn**	**05 57 48.8**	**+1.9**
PB16				*i* S	**Sn**	**05 58 30.9**	**+1.1**
PB16	**IPOC Station P**	**3.41**	**321**	P	**Pn**	**05 57 48.9**	**+1.9**
PB12	**IPOC Station P**

PATR				*e*S	**S**	06 04 07.8	-0.8
CHUJ	**Union Juarez**	**0.60**	**147**	*e*P	**Pn**	06 03 46.4	+1.3
CHUJ				*e*S	**S**	06 04 07.6	-1.4
THIG		**0.71**	**165**	*e*P	**Pn**	06 03 46.9	+1.7
THIG				*e*S	**S**	06 04 09.2	-0.1
CCIG	**Comitan**	**0.74**	**24**	*i* P	**Pn**	06 03 46.6	+0.9
CCIG				*e*S	**S**	06 04 07.3	-2.7
PCIG		**0.75**	**278**	*e*P	**Pn**	06 03 47.1	+1.7
PCIG				*e*S	**S**	06 04 09.1	-0.3
TGIG		**1.34**	**331**	*i* P	**Pn**	06 03 51.0	+1.8
TGIG				*i* S	**S**	06 04 15.4	-0.9
TGIG		**1.34**	**331**	*e*P	**Pn**	06 03 51.0	+1.8
TGIG				*e*S	**S**	06 04 15.5	-0.8
APG	**El Apazote**	**2.00**	**107**	*i* P	**Pn**	06 03 51.0	+0.8
APG				*e*S	**S**	06 04 24.1	-2.6
UXUV	**UXUV**	**2.36**	**317**	*e*P	**Pn**	06 04 00.5	+2.0
UXUV				*e*S	**S**	06 04 29.9	-3.0
CMIG	**Matias Romero**	**2.77**	**303**	*e*P	**Pn**	06 04 04.8	+1.9
CMIG				*e*S	**S**	06 04 39.2	-1.5
HUIG	**Huatulco**	**3.53**	**273**	*e*P	**Pn**	06 04 13.0	+1.4
HUIG				*e*S	**S**	06 04 54.6	-1.7
NEUV	**Arroyo Zacate**	**3.84**	**304**	*e*P	**Pn**	06 04 18.1	+2.8
NEUV				*e*S	**S**	06 04 59.6	-3.5
VHO	**Vista Hermosa**	**4.37**	**290**	*e*P	**Pn**	06 04 24.7	+2.8
VHO				*e*S	**S**	06 05 14.4	-0.5
PEIG	**Puerto Escondi**	**4.54**	**276**	*e*P	**Pn**	06 04 25.9	+2.0
PEIG				*e*S	**S**	06 05 12.1	-6.4

*TIR **06** 06:05:23.1, 41˚.51N × 19˚.74E, h3km ± 1km, ML2.5, ML2.5, Presumed earthquake*
*BEO **06** 06:05:24.7 ± 0.8, 41˚.47N × 19˚.75E, h0km ± 4km, ML2.5/5*
*PDG **06** 06:05:24.2 ± 0.3, 41˚.53N × 19˚.77E, h11km ± 1km, ML2.6/11, Error ellipse: s-maj=0.5km s-min=1.6km az=0.0*
*THE **06** 06:05:25.5, 42˚.81˚ × 2˚.0E ± 5˚.5, h3km ± 26km, M2.4/6, MLh2.4/6*
ISC 06 06:05:23.6 ± 1.2, **41˚.51N** ± 0˚.02 × **19˚.76E** ± 0˚.02, **h1**km ± 10km, **n48**, σ0**89**/84, **2C-1D, Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
TIR	**Tirane**	**0.18**	**155**	⇓P*g*		**Pg**	**06 05 27.3**	**+0.2**
TIR				S*g*		**Sg**	**06 05 29.5**	**+0.1**
TIR				IAML			06 05 31.4	
	1µm,0.3s							
PHP	**Peshkopia**	**0.54**	**71**	P		**Pg**	**06 05 33.8**	**-0.1**
PHP	**Peshkopia**	**0.54**	**71**	P*g*		**Pg**	**06 05 34.0**	**+0.1**
PHP				S*g*		**Sg**	**06 05 42.2**	**+1.3**
PHP				IAML			06 05 46.7	
	750nm,0.4s							
SDA	**Shkodra**	**0.57**	**340**	P*g*		**Pg**	**06 05 34.4**	**-0.2**
SDA				S*g*		**Sg**	**06 05 43.3**	**+1.2**
SDA				IAML			06 05 44.6	
	607nm,0.1s							
ULC	**Ulcinj**	**0.59**	**319**	*e*P*g*		**Pg**	**06 05 34.9**	**-0.1**
ULC				*i* S*g*		**Sb**	**06 05 44.2**	**-1.6**
DRME	**Dracevica, Mon**	**0.80**	**328**	*e*P*g*		**Pg**	**06 05 38.7**	**-0.2**
DRME				*i* S*g*		**Sb**	**06 05 51.1**	**-0.6**
BERA	**Berati**	**0.82**	**170**	⇑P*g*		**Pg**	**06 05 39.3**	**0.0**
BERA				S*g*		**Sb**	**06 05 51.1**	**-1.2**
BERA				IAML			06 06 00.1	
	143nm,0.3s							
OHR	**Ohrid**	**0.88**	**117**	*i* P*g*		**Pg**	**06 05 40.0**	**-0.5**
OHR				*i* S*g*		**Sb**	**06 05 53.2**	**-0.8**
PDG	**Podgorica**	**0.99**	**338**	*e*P*g*		**Pg**	**06 05 42.1**	**-0.5**
PDG				*e*S*g*		**Sb**	**06 05 57.0**	**-0.2**
PDG	**Podgorica**	**0.99**	**338**	P*g*		**Pg**	**06 05 41.4**	**-1.2**
PDG				S*g*		**Sb**	**06 05 57.2**	**0.0**
PDG	**Podgorica**	**0.99**	**338**	*e*P*g*		**Pg**	**06 05 42.2**	**-0.4**
PDG				*i* S*g*		**Sb**	**06 05 57.4**	**+0.2**
BUM	**Brajici-Budva**	**1.02**	**321**	*e*P*g*		**Pg**	**06 05 42.6**	**-0.5**
BUM				*i* S*g*		**Sb**	**06 05 58.6**	**+0.5**
PVY	**Plav**	**1.09**	**8**	*e*P*g*		**Pg**	**06 05 43.8**	**-0.7**
PVY				*i* S*g*		**Sn**	**06 06 00.8**	**-1.2**
KBN	**Korca**	**1.18**	**139**	P		**Pn**	**06 05 47.8**	**+0.4**
KBN				AML		AML		
KBN	**Korca**	**1.18**	**139**	P*n*		**Pb**	**06 05 46.8**	**-0.1**
KBN				S*n*		**Sn**	**06 06 03.4**	**-0.7**
CEME	**Cevo**	**1.21**	**329**	*e*P*g*		**Pg**	**06 05 46.3**	**-0.5**
CEME				*i* S*g*		**Sn**	**06 06 05.1**	**+0.3**
HCY	**Herceg Novi**	**1.33**	**315**	*e*P*g*		**Pg**	**06 05 48.5**	**-0.6**
HCY				*i* S*g*		**Sn**	**06 06 09.3**	**+1.6**
KOME	**Kolasin**	**1.35**	**352**	*e*P*g*		**Pn**	**06 05 48.6**	**+1.1**
KOME				*i* S*g*		**Sn**	**06 06 09.6**	**+1.3**
IVA	**Berane**	**1.36**	**4**	*e*P*g*		**Pn**	**06 05 49.0**	**-0.9**
IVA				*i* S*g*		**Sn**	**06 06 10.0**	**+1.4**
NKME	**Niksic**	**1.39**	**335**	*e*P*g*		**Pn**	**06 05 49.5**	**-0.7**
NKME				*i* S*g*		**Sn**	**06 06 11.1**	**+1.8**
NEST	**Nestorio**	**1.47**	**138**	P		**Pn**	**06 05 51.4**	**+0.1**
NEST				AML		AML		
LSK	**Leskovik**	**1.50**	**155**	P*n*		**Pg**	**06 05 52.5**	**+0.1**
SRN	**Sarande**	**1.64**	**174**	P		**Pg**	**06 05 55.1**	**0.0**
SRN				AML		AML		
DBRK	**Dubrovnik**	**1.67**	**314**	*e*P*n*		**Pn**	**06 05 54.1**	**+0.1**
DBRK				S*n*		**Sg**	**06 06 17.8**	**+0.6**
SJES	**Sjenica**	**1.75**	**5**	*e*P*g*		**Pg**	**06 05 57.4**	**+0.2**
SJES				*e*S*g*		**Sg**	**06 06 22.7**	**+2.7**
PLE	**Pljevlja**	**1.84**	**351**	⇑*i* P*n*		**Pb**	**06 05 57.6**	**-0.5**
PLE				*i* S*n*		**Sb**	**06 06 24.1**	**+1.5**
SELS	**Selova**	**1.98**	**30**	*e*P*n*		**Pb**	**06 06 00.0**	**-0.5**
SELS				*e*S*n*		**Sb**	**06 06 26.3**	**+0.6**
BARS	**Barje**	**2.01**	**49**	*e*P*n*		**Pb**	**06 06 00.1**	**-0.8**
STON	**Ston**	**2.05**	**312**	*e*P*n*		**Pn**	**06 05 59.2**	**0.0**
STON				S*n*		**Sb**	**06 06 26.8**	**-0.7**
GRG	**Griva**	**2.07**	**105**	P		**Pn**	**06 05 59.3**	**-0.2**
GRG				AML		AML		
IVAS	**Ivanjica**	**2.08**	**8**	*e*P*n*		**Pn**	**06 06 00.8**	**+1.0**
IVAS				*e*S*n*		**Sg**	**06 06 29.7**	**-0.8**
VAY	**Valandovo**	**2.12**	**94**	*i* P*n*		**Pn**	**06 06 01.2**	**+1.0**
VAY				*i* S*n*		**Sg**	**06 06 31.9**	**+0.2**
PRMD	**Pramanda**	**2.23**	**152**	P		**Pb**	**06 06 03.9**	**-0.8**
PRMD				AML		AML		
BOSS	**Bosilegrad**	**2.25**	**63**	*e*P*n*		**Pb**	**06 06 03.6**	**-1.5**
BBLS	**Lazi&#263i**	**2.37**	**354**	*e*P*n*		**Pb**	**06 06 07.0**	**-0.1**
BBLS				*e*S*n*		**Sb**	**06 06 37.1**	**+0.3**
LSTV	**Lastovo**	**2.48**	**301**	*e*P*n*		**Pn**	**06 06 05.0**	**-0.1**
LSTV				S*n*		**Sb**	**06 06 36.2**	**+0.2**
GRUS	**Gruza**	**2.48**	**16**	*e*P*n*		**Pb**	**06 06 08.1**	**-0.8**
DIVS	**Divibare**	**2.59**	**4**	*e*P*n*		**Pn**	**06 06 08.1**	**+1.4**
DIVS				*e*S*n*		**Sn**	**06 06 38.8**	**-0.1**
TYRN	**Tyrnavos**	**2.60**	**133**	P		**Pn**	**06 06 08.8**	**+1.9**
MAKA	**Makarska**	**2.70**	**312**	*e*P*n*		**Pn**	**06 06 07.8**	**-0.2**
MAKA				S*n*		**Sn**	**06 06 42.6**	**+1.3**
RICI	**Ricice**	**2.77**	**316**	*i* P*n*		**Pn**	**06 06 08.7**	**-0.6**
RICI				S*n*		**Sn**	**06 06 43.9**	**+0.6**
ZAGS	**Zajecar**	**2.93**	**38**	*e*P*n*		**Pb**	**06 06 14.1**	**-2.6**
ZAGS				*e*S*n*		**Sn**	**06 06 46.6**	**-0.6**
HVAR	**Hvar**	**2.97**	**305**	*e*P*n*		**Pn**	**06 06 11.4**	**-0.4**
HVAR				S*n*		**Sn**	**06 06 49.1**	**+1.0**
KIJV	**Kijevo**	**3.51**	**316**	*i* P*n*		**Pn**	**06 06 19.2**	**-0.1**
KIJV				S*n*		**Sn**	**06 07 01.6**	**+0.1**
MORI	**Morici**	**3.80**	**310**	*e*P*n*		**Pn**	**06 06 23.7**	**+0.4**
MORI				S*n*		**Sn**	**06 07 08.7**	**0.0**
UDBI	**Udbina**	**4.20**	**317**	*i* P*n*		**Pn**	**06 06 29.5**	**+0.6**
UDBI				S*n*		**Sn**	**06 07 19.6**	**+1.0**
DUGI	**Dugi Otok**	**4.26**	**307**	*i* P*n*		**Pn**	**06 06 28.9**	**-0.7**
DUGI				S*n*		**Sn**	**06 07 19.9**	**-0.1**
NVLJ	**Novalja**	**4.71**	**312**	S*n*		**Sn**	**06 07 31.3**	**+0.4**

*RHSSO **06** 06:07:43.1 ± 0.5, 43˚.22N × 18˚.02E, h6km ± 5km, ML2.6/5*
*BEO **06** 06:07:44.3 ± 0.4, 43˚.20N × 18˚.03E, h4km ± 2km, ML2.3/7*
ISC 06 06:07:43.5 ± 1.1, **43˚.20N** ± 0˚.02 × **18˚.04E** ± 0˚.02, **h5**km ± 9km, **n34**, σ0**94**/67, **3C-2D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KLINJ	**Klinje**	**0.40**	**95**	*e*P*g*		**Pg**	**06 07 51.0**	**-0.2**
KLINJ				*e*S*g*		**Sg**	**06 07 57.4**	**+1.0**
STON	**Ston**	**0.41**	**217**	*i* P*g*		**Pg**	**06 07 51.4**	**-0.1**
STON				S*g*		**Sg**	**06 07 58.0**	**+1.1**
STON	**Ston**	**0.41**	**217**	*e*P*g*		**Pg**	**06 07 51.2**	**-0.3**
STON				*e*S*g*		**Sb**	**06 07 58.5**	**-1.3**
BRY	**Bratogost**	**0.47**	**129**	⇑*i* P*g*		**Pg**	**06 07 52.0**	**-0.6**
BRY				*e*S*g*		**Sg**	**06 08 00.0**	**+1.3**
TREB	**Trebinje**	**0.54**	**155**	⇑*i* P*g*		**Pg**	**06 07 53.0**	**-0.7**
TREB				*e*S*g*		**Sg**	**06 08 01.8**	**+1.1**
DBRK	**Dubrovnik**	**0.54**	**172**	*e*P*g*		**Pg**	**06 07 53.5**	**-0.3**
DBRK				S*g*		**Sg**	**06 08 01.8**	**+1.0**
UPM	**Unac-Piva**	**0.63**	**90**	*e*P*g*		**Pg**	**06 07 54.2**	**-1.4**
UPM				*e*S*g*		**Sg**	**06 08 04.7**	**+0.9**
RICI	**Ricice**	**0.72**	**294**	*e*P*g*		**Pg**	**06 07 56.2**	**-1.1**
RICI				S*g*		**Sg**	**06 08 07.1**	**+0.3**
MAKA	**Makarska**	**0.75**	**277**	*i* P*g*		**Pg**	**06 07 56.8**	**-1.1**
MAKA				S*g*		**Sg**	**06 08 08.0**	**+0.3**
HCY	**Herceg Novi**	**0.82**	**156**	⇓*i* P*g*		**Pg**	**06 07 58.2**	**-1.1**
HCY				*e*S*g*		**Sg**	**06 08 10.7**	**+0.8**
LSTV	**Lastovo**	**0.95**	**243**	*i* P*g*		**Pg**	**06 08 00.3**	**-1.4**
LSTV				S*g*		**Sg**	**06 08 14.4**	**+0.4**
HVAR	**Hvar**	**1.17**	**269**	*i* P*g*		**Pg**	**06 08 04.3**	**-1.5**
HVAR				S*g*		**Sb**	**06 08 21.5**	**0.0**
PDG	**Podgorica**	**1.18**	**130**	*e*P*g*		**Pg**	**06 08 04.7**	**-1.4**
PDG				*e*S*g*		**Sn**	**06 08 23.8**	**+0.8**
PDG	**Podgorica**	**1.18**	**130**	*e*P*g*		**Pg**	**06 08 04.5**	**-1.6**
PDG				*e*S*g*		**Sg**	**06 08 21.1**	**-0.2**
BBLS	**Lazi&#263i**	**1.19**	**56**	*e*P*g*		**Pg**	**06 08 05.3**	**-1.0**
BBLS				*e*S*g*		**Sn**	**06 08 23.8**	**+0.3**
BBLS	**Lazi&#263i**	**1.19**	**56**	⇓*i* P*g*		**Pg**	**06 08 04.5**	**-1.8**
BBLS				*e*S*g*		**Sg**	**06 08 21.5**	**-0.3**
DRME	**Dracevica, Mon**	**1.32**	**140**	⇑*i* P*g*		**Pn**	**06 08 07.6**	**-0.9**
DRME				*e*S*g*		**Sb**	**06 08 26.5**	**+0.6**
SJES	**Sjenica**	**1.41**	**87**	*e*P*g*		**Pn**	**06 08 09.7**	**-0.2**
SJES				*e*S*g*		**Sb**	**06 08 29.1**	**+0.4**
SJES	**Sjenica**	**1.41**	**87**	*e*P*g*		**Pn**	**06 08 08.9**	**-1.0**
SJES				*e*S*g*		**Sb**	**06 08 28.3**	**-0.4**
KIJV	**Kijevo**	**1.44**	**305**	*e*P*n*		**Pn**	**06 08 09.1**	**-1.0**
KIJV				S*n*		**Sg**	**06 08 31.3**	**+1.8**
IVAS	**Ivanjica**	**1.58**	**76**	*e*P*g*		**Pn**	**06 08 12.4**	**+0.2**
IVAS				*e*S*g*		**Sn**	**06 08 32.5**	**-0.6**
BLY	**Banja Luka**	**1.67**	**338**	*e*P*n*		**Pn**	**06 08 12.8**	**-0.5**
BLY				*e*S*n*		**Sn**	**06 08 33.9**	**-1.2**
DIVS	**Divibare**	**1.67**	**57**	*e*P*g*		**Pg**	**06 08 33.9**	**+0.2**
DIVS				*e*S*g*		**Sg**	**06 08 37.5**	**+0.3**
TEKS	**Tekeris**	**1.72**	**38**	*e*P*n*		**Pn**	**06 08 14.9**	**+0.8**
TEKS				*e*S*n*		**Sg**	**06 08 40.0**	**+1.2**
MORI	**Morici**	**1.82**	**292**	*i* P*n*		**Pn**	**06 08 15.3**	**-0.2**
MORI				S*n*		**Sb**	**06 08 39.9**	**-0.5**
GRUS	**Gruza**	**2.06**	**70**	*e*P*n*		**Pn**	**06 08 18.9**	**+0.2**
GRUS				*e*S*n*		**Sb**	**06 08 41.8**	**+0.9**
UDBI	**Udbina**	**2.12**	**310**	*e*P*n*		**Pn**	**06 08 20.7**	**+1.2**
UDBI				S*n*		**Sb**	**06 08 48.0**	**-0.9**
SELS	**Selova**	**2.25**	**89**	*e*P*n*		**Pn**	**06 08 21.5**	**+0.2**
DUGI	**Dugi Otok**	**2.31**	**291**	*i* P*n*		**Pn**	**06 08 22.8**	**+0.6**
DUGI				S*n*		**Sb**	**06 08 53.0**	**-1.3**
PLIT	**Plitvice**	**2.42**	**315**	*e*P*n*		**Pn**	**06 08 24.3**	**+0.6**
PLIT				S*n*		**Sn**	**06 08 54.9**	**+1.2**
MOSL	**Moslavina**	**2.58**	**339**	*e*P*n*		**Pn**	**06 08 26.5**	**+0.6**
MOSL				S*n*		**Sn**	**06 08 58.3**	**+0.6**
NVLJ	**Novalja**	**2.67**	**302**	*i* P*n*		**Pn**	**06 08 28.0**	**+1.0**
NVLJ				S*n*		**Sn**	**06 09 01.4**	**+1.7**
BARS	**Barje**	**2.79**	**97**	*e*P*n*		**Pn**	**06 08 29.3**	**+0.5**
BARS				*e*S*n*		**Sn**	**06 09 02.2**	**-0.7**
RABC	**Rab**	**2.82**	**304**	*e*P*n*		**Pn**	**06 08 29.3**	**+0.2**
RABC				S*n*		**Sn**	**06 09 05.0**	**+1.6**

*UPA **06** 06:09:58.9 ± 1.1, 8˚.89N × 84˚.49W, h28km ± 20km, MW3.7, Presumed earthquake*
*UCR **06** 06:10:00.3 ± 0.7, 8˚.88N × 84˚.25W, h15km ± 6km, MW4.0, Presumed earthquake*
ISC 06 06:09:60.0 ± 1.4, **8˚.90N** ± 0˚.04 × **84˚.32W** ± 0˚.05, **h22**km ± 6km, **n87**, σ0**79**/104, **2C-1D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
QUEP	**Quepos**	**0.55**	**16**	*e*P		**Pb**	**06 11 12.2**	**-0.8**
QUEP				*e*S		**Sb**	**06 06 18.4**	**-0.2**
PICV	**PH. Pirrs**	**0.74**	**9**	*e*P		**Pb**	**06 06 14.1**	**-0.1**
EDPE	**Pejibaye, P**	**0.78**	**70**	*e*P		**Pb**	**06 06 13.2**	**-1.7**
RAZU	**San Marcos de**	**0.81**	**21**	*e*P		**Pb**	**06 06 14.9**	**-0.6**
RAZU				*e*S		**Sb**	**06 06 26.8**	**+0.6**
PITB	**Pirrs, San**	**0.81**	**21**	*e*P		**Pb**	**06 06 15.0**	**-0.6**
PITB				*e*S		**Sb**	**06 06 26.5**	**+0.3**
ABE2	**San Pablo**	**0.84**	**18**	*e*P		**Pb**	**06 06 15.7**	**-0.4**
PANP	**Palmar Norte**	**0.85**	**86**	*e*P		**Pb**	**06 06 14.7**	**-1.4**
BUS1	**Rivas**	**0.86**	**41**	*e*P		**Pb**	**06 06 15.0**	**-1.6**
BUS1				*e*S		**Sb**	**06 06 26.4**	**-1.5**
LCR2	**La Lucha 2**	**0.89**	**20**	*e*P		**Pb**	**06 06 16.2**	**-0.8**
LCR2	**La Lucha 2**	**0.89**	**20**	⇑*i* P		**Pb**	**06 06 16.2**	**-0.8**
LCR2				*e*P		**Pn**	**06 06 16.4**	**-1.1**
ACOS	**Acosta**	**0.91**	**10**	*e*P		**Pb**	**06 06 16.5**	**-0.6**
ACOS				*e*S		**Sb**	**06 06 29.5**	**+0.6**
FIMO	**Fila Mora**	**0.96**	**84**	*e*P		**Pb**	**06 06 17.6**	**-1.4**
BURE	**Buenos Aires**	**1.00**	**74**	*e*P		**Pb**	**06 06 17.8**	**-1.1**
AMPA	**Desamparados**	**1.02**	**14**	*e*P		**Pb**	**06 06 18.5**	**-0.7**
REPA	**Paraso**	**1.03**	**26**	*e*P		**Pn**	**06 06 18.3**	**-1.0**
SANTA	**Santa Ana**	**1.04**	**7**	*e*P		**Pn**	**06 06 19.0**	**-0.4**
TAGO	**Cartago**	**1.04**	**22**	*e*P		**Pn**	**06 06 18.7**	**-0.8**
LUJA	**Lujan**	**1.05**	**13**	*e*P		**Pn**	**06 06 19.1**	**-0.5**
TRIO	**Tres Rios**	**1.05**	**18**	*e*P		**Pn**	**06 06 18.7**	**-0.9**
ECI	**Escuela Centro**	**1.07**	**14**	*e*P		**Pn**	**06 06 19.3**	**-0.5**
SJS	**Escuela Geolog**	**1.07**	**14**	*e*P		**Pn**	**06 06 19.4**	**-0.4**
SJS3	**Mercedes San J**	**1.07**	**14**	*e*P		**Pn**	**06 06 19.5**	**-0.3**
LUPE	**Guadalupe**	**1.08**	**14**	*e*P		**Pn**	**06 06 19.7**	**-0.3**
BELE	**Belen**	**1.08**	**7**	*e*P		**Pn**	**06 06 19.7**	**-0.3**
PIRO	**Carate, Puerto**	**1.09**	**117**	*e*P		**Pn**	**06 06 19.5**	**-0.4**
PIRO	**Carate, Puerto**	**1.09**	**117**	*e*P		**Pn**	**06 06 19.9**	**0.0**
PIRO				⇓*i* P		**Pb**	**06 06 20.1**	**0.0**
PIRO				*e*S		**Sb**	**06 06 34.3**	**+0.5**
PIRO				*e*S		**Sb**	**06 06 34.3**	**+0.5**
DOMI	**Santo Domingo**	**1.10**	**12**	*e*P		**Pb**	**06 06 20.2**	**-0.1**
HEME	**Heredia, Merce**	**1.11**	**9**	*e*P		**Pb**	**06 06 21.4**	**+0.9**
CORON	**Coronado**	**1.11**	**16**	*e*P		**Pn**	**06 06 20.5**	**0.0**
PCAYA	**Pacayas**	**1.13**	**26**	*e*P		**Pn**	**06 06 20.2**	**-0.5**
EDP2	**Potrero Grande**	**1.13**	**84**	*e*P		**Pn**	**06 06 19.7**	**-0.9**
VINA	**Juan Vinas**	**1.14**	**30**	*e*P		**Pn**	**06 06 20.3**	**-0.5**
PALD	**Palmares**	**1.16**	**354**	*e*P		**Pb**	**06 06 21.2**	**-0.1**
RAFA	**San Farael, Vo**	**1.17**	**25**	*e*P		**Pn**	**06 06 21.1**	**-0.3**
POAS	**San Pedro de P**	**1.17**	**4**	*e*P		**Pb**	**06 06 21.9**	**+0.2**
VICA	**Volcano Irazu**	**1.18**	**23**	*e*P		**Pn**	**06 06 21.1**	**-0.4**
CVIMO	**Finca Echandi**	**1.18**	**18**	*e*P		**Pb**	**06 06 25.4**	**+3.6**
FITO	**Golfito**	**1.18**	**103**	*e*S		**Sn**	**06 06 34.8**	**-1.8**
TURIB	**Turrialba**	**1.18**	**32**	*e*P		**Pn**	**06 06 20.7**	**-0.6**
VTCV	**VTCV, Calle Va**	**1.23**	**28**	*e*P		**Pn**	**06 06 21.9**	**-0.2**
CVTQ	**Turrialba Volc**	**1.23**	**26**	*e*P		**Pn**	**06 06 22.0**	**-0.2**
VBV1	**V. Barva**	**1.23**	**10**	*e*P		**Pb**	**06 06 22.6**	**-0.1**
CVTV	**Tajo**	**1.23**	**27**	*e*P		**Pn**	**06 06 22.1**	**-0.2**
VTR0	**Volcan Turrial**	**1.24**	**26**	*e*P		**Pn**	**06 06 22.1**	**-0.1**
CVTR	**Volcan Turrial**	**1.25**	**26**	*e*P		**Pn**	**06 06 22.4**	**-0.1**
ABRB	**Las Abras (San**	**1.25**	**28**	*e*P		**Pn**	**06 06 22.4**	**0.0**
VPS8	**V Poas**	**1.28**	**3**	*e*P		**Pn**	**06 06 22.8**	**0.0**
ZARE	**Zarcero**	**1.28**	**357**	*e*P		**Pb**	**06 06 23.5**	**0.0**
RESJ	**San Isidro (Tu**	**1.31**	**31**	*e*P		**Pn**	**06 06 23.3**	**+0.3**
VITO	**San Vito**	**1.33**	**93**	*e*S		**Sb**	**06 06 42.1**	**+1.0**
CVTG	**V. Turrialba,**	**1.35**	**23**	*e*P		**Pb**	**06 06 24.4**	**-0.2**
NELY	**Ciudad Neily**	**1.38**	**100**	*e*P		**Pn**	**06 06 23.7**	**-0.2**
NELY	**Ciudad Neily**	**1.38**	**100**	*e*P		**Pn**	**06 06 23.7**	**-0.2**
NELY				*e*S		**Sn**	**06 06 42.5**	**+1.0**
LCOCO	**El Coco**	**1.40**	**32**	*e*P		**Pn**	**06 06 24.6**	**+0.4**
VPL2	**V. Platanar**	**1.40**	**357**	*e*P		**Pb**	**06 06 25.2**	**-0.4**
RVLA	**Villa Bonita**	**1.40**	**31**	*e*P		**Pn**	**06 06 24.2**	**-0.1**
PILE	**Guapiles**	**1.41**	**22**	*e*P		**Pn**	**06 06 25.0**	**+0.5**
QUEU	**Ciudad Quesada**	**1.42**	**355**	*e*P		**Pb**	**06 06 26.2**	**+0.3**
ARTO	**Ro Cuarto**	**1.44**	**4**	*e*P		**Pb**	**06 06 25.7**	**-0.5**
VPL3	**V. Platanar**	**1.44**	**0**	*e*P		**Pb**	**06 06 25.8**	**-0.4**
CDITO	**Canoas**	**1.46**	**103**	*e*P		**Pn**	**06 06 25.1**	**-0.1**
CDITO				*e*S		**Sb**	**06 06 45.4**	**-0.7**
EGUB	**Earth Gujpi**	**1.49**	**29**	*e*P		**Pb**	**06 06 26.5**	**-0.6**
VERH	**Veragua Rainfo**	**1.51**	**47**	*e*P		**Pn**	**06 06 26.3**	**+0.5**
LAES	**El Progreso Va**	**1.52**	**55**	*e*P		**Pn**	**06 06 26.2**	**+0.3**
JTS	**Las Juntas de**	**1.52**	**336**	*e*P		**Pb**	**06 06 26.7**	**-0.8**
CTCR	**Cotoan**	**1.54**	**90**	*e*P		**Pn**	**06 06 26.5**	**+0.2**
CTCR				*e*S		**Sn**	**06 06 46.8**	**+1.0**
CARI	**Cariari**	**1.57**	**21**	*e*P		**Pn**	**06 06 27.3**	**+0.7**
PTPM	**Petroterminale**	**1.58**	**116**	*e*P		**Pn**	**06 06 28.0**	**-0.5**
PTPM				*e*S		**Sn**	**06 06 47.3**	**+0.8**
CASO	**Castillo**	**1.58**	**345**	*e*P		**Pb**	**06 06 29.3**	**+0.7**
VARE2	**V. Arenal**	**1.60**	**346**	*e*P		**Pb**	**06 06 28.6**	**-0.4**
VACR	**Volcan Arenal**	**1.61**	**347**	*e*P		**Pb**	**06 06 28.1**	**-0.9**
BRU2	**Volcan**	**1.61**	**93**	*e*P		**Pb**	**06 06 29.0**	**-0.1**
BRU2				*e*S		**Sb**	**06 06 50.1**	**+1.0**
CEDE	**Laguna Cedeo**	**1.63**	**346**	*e*P		**Pb**	**06 06 29.1**	**-0.2**
CLLRA	**Cordillera,**	**1.69**	**95**	*e*P		**Pn**	**06 06 28.4**	**0.0**
CLLRA	**Cordillera,**	**1.69**	**95**	⇑*i* P		**Pn**	**06 06 28.4**	**0.0**
JUD3	**Juan Diaz 3**	**1.75**	**316**	*e*P		**Pb**	**06 06 31.2**	**-0.2**
RGM0	**Gandoca**	**1.82**	**68**	*e*P		**Pb**	**06 06 31.8**	**-0.8**
RGM0				*e*S		**Sb**	**06 06 57.3**	**+2.2**
BQTLY	**Boquete Panama**	**1.84**	**94**	*e*P		**Pn**	**06 06 30.1**	**-0.3**
BQTLY	**Boquete Panama**	**1.84**	**94**	*e*P		**Pn**	**06 06 30.2**	**-0.2**
BQTLY				*e*S		**Sn**	**06 06 53.8**	**+0.7**
BQSF3	**Alto Boquete,**	**1.87**	**95**	*e*P		**Pb**	**06 06 33.1**	**-0.4**
CNI2	**El Empalme, Bo**	**1.90**	**74**	*e*P		**Pn**	**06 06 31.1**	**+0.1**
CNI2				*e*S		**Sn**	**06 06 54.9**	**+0.6**
CUI	**Cuipilapa**	**1.94**	**335**	*e*P		**Pb**	**06 06 33.6**	**-1.1**
BGUAL	**Bijagual, Pana**	**2.00**	**101**	*e*P		**Pn**	**06 06 32.2**	**-0.2**
MESS	**Mesas**	**2.03**	**335**	*e*P		**Pb**	**06 06 34.8**	**-1.4**
RBALA	**Bur**	**2.14**	**90**	*e*P		**Pn**	**06 06 34.4**	**-0.1**
RBALA	**Bur**	**2.14**	**90**	*e*P		**Pn**	**06 06 34.2**	**-0.2**
LCHIL	**Los Chiles**	**2.16**	**350**	*e*P		**Pb**	**06 06 37.2**	**-1.3**

*BJI **06** 06:19:59.2, 8˚.09S × 128˚.87E, h133km, mB5.1/12, mb5.2/68*
*DJA **06** 06:20:06.2 ± 0.2, 8˚.S ± 2˚ × 12˚.9E ± ˚, h152km ± 8km, M5.2/40, mB5.6/36, mb5.4/40, MLv5.7/23, Mw5.0/25, Mw(mB)5.1/36, MwMwp4.5/7, Mwp4.9/7*
*IDC **06** 06:20:07.2 ± 1.1, 7˚.45S × 128˚.42E, h137km ± 9km, mb4.8/26, mbtmp5.2/30, MS3.6/33, Error ellipse: s-maj=12.3km s-min=7.8km az=86.0*
*GFZ **06** 06:20:07.4, 7˚.58

KAPI **Kappang** 8.95 286 P Pn 06 22 15.0 +1.2
comp=Z,47nm,1.0s
KMSI **Cibinong** 9.17 331 P Pn 06 22 19.3 +2.6
SPSI **Sidrap Palu** 9.29 292 P Pn 06 22 19.6 +1.4
comp=Z,4µmcomp=Z,58nm,0.7s
APSI **Ampana** 9.40 314 P Pn 06 22 22.2 +2.4
comp=Z,2µmcomp=Z,128nm,0.9s
BAKI **Biak** 9.93 51 P Pn 06 22 26.3 -0.4
DBNI **Kabupaten Domp** 10.04 264 P Pn 06 22 26.5 -1.7
comp=Z,3µmcomp=Z,312nm,0.7s
PLAI **Plampang** 10.60 262 P Pn 06 22 33.3 -2.3
PLAI **Plampang** 10.60 262 S Sn 06 24 29.4 -3.5
PLAI **Plampang** 10.60 262 P Pn 06 22 33.3 -2.3
comp=Z,4µmcomp=Z,451nm,0.6s
PLAI **Plampang** 10.60 262 P Pn 06 22 33.5 -2.1
comp=Z,442nm,0.6s
MMSI **Mamuju** 10.60 296 P Pn 06 22 40.2 +4.5
comp=Z,972nmcomp=Z,94nm,0.7s
FITZ **Fitzroy Crossi** 10.85 194 P Pn 06 22 34.5 -4.5
FITZ **Fitzroy Crossi** 10.85 194 P Pn 06 22 34.6 -4.4
comp=Z,207nm,0.3s,baz=26,slow=10,SNR=205
FITZ S Sn 06 24 27.7 -11
comp=Z,819nm,0.5s,baz=92,slow=14,SNR=11
FITZ LR LR 06 27 47.6
comp=Z,642nm,18.5s,baz=20,slow=42
FITZ **Fitzroy Crossi** 10.85 194 P Pn 06 22 34.3 -4.7
FITZ **Fitzroy Crossi** 10.85 194 Pn 06 22 35.2 -3.7
FITZ **Fitzroy Crossi** 10.85 194 P Pn 06 22 34.4 -4.5
comp=Z,129nm,0.7s
TOLI2 **Tolitoli** 11.46 318 P Pn 06 22 48.1 +1.1
TOLI2 **Tolitoli** 11.46 318 S Sn 06 24 53.8 +0.2
TOLI2 **Tolitoli** 11.46 318 Pn 06 22 48.6 +1.7
TOLI2 **Tolitoli** 11.46 318 P Pn 06 22 49.9 +2.9
comp=Z,220nm,1.2s
GENI **Genyem** 12.70 68 P Pn 06 23 05.2 +2.0
BKB **Balikpapan** 13.04 298 P Pn 06 23 07.5 -0.1
JAY **Jayapura** 13.22 69 P Pn 06 23 08.7 -1.2
comp=Z,17nm,0.5s,baz=222,slow=7.8,SNR=10
JAY S Sn 06 25 34.2 -2.1
comp=Z,32nm,0.8s,baz=80,slow=18,SNR=3.6
WB0 **Warramunga Arr** 13.49 155 Pn 06 23 08.4 -4.9
WRAB **Tennant Creek** 13.62 156 P Pn 06 23 11.3 -3.7
WRAB **Tennant Creek** 13.62 156 P Pn 06 23 10.4 -4.6
comp=Z,635nm,0.9s
WRA **Warramunga Arr** 13.63 156 P Pn 06 23 08.2 -6.8
comp=Z,186nm,0.7s,baz=331,slow=15,SNR=261
WRA S Sn 06 25 30.5 -15
comp=Z,457nm,0.8s,baz=325,slow=23,SNR=14
WRA **Warramunga Arr** 13.63 156 P Pn 06 23 09.4 -5.6
WRA **Warramunga Arr** 13.63 156 Pn Pn 06 23 09.4 -5.6
WR8 **Warramunga Ar** 13.70 155 Pn 06 23 10.9 -5.1
JAGI **Jajag, Banyuwa** 14.14 265 P Pn 06 23 19.1 -2.5
JAGI **Jajag, Banyuwa** 14.14 265 Pn 06 23 20.1 -1.5
JAGI **Jajag, Banyuwa** 14.14 265 P Pn 06 23 22.3 +0.7
comp=Z,96nm,0.7s
DAV **Davao City (W)** 14.76 349 P P 06 23 34.6 +3.0
comp=Z,254nm,0.4s,baz=251,slow=4.7,SNR=6.9
DAV LR LR 06 30 14.8
comp=Z,59nm,20.2s,baz=158,slow=41
DAV **Davao City (W)** 14.76 349 P P 06 23 31.1 -0.5
MBWA **Marble Bar** 15.94 211 P Pn 06 23 42.1 -1.8
comp=Z,223nm,0.6s
MBWA **Marble Bar** 15.94 211 P Pn 06 23 42.2 -1.7
comp=Z,223nm,0.6s
MBWA **Marble Bar** 15.94 211 P Pn 06 23 42.2 -1.7
MBWA **Marble Bar** 15.94 211 P Pn 06 23 42.3 -1.6
MBWA **Marble Bar** 15.94 211 Pn 06 23 41.5 -2.4
MBWA IAmb IAmb 06 23 47.1
comp=Z,137nm,0.7s
MBWA **Marble Bar** 15.94 211 P Pn 06 23 42.1 -1.8
comp=Z,223nm,0.6s
AS15 **Alice Springs** 16.88 162 P P 06 23 52.8 -2.2
comp=Z,272nm,0.8s
QIS **Mount Isa** 16.90 141 P P 06 23 53.9 -1.4
comp=Z,178nm,0.6s
QIS **Mount Isa** 16.90 141 P P 06 23 53.7 -1.6
comp=Z,178nm,0.6s
QIS **Mount Isa** 16.90 141 P P 06 23 53.7 -1.6
QIS **Mount Isa** 16.90 141 P P 06 23 53.9 -1.4
comp=Z,178nm,0.6s
AS31 **Alice Springs** 16.90 162 P P 06 23 53.4 -1.9
comp=Z,71nm,0.4s
AS31 **Alice Springs** 16.90 162 P P 06 23 53.3 -1.9
comp=Z,71nm,0.4s
AS31 **Alice Springs** 16.90 162 P 06 23 52.3 -3.0
AS31 IAmb IAmb 06 24 01.6
comp=Z,74nm,0.8s
ASAR **Alice Springs** 16.90 162 P P 06 23 53.4 -1.9
comp=Z,200nm,0.8s,baz=332,slow=8.3,SNR=422
ASAR S S 06 26 52.0 -12
comp=Z,39nm,0.6s,baz=326,slow=15,SNR=4.1
ASAR LR LR 06 31 05.7
comp=Z,379nm,20.6s,baz=348,slow=39
ASAR **Alice Springs** 16.90 162 P P 06 23 53.1 -2.2
ASAR **Alice Springs** 16.90 162 P P 06 23 53.1 -2.2
AS01 **Alice Springs** 16.91 162 P P 06 23 53.4 -2.0
AUALC **St Philip's Co** 16.92 162 P P 06 23 53.6 -1.8
AS17 **Alice Springs** 16.93 162 P P 06 23 54.0 -1.6
comp=Z,301nm,0.8s
AS17 **Alice Springs** 16.93 162 P P 06 23 53.6 -1.9
comp=Z,301nm,0.8s
AS09 **Alice Springs** 16.94 162 P P 06 23 54.0 -1.8
comp=Z,439nm,0.8s
AS09 **Alice Springs** 16.94 162 P P 06 23 53.6 -2.1
comp=Z,439nm,0.8s
WRKA **Warakurna** 17.42 180 P P 06 24 00.1 -0.8
comp=Z,195nm,0.7s
WRKA **Warakurna** 17.42 180 P P 06 24 00.1 -0.8
comp=Z,195nm,0.7s
KKM **Kota Kinabalu** 18.15 318 P Pn 06 24 11.5 +0.9
KKM **Kota Kinabalu** 18.15 318 P Pn 06 24 10.4 -0.2
KKM IAmb IAmb 06 24 24.0
comp=Z,115nm,1.0s
KKM **Kota Kinabalu** 18.15 318 P Pn 06 24 12.1 +1.4
comp=Z,126nm,1.1s
PMG **Port Moresby** 18.65 97 P Pn 06 24 17.4 +1.0
comp=Z,33nm,0.6s,baz=313,slow=4.1,SNR=13
PMG S S 06 27 32.4 -7.0
comp=Z,14nm,0.6s,baz=37,slow=22,SNR=6.9
PMG LR LR 06 32 19.7
comp=Z,313nm,18.9s,baz=230,slow=39
PMG **Port Moresby** 18.65 97 P Pn 06 24 16.2 -0.2
PMG **Port Moresby** 18.65 97 *de*P Pn 06 24 17.8 +1.4
PMG **Port Moresby** 18.65 97 P Pn 06 24 16.7 +0.3
PMG IAmb IAmb 06 24 51.4
comp=Z,76nm,0.8s
PMG **Port Moresby** 18.65 97 P Pn 06 24 18.0 +1.6
comp=Z,85nm,0.9s
MTSU **Mount Surprise** 18.75 126 P Pn 06 24 16.6 -1.0
comp=Z,75nm,0.8s
MTSU **Mount Surprise** 18.75 126 P P 06 24 16.3 +0.8
comp=Z,75nm,0.8s
MTSU **Mount Surprise** 18.75 126 P P 06 24 16.2 +0.8
MTSU **Mount Surprise** 18.75 126 P Pn 06 24 16.6 -1.0
comp=Z,75nm,0.8s
SBUM **Sibu** 18.94 301 P Pn 06 24 19.3 -0.6
SBUM **Sibu** 18.94 301 P Pn 06 24 19.4 -0.4
SBUM IAmb IAmb 06 24 21.5
comp=Z,66nm,0.8s
SBUM **Sibu** 18.94 301 P Pn 06 24 20.0 +0.1
comp=Z,89nm,0.8s
MANU **Manus Island** 19.66 75 P P 06 24 25.9 +0.4
GIRL **Giralia** 20.30 221 P Pn 06 24 33.9 -1.8
comp=Z,489nm,1.0s
GIRL **Giralia** 20.30 221 P P 06 24 33.6 +1.5
comp=Z,489nm,1.0s
GIRL **Giralia** 20.30 221 P P 06 24 32.8 +0.7
BBJI **Bungbulang** 20.57 269 P P 06 24 33.5 -1.8
BBJI **Bungbulang** 20.57 269 P P 06 24 32.5 -2.8
comp=Z,96nm,1.0s
LEM **Lembang** 20.63 271 P P 06 24 34.9 -1.2
comp=Z,38nm,0.5s,baz=52,slow=9.9,SNR=5.4
comp=Z,38nm,0.5s
MEEK **Meekatharra** 21.17 205 P P 06 24 41.6 +0.1
comp=Z,224nm,1.0s
MEEK **Meekatharra** 21.17 205 P P 06 24 41.3 -0.2
comp=Z,224nm,1.0s
MEEK **Meekatharra** 21.17 205 P P 06 24 41.0 -0.5
MEEK **Meekatharra** 21.17 205 P P 06 24 41.6 +0.1
comp=Z,224nm,1.0s
CTA **Charters Tower** 21.34 128 P P 06 24 44.7 +1.3
CTA **Charters Tower** 21.34 128 P P 06 24 43.7 +0.3
CTA **Charters Tower** 21.34 128 P P 06 24 44.0 +0.6
comp=Z,12nm,0.8s,baz=299,slow=11,SNR=19
CTA LR LR 06 34 01.5
comp=Z,625nm,18.1s,baz=295,slow=39
comp=Z,12nm,0.8s
CTA **Charters Tower** 21.34 128 P P 06 24 44.0 +0.6
CTA **Charters Tower** 21.34 128 P P 06 24 44.0 +0.6
CTAO **Charters Tower** 21.34 128 P P 06 24 44.2 +0.8
CTAO **Charters Tower** 21.34 128 P P 06 24 43.5 +0.1
CTAO pmax pmax
comp=Z,41nm,0.9s
CTAO **Charters Tower** 21.34 128 P P 06 24 43.5 +0.1
CTAO **Charters Tower** 21.34 128 P P 06 24 44.7 +1.3
comp=Z,54nm,1.0s
AUAYR **Ayr State High** 22.00 125 P P 06 24 51.1 +0.8
FORT **Forrest** 23.14 181 P P 06 25 02.0 +0.9
comp=Z,191nm,0.7s
FORT **Forrest** 23.14 181 P P 06 25 01.7 +0.6
comp=Z,191nm,0.7s
FORT **Forrest** 23.14 181 P P 06 25 01.2 +0.1
INKA **Innaminka** 23.26 151 P P 06 25 02.8 +0.6
PMBI **Palembang** 23.96 280 P P 06 25 11.1 +2.3
PMBI **Palembang** 23.96 280 P P 06 25 10.5 +1.7
QLP **Quilpie** 24.21 143 P P 06 25 11.8 +0.9
QLP **Quilpie** 24.21 143 P P 06 25 11.5 +0.6
QLP **Quilpie** 24.21 143 P P 06 25 11.5 +0.6
QLP **Quilpie** 24.21 143 P P 06 25 11.8 +0.9
MORW **Morawa** 24.40 207 P P 06 25 13.3 +0.8
comp=Z,584nm,1.0s
MORW **Morawa** 24.40 207 P P 06 25 12.7 +0.2
comp=Z,584nm,1.0s
MORW **Morawa** 24.40 207 P P 06 25 13.1 +0.6
MORW **Morawa** 24.40 207 P P 06 25 13.2 +0.6
MORW **Morawa** 24.40 207 P P 06 25 13.0 +0.4
comp=Z,584nm,1.0s
KMBL **Kambalda** 24.50 194 P P 06 25 14.3 +0.9
comp=Z,185nm,0.8s
KMBL **Kambalda** 24.50 194 P P 06 25 14.1 +0.7
comp=Z,185nm,0.8s
BLDU **Ballidu** 25.45 204 P P 06 25 22.6 +0.4
comp=Z,246nm,0.9s
BLDU **Ballidu** 25.45 204 P P 06 25 22.2 +0.1
comp=Z,246nm,0.9s
BLDU **Ballidu** 25.45 204 P P 06 25 22.4 +0.3
BLDU **Ballidu** 25.45 204 P P 06 25 22.5 +0.4
comp=Z,246nm,0.9s
KLBR **Kellerberrin** 25.93 201 P P 06 25 27.0 +0.6
comp=Z,502nm,0.9s
KLBR **Kellerberrin** 25.93 201 P P 06 25 26.9 +0.5
comp=Z,502nm,0.9s
KLBR **Kellerberrin** 25.93 201 P P 06 25 26.6 +0.2
KLBR **Kellerberrin** 25.93 201 P P 06 25 27.0 +0.5
comp=Z,502nm,0.9s
BTDF **Bukit Timah Da** 26.10 289 P P 06 25 28.9 +0.7
BBOO **Buckleboo** 26.15 165 P P 06 25 29.2 +0.8
comp=Z,363nm,0.9s
BBOO **Buckleboo** 26.15 165 P P 06 25 28.9 +0.5
comp=Z,363nm,0.9s
BBOO **Buckleboo** 26.15 165 P P 06 25 28.8 +0.5
BBOO **Buckleboo** 26.15 165 P P 06 25 28.9 +0.5
BBOO **Buckleboo** 26.15 165 P P 06 25 29.2 +0.8
comp=Z,363nm,0.9s
AUKUL **Kulin High Sch** 26.78 199 P P 06 25 34.2 +0.2
STKA **Stephens Creek** 27.18 155 P P 06 25 38.5 +0.9
comp=Z,713nm,1.4s
STKA **Stephens Creek** 27.18 155 P P 06 25 38.2 +0.6
comp=Z,713nm,1.4s
STKA **Stephens Creek** 27.18 155 P P 06 25 38.2 +0.6
comp=Z,88nm,0.5s,baz=327,slow=8.8,SNR=176
STKA LR LR 06 36 59.7
comp=Z,338nm,18.2s,baz=320,slow=37
comp=Z,88nm,0.5s
STKA **Stephens Creek** 27.18 155 P P 06 25 38.1 +0.5
STKA **Stephens Creek** 27.18 155 P P 06 25 38.1 +0.5
STKA **Stephens Creek** 27.18 155 P P 06 25 38.1 +0.5
STKA **Stephens Creek** 27.18 155 P P 06 25 38.5 +0.9
comp=Z,713nm,1.4s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.6 +0.7
comp=Z,451nm,0.7s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.6 +0.7
comp=Z,282nm,0.7s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.6 +0.7
comp=Z,282nm,0.7s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.6 +0.7
comp=Z,451nm,0.7s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.5 +0.6
comp=Z,155nm,0.5s,baz=29,slow=7.4,SNR=157
NWAO LR LR 06 36 26.8
comp=Z,200nm,18.9s,baz=273,slow=36
comp=Z,155nm,0.5s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.3 +0.4
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.4 +0.4
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.2 +0.4
NWAO pmax pmax
comp=Z,171nm,0.6s
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.2 +0.3
NWAO **Narrogin (SRO)** 27.32 201 P P 06 25 39.7 +0.7
comp=Z,263nm,0.7s
HTT **Hallett** 27.56 161 P P 06 25 42.2 +1.1
comp=Z,47nm,1.1s
HTT **Hallett** 27.56 161 P P 06 25 42.4 +1.3
comp=Z,47nm,1.1s
HTT **Hallett** 27.56 161 P P 06 25 41.9 +0.8
EIDS **Eidsvold** 27.99 132 P P 06 25 43.9 -1.0
comp=Z,32nm,1.3s
EIDS **Eidsvold** 27.99 132 P P 06 25 44.7 -0.2
EIDS **Eidsvold** 27.99 132 P P 06 25 44.3 -0.6
EIDS IAmb IAmb 06 26 31.6
comp=Z,37nm,1.2s
BKNI **Bangkinang** 28.38 285 P P 06 25 49.1 +0.6
AULRC **Lightning Ridg** 28.54 142 P P 06 25 50.0 +0.3
AUMAR **Marden Senior** 28.82 162 P P 06 25 53.1 +0.9
CMSA **Cobar Meteorol** 28.83 148 P P 06 25 53.6 +1.3
comp=Z,239nm,0.8s
CMSA **Cobar Meteorol** 28.83 148 P P 06 25 53.3 +1.0
comp=Z,239nm,0.8s
CMSA **Cobar Meteorol** 28.83 148 P P 06 25 52.9 +0.6
CMSA **Cobar Meteorol** 28.83 148 P P 06 25 53.6 +1.3
comp=Z,239nm,0.8s
RKGY **Rocky Gully** 28.94 200 P P 06 25 55.5 +2.3
comp=Z,125nm,1.1s
RKGY **Rocky Gully** 28.94 200 P P 06 25 55.2 +2.0
comp=Z,125nm,1.1s
AUALB **St Joseph's Co** 29.00 198 P P 06 25 53.7 0.0
AUMBR **Murray Bridge** 29.25 162 P P 06 25 56.5 +0.6
IPM **Ipoh** 29.80 293 P P 06 26 00.9 -0.2
IPM **Ipoh** 29.80 293 P P 06 26 00.9 -0.2
IPM IAmb IAmb 06 26 02.5
comp=Z,57nm,0.8s
IPM **Ipoh** 29.80 293 P P 06 26 00.7 -0.4
comp=Z,79nm,0.9s
TW1H **Toowoomba 1 Ha** 29.92 135 P P 06 26 03.8 +1.7
AUTOO **Toowoomba Stat** 29.92 135 P P 06 26 03.3 +1.2
KULM **Kulim** 30.47 294 P P 06 26 06.9 -0.1
KULM **Kulim** 30.47 294 P 06 26 06.8 -0.2
KULM IAmb IAmb 06 26 08.3
comp=Z,59nm,0.7s
KULM **Kulim** 30.47 294 P P 06 26 06.5 -0.5
comp=Z,93nm,0.8s
AUDCS **Dubbo College** 30.96 145 P P 06 26 11.7 +0.6
TATA **Tatamba Isabel** 31.11 94 P P 06 26 14.4 +1.8
RPSI **Rantau Prapat** 31.11 288 P 06 26 11.6 -1.0
RPSI **Rantau Prapat** 31.11 288 P P 06 26 11.8 -0.8
comp=Z,156nm,0.8s
PSI **Prapat** 31.15 288 P P 06 26 11.8 -1.3
PSI **Prapat** 31.15 288 P P 06 26 11.6 -1.5
PSI pmax pmax
comp=Z,99nm,0.7s
HNR **Honiara** 31.25 96 LR LR 06 39 01.2
comp=Z,146nm,21.2s,baz=344,slow=36
ARMA **Armidale** 31.51 139 P P 06 26 16.3 +0.2
comp=Z,37nm,1.6s
ARMA **Armidale** 31.51 139 P P 06 26 16.0 0.0
comp=Z,37nm,1.6s
ARMA **Armidale** 31.51 139 P P 06 26 16.9 +0.8
ARMA **Armidale** 31.51 139 P P 06 26 16.5 +0.4
ARMA IAmb IAmb 06 26 19.5
comp=Z,118nm,1.9s
TPUB **Ta-pu** 31.56 346 P P 06 26 18.3 +1.9
ARPS **Mount Arapiles** 31.59 159 P P 06 26 18.3 +1.8
comp=Z,119nm,0.9s
ARPS **Mount Arapiles** 31.59 159 P P 06 26 18.0 +1.5
comp=Z,119nm,0.9s
GSI **Gunungsitoli** 31.97 285 P P 06 26 20.2 0.0
GSI **Gunungsitoli** 31.97 285 P P 06 26 18.8 -1.4
GSI IAmb IAmb 06 26 25.3
comp=Z,35nm,0.7s
GSI **Gunungsitoli** 31.97 285 P P 06 26 18.5 -1.8
comp=Z,60nm,0.8s
MGBR **Mount Gambier** 32.03 162 P P 06 26 22.7 +2.3
MGBR IAmb IAmb 06 26 23.5
comp=Z,70nm,0.9s
AUMAG **Moama Anglican** 32.14 155 P P 06 26 22.1 +0.8
BRAT **Ballarat** 33.05 157 P P 06 26 30.0 +0.7
AUMTC **Mt Clear Colle** 33.09 157 P P 06 26 30.1 +0.5
AUMTS **Mt Stromlo** 33.51 149 P P 06 26 34.5 +1.1
CAN **Canberra** 33.51 149 P P 06 26 35.8 +2.4
comp=Z,133nm,0.7s
CAN **Canberra** 33.51 149 P P 06 26 35.2 +1.9
comp=Z,133nm,0.7s
CAN **Canberra** 33.51 149 P P 06 26 34.2 +0.8
CAN **Canberra** 33.51 149 P P 06 26 35.1 +1.7
CAN pmax pmax
comp=Z,92nm,0.7s
CAN **Canberra** 33.51 149 P P 06 26 35.1 +1.7
CAN **Canberra** 33.51 149 P P 06 26 35.5 +2.1
comp=Z,133nm,0.7s
CAN **Canberra** 33.51 149 P P 06 26 35.5 +2.1
CAN pP **pP** 06 27 07.5 +3.3
CAN ScP **ScP** 06 32 42.5 +0.2
AUDAR **Daramalan Coll** 33.53 148 P P 06 26 34.5 +1.0
MLBS **Spotswood, Mel** 33.67 156 P P 06 26 35.1 +0.4
CNB **Canberra Magne** 33.69 148 P P 06 26 36.5 +1.5
comp=Z,31nm,1.4s
CNB **Canberra Magne** 33.69 148 P P 06 26 36.3 +1.3
comp=Z,31nm,1.4s
TOO **Toolangi** 33.70 155 P P 06 26 37.7 +2.7
comp=Z,51nm,0.8s
TOO **Toolangi** 33.70 155 P P 06 26 37.4 +2.5
comp=Z,51nm,0.8s
TOO **Toolangi** 33.70 155 P P 06 26 37.0 +2.1
TOO pmax pmax
comp=Z,30nm,0.6s
TOO **Toolangi** 33.70 155 P P 06 26 37.0 +2.1
TOO IAmb IAmb 06 26 38.0
comp=Z,30nm,0.6s
JOW **Kunigami** 34.15 360 P P 06 26 38.9 0.0
comp=Z,21nm,0.8s,baz=187,slow=12,SNR=2.2
comp=Z,21nm,0.8s
AUSMG **Snowy Mountain** 34.17 150 P P 06 26 39.5 +0.4
MILA **Mila** 34.94 150 P P 06 26 48.0 +2.3
comp=Z,15nm,1.3s
MILA **Mila** 34.94 150 P P 06 26 47.8 +2.1
comp=Z,14nm,1.3s
JCJ **Chichijima** 36.91 21 LR LR 06 39 39.0
comp=Z,197nm,19.0s,baz=120,slow=32
SLVN **Son La** 37.42 320 P P 06 27 08.0 +1.0
SLVN **Son La** 37.42 320 P P 06 27 07.8 +0.8
SLVN IAmb IAmb 06 27 09.1
comp=Z,21nm,0.9s
SLVN **Son La** 37.42 320 P P 06 27 08.6 +1.6
comp=Z,27nm,1.0s
MOO **Moorlands** 38.53 157 P P 06 27 17.2 +1.2
SANVU **Saraoutou** 38.78 105 P P 06 27 19.2 +0.8
SANVU pP **pP** 06 27 51.7 +2.1
CM31 **Chiang Mai Arr** 38.87 312 P P 06 27 20.1 +1.0
SNR=10
CM31 **Chiang Mai Arr** 38.87 312 P P 06 27 19.3 +0.2
CM31 IAmb IAmb 06 27 21.4
comp=Z,57nm,1.4s
CMAR **Chiang Mai Arr** 38.87 312 P P 06 27 19.8 +0.7
comp=Z,10nm,0.7s,baz=143,slow=7.3,SNR=55
CMAR PcP **PcP** 06 29 28.1 +0.9
comp=Z,3.3nm,0.4s,baz=175,slow=2.9,SNR=5.7
CMAR ScP **ScP** 06 33 03.4 +1.1
comp=Z,3.4nm,0.6s,baz=159,slow=3.7,SNR=9.2
comp=Z,10nm,0.7s
CMAR **Chiang Mai Arr** 38.87 312 *i* P P 06 27 19.7 +0.7
CMAR pmax pmax
comp=Z,12nm,0.6s
CMAR **Chiang Mai Arr** 38.87 312 P P 06 27 19.2 +0.1
CHTO **Chiang Mai** 39.09 312 P P 06 27 21.7 +0.7
CHTO **Chiang Mai** 39.09 312 P P 06 27 21.4 +0.4
CHTO **Chiang Mai** 39.09 312 P P 06 27 21.0 0.0
CHTO pmax pmax
comp=Z,20nm,0.8s
CHTO **Chiang Mai** 39.09 312 P P 06 27 20.9 0.0
CHTO IAmb IAmb 06 27 22.5
comp=Z,20nm,0.8s
CHTO **Chiang Mai** 39.09 312 P P 06 27 21.4 +0.4
comp=Z,38nm,1.2s
CHTO **Chiang Mai** 39.09 312 P P 06 27 21.9 +0.9
NOUC **Port Laguerre** 39.27 116 P P 06 27 23.7 +1.3
NOUC **Port Laguerre** 39.27 116 P P 06 27 23.2 +0.9
NOUC pP **pwP** 06 27 55.7 -0.1
YATNC **Mamie plateau,** 39.78 116 P P 06 27 28.4 +1.7
GYA **Guiyang** 39.82 329 P P 06 27 27.6 +0.6
GYA pmax pmax
comp=Z,36nm,1.0s
OUENC **Ouen Island, N** 39.83 116 P P 06 27 28.1 +1.1
OUENC IAmb IAmb 06 27 32.0
comp=Z,55nm,1.5s
WHN **Wuhan** 40.17 341 P P 06 27 29.5 -0.2
WHN pP **pP** 06 28 00.3 +0.3
WHN pmax pmax
comp=Z,80nm,0.7s
NJ2 **Nanjing** 40.39 347 ⇓P P 06 27 32.3 +0.9
NJ2 pmax pmax
comp=Z,28nm,0.6s
PINNC **Pines Island,** 40.42 116 P P 06 27 33.8 +1.9
PINNC **Pines Island,** 40.42 116 P P 06 27 33.5 +1.6
PINNC IAmb IAmb 06 27 34.5
comp=Z,57nm,1.0s
KMI2 **Kunming** 40.97 323 P P 06 27 37.8 +1.2
KMI2 pmax pmax
comp=Z,23nm,0.9s
TJN **Taejon** 43.67 359 *e*P P 06 27 58.4 +0.4
JGF **Kuroka** 43.71 11 P P 06 27 57.9 -0.5
LYN **LuoYang** 44.48 341 P P 06 28 04.5 +0.1
LYN S S 06 34 24.4 -4.3
LYN pmax pmax
comp=Z,31nm,0.6s
LYN pmax pmax
comp=Z,250nm,4.5s
KSAR **Wonju Array Be** 44.73 359 P P 06 28 07.0 +0.6
KSAR **Wonju Array Be** 44.73 359 P P 06 28 07.0 +0.6
KSRS **Korea Array** 44.74 359 P P 06 28 06.7 +0.2
comp=Z,5.6nm,0.6s,baz=176,slow=9.2,SNR=22
KSRS LR LR 06 49 42.8
comp=Z,28nm,18.1s,baz=170,slow=40
comp=Z,5.6nm,0.6s
TIA **Tai'an** 44.77 347 P P 06 28 06.9 +0.1
TIA pP **pwP** 06 28 41.7 -2.5
TIA ScP **ScP** 06 33 27.0 +1.6
TIA pmax pmax
comp=Z,22nm,0.8s
MAJO **Matsushiro** 44.78 11 P P 06 28 06.5 -0.4
MAJO **Matsushiro** 44.78 11 P P 06 28 05.8 -1.1
MAJO pmax pmax
comp=Z,25nm,0.9s
MAJO **Matsushiro** 44.78 11 P P 06 28 05.8 -1.1
MAJO **Matsushiro** 44.78 11 P P 06 28 05.8 -1.1
comp=Z,29nm,0.9s
MAJO **Matsushiro** 44.78 11 P P 06 28 05.4 -1.5
MAJO pP **pP** 06 28 39.2 +1.3
MAJO sP **sP** 06 28 54.8 +1.3
MJAR **Matsushiro Arr** 44.78 11 P P 06 28 05.6 -1.3
comp=Z,17nm,0.8s,baz=188,slow=9.2,SNR=33
MJAR ScP **ScP** 06 33 25.1 -0.4
comp=Z,3.7nm,0.7s,baz=192,slow=4.7,SNR=6.8
MJAR LR LR 06 43 52.2
comp=Z,43nm,20.4s,baz=191,slow=32
comp=Z,17nm,0.8s
MJAR **Matsushiro Arr** 44.78 11 P P 06 28 06.1 -0.8
MJAR pmax pmax
comp=Z,9.0nm,1.0s
MJAR **Matsushiro Arr** 44.78 11 P P 06 28 06.1 -0.8
MJB9 **Matsu-Tunnel** 44.79 11 P P 06 28 06.6 -0.3
KS19 **Wonju Array Si** 44.79 359 P P 06 28 06.9 +0.1
CD2 **Chengdu** 44.92 329 P P 06 28 07.8 -0.3
CD2 pmax pmax
comp=Z,40nm,0.6s
XAN **Xi'an** 45.27 337 ⇓P P 06 28 10.2 -0.6
XAN pmax pmax
comp=Z,55nm,0.7s
HNS **HongShan** 46.48 345 ⇓P P 06 28 20.4 +0.3
HNS pP **pwP** 06 28 55.0 -1.8
HNS S **S** 06 34 56.1 -1.3
HNS pmax pmax
comp=Z,54nm,0.8s
DL2 **Dalian** 46.62 353 P P 06 28 17.8 -3.3
DL2 pmax pmax
comp=Z,54nm,0.8s
SHL **Shillong** 48.40 314 P P 06 28 35.4 0.0

SNR=6.2
BJI2 Beijing 48.63 347 P **P** **06 28 37.0 +0.3**
BJI2 pP **pwP** **06 29 11.3 -2.4**
BJI2 sP **sP** **06 29 22.8 -1.2**
BJI2 PP **PP** **06 30 31.1 -0.1**
BJI2 S **S** **06 35 31.3 +3.6**
BJI2 pmax pmax
comp=Z,30nm,0.9s
LZDM Lanzhou Array 49.09 333 P **P** **06 28 41.1 +0.4**
comp=Z,11nm,0.5s,baz=170,slow=9.0,SNR=16
comp=Z,11nm,0.5s
LZH Lanzhou 49.14 334 *e*P **P** **06 28 41.6 +0.7**
LZH pP pP 06 29 11.0 -1.7
LZH sP sP 06 29 31.4 +3.1
LZH pmax pmax
comp=Z,87nm,1.1s
MSVF Nonsavu 49.37 107 LR LR 06 48 02.1
comp=Z,63nm,19.7s,baz=132,slow=34
PALK Pallekele 49.78 286 LR LR 06 53 09.5
comp=Z,42nm,18.4s,baz=110,slow=40
PALK Pallekele 49.78 286 *i* P **P** **06 28 44.8 -1.2**
SNR=5.2
PALK Pallekele 49.78 286 P **P** **06 28 45.1 -0.9**
PALK Pallekele 49.78 286 P **P** **06 28 45.2 -0.9**
PALK pmax pmax
comp=Z,19nm,1.0s
PALK Pallekele 49.78 286 P **P** **06 28 45.1 -0.9**
PALK Pallekele 49.78 286 P **P** **06 28 44.9 -1.2**
comp=Z,26nm,1.2s
MALK Mahakanadarawa 50.26 287 P **P** **06 28 49.0 -0.5**
comp=Z,47nm,1.2s
HHC Hu-ho-hao-te 50.56 343⇓ *i* P **P** **06 28 51.9 +0.4**
HHC pmax pmax
comp=Z,22nm,0.9s
JCZ Jackson Bay 50.62 143 P **P** **06 28 53.5 +1.6**
JCZ Jackson Bay 50.62 143 P **P** **06 28 53.6 +1.7**
PYZ Puysegur Point 50.62 146 P **P** **06 28 52.9 +1.1**
FOZ Fox Glacier 50.95 142 P **P** **06 28 55.4 +1.2**
MLZ Mavora Lakes 50.96 145 P **P** **06 28 55.6 +1.3**
MLZ IAmb IAmb 06 28 57.1
comp=Z,58nm,1.4s
MLZ Mavora Lakes 50.96 145 P **P** **06 28 55.9 +1.5**
BTO2 Baotou 50.96 342 *e*P **P** **06 28 54.9 +0.4**
BTO2 PP **PP** **06 30 49.8 -2.7**
BTO2 S **S** **06 36 01.4 +1.0**
BTO2 pmax pmax
comp=Z,19nm,0.9s
BTO2 pmax pmax
comp=Z,220nm,6.2s
BTO2 L L
comp=Z,320nm,12.0s
BTO2 L L
comp=Z,210nm,4.8s
BTO2 L L
comp=Z,240nm,7.1s
CN2 Changchun 51.15 357⇑ P **P** **06 28 55.9 +0.3**
CN2 *e*S **S** **06 36 03.0 +0.5**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,5.0s
WHZ Wether Hill Ro 51.17 145 P **P** **06 28 56.6 +0.7**
WHZ IAmb IAmb 06 28 57.6
comp=Z,41nm,0.7s
WHZ Wether Hill Ro 51.17 145 P **P** **06 28 56.6 +0.7**
WVZ Waitaha Valley 51.28 141 P **P** **06 28 58.0 +1.3**
DSZ Denniston Nort 51.30 139 P **P** **06 28 59.2 +2.3**
QRZ Quartz Range 51.34 137 P **P** **06 28 58.1 +0.9**
QRZ Quartz Range 51.34 137 P **P** **06 28 59.5 +2.3**
LSA Lhasa 51.49 318 P **P** **06 29 00.4 +1.3**
LSA Lhasa 51.49 318 P **P** **06 29 00.2 +1.2**
LSA pP **pwP** **06 29 33.6 -3.0**
INZ Inchbonnie 51.55 140 P **P** **06 28 59.4 +0.7**
INZ IAmb IAmb 06 29 02.4
comp=Z,42nm,0.9s
INZ Inchbonnie 51.55 140 P **P** **06 28 59.6 +0.9**
USRK Ussuriysk Ar. 51.58 3 P **P** **06 28 59.1 +0.3**
comp=Z,11nm,0.7s,baz=195,slow=8.5,SNR=15
comp=Z,11nm,0.7s
LBZ Lake Benmore 51.63 142 P **P** **06 29 00.1 +0.7**
LBZ Lake Benmore 51.63 142 P **P** **06 28 59.9 +0.6**
APZ The Paps 51.75 146 P **P** **06 29 01.5 +1.3**
RPZ Rata Peaks 51.81 141 LR LR 06 51 04.7
comp=Z,71nm,20.1s,baz=331,slow=36
RPZ Rata Peaks 51.81 141 P **P** **06 29 01.6 +0.9**
RPZ Rata Peaks 51.81 141 P **P** **06 29 02.1 +1.4**
MDJ Mudanjiang 51.91 1 P **P** **06 29 02.2 +1.0**
MDJ pmax pmax
comp=Z,18nm,1.2s
THZ Tophouse 52.03 138 P **P** **06 29 03.7 +1.3**
LTZ Lake Taylor 52.10 140 P **P** **06 29 03.9 +1.0**
TUZ Tuapeka 52.17 144 P **P** **06 29 04.0 +0.8**
OXZ Oxford 52.23 140 P **P** **06 29 04.5 +0.7**
ODZ Otahua Downs 52.26 143 P **P** **06 29 05.1 +1.1**
ODZ Otahua Downs 52.26 143 P **P** **06 29 04.5 +0.5**
XLT XiLinHaoTe 52.38 349 *e*P **P** **06 29 05.5 +0.6**
XLT pmax pmax
comp=Z,40nm,1.0s
XLT pmax pmax
comp=Z,93nm,5.5s
GVZ Greta Valley S 52.69 140 P **P** **06 29 08.4 +1.3**
NGZ Ngauruhoe 52.74 134 P **P** **06 29 08.8 +0.9**
KHZ Kahutara 52.75 139 P **P** **06 29 08.3 +0.8**
KHZ Kahutara 52.75 139 P **P** **06 29 08.3 +0.8**
OTVZ Otururere 52.78 134 P **P** **06 29 10.8 +2.7**
WNVZ Wahianoa 52.80 134 P **P** **06 29 10.1 +1.9**
ETVZ East Tongariro 52.80 134 P **P** **06 29 10.4 +2.2**
MOVZ Moawhango 52.94 134 P **P** **06 29 10.1 +0.9**
KIW Kapiti Island 52.97 136 P **P** **06 29 10.3 +1.0**
ASAJ Asahikawa 52.98 13 LR LR 06 52 06.7
comp=Z,62nm,19.9s,baz=302,slow=36
SNZO South Karori 53.02 137 P **P** **06 29 10.8 +1.2**
BNX BinXian 53.02 359⇑ P **P** **06 29 08.9 -0.6**
BNX pmax pmax
comp=Z,11nm,1.0s
BKZ Black Stump Fm 53.37 134 P **P** **06 29 13.4 +1.1**
BKZ Black Stump Fm 53.37 134 P **P** **06 29 13.1 +0.8**
KWHZ Kaweka Forest 53.42 134 P **P** **06 29 13.9 +1.2**
EVN Everest 53.46 313 P **P** **06 29 13.5 -0.3**
EVN IAmb IAmb 06 29 14.8
comp=Z,35nm,0.7s
EVN Everest 53.46 313 P **P** **06 29 13.8 0.0**
comp=Z,57nm,0.9s
URZ Urewera 53.47 133 LR LR 06 53 41.5
comp=Z,105nm,18.5s,baz=302,slow=38
URZ Urewera 53.47 133 P **P** **06 29 14.0 +1.0**
URZ Urewera 53.47 133 P **P** **06 29 13.2 +0.3**
MCHZ McNeill Hill 53.63 134 P **P** **06 29 15.3 +1.2**
GOMU GeErMu 53.73 326 P **P** **06 29 16.3 +1.0**
GOMU pmax pmax
comp=Z,5.0nm,1.0s
GTA2 Gaotai 53.77 333 P **P** **06 29 15.6 +0.4**
GTA2 S **S** **06 36 37.1 -1.5**
GTA2 pmax pmax
comp=Z,58nm,0.7s
HAZ Te Kaha 53.78 132 P **P** **06 29 15.5 +0.3**
MWZ Matawai 53.80 133 P **P** **06 29 16.0 +0.5**
BFZ Birch Farm 53.81 136 P **P** **06 29 16.4 +1.0**
KNZ Kokohu 54.16 133 P **P** **06 29 17.5 -0.5**
RAO Raoul Island 54.80 120 LR LR 06 50 54.7
comp=Z,94nm,21.4s,baz=52,slow=34
YSS Yuzhno-Sakhali 55.72 12 *e*P **P** **06 29 29.0 +0.1**
YSS pmax pmax
comp=Z,20nm,1.1s
KAAM Kaadhehdhoo 55.82 276 P **P** **06 29 30.0 -0.3**
KAAM Kaadhehdhoo 55.82 276 P **P** **06 29 31.2 +0.9**
KLR Kul'dur 56.59 3 *e*P **P** **06 29 35.1 +0.1**
KLR pmax pmax
comp=Z,12nm,1.2s
HILR Hailar Array B 57.34 353 P **P** **06 29 41.0 +0.6**
comp=Z,3.9nm,0.5s,baz=169,slow=9.1,SNR=4.1
comp=Z,3.9nm,0.5s
ULN Ulaanbaatar 58.28 343 P **P** **06 29 48.1 +0.9**
ULN Ulaanbaatar 58.28 343 *ce*P **P** **06 29 47.9 +0.7**
ULN pmax pmax
comp=Z,46nm,1.1s
ULN Ulaanbaatar 58.28 343 P **P** **06 29 47.8 +0.6**
ULN IAmb IAmb 06 29 49.6
comp=Z,45nm,1.1s
ULN Ulaanbaatar 58.28 343 P **P** **06 29 48.1 +0.9**
comp=Z,46nm,1.1s
ULN Ulaanbaatar 58.28 343 P **P** **06 29 47.9 +0.7**
ULN pP **pwP** **06 30 22.8 -2.2**
SONM Songino Array 58.45 343 P **P** **06 29 49.3 +1.0**
comp=Z,28nm,0.9s,baz=161,slow=8.8,SNR=86
SONM LR LR 06 57 01.2
comp=Z,26nm,21.0s,baz=177,slow=38
comp=Z,28nm,0.9s
SONM Songino Array 58.45 343 P **P** **06 29 48.9 +0.6**
SONM pmax pmax
comp=Z,40nm,1.0s
SONM Songino Array 58.45 343 P **P** **06 29 48.9 +0.6**
SONM IAmb IAmb 06 29 50.6
comp=Z,40nm,1.0s
AFI Afiamalu 59.00 102 LR LR 06 54 24.1
comp=Z,38nm,18.3s,baz=270,slow=35
TYV Tymovskoe 59.44 10 *e*P **P** **06 29 54.4 -0.5**
TYV pmax pmax
comp=Z,39nm,1.3s
TYV pmax pmax
comp=Z,300nm,3.0s
DRV Dumont d'Urvil 59.59 175 P **P** **06 29 56.9 +1.1**
DRV pP **pP** **06 30 32.2 +2.4**
DRV PcP **PcP** **06 30 41.8 +0.4**
CASY Casey 59.96 188 P **P** **06 29 59.2 +1.0**
CASY IAmb IAmb 06 30 00.5
comp=Z,58nm,1.1s
CASY Casey 59.96 188 P **P** **06 29 59.6 +1.4**
comp=Z,57nm,1.1s
CASY Casey 59.96 188 P **P** **06 29 59.3 +1.0**
CASY pP **pP** **06 30 33.7 +1.5**
CASY PcP **PcP** **06 30 43.8 +0.9**
ZEA Zeya 61.03 359 *e*P **P** **06 30 06.3 +0.6**
ZEA pmax pmax
comp=Z,20nm,0.7s
ZAK Zakamensk 61.65 342 *e*P **P** **06 30 09.7 -0.3**
ZAK pmax pmax
comp=Z,12nm,1.2s
TLY Talaya 62.69 343 *ce*P **P** **06 30 17.9 +1.1**
TLY pmax pmax
comp=Z,13nm,0.9s
TLY Talaya 62.69 343 P **P** **06 30 17.5 +0.7**
WMQ Urumqi 62.98 328 *e*P **P** **06 30 19.7 +0.7**
WMQ pP PcP 06 30 55.3 -0.3
WMQ pmax pmax
comp=Z,46nm,0.9s
IRK Irkutsk 63.01 344 *e*P **P** **06 30 18.6 -0.3**
IRK pmax pmax
comp=Z,39nm,1.4s
KNGR Kungurtug, Tuv 63.77 339⇓ *e*P **P** **06 30 26.1 +2.0**
KNGR pmax pmax
comp=Z,14nm,1.0s
PETK Petropavlovsk- 65.32 19 P **P** **06 30 34.6 +0.7**
comp=Z,16nm,0.7s,baz=192,slow=3.8,SNR=13
comp=Z,16nm,0.7s
WUS Wushi 66.19 321 P **P** **06 30 39.9 0.0**
WUS IAmb IAmb 06 30 41.5
comp=Z,24nm,1.3s
NIL Nilore 66.36 312 P **P** **06 30 41.0 -0.1**
NIL Nilore 66.36 312 P **P** **06 30 40.7 -0.4**
NIL pmax pmax
comp=Z,33nm,0.6s
NIL Nilore 66.36 312 P **P** **06 30 40.7 -0.4**
NIL IAmb IAmb 06 30 41.3
comp=Z,33nm,0.6s
NIL Nilore 66.36 312 P **P** **06 30 40.6 -0.4**
comp=Z,48nm,0.6s
ZSN Zaisan 66.90 329 *e*P **P** **06 30 44.9 +0.7**
ZSN *e*S **S** **06 39 26.2 +0.7**
ZSN Zaisan 66.90 329 *e*P **P** **06 30 45.0 +0.7**
ZSN *e*S **S** **06 39 26.3 +0.7**
SHLS Shalkode 67.17 323 *e*P **P** **06 30 45.3 -0.8**
SHLS pmax pmax
comp=Z,16nm,1.0s
SHLS Shalkode 67.17 323 *e*P **P** **06 30 45.4 -0.8**
comp=Z,16nm,1.0s
KSH2 Kashi 67.42 318 P **P** **06 30 47.8 0.0**
KSH2 pP pP 06 31 22.7 +1.5
KSH2 pmax pmax
comp=Z,21nm,0.7s
UZB Uzynbulak 67.43 323 *e*P **P** **06 30 48.4 +0.6**
UZB Uzynbulak 67.43 323 *e*P **P** **06 30 48.4 +0.6**
ASAI AK-SAY(Kyrgyzs 67.73 320 P **P** **06 30 50.3 +0.4**
comp=Z,4.2nm,1.2s
SATY Saty 67.75 323 *e*P **P** **06 30 50.5 +0.8**
SATY pmax pmax
comp=Z,19nm,1.3s
SATY Saty 67.75 323 *e*P **P** **06 30 50.5 +0.8**
comp=Z,19nm,1.3s
MK31 Makanchi Array 67.80 328 *ce*P **P** **06 30 49.9 0.0**
MKAR Makanchi Array 67.80 328 P **P** **06 30 50.2 +0.3**
comp=Z,14nm,0.5s,baz=122,slow=7.7,SNR=166
comp=Z,14nm,0.5s
MKAR Makanchi Array 67.80 328 *i* P **P** **06 30 50.0 +0.1**
MKAR pmax pmax
comp=Z,14nm,0.5s
KPKS Kokpek 67.81 323 *e*P **P** **06 30 50.7 +0.6**
KPKS Kokpek 67.81 323 *e*P **P** **06 30 50.8 +0.6**
MAKZ Makanchi 67.98 328 P **P** **06 30 51.2 +0.2**
MAKZ pmax pmax
comp=Z,22nm,0.9s
MAKZ Makanchi 67.98 328 P **P** **06 30 51.1 +0.2**
MAKZ IAmb IAmb 06 30 52.9
comp=Z,22nm,0.8s
MAKZ Makanchi 67.98 328 P **P** **06 30 51.2 +0.2**
comp=Z,28nm,0.9s
MAKZ Makanchi 67.98 328 P **P** **06 30 51.2 +0.2**
MAKZ PcP **PcP** **06 31 16.5 +0.3**
NRN Naryn 68.33 320 P **P** **06 30 53.1 -0.6**
NRN pmax pmax
comp=Z,12nm,1.2s
NRN Naryn 68.33 320 **P** **06 30 53.1 -0.6**
TNSS Tian-Shan 68.62 322 *e*P **P** **06 30 56.0 +0.5**
TNSS Tian-Shan 68.62 322 *e*P **P** **06 30 56.1 +0.5**
MDOK Medeo 68.62 322 *e*P **P** **06 30 56.0 +0.7**
MDOK Medeo 68.62 322 *e*P **P** **06 30 56.0 +0.7**
AAA Alma-Ata 68.73 322 *e*P **P** **06 30 56.6 +0.8**
AAA Alma-Ata 68.73 322 *e*P **P** **06 30 56.6 +0.8**
TDK Taldyqorghan 68.86 324 *e*P **P** **06 30 57.6 +1.1**
TDK pmax pmax
comp=Z,9.0nm,0.5s
TDK Taldyqorghan 68.86 324 *e*P **P** **06 30 57.7 +1.1**
comp=Z,9.0nm,0.5s
BOOM Boomskoye usch 68.94 321 P **P** **06 30 57.2 -0.1**
BOOM pmax pmax
comp=Z,51nm,1.6s
BOOM Boomskoye usch 68.94 321 P **P** **06 30 57.2 -0.1**
BOOM IAmb IAmb 06 30 58.8
comp=Z,51nm,1.6s
YAK Yakutsk 69.35 1 LR LR 07 00 24.1
comp=Z,20nm,21.8s,baz=156,slow=35
YAK Yakutsk 69.35 1 *e*P **P** **06 30 59.0 -0.1**
YAK *e* 06 31 22.8
YAK *e* 06 33 31.3
YAK *e*S **S** **06 39 54.0 +0.1**
YAK *e* 06 40 46.6
YAK *e*SS **SS** **06 44 24.8 +0.7**
YAK pmax pmax
comp=Z,62nm,0.8s
YAK pmax pmax
comp=N,9,0nm,1.0s
YAK pmax pmax
comp=Z,135nm,2.5s
YAK pmax pmax
comp=E,88nm,3.0s
YAK pmax pmax
comp=N,125nm,2.8s
YAK smax smax
comp=E,228nm,3.8s
YAK smax smax
comp=N,99nm,3.5s
YAK Yakutsk 69.35 1 P **P** **06 30 59.0 -0.1**
TKM2 Tokmak 2 69.38 321 P **P** **06 31 00.4 +0.4**
SNR=8.2
UCH Uchtor 69.70 320 P **P** **06 31 02.9 +0.7**
SNR=9.2
KBL Kabul 69.89 311 P **P** **06 31 03.5 +0.1**
SNR=5.4
KBL Kabul 69.89 311 P **P** **06 31 03.4 +0.1**
KBL pmax pmax
comp=Z,12nm,0.7s
KBL Kabul 69.89 311 P **P** **06 31 03.4 +0.1**
AAK Ala-Arcba 69.92 321 LR LR 07 01 14.4
comp=Z,33nm,21.9s,baz=92,slow=35
AAK Ala-Arcba 69.92 321 P **P** **06 31 04.0 +0.7**
SNR=6.2
AAK Ala-Arcba 69.92 321 *i* P **P** **06 31 03.8 +0.5**
SNR=6.1
AAK Ala-Arcba 69.92 321 *ce*P **P** **06 31 03.8 +0.5**
AAK pmax pmax
comp=Z,9.0nm,0.9s
AAK Ala-Arcba 69.92 321 P **P** **06 31 03.7 +0.5**
AAK IAmb IAmb 06 31 04.9
comp=Z,56nm,1.6s
AAK Ala-Arcba 69.92 321 P **P** **06 31 03.9 +0.7**
DRK Karamyk 70.12 317 P **P** **06 31 04.6 -0.1**
DRK pmax pmax
comp=Z,19nm,0.6s
DRK Karamyk 70.12 317 P **P** **06 31 04.6 -0.1**
DRK IAmb IAmb 06 31 06.4
comp=Z,19nm,0.6s
USP Ospenovka 70.25 321 P **P** **06 31 05.5 +0.4**
SNR=15
EKS2 Erkin-Say 70.39 320 P **P** **06 31 06.9 +0.8**
SNR=7.4
RAR Rarotonga 70.41 110 LR LR 06 59 22.1
comp=Z,21nm,21.6s,baz=243,slow=33
RER Riviere de l'E 71.18 250 P **P** **06 31 12.1 +0.8**
ZAA0 Zalesovo Array 71.36 335 P **P** **06 31 11.3 -0.2**
ZAA0 IAmb IAmb 06 31 11.9
comp=Z,38nm,0.9s
ZALV Zalesovo Beam 71.36 335 P **P** **06 31 10.9 -0.6**
comp=Z,31nm,0.7s,baz=128,slow=5.1,SNR=104
comp=Z,31nm,0.7s
ZALV Zalesovo Beam 71.36 335 *i* P **P** **06 31 10.8 -0.6**
ZALV pmax pmax
comp=Z,32nm,0.7s
ZALV Zalesovo Beam 71.36 335 P **P** **06 31 11.0 -0.5**
SHEM Shemya Is, Ala 71.46 27 LR LR 06 58 24.0
comp=Z,37nm,19.7s,baz=288,slow=32
KURBB Kurchatov Arra 72.13 329 P **P** **06 31 16.5 +0.3**
comp=Z,58nm,0.8s,baz=130,slow=5.0,SNR=429
comp=Z,58nm,0.8s
VNDA Vanda 72.13 173 P **P** **06 31 16.6 +0.8**
comp=Z,13nm,0.7s,baz=320,slow=6.5,SNR=94
VNDA LR LR 07 03 08.7
comp=Z,104nm,19.0s,baz=332,slow=36
comp=Z,13nm,0.7s
VNDA Vanda 72.13 173 P **P** **06 31 16.6 +0.8**
VNDA pmax pmax
comp=Z,15nm,0.8s
VNDA Vanda 72.13 173 P **P** **06 31 16.6 +0.8**
VNDA Vanda 72.13 173 P **P** **06 31 16.6 +0.8**
VNDA pP **pP** **06 31 52.4 +1.5**
VNDA sP **sP** **06 32 07.9 +1.5**
KURK Kurchatov 72.14 329 P **P** **06 31 16.6 +0.4**
KURK Kurchatov 72.14 329 *ce*P **P** **06 31 16.3 +0.1**
KURK pmax pmax
comp=Z,95nm,0.9s
KURK Kurchatov 72.14 329 P **P** **06 31 16.1 -0.1**
KURK Kurchatov 72.14 329 P **P** **06 31 16.4 +0.1**
IUG luzhnay 72.56 318 *e*P **P** **06 31 19.8 +0.7**
IUG pmax pmax
comp=Z,21nm,1.2s
IUG luzhnay 72.56 318 *e*P **P** **06 31 19.8 +0.7**
comp=Z,21nm,1.2s
SEY Seymchan 72.61 11⇑ *e*P **P** **06 31 19.0 +0.2**
SEY pmax pmax
comp=Z,13nm,0.9s
KK31 Karatay Array 72.69 319 P **P** **06 31 19.9 +0.1**
KK31 pmax pmax
comp=Z,11nm,0.9s
KK31 Karatay Array 72.69 319 P **P** **06 31 19.9 +0.1**
KKAR Karatay Array 72.69 319 P **P** **06 31 19.5 -0.2**
KKAR Karatay Array 72.69 319 P **P** **06 31 19.5 -0.2**
CHM Chimkent 72.92 318 *e*P **P** **06 31 21.8 +0.8**
CHM pmax pmax
comp=Z,16nm,0.7s
CHM Chimkent 72.92 318 *e*P **P** **06 31 21.9 +0.8**
comp=Z,16nm,0.7s
SBA Scott Base 73.04 172 P **P** **06 31 22.7 +1.6**
SBA pmax pmax
comp=Z,15nm,0.8s
SBA Scott Base 73.04 172 P **P** **06 31 22.7 +1.6**
SBA Scott Base 73.04 172 P **P** **06 31 22.9 +1.7**
JLN Jalan Bani Buh 73.69 296 P **P** **06 31 26.0 0.0**
MAW Mawson 73.89 201 P **P** **06 31 27.9 +1.6**
comp=Z,5.4nm,1.4s
MAW Mawson 73.89 201 P **P** **06 31 27.7 +1.4**
comp=Z,30nm,1.0s,baz=80,slow=5.5,SNR=56
MAW LR LR 07 03 02.3
comp=Z,56nm,18.6s,baz=66,slow=35
comp=Z,30nm,1.0s
MAW Mawson 73.89 201 P **P** **06 31 27.5 +1.2**
MAW pmax pmax
comp=Z,4.0nm,0.8s
MAW Mawson 73.89 201 P **P** **06 31 27.5 +1.2**
WBK Wadi Bani Khal 74.20 296 P **P** **06 31 29.0 0.0**
WSAR Wadi Sarin 74.67 297 P **P** **06 31 31.6 -0.1**
MHTO MHTO 74.69 294 P **P** **06 31 30.9 -0.9**
DQM DQM 74.82 293 P **P** **06 31 32.5 -0.1**
JMDO Jabal Madar 74.92 296 P **P** **06 31 33.0 -0.2**
HRA Herat 75.03 308 P **P** **06 31 33.8 0.0**
SMDO Samad 75.14 296 P **P** **06 31 33.7 -0.8**
BIDO Bidbid 75.19 297 P **P** **06 31 34.6 0.0**
BSY Bisya 75.82 296 P **P** **06 31 38.2 -0.1**
HOQ Hoqain 75.93 297 P **P** **06 31 38.8 -0.1**
JASK Jask - Hormozg 76.04 299 P **P** **06 31 40.8 +1.4**
ARQ Araqi 76.57 296 P **P** **06 31 42.4 -0.1**
DMTO DMTO 76.71 290 P **P** **06 31 43.6 +0.2**
SOHO SOHO 76.76 297 *i* P **P** **06 31 43.7 +0.2**
SNR=9.4
SOHO SOHO 76.76 297 P **P** **06 31 43.5 0.0**
SNR=7.1
UOSS Minazif 77.25 298 *i* P **P** **06 31 46.4 +0.1**
SNR=7.8
UOSS Minazif 77.25 298 P **P** **06 31 46.2 0.0**
UOSS Minazif 77.25 298 P **P** **06 31 45.6 -0.7**
UOSS Minazif 77.25 298 P **P** **06 31 46.1 -0.2**
MDH Madha 77.26 298 P **P** **06 31 45.7 -0.6**
MDH Madha 77.26 298 P **P** **06 31 45.8 -0.5**
HATD Hatta, Dubai 77.28 297 *i* P **P** **06 31 46.8 +0.3**
SNR=9.5
HATD Hatta, Dubai 77.28 297 P **P** **06 31 46.8 +0.3**
SNR=5.8
ASHO Ashiyiah 77.31 297 *i* P **P** **06 31 46.8 +0.1**
SNR=12
ASHO Ashiyiah 77.31 297 P **P** **06 31 46.6 -0.1**
SNR=6.4
MSFE Esma-Masafi 77.39 298 *i* P **P** **06 31 48.1 +1.0**
SNR=14
MASF Masafi 77.40 298 P **P** **06 31 47.4 +0.2**
SNR=8.7
BANOM Banah 77.42 299 *i* P **P** **06 31 48.3 +1.0**
SNR=6.1
BANOM Banah 77.42 299 P **P** **06 31 48.0 +0.8**
ALNE Al Ain 77.43 297 *i* P **P** **06 31 48.0 +0.7**
SNR=6.1
ALNE Al Ain 77.43 297 P **P** **06 31 47.8 +0.5**
SNR=5.2
SHME Shamm 77.58 299 *i* P **P** **06 31 48.9 +0.8**
SNR=18
SHME Shamm 77.58 299 P **P** **06 31 48.6 +0.5**
SNR=7.5
UMZA Um Al Zommool 77.64 295 P **P** **06 31 48.5 0.0**
BVAR Borovoye Array 77.66 328 P **P** **06 31 47.9 -0.1**
comp=Z,39nm,0.9s,baz=129,slow=5.9,SNR=80
comp=Z,39nm,0.9s
DOK Doka 77.67 291 P **P** **06 31 47.4 -1.3**
BORK Borovoye 77.71 328 *ce*P **P** **06 31 48.2 0.0**
BORK pmax pmax
comp=Z,46nm,0.9s
BORK Borovoye 77.71 328 P **P** **06 31 47.9 -0.3**
BORK IAmb IAmb 06 31 49.1
comp=Z,42nm,0.9s
NAZ Nazwa, Dubai 77.74 298 P **P** **06 31 49.4 +0.4**
NAZ Nazwa, Dubai 77.74 298 P **P** **06 31 49.0 +0.1**
FAQ Al Faqa, Dubai 77.74 297 P **P** **06 31 49.4 +0.4**
FAQ Al Faqa, Dubai 77.74 297 P **P** **06 31 49.1 +0.1**
SNR=5.6
WHFO Wadi Hawf 77.85 290 P **P** **06 31 48.3 -1.4**
ABTO Aybut 78.18 289 P **P** **06 31 50.6 -1.0**
AJN Ajban 78.23 297 P **P** **06 31 51.7 0.0**
TIXI Tiksi 79.00 0 LR LR 07 06 50.0
comp=Z,41nm,21.1s,baz=190,slow=36
TIXI Tiksi 79.00 0 *e*P **P** **06 31 54.0 -0.9**
TIXI pmax pmax
comp=Z,12nm,0.9s
TIXI Tiksi 79.00 0 P **P** **06 31 54.3 -0.6**
MZWR Madinat Zayed 79.03 296 P **P** **06 31 56.2 +0.1**
MZR Muzera 79.21 295 *i* P **P** **06 31 57.6 +0.4**
SNR=7.9
MZR Muzera 79.21 295 P **P** **06 31 57.9 +0.7**
VOI Vohitsoka 79.48 249 P **P** **06 31 59.5 +0.7**

VOI Vohitsoka 79.48 249 P **P** 06 31 58.8 +0.1
VOI IAmb IAmb 06 32 00.3
comp=Z,30nm,0.8s
JRN Qarnain Island 80.21 297 P **P** 06 32 02.5 0.0
NRIK Noril'sk 81.68 346 P **P** 06 32 09.4 +0.2
comp=Z,16nm,0.8s,baz=134,slow=5.6,SNR=17
comp=Z,16nm,0.8s
NRIK Noril'sk 81.68 346 *ce*P **P** 06 32 09.1 -0.2
NRIK pmax pmax
comp=Z,15nm,0.8s
NRIK Noril'sk 81.68 346 P **P** 06 32 09.5 +0.2
UNV Unalaska Valle 81.80 33 P **P** 06 32 12.6 +2.4
AB31 Akbulak array 81.93 322 P **P** 06 32 10.5 -0.5
AB31 IAmb IAmb 06 32 13.4
comp=Z,22nm,0.8s
ABKAR Akbulak array 81.93 322 P **P** 06 32 10.6 -0.4
QSPA South Pole Qui 82.46 180 P **P** 06 32 14.1 +0.5
comp=Z,60nm,0.8s,baz=315,slow=1.3,SNR=284
QSPA LR LR 07 08 05.3
comp=Z,53nm,20.1s,baz=350,slow=35
comp=Z,60nm,0.8s
QSPA South Pole Qui 82.46 180 P **P** 06 32 14.0 +0.3
QSPA IAmb IAmb 06 32 15.1
comp=Z,54nm,0.8s
QSPA South Pole Qui 82.46 180 P **P** 06 32 14.2 +0.5
QSPA pP **pwP** 06 32 52.0 -0.1
SVE Sverdlovsk 84.39 329 *e*P **P** 06 32 23.6 +0.1
SVE pmax pmax
comp=Z,70nm,1.1s
ARTI Arti 85.39 328 *c i*P **P** 06 32 28.1 -0.4
ARTI *PP **pP** 06 33 03.5 -0.1
ARTI S **SKSac** 06 42 38.3 -1.6
ARTI pmax pmax
comp=Z,52nm,0.8s
ARTI Arti 85.39 328 P **P** 06 32 27.9 -0.6
ARTI Arti 85.39 328 P **P** 06 32 27.7 -0.7
ARTI pP **pP** 06 33 05.6 +2.0
KBD Kabd 85.59 300 P **P** 06 32 30.1 0.0
RAYN Ar Rayn 86.51 294 *i* P **P** 06 32 34.3 -0.5
SNR=11
RAYN Ar Rayn 86.51 294 P **P** 06 32 34.4 -0.4
RAYN Ar Rayn 86.51 294 P **P** 06 32 33.9 -0.9
RAYN pmax pmax
comp=Z,12nm,1.0s
RAYN Ar Rayn 86.51 294 P **P** 06 32 33.9 -0.9
RAYN Ar Rayn 86.51 294 P **P** 06 32 33.9 -0.9
RAYN pP **pP** 06 33 11.6 +1.7
ELIB Princess Elisa 87.52 198 *d*P **P** 06 32 40.8 +2.0
comp=Z,40nm,0.9s
ELIB *d*pP **pP** 06 33 14.3 0.0
ELIB *dx* x 06 33 20.7
ELIB *ds*P **sP** 06 33 28.7 -0.5
BELG Belogornoye 90.31 323 *e*P **P** 06 32 50.7 -1.3
BELG pmax pmax
comp=Z,4.0nm,0.9s
KDAK Kodiak Island 90.49 32 LR LR 07 12 46.3
comp=Z,26nm,19.7s,baz=241,slow=35
KIRV Kirov 90.66 329 ⇑ *e*P **P** 06 32 52.0 -1.5
NVL N'lazarevskaya 91.39 197 *e*P **P** 06 32 57.2 +0.4
NVL *e*S **SKSac** 06 43 19.4 +4.1
NVL pmax pmax
comp=Z,17nm,0.9s
GURO Guroymak-BITLI 91.80 308 P **P** 06 32 58.8 -0.7
KBZ Khabaz 91.90 314 P **P** 06 32 59.8 +0.2
comp=Z,2.7nm,0.8s,baz=85,slow=3.4,SNR=5.1
comp=Z,2.7nm,0.8s
KBZ Khabaz 91.90 314 ⇑ *e*P **P** 06 32 59.0 -0.6
KBZ pmax pmax
comp=Z,3.0nm,0.9s
POGA Pongola 92.49 242 P **P** 06 33 02.6 -0.2
POGA IAmb IAmb 06 33 04.4
comp=Z,31nm,1.1s
TROLL Troll, Antarti 93.27 195 ⇑ P **P** 06 33 07.3 +1.7
comp=Z,1μm,0.7s
KNK Knik Glacier 93.27 29 P **P** 06 33 05.5 -0.1
KNK IAmb IAmb 06 33 07.0
comp=Z,28nm,1.3s
RND Reindeer 93.42 27 P **P** 06 33 05.0 -1.3
RND pmax pmax
comp=Z,14nm,0.8s
RND Reindeer 93.42 27 P **P** 06 33 05.0 -1.3
RND IAmb IAmb 06 33 06.1
comp=Z,14nm,0.8s
I23K Minto, Yukon-K 93.51 25 P **P** 06 33 06.2 -0.3
I23K IAmb IAmb 06 33 07.0
comp=Z,9.2nm,0.9s
LABN Labinsk 93.58 314 *e*P **P** 06 33 07.1 -0.2
LABN *e*'PP **pP** 06 33 44.6 +1.8
LABN *e*S **SKSac** 06 43 28.6 +0.3
LABN pmax pmax
comp=Z,31nm,0.6s
VRH Novokhopyorsk 93.72 321 *e*P **P** 06 33 05.6 -2.2
VRH pmax pmax
comp=Z,20nm,1.1s
ERBR Yeremizino-Bor 93.87 315 *e*P **P** 06 33 07.7 -1.0
ERBR *e*'PP **pP** 06 33 45.2 +0.7
ERBR *e*S **SKSac** 06 43 28.1 -1.8
ERBR pmax pmax
comp=Z,10.0nm,0.6s
E23K Chandalar 93.93 22 P **P** 06 33 08.5 0.0
E23K IAmb IAmb 06 34 10.3
comp=Z,39nm,1.9s
DHY Denali Highway 94.03 27 P **P** 06 33 08.8 -0.4
DHY IAmb IAmb 06 33 11.8
comp=Z,7.8nm,0.8s
SOC Sochi 94.17 313 *e*P **P** 06 33 09.6 -0.5
SOC *e* 06 36 59.8
SOC *e*PPP PPP 06 39 00.0
SOC *e*S **SKSac** 06 43 30.1 -1.5
SOC *e*SSS SSS 06 54 19.5
BELA Belgrano 2 94.21 184 P **P** 06 33 09.8 +0.1
ILAR Eielson Array 94.49 25 P **P** 06 33 09.3 -1.7
comp=Z,1.4nm,0.7s,baz=273,slow=4.3,SNR=13
ILAR PKKPbc **PKKPdf** 06 50 10.1 -1.4
comp=Z,1.3nm,0.8s,baz=44,slow=1.4,SNR=13
ILAR LR LR 07 16 39.9
comp=Z,20nm,19.1s,baz=284,slow=36
comp=Z,1.4nm,0.7s
SNAA Sanae 94.79 194 P **P** 06 33 13.7 +1.2
comp=Z,21nm,0.7s,baz=171,slow=2.3,SNR=5.4
comp=Z,21nm,0.7s
SNAA Sanae 94.79 194 ⇑ *e*P **P** 06 33 13.8 +1.3
SNAA pmax pmax
comp=Z,27nm,1.1s
VORD Divnogorie 95.22 321 *e*P **P** 06 33 10.5 -4.2
VORD pmax pmax
comp=Z,10.0nm,0.8s
VSR Storozhevoye 95.32 321 *e*P **P** 06 33 12.4 -2.8
VSR pmax pmax
comp=Z,10.0nm,0.8s
VORR Voronezh 95.34 321 *e*P **P** 06 33 12.8 -2.4
LPSR Galich'ya Gora 95.59 322 *e*P **P** 06 33 14.6 -1.7
LPSR pmax pmax
comp=Z,20nm,0.6s
ANN Anapa 95.92 314 *e*P **P** 06 33 19.2 +1.2
ANN *e*'PP **pP** 06 33 55.5 +1.6
ANN *e*S **SKSac** 06 43 42.0 +1.2
ANN pmax pmax
comp=Z,48nm,1.0s
KLMR Klimovskoe 95.96 331 *e*P **P** 06 33 15.0 -2.8
KLMR pmax pmax
comp=Z,20nm,1.3s
VNA2 Neumayer--Watz 96.37 193 ⇑ P **P** 06 33 20.7 +1.1
comp=Z,5.4nm,0.7s,baz=132,slow=4.7
K27K Chicken 96.49 26 P **P** 06 33 20.6 +0.4
K27K IAmb IAmb 06 34 00.9
comp=Z,10nm,1.2s
MATP Matopo 96.59 248 LR LR 07 12 59.1
comp=Z,32nm,19.1s,baz=66,slow=33
VNA3 Neumayer Olymp 96.64 193 ⇑ P **P** 06 33 21.7 +0.8
comp=Z,8.0nm,0.8s
VNA1 Neumayer--Stat 96.77 193 ⇑ P **P** 06 33 22.6 +1.2
comp=Z,11nm,1.0s
OBN Obninsk 97.16 325 *e*P **P** 06 33 21.2 -2.2
OBN *e* 06 37 22.2
OBN pmax pmax
comp=Z,10.0nm,1.0s
BOSA Boshof 97.83 240 P Pdif 06 33 27.4 +0.1
comp=Z,4.2nm,0.8s,baz=106,slow=4.3,SNR=6.4
comp=Z,4.2nm,0.8s
LBTB Lobatse 98.32 243 LR LR 07 14 30.9
comp=Z,20nm,18.3s,baz=78,slow=33
BRTR Keskin Array B 98.41 309 P Pdif 06 33 29.9 +0.2
comp=Z,1.2nm,0.8s,baz=98,slow=6.4,SNR=5.1
comp=Z,1.2nm,0.8s
BRTR Keskin Array B 98.41 309 *i* P Pdif 06 33 29.7 +0.1
BRTR pmax pmax
comp=Z,1.0nm,0.7s
ARCES ARCESS Array B 101.51 340 P **Pdif** 06 33 41.8 -0.7
comp=Z,1.8nm,0.7s,baz=72,slow=4.0,SNR=5.6
ARCES PKKPbc **PKKPbc** 06 49 49.8 -3.3
comp=Z,5.5nm,1.1s,baz=235,slow=3.2,SNR=4.6
AKASG Malin Array Be 101.59 320 P **Pdif** 06 33 42.4 -0.9
comp=Z,1.8nm,0.7s,baz=76,slow=3.8,SNR=5.4
MNK Minsk 102.19 324 *i* P **Pdif** 06 33 45.4 -0.4
MNK *i* 06 37 59.5
MNK *i* PPP PPP 06 40 09.9
MNK *i* S **SKSac** 06 44 10.9 -0.7
MNK *i* *SS **Sdif** 06 45 19.1 +2.7
MNK pmax pmax
comp=N,7.0nm,0.7s
MNK pmax pmax
comp=Z,9.0nm,0.7s
MNK pmax pmax
comp=E,15nm,0.9s
MNK Minsk 102.19 324 *i* P **Pdif** 06 33 45.5 -0.4
comp=E,15nm,0.9s
MNK *i* P **Pdif** 06 33 45.5 -0.4
comp=N,7.0nm,0.7s
MNK *i* P **Pdif** 06 33 45.5 -0.4
comp=Z,9.0nm,0.7s,baz=86
MNK *i* pP **pPdif** 06 34 22.9 +1.3
MNK *i* sP **sPdif** 06 34 38.3 +2.0
MNK *i* PP **PP** 06 37 59.5 0.0
MNK *i* PPP PPP 06 40 09.9
MNK *i* SKS 06 42 53.1
MNK *i* S **SKSac** 06 44 11.0 -0.7
MNK *i* sS **Sdif** 06 45 19.1 +2.7
MNK *i* PS PS 06 47 26.8 +18
MNK *i* SS **SKKPbc** 06 53 12.9 -6.5
MNK *i* SSS SSS 06 57 45.0
YKA Yellowknife Ar 108.91 26 PKKPbc PKKPbc 06 49 27.9 -2.4
comp=Z,7.2nm,1.2s,baz=114,slow=3.5,SNR=4.2
CLL Collm 111.60 322 *i* PKiKP **PKiKP** 06 38 25.0 +0.1
comp=Z,7.0nm,1.1s
GERES GERESS Array B 111.80 320 PKiKP **PKiKP** 06 38 25.3 -0.2
comp=Z,1.5nm,0.6s,baz=91,slow=1.1,SNR=11
NVAR Mina Array Bea 112.86 52 PP **PP** 06 39 14.2 -4.0
comp=Z,0.6nm,0.6s,baz=244,slow=4.0,SNR=4.7
NVAR PKKPbc **PKKPbc** 06 49 16.5 -0.4
comp=Z,1.0nm,0.8s,baz=144,slow=3.4,SNR=4.3
WTTA Wattenberg 113.53 318 *e*PKiKP **PKiKP** 06 38 28.9 0.0
comp=Z,8.3nm,0.6s
WATA Walderalm 113.56 319 *e*PKiKP **PKiKP** 06 38 28.7 -0.2
comp=Z,4.9nm,0.7s
SQTA Sankt Quirin 113.83 318 *e*PKiKP **PKiKP** 06 38 30.6 +1.1
comp=Z,1.1nm,0.4s
MOTA Moosalm 113.86 319 *e*PKP **PKiKP** 06 38 29.2 -0.3
comp=Z,4.2nm,0.6s
RETA Reutte 114.05 319 *e*PKP PKPdf 06 38 29.3 -0.4
comp=Z,3.1nm,0.9s
FETA Feichten 114.20 318 *e*PKP PKPdf 06 38 29.9 -0.3
comp=Z,3.1nm,1.4s
DAVA Damuels 114.68 319 *i* PKP PKPdf 06 38 30.8 -0.3
comp=Z,2.6nm,0.4s
KEST Kesra 117.86 306 PKP **PKiKP** 06 38 38.1 +0.6
comp=Z,2.7nm,0.5s,baz=298,slow=3.0,SNR=4.9
PDAR Pinedale Array 118.38 45 PKP **PKiKP** 06 38 38.6 +0.1
comp=Z,1.3nm,0.8s,baz=218,slow=0.9,SNR=12
PDAR PKKPbc **PKKPbc** 06 48 57.0 -0.9
comp=Z,2.7nm,0.8s,baz=103,slow=6.7,SNR=13
EKA Eskdalemuir Ar 118.85 331 PKP **PKPdf** 06 38 38.2 -0.4
comp=Z,1.0nm,0.6s,baz=359,slow=3.3,SNR=5.4
EKA PKKPbc **PKKPbc** 06 48 54.5 -1.7
comp=Z,1.3nm,0.8s,baz=222,slow=1.9,SNR=4.0
ULM Lac du Bonnet 123.74 33 PKP **PKPdf** 06 38 47.6 -0.6
comp=Z,5.7nm,0.8s,baz=7.5,slow=2.9,SNR=4.6
TXAR Lajitas Array 126.55 59 PKP **PKiKP** 06 38 55.2 +0.3
comp=Z,0.4nm,0.5s,baz=257,slow=1.7,SNR=6.0
TXAR SKPbc SKPbc 06 42 00.7
comp=Z,1.2nm,0.8s,baz=251,slow=3.5,SNR=5.8
ESDC Sonseca Array 126.75 315 PKP **PKiKP** 06 38 55.0 +0.1
comp=Z,1.9nm,0.8s,baz=36,slow=2.7,SNR=6.6
TORD Torodi Ar. Bea 127.35 281 PKP **PKPdf** 06 38 55.9 -0.2
comp=Z,5.3nm,0.7s,baz=63,slow=1.5,SNR=24
PLCA Paso Flores 128.91 162 PKP **PKiKP** 06 38 59.6 +0.3
comp=Z,6.5nm,0.9s,baz=203,slow=1.9,SNR=13
PLCA SKPbc SKPbc 06 42 06.1
comp=Z,2.3nm,0.8s,baz=220,slow=6.0,SNR=5.3
SCHQ Schefferville 131.26 12 PKP **PKiKP** 06 39 03.3 -0.1
comp=Z,5.2nm,0.9s,baz=29,slow=3.4,SNR=3.7
SCHQ SKPbc **SKPbc** 06 42 13.8 -0.3
comp=Z,18nm,0.8s,baz=19,slow=4.1,SNR=15
DBIC Dimbokro 133.62 272 PKP **PKPdf** 06 39 08.1 0.0
comp=Z,5.0nm,0.6s,baz=181,slow=2.2,SNR=7.3
DBIC SKPbc **SKPbc** 06 42 23.2 -0.3
comp=Z,15nm,0.7s,baz=123,slow=1.8,SNR=14
DBIC PKKPab PKKPab 06 47 57.8
comp=Z,4.8nm,0.9s,baz=203,slow=6.6,SNR=3.6
CMIG Matias Romero 136.74 73 SKPbc **SKPbc** 06 42 34.6 +1.3
comp=Z,2.2nm,0.7s,baz=24,slow=10.0,SNR=1.7
TKL Tuckaleechee C 139.37 42 PKhKP PKPpre 06 39 14.5
comp=Z,12nm,1.0s,baz=191,slow=4.9,SNR=5.7
TKL SKPbc **SKPbc** 06 42 40.8 +0.5
comp=Z,3.1nm,0.7s,baz=198,slow=6.4,SNR=1.7
CPUP Villa Florida 145.90 171 PKPbc **PKPbc** 06 39 30.9 +0.1
comp=Z,20nm,0.8s,baz=188,slow=2.0,SNR=57
CPUP SKPbc **SKiKP** 06 42 57.6 +0.6
comp=Z,4.0nm,1.0s,baz=29,slow=2.5,SNR=3.2
JTS Las Juntas de 146.94 83 PKPbc **PKPbc** 06 39 34.0 -0.2
comp=Z,11nm,0.7s,baz=235,slow=6.4,SNR=4.6
JTS Las Juntas de 146.94 83 PKP2 **PKPbc** 06 39 34.0 -0.2
LPAZ La Paz 151.24 145 PKPbc **PKiKP** 06 39 46.9 +0.7
comp=Z,10nm,0.4s,baz=115,slow=0.5,SNR=97
LPAZ PKPab **PKPab** 06 39 55.5 +1.6
comp=Z,28nm,0.6s,baz=210,slow=5.3,SNR=36
BDFB Brasilia 156.72 189 PKP **PKPdf** 06 39 47.2 +0.5
comp=Z,3.0nm,0.7s,baz=39,slow=3.0,SNR=5.8
BDFB PKPab **PKPab** 06 40 17.3 +0.9
comp=Z,4.7nm,0.6s,baz=117,slow=1.8,SNR=6.5

*THE **06** 06:39:24.5,37°.9N±0°.9×2°.7E±°, h4km±2km, M3.4/15, MLh3.4/15*
*AFAD **06** 06:39:24.3, 37°.88N×26°.95E, h7km±3km, ML3.3*
*ISK **06** 06:39:24.1, 37°.89N×26°.93E, h13km, ML3.5/30*
*ATH **06** 06:39:25.1, 37°.84N×26°.89E, h10km±1km, ML3.3/12,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km

ISC 06 06:39:24.5±0.9, 37°.88N±0°.01×26°.95E±0°.02, h9km±7km, n86, σ0°76/119, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
DGB	**zmir**	**0.18**	**344**	P	**Pg**	**06 39 28.2**	**-0.2**
DGB				S	**Sg**	**06 39 31.0**	**0.0**
DGB				IAML		06 39 31.0	
	comp=E,5μm,0.2s						
SMG	**Samos**	**0.19**	**207**	P	**Pg**	**06 39 28.1**	**-0.4**
SMG				S	**Sg**	**06 39 31.7**	**+0.6**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.20**	**353**	Pg	**Pg**	**06 39 28.8**	**+0.1**
GMLD				Sg	**Sg**	**06 39 32.5**	**+1.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**94**	Pg	**Pg**	**06 39 30.3**	**+0.3**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**128**	P	**Pg**	**06 39 30.6**	**+0.3**
GCAM				S	**Sg**	**06 39 35.2**	**+1.1**
GCAM				IAML		06 39 36.0	
	comp=N,5μm,0.1s						
GCAM				IAML		06 39 36.0	
	comp=E,4μm,0.2s						
GCAM	**G?zelcaml?**	**0.29**	**128**	Pg	**Pg**	**06 39 30.5**	**+0.2**
GCAM				Sg	**Sb**	**06 39 35.7**	**-1.1**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.29**	**246**	P	**Pg**	**06 39 29.9**	**-0.5**
SAM2				S	**Sg**	**06 39 33.3**	**-1.0**
SAM2				AML	AML		
BEYE	**izmir**	**0.35**	**358**	P	**Pg**	**06 39 31.4**	**-0.1**
BEYE				S	**Sb**	**06 39 37.1**	**-1.5**
DDIM	**Aydin, Didim**	**0.48**	**151**	P	**Pg**	**06 39 33.6**	**-0.3**
DDIM				IAML		06 39 41.0	
	comp=E,2μm,0.8s						
DDIM				S	**Sb**	**06 39 41.5**	**-0.8**
DDIM				IAML		06 39 42.0	
	comp=N,2μm,0.3s						
BLCB	**Balcova**	**0.51**	**8**	P	**Pg**	**06 39 34.6**	**+0.1**
BLCB				S	**Sg**	**06 39 42.0**	**+0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**8**	Pg	**Pg**	**06 39 34.6**	**+0.1**
BLCB				AML	AML		

DUVT Torbali 0.52 49 P **Pg** 06 39 34.8 +0.1
DUVT S **Sg** 06 39 41.6 0.0
DUVT IAML 06 39 47.0
comp=E,2μm,0.2s
DIDI Didim-Aydin 0.55 155 Pg **Pg** 06 39 35.6 +0.4
DIDI AML AML
DAGE izmir 0.65 79 P **Pg** 06 39 36.6 -0.5
DAGE S **Sg** 06 39 46.4 +0.8
DAGE IAML 06 39 47.0
comp=N,1μm,0.2s
DAGE IAML 06 39 47.0
comp=E,2μm,0.2s
CESE eme 0.68 312 Pg **Pg** 06 39 37.5 -0.2
CESE AML AML
AYDB Zeytinkoy-Aydi 0.75 84 Pg **Pb** 06 39 39.7 -0.2
AYDB AML AML
AYDN Tasoluk 0.77 106 P **Pg** 06 39 38.9 -0.5
AYDN S **Sb** 06 39 50.2 -0.6
AYDN IAML 06 39 54.0
comp=E,972nm,0.3s
KRBN Karaburun 0.78 337 Pg **Pg** 06 39 39.3 -0.3
KRBN AML AML
BAGT Foa 0.78 355 P **Pg** 06 39 37.3 -2.3
YKAV Yalikavak-Bodr 0.80 160 Pg **Pg** 06 39 40.1 +0.2
YKAV AML AML
FOCM Foa 0.85 349 Pg **Pg** 06 39 40.6 -0.3
FOCM AML AML
BODT Bodrum 0.86 160 P **Pg** 06 39 40.6 -0.5
BODT S **Sb** 06 39 53.2 -0.2
BODT AML AML
BODT Bodrum 0.86 160 Pg **Pg** 06 39 41.4 +0.2
BODT AML AML
CHOS Chios island 0.87 306 P **Pg** 06 39 41.1 -0.1
CHOS S **Sb** 06 39 53.5 -0.1
CHOS AML AML
CHOS Chios island 0.87 306 Pg **Pg** 06 39 41.2 -0.1
CHOS AML AML
CHOS Chios island 0.87 306 P **Pn** 06 39 42.1 -0.9
CHOS S **Sb** 06 39 53.5 -0.1
CHOS AML AML
MLSB Milas 0.88 131 Pg **Pb** 06 39 42.0 0.0
MLSB AML AML
KARB zmir-Karabur 0.89 332 P **Pg** 06 39 41.0 -0.7
KARB S **Sb** 06 39 53.6 -0.6
KARB IAML 06 39 56.0
comp=E,1μm,0.6s
KARB IAML 06 39 58.0
comp=N,1μm,0.7s
BDRM Kayabasi 0.90 154 P **Pg** 06 39 40.6 -1.3
BDRM S **Sg** 06 39 53.9 +0.2
CAMT Merkez 0.92 18 P **Pg** 06 39 41.8 -0.3
CAMT S **Sn** 06 39 56.6 -0.3
CAMT IAML 06 40 00.0
comp=N,3μm,0.7s
CAMT IAML 06 40 01.0
comp=E,2μm,0.3s
KLNA Kalymnos 0.92 179 P **Pg** 06 39 42.1 -0.1
KLNA S **Sg** 06 39 54.0 -0.1
BODA Bodrum-Mula 0.93 155 Pg **Pb** 06 39 42.8 +0.1
EAG2 Marmaro, Chios 0.94 315 P **Pn** 06 39 43.3 -0.6
EAG2 S **Sb** 06 39 55.5 +0.1
NAZL Nazilli-Aydin 1.07 85 Pn **Pg** 06 39 45.0 -0.1
NAZL AML AML
ZEDA zmir-Bergama 1.09 5 P **Pb** 06 39 43.8 -1.9
ZEDA S **Sn** 06 40 02.3 +1.0
ZEDA IAML 06 40 04.0
comp=E,1μm,0.6s
ZEDA IAML 06 40 07.0
comp=N,824nm,0.8s
GOMA Golmarmara-Man 1.13 42 Pn **Pn** 06 39 46.2 -0.3
GOMA AML AML
DKL Dikili 1.19 358 Pn **Pg** 06 39 47.2 -0.2
DKL AML AML
DKL Dikili 1.19 358 P **Pg** 06 39 48.2 +0.8
DKL S **Sn** 06 40 05.1 +1.4
KIRA zmir-Kiraz 1.19 74 P **Pb** 06 39 46.6 -0.8
KIRA S **Sg** 06 40 03.0 0.0
AKHS Akhisar 1.21 34 P **Pb** 06 39 46.4 -1.3
AKHS S **Sn** 06 40 05.7 +1.5
AKHS IAML 06 40 07.0
comp=N,1μm,0.2s
AKS Akhisar 1.21 34 Pn **Pb** 06 39 47.2 -0.4
AKS AML AML
KTTT Salihli 1.21 48 P **Pn** 06 39 45.8 -1.9
KTTT S **Sg** 06 40 03.5 0.0
KTTT IAML 06 40 06.0
comp=N,756nm,0.4s
DAT Datca 1.25 156 P **Pn** 06 39 48.3 -0.1
DAT AML AML
DAT Datca 1.25 156 P **Pn** 06 39 46.1 -2.3
DAT S **Sn** 06 40 07.7 +2.3
DAT Datca 1.25 156 Pn **Pn** 06 39 47.9 -0.4
DAT AML AML
MULA Mugla, Merkez- 1.26 119 P **Pn** 06 39 47.5 -0.9
MULA S **Sn** 06 40 07.1 +1.7
YER Yerkesik 1.30 124 P **Pn** 06 39 48.6 -0.3
YER S **Sn** 06 40 06.2 -0.2
YER Yerkesik 1.30 124 Pn **Pn** 06 39 48.9 0.0
YER AML AML
SOMA Soma-Manisa 1.36 20 Pn **Pn** 06 39 49.5 -0.2
SOMA AML AML
APE Apeiranthos 1.39 235 Pn **Pn** 06 39 49.7 -0.4
APE AML AML
APE Apeiranthos 1.39 235 P **Pn** 06 39 49.8 -0.3
APE AML AML
MANT Manisa 1.41 64 P **Pb** 06 39 50.8 -0.4
MANT S **Sg** 06 40 10.2 +0.3
ASTA Astypalaia 1.41 200 P **Pn** 06 39 50.4 0.0
ASTA AML AML
GORD Gordes-Manisa 1.41 43 Pn **Pn** 06 39 50.4 -0.1
GORD AML AML
AYVA Ayvalik 1.44 352 P **Pb** 06 39 51.6 0.0
AYVA S **Sg** 06 40 12.9 +2.0
AYVA IAML 06 40 14.0
comp=N,636nm,0.7s
AYVA IAML 06 40 14.0
comp=E,410nm,0.7s
SULTU Buldan 1.45 82 P **Pn** 06 39 50.2 -0.8
SULTU S **Sb** 06 40 10.7 +0.3
TNSA Tinos 1.45 257 P **Pb** 06 39 51.2 -0.6
TNSA AML AML
PRK Paraskevi 1.47 339 P **Pn** 06 39 51.2 0.0
PRK S **Sg** 06 40 12.2 +0.5
PRK AML AML
PRK Paraskevi 1.47 339 P **Pb** 06 39 51.6 -0.4
TURN Turunc 1.51 136 P **Pn** 06 39 50.5 -1.3
TURN S **Sb** 06 40 12.2 +0.2
TURN Turunc 1.51 136 Pn **Pn** 06 39 49.9 -1.9
TURN AML AML
HARTU Esme 1.53 72 P **Pb** 06 39 53.2 0.0
STEP BALIKESIR_Sava 1.61 22 P **Pb** 06 39 53.8 -0.7
STEP S Sn 06 40 02.3 -12
DALY Dalyan (Mula) 1.72 127 Pn **Pn** 06 39 54.9 +0.2
DALY AML AML
YAYO Edremit-Balk 1.73 3 Pn **Pn** 06 39 54.7 -0.2
YAYO AML AML
BALB Balikesir 1.91 22 Pn **Pn** 06 39 57.4 +0.2
BALB AML AML
ARG Arkhangelos 1.91 150 P **Pn** 06 39 57.8 +0.5
ARG AML AML
SAP3 Santorini-Thir 1.93 222 P **Pn** 06 39 57.1 -0.4
KARY Karystos 1.99 275 P **Pn** 06 39 58.4 0.0
SIMA Simav-Kutahya 2.00 52 Pn **Pn** 06 39 58.5 -0.1
SIMA AML AML
EZN Ezine 2.00 346 Pn **Pn** 06 39 58.5 -0.1
EZN AML AML
YENI Yenice-Canakka 2.07 6 Pn **Pn** 06 39 59.3 -0.2
BOZC Bozcaada 2.08 341 Pn **Pn** 06 39 59.4 -0.2
BOZC AML AML
CANM Can-anakkale 2.13 2 Pn **Pn** 06 40 00.2 -0.1
CANM AML AML
KARP Karpathos 2.33 176 P **Pn** 06 40 02.4 -0.7
KARP AML AML
KARP Karpathos 2.33 176 P **Pn** 06 40 02.5 -0.6
KARP AML AML
DION Dionisos Attik 2.39 276 P **Pn** 06 40 03.6 -0.3
DION AML AML
DION Dionisos Attik 2.39 276 P **Pn** 06 40 03.6 -0.3
DION AML AML
PTL Penteli 2.44 275 P **Pn** 06 40 04.3 -0.3
LIA Limnos Island 2.44 326 P **Pn** 06 40 05.2 +0.5

LIA				AML	AML		
LIA	**Limnos Island**	**2.44**	**326**	P	**Pn**	**06 40 05.1**	**+0.5**
LIA				AML	AML		
GADA	**Gvkgeada**	**2.45**	**341**	P	**Pn**	**06 40 05.2**	**+0.5**
GADA				AML	AML		
VLY	**Voula,Athens**	**2.49**	**270**	P	**Pn**	**06 40 05.6**	**+0.2**
VLY				AML	AML		
ALN	**Alexandroupoli**	**3.10**	**347**	P	**Pn**	**06 40 13.1**	**-0.5**
ALN				AML	AML		
KLV	**Kalavryta, Ach**	**3.79**	**274**	P	**Pn**	**06 40 23.7**	**+0.4**
KLV				AML	AML		
ANX	**Ano Chora**	**4.02**	**282**	P	**Pn**	**06 40 27.6**	**+1.2**

*BEO **06** 07:02:59.9±0.8, 44.°40N×16.°88E, h0km, ML2.6/5*
*RHSSO **06** 07:03:02.1±0.4, 44.°44N×17.°21E, h6km±3km, ML2.6/6*
*VIE **06** 07:03:05.7±0.9, 44.°67N×17.°18E, h10km, mb2.6/5, ml2.4/6, Error ellipse: s-maj=12.2km s-min=6.3km az=22.0 86 km SW of Slavonski Brod*

ISC 06 07:03:01.5±1.1, 44.°41N±0.°02×17.°17E±0.°02, h4km±9km, n48, σ0°89/85, 4C-1D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BLY	**Banja Luka**	**0.34**	**2**	*e*Pg	**Pg**	**07 03 08.0**	**0.0**
BLY				*e*Sg	**Sg**	**07 03 13.3**	**+0.9**
BLY	**Banja Luka**	**0.34**	**2**	⇑*i*Pg	**Pg**	**07 03 07.5**	**-0.5**
BLY				*e*Sg	**Sg**	**07 03 13.4**	**+1.0**
KIJV	**Kijevo**	**0.68**	**234**	*i* Pg	**Pg**	**07 03 13.8**	**-0.7**
KIJV				Sg	**Sg**	**07 03 22.6**	**-0.8**
RICI	**Ricice**	**0.92**	**181**	*e*Pg	**Pg**	**07 03 18.0**	**-1.1**
RICI				Sg	**Sg**	**07 03 30.8**	**-0.2**
UDBI	**Udbina**	**1.01**	**277**	*e*Pg	**Pg**	**07 03 19.5**	**-1.3**
UDBI				Sg	**Sg**	**07 03 33.0**	**-0.9**
MAKA	**Makarska**	**1.13**	**185**	*i* Pg	**Pg**	**07 03 21.6**	**-1.5**
MAKA				Sg	**Sg**	**07 03 37.5**	**-0.2**
MORI	**Morici**	**1.18**	**243**	*e*Pg	**Pg**	**07 03 22.9**	**-1.3**
MORI				Sg	**Sg**	**07 03 39.5**	**0.0**
PLIT	**Plitvice**	**1.20**	**293**	*i* Pg	**Pg**	**07 03 23.0**	**-1.4**
PLIT				Sg	**Sg**	**07 03 40.5**	**+0.6**
MOSL	**Moslavina**	**1.24**	**347**	*e*Pg	**Pg**	**07 03 24.7**	**-0.5**
MOSL				Sg	**Sb**	**07 03 41.3**	**-0.3**
DUGI	**Dugi Otok**	**1.57**	**255**	*e*Pn	**Pn**	**07 03 31.1**	**+0.9**
DUGI				Sn	**Sg**	**07 03 53.6**	**+1.6**
STON	**Ston**	**1.59**	**166**	*e*Pn	**Pn**	**07 03 29.7**	**-0.6**
STON				Sn	**Sn**	**07 03 52.0**	**+0.7**
STON	**Ston**	**1.59**	**166**	*e*Pg	**Pn**	**07 03 29.4**	**-0.9**
STON				*e*Sg	**Sn**	**07 03 51.8**	**+0.6**
KLINJ	**Klinje**	**1.61**	**140**	*e*Pn	**Pn**	**07 03 30.3**	**-0.5**
KLINJ				*e*Sn	**Sn**	**07 03 52.2**	**+0.2**
NVLJ	**Novalja**	**1.65**	**276**	*e*Pn	**Pn**	**07 03 31.4**	**+0.3**
NVLJ				Sn	**Sb**	**07 03 54.5**	**+1.0**
LSTV	**Lastovo**	**1.66**	**187**	*e*Pn	**Pn**	**07 03 30.9**	**-0.3**
LSTV				Sn	**Sn**	**07 03 53.7**	**+0.8**
OZLJ	**Ozalj**	**1.70**	**316**	*e*Pn	**Pn**	**07 03 31.8**	**-0.1**
OZLJ				Sn	**Sg**	**07 03 56.6**	**+0.4**
BBLS	**Lazi&#263i**	**1.70**	**108**	*e*Pn	**Pn**	**07 03 31.8**	**-0.2**
BBLS				*e*Sn	**Sg**	**07 03 56.5**	**+0.3**
BBLS	**Lazi&#263i**	**1.70**	**108**	*e*Pn	**Pn**	**07 03 31.5**	**-0.5**
BBLS				*e*Sn	**Sn**	**07 03 53.8**	**-0.4**
PTJ	**Puntijarka**	**1.72**	**331**	*e*Pn	**Pn**	**07 03 32.4**	**+0.2**
PTJ				Sn	**Sb**	**07 03 55.2**	**-0.4**
RABC	**Rab**	**1.74**	**282**	*e*Pn	**Pn**	**07 03 33.1**	**+0.8**
RABC				Sn	**Sb**	**07 03 57.1**	**+1.2**
UPM	**Unac-Piva**	**1.75**	**133**	*e*Sn	**Sn**	**07 03 55.8**	**+0.4**
KALN	**Kalnik**	**1.79**	**344**	*i* Pn	**Pn**	**07 03 32.6**	**-0.5**
KALN				Sn	**Sb**	**07 03 57.8**	**+0.2**
BRY	**Bratogost**	**1.81**	**146**	*e*Pn	**Pn**	**07 03 33.6**	**+0.1**
BRY				*e*Sn	**Sn**	**07 03 56.9**	**0.0**
DBRK	**Dubrovnik**	**1.88**	**157**	*e*Pn	**Pn**	**07 03 35.1**	**+0.7**
DBRK				Sn	**Sb**	**07 04 00.3**	**0.0**
TREB	**Trebinje**	**1.90**	**153**	⇑*i*Pn	**Pn**	**07 03 35.7**	**+1.1**
TREB				*e*Sn	**Sn**	**07 04 00.1**	**+1.1**
LOBO	**Lobor**	**1.91**	**336**	*e*Pn	**Pn**	**07 03 34.9**	**+0.1**
LOBO				Sn	**Sb**	**07 04 01.4**	**+0.5**
FRGS	**Fruska Gora**	**2.03**	**67**	*e*Pn	**Pn**	**07 03 37.6**	**+1.2**
FRGS				*e*Sn	**Sg**	**07 04 06.6**	**+0.1**
FRGS	**Fruska Gora**	**2.03**	**67**	*e*Pn	**Pn**	**07 03 36.6**	**+0.2**
FRGS				*e*Sn	**Sn**	**07 04 01.9**	**-0.2**
DIVS	**Divibare**	**2.06**	**98**	*e*Pn	**Pb**	**07 03 39.7**	**+0.3**
DIVS				*e*Sn	**Sg**	**07 04 07.6**	**+0.1**
BEHE	**Becsehely**	**2.08**	**353**	*e*Pn	**Pn**	**07 03 37.8**	**+0.8**
BEHE				*e*Sn	**Sn**	**07 04 02.4**	**-0.9**
MORH	**Mrgy, Hungar**	**2.08**	**30**	*e*Pn	**Pn**	**07 03 36.8**	**-0.3**
MORH				*e*Sn	**Sn**	**07 04 02.8**	**-0.7**
HCY	**Herceg Novi**	**2.19**	**153**	*e*Pn	**Pn**	**07 03 39.6**	**+1.0**
HCY				*e*Sn	**Sn**	**07 04 06.2**	**+0.1**
IVAS	**Ivanjica**	**2.31**	**110**	*e*Pn	**Pb**	**07 03 42.9**	**-0.8**
TRUS	**Trudelj**	**2.33**	**94**	*e*Pn	**Pb**	**07 03 44.7**	**+0.6**
SJES	**Sjenica**	**2.34**	**119**	*e*Pn	**Pn**	**07 03 41.1**	**+0.4**
SJES				*e*Sn	**Sn**	**07 04 09.1**	**-0.8**
PDG	**Podgorica**	**2.50**	**142**	*e*Pn	**Pn**	**07 03 43.1**	**+0.3**
PDG				*e*Sn	**Sn**	**07 04 14.2**	**+0.5**
DRME	**Dracevica, Mon**	**2.67**	**146**	*e*Pn	**Pn**	**07 03 46.2**	**+1.0**
DRME				*e*Sn	**Sn**	**07 04 18.4**	**+0.5**
OBKA	**Obir** 8.6nm,0.5s	**2.79**	**320**	*e*Pn	**Pn**	**07 03 47.9**	**+0.9**
ARSA	**Arzberg** 1.2nm,0.2s	**3.06**	**339**	*e*Pn	**Pn**	**07 03 50.9**	**+0.3**
SELS	**Selova**	**3.10**	**111**	*e*Pn	**Pn**	**07 03 50.9**	**-0.3**
MDVR	**Moldovita**	**3.27**	**82**	⇑P	**Pb**	**07 04 01.2**	**+1.2**
RONA	**Rosalia, Austr** 3.3nm,0.2s	**3.34**	**350**	*i* Pn	**Pn**	**07 03 54.8**	**+0.3**
BZS	**Buzias**	**3.38**	**68**	⇓P	**Pb**	**07 04 03.7**	**+1.8**
BZS				⇑S	**Sn**	**07 04 33.8**	**-1.6**
CONA	**Conrad Observa** 3.2nm,0.4s	**3.63**	**346**	*i* Pn	**Pn**	**07 03 58.8**	**+0.3**
WINA	**Alland / Wiene** 6.0nm,0.2s	**3.77**	**349**	*i* Pn	**Pn**	**07 04 00.9**	**+0.5**
MODS	**Modra-Piesok**	**3.96**	**1**	*e*PN	**Pn**	**07 04 03.7**	**+0.7**
MODS				*e*SN	**Sn**	**07 04 46.2**	**-3.7**
MOA	**Molln** 1.4nm,0.2s	**3.98**	**331**	*i* Pn	**Pn**	**07 04 04.4**	**+1.1**
VYHS	**Vyhne**	**4.24**	**15**	*e*PN	**Pn**	**07 04 06.9**	**+0.1**
VYHS				*e*SN	**Sn**	**07 04 54.5**	**-2.3**

AFAD 06 07:06:34.7, 37.°94N×26.°97E, h7km±5km, ML1.3, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.13**	**331**	P	Pg	07 06 37.0	-0.5
DGB				IAML		07 06 39.0	
	comp=E,146nm,0.2s						
DGB				S	Sg	07 06 39.7	+0.3
BEYE	**izmir**	**0.29**	**354**	P	Pb	07 06 41.5	-0.8
BEYE				S	Sg	07 06 45.1	+0.8
BEYE				IAML		07 06 46.0	
	comp=N,38nm,0.3s						
BEYE				IAML		07 06 47.0	
	comp=E,40nm,0.5s						
GCAM	**G?zelcaml?**	**0.32**	**138**	P	Pg	07 06 41.4	+0.5
GCAM				IAML		07 06 46.0	
	comp=N,61nm,0.4s						
GCAM				S	Sg	07 06 46.2	+1.1
GCAM				IAML		07 06 53.0	
	comp=E,45nm,0.9s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**310**	P	Pn	07 06 48.3	+0.4
ZEYE				S	Sb	07 06 52.1	-0.5

ISK 06 07:06:58.3, 37.°83N×26.°83E, h5km, ML2.1/4, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMLD	**Gumuldur**	**0.25**	**15**	Pg	Pg	07 07 03.6	+0.4
GMLD				Sg	Sg	07 07 07.7	+1.1
BLCB	**Balcova**	**0.58**	**17**	Pg	Pg	07 07 10.1	+0.7
BLCB				Sg	Sb	07 07 18.4	-1.0
BLCB				AML	AML		
CHOS	**Chios island**	**0.82**	**312**	Pg	Pg	07 07 14.6	+0.4
CHOS				Sg	Sb	07 07 26.7	+0.1
CHOS				AML	AML		
BODT	**Bodrum**	**0.86**	**153**	Pg	Pg	07 07 15.2	+0.4
BODT				Sg	Sb	07 07 27.7	+0.2
BODT				AML	AML		

*ISK **06** 07:14:38.7, 37.°71N×27.°02E, h6km, ML2.7/21*

*THE **06** 07:14:39.2, 37.°7N±0.°9×27.°0E±0.°8, h0km±2km, M3.0/8, MLh3.0/8*
*AFAD **06** 07:14:39.0, 37.°76N×27.°05E, h7km±3km, ML2.6*

ISC 06 07:14:39.3±0.8, 37.°73N±0.°02×27.°03E±0.°02, h10km±6km, n38, σ0°79/59, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**261**	P	**Pg**	**07 14 42.4**	**-0.4**
SMG				S	**Sg**	**07 14 45.1**	**-0.1**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.16**	**102**	P	**Pg**	**07 14 42.7**	**-0.3**
GCAM				S	**Sg**	**07 14 45.6**	**+0.2**
GCAM				IAML		07 14 46.0	
	comp=E,1μm,0.5s						
GCAM				IAML		07 14 48.0	
	comp=N,2μm,0.7s						
GCAM	**G?zelcaml?**	**0.16**	**102**	Pg	**Pg**	**07 14 42.6**	**-0.3**
GCAM				Sg	**Sg**	**07 14 45.7**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**58**	Pg	**Pg**	**07 14 44.2**	**-0.1**
KUSD				Sg	**Sg**	**07 14 48.3**	**+0.7**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**149**	P	**Pg**	**07 14 45.3**	**-0.5**
DDIM				S	**Sb**	**07 14 51.6**	**-0.8**
DDIM				IAML		07 14 52.0	
	comp=N,732nm,0.3s						
DDIM				IAML		07 14 55.0	
	comp=E,778nm,0.4s						
DGB	**zmir**	**0.34**	**340**	P	**Pg**	**07 14 45.3**	**-0.8**
DGB				IAML		07 14 50.0	
	comp=E,553nm,0.5s						
DGB				S	**Sg**	**07 14 50.5**	**-0.2**
DGB				IAML		07 14 51.0	
	comp=N,694nm,0.4s						
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pg**	**07 14 46.8**	**+0.4**
GMLD				Sg	**Sb**	**07 14 52.6**	**-0.7**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**351**	P	**Pg**	**07 14 48.1**	**-1.0**
BEYE				S	**Sg**	**07 14 56.0**	**+0.3**
BEYE				IAML		07 14 57.0	
	comp=E,362nm,0.9s						
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pg**	**07 14 50.9**	**-0.8**
YKAV				Sg	**Sg**	**07 15 00.2**	**+0.1**
YKAV				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**07 14 51.6**	**-0.4**
BLCB				S	**Sb**	**07 15 01.8**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**07 14 51.6**	**-0.4**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**321**	P	**Pg**	**07 14 48.4**	**-3.6**
ZEYE				S	**Sg**	**07 15 01.2**	**+0.6**
ZEYE				IAML		07 15 02.0	
	comp=N,1μm,0.4s						
ZEYE				IAML		07 15 04.0	
	comp=E,452nm,0.3s						
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**07 14 52.2**	**-0.2**
AYDN				IAML	**Sn**	**07 15 05.0**	**-0.6**
	comp=N,226nm,0.6s						
AYDN				S	**Sn**	**07 15 05.0**	**-0.6**
AYDN				IAML		07 15 08.0	
	comp=E,308nm,0.7s						
BODT	**Bodrum**	**0.71**	**162**	P	**Pg**	**07 14 52.7**	**-0.3**
BODT				S	**Sb**	**07 15 03.3**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pg**	**07 14 52.3**	**-0.7**
BODT				Sg	**Sb**	**07 15 02.8**	**-0.7**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pg**	**07 14 53.1**	**-0.1**
AYDB				AML	AML		
MLSB	**Milas**	**0.74**	**126**	Pg	**Pg**	**07 14 52.9**	**-0.7**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**07 14 52.5**	**-1.2**
BDRM				S	**Sb**	**07 15 05.7**	**+1.1**
BDRM				IAML		07 15 08.0	
	comp=E,199nm,0.4s						
CESE	**eme**	**0.83**	**316**	Pg	**Pg**	**07 14 55.4**	**0.0**
CESE				AML	AML		
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pg**	**07 14 54.0**	**-1.4**
IZMR				S	**Sg**	**07 15 05.7**	**-0.5**
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**07 14 57.7**	**0.0**
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**346**	Pg	**Pg**	**07 14 58.5**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**07 14 58.9**	**0.0**
CHOS				S	**Sn**	**07 15 13.5**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	Pg	**Pb**	**07 14 58.8**	**-0.1**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pg**	**07 14 58.7**	**-0.3**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pg**	**07 14 58.7**	**-0.6**
CAMT				S	**Sn**	**07 15 14.5**	**0.0**
CAMT				IAML		07 15 16.0	
	comp=E,291nm,0.6s						
CAMT				IAML		07 15 19.0	
	comp=N,284nm,0.5s						
KARB	**zmir-Karabur**	**1.05**	**332**	P	**Pg**	**07 14 59.4**	**-0.1**
KARB				S	**Sb**	**07 15 13.9**	**+0.5**
KARB				IAML		07 15 15.0	
	comp=N,218nm,0.5s						
KARB				IAML		07 15 15.0	
	comp=E,218nm,0.9s						
DAT	**Datca**	**1.09**	**156**	P	**Pn**	**07 15 01.2**	**+0.4**
DAT				AML	AML		
DAT	**Datca**	**1.09**	**156**	Pg	**Pg**	**07 14 59.8**	**-0.6**
DAT				AML	AML		
YER	**Yerkesik**	**1.16**	**121**	P	**Pg**	**07 15 01.2**	**-0.5**
YER	**Yerkesik**	**1.16**	**121**	Pn	**Pg**	**07 15 01.3**	**-0.4**
YER				AML	AML		
DKL	**Dikili**	**1.34**	**356**	Pn	**Pg**	**07 15 04.9**	**-0.2**
DKL				AML	AML		
TURN	**Turunc**	**1.36**	**134**	Pn	**Pn**	**07 15 04.5**	**+0.2**
TURN				AML	AML		
APE	**Apeiranthos**	**1.37**	**241**	P	**Pg**	**07 15 05.4**	**-0.2**
APE				S	**Sn**	**07 15 24.9**	**+2.3**
APE	**Apeiranthos**	**1.37**	**241**	Pn	**Pn**	**07 15 04.8**	**+0.3**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pb**	**07 15 06.8**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**07 15 07.1**	**+0.2**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.88**	**1**	Pn	**Pn**	**07 15 12.2**	**+0.8**
YAYO				AML	AML		

*IDC **06** 07:16:16.5±0.7, 8.°69S×74.°84W, h139km±7km, mb3.6/11, mbtmp4.1/15, MS3.8/1, Error ellipse: s-maj=19.4km s-min=10.2km az=36.0*
*NEIC **06** 07:16:16.3±0.7, 8.°71S±0.°08×74.°75W±0.°09, h136km±8km, mb4.3/14, Error ellipse: s-maj=12.8km s-min=11.0km az=119.0*
*VAO **06** 07:16:17.4±0.4, 8.°89S×74.°40W, h115km±3km, mb4.3, Presumed earthquake*

ISC 06 07:16:16.3±0.4, 8.°70S±0.°05×74.°68W±0.°05, h147km, n71, σ1°66/79, mb4.0/16, 3D, Peru-Brazil border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CZSB	**Cruzeiro do Su**	**2.18**	**64**		**Pn**	**07 16 53.5**	**+0.2**
CZSB	**Cruzeiro do Su**	**2.18**	**64**	*e*P	**Pn**	**07 16 51.6**	**-1.8**
CZSB				*e*S	**Sn**	**07 17 18.0**	**-3.8**
NNA	**Nana**	**3.90**	**213**	P	**Pn**	**07 17 14.1**	**-1.2**
	61nm,0.3s,baz=37,slow=4.4,SNR=60						
NNA				S	**Sn**	**07 17 56.7**	**-4.4**
	50nm,0.3s,baz=46,slow=22,SNR=4.6						
ATAH	**Atahualpa**	**3.99**	**293**	P	**Pn**	**07 17 15.4**	**-1.4**
	126nm,0.4s,baz=75,slow=1.9,SNR=672						
ATAH				S	**Sn**	**07 18 01.0**	**-2.7**
	89nm,0.5s,baz=264,slow=23,SNR=6.7						
SLOR	**San Lorenzo -**	**8.78**	**334**	Pn	**Pn**	**07 18 19.9**	**-0.7**
OTAV	**Otavalo**	**9.64**	**337**	Pn	**Pn**	**07 18 30.8**	**-1.2**
LPAZ	**La Paz**	**9.89**	**140**	P	**Pn**	**07 18 36.8**	**+1.3**
	1.4nm,0.5s,baz=319,slow=9.4,SNR=11						
LPAZ	**La Paz**	**9.89**	**140**		**Pn**	**07 18 35.6**	**+0.1**
LPAZ	**La Paz**	**9.89**	**140**	*e*P	**Pn**	**07 18 32.0**	**-3.5**
PB18	**Visviri**	**10.19**	**151**	Pn	**Pn**	**07 18 39.7**	**+0.3**
PB16	**IPOC Station P**	**10.82**	**153**	Pn	**Pn**	**07 18 49.0**	**+1.2**
GO01	**Chusmiza**	**12.13**	**155**	Pn	**Pn**	**07 19 04.9**	**0.0**
PB03	**IPOC Station P**	**14.10**	**161**	Pn	**Pn**	**07 19 29.8**	**0.0**
RUSC	**La Rusia**	**14.58**	**6**	Pn	**P**	**07 19 37.0**	**-1.7**
VILB	**Vilhena**	**14.84**	**108**		**Pn**	**07 19 38.9**	**0.0**
VILB	**Vilhena**	**14.84**	**108**	*e*P	**Pn**	**07 19 38.2**	**-0.7**
SIV	**San Ignacio** 7.4nm,0.5s,baz=293,slow=12,SNR=54	**15.14**	**120**	P	**Pn**	**07 19 43.0**	**+0.3**
SIV				S	**S**	**07 22 36.5**	**-0.1**
	1.4nm,0.5s,baz=217,slow=20,SNR=1.1						
BBSD	**Serra de San D**	**16.09**	**123**	*e*P	**Pn**	**07 19 52.7**	**-1.8**
BBSD				*e*S	**S**	**07 22 47.9**	**-5.9**
PTLB	**Pontes e Lacer**	**16.61**	**115**	P	**Pn**	**07 20 02.1**	**+1.4**
PTLB				IAmb	IAmb	07 20 04.1	
	comp=Z,14nm,1.3s						
PTLB	**Pontes e Lacer**	**16.61**	**115**	*e*P	**P**	**07 19 59.0**	**-1.6**
PTLB				*e*S	**S**	**07 23 00.4**	**-5.3**
BOAV	**Boa Vista**	**17.91**	**53**	P	**Pn**	**07 20 16.0**	**-0.3**
BOAV	**Boa Vista**	**17.91**	**53**	*e*P	**Pn**	**07 20 16.0**	**-0.3**
PDRB	**Porto dos Gac**	**17.91**	**101**	*e*P	**P**	**07 20 15.8**	**+0.9**
SJCC	**San Jacinto, C**	**18.48**	**358**	P	**Pn**	**07 20 22.0**	**-1.1**
SJCC				IAmb	IAmb	07 20 52.7	
	comp=Z,17nm,1.2s						
CLDB	**Colider**	**18.73**	**98**	*e*P	**P**	**07 20 23.6**	**-0.3**
NPGB	**Novo Progresso**	**19.21**	**86**	*e*P	**P**	**07 20 28.8**	**-0.3**
ITTB	**Itaituba**	**19.30**	**78**	*e*P	**P**	**07 20 30.3**	**+0.2**
COIM	**Forte Coimbra**	**19.78**	**126**	*e*P	**P**	**07 20 34.9**	**-0.3**
SNDB	**Serra Nova Dou**	**23.23**	**100**	*e*P	**P**	**07 21 10.7**	**0.0**
ARAG	**Araguaiana, MT**	**23.40**	**110**	*e*P	**P**	**07 21 13.5**	**+1.4**
CPUP	**Villa Florida** comp=Z,1.0nm,0.5s,baz=316,slow=10,SNR=5.0	**24.06**	**139**	P	**P**	**07 21 19.5**	**+1.5**
	comp=Z,1.0nm,0.5s						
CPUP	**Villa Florida**	**24.06**	**139**	P	**P**	**07 21 18.4**	**+0.3**
CPUP				IAmb	IAmb	07 22 02.1	
	comp=Z,12nm,1.4s						
SMTB	**Santa Maria do**	**26.77**	**92**	*e*P	**P**	**07 21 44.7**	**+1.9**
LDASE	**Londrina, Braz**	**26.89**	**126**	*e*P	**P**	**07 21 44.7**	**+1.0**
BDFB	**Brasilia** comp=Z,2.7nm,0.5s,baz=285,slow=12,SNR=6.0	**26.95**	**107**	P	**P**	**07 21 46.9**	**+2.5**
	comp=Z,2.7nm,0.5s						
BDFB	**Brasilia**	**26.95**	**107**	P	**P**	**07 21 46.0**	**+1.6**
BDFB				IAmb	IAmb	07 21 53.6	
	comp=Z,10nm,1.4s						
IPMB	**Ipameri, GO**	**27.32**	**112**	*e*P	**P**	**07 21 49.3**	**+1.6**
SDBA	**SAO DESIDERIO**	**29.50**	**100**	*e*P	**P**	**07 22 08.9**	**+1.9**
DIAM	**Diamantina, MG**	**31.58**	**111**	*e*P	**P**	**07 22 27.3**	**+1.9**
NBPS	**Pedro II - PI**	**33.28**	**85**	*e*P	**P**	**07 22 42.0**	**+1.8**
NBPN	**Ponto Novo - B**	**34.04**	**96**	*e*P	**P**	**07 22 48.6**	**+1.9**
NBIT	**Itapeh - BA**	**35.02**	**104**	*e*P	**P**	**07 22 56.7**	**+1.6**
RPN	**Rapa Nui** comp=Z,138nm,19.7s,baz=11,slow=32	**37.54**	**236**	LR	LR	07 36 07.8	
TXAR	**Lajitas Array** comp=Z,0.4nm,0.6s,baz=155,slow=8.5,SNR=7.3	**47.01**	**325**	P	**P**	**07 24 33.5**	**+0.6**
	comp=Z,0.4nm,0.6s						
TXAR	**Lajitas Array**	**47.01**	**325**	P	**P**	**07 24 33.8**	**+0.8**
SMWD	**Samnorwood**	**49.81**	**332**	P	**P**	**07 24 54.9**	**+0.6**
SMWD				IAmb	IAmb	07 24 55.7	
	comp=Z,7.5nm,0.8s						
ANMO	**Albuquerque** comp=Z,0.6nm,0.4s,baz=158,slow=5.4,SNR=2.7	**52.79**	**327**	P	**P**	**07 25 17.4**	**+0.8**
	comp=Z,0.6nm,0.4s						
ANMO	**Albuquerque**	**52.79**	**327**	P	**P**	**07 25 17.0**	**+0.3**
SDCO	**Great Sand Dun**	**54.44**	**330**	P	**P**	**07 25 29.2**	**+0.4**
SDCO				IAmb	IAmb	07 25 30.4	
	comp=Z,2.4nm,0.8s						
PV14	**Lion Creek, Pa**	**56.72**	**328**	P	**P**	**07 25 44.7**	**-0.3**
PDAR	**Pinedale Array** comp=Z,0.3nm,0.5s,baz=141,slow=5.2,SNR=4.1	**60.29**	**331**	P	**P**	**07 26 09.8**	**+0.2**
	comp=Z,0.3nm,0.5s						
PDAR	**Pinedale Array**	**60.29**	**331**	P	**P**	**07 26 10.2**	**+0.6**
ULM	**Lac du Bonnet** comp=Z,2.0nm,0.7s,baz=144,slow=8.7,SNR=1.5	**61.54**	**345**	P	**P**	**07 26 17.8**	**+0.2**
ULM				pP	**pP**	**07 26 51.3**	**-1.2**
	comp=Z,5.6nm,1.0s,baz=159,slow=9.5,SNR=2.1						
	comp=Z,2.0nm,0.7s						
ULM	**Lac du Bonnet**	**61.54**	**345**	P	**P**	**07 26 17.8**	**+0.2**
MFID	**Camas Ranch**	**63.92**	**328**	P	**P**	**07 26 34.1**	**+0.5**
MFID				IAmb	IAmb	07 26 35.7	
	comp=Z,3.4nm,0.9s						
DBIC	**Dimbokro** comp=Z,3.9nm,0.5s,baz=259,slow=4.9,SNR=14	**71.25**	**80**	P	**P**	**07 27 23.1**	**+2.9**
	comp=Z,3.9nm,0.5s						
DBIC	**Dimbokro**	**71.25**	**80**	P	**P**	**07 27 20.6**	**+0.4**
DBIC				IAmb	IAmb	07 27 41.1	
	comp=Z,18nm,1.4s						
VNA3	**Neumayer Olymp** comp=Z,1.0nm,0.6s	**73.91**	**162**	P	**P**	**07 27 35.6**	**+0.8**
VNA1	**Neumayer--Stat** comp=Z,2.4nm,0.8s	**74.13**	**161**	⇓P	**P**	**07 27 37.7**	**+1.6**
VNA2	**Neumayer--Watz** comp=Z,2.0nm,0.5s,baz=292,slow=5.5	**74.49**	**162**	⇓P	**P**	**07 27 39.3**	**+1.1**
YKA	**Yellowknife Ar** comp=Z,1.7nm,0.6s,baz=145,slow=5.6,SNR=5.9	**77.35**	**342**	P	**P**	**07 27 54.6**	**+0.2**
YKA				pP	**pP**	**07 28 29.8**	**-1.0**
	comp=Z,1.8nm,0.6s,baz=143,slow=6.1,SNR=2.6						
	comp=Z,1.7nm,0.6s						
TROLL	**Troll, Antarti** comp=Z,108nm,0.8s	**77.83**	**162**	⇓P	**P**	**07 27 58.6**	**+1.4**
TORD	**Torodi Ar Bea** comp=Z,1.7nm,0.5s,baz=262,slow=6.6,SNR=10	**78.88**	**75**	P	**P**	**07 28 05.9**	**+2.0**
	comp=Z,1.7nm

h0km,Mws2.3,confirmed

GRAL ***06*** *07:27:53.4±0.3,33.57N×35.56E,h12km±1km,MD2.7*

ISC 06 07:27:53.0±0.9,33.60N±0.03×35.59E±0.05,h15km±6km, n15,σ0 63/26,Jordan-Syria region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
QRWL	**Qaraoun**	**0.09**	**124**	*e*P	**Pg**	**07 27 56.2**	**-0.1**
QRWL				eS	**Sg**	**07 27 58.2**	**-0.2**
DQRL	**Deir Qamar**	**0.11**	**350**	*e*P	**Pg**	**07 27 56.6**	**+0.1**
DQRL				eS	**Sg**	**07 27 58.9**	**0.0**
RCY	**Rachaya**	**0.23**	**117**	*e*P	**Pg**	**07 27 58.2**	**0.0**
RCY				eS	**Sg**	**07 28 01.9**	**+0.2**
SHBL	**Chebaa**	**0.28**	**153**	*e*P	**Pg**	**07 27 58.7**	**-0.3**
BHL	**Bhannes**	**0.31**	**10**	*e*P	**Pb**	**07 27 59.8**	**-0.4**
NATI	**Neve Ativ**	**0.36**	**160**	P	**Pg**	**07 28 00.0**	**-0.2**
NATI				S	**Sb**	**07 28 06.8**	**+0.5**
KIRY	**Kiryat Shemona**	**0.39**	**183**	P	**Pg**	**07 28 00.6**	**-0.3**
KIRY				S	**Sb**	**07 28 06.6**	**-0.7**
MMA0B	**Mount Meron ar**	**0.60**	**195**	P	**Pb**	**07 28 04.8**	**-0.4**
MMA0B				S	**Sb**	**07 28 13.9**	**+0.4**
KNHM	**Kefar Nahum**	**0.71**	**181**	P	**Pg**	**07 28 07.2**	**+0.3**
KNHM				S	**Sg**	**07 28 17.0**	**+0.7**
HWQ	**Hawqa**	**0.74**	**23**	*e*P	**Pb**	**07 28 07.2**	**-0.4**
BEIL	**Beino**	**1.06**	**27**	*e*P	**Pb**	**07 28 12.4**	**-0.6**
OFRI	**`Ofer**	**1.10**	**208**	P	**Pg**	**07 28 13.6**	**-0.6**
OFRI				S	**Sg**	**07 28 29.5**	**+0.9**
MMLI	**Mount Malkishu**	**1.17**	**187**	P	**Pg**	**07 28 15.0**	**-0.5**
MMLI				S	**Sg**	**07 28 31.2**	**+0.5**
ROII	**Roi**	**1.35**	**184**	P	**Pg**	**07 28 18.3**	**-0.6**
ROII				S	**Sg**	**07 28 36.7**	**+0.1**
GHAJ	**Ghor Haditha**	**2.29**	**181**	P	**Pn**	**07 28 31.2**	**+1.1**
GHAJ				S	**Sb**	**07 29 00.4**	**-1.6**

ASRS ***06*** *07:31:02.0±0.9,49.65N×81.70E,h0km,M2.6(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

SOME ***06*** *07:31:05.0,49.63N×81.72E*

IDC ***06*** *07:31:06.3±1.4,49.69N×81.54E,h0km,mbtmp2.6/2, ML2.5/1,Error ellipse: s-maj=16.0km s-min=11.4km az=81.0*

NNC ***06*** *07:31:08.3±0.8,49.90N×81.83E,h0km,mb3.0,mpv2.6, Error ellipse: s-maj=10.3km s-min=2.1km az=52.0, Suspected Mining explosion.*

ISC 06 07:31:01.4±1.3,49.79N±0.05×81.94E±0.08,h0km,n8, σ0 38/11,5C-3D,Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.32**	**295**	⇓Pn	**Pg**	**07 31 46.0**	**+0.1**
	2.8nm,0.8s						
KURK				⇑Sn	**Sg**	**07 32 15.4**	**-0.6**
	6.3nm,0.6s						
KURBB	**Kurchatov Arra**	**2.34**	**292**	Pg	**Pg**	**07 31 46.8**	**+0.5**
	0.2nm,0.3s,baz=112,slow=18,SNR=24						
KURBB				Lg	Lg	07 32 14.5	
	0.5nm,0.3s,baz=116,slow=30,SNR=4.1						
KURBB	**Kurchatov Arra**	**2.34**	**292**	⇑Pn	**Pg**	**07 31 46.4**	**+0.2**
	7.9nm,0.7s						
KURBB				⇓Sn	**Sg**	**07 32 16.2**	**-0.4**
	30nm,0.7s						
MAKZ	**Makanchi**	**2.99**	**180**	⇓Pn	**Pg**	**07 31 58.6**	**0.0**
	3.6nm,1.2s						
MAKZ				⇑Sn	**Sg**	**07 32 37.5**	**+0.2**
	8.9nm,0.9s						
MK31	**Makanchi Array**	**3.01**	**175**	⇑Pn	**Pg**	**07 31 59.0**	**-0.1**
	0.4nm,0.4s,baz=353,slow=15,SNR=7.9						
MK31				⇑Sn	**Sg**	**07 32 37.5**	**-0.5**
	2.9nm,0.6s,baz=354,slow=21						
MKAR	**Makanchi Array**	**3.01**	**175**	Pn	**Pb**	**07 31 56.0**	**+0.2**
	0.6nm,0.3s,baz=342,slow=9.1,SNR=7.8						
MKAR				Lg	Lg	07 32 37.2	
	0.6nm,0.3s,baz=350,slow=31,SNR=14						
	1.1nm,0.3s						
MKAR				AML	AML		
ZALV	**Zalesovo Beam**	**4.53**	**22**	Pn	**Pb**	**07 32 21.6**	**0.0**
	0.5nm,0.4s,baz=204,slow=11,SNR=0.7						
ZALV				Lg	Lg	07 33 33.7	
	0.2nm,0.3s,baz=201,slow=24,SNR=6.7						
I46RU	**ZALESOVO INFRA**	**4.53**	**22**	I	I	08 00 00.0	
	baz=201,slow=318,SNR=3.1						

IDC ***06*** *07:38:50.0±0.4,40.12N×71.68E,h0km,mb4.9/45, mbtmp4.9/52,ML4.3/6,MS4.1/66,Error ellipse: s-maj=8.0km s-min=7.2km az=176.0*

MOS ***06*** *07:38:50.9±0.9,40.09N×71.60E,h15km,mb5.2/54, MS4.4/14,Error ellipse: s-maj=4.0km s-min=3.5km az=81.0*

BJI ***06*** *07:38:51.7,40.26N×71.47E,h29km,mB5.1/16,mb5.1/56, ML5.1/6,Ms4.5/39,Ms7 4.3/39*

ISU ***06*** *07:38:51,40.19N×71.61E,h24km*

GFZ ***06*** *07:38:52.9±0.1,40°N±2°×7°2E±°,h10km,M5.3/61, mb5.1/61,confirmed*

KRNET ***06*** *07:38:52.1±0.1,40.21N×71.75E,h13km,mb5.4*

SOME ***06*** *07:38:52.8,40.30N×71.70E,h0km*

NEIC ***06*** *07:38:53.7,40.62N×71.10E,h20km,Moment Tensor Solution. Duration: 1s0 Moment tensor: Scale 10^16Nm; Mrr0.62; Mθθ0.02; Mϕϕ-0.64; Mrθ-0.58; Mθϕ-0.43; Mϕr-1.15; Fault plane solution: M0 1.50000×10^16 NP1:ϕs25.92000°, δ14.94000°,λ89.43000°. NP2:ϕs206.52000°,δ75.06000°, λ90.15000°. Principal axes: T 1.3688, Plg60.0000°, Azm117.0000°; N 0.2360, Plg0.0000°, Azm26.0000°; P -1.6048, Plg30.0000°, Azm296.0000°;*

NEIC ***06*** *07:38:53.9,40.17N×71.66E,h22km*

NEIC ***06*** *07:38:53.3,40.12N×71.62E,h19km*

NEIC ***06*** *07:38:53.3±1.1,40.11N±0.07×71.61E±0.09,h19km±1km, mb5.2/109,Mwr4.6/24,Mww4.7/10,Error ellipse: s-maj=12.6km s-min=11.2km az=188.0,Moment Tensor Solution. Moment tensor: Scale 10^15Nm; Mrr6.60; Mθθ-3.03; Mϕϕ-3.56; Mrθ-2.75; Mθϕ-4.71; Mϕr-5.23; Fault plane solution: M0 9.48000×10^15 NP1:ϕs212.38000°, δ64.85000°,λ78.97000°. NP2:ϕs57.03000°,δ27.31000°, λ112.18000°. Principal axes: T 8.8563, Plg68.0000°, Azm101.0000°; N 1.1361, Plg10.0000°, Azm217.0000°; P -9.9924, Plg19.0000°, Azm311.0000°;*

NNC ***06*** *07:38:54.5±1.2,40.29N×71.74E,h7km±5km,mb5.4, mpv5.1 Error ellipse: s-maj=9.6km s-min=4.6km az=12.0*

GCMT ***06*** *07:38:55.3±0.4,40.27N±0.03×71.56E±0.03,h24km±1km, MW4.8/75,Moment Tensor Solution. s17,c17; s75,c94; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.29±.20; Mθθ-0.71±.14; Mϕϕ-0.58±.12; Mrθ-0.69±.22; Mϕθ-1.67±.08; Mϕr-0.44±.17; Best double couple: M0 1.99800×10^16 NP1:ϕs25.00000°,δ36.00000°,λ59.00000°. NP2: ϕs241.00000°,δ59.00000°,λ111.00000°. Principal axes: T 1.5110, Plg68.0000°, Azm194.0000°; N 0.9750, Plg18.0000°, Azm51.0000°; P -2.4840, Plg12.0000°, Azm317.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 06 07:38:52.7±0.4,40.21N±0.02×71.71E±0.01,h15km±2km, h15km:pP-P,n803,σ1 56/881,mb5.1/234,MS4.1/81, 72C-46D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FRG	**Fergana**	**0.17**	**20**	P	**Pb**	**07 38 59.2**	**+1.6**
FRG				S	**Sb**	**07 39 03.4**	**+2.5**
TSTA	**Tashata**	**0.69**	**58**	P	**Pg**	**07 39 06.6**	**+0.4**
TSTA				S	**Sn**	**07 39 18.0**	**-0.4**
BTK	**Batken**	**0.70**	**258**	PG	**Pg**	**07 39 04.4**	**-1.9**
BTK	**Batken**	**0.70**	**258**		**Pg**	**07 39 04.4**	**-1.9**
DRK	**Karamyk**	**0.73**	**174**	⇑*i*P	**Pg**	**07 39 05.9**	**-1.1**
DRK				⇑*i*S	**Sg**	**07 39 16.0**	**-0.8**
DRK	**Karamyk**	**0.73**	**174**	*e*PG	**Pg**	**07 39 06.4**	**-0.7**
DRK				eS	**Sg**	**07 39 16.6**	**-0.2**
DRK	**Karamyk**	**0.73**	**174**		**Pg**	**07 39 06.3**	**-0.7**
DRK	**Karamyk**	**0.73**	**174**	P	**Pg**	**07 39 06.1**	**-0.9**
OHH	**Osh**	**0.88**	**69**	⇑*i*P	**Pb**	**07 39 08.1**	**-1.6**
OHH				⇑eS	**Sb**	**07 39 19.9**	**-1.4**
OHH	**Osh**	**0.88**	**69**	*e*PG	**Pb**	**07 39 08.2**	**-1.5**
OHH				eS	**Sb**	**07 39 20.6**	**-0.7**
OHH	**Osh**	**0.88**	**69**	⇓P	**Pb**	**07 39 08.1**	**-1.6**
TRKS	**Terek-Say**	**1.39**	**342**	⇑*i*P	**Pn**	**07 39 17.1**	**-0.5**
TRKS				⇑*i*S	**Sn**	**07 39 35.2**	**-0.5**
TRKS	**Terek-Say**	**1.39**	**342**	*e*PG	**Pn**	**07 39 17.7**	**+0.1**
TRKS				eS	**Sb**	**07 39 36.0**	**+0.1**
SFK	**Sufi-Kurgan**	**1.39**	**98**	⇓*e*P	**Pn**	**07 39 17.5**	**-0.2**
SFK				⇓*i*S	**Sn**	**07 39 36.1**	**+0.2**
SFK	**Sufi-Kurgan**	**1.39**	**98**	*e*PG	**Pn**	**07 39 18.3**	**+0.6**
SFK				eS	**Sn**	**07 39 36.9**	**+1.0**
ARSB	**Arslanbob**	**1.47**	**41**	⇓*e*P	**Pn**	**07 39 19.0**	**+0.2**
ARSB				⇓eS	**Sb**	**07 39 39.2**	**+0.8**
ARSB	**Arslanbob**	**1.47**	**41**	PN	**Pb**	**07 39 20.6**	**+0.8**
ARSB	**Arslanbob**	**1.47**	**41**		**Pb**	**07 39 20.6**	**+0.8**
SALK	**Salom-Alik**	**1.74**	**67**	⇑*i*P	**Pn**	**07 39 23.8**	**+1.3**
SALK				⇑*i*S	**Sb**	**07 39 47.0**	**+0.8**
SALK	**Salom-Alik**	**1.74**	**67**	*e*PN	**Pb**	**07 39 24.4**	**-0.1**
SALK				eS	**Sb**	**07 39 47.9**	**+1.7**
CHRV	**Charvak**	**1.95**	**318**	P	**Pb**	**07 39 28.4**	**+0.5**
CHRV				S	**Sg**	**07 39 54.6**	**-0.9**
PSK	**Pskem**	**1.99**	**330**	P	**Pg**	**07 39 31.1**	**+0.3**
PSK				S	**Sg**	**07 39 58.1**	**+1.5**
TVKS	**Tavaksay**	**2.07**	**312**	P	**Pn**	**07 39 28.0**	**+1.1**
TVKS				S	**Sb**	**07 39 55.2**	**-0.2**
TAS	**Tashkent**	**2.14**	**302**	P	**Pg**	**07 39 32.5**	**-1.3**
TAS				S	**Sg**	**07 40 01.4**	**-0.2**
NZBK	**Nazarbek**	**2.21**	**298**	P	**Pg**	**07 39 34.4**	**-0.7**
NZBK				S	**Sg**	**07 40 04.9**	**+1.1**
IUG	**Iuzhnay**	**2.31**	**327**	P	**Pg**	**07 39 35.2**	**+1.1**
	27μm,0.6s						
IUG				Lg	Lg	07 40 06.1	
	22μm,0.7s						
IUG	**Iuzhnay**	**2.31**	**327**	*e*PN	**Pb**	**07 39 32.4**	**-1.7**
IUG	**Iuzhnay**	**2.31**	**327**	*e*P	**Pb**	**07 39 32.4**	**-1.7**
IUG	**Iuzhnay**	**2.31**	**327**	*e*P	**Pb**	**07 39 35.2**	**+1.1**
	27μm,0.6s						
IUG				eS	**Sg**	**07 40 06.1**	**-0.9**
	22μm,0.7s						
MNAS	**Manas**	**2.35**	**15**	⇑*i*P	**Pb**	**07 39 33.3**	**-1.5**
MNAS				⇑eS	**Sb**	**07 40 03.4**	**-0.3**
CHM	**Chimkent**	**2.64**	**324**	*e*PN	**Pb**	**07 39 37.0**	**-2.5**
CHM	**Chimkent**	**2.64**	**324**	*e*P	**Pb**	**07 39 37.0**	**-2.5**
CHM	**Chimkent**	**2.64**	**324**	*e*P	**Pg**	**07 39 42.0**	**-1.2**
	8μm,0.4s						
CHM				eS	**Sg**	**07 40 17.9**	**+0.5**
	26μm,0.5s						
DZA	**Taraz**	**2.69**	**354**	Pg	**Pg**	**07 39 43.2**	**-1.1**
	5μm,0.7s						
DZA				Lg	Lg	07 40 18.6	
	20μm,0.5s						
DZA	**Taraz**	**2.69**	**354**	*e*PN	**Pn**	**07 39 37.7**	**+2.3**
DZA	**Taraz**	**2.69**	**354**	*e*P	**Pn**	**07 39 37.7**	**+2.3**
DZA	**Taraz**	**2.69**	**354**	*e*P	**Pg**	**07 39 43.2**	**-1.1**
	5μm,0.7s						
DZA				eS	**Sg**	**07 40 18.6**	**-0.6**
	20μm,0.5s						
MRKS	**Merke**	**2.78**	**24**	Pg	**Pg**	**07 39 44.5**	**-1.4**
	583nm,0.5s						
MRKS				Lg	Lg	07 40 21.2	
	8μm,0.4s						
MRKS	**Merke**	**2.78**	**24**	*e*P	**Pg**	**07 39 44.5**	**-1.4**
	583nm,0.5s						
MRKS				eS	**Sg**	**07 40 21.2**	**-0.6**
	8μm,0.4s						
EKS2	**Erkin-Say**	**2.90**	**32**	P	**Pb**	**07 39 42.0**	**-2.1**
	SNR=79						
EKS2	**Erkin-Say**	**2.90**	**32**	⇓*i*P	**Pn**	**07 39 40.9**	**+2.5**
EKS2				⇓*i*S	**Sn**	**07 40 16.2**	**+3.2**
EKS2	**Erkin-Say**	**2.90**	**32**	*e*PN	**Pn**	**07 39 41.6**	**+3.2**
EKS2				eS	**Sb**	**07 40 17.8**	**-1.6**
UCH	**Uchtor**	**2.92**	**46**	P	**Pb**	**07 39 42.3**	**-2.4**
	SNR=437						
UCH	**Uchtor**	**2.92**	**46**	⇓*e*P	**Pn**	**07 39 41.3**	**+2.3**
UCH				⇓eS	**Sn**	**07 40 17.1**	**+3.1**
UCH	**Uchtor**	**2.92**	**46**	*e*PN	**Pn**	**07 39 42.2**	**+3.2**
UCH				eS	**Sb**	**07 40 18.5**	**-1.9**
KK31	**Karatay Array**	**3.02**	**343**	⇑Pn	**Pn**	**07 39 42.0**	**+2.0**
	136nm,0.5s,baz=155,slow=12						
KK31				⇑Pg	**Pg**	**07 39 48.8**	**-1.8**
	431nm,0.3s,baz=159,slow=11						
KK31				⇑Sn	**Sb**	**07 40 19.7**	**-3.2**
	792nm,0.3s,baz=150,slow=21						
KK31				⇓Lg	Lg	07 40 27.9	
	9μm,0.8s,baz=158,slow=29						
KK31	**Karatay Array**	**3.02**	**343**	PN	**Pn**	**07 39 41.9**	**+1.9**
KK31						07 39 48.8	
KK31						07 40 19.7	
KK31						07 40 28.0	
KK31	**Karatay Array**	**3.02**	**343**		**Pn**	**07 39 41.7**	**+1.7**
KKAR	**Karatay Array**	**3.02**	**343**	PN	**Pn**	**07 39 41.6**	**+1.6**
KKAR	**Karatay Array**	**3.02**	**343**		**Pn**	**07 39 41.6**	**+1.6**
BRLS	**Boroldaу**	**3.15**	**334**	Pg	**Pb**	**07 39 47.8**	**-0.5**
	532nm,0.5s						
BRLS				Lg	Lg	07 40 27.3	
	2μm,0.3s						
BRLS	**Boroldaу**	**3.15**	**334**	*e*PN	**Pn**	**07 39 40.6**	**-1.0**
BRLS	**Boroldaу**	**3.15**	**334**	*e*P	**Pn**	**07 39 40.7**	**-1.0**
BRLS				eS	**Sn**	**07 40 17.0**	**-2.0**
BRLS	**Boroldaу**	**3.15**	**334**	*e*P	**Pb**	**07 39 47.8**	**-0.5**
	532nm,0.5s						
BRLS				eS	**Sb**	**07 40 27.3**	**+0.9**
	2μm,0.3s						
KSH2	**Kashi**	**3.16**	**108**	Pn	**Pb**	**07 39 46.1**	**-2.5**
KSH2				Sn	**Sb**	**07 40 25.1**	**-1.9**
KSH2				AML	AML		
	10μm,0.7s						
KSH2				AML	AML		
	8μm,0.7s						
AAK	**Ala-Archa**	**3.20**	**40**	Pn	**Pn**	**07 39 45.9**	**+3.4**
	76nm,0.3s,baz=206,slow=2.6,SNR=241						
AAK				Lg	Lg	07 40 35.4	
	445nm,0.3s,baz=2.7,slow=23,SNR=8.1						
	213nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**3.20**	**40**	P	**Pn**	**07 39 46.3**	**+3.7**
	SNR=151						
AAK	**Ala-Archa**	**3.20**	**40**	⇑Pn	**Pn**	**07 39 45.4**	**+2.8**
	176nm,0.4s						
AAK				⇑Lg	Lg	07 40 34.1	
	4μm,0.8s						
AAK	**Ala-Archa**	**3.20**	**40**	*i*P	**Pn**	**07 39 46.4**	**+3.7**
	SNR=217						
AAK	**Ala-Archa**	**3.20**	**40**	P	**Pb**	**07 39 46.5**	**-2.8**
AAK	**Ala-Archa**	**3.20**	**40**	⇑*e*P	**Pn**	**07 39 45.0**	**+2.4**
AAK				⇑eS	**Sn**	**07 40 23.7**	**+3.2**
AAK	**Ala-Archa**	**3.20**	**40**	PN	**Pb**	**07 39 46.6**	**-2.8**
AAK						07 40 35.4	
AAK	**Ala-Archa**	**3.20**	**40**		**Pn**	**07 39 45.6**	**+3.0**
AAK	**Ala-Archa**	**3.20**	**40**	P	**Pn**	**07 39 46.2**	**+3.7**
FRU1	**Bishkek**	**3.40**	**39**	⇑*e*P	**Pn**	**07 39 47.8**	**+2.6**
FRU1				⇑*i*S	**Sn**	**07 40 28.3**	**+3.1**
FRU1	**Bishkek**	**3.40**	**39**	*e*PN	**Pn**	**07 39 48.7**	**+3.5**
FRU1				eS	**Sn**	**07 40 29.9**	**+4.7**
FRU1	**Bishkek**	**3.40**	**39**	Pn	**Pn**	**07 39 47.6**	**+2.5**
KBK	**Karagaybulak**	**3.45**	**44**	P	**Pb**	**07 39 50.4**	**-3.1**
	SNR=261						
KBK	**Karagaybulak**	**3.45**	**44**	⇑*e*P	**Pn**	**07 39 48.4**	**+2.4**
KBK				⇑eS	**Sn**	**07 40 29.5**	**+2.9**
KBK	**Karagaybulak**	**3.45**	**44**	*e*PN	**Pn**	**07 39 49.6**	**+3.6**
KBK				eS	**Sn**	**07 40 31.1**	**+4.5**
NRN	**Naryn**	**3.48**	**68**	⇓*e*P	**Pn**	**07 39 48.3**	**+1.8**
NRN				⇓eS	**Sn**	**07 40 29.3**	**+1.8**
NRN	**Naryn**	**3.48**	**68**	*e*PN	**Pn**	**07 39 48.5**	**+2.0**
NRN				eS	**Sn**	**07 40 30.8**	**+3.3**
NRN	**Naryn**	**3.48**	**68**		**Pn**	**07 39 48.2**	**+1.7**
CHMS	**Chumysh**	**3.60**	**38**	P	**Pn**	**07 39 51.8**	**+3.9**
	SNR=121						
CHMS	**Chumysh**	**3.60**	**38**	⇑*i*P	**Pn**	**07 39 50.4**	**+2.5**
CHMS				⇑*i*S	**Sn**	**07 40 32.8**	**+2.7**
USP	**Ospenovka**	**3.70**	**33**	P	**Pn**	**07 39 52.5**	**+3.3**
	SNR=349						
USP	**Ospenovka**	**3.70**	**33**	⇑*e*P	**Pn**	**07 39 51.9**	**+2.6**
USP				⇑*i*S	**Sn**	**07 40 35.4**	**+2.8**
USP	**Ospenovka**	**3.70**	**33**	*e*PN	**Pn**	**07 39 52.7**	**+3.4**
USP				eS	**Sn**	**07 40 36.9**	**+4.3**
ASAI	**AK-SAY(Kyrgyzs**	**3.73**	**78**	P	**Pn**	**07 39 53.3**	**+3.3**
AGL	**Agalyk**	**3.78**	**261**	P	**Pn**	**07 39 52.3**	**+1.9**
AGL				S	**Sb**	**07 40 41.0**	**-3.7**
ULHL	**Ulahol**	**3.98**	**58**	P	**Pn**	**07 39 56.6**	**+3.3**
	SNR=58						
ULHL	**Ulahol**	**3.98**	**58**	⇑*e*P	**Pn**	**07 39 55.7**	**+2.4**
ULHL				⇑*i*S	**Sn**	**07 40 42.0**	**+2.3**
ULHL	**Ulahol**	**3.98**	**58**	*e*PN	**Pn**	**07 39 56.6**	**+3.3**
ULHL				eS	**Sn**	**07 40 43.5**	**+3.8**
TKM2	**Tokmak 2**	**3.98**	**46**	P	**Pn**	**07 39 56.9**	**+3.6**
	SNR=1394						
TKM2	**Tokmak 2**	**3.98**	**46**	⇑*i*P	**Pn**	**07 39 55.8**	**+2.5**
TKM2				⇑*i*S	**Sn**	**07 40 42.2**	**+2.4**
KST	**Kastek**	**4.26**	**47**	Pg	**Pg**	**07 40 11.8**	**-2.4**
	242nm,0.4s						
KST				Lg	Lg	07 41 08.3	
	2μm,0.5s						
KST	**Kastek**	**4.26**	**47**	*e*P	**Pg**	**07 40 11.8**	**-2.4**
	242nm,0.4s						
KST				eS	**Sg**	**07 41 08.3**	**-1.2**
	2μm,0.5s						
MTBS	**Maitube**	**4.58**	**49**	Pg	**Pg**	**07 40 17.4**	**-3.0**
	250nm,0.5s						
MTBS				Lg	Lg	07 41 17.8	
	1μm,0.6s						
MTBS	**Maitube**	**4.58**	**49**	*e*P	**Pg**	**07 40 17.4**	**-3.0**
	250nm,0.5s						
MTBS				eS	**Sg**	**07 41 17.8**	**-1.9**
	1μm,0.6s						
ZRB	**Zarabog**	**4.71**	**245**	P	**Pn**	**07 40 03.0**	**-0.2**
TNSS	**Tian-Shan**	**4.84**	**53**	Pg	**Pg**	**07 40 22.6**	**-2.6**
	86nm,0.7s						
TNSS				Lg	Lg	07 41 27.1	
	477nm,1.0s						
TNSS	**Tian-Shan**	**4.84**	**53**	*e*PN	**Pn**	**07 40 07.9**	**+2.7**
TNSS	**Tian-Shan**	**4.84**	**53**	*e*P	**Pn**	**07 40 08.0**	**+2.7**
TNSS	**Tian-Shan**	**4.84**	**53**	*e*P	**Pg**	**07 40 22.6**	**-2.6**
	86nm,0.7s						
TNSS				eS	**Sg**	**07 41 27.1**	**-0.8**
	477nm,1.0s						
AAA	**Alma-Ata**	**4.92**	**51**	Pg	**Pg**	**07 40 23.4**	**-3.4**
	282nm,0.7s						
AAA				Lg	Lg	07 41 29.0	
	46nm,0.4s						
AAA	**Alma-Ata**	**4.92**	**51**	*e*PN	**Pn**	**07 40 09.3**	**+3.3**
AAA	**Alma-Ata**	**4.92**	**51**	*e*P	**Pn**	**07 40 09.4**	**+3.3**
AAA	**Alma-Ata**	**4.92**	**51**	*e*P	**Pg**	**07 40 23.4**	**-3.4**
	282nm,0.7s						
AAA				eS	**Sg**	**07 41 29.0**	**-1.4**
	46nm,0.4s						
MDOK	**Medeo**	**4.97**	**52**	Pg	**Pg**	**07 40 24.5**	**-3.2**
	281nm,1.0s						
MDOK				Lg	Lg	07 41 30.0	
	2μm,0.8s						
MDOK	**Medeo**	**4.97**	**52**	*e*PN	**Pn**	**07 40 10.2**	**+3.4**
MDOK				eS	**Sn**	**07 41 08.9**	**+4.9**
MDOK	**Medeo**	**4.97**	**52**	*e*P	**Pn**	**07 40 10.2**	**+3.4**
MDOK				eS	**Sn**	**07 41 08.9**	**+4.9**
KUU	**Kurty**	**5.04**	**42**	Pg	**Pb**	**07 40 24.4**	**+3.9**
	25nm,0.3s						
KUU				Lg	Lg	07 41 29.6	
	1μm,0.7s						
KUU	**Kurty**	**5.04**	**42**	*e*P	**Pb**	**07 40 24.4**	**+3.9**
	25nm,0.3s						
KUU				eS	**Sg**	**07 41 29.6**	**-4.9**
	1μm,0.7s						
BTLS	**Baital**	**5.12**	**19**	Pg	**Pg**	**07 40 27.1**	**-3.7**
	204nm,0.6s						
BTLS				Lg	Lg	07 41 34.9	
	2μm,0.6s						
BTLS	**Baital**	**5.12**	**19**	*e*P	**Pg**	**07 40 27.1**	**-3.7**
	204nm,0.6s						
BTLS				eS	**Sg**	**07 41 34.9**	**-2.2**
	2μm,0.6s						
ANVS	**Anan'yevo**	**5.16**	**58**	⇓*e*P	**Pn**	**07 40 12.0**	**+2.5**
ANVS				⇓*i*S	**Sn**	**07 41 10.3**	**+1.5**
PRZ	**Przheval'sk**	**5.52**	**64**	⇑*i*P	**Pn**	**07 40 17.1**	**+2.6**
PRZ				⇑*i*S	**Sn**	**07 41 19.0**	**+1.2**
PRZ	**Przheval'sk**	**5.52**	**64**	PN	**Pn**	**07 40 16.5**	**+2.0**
PRZ	**Przheval'sk**	**5.52**	**64**	Pn	**Pn**	**07 40 16.5**	**+2.0**
PRZ	**Przheval'sk**	**5.52**	**64**	P	**Pn**	**07 40 18.3**	**+3.9**
	comp=Z,708nm,1.0s						
TMD	**Tamdy-Bulak**	**5.56**	**288**	P	**Pb**	**07 40 33.2**	**+3.7**
SATY	**Saty**	**5.77**	**58**	Pg	**Pg**	**07 40 39.0**	**-4.0**
	comp=Z,84nm,0.8s						
SATY				Lg	Lg	07 41 54.6	
	comp=Z,579nm,0.7s						
SATY	**Saty**	**5.77**	**58**	*e*PN	**Pn**	**07 40 20.5**	**+2.8**
SATY	**Saty**	**5.77**	**58**	*e*P	**Pn**	**07 40 20.6**	**+2.8**
SATY	**Saty**	**5.77**	**58**	*e*P	**Pg**	**07 40 39.0**	**-4.0**
	comp=Z,84nm,0.8s						
SATY				eS	**Sg**	**07 41 54.5**	**-3.2**
	comp=Z,579nm,0.7s						
KURS	**Kuram**	**5.83**	**54**	Pg	**Pg**	**07 40 41.2**	**-3.0**
	comp=Z,147nm,0.7s						
KURS				Lg	Lg	07 41 58.6	
	comp=Z,631nm,1.5s						
KURS	**Kuram**	**5.83**	**54**	*e*P	**Pg**	**07 40 41.2**	**-3.0**
	comp=Z,147nm,0.7s						
KURS				eS	**Sg**	**07 41 58.6**	**-1.1**
	comp=Z,631nm,1.5s						
KBL	**Kabul**	**6.04**	**201**	P	**Pn**	**07 40 25.2**	**+3.5**
	SNR=119						
KBL				S	**Sn**	**07 41 34.0**	**+3.3**
KBL	**Kabul**	**6.04**	**201**	PN	**Pn**	**07 40 24.6**	**+2.9**
KBL	**Kabul**	**6.04**	**201**		**Pn**	**07 40 24.6**	**+2.9**
KBL	**Kabul**	**6.04**	**201**	P	**Pn**	**07 40 25.4**	**+3.8**
	comp=Z,503nm,0.5s						
KPKS	**Kokpek**	**6.14**	**56**	Pg	Pg	07 40 45.7	-4.5
	comp=Z,0.3nm,0.1s						
KPKS				Lg	Lg	07 42 07.0	
	comp=Z,1μm,0.8s						
KPKS	**Kokpek**	**6.14**	**56

comp=Z,27nm,0.7s
MKAR AML AML
MKAR Makanchi Array 10.11 46 Pn Pn 07 41 18.5 +1.2
KURBB Kurchatov Arra 11.46 22 Pn **Pn 07 41 35.6 0.0**
comp=Z,17nm,0.6s,baz=214,slow=13,SNR=11
KURBB Sn **Sn 07 43 46.5 +3.4**
comp=Z,0.4nm,0.3s,baz=216,slow=17,SNR=4.3
KURBB Lg Lg 07 44 51.0
comp=Z,1.6nm,0.3s,baz=210,slow=28,SNR=4.7
KURBB LR LR 07 45 27.7
comp=Z,97nm,21.6s,baz=179,slow=34
KURBB Kurchatov Arra 11.46 22 ⇑Pn **Pn 07 41 34.5 -1.0**
comp=Z,38nm,0.7s
KURBB ⇑Lg Lg 07 44 53.4
comp=Z,540nm,0.8s
KURBB Kurchatov Arra 11.46 22 P **Pn 07 41 35.2 -0.3**
KURK Kurchatov 11.56 22 ⇓Pn **Pn 07 41 36.1 -0.9**
comp=Z,29nm,1.2s
KURK Kurchatov 11.56 22 P Pn 07 41 31.3 -5.7
KURK Kurchatov 11.56 22 P **Pn 07 41 35.6 -1.4**
KURK 07 43 46.5
ZSN Zaisan 11.93 48 *e*P **Pn 07 41 44.8 +2.7**
ZSN Zaisan 11.93 48 *e*P **Pn 07 41 44.9 +2.7**
AB31 Akbulak array 12.30 321 ⇓Pn **Pn 07 41 44.4 -2.8**
comp=Z,32nm,0.6s
AB31 ⇑S Sn 07 43 53.6 -10
comp=Z,146nm,0.6s
AB31 Akbulak array 12.30 321 P **Pn 07 41 44.4 -2.8**
AB31 Akbulak array 12.30 321 Pn **Pn 07 41 45.0 -2.2**
ABKAR Akbulak array 12.30 321 Pn 07 41 44.6 -2.6
WMQ Urumqi 12.42 68 *e*P **Pn 07 41 52.9 +4.0**
WMQ pP P 07 41 58.3 -2.5
WMQ S **Sn 07 44 08.0 +0.9**
WMQ pmax pmax
comp=Z,17nm,1.1s
WMQ L L
comp=Z,520nm,21.3s
BVA0 Borovoye Array 12.85 356 P **Pn 07 41 53.6 -1.0**
comp=Z,1.4nm,0.6s,baz=161,slow=13,SNR=91
BVAR Borovoye Array 12.85 356 Pn **Pn 07 41 53.2 -1.4**
comp=Z,0.4nm,0.3s,baz=166,slow=11,SNR=49
BVAR Sn **Sn 07 44 13.3 -4.0**
comp=Z,1.7nm,0.3s,baz=161,slow=22,SNR=6.4
BVAR Lg Lg 07 45 34.0
comp=Z,0.6nm,0.3s,baz=175,slow=22,SNR=3.9
comp=Z,16nm,0.6s
BVAR AML AML
BORK Borovoye 12.87 356⇑ *e*P **Pn 07 41 54.1 -0.8**
BORK pmax pmax
comp=Z,9.0nm,0.7s
BORK Borovoye 12.87 356 Pn 07 41 53.7 -1.2
AKTO Aktyubinsk 14.02 321 Pn **Pn 07 42 08.8 -1.9**
comp=Z,2.9nm,0.3s,baz=131,slow=12,SNR=58
AKTO Sn Sn 07 44 35.9 -10
comp=Z,9.4nm,0.3s,baz=117,slow=12,SNR=5.3
AKTO Lg Lg 07 46 10.7
baz=210,slow=20
comp=Z,34nm,0.6s
AKTO AML AML
AKTO Aktyubinsk 14.02 321 ⇑Pn **Pn 07 42 11.3 +0.7**
comp=Z,63nm,0.7s
AKTO ⇑S **Sn 07 44 37.0 -8.9**
comp=Z,100nm,1.4s
AKTO Aktyubinsk 14.02 321 P **Pn 07 42 07.8 -2.8**
ZAA0 Zalesovo Array 16.35 28 Pn **Pn 07 42 40.3 -1.1**
ZAA0 Zalesovo Array 16.35 28 Pn 07 42 40.8 -0.6
ZALV Zalesovo Beam 16.35 28 Pn **Pn 07 42 41.1 -0.2**
comp=Z,1.6nm,0.3s,baz=226,slow=12,SNR=35
ZALV Sn **Sn 07 45 39.1 -3.3**
comp=Z,0.6nm,0.3s,baz=221,slow=19,SNR=2.1
ZALV Lg Lg 07 47 25.2
baz=217,slow=31
ZALV LR LR 07 49 24.5
comp=Z,1μm,18.5s,baz=220,slow=39
comp=Z,22nm,0.5s
ZALV AML AML
ZALV Zalesovo Beam 16.35 28 Pn 07 42 40.6 -0.8
NGCH Negor - Chabah 17.25 214 P **Pn 07 42 51.6 -1.4**
SNR=5.1
EVN Everest 17.46 130 P **Pn 07 42 53.7 -2.6**
EVN IAmb IAmb 07 43 07.6
comp=Z,85nm,0.7s
SVE Sverdlovsk 18.13 340 *e*P **Pn 07 43 02.5 -1.2**
SVE *e*S **S 07 46 34.0 +3.0**
SVE pmax pmax
comp=Z,33nm,0.7s
SVE MLR MLR
comp=Z,3μm,12.0s
MAK Makhachkala 18.30 287 *d i*P **Pn 07 43 02.5 -3.3**
MAK *e*S **Sn 07 46 24.5 -5.2**
MAK pmax pmax
comp=Z,179nm,1.3s
MAK MLR MLR
comp=Z,3μm,16.0s
JASK Jask - Hormozg 18.39 223 P **P 07 43 05.9 -1.1**
SNR=5.8
ARTI Arti 18.40 336 P **P 07 43 06.3 -0.6**
comp=Z,2.5nm,0.3s,baz=154,slow=6.3,SNR=45
ARTI S **Sn 07 46 33.6 +1.6**
comp=Z,8.6nm,0.7s,baz=104,slow=22,SNR=1.6
ARTI Lg Lg 07 48 33.6
comp=Z,0.2nm,0.3s,baz=35,slow=16,SNR=3.7
ARTI LR LR 07 50 43.7
comp=Z,1μm,20.4s,baz=147,slow=39
comp=Z,55nm,1.0s
ARTI AML AML
ARTI Arti 18.40 336 *c i*P **P 07 43 06.2 -0.6**
ARTI S **Sn 07 46 31.3 -0.7**
ARTI pmax pmax
comp=Z,66nm,0.9s
ARTI MLR MLR
comp=Z,1μm,13.0s
ARTI Arti 18.40 336 P P 07 43 05.8 -1.1
GOMU GeErMu 18.58 95 P **P 07 43 10.1 +0.6**
GOMU sP sP 07 43 17.9 +1.7
GOMU S **Sn 07 46 32.9 -4.4**
GOMU pmax pmax
comp=Z,83nm,0.7s
GOMU L L
comp=Z,340nm,10.8s
GOMU L L
comp=Z,270nm,10.5s
GOMU L L
comp=Z,670nm,10.9s
LSA Lhasa 19.04 117 P Pn 07 43 17.0 +1.6
LSA Lhasa 19.04 117 P Pn 07 43 16.4 +1.0
LSA S **S 07 46 50.4 -0.1**
LSA L L
comp=Z,350nm,10.4s
LSA L L
comp=Z,340nm,7.7s
LSA L L
comp=Z,760nm,15.6s
SHME Shamm 19.18 227 P P 07 43 15.2 -0.4
SHME Shamm 19.18 227 P P 07 43 16.1 +0.4
BANOM Banah 19.19 227 P P 07 43 15.5 -0.3
BANOM Banah 19.19 227 P P 07 43 16.0 +0.2
MDH Madha 19.68 226 P P 07 43 20.1 -1.0
MASF Masafi 19.70 226 P P 07 43 21.8 +0.4
SNR=6.2
MSFE Esma-Masafi 19.71 226 *i* P **P 07 43 21.9 +0.4**
SNR=6.5
UOSS Minazif 20.01 225 *i* P **P 07 43 24.0 -0.8**
SNR=20
UOSS Minazif 20.01 225 P P 07 43 24.4 -0.4
UOSS Minazif 20.01 225 P P 07 43 22.4 -2.4
UOSS Minazif 20.01 225 P P 07 43 24.2 -0.6
comp=Z,31nm,0.7s
HATD Hatta, Dubai 20.15 225 P P 07 43 26.9 +0.6
HATD Hatta, Dubai 20.15 225 P P 07 43 26.6 +0.3
SNR=11
BIDO Bidbid 20.20 219 P P 07 43 27.6 +0.7
WSAR Wadi Sarin 20.21 217 P P 07 43 27.7 +0.8
SNR=10.0
NAZ Nazwa, Dubai 20.28 226 *i* P **P 07 43 28.4 +0.8**
SNR=22
NAZ Nazwa, Dubai 20.28 226 P P 07 43 28.6 +0.9
SNR=15
ASHO Ashiyiah 20.30 225 *i* P **P 07 43 28.6 +0.7**
SNR=55
ASHO Ashiyiah 20.30 225 P P 07 43 28.7 +0.7
SNR=21
SOHO SOHO 20.49 223 *i* P **P 07 43 29.1 -0.9**
SNR=12
SOHO SOHO 20.49 223 P P 07 43 29.3 -0.7
SNR=14

FAQ Al Faqa, Dubai 20.51 226 *i* P **P 07 43 30.6 +0.5**
SNR=15
FAQ Al Faqa, Dubai 20.51 226 P P 07 43 30.9 +0.8
SNR=12
BELG Belogornoye 20.51 314 P P 07 43 29.7 -0.2
comp=Z,109nm,0.8s,baz=103,slow=1.8,SNR=15
BELG S S 07 47 05.8 -13
comp=Z,38nm,1.0s,baz=126,slow=23,SNR=1.5
BELG LR LR 07 52 38.0
comp=Z,802nm,18.5s,baz=93,slow=40
comp=Z,109nm,0.8s
BELG Belogornoye 20.51 314 *ce*P **P 07 43 29.5 -0.4**
BELG pmax pmax
comp=Z,19nm,0.8s
HOQ Hoqain 20.55 221 P P 07 43 30.8 +0.1
SNR=6.4
GNI Garni 20.58 279 P P 07 43 30.6 -0.4
comp=Z,24nm,0.7s,baz=161,slow=8.6,SNR=5.4
comp=Z,24nm,0.7s
GNI Garni 20.58 279 P Pn 07 43 32.3 -1.0
GNI Garni 20.58 279 *e*P Pn 07 43 32.8 -0.5
GNI pmax pmax
comp=Z,60nm,0.9s
GNI Garni 20.58 279 P P 07 43 30.5 -0.6
GNI IAmb IAmb 07 43 48.1
comp=Z,115nm,1.1s
GNI Garni 20.58 279 P P 07 43 30.9 -0.2
comp=Z,98nm,1.1s
WBK Wadi Bani Khal 20.60 215 P P 07 43 32.0 +0.7
SNR=15
SMDO Samad 20.64 218 P P 07 43 32.1 +0.4
SNR=11
ASUD Al Ashush, Dub 20.75 226 *i* P **P 07 43 33.9 +1.1**
SNR=19
ASUD Al Ashush, Dub 20.75 226 P P 07 43 33.9 +1.1
SNR=10
KNGR Kungurtug, Tuv 20.79 51 *de*P Pn 07 43 36.5 +0.9
KNGR pmax pmax
comp=Z,220nm,0.9s
JLN Jalan Bani Buh 20.81 214 P P 07 43 34.0 +0.5
SNR=18
ALNE Al Ain 20.97 225 *i* P **P 07 43 36.0 +0.8**
SNR=87
ALNE Al Ain 20.97 225 P P 07 43 35.7 +0.5
SNR=47
AJN Ajban 20.99 227 *i* P **P 07 43 35.9 +0.6**
SNR=14
AJN Ajban 20.99 227 P P 07 43 35.7 +0.4
SNR=8.3
ARQ Araqi 21.15 222 P P 07 43 37.8 +0.6
SNR=19
NCK Nalchik 21.15 288 *e*P **P 07 43 36.8 -0.3**
NCK pmax pmax
comp=Z,44nm,0.7s
JMDO Jabal Madar 21.20 217 P P 07 43 38.4 +0.7
SNR=31
BSY Bisya 21.31 220 P P 07 43 39.5 +0.6
SNR=18
OZAP Van, Ozalp-Mer 21.43 275 ⇓P **P 07 43 42.4 +2.1**
GTA2 Gaotai 21.52 83 P P 07 43 42.2 +1.1
GTA2 sS sS 07 47 44.9 -1.7
GTA2 pmax pmax
comp=Z,67nm,0.9s
GTA2 L L
comp=Z,450nm,14.9s
GTA2 L L
comp=Z,570nm,14.9s
GTA2 L L
comp=Z,780nm,14.6s
DIGO Kars 21.57 280 P P 07 43 43.2 +1.4
comp=Z,134nm,1.2s
KBZ Khabaz 21.66 289 P P 07 43 41.6 -0.8
comp=Z,14nm,0.9s,baz=135,slow=10,SNR=21
KBZ LR LR 07 54 22.3
comp=Z,727nm,18.2s,baz=94,slow=43
comp=Z,14nm,0.9s
KBZ Khabaz 21.66 289 *e*P **P 07 43 41.5 -0.9**
KBZ pmax pmax
comp=Z,11nm,0.8s
KVAR Kislovodsk Arr 21.80 289 P P 07 43 44.5 +0.4
comp=Z,5.9nm,0.5s,baz=90,slow=20
KVAR LR LR 07 52 27.3
comp=Z,312nm,21.8s,slow=38
comp=Z,5.9nm,0.5s
KIV Kislovodsk 21.81 289 P P 07 43 43.5 -0.7
KIV Kislovodsk 21.81 289 *e*P **P 07 43 43.4 -0.8**
KIV *e*S **S 07 47 45.0 +0.2**
KIV pmax pmax
comp=Z,42nm,1.0s
KIV MLR MLR
comp=Z,259nm,14.0s
KIV Kislovodsk 21.81 289 P P 07 43 43.0 -1.1
KIV Kislovodsk 21.81 289 ⇑P **P 07 43 43.8 -0.4**
KIV Kislovodsk 21.81 289 P P 07 43 43.3 -0.9
comp=Z,839nmcomp=Z,98nm,0.8s
KIV Kislovodsk 21.81 289 P P 07 43 43.9 -0.3
comp=Z,126nm,0.8s
NEUR Neytrino 21.81 288 *de*P **P 07 43 44.2 -0.1**
NEUR pmax pmax
comp=Z,28nm,0.9s
SHA1 Shidzhatmaz 21.83 289 *ce*P **P 07 43 43.7 -0.9**
EPOS Posof 21.92 283 P P 07 43 46.9 +1.5
comp=Z,52nm,1.1s
HAKT HAKKARI 21.92 272 P P 07 43 47.4 +1.8
comp=Z,72nm,0.8s
JRN Qarnain Island 21.94 232 P P 07 43 45.3 -0.3
MZWR Madinat Zayed 22.24 228 P P 07 43 48.8 -0.1
SHL Shillong 22.30 125 P P 07 43 49.7 +0.1
SNR=33
SHL Shillong 22.30 125 P P 07 43 48.7 -0.9
SHL pmax pmax
comp=Z,86nm,0.8s
SHL Shillong 22.30 125 P P 07 43 48.6 -0.9
SHL IAmb IAmb 07 44 00.4
comp=Z,86nm,0.8s
UMZA Um Al Zommool 22.37 224 P P 07 43 50.2 0.0
MHTO MHTO 22.47 216 P P 07 43 52.0 +0.8
SNR=15
GHWR Ruwais 22.66 230 P P 07 43 53.1 -0.2
HOMI Horasan 22.74 279 ⇓P **P 07 43 56.2 +1.8**
MZR Muzera 23.06 227 P P 07 43 57.9 +0.3
SNR=6.8
MOY Mondy 23.20 51 *e*P **P 07 44 01.7 +2.8**
MOY pmax pmax
comp=Z,78nm,2.5s
LABN Labinsk 23.22 291 *e*P **P 07 43 58.7 -0.3**
LABN *e*'PP **pP 07 44 01.6 -2.1**
LABN *e*S **S 07 48 11.4 +1.1**
LABN pmax pmax
comp=Z,56nm,0.7s
KIRV Kirov 23.23 330 P P 07 43 59.7 +0.8
comp=Z,41nm,0.8s,baz=102,slow=1.8,SNR=8.7
KIRV LR LR 07 54 08.0
comp=Z,685nm,18.6s,baz=127,slow=39
comp=Z,41nm,0.8s
SLWR Sila 23.29 232 P P 07 44 00.2 +0.4
ERBR Yeremizino-Bor 23.41 294 *e*P **P 07 44 00.5 -0.4**
ERBR *e*'PP **pP 07 44 03.2 -2.5**
ERBR *e*S **S 07 48 13.9 +0.5**
ERBR pmax pmax
comp=Z,24nm,0.6s
ERBR MLR MLR
comp=Z,520nm,19.0s
HYB Hyderabad 23.48 163 *e*P **P 07 44 01.0 -0.7**
HYB *e*pP **pP 07 44 07.5 +0.9**
HYB IVmB_BB 07 44 15.0
comp=Z,444nm,5.1s
HYB *e*PcP **PcP 07 47 46.9 -0.7**
HYB *e*S **S 07 48 13.8 -1.1**
HYB IVMs_BB IVMs_BB 07 53 15.4
comp=Z,899nm,9.2s
HYB *e*ScS **ScS 07 55 12.5 +0.9**
VRH Novokhopyorsk 23.48 308 *e*P **P 07 44 06.8 +5.3**
VRH pmax pmax
comp=Z,192nm,0.6s
RPOR Krasnaya Polya 23.57 289 *e*P **P 07 44 05.2 +2.7**
DQM DQM 23.58 215 P **P 07 44 02.8 +0.1**
GUZR Guzeripl' 23.66 290 *e*P **P 07 44 04.6 +1.2**
GUZR pmax pmax
comp=Z,12nm,0.8s
SOC Sochi 23.97 289 *e*P **P 07 44 04.9 -1.4**
SOC *e*PPP PPP 07 44 42.6
SOC *e*S **S 07 48 21.4 -1.0**
SOC *e*SS **SnSn 07 49 03.0 +0.6**
SOC *e*SSS SSS 07 49 17.7
SOC MLR MLR
comp=Z,488nm,16.0s
ZAK Zakamensk 24.26 55 *e*P **P 07 44 10.7 +1.7**
ZAK pmax pmax
comp=Z,70nm,0.9s
KELT Kelkit 24.72 280 P **P 07 44 16.4 +2.9**
comp=Z,102nm,1.0s
MORE Moreh 24.78 123 P **P 07 44 14.7 +0.8**
MORE IAmb IAmb 07 44 26.7
comp=Z,59nm,0.8s
TLY Talaya 24.79 52 LR LR 07 54 56.7
comp=Z,444nm,18.4s,baz=252,slow=39
TLY Talaya 24.79 52 P **P 07 44 12.0 -1.8**
TLY Talaya 24.79 52 *ce*P **P 07 44 15.4 +1.6**
TLY pmax pmax
comp=Z,12nm,0.9s
VORD Divnogorie 24.91 306 *e*P **P 07 44 13.4 -1.4**
VORD pmax pmax
comp=Z,10.0nm,0.2s
VSR Storozhevoye 25.04 307 *e*P **P 07 44 15.6 -0.4**
VSR pmax pmax
comp=Z,34nm,0.8s
VORR Voronezh 25.13 308 *e*P **P 07 44 17.2 +0.5**
VORR pmax pmax
comp=Z,87nm,0.4s
IRK Irkutsk 25.31 51 *e*P **P 07 44 18.6 +0.1**
IRK pmax pmax
comp=Z,603nm,2.3s
LZDM Lanzhou Array 25.46 89 P **P 07 44 21.2 +0.9**
comp=Z,9.9nm,0.6s,baz=288,slow=10,SNR=10
LZDM PcP **PcP 07 47 52.1 +0.1**
comp=Z,3.0nm,0.4s,baz=318,slow=4.0,SNR=5.0
LZDM LR LR 07 56 25.8
comp=Z,496nm,19.9s,baz=295,slow=41
comp=Z,9.9nm,0.6s
LZH Lanzhou 25.53 89 *e*P **P 07 44 21.9 +1.1**
LZH sP sP 07 44 30.5 +2.8
LZH SS 07 49 50.6
LZH pmax pmax
comp=Z,56nm,1.0s
LZH L L
comp=Z,440nm,17.0s
LZH L L
comp=Z,710nm,17.5s
LZH L L
comp=Z,880nm,18.0s
LPSR Galich'ya Gora 25.54 310 *e*P **P 07 44 20.5 +0.1**
LPSR pmax pmax
comp=Z,28nm,0.7s
ANN Anapa 25.56 292 *e*P **P 07 44 21.4 +0.7**
ANN *e*'PP **pP 07 44 25.0 -0.7**
ANN *e*S **S 07 48 50.2 +2.4**
ANN pmax pmax
comp=Z,53nm,0.8s
ANN MLR MLR
comp=Z,437nm,17.0s
SONM Songino Array 25.91 61 P **P 07 44 25.1 +1.0**
comp=Z,19nm,0.9s,baz=264,slow=9.7,SNR=57
SONM LR LR 07 55 50.2
comp=Z,392nm,19.2s,baz=276,slow=39
comp=Z,19nm,0.9s
SONM Songino Array 25.91 61 P **P 07 44 24.7 +0.6**
SONM pmax pmax
comp=Z,25nm,1.0s
SONM Songino Array 25.91 61 P **P 07 44 24.7 +0.6**
SHAO Shalim 26.11 217 P **P 07 44 26.6 +0.6**
SHAO Shalim 26.11 217 P **P 07 44 26.8 +0.8**
DOK Doka 26.32 220 P **P 07 44 28.4 +0.6**
SNR=17
ULN Ulaanbaatar 26.36 61 P **P 07 44 26.3 -1.8**
ULN Ulaanbaatar 26.36 61 *ce*P **P 07 44 29.3 +1.1**
ULN pmax pmax
comp=Z,43nm,1.0s
ULN Ulaanbaatar 26.36 61 P **P 07 44 29.2 +1.0**
ULN IAmb IAmb 07 44 30.5
comp=Z,40nm,0.9s
ULN Ulaanbaatar 26.36 61 P **P 07 44 27.8 -0.4**
comp=Z,200nm,1.1s
ULN Ulaanbaatar 26.36 61 P **P 07 44 29.6 +1.5**
comp=Z,51nm,1.1s
DMTO DMTO 26.69 218 P **P 07 44 31.6 +0.4**
SNR=5.6
WHFO Wadi Hawf 27.09 220 P **P 07 44 34.8 0.0**
SNR=20
RBK Rabkut 27.23 219 P **P 07 44 36.3 +0.2**
SNR=17
MOS Moscow 27.24 316 *e*P **P 07 44 41.7 +5.9**
MOS *e* 07 44 50.3
MOS *e* 07 45 30.1
MOS *e*SS SS 07 50 36.3 -32
MOS pmax pmax
comp=Z,62nm,0.8s
MOS MLR MLR
comp=Z,1μm,9.0s
ANDN Andirin 27.54 276 P **P 07 44 40.3 +1.5**
comp=Z,69nm,0.9s
CD2 Chengdu 27.55 100 P **P 07 44 40.0 +1.1**
CD2 S **S 07 49 20.3 +0.7**
CD2 pmax pmax
comp=Z,20nm,0.5s
CD2 L L
comp=Z,450nm,10.5s
CD2 L L
comp=Z,410nm,11.0s
OBN Obninsk 27.61 314 P **P 07 44 39.5 +0.5**
comp=Z,26nm,0.4s,baz=292,slow=11,SNR=3.0
OBN LR LR 07 57 32.0
comp=Z,134nm,21.8s,baz=356,slow=41
comp=Z,26nm,0.4s
OBN Obninsk 27.61 314 *e*P **P 07 44 39.7 +0.6**
OBN *e* 07 45 23.9
OBN *e*S **S 07 49 18.4 -1.5**
OBN pmax pmax
comp=Z,18nm,0.6s
OBN MLR MLR
comp=Z,820nm,15.0s
OBN Obninsk 27.61 314 P **P 07 44 39.2 +0.1**
RAYN Ar Rayn 27.64 241 *i* P **P 07 44 40.1 +0.3**
SNR=12
RAYN Ar Rayn 27.64 241 P **P 07 44 40.4 +0.6**
RAYN Ar Rayn 27.64 241 P **P 07 44 38.9 -0.9**
RAYN pmax pmax
comp=Z,12nm,1.0s
RAYN Ar Rayn 27.64 241 P **P 07 44 38.9 -0.9**
RAYN Ar Rayn 27.64 241 P **P 07 44 40.0 +0.3**
comp=Z,16nm,1.2s
ABTO Aybut 27.80 220 P **P 07 44 41.2 0.0**
SNR=24
SIM Simferopol' 27.91 292 *e*P **P 07 44 41.4 -0.5**
SIM pmax pmax
comp=Z,49nm,1.1s
KLMR Klimovskoe 28.59 327 *e*P **P 07 44 47.6 -0.3**
KLMR S **S 07 49 37.5 +2.1**
KLMR pmax pmax
comp=Z,41nm,1.5s
KLMR MLR MLR
comp=Z,866nm,9.0s
BTO2 Baotou 28.89 76 *e*P **P 07 44 52.2 +1.3**
BTO2 pP **sP 07 44 59.8 +1.9**
BTO2 S **S 07 49 42.5 +1.8**
BTO2 pmax pmax
comp=Z,79nm,0.9s
BTO2 pmax pmax
comp=Z,330nm,5.5s
BTO2 L L
comp=Z,770nm,5.9s
BTO2 L L
comp=Z,930nm,12.9s
BTO2 L L
comp=Z,1μm,11.4s
KIRS Kirsehir-Merke 28.97 280 ⇑P **P 07 44 52.4 +0.9**
BR131 Keskin Array S 29.03 282 P **P 07 44 52.6 +0.4**
BR131 Keskin Array S 29.03 282 P **P 07 44 51.4 -0.8**
BR131 pmax pmax
comp=Z,10.0nm,0.8s
BR131 Keskin Array S 29.03 282 P **P 07 44 51.4 -0.8**
BRTR Keskin Array B 29.04 282 P **P 07 44 52.4 +0.2**
comp=Z,6.4nm,0.7s,baz=92,slow=7.0,SNR=24
BRTR LR LR 07 56 58.2
comp=Z,110nm,18.6s,baz=72,slow=38
comp=Z,6.4nm,0.7s
BRTR Keskin Array B 29.04 282 P **P 07 44 51.8 -0.4**
BR106 Keskin Array S 29.05 282 P **P 07 44 52.7 +0.4**
comp=Z,9.0nm,0.8s
NPW Naypyitaw 29.20 127 P **P 07 44 53.2 -0.4**
comp=Z,42nm,0.8s
HHC Hu-ho-hao-te 30.12 76 *e*P **P 07 45 02.9 +1.1**

HHC sP sP 07 45 12.8 +4.0
HHC S **S** **07 49 55.7 -4.3**
HHC pmax pmax
comp=Z,14nm,0.7s
HHC L L
comp=Z,380nm,15.0s
HHC L L
comp=Z,290nm,14.1s
HHC L L
comp=Z,380nm,15.6s
XAN Xi'an 30.15 90 ⇑P **P** **07 45 02.3 +0.3**
XAN pP pP 07 45 08.0 +1.1
XAN pmax pmax
comp=Z,28nm,0.6s
NRIK Noril'sk 30.38 11 P **P** **07 45 04.8 +1.2**
comp=Z,20nm,0.8s,baz=199,slow=5.7,SNR=19
NRIK LR LR 07 59 28.3
comp=Z,499nm,19.1s,baz=200,slow=41
comp=Z,20nm,0.8s
NRIK Noril'sk 30.38 11 *ce*P **P** **07 45 04.6 +1.0**
NRIK pmax pmax
comp=Z,24nm,1.0s
NRIK Noril'sk 30.38 11 P **P** **07 45 04.2 +0.6**
NRIK IAmb IAmb 07 45 11.1
comp=Z,35nm,0.8s
AK10 Malin Array Si 31.17 304 P **P** **07 45 10.6 -0.2**
AKASG Malin Array Be 31.19 304 P **P** **07 45 10.8 -0.2**
comp=Z,3.0nm,0.4s,baz=80,slow=7.4,SNR=35
AKASG LR LR 08 00 28.9
comp=Z,493nm,18.4s,baz=90,slow=42
comp=Z,3.0nm,0.4s
AKASG Malin Array Be 31.19 304 *i* P **P** **07 45 10.8 -0.2**
AKASG pmax pmax
comp=Z,10.0nm,0.5s
AKBB Malin Array Si 31.19 304 *de*P **P** **07 45 10.7 -0.2**
AKBB pmax pmax
comp=Z,12nm,0.8s
AKBB Malin Array Si 31.19 304 P **P** **07 45 10.5 -0.4**
AK03 Malin Array Si 31.19 304 P **P** **07 45 10.6 -0.4**
AK07 Malin Array Si 31.20 304 P **P** **07 45 10.8 -0.2**
AK01 Malin Array Si 31.20 304 P **P** **07 45 10.7 -0.3**
AK05 Malin Array Si 31.20 304 P **P** **07 45 10.7 -0.3**
AK02 Malin Array Si 31.20 304 P **P** **07 45 10.8 -0.2**
KIEV Kiev 31.20 304 *i* P **P** **07 45 10.9 -0.2**
SNR=12
KIEV Kiev 31.20 304 P **P** **07 45 10.3 -0.7**
KIEV pmax pmax
comp=Z,17nm,0.6s
KIEV Kiev 31.20 304 P **P** **07 45 10.3 -0.7**
KIEV IAmb IAmb 07 45 11.6
comp=Z,17nm,0.6s
KIEV Kiev 31.20 304 ⇓P **P** **07 45 10.8 -0.2**
KIEV Kiev 31.20 304 P **P** **07 45 10.5 -0.5**
comp=Z,108nm,0.7s
KIEV Kiev 31.20 304 P **P** **07 45 10.7 -0.4**
comp=Z,27nm,0.7s
AK06 Malin Array Si 31.20 304 P **P** **07 45 10.9 -0.1**
AK04 Malin Array Si 31.23 304 P **P** **07 45 10.9 -0.4**
CHTO Chiang Mai 31.67 124 P **P** **07 45 16.4 +1.0**
CHTO Chiang Mai 31.67 124 P **P** **07 45 15.9 +0.4**
EIL Elat 31.71 262 P **P** **07 45 15.5 -0.2**
comp=Z,11nm,0.7s,baz=7.9,slow=4.7,SNR=7.1
comp=Z,11nm,0.7s
EIL Elat 31.71 262 P **P** **07 45 17.4 +1.6**
comp=Z,16nm,0.8s
CM31 Chiang Mai Arr 31.93 125 P **P** **07 45 17.3 -0.5**
CMAR Chiang Mai Arr 31.93 125 P **P** **07 45 17.5 -0.3**
comp=Z,1.9nm,0.4s,baz=314,slow=8.4,SNR=21
CMAR PcP **PcP** **07 48 07.6 -0.4**
comp=Z,4.9nm,0.7s,baz=296,slow=3.8,SNR=12
CMAR LR LR 08 00 39.8
comp=Z,246nm,20.1s,baz=310,slow=41
comp=Z,1.9nm,0.4s
CMAR Chiang Mai Arr 31.93 125 *i* P **P** **07 45 17.7 -0.1**
CMAR pmax pmax
comp=Z,2.0nm,0.3s
CMAR Chiang Mai Arr 31.93 125 P **P** **07 45 17.1 -0.7**
TPGR Topolog 31.95 293 ⇑P **P** **07 45 17.8 +0.1**
MI29 MI29, Kamyanyy 32.06 303 P **P** **07 45 17.8 -0.8**
comp=Z,120nm,0.8s
LUBAR Lubar, Ukraine 32.11 302 P **P** **07 45 18.6 -0.4**
CFR Carcaliu 32.11 293 P **P** **07 45 19.2 +0.1**
CFR Carcaliu 32.11 293 ⇓P **P** **07 45 19.2 +0.1**
BOD Bodaibo 32.18 43 *e*P **P** **07 45 20.3 +0.7**
BOD pmax pmax
comp=Z,81nm,0.9s
MNK Minsk 32.37 311 *i* P **P** **07 45 21.4 +0.2**
MNK *i* 07 46 28.0
MNK *i* 07 48 08.8
MNK *i* S **S** **07 50 36.4 +1.8**
MNK *i* SS **SnSn** **07 52 29.8 +2.9**
MNK pmax pmax
comp=Z,10.0nm,0.7s
MNK pmax pmax
comp=N,18nm,0.8s
MNK pmax pmax
comp=E,7.0nm,0.8s
MNK MLR MLR
comp=E,555nm,13.0s
MNK MLR MLR
comp=N,503nm,14.0s
MNK MLR MLR
comp=Z,413nm,11.0s
MNK Minsk 32.37 311 *i* P **P** **07 45 21.5 +0.2**
comp=E,7.0nm,0.8s,baz=98
MNK *i* P **P** **07 45 21.5 +0.2**
comp=N,18nm,0.8s
MNK *i* P **P** **07 45 21.5 +0.2**
comp=Z,10.0nm,0.7s
MNK *i* PP **PnPn** **07 46 28.1 +0.2**
MNK *i* PPP PPP 07 46 37.8
MNK *i* PcP **PcP** **07 48 08.8 +0.3**
MNK *i* S **S** **07 50 36.4 +1.8**
MNK *i* SS **SnSn** **07 52 29.9 +2.9**
MNK *i* SSS SSS 07 52 45.2
MNK *i* LQ LQ 07 55 56.5
MNK *i* LR LR 07 57 08.5
MNK *i* LRM MLR 07 59 47.8
comp=Z,413nm,10.6s
LYN LuoYang 32.67 87 P **P** **07 45 25.6 +1.5**
LYN pmax pmax
comp=Z,41nm,0.9s
LYN L L
comp=Z,590nm,12.7s
LYN L L
comp=Z,680nm,14.4s
LYN L L
comp=Z,1μm,16.5s
KMPD K-Podol'skiy 32.98 300 P **P** **07 45 26.5 -0.2**
JOF Joensuu 33.00 327 *e*P **P** **07 45 27.3 +0.7**
TESR Tescani 33.00 296 ⇑P **P** **07 45 27.4 +0.5**
TESR Tescani 33.00 296 P **P** **07 45 27.0 +0.1**
comp=Z,31nm,0.7s
TESR Tescani 33.00 296 P **P** **07 45 27.4 +0.5**
comp=Z,31nm,0.8s
VRI Vrincioaia 33.01 295 P **P** **07 45 28.0 +1.0**
VRI Vrincioaia 33.01 295 ⇓P **P** **07 45 28.1 +1.0**
VRI Vrincioaia 33.01 295 P **P** **07 45 28.5 +1.5**
comp=Z,26nm,1.2s
NACGM Naroch 33.06 312 *e*P **P** **07 45 27.3 0.0**
SAHR Sahastru 33.06 295 ⇑P **P** **07 45 28.1 +0.7**
GIRR Girov 33.06 297 ⇑P **P** **07 45 27.8 +0.4**
PLOR Plostina 33.07 295 P **P** **07 45 28.7 +1.1**
PLOR Plostina 33.07 295 ⇓P **P** **07 45 28.7 +1.1**
ONER Baraj Valea Uz 33.19 296 ⇑P **P** **07 45 29.4 +0.8**
SLVN Son La 33.20 115 P **P** **07 45 29.0 0.0**
SLVN IAmb IAmb 07 45 42.1
comp=Z,23nm,1.2s
SLVN Son La 33.20 115 P **P** **07 45 30.6 +1.6**
comp=Z,15nm,1.4s
ISR Istrita 33.23 294 P **P** **07 45 30.4 +1.4**
ISR Istrita 33.23 294 ⇓P **P** **07 45 30.4 +1.4**
RNPP5 Staryi Chortor 33.32 305 P **P** **07 45 29.7 +0.1**
RNPP9 Sopachiv 33.32 305 P **P** **07 45 29.7 +0.1**
BIZ Bicaz 33.33 297 ⇑P **P** **07 45 30.6 +0.8**
RNPP8 Varash 33.34 305 P **P** **07 45 30.0 +0.2**
COVR Voineasa-Covas 33.38 295 ⇓P **P** **07 45 31.2 +0.9**
HNS HongShan 33.39 81 ⇑P **P** **07 45 31.8 +1.5**
HNS pmax pmax
comp=Z,38nm,1.0s
HNS L L
comp=Z,410nm,14.7s
HNS L L
comp=Z,270nm,13.9s
HNS L L
comp=Z,400nm,14.9s
MLR Muntele Rosu 33.60 294 P **P** **07 45 33.6 +1.2**
comp=Z,22nm,0.8s,baz=113,slow=13,SNR=21
MLR LR LR 08 01 39.5
comp=Z,310nm,19.2s,baz=0.0,slow=41
comp=Z,22nm,0.8s
MLR Muntele Rosu 33.60 294 P **P** **07 45 33.0 +0.7**
MLR pmax pmax
comp=Z,29nm,0.9s
MLR Muntele Rosu 33.60 294 P **P** **07 45 33.0 +0.7**
MLR IAmb IAmb 07 45 41.0
comp=Z,29nm,0.9s
MLR Muntele Rosu 33.60 294 ⇓P **P** **07 45 33.5 +1.2**
MLR Muntele Rosu 33.60 294 P **P** **07 45 34.5 +2.1**
comp=Z,33nm,0.8s
VSU Vasula 33.71 318 *e*P **P** **07 45 33.3 +0.4**
BJI2 Beijing 33.73 76 P **P** **07 45 34.7 +1.3**
BJI2 pP **sP** **07 45 40.6 +0.2**
BJI2 sP **pP** **07 45 43.1 +4.8**
BJI2 pmax pmax
comp=Z,17nm,0.7s
BJI2 L L
comp=Z,420nm,16.7s
BJI2 L L
comp=Z,300nm,18.4s
BJI2 L L
comp=Z,400nm,16.7s
PALK Pallekele 33.77 164 LR LR 08 00 06.7
comp=Z,559nm,18.0s,baz=352,slow=38
PALK Pallekele 33.77 164 P **P** **07 45 34.2 +0.3**
BURAR Bucovina Array 33.88 298 P **P** **07 45 35.0 +0.4**
BURAR Bucovina Array 33.88 298 P **P** **07 45 34.5 -0.1**
BURAR Bucovina Array 33.88 298 ⇑P **P** **07 45 35.1 +0.4**
BUR08 Bucovina Ar. S 33.88 298 P **P** **07 45 34.5 -0.2**
DOPR Dopca 33.93 295 ⇓P **P** **07 45 36.3 +1.3**
VOIR 34.23 294 P **P** **07 45 38.5 +0.8**
VOIR 34.23 294 ⇓P **P** **07 45 38.6 +0.8**
VOIR 34.23 294 P **P** **07 45 38.8 +1.0**
comp=Z,6.4nm,0.8s
LVZ Lovozero 34.26 336 P **P** **07 45 37.6 0.0**
LVZ pmax pmax
comp=Z,61nm,1.5s
LVZ Lovozero 34.26 336 P **P** **07 45 37.5 0.0**
LVZ IAmb IAmb 07 45 58.2
comp=Z,61nm,1.5s
APA Apatity 34.47 335 *e*P **P** **07 45 39.4 0.0**
APA *e* 07 46 53.2
APA pmax pmax
comp=Z,8.0nm,1.5s
APA MLR MLR
comp=Z,1μm,5.9s
ARCR ARCALIA 34.51 297 ⇑P **P** **07 45 40.7 +0.6**
ARR Arges 34.53 294 ⇑P **P** **07 45 41.3 +1.0**
ARR Arges 34.53 294 P **P** **07 45 41.7 +1.4**
comp=Z,14nm,1.6s
PABE Paberze 34.73 312 *e*P **P** **07 45 42.6 +0.9**
HILR Hailar Array B 34.77 58 P **P** **07 45 43.5 +1.2**
HILR PcP **PcP** **07 48 16.1 +0.6**
comp=Z,4.5nm,0.4s,baz=242,slow=3.1,SNR=3.1
comp=Z,2.7nm,0.3s
FIA1 FINESS Array S 34.78 323 P **P** **07 45 42.5 +0.3**
FINES FINESS Array B 34.78 323 P **P** **07 45 42.8 +0.6**
comp=Z,13nm,0.6s,baz=111,slow=9.6,SNR=59
FINES LR LR 08 00 47.7
comp=Z,756nm,19.1s,baz=78,slow=38
comp=Z,13nm,0.6s
FINES FINESS Array B 34.78 323 P **P** **07 45 42.4 +0.2**
SUF Sumiainen 35.13 325 *e*P **P** **07 45 45.8 +0.6**
MTSE Matsula 35.26 318 *e*P **P** **07 45 46.5 +0.2**
MEF Metsahovi 35.27 321 *e*P **P** **07 45 45.8 -0.6**
MARR Marisel-Cluj 35.40 297 ⇓P **P** **07 45 48.7 +0.8**
KEF Keuruu 35.54 324 *e*P **P** **07 45 49.9 +1.2**
TIA Tai'an 35.61 82 P **P** **07 45 50.7 +1.1**
TIA S **S** **07 51 27.2 +2.0**
TIA pmax pmax
comp=Z,61nm,0.8s
TRPA Tarpa 35.62 300 P **P** **07 45 50.7 +1.2**
comp=Z,28nm,0.9s
DRGR 35.66 297 P **P** **07 45 50.7 +0.7**
DRGR 35.66 297 ⇑P **P** **07 45 50.7 +0.7**
DRGR 35.66 297 P **P** **07 45 51.0 +0.9**
comp=Z,8.5nm,1.0s
KOLS Kolonicke sedl 35.72 301 *e*P **P** **07 45 51.2 +0.7**
KOLS *e* 07 47 09.9
KOLS Kolonicke sedl 35.72 301 *e*P **P** **07 45 51.2 +0.7**
KOLS *e*PP **PnPn** **07 47 09.9 -0.2**
KOLS Kolonicke sedl 35.72 301 P **P** **07 45 51.0 +0.5**
comp=Z,9.3nm,0.8s
WHN Wuhan 35.79 92 P **P** **07 45 52.1 +0.9**
WHN pmax pmax
comp=Z,68nm,0.8s
GZR Gura Zlata 35.82 295 P **P** **07 45 51.9 +0.5**
GZR Gura Zlata 35.82 295 ⇓P **P** **07 45 51.9 +0.5**
SURR Surduc 36.22 296 ⇓P **P** **07 45 55.8 +1.1**
BLKB Belogradchik 36.22 292 ⇓P **P** **07 45 55.6 +0.7**
BZS Buzias 36.59 295 P **P** **07 45 58.9 +1.0**
comp=Z,14nm,1.7s
MDVR Moldovita 36.67 294 ⇓P **P** **07 45 59.0 +0.3**
VAF Ylistaro 36.75 325 *e*P **P** **07 45 59.8 +0.7**
NIE Niedzica 36.97 302 *e*P **P** **07 46 02.4 +1.3**
NIE Niedzica 36.97 302 P **P** **07 46 02.0 +0.9**
comp=Z,9.1nm,0.8s
IDI Anoyia 37.01 278 P **P** **07 46 02.1 +0.5**
comp=Z,27nm,1.0s,baz=92,slow=8.4,SNR=2.4
comp=Z,27nm,1.0s
OJC Ojcow 37.22 303 *e*P **P** **07 46 03.9 +0.6**
OJC Ojcow 37.22 303 P **P** **07 46 03.0 -0.2**
OJC Ojcow 37.22 303 P **P** **07 46 03.0 -0.2**
OJC Ojcow 37.22 303 P **P** **07 46 03.3 +0.1**
comp=Z,28nm,0.8s
OJC Ojcow 37.22 303 P **P** **07 46 03.7 +0.5**
comp=Z,28nm,0.8s
PSZ Piszkesteto 37.41 300 P **P** **07 46 04.3 -0.6**
PSZ pmax pmax
comp=Z,10.0nm,1.0s
PSZ Piszkesteto 37.41 300 P **P** **07 46 04.3 -0.6**
PSZ Piszkesteto 37.41 300 P **P** **07 46 04.3 -0.6**
comp=Z,11nm,1.1s
ARCES ARCESS Array B 37.96 336 P **P** **07 46 10.1 +0.8**
comp=Z,10nm,0.5s,baz=110,slow=8.5,SNR=116
ARCES LR LR 08 02 43.3
comp=Z,820nm,19.2s,baz=112,slow=38
comp=Z,10nm,0.5s
ARCES ARCESS Array B 37.96 336 P **P** **07 46 09.9 +0.6**
ARCES pmax pmax
comp=Z,36nm,0.9s
ARCES ARCESS Array B 37.96 336 P **P** **07 46 09.9 +0.6**
ARCES IAmb IAmb 07 46 16.2
comp=Z,36nm,0.9s
VYHS Vyhne 38.03 301 *e*P **P** **07 46 13.1 +3.0**
VYHS Vyhne 38.03 301 *e*P **P** **07 46 13.1 +3.0**
DL2 Dalian 38.10 75 P **P** **07 46 13.0 +2.2**
DL2 *e*S **S** **07 52 06.8 +3.8**
DL2 pmax pmax
comp=Z,64nm,0.9s
DL2 pmax pmax
comp=Z,240nm,4.1s
DL2 L L
comp=Z,630nm,17.2s
DL2 L L
comp=Z,580nm,16.0s
DL2 L L
comp=Z,410nm,19.0s
ATD Arta Tunnel 38.28 230 LR LR 08 05 12.1
comp=Z,12nm,19.1s,baz=37,slow=41
MORH Mrgy, Hungar 38.53 297 ⇑P **P** **07 46 14.2 -0.1**
MORH Mrgy, Hungar 38.53 297 P **P** **07 46 14.5 +0.2**
MORH pP **sP** **07 46 20.3 -1.0**
MORH Mrgy, Hungar 38.53 297 P **P** **07 46 13.1 -1.1**
comp=Z,5.8nm,1.3s
LANU Lannavaara 38.55 333 *e*P **P** **07 46 13.8 -0.4**
NJ2 Nanjing 38.56 87 *e*P **P** **07 46 15.5 +0.8**
NJ2 pmax pmax
comp=Z,24nm,0.5s
MORC Moravsky Berou 38.71 303 P **P** **07 46 15.9 0.0**
MORC pmax pmax
comp=Z,9.0nm,0.8s
MORC Moravsky Berou 38.71 303 P **P** **07 46 15.8 0.0**
MORC Moravsky Berou 38.71 303 *e*P **P** **07 46 16.3 +0.4**
MORC Moravsky Berou 38.71 303 ⇑P **P** **07 46 15.8 0.0**
MORC Moravsky Berou 38.71 303 P **P** **07 46 16.8 +0.9**
comp=Z,16nm,0.9s
JAVC Velka Javorina 38.75 301 *e*P **P** **07 46 17.6 +1.4**
JAVC Velka Javorina 38.75 301 P **P** **07 46 18.0 +1.8**
comp=Z,19nm,1.0s
KRLC Kraliky 39.16 303 *e*P **P** **07 46 19.7 0.0**
KRLC Kraliky 39.16 303 *e*P **P** **07 46 19.7 0.0**
ZEA Zeya 39.22 51 *e*P **P** **07 46 22.9 +2.9**
ZEA MLR MLR
comp=Z,200nm,14.0s
KSP Ksiaz 39.38 305 P **P** **07 46 21.8 +0.4**
comp=Z,12nm,0.8s
VRAC Vranov 39.39 302 P **P** **07 46 22.3 +0.8**
comp=Z,4.6nm,0.5s,baz=83,slow=8.0,SNR=6.1
VRAC LR LR 08 04 18.8
comp=Z,222nm,19.3s,baz=86,slow=39
comp=Z,4.6nm,0.5s
VRAC Vranov 39.39 302 *e*P **P** **07 46 22.2 +0.7**
VRAC Vranov 39.39 302 ⇑P **P** **07 46 22.3 +0.8**
DPC Dobruska-Polom 39.42 304 *e*P **P** **07 46 20.8 -1.0**
DPC Dobruska-Polom 39.42 304 *e*P **P** **07 46 20.8 -1.0**
DPC Dobruska-Polom 39.42 304 P **P** **07 46 22.5 +0.7**
comp=Z,15nm,1.1s
DPC Dobruska-Polom 39.42 304 P **P** **07 46 22.8 +0.9**
comp=Z,15nm,1.1s
CN2 Changchun 39.51 67 *e*P **P** **07 46 22.6 +0.1**
CN2 *es*P sP 07 46 34.5 +4.9
CN2 *e*S **S** **07 52 21.8 -2.4**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,100nm,5.0s
CN2 L L
comp=Z,100nm,12.0s
CN2 L L
comp=Z,100nm,12.0s
CN2 L L
comp=Z,200nm,14.0s
KAAM Kaadhehdhoo 39.55 178 P **P** **07 46 22.5 -0.5**
KAAM IAmb IAmb 07 46 23.5
comp=Z,31nm,1.0s
KRUC Moravsky 39.55 302 *e*P **P** **07 46 23.7 +0.9**
KRUC Moravsky 39.55 302 P **P** **07 46 23.9 +1.0**
comp=Z,17nm,0.9s
CHVC Chvalec 39.56 304 *e*P **P** **07 46 21.4 -1.6**
CHVC Chvalec 39.56 304 *e*P **P** **07 46 21.4 -1.6**
UPC Upice 39.60 304 *e*P **P** **07 46 23.6 +0.4**
UPC Upice 39.60 304 *e*P **P** **07 46 23.6 +0.4**
UPC Upice 39.60 304 P **P** **07 46 23.9 +0.6**
comp=Z,20nm,0.8s
HEH HeiHe 39.64 56 *e*P **P** **07 46 24.5 +1.0**
HEH pmax pmax
comp=Z,61nm,0.9s
RONA Rosalia, Austr 39.84 300 *i* P **P** **07 46 25.7 +0.4**
comp=Z,8.1nm,1.2s
WINA Alland / Wiene 39.92 300 *e*P **P** **07 46 25.9 +0.1**
comp=Z,2.5nm,0.5s
CONA Conrad Observa 40.09 300 *e*P **P** **07 46 27.7 +0.3**
comp=Z,6.8nm,0.7s
ABNA Allensteig Bun 40.24 301 *i* P **P** **07 46 29.1 +0.5**
comp=Z,5.7nm,1.0s
BNX BinXian 40.42 63 ⇓P **P** **07 46 31.2 +1.1**
BNX pmax pmax
comp=Z,27nm,0.8s
ARSA Arzberg 40.44 299 *i* P **P** **07 46 29.6 -0.6**
comp=Z,5.4nm,1.0s
PVCC Panska Ves 40.51 304 *e*P **P** **07 46 31.3 +0.5**
PVCC Panska Ves 40.51 304 *e*P **P** **07 46 31.3 +0.5**
BSI Banda Aceh 40.55 142 P **P** **07 46 31.9 +0.5**
comp=Z,47nm,0.9s
HFS Hagfors 40.56 319 P **P** **07 46 31.1 +0.1**
comp=Z,10nm,0.6s,baz=95,slow=9.4,SNR=18
HFS LR LR 08 04 07.2
comp=Z,651nm,18.1s,baz=106,slow=37
comp=Z,10nm,0.6s
PRU Pruhonice 40.61 304 *e*P **P** **07 46 31.7 +0.1**
PRU pmax pmax
comp=Z,6.0nm,0.6s
PRU Pruhonice 40.61 304 *e*P **P** **07 46 31.7 +0.1**
comp=Z,5.8nm,0.6s
PRU Pruhonice 40.61 304 P **P** **07 46 32.2 +0.6**
comp=Z,9.7nm,0.8s
YAK Yakutsk 40.66 38 P **P** **07 46 32.3 +0.5**
comp=Z,105nm,0.8s,baz=257,slow=3.3,SNR=25
YAK LR LR 08 04 11.7
comp=Z,285nm,20.6s,baz=260,slow=37
comp=Z,105nm,0.8s
YAK Yakutsk 40.66 38 *e*P **P** **07 46 32.0 +0.2**
YAK *e* 07 48 08.8
YAK *e* 07 48 32.2
YAK *e*S **S** **07 52 43.0 +2.1**
YAK *e*SS **SnSn** **07 55 45.3 -1.8**
YAK *e* 07 56 37.9
YAK pmax pmax
comp=Z,118nm,0.9s
YAK pmax pmax
comp=N,9.0nm,1.2s
YAK pmax pmax
comp=E,32nm,1.2s
YAK pmax pmax
comp=Z,355nm,4.3s
YAK pmax pmax
comp=E,160nm,3.4s
YAK pmax pmax
comp=N,101nm,4.0s
YAK smax smax
comp=E,152nm,2.4s
YAK smax smax
comp=N,127nm,2.8s
YAK MLR MLR
comp=Z,304nm,17.0s
YAK MLR MLR
comp=N,50nm,13.0s
YAK MLR MLR
comp=E,172nm,14.0s
YAK Yakutsk 40.66 38 P **P** **07 46 32.4 +0.6**
YAK Yakutsk 40.66 38 P **P** **07 46 32.4 +0.5**
comp=Z,180nm,0.8s
ZVC Zvikov 40.92 303 *e*P **P** **07 46 34.6 +0.4**
SESA Seetaler Alpe, 41.10 299 *i* P **P** **07 46 34.8 -1.2**
comp=Z,3.5nm,0.6s
MOA Molln 41.16 300 *i* P **P** **07 46 36.5 +0.3**
comp=Z,6.2nm,1.0s
OBKA Obir 41.24 298 *e*P **P** **07 46 36.6 -0.4**
comp=Z,8.2nm,0.8s
GEC2 GERESS Array S 41.34 302 **P** **07 46 38.3 +0.5**
GEC2 GERESS Array S 41.34 302 P **P** **07 46 38.7 +1.0**
comp=Z,17nm,1.0s
GERES GERESS Array B 41.34 302 P **P** **07 46 38.1 +0.4**
comp=Z,5.6nm,0.5s,baz=61,slow=8.0,SNR=37
GERES LR LR 08 08 00.3
comp=Z,402nm,18.0s,baz=51,slow=42
comp=Z,5.6nm,0.5s
GERES GERESS Array B 41.34 302 P **P** **07 46 37.8 0.0**
KHC Kasperske Hory 41.37 302 *de*P **P** **07 46 38.7 +0.8**
KHC pmax pmax
comp=Z,9.0nm,0.9s
KHC Kasperske Hory 41.37 302 P **P** **07 46 37.7 -0.2**
KHC Kasperske Hory 41.37 302 *e*P **P** **07 46 38.2 +0.3**
comp=Z,8.2nm,0.6s
KHC Kasperske Hory 41.37 302 P **P** **07 46 38.3 +0.3**
comp=Z,17nm,0.8s
KHC Kasperske Hory 41.37 302 P **P** **07 46 38.6 +0.7**
comp=Z,17nm,0.8s
CLL Collm 41.38 306 *i* P **P** **07 46 37.7 -0.2**
CLL pmax pmax
comp=Z,10.0nm,0.7s
CLL MLR MLR
comp=Z,600nm,19.6s
CLL Collm 41.38 306 P **P** **07 46 37.9 0.0**
CLL Collm 41.38 306 P **P** **07 46 37.9 0.0**
comp=Z,15nm,2.3s
CLL Collm 41.38 306 P **P** **07 46 37.9 0.0**
comp=Z,15nm,2.3s
CLL Collm 41.38 306 *i* P **P** **07 46 37.7 -0.2**
comp=Z,10.0nm,0.7s
CLL *i* pP **pP** **07 46 43.5 +0.5**
CLL AMS AMS 08 05 00.0
comp=Z,600nm,19.6s
NC405 NORSAR Array S 41.57 321 P **P** **07 46 39.1 -0.3**
NC405 IAmb IAmb 07 46 45.9
comp=Z,31nm,0.9s
BIOA Bad Ischl, Aus 41.60 300 *e*P **P** **07 46 39.2 -0.7**
comp=Z,2.7nm,0.6s
NORES NORESS Array B 41.64 320 P **P** **07 46 41.3 +1.4**
NC303 NORSAR Array S 41.74 321 P **P** **07 46 40.8 +0.1**
NC303 IAmb IAmb 07 46 47.1
comp=Z,23nm,0.7s
NB2 NORSAR Subarra 41.81 321 P **P** **07 46 41.0 -0.4**
comp=Z,22nm,0.9s,baz=90,slow=8.6

NB2 NORSAR Subarra 41.81 321 P **P** **07 46 41.0 -0.4**
NB2 AMP 07 46 41.0
NOA NORSAR Array B 41.81 321 P **P** **07 46 41.2 -0.2**
comp=Z,6.4nm,0.8s,baz=91,slow=8.1,SNR=18
NOA LR LR 08 04 47.9
comp=Z,514nm,18.8s,baz=90,slow=37
comp=Z,6.4nm,0.8s
WET Wettzell 41.82 303 P **P** **07 46 42.5 +0.9**
comp=Z,13nm,0.9s
MYKA Terra Mystica 41.83 299 *i* P **P** **07 46 42.1 +0.3**
comp=Z,3.3nm,0.5s
KBA Koelnbreinsper 41.93 299 *i* P **P** **07 46 42.6 -0.1**
comp=Z,5.5nm,0.5s
DRE Drenchia 41.93 298 P **P** **07 46 42.7 +0.1**
comp=Z,31nm,0.9s
TRI Trieste 41.96 297 P **P** **07 46 42.4 -0.3**
TRI pmax pmax
comp=Z,33nm,0.9s
TRI Trieste 41.96 297 P **P** **07 46 42.4 -0.3**
TRI IAmb IAmb 07 46 43.9
comp=Z,33nm,0.9s
SABO M.te Sabotino 42.01 298 P **P** **07 46 42.9 -0.3**
SABO IAmb IAmb 07 46 44.0
comp=Z,28nm,0.8s
CUC Castrocucco 42.13 289 P **P** **07 46 45.0 +0.7**
comp=Z,14nm,0.9s
TIXI Tiksi 42.14 23 LR LR 08 05 12.0
comp=Z,238nm,19.1s,baz=245,slow=38
TIXI Tiksi 42.14 23 P **P** **07 46 44.5 +0.7**
TIXI pmax pmax
comp=Z,59nm,0.7s
TIXI Tiksi 42.14 23 P **P** **07 46 44.5 +0.7**
TIXI Tiksi 42.14 23 P **P** **07 46 44.5 +0.7**
comp=Z,98nm,0.9s
MDJ Mudanjiang 42.19 64 P **P** **07 46 45.2 +0.5**
MDJ pmax pmax
comp=Z,21nm,0.9s
WIMM Wimmelburg 42.28 306 P **P** **07 46 45.3 +0.1**
comp=Z,64nm,0.9s
LESA Schwarzleotal 42.30 300 *i* P **P** **07 46 45.5 -0.1**
comp=Z,8.5nm,0.6s
FLTG Flechtingen 42.32 308 P **P** **07 46 45.6 0.0**
comp=Z,38nm,0.9s
MOX Moxa 42.35 305 P **P** **07 46 46.1 +0.2**
MOX pmax pmax
comp=Z,12nm,1.0s
MOX Moxa 42.35 305 P **P** **07 46 46.1 +0.2**
comp=Z,12nm,1.0s
ABTA Abfaltersbach 42.56 299 *i* P **P** **07 46 47.3 -0.4**
comp=Z,3.2nm,0.5s
KLR Kul'dur 42.58 57 LR LR 08 05 57.3
comp=Z,114nm,18.3s,baz=241,slow=38
KLR Kul'dur 42.58 57 *ce* P **P** **07 46 48.1 +0.3**
KLR pmax pmax
comp=Z,17nm,1.0s
GRB5 Grafenberg Arr 42.60 303 P **P** **07 46 49.2 +1.3**
comp=Z,26nm,0.8s
BSEG Bad Segeberg 42.66 310 P **P** **07 46 49.2 +1.0**
comp=Z,42nm,0.9s
GRC1 Grafenberg Arr 42.72 303 P **P** **07 46 50.0 +1.1**
comp=Z,28nm,0.8s
GRA1 Grafenberg Arr 42.77 304 P **P** **07 46 49.9 +0.5**
GRF Grafenberg Arr 42.77 304 P **P** **07 46 49.9 +0.5**
GRF pmax pmax
comp=Z,23nm,0.9s
CLZ Clausthal 42.92 307 P **P** **07 46 48.8 -1.7**
comp=Z,14nm,0.5s
WTTA Wattenberg 43.02 300 *i* P **P** **07 46 51.2 -0.4**
comp=Z,8nm,0.5s
WTTA Wattenberg 43.02 300 P **P** **07 46 51.3 -0.4**
comp=Z,15nm,0.9s
WATA Walderalm 43.05 300 *i* P **P** **07 46 51.1 -0.6**
comp=Z,7.2nm,0.8s
FDMO Fiordimonte 43.14 294 P **P** **07 46 52.1 -0.3**
GTTG Gottingen 43.22 307 P **P** **07 46 54.0 +1.1**
comp=Z,52nm,1.0s
KSAR Wonju Array Be 43.23 75 P **P** **07 46 53.4 +0.2**
KSAR Wonju Array Be 43.23 75 P **P** **07 46 53.4 +0.2**
TJN Taejon 43.25 77 *ii* *eP* **P** **07 46 52.9 -0.4**
KSRS Korea Array 43.26 75 P **P** **07 46 53.4 +0.1**
comp=Z,5.1nm,0.9s,baz=287,slow=6.4,SNR=14
KSRS PcP **PcP** **07 48 41.4 -0.9**
comp=Z,4.8nm,1.0s,baz=293,slow=3.0,SNR=7.2
KSRS LR LR 08 07 20.0
comp=Z,128nm,18.3s,baz=285,slow=40
comp=Z,5.1nm,0.9s
CTI Castel Tesino 43.31 298 P **P** **07 46 52.8 -1.1**
CTI pmax pmax
comp=Z,9.0nm,0.9s
CTI Castel Tesino 43.31 298 P **P** **07 46 52.8 -1.1**
SQTA Sankt Quirin 43.31 300 *i* P **P** **07 46 53.4 -0.5**
comp=Z,5.4nm,0.6s
MOTA Moosalm 43.35 300 *i* P **P** **07 46 53.5 -0.7**
comp=Z,11nm,0.8s
RETA Reutte 43.55 301 *i* P **P** **07 46 55.1 -0.6**
comp=Z,3.7nm,0.7s
FETA Feichten 43.68 300 *eP* **P** **07 46 56.1 -0.8**
comp=Z,7.3nm,1.0s
UBR Ueberruh 43.93 301 P **P** **07 46 59.1 +0.3**
comp=Z,40nm,0.8s
USRK Ussuriysk Ar. 43.96 64 P **P** **07 46 59.2 +0.2**
comp=Z,10nm,0.6s,baz=282,slow=6.3,SNR=16
comp=Z,10nm,0.6s
USRK Ussuriysk Ar. 43.96 64 **P** **07 46 58.5 -0.5**
SPB2 Spitsbergen Ar 44.02 346 P **P** **07 46 59.5 +0.5**
SPB2 IAmb IAmb 07 47 06.7
comp=Z,41nm,0.9s
SPITS Spitsbergen Ar 44.02 346 P **P** **07 46 59.8 +0.8**
comp=Z,8.1nm,0.9s,baz=110,slow=12,SNR=4.8
SPITS PcP **PcP** **07 48 44.3 +0.1**
comp=Z,15nm,1.1s,baz=104,slow=8.7,SNR=5.4
SPITS LR LR 08 08 08.0
comp=Z,377nm,18.0s,baz=114,slow=40
comp=Z,8.1nm,0.9s
FUORN Ofenpass-Fuorn 44.09 300 P **P** **07 46 59.8 -0.5**
FUORN Ofenpass-Fuorn 44.09 300 P **P** **07 47 00.0 -0.3**
comp=Z,12nm,0.7s
DAVA Damuels 44.18 301 *i* P **P** **07 47 00.5 -0.4**
comp=Z,15nm,0.6s
DAVA Damuels 44.18 301 P **P** **07 47 00.7 -0.2**
comp=Z,37nm,0.7s
DAVOX Davos/Dischmat 44.30 300 P **P** **07 47 01.4 -0.5**
comp=Z,15nm,0.5s,baz=107,slow=5.7,SNR=25
DAVOX LR LR 08 09 11.0
comp=Z,304nm,19.6s,baz=80,slow=41
comp=Z,15nm,0.5s
IPM Ipoh 44.31 136 P **P** **07 47 01.2 -0.8**
IPM IAmb IAmb 07 47 02.8
comp=Z,20nm,0.8s
IPM Ipoh 44.31 136 P **P** **07 47 01.3 -0.8**
comp=Z,32nm,0.8s
IPM Ipoh 44.31 136 P **P** **07 47 02.0 0.0**
comp=Z,32nm,0.8s
PSI Prapat 44.65 139 P **P** **07 47 03.7 -1.2**
PSI pmax pmax
comp=Z,9.0nm,0.8s
PSI Prapat 44.65 139 P **P** **07 47 03.7 -1.2**
comp=Z,12nm,0.7s
RPSI Rantau Prapat 44.74 140 P **P** **07 47 03.7 -1.8**
RPSI Rantau Prapat 44.74 140 P **P** **07 47 04.0 -1.5**
comp=Z,12nm,0.7s
TUE Stuetta 44.74 300 P **P** **07 47 04.3 -1.2**
TUE Stuetta 44.74 300 P **P** **07 47 04.6 -0.8**
comp=Z,33nm,0.7s
YULB Yu-li 44.77 97 P **P** **07 47 06.7 +1.0**
BNALP Bannalp 45.24 300 P **P** **07 47 09.1 -0.3**
comp=Z,18nm,0.9s
JTU Tsushima 45.51 78 P **P** **07 47 11.9 +0.4**
JTU IAmb IAmb 07 47 20.5
comp=Z,60nm,1.3s
WLF Walferdange 45.99 305 *d* P **P** **07 47 15.7 +0.6**
SENIN Lac Senin/Sane 46.13 300 P **P** **07 47 16.1 -0.4**
BMRD Maredsous 46.70 306 *d* P **P** **07 47 20.8 +0.2**
GIMEL St. Georges / 46.77 300 P **P** **07 47 21.3 0.0**
comp=Z,16nm,1.2s
DOU Dourbes 46.86 306 *d* P **P** **07 47 22.5 +0.7**
BNI Bardonecchia 46.94 298 P **P** **07 47 23.0 +0.2**
comp=Z,21nm,2.1s
JNU Nakatsue 47.23 79 LR LR 08 08 56.1
comp=Z,50nm,20.9s,baz=288,slow=38
PPI Padang Panjang 48.19 140 P **P** **07 47 32.9 +0.4**
comp=Z,42nm,1.0s
JOW Kunigami 48.26 88 LR LR 08 10 52.2
comp=Z,164nm,18.2s,baz=202,slow=40
KEST Kesra 48.48 286 P **P** **07 47 35.0 +0.3**
comp=Z,5.6nm,0.9s,baz=68,slow=6.0,SNR=4.0
KEST LR LR 08 13 32.0
comp=Z,97nm,18.2s,baz=339,slow=43
comp=Z,5.6nm,0.9s
WACR West Acre 48.59 310 P **P** **07 47 35.8 +0.6**
comp=Z,103nm,0.9s
LODK Lodwar 49.17 231 P **P** **07 47 40.4 +0.3**
LODK Lodwar 49.17 231 P **P** **07 47 38.3 -1.9**
LODK Lodwar 49.17 231 P **P** **07 47 41.6 +1.5**
comp=Z,6.3nm,1.4s
JMN Monobe 49.20 77 P **P** **07 47 40.6 +0.3**
JMN IAmb IAmb 07 47 43.3
comp=Z,31nm,0.9s
JMN Monobe 49.20 77 P **P** **07 47 41.0 +0.7**
comp=Z,39nm,0.8s
JMIC Jan Mayen 49.44 335 LR LR 08 08 38.5
comp=Z,279nm,19.4s,baz=146,slow=36
EDMD Edmundbyers 49.53 313 *eP* **P** **07 47 41.5 -0.9**
EDMD IAmb IAmb 07 47 42.7
comp=Z,15nm,0.6s
EKA Eskdalemuir Ar 50.06 314 P **P** **07 47 46.0 -0.4**
comp=Z,5.6nm,0.6s,baz=88,slow=7.9,SNR=27
EKA LR LR 08 13 22.2
comp=Z,351nm,19.1s,baz=84,slow=41
comp=Z,5.6nm,0.6s
EKA Eskdalemuir Ar 50.06 314 P **P** **07 47 45.6 -0.8**
ESK Eskdalemuir 50.09 314 *eP* **P** **07 47 45.9 -0.7**
ESK IAmb IAmb 07 47 47.6
comp=Z,15nm,0.7s
KESW Keswick, Cumbr 50.23 313 *eP* **P** **07 47 47.7 0.0**
KESW IAmb IAmb 07 47 51.8
comp=Z,14nm,0.9s
YSS Yuzhno-Sakhali 50.29 57 *eP* **P** **07 47 50.2 +1.9**
YSS pmax pmax
comp=Z,20nm,0.9s
YSS MLR MLR
comp=Z,600nm,18.0s
YSS MLR MLR
comp=E,400nm,16.0s
NEWG New Galloway 50.71 314 *eP* **P** **07 47 50.5 -0.8**
NEWG IAmb IAmb 07 47 51.9
comp=Z,14nm,0.7s
INU Inuyama 50.81 73 P **P** **07 47 52.4 0.0**
INU IAmb IAmb 07 47 53.8
comp=Z,36nm,0.8s
INU Inuyama 50.81 73 P **P** **07 47 52.4 0.0**
comp=Z,51nm,0.9s
JGF Kuroka 50.95 73 P **P** **07 47 53.4 -0.1**
JGF Kuroka 50.95 73 P **P** **07 47 53.0 -0.5**
JGF IAmb IAmb 07 47 54.2
comp=Z,27nm,0.8s
JGF Kuroka 50.95 73 P **P** **07 47 53.5 -0.1**
comp=Z,38nm,0.9s
SEY Seymchan 51.05 35 *eP* **P** **07 47 54.7 +0.9**
SEY pmax pmax
comp=Z,7.0nm,1.0s
MJB9 Matsu-Tunnel 51.16 71 P **P** **07 47 55.1 +0.1**
MAJO Matsushiro 51.16 71 *ce* P **P** **07 47 54.2 -0.8**
MAJO pmax pmax
comp=Z,51nm,0.9s
MAJO Matsushiro 51.16 71 P **P** **07 47 54.8 -0.3**
comp=Z,74nm,0.9s
MJAR Matsushiro Arr 51.16 71 P **P** **07 47 55.1 0.0**
comp=Z,42nm,0.8s,baz=292,slow=9.3,SNR=109
MJAR LR LR 08 10 54.3
comp=Z,82nm,20.9s,baz=320,slow=38
comp=Z,42nm,0.8s
MJAR Matsushiro Arr 51.16 71 P **P** **07 47 54.8 -0.2**
MJAR pmax pmax
comp=Z,44nm,0.9s
MJAR Matsushiro Arr 51.16 71 P **P** **07 47 54.8 -0.2**
MJAR IAmb IAmb 07 47 56.2
comp=Z,44nm,0.9s
ASAJ Asahikawa 51.19 61 LR LR 08 11 54.0
comp=Z,176nm,18.9s,baz=265,slow=39
ASAJ Asahikawa 51.19 61 P **P** **07 47 55.2 +0.1**
ASAJ pmax pmax
comp=Z,51nm,1.1s
JKA Kamikawa-asahi 51.20 61 P **P** **07 47 55.2 +0.1**
JKA IAmb IAmb 07 48 05.0
comp=Z,50nm,1.1s
DAG Danmarks Havn 51.34 343 P **P** **07 47 56.5 +0.8**
comp=Z,35nm,0.9s
DAG Danmarks Havn 51.34 343 *i* P **P** **07 47 56.3 +0.5**
DAG IAmb IAmb 07 47 57.4
comp=Z,19nm,0.6s
MASI Maura Aman, Be 51.42 140 P **P** **07 47 56.4 -0.7**
JTM Tenmabayashi 51.43 65 P **P** **07 47 57.0 0.0**
JTM Tenmabayashi 51.43 65 **P** **07 47 56.5 -0.5**
KIBK Kibwezi 52.35 224 P **P** **07 48 04.9 +0.7**
KIBK Kibwezi 52.35 224 P **P** **07 48 02.9 -1.3**
KIBK Kibwezi 52.35 224 P **P** **07 48 04.7 +0.5**
comp=Z,13nm,1.1s
JEM Erimo 52.38 63 P **P** **07 48 04.6 +0.6**
BILL Bilibino 55.04 27 *de* P **P** **07 48 24.7 +1.5**
BILL pmax pmax
comp=Z,18nm,1.0s
MBAR Mbarara 55.15 233 LR LR 08 15 34.2
comp=Z,122nm,18.4s,baz=34,slow=40
MBAR Mbarara 55.15 233 P **P** **07 48 25.0 +0.2**
CART Cartagena 55.15 292 P **P** **07 48 24.1 -0.3**
BORG Borgarnes 55.70 329 LR LR 08 13 15.4
comp=Z,114nm,19.0s,baz=26,slow=37
ESDC Sonseca Array 56.27 296 P **P** **07 48 31.9 -0.7**
comp=Z,1.5nm,0.6s,baz=56,slow=7.1,SNR=15
ESDC LR LR 08 16 53.5
comp=Z,124nm,18.7s,baz=152,slow=41
comp=Z,1.5nm,0.6s
PETK Petropavlovsk- 56.95 46 P **P** **07 48 36.8 -0.2**
comp=Z,4.1nm,0.8s,baz=300,slow=6.5,SNR=1.8
PETK LR LR 08 14 51.2
comp=Z,176nm,19.0s,baz=275,slow=38
comp=Z,4.1nm,0.8s
COCO West Island 57.11 150 *i* P **P** **07 48 41.3 +2.8**
NEEM North Greenlan 57.53 347 *i* P **P** **07 48 41.7 +0.5**
NEEM IAmb IAmb 07 48 42.9
comp=Z,22nm,0.8s
SUMG Summit 57.74 340 P **P** **07 48 43.6 +0.8**
SUMG pmax pmax
comp=Z,29nm,0.8s
SUMG Summit 57.74 340 P **P** **07 48 43.6 +0.8**
SUMG IAmb IAmb 07 48 44.9
comp=Z,29nm,0.8s
TAM Tamanrasset 57.79 274 P **P** **07 48 43.4 -0.1**
TAM Tamanrasset 57.79 274 P **P** **07 48 43.4 -0.1**
TAM Tamanrasset 57.79 274 P **P** **07 48 42.9 -0.7**
BBJI Bungbulang 57.87 137 P **P** **07 48 43.8 -0.2**
JCJ Chichijima 58.70 80 LR LR 08 14 24.6
comp=Z,106nm,19.5s,baz=121,slow=36
MDT Midelt 60.04 289 LR LR 08 18 49.2
comp=Z,37nm,20.9s,baz=46,slow=40
KAPI Kappang 62.99 124 LR LR 08 20 04.4
comp=Z,65nm,19.7s,baz=300,slow=39
ABPO Ambohimpanom 63.19 206 P **P** **07 49 20.0 -0.3**
ABPO pmax pmax
comp=Z,22nm,0.9s
ABPO Ambohimpanom 63.19 206 P **P** **07 49 20.0 -0.3**
ABPO IAmb IAmb 07 49 21.6
comp=Z,22nm,0.8s
ABPO Ambohimpanom 63.19 206 P **P** **07 49 20.8 +0.5**
comp=Z,29nm,1.0s
TNTI Ternate 63.86 113 P **P** **07 49 25.2 +0.5**
comp=Z,31nm,0.7s
TNTI Ternate 63.86 113 P **P** **07 49 25.0 +0.3**
comp=Z,42nm,1.1s
SFJD Kangerlussuaq 64.51 338 LR LR 08 17 04.9
comp=Z,114nm,20.1s,baz=78,slow=36
RES Resolute Bay 65.04 356 LR LR 08 21 38.5
comp=Z,205nm,18.5s,baz=5.5,slow=39
D20K Etivluk River 65.62 17 P **P** **07 49 36.1 +0.6**
D20K IAmb IAmb 07 49 36.9
comp=Z,21nm,0.8s
VOI Vohitsoka 66.02 205 P **P** **07 49 39.1 +0.4**
VOI Vohitsoka 66.02 205 P **P** **07 49 38.1 -0.5**
VOI Vohitsoka 66.02 205 P **P** **07 49 39.1 +0.4**
comp=Z,44nm,1.5s
TORD Torodi Ar. Bea 66.40 267 P **P** **07 49 39.9 -1.4**
comp=Z,19nm,0.7s,baz=47,slow=5.7,SNR=83
comp=Z,19nm,0.7s
C24K Franklin Bluff 66.46 14 P **P** **07 49 41.9 +1.1**
E19K Redstone River 66.46 18 P **P** **07 49 41.0 +0.1**
E19K IAmb IAmb 07 49 48.6
comp=Z,19nm,0.9s
D23K Nanushuk River 66.70 15 P **P** **07 49 43.1 +0.6**
D23K IAmb IAmb 07 49 44.6
comp=Z,28nm,1.0s
F20K Avaraart Lake 67.14 18 P **P** **07 49 45.1 -0.1**
F20K IAmb IAmb 07 49 46.4
comp=Z,27nm,1.5s
A36M Sachs Harbour 67.46 6 P **P** **07 49 47.5 +0.4**
F21K Alatna River 67.53 17 P **P** **07 49 48.2 +0.5**
F21K IAmb IAmb 07 49 49.3
comp=Z,24nm,1.0s
H17K Granite Mounta 67.71 21 **P** **07 49 49.7 +0.9**
SIJI Sorong 67.77 111 P **P** **07 49 49.9 -0.1**
comp=Z,898nmcomp=Z,47nm,0.9s
E24K Your Creek 67.89 15 P **P** **07 49 50.7 +0.7**
IMAR Indian Mountai 68.47 18 P **P** **07 49 53.8 +0.2**
F24K Squaw Lake 68.49 15 P **P** **07 49 54.1 +0.4**
F24K IAmb IAmb 07 49 55.6
comp=Z,14nm,0.8s
I21K Tanana 69.56 18 P **P** **07 50 00.9 +0.5**
FAKI Fak Fak 69.90 112 P **P** **07 50 03.1 -0.2**
FAKI Fak Fak 69.90 112 P **P** **07 50 03.0 -0.2**
comp=Z,54nm,0.9s
FAKI Fak Fak 69.90 112 P **P** **07 50 03.4 +0.2**
comp=Z,54nm,0.9s
MLY Manley 69.98 18 P **P** **07 50 03.4 +0.4**
MLY IAmb IAmb 07 50 04.7
comp=Z,18nm,1.1s
C36M Paulatuk 70.14 6 P **P** **07 50 03.7 -0.1**
POKR Poker Plat Res 70.65 16 P **P** **07 50 07.8 +0.7**
COLA College 70.77 17 P **P** **07 50 09.3 +1.6**
COLA College 70.77 17 P **P** **07 50 08.2 +0.5**
COLA pmax pmax
comp=Z,45nm,0.8s
COLA College 70.77 17 P **P** **07 50 08.2 +0.5**
H27K Steamboat Moun 70.84 14 P **P** **07 50 08.8 +0.6**
H27K IAmb IAmb 07 50 16.2
comp=Z,23nm,0.8s
CCB Clear Creek Bu 70.97 17 P **P** **07 50 08.9 -0.1**
CCB IAmb IAmb 07 50 10.2
comp=Z,15nm,1.2s
G30M tAoh Zraii Nji 71.02 11 P **P** **07 50 09.7 +0.3**
ILAR Eielson Array 71.06 16 P **P** **07 50 09.7 0.0**
comp=Z,14nm,0.8s,baz=323,slow=5.1,SNR=109
ILAR LR LR 08 24 50.8
comp=Z,121nm,18.5s,baz=275,slow=39
comp=Z,14nm,0.8s
MCK McKinley 71.50 18 P **P** **07 50 12.6 +0.3**
MCK pmax pmax
comp=Z,22nm,1.3s
MCK McKinley 71.50 18 P **P** **07 50 12.6 +0.3**
MCK IAmb IAmb 07 50 19.7
comp=Z,22nm,1.3s
EPYK Eagle Plains 71.52 12 P **P** **07 50 12.1 -0.3**
EPYK IAmb IAmb 07 50 13.7
comp=Z,29nm,1.4s
FRB Frobisher Bay 71.69 343 LR LR 08 25 35.8
comp=Z,38nm,20.6s,baz=134,slow=39
K24K Donnelly Dome 72.15 16 P **P** **07 50 16.0 -0.2**
I29M Ogilvie Camp, 72.19 13 P **P** **07 50 16.1 -0.3**
I29M IAmb IAmb 07 50 23.3
comp=Z,28nm,0.8s
SCRK Sand Creek 72.38 16 P **P** **07 50 17.9 +0.3**
SCRK IAmb IAmb 07 50 19.2
comp=Z,24nm,0.9s
MATP Matopo 72.52 222 LR LR 08 22 58.0
comp=Z,82nm,18.2s,baz=48,slow=37
DOT Dot Lake 72.65 16 P **P** **07 50 19.1 -0.1**
PAX Paxson 72.95 17 P **P** **07 50 21.2 +0.2**
PAX pmax pmax
comp=Z,29nm,1.1s
PAX Paxson 72.95 17 P **P** **07 50 21.2 +0.2**
PAX IAmb IAmb 07 50 22.1
comp=Z,29nm,1.1s
SUA Susitna One 72.98 20 P **P** **07 50 20.9 -0.3**
SUA IAmb IAmb 07 50 22.3
comp=Z,46nm,1.2s
DAWY Dawson 73.19 14 P **P** **07 50 22.5 +0.1**
DAWY IAmb IAmb 07 50 29.5
comp=Z,24nm,0.9s
PMR Palmer 73.28 19 P **P** **07 50 23.6 +0.7**
RED Redoubt Volcan 73.31 21 P **P** **07 50 23.9 +0.7**
HARP HAARP 73.52 17 P **P** **07 50 25.3 +1.0**
BCAR Beaver Creek A 73.64 15 P **P** **07 50 25.5 +0.5**
PWL Port Wells 74.11 19 P **P** **07 50 27.7 -0.1**
PWL IAmb IAmb 07 50 28.8
comp=Z,29nm,0.8s
EYAK Cordova Ski Ar 75.01 18 P **P** **07 50 33.3 +0.3**
DBIC Dimbokro 75.47 266 P **P** **07 50 35.4 -0.9**
comp=Z,7.3nm,0.7s,baz=49,slow=6.3,SNR=8.6
DBIC LR LR 08 27 59.5
comp=Z,63nm,19.2s,baz=50,slow=39
comp=Z,7.3nm,0.7s
MBWA Marble Bar 75.68 134 P **P** **07 50 37.1 -0.2**
comp=Z,22nm,1.0s
MBWA Marble Bar 75.68 134 P **P** **07 50 37.2 -0.2**
MBWA Marble Bar 75.68 134 P **P** **07 50 36.6 -0.8**
MBWA IAmb IAmb 07 50 37.8
comp=Z,16nm,0.8s
JAY Jayapura 75.75 106 LR LR 08 25 54.5
comp=Z,38nm,20.7s,baz=318,slow=37
OHAK Old Harbor 75.81 23 P **P** **07 50 37.9 +0.2**
FITZ Fitzroy Crossi 76.69 128 P **P** **07 50 42.9 -0.2**
comp=Z,3.3nm,1.1s
FITZ Fitzroy Crossi 76.69 128 LR LR 08 28 23.9
comp=Z,87nm,18.5s,baz=320,slow=39
FITZ Fitzroy Crossi 76.69 128 P **P** **07 50 42.3 -0.8**
FITZ Fitzroy Crossi 76.69 128 P **P** **07 50 42.8 -0.3**
KNRA Kununurra 76.79 124 P **P** **07 50 43.5 -0.3**
comp=Z,19nm,0.8s
KNRA Kununurra 76.79 124 P **P** **07 50 43.2 -0.6**
KNRA IAmb IAmb 07 50 44.3
comp=Z,11nm,0.7s
POGA Pongola 76.82 216 P **P** **07 50 42.7 -1.0**
KDWAN Kaudwane 76.95 224 P **P** **07 50 44.0 -0.6**
KDWAN IAmb IAmb 07 50 45.1
comp=Z,14nm,0.8s
KDU Kakadu 77.02 119 P **P** **07 50 44.6 -0.4**
comp=Z,10nm,1.2s
PNL Peninsula 77.21 16 P **P** **07 50 46.4 +0.8**
GRTLG Ghanzi 77.22 228 P **P** **07 50 45.5 -0.7**
GRTLG IAmb IAmb 07 50 47.4
comp=Z,20nm,1.2s
YKA Yellowknife Ar 77.52 3 P **P** **07 50 47.5 +0.3**
comp=Z,23nm,0.7s,baz=353,slow=5.5,SNR=69
YKA LR LR 08 27 02.5
comp=Z,132nm,21.8s,baz=294,slow=37
comp=Z,23nm,0.7s
TSUM Tsumeb 77.65 232 LR LR 08 28 17.8
comp=Z,75nm,18.8s,baz=344,slow=38
TSUM Tsumeb 77.65 232 P **P** **07 50 48.0 -0.6**
TSUM IAmb IAmb 07 50 50.0
comp=Z,15nm,1.0s
LBTB Lobatse 77.81 222 LR LR 08 28 11.8
comp=Z,70nm,18.1s,baz=34,slow=38
SKAG Skagway 78.19 14 P **P** **07 50 51.6 +0.6**
SCHQ Schefferville 78.90 337 P **P** **07 50 55.0 -0.1**
comp=Z,17nm,0.7s,baz=46,slow=4.8,SNR=13
SCHQ LR LR 08 25 33.5
comp=Z,214nm,18.5s,baz=94,slow=36
comp=Z,17nm,0.7s
MEEK Meekatharra 79.54 138 P **P** **07 50 58.4 -0.4**
comp=Z,25nm,1.3s
DLBC Dease Lake 80.05 11 LR LR 08 33 31.3
comp=Z,63nm,18.1s,baz=330,slow=41
MORW Morawa 80.29 142 P **P** **07 51 01.0 -1.8**
MORW Morawa 80.29 142 P **P** **07 51 01.9 -0.9**
MORW IAmb IAmb 07 51 02.7
comp=Z,17nm,0.6s
BOSA Boshof 80.94 220 P **P** **07 51 05.2 -1.2**
comp=Z,11nm,0.8s,baz=30,slow=4.7,SNR=12
BOSA LR LR 08 31 05.2
comp=Z,38nm,18.2s,baz=24,slow=39
comp=Z,11nm,0.8s
BOSA Boshof 80.94 220 P **P** **07 51 05.5 -0.9**
BOSA pmax pmax
comp=Z,22nm,1.2s
BOSA Boshof 80.94 220 P **P** **07 51 05.5 -0.9**
BOSA IAmb IAmb 07 51 06.7
comp=Z,22nm,1.1s
BLDU Ballidu 81.90 142 P **P** **07 51 09.8 -1.5**
WRA Warramunga Arr 83.50 123 P **P** **07 51 19.0 -0.9**
comp=Z,21nm,0.7s,baz=326,slow=4.6,SNR=148
comp=Z,21nm,0.7s
WRAB Tennant Creek 83.50 123 P **P** **07 51 18.9 -1.0**
WRKA Warakurna 83.58 130 P **P** **07 51 19.8 -0.5**
comp=Z,11nm,0.8s
WR8 Warramunga Arr 83.62 123 **P** **07 51 19.4 -1.1**
WR8 IAmb IAmb 07 51 20.9
comp=Z,23nm,0.8s
NWAO Narrogin (SRO) 84.07 143 P **P** **07 51 21.8 -0.7**
PMG Port Moresby 85.10 107 P **P** **07 51 28.0 -0.1**

comp=Z,15nm,0.8s,baz=30,slow=4.0,SNR=4.9
comp=Z,15nm,0.8s
FFC Flin Flon 85.28 356 *i* P **P 07 51 29.1 +0.6**
KRVT Keravat (AS076 85.39 100 LR LR 08 28 35.4
comp=Z,24nm,20.9s,baz=196,slow=35
AS15 Alice Springs 85.92 126 P **P 07 51 31.4 -0.7**
comp=Z,26nm,0.8s
AS31 Alice Springs 85.94 126 P **P 07 51 31.4 -0.8**
comp=Z,7.8nm,0.7s
ASAR Alice Springs 85.94 126 P **P 07 51 31.2 -1.0**
comp=Z,17nm,0.7s,baz=315,slow=4.7,SNR=216
comp=Z,17nm,0.7s
ASAR Alice Springs 85.94 126 P **P 07 51 31.5 -0.7**
ASAR Alice Springs 85.94 126 P **P 07 51 31.5 -0.7**
AS09 Alice Springs 85.99 126 P **P 07 51 31.7 -0.7**
comp=Z,26nm,0.8s
AS17 Alice Springs 85.99 126 P **P 07 51 31.6 -0.9**
comp=Z,26nm,0.8s
BBB Bella Bella 86.38 12 LR LR 08 34 56.6
comp=Z,65nm,18.3s,baz=22,slow=39
EDM Edmonton 86.84 3 P **P 07 51 36.4 +0.1**
EDM pmax pmax
comp=Z,39nm,0.9s
EDM Edmonton 86.84 3 P **P 07 51 36.4 +0.1**
QIS Mount Isa 87.39 120 P **P 07 51 38.9 -0.5**
comp=Z,19nm,0.9s
FORT Forrest 87.84 134 P **P 07 51 40.9 -0.3**
comp=Z,35nm,0.9s
FORT Forrest 87.84 134 P **P 07 51 40.8 -0.3**
VLDQ Val d'Or 87.90 340 P **P 07 51 41.9 +0.5**
MTSU Mount Surprise 88.93 115 P **P 07 51 47.1 +0.4**
comp=Z,14nm,0.9s
ULM Lac du Bonnet 89.26 352 P **P 07 51 47.4 -0.4**
comp=Z,10nm,0.9s,baz=346,slow=8.1,SNR=6.0
ULM LR LR 08 35 47.9
comp=Z,148nm,18.1s,baz=17,slow=38
comp=Z,10nm,0.9s
SADO Sadowa 91.43 340 LR LR 08 33 10.0
comp=Z,97nm,20.4s,baz=41,slow=36
NEW Newport 91.56 6 LR LR 08 38 00.2
comp=Z,207nm,18.1s,baz=38,slow=39
CTA Charters Tower 91.59 115 P **P 07 51 59.1 +0.1**
comp=Z,8.9nm,0.9s
CTA Charters Tower 91.59 115 P **P 07 51 58.7 -0.4**
comp=Z,15nm,0.7s,baz=321,slow=5.3,SNR=24
comp=Z,15nm,0.7s
CTAO Charters Tower 91.59 115 P **P 07 51 58.6 -0.5**
CTAO pmax pmax
comp=Z,15nm,0.8s
CTAO Charters Tower 91.59 115 P **P 07 51 58.6 -0.5**
C09A Chrisman Ranch 91.92 7 **P 07 52 00.1 -0.2**
BOZ Bozeman (W) 94.52 2 P **P 07 52 12.2 -0.3**
BOZ Bozeman (W) 94.52 2 P **P 07 52 12.2 -0.3**
BOZ IAmb IAmb 07 52 14.1
comp=Z,9.7nm,0.9s
I40A Norwalk 94.77 347 **P 07 52 13.7 +0.2**
RLMT Red Lodge 95.04 1 **P 07 52 15.3 +0.3**
RLMT IAmb IAmb 07 52 16.7
comp=Z,7.9nm,0.9s
MCMT McKenzie Canyo 95.24 3 P **P 07 52 16.6 +0.6**
ECSD EROS Data Cent 95.77 352 **P 07 52 17.6 -0.5**
ECSD IAmb IAmb 07 52 19.2
comp=Z,10nm,0.9s
STKA Stephens Creek 96.54 126 P **P 07 52 20.2 -1.3**
comp=Z,1.8nm,0.5s,baz=339,slow=5.3,SNR=6.7
STKA LR LR 08 44 01.9
comp=Z,87nm,20.1s,baz=208,slow=40
comp=Z,1.8nm,0.5s
YBH Yreka Blue Hor 97.39 11 LR LR 08 43 02.6
comp=Z,57nm,18.5s,baz=348,slow=40
PDAR Pinedale Array 97.39 1 P **P 07 52 25.7 0.0**
comp=Z,2.0nm,0.8s,baz=33,slow=3.0,SNR=19
PDAR LR LR 08 39 55.2
comp=Z,99nm,20.4s,baz=12,slow=38
comp=Z,2.0nm,0.8s
NVAR Mina Array Bea 101.20 8 P **Pdif 07 52 43.9 +1.1**
comp=Z,1.0nm,0.7s,baz=353,slow=3.7,SNR=5.9
RCBR Riachuelo 107.18 277 *eP* **Pdif 07 53 09.8 +0.4**
NBPA Parau_RN 108.05 278 *eP* **Pdif 07 53 12.9 -0.4**
NBMO Morrinhos-CE 108.67 282 *eP* **Pdif 07 53 16.6 +0.5**
NBMA Muriti-CE 110.34 278 *eP* **Pdif 07 53 23.3 -0.2**
NBTA Tacaratu-PE 110.92 276 *eP* **Pdif 07 53 25.7 -0.4**
TROLL Troll, Antarti 121.78 200 ⇑PKiKP **PKPdf 07 57 44.5 -0.4**
comp=Z,404nm,0.5s
TROLL ⇑PKKPbc **PKKPbc 08 07 43.7 -1.0**
comp=Z,67nm,0.9s
VNA2 Neumayer--Watz 124.04 203 ⇑PKiKP **PKPdf 07 57 48.5 -0.5**
comp=Z,7.8nm,0.6s,baz=37,slow=2.0
VNA2 ⇓PKKPbc **PKKPbc 08 07 34.2 -1.5**
comp=Z,1.0nm,0.8s,baz=267,slow=4.7
VNA1 Neumayer--Stat 124.18 203 ⇑PKiKP **PKPdf 07 57 48.9 -0.4**
comp=Z,5.6nm,0.9s
VNA3 Neumayer Olymp 124.84 203 ⇑PKiKP **PKPdf 07 57 49.9 -0.7**
comp=Z,8.2nm,0.8s
VNA3 ⇓PKKPbc **PKKPbc 08 07 31.0 -1.4**
comp=Z,0.9nm,0.8s
SALV Santo Antonio 128.51 282 *eP* **PKPdf 07 57 58.3 -1.0**
VNDA Vanda 128.91 164 PKP **PKPdf 07 57 57.5 -0.7**
comp=Z,1.1nm,0.8s,baz=272,slow=2.6,SNR=7.8
QSPA South Pole Qui 130.00 180 PKP **PKPdf 07 57 59.9 -0.7**
comp=Z,2.9nm,0.8s,baz=176,slow=0.3,SNR=12
CPUP Villa Florida 135.77 272 PKP **PKPdf 07 58 11.6 -1.1**
comp=Z,2.6nm,0.8s,baz=18,slow=3.2,SNR=6.8
LPAZ La Paz 137.84 293 PKP **PKPdf 07 58 16.3 -1.2**
comp=Z,1.0nm,0.6s,baz=34,slow=2.3,SNR=6.5
PPT2 Papeete2 137.91 70 *e*LR LR 08 42 47.1
comp=Z,43nm,23.5s
TBI Tubuai 141.56 77 *e*LR LR 08 44 29.5
comp=Z,1μm,33.8s
PLCA Paso Flores 151.43 257 PKP **PKPdf 07 58 38.5 -1.0**
comp=Z,2.7nm,0.9s,baz=313,slow=0.9,SNR=4.7
PLCA PKPbc **PKPbc 07 58 45.6 0.0**
comp=Z,20nm,0.9s,baz=85,slow=1.3,SNR=56
PLCA Paso Flores 151.43 257 *eP* **PKPdf 07 58 39.5 -0.1**

*IDC **06** 07:39:45.3±1.2,30.14S×179.43W,h309km±10km,mb3.5/9, mbtmp4.3/10,Error ellipse: s-maj=17.3km s-min=15.0km az=77.0*
*WEL **06** 07:39:53.3±0.5,31.2S×17.9W±1.3,h12km,M5.2/9, mB5.6/4,ML4.9/10,MLv5.2/9,Mw(mB)5.1/4,Error ellipse: s-maj=19.3km s-min=3.9km az=116.8*

ISC 06 07:39:44.3±0.5,30.39S±0.06×179.15W±0.10,h30km, n86,σ2.850/91,mb3.9/12,4C-2D,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**1.55**	**44**	P	**Pn**	**07 40 30.2**	**+2.4**
GLKZ				S	**S**	**07 40 57.5**	**-5.0**
GLKZ				AML	AML		
GLKZ				AML	AML		
RIZ	**Raoul Island**	**1.56**	**43**	P	**Pn**	**07 40 30.8**	**+2.9**
RIZ				AML	AML		
RIZ				AML	AML		
RAO	**Raoul Island**	**1.56**	**44**	P	**Pn**	**07 40 30.2**	**+2.3**
	675nm,0.3s,baz=209,slow=19,SNR=4.9						
RAO				S	**S**	**07 41 03.0**	**+0.4**
	589nm,0.3s,baz=107,slow=22,SNR=3.7						
RAO	**Raoul Island**	**1.56**	**44**	P	**Pn**	**07 40 30.9**	**+3.0**
RAO				S	**S**	**07 40 56.6**	**-6.0**
RAO				AML	AML		
RAO				AML	AML		
MXZ	**Matakaoa Point**	**7.46**	**196**	P	**Pn**	**07 41 33.3**	**+2.2**
MXZ				S	**S**	**07 42 54.0**	**-3.6**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**7.68**	**195**	P	**Pn**	**07 41 33.3**	**-0.5**
WMGZ				AML	AML		
WMGZ				AML	AML		
WCZ	**Waipu Caves**	**7.76**	**223**	P	**Pn**	**07 41 39.5**	**+4.6**
WCZ				AML	AML		
WCZ				AML	AML		
HAZ	**Te Kaha**	**7.77**	**198**	P	**Pn**	**07 41 34.9**	**0.0**
HAZ				AML	AML		
HAZ				AML	AML		
OUZ	**Omahuta**	**7.77**	**230**	P	**Pn**	**07 41 39.1**	**+4.2**
OUZ				AML	AML		
PKGZ	**Pakihiroa**	**7.80**	**196**	P	**Pn**	**07 41 35.0**	**-0.3**
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**7.95**	**195**	P	**Pn**	**07 41 35.4**	**-1.8**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**8.00**	**198**	P	**Pn**	**07 41 37.2**	**-0.6**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**8.12**	**196**	P	**Pn**	**07 41 41.2**	**+2.0**
TWGZ				AML	AML		
TWGZ				AML	AML		
TGRZ	**Tauranga**	**8.25**	**206**	P	**Pn**	**07 41 45.1**	**+4.4**
MARZ	**Manawahe**	**8.32**	**203**	P	**Pn**	**07 41 46.1**	**+4.4**
CNGZ	**Carnagh Statio**	**8.36**	**194**	P	**Pn**	**07 41 44.0**	**+1.8**
MWZ	**Matawai**	**8.38**	**198**	P	**Pn**	**07 41 40.7**	**-1.7**
TKGZ	**Te Karaka**	**8.40**	**196**	P	**Pn**	**07 41 40.5**	**-2.1**
EDRZ	**Edgecumbe**	**8.41**	**203**	P	**Pn**	**07 41 46.3**	**+3.4**
URZ	**Urewera**	**8.43**	**200**	P	**Pn**	**07 41 44.2**	**+1.2**
	80nm,0.3s,baz=254,slow=2.8,SNR=48						
URZ				S	**S**	**07 43 16.9**	**-2.6**
	121nm,0.3s,baz=201,slow=16,SNR=12						
URZ	**Urewera**	**8.43**	**200**	P	**Pn**	**07 41 41.7**	**-1.3**
KMRZ	**Kaimai**	**8.47**	**207**	P	Pn	07 41 48.7	+5.1
KARZ	**Kaharoa**	**8.51**	**205**	P	**Pn**	**07 41 48.3**	**+4.3**
RAGZ	**Rawiri**	**8.56**	**198**	P	**Pn**	**07 41 45.2**	**+0.4**
TARZ	**Mount Tarawera**	**8.61**	**203**	P	**P**	**07 41 50.4**	**-0.1**
RIGZ	**Rimuhau**	**8.67**	**196**	P	**Pn**	**07 41 43.7**	**-2.4**
RRRZ	**Republican Roa**	**8.70**	**203**	P	**P**	**07 41 50.5**	**-0.9**
MUGZ	**Murupara**	**8.74**	**202**	P	**Pn**	**07 41 45.0**	**-1.8**
RTZ	**Ruatahuna**	**8.80**	**200**	P	**Pn**	**07 41 46.9**	**-0.7**
HRRZ	**Handcock Road**	**8.82**	**204**	P	**Pn**	**07 41 50.8**	**+2.9**
GRRZ	**Galatos Road**	**8.85**	**205**	P	**P**	**07 41 53.0**	**-0.2**
PRGZ	**Paritu Road**	**8.85**	**195**	P	**Pn**	**07 41 49.3**	**+1.1**
PRRZ	**Plateau Road**	**8.88**	**203**	P	**Pn**	**07 41 51.6**	**+3.0**
ALRZ	**Allen Road**	**8.96**	**203**	P	**Pn**	**07 41 51.0**	**+1.5**
WPRZ	**Whakapapatarin**	**8.98**	**204**	P	**P**	**07 41 53.7**	**-0.9**
KNZ	**Kokohu**	**9.00**	**196**	P	**Pn**	**07 41 48.6**	**-1.3**
RAHZ	**Arahi**	**9.05**	**199**	P	**Pn**	**07 41 48.6**	**-2.0**
TLZ	**Tolley Road**	**9.05**	**208**	P	**P**	**07 41 54.5**	**-0.8**
MTHZ	**Maungataniwha**	**9.06**	**200**	P	**Pn**	**07 41 48.6**	**-2.2**
MHGZ	**Mahia Peninsul**	**9.07**	**195**	P	**Pn**	**07 41 48.7**	**-2.1**
KUTZ	**Kaahu Road**	**9.08**	**206**	P	**P**	**07 41 54.6**	**-1.0**
ARAZ	**Aratiatia Land**	**9.09**	**204**	P	Pn	07 41 47.1	-4.1
WHHZ	**Waihua**	**9.16**	**198**	P	**Pn**	**07 41 54.1**	**+2.2**
MRHZ	**Matea Rd**	**9.18**	**202**	P	**Pn**	**07 41 52.8**	**+0.6**
WHTZ	**Whakaora**	**9.18**	**205**	P	**P**	**07 41 55.6**	**-1.3**
NMHZ	**Naumai**	**9.30**	**200**	P	**Pn**	**07 41 54.6**	**+0.9**
WATZ	**Wairara**	**9.30**	**206**	P	**P**	**07 41 56.9**	**-1.3**
ARHZ	**Aropaoanui**	**9.40**	**199**	P	**Pn**	**07 41 52.9**	**-2.0**
BKZ	**Black Stump Fm**	**9.46**	**201**	P	**Pn**	**07 41 53.5**	**-2.2**
KATZ	**Kakaramea**	**9.55**	**205**	P	**Pn**	**07 41 59.4**	**+2.5**
MCHZ	**McNeill Hill**	**9.65**	**200**	P	**Pn**	**07 41 55.5**	**-2.4**
ETVZ	**East Tongariro**	**9.69**	**204**	P	**Pn**	**07 41 58.9**	**+0.3**
KWHZ	**Kaweka Forest**	**9.71**	**201**	P	**Pn**	**07 41 55.7**	**-3.2**
WTVZ	**West Tongariro**	**9.71**	**205**	P	**Pn**	**07 41 59.9**	**+1.0**
OTVZ	**Oturere**	**9.73**	**205**	P	**Pn**	**07 41 57.7**	**-1.4**
CKHZ	**Cape Kidnapper**	**9.75**	**197**	P	**Pn**	**07 41 56.5**	**-2.6**
BHHZ	**Black Hill Sta**	**9.89**	**202**	P	**Pn**	**07 41 58.0**	**-2.9**
MSVF	**Nonsavu**	**12.86**	**348**	P	**Pn**	**07 42 35.7**	**-1.7**
	24nm,0.7s,baz=188,slow=6.6,SNR=17						
CTZ	**Chatham Island**	**13.47**	**172**	P	Pn	07 42 55.2	+11
RPZ	**Rata Peaks**	**15.41**	**208**	P	**P**	**07 43 04.7**	**-1.0**
	0.9nm,0.3s,baz=41,slow=9.3,SNR=2.1						
RPZ				S	**S**	**07 45 44.1**	**-8.8**
	3.3nm,0.4s,baz=136,slow=23,SNR=12						
CTA	**Charters Tower**	**32.82**	**280**	P	**P**	**07 45 49.0**	**-1.4**
	2.5nm,0.6s,baz=100,slow=11,SNR=2.8						
	2.5nm,0.6s						
STKA	**Stephens Creek**	**33.51**	**257**	P	**P**	**07 45 56.1**	**-0.1**
	2.3nm,0.7s,baz=62,slow=12,SNR=4.1						
	2.3nm,0.7s						
ASAR	**Alice Springs**	**42.12**	**267**	P	**P**	**07 47 05.9**	**-2.0**
	0.9nm,0.5s,baz=103,slow=6.5,SNR=12						
ASAR				ScP	**ScP**	**07 52 16.0**	**-1.8**
	2.3nm,0.7s,baz=102,slow=4.6,SNR=5.6						
	0.9nm,0.5s						
WRA	**Warramunga Arr**	**43.10**	**273**	P	**P**	**07 47 13.5**	**-2.3**
	2.5nm,0.5s,baz=111,slow=7.7,SNR=34						
	2.5nm,0.5s						
VNDA	**Vanda**	**48.01**	**185**	P	**P**	**07 47 55.5**	**+2.4**
	0.4nm,1.0s,baz=347,slow=7.1,SNR=1.3						
VNDA				ScP	**ScP**	**07 52 41.2**	**+0.2**
	0.7nm,0.7s,baz=348,slow=4.8,SNR=9.8						
	0.4nm,1.0s						
QSPA	**South Pole Qui**	**59.72**	**180**	P	**P**	**07 49 20.0**	**+2.4**
	1.8nm,0.5s,baz=50,slow=4.4,SNR=17						
	1.8nm,0.5s						
TROLL	**Troll, Antarti**	**77.87**	**181**	⇑P	**P**	**07 51 10.1**	**+1.3**
	comp=Z,166nm,0.9s						
VNA3	**Neumayer Olymp**	**78.38**	**177**	⇑P	**P**	**07 51 12.3**	**+1.0**
	comp=Z,2.4nm,0.7s						
VNA3				⇓pP	**pwP**	**07 52 26.8**	**+4.0**
	comp=Z,2.0nm,0.7s						
VNA2	**Neumayer--Watz**	**78.80**	**177**	⇑P	**P**	**07 51 15.0**	**+1.3**
	comp=Z,2.3nm,0.6s,baz=185,slow=5.6						
VNA1	**Neumayer--Stat**	**79.03**	**177**	⇑P	**P**	**07 51 16.3**	**+1.4**
	comp=Z,2.0nm,0.8s						
VNA1				⇓pP	**pwP**	**07 52 31.7**	**+5.2**
	comp=Z,2.3nm,0.7s						
PLCA	**Paso Flores**	**83.24**	**134**	P	**P**	**07 51 39.8**	**+2.2**
	comp=Z,1.8nm,0.9s,baz=18,slow=6.5,SNR=3.3						
	comp=Z,1.8nm,0.9s						
KSRS	**Korea Array**	**83.70**	**320**	P	**P**	**07 51 39.2**	**-0.4**
	comp=Z,2.0nm,0.8s,baz=135,slow=5.4,SNR=5.3						
	comp=Z,2.0nm,0.8s						
PETK	**Petropavlovsk-**	**85.56**	**346**	P	**P**	**07 51 47.8**	**-0.8**
	comp=Z,6.5nm,0.7s,baz=108,slow=7.1,SNR=7.2						
	comp=Z,6.5nm,0.7s						
MKAR	**Makanchi Array**	**117.01**	**310**	PKP	**PKPdf**	**07 57 51.0**	**-2.3**
	comp=Z,0.3nm,0.3s,baz=238,slow=2.7,SNR=4.1						
KURBB	**Kurchatov Arra**	**120.36**	**314**	PKP	**PKPdf**	**07 57 57.6**	**-1.9**
	comp=Z,0.7nm,0.7s,baz=116,slow=2.1,SNR=4.9						
BVAR	**Borovoye Array**	**125.71**	**316**	PKP	**PKPdf**	**07 58 08.6**	**-1.1**
	comp=Z,0.7nm,0.3s,baz=120,slow=2.1,SNR=3.8						
ARCES	**ARCESS Array B**	**138.37**	**347**	PKhKP	PKPpre	07 58 23.1	
	comp=Z,2.8nm,1.0s,baz=59,slow=1.8,SNR=7.0						
KBZ	**Khabaz**	**144.28**	**304**	PKP	**PKPab**	**07 58 42.9**	**-0.4**
	comp=Z,4.0nm,0.8s,baz=205,slow=2.0,SNR=6.9						
FINES	**FINESS Array B**	**144.79**	**339**	PKP	PKPbc	07 58 43.0	-1.6
	comp=Z,8.3nm,0.3s,baz=39,slow=2.9,SNR=107						
NB2	**NORSAR Subarra**	**148.59**	**350**	PKP	**PKPdf**	**07 58 53.4**	**+2.2**
	comp=Z,1.2nm,0.5s,baz=12,slow=2.5						
NOA	**NORSAR Array B**	**148.59**	**350**	PKPbc	**PKPdf**	**07 58 54.0**	**+2.8**
	comp=Z,1.0nm,0.4s,baz=14,slow=4.1,SNR=9.4						
HFS	**Hagfors**	**149.03**	**348**	PKPbc	**PKPdf**	**07 58 54.8**	**+2.9**
	comp=Z,1.2nm,0.3s,baz=93,slow=3.0,SNR=7.0						
MMAI	**Mount Meron Ar**	**150.56**	**284**	PKPbc	**PKPbc**	**07 59 00.3**	**-0.7**
	comp=Z,3.6nm,0.5s,baz=25,slow=4.6,SNR=4.6						
AKASG	**Malin Array Be**	**150.69**	**322**	PKPbc	**PKPbc**	**07 58 59.3**	**-1.3**
	comp=Z,1.5nm,0.4s,baz=51,slow=2.5,SNR=12						
BRTR	**Keskin Array B**	**151.72**	**298**	PKPbc	**PKPbc**	**07 59 02.2**	**-1.3**
	comp=Z,1.1nm,0.4s,baz=58,slow=3.6,SNR=5.9						
TORD	**Torodi Ar. Bea**	**162.82**	**183**	PKPab	**PKPab**	**08 00 02.1**	**+0.4**
	comp=Z,0.7nm,0.5s,baz=179,slow=3.0,SNR=4.4						

*IDC **06** 07:49:44.6±4.4,53.66N×88.06E,h0km,mbtmp3.3/2, ML2.5/2,Error ellipse: s-maj=45.5km s-min=23.7km az=73.0*

ASRS 06 07:49:45.0±1.0,53.56N×87.65E,h0km,M2.7(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.73**	**284**	I	I	08 04 50.0	
	baz=96,slow=327,SNR=3.8						
ZALV	**Zalesovo Beam**	**1.73**	**284**	Pn	Pg	07 50 19.4	+1.3
	1.1nm,0.3s,baz=98,slow=16,SNR=15						
ZALV				Sn	Sg	07 50 44.9	+4.4
	3.6nm,0.3s,baz=101,slow=25,SNR=10						
KURBB	**Kurchatov Arra**	**6.34**	**246**	Pn	Pn	07 51 24.0	+4.3
	0.1nm,0.3s,baz=63,slow=15,SNR=2.0						
	2.4nm,0.8s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.59**	**209**	Pn	Pn	07 51 40.6	+3.8
	0.1nm,0.3s,baz=30,slow=14,SNR=5.2						
	1.5nm,0.9s						
MKAR				AML	AML		

WEL 06 08:16:11.5±1.5,32.2S±13.1×17.8W±4.0,h12km,M4.2/5, mB4.7/1,ML4.3/7,MLv4.2/5,Mw(mB)3.9/1,Error ellipse: s-maj=54.6km s-min=4.7km az=106.8,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.15**	**4**	P	Pn	08 17 01.3	+0.5
GLKZ				S	Sn	08 17 38.4	+0.1
GLKZ				AML	AML		
GLKZ				AML	AML		
PKGZ	**Pakihiroa**	**6.25**	**208**	P	Pn	08 17 44.1	+0.5
PKGZ				S	Sn	08 18 56.2	+1.2
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**6.28**	**211**	P	Pn	08 17 45.7	+1.8
HAZ				S	Sn	08 18 57.7	+2.0
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**6.36**	**206**	P	Pn	08 17 44.3	-0.8
PUZ				S	Sn	08 18 57.1	-0.6
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.50**	**210**	P	Pn	08 17 48.3	+1.2
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.56**	**208**	P	Pn	08 17 47.7	-0.1
TWGZ				S	Sn	08 19 02.4	-0.2
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.75**	**205**	P	Pn	08 17 49.3	-1.0
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**6.84**	**207**	P	Pn	08 17 51.4	-0.2
TKGZ				S	Sn	08 19 08.9	-0.5
MWZ	**Matawai**	**6.88**	**210**	P	Pn	08 17 51.8	-0.4
MWZ				S	Sn	08 19 09.8	-0.7
OPRZ	**Ohinepanea**	**6.94**	**217**	P	Pn	08 17 50.9	-2.0
URZ	**Urewera**	**7.00**	**212**	P	Pn	08 17 54.4	+0.6
RIGZ	**Rimuhau**	**7.11**	**207**	P	Pn	08 17 54.3	-1.0
MUGZ	**Murupara**	**7.33**	**213**	P	Pn	08 17 58.8	+0.4
MTHZ	**Maungataniwha**	**7.61**	**211**	P	Pn	08 18 03.2	+1.0
BKZ	**Black Stump Fm**	**8.02**	**211**	P	Pn	08 18 08.1	+0.2

*SNET **06** 08:50:39.0±1.5,12.90N×88.55W,h65km±13km,ML3.4, Presumed earthquake*
*CATAC **06** 08:50:40.1±0.4,13.3N±3.3×88.9W±.,h37km±4km,M3.5/24, MLv3.5/24,Error ellipse: s-maj=8.1km s-min=2.9km az=26.6,confirmed*

ISC 06 08:50:39.9±1.5,12.8N±0.1×88.59W±0.05,h56km±17km, n49,σ0.941/63,2C-18D,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALJI	**Alcalda de J**	**0.51**	**3**	⇓P	**Pn**	**08 50 51.6**	**-0.1**
ALJA	**Alcalda de J**	**0.51**	**3**	*eP*	**Pn**	**08 50 51.6**	**-0.1**
ALJI				*eS*	**Sn**	**08 51 01.0**	**+0.8**
JUCU	**Jucuarįn**	**0.55**	**38**	⇓*iP*	**Pn**	**08 50 52.0**	**-0.3**
INTP	**Intipuca**	**0.65**	**54**	⇓*eP*	**Pn**	**08 50 53.0**	**-0.3**
TECA	**Tecapa**	**0.68**	**8**	⇓*eP*	**Pn**	**08 50 53.7**	**-0.2**
RANC	**El Ranchito**	**0.68**	**26**	⇑P	**Pn**	**08 50 53.9**	**0.0**
RANC				S	**Sn**	**08 51 04.6**	**+0.5**
RANC	**El Ranchito**	**0.68**	**26**	⇑*eP*	**Pn**	**08 50 53.9**	**0.0**
PACA	**Pacayal**	**0.70**	**22**	⇓P	**Pn**	**08 50 54.0**	**-0.1**
PACA				S	**Sn**	**08 51 04.8**	**+0.4**
PACA	**Pacayal**	**0.70**	**22**	⇓*eP*	**Pn**	**08 50 54.0**	**-0.1**
TECO	**Alcaldia de Te**	**0.74**	**346**	⇓P	**Pn**	**08 50 54.2**	**-0.4**
TECO	**Alcaldia de Te**	**0.74**	**346**	⇓*eP*	**Pn**	**08 50 54.1**	**-0.4**
TECO				*eS*	**Sn**	**08 51 04.9**	**-0.2**
LCND	**La Caada**	**0.84**	**54**	⇓P	**Pn**	**08 50 55.6**	**-0.2**
LCND	**La Caada**	**0.84**	**54**	⇓*eP*	**Pn**	**08 50 55.6**	**-0.2**
CNCH	**Conchagua**	**0.87**	**58**	⇓P	**Pn**	**08 50 55.8**	**-0.4**
CNCH	**Conchagua**	**0.87**	**58**	*eP*	**Pn**	**08 50 56.3**	**0.0**
LFRS	**El Faro**	**0.92**	**331**	*eP*	**Pn**	**08 50 56.6**	**-0.4**
PAVA	**Las Pavas**	**0.95**	**340**	⇓P	**Pn**	**08 50 57.2**	**-0.1**
PAVA				S	**Sn**	**08 51 10.5**	**+0.3**
PAVA	**Las Pavas**	**0.95**	**340**	⇓*eP*	**Pn**	**08 50 57.2**	**-0.1**
LALI	**Alcalda de L**	**0.97**	**313**	P	**Pn**	**08 50 57.3**	**-0.2**
PANCS	**Alcalda de**	**0.98**	**324**	P	**Pn**	**08 50 57.3**	**-0.3**
LOMA	**Loma Larga**	**1.00**	**326**	⇓P	**Pn**	**08 50 57.6**	**-0.4**
LOMA	**Loma Larga**	**1.00**	**326**	*eP*	**Pn**	**08 50 57.6**	**-0.4**
LOMA				*eS*	**Sn**	**08 51 11.3**	**+0.1**
LFU	**La Fuente**	**1.06**	**331**	*eP*	**Pn**	**08 50 58.6**	**0.0**
UTEC	**Universidad Te**	**1.06**	**326**	P	**Pn**	**08 50 58.3**	**-0.4**
SEMO	**Seminario San**	**1.07**	**325**	P	**Pn**	**08 50 58.5**	**-0.5**
SEMO				S	**Sn**	**08 51 13.1**	**+0.1**
UEES	**Universidad Ev**	**1.09**	**325**	P	**Pn**	**08 50 59.0**	**-0.2**
UEES	**Universidad Ev**	**1.09**	**325**	*eP*	**Pn**	**08 50 59.1**	**-0.1**
UEES				*eS*	**Sn**	**08 51 13.9**	**+0.5**
PIC2	**El Picacho**	**1.13**	**325**	*eP*	**Pn**	**08 50 59.8**	**0.0**
BOQS	**Boqueron**	**1.13**	**324**	*eP*	**Pn**	**08 50 59.8**	**0.0**
PMON	**Piamonte**	**1.14**	**322**	⇓P	**Pn**	**08 50 59.5**	**-0.3**
PMON	**Piamonte**	**1.14**	**322**	*eP*	**Pn**	**08 50 59.5**	**-0.3**
JAYA	**Jayaque - finc**	**1.18**	**315**	⇓P	**Pn**	**08 51 00.0**	**-0.4**
JAYA	**Jayaque - finc**	**1.18**	**315**	*eP*	**Pn**	**08 50 59.8**	**-0.6**
JAYA				*eS*	**Sn**	**08 51 14.9**	**-0.7**
QUEZ	**Alcaldia de Qu**	**1.21**	**327**	*eP*	**Pn**	**08 51 00.9**	**+0.2**
CEVE	**Cerro Verde**	**1.42**	**315**	P	**Pn**	**08 51 03.5**	**-0.2**
CEVE	**Cerro Verde**	**1.42**	**315**	*eP*	**Pn**	**08 51 04.6**	**+0.9**
SBLS	**San Blas**	**1.43**	**316**	*eP*	**Pn**	**08 51 04.1**	**+0.3**
UNIC	**Universidad Ca**	**1.49**	**321**	P	**Pn**	**08 51 04.8**	**+0.4**
NUBE	**Las Nubes**	**1.58**	**313**	P	**Pn**	**08 51 05.8**	**0.0**
NUBE	**Las Nubes**	**1.58**	**313**	*eP*	**Pn**	**08 51 05.7**	**-0.1**
SLOZ	**Alcaldia de Sa**	**1.67**	**316**	P	**Pn**	**08 51 07.0**	**+0.1**
RBDL	**Robledal**	**1.67**	**321**	*

0.7nm,0.3s
KURBB **Kurchatov Arra 49.31 313** P P **08 59 56.8 -0.2**
3.6nm,0.2s,baz=90,slow=8.0,SNR=7.9
3.6nm,0.2s
FITZ **Fitzroy Crossi 49.76 197** P P **09 00 00.7 +0.1**
0.9nm,0.5s,baz=45,slow=9.7,SNR=1.9
0.9nm,0.5s
WRA **Warramunga Arr 50.00 186** P P **09 00 02.5 0.0**
0.7nm,0.3s,baz=0.9,slow=7.7,SNR=32
0.7nm,0.3s
ASAR **Alice Springs 53.73 186** P P **09 00 29.8 +0.3**
0.8nm,0.4s,baz=22,slow=11,SNR=29
0.8nm,0.4s
BVAR **Borovoye Array 54.28 316** P P **09 00 33.4 +0.3**
4.8nm,0.5s,baz=106,slow=7.3,SNR=10
4.8nm,0.5s
STKA **Stephens Creek 61.66 178** P P **09 01 25.5 +1.9**
1.3nm,0.6s,baz=323,slow=19,SNR=2.9
1.3nm,0.6s
ARCES **ARCESS Array B 69.95 340** P P **09 02 17.0 +1.8**
1.7nm,0.5s,baz=60,slow=7.3,SNR=11
1.7nm,0.5s
FINES **FINESS Array B 74.24 333** P P **09 02 41.3 +1.1**
1.9nm,0.5s,baz=65,slow=4.8,SNR=10
1.9nm,0.5s
KBZ **Khabaz 74.29 312** P P **09 02 41.4 +0.5**
3.2nm,0.8s,baz=78,slow=3.7,SNR=6.1
3.2nm,0.8s
AKASG **Malin Array Be 78.84 323** P P **09 03 06.8 +0.9**
0.8nm,0.4s,baz=54,slow=5.3,SNR=2.1
0.8nm,0.4s
HFS **Hagfors 79.76 336** P P **09 03 11.5 +0.9**
1.9nm,0.5s,baz=69,slow=5.1,SNR=5.4
1.9nm,0.5s
NB2 **NORSAR Subarra 79.97 337** P P **09 03 13.2 +1.5**
comp=Z,1.0nm,0.5s,baz=47,slow=5.1
NOA **NORSAR Array B 79.97 337** P P **09 03 13.3 +1.5**
comp=Z,1.5nm,0.6s,baz=46,slow=4.9,SNR=5.1
comp=Z,1.5nm,0.6s
BRTR **Keskin Array B 82.28 312** P P **09 03 25.2 +1.0**
comp=Z,1.3nm,0.7s,baz=102,slow=4.4,SNR=5.7
comp=Z,1.3nm,0.7s
LPAZ **La Paz 151.17 68** PKPbc **PKiKP 09 10 57.3 +3.3**
comp=Z,0.9nm,0.8s,baz=225,slow=2.9,SNR=3.6

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*BJI **06** 08:56:33.6, 40.94N× 143.28E, h10km, mB5.7/62, mb5.6/90, Ms5.6/97, Ms7 5.4/96*
*IDC **06** 08:56:35.2± 0.3, 40.93N× 143.20E, h0km, mb5.1/35, mbtmp5.1/46, ML4.3/9, MS5.1/89, Error ellipse: s-maj=9.8km s-min=7.9km az=108.0*
*MOS **06** 08:56:36.4± 0.9, 40.97N× 143.18E, h16km, mb5.8/81, MS5.5/33, Error ellipse: s-maj=5.6km s-min=3.4km az=106.9*
*ISC-PP **06** 08:56:38, 40.99N× 143.26E, h3km, Mwppsm6.2, Moment Tensor Solution. s44 Moment tensor: Scale 10^18^Nm; Mrr-0.00±.15; Mθθ-0.36±.18; Mϕϕ 0.37±.16; Mrθ-0.24±.18; Mθϕ 0.54±.12; Mϕr 0.14±.18; Fault plane solution: M0 2.66000×10^18^ NP1:φs 149.70000°, δ89.60000°, λ 236.70000°. NP2:φs 59.00000°, δ 33.30000°, λ -0.80000°.*
*NEIC **06** 08:56:38.1± 1.5, 40.99N± 0.04× 143.26E± 0.08, h12km± 1km, mb5.5/142, Ms_20 5.2/379, Mwb5.6/101, Mww5.5/28 Error ellipse: s-maj=11.4km s-min=6.1km az=116.0, Moment Tensor Solution. Moment tensor: Scale 10^17^Nm; Mrr 1.64; Mθθ 0.59; Mϕϕ -2.23; Mrθ 1.04; Mθϕ -0.84; Mϕr 1.74; Fault plane solution: M0 2.97000×10^17^ NP1:φs 29.92000°, δ68.43000°, λ 105.08000°. NP2:φs 173.68000°, δ 26.11000°, λ 56.65000°. Principal axes: T 2.5658, Plg 63.0000°, Azm 324.0000°; N 0.6871, Plg 14.0000°, Azm 204.0000°; P -3.2529, Plg 22.0000°, Azm 108.0000°;*
*NEIC **06** 08:56:38.9, 40.99N× 143.25E, h16km*
*NEIC **06** 08:56:38.9, 40.99N× 143.25E, h16km*
*IPGP **06** 08:56:38.0, 41.00N× 143.25E, h25km, Mw5.6, Fault plane solution: NP1:φs 190.00000°, δ 20.00000°, λ 78.00000°. NP2:φs 22.00000°, δ 71.00000°, λ 94.00000°.*
*NIED **06** 08:56:39.5, 40.93N× 143.25E, h17km, MW5.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^17^Nm; Mrr 1.25; Mθθ 0.19; Mϕϕ -1.44; Mrθ 0.37; Mθϕ -1.17; Mϕr 1.31; Fault plane solution: M0 2.16000×10^17^ NP1: φs 228.00000°, δ 28.00000°, λ 120.00000°. NP2: φs 15.00000°, δ 66.00000°, λ 75.00000°.*
*GFZ **06** 08:56:39.6± 0.2, 41°N± 2′× 14°3E± °, h28km, M5.5/54, mb5.7/54, confirmed*
*JMA **06** 08:56:39.5± 0.0, 40.9N± 0.2× 143.3E± 0.3, h17km, MD5.7/35, MW5.5/35, E OFF AOMORI PREF*
JMA Felt III J1 at E OFF AOMORI PREF .
*PTWC **06** 08:56:39, 41.00N× 142.80E, h10km, Mwp5.2/4, HOKKAIDO, JAPAN REGION*
*GFZ **06** 08:56:39.6, 40.94N× 143.26E, h18km, Mw5.5/37, Moment Tensor Solution. Moment tensor: Scale 10^17^Nm; Mrr 1.02; Mθθ-0.01; Mϕϕ-1.01; Mrθ 0.78; Mθϕ-0.33; Mϕr 1.57; Fault plane solution: M0 2.04825×10^17^ NP1: φs 186.89898°, δ 16.27958°, λ 72.51444°. NP2:φs 25.06778°, δ 74.49208°, λ 95.01463°. Principal axes: T 2.0173, Plg 60.2058°, Azm 302.2134°; N 0.0606, Plg 4.8316°, Azm 203.7238°; P -2.0779, Plg 29.3206°, Azm 111.0027°;*
*GCMT **06** 08:56:42.1± 0.1, 40.93N± 0.01× 143.30E± 0.01, h28km, MW5.5/145, Moment Tensor Solution. s132, c252; s145, c305; Duration: 184 Moment tensor: Scale 10^17^ Nm; Mrr 1.62±.03; Mθθ-0.11±.02; Mϕϕ-1.51±.02; Mrθ 0.92±.03; Mθϕ-0.39±.01; Mϕr 1.77±.04; Best double couple: M0 2.56600×10^17^ NP1:φs 186.00000°, δ 20.00000°, λ 72.00000°. NP2:φs 24.00000°, δ 71.00000°, λ 96.00000°. Principal axes: T 2.5940, Plg 64.0000°, Azm 305.0000°; N -0.0520, Plg 6.0000°, Azm 202.0000°; P -2.5380, Plg 25.0000°, Azm 109.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **06** 08:56:44.3, 40.79N× 143.52E, h22km, Moment Tensor Solution. Duration: 3s2 Moment tensor: Scale 10^17^Nm; Mrr 0.89; Mθθ 0.08; Mϕϕ -0.97; Mrθ 0.87; Mθϕ -0.16; Mϕr 1.60; Fault plane solution: M0 2.05000×10^17^ NP1: φs 170.28000°, δ 15.93000°, λ 55.16000°. NP2:φs 26.17000°, δ 76.98000°, λ 99.26000°. Principal axes: T 2.0494, Plg 57.0000°, Azm 308.0000°; N 0.0033, Plg 9.0000°, Azm 204.0000°; P -2.0527, Plg 31.0000°, Azm 109.0000°;*
ISC 06 08:56:39.1±0.5, **40.97N**±0.03× **143.26E**±0.03, **h26**km,3km, **h26**km:**pP-P, n1417,** σ1s**55**/1181, **mb5.5**/352, **MS5.2**/326, **98C-31D, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
ERM	**Erimo**	**1.05**	**356**	P		**Pn**	**08 56 58.3**	**+0.2**
ERM							08 57 11.4	
ERM	**Erimo**	**1.05**	**356**			**Pn**	**08 56 58.3**	**+0.2**
ERM					Sn	**Sn**	**08 57 11.4**	**-0.5**
ERM	**Erimo**	**1.05**	**356**	P		**Pb**	**08 56 58.7**	**+0.2**
ERM	**Erimo**	**1.05**	**356**	P		**Pn**	**08 56 58.5**	**+0.4**
ERM					S	**Sb**	**08 57 13.6**	**+1.7**
ERM	**Erimo**	**1.05**	**356**	P		**Pb**	**08 56 58.9**	**+0.3**
JEM	**Erimo**	**1.05**	**356**	*i* P		**Pn**	**08 56 58.6**	**+0.5**
JEM					A	A	08 56 58.6	
	comp=N,144nm,2.4s,comp=E,221nm,3.2s							
JEM					*e*S	**Sb**	**08 57 13.3**	**+1.4**
JTHR	**Tokachihiroo**	**1.32**	**1**	A		A	08 57 03.8	
	comp=N,121nm,3.9s,comp=E,142nm,4.1s							
JNBK	**Urakawa-nobuka**	**1.36**	**344**	A		A	08 57 04.5	
	comp=N,209nm,2.6s,comp=E,273nm,2.3s							
JKEN	**Kujiedanarisaw**	**1.41**	**238**	A		A	08 57 04.1	
	comp=N,233nm,0.9s,comp=E,208nm,2.1s							
JARK	**Aomorirokkasho**	**1.43**	**272**	A		A	08 57 04.8	
	comp=N,154nm,3.1s,comp=E,179nm,2.3s							
JANG	**Nango**	**1.45**	**246**	A		A	08 57 05.0	
	comp=N,95nm,3.0s,comp=E,66nm,1.9s							
JAHD	**Aomorihigashid**	**1.48**	**282**	A		A	08 57 05.7	
	comp=N,415nm,0.5s,comp=E,390nm,0.5s							
JTH	**Tanohata**	**1.48**	**226**	A		A	08 57 05.2	
	comp=N,88nm,3.6s,comp=E,105nm,1.8s							
JSHD	**Hidakashinhida**	**1.56**	**338**	A		A	08 57 07.3	
	comp=N,356nm,4.0s,comp=E,379nm,2.9s							
JCH	**Churui**	**1.65**	**3**	A		A	08 57 08.8	
	comp=N,79nm,1.8s,comp=E,157nm,2.5s							
JTM	**Tenmabayashi**	**1.67**	**264**			**Pn**	**08 57 07.2**	**+0.5**
JTM					Sn	**Sn**	**08 57 27.7**	**+0.4**
JTM	**Tenmabayashi**	**1.67**	**264**	P		**Pn**	**08 57 06.8**	**+0.1**
JTM					S	**Sn**	**08 57 28.8**	**+1.5**
JTM	**Tenmabayashi**	**1.67**	**264**	P		**Pn**	**08 57 06.9**	**+0.2**
JTM	**Tenmabayashi**	**1.67**	**264**	A		A	08 57 08.4	
	comp=N,140nm,1.0s,comp=E,175nm,2.1s							
JOT	**Ohata**	**1.72**	**285**	A		A	08 57 09.3	
	comp=N,151nm,0.7s,comp=E,206nm,2.6s							
JKZ	**Kuzumaki**	**1.77**	**237**	A		A	08 57 09.7	
	comp=N,122nm,0.8s,comp=E,82nm,1.1s							
MIYJ	**Miyakonagasawa**	**1.77**	**219**	A		A	08 57 09.6	
	comp=N,72nm,1.2s,comp=E,57nm,3.3s							
JKB	**Kayabe**	**1.91**	**299**	A		A	08 57 12.2	
	comp=N,123nm,3.3s,comp=E,166nm,3.9s							
JBT2	**Biratori 2**	**1.93**	**340**	A		A	08 57 12.8	
	comp=N,126nm,2.0s,comp=E,93nm,3.3s							
JIAM	**Iburiatsuma**	**1.93**	**329**	A		A	08 57 12.8	
	comp=N,400nm,1.4s,comp=E,295nm,4.1s							
JOB	**Onbets**	**1.98**	**12**	A		A	08 57 13.7	
	comp=N,123nm,3.6s,comp=E,152nm,2.9s							
JOM	**Ohasama**	**2.12**	**226**	A		A	08 57 14.7	
	comp=N,85nm,0.8s,comp=E,94nm,0.9s							
JAH	**Hinai**	**2.15**	**250**	A		A	08 57 15.2	
	comp=N,176nm,2.0s,comp=E,156nm,2.2s							
JSZI	**Iwateshizukuis**	**2.15**	**236**	A		A	08 57 15.1	
	comp=N,379nm,1.0s,comp=E,318nm,2.8s							
JSI2	**Shiura 2**	**2.16**	**273**	A		A	08 57 15.6	
	comp=N,291nm,0.7s,comp=E,311nm,2.2s							
JSR	**Shiriuchi**	**2.21**	**286**	A		A	08 57 16.6	
	comp=N,181nm,3.0s,comp=E,227nm,2.8s							
JHHS	**Hirosakihyakuz**	**2.22**	**263**	A		A	08 57 16.5	
	comp=N,225nm,5.8s,comp=E,259nm,3.9s							
JNB	**Noboribetsu**	**2.24**	**313**	A		A	08 57 17.1	
	comp=N,69nm,2.2s,comp=E,74nm,1.8s							
JFR	**Furan**	**2.25**	**347**	A		A	08 57 17.5	
	comp=N,85nm,1.9s,comp=E,83nm,2.5s							
OFUJ	**Ofunato**	**2.25**	**213**	A		A	08 57 16.5	
	comp=N,45nm,4.9s,comp=E,68nm,4.5s							
JAK	**Akkeshi**	**2.29**	**27**	A		A	08 57 18.1	
	comp=N,102nm,3.0s,comp=E,93nm,4.2s							
JEW	**Eniwo**	**2.31**	**325**	A		A	08 57 18.2	
	comp=N,307nm,2.6s,comp=E,211nm,2.3s							
JAR	**Ashorobuto**	**2.36**	**9**	A		A	08 57 19.1	
	comp=N,57nm,3.3s,comp=E,61nm,2.3s							
JYM2	**Yakumo 2**	**2.45**	**299**	A		A	08 57 20.1	
	comp=N,89nm,1.6s,comp=E,90nm,1.6s							
JNTW	**Noshirotokiwa**	**2.46**	**255**	A		A	08 57 19.7	
	comp=N,473nm,2.9s,comp=E,402nm,2.2s							
JIW	**Iwasaki**	**2.50**	**262**	A		A	08 57 20.4	
	comp=N,80nm,2.5s,comp=E,106nm,0.6s							
JOMM	**Oshimamatsumae**	**2.52**	**284**	A		A	08 57 20.8	
	comp=N,44nm,1.3s,comp=E,79nm,4.7s							
JKHN	**Kushirohamanak**	**2.54**	**33**	A		A	08 57 21.7	
	comp=N,62nm,2.3s,comp=E,97nm,2.4s							
JMK	**Ichinoseki**	**2.55**	**219**	A		A	08 57 20.9	
	comp=N,46nm,2.3s,comp=E,72nm,5.7s							
JRG	**Rokugo**	**2.55**	**233**	A		A	08 57 20.9	
	comp=N,151nm,0.7s,comp=E,113nm,0.8s							
JKMT	**Kesennumamotoy**	**2.56**	**213**	A		A	08 57 20.9	
	comp=N,41nm,5.7s,comp=E,71nm,2.5s							
JAB	**Ashibetsu**	**2.65**	**343**	A		A	08 57 23.2	
	comp=N,139nm,2.7s,comp=E,124nm,2.8s							
JISS	**Ishikarishitsu**	**2.68**	**330**	A		A	08 57 23.6	
	comp=N,226nm,4.3s,comp=E,172nm,2.9s							
JYW	**Yuwa**	**2.74**	**240**	A		A	08 57 23.6	
	comp=N,212nm,3.2s,comp=E,170nm,1.2s							
JNK	**Nakash**	**2.83**	**22**	A		A	08 57 25.9	
	comp=N,25nm,3.1s,comp=E,30nm,2.5s							
JIO	**Ouri**	**2.91**	**211**	A		A	08 57 26.0	
	comp=N,36nm,3.4s,comp=E,49nm,2.3s							
JHST	**Hiyamasetana**	**2.92**	**301**	A		A	08 57 26.7	
	comp=N,69nm,2.7s,comp=E,70nm,4.2s							
JKK2	**Kamakawa 2**	**2.93**	**353**	A		A	08 57 27.3	
	comp=N,40nm,3.4s,comp=E,43nm,3.3s							
JSH	**Shimam**	**2.93**	**306**	A		A	08 57 27.0	
	comp=N,36nm,3.5s,comp=E,46nm,1.5s							
JOFO	**Osakifurukawao**	**2.98**	**218**	A		A	08 57 26.9	
	comp=N,305nm,1.5s,comp=E,310nm,2.2s							
JIKH	**Ishinomakibobu**	**3.00**	**208**	A		A	08 57 27.1	
	comp=N,27nm,2.9s,comp=E,34nm,4.3s							
JHR	**Hokuryu**	**3.00**	**338**	A		A	08 57 28.2	
	comp=N,204nm,2.0s,comp=E,136nm,3.4s							
NMR	**Nemuro--Hokkai**	**3.02**	**37**	*i* P		**Pn**	**08 57 24.2**	**-1.0**
NMR				*i* S		**Sn**	**08 57 57.7**	**-2.8**
JYK	**Kaneyama**	**3.03**	**228**	A		A	08 57 27.7	
	comp=N,98nm,4.1s,comp=E,57nm,4.7s							
JMP	**Maruseppu**	**3.04**	**1**	A		A	08 57 28.9	
	comp=N,28nm,4.8s,comp=E,50nm,2.2s							
JTKR	**Abashiri--Toko**	**3.04**	**9**	A		A	08 57 28.8	
	comp=N,26nm,3.1s,comp=E,42nm,2.2s							
JOSM	**Okushiri--Mats**	**3.05**	**293**	A		A	08 57 28.6	
	comp=N,40nm,3.2s,comp=E,40nm,3.9s							
JNSB	**Nemuroshibetsu**	**3.09**	**24**	A		A	08 57 29.5	
	comp=N,70nm,4.8s,comp=E,72nm,4.1s							
JSK	**Shakotan**	**3.15**	**320**	A		A	08 57 30.3	
	comp=N,62nm,2.3s,comp=E,54nm,4.8s							
JKA	**Kamikawa-asahi**	**3.18**	**351**			**Pn**	**08 57 29.3**	**+1.9**
JKA	**Kamikawa-asahi**	**3.18**	**351**	P		**Pn**	**08 57 29.2**	**+1.8**
JKA	**Kamikawa-asahi**	**3.18**	**351**	P		**Pn**	**08 57 29.2**	**+1.8**
ASAJ	**Asahikawa**	**3.18**	**351**	Pn		**Pn**	**08 57 28.2**	**+0.8**
	comp=E,47nm,0.3s,baz=192,slow=12,SNR=153							
ASAJ					Sn	**Sn**	**08 58 02.7**	**-1.8**
	comp=E,224nm,0.3s,baz=171,slow=9.4,SNR=8.4							
	comp=E,106nm,0.3s							
ASAJ					AML	AML		
ASAJ	**Asahikawa**	**3.18**	**351**	A		A	08 57 30.9	
	comp=N,36nm,3.4s,comp=E,39nm,2.9s							
JYYZ	**Yamagatayuza**	**3.22**	**234**	A		A	08 57 30.4	
	comp=N,159nm,2.9s,comp=E,116nm,4.1s							
JRA	**Rausu**	**3.27**	**24**	A		A	08 57 32.1	
	comp=N,36nm,4.1s,comp=E,25nm,6.8s							
JOU	**Okura**	**3.28**	**218**	A		A	08 57 31.3	
	comp=N,59nm,0.9s,comp=E,74nm,2.5s							
JTB	**Tobi-shima**	**3.35**	**239**	A		A	08 57 32.3	
	comp=N,85nm,3.2s,comp=E,48nm,3.1s							
JOG3	**Oga3**	**3.36**	**253**	A		A	08 57 25.1	
	comp=N,144nm,3.0s,comp=E,116nm,2.8s							
RUSJ	**Misakicho**	**3.46**	**24**	*i* P		**Pn**	**08 57 32.5**	**+1.3**
RUSJ					*e*S	**Sn**	**08 58 12.4**	**+1.1**
JSS	**Shosan**	**3.58**	**344**	A		A	08 57 36.5	
	comp=N,84nm,5.6s,comp=E,84nm,3.6s							
YUK	**Yuzh-Kuril'sk**	**3.62**	**31**	*c* *i* P		**Pn**	**08 57 33.4**	**0.0**
YUK					*i* S	**Sn**	**08 58 13.7**	**-1.5**
YUK					pmax	pmax		
	comp=Z,3μm,0.3s							
YUK					pmax	pmax		
	comp=N,553nm,0.2s							
YUK					pmax	pmax		
	comp=E,740nm,0.2s							
YUK					smax	smax		
	comp=N,9μm,0.5s							
YUK					smax	smax		
	comp=E,10μm,0.5s							
YUK					smax	smax		
	comp=E,22μm,1.0s							
YUK					smax	smax		
	comp=N,20μm,1.2s							
YUK					MLR	MLR		
	comp=Z,34μm,17.0s							
YUK					MLR	MLR		
	comp=N,29μm,14.0s							
YUK					MLR	MLR		
	comp=E,25μm,16.0s							
JYA	**Atsumi**	**3.62**	**230**	A		A	08 57 36.1	
	comp=N,73nm,2.7s,comp=E,73nm,2.0s							
JMM	**Marumori**	**3.64**	**212**	A		A	08 57 36.3	
	comp=N,27nm,2.7s,comp=E,25nm,2.9s							
JYS	**Shirataka**	**3.69**	**223**	A		A	08 57 37.1	
	comp=N,95nm,3.1s,comp=E,99nm,1.4s							
JYG	**Yagishiri**	**3.71**	**339**	A		A	08 57 38.3	
	comp=N,61nm,7.9s,comp=E,51nm,5.0s							
JMST	**Minamisoumatoc**	**3.73**	**210**	A		A	08 57 37.5	
	comp=N,28nm,4.0s,comp=E,30nm,2.6s							
JYAR	**Yonezawaarcadi**	**3.89**	**219**	A		A	08 57 39.9	
	comp=N,82nm,1.0s,comp=E,85nm,1.2s							
JAW	**Awa shima**	**3.98**	**232**	A		A	08 57 41.3	
	comp=N,52nm,2.6s,comp=E,40nm,3.9s							
JSE	**Soyaes**	**4.02**	**353**	A		A	08 57 42.7	
	comp=N,28nm,2.3s,comp=E,37nm,3.5s							
JFK	**Kawauchi**	**4.05**	**208**	A		A	08 57 42.1	
	comp=N,18nm,5.0s,comp=E,22nm,4.7s							
JOTO	**OTAMA OYAMA**	**4.09**	**215**	A		A	08 57 42.8	
	comp=N,52nm,2.9s,comp=E,56nm,1.3s							
ONAJ	**Iwakimizuishiy**	**4.31**	**207**	A		A	08 57 45.8	
	comp=N,18nm,2.4s,comp=E,26nm,5.7s							
JNS	**Sasagawa**	**4.38**	**225**	A		A	08 57 46.9	
	comp=N,33nm,3.5s,comp=E,32nm,4.6s							
JRR	**Rishiri**	**4.40**	**342**	A		A	08 57 48.1	
	comp=N,144nm,7.9s,comp=E,149nm,5.0s							
JFFD	**Fukushimafurud**	**4.41**	**209**	A		A	08 57 47.2	
	comp=N,15nm,3.5s,comp=E,25nm,6.9s							
JWK2	**Keihoku**	**4.46**	**348**	A		A	08 57 48.9	
	comp=N,37nm,4.7s,comp=E,42nm,3.1s							
JFY	**Yanaizu**	**4.50**	**219**	A		A	08 57 48.6	
	comp=N,33nm,3.7s,comp=E,38nm,3.6s							
JSB	**Shiboa**	**4.77**	**214**	A		A	08 57 52.3	
	comp=N,48nm,4.6s,comp=E,72nm,4.2s							
JIZZ	**Izumozaki**	**4.92**	**227**	A		A	08 57 54.5	
	comp=N,122nm,3.9s,comp=E,91nm,4.1s							
JUON	**Uonuma**	**4.98**	**222**	A		A	08 57 55.2	
	comp=N,15nm,4.0s,comp=E,23nm,5.3s							
JHYU	**Hitachinakayam**	**5.07**	**205**	A		A	08 57 56.5	
	comp=N,14nm,5.8s,comp=E,15nm,3.8s							
JKT	**Katashina**	**5.24**	**218**	A		A	08 57 58.9	
	comp=N,24nm,4.9s,comp=E,33nm,4.9s							
JYT	**Yasato**	**5.31**	**208**	A		A	08 57 59.8	
	comp=N,15nm,2.8s,comp=E,23nm,4.1s							
JAG	**Ashikaga**	**5.43**	**214**	A		A	08 58 01.5	
	comp=N,20nm,4.2s,comp=E,15nm,3.1s							
KUR	**Kuril'sk**	**5.43**	**37**	*i* P		**Pn**	**08 57 58.5**	**+0.2**
KUR					*e*S	**Sn**	**08 58 58.1**	**-1.9**
JIHU	**Itakohorinouch**	**5.44**	**204**	A		A	08 58 01.6	
	comp=N,82nm,3.9s,comp=E,104nm,3.5s							
JJN	**Nakama**	**5.54**	**227**	A		A	08 58 03.0	
	comp=N,38nm,3.8s,comp=E,37nm,4.4s							
JGK	**Kuni**	**5.69**	**221**	A		A	08 58 05.3	
	comp=N,40nm,5.5s,comp=E,39nm,4.4s							
JSMT	**Sammumatsuo**	**5.76**	**203**	A		A	08 58 06.1	
	comp=N,72nm,4.4s,comp=E,89nm,4.4s							
JHG	**Hegura jima**	**5.81**	**240**	A		A	08 58 07.0	
	comp=N,10.0nm,4.6s,comp=E,9.0nm,5.9s							
MJB9	**Matsu-Tunnel**	**5.92**	**223**			**Pn**	**08 58 06.9**	**+1.7**
MJB9	**Matsu-Tunnel**	**5.92**	**223**	P		**Pn**	**08 58 05.8**	**+0.6**
MAJO	**Matsushiro**	**5.93**	**223**	P		**Pn**	**08 58 05.9**	**+0.7**
MAJO	**Matsushiro**	**5.93**	**223**			**Pn**	**08 58 05.9**	**+0.7**
MAJO	**Matsushiro**	**5.93**	**223**	P		**Pn**	**08 58 06.0**	**+0.7**
MAJO	**Matsushiro**	**5.93**	**223**	P		**Pn**	**08 58 06.4**	**+1.2**
MAJO	**Matsushiro**	**5.93**	**223**	P		**Pn**	**08 58 05.9**	**+0.7**
	comp=Z,984nm,0.8s							
MJAR	**Matsushiro Arr**	**5.93**	**223**	Pn		**Pn**	**08 58 05.7**	**+0.5**
	comp=Z,2.3nm,0.3s,baz=29,slow=13,SNR=282							
MJAR					LR	LR	09 00 44.8	
	comp=Z,23μm,20.0s,baz=60,slow=43							
	comp=Z,228nm,0.8s							
MJAR					AML	AML		
MJAR	**Matsushiro Arr**	**5.93**	**223**	P		**Pn**	**08 58 05.9**	**+0.7**
MJAR	**Matsushiro Arr**	**5.93**	**223**			**Pn**	**08 58 05.9**	**+0.7**
TOK	**Tokyo**	**5.95**	**209**	A		A	08 58 08.7	
	comp=N,82nm,3.5s,comp=E,56nm,4.7s							
YSS	**Yuzhno-Sakhali**	**5.99**	**357**	*ce*P		**Pn**	**08 58 08.0**	**+2.0**
YSS					*e*S	**Sn**	**08 59 17.9**	**+4.1**
YSS					pmax	pmax		
	comp=Z,900nm,4.6s							
YSS					pmax	pmax		
	comp=N,1μm,4.7s							
YSS					pmax	pmax		
	comp=Z,250nm,0.7s							
YSS					smax	smax		
	comp=N,360nm,0.7s							
YSS					smax	smax		
	comp=E,230nm,0.7s							
YSS					smax	smax		
	comp=N,2μm,3.4s							
YSS					smax	smax		
	comp=E,1μm,3.8s							
YSS					MLR	MLR		
	comp=E,15μm,18.0s							
YSS					MLR	MLR		
	comp=Z,23μm,18.0s							
YSS					MLR	MLR		
	comp=N,21μm,16.0s							
YSS	**Yuzhno-Sakhali**	**5.99**	**357**			**Pn**	**08 58 06.7**	**+0.7**
YSS	**Yuzhno-Sakhali**	**5.99**	**357**	P		**Pn**	**08 58 08.2**	**+2.2**
YSS	**Yuzhno-Sakhali**	**5.99**	**357**	P		**Pn**	**08 58 07.2**	**+1.2**
	comp=Z,288nm,0.8s							
JHU2	**Hanno**	**6.00**	**213**	A		A	08 58 09.5	
	comp=N,13nm,5.0s,comp=E,11nm,5.1s							
JRY	**Ryogami san**	**6.01**	**216**	A		A	08 58 09.7	
	comp=N,19nm,4.4s,comp=E,17nm,3.4s							
JCCN	**Chibachonan**	**6.06**	**204**	A		A	08 58 10.3	
	comp=N,51nm,3.8s,comp=E,50nm,3.4s							
JSGW	**Sagamiharawaka**	**6.23**	**212**	A		A	08 58 12.8	
	comp=N,11nm,3.8s,comp=E,11nm,3.3s							
JKUC	**kamogawauchiur**	**6.28**	**204**	A		A	08 58 13.4	
	comp=N,23nm,3.0s,comp=E,34nm,2.7s							
TEY	**Ternei**	**6.35**	**312**	*eP*		**Pn**	**08 58 10.5**	**-0.4**
TEY					pmax	pmax		
	comp=E,120nm,1.5s							
TEY					pmax	pmax		
	comp=Z,130nm,1.4s							
TEY					pmax	pmax		
	comp=N,90nm,1.4s							
TEY					MLR	MLR		
	comp=N,12μm,12.0s							
TEY					MLR	MLR		
	comp=E,6μm,12.0s							
TEY					MLR	MLR		
	comp=Z,13μm,13.0s							
JTT	**Ttatey**	**6.36**	**229**	A		A	08 58 14.5	
	comp=N,19nm,4.6s,comp=E,17nm,3.4s							
JYO	**Yokosk**	**6.40**	**207**	A		A	08 58 15.0	
	comp=N,30nm,6.5s,comp=E,31nm,3.7s							
JJH	**Hakui**	**6.46**	**233**	A		A	08 58 16.1	
	comp=N,13nm,3.4s,comp=E,10.0nm,3.4s							
JNT	**Takato**	**6.48**	**220**	A		A	08 58 16.5	
	comp=N,11nm,9.8s,comp=E,19nm,6.1s							
TATJ	**Tateyama 2**	**6.50**	**205**	A		A	08 58 16.4	
	comp=N,39nm,3.1s,comp=E,49nm,2.4s							
JOD2	**Odawara 2**	**6.58**	**211**	A		A	08 58 17.6	
	comp=N,22nm,3.5s,comp=E,18nm,4.5s							
JYN	**Shimob**	**6.60**	**216

USA0B	**Ussuriysk Arra**	**8.92 295**			**Pn**	**Pn**	**08 58 47.9**	**+1.7**
USRK	**Ussuriysk Ar.**	**8.92 295**		Pn	**Pn**	**Pn**	**08 58 47.8**	**+1.6**
	comp=Z,21nm,0.3s,baz=104,slow=14,SNR=125							
USRK				LR	LR	LR	09 02 21.1	
	comp=Z,30µm,18.5s,baz=94,slow=39							
	comp=Z,246nm,0.6s							
USRK				AML	AML	AML		
USRK	**Ussuriysk Ar.**	**8.92 295**		P	**Pn**	**Pn**	**08 58 48.9**	**+2.7**
USRK	**Ussuriysk Ar.**	**8.92 295**			**Pn**	**Pn**	**08 58 48.9**	**+2.7**
TYV	**Tymovskoe**	**9.90 358**	*e*P		**Pn**	**Pn**	**08 59 01.7**	**+2.1**
TYV			*e*S		**Sn**	**Sn**	**09 00 55.5**	**+5.6**
TYV				pmax	pmax	pmax		
	comp=Z,900nm,5.5s							
TYV				pmax	pmax	pmax		
	comp=Z,67nm,1.4s							
TYV				smax	smax	smax		
	comp=N,700nm,3.6s							
TYV				smax	smax	smax		
	comp=E,2µm,3.6s							
TYV				smax	smax	smax		
	comp=N,58nm,1.5s							
TYV				smax	smax	smax		
	comp=E,49nm,1.5s							
TYV				MLR	MLR	MLR		
	comp=E,14µm,18.0s							
JMN	**Monobe**	**10.39 229**			**Pn**	**Pn**	**08 59 06.4**	**0.0**
JMN	**Monobe**	**10.39 229**		P	**Pn**	**Pn**	**08 59 06.4**	**0.0**
JMN	**Monobe**	**10.39 229**		P	**Pn**	**Pn**	**08 59 06.9**	**+0.5**
	comp=Z,271nm,1.1s							
MDJ	**Mudanjiang**	**10.69 294**		P	**Pn**	**Pn**	**08 59 12.9**	**+2.5**
MDJ	**Mudanjiang**	**10.69 294**		P	**Pn**	**Pn**	**08 59 13.4**	**+3.0**
MDJ				pmax	pmax			
	comp=Z,360nm,1.0s							
MDJ				pmax	pmax			
	comp=Z,4µm,4.1s							
MDJ				L	L			
	comp=Z,42µm,18.0s							
GRNR	**Gornyy**	**10.89 336**	⇑*i*P		**Pn**	**Pn**	**08 59 14.3**	**+1.1**
GRNR				pmax	pmax			
	comp=Z,10.0nm,0.8s							
GRNR				MLR	MLR			
	comp=E,10µm,14.0s							
GRNR				MLR	MLR			
	comp=N,12µm,17.0s							
KLR	**Kul'dur**	**11.58 319**		Pn	**Pn**	**Pn**	**08 59 23.3**	**+0.7**
	comp=N,0.9nm,0.3s,baz=122,slow=13,SNR=63							
KLR				LR	LR	LR	09 04 14.1	
	comp=N,15µm,19.1s,baz=144,slow=40							
	comp=N,94nm,1.1s							
KLR				AML	AML	AML		
KLR	**Kul'dur**	**11.58 319**	*ce*P		**Pn**	**Pn**	**08 59 23.3**	**+0.7**
KLR				pmax	pmax			
	comp=Z,110nm,1.1s							
NKL	**Nikolayevsk**	**12.31 353**	*e*P		**Pn**	**Pn**	**08 59 32.5**	**0.0**
NKL			*e*S		**Sn**	**Sn**	**09 01 50.6**	**+1.9**
NKL				pmax	pmax			
	comp=N,478nm,1.4s							
NKL				pmax	pmax			
	comp=E,650nm,1.4s							
NKL				pmax	pmax			
	comp=Z,1µm,1.4s							
NKL				smax	smax			
	comp=E,341nm,1.8s							
NKL				smax	smax			
	comp=N,703nm,2.2s							
NKL				MLR	MLR			
	comp=E,15µm,14.0s							
NKL				MLR	MLR			
	comp=N,11µm,13.0s							
NKL				MLR	MLR			
	comp=Z,21µm,13.0s							
KSRS	**Korea Array**	**12.40 259**		Pn	**Pn**	**Pn**	**08 59 35.0**	**+1.1**
	comp=Z,0.8nm,0.3s,baz=71,slow=13,SNR=65							
KSRS				Sn	**Sn**	**Sn**	**09 01 54.0**	**+2.8**
	comp=Z,3.9nm,0.3s,baz=68,slow=24,SNR=6.3							
KSRS				LR	LR	LR	09 04 11.0	
	comp=Z,24µm,18.1s,baz=65,slow=37							
	comp=Z,37nm,0.9s							
KSRS				AML	AML			
KS19	**Wonju Array Si**	**12.43 259**			**Pn**	**Pn**	**08 59 35.2**	**+1.0**
BNX	**BinXian**	**12.48 298**	⇑P		**Pn**	**Pn**	**08 59 35.1**	**+0.2**
BNX			S		**Sn**	**Sn**	**09 01 54.7**	**+1.7**
BNX				pmax	pmax			
	comp=Z,440nm,0.9s							
BNX				pmax	pmax			
	comp=Z,2µm,6.8s							
BNX				L	L			
	comp=Z,7µm,16.3s							
BNX				L	L			
	comp=Z,20µm,18.4s							
BNX				L	L			
	comp=Z,27µm,17.3s							
JNU	**Nakatsue**	**12.61 236**		Pn	**Pn**	**Pn**	**08 59 35.9**	**-0.9**
	comp=Z,1.0nm,0.3s,baz=52,slow=9.3,SNR=20							
JNU				LR	LR	LR	09 05 04.9	
	comp=Z,10µm,18.1s,baz=60,slow=41							
	comp=Z,65nm,1.1s							
JNU				AML	AML			
JTU	**Tsushima**	**12.71 244**		Pn	**Pn**	**Pn**	**08 59 38.2**	**+0.1**
JTU	**Tsushima**	**12.71 244**		P	**Pn**	**Pn**	**08 59 37.7**	**-0.4**
	comp=Z,136nm,1.7s							
TJN	**Taejon**	**13.24 255**	*ce*P		**Pn**	**Pn**	**08 59 46.9**	**+1.6**
TJN				pmax	pmax			
	comp=Z,4.0nm,1.1s							
TJN	**Taejon**	**13.24 255**		Pn	**Pn**	**Pn**	**08 59 46.3**	**+1.0**
TJN	**Taejon**	**13.24 255**		P	**Pn**	**Pn**	**08 59 46.5**	**+1.3**
	comp=Z,613nm,0.8s							
INCN	**Inchon**	**13.35 260**		P	**Pn**	**Pn**	**08 59 46.8**	**-0.1**
INCN	**Inchon**	**13.35 260**			**Pn**	**Pn**	**08 59 46.8**	**-0.1**
INCN	**Inchon**	**13.35 260**		P	**Pn**	**Pn**	**08 59 47.6**	**+0.7**
	comp=Z,164nm,1.3s							
CN2	**Changchun**	**13.47 288**	*e*P		**Pn**	**Pn**	**08 59 49.3**	**+0.9**
CN2			*es*P		P	P	08 59 55.0	-2.4
CN2			*e*S		**Sn**	**Sn**	**09 02 19.2**	**+2.0**
CN2				pmax	pmax			
	comp=Z,30nm,1.0s							
CN2				pmax	pmax			
	comp=Z,600nm,6.0s							
CN2				L	L			
	comp=Z,2µm,13.0s							
CN2				L	L			
	comp=Z,4µm,13.0s							
CN2				L	L			
	comp=Z,4µm,13.0s							
JCJ	**Chichijima**	**13.87 184**		Pn	Pn		08 59 48.3	-5.6
	comp=Z,9.3nm,0.3s,baz=81,slow=23,SNR=7.8							
JCJ				Sn	Sn		09 02 10.2	-17
	comp=Z,8.7nm,0.3s,baz=313,slow=20,SNR=1.7							
	comp=Z,81nm,0.6s							
JCJ				AML	AML			
JSU	**Suzuyama**	**13.98 232**			**Pn**	**Pn**	**08 59 54.1**	**-1.5**
JSU	**Suzuyama**	**13.98 232**		P	**Pn**	**Pn**	**08 59 55.2**	**-0.4**
	comp=Z,194nm,1.0s							
HEH	**HeiHe**	**14.44 315**	*e*P		**Pn**	**Pn**	**08 59 59.8**	**-1.8**
HEH			pP		**P**	**P**	**09 00 06.1**	**-2.0**
HEH			S		**Sn**	**Sn**	**09 02 44.5**	**+3.8**
HEH			SS		**S**	**S**	**09 02 57.1**	**-2.9**
HEH				pmax	pmax			
	comp=Z,63nm,0.9s							
HEH				pmax	pmax			
	comp=Z,990nm,4.4s							
HEH				L	L			
	comp=Z,6µm,15.7s							
HEH				L	L			
	comp=Z,15µm,17.1s							
HEH				L	L			
	comp=Z,17µm,16.0s							
SNY	**Shenyang**	**14.80 280**		P	**Pn**	**Pn**	**09 00 06.4**	**-0.1**
SNY				S	**Sn**	**Sn**	**09 02 57.8**	**+8.2**
SNY				pmax	pmax			
	comp=Z,53nm,1.1s							
SNY				pmax	pmax			
	comp=Z,570nm,3.5s							
SNY				L	L			
	comp=Z,4µm,16.0s							
SNY				L	L			
	comp=Z,11µm,17.3s							
SNY				L	L			
	comp=Z,15µm,17.7s							
PETK	**Petropavlovsk-**	**15.59 34**		Pn	**Pn**		**09 00 14.5**	**-2.5**
	comp=Z,0.8nm,0.3s,baz=226,slow=9.9,SNR=9.5							
PETK				LR	LR		09 06 36.0	
	comp=Z,3µm,20.1s,baz=218,slow=38							
	comp=Z,9.4nm,0.8s							
PETK				AML	AML			
PETK	**Petropavlovsk-**	**15.59 34**		P	**Pn**		**09 00 15.1**	**-1.8**
PETK	**Petropavlovsk-**	**15.59 34**		Pn	**Pn**		**09 00 15.1**	**-1.8**
PET	**Petropavlovsk**	**15.95 36**	*e*P		**Pn**		**09 00 21.5**	**0.0**
PET			*e*S		**Sn**		**09 03 14.4**	**-2.9**
PET				pmax	pmax			
	comp=Z,54nm,1.1s							
PET				MLR	MLR			
	comp=Z,7µm,13.0s							
PET				MLR	MLR			
	comp=Z,7µm,13.0s							
ZEA	**Zeya**	**16.70 325**	*e*P		**Pn**		**09 00 29.5**	**-1.6**
ZEA				pmax	pmax			
	comp=E,90nm,1.1s							
ZEA				pmax	pmax			
	comp=N,100nm,0.9s							
ZEA				pmax	pmax			
	comp=Z,230nm,1.3s							
ZEA				MLR	MLR			
	comp=E,6µm,16.0s							
ZEA				MLR	MLR			
	comp=Z,9µm,16.0s							
DL2	**Dalian**	**16.72 270**		P	**P**		**09 00 33.0**	**-0.5**
DL2				S	**Sn**		**09 03 37.7**	**+1.5**
DL2				pmax	pmax			
	comp=Z,860nm,1.0s							
DL2				pmax	pmax			
	comp=Z,3µm,6.2s							
DL2				L	L			
	comp=Z,4µm,16.1s							
DL2				L	L			
	comp=Z,5µm,21.8s							
DL2				L	L			
	comp=Z,6µm,22.7s							
HIA	**Hailar**	**18.50 305**		P	**P**		**09 00 51.4**	**-1.8**
HILR	**Hailar Array B**	**18.58 305**		P	**P**		**09 00 52.3**	**-1.8**
	comp=Z,56nm,0.5s,baz=109,slow=11,SNR=21							
HILR				LR	LR		09 08 35.5	
	comp=Z,8µm,18.3s,baz=90,slow=39							
JOW	**Kunigami**	**18.76 226**		P	**P**		**09 00 53.5**	**-2.7**
	comp=Z,1.4nm,0.3s,baz=61,slow=4.5,SNR=5.7							
JOW				LR	LR		09 09 22.2	
	comp=Z,4µm,18.8s,baz=30,slow=41							
	comp=Z,28nm,0.7s							
JOW				AML	AML			
JOW	**Kunigami**	**18.76 226**		P	**P**		**09 00 53.8**	**-2.4**
JOW	**Kunigami**	**18.76 226**		P	**P**		**09 00 53.6**	**-2.5**
	comp=Z,71nm,1.1s							
MA2	**Magadan**	**19.21 12**		P	**P**		**09 00 60.0**	**-0.9**
	comp=Z,23nm,0.7s,baz=191,slow=8.5,SNR=13							
MA2				LR	LR		09 09 12.5	
	comp=Z,4µm,18.9s,baz=196,slow=39							
MA2	**Magadan**	**19.21 12**	*e*P		**P**		**09 01 00.2**	**-0.7**
MA2				pmax	pmax			
	comp=Z,18nm,0.8s							
MA2	**Magadan**	**19.21 12**	P		**P**		**09 00 59.6**	**-1.2**
MA2	**Magadan**	**19.21 12**	P		**P**		**09 01 00.4**	**-0.5**
	comp=Z,107nm,0.8s							
XLT	**XiLinHaoTe**	**20.24 287**	*e*P		**P**		**09 01 09.6**	**-2.7**
XLT			pP		Pn		09 01 13.9	-0.4
XLT			sP		pP		09 01 17.2	-1.6
XLT			PP		**PnPn**		**09 01 27.6**	**-1.5**
XLT				pmax	pmax			
	comp=Z,130nm,0.9s							
XLT				pmax	pmax			
	comp=Z,450nm,3.5s							
XLT				L	L			
	comp=Z,6µm,13.6s							
XLT				L	L			
	comp=Z,6µm,14.0s							
SSE	**Sheshan**	**20.34 248**		P	**P**		**09 01 11.3**	**-2.1**
SSE				S	**S**		**09 04 58.8**	**-1.3**
SSE				pmax	pmax			
	comp=Z,30nm,1.2s							
SSE				L	L			
	comp=Z,3µm,18.6s							
SSE				L	L			
	comp=Z,2µm,18.8s							
BJI2	**Beijing**	**20.60 276**		P	**P**		**09 01 14.6**	**-1.5**
BJI2				pP	Pn		09 01 20.7	+2.2
BJI2				S	**S**		**09 04 56.1**	**-9.0**
BJI2				pmax	pmax			
	comp=Z,130nm,1.7s							
BJI2				pmax	pmax			
	comp=Z,770nm,3.9s							
BJI2				L	L			
	comp=Z,5µm,17.8s							
BJI2				L	L			
	comp=Z,6µm,19.9s							
BJI2				L	L			
	comp=Z,11µm,17.3s							
BJT	**Baijiatuau**	**20.60 276**		P	**P**		**09 01 14.3**	**-1.8**
BJT	**Baijiatuau**	**20.60 276**		IAMs_20	IAMs_20		09 09 07.1	
	comp=Z,12µm,18.0s							
TIA	**Tai'an**	**20.94 265**		P	**P**		**09 01 18.4**	**-1.5**
TIA				sP	**pP**		**09 01 26.3**	**-0.2**
TIA				S	**S**		**09 05 04.9**	**-7.0**
TIA				pmax	pmax			
	comp=Z,610nm,0.9s							
TIA				L	L			
	comp=Z,6µm,17.9s							
TIA				L	L			
	comp=Z,6µm,17.9s							
TIA				L	L			
	comp=Z,30µm,22.0s							
NJ2	**Nanjing**	**21.49 253**	*e*P		**P**		**09 01 24.0**	**-1.7**
NJ2			pP		**pP**		**09 01 30.0**	**-2.3**
NJ2			sP		**sP**		**09 01 36.7**	**+1.3**
NJ2				pmax	pmax			
	comp=Z,120nm,1.0s							
NJ2				L	L			
	comp=Z,9µm,16.1s							
NJ2				L	L			
	comp=Z,14µm,15.2s							
NJ2				L	L			
	comp=Z,17µm,14.7s							
HNS	**HongShan**	**22.37 270**	⇑P		**P**		**09 01 32.0**	**-3.2**
HNS			S		**S**		**09 05 33.3**	**-6.3**
HNS				pmax	pmax			
	comp=Z,130nm,1.0s							
HNS				L	L			
	comp=Z,5µm,17.5s							
HNS				L	L			
	comp=Z,3µm,18.4s							
HNS				L	L			
	comp=Z,6µm,19.0s							
YAK	**Yakutsk**	**22.63 343**		P	**P**		**09 01 34.0**	**-3.7**
	comp=Z,323nm,0.8s,baz=26,slow=2.0,SNR=48							
YAK				S	**S**		**09 05 34.1**	**-10**
	comp=Z,93nm,1.1s,baz=171,slow=24,SNR=8.8							
YAK				LR	LR		09 11 30.9	
	comp=Z,9µm,18.0s,baz=150,slow=40							
YAK	**Yakutsk**	**22.63 343**	*d*i*f*P		**P**		**09 01 34.7**	**-3.0**
YAK			*e*				09 05 30.2	
YAK			*e*S		**S**		**09 05 43.3**	**-0.4**
YAK			*e*SS		**SnSn**		**09 06 15.1**	**+1.1**
YAK			*e*				09 12 48.2	
YAK				pmax	pmax			
	comp=Z,362nm,1.0s							
YAK				pmax	pmax			
	comp=N,60nm,1.0s							
YAK				pmax	pmax			
	comp=E,33nm,1.1s							
YAK				smax	smax			
	comp=E,537nm,2.1s							
YAK				smax	smax			
	comp=N,205nm,1.8s							
YAK				MLR	MLR			
	comp=Z,9µm,17.0s							
YAK				MLR	MLR			
	comp=N,4µm,15.0s							
YAK				MLR	MLR			
	comp=E,5µm,17.0s							
YAK	**Yakutsk**	**22.63 343**		P	**P**		**09 01 35.2**	**-2.4**
YAK	**Yakutsk**	**22.63 343**		IAMs_20	IAMs_20		09 11 13.8	
	comp=Z,9µm,18.0s							
SEY	**Seymchan**	**22.66 11**		P	**P**		**09 01 35.2**	**-2.8**
	comp=Z,52nm,0.8s,baz=196,slow=7.6,SNR=54							
SEY				S	**S**		**09 05 40.3**	**-4.0**
	comp=Z,3.6nm,0.9s,baz=223,slow=24,SNR=7.5							
SEY				LR	LR		09 12 24.2	
	comp=Z,5µm,18.1s,baz=200,slow=42							
SEY	**Seymchan**	**22.66 11**	*de*P		**P**		**09 01 36.5**	**-1.5**
SEY				pmax	pmax			
	comp=Z,55nm,0.9s							
CIT	**Chita**	**23.08 309**	*e*P		**P**		**09 01 40.0**	**-2.6**
CIT			*e*				09 02 16.6	
CIT			*e*S		**S**		**09 05 52.6**	**+0.6**
CIT				pmax	pmax			
	comp=Z,757nm,2.9s							
HHC	**Hu-ho-hao-te**	**23.89 280**	⇑*i*P		**P**		**09 01 48.1**	**-2.6**
HHC			sP		pP		09 01 55.9	-1.8
HHC			PP		**PnPn**		**09 02 20.3**	**+1.1**
HHC			S		**S**		**09 06 00.2**	**-5.2**
HHC				pmax	pmax			
	comp=Z,50nm,1.0s							
HHC				L	L			
	comp=Z,2µm,15.6s							
HHC				L	L			
	comp=Z,8µm,18.0s							
HHC				L	L			
	comp=Z,12µm,17.3s							
SHEM	**Shemya Is, Ala**	**23.95 50**		LR	LR		09 10 40.2	
	comp=Z,3µm,21.9s,baz=287,slow=35							
TIY	**Taiyuan**	**24.00 272**	*e*P		**P**		**09 01 49.7**	**-2.0**
TIY				SS	**SnSn**		**09 06 52.9**	**+4.8**
TIY				pmax	pmax			
	comp=Z,74nm,0.8s							
TIY				L	L			
	comp=Z,3µm,14.4s							
TIY				L	L			
	comp=Z,3µm,17.9s							
TIY				L	L			
	comp=Z,4µm,19.9s							
TATO	**Taipei**	**24.15 235**		P	**P**		**09 01 52.6**	**-0.4**
TATO	**Taipei**	**24.15 235**		P	**P**		**09 01 51.9**	**-1.1**
TATO	**Taipei**	**24.15 235**		IAMs_20	IAMs_20		09 12 21.4	
	comp=Z,8µm,18.0s							
TATO	**Taipei**	**24.15 235**		P	**P**		**09 01 50.5**	**-2.6**
	comp=Z,508nm,2.1s							
YHNB	**Yeheng**	**24.44 235**		IAMs_20	IAMs_20		09 12 22.3	
	comp=Z,7µm,19.0s							
YHNB	**Yeheng**	**24.44 235**		P	**P**		**09 01 53.4**	**-2.4**
	comp=Z,231nm,0.8s							
LYN	**LuoYang**	**25.09 265**		P	**P**		**09 01 59.0**	**-2.5**
LYN				pP	pP		09 02 03.4	-5.2
LYN				PP	**PnPn**		**09 02 35.2**	**-0.3**
LYN				S	**S**		**09 06 25.7**	**+1.2**
LYN				SS	**SnSn**		**09 07 18.6**	**+3.9**
LYN				pmax	pmax			
	comp=Z,500nm,1.1s							
LYN				pmax	pmax			
	comp=Z,600nm,3.8s							
LYN				L	L			
	comp=Z,7µm,16.1s							
LYN				L	L			
	comp=Z,10µm,17.9s							
LYN				L	L			
	comp=Z,12µm,14.4s							
BOD	**Bodaibo**	**25.14 322**	*e*P		**P**		**09 02 00.9**	**-0.8**
BOD				pmax	pmax			
	comp=Z,128nm,0.7s							
BTO2	**Baotou**	**25.17 281**	*e*P		**P**		**09 02 00.3**	**-2.0**
BTO2				PP	**PnPn**		**09 02 37.6**	**+1.0**
BTO2				S	**S**		**09 06 23.5**	**-2.4**
BTO2				pmax	pmax			
	comp=Z,120nm,0.7s							
BTO2				pmax	pmax			
	comp=Z,2µm,4.1s							
BTO2				L	L			
	comp=Z,10µm,14.6s							
BTO2				L	L			
	comp=Z,21µm,16.8s							
BTO2				L	L			
	comp=Z,26µm,17.6s							
SSLB	**Suanglung**	**25.35 234**		P	**P**		**09 02 02.4**	**-1.5**
SSLB				IAmb	IAmb		09 02 18.2	
	comp=Z,52nm,0.7s							
SSLB				IAMs_20	IAMs_20		09 13 12.3	
	comp=Z,7µm,18.0s							
SSLB	**Suanglung**	**25.35 234**		P	**P**		**09 02 03.3**	**-0.7**
	comp=Z,73nm,0.7s							
YULB	**Yu-li**	**25.43 233**		P	**P**		**09 02 03.0**	**-1.7**
YULB				IAmb	IAmb		09 02 12.0	
	comp=Z,66nm,0.7s							
YULB	**Yu-li**	**25.43 233**		P	**P**		**09 02 04.1**	**-0.7**
	comp=Z,92nm,1.4s							
WHN	**Wuhan**	**25.56 255**		P	**P**		**09 02 04.4**	**-1.4**
WHN				S	**S**		**09 06 37.0**	**+5.0**
WHN				pmax	pmax			
	comp=Z,810nm,0.8s							
WHN				pmax	pmax			
	comp=Z,2µm,3.9s							
WHN				L	L			
	comp=Z,19µm,13.0s							
WHN				L	L			
	comp=Z,46µm,14.9s							
WHN				L	L			
	comp=Z,60µm,15.6s							
TPUB	**Ta-pu**	**25.91 234**		IAMs_20	IAMs_20		09 13 49.1	
	comp=Z,8µm,18.0s							
TPUB	**Ta-pu**	**25.91 234**		P	**P**		**09 02 07.0**	**-2.1**
	comp=Z,130nm,0.9s							
TWG	**Pinlang**	**26.00 233**		P	**P**		**09 02 08.9**	**-1.0**
TWG	**Pinlang**	**26.00 233**		P	**P**		**09 02 08.0**	**-1.8**
	comp=Z,206nm,0.8s							
QZH2	**Quanzhou**	**26.02 240**	⇑*i*P		**P**		**09 02 09.6**	**-0.4**
QZH2			S		**S**		**09 06 38.2**	**-1.1**
QZH2				pmax	pmax			
	comp=Z,210nm,1.0s							
QZH2				pmax	pmax			
	comp=Z,1µm,3.9s							
QZH2				L	L			
	comp=Z,5µm,19.9s							
QZH2				L	L			
	comp=Z,5µm,19.6s							
QZH2				L	L			
	comp=Z,9µm,17.2s							
KNMB	**Chin-men Tao**	**26.49 239**		P	**P**		**09 02 13.6**	**-0.7**
KNMB				IAMs_20	IAMs_20		09 14 07.4	
	comp=Z,6µm,18.0s							
KNMB	**Chin-men Tao**	**26.49 239**		P	**P**		**09 02 13.0**	**-1.2**
	comp=Z,280nm,1.3s							
ULN	**Ulaanbaatar**	**26.58 297**		P	**P**		**09 02 15.5**	**+0.3**
ULN	**Ulaanbaatar**	**26.58 297**		P	**P**		**09 02 15.0**	**-0.1**
ULN				pmax	pmax			
	comp=Z,545nm,1.9s							
ULN				MLR	MLR			
	comp=Z,14µm,19.0s							
ULN	**Ulaanbaatar**	**26.58 297**		P	**P**		**09 02 15.0**	**-0.1**
ULN	**Ulaanbaatar**	**26.58 297**		P	**P**		**09 02 15.8**	**+0.7**
ULN	**Ulaanbaatar**	**26.58 297**		P	**P**		**09 02 14.7**	**-0.5**
	comp=Z,132nm,1.0s							
SONM	**Songino Array**	**27.02 297**		P	**P**		**09 02 19.1**	**0.0**
	comp=Z,48nm,0.5s,baz=88,slow=8.6,SNR=153							
SONM				LR	LR		09 13 48.6	
	comp=Z,14µm,19.1s,baz=94,slow=38							
	comp=Z,48nm,0.5s							
SONM	**Songino Array**	**27.02 297**		P	**P**		**09 02 18.9**	**-0.2**
SONM				pmax	pmax			
	comp=Z,194nm,1.2s							
SONM	**Songino Array**	**27.02 297**		P	**P**		**09 02 18.9**	**-0.2**
SONM				IAmb	IAmb		09 02 21.0	
	comp=Z,194nm,1.2s							
GUMO	**Guam**	**27.31 177**		LR	LR		09 11 56.1	
	comp=Z,2µm,21.7s,baz=7.0,slow=34							
CNSH	**ChangSha**	**27.89 252**		P	**P**		**09 02 27.0**	**+0.2**
CNSH				S	**S**		**09 07 11.2**	**+2.4**
CNSH				pmax	pmax			
	comp=Z,110nm,1.8s							
CNSH				L	L			
	comp=Z,8µm,16.7s							
CNSH				L	L			
	comp=Z,8µm,17.7s							
CNSH				L	L			
	comp=Z,7µm,19.6s							
XAN	**Xi'an**	**27.98 267**	⇑P		**P**		**09 02 26.5**	**-1.1**
XAN			pP		pP		09 02 31.0	-3.7
XAN			S		**S**		**09 07 10.3**	**+0.1**
XAN				pmax	pmax			
	comp=Z,42nm,0.8s							
XAN				pmax	pmax			
	comp=Z,1µm,3.9s							
XAN				L	L			
	comp=Z,3µm,15.0s							
XAN				L	L			
	comp=Z,8µm,17.4s							
XAN				L	L			
	comp=Z,7µm,18.8s							
IRK	**Irkutsk**	**28.72 306**	*e*P		**P**		**09 02 32.9**	**-1.1**
IRK				pmax	pmax			
	comp=Z,276nm,3.0s							
TLY	**Talaya**	**29.04 305**		LR	LR		09 15 11.8	
	comp=Z,7µm,18.3s,baz=87,slow=38							
TLY	**Talaya**	**29.04 305**		P	**P**		**09 02 37.6**	**+0.7**

TLY Talaya 29.04 305 *ce*P P 09 02 36.7 -0.2
TLY pmax pmax
comp=Z,127nm,1.0s
TLY Talaya 29.04 305 P P 09 02 36.9 0.0
TLY IAmb IAmb 09 02 40.5
comp=Z,88nm,0.8s
TLY Talaya 29.04 305 P P 09 02 36.4 -0.5
comp=Z,149nm,1.2s
ZAK Zakamensk 29.16 302 *e*P P 09 02 37.8 -0.3
ZAK pmax pmax
comp=Z,125nm,1.2s
H11N2 WAKE ISLAND Hy 29.23 129 T T 09 34 07.2
baz=323,slow=75,SNR=919
H11N1 WAKE ISLAND Hy 29.24 129 T T 09 34 25.2
baz=323,slow=75,SNR=1344
H11N3 WAKE ISLAND Hy 29.25 129 T T 09 34 01.2
baz=323,slow=75,SNR=1084
ENH Enshi 29.29 259 P P 09 02 38.4 -0.9
ENH Enshi 29.29 259 IAMs_20 IAMs_20 09 14 31.2
comp=Z,8µm,20.0s
WAKE Wake Island 29.44 130 IAMs_20 IAMs_20 09 12 22.0
comp=Z,5µm,21.0s
BILL Bilibino 29.85 17 *de*P P 09 02 45.0 +1.2
BILL pmax pmax
comp=Z,77nm,0.9s
BILI Bilibino, Chuk 29.90 17 P P 09 02 44.0 -0.4
comp=Z,98nm,1.2s
H11S1 WAKE ISLAND Hy 30.08 131 T T 09 35 22.8
baz=324,slow=76,SNR=628
H11S3 WAKE ISLAND Hy 30.08 131 T T 09 35 28.7
baz=324,slow=76,SNR=576
H11S2 WAKE ISLAND Hy 30.10 131 T T 09 35 23.8
baz=324,slow=76,SNR=704
GZH2 Guangzhou 30.20 244 P P 09 02 48.3 +0.9
GZH2 S S 09 07 44.4 -0.8
GZH2 pmax pmax
comp=Z,63nm,1.1s
GZH2 L L
comp=Z,3µm,19.2s
GZH2 L L
comp=Z,7µm,16.3s
GZH2 L L
comp=Z,9µm,17.9s
MOY Mondy 30.68 305 *e*P P 09 02 51.8 +0.3
MOY pmax pmax
comp=Z,322nm,2.2s
HKPS Hong Kong Po S 30.80 242 P P 09 02 52.8 +0.1
comp=Z,71nm,0.8s
LZH Lanzhou 31.03 274 *e*P P 09 02 54.2 -0.7
LZH sP pP 09 02 59.8 -2.2
LZH S S 09 07 59.1 +0.7
LZH pmax pmax
comp=Z,130nm,1.1s
LZH pmax pmax
comp=Z,680nm,4.5s
LZH L L
comp=Z,4µm,15.1s
LZH L L
comp=Z,6µm,15.3s
LZH L L
comp=Z,6µm,16.1s
LZDM Lanzhou Array 31.19 274 P P 09 02 55.4 -1.0
comp=Z,7.9nm,0.5s,baz=63,slow=7.3,SNR=13
LZDM LR LR 09 15 54.7
comp=Z,4µm,20.1s,baz=65,slow=37
comp=Z,7.9nm,0.5s
GULI GuiLin 31.45 250 P P 09 03 00.3 +1.9
GULI S S 09 08 07.5 +2.7
GULI pmax pmax
comp=Z,130nm,1.2s
GULI L L
comp=Z,4µm,14.6s
GULI L L
comp=Z,5µm,16.3s
GULI L L
comp=Z,5µm,14.6s
TIXI Tiksi 31.59 351 LR LR 09 16 37.1
comp=Z,4µm,19.2s,baz=172,slow=38
TIXI Tiksi 31.59 351 ⇓ *e*P P 09 02 57.8 -1.3
TIXI pmax pmax
comp=Z,7.0nm,0.9s
TIXI Tiksi 31.59 351 P 09 02 57.5 -1.6
TIXI Tiksi 31.59 351 P P 09 02 57.8 -1.3
comp=Z,20nm,0.8s
KNGR Kungurtug, Tuv 32.85 303 *de*P P 09 03 12.3 +1.7
KNGR pmax pmax
comp=Z,80nm,1.0s
GTA2 Gaotai 32.99 282 *e*P P 09 03 11.6 -0.4
GTA2 PcP PcP 09 05 57.0 +1.5
GTA2 S S 09 08 20.7 -8.2
GTA2 PcS PcS 09 09 42.5 +1.5
GTA2 pmax pmax
comp=Z,95nm,1.2s
GTA2 pmax pmax
comp=Z,740nm,7.3s
GTA2 L L
comp=Z,4µm,17.8s
GTA2 L L
comp=Z,12µm,18.1s
GTA2 L L
comp=Z,16µm,18.1s
CD2 Chengdu 33.27 265 P P 09 03 13.6 -0.8
CD2 pP pP 09 03 20.0 -1.6
CD2 PP PnPn 09 04 25.9 +0.9
CD2 S S 09 08 34.2 +1.0
CD2 pmax pmax
comp=Z,270nm,0.9s
CD2 pmax pmax
comp=Z,650nm,5.0s
CD2 L L
comp=Z,7µm,15.5s
CD2 L L
comp=Z,7µm,15.7s
CD2 L L
comp=Z,10µm,15.3s
GYA Guiyang 33.44 256 ⇑P P 09 03 15.0 -1.0
GYA S S 09 08 39.3 +3.3
GYA pmax pmax
comp=Z,510nm,0.8s
GYA L L
comp=Z,7µm,16.4s
GYA L L
comp=Z,13µm,16.2s
GYA L L
comp=Z,18µm,16.3s
MIDW Midway 34.53 99 P P 09 03 23.2 -2.0
comp=Z,149nm,1.4s
QIZ Qiongzhong 35.94 243 P P 09 03 38.8 +1.3
QIZ S S 09 09 16.8 +2.4
QIZ L L
comp=Z,3µm,16.5s
QIZ L L
comp=Z,3µm,17.3s
QIZ L L
comp=Z,5µm,16.1s
QIZ Qiongzhong 35.94 243 IAMs_20 IAMs_20 09 19 31.7
comp=Z,5µm,18.0s
PATS Pohnpei 36.55 154 IAMs_20 IAMs_20 09 15 20.7
comp=Z,4µm,21.0s
TNA Tin City 36.74 32 IAMs_20 IAMs_20 09 18 26.0
comp=Z,3µm,22.0s
PZH PanZhiHua 37.06 260 P P 09 03 47.0 -0.2
PZH S S 09 09 31.1 -0.6
PZH SS SS 09 12 05.1 -9.2
PZH pmax pmax
comp=Z,350nm,0.7s
PZH pmax pmax
comp=Z,590nm,4.7s
PZH L L
comp=Z,4µm,17.1s
PZH L L
comp=Z,2µm,18.2s
PZH L L
comp=Z,3µm,18.0s
KMI2 Kunming 37.08 258 ⇑P P 09 03 47.1 -0.4
KMI2 sP pwP 09 03 56.9 -0.2
KMI2 PP PP 09 05 11.7 -0.4
KMI2 S S 09 09 33.4 +1.2
KMI2 pmax pmax
comp=Z,310nm,1.1s
KMI2 pmax pmax
comp=Z,1µm,5.2s
KMI2 L L
comp=Z,6µm,17.5s
KMI2 L L
comp=Z,6µm,17.7s
KMI2 L L
comp=Z,9µm,16.6s
DAV Davao City (W) 37.26 210 LR LR 09 19 24.5
comp=Z,2µm,20.4s,baz=41,slow=37
DAV Davao City (W) 37.26 210 IAMs_20 IAMs_20 09 21 53.3
comp=Z,3µm,20.0s
GOMU GeErMu 37.78 279 P P 09 03 53.0 -0.5
GOMU pP pP 09 03 56.5 -4.2
GOMU sP pwP 09 04 00.2 -2.8
GOMU S S 09 09 32.4 -11
GOMU pmax pmax
comp=Z,140nm,0.7s
GOMU L L
comp=Z,2µm,16.0s
GOMU L L
comp=Z,3µm,15.9s
GOMU L L
comp=Z,5µm,15.5s
F15K North Star Dit 38.09 32 IAMs_20 IAMs_20 09 19 28.7
comp=Z,4µm,22.0s
SLVN Son La 38.55 252 P P 09 04 00.1 +0.5
SLVN IAmb IAmb 09 04 01.4
comp=Z,70nm,0.9s
SLVN IAMs_20 IAMs_20 09 19 14.7
comp=Z,3µm,20.0s
SLVN Son La 38.55 252 P P 09 04 00.2 +0.5
comp=Z,88nm,0.9s
N15K Kwethluk River 39.30 41 P P 09 04 07.2 +1.6
RDOG Red Dog Mine 39.36 29 P P 09 04 06.8 +1.0
RDOG IAmb IAmb 09 04 34.9
comp=Z,197nm,1.9s
RDOG IAMs_20 IAMs_20 09 22 11.2
comp=Z,4µm,18.0s
I17K Unalakleet 39.39 35 IAMs_20 IAMs_20 09 23 29.2
comp=Z,2µm,18.0s
CNBA Chernabura Isl 39.61 50 IAMs_20 IAMs_20 09 20 33.5
comp=Z,3µm,20.0s
J17K VABM Dome 40.04 36 P P 09 04 13.7 +2.1
J17K IAmb IAmb 09 04 34.2
comp=Z,87nm,1.2s
E18K Tukpahlearik C 40.06 30 IAMs_20 IAMs_20 09 22 51.8
comp=Z,2µm,18.0s
C18K Utukok River 40.12 28 P P 09 04 13.7 +1.4
C18K IAMs_20 IAMs_20 09 22 55.4
comp=Z,4µm,18.0s
TNCH TengChong 40.29 261 P P 09 04 14.7 +0.3
TNCH pP pP 09 04 23.5 +1.9
TNCH S S 09 10 22.3 +1.8
TNCH pmax pmax
comp=Z,430nm,1.9s
TNCH L L
comp=Z,2µm,18.5s
TNCH L L
comp=Z,2µm,17.5s
TNCH L L
comp=Z,6µm,18.6s
NRIK Noril'sk 40.35 333 P P 09 04 14.3 +0.2
comp=Z,25nm,0.6s,baz=111,slow=8.8,SNR=59
NRIK LR LR 09 22 20.3
comp=Z,12µm,19.5s,baz=102,slow=38
comp=Z,25nm,0.6s
NRIK Noril'sk 40.35 333 *ce*P P 09 04 13.5 -0.6
NRIK pmax pmax
comp=Z,85nm,1.3s
NRIK Noril'sk 40.35 333 P P 09 04 14.7 +0.6
ZAA0 Zalesovo Array 40.44 309 P P 09 04 15.3 +0.3
ZALV Zalesovo Beam 40.44 309 P P 09 04 15.2 +0.1
comp=Z,82nm,0.6s,baz=88,slow=7.9,SNR=206
ZALV PcP PcP 09 06 17.5 0.0
comp=Z,22nm,0.7s,baz=95,slow=3.2,SNR=4.2
ZALV LR LR 09 22 04.5
comp=Z,6µm,19.7s,baz=79,slow=38
comp=Z,82nm,0.6s
ZALV Zalesovo Beam 40.44 309 *i* P P 09 04 15.1 +0.1
ZALV pmax pmax
comp=Z,83nm,0.6s
WMQ Urumqi 40.48 293 ⇑P P 09 04 16.3 +0.7
WMQ S S 09 10 26.2 +3.4
WMQ pmax pmax
comp=Z,100nm,1.3s
WMQ pmax pmax
comp=Z,1µm,4.1s
WMQ L L
comp=Z,4µm,13.1s
WMQ L L
comp=Z,9µm,14.9s
WMQ L L
comp=Z,6µm,15.7s
G18K Tagagawik 40.54 32 IAMs_20 IAMs_20 09 20 42.7
comp=Z,3µm,22.0s
M17K Holitna River 40.66 39 IAMs_20 IAMs_20 09 20 51.9
comp=Z,3µm,22.0s
N17K Nushagak Hills 40.76 41 IAMs_20 IAMs_20 09 23 43.5
comp=Z,2µm,19.0s
L18K Granite Mounta 41.05 38 IAMs_20 IAMs_20 09 23 59.1
comp=Z,2µm,18.0s
D19K Kuna River 41.19 29 IAMs_20 IAMs_20 09 23 03.7
comp=Z,3µm,20.0s
G19K Purcell Mounta 41.21 32 IAMs_20 IAMs_20 09 21 03.3
comp=Z,3µm,22.0s
N18K Kilae Creek 41.40 41 IAMs_20 IAMs_20 09 20 53.5
comp=Z,2µm,21.0s
ZSN Zaisan 41.49 299 *e*P P 09 04 24.0 +0.2
ZSN pmax pmax
comp=Z,43nm,0.8s
ZSN Zaisan 41.49 299 *e*P P 09 04 24.0 +0.2
comp=Z,43nm,0.8s
J19K Poorman 41.63 36 P 09 04 26.6 +2.0
F20K Avaraart Lake 41.86 31 P 09 04 27.4 +0.9
DLV Lat 42.01 237 P P 09 04 28.3 -0.2
DLV IAmb IAmb 09 04 30.8
comp=Z,104nm,0.9s
DLV Lat 42.01 237 P P 09 04 29.5 +0.9
comp=Z,143nm,1.0s
M19K Big River Lodg 42.12 39 IAMs_20 IAMs_20 09 25 00.7
comp=Z,2µm,18.0s
O19K Port Alsworth 42.19 41 P P 09 04 30.7 +1.4
J20K Nowinta River 42.28 35 IAMs_20 IAMs_20 09 21 59.8
comp=Z,2µm,22.0s
KKM Kota Kinabalu 42.35 222 P P 09 04 31.4 +0.1
KKM Kota Kinabalu 42.35 222 P P 09 04 32.3 +1.1
KKM Kota Kinabalu 42.35 222 P P 09 04 31.3 +0.1
comp=Z,36nm,1.2s
ZIRO ZIRO 42.45 268 *i* P P 09 04 26.3 -5.8
ZIRO IAmb IAmb 09 04 35.2
comp=Z,372nm,0.9s
TNTI Ternate 42.53 204 P P 09 04 33.5 +1.0
TNTI IAmb IAmb 09 04 46.4
comp=Z,304nm,2.0s
TNTI Ternate 42.53 204 P P 09 04 41.4 +8.9
TNTI Ternate 42.53 204 P P 09 04 32.1 -0.3
comp=Z,62nm,1.7s
MOKO MOKOCHONG 42.59 266 *i* S S 09 10 32.9 -22
Q19K Cape Douglas, 42.60 43 P P 09 04 33.3 +0.6
Q19K IAmb IAmb 09 04 50.0
comp=Z,53nm,0.8s
Q19K IAMs_20 IAMs_20 09 25 27.4
comp=Z,2µm,19.0s
G21K Allakaket 42.69 32 IAMs_20 IAMs_20 09 21 58.2
comp=Z,3µm,21.0s
E21K Killik River 42.70 29 IAMs_20 IAMs_20 09 24 40.5
comp=Z,4µm,18.0s
ITAN ITANAGAR 42.75 267 *i* P P 09 04 27.8 -6.5
ITAN IAmb IAmb 09 04 37.8
comp=Z,503nm,0.8s
ITAN IVMs_BB IVMs_BB 09 24 50.9
comp=Z,1µm,17.9s
F21K Alatna River 42.75 31 P 09 04 35.4 +1.5
F21K IAMs_20 IAMs_20 09 24 09.1
comp=Z,2µm,19.0s
ILSW Iliamna Southw 42.79 42 P P 09 04 35.3 +1.0
OHAK Old Harbor 42.93 46 P P 09 04 36.2 +0.9
OHAK IAmb IAmb 09 04 48.1
comp=Z,61nm,1.0s
RED Redoubt Volcan 42.95 41 P P 09 04 36.6 +1.0
SIJI Sorong 43.05 198 LR LR 09 20 11.0
comp=Z,1µm,21.0s,baz=28,slow=33
PPLA Purkeypile 43.14 37 P 09 04 38.2 +1.1
PPLA IAmb IAmb 09 05 19.3
comp=Z,202nm,1.5s
CAST Castle Rocks 43.19 36 P P 09 04 39.4 +2.0
D22K Ayikyak River 43.21 28 IAMs_20 IAMs_20 09 25 00.1
comp=Z,3µm,18.0s
KOHI KOHIMA 43.23 265 *i* P P 09 04 32.4 -5.9
KOHI IVMs_BB IVMs_BB 09 23 28.2
comp=Z,2µm,17.6s
KDAK Kodiak Island 43.25 45 P P 09 04 38.7 +0.8
comp=Z,38nm,0.8s,baz=300,slow=2.1,SNR=57
KDAK LR LR 09 25 25.7
comp=Z,2µm,19.2s,baz=252,slow=40
comp=Z,38nm,0.8s
KDAK Kodiak Island 43.25 45 P P 09 04 39.1 +1.2
KDAK pmax pmax
comp=Z,102nm,1.2s
KDAK MLR MLR
comp=Z,4µm,20.0s
KDAK Kodiak Island 43.25 45 P 09 04 39.1 +1.2
KDAK IAmb IAmb 09 05 03.2
comp=Z,102nm,1.2s
KDAK Kodiak Island 43.25 45 IAMs_20 IAMs_20 09 24 36.6
comp=Z,3µm,20.0s
KDAK Kodiak Island 43.25 45 P P 09 04 39.6 +1.7
comp=Z,68nm,1.1s
SPU Mount Spurr 43.26 40 P P 09 04 39.5 +1.5
JAY Jayapura 43.34 184 P P 09 04 39.1 0.0
comp=Z,17nm,1.0s,baz=116,slow=6.1,SNR=3.9
JAY LR LR 09 27 25.5
comp=Z,462nm,18.0s,baz=8.5,slow=43
comp=Z,17nm,1.0s
STLK Strandline Lak 43.35 39 P P 09 04 40.5 +1.7
MK31 Makanchi Array 43.36 299 P P 09 04 39.0 0.0
MKAR Makanchi Array 43.36 299 P P 09 04 38.7 -0.3
comp=Z,68nm,0.8s,baz=83,slow=9.0,SNR=311
MKAR LR LR 09 24 03.8
comp=Z,8µm,18.4s,baz=73,slow=38
comp=Z,68nm,0.8s
MKAR Makanchi Array 43.36 299 P P 09 04 38.9 -0.2
LSA Lhasa 43.40 272 P P 09 04 40.8 +0.8
LSA Lhasa 43.40 272 P P 09 04 41.3 +1.2
LSA Lhasa 43.40 272 P P 09 04 40.4 +0.3
LSA S S 09 11 05.8 -1.2
LSA L L
comp=Z,2µm,18.6s
LSA L L
comp=Z,3µm,18.2s
LSA L L
comp=Z,5µm,18.6s
SKT Skwentna 43.48 39 IAMs_20 IAMs_20 09 22 43.3
comp=Z,2µm,21.0s
H22K Ishtalitna Cre 43.52 33 P P 09 04 41.9 +1.9
H22K IAmb IAmb 09 04 44.1
comp=Z,179nm,1.8s
H22K IAMs_20 IAMs_20 09 22 25.3
comp=Z,2µm,21.0s
MAKZ Makanchi 43.56 299 P P 09 04 40.2 -0.5
MAKZ pmax pmax
comp=Z,143nm,0.9s
MAKZ MLR MLR
comp=Z,8µm,18.0s
MAKZ Makanchi 43.56 299 P 09 04 40.2 -0.5
MAKZ Makanchi 43.56 299 P P 09 04 40.2 -0.5
comp=Z,199nm,0.9s
BPAW Bear Paw Mtn. 43.67 35 P 09 04 42.3 +1.0
BPAW IAmb IAmb 09 05 22.6
comp=Z,75nm,1.5s
BPAW IAMs_20 IAMs_20 09 22 53.3
comp=Z,3µm,22.0s
CAPN Captain Cook N 43.72 40 IAMs_20 IAMs_20 09 22 27.0
comp=Z,3µm,22.0s
TEZP TEZPUR 43.73 267 *i* P P 09 04 35.9 -6.2
TEZP IAMs_20 IAMs_20 09 25 28.3
comp=Z,3µm,15.5s
CHTO Chiang Mai 43.73 253 P P 09 04 42.4 +0.1
CHTO Chiang Mai 43.73 253 P P 09 04 42.6 +0.3
CHTO pmax pmax
comp=Z,108nm,0.8s
CHTO MLR MLR
comp=Z,3µm,22.0s
CHTO Chiang Mai 43.73 253 P 09 04 42.6 +0.3
CHTO IAMs_20 IAMs_20 09 22 23.0
comp=Z,3µm,22.0s
CHTO Chiang Mai 43.73 253 P P 09 04 42.4 +0.1
comp=Z,3µmcomp=Z,2µmcomp=Z,157nm,0.8s
CHTO Chiang Mai 43.73 253 P P 09 04 42.8 +0.5
CHTO S S 09 11 08.7 -2.4
CHTO Chiang Mai 43.73 253 P P 09 04 42.4 +0.1
comp=Z,156nm,0.8s
MLY Manley 43.77 34 P 09 04 44.0 +1.9
MLY IAmb IAmb 09 05 05.5
comp=Z,73nm,1.4s
CNPM China Poot 43.78 42 P 09 04 43.4 +1.2
SEM Semipalatinsk 43.79 305 *e*P P 09 04 42.5 -0.2
SEM pmax pmax
comp=Z,41nm,0.7s
SEM MLR MLR
comp=Z,2µm,17.0s
SEM Semipalatinsk 43.79 305 *e*P P 09 04 42.5 -0.2
comp=Z,41nm,0.7s
SEM LR LR 09 23 09.7
comp=Z,2µm,16.9s
IMP Imphal 43.84 264 *i* P P 09 04 37.8 -5.4
IMP *i* S S 09 10 51.4 -21
IMP *i* S S 09 10 58.4 -14
IMP IAMs_20 IAMs_20 09 24 35.5
comp=N,3µm,18.9s
SUA Susitna One 43.88 39 P P 09 04 44.4 +1.3
MORE Moreh 43.90 263 IAMs_20 IAMs_20 09 24 04.3
comp=Z,4µm,20.0s
D23K Nanushuk River 43.94 28 P P 09 04 45.2 +1.8
D23K IAmb IAmb 09 04 46.9
comp=Z,92nm,1.4s
D23K IAMs_20 IAMs_20 09 25 43.4
comp=Z,3µm,18.0s
CM31 Chiang Mai Arr 43.96 253 P P 09 04 44.7 +0.5
SNR=24
CMAR Chiang Mai Arr 43.96 253 P P 09 04 43.9 -0.2
comp=Z,34nm,0.8s,baz=46,slow=6.7,SNR=148
CMAR PcP PcP 09 06 30.8 +1.0
comp=Z,9.1nm,0.9s,baz=19,slow=3.0,SNR=4.2
CMAR LR LR 09 23 58.8
comp=Z,2µm,18.4s,baz=55,slow=37
comp=Z,34nm,0.8s
CMAR Chiang Mai Arr 43.96 253 *i* P P 09 04 44.5 +0.3
CMAR pmax pmax
comp=Z,36nm,0.8s
CMAR Chiang Mai Arr 43.96 253 P P 09 04 44.4 +0.3
TRF Thorofare Moun 43.99 36 P P 09 04 44.1 0.0
TRF IAmb IAmb 09 05 57.4
comp=Z,188nm,2.0s
G23K Bananza Creek 44.09 32 IAMs_20 IAMs_20 09 23 14.3
comp=Z,2µm,21.0s
GTOI Gorontalo 44.14 210 P P 09 04 45.6 +0.1
comp=Z,1µmcomp=Z,97nm,1.1s
SLKM Skilak Lake 44.20 41 IAMs_20 IAMs_20 09 25 58.6
comp=Z,2µm,19.0s
E23K Chandalar 44.28 30 IAMs_20 IAMs_20 09 25 24.4
comp=Z,3µm,19.0s
TOLK Toolik Lake Re 44.33 29 P 09 04 47.2 +0.7
TOLK IAMs_20 IAMs_20 09 25 34.6
comp=Z,3µm,18.0s
BWN Browne 44.33 35 IAMs_20 IAMs_20 09 23 13.9
comp=Z,3µm,22.0s
I23K Minto, Yukon-K 44.35 34 P P 09 04 47.3 +0.6
I23K IAmb IAmb 09 05 36.5
comp=Z,107nm,1.5s
RC01 Rabbit Creek A 44.39 40 P P 09 04 47.9 +0.9
RC01 IAmb IAmb 09 05 00.3
comp=Z,38nm,0.9s
RC01 IAMs_20 IAMs_20 09 26 43.5
comp=Z,2µm,19.0s
O22K Cooper Landing 44.45 41 P P 09 04 48.3 +0.8
O22K IAmb IAmb 09 05 28.6
comp=Z,93nm,0.8s
O22K IAMs_20 IAMs_20 09 23 14.2
comp=Z,2µm,22.0s
NEA2 Nenana 44.49 35 P P 09 04 48.6 +0.8
NEA2 IAmb IAmb 09 05 11.1
comp=Z,50nm,0.8s
MCK McKinley 44.59 36 IAMs_20 IAMs_20 09 23 21.6
comp=Z,3µm,22.0s
TOLI2 Tolitoli 44.59 213 P P 09 04 48.7 -0.4
TOLI2 IAmb IAmb 09 04 50.4
comp=Z,43nm,1.0s
TOLI2 Tolitoli 44.59 213 P P 09 04 49.2 0.0
comp=Z,59nm,0.9s
D24K Happy Valley 44.62 28 IAMs_20 IAMs_20 09 25 10.2
comp=Z,4µm,19.0s
SEW Seward 44.62 41 P P 09 04 49.7 +0.8
SEW IAMs_20 IAMs_20 09 25 55.8
comp=Z,3µm,20.0s
PMR Palmer 44.64 39 P P 09 04 49.9 +0.9
PMR pmax pmax

comp=Z,26nm,0.9s
PMR Palmer 44.64 39 P 09 04 49.9 +0.9
RND Reindeer 44.64 36 P **P** **09 04 50.0 +0.9**
RND pmax pmax
comp=Z,63nm,1.2s
RND MLR MLR
comp=Z,2µm,19.0s
RND Reindeer 44.64 36 P **P** **09 04 50.0 +0.9**
RND IAmb IAmb 09 05 22.0
comp=Z,63nm,1.2s
C24K Franklin Bluff 44.69 27 IAMs_20 IAMs_20 09 25 32.1
comp=Z,3µm,21.0s
E24K Your Creek 44.71 30 IAMs_20 IAMs_20 09 25 37.7
comp=Z,3µm,19.0s
GHO Glory Hole Cre 44.72 39 P **P** **09 04 51.1 +1.4**
GHO IAmb IAmb 09 05 11.7
comp=Z,46nm,0.8s
SILR SILCHAR 44.73 265 *i* P **P** **09 04 46.9 -3.3**
SILR IAmb IAmb 09 04 54.6
comp=Z,340nm,0.8s
KURK Kurchatov 44.74 305 P **P** **09 04 49.8 -0.1**
KURK Kurchatov 44.74 305 P **P** **09 04 49.5 -0.4**
KURK pmax pmax
comp=Z,171nm,0.7s
KURK MLR MLR
comp=Z,4µm,19.0s
KURK Kurchatov 44.74 305 P **P** **09 04 49.5 -0.4**
KURK Kurchatov 44.74 305 IAMs_20 IAMs_20 09 24 24.9
comp=Z,3µm,19.0s
KURK Kurchatov 44.74 305 P **P** **09 04 49.8 -0.1**
comp=Z,301nm,0.7s
KURBB Kurchatov Arra 44.81 305 P **P** **09 04 50.4 -0.2**
comp=Z,165nm,0.6s,baz=77,slow=8.6,SNR=340
KURBB S S 09 11 35.1 +9.0
comp=Z,7.0nm,0.2s,baz=79,slow=16,SNR=6.1
KURBB LR LR 09 24 39.3
comp=Z,4µm,19.3s,baz=106,slow=38
comp=Z,165nm,0.6s
KURBB Kurchatov Arra 44.81 305 P **P** **09 04 50.2 -0.4**
FAKI Fak Fak 44.82 196 P **P** **09 04 50.6 -0.3**
FAKI IAMs_20 IAMs_20 09 21 53.9
comp=Z,2µm,20.0s
FAKI Fak Fak 44.82 196 P **P** **09 04 50.7 -0.3**
comp=Z,1µmcomp=Z,82nm,0.8s
FAKI Fak Fak 44.82 196 P **P** **09 04 51.3 +0.4**
comp=Z,83nm,0.8s
WRH Wood River Hil 44.92 35 IAMs_20 IAMs_20 09 23 40.4
comp=Z,2µm,22.0s
F24K Squaw Lake 44.93 31 P **P** **09 04 52.5 +1.2**
H24K Noodor Dome 44.96 33 IAMs_20 IAMs_20 09 23 08.3
comp=Z,2µm,21.0s
KNK Knik Glacier 44.98 39 IAMs_20 IAMs_20 09 24 03.0
comp=Z,2µm,20.0s
SHL Shillong 44.99 266 P **P** **09 04 51.9 -0.6**
SNR=42
SHL Shillong 44.99 266 *i* P P 09 04 46.0 -6.5
SHL IAMs_20 IAMs_20 09 23 32.9
comp=Z,2µm,18.7s
SHL IVMs_BB IVMs_BB 09 25 47.2
comp=Z,834nm,15.3s
SML Sawmill 45.00 39 P **P** **09 04 53.4 +1.4**
SML pmax pmax
comp=Z,134nm,1.4s
SML Sawmill 45.00 39 P **P** **09 04 53.4 +1.4**
SML IAmb IAmb 09 05 11.1
comp=Z,134nm,1.4s
SML IAMs_20 IAMs_20 09 27 12.6
comp=Z,2µm,19.0s
COLA College 45.00 34↓ *e*P **P** **09 04 54.6 +2.7**
COLA pmax pmax
comp=Z,16nm,0.9s
COLA College 45.00 34 P **P** **09 04 53.4 +1.5**
COLA IAmb IAmb 09 05 15.8
comp=Z,58nm,0.8s
COLA College 45.00 34 P **P** **09 04 54.3 +2.4**
COLA S **S** **09 11 31.0 +2.5**
COLA College 45.00 34 P **P** **09 04 54.3 +2.4**
comp=Z,95nm,1.5s
PWL Port Wells 45.09 40 IAMs_20 IAMs_20 09 26 01.2
comp=Z,3µm,20.0s
G24K Hadweenzic Riv 45.10 32 IAMs_20 IAMs_20 09 23 45.0
comp=Z,2µm,20.0s
AZL Aizawl 45.40 264 *i* P **P** **09 04 53.1 -2.5**
AZL IAMs_20 IAMs_20 09 24 11.3
comp=N,3µm,21.0s
ILAR Eielson Array 45.42 34 P **P** **09 04 56.0 +0.8**
comp=N,16nm,0.7s,baz=262,slow=6.0,SNR=173
ILAR LR LR 09 24 50.7
comp=N,1µm,21.7s,baz=270,slow=37
comp=N,16nm,0.7s
D25K Kavik River 45.50 28 IAMs_20 IAMs_20 09 27 02.5
comp=Z,3µm,18.0s
SANI Sanana 45.62 205 P **P** **09 04 56.3 -1.0**
comp=Z,1µmcomp=Z,106nm,1.0s
SANI Sanana 45.62 205 P **P** **09 04 56.4 -0.9**
comp=Z,105nm,1.0s
P23K Montague Islan 45.66 41 IAMs_20 IAMs_20 09 23 50.1
comp=Z,3µm,21.0s
GLI Glacier Island 45.69 40 IAMs_20 IAMs_20 09 26 45.0
comp=Z,2µm,19.0s
KRVT Keravat (AS076 45.77 168 LR LR 09 23 19.4
comp=Z,416nm,18.5s,baz=352,slow=35
LUWI Luwuk 45.78 209 P **P** **09 04 58.3 -0.2**
comp=Z,98nm,1.3s
LUWI Luwuk 45.78 209 P **P** **09 04 57.4 -1.1**
comp=Z,94nm,1.3s
K24K Donnelly Dome 45.98 36 IAMs_20 IAMs_20 09 27 41.5
comp=Z,2µm,18.0s
FID Port Fidalgo 46.01 40 IAMs_20 IAMs_20 09 27 10.9
comp=Z,2µm,18.0s
C26K Camden Bay 46.01 27 IAMs_20 IAMs_20 09 24 10.0
comp=Z,2µm,22.0s
APSI Ampana 46.08 211 P **P** **09 05 01.3 +0.3**
comp=Z,2µmcomp=Z,175nm,1.1s
DHUB DHUBRI 46.17 268 *i* P P 09 04 55.7 -5.9
KLU Klutina 46.18 39 IAMs_20 IAMs_20 09 24 07.8
comp=Z,2µm,20.0s
DIV Divide 46.30 39 IAMs_20 IAMs_20 09 24 45.0
comp=Z,2µm,22.0s
PDGK Podgornoye 46.31 295 P **P** **09 05 02.7 0.0**
SHLS Shalkode 46.38 295 *e*P **P** **09 05 01.0 -2.3**
SHLS pmax pmax
comp=Z,28nm,0.7s
SHLS Shalkode 46.38 295 *e*P **P** **09 05 01.0 -2.3**
comp=Z,28nm,0.7s
EYAK Cordova Ski Ar 46.39 40 P **P** **09 05 05.4 +2.5**
EYAK Cordova Ski Ar 46.39 40 IAMs_20 IAMs_20 09 28 10.5
comp=Z,3µm,18.0s
RIDG Independent Ri 46.40 36 IAMs_20 IAMs_20 09 24 28.5
comp=Z,2µm,21.0s
AGT Agartala 46.40 265 *i* S S 09 11 29.9 -20
AGT *i* S S 09 11 33.8 -16
HARP HAARP 46.42 38 IAMs_20 IAMs_20 09 26 57.1
comp=Z,2µm,19.0s
TDK Taldyqorghan 46.48 298 *e*P **P** **09 05 04.0 +0.1**
TDK pmax pmax
comp=Z,60nm,0.9s
TDK MLR MLR
comp=Z,4µm,17.0s
TDK Taldyqorghan 46.48 298 *e*P **P** **09 05 04.0 +0.1**
comp=Z,60nm,0.9s
TDK LR LR 09 24 46.9
comp=Z,4µm,16.9s
G26K Porcupine Rive 46.55 31 **P** **09 05 06.4 +2.4**
BELO BELONIA 46.61 264 *i* P P 09 05 00.2 -4.9
UZB Uzunbulak 46.69 295 *e*P **P** **09 05 05.6 -0.1**
UZB *e*S **S** **09 11 55.9 +2.2**
UZB pmax pmax
comp=Z,42nm,1.4s
UZB Uzunbulak 46.69 295 *e*P **P** **09 05 05.6 -0.1**
comp=Z,42nm,1.4s
UZB *e*S **S** **09 11 56.0 +2.2**
DOT Dot Lake 46.76 36 IAMs_20 IAMs_20 09 24 37.9
comp=Z,2µm,21.0s
BRDH Bariadhala 46.79 263 LR LR 09 27 20.1
comp=Z,3µm,18.8s,baz=56,slow=40
PCI Palu 46.80 213 P **P** **09 05 06.3 -0.3**
comp=Z,171nm,1.2s
KPKS Kokpek 46.81 296 *e*P **P** **09 05 06.7 +0.1**
KPKS Kokpek 46.81 296 *e*P **P** **09 05 06.8 +0.1**
BMRM Bremner River 46.88 39 IAMs_20 IAMs_20 09 27 31.5
comp=Z,2µm,20.0s
BNDI Bandanaira 46.90 198 P **P** **09 05 08.4 +1.1**
comp=Z,331nm,1.4s
BNDI Bandanaira 46.90 198 P **P** **09 05 09.0 +1.7**
comp=Z,326nm,1.4s
MENT Mentasta 47.00 37 P **P** **09 05 10.7 +3.0**

SATY Saty 47.14 295 *e*P **P** **09 05 09.3 +0.1**
SATY pmax pmax
comp=Z,67nm,1.7s
SATY Saty 47.14 295 *e*P **P** **09 05 09.3 +0.1**
comp=Z,67nm,1.7s
GLB Gilahina Butte 47.19 39 IAMs_20 IAMs_20 09 25 23.5
comp=Z,2µm,22.0s
E27K Coleen River 47.28 29 IAMs_20 IAMs_20 09 28 36.7
comp=Z,3µm,18.0s
D27M Malcolm River 47.42 28 IAMs_20 IAMs_20 09 27 21.4
comp=Z,2µm,19.0s
SBUM Sibu 47.47 224 P **P** **09 05 12.0 +0.2**
SBUM Sibu 47.47 224 P **P** **09 05 11.6 -0.2**
SBUM Sibu 47.47 224 P **P** **09 05 12.2 +0.4**
comp=Z,14nm,1.2s
I27K Kandik River 47.55 33 P **P** **09 05 13.4 +1.4**
I27K IAmb IAmb 09 06 08.4
comp=Z,30nm,1.0s
I27K IAMs_20 IAMs_20 09 24 37.9
comp=Z,2µm,22.0s
EVN Everest 47.56 273 **P** **09 05 13.1 -0.1**
EVN Everest 47.56 273 P **P** **09 05 13.4 +0.2**
comp=Z,220nm,1.0s
MCARA McCarthy VSAT 47.57 39 IAMs_20 IAMs_20 09 26 16.6
comp=Z,2µm,20.0s
CRQM Cirque 47.63 40 IAMs_20 IAMs_20 09 26 12.7
comp=Z,3µm,21.0s
TGL Tana Glacier 47.78 40 IAMs_20 IAMs_20 09 26 17.1
comp=Z,3µm,22.0s
M27K Edge Creek, AK 47.93 37 IAMs_20 IAMs_20 09 28 01.1
comp=Z,2µm,20.0s
F28M Old Crow 47.99 30 IAMs_20 IAMs_20 09 29 20.4
comp=Z,2µm,18.0s
E28M Babbage River 48.00 29 IAMs_20 IAMs_20 09 27 36.5
comp=Z,3µm,20.0s
MDOK Medeo 48.03 296 *e*P **P** **09 05 16.3 +0.1**
MDOK *e*S **S** **09 12 15.1 +2.3**
MDOK Medeo 48.03 296 *e*P **P** **09 05 16.3 +0.1**
MDOK *e*S **S** **09 12 15.2 +2.3**
MDOK LR LR 09 25 45.1
AAA Alma-Ata 48.11 296 *e*P **P** **09 05 16.8 +0.2**
AAA pmax pmax
comp=Z,66nm,1.2s
AAA MLR MLR
comp=Z,12µm,10.0s
AAA Alma-Ata 48.11 296 *e*P **P** **09 05 16.9 +0.2**
comp=Z,66nm,1.2s
AAA LR LR 09 25 52.4
comp=Z,12µm,10.5s
TNSS Tian-Shan 48.15 296 *e*P **P** **09 05 17.1 -0.3**
TNSS Tian-Shan 48.15 296 *e*P **P** **09 05 17.2 -0.2**
BARN Barnard Glacie 48.28 39 IAMs_20 IAMs_20 09 26 02.3
comp=Z,2µm,22.0s
GRNC Granite Creek 48.30 39 IAMs_20 IAMs_20 09 26 52.9
comp=Z,2µm,21.0s
YAH Yahtse 48.38 40 IAMs_20 IAMs_20 09 26 56.0
comp=Z,2µm,18.0s
BKB Balikpapan 48.39 216 P **P** **09 05 20.7 +1.8**
BKB Balikpapan 48.39 216 P **P** **09 05 19.7 +0.8**
comp=Z,235nm,1.0s
KDI Kendari 48.53 208 P **P** **09 05 21.8 +1.8**
comp=Z,9µmcomp=Z,64nm,1.1s
E29M Blow River 48.63 29 IAMs_20 IAMs_20 09 26 40.1
comp=Z,2µm,20.0s
LOGN Logan Glacier 48.64 39 IAMs_20 IAMs_20 09 26 45.9
comp=Z,2µm,20.0s
H29M Whitestone 48.78 32 IAMs_20 IAMs_20 09 26 41.3
comp=Z,2µm,22.0s
MMSI Mamuju 48.80 213 P **P** **09 05 22.2 +0.1**
comp=Z,64nm,0.9s
G29M Pine Creek 48.80 31 IAMs_20 IAMs_20 09 28 33.9
comp=Z,2µm,19.0s
ULHL Ulahol 48.93 295 P **P** **09 05 23.5 +0.3**
SNR=8.6
O28M Mount Upton 49.04 39 IAMs_20 IAMs_20 09 26 47.5
comp=Z,2µm,21.0s
BVAR Borovoye Array 49.06 310 P **P** **09 05 23.9 +0.2**
comp=Z,64nm,0.7s,baz=78,slow=8.3,SNR=80
comp=Z,64nm,0.7s
BVAR Borovoye Array 49.06 310 P **P** **09 05 24.0 +0.2**
BORK Borovoye 49.10 310 P **P** **09 05 24.3 +0.3**
BORK pmax pmax
comp=Z,74nm,0.7s
BORK MLR MLR
comp=Z,6µm,18.0s
BORK Borovoye 49.10 310 P **P** **09 05 24.3 +0.3**
TKM2 Tokmak 2 49.11 296 P **P** **09 05 24.8 +0.3**
SNR=92
J29N Klondike Camp 49.17 34 **P** **09 05 26.3 +1.8**
J29N IAMs_20 IAMs_20 09 29 27.5
comp=Z,2µm,18.0s
ASAI AK-SAY(Kyrgyzs 49.25 293 P **P** **09 05 25.9 +0.1**
comp=Z,52nm,1.1s
EPYK Eagle Plains 49.41 32 P **P** **09 05 27.6 +1.3**
L29M L29M 49.48 36 IAMs_20 IAMs_20 09 26 23.9
comp=Z,2µm,22.0s
F30M Barrier River 49.54 30 IAMs_20 IAMs_20 09 30 16.3
comp=Z,2µm,18.0s
K29M Barlow Dome 49.59 35 IAMs_20 IAMs_20 09 26 33.8
comp=Z,2µm,22.0s
KBK Karagaybulak 49.65 296 P **P** **09 05 28.8 +0.1**
SNR=33
USP Ospenovka 49.73 297 P **P** **09 05 28.7 -0.3**
SNR=21
I30M Mount Dempster 49.78 33 IAMs_20 IAMs_20 09 30 06.7
comp=Z,2µm,20.0s
STKI Sintang 49.88 224 P **P** **09 05 30.7 +0.4**
comp=Z,109nm,0.8s
O29M Mount Kennedy 49.93 40 IAMs_20 IAMs_20 09 27 05.9
comp=Z,2µm,21.0s
J30M Hart River 49.94 34 IAMs_20 IAMs_20 09 29 43.0
comp=Z,2µm,20.0s
AAK Ala-Archa 49.97 296 LR LR 09 27 43.6
comp=Z,5µm,21.3s,baz=80,slow=37
AAK Ala-Archa 49.97 296 P **P** **09 05 30.7 -0.3**
SNR=9.7
AAK Ala-Archa 49.97 296 *i* P **P** **09 05 30.8 -0.3**
SNR=8.1
AAK Ala-Archa 49.97 296 P **P** **09 05 30.8 -0.3**
AAK Ala-Archa 49.97 296*ce*P **P** **09 05 30.3 -0.7**
AAK pmax pmax
comp=Z,22nm,1.2s
AAK Ala-Archa 49.97 296 P **P** **09 05 31.1 0.0**
AAK Ala-Archa 49.97 296 P **P** **09 05 30.8 -0.3**
comp=Z,61nm,1.1s
UCH Uchtor 50.12 296 P **P** **09 05 33.5 +1.0**
SNR=14
M30M Minto, Yukon 50.20 36 P **P** **09 05 33.8 +1.5**
M30M IAmb IAmb 09 05 52.0
comp=Z,40nm,1.1s
INK Inuvik 50.24 29 P **P** **09 05 33.8 +1.4**
comp=Z,37nm,0.7s,baz=304,slow=4.5,SNR=73
INK LR LR 09 29 57.0
comp=Z,1µm,18.5s,baz=280,slow=40
comp=Z,37nm,0.7s
INK Inuvik 50.24 29 P **P** **09 05 33.8 +1.4**
INK pmax pmax
comp=Z,42nm,0.8s
INK Inuvik 50.24 29 P **P** **09 05 33.8 +1.4**
INK IAmb IAmb 09 05 35.6
comp=Z,42nm,0.8s
INK Inuvik 50.24 29 P **P** **09 05 34.2 +1.8**
comp=Z,66nm,0.8s
PMG Port Moresby 50.25 175 LR LR 09 24 02.5
comp=Z,688nm,22.0s,baz=336,slow=33
N30M Aishikik Lake 50.34 38 IAMs_20 IAMs_20 09 26 43.7
comp=Z,2µm,21.0s
F31M Tsilgehtchic 50.34 30 **P** **09 05 34.3 +1.1**
F31M IAmb IAmb 09 06 01.2
comp=Z,62nm,1.0s
EKS2 Erkin-Say 50.45 296 P **P** **09 05 34.0 -0.6**
SNR=18
H31M Peel River 50.48 32 IAMs_20 IAMs_20 09 30 13.2
comp=Z,2µm,20.0s
BOK Bokaro 50.51 269 *i* P P 09 05 28.7 -6.4
P29M Windy Craggy 50.51 40 IAMs_20 IAMs_20 09 26 44.3
comp=Z,2µm,22.0s
KAPI Kappang 50.58 211 LR LR 09 26 34.2
comp=Z,418nm,21.4s,baz=18,slow=36
KAPI Kappang 50.58 211 P **P** **09 05 36.1 +0.5**
KAPI Kappang 50.58 211 P **P** **09 05 35.9 +0.3**
KAPI Kappang 50.58 211*de*P **P** **09 05 34.2 -1.4**
KAPI pmax pmax
comp=Z,74nm,1.3s
KAPI Kappang 50.58 211 P **P** **09 05 36.2 +0.6**
KAPI Kappang 50.58 211 P **P** **09 05 35.6 0.0**
KAPI S **S** **09 12 49.1 +0.5**

KAPI Kappang 50.58 211 P **P** **09 05 36.6 +1.0**
comp=Z,82nm,1.5s
KSH2 Kashi 50.64 291 P **P** **09 05 36.4 +0.3**
KSH2 PP **PP** **09 07 32.7 +0.7**
KSH2 S **S** **09 12 47.3 -2.2**
KSH2 SS **SS** **09 16 17.6 -5.9**
KSH2 pmax pmax
comp=Z,32nm,1.8s
KSH2 pmax pmax
comp=Z,630nm,13.1s
KSH2 L L
comp=Z,7µm,17.3s
KSH2 L L
comp=Z,5µm,15.6s
KSH2 L L
comp=Z,10µm,17.7s
BKSI Bulukumba 50.71 210 P **P** **09 05 35.1 -1.5**
comp=Z,36nm,1.0s
N31M Braeburn, Yuko 50.94 38 IAMs_20 IAMs_20 09 30 43.6
comp=Z,2µm,18.0s
O30N Mendenhall 50.99 39 IAMs_20 IAMs_20 09 26 43.9
comp=Z,2µm,21.0s
BBKI Banjar Baru 51.27 218 P **P** **09 05 41.0 +0.1**
comp=Z,91nm,1.1s
BSSI Bau Bau, Buton 51.33 210 P **P** **09 05 42.0 +0.7**
comp=Z,771nmcomp=Z,56nm,1.2s
M31M Drury Creek, Y 51.38 36 IAMs_20 IAMs_20 09 27 21.1
comp=Z,2µm,22.0s
WHY Whitehorse 51.59 38 P **P** **09 05 44.3 +1.4**
WHY IAmb IAmb 09 05 57.5
comp=Z,45nm,0.9s
PTH Pithoragarh 51.70 278 *i* P **P** **09 05 40.4 -3.9**
PTH IAmb IAmb 09 05 54.7
comp=Z,89nm,0.7s
PTH *i* S S 09 12 48.2 -16
SKAG Skagway 51.73 40 P **P** **09 05 47.0 +3.2**
OHH Osh 52.00 294 P **P** **09 05 44.0 -2.2**
KULM Kulim 52.06 239 P **P** **09 05 47.5 +0.7**
KULM Kulim 52.06 239 **P** **09 05 47.0 +0.2**
KULM Kulim 52.06 239 P **P** **09 05 47.6 +0.7**
comp=Z,1µmcomp=Z,139nm,0.9s
KULM Kulim 52.06 239 P **P** **09 05 47.4 +0.7**
comp=Z,139nm,0.9s
KLP Kalpa 52.19 282 *i* P **P** **09 05 44.5 -3.5**
KLP IAmb IAmb 09 06 00.6
comp=Z,280nm,0.9s
N32M Quiet Lake 52.28 38 IAMs_20 IAMs_20 09 28 06.2
comp=Z,2µm,22.0s
IPM Ipoh 52.44 238 P **P** **09 05 49.5 -0.1**
IPM Ipoh 52.44 238 IAMs_20 IAMs_20 09 31 07.1
comp=Z,2µm,18.0s
IPM Ipoh 52.44 238 P **P** **09 05 49.1 -0.5**
comp=Z,1µmcomp=Z,86nm,1.0s
IPM Ipoh 52.44 238 P **P** **09 05 49.4 -0.3**
comp=Z,86nm,1.0s
UTK UTTARKASHI 52.44 281 *i* P **P** **09 05 46.4 -3.2**
HNR Honiara 52.46 159 LR LR 09 25 52.7
comp=Z,1µm,21.8s,baz=55,slow=34
KK31 Karatay Array 52.47 298 P **P** **09 05 49.3 -0.3**
KK31 pmax pmax
comp=Z,51nm,0.9s
KK31 Karatay Array 52.47 298 **P** **09 05 49.3 -0.3**
KK31 IAmb IAmb 09 06 10.2
comp=Z,50nm,0.8s
KKAR Karatay Array 52.47 298 P **P** **09 05 49.2 -0.4**
KKAR Karatay Array 52.47 298 **P** **09 05 49.2 -0.4**
P32M Atlin 52.48 40 IAMs_20 IAMs_20 09 31 47.2
comp=Z,2µm,19.0s
JIS Juneau Island 52.57 41 P **P** **09 05 53.1 +3.1**
P33M Teslin, Yukon 52.70 39 IAMs_20 IAMs_20 09 27 47.2
comp=Z,3µm,22.0s
TKRD Thakurdwara 52.94 279 *i* P **P** **09 05 49.0 -4.2**
BRLS Boroldav 52.95 298 *e*P **P** **09 05 54.7 +1.6**
BRLS Boroldav 52.95 298 *e*P **P** **09 05 54.7 +1.6**
TPRI Tanjung Pinang 53.06 232 P **P** **09 05 54.4 +0.2**
comp=Z,120nm,0.9s
TSSA Tissa 53.10 284 *i* P **P** **09 05 51.5 -3.1**
BTDF Bukit Timah Da 53.16 233 P **P** **09 05 55.5 +0.6**
BTDF Bukit Timah Da 53.16 233 P **P** **09 05 56.0 +1.1**
comp=Z,872nmcomp=Z,72nm,0.8s
IUG Iuzhnay 53.19 297 *e*P **P** **09 05 55.2 +0.2**
IUG pmax pmax
comp=Z,96nm,1.3s
IUG Iuzhnay 53.19 297 *e*P **P** **09 05 55.2 +0.2**
comp=Z,96nm,1.3s
SMLA Simla 53.19 282 *i* P **P** **09 05 52.2 -2.8**
SMLA IAmb IAmb 09 05 56.2
comp=Z,256nm,0.8s
SVE Sverdlovsk 53.20 317*de*P **P** **09 05 55.5 +0.8**
SVE pmax pmax
comp=Z,311nm,1.0s
SVE MLR MLR
comp=Z,5µm,15.0s
EDFI Ende, Flores 53.31 207 P **P** **09 05 55.3 -0.8**
comp=Z,811nmcomp=Z,61nm,1.3s
CHM Chimkent 53.41 298 *e*P **P** **09 05 56.7 +0.2**
CHM pmax pmax
comp=Z,84nm,1.7s
CHM MLR MLR
comp=Z,1µm,16.0s
CHM Chimkent 53.41 298 *e*P **P** **09 05 56.8 +0.2**
comp=Z,84nm,1.7s
CHM LR LR 09 29 04.1
comp=Z,1µm,15.9s
SOEI Soe 53.43 204 P **P** **09 05 56.9 0.0**
SOEI Soe 53.43 204 P **P** **09 05 57.1 +0.2**
comp=Z,2µmcomp=Z,173nm,0.9s
SRNI Srinagar 53.49 286 *i* P **P** **09 05 55.1 -2.4**
R33M Jennings River 53.86 39 IAMs_20 IAMs_20 09 28 31.9
comp=Z,2µm,21.0s
BATI Baumata 54.04 204 LR LR 09 31 02.0
comp=Z,242nm,18.9s,baz=358,slow=38
UGON Onchagaon 54.08 278 *i* S S 09 13 20.7 -16
DSRI Dabo 54.15 230 P **P** **09 06 04.0 +1.8**
comp=Z,60nm,1.5s
TPI Tanjungpandan 54.28 226 P **P** **09 06 02.4 -0.7**
comp=Z,124nm,0.9s
KDU Kakadu 54.31 193 P **P** **09 06 03.0 -0.2**
comp=Z,20nm,0.8s
DBNI Kabupaten Domp 54.32 211 P **P** **09 06 02.2 -1.2**
NDI New Delhi 54.41 279 *i* P **P** **09 06 00.9 -3.1**
NDI *i* S S 09 13 25.7 -15
NRLA Narela 54.45 279 *i* S S 09 13 25.7 -16
ARTI Arti 54.52 317 LR LR 09 32 16.7
comp=Z,6µm,18.5s,baz=67,slow=39
ARTI Arti 54.52 317*c* *i* P **P** **09 06 04.6 +0.2**
ARTI 09 07 05.0
ARTI S **S** **09 13 44.4 +2.8**
ARTI SS **SS** **09 17 19.2 -4.5**
ARTI pmax pmax
comp=Z,388nm,1.0s
ARTI MLR MLR
comp=Z,6µm,18.0s
WTLY Watson Lake, Y 54.62 38 P **P** **09 06 07.2 +2.1**
DLBC Dease Lake 54.67 40 P **P** **09 06 06.3 +0.8**
comp=Z,5.7nm,0.8s,baz=269,slow=7.5,SNR=11
DLBC LR LR 09 30 54.5
comp=Z,893nm,19.1s,baz=290,slow=38
comp=Z,5.7nm,0.8s
MTN Manton Dam 54.70 195 P **P** **09 06 06.3 +0.2**
comp=Z,32nm,0.9s
MTN Manton Dam 54.70 195 P **P** **09 06 06.2 +0.1**
comp=Z,32nm,0.9s
MTN Manton Dam 54.70 195 P **P** **09 06 05.7 -0.4**
SONA Sohna 54.75 279 *i* P **P** **09 06 03.4 -3.0**
SONA *i* S S 09 13 30.1 -15
NIL Nilore 54.82 286 P **P** **09 06 07.1 +0.2**
NIL Nilore 54.82 286 P **P** **09 06 08.1 +1.2**
NIL pmax pmax
comp=Z,174nm,0.9s
NIL MLR MLR
comp=Z,3µm,20.0s
NIL Nilore 54.82 286 **P** **09 06 08.1 +1.2**
NIL Nilore 54.82 286 IAMs_20 IAMs_20 09 31 13.2
comp=Z,3µm,20.0s
NIL Nilore 54.82 286 P **P** **09 06 07.6 +0.6**
comp=Z,249nm,0.9s
RTK Rohtak 54.82 280 *i* S S 09 13 31.5 -15
RAGD RAYAGADA 54.98 266 *i* P **P** **09 06 03.6 -4.6**
RAGD IAmb IAmb 09 06 10.4
comp=Z,145nm,1.5s
PSI Prapat 55.06 238 P **P** **09 06 09.2 +0.2**
PSI Prapat 55.06 238 P **P** **09 06 08.9 -0.1**
PSI pmax pmax
comp=Z,78nm,0.9s
PSI Prapat 55.06 238 P **P** **09 06 08.2 -0.8**

comp=Z,958nmcomp=Z,78nm,0.9s
RPSI Rantau Prapat 55.14 238 IAMs_20 IAMs_20 09 32 17.9
comp=Z,1µm,18.0s
RPSI Rantau Prapat 55.14 238 P **P** **09 06 08.9 -0.5**
comp=Z,78nm,0.9s
SRBI Singaraja 55.22 215 P **P** **09 06 10.4 +0.6**
comp=Z,1µmcomp=Z,69nm,1.4s
KCSI Kotacane, Aceh 55.27 240 P **P** **09 06 08.8 -1.5**
KHKI Kahang-Kahang 55.30 214 P **P** **09 06 09.6 -0.8**
comp=Z,2µmcomp=Z,163nm,1.1s
BSI Banda Aceh 55.47 244 P **P** **09 06 11.6 -0.2**
comp=Z,36nm,0.8s
MLSI Meulaboh, Aceh 55.62 242 P **P** **09 06 11.9 -0.9**
BKNI Bangkinang 55.63 234 P **P** **09 06 13.5 +0.6**
BKNI Bangkinang 55.63 234 P **P** **09 06 13.6 +0.6**
BKNI Bangkinang 55.63 234 P **P** **09 06 12.8 -0.1**
BKNI Bangkinang 55.63 234 P **P** **09 06 14.3 +1.4**
comp=Z,405nm,1.0s
WRGLY Wrigley 55.76 33 P **P** **09 06 14.0 +0.8**
WRGLY IAmb IAmb 09 06 16.6
comp=Z,54nm,0.8s
SRGN SRI GANGA NAGA 56.24 282 *i* S S 09 13 51.8 -14
SMRI Semarang 56.50 220 P **P** **09 06 19.9 +0.9**
SMRI Semarang 56.50 220 P **P** **09 06 19.3 +0.2**
SNJI Sawahan-Nganju 56.50 218 P **P** **09 06 19.8 +0.6**
comp=Z,92nm,1.0s
AB31 Akbulak array 56.55 309 *i* P **P** **09 06 19.1 0.0**
AB31 Akbulak array 56.55 309 **P** **09 06 19.5 +0.4**
ABKAR Akbulak array 56.55 309 **P** **09 06 18.7 -0.4**
PPI Padang Panjang 56.64 235 P **P** **09 06 20.1 0.0**
PWJI Pagerwojo 56.69 218 P **P** **09 06 19.0 -1.4**
comp=Z,3µmcomp=Z,190nm,0.9s
SPA0 Spitsbergen Ar 56.95 349 *e*P **P** **09 06 22.6 +1.1**
SPITS Spitsbergen Ar 56.95 349 P **P** **09 06 22.3 +0.8**
comp=Z,5.6nm,0.5s,baz=80,slow=9.4,SNR=9.3
SPITS LR LR 09 33 56.2
comp=Z,2µm,18.1s,baz=34,slow=39
comp=Z,5.6nm,0.5s
SPB2 Spitsbergen Ar 56.95 349 P **P** **09 06 22.9 +1.3**
SPB2 IAmb IAmb 09 07 07.0
comp=Z,67nm,1.1s
KBS Kingsbay 57.03 350 *i* P **P** **09 06 22.5 +0.5**
GSI Gunungsitoli 57.07 238 P **P** **09 06 24.0 +0.8**
GSI Gunungsitoli 57.07 238 **P** **09 06 23.3 +0.2**
GSI IAMs_20 IAMs_20 09 31 35.9
comp=Z,2µm,20.0s
GSI Gunungsitoli 57.07 238 P **P** **09 06 23.9 +0.8**
comp=Z,3µmcomp=Z,175nm,1.5s
GSI Gunungsitoli 57.07 238 P **P** **09 06 23.9 +0.8**
comp=Z,175nm,1.5s
CTJI Waduk Cacaban 57.08 221 P **P** **09 06 24.0 +0.8**
comp=Z,200nm,1.0s
AKTO Aktyubinsk 57.16 311 LR LR 09 32 39.7
comp=Z,5µm,19.8s,baz=67,slow=38
AKTO Aktyubinsk 57.16 311 P **P** **09 06 23.3 -0.1**
NOR Nord 57.22 357 *i* P **P** **09 06 23.0 -0.4**
NOR IAmb IAmb 09 06 24.9
comp=Z,14nm,0.8s
BHPL Bhopal 57.22 273 *i* P **P** **09 06 19.6 -4.6**
KBL Kabul 57.41 289 P **P** **09 06 24.2 -1.4**
SNR=33
KBL Kabul 57.41 289 P **P** **09 06 24.6 -1.0**
KBL pmax pmax
comp=Z,91nm,0.9s
KBL Kabul 57.41 289 P **P** **09 06 24.6 -1.0**
comp=Z,91nm,0.9s
LHSI Lahat 57.47 229 P **P** **09 06 26.6 +0.6**
KPJI Karang Pucung 57.49 222 P **P** **09 06 25.1 -0.9**
comp=Z,2µmcomp=Z,139nm,0.9s
MDSI Maura Dua 57.64 228 P **P** **09 06 27.3 +0.2**
comp=Z,2µmcomp=Z,113nm,1.2s
PBSI Pulau Batu 57.66 237 P **P** **09 06 28.0 +0.7**
comp=Z,114nm,1.3s
MASI Maura Aman, Be 57.66 231 P **P** **09 06 28.0 +0.6**
LEM Lembang 57.73 223 LR LR 09 31 44.1
comp=Z,375nm,21.9s,baz=37,slow=37
KNRA Kununurra 57.94 197 P **P** **09 06 29.2 +0.1**
comp=Z,20nm,0.9s
KNRA Kununurra 57.94 197 **P** **09 06 29.0 -0.1**
KNRA IAmb IAmb 09 06 30.4
comp=Z,43nm,1.4s
KIRV Kirov 58.01 322 LR LR 09 34 37.6
comp=Z,5µm,18.4s,baz=49,slow=39
KIRV Kirov 58.01 322 *e*P **P** **09 06 29.6 +0.4**
BBB Bella Bella 58.27 46 LR LR 09 29 21.1
comp=Z,843nm,21.1s,baz=306,slow=34
RES Resolute Bay 58.43 15 LR LR 09 36 08.2
comp=Z,2µm,18.4s,baz=324,slow=41
RES Resolute Bay 58.43 15 P **P** **09 06 32.4 +0.5**
RES pmax pmax
comp=Z,37nm,0.8s
RES Resolute Bay 58.43 15 **P** **09 06 32.4 +0.5**
RES IAmb IAmb 09 06 52.2
comp=Z,37nm,0.8s
RES Resolute Bay 58.43 15 P **P** **09 06 32.5 +0.5**
comp=Z,61nm,0.8s
MTSU Mount Surprise 58.81 179 P **P** **09 06 36.3 +1.1**
comp=Z,16nm,1.0s
MTSU Mount Surprise 58.81 179 P **P** **09 06 36.6 +1.4**
MTSU Mount Surprise 58.81 179 P **P** **09 06 36.3 +1.1**
comp=Z,16nm,1.0s
LVZ Lovozero 59.13 335 *e*P **P** **09 06 37.2 +0.3**
LVZ pmax pmax
comp=Z,22nm,0.9s
VADS Vadso 59.42 339 *e*P **P** **09 06 37.5 -1.3**
YKA Yellowknife Ar 59.70 32 P **P** **09 06 41.8 +0.9**
comp=Z,7.5nm,0.7s,baz=301,slow=6.3,SNR=12
YKA LR LR 09 36 40.8
comp=Z,796nm,18.1s,baz=310,slow=40
comp=Z,7.5nm,0.7s
YKA Yellowknife Ar 59.70 32 P **P** **09 06 41.5 +0.7**
APA Apatity 59.71 335 *e*P **P** **09 06 38.1 -2.8**
APA *e* 09 07 29.3
APA *e* 09 08 48.8
APA *e*S **S** **09 06 42.2 -7.4**
APA *e* 09 16 22.6
APA *e*SS **SS** **09 18 41.0 -3.7**
APA pmax pmax
comp=Z,16nm,0.9s
APA MLR MLR
comp=Z,4µm,18.4s
HYB Hyderabad 59.79 267 *e*P **P** **09 06 40.9 -1.3**
HYB IVmB_BB 09 06 42.4
comp=Z,950nm,2.0s
HYB *e*PcP **PcP** **09 07 29.2 +0.5**
HYB *e*PP **PP** **09 08 55.1 +0.9**
HYB *e*ScP **ScP** **09 11 30.0 +2.1**
HYB *e*S **S** **09 14 51.5 -0.6**
HYB *e*ScS **ScS** **09 16 33.3 +2.1**
HYB IVMs_BB IVMs_BB 09 33 43.9
comp=Z,348nm,18.7s
HYB Hyderabad 59.79 267 *i* P **P** **09 06 38.2 -4.0**
HYB IAmb IAmb 09 06 42.5
comp=Z,54nm,0.9s
KEV Kevo 60.28 339 P **P** **09 06 45.5 +0.7**
KEV pmax pmax
comp=Z,134nm,1.6s
KEV Kevo 60.28 339 **P** **09 06 45.5 +0.7**
KEV Kevo 60.28 339 P **P** **09 06 45.5 +0.7**
SANVU Saraoutou 60.36 153 P **P** **09 06 49.1 +3.2**
SANVU Saraoutou 60.36 153 IAMs_20 IAMs_20 09 27 35.8
comp=Z,2µm,22.0s
HAMF Hammerfest 60.59 341 *e*P **P** **09 06 46.9 +0.1**
CTA Charters Tower 60.81 177 P **P** **09 06 48.8 -0.1**
comp=Z,3.2nm,0.6s,baz=11,slow=5.5,SNR=7.6
CTA LR LR 09 29 59.4
comp=Z,596nm,21.7s,baz=352,slow=33
comp=Z,3.2nm,0.6s
CTA Charters Tower 60.81 177 P **P** **09 06 49.5 +0.6**
CTAO Charters Tower 60.81 177 P **P** **09 06 49.2 +0.3**
CTAO pmax pmax
comp=Z,28nm,1.4s
CTAO Charters Tower 60.81 177 P **P** **09 06 49.2 +0.3**
ARA0 ARCESS Array S 60.83 339 *e*P **P** **09 06 48.8 +0.2**
ARCES ARCESS Array B 60.83 339 P **P** **09 06 48.8 +0.2**
comp=Z,12nm,0.9s,baz=49,slow=8.3,SNR=12
ARCES LR LR 09 38 04.7
comp=Z,4µm,19.5s,baz=38,slow=41
comp=Z,12nm,0.9s
ARCES ARCESS Array B 60.83 339 P **P** **09 06 48.9 +0.3**
ARCES pmax pmax
comp=Z,30nm,1.2s
ARCES ARCESS Array B 60.83 339 **P** **09 06 48.9 +0.3**
ARCES IAmb IAmb 09 06 51.6
comp=Z,30nm,1.1s

FITZ Fitzroy Crossi 61.00 199 **P** **09 06 50.5 +0.3**
TULEG Thule 61.01 8 IAMs_20 IAMs_20 09 31 06.0
comp=Z,1µm,19.0s
TULEG Thule 61.01 8 *i* P **P** **09 06 49.9 +0.3**
TULEG IAmb IAmb 09 06 50.8
comp=Z,49nm,0.9s
WRAB Tennant Creek 61.15 190 P **P** **09 06 50.5 -0.8**
WRAB Tennant Creek 61.15 190 P **P** **09 06 50.4 -0.8**
WRAB pmax pmax
comp=Z,32nm,0.9s
WRAB Tennant Creek 61.15 190 P **P** **09 06 50.4 -0.9**
WRAB IAmb IAmb 09 07 02.3
comp=Z,32nm,0.8s
WRAB Tennant Creek 61.15 190 P **P** **09 06 50.6 -0.8**
comp=Z,54nm,0.9s
WR0 Warramunga Arr 61.16 189 P **P** **09 06 50.6 -0.7**
comp=Z,59nm,0.9s
WB2 Warramunga Arr 61.16 190 P **P** **09 06 50.3 -1.0**
comp=Z,49nm,0.9s
WR1 Warramunga Arr 61.16 190 P **P** **09 06 50.3 -1.0**
comp=Z,47nm,0.9s
WRA Warramunga Arr 61.16 190 P **P** **09 06 50.1 -1.3**
comp=Z,16nm,0.7s,baz=7.0,slow=6.9,SNR=75
WRA LR LR 09 32 30.6
comp=Z,738nm,21.3s,baz=90,slow=35
comp=Z,16nm,0.7s
WB1 Warramunga Ar. 61.18 190 P **P** **09 06 50.5 -0.9**
KLMR Klimovskoe 61.22 327 *e*P **P** **09 06 48.7 -2.6**
KLMR *e* 09 09 03.0
KLMR pmax pmax
comp=Z,202nm,1.5s
KLMR MLR MLR
comp=Z,5µm,19.0s
QIS Mount Isa 61.30 184 P **P** **09 06 51.5 -0.8**
comp=Z,44nm,1.0s
QIS Mount Isa 61.30 184 P **P** **09 06 52.2 -0.1**
QIS Mount Isa 61.30 184 P **P** **09 06 51.5 -0.8**
comp=Z,44nm,1.0s
NEEM North Greenlan 61.52 4 *i* P **P** **09 06 54.5 +1.0**
NEEM IAmb IAmb 09 06 55.2
comp=Z,68nm,1.0s
KTK1 Kautokeino 61.78 339 *e*P **P** **09 06 55.5 +0.5**
SGF Sodankyl 61.89 337 P **P** **09 06 53.9 -1.8**
comp=Z,62nm,2.3s
BELG Belogornoye 61.93 316 LR LR 09 36 37.0
comp=Z,6µm,18.9s,baz=57,slow=39
BELG Belogornoye 61.93 316*ce*P **P** **09 06 56.5 +0.3**
BELG pmax pmax
comp=Z,72nm,0.9s
DAG Danmarks Havn 61.98 355 P **P** **09 06 56.8 +0.6**
DAG pmax pmax
comp=Z,69nm,1.6s
DAG Danmarks Havn 61.98 355 P **P** **09 06 56.8 +0.6**
comp=Z,68nm,1.6s
DAG Danmarks Havn 61.98 355 *i* P **P** **09 06 56.0 -0.2**
DAG IAmb IAmb 09 06 57.7
comp=Z,42nm,1.0s
MSF Maaselka 62.09 335 P **P** **09 06 57.5 +0.4**
MSF Maaselka 62.09 335 P **P** **09 06 57.5 +0.4**
HRA Herat 62.29 293 **P** **09 06 58.8 -0.4**
HRA IAmb IAmb 09 07 00.9
comp=Z,53nm,0.9s
TRO Tromso 62.47 341 *e*P **P** **09 07 00.3 +0.8**
POO Poona 62.68 271 *i* P **P** **09 06 59.8 -2.0**
BHUJ Bhuj 63.06 278 *i* P **P** **09 07 01.8 -2.4**
POIN Pond Inlet 63.08 13 **P** **09 07 03.8 +0.3**
POIN IAmb IAmb 09 07 04.8
comp=Z,33nm,1.0s
KAD Karad 63.16 270 *i* P **P** **09 07 01.8 -3.2**
SHUK Shuksan-Mt. Ba 63.50 47 P **P** **09 07 08.2 +1.3**
SHUK IAmb IAmb 09 07 20.5
comp=Z,31nm,0.8s
OUL Oulu 63.63 335 P **P** **09 07 07.9 +0.6**
OUL pmax pmax
comp=Z,53nm,0.8s
KULLO Kullorsuaq 63.92 6 *i* P **P** **09 07 09.2 +0.1**
KULLO IAmb IAmb 09 07 10.4
comp=Z,39nm,0.9s
AUNRC North Rockhamp 64.35 173 P **P** **09 07 14.6 +2.2**
DBG Daneborg 64.47 355 *i* P **P** **09 07 13.4 +0.7**
DBG IAmb IAmb 09 07 14.1
comp=Z,26nm,1.0s
LON Longmire 64.56 49 P **P** **09 07 14.7 +0.8**
LON pmax pmax
comp=Z,17nm,0.8s
LON Longmire 64.56 49 P **P** **09 07 14.7 +0.8**
LON IAmb IAmb 09 07 30.1
comp=Z,17nm,0.8s
STEI Steigen 64.63 341 *e*P **P** **09 07 13.9 +0.1**
PALK Pallekele 64.64 257 LR LR 09 36 50.6
comp=Z,2µm,20.2s,baz=49,slow=37
PALK Pallekele 64.64 257 *i* P **P** **09 07 14.2 -0.5**
SNR=8.2
PALK Pallekele 64.64 257 P **P** **09 07 14.3 -0.5**
PALK Pallekele 64.64 257 *i* P **P** **09 07 15.2 +0.5**
PALK Pallekele 64.64 257 **P** **09 07 14.0 -0.8**
PALK IAmb IAmb 09 07 16.0
comp=Z,53nm,1.2s
PALK Pallekele 64.64 257 IAMs_20 IAMs_20 09 36 29.0
comp=Z,2µm,20.0s
PALK Pallekele 64.64 257 P **P** **09 07 15.1 +0.4**
PALK Pallekele 64.64 257 P **P** **09 07 14.9 +0.1**
AS15 Alice Springs 64.86 189 P **P** **09 07 15.8 0.0**
comp=Z,25nm,0.7s
AS17 Alice Springs 64.88 189 P **P** **09 07 16.2 +0.3**
comp=Z,26nm,0.7s
AS01 Alice Springs 64.88 189 P **P** **09 07 15.6 -0.4**
AS31 Alice Springs 64.89 189 P **P** **09 07 16.2 +0.2**
comp=Z,9.4nm,0.8s
AS31 Alice Springs 64.89 189 P **P** **09 07 15.8 -0.3**
ASAR Alice Springs 64.89 189 P **P** **09 07 15.4 -0.6**
comp=Z,19nm,0.9s,baz=360,slow=4.8,SNR=142
ASAR LR LR 09 34 23.2
comp=Z,713nm,21.4s,baz=359,slow=35
ASAR PKPPKP 09 36 06.2
comp=Z,0.9nm,0.9s,baz=170,slow=3.5,SNR=5.3
comp=Z,19nm,0.9s
ASAR Alice Springs 64.89 189 P **P** **09 07 15.2 -0.8**
LOF Lofoten 64.89 341 *e*P **P** **09 07 16.7 +1.2**
AUALC St Philip's Co 64.92 189 P **P** **09 07 15.9 -0.3**
AS09 Alice Springs 64.92 189 P **P** **09 07 16.2 0.0**
comp=Z,40nm,1.0s
MOS Moscow 64.96 323 *e*P **P** **09 07 16.1 -0.1**
MOS *e* 09 09 39.3
MOS *e*PPP PPP 09 11 14.3
MOS *e*S **S** **09 15 57.1 +1.1**
MOS *e* 09 17 06.7
MOS *e*SS **SS** **09 20 13.0 +5.8**
MOS pmax pmax
comp=Z,600nm,1.7s
MOS pmax pmax
comp=Z,295nm,1.7s
MOS MLR MLR
comp=Z,4µm,16.0s
MOS MLR MLR
comp=E,3µm,17.0s
FAUS Fauske 65.03 340 *e*P **P** **09 07 16.6 +0.1**
KOD Kodaikanal 65.11 262 *i* P **P** **09 07 13.9 -4.2**
KOD IAmb IAmb 09 07 18.6
comp=Z,35nm,0.7s
BLKN Baker Lake 65.21 24 **P** **09 07 18.8 +1.1**
BLKN IAmb IAmb 09 07 19.6
comp=Z,45nm,0.8s
EDM Edmonton 65.39 40 P **P** **09 07 19.8 +0.7**
EDM pmax pmax
comp=Z,38nm,1.0s
EDM Edmonton 65.39 40 **P** **09 07 19.8 +0.7**
EDM IAmb IAmb 09 07 32.5
comp=Z,38nm,1.0s
MBWA Marble Bar 65.57 204 P **P** **09 07 20.1 -0.3**
comp=Z,30nm,0.8s
MBWA Marble Bar 65.57 204 P **P** **09 07 20.0 -0.4**
MBWA Marble Bar 65.57 204 P **P** **09 07 20.2 -0.3**
MBWA Marble Bar 65.57 204 **P** **09 07 20.1 -0.3**
MBWA IAmb IAmb 09 07 21.3
comp=Z,35nm,1.1s
MBWA Marble Bar 65.57 204 P **P** **09 07 20.4 0.0**
MBWA S **S** **09 16 00.5 -3.6**
VRH Novokhopyorsk 65.64 317 *e*P **P** **09 07 20.7 0.0**
VRH pmax pmax
comp=Z,186nm,1.0s
OBN Obninsk 65.82 323 LR LR 09 38 51.8
comp=Z,4µm,18.3s,baz=32,slow=38
OBN Obninsk 65.82 323*ce*P **P** **09 07 21.7 0.0**
OBN *e* 09 07 29.5
OBN *e* 09 09 45.0
OBN pmax pmax
comp=Z,116nm,1.0s
OBN MLR MLR
comp=Z,5µm,17.0s
OBN Obninsk 65.82 323 ⇑P **P** **09 07 23.0 +1.3**
OBN Obninsk 65.82 323 P **P** **09 07 22.3 +0.6**
comp=Z,157nm,1.9s
FIA1 FINESS Array S 66.01 332 **P** **09 07 22.7 -0.2**
FINES FINESS Array B 66.01 332 P **P** **09 07 22.7 -0.2**
comp=Z,49nm,0.6s,baz=46,slow=7.9,SNR=72
FINES LR LR 09 38 59.0
comp=Z,7µm,18.9s,baz=40,slow=38
comp=Z,49nm,0.6s
FINES FINESS Array B 66.01 332 P **P** **09 07 23.2 +0.3**
VAGH Vaagaholmen 66.04 341 *e*P **P** **09 07 23.3 +0.3**
RAUS Rausandaksla 66.07 340 *e*P **P** **09 07 23.2 0.0**
F07A Phinny Hill Vi 66.12 49 P **P** **09 07 25.1 +1.2**
MOR8 Moi Rana 66.17 340 *e*P **P** **09 07 22.6 -1.4**
LPSR Galich'ya Gora 66.22 320 *e*P **P** **09 07 24.9 +0.5**
LPSR pmax pmax
comp=Z,214nm,1.0s
KONS Konsvik 66.26 340 *e*P **P** **09 07 25.1 +0.7**
NOUC Port Laguerre 66.30 157 P **P** **09 07 28.0 +2.9**
NEW Newport 66.33 46 LR LR 09 33 25.8
comp=Z,614nm,21.8s,baz=317,slow=33
NEW Newport 66.33 46 P **P** **09 07 27.0 +1.7**
EIDS Eidsvold 66.40 172 P **P** **09 07 28.0 +2.3**
EIDS Eidsvold 66.40 172 P **P** **09 07 26.2 +0.5**
EIDS IAmb IAmb 09 07 38.5
comp=Z,31nm,1.1s
JMIC Jan Mayen 66.52 350 LR LR 09 38 07.4
comp=Z,373nm,19.0s,baz=352,slow=37
ONTNC Ouen Toro 66.54 157 IAMs_20 IAMs_20 09 32 40.5
comp=Z,1µm,20.0s
VORR Voronezh 66.64 319 *e*P **P** **09 07 27.7 +0.6**
VORR pmax pmax
comp=Z,110nm,0.7s
MSVF Nonsavu 66.74 144 LR LR 09 30 51.1
comp=Z,2µm,21.7s,baz=342,slow=31
YBH Yreka Blue Hor 66.84 54 LR LR 09 35 20.0
comp=Z,549nm,19.8s,baz=316,slow=35
VSR Storozhevoye 66.93 318 *e*P **P** **09 07 29.4 +0.4**
VSR pmax pmax
comp=Z,136nm,0.9s
VORD Divnogorie 67.02 318 *e*P **P** **09 07 29.8 +0.3**
VORD pmax pmax
comp=Z,150nm,1.4s
WRKA Warakurna 67.12 195 P **P** **09 07 30.4 0.0**
comp=Z,11nm,1.0s
MAK Makhachkala 67.18 308 *e*P **P** **09 07 28.0 -2.7**
MAK *e*PPP PPP 09 11 35.8
MAK *e*S **S** **09 16 20.6 -2.9**
MAK *e*SS **SS** **09 20 41.8 -0.5**
MAK pmax pmax
comp=Z,225nm,1.4s
MAK MLR MLR
comp=Z,3µm,16.0s
QLP Quilpie 67.21 179 P **P** **09 07 31.4 +0.5**
comp=Z,64nm,1.0s
QLP Quilpie 67.21 179 P **P** **09 07 31.2 +0.3**
VSU Vasula 67.80 329 *e*P **P** **09 07 33.8 -0.5**
VSU pmax pmax
comp=Z,60nm,1.0s
SAATT Saattut 68.01 5 *i* P **P** **09 07 36.2 +0.7**
SAATT IAmb IAmb 09 07 37.2
comp=Z,102nm,0.9s
COCO West Island 68.08 230 P **P** **09 07 39.0 +2.4**
COCO West Island 68.08 230 *i* P **P** **09 07 39.0 +2.4**
NGCH Negor - Chabah 68.16 285 P **P** **09 07 37.9 +0.8**
AFI Afiamalu 68.64 133 LR LR 09 31 10.7
comp=Z,1µm,21.9s,baz=342,slow=30
MSO Missoula 68.92 46 IAMs_20 IAMs_20 09 39 11.4
comp=Z,1µm,21.0s
NCK Nalchik 69.18 310 *e*P **P** **09 07 44.7 +1.4**
NCK pmax pmax
comp=Z,98nm,1.0s
KVAR Kislovodsk Arr 69.42 311 LR LR 09 41 13.4
comp=Z,2µm,19.7s,baz=276,slow=39
KIV Kislovodsk 69.43 311 *i* P **P** **09 07 46.0 +1.1**
SNR=40
KIV Kislovodsk 69.43 311 P **P** **09 07 46.1 +1.2**
KIV Kislovodsk 69.43 311 *e*P **P** **09 07 45.4 +0.6**
KIV *e* 09 10 15.8
KIV *e*S **S** **09 16 52.6 +2.2**
KIV *e*SS **SS** **09 21 21.8 +4.7**
KIV pmax pmax
comp=Z,158nm,3.5s
KIV pmax pmax
comp=Z,346nm,1.0s
KIV Kislovodsk 69.43 311 P **P** **09 07 46.4 +1.6**
KIV Kislovodsk 69.43 311 ⇓P **P** **09 07 46.1 +1.2**
KIV Kislovodsk 69.43 311 P **P** **09 07 45.4 +0.6**
KIV Kislovodsk 69.43 311 P **P** **09 07 46.2 +1.3**
comp=Z,4µmcomp=Z,396nm,1.2s
KBZ Khabaz 69.44 310 P **P** **09 07 45.4 +0.6**
comp=Z,108nm,0.8s,baz=70,slow=4.6,SNR=160
KBZ LR LR 09 41 20.3
comp=Z,3µm,20.0s,baz=35,slow=39
KBZ Khabaz 69.44 310*ce*P **P** **09 07 45.7 +0.9**
KBZ pmax pmax
comp=Z,193nm,0.9s
TBLG Delisi 69.56 308 P **P** **09 07 46.3 +0.6**
SHA1 Shidzhatmaz 69.58 311*ce*P **P** **09 07 46.3 +0.3**
ERBR Yeremizino-Bor 69.59 313 *e*P **P** **09 07 45.8 +0.1**
ERBR *e**PP **pP** **09 07 49.1 -4.2**
ERBR *e*S **S** **09 16 53.5 +1.4**
ERBR pmax pmax
comp=Z,245nm,0.9s
ERBR MLR MLR
comp=Z,4µm,16.0s
ILULI Ilulissat 69.62 5 *i* P **P** **09 07 45.7 +0.2**
ILULI IAmb IAmb 09 07 47.1
comp=Z,30nm,0.8s
FFC Flin Flon 69.63 34 *i* P **P** **09 07 47.6 +1.8**
NEUR Neytrino 69.84 310*ce*P **P** **09 07 48.4 +0.9**
NEUR pmax pmax
comp=Z,75nm,1.8s
MNK Minsk 70.05 326 *i* P **P** **09 07 48.7 +0.4**
MNK *i* 09 08 10.3
MNK *i* 09 10 24.0
MNK *i* PPP PPP 09 12 06.3
MNK *i* S **S** **09 16 59.9 +2.8**
MNK *i* PS PnS 09 17 47.0 +22
MNK pmax pmax
comp=N,22nm,0.8s
MNK pmax pmax
comp=Z,57nm,0.8s
MNK pmax pmax
comp=E,61nm,0.8s
MNK MLR MLR
comp=N,3µm,17.0s
MNK MLR MLR
comp=Z,7µm,18.0s
MNK MLR MLR
comp=E,4µm,17.0s
MNK Minsk 70.05 326 *i* P **P** **09 07 48.8 +0.4**
comp=E,61nm,0.8s
MNK *i* P **P** **09 07 48.8 +0.4**
comp=N,22nm,0.8s
MNK *i* P **P** **09 07 48.8 +0.4**
comp=Z,57nm,0.8s,baz=47
MNK *i* PcP **PcP** **09 08 10.3 -0.1**
MNK *i* PP **PP** **09 10 24.0 +1.1**
MNK *i* PPP PPP 09 12 06.3
MNK *i* S **S** **09 16 59.9 +2.8**
MNK *i* PS 09 17 47.1
MNK *i* SS SS 09 21 43.1 +17
MNK *i* SSS SSS 09 25 48.3
MNK *i* LQ LQ 09 33 42.0
MNK *i* LR LR 09 38 10.6
MNK *i* LRM MLR 09 41 37.8
comp=N,3µm,17.3s
MNK *i* LRM MLR 09 41 43.1
comp=Z,7µm,17.6s
MNK *i* LRM MLR 09 41 47.5
comp=E,4µm,17.2s
TRLG Trialeti 70.06 308 P **P** **09 07 49.6 +0.7**
LABN Labinsk 70.12 312 *e*P **P** **09 07 50.2 +1.2**
LABN *e**PP **pP** **09 07 52.5 -4.1**
LABN *e*S **S** **09 17 01.7 +3.3**
LABN pmax pmax
comp=Z,200nm,0.9s
AULRC Lightning Ridg 70.18 176 P **P** **09 07 50.5 +1.2**
JASK Jask - Hormozg 70.23 287 P **P** **09 07 50.8 +0.8**

SNR=15
EGMT Eagleton 70.39 43 IAMs_20 IAMs_20 09 44 12.2
comp=Z,1µm,19.0s
CMB Columbia Colle 70.45 56 IAMs_20 IAMs_20 09 31 34.6
comp=Z,1µm,22.0s
GNI Garni 70.52 306 LR LR 09 41 59.5
comp=Z,2µm,19.5s,baz=54,slow=39
GNI Garni 70.52 306 P **P** **09 07 52.6 +0.8**
GNI Garni 70.52 306 P **P** **09 07 52.6 +0.8**
GNI Garni 70.52 306 *ce*P **P** **09 07 52.9 +1.2**
GNI pmax pmax
comp=Z,161nm,1.5s
HMDM Hanimaadhoo 70.56 262 P **P** **09 07 52.7 +0.6**
SNR=7.1
HMDM Hanimaadhoo 70.56 262 P **P** **09 07 52.4 +0.3**
MCMT McKenzie Canyo 70.76 47 P **P** **09 07 54.3 +1.0**
GUZR Guzeripl' 70.86 312 *e*P **P** **09 07 53.9 +0.3**
GUZR pmax pmax
comp=Z,90nm,1.0s
MOL Molde 70.86 340 *e*P **P** **09 07 54.0 +0.8**
DOMB Dombas 70.90 339 *e*P **P** **09 07 54.0 +0.5**
BOZ Bozeman (W) 70.94 46 IAMs_20 IAMs_20 09 40 45.0
comp=Z,1µm,22.0s
RPOR Krasnaya Polya 70.96 312 *ce*P **P** **09 07 55.6 +1.4**
NB201 NORSAR Array S 71.08 338 P **P** **09 07 54.8 +0.2**
HFS Hagfors 71.09 336 P **P** **09 07 54.4 -0.2**
comp=Z,22nm,0.7s,baz=68,slow=9.8,SNR=14
HFS LR LR 09 42 59.6
comp=Z,3µm,18.1s,baz=30,slow=39
comp=Z,22nm,0.7s
NB2 NORSAR Subarra 71.11 338 P **P** **09 07 54.7 -0.1**
comp=Z,72nm,1.1s,baz=37,slow=6.2
NB2 NORSAR Subarra 71.11 338 P **P** **09 07 54.0 -0.8**
NOA NORSAR Array B 71.11 338 P **P** **09 07 54.5 -0.3**
comp=Z,20nm,0.8s,baz=37,slow=6.1,SNR=57
comp=Z,20nm,0.8s
GOYR Goytkh 71.12 312 *de*P **P** **09 07 55.7 +0.6**
GOYR pmax pmax
comp=Z,97nm,0.8s
VSLR Vesyoloye 71.25 312 *ce*P **P** **09 07 57.0 +1.1**
VSLR pmax pmax
comp=Z,154nm,1.0s
WSAR Wadi Sarin 71.25 285 P **P** **09 07 56.9 +0.7**
SNR=5.2
NC602 NORSAR Array S 71.26 337 *e*P **P** **09 07 55.0 -0.6**
NORES NORESS Array B 71.26 337 P **P** **09 07 56.5 +0.9**
BANOM Banah 71.33 288 *i* P **P** **09 07 56.7 0.0**
SNR=8.0
BANOM Banah 71.33 288 P **P** **09 07 57.3 +0.6**
SNR=9.7
JLN Jalan Bani Buh 71.33 283 P **P** **09 07 57.0 +0.3**
SNR=20
SOC Sochi 71.35 312 *e*P **P** **09 07 56.2 -0.3**
SOC *e* 09 10 30.1
SOC *e*PPP PPP 09 12 22.2
SOC *e*S **S** **09 17 12.9 +0.3**
SOC *e*SS **SS** **09 21 48.3 +1.9**
SOC pmax pmax
comp=Z,71nm,0.9s
SOC MLR MLR
comp=Z,2µm,16.0s
SHME Shamm 71.37 289 *i* P **P** **09 07 56.7 -0.2**
SNR=20
SHME Shamm 71.37 289 P **P** **09 07 56.4 -0.5**
SNR=29
WBK Wadi Bani Khal 71.38 284 P **P** **09 07 57.7 +0.7**
SNR=17
BATM Batumi 71.45 309 P **P** **09 07 57.8 +0.7**
BIDO Bidbid 71.45 285 P **P** **09 07 58.4 +1.0**
SNR=8.7
NVAR Mina Array Bea 71.52 55 P **P** **09 07 59.1 +1.2**
comp=Z,21nm,1.2s,baz=292,slow=5.8,SNR=25
NVAR LR LR 09 38 25.0
comp=Z,507nm,19.6s,baz=298,slow=35
comp=Z,21nm,1.2s
MDH Madha 71.70 288 *i* P **P** **09 07 58.1 -0.8**
SNR=16
MDH Madha 71.70 288 P **P** **09 07 58.2 -0.8**
SNR=16
MASF Masafi 71.76 288 P **P** **09 07 59.4 +0.1**
SNR=29
MSFE Esma-Masafi 71.77 288 *i* P **P** **09 07 59.4 0.0**
SNR=32
SMDO Samad 71.78 285 P **P** **09 08 00.0 +0.5**
SNR=17
SFJD Kangerlussuaq 71.84 6 LR LR 09 43 15.8
comp=Z,2µm,18.6s,baz=346,slow=39
SFJD Kangerlussuaq 71.84 6 *i* P **P** **09 08 00.3 +1.3**
SFJD Kangerlussuaq 71.84 6 *i* P **P** **09 07 59.5 +0.5**
SFJD IAmb IAmb 09 08 00.6
comp=Z,39nm,0.9s
ANN Anapa 71.84 314 *e*P **P** **09 07 59.8 +0.4**
ANN *e**PP **pP** **09 08 03.2 -3.8**
ANN *e*S **S** **09 17 20.6 +2.3**
ANN pmax pmax
comp=Z,61nm,0.9s
ANN MLR MLR
comp=Z,3µm,15.0s
OZAP Van, Ozalp-Mer 71.89 306 ⇑P **P** **09 08 01.5 +1.4**
UOSS Minazif 71.99 288 *i* P **P** **09 08 00.0 -0.6**
SNR=17
UOSS Minazif 71.99 288 P **P** **09 08 00.5 -0.2**
UOSS Minazif 71.99 288 P **P** **09 08 00.5 -0.2**
UOSS Minazif 71.99 288 P **P** **09 07 59.5 -1.2**
HOQ Hoqain 72.01 286 P **P** **09 08 00.8 0.0**
SNR=19
UMQ Umm Al-Quwin 72.03 288 *i* P **P** **09 08 01.7 +0.9**
SNR=5.8
UMQ Umm Al-Quwin 72.03 288 P **P** **09 08 01.7 +0.9**
SNR=5.2
AK03 Malin Array Si 72.05 322 P **P** **09 08 00.1 -0.5**
AKASG Malin Array Be 72.06 322 P **P** **09 08 00.4 -0.2**
comp=Z,29nm,0.6s,baz=46,slow=5.9,SNR=136
comp=Z,29nm,0.6s
AKBB Malin Array Si 72.06 322 *ce*P **P** **09 08 01.0 +0.3**
AKBB pmax pmax
comp=Z,157nm,1.6s
AKBB Malin Array Si 72.06 322 P **P** **09 08 00.3 -0.3**
AK01 Malin Array Si 72.08 322 P **P** **09 08 00.3 -0.4**
KIEV Kiev 72.08 322 *i* P **P** **09 08 00.9 +0.2**
SNR=5.0
KIEV Kiev 72.08 322 P **P** **09 08 01.0 +0.2**
KIEV Kiev 72.08 322 ⇑P **P** **09 08 01.1 +0.4**
KIEV Kiev 72.08 322 P **P** **09 08 00.4 -0.3**
comp=Z,443nm,1.4s
HATD Hatta, Dubai 72.11 288 *i* P **P** **09 08 01.4 0.0**
SNR=70
HATD Hatta, Dubai 72.11 288 P **P** **09 08 01.5 +0.2**
SNR=50
OSL Oslo 72.15 337 *e*P **P** **09 08 01.9 +1.0**
JMDO Jabal Madar 72.16 284 P **P** **09 08 02.0 +0.3**
SNR=19
CMSA Cobar Meteorol 72.18 178 P **P** **09 08 03.4 +2.0**
comp=Z,25nm,2.3s
CMSA Cobar Meteorol 72.18 178 P **P** **09 08 03.3 +2.0**
SKAR Skarslia 72.23 339 *e*P **P** **09 08 02.5 +0.9**
SOHO SOHO 72.24 287 *i* P **P** **09 08 01.6 -0.5**
SNR=40
SOHO SOHO 72.24 287 P **P** **09 08 02.1 -0.1**
SNR=26
ASHO Ashiyiah 72.25 287 *i* P **P** **09 08 02.2 -0.1**
SNR=23
ASHO Ashiyiah 72.25 287 P **P** **09 08 02.4 +0.1**
SNR=54
SUW Suwalki 72.35 328 *e*P **P** **09 08 02.1 -0.2**
SUW *e*L L 09 42 30.0
comp=Z,3µm,18.4s
NAZ Nazwa, Dubai 72.35 288 *i* P **P** **09 08 02.6 -0.3**
SNR=22
NAZ Nazwa, Dubai 72.35 288 P **P** **09 08 02.8 0.0**
SNR=18
HYA Hoyanger 72.39 340 *e*P **P** **09 08 02.5 +0.1**
STKA Stephens Creek 72.50 181 P **P** **09 08 04.0 +0.6**
STKA Stephens Creek 72.50 181 P **P** **09 08 03.3 0.0**
comp=Z,3.5nm,0.8s,baz=348,slow=8.5,SNR=8.4
STKA LR LR 09 43 43.0
comp=Z,628nm,19.5s,baz=19,slow=39
comp=Z,3.5nm,0.8s
STKA Stephens Creek 72.50 181 P **P** **09 08 03.9 +0.6**
FAQ Al Faqa, Dubai 72.55 288 *i* P **P** **09 08 03.6 -0.4**
SNR=22
FAQ Al Faqa, Dubai 72.55 288 P **P** **09 08 04.0 +0.1**
SNR=15
BSY Bisya 72.60 285 P **P** **09 08 04.7 +0.4**
SNR=24
FRB Frobisher Bay 72.61 14 LR LR 09 44 09.1
comp=Z,2µm,19.1s,baz=344,slow=39
KONO Kongsberg 72.71 337 *e*P **P** **09 08 05.0 +0.6**
KONO pmax pmax
comp=Z,16nm,1.0s
KONO Kongsberg 72.71 337 *e*P **P** **09 08 04.3 -0.1**
ARQ Araqi 72.73 286 P **P** **09 08 05.6 +0.4**
SNR=28
STRU Stroemstad 72.74 336 *i* P **P** **09 08 04.9 +0.4**
FORT Forrest 72.76 194 P **P** **09 08 05.5 +0.7**
comp=Z,20nm,1.0s
ASUD Al Ashush, Dub 72.81 288 *i* P **P** **09 08 05.3 -0.2**
SNR=23
ASUD Al Ashush, Dub 72.81 288 P **P** **09 08 05.8 +0.3**
SNR=11
ALNE Al Ain 72.85 287 *i* P **P** **09 08 05.5 -0.3**
SNR=39
ALNE Al Ain 72.85 287 P **P** **09 08 05.9 +0.1**
SNR=38
SUE Sulen 72.86 340 *e*P **P** **09 08 05.4 +0.3**
AUDCS Dubbo College 73.00 175 P **P** **09 08 09.0 +2.7**
RNPP9 Sopachiv 73.07 324 P **P** **09 08 07.0 +0.4**
AJN Ajban 73.10 288 *i* P **P** **09 08 06.4 -0.8**
SNR=7.5
AJN Ajban 73.10 288 P **P** **09 08 06.9 -0.3**
SNR=9.3
MHTO MHTO 73.10 283 P **P** **09 08 07.6 +0.3**
SNR=50
RNPP8 Varash 73.14 324 P **P** **09 08 07.2 +0.2**
RNPP5 Staryi Chortor 73.20 324 P **P** **09 08 07.9 +0.5**
ASK Askoy 73.23 340 *e*P **P** **09 08 07.8 +0.4**
LUBAR Lubar, Ukraine 73.28 322 P **P** **09 08 06.8 -1.1**
ODD1 Odda 73.33 339 *e*P **P** **09 08 08.8 +0.7**
BLEU Blekinge 73.40 332 *i* P **P** **09 08 07.9 -0.6**
TJOU Tjoern 73.42 335 *i* P **P** **09 08 08.8 +0.3**
SIM Simferopol' 73.53 316 *e*P **P** **09 08 10.2 +0.7**
SIM S **S** **09 17 34.1 -3.5**
SIM pmax pmax
comp=Z,71nm,0.8s
SIM MLR MLR
comp=Z,2µm,18.0s
BBOO Buckleboo 73.72 186 P **P** **09 08 11.2 +0.7**
comp=Z,38nm,1.4s
BBOO Buckleboo 73.72 186 P **P** **09 08 10.7 +0.3**
BBOO Buckleboo 73.72 186 P **P** **09 08 10.8 +0.3**
BBOO IAmb IAmb 09 08 23.0
comp=Z,29nm,1.0s
ONAU Onsala 73.84 335 *i* P **P** **09 08 11.0 0.0**
FABU Falkenberg 73.90 334 *i* P **P** **09 08 11.6 +0.2**
PDAR Pinedale Array 73.91 47 P **P** **09 08 12.5 +0.4**
comp=Z,6.8nm,0.6s,baz=264,slow=2.2,SNR=83
PDAR LR LR 09 37 20.7
comp=Z,621nm,21.8s,baz=321,slow=33
comp=Z,6.8nm,0.6s
DEL Delary 73.94 333 *i* P **P** **09 08 11.6 0.0**
DQM DQM 74.07 283 P **P** **09 08 13.6 +0.6**
UMZA Um Al Zommool 74.10 286 P **P** **09 08 12.7 -0.5**
MORW Morawa 74.11 205 P **P** **09 08 13.3 +0.4**
comp=Z,26nm,1.5s
HTT Hallett 74.14 184 P **P** **09 08 14.8 +1.8**
comp=Z,111nm,1.6s
HTT Hallett 74.14 184 P **P** **09 08 14.3 +1.3**
PSUT Pine Spring 74.17 53 P **P** **09 08 15.2 +1.6**
PSUT IAmb IAmb 09 08 27.6
comp=Z,31nm,1.1s
HOMB Homborsund 74.17 337 *i* P **P** **09 08 14.2 +1.2**
PASC Pasadena Art C 74.23 58 IAMs_20 IAMs_20 09 37 05.8
comp=Z,2µm,20.0s
SORM Soroca 74.26 321 P **P** **09 08 13.9 +0.3**
SORM Soroca 74.26 321 ⇑P **P** **09 08 14.0 +0.3**
SORM Soroca 74.26 321 P **P** **09 08 13.3 -0.3**
comp=Z,98nm,1.1s
MZWR Madinat Zayed 74.38 288 P **P** **09 08 14.2 -0.6**
SNART Snartemo 74.49 338 *i* P **P** **09 08 15.5 +0.7**
NUUK Nuuk 74.52 7 *i* P **P** **09 08 16.2 +1.4**
NUUK IAmb IAmb 09 08 17.4
comp=Z,46nm,0.7s
BFSC Mount Baldy Ra 74.53 58 IAMs_20 IAMs_20 09 34 48.6
comp=Z,1µm,20.0s
BSD Bornholm Skovb 74.65 332 *i* P **P** **09 08 15.1 -0.7**
BSD IAmb IAmb 09 08 17.5
comp=Z,52nm,1.0s
LUNU Lund 74.75 333 *i* P **P** **09 08 17.1 +0.7**
KMPD K-Podol'skiy 74.85 322 P **P** **09 08 17.1 0.0**
KAAM Kaadhehdhoo 74.86 257 P **P** **09 08 18.5 +0.9**
comp=Z,141nm,1.1s
BEL Belsk 74.93 327 *e*P **P** **09 08 18.9 +1.4**
BEL *e*L L 09 44 12.0
comp=Z,6µm,19.4s
GHWR Ruwais 74.98 289 P **P** **09 08 17.9 -0.3**
CCUT Cedar City 75.10 53 P **P** **09 08 20.1 +1.1**
MZR Muzera 75.14 288 *i* P **P** **09 08 18.5 -0.7**
SNR=22
MZR Muzera 75.14 288 P **P** **09 08 18.9 -0.3**
SNR=18
AUCAS Cummins Area S 75.18 186 P **P** **09 08 21.2 +2.3**
SZCU Shurtz Canyon 75.24 53 P **P** **09 08 20.0 +0.1**
SZCU IAmb IAmb 09 11 01.5
comp=Z,20nm,0.6s
BLDU Ballidu 75.34 203 P **P** **09 08 20.0 0.0**
KBD Kabd 75.37 296 P **P** **09 08 20.1 -0.4**
SAKB Bahrain 75.39 292 P **P** **09 08 19.9 -0.7**
ULM Lac du Bonnet 75.44 35 P **P** **09 08 19.9 -0.6**
comp=Z,13nm,0.7s,baz=314,slow=6.1,SNR=19
comp=Z,13nm,0.7s
MDND Maddock 75.52 38 IAMs_20 IAMs_20 09 41 01.5
comp=Z,1µm,22.0s
MNTR Muntenesti 75.62 320 ⇑P **P** **09 08 22.6 +1.0**
K22A Casper 75.65 46 P **P** **09 08 22.8 +0.8**
K22A IAmb IAmb 09 08 35.5
comp=Z,34nm,1.1s
PFO Pinyon Flats O 75.69 58 LR LR 09 35 06.2
comp=Z,1µm,21.5s,baz=306,slow=30
PFO Pinyon Flats O 75.69 58 *i* P **P** **09 08 24.9 +2.5**
PFO Pinyon Flats O 75.69 58 IAMs_20 IAMs_20 09 34 33.6
comp=Z,2µm,21.0s
DMBR Dumbraveni 75.71 320 ⇓P **P** **09 08 22.5 +0.4**
SLWR Sila 75.76 289 P **P** **09 08 22.5 -0.2**
KWP Kalwaria Pacla 75.76 325 *e*P **P** **09 08 23.4 +1.0**
KWP *e*L L 09 45 19.3
comp=Z,6µm,17.0s
KWP Kalwaria Pacla 75.76 325 P **P** **09 08 23.7 +1.3**
KWP Kalwaria Pacla 75.76 325 P **P** **09 08 23.2 +0.8**
comp=Z,194nm,1.5s
PRAR RASCA 75.82 321 ⇑P **P** **09 08 23.5 +0.8**
KLBR Kellerberrin 75.95 202 P **P** **09 08 23.9 +0.5**
comp=Z,42nm,0.8s
RSSD Black Hills 75.96 43 IAMs_20 IAMs_20 09 42 40.5
comp=Z,1µm,20.0s
GIRR Girov 75.98 321 ⇑P **P** **09 08 24.1 +0.5**
VLDR Vladesti 76.00 319 ⇑P **P** **09 08 25.0 +1.2**
TLCR 76.10 318 P **P** **09 08 24.0 -0.3**
TLCR 76.10 318 ⇑P **P** **09 08 24.1 -0.3**
BURAR Bucovina Array 76.11 322 P **P** **09 08 24.9 +0.4**
BURAR Bucovina Array 76.11 322 ⇑P **P** **09 08 24.9 +0.4**
SCTR Scanteiesti 76.17 319 ⇑P **P** **09 08 26.1 +1.4**
BIZ Bicaz 76.18 321 ⇑P **P** **09 08 24.8 0.0**
IRM Iron Mountain 76.18 57 P **P** **09 08 25.7 +0.7**
TESR Tescani 76.22 321 ⇑P **P** **09 08 25.4 +0.3**
TESR Tescani 76.22 321 P **P** **09 08 25.1 +0.1**
BC3 Big Chuckawall 76.31 57 IAMs_20 IAMs_20 09 37 37.8
comp=Z,1µm,19.0s
JURR Jurilovca 76.37 318 ⇑P **P** **09 08 26.0 +0.2**
HMU Henry Mountain 76.42 51 P **P** **09 08 27.5 +0.9**
HMU IAmb IAmb 09 08 40.4
comp=Z,46nm,0.8s
CFR Carcaliu 76.45 319 P **P** **09 08 26.0 -0.2**
CFR Carcaliu 76.45 319 ⇑P **P** **09 08 26.1 -0.2**
KOLS Kolonicke sedl 76.47 324 *e*P **P** **09 08 27.6 +1.2**
KOLS pmax pmax
comp=Z,39nm,0.8s
KOLS Kolonicke sedl 76.47 324 *e*P **P** **09 08 27.6 +1.2**
ONER Baraj Valea Uz 76.47 321 ⇑P **P** **09 08 26.7 +0.3**
TPGR Topolog 76.53 318 ⇑P **P** **09 08 27.4 +0.5**
OJC Ojcow 76.56 327 *e*P **P** **09 08 27.3 +0.4**
OJC *e*L L 09 45 25.3
comp=Z,6µm,19.3s
OJC Ojcow 76.56 327 P **P** **09 08 28.0 +1.1**
BNN Bunyan 76.64 310 P **P** **09 08 27.8 +0.1**
VRI Vrincioaia 76.65 320 P **P** **09 08 28.7 +1.2**
VRI Vrincioaia 76.65 320 ⇑P **P** **09 08 28.7 +1.2**
SHAO Shalim 76.67 282 *i* P **P** **09 08 27.7 -0.3**
SNR=6.6
SHAO Shalim 76.67 282 P **P** **09 08 28.0 0.0**
UZHM Uzhgorod 76.69 324 P **P** **09 08 28.8 +1.2**

PLOR Plostina 76.70 320 P **P** **09 08 28.9 +1.1**
PLOR Plostina 76.70 320 ⇑P **P** **09 08 29.0 +1.1**
SAHR Sahastru 76.77 320 ⇑P **P** **09 08 28.4 +0.1**
TIRR Tirgusor 76.82 318 P **P** **09 08 29.2 +0.8**
TIRR Tirgusor 76.82 318 ⇑P **P** **09 08 29.2 +0.8**
BMR Baia Mare 76.86 323 P **P** **09 08 29.5 +1.0**
BMR Baia Mare 76.86 323 ⇑P **P** **09 08 29.6 +1.0**
TURR Turia 76.86 321 ⇓P **P** **09 08 29.6 +0.9**
BISRR Bisoca 76.89 320 ⇑P **P** **09 08 29.0 +0.1**
ARCR ARCALIA 76.90 322 ⇑P **P** **09 08 30.1 +1.3**
COVR Voineasa-Covas 76.92 320 ⇑P **P** **09 08 30.3 +1.3**
OZUR 76.94 321 ⇑P **P** **09 08 30.6 +1.5**
NIE Niedzica 76.96 326 *e*P **P** **09 08 30.1 +0.9**
NIE *e*L L 09 45 57.9
comp=Z,4µm,18.2s
BOSR Bodos 77.02 321 ⇑P **P** **09 08 30.9 +1.3**
NEHR Nehoiu 77.18 320 ⇑P **P** **09 08 32.1 +1.6**
BSEG Bad Segeberg 77.19 334 *e*P **P** **09 08 31.5 +1.2**
comp=Z,66nm,0.9s,baz=34,slow=5.4
DOPR Dopca 77.22 321 ⇑P **P** **09 08 31.9 +1.2**
ISR Istrita 77.28 320 P **P** **09 08 32.7 +1.6**
ISR Istrita 77.28 320 ⇓P **P** **09 08 32.7 +1.6**
MLR Muntele Rosu 77.30 320 LR LR 09 46 57.4
comp=Z,3µm,18.8s,baz=2.0,slow=39
MLR Muntele Rosu 77.30 320 P **P** **09 08 31.7 +0.4**
MLR pmax pmax
comp=Z,56nm,1.3s
MLR MLR MLR
comp=Z,4µm,19.0s
MLR Muntele Rosu 77.30 320 P **P** **09 08 31.7 +0.4**
MLR IAmb IAmb 09 08 35.2
comp=Z,56nm,1.3s
MLR Muntele Rosu 77.30 320 ⇑P **P** **09 08 32.3 +1.0**
BR131 Keskin Array S 77.31 312 P **P** **09 08 32.0 +0.5**
SNR=8.3
BR131 Keskin Array S 77.31 312 P **P** **09 08 31.8 +0.3**
BR131 pmax pmax
comp=Z,197nm,2.0s
BR131 Keskin Array S 77.31 312 P **P** **09 08 31.8 +0.3**
BRTR Keskin Array B 77.31 312 P **P** **09 08 31.1 -0.4**
comp=Z,8.4nm,0.9s,baz=68,slow=2.7,SNR=22
BRTR PP **PP** **09 11 32.8 +7.6**
comp=Z,9.9nm,1.1s,baz=64,slow=5.6,SNR=4.8
BRTR LR LR 09 46 34.2
comp=Z,886nm,18.8s,baz=41,slow=39
comp=Z,8.4nm,0.9s
BRTR Keskin Array B 77.31 312 *i* P **P** **09 08 32.2 +0.7**
BRTR pmax pmax
comp=Z,8.0nm,0.9s
BRTR Keskin Array B 77.31 312 P **P** **09 08 31.9 +0.4**
NWAO Narrogin (SRO) 77.35 202 LR LR 09 42 24.6
comp=Z,235nm,21.1s,baz=34,slow=36
DMTO DMTO 77.36 282 P **P** **09 08 31.2 -0.7**
SNR=5.6
ICOR Ion Corvin 77.37 318 ⇑P **P** **09 08 32.7 +1.2**
DOK Doka 77.40 284 P **P** **09 08 31.4 -0.7**
SNR=18
MESR Meseseni 77.50 323 ⇑P **P** **09 08 33.5 +1.3**
KSP Ksiaz 77.50 329 *e*P **P** **09 08 32.9 +0.8**
KSP *e*L L 09 46 25.9
comp=Z,5µm,17.5s
CJR Cluj-Napoca 77.52 322 P **P** **09 08 33.4 +1.0**
CJR Cluj-Napoca 77.52 322 ⇑P **P** **09 08 33.5 +1.0**
KECS Kecovo 77.59 325 *e*P **P** **09 08 35.7 +3.0**
KECS pmax pmax
comp=Z,25nm,1.0s
KECS Kecovo 77.59 325 *e*P **P** **09 08 35.7 +3.0**
STEB Steborice 77.62 327 *e*P **P** **09 08 34.1 +1.3**
GORT1 Trebel 77.63 333 *e*P **P** **09 08 34.2 +1.5**
comp=Z,86nm,1.3s,baz=34,slow=5.4
WUAZ Wupatki 77.64 54 IAMs_20 IAMs_20 09 37 18.8
comp=Z,965nm,20.0s
IVI Ivigtut 77.75 6 *i* P **P** **09 08 34.0 +0.7**
IVI IAmb IAmb 09 08 34.9
comp=Z,31nm,0.7s
MARR Marisel-Cluj 77.77 322 ⇑P **P** **09 08 34.5 +0.6**
VOIR 77.77 321 P **P** **09 08 35.4 +1.5**
VOIR 77.77 321 ⇑P **P** **09 08 35.4 +1.5**
CHVC Chvalec 77.80 329 *e*P **P** **09 08 34.4 +0.6**
CHVC Chvalec 77.80 329 *e*P **P** **09 08 34.4 +0.6**
MORC Moravsky Berou 77.84 327 P **P** **09 08 34.9 +0.8**
MORC pmax pmax
comp=Z,44nm,0.8s
MORC Moravsky Berou 77.84 327 P **P** **09 08 34.9 +0.8**
MORC IAmb IAmb 09 08 36.5
comp=Z,44nm,0.8s
MORC Moravsky Berou 77.84 327 *e*P **P** **09 08 34.8 +0.7**
MORC Moravsky Berou 77.84 327 ⇑P **P** **09 08 34.4 +0.4**
DRGR 77.87 323 P **P** **09 08 34.4 0.0**
DRGR 77.87 323 ⇑P **P** **09 08 34.4 0.0**
UPC Upice 77.88 329 AMS AMS 09 46 20.0
comp=Z,5µm,16.7s
DPC Dobruska-Polom 77.88 328 *e*P **P** **09 08 35.5 +1.2**
DPC MLR MLR
comp=Z,4µm,15.7s
DPC Dobruska-Polom 77.88 328 *e*P **P** **09 08 35.5 +1.2**
DPC AMS AMS 09 46 10.0
comp=Z,4µm,15.7s
KRLC Kraliky 77.91 328 *e*P **P** **09 08 35.6 +1.1**
KRLC Kraliky 77.91 328 *e*P **P** **09 08 35.6 +1.1**
MTUR Matau 77.92 320 P **P** **09 08 36.0 +1.3**
MTUR Matau 77.92 320 ⇑P **P** **09 08 36.1 +1.3**
113A Mohawk Valley, 77.96 57 P **P** **09 08 35.9 +0.8**
NRS Narsarsuaq 77.98 4 *i* P **P** **09 08 34.8 +0.2**
NRS IAmb IAmb 09 08 35.8
comp=Z,37nm,0.9s
ARR Arges 78.02 321 ⇑P **P** **09 08 36.7 +1.4**
RBK Rabkut 78.04 283 P **P** **09 08 34.7 -1.0**
WHFO Wadi Hawf 78.10 283 P **P** **09 08 35.0 -1.1**
SNR=16
ISCO Idaho Springs 78.10 47 P **P** **09 08 36.6 +0.5**
ISCO pmax pmax
comp=Z,86nm,2.0s
ISCO MLR MLR
comp=Z,1µm,20.0s
ISCO Idaho Springs 78.10 47 P **P** **09 08 36.6 +0.5**
ISCO IAmb IAmb 09 08 54.4
comp=Z,86nm,2.0s
ISCO IAMs_20 IAMs_20 09 45 17.6
comp=Z,1µm,20.0s
FLTG Flechtingen 78.19 332 *e*P **P** **09 08 36.4 +0.5**
comp=Z,64nm,0.9s,baz=34,slow=5.4
MVCO Mesa Verde 78.22 51 P **P** **09 08 37.9 +1.1**
MVCO IAmb IAmb 09 08 50.6
comp=Z,118nm,1.9s
PSZ Piszkesteto 78.28 325 P **P** **09 08 38.1 +1.5**
PSZ pmax pmax
comp=Z,57nm,1.1s
PSZ MLR MLR
comp=Z,9µm,18.0s
PSZ Piszkesteto 78.28 325 P **P** **09 08 38.0 +1.5**
PSZ IAmb IAmb 09 08 40.3
comp=Z,57nm,1.1s
PSZ Piszkesteto 78.28 325 ⇑P **P** **09 08 38.2 +1.6**
VYHS Vyhne 78.29 326 *e*P **P** **09 08 38.0 +1.4**
VYHS pmax pmax
comp=Z,291nm,2.4s
VYHS Vyhne 78.29 326 *e*P **P** **09 08 38.0 +1.4**
SUSD Miller 78.29 40 P **P** **09 08 37.3 +0.6**
DRUM Mains of Drumt 78.30 342 *e*P **P** **09 08 37.0 +0.5**
DRUM IAmb IAmb 09 08 39.3
comp=Z,20nm,0.9s
X16A Lo Mia Camp, P 78.33 55 P **P** **09 08 38.1 +0.8**
LOT Lotru 78.38 321 ⇑P **P** **09 08 38.2 +0.9**
CLL Collm 78.39 331 *i* P **P** **09 08 37.9 +0.9**
CLL *e*S **S** **09 18 26.0 -4.8**
CLL pmax pmax
comp=Z,64nm,0.9s
CLL MLR MLR
comp=Z,4µm,19.8s
CLL Collm 78.39 331 P **P** **09 08 37.3 +0.2**
CLL IAmb IAmb 09 08 38.7
comp=Z,56nm,0.8s
CLL Collm 78.39 331 *e*P **P** **09 08 37.7 +0.6**
comp=Z,56nm,0.8s,baz=34,slow=5.4
CLL Collm 78.39 331 *i* P **P** **09 08 37.9 +0.9**
comp=Z,64nm,0.9s
CLL *i* PcP **pwP** **09 08 47.7 +0.4**
comp=Z,40nm,1.1s
CLL *e*PP **PP** **09 11 33.0 -0.6**
CLL *e*PPlp 09 11 38.0
CLL *ex* x 09 18 15.0
CLL *e*S **S** **09 18 26.0 -4.8**
CLL *ex* x 09 24 36.0

CLL AMS AMS 09 41 00.0
comp=N,2µm,15.4s

CLL AMS AMS 09 41 00.0
comp=E,4µm,20.2s

CLL AMS AMS 09 46 00.0
comp=Z,4µm,19.8s

RAZG Razgrad 78.42 319 ⇑P **P 09 08 38.5 +1.1**
PVCC Panska Ves 78.42 329 AMS AMS 09 46 40.0
comp=Z,3µm,17.6s

JAVC Velka Javorina 78.50 327 *e*P **P 09 08 39.4 +1.6**
RETH Rethem/Aller, 78.50 333 *e*P **P 09 08 38.7 +1.1**
comp=Z,41nm,1.0s,baz=34,slow=5.4

F33A 5 Mile Ranch, 78.53 38 P **P 09 08 38.7 +0.7**
F33A IAmb IAmb 09 08 39.7
comp=Z,31nm,0.9s

F33A IAMs_20 IAMs_20 09 44 01.3
comp=Z,1µm,22.0s

ASSE Asse, Remlinge 78.56 332 *e*P **P 09 08 38.9 +1.0**
comp=Z,31nm,1.1s,baz=34,slow=5.4

RAO Raoul Island 78.58 146 LR LR 09 39 05.9
comp=Z,1µm,20.0s,baz=343,slow=32

VRAC Vranov 78.59 328 LR LR 09 46 48.5
comp=Z,3µm,18.6s,baz=30,slow=38

VRAC Vranov 78.59 328 P **P 09 08 38.6 +0.4**
VRAC Vranov 78.59 328 *e*P **P 09 08 39.0 +0.8**
VRAC Vranov 78.59 328 ⇑P **P 09 08 38.7 +0.4**
KPL Plockton 78.63 343 *e*P **P 09 08 38.8 +0.6**
KPL IAmb IAmb 09 08 40.3
comp=Z,28nm,0.7s

SIRR Siria 78.75 323 ⇑P **P 09 08 40.3 +1.1**
HSKC Hora Svate Kat 78.79 330 *e*P **P 09 08 39.4 +0.1**
HSKC AMS AMS 09 45 00.0
comp=Z,3µm,18.3s

ABTO Aybut 78.81 283 P **P 09 08 39.1 -0.8**
SNR=26

KRUC Moravsky 78.86 328 *e*P **P 09 08 40.4 +0.7**
PRU Pruhonice 78.86 329 *e*P **P 09 08 40.4 +0.7**
PRU pmax pmax
comp=Z,19nm,0.7s

PRU MLR MLR
comp=Z,4µm,18.5s

PRU Pruhonice 78.86 329 *e*P **P 09 08 40.4 +0.7**
comp=Z,19nm,0.7s

PRU AMS AMS 09 47 00.0
comp=Z,4µm,18.5s

SMOL Smolenice 78.87 327 *e*P **P 09 08 41.4 +1.6**
SMOL pmax pmax
comp=Z,12nm,0.7s

CLZ Clausthal 78.90 332 *e*P **P 09 08 41.1 +1.2**
comp=Z,53nm,0.9s,baz=34,slow=5.4

SURR Surduc 78.92 322 ⇑P **P 09 08 40.7 +0.6**
NEUB Neuenburg 78.92 331 *e*P **P 09 08 40.8 +0.8**
comp=Z,66nm,0.9s,baz=34,slow=5.4

PIX Pinacate 78.95 58 P **P 09 08 41.3 +0.8**
MODS Modra-Piesok 79.04 327 *e*P **P 09 08 42.4 +1.7**
MODS pmax pmax
comp=Z,474nm,2.3s

MODS Modra-Piesok 79.04 327 *e*P **P 09 08 42.4 +1.7**
SRO Srobarova 79.04 326 *e*P **P 09 08 42.8 +2.1**
SRO pmax pmax
comp=Z,76nm,1.2s

SRO Srobarova 79.04 326 *e*P **P 09 08 42.8 +2.1**
EYMN Ely 79.06 34 P **P 09 08 41.6 +0.7**
EYMN IAmb IAmb 09 08 42.4
comp=Z,35nm,0.8s

INVG Invergeldie, C 79.10 342 *e*P **P 09 08 41.3 +0.4**
INVG IAmb IAmb 09 08 44.3
comp=Z,14nm,0.8s

X18A Snowflake 79.17 54 P **P 09 08 42.7 +0.8**
ELND Elena 79.20 318 ⇑P **P 09 08 42.6 +1.0**
SRE Strehaia 79.23 321 P **P 09 08 41.9 +0.1**
SRE Strehaia 79.23 321 ⇑P **P 09 08 42.0 +0.1**
OGNE Ogallala 79.24 44 P **P 09 08 42.5 +0.4**
OGNE IAmb IAmb 09 08 55.6
comp=Z,58nm,1.0s

ZST Bratislava 79.25 327 *e*P **P 09 08 45.0 +3.2**
ZST Bratislava 79.25 327 *e*P **P 09 08 45.0 +3.2**
BZS Buzias 79.25 323 P **P 09 08 42.7 +0.8**
BZS Buzias 79.25 323 ⇑P **P 09 08 42.7 +0.8**
GTTG Gottingen 79.29 332 *e*P **P 09 08 43.0 +1.1**
comp=Z,45nm,0.8s,baz=34,slow=5.4

PHSR Pinarhisar 79.29 317 ⇑P **P 09 08 43.6 +1.4**
TANN Tannenbergstha 79.31 330 *e*P **P 09 08 43.1 +0.9**
comp=Z,15nm,1.0s,baz=34,slow=5.4

PLN Plauen 79.37 331 *e*P **P 09 08 43.4 +1.0**
comp=Z,7.0nm,0.9s,baz=34,slow=5.4

EAB Aberfoyle 79.39 342 *e*P **P 09 08 43.3 +0.9**
EAB IAmb IAmb 09 08 45.4
comp=Z,18nm,0.9s

IBBN Ibbenburen 79.40 334 *e*P **P 09 08 43.5 +0.9**
comp=Z,77nm,0.9s,baz=34,slow=5.4

HERR Herculane 79.44 322 ⇓P **P 09 08 42.7 -0.2**
MOX Moxa 79.44 331 *e*P **P 09 08 43.8 +0.9**
comp=Z,21nm,0.9s,baz=34,slow=5.4

MOX *e*L L 09 47 22.2
comp=Z,4µm,18.3s

PLVB Pleven 79.49 319 ⇑P **P 09 08 43.8 +0.6**
ABNA Allensteig Bun 79.56 328 *i* P **P 09 08 44.4 +0.8**
comp=Z,51nm,2.1s

LAWE Loch Awe, Argy 79.56 343 *e*P **P 09 08 43.8 +0.4**
LAWE IAmb IAmb 09 08 48.1
comp=Z,24nm,0.9s

SDCO Great Sand Dun 79.59 49 IAMs_20 IAMs_20 09 40 07.0
comp=Z,835nm,22.0s

WINA Alland / Wiene 79.75 327 *i* P **P 09 08 46.0 +1.5**
comp=Z,60nm,1.5s,SNR=14

PGBU Glenifferbraes 79.77 342 *e*P **P 09 08 45.5 +1.0**
PGBU IAmb IAmb 09 08 47.1
comp=Z,90nm,0.9s

MDVR Moldovita 79.84 322 ⇑P **P 09 08 45.3 +0.1**
EKA Eskdalemuir Ar 79.89 341 P **P 09 08 45.1 0.0**
comp=Z,14nm,0.7s,baz=19,slow=4.6,SNR=38
comp=Z,14nm,0.7s

CKRC Cesky Krumlov 79.89 329 AMS AMS 09 47 30.0
comp=Z,3µm,15.2s

ESK Eskdalemuir 79.92 341 P **P 09 08 45.3 0.0**
ESK pmax pmax
comp=Z,23nm,0.8s

ESK Eskdalemuir 79.92 341 P **P 09 08 45.2 0.0**
ESK Eskdalemuir 79.92 341 *e*P **P 09 08 45.6 +0.2**
ESK IAmb IAmb 09 08 47.0
comp=Z,16nm,0.7s

KHC Kasperske Hory 79.93 329 *e*P **P 09 08 46.4 +0.8**
KHC *e* 09 08 56.0
KHC *e* 09 11 46.3
KHC pmax pmax
comp=Z,26nm,0.8s

KHC MLR MLR
comp=Z,3µm,16.0s

KHC Kasperske Hory 79.93 329 P **P 09 08 46.0 +0.4**
KHC IAmb IAmb 09 08 47.9
comp=Z,41nm,0.8s

KHC Kasperske Hory 79.93 329 *e*P **P 09 08 46.4 +0.8**
comp=Z,26nm,0.8s

KHC *ex* x 09 08 56.0
KHC *e*PP **PP 09 11 46.3 -0.3**
KHC AMS AMS 09 47 40.0
comp=Z,3µm,16.0s

ECSD EROS Data Cent 79.95 40 IAMs_20 IAMs_20 09 44 57.0
comp=Z,2µm,20.0s

CONA Conrad Observa 79.98 327 *i* P **P 09 08 46.1 +0.2**
comp=Z,38nm,1.0s,SNR=16

RONA Rosalia, Austr 79.98 327 *i* P **P 09 08 46.0 +0.1**
comp=Z,52nm,0.9s,SNR=22

EDMD Edmundbyers 80.05 340 *e*P **P 09 08 46.6 +0.6**
EDMD IAmb IAmb 09 08 48.7
comp=Z,21nm,0.8s

GEC2 GERESS Array S 80.11 329 *e*P **P 09 08 47.4 +0.8**
comp=Z,17nm,0.9s,baz=34,slow=5.4

GERES GERESS Array B 80.11 329 P **P 09 08 47.3 +0.6**
comp=Z,14nm,0.8s,baz=35,slow=4.9,SNR=54

GERES LR LR 09 48 44.1
comp=Z,2µm,18.5s,baz=24,slow=39
comp=Z,14nm,0.8s

KASTN Kahler Asten 80.11 333 *e*P **P 09 08 47.4 +0.9**
comp=Z,29nm,1.0s,baz=34,slow=5.4

MORH Mrgy, Hungar 80.14 325 ⇑*i*P **P 09 08 46.4 -0.3**
TUC Tucson 80.14 56 P **P 09 08 49.2 +2.1**
TUC Tucson 80.14 56 IAMs_20 IAMs_20 09 39 56.2
comp=Z,993nm,20.0s

WET Wettzell 80.19 329 *e*P **P 09 08 48.3 +1.4**
comp=Z,39nm,0.9s,baz=34,slow=5.4

BLKB Belogradchik 80.26 321 ⇑P **P 09 08 47.1 -0.3**
KSCO Kaye Shedlock' 80.30 46 IAMs_20 IAMs_20 09 49 34.7
comp=Z,910nm,19.0s

NEWG New Galloway 80.34 342 *e*P **P 09 08 48.3 +0.7**

NEWG IAmb IAmb 09 08 51.6
comp=Z,17nm,0.9s

GRF Grafenberg Arr 80.36 331 *e*P **P 09 08 49.3 +1.4**
comp=Z,76nm,0.8s,baz=34,slow=5.4

GRF *e*L L 09 47 41.5
comp=Z,4µm,19.2s

ISP Isparta 80.38 312 IAMs_20 IAMs_20 09 49 06.5
comp=Z,1µm,20.0s

FRGS Fruska Gora 80.43 323 ⇑*i*P **P 09 08 48.4 +0.1**
RAYN Ar Rayn 80.48 293 *i* P **P 09 08 48.8 -0.1**
SNR=54

RAYN Ar Rayn 80.48 293 P **P 09 08 49.0 -0.1**
RAYN Ar Rayn 80.48 293 P **P 09 08 48.9 -0.1**
ASF Jabal al Asfar 80.49 304 LR LR 09 49 30.5
comp=Z,659nm,19.7s,baz=41,slow=40

ASF Jabal al Asfar 80.49 304 P **P 09 08 50.6 +1.6**
ASF AML AML

KESW Keswick, Cumbr 80.55 341 *e*P **P 09 08 49.9 +1.1**
KESW IAmb IAmb 09 08 51.3
comp=Z,35nm,0.9s

GEM Giv'at Ha'Em 80.55 306 P **P 09 08 51.3 +2.1**
GEM AML AML

SPMN Marine on St. 80.60 36 IAMs_20 IAMs_20 09 45 21.9
comp=Z,1µm,21.0s

DGAR Diego Garcia 80.61 252 P **P 09 08 50.1 +0.5**
ARSA Arzberg 80.65 327 *i* P **P 09 08 50.4 +0.9**
comp=Z,21nm,0.8s,SNR=8.4

GAL1 Galloway 80.69 342 *e*P **P 09 08 50.2 +0.8**
GAL1 IAmb IAmb 09 08 51.6
comp=Z,42nm,0.8s

MOA Molln 80.69 328 *i* P **P 09 08 50.7 +1.1**
comp=Z,39nm,1.7s,SNR=7.2

BOVS Bovan 80.71 321 ⇑P **P 09 08 49.4 -0.4**
HPK Haverah Park 80.74 340 *e*P **P 09 08 50.4 +0.6**
HPK IAmb IAmb 09 08 54.5
comp=Z,38nm,0.8s

BEHE Becsehely 80.75 326 *e*P P 09 08 56.2 +6.2
CSS Mathiatis 80.76 309 IAMs_20 IAMs_20 09 49 31.9
comp=Z,1µm,19.0s

CLGH Cloghs, Cushen 80.81 343 *e*P **P 09 08 51.1 +1.0**
CLGH IAmb IAmb 09 08 53.0
comp=Z,41nm,0.9s

MMAI Mount Meron Ar 80.84 306 P **P 09 08 51.8 +1.0**
comp=Z,24nm,0.8s,baz=28,slow=13,SNR=18

MMAI LR LR 09 49 01.4
comp=Z,2µm,19.2s,baz=21,slow=39
comp=Z,24nm,0.8s

HSUJ Al Zarqa 80.98 305 P **P 09 08 53.7 +2.2**
HSUJ AML AML

ANMO Albuquerque 80.98 51 LR LR 09 40 16.6
comp=Z,670nm,21.8s,baz=328,slow=32

ANMO Albuquerque 80.98 51⇓*e*P **P 09 08 54.1 +2.4**
ANMO pmax pmax
comp=Z,9.0nm,1.1s

BIOA Bad Ischl, Aus 81.07 328 *i* P **P 09 08 52.2 +0.5**
comp=Z,34nm,0.9s,SNR=11

IDGL Inch Island, C 81.12 343 P **P 09 08 53.1 +1.3**
SESA Seetaler Alpe, 81.16 327 *i* P **P 09 08 53.1 +0.7**
comp=Z,49nm,0.7s,SNR=35

SCHQ Schefferville 81.16 17 P **P 09 08 53.1 +1.1**
comp=Z,21nm,0.7s,baz=358,slow=6.3,SNR=17

SCHQ LR LR 09 46 35.6
comp=Z,821nm,21.7s,baz=320,slow=37
comp=Z,21nm,0.7s

BMOL Mol 81.21 335 *d*P **P 09 08 53.0 +0.7**
comp=Z,63nm,0.9s

LENM Lemitar 81.21 52 P **P 09 08 54.1 +1.2**
WACR West Acre 81.23 338 *e*P **P 09 08 53.2 +0.8**
WACR IAmb IAmb 09 08 56.4
comp=Z,86nm,0.9s

LBWR Ladybower, Pea 81.27 340 *e*P **P 09 08 53.1 +0.5**
LBWR IAmb IAmb 09 08 55.9
comp=Z,38nm,0.7s

GROS Grobnik 81.29 326 *i* P **P 09 08 53.1 +0.1**
PERS Pernice 81.31 327 *i* P **P 09 08 53.5 +0.4**
SOKA Soboth 81.31 327 *e*P **P 09 08 53.8 +0.7**
comp=Z,38nm,0.7s,SNR=5.9

RAR Rarotonga 81.36 128 LR LR 09 37 00.6
comp=Z,1µm,21.8s,baz=317,slow=30

MEM Membach 81.42 334 *d*P **P 09 08 54.0 +0.5**
comp=Z,30nm,0.9s

PEHC Pehcevo 81.53 319 *i* P **P 09 08 55.4 +1.0**
FUR Furstenfeldbru 81.60 330 *e*P **P 09 08 55.8 +1.3**
comp=Z,76nm,0.8s,baz=34,slow=5.4

BBLS Lazi&#263i 81.61 323 ⇑*i*P **P 09 08 55.1 +0.4**
SALP Salfit 81.62 305 P **P 09 08 56.9 +2.0**
SALP AML AML

OBKA Obir 81.65 327 *i* P **P 09 08 55.6 +0.8**
comp=Z,37nm,0.7s,SNR=12

LESA Schwarzleotal 81.66 329 *i* P **P 09 08 56.0 +1.0**
comp=Z,39nm,0.9s,SNR=18

KBA Koelnbreinsper 81.68 328 *i* P **P 09 08 56.1 +0.9**
comp=Z,41nm,0.9s,SNR=26

UCC Uccle 81.80 335 *d*P **P 09 08 55.7 +0.3**
SJES Sjenica 81.81 322 *e*P **P 09 08 56.2 +0.4**
BCLA Clavier 81.82 334 *d*P **P 09 08 55.9 +0.4**
comp=Z,21nm,1.0s

BCLA *d*PP **PP 09 12 02.2 +0.1**
BOST Ostende 81.86 336 *d*P **P 09 08 56.0 +0.2**
comp=Z,27nm,1.2s

STU Stuttgart 81.87 331 *e*P **P 09 08 56.8 +0.9**
comp=Z,105nm,0.8s,baz=34,slow=5.4

VNDS Vrh nad Dolski 81.91 327 *i* P **P 09 08 56.4 +0.2**
GHAJ Ghor Haditha 81.91 305 P **P 09 08 58.4 +2.0**
GHAJ AML AML

BLY Banja Luka 81.92 324 IAMs_20 IAMs_20 09 46 26.6
comp=Z,1µm,20.0s

BLY Banja Luka 81.92 324 ⇑*i*P **P 09 08 56.3 +0.1**
MYKA Terra Mystica 81.92 328 *i* P **P 09 08 56.3 0.0**
comp=Z,30nm,1.0s,SNR=7.4

CBKS Cedar Bluff 82.00 45 P **P 09 08 57.6 +0.8**
CBKS pmax pmax
comp=Z,34nm,1.2s

CBKS Cedar Bluff 82.00 45 P **P 09 08 57.6 +0.8**
CBKS IAmb IAmb 09 09 28.5
comp=Z,34nm,1.2s

BSKQ Steenkerk 82.02 335 *d*P **P 09 08 55.7 -0.9**
comp=Z,18nm,0.9s

BSKQ *d*PP **PP 09 12 04.1 +0.4**
VAY Valandovo 82.04 319 *i* P **P 09 08 57.9 +1.0**
RCHB Rochefort 82.07 334 *d*P **P 09 08 57.6 +0.7**
comp=Z,21nm,1.1s

BMRD Maredsous 82.09 335 *d*P **P 09 08 57.2 +0.2**
comp=Z,39nm,0.9s

FOEL Foel Wylfa 82.12 340 *e*P **P 09 08 58.2 +1.1**
FOEL IAmb IAmb 09 09 01.0
comp=Z,67nm,0.7s

WATA Walderalm 82.17 329 *i* P **P 09 08 58.1 +0.5**
comp=Z,39nm,1.1s,SNR=9.9

WLF Walferdange 82.18 333 *d*P **P 09 08 58.5 +1.0**
WTTA Wattenberg 82.20 329 *i* P **P 09 08 58.5 +0.6**
comp=Z,40nm,0.7s,SNR=14

ABTA Abfaltersbach 82.28 328 *i* P **P 09 08 58.7 +0.5**
comp=Z,8.9nm,0.7s,SNR=7.0

DOU Dourbes 82.33 335 *d*P **P 09 08 58.9 +0.7**
comp=Z,14nm,1.1s

MOTA Moosalm 82.34 329 *i* P **P 09 08 59.3 +0.7**
comp=Z,82nm,0.9s,SNR=26

UPM Unac-Piva 82.35 322 *e*P **P 09 08 58.7 -0.1**
RETA Reutte 82.36 330 *i* P **P 09 08 59.5 +0.9**
comp=Z,51nm,0.8s,SNR=19

HLM1 Long Mynd 82.37 340 *e*P **P 09 09 00.1 +1.7**
HLM1 IAmb IAmb 09 09 01.2
comp=Z,16nm,0.8s

SQTA Sankt Quirin 82.40 329 *i* P **P 09 08 59.6 +0.7**
comp=Z,17nm,0.6s,SNR=12

KLINJ Klinje 82.53 323 *e*P **P 09 09 01.6 +2.0**
HSNJ Maan 82.55 304 P **P 09 09 02.4 +2.4**
HSNJ AML AML

BFO Black Forest 82.56 332 *i* P **P 09 09 00.5 +1.0**
BFO Black Forest 82.56 332 *e*P **P 09 09 00.3 +0.8**
comp=Z,45nm,1.3s,baz=34,slow=5.4

DSB Dublin 82.57 342 P **P 09 09 00.3 +0.9**
I40A Norwalk 82.62 36 IAMs_20 IAMs_20 09 50 50.2
comp=Z,1µm,20.0s

FETA Feichten 82.75 329 *i* P **P 09 09 01.3 +0.5**
comp=Z,30nm,0.8s,SNR=11

BRY Bratogost 82.76 322 ⇑*i*P **P 09 09 00.7 -0.1**
PDG Podgorica 82.79 322 ⇑*i*P **P 09 09 00.5 -0.3**
R32A Long Quarter, 82.83 44 P **P 09 09 01.9 +0.8**
R32A IAmb IAmb 09 09 13.7
comp=Z,33nm,1.4s

DAVA Damuels 82.86 330 *i* P **P 09 09 02.0 +0.7**
comp=Z,46nm,0.9s,SNR=13

KZIT Kziot 82.91 305 P **P 09 09 03.5 +1.8**
KZIT AML AML

PRNI Paran 82.92 304 P **P 09 09 03.4 +1.7**
PRNI AML AML

HMNX Herstmonceux 82.97 337 *e*P **P 09 09 02.6 +1.1**
HMNX IAmb IAmb 09 09 03.8
comp=Z,87nm,0.8s

MONM Monmouth 82.97 340 *e*P **P 09 09 02.3 +0.7**
MONM IAmb IAmb 09 09 04.2
comp=Z,34nm,0.7s

TREB Trebinje 82.99 322 *e*P **P 09 08 58.2 -3.6**
DRME Dracevica, Mon 83.01 322 ⇑*i*P **P 09 09 01.7 -0.3**
IGLA Glengowla, Co 83.07 344 P **P 09 09 02.5 +0.5**
OHR Ohrid 83.07 320 *i* P **P 09 09 02.8 +0.4**
ECH Echery 83.07 332 P **P 09 09 02.7 +0.5**
HRFI Mount Harif 83.11 304 P **P 09 09 04.4 +1.7**
HRFI AML AML

HCY Herceg Novi 83.13 322 *e*P **P 09 09 01.0 -1.6**
DAVOX Davos/Dischmat 83.28 330 LR LR 09 50 13.7
comp=Z,4µm,18.4s,baz=20,slow=39

AQBJ Aqaba 83.31 304 P **P 09 09 05.3 +1.6**
AQBJ AML AML

EIL Elat 83.42 304 LR LR 09 50 13.7
comp=Z,1µm,20.3s,baz=47,slow=39

EIL Elat 83.42 304 P **P 09 09 05.6 +1.3**
EIL AML AML

IWEX Carrickbyrne, 83.46 342 P **P 09 09 05.3 +1.2**
AMTX Amarillo 83.79 49 IAMs_20 IAMs_20 09 52 10.2
comp=Z,790nm,21.0s

N38A Joes South For 83.82 40 P **P 09 09 06.4 +0.3**
N38A IAmb IAmb 09 09 07.9
comp=Z,27nm,0.7s

OK038 West end E0370 84.25 46 IAMs_20 IAMs_20 09 43 01.3
comp=Z,978nm,18.0s

P38A Dawn 84.57 40 IAMs_20 IAMs_20 09 47 19.3
comp=Z,1µm,22.0s

VAL Valentia 84.64 344 P **P 09 09 11.2 +1.1**
URZ Urewera 84.70 154 LR LR 09 43 31.4
comp=Z,1µm,20.1s,baz=324,slow=33

T35A Sooner Cattle 85.12 44 P **P 09 09 13.5 +0.7**
T35A IAmb IAmb 09 09 49.4
comp=Z,36nm,1.1s

PPT Papeete 85.16 118 LR LR 09 41 21.4
comp=Z,3µm,19.8s,baz=318,slow=32

PPT2 Papeete2 85.17 118 *e*P P 09 09 03.3 -10
comp=Z,123nm,26.5s

PPT2 *e*PP **PP 09 12 25.0 -6.2**
comp=Z,76nm,24.8s

PPT2 *e*S **S 09 19 39.9 -1.8**
comp=Z,396nm,24.2s

PPT2 *e*SS **SS 09 25 09.7 -6.7**
comp=Z,293nm,24.2s

PPT2 *e*LQ LQ 09 32 08.3
comp=Z,660nm,38.8s

PPT2 *e*LR LR 09 35 59.5
comp=Z,4µm,21.0s

PPT2 *e*LR LR 09 36 05.9
comp=Z,4µm,21.0s

IDI Anoyia 85.34 314 LR LR 09 52 50.1
comp=Z,1µm,18.3s,baz=13,slow=40

P40A Paris 85.37 40 IAMs_20 IAMs_20 09 51 13.3
comp=Z,1µm,21.0s

AQU L'Aquila 85.49 325 P **P 09 09 16.4 +1.8**
AQU pmax pmax
comp=Z,51nm,1.9s

AQU L'Aquila 85.49 325 ⇑*i*P **P 09 09 14.7 +0.1**
WMOK Wichita Mounta 85.52 47 P **P 09 09 16.1 +1.2**
WMOK Wichita Mounta 85.52 47 IAMs_20 IAMs_20 09 50 07.9
comp=Z,750nm,20.0s

TAOE Nuku Hiva Isla 85.78 105 *e*S **SKSac 09 19 42.4 +1.8**
comp=Z,398nm,26.9s

TAOE *e*SS **SS 09 25 26.1 +0.8**
comp=Z,1µm,27.4s

TAOE *e*LQ LQ 09 32 39.4
comp=Z,2µm,27.1s

TAOE *e*LR LR 09 36 21.6
comp=Z,4µm,21.8s

BNI Bardonecchia 85.94 331 P **P 09 09 17.7 +0.8**
BNI pmax pmax
comp=Z,186nm,0.9s

LPIG La Paz 86.02 61 LR LR 09 41 49.2
comp=Z,306nm,20.5s,baz=318,slow=32

S39A Bolivar 86.17 42 IAMs_20 IAMs_20 09 48 46.6
comp=Z,1µm,22.0s

TUL3 Leonard 86.26 44 IAMs_20 IAMs_20 09 49 44.2
comp=Z,1µm,20.0s

LDAQ Lac Daran 86.32 22 P **P 09 09 19.1 +0.5**
LDAQ IAmb IAmb 09 09 20.1
comp=Z,21nm,0.9s

WTFS Witchita Falls 86.42 47 P **P 09 09 20.3 +1.0**
WTFS IAmb IAmb 09 09 32.5
comp=Z,45nm,1.5s

SADO Sadowa 86.55 29 LR LR 09 52 24.9
comp=Z,824nm,19.3s,baz=1.0,slow=39

TXAR Lajitas Array 86.61 54 P **P 09 09 22.0 +1.6**
comp=Z,4.6nm,0.8s,baz=297,slow=3.7,SNR=38
comp=Z,6nm,0.8s

TXAR Lajitas Array 86.61 54 P **P 09 09 22.0 +1.6**
CCM Cathedral Cave 86.91 40 IAMs_20 IAMs_20 09 45 24.2
comp=Z,1µm,21.0s

HPIG 87.06 57 P **P 09 09 23.6 +0.7**
HPIG IAmb IAmb 09 09 36.5
comp=Z,38nm,1.5s

Z35A Perchaven, San 87.41 47 IAMs_20 IAMs_20 09 46 08.0
comp=Z,1µm,21.0s

T42A Van Buren 87.79 41 IAMs_20 IAMs_20 09 50 37.6
comp=Z,976nm,20.0s

RPZ Rata Peaks 87.94 160 LR LR 09 44 24.1
comp=Z,172nm,20.6s,baz=351,slow=33

JCT Junction City 88.08 50 IAMs_20 IAMs_20 09 50 23.0
comp=Z,976nm,19.0s

Z38A Mt. Pleasant 88.70 45 IAMs_20 IAMs_20 09 49 33.1
comp=Z,1µm,21.0s

J57A Williamstown 88.86 27 IAMs_20 IAMs_20 09 55 21.1
comp=Z,1µm,19.0s

ACSO Alum Creek Sta 88.90 34 P **P 09 09 31.5 +0.4**
ACSO IAmb IAmb 09 09 33.0
comp=Z,27nm,0.9s

VAE Valguarnera 88.98 322 LR LR 09 52 18.7
comp=Z,2µm,19.0s,baz=34,slow=38

K57A Scipio Center 89.27 28 IAMs_20 IAMs_20 09 49 44.7
comp=Z,1µm,19.0s

TBI Tubuai 89.35 122 *e*S **S 09 20 13.8 -7.7**
comp=Z,2µm,29.2s

TBI *e*SS SS 09 26 03.9 -13
comp=Z,1µm,28.2s

TBI *e*LQ LQ 09 33 45.5
comp=Z,2µm,28.8s

TBI *e*LR LR 09 37 49.7
comp=Z,2µm,24.2s

Q51A Peebles 89.75 34 IAMs_20 IAMs_20 09 56 12.0
comp=Z,1µm,19.0s

R50A Paris 89.94 36 IAMs_20 IAMs_20 09 49 53.1
comp=Z,890nm,21.0s

NATX Nacogdoches 90.03 46 IAMs_20 IAMs_20 09 47 00.1
comp=Z,1µm,21.0s

WVT Waverly 90.09 39 IAMs_20 IAMs_20 09 47 36.3
comp=Z,1µm,22.0s

ATD Arta Tunnel 90.25 285 LR LR 09 55 04.9
comp=Z,34nm,18.6s,baz=26,slow=39

ATD Arta Tunnel 90.25 285 IAMs_20 IAMs_20 09 52 49.1
comp=Z,956nm,22.0s

Q52A Bidwell 90.26 34 IAMs_20 IAMs_20 09 51 41.4
comp=Z,1µm,21.0s

735A Kenedy 90.44 50 IAMs_20 IAMs_20 09 45 33.7
comp=Z,1µm,20.0s

U49A Red Boiling Sp 90.74 37 P **P 09 09 40.1 +0.4**
T50A Nancy 90.76 37 IAMs_20 IAMs_20 09 49 44.7
comp=Z,1µm,21.0s

K62A Royalston 90.78 25 IAMs_20 IAMs_20 09 55 57.7
comp=Z,1µm,20.0s

V48A Smith Brothers 90.89 39 IAMs_20 IAMs_20 09 56 08.3
comp=Z,758nm,20.0s

MSEY Mahe Island 91.35 265 IAMs_20 IAMs_20 09 50 54.5
comp=Z,861nm,20.0s

Q56A Snyder Ridge, 91.46 32 IAMs_20 IAMs_20 09 55 32.9
comp=Z,1µm,19.0s

X48A Hartselle 91.83 40 IAMs_20 IAMs_20 09 54 12.3
comp=Z,732nm,19.0s

M63A Gales Ferry 91.98 26 IAMs_20 IAMs_20 09 56 54.4
comp=Z,1µm,20.0s

Z47A Carrollton 92.34 41 IAMs_20 IAMs_20 09 54 27.9
comp=Z,953nm,21.0s

TKL Tuckaleechee C 92.36 37 LR LR 09 52 47.9
comp=Z,861nm,20.9s,baz=337,slow=36

KEST Kesra 92.73 324 P **P 09 09 49.9 +0.8**
comp=Z,10nm,0.8s,baz=34,slow=4.0,SNR=7.8

KEST LR LR 09 56 45.6
comp=Z,4µm,19.1s,baz=22,slow=39

comp=Z,10nm,0.8s
KEST Kesra 92.73 324 P P 09 09 49.5 +0.4
W52A Murphy 92.76 37 IAMs_20 IAMs_20 09 52 49.8
comp=Z,1μm,22.0s
V53A Saluda 92.78 36 IAMs_20 IAMs_20 09 58 37.4
comp=Z,1μm,19.0s
LRAL Lakeview Retre 93.00 40 IAMs_20 IAMs_20 09 56 03.2
comp=Z,1μm,19.0s
U56A King 93.27 34 IAMs_20 IAMs_20 09 58 60.0
comp=Z,923nm,20.0s
PGAV Gavieira, Arco 93.52 339 eLR LR 09 51 44.4
PGAV IAMs_20 IAMs_20 09 57 18.1
comp=Z,1μm,20.0s
Y52A Lilburn 93.72 38 IAMs_20 IAMs_20 09 56 24.2
comp=Z,930nm,20.0s
KMSC Kings Mountain 93.88 35 IAMs_20 IAMs_20 09 58 16.3
comp=Z,1μm,21.0s
250A Grady 94.21 40 IAMs_20 IAMs_20 09 52 25.5
comp=Z,986nm,21.0s
V58A Windy Hill, Pi 94.27 33 IAMs_20 IAMs_20 09 51 47.5
comp=Z,922nm,21.0s
ESDC Sonseca Array 94.36 335 P P 09 09 57.7 +1.2
comp=Z,2.1nm,0.9s,baz=19,slow=3.7,SNR=10.0
ESDC PP PP 09 13 44.4 +1.6
comp=Z,2.0nm,0.8s,baz=24,slow=7.9,SNR=5.4
comp=Z,2.1nm,0.9s
GOGA Godfrey 94.37 38 IAMs_20 IAMs_20 09 56 53.5
comp=Z,948nm,19.0s
152A Waverly Hall 94.40 39 IAMs_20 IAMs_20 09 53 25.3
comp=Z,954nm,20.0s
MTE Manteigas 94.77 338 eLR LR 09 51 59.6
MTE IAMs_20 IAMs_20 09 58 01.0
comp=Z,2μm,18.0s
X58A Rowland 95.24 34 IAMs_20 IAMs_20 10 00 15.2
comp=Z,807nm,19.0s
Y57A Sumter 95.24 35 IAMs_20 IAMs_20 09 59 15.4
comp=Z,1μm,21.0s
PMRV Marv??o 95.63 338 eLR LR 09 51 58.0
PMRV IAMs_20 IAMs_20 09 59 25.7
comp=Z,1μm,20.0s
Y60A Bolivia 96.18 34 IAMs_20 IAMs_20 09 55 35.2
comp=Z,1μm,21.0s
PVAQ Vaqueiros 97.60 337 IAMs_20 IAMs_20 09 59 54.8
comp=Z,4μm,18.0s
LODK Lodwar 101.16 284 IAMs_20 IAMs_20 10 03 41.3
comp=Z,786nm,18.0s
KIBK Kibwezi 103.00 278 P Pdif 09 10 36.4 +0.6
KIBK Kibwezi 103.00 278 IAMs_20 IAMs_20 10 00 34.0
comp=Z,574nm,21.0s
TAM Tamanrasset 105.40 320 IAMs_20 IAMs_20 10 04 39.5
comp=Z,768nm,19.0s
TORD Torodi Ar. Bea 115.48 318 PKP PKiKP 09 15 17.6 -1.5
comp=Z,1.5nm,0.7s,baz=2.5,slow=1.5,SNR=6.3
TORD PP PP 09 16 16.8 -3.1
comp=Z,6.2nm,0.9s,baz=27,slow=6.4,SNR=8.3
VNDA Vanda 118.78 175 PKP PKPdf 09 15 23.1 -0.3
comp=Z,1.0nm,0.6s,baz=327,slow=4.2,SNR=12
VNDA PKKPbc PKKPbc 09 25 44.3 +3.8
comp=Z,0.6nm,0.9s,baz=264,slow=4.9,SNR=3.7
SDV Santo Domingo 121.39 40 IAMs_20 IAMs_20 10 09 02.8
comp=Z,607nm,21.0s
MAW Mawson 123.70 207 PKP PKiKP 09 15 33.7 +0.3
comp=Z,5.2nm,0.7s,baz=7.9,slow=2.2,SNR=17
DBIC Dimbokro 124.29 321 PKP PKPdf 09 15 36.0 0.0
comp=Z,5.0nm,0.7s,baz=38,slow=1.7,SNR=6.5
DBIC PP PP 09 17 20.4 0.0
comp=Z,6.9nm,0.8s,baz=14,slow=13,SNR=3.2
DBIC Dimbokro 124.29 321 PKIKP PKPdf 09 15 36.0 0.0
BOSA Boshof 128.59 263 PKP PKiKP 09 15 44.3 -0.3
comp=Z,4.5nm,0.9s,baz=284,slow=2.3,SNR=4.6
BOSA Boshof 128.59 263 PKP PKiKP 09 15 45.3 +0.7
TSUM Tsumeb 129.12 278 IAMs_20 IAMs_20 10 18 00.6
comp=Z,616nm,20.0s
ATAH Atahualpa 129.94 59 PKP PKiKP 09 15 48.1 0.0
comp=Z,2.2nm,0.6s,baz=228,slow=0.9,SNR=4.6
QSPA South Pole Qui 130.71 180 PKP PKPdf 09 15 46.5 -0.2
comp=Z,3.1nm,0.6s,baz=270,slow=0.6,SNR=29
QSPA PP PP 09 18 04.7 +1.8
comp=Z,6.0nm,1.1s,baz=34,slow=5.6,SNR=4.4
BOAV Boa Vista 131.70 33 PKP PKPdf 09 15 50.2 0.0
CZSB Cruzeiro do Su 134.00 54 PKP PKiKP 09 15 55.4 -0.4
ELIB Princess Elisa 137.59 204 dPKPdf PKPdf 09 15 59.7 +0.2
MAL2 Monte Alegre, 138.14 27 PKP PKiKP 09 16 05.2 +0.9
ITTB Itaituba 139.76 30 ePP PKPdf 09 16 02.9 -2.3
BMO1 UHE Belo Monte 140.00 24 PKP PKiKP 09 16 06.8 -1.2
NVL N'lazarevskaya 141.47 204 ePKIKP PKPdf 09 16 04.2 -2.2
NVL eSS SS 09 37 39.0 +0.7
NPGB Novo Progresso 142.36 31 PKP PKPdf 09 16 06.2 -3.6
NPGB PKP PKPdf 09 16 06.2 -3.6
LPAZ La Paz 143.40 57 PKP PKPdf 09 16 12.4 +0.1
comp=Z,2.6nm,0.8s,baz=353,slow=4.0,SNR=9.0
LPAZ La Paz 143.40 57 PKP PKPbc 09 16 09.8 +0.3
TROLL Troll, Antarti 143.42 199 ⇑PKPdf PKPbc 09 16 07.1 -0.3
comp=Z,540nm,0.6s
NBPB Pedra_Branca-C 144.63 5 PKP PKPdf 09 16 13.3 -0.5
SNAA Sanae 144.93 198 ⇑PKPdf PKPbc 09 16 12.2 +0.3
comp=Z,1μm,0.8s
SNAA Sanae 144.93 198 PKP PKPdf 09 16 12.5 -0.1
comp=Z,56nm,0.8s,baz=103,slow=2.9,SNR=17
NBPA Parau_RN 144.93 1 PKP PKPdf 09 16 14.1 -0.2
RCBR Riachuelo 145.00 359 PKP PKPdf 09 16 14.1 -0.4
PFBR Pau dos Ferros 145.28 3 PKP PKPdf 09 16 15.0 +0.1
VILB Vilhena 145.35 43 PKP PKPdf 09 16 15.7 +0.7
CLDB Colider 145.64 35 PKP PKPab 09 16 16.0 -0.1
CLDB PKP PKPab 09 16 16.0 -0.1
CLDB PKP PKPab 09 16 16.0 -0.1
H03N2 Juan Fernandez 145.83 91 T T 11 59 38.6
baz=325,slow=75,SNR=10
H03N1 Juan Fernandez 145.84 91 T T 11 59 41.6
baz=297,slow=75,SNR=14
PDRB Porto dos Gac 145.88 37 PKP PKPab 09 16 16.7 -0.2
NBMA Muriti-CE 146.49 4 PKP PKPab 09 16 19.1 -0.1
VNA2 Neumayer--Watz 146.50 197 ⇑PKPdf PKPdf 09 16 15.5 +0.2
comp=Z,50nm,0.7s,baz=127,slow=1.9
VNA2 ⇑PP PP 09 19 40.4 +0.1
comp=Z,2.7nm,0.8s,baz=138
VNA2 ⇑SKPdf SKPdf 09 19 48.7 +1.2
comp=Z,2.9nm,0.8s,baz=121,slow=3.6
NBLV Livramento - P 146.53 0 PKP PKPbc 09 16 18.5 0.0
SMTB Santa Maria do 146.60 20 PKP PKPab 09 16 19.5 -0.3
VNA3 Neumayer Olymp 146.74 196 ⇑PKPdf PKPdf 09 16 15.5 -0.2
comp=Z,31nm,0.7s
VNA3 ⇑PP PP 09 19 41.6 -0.1
comp=Z,4.9nm,0.8s
VNA3 ⇓SKPdf SKPdf 09 19 50.4 +2.5
comp=Z,3.6nm,0.9s
VNA1 Neumayer--Stat 146.89 197 ⇑PKPdf PKPdf 09 16 16.3 +0.5
comp=Z,39nm,0.8s
SIV San Ignacio 147.40 47 PKP PKPdf 09 16 19.5 +1.1
comp=Z,37nm,0.7s,baz=277,slow=2.0,SNR=97
SIV PKPbc PKPbc 09 16 21.5 +0.6
comp=Z,37nm,0.7s,baz=275,slow=2.1,SNR=107
PTLB Pontes e Lacer 148.00 44 PKP PKPbc 09 16 23.0 +0.6
NBTA Tacaratu-PE 148.26 2 PKP PKPbc 09 16 23.3 0.0
SNDB Serra Nova Dou 148.41 28 PKP PKPdf 09 16 21.6 +1.5
NBAN Anadia - AL 148.82 359 PKP PKPdf 09 16 21.7 +0.9
NBPN Ponto Novo - B 149.84 7 PKP PKPdf 09 16 23.7 +1.2
SALV Santo Antonio 150.11 39 PKP PKiKP 09 16 29.0 +0.3
CAN3 Cana Brava 150.45 23 PKP PKiKP 09 16 29.6 +0.2
SDBA SAO DESIDERIO 150.66 16 PKP PKiKP 09 16 29.8 -0.1
ARAG Araguaiana, MT 151.63 32 PKP PKPdf 09 16 26.7 +1.5
BDFB Brasilia 152.93 24 PKPbc PKiKP 09 16 34.5 -0.1
comp=Z,9.9nm,0.8s,baz=246,slow=2.0,SNR=13
AQDB Aquidauana 153.97 44 PKP PKPdf 09 16 29.8 +1.4
PLCA Paso Flores 154.51 101 PKPbc PKiKP 09 16 37.9 +0.7
comp=Z,4.9nm,1.0s,baz=234,slow=3.4,SNR=6.6
IPMB Ipameri, GO 155.06 27 PKP PKPdf 09 16 32.4 +2.3
CPUP Villa Florida 157.56 56 PKP PKPdf 09 16 33.5 +0.4
comp=Z,2.0nm,0.9s,baz=213,slow=12,SNR=3.9
CPUP Villa Florida 157.56 56 PKP PKPdf 09 16 33.7 +0.6

*NEIC **06** 09:05:27.0±1.2,54°.12N±0°.03×159°.69W±0°.07,h15^{km}±4^{km}, mb4.4/23,ML4.0/32,ML3.8(AEIC),Error ellipse: s-maj=5.8km s-min=5.0km az=79.0*

*AEIC **06** 09:05:28.0±1.3,54°.04N±0°.04×159°.69W±0°.07,h13^{km}±2^{km}, Error ellipse: s-maj=6.0km s-min=5.0km az=89.0*

*IDC **06** 09:05:28.3±1.1,54°.65N×160°.14W,h0^{km},mb4.1/17, mbtmp4.1/21,ML4.1/4,MS4.9/2,Error ellipse: s-maj=26.7km s-min=12.6km az=167.0*

ISC 06 09:05:27.0±1.8,54°.13N±0°.06×159°.68W±0°.04, h16^{km}±11^{km},n183,σ0°90/190,mb4.3/24,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC

CNBA Chernabura Isl 0.70 4 Pg Pb 09 05 41.2 +0.4
CNBA Sn 09 05 52.5 -0.2
CNBA IAML 09 05 55.0
comp=N,9μm,0.6s
CHNA Chernabura Isl 0.71 4 P Pg 09 05 41.0 +0.1
SDPT Sand Point 1.31 340 P Pn 09 05 50.2 -0.5
SDPT Sand Point 1.31 340 Pn Pn 09 05 50.6 -0.1
SDPT IAML 09 06 22.7
comp=N,3μm,0.9s
SDPT IAML 09 06 23.6
comp=E,3μm,1.0s
DOL Dolgoi Island 1.63 310 Pn 09 05 54.8 -0.3
DOL Sn 09 06 14.1 -1.7
DOL Sb 09 06 14.9 -2.2
PVV Pavlof Volcano 1.75 316 Pn 09 05 56.8 +0.1
HAG Hague Volcano 1.76 314 Pn 09 05 57.2 +0.3
PS4A Pavlof South-4 1.76 315 Pn 09 05 57.0 +0.1
PS4A Sn 09 06 18.8 0.0
PS4A Sb 09 06 19.3 -1.4
PS1A Pavlof South-1 1.77 318 Pn 09 05 57.2 +0.2
DT1 Dutton Round H 1.81 304 Pn 09 05 57.0 -0.5
DT1 Sn 09 06 19.6 -0.4
DTNA Dutton South F 1.81 305 Pn 09 05 57.5 -0.1
DTNA Sn 09 06 19.9 -0.4
PN7A Pavlof North-7 1.88 315 Pn 09 05 59.3 +0.7
VNKR Veniaminof 5 1.92 5 Pb 09 06 00.7 -1.0
VNKR Sb 09 06 26.1 +0.8
VNWF Veniaminof 8 2.03 2 Pn 09 06 02.3 +1.6
S12K Black Hills 2.10 320 Pn Pn 09 06 00.8 -0.7
S12K IAML 09 06 50.2
comp=E,1μm,0.9s
S12K IAML 09 06 52.7
comp=N,1μm,0.8s
VNSS Veniaminof 8 2.11 3 Pn 09 06 03.5 +1.7
VNFG Fog Glacier, M 2.17 2 Pn Pn 09 06 02.2 -0.3
CHGN Chignik 2.30 18 Pn 09 06 04.8 +0.6
CHGN Sn Sn 09 06 30.6 -1.5
CHGN IAML 09 06 50.4
comp=N,1μm,0.9s
CHGN IAML 09 06 56.9
comp=E,1μm,0.8s
ISLZ Isanotski Laza 2.43 286 Pn 09 06 05.9 -0.2
ISLZ Sn 09 06 34.7 -0.9
ISNN Isanotski Nort 2.50 288 Pn 09 06 07.8 +0.8
BPBCA Veniaminof 2.57 15 Pn 09 06 09.2 +1.2
SSLS Shishaldin Sou 2.59 285 Pn 09 06 08.7 +0.4
SSLS Sn 09 06 39.5 0.0
WTUG Tugumak 2.84 287 Pn 09 06 12.2 +0.5
WTUG Sn 09 06 45.0 -0.6
CHIR Chirikof Islan 2.89 52 P Pn 09 06 12.5 +0.1
CHIR Chirikof Islan 2.89 52 Pn Pn 09 06 12.9 +0.5
CHIR IAML 09 07 27.0
comp=N,360nm,2.1s
CHIR IAML 09 07 36.8
comp=E,392nm,2.2s
WESN West Dahl Nort 2.91 281 Pn 09 06 13.0 +0.4
WESN Sn 09 06 46.6 -0.6
WESP Westdahl Peak 2.98 279 Pn 09 06 13.5 -0.2
WECS Westdahl Cape 3.01 280 Pn Pn 09 06 13.4 -0.7
WECS Sn 09 06 49.3 -0.6
WECS IAML 09 06 57.9
comp=E,380nm,0.9s
WECS IAML 09 07 31.1
comp=N,474nm,0.8s
AKUT Akutan 3.58 273 P Pn 09 06 21.9 0.0
AKUT Akutan 3.58 273 Pn Pn 09 06 21.4 -0.5
AHB Akutan Harbor 3.61 272 Pn 09 06 22.3 0.0
AHB Sn 09 07 02.6 -2.0
R16K Pilot Point 3.65 18 Pn Pn 09 06 23.1 +0.4
AKBBA Akutan Broad B 3.68 272 Pn 09 06 23.1 -0.1
AKLV Akutan Long Va 3.69 273 Pn 09 06 23.5 0.0
AKLV Sn 09 07 05.0 -1.6
ZRO Akutan Zero 3.71 272 Pn 09 06 23.6 0.0
ZRO Sn 09 07 05.4 -1.6
AKGG Akutan Green G 3.71 274 Pn 09 06 23.7 0.0
LVA Lava Point 3.74 273 Pn Pn 09 06 23.4 -0.7
LVA IAML 09 07 44.9
comp=N,313nm,1.9s
SII Sitkinak Islan 3.97 50 P Pn 09 06 27.6 +0.3
SII Sitkinak Islan 3.97 50 Pn 09 06 27.5 +0.3
SII IAML 09 08 11.0
comp=N,341nm,0.9s
R17L Mt. Peulik Vol 3.98 27 Pn 09 06 29.0 +1.7
UNV Unalaska Valle 4.04 269 P Pn 09 06 27.9 -0.2
UNV Unalaska Valle 4.04 269 Pn Pn 09 06 27.4 -0.7
PLK1 Peulik 1 4.07 24 Pn 09 06 29.9 +1.4
MTBL Makushin Table 4.13 271 Pn 09 06 29.4 -0.1
MTBL Sn 09 07 16.1 -1.3
MNAT Makushin Natee 4.14 269 Pn 09 06 29.2 -0.4
PLK5 Peulik 5 4.19 21 Pn 09 06 31.6 +1.5
MSW Makushin Switc 4.20 270 Pn 09 06 29.8 -0.5
MGOD Makushin Gods 4.26 268 Pn 09 06 31.1 -0.2
Q17K Contact Creek 4.66 26 Pn 09 06 37.8 +1.0
ANCK Angle Creek 4.70 28 Pn 09 06 38.5 +1.1
ACHA Angle Creek He 4.76 29 Pn 09 06 38.1 0.0
OHAK Old Harbor 4.76 47 P Pn 09 06 38.0 -0.1
OHAK Old Harbor 4.76 47 Pn Pn 09 06 38.3 +0.2
OHAK IAML 09 08 37.5
comp=E,70nm,2.7s
P16K Nushagak River 5.01 10 Pn Pn 09 06 41.9 +0.5
OKTU Okmok Mt. Tuli 5.02 265 Pn 09 06 41.9 +0.2
OKNC Okmok New Cone 5.05 266 Pn 09 06 42.0 -0.1
KAWH Katmai 5.06 31 Pn 09 06 42.8 +0.6
OKRE Okmok R'deer P 5.06 267 Pn 09 06 42.8 +0.5
O15K Ungalikthiuk R 5.07 359 Pn 09 06 42.1 -0.1
O15K IAML 09 08 29.8
comp=N,84nm,0.9s
O15K IAML 09 08 34.8
comp=E,115nm,1.4s
KARR Katmai Rainbow 5.18 30 Pn 09 06 44.7 +0.9
OKSP Okmok Steeple 5.19 264 Pn 09 06 43.8 -0.3
Q18K Katmai Hardscr 5.22 28 Pn 09 06 45.3 +0.8
KAHG Katmai Hook Gl 5.23 31 Pn 09 06 45.2 +0.7
P17K Kvichak River 5.39 18 Pn Pn 09 06 47.0 +0.4
KDAK Kodiak Island 5.41 45 Pn Pn 09 06 46.8 -0.2
comp=E,3.6nm,0.3s,baz=222,slow=2.8,SNR=90
KDAK Sn Sn 09 07 44.8 -4.1
comp=E,3.9nm,0.3s,baz=39,slow=20,SNR=7.9
comp=E,16nm,0.4s
KDAK AML AML
KDAK Kodiak Island 5.41 45 Pn Pn 09 06 46.9 -0.1
Q16K Kokwok River B 5.55 8 Pn Pn 09 06 49.5 +0.6
Q19K Cape Douglas, 5.86 32 Pn Pn 09 06 53.4 +0.3
N15K Kwethluk River 6.06 358 Pn Pn 09 06 57.4 +1.5
AUI Augustine Isla 6.25 31 Pn 09 06 59.3 +0.8
N17K Nushagak Hills 6.56 11 Pn 09 07 01.6 -1.1
P19K Oil Pt 6.57 30 Pn 09 07 03.7 +0.8
O19K Port Alsworth 6.75 23 Pn 09 07 02.9 -2.4
ILSW Iliamna Southw 6.87 29 Pn Pn 09 07 05.3 -1.8
IVE Iliamna Volcan 6.93 29 Pn 09 07 08.3 +0.4
HOM Homer 7.08 35 Pn Pn 09 07 10.6 +0.8
O20K Slope Mountain 7.10 30 Pn 09 07 10.4 +0.2
CNPM China Poot 7.12 37 Pn Pn 09 07 10.1 -0.4
N19K Bonanza Creek 7.26 21 Pn Pn 09 07 14.0 +1.5
RDWB Redoubt West 7.37 27 Pn 09 07 14.6 +0.6
M17K Holitna River 7.39 8 Pn 09 07 15.2 +1.0
L14K Kuka Creek 7.41 349 Pn Pn 09 07 15.3 +0.9
BRLK Bradley Lake 7.42 37 Pn Pn 09 07 13.8 -0.7
BRSE Bradley Lake S 7.45 37 Pn 09 07 14.4 -0.6
SPU Mount Spurr 8.16 27 Pn Pn 09 07 25.2 +0.4
SEW Seward 8.17 39 Pn Pn 09 07 24.0 -0.8
SLKM Skilak Lake 8.19 35 Pn 09 07 25.1 +0.1
STLK Strandline Lak 8.49 26 Pn Pn 09 07 30.5 +1.3
SUA Susitna One 8.76 29 Pn 09 07 33.7 +0.7
RC01 Rabbit Creek A 8.78 33 Pn 09 07 33.8 +0.7
P23K Montague Islan 8.90 44 Pn Pn 09 07 35.0 +0.2
ATKA Atka Island 8.93 263 P Pn 09 07 35.3 0.0
ATKA Atka Island 8.93 263 Pn 09 07 34.9 -0.4
MID Middleton Isla 9.04 49 Pn 09 07 37.0 +0.3
PWL Port Wells 9.09 38 Pn 09 07 36.2 -1.2
J16K Anvik River 9.20 357 Pn 09 07 39.8 +0.9
PMR Palmer 9.35 33 P Pn 09 07 41.6 +0.7
PMR Palmer 9.35 33 Pn 09 07 41.0 0.0
KNK Knik Glacier 9.44 35 Pn 09 07 41.8 -0.4
HIN Hinchinbrook I 9.50 43 Pn 09 07 42.2 -0.8
GLI Glacier Island 9.56 40 Pn 09 07 42.7 -1.2
FID Port Fidalgo 9.72 42 Pn 09 07 44.4 -1.6
SML Sawmill 9.77 33 Pn 09 07 46.2 -0.5
EYAK Cordova Ski Ar 9.89 44 P Pn 09 07 47.8 -0.6
EYAK Cordova Ski Ar 9.89 44 Pn 09 07 48.4 0.0
SCM Sheep Creek Mo 10.12 35 Pn 09 07 51.8 +0.2
KLU Klutina 10.39 39 Pn 09 07 54.2 -1.1
ADK Adak 10.49 265 P Pn 09 07 56.8 +0.2
CRQM Cirque 11.09 47 Pn 09 08 05.7 +0.7
TGL Tana Glacier 11.22 47 Pn 09 08 06.5 -0.3
YAH Yahtse 11.53 50 Pn 09 08 11.0 +0.1
GRNC Granite Creek 11.68 48 Pn 09 08 12.5 -0.6
BARN Barnard Glacie 11.87 47 Pn 09 08 16.0 +0.3
K24K Donnelly Dome 12.03 31 Pn 09 08 18.6 +0.9
LOGN Logan Glacier 12.05 49 Pn 09 08 18.6 +0.5
PCA Pinnacle 12.11 53 Pn 09 08 19.8 +1.1
PNL Peninsula 12.37 55 P Pn 09 08 22.5 +0.2
O28M Mount Upton 12.39 50 Pn 09 08 23.6 +0.7
ILAR Eielson Array 12.47 26 Pn Pn 09 08 20.3 -3.3
comp=E,0.3nm,0.3s,baz=212,slow=13,SNR=5.2
comp=E,1.0nm,0.4s
ILAR AML AML
SKAG Skagway 14.32 58 P Pn 09 08 50.6 +1.7
R32K Eaglecrest 14.57 63 Pn 09 08 52.5 +0.3
JIS Juneau Island 14.64 63 P Pn 09 08 54.2 +1.0
BMAR Burnt Mountain 15.17 23 Pn Pn 09 09 00.2 -0.2
TOLK Toolik Lake Re 15.31 14 Pn Pn 09 09 02.7 +0.4
D23K Nanushuk River 15.46 12 Pn Pn 09 09 04.6 +0.4
I29M Ogilvie Camp, 15.48 35 Pn Pn 09 09 04.8 +0.4
P33M Teslin, Yukon 15.71 56 Pn Pn 09 09 08.1 +0.5
P33M IAmb IAmb 09 09 17.0
comp=Z,21nm,0.9s
F28M Old Crow 16.49 27 Pn Pn 09 09 16.8 -0.5
DLBC Dease Lake 16.94 63 Pn P 09 09 26.4 +1.3
comp=Z,0.8nm,0.3s,baz=211,slow=13,SNR=9.5
comp=Z,3.7nm,0.5s
DLBC AML AML
MMPY Sheldon Lake, 17.02 49 Pn Pn 09 09 23.3 -0.9
MMPY IAmb IAmb 09 09 27.9
comp=Z,50nm,1.2s
F31M Tsiigehtchic 18.18 33 Pn 09 09 37.4 -1.1
INK Inuvik 18.75 31 P P 09 09 45.1 +0.2
comp=Z,0.5nm,0.3s,baz=233,slow=16,SNR=5.0
comp=Z,5.6nm,0.7s
INK AML AML
INK Inuvik 18.75 31 P 09 09 44.1 -0.8
A36M Sachs Harbour 23.17 27 P P 09 10 32.7 +0.4
A36M IAmb IAmb 09 10 50.5
comp=Z,15nm,0.9s
PEA0B Petropavlovsk- 25.03 285 P P 09 10 49.3 -0.7
PETK Petropavlovsk- 25.03 285 P P 09 10 49.6 -0.4
comp=Z,4.1nm,0.8s,baz=65,slow=12,SNR=4.6
comp=Z,4.1nm,0.8s
PETK Petropavlovsk- 25.03 285 P P 09 10 49.7 -0.3
SEY Seymchan 25.94 309 P P 09 10 56.8 -1.4
comp=Z,3.4nm,0.6s,baz=100,slow=9.3,SNR=8.5
comp=Z,3.4nm,0.6s
NVAR Mina Array Bea 32.08 102 P P 09 11 59.8 +6.5
comp=Z,0.6nm,0.6s,baz=328,slow=8.6,SNR=3.7
comp=Z,0.6nm,0.6s
NVAR Mina Array Bea 32.08 102 P P 09 11 53.4 +0.1
KLR Kul'dur 41.28 292 P P 09 13 10.7 -0.5
comp=Z,1.4nm,0.7s,baz=72,slow=12,SNR=4.5
comp=Z,1.4nm,0.7s
H11N2 WAKE ISLAND Hy 42.77 230 T T 09 59 25.8
baz=28,slow=76,SNR=61
H11N3 WAKE ISLAND Hy 42.78 230 T T 09 59 19.7
baz=28,slow=76,SNR=53
H11N1 WAKE ISLAND Hy 42.79 230 T T 09 59 15.0
baz=28,slow=76,SNR=39
H11S1 WAKE ISLAND Hy 43.93 229 T T 10 00 41.9
baz=28,slow=76,SNR=36
H11S2 WAKE ISLAND Hy 43.95 229 T T 10 00 40.6
baz=28,slow=76,SNR=40
H11S3 WAKE ISLAND Hy 43.95 229 T T 10 00 49.6
baz=28,slow=76,SNR=34
JFWS Jewell Farm 45.54 75 P P 09 13 45.1 -0.6
JFWS IAmb IAmb 09 14 01.5
comp=Z,7.7nm,1.1s
I42A Draeger Farm, 45.68 73 P P 09 13 45.6 -1.1
I42A IAmb IAmb 09 13 59.0
comp=Z,4.5nm,0.8s
WMOK Wichita Mounta 46.03 89 P P 09 13 50.3 +0.7
WMOK IAmb IAmb 09 13 53.1
comp=Z,3.3nm,0.8s
TXAR Lajitas Array 47.05 98 P P 09 14 04.5 +6.7
comp=Z,0.7nm,0.7s,baz=322,slow=5.6,SNR=2.4
comp=Z,0.7nm,0.7s
TXAR Lajitas Array 47.05 98 P P 09 13 56.6 -1.2
NRIK Noril'sk 47.55 334 P P 09 14 01.1 0.0
comp=Z,7.3nm,0.8s,baz=43,slow=6.7,SNR=5.2
comp=Z,7.3nm,0.8s
NRIK Noril'sk 47.55 334 P P 09 14 01.3 +0.2
KSRS Korea Array 50.86 282 P P 09 14 26.4 -0.3
comp=Z,2.3nm,0.8s,baz=42,slow=5.8,SNR=8.2
comp=Z,2.3nm,0.8s
TLY Talaya 53.84 310 P P 09 14 48.8 0.0
SONM Songino Array 55.23 305 P P 09 14 59.0 -0.1
comp=Z,3.4nm,0.6s,baz=64,slow=6.4,SNR=13
comp=Z,3.4nm,0.6s
SONM Songino Array 55.23 305 P P 09 14 58.8 -0.3
SONM IAmb IAmb 09 15 00.7
comp=Z,3.1nm,0.7s
KEV Kevo 56.33 357 P P 09 15 06.8 +0.4
BORG Borgarnes 57.21 20 LR LR 09 43 46.4
comp=Z,677nm,19.2s,baz=3.1,slow=40
LVZ Lovozero 57.83 354 P P 09 15 17.2 +0.1
ZALV Zalesovo Beam 59.85 322 P P 09 15 30.7 -0.6
comp=Z,0.9nm,0.7s,baz=35,slow=5.3,SNR=2.5
comp=Z,0.9nm,0.7s
ZALV Zalesovo Beam 59.85 322 P P 09 15 30.8 -0.5
FINES FINESS Array B 64.69 357 P P 09 16 03.7 +0.2
comp=Z,2.7nm,0.8s,baz=45,slow=5.7,SNR=6.0
comp=Z,2.7nm,0.8s
FINES FINESS Array B 64.69 357 P P 09 16 03.1 -0.4
NOA NORSAR Array B 64.95 5 P P 09 16 06.0 +0.6
comp=Z,1.0nm,0.7s,baz=355,slow=6.6,SNR=3.0
comp=Z,1.0nm,0.7s
BVAR Borovoye Array 65.41 329 P P 09 16 09.6 +1.1
comp=Z,5.7nm,0.7s,baz=36,slow=7.8,SNR=9.8
comp=Z,5.7nm,0.7s
ARTI Arti 65.53 338 P P 09 16 09.2 0.0
KNMB Chin-men Tao 65.91 279 P P 09 16 12.2 +0.2
HFS Hagfors 65.97 4 P P 09 16 12.5 +0.6
comp=Z,2.4nm,0.7s,baz=90,slow=7.2,SNR=2.3
comp=Z,2.4nm,0.7s
MKAR Makanchi Array 66.59 319 P P 09 16 16.1 -0.1
comp=Z,0.7nm,0.6s,baz=34,slow=4.3,SNR=4.5
comp=Z,0.7nm,0.6s
MKAR Makanchi Array 66.59 319 P P 09 16 15.6 -0.6
MAKZ Makanchi 66.70 319 P P 09 16 16.6 -0.2
MAKZ IAmb IAmb 09 16 26.2
comp=Z,3.0nm,1.1s
EKA Eskdalemuir Ar 69.21 14 P P 09 16 34.4 +1.9
comp=Z,1.5nm,0.8s,baz=352,slow=5.4,SNR=4.6
comp=Z,1.5nm,0.8s
AB31 Akbulak array 71.72 334 P P 09 16 48.3 +0.4
AB31 IAmb IAmb 09 16 49.6
comp=Z,2.7nm,0.8s
ABKAR Akbulak array 71.72 334 P P 09 16 48.5 +0.6
BOOM Boomskoye usch 72.65 320 P P 09 16 55.2 +1.4
BOOM IAmb IAmb 09 17 11.2
comp=Z,1.8nm,0.7s
KKAR Karatay Array 74.07 324 P P 09 17 02.3 +0.3
AKASG Malin Array Be 75.28 354 P P 09 17 08.4 -0.3
comp=Z,2.2nm,0.6s,baz=8.7,slow=5.6,SNR=6.3
comp=Z,2.2nm,0.6s
CMAR Chiang Mai Arr 81.71 290 P P 09 17 47.5 +2.8
comp=Z,0.9nm,0.3s,baz=11,slow=5.3,SNR=6.6
comp=Z,0.9nm,0.3s
MDT Midelt 90.77 21 LR LR 10 01 53.6
comp=Z,727nm,20.5s,baz=40,slow=38
H03N2 Juan Fernandez 111.36 118 T T 11 25 21.9
baz=316,slow=76,SNR=4.6
H03N1 Juan Fernandez 111.37 118 T T 11 25 25.8
baz=306,slow=76,SNR=8.2

RHSSO 06 09:07:40.8±0.5,45°.15N×17°.16E,h6^{km},ML1.6/3,1C, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BLY	Banja Luka	0.40	177	⇑*i*Pg	Pg	09 07 48.2	-0.4
BLY				eSg	Sg	09 07 54.6	+0.7
MOSL	Moslavina	0.54	329	ePg	Pg	09 07 48.0	-3.3
MOSL				Sg	Sg	09 07 53.7	-4.6
ZAG	Zagreb	1.06	310	ePg	Pg	09 07 57.6	-3.5
ZAG				Sg	Sg	09 08 09.6	-5.4
KALN	Kalnik	1.09	334	*i* Pg	Pg	09 07 58.3	-3.6
KALN				Sg	Sg	09 08 11.2	-4.9
PLIT	Plitvice	1.12	256	ePg	Pg	09 07 58.2	-4.1

PLIT					Sg	Sg	09 08 10.2	-6.6
PTJ	**Puntijarka**	**1.12**	**313**	*e*Pg	Pg	09 07 58.1	-4.3
PTJ					Sg	Sg	09 08 10.9	-6.1
UDBI	**Udbina**	**1.17**	**238**	*e*Pg	Pg	09 08 00.2	-3.1
UDBI					Sg	Sg	09 08 13.1	-5.3
LOBO	**Lobor**	**1.26**	**323**	*e*Pg	Pg	09 08 01.4	-3.5
LOBO					Sg	Sg	09 08 16.9	-4.4
KIJV	**Kijevo**	**1.27**	**205**	*i* Pg	Pn	09 08 02.3	-2.7
KIJV					Sg	Sg	09 08 18.9	-2.6
OZLJ	**Ozalj**	**1.28**	**292**	*e*Pg	Pn	09 08 00.6	-4.6
OZLJ					Sg	Sg	09 08 16.1	-5.7
BEHE	**Becsehely**	**1.34**	**349**	*e*Pg	Pn	09 08 04.8	-1.3
BEHE					eSg	Sb	09 08 23.6	-0.3
MORH	**Mrgy, Hungar**	**1.49**	**44**	*e*Pg	Pn	09 08 07.4	-0.7
MORH					eSg	Sb	09 08 28.2	+0.2
MORI	**Morici**	**1.65**	**219**	*e*Pn	Pn	09 08 08.6	-1.7
MORI					Sn	Sn	09 08 31.1	-0.7
RICI	**Ricice**	**1.66**	**181**	*e*Pn	Pb	09 08 11.5	-0.2
RICI					Sn	Sg	09 08 33.5	-0.5
NVLJ	**Novalja**	**1.73**	**251**	Sg	Sn	09 08 30.2	-3.5
RABC	**Rab**	**1.73**	**257**	*e*Pg	Pn	09 08 10.0	-1.4
RABC				Sg	Sn	09 08 29.7	-4.1
MAKA	**Makarska**	**1.87**	**183**	*e*Pn	Pn	09 08 14.0	+0.8
MAKA				Sn	Sb	09 08 39.0	+0.2
DUGI	**Dugi Otok**	**1.90**	**233**	*e*Pn	Pn	09 08 11.8	-1.9
DUGI				Sn	Sn	09 08 35.5	-2.4
LSTV	**Lastovo**	**2.39**	**185**	*e*Pn	Pn	09 08 21.2	+0.7
LSTV				Sn	Sn	09 08 50.6	+0.5

IDC ***06*** *09:11:14.6±2.2, 40°.79N×143°.52E, h0km, mb3.9/5, mbtmp3.8/7, ML2.9/2, Error ellipse: s-maj=52.9km s-min=19.1km az=98.0*

NEIC ***06*** *09:11:16.8±1.0, 40°.88N±0°.06×143°.38E±0°.07, h10km±1km, mb4.6/10, Error ellipse: s-maj=11.2km s-min=6.8km az=144.0*

JMA ***06*** *09:11:20.6±0.1, 41°.0N±0°.3×143°.2E±0°.3, h18km±1km, MV3.5/32, E OFF AOMORI PREF*

ISC 06 09:11:19.3±0.7, 40°.87N±0°.05×143°.4E±0°.1, h31km, n37, σ0§81/32, mb4.5/10, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ERM	**Erimo**	**1.15**	**353**		**Pn**	**09 11 39.2**	**-0.1**
JEM	**Erimo**	**1.15**	**353**	P	**Pb**	**09 11 40.1**	**-0.5**
JEM				*e*S	**Sb**	**09 11 55.9**	**+0.6**
JTM	**Tenmabayashi**	**1.73**	**268**		**Pn**	**09 11 47.5**	**+0.2**
JKA	**Kamikawa-asahi**	**3.29**	**351**		**Pn**	**09 12 08.2**	**-0.4**
ASAJ	**Asahikawa**	**3.29**	**351**	Pn	**Pn**	**09 12 09.4**	**+0.8**
	1.6nm,0.3s,baz=201,slow=14,SNR=15 11nm,0.9s						
ASAJ				AML	AML		
JYT	**Yasato**	**5.25**	**209**	Pn	**Pn**	**09 12 35.4**	**-0.3**
MJB9	**Matsu-Tunnel**	**5.90**	**225**	Pn	**Pn**	**09 12 44.4**	**-0.2**
MAJO	**Matsushiro**	**5.90**	**225**	Pn	**Pn**	**09 12 44.4**	**-0.2**
MJAR	**Matsushiro Arr**	**5.90**	**225**	Pn	**Pn**	**09 12 45.9**	**+1.3**
	0.1nm,0.3s,baz=32,slow=14,SNR=5.1 1.3nm,0.6s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.90**	**225**		**Pn**	**09 12 44.7**	**+0.1**
JGF	**Kuroka**	**7.07**	**224**	Pn	**Pn**	**09 13 00.5**	**-0.1**
JSG	**Sagara**	**7.41**	**215**	Pn	**Pn**	**09 13 05.4**	**+0.1**
H11N2	**WAKE ISLAND Hy**	**29.12**	**129**	T	T	09 48 03.0	
	baz=322,slow=74,SNR=12						
H11N1	**WAKE ISLAND Hy**	**29.13**	**129**	T	T	09 48 03.2	
	baz=322,slow=74,SNR=9.6						
H11N3	**WAKE ISLAND Hy**	**29.13**	**129**	T	T	09 48 03.4	
	baz=322,slow=74,SNR=9.4						
H11S1	**WAKE ISLAND Hy**	**29.96**	**131**	T	T	09 49 09.1	
	baz=324,slow=76,SNR=4.9						
H11S3	**WAKE ISLAND Hy**	**29.97**	**131**	T	T	09 49 07.5	
	baz=324,slow=76,SNR=5.6						
H11S2	**WAKE ISLAND Hy**	**29.98**	**131**	T	T	09 49 11.0	
	baz=324,slow=76,SNR=5.7						
I17K	**Unalakleet**	**39.43**	**35**	P	**P**	**09 18 47.1**	**+1.1**
J17K	**VABM Dome**	**40.08**	**36**	P	**P**	**09 18 51.1**	**-0.4**
J17K				IAmb	IAmb	09 18 53.5	
	comp=Z,22nm,1.4s						
ZALV	**Zalesovo Beam**	**40.55**	**309**	P	**P**	**09 18 58.5**	**+3.0**
	comp=Z,0.9nm,0.4s,baz=94,slow=8.5,SNR=4.7 comp=Z,0.9nm,0.4s						
ZALV	**Zalesovo Beam**	**40.55**	**309**	P	**P**	**09 18 54.5**	**-1.0**
IMAR	**Indian Mountai**	**42.60**	**33**	P	**P**	**09 19 11.5**	**-0.6**
MKAR	**Makanchi Array**	**43.47**	**299**	P	**P**	**09 19 19.5**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=87,slow=9.8,SNR=6.5 comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**43.47**	**299**	P	**P**	**09 19 19.8**	**+0.4**
KURK	**Kurchatov**	**44.85**	**305**	P	**P**	**09 19 30.0**	**-0.4**
KURK				IAmb	IAmb	09 19 46.5	
	comp=Z,1.9nm,0.4s						
KURBB	**Kurchatov Arra**	**44.92**	**305**	P	**P**	**09 19 30.4**	**-0.5**
	comp=Z,2.6nm,0.3s,baz=77,slow=8.4,SNR=4.2 comp=Z,2.6nm,0.3s						
SCM	**Sheep Creek Mo**	**45.50**	**38**	P	**P**	**09 19 35.9**	**+0.3**
RABL	**Rabaul**	**45.57**	**168**	P	**P**	**09 19 36.6**	**+0.2**
EVN	**Everest**	**47.63**	**273**	P	**P**	**09 19 52.2**	**-1.1**
EVN				IAmb	IAmb	09 20 05.4	
	comp=Z,8.4nm,1.5s						
ARTI	**Arti**	**54.64**	**317**	P	**P**	**09 20 45.3**	**+0.6**
ARTI				IAmb	IAmb	09 20 58.0	
	comp=Z,6.5nm,1.1s						
WR8	**Warramunga Arr**	**61.07**	**190**	P	**P**	**09 21 31.1**	**+0.9**
WR8				IAmb	IAmb	09 21 44.1	
	comp=Z,7.0nm,1.4s						
WRA	**Warramunga Arr**	**61.08**	**190**	P	**P**	**09 21 30.0**	**-0.2**
	comp=Z,0.2nm,0.5s,baz=8.1,slow=6.5,SNR=1.7 comp=Z,0.2nm,0.5s						
WRA	**Warramunga Arr**	**61.08**	**190**	P	**P**	**09 21 29.7**	**-0.6**
FINES	**FINESS Array B**	**66.13**	**332**	P	**P**	**09 22 02.5**	**-0.6**
	comp=Z,2.8nm,1.0s,baz=46,slow=11,SNR=4.4 comp=Z,2.8nm,1.0s						
FINES	**FINESS Array B**	**66.13**	**332**	P	**P**	**09 22 02.9**	**-0.2**
PINNC	**Pines Island,**	**67.02**	**156**	P	**P**	**09 22 09.3**	**+0.2**

MDD ***06*** *09:12:27.8±1.4, 36°.22N×8°.48W, h5km, mb_Lg2.6/6, Error ellipse: s-maj=11.4km s-min=6.3km az=32.0*

INMG ***06*** *09:12:28.3±1.7, 36°.19N×8°.57W, h12km±4km, ML2.0, Error ellipse: s-maj=6.2km s-min=3.7km az=58.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SE Cabo S.Vicente*

IGIL ***06*** *09:12:29.4, 36°.22N×8°.59W, h12km, ML2.0*

ISC 06 09:12:26.8±2.4, 36°.24N±0°.09×8°.41W±0°.06, h10km±10km, n22, σ0§93/40, 1C, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**0.96**	**340**	⇑*e*P	**Pg**	**09 12 45.5**	**+0.2**
PFVI				*e*S	**Sg**	**09 12 58.1**	**+0.3**
PFVI				IAML		09 12 58.8	
PFVI				IAML		09 12 59.2	
PFVI				IAML		09 12 59.4	
PBDV	**Barranco-do-Ve**	**1.08**	**21**	*e*P	**Pn**	**09 12 49.3**	**+1.3**
PBDV				*e*S	**Sn**	**09 13 03.9**	**+0.9**
PBDV				IAML		09 13 05.3	
PBDV				IAML		09 13 06.0	
PBDV				IAML		09 13 06.6	
MORF	**Marmelete**	**1.09**	**350**	*e*P	**Pn**	**09 12 48.4**	**+0.3**
MORF				*e*S	**Sb**	**09 13 02.0**	**+0.1**
MORF				IAML		09 13 04.7	
	comp=E,30nm,0.1s						
MORF	**Marmelete**	**1.09**	**350**	*e*P	**Pn**	**09 12 48.4**	**+0.3**
MORF				*e*S	**Sn**	**09 13 02.9**	**-0.3**
MORF				IAML		09 13 03.6	
MORF				IAML		09 13 04.8	
MORF				IAML		09 13 04.8	
PVAQ	**Vaqueiros**	**1.29**	**25**	*e*Pn	**Pg**	**09 12 51.6**	**-0.1**
PVAQ				*e*Sn	**Sn**	**09 13 09.9**	**+1.6**
PVAQ				IAML		09 13 11.1	
PVAQ				IAML		09 13 11.7	
PVAQ				IAML		09 13 11.7	
PTEO	**Sao Teotonio**	**1.33**	**349**	*e*Pn	**Pn**	**09 12 51.1**	**-0.3**
PTEO				*e*Sn	**Sb**	**09 13 09.1**	**+0.1**
PTEO				IAML		09 13 10.4	
PTEO				IAML		09 13 10.7	
PTEO				IAML		09 13 10.9	
PCVE	**Castro Verde**	**1.43**	**12**	*e*Pn	**Pb**	**09 12 53.3**	**-0.2**
PCVE				*e*Sn	**Sg**	**09 13 12.0**	**-0.8**
PCVE				IAML		09 13 13.4	
PCVE				IAML		09 13 16.5	
PCVE				IAML		09 13 16.8	
EGRO	**El Granado**	**1.49**	**29**	P	**Pb**	**09 12 54.2**	**-0.4**
EGRO				S	**Sg**	**09 13 13.4**	**-1.5**
EGRO				IVmb_Lg		09 13 16.8	
MESJ	**Messejana**	**1.61**	**5**	*e*Pg	**Pg**	**09 12 58.5**	**+0.8**
MESJ				*e*Sn	**Sb**	**09 13 17.1**	**+0.1**
PLOUS	**Minas do Lousa**	**1.79**	**360**	*e*Pg	**Pg**	**09 13 01.0**	**-0.2**
PLOUS				*e*Sg	**Sg**	**09 13 24.2**	**-0.3**
PLOUS				IAML		09 13 26.3	
PLOUS				IAML		09 13 26.8	
PLOUS				IAML		09 13 27.4	
PBEJ	**Beja**	**1.84**	**13**	*e*Sg	**Sg**	**09 13 26.9**	**+0.9**
PBEJ				IAML		09 13 27.6	
PBEJ				IAML		09 13 29.3	
PBEJ				IAML		09 13 29.6	
EMIN	**Mina Concepcio**	**2.07**	**42**	P	**Pb**	**09 13 03.7**	**-0.8**
EMIN				S	**Sb**	**09 13 28.8**	**-1.4**
ESPR	**Espera**	**2.15**	**72**	P	**Pn**	**09 13 03.4**	**+0.8**
ESPR				S	**Sb**	**09 13 31.0**	**-1.5**
ESPR				IVmb_Lg		09 14 40.4	
PBAR	**Barrancos**	**2.22**	**29**	*e*Sg	**Sg**	**09 13 40.9**	**+2.5**
PBAR				IAML		09 13 41.9	
PBAR				IAML		09 13 44.2	
PBAR				IAML		09 13 46.1	
PESTR	**Estremoz**	**2.71**	**14**	*e*Sg	**Sg**	**09 13 54.5**	**+0.7**
EBAD	**Badajoz**	**2.75**	**23**	P	**Pn**	**09 13 11.8**	**+0.9**
EBAD				S	**Sn**	**09 13 45.1**	**+0.9**
EBAD				IVmb_Lg		09 14 15.7	
PMTG	**Montargil**	**2.83**	**3**	*e*Sn	**Sn**	**09 13 45.2**	**-1.0**
PMTG				*e*Sg	**Sg**	**09 13 57.3**	**-0.6**
PMTG				IAML		09 13 59.4	
PMTG				IAML		09 14 00.6	
PMTG				IAML		09 14 02.0	
ECAB	**El Cabril**	**3.01**	**52**	P	**Pn**	**09 13 14.9**	**+0.3**
ECAB				S	**Sn**	**09 13 50.8**	**0.0**
ECAB				IVmb_Lg		09 14 57.0	
PMRV	**Marv??o**	**3.29**	**14**	*e*Sn	**Sn**	**09 13 56.0**	**-1.6**
PMRV				*e*Sg	**Sg**	**09 14 11.4**	**-1.0**
EADA	**Adamuz**	**3.62**	**57**	P	**Pn**	**09 13 23.7**	**+0.8**
EADA				S	**Sn**	**09 14 05.9**	**+0.3**
EADA				IVmb_Lg		09 14 55.3	

MOS ***06*** *09:17:02.9±0.9, 40°.92N×143°.19E, h15km, mb5.1/43, Error ellipse: s-maj=6.7km s-min=4.6km az=97.2*

IDC ***06*** *09:17:02.2±0.6, 40°.88N×143°.24E, h0km, mb4.5/23, mbtmp4.5/30, ML3.6/7, MS4.3/14, Error ellipse: s-maj=13.1km s-min=10.8km az=125.0*

NEIC ***06*** *09:17:04.5±0.9, 40°.92N±0°.08×143°.2E±0°.1, h10km±1km, mb5.0/162, Error ellipse: s-maj=16.5km s-min=11.6km az=132.0*

BJI ***06*** *09:17:05.3, 40°.97N×143°.30E, h42km, mB5.5/5, mb4.9/60, Ms4.6/12, Ms7 4.4/12*

JMA ***06*** *09:17:07.0±0.0, 40°.9N±0°.2×143°.3E±0°.3, h18km, MD4.7/35, MV4.5/35, E OFF AOMORI PREF*

JMA Felt I J1 at E OFF AOMORI PREF .

NIED ***06*** *09:17:07.0, 40°.93N×143°.26E, h18km, MW4.8, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁶Nm; Mrr0.93; Mθθ-0.08; Mφφ-0.85; Mrθ0.40; Mθφ-0.93; Mφr1.09; Fault plane solution: M₀1.69000×10¹⁶ NP1: φs235.00000°, δ26.00000°, λ122.00000°. NP2: φs20.00000°, δ68.00000°, λ75.00000°.*

GFZ ***06*** *09:17:08.2±0.5, 41°.N±4°×14°.3E±°, h41km±4km, M4.9/23, mb4.9/23*

ISC 06 09:17:06.8±0.4, 40°.92N±0°.04×143°.31E±0°.05, h31km, n496, σ1§18/410, mb4.9/178, MS4.4/16, 22C-15D, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ERM	**Erimo**	**1.10**	**354**	P	**Pn**	**09 17 25.9**	**-0.1**
ERM	**Erimo**	**1.10**	**354**		**Pn**	**09 17 25.9**	**-0.1**
ERM	**Erimo**	**1.10**	**354**	P	**Pn**	**09 17 26.0**	**-0.1**
JEM	**Erimo**	**1.10**	**354**	P	**Pn**	**09 17 25.8**	**-0.3**
JEM					A	A	09 17 25.8	
	comp=N,19nm,2.8s,comp=E,23nm,2.7s						
JEM					*e*S	**Sb**	**09 17 40.7**	**-0.5**
JTHR	**Tokachihiroo**	**1.37**	**360**	A	A	09 17 31.2	
	comp=N,12nm,1.2s,comp=E,19nm,4.6s						
JKEN	**Kujiedanarisaw**	**1.41**	**240**	A	A	09 17 31.6	
	comp=N,18nm,2.3s,comp=E,18nm,2.8s						
JNBK	**Urakawa-nobuka**	**1.42**	**343**	A	A	09 17 31.9	
	comp=N,28nm,3.9s,comp=E,31nm,1.8s						
JANG	**Nango**	**1.47**	**249**	A	A	09 17 32.5	
	comp=N,8.0nm,2.5s,comp=E,6.0nm,1.3s						
JARK	**Aomorirokkasho**	**1.47**	**274**	A	A	09 17 32.4	
	comp=N,15nm,2.6s,comp=E,10.0nm,1.9s						
JAHD	**Aomorihigashid**	**1.53**	**284**	A	A	09 17 33.2	
	comp=N,25nm,2.0s,comp=E,21nm,1.3s						
JSHD	**Hidakashinhida**	**1.61**	**337**	A	A	09 17 34.8	
	comp=N,31nm,1.2s,comp=E,34nm,1.7s						
JCH	**Churui**	**1.69**	**1**	A	A	09 17 36.2	
	comp=N,11nm,2.4s,comp=E,17nm,2.7s						
JTM	**Tenmabayashi**	**1.70**	**266**		**Pn**	**09 17 33.9**	**-0.5**
JTM	**Tenmabayashi**	**1.70**	**266**	P	**Pn**	**09 17 34.2**	**-0.2**
JTM	**Tenmabayashi**	**1.70**	**266**	A	A	09 17 35.9	
	comp=N,10.0nm,3.8s,comp=E,13nm,2.2s						
JOT	**Ohata**	**1.77**	**286**	A	A	09 17 36.8	
	comp=N,10.0nm,2.2s,comp=E,14nm,2.2s						
JKB	**Kayabe**	**1.96**	**300**	A	A	09 17 39.8	
	comp=N,12nm,3.2s,comp=E,17nm,4.6s						
JBT2	**Biratori 2**	**1.98**	**340**	A	A	09 17 40.3	
	comp=N,13nm,1.7s,comp=E,10.0nm,5.8s						
JIAM	**Iburiatsuma**	**1.99**	**329**	A	A	09 17 40.2	
	comp=N,44nm,1.2s,comp=E,50nm,4.0s						
JOB	**Onbets**	**2.02**	**11**	A	A	09 17 41.0	
	comp=N,18nm,2.1s,comp=E,18nm,2.2s						
JOM	**Ohasama**	**2.11**	**227**	A	A	09 17 42.1	
	comp=N,8.0nm,2.7s,comp=E,8.0nm,3.2s						
JSZI	**Iwateshizukuis**	**2.15**	**238**	A	A	09 17 42.6	
	comp=N,28nm,1.4s,comp=E,35nm,1.4s						
JAH	**Hinai**	**2.16**	**251**	A	A	09 17 42.7	
	comp=N,16nm,2.0s,comp=E,17nm,1.3s						
JSI2	**Shiura 2**	**2.19**	**274**	A	A	09 17 43.1	
	comp=N,11nm,3.8s,comp=E,21nm,1.7s						
OFUJ	**Ofunato**	**2.23**	**215**	A	A	09 17 43.8	
	comp=N,5.0nm,2.0s,comp=E,5.0nm,3.3s						
JHHS	**Hirosakihyakuz**	**2.25**	**264**	A	A	09 17 44.0	
	comp=N,18nm,5.7s,comp=E,21nm,2.6s						
JSR	**Shiriuchi**	**2.26**	**287**	A	A	09 17 44.1	
	comp=N,13nm,2.9s,comp=E,16nm,2.9s						
JAK	**Akkeshi**	**2.32**	**26**	A	A	09 17 45.5	
	comp=N,10.0nm,2.4s,comp=E,11nm,4.3s						
JEW	**Eniwo**	**2.37**	**325**	A	A	09 17 45.7	
	comp=N,25nm,2.5s,comp=E,19nm,1.1s						
JAR	**Ashorobuto**	**2.40**	**8**	A	A	09 17 46.5	
	comp=N,9.0nm,1.6s,comp=E,8.0nm,1.8s						
JNTW	**Noshirotokiwa**	**2.48**	**256**	A	A	09 17 47.2	
	comp=N,44nm,1.8s,comp=E,38nm,2.4s						
JYM2	**Yakumo 2**	**2.51**	**299**	A	A	09 17 47.6	
	comp=N,7.0nm,2.6s,comp=E,8.0nm,1.4s						
JIW	**Iwasaki**	**2.53**	**264**	A	A	09 17 47.9	
	comp=N,7.0nm,1.6s,comp=E,7.0nm,4.3s						
JRG	**Rokugo**	**2.55**	**234**	A	A	09 17 48.4	
	comp=N,10.0nm,2.9s,comp=E,8.0nm,2.6s						
JOMM	**Oshimamatsumae**	**2.56**	**285**	A	A	09 17 48.3	
	comp=N,4.0nm,1.9s,comp=E,6.0nm,1.2s						
JKHN	**Kushirohamanak**	**2.56**	**32**	A	A	09 17 49.0	
	comp=N,9.0nm,2.4s,comp=E,11nm,1.2s						
JAB	**Ashibetsu**	**2.70**	**343**	A	A	09 17 50.7	
	comp=N,14nm,2.5s,comp=E,12nm,5.0s						
JISS	**Ishikarishitsu**	**2.74**	**330**	A	A	09 17 51.0	
	comp=N,21nm,3.5s,comp=E,14nm,2.5s						
JYW	**Yuwa**	**2.74**	**241**	A	A	09 17 51.0	
	comp=N,17nm,2.4s,comp=E,15nm,2.3s						
JOFO	**Osakifurukawao**	**2.96**	**219**	A	A	09 17 54.3	
	comp=N,35nm,2.2s,comp=E,35nm,1.8s						
JHST	**Hiyamasetana**	**2.97**	**301**	A	A	09 17 54.2	
	comp=N,7.0nm,3.5s,comp=E,8.0nm,2.3s						
JYK	**Kaneyama**	**3.02**	**229**	A	A	09 17 55.1	
	comp=N,10.0nm,2.4s,comp=E,5.0nm,2.2s						
NMR	**Nemuro--Hokkai**	**3.04**	**36**	⇑*i*P	**Pn**	**09 17 52.0**	**-0.7**
NMR				*i* S	**Sn**	**09 18 25.2**	**-2.8**
JHR	**Hokuryu**	**3.05**	**338**	A	A	09 17 55.6	
	comp=N,19nm,2.4s,comp=E,13nm,3.7s						
JTKR	**Abashiri--Toko**	**3.08**	**8**	A	A	09 17 56.2	
	comp=N,3.0nm,2.3s,comp=E,4.0nm,1.4s						
JMP	**Maruseppu**	**3.08**	**1**	A	A	09 17 56.3	
	comp=N,4.0nm,1.3s,comp=E,5.0nm,2.0s						
JNSB	**Nemuroshibetsu**	**3.12**	**23**	A	A	09 17 56.9	
	comp=N,9.0nm,2.8s,comp=E,11nm,5.0s						
JYYZ	**Yamagatayuza**	**3.22**	**235**	A	A	09 17 57.8	
	comp=N,13nm,4.0s,comp=E,13nm,2.6s						
JKA	**Kamikawa-asahi**	**3.23**	**351**		**Pn**	**09 17 55.6**	**+0.1**
ASAJ	**Asahikawa**	**3.24**	**351**	Pn	**Pn**	**09 17 56.2**	**+0.8**
	comp=E,8.3nm,0.3s,baz=195,slow=15,SNR=24						
ASAJ					Sn	**Sn**	**09 18 37.0**	**+4.1**
	comp=E,18nm,0.3s,baz=129,slow=13,SNR=7.0						
ASAJ				AML	AML		
JOU	**Okura**	**3.27**	**219**	A	A	09 17 58.7	
	comp=N,8.0nm,1.4s,comp=E,6.0nm,2.4s						
JOG3	**Oga3**	**3.38**	**254**	A	A	09 17 52.6	
	comp=N,14nm,3.2s,comp=E,9.0nm,3.2s						
RUSJ	**Misakicho**	**3.49**	**24**	*e*P	**Pn**	**09 17 59.3**	**+0.4**
RUSJ				*e*S	**Sn**	**09 18 39.3**	**+0.2**
JYA	**Atsumi**	**3.62**	**231**	A	A	09 18 03.5	
	comp=N,8.0nm,2.1s,comp=E,8.0nm,1.2s						
JSS	**Shosan**	**3.64**	**343**	A	A	09 18 04.0	
	comp=N,7.0nm,4.7s,comp=E,8.0nm,6.0s						
YUK	**Yuzh-Kuril'sk**	**3.64**	**30**	*e*P	**Pn**	**09 18 00.8**	**-0.2**
YUK				*i* S	**Sn**	**09 18 40.8**	**-2.0**
YUK				pmax	pmax		
	comp=Z,1μm,0.3s						
YUK				pmax	pmax		
	comp=N,258nm,0.2s						
YUK				pmax	pmax		
	comp=E,206nm,0.2s						
YUK				smax	smax		
	comp=N,4μm,0.5s						
YUK				smax	smax		
	comp=E,3μm,0.5s						
JYS	**Shirataka**	**3.68**	**224**	A	A	09 18 04.5	
	comp=N,10.0nm,2.0s,comp=E,11nm,2.3s						
JYAR	**Yonezawaarcadi**	**3.88**	**220**	A	A	09 18 07.3	
	comp=N,10.0nm,1.1s,comp=E,11nm,1.2s						
JIZZ	**Izumozaki**	**4.92**	**228**	A	A	09 18 21.9	
	comp=N,8.0nm,3.3s,comp=E,9.0nm,3.0s						
KUR	**Kuril'sk**	**5.45**	**36**	⇓*i*P	**Pn**	**09 18 26.4**	**+0.5**
KUR				*i* S	**Sn**	**09 19 26.3**	**-1.2**
KUR				pmax	pmax		
	comp=Z,396nm,0.4s						
KUR				pmax	pmax		
	comp=N,184nm,0.6s						
KUR				pmax	pmax		
	comp=E,65nm,0.2s						
KUR				smax	smax		
	comp=N,1μm,0.5s						
KUR				smax	smax		
	comp=E,724nm,0.5s						
MAJO	**Matsushiro**	**5.92**	**224**	P	**Pn**	**09 18 33.0**	**+0.7**
MAJO	**Matsushiro**	**5.92**	**224**		**Pn**	**09 18 33.0**	**+0.7**
MAJO	**Matsushiro**	**5.92**	**224**	P	**Pn**	**09 18 33.3**	**+1.0**
	comp=Z,128nm,0.7s						
MJAR	**Matsushiro Arr**	**5.92**	**224**	Pn	**Pn**	**09 18 32.7**	**+0.4**
	comp=Z,0.8nm,0.3s,baz=30,slow=13,SNR=69						
MJAR				LR	LR	09 21 11.2	
	comp=Z,2μm,19.6s,baz=64,slow=42 comp=Z,25nm,0.8s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.92**	**224**		**Pn**	**09 18 32.2**	**-0.1**
MJB9	**Matsu-Tunnel**	**5.92**	**224**		**Pn**	**09 18 34.4**	**+2.1**
YSS	**Yuzhno-Sakhali**	**6.04**	**356**	*e*P	**Pn**	**09 18 35.7**	**+1.7**
YSS				*e*S	**Sn**	**09 19 44.9**	**+2.9**
YSS				pmax	pmax		
	comp=Z,50nm,1.1s						
YSS				smax	smax		
	comp=N,80nm,1.3s						
YSS				smax	smax		
	comp=E,40nm,1.2s						
YSS	**Yuzhno-Sakhali**	**6.04**	**356**	Pn	**Pn**	**09 18 34.5**	**+0.5**
YSS	**Yuzhno-Sakhali**	**6.04**	**356**	P	**Pn**	**09 18 36.1**	**+2.1**
	comp=Z,64nm,1.1s						
TEY	**Ternei**	**6.41**	**312**	*e*P	**Pn**	**09 18 37.2**	**-1.8**
JGF	**Kuroka**	**7.08**	**223**		**Pn**	**09 18 48.6**	**+0.3**
JGF	**Kuroka**	**7.08**	**223**	P	**Pn**	**09 18 50.7**	**+2.4**
	comp=Z,52nm,0.7s						
JSG	**Sagara**	**7.44**	**215**	Pn	**Pn**	**09 18 52.7**	**-0.4**
INU	**Inuyama**	**7.45**	**224**		**Pn**	**09 18 55.0**	**+1.6**
INU	**Inuyama**	**7.45**	**224**	P	**Pn**	**09 18 55.7**	**+2.3**
	comp=Z,44nm,1.0s						
JHJ2	**Mitsune**	**8.28**	**201**		**Pn**	**09 19 03.9**	**-0.8**
USA0B	**Ussuriysk Arra**	**8.97**	**295**	*ce*P	**Pn**	**09 19 15.4**	**+1.2**
USA0B	**Ussuriysk Arra**	**8.97**	**295**		**Pn**	**09 19 13.3**	**-0.9**
USRK	**Ussuriysk Ar.**	**8.97**	**295**	Pn	**Pn**	**09 19 15.6**	**+1.4**
	comp=Z,2.9nm,0.3s,baz=102,slow=10,SNR=33						
USRK				LR	LR	09 22 48.6	
	comp=Z,2μm,18.4s,baz=84,slow=39 comp=Z,40nm,0.7s						
USRK				AML	AML		
USRK	**Ussuriysk Ar.**	**8.97**	**295**	P	**Pn**	**09 19 16.0**	**+1.9**
USRK	**Ussuriysk Ar.**	**8.97**	**295**		**Pn**	**09 19 16.0**	**+1.9**
TYV	**Tymovskoe**	**9.95**	**358**	*e*P	Pn	09 19 35.4	+7.8
TYV				pmax	pmax		
	comp=Z,24nm,1.0s						
TYV				pmax	pmax		
	comp=Z,200nm,3.1s						
TYV				MLR	MLR		
	comp=Z,2μm,16.0s						
JMN	**Monobe**	**10.38**	**229**	Pn	**Pn**	**09 19 32.4**	**-1.2**
JMN	**Monobe**	**10.38**	**229**	P	**Pn**	**09 19 33.3**	**-0.3**
	comp=Z,30nm,0.8s						

JOW Kunigami 18.75 226 P P 09 21 21.6 -1.6
MA2 Magadan 19.25 12 LR LR 09 29 56.7
comp=Z,750nm,18.5s,baz=186,slow=40
MA2 Magadan 19.25 12⇓ eP P 09 21 28.7 +0.3
MA2 pmax pmax
comp=Z,15nm,1.1s
XLT XiLinHaoTe 20.29 287 eP P 09 21 37.2 -2.7
XLT pP pwP 09 21 48.9 -1.1
XLT sP sP 09 21 55.0 +3.6
XLT pmax pmax
comp=Z,19nm,0.9s
XLT L L
comp=Z,800nm,12.6s
XLT L L
comp=Z,660nm,17.2s
BJI2 Beijing 20.64 276 P P 09 21 41.2 -2.5
BJI2 sP sP 09 21 54.8 -0.4
BJI2 S S 09 25 32.5 -0.1
BJI2 pmax pmax
comp=Z,15nm,1.3s
BJI2 L L
comp=Z,470nm,17.3s
BJI2 L L
comp=Z,440nm,17.9s
BJI2 L L
comp=Z,1μm,16.7s
BJT Baijiatuau 20.64 276 P P 09 21 41.5 -2.2
BJT pmax pmax
comp=Z,21nm,1.0s
BJT Baijiatuau 20.64 276 P P 09 21 41.5 -2.2
TIA Tai'an 20.97 266 P P 09 21 44.9 -2.4
TIA pmax pmax
comp=Z,76nm,0.9s
TIA L L
comp=Z,380nm,11.0s
TIA L L
comp=Z,1μm,10.6s
TIA L L
comp=Z,1μm,15.2s
NJ2 Nanjing 21.51 253 eP P 09 21 52.5 -0.6
NJ2 sP sP 09 22 04.6 -0.1
NJ2 pmax pmax
comp=Z,36nm,0.7s
NJ2 L L
comp=Z,1μm,11.8s
NJ2 L L
comp=Z,1μm,11.8s
NJ2 L L
comp=Z,4μm,14.7s
HNS HongShan 22.41 270 ⇓P P 09 22 03.2 +0.5
HNS pmax pmax
comp=Z,31nm,0.9s
YAK Yakutsk 22.68 343 P P 09 22 01.2 -4.2
comp=Z,48nm,0.8s,baz=222,slow=0.3,SNR=10
YAK LR LR 09 32 24.1
comp=Z,787nm,18.1s,baz=154,slow=41
YAK Yakutsk 22.68 343 eP P 09 22 01.6 -3.8
YAK e 09 25 53.0
YAK eS S 09 26 08.3 -3.1
YAK pmax pmax
comp=Z,53nm,0.9s
YAK pmax pmax
comp=N,19nm,1.1s
YAK pmax pmax
comp=E,5.0nm,1.3s
YAK smax smax
comp=N,96nm,2.3s
YAK smax smax
comp=E,80nm,2.3s
YAK Yakutsk 22.68 343 P P 09 22 01.7 -3.7
comp=Z,69nm,0.8s
SEY Seymchan 22.70 11 P P 09 22 02.0 -3.6
comp=Z,16nm,0.8s,baz=203,slow=9.0,SNR=20
SEY Seymchan 22.70 11⇑ eP P 09 22 03.7 -1.9
SEY pmax pmax
comp=Z,13nm,0.9s
HHC Hu-ho-hao-te 23.93 280 eP P 09 22 18.7 +0.6
HHC pmax pmax
comp=Z,10.0nm,0.6s
SHEM Shemya Is, Ala 23.96 50 LR LR 09 31 27.3
comp=Z,288nm,20.2s,baz=262,slow=36
LYN LuoYang 25.12 265 P P 09 22 29.1 +0.2
LYN pmax pmax
comp=Z,82nm,1.0s
BTO2 Baotou 25.21 281 eP P 09 22 28.8 -1.0
BTO2 pP pwP 09 22 40.5 -0.1
BTO2 S S 09 26 51.1 -2.1
BTO2 pmax pmax
comp=Z,32nm,0.8s
BTO2 pmax pmax
comp=Z,2μm,9.8s
BTO2 L L
comp=Z,980nm,13.3s
BTO2 L L
comp=Z,1μm,14.9s
BTO2 L L
comp=Z,2μm,12.7s
SSLB Suanglung 25.35 234 P P 09 22 30.5 -0.5
YULB Yu-li 25.43 233 P P 09 22 31.5 -0.3
WHN Wuhan 25.58 255 P P 09 22 32.6 -0.5
WHN pmax pmax
comp=Z,78nm,0.9s
TWG Pinlang 26.00 233 P P 09 22 36.0 -0.9
ULN Ulaanbaatar 26.63 297⇓ eP P 09 22 42.9 +0.3
ULN pmax pmax
comp=Z,24nm,1.3s
ULN Ulaanbaatar 26.63 297 P 09 22 42.2 -0.5
ULN Ulaanbaatar 26.63 297 P P 09 22 43.3 +0.6
comp=Z,79nm,0.9s
ULN Ulaanbaatar 26.63 297 P P 09 22 43.0 +0.3
comp=Z,20nm,0.9s
SONM Songino Array 27.07 297 P P 09 22 46.0 -0.7
comp=Z,8.2nm,0.7s,baz=92,slow=11,SNR=25
SONM LR LR 09 34 24.9
comp=Z,1μm,18.1s,baz=72,slow=38
comp=Z,8.2nm,0.7s
SONM Songino Array 27.07 297 P P 09 22 46.3 -0.3
SONM pmax pmax
comp=Z,33nm,1.4s
SONM Songino Array 27.07 297 P 09 22 46.3 -0.3
SONM IAmb IAmb 09 22 47.7
comp=Z,33nm,1.4s
TLY Talaya 29.09 305 LR LR 09 35 09.1
comp=Z,696nm,18.5s,baz=67,slow=37
TLY Talaya 29.09 305 P P 09 23 07.2 +2.8
TLY Talaya 29.09 305⇓ eP P 09 23 06.1 +1.6
TLY pmax pmax
comp=Z,25nm,1.3s
TLY Talaya 29.09 305 P P 09 23 04.3 -0.2
TLY IAmb IAmb 09 23 07.3
comp=Z,21nm,1.1s
TLY Talaya 29.09 305 P P 09 23 04.8 +0.4
comp=Z,19nm,1.2s
H11N2 WAKE ISLAND Hy 29.17 129 T T 09 53 44.6
baz=322,slow=75,SNR=168
H11N1 WAKE ISLAND Hy 29.18 129 T T 09 53 46.4
baz=322,slow=75,SNR=228
H11N3 WAKE ISLAND Hy 29.19 129 T T 09 53 48.3
baz=322,slow=75,SNR=199
ZAK Zakamensk 29.22 302 eP P 09 23 03.8 -1.9
ZAK pmax pmax
comp=Z,15nm,1.1s
ENH Enshi 29.32 260 P P 09 23 05.1 -1.5
BILL Bilibino 29.88 17⇑ eP P 09 23 11.3 +0.1
BILL pmax pmax
comp=Z,22nm,1.7s
H11S1 WAKE ISLAND Hy 30.02 131 T T 09 54 43.8
baz=323,slow=76,SNR=152
H11S3 WAKE ISLAND Hy 30.02 131 T T 09 54 52.4
baz=323,slow=76,SNR=127
H11S2 WAKE ISLAND Hy 30.04 131 T T 09 54 45.0
baz=323,slow=76,SNR=108
LZH Lanzhou 31.07 274 eP P 09 23 26.5 +4.3
LZH sP sP 09 23 36.6 +2.4
LZH pmax pmax
comp=Z,22nm,1.0s
LZH L L
comp=Z,790nm,13.9s
LZH L L
comp=Z,680nm,13.7s
LZH L L
comp=Z,910nm,15.6s
LZDM Lanzhou Array 31.23 274 P P 09 23 23.3 -0.5
comp=Z,1.7nm,0.3s,baz=81,slow=9.2,SNR=5.4
comp=Z,1.7nm,0.3s
TIXI Tiksi 31.64 351 LR LR 09 35 50.1
comp=Z,327nm,18.3s,baz=179,slow=36
TIXI Tiksi 31.64 351⇓ eP P 09 23 25.3 -1.3
TIXI pmax pmax
comp=Z,2.0nm,0.5s
KNGR Kungurtug, Tuv 32.90 303⇑ eP P 09 23 38.1 0.0
KNGR pmax pmax
comp=Z,12nm,0.8s
GTA2 Gaotai 33.04 282 eP P 09 23 39.0 -0.4
GTA2 pmax pmax
comp=Z,14nm,1.1s
GTA2 L L
comp=Z,570nm,18.4s
GTA2 L L
comp=Z,1μm,17.8s
GTA2 L L
comp=Z,1μm,17.5s
KMI2 Kunming 37.10 258 ⇑P P 09 24 14.4 -0.3
KMI2 pP pP 09 24 23.6 +0.2
KMI2 pmax pmax
comp=Z,33nm,0.9s
DAV Davao City (W) 37.23 210 LR LR 09 36 16.8
comp=Z,297nm,21.2s,baz=338,slow=31
GOMU GeErMu 37.82 279 P P 09 24 20.3 -0.6
GOMU pmax pmax
comp=Z,14nm,0.6s
SLVN Son La 38.56 252 P P 09 24 27.6 +0.7
comp=Z,8.3nm,0.7s
N15K Kwethluk River 39.32 41 P P 09 24 33.1 +0.4
O15K Ungalikthiuk R 39.41 43 P P 09 24 34.3 +0.8
O15K IAmb IAmb 09 24 48.6
comp=Z,28nm,0.9s
DGZ Jazzator, Alta 39.44 302 ceP P 09 24 34.6 +0.6
DGZ pmax pmax
comp=Z,30nm,0.8s
CNBA Chernabura Isl 39.62 50 P P 09 24 35.6 +0.4
NRIK Noril'sk 40.41 333 P P 09 24 41.5 -0.2
comp=Z,3.6nm,0.5s,baz=118,slow=8.0,SNR=7.4
NRIK LR LR 09 42 48.5
comp=Z,999nm,19.0s,baz=99,slow=38
comp=Z,3.6nm,0.5s
NRIK Noril'sk 40.41 333 P P 09 24 42.1 +0.4
NRIK pmax pmax
comp=Z,35nm,1.5s
NRIK Noril'sk 40.41 333 P 09 24 42.1 +0.4
NRIK IAmb IAmb 09 24 42.3
comp=Z,35nm,1.5s
ZAA0 Zalesovo Array 40.50 309 P 09 24 42.9 +0.4
ZALV Zalesovo Beam 40.50 309 P P 09 24 42.4 -0.2
comp=Z,14nm,0.7s,baz=88,slow=8.3,SNR=49
comp=Z,14nm,0.7s
ZALV Zalesovo Beam 40.50 309 P P 09 24 42.9 +0.4
ZALV Zalesovo Beam 40.50 309 P P 09 24 42.9 +0.4
WMQ Urumqi 40.53 293 eP P 09 24 42.3 -0.8
WMQ sP sP 09 24 59.6 +4.4
WMQ pmax pmax
comp=Z,20nm,1.1s
H19K Roundabout Mou 41.42 33 IAmb IAmb 09 25 04.1
comp=Z,26nm,0.8s
IMAR Indian Mountai 42.57 33 P P 09 25 00.5 +1.0
G21K Allakaket 42.71 32 IAmb IAmb 09 25 11.4
comp=Z,28nm,1.1s
KDAK Kodiak Island 43.26 45 P P 09 25 05.8 +0.8
KDAK pmax pmax
comp=Z,167nm,1.9s
KDAK Kodiak Island 43.26 45 P P 09 25 05.8 +0.8
MK31 Makanchi Array 43.41 299 cP P 09 25 05.7 -0.8
MKAR Makanchi Array 43.41 299 P P 09 25 06.3 -0.2
comp=Z,11nm,0.8s,baz=82,slow=9.3,SNR=57
comp=Z,11nm,0.8s
LSA Lhasa 43.44 272 P P 09 25 09.6 +2.2
H22K Ishtalitna Cre 43.54 33 P P 09 25 09.0 +1.7
MAKZ Makanchi 43.62 299 P P 09 25 07.5 -0.7
MAKZ pmax pmax
comp=Z,14nm,0.8s
MAKZ Makanchi 43.62 299 P 09 25 07.5 -0.7
MAKZ IAmb IAmb 09 25 25.8
comp=Z,14nm,0.8s
MAKZ Makanchi 43.62 299 P P 09 25 08.0 -0.1
comp=Z,23nm,0.9s
CHTO Chiang Mai 43.75 253 P P 09 25 10.1 +0.6
CHTO Chiang Mai 43.75 253 P P 09 25 09.1 -0.4
CHTO pmax pmax
comp=Z,11nm,0.8s
CHTO Chiang Mai 43.75 253 P 09 25 09.1 -0.4
CHTO Chiang Mai 43.75 253 P P 09 25 10.3 +0.8
comp=Z,16nm,1.7s
CHTO Chiang Mai 43.75 253 P P 09 25 10.1 +0.6
comp=Z,16nm,1.7s
MLY Manley 43.79 34 P P 09 25 10.8 +1.4
MLY IAmb IAmb 09 26 13.9
comp=Z,49nm,2.0s
CNPM China Poot 43.80 42 P P 09 25 10.7 +1.3
CMAR Chiang Mai Arr 43.98 253 P P 09 25 10.9 -0.4
comp=Z,2.9nm,0.5s,baz=46,slow=6.3,SNR=18
CMAR LR LR 09 46 36.1
comp=Z,235nm,18.2s,baz=50,slow=40
comp=Z,2.9nm,0.5s
H23K Yukon River 44.29 33 IAmb IAmb 09 25 38.1
comp=Z,12nm,0.8s
E23K Chandalar 44.31 30 IAmb IAmb 09 25 30.0
comp=Z,14nm,1.0s
NEA2 Nenana 44.51 35 IAmb IAmb 09 25 44.3
comp=Z,11nm,0.7s
D24K Happy Valley 44.65 28 IAmb IAmb 09 25 40.2
comp=Z,31nm,1.3s
PMR Palmer 44.65 39 P P 09 25 17.2 +1.0
PMR pmax pmax
comp=Z,7.0nm,0.8s
PMR Palmer 44.65 39 P P 09 25 17.2 +1.0
RND Reindeer 44.66 36 P P 09 25 17.0 +0.7
RND pmax pmax
comp=Z,14nm,1.1s
RND Reindeer 44.66 36 P P 09 25 17.0 +0.7
RND IAmb IAmb 09 25 28.8
comp=Z,14nm,1.1s
C24K Franklin Bluff 44.72 27 IAmb IAmb 09 26 00.3
comp=Z,29nm,1.2s
E24K Your Creek 44.73 30 IAmb IAmb 09 25 23.4
comp=Z,14nm,1.0s
GHO Glory Hole Cre 44.74 39 P P 09 25 17.1 +0.2
KURK Kurchatov 44.79 305 P P 09 25 17.0 -0.5
KURK Kurchatov 44.79 305 deP P 09 25 17.3 -0.2
KURK pmax pmax
comp=Z,23nm,0.7s
KURK Kurchatov 44.79 305 P P 09 25 17.2 -0.2
KURK Kurchatov 44.79 305 P P 09 25 17.2 -0.2
comp=Z,36nm,1.1s
KURBB Kurchatov Arra 44.87 305 P P 09 25 17.4 -0.6
comp=Z,23nm,0.7s,baz=78,slow=8.6,SNR=25
comp=Z,23nm,0.7s
WRH Wood River Hil 44.94 35 P P 09 25 19.4 +1.0
WRH IAmb IAmb 09 26 08.9
comp=Z,22nm,1.5s
SML Sawmill 45.02 39 P P 09 25 20.0 +0.9
SML pmax pmax
comp=Z,110nm,1.9s
SML Sawmill 45.02 39 P P 09 25 20.0 +0.9
COLA College 45.02 34⇓ eP P 09 25 20.8 +1.7
COLA pmax pmax
comp=Z,8.0nm,1.0s
COLA College 45.02 34 P P 09 25 21.1 +2.1
comp=Z,12nm,0.8s
G24K Hadweenzic Riv 45.12 32 IAmb IAmb 09 25 33.9
comp=Z,25nm,1.2s
POKR Poker Plat Res 45.19 34 P P 09 25 21.5 +1.1
POKR IAmb IAmb 09 25 34.2
comp=Z,14nm,0.8s
IL31 45.44 34 P P 09 25 23.1 +0.7
ILAR Eielson Array 45.44 34 P P 09 25 23.5 +1.1
comp=Z,4.0nm,0.8s,baz=260,slow=6.0,SNR=34
comp=Z,4.0nm,0.8s
SANI Sanana 45.59 205 P P 09 25 24.4 +0.3
comp=Z,16nm,1.0s
SANI Sanana 45.59 205 P P 09 25 24.1 0.0
comp=Z,16nm,1.0s
K24K Donnelly Dome 46.00 36 P P 09 25 27.7 +0.8
BMAR Burnt Mountain 46.23 31 P P 09 25 30.3 +1.6
F26K Sheenjek River 46.38 30 IAmb IAmb 09 25 44.1
comp=Z,16nm,0.9s
C27K Jago River 46.46 28 IAmb IAmb 09 25 33.2
comp=Z,11nm,1.0s
SCRK Sand Creek 46.77 35 P P 09 25 33.9 +0.8
SCRK IAmb IAmb 09 25 40.8
comp=Z,9.7nm,0.8s
BMRM Bremner River 46.90 39 P P 09 25 35.3 +1.3
BMRM IAmb IAmb 09 25 47.8
comp=Z,16nm,1.0s
E27K Coleen River 47.31 29 IAmb IAmb 09 25 50.4
comp=Z,30nm,1.6s
M26K Nabesna, AK 47.43 37 IAmb IAmb 09 25 52.6
comp=Z,18nm,1.1s
EVN Everest 47.59 273 P P 09 25 40.6 +0.1
EVN Everest 47.59 273 P P 09 25 40.8 +0.3
comp=Z,32nm,1.0s
K27K Chicken 47.60 35 P P 09 25 40.9 +1.6
K27K IAmb IAmb 09 25 52.7
comp=Z,13nm,0.9s
L27K Beaver Creek, 47.85 36 IAmb IAmb 09 25 55.7
comp=Z,11nm,0.9s
BCAR Beaver Creek A 47.87 36 P P 09 25 43.3 +1.8
M27K Edge Creek, AK 47.95 37 IAmb IAmb 09 26 06.8
comp=Z,10.0nm,1.0s
E28M Babbage River 48.03 29 IAmb IAmb 09 26 14.4
comp=Z,9.7nm,0.9s
BVAR Borovoye Array 49.12 310 P P 09 25 51.5 +0.3
comp=Z,6.7nm,0.6s,baz=81,slow=9.2,SNR=15
comp=Z,6.7nm,0.6s
BORK Borovoye 49.15 310 P P 09 25 51.8 +0.3
BORK pmax pmax
comp=Z,9.0nm,0.6s
BORK Borovoye 49.15 310 P P 09 25 51.8 +0.3
BORK IAmb IAmb 09 25 59.0
comp=Z,8.5nm,0.6s
ASAI AK-SAY(Kyrgyzs 49.30 293 P P 09 25 53.0 -0.2
comp=Z,5.9nm,1.1s
EPYK Eagle Plains 49.43 32 P P 09 25 54.6 +1.2
EPYK IAmb IAmb 09 26 28.0
comp=Z,15nm,0.9s
G30M tAoh Zraii Nji 49.51 31 IAmb IAmb 09 26 05.0
comp=Z,12nm,0.9s
I30M Mount Dempster 49.80 33 IAmb IAmb 09 26 30.7
comp=Z,16nm,0.9s
AAK Ala-Archa 50.02 296 P P 09 26 02.6 +4.2
AAK Ala-Archa 50.02 296 P P 09 26 01.0 +2.5
INK Inuvik 50.26 29 P P 09 26 00.8 +1.1
INK pmax pmax
comp=Z,14nm,0.8s
INK Inuvik 50.26 29 P P 09 26 00.8 +1.1
INK IAmb IAmb 09 26 12.9
comp=Z,13nm,0.8s
INK Inuvik 50.26 29 P P 09 26 01.5 +1.8
comp=Z,19nm,0.8s
HYT Haines Junctio 50.32 39 P P 09 26 02.8 +2.4
F31M Tsiigehtchic 50.37 30 P P 09 26 01.7 +1.3
F31M IAmb IAmb 09 26 44.8
comp=Z,23nm,1.2s
H31M Peel River 50.50 32 IAmb IAmb 09 26 33.5
comp=Z,18nm,0.9s
KSH2 Kashi 50.69 292 P P 09 26 03.4 -0.2
KSH2 pmax pmax
comp=Z,4.0nm,1.1s
N31M Braeburn, Yuko 50.96 38 P P 09 26 07.0 +1.9
N31M IAmb IAmb 09 26 19.7
comp=Z,19nm,0.9s
A36M Sachs Harbour 52.11 23 P P 09 26 13.9 +0.5
A36M IAmb IAmb 09 26 16.3
comp=Z,16nm,1.1s
KKAR Karatay Array 52.52 298 P P 09 26 16.2 -0.8
KKAR Karatay Array 52.52 298 P P 09 26 16.2 -0.8
MMPY Sheldon Lake, 52.66 35 P P 09 26 19.7 +1.9
SVE Sverdlovsk 53.26 317 eP P 09 26 22.5 +0.3
SVE pmax pmax
comp=Z,48nm,0.9s
EDFI Ende, Flores 53.29 207 P P 09 26 22.5 -0.4
BTK Batken 53.61 295 P P 09 26 24.9 -0.2
ARTI Arti 54.58 317 cP P 09 26 31.9 +0.1
ARTI S S 09 34 09.7 +0.7
ARTI pmax pmax
comp=Z,55nm,0.9s
ARTI Arti 54.58 317 P P 09 26 31.4 -0.4
NIL Nilore 54.86 286 P P 09 26 34.8 +0.6
NIL Nilore 54.86 286 P P 09 26 33.9 -0.4
NIL pmax pmax
comp=Z,25nm,0.9s
NIL Nilore 54.86 286 P P 09 26 33.9 -0.4
NIL Nilore 54.86 286 P P 09 26 34.9 +0.6
comp=Z,33nm,0.9s
PSI Prapat 55.07 238 P P 09 26 33.6 -2.4
PSI pmax pmax
comp=Z,9.0nm,0.8s
PSI Prapat 55.07 238 P P 09 26 36.7 +0.7
comp=Z,9.1nm,0.8s
RPSI Rantau Prapat 55.15 238 P P 09 26 33.6 -2.8
comp=Z,9.1nm,0.8s
AB31 Akbulak array 56.61 309 P 09 26 47.0 +0.4
AB31 IAmb IAmb 09 26 47.6
comp=Z,18nm,0.8s
ABKAR Akbulak array 56.61 309 P 09 26 46.9 +0.3
SPITS Spitsbergen Ar 57.00 349 P P 09 26 51.0 +2.1
SPITS pmax pmax
comp=Z,120nm,1.6s
KRJI Kerinci 57.28 232 P P 09 26 59.6 +7.8
KBL Kabul 57.45 290 P P 09 26 52.3 -0.8
KBL Kabul 57.45 290 P P 09 26 52.7 -0.3
KBL pmax pmax
comp=Z,12nm,1.0s
KBL Kabul 57.45 290 P 09 26 52.7 -0.3
KBL IAmb IAmb 09 27 10.6
comp=Z,12nm,0.9s
KBL Kabul 57.45 290 P P 09 26 52.2 -0.8
comp=Z,14nm,0.9s
MDSI Maura Dua 57.63 228 P P 09 26 54.7 +0.6
comp=Z,8.3nm,0.6s
KNRA Kununurra 57.90 197 P P 09 26 56.7 +0.8
KIRV Kirov 58.07 322⇑ eP P 09 26 56.4 -0.2
BBJI Bungbulang 58.24 223 P P 09 26 58.5 +0.1
BBJI IAmb IAmb 09 27 53.9
comp=Z,25nm,1.2s
RES Resolute Bay 58.47 15 P P 09 27 00.0 +0.8
RES pmax pmax
comp=Z,8.0nm,0.7s
RES Resolute Bay 58.47 15 P 09 26 60.0 +0.8
RES IAmb IAmb 09 27 25.9
comp=Z,8.3nm,0.7s
LVZ Lovozero 59.19 335⇑ eP P 09 27 07.6 +3.2
LVZ pmax pmax
comp=Z,122nm,2.7s
YKA Yellowknife Ar 59.72 32 P P 09 27 07.2 -0.8
comp=Z,3.4nm,0.9s,baz=321,slow=6.9,SNR=3.9
comp=Z,3.4nm,0.9s
APA Apatity 59.76 335 eP P 09 27 00.4 -7.9
APA e 09 27 51.3
APA pmax pmax
comp=Z,7.0nm,1.1s
APA MLR MLR
comp=Z,2μm,4.3s
HYB Hyderabad 59.82 267 eP P 09 27 10.5 +1.0
HYB ePP PP 09 29 25.4 +3.8
ARCES ARCESS Array B 60.89 339 P P 09 27 15.7 -0.3
comp=Z,5.6nm,1.1s,baz=46,slow=6.9,SNR=7.6
comp=Z,5.6nm,1.1s
ARCES ARCESS Array B 60.89 339 P P 09 27 16.3 +0.3
ARCES pmax pmax
comp=Z,119nm,1.9s
ARCES ARCESS Array B 60.89 339 P P 09 27 16.3 +0.3
WB0 Warramunga Arr 60.94 190 P P 09 27 16.5 -0.4
WB0 IAmb IAmb 09 27 27.9
comp=Z,9.1nm,0.9s
FITZ Fitzroy Crossi 60.97 199 P P 09 27 16.9 -0.1
WRAB Tennant Creek 61.11 190⇑ eP P 09 27 17.2 -0.8
WRAB pmax pmax
comp=Z,5.0nm,0.9s
WRAB Tennant Creek 61.11 190 P P 09 27 15.4 -2.6
comp=Z,6.8nm,1.1s
WR8 Warramunga Arr 61.12 189 P 09 27 17.6 -0.4
WR8 IAmb IAmb 09 27 28.6
comp=Z,7.3nm,0.8s
WRA Warramunga Arr 61.12 190 P P 09 27 17.7 -0.4
comp=Z,2.5nm,0.5s,baz=7.9,slow=6.7,SNR=32
comp=Z,2.5nm,0.5s
QIS Mount Isa 61.26 184 P P 09 27 19.6 +0.6
comp=Z,9.2nm,1.4s
QIS Mount Isa 61.26 184 P P 09 27 17.2 -1.8
comp=Z,9.1nm,1.4s
KLMR Klimovskoe 61.28 327 eP P 09 27 17.0 -1.7
KLMR pmax pmax
comp=Z,35nm,1.4s
BELG Belogornoye 61.99 316 dP P 09 27 23.9 +0.3
BELG pmax pmax
comp=Z,8.0nm,0.9s
DAG Danmarks Havn 62.03 355 P P 09 27 24.1 +0.6
HRA Herat 62.34 293 P 09 27 25.8 -0.7

HRA IAmb IAmb 09 27 27.6
comp=Z,6.2nm,0.8s
AS15 Alice Springs 64.82 190 P **P** 09 27 43.4 +0.7
comp=Z,4.5nm,0.9s
AS17 Alice Springs 64.84 189 P **P** 09 27 42.9 +0.2
comp=Z,5.8nm,1.1s
AS31 Alice Springs 64.85 190 **P** 09 27 43.4 +0.6
ASAR Alice Springs 64.85 190 P **P** 09 27 42.8 -0.1
comp=Z,2.5nm,0.8s,baz=360,slow=5.1,SNR=46
comp=Z,2.5nm,0.8s
ASAR Alice Springs 64.85 190 P **P** 09 27 43.0 +0.2
ASAR Alice Springs 64.85 190 **P** 09 27 43.0 +0.2
AS09 Alice Springs 64.88 189 P **P** 09 27 43.5 +0.5
comp=Z,6.7nm,0.9s
MOS Moscow 65.02 323 *e*P **P** 09 27 44.2 +0.6
MOS pmax pmax
comp=Z,29nm,0.7s
ILON Igloolik, Nuna 65.12 16 P **P** 09 27 44.1 +0.1
BLKN Baker Lake 65.24 24 P **P** 09 27 45.2 +0.4
OBN Obninsk 65.88 323ǁ*e*P **P** 09 27 49.2 +0.1
OBN *e* 09 30 11.5
OBN pmax pmax
comp=Z,19nm,1.1s
FIA1 FINESS Array S 66.07 332 P **P** 09 27 50.3 +0.1
FINES FINESS Array B 66.07 332 P **P** 09 27 50.2 -0.1
comp=Z,9.2nm,0.6s,baz=48,slow=6.9,SNR=48
comp=Z,9.2nm,0.6s
FINES FINESS Array B 66.07 332 P **P** 09 27 50.4 +0.2
FINES FINESS Array B 66.07 332 P **P** 09 27 50.4 +0.2
NEW Newport 66.34 46 P **P** 09 27 54.3 +1.9
NEW pmax pmax
comp=Z,14nm,1.0s
NEW Newport 66.34 46 P **P** 09 27 54.3 +1.9
comp=Z,14nm,1.0s
PINE Pine Mountain 66.74 52 **P** 09 27 57.8 +2.6
SUMG Summit 66.80 1 P **P** 09 27 56.8 +1.5
SUMG pmax pmax
comp=Z,39nm,1.3s
SUMG Summit 66.80 1 P **P** 09 27 56.8 +1.5
K05A Summer Lake 67.38 53 P **P** 09 27 59.4 +0.2
BMO Blue Mountains 68.24 49 P **P** 09 28 05.8 +1.3
BMO pmax pmax
comp=Z,6.0nm,1.1s
BMO Blue Mountains 68.24 49 P **P** 09 28 05.8 +1.3
PLID Pearl Lake 68.84 48 P **P** 09 28 09.2 +0.8
BEKR Beckworth 69.38 55 **P** 09 28 12.5 +0.8
BEKR IAmb IAmb 09 28 24.8
comp=Z,8.2nm,1.0s
KIV Kislovodsk 69.48 311 *i* P **P** 09 28 14.1 +1.9
SNR=6.1
KIV Kislovodsk 69.48 311 P **P** 09 28 13.5 +1.3
KIV Kislovodsk 69.48 311 *e*P **P** 09 28 12.7 +0.5
KIV pmax pmax
comp=Z,50nm,1.1s
KIV Kislovodsk 69.48 311 **P** 09 28 12.1 -0.1
KIV Kislovodsk 69.48 311 P **P** 09 28 13.6 +1.3
comp=Z,68nm,1.1s
KBZ Khabaz 69.50 310 P **P** 09 28 13.3 +1.1
comp=Z,16nm,0.9s,baz=54,slow=5.0,SNR=25
comp=Z,16nm,0.9s
KBZ Khabaz 69.50 310*c* *i*P **P** 09 28 12.3 +0.1
KBZ pmax pmax
comp=Z,20nm,0.9s
FFC Flin Flon 69.65 34 P **P** 09 28 14.1 +1.1
FFC pmax pmax
comp=Z,19nm,1.2s
FFC Flin Flon 69.65 34 P **P** 09 28 14.1 +1.1
FFC IAmb IAmb 09 28 28.1
comp=Z,19nm,1.1s
MNK Minsk 70.11 326 *i* P **P** 09 28 16.3 +0.6
MNK *i* 09 28 37.8
MNK *i* PPP PPP 09 32 34.0
MNK *i* S **S** 09 37 25.9 +1.6
MNK pmax pmax
comp=E,21nm,0.8s
MNK pmax pmax
comp=Z,23nm,0.9s
MNK pmax pmax
comp=N,12nm,0.8s
MNK Minsk 70.11 326 *i* P **P** 09 28 16.3 +0.6
comp=E,21nm,0.8s
MNK *i* P **P** 09 28 16.3 +0.6
comp=N,12nm,0.8s
MNK *i* P **P** 09 28 16.3 +0.6
comp=Z,23nm,0.9s,baz=47
MNK *i* PcP **PcP** 09 28 37.9 +0.2
MNK *i* PP PP 09 30 32.3 -18
MNK *i* PPP PPP 09 32 34.0
MNK *i* S **S** 09 37 26.0 +1.6
DLMT Dillon 70.57 46 IAmb IAmb 09 28 35.2
comp=Z,16nm,0.9s
GNI Garni 70.57 307*ce*P **P** 09 28 20.0 +0.9
GNI pmax pmax
comp=Z,17nm,1.3s
GNI Garni 70.57 307 P **P** 09 28 19.9 +0.9
comp=Z,17nm,0.9s
HLID Hailey 70.68 49 P **P** 09 28 18.0 -1.7
comp=Z,6.9nm,1.1s
BOZ Bozeman (W) 70.95 46 P **P** 09 28 22.2 +0.9
BOZ pmax pmax
comp=Z,11nm,0.8s
BOZ Bozeman (W) 70.95 46 P **P** 09 28 22.2 +0.9
BOZ IAmb IAmb 09 28 34.4
comp=Z,11nm,0.8s
NC405 NORSAR Array S 70.96 337 P **P** 09 28 20.9 0.0
HFS Hagfors 71.15 336 P **P** 09 28 21.7 -0.3
comp=Z,3.2nm,0.6s,baz=47,slow=8.7,SNR=6.0
comp=Z,3.2nm,0.6s
NB2 NORSAR Subarra 71.17 338 P **P** 09 28 22.2 0.0
comp=Z,2.4nm,0.7s,baz=36,slow=6.2
NOA NORSAR Array B 71.17 338 P **P** 09 28 22.2 0.0
comp=Z,4.3nm,0.8s,baz=37,slow=6.1,SNR=11
comp=Z,4.3nm,0.8s
KVN Kaiserville 71.26 54 P **P** 09 28 24.2 +0.9
KVN pmax pmax
comp=Z,11nm,0.9s
KVN Kaiserville 71.26 54 **P** 09 28 24.2 +0.9
KVN IAmb IAmb 09 28 36.8
comp=Z,11nm,0.9s
BANOM **Banah 71.38 288** P **P** 09 28 24.1 +0.1
JLN Jalan Bani Buh 71.38 283 P **P** 09 28 24.3 +0.3
SOC Sochi 71.41 312 *e*P **P** 09 28 23.7 -0.1
SOC *e* 09 31 02.3
SOC *e*PPP PPP 09 32 49.3
SOC *e*S **S** 09 37 38.8 -1.0
SHME Shamm 71.41 289 *i* P **P** 09 28 24.1 -0.1
SNR=8.8
SHME Shamm 71.41 289 P **P** 09 28 24.4 +0.2
SNR=8.8
WBK Wadi Bani Khal 71.42 284 P **P** 09 28 25.2 +0.9
BIDO Bidbid 71.49 285 P **P** 09 28 24.8 +0.1
NVAR Mina Array Bea 71.52 55 P **P** 09 28 26.7 +1.8
comp=Z,0.9nm,0.7s,baz=308,slow=5.3,SNR=5.6
comp=Z,0.9nm,0.7s
NVAR Mina Array Bea 71.52 55 P **P** 09 28 25.7 +0.8
MDH Madha 71.75 288 P **P** 09 28 26.8 +0.5
MDH Madha 71.75 288 P **P** 09 28 26.4 +0.1
MASF Masafi 71.81 288 P **P** 09 28 27.0 +0.4
SNR=5.6
MSFE Esma-Masafi 71.81 288 P **P** 09 28 26.6 0.0
SMDO Samad 71.83 285 P **P** 09 28 27.1 +0.2
UOSS Minazif 72.03 288 *i* P **P** 09 28 27.7 -0.2
SNR=7.9
UOSS Minazif 72.03 288 P **P** 09 28 27.9 0.0
UOSS Minazif 72.03 288 **P** 09 28 28.2 +0.3
UOSS IAmb IAmb 09 28 28.4
comp=Z,12nm,0.8s
UOSS Minazif 72.03 288 P **P** 09 28 28.0 +0.1
comp=Z,19nm,0.9s
HOQ Hoqain 72.05 286 P **P** 09 28 28.3 +0.2
AK03 Malin Array Si 72.11 322 P **P** 09 28 27.7 -0.2
AKASG **Malin Array Be 72.12 322** P **P** 09 28 27.8 -0.2
comp=Z,6.1nm,0.6s,baz=46,slow=5.9,SNR=31
comp=Z,6.1nm,0.6s
AKBB Malin Array Si 72.12 322⇑*i*P **P** 09 28 27.2 -0.8
AKBB Malin Array Si 72.12 322 P **P** 09 28 27.6 -0.4
KIEV Kiev 72.14 322 *i* P **P** 09 28 28.1 0.0
SNR=6.4
KIEV Kiev 72.14 322 P **P** 09 28 28.1 0.0
KIEV pmax pmax
comp=Z,9.0nm,0.7s
KIEV Kiev 72.14 322 **P** 09 28 28.1 0.0
KIEV IAmb IAmb 09 28 28.6
comp=Z,9.2nm,0.7s
KIEV Kiev 72.14 322 P **P** 09 28 27.6 -0.5
comp=Z,57nm,1.0s
HATD Hatta, Dubai 72.16 288 *i* P **P** 09 28 28.8 +0.2
SNR=9.8
HATD Hatta, Dubai 72.16 288 P **P** 09 28 29.1 +0.4
SNR=7.1
JMDO Jabal Madar 72.21 284 P **P** 09 28 29.4 +0.4
SOHO SOHO 72.28 287 P **P** 09 28 29.2 -0.2
SOHO SOHO 72.28 287 P **P** 09 28 29.4 -0.1
H17A Grant Village 72.30 46 IAmb IAmb 09 28 45.4
comp=Z,16nm,1.0s
ASHO Ashiyiah 72.30 287 *i* P **P** 09 28 29.4 -0.1
SNR=6.7
ASHO Ashiyiah 72.30 287 P **P** 09 28 29.6 +0.1
SNR=6.5
NAZ Nazwa, Dubai 72.40 288 P **P** 09 28 30.1 0.0
NAZ Nazwa, Dubai 72.40 288 P **P** 09 28 30.2 +0.1
STKA Stephens Creek 72.45 182 LR LR 09 58 33.9
comp=Z,288nm,21.1s,baz=30,slow=34
FAQ Al Faqa, Dubai 72.59 288 P **P** 09 28 31.1 -0.2
FAQ Al Faqa, Dubai 72.59 288 P **P** 09 28 31.1 -0.2
BSY Bisya 72.64 285 P **P** 09 28 31.8 +0.2
ARQ Araqi 72.78 286 P **P** 09 28 32.5 +0.1
SNOW Snow King Moun 72.80 47 IAmb IAmb 09 28 47.3
comp=Z,11nm,1.3s
ASUD Al Ashush, Dub 72.86 288 P **P** 09 28 33.0 +0.2
ASUD Al Ashush, Dub 72.86 288 P **P** 09 28 33.1 +0.2
ALNE Al Ain 72.90 287 P **P** 09 28 32.9 -0.2
LAO LASA Array 73.09 42 IAmb IAmb 09 28 47.3
comp=Z,15nm,1.1s
RNPP9 **Sopachiv 73.13 324** P **P** 09 28 33.8 -0.2
AJN Ajban 73.14 288 P **P** 09 28 34.2 -0.3
MHTO MHTO 73.15 283 P **P** 09 28 34.7 +0.1
LUBAR Lubar, Ukraine 73.34 323 P **P** 09 28 34.8 -0.5
HWUT Hardware Ranch 73.54 49 IAmb IAmb 09 28 50.5
comp=Z,15nm,1.1s
DUG Dugway, Tooele 73.73 51 IAmb IAmb 09 28 51.4
comp=Z,11nm,0.9s
PD31 Pinedale Array 73.92 47 P **P** 09 28 40.1 +1.0
PDAR Pinedale Array 73.92 47 P **P** 09 28 40.1 +1.0
comp=Z,1.4nm,0.6s,baz=254,slow=2.2,SNR=15
comp=Z,1.4nm,0.6s
PDAR Pinedale Array 73.92 47 **P** 09 28 40.0 +0.9
UMZA Um Al Zommool 74.15 286 P **P** 09 28 39.9 -0.5
KMPD K-Podol'skiy 74.91 322 P **P** 09 28 44.0 -0.4
ARPR Arapgir-MALATY 75.08 309 P **P** 09 28 45.8 0.0
ARPR IAmb IAmb 09 28 48.4
comp=Z,22nm,1.1s
RDMU Red Mountain 75.36 49 IAmb IAmb 09 29 00.8
comp=Z,18nm,0.9s
P17A Butcher Ranch, 75.41 50 IAmb IAmb 09 29 01.1
comp=Z,11nm,0.9s
SRU San Rafael Swe 75.77 50 IAmb IAmb 09 29 02.9
comp=Z,10nm,0.9s
RSSD Black Hills 75.97 43 P **P** 09 28 51.6 +0.7
RSSD pmax pmax
comp=Z,10.0nm,1.0s
RSSD Black Hills 75.97 43 **P** 09 28 51.6 +0.7
RSSD IAmb IAmb 09 29 03.4
comp=Z,10nm,0.9s
BUR08 Bucovina Ar. S 76.15 322 **P** 09 28 52.1 +0.4
BURAR Bucovina Array 76.17 322 **P** 09 28 52.0 +0.2
BURAR IAmb IAmb 09 28 53.4
comp=Z,8.2nm,0.7s
HMU Henry Mountain 76.42 51 **P** 09 28 53.5 -0.1
HMU IAmb IAmb 09 29 06.8
comp=Z,12nm,0.8s
OJC Ojcow 76.62 327 P **P** 09 28 54.9 +0.7
EPLO Experimental L 76.81 34 P **P** 09 28 56.1 +0.8
GAZ Gaziantep 77.01 308 IAmb IAmb 09 28 59.1
comp=Z,20nm,1.0s
TRPA Tarpa 77.01 324 P **P** 09 28 57.3 +0.9
comp=Z,24nm,0.9s
PV21 Cone Mtn., Par 77.04 50 IAmb IAmb 09 29 10.3
comp=Z,14nm,0.9s
PV22 Blue Mesa, Par 77.17 50 **P** 09 28 59.1 +1.3
PV22 IAmb IAmb 09 29 10.9
comp=Z,19nm,1.0s
PV20 West Nyswonger 77.19 50 IAmb IAmb 09 29 11.1
comp=Z,17nm,0.9s
PV18 Skein Mesa, Pa 77.29 50 IAmb IAmb 09 29 11.7
comp=Z,13nm,0.8s
BRTR Keskin Array B 77.37 312 P **P** 09 28 59.2 +0.4
comp=Z,1.6nm,0.9s,baz=64,slow=4.3,SNR=5.3
comp=Z,1.6nm,0.9s
DMTO DMTO 77.41 283 P **P** 09 28 58.4 -0.8
DOK Doka 77.44 284 P **P** 09 28 59.0 -0.3
SNR=9.2
MORC Moravsky Berou 77.89 327 P **P** 09 29 02.4 +1.0
MORC pmax pmax
comp=Z,12nm,1.6s
MORC Moravsky Berou 77.89 327 IAmb IAmb 09 29 03.1
comp=Z,8.5nm,0.9s
MORC Moravsky Berou 77.89 327 *e*P **P** 09 29 01.8 +0.4
WHFO Wadi Hawf 78.15 283 P **P** 09 29 02.3 -1.0
SNR=5.9
PSZ Piszkesteto 78.34 325 IAmb IAmb 09 29 05.7
comp=Z,7.0nm,0.8s
VYHS Vyhne 78.35 326 *e*P **P** 09 29 03.3 -0.7
VYHS Vyhne 78.35 326 *e*P **P** 09 29 03.2 -0.7
CLL Collm 78.45 331 P **P** 09 29 04.6 +0.3
CLL pmax pmax
comp=Z,8.0nm,0.8s
CLL Collm 78.45 331 **P** 09 29 04.6 +0.3
CLL IAmb IAmb 09 29 05.3
comp=Z,8.2nm,0.8s
CLL Collm 78.45 331 *i* P **P** 09 29 04.4 0.0
comp=Z,10.0nm,0.9s
JAVC Velka Javorina 78.56 327 *e*P **P** 09 29 06.4 +1.3
VRAC Vranov 78.65 328 *e*P **P** 09 29 06.1 +0.6
ABTO Aybut 78.85 283 P **P** 09 29 06.8 -0.4
KRUC Moravsky 78.92 328 *e*P **P** 09 29 07.5 +0.5
ABNA Allensteig Bun 79.62 328 *e*P **P** 09 29 10.7 -0.2
comp=Z,3.7nm,0.8s
WINA Alland / Wiene 79.81 327 *i* P **P** 09 29 11.2 -0.7
comp=Z,8.2nm,1.1s
ECSD EROS Data Cent 79.97 40 P **P** 09 29 13.1 +0.2
KHC Kasperske Hory 79.99 329⇑*e*P **P** 09 29 13.2 +0.3
KHC pmax pmax
comp=Z,5.0nm,0.9s
KHC Kasperske Hory 79.99 329 **P** 09 29 13.0 +0.1
CONA Conrad Observa 80.03 327 *e*P **P** 09 29 14.1 +0.9
comp=Z,5.6nm,1.0s
RONA Rosalia, Austr 80.04 327 *i* P **P** 09 29 14.1 +0.9
comp=Z,8.0nm,0.8s
TUC Tucson 80.14 56 P **P** 09 29 15.2 +1.1
TUC pmax pmax
comp=Z,4.0nm,1.1s
TUC Tucson 80.14 56 P **P** 09 29 15.2 +1.1
GERES **GERESS Array B 80.17 329** P **P** 09 29 13.3 -0.6
comp=Z,1.8nm,0.8s,baz=49,slow=4.3,SNR=8.6
comp=Z,1.8nm,0.8s
GERES **GERESS Array B 80.17 329** P **P** 09 29 14.2 +0.3
GERES **GERESS Array B 80.17 329** P **P** 09 29 14.2 +0.3
RAYN Ar Rayn 80.53 293 *i* P **P** 09 29 16.0 -0.2
SNR=7.6
RAYN Ar Rayn 80.53 293 P **P** 09 29 16.1 -0.2
RAYN Ar Rayn 80.53 293 P **P** 09 29 15.6 -0.6
RAYN pmax pmax
comp=Z,68nm,2.0s
RAYN Ar Rayn 80.53 293 **P** 09 29 15.6 -0.6
ARSA Arzberg 80.71 327 *e*P **P** 09 29 17.8 +1.0
comp=Z,4.5nm,0.8s
MOA Molln 80.75 328 *i* P **P** 09 29 17.6 +0.7
comp=Z,10nm,1.5s
ANMO Albuquerque 80.98 51*ce*P **P** 09 29 19.6 +0.9
ANMO pmax pmax
comp=Z,4.0nm,2.0s
ALQ Albuquerque 80.98 51 **P** 09 29 18.8 +0.1
BIOA Bad Ischl, Aus 81.12 328 *e*P **P** 09 29 19.5 +0.5
comp=Z,2.5nm,0.4s
SESA Seelaer Alpe, 81.22 327 *i* P **P** 09 29 20.7 +1.0
comp=Z,8.7nm,0.6s
SOKA Soboth 81.37 327 *e*P **P** 09 29 20.4 0.0
comp=Z,14nm,0.8s
OBKA Obir 81.71 327 *i* P **P** 09 29 22.7 +0.5
comp=Z,6.0nm,0.6s
LESA Schwarzleotal 81.72 329 *i* P **P** 09 29 22.1 -0.1
comp=Z,10nm,1.0s
KBA Koelnbreinsper 81.74 328 *e*P **P** 09 29 23.6 +1.2
comp=Z,8.0nm,1.0s
MYKA Terra Mystica 81.98 328 *e*P **P** 09 29 22.9 -0.7
comp=Z,4.6nm,0.8s
BMRD Maredsous 82.15 335 *d*P **P** 09 29 24.5 +0.2
comp=Z,7.1nm,0.9s
WTTA Wattenberg 82.26 329 *i* P **P** 09 29 26.0 +0.8
comp=Z,5.7nm,0.6s
ABTA Abfaltersbach 82.34 328 *e*P **P** 09 29 26.5 +1.0
comp=Z,3.9nm,0.9s
DOU Dourbes 82.39 335 *d*P **P** 09 29 23.4 -2.1
DOU *d*PP **PP** 09 32 31.3 -2.5
MOTA Moosalm 82.40 329 *i* P **P** 09 29 26.3 +0.4
comp=Z,14nm,0.9s
RETA Reutte 82.41 330 *i* P **P** 09 29 26.5 +0.7
comp=Z,6.2nm,0.8s
SQTA Sankt Quirin 82.46 329 *i* P **P** 09 29 26.9 +0.7
comp=Z,5.1nm,0.7s
FETA Feichten 82.81 329 *i* P **P** 09 29 28.3 +0.2
comp=Z,4.9nm,0.8s
DAVA Damuels 82.92 330 *i* P **P** 09 29 28.8 +0.2
comp=Z,6.6nm,0.7s
FUORN **Ofenpass-Fuorn 83.32 330** IAmb IAmb 09 29 32.3
comp=Z,9.9nm,0.7s
TPB28 84.44 52 IAmb IAmb 09 29 50.3
comp=Z,7.3nm,0.8s
SMWD Samnorwood 84.45 48 IAmb IAmb 09 29 49.7
comp=Z,13nm,0.9s
DKNS Dickens 85.11 49 IAmb IAmb 09 29 54.1
comp=Z,9.9nm,0.9s
POST Post 85.21 50 IAmb IAmb 09 29 53.3
comp=Z,13nm,1.0s
WMOK Wichita Mounta 85.53 47 IAmb IAmb 09 31 49.4
comp=Z,23nm,1.9s
SGCY Sterling City 86.26 50 IAmb IAmb 09 29 59.6
comp=Z,11nm,0.8s
TX31 Lajitas Ar. Si 86.61 54 **P** 09 29 48.3 +0.9
TXAR Lajitas Array 86.61 54 P **P** 09 29 48.6 +1.2
comp=Z,0.9nm,0.8s,baz=289,slow=4.0,SNR=7.6
comp=Z,0.9nm,0.8s
TXAR Lajitas Array 86.61 54 P **P** 09 29 48.2 +0.8
CCM Cathedral Cave 86.93 40 P **P** 09 29 49.5 +0.8
CCM pmax pmax
comp=Z,16nm,1.4s
CCM Cathedral Cave 86.93 40 P **P** 09 29 49.5 +0.8
CCM IAmb IAmb 09 30 11.9
comp=Z,16nm,1.4s
LODK Lodwar 101.21 284 P **Pdif** 09 30 56.2 +1.5
SNR=7.2
QSPA South Pole Qui 130.66 180 PKP **PKPdf** 09 36 13.1 -0.4
comp=Z,0.6nm,0.5s,baz=269,slow=1.5,SNR=7.9
QSPA South Pole Qui 130.66 180 PKPdf **PKiKP** 09 36 14.2 -0.2
TROLL Troll, Antarti 143.38 199⇑PKPdf PKPbc 09 36 34.2 0.0
comp=Z,140nm,0.7s
H03N2 Juan Fernandez 145.79 91 T T 12 19 30.8
baz=315,slow=75,SNR=5.8
H03N1 Juan Fernandez 145.81 91 T T 12 19 32.1
baz=307,slow=75,SNR=8.9
VNA2 Neumayer--Watz 146.46 197⇑PKPdf **PKPbc** 09 36 43.2 -0.3
comp=Z,9.1nm,0.6s,baz=128,slow=2.4
VNA3 Neumayer Olymp 146.70 196⇑PKPdf **PKPbc** 09 36 43.6 -0.7
comp=Z,5.4nm,0.7s
VNA1 Neumayer--Stat 146.86 197⇑PKPdf **PKPbc** 09 36 43.6 -1.1
comp=Z,7.4nm,0.8s

*IDC **06** 09:23:28.0±2.7,24°.27N×144°.03E,h0km,mb3.9/5, mbtmp3.9/6,ML3.3/1,MS4.3/1,Error ellipse: s-maj=110.5km s-min=17.1km az=74.0*
ISC 06 09:23:34.0±2.7,24°.3N±0°.2×143°.7E±0°.8,h35km,n7, σ1s34/7,mb3.7/5,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**3.05**	**334**	Pn	**Pn**		**09 24 18.1**	**-1.6**
	3.5nm,0.3s,baz=297,slow=23,SNR=1.6							
JCJ				Sn	**Sn**		**09 24 54.8**	**-0.2**
	16nm,0.3s,baz=274,slow=23,SNR=10							
	66nm,0.8s							
JCJ				AML	AML			
WRA	**Warramunga Arr**	**44.95**	**192**	P	**P**		**09 31 44.4**	**-1.3**
	0.4nm,0.4s,baz=13,slow=8.5,SNR=12							
	0.4nm,0.4s							
ASAR	**Alice Springs**	**48.66**	**192**	P	**P**		**09 32 14.6**	**-0.2**
	0.3nm,0.7s,baz=14,slow=12,SNR=3.7							
	0.3nm,0.7s							
MKAR	**Makanchi Array**	**53.27**	**311**	P	**P**		**09 32 50.2**	**+0.9**
	0.4nm,0.5s,baz=101,slow=7.8,SNR=4.4							
	0.4nm,0.5s							
MSVF	**Nonsavu**	**53.61**	**138**	LR	LR		09 55 23.9	
	comp=Z,236nm,18.1s,baz=355,slow=36							
BVAR	**Borovoye Array**	**60.97**	**319**	P	**P**		**09 33 45.0**	**+1.4**
	1.9nm,0.5s,baz=87,slow=8.3,SNR=4.3							
	1.9nm,0.5s							
FINES	**FINESS Array B**	**80.99**	**334**	P	**P**		**09 35 45.2**	**+0.4**
	3.2nm,0.9s,baz=60,slow=7.5,SNR=4.1							
	3.2nm,0.9s							

*IDC **06** 09:49:07.7±0.9,6°.68S×144°.75E,h0km,mb3.8/7, mbtmp3.9/11,ML3.8/3,MS3.7/9,Error ellipse: s-maj=24.8km s-min=14.2km az=57.0*
ISC 06 09:49:13.1±0.8,6°.8S±0°.1×144°.7E±0°.1,h35km,n18, σ0s98/12,mb3.9/7,MS3.7/5,New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.55**	**136**	Pn	**Pn**		**09 50 05.5**	**-0.3**
	10nm,0.5s,baz=322,slow=11,SNR=3.8							
PMG				Sn	**Sn**		**09 50 48.0**	**+1.3**
	4.8nm,0.3s,baz=143,slow=22,SNR=5.8							
PMG				LR	LR		09 51 51.4	
	comp=Z,557nm,19.0s,baz=326,slow=45							
JAY	**Jayapura**	**5.83**	**317**	Pn	**Pn**		**09 50 38.1**	**+0.9**
	1.0nm,0.3s,baz=231,slow=14,SNR=5.2							
	4.2nm,0.6s							
JAY				AML	AML			
KRVT	**Keravat (AS076**	**7.75**	**71**	LR	LR		09 54 08.3	
	comp=Z,311nm,19.4s,baz=264,slow=40							
SIJI	**Sorong**	**14.62**	**293**	LR	LR		09 59 47.8	
	comp=Z,331nm,18.6s,baz=126,slow=44							
WRA	**Warramunga Arr**	**16.43**	**217**	Pn	**Pn**		**09 52 59.8**	**-1.4**
	0.5nm,0.3s,baz=42,slow=13,SNR=21							
WRA				Lg	Lg		09 57 53.0	
	0.1nm,0.3s,baz=40,slow=28,SNR=4.6							
	1.8nm,0.8s							
WRA				AML	AML			
ASAR	**Alice Springs**	**19.67**	**211**	P	**Pn**		**09 53 41.4**	**+0.6**
	0.3nm,0.3s,baz=38,slow=11,SNR=4.4							
ASAR				LR	LR		10 02 26.1	
	comp=Z,245nm,18.2s,baz=46,slow=40							
	15nm,1.0s							
ASAR				AML	AML			
BATI	**Baumata**	**21.03**	**259**	LR	LR		10 02 34.6	
	comp=Z,304nm,18.9s,baz=350,slow=38							
FITZ	**Fitzroy Crossi**	**21.66**	**237**	P	**P**		**09 54 00.9**	**+0.1**
	4.1nm,0.8s,baz=67,slow=13,SNR=7.1							
	4.1nm,0.8s							
KAPI	**Kappang**	**24.84**	**273**	LR	LR		10 04 18.8	
	comp=Z,68nm,21.8s,baz=32,slow=37							
NWAO	**Narrogin (SRO)**	**36.37**	**221**	LR	LR		10 12 21.5	
	comp=Z,356nm,20.1s,baz=290,slow=38							
RPZ	**Rata Peaks**	**43.41**	**152**	LR	LR		10 16 14.2	
	comp=Z,38nm,19.9s,baz=332,slow=37							
CMAR	**Chiang Mai Arr**	**51.62**	**300**	P	**P**		**09 58 17.2**	**+0.6**
	0.4nm,0.3s,baz=112,slow=4.6,SNR=4.4							
	0.4nm,0.3s							
KLR	**Kul'dur**	**56.96**	**350**	LR	LR		10 22 30.8	
	comp=Z,102nm,18.8s,baz=333,slow=35							
MKAR	**Makanchi Array**	**76.68**	**321**	P	**P**		**10 01 00.2**	**-0.4**
	1.0nm,1.0s,baz=99,slow=7.5,SNR=3.8							
	1.0nm,1.0s							
ZALV	**Zalesovo Beam**	**78.49**	**329**	P	**P**		**10 01 09.2**	**-1.4**
	0.6nm,0.4s,baz=111,slow=3.0,SNR=2.8							
	0.6nm,0.4s							
KURBB	**Kurchatov Arra**	**80.52**	**324**	P	**P**		**10 01 22.2**	**+0.6**
	0.2nm,0.3s,baz=108,slow=3.1,SNR=2.9							
	0.2nm,0.3s							
QSPA	**South Pole Qui**	**83.14**	**180**	P	**P**		**10 01 35.1**	**-0.2**
	1.4nm,1.0s,baz=231,slow=1.5,SNR=6.1							
	1.4nm,1.0s							
ILAR	**Eielson Array**	**87.17**	**24**	P	**P**		**10 01 54.5**	**-0.8**
	0.3nm,0.7s,baz=267,slow=6.1,SNR=2.5							
	0.3nm,0.7s							

HEL 06 09:49:47.6±0.3,61°.14N×21°.58E,h0km,ML1.1, Explosion,Finland

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
RAF	**Rauma**	**0.15**	**143**	PG	Pg		09 49 50.2	-0.2
RAF				SG	Sg		09 49 52.7	+0.4
RAF				MSG			09 49 53.9	
	comp=Z,60nm,0.2s							
KPF	**Kankaanpaa**	**0.73**	**18**	PB	Pg		09 50 01.5	-0.1

	baz=204							
KPF				MSG		09 50 10.7		
	comp=Z,0.7nm,0.2s							
KEF	**Keuruu**	**1.88**	**55**	PG	Pn	09 50 21.6	+0.6	
	baz=236							
KEF				MSG		09 50 43.3		
	comp=Z,1.1nm,0.2s							
FIA0	**FINESS Array S**	**2.19**	**80**	PG	Pn	09 50 26.4	+1.2	
	baz=261							
FIA0				MSG		09 50 52.4		
	comp=Z,0.6nm,0.2s							
FIA0				SG	Sb	09 50 55.4	-0.3	
HEMU	**Hemsoen**	**2.28**	**314**	PG	Pb	09 50 28.6	-0.9	
HEMU				SG	Sb	09 50 59.0	+0.8	
SUF	**Sumiainen**	**2.68**	**52**	MSG		09 51 06.6		
	comp=Z,0.2nm,0.2s							
SUF				SG	Sb	09 51 08.3	-1.5	
UMAU	**Umeaa**	**2.78**	**352**	SG	Sb	09 51 13.4	+0.7	
VSU	**Vasula**	**3.74**	**134**	SN	Sn	09 51 28.6	-2.5	
OUL	**Oulu**	**4.42**	**24**	PG	Pb	09 51 04.8	-1.2	

FUNV ***06*** *09:53:01.1, 10°.63N×62°.38W, h24km, MW3.7, Presumed earthquake*
TRN ***06*** *09:53:01.1, 10°.84N×62°.18W, h94km, MD3.6, North of the Paria peninsula.*

ISC 06 09:52:59.2±2.1, 10°.78N±0°.10×62°.42W±0°.09, h81km±36km, n23, σ1§77/42, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.86**	**95**	*eP*	**Pn**	**09 53 17.4**	**+0.7**
DMDM				*eS*	**Sn**	**09 53 29.4**	**-0.3**
PSMG	**Mucurapo Girls**	**0.88**	**97**	*eP*	**Pn**	**09 53 17.5**	**+0.6**
PSMG				*eS*	**Sn**	**09 53 29.7**	**-0.4**
PSKH	**Kent House, Po**	**0.89**	**96**	*eP*	**Pn**	**09 53 17.7**	**+0.7**
PSKH				*eS*	**Sn**	**09 53 30.1**	**-0.2**
PSDM	**Port of Spain,**	**0.91**	**97**	*eP*	**Pn**	**09 53 17.8**	**+0.5**
PSDM				*eS*	**Sn**	**09 53 30.2**	**-0.5**
TRN	**Trinidad (W)**	**1.01**	**97**	*eP*	**Pn**	**09 53 19.1**	**+0.6**
TRN				*eS*	**Sn**	**09 53 32.2**	**-0.7**
TRN	**Trinidad (W)**	**1.01**	**97**	*eP*	**Pn**	**09 53 18.9**	**+0.5**
TRN				*eS*	**Sn**	**09 53 32.3**	**-0.5**
GRW	**Mount Saint Ca**	**1.56**	**28**	*eP*	**Pn**	**09 53 26.7**	**+1.2**
GRSS	**Sisters**	**1.71**	**28**	*eP*	**Pn**	**09 53 27.7**	**+0.4**
GRSS				*eS*	**Sn**	**09 53 48.1**	**-0.4**
PCRV	**Puerto La Cruz**	**2.26**	**255**	*eP*	**Pn**	**09 53 36.0**	**+1.4**
PCRV				*eS*	**Sn**	**09 54 01.8**	**+0.1**
SVB	**Belmont**	**2.73**	**25**	*eP*	**Pn**	**09 53 45.0**	**+4.0**
SVB				*eS*	**Sn**	**09 54 16.0**	**+2.9**
SVB	**Belmont**	**2.73**	**25**	*eP*	**Pn**	**09 53 41.6**	**+0.6**
SVB				*eS*	**Sn**	**09 54 09.9**	**-3.2**
MCLT	**Moule a Chique**	**3.25**	**26**	*eP*	**Pn**	**09 53 49.4**	**+1.3**
MCLT				*eS*	**Sn**	**09 54 23.9**	**-1.9**
SLBI	**Saint Lucia, B**	**3.52**	**24**	*eP*	**Pn**	**09 53 51.7**	**0.0**
SLBI				*eS*	**Sn**	**09 54 29.4**	**-2.8**
BIM	**Bigot**	**3.94**	**19**	*eP*	**Pn**	**09 53 58.4**	**+1.0**
BIM				*eS*	**Sn**	**09 54 39.2**	**-3.4**
MERV	**Las Mercedes**	**4.11**	**249**	*eP*	**Pn**	**09 54 00.8**	**+1.2**
MERV				*eS*	**Sn**	**09 54 45.0**	**-1.5**
TACV	**Tcata**	**4.57**	**262**	*eP*	**Pn**	**09 54 08.3**	**+2.3**
TACV				*eS*	**Sn**	**09 54 57.2**	**-0.8**
DSLB	**Salisbury**	**4.73**	**12**	*eP*	**Pn**	**09 54 09.5**	**+1.3**
DSLB				*eS*	**Sn**	**09 54 58.3**	**-3.5**
BENV	**Beln**	**5.16**	**261**	*eP*	**Pn**	**09 54 15.3**	**+1.2**
BENV				*eS*	**Sn**	**09 55 10.4**	**-1.9**
CACV	**CAICARA DEL OR**	**5.17**	**232**	*eP*	Pn	09 54 09.4	-4.7
CACV				*eS*	Sn	09 55 00.4	-12
MAGL	**Barre de l'ile**	**5.26**	**12**	*eP*	**Pn**	**09 54 15.8**	**+0.5**
TURV	**Turiamo**	**5.34**	**267**	*eP*	**Pn**	**09 54 18.6**	**+2.2**
TURV				*eS*	**Sn**	**09 55 15.1**	**-1.5**
MAPV	**Macapo**	**6.01**	**262**	*eP*	**Pn**	**09 54 26.3**	**+0.6**
MAPV				*eS*	**Sn**	**09 55 30.9**	**-2.3**
TEPV	**Terepaima**	**6.71**	**264**	*eP*	**Pn**	**09 54 35.7**	**+0.5**
TEPV				*eS*	**Sn**	**09 55 47.3**	**-2.9**

HEL ***06*** *09:59:45.6±0.1, 67°.45N×23°.35E, h0km, ML1.4, Suspected explosion*

BER 06 09:59:46.3±1.5, 67°.36N×23°.78E, h0km, ML1.3, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KLF	**Kolari**	**0.15**	**152**	PG	Pg	09 59 51.4	+2.3
	baz=312						
KLF				SG	Sg	09 59 55.9	+4.9
KLF				MSG		09 59 56.8	
	comp=Z,11nm,0.2s						
PAJU	**Pajala**	**0.43**	**218**	PG	Pg	09 59 53.3	-1.2
	baz=16						
PAJU				SG	Sg	09 59 59.4	-0.7
LANU	**Lannavaara**	**0.97**	**316**	*eP*	Pg	10 00 00.8	-4.0
LANU	**Lannavaara**	**0.97**	**316**	PB	Pg	10 00 00.7	-4.1
LANU				SB	Sg	10 00 13.0	-4.4
ERTU	**Ertsjaerv**	**1.03**	**218**	PG	Pg	10 00 03.8	-2.1
ERTU				SB	Sg	10 00 17.3	-1.9
HEF	**Hetta**	**1.05**	**358**	*eP*	Pg	10 00 04.4	-2.0
HEF				*eS*	Sg	10 00 19.0	-1.0
HEF	**Hetta**	**1.05**	**358**	PG	Pg	10 00 04.1	-2.3
HEF				MSG		10 00 15.2	
	comp=Z,2.9nm,0.2s						
HEF				SB	Sg	10 00 18.4	-1.6
RNF	**Rovaniemi**	**1.16**	**130**	PN	Pn	10 00 10.1	+0.4
RNF				SB	Sn	10 00 27.7	+1.5
TOF	**Tornio**	**1.31**	**170**	PG	Pb	10 00 11.5	-0.2
TOF				MSG		10 00 28.9	
	comp=Z,1.7nm,0.2s						
TOF				SG	Sn	10 00 29.7	-0.1
KTK1	**Kautokeino**	**1.67**	**353**	*eP*	Pn	10 00 14.1	-2.6
KTK1				*eS*	Sn	10 00 35.9	-2.9
KTK1				IAML		10 00 38.2	
	comp=Z,5.1nm,0.3s						
KTK1	**Kautokeino**	**1.67**	**353**	PN	Pn	10 00 14.4	-2.4
RANF	**Ranua**	**1.81**	**137**	PG	Pg	10 00 21.3	+0.5
	baz=318						
RANF				SG	Sg	10 00 46.9	+2.6
SALU	**Saltoluokta**	**2.04**	**273**	*eP*	Pn	10 00 19.2	-2.7
SALU				*eS*	Sn	10 00 45.6	-2.5
RAJF	**Raja-Jooseppi**	**2.04**	**55**	PG	Pb	10 00 23.5	-0.7
RAJF				SG	Sg	10 00 53.4	+1.6
SJUU	**Sjulsmark**	**2.06**	**206**	*eP*	Pn	10 00 22.4	+0.3
VRF	**Varrio**	**2.27**	**78**	PG	Pb	10 00 28.2	+0.1
	baz=263						
VRF				MSG		10 00 56.9	
	comp=Z,1.6nm,0.2s						
VRF				SG	Sg	10 00 60.0	+0.9
ARA0	**ARCESS Array S**	**2.27**	**15**	*eP*	Pn	10 00 24.4	-0.7
ARA0				IAML		10 00 56.4	
	comp=Z,2.1nm,0.5s						
ARA0	**ARCESS Array S**	**2.27**	**15**	PG	Pn	10 00 24.6	-0.4
ARA0				SG	Sn	10 00 54.4	+0.7
KU2	**Taivalkoski**	**2.44**	**131**	PG	Pb	10 00 31.9	+1.0
OUL	**Oulu**	**2.44**	**159**	PB	Pb	10 00 30.0	-1.0
OLKF	**Oulanka, Finla**	**2.46**	**113**	PB	Pb	10 00 31.1	-0.2
OLKF				MSG		10 01 03.6	
	comp=Z,1.3nm,0.2s						
OBF4	**Vikkela, Lumij**	**2.62**	**168**	MSG		10 01 06.4	
	comp=Z,1.1nm,0.2s						
KU6	**Riekki**	**2.78**	**116**	PB	Pb	10 00 34.7	-2.0
KU6				MSG		10 01 12.9	
	comp=Z,1.8nm,0.2s						
OBF0	**Syolatti, Pyha**	**2.88**	**176**	MSG		10 01 13.4	
	comp=Z,1.2nm,0.2s						
KU1	**Kurvinen**	**2.94**	**125**	PN	Pn	10 00 36.8	+2.6
VAF	**Ylistaro**	**4.37**	**187**	*eP*	Pn	10 00 56.8	+3.1
SUF	**Sumiainen**	**4.77**	**167**	*eP*	Pn	10 01 02.5	+3.2

DNK ***06*** *10:09:55.8±2.2, 57°.37N×23°.57E, h15km, Presumed earthquake*
IDC ***06*** *10:09:59.7±3.0, 57°.50N×23°.01E, h0km, mbtmp3.4/4, ML2.7/4, Error ellipse: s-maj=27.8km s-min=12.8km az=166.0*
BER ***06*** *10:09:59.4±1.7, 57°.56N×23°.30E, h0km, ML1.9, Suspected explosion*
EST ***06*** *10:10:00.8±0.2, 57°.59N×22°.94E, h0km, ML2.2(HEL), Explosion*
HEL ***06*** *10:10:01.8±0.6, 57°.63N×23°.02E, h0km, ML2.3, Explosion*
LVSN ***06*** *10:10:04.1±5.2, 57°.63N×22°.67E, h0km±52km, ML2.6, Presumed earthquake*

ISC 06 10:09:58.7±0.8, 57°.62N±0°.02×22°.88E±0°.03, h0km, n50, σ1§69/80, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SLIT	**Slitere, Latvi**	**0.32**	**273**	*eP*	**Pb**	**10 10 07.4**	**+0.2**
SLIT				AML	AML	10 10 07.7	
	comp=Z,987nm,0.2s						
SLIT				AML	AML	10 10 29.8	
	comp=N,11μm,0.6s						
SLIT				AML	AML	10 10 43.4	
	comp=E,2μm,0.6s						
SLIT	**Slitere, Latvi**	**0.32**	**273**	*eP*	**Pb**	**10 10 07.4**	**+0.2**
SLIT	**Slitere, Latvi**	**0.32**	**273**	*eP*	**Pb**	**10 10 07.4**	**+0.2**
MTSE	**Matsula**	**1.21**	**24**	*eS*	**Sn**	**10 10 43.5**	**+3.6**
MTSE	**Matsula**	**1.21**	**24**	*eP*	**Pb**	**10 10 22.1**	**-0.3**
MTSE	**Matsula**	**1.21**	**24**	*eP*	**Pb**	**10 10 22.1**	**-0.3**
MTSE				*ePN*	**Pn**	**10 10 25.0**	**+2.2**
MTSE				*eS*	**Sb**	**10 10 38.5**	**0.0**
MTSE				*eSN*	**Sn**	**10 10 43.1**	**+3.3**
EE06	**Soera, Palade,**	**1.36**	**359**	*eP*	**Pb**	**10 10 25.2**	**+0.2**
EE06				*ePN*	**Pn**	**10 10 26.9**	**+2.0**
EE06				*eS*	**Sn**	**10 10 43.7**	**+0.2**
EE06				*eSN*	**Sb**	**10 10 46.9**	**+4.0**
EE08	**Sarghaua, Vand**	**1.63**	**49**	*eP*	**Pb**	**10 10 29.1**	**-0.5**
EE08				*eSG*	**Sg**	**10 10 51.1**	**0.0**
EE01	**Perakula, Nova**	**1.64**	**13**	*eP*	**Pb**	**10 10 29.8**	**0.0**
EE01				*eS*	**Sg**	**10 10 51.7**	**+0.2**
PBUR	**Paburge**	**1.68**	**199**	*eP*	**Pb**	**10 10 30.7**	**+0.3**
PBUR				*eS*	**Sg**	**10 10 55.3**	**+2.7**
PBUR				AML	AML	10 11 05.3	
	comp=E,93nm,0.4s						
PBUR				AML	AML	10 11 05.9	
	comp=N,90nm,0.5s						
PBUR				AML	AML	10 11 23.8	
	comp=Z,63nm,0.5s						
PBUR	**Paburge**	**1.68**	**199**	*eP*	**Pb**	**10 10 30.9**	**+0.4**
EE02	**Kiisa, Saku**	**1.85**	**30**	*ePG*	**Pg**	**10 10 34.1**	**0.0**
EE02				*eS*	**Sg**	**10 10 57.5**	**-0.5**
EE03	**Tooma soojaam,**	**2.19**	**53**	*eP*	**Pb**	**10 10 39.0**	**-0.2**
EE03				*ePB*	**Pg**	**10 10 39.4**	**-1.3**
EE03				*eSG*	**Sg**	**10 11 08.8**	**-0.3**
PABE	**Paberze**	**2.20**	**164**	*eP*	**Pb**	**10 10 39.6**	**+0.3**
PABE				AML	AML	10 10 40.1	
	comp=Z,29nm,0.3s						
PABE				*eS*	**Sg**	**10 11 08.5**	**-0.8**
PABE				AML	AML	10 11 11.6	
	comp=E,77nm,0.4s						
PABE				AML	AML	10 11 12.5	
	comp=N,72nm,0.5s						
PABE	**Paberze**	**2.20**	**164**	*eP*	**Pb**	**10 10 39.5**	**+0.2**
VSU	**Vasula**	**2.22**	**66**	AML	AML	10 10 40.3	
	comp=Z,46nm,0.8s						
VSU				*eS*	**Sg**	**10 11 07.7**	**-2.2**
VSU				AML	AML	10 11 11.8	
	comp=E,67nm,0.2s						
VSU				AML	AML	10 11 12.0	
	comp=N,56nm,0.4s						
VSU	**Vasula**	**2.22**	**66**	*eP*	**Pb**	**10 10 38.8**	**-0.8**
VSU	**Vasula**	**2.22**	**66**	*eP*	**Pb**	**10 10 37.9**	**-1.7**
VSU				*ePB*	**Pg**	**10 10 39.0**	**-2.2**
VSU				*eSG*	**Sg**	**10 11 08.1**	**-1.8**
TVF	**Tvarminne**	**2.24**	**5**	*eP*	**Pb**	**10 10 40.0**	**0.0**
TVF				*eSG*	**Sg**	**10 11 10.1**	**-0.6**
TVF				MSG		10 11 11.1	
	comp=Z,13nm,0.1s						
ARBE	**Arbavere**	**2.45**	**40**	*eP*	**Pb**	**10 10 43.6**	**+0.1**
ARBE				AML	AML	10 10 44.9	
	comp=Z,181nm,0.4s						
ARBE				*eS*	**Sg**	**10 11 15.4**	**-1.8**
ARBE				AML	AML	10 11 18.4	
	comp=E,345nm,0.1s						
ARBE				AML	AML	10 11 19.7	
	comp=N,353nm,0.2s						
ARBE	**Arbavere**	**2.45**	**40**	*eP*	**Pb**	**10 10 43.8**	**+0.3**
ARBE	**Arbavere**	**2.45**	**40**	*ePB*	**Pb**	**10 10 43.4**	**-0.1**
ARBE				*eSG*	**Sg**	**10 11 15.3**	**-2.0**
EE07	**Piusa Caves, O**	**2.47**	**83**	*ePB*	**Pb**	**10 10 43.3**	**-0.6**
EE07				*eSG*	**Sg**	**10 11 16.2**	**-1.8**
HEL5	**Espoo, Suvisaa**	**2.69**	**20**	*ePB*	**Pb**	**10 10 47.2**	**-0.4**
HEL5				*eSB*	**Sb**	**10 11 22.0**	**+0.9**
HEL5				MSG		10 11 23.7	
	comp=Z,8.6nm,0.1s						
MEF	**Metsahovi**	**2.73**	**16**	AML	AML	10 11 24.0	
	comp=Z,21nm,0.3s						
MEF				AML	AML	10 11 24.6	
	comp=E,26nm,0.2s						
MEF				AML	AML	10 11 25.6	
	comp=N,14nm,0.2s						
MEF	**Metsahovi**	**2.73**	**16**	*eP*	**Pb**	**10 10 47.0**	**-1.3**
MEF	**Metsahovi**	**2.73**	**16**	*ePB*	**Pb**	**10 10 47.6**	**-0.6**
MEF				*eSB*	**Sb**	**10 11 23.4**	**+1.3**
MEF				MSG		10 11 25.1	
	comp=Z,13nm,0.1s						
LAUT	**Lauttasaari He**	**2.74**	**21**	*eP*	**Pb**	**10 10 47.2**	**-1.4**
LAUT				MSG		10 11 25.4	
	comp=Z,9.3nm,0.1s						
VUOS	**Vuosaari Helsi**	**2.84**	**24**	*eP*	**Pb**	**10 10 47.6**	**-2.5**
RAF	**Rauma**	**3.47**	**351**	*eP*	**Pn**	**10 10 57.0**	**+3.1**
RAF	**Rauma**	**3.47**	**351**	*eP*	**Pn**	**10 10 56.3**	**+2.5**
SUW	**Suwalki**	**3.62**	**177**	*eP*	**Pn**	**10 10 59.7**	**+3.8**
BLEU	**Blekinge**	**4.09**	**254**	*i P*	**Pn**	**10 11 03.5**	**+1.1**
BLEU				*i S*	**Sn**	**10 11 52.4**	**+1.6**
FINES	**FINESS Array B**	**4.17**	**22**	Pn	**Pn**	**10 11 04.8**	**+1.3**
	comp=Z,1.0nm,0.3s,baz=209,slow=14,SNR=53						
FINES				Pg	**Pb**	**10 11 14.4**	**+1.6**
	comp=Z,0.9nm,0.3s,baz=201,slow=15,SNR=10						
FINES				Sn	**Sn**	**10 11 55.9**	**+3.0**
	comp=Z,0.7nm,0.3s,baz=196,slow=21,SNR=5.3						
FINES				Lg	Lg	10 12 09.5	
	comp=Z,3.1nm,0.3s,baz=201,slow=25,SNR=15						
	comp=Z,1.6nm,0.2s						
FINES				AML	AML		
DEL	**Delary**	**5.05**	**261**	*i* P	**Pn**	**10 11 15.9**	**+0.3**
DEL				*i* S	**Sn**	**10 12 11.3**	**-3.3**
BSD	**Bornholm Skovb**	**5.09**	**244**	*eP*	**Pn**	**10 11 16.6**	**+0.5**
BSD	**Bornholm Skovb**	**5.09**	**244**	*i* P	**Pn**	**10 11 13.9**	**-2.2**
HFS	**Hagfors**	**5.39**	**302**	Pn	**Pn**	**10 11 21.8**	**+1.5**
	comp=Z,1.2nm,0.3s,baz=113,slow=14,SNR=17						
HFS				Lg	Lg	10 12 50.9	
	comp=Z,1.3nm,0.3s,baz=107,slow=29,SNR=6.1						
	comp=Z,2.6nm,0.3s						
HFS				AML	AML		
ONAU	**Onsala**	**5.92**	**272**	*i* P	**Pn**	**10 11 28.5**	**+1.1**
TJOU	**Tjoern**	**6.03**	**279**	*i* P	**Pn**	**10 11 30.2**	**+1.1**
STRU	**Stroemstad**	**6.33**	**288**	*eP*	**Pn**	**10 11 35.0**	**+2.0**
STRU				*eS*	**Sn**	**10 12 44.2**	**-1.7**
STRU	**Stroemstad**	**6.33**	**288**	*i* P	**Pn**	**10 11 34.0**	**+1.0**
STRU				*i* S	**Sn**	**10 12 45.2**	**-0.7**
NC602	**NORSAR Array S**	**6.61**	**303**	*eP*	**Pn**	**10 11 37.0**	**-0.1**
NC602				*eS*	**Sn**	**10 12 51.9**	**-1.2**
NC602				IAML		10 12 56.8	
	comp=Z,1.7nm,0.5s						
JOF	**Joensuu**	**6.77**	**35**	*eP*	**Pn**	**10 11 40.1**	**+0.9**
NB201	**NORSAR Array S**	**6.85**	**305**	*eP*	**Pn**	**10 11 41.4**	**+1.0**
NB201				*eS*	**Sn**	**10 12 54.9**	**-4.0**
NB201				IAML		10 13 10.4	
	comp=Z,1.6nm,0.9s						
NOA	**NORSAR Array B**	**6.88**	**305**	Pn	**Pn**	**10 11 41.9**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=119,slow=12,SNR=13						
NOA				Sn	**Sn**	**10 12 57.6**	**-2.2**
	baz=123,slow=11,SNR=4.6						
NOA				Lg	Lg	10 13 33.5	
	comp=Z,0.1nm,0.3s,baz=134,slow=26,SNR=4.7						
	comp=Z,0.3nm,0.3s						
NOA				AML	AML		
NC303	**NORSAR Array S**	**6.90**	**306**	*eP*	**Pn**	**10 11 41.6**	**+0.6**
NC303				*eS*	**Sn**	**10 12 58.0**	**-2.0**
NC303				IAML		10 13 10.5	
	comp=Z,2.2nm,0.8s						
HOMB	**Homborsund**	**7.68**	**281**	*i* P	**Pn**	**10 11 50.6**	**-1.0**
SKAR	**Skarslia**	**8.10**	**298**	*eP*	**Pn**	**10 11 57.5**	**0.0**
ARCES	**ARCESS Array B**	**12.02**	**4**	Pn	**Pn**	**10 12 47.7**	**-3.3**
	comp=Z,0.1nm,0.3s,baz=181,slow=9.8,SNR=1.3						
	comp=Z,2.2nm,0.9s						
ARCES				AML	AML		

FUNV ***06*** *10:22:47.9, 6°.80N×73°.22W, h168km, MW4.3, Presumed earthquake*
RSNC ***06*** *10:22:47.8±0.0, 7°.N±3°×7°.3W±°, h147km±6km, M4.2, mB5.0, mb4.4, ML3.8, Mw(mB)4.4*
IDC ***06*** *10:22:47.2±3.2, 6°.74N×73°.04W, h152km±25km, mb3.6/6, mbtmp4.1/9, Error ellipse: s-maj=48.0km s-min=15.7km az=75.0*
CATAC ***06*** *10:22:48.1±0.5, 7°.N±2°×7°.3W±°, h152km±5km, M4.3/10, mb4.2/5, mB4.0/2, MLv4.4/10, Mw(mB)3.0/2, Error ellipse: s-maj=8.8km s-min=4.4km az=84.7, confirmed*
NEIC ***06*** *10:22:48.7±1.3, 6°.92N±0°.06×73°.1W±0°.1, h146km±9km, mb4.3/67, Error ellipse: s-maj=16.0km s-min=9.0km az=84.0*

ISC 06 10:22:48.2±0.6, 6°.87N±0°.03×73°.12W±0°.04, h151km±6km, n162, σ1§70/215, mb4.2/37, 1C-1D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.28**	**194**	P	**Pn**	**10 23 09.2**	**0.0**
BARC				S	**Sn**	**10 23 24.6**	**-0.5**
BRJC	**Barrancabermej**	**0.63**	**280**	P	**Pn**	**10 23 10.9**	**+0.5**
BRJC				S	**Sn**	**10 23 27.8**	**+0.5**
RUSC	**La Rusia**	**0.97**	**178**	P	**Pn**	**10 23 13.1**	**-0.4**
RUSC				S	**Sn**	**10 23 32.1**	**-0.6**
RUSC	**La Rusia**	**0.97**	**178**		**Pn**	**10 23 13.0**	**-0.4**
RUSC				Sn	**Sn**	**10 23 31.9**	**-0.7**
RUSC	**La Rusia**	**0.97**	**178**	P	**Pn**	**10 23 13.0**	**-0.4**
RUSC				S	**Sn**	**10 23 31.7**	**-0.9**
RUSC	**La Rusia**	**0.97**	**178**	*eP*	**Pn**	**10 23 13.4**	**0.0**
RUSC				*eS*	**Sn**	**10 23 31.8**	**-0.8**
CAPV	**Capacho**	**1.27**	**39**	*eP*	**Pn**	**10 23 17.3**	**+1.5**
CAPV				*eS*	**Sn**	**10 23 39.0**	**+2.0**
OCAC	**Ocana**	**1.38**	**352**	P	**Pn**	**10 23 17.3**	**+0.5**
OCAC				S	**Sn**	**10 23 39.4**	**+0.7**
TAMC	**Tame, Arauca**	**1.38**	**108**	P	**Pn**	**10 23 17.6**	**+0.9**
TAMC				S	**Sn**	**10 23 39.2**	**+0.7**
SPBC	**San Pablo de B**	**1.54**	**218**	P	**Pn**	**10 23 18.0**	**-0.4**
SPBC				S	**Sn**	**10 23 40.0**	**-1.5**
NORC	**Norcasia**	**2.17**	**234**	P	**Pn**	**10 23 24.7**	**-0.8**
NORC				S	**Sn**	**10 23 53.0**	**-1.2**
CHIC	**Chingaza**	**2.31**	**195**	P	**Pn**	**10 23 27.1**	**-0.4**
CHIC				S	**Sn**	**10 23 56.3**	**-1.4**
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**10 23 28.1**	**+0.2**
	474nm,0.3s,baz=320,slow=21,SNR=211						
ROSC				S	**Sn**	**10 23 55.6**	**-2.8**
	678nm,0.6s,baz=85,slow=14,SNR=5.8						
ROSC	**El Rosal**	**2.34**	**211**		**Pn**	**10 23 28.7**	**+0.8**
ROSC				Sn	**Sn**	**10 23 58.3**	**-0.1**
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**10 23 28.7**	**+0.8**
ROSC				S	**Sn**	**10 23 57.4**	**-1.0**
CVER	**Cruz Verde, Cu**	**2.52**	**202**	P	**Pn**	**10 23 30.5**	**+0.4**
CVER				S	**Sn**	**10 24 01.6**	**-0.7**
URIC	**San Jos de Ur**	**2.56**	**290**	P	**Pn**	**10 23 29.1**	**-1.0**
URIC				S	**Sn**	**10 24 00.4**	**-2.0**
GUY2C	**Guyana, Caldas**	**2.77**	**234**	P	**Pn**	**10 23 33.1**	**-0.1**
GUY2C				S	**Sn**	**10 24 07.5**	**-0.4**
VILC	**Villavicencio,**	**2.80**	**192**	P	**Pn**	**10 23 32.4**	**-0.8**
VILC				S	**Sn**	**10 24 06.6**	**-1.4**
PTGC	**Puerto Gaitan,**	**2.82**	**160**	P	**Pn**	**10 23 32.3**	**-1.1**
PTGC				S	**Sn**	**10 24 04.5**	**-3.9**
NIZA	**Niza - Manizal**	**2.95**	**233**	P	**Pn**	**10 23 36.3**	**+1.0**
NIZA				S	**Sn**	**10 24 13.0**	**+1.3**
CBOC	**Ciudad Bolivar**	**3.05**	**251**	P	**Pn**	**10 23 36.8**	**+0.4**
CBOC				S	**Sn**	**10 24 13.7**	**+0.1**
ARGC	**Ariguani, Magd**	**3.18**	**339**	P	**Pn**	**10 23 39.2**	**+1.3**
ARGC				S	**Sn**	**10 24 17.9**	**+1.5**
APAC	**Apartado, Choc**	**3.59**	**287**	P	**Pn**	**10 23 43.0**	**-0.1**
APAC				S	**Sn**	**10 24 25.9**	**+0.2**
PRAC	**Prado**	**3.59**	**209**	P	**Pn**	**10 23 43.0**	**-0.2**
PRAC				S	**Sn**	**10 24 25.0**	**-1.1**
PRAC	**Prado**	**3.59**	**209**	P	**Pn**	**10 23 42.7**	**-1.3**
PRAC				S	**Sn**	**10 24 24.9**	**-1.1**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**10 23 42.8**	**-0.9**
ORTC				S	**Sn**	**10 24 26.5**	**-0.2**
SJCC	**San Jacinto, C**	**3.64**	**326**	P	**Pn**	**10 23 43.2**	**-0.7**
SJCC				S	**Sn**	**10 24 24.7**	**-2.3**
SJCC	**San Jacinto, C**	**3.64**	**326**		**Pn**	**10 23 43.0**	**-0.8**
SJCC				Sn	**Sn**	**10 24 24.7**	**-2.3**
SJCC	**San Jacinto, C**	**3.64**	**326**	P	**Pn**	**10 23 42.8**	**-1.0**
SJCC				S	**Sn**	**10 24 24.4**	**-2.7**
SJCC	**San Jacinto, C**	**3.64**	**326**	*eP*	**Pn**	**10 23 43.0**	**-0.8**
SJCC				*eS*	**Sn**	**10 24 23.5**	**-3.6**
LCBC	**Los crdobas,**	**3.78**	**302**		**Pn**	**10 23 45.5**	**-0.1**
LCBC	**Los crdobas,**	**3.78**	**302**	P	**Pn**	**10 23 44.8**	**-0.8**
LCBC				S	**Sn**	**10 24 30.4**	**+0.1**
URMC	**La Uribe, Meta**	**3.81**	**199**	P	**Pn**	**10 23 45.5**	**-0.6**
URMC				S	**Sn**	**10 24 30.0**	**-1.1**
CRJC	**Cerrejon, Guaj**	**4.13**	**3**	P	**Pn**	**10 23 49.4**	**-0.9**
CRJC				S	**Sn**	**10 24 38.3**	**-0.4**
YOTC	**Yotoco, Valle**	**4.31**	**228**	P	**Pn**	**10 23 51.4**	**-1.2**
YOTC				S	**Sn**	**10 24 40.2**	**-2.6**
SOLC	**Bahia Solano**	**4.31**	**262**	P	**Pn**	**10 23 52.8**	**+0.2**
SOLC				S	**Sn**	**10 24 42.5**	**-0.2**
GUVC	**San Jose del G**	**4.32**	**174**	P	**Pn**	**10 23 51.9**	**-0.8**
GUVC				S	**Sn**	**10 24 39.3**	**-3.7**
SMRC	**Santa Mar

2.6nm,0.2s,baz=42,slow=22,SNR=5.7
GTBY Guantanamo Bay 13.13 352 ⇑ *i* P **P 10 25 52.5 -1.0**
GTBY Guantanamo Bay 13.13 352 *eP* **P 10 25 52.1 -1.4**
MARVS Santiago de Cu 13.33 349 *eP* **P 10 25 54.8 -1.0**
QMBU Quimbuelo 13.36 353 *eP* **P 10 25 54.8 -1.3**
QMBU *eS* Sn 10 28 09.7 -10
PINC Pinares de May 13.79 349 *eP* **P 10 26 00.3 -0.5**
MOAC Moa 13.83 353 *eP* **P 10 26 00.9 -0.4**
HLGC Holguin 14.23 349 *eP* **P 10 26 08.1 +2.3**
CBCY The Bluff, Cay 14.33 334 *eP* **P 10 26 07.8 +0.9**
LCCY Blossom Villag 14.41 333 *eP* **P 10 26 09.6 +1.8**
CZSB Cruzeiro do Su 14.51 178 **P 10 26 07.7 -1.2**
ATAH Atahualpa 14.87 201 P **Pn 10 26 10.4 -1.1**
3.6nm,0.8s,baz=50,slow=9.9,SNR=7.2
CCCC Cccc 14.94 343 *eP* **P 10 26 14.7 +1.0**
VILB Vilhena 23.50 147 P **P 10 27 44.1 -0.5**
VILB IAmb IAmb 10 27 45.2
comp=Z,12nm,0.7s
LPAZ La Paz 23.53 168 P **P 10 27 43.3 -2.1**
comp=Z,1.9nm,0.5s,baz=346,slow=13,SNR=7.5
comp=Z,1.9nm,0.5s
LPAZ La Paz 23.53 168 **P 10 27 44.8 -0.7**
V48A Smith Brothers 31.37 338 P **P 10 28 55.5 +0.9**
CCM Cathedral Cave 35.13 335 P **P 10 29 28.1 +0.9**
SFIN Lafayette 35.64 342 P **P 10 29 32.2 +0.7**
SAND Sanderson 35.65 314 P **P 10 29 32.2 +0.3**
R40A Maddies Statio 35.77 334 P **P 10 29 33.1 +0.4**
R40A IAmb IAmb 10 29 33.2
comp=Z,3.0nm,0.6s
TXAR Lajitas Array 36.44 312 P **P 10 29 39.1 +0.5**
comp=Z,1.5nm,0.6s,baz=128,slow=9.3,SNR=23
TXAR PcP **PcP 10 31 59.8 +0.2**
comp=Z,0.5nm,0.6s,baz=145,slow=3.9,SNR=4.7
comp=Z,1.5nm,0.6s
TXAR Lajitas Array 36.44 312 P **P 10 29 39.2 +0.6**
TXAR **PcP 10 32 00.1 +0.6**
TX31 Lajitas Ar. Si 36.44 312 **P 10 29 39.1 +0.5**
WMOK Wichita Mounta 36.45 323 P **P 10 29 38.3 -0.2**
WMOK IAmb IAmb 10 29 38.6
comp=Z,2.6nm,0.7s
SN07 Snyder 07 36.68 319 P **P 10 29 41.2 +0.6**
SN07 IAmb IAmb 10 29 41.3
comp=Z,3.5nm,0.5s
MNHN Monahans 36.88 315 P **P 10 29 42.5 +0.1**
TPB05 Hovey Rd 37.05 314 P **P 10 29 44.3 +0.6**
TPB05 IAmb IAmb 10 29 44.6
comp=Z,6.1nm,0.6s
POST Post 37.06 319 **P 10 29 44.0 +0.2**
TPB01 Permian Basin 37.38 314 **P 10 29 47.1 +0.5**
TPB01 IAmb IAmb 10 29 47.6
comp=Z,3.9nm,0.5s
P38A Dawn 37.43 334 P **P 10 29 46.9 +0.2**
P38A IAmb IAmb 10 29 47.2
comp=Z,5.8nm,0.6s
128A Castleberry Fa 37.45 317 **P 10 29 47.8 +0.7**
128A IAmb IAmb 10 29 48.2
comp=Z,6.1nm,0.7s
SMWD Samnorwood 37.58 322 **P 10 29 48.3 +0.2**
SMWD IAmb IAmb 10 29 49.0
comp=Z,6.0nm,0.7s
MNTX Cornudas Mount 38.94 314 P **P 10 29 59.6 +0.1**
MNTX IAmb IAmb 10 30 01.5
comp=Z,3.5nm,0.8s
SCIA State Center 39.19 336 P **P 10 30 01.2 -0.2**
TUC Tucson 43.22 311 P **P 10 30 33.7 -0.9**
SUSD Miller 43.70 333 P **P 10 30 37.5 -0.6**
ISCO Idaho Springs 43.87 323 P **P 10 30 40.1 +0.2**
MVCO Mesa Verde 44.12 318 P **P 10 30 42.5 +0.6**
MVCO IAmb IAmb 10 30 43.4
comp=Z,9.2nm,1.4s
PV01 Paradox Valley 44.70 319 IAmb IAmb 10 30 48.6
comp=Z,4.8nm,0.8s
PV15 Paradox Valley 44.76 320 IAmb IAmb 10 30 49.0
comp=Z,12nm,0.9s
WUAZ Wupatki 45.19 315 P **P 10 30 50.4 +0.1**
WUAZ IAmb IAmb 10 30 53.3
comp=Z,8.0nm,1.1s
HMU Henry Mountain 46.01 318 IAmb IAmb 10 30 59.3
comp=Z,8.0nm,1.1s
ULM Lac du Bonnet 47.24 340 P **P 10 31 05.3 -0.6**
comp=Z,2.6nm,0.4s,baz=134,slow=7.6,SNR=12
comp=Z,2.6nm,0.4s
BW06 Boulder Array 48.05 324 P **P 10 31 12.8 +0.3**
BW06 IAmb IAmb 10 31 13.2
comp=Z,6.8nm,1.5s
PD31 Pinedale Array 48.05 324 P **P 10 31 12.1 -0.4**
PDAR Pinedale Array 48.05 324 P **P 10 31 12.4 -0.1**
comp=Z,1.0nm,0.6s,baz=126,slow=9.5,SNR=9.3
comp=Z,1.0nm,0.6s
PDAR Pinedale Array 48.05 324 P **P 10 31 12.6 +0.1**
DUG Dugway, Tooele 48.58 319 P **P 10 31 18.4 +1.9**
DGMT Dagmar 49.11 333 **P 10 31 21.4 +1.1**
BGU Big Grassy Mou 49.11 320 **P 10 31 21.2 +0.6**
BGU IAmb IAmb 10 31 21.7
comp=Z,4.3nm,0.8s
RLMT Red Lodge 49.35 327 P **P 10 31 23.0 +0.6**
HVU Hansel Valley 49.42 321 P **P 10 31 24.2 +1.3**
CCCA Chr Cany lake 49.54 312 P **P 10 31 25.0 +1.2**
CCCA IAmb IAmb 10 31 25.4
comp=Z,3.9nm,0.7s
GCMT Greycliff 49.99 327 P **P 10 31 27.6 +0.5**
BOZ Bozeman (W) 50.95 326 P **P 10 31 35.3 +0.9**
MCMT McKenzie Canyo 51.19 324 P **P 10 31 37.7 +1.4**
HLID Hailey 51.40 322 P **P 10 31 38.6 +0.8**
MFID Camas Ranch 52.20 321 P **P 10 31 44.5 +0.9**
FFC Flin Flon 53.05 339 P **P 10 31 49.2 -0.3**
FFC IAmb IAmb 10 32 13.4
comp=Z,7.8nm,1.1s
PLID Pearl Lake 53.19 323 P **P 10 31 51.2 +0.2**
PLID IAmb IAmb 10 31 51.4
comp=Z,2.8nm,0.9s
WVOR Wild Horse Val 53.50 319 P **P 10 31 53.8 +0.6**
WVOR IAmb IAmb 10 31 55.5
comp=Z,5.3nm,1.4s
JTMT Jette 53.70 327 P **P 10 31 55.1 +0.5**
F10A Beach Ranch, E 54.39 323 P **P 10 31 59.4 -0.2**
F10A IAmb IAmb 10 31 59.7
comp=Z,3.1nm,0.7s
G08A Pilot Rock 55.08 322 P **P 10 32 05.1 +0.5**
G08A IAmb IAmb 10 32 05.6
comp=Z,4.0nm,0.8s
PINE Pine Mountain 55.62 319 P **P 10 32 09.8 +1.2**
PINE IAmb IAmb 10 32 17.5
comp=Z,8.3nm,1.4s
EDM Edmonton 56.59 332 P **P 10 32 14.6 -0.4**
KSXB Camp Six Broad 56.75 316 P **P 10 32 17.2 +0.7**
LTY Liberty 57.09 323 P **P 10 32 19.6 +0.9**
LTY IAmb IAmb 10 32 43.3
comp=Z,4.7nm,1.2s
BUCK Buck Mountain 57.12 319 P **P 10 32 19.3 +0.3**
J01E Myrtle Point 57.32 318 P **P 10 32 21.3 +1.0**
YKA Yellowknife Ar 63.22 340 P **P 10 32 59.6 -0.4**
comp=Z,2.7nm,0.6s,baz=135,slow=6.5,SNR=15
comp=Z,2.7nm,0.6s
YKA Yellowknife Ar 63.22 340 P **P 10 33 00.5 +0.4**
YKAW3 Yellowknife Wh 63.27 340 P **P 10 33 00.6 +0.3**
T35M Bob Quinn 66.77 330 P **P 10 33 24.5 +1.3**
S34M Telegraph Cree 67.59 331 P **P 10 33 29.5 +1.2**
O30N Mendenhall 71.04 332 P **P 10 33 50.7 +1.2**
O30N IAmb IAmb 10 34 08.4
comp=Z,9.8nm,1.4s
HYT Haines Junctio 71.71 332 P **P 10 33 54.8 +1.1**
HYT IAmb IAmb 10 34 17.1
comp=Z,6.6nm,1.2s
A36M Sachs Harbour 72.39 345 P **P 10 33 57.3 0.0**
A36M IAmb IAmb 10 33 57.6
comp=Z,7.0nm,0.8s
F31M Tsiigehtchic 72.69 339 P **P 10 33 59.4 +0.3**
F31M IAmb IAmb 10 34 01.5
comp=Z,7.5nm,1.4s
INK Inuvik 72.99 340 P **P 10 34 01.1 +0.2**
INK IAmb IAmb 10 34 18.9
comp=Z,8.0nm,1.4s
EPYK Eagle Plains 73.34 338 P **P 10 34 03.3 +0.2**
EPYK IAmb IAmb 10 34 13.2
comp=Z,7.9nm,1.4s
BCAR Beaver Creek A 74.32 334 P **P 10 34 09.8 +1.0**
ILAR Eielson Array 76.92 335 P **P 10 34 23.1 -0.5**
comp=Z,0.3nm,0.7s,baz=128,slow=4.2,SNR=4.3
comp=Z,0.3nm,0.7s
ASAR Alice Springs 149.14 234 PKPbc **PKPdf 10 42 17.8 +2.5**
comp=Z,1.2nm,0.5s,baz=120,slow=3.5,SNR=34
WRA Warramunga Arr 150.36 241 PKPbc **PKPbc 10 42 20.9 -1.7**
comp=Z,1.1nm,0.4s,baz=105,slow=2.7,SNR=36

*NOU **06** 10:37:33.3,37.˚59S×178.˚45W,h78km,ML4.6/8,East of North Island, N.Z.*
*WEL **06** 10:37:52.0±1.2,38.˚5S×18.˚0E±.˚,h33km,M3.2/11, ML3.2/12,MLv3.2/11,Error ellipse: s-maj=10.9km s-min=9.0km az=16.5*
ISC 06 10:37:48.3±2.0,**37.˚85S**±0.˚09×**179.˚98E**±0.˚09,**h21**km,**n74,** σ1s**24/82,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WMGZ	**Waiomatatini S**	**1.24**	**271**	P	**Pb**	**10 38 11.0**	**+0.1**
WMGZ				S	**Sn**	**10 38 25.6**	**-0.8**
WMGZ				AML	AML		
WMGZ				AML	AML		
MXZ	**Matakaoa Point**	**1.35**	**282**	P	**Pb**	**10 38 12.8**	**-0.2**
MXZ	**Matakaoa Point**	**1.35**	**282**	P	**Pb**	**10 38 12.7**	**-0.2**
MXZ				S	**Sn**	**10 38 28.5**	**-0.8**
MXZ				AML	AML		
PUZ	**Puketiti**	**1.38**	**260**	P	**Pn**	**10 38 12.9**	**+0.6**
PUZ				AML	AML		
PUZ				AML	AML		
PKGZ	**Pakihiroa**	**1.50**	**269**	P	**Pn**	**10 38 14.6**	**+0.6**
PKGZ				S	**Sn**	**10 38 31.6**	**-1.4**
PKGZ				AML	AML		
PKGZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.53**	**245**	P	**Pn**	**10 38 16.1**	**+1.8**
CNGZ				AML	AML		
CNGZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.61**	**258**	P	**Pn**	**10 38 16.6**	**+1.1**
TWGZ				S	**Sb**	**10 38 35.9**	**-1.3**
TWGZ				AML	AML		
TWGZ				AML	AML		
HAZ	**Te Kaha**	**1.74**	**273**	P	**Pn**	**10 38 18.2**	**+1.0**
HAZ				AML	AML		
TKGZ	**Te Karaka**	**1.78**	**250**	P	**Pn**	**10 38 19.0**	**+1.2**
TKGZ				S	**Sn**	**10 38 39.6**	**0.0**
TKGZ				AML	AML		
TKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.82**	**266**	P	**Pn**	**10 38 19.1**	**+0.6**
RUGZ				AML	AML		
RUGZ				AML	AML		
RIGZ	**Rimuhau**	**1.94**	**243**	P	**Pn**	**10 38 21.5**	**+1.5**
RIGZ				S	**Sn**	**10 38 44.7**	**+0.9**
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**1.96**	**236**	P	**Pn**	**10 38 21.9**	**+1.5**
PRGZ				S	**Sn**	**10 38 45.0**	**+0.7**
PRGZ				AML	AML		
PRGZ				AML	AML		
MWZ	**Matawai**	**1.99**	**255**	P	**Pn**	**10 38 21.5**	**+0.7**
MWZ				AML	AML		
MWZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.08**	**231**	P	**Pn**	**10 38 23.6**	**+1.6**
MHGZ				AML	AML		
MHGZ				AML	AML		
RAGZ	**Rawiri**	**2.12**	**252**	P	**Pn**	**10 38 24.0**	**+1.4**
RAGZ				AML	AML		
RAGZ				AML	AML		
KNZ	**Kokohu**	**2.15**	**236**	P	**Pn**	**10 38 24.2**	**+1.3**
KNZ				AML	AML		
KNZ				AML	AML		
URZ	**Urewera**	**2.30**	**259**	P	**Pn**	**10 38 26.4**	**+1.4**
URZ	**Urewera**	**2.30**	**259**	P	**Pn**	**10 38 26.3**	**+1.4**
URZ				AML	AML		
WHHZ	**Waihua**	**2.47**	**240**	P	**Pn**	**10 38 28.7**	**+1.3**
RTZ	**Ruatahuna**	**2.48**	**251**	P	**Pn**	**10 38 29.2**	**+1.7**
RAHZ	**Arahi**	**2.51**	**244**	P	**Pn**	**10 38 29.4**	**+1.6**
EDRZ	**Edgecumbe**	**2.57**	**263**	P	**Pn**	**10 38 29.9**	**+1.2**
MUGZ	**Murupara**	**2.60**	**255**	P	**Pn**	**10 38 30.3**	**+1.2**
MARZ	**Manawahe**	**2.61**	**266**	P	**Pn**	**10 38 30.8**	**+1.4**
MTHZ	**Maungataniwha**	**2.66**	**247**	P	**Pn**	**10 38 31.2**	**+1.3**
OPRZ	**Ohinepanea**	**2.71**	**269**	P	**Pn**	**10 38 31.3**	**+0.7**
ARHZ	**Aropaoanui**	**2.73**	**238**	P	**Pn**	**10 38 32.6**	**+1.8**
TARZ	**Mount Tarawera**	**2.77**	**261**	P	**Pn**	**10 38 32.8**	**+1.3**
RRRZ	**Republican Roa**	**2.77**	**259**	P	**Pn**	**10 38 32.6**	**+1.1**
NMHZ	**Naumai**	**2.78**	**242**	P	**Pn**	**10 38 33.1**	**+1.5**
CKHZ	**Cape Kidnapper**	**2.90**	**231**	P	**Pn**	**10 38 34.3**	**+1.2**
TGRZ	**Tauranga**	**2.94**	**271**	P	**Pn**	**10 38 34.2**	**+0.4**
ALRZ	**Allen Road**	**2.95**	**255**	P	**Pn**	**10 38 35.1**	**+1.2**
KARZ	**Kaharoa**	**2.96**	**266**	P	**Pn**	**10 38 34.7**	**+0.7**
HRRZ	**Handcock Road**	**2.96**	**258**	P	**Pn**	**10 38 35.3**	**+1.2**
MRHZ	**Matea Rd**	**2.96**	**250**	P	**Pn**	**10 38 35.6**	**+1.5**
NGRZ	**Ngongotaha**	**3.00**	**264**	P	**Pn**	**10 38 36.2**	**+1.5**
MCHZ	**McNeill Hill**	**3.02**	**237**	P	**Pn**	**10 38 36.2**	**+1.4**
BKZ	**Black Stump Fm**	**3.03**	**243**	P	**Pn**	**10 38 36.1**	**+1.0**
BKZ	**Black Stump Fm**	**3.03**	**243**	P	**Pn**	**10 38 36.4**	**+1.3**
KAHZ	**Kahuranaki**	**3.10**	**230**	P	**Pn**	**10 38 37.2**	**+1.1**
KWHZ	**Kaweka Forest**	**3.19**	**239**	P	**Pn**	**10 38 38.3**	**+1.0**
PXZ	**Pawanui**	**3.26**	**227**	P	**Pn**	**10 38 38.3**	**+0.2**
KUTZ	**Kaahu Road**	**3.33**	**258**	P	**Pn**	**10 38 40.3**	**+1.1**
KRHZ	**Kereru**	**3.34**	**237**	P	**Pn**	**10 38 39.9**	**+0.6**
RITZ	**Rihia Road**	**3.42**	**250**	P	**Pn**	**10 38 39.5**	**-0.9**
BHHZ	**Black Hill Sta**	**3.47**	**241**	P	**Pn**	**10 38 42.2**	**+1.1**
WPHZ	**Waipukurau**	**3.53**	**230**	P	**Pn**	**10 38 42.3**	**+0.4**
PRHZ	**Porangahau**	**3.54**	**226**	P	**Pn**	**10 38 42.0**	**-0.1**
TOZ	**Tahuroa Road**	**3.55**	**271**	P	**Pn**	**10 38 42.7**	**+0.6**
TMVZ	**Te Maari**	**3.58**	**248**	P	**Pn**	**10 38 43.8**	**+1.1**
ETVZ	**East Tongariro**	**3.58**	**248**	P	**Pn**	**10 38 44.0**	**+1.2**
PNHZ	**Pukenui**	**3.59**	**234**	P	**Pn**	**10 38 43.2**	**+0.4**
NTVZ	**North Tongarir**	**3.60**	**248**	P	**Pn**	**10 38 44.0**	**+1.1**
KRVZ	**Karewarewa**	**3.62**	**249**	P	**Pn**	**10 38 44.4**	**+1.1**
OTVZ	**Oturere**	**3.62**	**248**	P	**Pn**	**10 38 44.4**	**+1.0**
SNVZ	**South Ngauruho**	**3.65**	**247**	P	**Pn**	**10 38 44.6**	**+0.9**
MOVZ	**Moawhango**	**3.65**	**244**	P	**Pn**	**10 38 44.9**	**+1.2**
WTVZ	**West Tongariro**	**3.67**	**249**	P	**Pn**	**10 38 45.6**	**+1.7**
NGZ	**Ngauruhoe**	**3.68**	**248**	P	**Pn**	**10 38 45.1**	**+1.1**
COVZ	**Chateau Observ**	**3.73**	**247**	P	**Pn**	**10 38 46.0**	**+1.3**
WNVZ	**Wahianoa**	**3.73**	**245**	P	**Pn**	**10 38 45.6**	**+0.8**
TSZ	**Takapari Road**	**3.83**	**234**	P	**Pn**	**10 38 46.1**	**+0.1**
DVHZ	**Dannevirke**	**3.84**	**229**	P	**Pn**	**10 38 46.2**	**0.0**
MKAZ	**Moumakai**	**3.90**	**280**	P	**Pn**	**10 38 48.0**	**+1.0**
BFZ	**Birch Farm**	**4.04**	**225**	P	**Pn**	**10 38 47.7**	**-1.2**
HIZ	**Hauiti**	**4.09**	**259**	P	**Pn**	**10 38 50.9**	**+1.4**
HIZ	**Hauiti**	**4.09**	**259**	P	**Pn**	**10 38 51.3**	**+1.7**
ETAZ	**East Tamaki Re**	**4.12**	**281**	P	**Pn**	**10 38 51.8**	**+1.9**
POWZ	**Post Office Ro**	**4.14**	**231**	P	**Pn**	**10 38 50.9**	**+0.7**
KHEZ	**Kahui Hut**	**4.89**	**251**	P	**Pn**	**10 39 01.3**	**+0.7**
SNZO	**South Karori**	**5.34**	**228**	P	**Pn**	**10 39 05.5**	**-1.2**
CTZ	**Chatham Island**	**6.42**	**157**	P	**Pn**	**10 39 25.8**	**+4.3**
CTZ				S	**Sn**	**10 40 33.2**	**-0.9**
KHZ	**Kahutara**	**6.71**	**225**	P	**Pn**	**10 39 24.4**	**-1.2**

*SJA **06** 11:18:12.1±0.5,24.˚23S×66.˚97W,h208km±5km,ML3.3, MW3.5*
*GUC **06** 11:18:14.9±0.5,24.˚06S×67.˚23W,h224km±9km,ML3.5, Presumed earthquake*
ISC 06 11:18:14.1±1.2,**24.˚20S**±0.˚05×**67.˚03W**±0.˚05,**h181**km,**n23,** σ1s**09/38,1D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		**0.63**	**92**	*eP*	Pn	11 18 36.0	-4.3
SALTA				*eP*		11 18 36.1	
SALTA				*eP*		11 18 41.2	
SLA	**San Lorenzo**	**1.48**	**111**	*eP*	**Pn**	**11 18 48.2**	**+2.0**
SLA				*eS*	**Sn**	**11 19 12.2**	**+1.2**
FSA	**Cafayete**	**2.12**	**154**	*eP*	**Pn**	**11 18 53.0**	**+0.2**
FSA				*eS*	**Sn**	**11 19 21.7**	**-1.2**
PB06	**IPOC Station P**	**2.77**	**302**	*eP*	**Pn**	**11 19 01.1**	**+0.9**
PB06				*eS*	**Sn**	**11 19 36.8**	**+0.7**
PB06				IAML		11 19 39.5	
	comp=Z,151nm,0.1s						
PB06	**IPOC Station P**	**2.77**	**302**	*i* P	**Pn**	**11 19 01.1**	**+0.9**
PB06				*i* S	**Sn**	**11 19 36.1**	**+0.1**
AHML	**Horco Molle**	**2.99**	**150**	*eP*	**Pn**	**11 19 02.2**	**-0.6**
AHML				*eS*	**Sn**	**11 19 38.8**	**-2.0**
PB14	**IPOC Station P**	**3.10**	**262**	*eP*	**Pn**	**11 19 05.1**	**+0.8**
PB14				*eS*	**Sn**	**11 19 44.0**	**+0.5**
PB14				IAML		11 19 47.5	
	comp=Z,34nm,0.3s						
PB09	**IPOC Station P**	**3.15**	**319**	*eP*	**Pn**	**11 19 06.3**	**+1.6**
PB09				IAML		11 19 51.5	
	comp=Z,42nm,0.4s						
PB09	**IPOC Station P**	**3.15**	**319**	⇓ *iP*	**Pn**	**11 19 06.0**	**+1.2**
PB09				*i* S	**Sn**	**11 19 44.1**	**-0.2**
PB09				IAML		11 19 47.9	
	comp=E,37nm,0.4s						
PB05	**IPOC Station P**	**3.21**	**294**	*eP*	**Pn**	**11 19 06.0**	**+0.5**
PB05				*eS*	**Sn**	**11 19 46.1**	**+0.6**
PB05				IAML		11 19 49.9	
	comp=Z,37nm,0.4s						
PB05	**IPOC Station P**	**3.21**	**294**	*i* P	**Pn**	**11 19 06.0**	**+0.5**
PB05				*i* S	**Sn**	**11 19 44.3**	**-1.1**
PB05				IAML		11 19 49.7	
	comp=N,47nm,0.3s						
AC02	**Maricunga**	**3.23**	**215**	*eP*	**Pn**	**11 19 07.2**	**+1.1**
PB10	**IPOC Station P**	**3.30**	**281**	*eP*	**Pn**	**11 19 07.2**	**+0.8**
PB10				*eS*	**Sn**	**11 19 48.6**	**+1.3**
PB10				IAML		11 19 51.9	
	comp=Z,46nm,0.4s						
PB10	**IPOC Station P**	**3.30**	**281**	*i* P	**Pn**	**11 19 07.2**	**+0.8**
PB10				*i* S	**Sn**	**11 19 46.9**	**-0.4**
PB03	**IPOC Station P**	**3.30**	**310**	*eP*	**Pn**	**11 19 07.0**	**+0.4**
PB03				IAML		11 19 53.3	
	comp=Z,65nm,0.2s						
PB03	**IPOC Station P**	**3.30**	**310**	*i* P	**Pn**	**11 19 07.1**	**+0.4**
PB03				*i* S	**Sn**	**11 19 46.7**	**-0.9**
PB03				IAML		11 19 48.6	
	comp=E,77nm,0.1s						
PB07	**IPOC Station P**	**3.60**	**313**	*eP*	**Pn**	**11 19 10.8**	**+0.3**
PB07				IAML		11 19 57.6	
	comp=Z,59nm,0.5s						
PB07	**IPOC Station P**	**3.60**	**313**	*i* P	**Pn**	**11 19 10.5**	**+0.1**
PB07				*i* S	**Sn**	**11 19 52.8**	**-1.7**
AC01	**Pan de Azucar**	**3.77**	**238**	*eP*	**Pn**	**11 19 12.0**	**-0.3**
AC01				*eS*	**Sn**	**11 19 57.0**	**-0.8**
AC01				IAML		11 20 20.2	
	comp=Z,25nm,3.4s						
PB02	**IPOC Station P**	**3.90**	**317**	*eP*	**Pn**	**11 19 14.6**	**+0.4**
PB02				*eS*	**Sn**	**11 19 59.6**	**-1.5**
PB02				IAML		11 20 06.3	
	comp=Z,53nm,0.3s						
PB02	**IPOC Station P**	**3.90**	**317**	*i* P	**Pn**	**11 19 13.8**	**-0.4**
PB02				*i* S	**Sn**	**11 19 58.3**	**-2.8**
CYA	**Choya**	**4.36**	**166**	*eP*	Pn	11 19 28.2	+8.4
CYA				*eS*	Sn	11 20 25.5	+14
PB08	**IPOC Station P**	**4.50**	**334**	*i* P	**Pn**	**11 19 22.1**	**+0.1**
PB08				*i* S	**Sn**	**11 20 13.9**	**-1.3**

*IDC **06** 11:30:08.7±1.2,30.˚40S×177.˚97W,h0km,mb4.2/4, mbtmp4.2/5,ML3.3/1,MS3.4/1,Error ellipse: s-maj=33.2km s-min=17.0km az=101.0*
ISC 06 11:30:13.3±1.3,**30.˚36S**±0.˚09×**177.˚9W**±0.˚3,**h46**km,**n17,** σ2s**10**/10,**mb4.2/4,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.10**	**359**	Pn	**Pn**	**11 30 30.4**	**-2.0**
	108nm,0.3s,baz=198,slow=20,SNR=5.2						
RAO				Sn	**Sn**	**11 30 45.8**	**-0.6**
	438nm,0.3s,baz=37,slow=20,SNR=9.2						
URZ	**Urewera**	**8.90**	**206**	Pn	**Pn**	**11 32 16.0**	**-3.3**
	0.3nm,0.3s,baz=158,slow=20,SNR=1.7						
URZ				Sn	**Sn**	**11 33 56.8**	**-1.3**
	1.3nm,0.3s,baz=211,slow=21,SNR=9.9 7.4nm,0.9s						
URZ				AML	AML		
STKA	**Stephens Creek**	**34.58**	**257**	P	**P**	**11 37 00.3**	**+2.5**
	6.1nm,0.7s,baz=93,slow=8.9,SNR=9.5 6.1nm,0.7s						
ASAR	**Alice Springs**	**43.21**	**267**	P	**P**	**11 38 10.8**	**+0.7**
	1.3nm,0.5s,baz=104,slow=7.5,SNR=44 1.3nm,0.5s						
WRA	**Warramunga Arr**	**44.19**	**272**	P	**P**	**11 38 18.6**	**+0.6**
	4.2nm,0.6s,baz=111,slow=7.9,SNR=53 4.2nm,0.6s						
GUMO	**Guam**	**56.52**	**315**	LR	LR	12 04 08.2	
	comp=Z,30nm,18.6s,baz=99,slow=36						
QSPA	**South Pole Qui**	**59.75**	**180**	P	**P**	**11 40 15.9**	**+2.5**
	0.8nm,0.7s,baz=21,slow=3.6,SNR=23 0.8nm,0.7s						
H03S2	**Juan Fernandez**	**80.41**	**124**	T	T	13 11 25.4	
	baz=238,slow=74,SNR=4.6						
H03S1	**Juan Fernandez**	**80.42**	**124**	T	T	13 11 27.0	
	baz=238,slow=74,SNR=4.6						
H03S3	**Juan Fernandez**	**80.43**	**124**	T	T	13 11 26.9	
	baz=238,slow=74,SNR=5.0						
H10S2	**ASCENSION HYDR**	**38.37.72**	**155**	T	T	14 23 46.2	
	baz=204,slow=74,SNR=3.2						
H10S3	**ASCENSION HYDR**	**38.37.72**	**155**	T	T	14 23 59.7	
	baz=16,slow=74,SNR=3.8						
H10N3	**ASCENSION HYDR**	**38.38.81**	**155**	T	T	14 25 19.8	
	baz=204,slow=75,SNR=5.3						
H10N1	**ASCENSION HYDR**	**38.38.81**	**155**	T	T	14 25 19.2	
	baz=204,slow=75,SNR=6.3						
H10N2	**ASCENSION HYDR**	**38.38.82**	**155**	T	T	14 25 16.0	
	baz=204,slow=75,SNR=4.7						
FINES	**FINESS Array B**	**145.14**	**340**	PKPbc	**PKPab**	**11 49 45.0**	**+0.3**
	3.5nm,0.8s,baz=64,slow=3.9,SNR=9.3						
AKASG	**Malin Array Be**	**151.32**	**323**	PKPbc	**PKPbc**	**11 50 01.8**	**+0.3**
	1.0nm,0.6s,baz=50,slow=2.1,SNR=5.8						

*BEO **06** 11:31:03.4±0.5,41.˚58N×19.˚63E,h0km,ML2.6/12*
*PDG **06** 11:31:04.7±0.2,41.˚76N×19.˚66E,h4km,MD2.9/2, ML2.9/13,Error ellipse: s-maj=0.3km s-min=0.5km az=0.0*
*TIR **06** 11:31:04.7,41.˚74N×19.˚63E,h2km±5km,ML2.6,ML2.6, Presumed earthquake*
ISC 06 11:31:04.2±1.1,**41.˚71N**±0.˚02×**19.˚61E**±0.˚02,**h4**km±9km, **n47,**σ1s**44/91,5C-5D,Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SDA	**Shkodra**	**0.35**	**347**	Pg	**Pg**	**11 31 10.9**	**-0.1**
SDA				Sg	**Sg**	**11 31 16.9**	**+1.3**
SDA				IAML		11 31 20.8	
	929nm,0.3s						
ULC	**Ulcinj**	**0.37**	**313**	⇓ *i* Pg	**Pg**	**11 31 11.3**	**-0.1**
ULC				*i* Sg	**Sg**	**11 31 17.6**	**+1.4**
TIR	**Tirane**	**0.41**	**152**	P	**Pg**	**11 31 10.9**	**-1.2**
TIR				S	**Sg**	**11 31 16.6**	**-0.8**
TIR				IAML		11 31 19.6	
	857nm,0.5s						
DRME	**Dracevica, Mon**	**0.57**	**327**	*e* Pg	**Pg**	**11 31 15.1**	**-0.1**
DRME				*i* Sg	**Sg**	**11 31 23.8**	**+1.2**
PHP	**Peshkopia**	**0.63**	**92**	P	**Pg**	**11 31 15.7**	**-0.6**
PHP				Sg	**Sb**	**11 31 25.9**	**-1.0**
PHP				IAML		11 31 30.8	
	500nm,0.6s						
PDG	**Podgorica**	**0.77**	**340**	*e* Pg	**Pg**	**11 31 18.6**	**-0.3**
PDG				*e* Sg	**Sb**	**11 31 30.9**	**0.0**
PDG	**Podgorica**	**0.77**	**340**	P	**Pg**	**11 31 19.0**	**+0.1**
PDG				S	**Sb**	**11 31 30.6**	**-0.3**
PDG	**Podgorica**	**0.77**	**340**	⇑ *i* Pg	**Pg**	**11 31 18.1**	**-0.8**
PDG				*i* Sg	**Sb**	**11 31 30.1**	**-0.8**
BUM	**Brajici-Budva**	**0.80**	**318**	⇑ *i* Pg	**Pg**	**11 31 19.2**	**-0.3**

STON	**Ston**	**1.83**	**310**	*e*Pn	**Pb**	**11 31 37.5**	**-0.7**
STON				*e*Sn	**Sg**	**11 32 03.7**	**+0.7**
SELS	**Selova**	**1.88**	**36**	*e*Pn	**Pb**	**11 31 38.2**	**-0.9**
IVAS	**Ivanjica**	**1.91**	**12**	*e*Pn	**Pb**	**11 31 38.5**	**-1.1**
IVAS				*e*Sn	**Sg**	**11 32 05.1**	**-0.5**
BARS	**Barje**	**1.98**	**55**	*e*Pn	**Pn**	**11 31 38.6**	**+0.1**
GOCS	**Kraljevo Serbi**	**2.08**	**26**	*e*Pn	**Pb**	**11 31 41.1**	**-1.4**
GOCS				*e*Sn	**Sb**	**11 32 09.0**	**+0.3**
BBLS	**Lazi&#263i**	**2.16**	**356**	*e*Pn	**Pb**	**11 31 43.0**	**-0.9**
BBLS				*e*Sn	**Sg**	**11 32 12.4**	**-1.2**
LSTV	**Lastovo**	**2.28**	**299**	*e*Pn	**Pn**	**11 31 42.9**	**+0.4**
LSTV				Sn	**Sb**	**11 32 12.7**	**-1.7**
BOSS	**Bosilegrad**	**2.28**	**69**	*e*Pn	**Pn**	**11 31 43.7**	**+1.1**
DIVS	**Divibare**	**2.41**	**7**	*e*Pn	**Pn**	**11 31 45.2**	**+0.8**
DIVS				*e*Sn	**Sb**	**11 32 17.4**	**-0.8**
BOVS	**Bovan**	**2.47**	**38**	*e*Pn	**Pn**	**11 31 45.7**	**+0.5**
BOVS				*e*Sn	**Sb**	**11 32 17.5**	**-2.4**
MAKA	**Makarska**	**2.48**	**310**	*e*Pn	**Pn**	**11 31 45.4**	**+0.1**
MAKA				Sn	**Sb**	**11 32 17.9**	**-2.3**
RICI	**Ricice**	**2.55**	**315**	*e*Pn	**Pn**	**11 31 46.2**	**-0.1**
RICI				Sn	**Sn**	**11 32 18.6**	**+0.7**
TRUS	**Trudelj**	**2.58**	**13**	*e*Pn	**Pn**	**11 31 47.7**	**+0.9**
TRUS				*e*Sn	**Sb**	**11 32 21.1**	**-2.0**
ZAPS	**Zavoj**	**2.73**	**54**	*e*Pn	**Pn**	**11 31 50.0**	**+1.1**
ZAPS				*e*Sn	**Sb**	**11 32 24.8**	**-2.7**
HVAR	**Hvar**	**2.76**	**303**	*i* Pn	**Pn**	**11 31 49.8**	**+0.6**
HVAR				Sn	**Sb**	**11 32 25.0**	**-3.3**
TEKS	**Tekeris**	**2.84**	**359**	*e*Pn	**Pn**	**11 31 51.9**	**+1.6**
TEKS				*e*Sn	**Sn**	**11 32 26.6**	**+1.6**
ZAGS	**Zajecar**	**2.86**	**42**	*e*Pn	**Pn**	**11 31 51.9**	**+1.4**
ZAGS				*e*Sn	**Sn**	**11 32 27.2**	**+1.8**
BORS2	**Bor- Borsko je**	**2.97**	**36**	*e*Pn	**Pn**	**11 31 51.9**	**-0.2**
BORS2				*e*Sn	**Sn**	**11 32 29.7**	**+1.6**
KIJV	**Kijevo**	**3.29**	**315**	*e*Pn	**Pn**	**11 31 56.6**	**+0.1**
KIJV				Sn	**Sn**	**11 32 37.6**	**+1.5**
MDVR	**Moldovita**	**3.44**	**26**	*e*Pn	**Pn**	**11 31 59.0**	**+0.4**
MDVR				*e*Sn	**Sn**	**11 32 40.7**	**+1.0**
MORI	**Morici**	**3.59**	**308**	*e*Pn	**Pn**	**11 32 01.0**	**+0.4**
MORI				Sn	**Sn**	**11 32 44.5**	**+1.1**
DUGI	**Dugi Otok**	**4.05**	**306**	*e*Pn	**Pn**	**11 32 08.2**	**+1.2**
DUGI				Sn	**Sn**	**11 32 56.8**	**+2.1**
NVLJ	**Novalja**	**4.49**	**311**	Sn	**Sn**	**11 33 06.1**	**+0.6**

*IDC **06** 11:51:36.1±3.1,48°.48N×147°.87E,h345km±44km,mb2.9/4, mbtmp3.8/6,Error ellipse: s-maj=57.4km s-min=25.1km az=145.0*

ISC 06 11:51:36.1±1.2,**48°.4N**±0°.2×**148°.0E**±0°.2,**h350**km,**n6,** σ0**89**/6,**mb3.1**/4,**Sea of Okhotsk**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PETK	**Petropavlovsk-**	**7.77**	**49**	P	**Pn**	**11 53 27.0**	**-0.3**
	6.7nm,1.0s,baz=224,slow=9.9,SNR=1.9						
MJAR	**Matsushiro Arr**	**13.85**	**215**	P	**P**	**11 54 38.0**	**-0.1**
	4.6nm,0.5s,baz=25,slow=9.4,SNR=15						
ILAR	**Eielson Array**	**37.47**	**40**	P	**P**	**11 58 17.6**	**+0.8**
	0.2nm,0.5s,baz=283,slow=11,SNR=4.1						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**43.08**	**294**	P	**P**	**11 59 03.3**	**+0.7**
	0.2nm,0.5s,baz=65,slow=6.8,SNR=4.8						
	0.2nm,0.5s						
FINES	**FINESS Array B**	**61.00**	**332**	P	**P**	**12 01 12.0**	**-1.0**
	0.9nm,0.5s,baz=46,slow=6.0,SNR=6.0						
	0.9nm,0.5s						
NOA	**NORSAR Array B**	**65.47**	**338**	P	**P**	**12 01 41.7**	**-0.5**
	2.9nm,1.1s,baz=23,slow=8.3,SNR=1.5						
	2.9nm,1.1s						

*THE **06** 12:10:39.9,37°.8N±0°.7×2°.7E±°,h0km±2km,M3.2/9, MLh3.2/9*
*ATH **06** 12:10:39.5,37°.82N×26°.89E,h14km±2km,ML3.3/5, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*AFAD **06** 12:10:39.0,37°.83N×26°.90E,h7km±24km,ML3.0*
*ISK **06** 12:10:39.2,37°.86N×26°.87E,h8km,ML3.3/20*

ISC 06 12:10:39.8±0.8,**37°.84N**±0°.02×**26°.90E**±0°.02,**h11**km±6km, **n56,** σ0**64**/82,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**200**	P	**Pg**	**12 10 43.0**	**-0.1**
SMG				S	**Sg**	**12 10 45.5**	**+0.1**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.16**	**254**	P	**Pg**	**12 10 43.3**	**-0.1**
KRL1				S	**Sg**	**12 10 46.1**	**+0.3**
DGB	**zmir**	**0.21**	**357**	P	**Pg**	**12 10 44.0**	**-0.3**
DGB				S	**Sg**	**12 10 47.3**	**-0.1**
GMLD	**Gumuldur**	**0.24**	**4**	Pg	**Pg**	**12 10 44.4**	**-0.4**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.24**	**251**	P	**Pg**	**12 10 44.5**	**-0.2**
SAM2				S	**Sg**	**12 10 48.1**	**0.0**
SAM2				AML	AML		
GCAM	**G?zelcami?**	**0.30**	**117**	P	**Pg**	**12 10 46.1**	**+0.2**
GCAM				IAML		12 10 51.0	
	comp=N,5μm,0.2s						
GCAM				IAML		12 10 51.0	
	comp=E,4μm,0.4s						
GCAM				S	**Sb**	**12 10 51.1**	**-1.0**
GCAM	**G?zelcami?**	**0.30**	**117**	Pg	**Pg**	**12 10 46.1**	**+0.2**
GCAM				Sg	**Sb**	**12 10 51.4**	**-0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**86**	Pg	**Pg**	**12 10 46.3**	**+0.2**
BEYE	**izmir**	**0.39**	**4**	P	**Pg**	**12 10 47.0**	**-0.5**
BEYE				S	**Sg**	**12 10 53.4**	**+0.7**
DDIM	**Aydin, Didim**	**0.47**	**144**	P	**Pg**	**12 10 48.5**	**-0.5**
DDIM				IAML		12 10 56.0	
	comp=N,1μm,0.3s						
DDIM				IAML		12 10 56.0	
	comp=E,2μm,0.6s						
DDIM				S	**Sb**	**12 10 56.3**	**-0.6**
ZEYE	**Izmir, Urla-Ze**	**0.51**	**322**	P	**Pg**	**12 10 49.2**	**-0.5**
ZEYE				IAML		12 10 57.0	
	comp=N,2μm,0.6s						
ZEYE				S	**Sb**	**12 10 57.3**	**-0.8**
ZEYE				IAML		12 11 03.0	
	comp=E,716nm,0.2s						
DIDI	**Didim-Aydin**	**0.54**	**149**	Pg	**Pg**	**12 10 50.4**	**+0.2**
DIDI				AML	AML		
BLCB	**Balcova**	**0.56**	**12**	P	**Pg**	**12 10 50.6**	**-0.1**
BLCB				S	**Sb**	**12 10 59.0**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**12**	Pg	**Pg**	**12 10 50.3**	**-0.4**
DUVT	**Torbali**	**0.58**	**49**	P	**Pg**	**12 10 50.8**	**-0.3**
DUVT				S	**Sg**	**12 10 59.0**	**+0.2**
DUVT				IAML		12 11 02.0	
	comp=E,872nm,0.3s						
CESE	**eme**	**0.68**	**316**	Pg	**Pg**	**12 10 51.9**	**-1.1**
CESE				AML	AML		
DAGE	**izmir**	**0.70**	**76**	P	**Pb**	**12 10 53.8**	**-0.1**
DAGE				S	**Sg**	**12 11 01.9**	**-0.5**
DAGE				IAML		12 11 04.0	
	comp=N,532nm,0.4s						
DAGE				IAML		12 11 05.0	
	comp=E,752nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.78**	**157**	Pg	**Pb**	**12 10 55.1**	**-0.1**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.80**	**82**	Pg	**Pg**	**12 10 55.1**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.80**	**102**	P	**Pb**	**12 10 55.3**	**-0.4**
AYDN				S	**Sg**	**12 11 05.6**	**-0.1**
AYDN				IAML		12 11 10.0	
	comp=N,507nm,0.3s						
AYDN				IAML		12 11 11.0	
	comp=E,427nm,0.3s						
KRBN	**Karaburun**	**0.80**	**340**	Pg	**Pg**	**12 10 54.4**	**-0.9**
BAGT	**Foa**	**0.82**	**358**	P	**Pg**	**12 10 54.3**	**-1.3**
BAGT				S	**Sb**	**12 11 07.2**	**+0.2**
BAGT				IAML		12 11 10.0	
	comp=N,817nm,0.6s						
BAGT				IAML		12 11 10.0	
	comp=E,464nm,0.5s						
BODT	**Bodrum**	**0.84**	**157**	P	**Pg**	**12 10 55.6**	**-0.4**
BODT				S	**Sb**	**12 11 07.8**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**157**	Pg	**Pb**	**12 10 56.4**	**0.0**
BODT				AML	AML		
CHOS	**Chios island**	**0.86**	**310**	P	**Pb**	**12 10 56.6**	**-0.2**
CHOS				S	**Sb**	**12 11 09.2**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**310**	Pg	**Pg**	**12 10 55.9**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**310**	P	**Pb**	**12 10 56.8**	**0.0**
CHOS				S	**Sb**	**12 11 08.3**	**-0.1**
KLNA	**Kalymnos**	**0.88**	**176**	P	**Pg**	**12 10 56.4**	**-0.4**
KLNA				S	**Sb**	**12 11 08.5**	**-0.3**
KLNA				AML	AML		
FOCM	**Foa**	**0.88**	**352**	Pg	**Pg**	**12 10 56.0**	**-0.8**
FOCM				AML	AML		
MLSB	**Milas**	**0.89**	**127**	Pg	**Pb**	**12 10 57.3**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.89**	**150**	P	**Pg**	**12 10 56.1**	**-0.8**
BDRM				IAML		12 11 09.0	
	comp=E,606nm,0.5s						
BDRM				S	**Sb**	**12 11 09.1**	**+0.1**
BDRM				IAML		12 11 12.0	
	comp=N,629nm,0.3s						
IZMR	**zmir-demi**	**0.89**	**70**	P	**Pb**	**12 10 57.4**	**+0.2**
IZMR				S	**Sg**	**12 11 07.1**	**-1.4**
BODA	**Bodrum-Mula**	**0.91**	**152**	Pg	**Pb**	**12 10 57.5**	**0.0**
KARB	**zmir-Karabur**	**0.91**	**335**	P	**Pg**	**12 10 56.5**	**-0.8**
KARB				S	**Sn**	**12 11 11.5**	**0.0**
KARB				IAML		12 11 13.0	
	comp=N,367nm,0.5s						
KARB				IAML		12 11 13.0	
	comp=E,542nm,0.7s						
CAMT	**Merkez**	**0.97**	**20**	P	**Pg**	**12 10 58.1**	**-0.3**
CAMT				S	**Sn**	**12 11 13.4**	**+0.4**
CAMT				IAML		12 11 19.0	
	comp=N,584nm,0.3s						
CAMT				IAML		12 11 20.0	
	comp=E,504nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.11**	**83**	Pn	**Pg**	**12 11 00.6**	**-0.6**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.14**	**7**	P	**Pg**	**12 11 01.3**	**-0.4**
ZEDA				S	**Sb**	**12 11 16.8**	**+0.6**
GOMA	**Golmarmara-Man**	**1.18**	**42**	Pn	**Pn**	**12 11 02.6**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.23**	**0**	Pn	**Pn**	**12 11 02.6**	**-0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.23**	**0**	P	**Pb**	**12 11 02.3**	**-0.6**
DAT	**Datca**	**1.23**	**154**	P	**Pb**	**12 11 02.1**	**-1.0**
DAT				AML	AML		
DAT	**Datca**	**1.23**	**154**	Pn	**Pn**	**12 11 03.4**	**+0.4**
DAT				AML	AML		
AKS	**Akhisar**	**1.27**	**34**	Pn	**Pg**	**12 11 03.9**	**-0.2**
AKS				AML	AML		
YER	**Yerkesik**	**1.31**	**122**	P	**Pn**	**12 11 03.8**	**-0.2**
YER				S	**Sn**	**12 11 23.3**	**+1.9**
YER	**Yerkesik**	**1.31**	**122**	Pn	**Pb**	**12 11 04.3**	**-0.1**
YER				AML	AML		
APE	**Apeiranthos**	**1.33**	**235**	P	**Pb**	**12 11 04.9**	**+0.1**
APE				S	**Sn**	**12 11 24.5**	**+2.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.33**	**235**	Pn	**Pb**	**12 11 04.8**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.33**	**235**	P	**Pn**	**12 11 02.9**	**-1.4**
ASTA	**Astypalaia**	**1.36**	**199**	P	**Pb**	**12 11 05.3**	**+0.1**
SOMA	**Soma-Manisa**	**1.41**	**21**	Pn	**Pn**	**12 11 05.7**	**+0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.47**	**43**	Pn	**Pb**	**12 11 06.9**	**-0.2**
GORD				AML	AML		
PRK	**Paraskevi**	**1.49**	**341**	P	**Pn**	**12 11 07.0**	**+0.5**
PRK				S	**Sg**	**12 11 29.0**	**+1.3**
PRK	**Paraskevi**	**1.49**	**341**	P	**Pn**	**12 11 06.8**	**+0.3**
PRK				AML	AML		
YAYO	**Edremit-Balk**	**1.78**	**4**	Pn	**Pn**	**12 11 10.8**	**+0.4**
YAYO				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**218**	P	**Pn**	**12 11 11.0**	**-0.5**
KARP	**Karpathos**	**2.30**	**175**	P	**Pn**	**12 11 16.7**	**-0.9**

*THE **06** 12:16:46.9,37°.8N±0°.8×26°.9E±0°.7,h7km±3km,M2.7/4, MLh2.7/4*
*ISK **06** 12:16:46.4,37°.81N×26°.84E,h8km,ML2.7/19*
*AFAD **06** 12:16:47.0,37°.83N×26°.88E,h7km±5km,ML2.6*

ISC 06 12:16:47.0±0.9,**37°.81N**±0°.02×**26°.88E**±0°.03,**h10**km±6km, **n39,** σ0**62**/62,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.11**	**198**	P	**Pg**	**12 16 49.5**	**-0.2**
SMG				S	**Sg**	**12 16 51.5**	**-0.2**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**1**	P	**Pg**	**12 16 51.3**	**-0.7**
DGB				S	**Sg**	**12 16 55.8**	**+0.4**
GMLD	**Gumuldur**	**0.27**	**6**	Pg	**Pg**	**12 16 52.2**	**-0.3**
GMLD				Sg	**Sg**	**12 16 56.4**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcami?**	**0.30**	**111**	P	**Pg**	**12 16 53.0**	**-0.1**
GCAM				S	**Sb**	**12 16 58.7**	**-0.8**
GCAM	**G?zelcami?**	**0.30**	**111**	Pg	**Pg**	**12 16 53.2**	**+0.1**
GCAM				Sg	**Sb**	**12 16 58.4**	**-1.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**81**	Pg	**Pg**	**12 16 53.8**	**+0.2**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**5**	P	**Pg**	**12 16 54.7**	**-0.6**
BEYE				S	**Sg**	**12 17 01.2**	**+0.4**
DDIM	**Aydin, Didim**	**0.46**	**141**	P	**Pg**	**12 16 55.4**	**-0.5**
DDIM				S	**Sb**	**12 17 04.6**	**+0.6**
ZEYE	**Izmir, Urla-Ze**	**0.52**	**326**	P	**Pg**	**12 16 56.4**	**-0.8**
ZEYE				S	**Sb**	**12 17 05.0**	**-0.9**
ZEYE				IAML		12 17 08.0	
	comp=N,662nm,0.3s						
BLCB	**Balcova**	**0.59**	**13**	P	**Pg**	**12 16 58.1**	**-0.4**
BLCB				S	**Sg**	**12 17 06.6**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**13**	Pg	**Pg**	**12 16 58.3**	**-0.2**
BLCB				Sg	**Sb**	**12 17 07.2**	**-0.6**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**48**	P	**Pg**	**12 16 58.1**	**-0.8**
DUVT				S	**Sg**	**12 17 06.7**	**-0.2**
DUVT				IAML		12 17 11.0	
	comp=E,370nm,0.3s						
DAGE	**izmir**	**0.72**	**74**	P	**Pb**	**12 17 02.5**	**+0.8**
DAGE				S	**Sb**	**12 17 10.9**	**-0.7**
YKAV	**Yalikavak-Bodr**	**0.76**	**155**	Pg	**Pg**	**12 17 01.6**	**0.0**
YKAV				Sg	**Sb**	**12 17 12.7**	**+0.1**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.81**	**100**	P	**Pg**	**12 17 02.2**	**-0.5**
AYDN				S	**Sn**	**12 17 15.8**	**-0.8**
AYDB	**Zeytinkoy-Aydi**	**0.81**	**80**	Pg	**Pg**	**12 17 02.9**	**+0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.82**	**155**	P	**Pb**	**12 17 03.8**	**+0.4**
BODT				S	**Sn**	**12 17 16.6**	**-0.3**
BODT	**Bodrum**	**0.82**	**155**	Pg	**Pg**	**12 17 02.9**	**0.0**
BODT				AML	AML		
KRBN	**Karaburun**	**0.82**	**342**	Pg	**Pg**	**12 17 02.4**	**-0.5**
KRBN				AML	AML		
CHOS	**Chios island**	**0.87**	**312**	P	**Pg**	**12 17 03.5**	**-0.3**
CHOS				S	**Sb**	**12 17 16.2**	**+0.2**
CHOS	**Chios island**	**0.87**	**312**	Pg	**Pg**	**12 17 03.2**	**-0.6**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.87**	**149**	P	**Pn**	**12 17 05.3**	**0.0**
BDRM				S	**Sn**	**12 17 17.4**	**-0.7**
BDRM				IAML		12 17 20.0	
	comp=N,175nm,0.4s						
MLSB	**Milas**	**0.88**	**125**	Pg	**Pb**	**12 17 04.3**	**-0.1**
MLSB				AML	AML		
FOCM	**Foa**	**0.91**	**353**	Pg	**Pg**	**12 17 04.4**	**-0.2**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.91**	**69**	P	**Pg**	**12 17 02.8**	**-1.8**
IZMR				S	**Sb**	**12 17 17.4**	**+0.3**
KARB	**zmir-Karabur**	**0.93**	**337**	P	**Pg**	**12 17 03.9**	**-1.1**
KARB				S	**Sb**	**12 17 18.1**	**+0.5**
KARB				IAML		12 17 20.0	
	comp=N,232nm,0.7s						
KARB				IAML		12 17 20.0	
	comp=E,302nm,0.3s						
CAMT	**Merkez**	**1.00**	**20**	P	**Pn**	**12 17 07.6**	**+0.5**
CAMT				S	**Sn**	**12 17 21.9**	**+0.7**
CAMT				IAML		12 17 23.0	
	comp=E,168nm,0.2s						
CAMT				IAML		12 17 26.0	
	comp=N,156nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.13**	**82**	Pn	**Pn**	**12 17 09.2**	**+0.3**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.17**	**8**	P	**Pg**	**12 17 08.4**	**-1.1**
ZEDA				S	**Sn**	**12 17 26.2**	**+0.8**
GOMA	**Golmarmara-Man**	**1.21**	**42**	Pn	**Pn**	**12 17 10.6**	**+0.5**
GOMA				AML	AML		
DAT	**Datca**	**1.22**	**152**	Pn	**Pn**	**12 17 10.6**	**+0.4**
DAT				AML	AML		
DKL	**Dikili**	**1.26**	**1**	Pn	**Pn**	**12 17 10.9**	**+0.2**
DKL				AML	AML		
AKHS	**Akhisar**	**1.30**	**34**	P	**Pn**	**12 17 10.5**	**-0.7**
AKHS				S	**Sn**	**12 17 29.7**	**+1.1**
AKHS				IAML		12 17 30.0	
	comp=N,80nm,0.6s						
KTTT	**Salihli**	**1.30**	**47**	P	**Pn**	**12 17 09.9**	**-1.3**
KTTT				S	**Sb**	**12 17 28.4**	**+0.1**
APE	**Apeiranthos**	**1.30**	**236**	Pn	**Pn**	**12 17 11.1**	**-0.2**
APE				AML	AML		
YER	**Yerkesik**	**1.31**	**121**	P	**Pn**	**12 17 11.3**	**-0.1**
YER	**Yerkesik**	**1.31**	**121**	Pn	**Pg**	**12 17 11.9**	**-0.2**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**43**	Pn	**Pn**	**12 17 14.6**	**+0.6**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.81**	**5**	Pn	**Pn**	**12 17 18.7**	**+0.5**
YAYO				AML	AML		

*THE **06** 13:12:48.4,38°.N±1°×27°.1E±0°.9,h1km±2km,M2.6/6, MLh2.6/6*
*ISK **06** 13:12:48.1,37°.69N×27°.06E,h9km,ML2.6/17*
*AFAD **06** 13:12:48.0,37°.70N×27°.03E,h7km±2km,ML2.6*

ISC 06 13:12:48.4±0.8,**37°.70N**±0°.02×**27°.04E**±0°.02,**h10**km±6km, **n41,** σ0**70**/68,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcami?**	**0.15**	**88**	P	**Pg**	**13 12 51.7**	**-0.1**
GCAM				S	**Sg**	**13 12 54.7**	**+0.4**
GCAM				IAML		13 12 55.0	
	comp=N,3μm,0.3s						
GCAM				IAML		13 12 55.0	
	comp=E,4μm,0.2s						
GCAM	**G?zelcami?**	**0.15**	**88**	Pg	**Pg**	**13 12 51.8**	**0.0**
GCAM				Sg	**Sg**	**13 12 54.2**	**0.0**
GCAM				AML	AML		
SMG	**Samos**	**0.16**	**274**	P	**Pg**	**13 12 51.8**	**-0.2**
SMG				S	**Sg**	**13 12 54.6**	**+0.1**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**50**	Pg	**Pg**	**13 12 53.4**	**-0.2**
KUSD				Sg	**Sg**	**13 12 57.6**	**+0.4**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.29**	**146**	P	**Pg**	**13 12 53.6**	**-0.6**
DDIM				S	**Sb**	**13 12 58.9**	**-1.5**
DGB	**zmir**	**0.38**	**341**	P	**Pg**	**13 12 55.7**	**-0.2**
DGB				S	**Sg**	**13 13 01.4**	**+0.5**
GMLD	**Gumuldur**	**0.39**	**346**	Pg	**Pb**	**13 12 56.7**	**-0.7**
GMLD				AML	AML		
BEYE	**izmir**	**0.54**	**350**	P	**Pg**	**13 12 58.5**	**-0.4**
BEYE				S	**Sb**	**13 13 06.8**	**-0.9**
YKAV	**Yalikavak-Bodr**	**0.60**	**161**	Pg	**Pg**	**13 12 59.9**	**-0.2**
YKAV				Sg	**Sb**	**13 13 08.6**	**-0.9**
YKAV				AML	AML		
DUVT	**Torbali**	**0.61**	**32**	P	**Pg**	**13 12 59.9**	**-0.4**
DUVT				S	**Sg**	**13 13 08.3**	**-0.1**
DUVT				IAML		13 13 13.0	
	comp=E,523nm,0.5s						
DAGE	**izmir**	**0.64**	**61**	P	**Pb**	**13 13 01.7**	**0.0**
DAGE				S	**Sb**	**13 13 10.6**	**-0.1**
DAGE				IAML		13 13 13.0	
	comp=E,323nm,0.1s						
DAGE				IAML		13 13 14.0	
	comp=N,371nm,0.2s						
AYDN	**Tasoluk**	**0.67**	**93**	P	**Pg**	**13 13 00.8**	**-0.5**
AYDN				S	**Sg**	**13 13 10.3**	**+0.3**
AYDN				IAML		13 13 11.0	
	comp=E,387nm,0.3s						
AYDN				IAML		13 13 15.0	
	comp=N,279nm,0.2s						
BODT	**Bodrum**	**0.67**	**161**	P	**Pg**	**13 13 01.3**	**0.0**
BODT				S	**Sb**	**13 13 11.6**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.67**	**161**	Pg	**Pg**	**13 13 01.2**	**-0.1**
BODT				AML	AML		
BLCB	**Balcova**	**0.69**	**0**	P	**Pg**	**13 13 01.3**	**-0.4**
BLCB				S	**Sb**	**13 13 11.7**	**-0.3**
BLCB	**Balcova**	**0.69**	**0**	Pg	**Pb**	**13 13 02.2**	**-0.3**
BLCB				AML	AML		
BDRM	**Kayabasi**	**0.71**	**153**	P	**Pb**	**13 13 02.3**	**-0.5**
BDRM				S	**Sn**	**13 13 14.1**	**-1.2**
BDRM				IAML		13 13 15.0	
	comp=E,216nm,0.5s						
BDRM				IAML		13 13 16.0	
	comp=N,413nm,0.4s						
MLSB	**Milas**	**0.71**	**124**	Pg	**Pg**	**13 13 01.7**	**-0.4**
MLSB				Sg	**Sb**	**13 13 11.9**	**-0.7**
MLSB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**69**	Pg	**Pg**	**13 13 02.3**	**0.0**
AYDB				AML	AML		
BODA	**Bodrum-Mula**	**0.73**	**155**	Pg	**Pg**	**13 13 02.3**	**-0.2**
BODA				Sg	**Sb**	**13 13 12.7**	**-0.4**
IZMR	**zmir-demi**	**0.84**	**58**	P	**Pb**	**13 13 04.8**	**-0.4**
IZMR				S	**Sg**	**13 13 15.0**	**-0.7**
CESE	**eme**	**0.86**	**318**	Pg	**Pb**	**13 13 05.8**	**+0.4**
CESE				AML	AML		
CHOS	**Chios island**	**1.04**	**312**	P	**Pn**	**13 13 09.2**	**+0.2**
CHOS				S	**Sn**	**13 13 23.8**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.04**	**312**	Pg	**Pn**	**13 13 09.1**	**+0.1**
CHOS				AML	AML		
ESEN	**Aydn-Nazilli**	**1.04**	**84**	P	**Pg**	**13 13 08.0**	**-0.4**
ESEN				S	**Sn**	**13 13 23.5**	**-0.1**
DAT	**Datca**	**1.06**	**156**	P	**Pn**	**13 13 09.8**	**+0.5**
DAT				S	**Sn**	**13 13 23.6**	**-0.5**
DAT	**Datca**	**1.06**	**156**	P	**Pn**	**13 13 10.2**	**+0.9**
DAT				S	**Sn**	**13 13 24.2**	**+0.1**
DAT	**Datca**	**1.06**	**156**	Pg	**Pg**	**13 13 08.5**	**-0.2**
DAT				AML	AML		
MULA	**Mugla, Merkez-**	**1.11**	**113**	P	**Pg**	**13 13 09.0**	**-0.7**
MULA				S	**Sb**	**13 13 24.1**	**-0.1**
YER	**Yerkesik**	**1.14**	**119**	P	**Pg**	**13 13 09.7**	**-0.6**
**KI

DDIM	**Aydin, Didim**	**0.28**	**145**	P	**Pg**	**13 14 39.3**	**+0.2**
DDIM				S	**Sg**	**13 14 43.6**	**+0.6**
DGB	**zmir**	**0.38**	**341**	P	**Pg**	**13 14 40.4**	**-0.7**
DGB				S	**Sg**	**13 14 45.9**	**-0.2**
GMLD	**Gumuldur**	**0.40**	**346**	Pg	**Pg**	**13 14 41.4**	**+0.1**
GMLD				Sg	**Sb**	**13 14 47.9**	**-0.6**
GMLD				AML	AML		
BEYE	**izmir**	**0.54**	**351**	P	**Pg**	**13 14 43.7**	**-0.4**
BEYE				S	**Sb**	**13 14 54.2**	**+1.5**
YKAV	**Yalikavak-Bodr**	**0.60**	**161**	Pg	**Pg**	**13 14 44.6**	**-0.4**
YKAV				Sg	**Sb**	**13 14 53.3**	**-0.8**
YKAV				AML	AML		
DAGE	**izmir**	**0.65**	**61**	P	**Pb**	**13 14 46.2**	**-0.5**
DAGE				S	**Sb**	**13 14 55.3**	**-0.4**
DAGE				IAML		13 14 56.0	
	comp=E,226nm,0.2s						
DAGE				IAML		13 14 59.0	
	comp=N,268nm,0.2s						
BODT	**Bodrum**	**0.66**	**161**	P	**Pg**	**13 14 46.2**	**-0.1**
BODT				S	**Sb**	**13 14 56.8**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.66**	**161**	Pg	**Pg**	**13 14 45.9**	**-0.4**
BODT				Sg	**Sb**	**13 14 55.4**	**-0.7**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.67**	**92**	P	**Pg**	**13 14 45.9**	**-0.5**
AYDN				IAML		13 14 56.0	
	comp=E,298nm,0.3s						
AYDN				S	**Sb**	**13 14 56.7**	**+0.4**
AYDN				IAML		13 14 57.0	
	comp=N,200nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.69**	**323**	P	**Pg**	**13 14 45.9**	**-0.9**
ZEYE				S	**Sb**	**13 14 56.5**	**-0.4**
BLCB	**Balcova**	**0.69**	**0**	P	**Pg**	**13 14 46.4**	**-0.5**
BLCB				S	**Sb**	**13 14 56.7**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.69**	**0**	Pg	**Pb**	**13 14 47.2**	**-0.3**
BLCB				AML	AML		
BDRM	**Kayabasi**	**0.70**	**152**	P	**Pb**	**13 14 47.1**	**-0.5**
BDRM				S	**Sb**	**13 14 56.7**	**-0.6**
MLSB	**Milas**	**0.71**	**124**	Pg	**Pg**	**13 14 46.9**	**-0.2**
MLSB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**69**	Pg	**Pb**	**13 14 47.7**	**-0.3**
AYDB				AML	AML		
BODA	**Bodrum-Mula**	**0.72**	**154**	Pg	**Pg**	**13 14 47.2**	**-0.2**
BODA				Sg	**Sb**	**13 14 57.6**	**-0.2**
CHOS	**Chios island**	**1.04**	**312**	Pg	**Pn**	**13 14 53.8**	**-0.2**
CHOS				AML	AML		
ESEN	**Aydn-Nazilli**	**1.04**	**84**	P	**Pg**	**13 14 53.0**	**-0.6**
DAT	**Datca**	**1.05**	**156**	Pg	**Pb**	**13 14 53.3**	**-0.3**
DAT				AML	AML		
MULA	**Mugla, Merkez-**	**1.11**	**113**	P	**Pg**	**13 14 54.2**	**-0.5**
YER	**Yerkesik**	**1.14**	**119**	P	**Pg**	**13 14 54.6**	**-0.7**
GOMA	**Golmarmara-Man**	**1.23**	**34**	Pn	**Pg**	**13 14 57.2**	**+0.1**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.35**	**243**	P	**Pg**	**13 14 59.4**	**+0.1**
APE	**Apeiranthos**	**1.35**	**243**	Pn	**Pg**	**13 14 58.8**	**-0.5**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.51**	**36**	Pn	**Pn**	**13 15 00.9**	**+0.5**
GORD				AML	AML		
AXAR	**Agios Charalam**	**3.61**	**289**	P	**Pn**	**13 15 31.1**	**+1.9**
KLV	**Kalavryta, Ach**	**3.88**	**277**	P	**Pn**	**13 15 33.8**	**+0.8**

*NNC **06** 13:18:28.6±5.7,49°.91N×93°.47E, h0km, mb4.0, mpv3.8, Error ellipse: s-maj=47.9km s-min=30.4km az=88.0*
*ASRS **06** 13:18:36.7±0.2,51°.1N×91°.4E±1.0, h10km, MLh4.0/18, Error ellipse: s-maj=2.8km s-min=1.9km az=158.8, confirmed*

ISC 06 13:18:37.3±1.1, 50°.89N±0°.03×91°.44E±0°.02, h15km±12km, n33, σ1°.66/64, 7C-5D, Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TEL	**Teeli**	**0.79**	**280**	Pg	**Pn**	**13 18 53.8**	**-0.2**
TEL				Sg	**Sn**	**13 19 04.0**	**-1.6**
TEL				AML	AML		
DJO	**Djoy, Khakassi**	**1.91**	**356**	Pg	**Pg**	**13 19 15.3**	**+1.5**
DJO				Sg	**Sg**	**13 19 39.8**	**+1.2**
DJO				AML	AML		
CERR	**Cheremushki**	**1.97**	**360**	Pg	**Pg**	**13 19 16.6**	**+1.5**
CERR				Sg	**Sg**	**13 19 41.8**	**+1.1**
CERR				AML	AML		
KZLR	**Kyzyl**	**2.06**	**65**	Pg	**Pg**	**13 19 16.7**	**-0.2**
KZLR				Sg	**Sg**	**13 19 44.5**	**+0.8**
KZLR				AML	AML		
ARDR	**Aradan**	**2.10**	**35**	Pg	**Pg**	**13 19 17.7**	**+0.1**
ARDR				Sg	**Sg**	**13 19 45.4**	**+0.5**
ARDR				AML	AML		
CUR	**Chagan-Uzun**	**2.12**	**249**	Pg	**Pg**	**13 19 18.1**	**+0.1**
CUR				Sg	**Sg**	**13 19 45.8**	**+0.3**
CUR				AML	AML		
ULGR	**Ulagan, Altay**	**2.22**	**265**	Pg	**Pg**	**13 19 20.3**	**+0.4**
ULGR				Sg	**Sg**	**13 19 49.4**	**+0.7**
ULGR				AML	AML		
VEH	**Verkhnyaya Baz**	**2.47**	**344**	Pg	**Pg**	**13 19 25.1**	**+0.5**
VEH				Sg	**Sg**	**13 19 57.4**	**+0.7**
VEH				AML	AML		
AKAR	**Aktash**	**2.50**	**258**	Pg	**Pg**	**13 19 24.6**	**-0.6**
AKAR				Sg	**Sg**	**13 19 56.2**	**-1.3**
AKAR				AML	AML		
YALR	**Yailyu, Altay**	**2.56**	**292**	Pg	**Pg**	**13 19 26.1**	**-0.2**
YALR				Sg	**Sg**	**13 19 57.6**	**-1.8**
YALR				AML	AML		
CHBI	**Chibit, Altay**	**2.57**	**259**	Pg	**Pb**	**13 19 23.5**	**+0.4**
CHBI				Sg	**Sg**	**13 19 59.2**	**-0.6**
CHBI				AML	AML		
ARTR	**Artybash**	**2.76**	**291**	Pg	**Pg**	**13 19 29.1**	**-1.0**
ARTR				Sg	**Sg**	**13 20 06.4**	**+0.5**
ARTR				AML	AML		
DGZ	**Jazzator, Alta**	**2.83**	**247**	Pg	**Pg**	**13 19 30.0**	**-1.5**
DGZ				Sg	**Sg**	**13 20 07.9**	**-0.2**
DGZ				AML	AML		
TASR	**Tashtagol**	**2.90**	**312**	Pg	**Pg**	**13 19 32.9**	**+0.2**
TASR				Sg	**Sg**	**13 20 10.6**	**+0.3**
TASR				AML	AML		
LUZB	**Luzhba, Kemero**	**3.19**	**332**	Pg	**Pg**	**13 19 37.5**	**-0.9**
LUZB				Sg	**Sg**	**13 20 17.6**	**-2.0**
TDJR	**Todzha**	**3.28**	**61**	Pg	**Pg**	**13 19 39.1**	**-1.0**
TDJR				Sg	**Sg**	**13 20 20.4**	**-2.1**
TDJR				AML	AML		
TUNR	**Tungur**	**3.34**	**259**	Pg	**Pg**	**13 19 39.5**	**-1.8**
TUNR				Sg	**Sg**	**13 20 24.7**	**+0.3**
TUNR				AML	AML		
ELDR	**Elanda**	**3.39**	**278**	Pg	**Pg**	**13 19 41.0**	**-1.2**
ELDR				Sg	**Sg**	**13 20 24.8**	**-1.3**
ELDR				AML	AML		
KIYZ	**Kiyzas, Kuzbas**	**3.50**	**321**	Pg	**Pg**	**13 19 43.0**	**-1.4**
KIYZ				Sg	**Sg**	**13 20 29.5**	**-0.3**
KALT1	**Kaltan 1**	**3.54**	**317**	Pg	**Pg**	**13 19 44.8**	**-0.3**
KALT1				Sg	**Sg**	**13 20 32.4**	**+1.5**
KALT2	**Kaltan 2**	**3.57**	**316**	Pg	**Pg**	**13 19 44.5**	**-1.2**
KALT2				Sg	**Sg**	**13 20 31.3**	**-0.7**
KALT3	**Kaltan 3**	**3.60**	**318**	Pg	**Pg**	**13 19 45.5**	**-0.7**
KALT3				Sg	**Sg**	**13 20 32.8**	**-0.1**
MALIN	**Malinovka, Kuz**	**3.61**	**316**	Pg	**Pg**	**13 19 45.4**	**-0.9**
MALIN				Sg	**Sg**	**13 20 33.5**	**+0.4**
TAIL	**Tailep, Kuzbas**	**3.66**	**316**	Pg	**Pg**	**13 19 47.3**	**-0.1**
TAIL				Sg	**Sg**	**13 20 37.2**	**+2.4**
KNGR	**Kungurtug, Tuv**	**3.87**	**92**	Pn	**Pb**	**13 19 41.7**	**-3.6**
KNGR				Pg	**Pg**	**13 19 51.8**	**+0.4**
KNGR				Sg	**Sg**	**13 20 43.6**	**+2.0**
ELT	**Eltsovka**	**3.99**	**309**	Pn	**Pb**	**13 19 43.1**	**-4.1**
ELT				Pg	**Pg**	**13 19 50.7**	**-3.0**
ELT				Sg	**Sg**	**13 20 43.8**	**-1.6**
ELT				AML	AML		
ERU	**Erunakovo, Kuz**	**4.09**	**324**	Pg	**Pg**	**13 19 54.7**	**-0.9**
ERU				Sg	**Sg**	**13 20 47.3**	**-1.3**
UKR	**Ust'-Kan**	**4.22**	**273**	Pg	**Pg**	**13 19 56.4**	**-1.6**
UKR				Sg	**Sg**	**13 20 54.8**	**+2.2**
ZAA0	**Zalesovo Array**	**5.08**	**310**	⇓Pn	**Pb**	**13 20 07.3**	**+1.6**
	3.7nm,0.8s,baz=126,slow=16						
ZAA0				⇑Sn	**Sg**	**13 21 25.1**	**+4.8**
	30nm,0.8s,baz=127,slow=27						
MK31	**Makanchi Array**	**7.29**	**239**	⇑Pn	**Pn**	**13 20 27.1**	**+3.9**
	1.1nm,0.5s,baz=53,slow=13,SNR=38						
MK31				⇑Pg	**Pg**	**13 20 57.5**	**+0.8**
	1.9nm,0.5s,baz=58,slow=18,SNR=4.7						
MK31				⇓Lg	Lg	13 22 45.7	
	12nm,0.7s,baz=68,slow=36						
MAKZ	**Makanchi**	**7.45**	**240**	⇓Pn	**Pn**	**13 20 29.4**	**+4.0**
	6.9nm,1.1s						
MAKZ				⇑Pg	**Pg**	**13 21 00.7**	**+0.8**
	7.7nm,0.8s						
MAKZ				⇓Lg	Lg	13 22 52.2	
	22nm,0.9s						
KURK	**Kurchatov**	**8.12**	**274**	⇑Pn	Pb	13 20 47.4	-10
	0.6nm,0.6s						
KURK				⇓Sn	Sb	13 22 37.1	+3.1
	12nm,0.8s						
KURBB	**Kurchatov Arra**	**8.19**	**273**	⇑Pn	Pb	13 20 48.2	-10
	2.7nm,0.5s,baz=84,slow=14						
KURBB				⇑Sn	Sb	13 22 38.8	+2.8
	86nm,1.2s						

*CNRM **06** 13:26:51.8, 35°.83N×1°.93W, h88km, ML2.2*
*SFS **06** 13:26:55.5, 36°.00N×2°.59W, h44km, ML2.6/8, ML2.8/8, MLv2.8/6*
*MDD **06** 13:26:55.4±0.6, 35°.94N×2°.50W, h26km±6km, mb_Lg2.6/16, Error ellipse: s-maj=4.7km s-min=3.2km az=133.0*

ISC 06 13:26:54.7±1.1, 35°.98N±0°.03×2°.49W±0°.04, h31km±10km, n26, σ1°.37/47, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EALB	**Alboran**	**0.45**	**265**	Pg	**Pb**	**13 27 04.3**	**-0.1**
EALB				Sg	**Sb**	**13 27 10.9**	**0.0**
EALB	**Alboran**	**0.45**	**265**	P	**Pb**	**13 27 04.2**	**-0.2**
EALB				S	**Sb**	**13 27 10.0**	**-0.9**
WMELI	**Melilla**	**0.76**	**210**	Pg	**Pn**	**13 27 08.7**	**-0.6**
WMELI				Sg	**Sn**	**13 27 19.3**	**-0.3**
EMLI	**Melilla**	**0.78**	**209**	Pg	**Pb**	**13 27 09.4**	**-0.3**
EMLI				Sg	**Sn**	**13 27 19.7**	**-0.3**
EMEL	**Melilla**	**0.78**	**210**	P	**Pb**	**13 27 09.4**	**-0.3**
EMEL				S	**Sb**	**13 27 19.4**	**-0.6**
EBER	**Berja**	**0.97**	**341**	Pn	**Pn**	**13 27 11.8**	**-0.5**
EBER				Sn	**Sn**	**13 27 24.0**	**-1.2**
EBER	**Berja**	**0.97**	**341**	P	**Pn**	**13 27 12.2**	**-0.2**
EBER				S	**Sn**	**13 27 24.9**	**-0.3**
EBER				IVmb_Lg		13 27 27.6	
ENIJ	**Nijar**	**1.02**	**13**	Pn	**Pn**	**13 27 12.7**	**-0.1**
ENIJ				Sn	**Sn**	**13 27 25.3**	**-0.8**
ENIJ	**Nijar**	**1.02**	**13**	P	**Pn**	**13 27 12.7**	**-0.1**
ENIJ				S	**Sn**	**13 27 25.2**	**-0.8**
ENIJ				IVmb_Lg		13 27 27.0	
TAF	**Taforalt**	**1.16**	**177**	P	Pn	13 27 11.3	-3.6
TAF				S	**Sn**	**13 27 29.2**	**-0.5**
ELGU	**Los Guajares,**	**1.28**	**314**	Pn	**Pn**	**13 27 15.7**	**-0.7**
ELGU				Sn	**Sn**	**13 27 29.8**	**-2.8**
ELGU	**Los Guajares,**	**1.28**	**314**	P	**Pn**	**13 27 15.8**	**-0.7**
ELGU				S	**Sn**	**13 27 32.3**	**-0.2**
ELGU				IVmb_Lg		13 27 34.3	
PALE	**Palemas**	**1.41**	**238**	P	**Pb**	**13 27 21.3**	**+0.9**
PALE				S	**Sb**	**13 27 42.6**	**+4.6**
JBK	**JBK**	**1.64**	**182**	P	**Pn**	**13 27 20.1**	**-1.5**
JBK				S	**Sn**	**13 27 41.2**	**-0.5**
AKLM	**AKL**	**1.85**	**218**	P	**Pn**	**13 27 25.4**	**+1.1**
EQES	**Quesada**	**1.88**	**346**	P	**Pb**	**13 27 27.2**	**-1.2**
EQES				S	**Sn**	**13 27 49.2**	**+1.7**
EQES				IVmb_Lg		13 27 53.0	
EMIJ	**Mijas**	**1.94**	**288**	Pn	**Pn**	**13 27 24.4**	**-1.1**
EMIJ				Sn	**Sn**	**13 27 44.5**	**-4.2**
EMIJ	**Mijas**	**1.94**	**288**	P	**Pn**	**13 27 25.6**	**+0.2**
EMIJ				S	**Sn**	**13 27 46.7**	**-2.1**
EMIJ				IVmb_Lg		13 27 51.3	
CART	**Cartagena**	**2.00**	**36**	Pn	**Pn**	**13 27 26.9**	**+0.6**
CART				Sn	**Sn**	**13 27 48.9**	**-1.3**
EMUR	**La Murta**	**2.11**	**28**	P	**Pn**	**13 27 28.1**	**+0.2**
EMUR				S	**Sn**	**13 27 52.8**	**-0.2**
EMUR				IVmb_Lg		13 28 01.3	
EADA	**Adamuz**	**2.75**	**323**	P	**Pn**	**13 27 38.4**	**+1.8**
EADA				S	**Sn**	**13 28 09.3**	**+0.4**
EADA				IVmb_Lg		13 28 17.9	
ETOB	**Tobarra**	**2.76**	**15**	P	**Pn**	**13 27 37.1**	**+0.2**
ETOB				S	**Sn**	**13 28 09.3**	**+0.1**
ETOB				IVmb_Lg		13 28 11.8	
ECAB	**El Cabril**	**3.14**	**313**	S	**Sn**	**13 28 18.7**	**+0.2**
ECAB				IVmb_Lg		13 28 22.0	
PAB	**San Pablo**	**3.85**	**338**	P	**Pn**	**13 27 53.1**	**+1.3**
PAB				S	**Sn**	**13 28 35.5**	**-0.7**
PAB				IVmb_Lg		13 29 02.3	
EGRO	**El Granado**	**4.30**	**293**	P	**Pn**	**13 27 58.8**	**+0.9**
EGRO				IVmb_Lg		13 28 59.4	
CIBOR	**Castaar de Ib**	**4.33**	**328**	P	**Pn**	**13 28 00.4**	**+2.0**

JMA 06 13:28:02.5±0.1, 37°.6N±0°.2×142°.8E±0°.2, h5km, MV3.5/23, FAR E OFF FUKUSHIMA PREF, Off east coast of Honshu

IDC 06 13:33:37.8±2.4, 22°.75S×179°.64W, h606km±79km, mb2.9/4, mbtmp3.9/5, Error ellipse: s-maj=119.6km s-min=29.5km az=23.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.44**	**336**	P	P	13 35 14.8	0.0
	2.9nm,0.4s,baz=90,slow=20,SNR=6.5						
STKA	**Stephens Creek**	**35.47**	**247**	P	P	13 39 44.3	-0.9
	0.6nm,0.3s,baz=90,slow=15,SNR=1.9						
	0.6nm,0.3s						
ASAR	**Alice Springs**	**42.56**	**259**	P	P	13 40 42.4	+0.1
	1.7nm,0.7s,baz=106,slow=7.5,SNR=23						
	1.7nm,0.7s						
WRA	**Warramunga Arr**	**42.83**	**265**	P	P	13 40 44.4	0.0
	1.1nm,0.4s,baz=93,slow=8.1,SNR=21						
	1.1nm,0.4s						
QSPA	**South Pole Qui**	**67.33**	**180**	P	P	13 43 33.6	+0.1
	0.6nm,0.6s,baz=45,slow=1.4,SNR=7.6						
	0.6nm,0.6s						

NNC 06 13:41:02.9±9.1, 37°.04N×69°.65E, h0km, mb3.5, mpv3.1, 2C, Error ellipse: s-maj=80.4km s-min=72.8km az=36.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.09**	**6**	P	Pn	13 42 34.9	+0.6
	1.8nm,0.3s,baz=182,slow=14,SNR=39						
KK31				⇑S	Sn	13 43 45.8	+1.1
	15nm,0.5s,baz=189,slow=24						
AAK	**Ala-Archa**	**6.72**	**32**	⇑P	Pn	13 42 42.2	-0.7
	0.2nm,0.4s						
AB31	**Akbulak array**	**14.10**	**333**	P	Pn	13 44 23.9	+0.1
	0.6nm,0.5s,baz=142,slow=11,SNR=11						

*IDC **06** 13:55:28.6±2.6, 14°.39S×81°.38E, h0km, mb3.6/6, mbtmp3.6/6, Error ellipse: s-maj=81.7km s-min=27.0km az=53.0*

ISC 06 13:55:29.8±2.6, 14°.4S±0°.4×81°.4E±0°.4, h10km, n16, σ0°.70/7, mb3.8/6, South Indian Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H08S2	**Diego Garcia H**	**11.01**	**307**	T	T	14 09 27.2	
	baz=126,slow=73,SNR=8.1						
H08S1	**Diego Garcia H**	**11.03**	**307**	T	T	14 09 27.2	
	baz=126,slow=73,SNR=5.9						
H08S3	**Diego Garcia H**	**11.03**	**307**	T	T	14 09 27.2	
	baz=126,slow=73,SNR=12						
H01W3	**Cape Leeuwin H**	**35.83**	**131**	T	T	14 39 55.8	
	baz=292						
H01W2	**Cape Leeuwin H**	**35.83**	**131**	T	T	14 39 53.5	
	baz=292						
H01W1	**Cape Leeuwin H**	**35.85**	**131**	T	T	14 39 55.6	
	baz=292						
CMAR	**Chiang Mai Arr**	**37.00**	**28**	P	**P**	**14 02 39.5**	**-0.4**
	0.5nm,0.6s,baz=217,slow=7.7,SNR=7.3						
	0.5nm,0.6s						
H04N2	**CROZET ISLANDS**	**40.19**	**212**	T	T	14 45 16.6	
	baz=45,SNR=4.4						
H04N1	**CROZET ISLANDS**	**40.20**	**212**	T	T	14 45 23.5	
	baz=45						
H04N3	**CROZET ISLANDS**	**40.21**	**212**	T	T	14 45 18.6	
	baz=45						
ASAR	**Alice Springs**	**50.27**	**109**	P	**P**	**14 04 26.8**	**-0.1**
	0.5nm,0.7s,baz=272,slow=7.5,SNR=12						
	0.5nm,0.7s						
WRA	**Warramunga Arr**	**50.74**	**104**	P	**P**	**14 04 31.1**	**+0.6**
	0.1nm,0.6s,baz=261,slow=8.4,SNR=1.3						
	0.1nm,0.6s						
MKAR	**Makanchi Array**	**60.96**	**1**	P	**P**	**14 05 43.8**	**+0.7**
	0.9nm,0.8s,baz=198,slow=8.7,SNR=4.8						
	0.9nm,0.8s						
BVAR	**Borovoye Array**	**67.86**	**353**	P	**P**	**14 06 28.2**	**0.0**
	0.4nm,0.4s,baz=155,slow=4.8,SNR=2.2						
	0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**68.18**	**2**	P	**P**	**14 06 29.6**	**-0.6**
	1.8nm,0.6s,baz=192,slow=6.0,SNR=8.9						
	1.8nm,0.6s						
PDAR	**Pinedale Array**	**150.25**	**16**	PKPbc	**PKiKP**	**14 15 21.9**	**-0.8**
	0.3nm,0.5s,baz=332,slow=1.3,SNR=3.6						

*IDC **06** 14:29:25.2±1.0, 43°.19N×79°.70E, h0km, mb3.6/5, mbtmp3.8/12, ML3.6/7, MS2.7/2, Error ellipse: s-maj=14.6km s-min=9.8km az=133.0*
*BJI **06** 14:29:26.7, 43°.27N×79°.74E, h8km, mb4.0/5, ML4.5/7, Ms3.9/1*
*MOS **06** 14:29:26.8±0.8, 43°.20N×79°.75E, h17km, mb5.3/6, Error ellipse: s-maj=6.2km s-min=4.7km az=159.7*
*NNC **06** 14:29:27.5±0.5, 43°.17N×79°.67E, h8km±2km, mb5.0, mpv4.8, Error ellipse: s-maj=4.6km s-min=3.1km az=10.0*
*SOME **06** 14:29:27.3, 43°.27N×79°.63E, h10km*
*KRNET **06** 14:29:27.3±0.1, 43°.21N×79°.69E, h18km, mb5.0*

ISC 06 14:29:28.4±0.8, 43°.19N±0°.03×79°.60E±0°.03, h12km±4km, n159, σ1°.58/234, mb4.5/12, 43C-18D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**0.11**	**249**	P	**Pb**	**14 29 31.9**	**-0.6**
	12μm,0.2s						
SHLS				S	**Sb**	**14 29 34.8**	**+1.0**
	83μm,0.4s						
SHLS	**Shalkode**	**0.11**	**249**	*e*PG	**Pb**	**14 29 31.9**	**-0.6**
SHLS				*e*		14 29 35.4	
SHLS	**Shalkode**	**0.11**	**249**	*e*Pn	**Pb**	**14 29 31.9**	**-0.6**
SHLS				*e*Pg	Pg	14 29 35.4	+3.9
SHLS				*e*Lg	Lg	14 29 40.6	
SHLS	**Shalkode**	**0.11**	**249**	*e*P	**Pb**	**14 29 31.9**	**-0.6**
	12μm,0.2s						
SHLS				*e*S	**Sb**	**14 29 34.8**	**+1.0**
	83μm,0.4s						
PDGK	**Podgornoye**	**0.16**	**330**	⇓P	**Pb**	**14 29 32.8**	**-0.6**
	3μm,0.3s						
PDGK				⇓S	**Sg**	**14 29 36.9**	**+1.9**
	22μm,0.3s						
PDGK	**Podgornoye**	**0.16**	**330**	PG	**Pb**	**14 29 32.7**	**-0.6**
PDGK				S	**Sg**	**14 29 36.8**	**+1.9**
UZB	**Uzunbulak**	**0.42**	**264**	P	**Pg**	**14 29 37.0**	**+0.1**
	8μm,0.2s						
UZB				S	**Sg**	**14 29 43.8**	**+1.2**
	30μm,0.2s						
UZB	**Uzunbulak**	**0.42**	**264**	*e*P	**Pg**	**14 29 37.0**	**+0.1**
UZB				*e*S	**Sg**	**14 29 43.8**	**+1.2**
UZB	**Uzunbulak**	**0.42**	**264**	*e*PG	**Pg**	**14 29 37.0**	**+0.1**
UZB	**Uzunbulak**	**0.42**	**264**	*e*P	**Pg**	**14 29 37.0**	**+0.1**
UZB				*e*Lg	Lg	14 29 43.9	
UZB	**Uzunbulak**	**0.42**	**264**	*e*P	**Pg**	**14 29 37.0**	**+0.1**
	8μm,0.2s						
UZB				*e*S	**Sg**	**14 29 43.8**	**+1.2**
	30μm,0.2s						
KPKS	**Kokpek**	**0.72**	**292**	P	**Pb**	**14 29 42.3**	**-0.6**
	0.3nm,0.1s						
KPKS				S	**Sb**	**14 29 52.8**	**+0.1**
	16μm,0.4s						
KPKS	**Kokpek**	**0.72**	**292**	*e*PG	**Pb**	**14 29 42.2**	**-0.7**
KPKS				*e*S	**Sb**	**14 29 51.4**	**-1.4**
KPKS	**Kokpek**	**0.72**	**292**	*e*P	**Pb**	**14 29 42.2**	**-0.7**
KPKS				*e*S	**Sb**	**14 29 51.5**	**-1.4**
KPKS	**Kokpek**	**0.72**	**292**	*e*P	**Pb**	**14 29 42.3**	**-0.6**
	0.3nm,0.1s						
KPKS				*e*S	**Sb**	**14 29 52.9**	**+0.1**
	16μm,0.4s						
SATY	**Saty**	**0.88**	**262**	P	**Pb**	**14 29 44.8**	**-0.9**
	3μm,0.4s						
SATY				S	**Sb**	**14 29 57.4**	**-0.1**
	11μm,0.4s						
SATY	**Saty**	**0.88**	**262**	*e*PG	**Pb**	**14 29 44.7**	**-1.0**
SATY	**Saty**	**0.88**	**262**	*e*P	**Pb**	**14 29 44.8**	**-0.9**
SATY	**Saty**	**0.88**	**262**	*e*P	**Pb**	**14 29 44.8**	**-0.9**
	3μm,0.4s						
SATY				*e*S	**Sb**	**14 29 57.4**	**-0.1**
	11μm,0.4s						
KURS	**Kuram**	**1.08**	**286**	P	**Pb**	**14 29 48.9**	**-0.2**
	431nm,0.3s						
KURS				S	**Sb**	**14 30 04.2**	**+1.0**
	1μm,0.3s						
KURS	**Kuram**	**1.08**	**286**	*e*P	**Pb**	**14 29 48.9**	**-0.2**
	431nm,0.3s						
KURS				*e*S	**Sb**	**14 30 04.2**	**+1.0**
	1μm,0.3s						
PRZ	**Przheval'sk**	**1.13**	**232**	⇑*e*P	**Pn**	**14 29 49.2**	**-1.0**
PRZ				⇑*i*S	**Sb**	**14 30 05.1**	**+0.4**
PRZ	**Przheval'sk**	**1.13**	**232**	*e*PG	**Pn**	**14 29 49.2**	**-1.0**
PRZ				*i* S	**Sb**	**14 30 05.1**	**+0.4**
DJR	**Jarkent**	**1.15**	**7**	P	**Pb**	**14 29 48.9**	**-1.3**
	2μm,0.4s						
DJR				S	**Sb**	**14 30 04.1**	**-0.9**
	2μm,0.6s						
ANVS	**Anan'yevo**	**1.48**	**254**	⇑*i*P	**Pn**	**14 29 55.3**	**+0.4**
ANVS				⇑*i*S	**Sb**	**14 30 16.0**	**+1.4**
ANVS	**Anan'yevo**	**1.48**	**254**	*i* PN	**Pn**	**14 29 55.3**	**+0.4**
ANVS				*i* S	**Sb**	**14 30 16.0**	**+1.4**
ARXS	**Arharly**	**1.64**	**309**	P	**Pn**	**14 29 57.9**	**+0.8**
	281nm,0.2s						
ARXS				S	**Sb**	**14 30 19.6**	**+0.4**
	9μm,0.3s						
ARXS	**Arharly**	**1.64**	**309**	*e*P	**Pn**	**14 29 57.9**	**+0.8**
	281nm,0.2s						
ARXS				*e*S	**Sb**	**14 30 19.6**	**+0.4**
	9μm,0.3s						
MDOK	**Medeo**	**1.87**	**270**	Pg	**Pn**	**14 30 01.4**	**+1.2**
	948nm,0.2s						
MDOK				Lg	Lg	14 30 27.3	
	2μm,0.4s						
MDOK	**Medeo**	**1.87**	**270**	*e*PN	**Pn**	**14 30 01.4**	**+1.2**
MDO

KAPS				*e*S		**Sb**	**14 30 31.4**	**-1.0**
	2μm,0.2s							
KTBS	**Karatobe**	**2.19**	**285**	Pg		**Pb**	**14 30 07.4**	**-0.5**
	12nm,0.1s							
KTBS				Lg		Lg	14 30 35.8	
	3μm,0.5s							
KTBS	**Karatobe**	**2.19**	**285**	*e*P		**Pb**	**14 30 07.4**	**-0.5**
	12nm,0.1s							
KTBS				*e*S		**Sb**	**14 30 35.8**	**+0.9**
	3μm,0.5s							
KUU	**Kurty**	**2.47**	**288**	Pg		**Pb**	**14 30 11.8**	**-0.9**
	334nm,0.4s							
KUU				Lg		Lg	14 30 43.4	
	3μm,0.6s							
KUU	**Kurty**	**2.47**	**288**	*e*PN		**Pn**	**14 30 09.8**	**+1.4**
KUU	**Kurty**	**2.47**	**288**	*e*P		**Pn**	**14 30 09.8**	**+1.4**
KUU	**Kurty**	**2.47**	**288**	*e*P		**Pb**	**14 30 11.8**	**-0.9**
	334nm,0.4s							
KUU				*e*S		**Sb**	**14 30 43.4**	**+0.3**
	3μm,0.6s							
ULHL	**Ulahol**	**2.65**	**250**	P		**Pn**	**14 30 12.1**	**+1.0**
	SNR=357							
ULHL	**Ulahol**	**2.65**	**250**	⇑*i*P		**Pn**	**14 30 12.3**	**+1.2**
ULHL				⇑*i*S		**Sn**	**14 30 45.4**	**+2.2**
ULHL	**Ulahol**	**2.65**	**250**	*i* PN		**Pn**	**14 30 12.3**	**+1.2**
ULHL				*i* S		**Sn**	**14 30 45.4**	**+2.2**
KST	**Kastek**	**2.67**	**268**	Pg		**Pb**	**14 30 16.3**	**+0.2**
	391nm,0.5s							
KST				Lg		Lg	14 30 51.2	
	1μm,0.3s							
KST	**Kastek**	**2.67**	**268**	*e*P		**Pb**	**14 30 16.3**	**+0.2**
	391nm,0.5s							
KST				*e*S		**Sb**	**14 30 51.2**	**+2.4**
	1μm,0.3s							
BOOM	**Boomskoye usch**	**2.78**	**257**	⇑*e*P		**Pn**	**14 30 14.2**	**+1.3**
BOOM				⇑*i*S		**Sn**	**14 30 48.5**	**+2.1**
BOOM	**Boomskoye usch**	**2.78**	**257**	*e*PN		**Pn**	**14 30 14.2**	**+1.3**
BOOM				*i* S		**Sn**	**14 30 48.5**	**+2.1**
KRBS	**Karabastau**	**2.90**	**281**	Pg		**Pb**	**14 30 20.0**	**-0.1**
	273nm,0.4s							
KRBS				Lg		Lg	14 30 57.4	
	324nm,0.4s							
KRBS	**Karabastau**	**2.90**	**281**	*e*P		**Pb**	**14 30 20.0**	**-0.1**
	273nm,0.4s							
KRBS				*e*S		**Sb**	**14 30 57.4**	**+1.9**
	324nm,0.4s							
TKM2	**Tokmak 2**	**2.94**	**266**	P		**Pn**	**14 30 16.6**	**+1.5**
	SNR=487							
TKM2	**Tokmak 2**	**2.94**	**266**	⇑*i*P		**Pn**	**14 30 16.4**	**+1.2**
TKM2				⇑*i*S		**Sn**	**14 30 52.4**	**+1.9**
TKM2	**Tokmak 2**	**2.94**	**266**	*i* PN		**Pn**	**14 30 16.4**	**+1.2**
TKM2				*i* S		**Sn**	**14 30 52.4**	**+1.9**
NRN	**Naryn**	**3.20**	**238**	⇑*i*P		**Pn**	**14 30 20.4**	**+1.7**
NRN				⇑*i*S		**Sn**	**14 30 59.1**	**+2.2**
NRN	**Naryn**	**3.20**	**238**	*i* PN		**Pn**	**14 30 20.4**	**+1.7**
NRN				*i* S		**Sn**	**14 30 59.1**	**+2.2**
KBK	**Karagaybulak**	**3.46**	**263**	P		**Pn**	**14 30 24.5**	**+2.3**
	SNR=71							
KBK	**Karagaybulak**	**3.46**	**263**	⇓*e*P		**Pn**	**14 30 23.5**	**+1.3**
KBK				⇓*i*S		**Sn**	**14 31 04.6**	**+1.5**
KBK	**Karagaybulak**	**3.46**	**263**	*e*PN		**Pn**	**14 30 23.5**	**+1.3**
KBK				*i* S		**Sn**	**14 31 04.6**	**+1.5**
CHMS	**Chumysh**	**3.56**	**268**	P		**Pn**	**14 30 24.7**	**+1.3**
	SNR=39							
CHMS	**Chumysh**	**3.56**	**268**	⇓*e*P		**Pn**	**14 30 24.5**	**+1.1**
CHMS				⇓*i*S		**Sn**	**14 31 06.8**	**+1.5**
CHMS	**Chumysh**	**3.56**	**268**	*e*PN		**Pn**	**14 30 24.5**	**+1.1**
CHMS				*i* S		**Sn**	**14 31 06.8**	**+1.5**
FRU1	**Bishkek**	**3.66**	**266**	⇑*e*P		**Pn**	**14 30 26.2**	**+1.3**
FRU1				⇑*i*S		**Sn**	**14 31 09.6**	**+1.5**
FRU1	**Bishkek**	**3.66**	**266**	*e*PN		**Pn**	**14 30 26.2**	**+1.3**
FRU1				*i* S		**Sn**	**14 31 09.6**	**+1.5**
USP	**Ospenovka**	**3.73**	**273**	P		**Pn**	**14 30 26.4**	**+0.7**
	SNR=120							
USP	**Ospenovka**	**3.73**	**273**	⇑*i*P		**Pn**	**14 30 26.8**	**+1.1**
USP				⇑*e*S		**Sn**	**14 31 10.6**	**+1.1**
USP	**Ospenovka**	**3.73**	**273**	*i* PN		**Pn**	**14 30 26.8**	**+1.1**
USP				*e*S		**Sn**	**14 31 10.6**	**+1.1**
AAK	**Ala-Archa**	**3.79**	**263**	Pn		**Pn**	**14 30 28.4**	**+1.8**
	7.7nm,0.3s,baz=115,slow=7.2,SNR=72							
AAK				Pg		**Pb**	**14 30 34.9**	**-0.3**
	57nm,0.3s,baz=94,slow=7.6,SNR=51							
AAK				Lg		Lg	14 31 27.2	
	62nm,0.3s,baz=265,slow=21,SNR=8.1							
	18nm,0.3s							
AAK				AML	AML			
AAK	**Ala-Archa**	**3.79**	**263**	P		**Pn**	**14 30 28.5**	**+1.8**
	SNR=29							
AAK	**Ala-Archa**	**3.79**	**263**	⇓Pn		**Pn**	**14 30 28.3**	**+1.5**
	4.4nm,0.5s							
AAK				⇓Pg		**Pb**	**14 30 38.0**	**+2.7**
	78nm,0.5s							
AAK				⇑Lg		Lg	14 31 31.4	
	172nm,0.6s							
AAK	**Ala-Archa**	**3.79**	**263**	⇓*i*P		**Pn**	**14 30 28.1**	**+1.4**
AAK				⇓*i*S		**Sn**	**14 31 12.7**	**+1.4**
AAK	**Ala-Archa**	**3.79**	**263**	*i* PN		**Pn**	**14 30 28.1**	**+1.4**
AAK				*i* S		**Sn**	**14 31 12.7**	**+1.4**
UCH	**Uchtor**	**3.87**	**257**	P		**Pn**	**14 30 30.3**	**+2.2**
	SNR=66							
UCH	**Uchtor**	**3.87**	**257**	⇑*e*P		**Pn**	**14 30 29.5**	**+1.4**
UCH				⇑*i*S		**Sn**	**14 31 15.1**	**+1.4**
UCH	**Uchtor**	**3.87**	**257**	*e*PN		**Pn**	**14 30 29.5**	**+1.4**
UCH				*i* S		**Sn**	**14 31 15.1**	**+1.4**
MAKZ	**Makanchi**	**3.99**	**24**	⇑Pn		**Pn**	**14 30 29.9**	**+0.6**
	27nm,0.5s							
MAKZ				⇓Lg		Lg	14 31 33.4	
	116nm,0.6s							
MAKZ	**Makanchi**	**3.99**	**24**	PN		**Pn**	**14 30 30.1**	**+0.8**
MAKZ							14 31 30.4	
MK31	**Makanchi Array**	**4.07**	**27**	Pn		**Pn**	**14 30 30.4**	**-0.1**
	2.1nm,0.3s,baz=209,slow=14,SNR=549							
MK31				⇑Lg		Lg	14 31 35.0	
	204nm,0.7s,baz=211,slow=30							
MK31	**Makanchi Array**	**4.07**	**27**	PN		**Pn**	**14 30 30.4**	**-0.1**
MK31							14 31 33.8	
MKAR	**Makanchi Array**	**4.07**	**27**	Pn		**Pn**	**14 30 30.4**	**-0.2**
	6.8nm,0.3s,baz=214,slow=12,SNR=170							
MKAR				Lg		Lg	14 31 30.3	
	18nm,0.3s,baz=222,slow=19,SNR=4.3							
	9.4nm,0.3s							
MKAR				AML	AML			
MKAR	**Makanchi Array**	**4.07**	**27**	*ce*PN		**Pn**	**14 30 30.3**	**-0.2**
MKAR				pmax	pmax			
	comp=Z,10.0nm,0.3s							
EKS2	**Erkin-Say**	**4.31**	**265**	P		**Pn**	**14 30 35.4**	**+1.6**
	SNR=25							
EKS2	**Erkin-Say**	**4.31**	**265**	⇑*e*P		**Pn**	**14 30 35.3**	**+1.5**
EKS2				⇑*i*S		**Sn**	**14 31 25.1**	**+1.1**
EKS2	**Erkin-Say**	**4.31**	**265**	*e*PN		**Pn**	**14 30 35.3**	**+1.5**
EKS2				*i* S		**Sn**	**14 31 25.1**	**+1.1**
BTLS	**Baital**	**4.40**	**297**	Pg		**Pb**	**14 30 45.8**	**+0.2**
BTLS				Lg		Lg	14 31 41.5	
BTLS	**Baital**	**4.40**	**297**	*e*P		**Pb**	**14 30 45.8**	**+0.2**
BTLS				*e*S		**Sb**	**14 31 41.5**	**+2.9**
MRKS	**Merke**	**4.70**	**267**	Pg		**Pb**	**14 30 53.5**	**+2.8**
	comp=Z,259nm,0.7s							
MRKS				Lg		Lg	14 31 55.0	
	comp=Z,338nm,0.4s							
MRKS	**Merke**	**4.70**	**267**	*e*P		**Pb**	**14 30 53.5**	**+2.8**
	comp=Z,259nm,0.7s							
MRKS				*e*S		**Sg**	**14 31 55.0**	**-4.2**
	comp=Z,338nm,0.4s							
SALK	**Salom-Alik**	**4.88**	**244**	⇑*i*P		**Pn**	**14 30 43.1**	**+1.4**
SALK				⇑*e*S		**Sn**	**14 31 38.8**	**+0.6**
SALK	**Salom-Alik**	**4.88**	**244**	*i* PN		**Pn**	**14 30 43.1**	**+1.4**
SALK				*e*S		**Sn**	**14 31 38.8**	**+0.6**
KSH2	**Kashi**	**5.06**	**218**	Pn		**Pn**	**14 30 46.6**	**+2.4**
KSH2						Sn	**14 31 45.3**	**+2.7**
ARSB	**Arslanbob**	**5.25**	**251**	⇑*i*P		**Pn**	**14 30 48.2**	**+1.4**
ARSB				⇑*i*S		**Sn**	**14 31 47.5**	**+0.2**
ARSB	**Arslanbob**	**5.25**	**251**	*e*PN		**Pn**	**14 30 48.2**	**+1.4**
MNAS	**Manas**	**5.26**	**265**	⇑*i*P		**Pn**	**14 30 48.4**	**+1.4**
MNAS				⇑*i*S		**Sn**	**14 31 47.8**	**+0.2**
MNAS	**Manas**	**5.26**	**265**	*i* PN		**Pn**	**14 30 48.4**	**+1.4**
SFK	**Sufi-Kurgan**	**5.56**	**237**	⇑*i*P		**Pn**	**14 30 52.8**	**+1.6**
SFK				⇑*i*S		**Sn**	**14 31 55.2**	**0.0**
SFK	**Sufi-Kurgan**	**5.56**	**237**	*i* PN		**Pn**	**14 30 52.8**	**+1.6**
ZSN	**Zaisan**	**5.65**	**39**	Pg		**Pb**	**14 31 08.7**	**+1.9**
	comp=Z,18nm,0.3s							
ZSN				Lg		Lg	14 32 20.8	
	comp=Z,259nm,0.9s							
ZSN	**Zaisan**	**5.65**	**39**	*e*PN		**Pn**	**14 30 53.1**	**+1.0**
ZSN	**Zaisan**	**5.65**	**39**	*e*P		**Pn**	**14 30 53.1**	**+1.0**
ZSN	**Zaisan**	**5.65**	**39**	*e*P		**Pb**	**14 31 08.7**	**+1.9**
	comp=Z,18nm,0.3s							
ZSN				*e*S		**Sb**	**14 32 20.8**	**+6.3**
	comp=Z,259nm,0.9s							
OHH	**Osh**	**5.74**	**245**	⇓*i*P		**Pn**	**14 30 54.8**	**+1.3**
OHH				⇓*i*S		**Sn**	**14 31 59.1**	**-0.2**
OHH	**Osh**	**5.74**	**245**	*i* PN		**Pn**	**14 30 54.8**	**+1.3**
WMQ	**Urumqi**	**5.92**	**81**	Pn		**Pn**	**14 30 55.0**	**-0.9**
WMQ				Sn		**Sn**	**14 32 04.0**	**+0.3**
WMQ				AML	AML			
	comp=Z,160nm,1.3s							
WMQ				AML	AML			
	comp=Z,110nm,1.1s							
KK31	**Karatay Array**	**6.65**	**272**	⇑Pn		**Pn**	**14 31 08.5**	**+2.7**
	comp=Z,1.9nm,0.4s,baz=82,slow=15							
KK31				⇑Pg		Pb	14 31 29.6	+5.7
	comp=Z,48nm,0.7s,baz=84,slow=15,SNR=38							
KK31				⇓Lg		Lg	14 33 01.9	
	comp=Z,72nm,0.5s,baz=81,slow=29							
KK31	**Karatay Array**	**6.65**	**272**	PN		**Pn**	**14 31 06.5**	**+0.7**
KK31				PG		Pb	14 31 29.6	+5.7
IUG	**luzhnay**	**7.13**	**265**	Pg		**Pg**	**14 31 42.1**	**-2.8**
	comp=Z,147nm,0.7s							
IUG				Lg		Lg	14 33 18.0	
	comp=Z,364nm,0.7s							
IUG	**luzhnay**	**7.13**	**265**	*e*P		**Pn**	**14 31 13.5**	**+1.0**
IUG	**luzhnay**	**7.13**	**265**	*e*P		**Pn**	**14 31 13.5**	**+1.0**
BRLS	**Boroldai**	**7.15**	**272**	Pg		**Pg**	**14 31 42.5**	**-2.7**
	comp=Z,11nm,0.6s							
BRLS				Lg		Lg	14 33 18.6	
	comp=Z,66nm,0.6s							
BRLS	**Boroldai**	**7.15**	**272**	*e*P		**Pn**	**14 31 16.3**	**+3.6**
BRLS	**Boroldai**	**7.15**	**272**	*e*P		**Pn**	**14 31 16.4**	**+3.6**
SEM	**Semipalatinsk**	**7.23**	**3**	Pg		**Pb**	**14 31 39.6**	**+5.7**
	comp=Z,13nm,0.5s							
SEM				Lg		Lg	14 33 14.0	
	comp=Z,86nm,0.3s							
SEM	**Semipalatinsk**	**7.23**	**3**	*e*P		**Pn**	**14 31 13.4**	**-0.6**
SEM	**Semipalatinsk**	**7.23**	**3**	*e*P		**Pn**	**14 31 13.5**	**-0.6**
CHM	**Chimkent**	**7.41**	**267**	*e*P		**Pn**	**14 31 17.2**	**+1.0**
CHM	**Chimkent**	**7.41**	**267**	*e*P		**Pn**	**14 31 17.3**	**+1.0**
KURBB	**Kurchatov Arra**	**7.47**	**355**	Pn		**Pn**	**14 31 16.0**	**-1.0**
	comp=Z,0.6nm,0.3s,baz=181,slow=12,SNR=64							
KURBB				Lg		Lg	14 33 18.8	
	comp=Z,2.4nm,0.3s,baz=171,slow=30,SNR=7.9							
	comp=Z,1.4nm,0.4s							
KURBB				AML	AML			
KURBB	**Kurchatov Arra**	**7.47**	**355**	⇓Pn		**Pn**	**14 31 17.3**	**+0.3**
	comp=Z,6.4nm,0.9s							
KURBB				⇑Lg		Lg	14 33 26.1	
	comp=Z,304nm,0.7s							
KURK	**Kurchatov**	**7.55**	**355**	⇑Pn		**Pn**	**14 31 19.0**	**+0.8**
	comp=Z,3.4nm,0.5s							
KURK				⇑Lg		Lg	14 33 28.6	
	comp=Z,107nm,0.9s							
KURK	**Kurchatov**	**7.55**	**355**	*c* iP		**Pn**	**14 31 17.9**	**-0.3**
KURK				pmax	pmax			
	comp=Z,8.0nm,0.6s							
DGZ	**Jazzator, Alta**	**8.46**	**37**	⇓*e*P		**Pn**	**14 31 30.1**	**-0.7**
ZALV	**Zalesovo Beam**	**11.30**	**16**	Pn		**Pn**	**14 32 08.2**	**-1.3**
	comp=Z,2.4nm,0.3s,baz=208,slow=14,SNR=32							
ZALV				Sn		**Sn**	**14 34 12.1**	**-3.5**
	comp=Z,1.9nm,0.3s,baz=205,slow=24,SNR=5.9							
ZALV				Lg		Lg	14 35 17.7	
	comp=Z,1.1nm,0.3s,baz=192,slow=26,SNR=5.7							
ZALV				LR		LR	14 36 57.8	
	comp=Z,44nm,20.3s,baz=220,slow=40							
	comp=Z,5.8nm,0.4s							
ZALV				AML	AML			
BVAR	**Borovoye Array**	**11.59**	**331**	Pn		**Pn**	**14 32 11.7**	**-1.8**
	comp=Z,0.1nm,0.3s,baz=143,slow=12,SNR=6.4							
BVAR				Lg		Lg	14 35 28.2	
	comp=Z,0.3nm,0.3s,baz=149,slow=20,SNR=3.5							
	comp=Z,0.8nm,0.3s							
BVAR				AML	AML			
BORK	**Borovoye**	**11.63**	**331**	⇑*e*P		**Pn**	**14 32 11.7**	**-2.4**
GOMU	**GeErMu**	**13.63**	**116**	Pn		Pn	14 32 36.0	-5.8
GOMU				Pg		**P**	**14 32 48.0**	**-2.7**
GOMU				Sn		Sn	14 34 40.4	-33
GOMU				Sg		S	14 34 56.0	-40
GOMU				smax		smax		
	comp=N,23nm,0.7s							
GOMU				smax		smax		
	comp=E,11nm,0.6s							
KNGR	**Kungurtug, Tuv**	**14.29**	**53**	*de*P		**Pn**	**14 32 50.4**	**-0.2**
KNGR				pmax		pmax		
	comp=Z,9.0nm,0.6s							
AB31	**Akbulak array**	**14.88**	**301**	P		**Pn**	**14 32 59.6**	**+1.3**
	comp=Z,1.4nm,0.5s,baz=107,slow=15,SNR=26							
AB31	**Akbulak array**	**14.88**	**301**	P		**Pn**	**14 32 59.6**	**+1.3**
GTA2	**Gaotai**	**15.59**	**97**	*e*P		**Pn**	**14 33 09.4**	**+1.5**
GTA2				pmax		pmax		
	comp=Z,4.0nm,0.9s							
AKTO	**Aktyubinsk**	**16.42**	**304**	Pn		**Pn**	**14 33 16.4**	**-2.0**
	comp=Z,0.3nm,0.3s,baz=106,slow=16,SNR=4.7							
	comp=Z,1.3nm,0.4s							
AKTO				AML	AML			
ARTI	**Arti**	**18.92**	**322**	Pn		**P**	**14 33 48.5**	**-0.2**
	comp=Z,0.2nm,0.3s,baz=140,slow=7.6,SNR=4.7							
ARTI				Lg		Lg	14 39 31.8	
	comp=Z,0.1nm,0.3s,baz=357,slow=14,SNR=5.1							
	comp=Z,2.1nm,0.6s							
ARTI				AML	AML			
ARTI	**Arti**	**18.92**	**322**	P		P	14 33 40.8	-7.9
ARTI				SS		**Sn**	**14 37 19.5**	**-1.3**
MAK	**Makhachkala**	**23.37**	**281**	*e*P		**P**	**14 34 34.0**	**-2.6**
MAK				*e*S		**S**	**14 38 44.0**	**-5.2**
MAK				pmax		pmax		
	comp=Z,72nm,1.0s							
MAK				MLR		MLR		
	comp=Z,70nm,13.0s							
NRIK	**Noril'sk**	**26.53**	**6**	⇓*e*P		**P**	**14 35 05.1**	**-0.4**
NRIK				pmax		pmax		
	comp=Z,5.0nm,1.0s							
ERBR	**Yeremizino-Bor**	**27.85**	**289**	*e*P		**P**	**14 35 17.5**	**0.0**
ERBR				*e**PP		**pP**	**14 35 20.0**	**-2.1**
ERBR				*e*S		**S**	**14 40 01.1**	**+0.8**
ERBR				pmax		pmax		
	comp=Z,6.0nm,0.6s							
LABN	**Labinsk**	**27.86**	**287**	*e*P		**P**	**14 35 17.0**	**-0.7**
LABN				*e**PP		**pP**	**14 35 18.9**	**-3.4**
LABN				*e*S		**S**	**14 40 00.3**	**-0.4**
LABN				pmax		pmax		
	comp=Z,21nm,0.5s							
CMAR	**Chiang Mai Arr**	**29.59**	**140**	LR		LR	14 48 02.4	
	comp=Z,13nm,20.9s,baz=195,slow=38							
OBN	**Obninsk**	**30.07**	**309**	⇑*e*P		**P**	**14 35 39.1**	**+1.9**
OBN				pmax		pmax		
	comp=Z,5.0nm,0.8s							
ANN	**Anapa**	**30.13**	**288**	*e*P		**P**	**14 35 40.3**	**+2.5**
ANN				*e**PP		**pP**	**14 35 43.7**	**+1.3**
ANN				*e*S		**S**	**14 40 41.1**	**+4.9**
ANN				pmax		pmax		
	comp=Z,44nm,0.9s							
CN2	**Changchun**	**32.94**	**73**	*e*P		**P**	**14 36 04.9**	**+2.4**
CN2				pmax		pmax		
	comp=Z,10.0nm,0.6s							
ARCES	**ARCESS Array B**	**37.88**	**332**	P		**P**	**14 36 44.5**	**-0.2**
	comp=Z,1.5nm,0.7s,baz=96,slow=9.2,SNR=4.2							
	comp=Z,1.5nm,0.7s							
ILAR	**Eielson Array**	**66.40**	**20**	P		**P**	**14 40 15.2**	**-1.5**
	comp=Z,0.7nm,0.9s,baz=325,slow=6.1,SNR=6.3							
	comp=Z,0.7nm,0.9s							
TORD	**Torodi Ar. Bea**	**72.34**	**272**	P		**P**	**14 40 55.1**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=48,slow=3.7,SNR=2.1							
	comp=Z,0.2nm,0.5s							
WRAB	**Tennant Creek**	**80.45**	**129**	⇑*e*P		**P**	**14 41 43.0**	**+3.0**
WRAB				pmax		pmax		
	comp=Z,8.0nm,0.6s							
WRA	**Warramunga Arr**	**80.45**	**129**	P		**P**	**14 41 37.8**	**-2.2**
	comp=Z,0.4nm,0.9s,baz=330,slow=5.8,SNR=2.1							
	comp=Z,0.4nm,0.9s							
ASAR	**Alice Springs**	**83.17**	**131**	P		**P**	**14 41 52.2**	**-2.1**
	comp=Z,0.1nm,0.5s,baz=325,slow=5.8,SNR=1.4							
	comp=Z,0.1nm,0.5s							
NVL	**N'lazarevskaya**	**123.49**	**202**	*e*PKIKP		PKPdf	14 48 11.9	-12
NVL				pmax		pmax		
	comp=Z,7.0nm,0.9s							

IDC 06 14:35:13.3±10.0, 15°.36N×104°.03W, h0km, mb3.6/3, mbtmp3.6/5, ML3.3/2, MS3.7/35, Error ellipse: s-maj=239.7km s-min=65.6km az=116.0, Off coast of Michoacan

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**8.95**	**78**	LR		LR	14 40 33.4	
	comp=Z,556nm,19.2s,baz=258,slow=36							
TXAR	**Lajitas Array**	**13.92**	**1**	Pn		Pn	14 38 32.9	+1.0
	baz=185,slow=9.6,SNR=13							
TXAR				LR		LR	14 43 18.9	
	comp=Z,154nm,18.1s,baz=177,slow=35							
	1.9nm,1.1s							
JTS	**Las Juntas de**	**19.27**	**103**	LR		LR	14 45 14.3	
	comp=Z,150nm,21.8s,baz=268,slow=31							
ANMO	**Albuquerque**	**19.63**	**354**	P		P	14 39 43.5	-0.2
	0.1nm,0.3s,baz=155,slow=15,SNR=5.5							
ANMO				LR		LR	14 47 17.0	
	comp=Z,162nm,20.5s,baz=180,slow=37							
	4.5nm,1.2s							
ANMO				AML		AML		
PFO	**Pinyon Flats O**	**21.37**	**330**	LR		LR	14 47 10.4	
	comp=Z,315nm,18.7s,baz=156,slow=34							
NVAR	**Mina Array Bea**	**26.20**	**334**	P		P	14 40 49.9	-0.1
	0.7nm,0.9s,baz=144,slow=9.4,SNR=1.8							
NVAR				LR		LR	14 50 01.9	
	comp=Z,184nm,18.6s,baz=100,slow=34							
	0.7nm,0.9s							
TKL	**Tuckaleechee C**	**27.15**	**38**	LR		LR	14 54 51.2	
	comp=Z,103nm,18.5s,baz=214,slow=43							
PDAR	**Pinedale Array**	**27.73**	**351**	P		P	14 41 04.7	+1.0
	0.5nm,0.9s,baz=161,slow=10,SNR=3.6							
	0.5nm,0.9s							
YBH	**Yreka Blue Hor**	**30.84**	**332**	LR		LR	14 52 52.2	
	comp=Z,120nm,18.7s,baz=150,slow=34							
ROSC	**El Rosal**	**31.01**	**107**	LR		LR	14 51 15.1	
	comp=Z,131nm,21.3s,baz=277,slow=31							
ATAH	**Atahualpa**	**33.83**	**130**	LR		LR	14 52 37.7	
	comp=Z,253nm,20.9s,baz=295,slow=31							
ULM	**Lac du Bonnet**	**35.43**	**9**	LR		LR	14 56 38.0	
	comp=Z,165nm,21.0s,baz=192,slow=36							
SADO	**Sadowa**	**36.09**	**31**	LR		LR	14 58 12.1	
	comp=Z,106nm,20.1s,baz=290,slow=38							
SJG	**San Juan**	**36.34**	**80**	LR		LR	14 58 31.6	
	comp=Z,28nm,18.1s,baz=94,slow=38							
NNA	**Nana**	**38.24**	**134**	LR		LR	14 55 27.0	
	comp=Z,120nm,20.6s,baz=333,slow=32							
BBB	**Bella Bella**	**41.44**	**338**	LR		LR	14 59 36.8	
	comp=Z,110nm,19.4s,baz=158,slow=35							
DLBC	**Dease Lake**	**47.16**	**342**	LR		LR	15 03 45.3	
	comp=Z,134nm,19.3s,baz=86,slow=36							
LPAZ	**La Paz**	**47.38**	**130**	LR		LR	15 01 08.4	
	comp=Z,220nm,21.5s,baz=280,slow=33							
YKA	**Yellowknife Ar**	**47.67**	**353**	LR		LR	15 03 32.1	
	comp=Z,64nm,19.4s,baz=359,slow=36							
SCHQ	**Schefferville**	**48.76**	**28**	LR		LR	15 05 29.6	
	comp=Z,90nm,18.7s,baz=344,slow=37							
MDP	**Montagnes des**	**51.47**	**96**	LR		LR	15 06 13.1	
	comp=Z,40nm,18.6s,baz=318,slow=36							
FRB	**Frobisher Bay**	**54.19**	**19**	LR		LR	15 06 35.6	
	comp=Z,110nm,20.5s,baz=258,slow=35							
PPT	**Papeete**	**55.56**	**236**	LR		LR	15 03 28.1	
	comp=Z,49nm,20.3s,baz=52,slow=30							
ILAR	**Eielson Array**	**57.26**	**340**	P		P	14 45 01.9	-0.5
	0.9nm,1.0s,baz=124,slow=7.1,SNR=5.3							
	0.9nm,1.0s							
RES	**Resolute Bay**	**59.55**	**3**	LR		LR	15 10 43.6	
	comp=Z,71nm,18.1s,baz=224,slow=36							
CPUP	**Villa Florida**	**61.47**	**132**	LR		LR	15 11 55.2	
	comp=Z,33nm,18.2s,baz=270,slow=36							
SFJD	**Kangerlussuaq**	**62.09**	**21**	LR		LR	15 15 23.8	
	comp=Z,156nm,20.1s,baz=193,slow=39							
BDFB	**Brasilia**	**63.32**	**117**	LR		LR	15 11 08.3	
	comp=Z,38nm,18.2s,baz=48,slow=34							
PLCA	**Paso Flores**	**63.87**	**152**	LR		LR	15 07 24.7	
	comp=Z,110nm,21.2s,baz=340,slow=30							
RAR	**Rarotonga**	**65.67**	**238**	LR		LR	15 05 57.9	
	comp=Z,114nm,21.1s,baz=90,slow=28							
AFI	**Afiamalu**	**73.03**	**250**	LR		LR	15 10 50.0	
	comp=Z,39nm,19.3s,baz=45,slow=29							
BORG	**Borgarnes**	**73.12**	**26**	LR		LR	15 16 56.1	
	comp=Z,29nm,20.0s,baz=200,slow=34							
SPITS	**Spitsbergen Ar**	**80.98**	**10**	LR		LR	15 23 16.9	
	comp=Z,88nm,18.3s,baz=296,sl

USRK					AML	AML			
KSRS	**Korea Array**	**12.41**	**259**		Pn	**Pn**	**14 48 02.0**	**+2.7**	
	0.1nm,0.3s,baz=71,slow=16,SNR=2.5								
	0.9nm,0.7s								
KSRS					AML	AML			
PETK	**Petropavlovsk-**	**15.60**	**34**		Pn	**Pn**	**14 48 42.2**	**-0.2**	
	0.1nm,0.3s,baz=224,slow=9.8,SNR=1.7								
	6.5nm,1.1s								
PETK					AML	AML			
YAK	**Yakutsk**	**22.66**	**343**		LR	LR	14 59 15.7		
	comp=Z,58nm,18.0s,baz=158,slow=38								
TLY	**Talaya**	**29.07**	**305**		LR	LR	15 03 05.5		
	comp=Z,34nm,19.0s,baz=359,slow=37								
H11N2	**WAKE ISLAND Hy**	**29.20**	**129**		T	T	15 21 49.0		
	baz=322,slow=75,SNR=53								
H11N1	**WAKE ISLAND Hy**	**29.21**	**129**		T	T	15 21 49.8		
	baz=322,slow=75,SNR=62								
H11N3	**WAKE ISLAND Hy**	**29.22**	**129**		T	T	15 21 45.2		
	baz=322,slow=75,SNR=50								
H11S1	**WAKE ISLAND Hy**	**30.05**	**131**		T	T	15 22 53.9		
	baz=325,slow=74,SNR=29								
H11S3	**WAKE ISLAND Hy**	**30.05**	**131**		T	T	15 22 47.5		
	baz=325,SNR=25								
H11S2	**WAKE ISLAND Hy**	**30.07**	**131**		T	T	15 22 49.1		
	baz=325,slow=74,SNR=26								
NRIK	**Noril'sk**	**40.39**	**333**		LR	LR	15 10 33.8		
	comp=Z,86nm,19.1s,baz=165,slow=38								
ZAA0	**Zalesovo Array**	**40.47**	**309**		P	**P**	**14 52 39.5**	**-0.9**	
ZALV	**Zalesovo Beam**	**40.47**	**309**		P	**P**	**14 52 39.8**	**-0.5**	
	1.6nm,0.5s,baz=82,slow=7.8,SNR=7.6								
	1.6nm,0.5s								
ZALV	**Zalesovo Beam**	**40.47**	**309**		P	**P**	**14 52 39.6**	**-0.7**	
IMAR	**Indian Mountai**	**42.56**	**33**		P	**P**	**14 52 59.1**	**+1.7**	
D22K	**Ayikyak River**	**43.23**	**28**		P	**P**	**14 53 03.8**	**+1.0**	
MK31	**Makanchi Array**	**43.39**	**299**		P	**P**	**14 53 03.8**	**-0.6**	
MK31					IAmb	IAmb	14 53 24.0		
	comp=Z,6.1nm,1.5s								
MKAR	**Makanchi Array**	**43.39**	**299**		P	**P**	**14 53 03.2**	**-1.1**	
	comp=Z,1.2nm,0.6s,baz=87,slow=11,SNR=13								
MKAR					LR	LR	15 12 28.1		
	comp=Z,60nm,18.9s,baz=339,slow=38								
	comp=Z,1.2nm,0.6s								
MKAR	**Makanchi Array**	**43.39**	**299**		P	**P**	**14 53 03.7**	**-0.6**	
MAKZ	**Makanchi**	**43.59**	**299**		P	**P**	**14 53 04.4**	**-1.6**	
MAKZ					IAmb	IAmb	14 53 21.7		
	comp=Z,8.2nm,1.4s								
CMAR	**Chiang Mai Arr**	**43.97**	**253**		P	**P**	**14 53 08.9**	**-0.4**	
	comp=Z,0.4nm,0.5s,baz=52,slow=5.8,SNR=5.2								
	comp=Z,0.4nm,0.5s								
CMAR	**Chiang Mai Arr**	**43.97**	**253**		P	**P**	**14 53 07.1**	**-2.2**	
E24K	**Your Creek**	**44.72**	**30**		P	**P**	**14 53 16.9**	**+2.1**	
KURK	**Kurchatov**	**44.77**	**305**		P	**P**	**14 53 14.2**	**-1.0**	
KURK					IAmb	IAmb	14 53 14.7		
	comp=Z,3.1nm,0.6s								
KURBB	**Kurchatov Arra**	**44.84**	**305**		P	**P**	**14 53 14.8**	**-1.0**	
	comp=Z,4.3nm,0.6s,baz=78,slow=8.7,SNR=15								
	comp=Z,4.3nm,0.6s								
ILAR	**Eielson Array**	**45.43**	**34**		P	**P**	**14 53 21.6**	**+1.2**	
	comp=Z,0.3nm,0.6s,baz=257,slow=5.7,SNR=8.0								
	comp=Z,0.3nm,0.6s								
ILAR	**Eielson Array**	**45.43**	**34**		P	**P**	**14 53 20.5**	**+0.1**	
BMAR	**Burnt Mountain**	**46.22**	**31**		P	**P**	**14 53 27.7**	**+1.1**	
F26K	**Sheenjek River**	**46.37**	**30**		P	**P**	**14 53 29.0**	**+1.2**	
F26K					IAmb	IAmb	14 53 41.1		
	comp=Z,3.6nm,1.0s								
C27K	**Jago River**	**46.45**	**28**		P	**P**	**14 53 29.4**	**+1.0**	
C27K					IAmb	IAmb	14 53 47.9		
	comp=Z,4.7nm,1.3s								
SCRK	**Sand Creek**	**46.76**	**35**		P	**P**	**14 53 31.5**	**+0.5**	
K27K	**Chicken**	**47.59**	**35**		P	**P**	**14 53 38.8**	**+1.5**	
BOOM	**Boomskoye usch**	**49.07**	**295**		P	**P**	**14 53 48.6**	**-0.6**	
BOOM					IAmb	IAmb	14 54 12.0		
	comp=Z,2.6nm,0.9s								
BVAR	**Borovoye Array**	**49.09**	**310**		P	**P**	**14 53 48.8**	**-0.3**	
	comp=Z,1.2nm,0.6s,baz=79,slow=8.7,SNR=3.9								
	comp=Z,1.2nm,0.6s								
BORK	**Borovoye**	**49.13**	**310**		P	**P**	**14 53 49.5**	**+0.2**	
BORK					IAmb	IAmb	14 53 56.2		
	comp=Z,3.0nm,0.7s								
ARTI	**Arti**	**54.55**	**317**		P	**P**	**14 54 29.3**	**-0.4**	
AB31	**Akbulak array**	**56.58**	**309**		IAmb	IAmb	14 54 44.1		
	comp=Z,2.0nm,0.9s								
ABKAR	**Akbulak array**	**56.58**	**309**		P	**P**	**14 54 44.0**	**-0.4**	
WB0	**Warramunga Arr**	**60.96**	**190**		P	**P**	**14 55 14.0**	**-1.0**	
WB0					IAmb	IAmb	14 55 48.9		
	comp=Z,4.4nm,1.1s								
WR8	**Warramunga Arr**	**61.13**	**189**		P	**P**	**14 55 15.2**	**-1.0**	
WRA	**Warramunga Arr**	**61.14**	**190**		P	**P**	**14 55 14.6**	**-1.6**	
	comp=Z,0.5nm,0.6s,baz=7.7,slow=6.7,SNR=4.5								
	comp=Z,0.5nm,0.6s								
AS31	**Alice Springs**	**64.86**	**189**		P	**P**	**14 55 41.1**	**+0.2**	
ASAR	**Alice Springs**	**64.87**	**189**		P	**P**	**14 55 40.1**	**-0.8**	
	comp=Z,0.2nm,0.6s,baz=6.1,slow=7.5,SNR=5.5								
	comp=Z,0.2nm,0.6s								
ASAR	**Alice Springs**	**64.87**	**189**		P	**P**	**14 55 41.0**	**+0.1**	
FINES	**FINESS Array B**	**66.04**	**332**		P	**P**	**14 55 47.4**	**-0.7**	
	comp=Z,1.1nm,0.5s,baz=49,slow=7.9,SNR=12								
FINES					LR	LR	15 30 14.2		
	comp=Z,75nm,19.2s,baz=266,slow=41								
	comp=Z,1.1nm,0.5s								
FINES	**FINESS Array B**	**66.04**	**332**		P	**P**	**14 55 47.7**	**-0.4**	
KBZ	**Khabaz**	**69.47**	**310**		P	**P**	**14 56 10.2**	**+0.2**	
	comp=Z,2.3nm,0.9s,baz=76,slow=4.2,SNR=3.0								
	comp=Z,2.3nm,0.9s								
HFS	**Hagfors**	**71.12**	**336**		LR	LR	15 30 38.6		
	comp=Z,57nm,18.4s,baz=310,slow=38								
PDAR	**Pinedale Array**	**73.92**	**47**		P	**P**	**14 56 38.0**	**+0.8**	
	comp=Z,0.1nm,0.3s,baz=296,slow=5.5,SNR=1.8								
	comp=Z,0.1nm,0.3s								
PDAR	**Pinedale Array**	**73.92**	**47**		P	**P**	**14 56 37.7**	**+0.5**	
MLR	**Muntele Rosu**	**77.33**	**320**		LR	LR	15 34 54.8		
	comp=Z,73nm,18.4s,baz=334,slow=39								
VRAC	**Vranov**	**78.62**	**328**		LR	LR	15 36 56.6		
	comp=Z,72nm,18.9s,baz=324,slow=40								

*SJA **06** 14:57:20.5±0.8,29°.76S×72°.29W,h13km±5km, ML3.8, MW3.8*
*GUC **06** 14:57:25.2±0.5,29°.82S×72°.06W,h36km±2km, ML3.8, Presumed earthquake*

ISC 06 14:57:23.0±1.8,29°.77S±0°.04×72°.17W±0°.07,h10km±11km, n29,σ1°46/55,7C-3D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
CO05	**La Serena**	**0.82**	**101**	*eP*		**Pg**	**14 57 38.5**	**-0.4**
CO05				*eS*		**Sg**	**14 57 49.0**	**-0.6**
CO05				IAML			14 57 50.0	
	comp=N,5μm,0.4s							
CO06	**Fray Jorge**	**1.01**	**153**	*eP*		**Pb**	**14 57 42.0**	**-0.7**
CO06				*eS*		**Sb**	**14 57 54.6**	**-1.5**
CO06				IAML			14 57 59.3	
	comp=N,7μm,0.1s							
GO04	**Tololo Observa**	**1.25**	**109**	*eP*		**Pn**	**14 57 46.0**	**-0.9**
GO04				*eS*		**Sb**	**14 58 02.0**	**-1.3**
GO04				IAML			14 58 02.9	
	comp=Z,4μm,0.2s							
GO04	**Tololo Observa**	**1.25**	**109⇓**	*eP*		**Pn**	**14 57 45.6**	**-1.3**
GO04				*eS*		**Sb**	**14 58 01.0**	**-2.2**
GO04				IAML			14 58 05.2	
	comp=N,9μm,0.5s							
LCO	**Las Campanas**	**1.49**	**60**	*eP*		**Pn**	**14 57 50.1**	**0.0**
LCO				*eS*		**Sg**	**14 58 12.6**	**+1.7**
LCO				IAML			14 58 14.4	
	comp=Z,1μm,0.7s							
LCO	**Las Campanas**	**1.49**	**60⇑**	*eP*		**Pn**	**14 57 50.1**	**0.0**
LCO				*eS*		**Sn**	**14 58 09.4**	**-0.2**
LCO				IAML			14 58 15.4	
	comp=Z,4μm,0.2s							
CO03	**El Pedregal**	**1.67**	**130**	*eP*		**Pn**	**14 57 52.9**	**+0.5**
CO03				*eS*		**Sn**	**14 58 14.7**	**+0.8**
CO03				IAML			14 58 16.5	
	comp=Z,451nm,0.3s							
CO03	**El Pedregal**	**1.67**	**130⇑**	*eP*		**Pn**	**14 57 52.1**	**-0.3**
CO03				*eS*		**Sn**	**14 58 12.4**	**-1.5**
CO03				IAML			14 58 15.5	
	comp=E,1μm,0.3s							
CO02	**Combarbal**	**1.75**	**145**	*eP*		**Pn**	**14 57 54.1**	**+0.5**
CO02				*eS*		**Sb**	**14 58 18.2**	**+0.7**
CO02				IAML			14 58 24.7	
	comp=Z,928nm,0.8s							
CO02	**Combarbal**	**1.75**	**145⇑**	*eP*		**Pn**	**14 57 54.0**	**+0.5**
CO02				*eS*		**Sn**	**14 58 15.2**	**-0.9**
CO02				IAML			14 58 25.6	
	comp=N,3μm,0.3s							
CO01	**Juntas del Tor**	**1.81**	**97**	*eP*		**Pn**	**14 57 55.2**	**+0.7**
CO01				*eS*		**Sn**	**14 58 17.1**	**-0.6**
CO01				*eS*		**Sn**	**14 58 17.2**	**-0.6**
CO01				IAML			14 58 22.1	
	comp=Z,496nm,0.8s							
CO01	**Juntas del Tor**	**1.81**	**97⇓**	*eP*		**Pn**	**14 57 55.0**	**+0.5**
CO01				*eS*		**Sn**	**14 58 16.9**	**-0.9**
CO01				IAML			14 58 19.4	
	comp=N,852nm,0.4s							
AC04	**Llanos de Chal**	**1.83**	**32**	*eP*		**Pn**	**14 57 54.4**	**-0.1**
AC04	**Llanos de Chal**	**1.83**	**32⇑**	*eP*		**Pn**	**14 57 54.3**	**-0.2**
AC04				*eS*		**Sg**	**14 58 24.3**	**+2.4**
AC05	**El Transito**	**1.90**	**61**	*eP*		**Pn**	**14 57 55.1**	**-0.5**
AC05	**El Transito**	**1.90**	**61⇑**	*eP*		**Pn**	**14 57 56.2**	**+0.6**
AC05				*eS*		**Sb**	**14 58 21.5**	**-0.1**
AC05				IAML			14 58 27.3	
	comp=N,624nm,0.6s							
AROD	**Rodeo**	**2.37**	**100**	*eP*		**Pn**	**14 58 04.7**	**+2.4**
AROD				*eS*		**Sb**	**14 58 36.1**	**+0.6**
CO04	**Los Peladeros**	**2.49**	**156**	*eP*		**Pn**	**14 58 04.9**	**+1.0**
CO04				*eS*		**Sn**	**14 58 33.0**	**-1.5**
CO04				IAML			14 58 52.6	
	comp=N,641nm,0.8s							
ACDV	**Cuesta del Vie**	**2.68**	**99**	*eP*		**Pn**	**14 58 06.0**	**-0.3**
ACDV				*eS*		**Sb**	**14 58 45.6**	**+1.5**
ACCO	**Cerro Coronel**	**2.81**	**108**	*eP*		**Pb**	**14 58 11.7**	**-1.8**
ACCO				*eS*		**Sn**	**14 58 45.0**	**+2.6**
ACCO				IAML			14 58 59.7	
	comp=Z,144nm,1.0s							
RTLS	**Leoncito**	**3.19**	**130**	*eP*		**Pn**	**14 58 17.1**	**+3.5**
RTLS				*eS*		**Sn**	**14 58 55.5**	**+3.6**
RTLS				IAML			14 59 10.2	
	comp=Z,537nm,0.6s							
VA03	**San Esteban**	**3.29**	**156**	*eP*		**Pn**	**14 58 17.8**	**+3.0**
VA03				*eS*		**Sn**	**14 58 56.5**	**+2.5**
VA03				IAML			14 59 16.3	
	comp=Z,214nm,0.5s							
VA03	**San Esteban**	**3.29**	**156**	*eP*		**Pn**	**14 58 17.4**	**+2.7**
VA03				*eS*		**Sn**	**14 58 53.6**	**-0.5**
VA03				IAML			14 59 12.8	
	comp=E,338nm,0.6s							
ROCH	**El Roble**	**3.34**	**163⇑**	*eP*		**Pn**	**14 58 16.2**	**+0.6**
ROCH				*eP*		**Pn**	**14 58 16.2**	**+0.6**
ROCH				*eS*		**Sn**	**14 58 54.1**	**-1.4**
ROCH				*eS*		**Sn**	**14 58 54.1**	**-1.4**
ROCH				IAML			14 59 17.1	
	comp=N,211nm,0.3s							
MT02	**Curacav**	**3.59**	**166**	*eP*		**Pn**	**14 58 19.5**	**+0.7**
MT02				*eS*		**Sn**	**14 59 01.1**	**-0.1**
MT02				IAML			14 59 22.9	
	comp=Z,92nm,0.8s							
MT02	**Curacav**	**3.59**	**166**	*eP*		**Pn**	**14 58 19.3**	**+0.5**
PEL	**Peldehue**	**3.60**	**160**	*eP*		**Pn**	**14 58 20.8**	**+1.9**
MT09	**Talagante**	**4.12**	**166**	*eP*		**Pn**	**14 58 27.0**	**+0.8**
MT01	**Popeta**	**4.16**	**169⇑**	*eP*		**Pn**	**14 58 26.8**	**+0.2**

WEL 06 15:00:41.3±0.9,36°S±5°×17°5E±°,h5km,M1.8/7,ML2.0/7, MLv1.8/7,Error ellipse: s-maj=8.4km s-min=4.1km az=42.3,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
WBSC	**Whangarei Boys**	**0.58**	**275**	P		Pb	15 00 53.3	-0.6
WCZ	**Waipu Caves**	**0.58**	**252**	P		Pg	15 00 52.9	+0.5
WCZ				S		Sg	15 01 00.7	+0.8
WCZ				AML		AML		
GRZ	**Great Barrier**	**0.60**	**144**	P		Pg	15 00 52.8	+0.1
GRZ				S		Sb	15 01 01.8	-1.2
GRZ				AML		AML		
GRZ				AML		AML		
ABAZ	**Army Bay**	**0.85**	**191**	P		Pg	15 00 57.9	+0.4
ABAZ				S		Sg	15 01 09.0	+0.4
ABAZ				AML		AML		
ABAZ				AML		AML		
MBAZ	**Motutapu North**	**1.01**	**186**	P		Pg	15 01 00.2	-0.4
MBAZ				AML		AML		
MBAZ				AML		AML		
WIAZ	**Waiheke Island**	**1.03**	**175**	P		Pg	15 01 00.3	-0.7
WIAZ				AML		AML		
WIAZ				AML		AML		
RVAZ	**Riverhead Bore**	**1.06**	**200**	P		Pb	15 01 02.2	0.0
RVAZ				S		Sb	15 01 16.9	+0.5
RVAZ				AML		AML		
RVAZ				AML		AML		
ETAZ	**East Tamaki Re**	**1.19**	**184**	P		Pg	15 01 02.8	-1.2
ETAZ				AML		AML		
WTAZ	**Waiatarua**	**1.22**	**197**	P		Pn	15 01 05.4	+0.4
OUZ	**Omahuta**	**1.29**	**295**	P		Pn	15 01 05.2	-0.7
OUZ				S		Sg	15 01 22.1	-0.6
OUZ				AML		AML		
OUZ				AML		AML		
AWAZ	**Awhitu Peninsu**	**1.33**	**193**	P		Pg	15 01 06.9	+0.1
AWAZ				AML		AML		
MKAZ	**Moumakai**	**1.34**	**175**	P		Pn	15 01 06.6	0.0

*IDC **06** 15:31:09.4±0.9,37°.56N×27°.06E,h0km,mb3.7/3, mbtmp3.6/10,ML3.4/6,MS3.3/3,Error ellipse: s-maj=16.4km s-min=12.9km az=147.0*
*ISK **06** 15:31:09.4,37°.87N×26°.87E,h5km,ML4.0/14*
*AFAD **06** 15:31:09.7,37°.88N×26°.87E,h7km±2km,MW3.8*
*ATH **06** 15:31:09.3,37°.87N×26°.87E,h13km,ML3.8/11,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **06** 15:31:09.8,37°.9N±0°.7×26°.9E±0°.9,h10km±1km,M3.7/11, MLh3.7/11*

ISC 06 15:31:09.9±0.8,37°.86N±0°.01×26°.87E±0°.02,h10km±5km, n114,σ1°02/148,15C-8D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
KRL1	**Karlovasi Samo**	**0.15**	**242**	P		**Pg**	**15 31 13.0**	**-0.2**
KRL1				S		**Sg**	**15 31 15.9**	**+0.4**
KRL1				AML		AML		
SMG	**Samos**	**0.16**	**190**	P		**Pg**	**15 31 13.3**	**-0.1**
SMG				S		**Sg**	**15 31 16.2**	**+0.4**
SMG				AML		AML		
SMG	**Samos**	**0.16**	**190**	P		**Pg**	**15 31 13.1**	**-0.3**
SMG				S		**Sg**	**15 31 16.1**	**+0.4**
SMG				AML		AML		
DGB	**zmir**	**0.19**	**3**	P		**Pg**	**15 31 13.6**	**-0.3**
DGB				S		**Sg**	**15 31 16.5**	**-0.1**
GMLD	**Gumuldur**	**0.21**	**9**	Pg		**Pg**	**15 31 14.3**	**-0.1**
GMLD				Sg		**Sg**	**15 31 17.7**	**+0.3**
GMLD				AML		AML		
SAM2	**Drakei, Karlov**	**0.23**	**243**	P		**Pg**	**15 31 14.2**	**-0.5**
SAM2				S		**Sg**	**15 31 17.9**	**+0.1**
SAM2				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**91**	Pg		**Pg**	**15 31 16.5**	**0.0**
GCAM	**G?zelcaml?**	**0.33**	**120**	P		**Pg**	**15 31 16.7**	**+0.2**
GCAM				S		**Sb**	**15 31 22.0**	**-1.2**
GCAM	**G?zelcaml?**	**0.33**	**120**	Pg		**Pg**	**15 31 16.6**	**+0.2**
GCAM				Sg		**Sb**	**15 31 21.9**	**-1.3**
GCAM				AML		AML		
BEYE	**izmir**	**0.36**	**7**	P		**Pg**	**15 31 17.0**	**-0.1**
BEYE				S		**Sg**	**15 31 22.3**	**+0.3**
ZEYE	**Izmir, Urla-Ze**	**0.47**	**322**	P		**Pg**	**15 31 18.7**	**-0.4**
ZEYE				S		**Sg**	**15 31 25.8**	**+0.3**
DDIM	**Aydin, Didim**	**0.50**	**144**	P		**Pb**	**15 31 19.9**	**-0.9**
DDIM				S		**Sb**	**15 31 27.6**	**-0.6**
BLCB	**Balcova**	**0.54**	**14**	P		**Pg**	**15 31 20.4**	**0.0**
BLCB				S		**Sg**	**15 31 27.9**	**+0.5**
BLCB	**Balcova**	**0.54**	**14**	Pg		**Pg**	**15 31 20.3**	**0.0**
BLCB				Sg		**Sb**	**15 31 28.1**	**-1.1**
BLCB				AML		AML		
DIDI	**Didim-Aydin**	**0.57**	**149**	Pg		**Pg**	**15 31 20.9**	**0.0**
DIDI				Sg		**Sb**	**15 31 29.7**	**-0.3**
DUVT	**Torbali**	**0.58**	**52**	P		**Pg**	**15 31 20.9**	**-0.2**
DUVT				S		**Sg**	**15 31 28.6**	**-0.1**
CESE	**eme**	**0.65**	**316**	Pg		**Pb**	**15 31 22.5**	**-0.8**
CESE				AML		AML		
DAGE	**izmir**	**0.71**	**78**	P		**Pb**	**15 31 23.8**	**-0.6**
DAGE				S		**Sb**	**15 31 33.5**	**-0.7**
KRBN	**Karaburun**	**0.77**	**341**	Pg		**Pb**	**15 31 24.7**	**-0.7**
BAGT	**Foa**	**0.79**	**359**	P		**Pg**	**15 31 25.0**	**-0.2**
BAGT				S		**Sb**	**15 31 37.0**	**+0.5**
YKAV	**Yalikavak-Bodr**	**0.81**	**156**	Pg		**Pb**	**15 31 25.5**	**-0.5**
AYDB	**Zeytinkoy-Aydi**	**0.81**	**84**	Pg		**Pb**	**15 31 26.1**	**-0.1**
AYDB				AML		AML		
CHOS	**Chios island**	**0.83**	**309**	P		**Pg**	**15 31 25.3**	**-0.6**
CHOS				S		**Sb**	**15 31 37.6**	**-0.1**
CHOS				AML		AML		
CHOS	**Chios island**	**0.83**	**309**	Pg		**Pb**	**15 31 25.9**	**-0.5**
CHOS	**Chios island**	**0.83**	**309**	P		**Pg**	**15 31 25.4**	**-0.4**
CHOS				S		**Sb**	**15 31 37.2**	**-0.5**
CHOS				AML		AML		
FOCM	**Foa**	**0.85**	**353**	Pg		**Pb**	**15 31 26.2**	**-0.6**
FOCM				AML		AML		
BODT	**Bodrum**	**0.87**	**156**	P		**Pg**	**15 31 26.0**	**-0.7**
BODT				S		**Sb**	**15 31 39.4**	**+0.5**
BODT				AML		AML		
BODT	**Bodrum**	**0.87**	**156**	Pg		**Pg**	**15 31 26.2**	**-0.5**
BODT				Sg		**Sb**	**15 31 39.2**	**+0.3**
BODT				AML		AML		
KARB	**zmir-Karabur**	**0.88**	**336**	P		**Pg**	**15 31 26.0**	**-0.8**
KARB				S		**Sb**	**15 31 39.0**	**0.0**
IZMR	**zmir-demi**	**0.90**	**72**	P		**Pg**	**15 31 26.7**	**-0.5**
IZMR				S		**Sg**	**15 31 38.0**	**-0.8**
EAG2	**Marmaro, Chios**	**0.91**	**319**	P		**Pg**	**15 31 26.8**	**-0.6**
EAG2				S		**Sb**	**15 31 39.1**	**-0.7**
KLNA	**Kalymnos**	**0.91**	**175**	P		**Pg**	**15 31 27.1**	**-0.3**
KLNA				S		**Sb**	**15 31 39.6**	**-0.3**
MLSB	**Milas**	**0.92**	**128**	Pg		**Pb**	**15 31 27.4**	**-0.5**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.92**	**150**	⇑P		**Pg**	**15 31 27.4**	**-0.2**
BDRM				⇓S		**Sb**	**15 31 40.7**	**+0.5**
BODA	**Bodrum-Mula**	**0.94**	**152**	Pg		**Pb**	**15 31 27.9**	**-0.4**
CAMT	**Merkez**	**0.95**	**21**	P		**Pb**	**15 31 28.4**	**0.0**
CAMT				S		**Sn**	**15 31 42.3**	**-0.6**
NAZL	**Nazilli-Aydin**	**1.13**	**84**	Pn		**Pg**	**15 31 31.1**	**-0.5**
NAZL				AML		AML		
GOMA	**Golmarmara-Man**	**1.18**	**44**	Pn		**Pn**	**15 31 32.3**	**-0.1**
GOMA				AML		AML		
DKL	**Dikili**	**1.21**	**1**	Pn		**Pn**	**15 31 32.8**	**0.0**
DKL				AML		AML		
DKL	**Dikili**	**1.21**	**1**	P		**Pg**	**15 31 31.9**	**-1.1**
DKL				S		**Sg**	**15 31 47.8**	**-1.0**
AKS	**Akhisar**	**1.25**	**36**	Pn		**Pg**	**15 31 33.8**	**-0.2**
AKS				AML		AML		
DAT	**Datca**	**1.27**	**153**	P		**Pn**	**15 31 33.0**	**-0.8**
DAT				AML		AML		
APE	**Apeiranthos**	**1.33**	**234**	P		**Pn**	**15 31 33.2**	**-1.4**
APE				S		**Sn**	**15 31 52.6**	**+0.3**
APE				AML		AML		
APE	**Apeiranthos**	**1.33**	**234**	⇑P		**Pn**	**15 31 33.0**	**-1.5**
APE				⇓S		**Sb**	**15 31 50.8**	**-1.3**
APE	**Apeiranthos**	**1.33**	**234**	P		**Pn**	**15 31 32.8**	**-1.8**
APE				S		**Sb**	**15 31 51.4**	**-0.7**
APE				AML		AML		
YER	**Yerkesik**	**1.34**	**123**	P		**Pn**	**15 31 34.3**	**-0.4**
YER				S		**Sn**	**15 31 53.5**	**+0.9**
ASTA	**Astypalaia**	**1.38**	**198**	P		**Pn**	**15 31 34.9**	**-0.3**
ASTA				AML		AML		
SOMA	**Soma-Manisa**	**1.39**	**22**	Pn		**Pg**	**15 31 36.4**	**-0.2**
SOMA				AML		AML		
TNSA	**Tinos**	**1.39**	**257**	P		**Pn**	**15 31 33.4**	**-2.0**
PRK	**Paraskevi**	**1.46**	**341**	P		**Pn**	**15 31 35.9**	**-0.3**
PRK				S		**Sb**	**15 31 55.6**	**-0.1**
PRK				AML		AML		
PRK	**Paraskevi**	**1.46**	**341**	P		**Pn**	**15 31 35.2**	**-1.1**
GORD	**Gordes-Manisa**	**1.46**	**44**	Pn		**Pg**	**15 31 37.4**	**-0.6**
GORD				AML		AML		
CMBO	**Columbo, Santo**	**1.82**	**221**	P		**Pn**	**15 31 40.5**	**-0.7**
THR2	**Thira island,**	**1.82**	**219**	P		**Pn**	**15 31 41.1**	**-0.2**
THR8	**Santorini-Mono**	**1.83**	**218**	P		**Pn**	**15 31 40.4**	**-1.0**
THERA	**Ancient Thera,**	**1.86**	**217**	P		**Pn**	**15 31 40.7**	**-1.2**
THERA	**Ancient Thera,**	**1.86**	**217**	P		**Pn**	**15 31 40.5**	**-1.4**
THR3	**Thira Island,**	**1.87**	**219**	P		**Pn**	**15 31 41.4**	**-0.5**
THR3	**Thira Island,**	**1.87**	**219**	P		**Pn**	**15 31 39.3**	**-2.6**
THT1	**Athinios (Pele**	**1.87**	**218**	P		**Pn**	**15 31 40.2**	**-1.8**
THT1				S		**Sg**	**15 32 12.4**	**+2.3**
THT1				AML		AML		
SNT5	**Nea Kammeni, S**	**1.88**	**219**	P		**Pb**	**15 31 44.2**	**-0.1**
SNT5				AML		AML		
SNT5	**Nea Kammeni, S**	**1.88**	**219**	P		**Pn**	**15 31 40.9**	**-1.1**
SAP3	**Santorini-Thir**	**1.88**	**221**	P		**Pb**	**15 31 44.0**	**-0.2**
SAP3				S		**Sg**	**15 32 12.5**	**+2.3**
SAP3	**Santorini-Thir**	**1.88**	**221**	P		**Pn**	**15 31 41.6**	**-0.5**
THR5	**Thira Island,**	**1.89**	**221**	P		**Pn**	**15 31 42.2**	**0.0**
THR6	**Thira Island,**	**1.91**	**218**	P		**Pn**	**15 31 42.4**	**-0.1**
ARG	**Arkhangelos**	**1.93**	**148**	P		**Pn**	**15 31 42.2**	**-0.5**
ARG				AML		AML

*NDI **06** 15:32:12.6±2.4, 36.86N×76.01E, h354km±24km, ML3.9, MW4.3, Presumed earthquake*
*IDC **06** 15:33:02.8±1.0, 34.94N×75.13E, h0km, mb3.9/9, mbtmp3.9/14, ML3.5/5, MS3.5/2, Error ellipse: s-maj=31.9km s-min=15.1km az=61.0*
ISC 06 15:33:03.8±0.8, 34.86N±0.08×75.16E±0.09, h10km, n22, σ1s03/18, mb4.0/8, Eastern Kashmir

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ALCI	**Alchi Leh**	**1.79**	**110**	*i* P			Pn	15 33 15.9	-19
ALCI				*i* S			**Sb**	**15 33 59.4**	**-0.2**
ALCI				*i* S			**Sg**	**15 34 00.8**	**-0.7**
ALCI	comp=E,1μm,0.1s			IAML				15 34 01.3	
ALCI	comp=N,505nm,0.4s			IAML				15 34 09.4	
JMU	**Jammu**	**2.09**	**188**	*i* S			Sg	15 34 24.6	+14
TSSA	**Tissa**	**2.18**	**157**	*i* P			Pn	15 33 28.8	-12
BHK	**Bhakra**	**3.60**	**163**	*i* S			**Sb**	**15 34 50.4**	**-1.0**
JOSI	**Joshimath**	**5.67**	**138**	*i* P			Pn	15 34 01.6	-27
JOSI				*i* S			Sn	15 35 23.7	-10
JOSI	comp=N,85nm,0.5s			IAML				15 35 42.6	
AAK	**Ala-Archa**	**7.78**	**356**	Pn			**Pn**	**15 34 57.7**	**+0.4**
	comp=N,0.3nm,0.3s,baz=102,slow=5.1,SNR=4.2								
	comp=N,1.0nm,0.5s								
AAK				AML			AML		
MKAR	**Makanchi Array**	**13.08**	**22**	Pn			**Pn**	**15 36 10.1**	**+0.5**
	comp=N,0.1nm,0.3s,baz=194,slow=12,SNR=4.3								
	comp=N,0.2nm,0.5s								
MKAR				AML			AML		
KURBB	**Kurchatov Arra**	**15.95**	**8**	Pn			**Pn**	**15 36 48.5**	**+0.4**
	comp=N,0.3nm,0.3s,baz=198,slow=11,SNR=7.7								
	comp=N,0.8nm,0.3s								
KURBB				AML			AML		
BVAR	**Borovoye Array**	**18.48**	**351**	P			**P**	**15 37 17.7**	**-2.0**
	comp=N,0.1nm,0.3s,baz=157,slow=9.9,SNR=9.0								
	comp=N,1.7nm,0.6s								
BVAR				AML			AML		
AKTO	**Aktyubinsk**	**19.96**	**326**	P			**P**	**15 37 35.4**	**-0.6**
	comp=N,0.8nm,0.3s,baz=110,slow=11,SNR=8.4								
	comp=N,3.7nm,0.5s								
AKTO				AML			AML		
ZALV	**Zalesovo Beam**	**20.26**	**17**	P			**P**	**15 37 37.9**	**-1.3**
	comp=N,1.8nm,0.4s,baz=206,slow=9.1,SNR=11								
	comp=N,1.8nm,0.4s								
CMAR	**Chiang Mai Arr**	**26.70**	**122**	P			**P**	**15 38 44.5**	**+1.1**
	comp=N,0.5nm,0.3s,baz=311,slow=11,SNR=8.4								
	comp=N,0.5nm,0.3s								
OBN	**Obninsk**	**33.38**	**319**	LR			LR	15 56 21.4	
	comp=N,152nm,18.1s,baz=195,slow=42								
HILR	**Hailar Array B**	**35.59**	**52**	LR			LR	15 57 10.9	
	comp=N,36nm,20.8s,baz=195,slow=41								
FINES	**FINESS Array B**	**40.73**	**326**	P			**P**	**15 40 45.0**	**+0.6**
	comp=N,4.2nm,1.0s,baz=118,slow=9.1,SNR=14								
	comp=N,4.2nm,1.0s								
ARCES	**ARCESS Array B**	**43.96**	**337**	P			**P**	**15 41 10.2**	**-0.5**
	comp=N,1.2nm,0.4s,baz=119,slow=7.8,SNR=8.8								
	comp=N,1.2nm,0.4s								
HFS	**Hagfors**	**46.43**	**323**	P			**P**	**15 41 30.9**	**+0.5**
	comp=N,1.5nm,0.7s,baz=97,slow=12,SNR=2.0								
	comp=N,1.5nm,0.7s								
NB2	**NORSAR Subarra**	**47.71**	**324**	P			**P**	**15 41 40.4**	**-0.1**
	comp=Z,0.7nm,0.5s,baz=92,slow=7.9								
NOA	**NORSAR Array B**	**47.71**	**324**	P			**P**	**15 41 39.7**	**-0.7**
	comp=Z,1.0nm,0.7s,baz=93,slow=7.5,SNR=3.9								
	comp=Z,1.0nm,0.7s								
WRA	**Warramunga Arr**	**78.26**	**124**	P			**P**	**15 45 05.5**	**+1.4**
	comp=Z,0.4nm,0.7s,baz=312,slow=6.0,SNR=3.4								
	comp=Z,0.4nm,0.7s								
ASAR	**Alice Springs**	**80.56**	**127**	P			**P**	**15 45 18.1**	**+1.6**
	comp=Z,0.2nm,0.8s,baz=305,slow=5.1,SNR=4.5								
	comp=Z,0.2nm,0.8s								
STKA	**Stephens Creek**	**91.11**	**129**	P			**P**	**15 46 07.9**	**-0.8**
	comp=Z,1.3nm,0.5s,baz=334,slow=6.5,SNR=3.2								
	comp=Z,1.3nm,0.5s								

CRAAG 06 15:40:35.6, 36.33N×6.75E, MI2.7, Algrie 08km NE El-Khroub, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CASM	**Ain Smara**	**0.22**	**252**	P			Pg	15 40 46.6	+6.8
CBST	**Bordj Sabath**	**0.29**	**74**	P			Pb	15 40 42.8	-1.0
CTEI	**Djebel Teioual**	**0.38**	**226**	P			Pb	15 40 44.6	-0.8
DFRA	**Djebel Bou Aff**	**0.74**	**287**	P			Pb	15 40 51.6	+0.2

*IDC **06** 15:56:41.6±19.0, 5.59N×124.17E, h486km±256km, mb3.1/6, mbtmp4.0/6, Error ellipse: s-maj=178.9km s-min=16.8km az=52.0*
ISC 06 15:56:42.4±1.1, 5.56N±0.02×124.2E±0.03, h500km, n7, σ0s44/7, mb3.6/6, Mindanao

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**1.56**	**72**	*e*P			P	15 57 51.4	+5.8
DDMP				*e*S			**S**	**15 58 36.6**	**-0.2**
WRA	**Warramunga Arr**	**27.29**	**159**	P			**P**	**16 01 45.6**	**-0.6**
	0.8nm,0.4s,baz=338,slow=9.0,SNR=14								
	0.8nm,0.4s								
CMAR	**Chiang Mai Arr**	**27.77**	**300**	P			**P**	**16 01 50.2**	**-0.3**
	0.5nm,0.6s,baz=119,slow=7.5,SNR=5.2								
	0.5nm,0.6s								
ASAR	**Alice Springs**	**30.61**	**162**	P			**P**	**16 02 15.1**	**-0.1**
	1.3nm,0.5s,baz=342,slow=7.0,SNR=61								
	1.3nm,0.5s								
STKA	**Stephens Creek**	**40.80**	**157**	P			**P**	**16 03 40.2**	**+0.4**
	1.7nm,0.7s,baz=329,slow=5.9,SNR=2.5								
	1.7nm,0.7s								
MKAR	**Makanchi Array**	**54.59**	**326**	P			**P**	**16 05 23.5**	**+0.3**
	1.2nm,0.4s,baz=122,slow=7.7,SNR=29								
	1.2nm,0.4s								
KURBB	**Kurchatov Arra**	**58.81**	**328**	P			**P**	**16 05 52.2**	**+0.1**
	0.8nm,0.5s,baz=129,slow=6.2,SNR=21								
	0.8nm,0.5s								

*IDC **06** 16:02:47.6±1.7, 51.08N×176.12W, h0km, mb3.5/4, mbtmp3.6/5, ML3.9/1, MS3.4/1, Error ellipse: s-maj=54.6km s-min=27.7km az=159.0*
*AEIC **06** 16:03:00.3±5.7, 51.57N±0.05×175.75W±0.07, h36km±8km, Error ellipse: s-maj=7.0km s-min=5.6km az=156.0*
*NEIC **06** 16:03:00.0±2.7, 51.70N±0.06×175.76W±0.07, h65km±6km, mb3.9/25, ML4.0/10, ML3.6(AEIC), Error ellipse: s-maj=9.2km s-min=5.7km az=172.0*
ISC 06 16:02:59.4±1.1, 51.6N±0.1×175.81W±0.05, h63km±9km, n92, σ1s76/96, mb3.7/5, Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
GSIG	**Igitkin Island**	**0.35**	**348**				**Pn**	**16 03 10.3**	**0.0**
GSIG							**Sn**	**16 03 17.6**	**-0.5**
GSMY	**Great Sitkin M**	**0.43**	**339**				**Pn**	**16 03 11.2**	**+0.3**
GSMY							**Sn**	**16 03 19.4**	**+0.1**
GSCK	**Great Sitkin C**	**0.43**	**329**				**Pn**	**16 03 11.4**	**+0.5**
GSCK							**Sn**	**16 03 19.8**	**+0.4**
ETKA	**Kagalaska Isla**	**0.43**	**301**				**Pn**	**16 03 11.1**	**+0.1**
ETKA							**Sn**	**16 03 19.2**	**-0.1**
GSTD	**Great Sitkin T**	**0.46**	**333**				**Pn**	**16 03 11.7**	**+0.4**
GSTD							**Sn**	**16 03 20.3**	**+0.3**
GSTR	**Great Sitkin T**	**0.48**	**341**				**Pn**	**16 03 12.0**	**+0.6**
GSTR					Sn		**Sn**	**16 03 21.4**	**+1.2**
GSTR	comp=E,13μm,0.4s			IAML				16 03 26.8	
GSSP	**Great Sitkin S**	**0.51**	**333**				**Pn**	**16 03 12.4**	**+0.7**
ADK	**Adak**	**0.60**	**294**				**Pn**	**16 03 13.1**	**+0.6**
ADK	comp=E,12μm,0.3s			IAML				16 03 23.9	
ADAG	**Mount Adagdak**	**0.60**	**305**				**Pn**	**16 03 13.9**	**+1.3**
ADAG							**Sn**	**16 03 24.2**	**+1.8**
KIRH	**Kanaga Island**	**0.84**	**288**				**Pn**	**16 03 16.7**	**+1.2**
KIWB	**Kanaga Island**	**0.86**	**285**				**Pn**	**16 03 16.8**	**+1.0**
KIWB					Sn		**Sn**	**16 03 29.7**	**+1.8**
KIWB	comp=E,4μm,0.5s			IAML				16 03 29.8	
KIWB	comp=N,5μm,0.4s			IAML				16 03 31.1	
KICM	**Kanaga Island**	**0.91**	**288**				**Pn**	**16 03 17.3**	**+1.0**
KICM							**Sn**	**16 03 31.5**	**+2.6**
ATKA	**Atka Island**	**1.14**	**60**				**Pn**	**16 03 19.6**	**+0.3**
KOWE	**Korovin West**	**1.20**	**52**				**Pn**	**16 03 21.5**	**+1.3**
KOWE							**Sn**	**16 03 37.7**	**+2.0**
KOKL	**Mount Kliuchef**	**1.20**	**55**				**Pn**	**16 03 21.5**	**+1.3**
KOKV	**Korovin Volcan**	**1.24**	**54**				**Pn**	**16 03 22.3**	**+1.6**
KONW	**Korovin Northw**	**1.24**	**52**				**Pn**	**16 03 21.9**	**+1.3**
KONW							**Sn**	**16 03 38.4**	**+1.8**
TAPA	**Tanaga Point A**	**1.26**	**279**				**Sn**	**16 03 40.3**	**+3.2**
TAFL	**Tanaga Flats**	**1.31**	**276**				**Pn**	**16 03 23.2**	**+1.7**
TAFL							**Sn**	**16 03 41.4**	**+3.3**
TAFP	**Tanaga Falls P**	**1.38**	**282**				**Pn**	**16 03 24.3**	**+1.8**
TAFP							**Sn**	**16 03 42.5**	**+2.7**
GALAA	**Gareloi Lava P**	**1.85**	**275**				**Pn**	**16 03 31.2**	**+2.4**
GANE	**Gareloi Northe**	**1.86**	**277**				**Pn**	**16 03 31.1**	**+2.2**
GANO	**Gareloi North**	**1.87**	**277**	Pn			**Pn**	**16 03 29.9**	**+0.7**
GAKI	**Gareloi-Kavalg**	**1.88**	**268**				**Pn**	**16 03 31.5**	**+2.3**
CEPE	**Semis` Perret**	**2.84**	**278**				**Pn**	**16 03 44.4**	**+2.1**
LSPA	**Little Sitkin**	**3.50**	**277**				**Pn**	**16 03 53.2**	**+1.9**
OKNC	**Okmok New Cone**	**5.03**	**66**	Pn			**Pn**	**16 04 14.4**	**+2.3**
OKNC	comp=N,46nm,1.2s			IAML				16 05 33.3	
OKNC	comp=E,51nm,1.1s			IAML				16 07 34.5	
OKTU	**Okmok Mt. Tuli**	**5.05**	**67**				**Pn**	**16 04 14.7**	**+2.2**
MGOD	**Makushin Gods**	**5.84**	**65**				**Pn**	**16 04 25.2**	**+2.0**
MREP	**Makushin Rep't**	**5.92**	**65**				**Pn**	**16 04 26.3**	**+2.0**
MSW	**Makushin Switc**	**5.93**	**64**				**Pn**	**16 04 26.4**	**+1.9**
MNAT	**Makushin Natee**	**5.97**	**64**				**Pn**	**16 04 27.1**	**+2.0**
UNV	**Unalaska Valle**	**6.06**	**65**	Pn			**Pn**	**16 04 27.8**	**+1.5**
SPIA	**Saint Paul Isl**	**6.42**	**28**	Pn			**Pn**	**16 04 31.7**	**+0.6**
WECS	**Westdahl Cape**	**7.24**	**62**				**Pn**	**16 04 45.3**	**+2.8**
WTUG	**Tugumak**	**7.56**	**60**				**Pn**	**16 04 48.9**	**+2.1**
ISLZ	**Isanotski Laza**	**7.89**	**62**				**Pn**	**16 04 53.2**	**+1.9**
DT1	**Dutton Round H**	**8.80**	**61**				**Pn**	**16 05 05.3**	**+1.7**
DTNA	**Dutton South F**	**8.82**	**61**				**Pn**	**16 05 05.6**	**+1.6**
SDPT	**Sand Point**	**9.86**	**62**	Pn			**Pn**	**16 05 19.6**	**+1.5**
CHGN	**Chignik**	**11.24**	**59**	Pn			**Pn**	**16 05 37.4**	**+0.4**
N14K	**Kuskokwak Cree**	**11.47**	**38**	Pn			**Pn**	**16 05 40.2**	**+0.2**
N15K	**Kwethluk River**	**12.24**	**40**	Pn			**Pn**	**16 05 52.0**	**+1.3**
O16K	**Kokwok River B**	**12.76**	**44**	Pn			**Pn**	**16 05 59.8**	**+2.1**
SII	**Sitkinak Islan**	**13.58**	**60**	Pn			**Pn**	**16 06 07.1**	**-1.7**
ANM	**Nome**	**14.05**	**19**	Pn			**Pn**	**16 06 14.5**	**-0.5**
OHAK	**Old Harbor**	**14.21**	**58**	Pn			Pn	16 06 12.9	-4.2
I17K	**Unalakleet**	**14.63**	**27**	Pn			**Pn**	**16 06 20.9**	**-1.6**
KDAK	**Kodiak Island**	**14.72**	**56**	Pn			**Pn**	**16 06 21.3**	**-2.4**
KDAK	comp=E,0.5nm,0.3s,baz=251,slow=2.3,SNR=29								
KDAK	comp=E,0.1nm,0.3s,baz=245,slow=14,SNR=1.7				Sn		**Sn**	**16 09 09.7**	**+4.4**
KDAK	comp=E,1.9nm,0.4s			AML			AML		
KDAK	**Kodiak Island**	**14.72**	**56**				**Pn**	**16 06 21.2**	**-2.5**
J18K	**Innoko River**	**15.57**	**33**	Pn			**Pn**	**16 06 32.3**	**-2.4**
CNPM	**China Poot**	**15.90**	**51**	Pn			**Pn**	**16 06 37.4**	**-1.5**
CNPM	comp=Z,14nm,1.3s			IAmb			IAmb	16 06 53.0	
BRLK	**Bradley Lake**	**16.14**	**50**	Pn			**Pn**	**16 06 39.6**	**-2.4**
BRLK	comp=Z,12nm,1.1s			IAmb			IAmb	16 06 40.4	
SEW	**Seward**	**16.94**	**50**	Pn			**Pn**	**16 06 50.6**	**-1.1**
PWL	**Port Wells**	**17.70**	**48**	Pn			**Pn**	**16 06 58.6**	**-2.7**
PWL	comp=Z,17nm,1.4s			IAmb			IAmb	16 07 19.3	
E19K	**Redstone River**	**18.30**	**23**	P			**P**	**16 07 05.6**	**-2.3**
E19K	comp=Z,12nm,1.3s			IAmb			IAmb	16 07 28.9	
FID	**Port Fidalgo**	**18.54**	**49**	P			**P**	**16 07 06.9**	**-3.6**
DHY	**Denali Highway**	**18.94**	**42**	P			**P**	**16 07 15.1**	**0.0**
DHY	comp=Z,7.5nm,1.3s			IAmb			IAmb	16 07 22.8	
I23K	**Minto, Yukon-K**	**19.16**	**35**	P			**P**	**16 07 16.4**	**-0.8**
I23K	comp=Z,7.0nm,1.2s			IAmb			IAmb	16 07 42.3	
CCB	**Clear Creek Bu**	**19.47**	**37**	P			**P**	**16 07 20.5**	**-0.2**
HDA	**Harding Lake**	**19.69**	**38**	P			**P**	**16 07 23.5**	**+0.4**
IL31		**19.88**	**38**	P			**P**	**16 07 26.2**	**+1.2**
IL31	comp=Z,2.0nm,0.3s			IAmb			IAmb	16 07 30.2	
ILAR	**Eielson Array**	**19.88**	**38**	P			**P**	**16 07 24.4**	**-0.7**
	comp=Z,0.7nm,0.5s,baz=241,slow=11,SNR=58								
	comp=Z,0.7nm,0.5s								
ILAR	**Eielson Array**	**19.88**	**38**	P			**P**	**16 07 23.2**	**-1.9**
GLB	**Gilahina Butte**	**19.97**	**48**	P			**P**	**16 07 24.4**	**-1.8**
GLB	comp=Z,7.9nm,1.3s			IAmb			IAmb	16 07 34.5	
RIDG	**Independent Ri**	**20.25**	**41**	P			**P**	**16 07 27.3**	**-1.9**
RIDG	comp=Z,5.6nm,1.0s			IAmb			IAmb	16 07 35.0	
J25K	**Salcha River,**	**20.39**	**39**	P			**P**	**16 07 31.3**	**+0.5**
DOT	**Dot Lake**	**20.54**	**42**	P			**P**	**16 07 33.4**	**+1.1**
DOT	comp=Z,4.1nm,0.8s			IAmb			IAmb	16 07 34.7	
SCRK	**Sand Creek**	**20.69**	**41**	P			**P**	**16 07 34.5**	**+0.4**
SCRK	comp=Z,5.7nm,0.8s			IAmb			IAmb	16 07 38.7	
E24K	**Your Creek**	**21.12**	**29**	P			**P**	**16 07 38.1**	**-0.4**
E24K	comp=Z,5.3nm,1.4s			IAmb			IAmb	16 07 58.3	
BCAR	**Beaver Creek A**	**21.33**	**44**	P			**P**	**16 07 42.2**	**+1.4**
K27K	**Chicken**	**21.50**	**42**	P			**P**	**16 07 43.1**	**+0.6**
I26K	**Coal Creek Min**	**21.54**	**38**	P			**P**	**16 07 43.0**	**+0.1**
BMAR	**Burnt Mountain**	**22.00**	**32**	P			**P**	**16 07 47.3**	**-0.5**
DAWY	**Dawson**	**22.64**	**43**	P			**P**	**16 07 51.8**	**-3.0**
I28M	**Miner Creek**	**22.84**	**39**	P			**P**	**16 07 53.3**	**-3.7**
K29M	**Barlow Dome**	**23.38**	**44**	P			**P**	**16 08 01.7**	**-0.6**
H29M	**Whitestone**	**23.71**	**38**	P			**P**	**16 08 04.6**	**-0.5**
H29M	comp=Z,4.6nm,1.3s			IAmb			IAmb	16 08 10.8	
ASAJ	**Asahikawa**	**28.57**	**271**	LR			LR	16 18 11.5	
	comp=Z,73nm,21.0s,baz=76,slow=32								
YKA	**Yellowknife Ar**	**33.69**	**47**	P			**P**	**16 09 34.6**	**+0.8**
	comp=Z,0.4nm,0.5s,baz=278,slow=8.6,SNR=1.3								
	comp=Z,0.4nm,0.5s								
H11N2	**WAKE ISLAND Hy**	**34.62**	**210**	T			T	16 46 20.1	
	baz=18,slow=76,SNR=54								
H11N3	**WAKE ISLAND Hy**	**34.63**	**210**	T			T	16 46 20.4	
	baz=18,slow=76,SNR=61								
H11N1	**WAKE ISLAND Hy**	**34.64**	**210**	T			T	16 46 20.7	
	baz=18,slow=76,SNR=58								
KHLU	**Kahalu`u**	**35.60**	**147**	P			**P**	**16 09 50.1**	**-0.8**
H11S1	**WAKE ISLAND Hy**	**35.83**	**209**	T			T	16 47 51.1	
	baz=18,slow=76,SNR=18								
H11S2	**WAKE ISLAND Hy**	**35.85**	**209**	T			T	16 47 49.9	
	baz=18,slow=76,SNR=21								
H11S3	**WAKE ISLAND Hy**	**35.85**	**209**	T			T	16 47 48.2	
	baz=18,slow=76,SNR=12								
PDAR	**Pinedale Array**	**44.44**	**74**	P			**P**	**16 11 04.1**	**0.0**
	comp=Z,0.6nm,0.5s,baz=313,slow=7.9,SNR=8.6								
	comp=Z,0.6nm,0.5s								
MKAR	**Makanchi Array**	**61.32**	**310**	P			**P**	**16 13 07.0**	**-1.1**
	comp=Z,0.3nm,0.8s,baz=48,slow=6.0,SNR=1.6								
	comp=Z,0.3nm,0.8s								
H03N2	**Juan Fernandez**	**119.43**	**108**	T			T	18 32 47.0	
	baz=313,slow=76,SNR=15								
H03N1	**Juan Fernandez**	**119.44**	**108**	T			T	18 32 47.6	
	baz=309,slow=76,SNR=17								
MAW	**Mawson**	**147.84**	**218**	PKPbc			**PKPdf**	**16 22 29.2**	**-3.3**
	comp=Z,1.0nm,0.7s,baz=55,slow=6.8,SNR=2.8								

*IDC **06** 16:14:22.5±0.5, 40.95N×143.29E, h0km, mb4.2/24, mbtmp4.2/33, ML3.5/8, MS3.8/49, Error ellipse: s-maj=12.3km s-min=9.2km az=109.0*
*NEIC **06** 16:14:23.6±1.7, 40.88N±0.07×143.3E±0.1, h14km±5km, mb4.6/25, Error ellipse: s-maj=12.9km s-min=7.4km az=128.0*
*BJI **06** 16:14:25.3, 40.90N×143.26E, h40km, mB4.9/12, mb4.6/54, Ms4.3/27, Ms7 4.1/28*
*MOS **06** 16:14:25.9±0.9, 40.97N×143.23E, h31km, mb4.7/28, Error ellipse: s-maj=7.4km s-min=5.0km az=112.8*
*JMA **06** 16:14:28.1±0.0, 41.0N±0.2×143.2E±0.3, h18km, MD4.6/40, MV4.5/40, E OFF AOMORI PREF*
JMA Felt II J1 at E OFF AOMORI PREF .
*NIED **06** 16:14:28.1, 40.96N×143.22E, h18km, MW4.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^15Nm; Mrr3.84; Mθθ2.64; Mφφ-6.48; Mrθ3.26; Mθφ-0.91; Mφr4.26; Fault plane solution: M0 7.77000×10^15 NP1: φs153.00000°, δ34.00000°, λ35.00000°. NP2: φs33.00000°, δ72.00000°, λ119.00000°.*
ISC 06 16:14:27.3±0.6, 40.96N±0.05×143.27E±0.05, h33km±1km, h34km: pP-P, n240, σ1s39/209, mb4.5/77, MS4.0/53, 19C-12D, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ERM	**Erimo**	**1.05**	**356**	*c i*P			**Pb**	**16 14 46.2**	**-0.9**
ERM	**Erimo**	**1.05**	**356**				**Pn**	**16 14 42.7**	**-3.0**
JEM	**Erimo**	**1.05**	**356**	P			**Pb**	**16 14 46.4**	**-0.7**
JTHR	**Tokachihiroo**	**1.33**	**1**	P			**Pn**	**16 14 50.2**	**+0.7**
JNBK	**Urakawa-nobuka**	**1.37**	**344**	A			A	16 14 52.5	
	comp=N,11nm,2.6s,comp=E,14nm,2.1s								
JAHD	**Aomorihigashid**	**1.49**	**282**	A			A	16 14 53.8	
	comp=N,22nm,0.8s,comp=E,23nm,0.6s								
JSHD	**Hidakashinhida**	**1.56**	**338**	A			A	16 14 55.3	
	comp=N,14nm,4.2s,comp=E,18nm,1.8s								
JCH	**Churui**	**1.65**	**2**	A			A	16 14 56.9	
	comp=N,4.0nm,1.9s,comp=E,6.0nm,2.5s								
JTM	**Tenmabayashi**	**1.68**	**265**				**Pn**	**16 14 52.8**	**-1.5**
JTM					Sn		**Sn**	**16 15 15.3**	**+0.7**
JOT	**Ohata**	**1.73**	**285**	A			A	16 14 57.4	
	comp=N,6.0nm,2.2s,comp=E,7.0nm,0.9s								
JIAM	**Iburiatsuma**	**1.94**	**329**	A			A	16 15 00.8	
	comp=N,18nm,1.2s,comp=E,20nm,1.0s								
JSZI	**Iwateshizukuis**	**2.15**	**236**	A			A	16 15 03.5	
	comp=N,20nm,1.0s,comp=E,21nm,1.6s								
JSR	**Shiriuchi**	**2.22**	**286**	A			A	16 15 04.6	
	comp=N,8.0nm,2.9s,comp=E,10.0nm,2.8s								
JYM2	**Yakumo 2**	**2.46**	**299**	A			A	16 15 08.1	
	comp=N,5.0nm,2.4s,comp=E,3.0nm,1.1s								
JNTW	**Noshirotokiwa**	**2.46**	**255**	A			A	16 15 08.0	
	comp=N,29nm,1.8s,comp=E,19nm,1.7s								
JRG	**Rokugo**	**2.55**	**233**	A			A	16 15 09.4	
	comp=N,12nm,1.0s,comp=E,6.0nm,1.4s								
JOFO	**Osakifurukawao**	**2.98**	**218**	A			A	16 15 15.4	
	comp=N,18nm,1.8s,comp=E,19nm,1.2s								
NMR	**Nemuro--Hokkai**	**3.02**	**36**	*e*P			**Pn**	**16 15 11.9**	**-0.9**
NMR				*i* S			**Sn**	**16 15 45.9**	**-1.9**
JKA	**Kamikawa-asahi**	**3.19**	**351**				**Pn**	**16 15 17.0**	**+1.9**
ASAJ	**Asahikawa**	**3.19**	**351**	Pn			**Pn**	**16 15 15.1**	**0.0**
	comp=E,10nm,0.3s,baz=176,slow=19,SNR=9.4								
ASAJ					Sn		**Sn**	**16 15 49.8**	**-2.1**
	comp=E,24nm,0.3s,baz=174,slow=20,SNR=5.5								
	comp=E,19nm,0.3s								
ASAJ				AML			AML		
RUSJ	**Misakicho**	**3.46**	**24**	*e*P			**Pn**	**16 15 19.9**	**+1.1**
RUSJ				*i* S			**Sn**	**16 16 00.3**	**+1.6**
YUK	**Yuzh-Kuril'sk**	**3.62**	**31**	*d i*P			**Pn**	**16 15 21.2**	**+0.2**
YUK				*i* S			**Sn**	**16 16 01.4**	**-1.1**
YUK	comp=Z,1μm,0.3s			pmax			pmax		
YUK	comp=E,165nm,0.2s			pmax			pmax		
YUK	comp=N,83nm,0.1s			pmax			pmax		
YUK	comp=E,1μm,0.4s			smax			smax		
YUK	comp=N,1μm,0.3s			smax			smax		
KUR	**Kuril'sk**	**5.44**	**37**	*e*P			**Pn**	**16 15 47.3**	**+1.4**
KUR				*i* S			**Sn**	**16 16 47.8**	**+0.5**
KUR	comp=E,91nm,0.4s			pmax			pmax		
KUR	comp=Z,156nm,0.4s			pmax			pmax		
KUR	comp=N,70nm,0.5s			pmax			pmax		
KUR	comp=E,394nm,0.4s			smax			smax		
KUR	comp=N,181nm,0.3s			smax			smax		
MJB9	**Matsu-Tunnel**	**5.92**	**224**	Pn			**Pn**	**16 15 50.6**	**-2.1**
MAJO	**Matsushiro**	**5.92**	**223**	*c* iP			**Pn**	**16 15 53.9**	**+1.2**
MAJO	**Matsushiro**	**5.92**	**223**	Pn			**Pn**	**16 15 50.2**	**-2.5**
MJAR	**Matsushiro Arr**	**5.92**	**223**	Pn			**Pn**	**16 15 54.0**	**+1.3**
	comp=N,0.5nm,0.3s,baz=28,slow=12,SNR=31								
MJAR	comp=N,744nm,20.3s,baz=68,slow=42			LR			LR	16 18 32.6	
	comp=N,13nm,0.5s								
MJAR				AML			AML		
MJAR	**Matsushiro Arr**	**5.92**	**223**	Pn			**Pn**	**16 15 50.4**	**-2.3**
YSS	**Yuzhno-Sakhali**	**6.00**	**357**	*e*P			**Pn**	**16 15 55.2**	**+1.5**
YSS				*e*S			**Sn**	**16 17 01.5**	**+0.3**
YSS	comp=Z,20nm,1.2s			pmax			pmax		
YSS	comp=E,40nm,1.3s			smax			smax		
YSS	comp=N,1μm,15.0s			MLR			MLR		
YSS	comp=Z,1μm,15.0s			MLR			MLR		
YSS	comp=E,600nm,17.0s			MLR			MLR		
TEY	**Ternei**	**6.36**	**312**	*e*P			**Pn**	**16 15 59.6**	**+1.0**
INU	**Inuyama**	**7.46**	**223**				**Pn**	**16 16 11.3**	**-2.4**
JHJ2	**Mitsune**	**8.31**	**200**	Pn			**Pn**	**16 16 24.1**	**-1.3**
USRK	**Ussuriysk Ar.**	**8.93**	**295**

HIA pmax pmax
comp=Z,111nm,0.9s
HIA Hailar 18.51 305 P **P** **16 18 38.9 -1.7**
HILR Hailar Array B 18.59 305 P **P** **16 18 41.7 +0.1**
baz=111,slow=11
comp=Z,3.4nm,0.3s
MA2 Magadan 19.22 12 LR LR 16 27 42.8
comp=Z,140nm,18.2s,baz=200,slow=42
XLT XiLinHaoTe 20.25 287 *e*P **P** **16 18 57.4 -2.3**
XLT pmax pmax
comp=Z,11nm,0.8s
XLT pmax pmax
comp=Z,110nm,6.1s
XLT L L
comp=Z,280nm,17.6s
XLT L L
comp=Z,300nm,18.9s
BJI2 Beijing 20.60 276 P **P** **16 19 01.8 -1.7**
BJI2 sP **sP** **16 19 17.7 +2.0**
BJI2 pmax pmax
comp=Z,8.0nm,1.2s
BJI2 pmax pmax
comp=Z,68nm,4.1s
BJI2 L L
comp=Z,230nm,19.0s
BJI2 L L
comp=Z,270nm,20.2s
BJI2 L L
comp=Z,360nm,19.0s
TIA Tai'an 20.95 265 P **P** **16 19 07.1 -0.2**
TIA pmax pmax
comp=Z,39nm,0.9s
TIA L L
comp=Z,340nm,11.8s
TIA L L
comp=Z,310nm,13.3s
TIA L L
comp=Z,410nm,17.8s
NJ2 Nanjing 21.49 253 *e*P **P** **16 19 12.6 -0.5**
NJ2 pP **sP** **16 19 22.9 -2.4**
NJ2 sP **pP** **16 19 27.1 +5.5**
NJ2 pmax pmax
comp=Z,11nm,0.5s
HNS HongShan 22.38 270 ⇑P **P** **16 19 20.1 -2.5**
HNS S **S** **16 23 20.9 -5.5**
HNS pmax pmax
comp=Z,12nm,0.9s
HNS L L
comp=Z,250nm,13.4s
HNS L L
comp=Z,310nm,17.3s
YAK Yakutsk 22.64 343 LR LR 16 28 59.2
comp=Z,267nm,19.4s,baz=151,slow=39
YAK Yakutsk 22.64 343 *e*P **P** **16 19 22.1 -3.0**
YAK *e**PP **pP** **16 19 32.4 -1.0**
YAK *e* 16 23 13.0
YAK *e*S **S** **16 23 28.1 -2.5**
YAK *e**SS Sn 16 23 46.0 +0.5
YAK *e* 16 30 33.7
YAK pmax pmax
comp=Z,33nm,1.1s
YAK pmax pmax
comp=N,6.0nm,0.8s
YAK smax smax
comp=N,107nm,2.5s
YAK smax smax
comp=E,59nm,2.5s
SEY Seymchan 22.66 11 P **P** **16 19 23.4 -2.0**
comp=E,2.5nm,0.4s,baz=190,slow=10,SNR=17
comp=E,2.5nm,0.4s
SEY Seymchan 22.66 11⇑ *e*P **P** **16 19 25.1 -0.3**
SEY pmax pmax
comp=Z,9.0nm,1.3s
HHC Hu-ho-hao-te 23.90 280 *e*P **P** **16 19 36.4 -1.6**
HHC pmax pmax
comp=Z,23nm,0.6s
NACB Ninganchiao 24.67 234 P **P** **16 19 42.9 -2.1**
NACB IAmb IAmb 16 20 21.1
comp=Z,34nm,1.2s
LYN LuoYang 25.09 265 P **P** **16 19 49.7 +0.9**
LYN pmax pmax
comp=Z,41nm,1.2s
YULB Yu-li 25.43 233 P **P** **16 19 50.8 -1.2**
WHN Wuhan 25.56 255 P **P** **16 19 53.2 +0.1**
WHN pmax pmax
comp=Z,64nm,1.0s
ULN Ulaanbaatar 26.59 297⇑ *e*P **P** **16 20 02.7 +0.3**
ULN pmax pmax
comp=Z,5.0nm,0.8s
ULN Ulaanbaatar 26.59 297 **P** **16 20 00.9 -1.5**
SONM Songino Array 27.03 297 P **P** **16 20 05.0 -1.3**
comp=Z,2.4nm,0.4s,baz=100,slow=7.9,SNR=5.9
SONM LR LR 16 31 44.8
comp=Z,470nm,18.2s,baz=94,slow=38
comp=Z,2.4nm,0.4s
SONM Songino Array 27.03 297 P **P** **16 20 05.5 -0.9**
SONM pmax pmax
comp=Z,9.0nm,1.1s
SONM Songino Array 27.03 297 **P** **16 20 05.5 -0.9**
SONM IAmb IAmb 16 20 08.2
comp=Z,9.3nm,1.1s
GUMO Guam 27.31 177 LR LR 16 29 43.9
comp=Z,76nm,21.2s,baz=78,slow=34
TLY Talaya 29.05 305⇑ *e*P **P** **16 20 25.6 +1.4**
TLY pmax pmax
comp=Z,9.0nm,1.0s
TLY Talaya 29.05 305 P **P** **16 20 22.9 -1.3**
ZAK Zakamensk 29.17 302 *e*P **P** **16 20 25.8 +0.4**
ZAK pmax pmax
comp=Z,7.0nm,1.1s
H11N2 WAKE ISLAND Hy 29.22 129 T T 16 51 09.0
baz=322,slow=75,SNR=209
H11N1 WAKE ISLAND Hy 29.23 129 T T 16 51 09.0
baz=322,slow=75,SNR=238
H11N3 WAKE ISLAND Hy 29.24 129 T T 16 51 09.6
baz=322,slow=75,SNR=218
ENH Enshi 29.29 259 P **P** **16 20 26.1 -0.5**
ENH IAmb IAmb 16 20 27.2
comp=Z,13nm,0.9s
H11S1 WAKE ISLAND Hy 30.07 131 T T 16 52 13.8
baz=323,slow=76,SNR=84
H11S3 WAKE ISLAND Hy 30.07 131 T T 16 52 13.8
baz=323,slow=76,SNR=95
H11S2 WAKE ISLAND Hy 30.09 131 T T 16 52 14.4
baz=323,slow=76,SNR=118
LZDM Lanzhou Array 31.20 274 P **P** **16 20 44.6 +0.9**
comp=Z,4.1nm,0.4s,baz=58,slow=14,SNR=1.8
LZDM LR LR 16 33 20.1
comp=Z,181nm,19.7s,baz=5.0,slow=36
comp=Z,4.1nm,0.4s
TIXI Tiksi 31.59 351 LR LR 16 34 34.8
comp=Z,123nm,20.5s,baz=190,slow=38
KNGR Kungurtug, Tuv 32.85 303‖ *e*P **P** **16 20 59.4 +1.5**
KNGR pmax pmax
comp=Z,8.0nm,1.0s
GTA2 Gaotai 33.00 282 *e*P **P** **16 20 59.1 -0.2**
GTA2 pmax pmax
comp=Z,8.0nm,1.3s
GTA2 L L
comp=Z,230nm,14.3s
GTA2 L L
comp=Z,460nm,16.5s
GTA2 L L
comp=Z,630nm,18.7s
KMI2 Kunming 37.08 258 ⇑P **P** **16 21 35.2 +0.5**
KMI2 pmax pmax
comp=Z,26nm,1.1s
KMI2 L L
comp=Z,310nm,15.3s
KMI2 L L
comp=Z,290nm,18.3s
KMI2 L L
comp=Z,380nm,19.7s
DAV Davao City (W) 37.26 210 LR LR 16 37 12.3
comp=Z,82nm,20.3s,baz=50,slow=37
GOMU GeErMu 37.79 279 P **P** **16 21 39.5 -1.3**
GOMU pmax pmax
comp=Z,7.0nm,1.0s
SLVN Son La 38.55 252 P **P** **16 21 45.2 -1.8**
DGZ Jazzator, Alta 39.39 302 *ce*P **P** **16 21 55.0 +1.2**
DGZ pmax pmax
comp=Z,27nm,1.3s
NRIK Noril'sk 40.36 333 P **P** **16 22 01.7 +0.3**
comp=Z,3.7nm,0.8s,baz=108,slow=9.6,SNR=3.7
NRIK LR LR 16 40 06.9
comp=Z,442nm,19.1s,baz=104,slow=38
comp=Z,3.7nm,0.8s

NRIK Noril'sk 40.36 333‖ *e*P **P** **16 22 01.9 +0.5**
NRIK pmax pmax
comp=Z,10.0nm,1.4s
NRIK Noril'sk 40.36 333 P **P** **16 22 00.5 -0.9**
ZAA0 Zalesovo Array 40.45 309 **P** **16 22 01.5 -0.8**
ZAA0 IAmb IAmb 16 22 19.3
comp=Z,8.1nm,0.8s
ZALV Zalesovo Beam 40.45 309 P **P** **16 22 02.1 -0.2**
comp=Z,2.1nm,0.3s,baz=88,slow=8.2,SNR=20
ZALV PcP **PcP** **16 24 05.7 +1.1**
comp=Z,0.9nm,0.4s,baz=86,slow=6.5,SNR=3.1
ZALV LR LR 16 40 00.6
comp=Z,223nm,18.1s,baz=82,slow=38
comp=Z,2.1nm,0.3s
ZALV Zalesovo Beam 40.45 309 *i* P **P** **16 22 03.0 +0.7**
ZALV pmax pmax
comp=Z,2.0nm,0.3s
ZALV Zalesovo Beam 40.45 309 **P** **16 22 01.3 -1.0**
ZALV PcP **PcP** **16 24 05.5 +1.0**
WMQ Urumqi 40.49 293 *e*P **P** **16 22 05.1 +2.2**
WMQ pP sP 16 22 15.9 0.0
WMQ pmax pmax
comp=Z,12nm,0.7s
WMQ L L
comp=Z,200nm,18.5s
ZSN Zaisan 41.50 299 *e*P **P** **16 22 11.8 +0.7**
ZSN Zaisan 41.50 299 *e*P **P** **16 22 11.8 +0.7**
SIJI Sorong 43.04 198 LR LR 16 37 47.8
comp=Z,83nm,19.0s,baz=264,slow=33
MK31 Makanchi Array 43.37 299 *ce*P **P** **16 22 26.2 -0.1**
MKAR Makanchi Array 43.37 299 P **P** **16 22 26.3 0.0**
comp=Z,3.7nm,0.7s,baz=81,slow=9.7,SNR=37
comp=Z,3.7nm,0.7s
MKAR Makanchi Array 43.37 299 **P** **16 22 25.5 -0.8**
MAKZ Makanchi 43.57 299 P **P** **16 22 27.9 0.0**
MAKZ pmax pmax
comp=Z,7.0nm,0.9s
MAKZ Makanchi 43.57 299 **P** **16 22 27.9 0.0**
MAKZ IAmb IAmb 16 22 42.2
comp=Z,7.3nm,0.8s
CHTO Chiang Mai 43.73 253 P **P** **16 22 29.3 -0.2**
CHTO pmax pmax
comp=Z,6.0nm,0.9s
CHTO Chiang Mai 43.73 253 **P** **16 22 29.3 -0.2**
CHTO IAmb IAmb 16 22 31.2
comp=Z,6.2nm,0.8s
CMAR Chiang Mai Arr 43.96 253 P **P** **16 22 31.3 0.0**
comp=Z,3.2nm,0.9s,baz=55,slow=7.1,SNR=21
CMAR LR LR 16 40 40.1
comp=Z,90nm,21.4s,baz=65,slow=36
comp=Z,3.2nm,0.9s
CMAR Chiang Mai Arr 43.96 253 *i* P **P** **16 22 32.5 +1.1**
CMAR pmax pmax
comp=Z,2.0nm,0.6s
CMAR Chiang Mai Arr 43.96 253 **P** **16 22 31.7 +0.3**
KURK Kurchatov 44.74 305 *c i*P **P** **16 22 37.3 +0.1**
KURK pmax pmax
comp=Z,9.0nm,0.7s
KURK Kurchatov 44.74 305 **P** **16 22 36.0 -1.2**
KURK IAmb IAmb 16 22 42.8
comp=Z,13nm,0.8s
KURBB Kurchatov Arra 44.82 305 P **P** **16 22 38.0 +0.1**
comp=Z,7.4nm,0.4s,baz=78,slow=8.6,SNR=101
comp=Z,7.4nm,0.4s
ILAR Eielson Array 45.42 34 P **P** **16 22 43.1 +0.7**
comp=Z,0.5nm,0.5s,baz=261,slow=6.0,SNR=16
ILAR LR LR 16 42 16.1
comp=Z,50nm,21.3s,baz=260,slow=37
comp=Z,0.5nm,0.5s
ILAR Eielson Array 45.42 34 P **P** **16 22 42.6 +0.1**
PDGK Podgornoye 46.31 295 P **P** **16 22 50.2 +0.3**
PDGK Podgornoye 46.31 295 **P** **16 22 50.2 +0.3**
SHLS Shalkode 46.39 295 *e*P **P** **16 22 48.8 -1.7**
SHLS pmax pmax
comp=Z,7.0nm,1.5s
SHLS Shalkode 46.39 295 *e*P **P** **16 22 48.8 -1.7**
comp=Z,7.4nm,1.5s
TDK Taldyqorghan 46.49 298 *e*P **P** **16 22 51.7 +0.6**
TDK pmax pmax
comp=Z,5.0nm,0.7s
TDK Taldyqorghan 46.49 298 *e*P **P** **16 22 51.8 +0.6**
comp=Z,5.2nm,0.7s
UZB Uzynbulak 46.70 295 *e*P **P** **16 22 53.8 +0.8**
UZB Uzynbulak 46.70 295 *e*P **P** **16 22 53.8 +0.8**
SCRK Sand Creek 46.75 35 **P** **16 22 52.9 -0.2**
SCRK IAmb IAmb 16 22 59.4
comp=Z,4.0nm,0.9s
BRDH Bariadhala 46.80 263 LR LR 16 44 56.8
comp=Z,129nm,18.4s,baz=176,slow=39
SATY Saty 47.15 295 *e*P **P** **16 22 57.0 +0.5**
SATY pmax pmax
comp=Z,7.0nm,1.6s
SATY Saty 47.15 295 *e*P **P** **16 22 57.0 +0.5**
comp=Z,6.7nm,1.6s
MDOK Medeo 48.04 296 *e*P **P** **16 23 04.3 +0.9**
MDOK Medeo 48.04 296 *e*P **P** **16 23 04.3 +0.9**
AAA Alma-Ata 48.12 296 *e*P **P** **16 23 04.6 +0.7**
AAA pmax pmax
comp=Z,6.0nm,0.5s
AAA Alma-Ata 48.12 296 *e*P **P** **16 23 04.7 +0.7**
comp=Z,6.5nm,0.5s
TNSS Tian-Shan 48.16 296 *e*P **P** **16 23 04.8 +0.2**
TNSS Tian-Shan 48.16 296 *e*P **P** **16 23 04.8 +0.2**
KUU Kurty 48.26 297 *e*P **P** **16 23 05.6 +0.7**
KUU Kurty 48.26 297 *e*P **P** **16 23 05.6 +0.7**
BVAR Borovoye Array 49.07 310 P **P** **16 23 11.6 +0.6**
comp=Z,2.2nm,0.3s,baz=72,slow=9.3,SNR=15
comp=Z,2.2nm,0.3s
BORK Borovoye 49.10 310‖ *e*P **P** **16 23 11.9 +0.6**
BORK pmax pmax
comp=Z,4.0nm,1.0s
BORK Borovoye 49.10 310 P **P** **16 23 10.4 -0.8**
AAK Ala-Archa 49.98 296‖ *e*P **P** **16 23 18.8 +0.5**
AAK pmax pmax
comp=Z,3.0nm,1.3s
PMG Port Moresby 50.25 175 LR LR 16 42 43.2
comp=Z,19nm,20.7s,baz=338,slow=34
KSH2 Kashi 50.65 292 P **P** **16 23 23.4 0.0**
KSH2 pmax pmax
comp=Z,3.0nm,1.6s
DZA Taraz 52.01 298 *e*P **P** **16 23 34.0 +0.6**
DZA pmax pmax
comp=Z,4.0nm,0.8s
DZA Taraz 52.01 298 *e*P **P** **16 23 34.1 +0.6**
comp=Z,4.3nm,0.8s
HNR Honiara 52.45 159 LR LR 16 43 40.7
comp=Z,51nm,21.6s,baz=42,slow=34
KK31 Karatay Array 52.48 298 P **P** **16 23 36.2 -0.6**
KK31 pmax pmax
comp=Z,4.0nm,0.8s
KK31 Karatay Array 52.48 298 P **P** **16 23 36.2 -0.6**
KK31 IAmb IAmb 16 23 55.0
comp=Z,4.4nm,0.8s
KKAR Karatay Array 52.48 298 P **P** **16 23 37.0 +0.2**
KKAR Karatay Array 52.48 298 P **P** **16 23 37.0 +0.2**
BRLS Borolday 52.96 298 *e*P **P** **16 23 42.6 +2.2**
BRLS Borolday 52.96 298 *e*P **P** **16 23 42.6 +2.2**
SVE Sverdlovsk 53.21 317 *e*P **P** **16 23 42.9 +0.9**
SVE pmax pmax
comp=Z,20nm,1.1s
CHM Chimkent 53.41 298 *e*P **P** **16 23 44.3 +0.6**
CHM Chimkent 53.41 298 *e*P **P** **16 23 44.4 +0.6**
BATI Baumata 54.03 204 LR LR 16 46 15.9
comp=Z,26nm,21.6s,baz=306,slow=35
ARTI Arti 54.53 317 LR LR 16 49 44.1
comp=Z,246nm,18.3s,baz=49,slow=39
ARTI Arti 54.53 317 *d i*P **P** **16 23 52.6 +1.0**
ARTI 16 24 50.2
ARTI 16 25 51.0
ARTI S **S** **16 31 29.2 +1.0**
ARTI pmax pmax
comp=Z,22nm,0.9s
ARTI Arti 54.53 317 **P** **16 23 52.1 +0.5**
AB31 Akbulak array 56.56 309 **P** **16 24 05.3 -1.0**
ABKAR Akbulak array 56.56 309 **P** **16 24 04.9 -1.4**
SPITS Spitsbergen Ar 56.96 349 P **P** **16 24 10.2 +1.4**
comp=Z,8.5nm,0.9s,baz=48,slow=20,SNR=2.0
SPITS LR LR 16 49 48.5
comp=Z,115nm,18.7s,baz=42,slow=37
comp=Z,8.5nm,0.9s
AKTO Aktyubinsk 57.17 311 LR LR 16 50 16.4
comp=Z,197nm,20.2s,baz=52,slow=38
KBL Kabul 57.41 289 P **P** **16 24 11.4 -1.5**
KBL pmax pmax
comp=Z,6.0nm,1.0s

KBL Kabul 57.41 289 P **P** **16 24 11.3 -1.5**
KBL IAmb IAmb 16 24 31.1
comp=Z,5.7nm,0.9s
KIRV Kirov 58.02 322 *de*P **P** **16 24 17.2 +0.8**
RES Resolute Bay 58.44 15 LR LR 16 53 36.9
comp=Z,97nm,18.1s,baz=12,slow=40
YKA Yellowknife Ar 59.70 32 P **P** **16 24 27.9 -0.1**
comp=Z,0.2nm,0.6s,baz=284,slow=7.2,SNR=1.5
comp=Z,0.2nm,0.6s
ARCES ARCESS Array B 60.84 339 LR LR 16 53 47.4
comp=Z,149nm,18.4s,baz=53,slow=39
WRAB Tennant Creek 61.15 190‖ *e*P **P** **16 24 40.3 +1.9**
WRAB pmax pmax
comp=Z,7.0nm,0.8s
WRA Warramunga Arr 61.16 190 P **P** **16 24 38.0 -0.5**
comp=Z,0.7nm,0.5s,baz=7.5,slow=6.7,SNR=10.0
comp=Z,0.7nm,0.5s
WRA Warramunga Arr 61.16 190 P **P** **16 24 36.4 -2.1**
WRA Warramunga Arr 61.16 190 **P** **16 24 36.4 -2.1**
BELG Belogornoye 61.94 316 LR LR 16 54 04.6
comp=Z,242nm,19.0s,baz=86,slow=38
BELG Belogornoye 61.94 316 *de*P **P** **16 24 44.5 +1.1**
BELG pmax pmax
comp=Z,5.0nm,0.9s
PALK Pallekele 64.64 257 LR LR 16 54 06.3
comp=Z,56nm,20.8s,baz=134,slow=37
ASAR Alice Springs 64.89 189 P **P** **16 25 03.4 +0.2**
comp=Z,1.0nm,0.7s,baz=10.0,slow=7.2,SNR=20
comp=Z,1.0nm,0.7s
ASAR Alice Springs 64.89 189 P **P** **16 25 01.0 -2.2**
MOS Moscow 64.97 323 *e*P **P** **16 25 06.5 +3.1**
OBN Obninsk 65.83 323⇑ *e*P **P** **16 25 10.3 +1.4**
OBN *e* 16 27 35.0
OBN pmax pmax
comp=Z,45nm,2.5s
OBN MLR MLR
comp=Z,224nm,16.0s
FINES FINESS Array B 66.02 332 P **P** **16 25 09.8 -0.3**
comp=Z,2.0nm,0.4s,baz=49,slow=6.6,SNR=39
FINES LR LR 16 56 46.6
comp=Z,284nm,18.6s,baz=74,slow=38
comp=Z,2.0nm,0.4s
FINES FINESS Array B 66.02 332 *i* P **P** **16 25 10.6 +0.5**
FINES pmax pmax
comp=Z,2.0nm,0.4s
FINES FINESS Array B 66.02 332 P **P** **16 25 09.2 -0.9**
NEW Newport 66.33 46 LR LR 16 51 02.1
comp=Z,22nm,22.0s,baz=300,slow=33
AFI Afiamalu 68.63 133 LR LR 16 49 31.0
comp=Z,47nm,21.4s,baz=304,slow=31
KVAR Kislovodsk Arr 69.43 311 LR LR 16 59 00.6
comp=Z,85nm,18.8s,baz=265,slow=39
KIV Kislovodsk 69.43 311 *e*P **P** **16 25 32.3 +0.2**
KIV pmax pmax
comp=Z,36nm,1.1s
KIV MLR MLR
comp=Z,104nm,17.0s
KBZ Khabaz 69.45 310 P **P** **16 25 32.4 +0.4**
comp=Z,9.7nm,0.9s,baz=31,slow=5.9,SNR=9.9
KBZ LR LR 16 59 06.6
comp=Z,121nm,18.9s,baz=34,slow=39
comp=Z,9.7nm,0.9s
KBZ Khabaz 69.45 310 *ce*P **P** **16 25 33.2 +1.2**
KBZ pmax pmax
comp=Z,13nm,1.0s
ERBR Yeremizino-Bor 69.60 313 *e*P **P** **16 25 33.6 +0.7**
ERBR *e**PP **pwP** **16 25 44.5 -0.7**
ERBR *e*S **S** **16 34 39.6 +0.9**
ERBR pmax pmax
comp=Z,26nm,1.0s
LABN Labinsk 70.13 312 *e*P **P** **16 25 37.3 +1.1**
LABN *e**PP **pwP** **16 25 47.8 -0.7**
LABN *e*S **S** **16 34 47.1 +2.2**
LABN pmax pmax
comp=Z,36nm,0.9s
GNI Garni 70.53 306 LR LR 16 59 36.3
comp=Z,92nm,18.4s,baz=42,slow=38
HFS Hagfors 71.10 336 P **P** **16 25 42.0 +0.1**
comp=Z,1.3nm,0.3s,baz=38,slow=5.4,SNR=11
HFS LR LR 16 59 20.6
comp=Z,189nm,18.6s,baz=17,slow=38
comp=Z,1.3nm,0.3s
HFS Hagfors 71.10 336 P **P** **16 25 42.0 +0.1**
NB2 NORSAR Subarra 71.12 338 P **P** **16 25 42.9 +0.9**
comp=Z,0.5nm,0.5s,baz=35,slow=6.2
NOA NORSAR Array B 71.12 338 P **P** **16 25 41.9 -0.1**
comp=Z,1.2nm,0.8s,baz=36,slow=6.1,SNR=3.9
NOA LR LR 17 00 38.3
comp=Z,130nm,20.1s,baz=30,slow=39
comp=Z,1.2nm,0.8s
NVAR Mina Array Bea 71.52 55 P **P** **16 25 45.7 +0.7**
comp=Z,0.8nm,0.8s,baz=313,slow=5.2,SNR=1.8
NVAR LR LR 16 51 26.0
comp=Z,25nm,21.5s,baz=273,slow=31
comp=Z,0.8nm,0.8s
ANN Anapa 71.85 314 *e*P **P** **16 25 46.9 +0.3**
ANN *e**PP **sP** **16 25 59.0 -1.1**
ANN *e*S **S** **16 35 05.6 +0.8**
ANN pmax pmax
comp=Z,35nm,1.0s
AKASG Malin Array Be 72.07 322 P **P** **16 25 47.8 0.0**
comp=Z,1.1nm,0.3s,baz=45,slow=6.4,SNR=13
comp=Z,1.1nm,0.3s
AKASG Malin Array Be 72.07 322 *i* P **P** **16 25 48.2 +0.3**
AKASG pmax pmax
comp=Z,1.0nm,0.3s
AKBB Malin Array Si 72.07 322‖ *e*P **P** **16 25 48.6 +0.7**
STKA Stephens Creek 72.49 181 LR LR 16 56 23.3
comp=Z,22nm,21.6s,baz=24,slow=35
FRB Frobisher Bay 72.62 14 LR LR 17 01 35.5
comp=Z,101nm,18.3s,baz=60,slow=39
CWC Cottonwood Cre 72.88 57 P **P** **16 25 52.1 -1.1**
CWC IAmb IAmb 16 26 04.6
comp=Z,7.9nm,0.9s
PDAR Pinedale Array 73.91 47 P **P** **16 25 59.9 +0.6**
comp=Z,0.3nm,0.5s,baz=296,slow=7.5,SNR=8.8
comp=Z,0.3nm,0.5s
PFO Pinyon Flats O 75.69 58 LR LR 16 52 09.9
comp=Z,94nm,20.7s,baz=286,slow=30
BRTR Keskin Array B 77.32 312 LR LR 17 05 11.1
comp=Z,38nm,18.3s,baz=36,slow=39
CLL Collm 78.39 331 *i* P **P** **16 26 24.9 +0.7**
CLL pmax pmax
comp=Z,6.0nm,0.9s
CLL Collm 78.39 331 *i* P **P** **16 26 24.9 +0.7**
comp=Z,6.0nm,0.9s
CLL L L 17 04 00.0
comp=Z,200nm,19.0s
VRAC Vranov 78.60 328 LR LR 17 04 34.1
comp=Z,133nm,18.7s,baz=7.0,slow=38
EKA Eskdalemuir Ar 79.90 341 P **P** **16 26 32.5 +0.2**
comp=Z,0.3nm,0.3s,baz=16,slow=5.5,SNR=3.7
comp=Z,0.3nm,0.3s
KHC Kasperske Hory 79.94 329⇑ *e*P **P** **16 26 34.5 +1.7**
KHC pmax pmax
comp=Z,14nm,2.5s
RONA Rosalia, Austr 79.98 327 *e*P **P** **16 26 34.7 +1.7**
comp=Z,3.6nm,0.9s
GERES GERESS Array B 80.12 329 P **P** **16 26 34.3 +0.5**
comp=Z,0.7nm,0.6s,baz=19,slow=3.4,SNR=6.3
GERES LR LR 17 05 46.7
comp=Z,89nm,19.2s,baz=9.0,slow=38
comp=Z,0.7nm,0.6s
MMAI Mount Meron Ar 80.85 306 LR LR 17 06 58.6
comp=Z,80nm,18.8s,baz=8.0,slow=39
SESA Seetaler Alpe, 81.16 327 *i* PcP **P** **16 26 40.9 +1.3**
comp=Z,4.8nm,1.1s
RAR Rarotonga 81.35 128 LR LR 16 56 02.0
comp=Z,54nm,21.9s,baz=279,slow=31
LESA Schwarzleotal 81.67 329 *i* PcP **P** **16 26 43.7 +1.6**
comp=Z,6.8nm,1.3s
KBA Koelnbreinsper 81.69 328 *i* P **P** **16 26 42.9 +0.6**
comp=Z,8.1nm,1.1s
MYKA Terra Mystica 81.93 328 *e*PcP **P** **16 26 44.7 +1.2**
comp=Z,7.6nm,1.1s
MOTA Moosalm 82.35 329 *i* PcP **P** **16 26 46.9 +1.1**
comp=Z,6.7nm,0.9s
RETA Reutte 82.36 330 *i* PcP **P** **16 26 46.8 +1.0**
comp=Z,3.6nm,0.8s
SQTA Sankt Quirin 82.41 329 *i* PcP **P** **16 26 47.9 +1.8**
comp=Z,1.8nm,0.4s
DAVA Damuels 82.86 330 *e*PcP **P** **16 26 49.1 +0.7**
comp=Z,4.6nm,0.8s
DAVOX Davos/Dischmat 83.29 330 LR LR 17 07 50.3
comp=Z,117nm,18.6s,baz=15,slow=38
PPT Papeete 85.15 118 LR LR 16 59 00.2
comp=Z,104nm,20.6s,baz=344,slow=31

PPT2	**Papeete2**	**85.17**	**118**	*e*LR	LR	16 53 48.3		
	comp=Z,153nm,21.2s							
PPT2				*e*LR	LR	16 53 50.5		
	comp=Z,195nm,23.8s							
TAOE	**Nuku Hiva Isla**	**85.77**	**105**	*e*LR	LR	16 54 11.3		
	comp=Z,500nm,29.3s							
SADO	**Sadowa**	**86.56**	**29**	LR	LR	17 07 54.0		
	comp=Z,53nm,18.4s,baz=348,slow=37							
TXAR	**Lajitas Array**	**86.61**	**54**	P	**P**	**16 27 09.9**	**+2.3**	
	comp=Z,0.2nm,0.5s,baz=324,slow=6.3,SNR=4.3							
	comp=Z,0.2nm,0.5s							
TBI	**Tubuai**	**89.34**	**122**	*e*LR	LR	16 55 37.3		
	comp=Z,1μm,34.2s							
ESDC	**Sonseca Array**	**94.37**	**335**	LR	LR	17 17 04.8		
	comp=Z,52nm,20.1s,baz=336,slow=40							
TROLL	**Troll, Antarti**	**143.41**	**199**	⇑PKPdf	**PKPdf**	**16 33 56.1**	**-1.1**	
	comp=Z,34nm,0.5s							
SNAA	**Sanae**	**144.93**	**198**	⇑PKPdf	**PKPdf**	**16 34 00.1**	**+0.3**	
	comp=Z,51nm,0.7s							
SNAA	**Sanae**	**144.93**	**198**	PKP	**PKPab**	**16 33 59.0**	**0.0**	
	comp=Z,2.0nm,0.7s,baz=80,slow=6.1,SNR=4.7							
SNAA	**Sanae**	**144.93**	**198**	PKIKP	**PKPab**	**16 33 59.0**	**0.0**	
VNA2	**Neumayer--Watz**	**146.49**	**197**	⇑PKPbc	**PKPab**	**16 34 04.7**	**-0.2**	
	comp=Z,2.5nm,0.7s,baz=142,slow=2.9							
VNA3	**Neumayer Olymp**	**146.73**	**196**	⇑PKPdf	**PKPdf**	**16 34 03.5**	**+0.8**	
	comp=Z,1.5nm,0.5s							
VNA1	**Neumayer--Stat**	**146.89**	**197**	⇑PKPdf	**PKPbc**	**16 34 04.8**	**-0.1**	
	comp=Z,4.4nm,1.1s							

JMA 06 16:14:51.5±0.2, 42°.9N±0°.5×145°.5E±0°.7, h41km±2km, MV2.7/21, OFF NEMURO PENINSULA, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JKHN	**Kushirohamanak**	**0.34**	**310**	*i* P	Pn	16 15 00.5	+0.3
JKHN				S	Sn	16 15 06.7	+0.3
NEM2	**Nemuro 2**	**0.53**	**18**	P	Pn	16 15 02.4	-0.2
NEM2				S	Sn	16 15 09.8	-0.7
JAK	**Akkeshi**	**0.62**	**283**	P	Pn	16 15 03.3	-0.5
JNK	**Nakash**	**0.93**	**321**	P	Pn	16 15 07.7	-0.4
JNSB	**Nemuroshibetsu**	**0.99**	**338**	P	Pn	16 15 08.7	-0.1
JRA	**Rausu**	**1.11**	**345**	P	Pn	16 15 10.6	0.0

*AFAD **06** 16:39:17.6, 37°.82N×26°.86E, h16km±1km, ML2.6*
*THE **06** 16:39:18.0, 38°.N±1°×26°.9E±0°.8, h10km±3km, M3.0/8, MLh3.0/8*
*ISK **06** 16:39:18.1, 37°.82N×26°.86E, h6km, ML3.0/17*
*ATH **06** 16:39:18.3, 37°.78N×26°.82E, h11km, ML3.0/8, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
ISC 06 16:39:18.0±0.8, 37°.80N±0°.02×26°.85E±0°.02, h11km±5km, n57, σ0°58/90, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.10**	**185**	P	**Pg**	**16 39 20.6**	**0.0**
SMG				S	**Sg**	**16 39 22.6**	**0.0**
SMG				AML	AML		
SMG	**Samos**	**0.10**	**185**	P	**Pg**	**16 39 20.6**	**0.0**
SMG				S	**Sg**	**16 39 22.6**	**0.0**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.11**	**266**	P	**Pg**	**16 39 21.0**	**+0.2**
KRL1				S	**Sg**	**16 39 23.3**	**+0.4**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.19**	**257**	P	**Pg**	**16 39 22.2**	**+0.1**
SAM2				S	**Sg**	**16 39 24.7**	**-0.3**
DGB	**zmir**	**0.25**	**6**	P	**Pg**	**16 39 22.9**	**-0.2**
DGB				S	**Sg**	**16 39 27.2**	**+0.5**
DGB				IAML		16 39 28.0	
	comp=E,759nm,0.2s						
GMLD	**Gumuldur**	**0.28**	**11**	Pg	**Pg**	**16 39 23.6**	**-0.1**
GMLD				Sg	**Sg**	**16 39 27.9**	**+0.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.32**	**109**	Pg	**Pg**	**16 39 24.7**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**81**	Pg	**Pg**	**16 39 24.9**	**-0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.43**	**8**	P	**Pg**	**16 39 26.2**	**-0.3**
BEYE				S	**Sg**	**16 39 32.1**	**-0.1**
BEYE				IAML		16 39 34.0	
	comp=E,453nm,0.2s						
BEYE				IAML		16 39 37.0	
	comp=N,666nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**328**	P	**Pg**	**16 39 27.7**	**-0.3**
ZEYE				IAML		16 39 35.0	
	comp=E,394nm,0.2s						
ZEYE				S	**Sg**	**16 39 35.4**	**+0.6**
ZEYE				IAML		16 39 36.0	
	comp=N,1μm,0.2s						
BLCB	**Balcova**	**0.60**	**15**	P	**Pg**	**16 39 29.6**	**-0.2**
BLCB				S	**Sb**	**16 39 38.1**	**-1.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**15**	Pg	**Pg**	**16 39 29.5**	**-0.2**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**153**	Pg	**Pb**	**16 39 33.6**	**+0.4**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.82**	**344**	Pg	**Pb**	**16 39 34.1**	**-0.2**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**153**	P	**Pg**	**16 39 33.7**	**-0.3**
BODT				S	**Sn**	**16 39 47.0**	**-0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**153**	Pg	**Pg**	**16 39 33.6**	**-0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**80**	Pg	**Pb**	**16 39 34.5**	**-0.1**
AYDB				AML	AML		
KLNA	**Kalymnos**	**0.85**	**173**	P	**Pg**	**16 39 34.8**	**+0.4**
KLNA				S	**Sg**	**16 39 46.1**	**+0.6**
KLNA				AML	AML		
CHOS	**Chios island**	**0.85**	**313**	P	**Pg**	**16 39 34.6**	**+0.1**
CHOS				S	**Sb**	**16 39 47.3**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**313**	Pg	**Pb**	**16 39 35.2**	**+0.3**
CHOS				Sg	**Sb**	**16 39 47.1**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**313**	P	**Pb**	**16 39 35.3**	**+0.3**
CHOS				S	**Sb**	**16 39 46.3**	**-0.1**
CHOS				AML	AML		
MLSB	**Milas**	**0.90**	**124**	Pg	**Pb**	**16 39 35.7**	**+0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.90**	**149**	Pg	**Pb**	**16 39 36.0**	**+0.5**
FOCM	**Foa**	**0.91**	**354**	Pg	**Pg**	**16 39 35.5**	**-0.1**
FOCM				AML	AML		
EAG2	**Marmaro, Chios**	**0.94**	**322**	P	**Pb**	**16 39 36.3**	**0.0**
EAG2				S	**Sn**	**16 39 50.0**	**-0.5**
NAZL	**Nazilli-Aydin**	**1.16**	**82**	Pn	**Pg**	**16 39 40.3**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.23**	**43**	Pn	**Pg**	**16 39 41.7**	**0.0**
GOMA				AML	AML		
DKL	**Dikili**	**1.27**	**2**	Pn	**Pg**	**16 39 42.4**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.27**	**2**	P	**Pb**	**16 39 41.8**	**0.0**
DKL				S	**Sg**	**16 39 59.7**	**+0.9**
APE	**Apeiranthos**	**1.28**	**235**	P	**Pn**	**16 39 40.9**	**-1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.28**	**235**	P	**Pn**	**16 39 41.6**	**-0.2**
APE				S	**Sb**	**16 39 58.3**	**-0.3**
APE				AML	AML		
MULA	**Mugla, Merkez-**	**1.29**	**115**	P	**Pn**	**16 39 42.1**	**0.0**
MULA				S	**Sg**	**16 40 00.3**	**+0.6**
MULA				IAML		16 40 03.0	
	comp=E,104nm,0.5s						
AKS	**Akhisar**	**1.31**	**35**	Pn	**Pg**	**16 39 43.1**	**-0.2**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.32**	**198**	P	**Pn**	**16 39 42.6**	**+0.3**
ASTA				S	**Sb**	**16 39 59.4**	**-0.1**
ASTA				AML	AML		
YER	**Yerkesik**	**1.32**	**120**	P	**Pn**	**16 39 42.7**	**+0.2**
TNSA	**Tinos**	**1.36**	**259**	P	**Pn**	**16 39 42.1**	**-0.8**
TNSA				S	**Sn**	**16 40 00.5**	**-0.4**
NAX1	**Naxos Island**	**1.37**	**240**	P	**Pn**	**16 39 43.5**	**+0.6**
NAX1				S	**Sn**	**16 39 59.8**	**-1.2**
NAX1				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**22**	Pn	**Pg**	**16 39 45.5**	**-0.4**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.51**	**343**	P	**Pg**	**16 39 46.4**	**-0.5**
PRK				S	**Sg**	**16 40 07.7**	**+1.1**
PRK	**Paraskevi**	**1.51**	**343**	P	**Pb**	**16 39 45.5**	**-0.6**
PRK				S	**Sb**	**16 40 05.6**	**+0.5**
PRK				AML	AML		
TURN	**Turunc**	**1.52**	**132**	P	**Pn**	**16 39 44.7**	**-0.3**
TURN				S	**Sb**	**16 40 05.7**	**+0.4**
GORD	**Gordes-Manisa**	**1.52**	**43**	Pn	**Pb**	**16 39 46.5**	**+0.3**
GORD				Sn	**Sg**	**16 40 07.6**	**+0.7**
GORD				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.68**	**101**	P	**Pg**	**16 39 50.7**	**+0.6**
TAVA				S	**Sg**	**16 40 12.1**	**+0.2**
DALY	**Dalyan (Mula)**	**1.75**	**124**	P	**Pb**	**16 39 49.7**	**-0.3**
DALY				S	**Sg**	**16 40 16.2**	**+2.1**
DNIZ	**Denizli-Tavas-**	**1.75**	**95**	P	**Pb**	**16 39 49.9**	**-0.2**
DNIZ				S	**Sg**	**16 40 14.2**	**0.0**
DNIZ				IAML		16 40 20.0	
	comp=E,80nm,0.3s						
DNIZ				IAML		16 40 27.0	
	comp=N,65nm,0.4s						
CMBO	**Columbo, Santo**	**1.76**	**221**	P	**Pn**	**16 39 48.7**	**+0.3**
CMBO				S	**Sn**	**16 40 11.3**	**+0.5**
THR2	**Thira island,**	**1.76**	**220**	P	**Pn**	**16 39 49.2**	**+0.7**
THR2				S	**Sn**	**16 40 11.1**	**+0.3**
THERA	**Ancient Thera,**	**1.81**	**218**	P	**Pn**	**16 39 48.9**	**-0.2**
SABU	**Mula-Dalaman**	**1.95**	**119**	P	**Pn**	**16 39 52.0**	**+0.9**
SABU				S	**Sb**	**16 40 18.6**	**+0.6**
KARP	**Karpathos**	**2.27**	**174**	P	**Pn**	**16 39 55.1**	**-0.3**
DION	**Dionisos Attik**	**2.32**	**278**	P	**Pn**	**16 39 56.3**	**+0.2**
IZZE	**Mula-Seydike**	**2.34**	**125**	P	**Pb**	**16 39 58.7**	**-1.5**
IZZE				S	**Sb**	**16 40 28.9**	**-0.1**
IZZE				IAML		16 40 41.0	
	comp=N,61nm,0.5s						
IZZE				IAML		16 40 49.0	
	comp=E,29nm,0.4s						
VLY	**Voula,Athens**	**2.42**	**272**	P	**Pn**	**16 39 57.1**	**-0.3**
AKAS	**Kas**	**2.71**	**125**	P	**Pb**	**16 40 05.7**	**-0.8**
AKAS				S	**Sb**	**16 40 38.1**	**-1.7**
VLI	**Veliai**	**3.30**	**252**	P	**Pn**	**16 40 08.8**	**-0.8**
LAKA	**Lakka**	**3.87**	**278**	P	**Pn**	**16 40 17.9**	**+0.4**
ANX	**Ano Chora**	**3.96**	**283**	P	**Pn**	**16 40 19.5**	**+0.7**

*SJA **06** 16:50:52.2±0.8, 21°.12S×67°.94W, h175km, ML3.9, MW3.9*
*GUC **06** 16:50:53.6±0.8, 21°.12S×68°.11W, h168km±4km, ML4.0, Presumed earthquake*
*NEIC **06** 16:50:53.5±1.7, 21°.13S±0°.06×67°.91W±0°.09, h163km±7km, mb4.5/9, ML4.0(GUC), Error ellipse: s-maj=12.9km s-min=8.2km az=79.0*
*SCB **06** 16:50:54.1±1.5, 21°.17S×67°.92W, h144km±21km, ML4.4/2, Error ellipse: s-maj=5.5km s-min=4.3km az=1.0*
*IDC **06** 16:50:54.2±1.6, 20°.97S×67°.67W, h164km±14km, mb3.7/7, mbtmp4.2/12, Error ellipse: s-maj=18.6km s-min=11.9km az=66.0*
*VAO **06** 16:50:55.4±1.0, 21°.08S×67°.46W, h150km±6km, mb4.5, Presumed earthquake*
ISC 06 16:50:52.9±0.6, 21°.10S±0°.03×67°.90W±0°.04, h161km±5km, n139, σ1°57/162, mb4.0/8, 9C, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**1.43**	**241**	*e*P	Pn	16 51 04.1	-19
PB09				*e*S	**Sn**	**16 51 41.9**	**-3.8**
PB09				*e*S		16 51 47.2	
PB09				IAML		16 51 47.8	
	comp=Z,996nm,0.9s						
PB09	**IPOC Station P**	**1.43**	**241**		**Pn**	**16 51 23.6**	**+0.8**
PB09	**IPOC Station P**	**1.43**	**241**	⇑*i*P	**Pn**	**16 51 24.0**	**+1.3**
PB09				*e*S	**Sn**	**16 51 46.1**	**+0.4**
PB09				IAML		16 51 48.4	
	comp=N,1μm,0.6s						
PB09	**IPOC Station P**	**1.43**	**241**	P	**Pn**	**16 51 23.9**	**+1.1**
PB08	**IPOC Station P**	**1.51**	**309**	*e*P	**Pn**	**16 51 25.3**	**+1.4**
PB08				*e*S	**Sn**	**16 51 49.5**	**+2.0**
PB08				IAML		16 51 50.0	
	comp=Z,602nm,0.6s						
PB08	**IPOC Station P**	**1.51**	**309**	Pn	**Pn**	**16 51 25.2**	**+1.4**
AF01	**San Pedro de A**	**1.86**	**188**	*e*P	**Pn**	**16 51 29.9**	**+2.5**
AF01				*e*S	**Sn**	**16 51 54.5**	**+0.4**
AF01				IAML		16 52 29.0	
	comp=Z,329nm,0.8s						
AF01	**San Pedro de A**	**1.86**	**188**		**Pn**	**16 51 28.8**	**+1.4**
AF01	**San Pedro de A**	**1.86**	**188**	*e*P	**Pn**	**16 51 29.3**	**+1.9**
AF01				*e*S	**Sn**	**16 51 56.8**	**+2.6**
GO01	**Chusmiza**	**1.87**	**319**	*e*P	Pn	16 51 23.5	-4.3
GO01				IAML		16 52 02.2	
	comp=Z,293nm,0.2s						
GO01	**Chusmiza**	**1.87**	**319**		**Pn**	**16 51 28.9**	**+1.1**
GO01	**Chusmiza**	**1.87**	**319**	⇑*i*P	**Pn**	**16 51 28.6**	**+0.8**
GO01				*e*S	**Sn**	**16 51 55.4**	**+0.8**
GO01				IAML		16 52 03.1	
	comp=E,853nm,0.2s						
GO01	**Chusmiza**	**1.87**	**319**	P	**Pn**	**16 51 28.6**	**+0.8**
PB02	**IPOC Station P**	**1.87**	**263**	*e*S	**Sn**	**16 51 54.6**	**+0.6**
PB02				IAML		16 51 59.9	
	comp=Z,2μm,0.7s						
PB02	**IPOC Station P**	**1.87**	**263**		**Pn**	**16 51 28.1**	**+0.6**
PB02	**IPOC Station P**	**1.87**	**263**	⇑*i*P	**Pn**	**16 51 27.8**	**+0.4**
PB02				*e*S	**Sn**	**16 51 53.4**	**-0.5**
PB02	**IPOC Station P**	**1.87**	**263**	P	**Pn**	**16 51 28.0**	**+0.6**
PB02				S	**Sn**	**16 51 53.3**	**-0.6**
PB02				IAML		16 51 55.6	
	comp=Z,3μm,0.5s						
PB07	**IPOC Station P**	**1.95**	**251**	*e*P	Pn	16 51 09.8	-19
PB07				*e*S	**Sn**	**16 51 55.4**	**-0.2**
PB07				IAML		16 51 56.4	
	comp=Z,1μm,0.4s						
PB07	**IPOC Station P**	**1.95**	**251**	Pn	**Pn**	**16 51 29.1**	**+0.8**
PB07	**IPOC Station P**	**1.95**	**251**	⇑*i*P	**Pn**	**16 51 28.7**	**+0.4**
PB07				*e*S	**Sn**	**16 51 54.8**	**-0.8**
PB03	**IPOC Station P**	**1.96**	**241**	*e*S	**Sn**	**16 51 56.0**	**+0.1**
PB03				IAML		16 51 56.5	
	comp=Z,1μm,0.5s						
PB03	**IPOC Station P**	**1.96**	**241**	Pn	**Pn**	**16 51 29.2**	**+0.7**
PB03	**IPOC Station P**	**1.96**	**241**	⇑*i*P	**Pn**	**16 51 28.9**	**+0.4**
PB03				*e*S	**Sn**	**16 51 55.1**	**-0.7**
PB03				IAML		16 51 56.4	
	comp=E,2μm,0.3s						
MOCB	**Mochara**	**2.12**	**94**	P	**Pn**	**16 51 31.5**	**+1.0**
PB11	**IPOC Station P**	**2.12**	**309**	*e*P	**Pn**	**16 51 30.6**	**+0.3**
PB11				*e*S	**Sn**	**16 51 59.8**	**+0.7**
PB11				IAML		16 52 01.0	
	comp=Z,896nm,0.3s						
PB11	**IPOC Station P**	**2.12**	**309**		**Pn**	**16 51 31.0**	**+0.7**
PB11	**IPOC Station P**	**2.12**	**309**	⇑*i*P	**Pn**	**16 51 30.8**	**+0.5**
PB11				*e*S	**Sn**	**16 51 59.0**	**0.0**
PB11				IAML		16 52 00.0	
	comp=N,2μm,0.2s						
PB11	**IPOC Station P**	**2.12**	**309**	P	**Pn**	**16 51 31.0**	**+0.7**
PB11				S	**Sn**	**16 51 59.2**	**+0.2**
PB11				IAML		16 52 00.9	
	comp=N,1μm,0.2s						
TA01	**Diego Aracena**	**2.20**	**284**	*e*P	**Pn**	**16 51 31.1**	**+0.2**
TA01				IAML		16 52 04.4	
	comp=Z,354nm,0.3s						
TA01	**Diego Aracena**	**2.20**	**284**		**Pn**	**16 51 30.8**	**-0.2**
TA01	**Diego Aracena**	**2.20**	**284**	⇑*i*P	**Pn**	**16 51 30.9**	**0.0**
TA01				*e*S	**Sn**	**16 51 58.9**	**-1.5**
TA01				IAML		16 52 00.6	
	comp=E,2μm,0.2s						
PB06	**IPOC Station P**	**2.23**	**224**	*e*S	**Sn**	**16 52 01.9**	**+0.5**
PB06				IAML		16 52 04.8	
	comp=Z,395nm,0.4s						
PB06	**IPOC Station P**	**2.23**	**224**		**Pn**	**16 51 32.3**	**+0.8**
PB06	**IPOC Station P**	**2.23**	**224**	*e*P	**Pn**	**16 51 32.0**	**+0.6**
PB06				*e*S	**Sn**	**16 52 00.9**	**-0.4**
PB06				IAML		16 52 02.4	
	comp=E,909nm,0.4s						
PB06	**IPOC Station P**	**2.23**	**224**	P	**Pn**	**16 51 32.1**	**+0.6**
TA02	**Huaiquique**	**2.25**	**291**	*e*P	**Pn**	**16 51 31.8**	**+0.3**
TA02				*e*S	**Sn**	**16 52 01.4**	**+0.1**
TA02				IAML		16 52 06.8	
	comp=Z,884nm,0.1s						
TA02	**Huaiquique**	**2.25**	**291**	*e*P	**Pn**	**16 51 31.4**	**-0.2**
TA02				*e*S	**Sn**	**16 52 00.7**	**-0.7**
YJA	**Yavi**	**2.46**	**116**	*e*P	**Pn**	**16 51 36.5**	**+1.9**
YJA				*e*S	Sn	16 51 57.8	-9.0
YJA				IAML		16 52 08.8	
	comp=Z,125nm,0.8s						
YJA	**Yavi**	**2.46**	**116**	*e*P	**Pn**	**16 51 36.0**	**+1.4**
YJA	**Yavi**	**2.46**	**116**	P	**Pn**	**16 51 36.2**	**+1.6**
SOEO	**Opoqueri**	**2.52**	**0**	P	**Pn**	**16 51 37.6**	**+2.2**
PSGCX	**Pisagua**	**2.57**	**305**	*e*P	**Pn**	**16 51 35.1**	**-0.4**
PSGCX				*e*S	**Sn**	**16 52 08.4**	**0.0**
PSGCX				IAML		16 52 09.4	
	comp=Z,296nm,0.2s						
PSGCX	**Pisagua**	**2.57**	**305**	Pn	**Pn**	**16 51 36.0**	**+0.5**
PSGCX	**Pisagua**	**2.57**	**305**	*i* P	**Pn**	**16 51 35.1**	**-0.4**
PB05	**IPOC Station P**	**2.76**	**230**	*e*S	**Sn**	**16 52 11.7**	**-0.9**
PB05				IAML		16 52 15.3	
	comp=Z,347nm,1.1s						
PB05	**IPOC Station P**	**2.76**	**230**		**Pn**	**16 51 37.6**	**-0.2**
PB05	**IPOC Station P**	**2.76**	**230**	*e*P	**Pn**	**16 51 38.0**	**+0.1**
PB05				IAML		16 52 13.1	
	comp=N,418nm,0.6s						
AOVT	**TarijaAcel**	**3.01**	**99**	P	**Pn**	**16 51 42.1**	**+1.0**
PX02	**IPOC Station P**	**3.03**	**314**	*e*P	**Pn**	**16 51 40.0**	**-1.2**
PB16	**IPOC Station P**	**3.14**	**331**	*e*P	**Pn**	**16 51 44.7**	**+1.7**
PB16				*e*S	**Sn**	**16 52 24.5**	**+2.6**
PB16				IAML		16 52 25.6	
	comp=Z,241nm,0.6s						
PB16	**IPOC Station P**	**3.14**	**331**		**Pn**	**16 51 43.6**	**+0.5**
PB16	**IPOC Station P**	**3.14**	**331**	⇑*i*P	**Pn**	**16 51 44.6**	**+1.6**
PB16	**IPOC Station P**	**3.14**	**331**	P	**Pn**	**16 51 45.0**	**+1.9**
PB12	**IPOC Station P**	**3.37**	**317**	*e*P	**Pn**	**16 51 44.5**	**-1.0**
PB12				*e*S	**Sn**	**16 52 25.6**	**-0.7**
PB12				IAML		16 52 34.3	
	comp=Z,165nm,0.4s						
PB12	**IPOC Station P**	**3.37**	**317**		**Pn**	**16 51 44.8**	**-0.7**
PB12	**IPOC Station P**	**3.37**	**317**	⇑*i*P	**Pn**	**16 51 44.5**	**-1.0**
SALTA		**3.43**	**155**	*e*P	**Pn**	**16 51 43.0**	**-3.6**
SALTA				*e*P		16 51 44.1	
SALTA				*e*P		16 51 48.5	
PB10	**IPOC Station P**	**3.44**	**225**	*e*P	**Pn**	**16 51 46.1**	**-0.1**
PB10				*e*S	**Sn**	**16 52 24.5**	**-3.2**
PB10				IAML		16 52 26.2	
	comp=Z,160nm,0.5s						
PB10	**IPOC Station P**	**3.44**	**225**	Pn	**Pn**	**16 51 44.9**	**-1.3**
AP01	**Chacalluta**	**3.56**	**319**	*e*P	**Pn**	**16 51 47.8**	**0.0**
AP01				*e*S	**Sn**	**16 52 30.7**	**+0.3**
AP01				IAML		16 53 05.5	
	comp=Z,533nm,0.3s						
AP01	**Chacalluta**	**3.56**	**319**	Pn	**Pn**	**16 51 48.1**	**+0.3**
AP01	**Chacalluta**	**3.56**	**319**	*e*P	**Pn**	**16 51 47.1**	**-0.7**
SOET	**ToroToro**	**3.56**	**34**	P	**Pn**	**16 51 49.9**	**+1.7**
PB18	**Visviri**	**3.80**	**337**		**Pn**	**16 51 53.8**	**+2.4**
PB18	**Visviri**	**3.80**	**337**	*e*P	**Pn**	**16 51 54.0**	**+2.6**
BBOJ	**La Paz, Jacaqu**	**4.11**	**356**	P	**Pn**	**16 51 58.2**	**+2.7**
SOEJ	**Jacaque**	**4.11**	**356**	P	**Pn**	**16 51 58.0**	**+2.5**
PB14	**IPOC Station P**	**4.20**	**213**	*e*P	**Pn**	**16 51 55.9**	**-0.4**
PB14				*e*S	**Sn**	**16 52 41.9**	**-3.9**
PB14				IAML		16 52 44.8	
	comp=Z,116nm,0.4s						
PB14	**IPOC Station P**	**4.20**	**213**		**Pn**	**16 51 56.0**	**-0.4**
PB14	**IPOC Station P**	**4.20**	**213**	P	**Pn**	**16 51 56.1**	**-0.3**
SLA	**San Lorenzo**	**4.23**	**149**	*e*P	**Pn**	**16 51 58.1**	**+1.5**
SLA	**San Lorenzo**	**4.23**	**149**	*e*P	**Pn**	**16 51 57.7**	**+1.2**
BBOD	**La Paz, Gloria**	**4.49**	**351**	P	**Pn**	**16 52 02.9**	**+2.5**
LPAZ	**La Paz**	**4.79**	**357**	P	**Pn**	**16 52 05.1**	**+0.7**
	comp=Z,72nm,0.5s,baz=187,slow=7.4,SNR=143						
LPAZ				S	**Sn**	**16 53 00.2**	**0.0**
	comp=Z,16nm,0.7s,baz=166,slow=4.2,SNR=1.8						
LPAZ	**La Paz**	**4.79**	**357**		**Pn**	**16 52 06.3**	**+1.8**
LPAZ	**La Paz**	**4.79**	**357**	P	**Pn**	**16 52 06.7**	**+2.3**
LPAZ	**La Paz**	**4.79**	**357**	*e*P	**Pn**	**16 52 06.2**	**+1.8**
LPAZ				*e*S	**Sn**	**16 53 02.6**	**+2.5**
BBOB	**La Paz, Bander**	**4.94**	**357**	P	**Pn**	**16 52 08.3**	**+2.0**
AC01	**Pan de Azucar**	**5.60**	**206**		**Pn**	**16 52 12.5**	**-1.9**
AC02	**Maricunga**	**5.82**	**191**	Pn	**Pn**	**16 52 17.7**	**-0.1**
SIV	**San Ignacio**	**8.23**	**53**	P	**Pn**	**16 52 47.0**	**-2.4**
	comp=Z,13nm,0.4s,baz=236,slow=12,SNR=70						
SIV				S	**Sn**	**16 54 13.3**	**-8.0**
	comp=Z,17nm,0.8s,baz=150,slow=20,SNR=11						
SIV	**San Ignacio**	**8.23**	**53**	P	**Pn**	**16 52 47.8**	**-1.7**
COIM	**Forte Coimbra**	**9.55**	**85**	*e*P	Pn	16 53 02.4	-4.5
MURT	**Porto Murtinho**	**9.61**	**95**	*e*P	**Pn**	**16 53 04.4**	**-3.2**
PTLB	**Pontes e Lacer**	**10.04**	**57**	Pn	**Pn**	**16 53 10.8**	**-2.6**
PTLB	**Pontes e Lacer**	**10.04**	**57**	*e*P	**Pn**	**16 53 11.2**	**-2.2**
BDQN	**Bodoquena, MS**	**10.45**	**88**	*e*P	**Pn**	**16 53 15.8**	**-3.0**
CFA	**Coronel Fontan**	**10.47**	**182**	P	**Pn**	**16 53 15.3**	**-3.6**
	comp=Z,0.8nm,0.4s,baz=16,slow=20,SNR=2.0						
CFA				S	Sn	16 55 04.6	-10
	comp=Z,1.0nm,0.4s,baz=101,slow=9.5,SNR=1.7						
CPUP	**Villa Florida**	**10.99**	**120**	P	**Pn**	**16 53 24.9**	**-0.9**
	comp=Z,12nm,0.8s,baz=301,slow=16,SNR=33						
CPUP				S	**S**	**16 55 29.6**	**+1.0**
	comp=Z,2.6nm,0.8s,baz=299,slow=19,SNR=1.9						
CPUP	**Villa Florida**	**10.99**	**120**		**Pn**	**16 53 26.1**	**+0.2**
AQDB	**Aquidauana**	**11.43**	**89**	*e*P	**Pn**	**16 53 28.9**	**-2.7**
PCMB	**Pacaembu**	**15.51**	**95**	*e*P	**Pn**	**16 54 21.5**	**-1.8**
ITAB	**Concordia**	**15.63**	**116**	P	**Pn**	**16 54 25.3**	**+0.7**
ITAB				IAmb	IAmb	16 54 26.4	
	comp=Z,17nm,0.6s						

NJ2	**Nanjing**	**167.54**	332	*e*P	**PKPdf**	**17 10 37.4**		**-2.8**
NJ2				pmax	pmax			
	comp=Z,10.0nm,0.6s							

*IDC **06** 16:55:54.2±2.1,56˚.56S×26˚.75W,h0km,mb3.9/5, mbtmp3.8/6,ML4.3/1,MS3.0/1,Error ellipse: s-maj=82.9km s-min=27.6km az=55.0*

ISC 06 16:56:06.0±2.0,56˚.5S±0˚.3×26˚.9W±0˚.4,h101km,n15, σ2s15/9,mb3.8/4,4C,South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**16.30**	**158**	⇑P	**P**	**16 59 50.4**	**+0.8**
	comp=Z,6.9nm,0.4s						
VNA3	**Neumayer Olymp**	**16.49**	**160**	⇑P	**P**	**16 59 51.9**	**+0.2**
	comp=Z,5.8nm,0.6s						
VNA2	**Neumayer--Watz**	**16.69**	**158**	⇑P	**P**	**16 59 54.3**	**+0.4**
	comp=Z,3.4nm,0.3s,baz=316,slow=12						
SNAA	**Sanae**	**18.24**	**156**	⇑P	**Pn**	**17 00 15.9**	**+3.8**
	comp=Z,42nm,0.2s						
SNAA	**Sanae**	**18.24**	**156**	P	**P**	**17 00 08.0**	**-3.1**
	comp=Z,1.0nm,0.3s,baz=312,slow=15,SNR=5.4						
	comp=Z,1.2nm,0.5s						
SNAA				AML	AML		
QSPA	**South Pole Qui**	**33.74**	**180**	P	**P**	**17 02 36.8**	**-0.7**
	comp=Z,1.7nm,0.5s,baz=185,slow=2.0,SNR=18						
	comp=Z,1.7nm,0.5s						
MAW	**Mawson**	**39.67**	**143**	P	**P**	**17 03 26.3**	**-1.1**
	comp=Z,0.4nm,0.5s,baz=230,slow=7.9,SNR=3.9						
	comp=Z,0.4nm,0.5s						
VNDA	**Vanda**	**46.12**	**183**	P	**P**	**17 04 18.4**	**-0.9**
	comp=Z,0.5nm,0.7s,baz=188,slow=6.3,SNR=1.7						
	comp=Z,0.5nm,0.7s						
H10S2	**ASCENSION HYDR**	**48.39**	**16**	T	T	17 56 46.6	
	baz=189,slow=74,SNR=4.1						
H10S3	**ASCENSION HYDR**	**48.39**	**16**	T	T	17 56 46.0	
	baz=31,slow=74,SNR=5.4						
H10N1	**ASCENSION HYDR**	**49.51**	**16**	T	T	17 58 10.4	
	baz=189						
H10N3	**ASCENSION HYDR**	**49.51**	**16**	T	T	17 58 09.8	
	baz=189						
H10N2	**ASCENSION HYDR**	**49.52**	**16**	T	T	17 58 13.3	
	baz=189						
LPAZ	**La Paz**	**50.80**	**305**	P	**P**	**17 04 57.3**	**+0.7**
	comp=Z,0.8nm,0.4s,baz=131,slow=5.6,SNR=4.4						
LPAZ				LR	LR	17 29 48.5	
	comp=Z,13nm,18.0s,baz=318,slow=40						
	comp=Z,0.8nm,0.4s						
ASAR	**Alice Springs**	**98.49**	**162**	P	Pdif	17 09 34.3	+1.4
	comp=Z,0.3nm,0.9s,baz=196,slow=4.8,SNR=2.1						
	comp=Z,0.3nm,0.9s						

*NEIC **06** 16:59:23.5±1.2,19˚.15N±0˚.06×64˚.22W±0˚.03,h35km±2km, ML3.0/27,Md3.6/6(RSPR),Error ellipse: s-maj=10.8km s-min=3.1km az=334.0*

*RSPR **06** 16:59:25.3,19˚.21N×64˚.29W,h21km±16km,MD3.6/6*

ISC 06 16:59:21.4±3.0,19˚.2N±0˚.2×64˚.19W±0˚.07,h22km,n26, σ0s95/30,2C-6D,Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMRT	**St. Maarten**	**1.54**	**136**	Pn	**Pn**	**16 59 47.0**	**-0.6**
SMRT				Sn	**Sb**	**17 00 09.4**	**+1.1**
SMRT				IAML		17 00 17.7	
	comp=N,243nm,0.3s						
HUMP	**Col San Antoni**	**1.88**	**237**		**Pn**	**16 59 52.9**	**+0.7**
HUMP					**Sn**	**17 00 14.5**	**-0.7**
HUMP	**Col San Antoni**	**1.88**	**237**	IAML		17 00 22.0	
	comp=N,79nm,0.2s						
HUMP				IAML		17 00 23.0	
	comp=N,112nm,0.2s						
HUMP	**Col San Antoni**	**1.88**	**237**	*e*P	**Pn**	**16 59 52.9**	**+0.7**
GCPR	**Guaynabo City**	**1.99**	**245**	Pn	**Pn**	**16 59 53.8**	**+0.1**
GCPR				Sn	**Sn**	**17 00 15.7**	**-2.2**
PDPR	**Patillas Dam,**	**2.08**	**237**		**Pn**	**16 59 55.7**	**+0.7**
PDPR					**Sn**	**17 00 19.6**	**-0.6**
PDPR	**Patillas Dam,**	**2.08**	**237**	*e*P	**Pn**	**16 59 55.7**	**+0.7**
IGPR	**InterUniversit**	**2.17**	**237**		**Pn**	**16 59 57.5**	**+1.1**
IGPR					**Sn**	**17 00 21.2**	**-1.4**
IGPR	**InterUniversit**	**2.17**	**237**	*e*P	**Pn**	**16 59 57.5**	**+1.1**
ECPR	**Experimental S**	**2.22**	**248**		**Pn**	**16 59 57.7**	**+0.7**
ECPR					**Sn**	**17 00 23.1**	**-0.7**
ECPR	**Experimental S**	**2.22**	**248**	IAML		17 00 29.6	
	comp=N,113nm,0.2s						
ECPR				IAML		17 00 33.1	
	comp=N,110nm,0.2s						
ECPR	**Experimental S**	**2.22**	**248**	*e*P	**Pn**	**16 59 57.7**	**+0.7**
CELP	**Cerrillos**	**2.51**	**245**		**Pn**	**17 00 01.6**	**+0.7**
CELP					**Sn**	**17 00 30.2**	**-0.8**
CELP	**Cerrillos**	**2.51**	**245**	IAML		17 00 35.5	
	comp=N,45nm,0.8s						
CELP	**Cerrillos**	**2.51**	**245**	*e*P	**Pn**	**17 00 01.6**	**+0.7**
OBIP	**Obispado Ponce**	**2.55**	**244**		**Pn**	**16 59 59.9**	**-1.5**
OBIP				IAML		17 00 53.3	
	comp=N,41nm,0.8s						
AOPR	**Arecibo Observ**	**2.56**	**252**		**Pn**	**17 00 02.0**	**+0.3**
AOPR					**Sn**	**17 00 31.4**	**-0.8**
AOPR	**Arecibo Observ**	**2.56**	**252**	IAML		17 00 39.4	
	comp=N,82nm,0.6s						
AOPR	**Arecibo Observ**	**2.56**	**252**	*e*P	**Pn**	**17 00 02.0**	**+0.3**
MLPR	**Magueyes Islan**	**2.96**	**247**		**Pn**	**17 00 07.8**	**+0.8**
MLPR					**Sn**	**17 00 41.3**	**-0.6**
MLPR	**Magueyes Islan**	**2.96**	**247**	IAML		17 01 04.3	
	comp=N,35nm,3.3s						
MLPR				IAML		17 02 00.5	
	comp=N,38nm,3.5s						
MLPR	**Magueyes Islan**	**2.96**	**247**	⇑*e*P	**Pn**	**17 00 07.8**	**+0.8**
CRPR	**Cabo Rojo, PR**	**3.00**	**248**		**Pn**	**17 00 08.7**	**+1.0**
CRPR					**Sn**	**17 00 42.1**	**-0.8**
CRPR	**Cabo Rojo, PR**	**3.00**	**248**	IAML		17 00 51.2	
	comp=N,39nm,1.1s						
CRPR				IAML		17 00 54.9	
	comp=N,46nm,2.4s						
CRPR	**Cabo Rojo, PR**	**3.00**	**248**	⇑*e*P	**Pn**	**17 00 08.7**	**+1.0**
CBE	**Ff, Capester**	**3.95**	**141**	Pn	**Pn**	**17 00 21.3**	**+0.5**

*NIED **06** 17:07:23.4,25˚.70N×125˚.88E,h14km,MW3.5,Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁴Nm; Mrr-0.13; Mθθ0.85; Mϕϕ-0.71; Mrθ1.12; Mθϕ-1.57; Mϕr0.94; Fault plane solution: M₀2.24000×10¹⁴ NP1: ϕs162.00000°,δ56.00000°,λ-11.00000°. NP2: ϕs258.00000°,δ81.00000°,λ-145.00000°.*

*JMA **06** 17:07:23.4±0.3,26˚N±2˚×12˚6E±˚,h14km±4km,MV3.5/24, NEAR MIYAKOJIMA ISLAND*

ISC 06 17:07:22.1±1.9,25˚.75N±0˚.06×125˚.85E±0˚.05,h5km±14km, n30,σ1s31/45,Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JIKM	**Ikemajima**	**0.98**	**214**	P	**Pb**	**17 07 41.8**	**+0.2**
JKE	**Kume jima 2**	**1.02**	**56**	*i* P	**Pb**	**17 07 42.5**	**+0.2**
JKE				S	**Sb**	**17 07 56.3**	**+0.2**
JMJ	**Miyako jima 2**	**1.05**	**208**	P	**Pn**	**17 07 43.7**	**+0.2**
JOGS	**Gusukube**	**1.06**	**202**	P	**Pb**	**17 07 42.3**	**-0.6**
JOGS				S	**Sg**	**17 07 56.6**	**+0.5**
JIRJ	**Irabujima**	**1.08**	**213**	P	**Pb**	**17 07 42.4**	**-1.0**
JIRJ				*e*S	**Sb**	**17 07 56.6**	**-1.2**
JMJ2	**Miyako jima3**	**1.10**	**205**	P	**Pb**	**17 07 43.4**	**-0.3**
JMJ2				S	**Sg**	**17 07 58.2**	**+0.6**
JAGN	**Aguni-jima**	**1.51**	**56**	P	**Pn**	**17 07 50.1**	**+0.2**
JAGN				S	**Sn**	**17 08 09.7**	**-0.2**
JTJ	**Tarama**	**1.51**	**223**	P	**Pb**	**17 07 50.6**	**-0.1**
JTJ				*e*S	**Sb**	**17 08 10.0**	**-0.1**
JJT3	**Tamagusuku3**	**1.79**	**77**	P	**Pn**	**17 07 54.1**	**+0.4**
JJT3				*e*S	**Sn**	**17 08 16.6**	**-0.3**
JISG	**Ishigakijimahi**	**1.81**	**231**	P	**Pn**	**17 07 54.9**	**+1.0**
JISG				S	**Sn**	**17 08 17.5**	**+0.3**
JIJ	**Ishigaki jima**	**2.07**	**229**	P	**Pn**	**17 07 58.1**	**+0.6**
JIJ				*e*S	**Sn**	**17 08 22.8**	**-0.9**
JNTH	**Nagotoyohara**	**2.10**	**68**	*e*P	**Pn**	**17 07 59.1**	**+1.1**
JKRS	**Kuro-shima**	**2.24**	**228**	*e*P	**Pn**	**17 08 00.9**	**+1.0**
JKRS				*e*S	**Sn**	**17 08 28.1**	**+0.2**
JIH	**Iheya**	**2.30**	**56**	P	**Pn**	**17 08 01.3**	**+0.7**
JIH				*e*S	**Sn**	**17 08 29.0**	**-0.3**
IRIF	**Iriomote-Funau**	**2.38**	**234**	P	**Pn**	**17 07 59.9**	**-1.8**
IRIF				*e*S	**Sn**	**17 08 31.1**	**-0.2**
JOW	**Kunigami**	**2.44**	**63**	P	**Pn**	**17 08 03.7**	**+1.1**
JOW	**Kunigami**	**2.44**	**63**	S	**Sb**	**17 08 37.3**	**+0.6**
JOW	**Kunigami**	**2.44**	**63**	P	**Pn**	**17 08 03.5**	**+1.0**
JOW				*e*S	**Sn**	**17 08 31.4**	**-1.4**
JYRO	**Yoronjima**	**2.66**	**61**	*e*P	**Pn**	**17 08 06.5**	**+0.8**
YOJ	**Yonaguni jima**	**2.87**	**244**	P	**Pb**	**17 08 12.5**	**-1.3**
YOJ	**Yonaguni jima**	**2.87**	**244**	S	**Sg**	**17 08 53.7**	**-0.6**
JOKE	**Okinoerabujima**	**2.92**	**56**	*e*P	**Pn**	**17 08 10.5**	**+1.2**
JYNG	**Yonagunijimaku**	**2.93**	**244**	*e*S	**Sn**	**17 08 46.7**	**+1.8**
JTK	**Tokunoshima**	**3.44**	**53**	*e*P	**Pn**	**17 08 17.4**	**+1.0**
JTK				*e*S	**Sn**	**17 08 55.2**	**-2.4**
JAMN	**Amaminishikomi**	**3.88**	**49**	P	**Pn**	**17 08 23.5**	**+1.2**
JAMN				*e*S	**Sn**	**17 09 07.5**	**-0.7**
NACB	**Ninganchiao**	**4.16**	**249**	P	**Pn**	**17 08 30.3**	**+4.0**
YHNB	**Yeheng**	**4.19**	**256**	P	**Pn**	**17 08 33.4**	**-2.9**
YULB	**Yu-li**	**4.76**	**241**	P	**Pn**	**17 08 35.7**	**+1.2**
SSLB	**Suanglung**	**4.85**	**247**	P	**Pn**	**17 08 39.3**	**+3.4**
TWGBT	**Beinan**	**5.23**	**237**	P	**Pn**	**17 08 40.6**	**-0.5**

*IDC **06** 17:16:51.4±0.4,40˚.92N×143˚.26E,h0km,mb5.0/30, mbtmp5.0/41,ML4.1/9,MS4.7/89,Error ellipse: s-maj=9.7km s-min=8.6km az=100.0*

*MOS **06** 17:16:52.9±0.9,40˚.96N×143˚.14E,h16km,mb5.6/83, MS5.3/23,Error ellipse: s-maj=5.6km s-min=3.6km az=114.5*

*NEIC **06** 17:16:54.7±1.8,40˚.93N±0˚.05×143˚.36E±0˚.04,h21km±1km, mb5.4/439,Mwb5.2/56,Mww5.2/10,Error ellipse: s-maj=8.2km s-min=5.1km az=355.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr4.20; Mθθ-1.53; Mϕϕ-2.67; Mrθ3.15; Mθϕ-2.42; Mϕr5.97; Fault plane solution: M₀8.06000×10¹⁶ NP1:ϕs29.38000°, δ73.67000°,λ84.37000°. NP2:ϕs228.69000°,δ17.25000°, λ108.51000°. Principal axes: T 7.9255, Plg61.0000°, Azm291.0000°; N 0.2619, Plg5.0000°, Azm31.0000°; P -8.1874, Plg28.0000°, Azm124.0000°;*

*BJI **06** 17:16:54.1,40˚.93N×143˚.11E,h30km,mB5.5/44,mb5.4/80, Ms5.1/86,Ms7 5.0/83*

*NEIC **06** 17:16:54.8,40˚.93N×143˚.37E,h21km*

*NEIC **06** 17:16:54.7,40˚.93N×143˚.36E,h21km*

*NIED **06** 17:16:57.0,40˚.96N×143˚.24E,h18km,MW5.2,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁶Nm; Mrr4.11; Mθθ1.47; Mϕϕ-5.57; Mrθ1.56; Mθϕ-5.74; Mϕr4.52; Fault plane solution: M₀8.21000×10¹⁶ NP1: ϕs244.00000°,δ36.00000°,λ142.00000°. NP2:ϕs6.00000°, δ69.00000°,λ60.00000°.*

*JMA **06** 17:16:57.0±0.1,41˚.0N±0˚.2×143˚.2E±0˚.3,h18km±1km, MD5.3/37,MW5.2/37,E OFF AOMORI PREF*

JMA Felt II J1 at E OFF AOMORI PREF .

*GFZ **06** 17:16:58.0,40˚.96N×143˚.13E,h29km,Mw5.2/26,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr4.62; Mθθ0.61; Mϕϕ-5.24; Mrθ1.83; Mθϕ-2.12; Mϕr3.72; Fault plane solution: M₀6.80250×10¹⁶ NP1: ϕs189.33666°,δ26.53827°,λ76.60205°. NP2:ϕs24.24573°, δ64.23790°,λ96.60098°. Principal axes: T 6.0985, Plg70.0410°, Azm308.0219°; N 1.2380, Plg5.9424°, Azm201.3664°; P -7.3365, Plg18.9819°, Azm109.3145°;*

*GFZ **06** 17:16:57.4±0.1,41˚N±2˚×14˚3E±˚,h30km,M5.3/183, mb5.5/183*

*GCMT **06** 17:16:58.7±0.2,40˚.94N±0˚.01×143˚.38E±0˚.02,h30km, MW5.2/124,Moment Tensor Solution. s93,c146; s124,c222; Duration: 1s0 Moment tensor: Scale 10¹⁷ Nm; Mrr0.61±.02; Mθθ-0.03±.01; Mϕϕ-0.58±.01; Mrθ0.34±.02; Mθϕ-0.13±.01; Mϕr0.60±.02; Best double couple: M₀0.92300×10¹⁷ NP1:ϕs181.00000°,δ22.00000°, λ67.00000°. NP2:ϕs25.00000°,δ70.00000°,λ99.00000°. Principal axes: T 0.9370, Plg64.0000°, Azm310.0000°; N -0.0280, Plg8.0000°, Azm202.0000°; P -0.9090, Plg24.0000°, Azm108.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **06** 17:16:58.3,40˚.93N×143˚.37E,h16km,Moment Tensor Solution. Duration: 2s0 Moment tensor: Scale 10¹⁶Nm; Mrr2.55; Mθθ0.01; Mϕϕ-2.56; Mrθ4.51; Mθϕ-0.64; Mϕr7.60; Fault plane solution: M₀9.22000×10¹⁶ NP1: ϕs177.87000°,δ9.33000°,λ58.31000°. NP2:ϕs29.91000°, δ82.07000°,λ94.93000°. Principal axes: T 9.2587, Plg53.0000°, Azm306.0000°; N -0.0746, Plg5.0000°, Azm209.0000°; P -9.1841, Plg37.0000°, Azm116.0000°;*

ISC 06 17:16:55.7±0.3,40˚.96N±0˚.03×143˚.29E±0˚.03,h27km±2km, h27km:pP-P,n1481,σ1s44/1300,mb5.4/537,MS4.9/128, 98C-45D,Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ERM	**Erimo**	**1.06**	**355**	P	**Pn**	**17 17 14.6**	**-0.2**
ERM	**Erimo**	**1.06**	**355**	S	**Sb**	**17 17 29.7**	**+0.8**
ERM	**Erimo**	**1.06**	**355**	P	**Pb**	**17 17 15.1**	**-0.3**
ERM						17 17 28.8	
ERM	**Erimo**	**1.06**	**355**		**Pb**	**17 17 15.1**	**-0.3**
ERM				Sg	**Sb**	**17 17 28.8**	**0.0**
ERM	**Erimo**	**1.06**	**355**	P	**Pb**	**17 17 15.4**	**0.0**
JEM	**Erimo**	**1.06**	**355**	P	**Pn**	**17 17 14.7**	**-0.1**
JEM	**Erimo**	**1.06**	**355**	S	**Sb**	**17 17 29.8**	**+0.9**
JEM	**Erimo**	**1.06**	**355**	P	**Pb**	**17 17 15.2**	**-0.2**
JEM				A	A	17 17 15.2	
	comp=N,80nm,3.3s,comp=E,91nm,3.6s						
JEM				S	**Sb**	**17 17 30.3**	**+1.4**
JTHR	**Tokachihiroo**	**1.33**	**0**	A	A	17 17 20.8	
	comp=N,57nm,1.9s,comp=E,80nm,3.2s						
JNBK	**Urakawa-nobuka**	**1.38**	**343**	A	A	17 17 21.4	
	comp=N,100nm,1.1s,comp=E,128nm,2.0s						
JKEN	**Kujiedanarisaw**	**1.42**	**238**	A	A	17 17 21.6	
	comp=N,81nm,1.5s,comp=E,83nm,1.8s						
JARK	**Aomorirokkasho**	**1.46**	**273**	A	A	17 17 22.1	
	comp=N,69nm,1.9s,comp=E,52nm,1.6s						
JANG	**Nango**	**1.47**	**247**	A	A	17 17 22.4	
	comp=N,43nm,3.5s,comp=E,29nm,0.7s						
JTH	**Tanohata**	**1.49**	**227**	A	A	17 17 22.8	
	comp=N,34nm,2.1s,comp=E,50nm,1.8s						
JAHD	**Aomorihigashid**	**1.51**	**282**	A	A	17 17 22.9	
	comp=N,124nm,1.6s,comp=E,143nm,1.9s						
JSHD	**Hidakashinhida**	**1.57**	**337**	A	A	17 17 24.3	
	comp=N,149nm,3.5s,comp=E,179nm,2.9s						
JCH	**Churui**	**1.66**	**2**	A	A	17 17 25.8	
	comp=N,40nm,1.4s,comp=E,74nm,4.8s						
JTM	**Tenmabayashi**	**1.69**	**265**	P	**Pn**	**17 17 22.9**	**-0.6**
JTM	**Tenmabayashi**	**1.69**	**265**	S	**Sn**	**17 17 41.4**	**-2.8**
JTM	**Tenmabayashi**	**1.69**	**265**		**Pn**	**17 17 23.4**	**0.0**
JTM				Sn	**Sn**	**17 17 43.5**	**-0.7**
JTM	**Tenmabayashi**	**1.69**	**265**	P	**Pn**	**17 17 23.7**	**+0.2**
JTM	**Tenmabayashi**	**1.69**	**265**	A	A	17 17 25.7	
	comp=N,58nm,2.0s,comp=E,61nm,2.1s						
JOT	**Ohata**	**1.74**	**285**	A	A	17 17 26.5	
	comp=N,45nm,2.1s,comp=E,62nm,1.0s						
MIYJ	**Miyakonagasawa**	**1.78**	**220**	A	A	17 17 27.2	
	comp=N,26nm,1.3s,comp=E,25nm,3.0s						
JKZ	**Kuzumaki**	**1.78**	**238**	A	A	17 17 27.2	
	comp=N,47nm,1.7s,comp=E,35nm,3.3s						
JKB	**Kayabe**	**1.93**	**299**	A	A	17 17 29.4	
	comp=N,48nm,4.6s,comp=E,66nm,3.8s						
JBT2	**Biratori 2**	**1.94**	**339**	A	A	17 17 29.8	
	comp=N,53nm,2.5s,comp=E,46nm,2.6s						
JIAM	**Iburiatsuma**	**1.95**	**329**	A	A	17 17 29.8	
	comp=N,192nm,1.2s,comp=E,171nm,0.5s						
JOB	**Onbets**	**1.98**	**12**	A	A	17 17 30.7	
	comp=N,76nm,1.9s,comp=E,68nm,4.2s						
JOM	**Ohasama**	**2.13**	**226**	A	A	17 17 32.2	
	comp=N,37nm,2.7s,comp=E,37nm,3.6s						
JSZI	**Iwateshizukuis**	**2.16**	**236**	A	A	17 17 32.6	
	comp=N,113nm,1.7s,comp=E,157nm,1.5s						
JAH	**Hinai**	**2.16**	**250**	A	A	17 17 32.6	
	comp=N,68nm,2.0s,comp=E,74nm,1.3s						
JSI2	**Shiura 2**	**2.18**	**274**	A	A	17 17 32.8	
	comp=N,73nm,0.9s,comp=E,119nm,2.1s						
JSR	**Shiriuchi**	**2.24**	**286**	A	A	17 17 33.7	
	comp=N,58nm,2.6s,comp=E,87nm,2.5s						
JHHS	**Hirosakihyakuz**	**2.25**	**263**	A	A	17 17 33.8	
	comp=N,95nm,2.6s,comp=E,89nm,2.2s						
OFUJ	**Ofunato**	**2.25**	**214**	A	A	17 17 34.1	
	comp=N,21nm,1.9s,comp=E,28nm,3.4s						
JNB	**Noboribetsu**	**2.26**	**313**	A	A	17 17 34.2	
	comp=N,36nm,1.6s,comp=E,31nm,1.4s						
JFR	**Furan**	**2.26**	**347**	A	A	17 17 34.5	
	comp=N,33nm,1.8s,comp=E,34nm,3.2s						
JAK	**Akkeshi**	**2.29**	**27**	A	A	17 17 35.2	
	comp=N,43nm,1.5s,comp=E,47nm,2.3s						
JEW	**Eniwo**	**2.33**	**324**	A	A	17 17 35.2	
	comp=N,131nm,1.2s,comp=E,94nm,2.2s						
JAR	**Ashorobuto**	**2.36**	**9**	A	A	17 17 36.1	
	comp=N,30nm,3.2s,comp=E,42nm,1.8s						
JNTW	**Noshirotokiwa**	**2.48**	**255**	A	A	17 17 37.1	
	comp=N,176nm,3.4s,comp=E,159nm,3.4s						
JYM2	**Yakumo 2**	**2.48**	**299**	A	A	17 17 37.2	
	comp=N,36nm,1.8s,comp=E,27nm,2.4s						
JIW	**Iwasaki**	**2.52**	**263**	A	A	17 17 37.8	
	comp=N,28nm,1.5s,comp=E,36nm,3.1s						
JKHN	**Kushirohamanak**	**2.54**	**33**	A	A	17 17 38.8	
	comp=N,36nm,3.1s,comp=E,56nm,2.3s						
JOMM	**Oshimamatsumae**	**2.54**	**284**	A	A	17 17 38.0	
	comp=N,17nm,2.9s,comp=E,31nm,5.2s						
JMK	**Ichinoseki**	**2.56**	**219**	A	A	17 17 38.4	
	comp=N,26nm,4.5s,comp=E,29nm,4.0s						
JKMT	**Kesennumamotoy**	**2.56**	**214**	A	A	17 17 38.5	
	comp=N,14nm,1.6s,comp=E,28nm,2.3s						
JRG	**Rokugo**	**2.56**	**233**	A	A	17 17 38.5	
	comp=N,57nm,3.1s,comp=E,47nm,1.6s						
JAB	**Ashibetsu**	**2.66**	**343**	A	A	17 17 40.2	
	comp=N,51nm,1.4s,comp=E,63nm,2.3s						
JISS	**Ishikarishitsu**	**2.70**	**330**	A	A	17 17 40.6	
	comp=N,92nm,5.2s,comp=E,73nm,2.3s						
JYW	**Yuwa**	**2.75**	**240**	A	A	17 17 41.1	
	comp=N,85nm,4.0s,comp=E,101nm,2.9s						
JNK	**Nakash**	**2.83**	**22**	A	A	17 17 43.0	
	comp=N,16nm,0.7s,comp=E,22nm,1.0s						
JIO	**Ouri**	**2.92**	**212**	A	A	17 17 43.6	
	comp=N,13nm,2.9s,comp=E,18nm,1.1s						
JKK2	**Kamakawa 2**	**2.94**	**352**	A	A	17 17 44.3	
	comp=N,16nm,4.6s,comp=E,21nm,2.9s						
JHST	**Hiyamasetana**	**2.94**	**301**	A	A	17 17 43.8	
	comp=N,28nm,1.6s,comp=E,29nm,4.5s						
JSH	**Shimam**	**2.95**	**306**	A	A	17 17 44.0	
	comp=N,15nm,4.2s,comp=E,16nm,2.6s						
JOFO	**Osakifurukawao**	**2.98**	**219**	A	A	17 17 44.5	
	comp=N,183nm,1.6s,comp=E,169nm,1.4s						
JIKH	**Ishinomakikobu**	**3.00**	**209**	A	A	17 17 44.8	
	comp=N,11nm,1.7s,comp=E,15nm,2.1s						
JHR	**Hokuryu**	**3.01**	**338**	A	A	17 17 45.2	
	comp=N,75nm,2.9s,comp=E,62nm,4.8s						
NMR	**Nemuro--Hokkai**	**3.01**	**36**	⇓*i* P	**Pn**	**17 17 41.3**	**-0.3**
NMR				*i* S	**Sn**	**17 18 14.2**	**-2.6**
NEM2	**Nemuro 2**	**3.02**	**36**	A	A	17 17 45.7	
	comp=N,14nm,5.8s,comp=E,20nm,3.3s						
JYK	**Kaneyama**	**3.04**	**229**	A	A	17 17 45.2	
	comp=N,44nm,3.2s,comp=E,24nm,7.6s						
JTKR	**Ahashiri--Toko**	**3.04**	**8**	A	A	17 17 45.9	
	comp=N,11nm,4.9s,comp=E,20nm,1.9s						
JMP	**Maruseppu**	**3.05**	**1**	A	A	17 17 45.9	
	comp=N,17nm,2.2s,comp=E,23nm,1.8s						
JOSM	**Okushiri--Mats**	**3.08**	**293**	A	A	17 17 45.7	
	comp=N,14nm,3.4s,comp=E,15nm,3.5s						
JNSB	**Nemuroshibetsu**	**3.09**	**24**	A	A	17 17 46.6	
	comp=N,34nm,3.0s,comp=E,37nm,4.2s						
JSK	**Shakotan**	**3.18**	**320**	A	A	17 17 47.3	
	comp=N,24nm,2.1s,comp=E,22nm,3.7s						
JKA	**Kamikawa-asahi**	**3.20**	**351**		**Pn**	**17 17 44.9**	**+0.7**
JKA	**Kamikawa-asahi**	**3.20**	**351**		**Sn**	**17 18 19.4**	**-1.9**
JKA	**Kamikawa-asahi**	**3.20**	**351**	P	**Pn**	**17 17 45.5**	**+1.4**
ASAJ	**Asahikawa**	**3.20**	**351**	Pn	**Pn**	**17 17 44.6**	**+0.5**
	comp=E,20nm,0.3s,baz=183,slow=13,SNR=140						
ASAJ				Sn	**Sn**	**17 18 19.4**	**-1.9**
	comp=E,66nm,0.3s,baz=225,slow=20,SNR=7.5						
	comp=E,158nm,0.7s						
ASAJ				AML	AML		
ASAJ	**Asahikawa**	**3.20**	**351**	A	A	17 17 47.9	
	comp=N,14nm,6.3s,comp=E,19nm,2.9s						
JYYZ	**Yamagatayuza**	**3.23**	**234**	A	A	17 17 47.9	
	comp=N,73nm,2.9s,comp=E,60nm,3.1s						
JRA	**Rausu**	**3.27**	**24**	A	A	17 17 49.2	
	comp=N,14nm,1.8s,comp=E,15nm,2.8s						
JOU	**Okura**	**3.29**	**219**	A	A	17 17 48.9	
	comp=N,35nm,1.6s,comp=E,35nm,1.8s						
JTB	**Tobi-shima**	**3.36**	**240**	A	A	17 17 49.8	
	comp=N,30nm,3.3s,comp=E,20nm,2.3s						
JOG3	**Oga3**	**3.38**	**253**	A	A	17 17 42.5	
	comp=N,48nm,2.5s,comp=E,41nm,1.5s						
RUSJ	**Misakicho**	**3.46**	**24**	⇓*i* P	**Pn**	**17 17 49.0**	**+1.3**
RUSJ				*i* S	**Sn**	**17 18 28.5**	**+0.7**
JSS	**Shosan**	**3.60**	**343**	A	A	17 17 53.5	
	comp=N,43nm,4.2s,comp=E,32nm,3.1s						
YUK	**Yuzh-Kuril'sk**	**3.61**	**31**	*d* P	**Pn**	**17 17 50.0**	**+0.1**
YUK				*i* S	**Sn**	**17 18 29.8**	**-1.8**
YUK				pmax	pmax		
	comp=N,401nm,0.2s						
YUK				pmax	pmax		
	comp=Z,2μm,0.2s						
YUK				pmax	pmax		
	comp=E,298nm,0.1s						
YUK				smax	smax		
	comp=N,15μm,1.7s						
YUK				smax	smax		
	comp=E,16μm,0.8s						
YUK				smax	smax		
	comp=N,9μm,0.7s						
YUK				smax	smax		
	comp=E,12μm,0.6s						
YUK			

YSS eS Sn 17 19 30.4 -0.1
YSS pmax pmax
comp=Z,600nm,5.6s
YSS pmax pmax
comp=Z,240nm,0.8s
YSS MLR MLR
comp=E,5μm,15.0s
YSS MLR MLR
comp=Z,9μm,15.0s
YSS MLR MLR
comp=N,8μm,16.0s
YSS Yuzhno-Sakhali 6.00 356 Pn Pn 17 18 23.3 +0.6
YSS Yuzhno-Sakhali 6.00 356 P **Pn 17 18 23.6 +0.9**
comp=Z,308nm,0.9s
JCCN Chibachonan 6.06 204 A A 17 18 28.0
comp=N,22nm,3.7s,comp=E,23nm,2.9s
TEY Ternei 6.37 312⇑ *e*P **Pn 17 18 26.3 -1.5**
TEY pmax pmax
comp=Z,70nm,1.3s
TEY pmax pmax
comp=N,40nm,1.3s
TEY pmax pmax
comp=E,60nm,1.3s
TEY MLR MLR
comp=E,200nm,13.0s
TEY MLR MLR
comp=Z,400nm,13.0s
TEY MLR MLR
comp=N,400nm,12.0s
JGF Kuroka 7.10 223 P **Pn 17 18 39.1 +1.3**
JGF Kuroka 7.10 223 Pn 17 18 37.9 +0.1
JGF Sn **Sn 17 19 58.2 +0.6**
JGF Kuroka 7.10 223 P **Pn 17 18 39.2 +1.5**
comp=Z,191nm,0.9s
JSG Sagara 7.46 214 P **Pn 17 18 43.4 +0.7**
JSG Sagara 7.46 214 Pn 17 18 42.6 -0.1
JSG Sn **Sn 17 20 04.2 -2.2**
JSG Sagara 7.46 214 P **Pn 17 18 43.2 +0.5**
comp=Z,746nm,1.1s
INU Inuyama 7.47 223 P **Pn 17 18 44.6 +1.8**
INU Inuyama 7.47 223 Pn 17 18 42.8 0.0
INU Inuyama 7.47 223 P **Pn 17 18 44.0 +1.1**
comp=Z,298nm,1.0s
UGL Uglegorsk 8.16 354 *e*P **Pn 17 18 53.1 +0.8**
UGL *e*S Sn 17 20 33.8 +10
UGL pmax pmax
comp=Z,186nm,0.9s
UGL smax smax
comp=N,2μm,3.5s
UGL smax smax
comp=E,1μm,3.1s
UGL MLR MLR
comp=Z,5μm,15.0s
JHJ2 Mitsune 8.31 201 P **Pn 17 18 55.0 +0.6**
JHJ2 Mitsune 8.31 201 Pn 17 18 52.0 -2.4
JHJ2 Sn **Sn 17 20 18.7 -8.6**
VLA Vladivostok 8.76 288 *de*P **Pn 17 19 00.5 0.0**
USRK Ussuriysk Ar. 8.94 295 Pn **Pn 17 19 04.8 +1.8**
comp=Z,10.0nm,0.3s,baz=108,slow=9.5,SNR=85
USRK LR LR 17 22 37.5
comp=Z,11μm,18.7s,baz=95,slow=39
comp=Z,165nm,0.7s
USRK AML AML
USRK Ussuriysk Ar. 8.94 295 Pn 17 19 03.8 +0.8
USA0B Ussuriysk Arra 8.94 295 *c i*P **Pn 17 19 04.5 +1.5**
USA0B Ussuriysk Arra 8.94 295 Pn 17 19 03.3 +0.3
TYV Tymovskoe 9.91 358 *e*P **Pn 17 19 17.9 +1.6**
TYV *e*S **Sn 17 21 11.5 +4.9**
TYV pmax pmax
comp=Z,300nm,2.1s
TYV pmax pmax
comp=Z,66nm,1.0s
TYV smax smax
comp=N,32nm,1.6s
TYV smax smax
comp=E,36nm,1.6s
TYV smax smax
comp=N,600nm,3.3s
TYV smax smax
comp=E,800nm,3.3s
JMN Monobe 10.40 229 P **Pn 17 19 24.0 +1.0**
JMN Monobe 10.40 229 Pn 17 19 22.7 -0.3
JMN Monobe 10.40 229 P **Pn 17 19 24.1 +1.0**
comp=Z,150nm,1.1s
MDJ Mudanjiang 10.71 294 P **Pn 17 19 28.0 +0.8**
MDJ Mudanjiang 10.71 294 P **Pn 17 19 29.2 +2.0**
MDJ pP 17 19 33.4
MDJ S **Sn 17 21 33.7 +7.6**
MDJ pmax pmax
comp=Z,270nm,1.1s
MDJ L L
comp=Z,15μm,18.2s
MDJ Mudanjiang 10.71 294 Pn 17 19 27.8 +0.5
MDJ Mudanjiang 10.71 294 P **Pn 17 19 27.6 +0.4**
comp=Z,324nm,1.0s
GRNR Gornyy 10.91 336⇑ *i*P **Pn 17 19 30.7 +0.7**
GRNR pmax pmax
comp=E,10.0nm,1.1s
GRNR pmax pmax
comp=N,10.0nm,0.9s
GRNR pmax pmax
comp=Z,20nm,1.0s
GRNR MLR MLR
comp=E,3μm,15.0s
GRNR MLR MLR
comp=N,4μm,17.0s
KLR Kul'dur 11.60 319 Pn **Pn 17 19 39.8 +0.4**
comp=N,0.6nm,0.3s,baz=133,slow=18,SNR=68
KLR LR LR 17 24 30.3
comp=N,5μm,19.1s,baz=142,slow=40
comp=N,71nm,1.0s
KLR AML AML
KLR Kul'dur 11.60 319 *c i*P **Pn 17 19 39.9 +0.5**
KLR pmax pmax
comp=Z,97nm,1.1s
KSRS Korea Array 12.42 259 Pn **Pn 17 19 51.4 +0.8**
comp=Z,0.5nm,0.3s,baz=71,slow=12,SNR=45
KSRS Sn **Sn 17 22 04.0 -4.1**
baz=71,slow=22
KSRS LR LR 17 24 27.8
comp=Z,8μm,18.1s,baz=65,slow=37
comp=Z,29nm,0.9s
KSRS AML AML
KS19 Wonju Array Si 12.45 259 Pn 17 19 51.6 +0.6
KSAR Wonju Array Be 12.46 259 P **Pn 17 19 51.5 +0.4**
KSAR Wonju Array Be 12.46 259 Pn 17 19 51.5 +0.4
BNX BinXian 12.51 298 ⇓P **Pn 17 19 52.6 +0.8**
BNX S **Sn 17 22 10.9 +0.8**
BNX pmax pmax
comp=Z,320nm,0.9s
BNX pmax pmax
comp=Z,700nm,4.9s
BNX L L
comp=Z,3μm,16.5s
BNX L L
comp=Z,7μm,17.1s
BNX L L
comp=Z,9μm,18.4s
JNU Nakatsue 12.62 236 Pn **Pn 17 19 52.4 -1.0**
comp=Z,0.7nm,0.3s,baz=47,slow=14,SNR=10
JNU LR LR 17 25 21.8
comp=Z,3μm,18.1s,baz=60,slow=41
comp=Z,48nm,1.1s
JNU AML AML
JTU Tsushima 12.73 244 P **Pn 17 19 56.1 +1.3**
JTU Tsushima 12.73 244 Pn 17 19 53.8 -1.0
TJN Taejon 13.26 255 P **Pn 17 20 02.7 +0.7**
TJN Taejon 13.26 255 *ce*P **Pn 17 20 03.1 +1.1**
TJN Taejon 13.26 255 Pn 17 20 00.6 -1.5
TJN Taejon 13.26 255 P **Pn 17 20 00.6 -1.5**
comp=Z,545nm,1.2s
INCN Inchon 13.37 260 P **Pn 17 20 05.1 +1.4**
INCN Inchon 13.37 260 P **Pn 17 20 02.7 -1.0**
INCN Inchon 13.37 260 Pn 17 20 02.6 -1.0
INCN Inchon 13.37 260 P **Pn 17 20 03.7 0.0**
comp=Z,75nm,1.3s
CN2 Changchun 13.49 288 ⇓P **Pn 17 20 05.9 +0.7**
CN2 *es*P P 17 20 12.5 -1.7
CN2 *e*S **Sn 17 22 36.8 +2.6**
CN2 pmax pmax
comp=Z,20nm,0.8s
CN2 pmax pmax
comp=Z,200nm,5.0s
CN2 L L
comp=Z,700nm,14.0s
CN2 L L
comp=Z,1μm,14.0s
CN2 L L
comp=Z,2μm,14.0s
JCJ Chichijima 13.86 184 Pn Pn 17 20 02.4 -7.9
comp=Z,7.4nm,0.3s,baz=302,slow=19,SNR=11
JCJ Sn Sn 17 22 20.2 -23
comp=Z,6.8nm,0.3s,baz=319,slow=19,SNR=1.6
comp=Z,104nm,0.9s
JCJ AML AML
JSU Suzuyama 14.00 232 P **Pn 17 20 10.9 -1.3**
JSU Suzuyama 14.00 232 Pn 17 20 10.2 -2.0
JSU Suzuyama 14.00 232 P **Pn 17 20 11.8 -0.5**
comp=Z,101nm,1.0s
HEH HeiHe 14.46 315 *e*P **Pn 17 20 15.3 -3.1**
HEH pmax pmax
comp=Z,25nm,1.0s
HEH L L
comp=Z,2μm,12.2s
HEH L L
comp=Z,6μm,14.2s
HEH L L
comp=Z,6μm,14.8s
PEA0B Petropavlovsk- 15.59 34⇑ *e*P **Pn 17 20 31.0 -2.4**
PETK Petropavlovsk- 15.59 34 Pn **Pn 17 20 30.3 -3.1**
comp=Z,1.0nm,0.3s,baz=235,slow=6.9,SNR=14
PETK LR LR 17 27 01.1
comp=Z,2μm,18.1s,baz=217,slow=39
comp=Z,7.0nm,0.7s
PETK AML AML
PETK Petropavlovsk- 15.59 34 P **Pn 17 20 30.6 -2.8**
PETK Petropavlovsk- 15.59 34 Pn **Pn 17 20 30.6 -2.8**
PET Petropavlovsk 15.94 36⇑ *e*P **Pn 17 20 37.4 -0.5**
PET Petropavlovsk 15.94 36 Pn 17 20 35.1 -2.8
ZEA Zeya 16.73 325 *e*P **Pn 17 20 45.6 -2.3**
ZEA pmax pmax
comp=E,100nm,1.3s
ZEA pmax pmax
comp=N,100nm,1.2s
ZEA pmax pmax
comp=Z,200nm,1.1s
ZEA pmax pmax
comp=E,80nm,1.1s
ZEA pmax pmax
comp=N,90nm,0.9s
ZEA pmax pmax
comp=Z,200nm,1.2s
ZEA MLR MLR
comp=N,1μm,18.0s
ZEA MLR MLR
comp=E,2μm,18.0s
ZEA MLR MLR
comp=Z,4μm,18.0s
DL2 Dalian 16.74 270 P **Pn 17 20 47.9 -0.2**
DL2 S **Sn 17 23 56.2 +3.0**
DL2 pmax pmax
comp=Z,480nm,1.0s
DL2 pmax pmax
comp=Z,1μm,5.3s
DL2 L L
comp=Z,1μm,16.6s
DL2 L L
comp=Z,2μm,21.8s
DL2 L L
comp=Z,2μm,21.8s
JMZ Minamidaito 2 18.12 217 Pn 17 20 59.8 -5.6
HIA Hailar 18.52 305 P **P 17 21 07.4 -2.5**
HIA Hailar 18.52 305 P **P 17 21 08.0 -1.9**
comp=Z,173nm,0.9s
HILR Hailar Array B 18.61 305 P **P 17 21 09.1 -1.7**
comp=Z,46nm,0.6s,baz=108,slow=14,SNR=12
HILR LR LR 17 28 51.8
comp=Z,3μm,18.5s,baz=70,slow=39
JOW Kunigami 18.77 226 P **P 17 21 09.8 -3.0**
comp=Z,1.6nm,0.3s,baz=16,slow=7.4,SNR=5.5
JOW LR LR 17 29 39.1
comp=Z,1μm,18.6s,baz=30,slow=41
comp=Z,35nm,0.9s
JOW AML AML
JOW Kunigami 18.77 226 P **P 17 21 11.5 -1.2**
JOW Kunigami 18.77 226 P 17 21 06.8 -5.9
MA2 Magadan 19.22 12 P **P 17 21 15.9 -1.5**
comp=Z,17nm,0.7s,baz=196,slow=15,SNR=9.6
MA2 LR LR 17 29 28.6
comp=Z,1μm,18.9s,baz=196,slow=39
MA2 Magadan 19.22 12 P **Pn 17 21 19.0 +0.5**
MA2 Magadan 19.22 12⇑ *e*P **P 17 21 14.8 -2.6**
MA2 pmax pmax
comp=Z,59nm,1.7s
MA2 Magadan 19.22 12 P 17 21 14.2 -3.2
XLT XiLinHaoTe 20.26 287 *e*P **P 17 21 26.4 -2.6**
XLT pmax pmax
comp=Z,65nm,0.9s
XLT pmax pmax
comp=Z,420nm,4.7s
XLT L L
comp=Z,2μm,20.0s
XLT L L
comp=Z,3μm,19.1s
SSE Sheshan 20.36 248 P **P 17 21 27.6 -2.4**
SSE S Sn 17 25 19.0 -1.7
SSE pmax pmax
comp=Z,420nm,3.9s
SSE L L
comp=Z,910nm,17.2s
SSE L L
comp=Z,1μm,17.0s
BJI2 Beijing 20.62 276 P **P 17 21 30.4 -2.4**
BJI2 S S 17 25 10.9 -11
BJI2 L L
comp=Z,2μm,17.9s
BJI2 L L
comp=Z,2μm,19.6s
BJI2 L L
comp=Z,4μm,17.8s
BJT Baijiatuau 20.62 276 P **P 17 21 30.2 -2.7**
BJT Baijiatuau 20.62 276 P **P 17 21 30.5 -2.4**
comp=Z,104nm,1.5s
TIA Tai'an 20.96 265 P **P 17 21 34.1 -2.5**
TIA S **S 17 25 21.6 -7.1**
TIA sS Sn 17 25 35.6 +0.4
TIA pmax pmax
comp=Z,370nm,1.0s
TIA L L
comp=Z,2μm,16.5s
TIA L L
comp=Z,2μm,18.5s
TIA L L
comp=Z,4μm,17.9s
NJ2 Nanjing 21.51 253 *e*P **P 17 21 40.3 -2.1**
NJ2 pP **sP 17 21 53.6 +1.1**
NJ2 pmax pmax
comp=Z,110nm,1.1s
NJ2 L L
comp=Z,3μm,16.1s
NJ2 L L
comp=Z,4μm,15.2s
NJ2 L L
comp=Z,5μm,14.7s
HNS HongShan 22.40 270⇑ P **P 17 21 48.2 -3.7**
HNS S **S 17 25 52.1 -4.2**
HNS pmax pmax
comp=Z,74nm,1.0s
HNS L L
comp=Z,2μm,16.8s
HNS L L
comp=Z,1μm,18.9s
HNS L L
comp=Z,2μm,19.0s
YAK Yakutsk 22.64 343 LR LR 17 31 47.1
comp=Z,3μm,18.2s,baz=150,slow=40
YAK Yakutsk 22.64 343 *c i*P **P 17 21 50.5 -3.8**
YAK *e* 17 25 43.2
YAK *e*S **S 17 25 57.9 -2.5**
YAK *e* 17 33 02.9
YAK pmax pmax
comp=Z,384nm,0.9s
YAK pmax pmax
comp=N,97nm,1.0s
YAK pmax pmax
comp=E,21nm,0.9s
YAK smax smax
comp=E,279nm,2.0s
YAK smax smax
comp=N,153nm,1.6s
YAK MLR MLR
comp=Z,4μm,22.0s
YAK MLR MLR
comp=N,2μm,19.0s
YAK MLR MLR
comp=E,2μm,17.0s
YAK Yakutsk 22.64 343 P 17 21 50.2 -4.1
SEY Seymchan 22.66 11 LR LR 17 32 40.3
comp=E,2μm,18.2s,baz=200,slow=42
SEY Seymchan 22.66 11⇓ *e*P **P 17 21 52.7 -1.8**
SEY pmax pmax
comp=Z,61nm,0.8s
CIT Chita 23.11 309 *e*P **P 17 21 55.6 -3.7**
CIT *e* 17 22 05.4
CIT *e* 17 22 27.8
CIT *e* 17 25 46.6
CIT *e*S **S 17 26 08.8 +0.1**
CIT *e* 17 26 55.6
CIT pmax pmax
comp=Z,354nm,1.3s
HHC Hu-ho-hao-te 23.91 280⇓ *i*P **P 17 22 04.7 -2.7**
HHC pP pP 17 22 10.0 -4.8
HHC sP pwP 17 22 13.8 -3.2
HHC L L
comp=Z,1μm,15.6s
HHC L L
comp=Z,3μm,18.7s
HHC L L
comp=Z,4μm,17.5s
SHEM Shemya Is, Ala 23.94 50 LR LR 17 34 47.6
comp=Z,196nm,18.1s,baz=278,slow=45
TIY Taiyuan 24.02 272 *e*P **P 17 22 05.9 -2.4**
TIY PP **PnPn 17 22 41.6 +4.1**
TIY S **S 17 26 20.4 -3.4**
TIY sS **pS 17 26 33.1 +1.3**
TIY pmax pmax
comp=Z,47nm,0.8s
TIY L L
comp=Z,1μm,14.4s
TIY L L
comp=Z,1μm,16.5s
TIY L L
comp=Z,1μm,19.2s
TATO Taipei 24.16 235 P **P 17 22 08.5 -1.1**
TATO Taipei 24.16 235 P **P 17 22 06.7 -3.0**
YHNB Yeheng 24.45 235 P **P 17 22 14.2 +1.8**
YHNB Yeheng 24.45 235 P **P 17 22 08.8 -3.6**
YHNB IAmb IAmb 17 22 21.1
comp=Z,82nm,0.9s
NACB Ninganchiao 24.68 234 P **P 17 22 11.0 -3.4**
LYN LuoYang 25.11 265 P **P 17 22 15.5 -2.7**
LYN S **S 17 26 38.7 -2.5**
LYN pmax pmax
comp=Z,330nm,1.1s
LYN pmax pmax
comp=Z,160nm,3.5s
LYN L L
comp=Z,3μm,16.8s
LYN L L
comp=Z,4μm,17.9s
LYN L L
comp=Z,4μm,19.6s
BOD Bodaibo 25.16 322 *e*P P 17 22 06.8 -12
BOD pmax pmax
comp=Z,159nm,0.8s
BTO2 Baotou 25.19 281 *e*P **P 17 22 17.1 -1.9**
BTO2 sP **pP 17 22 27.5 +1.0**
BTO2 S **S 17 26 41.9 -0.7**
BTO2 pmax pmax
comp=Z,160nm,0.8s
BTO2 pmax pmax
comp=Z,780nm,4.3s
BTO2 L L
comp=Z,4μm,15.4s
BTO2 L L
comp=Z,7μm,17.0s
BTO2 L L
comp=Z,9μm,16.7s
SSLB Suanglung 25.36 234 P **P 17 22 17.5 -3.1**
SSLB IAmb IAmb 17 22 26.4
comp=Z,102nm,1.4s
YULB Yu-li 25.45 233 P **P 17 22 22.9 +1.6**
YULB Yu-li 25.45 233 P **P 17 22 18.5 -2.8**
WHN Wuhan 25.58 255 P **P 17 22 21.9 -0.5**
WHN S **S 17 26 52.4 +3.8**
WHN pmax pmax
comp=Z,480nm,0.8s
WHN L L
comp=Z,11μm,17.3s
WHN L L
comp=Z,16μm,15.7s
WHN L L
comp=Z,20μm,16.6s
DPSS Saipan 25.72 174 P **P 17 22 22.2 -1.5**
TPUB Ta-pu 25.92 234 P **P 17 22 27.1 +1.5**
TPUB Ta-pu 25.92 234 P **P 17 22 23.9 -1.7**
TPUB IAmb IAmb 17 22 30.2
comp=Z,144nm,1.2s
TWGBT Beinan 26.01 233 P **P 17 22 27.3 +0.9**
TWG Pinlang 26.01 233 IAmb IAmb 17 22 41.9
comp=Z,56nm,0.7s
TWG Pinlang 26.01 233 P **P 17 22 27.1 +0.6**
comp=Z,90nm,0.7s
QZH2 Quanzhou 26.03 240 P **P 17 22 27.0 +0.4**
QZH2 pmax pmax
comp=Z,130nm,1.0s
QZH2 L L
comp=Z,2μm,20.3s
QZH2 L L
comp=Z,2μm,18.6s
QZH2 L L
comp=Z,3μm,15.3s
KNMB Chin-men Tao 26.50 239 P 17 22 29.6 -1.2
KNMB Chin-men Tao 26.50 239 P **P 17 22 32.0 +1.1**
comp=Z,160nm,1.3s
ULN Ulaanbaatar 26.61 297 P **P 17 22 31.9 +0.1**
ULN S **S 17 27 03.4 -1.5**
ULN Ulaanbaatar 26.61 297 P **P 17 22 31.3 -0.5**
ULN pmax pmax
comp=Z,66nm,0.9s
ULN Ulaanbaatar 26.61 297 P 17 22 31.3 -0.5
ULN IAmb IAmb 17 22 34.9
comp=Z,66nm,0.9s
ULN Ulaanbaatar 26.61 297 P **P 17 22 30.2 -1.6**
ULN Ulaanbaatar 26.61 297 P **P 17 22 31.7 -0.1**
comp=Z,82nm,0.9s
AMKA Amchitka 26.77 55 P **P 17 22 32.9 -0.1**
AMKA IAmb IAmb 17 22 50.4
comp=Z,75nm,1.1s
SONM Songino Array 27.05 297 P **P 17 22 35.2 -0.6**
comp=Z,38nm,0.7s,baz=94,slow=9.6,SNR=117
SONM SCP **ScP 17 29 37.3 +2.6**
comp=Z,0.4nm,0.5s,baz=123,slow=5.3,SNR=1.8
SONM LR LR 17 34 05.0
comp=Z,5μm,19.1s,baz=94,slow=38
comp=Z,38nm,0.7s
SONM Songino Array 27.05 297 P **P 17 22 35.6 -0.1**
SONM IAmb IAmb 17 22 37.2
comp=Z,80nm,1.0s
GUMO Guam 27.30 177 LR LR 17 32 13.2
comp=Z,838nm,21.7s,baz=7.0,slow=34
XAN Xi'an 28.00 267⇑ P **P 17 22 42.7 -1.6**
XAN S **S 17 27 24.0 -2.9**
XAN pmax pmax
comp=Z,450nm,1.0s
XAN pmax pmax
comp=Z,470nm,5.9s
XAN L L
comp=Z,1μm,17.4s
XAN L L
comp=Z,3μm,17.5s
XAN L L
comp=Z,3μm,18.6s
IRK Irkutsk 28.74 306 *e*P **P 17 22 49.7 -1.0**
IRK pmax pmax
comp=Z,204nm,1.9s
TLY Talaya 29.06 305 LR LR 17 35 28.1
comp=Z,3μm,18.4s,baz=87,slow=38
TLY Talaya 29.06 305 P **P 17 22 54.0 +0.4**
TLY Talaya 29.06 305 *ce*P **P 17 22 53.4 -0.2**
TLY pmax pmax
comp=Z,74nm,1.0s
TLY Talaya 29.06 305 P **P 17 22 52.5 -1.0**
TLY IAmb IAmb 17 22 56.7
comp=Z,68nm,1.0s
TLY Talaya 29.06 305 P **P 17 22 53.9 +0.4**
comp=Z,79nm,0.9s
ZAK Zakamensk 29.19 302 *e*P **P 17 22 53.9 -0.9**

ZAK pmax pmax
comp=Z,76nm,1.1s
H11N2 WAKE ISLAND Hy 29.21 129 T T 17 54 04.1
baz=322,slow=75,SNR=630
H11N1 WAKE ISLAND Hy 29.22 129 T T 17 54 04.1
baz=322,slow=75,SNR=478
H11N3 WAKE ISLAND Hy 29.22 129 T T 17 54 06.4
baz=322,slow=75,SNR=428
ENH Enshi 29.31 259 P **P** 17 22 54.8 -1.2
ENH Enshi 29.31 259 P **P** 17 22 54.8 -1.2
comp=Z,126nm,1.1s
H11S1 WAKE ISLAND Hy 30.05 131 T T 17 55 13.7
baz=324,slow=76,SNR=524
H11S3 WAKE ISLAND Hy 30.06 131 T T 17 55 16.0
baz=324,slow=76,SNR=347
H11S2 WAKE ISLAND Hy 30.07 131 T T 17 55 16.0
baz=324,slow=76,SNR=496
MOY Mondy 30.71 305 *e*P **P** **17 23 08.5 +0.3**
MOY pmax pmax
comp=Z,322nm,2.0s
HKPS Hong Kong Po S 30.82 242 P **P** **17 23 07.7 -1.7**
ATKA Atka Island 30.88 54 P **P** **17 23 13.8 +4.3**
LZH Lanzhou 31.05 274 *e*P **P** **17 23 10.8 -0.7**
LZH sP pP 17 23 19.2 +0.2
LZH PP **PnPn** **17 24 13.6 +0.6**
LZH S **S** **17 28 15.0 -0.1**
LZH pmax pmax
comp=Z,64nm,1.1s
LZH L L
comp=Z,920nm,14.3s
LZH L L
comp=Z,2µm,15.6s
LZH L L
comp=Z,2µm,20.1s
LZDM Lanzhou Array 31.21 274 P **P** **17 23 12.7 -0.4**
comp=Z,23nm,0.7s,baz=72,slow=9.3,SNR=8.4
LZDM PcP **PcP** **17 26 07.1 -0.2**
comp=Z,2.3nm,0.3s,baz=41,slow=2.7,SNR=1.7
LZDM LR LR 17 36 01.2
comp=Z,2µm,20.9s,baz=70,slow=37
comp=Z,23nm,0.7s
TIXI Tiksi 31.60 351 LR LR 17 36 53.2
comp=Z,1µm,19.2s,baz=172,slow=38
TIXI Tiksi 31.60 351⇑*e*P **P** **17 23 13.1 -2.6**
TIXI pmax pmax
comp=Z,9.0nm,0.8s
TIXI Tiksi 31.60 351 **P** **17 23 13.0 -2.7**
KNGR Kungurtug, Tuv 32.87 303*ce*P **P** **17 23 27.9 +0.6**
KNGR pmax pmax
comp=Z,45nm,0.9s
GTA2 Gaotai 33.02 282 P **P** **17 23 28.2 -0.5**
GTA2 PcP **PcP** **17 26 12.7 +0.7**
GTA2 S **S** **17 28 46.5 +0.9**
GTA2 PcS **PcS** **17 29 58.3 +0.8**
GTA2 pmax pmax
comp=Z,57nm,1.1s
GTA2 L L
comp=Z,2µm,16.8s
GTA2 L L
comp=Z,4µm,18.1s
GTA2 L L
comp=Z,6µm,18.1s
CD2 Chengdu 33.30 265 P **P** **17 23 30.0 -1.1**
CD2 S **S** **17 28 48.2 -1.7**
CD2 pmax pmax
comp=Z,110nm,0.7s
CD2 L L
comp=Z,2µm,14.5s
CD2 L L
comp=Z,3µm,17.2s
CD2 L L
comp=Z,3µm,15.9s
GYA Guiyang 33.46 256⇑P **P** **17 23 31.8 -0.8**
GYA S **S** **17 28 58.8 +6.2**
GYA pmax pmax
comp=Z,280nm,0.9s
GYA L L
comp=Z,2µm,16.9s
GYA L L
comp=Z,4µm,16.4s
GYA L L
comp=Z,6µm,16.5s
MIDW Midway 34.51 99 P **P** **17 23 39.2 -2.3**
LVA Lava Point 35.87 51 P **P** **17 23 51.2 -1.7**
QIZ Qiongzhong 35.96 243 P **P** **17 23 54.0 -0.1**
QIZ S **S** **17 29 34.4 +3.5**
QIZ L L
comp=Z,1µm,18.8s
QIZ L L
comp=Z,1µm,18.4s
QIZ L L
comp=Z,2µm,17.8s
PZH PanZhiHua 37.08 260 P **P** **17 24 03.6 -0.2**
PZH S **S** **17 29 50.0 +1.7**
PZH pmax pmax
comp=Z,190nm,0.8s
PZH pmax pmax
comp=Z,160nm,5.9s
PZH L L
comp=Z,1µm,17.8s
PZH L L
comp=Z,810nm,19.4s
PZH L L
comp=Z,810nm,19.4s
KMI2 Kunming 37.10 258⇑P **P** **17 24 04.1 0.0**
KMI2 sP pwP 17 24 13.1 -1.0
KMI2 S **S** **17 29 49.8 +1.0**
KMI2 pmax pmax
comp=Z,170nm,1.0s
KMI2 L L
comp=Z,2µm,16.8s
KMI2 L L
comp=Z,2µm,19.5s
KMI2 L L
comp=Z,3µm,19.9s
DAV Davao City (W) 37.26 210 LR LR 17 39 51.6
comp=Z,819nm,20.0s,baz=40,slow=37
GOMU GeErMu 37.81 279 P **P** **17 24 09.4 -0.7**
GOMU S **S** **17 29 55.4 -4.2**
GOMU pmax pmax
comp=Z,63nm,0.8s
GOMU L L
comp=Z,820nm,15.1s
GOMU L L
comp=Z,1µm,15.5s
GOMU L L
comp=Z,1µm,15.7s
SLVN Son La 38.56 252 P **P** **17 24 16.1 -0.2**
SLVN Son La 38.56 252 **P** **17 24 14.4 -1.9**
SLVN IAmb IAmb 17 24 17.8
comp=Z,37nm,0.8s
SLVN Son La 38.56 252 P **P** **17 24 16.6 +0.3**
comp=Z,52nm,1.1s
O14K Tigyukauivet M 38.66 43 P **P** **17 24 15.6 -0.9**
O14K IAmb IAmb 17 24 31.0
comp=Z,58nm,1.1s
G16K Koyuk River 38.94 33 **P** **17 24 18.4 -0.5**
G16K IAmb IAmb 17 24 41.0
comp=Z,119nm,1.6s
SDPT Sand Point 39.06 49 P **P** **17 24 19.9 -0.1**
N15K Kwethluk River 39.30 41 P **P** **17 24 21.9 -0.1**
N15K IAmb IAmb 17 24 50.0
comp=Z,62nm,0.8s
O15K Ungalikthiuk R 39.39 43 IAmb IAmb 17 24 37.0
comp=Z,56nm,0.9s
DGZ Jazzator, Alta 39.41 302*c i*P **P** **17 24 23.9 +0.7**
DGZ pmax pmax
comp=Z,110nm,0.8s
C18K Utukok River 40.12 28 IAmb IAmb 17 24 31.8
comp=Z,80nm,1.3s
TNCH TengChong 40.31 261 P **P** **17 24 31.3 +0.3**
TNCH pP pP 17 24 36.2 -2.4
TNCH pmax pmax
comp=Z,210nm,1.8s
TNCH L L
comp=Z,700nm,16.6s
TNCH L L
comp=Z,800nm,17.6s
TNCH L L
comp=Z,2µm,18.7s
K17K Iditarod 40.33 37 IAmb IAmb 17 24 45.2
comp=Z,56nm,1.1s
P16K Nushagak River 40.34 43 P **P** **17 24 29.4 -1.1**
NRIK Noril'sk 40.37 333 P **P** **17 24 30.4 -0.3**
comp=Z,43nm,1.0s,baz=109,slow=9.4,SNR=39
NRIK LR LR 17 42 36.5
comp=Z,5µm,19.5s,baz=102,slow=38
comp=Z,43nm,1.0s
NRIK Noril'sk 40.37 333*c i*P **P** **17 24 30.3 -0.4**
NRIK pmax pmax
comp=Z,69nm,1.2s
NRIK Noril'sk 40.37 333 **P** **17 24 29.8 -0.9**
NRIK IAmb IAmb 17 24 31.7
comp=Z,151nm,1.4s
ZAA0 Zalesovo Array 40.46 309 **P** **17 24 31.0 -0.6**
ZALV Zalesovo Beam 40.46 309 P **P** **17 24 31.1 -0.6**
comp=Z,45nm,0.7s,baz=88,slow=7.8,SNR=195
ZALV PcP **PcP** **17 26 34.2 +0.3**
comp=Z,18nm,0.9s,baz=107,slow=2.8,SNR=3.5
ZALV ScP **ScP** **17 30 22.6 +1.3**
comp=Z,5.4nm,1.2s,baz=101,slow=6.6,SNR=3.7
ZALV LR LR 17 42 29.8
comp=Z,2µm,18.0s,baz=80,slow=38
comp=Z,45nm,0.7s
ZALV Zalesovo Beam 40.46 309 *i*P **P** **17 24 31.3 -0.4**
ZALV pmax pmax
comp=Z,46nm,0.7s
ZALV Zalesovo Beam 40.46 309 **P** **17 24 30.8 -0.9**
ZALV Zalesovo Beam 40.46 309 **ScP** **17 30 22.3 +1.0**
WMQ Urumqi 40.51 293⇑P **P** **17 24 32.5 +0.2**
WMQ pP pP 17 24 39.6 -0.3
WMQ sP sP 17 24 44.5 +1.5
WMQ pmax pmax
comp=Z,64nm,0.9s
WMQ pmax pmax
comp=Z,370nm,5.1s
WMQ L L
comp=Z,1µm,18.9s
WMQ L L
comp=Z,3µm,16.9s
WMQ L L
comp=Z,2µm,18.9s
G18K Tagagawik 40.54 32 IAmb IAmb 17 24 35.4
comp=Z,49nm,0.9s
F19K Shmeruckik Mo 41.03 31 IAmb IAmb 17 24 50.9
comp=Z,130nm,1.6s
L18K Granite Mounta 41.04 38 IAmb IAmb 17 24 51.2
comp=Z,78nm,1.6s
P17K Kvichak River 41.13 43 **P** **17 24 36.6 -0.5**
P17K IAmb IAmb 17 25 12.8
comp=Z,62nm,1.0s
D19K Kuna River 41.19 29 P **P** **17 24 36.9 -0.6**
D19K IAmb IAmb 17 24 40.1
comp=Z,56nm,1.0s
E19K Redstone River 41.34 30 P **P** **17 24 39.0 +0.3**
H19K Roundabout Mou 41.40 33 IAmb IAmb 17 25 07.4
comp=Z,95nm,0.8s
ZSN Zaisan 41.52 299 *e*P **P** **17 24 40.3 -0.2**
ZSN pmax pmax
comp=Z,31nm,1.1s
ZSN Zaisan 41.52 299 *e*P **P** **17 24 40.3 -0.2**
comp=Z,31nm,1.1s
O18K Koktuh Hills 41.75 42 P **P** **17 24 42.3 +0.2**
ACHA Angle Creek He 41.75 44 P **P** **17 24 42.7 +0.4**
D20K Etivluk River 41.77 28 IAmb IAmb 17 25 09.5
comp=Z,75nm,1.0s
F20K Avaraart Lake 41.86 31 **P** **17 24 42.9 -0.1**
DLV Lat 42.02 237 P **P** **17 24 45.8 +0.7**
DLV Lat 42.02 237 P **P** **17 24 44.5 -0.7**
DLV IAmb IAmb 17 24 47.2
comp=Z,55nm,0.8s
DLV Lat 42.02 237 P **P** **17 24 46.3 +1.2**
comp=Z,80nm,1.0s
O19K Port Alsworth 42.18 41 P **P** **17 24 47.3 +1.7**
KKM Kota Kinabalu 42.36 222 P **P** **17 24 49.5 +1.8**
KKM Kota Kinabalu 42.36 222 P **P** **17 24 47.1 -0.6**
KKM Kota Kinabalu 42.36 222 P P 17 25 00.8 +13
KKM Kota Kinabalu 42.36 222 P **P** **17 24 49.3 +1.6**
comp=Z,23nm,1.2s
TNTI Ternate 42.53 204 P **P** **17 24 51.4 +2.5**
TNTI Ternate 42.53 204 **P** **17 24 48.3 -0.6**
TNTI Ternate 42.53 204 P **P** **17 24 50.1 +1.2**
comp=Z,38nm,0.9s
TNTI Ternate 42.53 204 P **P** **17 24 50.1 +1.2**
comp=Z,38nm,0.9s
IMAR Indian Mountai 42.55 33 P **P** **17 24 48.9 +0.3**
Q19K Cape Douglas, 42.59 43 **P** **17 24 49.2 +0.1**
Q19K IAmb IAmb 17 25 10.8
comp=Z,120nm,1.5s
G21K Allakaket 42.68 32 IAmb IAmb 17 25 04.2
comp=Z,77nm,1.1s
M20K Styx River 42.72 39 P **P** **17 24 50.8 +0.7**
F21K Alatna River 42.75 31 **P** **17 24 50.9 +0.6**
ILSW Iliamna Southw 42.78 42 P **P** **17 24 50.5 -0.2**
OHAK Old Harbor 42.92 46 P **P** **17 24 54.0 +2.3**
OHAK Old Harbor 42.92 46 **P** **17 24 51.2 -0.5**
SMPI Sarmi 42.95 187 P **P** **17 24 54.5 +2.2**
comp=Z,59nm,1.0s
MANU Manus Island 42.96 174 P **P** **17 24 51.3 -1.1**
SIJI Sorong 43.05 198 LR LR 17 40 27.7
comp=Z,542nm,20.8s,baz=28,slow=33
SIJI Sorong 43.05 198 P **P** **17 24 53.4 +0.3**
comp=Z,30nm,0.9s
PPLA Purkeypile 43.14 37 **P** **17 24 52.9 -0.7**
PPLA IAmb IAmb 17 25 09.5
comp=Z,51nm,1.0s
CAST Castle Rocks 43.18 36 **P** **17 24 53.4 -0.4**
I21K Tanana 43.24 34 P **P** **17 24 54.3 0.0**
I21K IAmb IAmb 17 25 09.0
comp=Z,92nm,1.5s
KDAK Kodiak Island 43.24 45*c i*P **P** **17 24 55.4 +1.1**
KDAK pmax pmax
comp=Z,51nm,1.0s
KDAK Kodiak Island 43.24 45 **P** **17 24 54.3 0.0**
KDAK IAmb IAmb 17 25 07.9
comp=Z,82nm,1.1s
KDAK Kodiak Island 43.24 45 P **P** **17 24 56.5 +2.2**
comp=Z,91nm,1.1s
SPU Mount Spurr 43.26 40 P **P** **17 24 54.2 -0.2**
STLK Strandline Lak 43.35 39 P **P** **17 24 55.2 0.0**
MK31 Makanchi Array 43.38 299*c i*P **P** **17 24 55.4 -0.3**
MKAR Makanchi Array 43.38 299 P **P** **17 24 55.4 -0.3**
comp=Z,54nm,0.8s,baz=81,slow=9.5,SNR=213
MKAR S **S** **17 31 24.0 +2.1**
comp=Z,0.7nm,0.8s,baz=76,slow=24,SNR=1.7
MKAR LR LR 17 44 20.3
comp=Z,3µm,18.4s,baz=73,slow=38
comp=Z,54nm,0.8s
MKAR Makanchi Array 43.38 299 *i*P **P** **17 24 55.4 -0.3**
MKAR pmax pmax
comp=Z,55nm,0.8s
MKAR Makanchi Array 43.38 299 **P** **17 24 54.9 -0.8**
LSA Lhasa 43.42 272 P **P** **17 24 57.6 +1.0**
LSA Lhasa 43.42 272‖*e*P **P** **17 24 56.2 -0.5**
LSA S **S** **17 31 26.6 +3.0**
LSA L L
comp=Z,670nm,19.3s
LSA L L
comp=Z,1µm,19.4s
LSA L L
comp=Z,2µm,18.1s
LSA Lhasa 43.42 272 P **P** **17 24 57.7 +1.0**
comp=Z,62nm,1.1s
MAKZ Makanchi 43.59 299 P **P** **17 24 56.7 -0.6**
MAKZ pmax pmax
comp=Z,75nm,0.9s
MAKZ Makanchi 43.59 299 **P** **17 24 56.7 -0.6**
MAKZ IAmb IAmb 17 25 01.9
comp=Z,75nm,0.8s
MAKZ Makanchi 43.59 299 P **P** **17 24 57.3 0.0**
comp=Z,107nm,1.1s
BPAW Bear Paw Mtn. 43.66 35 IAmb IAmb 17 25 07.2
comp=Z,59nm,1.2s
CHTO Chiang Mai 43.75 253 P **P** **17 24 58.9 0.0**
CHTO Chiang Mai 43.75 253 P **P** **17 24 58.8 0.0**
CHTO Chiang Mai 43.75 253 P **P** **17 24 58.3 -0.6**
CHTO pmax pmax
comp=Z,58nm,0.8s
CHTO Chiang Mai 43.75 253 **P** **17 24 58.2 -0.6**
CHTO IAmb IAmb 17 25 00.3
comp=Z,58nm,0.8s
CHTO Chiang Mai 43.75 253 P **P** **17 24 58.6 -0.3**
comp=Z,817nmcomp=Z,84nm,0.9s
CHTO Chiang Mai 43.75 253 P **P** **17 24 59.3 +0.5**
comp=Z,83nm,0.9s
SEM Semipalatinsk 43.82 305 *e*P **P** **17 24 58.5 -0.8**
SEM pmax pmax
comp=Z,27nm,0.8s
SEM Semipalatinsk 43.82 305 *e*P **P** **17 24 58.5 -0.8**
comp=Z,27nm,0.8s
KMSI Cibinong 43.84 209 P **P** **17 24 59.7 +0.1**
MORE Moreh 43.92 263 **P** **17 24 58.0 -2.2**
MORE IAmb IAmb 17 25 31.4
comp=Z,59nm,1.1s
D23K Nanushuk River 43.94 28 IAmb IAmb 17 25 03.2
comp=Z,54nm,1.2s
CM31 Chiang Mai Arr 43.98 253 P **P** **17 25 01.2 +0.5**
SNR=20
CM31 Chiang Mai Arr 43.98 253 P **P** **17 25 00.1 -0.6**
CM31 IAmb IAmb 17 25 02.4
comp=Z,33nm,0.8s
CM31 PcP PcP **17 26 46.0 -0.3**
CMAR Chiang Mai Arr 43.98 253 P **P** **17 25 00.9 +0.2**
comp=Z,21nm,0.8s,baz=52,slow=7.3,SNR=161
CMAR PcP **PcP** **17 26 46.6 +0.4**
comp=Z,6.0nm,0.9s,baz=44,slow=3.8,SNR=4.3
CMAR ScP **ScP** **17 30 37.2 +1.3**
comp=Z,0.2nm,0.4s,baz=37,slow=5.0,SNR=2.4
CMAR LR LR 17 44 15.7
comp=Z,799nm,18.5s,baz=45,slow=37
comp=Z,21nm,0.8s
CMAR Chiang Mai Arr 43.98 253 *i*P **P** **17 25 01.2 +0.5**
CMAR pmax pmax
comp=Z,22nm,0.8s
CMAR Chiang Mai Arr 43.98 253 **P** **17 25 00.7 0.0**
CMAR **PcP** **17 26 47.1 +0.9**
G23K Bananza Creek 44.08 32 IAmb IAmb 17 25 26.3
comp=Z,40nm,0.9s
GTOI Gorontalo 44.15 210 P **P** **17 25 01.3 -0.7**
comp=Z,52nm,1.3s
SLKM Skilak Lake 44.20 41 IAmb IAmb 17 25 30.4
comp=Z,64nm,1.5s
TOLK Toolik Lake Re 44.32 29 IAmb IAmb 17 25 17.1
comp=Z,53nm,1.3s
I23K Minto, Yukon-K 44.35 34 IAmb IAmb 17 25 18.6
comp=Z,46nm,1.2s
RC01 Rabbit Creek A 44.38 40 IAmb IAmb 17 25 17.4
comp=Z,69nm,1.4s
NEA2 Nenana 44.49 35 IAmb IAmb 17 25 19.5
comp=Z,36nm,0.7s
MCK McKinley 44.58 36 IAmb IAmb 17 25 18.8
comp=Z,36nm,1.0s
TOLI2 Tolitoli 44.59 213 P **P** **17 25 05.6 0.0**
TOLI2 Tolitoli 44.59 213 **P** **17 25 04.5 -1.1**
TOLI2 Tolitoli 44.59 213 P **P** **17 25 05.8 +0.2**
comp=Z,40nm,1.0s
SEW Seward 44.62 41 IAmb IAmb 17 25 40.6
comp=Z,50nm,1.2s
PMR Palmer 44.63 39 P **P** **17 25 07.0 +1.6**
RND Reindeer 44.63 36 IAmb IAmb 17 25 19.0
comp=Z,61nm,1.2s
E24K Your Creek 44.71 30 IAmb IAmb 17 25 09.4
comp=Z,54nm,1.0s
GHO Glory Hole Cre 44.72 39 IAmb IAmb 17 25 25.9
comp=Z,38nm,0.9s
KURK Kurchatov 44.76 305 P **P** **17 25 06.4 -0.2**
KURK Kurchatov 44.76 305 P **P** **17 25 06.8 +0.2**
KURK 17 26 48.9
KURK S **S** **17 31 44.9 +3.2**
KURK Kurchatov 44.76 305 **P** **17 25 06.2 -0.4**
KURK Kurchatov 44.76 305 **PcP** **17 26 48.9 +0.6**
KURK **S** **17 31 44.9 +3.2**
KURK Kurchatov 44.76 305 P **P** **17 25 06.5 -0.1**
comp=Z,182nm,0.8s
FAKI Fak Fak 44.82 196 P **P** **17 25 08.6 +1.2**
FAKI Fak Fak 44.82 196 **P** **17 25 06.1 -1.2**
FAKI Fak Fak 44.82 196 P **P** **17 25 09.1 +1.7**
comp=Z,70nm,1.3s
FAKI Fak Fak 44.82 196 P **P** **17 25 07.1 -0.3**
comp=Z,70nm,1.3s
KURBB Kurchatov Arra 44.84 305 P **P** **17 25 06.8 -0.4**
comp=Z,108nm,0.7s,baz=78,slow=8.6,SNR=468
KURBB PcP **PcP** **17 26 48.9 +0.3**
comp=Z,7.3nm,0.7s,baz=84,slow=2.9,SNR=2.3
KURBB S **S** **17 31 44.9 +2.1**
comp=Z,0.4nm,0.4s,baz=79,slow=16,SNR=1.7
KURBB LR LR 17 44 55.6
comp=Z,1µm,19.3s,baz=140,slow=38
comp=Z,108nm,0.7s
H24K Noodor Dome 44.95 33 IAmb IAmb 17 25 22.9
comp=Z,69nm,1.1s
KNK Knik Glacier 44.97 39 IAmb IAmb 17 25 22.0
comp=Z,71nm,1.5s
SML Sawmill 44.99 39 IAmb IAmb 17 25 37.7
comp=Z,87nm,1.3s
COLA College 45.00 34 P **P** **17 25 10.2 +1.9**
COLA College 45.00 34*ce*P **P** **17 25 09.3 +1.0**
COLA pmax pmax
comp=Z,18nm,0.9s
COLA College 45.00 34 P **P** **17 25 08.6 +0.3**
COLA IAmb IAmb 17 25 28.0
comp=Z,45nm,0.8s
COLA College 45.00 34 P **P** **17 25 10.6 +2.3**
comp=Z,62nm,1.0s
SHL Shillong 45.01 267 P **P** **17 25 08.5 -0.6**
SNR=22
PWL Port Wells 45.09 40 IAmb IAmb 17 25 22.3
comp=Z,38nm,1.0s
POKR Poker Plat Res 45.16 34 IAmb IAmb 17 25 24.3
comp=Z,65nm,0.9s
NPW Naypyitaw 45.20 257 P **P** **17 25 10.8 +0.4**
comp=Z,93nm,1.0s
DHY Denali Highway 45.32 37 IAmb IAmb 17 25 24.0
comp=Z,28nm,0.8s
IL31 45.42 34 IAmb IAmb 17 25 42.5
comp=Z,55nm,1.1s
ILAR Eielson Array 45.42 34 P **P** **17 25 12.2 +0.6**
comp=Z,11nm,0.8s,baz=272,slow=7.4,SNR=96
ILAR LR LR 17 45 07.1
comp=Z,405nm,21.6s,baz=271,slow=37
comp=Z,11nm,0.8s
ILAR Eielson Array 45.42 34 P **P** **17 25 12.4 +0.8**
ILAR Eielson Array 45.42 34 **P** **17 25 12.4 +0.8**
SCM Sheep Creek Mo 45.46 39 P **P** **17 25 12.8 +0.6**
SCM pmax pmax
comp=Z,37nm,0.9s
SCM Sheep Creek Mo 45.46 39 **P** **17 25 12.8 +0.6**
SCM IAmb IAmb 17 25 26.1
comp=Z,37nm,0.9s
D25K Kavik River 45.50 28 IAmb IAmb 17 25 40.8
comp=Z,26nm,0.8s
SANI Sanana 45.62 205 P **P** **17 25 13.6 -0.1**
SANI Sanana 45.62 205 P **P** **17 25 13.4 -0.3**
comp=Z,623nmcomp=Z,64nm,1.3s
SANI Sanana 45.62 205 P **P** **17 25 13.6 -0.1**
comp=Z,64nm,1.2s
RABL Rabaul 45.66 168 P **P** **17 25 13.8 -0.2**
KRVT Keravat (AS076 45.75 168 LR LR 17 43 36.4
comp=Z,172nm,18.3s,baz=358,slow=35
LUWI Luwuk 45.78 209 P **P** **17 25 16.8 +1.8**
LUWI Luwuk 45.78 209 P **P** **17 25 13.8 -1.2**
LUWI IAmb IAmb 17 25 43.4
comp=Z,61nm,0.9s
LUWI Luwuk 45.78 209 P P 17 25 20.9 +5.9
comp=Z,73nm,0.9s
LUWI Luwuk 45.78 209 P **P** **17 25 14.2 -0.8**
comp=Z,73nm,0.9s
PRP Porcupine Dome 45.94 33 IAmb IAmb 17 25 50.9
comp=Z,62nm,1.0s
FID Port Fidalgo 46.00 40 P **P** **17 25 15.7 -0.6**
FID IAmb IAmb 17 25 29.9
comp=Z,51nm,1.3s
FID PcP **PcP** **17 26 54.2 +1.6**
C26K Camden Bay 46.01 27 IAmb IAmb 17 26 01.8
comp=Z,37nm,1.0s
APSI Ampana 46.09 211 P **P** **17 25 18.0 +0.6**
comp=Z,1µmcomp=Z,145nm,1.2s
KLU Klutina 46.17 39 IAmb IAmb 17 25 31.8
comp=Z,32nm,0.9s
BMAR Burnt Mountain 46.20 31 **P** **17 25 18.8 +1.0**
DIV Divide 46.29 39 IAmb IAmb 17 25 32.9
comp=Z,47nm,1.0s
F26K Sheenjek River 46.36 30 IAmb IAmb 17 25 23.1
comp=Z,57nm,0.9s
EYAK Cordova Ski Ar 46.39 40 P **P** **17 25 21.2 +1.9**
EYAK Cordova Ski Ar 46.39 40 IAmb IAmb 17 25 33.5
comp=Z,34nm,1.0s
RIDG Independent Ri 46.39 36 IAmb IAmb 17 25 53.1
comp=Z,66nm,1.6s
SHLS Shalkode 46.41 295 *e*P **P** **17 25 17.1 -2.8**
SHLS pmax pmax
comp=Z,30nm,1.4s
SHLS Shalkode 46.41 295 *e*P **P** **17 25 17.2 -2.8**
comp=Z,30nm,1.4s
C27K Jago River 46.43 28 IAmb IAmb 17 25 22.9
comp=Z,49nm,1.0s
TDK Taldyqorghan 46.51 298 *e*P **P** **17 25 20.3 -0.2**
TDK pmax pmax
comp=Z,33nm,0.7s

TDK Taldyqorghan 46.51 298 *e*P **P 17 25 20.3 -0.2**
comp=Z,33nm,0.7s
UZB Uzynbulak 46.71 295 *e*P **P 17 25 21.8 -0.5**
UZB Uzynbulak 46.71 295 *e*P **P 17 25 21.8 -0.5**
SCRK Sand Creek 46.74 35 **P 17 25 22.8 +0.5**
SCRK IAmb IAmb 17 25 35.7
comp=Z,34nm,0.9s
PCI Palu 46.81 213 P **P 17 25 23.2 +0.1**
comp=Z,1µmcomp=Z,112nm,1.2s
BRDH Bariadhala 46.81 263 LR LR 17 47 36.9
comp=Z,1µm,18.6s,baz=72,slow=39
KPKS Kokpek 46.84 296 *e*P **P 17 25 23.0 -0.2**
KPKS Kokpek 46.84 296 *e*P **P 17 25 23.0 -0.2**
BMRM Bremner River 46.88 39 IAmb IAmb 17 26 01.3
comp=Z,47nm,1.0s
BNDI Bandanaira 46.89 198 P **P 17 25 25.9 +2.2**
BNDI Bandanaira 46.89 198 P **P 17 25 26.0 +2.2**
comp=Z,3µmcomp=Z,161nm,1.4s
BNDI Bandanaira 46.89 198 P **P 17 25 24.5 +0.8**
comp=Z,158nm,1.7s
MENT Mentasta 47.00 37 P **P 17 25 26.6 +2.5**
MENT Mentasta 47.00 37 IAmb IAmb 17 25 54.2
comp=Z,35nm,0.9s
SATY Saty 47.17 295 *e*P **P 17 25 25.4 -0.4**
SATY pmax pmax
comp=Z,23nm,1.4s
SATY Saty 47.17 295 *e*P **P 17 25 25.4 -0.4**
comp=Z,22nm,1.4s
WUS Wushi 47.28 293 P **P 17 25 26.9 +0.2**
comp=Z,79nm,1.3s
PRZ Przheval'sk 47.38 294 IAmb IAmb 17 25 47.0
comp=Z,37nm,0.8s
PRZ Przheval'sk 47.38 294 P **P 17 25 28.2 +0.7**
comp=Z,55nm,0.9s
VRDI Verde Repeater 47.39 39 IAmb IAmb 17 25 56.0
comp=Z,21nm,0.8s
G27K Doyon Strip 47.39 31 IAmb IAmb 17 25 43.8
comp=Z,22nm,0.9s
M26K Nabesna, AK 47.41 37 IAmb IAmb 17 25 57.8
comp=Z,72nm,1.4s
SBUM Sibu 47.48 224 P **P 17 25 28.9 +0.5**
SBUM Sibu 47.48 224 **P 17 25 28.5 +0.1**
SBUM Sibu 47.48 224 P **P 17 25 28.8 +0.5**
SBUM Sibu 47.48 224 P **P 17 25 28.9 +0.5**
comp=Z,7.7nm,1.1s
I27K Kandik River 47.55 33 IAmb IAmb 17 25 49.7
comp=Z,27nm,1.1s
MCARA McCarthy VSAT 47.56 39 IAmb IAmb 17 25 43.1
comp=Z,50nm,1.1s
K27K Chicken 47.57 35 IAmb IAmb 17 25 43.0
comp=Z,31nm,0.8s
EVN Everest 47.58 273 P **P 17 25 30.3 +0.5**
comp=Z,116nm,1.0s
TGL Tana Glacier 47.77 40 IAmb IAmb 17 25 44.6
comp=Z,43nm,1.0s
L27K Beaver Creek, 47.83 36 IAmb IAmb 17 25 45.4
comp=Z,42nm,0.9s
BCAR Beaver Creek A 47.85 36 **P 17 25 32.0 +1.3**
M27K Edge Creek, AK 47.93 37 IAmb IAmb 17 25 46.1
comp=Z,34nm,0.9s
F28M Old Crow 47.99 30 **P 17 25 33.1 +1.4**
F28M IAmb IAmb 17 25 48.4
comp=Z,50nm,0.9s
E28M Babbage River 48.00 29 IAmb IAmb 17 25 35.4
comp=Z,33nm,0.9s
MDOK Medeo 48.06 296 *e*P **P 17 25 32.5 -0.3**
MDOK Medeo 48.06 296 *e*P **P 17 25 32.5 -0.3**
AAA Alma-Ata 48.13 296 *e*P **P 17 25 32.9 -0.4**
AAA pmax pmax
comp=Z,32nm,1.2s
AAA Alma-Ata 48.13 296 *e*P **P 17 25 32.9 -0.4**
comp=Z,32nm,1.2s
TNSS Tian-Shan 48.17 296 *e*P **P 17 25 33.2 -0.8**
TNSS Tian-Shan 48.17 296 *e*P **P 17 25 33.2 -0.8**
I28M Miner Creek 48.27 33 IAmb IAmb 17 26 08.0
comp=Z,79nm,1.4s
BARN Barnard Glacie 48.27 39 IAmb IAmb 17 25 48.0
comp=Z,26nm,1.0s
GRNC Granite Creek 48.29 39 IAmb IAmb 17 25 48.6
comp=Z,45nm,1.0s
YAH Yahtse 48.37 40 IAmb IAmb 17 26 08.5
comp=Z,32nm,1.0s
BKB Balikpapan 48.40 216 P **P 17 25 36.9 +1.5**
BKB Balikpapan 48.40 216 P **P 17 25 37.4 +2.0**
KDI Kendari 48.53 208 P **P 17 25 38.0 +1.5**
comp=Z,569nmcomp=Z,45nm,1.2s
H29M Whitestone 48.78 32 IAmb IAmb 17 25 52.8
comp=Z,50nm,1.2s
I29M Ogilvie Camp, 48.95 33 IAmb IAmb 17 26 06.7
comp=Z,34nm,0.9s
KKSI Kolaka, Sulawe 49.08 209 P **P 17 25 43.2 +2.5**
BVAR Borovoye Array 49.09 310 P **P 17 25 40.3 -0.1**
comp=Z,52nm,0.9s,baz=76,slow=8.2,SNR=141
BVAR S **S 17 32 46.9 +3.5**
comp=Z,1.2nm,0.8s,baz=78,slow=13,SNR=2.0
comp=Z,52nm,0.9s
BORK Borovoye 49.12 310*c i*P **P 17 25 40.6 0.0**
BORK pmax pmax
comp=Z,52nm,1.0s
BORK Borovoye 49.12 310 **P 17 25 40.4 -0.2**
TKM2 Tokmak 2 49.14 296 P **P 17 25 41.6 +0.4**
SNR=99
ASAI AK-SAY(Kyrgyzs 49.27 293 P **P 17 25 42.6 +0.2**
comp=Z,36nm,1.0s
NRN Naryn 49.43 294 P **P 17 25 42.9 -0.7**
NRN pmax pmax
comp=Z,24nm,0.9s
NRN Naryn 49.43 294 P **P 17 25 42.9 -0.7**
NRN IAmb IAmb 17 26 36.0
comp=Z,24nm,0.9s
L29M L29M 49.48 36 IAmb IAmb 17 25 60.0
comp=Z,45nm,0.9s
K29M Barlow Dome 49.59 35 IAmb IAmb 17 25 58.9
comp=Z,26nm,0.8s
KBK Karagaybulak 49.68 296 P **P 17 25 45.4 +0.2**
SNR=62
CHMS Chumysh 49.68 296 P **P 17 25 45.0 -0.1**
SNR=9.6
USP Ospenovka 49.75 297 P **P 17 25 45.5 -0.1**
SNR=25
FRU1 Bishkek 49.84 296 IAmb IAmb 17 26 03.8
comp=Z,48nm,0.9s
SAUI Saumlaki 49.94 196 P **P 17 25 46.5 -0.6**
BBSI Bau Bau 49.97 207 P **P 17 25 49.3 +1.8**
comp=Z,981nmcomp=Z,104nm,1.1s
AAK Ala-Archa 49.99 296 LR LR 17 47 59.9
comp=Z,2µm,21.4s,baz=80,slow=37
AAK Ala-Archa 49.99 296 P **P 17 25 47.5 -0.2**
SNR=16
AAK Ala-Archa 49.99 296 *i*P **P 17 25 47.3 -0.3**
SNR=32
AAK Ala-Archa 49.99 296 P **P 17 25 47.4 -0.3**
AAK Ala-Archa 49.99 296*c i*P **P 17 25 47.4 -0.2**
AAK pmax pmax
comp=Z,19nm,0.8s
AAK Ala-Archa 49.99 296 **P 17 25 46.8 -0.9**
AAK Ala-Archa 49.99 296 P **P 17 25 47.5 -0.2**
comp=Z,29nm,0.8s
UCH Uchtor 50.14 296 P **P 17 25 49.2 +0.1**
SNR=12
INK Inuvik 50.24 29 LR LR 17 50 22.9
comp=Z,523nm,18.8s,baz=290,slow=40
INK Inuvik 50.24 29 IAmb IAmb 17 26 03.0
comp=Z,46nm,1.0s
INK Inuvik 50.24 29 P **P 17 25 50.9 +2.0**
comp=Z,54nm,0.9s
PMG Port Moresby 50.24 175 LR LR 17 44 30.0
comp=Z,223nm,21.2s,baz=338,slow=33
PMG Port Moresby 50.24 175‖ *e*P **P 17 25 51.1 +1.7**
PMG pmax pmax
comp=Z,7.0nm,0.9s
PMG Port Moresby 50.24 175 P **P 17 25 50.9 +1.5**
EKS2 Erkin-Say 50.47 296 P **P 17 25 51.0 -0.2**
SNR=25
KAPI Kappang 50.58 211 LR LR 17 46 50.9
comp=Z,146nm,21.2s,baz=16,slow=36
KAPI Kappang 50.58 211 P **P 17 25 53.0 +1.0**
KAPI Kappang 50.58 211 P **P 17 25 52.7 +0.7**
KAPI Kappang 50.58 211 P **P 17 25 52.5 +0.4**
KAPI pmax pmax
comp=Z,88nm,1.4s
KAPI Kappang 50.58 211 **P 17 25 52.5 +0.4**
KAPI IAmb IAmb 17 25 54.6
comp=Z,88nm,1.4s
KAPI Kappang 50.58 211 P **P 17 25 53.4 +1.4**
KAPI Kappang 50.58 211 P **P 17 25 52.8 +0.7**
comp=Z,49nm,1.3s
KSH2 Kashi 50.67 292 P **P 17 25 52.9 +0.1**
KSH2 sP pwP 17 26 02.2 -0.6
KSH2 pmax pmax
comp=Z,14nm,1.1s
KSH2 pmax pmax
comp=Z,350nm,7.7s
KSH2 L L
comp=Z,2µm,17.9s
KSH2 L L
comp=Z,2µm,15.8s
KSH2 L L
comp=Z,3µm,16.5s
BKSI Bulukumba 50.72 210 P **P 17 25 53.3 +0.2**
comp=Z,22nm,0.8s
N31M Braeburn, Yuko 50.94 38 IAmb IAmb 17 26 09.4
comp=Z,62nm,1.1s
BSSI Bau Bau, Buton 51.33 210 P **P 17 25 58.4 +0.7**
comp=Z,580nmcomp=Z,41nm,1.3s
TATA Tatamba Isabel 51.40 159 P **P 17 25 59.3 +1.1**
WHY Whitehorse 51.59 38 IAmb IAmb 17 26 40.3
comp=Z,75nm,1.4s
SKAG Skagway 51.73 40 P **P 17 26 03.4 +3.2**
OHH Osh 52.02 294 P **P**
OHH pmax pmax
comp=Z,20nm,0.8s
OHH Osh 52.02 294 P **P 17 26 01.1 -1.7**
comp=Z,20nm,0.8s
DZA Taraz 52.03 298 *e*P **P 17 26 02.5 -0.3**
DZA pmax pmax
comp=Z,34nm,0.8s
DZA Taraz 52.03 298 *e*P **P 17 26 02.5 -0.3**
comp=Z,34nm,0.8s
ARK Arkit 52.05 296 P **P 17 26 03.3 +0.2**
ARK pmax pmax
comp=Z,33nm,0.8s
ARK Arkit 52.05 296 P **P 17 26 03.3 +0.2**
comp=Z,33nm,0.8s
KULM Kulm 52.08 239 P **P 17 26 03.9 +0.6**
KULM Kulm 52.08 239 **P 17 26 03.4 0.0**
KULM IAmb IAmb 17 26 05.3
comp=Z,64nm,0.9s
KULM Kulm 52.08 239 P **P 17 26 04.0 +0.6**
comp=Z,817nmcomp=Z,82nm,1.3s
KULM Kulm 52.08 239 P **P 17 26 04.4 +1.0**
comp=Z,82nm,1.3s
A36M Sachs Harbour 52.08 23 IAmb IAmb 17 26 28.5
comp=Z,48nm,0.9s
SAVO Savo Central 52.13 159 P **P 17 26 05.5 +1.8**
HNR Honiara 52.44 159 LR LR 17 46 09.6
comp=Z,510nm,21.7s,baz=55,slow=34
HNR Honiara 52.44 159 P **P 17 26 10.6 +4.7**
HNR Honiara 52.44 159 P **P 17 26 04.8 -1.1**
HNR pmax pmax
comp=Z,78nm,1.0s
HNR Honiara 52.44 159 P **P 17 26 04.8 -1.1**
IPM Ipoh 52.45 238 P **P 17 26 06.2 +0.1**
IPM Ipoh 52.45 238 **P 17 26 05.0 -1.1**
IPM IAmb IAmb 17 26 07.3
comp=Z,39nm,1.0s
IPM Ipoh 52.45 238 P **P 17 26 06.1 -0.1**
comp=Z,677nmcomp=Z,52nm,1.1s
IPM Ipoh 52.45 238 P **P 17 26 06.3 +0.1**
comp=Z,52nm,1.1s
KK31 Karatay Array 52.49 298 P **P 17 26 05.5 -0.7**
KK31 pmax pmax
comp=Z,34nm,0.9s
KK31 Karatay Array 52.49 298 **P 17 26 05.5 -0.7**
KK31 IAmb IAmb 17 26 06.8
comp=Z,34nm,0.8s
KKAR Karatay Array 52.49 298 P **P 17 26 05.3 -0.9**
KKAR Karatay Array 52.49 298 **P 17 26 05.3 -0.9**
JIS Juneau Island 52.57 41 P **P 17 26 09.9 +3.5**
P33M Teslin, Yukon 52.70 39 IAmb IAmb 17 26 22.4
comp=Z,44nm,1.1s
TRKS Terek-Say 52.73 296 P **P 17 26 07.9 -0.2**
TRKS pmax pmax
comp=Z,71nm,0.9s
BRLS Borolday 52.98 298 *e*P **P 17 26 10.8 +1.1**
BRLS Borolday 52.98 298 *e*P **P 17 26 10.9 +1.1**
MMRI Maumere 53.02 206 P **P 17 26 10.3 0.0**
MMRI Maumere 53.02 206 **P 17 26 09.4 -0.9**
MMRI Maumere 53.02 206 P **P 17 26 11.7 +1.4**
comp=Z,1µmcomp=Z,75nm,1.4s
MMRI Maumere 53.02 206 P **P 17 26 10.7 +0.4**
comp=Z,75nm,1.5s
TPRI Tanjung Pinang 53.07 232 P **P 17 26 12.0 +1.3**
comp=Z,70nm,1.1s
DRK Karamyk 53.16 294 P **P 17 26 10.6 -0.9**
DRK pmax pmax
comp=Z,26nm,0.7s
DRK Karamyk 53.16 294 P **P 17 26 10.6 -0.9**
DRK IAmb IAmb 17 26 31.6
comp=Z,26nm,0.7s
DRK Karamyk 53.16 294 P **P 17 26 11.3 -0.2**
comp=Z,40nm,0.8s
BTDF Bukit Timah Da 53.17 233 P **P 17 26 12.0 +0.6**
BTDF Bukit Timah Da 53.17 233 P **P 17 26 12.3 +0.9**
comp=Z,47nm,0.9s
IUG Iuzhnay 53.22 297 *e*P **P 17 26 11.3 -0.3**
IUG pmax pmax
comp=Z,35nm,0.9s
IUG Iuzhnay 53.22 297 *e*P **P 17 26 11.4 -0.3**
comp=Z,35nm,0.9s
SVE Sverdlovsk 53.22 317*de*P **P 17 26 12.1 +0.8**
SVE pmax pmax
comp=Z,230nm,1.0s
SVE MLR MLR
comp=Z,2µm,18.0s
C36M Paulatuk 53.26 26 **P 17 26 10.6 -0.8**
EDFI Ende, Flores 53.32 207 P **P 17 26 11.6 -1.0**
SOEI Soe 53.43 204 P **P 17 26 16.3 +2.9**
SOEI Soe 53.43 204 P **P 17 26 12.3 -1.0**
SOEI Soe 53.43 204 P P 17 26 18.3 +4.9
comp=Z,92nm,0.9s
SOEI Soe 53.43 204 P **P 17 26 13.5 +0.1**
comp=Z,93nm,1.2s
CHM Chimkent 53.43 298 *e*P **P 17 26 12.9 -0.2**
CHM pmax pmax
comp=Z,22nm,0.8s
CHM Chimkent 53.43 298 *e*P **P 17 26 13.0 -0.2**
comp=Z,22nm,0.8s
BTK Batken 53.58 295 P **P 17 26 13.3 -1.1**
BTK pmax pmax
comp=Z,37nm,1.0s
BTK Batken 53.58 295 P **P 17 26 13.3 -1.1**
BTK IAmb IAmb 17 26 29.3
comp=Z,37nm,1.0s
BTK Batken 53.58 295 P **P 17 26 13.8 -0.6**
comp=Z,40nm,1.0s
BATI Baumata 54.04 204 LR LR 17 51 19.0
comp=Z,88nm,19.0s,baz=4.0,slow=38
BATI Baumata 54.04 204 P P 17 26 29.5 +12
TPI Tanjungpandan 54.29 226 P **P 17 26 20.3 +0.7**
comp=Z,753nmcomp=Z,78nm,1.1s
KDU Kakadu 54.30 193 P **P 17 26 19.8 +0.2**
comp=Z,16nm,1.2s,comp=Z,0.0nm,0.9s
DBNI Kabupaten Domp 54.33 211 P **P 17 26 20.8 +1.0**
ARTI Arti 54.54 317 LR LR 17 52 23.7
comp=Z,2µm,18.8s,baz=68,slow=39
ARTI Arti 54.54 317*c i*P **P 17 26 21.3 +0.3**
ARTI 17 27 21.5
ARTI 17 28 20.2
ARTI S **S 17 34 01.9 +3.6**
ARTI SS **SS 17 37 36.2 -4.2**
ARTI pmax pmax
comp=Z,280nm,1.0s
ARTI MLR MLR
comp=Z,2µm,17.0s
ARTI Arti 54.54 317 **P 17 26 20.7 -0.3**
DLBC Dease Lake 54.66 40 LR LR 17 51 10.9
comp=Z,333nm,19.1s,baz=292,slow=38
MTN Manton Dam 54.70 195 P **P 17 26 22.0 -0.5**
MTN IAmb IAmb 17 27 05.2
comp=Z,58nm,1.6s
NIL Nilore 54.84 286 P **P 17 26 24.1 +0.6**
NIL Nilore 54.84 286 P **P 17 26 23.3 -0.3**
NIL pmax pmax
comp=Z,104nm,0.9s
NIL Nilore 54.84 286 **P 17 26 23.3 -0.3**
NIL Nilore 54.84 286 P **P 17 26 24.3 +0.7**
comp=Z,150nm,1.0s
PSI Prapat 55.08 238 P **P 17 26 25.8 +0.3**
PSI Prapat 55.08 238 P **P 17 26 25.8 +0.3**
PSI pmax pmax
comp=Z,41nm,0.9s
PSI Prapat 55.08 238 P **P 17 26 25.6 +0.1**
comp=Z,40nm,0.9s
TWSI Taliwang, Sumb 55.11 212 P P 17 26 36.9 +11
RPSI Rantau Prapat 55.16 238 IAmb IAmb 17 26 26.8
comp=Z,29nm,0.8s
RPSI Rantau Prapat 55.16 238 P **P 17 26 25.8 -0.2**
comp=Z,40nm,0.9s
SRBI Singaraja 55.22 215 P **P 17 26 27.7 +1.4**
comp=Z,51nm,1.3s
KCSI Kotacane, Aceh 55.28 240 P **P 17 26 25.8 -1.1**
KHKI Kahang-Kahang 55.30 214 P **P 17 26 27.7 +0.8**
comp=Z,99nm,1.5s
BKNI Bangkinang 55.65 235 P **P 17 26 30.6 +1.1**
BKNI Bangkinang 55.65 235 P **P 17 26 30.9 +1.4**
BKNI Bangkinang 55.65 235 P **P 17 26 30.6 +1.1**
comp=Z,215nm,1.0s
SJI Sawahan 56.46 218 P **P 17 26 34.9 -0.4**
SNJI Sawahan-Nganju 56.51 218 P **P 17 26 36.4 +0.7**
comp=Z,50nm,1.2s
ABKAR Akbulak array 56.58 309 **P 17 26 35.4 -0.3**
PWJI Pagerwojo 56.70 218 P **P 17 26 36.7 -0.2**
comp=Z,112nm,1.5s
SPITS Spitsbergen Ar 56.96 349 P **P 17 26 38.3 +0.3**
comp=Z,5.2nm,0.6s,baz=77,slow=6.2,SNR=6.4
SPITS LR LR 17 54 12.3
comp=Z,847nm,18.3s,baz=36,slow=39
comp=Z,5.2nm,0.6s
KBS Kingsbay 57.05 350 P **P 17 26 39.6 +0.9**
comp=Z,50nm,1.1s
KBS Kingsbay 57.05 350 *i*P **P 17 26 39.9 +1.3**
GSI Gunungsitoli 57.08 238 P **P 17 26 40.4 +0.8**
GSI Gunungsitoli 57.08 238 P **P 17 26 40.5 +0.8**
comp=Z,1µmcomp=Z,90nm,1.4s
GSI Gunungsitoli 57.08 238 P **P 17 26 40.1 +0.4**
comp=Z,91nm,1.4s
CTJI Waduk Cacaban 57.09 222 P **P 17 26 39.8 +0.1**
comp=Z,78nm,0.9s
AKTO Aktyubinsk 57.18 311 LR LR 17 52 55.9
comp=Z,2µm,19.6s,baz=64,slow=38
NOR Nord 57.23 357 P **P 17 26 40.3 +0.4**
comp=Z,20nm,2.5s
NOR Nord 57.23 357 *i*P **P 17 26 40.0 +0.1**
NOR IAmb IAmb 17 26 40.7
comp=Z,33nm,1.3s
KRJI Kerinci 57.30 232 P **P 17 26 42.6 +1.3**
KBL Kabul 57.43 289 P **P 17 26 41.4 -0.9**
SNR=22
KBL Kabul 57.43 289 P **P 17 26 41.1 -1.2**
KBL pmax pmax
comp=Z,47nm,0.9s
KBL Kabul 57.43 289 **P 17 26 41.1 -1.2**
KBL IAmb IAmb 17 26 42.3
comp=Z,47nm,0.9s
KBL Kabul 57.43 289 P **P 17 26 41.4 -0.9**
comp=Z,60nm,1.0s
KPJI Karang Pucung 57.49 222 P **P 17 26 42.2 -0.3**
comp=Z,91nm,1.1s
MDSI Maura Dua 57.65 228 P **P 17 26 43.5 -0.1**
comp=Z,813nmcomp=Z,71nm,1.2s
MASI Maura Arman, Be 57.67 231 P **P 17 26 44.6 +0.7**
LEM Lembang 57.73 223 LR LR 17 51 50.1
comp=Z,159nm,21.9s,baz=18,slow=36
KSI Kapahiang 57.88 230 P **P 17 26 45.7 +0.4**
comp=Z,87nm,1.0s
KNRA Kununurra 57.94 197 **P 17 26 45.1 -0.4**
KNRA IAmb IAmb 17 27 28.4
comp=Z,41nm,1.6s
KIRV Kirov 58.03 322 LR LR 17 54 53.9
comp=Z,2µm,18.1s,baz=48,slow=39
KIRV Kirov 58.03 322*c i*P **P 17 26 46.1 +0.3**
BBB Bella Bella 58.27 46 LR LR 17 49 48.0
comp=Z,321nm,21.3s,baz=304,slow=34
RES Resolute Bay 58.44 15 LR LR 17 56 24.3
comp=Z,684nm,18.3s,baz=354,slow=41
RES Resolute Bay 58.44 15 P **P 17 26 49.0 +0.6**
RES pmax pmax
comp=Z,44nm,0.8s
RES Resolute Bay 58.44 15 IAmb IAmb 17 27 04.5
comp=Z,27nm,0.7s
RES Resolute Bay 58.44 15 P **P 17 26 49.0 +0.6**
comp=Z,44nm,0.8s
MTSU Mount Surprise 58.80 179 P **P 17 26 52.6 +1.0**
comp=Z,11nm,0.9s,comp=Z,0.0nm,0.2s
MTSU Mount Surprise 58.80 179 P **P 17 26 55.1 +3.5**
MTSU Mount Surprise 58.80 179 P **P 17 26 53.4 +1.9**
comp=Z,11nm,0.9s
LVZ Lovozero 59.15 335 P **P 17 26 54.3 +0.8**
YKA Yellowknife Ar 59.69 32 P **P 17 26 58.2 +1.0**
comp=Z,6.0nm,0.8s,baz=299,slow=6.6,SNR=11
YKA LR LR 17 57 15.0
comp=Z,351nm,18.5s,baz=300,slow=40
comp=Z,6.0nm,0.8s
YKA Yellowknife Ar 59.69 32 *i*P **P 17 26 58.4 +1.1**
YKA pmax pmax
comp=Z,6.0nm,0.8s
YKA Yellowknife Ar 59.69 32 P **P 17 26 58.0 +0.7**
APA Apatity 59.73 335 *e*P **P 17 26 55.6 -1.8**
APA *e* 17 27 42.5
APA *e*S **S 17 35 00.8 -5.4**
APA *e*SS **SS 17 38 58.9 -2.4**
APA pmax pmax
comp=Z,16nm,0.9s
APA MLR MLR
comp=Z,3µm,16.1s
HYB Hyderabad 59.81 267 IVmB_BB 17 26 58.7
comp=Z,537nm,3.1s
HYB *e*P **P 17 26 58.8 0.0**
HYB *e*pP pP 17 27 05.5 -1.3
HYB *e*sP pwP 17 27 08.6 -0.4
HYB *e*PP **PP 17 29 10.5 -0.3**
HYB *e*S **S 17 35 10.4 +1.7**
ADZR Andozero 60.05 330 *e*P **P 17 26 58.6 -1.1**
ADZR *e* 17 29 09.0
ADZR pmax pmax
comp=Z,52nm,0.8s
ADZR MLR MLR
comp=Z,2µm,19.0s
KEV Kevo 60.30 339 P **P 17 27 01.5 +0.2**
KEV pmax pmax
comp=Z,40nm,1.0s
KEV Kevo 60.30 339 **P 17 27 01.5 +0.2**
KEV IAmb IAmb 17 27 02.3
comp=Z,40nm,1.0s
SANVU Saraoutou 60.34 153 P **P 17 27 03.7 +1.5**
CTA Charters Tower 60.80 177 LR LR 17 50 16.3
comp=Z,227nm,21.8s,baz=352,slow=33
ARCES ARCESS Array B 60.85 339 P **P 17 27 04.8 -0.3**
comp=Z,10nm,0.9s,baz=52,slow=6.3,SNR=7.6
ARCES LR LR 17 58 20.9
comp=Z,1µm,19.6s,baz=37,slow=41
comp=Z,10nm,0.9s
ARCES ARCESS Array B 60.85 339 P **P 17 27 04.8 -0.3**
ARCES pmax pmax
comp=Z,47nm,1.3s
ARCES ARCESS Array B 60.85 339 IAmb IAmb 17 27 07.9
comp=Z,47nm,1.3s
FITZ Fitzroy Crossi 61.00 199 LR LR 17 53 49.3
comp=Z,78nm,20.5s,baz=7.0,slow=36
FITZ Fitzroy Crossi 61.00 199 P **P 17 27 07.3 +0.6**
comp=Z,5.8nm,1.0s
TULEG Thule 61.02 8 P **P 17 27 06.3 +0.2**
comp=Z,51nm,1.1s
TULEG Thule 61.02 8 *i*P **P 17 27 06.0 -0.2**
TULEG IAmb IAmb 17 27 07.0
comp=Z,34nm,0.8s
WRAB Tennant Creek 61.15 190 P **P 17 27 07.5 -0.2**
WRAB Tennant Creek 61.15 190 P **P 17 27 07.5 -0.2**
WRAB pmax pmax
comp=Z,24nm,0.9s
WRAB Tennant Creek 61.15 190 P **P 17 27 07.5 -0.2**
WRAB IAmb IAmb 17 27 18.9
comp=Z,24nm,0.9s
WRAB Tennant Creek 61.15 190 P **P 17 27 07.5 -0.2**
comp=Z,33nm,0.9s
WR8 Warramunga Arr 61.15 189 P **P 17 27 07.3 -0.4**
WR8 pP **pwP 17 27 17.3 -0.8**
WR8 Warramunga Arr 61.15 189 IAmb IAmb 17 27 18.9
comp=Z,23nm,0.8s
WRA Warramunga Arr 61.16 190 P **P 17 27 07.1 -0.6**
comp=Z,11nm,0.9s,baz=7.7,slow=6.8,SNR=50
WRA S **S 17 35 22.1 -3.4**
comp=Z,2.0nm,1.0s,baz=2.5,slow=11,SNR=7.1
comp=Z,11nm,0.9s
WRA Warramunga Arr 61.16 190 P **P 17 27 06.5 -1.2**
WRA pmax pmax
comp=Z,2.0nm,0.9s

WRA Warramunga Arr 61.16 190 P P 17 27 06.5 -1.2
KLMR Klimovskoe 61.24 327 eP P 17 27 05.3 -2.5
KLMR e 17 29 20.0
KLMR pmax pmax
comp=Z,138nm,1.4s
KLMR MLR MLR
comp=Z,2µm,17.0s
QIS Mount Isa 61.30 184 P P 17 27 09.2 +0.5
comp=Z,31nm,1.0s
QIS Mount Isa 61.30 184 P P 17 27 08.7 0.0
comp=Z,31nm,1.0s
QIS Mount Isa 61.30 184 P P 17 27 08.7 0.0
QIS Mount Isa 61.30 184 P P 17 27 09.2 +0.5
comp=Z,31nm,1.0s
NEEM North Greenlan 61.53 4 i P P 17 27 10.0 0.0
NEEM IAmb IAmb 17 27 12.8
comp=Z,61nm,1.0s
SGF Sodankyl 61.91 337 P P 17 27 13.0 +0.8
comp=Z,53nm,1.2s
BELG Belogornoye 61.95 316 LR LR 17 56 53.1
comp=Z,2µm,18.8s,baz=116,slow=39
BELG Belogornoye 61.95 316 c i P P 17 27 12.9 +0.1
BELG pmax pmax
comp=Z,49nm,0.9s
DAG Danmarks Havn 61.99 355 P P 17 27 13.3 +0.6
DAG pmax pmax
comp=Z,53nm,1.0s
DAG Danmarks Havn 61.99 355 P P 17 27 13.2 +0.6
comp=Z,53nm,1.0s
DAG Danmarks Havn 61.99 355 i P P 17 27 12.6 -0.1
DAG IAmb IAmb 17 27 13.9
comp=Z,35nm,1.0s
HRA Herat 62.31 293 P 17 27 14.6 -1.2
HRA IAmb IAmb 17 27 16.6
comp=Z,32nm,0.9s
POIN Pond Inlet 63.08 13 P 17 27 19.6 -0.4
POIN IAmb IAmb 17 27 21.1
comp=Z,21nm,0.9s
SHUK Shuksan-Mt. Ba 63.49 47 IAmb IAmb 17 27 36.5
comp=Z,34nm,0.9s
KULLO Kullorsuaq 63.93 6 i P P 17 27 25.3 -0.4
KULLO IAmb IAmb 17 27 26.7
comp=Z,33nm,0.9s
MALK Mahakanadarawa 64.03 258 P P 17 27 27.1 -0.1
comp=Z,39nm,1.2s
AUNRC North Rockhamp 64.33 173 P P 17 27 31.3 +2.5
DBG Daneborg 64.49 355 i P P 17 27 29.5 +0.2
DBG IAmb IAmb 17 27 31.0
comp=Z,21nm,1.1s
PALK Pallekele 64.66 257 LR LR 17 57 07.3
comp=Z,653nm,20.2s,baz=48,slow=37
PALK Pallekele 64.66 257 i P P 17 27 31.1 -0.2
SNR=6.6
PALK Pallekele 64.66 257 P P 17 27 31.0 -0.3
PALK Pallekele 64.66 257 P P 17 27 30.6 -0.7
PALK pmax pmax
comp=Z,43nm,1.2s
PALK Pallekele 64.66 257 P 17 27 30.6 -0.7
PALK IAmb IAmb 17 27 32.4
comp=Z,43nm,1.1s
PALK Pallekele 64.66 257 P P 17 27 31.7 +0.4
PALK Pallekele 64.66 257 P P 17 27 31.5 +0.2
comp=Z,41nm,1.2s
AS15 Alice Springs 64.85 190 P P 17 27 33.0 +0.7
comp=Z,20nm,0.9s
AS15 Alice Springs 64.85 190 P P 17 27 32.4 +0.1
comp=Z,20nm,0.9s
AS17 Alice Springs 64.87 189 P P 17 27 33.1 +0.7
comp=Z,18nm,0.9s
AS01 Alice Springs 64.88 189 P P 17 27 32.8 +0.4
AS31 Alice Springs 64.88 190 P P 17 27 33.1 +0.7
comp=Z,6.3nm,0.8s,comp=Z,0.0nm
ASAR Alice Springs 64.88 190 P P 17 27 32.4 -0.1
comp=Z,10.0nm,0.9s,baz=7.2,slow=6.3,SNR=72
ASAR LR LR 17 54 40.3
comp=Z,275nm,21.3s,baz=358,slow=35
ASAR PKP2bc P'P'bc 17 56 22.7 +6.8
comp=Z,0.9nm,1.0s,baz=174,slow=3.7,SNR=4.9
comp=Z,10.0nm,0.9s
ASAR Alice Springs 64.88 190 P P 17 27 31.6 -0.9
AUALC St Philip's Co 64.91 190 P P 17 27 32.9 +0.3
AS09 Alice Springs 64.91 189 P P 17 27 33.4 +0.7
comp=Z,33nm,1.1s
LTY Liberty 64.92 48 IAmb IAmb 17 27 45.8
comp=Z,19nm,0.9s
MOS Moscow 64.98 323 eP P 17 27 33.4 +0.6
MOS e 17 28 04.4
MOS e 17 29 57.0
MOS ePPP PPP 17 31 31.3
MOS eS S 17 36 12.9 +0.3
MOS eSS SS 17 40 28.9 +5.1
MOS pmax pmax
comp=Z,109nm,0.9s
MOS pmax pmax
comp=N,69nm,0.8s
MOS MLR MLR
comp=N,2µm,18.0s
MOS MLR MLR
comp=Z,2µm,18.0s
MOS MLR MLR
comp=E,2µm,19.0s
BLKN Baker Lake 65.21 24 P 17 27 34.4 +0.3
BLKN IAmb IAmb 17 27 35.9
comp=Z,32nm,0.9s
MBWA Marble Bar 65.56 204 P P 17 27 37.0 +0.1
comp=Z,21nm,0.8s
MBWA Marble Bar 65.56 204 P P 17 27 36.4 -0.5
MBWA IAmb IAmb 17 27 48.5
comp=Z,34nm,1.1s
MBWA Marble Bar 65.56 204 P P 17 27 37.2 +0.3
comp=Z,21nm,0.8s
MBWA pP pP 17 27 45.4 +0.5
VRH Novokhopyorsk 65.67 317 eP P 17 27 36.9 -0.4
VRH pmax pmax
comp=Z,153nm,0.9s
UPNV Upernavik 65.75 6 i P P 17 27 37.1 -0.4
UPNV IAmb IAmb 17 27 38.5
comp=Z,42nm,1.0s
OBN Obninsk 65.84 323 LR LR 17 59 08.3
comp=Z,1µm,18.5s,baz=16,slow=38
OBN Obninsk 65.84 323 c i P P 17 27 38.2 0.0
OBN e 17 30 00.7
OBN eS S 17 36 32.2 +9.1
OBN eSS SS 17 40 40.3 +3.1
OBN pmax pmax
comp=Z,108nm,1.0s
OBN MLR MLR
comp=Z,2µm,16.0s
OBN Obninsk 65.84 323 P P 17 27 37.7 -0.6
OBN Obninsk 65.84 323 ⇓P P 17 27 38.7 +0.4
OBN Obninsk 65.84 323 P P 17 27 38.3 0.0
comp=Z,128nm,1.4s
OBN Obninsk 65.84 323 P P 17 27 38.6 +0.3
comp=Z,129nm,1.4s
C09A Chrisman Ranch 65.96 47 IAmb IAmb 17 27 53.0
comp=Z,42nm,1.0s
D08A Wollman Farm, 66.02 48 IAmb IAmb 17 27 53.4
comp=Z,29nm,0.9s
FINES FINESS Array B 66.03 332 P P 17 27 39.5 +0.1
comp=Z,36nm,0.7s,baz=45,slow=7.2,SNR=121
FINES LR LR 17 59 15.1
comp=Z,3µm,19.0s,baz=44,slow=38
comp=Z,36nm,0.7s
FINES FINESS Array B 66.03 332 i P P 17 27 39.4 0.0
FINES pmax pmax
comp=Z,36nm,0.7s
FINES FINESS Array B 66.03 332 P P 17 27 38.9 -0.6
LPSR Galich'ya Gora 66.24 320 eP P 17 27 40.8 -0.1
LPSR pmax pmax
comp=Z,173nm,0.9s
NOUC Port Laguerre 66.28 157 P P 17 27 45.6 +4.1
NEW Newport 66.33 46 LR LR 17 53 42.0
comp=Z,232nm,21.8s,baz=316,slow=33
NEW Newport 66.33 46 P P 17 27 43.4 +1.7
NEW P sP 17 27 54.4 +1.7
NEW pmax pmax
comp=Z,35nm,1.1s
NEW Newport 66.33 46 IAmb IAmb 17 27 55.5
comp=Z,35nm,1.1s
NEW Newport 66.33 46 P P 17 27 43.4 +1.7
comp=Z,35nm,1.1s
NEW pP sP 17 27 54.4 +1.7
EIDS Eidsvold 66.39 172 P P 17 27 44.9 +2.9
comp=Z,26nm,1.8s
EIDS Eidsvold 66.39 172 P P 17 27 44.7 +2.6
EIDS Eidsvold 66.39 172 P P 17 27 42.0 0.0
EIDS IAmb IAmb 17 27 55.1
comp=Z,19nm,0.9s
VORR Voronezh 66.66 319 eP P 17 27 43.7 +0.1
VORR pmax pmax
comp=Z,168nm,1.2s
MSVF Nonsavu 66.72 144 LR LR 17 51 07.9
comp=Z,586nm,21.7s,baz=349,slow=31
PINE Pine Mountain 66.72 52 P 17 27 44.1 -0.4
QUENC Quen Island, N 66.75 156 P P 17 27 48.2 +3.8
YBH Yreka Blue Hor 66.83 54 LR LR 17 55 36.1
comp=Z,211nm,19.1s,baz=318,slow=35
J05D Fort Rock, OR 66.84 52 IAmb IAmb 17 27 59.7
comp=Z,39nm,1.1s
VSR Storozhevoye 66.95 318 eP P 17 27 45.5 0.0
VSR pmax pmax
comp=Z,100nm,0.9s
VORD Divnogorie 67.04 318 eP P 17 27 45.4 -0.7
VORD pmax pmax
comp=Z,90nm,1.0s
WRKA Warakurna 67.12 195 P P 17 27 47.5 +0.7
comp=Z,7.4nm,1.2s
WRKA Warakurna 67.12 195 P P 17 27 47.0 +0.2
comp=Z,7.4nm,1.2s
QLP Quilpie 67.20 179 P P 17 27 48.2 +1.0
comp=Z,33nm,1.0s
QLP Quilpie 67.20 179 P P 17 27 47.7 +0.5
QLP Quilpie 67.20 179 P P 17 27 48.2 +1.0
comp=Z,33nm,1.0s
MAK Makhachkala 67.21 308 eP P 17 27 45.5 -1.8
MAK eS S 17 36 36.7 -3.4
MAK eSS SS 17 40 55.5 -3.5
MAK pmax pmax
comp=Z,114nm,1.0s
MAK MLR MLR
comp=Z,2µm,18.0s
ARBE Arbavere 67.43 331 P P 17 27 49.1 +0.7
comp=Z,162nm,1.8s
VSU Vasula 67.82 329 P P 17 27 50.3 -0.5
comp=Z,69nm,1.2s
SAATT Saattut 68.02 5 i P P 17 27 52.4 +0.4
SAATT IAmb IAmb 17 27 53.5
comp=Z,68nm,0.9s
NGCH Negor - Chabah 68.18 285 P P 17 27 54.7 +1.0
MOD Modoc Plateau 68.20 53 IAmb IAmb 17 28 07.8
comp=Z,18nm,0.8s
SEKA Sheki 68.41 306 P P 17 27 53.5 -1.5
AFI Afiamalu 68.61 133 LR LR 17 51 50.0
comp=Z,482nm,21.9s,baz=332,slow=31
MNGR Mingechevir, A 68.74 306 P P 17 27 55.9 -1.0
MTSE Matsula 68.74 331 P P 17 27 57.1 +0.5
comp=Z,270nm,1.4s
PLID Pearl Lake 68.83 48 IAmb IAmb 17 28 11.3
comp=Z,35nm,1.4s
LKRN Lenkeran, Azer 68.89 303 P P 17 27 56.9 -1.0
MSO Missoula 68.91 46 IAmb IAmb 17 28 11.8
comp=Z,28nm,1.1s
GANJ Ganja 69.28 306 P P 17 27 59.2 -1.2
GDH Godhavn 69.40 6 i P P 17 28 01.3 +0.7
KVAR Kislovodsk Arr 69.44 311 LR LR 18 04 07.5
comp=Z,739nm,18.2s,baz=274,slow=41
KIV Kislovodsk 69.45 311 i P P 17 28 02.5 +1.1
SNR=5.5
KIV Kislovodsk 69.45 311 P P 17 28 02.5 +1.1
KIV Kislovodsk 69.45 311 eP P 17 28 02.2 +0.8
KIV e 17 30 34.5
KIV ePPP PPP 17 32 16.9
KIV eS S 17 37 08.9 +1.9
KIV pmax pmax
comp=Z,35nm,2.5s
KIV pmax pmax
comp=Z,304nm,1.0s
KIV MLR MLR
comp=Z,831nm,17.0s
KIV Kislovodsk 69.45 311 P P 17 28 01.2 -0.2
KIV Kislovodsk 69.45 311 P P 17 28 02.5 +1.1
comp=Z,3µmcomp=Z,312nm,1.1s
KIV Kislovodsk 69.45 311 P P 17 28 02.6 +1.2
comp=Z,399nm,1.1s
KBZ Khabaz 69.47 310 P P 17 28 02.3 +0.9
comp=Z,93nm,0.9s,baz=51,slow=6.0,SNR=88
KBZ LR LR 18 03 34.1
comp=Z,952nm,18.7s,baz=35,slow=40
KBZ Khabaz 69.47 310 c i P P 17 28 01.8 +0.4
KBZ pmax pmax
comp=Z,116nm,0.9s
TBLG Delisi 69.59 308 P P 17 28 03.1 +0.8
ERBR Yeremizino-Bor 69.61 313 eP P 17 28 03.4 +1.1
ERBR e*PP pP 17 28 10.6 +0.3
ERBR eS S 17 37 10.3 +1.6
ERBR pmax pmax
comp=Z,275nm,0.9s
ERBR MLR MLR
comp=Z,1µm,15.0s
FFC Flin Flon 69.63 34 i P P 17 28 03.6 +1.4
FFC Flin Flon 69.63 34 P P 17 28 01.7 -0.5
FFC IAmb IAmb 17 28 04.3
comp=Z,23nm,0.8s
FFC Flin Flon 69.63 34 P P 17 28 02.4 +0.2
comp=Z,30nm,1.1s
ILULI Ilulissat 69.63 5 i P P 17 28 02.5 +0.6
ILULI IAmb IAmb 17 28 03.3
comp=Z,26nm,0.9s
MNK Minsk 70.07 326 i P P 17 28 05.1 +0.2
MNK i 17 28 26.7
MNK i 17 30 40.3
MNK iPPP PPP 17 32 22.7
MNK iS S 17 37 13.8 +0.1
MNK pmax pmax
comp=N,26nm,0.9s
MNK pmax pmax
comp=Z,59nm,0.7s
MNK pmax pmax
comp=E,56nm,0.9s
MNK MLR MLR
comp=N,994nm,17.0s
MNK MLR MLR
comp=E,1µm,17.0s
MNK MLR MLR
comp=Z,2µm,18.0s
MNK Minsk 70.07 326 i P P 17 28 05.1 +0.2
comp=E,56nm,0.9s
MNK i P P 17 28 05.1 +0.2
comp=N,26nm,0.9s
MNK i P P 17 28 05.1 +0.2
comp=Z,59nm,0.7s,baz=47
MNK i PcP PcP 17 28 26.7 -0.2
MNK i PP PP 17 30 40.4 +0.9
MNK i PPP PPP 17 32 22.8
MNK i S S 17 37 13.8 +0.1
MNK i SS SS 17 42 08.1 +26
MNK i SSS SSS 17 45 03.5
MNK i LR LR 17 58 27.0
MNK i LRM MLR 18 01 53.0
comp=N,994nm,17.1s
MNK i LRM MLR 18 01 56.5
comp=E,1µm,17.4s
MNK i LRM MLR 18 01 59.4
comp=Z,2µm,17.8s
TRLG Trialeti 70.08 308 P P 17 28 06.4 +0.9
LABN Labinsk 70.14 312 eP P 17 28 05.9 +0.3
LABN e*PP pP 17 28 12.7 -0.9
LABN eS S 17 37 16.3 +1.4
LABN pmax pmax
comp=Z,222nm,0.9s
AULRC Lightning Ridg 70.17 176 P P 17 28 09.0 +3.3
JASK Jask - Hormozg 70.26 287 P P 17 28 07.7 +1.1
SNR=13
EGMT Eagleton 70.38 43 IAmb IAmb 17 28 20.8
comp=Z,45nm,1.1s
GNI Garni 70.54 306 LR LR 18 02 15.9
comp=Z,776nm,19.5s,baz=52,slow=39
GNI Garni 70.54 306 P P 17 28 08.6 +0.3
GNI Garni 70.54 306 P P 17 28 09.7 +1.4
GNI Garni 70.54 306 d i P P 17 28 08.7 +0.3
GNI pmax pmax
comp=Z,71nm,1.3s
GNI Garni 70.54 306 P P 17 28 08.5 +0.3
GNI Garni 70.54 306 P P 17 28 09.5 +1.2
comp=Z,893nmcomp=Z,52nm,1.0s
GNI Garni 70.54 306 P P 17 28 09.9 +1.5
comp=Z,52nm,1.0s
HMDM Hanimaadhoo 70.58 262 P P 17 28 08.2 -0.5
HMDM Hanimaadhoo 70.58 262 P P 17 28 10.2 +1.5
HMDM Hanimaadhoo 70.58 262 P P 17 28 09.5 +0.8
comp=Z,150nm,1.1s
HLID Hailey 70.66 49 P P 17 28 11.5 +2.5
comp=Z,17nm,1.1s
HLID pP sP 17 28 21.2 +1.2
NAX Nakhchivan 70.67 305 P P 17 28 07.8 -1.2
EPOS Posof 70.92 309 P P 17 28 12.3 +1.7
comp=Z,175nm,1.6s
BOZ Bozeman (W) 70.94 46 IAmb IAmb 17 28 24.4
comp=Z,34nm,0.9s
BMN Battle Mountai 70.94 53 IAmb IAmb 17 28 24.9
comp=Z,37nm,0.9s
PABE Paberze 70.97 328 P P 17 28 10.9 +0.5
comp=Z,92nm,1.3s
HFS Hagfors 71.11 336 P P 17 28 10.5 -0.6
comp=Z,15nm,0.7s,baz=20,slow=4.6,SNR=15
HFS LR LR 18 03 06.9
comp=Z,1µm,18.1s,baz=30,slow=39
comp=Z,15nm,0.7s
NB2 NORSAR Subarra 71.13 338 P P 17 28 11.2 -0.1
comp=Z,38nm,0.9s,baz=37,slow=6.2
NB2 NORSAR Subarra 71.13 338 P P 17 28 11.0 -0.3
NB2 AMP 17 28 11.0
NOA NORSAR Array B 71.13 338 P P 17 28 11.3 0.0
comp=Z,16nm,0.8s,baz=35,slow=6.0,SNR=54
NOA LR LR 18 03 07.5
comp=Z,1µm,20.3s,baz=35,slow=39
comp=Z,16nm,0.8s
DIGO Kars 71.21 307 P P 17 28 13.9 +1.5
comp=Z,291nm,1.3s
VSLR Vesyoloye 71.27 312 ceP P 17 28 13.1 +0.6
VSLR pmax pmax
comp=Z,130nm,1.0s
WSAR Wadi Sarin 71.27 285 P P 17 28 13.3 +0.5
NORES NORESS Array B 71.28 337 P P 17 28 14.1 +1.9
BANOM Banah 71.35 288 i P P 17 28 13.5 +0.2
SNR=5.6
BANOM Banah 71.35 288 P P 17 28 13.6 +0.2
SNR=5.3
JLN Jalan Bani Buh 71.36 283 P P 17 28 13.5 +0.2
SNR=7.4
SOC Sochi 71.37 312 eP P 17 28 13.3 +0.2
SOC ePPP PPP 17 32 38.6
SOC eS S 17 37 30.1 +0.9
SOC eSS SS 17 42 05.1 +2.1
SOC pmax pmax
comp=Z,67nm,0.9s
SOC MLR MLR
comp=Z,727nm,18.0s
SHME Shamm 71.39 289 i P P 17 28 13.4 0.0
SNR=29
SHME Shamm 71.39 289 P P 17 28 13.7 +0.2
SNR=13
WBK Wadi Bani Khal 71.40 284 P P 17 28 14.1 +0.4
SNR=10
BIDO Bidbid 71.47 285 P P 17 28 14.6 +0.7
NVAR Mina Array Bea 71.50 55 P P 17 28 14.1 -0.2
comp=Z,8.8nm,1.0s,baz=306,slow=6.4,SNR=16
NVAR LR LR 17 58 50.9
comp=Z,186nm,19.3s,baz=272,slow=35
comp=Z,8.8nm,1.0s
YHL Hebgen Lake 71.65 46 IAmb IAmb 17 28 29.2
comp=Z,26nm,0.9s
MDH Madha 71.73 288 i P P 17 28 14.6 -0.9
SNR=5.2
MDH Madha 71.73 288 P P 17 28 14.2 -1.3
SNR=5.2
MASF Masafi 71.79 288 P P 17 28 16.0 +0.1
SNR=9.4
MSFE Esma-Masafi 71.79 288 i P P 17 28 16.0 +0.1
SNR=15
SMDO Samad 71.81 285 P P 17 28 15.9 -0.2
SNR=9.2
SFJD Kangerlussuaq 71.85 6 LR LR 18 03 13.0
comp=Z,683nm,19.1s,baz=346,slow=39
SFJD Kangerlussuaq 71.85 6 i P P 17 28 15.6 +0.1
SFJD IAmb IAmb 17 28 16.9
comp=Z,21nm,0.9s
ANN Anapa 71.86 314 eP P 17 28 15.9 -0.1
ANN e*PP pP 17 28 22.0 -2.0
ANN eS S 17 37 35.9 +1.1
ANN pmax pmax
comp=Z,71nm,0.9s
OZAP Van, Ozalp-Mer 71.91 306 ⇑P P 17 28 18.3 +1.6
UOSS Minazif 72.01 288 i P P 17 28 17.0 -0.2
SNR=26
UOSS Minazif 72.01 288 P P 17 28 17.0 -0.2
UOSS Minazif 72.01 288 P P 17 28 15.9 -1.3
UOSS Minazif 72.01 288 P P 17 28 16.8 -0.4
comp=Z,91nm,1.1s
HOQ Hoqain 72.03 286 P P 17 28 17.1 -0.3
SNR=15
AK03 Malin Array Si 72.07 322 P P 17 28 16.9 -0.2
AKASG Malin Array Be 72.09 322 P P 17 28 16.9 -0.3
comp=Z,17nm,0.6s,baz=46,slow=6.2,SNR=93
AKASG LR LR 18 03 12.6
comp=Z,1µm,18.2s,baz=37,slow=39
comp=Z,17nm,0.6s
AKASG Malin Array Be 72.09 322 i P P 17 28 17.2 0.0
AKASG pmax pmax
comp=Z,16nm,0.6s
AKBB Malin Array Si 72.09 322 ceP P 17 28 17.1 -0.1
AKBB Malin Array Si 72.09 322 P P 17 28 16.8 -0.4
KIEV Kiev 72.10 322 P P 17 28 16.6 -0.7
KIEV pmax pmax
comp=Z,77nm,1.2s
KIEV Kiev 72.10 322 P P 17 28 16.6 -0.7
KIEV Kiev 72.10 322 ⇑P P 17 28 17.4 +0.1
KIEV Kiev 72.10 322 P P 17 28 17.4 +0.1
comp=Z,75nm,1.6s
HATD Hatta, Dubai 72.13 288 i P P 17 28 18.1 +0.1
SNR=33
HATD Hatta, Dubai 72.13 288 P P 17 28 18.1 +0.1
SNR=20
CMSA Cobar Meteorol 72.17 178 P P 17 28 21.3 +3.6
JMDO Jabal Madar 72.19 284 P P 17 28 18.3 -0.1
SNR=10
SOHO SOHO 72.26 287 i P P 17 28 18.5 -0.2
SNR=15
SOHO SOHO 72.26 287 P P 17 28 18.3 -0.4
SNR=13
ASHO Ashiyiah 72.27 287 i P P 17 28 18.9 0.0
SNR=26
ASHO Ashiyiah 72.27 287 P P 17 28 19.1 +0.2
SNR=21
HOMI Horasan 72.32 308 ⇑P P 17 28 20.6 +1.5
SUW Suwalki 72.37 328 eP P 17 28 18.5 -0.3
NAZ Nazwa, Dubai 72.38 288 i P P 17 28 19.1 -0.3
SNR=10
NAZ Nazwa, Dubai 72.38 288 P P 17 28 19.2 -0.2
SNR=9.3
STKA Stephens Creek 72.49 182 P P 17 28 19.1 -0.5
comp=Z,1.5nm,0.5s,baz=344,slow=7.4,SNR=3.4
STKA LR LR 18 03 50.9
comp=Z,215nm,19.2s,baz=22,slow=39
comp=Z,1.5nm,0.5s
STKA Stephens Creek 72.49 182 IAmb IAmb 17 29 03.0
comp=Z,45nm,1.1s
FAQ Al Faqa, Dubai 72.57 288 i P P 17 28 20.3 -0.3
SNR=6.0
FAQ Al Faqa, Dubai 72.57 288 P P 17 28 20.6 0.0
SNR=7.1
FRB Frobisher Bay 72.62 14 LR LR 18 04 25.1
comp=Z,798nm,19.0s,baz=350,slow=39
BSY Bisya 72.62 285 P P 17 28 21.1 +0.2
SNR=11
GEVA Gevas 72.70 306 IAmb IAmb 17 28 23.5
comp=Z,31nm,1.0s
ARQ Araqi 72.75 286 P P 17 28 21.7 0.0
SNR=16
STRU Stroemstad 72.76 336 i P P 17 28 21.4 +0.3
HAKT HAKKARI 72.77 305 P P 17 28 22.4 +0.5
comp=Z,148nm,0.9s
ASUD Al Ashush, Dub 72.83 288 i P P 17 28 22.2 +0.1
SNR=12
ASUD Al Ashush, Dub 72.83 288 P P 17 28 22.5 +0.4
SNR=7.6
ALNE Al Ain 72.88 287 i P P 17 28 22.5 +0.1
SNR=12
ALNE Al Ain 72.88 287 P P 17 28 22.6 +0.2
SNR=20
AHID Auburn Hatcher 73.04 48 IAmb IAmb 17 28 40.3
comp=Z,60nm,1.9s
AHID Auburn Hatcher 73.04 48 P P 17 28 25.2 +1.8
comp=Z,18nm,1.4s
RNPP9 Sopachiv 73.09 324 P P 17 28 23.6 +0.4
AJN Ajban 73.12 288 i P P 17 28 23.4 -0.4
SNR=5.6
MHTO MHTO 73.13 283 P P 17 28 24.1 +0.2

SNR=23
RNPP8 **Varash** 73.16 324 P P 17 28 23.4 -0.2
GURO **Guroymak-BITI** 73.18 307 P P 17 28 23.8 -0.4
RNPP5 **Staryi Chortor** 73.23 324 P P 17 28 23.4 -0.6
LUBAR **Lubar, Ukraine** 73.31 322 P P 17 28 23.8 -0.7
BLEU **Blekinge** 73.42 333 *i* P P 17 28 24.4 -0.6
HWUT **Hardware Ranch** 73.53 49 P P 17 28 26.1 -0.1
HWUT IAmb IAmb 17 28 40.5
comp=Z,38nm,1.1s
HWUT **Hardware Ranch** 73.53 49 P P 17 28 28.6 +2.4
comp=Z,32nm,1.2s
SIM **Simferopol'** 73.55 316 *e*P P 17 28 26.3 +0.3
SIM pmax pmax
comp=Z,70nm,1.1s
BBOO **Buckleboo** 73.71 186 P P 17 28 27.8 +1.0
DUG **Dugway, Tooele** 73.71 51 P P 17 28 29.5 +2.2
DUG P sP 17 28 40.2 +1.9
DUG **Dugway, Tooele** 73.71 51 IAmb IAmb 17 28 41.5
comp=Z,36nm,1.1s
DUG **Dugway, Tooele** 73.71 51 P P 17 28 29.5 +2.2
comp=Z,45nm,1.1s
DUG pP sP 17 28 40.2 +1.9
KELT **Kelkit** 73.82 309 P P 17 28 29.5 +1.5
comp=Z,326nm,1.0s
PDAR **Pinedale Array** 73.90 47 P P 17 28 29.4 +0.9
comp=Z,4.3nm,0.6s,baz=286,slow=5.0,SNR=36
comp=Z,4.3nm,0.6s
DEL **Delary** 73.96 334 *i* P P 17 28 28.3 +0.1
UMZA **Um Al Zommool** 74.12 286 P P 17 28 29.0 -0.7
HTT **Hallett** 74.13 184 P P 17 28 31.9 +2.5
comp=Z,8.3nm,2.0s
HTT **Hallett** 74.13 184 P P 17 28 30.7 +1.3
comp=Z,8.4nm,2.0s
SORM **Soroca** 74.28 321 P P 17 28 30.3 +0.1
SORM **Soroca** 74.28 321 ⇑P P 17 28 30.4 +0.1
JRN **Qarnain Island** 74.42 290 P P 17 28 30.3 -1.1
NUUK **Nuuk** 74.53 7 *i* P P 17 28 31.9 +0.5
NUUK IAmb IAmb 17 28 33.3
comp=Z,36nm,0.7s
BSD **Bornholm Skovb** 74.67 332 *i* P P 17 28 31.9 -0.5
BSD IAmb IAmb 17 28 33.2
comp=Z,42nm,0.9s
LUNU **Lund** 74.77 333 *i* P P 17 28 32.9 0.0
KEMA **Kemaliye** 74.84 309 P P 17 28 35.3 +1.6
comp=Z,216nm,1.2s
KMPD **K-Podol'skiy** 74.87 322 P P 17 28 33.4 -0.2
KAAM **Kaadhehdhoo** 74.87 257 P P 17 28 34.8 +0.6
KAAM **Kaadhehdhoo** 74.87 257 P P 17 28 33.9 -0.2
KAAM **Kaadhehdhoo** 74.87 257 P P 17 28 35.5 +1.4
comp=Z,88nm,1.1s
KAAM **Kaadhehdhoo** 74.87 257 P P 17 28 35.6 +1.4
comp=Z,88nm,1.2s
BEL **Belsk** 74.95 327 *e*P P 17 28 35.0 +1.0
BEL **Belsk** 74.95 327 P P 17 28 35.3 +1.2
comp=Z,13µm,0.9s
GHWR **Ruwais** 75.00 289 P P 17 28 34.2 -0.6
COP **Copenhagen** 75.07 334 P P 17 28 35.8 +1.2
comp=Z,135nm,0.9s
COP **Copenhagen** 75.07 334 *i* P P 17 28 35.2 +0.6
COP IAmb IAmb 17 28 36.5
comp=Z,103nm,0.8s
MZR **Muzera** 75.17 288 *i* P P 17 28 35.4 -0.4
SNR=30
MZR **Muzera** 75.17 288 P P 17 28 35.1 -0.7
SNR=15
RDMU **Red Mountain** 75.34 49 IAmb IAmb 17 28 50.9
comp=Z,50nm,1.0s
P17A **Butcher Ranch,** 75.39 50 IAmb IAmb 17 28 51.2
comp=Z,65nm,1.4s
ULM **Lac du Bonnet** 75.44 35 P P 17 28 37.0 +0.2
comp=Z,8.8nm,0.8s,baz=311,slow=7.6,SNR=11
comp=Z,8.8nm,0.8s
ULM **Lac du Bonnet** 75.44 35 P P 17 28 37.1 +0.2
ULM pmax pmax
comp=Z,68nm,1.9s
ULM **Lac du Bonnet** 75.44 35 P P 17 28 37.1 +0.2
ULM IAmb IAmb 17 29 09.9
comp=Z,68nm,1.9s
MUD **Monsted U'grnd** 75.50 336 *i* P P 17 28 37.5 +0.5
MUD IAmb IAmb 17 28 38.5
comp=Z,16nm,0.6s
K22A **Casper** 75.64 46 IAmb IAmb 17 28 54.3
comp=Z,36nm,1.0s
PDRR **Padureni** 75.67 320 ⇑P P 17 28 38.9 +0.6
PFO **Pinyon Flats O** 75.68 58 LR LR 17 55 22.7
comp=Z,481nm,21.0s,baz=260,slow=30
PFO **Pinyon Flats O** 75.68 58⇑*e*P P 17 28 41.1 +2.3
PFO pmax pmax
comp=Z,8.0nm,1.0s
PFO **Pinyon Flats O** 75.68 58 P P 17 28 40.9 +2.2
comp=Z,19nm,1.3s
DMBR **Dumbraveni** 75.73 320 ⇓P P 17 28 39.6 +1.0
SRU **San Rafael Swe** 75.76 50 IAmb IAmb 17 28 52.5
comp=Z,27nm,0.8s
KWP **Kalwaria Pacla** 75.78 325 *e*P P 17 28 40.0 +1.1
KWP **Kalwaria Pacla** 75.78 325 P P 17 28 40.0 +1.1
SLWR **Sila** 75.79 290 P P 17 28 38.7 -0.6
PRAR **RASCA** 75.84 321 ⇓P P 17 28 39.8 +0.5
RSSD **Black Hills** 75.95 43 P P 17 28 40.0 -0.2
RSSD pmax pmax
comp=Z,26nm,0.9s
RSSD **Black Hills** 75.95 43 P P 17 28 40.0 -0.2
RSSD IAmb IAmb 17 28 52.9
comp=Z,26nm,0.9s
RSSD **Black Hills** 75.95 43 P P 17 28 41.4 +1.1
comp=Z,36nm,1.1s
GIRR **Girov** 76.00 321 ⇓P P 17 28 41.1 +1.0
VLDR **Vladesti** 76.03 319 ⇓P P 17 28 41.1 +0.8
VARL **Varlezi** 76.10 319 ⇓P P 17 28 41.2 +0.5
BUR08 **Bucovina Ar. S** 76.12 322 IAmb IAmb 17 28 42.7
comp=Z,27nm,0.7s
TLCR 76.12 318 P P 17 28 41.5 +0.6
TLCR 76.12 318 ⇑P P 17 28 41.5 +0.6
BURAR **Bucovina Array** 76.13 322 P P 17 28 41.8 +0.8
BURAR **Bucovina Array** 76.13 322 ⇑P P 17 28 41.8 +0.8
SCTR **Scanteiesti** 76.19 319 ⇑P P 17 28 41.8 +0.6
BIZ **Bicaz** 76.20 321 ⇑P P 17 28 42.4 +1.1
GHRR 76.20 320 ⇓P P 17 28 42.5 +1.2
GHRR 76.20 320 P P 17 28 42.6 +1.3
comp=Z,82nm,0.9s
LNIZ **Loeckmitz** 76.21 331 P P 17 28 42.2 +1.0
comp=Z,67nm,1.6s
TESR **Tescani** 76.25 321 ⇑P P 17 28 42.1 +0.5
TESR **Tescani** 76.25 321 P P 17 28 42.3 +0.7
comp=Z,65nm,1.5s
NEGRR **Negrea** 76.34 319 ⇑P P 17 28 43.0 +0.9
IZVR **Izvoarele** 76.39 319 ⇑P P 17 28 43.6 +1.2
HMU **Henry Mountain** 76.41 51 IAmb IAmb 17 28 59.2
comp=Z,33nm,0.8s
SCHLR **Schela** 76.41 319 ⇓P P 17 28 43.5 +1.0
PANC **Panciu** 76.46 320 ⇓P P 17 28 44.5 +1.7
CFR **Carcaliu** 76.47 319 P P 17 28 43.1 +0.3
CFR **Carcaliu** 76.47 319 ⇑P P 17 28 43.2 +0.3
KOLS **Kolonicke sedl** 76.49 324 *e*P P 17 28 43.7 +0.7
KOLS pmax pmax
comp=Z,27nm,0.8s
KOLS **Kolonicke sedl** 76.49 324 *e*P P 17 28 43.7 +0.7
KOLS **Kolonicke sedl** 76.49 324 P P 17 28 44.0 +1.0
comp=Z,24nm,0.7s
TPGR **Topolog** 76.56 318 ⇑P P 17 28 44.0 +0.6
OJC **Ojcow** 76.58 327 *e*P P 17 28 44.2 +0.7
OJC **Ojcow** 76.58 327 P P 17 28 44.4 +0.9
OJC P pP 17 28 52.4 +0.9
OJC pmax pmax
comp=Z,65nm,1.1s
OJC **Ojcow** 76.58 327 P P 17 28 44.4 +0.9
comp=Z,65nm,1.1s
OJC pP pP 17 28 52.4 +0.9
ODBI **Odobesti** 76.59 320 ⇓P P 17 28 45.4 +1.9
BNN **Bunyan** 76.66 310 IAmb IAmb 17 28 46.5
comp=Z,43nm,1.0s
VRI **Vrincioaia** 76.67 320 P P 17 28 45.1 +1.1
VRI **Vrincioaia** 76.67 320 ⇓P P 17 28 45.2 +1.1
VRI **Vrincioaia** 76.67 320 P P 17 28 45.1 +1.1
comp=Z,35nm,1.6s
SHAO **Shalim** 76.69 282 *i* P P 17 28 44.4 -0.1
SNR=6.6
SHAO **Shalim** 76.69 282 P P 17 28 44.3 -0.3
PLOR **Plostina** 76.72 320 P P 17 28 45.3 +1.0
PLOR **Plostina** 76.72 320 ⇓P P 17 28 45.4 +1.0
EPLO **Experimental L** 76.79 34 IAmb IAmb 17 28 45.8
comp=Z,24nm,0.8s
SAHR **Sahastru** 76.79 320 ⇑P P 17 28 46.4 +1.6
TIRR **Tirgusor** 76.84 318 P P 17 28 45.0 +0.1
TIRR **Tirgusor** 76.84 318 ⇓P P 17 28 45.0 +0.1

BMR **Baia Mare** 76.88 323 P P 17 28 46.3 +1.2
BMR **Baia Mare** 76.88 323 ⇑P P 17 28 46.4 +1.2
BMR **Baia Mare** 76.88 323 P P 17 28 46.4 +1.3
comp=Z,40nm,0.8s
TURR **Turia** 76.88 321 ⇑P P 17 28 46.8 +1.5
AGMN **Agassiz Nation** 76.89 36 P P 17 28 45.0 -0.2
comp=Z,14nm,1.1s
ARCR **ARCALIA** 76.92 322 ⇑P P 17 28 46.8 +1.4
HARR **Harsova** 76.92 319 ⇑P P 17 28 46.1 +0.8
HARR **Harsova** 76.92 319 ⇑P P 17 28 46.2 +0.8
COVR **Voineasa-Covas** 76.94 320 ⇓P P 17 28 46.3 +0.8
OZUR 76.96 321 ⇑P P 17 28 47.2 +1.5
TLBR **Topalu** 76.97 318 ⇓P P 17 28 46.5 +0.9
TRPA **Tarpa** 76.97 324 P P 17 28 46.8 +1.2
comp=Z,100nm,1.4s
GAZ **Gaziantep** 76.98 308 P P 17 28 46.0 0.0
NIE **Niedzica** 76.98 326 *e*P P 17 28 46.7 +1.0
NIE **Niedzica** 76.98 326 P P 17 28 46.4 +0.7
comp=Z,13nm,1.0s
BOSR **Bodos** 77.04 321 ⇑P P 17 28 48.0 +1.9
PV22 **Blue Mesa, Par** 77.15 50 IAmb IAmb 17 29 01.1
comp=Z,47nm,1.1s
RUE **Ruedersdorf** 77.18 331 P P 17 28 47.6 +1.0
comp=Z,57nm,0.8s
PV20 **West Nyswonger** 77.18 50 IAmb IAmb 17 29 02.5
comp=Z,45nm,0.9s
BSEG **Bad Segeberg** 77.21 334 *e*P P 17 28 47.7 +0.8
comp=Z,54nm,0.9s,baz=34,slow=5.4
BSEG **Bad Segeberg** 77.21 334 P P 17 28 47.9 +1.1
comp=Z,63nm,0.9s
ANDN **Andirin** 77.22 309 P P 17 28 48.8 +1.4
comp=Z,295nm,1.1s
PV16 **Nyswonger Mesa** 77.23 50 P P 17 28 47.1 -0.5
PV16 IAmb IAmb 17 29 01.6
comp=Z,52nm,1.1s
DOPR **Dopca** 77.25 321 ⇑P P 17 28 48.9 +1.6
PV11 **David Mesa, Pa** 77.26 50 IAmb IAmb 17 29 04.9
comp=Z,49nm,1.1s
PV18 **Skein Mesa, Pa** 77.28 50 IAmb IAmb 17 29 01.2
comp=Z,39nm,0.9s
ISR **Istrita** 77.30 320 P P 17 28 49.4 +1.8
ISR **Istrita** 77.30 320 ⇓P P 17 28 49.5 +1.8
PV03 **Paradox Valley** 77.31 50 IAmb IAmb 17 29 01.4
comp=Z,37nm,1.0s
MLR **Muntele Rosu** 77.32 320 LR LR 18 07 13.5
comp=Z,1µm,18.4s,baz=44,slow=39
MLR **Muntele Rosu** 77.32 320 P P 17 28 49.2 +1.4
MLR **Muntele Rosu** 77.32 320 ⇑P P 17 28 49.2 +1.4
MLR **Muntele Rosu** 77.32 320 P P 17 28 48.4 +0.6
comp=Z,22nm,1.6s
BR131 **Keskin Array S** 77.33 312 P P 17 28 48.4 +0.3
SNR=5.4
BR131 **Keskin Array S** 77.33 312*c* *i* P P 17 28 48.2 +0.2
BR131 **Keskin Array S** 77.33 312 IAmb IAmb 17 28 50.0
comp=Z,99nm,1.9s
BRTR **Keskin Array B** 77.33 312 P P 17 28 48.2 +0.2
comp=Z,6.2nm,0.9s,baz=51,slow=7.2,SNR=20
BRTR PP PP 17 31 34.3 -7.6
comp=Z,2.0nm,1.0s,baz=57,slow=6.8,SNR=2.3
BRTR LR LR 18 06 50.3
comp=Z,314nm,19.0s,baz=42,slow=39
comp=Z,6.2nm,0.9s
BRTR **Keskin Array B** 77.33 312 *i* P P 17 28 48.4 +0.3
BRTR pmax pmax
comp=Z,6.0nm,0.9s
BRTR **Keskin Array B** 77.33 312 P P 17 28 47.6 -0.4
BR106 **Keskin Array S** 77.34 312 P P 17 28 48.2 +0.1
comp=Z,153nmcomp=Z,15nm,1.4s
BR105 **Keskin Array S** 77.35 312 P P 17 28 48.2 +0.1
comp=Z,163nmcomp=Z,16nm,1.4s
NWAO **Narrogin (SRO)** 77.35 202 LR LR 18 02 42.1
comp=Z,91nm,21.4s,baz=24,slow=36
DMTO **DMTO** 77.39 282 P P 17 28 47.8 -0.6
ICOR **Ion Corvin** 77.39 318 ⇑P P 17 28 49.3 +1.2
DOK **Doka** 77.42 284 P P 17 28 47.9 -0.7
SNR=13
ABAH **Abaujker** 77.43 325 P P 17 28 49.4 +1.2
comp=Z,35nm,0.9s
MESR **Meseseni** 77.52 323 ⇓P P 17 28 50.3 +1.5
KSP **Ksiaz** 77.52 329 *e*P P 17 28 49.5 +0.8
KSP **Ksiaz** 77.52 329 P P 17 28 49.1 +0.4
comp=Z,42nm,1.0s
LANS **Liptovska Anna** 77.54 326 *e*P P 17 28 50.4 +1.5
LANS pmax pmax
comp=Z,57nm,2.1s
LANS **Liptovska Anna** 77.54 326 *e*P P 17 28 50.4 +1.5
CJR **Cluj-Napoca** 77.54 322 P P 17 28 50.3 +1.4
CJR **Cluj-Napoca** 77.54 322 ⇑P P 17 28 50.4 +1.4
OKC **Ostrava-Krasne** 77.56 327 *e*P P 17 28 50.2 +1.3
OKC MLR MLR
comp=Z,2µm,18.1s
OKC **Ostrava-Krasne** 77.56 327 *e*P P 17 28 50.2 +1.3
OKC AMS AMS 18 05 50.0
comp=Z,2µm,18.1s
OKC **Ostrava-Krasne** 77.56 327 P P 17 28 49.9 +0.9
comp=Z,41nm,0.9s
KIRS **Kirsehir-Merke** 77.58 311 ⇑P P 17 28 49.9 +0.6
KECS **Kecovo** 77.61 325 *e*P P 17 28 50.1 +0.9
KECS pmax pmax
comp=Z,19nm,1.1s
KECS **Kecovo** 77.61 325 *e*P P 17 28 50.1 +0.9
WUAZ **Wupatki** 77.63 54 IAmb IAmb 17 29 04.2
comp=Z,32nm,1.1s
STEB **Steborice** 77.64 327 *e*P P 17 28 50.4 +1.0
GORT1 **Trebel** 77.65 333 *e*P P 17 28 50.2 +1.0
comp=Z,60nm,1.2s,baz=34,slow=5.4
GORT1 **Trebel** 77.65 333 P P 17 28 50.4 +1.1
comp=Z,66nm,1.1s
OSTC **Ostas** 77.78 329 *e*P P 17 28 51.1 +0.9
OSTC MLR MLR
comp=Z,2µm,18.4s
OSTC **Ostas** 77.78 329 *e*P P 17 28 51.1 +0.9
OSTC AMS AMS 18 06 20.0
comp=Z,2µm,18.4s
MARR **Marisel-Cluj** 77.79 322 ⇑P P 17 28 51.4 +1.0
VOIR 77.80 321 P P 17 28 51.2 +0.8
VOIR 77.80 321 ⇑P P 17 28 51.2 +0.8
VOIR 77.80 321 P P 17 28 51.5 +1.1
comp=Z,32nm,1.1s
CHVC **Chvalec** 77.82 329 *e*P P 17 28 51.4 +1.0
CHVC MLR MLR
comp=Z,2µm,17.0s
CHVC **Chvalec** 77.82 329 *e*P P 17 28 51.4 +1.0
CHVC AMS AMS 18 06 30.0
comp=Z,2µm,17.0s
MORC **Moravsky Berou** 77.86 327 P P 17 28 51.6 +1.0
MORC **Moravsky Berou** 77.86 327 IAmb IAmb 17 28 52.7
comp=Z,31nm,0.8s
MORC **Moravsky Berou** 77.86 327 *e*P P 17 28 51.3 +0.7
MORC **Moravsky Berou** 77.86 327 ⇑P P 17 28 51.6 +1.0
MORC **Moravsky Berou** 77.86 327 P P 17 28 51.7 +1.1
comp=Z,51nm,1.0s
DRGR 77.89 323 P P 17 28 51.7 +0.8
DRGR 77.89 323 ⇑P P 17 28 51.7 +0.8
DRGR 77.89 323 P P 17 28 51.7 +0.8
comp=Z,17nm,2.0s
UPC **Upice** 77.90 329 *e*P P 17 28 51.7 +0.9
UPC MLR MLR
comp=Z,2µm,17.0s
UPC **Upice** 77.90 329 *e*P P 17 28 51.7 +0.9
UPC AMS AMS 18 06 40.0
comp=Z,2µm,17.0s
UPC **Upice** 77.90 329 P P 17 28 51.9 +1.1
comp=Z,36nm,1.0s
DPC **Dobruska-Polom** 77.90 328 *e*P P 17 28 51.9 +1.0
DPC MLR MLR
comp=Z,2µm,18.7s
DPC **Dobruska-Polom** 77.90 328 *e*P P 17 28 51.9 +1.0
DPC AMS AMS 18 06 20.0
comp=Z,2µm,18.7s
DPC **Dobruska-Polom** 77.90 328 P P 17 28 52.2 +1.3
comp=Z,28nm,1.8s
KRLC **Kraliky** 77.93 328 *e*P P 17 28 51.9 +0.8
KRLC MLR MLR
comp=Z,1µm,17.4s
KRLC **Kraliky** 77.93 328 *e*P P 17 28 51.9 +0.8
KRLC AMS AMS 18 06 10.0
comp=Z,1µm,17.4s
KRLC **Kraliky** 77.93 328 P P 17 28 52.1 +1.0
comp=Z,33nm,0.9s
NRS **Narsarsuaq** 77.99 4 *i* P P 17 28 51.5 +0.5
NRS IAmb IAmb 17 28 53.4
comp=Z,28nm,0.8s
ARR **Arges** 78.05 321 ⇑P P 17 28 53.6 +1.8
ARR **Arges** 78.05 321 P P 17 28 53.5 +1.7

comp=Z,64nm,1.3s
RBK **Rabkut** 78.07 283 P P 17 28 51.1 -1.2
SNR=11
ISCO **Idaho Springs** 78.09 47 P P 17 28 54.7 +2.2
comp=Z,18nm,1.5s
KKUL **Konya-Kulu** 78.12 312 P P 17 28 53.6 +1.3
comp=Z,113nm,1.1s
WHFO **Wadi Hawf** 78.13 283 P P 17 28 51.3 -1.3
SNR=9.7
FLTG **Flechtingen** 78.21 332 *e*P P 17 28 52.6 +0.1
comp=Z,51nm,0.9s,baz=34,slow=5.4
FLTG **Flechtingen** 78.21 332 P P 17 28 52.8 +0.3
comp=Z,64nm,1.0s
MVCO **Mesa Verde** 78.22 51 IAmb IAmb 17 29 07.0
comp=Z,74nm,1.9s
MVCO **Mesa Verde** 78.22 51 P P 17 28 55.3 +2.2
comp=Z,12nm,1.3s
PSZ **Piszkesteto** 78.30 325 P P 17 28 54.5 +1.4
PSZ **Piszkesteto** 78.30 325 IAmb IAmb 17 28 54.9
comp=Z,32nm,1.0s
PSZ **Piszkesteto** 78.30 325 ⇓P P 17 28 54.6 +1.4
PSZ **Piszkesteto** 78.30 325 P P 17 28 54.3 +1.2
comp=Z,44nm,1.8s
VYHS **Vyhne** 78.31 326 *e*P P 17 28 54.2 +1.1
VYHS pmax pmax
comp=Z,29nm,1.0s
VYHS **Vyhne** 78.31 326 *e*P P 17 28 54.2 +1.1
VYHS **Vyhne** 78.31 326 P P 17 28 54.4 +1.2
comp=Z,9.4nm,1.4s
LOT **Lotru** 78.40 321 ⇑P P 17 28 54.3 +0.5
LOT **Lotru** 78.40 321 P P 17 28 54.3 +0.5
comp=Z,21nm,0.8s
CLL **Collm** 78.41 331 *i* P P 17 28 53.8 +0.2
CLL *e*S SKSac 17 39 00.0 -6.3
CLL pmax pmax
comp=Z,49nm,0.9s
CLL MLR MLR
comp=Z,2µm,20.2s
CLL **Collm** 78.41 331 IAmb IAmb 17 28 54.9
comp=Z,42nm,0.8s
CLL **Collm** 78.41 331 *e*P P 17 28 53.9 +0.2
comp=Z,45nm,0.9s,baz=34,slow=5.4
CLL **Collm** 78.41 331 P P 17 28 54.0 +0.4
comp=Z,56nm,0.9s
CLL **Collm** 78.41 331 *i* P P 17 28 53.8 +0.2
comp=Z,49nm,0.9s
CLL *i* pP pP 17 29 01.2 -0.5
CLL *i* PcP pwP 17 29 03.8 -0.5
CLL *e*S SKSac 17 38 53.0 +5.6
CLL *e*SP SPn 17 39 34.0 +7.4
CLL *ex* x 17 44 54.0
CLL AMS AMS 18 01 00.0
comp=N,800nm,15.1s
CLL AMS AMS 18 01 00.0
comp=E,2µm,20.0s
CLL AMS AMS 18 06 00.0
comp=Z,2µm,20.2s
RAZG **Razgrad** 78.44 319 ⇓P P 17 28 54.9 +1.0
PVCC **Panska Ves** 78.44 329 *e*P P 17 28 54.7 +0.9
PVCC MLR MLR
comp=Z,1µm,14.6s
PVCC **Panska Ves** 78.44 329 *e*P P 17 28 54.7 +0.9
PVCC AMS AMS 18 07 40.0
comp=Z,1µm,14.6s
PVCC **Panska Ves** 78.44 329 P P 17 28 54.8 +0.9
comp=Z,69nm,0.9s
JAVC **Velka Javorina** 78.52 327 *e*P P 17 28 56.1 +1.8
JAVC **Velka Javorina** 78.52 327 P P 17 28 56.4 +2.1
comp=Z,42nm,1.0s
RETH **Rethem/Aller,** 78.52 333 *e*P P 17 28 54.8 +0.7
comp=Z,28nm,1.0s,baz=34,slow=5.4
RETH **Rethem/Aller,** 78.52 333 P P 17 28 55.0 +0.9
comp=Z,47nm,1.0s
F33A **5 Mile Ranch,** 78.53 38 IAmb IAmb 17 29 07.2
comp=Z,22nm,0.7s
RAO **Raoul Island** 78.56 146 LR LR 17 59 53.5
comp=Z,545nm,19.3s,baz=346,slow=33
ASSE **Asse, Remlinge** 78.58 332 *e*P P 17 28 55.0 +0.6
comp=Z,28nm,1.1s,baz=34,slow=5.4
ASSE **Asse, Remlinge** 78.58 332 P P 17 28 55.1 +0.7
comp=Z,26nm,1.0s
VRAC **Vranov** 78.61 328 LR LR 18 07 04.7
comp=Z,1µm,18.3s,baz=30,slow=38
VRAC **Vranov** 78.61 328 P P 17 28 55.9 +1.2
VRAC **Vranov** 78.61 328 *e*P P 17 28 55.3 +0.5
VRAC **Vranov** 78.61 328 ⇓P P 17 28 55.9 +1.2
VRAC **Vranov** 78.61 328 P P 17 28 56.0 +1.2
comp=Z,12nm,1.0s
RICC **Richard** 78.61 330 *e*P P 17 28 56.3 +1.6
KPL **Plockton** 78.64 343 *e*P P 17 28 55.5 +0.8
KPL IAmb IAmb 17 28 56.9
comp=Z,24nm,0.9s
COPA **Copaceanca** 78.67 320 ⇓P P 17 28 55.1 0.0
SIRR **Siria** 78.77 323 ⇑P P 17 28 56.6 +0.9
WIMM **Wimmelburg** 78.78 332 P P 17 28 56.0 +0.4
comp=Z,84nm,1.1s
HSKC **Hora Svate Kat** 78.81 330 *e*P P 17 28 56.6 +0.7
HSKC **Hora Svate Kat** 78.81 330 P P 17 28 56.8 +0.9
comp=Z,42nm,1.3s
ABTO **Aybut** 78.83 283 P P 17 28 55.6 -0.9
SNR=18
KRUC **Moravsky** 78.88 328 *e*P P 17 28 57.1 +0.8
KRUC **Moravsky** 78.88 328 P P 17 28 57.3 +1.1
comp=Z,45nm,0.9s
PRU **Pruhonice** 78.89 329 *e*P P 17 28 57.4 +1.2
PRU MLR MLR
comp=Z,1µm,17.8s
PRU **Pruhonice** 78.89 329 *e*P P 17 28 57.4 +1.2
PRU AMS AMS 18 07 10.0
comp=Z,1µm,17.8s
PRU **Pruhonice** 78.89 329 P P 17 28 57.3 +1.1
comp=Z,40nm,1.0s
SMOL **Smolenice** 78.89 327 *e*P P 17 28 57.8 +1.5
SMOL pmax pmax
comp=Z,8.0nm,0.7s
GZR **Gura Zlata** 78.91 322 P P 17 28 57.2 +0.7
GZR **Gura Zlata** 78.91 322 ⇑P P 17 28 57.2 +0.7
CLZ **Clausthal** 78.92 332 *e*P P 17 28 57.3 +0.8
comp=Z,40nm,1.0s,baz=34,slow=5.4
CLZ **Clausthal** 78.92 332 P P 17 28 57.4 +1.0
comp=Z,56nm,1.0s
NEUB **Neuenburg** 78.94 331 *e*P P 17 28 57.0 +0.5
comp=Z,50nm,0.9s,baz=34,slow=5.4
NEUB **Neuenburg** 78.94 331 P P 17 28 57.0 +0.5
comp=Z,65nm,1.0s
SURR **Surduc** 78.94 322 ⇑P P 17 28 57.5 +0.9
EYMN **Ely** 79.06 34 IAmb IAmb 17 28 58.7
comp=Z,28nm,0.9s
EYMN **Ely** 79.06 34 P P 17 28 58.2 +0.9
comp=Z,37nm,1.0s
MODS **Modra-Piesok** 79.06 327 *e*P P 17 28 58.6 +1.3
MODS pmax pmax
comp=Z,48nm,1.0s
MODS **Modra-Piesok** 79.06 327 *e*P P 17 28 58.6 +1.3
MODS **Modra-Piesok** 79.06 327 P P 17 28 58.9 +1.6
comp=Z,42nm,1.9s
SRO **Srobarova** 79.06 326 *e*P P 17 28 58.8 +1.6
SRO pmax pmax
comp=Z,38nm,0.9s
SRO **Srobarova** 79.06 326 *e*P P 17 28 58.8 +1.6
SRO **Srobarova** 79.06 326 P P 17 28 58.9 +1.6
comp=Z,65nm,0.9s
TREC **Trest** 79.06 328 P P 17 28 58.3 +1.0
comp=Z,35nm,1.8s
INVG **Invergeldie, C** 79.12 342 *e*P P 17 28 57.8 +0.4
INVG IAmb IAmb 17 28 59.6
comp=Z,10nm,0.9s
VLAD **Vladila** 79.16 320 ⇑P P 17 28 58.4 +0.5
ELND **Elena** 79.22 318 ⇓P P 17 28 59.2 +0.9
ZST **Bratislava** 79.27 327 *e*P P 17 29 01.5 +3.1
ZST **Bratislava** 79.27 327 *e*P P 17 29 01.5 +3.1
BZS **Buzias** 79.28 323 P P 17 28 58.9 +0.4
BZS **Buzias** 79.28 323 ⇑P P 17 28 58.9 +0.4
BZS **Buzias** 79.28 323 P P 17 28 58.9 +0.4
comp=Z,31nm,1.6s
GTTG **Gottingen** 79.31 332 P P 17 28 59.4 +0.9
comp=Z,69nm,1.2s
PHSR **Pinarhisar** 79.32 317 ⇓P P 17 29 00.1 +1.3
TANN **Tannenbergstha** 79.33 330 *e*P P 17 28 59.2 +0.5
comp=Z,14nm,1.1s,baz=34,slow=5.4
TANN **Tannenbergstha** 79.33 330 P P 17 28 59.3 +0.6
comp=Z,34nm,2.6s
PLN **Plauen** 79.39 331 *e*P P 17 28 59.6 +0.6
comp=Z,4.7nm,0.9s,baz=34,slow=5.4
EAB **Aberfoyle** 79.41 342 *e*P P 17 28 59.6 +0.6
EAB IAmb IAmb 17 29 01.7

comp=Z,26nm,0.9s
IBBN Ibbenburen 79.42 334 *e*P **P 17 28 59.6 +0.5**
comp=Z,64nm,0.9s,baz=34,slow=5.4
IBBN Ibbenburen 79.42 334 P **P 17 28 59.7 +0.6**
comp=Z,79nm,1.0s
MOX Moxa 79.46 331 *e*P **P 17 28 59.9 +0.5**
comp=Z,16nm,0.9s,baz=34,slow=5.4
MOX *e*L L 18 07 29.0
comp=Z,2µm,18.4s
MOX Moxa 79.46 331 P **P 17 29 00.0 +0.6**
comp=Z,25nm,1.0s
HERR Herculane 79.46 322 ⇑P **P 17 28 59.6 +0.1**
ZVC Zvikov 79.46 329 *e*P **P 17 29 00.1 +0.7**
NKC Novy Kostel 79.49 330 *e*P **P 17 29 00.4 +0.8**
NKC MLR MLR
comp=Z,2µm,19.0s
NKC Novy Kostel 79.49 330 *e*P **P 17 29 00.4 +0.8**
NKC AMS AMS 18 07 10.0
comp=Z,2µm,19.0s
NKC Novy Kostel 79.49 330 P **P 17 28 58.7 -0.9**
comp=Z,26nm,1.4s
PLVB Pleven 79.51 319 ⇑P **P 17 29 00.6 +0.8**
ABNA Allensteig Bun 79.58 328 *i* P **P 17 29 00.8 +0.7**
comp=Z,17nm,0.9s
ABNA *i* PP **PP 17 32 00.6 +0.4**
comp=Z,8.5nm,1.2s
LAWE Loch Awe, Argy 79.58 343 *e*P **P 17 29 00.5 +0.6**
LAWE IAmb IAmb 17 29 02.5
comp=Z,21nm,0.9s
BAIL Bailesti 79.66 321 ⇓P **P 17 29 02.2 +1.6**
BANR Banloc 79.68 323 ⇑P **P 17 29 02.2 +1.6**
WINA Alland / Wiene 79.77 327 *i* P **P 17 29 02.4 +1.2**
comp=Z,31nm,1.0s,SNR=7.8
PGBU Glenifferbraes 79.78 342 *e*P **P 17 29 02.1 +1.1**
PGBU IAmb IAmb 17 29 03.3
comp=Z,77nm,0.9s
MDVR Moldovita 79.86 322 ⇑P **P 17 29 02.1 +0.3**
MPLH Magyarpolny 79.89 326 P **P 17 29 02.7 +0.9**
comp=Z,45nm,1.3s
SOP Sopron 79.90 327 P **P 17 29 03.3 +1.5**
comp=Z,64nm,1.0s
EKA Eskdalemuir Ar 79.91 341 P **P 17 29 01.8 +0.1**
comp=Z,13nm,0.8s,baz=20,slow=5.3,SNR=24
EKA LR LR 18 08 31.6
comp=Z,510nm,19.3s,baz=37,slow=39
comp=Z,13nm,0.8s
CKRC Cesky Krumlov 79.91 329 *e*P **P 17 29 02.8 +0.9**
CKRC MLR MLR
comp=Z,1µm,17.2s
CKRC Cesky Krumlov 79.91 329 *e*P **P 17 29 02.8 +0.9**
CKRC AMS AMS 18 07 40.0
comp=Z,1µm,17.2s
ECSD EROS Data Cent 79.95 40 IAmb IAmb 17 29 15.1
comp=Z,108nm,1.9s
ECSD EROS Data Cent 79.95 40 P **P 17 29 03.3 +1.1**
comp=Z,26nm,1.4s
KHC Kasperske Hory 79.95 329*c* *i*P **P 17 29 02.6 +0.5**
KHC pmax pmax
comp=Z,34nm,1.0s
KHC Kasperske Hory 79.95 329 IAmb IAmb 17 29 04.2
comp=Z,30nm,0.8s
KHC Kasperske Hory 79.95 329 *e*P **P 17 29 03.1 +1.0**
KHC AMS AMS 18 10 10.0
comp=Z,1µm,19.5s
KHC Kasperske Hory 79.95 329 P **P 17 29 02.3 +0.2**
KHC Kasperske Hory 79.95 329 P **P 17 29 03.1 +1.0**
comp=Z,46nm,1.0s
CONA Conrad Observa 80.00 327 *i* P **P 17 29 03.7 +1.2**
comp=Z,28nm,1.0s,SNR=14
RONA Rosalia, Austr 80.00 327 *i* P **P 17 29 03.7 +1.3**
comp=Z,44nm,0.9s,SNR=19
WTSB Winterswijk 80.03 334 P **P 17 29 02.8 +0.5**
comp=Z,56nm,1.2s
EDMD Edmundbyers 80.06 340 *e*P **P 17 29 02.8 +0.2**
EDMD IAmb IAmb 17 29 05.4
comp=Z,18nm,0.9s
EDMD Edmundbyers 80.06 340 P **P 17 29 03.4 +0.8**
comp=Z,34nm,0.9s
GEC2 GERESS Array S 80.13 329 P **P 17 29 02.1 -1.0**
GEC2 GERESS Array S 80.13 329 *e*P **P 17 29 03.6 +0.4**
comp=Z,13nm,0.9s,baz=34,slow=5.4
GEC2 GERESS Array S 80.13 329 P **P 17 29 03.6 +0.4**
comp=Z,19nm,1.0s
GERES GERESS Array B 80.13 329 P **P 17 29 03.3 +0.1**
comp=Z,10nm,0.9s,baz=34,slow=5.3,SNR=58
GERES LR LR 18 08 08.3
comp=Z,845nm,18.1s,baz=22,slow=38
comp=Z,10nm,0.9s
GERES GERESS Array B 80.13 329 P **P 17 29 02.5 -0.7**
KASTN Kahler Asten 80.13 333 *e*P **P 17 29 03.6 +0.5**
comp=Z,23nm,1.0s,baz=34,slow=5.4
TUC Tucson 80.13 56 P **pwP 17 29 14.0 -0.2**
TUC P **pwP 17 29 14.0 -0.2**
TUC pmax pmax
comp=Z,10.0nm,1.3s
TUC Tucson 80.13 56 P **P 17 29 06.0 +2.5**
comp=Z,10nm,1.3s
TUC pP **pwP 17 29 14.0 -0.2**
MORH Mrgy, Hungar 80.16 325 ⇑P **P 17 29 03.4 +0.2**
MORH Mrgy, Hungar 80.16 325 ⇑*i*P **P 17 29 02.9 -0.3**
MORH Mrgy, Hungar 80.16 325 P **P 17 29 03.4 +0.2**
comp=Z,20nm,1.4s
WET Wettzell 80.21 330 *e*P **P 17 29 04.5 +1.0**
comp=Z,31nm,0.9s,baz=34,slow=5.4
WET Wettzell 80.21 330 P **P 17 29 04.5 +1.0**
comp=Z,36nm,1.1s
BLKB Belogradchik 80.28 321 ⇑P **P 17 29 04.8 +0.8**
GRA3 Grafenberg Arr 80.29 331 P **P 17 29 05.1 +1.2**
comp=Z,65nm,1.2s
BUG Bochum--Univer 80.32 334 *e*P **P 17 29 04.3 +0.4**
comp=Z,38nm,1.0s,baz=34,slow=5.4
BUG Bochum--Univer 80.32 334 P **P 17 29 04.5 +0.5**
comp=Z,44nm,1.5s
GRA1 Grafenberg Arr 80.39 331 P **P 17 29 05.5 +1.1**
comp=Z,84nm,0.9s
GRF Grafenberg Arr 80.39 331 *e*P **P 17 29 05.5 +1.1**
comp=Z,63nm,0.9s,baz=34,slow=5.4
GRF *e*L L 18 07 57.8
comp=Z,1µm,19.2s
GRFO Grafenberg 80.39 331 P **P 17 29 05.9 +1.5**
GRFO Grafenberg 80.39 331 P **P 17 29 05.8 +1.5**
KEPZ Antalya-Kepez 80.44 311 ⇓P **P 17 29 05.0 0.0**
GRB4 Grafenberg Arr 80.44 330 P **P 17 29 05.7 +1.0**
comp=Z,53nm,1.1s
FRGS Fruska Gora 80.45 323 ⇑*i*P **P 17 29 05.0 +0.1**
GRB3 Grafenberg Arr 80.45 330 P **P 17 29 05.8 +1.0**
comp=Z,64nm,1.1s
GRB1 Grafenberg Arr 80.47 330 P **P 17 29 05.9 +1.0**
comp=Z,60nm,1.1s
RAYN Ar Rayn 80.50 293 *i* P **P 17 29 05.7 +0.1**
SNR=35
RAYN Ar Rayn 80.50 293 P **P 17 29 05.5 0.0**
RAYN Ar Rayn 80.50 293 P **P 17 29 05.4 -0.2**
RAYN pmax pmax
comp=Z,35nm,1.0s
RAYN Ar Rayn 80.50 293 P **P 17 29 05.4 -0.2**
RAYN IAmb IAmb 17 29 06.6
comp=Z,35nm,1.0s
RAYN Ar Rayn 80.50 293 P **P 17 29 05.7 +0.1**
comp=Z,52nm,1.3s
CY604 RAF Akrotiri, 80.51 307 P **P 17 29 05.0 +0.1**
ASF Jabal al Asfar 80.52 304 LR LR 18 09 37.2
ACOM Acomizza, Ital **82.06 328** P **P 17 29 13.6 0.0**
comp=Z,349nm,18.2s,baz=39,slow=39
ASF Jabal al Asfar 80.52 304 P **P 17 29 06.8 +1.3**
ASF AML AML
GRB2 Grafenberg Arr 80.56 330 P **P 17 29 06.4 +1.0**
comp=Z,62nm,0.9s
KESW Keswick, Cumbr 80.57 341 *e*P **P 17 29 06.2 +1.0**
KESW IAmb IAmb 17 29 07.6
comp=Z,30nm,0.9s
BALY Balya 80.63 315 P **P 17 29 07.0 +1.0**
comp=Z,192nm,1.0s
ARSA Arzberg 80.67 327 *i* P **P 17 29 06.9 +0.9**
comp=Z,17nm,0.9s,SNR=7.6
ARSA *e*PP **PP 17 32 08.7 -0.5**
comp=Z,8.8nm,1.4s
ARSA Arzberg 80.67 327 P **P 17 29 07.0 +0.9**
comp=Z,28nm,0.9s
GRB5 Grafenberg Arr 80.69 330 P **P 17 29 07.0 +0.9**
comp=Z,60nm,0.9s
GAL1 Galloway 80.70 342 *e*P **P 17 29 06.2 +0.2**
GAL1 IAmb IAmb 17 29 07.8
comp=Z,31nm,0.8s
MOA Molln 80.71 328 *i* P **P 17 29 07.0 +0.8**
comp=Z,5.9nm,0.7s
MOA *e*PP **PP 17 32 06.7 -2.8**
comp=Z,10nm,1.2s
MOA Molln 80.71 328 P **P 17 29 07.1 +0.8**
comp=Z,19nm,0.9s
BOVS Bovan 80.73 321 ⇑P **P 17 29 06.7 +0.3**
GRC4 Grafenberg Arr 80.77 330 P **P 17 29 07.2 +0.7**
comp=Z,54nm,0.9s
CSS Mathiatis 80.78 309 IAmb IAmb 17 29 11.3
comp=Z,40nm,1.0s
CSS Mathiatis 80.78 309 P **P 17 29 06.3 -0.5**
comp=Z,50nm,0.9s
GRC1 Grafenberg Arr 80.84 330 P **P 17 29 07.7 +0.8**
comp=Z,57nm,1.0s
MMAI Mount Meron Ar 80.87 306 P **P 17 29 08.1 +0.7**
comp=Z,18nm,0.8s,baz=32,slow=8.5,SNR=18
MMAI LR LR 18 09 17.7
comp=Z,767nm,19.3s,baz=22,slow=39
comp=Z,18nm,0.8s
GRC3 Grafenberg Arr 80.91 330 P **P 17 29 08.0 +0.8**
comp=Z,68nm,1.1s
TNS Taunus Mts 80.94 333 *e*P **P 17 29 07.9 +0.5**
comp=Z,18nm,0.9s,baz=34,slow=5.4
TNS Taunus Mts 80.94 333 P **P 17 29 08.1 +0.6**
comp=Z,25nm,1.2s
ANMO Albuquerque 80.97 51 LR LR 18 00 43.7
comp=Z,239nm,21.8s,baz=328,slow=32
ANMO Albuquerque 80.97 51⇑ *e*P **P 17 29 09.5 +1.4**
ANMO pmax pmax
comp=Z,10.0nm,1.4s
ANMO Albuquerque 80.97 51 P **P 17 29 08.1 0.0**
ANMO Albuquerque 80.97 51 P **P 17 29 10.6 +2.5**
comp=Z,17nm,1.2s
ALQ Albuquerque 80.97 51 IAmb IAmb 17 29 22.4
comp=Z,26nm,1.4s
HSUJ Al Zarqa 81.00 305 P **P 17 29 09.9 +1.8**
HSUJ AML AML
GRC2 Grafenberg Arr 81.00 330 P **P 17 29 08.5 +0.7**
comp=Z,62nm,1.0s
MANT Manisa 81.02 314 P **P 17 29 08.1 -0.2**
MANT IAmb IAmb 17 29 09.7
comp=Z,25nm,0.9s
BIOA Bad Ischl, Aus 81.09 328 *e*P **P 17 29 09.1 +0.8**
comp=Z,27nm,0.9s,SNR=14
BIOA *e*PP **PP 17 32 11.6 -1.0**
comp=Z,6.2nm,0.9s
IDGL Inch Island, C 81.14 344 P **P 17 29 09.1 +0.8**
SCHQ Schefferville 81.16 17 P **P 17 29 09.4 +0.9**
comp=Z,16nm,0.8s,baz=336,slow=5.5,SNR=8.1
SCHQ LR LR 18 06 51.9
comp=Z,284nm,21.6s,baz=335,slow=37
comp=Z,16nm,0.8s
SCHQ Schefferville 81.16 17 IAmb IAmb 17 29 09.5
comp=Z,52nm,1.4s
SESA Seetaler Alpe, 81.18 327 *i* P **P 17 29 09.8 +0.9**
comp=Z,39nm,0.8s,SNR=18
SESA *e*PP **PP 17 32 13.4 -0.2**
comp=Z,16nm,1.0s
QRNJ Al-Qirein 81.23 305 P **P 17 29 10.9 +1.7**
QRNJ AML AML
EZN Ezine 81.25 316 P **P 17 29 09.1 -0.1**
EZN Ezine 81.25 316 ⇓P **P 17 29 09.1 -0.1**
MMLI Mount Malkishu 81.25 305 P **P 17 29 10.7 +1.3**
comp=Z,60nm,1.3s
I37A Lemond, Waseca 81.25 38 IAmb IAmb 17 29 22.4
comp=Z,45nm,1.0s
LBWR Ladybower, Pea 81.29 340 *e*P **P 17 29 09.8 +0.7**
LBWR IAmb IAmb 17 29 10.9
comp=Z,27nm,0.8s
LBWR Ladybower, Pea 81.29 340 P **P 17 29 10.2 +1.0**
comp=Z,75nm,0.9s
GROS Grobnik 81.31 326 *i* P **P 17 29 09.7 +0.2**
PERS Pernice 81.33 327 *i* P **P 17 29 10.2 +0.6**
SOKA Soboth 81.33 327 *i* P **P 17 29 10.2 +0.6**
comp=Z,55nm,0.8s,SNR=11
HGN Heimansgroeve 81.34 334 P **P 17 29 09.4 0.0**
comp=Z,26nm,1.0s
RAR Rarotonga 81.34 128 LR LR 17 59 04.0
comp=Z,387nm,19.9s,baz=300,slow=31
Y22A Socorro 81.36 52 P **P 17 29 08.8 -1.3**
RJOB Jochberg 81.38 329 P **P 17 29 10.9 +1.1**
comp=Z,28nm,0.9s
MEM Membach 81.44 334 *d*P **P 17 29 09.9 -0.1**
comp=Z,24nm,0.9s
MEM Membach 81.44 334 P **P 17 29 10.4 +0.4**
comp=Z,38nm,1.0s
PEHC Pehcevo 81.55 319 *i* P **P 17 29 11.7 +0.8**
TAVA DENIZLI_Tavas 81.56 313 ⇓P **P 17 29 10.8 -0.2**
UJAP Al Uja 81.56 305 P **P 17 29 12.8 +1.9**
UJAP AML AML
UJAP Al Uja 81.56 305 P **P 17 29 11.9 +1.0**
comp=Z,40nm,1.4s
FUR Furstenfeldbru 81.62 330 P **P 17 29 12.1 +1.0**
comp=Z,82nm,0.9s
BBLS Lazi&#263i 81.63 323⇑ *i*P **P 17 29 11.8 +0.5**
SALP Salfit 81.65 305 P **P 17 29 12.9 +1.4**
SALP AML AML
OBKA Obir 81.67 327 *e*P **P 17 29 11.7 +0.3**
comp=Z,27nm,0.7s,SNR=11
OBKA Obir 81.67 327 P **P 17 29 11.9 +0.4**
comp=Z,55nm,0.8s
LESA Schwarzleotal 81.68 329 *e*P **P 17 29 12.3 +0.8**
comp=Z,29nm,0.8s,SNR=15
LESA *e*PP **PP 17 32 16.7 -0.9**
comp=Z,8.3nm,1.1s
KBA Koelnbreinsper 81.70 328 *i* P **P 17 29 12.1 +0.4**
comp=Z,53nm,1.0s,SNR=17
KBA *e*PP **PP 17 32 17.1 -0.8**
comp=Z,23nm,1.0s
KBA Koelnbreinsper 81.70 328 P **P 17 29 12.3 +0.6**
comp=Z,62nm,1.3s
SRS Serrai 81.70 318 P **P 17 29 12.0 +0.4**
comp=Z,33nm,1.2s
CWF Charnwood Fore 81.77 339 P **P 17 29 12.6 +0.8**
comp=Z,44nm,1.1s
SJES Sjenica 81.83 322⇑ *i*P **P 17 29 13.0 +0.6**
121A Cookes Peak, D 81.84 54 IAmb IAmb 17 29 27.1
comp=Z,75nm,1.9s
BCLA Clavier 81.84 334 *d*P **P 17 29 12.3 +0.2**
comp=Z,16nm,1.0s
STU Stuttgart 81.89 331 IAmb IAmb 17 29 14.1
comp=Z,36nm,0.9s
STU Stuttgart 81.89 331 P **P 17 29 13.1 +0.7**
comp=Z,49nm,1.0s
GHAJ Ghor Haditha 81.94 305 IAmb IAmb 17 29 15.0
comp=Z,32nm,0.9s
GHAJ Ghor Haditha 81.94 305 P **P 17 29 14.3 +1.4**
GHAJ Ghor Haditha 81.94 305 P **P 17 29 14.0 +1.0**
comp=Z,45nm,1.0s
BLY Banja Luka 81.94 324 ⇑P **P 17 29 14.1 +1.3**
BLY Banja Luka 81.94 324 *e*P **P 17 29 11.5 -1.3**
BLY Banja Luka 81.94 324 P **P 17 29 13.2 +0.4**
comp=Z,18nm,0.9s
MYKA Terra Mystica 81.94 328 *i* P **P 17 29 12.8 -0.1**
comp=Z,27nm,1.0s,SNR=9.5
AYDN Tasoluk 81.99 314 P **P 17 29 14.6 +1.4**
comp=Z,291nm,0.9s
KNT Kendrikon 82.02 319 P **P 17 29 13.4 +0.2**
KNT pmax pmax
comp=Z,21nm,1.8s
KNT Kendrikon 82.02 319 P **P 17 29 13.4 +0.2**
comp=Z,21nm,1.8s
BSKQ Steenkerk 82.04 335 *d*P **P 17 29 13.1 0.0**
comp=Z,15nm,1.0s
VAY Valandovo 82.06 319 *i* P **P 17 29 14.3 +0.9**
comp=Z,76nm,0.8s
RCHB Rochefort 82.09 334 *d*P **P 17 29 13.5 +0.1**
comp=Z,19nm,1.0s
RCHB Rochefort 82.09 334 P **P 17 29 13.8 +0.3**
comp=Z,34nm,1.2s
BMRD Maredsous 82.11 335 *d*P **P 17 29 13.8 +0.2**
comp=Z,35nm,0.9s
BMRD *d*PP **PP 17 32 20.9 -0.1**
VISS Visnje 82.11 326 *i* P **P 17 29 13.7 0.0**
PRED Cave del Predi 82.12 328 P **P 17 29 13.6 -0.2**
comp=Z,26nm,0.9s
FOEL Foel Wylfa 82.13 340 *e*P **P 17 29 14.1 +0.5**
FOEL IAmb IAmb 17 29 16.9
comp=Z,50nm,0.8s
FOEL Foel Wylfa 82.13 340 P **P 17 29 14.7 +1.1**
comp=Z,46nm,0.8s
BOJS Bojanci 82.18 326 *i* P **P 17 29 14.2 +0.2**
WATA Walderalm 82.19 329 *i* P **P 17 29 14.8 +0.6**
comp=Z,29nm,1.0s,SNR=8.2
WLF Walferdange 82.20 334 *d*P **P 17 29 13.2 -0.8**
comp=Z,10nm,1.0s
WLF Walferdange 82.20 334 P **P 17 29 15.2 +1.2**
comp=Z,23nm,0.9s
WTTA Wattenberg 82.22 329 *i* P **P 17 29 15.1 +0.7**
comp=Z,30nm,0.8s,SNR=9.6
WTTA *i* PP **PP 17 32 19.5 -2.7**
comp=Z,7.6nm,1.0s
WTTA Wattenberg 82.22 329 P **P 17 29 14.9 +0.4**
comp=Z,44nm,0.9s
LLW Llanuwychllyn 82.29 341 *e*P **P 17 29 15.0 +0.6**
LLW IAmb IAmb 17 29 17.1
comp=Z,9.5nm,0.9s
ABTA Abfaltersbach 82.30 328 *i* P **P 17 29 14.3 -0.5**
comp=Z,14nm,1.1s,SNR=6.9
ABTA *i* PP **PP 17 32 20.1 -2.6**
comp=Z,8.4nm,1.3s
DRE Drenchia 82.31 327 P **P 17 29 14.5 -0.2**
comp=Z,26nm,0.8s
DOU Dourbes 82.35 335 *d*P **P 17 29 14.8 0.0**
comp=Z,12nm,1.1s
MOTA Moosalm 82.36 329 *i* P **P 17 29 15.6 +0.5**
comp=Z,66nm,0.9s,SNR=27
UPM Unac-Piva 82.38 322 *e*P **P 17 29 15.8 +0.5**
RETA Reutte 82.38 330 *i* P **P 17 29 15.9 +0.8**
comp=Z,44nm,0.9s,SNR=22
GRG Griva 82.42 319 P **P 17 29 16.2 +0.8**
comp=Z,53nm,1.2s
SQTA Sankt Quirin 82.42 329 *i* P **P 17 29 16.0 +0.6**
comp=Z,29nm,0.8s,SNR=13
UBR Ueberruh 82.46 330 P **P 17 29 15.3 -0.2**
comp=Z,19nm,0.9s
SABO M.te Sabotino 82.48 327 IAmb IAmb 17 29 16.1
comp=Z,28nm,1.0s
ELSH Elham, Standar 82.50 337 *e*P **P 17 29 15.9 +0.3**
ELSH IAmb IAmb 17 29 17.3
comp=Z,79nm,0.7s
KLINJ Klinje 82.55 323 *e*P P 17 29 22.3 +6.2
BFO Black Forest 82.58 332 P **P 17 29 15.9 -0.1**
BFO pmax pmax
comp=Z,20nm,0.9s
BFO Black Forest 82.58 332 P **P 17 29 15.9 -0.1**
BFO IAmb IAmb 17 29 17.0
comp=Z,20nm,0.9s
BFO Black Forest 82.58 332 *e*P **P 17 29 16.5 +0.4**
comp=Z,23nm,1.0s,baz=34,slow=5.4
HSNJ Maan 82.58 304 P **P 17 29 18.8 +2.3**
DSB Dublin 82.58 342 P **P 17 29 16.6 +0.7**
STAL STALIGIAL 82.62 328 IAmb IAmb 17 29 16.5
comp=Z,27nm,0.8s
TRI Trieste 82.64 327 IAmb IAmb 17 29 16.8
comp=Z,37nm,0.8s
BDRM Kayabasi 82.66 313 ⇑P **P 17 29 17.8 +1.1**
FETA Feichten 82.77 329 *e*P **P 17 29 17.8 +0.5**
comp=Z,29nm,0.9s,SNR=14
BRY Bratogost 82.78 323⇑ *i*P **P 17 29 16.9 -0.5**
PDG Podgorica 82.81 322 ⇑P **P 17 29 17.9 +0.5**
PDG Podgorica 82.81 322⇑ *i*P **P 17 29 17.6 +0.3**
PDG Podgorica 82.81 322 P **P 17 29 17.8 +0.5**
comp=Z,85nm,1.2s
PHP Peshkopia 82.82 321 P **P 17 29 17.9 +0.4**
PHP pmax pmax
comp=Z,58nm,0.9s
PHP Peshkopia 82.82 321 P **P 17 29 17.9 +0.4**
comp=Z,58nm,0.9s
KIJV Kijevo 82.87 324 P **P 17 29 18.1 +0.4**
comp=Z,151nm,1.0s
DAVA Damuels 82.88 330 *i* P **P 17 29 18.3 +0.5**
comp=Z,50nm,0.9s,SNR=16
DAVA Damuels 82.88 330 P **P 17 29 18.5 +0.6**
comp=Z,66nm,0.9s
KZIT Kziot 82.94 305 P **P 17 29 19.1 +0.8**
comp=Z,77nm,1.3s
PRNI Paran 82.94 304 P **P 17 29 19.4 +1.1**
PRNI AML AML
MONM Monmouth 82.98 340 *e*P **P 17 29 18.6 +0.6**
MONM IAmb IAmb 17 29 20.5
comp=Z,29nm,0.8s
SLE Schleitheim 82.99 331 P **P 17 29 18.4 +0.1**
comp=Z,14nm,0.7s
TREB Trebinje 83.01 323 *e*P **P 17 29 16.8 -1.6**
DRME Dracevica, Mon 83.03 322⇑ *i*P **P 17 29 18.5 0.0**
IGLA Glengowla, Co 83.08 344 P **P 17 29 19.1 +0.6**
OHR Ohrid 83.09 320 *i* P **P 17 29 19.7 +0.8**
ECH Echery 83.09 332 P **P 17 29 19.1 +0.4**
ECH pmax pmax
comp=Z,33nm,1.4s
ECH Echery 83.09 332 IAmb IAmb 17 29 20.1
comp=Z,28nm,1.0s
ECH Echery 83.09 332 P **P 17 29 19.1 +0.4**
comp=Z,33nm,1.4s
HRFI Mount Harif 83.14 304 P **P 17 29 20.1 +0.9**
comp=Z,87nm,1.2s
HCY Herceg Novi 83.15 322 *e*P **P 17 29 18.0 -1.1**
CTI Castel Tesino 83.22 328 IAmb IAmb 17 29 19.9
comp=Z,23nm,0.8s
FUORN Ofenpass-Fuorn 83.28 330 P **P 17 29 21.0 +0.9**
comp=Z,75nm,1.0s
CGRP Cima Grappa 83.30 328 P **P 17 29 19.6 -0.4**
comp=Z,29nm,1.4s
DAVOX Davos/Dischmat 83.30 330 LR LR 18 10 29.8
comp=Z,2µm,18.5s,baz=12,slow=39
AQBJ Aqaba 83.34 304 P **P 17 29 22.1 +1.8**
AQBJ AML AML
I42A Draeger Farm, 83.36 35 IAmb IAmb 17 29 33.0
comp=Z,17nm,0.8s
EIL Elat 83.44 304 LR LR 18 11 02.1
comp=Z,454nm,21.1s,baz=44,slow=39
EIL Elat 83.44 304 P **P 17 29 21.9 +1.1**
EIL AML AML
EIL Elat 83.44 304 P **P 17 29 21.6 +0.7**
comp=Z,50nm,1.4s
KBN Korca 83.47 320 P **P 17 29 21.3 +0.4**
KBN pmax pmax
comp=Z,93nm,0.9s
KBN Korca 83.47 320 P **P 17 29 21.3 +0.4**
comp=Z,93nm,0.9s
IWEX Carrickbyrne, 83.48 342 P **P 17 29 21.6 +1.0**
BOURR Bourrignon 83.76 332 P **P 17 29 23.0 +0.7**
comp=Z,32nm,1.0s
BOURR pP **pP 17 29 31.5 +1.1**
MSTX Muleshoe 83.81 50 IAmb IAmb 17 29 36.2
comp=Z,20nm,1.0s
MNTX Cornudas Mount 83.88 53 P **P 17 29 25.6 +2.5**
comp=Z,13nm,0.9s
SALO Salr 84.02 329 P **P 17 29 23.1 -0.4**
SRN Sarande 84.42 320 P **P 17 29 25.9 +0.2**
comp=Z,47nm,1.0s
SMWD Samnorwood 84.43 48 IAmb IAmb 17 29 39.6
comp=Z,28nm,0.9s
SENIN Lac Senin/Sane 84.61 331 IAmb IAmb 17 29 27.6
comp=Z,19nm,0.9s
URZ Urewera 84.69 154 LR LR 18 03 58.3
comp=Z,398nm,19.6s,baz=320,slow=33
VHRN Van Horn 84.76 53 IAmb IAmb 17 29 41.5
comp=Z,36nm,1.7s
GIMEL St. Georges / 84.84 332 P **P 17 29 28.8 +1.0**
comp=Z,15nm,1.5s
ZCCA Zocca 84.89 328 P **P 17 29 28.1 +0.1**
ZCCA IAmb IAmb 17 29 38.6
comp=Z,30nm,0.9s
LKD2 Lefkada island 84.94 319 P **P 17 29 28.3 0.0**
comp=Z,86nm,0.9s
PECS Pecos 85.02 52 IAmb IAmb 17 29 42.6
comp=Z,21nm,1.2s
LOR Lormes 85.04 334 P **P 17 29 29.1 +0.4**
comp=Z,56nm,1.0s
DKNS Dickens 85.09 49 IAmb IAmb 17 29 43.9
comp=Z,15nm,0.8s
T35A Sooner Cattle 85.11 44 IAmb IAmb 17 29 42.5
comp=Z,38nm,1.3s
PPT Papeete 85.13 118 LR LR 18 02 08.2
comp=Z,1µm,19.1s,baz=342,slow=32
PPT2 Papeete2 85.15 118 *e*P **P 17 29 30.5 +0.9**
comp=Z,64nm,26.2s
PPT2 *e*PP **PP 17 32 42.8 -4.6**
comp=Z,38nm,25.8s
PPT2 *e*S **SKSac 17 39 53.5 +0.9**
comp=Z,213nm,25.2s
PPT2 *e*S **SKSac 17 39 57.2 +4.6**
comp=Z,139nm,24.2s
PPT2 *e*SS **SS 17 45 23.5 -8.9**
comp=Z,106nm,24.5s
PPT2 *e*LQ LQ 17 52 25.3
comp=Z,210nm,37.0s
PPT2 *e*LR LR 17 56 06.3
comp=Z,2µm,21.0s
PPT2 *e*LR LR 17 56 15.5
comp=Z,1µm,21.2s
OK048 Pawnee Station 85.26 45 IAmb IAmb 17 29 43.3
comp=Z,25nm,1.0s
IDI Anoyia 85.36 314 LR LR 18 13 15.5

	comp=Z,404nm,18.2s,baz=290,slow=40								
MATE	**Matera**	**85.39**	**322**	⇑P		**P**		**17 29 31.1**	**+0.6**
AQU	**L'Aquila**	**85.51**	**325**	P		**P**		**17 29 31.7**	**+0.6**
AQU				pmax		pmax			
	comp=Z,44nm,1.0s								
AQU	**L'Aquila**	**85.51**	**325**	⇑*i*P		**P**		**17 29 31.6**	**+0.5**
AQU	**L'Aquila**	**85.51**	**325**	P		**P**		**17 29 31.7**	**+0.6**
	comp=Z,44nm,0.9s								
WMOK	**Wichita Mounta**	**85.51**	**47**	P		**P**		**17 29 32.4**	**+1.1**
	comp=Z,12nm,1.3s								
ITM	**Ithomi**	**85.52**	**317**	P		**P**		**17 29 30.9**	**-0.4**
	comp=Z,134nm,0.9s								
CESX	**Cesi**	**85.65**	**326**	IAmb		IAmb		17 29 32.6	
	comp=Z,19nm,1.0s								
TAOE	**Nuku Hiva Isla**	**85.75**	**105**	*e*LR		LR		17 56 30.5	
	comp=Z,2µm,22.1s								
BNI	**Bardonecchia**	**85.96**	**331**	IAmb		IAmb		17 30 00.4	
	comp=Z,26nm,1.0s								
BNI	**Bardonecchia**	**85.96**	**331**	P		**P**		**17 29 34.1**	**+0.7**
	comp=Z,26nm,0.9s								
ICQ	**Pointe Anglais**	**85.97**	**19**	P		**P**		**17 29 32.1**	**-1.1**
ICQ				IAmb		IAmb		17 29 36.0	
	comp=Z,21nm,1.0s								
LPIG	**La Paz**	**86.00**	**61**	LR		LR		18 02 26.4	
	comp=Z,117nm,19.9s,baz=288,slow=32								
SGCY	**Sterling City**	**86.25**	**50**	IAmb		IAmb		17 29 55.3	
	comp=Z,26nm,0.8s								
ORIF	**Oris-en-Rati**	**86.37**	**331**	P		**P**		**17 29 36.1**	**+0.7**
	comp=Z,37nm,0.8s								
SSB	**Saint Sauveur**	**86.53**	**332**	IAmb		IAmb		17 29 37.9	
	comp=Z,20nm,0.8s								
SSB	**Saint Sauveur**	**86.53**	**332**	P		**P**		**17 29 36.9**	**+0.7**
	comp=Z,36nm,0.9s								
SADO	**Sadowa**	**86.55**	**29**	LR		LR		18 12 50.8	
	comp=Z,276nm,19.4s,baz=346,slow=39								
TXAR	**Lajitas Array**	**86.59**	**54**	P		**P**		**17 29 37.6**	**+0.7**
	comp=Z,3.1nm,0.8s,baz=314,slow=5.4,SNR=22								
	comp=Z,3.1nm,0.8s								
TXAR	**Lajitas Array**	**86.59**	**54**	P		**P**		**17 29 37.1**	**+0.3**
TRQ	**Mont Tremblant**	**86.86**	**25**	IAmb		IAmb		17 29 39.0	
	comp=Z,20nm,0.9s								
MFF	**Saint Martin d**	**86.93**	**336**	P		**P**		**17 29 39.1**	**+1.1**
MFF				pmax		pmax			
	comp=Z,18nm,1.0s								
MFF	**Saint Martin d**	**86.93**	**336**	P		**P**		**17 29 39.1**	**+1.1**
	comp=Z,18nm,0.9s								
HHAR	**Hobbs**	**86.93**	**43**	IAmb		IAmb		17 30 39.9	
	comp=Z,39nm,1.8s								
HPIG		**87.05**	**57**	P		**P**		**17 29 41.1**	**+1.9**
	comp=Z,9.8nm,1.6s								
P46A	**Rosedale**	**87.56**	**37**	IAmb		IAmb		17 29 54.1	
	comp=Z,24nm,0.8s								
RPZ	**Rata Peaks**	**87.92**	**160**	LR		LR		18 04 40.5	
	comp=Z,67nm,20.4s,baz=222,slow=33								
BRDY	**Brady**	**87.94**	**49**	IAmb		IAmb		17 29 53.2	
	comp=Z,24nm,1.4s								
BATG	**Bathurst New B**	**88.35**	**20**	P		**P**		**17 29 44.5**	**-0.3**
BATG				IAmb		IAmb		17 29 46.9	
	comp=Z,22nm,1.0s								
MIAR	**Mount Ida**	**88.46**	**44**	IAmb		IAmb		17 29 58.8	
	comp=Z,12nm,0.8s								
MIAR	**Mount Ida**	**88.46**	**44**	P		**P**		**17 29 46.7**	**+1.2**
	comp=Z,16nm,0.9s								
WHAR	**Wooly Hollow**	**88.55**	**42**	IAmb		IAmb		17 29 58.8	
	comp=Z,20nm,0.9s								
VAE	**Valguarnera**	**89.00**	**322**	LR		LR		18 15 31.4	
	comp=Z,727nm,18.6s,baz=38,slow=40								
J59A	**Piesco**	**89.32**	**27**	IAmb		IAmb		17 30 11.2	
	comp=Z,39nm,1.6s								
TBI	**Tubuai**	**89.32**	**122**	*e*S		**S**		**17 40 38.2**	**+0.6**
	comp=Z,2µm,39.2s								
TBI				*e*LQ		LQ		17 54 20.2	
	comp=Z,1µm,39.5s								
TBI				*e*LR		LR		17 58 04.3	
	comp=Z,3µm,24.2s								
TBI				*e*LR		LR		17 58 08.4	
	comp=Z,1µm,27.8s								
H62A	**Milan**	**89.41**	**24**	IAmb		IAmb		17 29 52.0	
	comp=Z,24nm,0.9s								
VSL	**Villasalto**	**89.58**	**326**	P		**P**		**17 29 49.3**	**-1.4**
VSL				IAmb		IAmb		17 29 51.0	
	comp=Z,20nm,1.0s								
LMN	**Caledonia Moun**	**90.00**	**19**	IAmb		IAmb		17 29 54.4	
	comp=Z,28nm,0.9s								
M57A	**Sunshine Farm,**	**90.26**	**29**	IAmb		IAmb		17 29 55.9	
	comp=Z,31nm,0.9s								
L59A	**Walton**	**90.26**	**27**	IAmb		IAmb		17 29 55.8	
	comp=Z,31nm,1.0s								
ATD	**Arta Tunnel**	**90.28**	**285**	LR		LR		18 15 30.7	
	comp=Z,11nm,18.5s,baz=15,slow=39								
ATD	**Arta Tunnel**	**90.28**	**285**	P		**P**		**17 29 55.8**	**+1.3**
	comp=Z,47nm,1.2s								
SSPA	**Standing Stone**	**90.58**	**30**	P		**P**		**17 29 57.0**	**+1.6**
	comp=Z,16nm,1.4s								
TKL	**Tuckaleechee C**	**92.36**	**37**	LR		LR		18 13 04.0	
	comp=Z,312nm,21.1s,baz=334,slow=36								
KEST	**Kesra**	**92.75**	**324**	P		**P**		**17 30 04.5**	**-1.1**
	comp=Z,10nm,0.9s,baz=40,slow=6.2,SNR=9.1								
KEST				LR		LR		18 16 52.2	
	comp=Z,2µm,19.2s,baz=23,slow=39								
	comp=Z,10nm,0.9s								
KEST	**Kesra**	**92.75**	**324**	IAmb		IAmb		17 30 06.5	
	comp=Z,14nm,1.0s								
PGAV	**Gavieira, Arco**	**93.53**	**339**	*e*LR		LR		18 16 15.1	
PGAV				IAMs_20		IAMs_20		18 17 26.7	
	comp=Z,524nm,20.0s								
ESDC	**Sonseca Array**	**94.38**	**335**	P		**P**		**17 30 11.4**	**-1.6**
	comp=Z,2.2nm,0.8s,baz=29,slow=4.3,SNR=8.1								
ESDC				PP		**PP**		**17 33 53.6**	**-5.8**
	comp=Z,3.3nm,0.9s,baz=38,slow=6.6,SNR=4.9								
ESDC				LR		LR		18 19 21.6	
	comp=Z,499nm,19.4s,baz=23,slow=40								
	comp=Z,2.2nm,0.8s								
ESDC	**Sonseca Array**	**94.38**	**335**	P		**P**		**17 30 11.6**	**-1.4**
MTE	**Manteigas**	**94.79**	**338**	*e*LR		LR		18 13 36.9	
MTE				IAMs_20		IAMs_20		18 18 17.1	
	comp=Z,652nm,20.0s								
PMRV	**Marv??o**	**95.64**	**338**	*e*LR		LR		18 13 10.6	
PMRV				IAMs_20		IAMs_20		18 19 32.6	
	comp=Z,556nm,20.0s								
PVAQ	**Vaqueiros**	**97.62**	**337**	*e*LR		LR		18 13 01.1	
PVAQ				IAMs_20		IAMs_20		18 20 10.3	
	comp=Z,1µm,20.0s								
KMBO	**Kilima Mbogo**	**102.82**	**280**	P		**Pdif**		**17 30 49.4**	**-2.2**
	baz=37,slow=20								
TORD	**Torodi Ar. Bea**	**115.50**	**318**	PKP		**PKiKP**		**17 35 33.6**	**-1.9**
	comp=Z,0.8nm,0.7s,baz=33,slow=2.6,SNR=3.8								
TORD				PP		**PP**		**17 36 29.6**	**-6.9**
	comp=Z,8.8nm,1.1s,baz=31,slow=6.2,SNR=13								
VNDA	**Vanda**	**118.76**	**175**	PKP		**PKPdf**		**17 35 39.1**	**-0.8**
	comp=Z,0.3nm,0.6s,baz=324,slow=6.1,SNR=5.2								
MAW	**Mawson**	**123.70**	**207**	PKP		**PKPdf**		**17 35 49.5**	**0.0**
	comp=Z,4.1nm,0.8s,baz=90,slow=2.0,SNR=9.3								
MAW	**Mawson**	**123.70**	**207**			**PKPdf**		**17 35 49.1**	**-0.4**
DBIC	**Dimbokro**	**124.31**	**321**	PKP		**PKPdf**		**17 35 52.5**	**+0.1**
	comp=Z,3.0nm,0.9s,baz=92,slow=5.0,SNR=3.6								
LBTB	**Lobatse**	**126.44**	**267**	PKIKP		**PKPdf**		**17 35 54.7**	**-1.6**
LBTB	**Lobatse**	**126.44**	**267**			**PKPdf**		**17 35 54.7**	**-1.6**
QSPA	**South Pole Qui**	**130.70**	**180**	PKP		**PKPdf**		**17 36 02.4**	**-0.6**
	comp=Z,3.2nm,0.9s,baz=16,slow=1.3,SNR=14								
QSPA	**South Pole Qui**	**130.70**	**180**			**PKiKP**		**17 36 03.9**	**-0.1**
ITTB	**Itaituba**	**139.76**	**30**	*e*P		**PKiKP**		**17 36 22.8**	**-1.2**
NPGB	**Novo Progresso**	**142.35**	**31**	*e*P		**PKPdf**		**17 36 27.4**	**+1.2**
LPAZ	**La Paz**	**143.39**	**57**	PKP		PKPbc		17 36 27.2	+1.3
	comp=Z,1.1nm,0.5s,baz=350,slow=1.9,SNR=4.3								
LPAZ	**La Paz**	**143.39**	**57**	*e*P		**PKPdf**		**17 36 28.6**	**-0.1**
TROLL	**Troll, Antarti**	**143.41**	**199**	⇑PKPdf		PKPbc		17 36 23.6	-0.2
	comp=Z,744nm,0.8s								
SNAA	**Sanae**	**144.93**	**198**	⇑PKPdf		**PKPab**		**17 36 28.3**	**-0.1**
	comp=Z,926nm,0.9s								
SNAA	**Sanae**	**144.93**	**198**	PKP		**PKPab**		**17 36 28.0**	**-0.3**
	comp=Z,38nm,0.9s,baz=136,slow=3.4,SNR=58								
SNAA	**Sanae**	**144.93**	**198**			**PKPab**		**17 36 27.9**	**-0.4**
NBPA	**Parau_RN**	**144.94**	**1**	*e*P		PKPbc		17 36 30.2	+0.2
RCBR	**Riachuelo**	**145.01**	**359**	*e*P		**PKPdf**		**17 36 30.7**	**-0.3**
VILB	**Vilhena**	**145.34**	**43**	*e*P		**PKPdf**		**17 36 32.5**	**+1.0**
NBPV	**Pedro Velho**	**145.58**	**358**	*e*P		**PKPdf**		**17 36 31.9**	**0.0**
CLDB	**Colider**	**145.63**	**35**	*e*P		**PKPab**		**17 36 33.0**	**+0.5**
PDRB	**Porto dos Gac**	**145.88**	**37**	*e*P		**PKPab**		**17 36 33.6**	**+0.2**
VNA2	**Neumayer--Watz**	**146.49**	**197**	⇑PKPdf		**PKPdf**		**17 36 32.0**	**+0.3**
	comp=Z,34nm,0.6s,baz=125,slow=1.7								
NBMA	**Muriti-CE**	**146.50**	**4**	*e*P		**PKPbc**		**17 36 35.1**	**+0.2**
SMTB	**Santa Maria do**	**146.61**	**20**	PKPdf		**PKPdf**		**17 36 29.9**	**-3.7**
SMTB						**PKPbc**		**17 36 33.8**	**-1.3**
SMTB	**Santa Maria do**	**146.61**	**20**	*e*P		**PKPbc**		**17 36 34.8**	**-0.4**
VNA3	**Neumayer Olymp**	**146.73**	**196**	⇑PKPdf		**PKPbc**		**17 36 33.5**	**-0.3**
	comp=Z,20nm,0.7s								
VNA1	**Neumayer--Stat**	**146.89**	**197**	⇑PKPdf		**PKPbc**		**17 36 33.3**	**-0.9**
	comp=Z,35nm,1.0s								
PTLB	**Pontes e Lacer**	**147.99**	**44**	PKPdf		**PKPdf**		**17 36 32.3**	**-3.5**
PTLB						**PKPbc**		**17 36 38.1**	**-0.7**
PTLB	**Pontes e Lacer**	**147.99**	**44**	*e*P		**PKPdf**		**17 36 35.9**	**+0.1**
NBTA	**Tacaratu-PE**	**148.27**	**3**	*e*P		**PKPdf**		**17 36 37.5**	**+1.2**
SNDB	**Serra Nova Dou**	**148.41**	**28**	*e*P		**PKPdf**		**17 36 37.6**	**+1.1**
BBSD	**Serra de San D**	**148.61**	**48**	*e*P		**PKPdf**		**17 36 37.5**	**+0.7**
NBPN	**Ponto Novo - B**	**149.85**	**7**	*e*P		**PKPdf**		**17 36 39.9**	**+1.0**
LCO	**Las Campanas**	**149.89**	**77**	PKIKP		**PKiKP**		**17 36 46.1**	**+1.4**
LCO	**Las Campanas**	**149.89**	**77**			**PKiKP**		**17 36 46.1**	**+1.4**
SAUV	**Santo Antonio**	**150.10**	**39**	*e*P		**PKPdf**		**17 36 38.4**	**-0.8**
SDBA	**SAO DESIDERIO**	**150.66**	**17**	*e*P		**PKPdf**		**17 36 39.1**	**-1.1**
ARAG	**Araguaiana, MT**	**151.63**	**32**	*e*P		**PKPdf**		**17 36 40.2**	**-1.3**
PP1B	**Ponte de Pedra**	**151.96**	**39**	*e*P		**PKPdf**		**17 36 44.2**	**+2.2**
COIM	**Forte Coimbra**	**152.38**	**47**	*e*P		**PKPdf**		**17 36 43.6**	**+1.0**
BO02	**Sierra Bellavi**	**152.53**	**88**	PKPdf		**PKPdf**		**17 36 39.0**	**-3.5**
BO02						**PKPbc**		**17 36 48.5**	**-1.0**
BI02	**San Fabin de**	**152.84**	**92**			**PKPdf**		**17 36 40.6**	**-2.2**
BDFB	**Brasilia**	**152.93**	**25**	PKPbc		**PKiKP**		**17 36 52.1**	**+1.1**
	comp=Z,10nm,0.8s,baz=335,slow=2.4,SNR=11								
BDFB	**Brasilia**	**152.93**	**25**			**PKPdf**		**17 36 40.8**	**-2.8**
BDQN	**Bodoquena, MS**	**153.38**	**46**	*e*P		**PKPdf**		**17 36 45.6**	**+1.6**
MURT	**Porto Murtinho**	**153.87**	**49**	*e*P		**PKPdf**		**17 36 45.6**	**+0.9**
PLCA	**Paso Flores**	**154.49**	**101**	PKPbc		**PKiKP**		**17 36 54.7**	**+1.1**
	comp=Z,3.2nm,1.0s,baz=230,slow=3.0,SNR=4.0								
SJMB	**Sao Joao De Ma**	**157.49**	**11**	*e*P		**PKPdf**		**17 36 50.0**	**+0.4**
CANS	**Sao Roque de M**	**157.81**	**25**	*e*P		**PKPdf**		**17 36 51.0**	**+0.9**
VAO	**Valinhos**	**160.12**	**29**	*e*P		**PKPdf**		**17 36 54.4**	**+1.7**
ANCO	**Parque Anchore**	**161.91**	**75**	*e*P		**PKPdf**		**17 36 54.2**	**0.0**

JMA 06 17:17:17.1±0.1, 41°.0N±0°.5×143°.3E±0°.5, h18km±1km, MV4.6/8, E OFF AOMORI PREF, Off east coast of Honshu

*ISK **06** 17:17:23.4, 37°.87N×27°.02E, h5km, ML2.5/8*
*THE **06** 17:17:23.7, 37°.9N±0°.9×2°.7E±°, h7km±3km, M2.4/5, MLh2.4/5*
*AFAD **06** 17:17:23.4, 37°.85N×27°.01E, h7km±1km, ML2.3*

ISC 06 17:17:23.5±0.8, 37°.86N±0°.02×27°.02E±0°.03, h14km±6km, n23, σ0°37/37, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.21**	**223**	P		**Pg**		**17 17 27.9**	**-0.4**
SMG				S		**Sg**		**17 17 31.9**	**+0.5**
SMG				AML		AML			
KUSD	**Kusadasi-Aydin**	**0.21**	**91**	Pg		**Pg**		**17 17 27.9**	**-0.3**
KUSD				AML		AML			
DGB	**zmir**	**0.22**	**330**	P		**Pg**		**17 17 28.3**	**0.0**
DGB				S		**Sg**		**17 17 31.3**	**-0.2**
DGB				IAML				17 17 32.0	
	comp=N,381nm,0.1s								
DGB				IAML				17 17 33.0	
	comp=E,334nm,0.1s								
GMLD	**Gumuldur**	**0.23**	**339**	Pg		**Pg**		**17 17 28.6**	**+0.1**
GMLD				AML		AML			
GCAM	**G?zelcaml?**	**0.24**	**134**	P		**Pg**		**17 17 28.3**	**-0.3**
GCAM				IAML				17 17 32.0	
	comp=N,803nm,0.2s								
GCAM				IAML				17 17 32.0	
	comp=E,1µm,0.3s								
GCAM				S		**Sg**		**17 17 32.4**	**+0.3**
GCAM	**G?zelcaml?**	**0.24**	**134**	Pg		**Pg**		**17 17 28.6**	**0.0**
GCAM				Sg		**Sg**		**17 17 32.6**	**+0.5**
GCAM				AML		AML			
BEYE	**izmir**	**0.37**	**349**	P		**Pg**		**17 17 31.1**	**+0.1**
BEYE				S		**Sg**		**17 17 36.6**	**+0.5**
BEYE				IAML				17 17 37.0	
	comp=E,299nm,0.3s								
BEYE				IAML				17 17 38.0	
	comp=N,229nm,0.5s								
DDIM	**Aydin, Didim**	**0.44**	**156**	P		**Pg**		**17 17 32.3**	**0.0**
DDIM				IAML				17 17 39.0	
	comp=N,140nm,0.3s								
DDIM				S		**Sb**		**17 17 39.1**	**-0.4**
DDIM				IAML				17 17 41.0	
	comp=E,150nm,0.9s								
DUVT	**Torbali**	**0.49**	**44**	P		**Pg**		**17 17 33.1**	**-0.1**
DUVT				S		**Sg**		**17 17 39.4**	**-0.4**
DUVT				IAML				17 17 41.0	
	comp=E,167nm,0.2s								
BLCB	**Balcova**	**0.52**	**2**	P		**Pg**		**17 17 33.7**	**0.0**
BLCB				S		**Sb**		**17 17 41.5**	**-0.3**
BLCB	**Balcova**	**0.52**	**2**	Pg		**Pg**		**17 17 33.9**	**+0.1**
BLCB				AML		AML			
ZEYE	**Izmir, Urla-Ze**	**0.55**	**313**	P		**Pg**		**17 17 34.1**	**-0.2**
ZEYE				S		**Sb**		**17 17 42.4**	**-0.3**
ZEYE				IAML				17 17 45.0	
	comp=E,335nm,0.2s								
AYDB	**Zeytinkoy-Aydi**	**0.69**	**83**	Pg		**Pb**		**17 17 37.4**	**0.0**
AYDB				AML		AML			
YKAV	**Yalikavak-Bodr**	**0.77**	**164**	Pg		**Pb**		**17 17 38.9**	**+0.4**
YKAV				AML		AML			
BAGT	**Foa**	**0.80**	**351**	P		**Pb**		**17 17 39.4**	**+0.3**
BAGT				S		**Sb**		**17 17 50.8**	**+1.0**
BAGT				IAML				17 17 53.0	
	comp=N,203nm,0.6s								
BAGT				IAML				17 17 53.0	
	comp=E,175nm,0.8s								
MLSB	**Milas**	**0.83**	**133**	Pg		**Pg**		**17 17 39.9**	**+0.4**
MLSB				AML		AML			
BODT	**Bodrum**	**0.83**	**164**	P		**Pb**		**17 17 39.4**	**-0.3**
BODT				S		**Sn**		**17 17 52.4**	**-0.4**
BODT				AML		AML			
BODT	**Bodrum**	**0.83**	**164**	Pg		**Pg**		**17 17 39.9**	**+0.3**
BODT				AML		AML			
CHOS	**Chios island**	**0.92**	**305**	P		**Pn**		**17 17 42.0**	**-0.1**
CHOS				S		**Sn**		**17 17 54.6**	**-0.5**
CHOS	**Chios island**	**0.92**	**305**	Pg		**Pg**		**17 17 41.6**	**+0.3**
NAZL	**Nazilli-Aydin**	**1.01**	**84**	Pg		**Pn**		**17 17 43.2**	**-0.1**
YER	**Yerkesik**	**1.24**	**125**	P		**Pb**		**17 17 46.7**	**0.0**
YER				S		**Sg**		**17 18 04.3**	**+0.8**
PRK	**Paraskevi**	**1.50**	**337**	P		**Pg**		**17 17 52.4**	**+0.1**
PRK				S		**Sg**		**17 18 11.9**	**+0.1**

*GII **06** 17:17:54.8±0.0, 37°.811N±0°.003×26°.883E±0°.001, h0km, Mws3.6, confirmed*
*ATH **06** 17:17:57.7, 37°.94N×26°.96E, h14km±1km, ML3.8/12, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*ISK **06** 17:17:57.6, 37°.94N×26°.94E, h8km, ML3.9/17*
*AFAD **06** 17:17:57.9, 37°.92N×26°.92E, h5km±1km, ML3.4*
*THE **06** 17:17:58.3, 37°.9N±0°.8×2°.7E±°, h10km±1km, M3.4/15, MLh3.4/15*

ISC 06 17:17:57.7±0.8, 37°.93N±0°.01×26°.96E±0°.02, h17km±5km, n111, σ1°05/150, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.13**	**334**	P		**Pg**		**17 18 01.3**	**-0.3**
DGB				S		**Sg**		**17 18 03.2**	**-0.9**
DGB				IAML				17 18 04.0	
	comp=N,10µm,0.2s								
DGB				IAML				17 18 05.0	
	comp=E,1µm,0.3s								
GMLD	**Gumuldur**	**0.15**	**347**	Pg		**Pg**		**17 18 01.5**	**-0.3**
GMLD				Sg		**Sg**		**17 18 03.8**	**-0.7**
GMLD				AML		AML			
KRL1	**Karlovasi Samo**	**0.24**	**236**	P		**Pg**		**17 18 03.0**	**-0.1**
KRL1				S		**Sg**		**17 18 07.2**	**+0.4**
SMG	**Samos**	**0.24**	**203**	P		**Pg**		**17 18 03.3**	**+0.1**
SMG				S		**Sg**		**17 18 07.5**	**+0.6**
SMG	**Samos**	**0.24**	**203**	P		**Pg**		**17 18 03.0**	**-0.1**
SMG				S		**Sg**		**17 18 07.2**	**+0.3**
KUSD	**Kusadasi-Aydin**	**0.27**	**105**	Pg		**Pg**		**17 18 03.9**	**+0.3**
BEYE	**izmir**	**0.30**	**355**	P		**Pg**		**17 18 04.1**	**0.0**
BEYE				S		**Sg**		**17 18 08.5**	**+0.1**
BEYE				IAML				17 18 09.0	
	comp=E,3µm,0.3s								
BEYE				IAML				17 18 10.0	
	comp=N,3µm,0.4s								
GCAM	**G?zelcaml?**	**0.32**	**137**	P		**Pg**		**17 18 05.0**	**+0.5**
GCAM				S		**Sg**		**17 18 09.7**	**+0.8**
GCAM				IAML				17 18 10.0	
	comp=N,10µm,0.3s								
GCAM				IAML				17 18 10.0	
	comp=E,5µm,0.4s								
GCAM	**G?zelcaml?**	**0.32**	**137**	Pg		**Pg**		**17 18 04.8**	**+0.4**
GCAM				Sg		**Sg**		**17 18 09.8**	**+0.8**
GCAM				AML		AML			
SAM2	**Drakei, Karlov**	**0.33**	**238**	P		**Pg**		**17 18 04.3**	**-0.3**
SAM2				S		**Sg**		**17 18 09.2**	**-0.1**
SAM2				AML		AML			
BLCB	**Balcova**	**0.46**	**8**	P		**Pg**		**17 18 07.2**	**+0.2**
BLCB				S		**Sg**		**17 18 13.6**	**+0.4**
BLCB				AML		AML			
BLCB	**Balcova**	**0.46**	**8**	Pg		**Pg**		**17 18 07.1**	**+0.2**
BLCB				Sg		**Sg**		**17 18 13.6**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.47**	**311**	P		**Pg**		**17 18 07.1**	**-0.1**
ZEYE				S		**Sg**		**17 18 13.9**	**+0.3**
ZEYE				IAML				17 18 14.0	
	comp=E,8µm,0.2s								
DUVT	**Torbali**	**0.48**	**53**	P		**Pg**		**17 18 07.7**	**+0.3**
DUVT				S		**Sg**		**17 18 13.8**	**-0.1**
DUVT				IAML				17 18 18.0	
	comp=E,3µm,0.6s								
DDIM	**Aydin, Didim**	**0.52**	**155**	P		**Pg**		**17 18 08.5**	**+0.4**
DDIM				S		**Sb**		**17 18 16.5**	**+0.8**
DDIM				IAML				17 18 17.0	
	comp=E,3µm,0.6s								
DDIM				IAML				17 18 20.0	
	comp=N,4µm,0.7s								
DIDI	**Didim-Aydin**	**0.60**	**158**	Pg		**Pg**		**17 18 09.9**	**+0.4**
DIDI				AML		AML			
CESE	**eme**	**0.65**	**308**	Pg		**Pg**		**17 18 10.5**	**-0.1**
CESE				AML		AML			
BAGT	**Foa**	**0.73**	**353**	P		**Pg**		**17 18 12.0**	**+0.1**
BAGT				S		**Sb**		**17 18 23.0**	**+1.4**
BAGT				IAML				17 18 25.0	
	comp=N,2µm,0.4s								
BAGT				IAML				17 18 29.0	
	comp=E,2µm,0.6s								
KRBN	**Karaburun**	**0.73**	**334**	Pg		**Pg**		**17 18 11.9**	**-0.2**
KRBN				AML		AML			
AYDB	**Zeytinkoy-Aydi**	**0.74**	**89**	Pg		**Pg**		**17 18 12.6**	**+0.4**
AYDB				AML		AML			
AYDN	**Tasoluk**	**0.78**	**110**	P		**Pg**		**17 18 13.5**	**+0.6**
AYDN				S		**Sg**		**17 18 24.0**	**+0.7**
AYDN				IAML				17 18 27.0	
	comp=E,2µm,0.5s								
AYDN				IAML				17 18 32.0	
	comp=N,1µm,0.5s								
FOCM	**Foa**	**0.80**	**347**	Pg		**Pg**		**17 18 13.2**	**-0.1**
FOCM				AML		AML			
IZMR	**zmir-demi**	**0.81**	**75**	P		**Pg**		**17 18 12.4**	**-1.1**
IZMR				S		**Sg**		**17 18 23.2**	**-1.1**
CHOS	**Chios island**	**0.84**	**303**	P		**Pg**		**17 18 14.1**	**0.0**
CHOS				S		**Sb**		**17 18 26.4**	**+1.3**
CHOS	**Chios island**	**0.84**	**303**	Pg		**Pg**		**17 18 14.0**	**-0.2**
CHOS				Sg		**Sb**		**17 18 26.3**	**+1.2**
CHOS				AML		AML			
CHOS	**Chios island**	**0.84**	**303**	P		**Pg**		**17 18 13.8**	**-0.4**
CHOS				S		**Sb**		**17 18 25.8**	**+0.7**
CHOS				AML		AML			
YKAV	**Yalikavak-Bodr**	**0.84**	**162**	Pg		**Pg**		**17 18 14.1**	**-0.1**
YKAV				AML		AML			
KARB	**zmir-Karabur**	**0.85**	**330**	P		**Pg**		**17 18 14.3**	**+0.1**
KARB				S		**Sg**		**17 18 25.7**	**+0.3**
KARB				IAML				17 18 28.0	
	comp=N,3µm,0.4s								
KARB				IAML				17 18 29.0	
	comp=E,3µm,0.7s								
CAMT	**Merkez**	**0.86**	**19**	P		**Pg**		**17 18 14.8**	**+0.3**
CAMT				S		**Sn**		**17 18 28.3**	**+0.9**
CAMT				IAML				17 18 31.0	
	comp=E,2µm,0.6s								
CAMT				IAML				17 18 34.0	
	comp=N,2µm,0.8s								
EAG2	**Marmaro, Chios**	**0.91**	**313**	P		**Pg**		**17 18 15.0**	**-0.3**
EAG2				S

VLY				AML	AML			
VLY	**Voula,Athens**	**2.50**	**269**	P	**Pn**	**17 18 37.7**	**0.0**	
ATHU	**Athens Univers**	**2.51**	**272**	P	**Pn**	**17 18 38.0**	**+0.2**	
ATHU	**Athens Univers**	**2.51**	**272**	P	**Pn**	**17 18 37.7**	**-0.1**	
SMTH	**Samothraki Isl**	**2.77**	**337**	P	**Pn**	**17 18 41.9**	**+0.6**	
SMTH	**Samothraki Isl**	**2.77**	**337**	P	**Pn**	**17 18 41.4**	**0.0**	
ENEZ	**Enez**	**2.87**	**348**	P	**Pn**	**17 18 43.9**	**+1.1**	
ENEZ				AML	AML			
MET6	**Megalochori,Me**	**2.87**	**264**	P	**Pn**	**17 18 43.7**	**+0.9**	
ZKR	**Zakros**	**2.87**	**192**	P	**Pn**	**17 18 43.4**	**+0.6**	
NPS	**Neapolis**	**2.88**	**203**	P	**Pn**	**17 18 42.8**	**0.0**	
VIL2	**Platees**	**2.92**	**277**	P	**Pn**	**17 18 43.2**	**-0.4**	
ALN	**Alexandroupoli**	**3.04**	**347**	P	**Pn**	**17 18 46.0**	**+0.9**	
ALN				AML	AML			
ALN	**Alexandroupoli**	**3.04**	**347**	P	**Pn**	**17 18 45.6**	**+0.5**	
IDI	**Anoyia**	**3.12**	**213**	P	**Pn**	**17 18 46.9**	**+0.7**	
IDI	**Anoyia**	**3.12**	**213**	P	**Pn**	**17 18 46.6**	**+0.4**	
LTK	**Loutraki**	**3.15**	**273**	P	**Pn**	**17 18 47.0**	**+0.4**	
ACOR	**Acrocorinthos**	**3.23**	**271**	P	**Pn**	**17 18 47.6**	**-0.1**	
OUR	**Ouranopolis**	**3.33**	**317**	P	**Pn**	**17 18 50.1**	**+1.0**	
OUR	**Ouranopolis**	**3.33**	**317**	P	**Pn**	**17 18 49.9**	**+0.8**	
VLI	**Veliai**	**3.43**	**251**	P	**Pn**	**17 18 50.0**	**-0.4**	
AGG	**Agios Georgios**	**3.79**	**288**	P	**Pn**	**17 18 57.0**	**+1.6**	
KLV	**Kalavryta, Ach**	**3.80**	**273**	P	**Pn**	**17 18 56.8**	**+1.2**	
EFP	**Efpalio**	**4.01**	**279**	P	**Pn**	**17 19 00.1**	**+1.7**	
ANX	**Ano Chora**	**4.02**	**281**	P	**Pn**	**17 19 00.2**	**+1.6**	
ITM	**Ithomi**	**4.07**	**261**	P	**Pn**	**17 19 01.0**	**+1.8**	
SRS	**Serrai**	**4.11**	**322**	P	**Pn**	**17 19 01.1**	**+1.3**	
DRO	**Drossia**	**4.15**	**272**	P	**Pn**	**17 19 02.0**	**+1.7**	
AMT	**Artemida-Makis**	**4.18**	**266**	P	**Pn**	**17 19 03.5**	**+2.7**	
CSS	**Mathiatis**	**5.93**	**118**	P	**Pn**	**17 19 22.8**	**-2.1**	
CSS				S	**Sn**	**17 20 31.1**	**-1.3**	
MMA0B	**Mount Meron ar**	**8.45**	**123**	P	**Pn**	**17 19 57.2**	**-2.4**	
MMA0B				S	**Sn**	**17 21 32.5**	**-2.1**	
GEM	**Giv'at Ha'Em**	**8.51**	**121**	P	**Pn**	**17 19 57.9**	**-2.3**	
GEM				S	**Sn**	**17 21 34.0**	**-1.9**	
MMLI	**Mount Malkishu**	**8.83**	**126**	P	**Pn**	**17 20 02.5**	**-2.2**	
MMLI				S	**Sn**	**17 21 41.9**	**-1.9**	
KZIT	**Kziot**	**9.32**	**137**	P	**Pn**	**17 20 08.8**	**-2.5**	
KZIT				S	**Sn**	**17 21 52.8**	**-3.0**	
HRFI	**Mount Harif**	**10.34**	**137**	P	**Pn**	**17 20 22.5**	**-2.9**	
HRFI				S	**Sn**	**17 22 18.1**	**-2.8**	
EIL	**Elat**	**10.58**	**139**	P	**Pn**	**17 20 25.7**	**-2.9**	
EIL				S	**Sn**	**17 22 24.1**	**-2.7**	

*NOU **06** 17:25:44.8,38.91S×175.02E,h209km,MLv4.3/17,North Island, New Zealand*
*WEL **06** 17:25:48.0±0.8,39.9S×17.5E±°,h194km±6km,M3.8/106, ML2.9/5,MLv3.8/106,Error ellipse: s-maj=11.6km s-min=9.8km az=162.7*

ISC 06 17:25:42.2±1.7,38.85S±0.05×175.08E±0.05,h236km±9km, n172,σ1$62/180,North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TWVZ	**Taurewa**	**0.36**	**128**	P	**Pn**	**17 26 14.5**	**+1.4**
TWVZ				S	**S**	**17 26 35.6**	**-1.8**
TWVZ				AML	AML		
VRZ	**Vera Road**	**0.37**	**222**	P	**Pn**	**17 26 14.5**	**+1.5**
VRZ				AML	AML		
HIZ	**Hauiti**	**0.38**	**333**	P	**Pn**	**17 26 14.2**	**+1.0**
HIZ	**Hauiti**	**0.38**	**333**	S	**S**	**17 26 36.5**	**-0.9**
HIZ	**Hauiti**	**0.38**	**333**	P	**Pn**	**17 26 14.0**	**+0.8**
HIZ	**Hauiti**	**0.38**	**333**	P	**Pn**	**17 26 14.5**	**+1.3**
HIZ				S	**S**	**17 26 36.5**	**-0.9**
HIZ				AML	AML		
WTVZ	**West Tongariro**	**0.48**	**124**	P	**Pn**	**17 26 15.1**	**+1.6**
WTVZ				S	**S**	**17 26 36.3**	**-1.8**
WTVZ				AML	AML		
WTVZ				AML	AML		
PKVZ	**Pokaka**	**0.49**	**155**	P	**Pn**	**17 26 15.1**	**+1.6**
PKVZ				AML	AML		
KATZ	**Kakaramea**	**0.50**	**105**	P	**Pn**	**17 26 15.0**	**+1.4**
KATZ				AML	AML		
KRVZ	**Karewarewa**	**0.50**	**119**	P	**Pn**	**17 26 15.1**	**+1.5**
KRVZ				S	**S**	**17 26 36.3**	**-1.8**
KRVZ				AML	AML		
COVZ	**Chateau Observ**	**0.51**	**134**	P	**Pn**	**17 26 15.2**	**+1.6**
COVZ				S	**S**	**17 26 36.3**	**-1.9**
COVZ				AML	AML		
COVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.52**	**129**	P	**Pn**	**17 26 15.2**	**+1.5**
NGZ				S	**S**	**17 26 36.6**	**-1.8**
NGZ				AML	AML		
NTVZ	**North Tongarir**	**0.53**	**118**	P	**Pn**	**17 26 15.3**	**+1.7**
NTVZ				AML	AML		
WATZ	**Wairara**	**0.53**	**75**	P	**Pn**	**17 26 15.2**	**+1.6**
WATZ				S	**S**	**17 26 36.6**	**-1.5**
WATZ				AML	AML		
RATZ	**Rangitukua**	**0.54**	**92**	P	**Pn**	**17 26 15.0**	**+1.4**
RATZ				AML	AML		
FWVZ	**Far West T-bar**	**0.55**	**138**	P	**Pn**	**17 26 15.5**	**+1.6**
FWVZ				AML	AML		
SNVZ	**South Ngauruho**	**0.55**	**128**	P	**Pn**	**17 26 15.3**	**+1.5**
SNVZ				AML	AML		
OTVZ	**Oturere**	**0.56**	**125**	P	**Pn**	**17 26 15.2**	**+1.4**
OTVZ				S	**S**	**17 26 37.1**	**-1.5**
OTVZ				AML	AML		
OTVZ				AML	AML		
TMVZ	**Te Maari**	**0.56**	**119**	P	**Pn**	**17 26 15.3**	**+1.6**
TMVZ				AML	AML		
MAVZ	**Matarangi**	**0.56**	**138**	P	**Pn**	**17 26 15.6**	**+1.6**
MAVZ				AML	AML		
MAVZ				AML	AML		
ETVZ	**East Tongariro**	**0.57**	**120**	P	**Pn**	**17 26 15.2**	**+1.4**
ETVZ				AML	AML		
TRVZ	**Turoa**	**0.58**	**141**	P	**Pn**	**17 26 15.7**	**+1.7**
TRVZ				AML	AML		
WHVZ	**Whangaehu Hut**	**0.59**	**138**	P	**Pn**	**17 26 15.7**	**+1.7**
WHVZ				AML	AML		
WHVZ				AML	AML		
TUVZ	**Tukino**	**0.61**	**133**	P	**Pn**	**17 26 15.8**	**+1.8**
TUVZ				AML	AML		
MTVZ	**Mangateitei**	**0.62**	**150**	P	**Pn**	**17 26 15.7**	**+1.8**
MTVZ				AML	AML		
RITZ	**Rihia Road**	**0.62**	**102**	P	**Pn**	**17 26 15.7**	**+1.8**
RITZ				AML	AML		
WNVZ	**Wahianoa**	**0.63**	**140**	P	**Pn**	**17 26 15.7**	**+1.6**
WNVZ				AML	AML		
MHEZ	**Mangahewa**	**0.63**	**249**	P	**Pn**	**17 26 15.9**	**+2.1**
MHEZ				AML	AML		
TLZ	**Tolley Road**	**0.63**	**35**	P	**Pn**	**17 26 15.3**	**+1.2**
TLZ				AML	AML		
KUTZ	**Kaahu Road**	**0.69**	**59**	P	**Pn**	**17 26 15.7**	**+1.5**
KUTZ				AML	AML		
WHTZ	**Whakaora**	**0.71**	**75**	P	**Pn**	**17 26 15.1**	**+0.8**
WHTZ				AML	AML		
DREZ	**Durham Road**	**0.76**	**243**	P	**Pn**	**17 26 16.4**	**+2.0**
DREZ				AML	AML		
MOVZ	**Moawhango**	**0.77**	**137**	P	**Pn**	**17 26 16.0**	**+1.5**
MOVZ				AML	AML		
LREZ	**Lake Rotokare**	**0.81**	**220**	P	**Pn**	**17 26 16.7**	**+2.1**
LREZ				AML	AML		
PREZ	**Palmer Road**	**0.87**	**235**	P	**Pn**	**17 26 17.2**	**+2.2**
PREZ				AML	AML		
NEZ	**North Egmont**	**0.87**	**241**	P	**Pn**	**17 26 17.3**	**+2.3**
NEZ				AML	AML		
WAZ	**Wanganui**	**0.91**	**184**	P	**Pn**	**17 26 17.4**	**+2.3**
WAZ				AML	AML		
WPRZ	**Whakapapatarin**	**0.91**	**69**	P	**Pn**	**17 26 16.4**	**+1.2**
WPRZ				AML	AML		
PKE	**Pukeiti**	**0.92**	**248**	P	**Pn**	**17 26 17.3**	**+2.1**
PKE				AML	AML		
KHEZ	**Kahui Hut**	**0.94**	**241**	P	**Pn**	**17 26 17.7**	**+2.3**
KHEZ	**Kahui Hut**	**0.94**	**241**	P	**Pn**	**17 26 17.5**	**+2.1**
KHEZ				AML	AML		
GRRZ	**Galatos Road**	**0.95**	**59**	P	**Pn**	**17 26 16.7**	**+1.2**
GRRZ				AML	AML		
BHHZ	**Black Hill Sta**	**1.00**	**130**	P	**Pn**	**17 26 17.3**	**+1.5**
BHHZ				AML	AML		
NBEZ	**Newall Road No**	**1.03**	**246**	P	**Pn**	**17 26 18.2**	**+2.3**
NBEZ				AML	AML		
ALRZ	**Allen Road**	**1.03**	**74**	P	**Pn**	**17 26 17.0**	**+1.1**
ALRZ				AML	AML		
MRHZ	**Matea Rd**	**1.05**	**90**	P	**Pn**	**17 26 17.1**	**+1.0**
MRHZ				AML	AML		
HRRZ	**Handcock Road**	**1.05**	**65**	P	**Pn**	**17 26 17.4**	**+1.3**
HRRZ				AML	AML		
PRRZ	**Plateau Road**	**1.09**	**72**	P	**Pn**	**17 26 17.4**	**+1.2**
PRRZ				AML	AML		
NMEZ	**Namu Road**	**1.09**	**238**	P	**Pn**	**17 26 18.5**	**+2.4**
NMEZ				AML	AML		
UTU	**Utuhina**	**1.10**	**53**	P	**Pn**	**17 26 17.7**	**+1.3**
UTU				AML	AML		
NGRZ	**Ngongotaha**	**1.15**	**50**	P	**Pn**	**17 26 17.9**	**+1.1**
NGRZ				AML	AML		
BKZ	**Black Stump Fm**	**1.15**	**106**	P	**Pn**	**17 26 18.0**	**+1.4**
BKZ	**Black Stump Fm**	**1.15**	**106**	S	**S**	**17 26 41.1**	**-2.5**
BKZ	**Black Stump Fm**	**1.15**	**106**	P	**Pn**	**17 26 18.2**	**+1.5**
BKZ	**Black Stump Fm**	**1.15**	**106**	P	**Pn**	**17 26 18.1**	**+1.5**
BKZ				AML	AML		
HLRZ	**Highlands Stat**	**1.16**	**60**	P	**Pn**	**17 26 18.5**	**+1.8**
HLRZ				AML	AML		
TOZ	**Tahuroa Road**	**1.17**	**17**	P	**Pn**	**17 26 18.1**	**+1.3**
TOZ				AML	AML		
KWHZ	**Kaweka Forest**	**1.20**	**119**	P	**Pn**	**17 26 18.9**	**+1.9**
KWHZ				AML	AML		
KMRZ	**Kaimai**	**1.21**	**34**	P	**Pn**	**17 26 18.3**	**+1.2**
KMRZ				AML	AML		
KARZ	**Kaharoa**	**1.23**	**48**	P	**Pn**	**17 26 18.4**	**+1.2**
KARZ				AML	AML		
RRRZ	**Republican Roa**	**1.24**	**66**	P	**Pn**	**17 26 18.4**	**+1.1**
RRRZ				AML	AML		
TARZ	**Mount Tarawera**	**1.28**	**62**	P	**Pn**	**17 26 18.9**	**+1.3**
TARZ				AML	AML		
KRHZ	**Kereru**	**1.28**	**129**	P	**Pn**	**17 26 19.4**	**+1.9**
KRHZ				AML	AML		
MKRZ	**Makatiti**	**1.30**	**57**	P	**Pn**	**17 26 19.4**	**+1.6**
MKRZ				AML	AML		
OHWZ	**Ohakea**	**1.37**	**172**	P	**Pn**	**17 26 20.8**	**+2.7**
OHWZ				AML	AML		
NMHZ	**Naumai**	**1.37**	**101**	P	**Pn**	**17 26 20.6**	**+2.4**
NMHZ				AML	AML		
PNHZ	**Pukenui**	**1.37**	**141**	P	**Pn**	**17 26 20.2**	**+2.0**
PNHZ				AML	AML		
MUGZ	**Murupara**	**1.38**	**75**	P	**Pn**	**17 26 18.9**	**+0.7**
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**1.38**	**91**	P	**Pn**	**17 26 19.6**	**+1.3**
MTHZ				AML	AML		
TSZ	**Takapari Road**	**1.39**	**151**	P	**Pn**	**17 26 20.4**	**+2.1**
TSZ				AML	AML		
MCHZ	**McNeill Hill**	**1.39**	**116**	P	**Pn**	**17 26 20.9**	**+2.7**
MCHZ				AML	AML		
TGRZ	**Tauranga**	**1.46**	**40**	P	**Pn**	**17 26 19.9**	**+1.1**
TGRZ				AML	AML		
EDRZ	**Edgecumbe**	**1.50**	**61**	P	**Pn**	**17 26 20.1**	**+0.8**
EDRZ				AML	AML		
RTZ	**Ruatahuna**	**1.51**	**82**	P	**Pn**	**17 26 20.4**	**+1.1**
RTZ				AML	AML		
MARZ	**Manawahe**	**1.52**	**56**	P	**Pn**	**17 26 20.6**	**+1.2**
MARZ				AML	AML		
OPRZ	**Ohinepanea**	**1.54**	**50**	P	**Pn**	**17 26 20.4**	**+0.9**
OPRZ				AML	AML		
ARHZ	**Aropaoanui**	**1.55**	**106**	P	**Pn**	**17 26 21.6**	**+2.1**
ARHZ				AML	AML		
RAHZ	**Arahi**	**1.57**	**93**	P	**Pn**	**17 26 21.6**	**+1.9**
RAHZ				AML	AML		
WPHZ	**Waipukurau**	**1.61**	**139**	P	**Pn**	**17 26 22.2**	**+2.2**
WPHZ				AML	AML		
POWZ	**Post Office Ro**	**1.63**	**161**	P	**Pn**	**17 26 22.2**	**+2.0**
POWZ				AML	AML		
DVHZ	**Dannevirke**	**1.68**	**150**	P	**Pn**	**17 26 22.5**	**+2.0**
DVHZ				AML	AML		
KAHZ	**Kahuranaki**	**1.69**	**125**	P	**Pn**	**17 26 23.1**	**+2.4**
KAHZ				AML	AML		
WHHZ	**Waihua**	**1.70**	**98**	P	**Pn**	**17 26 22.7**	**+2.0**
WHHZ				AML	AML		
URZ	**Urewera**	**1.70**	**70**	P	**Pn**	**17 26 21.0**	**+0.2**
URZ	**Urewera**	**1.70**	**70**	P	**Pn**	**17 26 21.4**	**+0.6**
URZ				AML	AML		
MKAZ	**Moumakai**	**1.74**	**2**	P	**Pn**	**17 26 22.7**	**+1.5**
CKHZ	**Cape Kidnapper**	**1.75**	**118**	P	**Pn**	**17 26 23.6**	**+2.4**
CKHZ				AML	AML		
MYRZ	**Mayor Island**	**1.82**	**31**	P	**Pn**	**17 26 23.3**	**+1.4**
MYRZ				AML	AML		
PXZ	**Pawanui**	**1.82**	**131**	P	**Pn**	**17 26 23.9**	**+2.1**
PXZ				AML	AML		
PRWZ	**Pori Road**	**1.84**	**158**	P	**Pn**	**17 26 24.2**	**+2.3**
PRWZ				AML	AML		
MRZ	**Mangatainoka R**	**1.85**	**168**	P	**Pn**	**17 26 24.0**	**+2.0**
MRZ				AML	AML		
PRHZ	**Porangahau**	**1.86**	**140**	P	**Pn**	**17 26 24.3**	**+2.2**
PRHZ				AML	AML		
RAGZ	**Rawiri**	**1.86**	**80**	P	**Pn**	**17 26 23.5**	**+1.2**
RAGZ				AML	AML		
ANWZ	**Angora Road**	**1.94**	**147**	P	**Pn**	**17 26 25.1**	**+2.3**
ANWZ				AML	AML		
OGWZ	**Otaki Gorge**	**1.97**	**178**	P	**Pn**	**17 26 25.4**	**+2.3**
OGWZ				AML	AML		
MWZ	**Matawai**	**1.99**	**76**	P	**Pn**	**17 26 24.4**	**+0.9**
MWZ				AML	AML		
KIW	**Kapiti Island**	**2.01**	**184**	P	**Pn**	**17 26 25.4**	**+1.9**
KIW				AML	AML		
TIWZ	**Tintock**	**2.02**	**162**	P	**Pn**	**17 26 25.6**	**+2.0**
TIWZ				AML	AML		
KNZ	**Kokohu**	**2.03**	**96**	P	**Pn**	**17 26 25.4**	**+1.6**
KNZ				AML	AML		
BFZ	**Birch Farm**	**2.04**	**154**	P	**Pn**	**17 26 25.2**	**+1.4**
BFZ	**Birch Farm**	**2.04**	**154**	S	**S**	**17 26 54.5**	**-2.0**
BFZ	**Birch Farm**	**2.04**	**154**	P	**Pn**	**17 26 25.8**	**+2.0**
BFZ	**Birch Farm**	**2.04**	**154**	P	**Pn**	**17 26 25.7**	**+1.9**
BFZ				AML	AML		
WIAZ	**Waiheke Island**	**2.05**	**1**	P	**Pn**	**17 26 25.7**	**+1.7**
WIAZ				AML	AML		
HOWZ	**Holdsworth Sta**	**2.07**	**171**	P	**Pn**	**17 26 26.0**	**+1.8**
HOWZ				AML	AML		
MBAZ	**Motutapu North**	**2.08**	**356**	P	**Pn**	**17 26 26.5**	**+2.2**
MBAZ				AML	AML		
RIGZ	**Rimuhau**	**2.10**	**87**	P	**Pn**	**17 26 26.0**	**+1.5**
RIGZ				AML	AML		
WIZ	**White Island**	**2.12**	**52**	P	**Pn**	**17 26 25.5**	**+0.8**
WIZ				AML	AML		
DUWZ	**D'Urville Isla**	**2.14**	**204**	P	**Pn**	**17 26 26.7**	**+1.9**
DUWZ				AML	AML		
PRGZ	**Paritu Road**	**2.19**	**93**	P	**Pn**	**17 26 26.9**	**+1.5**
PRGZ				AML	AML		
TKGZ	**Te Karaka**	**2.21**	**80**	P	**Pn**	**17 26 27.0**	**+1.6**
TKGZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.23**	**99**	P	**Pn**	**17 26 27.6**	**+1.9**
MHGZ				AML	AML		
RUGZ	**Raukumara Rang**	**2.23**	**67**	P	**Pn**	**17 26 25.8**	**0.0**
RUGZ				AML	AML		
CPWZ	**Castlepoint**	**2.23**	**158**	P	**Pn**	**17 26 28.0**	**+2.4**
CPWZ				AML	AML		
CAW	**Cannon Point**	**2.26**	**180**	P	**Pn**	**17 26 27.9**	**+2.0**
CAW				AML	AML		
MTW	**Mount Morrison**	**2.33**	**172**	P	**Pn**	**17 26 28.3**	**+1.6**
MTW				AML	AML		
TMWZ	**Te Maipa**	**2.34**	**165**	P	**Pn**	**17 26 28.5**	**+1.8**
TMWZ				AML	AML		
TWGZ	**Tauwhareparae**	**2.38**	**74**	P	**Pn**	**17 26 28.5**	**+1.3**
TWGZ				AML	AML		
HAZ	**Te Kaha**	**2.39**	**64**	P	**Pn**	**17 26 27.5**	**+0.2**
HAZ				AML	AML		
TCW	**Tory Channel**	**2.44**	**194**	P	**Pn**	**17 26 29.8**	**+2.1**
TCW				AML	AML		
WEL	**Wellington**	**2.44**	**185**	P	**Pn**	**17 26 29.6**	**+1.8**
WEL				AML	AML		
SNZO	**South Karori**	**2.48**	**186**	P	**Pn**	**17 26 29.3**	**+1.2**
SNZO	**South Karori**	**2.48**	**186**	P	**S**	**17 27 03.0**	**-1.2**
CNGZ	**Carnagh Statio**	**2.48**	**83**	P	**Pn**	**17 26 29.9**	**+1.8**
CNGZ				AML	AML		
PAWZ	**Paruwai Farm**	**2.54**	**174**	P	**Pn**	**17 26 30.5**	**+1.7**
PAWZ				AML	AML		
PKGZ	**Pakihiroa**	**2.56**	**68**	P	**Pn**	**17 26 29.7**	**+0.7**
PKGZ				AML	AML		
BHW	**Baring Head**	**2.56**	**183**	P	**Pn**	**17 26 30.6**	**+1.7**
BHW				AML	AML		
MSWZ	**Moikau Station**	**2.57**	**177**	P	**Pn**	**17 26 30.7**	**+1.6**
MSWZ				AML	AML		
TRWZ	**Traveller**	**2.59**	**170**	P	**Pn**	**17 26 31.0**	**+1.7**
TRWZ				AML	AML		
PUZ	**Puketiti**	**2.62**	**74**	P	**Pn**	**17 26 30.4**	**+0.7**
PUZ				AML	AML		
NNZ	**Nelson**	**2.70**	**208**	P	**Pn**	**17 26 32.0**	**+1.6**
NNZ				AML	AML		
PLWZ	**Palliser**	**2.72**	**177**	P	**Pn**	**17 26 32.3**	**+1.5**
PLWZ				AML	AML		
TKNZ	**Takaka Hill**	**2.72**	**216**	P	**Pn**	**17 26 31.8**	**+1.1**
TKNZ				AML	AML		
QRZ	**Quartz Range**	**2.78**	**224**	P	**Pn**	**17 26 32.0**	**+0.6**
QRZ	**Quartz Range**	**2.78**	**224**	S	**S**	**17 27 07.3**	**-2.8**
QRZ	**Quartz Range**	**2.78**	**224**	P	**Pn**	**17 26 31.9**	**+0.6**
QRZ	**Quartz Range**	**2.78**	**224**	P	**Pn**	**17 26 32.5**	**+1.1**
QRZ				AML	AML		
WMGZ	**Waiomatatini S**	**2.82**	**70**	P	**Pn**	**17 26 32.6**	**+0.8**
WMGZ				AML	AML		
MXZ	**Matakaoa Point**	**2.85**	**64**	P	**Pn**	**17 26 32.6**	**+0.5**
MXZ	**Matakaoa Point**	**2.85**	**64**	P	**Pn**	**17 26 33.1**	**+0.9**
MXZ				AML	AML		
WCZ	**Waipu Caves**	**2.96**	**348**	P	**Pn**	**17 26 35.6**	**+2.2**
CMWZ	**Cape Campbell**	**2.97**	**193**	P	**Pn**	**17 26 36.0**	**+2.6**
CMWZ				AML	AML		
BSWZ	**Blackbirch Sta**	**3.01**	**197**	P	**Pn**	**17 26 36.0**	**+2.2**
BSWZ				AML	AML		
MRNZ	**Matariki Terra**	**3.11**	**214**	P	**Pn**	**17 26 36.0**	**+1.1**
MRNZ				AML	AML		
THZ	**Tophouse**	**3.35**	**209**	P	**Pn**	**17 26 39.0**	**+1.3**
THZ				AML	AML		
KHZ	**Kahutara**	**3.75**	**198**	P	**Pn**	**17 26 43.9**	**+1.6**
KHZ	**Kahutara**	**3.75**	**198**	S	**S**	**17 27 28.5**	**-1.3**
KHZ	**Kahutara**	**3.75**	**198**	P	**Pn**	**17 26 44.2**	**+1.9**
KHZ				AML	AML		
DSZ	**Denniston Nort**	**3.83**	**220**	P	**Pn**	**17 26 44.2**	**+0.9**
DSZ				AML	AML		
GVZ	**Greta Valley S**	**4.40**	**200**	P	**Pn**	**17 26 51.4**	**+1.4**
LTZ	**Lake Taylor**	**4.47**	**208**	P	**Pn**	**17 26 52.5**	**+1.5**
LTZ				AML	AML		
AMCZ	**Amberley**	**4.70**	**202**	P	**Pn**	**17 26 55.0**	**+1.4**
AMCZ				AML	AML		
INZ	**Inchbonnie**	**4.75**	**214**	P	**Pn**	**17 26 55.0**	**+0.6**
INZ				AML	AML		
OXZ	**Oxford**	**5.03**	**206**	P	**Pn**	**17 26 58.2**	**+0.5**
OXZ				AML	AML		
OKCZ	**Okains Bay**	**5.10**	**197**	P	**Pn**	**17 27 00.1**	**+1.4**
OKCZ				AML	AML		
MQZ	**McQueen's Vall**	**5.18**	**200**	P	**Pn**	**17 27 00.2**	**+0.5**
MQZ				AML	AML		
AKCZ	**Akaroa Harbour**	**5.28**	**197**	P	**Pn**	**17 27 02.0**	**+1.1**
AKCZ				AML	AML		
WVZ	**Waitaha Valley**	**5.35**	**216**	P	**Pn**	**17 27 03.0**	**+1.3**
RACZ	**Rakaia**	**5.35**	**203**	P	**Pn**	**17 27 02.6**	**+0.8**
RACZ				AML	AML		
MHCZ	**Mount Hutt**	**5.38**	**208**	P	**Pn**	**17 27 02.8**	**+0.6**
MHCZ				AML	AML		
WACZ	**Wakanui South**	**5.64**	**205**	P	**Pn**	**17 27 06.4**	**+1.0**
WACZ				AML	AML		
RPZ	**Rata Peaks**	**5.73**	**211**	P	**Pn**	**17 27 07.3**	**+0.8**
RPZ	**Rata Peaks**	**5.73**	**211**	P	**Pn**	**17 27 07.0**	**+0.5**
ARCZ	**Arundel**	**5.88**	**209**	P	**Pn**	**17 27 09.0**	**+0.6**
ARCZ				AML	AML		
FOZ	**Fox Glacier**	**6.13**	**219**	P	**Pn**	**17 27 12.9**	**+1.3**
TMZ	**Timaru**	**6.31**	**208**	P	**Pn**	**17 27 15.1**	**+1.2**
LBZ	**Lake Benmore**	**6.63**	**212**	P	**Pn**	**17 27 18.8**	**+0.8**
ODZ	**Otahua Downs**	**7.02**	**207**	P	**Pn**	**17 27 23.9**	**+1.1**
ODZ	**Otahua Downs**	**7.02**	**207**	P	**Pn**	**17 27 24.4**	**+1.6**
JCZ	**Jackson Bay**	**7.04**	**220**	P	**Pn**	**17 27 23.9**	**+0.7**
JCZ	**Jackson Bay**	**7.04**	**220**	P	**Pn**	**17 27 24.0**	**+0.8**
EAZ	**Earnscleugh**	**7.69**	**212**	P	**Pn**	**17 27 31.8**	**+0.5**

IDC 06 17:55:31.0±3.0,7.11S×129.24E,h105km±40km,mb3.5/1, mbtmp3.6/5,Error ellipse: s-maj=65.6km s-min=22.5km az=92.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**6.52**	**18**	P	**Pn**	**17 57 05.2**	**+0.7**
	2.3nm,0.3s,baz=180,slow=20,SNR=6.9						
SIJI				S	**Sn**	**17 58 10.1**	**-7.4**
	2.0nm,0.4s,baz=19,slow=23,SNR=2.6						
FITZ	**Fitzroy Crossi**	**11.47**	**197**	P	**Pn**	**17 58 11.3**	**-0.4**
	1.7nm,0.9s,baz=14,slow=16,SNR=7.5						
FITZ				S	**Sn**	**18 00 17.1**	**-0.7**
	1.7nm,0.8s,baz=14,slow=4.2,SNR=2.0						
WRA	**Warramunga Arr**	**13.68**	**159**	P	**Pn**	**17 58 39.6**	**-1.1**
	0.3nm,0.4s,baz=340,slow=13,SNR=5.8						
WRA				S	**Sn**	**18 01 04.0**	**-7.5**
	0.4nm,0.3s,baz=335,slow=21,SNR=7.4						
ASAR	**Alice Springs**	**17.06**	**165**	P	P	**17 59 24.9**	**+1.5**
	0.7nm,0.6s,baz=349,slow=12,SNR=24						
ASAR				S	**Sn**	**18 02 28.8**	**-4.3**
	0.2nm,0.4s,baz=347,slow=27,SNR=5.1						
MKAR	**Makanchi Array**	**67.91**	**327**	P	P	**18 06 18.2**	**-0.2**
	0.4nm,0.4s,baz=130,slow=7.5,SNR=8.1						
	0.4nm,0.4s						

*DJA **06** 18:22:41.8±8.0,7.7N±19.3×12.3E±°,h20km±58km,M5.1/9, mb5.3/9,mB5.5/9,MLv5.3/7,Mw(mB)4.9/9*

IDC 06 18:23:41.7±1.7,1.59N×121.54E,h0km,mb3.2/3, mbtmp3.4/4,ML3.5/1,MS2.9/3,Error ellipse: s-maj=152.8km s-min=27.2km az=64.0,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APSI	**Ampana**	**2.49**	**178**	P	Pg	**18 24 40.5**	**+11**
LUWI	**Luwuk**	**2.89**	**155**	P	Pg	**18 24 36.9**	**-0.3**
	4μm97nm,1.1s						
PCI	**Palu**	**3.01**	**215**	P	Pg	**18 24 42.

JKO				S	Sn	18 41 22.8	-0.3		
JTHY	**Toshimahigashi**	**1.77**	**308**	P	Pn	18 41 04.0	+0.6		
JIM2	**Oshima 3**	**1.80**	**315**	P	Pn	18 41 04.0	+0.1		
JIZS	**Izushimoda**	**2.15**	**307**	P	Pn	18 41 09.5	+0.8		
JIZS				S	Sn	18 41 33.7	-0.5		
KTJ3	**Kamata3**	**2.17**	**314**	P	Pn	18 41 09.2	+0.3		
KTJ3				S	Sn	18 41 32.5	-2.0		
JSG	**Sagara**	**2.62**	**299**		Pn	18 41 16.6	+1.5		
JGF	**Kuroka**	**3.68**	**307**		Pn	18 41 31.7	+2.0		
JGF				Sn	Sn	18 42 15.1	+3.3		
INU	**Inuyama**	**3.78**	**301**		Pn	18 41 33.0	+1.9		
INU				Sn	Sn	18 42 14.9	+0.6		
MJAR	**Matsushiro Arr**	**3.83**	**324**	Pn	Pn	18 41 33.7	+1.9		
	comp=E,1.8nm,0.3s,baz=143,slow=12,SNR=75								
MJAR				Sn	Sn	18 42 15.1	-0.4		
	comp=E,1.7nm,0.3s,baz=134,slow=16,SNR=9.0								
MJAR				LR	LR	18 43 04.1			
	comp=E,69nm,18.4s,baz=214,slow=38 comp=E,10nm,0.3s								
MJAR				AML	AML				
MJAR	**Matsushiro Arr**	**3.83**	**324**		Pn	18 41 32.9	+1.2		
MAJO	**Matsushiro**	**3.83**	**324**		Pn	18 41 33.4	+1.6		
MAJO	**Matsushiro**	**3.83**	**324**	Sn	Sn	18 42 15.9	+0.3		
MJB9	**Matsu-Tunnel**	**3.84**	**324**		Pn	18 41 34.3	+2.4		
MJB9				Sn	Sn	18 42 15.7	0.0		
JMN	**Monobe**	**5.93**	**275**	Pn	Pn	18 42 01.2	+0.7		
JMN				Sn	Sn	18 43 04.9	-2.3		
JTM	**Tenmabayashi**	**7.33**	**1**	Pn	Pn	18 42 19.4	-0.2		
JTM				Sn	Sn	18 43 38.9	-2.5		
ERM	**Erimo**	**8.73**	**11**	Pn	Pn	18 42 38.6	-0.2		
ERM				Sn	Sn	18 44 10.4	-5.3		
JTU	**Tsushima**	**9.67**	**280**	Pn	Pn	18 42 50.3	-1.5		
JKA	**Kamikawa-asahi**	**10.73**	**6**	Pn	Pn	18 43 05.2	-1.0		
KSRS	**Korea Array**	**11.37**	**294**	LR	LR	18 47 13.1			
	comp=E,36nm,19.9s,baz=5.0,slow=35								
H11N2	**WAKE ISLAND Hy**	**26.82**	**114**	T	T	19 15 17.1			
	baz=306,slow=75,SNR=132								
H11N1	**WAKE ISLAND Hy**	**26.82**	**114**	T	T	19 15 15.1			
	baz=306,slow=75,SNR=107								
H11N3	**WAKE ISLAND Hy**	**26.83**	**114**	T	T	19 15 16.1			
	baz=306,slow=75,SNR=104								
H11S3	**WAKE ISLAND Hy**	**27.39**	**117**	T	T	19 15 49.1			
	baz=308,slow=75,SNR=9.3								
H11S1	**WAKE ISLAND Hy**	**27.40**	**116**	T	T	19 15 48.7			
	baz=308,slow=75,SNR=8.9								
H11S2	**WAKE ISLAND Hy**	**27.41**	**116**	T	T	19 15 58.7			
	baz=308,slow=75,SNR=8.5								
SONM	**Songino Array**	**29.64**	**309**	P	**P**	**18 46 35.9**	**-0.2**		
	comp=E,0.4nm,0.5s,baz=120,slow=8.5,SNR=2.1 comp=E,0.4nm,0.5s								
CMAR	**Chiang Mai Arr**	**40.35**	**259**	P	**P**	**18 48 07.6**	**-0.8**		
	comp=E,0.3nm,0.4s,baz=58,slow=8.0,SNR=1.6 comp=E,0.3nm,0.4s								
ZALV	**Zalesovo Beam**	**44.13**	**315**	P	**P**	**18 48 41.3**	**+2.6**		
	comp=E,0.3nm,0.3s,baz=107,slow=9.2,SNR=1.8 comp=E,0.3nm,0.3s								
ZALV	**Zalesovo Beam**	**44.13**	**315**	P	**P**	**18 48 39.4**	**+0.7**		
MK31	**Makanchi Array**	**45.80**	**305**	P	**P**	**18 48 51.3**	**-0.8**		
MK31				IAmb	IAmb	18 49 34.0			
	comp=Z,3.6nm,1.2s								
MKAR	**Makanchi Array**	**45.80**	**305**	P	**P**	**18 48 51.7**	**-0.5**		
	comp=Z,0.6nm,0.5s,baz=86,slow=9.1,SNR=9.6 comp=Z,0.6nm,0.5s								
MKAR	**Makanchi Array**	**45.80**	**305**	P	**P**	**18 48 51.5**	**-0.7**		
MAKZ	**Makanchi**	**46.01**	**305**	P	**P**	**18 48 52.9**	**-0.9**		
MAKZ				IAmb	IAmb	18 48 53.1			
	comp=Z,5.2nm,1.1s								
MTN	**Manton Dam**	**46.98**	**193**	P	**P**	**18 48 59.8**	**-1.8**		
MTN				IAmb	IAmb	18 49 10.7			
	comp=Z,15nm,1.3s								
KURK	**Kurchatov**	**47.93**	**311**	P	**P**	**18 49 08.8**	**+0.2**		
KURK	**Kurchatov**	**47.93**	**311**	IAmb	IAmb	18 49 12.6			
	comp=Z,3.1nm,1.1s								
KURBB	**Kurchatov Arra**	**47.99**	**311**	P	**P**	**18 49 08.8**	**-0.3**		
	comp=Z,0.6nm,0.3s,baz=87,slow=7.6,SNR=5.0 comp=Z,0.6nm,0.3s								
KNRA	**Kununurra**	**50.22**	**195**	P	**P**	**18 49 25.0**	**-1.4**		
KNRA				IAmb	IAmb	18 49 37.6			
	comp=Z,13nm,1.4s								
PPLA	**Purkeypile**	**50.34**	**33**	P	**P**	**18 49 27.0**	**-0.1**		
D22K	**Ayikyak River**	**50.74**	**25**	P	**P**	**18 49 31.6**	**+1.8**		
ILAR	**Eielson Array**	**52.73**	**31**	P	**P**	**18 49 45.8**	**+1.0**		
BVAR	**Borovoye Array**	**52.77**	**314**	P	**P**	**18 49 45.9**	**+0.7**		
	comp=Z,0.7nm,0.5s,baz=90,slow=7.8,SNR=3.2 comp=Z,0.7nm,0.5s								
WB0	**Warramunga Arr**	**53.28**	**188**	P	**P**	**18 49 48.5**	**-0.8**		
FITZ	**Fitzroy Crossi**	**53.30**	**198**	P	**P**	**18 49 49.0**	**-0.4**		
WR8	**Warramunga Arr**	**53.46**	**188**	P	**P**	**18 49 49.5**	**-1.1**		
WB2	**Warramunga Arr**	**53.46**	**188**	P	**P**	**18 49 49.9**	**-0.7**		
WRA	**Warramunga Arr**	**53.46**	**188**	P	**P**	**18 49 47.7**	**-2.9**		
	comp=Z,12nm,0.5s,baz=6.1,slow=7.5,SNR=97								
BMAR	**Burnt Mountain**	**53.66**	**27**	P	**P**	**18 49 53.4**	**+1.8**		
F26K	**Sheenjek River**	**53.82**	**27**	P	**P**	**18 49 54.6**	**+1.8**		
F26K				IAmb	IAmb	18 50 16.8			
	comp=Z,2.5nm,1.3s								
M29M	**Somme Creek**	**56.68**	**33**	P	**P**	**18 50 14.6**	**+1.1**		
M29M				IAmb	IAmb	18 50 16.3			
	comp=Z,7.1nm,1.4s								
AS31	**Alice Springs**	**57.19**	**188**	P	**P**	**18 50 16.4**	**-1.0**		
AS31				IAmb	IAmb	18 50 19.3			
	comp=Z,1.7nm,0.5s								
ASAR	**Alice Springs**	**57.19**	**188**	P	**P**	**18 50 16.8**	**-0.7**		
	comp=Z,1.5nm,0.4s,baz=6.3,slow=6.9,SNR=74 comp=Z,1.5nm,0.4s								
ASAR	**Alice Springs**	**57.19**	**188**	P	**P**	**18 50 16.4**	**-1.0**		
AB31	**Akbulak array**	**60.01**	**312**	P	**P**	**18 50 35.3**	**-1.5**		
ABKAR	**Akbulak array**	**60.01**	**312**	P	**P**	**18 50 35.5**	**-1.3**		
INKA	**Innaminka**	**60.85**	**180**	P	**P**	**18 50 42.4**	**-0.2**		
INKA				IAmb	IAmb	18 51 10.3			
	comp=Z,3.3nm,1.3s								
BBB	**Bella Bella**	**64.91**	**43**	P	**P**	**18 51 09.1**	**-0.3**		
STKA	**Stephens Creek**	**64.97**	**179**	P	**P**	**18 51 09.6**	**-0.4**		
FORT	**Forrest**	**65.03**	**192**	P	**P**	**18 51 09.8**	**-0.6**		
NWAO	**Narrogin (SRO)**	**69.70**	**201**	P	**P**	**18 51 39.0**	**-0.9**		
FINES	**FINESS Array B**	**71.82**	**333**	P	**P**	**18 51 55.6**	**+3.1**		
	comp=Z,1.1nm,0.8s,baz=42,slow=5.6,SNR=1.1 comp=Z,1.1nm,0.8s								
FINES	**FINESS Array B**	**71.82**	**333**	P	**P**	**18 51 54.1**	**+1.6**		
TXAR	**Lajitas Array**	**92.60**	**52**	P	**P**	**18 53 43.1**	**+1.1**		
	comp=Z,0.4nm,0.8s,baz=329,slow=3.6,SNR=4.5 comp=Z,0.4nm,0.8s								
TXAR	**Lajitas Array**	**92.60**	**52**	P		**18 53 42.4**	**+0.3**		
LPAZ	**La Paz**	**148.70**	**64**	PKPbc	**PKPdf**	**19 00 16.9**	**+2.3**		
	comp=Z,1.2nm,0.3s,baz=287,slow=3.7,SNR=4.2								

*SKO **06** 18:41:37.3,39.°68N×24.°99E,h314km,ML3.9*
*AFAD **06** 18:41:50.2,39.°99N×24.°01E,h10km±2km,MW3.9*
*IDC **06** 18:41:52.7±0.8,39.°93N×24.°05E,h0km,mb3.5/7, mbtmp3.6/13,ML3.9/4,Error ellipse: s-maj=17.0km s-min=11.3km az=84.0*
*ISK **06** 18:41:55.7,40.°02N×24.°38E,h10km,ML3.8/22*
*THE **06** 18:41:56.3,40.°0N±0.°9×2.°4E±.°, h8km±2km,M3.5/29, MLh3.5/29*
*SOF **06** 18:41:56.4,40.°17N±0.°02×24.°39E±0.°01,h5km±3km, MD4.0/9*
*ATH **06** 18:41:56.2,40.°00N×24.°30E,h18km±1km,ML3.7/26, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 06 18:41:55.9±0.9,39.°99N±0.°02×24.°29E±0.°01,h15km±7km, n228,σ1°36/277,mb3.6/6,28C-17D,Aegean Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h	m	s	Res ISC
OUR	**Ouranopolis**	**0.42**	**326**	P		P	**Pb**	**18 42 04.9**			**-0.1**
OUR				S		S	**Sg**	**18 42 10.4**			**+0.4**
OUR				AML		AML					
OUR	**Ouranopolis**	**0.42**	**326**	Pg		**Pb**		**18 42 04.9**			**-0.1**
OUR				Sg		**Sb**		**18 42 11.3**			**+0.2**
OUR				AML		AML					
OUR	**Ouranopolis**	**0.42**	**326**	P		**Pb**		**18 42 04.8**			**-0.2**
OUR				S		**Sg**		**18 42 10.3**			**+0.4**
OUR				AML		AML					
PAIG	**Paliouri**	**0.47**	**263**	P		**Pg**		**18 42 05.6**			**+0.4**
PAIG				S		**Sb**		**18 42 12.7**			**+0.1**
PAIG				AML		AML					
LMN1	**MIRINA LIMNOU**	**0.60**	**100**	P		**Pb**		**18 42 07.9**			**-0.3**
LMN1				S		**Sb**		**18 42 16.5**			**0.0**
LMN1				AML		AML					
LIA	**Limnos Island**	**0.70**	**97**	P		**Pb**		**18 42 09.9**			**+0.2**
LIA				S		**Sn**		**18 42 21.2**			**-0.5**
LIA				AML		AML					
LIA	**Limnos Island**	**0.70**	**97**	P		**Pb**		**18 42 09.7**			**-0.1**
LIA				S		**Sb**		**18 42 19.1**			**0.0**
LIA				AML		AML					
EFSA	**Agios Efstrati**	**0.70**	**129**	P		**Pb**		**18 42 10.1**			**+0.3**
EFSA				S		**Sb**		**18 42 19.5**			**+0.2**
EFSA				AML		AML					
THAS	**Thassos island**	**0.70**	**28**	P		**Pg**		**18 42 09.4**			**-0.2**
THAS				S		**Sb**		**18 42 20.6**			**+1.3**
THAS				AML		AML					
THAS	**Thassos island**	**0.70**	**28**	P		**Pg**		**18 42 09.3**			**-0.3**
THAS				S		**Sb**		**18 42 19.3**			**0.0**
PLG	**Polygyros**	**0.75**	**301**	P		**Pg**		**18 42 10.6**			**+0.1**
PLG				S		**Sg**		**18 42 20.8**			**+0.4**
PLG				AML		AML					
PLG	**Polygyros**	**0.75**	**301**	P		**Pg**		**18 42 10.6**			**+0.1**
PLG				AML		AML					
THS1	**Thassos, Thass**	**0.78**	**16**	P		**Pg**		**18 42 10.7**			**-0.4**
THS1				S		**Sg**		**18 42 21.3**			**-0.2**
AOS	**Alonnisos**	**0.87**	**201**	P		**Pb**		**18 42 12.9**			**+0.2**
AOS				S		**Sb**		**18 42 25.8**			**+1.5**
AOS				AML		AML					
AOS2	**Alonissos-2**	**0.90**	**202**	P		**Pg**		**18 42 12.5**			**-0.9**
AOS2				S		**Sg**		**18 42 25.1**			**-0.2**
AOS2				AML		AML					
KAVA	**Kavala**	**1.02**	**10**	P		**Pg**		**18 42 15.4**			**-0.2**
KAVA				S		**Sg**		**18 42 28.7**			**-0.4**
KAVA				AML		AML					
KAVA	**Kavala**	**1.02**	**10**	P		**Pg**		**18 42 15.2**			**-0.5**
KAVA				S		**Sg**		**18 42 27.5**			**-1.6**
NEO	**Neokhori**	**1.06**	**231**	P		**Pb**		**18 42 16.4**			**+0.4**
NEO				S		**Sb**		**18 42 30.9**			**+1.2**
NEO				AML		AML					
NEO	**Neokhori**	**1.06**	**231**	P		**Pg**		**18 42 15.9**			**-0.5**
NEO				S		**Sg**		**18 42 29.7**			**-0.6**
NEO				AML		AML					
SMTH	**Samothraki Isl**	**1.07**	**63**	P		**Pg**		**18 42 15.7**			**-0.8**
SMTH				S		**Sb**		**18 42 30.2**			**+0.3**
SMTH				AML		AML					
SMTH	**Samothraki Isl**	**1.07**	**63**	P		**Pg**		**18 42 15.3**			**-1.2**
SMTH				S		**Sg**		**18 42 29.9**			**-0.5**
SMTH				AML		AML					
SOH	**Sokhos**	**1.10**	**320**	P		**Pn**		**18 42 17.2**			**+0.4**
SOH				S		**Sb**		**18 42 31.5**			**+0.8**
SOH				AML		AML					
SOH	**Sokhos**	**1.10**	**320**	P		**Pb**		**18 42 16.9**			**+0.4**
SOH				S		**Sg**		**18 42 30.5**			**-0.9**
SOH				AML		AML					
SKY	**Skiros Island**	**1.13**	**169**	P		**Pg**		**18 42 17.3**			**-0.3**
SKY				S		**Sg**		**18 42 31.7**			**-0.6**
SKY				AML		AML					
THE	**Thessaloniki**	**1.20**	**303**	P		**Pn**		**18 42 18.7**			**+0.6**
THE				S		**Sn**		**18 42 35.9**			**+1.8**
THE				AML		AML					
THE	**Thessaloniki**	**1.20**	**303**	P		**Pb**		**18 42 18.1**			**-0.2**
THE				S		**Sb**		**18 42 33.6**			**0.0**
THE				AML		AML					
SRS	**Serrai**	**1.25**	**335**	P		**Pn**		**18 42 19.0**			**+0.2**
SRS	**Serrai**	**1.25**	**335**	P		**Pn**		**18 42 18.3**			**-0.5**
SRS				S		**Sb**		**18 42 34.1**			**-0.9**
SRS				AML		AML					
GADA	**Gvkgeada**	**1.25**	**80**	P		**Pn**		**18 42 18.7**			**-0.2**
GADA				S		**Sn**		**18 42 37.6**			**+2.0**
GADA				AML		AML					
GADA	**Gvkgeada**	**1.25**	**80**	Pn		**Pn**		**18 42 18.6**			**-0.2**
GADA				Sn		**Sb**		**18 42 35.6**			**+0.4**
GADA				AML		AML					
GOAD	**anakkale-G¶**	**1.26**	**81**	P		**Pn**		**18 42 18.7**			**-0.2**
GOAD				S		**Sn**		**18 42 38.3**			**+2.7**
KYMI	**Kymi, Euboea I**	**1.36**	**186**	P		**Pn**		**18 42 20.2**			**-0.1**
KYMI				AML		AML					
KYMI	**Kymi, Euboea I**	**1.36**	**186**	P		**Pn**		**18 42 20.1**			**-0.2**
KYMI				AML		AML					
BOZC	**Bozcaada**	**1.37**	**95**	P		**Pn**		**18 42 20.4**			**0.0**
BOZC				S		**Sg**		**18 42 41.4**			**+1.5**
BOZC	**Bozcaada**	**1.37**	**95**	Pn		**Pn**		**18 42 20.6**			**+0.2**
BOZC				AML		AML					
NVR	**Nevrokopi**	**1.40**	**347**	P		**Pn**		**18 42 21.1**			**+0.1**
NVR				S		**Sb**		**18 42 38.7**			**-0.8**
NVR				AML		AML					
NVR	**Nevrokopi**	**1.40**	**347**	P		**Pn**		**18 42 20.7**			**-0.2**
NVR				AML		AML					
ECEA	**Canakkale, Ece**	**1.45**	**87**	P		**Pn**		**18 42 22.1**			**+0.5**
ECEA				S		**Sg**		**18 42 44.5**			**+1.8**
GINA	**Giannouli**	**1.49**	**258**	P		**Pn**		**18 42 22.0**			**-0.2**
GINA				AML		AML					
ALEX	**Alexandroupoli**	**1.51**	**54**	P		**Pn**		**18 42 22.1**			**-0.2**
KOCA	**Canakkale, Ayv**	**1.51**	**108**	P		**Pn**		**18 42 23.2**			**+0.8**
ENZZ	**Sultanice-Enez**	**1.55**	**66**	Pn		**Pn**		**18 42 23.2**			**+0.3**
ENZZ				Sn		**Sn**		**18 42 42.9**			**+0.2**
ENZZ				AML		AML					
EZN	**Ezine**	**1.58**	**95**	P		**Pn**		**18 42 23.7**			**+0.4**
EZN				S		**Sn**		**18 42 43.6**			**+0.1**
EZN				AML		AML					
EZN	**Ezine**	**1.58**	**95**	⇓P		**Pn**		**18 42 23.8**			**+0.5**
EZN				⇓S		**Sg**		**18 42 46.6**			**-0.1**
EZN	**Ezine**	**1.58**	**95**	Pn		**Pn**		**18 42 23.7**			**+0.4**
EZN				AML		AML					
KNT	**Kendrikon**	**1.58**	**318**	P		**Pn**		**18 42 24.3**			**+0.9**
KNT				AML		AML					
KNT	**Kendrikon**	**1.58**	**318**	P		**Pn**		**18 42 23.7**			**+0.3**
KNT				AML		AML					
CAVK	**Edirne/Enez-Ca**	**1.60**	**63**	P		**Pn**		**18 42 23.4**			**-0.2**
CAVK				S		**Sg**		**18 42 49.1**			**+1.6**
CAVK	**Edirne/Enez-Ca**	**1.60**	**63**	⇑P		**Pb**		**18 42 25.1**			**0.0**
CAVK				⇓S		**Sg**		**18 42 47.6**			**+0.1**
TYRN	**Tyrnavos**	**1.60**	**261**	P		**Pb**		**18 42 25.3**			**+0.1**
TYRN				AML		AML					
TYRN	**Tyrnavos**	**1.60**	**261**	P		**Pn**		**18 42 24.1**			**+0.4**
TYRN				AML		AML					
MMB	**Musomishta**	**1.61**	**346**	P		**Pn**		**18 42 24.4**			**+0.6**
MMB				AML		AML					
MMB	**Musomishta**	**1.61**	**346**	*i* P		**Pn**		**18 42 24.4**			**+0.6**
MMB				*i* S		**Sn**		**18 42 44.8**			**+0.4**
ENEZ	**Enez**	**1.61**	**62**	P		**Pn**		**18 42 23.6**			**-0.2**
ENEZ				AML		AML					
ENEZ	**Enez**	**1.61**	**62**	Pn		**Pn**		**18 42 23.6**			**-0.2**
ENEZ				AML		AML					
CNKL	**anakkale-Mer**	**1.62**	**87**	P		**Pn**		**18 42 23.9**			**0.0**
CNKL				S		**Sg**		**18 42 49.4**			**+1.5**
EZNE	**Ezine-Canakkal**	**1.62**	**98**	Pn		**Pn**		**18 42 24.0**			**+0.1**
ATAL	**Atalanti**	**1.62**	**218**	P		**Pn**		**18 42 24.2**			**+0.3**
ATAL	**Atalanti**	**1.62**	**218**	P		**Pn**		**18 42 23.6**			**-0.3**
ALN	**Alexandroupoli**	**1.62**	**55**	P		**Pn**		**18 42 23.6**			**-0.3**
ALN				AML		AML					
ALN	**Alexandroupoli**	**1.62**	**55**	Pn		**Pn**		**18 42 23.6**			**-0.3**
ALN				AML		AML					
ALN	**Alexandroupoli**	**1.62**	**55**	P		**Pn**		**18 42 23.4**			**-0.6**
ALN				AML		AML					
LKR	**Lokris**	**1.67**	**217**	P		**Pn**		**18 42 24.7**			**+0.2**
LKR	**Lokris**	**1.67**	**217**	P		**Pn**		**18 42 24.1**			**-0.5**
COMU	**Canakkale**	**1.68**	**85**	Pn		**Pn**		**18 42 25.1**			**+0.3**
COMU				AML		AML					
PRK	**Paraskevi**	**1.70**	**115**	P		**Pn**		**18 42 25.8**			**+0.7**
PRK				AML		AML					
PRK	**Paraskevi**	**1.70**	**115**	P		**Pn**		**18 42 25.2**			**+0.1**
PRK				AML		AML					
GELI	**Tayfur-Gelibol**	**1.73**	**76**	Pn		**Pn**		**18 42 25.4**			**0.0**
GELI				AML		AML					
GRG	**Griva**	**1.73**	**305**	P		**Pn**		**18 42 26.0**			**+0.5**
GRG				AML		AML					
RZN	**Rozhen**	**1.74**	**11**	P		**Pn**		**18 42 26.3**			**+0.5**
RZN				AML		AML					
RZN	**Rozhen**	**1.74**	**11**	*i* P		**Pn**		**18 42 26.2**			**+0.4**
RZN				*i* S		**Sn**		**18 42 47.2**			**-0.6**
AXAR	**Agios Charalam**	**1.75**	**226**	P		**Pn**		**18 42 26.8**			**+1.0**
AXAR	**Agios Charalam**	**1.75**	**226**	P		**Pn**		**18 42 26.4**			**+0.6**
BAYC	**CANAKKALE_Bayr**	**1.76**	**97**	P		**Pn**		**18 42 25.9**			**+0.1**
BAYC				S		**Sg**		**18 42 53.7**			**+1.3**
AGG	**Agios Georgios**	**1.79**	**238**	P		**Pn**		**18 42 27.4**			**+1.1**
AGG				AML		AML					
AGG	**Agios Georgios**	**1.79**	**238**	P		**Pn**		**18 42 26.5**			**+0.2**
AGG				AML		AML					
THL	**Klokotos Trika**	**1.80**	**257**	P		**Pn**		**18 42 27.4**			**+1.0**
THL				AML		AML					
THL	**Klokotos Trika**	**1.80**	**257**	P		**Pn**		**18 42 26.7**			**+0.3**
KDZ	**Kurdzhali**	**1.83**	**26**	P		**Pn**		**18 42 27.1**			**+0.4**
KDZ				AML		AML					
KDZ	**Kurdzhali**	**1.83**	**26**	*i* P		**Pn**		**18 42 27.2**			**+0.4**
KDZ				*i* S		**Sn**		**18 42 48.8**			**-0.9**
KDZ	**Kurdzhali**	**1.83**	**26**	Pn		**Pn**		**18 42 27.2**			**+0.4**
KDZ				AML		AML					
ERIK	**Erikli-Kesan**	**1.83**	**67**	Pn		**Pn**		**18 42 26.6**			**-0.3**
ERIK				AML		AML					
VAY	**Valandovo**	**1.86**	**316**	*i* Pg		**Pn**		**18 42 28.5**			**+1.3**
VAY				*i* Sg		**Sg**		**18 42 57.1**			**+1.2**
VAY				*e*Lg		Lg		18 42 59.0			
	comp=E,248nm,0.6s										
VAY				*e*Lg		Lg		18 42 59.7			
	comp=N,664nm,1.0s										
STFN	**Stefani**	**1.90**	**198**	P		**Pn**		**18 42 28.5**			**+0.7**
STFN	**Stefani**	**1.90**	**198**	P		**Pn**		**18 42 27.8**			**+0.1**
STFN				AML		AML					
GOKT	**Kean, EDRN**	**1.91**	**69**	P		**Pn**		**18 42 27.9**			**0.0**
GOKT				S		**Sg**		**18 42 58.0**			**+0.6**
DION	**Dionisos Attik**	**1.93**	**188**	P		**Pn**		**18 42 28.0**			**-0.1**
DION				AML		AML					
LPK	**Lapseki**	**1.94**	**78**	Pn		**Pn**		**18 42 28.4**			**+0.2**
LPK				AML		AML					
VIL2	**Platees**	**1.94**	**204**	P		**Pn**		**18 42 28.9**			**+0.6**
VIL2				AML		AML					
SFL1	**Soufli**	**1.95**	**51**	P		**Pn**		**18 42 28.3**			**-0.1**
KZN	**Kozani**	**1.95**	**280**	P		**Pn**		**18 42 30.0**			**+1.4**
KZN	**Kozani**	**1.95**	**280**	P		**Pn**		**18 42 29.1**			**+0.6**
KARY	**Karystos**	**1.96**	**176**	P		**Pn**		**18 42 28.9**			**+0.4**
KARY	**Karystos**	**1.96**	**176**	P		**Pn**		**18 42 28.7**			**+0.1**
PTL	**Penteli**	**1.96**	**190**	P		**Pn**		**18 42 29.0**			**+0.3**
VILL	**Villia**	**1.97**	**203**	P		**Pn**		**18 42 29.2**			**+0.4**
LAPS	**Lapseki, ANA**	**1.98**	**81**	P		**Pn**		**18 42 28.9**			**+0.1**
LAPS				S		**Sg**		**18 42 59.9**			**+0.4**
KESN	**Edirne-Kesan**	**2.01**	**65**	P		**Pn**		**18 42 29.0**			**-0.6**
KESN				S		**Sg**		**18 43 01.4**			**+0.7**
KKB	**Krupnik**	**2.05**	**335**	P		**Pn**		**18 42 31.2**			**+1.3**
KKB	**Krupnik**	**2.05**	**335**	*i* P		**Pn**		**18 42 31.3**			**+1.4**
ATHU	**Athens Univers**	**2.06**	**191**	P		**Pn**		**18 42 30.1**			**+0.2**
ATHU				AML		AML					
ATHU	**Athens Univers**	**2.06**	**191**	P		**Pn**		**18 42 29.8**			**-0.1**
NOAC	**Athens-Thissio**	**2.06**	**193**	P		**Pn**		**18 42 30.3**			**+0.3**
ATH	**Athens Observa**	**2.06**	**193**	P		**Pn**		**18 42 30.4**			**+0.5**
ATH				AML		AML					
ATH	**Athens Observa**	**2.06**	**193**	P		**Pn**		**18 42 30.1**			**+0.2**
PEHC	**Pehcevo**	**2.08**	**330**	*i* Pn		**Pn**		**18 42 31.3**			**+1.0**
CHOS	**Chios island**	**2.11**	**139**	P		**Pn**		**18 42 31.6**			**+0.9**
CHOS	**Chios island**	**2.11**	**139**	Pn		**Pn**		**18 42 31.6**			**+0.9**
CHOS				AML		AML					
CHOS	**Chios island**	**2.11**	**139**	P		**Pn**		**18 42 31.0**			**+0.3**
UKOP	**Uzunkopru-Edir**	**2.12**	**57**	Pn		**Pn**		**18 42 31.4**			**+0.6**
UKOP				AML		AML					
CANM	**Can-anakkale**	**2.13**	**88**	Pn		**Pn**		**18 42 31.6**			**+0.7**
CANM				AML		AML					
YAYO	**Edremit-Balk**	**2.18**	**99**	Pn		**Pn**		**18 42 32.6**			**+1.0**
YAYO				AML		AML					
PLD	**Plovdiv**	**2.19**	**9**	*i* P		**Pn**		**18 42 32.5**			**+0.8**
PLD	**Plovdiv**	**2.19**	**9**	Pn		**Pn**		**18 42 32.1**			**+0.4**
PLD				AML		AML					
LOUT	**Loutraki**	**2.21**	**208**	P		**Pn**		**18 42 32.6**			**+0.5**
BIGA	**Biga-Canakkale**	**2.22**	**81**	Pn		**Pn**		**18 42 32.5**			**+0.4**
DKL	**Dikili**	**

SCTR	Scanteiesti	6.30	24	⇑P		Pn	18 43 31.6	+3.3
VARL	Varlezi	6.46	23	⇑P		Pn	18 43 33.7	+3.3
VLDR	Vladesti	6.48	24	⇑P		Pn	18 43 34.0	+3.3
ONER	Baraj Valea Uz	6.53	13	⇑P		Pn	18 43 34.6	+3.2
MARR	Marisel-Cluj	6.74	353	⇑P		Pn	18 43 37.0	+2.7
TESR	Tescani	6.75	14	⇑P		Pn	18 43 37.6	+3.2
DRGR		6.90	351	⇑P		Pn	18 43 40.6	+4.1
BIZ	Bicaz	7.08	10	⇑P		Pn	18 43 41.7	+2.8
BRTR	Keskin Array B	7.20	89	Pn		Pn	18 43 41.5	+0.7
	comp=N,1.2nm,0.3s,baz=266,slow=12,SNR=42							
BRTR				Sn		Sn	18 44 58.8	-3.5
	baz=278,slow=26,SNR=1.2							
	comp=N,3.0nm,0.4s							
BRTR				AML	AML			
BURAR	Bucovina Array	7.66	5	⇑P		Pn	18 43 50.1	+3.2
AKASG	Malin Array Be	11.26	16	Pn		Pn	18 44 35.3	-0.9
	comp=N,0.8nm,0.3s,baz=193,slow=12,SNR=1.5							
	comp=N,0.3nm,0.3s							
AKASG				AML	AML			
MMAI	Mount Meron Ar	11.33	124	Pn		Pn	18 44 38.5	+1.3
	comp=N,0.5nm,0.3s,baz=312,slow=14,SNR=2.0							
	comp=N,5.8nm,1.2s							
MMAI				AML	AML			
GERES	GERESS Array B	11.64	323	Pn		Pn	18 44 38.1	-3.4
	comp=N,0.4nm,0.7s,baz=150,slow=14,SNR=1.8							
FINES	FINESS Array B	21.51	2	P		P	18 46 45.1	+1.1
	comp=N,1.5nm,0.7s,baz=179,slow=14,SNR=1.8							
	comp=N,1.5nm,0.7s							
ESDC	Sonseca Array	21.66	278	P		P	18 46 42.3	-3.6
	comp=N,0.8nm,1.1s,baz=86,slow=11,SNR=2.2							
	comp=N,0.8nm,1.1s							
NOA	NORSAR Array B	22.57	343	P		P	18 46 55.0	-0.5
	comp=N,0.5nm,0.6s,baz=157,slow=11,SNR=3.9							
	comp=N,0.5nm,0.6s							
TORD	Torodi Ar. Bea	33.31	223	P		P	18 48 32.6	-0.6
	comp=N,0.3nm,0.5s,baz=32,slow=10,SNR=1.6							
	comp=N,0.3nm,0.5s							
MKAR	Makanchi Array	41.86	61	P		P	18 49 46.8	+1.5
	comp=N,1.1nm,0.6s,baz=277,slow=6.8,SNR=9.4							
	comp=N,1.1nm,0.6s							
ZALV	Zalesovo Beam	42.30	50	P		P	18 49 50.1	+1.5
	comp=N,1.2nm,0.4s,baz=272,slow=9.5,SNR=7.7							
	comp=N,1.2nm,0.4s							
CMAR	Chiang Mai Arr	66.77	85	P		P	18 52 46.5	-0.4
	comp=N,0.4nm,0.4s,baz=307,slow=5.2,SNR=5.9							
	comp=N,0.4nm,0.4s							
ASAR	Alice Springs	119.47	97	PKP		PKPdf	19 00 44.6	-0.5
	comp=N,0.2nm,0.6s,baz=293,slow=2.5,SNR=2.1							

*ISK **06** 18:55:20.0, 37˚.87N×26˚.92E, h7km, ML2.7/15*
*THE **06** 18:55:20.5, 38˚N±1˚×2˚.7E±˚, h12km±3km, M2.7/6, MLh2.7/6*
*AFAD **06** 18:55:20.5, 37˚.89N×26˚.94E, h7km±1km, ML2.2*

ISC 06 18:55:20.6±0.9, **37˚.87N**±0˚.02×**26˚.93E**±0˚.03, **h12**km±7km, **n29**, σ°**45/45**, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
SMG	**Samos**	**0.18**	**203**	P	**Pg**		**18 55 24.5**	**-0.1**
SMG				S	**Sg**		**18 55 27.8**	**+0.4**
SMG				AML	AML			
DGB	**zmir**	**0.18**	**350**	P	**Pg**		**18 55 24.4**	**-0.3**
DGB				S	**Sg**		**18 55 27.0**	**-0.5**
DGB				IAML			18 55 28.0	
	comp=N,316nm,0.4s							
DGB				IAML			18 55 28.0	
	comp=E,347nm,0.2s							
GMLD	**Gumuldur**	**0.21**	**358**	Pg	**Pg**		**18 55 24.9**	**-0.2**
GMLD				Sg	**Sg**		**18 55 27.9**	**-0.3**
GMLD				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.29**	**92**	Pg	**Pg**		**18 55 26.3**	**-0.2**
KUSD				AML	AML			
GCAM	**G?zelcaml?**	**0.30**	**125**	P	**Pg**		**18 55 26.8**	**+0.1**
GCAM				S	**Sg**		**18 55 31.4**	**+0.7**
GCAM	**G?zelcaml?**	**0.30**	**125**	Pg	**Pg**		**18 55 26.6**	**-0.1**
GCAM				Sg	**Sg**		**18 55 30.9**	**+0.2**
GCAM				AML	AML			
BEYE	**izmir**	**0.36**	**0**	P	**Pg**		**18 55 27.5**	**-0.2**
BEYE				S	**Sg**		**18 55 32.6**	**0.0**
BEYE				IAML			18 55 33.0	
	comp=N,222nm,0.3s							
BEYE				IAML			18 55 33.0	
	comp=E,225nm,0.2s							
DDIM	**Aydin, Didim**	**0.48**	**149**	P	**Pg**		**18 55 30.3**	**+0.2**
DDIM				S	**Sb**		**18 55 37.6**	**-0.4**
DDIM				IAML			18 55 42.0	
	comp=N,320nm,0.3s							
DDIM				IAML			18 55 42.0	
	comp=E,329nm,0.7s							
BLCB	**Balcova**	**0.52**	**10**	P	**Pg**		**18 55 30.7**	**-0.1**
BLCB				S	**Sg**		**18 55 37.9**	**+0.1**
BLCB				AML	AML			
BLCB	**Balcova**	**0.52**	**10**	Pg	**Pg**		**18 55 30.7**	**-0.1**
BLCB				AML	AML			
DUVT	**Torbali**	**0.54**	**50**	P	**Pg**		**18 55 30.9**	**-0.3**
DUVT				S	**Sg**		**18 55 38.2**	**-0.2**
DUVT				IAML			18 55 43.0	
	comp=E,350nm,0.3s							
AYDB	**Zeytinkoy-Aydi**	**0.77**	**84**	Pg	**Pb**		**18 55 35.9**	**-0.1**
AYDB				AML	AML			
AYDN	**Tasoluk**	**0.79**	**105**	P	**Pg**		**18 55 35.8**	**0.0**
AYDN				S	**Sb**		**18 55 46.6**	**-0.2**
AYDN				IAML			18 55 49.0	
	comp=N,163nm,0.4s							
AYDN				IAML			18 55 49.0	
	comp=E,152nm,0.5s							
YKAV	**Yalikavak-Bodr**	**0.80**	**159**	Pg	**Pg**		**18 55 35.6**	**-0.4**
YKAV				AML	AML			
IZMR	**zmir-demi**	**0.85**	**72**	P	**Pb**		**18 55 37.5**	**+0.1**
IZMR				S	**Sg**		**18 55 47.2**	**-1.0**
IZMR				IAML			18 55 51.0	
	comp=N,70nm,0.5s							
IZMR				IAML			18 55 51.0	
	comp=E,91nm,0.5s							
CHOS	**Chios island**	**0.86**	**307**	P	**Pb**		**18 55 38.0**	**+0.5**
CHOS				S	**Sb**		**18 55 50.2**	**+1.2**
CHOS	**Chios island**	**0.86**	**307**	Pg	**Pb**		**18 55 37.6**	**+0.1**
CHOS				AML	AML			
BODT	**Bodrum**	**0.86**	**159**	P	**Pg**		**18 55 36.7**	**-0.6**
BODT				S	**Sb**		**18 55 49.8**	**+0.7**
BODT				AML	AML			
BODT	**Bodrum**	**0.86**	**159**	Pg	**Pg**		**18 55 36.7**	**-0.6**
BODT				AML	AML			
MLSB	**Milas**	**0.89**	**130**	Pg	**Pg**		**18 55 37.6**	**-0.1**
MLSB				Sg	**Sb**		**18 55 50.1**	**+0.4**
MLSB				AML	AML			
BDRM	**Kayabasi**	**0.90**	**153**	P	**Pg**		**18 55 37.5**	**-0.6**
BDRM				S	**Sb**		**18 55 50.6**	**+0.4**
BDRM				IAML			18 55 53.0	
	comp=N,101nm,0.5s							
BDRM				IAML			18 55 54.0	
	comp=E,119nm,0.3s							
NAZL	**Nazilli-Aydin**	**1.08**	**85**	Pn	**Pg**		**18 55 41.2**	**-0.3**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.14**	**43**	Pn	**Pg**		**18 55 42.4**	**-0.2**
GOMA				AML	AML			
DKL	**Dikili**	**1.20**	**359**	Pn	**Pg**		**18 55 43.2**	**-0.5**
DKL				AML	AML			
AKS	**Akhisar**	**1.23**	**34**	Pn	**Pb**		**18 55 43.9**	**+0.2**
AKS				AML	AML			
YER	**Yerkesik**	**1.31**	**124**	P	**Pn**		**18 55 44.7**	**0.0**
APE	**Apeiranthos**	**1.37**	**235**	P	**Pn**		**18 55 44.5**	**-1.0**
SOMA	**Soma-Manisa**	**1.37**	**20**	Pn	**Pb**		**18 55 46.3**	**+0.1**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.43**	**43**	Pn	**Pn**		**18 55 47.0**	**+0.6**
GORD				Sn	**Sg**		**18 56 06.8**	**+0.1**
GORD				AML	AML			

*IDC **06** 19:19:07.1±1.1, 1˚.03N×126˚.60E, h0km, mb3.5/5, mbtmp3.5/6, ML3.3/1, Error ellipse: s-maj=72.7km s-min=19.9km az=72.0*
*DJA **06** 19:19:15.0±0.4, 1˚N±3˚×12˚7E±˚, h50km±9km, M3.7/10, MLv3.7/10*

ISC 06 19:19:15.4±0.9, **1˚.16N**±0˚.06×**126˚.88E**±0˚.06, **h72**km, **n12**, σ°**15/16**, **mb3.5/5**, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
TNTI	**Ternate**	**0.62**	**128**	P	**Pn**		**19 19 28.3**	**-1.2**
TNTI				S	**Sn**		**19 19 40.2**	**+0.2**
TNTI				AML	AML			

MNI	**Manado**	**2.06**	**278**	P	**Pn**		**19 19 47.2**	**-0.7**
MNI				S	**Sn**		**19 20 12.0**	**-0.7**
MNI				AML	AML			
KMSI	**Cibinong**	**2.96**	**259**	P	**Pn**		**19 19 59.2**	**-0.8**
KMSI				S	**Sn**		**19 20 33.2**	**-1.2**
SANI	**Sanana**	**3.31**	**196**	P	**Pn**		**19 20 02.6**	**-2.2**
SANI				AML	AML			
GTOI	**Gorontalo**	**3.90**	**262**	P	**Pn**		**19 20 13.8**	**+0.9**
DDMP	**Don Marcelino,**	**5.05**	**347**	*eP*	**Pn**		**19 20 28.5**	**-0.1**
DDMP				*eS*	**Sn**		**19 21 20.2**	**-5.5**
FITZ	**Fitzroy Crossi**	**19.17**	**184**	P	**P**		**19 23 32.8**	**-0.5**
	0.1nm,0.3s,baz=31,slow=12,SNR=1.0							
	0.8nm,0.7s							
FITZ				AML	AML			
WRA	**Warramunga Arr**	**22.21**	**161**	P	**P**		**19 24 04.2**	**-1.8**
	0.7nm,0.5s,baz=340,slow=11,SNR=8.4							
	0.7nm,0.5s							
ASAR	**Alice Springs**	**25.60**	**165**	P	**P**		**19 24 37.6**	**-0.5**
	0.4nm,0.4s,baz=341,slow=9.4,SNR=12							
	0.4nm,0.4s							
MKAR	**Makanchi Array**	**59.75**	**326**	P	**P**		**19 29 13.0**	**+0.2**
	0.3nm,0.7s,baz=120,slow=8.4,SNR=4.1							
	0.3nm,0.7s							
KURBB	**Kurchatov Arra**	**63.98**	**328**	P	**P**		**19 29 41.7**	**+0.6**
	0.6nm,0.8s,baz=126,slow=6.2,SNR=6.5							
	0.6nm,0.8s							
ILAR	**Eielson Array**	**87.35**	**25**	P	**P**		**19 31 58.2**	**+4.0**
	0.6nm,1.0s,baz=256,slow=5.7,SNR=2.3							
	0.6nm,1.0s							

*NEIC **06** 19:29:35.7±1.4, 44˚.31N±0˚.02×115˚.26W±0˚.05, h10km±2km, mb4.1/16, ML4.0/148, Mwr4.0/61, ML4.5/32(BUT), Error ellipse: s-maj=5.7km s-min=3.4km az=249.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.81; $M_{\theta\theta}$0.99; $M_{\phi\phi}$-0.18; $M_{r\theta}$-0.29; $M_{\theta\phi}$-0.37; $M_{\phi r}$-0.42; Fault plane solution: $M_0$1.11000×10^{15} NP1: ϕ_s79.01000°, δ_s57.06000°, λ_s-126.96000°. NP2: ϕ_s313.16000°, δ_s47.89000°, λ_s-47.13000°. Principal axes: T 1.1094, Plg5.0000°, Azm194.0000°; N -0.0032, Plg30.0000°, Azm101.0000°; P -1.1063, Plg59.0000°, Azm293.0000°;*
*NEIC **06** 19:29:35.7, 44˚.31N×115˚.28W, h10km*
*BUT **06** 19:29:36.9±2.5, 44˚.31N±0˚.03×115˚.19W±0˚.04, h10km±7km, Error ellipse: s-maj=5.4km s-min=2.5km az=50.0*
*IDC **06** 19:29:36.0±0.8, 44˚.44N×114˚.80W, h0km, mb3.6/1, mbtmp3.6/8, ML3.4/7, MS3.2/7, Error ellipse: s-maj=12.2km s-min=9.0km az=61.0*

ISC 06 19:29:34.9±1.2, **44˚.29N**±0˚.03×**115˚.23W**±0˚.03, **h5**km±9km, **n146**, σ°**16/63**/148, **mb4.1**/9, **MS3.2**/3, **Western Idaho**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
HLID	**Hailey**	**0.94**	**141**		**Pg**		**19 29 54.3**	**+1.3**
HLID				Sg	**Sg**		**19 30 06.4**	**+1.3**
HLID				IAML			19 30 07.1	
	4μm,0.2s							
HLID				IAML			19 30 07.2	
	4μm,0.2s							
PLID	**Pearl Lake**	**0.97**	**325**	Pg	**Pg**		**19 29 52.8**	**-0.8**
PLID				Sg	**Sb**		**19 30 07.3**	**-0.3**
PLID				IAML			19 30 12.1	
	5μm,0.6s							
PLID				IAML			19 30 12.3	
	7μm,0.4s							
MFID	**Camas Ranch**	**0.98**	**207**	Pg	**Pg**		**19 29 53.7**	**0.0**
MFID				Sg	**Sn**		**19 30 08.8**	**-1.1**
CNCI	**Crows Nest Can**	**1.33**	**105**		**Pn**		**19 30 00.9**	**+0.5**
BMO	**Blue Mountains**	**1.59**	**291**		**Pb**		**19 30 04.7**	**-0.1**
BMO				Sg	**Sg**		**19 30 25.4**	**-0.6**
MCMT	**McKenzie Canyo**	**1.78**	**72**	Pn	**Pb**		**19 30 08.2**	**0.0**
MOMT	**Monida**	**2.05**	**81**		**Pb**		**19 30 13.9**	**+1.0**
DLMT	**Dillon**	**2.15**	**59**	Pn	**Pn**		**19 30 13.3**	**+1.6**
F10A	**Beach Ranch, E**	**2.20**	**321**	Pn	**Pb**		**19 30 13.6**	**-1.6**
F10A					**Sb**		**19 30 41.5**	**-1.3**
VCMT	**Victor**	**2.27**	**18**		**Pn**		**19 30 14.6**	**+1.3**
HBMT	**Mount Humbug**	**2.39**	**50**		**Pn**		**19 30 15.8**	**+0.8**
BPMT	**Black Pine Rid**	**2.48**	**30**		**Pn**		**19 30 17.4**	**+1.1**
LRM	**Limekiln Ridge**	**2.49**	**51**		**Pn**		**19 30 17.3**	**+0.9**
J08A	**Circle Bar Ran**	**2.53**	**249**	Pn	**Pn**		**19 30 17.6**	**+0.8**
BUT	**Butte**	**2.55**	**47**		**Pn**		**19 30 17.7**	**+0.5**
BUT				IAML			19 30 57.8	
	comp=E,961nm,1.0s							
BUT				IAML			19 31 00.7	
	comp=N,995nm,0.5s							
TPMT	**Tepee Creek**	**2.58**	**79**		**Pb**		**19 30 23.9**	**+1.9**
CMI	**Centennial Mou**	**2.59**	**84**		**Pb**		**19 30 22.7**	**+0.5**
LNOR	**Lincton Mounta**	**2.68**	**307**	Pn	**Pn**		**19 30 19.6**	**+0.8**
MSO	**Missoula**	**2.69**	**19**	Pn	**Pn**		**19 30 20.4**	**+1.4**
QLMT	**Earthquake Lak**	**2.77**	**77**		**Pn**		**19 30 22.9**	**+2.7**
LCCM	**Lewis and Clar**	**2.83**	**56**		**Pn**		**19 30 22.0**	**+1.0**
G08A	**Pilot Rock**	**2.84**	**292**	Pn	**Pn**		**19 30 22.4**	**+1.4**
BOZ	**Bozeman (W)**	**2.87**	**62**	Pn	**Pn**		**19 30 24.2**	**+2.6**
YHB	**Horse Butte**	**2.92**	**80**	Pn	**Pb**		**19 30 25.7**	**-1.9**
YHB				IAML			19 31 07.8	
	comp=N,527nm,0.8s							
YHB				IAML			19 31 11.0	
	comp=E,538nm,0.7s							
YHL	**Hebgen Lake**	**2.94**	**78**	Pn	**Pn**		**19 30 25.8**	**+3.1**
ELMT	**Elliston**	**2.94**	**40**		**Pn**		**19 30 23.1**	**+0.5**
CHMT	**Chamberlain Mo**	**2.96**	**27**		**Pn**		**19 30 23.8**	**+0.9**
NDMT	**Ninemile Divid**	**2.99**	**6**		**Pg**		**19 30 32.0**	**-0.2**
E09A	**Wood Farm, Sta**	**3.03**	**318**		**Pn**		**19 30 25.0**	**+1.5**
E09A				IAML			19 31 14.0	
	comp=E,446nm,1.0s							
E09A				IAML			19 31 17.1	
	comp=N,426nm,1.1s							
PCMT	**Pistol Creek**	**3.04**	**16**		**Pn**		**19 30 24.9**	**+1.0**
YMR	**Madison River**	**3.07**	**82**	Pn	**Pb**		**19 30 28.1**	**-2.2**
HVU	**Hansel Valley**	**3.09**	**144**	Pn	**Pn**		**19 30 26.8**	**+2.2**
WVOR	**Wild Horse Val**	**3.10**	**234**		**Pn**		**19 30 26.9**	**+2.2**
WVOR				IAML			19 31 20.1	
	comp=N,534nm,1.0s							
WVOR				IAML			19 31 20.9	
	comp=N,640nm,0.7s							
YFT	**Old Faithful**	**3.15**	**86**		**Pn**		**19 30 27.6**	**+2.1**
YFT				IAML			19 31 18.7	
	comp=E,335nm,0.8s							
YFT				IAML			19 31 20.3	
	comp=N,435nm,1.0s							
YHH	**Holmes Hill**	**3.17**	**79**	Pn	**Pn**		**19 30 27.8**	**+2.0**
YHH				IAML			19 31 16.3	
	comp=E,632nm,0.8s							
YPT	**Yellepit**	**3.17**	**305**		**Pn**		**19 30 26.9**	**+1.4**
YPP	**Pitchstone Pla**	**3.18**	**89**		**Pn**		**19 30 28.7**	**+2.8**
YPP				IAML			19 31 19.9	
	comp=E,311nm,0.9s							
OVMT	**Ovando**	**3.18**	**29**		**Pn**		**19 30 27.1**	**+1.2**
SLMT	**Seeley Lake**	**3.19**	**22**		**Pn**		**19 30 26.5**	**+0.6**
GBMT	**Granite Butte,**	**3.22**	**36**	Pn	**Pn**		**19 30 27.7**	**+1.3**
GBMT				IAML			19 31 17.3	
	comp=E,575nm,0.7s							
YNM	**Yellowstone No**	**3.27**	**81**		**Pn**		**19 30 28.9**	**+1.9**
YNM				IAML			19 31 21.4	
	comp=E,429nm,0.7s							
YNM				IAML			19 31 23.4	
	comp=N,483nm,0.8s							
YNR	**Norris Junctio**	**3.28**	**81**		**Pn**		**19 30 29.1**	**+1.9**
YNR				IAML			19 31 20.8	
	comp=E,335nm,0.4s							
YNR				IAML			19 31 23.4	
	comp=N,568nm,1.4s							
BHMT	**Big Hole Peak**	**3.29**	**2**		**Pn**		**19 30 29.1**	**+1.8**
H17A	**Grant Village**	**3.34**	**87**		**Pn**		**19 30 29.9**	**+1.8**
SNOW	**Snow King Moun**	**3.34**	**103**		**Pn**		**19 30 31.6**	**+3.5**
SNOW				IAML			19 31 28.3	
	comp=N,361nm,1.0s							
SNOW				IAML			19 31 34.3	
	comp=N,364nm,1.4s							
AHID	**Auburn Hatcher**	**3.37**	**116**	Pn	**Pn**		**19 30 30.1**	**+1.7**
AHID				IAML			19 31 28.8	
	comp=N,374nm,0.6s							
AHID				IAML			19 31 29.3	
	comp=N,271nm,0.8s							
AHID	**Auburn Hatcher**	**3.37**	**116**		**Pb**		**19 30 36.1**	**+0.8**
LYMT	**Lyon Mountain**	**3.38**	**37**		**Pg**		**19 30 38.5**	**-1.2**
E08A	**Dider Farm, El**	**3.48**	**310**		**Pn**		**19 30 31.0**	**+1.2**
JTMT	**Jette**	**3.52**	**10**	Pn	**Pn**		**19 30 32.4**	**+2.0**
ELK	**Elko**	**3.55**	**180**	Pn	**Pn**		**19 30 33.9**	**+3.0**
	comp=N,13nm,0.3s,baz=354,slow=13,SNR=116							
ELK				Pg	**Pb**		**19 30 38.1**	**-0.2**
	comp=N,1.0nm,0.3s,baz=358,slow=3.0,SNR=11							
ELK				Lg	Lg		19 31 26.2	
	comp=N,37nm,0.3s,baz=71,slow=20,SNR=8.5							
	comp=N,63nm,0.4s							
ELK				AML	AML			
ELK	**Elko**	**3.55**	**180**	Pn	**Pn**		**19 30 32.7**	**+1.8**
BSMT	**Bassoo Peak**	**3.57**	**5**		**Pn**		**19 30 32.6**	**+1.4**
SPUT	**South Promonto**	**3.62**	**145**		**Pn**		**19 30 34.9**	**+3.0**
SPUT				IAML			19 31 36.5	
	comp=N,299nm,1.1s							
SPUT				IAML			19 31 37.8	
	comp=E,367nm,1.8s							
YMP	**Mirror Lake Pl**	**3.66**	**81**		**Pn**		**19 30 35.0**	**+2.5**
YMP				IAML			19 31 48.0	
	comp=N,248nm,0.8s							
YMP				IAML			19 31 49.2	
	comp=E,244nm,1.1s							
YBMT	**Yellow Bay**	**3.67**	**13**		**Pn**		**19 30 34.2**	**+1.7**
HAWA	**Hanford**	**3.69**	**306**		**Pn**		**19 30 33.6**	**+1.0**
F07A	**Phinny Hill Vi**	**3.69**	**297**		**Pn**		**19 30 33.5**	**+0.8**
F07A				IAML			19 31 48.4	
	comp=E,293nm,0.8s							
F07A				IAML			19 31 52.5	
	comp=N,314nm,1.0s							
BGU	**Big Grassy Mou**	**3.74**	**154**		**Pn**		**19 30 36.2**	**+2.8**
BGU				IAML			19 31 37.6	
	comp=E,236nm,1.3s							
BGU				IAML			19 31 41.3	
	comp=N,197nm,1.1s							
D08A	**Wollman Farm,**	**3.79**	**318**		**Pn**		**19 30 35.3**	**+1.3**
D08A				IAML			19 31 40.8	
	comp=E,231nm,1.2s							
D08A				IAML			19 31 51.4	
	comp=N,289nm,1.0s							
YNE	**Yellowstone No**	**3.79**	**77**		**Pn**		**19 30 36.9**	**+2.6**
YNE				IAML			19 31 43.2	
	comp=E,270nm,0.8s							
HWUT	**Hardware Ranch**	**3.80**	**134**		**Pn**		**19 30 37.5**	**+3.1**
HWUT				IAML			19 31 38.0	
	comp=E,184nm,1.1s							
HWUT				IAML			19 31 39.6	
	comp=E,190nm,1.7s							
WAH2	**Wahluke Slope**	**3.92**	**310**		**Pn**		**19 30 37.2**	**+1.4**
G06A	**Carlson Farm,**	**3.96**	**286**		**Pn**		**19 30 38.5**	**+2.0**
G06A				IAML			19 31 49.1	
	comp=N,163nm,1.4s							
E07A	**Sunnyside**	**3.97**	**306**		**Pn**		**19 30 37.3**	**+0.8**
E07A				IAML			19 31 59.1	
	comp=E,217nm,0.8s							
E07A				IAML			19 32 04.0	
	comp=N,298nm,0.9s							
C09A	**Chrisman Ranch**	**4.10**	**330**		**Pn**		**19 30 39.6**	**+1.3**
PINE	**Pine Mountain**	**4.15**	**265**		**Pn**		**19 30 39.8**	**+0.7**
LDM	**Libby Dam**	**4.16**	**359**		**Pn**		**19 30 40.6**	**+1.4**
NEW	**Newport**	**4.18**	**342**	Pn	**Pn**		**19 30 41.2**	**+1.7**
	comp=N,4.1nm,0.3s,baz=161,slow=13,SNR=22							
NEW				Pg	**Pb**		**19 30 51.8**	**+2.8**
	comp=N,10nm,0.3s,baz=173,slow=15,SNR=17							
NEW				Sn	**Sn**		**19 31 28.8**	**0.0**
	comp=N,19nm,0.3s,baz=194,slow=7.8,SNR=10							
NEW				Lg	Lg		19 31 46.0	
	comp=N,92nm,0.3s,baz=282,slow=14,SNR=10							
	comp=N,20nm,0.7s							
NEW				AML	AML			
NEW	**Newport**	**4.18**	**342**		**Pn**		**19 30 40.7**	**+1.2**
NEW				IAML			19 31 52.3	
	comp=N,278nm,1.1s							
GCMT	**Greycliff**	**4.21**	**67**		**Pn**		**19 30 42.2**	**+2.1**
MXC	**Moxie City**	**4.23**	**304**		**Pn**		**19 30 41.6**	**+1.4**
MXC				IAML			19 32 01.6	
	comp=N,131nm,1.7s							
TCUT	**Toone Canyon**	**4.24**	**137**		**Pn**		**19 30 42.5**	**+2.1**
NOQ	**North Oquirrh**	**4.30**	**147**		**Pn**		**19 30 41.4**	**+0.1**
EPH	**Ephrata**	**4.32**	**317**		**Pn**		**19 30 41.6**	**+0.2**
EPH				IAML			19 31 57.8	
	comp=E,169nm,1.0s							
EPH				IAML			19 32 06.5	
	comp=N,177nm,1.1s							
RLMT	**Red Lodge**	**4.33**	**77**		**Pn**		**19 30 41.6**	**-0.1**
RLMT				IAML			19 31 57.7	
	comp=N,250nm,0.8s							
RLMT				IAML			19 31 58.0	
	comp=N,255nm,0.9s							
I05D	**Terrebonne, OR**	**4.39**	**273**		**Pn**		**19 30 41.6**	**-0.7**
I05D				IAML			19 32 03.7	
	comp=E,177nm,1.7s							
I05D				IAML			19 32 19.9	
	comp=N,187nm,1.5s							
BW06	**Boulder Array**	**4.39**	**108**		**Pn**		**19 30 43.0**	**+0.4**
PD31	**Pinedale Array**	**4.40**	**108**		**Pn**		**19 30 43.6**	**+1.0**
PDAR	**Pinedale Array**	**4.40**	**108**	Pn	**Pn**		**19 30 42.4**	**-0.2**
	comp=N,0.1nm,0.3s,baz=299,slow=13,SNR=4.2							
PDAR				Pg	**Pb**		**19 30 49.5**	**-3.4**
	comp=N,1.0nm,0.3s,baz=290,slow=11,SNR=52							
PDAR				Lg	Lg		19 31 50.3	
	baz=299,slow=46							
PDAR				AML	AML			
PDAR	**Pinedale Array**	**4.40**	**108**		**Pn**		**19 30 42.7**	**+0.1**
K05A	**Summer Lake**	**4.41**	**251**		**Pn**		**19 30 42.7**	**0.0**
K05A				IAML			19 32 06.1	
	comp=E,124nm,1.7s							
K05A				IAML			19 32 11.8	
	comp=N,157nm,3.1s							
MOD	**Modoc Plateau**	**4.42**	**239**		**Pn**		**19 30 40.5**	**-2.4**
MOD				IAML			19 32 06.7	
	comp=N,206nm,0.9s							
MOD				IAML			19 32 21.1	

comp=E,1.4nm,0.3s
YBH AML AML
SRU San Rafael Swe 6.26 144 Pn Pn 19 31 07.8 -0.4
NVAR Mina Array Bea 6.30 203 Pn Pn 19 31 16.1 +7.4
comp=E,0.8nm,0.3s,baz=18,slow=13,SNR=13
NVAR Pg **Pg 19 31 32.6 -3.0**
comp=E,4.9nm,0.3s,baz=21,slow=16,SNR=13
NVAR Lg Lg 19 32 52.2
comp=E,2.2nm,0.3s,baz=36,slow=34,SNR=1.7
NVAR LR LR 19 34 04.8
comp=E,134nm,19.1s,baz=26,slow=41
comp=E,4.8nm,0.8s
NVAR AML AML
NVAR Mina Array Bea 6.30 203 Pn 19 31 08.5 -0.2
O03E Paynes Creek 6.30 233 Pn 19 31 07.5 -1.1
SHUK Shuksan-Mt. Ba 6.37 318 Pn 19 31 08.9 -0.7
AFDM Forest Hills D 6.86 221 Pn 19 31 14.3 -2.0
CMB Columbia Colle 7.36 214 Pn 19 31 21.1 -2.1
PV23 Carpenter Ridg 7.47 139 Pn 19 31 24.0 -0.9
PV02 Paradox Valley 7.80 139 Pn 19 31 28.6 -0.7
GWY Greenwater Val 8.17 188 Pn 19 31 34.6 +0.2
SDCO Great Sand Dun 9.83 128 Pn 19 31 57.4 +0.1
ANMO Albuquerque 11.52 141 Lg Lg 19 35 37.0
comp=E,0.1nm,0.3s,baz=255,slow=23,SNR=1.3
ANMO LR LR 19 37 20.8
comp=E,91nm,20.1s,baz=318,slow=41
BBB Bella Bella 11.65 317 LR LR 19 36 33.7
comp=E,117nm,21.9s,baz=350,slow=36
ULM Lac du Bonnet 14.41 59 Pn Pn 19 32 53.0 -6.4
comp=E,2.3nm,0.7s,baz=256,slow=19,SNR=1.3
ULM Lg Lg 19 36 51.3
comp=E,0.2nm,0.3s,baz=160,slow=19,SNR=2.3
DLBC Dease Lake 16.85 332 Lg Lg 19 38 23.1
comp=E,0.1nm,0.3s,baz=245,slow=16,SNR=1.8
TXAR Lajitas Array 17.54 145 P **P 19 33 42.1 +0.6**
baz=342,slow=12,SNR=4.5
comp=E,0.1nm,0.4s
L40A Anamosa 17.64 89 P **P 19 33 43.1 +0.7**
L40A IAmb IAmb 19 33 48.2
comp=Z,18nm,1.2s
I40A Norwalk 17.67 83 P **P 19 33 44.0 +1.3**
R33M Jennings River 17.90 333 P **P 19 33 46.0 +0.6**
BRDY Brady 18.21 130 Pn 19 33 47.6 -0.9
YKA Yellowknife Ar 18.24 1 P **Pn 19 33 47.8 -0.8**
comp=Z,0.1nm,0.3s,baz=184,slow=11,SNR=7.0
YKA Lg Lg 19 39 07.1
comp=Z,0.1nm,0.3s,baz=172,slow=28,SNR=4.6
YKA LR LR 19 40 59.1
comp=Z,101nm,19.0s,baz=295,slow=38
comp=Z,2.3nm,0.8s
YKA AML AML
YKAW3 Yellowknife Wh 18.31 1 P **Pn 19 33 47.8 -1.6**
H43A Windswept, Lux 19.60 80 P **P 19 34 04.4 +0.5**
LPIG La Paz 20.54 167 LR LR 19 43 24.8
comp=Z,60nm,19.0s,baz=231,slow=40
N31M Braeburn, Yuko 21.06 332 P **P 19 34 18.8 -0.8**
M30M Minto, Yukon 22.17 333 P **P 19 34 31.9 +0.2**
L29M L29M 22.98 333 P **P 19 34 40.5 +0.2**
K29M Barlow Dome 23.32 335 P **P 19 34 44.2 +0.5**
K29M IAmb IAmb 19 35 18.5
comp=Z,7.2nm,1.5s
J30M Hart River 23.52 337 P **P 19 34 46.5 +0.7**
J30M IAmb IAmb 19 34 53.7
comp=Z,6.3nm,1.1s
VRDI Verde Repeater 23.77 325 P **P 19 34 48.5 +0.2**
VRDI IAmb IAmb 19 34 55.2
comp=Z,6.2nm,1.0s
GLB Gilahina Butte 24.03 326 P **P 19 34 50.5 -0.1**
GLB IAmb IAmb 19 35 20.0
comp=Z,6.2nm,1.2s
I28M Miner Creek 25.20 336 P **P 19 34 59.2 -2.1**
I28M IAmb IAmb 19 35 06.6
comp=Z,3.7nm,0.9s
F31M Tsiigehtchic 25.21 343 P **P 19 34 59.2 -2.0**
F31M IAmb IAmb 19 35 11.6
comp=Z,4.9nm,0.9s
G27K Doyon Strip 26.66 337 P **P 19 35 13.4 -1.0**
G27K IAmb IAmb 19 35 51.1
comp=Z,5.2nm,1.4s
ILAR Eielson Array 27.03 330 P **P 19 35 21.6 +3.8**
comp=Z,0.9nm,0.9s,baz=120,slow=6.6,SNR=8.1
comp=Z,0.9nm,0.9s
ILAR Eielson Array 27.03 330 P **P 19 35 20.1 +2.3**
RES Resolute Bay 31.80 10 LR LR 19 48 19.4
comp=Z,45nm,19.3s,baz=356,slow=36
ARTI Arti 79.54 4 LR LR 20 21 28.0
comp=Z,37nm,18.8s,baz=351,slow=39
HHC Hu-ho-hao-te 85.39 326 *eP* **P 19 42 11.0 -2.4**
WMQ Urumqi 89.92 344 *eP* **P 19 42 38.4 +3.3**
WMQ pmax pmax
comp=Z,15nm,0.8s

*IDC **06** 19:35:33.8±10.0,26°.55S×177°.66W,h168km±74km, mb3.4/5,mbtmp4.0/6,MS2.4/1,Error ellipse: s-maj=96.2km s-min=29.7km az=132.0*
ISC 06 19:35:36.2±1.4,26°.5S±0°.2×177°.9W±0°.2,h200km,n15, σ2s61/16,mb3.7/5,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**2.72**	**181**	LR	LR	19 36 42.9	
	comp=Z,67nm,19.0s,baz=164,slow=26						
MSVF	**Nonsavu**	**9.53**	**336**	P	**Pn**	**19 37 48.9**	**-0.6**
	17nm,0.7s,baz=141,slow=9.2,SNR=12						
DZM	**Mont Dzumac**	**14.96**	**284**	P	P	19 39 09.2	+10
	14nm,0.7s,baz=104,slow=15,SNR=18						
ASAR	**Alice Springs**	**43.56**	**263**	P	**P**	**19 43 22.9**	**+2.2**
	0.4nm,0.9s,baz=93,slow=6.7,SNR=4.6						
ASAR				PcP	**PP**	**19 45 06.2**	**0.0**
	0.6nm,1.0s,baz=96,slow=3.6,SNR=2.9						
	0.4nm,0.9s						
WRA	**Warramunga Arr**	**44.20**	**268**	P	**P**	**19 43 27.7**	**+2.0**
	0.2nm,0.3s,baz=105,slow=7.9,SNR=2.7						
WRA				PcP	**PP**	**19 45 09.2**	**-3.7**
	0.2nm,0.3s,baz=97,slow=3.6,SNR=4.6						
	0.2nm,0.3s						
MJAR	**Matsushiro Arr**	**75.14**	**325**	P	**P**	**19 46 56.9**	**+0.5**
	1.4nm,0.9s,baz=161,slow=4.9,SNR=2.9						
	1.4nm,0.9s						
PETK	**Petropavlovsk-**	**82.10**	**345**	P	**P**	**19 47 35.7**	**+1.7**
	2.3nm,0.6s,baz=125,slow=4.1,SNR=5.6						
	2.3nm,0.6s						
USRK	**Ussuriysk Ar.**	**84.00**	**326**	P	**P**	**19 47 45.6**	**+1.7**
	0.9nm,0.5s,baz=154,slow=4.6,SNR=2.8						
	0.9nm,0.5s						
KURBB	**Kurchatov Arra**	**118.46**	**315**	PKP	**PKiKP**	**19 54 00.7**	**+1.0**
	0.1nm,0.6s,baz=79,slow=4.8,SNR=1.6						
BVAR	**Borovoye Array**	**123.67**	**318**	PKP	**PKiKP**	**19 54 11.2**	**+1.3**
	0.3nm,0.4s,baz=83,slow=2.3,SNR=2.1						
NOA	**NORSAR Array B**	**144.94**	**352**	PKPbc	**PKiKP**	**19 54 49.6**	**-3.2**
	2.6nm,0.8s,baz=12,slow=2.4,SNR=7.9						
HFS	**Hagfors**	**145.47**	**350**	PKPbc	**PKiKP**	**19 54 51.3**	**-2.5**
	2.2nm,0.6s,baz=21,slow=4.0,SNR=8.9						
AKASG	**Malin Array Be**	**148.21**	**327**	PKPbc	**PKPab**	**19 54 58.8**	**-2.9**
	1.6nm,0.6s,baz=46,slow=4.4,SNR=7.4						
MMAI	**Mount Meron Ar**	**150.48**	**291**	PKPbc	**PKPab**	**19 55 06.9**	**-4.9**
	0.2nm,0.3s,baz=84,slow=2.9,SNR=1.7						
BRTR	**Keskin Array B**	**150.67**	**305**	PKP	**PKPdf**	**19 54 59.5**	**+0.3**
	0.6nm,0.8s,baz=72,slow=1.8,SNR=1.3						
BRTR				PKPab	**PKPab**	**19 55 15.1**	**+2.6**
	0.6nm,0.6s,baz=76,slow=6.1,SNR=2.8						

*NIC **06** 19:40:25.7,34°.97N×33°.89E,h45km,MI1.8/9*
*GII **06** 19:40:25.4±0.0,34°.808N±0°.002×33°.973E±0°.001,h0km, Mws2.8,confirmed*
ISC 06 19:40:25.8±1.7,34°.96N±0°.09×33°.91E±0°.05,h46km±10km, n28,σ0s38/54,Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PARAL	**Paralimni**	**0.11**	**73**	P	**Pn**	**19 40 33.0**	**-0.1**
PARAL				S	**Sn**	**19 40 38.8**	**+0.4**
PARAL				AML	AML	19 40 39.7	
	0.4nm,0.4s						
PARAL				AML	AML	19 40 45.8	
	0.2nm,0.4s						
MVOU	**Mavrovouni**	**0.24**	**283**	P	**Pn**	**19 40 33.5**	**-0.5**
MVOU				S	**Sn**	**19 40 39.7**	**0.0**
MVOU				AML	AML	19 40 40.6	
	0.4nm,0.4s						
MVOU				AML	AML	19 40 40.8	
	0.4nm,0.4s						
LAR1C	**Larnaka City C**	**0.25**	**261**	P	**Pn**	**19 40 33.7**	**-0.3**
LAR1C				S	**Sn**	**19 40 40.3**	**+0.4**
ATHAL	**Athalassa**	**0.46**	**293**	P	**Pn**	**19 40 35.8**	**-0.5**
ATHAL				S	**Sn**	**19 40 44.0**	**+0.3**
ATHAL				AML	AML	19 40 45.6	
	0.6nm,0.6s						
ATHAL				AML	AML	19 40 45.7	
	0.5nm,0.4s						
CSS	**Mathiatis**	**0.48**	**270**	P	**Pn**	**19 40 36.0**	**-0.5**
CSS				S	**Sn**	**19 40 44.0**	**-0.2**
CSS				AML	AML	19 40 44.5	
	0.2nm,0.4s						
CSS				AML	AML	19 40 44.6	
	0.2nm,0.4s						
CSS	**Mathiatis**	**0.48**	**270**	P	**Pn**	**19 40 35.9**	**-0.6**
CSS				S	**Sn**	**19 40 44.8**	**+0.6**
ASGA	**Asgata**	**0.57**	**252**	P	**Pn**	**19 40 37.4**	**-0.3**
ASGA				S	**Sn**	**19 40 46.7**	**+0.4**
ASGA				AML	AML	19 40 48.8	
	0.1nm,0.4s						
ASGA				AML	AML	19 40 49.2	
	0.2nm,0.4s						
XYLS	**Xyliatos**	**0.71**	**274**	P	**Pn**	**19 40 39.3**	**-0.3**
XYLS				S	**Sn**	**19 40 49.7**	**+0.2**
XYLS				AML	AML	19 40 50.7	
	0.2nm,0.2s						
XYLS				AML	AML	19 40 51.6	
	0.2nm,0.5s						
TROD	**Troodos**	**0.86**	**269**	P	**Pn**	**19 40 41.8**	**+0.1**
TROD				S	**Sn**	**19 40 53.9**	**+0.6**
TROD				AML	AML	19 40 58.8	
	0.1nm,0.5s						
TROD				AML	AML	19 41 00.3	
	0.1nm,0.4s						
APOL	**The Sanctuary**	**0.91**	**252**	P	**Pn**	**19 40 42.0**	**-0.2**
APOL				S	**Sn**	**19 40 54.5**	**+0.3**
APOL				AML	AML	19 40 57.7	
	0.1nm,0.4s						
APOL				AML	AML	19 40 58.6	
	0.1nm,0.3s						
ALFC	**Alefka**	**1.09**	**281**	S	**Sn**	**19 40 58.5**	**-0.2**
ALFC				AML	AML	19 41 00.1	
	0.1nm,0.4s						
ALFC				AML	AML	19 41 01.0	
	0.2nm,0.3s						
AKMS	**Akamas**	**1.30**	**273**	P	**Pn**	**19 40 47.4**	**0.0**
NATI	**Neve Ativ**	**2.27**	**138**	P	**Pn**	**19 41 01.4**	**+0.6**
NATI				S	**Sn**	**19 41 27.2**	**-0.4**
MMA0B	**Mount Meron ar**	**2.30**	**147**	P	**Pn**	**19 41 01.0**	**-0.3**
MMA0B				S	**Sn**	**19 41 28.9**	**+0.4**
KNHM	**Kefar Nahum**	**2.49**	**146**	P	**Pn**	**19 41 03.8**	**-0.1**
KNHM				S	**Sn**	**19 41 32.9**	**-0.1**
OFRI	**`Ofer**	**2.50**	**159**	P	**Pn**	**19 41 03.4**	**-0.5**
OFRI				S	**Sn**	**19 41 32.9**	**-0.3**
KSHT	**Keshet**	**2.53**	**141**	P	**Pn**	**19 41 04.1**	**-0.3**
KSHT				S	**Sn**	**19 41 34.3**	**+0.3**
MMLI	**Mount Malkishu**	**2.81**	**153**	P	**Pn**	**19 41 08.2**	**-0.1**
MMLI				S	**Sn**	**19 41 41.1**	**+0.1**
JER	**Jerusalem**	**3.36**	**161**	P	**Pn**	**19 41 15.6**	**-0.2**
JER				S	**Sn**	**19 41 54.3**	**-0.2**
AMAZ	**Amatzia**	**3.52**	**166**	P	**Pn**	**19 41 18.7**	**+0.7**
AMAZ				S	**Sn**	**19 41 58.4**	**-0.1**
MZS	**Mizpe Shalem**	**3.61**	**159**	P	**Pn**	**19 41 19.4**	**+0.3**
MZS				S	**Sn**	**19 42 00.1**	**-0.3**
MSBI	**Mazada**	**3.84**	**161**	P	**Pn**	**19 41 22.1**	**-0.2**
MSBI				S	**Sn**	**19 42 05.8**	**-0.2**
GHAJ	**Ghor Haditha**	**3.90**	**159**	P	**Pn**	**19 41 22.8**	**-0.4**
GHAJ				S	**Sn**	**19 42 08.2**	**+0.5**
KZIT	**Kziot**	**4.07**	**174**	P	**Pn**	**19 41 25.9**	**+0.4**
KZIT				S	**Sn**	**19 42 11.9**	**+0.2**
IDAN	**Idan**	**4.27**	**164**	P	**Pn**	**19 41 28.5**	**+0.2**
IDAN				S	**Sn**	**19 42 16.0**	**-0.9**
RMNI	**Mount Ramon**	**4.41**	**170**	P	**Pn**	**19 41 30.2**	**-0.1**
RMNI				S	**Sn**	**19 42 20.4**	**0.0**
HRFI	**Mount Harif**	**5.00**	**169**	P	**Pn**	**19 41 38.3**	**0.0**
HRFI				S	**Sn**	**19 42 34.3**	**-0.6**
EIL	**Elat**	**5.35**	**170**	P	**Pn**	**19 41 43.4**	**+0.4**
EIL				S	**Sn**	**19 42 43.8**	**+0.4**

*AFAD **06** 19:51:02.6,37°.71N×27°.01E,h7km±1km,ML2.4*
*ISK **06** 19:51:02.8,37°.74N×27°.05E,h5km,ML2.8/14*
*THE **06** 19:51:03.2,37°.7N±1°.0×27°.0E±0°.9,h0km±2km,M2.7/5, MLh2.7/5*
ISC 06 19:51:03.0±0.9,37°.74N±0°.02×27°.03E±0°.02,h9km±7km, n30,σ0s50/52,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**260**	P	**Pg**	**19 51 06.3**	**-0.2**
SMG				S	**Sg**	**19 51 09.1**	**+0.2**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.16**	**103**	P	**Pg**	**19 51 06.8**	**+0.3**
GCAM				IAML		19 51 11.0	
	comp=N,795nm,0.1s						
GCAM				IAML		19 51 11.0	
	comp=E,832nm,0.4s						
GCAM	**G?zelcaml?**	**0.16**	**103**	Pg	**Pg**	**19 51 06.2**	**-0.3**
GCAM				Sg	**Sg**	**19 51 09.1**	**+0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**59**	Pg	**Pg**	**19 51 07.7**	**-0.2**
KUSD				AML	AML		
DGB	**zmir**	**0.34**	**339**	P	**Pg**	**19 51 09.9**	**+0.2**
DGB				S	**Sg**	**19 51 14.5**	**+0.3**
DGB				IAML		19 51 16.0	
	comp=N,274nm,0.6s						
DGB				IAML		19 51 17.0	
	comp=E,277nm,0.6s						
GMLD	**Gumuldur**	**0.35**	**345**	Pg	**Pg**	**19 51 10.6**	**+0.6**
GMLD				Sg	**Sb**	**19 51 15.9**	**-1.2**
GMLD				AML	AML		
BEYE	**izmir**	**0.50**	**350**	P	**Pg**	**19 51 12.8**	**+0.1**
BEYE				S	**Sb**	**19 51 20.4**	**-0.8**
BEYE				IAML		19 51 24.0	
	comp=N,280nm,0.2s						
BEYE				IAML		19 51 24.0	
	comp=E,247nm,0.3s						
DUVT	**Torbali**	**0.58**	**34**	P	**Pg**	**19 51 14.3**	**0.0**
DUVT				S	**Sg**	**19 51 22.5**	**+0.5**
DUVT				IAML		19 51 24.0	
	comp=E,254nm,0.6s						
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pb**	**19 51 15.9**	**-0.5**
YKAV				Sg	**Sb**	**19 51 24.9**	**-0.5**
YKAV				AML	AML		
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**19 51 15.7**	**+0.1**
BLCB				S	**Sb**	**19 51 25.0**	**-0.6**
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**19 51 15.6**	**+0.1**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.65**	**320**	P	**Pg**	**19 51 15.6**	**-0.1**
ZEYE				IAML		19 51 25.0	
	comp=N,415nm,0.4s						
ZEYE				S	**Sb**	**19 51 25.1**	**-0.6**
ZEYE				IAML		19 51 26.0	
	comp=E,204nm,0.3s						
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**19 51 16.1**	**0.0**
AYDN				S	**Sb**	**19 51 25.7**	**-0.7**
AYDN				IAML		19 51 29.0	
	comp=E,348nm,0.7s						
AYDN				IAML		19 51 30.0	
	comp=N,292nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.71**	**73**	Pg	**Pb**	**19 51 17.2**	**-0.4**
AYDB				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	P	**Pg**	**19 51 16.7**	**0.0**
BODT				S	**Sb**	**19 51 27.3**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.71**	**162**	Pg	**Pb**	**19 51 17.0**	**-0.6**
BODT				Sg	**Sb**	**19 51 27.2**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.74**	**127**	Pg	**Pg**	**19 51 16.9**	**-0.4**
MLSB				Sg	**Sb**	**19 51 27.6**	**-0.6**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.75**	**154**	P	**Pg**	**19 51 17.3**	**-0.1**
BDRM				S	**Sg**	**19 51 27.6**	**+0.4**
BDRM				IAML		19 51 30.0	
	comp=E,226nm,0.7s						
BDRM				IAML		19 51 31.0	
	comp=N,393nm,0.6s						
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pn**	**19 51 20.4**	**-0.4**
IZMR				S	**Sg**	**19 51 29.3**	**-0.5**
CHOS	**Chios island**	**1.01**	**310**	P	**Pb**	**19 51 23.1**	**+0.4**
CHOS				S	**Sn**	**19 51 37.5**	**-0.3**
CHOS	**Chios island**	**1.01**	**310**	Pg	**Pb**	**19 51 22.7**	**0.0**
CHOS				Sg	**Sn**	**19 51 37.4**	**-0.3**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pg**	**19 51 22.5**	**-0.2**
NAZL				Sg	**Sb**	**19 51 36.8**	**+0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.04**	**86**	P	**Pg**	**19 51 23.0**	**-0.1**
ESEN				S	**Sb**	**19 51 38.1**	**+1.1**
ESEN				IAML		19 51 40.0	
	comp=E,121nm,0.4s						
ESEN				IAML		19 51 42.0	
	comp=N,82nm,1.1s						
MULA	**Mugla, Merkez-**	**1.13**	**115**	P	**Pn**	**19 51 25.2**	**+0.1**
MULA				S	**Sb**	**19 51 40.5**	**+0.8**
MULA				IAML		19 51 43.0	
	comp=N,53nm,0.6s						
MULA				IAML		19 51 48.0	
	comp=E,57nm,0.4s						
YER	**Yerkesik**	**1.16**	**121**	P	**Pg**	**19 51 25.1**	**-0.3**
YER				S	**Sn**	**19 51 42.5**	**+1.0**
GOMA	**Golmarmara-Man**	**1.19**	**35**	Pn	**Pn**	**19 51 26.2**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.33**	**356**	Pn	**Pg**	**19 51 28.7**	**0.0**
DKL				AML	AML		
APE	**Apeiranthos**	**1.37**	**241**	P	**Pg**	**19 51 29.3**	**0.0**
APE				S	**Sn**	**19 51 48.0**	**+1.3**
SOMA	**Soma-Manisa**	**1.47**	**15**	Pn	**Pg**	**19 51 30.9**	**-0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pb**	**19 51 30.8**	**+0.1**
GORD				AML	AML		

*IDC **06** 19:58:43.0±2.0,53°.40N×159°.92W,h0km,mb3.5/2, mbtmp3.5/5,ML3.5/3,Error ellipse: s-maj=38.2km s-min=26.0km az=135.0*
*NEIC **06** 19:58:43.9±1.7,53°.42N±0°.08×159°.91W±0°.09,h29km±9km, ML3.5/26,ML3.2(AEIC),Error ellipse: s-maj=11.7km s-min=7.0km az=157.0*
*AEIC **06** 19:58:44.1±1.8,53°.42N±0°.07×160°.03W±0°.08,h28km±5km, Error ellipse: s-maj=11.2km s-min=6.5km az=160.0*
ISC 06 19:58:41.1±0.9,53°.44N±0°.06×159°.99W±0°.04,h10km, n105,σ1s71/127,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**1.40**	**10**		**Pn**	**19 59 05.9**	**-0.8**
CNBA					**Sb**	**19 59 25.4**	**+0.2**
SDPT	**Sand Point**	**1.93**	**352**	P	**Pb**	**19 59 15.5**	**-0.8**
SDPT	**Sand Point**	**1.93**	**352**	P	**Sn**	**19 59 39.8**	**+1.6**
SDPT	**Sand Point**	**1.93**	**352**		**Pb**	**19 59 14.9**	**-1.4**
SDPT					**Sn**	**19 59 39.3**	**+1.1**
DOL	**Dolgoi Island**	**2.03**	**328**		**Pb**	**19 59 16.9**	**-1.2**
DOL					**Sn**	**19 59 41.7**	**+0.9**
DT1	**Dutton Round H**	**2.14**	**322**		**Pb**	**19 59 18.5**	**-1.4**
DT1					**Sn**	**19 59 44.7**	**+1.2**
DTNA	**Dutton South F**	**2.16**	**323**		**Pb**	**19 59 19.0**	**-1.3**
DTNA					**Sb**	**19 59 45.9**	**-1.3**
PS4A	**Pavlof South-4**	**2.20**	**331**		**Pb**	**19 59 19.8**	**-1.1**
PS4A					**Sb**	**19 59 47.3**	**-0.8**
PS1A	**Pavlof South-1**	**2.23**	**333**		**Pb**	**19 59 20.3**	**-1.2**
PS1A					**Sb**	**19 59 48.0**	**-1.1**
PN7A	**Pavlof North-7**	**2.31**	**330**		**Pb**	**19 59 21.8**	**-1.1**
PN7A					**Pg**	**19 59 21.9**	**-3.5**
ISLZ	**Isanotski Laza**	**2.54**	**302**		**Pn**	**19 59 23.6**	**+1.2**
ISLZ					**Sn**	**19 59 53.5**	**+0.2**
S12K	**Black Hills**	**2.57**	**333**		**Pn**	**19 59 22.2**	**-0.5**
S12K				Sn	**Sn**	**19 59 56.1**	**+2.2**
S12K				IAML		19 59 57.6	
	comp=N,287nm,0.6s						
VNKR	**Veniaminof 5**	**2.62**	**8**		**Pb**	**19 59 26.2**	**-1.9**
VNKR					**Pn**	**19 59 26.3**	**+2.9**
SSLS	**Shishaldin Sou**	**2.68**	**300**		**Pb**	**19 59 26.1**	**-3.1**
SSLS					**Sn**	**19 59 57.8**	**+1.0**
VNWF	**Veniaminof 8**	**2.73**	**5**		**Pb**	**19 59 27.6**	**-2.3**
VNHG	**Veniaminof 1**	**2.83**	**9**		**Pb**	**19 59 28.6**	**-3.0**
VNHG					**Pn**	**19 59 29.0**	**+2.7**
VNFG	**Fog Glacier, M**	**2.86**	**5**	Pn	**Pn**	**19 59 26.7**	**-0.1**
VNFG				Sn	**Sn**	**20 00 01.6**	**+0.3**
VNFG				IAML		20 00 08.9	
	comp=E,170nm,0.6s						
VNFG				IAML		20 00 20.3	
	comp=N,202nm,0.8s						
WESN	**West Dahl Nort**	**2.94**	**294**		**Pn**	**19 59 29.4**	**+1.6**
WESN					**Sn**	**20 00 03.1**	**0.0**
WESP	**Westdahl Peak**	**2.99**	**293**		**Pn**	**19 59 29.8**	**+1.2**
WESP					**Sn**	**20 00 04.1**	**-0.3**
CHGN	**Chignik**	**3.01**	**17**		**Pn**	**19 59 30.0**	**+1.3**
CHGN					**Sn**	**20 00 05.5**	**+0.8**
CHGN				IAML		20 00 10.1	
	comp=E,187nm,0.1s						
CHGN				IAML		20 00 10.4	
	comp=N,73nm,0.2s						
WECS	**Westdahl Cape**	**3.03**	**293**	Pn	**Pn**	**19 59 30.4**	**+1.3**
WECS				Sn	**Sn**	**20 00 04.7**	**-0.7**
CHIR	**Chirikof Islan**	**3.48**	**45**	P	**Pn**	**19 59 36.0**	**+0.8**
CHIR	**Chirikof Islan**	**3.48**	**45**		**Pn**	**19 59 35.0**	**-0.2**
CHIR				IAML		20 00 16.5	
	comp=N,84nm,1.2s						
CHIR				IAML		20 00 19.2	
	comp=E,71nm,1.2s						
AKUT	**Akutan**	**3.50**	**284**	P	**Pn**	**19 59 37.7**	**+2.2**
AKUT	**Akutan**	**3.50**	**284**	Pn	**Pn**	**19 59 36.4**	**+0.9**
AKUT				IAML		20 00 18.9	
	comp=N,83nm,0.9s						
AKUT				IAML		20 00 25.5	
	comp=E,66nm,0.8s						
ANPB	**Aniakchak Plen**	**3.51**	**16**		**Pn**	**19 59 38.3**	**+2.6**
ANPB					**Pb**	**19 59 38.4**	**-4.8**
AKBBA	**Akutan Broad B**	**3.59**	**283**		**Pn**	**19 59 38.2**	**+1.5**
AKLV	**Akutan Long Va**	**3.61**	**284**		**Pn**	**19 59 38.6**	**+1.5**
ZRO	**Akutan Zero**	**3.61**	**283**		**Pn**	**19 59 38.4**	**+1.4**
LVA	**Lava Point**	**3.66**	**284**	Pn	**Pn**	**19 59 38.4**	**+0.8**
LVA				IAML		20 00 55.9	
	comp=E,91nm,0.9s						
UNV	**Unalaska Valle**	**3.90**	**279**	P	**Pn**	**19 59 42.4**	**+1.5**
UNV	**Unalaska Valle**	**3.90**	**279**		**Pn**	**19 59 41.5**	**+0.5**
UNV					**Sn**	**20 00 24.0**	**-2.7**
UNV				IAML		20 00 27.0	
	comp=E,35nm,0.7s						
UNV				IAML		20 00 33.0	
	comp=N,26nm,1.1s						
MNAT	**Makushin Natee**	**4.01**	**279**		**Pn**	**19 59 43.4**	**+0.9**
MNAT					**Sn**	**20 00 27.2**	**-2.3**
MREP	**Makushin Rep't**	**4.04**	**278**		**Pn**	**19 59 44.1**	**+1.2**
MSW	**Makushin Switc**	**4.07**	**279**		**Pn**	**19 59 44.2**	**+0.9**
MGOD	**Makushin Gods**	**4.11**	**278**		**Pn**	**19 59 45.4**	**+1.4**
R16K	**Pilot Point**	**4.36**	**17**		**Pn**	**19 59 46.5**	**-0.7**
R16K				IAML		20 02 22.4	
	comp=E,71nm,1.0s						
SII	**Sitkinak Islan**	**4.57**	**45**	P	**Pn**	**19 59 51.5**	**+1.2**
SII	**Sitkinak Islan**	**4.57**	**45**		**Pn**	**19 59 49.6**	**-0.7**
SII				IAML		20 02 19.3	
	comp=E,46nm,1.2s						
R17L	**Mt. Peulik Vol**	**4.68**	**25**		**Pn**	**19 59 54.4**	**+2.7**
PLK1	**Peulik 1**	**4.77**	**22**		**Pn**	**19 59 55.5**	**+2.6**
PLK2	**Peulik 2**	**4.80**	**24**		**Pn**	**19 59 56.2**	**+2.8**
OKTU	**Okmok Mt. Tuli**	**4.82**	**273**		**Pn**	**19 59 54.7**	**+1.1**
OKNC	**Okmok New Cone**	**4

KDAK					AML	AML			
KDAK	**Kodiak Island**	**6.04**	**41**		Pn	**Pn**	**20 00 11.0**	**+0.6**	
P17K	**Kvichak River**	**6.09**	**17**		Pn	**Pn**	**20 00 13.1**	**+2.1**	
O16K	**Kokwok River B**	**6.25**	**9**		Pn	**Pn**	**20 00 15.9**	**+2.6**	
Q19K	**Cape Douglas,**	**6.54**	**30**		Pn	**Pn**	**20 00 18.7**	**+1.5**	
O17K	**Koliganek Bris**	**6.54**	**13**			**Pn**	**20 00 19.1**	**+1.8**	
N14K	**Kuskokwak Cree**	**6.56**	**353**		Pn	**Pn**	**20 00 19.1**	**+1.5**	
N15K	**Kwethluk River**	**6.74**	**360**		Pn	**Pn**	**20 00 22.0**	**+2.0**	
O18K	**Koktuh Hills**	**6.95**	**20**		Pn	**Pn**	**20 00 23.9**	**+1.1**	
N17K	**Nushagak Hills**	**7.26**	**11**		Pn	**Pn**	**20 00 29.0**	**+1.9**	
ILSW	**Iliamna Southw**	**7.56**	**27**		Pn	**Pn**	**20 00 32.4**	**+1.1**	
N18K	**Kilae Creek**	**7.59**	**15**		Pn	**Pn**	**20 00 32.4**	**+0.7**	
M16K	**Timber Creek**	**7.62**	**4**		Pn	**Pn**	**20 00 33.2**	**+1.1**	
CNPM	**China Poot**	**7.78**	**35**			**Pn**	**20 00 35.4**	**+1.1**	
N19K	**Bonanza Creek**	**7.97**	**20**		Pn	**Pn**	**20 00 38.3**	**+1.3**	
RED	**Redoubt Volcan**	**8.03**	**27**		Pn	**Pn**	**20 00 38.6**	**+0.9**	
L14K	**Kuka Creek**	**8.05**	**351**		Pn	**Pn**	**20 00 39.5**	**+1.6**	
BRLK	**Bradley Lake**	**8.08**	**35**		Pn	**Pn**	**20 00 38.8**	**+0.4**	
M17K	**Holitna River**	**8.10**	**9**		Pn	**Pn**	**20 00 41.0**	**+2.4**	
BRSE	**Bradley Lake S**	**8.11**	**35**			**Pn**	**20 00 39.4**	**+0.6**	
ATKA	**Atka Island**	**8.70**	**267**		P	**Pn**	**20 00 48.8**	**+2.0**	
ATKA	**Atka Island**	**8.70**	**267**		Pn	**Pn**	**20 00 48.0**	**+1.3**	
M19K	**Big River Lodg**	**8.99**	**17**		Pn	**Pn**	**20 00 52.3**	**+1.5**	
L19K	**White Mountain**	**9.18**	**15**		Pn	**Pn**	**20 00 53.3**	**-0.1**	
STLK	**Strandline Lak**	**9.19**	**25**		Pn	**Pn**	**20 00 54.5**	**+0.9**	
M20K	**Styx River**	**9.22**	**21**		Pn	**Pn**	**20 00 53.5**	**-0.6**	
K17K	**Iditarod**	**9.34**	**5**		Pn	**Pn**	**20 00 55.8**	**+0.2**	
J14K	**Nanvaranak Lak**	**9.52**	**350**		Pn	**Pn**	**20 00 57.7**	**-0.3**	
P23K	**Montague Islan**	**9.53**	**41**		Pn	**Pn**	**20 00 56.8**	**-1.4**	
J17K	**VABM Dome**	**9.99**	**2**		Pn	**Pn**	**20 01 04.6**	**+0.1**	
HIN	**Hinchinbrook I**	**10.13**	**41**		Pn	**Pn**	**20 01 06.7**	**+0.2**	
PNL	**Peninsula**	**12.92**	**53**		P	**Pn**	**20 01 46.5**	**+1.9**	
ILAR	**Eielson Array**	**13.16**	**25**		Pn	**Pn**	**20 01 46.5**	**-1.4**	
	comp=E,0.1nm,0.3s,baz=211,slow=12,SNR=5.1								
	comp=E,0.4nm,0.5s								
ILAR					AML	AML			
INK	**Inuvik**	**19.44**	**30**		P	**Pn**	**20 03 12.0**	**+3.6**	
	comp=E,0.3nm,0.3s,baz=251,slow=14,SNR=3.2								
	comp=E,1.5nm,0.4s								
INK					AML	AML			
H11N2	**WAKE ISLAND Hy**	**42.19**	**230**		T	T	20 51 33.3		
	baz=25								
H11N3	**WAKE ISLAND Hy**	**42.20**	**230**		T	T	20 51 31.3		
	baz=25								
H11N1	**WAKE ISLAND Hy**	**42.21**	**230**		T	T	20 51 37.7		
	baz=25								
H11S1	**WAKE ISLAND Hy**	**43.34**	**229**		T	T	20 52 58.1		
	baz=28,slow=76,SNR=6.8								
H11S2	**WAKE ISLAND Hy**	**43.36**	**229**		T	T	20 53 00.4		
	baz=28,slow=76,SNR=6.6								
H11S3	**WAKE ISLAND Hy**	**43.36**	**229**		T	T	20 53 03.9		
	baz=28,slow=76,SNR=6.0								
TX31	**Lajitas Ar. Si**	**47.14**	**98**		P	**P**	**20 07 13.8**	**+0.3**	
TXAR	**Lajitas Array**	**47.14**	**98**		P	**P**	**20 07 16.4**	**+2.9**	
	comp=E,0.3nm,0.6s,baz=306,slow=5.8,SNR=4.8								
	comp=E,0.3nm,0.6s								
TXAR	**Lajitas Array**	**47.14**	**98**		P	**P**	**20 07 14.3**	**+0.8**	
MKAR	**Makanchi Array**	**66.98**	**319**		P	**P**	**20 09 37.0**	**+3.3**	
	comp=E,0.5nm,0.9s,baz=18,slow=6.1,SNR=1.9								
	comp=E,0.5nm,0.9s								
MKAR	**Makanchi Array**	**66.98**	**319**		P	**P**	**20 09 34.2**	**+0.6**	
MAKZ	**Makanchi**	**67.09**	**319**		P	**P**	**20 09 34.6**	**+0.2**	

*SJA **06** 20:12:32.2±0.6,24.˚23S×66.˚99W,h206km±5km,ML3.6, MW3.6*
*GUC **06** 20:12:32.6±0.6,24.˚21S×66.˚99W,h210km±9km,ML4.2, Presumed earthquake*

ISC 06 20:12:32.3±1.8,24˚21S±0.˚04×67˚01W±0.˚06, h198km±16km,n33,σ1§82/51,2C-2D,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SALTA		**0.61**	**92**	*eP*		**Pn**	**20 13 01.0**	**+0.7**
SLA	**San Lorenzo**	**1.46**	**111**	*eP*		**Pn**	**20 13 06.6**	**+1.0**
SLA				*eS*		**S**	**20 13 32.4**	**+0.9**
SLA	**San Lorenzo**	**1.46**	**111**	*ıP*		**Pn**	**20 13 06.4**	**+0.7**
AF01	**San Pedro de A**	**1.65**	**319**	*eP*		**Pn**	**20 13 09.9**	**+2.4**
AF01				*eS*		**S**	**20 13 32.3**	**-2.5**
AF01					IAML		20 13 36.4	
	comp=Z,147nm,0.8s							
AF01	**San Pedro de A**	**1.65**	**319**	*eP*		**Pn**	**20 13 08.7**	**+1.1**
FSA	**Cafayete**	**2.11**	**154**	*eP*		**Pn**	**20 13 13.0**	**+1.0**
FSA				*eS*		**S**	**20 13 37.8**	**-5.3**
PB06	**IPOC Station P**	**2.79**	**302**	*eP*		**Pn**	**20 13 21.2**	**+1.6**
PB06				*eS*		**S**	**20 13 56.9**	**+0.5**
PB06					IAML		20 13 58.1	
	comp=Z,199nm,0.1s							
PB06	**IPOC Station P**	**2.79**	**302**	*eP*		**Pn**	**20 13 20.8**	**+1.2**
PB06					IAML		20 13 58.3	
	comp=E,378nm,0.2s							
AHML	**Horco Molle**	**2.98**	**150**	*eP*		**Pn**	**20 13 22.3**	**+0.7**
AHML				*eS*		**S**	**20 13 59.3**	**-1.0**
PB14	**IPOC Station P**	**3.13**	**262**	*eP*		**Pn**	**20 13 25.0**	**+1.4**
PB14				*eS*		**S**	**20 14 03.5**	**-0.2**
PB14					IAML		20 14 05.6	
	comp=Z,106nm,0.2s							
PB14	**IPOC Station P**	**3.13**	**262**	*eP*		**Pn**	**20 13 25.0**	**+1.4**
PB09	**IPOC Station P**	**3.16**	**319**	*eP*		**Pn**	**20 13 25.5**	**+1.5**
PB09				*eS*		**S**	**20 14 05.4**	**+1.1**
PB09					IAML		20 14 07.7	
	comp=Z,81nm,0.3s							
PB09	**IPOC Station P**	**3.16**	**319**	*eP*		**Pn**	**20 13 25.3**	**+1.4**
PB05	**IPOC Station P**	**3.23**	**294**	*eP*		**Pn**	**20 13 25.9**	**+1.2**
PB05				*eS*		**S**	**20 14 04.4**	**-1.2**
PB05					IAML		20 14 14.2	
	comp=Z,72nm,0.4s							
PB05	**IPOC Station P**	**3.23**	**294**	*eP*		**Pn**	**20 13 25.7**	**+1.0**
AC02	**Maricunga**	**3.25**	**216**	*eP*		**Pn**	**20 13 27.3**	**+2.0**
AC02				*eS*		**S**	**20 14 06.5**	**-0.2**
PB03	**IPOC Station P**	**3.32**	**310**	*eP*		**Pn**	**20 13 27.0**	**+1.2**
PB03				*eS*		**S**	**20 14 06.6**	**-1.0**
PB03					IAML		20 14 12.1	
	comp=Z,138nm,0.1s							
PB03	**IPOC Station P**	**3.32**	**310**	*eP*		**Pn**	**20 13 26.6**	**+0.8**
PB03					IAML		20 14 10.7	
	comp=N,211nm,0.1s							
PB10	**IPOC Station P**	**3.32**	**281**	*eP*		**Pn**	**20 13 27.1**	**+1.5**
PB10				*eS*		**S**	**20 14 06.9**	**-0.5**
PB10					IAML		20 14 09.2	
	comp=Z,95nm,0.5s							
PB10	**IPOC Station P**	**3.32**	**281**	*eP*		**Pn**	**20 13 27.0**	**+1.3**
PB10					IAML		20 14 12.7	
	comp=N,150nm,0.3s							
PB07	**IPOC Station P**	**3.62**	**312**	*eP*		**Pn**	**20 13 30.4**	**+0.8**
PB07				*eS*		**S**	**20 14 14.0**	**-0.4**
PB07					IAML		20 14 15.1	
	comp=Z,100nm,0.6s							
PB07	**IPOC Station P**	**3.62**	**312⇑**	*eP*		**Pn**	**20 13 30.0**	**+0.4**
AC01	**Pan de Azucar**	**3.79**	**239**	*eP*		**Pn**	**20 13 32.1**	**+0.8**
AC01				*eS*		**S**	**20 14 11.2**	**-6.5**
AC01					IAML		20 14 19.0	
	comp=Z,70nm,0.2s							
TINO	**Tinogasta**	**3.87**	**187**	*eP*		**Pn**	**20 13 35.3**	**+2.8**
PB02	**IPOC Station P**	**3.92**	**317**	*eP*		**Pn**	**20 13 34.5**	**+1.3**
PB02				*eS*		**S**	**20 14 19.1**	**-1.8**
PB02	**IPOC Station P**	**3.92**	**317**	*iP*		**Pn**	**20 13 33.1**	**-0.1**
CYA	**Choya**	**4.35**	**166**	*eP*		**Pn**	**20 13 40.1**	**+1.6**
CYA				*eS*		**S**	**20 14 32.2**	**+1.6**
GO03	**Copiapo**	**4.45**	**220**	*eP*		**Pn**	**20 13 40.2**	**+0.5**
GO03				*eS*		**S**	**20 14 32.5**	**-0.3**
GO03					IAML		20 14 37.0	
	comp=Z,31nm,0.2s							
TA01	**Diego Aracena**	**4.66**	**320**	*eP*		**Pn**	**20 13 42.8**	**+0.4**
TA01					IAML		20 14 37.8	
	comp=Z,26nm,0.4s							
GO01	**Chusmiza**	**4.95**	**335**	*eP*		**Pn**	**20 13 47.5**	**+1.0**
GO01				*eS*		**S**	**20 14 46.2**	**+1.3**
GO01					IAML		20 14 47.2	
	comp=Z,26nm,0.1s							
GO01	**Chusmiza**	**4.95**	**335⇓**	*eP*		**Pn**	**20 13 46.5**	**-0.1**
PB11	**IPOC Station P**	**5.06**	**330**	*eP*		**Pn**	**20 13 46.6**	**-1.1**
PB11				*eS*		**S**	**20 14 43.6**	**-3.4**
PB11					IAML		20 14 49.4	
	comp=Z,51nm,0.3s							
PB11	**IPOC Station P**	**5.06**	**330**	*eP*		**Pn**	**20 13 46.3**	**-1.4**

*FUNV **06** 20:13:45.6,6.˚87N×73.˚30W,h135km, MW3.8,Presumed earthquake*
*RSNC **06** 20:13:46.4±0.0,7.˚N±1.˚×7.˚3W±.˚, h122km±1km, M3.2, mb3.6, ML2.8*

ISC 06 20:13:44.5±1.2,6.˚91N±0.˚03×73.˚29W±0.˚03,h127km±6km, n40,σ1§45/74,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
VMM09	**Lebrija**	**0.21**	**0**	P		**Pn**	**20 14 02.7**	**+0.4**
VMM09				S		**Sn**	**20 14 16.0**	**+0.3**
BARC	**Barichara**	**0.34**	**161**	P		**Pn**	**20 14 03.1**	**+0.3**
BARC				S		**Sn**	**20 14 16.4**	**-0.2**
BRJC	**Barrancabermej**	**0.45**	**278**	P		**Pn**	**20 14 03.3**	**+0.3**
BRJC				S		**Sn**	**20 14 17.2**	**+0.2**
VMM10	**El Carmen**	**0.45**	**252**	P		**Pn**	**20 14 03.2**	**+0.2**
VMM10				S		**Sn**	**20 14 16.7**	**-0.3**
VMM07	**Puerto Wilches**	**0.71**	**309**	P		**Pn**	**20 14 05.6**	**+0.9**
VMM07				S		**Sn**	**20 14 20.9**	**+0.9**
RUSC	**La Rusia**	**1.03**	**168**	P		**Pn**	**20 14 07.8**	**-0.3**
RUSC				S		**Sn**	**20 14 25.4**	**-0.5**
RUSC	**La Rusia**	**1.03**	**168**	*eP*		**Pn**	**20 14 07.8**	**-0.3**
RUSC				*eS*		**Sn**	**20 14 24.9**	**-1.0**
PTBC	**PUERTO BERRIO,**	**1.22**	**252**	P		**Pn**	**20 14 08.4**	**-1.0**
PTBC				S		**Sn**	**20 14 26.4**	**-1.8**
OCAC	**Ocana**	**1.32**	**359**	P		**Pn**	**20 14 11.1**	**+0.5**
OCAC				S		**Sn**	**20 14 31.0**	**+0.5**
CAPV	**Capacho**	**1.35**	**46**	*eP*		**Pn**	**20 14 12.4**	**+1.3**
CAPV				*eS*		**Sn**	**20 14 32.9**	**+1.6**
SPBC	**San Pablo de B**	**1.47**	**212**	P		**Pn**	**20 14 12.3**	**0.0**
SPBC				S		**Sn**	**20 14 32.7**	**-0.6**
TAMC	**Tame, Arauca**	**1.56**	**108**	P		**Pn**	**20 14 13.9**	**+0.7**
TAMC				S		**Sn**	**20 14 35.8**	**+0.8**
NORC	**Norcasia**	**2.06**	**230**	P		**Pn**	**20 14 19.4**	**+0.2**
NORC				S		**Sn**	**20 14 45.3**	**-0.4**
ROSC	**El Rosal**	**2.30**	**207**	P		**Pn**	**20 14 25.0**	**+2.5**
ROSC				S		**Sn**	**20 14 55.9**	**+4.4**
CHIC	**Chingaza**	**2.31**	**191**	P		**Pn**	**20 14 23.1**	**+0.5**
CHIC				S		**Sn**	**20 14 51.5**	**-0.3**
HELC	**Santa Helena**	**2.34**	**252**	P		**Pn**	**20 14 24.1**	**+1.2**
HELC				S		**Sn**	**20 14 51.6**	**-0.7**
HELC	**Santa Helena**	**2.34**	**252**	*eP*		**Pn**	**20 14 24.0**	**+1.2**
HELC				*eS*		**Sn**	**20 14 51.6**	**-0.7**
UREC	**San Jos de Ur**	**2.38**	**291**	P		**Pn**	**20 14 21.5**	**-1.6**
UREC				S		**Sn**	**20 14 51.3**	**-1.3**
CVER	**Cruz Verde, Cu**	**2.50**	**198**	P		**Pn**	**20 14 26.3**	**+1.2**
CVER				S		**Sn**	**20 14 57.7**	**+1.5**
GUY2C	**Guyana, Caldas**	**2.66**	**231**	P		**Pn**	**20 14 27.7**	**+0.6**
GUY2C				S		**Sn**	**20 15 00.9**	**+1.1**
VILC	**Villavicencio,**	**2.81**	**188**	P		**Pn**	**20 14 28.6**	**-0.2**
VILC				S		**Sn**	**20 15 02.9**	**+0.1**
CBOC	**Ciudad Bolivar**	**2.90**	**249**	P		**Pn**	**20 14 31.0**	**+1.1**
CBOC				S		**Sn**	**20 15 05.0**	**+0.1**
PTGC	**Puerto Gaitan,**	**2.93**	**157**	P		**Pn**	**20 14 29.3**	**-0.9**
PTGC				S		**Sn**	**20 15 03.1**	**-2.3**
ARGC	**Ariguani, Magd**	**3.08**	**342**	P		**Pn**	**20 14 35.9**	**+3.8**
ARGC				S		**Sn**	**20 15 11.3**	**+2.5**
APAC	**Apartado, Choc**	**3.41**	**287**	P		**Pn**	**20 14 36.7**	**+0.3**
APAC				S		**Sn**	**20 15 16.0**	**-0.5**
SJCC	**San Jacinto, C**	**3.51**	**328**	P		**Pn**	**20 14 37.1**	**-0.7**
SJCC				S		**Sn**	**20 15 16.8**	**-2.2**
SJCC	**San Jacinto, C**	**3.51**	**328**	*eP*		**Pn**	**20 14 37.8**	**0.0**
SJCC				*eS*		**Sn**	**20 15 17.0**	**-2.0**
PRAC	**Prado**	**3.55**	**207**	P		**Pn**	**20 14 38.8**	**+0.4**
PRAC				S		**Sn**	**20 15 20.6**	**+0.6**
ORTC	**Ortega, Tolima**	**3.56**	**213**	P		**Pn**	**20 14 39.0**	**+0.5**
ORTC				S		**Sn**	**20 15 21.6**	**+1.3**
LCBC	**Los crdobas,**	**3.61**	**303**	P		**Pn**	**20 14 39.9**	**+0.8**
LCBC				S		**Sn**	**20 15 23.0**	**+1.7**
URMC	**La Uribe, Meta**	**3.80**	**197**	P		**Pn**	**20 14 42.8**	**+1.1**
URMC				S		**Sn**	**20 15 26.5**	**+0.6**
CRJC	**Cerrejon, Guaj**	**4.10**	**6**	P		**Pn**	**20 14 45.3**	**-0.4**
CRJC				S		**Sn**	**20 15 33.5**	**+0.3**
YOTC	**Yotoco, Valle**	**4.21**	**226**	P		**Pn**	**20 14 47.0**	**-0.2**
MACC	**Macarena, Meta**	**4.77**	**187**	P		**Pn**	**20 14 53.4**	**-1.2**
MACC				S		**Sn**	**20 15 45.1**	**-3.9**
URIC	**Uribia, Colomb**	**4.93**	**15**	P		**Pn**	**20 14 58.4**	**-1.1**
URIC	**Uribia, Colomb**	**4.93**	**15**	*eP*		**Pn**	**20 14 55.9**	**-0.8**
URIC				*eS*		**Sn**	**20 15 48.8**	**-4.0**
TEPV	**Terepaima**	**5.06**	**53**	*eP*		**Pn**	**20 14 58.7**	**+0.2**
TEPV				*eS*		**Sn**	**20 15 52.8**	**-3.3**
BENV	**Beln**	**6.39**	**61**	*eP*		**Pn**	**20 15 15.5**	**-1.0**
TURV	**Turiamo**	**6.43**	**56**	*eP*		**Pn**	**20 15 15.9**	**-1.0**
CACV	**CAICARA DEL OR**	**6.73**	**84**	*eP*		Pn	20 15 26.7	+5.8

IDC 06 20:30:30.6±2.1,10˚05S×120˚43E,h0km,mb3.6/2, mbtmp3.4/4,ML3.0/2,Error ellipse: s-maj=160.6km s-min=25.0km az=49.0,Sumba region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
WRA	**Warramunga Arr**	**16.64**	**128**	Pn		Pn	20 34 20.5	-4.9
	0.1nm,0.3s,baz=303,slow=14,SNR=2.5							
WRA				Sn		Sn	20 37 10.0	-21
	0.1nm,0.3s,baz=303,slow=27,SNR=2.5							
	0.6nm,0.8s							
WRA				AML		AML		
ASAR	**Alice Springs**	**18.68**	**138**	P		P	20 34 49.7	-0.7
	baz=320,slow=12,SNR=6.7							
	0.7nm,0.8s							
MKAR	**Makanchi Array**	**66.03**	**332**	P		P	20 41 19.8	+0.7
	0.8nm,0.6s,baz=139,slow=7.9,SNR=8.1							
	0.8nm,0.6s							
KURBB	**Kurchatov Arra**	**70.53**	**333**	P		P	20 41 46.0	-1.2
	0.2nm,0.5s,baz=141,slow=4.7,SNR=2.6							
	0.2nm,0.5s							

*ISK **06** 20:57:26.5,37.˚75N×26.˚01E,h2km,ML4.0/18*
*IDC **06** 20:57:27.9±0.9,37.˚73N×26.˚19E,h0km,mb3.5/6, mbtmp3.5/12,ML3.5/5,MS3.1/5,Error ellipse: s-maj=14.5km s-min=11.0km az=137.0*
*AFAD **06** 20:57:28.6,37.˚81N×26.˚06E,h7km±2km,MW3.9*
*ATH **06** 20:57:28.4,37.˚79N×26.˚16E,h16km±1km,ML3.9/54, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **06** 20:57:29.1,38.˚N±2.˚×2.˚6E±.˚, h0km±3km,M4.0/15, MLh4.0/15*

ISC 06 20:57:28.7±1.1,37˚80N±0.˚02×26˚09E±0.˚02,h4km±8km, n184,σ1§50/224,mb3.3/5,MS3.2/3,14C-11D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SAM2	**Drakei, Karlov**	**0.42**	**95**	P		**Pg**	**20 57 37.0**	**+0.2**
SAM2				S		**Sg**	**20 57 40.9**	**-1.4**
KRL1	**Karlovasi Samo**	**0.49**	**90**	P		**Pg**	**20 57 37.8**	**-0.4**
KRL1				S		**Sg**	**20 57 43.0**	**-1.6**
KRL1				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.55**	**37**	P		**Pg**	**20 57 39.7**	**+0.4**
ZEYE				S		**Sb**	**20 57 49.3**	**+0.2**
CESE	**eme**	**0.56**	**18**	Pg		**Pg**	**20 57 39.3**	**-0.2**
CESE				AML		AML		
CHOS	**Chios island**	**0.59**	**358**	P		**Pg**	**20 57 40.5**	**+0.4**
CHOS				S		**Sb**	**20 57 50.6**	**+0.3**
CHOS				AML		AML		
CHOS	**Chios island**	**0.59**	**358**	Pg		**Pg**	**20 57 39.8**	**-0.3**
CHOS				AML		AML		
CHOS	**Chios island**	**0.59**	**358**	P		**Pg**	**20 57 40.4**	**+0.3**
CHOS				S		**Sg**	**20 57 49.0**	**+1.2**
CHOS				AML		AML		
SMG	**Samos**	**0.60**	**98**	P		**Pg**	**20 57 40.8**	**+0.5**
SMG				S		**Sb**	**20 57 50.9**	**+0.3**
SMG				AML		AML		
DGB	**zmir**	**0.68**	**68**	P		**Pg**	**20 57 41.9**	**+0.1**
DGB				S		**Sg**	**20 57 52.1**	**+1.5**
GMLD	**Gumuldur**	**0.71**	**67**	Pg		**Pg**	**20 57 42.1**	**-0.3**
GMLD				Sg		**Sb**	**20 57 53.7**	**-0.1**
GMLD				AML		AML		
EAG2	**Marmaro, Chios**	**0.74**	**1**	P		**Pg**	**20 57 43.4**	**+0.3**
EAG2				S		**Sb**	**20 57 54.1**	**-0.7**
TNSA	**Tinos**	**0.78**	**251**	P		**Pb**	**20 57 44.4**	**-0.4**
TNSA				S		**Sb**	**20 57 54.9**	**-0.7**
TNSA				AML		AML		
BEYE	**izmir**	**0.79**	**57**	P		**Pg**	**20 57 43.6**	**-0.3**
BEYE				S		**Sg**	**20 57 55.5**	**+1.3**
APE	**Apeiranthos**	**0.85**	**211**	P		**Pb**	**20 57 45.8**	**-0.3**
APE				S		**Sb**	**20 57 58.1**	**+0.3**
APE				AML		AML		
APE	**Apeiranthos**	**0.85**	**211**	**⇑P**		**Pb**	**20 57 45.5**	**-0.6**
APE				**⇑S**		**Sb**	**20 57 57.4**	**-0.4**
APE	**Apeiranthos**	**0.85**	**211**	P		**Pb**	**20 57 45.5**	**-0.6**
APE				S		**Sb**	**20 57 57.8**	**-0.1**
APE				AML		AML		

KRBN	**Karaburun**	**0.88**	**25**		Pg	**Pg**	**20 57 45.6**	**0.0**	
KRBN					Sg	**Sb**	**20 57 59.5**	**+1.0**	
KRBN					AML	AML			
NAX1	**Naxos Island**	**0.90**	**219**		P	**Pn**	**20 57 47.3**	**-0.8**	
NAX1					S	**Sb**	**20 57 58.5**	**-0.6**	
NAX1					AML	AML			
KARB	**zmir-Karabur**	**0.90**	**16**		P	**Pg**	**20 57 45.8**	**-0.2**	
KARB					S	**Sg**	**20 57 58.4**	**+0.6**	
GCAM	**G?zelcaml?**	**0.92**	**96**		P	**Pg**	**20 57 46.4**	**+0.1**	
GCAM					S	**Sb**	**20 57 59.8**	**+0.2**	
GCAM	**G?zelcaml?**	**0.92**	**96**		Pg	**Pg**	**20 57 45.9**	**-0.4**	
GCAM					AML	AML			
KUSD	**Kusadasi-Aydin**	**0.95**	**86**		Pg	**Pg**	**20 57 46.6**	**-0.4**	
KUSD					AML	AML			
BLCB	**Balcova**	**0.96**	**52**		P	**Pg**	**20 57 46.9**	**-0.2**	
BLCB					S	**Sb**	**20 58 00.7**	**-0.2**	
BLCB					AML	AML			
BLCB	**Balcova**	**0.96**	**52**		Pg	**Pg**	**20 57 46.5**	**-0.6**	
BLCB					AML	AML			
DDIM	**Aydin, Didim**	**0.98**	**110**		P	**Pg**	**20 57 47.7**	**+0.2**	
DDIM					S	**Sn**	**20 58 03.3**	**-0.2**	
FOCM	**Foa**	**1.05**	**29**		Pn	**Pg**	**20 57 48.5**	**-0.3**	
FOCM					AML	AML			
BAGT	**Foa**	**1.05**	**35**		P	**Pg**	**20 57 48.3**	**-0.5**	
BAGT					S	**Sn**	**20 58 05.2**	**0.0**	
KLNA	**Kalymnos**	**1.10**	**140**		P	**Pg**	**20 57 48.7**	**-1.0**	
KLNA					S	**Sg**	**20 58 02.2**	**-1.8**	
KLNA					AML	AML			
DUVT	**Torbali**	**1.16**	**68**		P	**Pg**	**20 57 50.0**	**-0.9**	
DUVT					S	**Sn**	**20 58 07.9**	**0.0**	
YKAV	**Yalikavak-Bodr**	**1.16**	**125**		Pn	**Pg**	**20 57 50.3**	**-0.7**	
YKAV					AML	AML			
BODT	**Bodrum**	**1.22**	**127**		P	**Pb**	**20 57 52.4**	**0.0**	
BODT					S	**Sn**	**20 58 11.7**	**+2.2**	
BODT					AML	AML			
BODT	**Bodrum**	**1.22**	**127**		Pn	**Pg**	**20 57 51.3**	**-0.8**	
BODT					AML	AML			
ASTA	**Astypalaia**	**1.27**	**170**		P	**Pg**	**20 57 50.9**	**-2.2**	
ASTA					AML	AML			
BDRM	**Kayabasi**	**1.30**	**124**		P	**Pb**	**20 57 54.0**	**+0.3**	
BDRM					S	**Sn**	**20 58 13.7**	**+2.1**	
BDRM	**Kayabasi**	**1.30**	**124**	**⇓P**		**Pb**	**20 57 54.3**	**+0.5**	
BDRM				**⇓S**		**Sn**	**20 58 14.5**	**+2.9**	
BODA	**Bodrum-Mula**	**1.31**	**125**		Pn	**Pg**	**20 57 53.2**	**-0.7**	
KARY	**Karystos**	**1.32**	**281**		P	**Pg**	**20 57 53.0**	**-1.2**	
KARY					S	**Sn**	**20 58 12.7**	**+0.6**	
KARY					AML	AML			
KARY	**Karystos**	**1.32**	**281**		P	**Pg**	**20 57 52.8**	**-1.4**	
KARY					S	**Sb**	**20 58 11.1**	**-0.4**	
KARY					AML	AML			
DKL	**Dikili**	**1.43**	**27**		Pn	**Pn**	**20 57 55.2**	**-0.1**	
DKL					AML	AML			
DKL	**Dikili**	**1.43**	**27**		P	**Pn**	**20 57 53.6**	**-1.7**	
AYDN	**Tasoluk**	**1.43**	**95**		P	**Pg**	**20 57 56.2**	**+0.1**	
CMBO	**Columbo, Santo**	**1.43**	**203**		P	**Pg**	**20 57 57.7**	**+1.6**	
CMBO					S	**Sn**	**20 58 17.3**	**+2.6**	
CMBO					AML	AML			
CMBO	**Columbo, Santo**	**1.43**	**203**		P	**Pn**	**20 57 53.5**	**-1.9**	
CMBO					S	**Sg**	**20 58 12.9**	**-1.8**	
MLSB	**Milas**	**1.43**	**110**		Pn	**Pn**	**20 57 55.4**	**-0.1**	
MLSB					Sn	**Sn**	**20 58 15.6**	**+0.8**	
MLSB					AML	AML			
AYDB	**Zeytinkoy-Aydi**	**1.44**	**83**		Pn	**Pn**	**20 57 55.5**	**-0.1**	
AYDB					AML	AML			
THR2	**Thira island,**	**1.45**	**201**		P	**Pn**	**20 57 54.0**	**-1.6**	
PRK	**Paraskevi**	**1.45**	**6**		P	**Pn**	**20 57 54.3**	**-1.5**	
PRK					S	**Sn**	**20 58 17.4**	**+2.

NPS	**Neapolis**	**2.56**	**189**	P	**Pn**	**20 58 09.5**	**-1.4**
NPS				AML	AML		
ATAL	**Atalanti**	**2.57**	**291**	P	**Pn**	**20 58 10.6**	**-0.6**
LKR	**Lokris**	**2.58**	**290**	P	**Pn**	**20 58 10.2**	**-0.9**
LKR				AML	AML		
ZKR	**Zakros**	**2.68**	**178**	P	**Pn**	**20 58 10.4**	**-2.2**
ZKR				AML	AML		
IDI	**Anoyia**	**2.68**	**201**	Pn	**Pn**	**20 58 11.4**	**-1.3**
	7.4nm,0.3s,baz=24,slow=16,SNR=10						
IDI				Lg	Lg	20 58 54.6	
	27nm,0.3s,baz=248,slow=17,SNR=11						
IDI	**Anoyia**	**2.68**	**201**	P	**Pn**	**20 58 10.8**	**-1.9**
IDI				AML	AML		
NEO	**Neokhori**	**2.70**	**305**	P	**Pn**	**20 58 12.4**	**-0.6**
SMTH	**Samothraki Isl**	**2.71**	**351**	P	**Pn**	**20 58 11.6**	**-1.4**
THAL	**Thalero**	**2.72**	**276**	P	**Pn**	**20 58 12.9**	**-0.2**
VLI	**Veliai**	**2.73**	**248**	P	**Pn**	**20 58 11.9**	**-1.5**
VLI				AML	AML		
CAVK	**Edirne/Enez-Ca**	**2.89**	**1**	⇑P	**Pn**	**20 58 17.7**	**+2.2**
SIVA	**Sivas**	**2.96**	**201**	P	**Pn**	**20 58 15.6**	**-0.9**
GUR	**Goura**	**2.97**	**274**	P	**Pn**	**20 58 16.3**	**-0.3**
GUR				AML	AML		
THAS	**Thassos island**	**3.00**	**340**	P	**Pn**	**20 58 14.9**	**-2.0**
OUR	**Ouranopolis**	**3.02**	**328**	P	**Pn**	**20 58 15.8**	**-1.4**
ALN	**Alexandroupoli**	**3.10**	**359**	P	**Pn**	**20 58 16.9**	**-1.5**
KLV	**Kalavryta, Ach**	**3.12**	**276**	P	**Pn**	**20 58 18.4**	**-0.4**
KLV				AML	AML		
AGG	**Agios Georgios**	**3.19**	**294**	P	**Pn**	**20 58 19.5**	**-0.2**
AGG				AML	AML		
SERG	**Sergoula**	**3.24**	**282**	P	**Pn**	**20 58 20.2**	**-0.1**
SERG				AML	AML		
LAKA	**Lakka**	**3.27**	**279**	P	**Pn**	**20 58 21.0**	**+0.2**
LAKA				AML	AML		
PLG	**Polygyros**	**3.29**	**322**	P	**Pn**	**20 58 19.9**	**-1.1**
MG00	**Magoula, Dorid**	**3.32**	**282**	P	**Pn**	**20 58 21.6**	**+0.2**
MG00				AML	AML		
EFP	**Efpalio**	**3.36**	**282**	P	**Pn**	**20 58 21.6**	**-0.3**
EFP				AML	AML		
ITM	**Ithomi**	**3.37**	**261**	P	**Pn**	**20 58 21.4**	**-0.6**
ITM				AML	AML		
ANX	**Ano Chora**	**3.38**	**285**	P	**Pn**	**20 58 22.3**	**0.0**
ANX				AML	AML		
KAVA	**Kavala**	**3.42**	**340**	P	**Pn**	**20 58 21.5**	**-1.3**
VVK	**Vomvokou**	**3.43**	**282**	P	**Pn**	**20 58 22.3**	**-0.7**
VVK				AML	AML		
DRO	**Drossia**	**3.47**	**274**	P	**Pn**	**20 58 23.2**	**-0.3**
DRO				AML	AML		
EVR	**Evrytania**	**3.54**	**290**	P	**Pn**	**20 58 23.0**	**-1.5**
TYRN	**Tyrnavos**	**3.57**	**304**	P	**Pn**	**20 58 24.7**	**-0.1**
THL	**Klokotos Trika**	**3.64**	**300**	P	**Pn**	**20 58 25.9**	**+0.1**
PVO	**Paravola**	**3.68**	**284**	P	**Pn**	**20 58 27.0**	**+0.6**
PVO				AML	AML		
SOH	**Sokhos**	**3.69**	**326**	P	**Pn**	**20 58 26.0**	**-0.5**
PLEV	**Plevrona-Mesol**	**3.74**	**281**	P	**Pn**	**20 58 26.0**	**-1.2**
PLEV				AML	AML		
AXS	**Araxos**	**3.74**	**278**	P	**Pn**	**20 58 26.2**	**-1.0**
AXS				AML	AML		
SRS	**Serrai**	**3.84**	**331**	P	**Pn**	**20 58 27.2**	**-1.3**
NVR	**Nevrokopi**	**3.94**	**335**	P	**Pn**	**20 58 28.1**	**-1.9**
PDO	**Prodromos**	**3.94**	**283**	P	**Pn**	**20 58 28.4**	**-1.6**
PDO				AML	AML		
AMPL	**Ampelaki**	**3.99**	**288**	P	**Pn**	**20 58 31.4**	**+0.8**
AMPL				AML	AML		
TETR	**Tetrakomo, Epi**	**4.08**	**294**	P	**Pn**	**20 58 31.0**	**-0.9**
TETR				AML	AML		
KNT	**Kendrikon**	**4.17**	**325**	P	**Pn**	**20 58 32.7**	**-0.4**
KZN	**Kozani**	**4.19**	**308**	P	**Pn**	**20 58 33.5**	**0.0**
KPRO	**Kipourio**	**4.27**	**302**	P	**Pn**	**20 58 34.5**	**0.0**
EVGI	**Lefkada island**	**4.36**	**283**	P	**Pn**	**20 58 35.0**	**-0.6**
EVGI				AML	AML		
LKD2	**Lefkada island**	**4.38**	**285**	P	**Pn**	**20 58 36.7**	**+0.7**
LKD2				AML	AML		
DRAG	**Dragano-Lefkad**	**4.43**	**283**	P	**Pn**	**20 58 35.7**	**-1.0**
DRAG				AML	AML		
KEPZ	**Antalya-Kepez**	**4.49**	**100**	⇑P	**Pn**	**20 58 39.5**	**+2.0**
PENT	**Pentalofos**	**4.54**	**303**	P	**Pn**	**20 58 36.4**	**-1.9**
NEST	**Nestorio**	**4.71**	**305**	P	**Pn**	**20 58 39.1**	**-1.5**
IGT	**Igoumenitsa**	**4.83**	**293**	P	**Pn**	**20 58 40.1**	**-2.0**
ELND	**Elena**	**5.13**	**358**	⇓P	**Pn**	**20 58 49.5**	**+3.2**
LOZB	**Loznitsa**	**5.58**	**4**	⇑P	**Pn**	**20 58 55.5**	**+3.1**
PLVB	**Pleven**	**5.69**	**349**	⇑P	**Pn**	**20 58 56.2**	**+2.2**
RAZG	**Razgrad**	**5.77**	**3**	⇑P	**Pn**	**20 58 57.0**	**+1.9**
BRTR	**Keskin Array B**	**6.21**	**70**	Pn	**Pn**	**20 58 59.9**	**-1.3**
	0.3nm,0.3s,baz=246,slow=13,SNR=6.2						
BRTR				Lg	Lg	21 00 47.4	
	baz=263,slow=23						
BRTR				LR	LR	21 01 39.2	
	comp=Z,101nm,21.2s,baz=244,slow=41						
	0.6nm,0.6s						
BRTR				AML	AML		
BLB	**Belogradchik**	**6.37**	**337**	⇑P	**Pn**	**20 59 04.6**	**+1.3**
ICOR	**Ion Corvin**	**6.45**	**11**	⇓P	**Pn**	**20 59 08.3**	**+3.9**
BOVS	**Bovan**	**6.71**	**332**	⇓P	**Pn**	**20 59 08.9**	**+0.9**
HERR	**Herculane**	**7.60**	**340**	⇑P	**Pn**	**20 59 21.4**	**+1.3**
VOIR		**7.67**	**355**	⇑P	**Pn**	**20 59 24.3**	**+3.0**
MLR	**Muntele Rosu**	**7.69**	**359**	Pn	**Pn**	**20 59 22.8**	**+1.3**
	0.6nm,0.3s,baz=90,slow=23,SNR=4.2						
	3.0nm,0.6s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**7.69**	**359**	⇑P	**Pn**	**20 59 24.7**	**+3.2**
GZR	**Gura Zlata**	**7.98**	**343**	⇓P	**Pn**	**20 59 26.9**	**+1.4**
COVR	**Voineasa-Covas**	**8.04**	**1**	⇓P	**Pn**	**20 59 29.5**	**+3.2**
PLOR	**Plostina**	**8.06**	**3**	⇓P	**Pn**	**20 59 29.9**	**+3.4**
VRI	**Vrincioaia**	**8.08**	**3**	⇑P	**Pn**	**20 59 30.0**	**+3.3**
DOPR	**Dopca**	**8.18**	**357**	⇑P	**Pn**	**20 59 30.5**	**+2.3**
ONER	**Baraj Valea Uz**	**8.54**	**1**	⇑P	**Pn**	**20 59 36.3**	**+3.3**
MMAI	**Mount Meron Ar**	**8.98**	**119**	Pn	**Pn**	**20 59 37.1**	**-2.1**
	1.7nm,0.3s,baz=308,slow=13,SNR=6.6						
MMAI				Sn	**Sn**	**21 01 12.5**	**-8.3**
	0.7nm,0.3s,baz=283,slow=13,SNR=2.7						
	0.9nm,0.4s						
MMAI				AML	AML		
BIZ	**Bicaz**	**9.14**	**0**	⇓P	**Pn**	**20 59 44.3**	**+3.0**
ASF	**Jabal al Asfar**	**10.46**	**119**	Pn	**Pn**	**20 59 57.5**	**-2.4**
	0.1nm,0.3s,baz=300,slow=16,SNR=1.6						
	1.1nm,0.8s						
ASF				AML	AML		
EIL	**Elat**	**10.96**	**135**	Pn	**Pn**	**21 00 03.0**	**-3.2**
	0.3nm,0.3s,baz=321,slow=14,SNR=4.3						
	2.9nm,0.6s						
EIL				AML	AML		
GNI	**Garni**	**14.70**	**75**	LR	LR	21 06 33.8	
	comp=Z,39nm,19.2s,baz=329,slow=37						
ESDC	**Sonseca Array**	**23.47**	**284**	P	**P**	**21 02 39.7**	**+0.5**
	0.6nm,0.6s,baz=89,slow=10,SNR=7.6						
	0.6nm,0.6s						
NOA	**NORSAR Array B**	**25.07**	**343**	LR	LR	21 15 29.4	
	comp=Z,30nm,18.1s,baz=355,slow=43						
TORD	**Torodi Ar. Bea**	**32.78**	**228**	P	**P**	**21 04 03.9**	**+0.9**
	0.4nm,0.4s,baz=37,slow=10.0,SNR=2.3						
	0.4nm,0.4s						
BORG	**Borgarnes**	**38.62**	**330**	LR	LR	21 21 18.5	
	comp=Z,39nm,21.0s,baz=161,slow=37						
KURBB	**Kurchatov Arra**	**38.92**	**53**	P	**P**	**21 04 54.9**	**-0.4**
	0.3nm,0.5s,baz=280,slow=8.6,SNR=2.8						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**41.74**	**59**	P	**P**	**21 05 18.6**	**-0.2**
	0.4nm,0.7s,baz=274,slow=8.8,SNR=4.5						
	0.4nm,0.7s						
ZALV	**Zalesovo Beam**	**42.67**	**48**	P	**P**	**21 05 25.7**	**-0.5**
	0.4nm,0.3s,baz=282,slow=7.1,SNR=2.1						
	0.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**65.56**	**85**	P	**P**	**21 08 13.4**	**-0.4**
	0.2nm,0.4s,baz=300,slow=8.2,SNR=1.9						
	0.2nm,0.4s						
KSRS	**Korea Array**	**76.10**	**53**	LR	LR	21 46 56.2	
	comp=Z,21nm,19.0s,baz=70,slow=39						

*ISK **06** 21:58:45.3, 37˚.84N×26˚.92E, h6km, ML3.1/17*
*THE **06** 21:58:45.9, 37˚.9N±0˚.9×27˚.7E±˚, h10km±1km, M3.2/8, MLh3.2/8*
*AFAD **06** 21:58:45.6, 37˚.85N×26˚.92E, h7km±2km, ML2.6*

ISC 06 21:58:45.5±0.8,**37˚.84N**±0˚.02×**26˚.91E**±0˚.02,**h16**km±6km, **n41**,σ0**s42/72**,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**203**	P	**Pb**	**21 58 49.4**	**-0.5**
SMG				S	**Sb**	**21 58 52.3**	**-0.5**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**354**	P	**Pg**	**21 58 50.3**	**0.0**
DGB				IAML		21 58 53.0	
	comp=N,767nm,0.1s						
DGB				S	**Sg**	**21 58 53.6**	**0.0**
DGB				IAML		21 58 55.0	
	comp=E,1μm,0.3s						
GMLD	**Gumuldur**	**0.23**	**1**	Pg	**Pg**	**21 58 50.6**	**-0.1**
GMLD				Sg	**Sg**	**21 58 54.3**	**0.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**119**	P	**Pg**	**21 58 51.7**	**0.0**
GCAM				IAML		21 58 56.0	
	comp=E,1μm,0.2s						
GCAM				S	**Sb**	**21 58 56.7**	**-0.3**
GCAM				IAML		21 58 57.0	
	comp=N,2μm,0.3s						
GCAM	**G?zelcaml?**	**0.29**	**119**	Pg	**Pg**	**21 58 51.6**	**-0.1**
GCAM				Sg	**Sg**	**21 58 56.2**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**87**	Pg	**Pg**	**21 58 51.6**	**-0.2**
KUSD				Sg	**Sg**	**21 58 56.1**	**-0.1**
KUSD				AML	AML		
BEYE	**zmir**	**0.38**	**2**	P	**Pg**	**21 58 53.4**	**+0.1**
BEYE				IAML		21 58 59.0	
	comp=N,525nm,0.6s						
BEYE				S	**Sb**	**21 58 59.2**	**-0.4**
BEYE				IAML		21 59 02.0	
	comp=E,655nm,0.2s						
DDIM	**Aydin, Didim**	**0.47**	**146**	P	**Pg**	**21 58 55.0**	**+0.2**
DDIM				S	**Sb**	**21 59 01.9**	**0.0**
DDIM				IAML		21 59 03.0	
	comp=E,443nm,0.3s						
DDIM				IAML		21 59 06.0	
	comp=N,425nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**321**	P	**Pg**	**21 58 55.6**	**0.0**
ZEYE				IAML		21 59 03.0	
	comp=N,1μm,0.3s						
ZEYE				S	**Sb**	**21 59 03.4**	**+0.2**
ZEYE				IAML		21 59 06.0	
	comp=E,978nm,0.2s						
BLCB	**Balcova**	**0.55**	**11**	P	**Pg**	**21 58 56.5**	**+0.1**
BLCB				S	**Sb**	**21 59 04.2**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**11**	Pg	**Pg**	**21 58 56.5**	**+0.1**
BLCB				Sg	**Sb**	**21 59 04.2**	**-0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**48**	P	**Pg**	**21 58 56.5**	**-0.2**
DUVT				S	**Sg**	**21 59 04.3**	**0.0**
DUVT				IAML		21 59 07.0	
	comp=E,490nm,0.3s						
CESE	**eme**	**0.68**	**315**	Pg	**Pg**	**21 58 59.1**	**+0.2**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**158**	Pg	**Pb**	**21 59 00.6**	**0.0**
YKAV				Sg	**Sg**	**21 59 11.8**	**+1.0**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.78**	**82**	Pg	**Pb**	**21 59 00.7**	**-0.1**
AYDB				Sg	**Sg**	**21 59 11.8**	**+0.7**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.79**	**103**	P	**Pg**	**21 59 01.0**	**+0.1**
AYDN				S	**Sb**	**21 59 11.0**	**-0.4**
AYDN				IAML		21 59 14.0	
	comp=N,188nm,0.3s						
AYDN				IAML		21 59 14.0	
	comp=E,234nm,0.2s						
KRBN	**Karaburun**	**0.80**	**340**	Pg	**Pg**	**21 59 01.1**	**+0.1**
KRBN				Sg	**Sn**	**21 59 12.8**	**-0.9**
KRBN				AML	AML		
BAGT	**Foa**	**0.81**	**357**	P	**Pn**	**21 59 02.0**	**-0.2**
BAGT				S	**Sn**	**21 59 13.6**	**-0.4**
BAGT				IAML		21 59 15.0	
	comp=N,614nm,0.7s						
BAGT				IAML		21 59 17.0	
	comp=E,321nm,0.8s						
BODT	**Bodrum**	**0.84**	**158**	P	**Pb**	**21 59 01.5**	**-0.2**
BODT				S	**Sn**	**21 59 14.6**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**158**	Pg	**Pb**	**21 59 01.8**	**0.0**
BODT				AML	AML		
CHOS	**Chios island**	**0.86**	**309**	P	**Pn**	**21 59 02.6**	**-0.4**
CHOS				S	**Sn**	**21 59 15.2**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**309**	Pg	**Pg**	**21 59 02.5**	**+0.2**
CHOS				Sg	**Sn**	**21 59 15.0**	**-0.4**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.87**	**70**	P	**Pb**	**21 59 02.3**	**+0.1**
IZMR				S	**Sb**	**21 59 12.7**	**-1.0**
IZMR				IAML		21 59 16.0	
	comp=N,83nm,0.4s						
IZMR				IAML		21 59 17.0	
	comp=E,109nm,0.4s						
FOCM	**Foa**	**0.88**	**351**	Pg	**Pg**	**21 59 02.5**	**0.0**
FOCM				Sg	**Sn**	**21 59 15.2**	**-0.4**
FOCM				AML	AML		
MLSB	**Milas**	**0.88**	**128**	Pg	**Pb**	**21 59 02.5**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.89**	**151**	P	**Pb**	**21 59 02.4**	**0.0**
BDRM				S	**Sg**	**21 59 15.0**	**+0.6**
BDRM				IAML		21 59 16.0	
	comp=N,239nm,0.5s						
BDRM				IAML		21 59 17.0	
	comp=E,292nm,0.5s						
KARB	**zmir-Karabur**	**0.91**	**335**	P	**Pb**	**21 59 02.8**	**-0.1**
KARB				S	**Sn**	**21 59 16.2**	**-0.1**
KARB				IAML		21 59 18.0	
	comp=N,341nm,0.6s						
KARB				IAML		21 59 18.0	
	comp=E,278nm,0.2s						
BODA	**Bodrum-Mula**	**0.91**	**153**	Pg	**Pb**	**21 59 02.9**	**+0.1**
CAMT	**Merkez**	**0.96**	**19**	P	**Pg**	**21 59 04.0**	**0.0**
CAMT				S	**Sn**	**21 59 18.3**	**+0.7**
CAMT				IAML		21 59 19.0	
	comp=N,572nm,0.3s						
CAMT				IAML		21 59 20.0	
	comp=E,348nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.10**	**83**	Pn	**Pb**	**21 59 05.7**	**-0.4**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.13**	**7**	P	**Pb**	**21 59 06.9**	**+0.3**
ZEDA				S	**Sg**	**21 59 22.6**	**+0.6**
ZEDA				IAML		21 59 24.0	
	comp=N,184nm,0.3s						
ZEDA				IAML		21 59 25.0	
	comp=E,177nm,0.4s						
GOMA	**Golmarmara-Man**	**1.17**	**42**	Pn	**Pg**	**21 59 08.0**	**-0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.23**	**360**	Pn	**Pg**	**21 59 09.3**	**+0.2**
DKL				AML	AML		
AKS	**Akhisar**	**1.25**	**34**	Pn	**Pg**	**21 59 09.5**	**-0.2**
AKHS	**Akhisar**	**1.25**	**34**	P	**Pb**	**21 59 09.1**	**+0.4**
AKHS				S	**Sg**	**21 59 26.6**	**+0.6**
AKHS				IAML		21 59 29.0	
	comp=N,228nm,0.5s						
KTTT	**Salihli**	**1.26**	**47**	P	**Pb**	**21 59 09.1**	**+0.3**
KTTT				S	**Sn**	**21 59 25.4**	**+0.4**
KTTT				IAML		21 59 27.0	
	comp=N,113nm,0.4s						
YER	**Yerkesik**	**1.30**	**123**	P	**Pn**	**21 59 09.1**	**+0.1**
YER				S	**Sg**	**21 59 28.4**	**+0.8**
APE	**Apeiranthos**	**1.34**	**235**	P	**Pb**	**21 59 10.4**	**+0.1**
APE				S	**Sg**	**21 59 29.8**	**+0.9**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.40**	**20**	Pn	**Pb**	**21 59 11.8**	**+0.6**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.46**	**43**	Pn	**Pb**	**21 59 12.9**	**+0.7**
GORD				AML	AML		
PRK	**Paraskevi**	**1.49**	**341**	P	**Pb**	**21 59 12.0**	**-0.7**
PRK				S	**Sg**	**21 59 34.7**	**+1.3**

DJA 06 22:12:25.6±0.4,**2˚S**±3˚×**11˚9E**±˚,**h10**km,**M4.0**/14,**mb4.3**/1, **MLv3.8**/14,**Sulawesi**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MMSI	**Mamuju**	**0.78**	**213**	P	Pg	22 12 40.5	-0.3
MMSI				AML	AML		
TTSI	**Tana Toraja**	**1.12**	**155**	P	Pb	22 12 46.5	-0.5
TTSI				AML	AML		
PCI	**Palu**	**1.22**	**24**	P	Pn	22 12 47.4	-1.4
PCI				AML	AML		
PMSI	**Majene**	**1.52**	**196**	P	Pg	22 12 54.8	0.0
PMSI				AML	AML		
APSI	**Ampana**	**2.56**	**64**	P	Pn	22 13 09.2	+2.0
APSI				AML	AML		
KAPI	**Kappang**	**2.99**	**172**	P	Pb	22 13 19.7	+0.7
BKSI	**Bulukumba**	**3.36**	**167**	P	Pb	22 13 27.5	+2.2
LUWI	**Luwuk**	**3.57**	**74**	P	Pg	22 13 33.7	-0.3
GTOI	**Gorontalo**	**4.53**	**54**	P	Pn	22 13 35.7	+1.5
GTOI				AML	AML		
MMRI	**Maumere**	**7.17**	**156**	P	Pn	22 14 05.8	-4.8

*TIR **06** 22:14:58.0, 39˚.62N×18˚.75E, h20km±5km, ML2.8, ML2.8, Presumed earthquake*

ISC 06 22:14:57.4±1.7,**39˚.61N**±0˚.09×**18˚.69E**±0˚.05,**h15**km±10km, **n14**,σ1**s76/22**,**Southern Italy**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KEK	**Kerkira**	**0.86**	**83**	Pg	**Pg**	**22 15 13.1**	**-1.1**
KEK				Sg	**Sg**	**22 15 24.8**	**-0.8**
SRN	**Sarande**	**1.05**	**75**	Pg	**Pn**	**22 15 17.9**	**+0.4**
SRN				Sg	**Sb**	**22 15 31.7**	**+0.9**
VLO	**Vlora**	**1.06**	**36**	Pg	**Pn**	**22 15 19.1**	**+1.4**
VLO				Sg	**Sn**	**22 15 34.0**	**+1.8**
VLO				IAML		22 15 37.8	
	393nm,0.3s						
IGT	**Igoumenitsa**	**1.28**	**93**	Pg	**Pn**	**22 15 21.0**	**+0.3**
IGT				Sg	**Sn**	**22 15 38.5**	**+0.9**
BERA	**Berati**	**1.46**	**41**	Pn	**Pb**	**22 15 24.1**	**-0.2**
BERA				Sn	**Sg**	**22 15 44.2**	**-0.2**
BERA				IAML		22 15 46.7	
	36nm,0.6s						
LSK	**Leskovik**	**1.57**	**69**	Pg	**Pb**	**22 15 26.1**	**-0.1**
LSK				Sg	**Sg**	**22 15 48.4**	**+0.4**
NOCI	**Noci**	**1.71**	**314**	Pn	**Pg**	**22 15 29.9**	**-0.3**
NOCI				Sn	**Sg**	**22 15 53.9**	**+1.5**
NOCI				IAML		22 15 57.9	
	107nm,0.2s						
NEST	**Nestorio**	**1.98**	**65**	Pn	**Pb**	**22 15 33.1**	**-0.2**
DBRK	**Dubrovnik**	**3.08**	**353**	Sn	**Sn**	**22 16 20.0**	**-2.1**
STON	**Ston**	**3.34**	**347**	*e*Pn	**Pn**	**22 15 52.1**	**+3.0**
STON				Sn	**Sn**	**22 16 27.1**	**-1.3**
LSTV	**Lastovo**	**3.43**	**337**	Sn	**Sn**	**22 16 27.5**	**-3.2**
HVAR	**Hvar**	**3.94**	**335**	Sn	**Sn**	**22 16 41.1**	**-2.1**
RICI	**Ricice**	**4.05**	**344**	Sn	**Sn**	**22 16 44.4**	**-1.7**
KIJV	**Kijevo**	**4.71**	**340**	Sn	**Sn**	**22 16 59.0**	**-3.3**

*IDC **06** 22:32:35.4±1.3, 6˚.72S×129˚.12E, h0km, mb3.9/3, mbtmp3.9/6, ML4.1/3, Error ellipse: s-maj=39.3km s-min=14.5km az=76.0*

ISC 06 22:32:38.9±1.2,**7˚.17S**±0˚.09×**129˚.1E**±0˚.2,**h35**km,**n6**, σ2**s26/9**,**mb3.8/3**,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.38**	**197**	Pn	**Pn**	**22 35 19.9**	**+0.8**
	0.1nm,0.3s,baz=16,slow=13,SNR=1.7						
FITZ				Sn	**Sn**	**22 37 23.4**	**-1.7**
	2.9nm,0.3s,baz=71,slow=23,SNR=10						
	0.6nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.66**	**159**	Pn	**Pn**	**22 35 51.3**	**+1.0**
	2.4nm,0.3s,baz=340,slow=14,SNR=31						
WRA				Sn	**Sn**	**22 38 17.5**	**-3.4**
	2.4nm,0.3s,baz=332,slow=22,SNR=14						
	1.1nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.03**	**165**	P	**P**	**22 36 39.1**	**+3.1**
	0.6nm,0.3s,baz=349,slow=9.3,SNR=14						
ASAR				S	**Sn**	**22 39 42.4**	**-0.4**
	1.3nm,0.5s,baz=350,slow=25,SNR=6.6						
	1.4nm,0.5s						
ASAR				AML	AML		
CMAR	**Chiang Mai Arr**	**39.19**	**311**	P	**P**	**22 40 04.1**	**+0.2**
	1.2nm,0.3s,baz=124,slow=9.2,SNR=4.6						
	1.2nm,0.3s						
MKAR	**Makanchi Array**	**67.90**	**327**	P	**P**	**22 43 33.8**	**-0.2**
	0.3nm,0.3s,baz=117,slow=7.9,SNR=7.9						
	0.3nm,0.3s						
ZALV	**Zalesovo Beam**	**71.36**	**334**	P	**P**	**22 43 52.9**	**-2.1**
	0.6nm,0.5s,baz=134,slow=6.2,SNR=2.4						
	0.6nm,0.5s						

*IDC **06** 22:53:31.5±1.2, 25˚.64N×143˚.78E, h0km, mb3.6/6, mbtmp3.6/8, ML3.3/2, Error ellipse: s-maj=37.9km s-min=17.2km az=69.0*

ISC 06 22:53:36.7±1.1,**25˚.7N**±0˚.1×**143˚.6E**±0˚.2,**h35**km,**n14**, σ1**s21/9**,**mb3.5/6**,**Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JCJ	**Chichijima**	**1.88**	**317**	Pn	**Pn**	**22 54 05.5**	**-0.9**
	30nm,0.3s,baz=276,slow=21,SNR=8.3						
JCJ				Sn	**Sn**	**22 54 30.1**	**+1.3**
	54nm,0.3s,baz=333,slow=23,SNR=6.0						
	40nm,0.3s						
JCJ				AML	AML		
MJAR	**Matsushiro Arr**	**11.73**	**338**	Pn	**Pn**	**22 56 19.9**	**-1.6**
	0.1nm,0.3s,baz=130,slow=5.1,SNR=1.8						
	0.8nm,0.5s						
MJAR				AML	AML		
H11N2	**WAKE ISLAND Hy**	**22.26**	**101**	T	T	23 21 16.3	
	baz=290,slow=75,SNR=8.4						
H11N1	**WAKE ISLAND Hy**	**22.26**	**101**	T	T	23 21 16.9	
	baz=290,slow=75,SNR=9.9						
H11N3	**WAKE ISLAND Hy**	**22.27**	**101**	T	T	23 21 17.3	
	baz=290,slow=75,SNR=11						
H11S3	**WAKE ISLAND Hy**	**22.52**	**104**	T	T	23 21 38.9	
	baz=293						
H11S1	**WAKE ISLAND Hy**	**22.53**	**104**	T	T	23 21 41.3	
	baz=293						
H11S2	**WAKE ISLAND Hy**	**22.54**	**104**	T	T	23 21 40.9	
	baz=293						
WRA	**Warramunga Arr**	**46.29**	**192**	P	**P**	**23 01 58.2**	**-0.9**
	0.4nm,0.7s,baz=13,slow=8.8,SNR=6.0						
	0.4nm,0.7s						
ASAR	**Alice Springs**	**50.00**	**192**	P	**P**	**23 02 27.7**	**0.0**
	0.1nm,0.3s,baz=15,slow=12,SNR=4.2						
	0.1nm,0.3s						
KURBB	**Kurchatov Ar

NPLP IAML 23 01 52.7
comp=Z,115nm,0.9s
KUDL Kundal 5.34 171 *i* P **Pn** **23 00 37.3 +0.1**
KBL Kabul 5.52 283 P **Pn** **23 00 42.5 +2.6**
KBL Kabul 5.52 283 **Pn** **23 00 42.5 +2.6**
KBL Kabul 5.52 283 P **Pn** **23 00 42.6 +2.6**
comp=Z,41nm,0.6s
PTH Pithoragarh 5.52 133 *i* P **Pn** **23 00 43.6 +3.7**
PTH *i* S **Sn** **23 01 50.5 +7.7**
PTH IAML 23 02 24.5
comp=Z,63nm,0.6s
LGTI Lohaghat 5.59 135 *i* P **Pn** **23 00 42.7 +1.9**
LGTI IAML 23 01 54.0
comp=Z,84nm,3.0s
KSH2 Kashi 5.70 0 Pn **Pn** **23 00 47.0 +4.7**
KSH2 Sn **Sn** **23 01 52.1 +5.0**
KSH2 smax smax
comp=N,77nm,0.9s
KSH2 smax smax
comp=E,110nm,1.0s
DRK Karamyk 6.75 334 P **Pn** **23 00 58.3 +1.5**
DRK S **Sn** **23 02 13.3 +0.2**
DRK Karamyk 6.75 334 **Pn** **23 00 58.4 +1.5**
DRK Sn **Sn** **23 02 13.3 +0.2**
DRK Karamyk 6.75 334 P **Pn** **23 00 58.9 +2.0**
comp=Z,30nm,0.9s
ASAI AK-SAY(Kyrgyzs 7.51 6 P **Pn** **23 01 09.0 +1.7**
comp=Z,19nm,0.7s
BTK Batken 7.62 331 P **Pn** **23 01 10.2 +1.5**
BTK Batken 7.62 331 **Pn** **23 01 10.2 +1.5**
BTK Batken 7.62 331 P **Pn** **23 01 10.7 +2.1**
comp=Z,24nm,0.6s
NRN Naryn 7.99 2 P **Pn** **23 01 13.6 -0.3**
NRN Naryn 7.99 2 **Pn** **23 01 13.6 -0.3**
ARSB Arslanbob 8.13 346 P **Pn** **23 01 15.8 +0.1**
ARSB Arslanbob 8.13 346 **Pn** **23 01 15.8 +0.1**
WUS Wushi 8.28 20 **Pn** **23 01 16.0 -1.7**
WUS Wushi 8.28 20 P **Pn** **23 01 19.1 +1.4**
comp=Z,28nm,0.7s
TRKS Terek-Say 8.81 338 P **Pn** **23 01 26.1 +1.2**
ARK Arkit 8.82 342 P **Pn** **23 01 26.2 +1.1**
ARK Arkit 8.82 342 P **Pn** **23 01 26.2 +1.1**
comp=Z,13nm,0.7s
AAK Ala-Arcba 9.22 355 Pn **Pn** **23 01 32.0 +1.4**
comp=Z,0.3nm,0.3s,baz=180,slow=7.8,SNR=13
AAK Sn **Sn** **23 03 10.6 -3.2**
comp=Z,0.7nm,0.3s,baz=65,slow=22,SNR=3.8
AAK LR LR 23 05 42.9
comp=Z,103nm,19.6s,baz=178,slow=42
comp=Z,3.8nm,0.8s
AAK AML AML
AAK Ala-Arcba 9.22 355 ⇓P **Pn** **23 01 30.2 -0.5**
comp=Z,3.2nm,0.7s
AAK ⇑S **Sn** **23 03 14.3 +0.5**
comp=Z,6.8nm,0.8s
AAK Ala-Arcba 9.22 355 P **Pn** **23 01 30.2 -0.5**
AAK S **Sn** **23 03 14.3 +0.5**
AAK Ala-Arcba 9.22 355 **Pn** **23 01 29.5 -1.2**
AAK Ala-Arcba 9.22 355 P **Pn** **23 01 32.3 +1.7**
comp=Z,16nm,0.9s
PRZ Przheval'sk 9.31 13 P **Pn** **23 01 29.9 -1.9**
PRZ Przheval'sk 9.31 13 **Pn** **23 01 29.9 -1.9**
PRZ Przheval'sk 9.31 13 P **Pn** **23 01 33.5 +1.7**
comp=Z,22nm,0.6s
FRU1 Bishkek 9.39 356 P Pn 23 01 29.5 -3.3
FRU1 Bishkek 9.39 356 Pn Pn 23 01 29.5 -3.3
ANVS Anan'yevo 9.48 9 P **Pn** **23 01 36.4 +2.2**
ANVS Anan'yevo 9.48 9 P **Pn** **23 01 36.4 +2.2**
comp=Z,32nm,0.9s
PDGK Podgornoye 10.35 16 ⇑P **Pn** **23 01 45.7 -0.3**
comp=Z,15nm,0.5s
PDGK ⇑S **Sn** **23 03 43.8 +2.4**
comp=Z,12nm,0.7s
PDGK Podgornoye 10.35 16 P **Pn** **23 01 45.7 -0.3**
PDGK S **Sn** **23 03 43.8 +2.4**
PDGK Podgornoye 10.35 16 **Pn** **23 01 43.6 -2.4**
KK31 Karatay Array 10.43 339 ⇑P **Pn** **23 01 47.2 +0.1**
comp=Z,1.7nm,0.3s,baz=153,slow=12,SNR=52
KK31 ⇑S **Sn** **23 03 41.4 -1.8**
comp=Z,22nm,0.8s,baz=158,slow=24
KK31 Karatay Array 10.43 339 P **Pn** **23 01 47.2 +0.1**
KK31 S **Sn** **23 03 41.4 -1.8**
KK31 Karatay Array 10.43 339 **Pn** **23 01 46.0 -1.0**
KKAR Karatay Array 10.43 339 P **Pn** **23 01 45.3 -1.7**
KKAR Karatay Array 10.43 339 **Pn** **23 01 45.3 -1.7**
EVN Everest 11.12 116 **Pn** **23 01 55.7 -1.5**
EVN Everest 11.12 116 P **Pn** **23 01 56.0 -1.1**
comp=Z,17nm,0.7s
WMQ Urumqi 14.04 39 *e*P **Pn** **23 02 37.4 +1.0**
WMQ LR LR
comp=Z,100nm,17.9s
MAKZ Makanchi 14.22 18 P **Pn** **23 02 38.4 -0.5**
MAKZ S **Sn** **23 05 16.1 +0.2**
MAKZ Makanchi 14.22 18 P **Pn** **23 02 38.4 -0.5**
MAKZ S **Sn** **23 05 16.1 +0.2**
MAKZ Makanchi 14.22 18 **Pn** **23 02 37.1 -1.7**
MAKZ Makanchi 14.22 18 P **Pn** **23 02 39.2 +0.3**
comp=Z,12nm,0.9s
MK31 Makanchi Array 14.29 19 P **Pn** **23 02 40.6 +0.7**
comp=Z,1.7nm,0.3s,baz=200,slow=14,SNR=17
MK31 S **Sn** **23 05 18.2 +0.5**
comp=Z,3.7nm,0.5s,baz=200,slow=26,SNR=6.3
MK31 Makanchi Array 14.29 19 P **Pn** **23 02 40.6 +0.7**
MK31 S **Sn** **23 05 18.2 +0.5**
MKAR Makanchi Array 14.29 19 Pn **Pn** **23 02 37.8 -2.1**
comp=Z,0.4nm,0.3s,baz=203,slow=14,SNR=14
MKAR Sn **Sn** **23 05 10.9 -6.8**
comp=Z,0.6nm,0.3s,baz=206,slow=24,SNR=5.3
MKAR LR LR 23 07 56.1
comp=Z,26nm,19.0s,baz=201,slow=36
comp=Z,1.3nm,0.6s
MKAR AML AML
MKAR Makanchi Array 14.29 19 *i* P **Pn** **23 02 40.2 +0.3**
MKAR pmax pmax
comp=Z,1.0nm,0.5s
MKAR Makanchi Array 14.29 19 Pn **Pn** **23 02 38.0 -1.8**
SHL Shillong 16.22 115 P **Pn** **23 03 06.4 +0.8**
KURBB Kurchatov Arra 17.31 6 P **Pn** **23 03 16.1 -2.9**
comp=Z,2.4nm,0.6s,baz=197,slow=10,SNR=16
KURBB Kurchatov Arra 17.31 6 P **Pn** **23 03 18.5 -0.5**
KURBB Kurchatov Arra 17.31 6 P **Pn** **23 03 18.5 -0.5**
KURK Kurchatov 17.41 7 P **Pn** **23 03 20.3 +0.1**
KURK Kurchatov 17.41 7 ‖ *e*P **Pn** **23 03 19.1 -1.1**
KURK Kurchatov 17.41 7 **Pn** **23 03 17.9 -2.4**
DGZ Jazzator, Alta 18.48 25 *de*P **P** **23 03 32.5 -0.9**
DGZ pmax pmax
comp=Z,6.0nm,0.5s
AB31 Akbulak array 19.61 328 P **P** **23 03 47.1 +1.5**
comp=Z,3.5nm,0.6s,baz=138,slow=11,SNR=46
AB31 Akbulak array 19.61 328 P **P** **23 03 47.1 +1.5**
AB31 Akbulak array 19.61 328 P **P** **23 03 45.2 -0.4**
ABKAR Akbulak array 19.61 328 P **P** **23 03 45.2 -0.4**
BVA0 Borovoye Array 19.93 351 P **P** **23 03 49.5 +0.5**
comp=Z,0.7nm,0.4s,baz=162,slow=9.8,SNR=38
BVA0 Borovoye Array 19.93 351 P **P** **23 03 49.5 +0.5**
BVAR Borovoye Array 19.93 351 P **P** **23 03 48.8 -0.2**
comp=Z,10nm,0.5s,baz=166,slow=10,SNR=47
comp=Z,10nm,0.5s
BORK Borovoye 19.96 351 *de*P **P** **23 03 49.6 +0.3**
BORK pmax pmax
comp=Z,6.0nm,0.5s
BORK Borovoye 19.96 351 P **P** **23 03 49.4 +0.1**
BORK IAmb IAmb 23 03 50.9
comp=Z,12nm,0.4s
GTA2 Gaotai 20.36 66 *e*P **P** **23 03 54.9 +1.0**
GTA2 pmax pmax
comp=Z,7.0nm,0.8s
AKTO Aktyubinsk 21.33 328 P **P** **23 04 04.3 +0.2**
comp=Z,17nm,0.7s,baz=127,slow=10.0,SNR=51
AKTO LR LR 23 12 02.1
comp=Z,67nm,18.1s,baz=180,slow=36
comp=Z,17nm,0.7s
AKTO Aktyubinsk 21.33 328 P **P** **23 04 04.1 0.0**
ZAA0 Zalesovo Array 21.54 15 P **P** **23 04 04.6 -1.7**
ZALV Zalesovo Beam 21.54 15 P **P** **23 04 04.4 -1.9**
comp=Z,10nm,0.5s,baz=213,slow=12,SNR=27
comp=Z,10nm,0.5s
ZALV Zalesovo Beam 21.54 15 *i* P **P** **23 04 04.6 -1.7**
ZALV pmax pmax
comp=Z,13nm,0.6s
ZALV Zalesovo Beam 21.54 15 P **P** **23 04 04.7 -1.6**
KNGR Kungurtug, Tuv 23.53 37 ‖ *e*P **P** **23 04 22.6 -4.9**
KNGR pmax pmax
comp=Z,8.0nm,1.0s
KMI2 Kunming 25.06 102 P **P** **23 04 41.6 -0.3**
KMI2 pmax pmax
comp=Z,8.0nm,0.8s
CHTO Chiang Mai 25.47 119 P **P** **23 04 45.6 +0.2**
CHTO pmax pmax
comp=Z,5.0nm,0.7s
CHTO Chiang Mai 25.47 119 P **P** **23 04 45.6 +0.2**
comp=Z,4.5nm,0.7s
GNI Garni 25.48 294 ⇑ *e*P **P** **23 04 46.5 +0.9**
GNI pmax pmax
comp=Z,9.0nm,1.0s
CMAR Chiang Mai Arr 25.70 120 P **P** **23 04 46.6 -0.9**
comp=Z,4.3nm,0.9s,baz=309,slow=10,SNR=32
comp=Z,4.3nm,0.9s
CMAR Chiang Mai Arr 25.70 120 *i* P **P** **23 04 48.2 +0.7**
CMAR pmax pmax
comp=Z,4.0nm,0.9s
CMAR Chiang Mai Arr 25.70 120 P **P** **23 04 46.8 -0.7**
ARTI Arti 25.83 338 *ci* P **P** **23 04 49.0 +0.7**
ARTI S **S** **23 09 19.9 +3.4**
ARTI SS **SnSn** **23 10 14.1 +1.3**
ARTI pmax pmax
comp=Z,13nm,1.1s
ARTI Arti 25.83 338 P **P** **23 04 47.9 -0.4**
ARTI IAmb IAmb 23 04 49.5
comp=Z,16nm,1.1s
HAKT HAKKARI 26.18 288 P **P** **23 04 53.0 +1.0**
comp=Z,25nm,2.0s
HMDM Hanimaadhoo 26.62 185 P **P** **23 04 58.4 +2.6**
SONM Songino Array 27.25 49 P **P** **23 05 01.8 +0.3**
comp=Z,2.1nm,0.6s,baz=240,slow=9.5,SNR=17
SONM PcP **PcP** **23 08 20.5 -0.4**
comp=Z,0.7nm,0.7s,baz=243,slow=1.9,SNR=4.2
comp=Z,2.1nm,0.6s
SONM Songino Array 27.25 49 P **P** **23 05 01.5 0.0**
SONM Songino Array 27.25 49 P **P** **23 05 01.5 0.0**
KIV Kislovodsk 27.55 302 P **P** **23 05 04.8 +0.7**
comp=Z,8.5nm,1.1s
RAYN Ar Rayn 28.11 257 P **P** **23 05 09.5 +0.2**
RAYN pmax pmax
comp=Z,2.0nm,1.0s
RAYN Ar Rayn 28.11 257 P **P** **23 05 09.5 +0.2**
RAYN Ar Rayn 28.11 257 P **P** **23 05 10.0 +0.7**
comp=Z,3.1nm,0.9s
HHC Hu-ho-hao-te 29.49 65 *e*P **P** **23 05 20.2 -1.2**
HHC pmax pmax
comp=Z,7.0nm,0.7s
KELT Kelkit 29.68 294 P **P** **23 05 24.8 +1.5**
comp=Z,34nm,1.2s
KIRV Kirov 30.64 333 *de*P **P** **23 05 32.2 +1.0**
GAZ Gaziantep 31.37 288 P **P** **23 05 39.1 +1.0**
GAZ IAmb IAmb 23 05 40.9
comp=Z,7.4nm,1.0s
ANDN Andirin 32.02 289 P **P** **23 05 45.4 +1.5**
comp=Z,25nm,1.2s
MMB1 Mount Meron ar 33.44 281 P **P** **23 05 57.8 +1.6**
comp=Z,1.8nm,2.3s
GHAJ Ghor Haditha 33.70 278 P **P** **23 06 00.3 +2.0**
comp=Z,5.9nm,1.3s
BRTR Keskin Array B 34.00 293 P **P** **23 06 01.5 +0.3**
comp=Z,0.9nm,0.8s,baz=86,slow=8.8,SNR=5.8
comp=Z,0.9nm,0.8s
BRTR Keskin Array B 34.00 293 *i* P **P** **23 06 02.2 +1.0**
BRTR pmax pmax
comp=Z,1.0nm,0.8s
KKUL Konya-Kulu 34.59 292 P **P** **23 06 07.2 +0.9**
EIL Elat 34.65 275 LR LR 23 22 47.2
comp=Z,92nm,18.3s,baz=42,slow=41
OBN Obninsk 34.68 321 ⇑ *e*P **P** **23 06 06.2 -0.4**
OBN pmax pmax
comp=Z,4.0nm,1.1s
KRMI Paran Flat 34.71 276 P **P** **23 06 08.8 +1.6**
comp=Z,6.2nm,2.2s
SNSI Sinabang, Aceh 36.48 143 P **P** **23 06 21.6 -0.9**
comp=Z,38nm,1.0s
NRIK Noril'sk 36.58 7 ⇓ *e*P **P** **23 06 23.1 +0.3**
NRIK pmax pmax
comp=Z,4.0nm,1.1s
ATD Arta Tunnel 37.01 242 P **P** **23 06 27.6 +0.5**
ATD IAmb IAmb 23 06 29.3
comp=Z,24nm,1.3s
AKASG Malin Array Be 37.77 311 P **P** **23 06 32.1 -1.0**
comp=Z,0.3nm,0.2s,baz=81,slow=6.7,SNR=4.8
comp=Z,0.3nm,0.2s
AKASG Malin Array Be 37.77 311 *i* P **P** **23 06 33.2 +0.1**
GHRR 38.54 304 P **P** **23 06 40.1 +0.4**
comp=Z,25nm,1.5s
VRI Vrincioaia 39.01 303 P **P** **23 06 44.4 +0.8**
VRI pmax pmax
comp=Z,8.0nm,2.6s
VRI Vrincioaia 39.01 303 P **P** **23 06 44.4 +0.8**
comp=Z,7.6nm,2.6s
MLR Muntele Rosu 39.56 303 P **P** **23 06 49.0 +0.7**
MLR pmax pmax
comp=Z,9.0nm,1.2s
MLR Muntele Rosu 39.56 303 P **P** **23 06 49.0 +0.7**
MLR IAmb IAmb 23 06 52.3
comp=Z,9.4nm,1.2s
CHOS Chios island 40.01 292 P **P** **23 06 52.2 +0.1**
comp=Z,61nm,2.3s
ARR Arges 40.48 303 P **P** **23 06 56.5 +0.6**
ARBE Arbavere 41.54 324 P **P** **23 07 04.4 +0.1**
comp=Z,61nm,1.0s
KWP Kalwaria Pacla 41.84 309 P **P** **23 07 07.7 +0.7**
KWP Kalwaria Pacla 41.84 309 P **P** **23 07 07.7 +0.7**
TRPA Tarpa 41.91 307 P **P** **23 07 08.1 +0.6**
comp=Z,8.1nm,0.9s
PVF Pernaja 41.92 326 P **P** **23 07 07.1 -0.2**
comp=Z,65nm,2.7s
SUW Suwalki 41.92 316 P **P** **23 07 07.1 -0.5**
SUW pmax pmax
comp=Z,16nm,1.6s
SUW Suwalki 41.92 316 P **P** **23 07 07.1 -0.5**
comp=Z,16nm,1.6s
FINES FINESS Array B 42.09 327 P **P** **23 07 08.7 -0.1**
comp=Z,2.2nm,0.5s,baz=120,slow=10,SNR=21
comp=Z,2.2nm,0.5s
KOLS Kolonicke sedl 42.10 308 *e*P **P** **23 07 12.6 +3.4**
KOLS Kolonicke sedl 42.10 308 *e*P **P** **23 07 12.5 +3.4**
KU6 Riekki 42.32 334 P **P** **23 07 11.1 +0.4**
KSRS Korea Array 42.41 69 P **P** **23 07 11.0 -0.7**
comp=Z,0.8nm,0.3s,baz=284,slow=9.7,SNR=5.4
comp=Z,0.8nm,0.3s
KSRS Korea Array 42.41 69 P **P** **23 07 11.0 -0.7**
BZS Buzias 42.59 303 P **P** **23 07 13.2 +0.1**
NIE Niedzica 43.40 309 P **P** **23 07 20.3 +0.6**
PSZ Piszkesteto 43.69 306 P **P** **23 07 22.8 +0.7**
PSZ Piszkesteto 43.69 306 P **P** **23 07 22.8 +0.7**
VYHS Vyhne 44.38 307 *e*P **P** **23 07 29.3 +1.8**
VYHS Vyhne 44.38 307 *e*P **P** **23 07 29.3 +1.8**
ARCES ARCESS Array B 45.39 338 P **P** **23 07 35.9 +0.6**
comp=Z,4.5nm,0.6s,baz=99,slow=7.7,SNR=9.6
comp=Z,4.5nm,0.6s
ARCES ARCESS Array B 45.39 338 P **P** **23 07 35.6 +0.3**
ARCES pmax pmax
comp=Z,25nm,1.4s
ARCES ARCESS Array B 45.39 338 P **P** **23 07 35.6 +0.3**
TIXI Tiksi 47.28 20 ⇑ *e*P **P** **23 07 49.8 -0.2**
TIXI pmax pmax
comp=Z,12nm,2.5s
GERES GERESS Array B 47.75 308 P **P** **23 07 54.3 +0.1**
comp=Z,0.4nm,0.7s,baz=86,slow=5.5,SNR=5.2
comp=Z,0.4nm,0.7s
HFS Hagfors 47.76 323 P **P** **23 07 53.9 0.0**
comp=Z,4.8nm,0.6s,baz=91,slow=12,SNR=14
comp=Z,4.8nm,0.6s
JMN Monobe 48.01 73 P **P** **23 07 55.5 -0.8**
CLL Collm 48.02 311 *i* P **P** **23 07 57.2 +1.1**
CLL pmax pmax
comp=Z,6.0nm,1.3s
CLL Collm 48.02 311 *i* P **P** **23 07 57.2 +1.1**
comp=Z,6.0nm,1.3s
NB2 NORSAR Subarra 49.05 324 P **P** **23 08 03.6 -0.4**
comp=Z,6.5nm,0.8s,baz=94,slow=7.9
NOA NORSAR Array B 49.05 324 P **P** **23 08 03.2 -0.8**
comp=Z,2.2nm,0.7s,baz=96,slow=7.5,SNR=11
comp=Z,2.2nm,0.7s
NBO00 NORSAR Array S 49.27 324 P **P** **23 08 04.7 -0.9**
NBO00 IAmb IAmb 23 08 41.0
comp=Z,13nm,1.1s
NC204 NORSAR Array S 49.29 325 P **P** **23 08 05.0 -0.8**
MJAR Matsushiro Arr 50.62 68 P **P** **23 08 14.9 -1.3**
comp=Z,2.1nm,0.7s,baz=282,slow=8.9,SNR=6.0
comp=Z,2.1nm,0.7s
MSSA Maissana 51.27 303 P **P** **23 08 20.6 -0.5**
MSSA IAmb IAmb 23 08 24.0
comp=Z,17nm,1.2s
SPITS Spitsbergen Ar 51.32 347 P **P** **23 08 21.3 +0.5**
comp=Z,20nm,1.1s,baz=130,slow=5.8,SNR=2.7
comp=Z,20nm,1.1s
KEST Kesra 53.61 292 P **P** **23 08 39.1 +0.6**
comp=Z,2.7nm,0.9s,baz=76,slow=4.2,SNR=2.6
comp=Z,2.7nm,0.9s
KEST Kesra 53.61 292 P **P** **23 08 38.3 -0.2**
KEST IAmb IAmb 23 08 45.8
comp=Z,9.0nm,1.4s
ESDC Sonseca Array 62.21 301 P **P** **23 09 38.6 -0.3**
comp=Z,2.2nm,0.7s,baz=54,slow=7.4,SNR=24
comp=Z,2.2nm,0.7s
PAB San Pablo 62.54 301 P **P** **23 09 40.6 -0.5**
PAB pmax pmax
comp=Z,15nm,1.4s
PAB San Pablo 62.54 301 P **P** **23 09 40.6 -0.5**
TORD Torodi Ar. Bea 69.49 272 P **P** **23 10 24.6 -1.3**
comp=Z,3.1nm,0.7s,baz=44,slow=4.9,SNR=18
comp=Z,3.1nm,0.7s
ILAR Eielson Array 76.64 17 P **P** **23 11 07.2 -0.3**
comp=Z,1.1nm,0.8s,baz=314,slow=5.2,SNR=11
comp=Z,1.1nm,0.8s
ILAR Eielson Array 76.64 17 P **P** **23 11 06.4 -1.1**
WRA Warramunga Arr 77.19 124 P **P** **23 11 10.5 -0.7**
comp=Z,3.2nm,0.6s,baz=320,slow=5.7,SNR=42
comp=Z,3.2nm,0.6s
WRA Warramunga Arr 77.19 124 P **P** **23 11 10.6 -0.7**
H29M Whitestone 77.29 13 P **P** **23 11 11.2 0.0**
H29M IAmb IAmb 23 11 12.1
comp=Z,3.8nm,0.6s
BOSA Boshof 77.97 224 P **P** **23 11 14.9 -0.6**
comp=Z,2.4nm,0.9s,baz=44,slow=6.1,SNR=3.6
comp=Z,2.4nm,0.9s
BOSA Boshof 77.97 224 P **P** **23 11 15.0 -0.6**
BOSA pmax pmax
comp=Z,15nm,1.4s
BOSA Boshof 77.97 224 P **P** **23 11 15.0 -0.6**
BOSA IAmb IAmb 23 11 49.5
comp=Z,15nm,1.4s
DBIC Dimbokro 78.37 270 P **P** **23 11 17.3 -0.7**
comp=Z,6.7nm,1.1s,baz=58,slow=7.4,SNR=3.6
comp=Z,6.7nm,1.1s
K27K Chicken 78.42 16 P **P** **23 11 17.4 -0.1**
K27K IAmb IAmb 23 11 18.6
comp=Z,6.5nm,1.3s
ASAR Alice Springs 79.43 127 P **P** **23 11 22.7 -0.8**
comp=Z,3.1nm,0.7s,baz=316,slow=5.6,SNR=29
comp=Z,3.1nm,0.7s
ASAR Alice Springs 79.43 127 P **P** **23 11 22.1 -1.5**
K29M Barlow Dome 79.57 14 P **P** **23 11 23.1 -0.8**
K29M IAmb IAmb 23 11 25.2
comp=Z,3.5nm,0.7s
YKA Yellowknife Ar 84.06 5 P **P** **23 11 46.8 -0.5**
comp=Z,3.8nm,0.5s,baz=346,slow=5.2,SNR=23
comp=Z,3.8nm,0.5s
YKA Yellowknife Ar 84.06 5 *i* P **P** **23 11 47.0 -0.4**
YKA pmax pmax
comp=Z,4.0nm,0.5s
YKA Yellowknife Ar 84.06 5 P **P** **23 11 46.1 -1.2**
STKA Stephens Creek 89.96 129 P **P** **23 12 15.4 -1.0**
comp=Z,2.4nm,0.7s,baz=316,slow=4.3,SNR=3.7
comp=Z,2.4nm,0.7s
STKA Stephens Creek 89.96 129 P **P** **23 12 14.9 -1.6**
STKA Stephens Creek 89.96 129 P **P** **23 12 14.9 -1.6**

IDC 06 23:02:08.6±4.6, 51.76S×159.35E, h0km, mb3.8/3, mbtmp3.8/4, ML2.7/1, MS3.7/10, Error ellipse: s-maj=98.8km s-min=22.7km az=160.0, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
RPZ	**Rata Peaks**	**11.25**	**49**	Pn		Pn	Pn	23 04 46.9	-3.7
	baz=188,slow=19,SNR=1.5								
RPZ				Sn		Sn	Sn	23 06 43.9	-13
	0.3nm,0.3s,baz=44,slow=21,SNR=3.8								
RPZ				LR		LR	LR	23 08 37.6	
	comp=Z,166nm,18.3s,baz=108,slow=35								
	1.2nm,0.7s								
URZ	**Urewera**	**18.37**	**50**	LR		LR	LR	23 13 27.5	
	comp=Z,712nm,18.6s,baz=224,slow=37								
STKA	**Stephens Creek**	**23.75**	**320**	LR		LR	LR	23 14 58.7	
	comp=Z,198nm,18.3s,baz=180,slow=32								
VNDA	**Vanda**	**25.88**	**179**	LR		LR	LR	23 15 01.8	
	comp=Z,114nm,19.1s,baz=1.5,slow=30								
CTA	**Charters Tower**	**33.23**	**337**	LR		LR	LR	23 20 08.7	
	comp=Z,71nm,19.4s,baz=98,slow=32								
ASAR	**Alice Springs**	**34.18**	**315**	P		P	P	23 08 56.0	+0.5
	0.6nm,0.7s,baz=149,slow=8.1,SNR=7.8								
ASAR				LR		LR	LR	23 21 33.7	
	comp=Z,123nm,18.7s,baz=126,slow=34								
	0.6nm,0.7s								
H01W1	**Cape Leeuwin H**	**36.28**	**280**	T		T	T	23 48 17.9	
	baz=132,slow=75,SNR=789								
H01W2	**Cape Leeuwin H**	**36.29**	**280**	T		T	T	23 48 16.4	
	baz=132,slow=75,SNR=871								
H01W3	**Cape Leeuwin H**	**36.30**	**280**	T		T	T	23 48 16.0	
	baz=132,slow=75,SNR=1065								
MSVF	**Nonsavu**	**37.03**	**30**	LR		LR	LR	23 22 43.9	
	comp=Z,145nm,18.3s,baz=194,slow=33								
WRA	**Warramunga Arr**	**37.30**	**319**	P		P	P	23 09 21.9	-0.4
	0.6nm,0.8s,baz=152,slow=7.7,SNR=3.5								
	0.6nm,0.8s								
HNR	**Honiara**	**42.20**	**1**	LR		LR	LR	23 26 06.1	
	comp=Z,125nm,18.5s,baz=278,slow=34								
MAW	**Mawson**	**45.84**	**212**	LR		LR	LR	23 26 57.2	
	comp=Z,55nm,20.2s,baz=103,slow=32								
PPT2	**Papeete2**	**52.57**	**69**	*e*LR		LR	LR	23 25 23.9	
	105nm,27.5s								
PPT2				*e*LR		LR	LR	23 25 32.3	
	102nm,26.0s								
PPT	**Papeete**	**52.59**	**69**	LR		LR	LR	23 30 13.8	
	comp=Z,29nm,20.6s,baz=264,slow=32								
H04S2	**CROZET ISLANDS**	**63.78**	**227**	T		T	T	00 22 12.2	
	baz=139,slow=75,SNR=24								
H04S1	**CROZET ISLANDS**	**63.78**	**227**	T		T	T	00 22 13.6	
	baz=139,slow=75,SNR=26								
H04S3	**CROZET ISLANDS**	**63.80**	**227**	T		T	T	00 22 11.7	
	baz=139,slow=75,SNR=30								
H03S2	**Juan Fernandez**	**80.67**	**134**	T		T	T	00 42 25.6	
	baz=209,slow=74,SNR=259								
H03S1	**Juan Fernandez**	**80.67**	**134**	T		T	T	00 42 27.0	
	baz=209,slow=74,SNR=269								
H03S3	**Juan Fernandez**	**80.68**	**134**	T		T	T	00 42 26.3	
	baz=209,slow=74,SNR=386								
H03N2	**Juan Fernandez**	**81.00**	**134**	T		T	T	00 42 47.9	
	baz=219,slow=74,SNR=926								
H03N1	**Juan Fernandez**	**81.01**	**134**	T		T	T	00 42 48.1	
	baz=43,slow=74,SNR=633								
H08S2	**Diego Garcia H**	**82.11**	**268**	T		T	T	00 45 15.1	
	baz=141,slow=76,SNR=45								
H08S1	**Diego Carcia H**	**82.12**	**268**	T		T	T	00 45 32.0	
	baz=141,slow=76,SNR=23								
H08S3	**Diego Garcia H**	**82.13**	**268**	T		T	T	00 45 17.0	
	baz=141,slow=76,SNR=205								
CMAR	**Chiang Mai Arr**	**87.43**	**304**	P		P		23 14 57.1	-0.6
	0.8nm,0.3s,baz=147,slow=7.7,SNR=4.5								
	0.8nm,0.3s								

*TEH **06** 23:03:28.1,27.90N×57.83E, h28km±45km, ML2.8, Presumed earthquake*
*OMAN **06** 23:03:43.6±2.5, 26.53N×57.92E, h16km, ml2.0/3, Error ellipse: s-maj=23.2km s-min=10.4km az=46.0*

ISC 06 23:03:25.9±1.1, 27.77N±0.04×57.96E±0.05, h10km, n17, σ1.9 98/18, Southern Iran

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KHNJ	**Kahnooj**	**0.29**	**309**	Pg		Pg	**Pb**	**23 03 33.0**	**-0.2**
IBND	**Bandar-abas**	**1.30**	**256**	Pg		Pg	**Pg**	**23 03 50.3**	**-0.5**
IBND				Sg		Sg	**Sg**	**23 04 07.7**	**0.0**
KBAM	**BAM**	**1.43**	**18**	Pg		Pg	**Pg**	**23 03 52.4**	**-1.0**
GENO	**Geno**	**1.63**	**257**	Pg		Pg	**Pb**	**23 03 55.0**	**-1.1**
BNDS	**Bandar-Abbas**	**1.63**	**257**	Pg		Pg	**Pb**	**23 03 54.9**	**-1.2**
JASK	**Jask - Hormozg**	**1.90**	**182**	P		Pb	**Pb**	**23 03 58.8**	**-1.8**
JASK				S		Sn		23 04 06.2	-16
JASK	**Jask - Hormozg**	**1.90**	**182**	Pn		Pg	**Pg**	**23 04 02.6**	**+0.3**
CHMN	**Cheshme madani**	**2.12**	**350**	Pn		Pb	**Pb**	**23 04 02.7**	**-1.9**
SHME	**Shamm**	**2.36**	**224**	P		Pg	**Pg**	**23 04 09.8**	**-1.3**
BANOM	**Banah**	**2.36**	**219**	P		Pg	**Pg**	**23 04 11.3**	**+0.1**
BANOM				S		Sn	**Sn**	**23 04 33.2**	**-0.6**
MASF	**Masafi**	**2.88**	**214**	P		Pb	**Pb**	**23 04 14.4**	**-3.0**
UOSS	**Minazif**	**3.22**	**210**	P		Pb	**Pb**	**23 04 20.5**	**-2.8**
ASHO	**Ashiyiah**	**3.51**	**209**	P		Pn	**Pn**	**23 04 23.5**	**+2.9**
HOQ	**Hoqain**	**4.21**	**188**	P		Pn	**Pn**	**23 04 33.0**	**+2.8**

SNR=6.1
WSAR Wadi Sarin 4.55 172 P **Pn** **23 04 37.9 +3.1**
WSAR S Sn 23 05 12.6 -15
ARQ Araqi 4.60 197 P Pn 23 04 39.8 +4.2
SNR=7.6
WBK Wadi Bani Khal 5.22 170 P **Pn** **23 04 45.9 +1.8**
SNR=12

AFAD 06 23:03:58.9, 37°.86N × 26°.98E, h7km △3km, ML1.1, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.20**	**339**	P	Pg	23 04 02.9	-0.1
DGB				IAML		23 04 06.0	
	comp=N,23nm,0.3s						
DGB				S	Sg	23 04 06.5	+0.7
DGB				IAML		23 04 09.0	
	comp=E,22nm,0.2s						
BEYE	**izmir**	**0.37**	**354**	P	Pg	23 04 06.6	+0.5
BEYE				S	Sg	23 04 12.2	+1.3
BEYE				IAML		23 04 15.0	
	comp=N,17nm,0.4s						
BEYE				IAML		23 04 15.0	
	comp=E,31nm,1.3s						
ZEYE	**Izmir, Urla-Ze**	**0.53**	**315**	P	Pn	23 04 13.4	+0.5
ZEYE				S	Sb	23 04 17.7	-0.7
ZEYE				IAML		23 04 31.0	
	comp=N,28nm,0.6s						

GCG ***06*** *23:29:27.8±1.1, 14°.65N × 90°.70W, h212km±8km, MD4.4, ML4.4, Presumed earthquake*
CATAC ***06*** *23:29:29.3±0.8, 15°N±7°×9°1W±°, h206km±7km, M3.7/14, MLv3.7/14, Error ellipse: s-maj=17.3km s-min=5.5km az=24.4, confirmed*
SNET ***06*** *23:29:30.6±1.8, 14°.67N × 90°.59W, h193km, ML3.3, Presumed earthquake*

ISC 06 23:29:28.3±2.5, 14°.55N±0°.09 × 90°.70W±0°.06, h214km±15km, n32, σ0°66/44, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCG4	**OSOP**	**0.17**	**77**	*e*P	**Pn**	**23 29 56.9**	**+0.4**
FG8	**Yepocapa, Chim**	**0.32**	**155**	*e*P	**Pn**	**23 29 55.8**	**-1.0**
FG1G	**Alotenango, Sa**	**0.33**	**146**	*e*P	**Pn**	**23 29 56.1**	**-0.8**
PCG5	**San Vicente Pa**	**0.46**	**136**	*e*P	**Pn**	**23 29 56.1**	**-1.1**
APG	**El Apazote**	**0.51**	**27**	*i* P	**Pn**	**23 29 57.5**	**+0.1**
APG				*e*S	**S**	**23 30 19.4**	**-0.8**
STG8	**El Palmar, Qui**	**0.64**	**261**	*e*P	**Pn**	**23 29 58.7**	**+0.8**
STG8				IAML		23 30 02.0	
	comp=N,2μm,0.3s						
QUEO	**Labor Ovalle**	**0.85**	**292**	*e*P	**Pn**	**23 29 59.8**	**+0.8**
RTAL	**Retalhuleu**	**0.96**	**269**	P	**Pn**	**23 29 59.4**	**+0.1**
FAME	**Alcaldia de Sa**	**0.97**	**136**	P	**Pn**	**23 29 59.7**	**+0.3**
FAME				S	**S**	**23 30 23.0**	**-0.5**
ESSJ	**San Jos, E**	**1.00**	**169**	*e*P	**Pn**	**23 29 57.8**	**-1.7**
HUEH	**Huehuetenango**	**1.09**	**315**	P	**Pn**	**23 30 00.9**	**+0.5**
HUEH	**Huehuetenango**	**1.09**	**315**	*e*P	**Pn**	**23 30 00.6**	**+0.2**
HUEH				*e*S	**S**	**23 30 25.3**	**0.0**
HUEH	**Huehuetenango**	**1.09**	**315**	*e*P	**Pn**	**23 30 00.3**	**0.0**
HUEH				*e*S	**S**	**23 30 25.5**	**+0.1**
NUBE	**Las Nubes**	**1.10**	**126**	P	**Pn**	**23 30 00.8**	**+0.4**
NUBE				S	**S**	**23 30 25.4**	**+0.1**
NUBE	**Las Nubes**	**1.10**	**126**	*e*P	**Pn**	**23 30 00.6**	**+0.2**
NUBE				*e*S	**S**	**23 30 23.8**	**-1.5**
CEVE	**Cerro Verde**	**1.27**	**124**	P	**Pn**	**23 30 02.3**	**+0.6**
CEVE	**Cerro Verde**	**1.27**	**124**	*e*P	**Pn**	**23 30 02.4**	**+0.6**
CEVE				*e*S	**S**	**23 30 28.1**	**+0.5**
MTO3	**Montecristo**	**1.31**	**96**	P	**Pn**	**23 30 02.3**	**+0.3**
ESQI	**Esquipulas**	**1.32**	**89**	P	**Pn**	**23 30 02.6**	**+0.7**
ESQI	**Esquipulas**	**1.32**	**89**	*e*P	**Pn**	**23 30 02.3**	**+0.4**
ESQI				*e*S	**S**	**23 30 28.2**	**+0.3**
JAYA	**Jayaque - finc**	**1.51**	**126**	P	**Pn**	**23 30 03.9**	**+0.4**
JAYA				S	**S**	**23 30 31.2**	**+0.4**
JAYA	**Jayaque - finc**	**1.51**	**126**	*i* P	**Pn**	**23 30 03.9**	**+0.4**
JAYA	**Jayaque - finc**	**1.51**	**126**	*e*P	**Pn**	**23 30 03.4**	**-0.2**
JAYA				*e*S	**S**	**23 30 31.0**	**+0.2**
THIG		**1.55**	**283**	*e*P	**Pn**	**23 30 03.7**	**0.0**
THIG				*e*S	**S**	**23 30 32.2**	**+1.1**
PMON	**Piamonte**	**1.58**	**122**	P	**Pn**	**23 30 04.9**	**+0.8**
LLGN	**La Laguna**	**1.75**	**103**	P	**Pn**	**23 30 05.8**	**+0.2**
PAVA	**Las Pavas**	**1.90**	**116**	P	**Pn**	**23 30 07.5**	**+0.4**
P5NO	**Presa 5 de nov**	**1.97**	**106**	P	**Pn**	**23 30 07.3**	**-0.2**
P5NO				S	**S**	**23 30 37.9**	**0.0**
CCIG	**Comitan**	**2.21**	**321**	P	**Pn**	**23 30 10.5**	**+0.3**
CCIG	**Comitan**	**2.21**	**321**	*i* P	**Pn**	**23 30 10.4**	**+0.3**
PETF	**Flores**	**2.49**	**19**	P	**Pn**	**23 30 12.0**	**-0.9**
TGIG		**3.22**	**314**	*e*P	**Pn**	**23 30 20.5**	**-0.7**

IDC ***06*** *23:32:40.5±2.2, 6°.97S × 129°.70E, h131km±26km, mb3.2/1, mbtmp4.0/6, Error ellipse: s-maj=27.5km s-min=19.4km az=112.0*

ISC 06 23:32:37.4±0.9, 7°.14S±0°.06 × 130°.0E±0°.1, h150km, n6, σ3s56/10, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**6.36**	**12**	P	**Pn**	**23 34 10.4**	**+1.4**
	5.8nm,0.3s,baz=211,slow=19,SNR=9.1						
SIJI				S	**Sn**	**23 35 14.6**	**-6.2**
	23nm,0.2s,baz=195,slow=23,SNR=8.6						
BATI	**Baumata**	**6.94**	**244**	P	**Pn**	**23 34 18.7**	**+2.0**
	28nm,0.4s,baz=88,slow=5.4,SNR=4.0						
BATI				S	**Sn**	**23 35 33.5**	**-1.1**
	41nm,0.4s,baz=94,slow=23,SNR=6.4						
FITZ	**Fitzroy Crossi**	**11.68**	**201**	P	**P**	**23 35 23.6**	**-3.2**
	1.0nm,0.3s,baz=20,slow=10,SNR=12						
FITZ				S	**Sn**	**23 37 24.9**	**-3.8**
	10nm,0.5s,baz=349,slow=18,SNR=8.9						
WRA	**Warramunga Ar**	**13.41**	**162**	P	**P**	**23 35 47.2**	**+1.1**
	2.0nm,0.4s,baz=342,slow=13,SNR=21						
WRA				S	**Sn**	**23 38 08.8**	**-1.8**
	2.0nm,0.3s,baz=333,slow=24,SNR=8.1						
ASAR	**Alice Springs**	**16.86**	**167**	P	Pn	23 36 32.4	+7.7
	1.9nm,0.5s,baz=342,slow=9.5,SNR=28						
ASAR				S	**Sn**	**23 39 34.9**	**+1.6**
	0.9nm,0.6s,baz=345,slow=24,SNR=5.9						
MKAR	**Makanchi Array**	**68.33**	**327**	P	**P**	**23 43 25.8**	**+3.3**
	0.2nm,0.3s,baz=124,slow=6.1,SNR=7.0						
	0.2nm,0.3s						

IDC ***06*** *23:41:44.3±0.4, 2°.00S × 119°.41E, h0km, mb4.4/24, mbtmp4.4/28, ML4.4/3, MS3.7/13, Error ellipse: s-maj=13.8km s-min=8.5km az=69.0*
BJI ***06*** *23:41:47.3, 2°.50S × 119°.75E, h53km, mB5.0/5, mb4.8/38*
NEIC ***06*** *23:41:47.0±1.8, 1°.98S±0°.05 × 119°.32E±0°.05, h10km±1km, mb4.9/58, Error ellipse: s-maj=9.6km s-min=6.8km az=214.0*
GFZ ***06*** *23:41:47.8±0.2, 2°S±3' × 11°9E±°, h10km, M4.9/20, mb5.0/20*
DJA ***06*** *23:41:48.4±0.1, 2°S±1' × 11°9E±°, h10km, M4.9/43, mB5.4/16, mb5.0/35, MLv5.3/43, Mw4.8/34, Mw(mB)4.8/16, MwMwp4.7/1, Mwp5.1/1*

ISC 06 23:41:46.6±0.3, 1°.97S±0°.04 × 119°.33E±0°.04, h10km, n216, σ1s64/208, mb4.8/68, MS3.6/7, 1C, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MMSI	**Mamuju**	**0.83**	**210**	P	**Pb**	**23 42 04.0**	**+0.8**
MMSI				AML	AML		
PCI	**Palu**	**1.17**	**26**	P	**Pg**	**23 42 10.0**	**+0.9**
PCI				AML	AML		
TTSI	**Tana Toraja**	**1.18**	**156**	P	**Pb**	**23 42 09.4**	**+0.3**
TTSI				AML	AML		
PMSI	**Majene**	**1.58**	**195**	P	**Pn**	**23 42 14.9**	**+0.1**
PMSI				AML	AML		
SPSI	**Sidrap Palu**	**2.03**	**168**	P	**Pn**	**23 42 21.6**	**+0.7**
SPSI				AML	AML		
BKB	**Balikpapan**	**2.53**	**286**	P	**Pn**	**23 42 30.0**	**+2.2**
BKB	**Balikpapan**	**2.53**	**286**		**Pn**	**23 42 29.7**	**+1.8**
BKB	**Balikpapan**	**2.53**	**286**	P	**Pn**	**23 42 29.6**	**+1.8**
BKB	**Balikpapan**	**2.53**	**286**	P	**Pn**	**23 42 29.7**	**+1.8**
APSI	**Ampana**	**2.54**	**66**	P	**Pn**	**23 42 29.5**	**+1.6**
APSI				AML	AML		
SMKI	**Samarinda**	**2.60**	**305**	P	**Pn**	**23 42 30.3**	**+1.5**
SMKI				AML	AML		
KAPI	**Kappang**	**3.06**	**172**	Pn	**Pn**	**23 42 36.0**	**+1.0**
	55nm,0.3s,baz=338,slow=10,SNR=135						
KAPI				Sn	**Sn**	**23 43 11.6**	**-0.1**
	75nm,0.3s,baz=36,slow=20,SNR=7.8						
KAPI				LR	LR	23 44 02.3	
	comp=Z,975nm,18.6s,baz=44,slow=46						
	167nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**3.06**	**172**	P	**Pn**	**23 42 36.8**	**+1.7**
KAPI	**Kappang**	**3.06**	**172**		**Pn**	**23 42 36.5**	**+1.4**
KAPI	**Kappang**	**3.06**	**172**	P	**Pn**	**23 42 36.3**	**+1.3**
KAPI	**Kappang**	**3.06**	**172**	P	**Pn**	**23 42 36.7**	**+1.7**
KKSI	**Kolaka, Sulawe**	**3.19**	**133**	P	**Pn**	**23 42 39.2**	**+2.3**
KKSI				AML	AML		
MKS	**Makassar**	**3.23**	**178**	P	**Pn**	**23 42 39.4**	**+1.9**
MKS				AML	AML		
TOLI2	**Tolitoli**	**3.38**	**25**	P	**Pn**	**23 42 41.8**	**+2.3**
TOLI2	**Tolitoli**	**3.38**	**25**		**Pn**	**23 42 40.8**	**+1.3**
TOLI2	**Tolitoli**	**3.38**	**25**	P	**Pn**	**23 42 41.3**	**+1.8**
BKSI	**Bulukumba**	**3.43**	**167**	P	**Pn**	**23 42 41.5**	**+1.4**
BKSI				AML	AML		
LUWI	**Luwuk**	**3.56**	**75**	P	**Pn**	**23 42 43.3**	**+1.4**
LUWI	**Luwuk**	**3.56**	**75**		**Pn**	**23 42 42.5**	**+0.5**
LUWI	**Luwuk**	**3.56**	**75**	P	**Pn**	**23 42 43.3**	**+1.4**
LUWI	**Luwuk**	**3.56**	**75**	P	**Pn**	**23 42 43.3**	**+1.4**
KDI	**Kendari**	**3.83**	**121**	P	**Pn**	**23 42 46.4**	**+0.7**
BSSI	**Bau Bau, Buton**	**4.31**	**164**	P	**Pn**	**23 42 54.1**	**+1.8**
BSSI				AML	AML		
GTOI	**Gorontalo**	**4.50**	**55**	P	**Pn**	**23 42 56.2**	**+1.4**
GTOI				AML	AML		
BBSI	**Bau Bau**	**4.76**	**137**	P	**Pn**	**23 43 01.1**	**+2.6**
BBSI				AML	AML		
KMSI	**Cibinong**	**5.29**	**62**	P	**Pn**	**23 43 08.7**	**+3.0**
PKKI	**Palangkaraya**	**5.36**	**267**	P	**Pb**	**23 43 16.7**	**-3.8**
MNI	**Manado**	**6.46**	**58**	P	**Pn**	**23 43 25.6**	**+3.7**
MNI				AML	AML		
LBFI	**Labuhan Bajo,**	**6.50**	**175**	P	Pb	23 43 33.6	-6.2
SANI	**Sanana**	**6.65**	**91**	P	**Pn**	**23 43 24.0**	**-0.5**
SANI	**Sanana**	**6.65**	**91**	P	**Pn**	**23 43 23.7**	**-0.8**
SANI	**Sanana**	**6.65**	**91**	P	**Pn**	**23 43 23.9**	**-0.6**
	comp=Z,125nm,0.9s						
PLAI	**Plampang**	**6.99**	**193**	P	**Pn**	**23 43 30.2**	**+1.0**
PLAI	**Plampang**	**6.99**	**193**	P	Pb	23 43 43.6	-4.6
PLAI	**Plampang**	**6.99**	**193**	P	**Pn**	**23 43 30.5**	**+1.3**
	comp=Z,58nm,1.3s						
EDFI	**Ende, Flores**	**7.14**	**161**	P	**Pn**	**23 43 33.2**	**+1.9**
MMRI	**Maumere**	**7.23**	**157**	Pn	**Pn**	**23 43 33.3**	**+0.9**
WSI	**Waingapu**	**7.71**	**173**	P	Pn	23 43 46.0	+6.9
STKI	**Sintang**	**8.11**	**284**	P	Pn	23 43 31.3	-13
SBUM	**Sibu**	**8.35**	**302**	Pn	**Pn**	**23 43 46.7**	**-1.2**
SBUM	**Sibu**	**8.35**	**302**	P	**Pn**	**23 43 49.1**	**+1.2**
SBUM	**Sibu**	**8.35**	**302**	P	**Pn**	**23 43 48.4**	**+0.5**
	comp=Z,17nm,0.9s						
TNTI	**Ternate**	**8.48**	**71**		**Pn**	**23 43 49.7**	**+0.1**
TNTI	**Ternate**	**8.48**	**71**	P	Pn	23 43 56.9	+7.3
KKM	**Kota Kinabalu**	**8.54**	**339**	P	**Pn**	**23 43 54.3**	**+3.7**
KKM	**Kota Kinabalu**	**8.54**	**339**	Pn	**Pn**	**23 43 51.1**	**+0.5**
KKM	**Kota Kinabalu**	**8.54**	**339**	P	**Pn**	**23 43 55.3**	**+4.7**
KKM	**Kota Kinabalu**	**8.54**	**339**	P	**Pn**	**23 43 53.7**	**+3.1**
	comp=Z,48nm,0.5s						
SOEI	**Soe**	**9.16**	**148**	Pn	**Pn**	**23 44 00.7**	**+1.6**
SOEI	**Soe**	**9.16**	**148**	P	Pn	23 44 05.1	+6.0
BATI	**Baumata**	**9.25**	**152**	Pn	**Pn**	**23 44 02.5**	**+2.3**
	comp=Z,2.5nm,0.3s,baz=76,slow=3.1,SNR=6.7						
BATI				LR	LR	23 47 50.4	
	comp=Z,1μm,21.5s,baz=0.0,slow=40						
	comp=Z,14nm,0.6s						
BATI				AML	AML		
BATI	**Baumata**	**9.25**	**152**	P	Pn	23 44 09.5	+9.3
MSAI	**Masohi**	**9.68**	**98**	P	Pn	23 44 11.6	+5.5
WOJI	**Wonogiri, Jawa**	**10.21**	**235**	P	Pn	23 44 18.9	+5.6
DAV	**Davao City (W)**	**10.93**	**35**	LR	LR	23 48 46.6	
	comp=Z,832nm,21.1s,baz=186,slow=39						
TPI	**Tanjungpandan**	**11.70**	**266**	P	**Pn**	**23 44 36.6**	**+2.9**
	comp=Z,555nmcomp=Z,41nm,1.4s						
SIJI	**Sorong**	**11.98**	**85**	Pn	**Pn**	**23 44 38.3**	**+0.7**
	comp=Z,3.7nm,0.3s,baz=213,slow=5.3,SNR=6.8						
SIJI				Sn	**Sn**	**23 46 47.1**	**-4.3**
	comp=Z,1.8nm,0.3s,baz=207,slow=23,SNR=6.1						
SIJI				LR	LR	23 49 32.9	
	comp=Z,426nm,19.9s,baz=259,slow=39						
	comp=Z,11nm,0.4s						
SIJI				AML	AML		
SIJI	**Sorong**	**11.98**	**85**	P	**Pn**	**23 44 41.2**	**+3.6**
	comp=Z,32nm,0.9s						
LEM	**Lembang**	**12.64**	**247**	Pn	**Pn**	**23 44 49.6**	**+2.9**
	comp=Z,13nm,0.3s,baz=123,slow=17,SNR=3.6						
LEM				LR	LR	23 50 11.8	
	comp=Z,934nm,20.0s,baz=5.5,slow=40						
BBJI	**Bungbulang**	**12.86**	**244**		**Pn**	**23 44 49.4**	**-0.2**
BBJI	**Bungbulang**	**12.86**	**244**	P	Pn	23 44 55.2	+5.6
BBJI	**Bungbulang**	**12.86**	**244**	P	**Pn**	**23 44 53.9**	**+4.2**
	comp=Z,54nm,1.1s						
FAKI	**Fak Fak**	**12.94**	**94**	Pn	**Pn**	**23 44 51.4**	**+0.7**
FAKI	**Fak Fak**	**12.94**	**94**	P	Pn	23 45 01.8	+11
FAKI	**Fak Fak**	**12.94**	**94**	P	**Pn**	**23 44 52.2**	**+1.4**
	comp=Z,38nm,0.8s						
CBJI	**Citeko**	**13.21**	**250**	P	**P**	**23 45 00.1**	**-4.3**
SAUI	**Saumlaki**	**13.33**	**117**	P	**P**	**23 45 09.4**	**+3.6**
SKJI	**Sukabumi**	**13.68**	**248**	P	**P**	**23 45 09.3**	**-0.4**
CGJI	**Cibinong**	**14.36**	**251**	P	**P**	**23 45 18.8**	**+1.6**
TPRI	**Tanjung Pinang**	**15.08**	**281**	P	**P**	**23 45 27.3**	**+2.1**
MDSI	**Maura Dua**	**15.34**	**260**	P	**P**	**23 45 29.8**	**+1.7**
BTDF	**Bukit Timah Da**	**15.90**	**282**	P	**P**	**23 45 36.0**	**+1.6**
MTN	**Manton Dam**	**15.92**	**133**		**Pn**	**23 45 31.0**	**+0.2**
BAKI	**Biak**	**16.79**	**88**	P	**P**	**23 45 49.1**	**+4.9**
MASI	**Maura Aman, Be**	**17.11**	**266**	P	**P**	**23 45 51.3**	**+3.4**
FITZ	**Fitzroy Crossi**	**17.19**	**159**	P	**P**	**23 45 48.3**	**-0.3**
	comp=Z,10nm,1.0s,baz=347,slow=6.0,SNR=9.7						
FITZ				LR	LR	23 54 15.8	
	comp=Z,287nm,18.5s,baz=334,slow=44						
FITZ	**Fitzroy Crossi**	**17.19**	**159**	Pn	**Pn**	**23 45 46.4**	**-0.6**
FITZ	**Fitzroy Crossi**	**17.19**	**159**	P	**P**	**23 45 48.9**	**+0.3**
	comp=Z,3.5nm,1.2s						
DLV	**Lat**	**17.52**	**322**	Pn	**Pn**	**23 45 49.7**	**-1.8**
PPI	**Padang Panjang**	**18.99**	**274**	P	**Pn**	**23 46 11.2**	**+2.0**
	comp=Z,1μmcomp=Z,53nm,0.7s						
MBWA	**Marble Bar**	**19.08**	**179**		**P**	**23 46 09.5**	**0.0**
MBWA				IAmb	IAmb	23 46 21.4	
	comp=Z,42nm,0.9s						
MBWA	**Marble Bar**	**19.08**	**179**	P	**Pn**	**23 46 12.4**	**+2.2**
	comp=Z,46nm,1.2s						
SMPI	**Sarmi**	**19.37**	**90**	P	**Pn**	**23 46 15.6**	**+1.8**
	comp=Z,65nm,1.4s						
IPM	**Ipoh**	**19.38**	**289**	P	**P**	**23 46 12.6**	**-0.3**
IPM	**Ipoh**	**19.38**	**289**	P	**Pn**	**23 46 15.2**	**+1.2**
IPM	**Ipoh**	**19.38**	**289**	P	**Pn**	**23 46 14.6**	**+0.6**
	comp=Z,45nm,1.7s						
KULM	**Kulim**	**20.00**	**291**	P	**P**	**23 46 20.4**	**+0.7**
KULM				IAmb	IAmb	23 46 22.2	
	comp=Z,37nm,0.9s						
KULM	**Kulim**	**20.00**	**291**	P	**Pn**	**23 46 21.4**	**0.0**
	comp=Z,53nm,1.7s						
KULM	**Kulim**	**20.00**	**291**	P	**Pn**	**23 46 21.0**	**-0.4**
	comp=Z,52nm,1.7s						
RPSI	**Rantau Prapat**	**20.92**	**283**	P	**P**	**23 46 30.4**	**+0.8**
RPSI	**Rantau Prapat**	**20.92**	**283**	P	Pn	23 46 31.7	-0.4
	comp=Z,168nm,1.2s						
PSI	**Prapat**	**20.94**	**283**	P	Pn	23 46 31.7	-0.9
	comp=Z,1μmcomp=Z,168nm,1.2s						
PBSI	**Pulau Batu**	**21.13**	**275**	P	**P**	**23 46 36.0**	**+4.1**
JAY	**Jayapura**	**21.36**	**92**	P	**P**	**23 46 33.3**	**-1.1**
	comp=Z,4.0nm,0.5s,baz=205,slow=21,SNR=4.4						
	comp=Z,4.0nm,0.5s						
JAY	**Jayapura**	**21.36**	**92**	P	P	23 46 42.6	+8.1
GSI	**Gunungsitoli**	**21.99**	**278**	P	**P**	**23 46 40.2**	**-1.0**
GSI				IAmb	IAmb	23 46 57.0	
	comp=Z,55nm,1.0s						
GSI	**Gunungsitoli**	**21.99**	**278**	P	**P**	**23 46 43.3**	**+2.1**
	comp=Z,56nm,1.5s						
GSI	**Gunungsitoli**	**21.99**	**278**	P	**P**	**23 46 42.4**	**+1.2**
	comp=Z,56nm,1.5s						
KCSI	**Kotacane, Aceh**	**22.23**	**284**	P	**P**	**23 46 44.6**	**+0.9**
	comp=Z,40nm,0.9s						
WB0	**Warramunga Arr**	**23.02**	**141**	P	**P**	**23 46 50.5**	**-1.6**
WB0				IAmb	IAmb	23 47 07.4	
	comp=Z,20nm,0.8s						
WRA	**Warramunga Arr**	**23.12**	**142**	P	**P**	**23 46 50.6**	**-2.4**
	comp=Z,21nm,0.9s,baz=322,slow=11,SNR=60						
WRA				PcP	**PcP**	**23 50 40.1**	**-2.0**
	comp=Z,1.3nm,0.8s,baz=334,slow=2.0,SNR=4.0						
	comp=Z,21nm,0.9s						
WRA	**Warramunga Arr**	**23.12**	**142**	P	**P**	**23 46 51.2**	**-1.8**
WRAB	**Tennant Creek**	**23.12**	**142**	P	**P**	**23 46 52.2**	**-0.8**
WRAB				IAmb	IAmb	23 46 53.8	
	comp=Z,42nm,1.0s						
WRAB	**Tennant Creek**	**23.12**	**142**	P	**P**	**23 46 51.8**	**-1.3**
	comp=Z,43nm,1.0s						
WR8	**Warramunga Arr**	**23.23**	**141**	P	**P**	**23 46 53.2**	**-1.0**
COCO	**West Island**	**24.50**	**244**	P	**P**	**23 47 05.5**	**-0.8**
MEEK	**Meekatharra**	**24.54**	**182**	P	**P**	**23 47 10.0**	**+3.4**
	comp=Z,129nm,0.8s						
BSI	**Banda Aceh**	**25.13**	**287**	P	**P**	**23 47 12.9**	**+0.8**
SSLB	**Suanglung**	**25.65**	**3**	P	**P**	**23 47 16.4**	**-0.3**
SSLB				IAmb	IAmb	23 47 30.7	
	comp=Z,19nm,0.8s						
AS31	**Alice Springs**	**25.78**	**148**	P	**P**	**23 47 16.5**	**-1.5**
ASAR	**Alice Springs**	**25.78**	**148**	P	**P**	**23 47 16.4**	**-1.6**
	comp=Z,8.6nm,0.8s,baz=322,slow=8.1,SNR=40						
ASAR				PcP	**PcP**	**23 50 46.4**	**-1.4**
	comp=Z,4.0nm,0.6s,baz=338,slow=1.8,SNR=17						
ASAR				LR	LR	23 57 43.9	
	comp=Z,321nm,20.9s,baz=316,slow=37						
	comp=Z,8.6nm,0.8s						
ASAR	**Alice Springs**	**25.78**	**148**	P	**P**	**23 47 16.8**	**-1.1**
SLVN	**Son La**	**27.64**	**328**	P	**P**	**23 47 34.6**	**-0.2**
CMAR	**Chiang Mai Arr**	**28.54**	**316**	P	**P**	**23 47 43.5**	**+0.7**
	comp=Z,1.7nm,0.6s,baz=144,slow=7.2,SNR=12						
CMAR				LR	LR	00 01 30.6	
	comp=Z,244nm,20.5s,baz=115,slow=42						
	comp=Z,1.7nm,0.6s						
PMG	**Port Moresby**	**28.64**	**106**	P	**P**	**23 47 42.5**	**-1.2**
	comp=Z,7.4nm,0.4s,baz=326,slow=6.4,SNR=7.5						
PMG				LR	LR	00 01 55.1	
	comp=Z,72nm,21.1s,baz=254,slow=42						
	comp=Z,7.4nm,0.4s						
PMG	**Port Moresby**	**28.64**	**106**	P	**P**	**23 47 42.7**	**-1.0**
PMG				IAmb	IAmb	23 47 45.9	
	comp=Z,34nm,1.1s						
PMG	**Port Moresby**	**28.64**	**106**	P	**P**	**23 47 44.3**	**+0.6**
	comp=Z,26nm,1.2s						
PMG	**Port Moresby**	**28.64**	**106**	P	**P**	**23 47 43.1**	**-0.7**
	comp=Z,26nm,1.2s						
CHTO	**Chiang Mai**	**28.78**	**317**	P	**P**	**23 47 44.6**	**-0.3**
GUMO	**Guam**	**29.67**	**58**	LR	LR	23 59 40.5	
	comp=Z,40nm,19.1s,baz=164,slow=36						
NWAO	**Narrogin (SRO)**	**30.86**	**183**	P	**P**	**23 48 01.5**	**-1.7**
	comp=Z,4.2nm,0.7s,baz=5.3,slow=8.6,SNR=5.0						
	comp=Z,4.2nm,0.7s						
NWAO	**Narrogin (SRO)**	**30.86**	**183**	P	**P**	**23 48 03.0**	**-0.2**
NWAO				IAmb	IAmb	23 48 08.5	
	comp=Z,12nm,0.9s						
NPW	**Naypyitaw**	**31.39**	**315**	P	**P**	**23 48 08.5**	**+0.5**
	comp=Z,11nm,0.9s						
CTA	**Charters Tower**	**31.88**	**126**	P	**P**	**23 48 10.5**	**-1.8**
	comp=Z,3.3nm,0.6s,baz=288,slow=8.4,SNR=4.2						
CTA				LR	LR	00 01 46.2	
	comp=Z,227nm,21.1s,baz=233,slow=38						
	comp=Z,3.3nm,0.6s						
NJ2	**Nanjing**	**33.83**	**359**	*e*P	**P**	**23 48 31.6**	**+2.4**
NJ2				pmax	pmax		
	comp=Z,22nm,0.5s						
QLP	**Quilpie**	**34.22**	**138**	P	**P**	**23 48 32.3**	**-0.4**
	comp=Z,28nm,1.6s						
MORE	**Moreh**	**35.63**	**318**	P	**P**	**23 48 44.9**	**0.0**
MORE				IAmb	IAmb	23 48 46.1	
	comp=Z,11nm,0.8s						
JCJ	**Chichijima**	**36.33**	**36**	LR	LR	00 01 25.2	
	comp=Z,63nm,22.0s,baz=134,slow=32						
STKA	**Stephens Creek**	**36.41**	**147**	P	**P**	**23 48 50.0**	**-1.5**
	comp=Z,7.1nm,0.8s,baz=312,slow=9.2,SNR=8.4						
STKA				PcP	**PcP**	**23 51 13.9**	**-1.9**
	comp=Z,4.5nm,0.7s,baz=336,slow=3.7,SNR=3.2						
	comp=Z,7.1nm,0.8s						
STKA	**Stephens Creek**	**36.41**	**147**	P	**P**	**23 48 50.3**	**-1.2**
STKA					**PcP**	**23 51 14.1**	**-1.7**
STKA	**Stephens Creek**	**36.41**	**147**	P	**P**	**23 48 49.5**	**-2.0**
	comp=Z,123nm,1.6s						
JTU	**Tsushima**	**37.51**	**14**	P	**P**	**23 49 01.6**	**+0.8**
JTU				IAmb	IAmb	23 49 11.8	
	comp=Z,31nm,1.1s						
CMSA	**Cobar Meteorol**	**38.52**	**143**	P	**P**	**23 49 08.4**	**-1.0**
	comp=Z,36nm,0.9s						
KSAR	**Wonju Array Be**	**40.00**	**11**	P	**P**	**23 49 21.8**	**+0.1**
KSRS	**Korea Array**	**40.02**	**11**	P	**P**	**23 49 21.0**	**-0.8**
	comp=Z,2.2nm,0.9s,baz=183,slow=10,SNR=8.7						
	comp=Z,2.2nm,0.9s						
LZDM	**Lanzhou Array**	**40.45**	**340**	P

MKAR	**Makanchi Array**	**58.44**	**331**	P		**P**	**23 51 42.8**	**0.0**
	comp=Z,2.2nm,0.6s,baz=128,slow=9.2,SNR=16							
	comp=Z,2.2nm,0.6s							
MKAR	**Makanchi Array**	**58.44**	**331**	P		**P**	**23 51 42.5**	**-0.2**
KBL	**Kabul**	**59.48**	**313**	P		**P**	**23 51 49.3**	**-1.0**
DRK	**Karamyk**	**59.96**	**319**	P		**P**	**23 51 54.1**	**+0.4**
DRK				IAmb	IAmb		23 51 55.0	
	comp=Z,10nm,0.7s							
ARSB	**Arslanbob**	**60.19**	**321**	P		**P**	**23 51 55.0**	**0.0**
BTK	**Batken**	**60.90**	**319**	P		**P**	**23 51 59.9**	**0.0**
BTK				IAmb	IAmb		23 52 10.3	
	comp=Z,7.6nm,1.0s							
RPZ	**Rata Peaks**	**61.81**	**140**	P		**P**	**23 52 07.5**	**+1.6**
RPZ				IAmb	IAmb		23 52 19.6	
	comp=Z,8.2nm,0.8s							
ZAA0	**Zalesovo Array**	**62.66**	**338**	P		**P**	**23 52 11.0**	**-0.3**
ZAA0				IAmb	IAmb		23 52 13.5	
	comp=Z,8.9nm,0.8s							
ZALV	**Zalesovo Beam**	**62.66**	**338**	P		**P**	**23 52 10.6**	**-0.7**
	comp=Z,6.8nm,0.7s,baz=149,slow=5.7,SNR=28							
	comp=Z,6.8nm,0.7s							
KKAR	**Karatay Array**	**62.69**	**322**	P		**P**	**23 52 11.8**	**0.0**
KURBB	**Kurchatov Arra**	**62.89**	**332**	P		**P**	**23 52 13.1**	**+0.1**
	comp=Z,4.1nm,0.8s,baz=141,slow=5.9,SNR=20							
	comp=Z,4.1nm,0.8s							
KURK	**Kurchatov**	**62.92**	**332**	P		**P**	**23 52 13.2**	**+0.2**
KURK	**Kurchatov**	**62.92**	**332**	P		**P**	**23 52 13.5**	**+0.5**
	comp=Z,24nm,0.9s							
PETK	**Petropavlovsk**	**63.56**	**25**	P		**P**	**23 52 18.0**	**+0.7**
	comp=Z,4.0nm,0.8s,baz=241,slow=6.7,SNR=2.1							
	comp=Z,4.0nm,0.8s							
PETK	**Petropavlovsk-**	**63.56**	**25**	P		**P**	**23 52 18.3**	**+1.0**
BVAR	**Borovoye Array**	**68.32**	**331**	P		**P**	**23 52 47.6**	**-0.4**
	comp=Z,3.3nm,0.8s,baz=122,slow=7.5,SNR=13							
	comp=Z,3.3nm,0.8s							
BORK	**Borovoye**	**68.37**	**331**	P		**P**	**23 52 48.1**	**-0.2**
BORK				IAmb	IAmb		23 53 03.4	
	comp=Z,8.3nm,0.9s							
AB31	**Akbulak array**	**72.08**	**324**	P		**P**	**23 53 10.0**	**-1.1**
AB31				IAmb	IAmb		23 53 13.0	
	comp=Z,6.9nm,0.9s							
ABKAR	**Akbulak array**	**72.08**	**324**	P		**P**	**23 53 10.9**	**-0.2**
TIXI	**Tiksi**	**73.75**	**3**	P		**P**	**23 53 19.0**	**-1.5**
TIXI				IAmb	IAmb		23 53 19.3	
	comp=Z,9.8nm,0.8s							
NRIK	**Noril'sk**	**74.35**	**349**	P		**P**	**23 53 22.9**	**-1.3**
	comp=Z,4.0nm,0.7s,baz=138,slow=4.7,SNR=7.2							
	comp=Z,4.0nm,0.7s							
MAW	**Mawson**	**75.93**	**199**	P		**P**	**23 53 32.8**	**-0.5**
	comp=Z,2.4nm,0.9s,baz=60,slow=11,SNR=4.5							
	comp=Z,2.4nm,0.9s							
MAW	**Mawson**	**75.93**	**199**	P		**P**	**23 53 33.4**	**+0.1**
RAYN	**Ar Rayn**	**76.00**	**295**	P		**P**	**23 53 32.9**	**-1.7**
ARTI	**Arti**	**76.02**	**330**	P		**P**	**23 53 34.0**	**0.0**
ARTI				IAmb	IAmb		23 53 52.1	
	comp=Z,6.3nm,0.9s							
VNDA	**Vanda**	**78.84**	**171**	P		**P**	**23 53 48.3**	**-1.2**
	comp=Z,3.1nm,0.8s,baz=313,slow=5.6,SNR=23							
	comp=Z,3.1nm,0.8s							
VNDA	**Vanda**	**78.84**	**171**	P		**P**	**23 53 48.8**	**-0.7**
TOKA	**Tokat**	**85.81**	**310**	P		**P**	**23 54 27.1**	**+0.4**
TOKA				IAmb	IAmb		23 54 41.4	
	comp=Z,6.3nm,0.9s							
MWH	**Mokuaweoweo**	**86.00**	**70**	P		**P**	**23 54 26.6**	**-2.0**
SDPT	**Sand Point**	**86.03**	**34**	P		**P**	**23 54 26.3**	**-1.0**
SNOP	**Sinop**	**86.93**	**312**	P		**P**	**23 54 32.0**	**-0.1**
SNOP				IAmb	IAmb		23 54 35.0	
	comp=Z,8.0nm,1.0s							
F17K	**Baldwin Pennin**	**87.56**	**23**	P		**P**	**23 54 34.2**	**-0.3**
O16K	**Kokwok River B**	**87.92**	**30**	P		**P**	**23 54 35.4**	**-1.0**
O16K				IAmb	IAmb		23 54 46.8	
	comp=Z,8.2nm,1.1s							
BRTR	**Keskin Array B**	**87.92**	**310**	P		**P**	**23 54 35.9**	**-1.3**
	comp=Z,0.6nm,0.6s,baz=95,slow=8.8,SNR=4.1							
	comp=Z,0.6nm,0.6s							
BRTR	**Keskin Array B**	**87.92**	**310**	P		**P**	**23 54 36.7**	**-0.5**
QSPA	**South Pole Qui**	**87.98**	**180**	P		**P**	**23 54 35.7**	**-1.2**
	comp=Z,3.7nm,0.7s,baz=323,slow=1.3,SNR=13							
	comp=Z,3.7nm,0.7s							
QSPA	**South Pole Qui**	**87.98**	**180**	P		**P**	**23 54 36.2**	**-0.7**
QSPA				IAmb	IAmb		23 54 46.1	
	comp=Z,8.6nm,1.1s							
K17K	**Iditarod**	**88.23**	**27**	P		**P**	**23 54 37.1**	**-0.7**
K17K				IAmb	IAmb		23 54 42.3	
	comp=Z,8.6nm,1.1s							
KOLS	**Kolonicke sedl**	**96.12**	**319**	*e*PP		**PP**	**23 59 10.4**	**+2.9**
TXAR	**Lajitas Array**	**130.91**	**52**	PKP		**PKPdf**	**00 00 58.3**	**-1.0**
	comp=Z,0.5nm,0.8s,baz=282,slow=1.3,SNR=5.2							
CPUP	**Villa Florida**	**151.69**	**186**	PKPbc		**PKPbc**	**00 01 40.8**	**-1.4**
	comp=Z,4.4nm,0.8s,baz=144,slow=3.2,SNR=4.4							
PB14	**IPOC Station P**	**151.93**	**161**	PKPdf		**PKPdf**	**00 01 35.0**	**-1.7**
PB14				PKPbc		**pPKPdf**	**00 01 40.9**	**+0.6**
PB14				PKPab		**sPKPbc**	**00 01 48.2**	**+0.2**

*IDC **06** 23:49:16.5±0.3,62.˚16S×57.˚79W,h0km,mb5.1/19, mbtmp5.1/20,ML4.4/1,MS5.5/40,Error ellipse: s-maj=15.2km s-min=9.6km az=87.0*

*MOS **06** 23:49:17.4±1.1,62.˚16S×58.˚01W,h10km,mb5.7/29, MS5.4/20,Error ellipse: s-maj=22.5km s-min=7.8km az=89.4*

*NEIC **06** 23:49:18.9,62.˚24S×58.˚16W,h11km*

*ISC-PP **06** 23:49:19,62.˚23S×58.˚19W,h6km,Mwppsm6.2,Moment Tensor Solution. s27 Moment tensor: Scale 10¹⁸Nm; Mrr-0.62±.10; Mθθ0.01±.11; Mϕϕ-0.43±.13; Mrθ-0.25±.13; Mθϕ-0.38±.10; Mϕr0.08±.15; Fault plane solution: M₀2.57000×10¹⁸ NP1:ϕs46.20000°,δ74.80000°, λ245.10000°. NP2:ϕs286.60000°,δ28.90000°, λ-32.90000°.*

*NEIC **06** 23:49:19.2±2.1,62.˚23S±0.˚05×58.˚19W±0.˚08,h12km±2km, mb5.8/175,Ms_20 5.6/629,Mww5.9/36 Error ellipse: s-maj=7.9km s-min=5.4km az=162.0*

*GFZ **06** 23:49:19.7,62.˚30S×58.˚26W,h17km,Mw6.0/76,Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr-0.77; Mθθ0.44; Mϕϕ0.33; Mrθ0.72; Mθϕ0.53; Mϕr0.50; Fault plane solution: M₀1.21884×10¹⁸ NP1:ϕs40.32980°, δ22.43488°,λ-102.32171°. NP2:ϕs233.62591°, δ68.10899°,λ-84.96471°. Principal axes: T 1.2822, Plg22.9513°, Azm319.7614°; N -0.1386, Plg4.6714°, Azm51.7444°; P -1.1436, Plg66.5241°, Azm152.5887°;*

*IPGP **06** 23:49:19.0,62.˚25S×58.˚01W,h6km,Mw6.0,Fault plane solution: NP1:ϕs270.00000°,δ40.00000°,λ-29.00000°. NP2:ϕs23.00000°,δ72.00000°,λ-127.00000°.*

*GFZ **06** 23:49:20.2±0.3,62.˚S±2.˚×5.˚8W±.˚,h15km±1km,M5.9/83, mb5.7/83,Error ellipse: s-maj=6.3km s-min=3.6km az=71.1,confirmed*

*GCMT **06** 23:49:21.9±0.1,62.˚32S×58.˚06W,h12km,MW5.9/156, Moment Tensor Solution. s144,c299; s156,c485; Duration: 2s2 Moment tensor: Scale 10¹⁸Nm; Mrr-0.40±.01; Mθθ0.56±.01; Mϕϕ-0.16±.01; Mrθ-0.16±.01; Mθϕ0.70±.01; Mϕr-0.31±.01; Best double couple: M₀0.88100×10¹⁸ NP1:ϕs281.00000°,δ57.00000°, λ-18.00000°. NP2:ϕs21.00000°,δ75.00000°, λ-145.00000°. Principal axes: T 1.0470, Plg12.0000°, Azm147.0000°; N -0.3320, Plg53.0000°, Azm42.0000°; P -0.7140, Plg35.0000°, Azm246.0000°; nsta1 refers to body waves, cutoff=50s. Triangular moment-rate function*

*NEIC **06** 23:49:26,62.˚14S×57.˚30W,h12km,Moment Tensor Solution. Duration: 4s4 Moment tensor: Scale 10¹⁷Nm; Mrr-5.11; Mθθ4.14; Mϕϕ0.97; Mrθ3.20; Mθϕ5.51; Mϕr-2.56; Fault plane solution: M₀8.32000×10¹⁷ NP1:ϕs21.31000°, δ51.99000°,λ-140.79000°. NP2:ϕs264.63000°, δ60.13000°,λ-45.25000°. Principal axes: T 8.3770, Plg5.0000°, Azm325.0000°; N -0.1081, Plg38.0000°, Azm58.0000°; P -8.2689, Plg52.0000°, Azm229.0000°;*

*PTWC **06** 23:49:26,62.˚10S×58.˚10W,h66km,Mwp6.2/18*

ISC 06 23:49:19.0±0.5,62.˚22S±0.˚03×58.˚13W±0.˚04,h13km±2km, h13km:pP-P,n1224,σ1ϟ44/958,mb5.7/163,MS5.6/376, 77C-59D,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time h m s	Res ISC
JUBA	**Jubany**	**0.25**	**265**	*i* P		**Pg**	**23 49 23.0**	**-1.2**
JUBA				*i* S		**Sg**	**23 49 25.9**	**-1.9**
ESPZ	**Base Esperanza**	**1.29**	**157**	*i* P		**Pn**	**23 49 41.1**	**-1.7**
ESPZ				*i* S		**Sb**	**23 49 57.9**	**-1.8**
ESPZ	**Base Esperanza**	**1.29**	**157**			**Pn**	**23 49 40.7**	**-2.0**

PMSA	**Palmer Station**	**3.69**	**223**	Pn		**Pn**	**23 50 15.6**	**0.0**
	30nm,0.3s,baz=52,slow=9.3,SNR=59							
PMSA				Sn		**Sn**	**23 50 59.9**	**+1.1**
	88nm,0.3s,baz=95,slow=17,SNR=3.5							
	129nm,0.4s							
PMSA				AML		AML		
PMSA	**Palmer Station**	**3.69**	**223**			**Pn**	**23 50 14.5**	**-1.1**
PMSA	**Palmer Station**	**3.69**	**223**	⇓P		**Pn**	**23 50 15.4**	**-0.2**
PMSA	**Palmer Station**	**3.69**	**223**	*e*P		**Pn**	**23 50 14.9**	**-0.7**
ORCD	**Orcadas**	**6.59**	**83**	*i* P		**Pn**	**23 50 56.2**	**+0.8**
ORCD				IAML			23 53 17.5	
	comp=Z,1μm,2.1s							
ORCD	**Orcadas**	**6.59**	**83**			**Pn**	**23 50 55.9**	**+0.6**
SMAI	**San Martin Ant**	**7.03**	**209**	*e*P		**Pn**	**23 51 02.8**	**+1.4**
SMAI	**San Martin Ant**	**7.03**	**209**			**Pn**	**23 51 02.9**	**+1.5**
USHA	**Ushuaia**	**9.15**	**319**	Pn		**Pn**	**23 51 29.9**	**-0.5**
	comp=Z,5.5nm,0.3s,baz=188,slow=0.2,SNR=11							
USHA				Sn		**Sn**	**23 53 08.1**	**-5.1**
	comp=Z,5.7nm,0.3s,baz=125,slow=16,SNR=1.5							
USHA				LR		LR	23 54 31.2	
	comp=Z,45μm,21.8s,baz=188,slow=34							
USHA	**Ushuaia**	**9.15**	**319**	*i* P		**Pn**	**23 51 34.2**	**+3.8**
USHA				*i* S		**Sn**	**23 53 11.4**	**-1.7**
EFI	**East Falkland**	**10.57**	**0**	*i* P		**Pn**	**23 51 53.2**	**+3.3**
EFI				*i* S		**Sn**	**23 53 47.2**	**-0.8**
EFI				IAML			23 54 08.7	
	comp=Z,130nm,2.5s							
EFI	**East Falkland**	**10.57**	**0**	*c i* P		**Pn**	**23 51 52.1**	**+2.1**
EFI				pmax		pmax		
	comp=Z,245nm,0.9s							
EFI	**East Falkland**	**10.57**	**0**			**Pn**	**23 51 51.9**	**+1.9**
EFI	**East Falkland**	**10.57**	**0**	⇓P		**Pn**	**23 51 52.5**	**+2.6**
EFI	**East Falkland**	**10.57**	**0**	⇑P		**Pn**	**23 51 52.4**	**+2.4**
	comp=Z,444nm,0.8s							
MG03	**Isla Dawson**	**10.62**	**317**			**Pn**	**23 51 51.2**	**+0.6**
MG02	**Cerro Sombrero**	**11.16**	**323**	*i* P		**Pn**	**23 52 01.3**	**+3.2**
MG02				*i* S		**Sn**	**23 54 03.3**	**+0.7**
MG02				IAML			23 54 45.9	
	comp=Z,188nm,2.4s							
MG02	**Cerro Sombrero**	**11.16**	**323**			**Pn**	**23 51 59.7**	**+1.6**
MG02	**Cerro Sombrero**	**11.16**	**323**	⇓P		**Pn**	**23 52 00.9**	**+2.8**
MG02	**Cerro Sombrero**	**11.16**	**323**	⇑P		**Pn**	**23 51 59.6**	**+1.6**
	comp=Z,528nm,1.0s							
GO10	**Punta Arenas**	**11.39**	**317**	*i* P		**Pn**	**23 52 04.2**	**+3.0**
GO10				IAML			23 54 58.5	
	comp=Z,103nm,2.3s							
GO10	**Punta Arenas**	**11.39**	**317**			**Pn**	**23 52 03.5**	**+2.3**
GO10	**Punta Arenas**	**11.39**	**317**	P		**Pn**	**23 52 05.3**	**+4.1**
	comp=Z,362nm,1.2s							
HOPE	**Hope Point**	**13.83**	**65**	*i* P		**P**	**23 52 40.0**	**-2.9**
HOPE				IAML			23 57 34.9	
	comp=Z,116nm,3.6s							
HOPE	**Hope Point**	**13.83**	**65**			**Pn**	**23 52 34.8**	**+0.4**
HOPE	**Hope Point**	**13.83**	**65**	P		**P**	**23 52 40.3**	**-2.6**
HOPE	**Hope Point**	**13.83**	**65**	⇑P		**P**	**23 52 40.0**	**-2.9**
HOPE	**Hope Point**	**13.83**	**65**	P		**P**	**23 52 40.3**	**-2.6**
	comp=Z,481nm,1.7s							
GO08	**Villa O'Higgin**	**15.98**	**323**	*i* P		**P**	**23 53 08.5**	**+1.8**
GO08				IAML			23 56 32.0	
	comp=Z,45nm,3.4s							
GO08	**Villa O'Higgin**	**15.98**	**323**			**P**	**23 53 05.5**	**-1.2**
GO08	**Villa O'Higgin**	**15.98**	**323**	P		**P**	**23 53 07.3**	**+0.6**
GO08	**Villa O'Higgin**	**15.98**	**323**	⇑P		**P**	**23 53 06.3**	**-0.4**
	comp=Z,222nm,1.2s							
AY03	**Cochrane**	**17.09**	**325**	P		**P**	**23 53 19.9**	**+0.8**
BELA	**Belgrano 2**	**17.39**	**164**			**Pn**	**23 53 18.4**	**-2.5**
COYC	**Coyhaique**	**18.52**	**328**			**Pn**	**23 53 35.8**	**+0.9**
COYC	**Coyhaique**	**18.52**	**328**	P		**Pn**	**23 53 38.8**	**+3.9**
VNA3	**Neumayer Olymp**	**20.54**	**136**	⇑P		Pn	23 53 58.3	-0.6
	comp=Z,535nm,0.9s							
VNA3				⇑S		Sn	23 57 59.3	+9.4
	comp=N,25nm,0.8s							
VNA3	**Neumayer Olymp**	**20.54**	**136**	P		Pn	23 53 58.5	-0.4
	comp=Z,958nm,1.1s							
LL02	**Futaleuf**	**20.71**	**331**			**P**	**23 53 59.4**	**+0.7**
LL02				IAmb		IAmb	23 54 08.9	
	comp=Z,433nm,1.3s							
LL02	**Futaleuf**	**20.71**	**331**	⇑P		Pn	23 54 01.1	0.0
LL02	**Futaleuf**	**20.71**	**331**	P		Pn	23 54 01.3	+0.3
	comp=Z,258nm,0.4s							
VNA1	**Neumayer--Stat**	**21.00**	**135**	⇑P		**P**	**23 54 04.0**	**+2.3**
	comp=Z,721nm,0.9s							
GO07	**Milladeo Hill,**	**21.22**	**327**	P		**P**	**23 54 03.5**	**-0.6**
GO07	**Milladeo Hill,**	**21.22**	**327**	⇑P		**P**	**23 54 06.3**	**+2.1**
	comp=Z,141nm,1.1s							
VNA2	**Neumayer--Watz**	**21.28**	**135**	⇑P		**P**	**23 54 06.5**	**+1.8**
	comp=Z,289nm,0.8s,baz=271,slow=10							
VNA2				⇑S		Sn	23 58 13.4	+5.6
	comp=E,22nm,0.7s,baz=263							
VNA2	**Neumayer--Watz**	**21.28**	**135**	⇑P		**P**	**23 54 07.4**	**+2.7**
	comp=Z,643nm,1.1s							
SNAA	**Sanae**	**22.71**	**138**	⇑P		**P**	**23 54 20.6**	**+0.5**
	comp=Z,10μm,1.3s							
SNAA				⇑S		Sn	23 58 37.9	-4.3
	comp=E,465nm,0.9s							
SNAA	**Sanae**	**22.71**	**138**	P		**P**	**23 54 20.7**	**+0.6**
	comp=E,719nm,1.2s,baz=257,slow=8.7,SNR=384							
SNAA				S		**S**	**23 58 27.1**	**-0.7**
	comp=E,10nm,1.0s,baz=248,slow=16,SNR=1.8							
SNAA				LR		LR	00 01 46.8	
	comp=E,21μm,20.9s,baz=266,slow=33							
	comp=E,719nm,1.2s							
SNAA	**Sanae**	**22.71**	**138**			**P**	**23 54 21.2**	**+1.1**
SNAA	**Sanae**	**22.71**	**138**	P		**P**	**23 54 21.8**	**+1.8**
SNAA	**Sanae**	**22.71**	**138**	⇓P		**P**	**23 54 21.5**	**+1.4**
SNAA	**Sanae**	**22.71**	**138**	⇑P		**P**	**23 54 21.9**	**+1.8**
	comp=Z,942nm,1.4s							
LL05	**Los Muermos**	**22.78**	**329**	P		**P**	**23 54 21.7**	**+0.8**
LL05	**Los Muermos**	**22.78**	**329**	P		**P**	**23 54 22.2**	**+1.3**
LL05	**Los Muermos**	**22.78**	**329**	P		**P**	**23 54 21.9**	**+1.0**
	comp=Z,558nm,0.9s							
PLCA	**Paso Flores**	**22.78**	**335**	P		**P**	**23 54 20.9**	**-0.1**
	comp=Z,60nm,1.1s,baz=162,slow=8.3,SNR=41							
PLCA				LR		LR	00 03 23.4	
	comp=Z,12μm,19.5s,baz=162,slow=37							
	comp=Z,60nm,1.1s							
PLCA	**Paso Flores**	**22.78**	**335**	P		**P**	**23 54 21.5**	**+0.5**
PLCA				pmax		pmax		
	comp=Z,406nm,1.3s							
PLCA	**Paso Flores**	**22.78**	**335**			**P**	**23 54 21.5**	**+0.5**
PLCA				IAmb		IAmb	23 54 28.3	
	comp=Z,406nm,1.2s							
PLCA	**Paso Flores**	**22.78**	**335**	P		**P**	**23 54 22.6**	**+1.6**
PLCA	**Paso Flores**	**22.78**	**335**	⇑P		**P**	**23 54 20.6**	**-0.5**
PLCA	**Paso Flores**	**22.78**	**335**	P		**P**	**23 54 21.6**	**+0.6**
PLCA				S		**S**	**23 58 35.2**	**+5.6**
PLCA	**Paso Flores**	**22.78**	**335**	⇑P		**P**	**23 54 22.7**	**+1.7**
	comp=Z,319nm,1.3s							
PLCA	**Paso Flores**	**22.78**	**335**	*e*P		**P**	**23 54 21.1**	**+0.1**
LL03	**Petrohue**	**22.79**	**331**	P		**P**	**23 54 20.8**	**-0.2**
LL03	**Petrohue**	**22.79**	**331**	P		**P**	**23 54 22.2**	**+1.3**
	comp=Z,175nm,0.9s							
LR05	**Currie**	**23.57**	**333**	P		**P**	**23 54 29.6**	**+0.7**
LR05				IAmb		IAmb	23 54 35.4	
	comp=Z,550nm,1.1s							
GO06	**Curarrehue**	**24.07**	**334**			**P**	**23 54 34.5**	**+0.5**
GO06	**Curarrehue**	**24.07**	**334**	P		**P**	**23 54 34.0**	**+0.1**
GO06	**Curarrehue**	**24.07**	**334**	⇑P		**P**	**23 54 34.4**	**+0.4**
GO06	**Curarrehue**	**24.07**	**334**	⇓P		**P**	**23 54 34.1**	**+0.2**
	comp=Z,545nm,1.2s							
LR03	**Panguipulli**	**24.21**	**332**	IAmb		IAmb	23 54 42.3	
	comp=Z,545nm,1.6s							
LR04	**Corral**	**24.22**	**330**	IAmb		IAmb	23 54 40.8	
	comp=Z,330nm,1.4s							
LR04	**Corral**	**24.22**	**330**	P		**P**	**23 54 36.9**	**+1.8**
TROLL	**Troll, Antarti**	**24.35**	**139**	⇑P		**P**	**23 54 37.2**	**+0.9**
	comp=Z,9μm,1.1s							
TROLL				⇑S		S	23 59 07.5	+13
	comp=E,985nm,0.7s							
BI02	**San Fabin de**	**26.86**	**336**	IAmb		IAmb	23 55 08.6	
	comp=Z,647nm,1.9s							
BI02	**San Fabin de**	**26.86**	**336**	P		**P**	**23 54 59.4**	**+0.3**
BI02	**San Fabin de**	**26.86**	**336**	P		**P**	**23 55 00.1**	**+1.0**
	comp=Z,173nm,2.2s							
BI05	**Punta Hualpn**	**27.16**	**333**	P		**P**	**23 55 03.9**	**+2.1**
BI05				IAmb		IAmb	23 55 09.4	
	comp=Z,369nm,1.2s							
NVL	**N'lazarevskaya**	**27.54**	**138**	*e*P		**P**	**23 55 10.8**	**+6.0**
NVL				*e*S		**S**	**23 59 46.3**	**+1.2**
NVL				pmax		pmax		
	comp=Z,196nm,1.0s							
NVL				MLR		MLR		
	comp=Z,4μm,15.0s							
ML02	**Panimavida**	**27.76**	**336**	IAmb		IAmb	23 55 16.8	
	comp=Z,266nm,1.1s							

ML02				IAMs_20		IAMs_20	00 04 57.5	
	comp=Z,20μm,22.0s							
ML02	**Panimavida**	**27.76**	**336**	P		**P**	**23 55 08.1**	**+0.9**
	comp=Z,270nm,1.1s							
ANCO	**Parque Anchore**	**27.96**	**0**	*e*P		**P**	**23 55 09.9**	**+1.0**
QSPA	**South Pole Qui**	**28.01**	**180**	P		**P**	**23 55 09.6**	**+0.2**
	comp=Z,73nm,0.8s,baz=159,slow=4.2,SNR=47							
	comp=Z,73nm,0.8s							
QSPA	**South Pole Qui**	**28.01**	**180**	P		**P**	**23 55 10.6**	**+1.3**
BO02	**Sierra Bellavi**	**28.59**	**338**	P		**P**	**23 55 15.3**	**+0.7**
BO02				IAmb		IAmb	23 55 22.4	
	comp=Z,295nm,1.5s							
BO02				IAMs_20		IAMs_20	00 05 39.2	
	comp=Z,17μm,21.0s							
BO02	**Sierra Bellavi**	**28.59**	**338**	⇑P		**P**	**23 55 14.8**	**+0.2**
BO02	**Sierra Bellavi**	**28.59**	**338**	P		**P**	**23 55 15.1**	**+0.5**
	comp=Z,121nm,1.1s							
GO05	**Hualane**	**28.59**	**336**			**P**	**23 55 15.4**	**+0.8**
GO05	**Hualane**	**28.59**	**336**	P		**P**	**23 55 15.5**	**+1.0**
GO05	**Hualane**	**28.59**	**336**	⇓P		**P**	**23 55 14.9**	**+0.4**
GO05	**Hualane**	**28.59**	**336**	⇓P		**P**	**23 55 14.6**	**0.0**
	comp=Z,312nm,1.4s							
BO01	**Tunca**	**29.03**	**338**	P		**P**	**23 55 18.5**	**0.0**
BO01				IAmb		IAmb	23 55 45.3	
	comp=Z,161nm,1.2s							
BO01	**Tunca**	**29.03**	**338**	⇓P		**P**	**23 55 17.9**	**-0.6**
	comp=Z,110nm,1.3s							
BO04	**La Punta**	**29.34**	**339**	P		**P**	**23 55 21.8**	**+0.5**
BO04				IAmb		IAmb	23 55 27.5	
	comp=Z,224nm,1.1s							
MT13	**San Alfonso**	**29.53**	**339**	IAmb		IAmb	23 55 29.9	
	comp=Z,193nm,1.2s							
MT01	**Popeta**	**29.57**	**338**	IAmb		IAmb	23 55 40.4	
	comp=Z,144nm,1.2s							
MT09	**Talagante**	**29.61**	**338**	IAmb		IAmb	23 55 34.7	
	comp=Z,228nm,1.1s							
MT09				IAMs_20		IAMs_20	00 06 09.3	
	comp=Z,15μm,21.0s							
MT08	**Bocatoma Ro**	**29.77**	**340**	IAMs_20		IAMs_20	00 06 21.0	
	comp=Z,15μm,21.0s							
MT03	**Universidad Ad**	**29.81**	**339**	IAMs_20		IAMs_20	00 06 59.5	
	comp=Z,13μm,20.0s							
VA05	**Santo Domingo**	**29.84**	**337**	P		**P**	**23 55 29.6**	**+3.9**
	comp=Z,105nm,0.9s							
MT16	**CCHEN**	**29.87**	**339**	IAmb		IAmb	23 55 32.4	
	comp=Z,320nm,1.2s							
MT16				IAMs_20		IAMs_20	00 07 01.2	
	comp=Z,15μm,21.0s							
MT05	**Renca**	**29.95**	**339**	IAmb		IAmb	23 55 32.9	
	comp=Z,291nm,1.1s							
MT05				IAMs_20		IAMs_20	00 06 30.1	
	comp=Z,14μm,20.0s							
MT02	**Curacav**	**30.14**	**338**			**P**	**23 55 29.0**	**+0.7**
MT02				IAmb		IAmb	23 55 38.9	
	comp=Z,116nm,0.9s							
MT02				IAMs_20		IAMs_20	00 06 24.4	
	comp=Z,15μm,22.0s							
PEL	**Peldehue**	**30.18**	**339**	IAmb		IAmb	23 55 39.8	
	comp=Z,148nm,1.0s							
PEL				IAMs_20		IAMs_20	00 06 27.2	
	comp=Z,16μm,21.0s							
PEL	**Peldehue**	**30.18**	**339**	⇑P		**P**	**23 55 29.6**	**+0.9**
PEL	**Peldehue**	**30.18**	**339**	P		**P**	**23 55 28.8**	**+0.1**
	comp=Z,135nm,1.1s							
VA01	**Torpederas**	**30.47**	**337**	P		**P**	**23 55 32.2**	**+1.1**
VA01	**Torpederas**	**30.47**	**337**	P		**P**	**23 55 31.8**	**+0.7**
	comp=Z,194nm,1.6s							
VA03	**San Esteban**	**30.53**	**339**	IAmb		IAmb	23 55 50.6	
	comp=Z,284nm,1.1s							
VA03	**San Esteban**	**30.53**	**339**	P		**P**	**23 55 33.0**	**+1.2**
	comp=Z,267nm,0.9s							
ELIB	**Princess Elisa**	**30.57**	**143**	*d*P		**P**	**23 55 33.2**	**+1.4**
ELIB				*d*PcP		**PcP**	**23 58 30.2**	**+0.2**
PSAL	**Palomas, Salto**	**31.15**	**1**	*e*P		**P**	**23 55 37.3**	**+0.1**
CO04	**Los Peladeros**	**31.30**	**339**			**P**	**23 55 39.4**	**+0.5**
CO04				IAmb		IAmb	23 55 45.5	
	comp=Z,309nm,1.4s							
CO04				IAMs_20		IAMs_20

	comp=Z,80nm,1.1s									
CPUP	**Villa Florida**	**35.88**	**1**			**P**		**23 56 18.2**	**-0.2**
CPUP	**Villa Florida**	**35.88**	**1**	P		**P**		**23 56 18.2**	**-0.2**
CPUP	**Villa Florida**	**35.88**	**1**	⇓P		**P**		**23 56 18.1**	**-0.3**
CPUP	**Villa Florida**	**35.88**	**1**	P		**P**		**23 56 18.7**	**+0.3**
CPUP				S		**S**		**00 01 56.0**	**+0.1**
CPUP	**Villa Florida**	**35.88**	**1**	⇓P		**P**		**23 56 18.1**	**-0.2**
	comp=Z,108nm,1.7s									
CPUP	**Villa Florida**	**35.88**	**1**	*e*P		**P**		**23 56 18.2**	**-0.2**
AC02	**Maricunga**	**36.13**	**343**	IAMs_20		IAMs_20		00 10 12.8		
	comp=Z,11µm,20.0s									
AC02	**Maricunga**	**36.13**	**343**	P		**P**		**23 56 21.8**	**+0.7**
AC02	**Maricunga**	**36.13**	**343**	⇓P		**P**		**23 56 22.1**	**+0.9**
	comp=Z,232nm,1.4s									
SYO	**Syowa Base**	**36.74**	**143**	⇓*i*P		**P**		**23 56 26.4**	**+1.1**
AC01	**Pan de Azucar**	**37.02**	**341**	IAMs_20		IAMs_20		00 10 44.4		
	comp=Z,15µm,22.0s									
AC01	**Pan de Azucar**	**37.02**	**341**	P		**P**		**23 56 28.9**	**+0.8**
AC01	**Pan de Azucar**	**37.02**	**341**	P		**P**		**23 56 29.0**	**+0.8**
	comp=Z,236nm,1.8s									
AC01				pP		**sP**		**23 56 33.2**	**-0.1**
SJPY	**San Joaquin**	**37.23**	**3**	*e*P		**P**		**23 56 29.4**	**-0.6**
SBA	**Scott Base**	**37.53**	**194**	P		**P**		**23 56 34.3**	**+2.4**
SBA				pmax		pmax				
	comp=Z,109nm,1.2s									
SBA				MLR		MLR				
	comp=Z,8µm,18.0s									
SBA	**Scott Base**	**37.53**	**194**	P		**P**		**23 56 34.3**	**+2.4**
SBA	**Scott Base**	**37.53**	**194**	P		**P**		**23 56 34.6**	**+2.7**
	comp=Z,94nm,1.5s									
VNDA	**Vanda**	**38.36**	**193**	P		**P**		**23 56 40.4**	**+1.4**
	comp=Z,8.2nm,1.1s,baz=153,slow=7.4,SNR=17									
VNDA				PcP		**PcP**		**23 58 51.6**	**-0.5**
	comp=Z,10nm,1.0s,baz=165,slow=3.0,SNR=1.9									
VNDA				LR		LR		00 12 11.7		
	comp=Z,11µm,18.0s,baz=146,slow=36									
	comp=Z,8.2nm,1.1s									
VNDA	**Vanda**	**38.36**	**193**			**P**		**23 56 41.7**	**+2.8**
VNDA	**Vanda**	**38.36**	**193**	P		**P**		**23 56 41.4**	**+2.5**
VNDA	**Vanda**	**38.36**	**193**	P		**P**		**23 56 41.4**	**+2.5**
	comp=Z,42nm,1.5s									
SALTA		**38.38**	**348**	P		**P**		**23 56 41.6**	**+1.3**
	comp=Z,115nm,2.8s									
PB14	**IPOC Station P**	**38.48**	**342**			**P**		**23 56 41.1**	**+0.2**
PB14				IAMs_20		IAMs_20		00 11 29.2		
	comp=Z,13µm,20.0s									
PB14	**IPOC Station P**	**38.48**	**342**	P		**P**		**23 56 43.0**	**+2.1**
	comp=Z,125nm,2.5s									
PET01	**Itanhaem-SP**	**38.62**	**16**	P		**P**		**23 56 41.8**	**+0.1**
PET01	**Itanhaem-SP**	**38.62**	**16**	*e*P		**P**		**23 56 40.5**	**-1.2**
LDASE	**Londrina, Braz**	**39.10**	**10**	*e*P		**P**		**23 56 46.3**	**+0.5**
SPB	**Sao Paulo**	**39.29**	**16**	P		**P**		**23 56 48.1**	**+0.8**
	comp=Z,104nm,1.3s									
SPB	**Sao Paulo**	**39.29**	**16**	*e*P		**P**		**23 56 47.9**	**+0.6**
PB10	**IPOC Station P**	**39.60**	**342**	P		**P**		**23 56 51.5**	**+1.6**
PB10				IAmb		IAmb		23 56 55.9		
	comp=Z,158nm,1.0s									
PB10				IAMs_20		IAMs_20		00 11 59.7		
	comp=Z,12µm,21.0s									
PB10	**IPOC Station P**	**39.60**	**342**	P		**P**		**23 56 50.3**	**+0.5**
	comp=Z,244nm,1.8s									
PARB	**Paraibuna**	**39.78**	**18**	P		**P**		**23 56 50.5**	**-0.9**
PARB				S		**S**		**00 02 56.1**	**+1.0**
PARB	**Paraibuna**	**39.78**	**18**	P		**P**		**23 56 51.6**	**+0.1**
	comp=Z,299nm,2.2s									
PARB	**Paraibuna**	**39.78**	**18**	*e*P		**P**		**23 56 52.2**	**+0.7**
AF01	**San Pedro de A**	**39.84**	**345**	IAmb		IAmb		23 56 59.4		
	comp=Z,334nm,1.1s									
AF01				IAMs_20		IAMs_20		00 13 31.1		
	comp=Z,8µm,19.0s									
VAO	**Valinhos**	**39.93**	**16**			**P**		**23 56 53.1**	**+0.4**
VAO	**Valinhos**	**39.93**	**16**	*e*P		**P**		**23 56 53.4**	**+0.7**
VABB	**Valinhos**	**39.93**	**16**	P		**P**		**23 56 53.8**	**+1.1**
VABB				S		**S**		**00 02 57.4**	**0.0**
PB05	**IPOC Station P**	**40.20**	**343**			**P**		**23 56 54.1**	**-0.9**
PB05	**IPOC Station P**	**40.20**	**343**	P		**P**		**23 56 55.9**	**+0.9**
	comp=Z,164nm,1.2s									
PB06	**IPOC Station P**	**40.26**	**344**	P		**P**		**23 56 55.2**	**-0.3**
PB06				IAmb		IAmb		23 57 02.1		
	comp=Z,219nm,1.1s									
PB06	**IPOC Station P**	**40.26**	**344**	P		**P**		**23 56 56.2**	**+0.7**
PB06	**IPOC Station P**	**40.26**	**344**	P		**P**		**23 56 56.3**	**+0.7**
	comp=Z,231nm,1.2s									
PB03	**IPOC Station P**	**40.93**	**343**	P		**P**		**23 57 01.3**	**+0.2**
PB03				IAmb		IAmb		23 57 07.8		
	comp=Z,209nm,1.2s									
PB03				IAMs_20		IAMs_20		00 12 59.9		
	comp=Z,11µm,21.0s									
PB03	**IPOC Station P**	**40.93**	**343**	P		**P**		**23 57 01.8**	**+0.7**
	comp=Z,180nm,1.2s									
PB09	**IPOC Station P**	**41.11**	**344**	P		**P**		**23 57 02.5**	**0.0**
PB09	**IPOC Station P**	**41.11**	**344**	P		**P**		**23 57 03.9**	**+1.4**
	comp=Z,212nm,1.9s									
PB07	**IPOC Station P**	**41.26**	**343**	IAmb		IAmb		23 57 10.7		
	comp=Z,180nm,1.2s									
PB07				IAMs_20		IAMs_20		00 13 17.8		
	comp=Z,10µm,20.0s									
PB07	**IPOC Station P**	**41.26**	**343**	P		**P**		**23 57 04.3**	**+0.5**
	comp=Z,162nm,1.9s									
BB19B	**Bebedouro**	**41.65**	**14**	P		**P**		**23 57 07.3**	**+0.4**
BB19B				S		**S**		**00 03 23.1**	**+0.1**
BB19B	**Bebedouro**	**41.65**	**14**	*e*P		**P**		**23 57 06.7**	**-0.2**
PB02	**IPOC Station P**	**41.67**	**343**	IAMs_20		IAMs_20		00 13 19.5		
	comp=Z,9µm,20.0s									
PB02	**IPOC Station P**	**41.67**	**343**	P		**P**		**23 57 08.3**	**+1.2**
PB02	**IPOC Station P**	**41.67**	**343**	P		**P**		**23 57 08.4**	**+1.3**
	comp=Z,152nm,1.4s									
AQDB	**Aquidauana**	**41.74**	**3**			**P**		**23 57 07.5**	**0.0**
AQDB	**Aquidauana**	**41.74**	**3**	P		**P**		**23 57 07.6**	**0.0**
AQDB				S		**S**		**00 03 23.9**	**-0.2**
AQDB	**Aquidauana**	**41.74**	**3**	P		**P**		**23 57 07.2**	**-0.3**
	comp=Z,89nm,2.1s									
AQDB	**Aquidauana**	**41.74**	**3**	*e*P		**P**		**23 57 07.2**	**-0.3**
BDQN	**Bodoquena, MS**	**41.75**	**2**	*e*P		**P**		**23 57 07.0**	**-0.6**
CAM01	**Campos-RJ**	**41.92**	**23**	P		**P**		**23 57 09.6**	**+0.6**
CAM01	**Campos-RJ**	**41.92**	**23**	*e*P		**P**		**23 57 09.4**	**+0.4**
BSCB	**Bom Sucesso**	**42.21**	**19**	P		**P**		**23 57 13.9**	**+2.4**
	comp=Z,54nm,2.4s									
BSCB	**Bom Sucesso**	**42.21**	**19**	*e*P		**P**		**23 57 11.8**	**+0.3**
COIM	**Forte Coimbra**	**42.27**	**0**	*e*P		**P**		**23 57 11.8**	**-0.1**
TA01	**Diego Aracena**	**42.45**	**343**	P		**P**		**23 57 13.8**	**+0.5**
	comp=Z,98nm,1.2s									
CANS	**Sao Roque de M**	**42.68**	**16**	*e*P		**P**		**23 57 15.3**	**0.0**
PB08	**IPOC Station P**	**42.73**	**345**	IAMs_20		IAMs_20		00 14 12.7		
	comp=Z,9µm,22.0s									
PB08	**IPOC Station P**	**42.73**	**345**	P		**P**		**23 57 17.5**	**+1.4**
	comp=Z,125nm,1.6s									
PB11	**IPOC Station P**	**43.17**	**344**	IAmb		IAmb		23 57 36.0		
	comp=Z,123nm,1.0s									
PB11	**IPOC Station P**	**43.17**	**344**	P		**P**		**23 57 20.4**	**+1.1**
	comp=Z,131nm,1.0s									
GO01	**Chusmiza**	**43.20**	**345**	P		**P**		**23 57 20.0**	**0.0**
GO01				IAmb		IAmb		23 57 27.3		
	comp=Z,206nm,1.4s									
GO01				IAMs_20		IAMs_20		00 14 26.1		
	comp=Z,7µm,21.0s									
GO01	**Chusmiza**	**43.20**	**345**	P		**P**		**23 57 21.2**	**+1.2**
	comp=Z,131nm,1.7s									
PSGCX	**Pisagua**	**43.39**	**343**	P		**P**		**23 57 20.9**	**-0.2**
PSGCX				IAmb		IAmb		23 57 27.8		
	comp=Z,245nm,1.9s									
PSGCX	**Pisagua**	**43.39**	**343**	P		**P**		**23 57 21.1**	**0.0**
	comp=Z,75nm,1.9s									
MAW	**Mawson**	**43.66**	**152**	P		**P**		**23 57 23.2**	**+0.7**
	comp=Z,21nm,1.1s,comp=Z,0.0nm									
MAW	**Mawson**	**43.66**	**152**	P		**P**		**23 57 23.3**	**+0.7**
	comp=Z,53nm,1.0s,baz=209,slow=8.8,SNR=75									
MAW				PcP		**PcP**		**23 59 09.6**	**+0.1**
	comp=Z,36nm,0.8s,baz=216,slow=5.9,SNR=6.7									
MAW				LR		LR		00 15 34.4		
	comp=Z,23µm,18.9s,baz=220,slow=36									
	comp=Z,53nm,1.0s									
MAW	**Mawson**	**43.66**	**152**			**P**		**23 57 23.8**	**+1.3**
MAW	**Mawson**	**43.66**	**152**	P		**P**		**23 57 24.1**	**+1.5**
	comp=Z,21nm,1.1s									
PB12	**IPOC Station P**	**44.39**	**343**	IAmb		IAmb		23 57 46.2		
	comp=Z,232nm,1.4s									
PB12	**IPOC Station P**	**44.39**	**343**	P		**P**		**23 57 30.1**	**+1.1**
	comp=Z,107nm,1.2s									
PMNB	**Patos De Minas**	**44.40**	**16**	⇓P		**P**		**23 57 29.5**	**+0.3**
PMNB	**Patos De Minas**	**44.40**	**16**	P		**P**		**23 57 29.6**	**+0.4**
PMNB				S		**S**		**00 04 07.1**	**+3.7**
PMNB	**Patos De Minas**	**44.40**	**16**	P		**P**		**23 57 29.6**	**+0.4**
	comp=Z,80nm,2.1s									
PMNB	**Patos De Minas**	**44.40**	**16**	*e*P		**P**		**23 57 29.4**	**+0.2**
ITU3	**Corumbazu**	**44.43**	**13**	P		**P**		**23 57 29.7**	**+0.3**
PB16	**IPOC Station P**	**44.56**	**345**	P		**P**		**23 57 31.8**	**+0.8**
PB16				IAMs_20		IAMs_20		00 15 01.0		
	comp=Z,7µm,20.0s									
PB16	**IPOC Station P**	**44.56**	**345**	P		**P**		**23 57 32.6**	**+1.6**
PB16	**IPOC Station P**	**44.56**	**345**	P		**P**		**23 57 32.6**	**+1.6**
	comp=Z,112nm,1.9s									
RIB01	**Linhares ES**	**44.61**	**24**	*e*P		**P**		**23 57 30.9**	**+0.2**
PP1B	**Ponte de Pedra**	**44.63**	**4**	*e*P		**P**		**23 57 30.9**	**0.0**
IPMB	**Ipameri, GO**	**44.73**	**13**	P		**P**		**23 57 32.1**	**+0.2**
IPMB				S		**S**		**00 04 08.8**	**+0.6**
IPMB	**Ipameri, GO**	**44.73**	**13**	*e*P		**P**		**23 57 31.4**	**-0.4**
BSFB	**Barra de Sao F**	**44.99**	**23**	P		**P**		**23 57 34.0**	**+0.2**
BSFB	**Barra de Sao F**	**44.99**	**23**	P		**P**		**23 57 33.7**	**-0.1**
	comp=Z,110nm,1.4s									
BSFB	**Barra de Sao F**	**44.99**	**23**	*e*P		**P**		**23 57 33.1**	**-0.7**
BBSD	**Serra de San D**	**45.01**	**357**	*e*P		**P**		**23 57 33.5**	**-0.6**
DIAM	**Diamantina, MG**	**45.03**	**20**	P		**P**		**23 57 34.6**	**+0.3**
DIAM				S		**S**		**00 04 11.7**	**-1.0**
DIAM	**Diamantina, MG**	**45.03**	**20**	*e*P		**P**		**23 57 34.2**	**0.0**
SJMB	**Sao Joao De Ma**	**45.05**	**23**	P		**P**		**23 57 34.2**	**-0.1**
SJMB	**Sao Joao De Ma**	**45.05**	**23**	*e*P		**P**		**23 57 33.5**	**-0.8**
PB18	**Visviri**	**45.29**	**345**	P		**P**		**23 57 37.9**	**+1.1**
PB18	**Visviri**	**45.29**	**345**	P		**P**		**23 57 40.0**	**+3.2**
	comp=Z,336nm,1.6s									
JQT1	**Jequitai-MG**	**45.96**	**18**	P		**P**		**23 57 41.6**	**0.0**
JQT1				S		**S**		**00 04 24.4**	**-1.5**
SIV	**San Ignacio**	**46.22**	**356**	P		**P**		**23 57 43.2**	**-0.3**
	comp=Z,9.0nm,0.6s,baz=173,slow=7.3,SNR=63									
	comp=Z,9.0nm,0.6s									
ABR01	**Abrolhos, BA**	**46.26**	**26**	*e*P		**P**		**23 57 44.6**	**+0.9**
SALV	**Santo Antonio**	**46.29**	**3**	P		**P**		**23 57 44.5**	**+0.4**
SALV				S		**S**		**00 04 32.5**	**+2.0**
SALV	**Santo Antonio**	**46.29**	**3**	*e*P		**P**		**23 57 44.1**	**+0.1**
LPAZ	**La Paz**	**46.42**	**347**	P		**P**		**23 57 45.4**	**-0.4**
	comp=Z,4.5nm,0.6s,baz=157,slow=3.4,SNR=16									
LPAZ				LR		LR		00 19 31.6		
	comp=Z,5µm,18.6s,baz=156,slow=39									
	comp=Z,4.5nm,0.6s									
LPAZ	**La Paz**	**46.42**	**347**	P		**P**		**23 57 46.3**	**+0.5**
LPAZ				pmax		pmax				
	comp=Z,198nm,1.9s									
LPAZ	**La Paz**	**46.42**	**347**			**P**		**23 57 46.3**	**+0.5**
LPAZ				IAmb		IAmb		23 57 52.7		
	comp=Z,198nm,1.9s									
LPAZ	**La Paz**	**46.42**	**347**	⇑P		**P**		**23 57 46.1**	**+0.3**
LPAZ	**La Paz**	**46.42**	**347**	P		**P**		**23 57 46.9**	**+1.1**
LPAZ	**La Paz**	**46.42**	**347**	P		**P**		**23 57 46.5**	**+0.7**
	comp=Z,42nm,1.5s									
LPAZ	**La Paz**	**46.42**	**347**	*e*P		**P**		**23 57 45.8**	**0.0**
ARAG	**Araguaiana, MT**	**46.67**	**8**	P		**P**		**23 57 47.6**	**+0.6**
ARAG				S		**S**		**00 04 36.6**	**+0.6**
ARAG	**Araguaiana, MT**	**46.67**	**8**	*e*P		**P**		**23 57 46.8**	**-0.3**
PTLB	**Pontes e Lacer**	**46.71**	**359**			**P**		**23 57 47.4**	**0.0**
PTLB				IAmb		IAmb		23 57 53.5		
	comp=Z,318nm,2.0s									
PTLB	**Pontes e Lacer**	**46.71**	**359**	P		**P**		**23 57 47.3**	**0.0**
PTLB	**Pontes e Lacer**	**46.71**	**359**	*e*P		**P**		**23 57 47.1**	**-0.2**
BDFB	**Brasilia**	**47.07**	**13**	P		**P**		**23 57 49.7**	**-0.6**
	comp=Z,30nm,0.8s,baz=177,slow=4.8,SNR=44									
BDFB				LR		LR		00 18 35.7		
	comp=Z,3µm,18.9s,baz=175,slow=38									
	comp=Z,30nm,0.8s									
BDFB	**Brasilia**	**47.07**	**13**	P		**P**		**23 57 50.2**	**-0.1**
BDFB				pmax		pmax				
	comp=Z,116nm,1.3s									
BDFB	**Brasilia**	**47.07**	**13**			**P**		**23 57 50.2**	**-0.1**
BDFB				IAmb		IAmb		23 57 55.2		
	comp=Z,116nm,1.3s									
GUA01	**Guaratinga, BA**	**47.38**	**24**	P		**P**		**23 57 52.7**	**0.0**
GUA01				S		**S**		**00 04 49.7**	**+3.6**
GUA01	**Guaratinga, BA**	**47.38**	**24**	*e*P		**P**		**23 57 52.2**	**-0.4**
RPN	**Rapa Nui**	**48.52**	**292**	LR		LR		00 12 56.3		
	comp=Z,4µm,20.4s,baz=146,slow=29									
CMC01	**Camacan, BA**	**48.63**	**24**	P		**P**		**23 58 02.1**	**-0.1**
CMC01	**Camacan, BA**	**48.63**	**24**	*e*P		**P**		**23 58 01.8**	**-0.5**
NBIT	**Itapeh - BA**	**49.06**	**24**	P		**P**		**23 58 05.8**	**+0.2**
NBIT	**Itapeh - BA**	**49.06**	**24**	*e*P		**P**		**23 58 05.3**	**-0.3**
VILB	**Vilhena**	**49.21**	**357**	IAmb		IAmb		23 58 31.0		
	comp=Z,105nm,1.0s									
VILB	**Vilhena**	**49.21**	**357**	P		**P**		**23 58 06.9**	**+0.1**
VILB	**Vilhena**	**49.21**	**357**	*e*P		**P**		**23 58 06.3**	**-0.4**
CAN3	**Cana Brava**	**49.55**	**13**	P		**P**		**23 58 09.3**	**-0.1**
SNDB	**Serra Nova Dou**	**50.41**	**9**	P		**P**		**23 58 16.2**	**+0.4**
PDRB	**Porto dos Gac**	**50.53**	**2**	P		**P**		**23 58 16.3**	**-0.5**
PDRB				S		**S**		**00 05 29.5**	**-1.0**
PDRB	**Porto dos Gac**	**50.53**	**2**	*e*P		**P**		**23 58 14.9**	**-1.9**
SDBA	**SAO DESIDERIO**	**50.64**	**17**	P		**P**		**23 58 17.3**	**-0.3**
SDBA	**SAO DESIDERIO**	**50.64**	**17**	*e*P		**P**		**23 58 16.7**	**-0.9**
DRV	**Dumont d'Urvil**	**50.73**	**189**	P		**P**		**23 58 17.9**	**+0.2**
DRV				S		**S**		**00 05 38.0**	**+5.9**
CLDB	**Colider**	**51.28**	**3**	P		**P**		**23 58 22.0**	**-0.5**
CLDB				S		**S**		**00 05 40.5**	**-0.4**
CLDB	**Colider**	**51.28**	**3**	P		**P**		**23 58 21.8**	**-0.7**
	comp=Z,125nm,2.4s									
CLDB	**Colider**	**51.28**	**3**	*e*P		**P**		**23 58 21.5**	**-0.9**
CASY	**Casey**	**51.53**	**174**			**P**		**23 58 24.6**	**+0.9**
CASY				IAmb		IAmb		23 58 41.5		
	comp=Z,142nm,1.5s									
CASY	**Casey**	**51.53**	**174**	⇓P		**P**		**23 58 24.6**	**+0.9**
CASY	**Casey**	**51.53**	**174**	P		**P**		**23 58 24.8**	**+1.1**
	comp=Z,74nm,1.1s									
NNA	**Nana**	**51.93**	**337**	LR		LR		00 19 06.2		
	comp=Z,3µm,18.0s,baz=150,slow=34									
NNA	**Nana**	**51.93**	**337**	P		**P**		**23 58 28.3**	**+0.9**
NNA				pmax		pmax				
	comp=Z,191nm,1.7s									
NNA	**Nana**	**51.93**	**337**			**P**		**23 58 28.3**	**+0.9**
NNA				IAmb		IAmb		23 58 33.6		
	comp=Z,191nm,1.6s									
NNA	**Nana**	**51.93**	**337**	P		**P**		**23 58 28.4**	**+1.0**
	comp=Z,46nm,1.3s									
NBPN	**Ponto Novo - B**	**52.91**	**22**	P		**P**		**23 58 33.5**	**-1.0**
NBPN	**Ponto Novo - B**	**52.91**	**22**	*e*P		**P**		**23 58 32.9**	**-1.6**
SMTB	**Santa Maria do**	**53.81**	**13**			**P**		**23 58 40.9**	**-0.3**
SMTB	**Santa Maria do**	**53.81**	**13**	P		**P**		**23 58 40.8**	**-0.4**
SMTB	**Santa Maria do**	**53.81**	**13**	*e*P		**P**		**23 58 40.6**	**-0.6**
NPGB	**Novo Progresso**	**55.10**	**3**	P		**P**		**23 58 50.2**	**-0.3**
NPGB				S		**S**		**00 06 32.5**	**-0.3**
NPGB	**Novo Progresso**	**55.10**	**3**	*e*P		**P**		**23 58 49.9**	**-0.6**
CZSB	**Cruzeiro do Su**	**55.43**	**342**	P		**P**		**23 58 53.1**	**+0.2**
CZSB				S		**S**		**00 06 40.4**	**+3.3**
CZSB	**Cruzeiro do Su**	**55.43**	**342**	*e*P		**P**		**23 58 52.8**	**-0.1**
NBMA	**Muriti-CE**	**56.57**	**23**	P		**P**		**23 59 00.5**	**-0.6**
NBMA	**Muriti-CE**	**56.57**	**23**	*e*P		**P**		**23 58 59.9**	**-1.2**
SUR	**Sutherland**	**56.85**	**97**	LR		LR		00 17 57.9		
	comp=Z,9µm,21.1s,baz=212,slow=30									
SUR	**Sutherland**	**56.85**	**97**			**P**		**23 59 04.6**	**+1.4**
SUR				IAmb		IAmb		23 59 09.2		
	comp=Z,285nm,1.8s									
SUR	**Sutherland**	**56.85**	**97**	⇑P		**P**		**23 59 04.4**	**+1.2**
SUR	**Sutherland**	**56.85**	**97**	P		**P**		**23 59 04.2**	**+1.0**
	comp=Z,87nm,2.6s									
SUR	**Sutherland**	**56.85**	**97**	P		**P**		**23 59 04.0**	**+0.8**
NBLV	**Livramento - P**	**56.93**	**25**	P		**P**		**23 59 02.6**	**-1.1**
NBLV				S		**S**		**00 06 57.5**	**+0.3**
ATAH	**Atahualpa**	**56.96**	**336**	LR		LR		00 21 31.0		
	comp=Z,3µm,18.4s,baz=162,slow=34									
ITTB	**Itaituba**	**57.75**	**3**	P		**P**		**23 59 08.7**	**-0.7**
ITTB				S		**S**		**00 07 06.6**	**-1.2**
ITTB	**Itaituba**	**57.75**	**3**	*e*P		**P**		**23 59 08.4**	**-1.0**
NBPV	**Pedro Velho**	**58.18**	**27**	P		**P**		**23 59 12.1**	**-0.3**
NBPV	**Pedro Velho**	**58.18**	**27**	*e*P		**P**		**23 59 11.4**	**-1.0**
NBPB	**Pedra_Branca-C**	**58.20**	**22**	P		**P**		**23 59 12.4**	**-0.2**
NBPB				S		**S**		**00 07 11.7**	**-2.1**
NBPA	**Parau_RN**	**58.46**	**25**	P		**P**		**23 59 13.9**	**-0.5**
NBPA				S		**S**		**00 07 17.6**	**+0.4**
NBPA	**Parau_RN**	**58.46**	**25**	*e*P		**P**		**23 59 14.1**	**-0.2**
RCBR	**Riachuelo**	**58.62**	**26**	P		**P**		**23 59 14.8**	**-0.8**
	comp=Z,4.4nm,0.8s,baz=173,slow=18,SNR=5.1									
RCBR				LR		LR		00 26 01.8		
	comp=Z,677nm,18.1s,baz=198,slow=38									
	comp=Z,4.4nm,0.8s									
RCBR	**Riachuelo**	**58.62**	**26**	P		**P**		**23 59 16.3**	**+0.7**
RCBR				pmax		pmax				
	comp=Z,47nm,1.2s									
RCBR				MLR		MLR				
	comp=Z,2µm,18.0s									
RCBR	**Riachuelo**	**58.62**	**26**	P		**P**		**23 59 16.3**	**+0.7**
GRHM	**Grahamstown, E**	**58.67**	**103**	P		**P**		**23 59 16.5**	**+0.8**
GRHM				IAmb		IAmb		23 59 30.6		
	comp=Z,119nm,1.2s									
GRHM	**Grahamstown, E**	**58.67**	**103**	⇑P		**P**		**23 59 16.6**	**+0.8**
SHEL	**Horse Pasture**	**58.90**	**63**	P		**P**		**23 59 17.5**	**0.0**
SHEL				pmax		pmax				
	comp=Z,617nm,1.7s									
SHEL	**Horse Pasture**	**58.90**	**63**	P		**P**		**23 59 17.5**	**0.0**
SHEL	**Horse Pasture**	**58.90**	**63**	P		**P**		**23 59 18.0**	**+0.4**
	comp=Z,180nm,0.9s									
ATM1	**UHE Belo Monte**	**58.96**	**7**	P		**P**		**23 59 17.4**	**-0.4**
NBPS	**Pedro II - PI**	**59.02**	**20**	P		**P**		**23 59 17.6**	**-0.8**
NBPS	**Pedro II - PI**	**59.02**	**20**	*e*P		**P**		**23 59 17.2**	**-1.1**
BMO1	**UHE Belo Monte**	**59.12**	**7**	P		**P**		**23 59 18.2**	**-0.7**
ALKP	**Alkanpan, Nort**	**59.56**	**97**	P		**P**		**23 59 20.6**	**-1.4**
ALKP				IAmb		IAmb		23 59 38.5		
	comp=Z,80nm,1.0s									
ALKP	**Alkanpan, Nort**	**59.56**	**97**	⇑P		**P**		**23 59 22.0**	**-0.1**
MAL2	**Monte Alegre,**	**60.13**	**5**	P		**P**		**23 59 25.6**	**-0.3**
NBMO	**Morrinhos-CE**	**60.31**	**21**	*e*P		**P**		**23 59 27.2**	**+0.1**
PAF	**Port-aux-Franc**	**61.43**	**144**	IAMs_20		IAMs_20		00 20 35.8		
	comp=Z,6µm,22.0s									
H10S2	**ASCENSION HYDR**	**61.80**	**50**	T		T		01 06 49.5		
	baz=18,slow=74,SNR=5238									
H10S3	**ASCENSION HYDR**	**61.80**	**50**	T		T		01 06 49.5		
	baz=202,slow=74,SNR=4795									
BOSA	**Boshof**	**62.08**	**99**	P		**P**		**23 59 38.6**	**-0.6**
	comp=Z,17nm,0.8s,baz=210,slow=6.2,SNR=40									
BOSA				LR		LR		00 21 21.8		
	comp=Z,3µm,20.7s,baz=214,slow=31									
	comp=Z,17nm,0.8s									
BOSA	**Boshof**	**62.08**	**99**	IAmb		IAmb		23 59 44.2		
	comp=Z,161nm,1.6s									
BOSA	**Boshof**	**62.08**	**99**	⇓P		**P**		**23 59 39.1**	**0.0**
BOSA	**Boshof**	**62.08**	**99**	P		**P**		**23 59 37.7**	**-1.5**
BOSA	**Boshof**	**62.08**	**99**	P		**P**		**23 59 39.2**	**0.0**
	comp=Z,47nm,1.1s									
BOSA	**Boshof**	**62.08**	**99**	P		**P**		**23 59 39.2**	**0.0**
H10N3	**ASCENSION HYDR**	**62.89**	**50**	T		T		01 08 06.6		
	baz=202,slow=75,SNR=6819									
H10N1	**ASCENSION HYDR**	**62.89**	**50**	T		T		01 08

comp=Z,29nm,0.6s,baz=143,slow=8.4,SNR=14
ROSC LR LR 00 30 55.1
comp=Z,7µm,21.4s,baz=184,slow=37
comp=Z,29nm,0.6s
INZ Inchbonnie 68.08 217 IAMs_20 IAMs_20 00 25 48.8
comp=Z,4µm,19.0s
BSWZ Blackbirch Sta 68.30 219 P **P** **00 00 20.2 +0.9**
CAW Cannon Point 68.50 221 P **P** **00 00 20.8 +0.2**
BFZ Birch Farm 68.53 222 P **P** **00 00 21.1 +0.3**
BFZ IAmb IAmb 00 00 24.9
comp=Z,63nm,0.9s
BFZ Birch Farm 68.53 222 P **P** **00 00 20.4 -0.3**
BFZ Birch Farm 68.53 222 P **P** **00 00 22.0 +1.3**
comp=Z,106nm,1.0s
TUWZ Tuamarina 68.54 220 P **P** **00 00 20.5 -0.3**
THZ Tophouse 68.55 219 **P** **00 00 20.6 -0.3**
THZ Tophouse 68.55 219 P **P** **00 00 21.6 +0.7**
TCW Tory Channel 68.64 220 P **P** **00 00 21.3 -0.2**
MRZ Mangatainoka R 68.75 221 IAmb IAmb 00 00 26.2
comp=Z,80nm,1.2s
MRZ Mangatainoka R 68.75 221 P **P** **00 00 22.4 +0.3**
DSZ Denniston Nort 68.88 218 P **P** **00 00 22.7 -0.3**
DSZ IAmb IAmb 00 00 32.7
comp=Z,115nm,1.2s
DSZ IAMs_20 IAMs_20 00 25 43.0
comp=Z,3µm,20.0s
DVHZ Dannevirke 68.90 222 P **P** **00 00 23.7 +0.6**
NNZ Nelson 68.91 219 P **P** **00 00 23.9 +0.8**
NNZ IAMs_20 IAMs_20 00 24 00.8
comp=Z,4µm,21.0s
NNZ Nelson 68.91 219 P **P** **00 00 24.0 +1.0**
MRNZ Matariki Terra 68.92 219 P **P** **00 00 23.1 -0.1**
MRNZ Matariki Terra 68.92 219 P **P** **00 00 23.5 +0.3**
SOOWA Sowa 69.41 95 P **P** **00 00 26.6 0.0**
KRHZ Kereru 69.43 222 P **P** **00 00 27.2 +0.8**
QRZ Quartz Range 69.52 219 P **P** **00 00 26.6 -0.3**
QRZ IAmb IAmb 00 00 29.1
comp=Z,81nm,1.1s
QRZ IAMs_20 IAMs_20 00 25 52.9
comp=Z,4µm,20.0s
QRZ Quartz Range 69.52 219 P **P** **00 00 25.4 -1.5**
BKZ Black Stump Fm 69.83 222 P **P** **00 00 29.5 +0.7**
TRVZ Turoa 70.00 222 P **P** **00 00 30.5 +0.3**
NGZ Ngauruhoe 70.10 222 P **P** **00 00 31.7 +1.1**
ETVZ East Tongariro 70.10 222 P **P** **00 00 30.7 0.0**
RTZ Ruatahuna 70.18 223 **P** **00 00 31.9 +0.9**
TBI Tubuai 70.23 258 *e*P **P** **00 00 34.7 +3.2**
comp=Z,2µm,30.0s
TBI *e*S **S** **00 09 40.6 -2.1**
comp=Z,3µm,28.2s
TBI *e*SS **SS** **00 14 10.0 -2.3**
comp=Z,2µm,28.5s
TBI *e*LQ LQ 00 18 50.9
comp=Z,16µm,26.2s
TBI *e*LR LR 00 21 50.5
comp=Z,13µm,22.8s
TBI *e*LR LR 00 21 54.5
comp=Z,4µm,23.5s
URZ Urewera 70.46 223 LR LR 00 27 20.8
comp=Z,3µm,19.0s,baz=160,slow=32
URZ Urewera 70.46 223 P **P** **00 00 33.8 +1.1**
comp=Z,46nm,0.9s
MATP Matopo 70.59 97 LR LR 00 26 12.3
comp=Z,7µm,21.1s,baz=208,slow=32
HAZ Te Kaha 70.70 224 P **P** **00 00 34.9 +0.7**
MXZ Matakaoa Point 70.70 225 IAMs_20 IAMs_20 00 26 16.7
comp=Z,5µm,20.0s
HIZ Hauiti 70.94 222 P **P** **00 00 36.0 +0.4**
HIZ Hauiti 70.94 222 P **P** **00 00 36.2 +0.6**
comp=Z,128nm,1.4s
KSANE Kasane 71.30 93 IAmb IAmb 00 00 44.0
comp=Z,114nm,1.6s
KSANE Kasane 71.30 93 P **P** **00 00 38.0 -0.2**
TOZ Tahuroa Road 71.45 222 **P** **00 00 39.5 +0.8**
TOZ IAMs_20 IAMs_20 00 27 06.4
comp=Z,4µm,19.0s
SDV Santo Domingo 71.55 347 IAMs_20 IAMs_20 00 34 54.5
comp=Z,4µm,20.0s
WCZ Waipu Caves 73.46 222 P **P** **00 00 49.9 -0.8**
MOO Moorlands 73.71 199 P **P** **00 00 52.3 +0.2**
AIS Amsterdam Isla 74.13 145 IAMs_20 IAMs_20 00 24 43.5
comp=Z,3µm,19.0s
GRGR Grenville 74.16 356 IAMs_20 IAMs_20 00 30 50.4
comp=Z,3µm,22.0s
OUZ Omahuta 74.36 222 P **P** **00 00 55.3 -0.7**
OUZ Omahuta 74.36 222 ⇓P **P** **00 00 55.6 -0.3**
OUZ Omahuta 74.36 222 P **P** **00 00 56.0 0.0**
comp=Z,85nm,1.2s
LCR2 La Lucha 2 74.51 333 IAmb IAmb 00 01 03.1
comp=Z,193nm,1.8s
FOMA Nahampoana Res 74.92 115 P **P** **00 01 01.4 +2.0**
TVO Taravao 74.96 261 *e*LR LR 00 24 00.6
comp=Z,4µm,22.5s
BBGH Gun Hill 75.12 359 IAMs_20 IAMs_20 00 30 30.9
comp=Z,3µm,20.0s
TIAR Tiarei 75.20 261 *e*LR LR 00 24 17.2
comp=Z,20µm,22.7s
PAE Paea 75.22 260 *e*LR LR 00 24 11.0
comp=Z,5µm,22.8s
JTS Las Juntas de 75.24 333 P **P** **00 01 01.5 +0.3**
JTS pmax pmax
comp=Z,278nm,1.9s
JTS MLR MLR
comp=Z,2µm,20.0s
JTS Las Juntas de 75.24 333 **P** **00 01 01.5 +0.3**
JTS IAmb IAmb 00 01 07.0
comp=Z,278nm,1.9s
JTS Las Juntas de 75.24 333 P **P** **00 01 01.7 +0.5**
comp=Z,64nm,2.9s
PPT2 Papeete2 75.28 260 *e*P **P** **00 01 00.7 -0.9**
PPT2 comp=Z,320nm,25.8s
*e*PP **PP** **00 03 43.7 -6.2**
PPT2 comp=Z,176nm,27.0s
*e*S **S** **00 10 34.8 -5.7**
PPT2 comp=Z,566nm,25.0s
*e*SS **SS** **00 15 29.8 +0.1**
PPT2 comp=Z,342nm,24.5s
*e*LQ LQ 00 21 00.3
PPT2 comp=Z,3µm,28.5s
*e*LR LR 00 24 10.7
PPT2 comp=Z,6µm,22.5s
*e*LR LR 00 24 10.8
comp=Z,5µm,23.2s
PPT Papeete 75.30 260 LR LR 00 25 35.7
comp=Z,3µm,21.2s,baz=150,slow=29
SKRH Sakahara 75.85 112 P **P** **00 01 06.2 +1.4**
VAH Vaihoa 76.42 263 *e*LR LR 00 24 53.3
comp=Z,2µm,22.6s
MPOM Morne Pois Mar 76.44 357 IAMs_20 IAMs_20 00 34 36.8
comp=Z,4µm,22.0s
BIM Bigot 76.52 357 IAMs_20 IAMs_20 00 35 14.8
comp=Z,4µm,22.0s
FDFM Morne la Roset 76.74 357 IAMs_20 IAMs_20 00 35 21.6
comp=Z,4µm,22.0s
PMOR Pomariorio Ree 76.75 263 *e*LR LR 00 24 51.0
comp=Z,2µm,23.9s
ILAM Ilet Lapin Mar 76.77 357 IAMs_20 IAMs_20 00 35 24.4
comp=Z,4µm,22.0s
SVN Savane Anatole 76.84 357 IAMs_20 IAMs_20 00 35 25.4
comp=Z,3µm,22.0s
RAO Raoul Island 76.93 231 LR LR 00 29 07.2
comp=Z,798nm,20.1s,baz=143,slow=31
BOAB BOAOO BROADBAN 77.49 332 ⇑P **P** **00 01 12.8 -1.0**
BOAB BOAOO BROADBAN 77.49 332 P **P** **00 01 13.1 -0.8**
comp=Z,95nm,1.4s
VOI Vohitsoka 77.55 113 ⇓P **P** **00 01 16.1 +1.5**
VOI Vohitsoka 77.55 113 ⇓P **P** **00 01 15.9 +1.4**
comp=Z,169nm,1.2s
VOI Vohitsoka 77.55 113 P **P** **00 01 16.4 +1.9**
MAGL Barre de l'ile 77.95 357 IAMs_20 IAMs_20 00 36 10.6
comp=Z,4µm,22.0s
CBE Ff, Capester 78.07 357 IAMs_20 IAMs_20 00 36 14.0
comp=Z,3µm,22.0s
GDHS Morne Mazeau, 78.28 356 IAMs_20 IAMs_20 00 36 21.9
comp=Z,3µm,22.0s
GDHS Morne Mazeau, 78.28 356 P **P** **00 01 18.3 0.0**
comp=Z,109nm,0.9s
ABD La Joyeuse, An 78.47 357 IAMs_20 IAMs_20 00 36 25.6
comp=Z,3µm,20.0s
TAOE Nuku Hiva Isla 78.50 273 *e*P **P** **00 01 19.3 -0.5**
TAOE comp=Z,180nm,25.8s
*e*S **S** **00 11 19.3 +3.6**
TAOE comp=Z,378nm,22.2s
*e*SS **SS** **00 16 25.1 +6.4**
TAOE comp=Z,385nm,23.4s
*e*LQ LQ 00 22 23.9
comp=Z,8µm,30.6s
TAOE *e*LR LR 00 25 40.9
comp=Z,2µm,31.7s
MILA Mila 78.64 202 P **P** **00 01 22.4 +2.1**
comp=Z,32nm,1.5s
MILA Mila 78.64 202 P **P** **00 01 20.8 +0.5**
comp=Z,32nm,1.5s
TOO Toolangi 78.74 199 P **P** **00 01 21.2 +0.4**
TOO pmax pmax
comp=Z,52nm,1.7s
TOO Toolangi 78.74 199 P **P** **00 01 21.2 +0.4**
AUMTC Mt Clear Colle 78.94 198 P **P** **00 01 24.0 +2.2**
TGUH Tegucigalpa,Un 79.40 331 **P** **00 01 23.2 -1.4**
TGUH IAmb IAmb 00 01 30.3
comp=Z,97nm,1.3s
SEUS St. Eustatius 79.53 355 IAMs_20 IAMs_20 00 38 41.7
comp=Z,3µm,18.0s
SABA Saba 79.67 355 IAMs_20 IAMs_20 00 38 14.4
comp=Z,4µm,20.0s
DBIC Dimbokro 79.84 54 P **P** **00 01 25.7 -1.2**
comp=Z,12nm,0.6s,baz=201,slow=5.5,SNR=21
DBIC LR LR 00 29 05.2
comp=Z,2µm,21.4s,baz=212,slow=30
comp=Z,12nm,0.6s
DBIC Dimbokro 79.84 54 P **P** **00 01 26.1 -0.8**
DBIC pmax pmax
comp=Z,171nm,1.9s
DBIC Dimbokro 79.84 54 **P** **00 01 26.1 -0.8**
DBIC IAmb IAmb 00 01 32.0
comp=Z,171nm,1.9s
DBIC Dimbokro 79.84 54 ⇓P **P** **00 01 25.9 -1.0**
DBIC Dimbokro 79.84 54 P **P** **00 01 24.2 -2.7**
DBIC Dimbokro 79.84 54 P **P** **00 01 26.2 -0.7**
comp=Z,24nm,0.7s
ARPS Mount Arapiles 80.04 196 P **P** **00 01 27.8 -0.1**
comp=Z,8.4nm,1.6s
ARPS Mount Arapiles 80.04 196 P **P** **00 01 27.3 -0.6**
comp=Z,8.5nm,1.6s
AUUHS Uluulla High 80.05 203 P **P** **00 01 30.2 +2.3**
MLPR Magueyes Islan 80.23 351 IAmb IAmb 00 01 35.4
comp=Z,108nm,1.1s
ABPO Ambohimpanom 80.29 112 P **P** **00 01 29.7 +0.1**
ABPO pmax pmax
comp=Z,84nm,1.4s
ABPO Ambohimpanom 80.29 112 P **P** **00 01 29.7 +0.1**
ABPO Ambohimpanom 80.29 112 ⇓P **P** **00 01 30.7 +1.1**
comp=Z,48nm,1.4s
CNB Canberra Magne 80.30 203 P **P** **00 01 30.2 +0.8**
comp=Z,94nm,1.0s
CNB Canberra Magne 80.30 203 P **P** **00 01 29.6 +0.2**
comp=Z,93nm,1.0s
SJG San Juan 80.31 352 LR LR 00 38 50.6
comp=Z,3µm,19.9s,baz=165,slow=37
SJG San Juan 80.31 352 IAMs_20 IAMs_20 00 38 29.2
comp=Z,3µm,21.0s
CAN Canberra 80.36 202 P **P** **00 01 30.2 +0.6**
comp=Z,58nm,1.9s
CAN Canberra 80.36 202 P **P** **00 01 29.2 -0.4**
CAN Canberra 80.36 202 P **P** **00 01 29.3 -0.4**
CAN pmax pmax
comp=Z,50nm,1.1s
CAN Canberra 80.36 202 **P** **00 01 29.3 -0.4**
CAN Canberra 80.36 202 ⇑P **P** **00 01 30.3 +0.6**
CAN Canberra 80.36 202 P **P** **00 01 29.7 0.0**
comp=Z,58nm,1.9s
AUMTS Mt Stromlo 80.36 202 P **P** **00 01 29.3 -0.4**
ESQI Esquipulas 80.36 329 IAmb IAmb 00 01 35.8
comp=Z,208nm,1.4s
AUDAR Daramalan Coll 80.40 202 P **P** **00 01 30.3 +0.4**
GCPR Guaynabo City 80.50 352 **P** **00 01 30.9 +0.6**
GCPR IAmb IAmb 00 01 34.1
comp=Z,116nm,1.6s
ECPR Experimental S 80.53 352 P **P** **00 01 32.0 +1.5**
ECPR IAmb IAmb 00 01 34.2
comp=Z,134nm,1.8s
OPO Ambohidratompo 80.67 112 LR LR 00 31 56.6
comp=Z,1µm,18.8s,baz=288,slow=32
PODR Polo 80.79 347 IAmb IAmb 00 01 41.1
comp=Z,185nm,1.5s
BANI BANI 80.92 348 P **P** **00 01 32.5 -0.2**
APG El Apazote 81.06 328 LR LR 00 30 41.6
comp=Z,148nm,21.1s,baz=248,slow=31
RIV Riverview 81.41 204 ⇑P **P** **00 01 35.9 +0.7**
SDDR Presa de Saban 81.60 347 IAMs_20 IAMs_20 00 41 30.3
comp=Z,3µm,20.0s
RER Riviere de l'E 81.95 120 P **P** **00 01 38.7 +0.3**
RER IAMs_20 IAMs_20 00 35 30.6
comp=Z,2µm,18.0s
RER Riviere de l'E 81.95 120 ⇓P **P** **00 01 39.9 +1.5**
AUMBR Murray Bridge 81.97 194 P **P** **00 01 37.6 -0.5**
AUMAR Marden Senior 82.29 194 P **P** **00 01 39.8 0.0**
PETF Flores 82.76 330 IAmb IAmb 00 01 48.4
comp=Z,71nm,1.2s
CHIV Chivirico 83.20 343 P **P** **00 01 45.0 +0.5**
CHIV IAmb IAmb 00 02 06.6
comp=Z,57nm,1.2s
EDA Edea 83.39 69 P **P** **00 01 45.6 -0.1**
AUDCS Dubbo College 83.44 203 P **P** **00 01 47.5 +1.6**
NMDO Nuevo Mundo 83.58 344 **P** **00 01 46.0 -0.4**
HTT Hallett 83.69 194 P **P** **00 01 47.1 -0.1**
HTT Hallett 83.69 194 ⇓P **P** **00 01 46.9 -0.4**
AUPHS Peel High Scho 84.11 205 P **P** **00 01 48.7 -0.6**
CMIG Matias Romero 84.20 325 LR LR 00 31 44.7
comp=Z,2µm,21.9s,baz=150,slow=30
BBOO Buckleboo 84.61 192 P **P** **00 01 51.5 -0.4**
BBOO Buckleboo 84.61 192 **P** **00 01 51.2 -0.6**
BBOO Buckleboo 84.61 192 P **P** **00 01 50.8 -1.0**
comp=Z,43nm,0.9s
CMSA Cobar Meteorol 84.62 200 P **P** **00 01 51.6 -0.2**
CMSA Cobar Meteorol 84.62 200 P **P** **00 01 51.6 -0.2**
comp=Z,30nm,1.9s
ARMA Armidale 84.62 206 P **P** **00 01 52.2 +0.1**
ARMA Armidale 84.62 206 **P** **00 01 51.9 -0.1**
ARMA IAmb IAmb 00 01 55.1
comp=Z,62nm,1.1s
ARMA Armidale 84.62 206 P **P** **00 01 52.1 0.0**
comp=Z,62nm,1.4s
STKA Stephens Creek 84.89 197 P **P** **00 01 53.4 +0.1**
STKA Stephens Creek 84.89 197 P **P** **00 01 52.5 -0.7**
comp=Z,21nm,0.8s,baz=158,slow=5.1,SNR=33
STKA LR LR 00 37 07.6
comp=Z,3µm,18.1s,baz=159,slow=34
comp=Z,21nm,0.8s
STKA Stephens Creek 84.89 197 *de*P **P** **00 01 52.8 -0.5**
STKA Stephens Creek 84.89 197 P **P** **00 01 51.8 -1.5**
NWAO Narrogin (SRO) 85.12 176 P **P** **00 01 54.1 -0.3**
NWAO Narrogin (SRO) 85.12 176 P **P** **00 01 54.1 -0.3**
NWAO Narrogin (SRO) 85.12 176 LR LR 00 38 16.2
comp=Z,9µm,21.1s,baz=185,slow=34
NWAO Narrogin (SRO) 85.12 176 P **P** **00 01 53.9 -0.5**
NWAO pmax pmax
comp=Z,55nm,0.9s
NWAO Narrogin (SRO) 85.12 176 **P** **00 01 53.9 -0.5**
NWAO IAmb IAmb 00 01 55.0
comp=Z,55nm,0.8s
NWAO Narrogin (SRO) 85.12 176 P **P** **00 01 54.1 -0.3**
comp=Z,93nm,1.0s
AUKUL Kulin High Sch 85.40 177 P **P** **00 01 55.7 -0.1**
ROCAM Rodrigues Isla 86.20 126 IAMs_20 IAMs_20 00 33 13.2
comp=Z,3µm,20.0s
AULRC Lightning Ridg 86.28 203 P **P** **00 02 00.1 -0.1**
KLBR Kellerberrin 86.46 176 P **P** **00 02 00.9 -0.2**
KLBR Kellerberrin 86.46 176 P **P** **00 02 00.9 -0.2**
comp=Z,152nm,0.8s
KMBL Kambalda 86.75 180 P **P** **00 02 02.6 +0.2**
FORT Forrest 87.20 185 P **P** **00 02 04.3 -0.3**
FORT Forrest 87.20 185 **P** **00 02 04.0 -0.7**
FORT IAmb IAmb 00 02 05.2
comp=Z,29nm,0.7s
BLDU Ballidu 87.40 176 P **P** **00 02 04.7 -0.9**
BLDU Ballidu 87.40 176 P **P** **00 02 05.0 -0.7**
comp=Z,118nm,0.8s
UNM Universidad Na 87.53 322 IAMs_20 IAMs_20 00 42 37.3
comp=Z,2µm,19.0s
AUBSH Beerwah State 87.79 207 P **P** **00 02 08.0 +0.4**
TORD Torodi Ar. Bea 88.30 57 P **P** **00 02 08.9 -1.0**
comp=Z,5.5nm,0.7s,baz=225,slow=5.3,SNR=17
TORD PP **PP** **00 05 36.4 -1.1**
comp=Z,5.8nm,1.1s,baz=212,slow=5.1,SNR=6.2
TORD LR LR 00 33 30.3
comp=Z,3µm,22.0s,baz=202,slow=30
comp=Z,5.5nm,0.7s
TORD Torodi Ar. Bea 88.30 57 IAmb IAmb 00 02 16.3
comp=Z,37nm,1.0s
DZM Mont Dzumac 88.83 221 LR LR 00 38 48.0
comp=Z,3µm,18.1s,baz=150,slow=33
MORW Morawa 88.92 175 P **P** **00 02 12.1 -0.8**
MORW Morawa 88.92 175 **P** **00 02 12.0 -0.9**
MORW IAmb IAmb 00 02 30.9
comp=Z,63nm,1.4s
MSVF Nonsavu 88.92 232 LR LR 00 34 58.4
comp=Z,2µm,21.0s,baz=162,slow=31
MSVF Nonsavu 88.92 232 P **P** **00 02 13.5 +0.4**
MSVF pmax pmax
comp=Z,53nm,1.6s
MSVF Nonsavu 88.92 232 P **P** **00 02 13.5 +0.4**
MBAR Mbarara 88.94 89 LR LR 00 37 58.1
comp=Z,2µm,21.2s,baz=206,slow=33
MBAR Mbarara 88.94 89 P **P** **00 02 14.5 +1.2**
MBAR pmax pmax
comp=Z,103nm,1.7s
MBAR Mbarara 88.94 89 P **P** **00 02 14.5 +1.2**
MBAR IAmb IAmb 00 02 21.8
comp=Z,103nm,1.6s
MBAR Mbarara 88.94 89 IAMs_20 IAMs_20 00 37 45.9
comp=Z,3µm,19.0s
MBAR Mbarara 88.94 89 ⇓P **P** **00 02 15.1 +1.8**
comp=Z,35nm,2.0s
INKA Innaminka 89.08 197 IAmb IAmb 00 02 16.1
comp=Z,51nm,1.2s
EIDS Eidsvold 89.63 206 P **P** **00 02 15.8 -0.5**
EIDS Eidsvold 89.63 206 P **P** **00 02 15.8 -0.5**
EIDS Eidsvold 89.63 206 P **P** **00 02 15.8 -0.5**
comp=Z,28nm,1.1s
QLP Quilpie 89.70 200 P **P** **00 02 16.8 +0.2**
QLP Quilpie 89.70 200 P **P** **00 02 16.8 +0.2**
QLP Quilpie 89.70 200 P **P** **00 02 16.7 +0.1**
comp=Z,218nm,0.9s
KIBK Kibwezi 90.83 97 **P** **00 02 23.7 +1.6**
KIBK IAmb IAmb 00 02 31.1
comp=Z,89nm,1.7s
KIBK IAMs_20 IAMs_20 00 40 24.2
comp=Z,2µm,20.0s
KIBK Kibwezi 90.83 97 P **P** **00 02 24.8 +2.7**
comp=Z,27nm,2.5s
MEEK Meekatharra 91.42 177 P **P** **00 02 23.1 -1.6**
MEEK Meekatharra 91.42 177 P **P** **00 02 24.0 -0.7**
comp=Z,34nm,1.8s
KMBO Kilima Mbogo 91.53 95 *de*P **P** **00 02 25.1 -0.4**
AUNRC North Rockhamp 91.70 206 P **P** **00 02 27.3 +1.4**
ZAIG Zacatecas 91.78 320 **P** **00 02 27.7 +1.4**
ZAIG Zacatecas 91.78 320 P **P** **00 02 27.8 +1.4**
comp=Z,11nm,1.2s
WRKA Warakurna 92.90 186 P **P** **00 02 30.9 -0.6**
AS09 Alice Springs 93.84 191 P **P** **00 02 34.6 -1.2**
AUALC St Philip's Co 93.85 191 P **P** **00 02 35.4 -0.5**
AS17 Alice Springs 93.87 191 P **P** **00 02 35.1 -0.9**
AS01 Alice Springs 93.87 191 P **P** **00 02 33.8 -2.2**
ASAR Alice Springs 93.87 191 P **P** **00 02 34.6 -1.4**
comp=Z,14nm,0.9s,baz=165,slow=4.0,SNR=61
ASAR PP **PP** **00 06 21.6 +0.9**
comp=Z,3.0nm,0.8s,baz=165,slow=8.2,SNR=8.8
ASAR PKKPbc **PKKPdf** **00 19 34.9 +1.6**
comp=Z,0.8nm,0.7s,baz=355,slow=1.9,SNR=7.9
ASAR LR LR 00 44 02.2
comp=Z,2µm,20.7s,baz=175,slow=35
comp=Z,14nm,0.9s
ASAR Alice Springs 93.87 191 **P** **00 02 33.8 -2.3**
AS31 Alice Springs 93.88 191 P **P** **00 02 35.2 -0.8**
AS15 Alice Springs 93.90 191 P **P** **00 02 35.4 -0.8**
BBSR BB Station 94.41 354 IAMs_20 IAMs_20 00 43 20.6
comp=Z,3µm,22.0s
553A Crawfordville 94.49 337 IAMs_20 IAMs_20 00 49 29.7
comp=Z,2µm,20.0s
456A Hilliard 94.60 340 IAMs_20 IAMs_20 00 46 50.6
comp=Z,3µm,22.0s
LODK Lodwar 94.64 91 P **P** **00 02 43.4 +3.8**
comp=Z,6.3nm,1.8s
SANVU Saraoutou 94.81 223 P **P** **00 02 39.4 -0.9**
SANVU Saraoutou 94.81 223 IAmb IAmb 00 02 41.0
comp=Z,31nm,0.7s
SANVU IAMs_20 IAMs_20 00 38 13.0
comp=Z,2µm,21.0s
SANVU Saraoutou 94.81 223 ⇑P **P** **00 02 39.5 -0.7**
SANVU Saraoutou 94.81 223 P **P** **00 02 39.3 -0.9**
comp=Z,45nm,0.9s
451A Vernon 95.15 336 IAMs_20 IAMs_20 00 47 46.1
comp=Z,3µm,22.0s
LPIG La Paz 95.52 314 LR LR 00 37 55.4
comp=Z,724nm,20.4s,baz=140,slow=30
CTA Charters Tower 95.71 203 P **P** **00 02 43.9 -0.5**
CTA Charters Tower 95.71 203 P **P** **00 02 44.0 -0.5**
CTAO Charters Tower 95.71 203 P **P** **00 02 44.1 -0.4**
CTAO Charters Tower 95.71 203 P **P** **00 02 44.3 -0.1**
CTAO pmax pmax
comp=Z,23nm,1.3s
CTAO Charters Tower 95.71 203 IAMs_20 IAMs_20 00 48 17.4
comp=Z,3µm,18.0s
CTAO Charters Tower 95.71 203 ⇑P **P** **00 02 44.0 -0.4**
CTAO Charters Tower 95.71 203 P **P** **00 02 44.3 -0.1**
comp=Z,23nm,1.3s
XMAS Kiritimati 96.15 263 IAMs_20 IAMs_20 00 37 26.7
comp=Z,2µm,18.0s
QIS Mount Isa 96.31 197 P **P** **00 02 46.7 -0.5**
QIS Mount Isa 96.31 197 P **P** **00 02 45.8 -1.3**
QIS Mount Isa 96.31 197 P **P** **00 02 46.7 -0.5**
comp=Z,12nm,1.7s
NHSC New Hope 96.64 342 IAMs_20 IAMs_20 00 46 21.7
comp=Z,3µm,22.0s
HKT Hockley 96.72 328 ⇑*e*P **P** **00 02 51.1 +2.7**
HKT pmax pmax
comp=Z,15nm,1.3s
HKT Hockley 96.72 328 P **P** **00 02 47.9 -0.6**
comp=Z,9.5nm,2.2s
441A DeRidder 96.85 330 IAMs_20 IAMs_20 00 36 28.9
comp=Z,2µm,18.0s
GOGA Godfrey 97.47 339 IAMs_20 IAMs_20 00 48 51.4
comp=Z,3µm,21.0s
WRA Warramunga Arr 97.52 192 P **P** **00 02 51.0 -1.6**
comp=Z,7.7nm,0.7s,baz=179,slow=4.2,SNR=57
WRA PP **PP** **00 06 49.4 +0.4**
comp=Z,7.2nm,1.1s,baz=183,slow=7.1,SNR=7.3
comp=Z,7.7nm,0.7s
WRA Warramunga Arr 97.52 192 P **P** **00 02 50.7 -1.9**
WRA pmax pmax
comp=Z,2.0nm,1.2s
WRA Warramunga Arr 97.52 192 **P** **00 02 50.7 -1.9**
WRAB Tennant Creek 97.53 192 P **P** **00 02 50.2 -2.5**
WRAB Tennant Creek 97.53 192 ⇑*e*P **P** **00 02 51.6 -1.1**
WRAB pmax pmax
comp=Z,6.0nm,0.6s
Y57A Sumter 97.57 341 IAMs_20 IAMs_20 00 47 21.1
comp=Z,2µm,21.0s
X58A Rowland 97.95 342 IAMs_20 IAMs_20 00 46 43.1
comp=Z,2µm,22.0s
MTSU Mount Surprise 97.96 202 P **P** **00 02 53.9 -0.8**
MTSU Mount Surprise 97.96 202 P **P** **00 02 53.7 -1.0**
MTSU Mount Surprise 97.96 202 P **P** **00 02 53.4 -1.2**
comp=Z,9.8nm,0.7s
Y52A Lilburn 98.01 338 IAMs_20 IAMs_20 00 49 09.8
comp=Z,3µm,22.0s
TXAR Lajitas Array 98.28 321 P **P** **00 02 55.1 -0.5**
comp=Z,0.4nm,0.7s,baz=169,slow=6.7,SNR=4.7
TXAR PP **PP** **00 06 56.6 +0.7**
comp=Z,0.1nm,0.3s,baz=132,slow=3.2,SNR=5.9
TXAR PKKPbc **PKKPbc** **00 19 24.7 -0.6**
comp=Z,1.3nm,0.8s,baz=247,slow=1.8,SNR=11
TXAR LR LR 00 41 24.2
comp=Z,872nm,18.6s,baz=131,slow=32
comp=Z,0.4nm,0.7s
Y49A Blount Mountai 98.42 337 IAMs_20 IAMs_20 00 49 42.8
comp=Z,2µm,22.0s
TAM Tamanrasset 98.53 57 P Pdif 00 02 58.1 +1.0
TAM Tamanrasset 98.53 57 P Pdif 00 02 58.1 +1.0
V61A Roper 98.80 345 IAMs_20 IAMs_20 00 47 45.7
comp=Z,2µm,22.0s
X48A Hartselle 99.12 336 IAMs_20 IAMs_20 00 50 07.2
comp=Z,2µm,22.0s
W52A Murphy 99.19 339 IAMs_20 IAMs_20 00 51 50.9
comp=Z,2µm,20.0s
V55A Taylorsville 99.49 341 IAMs_20 IAMs_20 00 48 08.1
comp=Z,2µm,22.0s
V53A Saluda 99.56 340 IAMs_20 IAMs_20 00 49 59.0
comp=Z,3µm,22.0s
TKL Tuckaleechee C 99.71 339 LR LR 00 53 54.9
comp=Z,1µm,18.6s,baz=148,slow=39
FITZ Fitzroy Crossi 99.90 184 LR LR 00 46 43.2
comp=Z,6µm,21.9s,baz=191,slow=34
U54A Nelsons Funny 100.24 341 IAMs_20 IAMs_20 00 48 30.9
comp=Z,2µm,22.0s

TZTN	**Tazewell**	**100.54**	**339**	IAMs_20	IAMs_20	00 49 44.8			
	comp=Z,3µm,22.0s								
BLA	**Blacksburg**	**100.71**	**342**	IAMs_20	IAMs_20	00 48 07.3			
	comp=Z,2µm,21.0s								
WVT	**Waverly**	**100.90**	**336**	IAMs_20	IAMs_20	00 51 22.3			
	comp=Z,2µm,20.0s								
S57A	**Dark Hollow, R**	**101.05**	**343**	IAMs_20	IAMs_20	00 49 25.1			
	comp=Z,3µm,21.0s								
R61A	**Willards**	**101.16**	**346**	IAMs_20	IAMs_20	00 45 22.3			
	comp=Z,2µm,21.0s								
T50A	**Nancy**	**101.22**	**338**	IAMs_20	IAMs_20	00 50 16.8			
	comp=Z,2µm,21.0s								
S54A	**Dingess, Beckl**	**101.42**	**341**	IAMs_20	IAMs_20	00 50 06.0			
	comp=Z,2µm,21.0s								
R55A	**Marlinton**	**101.72**	**342**	IAMs_20	IAMs_20	00 49 41.0			
	comp=Z,3µm,22.0s								
T45A	**Paducah**	**101.92**	**335**	IAMs_20	IAMs_20	00 52 04.2			
	comp=Z,2µm,21.0s								
Q56A	**Snyder Ridge,**	**102.34**	**343**	IAMs_20	IAMs_20	00 48 53.3			
	comp=Z,2µm,22.0s								
Q54A	**Coxs Mills**	**102.51**	**342**	IAMs_20	IAMs_20	00 49 55.9			
	comp=Z,3µm,22.0s								
R49A	**Shelbyville**	**102.52**	**339**	IAMs_20	IAMs_20	00 50 05.1			
	comp=Z,3µm,22.0s								
P57A	**Homestead Farm**	**102.62**	**344**	IAMs_20	IAMs_20	00 49 53.8			
	comp=Z,2µm,22.0s								
S44A	**Carbondale**	**102.69**	**335**	IAMs_20	IAMs_20	00 51 42.7			
	comp=Z,2µm,22.0s								
Q52A	**Bidwell**	**102.70**	**341**	IAMs_20	IAMs_20	00 50 59.0			
	comp=Z,2µm,21.0s								
HNR	**Honiara**	**102.72**	**219**	IAMs_20	IAMs_20	00 46 25.1			
	comp=Z,2µm,19.0s								
MCWV	**Mont Chateau**	**103.03**	**343**	IAMs_20	IAMs_20	00 51 32.7			
	comp=Z,2µm,20.0s								
P53A	**Whipple**	**103.08**	**342**	IAMs_20	IAMs_20	00 50 03.1			
	comp=Z,2µm,22.0s								
CPNY	**Central Park**	**103.45**	**348**	IAMs_20	IAMs_20	00 49 02.9			
	comp=Z,2µm,21.0s								
O54A	**Avella**	**103.62**	**343**	IAMs_20	IAMs_20	00 50 35.3			
	comp=Z,2µm,20.0s								
O52A	**Adamsville**	**103.77**	**341**	IAMs_20	IAMs_20	00 51 36.2			
	comp=Z,2µm,22.0s								
WSPT	**Westport, CT**	**103.77**	**348**	IAMs_20	IAMs_20	00 48 33.2			
	comp=Z,2µm,22.0s								
O49A	**Covington**	**104.23**	**340**	IAMs_20	IAMs_20	00 50 14.4			
	comp=Z,2µm,21.0s								
N53A	**Lisbon**	**104.30**	**342**	IAMs_20	IAMs_20	00 51 09.3			
	comp=Z,2µm,22.0s								
L64A	**Middleborough**	**104.31**	**350**	IAMs_20	IAMs_20	00 48 37.5			
	comp=Z,2µm,22.0s								
KSCT	**Kent School, K**	**104.33**	**348**	IAMs_20	IAMs_20	00 50 02.1			
	comp=Z,2µm,21.0s								
ALQ	**Albuquerque**	**104.34**	**321**	IAMs_20	IAMs_20	00 45 52.3			
	comp=Z,2µm,18.0s								
TASM	**ASL Pad, Albuq**	**104.35**	**321**	IAMs_20	IAMs_20	00 45 52.4			
	comp=Z,2µm,18.0s								
TASM	**ASL Pad, Albuq**	**104.35**	**321**	IAMs_20	IAMs_20	00 45 52.4			
	comp=Z,2µm,18.0s								
TASM	**ASL Pad, Albuq**	**104.35**	**321**	IAMs_20	IAMs_20	00 45 52.3			
	comp=Z,2µm,18.0s								
N51A	**Ashland**	**104.63**	**341**	IAMs_20	IAMs_20	00 53 34.1			
	comp=Z,2µm,21.0s								
BCX	**Boston College**	**104.73**	**350**	IAMs_20	IAMs_20	00 52 21.7			
	comp=Z,2µm,19.0s								
WES	**Weston**	**104.79**	**350**	IAMs_20	IAMs_20	00 52 48.3			
	comp=Z,2µm,21.0s								
SFIN	**Lafayette**	**104.89**	**337**	IAMs_20	IAMs_20	00 55 55.8			
	comp=Z,2µm,22.0s								
HRV	**Adam Dziewonsk**	**104.93**	**350**	IAMs_20	IAMs_20	00 49 10.1			
	comp=Z,2µm,22.0s								
P40A	**Paris**	**105.03**	**333**	IAMs_20	IAMs_20	00 54 01.6			
	comp=Z,2µm,22.0s								
K62A	**Royalston**	**105.15**	**349**	IAMs_20	IAMs_20	00 50 05.8			
	comp=Z,2µm,21.0s								
L56A	**Greenwood**	**105.18**	**345**	IAMs_20	IAMs_20	00 48 35.5			
	comp=Z,2µm,20.0s								
M50A	**Fremont**	**105.21**	**341**	IAMs_20	IAMs_20	00 52 01.4			
	comp=Z,2µm,22.0s								
ATD	**Arta Tunnel**	**105.24**	**94**	IAMs_20	IAMs_20	00 46 44.6			
	comp=Z,2µm,21.0s								
TRY	**Troy**	**105.35**	**348**	IAMs_20	IAMs_20	00 50 08.0			
	comp=Z,2µm,21.0s								
T25A	**Trinidad**	**105.80**	**323**	IAMs_20	IAMs_20	00 47 46.9			
	comp=Z,1µm,18.0s								
PMG	**Port Moresby**	**105.94**	**206**	IAMs_20	IAMs_20	00 44 39.9			
	comp=Z,2µm,20.0s								
M44A	**Midewin, Midew**	**106.04**	**337**	IAMs_20	IAMs_20	00 56 35.3			
	comp=Z,2µm,20.0s								
J59A	**Piesco**	**106.15**	**348**	IAMs_20	IAMs_20	00 50 58.4			
	comp=Z,2µm,22.0s								
AAM	**Ann Arbor**	**106.18**	**341**	IAMs_20	IAMs_20	00 52 42.8			
	comp=Z,3µm,22.0s								
I63A	**Otisfield**	**106.39**	**351**	IAMs_20	IAMs_20	00 50 13.6			
	comp=Z,2µm,22.0s								
N38A	**Joes South For**	**106.49**	**333**	IAMs_20	IAMs_20	00 55 12.3			
	comp=Z,2µm,21.0s								
L44A	**Lake County Fo**	**106.78**	**337**	IAMs_20	IAMs_20	00 57 35.9			
	comp=Z,1µm,18.0s								
WVL	**Waterville**	**106.83**	**351**	IAMs_20	IAMs_20	00 50 46.4			
	comp=Z,2µm,21.0s								
EMMW	**East Machias**	**106.84**	**353**	IAMs_20	IAMs_20	00 50 16.4			
	comp=Z,2µm,22.0s								
H62A	**Milan**	**106.95**	**350**	IAMs_20	IAMs_20	00 51 39.6			
	comp=Z,2µm,20.0s								
MVCO	**Mesa Verde**	**107.06**	**320**	IAMs_20	IAMs_20	00 43 42.8			
	comp=Z,3µm,22.0s								
J47A	**Sunmer**	**107.28**	**340**	IAMs_20	IAMs_20	00 53 20.2			
	comp=Z,2µm,21.0s								
LONY	**Lake Ozonia**	**107.31**	**348**	IAMs_20	IAMs_20	00 51 40.8			
	comp=Z,2µm,20.0s								
G65A	**Princeton**	**107.33**	**353**	IAMs_20	IAMs_20	00 50 52.6			
	comp=Z,2µm,22.0s								
K43A	**Burlington**	**107.36**	**337**	IAMs_20	IAMs_20	00 57 33.4			
	comp=Z,2µm,20.0s								
PKME	**Peaks-Kenny Pk**	**107.51**	**352**	IAMs_20	IAMs_20	00 50 21.1			
	comp=Z,2µm,21.0s								
SCIA	**State Center**	**107.56**	**333**	IAMs_20	IAMs_20	00 54 54.4			
	comp=Z,2µm,21.0s								
MMPI	**Merauke**	**108.08**	**199**	P	**Pdif**	**00 03 48.4**	**+8.7**		
I45A	**Fountain**	**108.29**	**339**	IAMs_20	IAMs_20	00 53 56.9			
	comp=Z,2µm,21.0s								
GLMI	**Grayling**	**108.80**	**340**	IAMs_20	IAMs_20	00 54 11.3			
	comp=Z,2µm,22.0s								
E62A	**Clayton Lake**	**108.87**	**352**	IAMs_20	IAMs_20	00 51 01.2			
	comp=Z,2µm,22.0s								
I40A	**Norwalk**	**108.94**	**336**	IAMs_20	IAMs_20	00 56 54.1			
	comp=Z,2µm,21.0s								
JAGI	**Jajag, Banyuwa**	**109.27**	**172**	IAMs_20	IAMs_20	00 54 59.6			
	comp=Z,2µm,19.0s								
D62A	**Allapoint, All**	**109.30**	**352**	IAMs_20	IAMs_20	00 51 11.6			
	comp=Z,2µm,22.0s								
CART	**Cartagena**	**109.55**	**45**	IAMs_20	IAMs_20	00 49 24.2			
	comp=Z,2µm,20.0s								
I37A	**Lemond, Waseca**	**109.61**	**334**	IAMs_20	IAMs_20	00 56 22.9			
	comp=Z,2µm,21.0s								
O20A	**White River Ci**	**109.68**	**321**	IAMs_20	IAMs_20	00 49 27.6			
	comp=Z,2µm,20.0s								
G40A	**Rib Lake**	**110.19**	**336**	IAMs_20	IAMs_20	00 53 51.1			
	comp=Z,2µm,20.0s								
E46A	**Sault Ste Mari**	**110.25**	**341**	IAMs_20	IAMs_20	00 54 45.8			
	comp=Z,2µm,22.0s								
F42A	**Maple Grove Fa**	**110.29**	**338**	IAMs_20	IAMs_20	00 55 02.7			
	comp=Z,2µm,21.0s								
ESDC	**Sonseca Array**	**110.49**	**42**	PKiKP	**PKiKP**	**00 07 48.8**	**-1.3**		
	comp=Z,0.4nm,0.6s,baz=296,slow=1.0,SNR=6.3								
NVAR	**Mina Array Bea**	**111.33**	**313**	PKKPbc	PKKPbc	00 18 45.4	-0.4		
	comp=Z,0.6nm,0.7s,baz=329,slow=3.4,SNR=4.6								
NVAR				PKKPab	**PKKPab**	**00 18 54.7**	**+0.4**		
	comp=Z,1.9nm,0.7s,baz=323,slow=3.7,SNR=12								
E38A	**The Farm, Brul**	**111.73**	**336**	IAMs_20	IAMs_20	00 52 38.0			
	comp=Z,2µm,22.0s								
HWUT	**Hardware Ranch**	**112.03**	**319**	IAMs_20	IAMs_20	00 50 34.7			
	comp=Z,2µm,21.0s								
PDAR	**Pinedale Array**	**112.49**	**321**	PKiKP	**PKiKP**	**00 07 53.0**	**-1.1**		
	comp=Z,0.4nm,0.7s,baz=160,slow=2.0,SNR=2.7								
PDAR				PKKPbc	**PKKPbc**	**00 18 40.9**	**-1.3**		
	comp=Z,0.9nm,0.6s,baz=77,slow=2.4,SNR=9.2								
BW06	**Boulder Array**	**112.49**	**321**	IAMs_20	IAMs_20	00 48 60.0			
	comp=Z,2µm,19.0s								
KAPI	**Kappang**	**112.94**	**178**	IAMs_20	IAMs_20	00 58 00.7			
	comp=Z,2µm,19.0s								
EYMN	**Ely**	**113.01**	**336**	IAMs_20	IAMs_20	00 58 10.7			
	comp=Z,2µm,22.0s								
ORV	**Oroville**	**113.45**	**311**	IAMs_20	IAMs_20	00 48 02.2			
	comp=Z,1µm,20.0s								
E28A	**Huff**	**113.67**	**329**	IAMs_20	IAMs_20	00 59 25.2			
	comp=Z,2µm,22.0s								
PMSI	**Majene**	**114.42**	**177**	PKP	**PKiKP**	**00 07 56.6**	**-1.9**		
FAKI	**Fak Fak**	**114.56**	**191**	IAMs_20	IAMs_20	01 03 07.6			
	comp=Z,1µm,18.0s								
MDND	**Maddock**	**114.61**	**331**	IAMs_20	IAMs_20	00 59 31.1			
	comp=Z,2µm,21.0s								
ULM	**Lac du Bonnet**	**116.07**	**334**	PKKPbc	PKKPbc	00 18 29.2	-0.5		
	comp=Z,3.6nm,0.8s,baz=327,slow=4.7,SNR=4.3								
DGMT	**Dagmar**	**116.30**	**328**	IAMs_20	IAMs_20	01 01 07.7			
	comp=Z,2µm,22.0s								
LUWI	**Luwuk**	**116.90**	**181**	IAMs_20	IAMs_20	00 56 36.7			
	comp=Z,2µm,21.0s								
EGMT	**Eagleton**	**117.35**	**324**	IAMs_20	IAMs_20	00 54 24.7			
	comp=Z,2µm,20.0s								
PALK	**Pallekele**	**117.45**	**133**	IAMs_20	IAMs_20	00 48 45.1			
	comp=Z,2µm,20.0s								
PSI	**Prapat**	**118.29**	**154**	PKP	**PKiKP**	**00 08 06.9**	**+0.9**		
BNI	**Bardonecchia**	**118.80**	**47**	IAMs_20	IAMs_20	00 55 51.1			
	comp=Z,2µm,20.0s								
GHAJ	**Ghor Haditha**	**118.86**	**77**	IAMs_20	IAMs_20	00 58 45.2			
	comp=Z,1µm,18.0s								
TOLI2	**Tolitoli**	**119.04**	**179**	IAMs_20	IAMs_20	00 59 59.4			
	comp=Z,2µm,21.0s								
SBUM	**Sibu**	**119.94**	**169**	IAMs_20	IAMs_20	01 00 04.3			
	comp=Z,2µm,20.0s								
IPM	**Ipoh**	**120.34**	**156**		**PKPdf**	**00 08 09.7**	**-0.1**		
IPM	**Ipoh**	**120.34**	**156**	PKP	**PKiKP**	**00 08 14.1**	**+4.2**		
FUORN	**Ofenpass-Fuorn**	**121.41**	**49**	IAMs_20	IAMs_20	00 56 29.0			
	comp=Z,2µm,22.0s								
CTI	**Castel Tesino**	**121.41**	**50**	PKIKP	**PKPdf**	**00 08 10.2**	**-0.7**		
CTI	**Castel Tesino**	**121.41**	**50**		**PKPdf**	**00 08 10.2**	**-0.7**		
DAVA	**Damuels**	**121.85**	**48**	*i* PKP	**PKPdf**	**00 08 10.6**	**-1.2**		
	comp=Z,9.6nm,0.8s,SNR=8.0								
FETA	**Feichten**	**121.92**	**49**	*i* PKP	**PKPdf**	**00 08 10.7**	**-1.2**		
	comp=Z,4.7nm,1.2s								
SQTA	**Sankt Quirin**	**122.26**	**49**	*e*PKP	**PKPdf**	**00 08 11.2**	**-1.3**		
	comp=Z,11nm,0.6s								
ABTA	**Abfaltersbach**	**122.32**	**50**	*i* PKP	**PKPdf**	**00 08 11.0**	**-1.6**		
	comp=Z,3.4nm,0.7s								
MOTA	**Moosalm**	**122.33**	**49**	*e*PKP	**PKPdf**	**00 08 11.3**	**-1.4**		
	comp=Z,4.1nm,0.6s								
RETA	**Reutte**	**122.33**	**48**	*i* PKP	**PKPdf**	**00 08 11.2**	**-1.4**		
	comp=Z,5.3nm,0.7s								
BLY	**Banja Luka**	**122.36**	**55**	IAMs_20	IAMs_20	00 57 02.0			
	comp=Z,2µm,20.0s								
WTTA	**Wattenberg**	**122.44**	**49**	*i* PKP	**PKPdf**	**00 08 11.6**	**-1.3**		
	comp=Z,7.3nm,0.7s,SNR=12								
WATA	**Walderalm**	**122.48**	**49**	*i* PKP	**PKPdf**	**00 08 11.4**	**-1.5**		
	comp=Z,2.4nm,0.7s								
MYKA	**Terra Mystica**	**122.63**	**51**	*e*PKP	**PKPdf**	**00 08 11.8**	**-1.4**		
	comp=Z,7.8nm,0.7s,SNR=8.2								
WLF	**Walferdange**	**122.64**	**44**	IAMs_20	IAMs_20	00 55 19.8			
	comp=Z,1µm,20.0s								
OBKA	**Obir**	**122.86**	**52**	*e*PKP	**PKPdf**	**00 08 12.2**	**-1.4**		
	comp=Z,3.2nm,0.6s,SNR=5.3								
STU	**Stuttgart**	**122.89**	**47**	IAMs_20	IAMs_20	00 58 39.2			
	comp=Z,1µm,20.0s								
KBA	**Koelnbreinsper**	**122.90**	**51**	*i* PKP	**PKPdf**	**00 08 12.0**	**-1.8**		
	comp=Z,3.3nm,0.8s								
LESA	**Schwarzleotal**	**122.95**	**50**	*e*PKP	**PKPdf**	**00 08 11.8**	**-2.0**		
	comp=Z,5.5nm,0.7s,SNR=9.6								
UOSS	**Minazif**	**123.08**	**99**		**PKPdf**	**00 08 12.3**	**-2.4**		
UOSS	**Minazif**	**123.08**	**99**	IAMs_20	IAMs_20	00 57 20.0			
	comp=Z,1µm,20.0s								
SOKA	**Soboth**	**123.18**	**52**	*e*PKP	**PKPdf**	**00 08 13.0**	**-1.2**		
	comp=Z,5.2nm,0.8s								
BOVS	**Bovan**	**123.19**	**59**	⇑P	**PKPdf**	**00 08 13.1**	**-1.2**		
SESA	**Seetaler Alpe,**	**123.37**	**51**	*e*PKP	**PKPdf**	**00 08 12.9**	**-1.8**		
	comp=Z,2.9nm,0.6s,SNR=7.0								
BIOA	**Bad Ischl, Aus**	**123.53**	**50**	*e*PKP	**PKPdf**	**00 08 13.1**	**-1.7**		
	comp=Z,3.8nm,0.7s								
BLKB	**Belogradchik**	**123.57**	**59**	⇓P	**PKPdf**	**00 08 14.0**	**-1.1**		
KKM	**Kota Kinabalu**	**123.79**	**173**	IAMs_20	IAMs_20	01 01 41.3			
	comp=Z,2µm,21.0s								
ARSA	**Arzberg**	**123.84**	**52**	*e*PKP	**PKPdf**	**00 08 14.2**	**-1.2**		
	comp=Z,5.1nm,0.7s								
MOA	**Molln**	**123.89**	**51**	*i* PKP	**PKPdf**	**00 08 14.0**	**-1.4**		
	comp=Z,4.6nm,0.6s,SNR=7.9								
MORH	**Mrgy, Hungar**	**124.15**	**55**	⇑P	**PKPdf**	**00 08 14.8**	**-1.1**		
PLVB	**Pleven**	**124.17**	**61**	⇓P	**PKPdf**	**00 08 12.4**	**-3.7**		
RONA	**Rosalia, Austr**	**124.50**	**52**	*i* PKP	**PKPdf**	**00 08 15.3**	**-1.4**		
	comp=Z,2.2nm,0.7s								
HERR	**Herculane**	**124.51**	**58**	⇑P	**PKPdf**	**00 08 15.7**	**-1.0**		
GERES	**GERESS Array B**	**124.52**	**50**	PKP	**PKPdf**	**00 08 14.9**	**-1.8**		
	comp=Z,6.2nm,0.6s,baz=209,slow=2.1,SNR=73								
GERES	**GERESS Array B**	**124.52**	**50**	PKIKP	**PKPdf**	**00 08 15.0**	**-1.8**		
MPLH	**Magyarpolny**	**124.52**	**53**	PKP	**PKPdf**	**00 08 15.5**	**-1.2**		
CONA	**Conrad Observa**	**124.53**	**52**	*i* PKP	**PKPdf**	**00 08 15.1**	**-1.7**		
	comp=Z,3.7nm,0.7s								
KIRS	**Kirchl-Merke**	**124.63**	**71**	⇑P	**PKPdf**	**00 08 15.6**	**-1.7**		
CKRC	**Cesky Krumlov**	**124.72**	**50**	*e*PKIKP	**PKPdf**	**00 08 15.6**	**-1.4**		
CKRC				MLR	MLR				
	comp=Z,1µm,20.8s								
CKRC	**Cesky Krumlov**	**124.72**	**50**	*e*PKP	**PKPdf**	**00 08 15.6**	**-1.4**		
CKRC				AMS	AMS	01 00 00.0			
	comp=Z,1µm,20.8s								
KHC	**Kasperske Hory**	**124.72**	**49**	*e*PKIKP	**PKPdf**	**00 08 15.5**	**-1.6**		
KHC				MLR	MLR				
	comp=Z,1µm,20.9s								
KHC	**Kasperske Hory**	**124.72**	**49**	*e*PKP	**PKPdf**	**00 08 15.5**	**-1.6**		
KHC				AMS	AMS	00 56 20.0			
	comp=Z,1µm,20.9s								
KHC	**Kasperske Hory**	**124.72**	**49**	PKP	**PKPdf**	**00 08 15.3**	**-1.8**		
WINA	**Alland / Wiene**	**124.76**	**52**	*i* PKP	**PKPdf**	**00 08 15.1**	**-2.0**		
	comp=Z,2.4nm,0.7s								
BZS	**Buzias**	**124.80**	**57**	⇑PKIKP	**PKPdf**	**00 08 16.3**	**-1.0**		
BZS	**Buzias**	**124.80**	**57**	⇑P	**PKPdf**	**00 08 16.3**	**-1.0**		
EKA	**Eskdalemuir Ar**	**124.84**	**35**	PKP	**PKPdf**	**00 08 15.4**	**-1.6**		
	comp=Z,6.7nm,0.8s,baz=184,slow=1.6,SNR=11								
BR104	**Keskin Array S**	**124.98**	**70**	PKP	**PKPdf**	**00 08 16.1**	**-1.9**		
BR131	**Keskin Array S**	**125.00**	**70**	PKIKP	**PKPdf**	**00 08 16.0**	**-2.0**		
BR131	**Keskin Array S**	**125.00**	**70**		**PKPdf**	**00 08 16.0**	**-2.0**		
BRTR	**Keskin Array B**	**125.00**	**70**	PKP	**PKPdf**	**00 08 16.2**	**-1.8**		
	comp=Z,2.4nm,0.8s,baz=193,slow=2.7,SNR=12								
ABNA	**Allensteig Bun**	**125.00**	**51**	*e*PKP	**PKPdf**	**00 08 16.0**	**-1.6**		
	comp=Z,3.2nm,0.6s								
GZR	**Gura Zlata**	**125.08**	**58**	⇑P	**PKPdf**	**00 08 16.8**	**-1.1**		
SURR	**Surduc**	**125.12**	**58**	⇑P	**PKPdf**	**00 08 16.8**	**-1.0**		
HUMR	**Humele**	**125.25**	**60**	⇑P	**PKPdf**	**00 08 16.8**	**-1.3**		
PBA	**Port Blair**	**125.33**	**144**	PKPdf	**PKPdf**	**00 08 19.5**	**+0.2**		
SIRR	**Siria**	**125.36**	**57**	⇑P	**PKPdf**	**00 08 17.3**	**-1.0**		
LOT	**Lotru**	**125.52**	**59**	⇑P	**PKPdf**	**00 08 17.1**	**-1.7**		
TREC	**Trest**	**125.54**	**51**	*e*PKIKP	**PKPdf**	**00 08 17.2**	**-1.4**		
TREC				MLR	MLR				
	comp=Z,2µm,21.7s								
TREC	**Trest**	**125.54**	**51**	*e*PKP	**PKPdf**	**00 08 17.2**	**-1.4**		
TREC				AMS	AMS	00 56 20.0			
	comp=Z,2µm,21.7s								
SMOL	**Smolenice**	**125.60**	**52**	*e*PKIKP	**PKPdf**	**00 08 18.4**	**-0.3**		
KRUC	**Moravsky**	**125.68**	**51**	*e*PKP	**PKPdf**	**00 08 17.3**	**-1.5**		
PRU	**Pruhonice**	**125.78**	**49**	*e*PKIKP	**PKPdf**	**00 08 17.8**	**-1.2**		
PRU				MLR	MLR				
	comp=Z,1µm,22.4s								
PRU	**Pruhonice**	**125.78**	**49**	*e*PKP	**PKPdf**	**00 08 17.8**	**-1.2**		
PRU				AMS	AMS	00 54 50.0			
	comp=Z,1µm,22.4s								
ARR	**Arges**	**125.80**	**60**	⇑P	**PKPdf**	**00 08 18.2**	**-1.1**		
VRAC	**Vranov**	**125.95**	**51**	*e*PKP	**PKPdf**	**00 08 18.2**	**-1.2**		
JAVC	**Velka Javorina**	**125.98**	**52**	*e*PKP	**PKPdf**	**00 08 19.6**	**+0.1**		
VOIR		**126.03**	**60**	⇓PKIKP	**PKPdf**	**00 08 18.2**	**-1.5**		
VOIR		**126.03**	**60**	⇓P	**PKPdf**	**00 08 18.2**	**-1.5**		
VOIR		**126.03**	**60**	PKP	**PKPdf**	**00 08 17.3**	**-2.4**		
PSZ	**Piszkesteto**	**126.04**	**54**	⇑PKIKP	**PKPdf**	**00 08 17.5**	**-2.2**		
PSZ	**Piszkesteto**	**126.04**	**54**	⇑P	**PKPdf**	**00 08 17.5**	**-2.2**		
HYB	**Hyderabad**	**126.04**	**126**	*e*PKiKP	**PKiKP**	**00 08 21.7**	**+0.7**		
HYB				*e*PP	**PP**	**00 10 15.3**	**+1.3**		
RICC	**Richard**	**126.09**	**49**	AMS	AMS	01 02 30.0			
	comp=Z,1µm,18.0s								
VYHS	**Vyhne**	**126.11**	**53**	*e*PKIKP	**PKPdf**	**00 08 18.6**	**-1.1**		
DRGR		**126.20**	**57**	⇑PKIKP	**PKPdf**	**00 08 19.2**	**-0.8**		
DRGR		**126.20**	**57**	⇑P	**PKPdf**	**00 08 19.2**	**-0.8**		
PVCC	**Panska Ves**	**126.24**	**49**	*e*PKIKP	**PKPdf**	**00 08 19.1**	**-0.8**		
PVCC				MLR	MLR				
	comp=Z,1µm,19.9s								
PVCC	**Panska Ves**	**126.24**	**49**	*e*PKP	**PKPdf**	**00 08 19.1**	**-0.8**		
PVCC				AMS	AMS	01 03 10.0			
	comp=Z,1µm,19.9s								
MARR	**Marisel-Cluj**	**126.27**	**58**	⇑P	**PKPdf**	**00 08 19.1**	**-1.1**		
CLL	**Collm**	**126.34**	**48**	*i* PKIKP	**PKPdf**	**00 08 18.6**	**-1.4**		
CLL				pmax	pmax				
	comp=Z,9.0nm,0.8s								
CLL				MLR	MLR				
	comp=Z,800nm,23.5s								
CLL	**Collm**	**126.34**	**48**	PKP	**PKPdf**	**00 08 18.6**	**-1.4**		
CLL	**Collm**	**126.34**	**48**	*i* PKPdf	**PKPdf**	**00 08 18.6**	**-1.4**		
	comp=Z,9.0nm,0.8s								
CLL				*i* x	x	00 08 24.8			
CLL				*e*(SS)		00 28 00.0			
CLL				*e*SSS	SSS	00 32 24.0			
CLL				AMS	AMS	00 46 00.0			
	comp=N,800nm,26.3s								
CLL				AMS	AMS	00 46 00.0			
	comp=E,500nm,34.1s								
CLL				AMS	AMS	00 52 00.0			
	comp=Z,800nm,23.5s								
MLR	**Muntele Rosu**	**126.44**	**60**	⇑PKIKP	**PKPdf**	**00 08 19.1**	**-1.5**		
MLR	**Muntele Rosu**	**126.44**	**60**	⇑P	**PKPdf**	**00 08 19.1**	**-1.5**		
MLR	**Muntele Rosu**	**126.44**	**60**	PKP	**PKPdf**	**00 08 18.5**	**-2.1**		
NEHR	**Nehoiu**	**126.53**	**61**	⇑P	**PKPdf**	**00 08 18.9**	**-1.7**		
DOPR	**Dopca**	**126.60**	**60**	⇑P	**PKPdf**	**00 08 19.5**	**-1.2**		
TIRR	**Tirgusor**	**126.61**	**63**	⇓PKIKP	**PKPdf**	**00 08 19.1**	**-1.7**		
TIRR	**Tirgusor**	**126.61**	**63**	⇓P	**PKPdf**	**00 08 19.1**	**-1.7**		
KRLC	**Kraliky**	**126.66**	**51**	*e*PKIKP	**PKPdf**	**00 08 20.0**	**-0.7**		
KRLC				MLR	MLR				
	comp=Z,1µm,18.9s								
KRLC	**Kraliky**	**126.66**	**51**	*e*PKP	**PKPdf**	**00 08 20.0**	**-0.7**		
KRLC				AMS	AMS	00 59 10.0			
	comp=Z,1µm,18.9s								
MORC	**Moravsky Berou**	**126.69**	**52**	⇓PKIKP	**PKPdf**	**00 08 20.1**	**-0.7**		
MORC	**Moravsky Berou**	**126.69**	**52**	*e*PKP	**PKPdf**	**00 08 19.9**	**-0.9**		
MORC	**Moravsky Berou**	**126.69**	**52**	⇓P	**PKPdf**	**00 08 20.1**	**-0.7**		
DPC	**Dobruska-Polom**	**126.72**	**50**	*e*PKIKP	**PKPdf**	**00 08 20.1**	**-0.7**		
DPC				MLR	MLR				
	comp=Z,700nm,18.9s								
DPC	**Dobruska-Polom**	**126.72**	**50**	*e*PKP	**PKPdf**	**00 08 20.1**	**-0.7**		
DPC				AMS	AMS	00 57 20.0			
	comp=Z,700nm,18.9s								
DPC	**Dobruska-Polom**	**126.72**	**50**	PKP	**PKPdf**	**00 08 19.7**	**-1.1**		
UPC	**Upice**	**126.74**	**50**	*e*PKIKP	**PKPdf**	**00 08 20.3**	**-0.5**		
UPC	**Upice**	**126.74**	**50**	*e*PKP	**PKPdf**	**00 08 20.3**	**-0.5**		
BISRR	**Bisoca**	**126.79**	**61**	⇑P	**PKPdf**	**00 08 19.6**	**-1.6**		
BOSR	**Bodos**

QIZ L L
comp=Z,1µm,20.0s
QIZ L L
comp=Z,1µm,19.7s
QIZ L L
comp=Z,2µm,21.8s
MMPY Sheldon Lake, 136.09 320 PKPdf 00 08 37.4 -0.8
O30N Mendenhall 136.20 316 IAMs_20 IAMs_20 01 21 12.9
comp=Z,1µm,19.0s
VORD Divnogorie 136.28 65 *e*PKIKP **PKPdf 00 08 34.7 -4.1**
VORD pmax pmax
comp=Z,30nm,0.2s
VSR Storozhevoye 136.41 65 *e*PKIKP **PKPdf 00 08 36.9 -2.1**
VSR pmax pmax
comp=Z,4.0nm,0.7s
N31M Braeburn, Yuko 136.63 317 IAMs_20 IAMs_20 01 14 31.4
comp=Z,1µm,20.0s
O29M Mount Kennedy 136.67 314 IAMs_20 IAMs_20 01 14 29.2
comp=Z,1µm,22.0s
HYT Haines Junctio 136.70 315 PKiKP 00 08 41.0 -0.2
M31M Drury Creek, Y 136.73 318 IAMs_20 IAMs_20 01 12 54.1
comp=Z,2µm,22.0s
VORR Voronezh 136.76 64 *e*PKIKP **PKPdf 00 08 36.8 -2.9**
VORR pmax pmax
comp=Z,7.0nm,0.3s
N30M Aishikik Lake 137.03 316 IAMs_20 IAMs_20 01 14 29.1
comp=Z,1µm,21.0s
KBL Kabul 137.08 105 PKIKP **PKiKP 00 08 45.1 +2.1**
PCA Pinnacle 137.08 313 IAMs_20 IAMs_20 01 15 04.4
comp=Z,1µm,19.0s
LPSR Galich'ya Gora 137.32 63 *e*PKIKP **PKPdf 00 08 37.2 -3.5**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
VRH Novokhopyorsk 137.49 67 *e*PKIKP **PKPdf 00 08 35.5 -5.5**
VRH pmax pmax
comp=Z,8.0nm,0.6s
O28M Mount Upton 137.56 314 IAMs_20 IAMs_20 01 15 59.8
comp=Z,1µm,20.0s
MORE Moreh 137.72 141 IAMs_20 IAMs_20 01 04 47.3
comp=Z,1µm,22.0s
M30M Minto, Yukon 137.76 318 PKPdf 00 08 40.5 -0.7
M30M IAMs_20 IAMs_20 01 14 14.4
comp=Z,1µm,20.0s
YAH Yahtse 137.79 313 IAMs_20 IAMs_20 01 16 19.9
comp=Z,1µm,22.0s
LOGN Logan Glacier 137.87 314 IAMs_20 IAMs_20 01 09 39.2
comp=Z,1µm,22.0s
GRNC Granite Creek 138.06 313 IAMs_20 IAMs_20 01 12 25.2
comp=Z,1µm,20.0s
OBN Obninsk 138.17 59⇑ *e*PKIKP **PKPdf 00 08 39.8 -2.3**
OBN *i* 00 08 43.6
OBN 00 15 52.0
OBN SS SS 00 29 38.0 -5.2
OBN *e*SSS SSS 00 34 59.5
OBN pmax pmax
comp=Z,8.0nm,0.8s
M29M Somme Creek 138.20 317 IAMs_20 IAMs_20 01 12 06.7
comp=Z,1µm,22.0s
NIL Nilore 138.22 110 PKIKP **PKPdf 00 08 41.9 -1.2**
NIL Nilore 138.22 110 PKPdf 00 08 41.9 -1.2
NIL Nilore 138.22 110 IAMs_20 IAMs_20 01 20 46.5
comp=Z,1µm,19.0s
BARN Barnard Glacie 138.26 313 IAMs_20 IAMs_20 01 19 21.6
comp=Z,1µm,21.0s
CRQM Cirque 138.55 312 IAMs_20 IAMs_20 01 21 22.7
comp=Z,1µm,19.0s
L29M L29M 138.57 317 PKPdf 00 08 41.6 -1.1
TULEG Thule 138.67 356 IAMs_20 IAMs_20 01 08 15.1
comp=Z,990nm,19.0s
FINES FINESS Array B 138.77 46 PKhKP PKPpre 00 08 29.7
comp=Z,3.6nm,0.8s,baz=217,slow=1.9,SNR=6.3
FINES PKP **PKPdf 00 08 40.4 -2.7**
comp=Z,5.3nm,0.7s,baz=157,slow=3.9,SNR=7.5
FINES FINESS Array B 138.77 46*c i*PKIKP **PKPdf 00 08 44.2 +1.1**
FINES pmax pmax
comp=Z,5.0nm,0.7s
K29M Barlow Dome 138.91 318 IAMs_20 IAMs_20 01 15 43.6
comp=Z,1µm,21.0s
MCARA McCarthy VSAT 138.96 313 IAMs_20 IAMs_20 01 14 58.0
comp=Z,1µm,20.0s
VRDI Verde Repeater 139.00 313 IAMs_20 IAMs_20 01 17 36.9
comp=Z,1µm,20.0s
MOS Moscow 139.04 59 *i*PKIKP **PKPdf 00 08 42.0 -1.7**
BMRM Bremner River 139.21 312 IAMs_20 IAMs_20 01 17 41.6
comp=Z,1µm,21.0s
M27K Edge Creek, AK 139.26 315 IAMs_20 IAMs_20 01 19 21.9
comp=Z,1µm,22.0s
GLB Gilahina Butte 139.27 313 IAMs_20 IAMs_20 01 15 33.2
comp=Z,1µm,21.0s
C36M Paulatuk 139.30 330 IAMs_20 IAMs_20 01 16 30.0
comp=Z,1µm,20.0s
EYAK Cordova Ski Ar 139.32 311 IAMs_20 IAMs_20 01 15 46.5
comp=Z,2µm,22.0s
H31M Peel River 139.37 322 IAMs_20 IAMs_20 01 12 40.5
comp=Z,1µm,20.0s
HIN Hinchinbrook I 139.48 310 IAMs_20 IAMs_20 01 20 29.8
comp=Z,1µm,19.0s
NEEM North Greenlan 139.49 2 *i*P PKPdf 00 08 35.3 -9.1
P23K Montague Islan 139.53 309 IAMs_20 IAMs_20 01 12 36.1
comp=Z,1µm,21.0s
I30M Mount Dempster 139.54 321 PKPdf 00 08 43.3 -1.3
I30M IAMs_20 IAMs_20 01 13 22.3
comp=Z,1µm,20.0s
TNCH TengChong 139.64 146 PKP **PKPdf 00 08 46.7 +0.6**
TNCH PP **PP 00 11 43.2 +2.1**
TNCH PKS **PKSdf 00 12 25.6 +3.2**
TNCH PPMZ
comp=Z,630nm,4.8s
TNCH L L
comp=Z,700nm,14.0s
TNCH L L
comp=Z,570nm,15.6s
TNCH L L
comp=Z,2µm,20.0s
M26K Nabesna, AK 139.66 314 IAMs_20 IAMs_20 01 15 08.5
comp=Z,1µm,21.0s
FID Port Fidalgo 139.72 311 IAMs_20 IAMs_20 01 09 06.8
comp=Z,1µm,20.0s
DIV Divide 139.73 311 IAMs_20 IAMs_20 01 18 10.4
comp=Z,2µm,22.0s
L27K Beaver Creek, 139.73 316 IAMs_20 IAMs_20 01 15 15.3
comp=Z,1µm,21.0s
GLI Glacier Island 140.03 310 IAMs_20 IAMs_20 01 18 07.3
comp=Z,1µm,19.0s
KLU Klutina 140.04 312 IAMs_20 IAMs_20 00 58 52.4
comp=Z,1µm,21.0s
G31M Satah River 140.14 323 IAMs_20 IAMs_20 01 14 56.2
comp=Z,1µm,22.0s
L26K Log Cabin Wild 140.21 315 IAMs_20 IAMs_20 01 17 54.1
comp=Z,1µm,21.0s
I29M Ogilvie Camp, 140.22 320 IAMs_20 IAMs_20 01 15 55.3
comp=Z,1µm,21.0s
SEW Seward 140.35 308 IAMs_20 IAMs_20 00 59 00.8
comp=Z,1µm,19.0s
EPYK Eagle Plains 140.45 322 IAMs_20 IAMs_20 01 13 35.4
comp=Z,1µm,21.0s
PWL Port Wells 140.46 310 IAMs_20 IAMs_20 01 21 29.6
comp=Z,1µm,20.0s
K27K Chicken 140.48 317 IAMs_20 IAMs_20 01 15 35.2
comp=Z,2µm,21.0s
BRLK Bradley Lake 140.65 307 IAMs_20 IAMs_20 00 57 31.7
comp=Z,1µm,19.0s
O22K Cooper Landing 140.71 309 IAMs_20 IAMs_20 01 19 47.2
comp=Z,1µm,21.0s
G30M tAoh Zraii Nji 140.73 323 PKPdf 00 08 47.1 +0.5
G30M IAMs_20 IAMs_20 01 17 50.8
comp=Z,1µm,20.0s
SCM Sheep Creek Mo 140.76 311 IAMs_20 IAMs_20 01 19 44.6
comp=Z,1µm,21.0s
KMI2 Kunming 140.77 152 PKP **PKPdf 00 08 48.6 +0.4**
KMI2 PP **PP 00 11 51.5 +3.5**
KMI2 SKKS 00 18 38.0
KMI2 PPMZ
comp=Z,450nm,4.9s
KMI2 L L
comp=Z,1µm,20.3s
KMI2 L L
comp=Z,1µm,18.1s
KMI2 L L
comp=Z,3µm,26.5s
I28M Miner Creek 140.78 319 IAMs_20 IAMs_20 01 21 34.9
comp=Z,1µm,20.0s
H29M Whitestone 140.83 321 IAMs_20 IAMs_20 01 01 41.4
comp=Z,1µm,22.0s
DOT Dot Lake 140.87 315 IAMs_20 IAMs_20 01 13 09.6
comp=Z,1µm,21.0s
KNK Knik Glacier 140.88 310 IAMs_20 IAMs_20 01 17 29.7
comp=Z,1µm,22.0s
PAX Paxson 140.88 314 IAMs_20 IAMs_20 01 16 17.9
comp=Z,1µm,22.0s
BELG Belogornoye 140.90 69⇑ *e*PKIKP **PKPdf 00 08 48.4 +1.2**
SLKM Skilak Lake 140.91 308 IAMs_20 IAMs_20 01 20 23.6
comp=Z,1µm,21.0s
DAG Danmarks Havn 140.93 13 *i*P PKPdf 00 08 37.9 -8.7
SCRK Sand Creek 141.07 316 IAMs_20 IAMs_20 01 16 21.7
comp=Z,1µm,21.0s
SML Sawmill 141.10 311 IAMs_20 IAMs_20 01 20 35.5
comp=Z,1µm,22.0s
RC01 Rabbit Creek A 141.12 309 IAMs_20 IAMs_20 01 20 25.1
comp=Z,1µm,21.0s
Q19K Cape Douglas, 141.14 305 IAMs_20 IAMs_20 01 20 50.5
comp=Z,2µm,21.0s
G29M Pine Creek 141.20 322 IAMs_20 IAMs_20 01 13 53.3
comp=Z,2µm,22.0s
GHO Glory Hole Cre 141.28 311 IAMs_20 IAMs_20 01 17 50.4
comp=Z,2µm,22.0s
I27K Kandik River 141.40 319 IAMs_20 IAMs_20 01 19 02.3
comp=Z,1µm,20.0s
DHY Denali Highway 141.61 313 IAMs_20 IAMs_20 01 20 27.9
comp=Z,1µm,19.0s
I26K Coal Creek Min 141.69 318 IAMs_20 IAMs_20 01 21 31.9
comp=Z,1µm,20.0s
M22K Willow 141.70 310 IAMs_20 IAMs_20 01 20 25.4
comp=Z,1µm,22.0s
SUA Susitna One 141.74 309 IAMs_20 IAMs_20 01 20 49.3
comp=Z,1µm,20.0s
H27K Steamboat Moun 141.79 319 IAMs_20 IAMs_20 01 15 31.7
comp=Z,1µm,22.0s
LSA Lhasa 141.81 134 IAMs_20 IAMs_20 01 08 27.2
comp=Z,2µm,22.0s
PZH PanZhiHua 141.85 150 PKP **PKPdf 00 08 47.7 -2.3**
J25K Salcha River, 141.94 316 IAMs_20 IAMs_20 01 16 28.7
comp=Z,2µm,22.0s
E29M Blow River 142.16 324 IAMs_20 IAMs_20 01 18 16.4
comp=Z,1µm,21.0s
G27K Doyon Strip 142.21 320 IAMs_20 IAMs_20 01 14 47.7
comp=Z,1µm,21.0s
F28M Old Crow 142.21 322 IAMs_20 IAMs_20 01 16 58.8
comp=Z,1µm,20.0s
RND Reindeer 142.33 313 IAMs_20 IAMs_20 01 18 28.1
comp=Z,1µm,21.0s
HDA Harding Lake 142.33 315 IAMs_20 IAMs_20 01 15 25.1
comp=Z,2µm,22.0s
O18K Koktuli Hills 142.35 305 IAMs_20 IAMs_20 01 01 36.6
comp=Z,1µm,21.0s
SKT Skwentna 142.36 309 IAMs_20 IAMs_20 01 20 12.7
comp=Z,1µm,18.0s
ILAR Eielson Array 142.54 315 PKhKP PKPpre 00 08 44.5
comp=Z,1.2nm,0.5s,baz=157,slow=1.6,SNR=19
MCK McKinley 142.57 313 IAMs_20 IAMs_20 01 18 50.3
comp=Z,1µm,21.0s
PRP Porcupine Dome 142.58 317 IAMs_20 IAMs_20 01 20 43.6
comp=Z,1µm,21.0s
WRH Wood River Hil 142.75 314 IAMs_20 IAMs_20 01 18 50.2
comp=Z,1µm,21.0s
CCB Clear Creek Bu 142.77 315 IAMs_20 IAMs_20 01 22 30.6
comp=Z,920nm,19.0s
M20K Styx River 142.88 309 IAMs_20 IAMs_20 01 20 48.5
comp=Z,984nm,20.0s
COLA College 142.93 315*de*PKIKP **PKPdf 00 08 49.8 -0.6**
COLA College 142.93 315 IAMs_20 IAMs_20 01 15 59.9
comp=Z,1µm,22.0s
POKR Poker Plat Res 142.94 315 IAMs_20 IAMs_20 01 20 26.2
comp=Z,1µm,19.0s
G26K Porcupine Rive 142.95 319 IAMs_20 IAMs_20 01 15 25.3
comp=Z,1µm,21.0s
BWN Browne 143.03 313 IAMs_20 IAMs_20 01 17 21.0
comp=Z,1µm,21.0s
E27K Coleen River 143.08 322 IAMs_20 IAMs_20 01 15 52.7
comp=Z,1µm,22.0s
NEA2 Nenana 143.16 314 IAMs_20 IAMs_20 01 20 38.9
comp=Z,1µm,20.0s
KLMR Klimovskoe 143.21 54 *e*PKIKP **PKPdf 00 08 50.3 -0.8**
KLMR pmax pmax
comp=Z,52nm,1.3s
CAST Castle Rocks 143.47 311 IAMs_20 IAMs_20 01 20 19.1
comp=Z,1µm,21.0s
BMAR Burnt Mountain 143.49 320 PKPdf 00 08 50.9 -0.6
BPAW Bear Paw Mtn. 143.51 312 IAMs_20 IAMs_20 01 21 15.1
comp=Z,1µm,20.0s
F26K Sheenjek River 143.52 320 IAMs_20 IAMs_20 01 20 40.5
comp=Z,1µm,19.0s
L20K Farewell, AK 143.53 309 IAMs_20 IAMs_20 01 18 14.6
comp=Z,1µm,21.0s
H24K Noodor Dome 143.54 316 IAMs_20 IAMs_20 01 20 44.9
comp=Z,1µm,20.0s
I23K Minto, Yukon-K 143.60 315 IAMs_20 IAMs_20 01 21 33.6
comp=Z,1µm,20.0s
L19K White Mountain 143.70 308 IAMs_20 IAMs_20 01 16 12.1
comp=Z,1µm,21.0s
TRKS Terek-Say 143.73 101 PKIKP PKPab 00 08 49.8 +0.1
KSH2 Kashi 143.82 108 PKP PKPab 00 08 49.8 -0.4
KSH2 PP PP 00 12 14.9 +8.0
KSH2 PPMZ
comp=Z,740nm,7.8s
KSH2 L L
comp=Z,800nm,19.9s
KSH2 L L
comp=Z,590nm,20.6s
KSH2 L L
comp=Z,1µm,19.9s
F25K Christian Rive 143.91 319 IAMs_20 IAMs_20 01 17 23.9
comp=Z,1µm,22.0s
G24K Hadweenzic Riv 143.94 317 IAMs_20 IAMs_20 01 16 45.4
comp=Z,1µm,21.0s
ARCES ARCESS Array B 143.97 36 PKhKP PKPpre 00 08 48.4
comp=Z,58nm,0.7s,baz=283,slow=1.4,SNR=83
MLY Manley 143.99 314 IAMs_20 IAMs_20 01 19 38.0
comp=Z,1µm,20.0s
ARK Arkit 144.32 101 PKIKP **PKPab 00 08 52.0 +0.1**
O14K Tigyukauivet M 144.35 301 IAMs_20 IAMs_20 01 27 24.4
comp=Z,1µm,20.0s
JOW Kunigami 144.36 190 PKP **PKPab 00 08 52.4 +0.1**
comp=Z,47nm,1.0s,baz=165,slow=5.5,SNR=13
N15K Kwethluk River 144.45 303 PKPdf 00 08 53.4 +0.1
I21K Tanana 144.50 314 IAMs_20 IAMs_20 01 22 17.5
comp=Z,1µm,22.0s
M16K Timber Creek 144.53 304 IAMs_20 IAMs_20 01 21 42.3
comp=Z,2µm,21.0s
F24K Squaw Lake 144.56 318 IAMs_20 IAMs_20 01 15 26.8
comp=Z,1µm,22.0s
C27K Jago River 144.57 323 IAMs_20 IAMs_20 01 15 56.2
comp=Z,1µm,21.0s
ADZR Andozero 144.65 49 *e*PKHKP PKPpre 00 08 49.5
ADZR pmax pmax
comp=Z,212nm,1.5s
J20K Nowinta River 144.66 311 IAMs_20 IAMs_20 01 19 11.4
comp=Z,1µm,22.0s
H22K Ishtalitna Cre 144.72 315 IAMs_20 IAMs_20 01 21 20.3
comp=Z,1µm,20.0s
G23K Bananza Creek 144.76 316 IAMs_20 IAMs_20 01 19 22.1
comp=Z,1µm,20.0s
N14K Kuskokwak Cree 144.93 302 IAMs_20 IAMs_20 01 27 25.8
comp=Z,1µm,21.0s
E24K Your Creek 145.07 319 IAMs_20 IAMs_20 01 19 05.4
comp=Z,2µm,22.0s
I20K Naaghedeneel 145.14 312 IAMs_20 IAMs_20 01 17 25.2
comp=Z,1µm,22.0s
APA Apatity 145.15 42 *i*PKP2 **PKPbc 00 08 51.5 -2.4**
APA *e* 00 12 12.4
APA pmax pmax
comp=Z,196nm,0.8s
NOR Nord 145.30 10 *i*P **PKPbc 00 08 52.8 -1.4**
E23K Chandalar 145.41 319 IAMs_20 IAMs_20 01 21 00.3
comp=Z,1µm,19.0s
IMAR Indian Mountai 145.57 314 PKPdf 00 08 54.4 -0.7
LVZ Lovozero 145.72 42*de*PKIKP **PKPdf 00 08 54.3 -1.0**
KIRV Kirov 145.75 63*de*PKIKP **PKPdf 00 08 53.9 -1.6**
D24K Happy Valley 145.78 320 IAMs_20 IAMs_20 01 21 57.3
comp=Z,1µm,20.0s
G21K Allakaket 145.79 315 IAMs_20 IAMs_20 01 20 44.4
comp=Z,1µm,19.0s
UCH Uchtor 145.82 103 P **PKPdf 00 08 57.4 +0.5**
SNR=71
EKS2 Erkin-Say 145.83 102 P **PKPdf 00 08 56.7 +0.3**
SNR=57
AAK Ala-Archa 146.14 103 P **PKPbc 00 08 57.9 -0.1**
SNR=40
AAK Ala-Archa 146.14 103 PKIKP **PKPdf 00 08 55.7 -1.3**
AAK MLR MLR
comp=Z,1µm,22.0s
AAK Ala-Archa 146.14 103 PKPdf 00 08 55.7 -1.3
AAK Ala-Archa 146.14 103 IAMs_20 IAMs_20 01 15 36.3
comp=Z,1µm,22.0s
AAK Ala-Archa 146.14 103 PKP **PKPdf 00 08 56.0 -1.0**
F21K Alatna River 146.17 316 IAMs_20 IAMs_20 01 28 33.6
comp=Z,1µm,20.0s
K15K Wolf Creek Mou 146.28 305 IAMs_20 IAMs_20 01 23 06.3
comp=Z,1µm,21.0s
ADK Adak 146.31 281 PKIKP **PKPdf 00 08 56.2 -0.5**
ADK Adak 146.31 281 PKPdf 00 08 56.2 -0.5
KBK Karagaybulak 146.36 103 P **PKPbc 00 08 58.6 -0.1**
SNR=55
CHMS Chumysh 146.54 103 P **PKPdf 00 08 57.9 +0.4**
SNR=27
CD2 Chengdu 146.55 151 PKPbc **PKPdf 00 08 58.6 +0.7**
CD2 pPKP PKPab 00 09 01.3 +0.8
CD2 PP **PP 00 12 28.6 +6.1**
CD2 SKKS 00 19 17.2
CD2 SS **SS 00 31 21.5 +1.8**
CD2 PPMZ
comp=Z,820nm,6.7s
ULHL Ulahol 146.62 105 P **PKPbc 00 08 59.4 -0.2**
SNR=27
USP Ospenovka 146.63 102 P **PKPdf 00 08 57.6 0.0**
SNR=66
KBS Kingsbay 146.71 19 PKP2 **PKPbc 00 08 58.5 0.0**
KBS Kingsbay 146.71 19 *i*P **PKPbc 00 08 58.1 -0.3**
G19K Purcell Mounta 146.79 313 IAMs_20 IAMs_20 01 19 41.0
comp=Z,1µm,20.0s
TKM2 Tokmak 2 146.86 104 P **PKPdf 00 08 59.2 +1.0**
SNR=46
E21K Killik River 146.98 318 IAMs_20 IAMs_20 01 28 09.9
comp=Z,1µm,20.0s
SPITS Spitsbergen Ar 147.00 21 PKPbc **PKPdf 00 08 58.0 +0.8**
comp=Z,22nm,0.7s,baz=235,slow=3.5,SNR=22
SPITS Spitsbergen Ar 147.00 21 PKP2 **PKPdf 00 08 58.6 +1.4**
SPB2 Spitsbergen Ar 147.00 21 PKPdf **PKPbc 00 08 58.7 -0.6**
WUS Wushi 147.11 110 IAMs_20 IAMs_20 01 11 22.9
comp=Z,1µm,20.0s
G18K Tagagawik 147.21 312 IAMs_20 IAMs_20 01 19 57.9
comp=Z,1µm,20.0s
J14K Nanvaranak Lak 147.31 305 IAMs_20 IAMs_20 01 27 07.7
comp=Z,1µm,20.0s
F19K Shaleruckik Mo 147.39 314 IAMs_20 IAMs_20 01 18 34.8
comp=Z,1µm,21.0s
TNSS Tian-Shan 147.57 105 *e*PKIKP **PKPdf 00 08 58.5 -1.2**
TNSS Tian-Shan 147.57 105 *e*PKP **PKPdf 00 08 58.6 -1.2**
AAA Alma-Ata 147.69 105 *e*PKIKP **PKPdf 00 08 58.7 -0.7**
AAA Alma-Ata 147.69 105 *e*PKP **PKPdf 00 08 58.8 -0.7**
MDOK Medeo 147.71 105 *e*PKIKP **PKPdf 00 08 58.8 -0.8**
MDOK Medeo 147.71 105 *e*PKP **PKPdf 00 08 58.8 -0.8**
PRZ Przheval'sk 147.78 107 PKP2 **PKPdf 00 09 00.9 +1.1**
WHN Wuhan 147.94 168 PKPbc **PKPbc 00 09 02.1 -1.1**
WHN PP **PP 00 12 32.3 +1.8**
WHN SS SS 00 31 38.8 +3.7
WHN L L
comp=Z,12µm,24.8s
WHN L L
comp=Z,5µm,21.0s
WHN L L
comp=Z,9µm,22.1s
KUU Kurty 147.96 103 *e*PKIKP **PKPdf 00 08 59.2 -0.6**
KUU Kurty 147.96 103 *e*PKP **PKPdf 00 08 59.3 -0.6**
SATY Saty 148.24 107 *e*PKIKP **PKPdf 00 08 59.6 -0.9**
SATY *e* 00 12 31.8
SATY Saty 148.24 107 *e*PKP **PKPdf 00 08 59.7 -0.8**
SATY *e*PP **PP 00 12 31.8 -1.2**
G16K Koyuk River 148.26 310 IAMs_20 IAMs_20 01 27 28.8
comp=Z,1µm,22.0s
ARTI Arti 148.27 71 *i*PKIKP **PKPdf 00 09 00.1 +0.2**
ARTI SS SS 00 31 33.1 -6.7
ARTI Arti 148.27 71 PKPdf 00 09 00.3 +0.4
F17K Baldwin Pennin 148.39 312 IAMs_20 IAMs_20 01 27 50.3
comp=Z,1µm,19.0s
UZB Uzunbulak 148.59 107 *e*PKIKP **PKPdf 00 09 00.2 -0.8**
UZB *e* 00 12 33.9
UZB Uzunbulak 148.59 107 *e*PKP **PKPdf 00 09 00.3 -0.8**
UZB *e*PP **PP 00 12 33.9 -1.1**
KPKS Kokpek 148.69 107 *e*PKIKP **PKPdf 00 09 00.3 -0.8**
KPKS Kokpek 148.69 107 *e*PKP **PKPdf 00 09 00.3 -0.8**
JSU Suzuyama 148.78 194 PKPbc 00 09 04.6 -0.8
SHLS Shalkode 148.79 108 *e*PKIKP **PKPdf 00 09 00.8 -0.5**
SHLS Shalkode 148.79 108 *e*PKP **PKPdf 00 09 00.9 -0.5**
GOMU GeErMu 148.98 134 PKPbc **PKPdf 00 09 02.7 +0.5**
F15K North Star Dit 149.25 309 IAMs_20 IAMs_20 01 08 23.9
comp=Z,1µm,20.0s
SVE Sverdlovsk 149.53 72 *e*PKHKP PKPpre 00 09 04.4
SVE pmax pmax
comp=Z,123nm,2.2s
TDK Taldyqorghan 149.76 104 *e*PKHKP PKPpre 00 09 02.1
TDK Taldyqorghan 149.76 104 *e*PKP **PKPdf 00 09 02.1 -0.6**
NJ2 Nanjing 149.76 175 *e*PKPbc **PKPbc 00 09 07.5 -0.3**
NJ2 pPKP **pPKPbc 00 09 11.9 -0.1**
NJ2 sPKP **sPKPbc 00 09 14.5 +1.0**
JNU Nakatsue 150.32 195 PKPbc **PKPbc 00 09 08.7 -0.5**
comp=Z,38nm,0.8s,baz=170,slow=2.6,SNR=22
JNU Nakatsue 150.32 195 P **PKPbc 00 09 09.1 -0.1**
TNA Tin City 150.38 308 IAMs_20 IAMs_20 01 21 43.9
comp=Z,1µm,20.0s
JMN Monobe 150.48 201 PKPbc 00 09 10.0 +0.4
JMN Monobe 150.48 201 P **PKPbc 00 09 10.0 +0.4**
JIE Ise 150.61 206 P **PKPbc 00 09 10.1 +0.3**
XAN Xi'an 150.63 158⇑ PKPbc **PKPdf 00 09 04.5 0.0**
XAN pPKP PKPbc 00 09 10.0 +0.1
XAN PP **PP 00 12 46.7 +0.5**
XAN SS SS 00 32 09.9 +4.5
XAN PPMZ
comp=Z,760nm,17.8s
XAN L L
comp=Z,5µm,19.2s
JOD2 Odawara 2 150.93 210 P **PKPbc 00 09 09.7 -0.8**
LZDM Lanzhou Array 151.36 148 PKPbc **PKPbc 00 09 11.8 -0.1**
comp=Z,40nm,0.7s,baz=202,slow=1.5,SNR=40
LZH Lanzhou 151.52 148 *e*PKPbc **PKPdf 00 09 06.7 +0.8**
LZH PP **PP 00 12 50.8 -0.8**
LZH SS SS 00 32 20.7 +5.1
LZH PPMZ
comp=Z,760nm,5.7s
LZH L L
comp=Z,1µm,17.4s
LZH L L
comp=Z,490nm,17.5s
LZH L L
comp=Z,2µm,21.0s
JGF Kuroka 151.64 207 P **PKPbc 00 09 12.7 +0.4**
BORK Borovoye 151.66 85 PKIKP **PKPdf 00 09 05.3 0.0**
BORK Borovoye 151.66 85 PKPdf 00 09 05.3 0.0
BORK IAMs_20 IAMs_20 01 17 22.2
comp=Z,1µm,20.0s
LYN LuoYang 151.68 163 PKPbc **PKPbc 00 09 10.9 -1.4**
LYN PKPab **sPKPab 00 09 28.8 +2.1**
BVAR Borovoye Array 151.68 85 PKPbc **PKPbc 00 09 10.7 -1.0**
comp=Z,2.8nm,0.8s,baz=223,slow=1.5,SNR=12
JTU Tsushima 151.88 193 PKPbc 00 09 12.7 -0.1
MJAR Matsushiro Arr 152.35 209 PKPbc **PKPbc 00 09 13.1 -0.7**
comp=Z,1nm,0.9s,baz=155,slow=2.9,SNR=15
MAJO Matsushiro 152.35 209 PKIKP **PKiKP 00 09 14.6 +0.5**
MAJO Matsushiro 152.35 209 PKiKP 00 09 14.6 +0.5
MAKZ Makanchi 152.75 106 PKIKP **PKPdf 00 09 07.8 +0.6**
MAKZ Makanchi 152.75 106 PKPdf 00 09 07.8 +0.6
MAKZ IAMs_20 IAMs_20 01 17 46.1
comp=Z,1µm,22.0s
MK31 Makanchi Array 152.88 106*ce*PKIKP **PKPdf 00 09 06.4 -1.0**
MKAR Makanchi Array 152.88 106 PKP **PKPdf 00 09 06.7 -0.8**
comp=Z,1.7nm,0.8s,baz=225,slow=0.8,SNR=6.8
MKAR PKPbc **sPKPdf 00 09 13.7 +0.6**
comp=Z,11nm,0.6s,baz=217,slow=2.3,SNR=89
MKAR Makanchi Array 152.88 106 PKPdf 00 09 05.9 -1.6
WMQ Urumqi 152.89 117 PKPbc **PKPdf 00 09 07.7 +0.1**
WMQ pPKP PKPbc 00 09 15.0 +0.2
WMQ PP **PP 00 12 58.9 -0.7**
WMQ PPMZ
comp=Z,580nm,4.5s
GTA2 Gaotai 153.57 139 *e*PKPbc **PKPdf 00 09 08.4 -0.4**
GTA2 PP **PP 00 13 01.5 -1.8**
GTA2 SKKS 00 19 54.0
GTA2 SS **SS 00 32 35.6 -2.6**
GTA2 L L
comp=Z,710nm,19.7s
GTA2 L L
comp=Z,1µm,22.5s
GTA2 L L
comp=Z,1µm,21.3s
TIA Tai'an 153.80 171 PKPbc **PKPdf 00 09 09.2 +0.1**
TIA PP **PP 00 13 05.3 +1.1**
TIA SKS **SKSdf 00 16 08.1 -7.2**
TIA SS **SS 00 32 42.3 +2.2**

TIA					PPMZ				
	comp=Z,770nm,7.5s								
TIA					L	L			
	comp=Z,1μm,26.2s								
TIA					L	L			
	comp=Z,750nm,22.0s								
TIA					L	L			
	comp=Z,3μm,28.8s								
KURBB	**Kurchatov Arra**	**153.91**	**96**		PKP	**PKPdf**	**00 09 06.8**	**-1.8**	
	comp=Z,1.7nm,0.6s,baz=234,slow=2.1,SNR=15								
KURBB					PKPbc	**sPKPdf**	**00 09 15.4**	**+1.1**	
	comp=Z,8.1nm,0.6s,baz=226,slow=2.9,SNR=18								
KURBB					PP	**PP**	**00 13 05.3**	**-0.1**	
	comp=Z,2.1nm,0.2s,baz=224,slow=5.3,SNR=5.5								
KURK	**Kurchatov**	**154.01**	**96**		PKIKP	**PKPdf**	**00 09 07.5**	**-1.3**	
KURK					PKP	**PKPbc**	**00 09 15.4**	**-1.5**	
KURK	**Kurchatov**	**154.01**	**96**			**PKPbc**	**00 09 15.4**	**-1.5**	
KURK	**Kurchatov**	**154.01**	**96**			**PKPdf**	**00 09 07.5**	**-1.3**	
ZSN	**Zaisan**	**154.53**	**108**	*e*	PKIKP	**PKPdf**	**00 09 09.1**	**-0.6**	
ZSN				*e*			00 13 07.9		
ZSN	**Zaisan**	**154.53**	**108**	*e*	PKP	**PKPdf**	**00 09 09.2**	**-0.5**	
ZSN				*e*	PP	**PP**	**00 13 07.9**	**-0.9**	
SEM	**Semipalatinsk**	**154.56**	**98**	*e*	PKIKP	**PKPdf**	**00 09 09.3**	**-0.6**	
SEM	**Semipalatinsk**	**154.56**	**98**	*e*	PKP	**PKPdf**	**00 09 09.3**	**-0.6**	
HNS	**HongShan**	**154.76**	**167**	⇑	PKPbc	**PKPdf**	**00 09 11.0**	**+0.7**	
HNS					PKPab	**PKPab**	**00 09 34.2**	**+0.2**	
HNS					PP	**PP**	**00 13 11.0**	**+1.5**	
HNS					SS	SS	00 32 53.1	+2.6	
HNS					L	L			
	comp=Z,2μm,22.0s								
HNS					L	L			
	comp=Z,670nm,22.4s								
HNS					L	L			
	comp=Z,3μm,17.5s								
TIY	**Taiyuan**	**154.78**	**162**		PKPbc	**PKPdf**	**00 09 09.0**	**-1.5**	
TIY					PKPab	**PKPab**	**00 09 35.4**	**+1.2**	
TIY					PP	**PP**	**00 13 08.7**	**-1.1**	
TIY					SS	SS	00 32 55.3	+4.3	
TIY					PPMZ				
	comp=Z,600nm,6.9s								
TIY					L	L			
	comp=Z,1μm,18.5s								
TIY					L	L			
	comp=Z,660nm,20.6s								
TIY					L	L			
	comp=Z,1μm,24.0s								
KSAR	**Wonju Array Be**	**154.92**	**191**		PKIKP	**PKPbc**	**00 09 18.7**	**-0.6**	
KSAR	**Wonju Array Be**	**154.92**	**191**			**PKPbc**	**00 09 18.7**	**-0.6**	
KSRS	**Korea Array**	**154.93**	**191**		PKP	**PKPdf**	**00 09 10.1**	**-0.5**	
	comp=Z,1.3nm,0.6s,baz=162,slow=1.9,SNR=4.6								
KSRS					PKPbc	**PKPbc**	**00 09 18.6**	**-0.6**	
	comp=Z,4.4nm,0.7s,baz=191,slow=1.9,SNR=14								
KSRS					PKPab	**PKPab**	**00 09 34.0**	**-0.7**	
	comp=Z,6.5nm,0.8s,baz=172,slow=3.2,SNR=9.3								
DL2	**Dalian**	**156.66**	**180**	*e*	PKP	**PKPdf**	**00 09 13.3**	**+0.5**	
DL2					PKPab	**PKPab**	**00 09 42.1**	**0.0**	
DL2					PP	**PP**	**00 13 19.9**	**-0.2**	
DL2					PPMZ				
	comp=Z,890nm,6.0s								
DL2					L	L			
	comp=Z,750nm,22.7s								
DL2					L	L			
	comp=Z,880nm,21.8s								
DL2					L	L			
	comp=Z,1μm,23.7s								
BTO2	**Baotou**	**157.31**	**156**		PKPab	**PKPab**	**00 09 44.4**	**-0.7**	
BTO2					PP	**PP**	**00 13 21.6**	**-2.4**	
BTO2	**Baotou**	**157.31**	**156**		SKKS		00 20 18.6		
BJI2	**Beijing**	**157.50**	**169**		PKP	**PKPdf**	**00 09 14.4**	**+0.5**	
BJI2					PP	**PP**	**00 13 23.0**	**-1.8**	
BJI2					SS	SS	00 33 21.6	+1.6	
BJI2					PPMZ				
	comp=Z,300nm,8.0s								
BJI2					L	L			
	comp=Z,6μm,16.3s								
BJI2					L	L			
	comp=Z,8μm,16.7s								
BJI2					L	L			
	comp=Z,11μm,16.5s								
HHC	**Hu-ho-hao-te**	**157.72**	**159**	*e*	PKP	**PKPdf**	**00 09 10.6**	**-3.7**	
HHC					PPMZ				
	comp=Z,420nm,7.2s								
HHC					L	L			
	comp=Z,5μm,15.7s								
HHC					L	L			
	comp=Z,6μm,16.2s								
HHC					L	L			
	comp=Z,9μm,16.3s								
ASAJ	**Asahikawa**	**158.20**	**223**		PKPab	**PKPab**	**00 09 48.6**	**0.0**	
	comp=Z,11nm,0.2s,baz=154,slow=4.9,SNR=4.4								
ZALV	**Zalesovo Beam**	**159.01**	**96**		PKP	**PKPdf**	**00 09 13.5**	**-1.7**	
	comp=Z,1.1nm,0.7s,baz=238,slow=2.8,SNR=5.3								
ZALV					PKPab	**PKPab**	**00 09 51.6**	**-0.3**	
	comp=Z,3.9nm,0.6s,baz=243,slow=1.3,SNR=6.4								
ZALV					PP	**PP**	**00 13 34.6**	**+1.1**	
	comp=Z,3.0nm,0.9s,baz=217,slow=4.7,SNR=4.5								
ZALV	**Zalesovo Beam**	**159.01**	**96**			**PKPdf**	**00 09 12.8**	**-2.4**	
PETK	**Petropavlovsk-**	**159.04**	**261**		PKPab	**PKPab**	**00 09 51.4**	**-0.7**	
	comp=Z,4.5nm,0.8s,baz=131,slow=5.2,SNR=3.5								
SNY	**Shenyang**	**159.55**	**184**		PKP	**PKPdf**	**00 09 12.3**	**-3.9**	
SNY					PPMZ				
	comp=Z,340nm,8.5s								
YSS	**Yuzhno-Sakhali**	**160.64**	**227**	*i*	PKIKP	**PKPdf**	**00 09 18.8**	**+1.5**	
YSS					pmax	pmax			
	comp=Z,400nm,7.3s								
YSS					pmax	pmax			
	comp=Z,20nm,1.1s								
USRK	**Ussuriysk Ar.**	**161.00**	**203**		PKPab	**PKPab**	**00 10 00.3**	**-0.5**	
	comp=Z,14nm,0.7s,baz=183,slow=2.9,SNR=16								
XLT	**XiLinHaoTe**	**161.34**	**167**	*e*	PKP	**PKPdf**	**00 09 22.5**	**+4.2**	
XLT					PKPab	**PKPab**	**00 10 01.0**	**-1.4**	
XLT					SKKS		00 20 35.5		
XLT					PPMZ				
	comp=Z,330nm,6.7s								
XLT					L	L			
	comp=Z,930nm,14.9s								
XLT					L	L			
	comp=Z,8μm,15.2s								
XLT					L	L			
	comp=Z,8μm,20.7s								
CN2	**Changchun**	**161.43**	**188**		PKP	**PKPdf**	**00 09 18.2**	**-0.1**	
CN2				*e*	PP	**PP**	**00 13 47.8**	**+1.7**	
CN2					PPMZ				
	comp=Z,200nm,8.0s								
CN2					L	L			
	comp=Z,2μm,18.0s								
CN2					L	L			
	comp=Z,1μm,18.0s								
CN2					L	L			
	comp=Z,1μm,20.0s								
SONM	**Songino Array**	**163.15**	**142**		PKP	**PKPdf**	**00 09 19.1**	**-0.9**	
	comp=Z,1.5nm,0.8s,baz=198,slow=0.9,SNR=7.2								
SONM					PKPab	**PKPab**	**00 10 10.0**	**-0.3**	
	comp=Z,15nm,0.8s,baz=189,slow=6.5,SNR=33								
SONM	**Songino Array**	**163.15**	**142**			**PKPdf**	**00 09 19.7**	**-0.4**	
SONM						**PKPab**	**00 10 10.1**	**-0.2**	
BNX	**BinXian**	**163.18**	**194**	⇓	PKP	**PKPdf**	**00 09 21.4**	**+1.5**	
BNX					PP	**PP**	**00 13 56.8**	**+1.4**	
BNX					SS	SS	00 34 24.2	+4.4	
BNX					PPMZ				
	comp=Z,340nm,7.2s								
BNX					L	L			
	comp=Z,760nm,27.7s								
BNX					L	L			
	comp=Z,540nm,24.4s								
BNX					L	L			
	comp=Z,1μm,31.4s								
ULN	**Ulaanbaatar**	**163.37**	**143**		PKIKP	**PKPdf**	**00 09 19.3**	**-1.0**	
ULN							00 10 10.9		
ULN	**Ulaanbaatar**	**163.37**	**143**			**PKPdf**	**00 09 19.3**	**-1.0**	
ULN						**PKPab**	**00 10 10.9**	**-0.4**	
ULN	**Ulaanbaatar**	**163.37**	**143**		PKP	**PKPdf**	**00 09 26.6**	**+6.3**	
ZAK	**Zakamensk**	**164.36**	**131**	*e*	PKIKP	**PKPdf**	**00 09 19.7**	**-1.3**	
ZAK					pmax	pmax			
	comp=Z,11nm,1.9s								
NRIK	**Noril'sk**	**164.42**	**48**		PKPab	**PKPab**	**00 10 13.9**	**-1.3**	
	comp=Z,0.9nm,0.3s,baz=286,slow=4.1,SNR=3.9								
TLY	**Talaya**	**165.56**	**129**		PKIKP	**PKPdf**	**00 09 20.0**	**-1.9**	
TLY	**Talaya**	**165.56**	**129**			**PKPab**	**00 10 20.6**	**-0.2**	
KLR	**Kul'dur**	**165.87**	**207**		PKPab	**PKPab**	**00 10 21.6**	**-0.4**	
	comp=Z,17nm,0.9s,baz=159,slow=4.3,SNR=20								
IRK	**Irkutsk**	**166.25**	**129**	*e*	PKIKP	**PKPdf**	**00 09 18.8**	**-3.6**	
IRK				*e*			00 10 19.1		
IRK					pmax	pmax			
	comp=Z,78nm,2.2s								
HILR	**Hailar Array B**	**167.25**	**174**		PKPab	**PKPab**	**00 10 27.1**	**-1.1**	
	comp=Z,4.3nm,0.4s,baz=176,slow=4.0,SNR=2.0								
HEH	**HeiHe**	**167.62**	**197**		PKP	**PKPdf**	**00 09 23.2**	**-0.3**	
HEH					PKPab	**PKPab**	**00 10 28.3**	**-1.5**	
HEH					PP	**PP**	**00 14 17.2**	**-1.3**	
HEH					SKKS		00 21 04.2		
HEH					SS	**SS**	**00 35 04.8**	**-0.3**	
HEH					PPMZ				
	comp=Z,600nm,7.8s								
HEH					L	L			
	comp=Z,5μm,17.8s								
HEH					L	L			
	comp=Z,5μm,19.2s								
HEH					L	L			
	comp=Z,9μm,19.2s								
ZEA	**Zeya**	**171.03**	**201**	*e*	PKP2	**PKPab**	**00 10 44.2**	**-0.6**	
ZEA				*e*			00 14 32.8		
ZEA				*e*			00 35 40.4		
ZEA					pmax	pmax			
	comp=Z,10.0nm,0.9s								

*IDC **06** 23:54:00.9±0.9, 61.97S×57.10W, h0km, mb4.4/5, mbtmp4.3/6, ML3.9/1, Error ellipse: s-maj=29.4km s-min=19.5km az=116.0*

*NEIC **06** 23:54:02.8±2.5, 62.20S±0.10×58.13W±0.01, h10km±1km, mb4.6/4, Error ellipse: s-maj=16.6km s-min=3.1km az=352.0*

ISC 06 23:54:02.2±0.8, 62.10S±0.10×57.5W±0.1, h10km, n18, σ0s97/18, mb4.4/6, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ESPZ	**Base Esperanza**	**1.33**	**169**	Pn	**Pn**	**23 54 25.4**	**-1.3**
PMSA	**Palmer Station**	**3.97**	**225**	Pn	**Pn**	**23 55 03.4**	**+0.4**
	7.7nm,0.3s,baz=44,slow=13,SNR=1.7						
PMSA				Sn	**Sn**	**23 55 50.3**	**+0.9**
	7.0nm,0.3s,baz=347,slow=18,SNR=1.9						
	59nm,0.6s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.97**	**225**		**Pn**	**23 55 00.7**	**-2.2**
PLCA	**Paso Flores**	**22.80**	**334**	P	**P**	**23 59 05.6**	**+0.8**
	7.0nm,0.9s,baz=190,slow=11,SNR=3.3						
	7.0nm,0.9s						
GO06	**Curarrehue**	**24.09**	**333**	P	**P**	**23 59 17.6**	**-0.1**
MAW	**Mawson**	**43.62**	**151**	P	**P**	**00 02 07.0**	**+1.0**
	4.8nm,0.9s,baz=211,slow=5.9,SNR=2.4						
	4.8nm,0.9s						
MAW	**Mawson**	**43.62**	**151**	P	**P**	**00 02 07.4**	**+1.4**
LPAZ	**La Paz**	**46.37**	**346**	P	**P**	**00 02 28.4**	**-0.7**
	4.3nm,0.7s,baz=169,slow=8.5,SNR=3.9						
	4.3nm,0.7s						
LPAZ	**La Paz**	**46.37**	**346**	P	**P**	**00 02 28.5**	**-0.6**
LPAZ				IAmb	IAmb	00 02 29.5	
	comp=Z,7.0nm,0.9s						
ASAR	**Alice Springs**	**94.04**	**191**	P	**P**	**00 07 20.0**	**-0.5**
	comp=Z,1.2nm,0.9s,baz=177,slow=6.2,SNR=1.0						
	comp=Z,1.2nm,0.9s						
ASAR	**Alice Springs**	**94.04**	**191**	P	**P**	**00 07 19.4**	**-1.0**
AS31	**Alice Springs**	**94.04**	**191**	P	**P**	**00 07 21.1**	**+0.6**
AS31				IAmb	IAmb	00 07 38.5	
	comp=Z,2.8nm,1.2s						
WRA	**Warramunga Arr**	**97.69**	**191**	P	**P**	**00 07 36.8**	**-0.2**
	comp=Z,1.2nm,1.0s,baz=179,slow=5.4,SNR=1.2						
	comp=Z,1.2nm,1.0s						
ARCES	**ARCESS Array B**	**143.71**	**36**	PKP	PKPbc	00 13 33.0	-0.2
	comp=Z,4.8nm,0.9s,baz=228,slow=1.6,SNR=3.8						
AAK	**Ala-Archa**	**145.89**	**102**	PKPbc	**PKPbc**	**00 13 41.2**	**+0.2**
	comp=Z,3.3nm,0.8s,baz=162,slow=5.8,SNR=3.3						
AAK	**Ala-Archa**	**145.89**	**102**		**PKPbc**	**00 13 41.5**	**+0.6**
LZDM	**Lanzhou Array**	**151.31**	**147**	PKPbc	**PKPbc**	**00 13 55.9**	**+0.4**
	comp=Z,1.5nm,0.3s,baz=215,slow=1.8,SNR=2.2						
BVAR	**Borovoye Array**	**151.39**	**84**	PKPbc	**PKPbc**	**00 13 54.5**	**-0.2**
	comp=Z,2.0nm,0.5s,baz=214,slow=1.9,SNR=4.3						

*NDI **07** 00:16:42.1±4.8, 34.80N×71.04E, h333km±62km, ML4.2, MW4.1, Presumed earthquake*

*IDC **07** 00:16:49.9±3.5, 36.19N×71.12E, h216km±31km, mb3.5/14, mbtmp4.2/19, Error ellipse: s-maj=22.3km s-min=13.7km az=16.0*

*NEIC **07** 00:16:52.1±2.2, 36.42N±0.06×71.15E±0.03, h232km±8km, mb4.3/13, Error ellipse: s-maj=8.7km s-min=3.0km az=162.0*

*NNC **07** 00:16:57.4±2.1, 36.85N×71.04E, h236km±25km, mb3.4, mpv4.5, Error ellipse: s-maj=20.2km s-min=11.4km az=7.0*

ISC 07 00:16:52.8±0.4, 36.44N±0.04×71.14E±0.05, h250km, n122, σ2s18/136, mb3.9/15, 3C-6D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.55**	**223**	P	**Pn**	**00 17 39.0**	**-1.9**
	SNR=283						
KBL				S	**S**	**00 18 13.5**	**-5.2**
KBL	**Kabul**	**2.55**	**223**		**Pn**	**00 17 38.9**	**-2.0**
KBL				Sn	**S**	**00 18 14.4**	**-4.4**
DRK	**Karamyk**	**3.08**	**10**		**Pn**	**00 17 45.7**	**-0.7**
DRK				Sn	**S**	**00 18 24.0**	**-4.8**
NIL	**Nilore**	**3.28**	**147**	P	**Pn**	**00 17 47.5**	**-1.0**
NIL	**Nilore**	**3.28**	**147**		**Pn**	**00 17 47.5**	**-1.0**
NIL					S	**00 18 26.2**	**-6.4**
BTK	**Batken**	**3.62**	**356**		**Pn**	**00 17 52.3**	**+0.1**
SRNI	**Srinagar**	**3.83**	**127**	*i*	S	**S**	**00 18 35.2**	**-8.9**
SRNI					IAML		00 18 46.2	
	comp=N,2μm,0.7s						
KSH2	**Kashi**	**4.42**	**51**	P	**Pn**	**00 18 01.5**	**-0.2**
KSH2				Sn	**S**	**00 18 53.8**	**-2.7**
KSH2				smax	smax		
	comp=N,440nm,0.7s						
KSH2				smax	smax		
	comp=E,260nm,0.7s						
JMU	**Jammu**	**4.76**	**139**	*i*	S	S	00 18 42.6	-21
JMU					IAML		00 19 02.2	
	comp=N,513nm,0.2s						
ARSB	**Arslanbob**	**5.08**	**16**		**Pn**	**00 18 08.6**	**-1.0**
ARSB				Sn	**S**	**00 19 06.9**	**-4.0**
ALCI	**Alchi Leh**	**5.42**	**112**	*i*	S	S	00 19 09.0	-10
TSSA	**Tissa**	**5.48**	**130**	*i*	P	Pn	00 18 06.0	-8.7
TSSA				*i*	S	S	00 19 02.1	-18
TSSA					IAML		00 19 16.6	
	comp=N,603nm,0.6s						
IUG	**Iuzhnay**	**5.76**	**352**	*e*	P	**Pn**	**00 18 17.6**	**-0.4**
NRN	**Naryn**	**6.26**	**36**		**Pn**	**00 18 22.3**	**-2.1**
NRN				Sn	**S**	**00 19 32.9**	**-4.8**
UCH	**Uchtor**	**6.34**	**23**	P	**Pn**	**00 18 25.2**	**-0.3**
	SNR=297						
DZA	**Taraz**	**6.44**	**1**	*e*	P	**Pn**	**00 18 25.8**	**-0.5**
EKS2	**Erkin-Say**	**6.54**	**17**	P	P	**Pn**	**00 18 27.7**	**0.0**
	SNR=47						
BRLS	**Borolday**	**6.66**	**352**	*e*	P	**Pn**	**00 18 25.1**	**-3.9**
BHK	**Bhakra**	**6.66**	**138**	*i*	S	S	00 19 20.8	-26
KK31	**Karatay Array**	**6.67**	**356**	⇓	P	**Pn**	**00 18 28.5**	**-0.6**
	comp=N,14nm,0.4s,baz=180,slow=13,SNR=211							
KK31				⇓	S	**S**	**00 19 41.2**	**-5.3**
	comp=N,124nm,0.6s,baz=188,slow=20,SNR=35							
KK31	**Karatay Array**	**6.67**	**356**		**Pn**	**00 18 28.6**	**-0.6**
KK31				Sn	**S**	**00 19 41.0**	**-5.5**
KKAR	**Karatay Array**	**6.67**	**356**		**Pn**	**00 18 28.4**	**-0.7**
KKAR				Sn	**S**	**00 19 40.9**	**-5.6**
AAK	**Ala-Archa**	**6.71**	**22**	P	**Pn**	**00 18 29.9**	**+0.1**
	comp=N,34nm,0.4s,baz=194,slow=6.7,SNR=202						
AAK				S	S	00 19 37.5	-10
	comp=N,20nm,0.5s,baz=216,slow=13,SNR=5.1						
AAK	**Ala-Archa**	**6.71**	**22**	P	**Pn**	**00 18 29.8**	**-0.1**
	SNR=64						
AAK	**Ala-Archa**	**6.71**	**22**	⇓	P	**Pn**	**00 18 29.8**	**-0.1**
	comp=N,6.1nm,0.4s						
AAK				⇓	S	**S**	**00 19 44.7**	**-2.9**
	comp=N,24nm,0.7s						
AAK	**Ala-Archa**	**6.71**	**22**	P	**Pn**	**00 18 29.9**	**+0.1**
AAK				S	**S**	**00 19 39.4**	**-8.2**
AAK	**Ala-Archa**	**6.71**	**22**		**Pn**	**00 18 29.7**	**-0.1**
KBK	**Karagaybulak**	**6.87**	**24**	P	**Pn**	**00 18 32.0**	**+0.2**
	SNR=46						
FRU1	**Bishkek**	**6.91**	**22**		**Pn**	**00 18 32.1**	**-0.1**
FRU1				Sn	**S**	**00 19 49.6**	**-2.4**
ULHL	**Ulahol**	**7.01**	**33**	P	**Pn**	**00 18 33.0**	**-0.7**
	SNR=22						
CHMS	**Chumysh**	**7.11**	**22**	P	**Pn**	**00 18 35.2**	**+0.4**
	SNR=22						
USP	**Ospenovka**	**7.29**	**20**	P	**Pn**	**00 18 37.4**	**+0.3**
	SNR=23						
SMLA	**Simla**	**7.30**	**135**	*i*	P	Pn	00 18 24.2	-13
SMLA				*i*	S	S	00 19 40.1	-21
TKM2	**Tokmak 2**	**7.33**	**27**	P		**Pn**	**00 18 37.6**	**0.0**
	SNR=17							
HRA	**Herat**	**7.54**	**257**			**Pn**	**00 18 39.5**	**-1.0**
WUS	**Wushi**	**7.89**	**51**			**Pn**	**00 18 44.0**	**-0.8**
TNSS	**Tian-Shan**	**7.96**	**32**	*e*	P	**Pn**	**00 18 45.3**	**-0.5**
AAA	**Alma-Ata**	**8.09**	**32**	*e*	P	**Pn**	**00 18 47.1**	**-0.1**
MDOK	**Medeo**	**8.11**	**32**	*e*	P	**Pn**	**00 18 47.1**	**-0.3**
KNDC	**Almaty**	**8.11**	**32**	⇓	P	**Pn**	**00 18 47.8**	**+0.3**
	comp=N,65nm,0.7s							
KNDC				⇑	S	**S**	**00 20 17.1**	**-2.8**
	comp=N,14nm,0.4s							
PRZ	**Przheval'sk**	**8.24**	**41**			**Pn**	**00 18 48.1**	**-1.1**
UTK	**UTTARKASHI**	**8.34**	**131**	*i*	P	Pn	00 18 36.3	-14
UTK				*i*	S	S	00 20 02.0	-24
SATY	**Saty**	**8.66**	**38**	*e*	P	**Pn**	**00 18 54.8**	**+0.4**
UZB	**Uzynbulak**	**9.03**	**40**	*e*	P	**Pn**	**00 18 59.6**	**+0.4**
KPKS	**Kokpek**	**9.09**	**37**	*e*	P	**Pn**	**00 18 59.8**	**-0.1**
JOSI	**Joshimath**	**9.16**	**127**	*i*	P	Pn	00 18 50.9	-10
SHLS	**Shalkode**	**9.27**	**41**	*e*	P	**P**	**00 19 05.6**	**-3.4**
NDI	**New Delhi**	**9.28**	**145**	*i*	P	Pn	00 18 43.5	-19
PDGK	**Podgornoye**	**9.40**	**40**			**Pn**	**00 19 03.0**	**-0.9**
TDK	**Taldyqorghan**	**10.17**	**31**	*e*	P	**Pn**	**00 19 13.8**	**+0.4**
PTH	**Pithoragarh**	**10.23**	**129**	*i*	P	Pn	00 19 04.8	-10
MAKZ	**Makanchi**	**13.14**	**35**			**Pn**	**00 19 49.9**	**-0.3**
MK31	**Makanchi Array**	**13.27**	**35**	⇑	P	**P**	**00 19 53.4**	**+0.1**
	comp=N,13nm,0.6s,baz=219,slow=14,SNR=29							
MKAR	**Makanchi Array**	**13.27**	**35**	P		**P**	**00 19 52.1**	**-1.2**
	comp=N,1.7nm,0.4s,baz=205,slow=10,SNR=17							
MKAR	**Makanchi Array**	**13.27**	**35**	Pn		**Pn**	**00 19 51.7**	**-0.2**
WMQ	**Urumqi**	**14.64**	**55**	*e*	P	**Pn**	**00 20 10.5**	**+1.9**
ZSN	**Zaisan**	**14.98**	**39**	*e*	P	**Pn**	**00 20 14.2**	**+1.5**
KURBB	**Kurchatov Arra**	**15.14**	**18**	P		**Pn**	**00 20 14.1**	**-0.4**
	comp=N,3.6nm,0.6s,baz=207,slow=11,SNR=16							
AB31	**Akbulak array**	**15.19**	**331**	⇑	P	**Pn**	**00 20 14.8**	**-0.2**
	comp=N,13nm,0.9s,baz=142,slow=12,SNR=51							
AB31	**Akbulak array**	**15.19**	**331**			**Pn**	**00 20 14.7**	**-0.3**
AB31					IAmb	IAmb	00 20 18.4	
	comp=Z,11nm,0.8s						
ABKAR	**Akbulak array**	**15.19**	**331**			**P**	**00 20 14.2**	**-0.2**
KURK	**Kurchatov**	**15.25**	**18**	P		**P**	**00 20 14.8**	**-0.3**
SEM	**Semipalatinsk**	**15.43**	**22**	*e*	P	**Pn**	**00 20 18.4**	**+0.2**
EVN	**Everest**	**15.72**	**118**			**Pn**	**00 20 22.4**	**+0.1**
EVN					IAmb	IAmb	00 20 23.2	
	comp=Z,12nm,0.7s						
BANOM	**Banah**	**16.45**	**235**	P		**Pn**	**00 20 28.9**	**-1.4**
BVAR	**Borovoye Array**	**16.59**	**358**	P		**Pn**	**00 20 31.9**	**+0.3**
	comp=Z,11nm,0.5s,baz=150,slow=11,SNR=47							
BORK	**Borovoye**	**16.61**	**358**			**Pn**	**00 20 31.4**	**-0.4**
BORK					IAmb	IAmb	00 20 35.8	
	comp=Z,11nm,0.6s						
MDH	**Madha**	**16.88**	**233**	P		**Pn**	**00 20 34.2**	**-1.0**
AKTO	**Aktyubinsk**	**16.89**	**330**	P		**Pn**	**00 20 35.2**	**+0.1**
	comp=Z,36nm,0.7s,baz=140,slow=9.0,SNR=59							
AKTO					S	**S**	**00 23 34.6**	**-1.5**
	comp=Z,1.7nm,0.7s,baz=9.4,slow=20,SNR=1.7							
AKTO	**Aktyubinsk**	**16.89**	**330**	⇓	P	**Pn**	**00 20 34.9**	**-0.1**
	comp=Z,23nm,0.7s							
MASF	**Masafi**	**16.92**	**233**	P		**Pn**	**00 20 35.4**	**-0.4**
	SNR=5.3							
WSAR	**Wadi Sarin**	**17.03**	**223**	P		**Pn**	**00 20 36.1**	**-0.9**
UOSS	**Minazif**	**17.19**	**232**	P		**P**	**00 20 36.8**	**+0.1**
UOSS	**Minazif**	**17.19**	**232**			**P**	**00 20 35.9**	**-0.7**
UOSS					IAmb	IAmb	00 20 38.8	
	comp=Z,6.3nm,0.7s						
HATD	**Hatta, Dubai**	**17.32**	**232**	P		**P**	**00 20 37.8**	**-0.3**
WBK	**Wadi Bani Khal**	**17.36**	**221**	P		**Pn**	**00 20 39.1**	**-1.9**
ASHO	**Ashiyiah**	**17.47**	**232**	P		**Pn**	**00 20 41.0**	**-1.2**
	SNR=5.2							
SMDO	**Samad**	**17.50**	**224**	P		**P**	**00 20 38.8**	**-1.3**
NAZ	**Nazwa, Dubai**	**17.51**	**234**	P		**P**	**00 20 39.7**	**-0.4**
JLN	**Jalan Bani Buh**	**17.51**	**219**	P		**Pn**	**00 20 41.5**	**-1.2**
HOQ	**Hoqain**	**17.51**	**227**	P		**P**	**00 20 40.3**	**+0.1**
JMDO	**Jabal Madar**	**18.02**	**222**	P		**Pn**	**00 20 47.3**	**-1.4**
ALNE	**Al Ain**	**18.11**	**231**	P		**Pn**	**00 20 47.8**	**-2.0**
ARQ	**Araqi**	**18.17**	**228**	P		**Pn**	**00 20 48.6**	**-1.8**
BSY	**Bisya**	**18.23**	**225**	P		**Pn**	**00 20 49.1**	**-2.0**
AJN	**Ajban**	**18.24**	**234**	P		**P**	**00 20 46.7**	**-1.3**
MHTO	**MHTO**	**19.22**	**220**	P		**Pn**	**00 21 00.3**	**-2.4**
UMZA	**Um Al Zommool**	**19.46**	**230**	P		**P**	**00 21 01.7**	**+0.6**
ZAA0	**Zalesovo Array**	**19.92**	**24**			**P**	**00 21 05.8**	**+0.1**
ZALV	**Zalesovo Beam**	**19.92**	**24**	P		**P**	**00 21 06.8**	**+1.1**
	comp=Z,2.7nm,0.4s,baz=216,slow=11,SNR=16							
	comp=Z,2.7nm,0.4s						
ZALV	**Zalesovo Beam**	**19.92**	**24**			**P**	**00 21 05.4

ASAR	**Alice Springs**	**84.13**	**125**	P		**P**	**00 28 56.6**	**+0.7**
	comp=Z,1.5nm,0.6s,baz=311,slow=5.0,SNR=15							
	comp=Z,1.5nm,0.6s							
ASAR	**Alice Springs**	**84.13**	**125**	P		**P**	**00 28 56.9**	**+0.9**

*IDC **07** 00:23:27.2±0.6,28˚.19N×104˚.78E,h0km,mb4.2/21, mbtmp4.1/24,ML4.4/3,Error ellipse: s-maj=17.3km s-min=13.3km az=61.0*
*NEIC **07** 00:23:29.7±1.4,28˚.2N±0˚.1×104˚.8E±0˚.1,h10km±1km, mb4.4/13,Error ellipse: s-maj=21.8km s-min=17.8km az=66.0*
*BJI **07** 00:23:29.2,28˚.18N×104˚.74E,h8km,mb4.3/22,ML4.0/18, Ms3.8/8,Ms7 3.6/7*

ISC 07 00:23:29.1±0.4,28˚25N±0˚.04×104˚79E±0˚.05,h10km,n63, σ1s50/75,mb4.3/32,Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GYA	**Guiyang**	**2.44**	**136**	Pn	**Pn**	**00 24 11.0**	**+1.8**
GYA				Pg	**Pb**	**00 24 15.1**	**+1.8**
GYA				Sn	**Sn**	**00 24 40.8**	**+1.6**
GYA				AML	AML		
	1μm,0.7s						
GYA				AML	AML		
	560nm,1.0s						
CD2	**Chengdu**	**2.80**	**342**	Pn	**Pn**	**00 24 16.9**	**+2.9**
CD2				Pg	**Pg**	**00 24 23.0**	**+0.2**
CD2				Sn	**Sb**	**00 24 52.0**	**-1.6**
CD2				Sg	**Sg**	**00 25 01.3**	**+2.2**
CD2				AML	AML		
	2μm,0.7s						
CD2				AML	AML		
	4μm,0.9s						
PZH	**PanZhiHua**	**3.22**	**238**	Pg	**Pn**	**00 24 23.0**	**+3.1**
PZH				Sg	**Sg**	**00 25 11.8**	**-0.8**
PZH				AML	AML		
	130nm,1.0s						
PZH				AML	AML		
	130nm,1.0s						
KMI2	**Kunming**	**3.59**	**211**	Pn	**Pn**	**00 24 29.1**	**+4.0**
KMI2				Sn	**Sb**	**00 25 12.3**	**-4.2**
KMI2				AML	AML		
	61nm,1.3s						
KMI2				AML	AML		
	53nm,2.2s						
KMI2				L	L		
	comp=E,530nm,5.2s						
XAN	**Xi'an**	**6.77**	**31**	Pn	**Pn**	**00 25 11.4**	**+2.8**
XAN				Sn	**Sn**	**00 26 28.0**	**+2.2**
XAN				Sg	**Sg**	**00 27 05.1**	**-1.4**
XAN				AML	AML		
	370nm,1.1s						
XAN				AML	AML		
	280nm,1.0s						
LZDM	**Lanzhou Array**	**7.74**	**353**	Pn	**Pn**	**00 25 24.1**	**+1.9**
	baz=170,slow=10 4.6nm,0.3s						
LZH	**Lanzhou**	**7.86**	**354**	P	**Pn**	**00 25 26.0**	**+2.4**
LZH				S	**Sn**	**00 26 52.6**	**-0.1**
LZH				AML	AML		
	90nm,1.9s						
LZH				AML	AML		
	140nm,1.8s						
WHN	**Wuhan**	**8.65**	**72**	P	**Pn**	**00 25 36.9**	**+2.5**
WHN				S	**Sn**	**00 27 09.2**	**-2.8**
GZH2	**Guangzhou**	**9.20**	**118**	P	**Pn**	**00 25 43.1**	**+1.2**
GZH2				S	**Sn**	**00 27 26.9**	**+1.4**
GZH2				SMN			
	130nm,0.9s						
GZH2				SME			
	100nm,1.2s						
CMAR	**Chiang Mai Arr**	**11.12**	**210**	Pn	**Pn**	**00 26 09.9**	**+1.5**
	0.9nm,0.3s,baz=20,slow=11,SNR=11 1.0nm,0.3s						
CMAR				AML	AML		
NJ2	**Nanjing**	**12.75**	**69**	*e*P	**Pn**	**00 26 27.1**	**-3.4**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC	**Hu-ho-hao-te**	**13.75**	**22**	*e*P	**Pn**	**00 26 42.3**	**-1.9**
HHC				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,330nm,6.0s						
EVN	**Everest**	**15.86**	**273**		**Pn**	**00 27 12.4**	**-0.8**
SONM	**Songino Array**	**19.59**	**3**	P	**P**	**00 27 58.6**	**+1.1**
	comp=Z,0.7nm,0.3s,baz=185,slow=12,SNR=15 comp=Z,2.0nm,0.5s						
SONM				AML	AML		
SONM	**Songino Array**	**19.59**	**3**	P	**P**	**00 27 57.7**	**+0.2**
WMQ	**Urumqi**	**20.73**	**323**	*e*P	Pn	00 28 14.0	+1.8
WMQ				pP	sP	00 28 17.7	+3.4
WMQ				sP	pP	00 28 21.0	+8.1
WMQ				pmax	pmax		
	comp=Z,12nm,0.8s						
WMQ				L	L		
	comp=Z,280nm,24.0s						
KSRS	**Korea Array**	**21.45**	**59**	P	**P**	**00 28 17.9**	**+0.4**
	comp=Z,1.5nm,0.4s,baz=244,slow=11,SNR=5.7 comp=Z,1.5nm,0.4s						
CN2	**Changchun**	**22.71**	**41**	*e*P	**P**	**00 28 29.0**	**-2.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
JNU	**Nakatsue**	**22.93**	**71**	P	**P**	**00 28 34.1**	**+0.6**
	comp=Z,7.3nm,0.7s,baz=225,slow=5.6,SNR=4.7 comp=Z,7.3nm,0.7s						
PDGK	**Podgornoye**	**25.31**	**313**		**P**	**00 28 57.0**	**+0.9**
MKAR	**Makanchi Array**	**25.56**	**322**	P	**P**	**00 28 58.9**	**+0.7**
	comp=Z,9.0nm,0.8s,baz=122,slow=12,SNR=27 comp=Z,9.0nm,0.8s						
MKAR	**Makanchi Array**	**25.56**	**322**		**P**	**00 28 58.6**	**+0.5**
MAKZ	**Makanchi**	**25.74**	**322**		**P**	**00 28 59.9**	**+0.1**
MAKZ				IAmb	IAmb	00 29 04.8	
	comp=Z,6.0nm,0.8s						
KSH2	**Kashi**	**26.52**	**302**	P	**P**	**00 29 09.2**	**+2.1**
KSH2				pP	sP	00 29 13.0	+1.3
KSH2				pmax	pmax		
	comp=Z,2.0nm,1.0s						
NRN	**Naryn**	**26.90**	**307**	P	**P**	**00 29 12.8**	**+2.1**
NRN				IAmb	IAmb	00 29 18.4	
	comp=Z,3.8nm,0.9s						
USRK	**Ussuriysk Ar.**	**26.94**	**47**	P	**P**	**00 29 10.8**	**+0.2**
	comp=Z,4.5nm,0.7s,baz=240,slow=11,SNR=8.5 comp=Z,4.5nm,0.7s						
USRK	**Ussuriysk Ar.**	**26.94**	**47**	P	**P**	**00 29 10.5**	**-0.1**
ZALV	**Zalesovo Beam**	**29.55**	**336**	P	**P**	**00 29 34.1**	**+0.3**
	comp=Z,1.7nm,0.5s,baz=133,slow=8.4,SNR=9.5 comp=Z,1.7nm,0.5s						
KURBB	**Kurchatov Arra**	**29.89**	**326**	P	**P**	**00 29 37.7**	**+0.8**
	comp=Z,7.4nm,0.8s,baz=132,slow=9.4,SNR=42 comp=Z,7.4nm,0.8s						
KURK	**Kurchatov**	**29.91**	**326**		**P**	**00 29 36.8**	**-0.2**
KURK				IAmb	IAmb	00 29 40.7	
	comp=Z,7.8nm,0.8s						
BVAR	**Borovoye Array**	**35.42**	**324**	P	**P**	**00 30 25.2**	**0.0**
	comp=Z,1.5nm,0.6s,baz=106,slow=9.1,SNR=6.0						
BVAR				PcP	**PcP**	**00 32 53.1**	**-1.7**
	comp=Z,0.9nm,0.6s,baz=99,slow=4.2,SNR=4.0 comp=Z,1.5nm,0.6s						
AB31	**Akbulak array**	**40.05**	**314**	P	**P**	**00 31 05.2**	**+0.9**
AKTO	**Aktyubinsk**	**41.55**	**315**	P	**P**	**00 31 16.7**	**0.0**
	comp=Z,2.1nm,1.0s,baz=95,slow=7.7,SNR=4.2 comp=Z,2.1nm,1.0s						
NRIK	**Noril'sk**	**42.33**	**351**	P	**P**	**00 31 23.1**	**+0.2**
	comp=Z,3.3nm,0.5s,baz=139,slow=7.5,SNR=4.8 comp=Z,3.3nm,0.5s						
NRIK	**Noril'sk**	**42.33**	**351**	P	**P**	**00 31 23.3**	**+0.5**
NRIK				IAmb	IAmb	00 31 26.7	
	comp=Z,4.5nm,0.8s						
ARTI	**Arti**	**43.14**	**324**	P	**P**	**00 31 29.6**	**0.0**
	comp=Z,1.7nm,0.6s,baz=149,slow=7.8,SNR=3.7 comp=Z,1.7nm,0.6s						
TIXI	**Tiksi**	**45.43**	**10**	P	**P**	**00 31 47.1**	**-0.6**
TIXI				IAmb	IAmb	00 31 48.6	
	comp=Z,5.0nm,0.7s						
KIV	**Kislovodsk**	**51.41**	**305**	P	**P**	**00 32 35.3**	**+1.0**
GURO	**Guroymak-BITLI**	**52.49**	**299**	P	**P**	**00 32 42.0**	**-0.5**
WRA	**Warramunga Arr**	**55.78**	**146**	P	**P**	**00 33 05.7**	**-0.9**
	comp=Z,2.1nm,0.8s,baz=334,slow=8.5,SNR=13 comp=Z,2.1nm,0.8s						
BR131	**Keskin Array S**	**58.70**	**301**	P	**P**	**00 33 26.7**	**-0.5**
BR131				IAmb	IAmb	00 33 33.3	
	comp=Z,3.8nm,1.1s						
BRTR	**Keskin Array B**	**58.70**	**301**	P	**P**	**00 33 27.2**	**0.0**
	comp=Z,1.7nm,0.9s,baz=132,slow=8.2,SNR=6.7 comp=Z,1.7nm,0.9s						
BRTR	**Keskin Array B**	**58.70**	**301**	P	**P**	**00 33 26.9**	**-0.3**
ASAR	**Alice Springs**	**58.75**	**149**	P	**P**	**00 33 26.8**	**-0.8**
	comp=Z,1.5nm,0.8s,baz=326,slow=6.6,SNR=14 comp=Z,1.5nm,0.8s						
ASAR	**Alice Springs**	**58.75**	**149**	P	**P**	**00 33 28.1**	**+0.6**
AKASG	**Malin Array Be**	**59.78**	**315**	P	**P**	**00 33 33.9**	**-0.5**
	comp=Z,0.7nm,0.4s,baz=69,slow=7.1,SNR=4.8 comp=Z,0.7nm,0.4s						
ARCES	**ARCESS Array B**	**60.10**	**337**	P	**P**	**00 33 35.2**	**-1.0**
	comp=Z,4.2nm,0.8s,baz=74,slow=5.9,SNR=1.8 comp=Z,4.2nm,0.8s						
FINES	**FINESS Array B**	**60.27**	**327**	P	**P**	**00 33 35.8**	**-1.7**
	comp=Z,4.7nm,1.0s,baz=82,slow=10,SNR=5.5 comp=Z,4.7nm,1.0s						
HFS	**Hagfors**	**66.47**	**327**	P	**P**	**00 34 18.4**	**-0.2**
	comp=Z,1.8nm,0.7s,baz=98,slow=7.4,SNR=2.7 comp=Z,1.8nm,0.7s						
MORC	**Moravsky Berou**	**67.29**	**315**	*e*P	**P**	**00 34 24.0**	**-0.1**
NB2	**NORSAR Subarra**	**67.38**	**328**	P	**P**	**00 34 24.5**	**+0.1**
	comp=Z,0.7nm,0.7s,baz=73,slow=6.9						
NOA	**NORSAR Array B**	**67.38**	**328**	P	**P**	**00 34 24.1**	**-0.4**
	comp=Z,0.9nm,0.7s,baz=74,slow=6.5,SNR=4.2 comp=Z,0.9nm,0.7s						
NC204	**NORSAR Array S**	**67.52**	**329**	P	**P**	**00 34 24.7**	**-0.6**
VRAC	**Vranov**	**68.03**	**315**	*e*P	**P**	**00 34 27.8**	**-0.9**
CONA	**Conrad Observa**	**68.92**	**314**	*e*P	**P**	**00 34 34.2**	**-0.2**
	comp=Z,3.2nm,1.2s						
GERES	**GERESS Array B**	**69.97**	**315**	P	**P**	**00 34 41.1**	**+0.2**
	comp=Z,1.2nm,0.7s,baz=68,slow=5.5,SNR=14 comp=Z,1.2nm,0.7s						
GERES	**GERESS Array B**	**69.97**	**315**	P	**P**	**00 34 40.6**	**-0.3**
OBKA	**Obir**	**70.25**	**313**	*e*P	**P**	**00 34 43.4**	**+0.8**
	comp=Z,6.2nm,1.8s						
WTTA	**Wattenberg**	**71.84**	**314**	*e*P	**P**	**00 34 52.3**	**0.0**
	comp=Z,1.9nm,0.5s						
WATA	**Walderalm**	**71.85**	**314**	*e*P	**P**	**00 34 52.0**	**-0.3**
	comp=Z,2.0nm,0.8s						
MOTA	**Moosalm**	**72.14**	**315**	*e*P	**P**	**00 34 53.7**	**-0.5**
	comp=Z,3.3nm,1.2s						
ILAR	**Eielson Array**	**72.15**	**25**	P	**P**	**00 34 52.7**	**-1.0**
	comp=Z,0.3nm,0.6s,baz=294,slow=4.2,SNR=4.6 comp=Z,0.3nm,0.6s						
YKA	**Yellowknife Ar**	**84.23**	**17**	P	**P**	**00 35 59.9**	**-0.7**
	comp=Z,1.6nm,0.9s,baz=319,slow=5.7,SNR=2.0 comp=Z,1.6nm,0.9s						

*CNRM **07** 00:51:47.4,35˚.76N×10˚.37W,h20km,ML3.2*
*MDD **07** 00:51:50.0±1.1,35˚.97N×10˚.46W,h24km±14km, mb_Lg2.9/7,Error ellipse: s-maj=14.9km s-min=5.8km az=79.0*
*INMG **07** 00:51:51.5±1.5,36˚.00N×10˚.52W,h44km±105km,ML1.9, Error ellipse: s-maj=8.2km s-min=6.7km az=111.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
*IGIL **07** 00:51:51.4,36˚.02N×10˚.53W,h40km,ML1.7*

ISC 07 00:51:47.9±1.2,35˚90N±0˚.04×10˚49W±0˚.08,h69km±35km, n46,σ1s38/63,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.82**	**47**	Pn	**Pn**	**00 52 18.4**	**+1.4**
PFVI				Sn	**Sn**	**00 52 38.6**	**-0.6**
PFVI	**Vila Bisbo**	**1.82**	**47**	P	**Pn**	**00 52 18.5**	**+1.4**
PFVI				S	**Sn**	**00 52 40.2**	**+1.0**
PFVI	**Vila Bisbo**	**1.82**	**47**	*e*P	**Pn**	**00 52 18.4**	**+1.4**
PFVI				*e*S	**Sn**	**00 52 38.6**	**-0.6**
PFVI				IAML		00 52 39.1	
PFVI				IAML		00 52 39.2	
PFVI				IAML		00 52 39.3	
MORF	**Marmelete**	**2.04**	**46**	*e*P	**Pn**	**00 52 21.5**	**+1.4**
MORF				*e*S	**Sn**	**00 52 43.8**	**-0.7**
MORF				IAML		00 52 44.8	
	comp=E,18nm,0.1s						
MORF	**Marmelete**	**2.04**	**46**	*e*P	**Pn**	**00 52 21.5**	**+1.4**
MORF				*e*S	**Sn**	**00 52 44.2**	**-0.4**
MORF				IAML		00 52 44.6	
MORF				IAML		00 52 44.8	
MORF				IAML		00 52 46.0	
PTEO	**Sao Teotonio**	**2.17**	**40**	*e*P	**Pn**	**00 52 23.2**	**+1.4**
PTEO				*e*S	**Sn**	**00 52 47.3**	**-0.4**
PTEO				IAML		00 52 48.0	
PTEO				IAML		00 52 49.5	
PTEO				IAML		00 52 49.8	
PBDV	**Barranco-do-Ve**	**2.46**	**56**	Sn	**Sn**	**00 52 53.9**	**-0.8**
PBDV	**Barranco-do-Ve**	**2.46**	**56**	*e*P	Pn	00 52 25.0	-0.8
PBDV				*e*S	**Sn**	**00 52 54.1**	**-0.6**
PBDV				IAML		00 52 54.6	
PBDV				IAML		00 52 56.6	
PBDV				IAML		00 52 56.7	
PCVE	**Castro Verde**	**2.62**	**48**	Pn	**Pn**	**00 52 29.7**	**+1.8**
PCVE				Sn	**Sn**	**00 52 57.5**	**-1.1**
PCVE	**Castro Verde**	**2.62**	**48**	*e*P	**Pn**	**00 52 30.2**	**+2.3**
PCVE				*e*S	**Sn**	**00 52 58.8**	**+0.2**
PCVE				IAML		00 52 60.0	
PCVE				IAML		00 52 60.0	
PCVE				IAML		00 53 00.2	
MESJ	**Messejana**	**2.66**	**42**	*e*P	**Pn**	**00 52 29.3**	**+1.4**
MESJ				*e*S	**Sn**	**00 52 58.2**	**-1.4**
MESJ				IAML		00 52 59.6	
	comp=E,0.9nm,0.1s						
MESJ	**Messejana**	**2.66**	**42**	*e*P	**Pn**	**00 52 30.0**	**+1.6**
MESJ				*e*S	**Sn**	**00 52 58.6**	**-1.0**
PVAQ	**Vaqueiros**	**2.69**	**55**	P	**Pn**	**00 52 30.2**	**+1.4**
PVAQ				S	**Sn**	**00 53 01.4**	**+1.2**
PVAQ	**Vaqueiros**	**2.69**	**55**	*e*P	**Pn**	**00 52 30.7**	**+1.9**
PVAQ				*e*S	**Sn**	**00 52 59.5**	**-0.7**
PVAQ				IAML		00 53 00.7	
PVAQ				IAML		00 53 00.7	
PVAQ				IAML		00 53 00.9	
PLOUS	**Minas do Lousa**	**2.70**	**37**	*e*P	**Pn**	**00 52 31.2**	**+2.2**
PLOUS				*e*S	**Sn**	**00 52 59.0**	**-1.4**
PLOUS				IAML		00 52 59.4	
PLOUS				IAML		00 53 00.2	
PLOUS				IAML		00 53 01.8	
EGRO	**El Granado**	**2.91**	**55**	Sn	**Sn**	**00 53 04.5**	**-1.3**
EGRO	**El Granado**	**2.91**	**55**	Pn	**Pn**	**00 52 33.0**	**+1.1**
EGRO				Sn	**Sn**	**00 53 05.1**	**-0.7**
EGRO				IVmb_Lg		00 53 07.3	
PBEJ	**Beja**	**2.99**	**44**	*e*S	**Sn**	**00 53 06.4**	**-1.2**
PBEJ				IAML		00 53 07.4	
PBEJ				IAML		00 53 07.7	
PBEJ				IAML		00 53 08.2	
PMAFR	**Mafra**	**3.20**	**17**	Pn	**Pn**	**00 52 35.7**	**-0.1**
PMAFR				Sn	**Sn**	**00 53 09.9**	**-2.9**
PMAFR	**Mafra**	**3.20**	**17**	*e*P	**Pn**	**00 52 36.1**	**+0.3**
PMAFR				*e*S	**Sn**	**00 53 10.9**	**-1.9**
EVO	**Evora**	**3.29**	**36**	Pn	**Pn**	**00 52 39.0**	**+2.0**
EVO				Sn	Sn	00 53 12.3	-2.7
EVO	**Evora**	**3.29**	**36**	*e*P	**Pn**	**00 52 38.0**	**+1.0**
EVO				*e*S	**Sn**	**00 53 13.1**	**-1.9**
EVO				IAML		00 53 13.6	
EVO				IAML		00 53 14.2	
EVO				IAML		00 53 14.9	
PARRA	**Arraiolos**	**3.50**	**33**	*e*P	**Pn**	**00 52 41.2**	**+1.2**
PARRA				*e*S	**Sn**	**00 53 18.8**	**-1.5**
PARRA				IAML		00 53 20.1	
PARRA				IAML		00 53 21.0	
PARRA				IAML		00 53 22.0	
PBAR	**Barrancos**	**3.57**	**49**	Pn	**Pn**	**00 52 42.4**	**+1.5**
PBAR				Sn	**Sn**	**00 53 20.9**	**-1.0**
PBAR	**Barrancos**	**3.57**	**49**	*e*S	**Sn**	**00 53 21.5**	**-0.5**
PBAR				IAML		00 53 22.0	
PBAR				IAML		00 53 22.5	
EMIN	**Mina Concepcio**	**3.58**	**57**	Pn	**Pn**	**00 52 42.0**	**+1.0**
EMIN				Sn	Sn	00 53 20.4	-1.8
PMTG	**Montargil**	**3.64**	**29**	*e*P	**Pn**	**00 52 42.6**	**+0.8**
PMTG				*e*S	Sn	00 53 20.9	-2.6
PMTG				IAML		00 53 22.4	
PMTG				IAML		00 53 22.5	
PMTG				IAML		00 53 22.8	
PESTR	**Estremoz**	**3.76**	**37**	Sn	Sn	00 53 23.5	-2.9
PESTR	**Estremoz**	**3.76**	**37**	*e*S	**Sn**	**00 53 24.4**	**-2.0**
PSBE	**So Bento**	**3.85**	**20**	*e*S	**Sn**	**00 53 27.6**	**-1.2**
ESPR	**Espera**	**3.86**	**74**	Pn	**Pn**	**00 52 46.5**	**+1.7**
ESPR				Sn	**Sn**	**00 53 28.5**	**-0.4**
ESPR				IVmb_Lg		00 53 30.7	
EBAD	**Badajoz**	**3.98**	**43**	Pn	**Pn**	**00 52 47.1**	**+0.8**
EBAD				Sn	Sn	00 53 29.7	-2.0
EBAD				IVmb_Lg		00 53 32.2	
PSARD	**Sardoal**	**4.13**	**26**	*e*P	**Pn**	**00 52 49.9**	**+1.4**
PSARD				*e*S	Sn	00 53 32.3	-3.2
PSARD				IAML		00 53 34.0	
PSARD				IAML		00 53 35.0	
PSARD				IAML		00 53 36.0	
PMRV	**Marv??o**	**4.30**	**34**	*e*P	**Pn**	**00 52 51.8**	**+1.0**
PMRV				*e*S	Sn	00 53 37.3	-2.4
PMRV				IAML		00 53 38.3	
PMRV				IAML		00 53 39.0	
ECAB	**El Cabril**	**4.60**	**60**	Sn	Sn	00 53 44.5	-2.6
ECAB	**El Cabril**	**4.60**	**60**	Pn	**Pn**	**00 52 56.8**	**+1.8**
ECAB				Sn	Sn	00 53 45.1	-2.1
ECAB				IVmb_Lg		00 53 47.3	
LCRM	**LCR**	**5.13**	**114**	P	**Pn**	**00 53 02.5**	**+0.2**
LCRM				S	**Sn**	**00 53 59.8**	**-0.5**
EADA	**Adamuz**	**5.24**	**63**	Sn	Sn	00 54 01.1	-1.8
EADA	**Adamuz**	**5.24**	**63**	Pn	**Pn**	**00 53 05.2**	**+1.4**
EADA				Sn	Sn	00 54 00.3	-2.6
EADA				IVmb_Lg		00 54 04.7	
TISM	**Timmit**	**5.36**	**140**	P	Pn	00 53 03.8	-1.5
TISM				S	**Sn**	**00 54 03.3**	**-2.3**
EPLA	**Plasencia**	**5.42**	**39**	Sn	Sn	00 54 05.3	-1.9
EPLA				IVmb_Lg		00 54 10.4	
CIBOR	**Castaar de Ib**	**5.48**	**46**	Sn	Sn	00 54 06.2	-2.4
TTIG	**Tnine Tigouga,**	**5.60**	**162**	P	Pn	00 53 06.5	-2.3
MD31	**MD31**	**5.62**	**121**	P	**Pn**	**00 53 10.8**	**+1.8**
MD31				S	**Sn**	**00 54 11.3**	**-0.9**
OUZM	**OUZ**	**5.87**	**147**	P	**Pn**	**00 53 11.2**	**-1.3**
OUZM				S	**Sn**	**00 54 16.7**	**-1.7**
EQES	**Quesada**	**6.24**	**70**	Sn	**Sn**	**00 54 26.9**	**-0.6**

*BJI **07** 01:10:27.5,25˚.60N×143˚.73E,h11km,mB6.0/52,mb5.6/94, Ms5.7/98,Ms7 5.5/97*
*IDC **07** 01:10:28.4±0.3,25˚.53N×143˚.63E,h0km,mb5.6/41, mbtmp5.6/48,ML4.8/7,MS5.3/83,Error ellipse: s-maj=10.2km s-min=6.6km az=80.0*
*MOS **07** 01:10:28.6±0.9,25˚.60N×143˚.56E,h10km,mb6.1/99, MS5.6/53,Error ellipse: s-maj=7.0km s-min=3.2km az=116.2*
*JMA **07** 01:10:30.7±0.1,25˚.7N±0˚.4×144˚.0E±0˚.8,h100km, MV5.9/24,MW5.8/24,IOTO ISLANDS REGION*
JMA Felt II J1 at IOTO ISLANDS REGION .
*NIED **07** 01:10:30.7,25˚.71N×143˚.95E,h100km,MW5.7,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁷Nm; Mrr-2.82; Mθθ-0.71; Mϕϕ3.52; Mrθ-1.44; Mθϕ-1.15; Mϕr-0.11; Fault plane solution: M₀3.72000×10¹⁷ NP1: ϕs11.00000°,δ50.00000°,λ-51.00000°. NP2:ϕs140.00000°, δ54.00000°,λ-126.00000°.*
*NEIC **07** 01:10:32.1±2.0,25˚.71N±0˚.04×143˚.61E±0˚.08,h16km±1km, mb6.1/658,Ms_20 5.7/582,Mww5.8/38 Error ellipse: s-maj=14.3km s-min=2.9km az=62.0*
*NEIC **07** 01:10:32.2,25˚.69N×143˚.63E,h18km*
*GFZ **07** 01:10:32.2,25˚.61N×143˚.65E,h20km,Mw5.8/66,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-5.20; Mθθ0.27; Mϕϕ4.92; Mrθ0.31; Mθϕ-0.97; Mϕr-1.79; Fault plane solution: M₀5.46942×10¹⁷ NP1: ϕs168.19035°,δ35.28965°,λ-90.75985°. NP2: ϕs349.12123°,δ54.71391°,λ-89.46224°. Principal axes: T 5.4291, Plg9.7124°, Azm78.7354°; N 0.0798, Plg0.4390°, Azm168.8106°; P -5.5089, Plg80.2775°, Azm261.3734°;*
*GFZ **07** 01:10:32.2±0.2,26˚N±1˚×14˚4E±˚,h21km±1km,M6.0/222, mB6.3/107,mb5.9/222,Mw(mB)6.0/107 Error ellipse: s-maj=3.6km s-min=3.0km az=94.0,confirmed*
*PTWC **07** 01:10:33,25˚.70N×143˚.70E,Mwp6.0/19,VOLCANO ISLANDS, JAPAN REGION*
*KEA **07** 01:10:33.5,25˚.70N×143˚.74E,h33km,mB5.4/3,Ms5.5/3*
*GCMT **07** 01:10:35.1±0.1,25˚.55N±0˚.01×143˚.70E,h19km, MW5.8/163,Moment Tensor Solution. s119,c231; s163,c466; Duration: 1s8 Moment tensor: Scale 10¹⁷ Nm; Mrr-5.01±.06; Mθθ-0.21±.04; Mϕϕ5.23±.05; Mrθ0.52±.11; Mθϕ-1.16±.03; Mϕr-1.41±.10; Best double couple: M₀5.45000×10¹⁷ NP1:ϕs171.00000°,δ37.00000°, λ-86.00000°. NP2:ϕs346.00000°,δ53.00000°, λ-93.00000°. Principal axes: T 5.6740, Plg8.0000°, Azm78.0000°; N -0.4390, Plg3.0000°, Azm348.0000°; P -5.2270, Plg82.0000°, Azm240.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*
*NEIC **07** 01:10:39.6,25˚.39N×143˚.63E,h20km,Moment Tensor Solution. Duration: 4s0 Moment tensor: Scale 10¹⁷Nm; Mrr-4.97; Mθθ-0.51; Mϕϕ5.48; Mrθ-0.12; Mθϕ-1.26; Mϕr-1.60; Fault plane solution: M₀5.62000×10¹⁷ NP1: ϕs162.80000°,δ37.24000°,λ-98.87000°. NP2: ϕs353.89000°,δ53.28000°,λ-83.32000°. Principal axes: T 5.9513, Plg8.0000°, Azm79.0000°; N -0.7253, Plg5.0000°, Azm170.0000°; P -5.2260, Plg80.0000°, Azm293.0000°;*

ISC 07 01:10:30.8±0.3,25˚58N±0˚.03×143˚63E±0˚.03,h14km±1km, h14km:pP-P,n2334,σ1s41/1993,mb6.0/761,MS5.7/434, 162C-200D,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**1.67**	**309**	⇓*e*P	**Pb**	**01 11 01.7**	**+0.3**
JHH2				A	A	01 11 01.7	
	comp=N,740nm,1.1s,comp=E,473nm,0.5s						
JHH2				⇓*e*S	**Sg**	**01 11 25.4**	**+0.7**
CBIJ	**Chichi jima**	**1.98**	**320**	⇓*e*P	**Pn**	**01 11 05.0**	**+1.0**
CBIJ				A	A	01 11 05.0	
	comp=N,297nm,1.5s,comp=E,409nm,1.9s						
CBIJ				⇓*e*S	**Sb**	**01 11 31.0**	**-0.4**
JCJ	**Chichijima**	**1.98**	**320**	Pn	**Pn**	**01 11 02.2**	**-1.8**
	comp=E,1μm,0.3s,baz=221,slow=2.6,SNR=618						
JCJ				Sn	**Sn**	**01 11 28.2**	**-0.6**
	comp=E,11μm,0.3s,baz=281,slow=23,SNR=6.8 comp=E,5μm,0.4s						
JCJ				AML	AML		
JAOM	**Aogashimamukai**	**7.64**	**335**	*e*P	**Pn**	**01 12 21.4**	**-0.4**
JAOM				A	A	01 12 21.4	
	comp=N,14nm,6.4s,comp=E,19nm,8.1s						
JAOM				*e*S	**Sn**	**01 13 47.8**	**-0.4**
JHCJ	**Hachijojimakas**	**8.18**	**337**	*e*P	**Pn**	**01 12 29.2**	**+0.2**
JHCJ				*e*S	**Sn**	**01 13 54.7**	**-6.6**
JHJ2	**Mitsune**	**8.20**	**337**	P	**Pn**	**01 12 28.3**	**-1.2**
	comp=E,779nm,0.7s						
JHJ2	**Mitsune**	**8.20**	**337**		**Pn**	**01 12 27.3**	**-2.2**
JHJ2	**Mitsune**	**8.20**	**337**	P	**Pn**	**01 12 28.7**	**-0.8**
JHJ2	**Mitsune**	**8.20**	**337**	⇑P	**Pn**	**

JMN **Monobe** **11.73 316** P **Pn** **01 13 20.3 +2.5**
comp=Z,315nm,1.1s
JMN **Monobe** **11.73 316** **Pn** **01 13 18.8 +1.0**
JMN **Monobe** **11.73 316** ⇑P **Pn** **01 13 20.9 +3.1**
JMN **Monobe** **11.73 316** P **Pn** **01 13 21.2 +3.4**
comp=Z,7μmcomp=Z,315nm,1.1s
MJAR **Matsushiro Arr** **11.87 338** Pn **Pn** **01 13 18.7 -0.9**
comp=Z,4.7nm,0.3s,baz=166,slow=12,SNR=206
MJAR Sn Sn 01 15 15.4 -17
comp=Z,1.6nm,0.3s,baz=159,slow=13,SNR=1.7
MJAR P3KP 01 50 12.0
comp=Z,1.9nm,0.7s,baz=284,slow=4.2,SNR=4.2
comp=Z,155nm,0.6s
MJAR AML AML
MJAR **Matsushiro Arr** **11.87 338** **Pn** **01 13 17.9 -1.8**
MAJO **Matsushiro** **11.87 338** P **Pn** **01 13 18.9 -0.7**
comp=Z,516nm,0.6s
MAJO **Matsushiro** **11.87 338** P **Pn** **01 13 19.0 -0.7**
MAJO **Matsushiro** **11.87 338** **Pn** **01 13 19.0 -0.6**
MAJO **Matsushiro** **11.87 338** P **Pn** **01 13 19.2 -0.5**
MAJO **Matsushiro** **11.87 338** ⇑P **Pn** **01 13 18.9 -0.7**
MAJO **Matsushiro** **11.87 338** P **Pn** **01 13 19.7 0.0**
MAJO **Matsushiro** **11.87 338** P **Pn** **01 13 19.5 -0.2**
comp=Z,6μmcomp=Z,516nm,0.6s
MJB9 **Matsu-Tunnel** **11.87 338** **Pn** **01 13 20.0 +0.2**
MJB9 **Matsu-Tunnel** **11.87 338** P **Pn** **01 13 19.2 -0.5**
GUMO **Guam** **11.99 174** Pn **Pn** **01 13 21.5 +0.1**
comp=Z,22nm,0.3s,baz=157,slow=7.8,SNR=6.3
GUMO LR LR 01 17 40.3
comp=Z,7μm,19.7s,baz=24,slow=36
comp=Z,52nm,0.3s
GUMO AML AML
GUMO **Guam** **11.99 174** P **Pn** **01 13 22.3 +0.9**
GUMO **Guam** **11.99 174** P **Pn** **01 13 24.3 +2.9**
GUMO **Guam** **11.99 174** **Pn** **01 13 24.3 +2.9**
GUMO **Guam** **11.99 174** P **Pn** **01 13 25.5 +4.1**
GUMO **Guam** **11.99 174** P **Pn** **01 13 25.5 +4.1**
comp=Z,12μmcomp=Z,864nm,1.2s
JSU **Suzuyama** **12.99 300** P **Pn** **01 13 38.1 +3.0**
comp=Z,515nm,1.1s
JSU **Suzuyama** **12.99 300** **Pn** **01 13 33.3 -1.8**
JSU **Suzuyama** **12.99 300** ⇓P **Pn** **01 13 39.0 +3.9**
JNU **Nakatsue** **13.41 307** Pn **Pn** **01 13 41.9 +1.1**
comp=Z,1.2nm,0.3s,baz=113,slow=6.3,SNR=38
JNU LR LR 01 18 44.2
comp=Z,20μm,18.1s,baz=111,slow=37
comp=Z,100nm,0.9s
JNU AML AML
JOW **Kunigami** **13.84 279** Pn **Pn** **01 13 47.1 +0.5**
comp=Z,4.5nm,0.3s,baz=95,slow=15,SNR=16
JOW LR LR 01 18 53.8
comp=Z,6μm,19.0s,baz=67,slow=36
comp=Z,55nm,0.9s
JOW AML AML
JOW **Kunigami** **13.84 279** P **Pn** **01 13 48.1 +1.4**
comp=Z,368nm,1.1s
JOW **Kunigami** **13.84 279** **Pn** **01 13 47.9 +1.2**
JOW **Kunigami** **13.84 279** ⇑P **Pn** **01 13 48.0 +1.4**
JOW **Kunigami** **13.84 279** P **Pn** **01 13 48.8 +2.1**
comp=Z,5μmcomp=Z,367nm,1.1s
JTU **Tsushima** **15.19 309** P **Pn** **01 14 07.2 +2.2**
comp=Z,912nm,1.0s
JTU **Tsushima** **15.19 309** P **Pn** **01 14 06.8 +1.8**
JTU **Tsushima** **15.19 309** ⇓P **Pn** **01 14 07.3 +2.4**
JTM **Tenmabayashi** **15.31 353** P **Pn** **01 14 05.1 -1.4**
comp=Z,467nm,1.0s
JTM **Tenmabayashi** **15.31 353** **Pn** **01 14 04.9 -1.7**
JTM **Tenmabayashi** **15.31 353** P **Pn** **01 14 04.2 -2.3**
JTM **Tenmabayashi** **15.31 353** ⇑P **Pn** **01 14 04.4 -2.1**
JTM **Tenmabayashi** **15.31 353** P **Pn** **01 14 05.5 -1.1**
comp=Z,5μmcomp=Z,467nm,1.0s
ERM **Erimo** **16.39 359** P **Pn** **01 14 19.0 -1.5**
ERM **Erimo** **16.39 359** P **Pn** **01 14 17.8 -2.7**
ERM pmax pmax
comp=Z,125nm,0.9s
ERM **Erimo** **16.39 359** **Pn** **01 14 17.8 -2.7**
ERM **Erimo** **16.39 359** P **Pn** **01 14 17.9 -2.6**
ERM **Erimo** **16.39 359** ⇑P **Pn** **01 14 18.0 -2.5**
ERM **Erimo** **16.39 359** P **Pn** **01 14 20.6 +0.1**
ERM **Erimo** **16.39 359** P **Pn** **01 14 18.0 -2.5**
comp=Z,7μmcomp=Z,525nm,1.0s
JEM **Erimo** **16.39 359** P **Pn** **01 14 19.1 -1.4**
JMJ **Miyako jima 2** **16.61 271** P **P** **01 14 25.5 -0.3**
TJN **Taejon** **17.59 312** P **P** **01 14 37.7 +1.2**
comp=Z,3μm,1.0s
TJN **Taejon** **17.59 312** P **Pn** **01 14 35.8 +0.2**
TJN pmax pmax
comp=Z,2μm,0.9s
TJN **Taejon** **17.59 312** **Pn** **01 14 35.8 +0.2**
TJN **Taejon** **17.59 312** P **Pn** **01 14 36.0 +0.4**
comp=Z,25μmcomp=Z,3μm,1.0s
KSRS **Korea Array** **17.84 315** P **P** **01 14 39.4 +0.1**
comp=Z,6.1nm,0.3s,baz=123,slow=11,SNR=157
KSRS PcP **PcP** **01 19 16.1 +0.9**
comp=Z,8.8nm,0.9s,baz=213,slow=0.8,SNR=4.1
KSRS LR LR 01 21 23.0
comp=Z,22μm,18.6s,baz=125,slow=37
comp=Z,250nm,1.1s
KSRS AML AML
KSAR **Wonju Array Be** **17.86 315** P **Pn** **01 14 38.2 -0.7**
KSAR **Wonju Array Be** **17.86 315** **Pn** **01 14 38.2 -0.7**
YUK **Yuzh-Kuril'sk** **18.50** 5*d* *i*P **Pn** **01 14 47.9 +1.2**
YUK *e*SS **S** **01 18 16.2 -1.0**
YUK pmax pmax
comp=Z,626nm,0.8s
YUK pmax pmax
comp=Z,1μm,1.9s
YUK MLR MLR
comp=Z,5μm,14.0s
YUK MLR MLR
comp=E,5μm,12.0s
YUK MLR MLR
comp=N,7μm,15.0s
ASAJ **Asahikawa** **18.51 358** P **Pn** **01 14 47.1 +0.3**
comp=N,7.2nm,0.3s,baz=218,slow=11,SNR=28
ASAJ LR LR 01 21 13.2
comp=N,6μm,21.6s,baz=186,slow=35
comp=N,50nm,0.5s
ASAJ AML AML
JKA **Kamikawa-asahi** **18.51 358** P **P** **01 14 46.4 -0.2**
JKA **Kamikawa-asahi** **18.51 358** P **P** **01 14 45.7 -1.0**
comp=Z,5μmcomp=Z,173nm,0.7s
INCN **Inchon** **18.69 313** P **Pn** **01 14 50.4 +1.3**
comp=Z,263nm,0.8s
INCN **Inchon** **18.69 313** P **Pn** **01 14 49.3 +0.2**
INCN S **S** **01 18 20.7 -0.6**
INCN **Inchon** **18.69 313** P **P** **01 14 46.5 -2.2**
INCN pmax pmax
comp=Z,182nm,0.7s
INCN **Inchon** **18.69 313** P **P** **01 14 46.5 -2.2**
INCN **Inchon** **18.69 313** ⇑P **P** **01 14 48.7 0.0**
INCN **Inchon** **18.69 313** P **Pn** **01 14 49.5 +0.4**
comp=Z,4μmcomp=Z,274nm,0.8s,comp=Z,4μm
YOJ **Yonaguni jima** **18.72 271** P **Pn** **01 14 51.0 +1.5**
comp=Z,632nm,0.8s
YOJ **Yonaguni jima** **18.72 271** P **P** **01 14 48.4 -0.7**
YOJ **Yonaguni jima** **18.72 271** P **Pn** **01 14 51.8 +2.3**
YOJ **Yonaguni jima** **18.72 271** ⇓P **Pn** **01 14 51.5 +2.0**
YOJ **Yonaguni jima** **18.72 271** P **Pn** **01 14 50.6 +1.1**
comp=Z,10μmcomp=Z,632nm,0.8s
HJU **Haeju** **19.60 314** P **P** **01 14 59.0 +0.4**
HJU S **S** **01 18 38.2 -1.4**
HJU AmB
comp=Z,1μm,1.1s
HJU AMS AMS
comp=Z,26μm,16.3s
HHU **Hamhung** **19.65 321** P **P** **01 14 59.1 -0.1**
HHU S **S** **01 18 39.2 -1.3**
HHU AmB
comp=Z,261nm,0.8s
HHU AMS AMS
comp=Z,10μm,17.0s
MSHR **Mys Shultsa** **19.81 332** *e*P **P** **01 15 01.7 +0.8**
KUR **Kuril'sk** **19.90** 9 *e*P **P** **01 14 56.8 -5.1**
KUR *e*S S 01 18 32.9 -13
KUR pmax pmax
comp=Z,159nm,0.7s
KUR pmax pmax
comp=Z,7μm,7.1s
KUR MLR MLR
comp=Z,5μm,12.0s
VLA **Vladivostok** **19.96 334***c* *i*P **P** **01 15 03.3 +0.7**
VLA pmax pmax
comp=Z,468nm,1.5s
TATO **Taipei** **20.03 273** P Pn 01 15 05.6 +0.4
comp=Z,381nm,1.0s
TATO **Taipei** **20.03 273** P **P** **01 15 03.5 +0.1**
TATO S Sn 01 18 49.6 -0.8
TATO **Taipei** **20.03 273** P **P** **01 15 03.9 +0.5**
TATO **Taipei** **20.03 273** IAMs_20 IAMs_20 01 21 55.6
comp=Z,11μm,19.0s
TATO **Taipei** **20.03 273** P **P** **01 15 03.5 +0.1**
comp=Z,291nm,1.2s
NACB **Ninganchiao** **20.04 271** P **P** **01 15 04.0 +0.5**
comp=Z,362nm,1.1s
NACB **Ninganchiao** **20.04 271** P **P** **01 15 04.2 +0.6**
comp=Z,6μmcomp=Z,361nm,1.1s,comp=Z,6μm
PYAG **Pyongyang** **20.16 316** P **P** **01 15 04.7 -0.1**
PYAG S **S** **01 18 50.1 -0.6**
PYAG AmB
comp=Z,578nm,1.1s
PYAG AMS AMS
comp=Z,13μm,16.7s
YHNB **Yeheng** **20.17 272** P **P** **01 15 05.8 +0.8**
comp=Z,458nm,1.1s
YHNB **Yeheng** **20.17 272** P **P** **01 15 05.5 +0.4**
YHNB **Yeheng** **20.17 272** P **P** **01 15 06.0 +0.9**
comp=Z,7μmcomp=Z,455nm,1.1s
YULB **Yu-li** **20.44 269** P Pn 01 15 09.5 -0.6
comp=Z,763nm,1.0s
YULB **Yu-li** **20.44 269** IAmb IAmb 01 15 19.2
comp=Z,919nm,1.1s
YULB **Yu-li** **20.44 269** P Pn 01 15 09.7 -0.4
comp=Z,8μmcomp=Z,763nm,1.0s
SSE **Sheshan** **20.49 291** P **P** **01 15 07.9 -0.5**
SSE pP Pn 01 15 10.3 -0.3
SSE S **S** **01 18 56.9 -0.5**
SSE pmax pmax
comp=Z,440nm,3.7s
SSE L L
comp=Z,4μm,15.1s
SSLB **Suanglung** **20.68 270** P Pn 01 15 12.5 -0.4
comp=Z,761nm,0.9s
SSLB **Suanglung** **20.68 270** P **P** **01 15 11.8 +1.3**
SSLB IAmb IAmb 01 15 27.0
comp=Z,751nm,1.1s
SSLB **Suanglung** **20.68 270** P Pn 01 15 12.7 -0.2
SSLB **Suanglung** **20.68 270** P Pn 01 15 12.8 -0.1
comp=Z,8μmcomp=Z,760nm,0.9s
TWGBT **Beinan** **20.75 267** P **P** **01 15 12.5 +1.2**
comp=Z,597nm,1.1s
TWG **Pinlang** **20.75 267** IAmb IAmb 01 15 24.6
comp=Z,577nm,1.0s
TWG **Pinlang** **20.75 267** P **P** **01 15 12.1 +0.8**
TWG **Pinlang** **20.75 267** P Pn 01 15 13.1 -0.7
comp=Z,7μmcomp=Z,599nm,1.1s
USA0B **Ussuriysk Arra** **20.84 336** P **P** **01 15 12.5 +0.4**
USA0B pmax pmax
comp=Z,549nm,0.9s
USA0B **Ussuriysk Arra** **20.84 336** P **P** **01 15 12.5 +0.4**
USA0B IAmb IAmb 01 15 18.1
comp=Z,549nm,0.8s
USRK **Ussuriysk Ar.** **20.84 336** P **P** **01 15 12.9 +0.9**
comp=Z,584nm,0.8s,baz=141,slow=10,SNR=116
USRK LR LR 01 23 29.1
comp=Z,4μm,18.5s,baz=155,slow=37
comp=Z,584nm,0.8s
USRK **Ussuriysk Ar.** **20.84 336** P **P** **01 15 13.0 +0.9**
USRK **Ussuriysk Ar.** **20.84 336** P **P** **01 15 12.4 +0.3**
TPUB **Ta-pu** **21.06 269** P **P** **01 15 19.5 +1.3**
comp=Z,651nm,1.0s
TPUB **Ta-pu** **21.06 269** P **P** **01 15 14.7 0.0**
comp=Z,653nm,1.0s
YSS **Yuzhno-Sakhali** **21.34 358** P **P** **01 15 18.6 +1.1**
comp=Z,500nm,1.1s
YSS **Yuzhno-Sakhali** **21.34 358** *k*eP **P** **01 15 18.5 +1.1**
YSS *e*S **S** **01 19 09.0 -5.0**
YSS pmax pmax
comp=N,2μm,8.4s
YSS pmax pmax
comp=Z,2μm,8.4s
YSS pmax pmax
comp=E,700nm,3.8s
YSS pmax pmax
comp=Z,230nm,0.8s
YSS smax smax
comp=N,9μm,12.6s
YSS smax smax
comp=E,9μm,13.8s
YSS MLR MLR
comp=Z,5μm,14.0s
YSS MLR MLR
comp=N,4μm,16.0s
YSS MLR MLR
comp=E,7μm,18.0s
YSS **Yuzhno-Sakhali** **21.34 358** **P** **01 15 17.9 +0.5**
YSS **Yuzhno-Sakhali** **21.34 358** ⇓P **P** **01 15 18.6 +1.1**
YSS **Yuzhno-Sakhali** **21.34 358** P **P** **01 15 18.7 +1.3**
comp=Z,4μmcomp=Z,456nm,1.1s
SUJ **Sinuiju** **21.57 317** P **P** **01 15 19.9 0.0**
MDJ **Mudanjiang** **22.13 333** P **P** **01 15 25.9 -0.1**
MDJ S **S** **01 19 32.0 +2.5**
MDJ pmax pmax
comp=Z,160nm,1.2s
MDJ pmax pmax
comp=Z,5μm,10.0s
MDJ L L
comp=Z,6μm,13.3s
MDJ **Mudanjiang** **22.13 333** P **P** **01 15 26.8 +0.8**
comp=Z,6μmcomp=Z,529nm,0.9s
WAKE **Wake Island** **22.17 102** P **P** **01 15 28.2 +1.6**
comp=Z,362nm,1.7s
WAKE **Wake Island** **22.17 102** P **P** **01 15 27.6 +0.9**
WAKE IAmb IAmb 01 15 32.4
comp=Z,975nm,1.2s
WAKE **Wake Island** **22.17 102** P **P** **01 15 27.0 +0.4**
WAKE **Wake Island** **22.17 102** ⇓P **P** **01 15 28.9 +2.2**
WAKE **Wake Island** **22.17 102** P **P** **01 15 26.1 -0.6**
comp=Z,14μmcomp=Z,693nm,1.7s
H11N2 **WAKE ISLAND Hy** **22.24 100** T T 01 38 13.9
baz=290,slow=74,SNR=23
H11N1 **WAKE ISLAND Hy** **22.24 100** T T 01 38 14.5
baz=290,slow=74,SNR=209
H11N3 **WAKE ISLAND Hy** **22.25 100** T T 01 38 15.5
baz=290,slow=74,SNR=227
H11S3 **WAKE ISLAND Hy** **22.49 104** T T 01 38 36.0
baz=292,slow=75,SNR=52
H11S1 **WAKE ISLAND Hy** **22.50 104** T T 01 38 36.1
baz=292,slow=75,SNR=56
H11S2 **WAKE ISLAND Hy** **22.51 104** T T 01 38 37.3
baz=292,slow=75,SNR=57
PIP **Pasuquin** **22.51 256** *e*P **P** **01 15 30.0 -0.3**
NJ2 **Nanjing** **22.61 292** *e*P **P** **01 15 30.9 -0.4**
NJ2 pP **pP** **01 15 33.4 -0.9**
NJ2 S **S** **01 19 36.7 -2.0**
NJ2 pmax pmax
comp=Z,63nm,0.9s
NJ2 pmax pmax
comp=Z,2μm,11.4s
NJ2 L L
comp=Z,4μm,14.2s
NJ2 L L
comp=Z,12μm,14.2s
NJ2 L L
comp=Z,16μm,15.6s
QZH2 **Quanzhou** **22.64 274** P **P** **01 15 31.9 +0.3**
QZH2 S **S** **01 19 35.6 -3.6**
QZH2 pmax pmax
comp=Z,370nm,1.2s
QZH2 pmax pmax
comp=Z,3μm,11.0s
QZH2 L L
comp=Z,4μm,8.6s
QZH2 L L
comp=Z,11μm,9.6s
QZH2 L L
comp=Z,9μm,15.9s
PLP **Palo** **22.73 234** *e*P **P** **01 15 33.0 +0.4**
DL2 **Dalian** **22.79 311** P **P** **01 15 32.7 -0.3**
DL2 PP **PnPn** **01 16 05.3 +8.1**
DL2 S **S** **01 19 40.2 -1.5**
DL2 pmax pmax
comp=Z,220nm,0.9s
DL2 pmax pmax
comp=Z,2μm,6.1s
DL2 L L
comp=Z,17μm,16.5s
DL2 L L
comp=Z,13μm,17.5s
DL2 L L
comp=Z,18μm,16.7s
SIPP **Brgy, Tapao** **22.81 255** *e*P **P** **01 15 34.0 +0.6**
SIPP *e*S **S** **01 19 42.5 +0.2**
KNMB **Chin-men Tao** **22.89 273** P **P** **01 15 33.9 -0.3**
KNMB **Chin-men Tao** **22.89 273** P **P** **01 15 34.6 +0.4**
comp=Z,5μmcomp=Z,336nm,0.9s,comp=Z,5μm
SZP **Santa** **22.96 254** P **P** **01 15 36.6 +1.6**
comp=Z,944nm,1.0s
SZP **Santa** **22.96 254** ⇓P **P** **01 15 35.7 +0.7**
SZP **Santa** **22.96 254** P **P** **01 15 37.1 +2.1**
comp=Z,11μmcomp=Z,944nm,1.0s
SNY **Shenyang** **23.16 319** ⇑P **P** **01 15 37.8 +0.9**
SNY S **S** **01 19 44.4 -3.7**
SNY pmax pmax
comp=Z,900nm,1.0s
SNY L L
comp=Z,8μm,13.3s
SNY L L
comp=Z,7μm,14.4s
SNY L L
comp=Z,10μm,16.8s
PATS **Pohnpei** **23.33 141** P **P** **01 15 41.0 +2.2**
comp=Z,938nm,1.3s,comp=Z,0.0nm
PATS **Pohnpei** **23.33 141** P **P** **01 15 40.8 +2.0**
comp=Z,1μm,1.3s
PATS **Pohnpei** **23.33 141** P **P** **01 15 40.1 +1.3**
PATS **Pohnpei** **23.33 141** P **P** **01 15 41.1 +2.3**
PATS **Pohnpei** **23.33 141** P **P** **01 15 39.8 +1.0**
comp=Z,13μmcomp=Z,941nm,1.3s
CN2 **Changchun** **23.44 325** P **P** **01 15 39.5 -0.2**
CN2 *e*sP sP 01 15 45.7 +1.5
CN2 *e*S **S** **01 19 48.3 -4.3**
CN2 pmax pmax
comp=Z,2μm,6.0s
CN2 L L
comp=Z,2μm,13.0s
CN2 L L
comp=Z,2μm,13.0s
CN2 L L
comp=Z,2μm,14.0s
UGL **Uglegorsk** **23.48 357***d* *i*P **P** **01 15 41.1 +1.1**
UGL *e* 01 16 13.0
UGL *e*S **S** **01 19 50.1 -3.1**
UGL *e*SS **SnSn** **01 20 42.0 +13**
UGL pmax pmax
comp=Z,200nm,1.5s
UGL pmax pmax
comp=Z,6μm,4.3s
LQP **Lukban** **23.66 245** *e*P **P** **01 15 42.8 +0.5**
BNX **BinXian** **23.96 331** ⇓P **P** **01 15 44.2 -0.5**
BNX pP **pP** **01 15 47.4 -0.5**
BNX sP **sP** **01 15 48.6 -0.7**
BNX S **S** **01 20 02.1 +1.2**
BNX sS **sS** **01 20 06.7 +0.5**
BNX pmax pmax
comp=Z,520nm,0.8s
BNX pmax pmax
comp=Z,7μm,3.5s
BNX L L
comp=Z,5μm,16.8s
BNX L L
comp=Z,4μm,13.5s
BNX L L
comp=Z,6μm,14.2s
LLP **Lapu-Lapu** **24.04 234** *e*P **P** **01 15 44.8 -0.9**
LLP *e*S S 01 19 47.9 -15
CDOP **Cateel, Davao** **24.12 226** *e*P **P** **01 15 46.4 0.0**
IBAJ **Ibajay, Aklan** **24.45 240** *e*P **P** 01 15 57.4 +7.9
TBP **Tagbilaran** **24.53 233** *i* P **P** **01 15 49.9 -0.3**
TBP *i* S **S** **01 20 03.6 -7.0**
TIA **Tai'an** **25.01 301** P **P** **01 15 54.4 0.0**
TIA pP **sP** **01 16 00.0 +0.9**
TIA sP **pwP** **01 16 01.9 +0.3**
TIA PcP **PcP** **01 19 30.4 +1.1**
TIA S **S** **01 20 15.3 -2.8**
TIA sS **sS** **01 20 23.1 -0.4**
TIA SS **SnSn** **01 21 17.2 +10**
TIA pmax pmax
comp=Z,920nm,0.8s
TIA pmax pmax
comp=Z,3μm,3.5s
TIA L L
comp=Z,11μm,15.0s
TIA L L
comp=Z,18μm,18.9s
TIA L L
comp=Z,28μm,17.6s
DAV **Davao City (W)** **25.21 226** LR LR 01 24 25.0
comp=Z,10μm,20.2s,baz=50,slow=33
KLR **Kul'dur** **25.36 342** LR LR 01 26 02.1
comp=Z,3μm,21.6s,baz=148,slow=37
KLR **Kul'dur** **25.36 342***d* *i*P **P** **01 15 57.8 +0.4**
KLR pmax pmax
comp=Z,159nm,0.7s
KCP **Kidapawan** **25.58 227** *e*P **P** **01 16 01.1 +1.3**
DCPH **Dipolog City** **25.65 232** *e*P **P** **01 16 01.3 +1.0**
GRNR **Gornyy** **25.75 349**⇑ *i*P **P** **01 16 00.8 -0.1**
GRNR pmax pmax
comp=Z,30nm,0.8s
GRNR MLR MLR
comp=E,2μm,17.0s
WHN **Wuhan** **26.26 288** P **P** **01 16 06.1 +0.3**
WHN S **S** **01 20 31.0 -7.0**
WHN pmax pmax
comp=E,1μm,1.1s
WHN L L
comp=E,14μm,12.2s
WHN L L
comp=E,26μm,15.1s
WHN L L
comp=E,39μm,15.8s
SKR **Severo-Kuril's** **26.84** 18 *e*P **P** **01 16 11.3 +0.6**
SKR *e*S **S** **01 20 49.3 +2.7**
SKR pmax pmax
comp=Z,131nm,1.0s
SKR pmax pmax
comp=Z,1μm,8.3s
SKR MLR MLR
comp=Z,7μm,12.0s
BJI2 **Beijing** **27.07 309** P **P** **01 16 11.1 -1.8**
BJI2 pP **pP** **01 16 14.9 -1.3**
BJI2 PcP **PcP** **01 19 35.8 +1.9**
BJI2 S **S** **01 20 50.9 +0.4**
BJI2 pmax pmax
comp=Z,34nm,1.3s
BJI2 pmax pmax
comp=Z,2μm,11.1s
BJI2 L L
comp=Z,6μm,15.8s
BJI2 L L
comp=Z,8μm,15.9s
BJI2 L L
comp=Z,11μm,16.3s
BJT **Baijiatuao** **27.07 309** IAMs_20 IAMs_20 01 27 23.7
comp=Z,7μm,18.0s
BJT **Baijiatuao** **27.07 309** P **P** **01 16 11.3 -1.7**
comp=Z,131nm,1.0s
HKC **Hong Kong Obse** **27.09 269** ⇑P **P** **01 16 15.0 +1.7**
HKPS **Hong Kong Po S** **27.12 269** P **P** **01 16 14.8 +1.2**
comp=Z,229nm,1.1s
HKPS **Hong Kong Po S** **27.12 269** **P** **01 16 14.2 +0.6**
HKPS **Hong Kong Po S** **27.12 269** P **P** **01 16 15.1 +1.5**
comp=Z,4μmcomp=Z,228nm,1.1s
HNS **HongShan** **27.22 303** ⇓P **P** **01 16 13.1 -1.2**
HNS PcP **PcP** **01 19 35.9 +1.6**
HNS S **S** **01 20 47.7 -5.2**
HNS pmax pmax
comp=Z,140nm,1.0s
HNS L L
comp=Z,14μm,17.3s
HNS L L
comp=Z,20μm,17.1s
HNS L L
comp=Z,22μm,17.3s
GZH2 **Guangzhou** **27.29 272** P **P** **01 16 16.3 +1.2**
GZH2 S **S** **01 20 54.7 +0.4**
GZH2 pmax pmax
comp=Z,150nm,1.2s
GZH2 L L
comp=Z,4μm,15.7s
GZH2 L L
comp=Z,3μm,15.7s
GZH2 L L
comp=Z,7μm,15.1s
CNSH **ChangSha** **27.47 282** P **P** **01 16 17.4 +0.8**
CNSH S **S** **01 20 55.2 -1.8**

CNSH pmax pmax
comp=Z,89nm,0.9s
CNSH L L
comp=Z,4μm,16.1s
CNSH L L
comp=Z,4μm,15.5s
CNSH L L
comp=Z,5μm,17.3s
BAKI Biak 27.59 196 P P 01 16 27.1 +9.3
NKL Nikolayevsk 27.62 356 *e*P **P** **01 16 17.6 -0.1**
NKL pmax pmax
comp=E,316nm,1.3s
NKL pmax pmax
comp=N,103nm,0.7s
NKL pmax pmax
comp=Z,495nm,1.4s
NKL MLR MLR
comp=E,5μm,12.0s
NKL MLR MLR
comp=N,4μm,17.0s
NKL MLR MLR
comp=Z,8μm,17.0s
HEH HeiHe 27.63 337 *e*P **P** **01 16 18.4 +0.5**
HEH pP **sP** **01 16 23.0 +0.5**
HEH S **S** **01 21 05.2 +6.1**
HEH pmax pmax
comp=Z,160nm,1.4s
HEH L L
comp=Z,5μm,17.1s
HEH L L
comp=Z,5μm,19.3s
HEH L L
comp=Z,9μm,18.8s
SMPI Sarmi 27.82 191 P **P** **01 16 22.4 +2.6**
JAY Jayapura 28.07 186 LR LR 01 26 59.5
comp=Z,5μm,18.6s,baz=356,slow=35
JAY Jayapura 28.07 186 P **P** **01 16 23.2 +1.0**
JAY Jayapura 28.07 186 P **P** **01 16 23.0 +0.8**
GENI Genyem 28.21 187 P **P** **01 16 24.8 +1.5**
comp=Z,233nm,1.1s
GENI Genyem 28.21 187 P **P** **01 16 25.0 +1.7**
comp=Z,4μmcomp=Z,232nm,1.1s
GENI Genyem 28.21 187 P **P** **01 16 23.6 +0.3**
comp=Z,4μmcomp=Z,233nm,1.1s
LYN LuoYang 28.32 296 P **P** **01 16 22.9 -1.3**
LYN pP pwP 01 16 32.0 +0.5
LYN sP sP 01 16 37.1 +8.2
LYN S **S** **01 21 05.4 -4.9**
LYN pmax pmax
comp=Z,150nm,1.2s
LYN L L
comp=Z,8μm,13.8s
LYN L L
comp=Z,14μm,17.6s
LYN L L
comp=Z,21μm,16.4s
SIJI Sorong 28.89 206 LR LR 01 25 43.0
comp=Z,5μm,20.8s,baz=36,slow=32
SIJI Sorong 28.89 206 P **P** **01 16 30.3 +0.9**
XLT XiLinHaoTe 28.89 316 *e*P **P** **01 16 29.4 +0.1**
XLT pP pP 01 16 33.7 +1.1
XLT sP pwP 01 16 38.9 +2.5
XLT S **S** **01 21 16.2 -3.1**
XLT sS sS 01 21 34.2 +9.5
XLT pmax pmax
comp=Z,10.0nm,0.6s
XLT L L
comp=Z,8μm,19.9s
XLT L L
comp=Z,8μm,21.6s
TIY Taiyuan 29.04 302 *e*P **P** **01 16 31.7 +1.0**
TIY sP **pwP** **01 16 40.8 +2.9**
TIY S **S** **01 21 23.0 +1.2**
TIY SS **SnSn** **01 22 55.0 +10**
TIY pmax pmax
comp=Z,91nm,1.4s
TIY L L
comp=Z,11μm,17.2s
TIY L L
comp=Z,7μm,19.2s
TIY L L
comp=Z,14μm,16.5s
TNTI Ternate 29.23 215 P **P** **01 16 34.2 +1.7**
comp=Z,64nm,2.4s
PEA0B Petropavlovsk- 29.45 17⇑ *e*P **P** **01 16 35.1 +1.0**
PETK Petropavlovsk- 29.45 17 P **P** **01 16 34.4 +0.3**
comp=Z,8.0nm,0.6s,baz=210,slow=6.3,SNR=17
PETK LR LR 01 28 39.8
comp=Z,5μm,20.6s,baz=191,slow=37
comp=Z,8.0nm,0.6s
PET Petropavlovsk 29.64 18 P **P** **01 16 37.0 +1.3**
comp=Z,288nm,0.9s
PET Petropavlovsk 29.64 18 *e*P **P** **01 16 36.2 +0.5**
PET *e*S **S** **01 21 21.8 -8.9**
PET pmax pmax
comp=Z,79nm,0.7s
PET MLR MLR
comp=Z,5μm,16.0s
PET Petropavlovsk 29.64 18 P **P** **01 16 36.3 +0.7**
PET Petropavlovsk 29.64 18 ⇓P **P** **01 16 36.9 +1.2**
PET Petropavlovsk 29.64 18 P **P** **01 16 36.4 +0.7**
comp=Z,71nm,0.9s
PET Petropavlovsk 29.64 18 P **P** **01 16 37.1 +1.3**
comp=Z,76nm,0.9s
GULI GuiLin 30.00 277⇑ P **P** **01 16 42.7 +3.5**
GULI S **S** **01 21 35.7 -1.2**
GULI pmax pmax
comp=Z,160nm,1.1s
GULI pmax pmax
comp=Z,2μm,9.8s
GULI L L
comp=Z,5μm,15.1s
GULI L L
comp=Z,4μm,16.7s
GULI L L
comp=Z,4μm,19.2s
MNI Manado 30.07 220 P **P** **01 16 41.6 +1.7**
comp=Z,6μmcomp=Z,15μmcomp=Z,321nm,1.0s
HIA Hailar 30.07 328 *d i*P **P** **01 16 40.2 +0.6**
HIA pmax pmax
comp=Z,167nm,1.0s
HIA Hailar 30.07 328 P **P** **01 16 40.5 +0.8**
comp=Z,3μmcomp=Z,196nm,1.0s
HILR Hailar Array B 30.27 328 P **P** **01 16 42.4 +1.1**
comp=Z,28nm,0.6s,baz=129,slow=12,SNR=9.0
HILR LR LR 01 27 49.2
comp=Z,3μm,20.0s,baz=155,slow=34
comp=Z,28nm,0.6s
FAKI Fak Fak 30.40 203 P **P** **01 16 42.0 -0.9**
comp=Z,148nm,1.1s
FAKI Fak Fak 30.40 203 P **P** **01 16 41.1 -1.8**
FAKI Fak Fak 30.40 203 P **P** **01 16 41.9 -0.9**
FAKI Fak Fak 30.40 203 ⇓P **P** **01 16 41.7 -1.1**
FAKI Fak Fak 30.40 203 P **P** **01 16 42.6 -0.2**
comp=Z,147nm,1.1s
FAKI Fak Fak 30.40 203 P **P** **01 16 41.8 -1.1**
comp=Z,2μmcomp=Z,148nm,1.1s
ENH Enshi 30.45 287 IAmb IAmb 01 16 45.2
comp=Z,339nm,1.1s
ENH Enshi 30.45 287 P **P** **01 16 43.1 -0.1**
comp=Z,4μmcomp=Z,365nm,1.2s
HHC Hu-ho-hao-te 30.64 308⇑ *i*P **P** **01 16 44.3 -0.6**
HHC pP sP 01 16 49.6 +0.1
HHC S **S** **01 21 45.9 -1.0**
HHC pmax pmax
comp=Z,77nm,1.2s
HHC pmax pmax
comp=Z,950nm,6.9s
HHC L L
comp=Z,5μm,14.6s
HHC L L
comp=Z,6μm,16.2s
HHC L L
comp=Z,9μm,16.2s
ZEA Zeya 30.66 341 *e*P **P** **01 16 45.1 +0.4**
ZEA *e*S **S** **01 21 40.7 -6.0**
ZEA pmax pmax
comp=E,40nm,0.6s
ZEA pmax pmax
comp=N,90nm,0.7s
ZEA pmax pmax
comp=Z,220nm,0.9s
ZEA pmax pmax
comp=N,100nm,1.3s
ZEA pmax pmax
comp=Z,300nm,1.4s
ZEA smax smax
comp=N,1μm,6.5s
ZEA smax smax
comp=E,2μm,7.1s
ZEA MLR MLR
comp=E,900nm,15.0s
ZEA MLR MLR
comp=Z,3μm,15.0s
ZEA MLR MLR
comp=N,2μm,14.0s
KRVT Keravat (AS076 30.81 163 LR LR 01 29 51.1
comp=N,1μm,18.0s,baz=352,slow=38
XAN Xi'an 31.15 294 ⇓P **P** **01 16 48.5 -0.9**
XAN pP sP 01 16 54.2 +0.1
XAN pmax pmax
comp=N,530nm,1.0s
XAN pmax pmax
comp=N,3μm,10.2s
XAN L L
comp=N,14μm,18.4s
XAN L L
comp=N,4μm,20.6s
XAN L L
comp=N,5μm,20.0s
KMSI Cibinong 31.27 220 P P 01 16 55.4 +4.9
comp=N,525nm,0.9s
GTOI Gorontalo 31.80 222 P **P** **01 16 55.7 +0.6**
comp=N,4μmcomp=N,346nm,1.1s
BTO2 Baotou 31.82 307 *e*P **P** **01 16 54.9 -0.4**
BTO2 sP **pwP** **01 17 01.8 -0.7**
BTO2 PP **PnPn** **01 18 01.2 +1.6**
BTO2 S **S** **01 22 07.3 +2.0**
BTO2 pmax pmax
comp=N,110nm,1.0s
BTO2 pmax pmax
comp=N,4μm,10.4s
BTO2 L L
comp=N,15μm,15.5s
BTO2 L L
comp=N,9μm,15.9s
BTO2 L L
comp=N,12μm,16.3s
QIZ Qiongzhong 31.87 265 P **P** **01 16 57.1 +1.3**
QIZ S **S** **01 22 07.2 +0.9**
QIZ pmax pmax
comp=N,100nm,1.2s
QIZ pmax pmax
comp=N,2μm,9.8s
QIZ L L
comp=N,4μm,15.5s
QIZ L L
comp=N,2μm,17.3s
QIZ L L
comp=N,3μm,16.4s
QIZ Qiongzhong 31.87 265 P **P** **01 16 57.6 +1.8**
comp=Z,111nm,1.3s
MSAI Masohi 32.10 208 P **P** **01 16 59.7 +2.0**
comp=Z,4μmcomp=Z,129nm,1.0s
SANI Sanana 32.35 214 P **P** **01 16 58.0 -1.9**
SANI S **S** **01 22 11.7 -2.0**
SANI Sanana 32.35 214 P **P** **01 16 58.5 -1.4**
comp=Z,126nm,1.3s
SANI Sanana 32.35 214⇑ P **P** **01 16 58.2 -1.7**
SANI Sanana 32.35 214 P **P** **01 16 58.7 -1.2**
comp=Z,2μmcomp=Z,126nm,1.3s
SANI Sanana 32.35 214 P **P** **01 16 58.2 -1.7**
comp=Z,2μmcomp=Z,126nm,1.3s
KKM Kota Kinabalu 32.63 238 P **P** **01 17 03.9 +1.4**
comp=Z,82nm,1.1s
KKM Kota Kinabalu 32.63 238 ⇓P **P** **01 17 03.2 +0.6**
KKM Kota Kinabalu 32.63 238 P **P** **01 17 04.3 +1.8**
KKM Kota Kinabalu 32.63 238 P **P** **01 17 03.4 +0.9**
comp=Z,2μmcomp=Z,82nm,1.1s
BNDI Bandanaira 32.76 206 P **P** **01 17 03.6 +0.1**
comp=Z,927nm,1.2s
BNDI Bandanaira 32.76 206 ⇓P **P** **01 17 03.0 -0.5**
BNDI Bandanaira 32.76 206 P **P** **01 17 03.6 +0.1**
BNDI Bandanaira 32.76 206 P **P** **01 17 02.6 -0.9**
comp=Z,8μmcomp=Z,926nm,1.2s
TOLI2 Tolitoli 32.82 226 P **P** **01 17 05.0 +0.9**
comp=Z,108nm,1.2s
TOLI2 Tolitoli 32.82 226 P **P** **01 17 04.5 +0.4**
TOLI2 Tolitoli 32.82 226 P **P** **01 17 04.5 +0.4**
comp=Z,3μmcomp=Z,108nm,1.2s
GYA Guiyang 33.16 280 ⇓P **P** **01 17 07.0 -0.2**
GYA S **S** **01 22 24.2 -2.3**
GYA pmax pmax
comp=Z,250nm,0.7s
GYA L L
comp=Z,4μm,15.5s
GYA L L
comp=Z,3μm,16.6s
GYA L L
comp=Z,5μm,16.4s
LUWI Luwuk 33.28 220 P **P** **01 17 06.5 -1.6**
LUWI Luwuk 33.28 220 P **P** **01 17 08.0 -0.1**
comp=Z,477nm,1.2s
LUWI Luwuk 33.28 220 P **P** **01 17 06.8 -1.3**
LUWI Luwuk 33.28 220 ⇓P **P** **01 17 06.9 -1.2**
LUWI Luwuk 33.28 220 P **P** **01 17 08.0 -0.1**
comp=Z,6μmcomp=Z,471nm,1.2s
LUWI Luwuk 33.28 220 P **P** **01 17 06.8 -1.3**
comp=Z,5μmcomp=Z,477nm,1.2s
APSI Ampana 33.84 222 P **P** **01 17 13.3 +0.3**
comp=Z,5μmcomp=Z,621nm,1.2s
MA2 Magadan 34.34 6 LR LR 01 32 27.2
comp=Z,3μm,19.6s,baz=176,slow=38
MA2 Magadan 34.34 6 P **P** **01 17 18.0 +1.1**
comp=Z,101nm,1.0s
MA2 Magadan 34.34 6 *d i*P **P** **01 17 16.7 -0.2**
MA2 pmax pmax
comp=Z,155nm,1.3s
MA2 Magadan 34.34 6 P **P** **01 17 16.6 -0.3**
MA2 Magadan 34.34 6 ⇓P **P** **01 17 17.7 +0.8**
MA2 Magadan 34.34 6 P **P** **01 17 18.3 +1.4**
comp=Z,3μmcomp=Z,98nm,1.0s
MA2 Magadan 34.34 6 P **P** **01 17 17.3 +0.4**
comp=Z,2μmcomp=Z,89nm,1.0s
CIT Chita 34.86 327 *e*P **P** **01 17 22.6 +1.1**
CIT *e* 01 18 38.8
CIT *e* 01 18 57.4
CIT *e* 01 19 55.8
CIT *e*S **S** **01 22 55.4 +3.3**
CIT *e* 01 25 27.4
CIT pmax pmax
comp=Z,1μm,2.5s
PMG Port Moresby 34.95 174 P **P** **01 17 22.0 -0.5**
comp=Z,149nm,0.8s,baz=352,slow=5.9,SNR=30
PMG LR LR 01 32 16.8
comp=Z,2μm,18.4s,baz=352,slow=38
comp=Z,149nm,0.8s
PMG Port Moresby 34.95 174 P **P** **01 17 22.5 -0.1**
comp=Z,286nm,0.9s
PMG Port Moresby 34.95 174 P **P** **01 17 22.1 -0.4**
comp=Z,286nm,0.9s
PMG Port Moresby 34.95 174 P **P** **01 17 21.7 -0.9**
PMG pmax pmax
comp=Z,267nm,1.0s
PMG Port Moresby 34.95 174 P **P** **01 17 21.7 -0.9**
PMG IAmb IAmb 01 17 23.8
comp=Z,267nm,1.0s
PMG Port Moresby 34.95 174⇑ P **P** **01 17 21.6 -0.9**
PMG Port Moresby 34.95 174 P **P** **01 17 22.4 -0.1**
comp=Z,3μmcomp=Z,286nm,0.9s
PMG Port Moresby 34.95 174 P **P** **01 17 21.8 -0.7**
comp=Z,3μmcomp=Z,293nm,0.9s,comp=Z,3μm
PCI Palu 34.97 225 P **P** **01 17 23.7 +0.9**
comp=Z,5μmcomp=Z,460nm,1.1s
CD2 Chengdu 35.39 288 P **P** **01 17 25.6 -0.8**
CD2 PP **PnPn** **01 18 45.9 +1.1**
CD2 S **S** **01 22 57.1 -3.7**
CD2 pmax pmax
comp=Z,610nm,0.7s
CD2 L L
comp=Z,12μm,16.5s
CD2 L L
comp=Z,13μm,15.3s
CD2 L L
comp=Z,17μm,16.3s
SAUI Saumlaki 35.45 201 P **P** **01 17 28.6 +1.7**
comp=Z,454nm,1.2s
SAUI Saumlaki 35.45 201 P **P** **01 17 29.0 +2.1**
comp=Z,537nm,1.2s
SAUI Saumlaki 35.45 201 P **P** **01 17 27.5 +0.6**
comp=Z,7μmcomp=Z,454nm,1.2s
SHEM Shemya Is, Ala 35.48 32 LR LR 01 30 29.6
comp=Z,6μm,19.7s,baz=219,slow=34
SMY Shemya 35.48 32 P **P** **01 17 23.8 -3.0**
LZH Lanzhou 35.51 297 P **P** **01 17 27.0 -0.5**
LZH pP pwP 01 17 34.6 -0.2
LZH S **S** **01 22 59.1 -3.7**
LZH pmax pmax
comp=Z,520nm,1.3s
LZH pmax pmax
comp=Z,1μm,4.0s
LZH L L
comp=Z,6μm,16.2s
LZH L L
comp=Z,11μm,14.6s
LZH L L
comp=Z,14μm,15.2s
LZDM Lanzhou Array 35.62 297 P **P** **01 17 28.1 -0.5**
comp=Z,313nm,0.7s,baz=115,slow=7.0,SNR=199
LZDM PcP **PcP** **01 19 58.4 +1.1**
comp=Z,65nm,0.9s,baz=191,slow=1.5,SNR=5.5
LZDM LR LR 01 33 11.7
comp=Z,7μm,18.0s,baz=85,slow=38
comp=Z,313nm,0.7s
KDI Kendari 35.74 218 P **P** **01 17 31.3 +1.8**
comp=Z,6μmcomp=Z,236nm,1.3s
DLV Lat 35.80 254 P **P** **01 17 31.7 +1.5**
comp=Z,208nm,1.2s
DLV Lat 35.80 254 IAmb IAmb 01 17 50.5
comp=Z,248nm,1.1s
DLV Lat 35.80 254 P **P** **01 17 32.0 +1.7**
comp=Z,12μmcomp=Z,208nm,1.2s,comp=Z,12μm
ULN Ulaanbaatar 36.31 317 P **P** **01 17 34.2 0.0**
ULN Ulaanbaatar 36.31 317 P **P** **01 17 34.0 -0.2**
ULN pmax pmax
comp=Z,355nm,1.3s
ULN MLR MLR
comp=Z,6μm,18.0s
ULN Ulaanbaatar 36.31 317 **P** **01 17 34.0 -0.2**
ULN IAmb IAmb 01 17 37.6
comp=Z,355nm,1.3s
ULN Ulaanbaatar 36.31 317 P **P** **01 17 34.1 -0.2**
ULN Ulaanbaatar 36.31 317 ⇓P **P** **01 17 34.0 -0.2**
ULN Ulaanbaatar 36.31 317 P **P** **01 17 34.2 0.0**
comp=Z,10μmcomp=Z,836nm,1.1s
ULN Ulaanbaatar 36.31 317 P **P** **01 17 34.2 0.0**
comp=Z,3μmcomp=Z,213nm,1.1s,comp=Z,3μm
KKSI Kolaka, Sulawe 36.46 219 P **P** **01 17 38.0 +2.4**
comp=Z,8μmcomp=Z,417nm,1.5s
SLVN Son La 36.59 272 P **P** **01 17 37.8 +1.0**
comp=Z,173nm,1.1s
SLVN Son La 36.59 272 P **P** **01 17 37.2 +0.4**
comp=Z,2μmcomp=Z,172nm,1.1s
TTSI Tana Toraja 36.64 222 P **P** **01 17 37.9 +0.8**
comp=Z,4μmcomp=Z,322nm,1.1s
SONM Songino Array 36.70 317 P **P** **01 17 37.1 -0.4**
comp=Z,74nm,0.8s,baz=136,slow=11,SNR=126
SONM PcP **PcP** **01 20 00.7 +0.7**
comp=Z,12nm,0.6s,baz=161,slow=3.5,SNR=6.8
SONM LR LR 01 32 44.2
comp=Z,6μm,21.0s,baz=116,slow=36
SONM P3KPbc 01 48 07.5
comp=Z,0.9nm,0.9s,baz=304,slow=3.2,SNR=4.4
comp=Z,74nm,0.8s
SONM Songino Array 36.70 317 P **P** **01 17 37.0 -0.4**
SONM 01 20 00.7
SONM pmax pmax
comp=Z,174nm,1.2s
SONM Songino Array 36.70 317 **P** **01 17 37.0 -0.5**
KMI2 Kunming 36.84 278 ⇓P **P** **01 17 39.7 +0.6**
KMI2 sP pwP 01 17 50.2 +3.7
KMI2 PcP **PcP** **01 20 02.3 +1.3**
KMI2 S **S** **01 23 22.1 -1.3**
KMI2 SS **SnSn** **01 25 50.4 -4.8**
KMI2 pmax pmax
comp=Z,350nm,1.1s
KMI2 pmax pmax
comp=Z,1μm,3.1s
KMI2 L L
comp=Z,3μm,14.0s
KMI2 L L
comp=Z,5μm,15.1s
KMI2 L L
comp=Z,6μm,15.3s
MMSI Mamuju 36.92 224 P **P** **01 17 39.9 +0.3**
comp=Z,3μmcomp=Z,150nm,1.4s
BBSI Bau Bau 37.04 216 P **P** **01 17 43.2 +2.6**
comp=Z,8μmcomp=Z,458nm,1.1s
BKB Balikpapan 37.16 228 P **P** **01 17 43.5 +2.0**
comp=Z,602nm,1.2s
BKB Balikpapan 37.16 228 P **P** **01 17 43.9 +2.4**
comp=Z,12μmcomp=Z,608nm,1.2s
BKB Balikpapan 37.16 228 P **P** **01 17 42.9 +1.3**
comp=Z,11μmcomp=Z,602nm,1.2s
TATA Tatamba Isabel 37.26 153 P **P** **01 17 42.5 +0.2**
comp=Z,87nm,1.1s
PMSI Majene 37.55 223 P **P** **01 17 46.5 +1.6**
comp=Z,3μmcomp=Z,185nm,1.2s
YAK Yakutsk 37.63 349 LR LR 01 38 06.0
comp=Z,1μm,19.2s,baz=133,slow=44
YAK Yakutsk 37.63 349 *de*P **P** **01 17 44.8 -0.2**
YAK *e**PP **pwP** **01 17 53.6 +1.4**
YAK *e* 01 19 12.9
YAK *e*PPP PPP 01 19 31.2
YAK *e*S **S** **01 23 33.6 -0.5**
YAK *e*SSS SSS 01 26 46.3
YAK pmax pmax
comp=Z,110nm,0.9s
YAK pmax pmax
comp=N,39nm,1.2s
YAK pmax pmax
comp=Z,236nm,2.5s
YAK pmax pmax
comp=N,166nm,2.2s
YAK pmax pmax
comp=E,197nm,3.7s
YAK smax smax
comp=N,325nm,3.8s
YAK smax smax
comp=E,193nm,3.3s
YAK MLR MLR
comp=Z,3μm,19.0s
YAK MLR MLR
comp=N,2μm,17.0s
YAK smax smax
comp=N,8.0nm,1.0s
YAK smax smax
comp=E,7.0nm,1.0s
YAK smax smax
comp=N,21nm,0.8s
YAK smax smax
comp=E,16nm,0.8s
YAK Yakutsk 37.63 349 **P** **01 17 43.7 -1.3**
YAK IAmb IAmb 01 18 21.2
comp=Z,215nm,0.9s
YAK Yakutsk 37.63 349 ⇓P **P** **01 17 44.5 -0.5**
YAK Yakutsk 37.63 349 P **P** **01 17 44.4 -0.7**
comp=Z,2μmcomp=Z,176nm,0.9s
SEY Seymchan 37.80 7*d i*P **P** **01 17 47.2 +0.8**
SEY pmax pmax
comp=Z,94nm,0.9s
SAVO Savo Central 37.95 153 P **P** **01 17 47.4 -0.8**
comp=Z,134nm,1.1s
SBUM Sibu 37.97 238 P **P** **01 17 49.6 +1.1**
comp=Z,26nm,1.1s
SBUM Sibu 37.97 238 ⇓P **P** **01 17 49.3 +0.8**
SBUM Sibu 37.97 238 P **P** **01 17 50.0 +1.5**
SBUM Sibu 37.97 238 P **P** **01 17 49.1 +0.6**
comp=Z,677nmcomp=Z,26nm,1.1s
KAPI Kappang 38.24 221 P **P** **01 17 51.9 +1.1**
comp=Z,197nm,0.9s,baz=39,slow=6.1,SNR=32
comp=Z,197nm,0.9s
KAPI Kappang 38.24 221 P **P** **01 17 52.0 +1.3**
comp=Z,193nm,1.2s
KAPI Kappang 38.24 221 P **P** **01 17 52.0 +1.3**
KAPI S **S** **01 23 43.6 -0.7**
KAPI Kappang 38.24 221 **P** **01 17 51.4 +0.7**
KAPI IAmb IAmb 01 17 53.6
comp=Z,518nm,1.2s
KAPI Kappang 38.24 221 ⇓P **P** **01 17 51.6 +0.9**
KAPI Kappang 38.24 221 P **P** **01 17 52.0 +1.3**
comp=Z,5μmcomp=Z,3μmcomp=Z,193nm,1.2s
KAPI Kappang 38.24 221 P **P** **01 17 51.6 +0.9**
KAPI Kappang 38.24 221 P **P** **01 17 51.8 +1.1**
comp=Z,6μmcomp=Z,370nm,1.2s,comp=Z,6μm
HNR Honiara 38.26 153 LR LR 01 32 43.3
comp=Z,8μm,20.5s,baz=56,slow=35
HNR Honiara 38.26 153 IAMs_20 IAMs_20 01 32 21.4
comp=Z,8μm,19.0s

BKSI **Bulukumba** 38.27 220 P P 01 17 52.0 +1.0
comp=Z,4µmcomp=Z,257nm,1.1s
BOD **Bodaibo** 38.47 335 *e*P P 01 17 52.7 +0.5
BOD pmax pmax
comp=Z,140nm,1.2s
BSSI **Bau Bau, Buton** 38.73 219 P P 01 17 55.7 +0.9
comp=Z,6µmcomp=Z,399nm,1.1s
GTA2 **Gaotai** 39.12 302 P P 01 17 56.8 -1.2
GTA2 PcP **PcP** 01 20 09.2 +1.6
GTA2 S **S** 01 23 54.2 -3.3
GTA2 pmax pmax
comp=Z,74nm,1.1s
GTA2 L L
comp=Z,5µm,16.8s
GTA2 L L
comp=Z,9µm,16.8s
GTA2 L L
comp=Z,11µm,16.5s
KDU **Kakadu** 39.56 197 P P 01 18 02.1 +0.5
comp=Z,90nm,1.0s
ZAK **Zakamensk** 39.59 319 *e*P P 01 18 01.4 -0.4
ZAK pmax pmax
comp=Z,194nm,1.1s
ZAK pmax pmax
comp=Z,159nm,1.0s
DRS **Darwin Rock St** 39.77 200 P P 01 18 03.7 +0.3
comp=Z,143nm,0.8s
IRK **Irkutsk** 39.82 322 *e*P P 01 18 03.0 -0.6
IRK *e*S **S** 01 24 06.5 -1.0
IRK pmax pmax
comp=Z,372nm,3.0s
ADK **Adak** 39.85 38 P P 01 18 04.7 +1.0
comp=Z,125nm,1.1s
ADK **Adak** 39.85 38 P P 01 18 02.9 -0.9
ADK pmax pmax
comp=Z,209nm,1.0s
ADK MLR MLR
comp=Z,8µm,19.0s
ADK **Adak** 39.85 38 P 01 18 02.9 -0.9
ADK **Adak** 39.85 38 IAMs_20 IAMs_20 01 35 14.4
comp=Z,8µm,19.0s
ADK **Adak** 39.85 38 ⇓P P 01 18 05.2 +1.5
ADK **Adak** 39.85 38 P P 01 18 03.9 +0.1
comp=Z,6µmcomp=Z,268nm,1.1s
SOEI **Soe** 39.86 211 P P 01 18 02.6 -1.8
SOEI S **S** 01 24 03.6 -5.4
SOEI **Soe** 39.86 211 P P 01 18 04.1 -0.3
comp=Z,388nm,1.2s
SOEI **Soe** 39.86 211 IAmb IAmb 01 18 51.8
comp=Z,444nm,1.0s
SOEI **Soe** 39.86 211 P P 01 18 04.2 -0.2
comp=Z,4µmcomp=Z,384nm,1.2s
SOEI **Soe** 39.86 211 P P 01 18 03.5 -0.9
comp=Z,4µmcomp=Z,388nm,1.2s
TLY **Talaya** 39.92 321 LR LR 01 35 10.1
comp=Z,5µm,18.0s,baz=86,slow=37
TLY **Talaya** 39.92 321 P P 01 18 04.8 +0.3
TLY S **S** 01 24 11.1 +2.0
TLY **Talaya** 39.92 321 *de*P P 01 18 04.9 +0.4
TLY pmax pmax
comp=Z,156nm,1.3s
TLY MLR MLR
comp=Z,6µm,16.0s
TLY **Talaya** 39.92 321 P P 01 18 04.9 +0.4
TLY **Talaya** 39.92 321 ⇓P P 01 18 05.0 +0.6
TLY **Talaya** 39.92 321 P P 01 18 05.3 +0.8
comp=Z,3µmcomp=Z,144nm,0.9s
STKI **Sintang** 40.08 236 P P 01 18 08.0 +1.8
MTN **Manton Dam** 40.09 199 P P 01 18 06.2 +0.1
comp=Z,126nm,0.9s
MTN **Manton Dam** 40.09 199 P 01 18 05.2 -0.9
NGOA **Tingoa Renbel** 40.24 155 P P 01 18 07.4 +0.1
comp=Z,194nm,1.3s
EDFI **Ende, Flores** 40.26 215 P P 01 18 07.1 -0.5
comp=Z,10µmcomp=Z,653nm,1.1s
BATI **Baumata** 40.54 211 P P 01 18 10.1 +0.2
comp=Z,300nm,0.7s,baz=149,slow=1.0,SNR=83
comp=Z,300nm,0.7s
BATI **Baumata** 40.54 211 P P 01 18 10.1 +0.2
comp=Z,6µmcomp=Z,439nm,1.1s
TNCH **TengChong** 40.63 279 P P 01 18 11.8 +0.9
TNCH S **S** 01 24 20.9 +0.3
TNCH pmax pmax
comp=Z,430nm,1.0s
TNCH L L
comp=Z,2µm,12.4s
TNCH L L
comp=Z,4µm,15.6s
TNCH L L
comp=Z,7µm,15.6s
ATKA **Atka Island** 41.38 39 P P 01 18 17.1 +0.7
comp=Z,330nm,0.9s
ATKA **Atka Island** 41.38 39 ⇓P P 01 18 17.3 +0.9
MOY **Mondy** 41.43 320 *e*P P 01 18 17.6 +0.6
MOY pmax pmax
comp=Z,248nm,3.5s
WSI **Waingapu** 41.76 216 P P 01 18 19.9 0.0
comp=Z,9µmcomp=Z,495nm,0.7s
CHTO **Chiang Mai** 41.76 270 P P 01 18 20.0 0.0
comp=Z,138nm,1.1s
CHTO **Chiang Mai** 41.76 270 P P 01 18 20.2 +0.2
CHTO S **S** 01 24 34.0 -3.2
CHTO **Chiang Mai** 41.76 270 P P 01 18 19.8 -0.2
CHTO pmax pmax
comp=Z,239nm,1.1s
CHTO **Chiang Mai** 41.76 270 P P 01 18 19.8 -0.2
CHTO **Chiang Mai** 41.76 270 ⇓P P 01 18 20.1 0.0
CHTO **Chiang Mai** 41.76 270 P P 01 18 20.1 0.0
comp=Z,3µmcomp=Z,230nm,1.1s
CHTO **Chiang Mai** 41.76 270 P P 01 18 20.2 +0.2
CHTO **Chiang Mai** 41.76 270 P P 01 18 20.2 +0.2
comp=Z,3µmcomp=Z,229nm,1.1s
CM31 **Chiang Mai Arr** 41.87 270 P P 01 18 21.7 +0.7
SNR=47
CMAR **Chiang Mai Arr** 41.87 270 P P 01 18 21.4 +0.4
comp=Z,86nm,0.9s,baz=59,slow=8.1,SNR=270
comp=Z,86nm,0.9s
CMAR **Chiang Mai Arr** 41.87 270 P P 01 18 21.2 +0.3
PLAI **Plampang** 42.46 220 P P 01 18 25.3 -0.3
comp=Z,661nm,1.4s
PLAI **Plampang** 42.46 220 P P 01 18 25.3 -0.3
comp=Z,10µmcomp=Z,682nm,1.5s
PLAI **Plampang** 42.46 220 P P 01 18 25.2 -0.5
comp=Z,10µmcomp=Z,661nm,1.4s,comp=Z,10µm
GOMU **GeErMu** 42.81 296 P P 01 18 28.5 -0.3
GOMU pP pP 01 18 31.8 -0.3
GOMU sP pwP 01 18 36.3 +0.1
GOMU S **S** 01 24 44.7 -8.4
GOMU pmax pmax
comp=Z,100nm,1.1s
GOMU L L
comp=Z,3µm,16.1s
GOMU L L
comp=Z,4µm,16.5s
GOMU L L
comp=Z,7µm,16.9s
TWSI **Taliwang, Sumb** 42.91 221 P P 01 18 29.8 +0.5
comp=Z,6µmcomp=Z,415nm,1.2s
KNGR **Kungurtug, Tuv** 43.12 318 *ce*P P 01 18 32.5 +1.7
KNGR pmax pmax
comp=Z,45nm,0.8s
KNGR MLR MLR
comp=Z,5µm,17.0s
KHKI **Kahang-Kahang** 43.38 223 P P 01 18 34.7 +1.6
SRBI **Singaraja** 43.41 223 P P 01 18 34.8 +1.5
comp=Z,6µmcomp=Z,6µmcomp=Z,391nm,1.2s
MTSU **Mount Surprise** 43.46 179 P P 01 18 34.8 +1.1
comp=Z,45nm,1.0s
MTSU **Mount Surprise** 43.46 179 P P 01 18 34.5 +0.8
comp=Z,45nm,1.0s
MTSU **Mount Surprise** 43.46 179 P P 01 18 33.8 +0.1
comp=Z,375nmcomp=Z,45nm,1.0s
KNRA **Kununurra** 43.49 201 P P 01 18 34.9 +1.0
comp=Z,131nm,1.2s
KNRA **Kununurra** 43.49 201 P P 01 18 34.2 +0.3
NPW **Naypyitaw** 44.02 273 P P 01 18 38.8 +0.5
comp=Z,4µmcomp=Z,333nm,1.0s
IGBI **Denpasar** 44.02 223 P P 01 18 38.4 +0.2
comp=Z,5µmcomp=Z,409nm,1.1s
BLJI **Banyuglugur** 44.17 225 P P 01 18 40.4 +1.0
comp=Z,14µmcomp=Z,941nm,1.2s
JAGI **Jajag, Banyuwa** 44.37 224 P P 01 18 40.7 -0.3
comp=Z,719nm,1.1s
JAGI **Jajag, Banyuwa** 44.37 224 ⇓P P 01 18 39.9 -1.2
JAGI **Jajag, Banyuwa** 44.37 224 P P 01 18 40.8 -0.3
comp=Z,7µmcomp=Z,717nm,1.1s

JAGI **Jajag, Banyuwa** 44.37 224 P P 01 18 40.1 -0.9
comp=Z,7µmcomp=Z,719nm,1.1s
MORE **Moreh** 44.55 279 IAmb IAmb 01 18 43.7
comp=Z,220nm,0.8s
TBJI **Tambak Boyo** 44.63 228 P P 01 18 44.5 +1.4
comp=Z,6µmcomp=Z,356nm,1.2s
TPI **Tanjungpandan** 44.80 236 P P 01 18 45.4 +0.8
comp=Z,118nm,0.9s
TPRI **Tanjung Pinang** 44.96 243 P P 01 18 49.6 +3.7
AUAYR **Ayr State High** 45.04 175 P P 01 18 47.6 +1.3
comp=Z,134nm,1.0s
NGJI **Ngawi** 45.29 228 P P 01 18 50.2 +1.8
comp=Z,432nm,1.0s
BTDF **Bukit Timah Da** 45.31 244 P P 01 18 50.0 +1.3
comp=Z,56nm,1.4s
BTDF **Bukit Timah Da** 45.31 244 P P 01 18 51.4 +2.7
SJI **Sawahan** 45.35 227 P P 01 18 49.7 +0.7
comp=Z,309nm,1.0s
SNJI **Sawahan-Nganju** 45.39 227 P P 01 18 50.5 +1.1
comp=Z,3µmcomp=Z,236nm,1.7s
CTA **Charters Tower** 45.47 177 P P 01 18 49.8 +0.1
comp=Z,60nm,1.3s
CTA **Charters Tower** 45.47 177 P P 01 18 49.8 +0.1
comp=Z,91nm,0.9s,baz=356,slow=8.8,SNR=98
CTA LR LR 01 37 44.2
comp=Z,1µm,21.4s,baz=354,slow=36
comp=Z,91nm,0.9s
CTA **Charters Tower** 45.47 177 P P 01 18 50.1 +0.4
comp=Z,4.4nm,1.3s
CTAO **Charters Tower** 45.47 177 P P 01 18 50.1 +0.4
comp=Z,55nm,1.3s
CTAO **Charters Tower** 45.47 177 P P 01 18 49.4 -0.3
CTAO pmax pmax
comp=Z,75nm,0.7s
CTAO **Charters Tower** 45.47 177 P P 01 18 49.4 -0.3
CTAO **Charters Tower** 45.47 177 ⇓P P 01 18 49.5 -0.3
CTAO **Charters Tower** 45.47 177 P P 01 18 49.0 -0.8
comp=Z,2µmcomp=Z,152nm,1.3s
PWJI **Pagerwojo** 45.54 227 P P 01 18 50.5 +0.1
comp=Z,5µmcomp=Z,391nm,1.2s
SMRI **Semarang** 45.75 229 P P 01 18 53.6 +1.5
comp=Z,201nm,1.9s
SMRI **Semarang** 45.75 229 IAmb IAmb 01 18 55.5
comp=Z,280nm,1.2s
SMRI **Semarang** 45.75 229 P P 01 18 53.6 +1.5
comp=Z,6µmcomp=Z,203nm,1.9s
SMRI **Semarang** 45.75 229 P P 01 18 51.9 -0.1
comp=Z,6µmcomp=Z,201nm,1.9s
KULM **Kulim** 45.79 251 P P 01 18 54.8 +2.3
comp=Z,187nm,1.1s
KULM **Kulim** 45.79 251 P P 01 18 54.0 +1.6
KULM IAmb IAmb 01 19 18.4
comp=Z,234nm,1.2s
KULM **Kulim** 45.79 251 ⇓P P 01 18 52.8 +0.4
KULM **Kulim** 45.79 251 P P 01 18 54.5 +2.0
comp=Z,5µmcomp=Z,2µmcomp=Z,187nm,1.1s
KULM **Kulim** 45.79 251 P P 01 18 53.4 +0.9
comp=Z,2µmcomp=Z,187nm,1.1s
IPM **Ipoh** 45.89 250 P P 01 18 54.4 +1.2
IPM **Ipoh** 45.89 250 ⇑P P 01 18 53.7 +0.5
IPM **Ipoh** 45.89 250 P P 01 18 54.8 +1.6
IPM **Ipoh** 45.89 250 P P 01 18 53.8 +0.5
WOJI **Wonogiri, Jawa** 45.99 228 P P 01 18 54.5 +0.5
comp=Z,221nm,1.1s
QIS **Mount Isa** 46.03 185 P P 01 18 54.4 +0.2
comp=Z,187nm,1.0s
QIS **Mount Isa** 46.03 185 P P 01 18 53.7 -0.5
comp=Z,187nm,1.0s
QIS **Mount Isa** 46.03 185 P P 01 18 53.9 -0.3
comp=Z,3µmcomp=Z,187nm,1.0s
WRAB **Tennant Creek** 46.13 192 P P 01 18 54.4 -0.6
comp=Z,885nm,1.0s
WRAB **Tennant Creek** 46.13 192 P P 01 18 54.8 -0.2
WRAB pmax pmax
comp=Z,1µm,1.1s
WRAB MLR MLR
comp=Z,2µm,20.0s
WRAB **Tennant Creek** 46.13 192 P P 01 18 54.8 -0.2
WRAB **Tennant Creek** 46.13 192 P P 01 18 55.0 +0.1
comp=Z,16µmcomp=Z,2µm,1.0s,comp=Z,16µm
WRA **Warramunga Arr** 46.15 192 P P 01 18 55.7 +0.6
comp=Z,971nm,0.9s,baz=10.0,slow=8.5,SNR=142
WRA S **S** 01 25 38.6 -2.2
comp=Z,3.3nm,0.9s,baz=6.1,slow=12,SNR=7.2
WRA LR LR 01 37 48.2
comp=Z,3µm,21.6s,baz=88,slow=36
WRA P4KPbc 01 56 42.9
comp=Z,2.2nm,1.2s,baz=10,slow=5.1,SNR=5.4
WRA **Warramunga Arr** 46.15 192 P P 01 18 53.9 -1.2
WRA pmax pmax
comp=Z,162nm,1.0s
WRA **Warramunga Arr** 46.15 192 P P 01 18 53.9 -1.2
WRA IAmb IAmb 01 18 57.7
comp=Z,162nm,0.9s
UNV **Unalaska Valle** 46.30 39 P P 01 18 56.7 +0.8
comp=Z,514nm,1.1s
UNV **Unalaska Valle** 46.30 39 IAMs_20 IAMs_20 01 34 49.2
comp=Z,7µm,21.0s
LSA **Lhasa** 46.35 288 *i* P P 01 18 58.0 +0.8
SNR=24
LSA **Lhasa** 46.35 288 ⇑*e*P P 01 18 57.2 -0.1
LSA S **S** 01 25 43.0 -1.7
LSA pmax pmax
comp=Z,140nm,1.1s
LSA L L
comp=Z,1µm,16.5s
LSA L L
comp=Z,2µm,15.7s
LSA L L
comp=Z,2µm,15.1s
LSA **Lhasa** 46.35 288 P P 01 18 58.9 +1.6
LSA **Lhasa** 46.35 288 P P 01 18 58.1 +0.8
comp=Z,2µmcomp=Z,150nm,1.1s
YOGI **Yogyakarta** 46.40 229 P P 01 18 58.2 +1.0
comp=Z,8µmcomp=Z,662nm,1.2s
SHL **Shillong** 46.42 282 P P 01 18 57.2 -0.3
SNR=190
LVA **Lava Point** 46.66 38 P P 01 18 58.5 -0.4
AKUT **Akutan** 46.80 39 P P 01 19 00.8 +1.0
comp=Z,632nm,1.2s
SANVU **Saraoutou** 46.80 148 P P 01 19 01.0 +0.7
comp=Z,239nm,1.1s
SANVU **Saraoutou** 46.80 148 P P 01 19 00.8 +0.5
SANVU pmax IAmb IAmb 01 19 02.1
comp=Z,232nm,1.1s
SANVU **Saraoutou** 46.80 148 P P 01 18 58.0 -2.2
SANVU **Saraoutou** 46.80 148 ⇓P P 01 18 59.0 -1.2
SANVU **Saraoutou** 46.80 148 P P 01 18 59.6 -0.7
comp=Z,3µmcomp=Z,239nm,1.1s
FITZ **Fitzroy Crossi** 46.81 204 P P 01 19 01.1 +0.8
comp=Z,160nm,1.1s
FITZ **Fitzroy Crossi** 46.81 204 P P 01 19 00.8 +0.5
comp=Z,546nm,1.0s,baz=30,slow=8.7,SNR=222
comp=Z,546nm,1.0s
FITZ **Fitzroy Crossi** 46.81 204 P P 01 19 01.5 +1.2
comp=Z,2µm,1.1s
FITZ **Fitzroy Crossi** 46.81 204 P P 01 19 00.8 +0.5
FITZ IAmb IAmb 01 19 02.9
comp=Z,161nm,1.1s
FITZ **Fitzroy Crossi** 46.81 204 ⇓P P 01 19 00.8 +0.5
FITZ **Fitzroy Crossi** 46.81 204 P P 01 19 01.1 +0.8
comp=Z,2µmcomp=Z,160nm,1.1s
TIXI **Tiksi** 46.85 354 *de*P P 01 18 59.6 -0.3
TIXI pmax pmax
comp=Z,49nm,0.7s
TIXI **Tiksi** 46.85 354 P P 01 18 59.5 -0.5
TIXI IAmb IAmb 01 19 18.0
comp=Z,157nm,1.1s
TIXI **Tiksi** 46.85 354 ⇑P P 01 18 59.6 -0.3
TIXI **Tiksi** 46.85 354 P P 01 18 59.8 -0.2
comp=Z,2µmcomp=Z,163nm,1.0s
KPJI **Karang Pucung** 46.99 231 P P 01 19 02.4 +0.6
comp=Z,7µmcomp=Z,589nm,1.2s
PMBI **Palembang** 47.11 239 P P 01 19 05.7 +2.9
comp=Z,406nm,0.5s
JMBI **JAMBI** 47.19 241 P P 01 19 08.3 +4.9
comp=Z,9µmcomp=Z,625nm,1.2s
LEM **Lembang** 47.57 222 LR LR 01 42 35.3
comp=Z,890nm,18.1s,baz=15,slow=40
CBJI **Citeko** 47.84 233 P P 01 19 10.0 +1.5
BBJI **Bungbulang** 47.99 232 P P 01 19 08.1 -1.6
comp=Z,157nm,1.1s
BBJI **Bungbulang** 47.99 232 P P 01 19 08.9 -0.8
comp=Z,3µmcomp=Z,158nm,1.1s
BBJI **Bungbulang** 47.99 232 P P 01 19 07.8 -1.9
comp=Z,3µmcomp=Z,157nm,1.1s
BKNI **Bangkinang** 48.14 245 P P 01 19 11.0 +0.2

BKNI **Bangkinang** 48.14 245 P P 01 19 12.8 +2.0
comp=Z,192nm,1.0s
BKNI **Bangkinang** 48.14 245 P P 01 19 13.7 +2.9
comp=Z,11µmcomp=Z,194nm,0.9s
BKNI **Bangkinang** 48.14 245 P P 01 19 11.8 +0.9
comp=Z,5µmcomp=Z,193nm,1.0s
SBJI **Serang** 48.16 234 P P 01 19 12.4 +1.4
comp=Z,8µmcomp=Z,264nm,1.2s
SKJI **Sukabumi** 48.45 233 P P 01 19 12.6 -0.6
comp=Z,8µmcomp=Z,571nm,1.2s
WMQ **Urumqi** 48.51 307 ⇓P P 01 19 13.2 -0.2
WMQ S **S** 01 26 13.0 -1.4
WMQ sS sS 01 26 22.1 +2.1
WMQ pmax pmax
comp=Z,140nm,1.5s
WMQ pmax pmax
comp=Z,480nm,3.7s
WMQ L L
comp=Z,4µm,19.7s
WMQ L L
comp=Z,6µm,20.7s
WMQ L L
comp=Z,6µm,21.5s
PSI **Prapat** 48.55 250 P P 01 19 15.6 +1.4
comp=Z,158nm,1.2s
PSI **Prapat** 48.55 250 P P 01 19 15.5 +1.4
comp=Z,2µmcomp=Z,146nm,1.2s
MDSI **Maura Dua** 48.56 238 P P 01 19 14.3 +0.3
comp=Z,4µmcomp=Z,264nm,1.4s
RPSI **Rantau Prapat** 48.60 249 IAmb IAmb 01 19 16.7
comp=Z,287nm,1.4s
RPSI **Rantau Prapat** 48.60 249 P P 01 19 14.9 +0.5
comp=Z,2µmcomp=Z,146nm,1.2s,comp=Z,2µm
CGJI **Cibinong** 48.82 234 P P 01 19 15.6 -0.4
comp=Z,248nm,0.8s
AUNRC **North Rockhamp** 49.10 172 P P 01 19 17.9 0.0
comp=Z,150nm,1.1s
PPI **Padang Panjang** 49.11 245 P P 01 19 19.6 +1.3
comp=Z,4µmcomp=Z,153nm,1.3s
KRJI **Kerinci** 49.20 242 P P 01 19 22.1 +3.0
MASI **Maura Aman, Be** 49.22 241 P P 01 19 20.4 +1.2
DGZ **Jazzator, Alta** 49.24 315 *d* *i*P P 01 19 19.1 0.0
DGZ pmax pmax
comp=Z,98nm,1.0s
DGZ MLR MLR
comp=Z,12µm,17.0s
KSI **Kapahiang** 49.26 240 P P 01 19 19.9 +0.4
comp=Z,6µmcomp=Z,410nm,1.0s
MNAI **Manna** 49.42 239 P P 01 19 21.4 +0.8
comp=Z,1µm,1.3s
MNAI **Manna** 49.42 239 P P 01 19 20.8 +0.1
MNAI **Manna** 49.42 239 ⇓P P 01 19 20.0 -0.6
MNAI **Manna** 49.42 239 P P 01 19 21.0 +0.4
MNAI **Manna** 49.42 239 P P 01 19 19.8 -0.9
comp=Z,15µmcomp=Z,1µm,1.3s
UBSI **University, Be** 49.58 240 P P 01 19 22.2 +0.4
GD1S **Gladstone Soft** 49.67 171 P P 01 19 22.6 +0.3
TPTI 49.80 251 P P 01 19 23.8 +0.3
comp=Z,92nm,1.0s
AS15 **Alice Springs** 49.83 192 P P 01 19 24.0 +0.4
comp=Z,152nm,0.9s
AS17 **Alice Springs** 49.84 192 P P 01 19 23.8 +0.1
comp=Z,201nm,1.1s
AS01 **Alice Springs** 49.85 192 P P 01 19 23.8 +0.1
comp=Z,177nm,1.1s
AS31 **Alice Springs** 49.85 192 P P 01 19 24.4 +0.7
comp=Z,42nm,0.7s
ASAR **Alice Springs** 49.86 192 P P 01 19 23.9 +0.2
comp=Z,79nm,1.0s,baz=14,slow=5.7,SNR=192
ASAR PcP **PcP** 01 20 46.1 +1.9
comp=Z,42nm,1.0s,baz=354,slow=5.6,SNR=4.6
ASAR S **S** 01 26 29.6 -3.8
comp=Z,1.6nm,0.9s,baz=3.1,slow=29,SNR=1.3
ASAR LR LR 01 41 40.5
comp=Z,2µm,18.6s,baz=12,slow=38
ASAR PKPPKP **P'P'df** 01 50 11.1 +0.3
comp=Z,4.2nm,1.2s,baz=148,slow=3.6,SNR=6.7
ASAR P4KPbc 01 56 58.9
comp=Z,1.1nm,0.9s,baz=7.8,slow=5.5,SNR=6.7
comp=Z,79nm,1.0s
ASAR **Alice Springs** 49.86 192 P P 01 19 22.9 -0.9
AS09 **Alice Springs** 49.88 192 P P 01 19 24.1 +0.1
comp=Z,136nm,1.1s
PBA **Port Blair** 49.88 264 P P 01 19 23.7 -0.5
AUALC **St Philip's Co** 49.88 192 P P 01 19 24.0 0.0
comp=Z,223nm,1.2s
MLSI **Meulaboh, Aceh** 49.95 253 P P 01 19 25.5 +0.8
comp=Z,2µmcomp=Z,151nm,1.1s
K13K **Kusilvak Mount** 49.98 29 IAMs_20 IAMs_20 01 37 39.0
comp=Z,6µm,20.0s
KOUNC **Koumac, New Ca** 50.06 154 P P 01 19 26.4 +1.1
comp=Z,88nm,1.2s
KOUNC **Koumac, New Ca** 50.06 154 P P 01 19 25.7 +0.4
SDPT **Sand Point** 50.08 38 P P 01 19 25.6 +0.5
comp=Z,562nm,1.1s
SDPT **Sand Point** 50.08 38 P P 01 19 24.6 -0.5
SHBG **Sahibganj** 50.24 282 *i* P P 01 19 18.9 -7.9
BSI **Banda Aceh** 50.32 255 P P 01 19 28.1 +0.6
comp=Z,2µmcomp=Z,129nm,1.3s
EVN **Everest** 50.39 286 IAmb IAmb 01 19 31.2
comp=Z,270nm,0.9s
EVN **Everest** 50.39 286 P P 01 19 29.1 +0.4
comp=Z,3µmcomp=Z,374nm,1.0s
CHNA **Chernabura Isl** 50.47 39 P P 01 19 29.8 +1.7
comp=Z,261nm,1.0s
GSI **Gunungsitoli** 50.48 249 P P 01 19 29.7 +0.9
comp=Z,240nm,1.0s
GSI **Gunungsitoli** 50.48 249 ⇓P P 01 19 29.0 +0.2
GSI **Gunungsitoli** 50.48 249 P P 01 19 29.5 +0.7
comp=Z,6µmcomp=Z,236nm,1.0s
GSI **Gunungsitoli** 50.48 249 P P 01 19 29.7 +0.9
comp=Z,6µmcomp=Z,240nm,1.0s,comp=Z,6µm
O14K **Tigyukauivet M** 50.66 33 IAMs_20 IAMs_20 01 38 29.2
comp=Z,5µm,19.0s
ZSN **Zaisan** 50.71 311 *d* *i*P P 01 19 29.7 -0.3
ZSN *e*S S 01 26 44.7 -0.2
ZSN **Zaisan** 50.71 311 ⇓*i*P P 01 19 29.7 -0.3
ZSN *e*S S 01 26 44.8 -0.2
J14K **Nanvaranak Lak** 50.77 28 IAMs_20 IAMs_20 01 39 15.7
comp=Z,6µm,20.0s
EIDS **Eidsvold** 51.16 171 P P 01 19 33.8 +0.2
comp=Z,41nm,1.1s
EIDS **Eidsvold** 51.16 171 P P 01 19 33.7 +0.1
comp=Z,41nm,1.1s
EIDS **Eidsvold** 51.16 171 ⇑P P 01 19 33.6 +0.1
EIDS **Eidsvold** 51.16 171 P P 01 19 32.9 -0.7
comp=Z,41nm,1.1s
O15K **Ungalikthiuk R** 51.36 33 IAMs_20 IAMs_20 01 39 00.5
comp=Z,6µm,20.0s
CHGN **Chignik** 51.42 37 P P 01 19 33.9 -1.3
CHGN IAmb IAmb 01 19 56.1
comp=Z,252nm,1.2s
ZALV **Zalesovo Beam** 51.47 320 P P 01 19 35.0 -0.6
comp=Z,83nm,0.6s,baz=103,slow=7.7,SNR=299
ZALV PcP **PcP** 01 20 49.6 -0.3
comp=Z,29nm,0.6s,baz=123,slow=3.6,SNR=9.0
ZALV LR LR 01 42 11.5
comp=Z,4µm,18.6s,baz=96,slow=37
ZALV PKPPKP P'P'df 01 50 07.4 -13
comp=Z,1.7nm,0.7s,baz=336,slow=3.2,SNR=4.0
comp=Z,83nm,0.6s
K15K **Wolf Creek Mou** 51.48 29 IAMs_20 IAMs_20 01 38 15.7
comp=Z,6µm,20.0s
QLP **Quilpie** 51.87 179 P P 01 19 38.1 -0.7
comp=Z,244nm,1.0s
QLP **Quilpie** 51.87 179 P P 01 19 37.4 -1.4
comp=Z,244nm,1.0s
QLP **Quilpie** 51.87 179 ⇑P P 01 19 37.4 -1.4
QLP **Quilpie** 51.87 179 P P 01 19 37.5 -1.3
comp=Z,3µmcomp=Z,244nm,1.0s
MBWA **Marble Bar** 51.93 209 P P 01 19 40.2 +0.8
comp=Z,320nm,1.1s
MBWA **Marble Bar** 51.93 209 P P 01 19 39.6 +0.1
comp=Z,184nm,1.1s
MBWA **Marble Bar** 51.93 209 P P 01 19 39.6 +0.1
MBWA **Marble Bar** 51.93 209 P P 01 19 39.6 +0.1
MBWA **Marble Bar** 51.93 209 ⇓P P 01 19 39.5 +0.1
MBWA **Marble Bar** 51.93 209 P P 01 19 40.0 +0.6
MBWA **Marble Bar** 51.93 209 P P 01 19 40.2 +0.8
comp=Z,4µmcomp=Z,320nm,1.1s
R16K **Pilot Point** 52.13 36 IAMs_20 IAMs_20 01 41 52.1
comp=Z,5µm,19.0s
J16K **Anvik River** 52.22 28 IAMs_20 IAMs_20 01 39 51.0
comp=Z,5µm,20.0s
P16K **Nushagak River** 52.24 34 IAMs_20 IAMs_20 01 39 38.8
comp=Z,6µm,20.0s
NOUC **Port Laguerre** 52.26 153 P P 01 19 42.7 +0.9

comp=Z,56nm,1.2s
M16K Timber Creek 52.27 31 IAMs_20 IAMs_20 01 39 26.6
comp=Z,5µm,20.0s
O16K Kokwok River B 52.32 33 IAMs_20 IAMs_20 01 39 42.0
comp=Z,6µm,20.0s
I17K Unalakleet 52.38 27 IAmb IAmb 01 19 55.6
comp=Z,556nm,1.6s
MK31 Makanchi Array 52.43 310*d* iP **P** **01 19 42.4 -0.6**
MK31 pmax pmax
comp=Z,49nm,0.8s
MKAR Makanchi Array 52.43 310 P **P** **01 19 42.4 -0.6**
comp=Z,28nm,0.5s,baz=88,slow=9.5,SNR=113
MKAR PcP **PcP** **01 20 53.8 +0.1**
comp=Z,20nm,0.9s,baz=83,slow=5.7,SNR=5.8
MKAR LR LR 01 43 11.9
comp=Z,6µm,18.1s,baz=89,slow=37
MKAR PKPPKP P'P'df 01 50 07.2 -12
comp=Z,2.0nm,1.1s,baz=327,slow=2.0,SNR=5.0
comp=Z,28nm,0.5s
MKAR Makanchi Array 52.43 310 P **P** **01 19 42.3 -0.7**
MARNC Mare, Loyalty 52.44 151 P **P** **01 19 44.4 +1.2**
comp=Z,97nm,1.2s
WRKA Warakurna 52.46 198 P **P** **01 19 43.5 +0.1**
comp=Z,203nm,1.1s
GAYA Gaya 52.46 283*i* P P 01 19 33.5 -10
YATNC Mamie plateau, 52.46 152 P **P** **01 19 44.5 +1.2**
comp=Z,83nm,1.1s
ONTNC Ouen Toro 52.50 153 P **P** **01 19 43.6 0.0**
comp=Z,86nm,1.4s
MAKZ Makanchi 52.65 310 P **P** **01 19 44.4 -0.2**
MAKZ pmax pmax
comp=Z,176nm,1.4s
MAKZ MLR MLR
comp=Z,6µm,19.0s
MAKZ Makanchi 52.65 310 P **P** **01 19 44.4 -0.2**
MAKZ IAMs_20 IAMs_20 01 42 59.5
comp=Z,6µm,19.0s
MAKZ Makanchi 52.65 310 ⇓P **P** **01 19 44.1 -0.5**
MAKZ Makanchi 52.65 310 P **P** **01 19 44.4 -0.2**
comp=Z,2µmcomp=Z,94nm,1.1s
OUENC Ouen Island, N 52.76 153 P **P** **01 19 47.4 +1.9**
comp=Z,60nm,1.3s
CHIR Chirikof Islan 52.88 38 P **P** **01 19 46.3 +0.3**
comp=Z,402nm,1.2s
CHIR Chirikof Islan 52.88 38 IAMs_20 IAMs_20 01 39 30.2
comp=Z,6µm,20.0s
J17K VABM Dome 52.90 28 IAMs_20 IAMs_20 01 40 43.2
comp=Z,5µm,19.0s
AUBSH Beerwah State 52.91 170 P **P** **01 19 47.6 +1.1**
comp=Z,84nm,1.8s
K17K Iditarod 53.04 29 IAMs_20 IAMs_20 01 40 07.9
comp=Z,5µm,20.0s
P17K Kvichak River 53.05 34 IAMs_20 IAMs_20 01 40 04.4
comp=Z,7µm,20.0s
M17K Holitna River 53.08 31 IAMs_20 IAMs_20 01 39 09.0
comp=Z,5µm,20.0s
BWNR Bhubaneshwar 53.16 277*i* P P 01 19 38.8 -10
PINNC Pines Island, 53.19 152 P **P** **01 19 50.1 +1.4**
comp=Z,69nm,1.2s
KIP Kipapa 53.32 82 P **P** **01 19 50.7 +0.9**
comp=Z,46nm,1.8s
KIP Kipapa 53.32 82 P **P** **01 19 50.4 +0.6**
comp=Z,46nm,1.8s
KIP Kipapa 53.32 82⇓*e*P **P** **01 19 49.3 -0.5**
KIP pmax pmax
comp=Z,184nm,1.4s
TW1H Toowoomba 1 Ha 53.43 171 P **P** **01 19 51.5 +1.0**
comp=Z,106nm,1.0s
AUTOO Toowoomba Stat 53.43 171 P **P** **01 19 51.3 +0.8**
comp=Z,171nm,1.1s
L18K Granite Mounta 53.63 30 IAMs_20 IAMs_20 01 40 38.5
comp=Z,6µm,20.0s
SII Sitkinak Islan 53.78 37 P **P** **01 19 53.5 +0.8**
comp=Z,266nm,0.9s
O18K Koktuh Hills 53.80 33 IAMs_20 IAMs_20 01 40 38.2
comp=Z,7µm,20.0s
SEM Semipalatinsk 53.91 315*e*P **P** **01 19 52.9 -1.2**
SEM *e*S **S** **01 27 27.8 -1.4**
SEM pmax pmax
comp=Z,49nm,0.6s
SEM MLR MLR
comp=Z,3µm,17.0s
SEM Semipalatinsk 53.91 315*e*P **P** **01 19 52.9 -1.2**
comp=Z,49nm,0.6s
SEM *e*S **S** **01 27 27.8 -1.4**
SEM LR LR 01 43 15.3
comp=Z,3µm,17.2s
J18K Innoko River 53.94 29 IAMs_20 IAMs_20 01 41 34.6
comp=Z,6µm,20.0s
GC1S Gold Coast 1 S 54.28 169 P **P** **01 19 57.9 +1.4**
comp=Z,54nm,0.8s
O19K Port Alsworth 54.30 33 IAMs_20 IAMs_20 01 40 54.5
comp=Z,5µm,21.0s
OHAK Old Harbor 54.36 37 P **P** **01 19 57.4 +0.5**
comp=Z,171nm,1.3s
OHAK Old Harbor 54.36 37 IAmb IAmb 01 20 08.0
comp=Z,140nm,1.0s
Q19K Cape Douglas, 54.42 35 IAmb IAmb 01 21 11.8
comp=Z,147nm,0.9s
Q19K IAMs_20 IAMs_20 01 41 28.7
comp=Z,7µm,20.0s
L19K White Mountain 54.46 30 IAMs_20 IAMs_20 01 41 15.4
comp=Z,6µm,20.0s
PDGK Podgornoye 54.47 306 P **P** **01 19 56.6 -1.6**
DGTI Dogotuki 54.49 136 P **P** **01 20 00.0 +1.6**
comp=Z,57nm,1.0s
SHLS Shalkode 54.50 306*d* iP **P** **01 19 55.4 -2.9**
SHLS Shalkode 54.50 306⇓*i*P **P** **01 19 55.5 -2.9**
NRIK Noril'sk 54.52 339 P **P** **01 19 58.3 +0.3**
comp=Z,202nm,0.7s,baz=110,slow=8.7,SNR=284
NRIK LR LR 01 43 51.5
comp=Z,3µm,21.9s,baz=118,slow=37
comp=Z,202nm,0.7s
NRIK Noril'sk 54.52 339*d* iP **P** **01 19 58.0 +0.1**
NRIK pmax pmax
comp=Z,158nm,0.9s
NRIK MLR MLR
comp=Z,5µm,21.0s
NRIK Noril'sk 54.52 339 P **P** **01 19 58.2 +0.3**
NRIK IAmb IAmb 01 20 12.8
comp=Z,291nm,1.0s
MSVF Nonsavu 54.55 139 LR LR 01 42 37.1
comp=Z,2µm,18.0s,baz=338,slow=35
MSVF Nonsavu 54.55 139 P **P** **01 20 00.3 +1.4**
comp=Z,93nm,1.3s
MSVF Nonsavu 54.55 139 P **P** **01 19 59.9 +1.0**
MSVF pmax pmax
comp=Z,95nm,1.1s
MSVF MLR MLR
comp=Z,3µm,18.0s
MSVF Nonsavu 54.55 139 P **P** **01 19 59.9 +1.0**
MSVF Nonsavu 54.55 139 ⇑P **P** **01 20 01.2 +2.4**
MSVF Nonsavu 54.55 139 P **P** **01 20 00.1 +1.2**
comp=Z,93nm,1.3s
KDAK Kodiak Island 54.81 36 P **P** **01 19 59.9 -0.2**
comp=Z,26nm,0.8s,baz=248,slow=4.0,SNR=24
KDAK LR LR 01 42 27.4
comp=Z,7µm,20.1s,baz=243,slow=35
comp=Z,26nm,0.8s
KDAK Kodiak Island 54.81 36*ce*P **P** **01 20 01.2 +1.0**
KDAK pmax pmax
comp=Z,118nm,1.8s
KDAK Kodiak Island 54.81 36 P **P** **01 20 00.3 +0.1**
KDAK IAmb IAmb 01 20 12.1
comp=Z,232nm,0.9s
KDAK Kodiak Island 54.81 36 IAMs_20 IAMs_20 01 42 06.0
comp=Z,7µm,20.0s
KDAK Kodiak Island 54.81 36 ⇑P **P** **01 19 59.9 -0.2**
KDAK Kodiak Island 54.81 36 P **P** **01 20 00.5 +0.3**
comp=Z,3µmcomp=Z,273nm,1.4s
KDAK pP **pwP** **01 20 06.9 -0.6**
WUS Wushi 54.82 304 P **P** **01 20 00.9 +0.2**
comp=Z,2µmcomp=Z,136nm,1.0s
UZB Uzynbulak 54.82 306*e*P **P** **01 20 00.6 -0.1**
UZB pmax pmax
comp=Z,27nm,0.8s
UZB Uzynbulak 54.82 306*e*P **P** **01 20 00.1 -0.7**
AULRC Lightning Ridg 54.86 175 P **P** **01 19 59.3 -1.5**
comp=Z,298nm,1.5s
KURK Kurchatov 54.96 315 P **P** **01 20 00.9 -0.5**
KURK Kurchatov 54.96 315 P **P** **01 20 00.9 -0.5**
KURK pmax pmax
comp=Z,264nm,1.0s
KURK MLR MLR
comp=Z,9µm,19.0s
KURK Kurchatov 54.96 315 P **P** **01 20 00.9 -0.5**
KURK IAmb IAmb 01 20 13.7
comp=Z,264nm,0.9s
KURK Kurchatov 54.96 315 P **P** **01 20 01.0 -0.5**
comp=Z,3µmcomp=Z,323nm,1.0s
L20K Farewell, AK 54.97 30 IAMs_20 IAMs_20 01 40 37.8
comp=Z,5µm,21.0s
KURBB Kurchatov Arra 55.02 315 P **P** **01 20 01.2 -0.6**
comp=Z,106nm,0.5s,baz=91,slow=8.4,SNR=821
KURBB S **S** **01 27 41.4 -2.2**
comp=Z,2.0nm,1.0s,baz=74,slow=10,SNR=5.0
KURBB LR LR 01 44 55.0
comp=Z,7µm,18.0s,baz=79,slow=38
KURBB PKPPKP P'P'df 01 50 05.0 -11
comp=Z,1.3nm,1.0s,baz=265,slow=2.7,SNR=6.0
comp=Z,106nm,0.5s
KURBB Kurchatov Arra 55.02 315 P **P** **01 20 01.0 -0.8**
TAVE Taveuni 55.02 136 P **P** **01 20 04.7 +2.5**
comp=Z,104nm,1.2s
KPKS Kokpek 55.05 306*e*P **P** **01 20 01.9 -0.4**
KPKS Kokpek 55.05 306*e*P **P** **01 20 01.9 -0.4**
K20K Telida 55.07 29 IAMs_20 IAMs_20 01 42 00.5
comp=Z,5µm,20.0s
TDK Taldyqorghan 55.17 308*e*P **P** **01 20 02.5 -0.5**
TDK *e*S **S** **01 27 45.1 -0.7**
TDK pmax pmax
comp=Z,428nm,2.7s
TDK MLR MLR
comp=Z,4µm,19.0s
TDK Taldyqorghan 55.17 308*e*P **P** **01 20 02.6 -0.5**
comp=Z,428nm,2.7s
TDK *e*S **S** **01 27 45.1 -0.7**
TDK LR LR 01 44 01.1
comp=Z,4µm,18.9s
M20K Styx River 55.19 31 IAMs_20 IAMs_20 01 41 28.8
comp=Z,5µm,20.0s
SATY Saty 55.28 306*d* iP **P** **01 20 03.4 -0.6**
SATY *e*S **S** **01 27 47.0 -0.6**
SATY Saty 55.28 306⇓*i*P **P** **01 20 03.4 -0.6**
SATY *e*S **S** **01 27 47.1 -0.6**
PRZ Przheval'sk 55.33 305 IAmb IAmb 01 20 15.8
comp=Z,198nm,0.8s
HOM Homer 55.55 34 IAMs_20 IAMs_20 01 39 55.3
comp=Z,6µm,22.0s
RAGD RAYAGADA 55.59 277*i* P P 01 19 56.9 -9.5
RAGD IAmb IAmb 01 20 18.9
comp=Z,329nm,1.2s
RAGD *i* S **S** **01 27 43.9 -8.2**
CNPM China Poot 55.73 34 IAmb IAmb 01 20 17.5
comp=Z,281nm,1.0s
CNPM IAMs_20 IAMs_20 01 41 30.3
comp=Z,5µm,21.0s
GIRL Giralia 55.77 213 P **P** **01 20 09.8 +2.3**
comp=Z,437nm,1.2s
PPLA Purkeypile 55.81 30 IAMs_20 IAMs_20 01 39 35.2
comp=Z,5µm,21.0s
IMAR Indian Mountai 55.82 26 P **P** **01 20 08.1 +0.8**
BLSP Bilaspur 55.88 280*i* P P 01 19 58.0 -10
LGTI Lohaghat 55.88 289*i* P P 01 19 57.8 -11
BRLK Bradley Lake 55.94 34 IAmb IAmb 01 20 18.6
comp=Z,130nm,1.0s
BRLK IAMs_20 IAMs_20 01 40 07.5
comp=Z,5µm,20.0s
SKT Skwentna 55.95 31 IAMs_20 IAMs_20 01 41 31.9
comp=Z,6µm,21.0s
POHA Pohakuloa 56.03 83 P **P** **01 20 10.5 +0.6**
comp=Z,136nm,1.1s
ARMA Armidale 56.21 172 P **P** **01 20 11.9 +1.3**
comp=Z,107nm,1.7s
ARMA Armidale 56.21 172 P **P** **01 20 11.3 +0.7**
comp=Z,107nm,1.7s
ARMA Armidale 56.21 172 ⇑P **P** **01 20 11.5 +0.9**
ARMA Armidale 56.21 172 P **P** **01 20 11.8 +1.2**
comp=Z,2µmcomp=Z,107nm,1.7s,comp=Z,2µm
MDOK Medeo 56.26 306*e*P **P** **01 20 10.5 -0.6**
MDOK *e*S **S** **01 27 59.9 -0.9**
MDOK Medeo 56.26 306*e*P **P** **01 20 10.6 -0.6**
MDOK *e*S **S** **01 27 59.9 -0.9**
MDOK LR LR 01 44 44.0
TNSS Tian-Shan 56.35 306*e*P **P** **01 20 11.2 -0.8**
TNSS Tian-Shan 56.35 306*e*P **P** **01 20 11.2 -0.8**
AAA Alma-Ata 56.35 306*e*P **P** **01 20 11.2 -0.4**
AAA pmax pmax
comp=Z,145nm,1.3s
AAA Alma-Ata 56.35 306*e*P **P** **01 20 11.2 -0.4**
comp=Z,145nm,1.3s
SLKM Skilak Lake 56.37 33 IAmb IAmb 01 20 30.1
comp=Z,141nm,1.2s
SLKM IAMs_20 IAMs_20 01 42 20.0
comp=Z,5µm,20.0s
KTH Kantishna Hill 56.49 29 IAMs_20 IAMs_20 01 42 45.1
comp=Z,4µm,20.0s
BPAW Bear Paw Mtn. 56.56 29 IAmb IAmb 01 20 24.8
comp=Z,291nm,1.2s
M22K Willow 56.58 31 IAmb IAmb 01 20 24.7
comp=Z,363nm,1.1s
M22K IAMs_20 IAMs_20 01 42 04.5
comp=Z,4µm,21.0s
O22K Cooper Landing 56.61 33 IAMs_20 IAMs_20 01 41 28.4
comp=Z,5µm,20.0s
RC01 Rabbit Creek A 56.68 32 IAmb IAmb 01 20 24.4
comp=Z,241nm,1.2s
RC01 IAMs_20 IAMs_20 01 42 22.1
comp=Z,5µm,20.0s
SEW Seward 56.70 33 IAMs_20 IAMs_20 01 42 11.8
comp=Z,4µm,19.0s
KUU Kurty 56.72 307*e*P **P** **01 20 13.7 -0.4**
KUU MLR MLR
comp=Z,2µm,16.0s
KUU Kurty 56.72 307*e*P **P** **01 20 13.8 -0.4**
KUU LR LR 01 45 10.5
comp=Z,2µm,15.5s
TRF Thorofare Moun 56.76 29 IAmb IAmb 01 20 28.4
comp=Z,260nm,1.1s
AUPHS Peel High Scho 56.79 173 P **P** **01 20 15.6 +1.0**
comp=Z,128nm,1.7s
CMSA Cobar Meteorol 56.83 178 P **P** **01 20 15.4 +0.5**
comp=Z,259nm,1.2s
CMSA Cobar Meteorol 56.83 178 P **P** **01 20 14.9 0.0**
comp=Z,259nm,1.2s
CMSA Cobar Meteorol 56.83 178 P **P** **01 20 14.8 -0.1**
comp=Z,259nm,1.2s
MLY Manley 56.84 28 IAmb IAmb 01 20 27.0
comp=Z,239nm,1.2s
ASAI AK-SAY(Kyrgyzs 56.88 304 P **P** **01 20 16.0 +0.3**
comp=Z,2µmcomp=Z,77nm,1.0s
ULHL Ulahol 56.94 305 P **P** **01 20 15.9 -0.1**
SNR=23
KLP Kalpa 56.99 292*i* P P 01 20 04.9 -12
KLP *i* S S 01 27 58.6 -12
UTK UTTARKASHI 56.99 291*i* P P 01 20 04.6 -12
UTK *i* S S 01 27 59.1 -12
PMR Palmer 57.03 32 P **P** **01 20 15.8 -0.2**
comp=Z,286nm,1.1s
PMR Palmer 57.03 32 IAmb IAmb 01 20 26.8
comp=Z,272nm,1.0s
GHO Glory Hole Cre 57.15 32 IAmb IAmb 01 20 30.9
comp=Z,136nm,1.0s
STKA Stephens Creek 57.17 182 P **P** **01 20 16.5 -0.7**
comp=Z,495nm,1.1s
STKA Stephens Creek 57.17 182 P **P** **01 20 16.7 -0.6**
comp=Z,82nm,1.0s,baz=351,slow=7.6,SNR=67
STKA LR LR 01 45 26.1
comp=Z,2µm,20.7s,baz=17,slow=37
comp=Z,82nm,1.0s
STKA Stephens Creek 57.17 182 P **P** **01 20 16.7 -0.6**
comp=Z,24nm,1.1s
STKA Stephens Creek 57.17 182*d* iP **P** **01 20 16.6 -0.7**
STKA Stephens Creek 57.17 182 P **P** **01 20 16.6 -0.7**
comp=Z,495nm,1.1s
MEEK Meekatharra 57.25 207 P **P** **01 20 18.2 +0.2**
comp=Z,200nm,1.1s
MEEK Meekatharra 57.25 207 P **P** **01 20 18.0 0.0**
comp=Z,200nm,1.1s
MEEK Meekatharra 57.25 207 P **P** **01 20 18.2 +0.2**
comp=Z,200nm,1.1s
KNK Knik Glacier 57.33 32 IAMs_20 IAMs_20 01 42 31.3
comp=Z,7µm,22.0s
PWL Port Wells 57.33 33 IAmb IAmb 01 20 29.2
comp=Z,303nm,1.1s
PWL IAMs_20 IAMs_20 01 42 00.4
comp=Z,6µm,21.0s
TKM2 Tokmak 2 57.34 306 P **P** **01 20 18.9 0.0**
SNR=46
ALCI Alchi Leh 57.35 296*i* P P 01 20 07.3 -12
RND Reindeer 57.39 30 IAmb IAmb 01 20 29.4
comp=Z,199nm,1.0s
RND IAMs_20 IAMs_20 01 43 25.7
comp=Z,5µm,20.0s
SML Sawmill 57.43 32 IAmb IAmb 01 20 30.8
comp=Z,515nm,1.2s
SML IAMs_20 IAMs_20 01 41 50.0
comp=Z,5µm,21.0s
AUDCS Dubbo College 57.69 175 P **P** **01 20 21.7 +0.8**
comp=Z,155nm,1.2s
P23K Montague Islan 57.71 34 IAMs_20 IAMs_20 01 42 10.6
comp=Z,6µm,20.0s
KSH2 Kashi 57.83 302 P **P** **01 20 22.6 +0.3**
KSH2 sP pwP 01 20 32.0 +2.5
KSH2 S **S** **01 28 23.4 +1.8**
KSH2 pmax pmax
comp=Z,120nm,1.0s
KSH2 pmax pmax
comp=Z,2µm,12.5s
KSH2 L L
comp=Z,2µm,17.5s
KSH2 L L
comp=Z,4µm,18.9s
KSH2 L L
comp=Z,6µm,18.5s
KBK Karagaybulak 57.85 306 P **P** **01 20 22.4 0.0**
SNR=39
WRH Wood River Hil 57.87 28 IAmb IAmb 01 20 33.7
comp=Z,172nm,1.1s
WRH IAMs_20 IAMs_20 01 47 18.4
comp=Z,4µm,19.0s
CHMS Churnysh 57.95 306 P **P** **01 20 23.4 +0.5**
SNR=36
FORT Forrest 57.99 196 P **P** **01 20 23.1 +0.1**
comp=Z,355nm,0.9s
DHY Denali Highway 58.01 30 IAMs_20 IAMs_20 01 43 36.3
comp=Z,5µm,21.0s
CCB Clear Creek Bu 58.02 28 IAMs_20 IAMs_20 01 43 30.3
comp=Z,4µm,20.0s
COLA College 58.03 28 P **P** **01 20 23.8 +0.8**
comp=Z,55nm,1.3s
COLA College 58.03 28 P **P** **01 20 23.0 0.0**
COLA pmax pmax
comp=Z,75nm,0.9s
COLA College 58.03 28 P **P** **01 20 23.0 0.0**
COLA College 58.03 28 IAMs_20 IAMs_20 01 43 31.4
comp=Z,4µm,19.0s
COLA College 58.03 28 ⇓P **P** **01 20 22.6 -0.4**
COLA College 58.03 28 P **P** **01 20 23.1 +0.1**
COLA College 58.03 28 P **P** **01 20 23.6 +0.6**
comp=Z,1µmcomp=Z,94nm,1.3s,comp=Z,1µm
USP Ospenovka 58.11 306 P **P** **01 20 24.4 +0.4**
SNR=36
H24K Noodor Dome 58.15 27 IAmb IAmb 01 20 36.8
comp=Z,156nm,1.1s
H24K IAMs_20 IAMs_20 01 48 33.8
comp=Z,3µm,19.0s
AAK Ala-Archa 58.18 306 LR LR 01 47 16.2
comp=Z,3µm,18.3s,baz=78,slow=38
AAK Ala-Archa 58.18 306 P **P** **01 20 24.3 -0.3**
SNR=36
AAK Ala-Archa 58.18 306*i* P **P** **01 20 24.5 -0.3**
SNR=16
AAK Ala-Archa 58.18 306 P **P** **01 20 24.9 +0.2**
AAK Ala-Archa 58.18 306 P **P** **01 20 24.4 -0.3**
AAK Ala-Archa 58.18 306 P **P** **01 20 24.4 -0.3**
AAK Ala-Archa 58.18 306 ⇑P **P** **01 20 24.4 -0.3**
AAK Ala-Archa 58.18 306 P **P** **01 20 24.8 +0.1**
AAK Ala-Archa 58.18 306 P **P** **01 20 24.7 0.0**
comp=Z,1µmcomp=Z,66nm,1.1s
HIN Hinchinbrook I 58.19 33 IAMs_20 IAMs_20 01 41 41.2
comp=Z,6µm,21.0s
UCH Uchtor 58.22 305 P **P** **01 20 25.9 +0.6**
SNR=114
FID Port Fidalgo 58.23 33 IAMs_20 IAMs_20 01 50 09.0
comp=Z,5µm,18.0s
POKR Poker Plat Res 58.23 28 IAmb IAmb 01 20 36.4
comp=Z,155nm,1.0s
HDA Harding Lake 58.35 29 IAmb IAmb 01 20 36.0
comp=Z,221nm,1.1s
ILAR Eielson Array 58.42 28 P **P** **01 20 24.9 -0.8**
comp=Z,52nm,0.8s,baz=259,slow=5.8,SNR=314
ILAR LR LR 01 44 13.9
comp=Z,4µm,20.1s,baz=244,slow=35
ILAR PKPPKP P'P'df 01 49 58.1 -12
comp=Z,4.6nm,1.2s,baz=142,slow=1.3,SNR=9.5
comp=Z,52nm,0.8s
ILAR Eielson Array 58.42 28 P **P** **01 20 25.0 -0.8**
ILAR Eielson Array 58.42 28 P **P** **01 20 24.7 -1.1**
TSSA Tissa 58.47 294*i* P P 01 20 12.4 -14
TSSA *i* S S 01 28 16.4 -14
NDI New Delhi 58.49 289*i* P P 01 20 15.1 -12
NDI *i* S S 01 28 18.7 -12
BBOO Buckleboo 58.52 187 P **P** **01 20 26.9 +0.1**
comp=Z,129nm,1.3s
BBOO Buckleboo 58.52 187 P **P** **01 20 26.9 +0.1**
comp=Z,129nm,1.3s
BBOO Buckleboo 58.52 187 P **P** **01 20 26.8 +0.1**
comp=Z,129nm,1.3s
C24K Franklin Bluff 58.52 22 IAmb IAmb 01 20 38.9
comp=Z,626nm,1.2s
C24K IAMs_20 IAMs_20 01 45 48.5
comp=Z,3µm,20.0s
AFI Afiamalu 58.54 127 LR LR 01 40 59.8
comp=Z,3µm,20.4s,slow=31
NPLP NPLP New Delhi 58.54 289*i* P P 01 20 15.4 -12
KLU Klutina 58.55 32 IAmb IAmb 01 20 38.5
comp=Z,230nm,1.0s
KLU IAMs_20 IAMs_20 01 43 30.6
comp=Z,6µm,21.0s
EYAK Cordova Ski Ar 58.57 33 P **P** **01 20 27.8 +0.9**
comp=Z,159nm,1.2s
EYAK Cordova Ski Ar 58.57 33 IAmb IAmb 01 20 38.7
comp=Z,225nm,1.1s
EYAK IAMs_20 IAMs_20 01 43 41.3
comp=Z,5µm,19.0s
BHK Bhakra 58.58 292*i* P P 01 20 15.3 -12
BHK *i* S S 01 28 18.8 -13
DIV Divide 58.60 32 IAMs_20 IAMs_20 01 42 49.8
comp=Z,4µm,20.0s
NTLH Newcastle Hard 58.66 172 P **P** **01 20 28.3 +0.6**
comp=Z,212nm,0.9s
EKS2 Erkin-Say 58.70 306 P **P** **01 20 28.9 +0.6**
SNR=56
K24K Donnelly Dome 58.80 29 IAmb IAmb 01 20 40.4
comp=Z,132nm,1.0s
K24K IAMs_20 IAMs_20 01 43 16.1
comp=Z,4µm,21.0s
HTT Hallett 58.86 185 P **P** **01 20 29.5 +0.4**
comp=Z,52nm,1.0s
HTT Hallett 58.86 185 P **P** **01 20 29.1 0.0**
comp=Z,131nm,1.2s
HTT Hallett 58.86 185 ⇑P **P** **01 20 29.2 0.0**
PAX Paxson 58.87 30 IAMs_20 IAMs_20 01 44 03.9
comp=Z,5µm,20.0s
MGCD Mangrove Creek 58.90 173 P **P** **01 20 31.4 +2.0**
comp=Z,85nm,1.3s
MGCD Mangrove Creek 58.90 173 P **P** **01 20 31.0 +1.6**
comp=Z,87nm,1.3s
MGCD Mangrove Creek 58.90 173 P **P** **01 20 29.3 -0.1**
comp=Z,858nmcomp=Z,85nm,1.3s
NGP Nagpur 58.93 280*i* P P 01 20 19.5 -11
NGP IAmb IAmb 01 20 40.6
comp=Z,454nm,1.1s
NGP *i* S S 01 28 25.9 -10
HARP HAARP 58.97 31 IAMs_20 IAMs_20 01 44 47.7
comp=Z,4µm,20.0s
COCO West Island 59.04 236 P **P** **01 20 31.6 +0.9**
comp=Z,347nm,1.5s
COCO West Island 59.04 236 P **P** **01 20 31.7 +1.0**
COCO West Island 59.04 236 P **P** **01 20 31.1 +0.4**
COCO pmax pmax
comp=Z,870nm,1.3s
COCO West Island 59.04 236 P **P** **01 20 31.1 +0.4**
COCO West Island 59.04 236 ⇑P **P** **01 20 29.0 -1.7**
COCO West Island 59.04 236 P **P** **01 20 32.2 +1.5**
comp=Z,5µmcomp=Z,347nm,1.5s
COCO West Island 59.04 236 P **P** **01 20 31.0 +0.4**
comp=Z,10µmcomp=Z,680nm,1.5s,comp=Z,10µm
PRP Porcupine Dome 59.08 27 IAmb IAmb 01 20 42.3
comp=Z,94nm,1.2s
PRP IAMs_20 IAMs_20 01 44 24.3
comp=Z,3µm,20.0s
BMRM Bremner River 59.15 33 IAMs_20 IAMs_20 01 42 25.7
comp=Z,6µm,22.0s
AUKHS Kincumber High 59.18 172 P **P** **01 20 32.8 +1.5**
comp=Z,294nm,2.0s
RIDG Independent Ri 59.21 29 IAMs_20 IAMs_20 01 44 31.9
comp=Z,4µm,20.0s
KUDL Kundal 59.24 289*i* P P 01 20 20.0 -12
KUDL *i* S S 01 28 27.3 -13

F25K Christian Rive 59.28 25 IAMs_20 IAMs_20 01 45 38.4
comp=Z,4µm,20.0s
SYDH Sydney Hard Ro 59.41 173 P **P** **01 20 34.0 +1.2**
comp=Z,136nm,1.1s
BMAR Burnt Mountain 59.66 25 P **P** **01 20 35.8 +1.4**
MENT Mentasta 59.66 30 P **P** **01 20 34.8 +0.3**
comp=Z,132nm,1.3s
MENT Mentasta 59.66 30 IAmb IAmb 01 20 45.9
comp=Z,106nm,0.9s
VRDI Verde Repeater 59.72 32 IAmb IAmb 01 20 46.8
comp=Z,218nm,1.2s
VRDI IAMs_20 IAMs_20 01 42 43.7
comp=Z,5µm,21.0s
L26K Log Cabin Wild 59.84 30 IAmb IAmb 01 20 53.3
comp=Z,122nm,1.1s
L26K IAMs_20 IAMs_20 01 44 33.6
comp=Z,6µm,20.0s
CRQM Cirque 59.87 33 IAMs_20 IAMs_20 01 43 34.1
comp=Z,6µm,21.0s
TGL Tana Glacier 60.02 33 IAMs_20 IAMs_20 01 44 22.5
comp=Z,6µm,20.0s
BVAR Borovoye Array 60.03 318 P **P** **01 20 37.1 0.0**
comp=Z,284nm,0.5s,baz=88,slow=7.4,SNR=932
BVAR S **S** **01 28 53.3 +3.9**
comp=Z,3.2nm,1.0s,baz=59,slow=9.4,SNR=3.7
BVAR PKPPKP P'P'df 01 49 59.6 -8.3
comp=Z,5.0nm,1.1s,baz=270,slow=3.0,SNR=5.2
comp=Z,284nm,0.5s
I26K Coal Creek Min 60.05 28 IAMs_20 IAMs_20 01 44 33.0
comp=Z,4µm,20.0s
WOLH Wollongong Har 60.06 173 P **P** **01 20 39.1 +1.8**
comp=Z,104nm,1.0s
BORK Borovoye 60.07 318 P **P** **01 20 37.4 0.0**
BORK pmax pmax
comp=Z,232nm,0.6s
BORK MLR MLR
comp=Z,3µm,18.0s
BORK Borovoye 60.07 318 P **P** **01 20 37.4 0.0**
ARK Arkit 60.16 305 P **P** **01 20 38.7 +0.4**
comp=Z,3µmcomp=Z,232nm,0.9s
KMBL Kambalda 60.33 201 P **P** **01 20 39.8 +0.5**
comp=Z,43nm,1.4s
AUMAR Marden Senior 60.33 185 P **P** **01 20 40.2 +1.0**
comp=Z,114nm,1.3s
K27K Chicken 60.45 29 IAmb IAmb 01 20 53.7
comp=Z,194nm,1.3s
MORW Morawa 60.45 208 P **P** **01 20 40.7 +0.5**
comp=Z,161nm,1.3s
MORW Morawa 60.45 208 P **P** **01 20 40.7 +0.5**
comp=Z,161nm,1.3s
MORW Morawa 60.45 208 P **P** **01 20 39.6 -0.6**
MORW IAmb IAmb 01 20 52.1
comp=Z,154nm,1.0s
MORW Morawa 60.45 208 ⇑P **P** **01 20 40.4 +0.2**
MORW Morawa 60.45 208 P **P** **01 20 40.6 +0.5**
comp=Z,3µmcomp=Z,161nm,1.3s
DZA Taraz 60.46 306 *e*P **P** **01 20 39.9 -0.4**
DZA Taraz 60.46 306 *e*P **P** **01 20 39.9 -0.4**
M27K Edge Creek, AK 60.50 31 IAmb IAmb 01 20 52.7
comp=Z,227nm,1.2s
AUMBR Murray Bridge 60.53 184 P **P** **01 20 40.6 +0.1**
comp=Z,130nm,2.1s
L27K Beaver Creek, 60.53 30 IAmb IAmb 01 20 52.3
comp=Z,161nm,1.1s
L27K IAMs_20 IAMs_20 01 45 05.9
comp=Z,6µm,20.0s
GRNC Granite Creek 60.55 33 IAmb IAmb 01 20 52.3
comp=Z,173nm,1.0s
GRNC IAMs_20 IAMs_20 01 44 47.4
comp=Z,7µm,20.0s
BCAR Beaver Creek A 60.55 30 P **P** **01 20 40.9 +0.3**
YAH Yahtse 60.55 33 IAmb IAmb 01 20 52.6
comp=Z,152nm,1.0s
YAH IAMs_20 IAMs_20 01 44 23.6
comp=Z,5µm,19.0s
HYB Hyderabad 60.58 276 *e*P **P** **01 20 41.3 -0.2**
HYB IVmB_BB 01 20 42.6
comp=Z,2µm,1.3s
HYB *ep*P **sP** **01 20 46.7 +0.4**
HYB *e*PcP **PcP** **01 21 25.8 -0.1**
HYB *e*PP **PP** **01 22 55.8 +0.8**
HYB *e*S **S** **01 28 57.0 -0.5**
HYB *e*ScS SKKSac 01 30 31.1 -1.4
HYB *e*SS **SS** **01 32 57.5 +1.7**
HYB IVMs_BB IVMs_BB 01 53 02.1
comp=Z,463nm,16.1s
BARN Barnard Glacie 60.59 33 IAmb IAmb 01 20 52.6
comp=Z,114nm,1.0s
BARN IAMs_20 IAMs_20 01 43 55.6
comp=Z,5µm,22.0s
DRK Karamyk 60.66 302 IAmb IAmb 01 20 55.9
comp=Z,98nm,0.7s
NIL Nilore 60.67 296 P **P** **01 20 41.8 0.0**
NIL Nilore 60.67 296 P **P** **01 20 42.0 +0.2**
NIL pmax pmax
comp=Z,1µm,1.7s
NIL Nilore 60.67 296 P **P** **01 20 42.0 +0.2**
NIL IAmb IAmb 01 20 54.5
comp=Z,1µm,1.6s
NIL Nilore 60.67 296 ⇓P **P** **01 20 41.9 0.0**
NIL Nilore 60.67 296 P **P** **01 20 42.1 +0.2**
comp=Z,5µmcomp=Z,421nm,1.2s,comp=Z,5µm
I27K Kandik River 60.71 27 IAmb IAmb 01 20 53.1
comp=Z,185nm,1.1s
I27K IAMs_20 IAMs_20 01 45 03.4
comp=Z,4µm,20.0s
AUDAR Daramalan Coll 60.73 175 P **P** **01 20 42.2 +0.2**
comp=Z,267nm,1.1s
AUMTS Mt Stromlo 60.79 175 P **P** **01 20 43.1 +0.7**
comp=Z,248nm,1.1s
CAN Canberra 60.79 175 P **P** **01 20 43.0 +0.6**
comp=Z,219nm,1.1s
CAN Canberra 60.79 175 P **P** **01 20 43.1 +0.6**
comp=Z,335nm,1.1s
CAN Canberra 60.79 175 P **P** **01 20 43.0 +0.6**
CAN Canberra 60.79 175 IAmb IAmb 01 20 45.0
comp=Z,242nm,1.1s
CAN Canberra 60.79 175 ⇑P **P** **01 20 42.2 -0.2**
CAN Canberra 60.79 175 P **P** **01 20 42.4 0.0**
comp=Z,219nm,1.1s
CNB Canberra Magne 60.81 175 P **P** **01 20 44.0 +1.4**
comp=Z,159nm,1.3s
AKL Akola 60.89 280 *i* P P 01 20 31.6 -12
AKL *i* S S 01 28 49.7 -12
LOGN Logan Glacier 60.91 33 IAMs_20 IAMs_20 01 44 04.1
comp=Z,7µm,22.0s
AUUHS Ulladulla High 60.96 174 P **P** **01 20 45.2 +1.7**
comp=Z,168nm,1.4s
KK31 Karatay Array 61.02 307 *i* P **P** **01 20 43.8 -0.3**
KK31 Karatay Array 61.02 307 IAmb IAmb 01 20 46.3
comp=Z,212nm,0.9s
KKAR Karatay Array 61.02 307 P **P** **01 20 43.7 -0.4**
KKAR Karatay Array 61.02 307 P **P** **01 20 43.7 -0.4**
XMAS Kiritimati 61.25 102 P **P** **01 20 47.6 +1.6**
XMAS IAmb IAmb 01 20 53.7
comp=Z,183nm,1.1s
XMAS Kiritimati 61.25 102 P **P** **01 20 48.6 +2.6**
comp=Z,183nm,1.1s
AJM Ajmer 61.29 287 *i* P P 01 20 33.0 -13
AJM *i* S S 01 28 53.0 -13
PCA Pinnacle 61.30 34 IAmb IAmb 01 20 57.4
comp=Z,159nm,0.8s
O28M Mount Upton 61.31 33 IAmb IAmb 01 20 57.9
comp=Z,193nm,1.1s
O28M IAMs_20 IAMs_20 01 45 00.7
comp=Z,6µm,22.0s
I28M Miner Creek 61.40 28 IAmb IAmb 01 20 58.1
comp=Z,175nm,1.0s
I28M IAMs_20 IAMs_20 01 46 15.8
comp=Z,5µm,20.0s
F28M Old Crow 61.48 25 IAmb IAmb 01 20 59.4
comp=Z,218nm,1.1s
BRLS Borolday 61.52 307 *e*P **P** **01 20 47.8 +0.3**
BRLS pmax pmax
comp=Z,94nm,1.6s
BRLS Borolday 61.52 307 *e*P **P** **01 20 47.8 +0.3**
comp=Z,94nm,1.6s
IUG luzhnay 61.52 306 *d i*P **P** **01 20 47.1 -0.5**
IUG *e*S **S** **01 29 08.6 -0.4**
IUG pmax pmax
comp=Z,185nm,0.9s
IUG luzhnay 61.52 306 ⇓*i*P **P** **01 20 47.1 -0.5**
comp=Z,185nm,0.9s
IUG *e*S **S** **01 29 08.6 -0.4**
BLDU Ballidu 61.54 206 P **P** **01 20 48.0 +0.5**
comp=Z,334nm,1.3s
BLDU Ballidu 61.54 206 P **P** **01 20 47.2 -0.3**
comp=Z,334nm,1.3s
BLDU Ballidu 61.54 206 P **P** **01 20 48.0 +0.5**
comp=Z,4µmcomp=Z,334nm,1.3s
PNL Peninsula 61.75 34 P **P** **01 20 49.6 +0.9**
comp=Z,228nm,1.0s
AUSMG Snowy Mountain 61.85 175 P **P** **01 20 50.3 +0.7**
comp=Z,114nm,1.3s
KLBR Kellerberrin 62.00 205 P **P** **01 20 50.8 +0.2**
comp=Z,568nm,1.2s
KLBR Kellerberrin 62.00 205 P **P** **01 20 50.3 -0.3**
comp=Z,568nm,1.2s
KLBR Kellerberrin 62.00 205 P **P** **01 20 50.8 +0.2**
comp=Z,5µmcomp=Z,568nm,1.2s
ARPS Mount Arapiles 62.04 182 P **P** **01 20 51.2 +0.4**
comp=Z,181nm,1.1s
H29M Whitestone 62.05 27 IAmb IAmb 01 21 02.8
comp=Z,190nm,1.1s
I29M Ogilvie Camp, 62.08 28 IAmb IAmb 01 21 02.7
comp=Z,209nm,1.1s
I29M IAMs_20 IAMs_20 01 46 35.8
comp=Z,4µm,20.0s
M29M Somme Creek 62.09 31 IAmb IAmb 01 21 03.4
comp=Z,193nm,0.9s
M29M IAMs_20 IAMs_20 01 46 25.0
comp=Z,4µm,20.0s
MALK Mahakanadarawa 62.17 266 P **P** **01 20 52.0 -0.3**
MALK S **S** **01 29 13.8 -4.0**
MALK Mahakanadarawa 62.17 266 ⇓P **P** **01 20 52.2 -0.1**
MALK Mahakanadarawa 62.17 266 P **P** **01 20 52.5 +0.2**
comp=Z,2µmcomp=Z,222nm,1.2s
L29M L29M 62.22 30 IAMs_20 IAMs_20 01 46 17.4
comp=Z,5µm,20.0s
E29M Blow River 62.24 24 IAmb IAmb 01 21 04.4
comp=Z,192nm,1.1s
PALK Pallekele 62.50 265 LR LR 01 49 00.5
comp=Z,800nm,18.0s,baz=46,slow=37
PALK Pallekele 62.50 265 *i* P **P** **01 20 54.3 -0.1**
SNR=24
PALK Pallekele 62.50 265 P **P** **01 20 54.7 +0.2**
PALK S **S** **01 29 21.7 -0.2**
PALK Pallekele 62.50 265 P **P** **01 20 54.7 +0.2**
PALK pmax pmax
comp=Z,177nm,1.1s
PALK MLR MLR
comp=Z,1µm,19.0s
PALK Pallekele 62.50 265 P **P** **01 20 54.7 +0.2**
PALK IAmb IAmb 01 21 06.1
comp=Z,176nm,1.1s
PALK Pallekele 62.50 265 P **P** **01 20 55.0 +0.5**
PALK Pallekele 62.50 265 P **P** **01 20 54.1 -0.3**
PALK Pallekele 62.50 265 P **P** **01 20 55.1 +0.7**
comp=Z,2µmcomp=Z,166nm,1.2s,comp=Z,2µm
MILA Mila 62.52 175 P **P** **01 20 55.6 +1.5**
comp=Z,39nm,1.2s
MILA Mila 62.52 175 ⇓P **P** **01 20 55.4 +1.3**
P29M Windy Craggy 62.59 34 IAMs_20 IAMs_20 01 50 12.6
comp=Z,4µm,20.0s
N30M Aishikik Lake 62.78 32 IAmb IAmb 01 21 07.9
comp=Z,135nm,1.0s
N30M IAMs_20 IAMs_20 01 45 04.6
comp=Z,5µm,21.0s
BRAT Ballarat 62.80 180 P **P** **01 20 56.8 +1.0**
comp=Z,58nm,1.0s
AUKUL Kulin High Sch 62.81 204 P **P** **01 20 56.0 -0.1**
comp=Z,268nm,1.3s
M30M Minto, Yukon 62.85 31 IAmb IAmb 01 21 08.2
comp=Z,160nm,1.1s
M30M IAMs_20 IAMs_20 01 46 26.3
comp=Z,5µm,21.0s
I30M Mount Dempster 62.90 28 IAMs_20 IAMs_20 01 46 22.3
comp=Z,4µm,21.0s
J30M Hart River 62.95 29 IAmb IAmb 01 21 08.7
comp=Z,99nm,0.9s
HALK Hakmana 63.02 264 ⇓P **P** **01 20 57.8 -0.1**
HALK Hakmana 63.02 264 P **P** **01 20 58.0 +0.1**
comp=Z,2µmcomp=Z,197nm,1.2s
O30N Mendenhall 63.32 33 IAmb IAmb 01 21 11.1
comp=Z,99nm,0.9s
O30N IAMs_20 IAMs_20 01 46 25.8
comp=Z,6µm,21.0s
NWAO Narrogin (SRO) 63.38 205 P **P** **01 21 00.3 +0.5**
comp=Z,482nm,1.1s
NWAO Narrogin (SRO) 63.38 205 P **P** **01 21 00.4 +0.5**
comp=Z,297nm,1.1s
NWAO Narrogin (SRO) 63.38 205 P **P** **01 20 59.8 -0.1**
comp=Z,121nm,1.0s,baz=27,slow=6.5,SNR=26
comp=Z,121nm,1.0s
NWAO Narrogin (SRO) 63.38 205 P **P** **01 21 00.2 +0.4**
comp=Z,224nm,1.1s
NWAO Narrogin (SRO) 63.38 205 P **P** **01 20 59.6 -0.2**
NWAO Narrogin (SRO) 63.38 205 P **P** **01 20 59.9 +0.1**
NWAO pmax pmax
comp=Z,305nm,1.1s
NWAO Narrogin (SRO) 63.38 205 P **P** **01 20 59.9 +0.1**
NWAO Narrogin (SRO) 63.38 205 P **P** **01 21 00.4 +0.5**
comp=Z,283nm,1.1s
N31M Broburn, Yuko 63.41 32 IAMs_20 IAMs_20 01 45 12.1
comp=Z,5µm,21.0s
AUSSC Sale College, 63.43 177 P **P** **01 21 00.5 +0.5**
comp=Z,575nm,1.6s
S31K Pelican 63.53 36 IAMs_20 IAMs_20 01 45 17.5
comp=Z,6µm,21.0s
H31M Peel River 63.71 27 IAMs_20 IAMs_20 01 45 46.8
comp=Z,4µm,20.0s
SKAG Skagway 63.83 34 P **P** **01 21 03.7 +1.2**
comp=Z,115nm,1.1s
SKAG Skagway 63.83 34 IAmb IAmb 01 21 18.0
comp=Z,123nm,1.1s
SKAG Skagway 63.83 34 ⇑P **P** **01 21 03.7 +1.2**
F31M Tsiigehtchic 63.84 25 IAmb IAmb 01 21 13.8
comp=Z,117nm,1.0s
KBL Kabul 63.86 298 P **P** **01 21 03.2 -0.3**
SNR=210
KBL Kabul 63.86 298 P **P** **01 21 03.0 -0.4**
KBL pmax pmax
comp=Z,393nm,1.1s
KBL Kabul 63.86 298 P **P** **01 21 03.0 -0.4**
KBL Kabul 63.86 298 P **P** **01 21 03.1 -0.4**
comp=Z,4µmcomp=Z,406nm,1.0s
INK Inuvik 63.87 24 P **P** **01 21 02.6 0.0**
comp=Z,45nm,0.5s,baz=295,slow=5.2,SNR=386
comp=Z,45nm,0.5s
INK Inuvik 63.87 24 IAmb IAmb 01 21 14.1
comp=Z,224nm,1.1s
INK Inuvik 63.87 24 ⇓P **P** **01 21 02.6 0.0**
INK Inuvik 63.87 24 P **P** **01 21 02.8 +0.2**
comp=Z,2µmcomp=Z,214nm,1.1s
INK pP **pwP** **01 21 09.6 -0.4**
M31M Drury Creek, Y 64.00 31 IAmb IAmb 01 21 15.4
comp=Z,195nm,1.0s
M31M IAMs_20 IAMs_20 01 46 13.6
comp=Z,5µm,22.0s
SIT Sitka 64.12 37 P **P** **01 21 07.0 +2.5**
comp=Z,99nm,1.0s
BESE Bessie Mountai 64.18 35 IAMs_20 IAMs_20 01 46 02.6
comp=Z,5µm,20.0s
KOD Kodaikanal 64.21 269 *i* P P 01 20 52.9 -13
KOD IAmb IAmb 01 21 17.9
comp=Z,413nm,1.2s
KOD *i* S S 01 29 30.7 -13
JASL Jaisalmer 64.35 289 *i* P P 01 20 54.1 -12
R32K Eaglecrest 64.39 35 IAmb IAmb 01 21 18.4
comp=Z,177nm,1.0s
R32K IAMs_20 IAMs_20 01 46 17.3
comp=Z,4µm,20.0s
JIS Juneau Island 64.46 35 P **P** **01 21 07.8 +1.1**
comp=Z,287nm,1.1s
S32K Killisnoo 64.47 36 IAMs_20 IAMs_20 01 44 01.4
comp=Z,4µm,20.0s
KAD Karad 64.54 278 *i* P P 01 20 56.6 -11
KAD IAML 01 21 17.9
comp=Z,393nm,1.2s
KAD *i* S S 01 29 34.0 -13
P32M Atlin 64.63 34 IAmb IAmb 01 21 19.8
comp=Z,120nm,1.1s
P32M IAMs_20 IAMs_20 01 48 18.5
comp=Z,4µm,20.0s
N32M Quiet Lake 64.74 32 IAmb IAmb 01 21 20.9
comp=Z,170nm,0.9s
N32M IAMs_20 IAMs_20 01 46 44.3
comp=Z,4µm,21.0s
RKGY Rocky Gully 64.98 204 P **P** **01 21 11.7 +1.4**
comp=Z,81nm,1.3s
P33M Teslin, Yukon 65.00 33 IAmb IAmb 01 21 22.1
comp=Z,152nm,1.0s
SVE Sverdlovsk 65.21 323 *c i*P **P** **01 21 11.9 +0.3**
SVE *e*S **S** **01 29 57.4 +3.1**
SVE pmax pmax
comp=Z,313nm,1.1s
SVE MLR MLR
comp=Z,2µm,20.0s
Q32M Nakina River 65.46 35 IAmb IAmb 01 21 33.0
comp=Z,191nm,1.4s
Q32M IAMs_20 IAMs_20 01 46 57.4
comp=Z,6µm,20.0s
U33K Whale Pass 65.47 38 IAMs_20 IAMs_20 01 44 33.9
comp=Z,4µm,20.0s
CRAG Craig 65.58 38 P **P** **01 21 14.8 +0.8**
comp=Z,143nm,1.1s
WRAK Wrangell Islan 65.84 37 IAmb IAmb 01 21 27.6
comp=Z,119nm,0.9s
WRAK Wrangell Islan 65.84 37 ⇓P **P** **01 21 16.8 +1.2**
RAO Raoul Island 65.84 143 LR LR 01 47 29.1
comp=Z,1µm,19.4s,baz=330,slow=34
R33M Jennings River 66.05 34 IAMs_20 IAMs_20 01 48 30.9
comp=Z,5µm,20.0s
S34M Telegraph Cree 66.22 36 IAmb IAmb 01 21 30.5
comp=Z,169nm,0.9s
S34M IAMs_20 IAMs_20 01 46 38.8
comp=Z,4µm,21.0s
AUBRN Burnie High Sc 66.32 178 P **P** **01 21 19.7 +1.0**
comp=Z,119nm,1.4s
GLAD Gladstone 66.35 176 P **P** **01 21 20.1 +1.1**
comp=Z,120nm,1.0s
H02S1 DAWSON INLET T 66.37 41 T T 02 33 39.5
SNR=10
H02S2 DAWSON INLET T 66.37 41 T T 02 33 36.3
SNR=10.0
ARTI Arti 66.51 323 LR LR 01 52 40.2
comp=Z,3µm,18.7s,baz=84,slow=38
ARTI Arti 66.51 323 *d i*P **P** **01 21 19.9 -0.1**
ARTI 01 21 49.6
ARTI 01 23 43.1
ARTI S **S** **01 30 09.4 -0.8**
ARTI 01 31 12.6
ARTI pmax pmax
comp=Z,315nm,0.7s
ARTI MLR MLR
comp=Z,2µm,17.0s
ARTI Arti 66.51 323 P **P** **01 21 19.8 -0.1**
ARTI Arti 66.51 323 ⇓P **P** **01 21 19.8 -0.1**
DLBC Dease Lake 66.70 35 P **P** **01 21 22.2 +0.9**
comp=Z,23nm,0.9s,baz=275,slow=6.4,SNR=30
DLBC LR LR 01 46 38.7
comp=Z,4µm,22.0s,baz=267,slow=32
comp=Z,23nm,0.9s
OUZ Omahuta 66.80 154 IAMs_20 IAMs_20 01 48 07.2
comp=Z,5µm,20.0s
OUZ Omahuta 66.80 154 P **P** **01 21 23.9 +2.0**
OUZ Omahuta 66.80 154 ⇑P **P** **01 21 24.6 +2.6**
T35M Bob Quinn 66.87 36 IAmb IAmb 01 21 34.6
comp=Z,146nm,1.1s
AB31 Akbulak array 67.07 315 *i* P **P** **01 21 23.5 -0.2**
ABKAR Akbulak array 67.07 315 P **P** **01 21 23.1 -0.6**
MOO Moorlands 67.76 177 P **P** **01 21 29.5 +1.6**
comp=Z,140nm,1.3s
MOO Moorlands 67.76 177 P **P** **01 21 29.7 +1.8**
comp=Z,140nm,1.3s
MOO Moorlands 67.76 177 P **P** **01 21 28.5 +0.6**
MOO Moorlands 67.76 177 P **P** **01 21 29.5 +1.6**
comp=Z,140nm,1.3s
AKTO Aktyubinsk 68.01 317 LR LR 01 52 27.4
comp=Z,4µm,18.8s,baz=74,slow=37
AKTO Aktyubinsk 68.01 317 P **P** **01 21 28.9 -0.8**
TAU Tasmania Unive 68.24 177 P **P** **01 21 32.3 +1.4**
comp=Z,195nm,1.3s
TAU Tasmania Unive 68.24 177 P **P** **01 21 32.1 +1.2**
TAU pmax pmax
comp=Z,363nm,1.4s
TAU Tasmania Unive 68.24 177 P **P** **01 21 32.1 +1.2**
TAU Tasmania Unive 68.24 177 IAMs_20 IAMs_20 01 48 10.6
comp=Z,4µm,21.0s
TAU Tasmania Unive 68.24 177 ⇑P **P** **01 21 32.0 +1.1**
TAU Tasmania Unive 68.24 177 P **P** **01 21 32.5 +1.6**
comp=Z,192nm,1.3s
BBB Bella Bella 69.19 41 P **P** **01 21 37.6 +0.7**
comp=Z,20nm,1.0s,baz=268,slow=7.7,SNR=6.6
BBB LR LR 01 50 56.7
comp=Z,2µm,18.1s,baz=292,slow=35
comp=Z,20nm,1.0s
HRA Herat 69.31 299 IAmb IAmb 01 21 50.0
comp=Z,174nm,1.0s
HMDM Hanimaadhoo 69.48 268 P **P** **01 21 40.6 +1.3**
HMDM Hanimaadhoo 69.48 268 P **P** **01 21 40.1 +0.8**
comp=Z,4µmcomp=Z,225nm,1.2s
TOZ Tahuroa Road 69.74 153 IAmb IAmb 01 21 42.9
comp=Z,176nm,1.3s
TOZ IAMs_20 IAMs_20 01 50 06.0
comp=Z,4µm,20.0s
TOZ Tahuroa Road 69.74 153 P **P** **01 21 41.4 +1.1**
HIZ Hauiti 70.16 154 P **P** **01 21 44.5 +1.6**
HIZ Hauiti 70.16 154 P **P** **01 21 43.9 +1.0**
comp=Z,4µmcomp=Z,236nm,1.2s
VRZ Vera Road 70.65 155 P **P** **01 21 48.0 +2.2**
KIRV Kirov 70.66 326 LR LR 01 55 30.6
comp=Z,3µm,18.6s,baz=72,slow=38
KIRV Kirov 70.66 326 *d i*P **P** **01 21 46.0 +0.2**
HAZ Te Kaha 70.70 152 P **P** **01 21 45.1 -1.1**
URZ Urewera 70.85 153 LR LR 01 49 24.2
comp=Z,2µm,20.8s,baz=332,slow=33
URZ Urewera 70.85 153 ⇑P **P** **01 21 45.6 -1.5**
URZ Urewera 70.85 153 P **P** **01 21 46.8 -0.3**
comp=Z,117nm,1.1s
KATZ Kakaramea 70.88 154 P **P** **01 21 49.2 +1.7**
WTVZ West Tongariro 70.96 154 P **P** **01 21 49.6 +1.6**
KRVZ Karewarewa 70.97 154 P **P** **01 21 50.5 +2.6**
NGZ Ngauruhoe 71.02 154 P **P** **01 21 51.0 +2.6**
PUZ Puketiti 71.17 152 P **P** **01 21 48.5 -0.7**
WAZ Wanganui 71.28 155 P **P** **01 21 50.8 +1.1**
QRZ Quartz Range 71.32 157 IAmb IAmb 01 21 51.9
comp=Z,127nm,1.0s
QRZ Quartz Range 71.32 157 P **P** **01 21 50.2 +0.3**
BKZ Black Stump Fm 71.36 154 P **P** **01 21 49.7 -0.6**
comp=Z,88nm,1.0s
BHHZ Black Hill Sta 71.47 154 P **P** **01 21 49.2 -1.8**
HOPEN Hopen 71.58 347 *e*P **P** **01 21 52.3 +1.1**
HOPEN IAmb IAmb 01 21 54.7
comp=Z,192nm,1.0s
DUWZ D'Urville Isla 71.80 156 P **P** **01 21 52.4 -0.5**
PNHZ Pukenui 71.89 154 P **P** **01 21 54.0 +0.6**
DSZ Denniston Nort 71.89 158 IAMs_20 IAMs_20 01 50 00.3
comp=Z,4µm,20.0s
MRNZ Matariki Terra 71.91 157 P **P** **01 21 53.8 +0.3**
NNZ Nelson 71.97 157 IAmb IAmb 01 21 55.5
comp=Z,250nm,1.4s
NNZ Nelson 71.97 157 P **P** **01 21 53.6 -0.2**
RAR Rarotonga 71.98 125 LR LR 01 49 59.9
comp=Z,2µm,18.8s,baz=309,slow=33
KAHZ Kahuranaki 72.06 154 P **P** **01 21 54.9 +0.4**
SPA0 Spitsbergen Ar 72.09 350 *e*P **P** **01 21 54.6 +0.4**
SPA0 IAmb IAmb 01 22 02.6
comp=Z,104nm,1.2s
SPB2 Spitsbergen Ar 72.09 350 IAmb IAmb 01 22 06.0
comp=Z,132nm,1.1s
SPITS Spitsbergen Ar 72.09 350 P **P** **01 21 54.2 -0.1**
comp=Z,17nm,0.6s,baz=94,slow=6.8,SNR=33
SPITS LR LR 01 58 37.8
comp=Z,488nm,19.4s,baz=45,slow=40
comp=Z,17nm,0.6s
SPITS Spitsbergen Ar 72.09 350 P **P** **01 21 55.2 +1.0**
SPITS pmax pmax
comp=Z,117nm,1.1s
DVHZ Dannevirke 72.21 154 P **P** **01 21 55.9 +0.6**
KIW Kapiti Island 72.21 156 P **P** **01 21 54.5 -0.8**
KBS Kingsbay 72.23 351 ⇑P **P** **01 21 56.1 +1.1**
KBS Kingsbay 72.23 351 P **P** **01 21 56.0 +1.0**
comp=Z,141nm,1.0s
KBS Kingsbay 72.23 351 *i* P **P** **01 21 56.0 +1.0**
PXZ Pawanui 72.25 154 P **P** **01 21 55.6 0.0**
TCW Tory Channel 72.28 156 P **P** **01 21 54.9 -0.8**
MRZ Mangatainoka R 72.29 155 IAmb IAmb 01 21 56.5
comp=Z,143nm,1.1s
MRZ Mangatainoka R 72.29 155 P **P** **01 21 55.1 -0.7**
KAAM Kaadhehdhoo 72.35 262 P **P** **01 21 57.1 +0.3**
SNR=5.9
KAAM Kaadhehdhoo 72.35 262 P **P** **01 21 57.8 +1.0**
KAAM IAmb IAmb 01 22 08.7
comp=Z,375nm,1.4s
KAAM Kaadhehdhoo 72.35 262 ⇓P **P** **01 21 58.4 +1.6**
KAAM Kaadhehdhoo 72.35 262 P **P** **01 21 59.2 +2.4**
comp=Z,189nm,1.4s
KAAM Kaadhehdhoo 72.35 262 P **P** **01 21 57.5 +0.7**
comp=Z,187nm,1.4s

HOWZ **Holdsworth Sta** 72.47 155 P P 01 21 56.2 -0.7
SNZO **South Karori** 72.53 156 P P 01 21 56.6 -0.5
comp=Z,131nm,1.1s
SNZO **South Karori** 72.53 156 P P 01 21 56.0 -1.2
SNZO IAmb IAmb 01 22 02.9
comp=Z,174nm,0.9s
SNZO **South Karori** 72.53 156 ⇑P P 01 21 56.2 -1.0
SNZO **South Karori** 72.53 156 P P 01 21 57.0 -0.1
SNZO **South Karori** 72.53 156 P P 01 21 57.2 0.0
comp=Z,224nm,1.1s
NOR **Nord** 72.56 357 ⇑P P 01 21 57.1 +0.1
NOR **Nord** 72.56 357 P P 01 21 58.0 +1.1
comp=Z,2µmcomp=Z,30nm,1.4s
NOR **Nord** 72.56 357 *i* P P 01 21 57.0 +0.1
NOR IAmb IAmb 01 22 08.9
comp=Z,29nm,1.0s
BFZ **Birch Farm** 72.57 155 P P 01 21 57.2 -0.2
comp=Z,150nm,2.1s
BFZ **Birch Farm** 72.57 155 IAmb IAmb 01 21 58.3
comp=Z,184nm,1.2s
BFZ **Birch Farm** 72.57 155 P P 01 21 57.0 -0.5
BFZ **Birch Farm** 72.57 155 P P 01 21 57.7 +0.3
comp=Z,150nm,2.1s
INZ **Inchbonnie** 72.65 159 IAmb IAmb 01 22 03.5
comp=Z,144nm,1.1s
WVZ **Waitaha Valley** 72.74 160 P P 01 21 57.8 -0.5
YKAW3 **Yellowknife Wh** 72.82 28 IAmb IAmb 01 22 09.8
comp=Z,164nm,0.9s
YKA **Yellowknife Ar** 72.85 28 P P 01 21 58.6 -0.4
comp=Z,28nm,0.6s,baz=296,slow=6.1,SNR=163
YKA LR LR 01 57 47.7
comp=Z,993nm,18.0s,baz=282,slow=39
comp=Z,28nm,0.6s
YKA **Yellowknife Ar** 72.85 28 *ce* P P 01 21 58.5 -0.4
YKA pmax pmax
comp=Z,24nm,0.5s
YKA **Yellowknife Ar** 72.85 28 P P 01 21 58.3 -0.6
FOZ **Fox Glacier** 72.86 160 IAmb IAmb 01 22 01.0
comp=Z,226nm,1.1s
FOZ **Fox Glacier** 72.86 160 P P 01 21 59.4 +0.3
YKAW1 **Yellowknife Wh** 72.91 28 IAmb IAmb 01 22 10.3
comp=Z,178nm,0.8s
PLWZ **Palliser** 72.96 156 P P 01 21 58.9 -0.9
LTZ **Lake Taylor** 72.97 158 P P 01 21 59.2 -0.6
JCZ **Jackson Bay** 73.05 161 P P 01 22 01.4 +1.0
comp=Z,105nm,1.2s
JCZ **Jackson Bay** 73.05 161 P P 01 22 01.1 +0.7
KHZ **Kahutara** 73.08 157 IAmb IAmb 01 22 00.5
comp=Z,144nm,1.0s
KHZ **Kahutara** 73.08 157 P P 01 21 57.6 -2.8
KHZ **Kahutara** 73.08 157 ⇑P P 01 21 58.6 -1.7
KHZ **Kahutara** 73.08 157 P P 01 21 60.0 -0.4
comp=Z,175nm,1.0s
NGCH **Negor - Chabah** 73.16 290 P P 01 22 01.8 +0.4
SNR=6.1
RES **Resolute Bay** 73.22 14 LR LR 01 57 08.7
comp=Z,1µm,20.1s,baz=319,slow=38
RES **Resolute Bay** 73.22 14 IAmb IAmb 01 22 12.4
comp=Z,160nm,1.0s
RES **Resolute Bay** 73.22 14 ⇑P P 01 22 01.0 +0.1
RES **Resolute Bay** 73.22 14 P P 01 22 01.8 +0.9
comp=Z,169nm,1.1s
NLWA **Neilton Lookou** 73.24 45 ⇑P P 01 22 03.4 +1.7
LVZ **Lovozero** 73.36 338 *de* P P 01 22 03.4 +1.5
LVZ pmax pmax
comp=Z,139nm,2.5s
LVZ **Lovozero** 73.36 338 P P 01 22 02.7 +0.8
LVZ **Lovozero** 73.36 338 ⇓P P 01 22 03.6 +1.7
LVZ **Lovozero** 73.36 338 P P 01 22 04.2 +2.2
comp=Z,95nm,1.1s
LLLB **Lillooet** 73.39 42 IAmb IAmb 01 22 14.2
comp=Z,231nm,1.1s
GVZ **Greta Valley S** 73.39 158 P P 01 22 01.6 -0.8
RPZ **Rata Peaks** 73.41 160 LR LR 01 51 02.9
comp=Z,386nm,21.3s,baz=342,slow=33
RPZ **Rata Peaks** 73.41 160 IAmb IAmb 01 22 05.2
comp=Z,316nm,1.3s
RPZ **Rata Peaks** 73.41 160 P P 01 22 01.6 -0.9
AMCZ **Amberley** 73.45 158 P P 01 22 02.2 -0.4
BELG **Belogornoye** 73.65 321 *d* P P 01 22 03.8 0.0
BELG pmax pmax
comp=Z,87nm,1.1s
LBZ **Lake Benmore** 73.75 160 IAmb IAmb 01 22 06.1
comp=Z,154nm,1.1s
LBZ **Lake Benmore** 73.75 160 P P 01 22 03.9 -0.5
ADZR **Andozero** 73.76 334 *e* P P 01 22 03.9 -0.4
ADZR pmax pmax
comp=Z,252nm,1.3s
MQZ **McQueen's Vall** 73.92 159 P P 01 22 05.3 0.0
MQZ IAmb IAmb 01 22 16.5
comp=Z,211nm,1.4s
MQZ **McQueen's Vall** 73.92 159 P P 01 22 05.0 -0.4
APA **Apatity** 73.93 338 *e* P P 01 22 04.3 -0.9
APA *e* 01 22 18.1
APA *e* 01 24 45.4
APA *eS* **SKiKP** 01 31 32.9 -0.7
APA *e* 01 32 08.3
APA *eSS* **SS** 01 36 19.9 -0.2
APA pmax pmax
comp=Z,96nm,0.9s
APA MLR MLR
comp=Z,3µm,22.6s
VADS **Vadso** 73.94 341 *e* P P 01 22 06.2 +0.9
VADS IAmb IAmb 01 22 17.0
comp=Z,240nm,1.0s
MLZ **Mavora Lakes** 74.05 162 P P 01 22 06.0 -0.1
SHUK **Shuksan-Mt. Ba** 74.12 43 IAmb IAmb 01 22 18.7
comp=Z,182nm,1.1s
ODZ **Otahua Downs** 74.49 160 P P 01 22 08.2 -0.5
ODZ IAmb IAmb 01 22 10.4
comp=Z,223nm,1.5s
ODZ **Otahua Downs** 74.49 160 P P 01 22 08.5 -0.1
ODZ **Otahua Downs** 74.49 160 ⇓P P 01 22 09.7 +1.1
ODZ **Otahua Downs** 74.49 160 P P 01 22 09.5 +0.8
comp=Z,90nm,2.1s
KLMR **Klimovskoe** 74.53 330 *e* P P 01 22 07.8 -1.0
KLMR *e* 01 24 52.4
KLMR pmax pmax
comp=Z,195nm,1.1s
KEV **Kevo** 74.83 341 P P 01 22 10.8 +0.4
KEV pmax pmax
comp=Z,130nm,0.9s
KEV **Kevo** 74.83 341 P P 01 22 10.8 +0.4
KEV IAmb IAmb 01 22 22.3
comp=Z,130nm,0.9s
KEV **Kevo** 74.83 341 ⇓P P 01 22 11.1 +0.7
KEV **Kevo** 74.83 341 P P 01 22 11.2 +0.9
KEV **Kevo** 74.83 341 P P 01 22 11.3 +0.9
comp=Z,160nm,1.2s
K02D **Willamette Mer** 75.01 50 IAmb IAmb 01 22 24.5
comp=Z,203nm,1.1s
HAMF **Hammerfest** 75.25 343 *e* P P 01 22 13.1 +0.3
HAMF IAmb IAmb 01 22 15.3
comp=Z,113nm,1.0s
LTY **Liberty** 75.33 44 IAmb IAmb 01 22 25.2
comp=Z,190nm,1.1s
ARA0 **ARCESS Array S** 75.39 341 *e* P P 01 22 14.2 +0.5
ARA0 IAmb IAmb 01 22 25.4
comp=Z,177nm,1.0s
ARCES **ARCESS Array B** 75.39 341 P P 01 22 14.1 +0.4
comp=Z,23nm,0.6s,baz=74,slow=8.1,SNR=85
ARCES LR LR 01 58 32.4
comp=Z,1µm,21.3s,baz=72,slow=38
comp=Z,23nm,0.6s
ARCES **ARCESS Array B** 75.39 341 P P 01 22 14.3 +0.6
ARCES pmax pmax
comp=Z,161nm,1.0s
ARCES **ARCESS Array B** 75.39 341 P P 01 22 14.3 +0.6
ARCES IAmb IAmb 01 22 25.7
comp=Z,161nm,1.0s
SYZ **Scrubby Hill** 75.41 162 P P 01 22 14.9 +1.0
comp=Z,289nm,1.0s
JASK **Jask - Hormozg** 75.73 292 P P 01 22 17.4 +1.0
SNR=11
JLN **Jalan Bani Buh** 75.80 288 P P 01 22 16.2 -0.6
SNR=12
MXC **Moxie City** 75.82 45 IAmb IAmb 01 22 28.4
comp=Z,219nm,1.0s
EPH **Ephrata** 75.97 44 IAmb IAmb 01 22 28.7
comp=Z,196nm,1.1s
I05D **Terrebonne, OR** 75.98 47 IAmb IAmb 01 22 29.4
comp=Z,169nm,1.0s
WBK **Wadi Bani Khal** 76.00 289 P P 01 22 18.2 +0.1
SNR=17

YBH **Yreka Blue Hor** 76.02 50 LR LR 01 49 47.2
comp=Z,4µm,20.4s,baz=302,slow=31
M02C **Callahan** 76.04 51 IAmb IAmb 01 22 30.3
comp=Z,134nm,0.9s
M02C IAMs_20 IAMs_20 01 50 06.0
comp=Z,4µm,21.0s
WSAR **Wadi Sarin** 76.06 289 LR LR 02 01 07.0
comp=Z,5.7nm,18.5s,baz=91,slow=40
WSAR **Wadi Sarin** 76.06 289 P P 01 22 18.6 +0.2
SNR=8.9
KHBM **Hayfork Bally** 76.06 52 IAmb IAmb 01 22 30.3
comp=Z,160nm,1.1s
G06A **Carlson Farm,** 76.11 46 IAmb IAmb 01 22 30.1
comp=Z,188nm,1.0s
E07A **Sunnyside** 76.11 45 IAmb IAmb 01 22 30.1
comp=Z,230nm,1.0s
TULEG **Thule** 76.17 7 IAmb IAmb 01 22 29.4
comp=Z,142nm,1.0s
TULEG **Thule** 76.17 7 P P 01 22 18.9 +0.9
comp=Z,154nm,1.1s
TULEG **Thule** 76.17 7 *i* P P 01 22 18.0 -0.1
TULEG IAmb IAmb 01 22 29.1
comp=Z,143nm,1.0s
WAH2 **Wahluke Slope** 76.22 45 IAmb IAmb 01 22 30.4
comp=Z,183nm,0.9s
SGF **Sodankyl** 76.26 339 P P 01 22 19.8 +1.2
comp=Z,165nm,2.2s
MSF **Maaselka** 76.27 337 P P 01 22 19.9 +1.2
comp=Z,97nm,1.0s
F07A **Phinny Hill Vi** 76.31 46 IAmb IAmb 01 22 31.3
comp=Z,203nm,1.1s
KTK1 **Kautokeino** 76.35 341 *e* P P 01 22 19.4 +0.3
KTK1 IAmb IAmb 01 22 30.6
comp=Z,124nm,1.1s
HAWA **Hanford** 76.38 45 IAmb IAmb 01 22 31.5
comp=Z,170nm,1.1s
HAWA **Hanford** 76.38 45 ⇑P P 01 22 20.4 +0.6
BIDO **Bidbid** 76.38 290 P P 01 22 20.6 +0.4
SNR=16
DGAR **Diego Garcia** 76.47 255 *de* P P 01 22 20.8 +0.1
DGAR pmax pmax
comp=Z,84nm,1.0s
DGAR **Diego Garcia** 76.47 255 P P 01 22 20.5 -0.3
comp=Z,5µmcomp=Z,197nm,1.6s,comp=Z,5µm
D08A **Wollman Farm,** 76.51 44 IAmb IAmb 01 22 32.0
comp=Z,233nm,1.0s
O02D **Mt. Diablo Mer** 76.54 52 IAmb IAmb 01 22 33.2
comp=Z,206nm,0.9s
C09A **Chrisman Ranch** 76.62 43 IAmb IAmb 01 22 32.6
comp=Z,234nm,1.1s
SMDO **Samad** 76.62 289 P P 01 22 21.8 +0.1
SNR=17
E08A **Dider Farm, El** 76.64 45 IAmb IAmb 01 22 32.9
comp=Z,178nm,1.1s
JETT **Jettan, Norway** 76.81 342 *e* P P 01 22 21.9 +0.2
JETT IAmb IAmb 01 22 23.5
comp=Z,118nm,0.6s
NEEM **North Greenlan** 76.82 3 *i* P P 01 22 22.8 +0.7
NEEM IAmb IAmb 01 22 30.8
comp=Z,187nm,1.2s
JMDO **Jabal Madar** 76.83 289 P P 01 22 22.3 -0.5
SNR=17
BANOM **Banah** 77.02 293 *i* P P 01 22 24.4 +0.6
SNR=5.6
BANOM **Banah** 77.02 293 P P 01 22 24.1 +0.3
HOQ **Hoqain** 77.05 290 P P 01 22 24.0 0.0
SNR=38
SHME **Shamm** 77.10 293 *i* P P 01 22 24.0 -0.2
SNR=16
SHME **Shamm** 77.10 293 P P 01 22 24.6 +0.4
SNR=16
NEW **Newport** 77.14 43 LR LR 01 53 50.0
comp=Z,3µm,18.7s,baz=305,slow=34
NEW **Newport** 77.14 43 IAMs_20 IAMs_20 01 53 30.2
comp=Z,4µm,19.0s
NEW **Newport** 77.14 43 ⇓P P 01 22 23.9 -0.2
NEW **Newport** 77.14 43 P P 01 22 24.4 +0.3
comp=Z,303nm,1.0s
NEW pP **pwP** 01 22 31.1 -0.4
TRO **Tromso** 77.16 343 *e* P P 01 22 23.8 +0.1
TRO IAmb IAmb 01 22 25.0
comp=Z,68nm,0.7s
G08A **Pilot Rock** 77.18 46 IAmb IAmb 01 22 36.1
comp=Z,167nm,1.1s
E09A **Wood Farm, Sta** 77.21 44 IAmb IAmb 01 22 36.2
comp=Z,252nm,1.0s
MAK **Makhachkala** 77.24 312 *c* P P 01 22 19.0 -5.6
MAK *e* 01 25 16.9
MAK *e* PPP PPP 01 27 00.5
MAK *eS* S 01 32 03.8 -10
MAK *eSSS* SSS 01 40 27.2
MAK pmax pmax
comp=Z,289nm,1.5s
MAK MLR MLR
comp=Z,10µm,16.0s
MCCM **Marconi Confer** 77.25 54 IAMs_20 IAMs_20 01 52 04.1
comp=Z,4µm,21.0s
MDH **Madha** 77.25 292 *i* P P 01 22 23.7 -1.4
SNR=9.5
MDH **Madha** 77.25 292 P P 01 22 24.6 -0.5
DAG **Danmarks Havn** 77.30 356 P P 01 22 24.4 0.0
DAG **Danmarks Havn** 77.30 356 ⇓P P 01 22 24.2 -0.2
DAG **Danmarks Havn** 77.30 356 P P 01 22 25.1 +0.7
comp=Z,2µmcomp=Z,68nm,1.2s,comp=Z,2µm
DAG **Danmarks Havn** 77.30 356 *i* P P 01 22 24.0 -0.4
DAG IAmb IAmb 01 22 32.7
comp=Z,36nm,1.1s
MASF **Masafi** 77.34 292 P P 01 22 25.8 +0.2
SNR=20
MSFE **Esma-Masafi** 77.35 292 *i* P P 01 22 25.4 -0.3
SNR=19
BSY **Bisya** 77.46 289 P P 01 22 26.0 -0.4
SNR=28
UOSS **Minazif** 77.47 292 *i* P P 01 22 25.9 -0.3
SNR=19
UOSS **Minazif** 77.47 292 P P 01 22 26.0 -0.3
UOSS **Minazif** 77.47 292 P P 01 22 26.0 -0.3
UOSS **Minazif** 77.47 292 ⇓P P 01 22 25.5 -0.8
UOSS **Minazif** 77.47 292 P P 01 22 26.1 -0.2
UOSS **Minazif** 77.47 292 P P 01 22 25.5 -0.8
comp=Z,1µmcomp=Z,74nm,1.2s
CVS **Carmenet Viney** 77.48 53 IAmb IAmb 01 22 37.5
comp=Z,271nm,1.1s
MHTO **MHTO** 77.48 287 P P 01 22 25.8 -0.6
SNR=35
VRH **Novokhopyorsk** 77.49 321 *i* P P 01 22 25.3 -0.6
VRH pmax pmax
comp=Z,130nm,0.6s
VRH MLR MLR
comp=Z,4µm,17.0s
SOHO **SOHO** 77.50 291 *i* P P 01 22 26.0 -0.5
SNR=70
SOHO **SOHO** 77.50 291 P P 01 22 27.0 +0.5
SNR=64
HATD **Hatta, Dubai** 77.57 292 *i* P P 01 22 26.6 -0.3
SNR=39
HATD **Hatta, Dubai** 77.57 292 P P 01 22 26.8 -0.1
SNR=30
MOD **Modoc Plateau** 77.62 49 IAmb IAmb 01 22 38.6
comp=Z,199nm,1.0s
SUTB **Sutter Butte** 77.62 52 IAmb IAmb 01 22 37.9
comp=Z,170nm,0.8s
MOS **Moscow** 77.68 326 *e* P P 01 22 27.6 +0.7
MOS *e* 01 22 37.5
MOS *e* 01 25 21.5
MOS *eS* S 01 32 15.8 -2.5
MOS *e* 01 32 36.9
MOS *eSS* SS 01 37 16.9 -0.4
MOS *eSSS* SSS 01 40 42.4
MOS pmax pmax
comp=Z,80nm,0.6s
MOS pmax pmax
comp=Z,800nm,2.0s
MOS MLR MLR
comp=E,3µm,17.0s
MOS MLR MLR
comp=Z,4µm,17.0s
ASHO **Ashiyiah** 77.69 292 *i* P P 01 22 27.2 -0.3
SNR=58
ASHO **Ashiyiah** 77.69 292 P P 01 22 27.3 -0.3
SNR=26
ORV **Oroville** 77.70 52 IAmb IAmb 01 22 38.5
comp=Z,277nm,1.1s
ARQ **Araqi** 77.81 290 P P 01 22 29.0 +0.7
SNR=40
OUL **Oulu** 77.82 337 P P 01 22 27.6 +0.2
comp=Z,101nm,1.5s

PPT **Papeete** 77.84 116 P P 01 22 28.9 +0.6
comp=Z,83nm,1.1s,baz=247,slow=9.0,SNR=4.0
PPT LR LR 01 53 29.6
comp=Z,3µm,18.4s,baz=289,slow=33
comp=Z,83nm,1.1s
PPT2 **Papeete2** 77.86 116 *e* P P 01 22 29.8 +1.3
comp=Z,166nm,1.3s
PPT2 *e* PP PP 01 25 26.3 +1.8
PPT2 comp=Z,209nm,26.2s *e* S S 01 32 13.6 -7.9
PPT2 comp=Z,1µm,29.0s *e* SS SS 01 36 56.1 -26
PPT2 comp=Z,319nm,22.0s *e* LQ LQ 01 42 17.5
PPT2 comp=Z,2µm,27.5s *e* LR LR 01 46 29.7
PPT2 comp=Z,2µm,25.2s *e* LR LR 01 46 33.9
comp=Z,2µm,20.2s
PPTF **Pamatai, Papee** 77.86 116 P P 01 22 30.0 +1.4
comp=Z,144nm,1.3s
PAE **Paea** 77.89 116 *e* P P 01 22 34.3 +5.7
comp=Z,270nm,1.3s
PAE comp=Z,2µm,19.8s *e* LR LR 01 46 31.9
PMOR **Pomariorio Ree** 77.90 113 *e* P P 01 22 30.6 +1.9
comp=Z,203nm,1.2s
PMOR *e* LR LR 01 46 31.9
comp=Z,3µm,23.1s
NAZ **Nazwa, Dubai** 77.91 292 *i* P P 01 22 28.2 -0.5
SNR=13
NAZ **Nazwa, Dubai** 77.91 292 P P 01 22 28.5 -0.2
SNR=28
JRSC **Jasper Ridge** 78.00 54 IAmb IAmb 01 22 40.4
comp=Z,151nm,0.9s
LKRN **Lenkeran, Azer** 78.01 307 P P 01 22 29.9 +0.9
TIAR **Tiarei** 78.03 116 *e* P P 01 22 38.2 +8.8
comp=Z,740nm,1.0s
TIAR *e* LR LR 01 46 40.1
comp=Z,10µm,21.4s
FAQ **Al Faqa, Dubai** 78.06 292 *i* P P 01 22 28.9 -0.6
SNR=11
FAQ **Al Faqa, Dubai** 78.06 292 P P 01 22 30.0 +0.4
SNR=21
SEKA **Sheki** 78.14 310 P P 01 22 30.6 +0.8
LDM **Libby Dam** 78.16 42 IAmb IAmb 01 22 41.6
comp=Z,240nm,1.1s
ALNE **Al Ain** 78.19 291 *i* P P 01 22 30.0 -0.4
SNR=24
ALNE **Al Ain** 78.19 291 P P 01 22 30.2 -0.1
SNR=46
TVO **Taravao** 78.22 116 *e* P P 01 22 38.1 +7.6
comp=Z,294nm,1.3s
TVO *e* LR LR 01 46 50.0
comp=Z,2µm,20.4s
VAH **Vaihoa** 78.24 113 *e* LR LR 01 46 44.7
comp=Z,4µm,22.8s
DQM **DQM** 78.26 287 P P 01 22 30.6 -0.2
SNR=16
AFDM **Forest Hills D** 78.31 52 IAmb IAmb 01 22 42.3
comp=Z,194nm,1.2s
ASUD **Al Ashush, Dub** 78.32 292 *i* P P 01 22 30.8 -0.2
SNR=9.5
ASUD **Al Ashush, Dub** 78.32 292 P P 01 22 31.4 +0.4
SNR=10
MNGR **Mingechevir, A** 78.39 310 P P 01 22 32.1 +1.0
BMO **Blue Mountains** 78.43 46 IAmb IAmb 01 22 43.0
comp=Z,285nm,1.1s
BMO IAMs_20 IAMs_20 01 52 45.5
comp=Z,4µm,20.0s
BMO **Blue Mountains** 78.43 46 ⇑P P 01 22 31.6 +0.2
LPSR **Galich'ya Gora** 78.43 323 *di* P P 01 22 30.8 -0.3
LPSR *i* 01 22 30.9
LPSR pmax pmax
comp=Z,110nm,0.6s
LPSR MLR MLR
comp=Z,2µm,16.0s
MHC **Mount Hamilton** 78.46 54 IAmb IAmb 01 22 44.0
comp=Z,225nm,1.1s
OBN **Obninsk** 78.50 326 LR LR 02 00 06.3
comp=Z,4µm,18.4s,baz=50,slow=38
OBN **Obninsk** 78.50 326 *di* P P 01 22 30.9 -0.5
OBN *i* *PP **sP** 01 22 37.2 +0.9
OBN *e* 01 22 40.8
OBN *e* 01 25 30.5
OBN *i* S S 01 32 35.0 +7.8
OBN pmax pmax
comp=Z,78nm,0.6s
OBN MLR MLR
comp=Z,4µm,17.0s
OBN **Obninsk** 78.50 326 P P 01 22 31.7 +0.3
OBN IAmb IAmb 01 22 42.7
comp=Z,150nm,0.7s
OBN IAMs_20 IAMs_20 01 59 45.8
comp=Z,5µm,22.0s
OBN **Obninsk** 78.50 326 ⇓P P 01 22 31.1 -0.3
OBN **Obninsk** 78.50 326 ⇑P P 01 22 31.7 +0.3
OBN **Obninsk** 78.50 326 P P 01 22 31.8 +0.3
comp=Z,3µmcomp=Z,211nm,1.1s
OBN **Obninsk** 78.50 326 P P 01 22 31.3 -0.1
comp=Z,3µmcomp=Z,213nm,1.1s,comp=Z,3µm
WVOR **Wild Horse Val** 78.54 48 IAmb IAmb 01 22 43.8
comp=Z,225nm,1.1s
WVOR IAMs_20 IAMs_20 01 54 53.7
comp=Z,4µm,19.0s
WVOR **Wild Horse Val** 78.54 48 ⇓P P 01 22 32.2 +0.1
WVOR **Wild Horse Val** 78.54 48 P P 01 22 32.4 +0.3
comp=Z,227nm,1.1s
WVOR pP **pwP** 01 22 39.2 -0.4
AJN **Ajban** 78.64 292 *i* P P 01 22 32.2 -0.5
SNR=6.1
AJN **Ajban** 78.64 292 P P 01 22 32.3 -0.5
SNR=9.6
WELL **Weller Preserv** 78.69 53 IAMs_20 IAMs_20 01 50 47.3
comp=Z,3µm,20.0s
VORR **Voronezh** 78.70 322 *e* P P 01 22 32.7 +0.1
VORR pmax pmax
comp=Z,121nm,0.6s
VSR **Storozhevoye** 78.93 322 *i* P P 01 22 33.6 -0.3
VSR *i* 01 22 33.7
VSR pmax pmax
comp=Z,120nm,0.5s
VSR MLR MLR
comp=Z,2µm,13.0s
VORD **Divnogorie** 78.97 321 ⇓ *i* P P 01 22 33.7 -0.4
VORD pmax pmax
comp=Z,130nm,0.6s
GANJ **Ganja** 78.97 310 P P 01 22 35.4 +1.0
PUL **Pulkovo** 79.07 332 ⇓ *e* P P 01 22 35.6 +1.2
PUL pmax pmax
comp=Z,212nm,1.0s
PUL **Pulkovo** 79.07 332 P P 01 22 35.4 +1.0
comp=Z,222nm,1.2s
CMB **Columbia Colle** 79.10 53 IAMs_20 IAMs_20 01 52 46.1
comp=Z,4µm,20.0s
KULLO **Kullorsuaq** 79.16 6 ⇓P P 01 22 35.8 +1.1
KULLO **Kullorsuaq** 79.16 6 P P 01 22 35.8 +1.1
comp=Z,260nm,1.1s
KULLO **Kullorsuaq** 79.16 6 *i* P P 01 22 35.2 +0.5
KULLO IAmb IAmb 01 22 46.4
comp=Z,174nm,0.7s
UMZA **Um Al Zommool** 79.21 290 P P 01 22 35.1 -0.8
PNTR **Pine Nut** 79.23 52 IAmb IAmb 01 22 47.9
comp=Z,238nm,0.8s
STEI **Steigen** 79.30 342 *e* P P 01 22 35.8 +0.2
PMPB **Monarch Peak** 79.53 55 IAmb IAmb 01 22 49.4
comp=Z,176nm,1.0s
YERR **Yerington** 79.53 52 IAmb IAmb 01 22 49.3
comp=Z,197nm,0.8s
WAKR **Walker** 79.59 52 IAmb IAmb 01 22 49.8
comp=Z,175nm,0.9s
TBLG **Delisi** 79.61 311 P P 01 22 37.1 -0.7
LOF **Lofoten** 79.61 343 *e* P P 01 22 37.3 0.0
LOF IAmb IAmb 01 22 42.3
comp=Z,453nm,1.7s
NCK **Nalchik** 79.62 313 *de* P P 01 22 37.6 -0.3
NCK pmax pmax
comp=Z,106nm,1.1s
FAUS **Fauske** 79.67 342 *e* P P 01 22 37.9 +0.3
MSO **Missoula** 79.70 43 IAMs_20 IAMs_20 01 58 34.0
comp=Z,3µm,19.0s
MSO **Missoula** 79.70 43 ⇑P P 01 22 38.3 -0.1
DBG **Daneborg** 79.80 356 ⇑P P 01 22 38.3 +0.1
DBG **Daneborg** 79.80 356 P P 01 22 38.9 +0.7
comp=Z,50nm,1.2s
DBG **Daneborg** 79.80 356 *i* P P 01 22 38.6 +0.4
DBG IAmb IAmb 01 22 49.1

comp=Z,74nm,1.2s
ILON Igloolik, Nuna 79.80 15 IAmb IAmb 01 22 49.1
comp=Z,180nm,1.0s
PKD Bear Valley Ra 79.83 55 IAmb IAmb 01 22 50.8
comp=Z,245nm,0.9s
PKD IAMs_20 IAMs_20 01 57 11.7
comp=Z,4µm,20.0s
FINES FINESS Array B 79.87 334 P **P** **01 22 38.4 -0.4**
comp=Z,68nm,0.4s,baz=68,slow=5.1,SNR=893
FINES LR LR 02 00 25.7
comp=Z,2µm,19.6s,baz=46,slow=38
comp=Z,68nm,0.4s
KBZ Khabaz 79.98 314 P **P** **01 22 40.3 +0.6**
comp=Z,281nm,0.9s,baz=100,slow=3.4,SNR=262
KBZ LR LR 02 00 48.5
comp=Z,4µm,20.6s,baz=62,slow=38
KBZ Khabaz 79.98 314*d iP* **P** **01 22 40.3 +0.6**
KBZ pmax pmax
comp=Z,340nm,0.9s
KBZ MLR MLR
comp=Z,4µm,17.0s
MFID Camas Ranch 80.00 47 IAmb IAmb 01 22 51.7
comp=Z,275nm,0.9s
MFID IAMs_20 IAMs_20 01 52 51.2
comp=Z,4µm,21.0s
KVAR Kislovodsk Arr 80.02 314 LR LR 01 59 24.4
comp=Z,2µm,21.5s,slow=37
KIV Kislovodsk 80.02 314 *i* P **P** **01 22 40.4 +0.2**
SNR=40
KIV Kislovodsk 80.02 314 P **P** **01 22 41.3 +1.1**
KIV Kislovodsk 80.02 314 *e*P **P** **01 22 39.7 -0.4**
KIV *e* 01 25 37.4
KIV *e*S **S** **01 32 43.3 -0.8**
KIV pmax pmax
comp=Z,167nm,1.0s
KIV pmax pmax
comp=Z,241nm,3.0s
KIV MLR MLR
comp=Z,4µm,19.0s
KIV Kislovodsk 80.02 314 P **P** **01 22 38.8 -1.3**
KIV IAmb IAmb 01 22 53.4
comp=Z,342nm,1.1s
KIV Kislovodsk 80.02 314 ⇓P **P** **01 22 40.5 +0.4**
KIV Kislovodsk 80.02 314 ⇑P **P** **01 22 41.2 +1.1**
KIV Kislovodsk 80.02 314 P **P** **01 22 41.2 +1.1**
KIV Kislovodsk 80.02 314 P **P** **01 22 40.9 +0.7**
comp=Z,5µmcomp=Z,316nm,1.0s,comp=Z,5µm
TRLG Trialeti 80.12 311 P **P** **01 22 41.4 +0.6**
SHA1 Shidzhatmaz 80.14 314*de*P **P** **01 22 41.4 +0.5**
NAX Nakhchivan 80.16 309 P **P** **01 22 41.5 +0.5**
RYN Ryan 80.19 52 IAmb IAmb 01 22 53.0
comp=Z,123nm,0.8s
JRN Qarnain Island 80.27 293 P **P** **01 22 41.0 -0.6**
GNI Garni 80.28 310 LR LR 02 01 34.2
comp=Z,2µm,18.6s,baz=68,slow=38
GNI Garni 80.28 310 P **P** **01 22 42.7 +1.0**
GNI Garni 80.28 310 P **P** **01 22 42.4 +0.7**
GNI pmax pmax
comp=Z,404nm,1.3s
GNI MLR MLR
comp=Z,2µm,19.0s
GNI Garni 80.28 310 P **P** **01 22 42.4 +0.7**
GNI Garni 80.28 310 ⇓P **P** **01 22 42.8 +1.0**
GNI Garni 80.28 310 P **P** **01 22 42.6 +1.0**
comp=Z,3µmcomp=Z,261nm,1.5s
KVN Kaiserville 80.31 51 IAmb IAmb 01 22 53.4
comp=Z,194nm,0.9s
NEUR Neytrino 80.31 313*d iP* **P** **01 22 41.7 -0.1**
NEUR pmax pmax
comp=Z,108nm,1.2s
KARE Kearney REC, C 80.33 54 IAMs_20 IAMs_20 01 56 21.8
comp=Z,4µm,19.0s
BMN Battle Mountai 80.34 50 IAmb IAmb 01 22 53.7
comp=Z,185nm,1.2s
LHV Little Huntoon 80.36 52 IAmb IAmb 01 22 54.1
comp=Z,202nm,0.9s
NVAR Mina Array Bea 80.43 52 P **P** **01 22 42.8 +0.2**
comp=Z,32nm,0.7s,baz=288,slow=6.4,SNR=82
NVAR PKKPbc **PKKPbc** **01 41 20.7 -3.3**
comp=Z,1.0nm,0.8s,baz=112,slow=4.0,SNR=3.8
NVAR LR LR 01 55 20.2
comp=Z,3µm,19.0s,baz=276,slow=33
comp=Z,32nm,0.7s
MZR Muzera 80.52 291 *i* P **P** **01 22 42.2 -0.8**
SNR=22
MZR Muzera 80.52 291 P **P** **01 22 42.7 -0.4**
SNR=22
NV11 Mina Array Sit 80.53 52 IAmb IAmb 01 22 54.6
comp=Z,136nm,0.9s
GHWR Ruwais 80.64 292 P **P** **01 22 43.7 0.0**
ERBR Yeremizino-Bor 80.64 316*de*P **P** **01 22 42.3 -1.0**
ERBR *e*S **S** **01 32 48.5 -1.8**
ERBR *e* 01 32 58.8
ERBR pmax pmax
comp=Z,790nm,1.0s
ERBR MLR MLR
comp=Z,5µm,16.0s
SHAO Shalim 80.67 285 *i* P **P** **01 22 43.3 -0.6**
SNR=8.2
SHAO Shalim 80.67 285 P **P** **01 22 43.9 -0.1**
SNR=9.4
RAUS Rausandaksla 80.68 342 *e*P **P** **01 22 42.8 -0.3**
RAUS IAmb IAmb 01 22 45.4
comp=Z,86nm,1.0s
VAGH Vaagaholmen 80.69 342 *e*P **P** **01 22 43.3 +0.2**
MOR8 Moi Rana 80.76 341 *e*P **P** **01 22 42.4 -1.2**
MOR8 IAmb IAmb 01 22 50.2
comp=Z,228nm,0.9s
HLID Hailey 80.86 46 IAMs_20 IAMs_20 01 53 50.8
comp=Z,3µm,20.0s
HLID Hailey 80.86 46 ⇓P **P** **01 22 44.9 +0.1**
HLID Hailey 80.86 46 P **P** **01 22 45.9 +1.1**
comp=Z,110nm,1.1s
KONS Konsvik 80.90 342 *e*P **P** **01 22 44.8 +0.5**
VES Vestal, Richgr 80.95 55 IAMs_20 IAMs_20 01 59 27.3
comp=Z,3µm,18.0s
UPNV Upernavik 80.97 6 P **P** **01 22 45.6 +1.1**
comp=Z,108nm,1.0s
UPNV Upernavik 80.97 6 *i* P **P** **01 22 44.5 -0.1**
UPNV IAmb IAmb 01 22 56.4
comp=Z,100nm,1.1s
LABN Labinsk 80.98 315 *e*P **P** **01 22 45.5 +0.4**
LABN *e* 01 25 52.3
LABN *e*S **S** **01 32 53.9 0.0**
LABN pmax pmax
comp=Z,201nm,1.0s
LABN MLR MLR
comp=Z,5µm,18.0s
TBI Tubuai 81.01 121 *e*P **P** **01 22 46.7 +1.2**
TBI *e*PP **PP** **01 25 54.4 +3.7**
comp=Z,1µm,28.2s
TBI *e*S **S** **01 32 51.7 -2.9**
comp=Z,1µm,31.5s
TBI *e*SS SS 01 37 44.4 -25
comp=Z,4µm,35.2s
TBI *e*LQ LQ 01 43 12.3
comp=Z,2µm,25.8s
TBI *e*LR LR 01 48 04.3
comp=Z,15µm,34.8s
TBI *e*LR LR 01 48 04.3
comp=Z,4µm,22.8s
STOK Stokkvaagen 81.05 342 *e*P **P** **01 22 44.9 -0.1**
STOK IAmb IAmb 01 22 52.6
comp=Z,90nm,0.9s
Q09A Carvers 81.05 51 IAmb IAmb 01 22 57.3
comp=Z,209nm,0.9s
TIN Tinemaha, Big 81.06 53 IAMs_20 IAMs_20 01 52 15.1
comp=Z,3µm,20.0s
EPOS Posof 81.07 312 P **P** **01 22 47.0 +1.1**
comp=Z,5µmcomp=Z,402nm,1.2s,comp=Z,5µm
ARBE Arbavere 81.08 333 P **P** **01 22 45.3 0.0**
comp=Z,608nm,1.2s
DIGO Kars 81.11 310 P **P** **01 22 46.7 +0.5**
comp=Z,8µmcomp=Z,517nm,1.3s
KHAM Kharkiv 81.14 321 P **P** **01 22 46.4 +0.5**
LEIR Leirfjorden 81.18 342 *e*P **P** **01 22 46.0 +0.3**
DLMT Dillon 81.20 44 IAmb IAmb 01 22 58.7
comp=Z,208nm,1.2s
VSU Vasula 81.33 332*ce*P **P** **01 22 44.7 -2.0**
VSU pmax pmax
comp=Z,206nm,1.3s
VSU MLR MLR
comp=Z,2µm,20.0s
VSU Vasula 81.33 332 ⇑P **P** **01 22 45.6 -1.0**
VSU Vasula 81.33 332 P **P** **01 22 45.5 -1.2**
comp=Z,3µmcomp=Z,163nm,1.2s,comp=Z,3µm
TPH Tonopah 81.35 52 IAmb IAmb 01 22 58.9
comp=Z,140nm,0.9s

DMTO DMTO 81.39 285 P **P** **01 22 46.4 -1.4**
SNR=12
OZAP Van, Ozalp-Mer 81.44 309 ⇑P **P** **01 22 49.3 +1.3**
TAOE Nuku Hiva Isla 81.56 104 *e*P **P** **01 22 44.7 -4.1**
comp=Z,318nm,24.6s
TAOE *e*S **S** **01 32 58.7 -2.2**
comp=Z,919nm,27.7s
TAOE *e*SS **SS** **01 38 15.3 -2.9**
comp=Z,541nm,24.3s
TAOE *e*LQ LQ 01 44 45.1
comp=Z,3µm,26.5s
TAOE *e*LR LR 01 48 17.2
comp=Z,4µm,22.8s
ELK Elko 81.56 49 LR LR 01 57 01.1
comp=Z,3µm,18.5s,baz=289,slow=34
ELK Elko 81.56 49 IAmb IAmb 01 23 00.2
comp=Z,179nm,0.9s
ELK IAMs_20 IAMs_20 01 56 12.8
comp=Z,4µm,19.0s
ELK Elko 81.56 49 ⇓P **P** **01 22 48.8 +0.2**
SLWR Sila 81.59 293 P **P** **01 22 47.0 -1.7**
GMN Gold Mountain 81.66 53 IAmb IAmb 01 23 00.6
comp=Z,117nm,0.8s
EGMT Eagleton 81.67 41 IAmb IAmb 01 23 00.2
comp=Z,176nm,1.0s
EGMT IAMs_20 IAMs_20 01 55 27.6
comp=Z,3µm,20.0s
EGMT Eagleton 81.67 41 ⇑P **P** **01 22 49.0 +0.1**
BOZ Bozeman (W) 81.69 43 ⇓P **P** **01 22 49.0 -0.1**
DOK Doka 81.73 287 P **P** **01 22 48.8 -0.8**
SNR=23
OSI Osito Audit: C 81.74 56 IAmb IAmb 01 23 01.0
comp=Z,149nm,0.9s
VSLR Vesyoloye 81.96 314*ce*P **P** **01 22 50.8 +0.4**
VSLR pmax pmax
comp=Z,980nm,1.3s
VSLR MLR MLR
comp=Z,4µm,18.0s
TPO Tropico Hills 81.99 55 IAmb IAmb 01 23 02.6
comp=Z,222nm,0.9s
MPMC Manual Prospec 82.03 54 IAmb IAmb 01 23 02.6
comp=Z,164nm,1.0s
CLC China Lake 82.06 54 IAmb IAmb 01 23 02.4
comp=Z,138nm,0.9s
SUMG Summit 82.09 1 P **P** **01 22 48.0 -3.0**
SOC Sochi 82.11 315 *e*P **P** **01 22 50.3 -0.8**
SOC *e* 01 25 53.6
SOC *e*PPP PPP 01 27 45.1
SOC *e*S **S** **01 33 05.6 0.0**
SOC *e*SS **SS** **01 38 26.8 +2.6**
SOC pmax pmax
comp=Z,188nm,1.2s
SOC MLR MLR
comp=Z,4µm,17.0s
HAKT HAKKARI 82.12 308 P **P** **01 22 51.5 -0.1**
comp=Z,7µmcomp=Z,384nm,1.7s,comp=Z,7µm
RBK Rabkut 82.12 286 P **P** **01 22 51.2 -0.5**
SNR=23
LRMC Laurel Mtn Rad 82.14 55 IAmb IAmb 01 23 03.0
comp=Z,190nm,0.9s
GEVA Gevas 82.25 309 IAmb IAmb 01 23 03.7
comp=Z,164nm,1.3s
HOMI Horasan 82.28 311 ⇓P **P** **01 22 54.2 +1.8**
FURC Furnace Creek, 82.31 53 IAmb IAmb 01 23 03.9
comp=Z,289nm,1.1s
FURC IAMs_20 IAMs_20 01 58 07.0
comp=Z,3µm,18.0s
WHFO Wadi Hawf 82.33 286 P **P** **01 22 52.0 -0.8**
SNR=19
PASC Pasadena Art C 82.33 56 IAmb IAmb 01 23 03.5
comp=Z,142nm,1.0s
FFC Flin Flon 82.33 32 P **P** **01 22 52.0 -0.1**
FFC Flin Flon 82.33 32 IAMs_20 IAMs_20 01 55 21.4
comp=Z,4µm,22.0s
FFC Flin Flon 82.33 32 ⇓P **P** **01 22 51.9 -0.1**
FFC Flin Flon 82.33 32 P **P** **01 22 52.3 +0.2**
comp=Z,3µmcomp=Z,341nm,1.1s,comp=Z,3µm
WCT Wildcat Mounta 82.34 53 IAmb IAmb 01 23 03.9
comp=Z,112nm,0.9s
CCCA Chi Cany Iake 82.35 54 IAmb IAmb 01 23 04.3
comp=Z,200nm,0.9s
YHB Horse Butte 82.37 44 IAmb IAmb 01 23 05.4
comp=Z,230nm,1.0s
MWC Mount Wilson 82.40 56 IAmb IAmb 01 23 04.2
comp=Z,132nm,0.9s
MTSE Matsula 82.41 333 P **P** **01 22 52.0 -0.3**
comp=Z,729nm,1.1s
MTSE pP **pwP** **01 22 59.1 -0.6**
TPNV Topopah Spring 82.54 53 IAmb IAmb 01 23 05.0
comp=Z,161nm,0.8s
TPNV IAMs_20 IAMs_20 01 54 38.1
comp=Z,4µm,19.0s
TPNV Topopah Spring 82.54 53 ⇓P **P** **01 22 53.6 -0.1**
YMR Madison River 82.55 44 IAmb IAmb 01 23 06.0
comp=Z,185nm,0.9s
YHH Holmes Hill 82.56 44 IAmb IAmb 01 23 06.0
comp=Z,157nm,1.1s
S11A Rachel 82.59 52 IAmb IAmb 01 23 05.5
comp=Z,156nm,0.9s
NSS Namsos 82.66 341 *e*P **P** **01 22 53.7 +0.1**
YNR Norris Junctio 82.71 44 IAmb IAmb 01 23 08.0
comp=Z,245nm,1.1s
HVU Hansel Valley 82.75 47 IAmb IAmb 01 23 06.0
comp=Z,142nm,1.0s
GSC Goldstone, Bar 82.86 54 IAmb IAmb 01 23 06.8
comp=Z,182nm,1.1s
GURO Guroymak-BITLI 82.86 309 ⇓P **P** **01 22 55.9 +0.5**
ABTO Aybut 82.97 286 P **P** **01 22 55.8 -0.3**
SNR=45
ANN Anapa 82.97 316*c iP* **P** **01 22 55.1 -0.5**
ANN *e*S **S** **01 33 12.2 -2.1**
ANN *e* 01 33 20.0
ANN pmax pmax
comp=Z,596nm,1.2s
ANN MLR MLR
comp=Z,3µm,17.0s
YNE Yellowstone No 82.98 43 IAmb IAmb 01 23 07.9
comp=Z,113nm,1.1s
SHOC Shoshone, Teco 82.98 54 IAmb IAmb 01 23 07.2
comp=Z,128nm,0.9s
MNK Minsk 83.10 328 *i* P **P** **01 22 56.6 +0.6**
MNK *i* 01 23 00.9
MNK *i* 01 26 07.7
MNK *i* PPP PPP 01 27 59.1
MNK *i* S **SKSac** **01 33 15.9 -1.7**
MNK *i* SS **SS** **01 38 41.6 +3.3**
MNK *i* SSS SSS 01 42 10.5
MNK pmax pmax
comp=Z,114nm,1.0s
MNK pmax pmax
comp=N,57nm,1.2s
MNK pmax pmax
comp=E,59nm,1.2s
MNK MLR MLR
comp=N,2µm,16.0s
MNK MLR MLR
comp=E,1µm,15.0s
MNK MLR MLR
comp=Z,2µm,16.0s
MNK Minsk 83.10 328 *i* P **P** **01 22 56.7 +0.6**
comp=E,59nm,1.2s
MNK *i* P **P** **01 22 56.7 +0.6**
comp=N,57nm,1.2s
MNK *i* P **P** **01 22 56.7 +0.6**
comp=Z,114nm,1.0s,baz=55
MNK *i* PcP **PcP** **01 23 01.0 +0.3**
MNK *i* PP **PP** **01 26 07.7 +1.2**
MNK *i* PPP PPP 01 27 59.2
MNK *i* S **SKSac** **01 33 16.0 -1.7**
MNK *i* ScS **ScS** **01 33 29.4 -0.1**
MNK *i* SS **SS** **01 38 41.7 +3.3**
MNK *i* SSS SSS 01 42 10.5
MNK *i* LQ LQ 01 53 23.1
MNK *i* LR LR 02 02 25.1
ELS Elsinore Mount 83.12 56 IAmb IAmb 01 23 07.8
comp=Z,108nm,0.9s
SPUT South Promonto 83.18 47 IAmb IAmb 01 23 08.7
comp=Z,101nm,0.9s
PRN Pahroc Range 83.19 52 IAmb IAmb 01 23 08.6
comp=Z,140nm,0.9s
SAATT Saattut 83.27 5 *i* P **P** **01 22 57.0 +0.4**
SAATT IAmb IAmb 01 23 08.3
comp=Z,75nm,0.7s
KTUT Trabzon 83.29 312 ⇓P **P** **01 22 58.3 +1.0**
AHID Auburn Hatcher 83.38 46 IAmb IAmb 01 23 09.6
comp=Z,187nm,1.0s

AHID IAMs_20 IAMs_20 01 55 37.4
comp=Z,4µm,20.0s
AHID Auburn Hatcher 83.38 46 ⇓P **P** **01 22 58.0 0.0**
AHID Auburn Hatcher 83.38 46 P **P** **01 22 58.2 +0.2**
comp=Z,2µmcomp=Z,192nm,1.0s,comp=Z,2µm
RLMT Red Lodge 83.38 43 IAMs_20 IAMs_20 01 56 39.3
comp=Z,3µm,21.0s
RLMT Red Lodge 83.38 43 ⇓P **P** **01 22 58.6 +0.6**
NACGM Naroch 83.39 329 *eP* **P** **01 22 57.6 0.0**
comp=N,75nm,1.3s
DUG Dugway, Tooele 83.46 49 P **P** **01 22 58.4 0.0**
DUG Dugway, Tooele 83.46 49 IAMs_20 IAMs_20 01 58 02.0
comp=Z,3µm,20.0s
DUG Dugway, Tooele 83.46 49 ⇓P **P** **01 22 58.4 0.0**
DUG Dugway, Tooele 83.46 49 P **P** **01 22 58.6 +0.2**
comp=Z,2µmcomp=Z,243nm,1.0s,comp=Z,2µm
PSUT Pine Spring 83.52 50 IAmb IAmb 01 23 13.3
comp=Z,122nm,1.0s
SHPR Sheep Range 83.52 53 IAmb IAmb 01 23 10.5
comp=Z,125nm,1.0s
HWUT Hardware Ranch 83.63 47 IAMs_20 IAMs_20 01 58 01.2
comp=Z,3µm,20.0s
HWUT Hardware Ranch 83.63 47 ⇓P **P** **01 22 59.5 +0.2**
HWUT Hardware Ranch 83.63 47 P **P** **01 22 59.4 +0.2**
comp=Z,2µmcomp=Z,232nm,1.1s
SCO Scoresbysund 83.65 355 P **P** **01 23 01.3 +2.7**
comp=Z,90nm,2.5s
SCO Scoresbysund 83.65 355 *i* P **P** **01 22 59.7 +1.1**
MTPC Mountain Pass 83.69 54 IAmb IAmb 01 23 11.2
comp=Z,125nm,1.0s
NOQ North Oquirrh 83.71 48 IAmb IAmb 01 23 11.1
comp=Z,122nm,1.1s
SLIT Slitere, Latvi 83.72 332 ⇓P **P** **01 22 57.8 -1.4**
SLIT Slitere, Latvi 83.72 332 P **P** **01 22 57.7 -1.4**
comp=Z,9µmcomp=Z,618nm,1.2s
DPP Dos Picos Cty 83.78 57 IAmb IAmb 01 23 11.0
comp=Z,80nm,0.9s
PFO Pinyon Flats O 83.86 56 LR LR 01 55 58.8
comp=Z,3µm,19.2s,baz=270,slow=32
PFO Pinyon Flats O 83.86 56 P **P** **01 23 00.6 0.0**
PFO pmax pmax
comp=Z,162nm,0.9s
PFO Pinyon Flats O 83.86 56 P **P** **01 23 00.6 0.0**
PFO IAmb IAmb 01 23 11.8
comp=Z,162nm,0.9s
PFO Pinyon Flats O 83.86 56 P **P** **01 23 01.4 +0.8**
comp=Z,212nm,1.0s
PMD Palm Desert 83.91 56 IAmb IAmb 01 23 11.7
comp=Z,149nm,0.8s
TCUT Toone Canyon 83.96 47 IAmb IAmb 01 23 12.4
comp=Z,123nm,0.9s
KELT Kelkit 84.03 312 P **P** **01 23 02.3 +0.9**
comp=Z,19µmcomp=Z,2µm,1.1s,comp=Z,19µm
BELC Belle Mtn. Jos 84.03 55 IAmb IAmb 01 23 12.3
comp=Z,112nm,0.8s
NLU North Lily Min 84.07 48 IAmb IAmb 01 23 13.0
comp=Z,124nm,1.0s
BAR Barrett 84.12 57 IAmb IAmb 01 23 12.8
comp=Z,86nm,0.9s
BAR IAMs_20 IAMs_20 01 52 07.5
comp=Z,4µm,22.0s
CBX Cerro Bola 84.29 57 IAmb IAmb 01 23 13.8
comp=Z,126nm,0.9s
PABE Paberze 84.32 330 IAMs_20 IAMs_20 02 04 06.2
comp=Z,3µm,20.0s
PABE Paberze 84.32 330 P **P** **01 23 01.9 -0.3**
comp=Z,3µmcomp=Z,364nm,1.2s,comp=Z,3µm
BW06 Boulder Array 84.37 45 IAmb IAmb 01 23 14.1
comp=Z,94nm,1.0s
BW06 Boulder Array 84.37 45 ⇑P **P** **01 23 02.9 -0.2**
PD31 Pinedale Array 84.37 45 IAmb IAmb 01 23 14.1
comp=Z,86nm,0.9s
PDAR Pinedale Array 84.37 45 P **P** **01 23 02.8 -0.4**
comp=Z,7.7nm,0.6s,baz=63,slow=0.9,SNR=71
PDAR PKKPbc **PKKPbc** **01 41 13.3 -1.9**
comp=Z,1.2nm,0.9s,baz=33,slow=0.7,SNR=5.6
PDAR LR LR 01 56 22.6
comp=Z,5µm,19.7s,baz=298,slow=33
comp=Z,7.7nm,0.6s
PDAR Pinedale Array 84.37 45 P **P** **01 23 02.6 -0.5**
LAO LASA Array 84.41 40 ⇑P **P** **01 23 03.7 +0.6**
TCRU Three Creeks R 84.46 50 IAmb IAmb 01 23 18.1
comp=Z,120nm,1.0s
AK03 Malin Array Si 84.58 324 P **P** **01 23 02.4 -1.3**
AKASG Malin Array Be 84.59 324 P **P** **01 23 02.7 -1.1**
comp=Z,33nm,0.5s,baz=52,slow=5.2,SNR=117
AKASG LR LR 02 04 15.8
comp=Z,2µm,18.2s,baz=51,slow=38
comp=Z,33nm,0.5s
AKBB Malin Array Si 84.59 324*de*P **P** **01 23 02.7 -1.1**
AKBB Malin Array Si 84.59 324 P **P** **01 23 02.7 -1.1**
BC3 Big Chuckawall 84.59 55 IAmb IAmb 01 23 15.6
comp=Z,123nm,0.9s
IRM Iron Mountain 84.59 55 IAmb IAmb 01 23 15.6
comp=Z,101nm,1.0s
KIEV Kiev 84.61 324 *i* P **P** **01 23 02.7 -1.1**
SNR=6.7
KIEV Kiev 84.61 324 P **P** **01 23 02.7 -1.1**
KIEV IAmb IAmb 01 23 05.0
comp=Z,279nm,1.5s
KIEV Kiev 84.61 324 IAMs_20 IAMs_20 02 06 20.1
comp=Z,3µm,19.0s
KIEV Kiev 84.61 324 ⇓P **P** **01 23 02.8 -1.1**
KIEV Kiev 84.61 324 ⇓P **P** **01 23 03.0 -0.9**
KIEV Kiev 84.61 324 P **P** **01 23 03.0 -0.9**
comp=Z,136nm,1.1s
DGMT Dagmar 84.62 38 IAmb IAmb 01 23 15.1
comp=Z,165nm,1.0s
DGMT Dagmar 84.62 38 IAMs_20 IAMs_20 01 58 36.6
comp=Z,2µm,22.0s
DGMT Dagmar 84.62 38 ⇓P **P** **01 23 05.7 +1.6**
LCMT Little Creek M 84.65 52 IAmb IAmb 01 23 16.2
comp=Z,150nm,0.9s
BSUT Blindstream Ca 84.67 47 IAmb IAmb 01 23 17.0
comp=Z,91nm,1.1s
YUH Yuha Desert 84.70 56 IAmb IAmb 01 23 15.8
comp=Z,78nm,0.8s
ILULI Ilulissat 84.87 5 P **P** **01 23 05.2 +0.4**
comp=Z,152nm,1.2s
PBUR Paburge 84.89 331 P **P** **01 23 04.5 -0.7**
comp=Z,233nm,1.1s
SIM Simferopol' 84.94 318 *e*P **P** **01 23 06.0 +0.4**
SIM *e* 01 26 24.3
SIM *e*S **S** **01 33 32.6 -1.5**
SIM pmax pmax
comp=Z,570nm,2.1s
SIM pmax pmax
comp=Z,480nm,11.0s
SIM smax smax
comp=E,690nm,7.0s
KEMA Kemaliye 84.97 311 P **P** **01 23 06.5 +0.5**
comp=Z,8µmcomp=Z,562nm,1.5s,comp=Z,8µm
ESJX Sierra Juarez 84.97 57 IAmb IAmb 01 23 17.7
comp=Z,92nm,0.9s
TMUT Trail Mountain 84.98 49 IAmb IAmb 01 23 18.1
comp=Z,111nm,0.9s
ARPR Arapgir-MALATY 85.16 311 IAMs_20 IAMs_20 02 04 01.7
comp=Z,3µm,21.0s
BLYC Blythe 85.24 55 IAmb IAmb 01 23 18.9
comp=Z,106nm,1.1s
NC303 NORSAR Array S 85.30 339 IAmb IAmb 01 23 14.8
comp=Z,183nm,1.1s
HFS Hagfors 85.31 337 P **P** **01 23 06.3 -0.9**
comp=Z,22nm,0.4s,baz=76,slow=6.3,SNR=33
HFS PKKPbc **PKKPbc** **01 41 10.0 -3.2**
comp=Z,1.5nm,0.8s,baz=186,slow=1.4,SNR=4.9
HFS LR LR 02 02 16.9
comp=Z,1µm,20.3s,baz=38,slow=36
comp=Z,22nm,0.4s
GLA Glamis 85.34 56 IAmb IAmb 01 23 20.1
comp=Z,170nm,1.1s
GLA IAMs_20 IAMs_20 01 56 23.5
comp=Z,3µm,19.0s
DOMB Dombas 85.40 340 *e*P **P** **01 23 07.4 -0.2**
MOL Molde 85.45 341 *e*P **P** **01 23 07.6 -0.2**
MOL IAmb IAmb 01 23 19.1
comp=Z,202nm,1.1s
NB201 NORSAR Array S 85.45 339 IAmb IAmb 01 23 18.7
comp=Z,152nm,0.9s
P18A Preston Nutter 85.46 48 IAmb IAmb 01 23 20.8
comp=Z,118nm,0.8s
NB2 NORSAR Subarra 85.48 339 P **P** **01 23 07.3 -0.8**
comp=Z,869nm,3.3s,baz=43,slow=5.1
NB2 NORSAR Subarra 85.48 339 P **P** **01 23 07.0 -1.1**
NOA NORSAR Array B 85.48 339 P **P** **01 23 07.1 -1.1**
comp=Z,26nm,0.6s,baz=42,slow=4.8,SNR=77
NOA PP **PP** **01 26 22.4 -3.3**

comp=Z,12nm,1.0s,baz=44,slow=8.2,SNR=4.2
NOA LR LR 02 04 09.3
comp=Z,2µm,21.9s,baz=45,slow=38
comp=Z,26nm,0.6s
U15A North Rim 85.60 52 IAmb IAmb 01 23 21.6
comp=Z,164nm,0.9s
NC602 NORSAR Array S 85.60 339 *e*P **P 01 23 07.7 -0.9**
NC602 IAmb IAmb 01 23 15.2
comp=Z,68nm,1.1s
NORES NORESS Array B 85.60 339 P **P 01 23 09.0 +0.4**
NORES pmax pmax
comp=Z,6.0nm,0.4s
SUW Suwalki 85.61 329 *e*P **P 01 23 08.3 -0.5**
SUW Suwalki 85.61 329 ⇓P **P 01 23 07.5 -1.3**
NBO00 NORSAR Array S 85.63 339 IAmb IAmb 01 23 16.3
comp=Z,90nm,0.9s
NAO01 NORSAR Array S 85.74 339 IAmb IAmb 01 23 20.0
comp=Z,108nm,1.0s
NAO01 NORSAR Array S 85.74 339 P **P 01 23 09.1 -0.3**
comp=Z,55nm,1.0s
LUBAR Lubar, Ukraine 85.81 324 P **P 01 23 08.3 -1.6**
RNPP9 Sopachiv 85.89 326 P **P 01 23 09.5 -0.8**
AKN Aaknes 85.91 341 *e*P **P 01 23 10.3 +0.1**
AKN IAmb IAmb 01 23 18.1
comp=Z,132nm,1.0s
RNPP8 Varash 85.96 326 P **P 01 23 10.0 -0.6**
RNPP5 Staryi Chortor 86.01 326 P **P 01 23 09.8 -1.0**
113A Mohawk Valley, 86.26 55 IAmb IAmb 01 23 23.8
comp=Z,111nm,1.0s
K22A Casper 86.35 44 IAMs_20 IAMs_20 01 56 37.9
comp=Z,3µm,19.0s
OSL Oslo 86.47 338 *e*P **P 01 23 13.2 +0.3**
SORM Soroca 86.53 323 ⇑P **P 01 23 12.3 -1.1**
SORM Soroca 86.53 323 ⇑P **P 01 23 12.3 -1.1**
SORM Soroca 86.53 323 P **P 01 23 11.8 -1.6**
comp=Z,33nm,0.7s
O20A White River Ci 86.54 47 IAmb IAmb 01 23 24.9
O20A IAMs_20 IAMs_20 01 54 30.4
comp=Z,3µm,22.0s
PURM Purcari 86.59 321 ⇓P **P 01 23 13.9 +0.2**
SKAR Skarslia 86.69 340 *e*P **P 01 23 14.5 +0.4**
SKAR IAmb IAmb 01 23 22.4
comp=Z,96nm,1.1s
WUAZ Wupatki 86.69 52 IAMs_20 IAMs_20 02 01 58.0
comp=Z,3µm,20.0s
WUAZ Wupatki 86.69 52 ⇓P **P 01 23 15.0 +0.2**
GAZ Gaziantep 86.87 310 IAmb IAmb 01 23 26.9
comp=Z,101nm,1.0s
FOO Floro 86.94 342 *e*P **P 01 23 14.9 -0.2**
FOO IAmb IAmb 01 23 31.6
comp=Z,101nm,1.2s
RAYN Ar Rayn 86.94 294 *i* P **P 01 23 15.7 -0.3**
SNR=83
RAYN Ar Rayn 86.94 294 P **P 01 23 16.7 +0.7**
RAYN Ar Rayn 86.94 294 P **P 01 23 15.4 -0.7**
RAYN IAmb IAmb 01 23 27.8
comp=Z,67nm,0.7s
RAYN Ar Rayn 86.94 294 P **P 01 23 15.8 -0.3**
comp=Z,3µmcomp=Z,117nm,0.8s
HYA Hoyanger 86.95 341 *e*P **P 01 23 15.4 +0.2**
HYA IAmb IAmb 01 23 26.2
comp=Z,185nm,1.0s
BNN Bunyan 86.96 312 IAmb IAmb 01 23 27.3
comp=Z,131nm,1.0s
HAYD Hayden 86.99 46 IAmb IAmb 01 23 27.7
comp=Z,139nm,0.9s
STRU Stroemstad 86.99 338 *i* P **P 01 23 14.9 -0.5**
PIX Pinacate 87.05 56 IAmb IAmb 01 23 27.7
comp=Z,133nm,1.0s
KONO Kongsberg 87.06 339 ⇓*e*P **P 01 23 16.9 +1.1**
KONO pmax pmax
comp=Z,71nm,1.7s
KONO Kongsberg 87.06 339 P **P 01 23 14.1 -1.7**
KONO Kongsberg 87.06 339 *e*P **P 01 23 15.0 -0.8**
KONO Kongsberg 87.06 339 ⇑P **P 01 23 15.3 -0.5**
KONO Kongsberg 87.06 339 P **P 01 23 15.6 -0.2**
comp=Z,46nm,1.3s
SFJD Kangerlussuaq 87.08 6 LR LR 02 02 43.3
comp=Z,862nm,20.8s,baz=348,slow=36
SFJD Kangerlussuaq 87.08 6 P **P 01 23 15.5 -0.2**
SFJD IAmb IAmb 01 23 27.3
comp=Z,188nm,1.1s
SFJD Kangerlussuaq 87.08 6 P **P 01 23 16.3 +0.5**
SFJD Kangerlussuaq 87.08 6 P **P 01 23 16.6 +0.8**
comp=Z,186nm,1.1s
SFJD Kangerlussuaq 87.08 6 *i* P **P 01 23 15.4 -0.4**
SFJD IAmb IAmb 01 23 27.0
comp=Z,187nm,1.1s
RSSD Black Hills 87.09 42 P **P 01 23 16.3 -0.3**
RSSD pmax pmax
comp=Z,125nm,1.0s
RSSD Black Hills 87.09 42 P **P 01 23 16.3 -0.3**
RSSD IAmb IAmb 01 23 29.2
comp=Z,125nm,0.9s
RSSD Black Hills 87.09 42 IAMs_20 IAMs_20 01 59 25.3
comp=Z,3µm,19.0s
RSSD Black Hills 87.09 42 P **P 01 23 17.0 +0.3**
comp=Z,142nm,1.1s
X16A Lo Mia Camp, P 87.18 53 IAmb IAmb 01 23 29.0
comp=Z,111nm,1.0s
BLEU Blekinge 87.25 334 *i* P **P 01 23 15.4 -1.4**
ANDN Andirin 87.27 311 P **P 01 23 17.3 -0.1**
comp=Z,1µmcomp=Z,654nm,1.2s,comp=Z,6µm
KMPD K-Podol'skiy 87.30 324 P **P 01 23 15.6 -1.6**
FRB Frobisher Bay 87.44 14 LR LR 02 04 34.9
comp=Z,2µm,21.1s,baz=325,slow=37
FRB Frobisher Bay 87.44 14 P **P 01 23 19.5 +1.9**
comp=Z,203nm,1.1s
IASR Iasi 87.51 322 ⇑P **P 01 23 17.9 -0.3**
MDND Maddock 87.51 37 IAMs_20 IAMs_20 02 02 48.9
comp=Z,3µm,19.0s
E28A Huff 87.65 38 IAMs_20 IAMs_20 02 01 22.8
comp=Z,3µm,20.0s
MNTR Muntenesti 87.78 322 ⇑P **P 01 23 18.7 -0.9**
ASK Askoy 87.79 341 *e*P **P 01 23 19.9 +0.6**
ODD1 Odda 87.81 340 *e*P **P 01 23 19.9 +0.4**
PDRR Padureni 87.81 322 ⇑P **P 01 23 19.7 0.0**
BER Bergen 87.83 341 *e*P **P 01 23 20.1 +0.6**
BER IAmb IAmb 01 23 30.4
comp=Z,162nm,1.2s
BER Bergen 87.83 341 P **P 01 23 19.0 -0.5**
comp=Z,116nm,1.2s
MVCO Mesa Verde 87.86 49 IAmb IAmb 01 23 31.8
comp=Z,91nm,1.1s
MVCO IAMs_20 IAMs_20 01 58 41.9
comp=Z,3µm,20.0s
MVCO Mesa Verde 87.86 49 ⇑P **P 01 23 20.7 +0.2**
MVCO Mesa Verde 87.86 49 P **P 01 23 21.1 +0.6**
comp=Z,91nm,1.1s
DMBR Dumbraveni 87.88 322 ⇑P **P 01 23 19.5 -0.5**
DEL Delary 87.89 335 *i* P **P 01 23 18.5 -1.4**
FABU Falkenberg 87.94 336 *i* P **P 01 23 19.6 -0.5**
ONAU Onsala 87.95 336 *i* P **P 01 23 18.9 -1.2**
TLCR 87.96 320 ⇑P **P 01 23 19.9 -0.5**
TLCR 87.96 320 ⇑P **P 01 23 19.9 -0.5**
BR131 Keskin Array S 87.98 314 *de*P **P 01 23 19.5 -1.4**
BR131 Keskin Array S 87.98 314 IAmb IAmb 01 23 31.4
comp=Z,85nm,0.9s
BRTR Keskin Array B 87.98 314 P **P 01 23 19.8 -1.1**
comp=Z,33nm0.9s,baz=102,slow=3.1,SNR=74
BRTR PKKPbc **PKKPbc 01 41 05.6 -0.9**
comp=Z,1.0nm,0.7s,baz=236,slow=5.0,SNR=5.1
BRTR LR LR 02 06 36.7
comp=Z,1µm,19.3s,baz=57,slow=38
comp=Z,33nm,0.9s
BRTR Keskin Array B 87.98 314 *ce*P **P 01 23 19.7 -1.1**
BRTR pmax pmax
comp=Z,35nm,0.9s
BRTR Keskin Array B 87.98 314 P **P 01 23 20.0 -0.8**
ULM Lac du Bonnet 87.99 34 P **P 01 23 19.8 -0.7**
comp=Z,6.5nm,0.6s,baz=339,slow=4.4,SNR=12
ULM LR LR 02 01 02.8
comp=Z,2µm,20.1s,baz=314,slow=34
comp=Z,6.5nm,0.6s
ULM Lac du Bonnet 87.99 34 IAmb IAmb 01 23 31.5
comp=Z,151nm,1.2s
VLDR Vladesti 88.00 321 ⇓P **P 01 23 21.1 +0.5**
BIR Birlad 88.01 321 ⇑P **P 01 23 20.6 -0.1**
BIR Birlad 88.01 321 ⇑P **P 01 23 20.6 -0.1**
KIRS Kirsehir-Merke 88.11 313 ⇑P **P 01 23 20.7 -0.7**
BEL Belsk 88.11 329 *e*P **P 01 23 20.3 -0.7**
BEL eL L 02 06 48.7
comp=Z,3µm,18.3s
PRAR RASCA 88.14 323 ⇑P **P 01 23 20.9 -0.4**
JURR Jurilovca 88.16 320 ⇓P **P 01 23 21.1 -0.3**
TATR Tatarca 88.16 321 ⇑P **P 01 23 21.7 +0.4**
X18A Snowflake 88.19 52 IAmb IAmb 01 23 33.6
comp=Z,89nm,0.9s
GIRR Girov 88.23 322 ⇓P **P 01 23 21.3 -0.4**
BLS5 Blasjo 88.25 340 *e*P **P 01 23 21.9 +0.3**
GHRR 88.26 321 ⇓P **P 01 23 21.1 -0.8**
GHRR 88.26 321 P **P 01 23 22.4 +0.5**
comp=Z,94nm,1.2s
CFR Carcaliu 88.35 320 ⇑P **P 01 23 21.6 -0.7**
CFR Carcaliu 88.35 320 ⇑P **P 01 23 21.6 -0.7**
IZVR Izvoarele 88.35 321 ⇑P **P 01 23 22.0 -0.3**
SCHLR Schela 88.36 321 ⇓P **P 01 23 23.1 +0.8**
TPGR Topolog 88.38 320 ⇓P **P 01 23 22.4 0.0**
TUDR 88.38 321 ⇓P **P 01 23 21.5 -0.9**
TESR Tescani 88.42 322 ⇑P **P 01 23 21.8 -0.8**
TESR Tescani 88.42 322 P **P 01 23 22.0 -0.6**
comp=Z,94nm,1.0s
TESR Tescani 88.42 322 P **P 01 23 22.1 -0.5**
comp=Z,94nm,1.1s
ISCO Idaho Springs 88.44 46 IAmb IAmb 01 23 35.0
comp=Z,91nm,1.2s
ISCO IAMs_20 IAMs_20 01 56 44.5
comp=Z,4µm,21.0s
ISCO Idaho Springs 88.44 46 ⇑P **P 01 23 24.1 +0.8**
ISCO Idaho Springs 88.44 46 P **P 01 23 23.2 0.0**
comp=Z,65nm,1.1s
BSD Bornholm Skovb 88.45 333 ⇑P **P 01 23 22.2 -0.4**
BSD Bornholm Skovb 88.45 333 P **P 01 23 22.6 +0.1**
comp=Z,53nm,1.3s
BSD Bornholm Skovb 88.45 333 *i* P **P 01 23 21.6 -0.9**
BSD IAmb IAmb 01 23 29.4
comp=Z,56nm,1.1s
BIZ Bicaz 88.46 323 ⇑P **P 01 23 22.5 -0.3**
HOMB Homborsund 88.49 338 *e*P **P 01 23 21.9 -0.7**
HOMB Homborsund 88.49 338 *i* P **P 01 23 21.0 -1.6**
PANC Panciu 88.51 321 ⇑P **P 01 23 23.9 +0.8**
BURAR Bucovina Array 88.54 323 ⇓P **P 01 23 22.7 -0.6**
BURAR Bucovina Array 88.54 323 P **P 01 23 22.4 -0.9**
BURAR Bucovina Array 88.54 323 ⇓P **P 01 23 22.7 -0.6**
KWP Kalwaria Pacla 88.59 326 *e*P **P 01 23 23.8 +0.4**
KWP eL L 02 06 24.4
comp=Z,7µm,18.8s
KWP Kalwaria Pacla 88.59 326 ⇓P **P 01 23 22.7 -0.6**
KWP Kalwaria Pacla 88.59 326 P **P 01 23 22.8 -0.6**
comp=Z,215nm,1.1s
TIRR Tirgusor 88.61 320 ⇓P **P 01 23 23.6 +0.1**
TIRR Tirgusor 88.61 320 ⇓P **P 01 23 23.3 -0.2**
TIRR Tirgusor 88.61 320 P **P 01 23 23.4 -0.2**
comp=Z,65nm,1.1s
ODBI Odobesti 88.63 321 ⇓P **P 01 23 24.1 +0.5**
ONER Baraj Valea Uz 88.66 322 ⇑P **P 01 23 23.6 -0.2**
LUNU Lund 88.66 334 *i* P **P 01 23 22.3 -1.3**
TUC Tucson 88.69 55 P **P 01 23 24.9 +0.7**
TUC IAmb IAmb 01 23 36.2
comp=Z,73nm,1.0s
TUC Tucson 88.69 55 ⇑P **P 01 23 25.1 +0.8**
TUC Tucson 88.69 55 P **P 01 23 24.7 +0.5**
comp=Z,84nm,1.1s
EFOR EFORIE 88.70 319 ⇑P **P 01 23 24.1 +0.1**
VRI Vrincioaia 88.75 321 ⇑P **P 01 23 24.5 +0.2**
VRI Vrincioaia 88.75 321 ⇑P **P 01 23 24.5 +0.2**
VRI Vrincioaia 88.75 321 P **P 01 23 24.4 +0.2**
comp=Z,48nm,1.2s
HARR Harsova 88.76 320 ⇓P **P 01 23 24.4 +0.2**
HARR Harsova 88.76 320 ⇓P **P 01 23 24.4 +0.2**
GKP Gorka Klasztor 88.76 331 *e*P **P 01 23 23.3 -0.8**
GKP eL L 02 08 10.7
comp=Z,4µm,16.6s
MFTR Murfatlar 88.77 319 ⇓P **P 01 23 24.4 +0.1**
TLBR Topalu 88.77 320 ⇑P **P 01 23 23.8 -0.5**
PLOR Plostina 88.81 321 ⇑P **P 01 23 25.3 +0.8**
PLOR Plostina 88.81 321 ⇑P **P 01 23 25.3 +0.8**
SAHR Sahastru 88.86 321 ⇓P **P 01 23 25.5 +0.7**
SNART Snartemo 88.86 339 *e*P **P 01 23 24.1 -0.4**
SNART Snartemo 88.86 339 *i* P **P 01 23 22.0 -2.4**
GRER 88.90 321 ⇑P **P 01 23 25.7 +0.8**
JOSR Joseni 88.92 323 ⇓P **P 01 23 24.6 -0.4**
BISRR Bisoca 88.95 321 ⇑P **P 01 23 25.4 +0.1**
COP Copenhagen 89.02 335 P **P 01 23 25.6 +0.4**
comp=Z,108nm,0.9s
COP Copenhagen 89.02 335 *i* P **P 01 23 25.1 -0.1**
COP IAmb IAmb 01 23 26.5
comp=Z,59nm,0.7s
TURR Turia 89.04 322 ⇓P **P 01 23 26.2 +0.6**
COVR Voineasa-Covas 89.06 322 ⇓P **P 01 23 25.4 -0.3**
OZUR 89.14 322 ⇓P **P 01 23 26.3 +0.2**
AMRR Amara 89.15 320 ⇓P **P 01 23 25.8 -0.2**
AMRR Amara 89.15 320 ⇓P **P 01 23 25.8 -0.2**
MDUB Mudurnu 89.15 315 IAmb IAmb 01 23 37.5
comp=Z,147nm,1.0s
ICOR Ion Corvin 89.17 320 ⇓P **P 01 23 26.8 +0.7**
Q24A Divide 89.19 47 IAMs_20 IAMs_20 01 57 38.5
comp=Z,2µm,20.0s
AGMN Agassiz Nation 89.22 35 ⇑P **P 01 23 26.2 -0.1**
AGMN Agassiz Nation 89.22 35 P **P 01 23 26.0 -0.4**
comp=Z,189nm,1.1s
BOSR Bodos 89.22 322 ⇑P **P 01 23 26.5 0.0**
KOLS Kolonicke sedl 89.25 326 *e*P **P 01 23 26.4 -0.1**
KOLS pmax pmax
comp=Z,24nm,0.8s
KOLS Kolonicke sedl 89.25 326 *e*P **P 01 23 26.4 -0.1**
KOLS Kolonicke sedl 89.25 326 P **P 01 23 26.6 +0.1**
comp=Z,261nmcomp=Z,33nm,0.6s,comp=Z,261nm
NEHR Nehoiu 89.26 321 ⇓P **P 01 23 26.0 -0.6**
ISR Istrita 89.30 321 ⇑P **P 01 23 27.3 +0.4**
ISR Istrita 89.30 321 ⇑P **P 01 23 27.3 +0.4**
ARCR ARCALIA 89.32 323 ⇓P **P 01 23 27.4 +0.5**
LLD Lille Linde 89.36 335 *i* P **P 01 23 26.5 -0.3**
LLD IAmb IAmb 01 23 28.0
comp=Z,28nm,0.6s
BMR Baia Mare 89.42 324 ⇑P **P 01 23 27.3 0.0**
BMR Baia Mare 89.42 324 ⇑P **P 01 23 27.3 0.0**
BMR Baia Mare 89.42 324 P **P 01 23 27.1 -0.2**
comp=Z,2µmcomp=Z,124nm,1.3s,comp=Z,2µm
MLR Muntele Rosu 89.42 321 LR LR 02 06 07.1
comp=Z,2µm,18.1s,baz=58,slow=37
MLR Muntele Rosu 89.42 321 ⇓P **P 01 23 26.4 -1.1**
MLR Muntele Rosu 89.42 321 IAMs_20 IAMs_20 02 09 12.1
comp=Z,3µm,18.0s
MLR Muntele Rosu 89.42 321 ⇓P **P 01 23 26.4 -1.1**
MLR Muntele Rosu 89.42 321 P **P 01 23 27.3 -0.2**
comp=Z,39nm,1.1s
EPLO Experimental 89.43 33 IAmb IAmb 01 23 38.3
comp=Z,164nm,1.0s
UZHM Uzhgorod 89.44 325 P **P 01 23 26.6 -0.7**
DOPR Dopca 89.44 322 ⇑P **P 01 23 27.6 +0.1**
RGN Rugen 89.50 334 IAmb IAmb 01 23 34.8
comp=Z,102nm,1.0s
RGN Rugen 89.50 334 P **P 01 23 26.2 -1.3**
comp=Z,84nm,0.8s
LEHL Lehliu 89.53 320 ⇓P **P 01 23 27.2 -0.7**
ASF Jabal al Asfar 89.59 306 LR LR 02 09 15.6
comp=Z,982nm,18.3s,baz=53,slow=39
ASF Jabal al Asfar 89.59 306 P **P 01 23 28.7 +0.2**
ASF AML AML
SDCO Great Sand Dun 89.61 48 IAMs_20 IAMs_20 02 03 00.8
comp=Z,3µm,19.0s
TRPA Tarpa 89.63 325 P **P 01 23 27.9 -0.4**
comp=Z,2µmcomp=Z,111nm,1.1s,comp=Z,2µm
OJC Ojcow 89.65 328 *e*P **P 01 23 27.4 -0.9**
OJC eL L 02 09 23.5
comp=Z,2µm,17.5s
OJC Ojcow 89.65 328 P **P 01 23 27.7 -0.6**
OJC Ojcow 89.65 328 ⇑P **P 01 23 28.0 -0.3**
OJC Ojcow 89.65 328 P **P 01 23 27.9 -0.4**
OJC Ojcow 89.65 328 P **P 01 23 27.7 -0.6**
comp=Z,59nm,1.2s
MUD Monsted U'grnd 89.65 337 *i* P **P 01 23 27.4 -0.8**
MUD IAmb IAmb 01 23 35.5
comp=Z,39nm,1.0s
SULR 89.73 321 ⇓P **P 01 23 28.1 -0.6**
SULR 89.73 321 P **P 01 23 29.1 +0.3**
comp=Z,11µmcomp=Z,97nm,1.0s,comp=Z,11µm
MDB Medias 89.89 323 ⇑P **P 01 23 30.0 +0.5**
MDB Medias 89.89 323 ⇑P **P 01 23 30.0 +0.5**
SUSD Miller 89.90 39 IAMs_20 IAMs_20 02 04 36.3
comp=Z,3µm,19.0s
LNIZ Loecknitz 89.90 333 P **P 01 23 29.4 +0.1**
comp=Z,78nm,1.3s
NIE Niedzica 89.93 327 *e*P **P 01 23 29.4 -0.3**
VOIR 89.95 322 ⇑P **P 01 23 30.0 0.0**
VOIR 89.95 322 ⇑P **P 01 23 30.0 0.0**
VOIR 89.95 322 P **P 01 23 29.9 -0.1**
comp=Z,21nm,0.7s
CEI Carei 89.95 325 ⇑P **P 01 23 30.0 +0.2**
CEI Carei 89.95 325 ⇑P **P 01 23 30.0 +0.2**
PRD Provadia 89.95 319 *i* P **P 01 23 30.7 +0.8**
CJR Cluj-Napoca 89.96 323 ⇑P **P 01 23 30.0 +0.1**
CJR Cluj-Napoca 89.96 323 ⇑P **P 01 23 30.0 +0.1**
GEM Giv'at Ha'Em 89.96 307 ⇓P **P 01 23 30.3 +0.2**
GEM Giv'at Ha'Em 89.96 307 P **P 01 23 31.5 +1.4**
GEM AML AML
MESR Meseseni 90.03 324 ⇓P **P 01 23 30.6 +0.4**
OGNE Ogallala 90.09 44 IAmb IAmb 01 23 41.6
comp=Z,106nm,0.8s
OGNE IAMs_20 IAMs_20 02 00 11.9
comp=Z,2µm,20.0s
HSUJ Al Zarqa 90.14 306 P **P 01 23 32.3 +1.2**
HSUJ AML AML
SGRR Singureni 90.16 320 ⇓P **P 01 23 30.5 -0.3**
HSIG 90.18 58 IAmb IAmb 01 23 42.9
comp=Z,83nm,0.9s
ABAH Abaujker 90.19 326 P **P 01 23 30.5 -0.4**
comp=Z,80nm,1.0s
ARR Arges 90.23 322 ⇑P **P 01 23 31.3 +0.1**
ARR Arges 90.23 322 P **P 01 23 31.1 -0.2**
comp=Z,118nm,1.0s
SSRD Sdr. Stenderup 90.23 336 *i* P **P 01 23 29.9 -0.9**
SSRD IAmb IAmb 01 23 38.5
comp=Z,156nm,1.1s
MARR Marisel-Cluj 90.24 324 ⇓P **P 01 23 30.7 -0.6**
RAZG Razgrad 90.25 320 ⇑P **P 01 23 30.8 -0.5**
MMAI Mount Meron Ar 90.25 307 P **P 01 23 30.6 -1.0**
comp=Z,24nm,1.0s,baz=25,slow=10,SNR=18
MMAI LR LR 02 08 43.6
comp=Z,915nm,18.5s,baz=24,slow=39
comp=Z,24nm,1.0s
TNR Turnu Rosu 90.25 322 ⇓P **P 01 23 31.9 +0.6**
TNR Turnu Rosu 90.25 322 ⇓P **P 01 23 31.9 +0.6**
LOZB Loznitsa 90.31 319 ⇓P **P 01 23 30.7 -0.8**
DRGR 90.39 324 ⇑P **P 01 23 31.5 -0.4**
DRGR 90.39 324 ⇑P **P 01 23 31.5 -0.4**
DRGR 90.39 324 P **P 01 23 31.2 -0.8**
comp=Z,66nm,1.1s
LTVH Ltavrtes, Hu 90.44 325 ⇓P **P 01 23 31.8 -0.2**
LTVH Ltavrtes, Hu 90.44 325 P **P 01 23 32.5 +0.4**
comp=Z,71nm,0.9s
TASM ASL Pad, Albuq 90.45 51 IAmb IAmb 01 23 44.9
comp=Z,117nm,0.9s
TASM ASL Pad, Albuq 90.45 51 IAmb IAmb 01 23 44.9
comp=Z,117nm,0.9s
TASM ASL Pad, Albuq 90.45 51 IAMs_20 IAMs_20 02 04 21.2
comp=Z,2µm,19.0s
TASM ASL Pad, Albuq 90.45 51 IAMs_20 IAMs_20 02 04 21.2
comp=Z,2µm,19.0s
TASM ASL Pad, Albuq 90.45 51 IAMs_20 IAMs_20 02 04 21.2
comp=Z,2µm,19.0s
TASM ASL Pad, Albuq 90.45 51 IAMs_20 IAMs_20 02 04 21.2
comp=Z,2µm,19.0s
ANMO Albuquerque 90.45 51 LR LR 02 02 15.0
comp=Z,2µm,18.4s,baz=297,slow=34
ANMO Albuquerque 90.45 51 P **P 01 23 33.3 +0.7**
ANMO pmax pmax
comp=Z,103nm,0.9s
ANMO MLR MLR
comp=Z,2µm,19.0s
ANMO Albuquerque 90.45 51 P **P 01 23 33.3 +0.7**
ANMO IAmb IAmb 01 23 44.8
comp=Z,103nm,0.9s
ANMO Albuquerque 90.45 51 IAMs_20 IAMs_20 02 04 21.2
comp=Z,2µm,19.0s
ANMO Albuquerque 90.45 51 ⇓P **P 01 23 32.6 0.0**
ANMO Albuquerque 90.45 51 P **P 01 23 33.0 +0.4**
comp=Z,138nm,1.0s
ALQ Albuquerque 90.45 51 IAmb IAmb 01 23 44.9
comp=Z,132nm,0.9s
ALQ IAMs_20 IAMs_20 02 04 21.3
comp=Z,2µm,19.0s
ALQ Albuquerque 90.45 51 IAmb IAmb 01 23 44.8
comp=Z,132nm,0.9s
ALQ IAMs_20 IAMs_20 02 04 21.3
comp=Z,2µm,19.0s
ABQ Albuquerque 90.45 51 IAMs_20 IAMs_20 02 02 23.3
comp=Z,2µm,19.0s
KECS Kecovo 90.45 326 *e*P **P 01 23 33.5 +1.4**
KECS pmax pmax
comp=Z,43nm,1.2s
KECS Kecovo 90.45 326 *e*P **P 01 23 33.5 +1.4**
KECS Kecovo 90.45 326 P **P 01 23 32.8 +0.7**
comp=Z,472nmcomp=Z,37nm,1.1s,comp=Z,472nm
QRNJ Al-Qirein 90.47 306 P **P 01 23 33.0 +0.5**
QRNJ AML AML
LANS Liptovska Anna 90.52 327 *e*P **P 01 23 33.1 +0.6**
LANS pmax pmax
comp=Z,32nm,1.5s
LANS Liptovska Anna 90.52 327 *e*P **P 01 23 33.0 +0.6**
MMLI Mount Malkishu 90.53 307 P **P 01 23 33.0 +0.1**
comp=Z,1µmcomp=Z,91nm,1.3s
F33A 5 Mile Ranch, 90.53 37 IAmb IAmb 01 23 43.9
comp=Z,178nm,1.0s
F33A IAMs_20 IAMs_20 02 02 55.9
comp=Z,3µm,21.0s
HUMR Humele 90.55 321 ⇓P **P 01 23 32.3 -0.3**
HUMR Humele 90.55 321 P **P 01 23 32.6 0.0**
comp=Z,4µmcomp=Z,96nm,0.9s,comp=Z,4µm
SWQJ Karak 90.56 305 P **P 01 23 35.3 +1.7**
SWQJ AML AML
Y22A Socorro 90.62 52 IAmb IAmb 01 23 45.1
comp=Z,103nm,0.9s
COPA Copaceanca 90.65 321 ⇓P **P 01 23 32.4 -0.6**
LOT Lotru 90.66 322 ⇓P **P 01 23 33.3 +0.1**
LOT Lotru 90.66 322 P **P 01 23 32.4 -0.9**
T25A Trinidad 90.67 48 IAmb IAmb 01 23 45.4
comp=Z,86nm,1.2s
BORR Bors 90.69 325 ⇑P **P 01 23 33.5 +0.3**
OKC Ostrava-Krasne 90.69 328 P **P 01 23 31.2 -2.0**
OKC Ostrava-Krasne 90.69 328 AMS AMS 02 09 50.0
comp=Z,2µm,18.0s
OKC Ostrava-Krasne 90.69 328 P **P 01 23 32.6 -0.6**
comp=Z,62nm,1.2s
CSS Mathiatis 90.70 310 IAmb IAmb 01 23 46.8
comp=Z,83nm,1.0s
CSS Mathiatis 90.70 310 ⇓P **P 01 23 32.1 -1.4**
CSS Mathiatis 90.70 310 P **P 01 23 33.4 -0.2**
CSS AML AML
CSS Mathiatis 90.70 310 P **P 01 23 32.4 -1.2**
comp=Z,1µmcomp=Z,90nm,1.1s,comp=Z,1µm
SZH Strazhitsa 90.74 320 P **P 01 23 33.9 +0.3**
SZH Strazhitsa 90.74 320 *i* P **P 01 23 34.0 +0.5**
UJAP Al Uja 90.75 306 P **P 01 23 34.9 +1.1**
UJAP AML AML
UJAP Al Uja 90.75 306 P **P 01 23 33.6 -0.2**
comp=Z,809nmcomp=Z,58nm,1.4s,comp=Z,809nm
121A Cookes Peak, D 90.76 53 IAmb IAmb 01 23 46.4
comp=Z,102nm,1.0s
STEB Steborice 90.81 328 *e*P **P 01 23 33.1 -0.6**
STEB *e*PP **PP 01 27 08.9 +0.2**
KSCO Kaye Shedlock' 90.81 45 IAMs_20 IAMs_20 02 03 10.1
comp=Z,3µm,19.0s
RUE Ruedersdorf 90.81 332 P **P 01 23 32.9 -0.7**
comp=Z,44nm,1.1s
KEPZ Antalya-Kepez 90.84 312 ⇓P **P 01 23 33.5 -0.7**
DEV Deva 90.86 323 ⇑P **P 01 23 34.0 0.0**
DEV Deva 90.86 323 ⇑P **P 01 23 34.0 0.0**
DEV Deva 90.86 323 P **P 01 23 34.2 +0.1**
comp=Z,59nm,1.1s
KSP Ksiaz 90.86 330 *e*P **P 01 23 33.2 -0.8**
KSP eL L 02 09 23.5
comp=Z,3µm,19.2s
KSP Ksiaz 90.86 330 ⇓P **P 01 23 33.2 -0.8**
JMB Yambol 90.87 319 P **P 01 23 34.9 +0.7**
SKMB Sankelmark Bun 90.88 335 P **P 01 23 33.0 -1.0**
comp=Z,137nm,1.2s
SALP Salfit 90.89 306 ⇓P **P 01 23 33.5 -1.1**
SALP Salfit 90.89 306 P **P 01 23 34.4 -0.1**
SALP AML AML
ELND Elena 91.00 319 ⇑P **P 01 23 34.5 -0.3**
GHAJ Ghor Haditha 91.01 306 P **P 01 23 35.7 +0.7**
GHAJ AML AML
GHAJ Ghor Haditha 91.01 306 P **P 01 23 34.1 -0.8**
comp=Z,1µmcomp=Z,120nm,1.3s
MORC Moravsky Berou 91.02 328 ⇓P **P 01 23 33.9 -0.9**
MORC Moravsky Berou 91.02 328 *e*P **P 01 23 34.1 -0.7**
MORC *e*PP **PP 01 27 13.0 +2.6**
MORC *e* 01 40 59.5
MORC Moravsky Berou 91.02 328 ⇑P **P 01 23 33.7 -1.1**
MORC Moravsky Berou 91.02 328 ⇓P **P 01 23 33.9 -0.9**
MORC Moravsky Berou 91.02 328 P **P 01 23 34.8 0.0**
comp=Z,47nm,1.5s

ISP **Isparta** **91.05 313** *ce*P **P** **01 23 34.6 -0.7**
ISP pmax pmax
comp=Z,47nm,1.3s
OSTC Ostas **91.10 330** *e*P **P** **01 23 34.7 -0.4**
OSTC MLR MLR
comp=Z,4μm,18.0s
OSTC Ostas **91.10 330** *e*P **P** **01 23 34.7 -0.4**
OSTC AMS AMS 02 08 40.0
comp=Z,4μm,18.0s
PSZ Piszkesteto **91.12 326** ⇑P **P** **01 23 35.1 -0.2**
PSZ Piszkesteto **91.12 326** IAmb IAmb 01 23 46.4
comp=Z,118nm,1.0s
PSZ Piszkesteto **91.12 326** ⇓P **P** **01 23 34.5 -0.9**
PSZ Piszkesteto **91.12 326** ⇑P **P** **01 23 35.1 -0.2**
PSZ Piszkesteto **91.12 326** P **P** **01 23 34.7 -0.6**
comp=Z,118nm,1.1s
BSEG Bad Segeberg **91.14 335** *e*P **P** **01 23 34.8 -0.4**
baz=42,slow=4.6
BSEG Bad Segeberg **91.14 335** P **P** **01 23 34.3 -0.9**
comp=Z,68nm,0.9s
CHVC Chvalec **91.15 330** *e*P **P** **01 23 34.5 -0.9**
CHVC MLR MLR
comp=Z,4μm,18.4s
CHVC Chvalec **91.15 330** *e*P **P** **01 23 34.5 -0.9**
CHVC AMS AMS 02 08 50.0
comp=Z,4μm,18.4s
KRLC Kraliky **91.17 329** *e*P **P** **01 23 34.7 -0.8**
KRLC *e* 01 23 40.0
KRLC MLR MLR
comp=Z,2μm,16.5s
KRLC Kraliky **91.17 329** *e*P **P** **01 23 34.7 -0.8**
KRLC *e*pP **pP** **01 23 40.0 +0.9**
KRLC AMS AMS 02 08 40.0
comp=Z,2μm,16.5s
DPC Dobruska-Polom **91.19 329** *e*P **P** **01 23 35.1 -0.5**
DPC *e* 01 23 42.4
DPC *e* 01 27 12.4
DPC MLR MLR
comp=Z,4μm,16.2s
DPC Dobruska-Polom **91.19 329** *e*P **P** **01 23 35.1 -0.5**
DPC *e*pP **pwP** **01 23 42.4 -0.6**
DPC *e*PP **PP** **01 27 12.4 +0.6**
DPC AMS AMS 02 08 30.0
comp=Z,4μm,16.2s
DPC Dobruska-Polom **91.19 329** P **P** **01 23 35.2 -0.5**
comp=Z,56nm,1.2s
VLAD Vladila **91.20 321** ⇓P **P** **01 23 35.6 0.0**
UPC Upice **91.23 330** *e*P **P** **01 23 35.2 -0.5**
UPC MLR MLR
comp=Z,4μm,16.7s
UPC Upice **91.23 330** *e*P **P** **01 23 35.2 -0.5**
UPC AMS AMS 02 08 50.0
comp=Z,4μm,16.7s
GZR Gura Zlata **91.23 323** ⇑P **P** **01 23 35.5 -0.4**
GZR Gura Zlata **91.23 323** ⇑P **P** **01 23 35.5 -0.4**
VYHS Vyhne **91.27 327** *e*P **P** **01 23 35.8 -0.1**
VYHS pmax pmax
comp=Z,110nm,1.4s
VYHS Vyhne **91.27 327** *e*P **P** **01 23 35.8 -0.1**
VYHS Vyhne **91.27 327** P **P** **01 23 35.6 -0.3**
comp=Z,25nm,1.0s
SIRR Siria **91.28 324** ⇓P **P** **01 23 35.2 -0.8**
BSZH Besenyszg **91.34 325** ⇑P **P** **01 23 35.7 -0.5**
BSZH Besenyszg **91.34 325** P **P** **01 23 36.1 -0.1**
comp=Z,146nm,1.0s
SURR Surduc **91.36 323** ⇑P **P** **01 23 35.8 -0.6**
AMAZ Amatzia **91.37 306** ⇑P **P** **01 23 36.4 -0.3**
AMAZ Amatzia **91.37 306** P **P** **01 23 37.9 +1.2**
AMAZ AML AML
PLVB Pleven **91.45 320** ⇓P **P** **01 23 37.0 +0.1**
HSNJ Maan **91.45 305** P **P** **01 23 38.4 +1.1**
HSNJ AML AML
GORT1 Trebel **91.46 333** *e*P **P** **01 23 37.3 +0.7**
baz=42,slow=4.6
GORT1 Trebel **91.46 333** P **P** **01 23 37.5 +0.9**
comp=Z,65nm,1.1s
SRE Strehaia **91.46 322** ⇓P **P** **01 23 37.5 +0.6**
SRE Strehaia **91.46 322** ⇓P **P** **01 23 37.5 +0.6**
JAVC Velka Javorina **91.59 328** *e*P **P** **01 23 38.1 +0.6**
JAVC *e*PP **PP** **01 27 16.1 +1.2**
JAVC *e* 01 41 01.5
JAVC Velka Javorina **91.59 328** P **P** **01 23 38.0 +0.5**
comp=Z,94nm,1.1s
ECSD EROS Data Cent **91.67 39** IAmb IAmb 01 23 48.9
comp=Z,147nm,1.1s
ECSD EROS Data Cent **91.67 39** ⇓P **P** **01 23 37.3 -0.6**
ECSD EROS Data Cent **91.67 39** P **P** **01 23 37.5 -0.4**
comp=Z,132nm,1.1s
EYMN Ely **91.68 33** IAmb IAmb 01 23 49.0
comp=Z,142nm,1.1s
EYMN Ely **91.68 33** IAMs_20 IAMs_20 02 05 29.7
comp=Z,3μm,20.0s
EYMN Ely **91.68 33** ⇑P **P** **01 23 37.7 -0.1**
EYMN Ely **91.68 33** P **P** **01 23 37.4 -0.5**
comp=Z,137nm,1.1s
EYMN pP **pwP** **01 23 44.5 -0.8**
DIM Dimitrovgrad **91.70 319** P **P** **01 23 38.3 +0.2**
BALB Balikesir **91.72 316** ⇑P **P** **01 23 38.6 +0.4**
AMBH Ambrzfalva **91.72 324** ⇑P **P** **01 23 38.4 +0.4**
AMBH Ambrzfalva **91.72 324** P **P** **01 23 37.9 -0.2**
comp=Z,2μmcomp=Z,120nm,1.1s,comp=Z,2μm
BZS Buzias **91.72 323** ⇑P **P** **01 23 37.2 -0.9**
BZS Buzias **91.72 323** ⇑P **P** **01 23 36.9 -1.2**
BZS Buzias **91.72 323** ⇑P **P** **01 23 37.2 -0.9**
BZS Buzias **91.72 323** P **P** **01 23 37.6 -0.5**
comp=Z,769nmcomp=Z,29nm,1.2s,comp=Z,769nm
HERR Herculane **91.76 323** ⇑P **P** **01 23 37.8 -0.4**
BAIL Bailesti **91.78 321** ⇓P **P** **01 23 37.6 -0.7**
VRAC Vranov **91.79 328** LR LR 02 08 19.0
comp=Z,1μm,18.8s,baz=50,slow=38
VRAC Vranov **91.79 328** ⇑P **P** **01 23 38.1 -0.2**
VRAC Vranov **91.79 328** *e*P **P** **01 23 37.6 -0.7**
VRAC *e*PP **PP** **01 27 16.8 +0.3**
VRAC *e* 01 41 02.0
VRAC Vranov **91.79 328** ⇑P **P** **01 23 38.1 -0.2**
VRAC Vranov **91.79 328** P **P** **01 23 37.8 -0.5**
comp=Z,17nm,1.1s
BUD Budapest **91.85 326** P **P** **01 23 38.2 -0.3**
comp=Z,47nm,1.1s
PRNI Paran **91.91 305** P **P** **01 23 39.3 0.0**
PRNI AML AML
VALD Valchedram **91.94 321** *e*P **P** **01 23 38.6 -0.5**
SMOL Smolenice **91.94 328** *e*P **P** **01 23 39.5 +0.5**
SMOL pmax pmax
comp=Z,24nm,1.6s
MPEP Malo Peshtene **91.97 321** *i* P **P** **01 23 39.4 +0.1**
FLTG Flechtingen **91.98 333** ⇑P **P** **01 23 38.3 -0.8**
FLTG Flechtingen **91.98 333** *e*P **P** **01 23 38.3 -0.8**
baz=42,slow=4.6
FLTG Flechtingen **91.98 333** P **P** **01 23 37.7 -1.4**
comp=Z,54nm,1.2s
SRO Srobarova **91.98 327** *e*P **P** **01 23 40.6 +1.4**
SRO pmax pmax
comp=Z,46nm,1.5s
SRO Srobarova **91.98 327** *e*P **P** **01 23 40.6 +1.4**
SRO Srobarova **91.98 327** P **P** **01 23 39.9 +0.7**
comp=Z,458nmcomp=Z,55nm,1.1s,comp=Z,458nm
CLL Collm **91.99 332** *i* P **P** **01 23 38.6 -0.6**
CLL *e*S **S** **01 34 46.0 +5.4**
CLL pmax pmax
comp=Z,70nm,1.4s
CLL MLR MLR
comp=Z,3μm,17.9s
CLL Collm **91.99 332** *e*P **P** **01 23 38.6 -0.6**
baz=42,slow=4.6
CLL Collm **91.99 332** P **P** **01 23 38.7 -0.4**
comp=Z,47nm,1.2s
CLL Collm **91.99 332** *i* P **P** **01 23 38.6 -0.6**
comp=Z,70nm,1.4s
CLL *i* pP **pP** **01 23 43.9 +1.1**
comp=Z,71nm,1.5s
CLL *i* sP **pwP** **01 23 48.1 +1.5**
comp=Z,70nm,1.4s
CLL *ex* x 01 26 12.0
CLL *e*PP **PP** **01 27 16.0 -1.9**
CLL *e*pPP 01 27 20.0
CLL *e*S **S** **01 34 46.0 +5.4**
CLL *e*PS **PnS** **01 36 00.0 +7.7**
CLL *ex* x 01 39 36.0
CLL *e*SS **SS** **01 40 48.0 +0.1**
CLL AMS AMS 01 58 00.0
comp=N,1μm,26.7s
CLL AMS AMS 01 58 00.0
comp=E,2μm,32.3s
CLL AMS AMS 02 08 00.0
comp=Z,3μm,17.9s
HRFI Mount Harif **92.05 305** P **P** **01 23 40.3 +0.4**
HRFI AML AML
HRFI Mount Harif **92.05 305** P **P** **01 23 38.8 -1.2**
comp=Z,912nmcomp=Z,40nm,1.0s
KRUC Moravsky **92.06 328** *e*P **P** **01 23 38.4 -1.1**
KRUC *e*PP **PP** **01 27 17.3 -1.3**
KRUC *e* 01 41 00.5
KRUC Moravsky **92.06 328** P **P** **01 23 38.8 -0.8**
comp=Z,50nm,1.2s
ELL Elmali **92.06 313** IAmb IAmb 01 23 50.1
comp=Z,84nm,1.1s
ELL Elmali **92.06 313** ⇓P **P** **01 23 38.6 -1.4**
KZIT Kziot **92.07 306** ⇑P **P** **01 23 39.4 -0.6**
KZIT Kziot **92.07 306** P **P** **01 23 40.2 +0.2**
KZIT AML AML
KZIT Kziot **92.07 306** P **P** **01 23 38.9 -1.1**
comp=Z,1μmcomp=Z,75nm,1.2s
EPT El Paso **92.08 53** IAMs_20 IAMs_20 02 01 40.9
comp=Z,3μm,19.0s
KDZ Kurdzhali **92.10 319** P **P** **01 23 39.3 -0.6**
MODS Modra-Piesok **92.11 327** *e*P **P** **01 23 40.5 +0.7**
MODS pmax pmax
comp=Z,139nm,1.3s
MODS Modra-Piesok **92.11 327** *e*P **P** **01 23 40.5 +0.7**
MODS Modra-Piesok **92.11 327** P **P** **01 23 40.5 +0.7**
comp=Z,78nm,1.3s
ALN Alexandroupoli **92.11 318** P **P** **01 23 38.5 -1.4**
ALN Alexandroupoli **92.11 318** P **P** **01 23 41.5 +1.6**
ALN Alexandroupoli **92.11 318** ⇑P **P** **01 23 39.2 -0.7**
ALN Alexandroupoli **92.11 318** P **P** **01 23 38.7 -1.3**
comp=Z,45nm,1.4s
BANR Banloc **92.13 323** ⇓P **P** **01 23 38.9 -1.0**
PLD Plovdiv **92.13 319** P **P** **01 23 39.6 -0.4**
RTBA Rita Blanca **92.18 48** IAmb IAmb 01 23 53.0
comp=Z,121nm,1.0s
BGNE Belgrade **92.19 42** IAMs_20 IAMs_20 02 03 49.3
comp=Z,3μm,20.0s
MDVR Moldovita **92.21 323** ⇓P **P** **01 23 39.7 -0.7**
TBO Thunder Bay **92.22 32** IAmb IAmb 01 23 51.8
comp=Z,92nm,1.0s
PRU Pruhonice **92.26 330** *e*P **P** **01 23 39.6 -0.9**
PRU MLR MLR
comp=Z,4μm,15.3s
PRU Pruhonice **92.26 330** *e*P **P** **01 23 39.6 -0.9**
PRU AMS AMS 02 09 10.0
comp=Z,4μm,15.3s
EIL Elat **92.30 304** LR LR 02 09 59.3
comp=Z,685nm,18.6s,baz=48,slow=39
EIL Elat **92.30 304** ⇓P **P** **01 23 39.6 -1.4**
EIL Elat **92.30 304** P **P** **01 23 41.3 +0.2**
EIL Elat **92.30 304** P **P** **01 23 40.6 -0.5**
comp=Z,717nmcomp=Z,38nm,1.1s,comp=Z,717nm
TAVA DENIZLI_Tavas **92.31 314** ⇑P **P** **01 23 40.5 -0.6**
HSKC Hora Svate Kat **92.31 331** *e*P **P** **01 23 39.1 -1.6**
HSKC AMS AMS 02 10 40.0
comp=Z,3μm,19.2s
ZST Bratislava **92.32 327** *e*P **P** **01 23 42.5 +1.8**
ZST Bratislava **92.32 327** *e*P **P** **01 23 42.5 +1.8**
TREC Trest **92.32 329** *e*P **P** **01 23 39.8 -1.0**
TREC Trest **92.32 329** *e*P **P** **01 23 39.8 -1.0**
ASSE Asse, Remlinge **92.36 333** *e*P **P** **01 23 40.3 -0.5**
baz=42,slow=4.6
ASSE Asse, Remlinge **92.36 333** P **P** **01 23 40.0 -0.8**
comp=Z,28nm,1.1s
BLKB Belogradchik **92.41 321** ⇑P **P** **01 23 40.5 -0.9**
RZN Rozhen **92.42 319** P **P** **01 23 40.9 -0.7**
RETH Rethem/Aller, **92.42 334** *e*P **P** **01 23 41.3 +0.3**
baz=42,slow=4.6
WIMM Wimmelburg **92.47 332** P **P** **01 23 39.6 -1.8**
comp=Z,68nm,1.6s
E38A The Farm, Brul **92.55 35** IAMs_20 IAMs_20 02 05 08.8
comp=Z,2μm,20.0s
AKAS Kas **92.55 312** IAmb IAmb 01 23 51.5
comp=Z,104nm,1.1s
EZN Ezine **92.58 317** P **P** **01 23 41.9 -0.2**
EZN Ezine **92.58 317** ⇓P **P** **01 23 41.3 -0.8**
EZN Ezine **92.58 317** ⇓P **P** **01 23 41.3 -0.8**
NEUB Neuenburg **92.59 332** *e*P **P** **01 23 41.5 -0.4**
baz=42,slow=4.6
NEUB Neuenburg **92.59 332** P **P** **01 23 41.6 -0.3**
comp=Z,49nm,1.4s
SMTH Samothraki Isl **92.68 318** P **P** **01 23 41.6 -1.1**
CLZ Clausthal **92.70 333** *e*P **P** **01 23 42.4 -0.1**
baz=42,slow=4.6
CLZ Clausthal **92.70 333** P **P** **01 23 42.2 -0.3**
comp=Z,38nm,1.3s
VTS Vitosha **92.72 320** P **P** **01 23 42.5 -0.5**
VTS Vitosha **92.72 320** *i* P **P** **01 23 42.4 -0.5**
ABNA Allensteig Bun **92.78 329** *e*PcP **P** **01 23 42.2 -0.8**
comp=Z,19nm,0.9s
ABNA *e*PP **PP** **01 27 25.5 +1.2**
comp=Z,18nm,1.5s
ABNA *e*PKKP **PKKPbc** **01 41 00.3 +5.6**
comp=Z,4.4nm,1.2s
MPLH Magyarpolny **92.81 326** P **P** **01 23 42.1 -0.9**
comp=Z,53nm,1.1s
SPMN Marine on St. **92.81 36** IAMs_20 IAMs_20 02 05 20.0
comp=Z,3μm,20.0s
ZVC Zvikov **92.81 330** *e*P **P** **01 23 42.0 -1.0**
ZVC AMS AMS 02 09 30.0
comp=Z,4μm,18.6s
WINA Alland / Wiene **92.88 328** *e*P **P** **01 23 42.1 -1.3**
comp=Z,30nm,1.0s,SNR=12
TANN Tannenbergstha **92.88 331** *e*P **P** **01 23 43.0 -0.3**
baz=42,slow=4.6
TANN Tannenbergstha **92.88 331** P **P** **01 23 43.1 -0.3**
comp=Z,25nm,1.4s
MORH Mrgy, Hungar **92.89 325** ⇓P **P** **01 23 42.8 -0.6**
MORH Mrgy, Hungar **92.89 325** *e*P **P** **01 23 42.2 -1.2**
MORH Mrgy, Hungar **92.89 325** P **P** **01 23 41.6 -1.8**
comp=Z,38nm,1.0s
L34A Svendsen Farm, **92.90 40** IAMs_20 IAMs_20 02 05 38.9
comp=Z,3μm,18.0s
YER Yerkesik **92.91 314** P **P** **01 23 44.1 +0.3**
MNTX Cornudas Mount **92.93 53** IAmb IAmb 01 23 55.7
comp=Z,106nm,0.9s
MNTX IAMs_20 IAMs_20 01 58 36.4
comp=Z,2μm,20.0s
MNTX Cornudas Mount **92.93 53** ⇓P **P** **01 23 44.1 +0.2**
MNTX Cornudas Mount **92.93 53** P **P** **01 23 44.1 +0.2**
comp=Z,132nm,1.0s
SOP Sopron **92.94 327** P **P** **01 23 43.8 +0.1**
comp=Z,775nmcomp=Z,40nm,1.2s
BOVS Bovan **92.94 322** ⇑P **P** **01 23 42.5 -1.2**
PLN Plauen **92.96 331** *e*P **P** **01 23 43.3 -0.3**
baz=42,slow=4.6
PRK Paraskevi **92.96 316** P **P** **01 23 43.8 -0.1**
KAVA Kavala **92.98 319** P **P** **01 23 42.9 -1.0**
BLCB Balcova **92.98 315** P **P** **01 23 43.8 -0.3**
FRGS Fruska Gora **92.99 324** *e*P **P** **01 23 43.3 -0.6**
NKC Novy Kostel **93.02 331** *e*P **P** **01 23 43.7 -0.3**
NKC MLR MLR
comp=Z,3μm,14.5s
NKC Novy Kostel **93.02 331** *e*P **P** **01 23 43.7 -0.3**
NKC AMS AMS 02 12 40.0
comp=Z,3μm,14.5s
RONA Rosalia, Austr **93.05 327** *e*P **P** **01 23 42.2 -2.0**
comp=Z,42nm,1.4s,SNR=11
RONA *e*PP **PP** **01 27 24.4 -2.1**
comp=Z,8.7nm,1.1s
MOX Moxa **93.07 332** *e*P **P** **01 23 43.8 -0.4**
baz=42,slow=4.6
MOX *e*L L 02 09 43.3
comp=Z,2μm,19.4s
MOX Moxa **93.07 332** P **P** **01 23 44.0 -0.3**
comp=Z,21nm,1.4s
GTTG Gottingen **93.09 333** *e*P **P** **01 23 43.9 -0.3**
baz=42,slow=4.6
GTTG Gottingen **93.09 333** P **P** **01 23 44.1 -0.2**
comp=Z,49nm,1.1s
MMB Musomishta **93.09 319** P **P** **01 23 44.6 +0.1**
MMB Musomishta **93.09 319** *i* P **P** **01 23 43.3 -1.2**
LPIG La Paz **93.09 62** LR LR 01 57 44.1
comp=Z,2μm,21.5s,baz=302,slow=30
CONA Conrad Observa **93.10 328** *e*P **P** **01 23 43.5 -1.1**
comp=Z,32nm,1.2s,SNR=17
NVR Nevrokopi **93.15 319** P **P** **01 23 43.1 -1.7**
CKRC Cesky Krumlov **93.20 329** *e*P **P** **01 23 43.9 -1.0**
CKRC MLR MLR
comp=Z,3μm,17.5s
CKRC Cesky Krumlov **93.20 329** *e*P **P** **01 23 43.9 -1.0**
CKRC AMS AMS 02 11 30.0
comp=Z,3μm,17.5s
LIA Limnos Island **93.24 317** P **P** **01 23 45.7 +0.5**
KOVH Kovagotottos **93.26 325** ⇓P **P** **01 23 44.0 -1.1**
KKB Krupnik **93.27 320** P **P** **01 23 44.1 -1.2**
KKB Krupnik **93.27 320** *i* P **P** **01 23 44.3 -1.0**
KHC Kasperske Hory **93.32 330** ⇑*e*P **P** **01 23 44.6 -0.8**
KHC pmax pmax
comp=Z,19nm,0.9s
KHC Kasperske Hory **93.32 330** IAmb IAmb 01 23 56.2
comp=Z,98nm,1.6s
KHC IAMs_20 IAMs_20 02 09 48.2
comp=Z,3μm,19.0s
KHC Kasperske Hory **93.32 330** *e*P **P** **01 23 44.4 -1.0**
KHC *e*PP **PP** **01 27 27.7 -0.8**
KHC AMS AMS 02 10 00.0
comp=Z,4μm,16.8s
KHC Kasperske Hory **93.32 330** ⇑P **P** **01 23 43.9 -1.5**
KHC Kasperske Hory **93.32 330** P **P** **01 23 44.5 -1.0**
comp=Z,35nm,1.3s
IBBN Ibbenburen **93.38 335** *e*P **P** **01 23 45.6 +0.1**
baz=42,slow=4.6
IBBN Ibbenburen **93.38 335** P **P** **01 23 45.1 -0.4**
comp=Z,63nm,1.0s
PEHC Pehcevo **93.44 320** *i* P **P** **01 23 47.3 +1.1**
SRS Serrai **93.45 319** pP pP 01 23 51.9 +2.1
comp=Z,21nm,1.1s
GEC2 GERESS Array S **93.47 330** *e*P **P** **01 23 45.5 -0.6**
baz=42,slow=4.6
GEC2 GERESS Array S **93.47 330** P **P** **01 23 45.8 -0.4**
comp=Z,26nm,1.3s
GERES GERESS Array B **93.47 330** P **P** **01 23 44.8 -1.4**
comp=Z,4.7nm,0.6s,baz=37,slow=5.0,SNR=49
GERES PP **PP** **01 27 26.4 -3.3**
comp=Z,4.6nm,0.8s,baz=46,slow=7.6,SNR=4.6
GERES PKKPbc **PKKPdf** **01 40 50.0 -0.3**
comp=Z,1.2nm,0.8s,baz=192,slow=2.5,SNR=7.4
GERES LR LR 02 10 10.9
comp=Z,3μm,18.4s,baz=46,slow=38
comp=Z,4.7nm,0.6s
GERES GERESS Array B **93.47 330** P **P** **01 23 44.5 -1.6**
MSTX Muleshoe **93.53 50** IAmb IAmb 01 24 01.0
comp=Z,79nm,1.2s
MSTX IAMs_20 IAMs_20 01 58 56.8
comp=Z,2μm,22.0s
ARG Arkhangelos **93.54 313** P **P** **01 23 45.8 -0.9**
TPB28 **93.58 52** IAmb IAmb 01 23 59.9
comp=Z,125nm,1.1s
CHOS Chios island **93.61 316** P **P** **01 23 47.4 +0.3**
WET Wettzell **93.62 330** *e*P **P** **01 23 46.5 -0.3**
baz=42,slow=4.6
WET Wettzell **93.62 330** P **P** **01 23 46.6 -0.2**
comp=Z,14nm,1.0s
R32A Long Quarter, **93.64 44** IAmb IAmb 01 23 57.7
comp=Z,59nm,0.9s
R32A IAMs_20 IAMs_20 02 02 20.0
comp=Z,3μm,21.0s
BEHE Becsehely **93.67 326** *e*P **P** **01 23 46.2 -0.9**
BEHE Becsehely **93.67 326** P **P** **01 23 46.1 -0.9**
comp=Z,398nmcomp=Z,18nm,1.1s
VHRN Van Horn **93.71 53** IAmb IAmb 01 23 59.5
comp=Z,100nm,1.0s
ARSA Arzberg **93.74 328** ⇑P **P** **01 23 47.7 +0.3**
ARSA Arzberg **93.74 328** *e*P **P** **01 23 45.9 -1.5**
comp=Z,35nm,1.6s,SNR=12
ARSA *e*PP **PP** **01 27 29.9 -1.9**
comp=Z,14nm,1.4s
ARSA Arzberg **93.74 328** P **P** **01 23 47.3 -0.1**
comp=Z,53nm,1.2s
AMTX Amarillo **93.76 48** ⇑P **P** **01 23 48.7 +0.8**
TPB11 China Draw **93.77 52** IAmb IAmb 01 23 59.5
comp=Z,62nm,1.0s
SOH Sokhos **93.78 319** P **P** **01 23 45.9 -1.8**
KNT Kendrikon **93.83 319** P **P** **01 23 45.9 -2.0**
GRA3 Grafenberg Arr **93.86 331** P **P** **01 23 47.4 -0.5**
comp=Z,59nm,1.1s
MOA Molln **93.92 329** *e*P **P** **01 23 47.0 -1.2**
comp=Z,26nm,1.3s,SNR=7.4
MOA Molln **93.92 329** P **P** **01 23 48.1 -0.1**
comp=Z,47nm,1.3s
VAY Valandovo **93.92 320** *i* P **P** **01 23 48.4 +0.1**
GRA1 Grafenberg Arr **93.95 331** IAMs_20 IAMs_20 02 10 17.9
comp=Z,2μm,20.0s
GRA1 Grafenberg Arr **93.95 331** P **P** **01 23 48.4 0.0**
comp=Z,44nm,1.1s
GRF Grafenberg Ar **93.95 331** *e*P **P** **01 23 48.3 0.0**
baz=42,slow=4.6
GRF *e*L L 02 10 19.3
comp=Z,2μm,19.7s
GRFO Grafenberg **93.95 331** P **P** **01 23 48.6 +0.3**
GRFO Grafenberg **93.95 331** P **P** **01 23 48.6 +0.3**
GRFO IAMs_20 IAMs_20 02 10 17.9
comp=Z,2μm,20.0s
GRB3 Grafenberg Arr **93.95 331** P **P** **01 23 48.2 -0.1**
comp=Z,44nm,1.1s
GRB4 Grafenberg Arr **93.97 331** P **P** **01 23 48.2 -0.1**
comp=Z,41nm,1.0s
GRB1 Grafenberg Arr **93.99 331** P **P** **01 23 48.2 -0.2**
comp=Z,51nm,1.0s
BBLS Lazi&#263i **94.06 323** *e*P **P** **01 23 48.7 -0.3**
GRB2 Grafenberg Arr **94.07 331** P **P** **01 23 48.5 -0.3**
comp=Z,43nm,1.0s
THE Thessaloniki **94.12 319** P **P** **01 23 48.5 -0.7**
PAIG Paliouri **94.14 318** P **P** **01 23 46.5 -2.8**
G40A Rib Lake **94.15 35** IAmb IAmb 01 24 00.5
comp=Z,99nm,1.0s
G40A IAMs_20 IAMs_20 02 07 28.2
comp=Z,2μm,19.0s
SJES Sjenica **94.15 322** *e*P **P** **01 23 47.4 -2.0**
GRB5 Grafenberg Arr **94.18 331** P **P** **01 23 48.2 -1.1**
comp=Z,37nm,1.2s
PECS Pecos **94.20 52** IAmb IAmb 01 24 02.0
comp=Z,90nm,1.0s
BUG Bochum-Univer **94.25 334** P **P** **01 23 50.4 +0.9**
comp=Z,18nm,1.3s
GRC4 Grafenberg Arr **94.27 331** P **P** **01 23 49.3 -0.5**
comp=Z,35nm,1.1s
SESA Seetaler Alpe, **94.30 328** *e*P **P** **01 23 48.7 -1.5**
comp=Z,13nm,0.7s,SNR=14
SESA *e*PP **PP** **01 27 34.0 -2.4**
comp=Z,23nm,1.2s
SESA *e*PKKP **PKKPdf** **01 40 49.5 +0.5**
comp=Z,3.4nm,1.0s
BIOA Bad Ischl, Aus **94.33 329** *e*P **P** **01 23 48.6 -1.5**
comp=Z,17nm,1.2s,SNR=4.2
GRC1 Grafenberg Arr **94.34 331** P **P** **01 23 49.0 -1.0**
comp=Z,35nm,1.1s
PERS Pernice **94.37 327** *i* P **P** **01 23 49.4 -0.9**
PERS *e* 01 27 36.3
SOKA Soboth **94.38 327** *e*PcP **P** **01 23 49.3 -1.1**
comp=Z,33nm,1.5s,SNR=6.1
SOKA *e*PP **PP** **01 27 35.3 -1.6**
comp=Z,29nm,1.3s
GRC3 Grafenberg Arr **94.39 331** P **P** **01 23 49.9 -0.4**
comp=Z,26nm,1.1s
GRC2 Grafenberg Arr **94.50 331** P **P** **01 23 50.4 -0.4**
comp=Z,33nm,1.0s
TPB06 Permian Basin **94.51 52** IAmb IAmb 01 24 02.9
comp=Z,125nm,1.1s
KSU1 Kansas State U **94.53 43** ⇑P **P** **01 23 50.9 -0.3**
EKA Eskdalemuir Ar **94.55 342** P **P** **01 23 49.9 -0.9**
comp=Z,2.1nm,0.8s,baz=58,slow=3.5,SNR=4.6
EKA PP **PP** **01 27 39.0 +1.3**
comp=Z,8.1nm,1.0s,baz=23,slow=6.7,SNR=4.6
EKA LR LR 02 10 58.5
comp=Z,1μm,20.3s,baz=37,slow=38
comp=Z,2.1nm,0.8s
NOKA Waynoka **94.57 46** IAmb IAmb 01 24 02.6
comp=Z,97nm,1.0s
SMWD Samnorwood **94.60 48** IAmb IAmb 01 24 03.2
comp=Z,96nm,1.0s
BLY Banja Luka **94.64 325** IAMs_20 IAMs_20 02 12 49.9
comp=Z,3μm,19.0s
BLY Banja Luka **94.64 325** ⇑P **P** **01 23 51.9 +0.3**
BLY Banja Luka **94.64 325** ⇓P **P** **01 23 51.7 +0.1**
BLY Banja Luka **94.64 325** *e*P **P** **01 23 48.8 -2.7**
BLY Banja Luka **94.64 325** P **P** **01 23 51.5 -0.1**
comp=Z,30nm,1.3s
RJOB Jochberg **94.69 329** P **P** **01 23 50.8 -1.0**
comp=Z,26nm,0.9s
ODSA Odessa **94.72 51** IAmb IAmb 01 24 04.3
comp=Z,80nm,1.1s
TNS Taunus Mts **94.72 333** P **P** **01 23 51.0 -0.9**
comp=Z,16nm,2.1s
OBKA Obir **94.74 327** *e*P **P** **01 23 50.7 -1.4**
comp=Z,4.1nm,0.8s
OBKA *e*PP **PP** **01 27 36.0 -3.7**
comp=Z,42nm,1.3s
OBKA *e*PKKP **PKKPbc** **01 40 50.1 +0.5**

comp=Z,3,8nm,1.0s
OBKA Obir 94.74 327 P **P** **01 23 51.9 -0.2**
comp=Z,24nm,0.9s
SCIA State Center 94.76 39 IAMs_20 IAMs_20 02 07 27.8
comp=Z,2µm,20.0s
KARY Karystos 94.84 316 P **P** **01 23 50.5 -2.1**
F42A Maple Grove Fa 94.86 33 IAMs_20 IAMs_20 02 09 15.8
comp=Z,3µm,18.0s
I40A Norwalk 94.86 36 IAMs_20 IAMs_20 02 06 53.4
comp=Z,3µm,20.0s
KBA Koelnbreinsper 94.91 328 ⇓P **P** **01 23 51.5 -1.4**
KBA ⇓P **PcP** **01 23 54.0 +0.8**
KBA Koelnbreinsper 94.91 328 *e*P **P** **01 23 51.0 -1.9**
comp=Z,15nm,1.6s
KBA *i* PKKP **PKKPdf** **01 40 48.5 +0.6**
comp=Z,2.6nm,1.1s
KBA Koelnbreinsper 94.91 328 P **P** **01 23 51.2 -1.8**
comp=Z,24nm,1.2s
PHP Peshkopia 94.92 321 P **P** **01 23 51.4 -1.6**
PHP Peshkopia 94.92 321 P **P** **01 23 51.7 -1.3**
comp=Z,21nm,1.2s
POST Post 94.92 50 IAmb IAmb 01 24 04.1
comp=Z,55nm,1.0s
KLINJ Klinje 94.97 323 *e*P **P** **01 23 51.3 -1.9**
LESA Schwarzleotal 94.97 329 *e*P **P** **01 23 51.8 -1.3**
comp=Z,20nm,1.1s,SNR=6.5
LESA *i* PKKP **PKKPdf** **01 40 47.2 -0.5**
comp=Z,1.9nm,0.7s
CASY Casey 94.97 193 P **P** **01 23 52.1 -0.2**
CASY IAmb IAmb 01 27 42.6
comp=Z,60nm,1.1s
CASY Casey 94.97 193 ⇑P **P** **01 23 52.6 +0.3**
CASY Casey 94.97 193 P **P** **01 23 53.0 +0.8**
comp=Z,37nm,1.2s
DKNS Dickens 94.97 49 IAmb IAmb 01 24 05.6
comp=Z,69nm,1.0s
MNHN Monahans 95.00 52 IAmb IAmb 01 24 04.9
comp=Z,68nm,1.3s
FUR Furstenfeldbru 95.06 330 *e*P **P** **01 23 53.3 -0.1**
baz=42,slow=4.6
FUR Furstenfeldbru 95.06 330 P **P** **01 23 52.6 -0.8**
comp=Z,51nm,1.0s
LJU Ljubljana 95.08 327 *i* P **P** **01 23 52.2 -1.3**
OHR Ohrid 95.08 320 *i* P **P** **01 23 54.0 +0.2**
MYKA Terra Mystica 95.09 328 *e*P **P** **01 23 51.3 -2.4**
comp=Z,4.4nm,0.6s
MYKA *e*PP **PP** **01 27 39.7 -2.7**
comp=Z,5.0nm,0.8s
MYKA *e*PKKP **PKKPdf** **01 40 47.7 +0.3**
comp=Z,4.0nm,1.0s
PDG Podgorica 95.09 322 ⇑P **P** **01 23 52.8 -0.8**
PDG Podgorica 95.09 322 ⇑P **P** **01 23 52.6 -1.0**
PDG Podgorica 95.09 322 *e*P **P** **01 23 52.2 -1.4**
PDG Podgorica 95.09 322 P **P** **01 23 53.2 -0.5**
comp=Z,48nm,1.0s
TYRN Tyrnavos 95.14 319 P **P** **01 23 53.2 -0.7**
BRY Bratogost 95.17 323 *e*P **P** **01 23 52.4 -1.8**
ACOM Acomizza, Ital 95.21 328 P **P** **01 23 52.2 -2.2**
comp=Z,41nm,0.8s
HPIG 95.25 57 P **P** **01 23 56.2 +1.2**
comp=Z,19nm,1.0s
PRED Cave del Predi 95.26 328 P **P** **01 23 53.7 -0.7**
comp=Z,10.0nm,1.3s
TMB01 Midkiff 95.30 51 IAmb IAmb 01 24 06.4
comp=Z,60nm,1.0s
CEY Cerknica 95.35 327 *e*P **P** **01 23 53.0 -1.8**
MEM Membach 95.39 334 *d*P **P** **01 23 55.1 +0.3**
TREB Trebinje 95.40 323 *e*P **P** **01 23 53.3 -1.7**
KBN Korca 95.41 320 P **P** **01 23 55.4 +0.2**
comp=Z,62nm,1.0s
DRE Drenchia 95.42 328 P **P** **01 23 54.2 -1.0**
comp=Z,13nm,1.0s
TX31 Lajitas Ar. Si 95.45 54 IAmb IAmb 01 24 07.5
comp=Z,86nm,1.1s
TXAR Lajitas Array 95.45 54 P **P** **01 23 55.9 +0.2**
comp=Z,3.4nm,0.6s,baz=294,slow=2.1,SNR=42
TXAR PP **PP** **01 27 46.9 +1.0**
comp=Z,1.9nm,1.1s,baz=312,slow=5.7,SNR=1.2
TXAR PKKPbc **PKKPdf** **01 40 46.5 -0.4**
comp=Z,1.4nm,0.8s,baz=126,slow=4.4,SNR=7.8
TXAR LR LR 02 03 37.5
comp=Z,2µm,19.3s,baz=306,slow=33
comp=Z,3.4nm,0.6s
TXAR Lajitas Array 95.45 54 P **P** **01 23 56.4 +0.7**
TXAR 01 27 46.9
TXAR Lajitas Array 95.45 54 P **P** **01 23 56.4 +0.7**
HCY Herceg Novi 95.50 323 *e*P **P** **01 23 53.4 -2.1**
AGG Agios Georgios 95.52 318 P **P** **01 23 53.8 -1.9**
AGG Agios Georgios 95.52 318 ⇓P **P** **01 23 53.9 -1.9**
STU Stuttgart 95.52 332 IAMs_20 IAMs_20 02 11 05.3
comp=Z,2µm,19.0s
STU Stuttgart 95.52 332 P **P** **01 23 53.7 -1.8**
comp=Z,33nm,1.0s
ABTA Abfaltersbach 95.54 329 *e*P **P** **01 23 54.0 -1.7**
comp=Z,10nm,1.1s
ABTA PKKP **PKKPbc** **01 40 49.3 +1.8**
comp=Z,10nm,1.4s
WATA Walderalm 95.54 330 *e*PcP **P** **01 23 54.6 -1.1**
comp=Z,11nm,1.3s
WATA *e*PP **PP** **01 27 43.7 -2.3**
comp=Z,17nm,1.1s
WATA *e*PKKP **PKKPbc** **01 40 48.1 +0.5**
comp=Z,1.8nm,0.7s
WTTA Wattenberg 95.57 329 *i* PcP **P** **01 23 55.0 -0.9**
comp=Z,2.2nm,0.6s
WTTA *e*PP **PP** **01 27 43.9 -2.3**
comp=Z,26nm,1.1s
WTTA *i* PKKP **PKKPbc** **01 40 47.3 -0.3**
comp=Z,9.7nm,1.8s
WTTA Wattenberg 95.57 329 P **P** **01 23 54.7 -1.3**
comp=Z,23nm,1.1s
BLOK Blackwell 95.59 45 IAmb IAmb 01 24 07.0
comp=Z,70nm,1.0s
SCHQ Schefferville 95.74 17 P **P** **01 23 56.9 +0.5**
comp=Z,5.5nm,0.7s,baz=275,slow=7.6,SNR=5.8
SCHQ LR LR 02 08 27.1
comp=Z,2µm,21.5s,baz=329,slow=36
comp=Z,5.5nm,0.7s
MOTA Moosalm 95.75 330 *e*PcP **P** **01 23 56.5 -0.3**
comp=Z,14nm,1.4s
MOTA *e*PP **PP** **01 27 45.7 -1.9**
comp=Z,16nm,1.1s
MOTA *i* PKKP **PKKPdf** **01 40 45.5 -0.9**
comp=Z,6.3nm,1.0s
I42A Draeger Farm, 95.76 35 IAmb IAmb 01 24 07.7
comp=Z,59nm,1.0s
L40A Anamosa 95.77 38 IAmb IAmb 01 24 07.6
comp=Z,108nm,1.0s
L40A IAMs_20 IAMs_20 02 05 23.5
comp=Z,3µm,20.0s
WMOK Wichita Mounta 95.79 47 IAMs_20 IAMs_20 02 00 01.2
comp=Z,2µm,21.0s
WMOK Wichita Mounta 95.79 47 ⇑P **P** **01 23 57.8 +0.7**
WMOK Wichita Mounta 95.79 47 P **P** **01 23 57.4 +0.4**
comp=Z,51nm,1.1s
WMOK pP **sP** **01 24 03.6 +1.8**
SQTA Sankt Quirin 95.80 330 *e*PcP **P** **01 23 55.5 -1.4**
comp=Z,19nm,1.6s
SQTA *i* PKKP **PKKPbc** **01 40 49.3 +2.5**
comp=Z,4.2nm,0.9s
RETA Reutte 95.80 330 *e*P **P** **01 23 55.4 -1.5**
comp=Z,15nm,1.0s,SNR=7.8
RETA *e*PKKP **PKKPdf** **01 40 46.4 +0.2**
comp=Z,7.5nm,1.4s
BCLA Clavier 95.82 335 *d*P **P** **01 23 56.9 +0.1**
comp=Z,5.4nm,1.5s
BCLA *d*PP **PP** **01 27 46.6 -1.2**
SGCY Sterling City 95.83 51 IAmb IAmb 01 24 08.2
comp=Z,65nm,0.9s
UCC Uccle 95.88 335 *d*P **P** **01 23 56.8 -0.2**
T35A Sooner Cattle 95.94 44 IAmb IAmb 01 24 08.5
comp=Z,66nm,1.0s
T35A IAMs_20 IAMs_20 02 03 40.9
comp=Z,3µm,21.0s
H43A Windswept, Lux 95.95 34 IAMs_20 IAMs_20 02 07 04.8
comp=Z,2µm,20.0s
UBR Ueberruh 95.95 330 P **P** **01 23 57.4 -0.1**
comp=Z,27nm,1.1s
OK048 Pawnee Station 95.97 45 IAmb IAmb 01 24 09.3
comp=Z,86nm,0.9s
OK051 E0350 and S346 95.99 45 IAmb IAmb 01 27 48.2
comp=Z,63nm,0.8s
RCHB Rochefort 96.06 335 P **P** **01 23 58.7 +0.8**
WLF Walferdange 96.08 334 P **P** **01 23 55.8 -2.2**
WLF Walferdange 96.08 334 P **P** **01 23 57.8 -0.2**
WLF Walferdange 96.08 334 IAMs_20 IAMs_20 02 12 42.0
comp=Z,2µm,20.0s
WLF Walferdange 96.08 334 *d*P **P** **01 23 58.6 +0.6**
comp=Z,17nm,1.3s
WLF Walferdange 96.08 334 P **P** **01 23 59.5 +1.5**
comp=Z,23nm,1.2s
FETA Feichten 96.16 330 *e*PcP **P** **01 23 57.5 -1.1**
comp=Z,6.5nm,0.8s,SNR=6.1
FETA *i* PKKP **PKKPdf** **01 40 45.2 -0.4**
comp=Z,6.2nm,1.1s
IDI Anoyia 96.21 314 LR LR 02 13 03.3
comp=Z,1µm,18.3s,baz=48,slow=39
CWF Charnwood Fore 96.23 339 P **P** **01 23 59.5 +0.9**
comp=Z,23nm,1.6s
BFO Black Forest 96.23 332 P **P** **01 23 57.3 -1.4**
BFO Black Forest 96.23 332 *e*P **P** **01 23 58.1 -0.6**
baz=42,slow=4.6
KLV Kalavryta, Ach 96.24 317 P **P** **01 23 58.1 -1.0**
PVO Paravola 96.26 318 P **P** **01 23 58.8 -0.2**
E46A Sault Ste Mari 96.27 31 IAMs_20 IAMs_20 02 03 38.9
comp=Z,3µm,22.0s
OK052 Battle Ridge R 96.32 45 IAmb IAmb 01 24 10.4
comp=Z,64nm,1.1s
DAVA Damuels 96.35 330 *e*PcP **P** **01 23 58.3 -1.1**
comp=Z,14nm,0.9s,SNR=8.4
DAVA *e*PKKP **PKKPbc** **01 40 50.2 +4.8**
comp=Z,3.7nm,0.8s
DAVA Damuels 96.35 330 P **P** **01 23 58.1 -1.4**
comp=Z,1µmcomp=Z,47nm,1.1s
SRN Sarande 96.35 320 P **P** **01 23 58.0 -1.3**
SRN Sarande 96.35 320 P **P** **01 23 58.8 -0.6**
comp=Z,22nm,1.0s
IGT Igoumenitsa 96.38 319 P **P** **01 23 58.9 -0.7**
ABTX Abilene, Hawle 96.45 49 IAmb IAmb 01 24 11.3
comp=Z,67nm,1.0s
ABTX IAMs_20 IAMs_20 02 01 22.0
comp=Z,3µm,21.0s
PLEV Plevrona-Mesol 96.46 318 P **P** **01 23 59.4 -0.6**
CGRP Cima Grappa 96.51 328 P **P** **01 23 59.6 -0.7**
comp=Z,15nm,0.9s
DRO Drosia 96.57 318 P **P** **01 24 00.4 -0.1**
KEK Kerkira 96.57 320 IAmb IAmb 01 23 59.1
comp=Z,50nm,1.1s
WTFS Witchita Falls 96.58 48 IAmb IAmb 01 24 11.5
comp=Z,52nm,1.0s
SLE Schleitheim 96.59 331 P **P** **01 24 00.9 +0.5**
comp=Z,111nmcomp=Z,11nm,0.7s
TSLK Tsoukalades, L 96.65 319 P **P** **01 24 00.4 -0.4**
L42A Oliver, Polo 96.66 37 IAmb IAmb 01 24 11.4
comp=Z,78nm,1.1s
FUORN Ofenpass-Fuorn 96.67 330 IAmb IAmb 01 24 11.8
comp=Z,124nm,1.4s
FUORN IAMs_20 IAMs_20 02 09 32.1
comp=Z,2µm,21.0s
FUORN Ofenpass-Fuorn 96.67 330 P **P** **01 24 00.8 -0.3**
comp=Z,66nm,1.2s
NYDR Nydri-Lefkada 96.69 319 P **P** **01 23 59.7 -1.3**
DAVOX Davos/Dischmat 96.73 330 LR LR 02 12 17.1
comp=Z,2µm,19.1s,baz=36,slow=38
EVGI Lefkada island 96.78 319 P **P** **01 24 01.1 -0.3**
DRAG Dragon-Lefkad 96.79 319 P **P** **01 23 59.6 -1.8**
W35A Tecumseh 96.79 46 IAmb IAmb 01 24 12.4
comp=Z,46nm,1.0s
ECH Echery 96.81 332 IAMs_20 IAMs_20 02 12 49.4
comp=Z,3µm,18.0s
ECH Echery 96.81 332 ⇑P **P** **01 24 00.5 -0.9**
ECH Echery 96.81 332 P **P** **01 24 00.8 -0.6**
comp=Z,19nm,1.4s
AMT Artemida-Makis 96.84 317 P **P** **01 24 00.9 -0.8**
N41A Harden Midland 96.88 39 IAMs_20 IAMs_20 02 04 38.0
comp=Z,3µm,22.0s
K43A Bungton 96.89 36 IAMs_20 IAMs_20 02 04 60.0
comp=Z,2µm,20.0s
ITM Ithomi 96.93 317 ⇓P **P** **01 24 01.3 -0.8**
P40A Paris 96.98 40 IAmb IAmb 01 24 13.0
comp=Z,74nm,1.0s
P40A IAMs_20 IAMs_20 02 07 12.9
comp=Z,3µm,20.0s
TUL3 Leonard 97.02 45 IAMs_20 IAMs_20 02 02 18.4
comp=Z,3µm,22.0s
I45A Fountain 97.03 34 IAMs_20 IAMs_20 02 08 43.4
comp=Z,2µm,19.0s
PLPT Palo Pinto 97.24 49 IAmb IAmb 01 24 14.9
comp=Z,47nm,1.0s
SALO Salr 97.31 329 IAmb IAmb 01 24 16.1
comp=Z,94nm,1.6s
BNALP Bannalp 97.31 331 P **P** **01 24 01.9 -2.0**
comp=Z,21nm,1.1s
S39A Bolivar 97.43 42 IAmb IAmb 01 24 14.2
comp=Z,38nm,1.0s
JCT Junction City 97.58 51 IAmb IAmb 01 24 16.1
comp=Z,52nm,0.8s
JCT IAMs_20 IAMs_20 02 11 33.3
comp=Z,2µm,20.0s
FW06 Azle 97.66 48 IAmb IAmb 01 24 16.8
comp=Z,49nm,1.0s
R40A Maddies Statio 97.67 41 IAmb IAmb 01 24 15.6
comp=Z,42nm,0.9s
R40A IAMs_20 IAMs_20 02 12 14.2
comp=Z,2µm,19.0s
BRDY Brady 97.68 50 IAmb IAmb 01 24 16.7
comp=Z,43nm,1.0s
HDIL Hopedale 97.86 38 IAMs_20 IAMs_20 02 05 58.8
comp=Z,3µm,20.0s
ACER Acerenza 98.03 323 IAmb IAmb 01 24 38.6
comp=Z,101nm,1.3s
AQU L'Aquila 98.28 325 P **P** **01 24 06.3 -1.9**
AQU PP **PP** **01 28 06.5 -0.6**
AQU L'Aquila 98.28 325 IAmb IAmb 01 24 23.8
comp=Z,42nm,1.0s
AQU L'Aquila 98.28 325 *e*P Pdif 01 24 09.6 +1.4
J47A Sunmer 98.31 34 IAMs_20 IAMs_20 02 10 10.4
comp=Z,3µm,19.0s
WHTX Lake Whitney, 98.32 49 IAMs_20 IAMs_20 02 10 44.3
comp=Z,2µm,20.0s
P43A Skaggs, Pawnee 98.36 39 IAMs_20 IAMs_20 02 05 31.1
comp=Z,2µm,20.0s
CCM Cathedral Cave 98.43 41 P **P** **01 24 06.5 -2.3**
CCM pmax pmax
comp=Z,71nm,1.1s
CCM Cathedral Cave 98.43 41 **P** **01 24 06.5 -2.3**
CCM IAmb IAmb 01 24 19.2
comp=Z,71nm,1.1s
CCM Cathedral Cave 98.43 41 IAMs_20 IAMs_20 02 05 22.2
comp=Z,2µm,21.0s
CCM Cathedral Cave 98.43 41 P Pdif 01 24 10.0 +1.2
comp=Z,69nm,1.0s
BOB Bobbio (Coli) 98.45 329 ⇑P Pdif 01 24 09.8 +0.9
I49A Point Hope 98.77 32 IAMs_20 IAMs_20 02 08 33.3
comp=Z,2µm,20.0s
LOR Lormes 98.92 334 ⇓P **P** **01 24 10.7 -0.2**
SFIN Lafayette 99.18 37 IAMs_20 IAMs_20 02 07 39.7
comp=Z,3µm,20.0s
T42A Van Buren 99.20 41 IAMs_20 IAMs_20 02 08 03.7
comp=Z,2µm,19.0s
MIAR Mount Ida 99.29 45 ⇓P **Pdif** **01 24 14.2 +1.4**
MIAR Mount Ida 99.29 45 P **Pdif** **01 24 14.3 +1.6**
comp=Z,39nm,0.9s
N47A Urbana 99.58 36 IAMs_20 IAMs_20 02 10 14.0
comp=Z,3µm,19.0s
P46A Rosedale 99.66 37 IAMs_20 IAMs_20 02 10 27.4
comp=Z,3µm,20.0s
K50A Casco 99.74 33 IAMs_20 IAMs_20 02 10 06.0
comp=Z,2µm,20.0s
SADO Sadowa 99.83 29 LR LR 02 07 20.2
comp=Z,2µm,21.9s,baz=346,slow=34
ZAIG Zacatecas 99.86 59 P **Pdif** **01 24 17.3 +1.4**
comp=Z,6.9nm,0.9s
735A Kenedy 99.94 51 IAMs_20 IAMs_20 02 04 03.7
comp=Z,2µm,20.0s
N49A Columbus Grove 100.33 35 IAMs_20 IAMs_20 02 15 35.9
comp=Z,3µm,20.0s
T45A Paducah 100.65 40 IAMs_20 IAMs_20 02 09 16.0
comp=Z,2µm,20.0s
M52A Chesterland 101.29 33 IAMs_20 IAMs_20 02 08 01.0
comp=Z,3µm,20.0s
ACSO Alum Creek Sta 101.46 35 IAMs_20 IAMs_20 02 11 16.7
comp=Z,2µm,20.0s
J55A Hilton 101.61 30 IAMs_20 IAMs_20 02 16 11.1
comp=Z,3µm,22.0s
WVT Waverly 101.74 40 IAMs_20 IAMs_20 02 09 48.8
comp=Z,3µm,20.0s
WVT Waverly 101.74 40 P **Pdif** **01 24 22.1 -1.5**
comp=Z,22nm,1.6s
D62A Allapoint, All 101.89 22 IAMs_20 IAMs_20 02 13 12.8
comp=Z,3µm,20.0s
OXF Oxford 101.90 42 IAMs_20 IAMs_20 02 08 47.4
comp=Z,3µm,21.0s
MMNY Mt. Morris Dam 101.99 30 IAMs_20 IAMs_20 02 06 42.7
comp=Z,3µm,21.0s
E62A Clayton Lake 102.12 23 IAMs_20 IAMs_20 02 12 18.1
comp=Z,2µm,20.0s
O52A Adamsville 102.13 34 IAMs_20 IAMs_20 02 10 53.3
comp=Z,3µm,20.0s
Q51A Peebles 102.16 36 IAMs_20 IAMs_20 02 10 14.4
comp=Z,3µm,19.0s
R50A Paris 102.18 37 IAMs_20 IAMs_20 02 09 26.1
comp=Z,2µm,20.0s
Y45A Yeager Farm, C 102.25 43 IAMs_20 IAMs_20 02 15 42.8
comp=Z,2µm,20.0s
J57A Williamstown 102.29 28 IAMs_20 IAMs_20 02 08 04.0
comp=Z,2µm,20.0s
V48A Smith Brothers 102.60 40 IAMs_20 IAMs_20 02 10 34.5
comp=Z,2µm,20.0s
K57A Scipio Center 102.61 29 IAMs_20 IAMs_20 02 14 45.5
comp=Z,2µm,19.0s
U49A Red Boiling Sp 102.65 39 IAMs_20 IAMs_20 02 12 48.7
comp=Z,2µm,19.0s
Q52A Bidwell 102.77 35 IAMs_20 IAMs_20 02 07 53.5
comp=Z,2µm,20.0s
P53A Whipple 102.83 34 IAMs_20 IAMs_20 02 11 23.9
comp=Z,2µm,20.0s
VT1 Waterbury 102.87 26 IAMs_20 IAMs_20 02 09 26.3
comp=Z,2µm,21.0s
MCVT Middlebury Col 103.09 26 IAMs_20 IAMs_20 02 09 21.9
comp=Z,2µm,21.0s
LBNH Lisbon 103.27 25 IAMs_20 IAMs_20 02 09 17.6
comp=Z,2µm,22.0s
BINY Binghamton 103.27 29 IAMs_20 IAMs_20 02 08 34.0
comp=Z,2µm,21.0s
X48A Hartselle 103.36 41 IAMs_20 IAMs_20 02 07 01.9
comp=Z,2µm,21.0s
PKME Peaks-Kenny Pk 103.38 23 IAMs_20 IAMs_20 02 12 48.2
comp=Z,2µm,19.0s
VNDA Vanda 103.45 176 Pdiff **Pdif** **01 24 30.3 +0.2**
comp=Z,2.6nm,1.1s,baz=345,slow=5.6,SNR=3.7
VNDA PP **PP** **01 28 47.5 +1.2**
comp=Z,7.6nm,1.2s,baz=309,slow=8.0,SNR=3.6
Q54A Coxs Mills 103.49 34 IAMs_20 IAMs_20 02 12 14.4
comp=Z,2µm,20.0s
ABPO Ambohimpanom 103.55 255 P **Pdif** **01 24 28.1 -4.0**
comp=Z,16nm,1.1s
HNH Hanover 103.58 26 IAMs_20 IAMs_20 02 09 37.8
comp=Z,2µm,21.0s
Z47A Carrollton 103.61 43 IAMs_20 IAMs_20 02 07 31.6
comp=Z,3µm,22.0s
SSPA Standing Stone 103.65 31 IAMs_20 IAMs_20 02 15 09.3
comp=Z,3µm,20.0s
L59A Walton 103.69 29 IAMs_20 IAMs_20 02 08 47.0
comp=Z,2µm,22.0s
J61A Chester 103.77 26 IAMs_20 IAMs_20 02 10 13.0
comp=Z,2µm,20.0s
I62A Tamworth 103.81 25 IAMs_20 IAMs_20 02 10 18.8
comp=Z,2µm,22.0s
TRY Troy 103.83 27 IAMs_20 IAMs_20 02 09 57.6
comp=Z,3µm,21.0s
W50A Signal Mountai 103.85 39 IAMs_20 IAMs_20 02 12 37.6
comp=Z,2µm,20.0s
KSPA Keystone Colle 103.88 29 IAMs_20 IAMs_20 02 08 06.3
comp=Z,3µm,22.0s
346A Big Creek Wild 103.96 45 IAMs_20 IAMs_20 02 13 21.2
comp=Z,3µm,20.0s
G65A Princeton 104.03 22 IAMs_20 IAMs_20 02 13 56.6
comp=Z,3µm,20.0s
Q56A Snyder Ridge, 104.27 33 IAMs_20 IAMs_20 02 13 43.9
comp=Z,2µm,19.0s
LRAL Lakeview Retre 104.37 42 IAMs_20 IAMs_20 02 08 28.7
comp=Z,3µm,21.0s
NPNY Mohonk Preserv 104.43 28 IAMs_20 IAMs_20 02 09 20.6
comp=Z,2µm,20.0s
K62A Royalston 104.47 27 IAMs_20 IAMs_20 02 11 25.5
comp=Z,3µm,20.0s
P57A Homestead Farm 104.50 32 IAMs_20 IAMs_20 02 15 36.8
comp=Z,2µm,20.0s
X51A Calhoun 104.56 40 IAMs_20 IAMs_20 02 06 23.5
comp=Z,2µm,20.0s
W52A Murphy 104.71 39 IAMs_20 IAMs_20 02 11 39.4
comp=Z,2µm,20.0s
ODNJ Ogdensburg 104.78 29 IAMs_20 IAMs_20 02 09 30.3
comp=Z,2µm,22.0s
HRV Adam Dziewonsk 104.87 26 IAMs_20 IAMs_20 02 09 30.1
comp=Z,3µm,22.0s
KIBK Kibwezi 105.06 275 P **Pdif** **01 24 37.7 -1.2**
KIBK PKP **PKiKP** **01 28 54.2 +0.5**
WES Weston 105.07 26 IAMs_20 IAMs_20 02 10 32.3
comp=Z,3µm,20.0s
BRNJ Basking Ridge 105.12 29 IAMs_20 IAMs_20 02 12 52.1
comp=Z,2µm,20.0s
PAL Palisades 105.15 29 IAMs_20 IAMs_20 02 09 41.6
comp=Z,2µm,21.0s
WSPT Westport, CT 105.26 28 IAMs_20 IAMs_20 02 09 46.5
comp=Z,2µm,20.0s
KEST Kesra 105.27 323 Pdiff **Pdif** **01 24 42.2 +2.8**
comp=Z,6.5nm,1.0s,baz=254,slow=3.2,SNR=5.4
KEST PP **PP** **01 29 02.3 +2.4**
comp=Z,6.1nm,0.8s,baz=21,slow=5.6,SNR=4.4
KEST PKKP **PKKPdf** **01 40 26.0 -3.1**
comp=Z,6.9nm,0.9s,baz=178,slow=3.3,SNR=5.1
N62A Caumsett State 105.40 28 IAMs_20 IAMs_20 02 09 49.2
comp=Z,2µm,21.0s
Y52A Lilburn 105.52 40 IAMs_20 IAMs_20 02 17 56.9
comp=Z,2µm,19.0s
BRAL Brewton 105.63 44 IAMs_20 IAMs_20 02 12 20.2
comp=Z,2µm,20.0s
V55A Taylorsville 105.65 37 IAMs_20 IAMs_20 02 12 01.9
comp=Z,2µm,20.0s
P61A Hammonton 105.84 30 IAMs_20 IAMs_20 02 11 29.2
comp=Z,3µm,21.0s
M65A Busby, Falmout 106.03 26 IAMs_20 IAMs_20 02 10 03.8
comp=Z,3µm,20.0s
KMSC Kings Mountain 106.12 37 IAMs_20 IAMs_20 02 15 03.3
comp=Z,2µm,20.0s
GOGA Godfrey 106.19 40 IAMs_20 IAMs_20 02 08 14.7
comp=Z,2µm,22.0s
R61A Willards 106.68 31 IAMs_20 IAMs_20 02 11 36.4
comp=Z,3µm,21.0s
V58A Windy Hill, Pi 106.81 35 IAMs_20 IAMs_20 02 12 42.3
comp=Z,2µm,20.0s
451A Vernon 106.82 43 IAMs_20 IAMs_20 02 12 51.6
comp=Z,2µm,21.0s
Y57A Sumter 107.47 37 IAMs_20 IAMs_20 02 12 17.2
comp=Z,2µm,19.0s
V61A Roper 108.10 34 IAMs_20 IAMs_20 02 15 06.4
comp=Z,2µm,19.0s
ESDC Sonseca Array 108.38 334 Pdiff **Pdif** **01 24 57.0 +3.8**
comp=Z,0.7nm,0.7s,baz=23,slow=4.3,SNR=5.2
ESDC PP **PP** **01 29 23.8 +1.4**
comp=Z,5.9nm,0.9s,baz=13,slow=6.4,SNR=6.6
ESDC PKKPbc **PKKPbc** **01 40 09.6 -0.5**
comp=Z,2.6nm,1.1s,baz=197,slow=4.6,SNR=4.2
PAB San Pablo 108.64 334 IAMs_20 IAMs_20 02 19 48.3
comp=Z,2µm,20.0s
257A Skidaway Islan 108.64 39 IAMs_20 IAMs_20 02 16 03.4
comp=Z,2µm,20.0s
MBAR Mbarara 110.84 280 ⇑ *i* PKIKP **PKiKP** **01 29 03.7 -0.9**
TEIG Tepich 112.06 53 IAMs_20 IAMs_20 02 20 26.1
comp=Z,2µm,18.0s
060A Indiantown 112.67 42 IAMs_20 IAMs_20 02 15 30.4
comp=Z,2µm,21.0s
QSPA South Pole Qui 115.36 180 PKP **PKiKP** **01 29 10.4 -1.1**
comp=Z,13nm,0.6s,baz=295,slow=1.1,SNR=42
QSPA South Pole Qui 115.36 180 **PKiKP** **01 29 10.6 -0.9**
TGUH Tegucigalpa,Un 116.68 57 IAMs_20 IAMs_20 02 19 33.2
comp=Z,2µm,19.0s
SYO Syowa Base 118.66 203 *e*P **PKPdf** **01 29 17.5 -0.1**
POGA Pongola 119.74 252 P **PKPdf** **01 29 20.9 -0.1**
JTS Las Juntas de 120.78 59 IAMs_20 IAMs_20 02 18 34.0
comp=Z,1µm,20.0s
GTBY Guantanamo Bay 121.15 43 IAMs_20 IAMs_20 02 21 35.3
comp=Z,2µm,20.0s
SOOWA Sowa 122.65 261 P **PKPdf** **01 29 26.5 -0.4**
KSANE Kasane 122.72 265 P **PKiKP** **01 29 27.9 +0.6**
LPHEP Lephephe 123.78 258 **PKiKP** **01 29 29.5 +0.2**
LPHEP Lephephe 123.78 258 P **PKiKP** **01 29 29.3 0.0**
SDDR Presa de Saban 124.19 41 IAMs_20 IAMs_20 02 21 04.4
comp=Z,2µm,21.0s
LBTB Lobatse 124.45 256 P **PKPdf** **01 29 30.3 +0.1**
KDWAN Kaudwane 124.84 258 P **PKPdf** **01 29 30.5 -0.6**
BOSA Boshof 125.58 252 PKP **PKPdf** **01 29 31.9 -0.4**
comp=Z,7.7nm,0.8s,baz=85,slow=1.9,SNR=19
BOSA Boshof 125.58 252 PKIKP **PKPdf** **01 29 32.0 -0.4**
BOSA Boshof 125.58 252 PKP **PKiKP** **01 29 32.7 0.0**
BOSA Boshof 125.58 252 P **PKPdf** **01 29 32.6 +0.2**
SKOMA Sekoma 125.78 257 P **PKPdf** **01 29 32.4 -0.5**
TORD Torodi Ar. Bea 126.55 312 PKP **PKPdf** **01 29 34.0 -0.5**
comp=Z,20nm,0.9s,baz=33,slow=2.2,SNR=42
TORD PP **PP** **01 31 24.8 -4.9**

comp=Z,13nm,1.1s,baz=40,slow=8.0,SNR=5.2
NVL N'lazarevskaya 127.20 198 *e*PKIKP **PKPdf 01 29 30.8 -3.2**
NVL *e* 01 31 36.1
NVL *e*PPP PPP 01 34 16.1
NVL *e*SS SS 01 48 45.6 +4.3
NVL *e*SSS SSS 01 53 22.1
NVL pmax pmax
comp=Z,53nm,0.9s
NVL MLR MLR
comp=Z,660nm,17.0s
GRTLG Ghanzi 127.35 262 P **PKiKP 01 29 36.9 +0.4**
SJG San Juan 127.79 37 IAMs_20 IAMs_20 02 26 08.4
comp=Z,1μm,20.0s
LKGWB Lokgwabe 128.08 259 P **PKPdf 01 29 37.1 -0.1**
TROLL Troll, Antarti 128.80 195 ⇑PKPdf **PKiKP 01 29 38.0 +0.1**
comp=Z,2μm,0.9s
SMRT St. Maarten 129.44 34 IAMs_20 IAMs_20 02 24 43.6
comp=Z,1μm,21.0s
SNAA Sanae 130.21 193 ⇑PKPdf **PKPdf 01 29 39.7 -0.1**
comp=Z,754nm,0.9s
SNAA Sanae 130.21 193 PKP **PKPdf 01 29 38.8 -1.1**
comp=Z,14nm,0.9s,baz=129,slow=1.8,SNR=18
SNAA PP **PP 01 31 49.0 -4.0**
comp=Z,18nm,1.0s,baz=153,slow=9.2,SNR=4.2
SNAA Sanae 130.21 193 *c i*PKIKP **PKPdf 01 29 39.9 +0.1**
SNAA pmax pmax
comp=Z,48nm,2.5s
SNAA MLR MLR
comp=Z,959nm,20.0s
ANWB Willy Bob 130.40 32 IAMs_20 IAMs_20 02 26 08.9
comp=Z,2μm,20.0s
GDHS Morne Mazeau, 131.60 33 IAMs_20 IAMs_20 02 23 07.5
comp=Z,2μm,22.0s
VNA2 Neumayer--Watz 131.71 192 ⇑PKPdf **PKPdf 01 29 42.9 +0.3**
comp=Z,65nm,0.8s,baz=130,slow=1.2
VNA2 ⇓SKPbc **SKPab 01 33 10.1 +1.6**
comp=N,38nm,1.0s
CBE Ff, Capester 131.85 33 IAMs_20 IAMs_20 02 32 45.5
comp=Z,2μm,20.0s
VNA3 Neumayer Olymp 131.86 191 ⇑PKPdf **PKPdf 01 29 43.1 +0.2**
comp=Z,45nm,0.8s
VNA3 ⇓SKPbc **SKPab 01 33 10.1 +0.9**
comp=E,14nm,1.3s
GDSD La Dsirade Is 131.91 33 IAMs_20 IAMs_20 02 25 17.0
comp=Z,2μm,21.0s
OTAV Otavalo 131.95 64 IAMs_20 IAMs_20 02 20 37.9
comp=Z,1μm,21.0s
OTAV Otavalo 131.95 64 PKP **PKPdf 01 29 45.6 +0.2**
OTAV Otavalo 131.95 64 *e*P **PKPdf 01 29 43.2 -2.1**
VNA1 Neumayer--Stat 132.10 192 ⇑PKPdf **PKPdf 01 29 43.7 +0.4**
comp=Z,47nm,1.0s
SDV Santo Domingo 132.19 49 IAMs_20 IAMs_20 02 26 53.8
comp=Z,1μm,20.0s
ROSC El Rosal 132.35 56 PKP **PKPdf 01 29 45.4 -0.6**
comp=Z,9.7nm,0.5s,baz=4.5,slow=1.7,SNR=10
FDFM Morne la Roset 133.21 34 IAMs_20 IAMs_20 02 32 06.0
comp=Z,1μm,20.0s
BIM Bigot 133.44 34 IAMs_20 IAMs_20 02 27 57.7
comp=Z,1μm,20.0s
MPOM Morne Pois Mar 133.61 34 IAMs_20 IAMs_20 02 23 09.1
comp=Z,2μm,22.0s
GRGR Grenville 135.15 36 IAMs_20 IAMs_20 02 28 27.1
comp=Z,1μm,20.0s
DBIC Dimbokro 135.66 312 PKP **PKPdf 01 29 50.3 -1.4**
comp=Z,14nm,0.6s,baz=59,slow=2.7,SNR=12
DBIC PP **PP 01 32 20.9 -7.6**
comp=Z,7.8nm,0.8s,baz=346,slow=3.6,SNR=3.5
DBIC Dimbokro 135.66 312 PKP **PKPdf 01 29 51.5 -0.2**
NNA Nana 139.54 78 ⇓ *i*PKIKP **PKPdf 01 30 00.0 +1.1**
NNA MLR MLR
comp=Z,2μm,17.0s
CZSB Cruzeiro do Su 141.11 69 PKP PKPpre 01 29 57.0
CZSB Cruzeiro do Su 141.11 69 *e*P PKPpre 01 29 55.7
BOAV Boa Vista 143.66 44 PKP **PKPdf 01 30 05.0 -1.3**
BOAV Boa Vista 143.66 44 *e*P PKPab 01 30 02.7 -0.2
PLCA Paso Flores 147.88 127 PKPbc **PKPbc 01 30 14.9 -0.9**
comp=Z,52nm,0.7s,baz=244,slow=3.2,SNR=55
PLCA Paso Flores 147.88 127 PKP **PKPbc 01 30 14.6 -1.2**
PLCA Paso Flores 147.88 127 *e*P **PKPdf 01 30 11.7 -1.0**
GO05 Hualane 148.03 116 IAMs_20 IAMs_20 02 29 12.9
comp=Z,1μm,19.0s
BI02 San Fabin de 148.31 119 IAMs_20 IAMs_20 02 27 08.1
comp=Z,1μm,19.0s
PB16 IPOC Station P 148.50 83 IAMs_20 IAMs_20 02 38 37.8
comp=Z,1μm,20.0s
BO02 Sierra Bellavi 149.00 115 IAMs_20 IAMs_20 02 34 04.7
comp=Z,1μm,20.0s
LPAZ La Paz 149.00 79 PKPbc **PKPbc 01 30 18.6 -1.4**
comp=Z,43nm,0.8s,baz=355,slow=3.7,SNR=27
LPAZ La Paz 149.00 180 PKP **PKPdf 01 30 14.7 -1.3**
EFI East Falkland 149.16 153 ⇓ *i*PKP2 **PKPbc 01 30 17.9 -0.6**
EFI pmax pmax
comp=Z,246nm,1.7s
EFI MLR MLR
comp=Z,1μm,17.0s
EFI East Falkland 149.16 153 **PKPbc 01 30 18.6 +0.1**
LCO Las Campanas 149.37 104 PKP2 **PKPbc 01 30 20.2 0.0**
LCO Las Campanas 149.37 104 **PKPbc 01 30 20.2 0.0**
MAL2 Monte Alegre, 150.96 39 PKP **PKPdf 01 30 20.9 +2.4**
HOPE Hope Point 151.33 180 *i*PKIKP **PKiKP 01 30 24.9 +0.7**
ITTB Itaituba 151.89 45 PKP **PKPdf 01 30 20.3 +0.5**
ITTB Itaituba 151.89 45 *e*P **PKPdf 01 30 19.2 -0.6**
ATM1 UHE Belo Monte 153.10 37 PKP **PKPdf 01 30 22.2 +0.5**
BMO1 UHE Belo Monte 153.24 36 PKP **PKPdf 01 30 22.3 +0.5**
NPGB Novo Progresso 154.15 48 PKP **PKPdf 01 30 23.3 +0.2**
NPGB Novo Progresso 154.15 48 *e*P **PKPdf 01 30 22.1 -1.1**
VILB Vilhena 154.29 65 PKP **PKPdf 01 30 24.2 +0.9**
VILB Vilhena 154.29 65 *e*P **PKPdf 01 30 22.7 -0.6**
SIV San Ignacio 155.05 72 PKP **PKPdf 01 30 25.1 +0.9**
comp=Z,12nm,0.9s,baz=330,slow=1.5,SNR=36
BBSD Serra de San D 155.97 74 *e*P **PKPdf 01 30 22.7 -2.8**
PDRB Porto dos Gac 156.27 58 PKP **PKPdf 01 30 26.6 +0.6**
PDRB Porto dos Gac 156.27 58 *e*P **PKPdf 01 30 24.9 -1.1**
PTLB Pontes e Lacer 156.45 69 PKP **PKPdf 01 30 27.3 +1.3**
PTLB Pontes e Lacer 156.45 69 *e*P **PKPdf 01 30 25.5 -0.6**
CLDB Colider 156.50 55 PKP **PKPdf 01 30 26.9 +0.6**
CLDB Colider 156.50 55 *e*P **PKPdf 01 30 26.1 -0.1**
NBPS Pedro II - PI 158.38 14 PKP **PKPdf 01 30 29.3 +0.5**
NBPS Pedro II - PI 158.38 14 *e*P **PKPdf 01 30 27.8 -1.0**
NBCL Cascavel-CE 158.68 5 PKP **PKPdf 01 30 29.6 +0.6**
COIM Forte Coimbra 159.47 78 *e*P **PKPdf 01 30 29.6 -0.1**
SALV Santo Antonio 159.55 66 PKP **PKPdf 01 30 30.5 +0.6**
SALV Santo Antonio 159.55 66 *e*P **PKPdf 01 30 29.6 -0.3**
NBPB Pedra_Branca-C 159.84 9 PKP **PKPdf 01 30 31.3 +0.9**
SMTB Santa Maria do 160.24 35 PKP **PKPdf 01 30 31.4 +0.6**
SMTB Santa Maria do 160.24 35 *e*P **PKPdf 01 30 30.2 -0.6**
NBPA Parau_RN 160.27 2 PKP **PKPdf 01 30 31.5 +0.7**
NBPA Parau_RN 160.27 2 *e*P **PKPdf 01 30 30.2 -0.6**
SNDB Serra Nova Dou 160.46 49 PKP **PKPdf 01 30 31.9 +0.9**
SNDB Serra Nova Dou 160.46 49 *e*P **PKPdf 01 30 30.1 -0.9**
PSAL Palomas, Salto 160.53 111 *e*P **PKPdf 01 30 28.5 -2.0**
BDQN Bodoquena, MS 160.57 79 *e*P **PKPdf 01 30 30.6 -0.3**
NBPV Pedro Velho 160.91 357 PKP **PKPdf 01 30 32.3 +0.8**
NBPV Pedro Velho 160.91 357 *e*P **PKPdf 01 30 31.0 -0.6**
PP1B Ponte de Pedra 161.06 69 *e*P **PKPdf 01 30 31.0 -0.6**
CPUP Villa Florida 161.14 97 PKP **PKPdf 01 30 31.8 +0.4**
comp=Z,6.5nm,1.0s,baz=232,slow=2.0,SNR=8.8
CPUP Villa Florida 161.14 97 **PKPdf 01 30 31.1 -0.3**
CPUP Villa Florida 161.14 97 PKP **PKPdf 01 30 32.5 +1.1**
AQDB Aquidauana 161.51 78 PKP **PKPdf 01 30 32.3 +0.4**
AQDB PKP **pPKPdf 01 30 33.2 -2.4**
AQDB Aquidauana 161.51 78 *e*P **PKPdf 01 30 31.3 -0.7**
ITQB Itaqui 161.60 107 PKP **PKPdf 01 30 33.6 +1.8**
ITQB Itaqui 161.60 107 *e*P **PKPdf 01 30 31.9 +0.1**
NBMA Muriti-CE 161.74 8 PKP **PKPdf 01 30 32.7 +0.3**
NBMA Muriti-CE 161.74 8 *e*P **PKPdf 01 30 29.6 -2.9**
NBLV Livramento - P 161.87 2 PKP **PKPdf 01 30 32.7 +0.1**
NBLV PKP **pPKPdf 01 30 34.2 -2.1**
SJPY San Joaquin 162.15 92 *e*P **PKPdf 01 30 32.8 +0.3**
ARAG Araguaiana, MT 162.54 59 PKP **PKPdf 01 30 33.8 +0.7**
ARAG PKP **pPKPdf 01 30 34.9 -1.9**
ARAG Araguaiana, MT 162.54 59 *e*P **PKPdf 01 30 32.8 -0.3**
CAN3 Cana Brava 163.26 44 PKP **PKPdf 01 30 34.7 +0.8**
NBAN Anadia - AL 164.17 360 PKP **PKPdf 01 30 36.0 +1.2**
CPSB Cacapava Do Su 164.18 112 PKP **PKPdf 01 30 34.8 +0.5**
CPSB PKP **pPKPdf 01 30 35.8 -2.6**
CPSB PKP **pPKPdf 01 30 35.8 -2.6**
CPSB Cacapava Do Su 164.18 112 *e*P **PKPdf 01 30 33.8 -0.5**
SDBA SAO DESIDERIO 164.62 33 PKP **PKPdf 01 30 35.6 +0.5**
SDBA PKP **pPKPdf 01 30 36.2 -2.7**
SDBA PKP **sPKPdf 01 30 36.8 -3.3**
SDBA SAO DESIDERIO 164.62 33 *e*P **PKPdf 01 30 35.1 -0.1**
NBPN Ponto Novo - B 164.90 15 PKP **PKPdf 01 30 36.4 +1.1**
NBPN PKP **PKPdf 01 30 36.5 +1.1**
NBPN PKP **sPKPdf 01 30 36.6 -3.7**
NBPN Ponto Novo - B 164.90 15 *e*P **PKPdf 01 30 35.3 -0.1**
BDFB Brasilia 165.29 50 PKP **PKPdf 01 30 36.8 +1.0**
comp=Z,5.6nm,0.9s,baz=25,slow=1.9,SNR=8.0
ITAB Concordia 165.78 100 PKP **PKPdf 01 30 36.6 +0.9**
ITAB PKP **pPKPdf 01 30 37.7 -2.0**
ITAB PKP **pPKPdf 01 30 37.8 -2.0**
ITAB Concordia 165.78 100 *e*P **PKPdf 01 30 35.7 0.0**
ITU3 Corumbazu 166.29 60 PKP **PKPdf 01 30 37.2 +0.7**
LDASE Londrina, Braz 166.40 84 *e*P **PKPdf 01 30 35.7 -0.7**
IPMB Ipameri, GO 166.66 58 PKP **PKPdf 01 30 37.8 +1.0**
IPMB PKP **pPKPdf 01 30 38.0 -2.4**
IPMB PKP **sPKPdf 01 30 38.0 -2.4**
IPMB Ipameri, GO 166.66 58 *e*P **PKPdf 01 30 36.9 +0.2**
BB19B Bebedouro 167.96 71 PKP **PKPdf 01 30 38.6 +0.9**
BB19B Bebedouro 167.96 71 *e*P **PKPdf 01 30 37.4 -0.3**
PMNB Patos De Minas 168.33 55 PKP **PKPdf 01 30 39.4 +1.4**
PMNB PKP **pPKPdf 01 30 39.6 -2.1**
PMNB Patos De Minas 168.33 55 *e*P **PKPdf 01 30 38.2 +0.2**
JQT1 Jequitai-MG 168.86 43 PKP **PKPdf 01 30 39.3 +1.0**
NBIT Itapeh - BA 169.02 16 PKP **PKPdf 01 30 39.2 +0.8**
NBIT PKP **pPKPdf 01 30 39.6 -2.4**
NBIT PKP **sPKPdf 01 30 40.1 -3.2**
NBIT Itapeh - BA 169.02 16 *e*P **PKPdf 01 30 37.5 -0.8**
CMC01 Camacan, BA 169.41 17 PKP **PKPdf 01 30 39.1 +0.5**
CMC01 PKP **pPKPdf 01 30 39.7 -2.6**
CMC01 PKP **sPKPdf 01 30 40.0 -3.5**
CMC01 Camacan, BA 169.41 17 *e*P **PKPdf 01 30 38.6 0.0**
SPB Sao Paulo 169.74 81 *e*P **PKPdf 01 30 38.2 -0.4**
VABB Valinhos 170.00 77 PKP **PKPdf 01 30 39.2 +0.3**
VAO Valinhos 170.00 77 *e*P **PKPdf 01 30 35.8 -3.1**
PET01 Itanhaem-SP 170.02 85 PKP **PKPdf 01 30 40.2 +1.4**
PET01 PKP **pPKPdf 01 30 40.9 -1.5**
PET01 Itanhaem-SP 170.02 85 *e*P **PKPdf 01 30 37.8 -1.0**
DIAM Diamantina, MG 170.08 44 PKP **PKPdf 01 30 40.4 +1.2**
DIAM PKP **pPKPdf 01 30 40.8 -2.0**
DIAM PKP **sPKPdf 01 30 41.0 -3.1**
DIAM Diamantina, MG 170.08 44 *e*P **PKPdf 01 30 39.0 -0.2**
GUA01 Guaratinga, BA 170.49 20 PKP **PKPdf 01 30 39.5 +0.3**
GUA01 PKP **pPKPdf 01 30 40.2 -2.7**
GUA01 PKP **sPKPdf 01 30 41.0 -3.2**
GUA01 Guaratinga, BA 170.49 20 *e*P **PKPdf 01 30 39.4 +0.2**
BSCB Bom Sucesso 171.03 61 PKP **PKPdf 01 30 40.0 +0.4**
BSCB Bom Sucesso 171.03 61 *e*P **PKPdf 01 30 39.6 +0.1**
PARB Paraibuna 171.28 77 PKP **PKPdf 01 30 39.8 +0.3**
PARB Paraibuna 171.28 77 *e*P **PKPdf 01 30 39.4 -0.2**
SJMB Sao Joao De Ma 171.83 34 PKP **PKPdf 01 30 40.1 +0.2**
SJMB PKP **pPKPdf 01 30 40.7 -2.8**
SJMB PKP **sPKPdf 01 30 41.5 -3.3**
SJMB Sao Joao De Ma 171.83 34 *e*P **PKPdf 01 30 40.0 +0.2**
BSFB Barra de Sao F 172.11 33 PKP **PKPdf 01 30 40.7 +0.7**
BSFB Barra de Sao F 172.11 33 *e*P **PKPdf 01 30 39.6 -0.4**
RIB01 Linhares ES 172.74 32 PKP **PKPdf 01 30 40.6 +0.4**
RIB01 Linhares ES 172.74 32 *e*P **PKPdf 01 30 40.1 -0.1**
VAS01 Vassouras-RJ 172.75 65 *e*P **PKPdf 01 30 40.0 -0.2**

*SJA **07** 01:11:49.1±0.6,24.°27S×67.°22W,h183km±6km, ML3.5, MW3.4*
*GUC **07** 01:11:50.5±0.5,24.°24S×67.°44W,h209km±6km, ML3.5, Presumed earthquake*
ISC 07 01:11:47.4±1.7,**24.°26S**±0.°04×**67.°19W**±0.°05,
h202km±15km,**n35,σ1s66/56,2C,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SALTA		**0.78**	**88**	*e*P		**Pn**		**01 12 16.7**	**0.0**
SALTA				*e*P		**Pn**		**01 12 16.7**	**0.0**
SALTA				*e*P				01 12 16.8	
AF01	**San Pedro de A**	**1.58**	**325**	*e*P		**Pn**		**01 12 22.0**	**-0.5**
AF01				*e*S		S		01 12 34.5	-15
AF01	**San Pedro de A**	**1.58**	**325**	*e*P		**Pn**		**01 12 24.3**	**+1.8**
AF01				IAML				01 12 51.6	
comp=N,184nm,0.5s									
SLA	**San Lorenzo**	**1.61**	**107**	*e*P		**Pn**		**01 12 23.4**	**+0.9**
SLA				*e*S		**S**		**01 12 50.8**	**+1.6**
FSA	**Cafayete**	**2.15**	**149**	*e*P		**Pn**		**01 12 28.9**	**+1.0**
YJA	**Yavi**	**2.58**	**37**	*e*P		**Pn**		**01 12 30.9**	**-2.1**
YJA				*e*S		**S**		**01 13 09.3**	**+1.6**
PB06	**IPOC Station P**	**2.68**	**305**	*e*P		**Pn**		**01 12 34.9**	**+1.3**
PB06				*e*S		**S**		**01 13 08.6**	**-0.5**
PB06				IAML				01 13 10.7	
comp=Z,197nm,0.1s									
PB06	**IPOC Station P**	**2.68**	**305**	*e*P		**Pn**		**01 12 35.0**	**+1.3**
PB06				*e*S		**S**		**01 13 08.7**	**-0.3**
PB14	**IPOC Station P**	**2.95**	**262**	*e*P		**Pn**		**01 12 38.2**	**+1.3**
PB14				*e*S		**S**		**01 13 14.5**	**-0.4**
PB14				IAML				01 13 19.0	
comp=Z,62nm,0.3s									
PB14	**IPOC Station P**	**2.95**	**262**	*e*P		**Pn**		**01 12 37.8**	**+0.9**
PB14				IAML				01 13 16.4	
comp=E,45nm,0.2s									
AHML	**Horco Molle**	**3.02**	**147**	*e*P		**Pn**		**01 12 39.3**	**+1.8**
AHML				*e*S		**S**		**01 13 15.3**	**-0.9**
PB09	**IPOC Station P**	**3.09**	**322**	*e*P		**Pn**		**01 12 40.5**	**+2.0**
PB09				*e*P				01 12 40.7	
PB09				*e*S		**S**		**01 13 13.1**	**-4.7**
PB09				IAML				01 13 18.9	
comp=Z,131nm,0.5s									
PB09	**IPOC Station P**	**3.09**	**322**	*e*P		**Pn**		**01 12 40.5**	**+2.0**
PB09				*e*S		**S**		**01 13 18.4**	**+0.6**
PB09				IAML				01 13 19.0	
comp=N,142nm,0.4s									
PB05	**IPOC Station P**	**3.10**	**296**	*e*P		**Pn**		**01 12 39.8**	**+1.3**
PB05				*e*S		**S**		**01 13 17.5**	**-0.2**
PB05				IAML				01 13 17.8	
comp=Z,64nm,0.6s									
PB05	**IPOC Station P**	**3.10**	**296**	⇑*e*P		**Pn**		**01 12 39.7**	**+1.2**
PB05				IAML				01 13 18.6	
comp=N,73nm,0.1s									
AC02	**Maricunga**	**3.10**	**214**	*e*P		**Pn**		**01 12 40.5**	**+1.6**
AC02				*e*S		S		01 13 05.7	-13
AC02	**Maricunga**	**3.10**	**214**	⇑*e*P		**Pn**		**01 12 40.5**	**+1.6**
AC02				IAML				01 13 27.3	
comp=E,42nm,0.2s									
PB10	**IPOC Station P**	**3.17**	**283**	*e*P		**Pn**		**01 12 40.7**	**+1.5**
PB10				*e*P				01 12 41.3	
PB10				*e*S		**S**		**01 13 20.0**	**+1.0**
PB10				IAML				01 13 23.1	
comp=Z,50nm,0.7s									
PB10	**IPOC Station P**	**3.17**	**283**	*e*P		**Pn**		**01 12 40.3**	**+1.1**
PB10				*e*S		**S**		**01 13 17.5**	**-1.4**
PB10				IAML				01 13 23.0	
comp=N,47nm,0.4s									
PB03	**IPOC Station P**	**3.22**	**313**	*e*P		**Pn**		**01 12 41.3**	**+1.3**
PB03				*e*S		**S**		**01 13 20.1**	**-0.5**
PB03				IAML				01 13 24.5	
comp=Z,116nm,0.2s									
PB03	**IPOC Station P**	**3.22**	**313**	*e*P		**Pn**		**01 12 41.4**	**+1.3**
PB03				IAML				01 13 23.3	
comp=E,127nm,0.2s									
PB07	**IPOC Station P**	**3.54**	**315**	*e*P		**Pn**		**01 12 45.3**	**+1.5**
PB07				IAML				01 13 29.1	
comp=Z,81nm,0.6s									
PB07	**IPOC Station P**	**3.54**	**315**	*e*P		**Pn**		**01 12 45.0**	**+1.1**
AC01	**Pan de Azucar**	**3.61**	**238**	*e*P		**Pn**		**01 12 44.9**	**+0.3**
AC01				*e*S		**S**		**01 13 27.5**	**-1.3**
AC01				IAML				01 13 28.2	
comp=Z,71nm,0.4s									
TINO	**Tinogasta**	**3.80**	**185**	*e*P		**Pn**		**01 12 49.4**	**+2.4**
PB02	**IPOC Station P**	**3.84**	**319**	*e*P		**Pn**		**01 12 48.8**	**+1.2**
PB02				*e*S		**S**		**01 13 33.0**	**-1.1**
PB02				IAML				01 13 38.4	
comp=Z,131nm,0.6s									
PB02	**IPOC Station P**	**3.84**	**319**	*e*P		**Pn**		**01 12 48.4**	**+0.9**
AC06	**Mina Casimiro**	**4.20**	**222**	*e*P		**Pn**		**01 12 51.9**	**+0.1**
GO03	**Copiapo**	**4.30**	**219**	*e*P		**Pn**		**01 12 53.5**	**+0.4**
GO03				*e*S		**S**		**01 13 43.5**	**-0.9**
GO03				IAML				01 13 45.1	
comp=Z,90nm,0.2s									
PB08	**IPOC Station P**	**4.48**	**336**	*e*P		**Pn**		**01 12 57.6**	**+1.9**
PB08				*e*S		S		01 14 03.3	+14
GO01	**Chusmiza**	**4.93**	**337**	*e*P		**Pn**		**01 13 03.3**	**+1.8**
GO01				*e*S		**S**		**01 13 56.8**	**-2.6**
GO01				IAML				01 14 05.7	
comp=Z,14nm,0.1s									
PB11	**IPOC Station P**	**5.03**	**332**	*e*P		**Pn**		**01 13 03.5**	**+1.1**
PB11				*e*S		**S**		**01 13 59.0**	**-2.1**
PB11				IAML				01 14 05.3	
comp=Z,21nm,0.2s									
ACLC	**CERRO LA CRUZ**	**5.15**	**178**	*e*P		**Pn**		**01 13 05.9**	**+2.0**
ACLC				*e*S		**S**		**01 13 58.9**	**-5.1**
AC04	**Llanos de Chal**	**5.25**	**221**	*e*P		**Pn**		**01 13 04.8**	**-0.2**
AC04				*e*S		**S**		**01 14 04.2**	**-1.8**
AC04				*e*S		S		01 14 04.8	-1.2
AC04				IAML				01 14 07.0	
comp=Z,33nm,0.7s									
AC05	**El Transito**	**5.33**	**211**	*e*P		**Pn**		**01 13 06.7**	**+0.5**
AC05				*e*S		**S**		**01 14 06.8**	**-1.3**
AC05				IAML				01 14 14.5	
comp=Z,18nm,0.5s									

AFAD 07 01:21:30.4,37.°97N×26.°56E,h7km±1km,ML1.0,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.27**	**72**	P		P	Pg	01 21 35.9	+0.3
DGB				S		S	Sg	01 21 39.7	+0.6
DGB				IAML				01 21 40.0	
comp=N,23nm,0.5s									
DGB				IAML				01 21 40.0	
comp=E,30nm,0.2s									
ZEYE	**Izmir, Urla-Ze**	**0.27**	**350**	P		Pg		01 21 34.0	-1.8
ZEYE				S		Sg		01 21 40.3	+0.8
BEYE	**izmir**	**0.39**	**48**	P		Pg		01 21 38.0	+0.1
BEYE				S		Sg		01 21 43.7	+0.7
BEYE				IAML				01 21 46.0	
comp=E,16nm,0.6s									

*AFAD **07** 01:22:44.4,37.°87N×26.°50E,h7km±1km,ML1.3*
*ISK **07** 01:22:44.1,37.°89N×26.°49E,h14km,ML2.0/6*
ISC 07 01:22:44.7±1.2,**37.°88N**±0.°04×**26.°50E**±0.°04,**h12km**±10km,
n16,σ0s51/24,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.35**	**60**	P		**Pg**		**01 22 51.5**	**-0.2**
DGB				S		**Sg**		**01 22 56.8**	**+0.3**
DGB				IAML				01 22 57.0	
comp=N,53nm,0.7s									
DGB				IAML				01 22 57.0	
comp=E,74nm,0.4s									
ZEYE	**Izmir, Urla-Ze**	**0.36**	**1**	P		**Pg**		**01 22 51.8**	**-0.1**
ZEYE				IAML				01 22 57.0	
comp=E,91nm,0.2s									
ZEYE				S		**Sg**		**01 22 57.5**	**+0.7**
ZEYE				IAML				01 22 59.0	
comp=N,42nm,0.4s									
BEYE	**izmir**	**0.49**	**44**	P		**Pg**		**01 22 53.9**	**-0.3**
BEYE				IAML				01 23 01.0	
comp=N,12nm,0.2s									
BEYE				S		**Sg**		**01 23 01.0**	**+0.3**
BEYE				IAML				01 23 03.0	
comp=E,18nm,0.6s									
GCAM	**G?zelcaml?**	**0.61**	**107**	Pg		**Pg**		**01 22 56.6**	**+0.1**
GCAM				Sg		**Sb**		**01 23 05.3**	**-0.4**
GCAM				AML		AML			
CHOS	**Chios island**	**0.62**	**326**	Pg		**Pg**		**01 22 56.1**	**-0.6**
CHOS				Sg		**Sb**		**01 23 05.5**	**-0.6**
CHOS				AML		AML			
BLCB	**Balcova**	**0.67**	**40**	Pg		**Pg**		**01 22 57.5**	**-0.1**
BLCB				Sg		**Sb**		**01 23 06.9**	**-0.5**
BLCB				AML		AML			
BODT	**Bodrum**	**1.04**	**141**	Pg		**Pg**		**01 23 04.7**	**0.0**
BODT				Sg		**Sn**		**01 23 20.1**	**+0.6**
AYDB	**Zeytinkoy-Aydi**	**1.10**	**86**	Pn		**Pb**		**01 23 05.3**	**-0.5**
AYDB				Sn		**Sn**		**01 23 21.6**	**+0.3**
AYDB				AML		AML			
MLSB	**Milas**	**1.17**	**119**	Pn		**Pb**		**01 23 06.5**	**-0.3**
ENEZ	**Enez**	**2.87**	**355**	P		**Pg**		**01 23 39.3**	**-0.3**
THAS	**Thassos island**	**3.06**	**334**	P		**Pg**		**01 23 43.2**	**0.0**
PLG	**Polygyros**	**3.44**	**317**	P		**Pb**		**01 23 46.7**	**+1.1**
SRS	**Serrai**	**3.94**	**326**	P		**Pn**		**01 23 44.9**	**0.0**
PDO	**Prodromos**	**4.25**	**281**	P		**Pb**		**01 23 59.1**	**-0.1**
AMPL	**Ampelaki**	**4.28**	**286**	P		**Pb**		**01 23 58.8**	**-1.0**
KZN	**Kozani**	**4.41**	**305**	P		**Pn**		**01 23 51.7**	**+0.3**

*ISK **07** 01:30:06.9,37.°72N×27.°03E,h8km,ML2.4/17*
*THE **07** 01:30:07.2,37.°7N±0.°9×27.°0E±0.°8,h0km±2km,M2.6/7, MLh2.6/7*
*AFAD **07** 01:30:07.0,37.°74N×27.°03E,h7km±2km,ML2.3*
ISC 07 01:30:07.4±0.9,**37.°73N**±0.°02×**27.°03E**±0.°02,**h11km**±6km,
n40,σ0s53/58,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**261**	P		**Pg**		**01 30 10.6**	**-0.3**
SMG				S		**Sg**		**01 30 13.2**	**-0.1**
SMG				AML		AML			
GCAM	**G?zelcaml?**	**0.17**	**101**	P		**Pg**		**01 30 11.1**	**0.0**
GCAM				IAML				01 30 15.0	
comp=N,710nm,0.1s									
GCAM				IAML				01 30 15.0	
comp=E,653nm,0.4s									
GCAM	**G?zelcaml?**	**0.17**	**101**	Pg		**Pg**		**01 30 10.9**	**-0.2**
GCAM				Sg		**Sg**		**01 30 13.9**	**+0.3**
GCAM				AML		AML			
KUSD	**Kusadasi-Aydin**	**0.24**	**58**	Pg		**Pg**		**01 30 12.4**	**0.0**
KUSD				Sg		**Sg**		**01 30 16.0**	**+0.2**
KUSD				AML		AML			
DDIM	**Aydin, Didim**	**0.32**	**148**	P		**Pg**		**01 30 14.2**	**+0.3**
DDIM				S		**Sb**		**01 30 19.2**	**-1.2**
DDIM				IAML				01 30 20.0	
comp=N,514nm,0.5s									
DDIM				IAML				01 30 20.0	
comp=E,436nm,0.7s									
DGB	**zmir**	**0.34**	**340**	P		**Pg**		**01 30 14.2**	**0.0**
DGB				S		**Sg**		**01 30 18.6**	**-0.1**
DGB				IAML				01 30 19.0	
comp=N,205nm,0.4s									
DGB				IAML				01 30 19.0	
comp=E,294nm,0.2s									
GMLD	**Gumuldur**	**0.35**	**346**	Pg		**Pg**		**01 30 14.7**	**+0.2**
GMLD				AML		AML			
BEYE	**izmir**	**0.50**	**351**	P		**Pg**		**01 30 17.0**	**-0.2**
BEYE				S		**Sg**		**01 30 24.1**	**+0.3**
BEYE				IAML				01

CESE	**eme**	**0.83**	**316**	Pg	**Pb**	**01 30 24.0**	**+0.2**
CESE				AML	AML		
KRBN	**Karaburun**	**0.94**	**337**	Pg	**Pb**	**01 30 25.7**	**0.0**
KRBN				AML	AML		
FOCM	**Foa**	**1.01**	**347**	Pg	**Pb**	**01 30 26.8**	**0.0**
FOCM				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	P	**Pb**	**01 30 26.9**	**0.0**
CHOS				S	**Sn**	**01 30 41.5**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**1.01**	**311**	Pg	**Pg**	**01 30 26.6**	**-0.2**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.03**	**77**	Pg	**Pn**	**01 30 27.6**	**-0.2**
NAZL				AML	AML		
CAMT	**Merkez**	**1.04**	**12**	P	**Pb**	**01 30 27.1**	**-0.3**
CAMT				S	**Sn**	**01 30 42.7**	**+0.2**
CAMT				IAML		01 30 44.0	
	comp=E,120nm,0.6s						
CAMT				IAML		01 30 47.0	
	comp=N,89nm,0.4s						
DAT	**Datca**	**1.09**	**156**	P	**Pg**	**01 30 27.8**	**-0.6**
DAT				AML	AML		
YER	**Yerkesik**	**1.16**	**120**	P	**Pg**	**01 30 29.3**	**-0.5**
YER				S	**Sn**	**01 30 46.3**	**+0.7**
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pb**	**01 30 30.0**	**-0.1**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pn**	**01 30 31.6**	**+1.0**
ZEDA				S	**Sn**	**01 30 49.4**	**+2.2**
KTTT	**Salihli**	**1.27**	**41**	P	**Pn**	**01 30 31.1**	**0.0**
KTTT				S	**Sb**	**01 30 46.1**	**-1.6**
AKHS	**Akhisar**	**1.30**	**28**	P	**Pg**	**01 30 32.5**	**+0.2**
DKL	**Dikili**	**1.34**	**356**	Pn	**Pb**	**01 30 32.5**	**0.0**
DKL				AML	AML		
APE	**Apeiranthos**	**1.36**	**241**	P	**Pg**	**01 30 33.2**	**-0.4**
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn	**Pn**	**01 30 34.3**	**+0.4**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**37**	Pn	**Pg**	**01 30 35.3**	**-0.6**
GORD				AML	AML		
PRK	**Paraskevi**	**1.62**	**339**	P	**Pb**	**01 30 37.0**	**-0.3**
ARG	**Arkhangelos**	**1.75**	**149**	P	**Pn**	**01 30 37.9**	**+0.2**
ALN	**Alexandroupoli**	**3.25**	**347**	P	**Pn**	**01 30 58.7**	**+0.4**

*BKK **07** 01:32:07.2±4.8,5°N±13°×9°6E±5°2, h10km, M3.6/4, mb3.7/1, mB4.9/1, Mjma3.7/4, ML3.6/4, MLv3.5/4, Mw(mB)4.1/1*
*DJA **07** 01:32:09.2±0.4,4°N±5°×9°6E±°, h48km±7km, M4.2/11, mB6.2/1, mb5.5/1, MLv3.6/11, Mw(mB)5.8/1*

ISC 07 01:32:08.1±2.0, 4°4N±0°1×95°8E±0°1, h31km, n6, σ1§27/8, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLSI	**Meulaboh, Aceh**	**0.66**	**105**	P	**Pn**	**01 32 21.5**	**+0.1**
MLSI				S	**Sn**	**01 32 32.3**	**+1.6**
MLSI				AML	AML		
BSI	**Banda Aceh**	**1.14**	**336**	P	**Pn**	**01 32 28.1**	**+0.1**
BSI				S	**Sb**	**01 32 44.3**	**+0.4**
BSI				AML	AML		
TPTI		**1.84**	**130**	P	**Pn**	**01 32 36.1**	**-1.5**
TPTI				AML	AML		
KCSI	**Kotacane, Aceh**	**2.20**	**115**	P	**Pn**	**01 32 41.7**	**-0.9**
PSI	**Prapat**	**3.55**	**117**	P	**Pn**	**01 33 01.3**	**+0.1**
PSI				AML	AML		
RNTT	**Ranong**	**5.60**	**29**	P	**Pn**	**01 33 27.8**	**-1.6**
RNTT				AML	AML		
RNTT				AML	AML		

*IDC **07** 01:41:53.8±1.1,7°37S×104°86E, h0km, mb3.7/7, mbtmp3.8/8, ML4.0/1, Error ellipse: s-maj=29.0km s-min=17.5km az=20.0*
*DJA **07** 01:42:02.9±0.9,7°S±6°×10°5E±°, h19km±5km, M3.9/18, MLv3.9/18*

ISC 07 01:41:58.5±0.9, 7°07S±0°09×105°15E±0°06, h23km, n29, σ1§46/19, mb3.6/7, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CGJI	**Cibinong**	**0.70**	**50**	P	**Pb**	**01 42 12.4**	**+0.3**
CGJI				S	**Sb**	**01 42 20.3**	**-1.0**
SBJI	**Serang**	**1.35**	**46**	P	**Pn**	**01 42 22.5**	**+0.5**
SBJI				AML	AML		
SKJI	**Sukabumi**	**1.40**	**88**	P	**Pn**	**01 42 23.2**	**+0.6**
SKJI				AML	AML		
TNG	**Tangerang**	**1.73**	**59**	P	**Pn**	**01 42 24.6**	**-2.6**
TNG				P	Pb	01 42 24.9	-4.7
TNG				AML	AML		
CBJI	**Citeko**	**1.81**	**69**	P	**Pn**	**01 42 29.0**	**+0.8**
CBJI				AML	AML		
LEM	**Lembang**	**2.46**	**85**	Pn	**Pn**	**01 42 39.7**	**+2.4**
	25nm,0.3s,baz=342,slow=9.0,SNR=14						
LEM				Sn	**Sb**	**01 43 13.6**	**+1.4**
	37nm,0.3s,baz=132,slow=21,SNR=12						
	114nm,0.5s						
LEM				AML	AML		
BBJI	**Bungbulang**	**2.51**	**99**	P	**Pn**	**01 42 38.4**	**+0.4**
BBJI				AML	AML		
MDSI	**Maura Dua**	**2.74**	**339**	P	**Pb**	**01 42 47.1**	**+0.3**
MASI	**Maura Aman, Be**	**4.86**	**323**	P	**Pb**	**01 43 24.5**	**+1.6**
H01W3	**Cape Leeuwin H**	**28.89**	**165**	T	T	02 18 17.0	
	baz=344,slow=76,SNR=76						
H01W2	**Cape Leeuwin H**	**28.91**	**165**	T	T	02 18 18.1	
	baz=344,slow=76,SNR=109						
H01W1	**Cape Leeuwin H**	**28.91**	**165**	T	T	02 18 18.1	
	baz=344,slow=76,SNR=91						
WRA	**Warramunga Arr**	**31.07**	**117**	P	**P**	**01 48 14.8**	**-0.3**
	0.5nm,0.8s,baz=291,slow=11,SNR=6.7						
	0.5nm,0.8s						
ASAR	**Alice Springs**	**32.16**	**124**	P	**P**	**01 48 24.9**	**+0.2**
	0.2nm,0.6s,baz=298,slow=8.5,SNR=2.2						
	0.2nm,0.6s						
H08S2	**Diego Garcia H**	**32.39**	**267**	T	T	02 22 45.9	
	baz=91,slow=76,SNR=64						
H08S3	**Diego Garcia H**	**32.40**	**267**	T	T	02 22 47.1	
	baz=91,slow=76,SNR=128						
H08S1	**Diego Carcia H**	**32.41**	**267**	T	T	02 22 47.8	
	baz=91,slow=76,SNR=21						
MKAR	**Makanchi Array**	**57.35**	**342**	P	**P**	**01 51 44.3**	**-0.5**
	0.4nm,0.6s,baz=146,slow=8.5,SNR=5.2						
	0.4nm,0.6s						
H04N2	**CROZET ISLANDS**	**60.02**	**220**	T	T	02 57 34.8	
	baz=66,slow=75,SNR=5.9						
H04N1	**CROZET ISLANDS**	**60.04**	**220**	T	T	02 57 45.7	
	baz=66,slow=75,SNR=7.0						
H04N3	**CROZET ISLANDS**	**60.04**	**220**	T	T	02 57 30.6	
	baz=66,slow=75,SNR=6.3						
H04S1	**CROZET ISLANDS**	**60.22**	**219**	T	T	02 57 57.0	
	baz=68						
H04S3	**CROZET ISLANDS**	**60.23**	**219**	T	T	02 57 45.5	
	baz=68						
H04S2	**CROZET ISLANDS**	**60.24**	**219**	T	T	02 57 57.0	
	baz=68						
KURBB	**Kurchatov Arra**	**61.90**	**341**	P	**P**	**01 52 17.4**	**+1.3**
	0.2nm,0.5s,baz=153,slow=5.5,SNR=1.9						
	0.2nm,0.5s						
ZALV	**Zalesovo Beam**	**63.16**	**347**	P	**P**	**01 52 23.6**	**-0.8**
	0.6nm,0.3s,baz=148,slow=5.3,SNR=4.5						
	0.6nm,0.3s						
QSPA	**South Pole Qui**	**82.92**	**180**	P	**P**	**01 54 18.2**	**-3.2**
	1.3nm,0.8s,baz=190,slow=5.7,SNR=2.8						
	1.3nm,0.8s						
FINES	**FINESS Array B**	**90.96**	**332**	P	**P**	**01 55 01.7**	**+1.3**
	2.1nm,0.9s,baz=101,slow=9.9,SNR=4.2						
	2.1nm,0.9s						
TXAR	**Lajitas Array**	**144.97**	**47**	PKPbc	**PKPbc**	**02 01 34.0**	**+0.1**
	0.1nm,0.4s,baz=347,slow=5.9,SNR=3.8						

*IDC **07** 01:59:52.4±0.8,25°62N×143°75E, h0km, mb4.0/13, mbtmp3.9/15, ML3.4/2, Error ellipse: s-maj=24.3km s-min=14.2km az=73.0*
*NEIC **07** 01:59:55.2±1.4,25°7N±0°1×143°6E±0°2, h10km±1km, mb4.2/8, Error ellipse: s-maj=27.4km s-min=13.1km az=56.0*
*JMA **07** 01:59:56.7±0.2,25°9N±0°4×14°4E±°, h139km, IOTO ISLANDS REGION*

ISC 07 01:59:57.8±0.8, 25°7N±0°1×143°8E±0°1, h35km, n36, σ1§39/31, mb4.1/17, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**1.71**	**304**	*eP*	**Pn**	**02 00 26.3**	**+1.3**
JHH2				*eS*	**Sn**	**02 00 49.0**	**+3.4**
CBIJ	**Chichi jima**	**1.99**	**315**	*eP*	**Pn**	**02 00 29.4**	**+0.5**
CBIJ				*eS*	**Sn**	**02 00 54.6**	**+2.0**
JCJ	**Chichijima**	**1.99**	**315**	Pn	**Pn**	**02 00 26.4**	**-2.5**
	45nm,0.3s,baz=92,slow=24,SNR=27						
JCJ				Sn	**Sn**	**02 00 50.8**	**-1.8**
	140nm,0.3s,baz=279,slow=23,SNR=16						
	115nm,0.3s						
JCJ				AML	AML		
JCJ	**Chichijima**	**1.99**	**315**		**Pn**	**02 00 27.3**	**-1.6**
MJAR	**Matsushiro Arr**	**11.81**	**338**	Pn	**Pn**	**02 02 41.5**	**-2.3**
	0.1nm,0.3s,baz=114,slow=2.7,SNR=1.7						
	0.6nm,0.3s						
MJAR				AML	AML		
H11N2	**WAKE ISLAND Hy**	**22.14**	**101**	T	T	02 27 38.8	
	baz=290,slow=75,SNR=13						
H11N1	**WAKE ISLAND Hy**	**22.14**	**101**	T	T	02 27 37.6	
	baz=290,slow=75,SNR=17						
H11N3	**WAKE ISLAND Hy**	**22.15**	**101**	T	T	02 27 38.4	
	baz=290,slow=75,SNR=16						
H11S3	**WAKE ISLAND Hy**	**22.40**	**104**	T	T	02 28 03.8	
	baz=294,slow=75,SNR=7.6						
H11S1	**WAKE ISLAND Hy**	**22.40**	**104**	T	T	02 28 01.1	
	baz=294,slow=75,SNR=4.3						
H11S2	**WAKE ISLAND Hy**	**22.41**	**104**	T	T	02 27 56.1	
	baz=294,slow=75,SNR=5.3						
KLR	**Kul'dur**	**25.29**	**341**	P	**P**	**02 05 21.2**	**+0.3**
	0.6nm,0.3s,baz=184,slow=5.5,SNR=3.6						
	0.6nm,0.3s						
WR8	**Warramunga Arr**	**46.26**	**192**	P	**P**	**02 08 18.9**	**-1.0**
WRA	**Warramunga Arr**	**46.28**	**192**	P	**P**	**02 08 19.3**	**-0.8**
	4.0nm,0.7s,baz=11,slow=8.5,SNR=24						
	4.0nm,0.7s						
FITZ	**Fitzroy Crossi**	**46.96**	**204**	P	**P**	**02 08 24.9**	**-0.5**
	3.5nm,0.9s,baz=152,slow=1.3,SNR=3.7						
	3.5nm,0.9s						
FITZ	**Fitzroy Crossi**	**46.96**	**204**	P	**P**	**02 08 25.1**	**-0.3**
AS31	**Alice Springs**	**49.99**	**192**	P	**P**	**02 08 47.3**	**-1.4**
ASAR	**Alice Springs**	**49.99**	**192**	P	**P**	**02 08 47.8**	**-0.9**
	0.3nm,0.3s,baz=16,slow=13,SNR=8.8						
	0.3nm,0.3s						
EVN	**Everest**	**50.47**	**286**	P	**P**	**02 08 53.6**	**+0.4**
EVN				IAmb	IAmb	02 09 04.2	
	comp=Z,2.5nm,0.9s						
ZALV	**Zalesovo Beam**	**51.47**	**320**	P	**P**	**02 08 58.9**	**-0.7**
	comp=Z,0.4nm,0.4s,baz=111,slow=10.0,SNR=2.6						
	comp=Z,0.4nm,0.4s						
MKAR	**Makanchi Array**	**52.46**	**310**	P	**P**	**02 09 06.3**	**-0.8**
	comp=Z,0.2nm,0.4s,baz=84,slow=11,SNR=1.5						
	comp=Z,0.2nm,0.4s						
KURK	**Kurchatov**	**54.97**	**315**	P	**P**	**02 09 25.2**	**-0.2**
KURK				IAmb	IAmb	02 09 36.3	
	comp=Z,1.9nm,1.0s						
KURBB	**Kurchatov Arra**	**55.03**	**315**	P	**P**	**02 09 25.7**	**-0.1**
	comp=Z,0.6nm,0.3s,baz=91,slow=8.1,SNR=13						
	comp=Z,0.6nm,0.3s						
ILAR	**Eielson Array**	**58.27**	**28**	P	**P**	**02 09 48.9**	**+0.3**
	comp=Z,1.2nm,0.8s,baz=257,slow=5.8,SNR=11						
	comp=Z,1.2nm,0.8s						
SCRK	**Sand Creek**	**59.45**	**29**	P	**P**	**02 09 57.5**	**+0.6**
SCRK				IAmb	IAmb	02 09 59.7	
	comp=Z,2.5nm,0.9s						
BMAR	**Burnt Mountain**	**59.51**	**25**	P	**P**	**02 09 59.0**	**+1.7**
BVAR	**Borovoye Array**	**60.03**	**318**	P	**P**	**02 10 01.5**	**+0.6**
	comp=Z,1.4nm,0.4s,baz=82,slow=5.8,SNR=8.9						
	comp=Z,1.4nm,0.4s						
M29M	**Somme Creek**	**61.93**	**31**		**P**	**02 10 16.2**	**+2.3**
M29M				IAmb	IAmb	02 10 17.1	
	comp=Z,2.1nm,0.9s						
J30M	**Hart River**	**62.79**	**29**		**P**	**02 10 21.0**	**+1.4**
H02S1	**DAWSON INLET T**	**66.21**	**41**	T	T	03 22 32.2	
	SNR=94						
H02S2	**DAWSON INLET T**	**66.21**	**41**	T	T	03 22 32.4	
	SNR=105						
ABKAR	**Akbulak array**	**67.08**	**315**	P	**P**	**02 10 47.5**	**-0.1**
YKA	**Yellowknife Ar**	**72.70**	**28**	P	**P**	**02 11 22.6**	**+0.8**
	comp=Z,1.2nm,0.8s,baz=293,slow=6.5,SNR=2.6						
	comp=Z,1.2nm,0.8s						
FINES	**FINESS Array B**	**79.82**	**334**	P	**P**	**02 12 02.6**	**+0.3**
	comp=Z,1.2nm,0.4s,baz=64,slow=5.1,SNR=28						
	comp=Z,1.2nm,0.4s						
NVAR	**Mina Array Bea**	**80.27**	**52**	P	**P**	**02 12 06.4**	**+0.9**
	comp=Z,0.7nm,0.7s,baz=293,slow=6.9,SNR=2.7						
	comp=Z,0.7nm,0.7s						
HFS	**Hagfors**	**85.26**	**337**	P	**P**	**02 12 29.8**	**-0.9**
	comp=Z,1.4nm,0.8s,baz=64,slow=11,SNR=4.8						
	comp=Z,1.4nm,0.8s						

*FUNV **07** 02:06:00.4, 8°13N×73°88W, h2km, MW3.9, Presumed earthquake*
*RSNC **07** 02:06:01.9±0.0,8°N±1°×7°4W±°, h18km±2km, M3.2, mb4.0, ML2.9*

ISC 07 02:05:58.6±1.4, 8°06N±0°02×73°85W±0°03, h8km±10km, n41, σ2§09/75, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OCAC	**Ocana**	**0.55**	**71**	P	**Pn**	**02 06 12.7**	**-0.2**
OCAC				S	**Sn**	**02 06 21.9**	**-0.4**
VMM07	**Puerto Wilches**	**0.69**	**181**	P	**Pb**	**02 06 13.0**	**+0.1**
VMM07				S	**Sb**	**02 06 22.7**	**+0.1**
VMM09	**Lebrija**	**1.07**	**149**	P	**Pn**	**02 06 20.1**	**0.0**
VMM09				S	**Sb**	**02 06 34.2**	**+0.4**
BRJC	**Barrancabermej**	**1.08**	**175**	P	**Pg**	**02 06 18.8**	**-0.6**
BRJC				S	**Sg**	**02 06 33.0**	**-0.5**
VMM10	**El Carmen**	**1.29**	**175**	P	**Pn**	**02 06 21.8**	**-1.1**
VMM10				S	**Sb**	**02 06 38.7**	**-1.1**
CAPV	**Capacho**	**1.53**	**97**	*eP*	**Pg**	**02 06 29.5**	**+1.5**
CAPV				*eS*	**Sg**	**02 06 50.6**	**+2.7**
BARC	**Barichara**	**1.60**	**156**	P	**Pn**	**02 06 27.5**	**+0.2**
BARC				S	**Sb**	**02 06 48.9**	**0.0**
PTBC	**PUERTO BERRIO,**	**1.62**	**202**	P	**Pn**	**02 06 25.8**	**-1.7**
PTBC				S	**Sn**	**02 06 46.7**	**-2.0**
UREC	**San Jos de Ur**	**1.70**	**260**	P	**Pn**	**02 06 27.3**	**-1.3**
UREC				S	**Sn**	**02 06 49.2**	**-1.3**
ARGC	**Ariguani, Magd**	**1.83**	**348**	P	**Pn**	**02 06 31.0**	**+0.6**
ARGC				S	**Sn**	**02 06 55.0**	**+1.2**
SJCC	**San Jacinto, C**	**2.25**	**324**	P	**Pn**	**02 06 37.3**	**+1.0**
SJCC				S	**Sn**	**02 07 05.7**	**+1.4**
SJCC	**San Jacinto, C**	**2.25**	**324**	*eP*	**Pn**	**02 06 37.3**	**+1.0**
SJCC				*eS*	**Sn**	**02 07 04.1**	**-0.2**
RUSC	**La Rusia**	**2.28**	**161**	P	**Pn**	**02 06 37.1**	**+0.1**
RUSC				S	**Sb**	**02 07 08.3**	**-0.5**
RUSC	**La Rusia**	**2.28**	**161**	*eP*	**Pb**	**02 06 39.3**	**-1.0**
RUSC				*eS*	**Sb**	**02 07 08.4**	**-0.4**
SPBC	**San Pablo de B**	**2.40**	**185**	P	**Pn**	**02 06 37.6**	**-0.7**
SPBC				S	**Sn**	**02 07 10.4**	**+2.7**
TAMC	**Tame, Arauca**	**2.60**	**128**	P	**Pb**	**02 06 43.9**	**-1.6**
TAMC				S	**Sg**	**02 07 20.2**	**-1.9**
LCBC	**Los crdobas,**	**2.62**	**288**	P	**Pn**	**02 06 42.1**	**+0.9**
LCBC				S	**Sn**	**02 07 15.0**	**+1.8**
NORC	**Norcasia**	**2.68**	**202**	P	**Pn**	**02 06 43.2**	**+1.1**
NORC				S	**Sn**	**02 07 14.8**	**+0.1**
APAC	**Apartado, Choc**	**2.71**	**267**	P	**Pn**	**02 06 43.0**	**+0.5**
APAC				S	**Sn**	**02 07 16.4**	**+0.9**
CBOC	**Ciudad Bolivar**	**3.06**	**225**	P	**Pn**	**02 06 49.3**	**+1.8**
CBOC				S	**Sb**	**02 07 30.9**	**-0.2**
CRJC	**Cerrejon, Guaj**	**3.10**	**18**	P	**Pn**	**02 06 47.8**	**-0.1**
CRJC				S	**Sb**	**02 07 29.5**	**-2.4**
SMRC	**Santa Marta, M**	**3.11**	**353**	P	**Pn**	**02 06 49.7**	**+1.7**
SMRC				S	**Sn**	**02 07 29.1**	**+3.7**
GUY2C	**Guyana, Caldas**	**3.19**	**208**	P	**Pn**	**02 06 51.2**	**+1.7**
GUY2C				S	**Sn**	**02 07 30.7**	**+2.7**
ROSC	**El Rosal**	**3.23**	**188**	P	**Pn**	**02 06 53.1**	**+3.1**
ROSC				S	**Sn**	**02 07 31.4**	**+2.6**
CHIC	**Chingaza**	**3.41**	**178**	P	**Pn**	**02 06 55.8**	**+3.4**
CHIC				S	**Sb**	**02 07 39.4**	**-1.8**
CVER	**Cruz Verde, Cu**	**3.52**	**184**	P	**Pn**	**02 06 56.6**	**+2.6**
CVER				S	**Sb**	**02 07 41.6**	**-2.9**
VILC	**Villavicencio,**	**3.92**	**178**	P	**Pn**	**02 07 01.0**	**+1.7**
URIC	**Uribia, Colomb**	**4.06**	**27**	P	**Pn**	**02 07 00.5**	**-0.5**
URIC				S	**Sn**	**02 07 50.0**	**+1.3**
URIC	**Uribia, Colomb**	**4.06**	**27**	*eP*	**Pn**	**02 07 00.7**	**-0.3**
URIC				*eS*	**Sn**	**02 07 47.5**	**-1.2**
UPD2	**Meteti**	**4.16**	**277**	P	**Pn**	**02 07 01.4**	**-1.0**
ORTC	**Ortega, Tolima**	**4.35**	**199**	P	**Pn**	**02 07 06.4**	**+1.3**
ORTC				S	**Sn**	**02 07 59.6**	**+3.6**
PRAC	**Prado**	**4.44**	**194**	P	**Pn**	**02 07 07.4**	**+1.1**
PRAC				S	**Sn**	**02 08 02.5**	**+4.3**
YOTC	**Yotoco, Valle**	**4.75**	**212**	P	**Pn**	**02 07 11.5**	**+0.9**
URMC	**La Uribe, Meta**	**4.81**	**186**	P	**Pn**	**02 07 14.6**	**+3.2**
TEPV	**Terepaima**	**4.97**	**67**	*eP*	**Pn**	**02 07 15.0**	**+1.4**
TEPV				*eS*	**Sn**	**02 08 09.2**	**-2.2**
MACC	**Macarena, Meta**	**5.87**	**180**	P	**Pn**	**02 07 24.7**	**-1.3**
BCIP	**Isla Barro Col**	**6.03**	**281**	P	**Pn**	**02 07 25.8**	**-2.3**
TURV	**Turiamo**	**6.39**	**68**	*eP*	**Pn**	**02 07 33.3**	**+0.2**
TURV				*eS*	**Sn**	**02 08 42.3**	**-3.9**
BENV	**Beln**	**6.45**	**72**	*eP*	**Pn**	**02 07 34.8**	**+0.7**
BENV				*eS*	**Sn**	**02 08 44.5**	**-3.4**
CACV	**CAICARA DEL OR**	**7.25**	**93**	*eP*	Pn	02 07 52.7	+7.7
CACV				*eS*	**Sn**	**02 09 15.3**	**+7.8**
MERV	**Las Mercedes**	**7.56**	**80**	*eP*	**Pn**	**02 07 49.6**	**+0.5**
MERV				*eS*	**Sn**	**02 09 10.3**	**-4.7**

*NDI **07** 02:08:20.2±4.7, 34°24N×72°16E, h10km±117km, ML3.0, MW3.2, Presumed earthquake*
*IDC **07** 02:08:36.6±1.0, 33°84N×72°04E, h0km, mb3.8/9, mbtmp3.8/14, ML3.4/5, Error ellipse: s-maj=24.7km s-min=17.9km az=89.0*
*NNC **07** 02:08:49.5±9.3, 34°32N×70°45E, h0km, mb3.9, mpv3.7, Error ellipse: s-maj=97.6km s-min=60.2km az=139.0*

ISC 07 02:08:35.2±0.8, 33°51N±0°07×72°36E±0°06, h10km, n26, σ2§54/32, mb3.9/8, 1C-5D, Pakistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSSA	**Tissa**	**3.25**	**101**	*i* P	**Pn**	**02 09 25.4**	**-1.0**
TSSA				*i* S	**Sb**	**02 10 12.8**	**+0.1**
DHRM	**DHARAMSHALA**	**3.54**	**110**	*i* S	**Sb**	**02 10 20.0**	**-1.2**
DHRM				*i* S	**Sb**	**02 10 20.0**	**-1.2**
DHRM				IAML		02 10 35.1	
	comp=E,294nm,0.5s						
ALCI	**Alchi Leh**	**4.07**	**79**	*i* P	**Pn**	**02 09 37.0**	**-0.9**
ALCI				*i* S	**Sn**	**02 10 25.5**	**-0.3**
ALCI				IAML		02 10 28.1	
	comp=E,17nm,0.1s						
SMLA	**Simla**	**4.71**	**119**	*i* P	**Pn**	**02 09 48.3**	**+2.1**
SMLA				*i* S	**Sb**	**02 10 51.7**	**-2.8**
KLP	**Kalpa**	**5.35**	**110**	*i* P	**Pn**	**02 09 54.6**	**-0.8**
KLP				*i* S	**Sb**	**02 11 06.2**	**-7.1**
HNLY	**HANLEY**	**5.59**	**96**	*i* P	**Pn**	**02 09 56.6**	**-2.3**
HNLY				*i* S	**Sn**	**02 11 10.9**	**+7.5**
KUDL	**Kundal**	**6.41**	**145**	*i* S	**Sb**	**02 11 42.4**	**-1.2**
AAK	**Ala-Archa**	**9.27**	**10**	Pn	**Pn**	**02 10 48.5**	**-0.5**
	comp=E,0.5nm,0.3s,baz=162,slow=9.8,SNR=4.7						
AAK				Sn	**Sn**	**02 12 28.9**	**-4.5**
	baz=221,slow=14						
	comp=E,0.7nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**9.27**	**10**	⇓P	Pn	02 11 00.1	+11
	comp=E,1.0nm,0.6s						
AAK				⇓S	**Sn**	**02 12 38.8**	**+5.3**
	comp=E,2.8nm,0.8s						
KK31	**Karatay Array**	**9.69**	**352**	⇓P	**Pn**	**02 10 55.5**	**+0.8**
	comp=E,1.8nm,0.3s,baz=180,slow=14,SNR=65						
KK31				⇓S	**Sn**	**02 12 41.6**	**-2.0**
	comp=E,1.2nm,0.5s,baz=183,slow=30						
MKAR	**Makanchi Array**	**15.27**	**27**	Pn	**Pn**	**02 12 11.3**	**+0.5**
	comp=E,0.1nm,0.3s,baz=221,slow=14,SNR=4.8						
	comp=E,0.5nm,0.7s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**17.69**	**13**	P	**Pn**	**02 12 41.9**	**+0.3**
	comp=E,0.1nm,0.3s,baz=204,slow=11,SNR=10						
	comp=E,1.2nm,0.7s						
KURBB				AML	AML		
AB31	**Akbulak array**	**18.25**	**333**	⇑P	**Pn**	**02 12 47.5**	**-0.9**
	comp=E,0.9nm,0.4s,baz=144,slow=12,SNR=40						
BVAR	**Borovoye Array**	**19.56**	**356**	P	**P**	**02 13 03.3**	**+0.3**
	comp=E,0.1nm,0.3s,baz=167,slow=8.9,SNR=9.1						
	comp=E,2.2nm,0.5s						
BVAR				AML	AML		
AKTO	**Aktyubinsk**	**19.94**	**332**	P	**P**	**02 13 07.0**	**-0.1**
	comp=E,0.5nm,0.3s,baz=147,slow=10.0,SNR=11						
	comp=E,4.4nm,0.7s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**19.94**	**332**	⇓P	**P**	**02 13 07.8**	**+0.7**
	comp=E,4.0nm,0.8s						
ZALV	**Zalesovo Beam**	**22.27**	**20**	P	**P**	**02 13 32.4**	**+0.2**
	comp=E,1.5nm,0.4s,baz=217,slow=10,SNR=8.6						
	comp=E,1.5nm,0.4s						
FINES	**FINESS Array B**	**40.60**	**328**	P	**P**	**02 16 14.5**	**-0.2**
	comp=E,2.0nm,0.8s,baz=123,slow=7.0,SNR=5.8						
	comp=E,2.0nm,0.8s						
ARCES	**ARCESS Array B**	**44.33**	**338**	P	**P**	**02 16 45.6**	**+0.5**
	comp=E,2.3nm,0.9s,baz=123,slow=6.0,SNR=3.7						
	comp=E,2.3nm,0.9s						
HFS	**Hagfors**	**46.12**	**324**	P	**P**	**02 16 59.4**	**0.0**
	comp=E,0.8nm,0.4s,baz=89,slow=13,SNR=6.7						
	comp=E,0.8nm,0.4s						
NB2	**NORSAR Subarra**	**47.45**	**325**	P	**P**	**02 17 09.3**	**-0.5**
	comp=Z,0.4nm,0.6s,baz=96,slow=7.9						
NOA	**NORSAR Array B**	**47.45**	**325**	P	**P**	**02 17 09.4**	**-0.4**
	comp=Z,0.6nm,0.7s,baz=97,slow=7.7,SNR=3.5						
	comp=Z,0.6nm,0.7s						
TORD	**Torodi Ar. Bea**	**66.82**	**271**	P	**P**	**02 19 27.4**	**-0.1**
	comp=Z,0.9nm,0.9s,baz=49,slow=8.9,SNR=3.9						
	comp=Z,0.9nm,0.9s						
WRA	**Warramunga Arr**	**79.45**	**122**	P	P	02 20 47.6	+5.5
	comp=Z,0.2nm,0.3s,baz=322,slow=5.0,S

KURBB	Kurchatov Arra	47.52	303	P	P	02 23 19.0	-3.1
	0.3nm,0.7s,baz=65,slow=9.3,SNR=1.6 0.3nm,0.7s						
WRA	Warramunga Arr	70.91	201	P	P	02 26 02.8	-1.1
	0.4nm,0.7s,baz=12,slow=7.0,SNR=1.0 0.4nm,0.7s						
ASAR	Alice Springs	74.59	200	P	P	02 26 25.6	-0.2
	0.2nm,0.5s,baz=12,slow=6.1,SNR=5.0 0.2nm,0.5s						
TXAR	Lajitas Array	75.28	62	P	P	02 26 30.9	+0.9
	0.2nm,0.6s,baz=299,slow=6.7,SNR=2.3 0.2nm,0.6s						

NOU 07 02:21:53.0, 15.71S×167.48E, h26km, MLv4.4/17, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	Saraoutou	0.37	314	P	Pn	02 22 03.4	+0.7
SANVU	Saraoutou	0.37	314	S	Sn	02 22 09.1	0.0
DVP	Devils Point	2.12	161	P	Pn	02 22 28.3	+1.6
KOUNC	Koumac, New Ca	5.69	212	P	Pn	02 23 17.1	+1.2
MARNC	Mare, Loyalty	5.76	175	P	Pn	02 23 16.7	-0.2
YATNC	Mamie plateau,	6.34	185	P	Pn	02 23 24.6	-0.2
NOUC	Port Laguerre	6.45	190	P	Pn	02 23 26.7	+0.3

*JMA **07** 03:59:48.5±0.1, 24.7N±0.5×122.0E±0.3, h96km±1km, MV2.5/11, TAIWAN REGION*
*TAP **07** 03:59:48.4, 24.82N×122.02E, h96km, ML3.7, B*
ISC 07 03:59:48.3±1.4, 24.84N±0.04×122.02E±0.03, h98km±6km, n105, σ0.74/199, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EGS		0.08	276	eP	Pn	04 00 01.7	-0.2
TWB1	Santiao Chiao	0.17	351	iP	Pn	04 00 02.1	0.0
TWB1				S	Sn	04 00 11.9	-0.5
TIPB	Shuangxi	0.22	308	iP	Pn	04 00 02.3	+0.0
TWC	Suao	0.27	214	iP	Pn	04 00 02.4	-0.1
TWC				eS	Sn	04 00 12.2	-0.8
SXI1	Grass Mountain	0.29	333	eP	Pn	04 00 02.4	-0.3
SXI1				S	Sn	04 00 13.1	-0.3
ESAO	Su ao	0.30	212	eP	Pn	04 00 02.6	0.0
ESAO				eS	Sn	04 00 12.6	-0.7
NWF	Wu-fen Shan	0.32	317	iP	Pn	04 00 02.7	-0.1
WFSB	Wu-fen Shan	0.32	317	eP	Pn	04 00 02.7	0.0
WFSB				S	Sn	04 00 12.8	-0.6
TWE	Neicheng	0.34	250	eP	Pn	04 00 02.8	0.0
TWE				eS	Sn	04 00 15.0	+1.4
NDS	Dongshan	0.34	234	eP	Pn	04 00 03.2	+0.4
NDS				S	Sn	04 00 14.6	+1.0
TNOU	National Taiwa	0.38	324	iP	Pn	04 00 03.0	0.0
TNOU				S	Sn	04 00 13.4	-0.7
FUSB	Fushanzhiwuyua	0.40	259	P	Pn	04 00 03.3	0.0
FUSB				S	Sn	04 00 14.9	+0.4
TWA	Mucha	0.42	290	iP	Pn	04 00 03.2	-0.1
TWA				S	Sn	04 00 13.6	-0.9
ENTT	Nioudou	0.46	245	P	Pn	04 00 04.0	+0.5
ENTT				S	Sn	04 00 15.8	+0.9
EOS2	EOS2	0.46	155	eP	Pn	04 00 04.0	+0.6
EOS2				eS	Sn	04 00 15.8	+1.2
NHDH	Xindian Distri	0.47	286	eP	Pn	04 00 03.7	+0.1
NHDH				eS	Sn	04 00 14.8	-0.2
NWLT	Wulai	0.47	263	P	Pn	04 00 03.8	+0.1
NWLT				S	Sn	04 00 15.1	-0.1
ENA	Nanau	0.48	212	iP	Pn	04 00 04.1	+0.4
ENA				S	Sn	04 00 15.5	+0.4
YM01	YM01	0.51	307	P	Pn	04 00 04.0	0.0
YM01				iS	Sn	04 00 14.9	-0.8
NDT	Datong Townshi	0.52	243	iP	Pn	04 00 04.6	+0.6
NDT				S	Sn	04 00 16.3	+0.6
YM08	YM08	0.52	312	P	Pn	04 00 03.7	-0.3
YM08				S	Sn	04 00 14.5	-1.3
LATG	Datong	0.54	236	iP	Pn	04 00 04.8	+0.6
LATG				S	Sn	04 00 17.1	+0.9
ZUZH	Zhuzihu	0.54	307	P	Pn	04 00 03.5	-0.7
ZUZH				S	Sn	04 00 15.0	-1.0
EAHA	Aohua	0.57	207	eP	Pn	04 00 04.4	+0.1
EAHA				S	Sn	04 00 16.5	+0.2
TWS1	Kuangyinshan	0.61	296	eP	Pn	04 00 05.2	+0.6
TWS1				eS	Sn	04 00 18.5	+1.6
YHNB	Yeheng	0.61	254	P	Pn	04 00 04.8	0.0
YHNB				S	Sn	04 00 16.5	-0.6
NTST	Danshui	0.61	302	eP	Pn	04 00 03.9	-0.7
EOS3	EOS3	0.61	154	eP	Pn	04 00 05.3	+0.8
EOS3				eS	Sn	04 00 17.7	+1.0
NSK	Sanguang	0.62	255	iP	Pn	04 00 04.9	+0.1
NSK				S	Sn	04 00 16.7	-0.6
NNSB	Datong	0.71	235	iP	Pn	04 00 06.2	+0.5
NNSB				S	Sn	04 00 18.7	0.0
NNS	Nan Shan	0.71	236	eP	Pn	04 00 06.2	+0.5
NNS				S	Sn	04 00 18.6	-0.1
EOS4	EOS4	0.76	159	eP	Pn	04 00 05.7	+0.1
EOS4				eS	Sn	04 00 18.3	-0.4
NACB	Ninganchiao	0.77	210	iP	Pn	04 00 05.7	-0.4
NACB				S	Sn	04 00 18.4	-1.0
NCU	National Centr	0.77	280	eP	Pn	04 00 06.4	+0.3
NCU				eS	Sn	04 00 20.4	+1.0
KSHI	Guanxi Townshi	0.77	266	iP	Pn	04 00 06.8	+0.7
KSHI				iS	Sn	04 00 20.4	+0.9
ETLH	Xiulin Townshi	0.80	218	iP	Pn	04 00 06.4	-0.1
ETLH				iS	Sn	04 00 19.3	-0.8
NFF	Wufeng Townshi	0.84	256	eP	Pn	04 00 07.0	+0.1
NFF				iS	Sn	04 00 20.6	-0.4
TWD	Chiawan	0.85	207	eP	Pn	04 00 06.5	-0.4
TWD				S	Sn	04 00 19.6	-1.3
JYNG	Yonagunijimaku	0.93	114	P	Pn	04 00 07.7	0.0
JYNG				S	Sn	04 00 22.3	0.0
LIOB	Emei	0.93	258	iP	Pn	04 00 08.2	+0.4
LIOB				iS	Sn	04 00 21.7	-0.8
HWA	Hwalien	0.94	204	eP	Pn	04 00 08.0	+0.2
HWA				eS	Sn	04 00 22.1	-0.4
SBCB	Hsinchu	0.94	268	P	Pn	04 00 08.1	+0.3
SBCB				S	Sn	04 00 22.1	-0.5
NSTT	Nanjuang	0.95	258	eP	Pn	04 00 08.3	+0.3
NSTT				iS	Sn	04 00 22.4	-0.4
HSN	Hsinchu	0.95	268	iP	Pn	04 00 08.1	+0.1
HSN				iS	Sn	04 00 22.7	-0.1
TWT	Tachien	0.96	233	eP	Pn	04 00 09.3	+1.0
TWT				iS	Sn	04 00 24.0	+0.7
WHF	Hehuan Shan	0.97	225	iP	Pn	04 00 08.9	+0.3
WHF				iS	Sn	04 00 23.8	-0.2
TDCB	Techi	0.97	234	eP	Pn	04 00 09.0	+0.6
TDCB				iS	Sn	04 00 23.7	+0.2
YOJ	Yonaguni jima	0.98	112	P	Pn	04 00 08.2	-0.1
YOJ				S	Sn	04 00 23.1	-0.1
YOJ	Yonaguni jima	0.98	112	eP	Pn	04 00 08.5	+0.2
LXIB	Xiulin Townshi	0.98	214	eP	Pn	04 00 08.0	-0.5
LXIB				eS	Sn	04 00 22.7	-0.9
ETM	Tongmen	0.99	209	P	Pn	04 00 07.4	-1.0
ETM				eS	Sn	04 00 21.7	-1.9
TEYL	Yanliau Villag	1.04	202	eP	Pn	04 00 08.7	-0.2
TEYL				S	Sn	04 00 24.2	-0.3
SHUL	Shoufeng	1.12	202	eP	Pn	04 00 09.9	0.0
SHUL				iS	Sn	04 00 26.0	-0.2
WHP	Taichung City	1.12	241	P	Pn	04 00 10.8	+0.8
WHP				eS	Sn	04 00 26.1	-0.3
ESL	Shilin	1.15	208	eP	Pn	04 00 09.1	-1.1
ESL				eS	Sn	04 00 25.1	-1.7
NMLH	Miaoli	1.16	255	P	Pn	04 00 10.0	-0.3
NMLH				S	Sn	04 00 26.9	0.0
OWD	Renai	1.17	221	P	Pn	04 00 11.2	+0.7
OWD				iS	Sn	04 00 26.8	-0.5
WUSB	Renai	1.18	225	eP	Pn	04 00 11.4	+0.8
WUSB				S	Sn	04 00 27.7	+0.2
TEGC	Jichi Village	1.21	201	eP	Pn	04 00 11.0	+0.1
TEGC				eS	Sn	04 00 28.3	+0.4
TWQ1	Liyutan	1.23	247	eP	Pn	04 00 12.0	+0.8
TWQ1				eS	Sn	04 00 28.2	-0.3
WARBT	Fenglin Townsh	1.25	208	eP	Pn	04 00 10.2	-1.2
WARBT				eS	Sn	04 00 26.8	-2.2
WCS	Beigang Elemen	1.27	233	eP	Pn	04 00 11.9	+0.3
WCS				S	Sn	04 00 29.5	+0.2
VWDT	VWDT	1.34	217	eP	Pn	04 00 13.0	+0.5
VWDT				S	Sn	04 00 30.7	0.0
WDJ	Dajia District	1.35	249	eP	Pn	04 00 13.8	+1.3
WDJ				eS	Sn	04 00 31.2	+0.3
SMLT	Sun Moon Lake	1.39	227	eP	Pn	04 00 14.1	+0.9
SMLT				eS	Sn	04 00 33.3	+1.2
TCU	Taichung	1.40	241	eP	Pn	04 00 13.3	+0.1
TCU				eS	Sn	04 00 32.1	0.0
TYC	Yuchr	1.41	229	P	Pn	04 00 13.6	+0.3
TYC				eS	Sn	04 00 33.2	+1.0
SSLB	Suanglung	1.43	223	eP	Pn	04 00 14.4	+0.9
SSLB				S	Sn	04 00 33.2	+0.5
HGSD	Ruisui	1.45	202	P	Pn	04 00 14.0	+0.2
HGSD				eS	Sn	04 00 33.2	+0.2
EHY	Hungye	1.47	206	eP	Pn	04 00 13.8	-0.2
EHYH	Wanrong	1.47	205	eP	Pn	04 00 13.2	-0.9
WCHH	Zhanghua	1.53	241	eP	Pn	04 00 15.0	+0.2
WCHH				eS	Sn	04 00 34.6	-0.3
WNT	Mingjian	1.55	232	eP	Pn	04 00 15.8	+0.9
WNT				eS	Sn	04 00 35.4	+0.2
WHYT	Xinyi Township	1.56	223	eP	Pn	04 00 16.2	+1.0
WHYT				eS	Sn	04 00 36.5	+1.0
YULB	Yu-li	1.58	205	eP	Pn	04 00 14.6	-0.9
YULB				eS	Sn	04 00 33.8	-2.2
ECBN	Changbin	1.60	199	eP	Pn	04 00 15.1	-0.6
TWF1	Yuli	1.62	204	eP	Pn	04 00 15.5	-0.4
TWF1				eS	Sn	04 00 36.6	-0.3
ALS	Alishan	1.72	220	P	Pn	04 00 18.8	+1.3
ALS				eS	Sn	04 00 40.3	+0.6
CHKH	Chenggong	1.73	199	eP	Pn	04 00 17.1	-0.2
CHKH				eS	Sn	04 00 37.2	-2.2
CHN5	Tsauling	1.74	225	eP	Pn	04 00 18.3	+0.8
CHN5				eS	Sn	04 00 40.1	+0.4
FULB	Fuli	1.76	202	eP	Pn	04 00 18.0	+0.3
FULB				S	Sn	04 00 40.4	+0.3
WDLH	Douliu	1.77	230	eP	Pn	04 00 18.3	+0.5
WDLH				eS	Sn	04 00 41.4	+1.2
CHKT	Chengkung	1.83	199	eP	Pn	04 00 19.0	+0.5
CHKT				eS	Sn	04 00 39.4	-2.2
EHD	Haiduan	1.84	204	eP	Pn	04 00 18.6	-0.1
EHD				eS	Sn	04 00 41.5	-0.4
ELDTW	Lidau	1.88	209	eP	Pn	04 00 18.6	-0.7
ELDTW				eS	Sn	04 00 43.0	0.0
WCKO	Fanlu	1.90	223	eP	Pn	04 00 19.6	+0.1
WCKO				eS	Sn	04 00 44.1	+0.8
JKRS	Kuro-shima	1.91	108	P	Pn	04 00 20.2	+0.6
JKRS				eS	Sn	04 00 43.4	0.0
CHN4	Tsaushan	1.97	222	eP	Pn	04 00 20.7	+0.3
CHN4				eS	Sn	04 00 45.1	+0.2
CHY	Chiayi	1.97	228	eP	Pn	04 00 20.6	+0.2
CHY				eS	Sn	04 00 45.5	+0.6
TPUB	Ta-pu	1.99	220	eP	Pn	04 00 20.6	0.0
TPUB				eS	Sn	04 00 45.5	+0.2
JIJ	Ishigaki jima	1.99	103	P	Pn	04 00 20.7	+0.1
JIJ				eS	Sn	04 00 44.4	-0.9
STYH	Taoyuan	2.01	215	eP	Pn	04 00 21.2	+0.3
STYH				eS	Sn	04 00 47.5	+1.7
WSF	Szhu	2.03	234	eP	Pn	04 00 21.7	+0.6
WSF				eS	Sn	04 00 46.0	-0.2
WTP	Ta-pu	2.04	219	eP	Pn	04 00 21.5	+0.2
WTP				eS	Sn	04 00 46.8	+0.3
WSL	Shuilin Townsh	2.09	232	eP	Pn	04 00 22.4	+0.5
WSL				eS	Sn	04 00 47.7	-0.1
TWK	Hsinying	2.10	222	eP	Pn	04 00 22.6	+0.5
CHN1	Nanshi	2.14	220	eP	Pn	04 00 23.1	+0.5
CHN1				eS	Sn	04 00 49.2	+0.5
SGST	Jiashian	2.19	217	eP	Pn	04 00 22.8	-0.4
SGST				eS	Sn	04 00 49.9	0.0
TWG	Pinlang	2.19	204	eP	Pn	04 00 23.4	+0.2
TWG				eS	Sn	04 00 48.3	-1.6
TWGBT	Beinan	2.19	203	eP	Pn	04 00 23.2	0.0
TWGBT				eS	Sn	04 00 48.4	-1.5
VWUC	VWUC	2.34	274	eP	Pn	04 00 25.1	-0.1
VWUC				eS	Sn	04 00 51.4	-2.1
TSCK	Chigu Township	2.44	227	eP	Pn	04 00 26.7	+0.2
JTJ	Tarama	2.45	94	P	Pn	04 00 27.6	+1.0
JTJ				eS	Sn	04 00 56.6	+0.6
PHUB	P'eng-hu	2.59	240	eP	Pn	04 00 30.0	+1.5
PHUB				eS	Sn	04 00 57.8	-1.7
PTMZ	Houxiangcun	2.64	275	eP	Pn	04 00 28.8	-0.3

*VIE **07** 04:16:01.2±0.5, 50.14N×18.44E, h0km, mb2.4/7, mb2.4/6, ml2.6/9, ml2.6/8, Error ellipse: s-maj=3.7km s-min=2.0km az=66.0 37 km NNE of Ostrava Suspected Mining induced.*
*IPEC **07** 04:16:02.2±0.1, 50.07N×18.45E, h1km, ML2.6/6, Error ellipse: s-maj=1.6km s-min=0.7km az=165.0*
*PRU **07** 04:16:04.6, 50.05N×18.28E, h0km*
ISC 07 04:16:01.7±0.8, 50.07N±0.03×18.43E±0.02, h0km, n37, σ0.89/64, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAC	Raciborz	0.15	276	ePG	Pg	04 16 06.3	+1.7
RAC				eSG	Sg	04 16 09.7	+3.2
OKC	Ostrava-Krasne	0.29	218	ePG	Pg	04 16 08.4	+1.1
OKC				eSG	Sg	04 16 12.7	+1.7
STEB	Steborice	0.44	253	ePG	Pb	04 16 11.5	-0.9
STEB				eSG	Sg	04 16 16.4	+0.5
	comp=Z,409nm,0.3s						
STEB				AML	AML		
MORC	Moravsky Berou	0.64	243	ePg	Pg	04 16 14.5	+0.5
	baz=63						
MORC				eSg	Sg	04 16 22.6	+0.3
	109nm,0.4s,baz=63						
MORC				AML	AML		
ANAC	Anensky vrch	0.68	271	ePg	Pg	04 16 15.3	+0.7
	baz=90						
ANAC				eSg	Sg	04 16 23.7	+0.3
	133nm,0.4s,baz=90						
ANAC				AML	AML		
LOSC	Losov	0.81	237	ePg	Pb	04 16 18.1	-0.7
	baz=57						
LOSC				eSg	Sg	04 16 28.1	+0.2
	101nm,0.5s,baz=57						
LOSC				AML	AML		
OJC	Ojcow	0.90	80	ePg	Pg	04 16 18.9	0.0
OJC				eSg	Sg	04 16 31.0	+0.5
KRLC	Kraliky	1.06	271	ePG	Pg	04 16 21.8	-0.2
KRLC				eSG	Sg	04 16 35.7	0.0
	comp=Z,118nm,0.6s						
KRLC				AML	AML		
LANS	Liptovska Anna	1.14	143	ePG	Pb	04 16 24.1	-0.2
LANS				eSG	Sg	04 16 37.8	-0.5
LANS				eLG	Lg	04 16 43.7	
JAVC	Velka Javorina	1.30	202	ePg	Pb	04 16 27.0	-0.1
	baz=22						
JAVC	Velka Javorina	1.30	202	ePG	Pb	04 16 27.1	-0.1
NIE	Niedzica	1.38	117	ePg	Pb	04 16 28.5	+0.1
NIE				eSg	Sn	04 16 47.4	+0.2
DPC	Dobruska-Polom	1.38	283	ePG	Pg	04 16 28.1	-0.1
DPC				eSG	Sb	04 16 46.6	-0.1
	comp=Z,86nm,0.5s						
DPC				AML	AML		
VRAC	Vranov	1.41	238	ePg	Pn	04 16 28.5	-0.2
	baz=57						
VRAC				eSg	Sg	04 16 46.9	-0.1
	45nm,0.4s,baz=57						
VRAC				AML	AML		
OSTC	Ostas	1.50	290	ePG	Pn	04 16 29.7	-0.2
OSTC				eSG	Sn	04 16 50.4	+0.2
	comp=Z,41nm,0.7s						
OSTC				AML	AML		
KSP	Ksiaz	1.57	300	ePg	Pn	04 16 30.4	-0.4
KSP				eSg	Sg	04 16 52.5	+0.4
VYHS	Vyhne	1.60	170	ePG	Pn	04 16 31.3	+0.1
VYHS				eSG	Sb	04 16 52.7	-0.1
CHVC	Chvalec	1.61	290	ePG	Pb	04 16 31.8	-0.5
CHVC				eSG	Sn	04 16 52.5	-0.3
	comp=Z,41nm,0.8s						
CHVC				AML	AML		
UPC	Upice	1.61	287	ePG	Pn	04 16 31.3	-0.1
UPC				eSG	Sb	04 16 52.9	-0.3
	comp=Z,52nm,0.6s						
UPC				AML	AML		
KRUC	Moravsky	1.66	234	ePn	Pn	04 16 32.4	+0.3
	baz=52						
KRUC				eSg	Sb	04 16 54.3	-0.3
	44nm,0.6s,baz=52						
KRUC				AML	AML		
MODS	Modra-Piesok	1.85	204	eSN	Sn	04 16 59.3	+0.4
TREC	Trest	2.06	249	ePG	Pb	04 16 39.8	-0.2
TREC				eSG	Sb	04 17 06.6	+0.5
	comp=Z,28nm,0.5s						
TREC				AML	AML		
KECS	Kecovo	2.08	139	ePN	Pn	04 16 38.0	+0.1
KECS				eSN	Sn	04 17 05.2	+0.7
KECS				eLG	Lg	04 17 14.9	
ABNA	Allensteig Bun	2.40	236	ePn	Pb	04 16 44.3	-1.6
	1.5nm,0.1s						
WINA	Alland / Wiene	2.50	219	ePn	Pn	04 16 43.6	0.0
	1.1nm,0.2s						
PRU	Pruhonice	2.51	270	eSG	Sb	04 17 19.5	+0.5
	comp=Z,24nm,0.4s						
PRU				AML	AML		
PVCC	Panska Ves	2.52	282	eSG	Sg	04 17 21.9	-0.6
	comp=Z,41nm,0.4s						
PVCC				AML	AML		
CONA	Conrad Observa	2.73	219	ePn	Pn	04 16 47.3	+0.5
	0.3nm,0.2s						
CONA				Sn	Sn	04 17 21.7	+1.2
	7.5nm,0.5s						
KOLS	Kolonicke sedl	2.75	113	eSN	Sn	04 17 19.5	-1.5
KOLS				eLG	Lg	04 17 40.8	
RONA	Rosalia, Austr	2.75	211	ePn	Pn	04 16 47.3	+0.2
	1.0nm,0.3s						
RONA				eSn	Sn	04 17 21.0	-0.2
	1.8nm,0.3s						
ZVC	Zvikov	2.82	259	ePN	Pb	04 16 51.8	-1.1
ZVC				ePG	Pg	04 16 54.6	-1.1
CKRC	Cesky Krumlov	2.96	247	eSG	Sg	04 17 35.2	-1.6
	comp=Z,14nm,0.4s						
CKRC				AML	AML		
HSKC	Hora Svate Kat	3.25	282	ePG	Pb	04 17 01.5	+1.3
HSKC				eSG	Sg	04 17 44.7	-1.2
KHC	Kasperske Hory	3.29	255	ePN	Pn	04 16 54.5	0.0
KHC				ePG	Pb	04 17 02.1	+1.1
KHC				eSG	Sg	04 17 45.5	-1.9
	comp=Z,21nm,0.6s						
KHC				AML	AML		
ARSA	Arzberg	3.41	215	ePn	Pn	04 16 57.1	+0.9
	1.1nm,0.6s						
MOA	Molln	3.53	233	ePn	Pn	04 16 57.4	-0.3
	0.2nm,0.2s						
MOA				eSg	Sg	04 17 52.8	-2.2
	16nm,0.5s,SNR=42						
NKC	Novy Kostel	3.85	275	eSG	Sg	04 18 04.4	-0.9
	comp=Z,15nm,0.5s						
NKC				AML	AML		

IDC 07 04:16:27.8±4.7, 17.58S×67.04E, h0km, mb3.8/5, mbtmp3.8/5, MS3.8/2, Error ellipse: s-maj=131.4km s-min=35.7km az=63.0, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H08S1	Diego Carcia H	11.21	29	T	T	04 30 45.8	
	baz=211,slow=75,SNR=69						
H08S2	Diego Garcia H	11.22	29	T	T	04 30 45.1	
	baz=211,slow=75,SNR=83						
H08S3	Diego Garcia H	11.23	29	T	T	04 30 54.1	
	baz=211,slow=75,SNR=864						
H04N2	CROZET ISLANDS	31.18	201	T	T	04 55 24.7	
	baz=28,slow=74,SNR=90						
H04N1	CROZET ISLANDS	31.19	201	T	T	04 55 25.7	
	baz=28,slow=74,SNR=123						
H04N3	CROZET ISLANDS	31.20	201	T	T	04 55 24.5	
	baz=28,slow=74,SNR=110						
H01W3	Cape Leeuwin H	45.19	122	T	T	05 13 56.9	
	baz=280,slow=75,SNR=383						
H01W2	Cape Leeuwin H	45.19	122	T	T	05 14 03.3	
	baz=280,slow=75,SNR=347						
H01W1	Cape Leeuwin H	45.20	122	T	T	05 14 04.5	
	baz=280,slow=75,SNR=376						
CMAR	Chiang Mai Arr	47.61	43	P	P	04 25 05.1	-0.7
	1.7nm,0.3s,baz=220,slow=8.0,SNR=5.1 1.7nm,0.3s						
MAW	Mawson	50.07	182	LR	LR	04 42 21.4	
	comp=Z,46nm,18.7s,baz=352,slow=31						
ASAR	Alice Springs	62.39	108	P	P	04 26 52.9	0.0
	0.6nm,0.8s,baz=268,slow=6.9,SNR=7.3 0.6nm,0.8s						
WRA	Warramunga Arr	63.38	104	P	P	04 26 59.4	-0.1
	1.0nm,0.9s,baz=261,slow=6.3,SNR=7.1 1.0nm,0.9s						
KURBB	Kurchatov Arra	68.66	8	P	P	04 27 31.5	-1.2
	0.3nm,0.3s,baz=204,slow=5.8,SNR=1.7 0.3nm,0.3s						
SONM	Songino Array	74.03	26	P	P	04 28 07.4	+1.9
	0.2nm,0.3s,baz=206,slow=9.6,SNR=2.1 0.2nm,0.3s						
PMSA	Palmer Station	89.85	199	LR	LR	05 02 30.4	
	comp=Z,92nm,20.1s,baz=74,slow=31						

*CATAC **07** 04:28:34.5±0.4, 13°N±4°×8°8W±°, h34km±4km, M3.8/23, MLv3.8/23, Error ellipse: s-maj=8.2km s-min=2.2km az=23.6, confirmed*
*SNET **07** 04:28:35.4±2.8, 12°81N×88°02W, h60km, ML3.6, Presumed earthquake*
ISC 07 04:28:34.9±1.3, 12.79N±0.07×88.03W±0.04, h71km±11km, n38, σ0.87/59, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
INTP	Intipuca	0.41	357	iP	Pn	04 28 46.1	-0.9
INTP				eS	Sn	04 28 55.5	-0.4
JUCU	Jucuarįn	0.51	336	iP	Pn	04 28 47.0	-1.0
CNCH	Conchagua	0.52	21	P	Pn	04 28 47.3	-0.8
CNCH				S	Sn	04 28 59.2	+1.3
CNCH	Conchagua	0.52	21	iP	Pn	04 28 47.4	-0.8
CNCH				eS	Sn	04 29 00.9	+3.0
LCND	La Caada	0.54	15	P	Pn	04 28 47.5	-0.7
POTN	Potosi Cosigui	0.55	67	P	Pn	04 28 47.8	-0.6
POTN				S	Sn	04 28 58.7	+0.6
RANC	El Ranchito	0.69	339	P	Pn	04 28 49.1	-0.9
RANC				S	Sn	04 29 02.3	+1.2
PACA	Pacayal	0.74	337	P	Pn	04 28 49.6	-0.8
PACA				S	Sn	04 29 02.1	+0.2
ALJI	Alcalda de J	0.75	316	P	Pn	04 28 49.8	-0.6
ALJI	Alcalda de J	0.75	316	eP	Pn	04 28 49.6	-0.8
ALJI				eS	Sn	04 29 02.2	+0.2
CRIN	San Cristobal	0.96	95	P	Pn	04 28 53.1	+0.1
CRIN				S	Sn	04 29 07.9	+1.4
TECO	Alcaldia de Te	1.04	316	P	Pn	04 28 53.1	-0.9
TECO				S	Sn	04 29 07.7	-0.6
QUEN	Al S del Volca	1.17	99	P	Pn	04 28 55.0	-0.6
QUEN				S	Sn	04 29 11.3	+0.2
PACN	Al O del Volca	1.24	103	P	Pn	04 28 55.1	-1.4
PACN				S	Sn	04 29 12.9	+0.2
PLRN	Geotermica Pol	1.25	99	P	Pn	04 28 55.8	-0.8
PLRN				S	Sn	04 29 13.1	+0.2
PAVA	Las Pavas	1.28	316	P	Pn	04 28 56.5	-0.6
PAVA				S	Sn	04 29 14.5	+0.8
LOMA	Loma Larga

*THE **07** 04:53:40.7, 34˚N±5˚×2˚6E±˚, h23km±18km, M3.0/7, MLh3.0/7*

*ATH **07** 04:53:40.5, 34˚26N×25˚62E, h11km±3km, ML3.0/6, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*

ISC 07 04:53:37.5±1.5, 34°09N±0'06×25°58E±0'04, h16km±11km, n21, σ0s58/32, Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time			Res
				Op	ISC	h	m	s	ISC
SIVA	**Sivas**	**1.12**	**326**	P	**Pg**	**04**	**54**	**00.0**	**+0.7**
SIVA				AML	AML				
SIVA	**Sivas**	**1.12**	**326**	P	**Pg**	**04**	**54**	**00.1**	**+0.9**
SIVA				AML	AML				
ZKR	**Zakros**	**1.15**	**27**	P	**Pg**	**04**	**53**	**59.5**	**-0.4**
ZKR				S	**Sb**	**04**	**54**	**12.8**	**-1.0**
ZKR				AML	AML				
IDI	**Anoyia**	**1.33**	**335**	P	**Pb**	**04**	**54**	**02.1**	**0.0**
IDI				AML	AML				
IDI	**Anoyia**	**1.33**	**335**	P	**Pg**	**04**	**54**	**04.1**	**+1.0**
IDI				S	**Sn**	**04**	**54**	**18.9**	**0.0**
GVD	**Gavdhos**	**1.44**	**302**	P	**Pg**	**04**	**54**	**04.7**	**-0.6**
GVD				S	**Sg**	**04**	**54**	**23.6**	**-0.5**
GVD				AML	AML				
GVD	**Gavdhos**	**1.44**	**302**	P	**Pg**	**04**	**54**	**05.6**	**+0.3**
GVDS	**Gavdos**	**1.46**	**301**	P	**Pg**	**04**	**54**	**05.3**	**-0.4**
GVDS				AML	AML				
GVDS	**Gavdos**	**1.46**	**301**	P	**Pg**	**04**	**54**	**06.4**	**+0.7**
GVDS				AML	AML				
VAM	**Vamos**	**1.74**	**320**	P	**Pb**	**04**	**54**	**08.5**	**-0.6**
VAM				S	**Sb**	**04**	**54**	**30.0**	**-0.7**
VAM				AML	AML				
KARP	**Karpathos**	**1.96**	**41**	P	**Pn**	**04**	**54**	**11.0**	**+1.0**
KARP				S	**Sn**	**04**	**54**	**34.2**	**-0.1**
KARP				AML	AML				
KARP	**Karpathos**	**1.96**	**41**	P	**Pb**	**04**	**54**	**12.8**	**0.0**
KARP				AML	AML				
THERA	**Ancient Thera,**	**2.28**	**358**	P	**Pn**	**04**	**54**	**15.1**	**+0.7**
THERA				S	**Sn**	**04**	**54**	**42.0**	**-0.2**
AMAZ	**Amatzia**	**8.26**	**105**	P	**Pn**	**04**	**55**	**36.8**	**+0.2**
AMAZ				S	**Sn**	**04**	**57**	**09.2**	**-0.5**
MMLI	**Mount Malkishu**	**8.41**	**99**	P	**Pn**	**04**	**55**	**38.3**	**-0.4**
GEM	**Giv'at Ha'Em**	**8.45**	**93**	P	**Pn**	**04**	**55**	**38.9**	**-0.4**
RMNI	**Mount Ramon**	**8.51**	**112**	P	**Pn**	**04**	**55**	**40.4**	**+0.2**
RMNI				S	**Sn**	**04**	**57**	**17.0**	**+1.1**
MSBI	**Mazada**	**8.69**	**106**	P	**Pn**	**04**	**55**	**42.2**	**-0.3**
ZFRI	**Zfri**	**8.85**	**111**	P	**Pn**	**04**	**55**	**44.8**	**0.0**
ZFRI				S	**Sn**	**04**	**57**	**23.9**	**-0.3**
HRFI	**Mount Harif**	**8.98**	**114**	P	**Pn**	**04**	**55**	**47.0**	**+0.4**
HRFI				S	**Sn**	**04**	**57**	**27.9**	**+0.5**
EIL	**Elat**	**9.10**	**116**	P	**Pn**	**04**	**55**	**48.6**	**+0.4**
EIL				S	**Sn**	**04**	**57**	**30.7**	**+0.4**

*IDC **07** 05:18:58.7±0.8, 7.67N×83.01W, h0km, mb3.9/13, mbtmp4.0/15, ML3.8/3, MS3.3/5, Error ellipse: s-maj=32.7km s-min=13.9km az=44.0*

*UCR **07** 05:18:59.6±0.5, 7.71N×83.10W, h4km±7km, MW4.9, Presumed earthquake*

*CATAC **07** 05:19:00.4±1.2, 8˚N±8˚×8˚W±˚, h3km±5km, M4.5/13, mb4.5/2, mB5.1/1, MLv4.5/13, Mw(mB)4.4/1, Error ellipse: s-maj=17.0km s-min=6.1km az=16.6, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_T3.00; $M_{\theta\theta}$-2.93; $M_{\phi\phi}$-0.07; M_{rr}0.57; $M_{r\theta}$0.19; $M_{r\phi}$-0.51; Fault plane solution: M_o3.06713×10^{15} NP1:φ102.14937°, δ51.34381°, λ100.59876°. NP2:φ265.47296°, δ39.86244°, λ77.05037°. Principal axes: T 3.1300, Plg79.8846°, Azm59.9251°; N -0.1299, Plg8.2581°, Azm275.4826°; P -3.0001, Plg5.8010°, Azm184.6377°; confirmed*

*UPA **07** 05:19:01.1±1.1, 7.78N×83.10W, h15km±2km, MW4.7, Presumed earthquake*

*NEIC **07** 05:19:03.1±1.4, 7.91N±0.04×83.03W±0.04, h13km±5km, mb4.6/20, Error ellipse: s-maj=6.0km s-min=5.0km az=204.0*

ISC 07 05:18:59.9±1.5, 7.77N±0.04×83.07W±0.03, h5km±9km, n150, σ1s07/199, mb4.2/18, MS3.3/3, 16C-5D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time			Res
				Op	ISC	h	m	s	ISC
LIMO3	**Limones**	**0.38**	**32**	*eP*	**Pb**	**05**	**19**	**09.7**	**+0.5**
LIMO3				*eS*	**Sb**	**05**	**19**	**15.7**	**+0.3**
PTPA	**Petro Terminal**	**0.47**	**25**	*eP*	**Pb**	**05**	**19**	**10.9**	**+0.3**
PTPA				*eS*	**Sb**	**05**	**19**	**19.3**	**+1.5**
PTPM	**Petroterminale**	**0.47**	**24**	*iP*	**Pb**	**05**	**19**	**11.0**	**+0.4**
PTPM				*eS*	**Sb**	**05**	**19**	**18.4**	**+0.6**
CCOL	**Caracol de Cor**	**0.64**	**8**	*iP*	**Pb**	**05**	**19**	**13.7**	**+0.2**
CCOL				*eS*	**Sb**	**05**	**19**	**22.6**	**-0.1**
PIRO	**Carate, Puerto**	**0.68**	**337**	P	**Pb**	**05**	**19**	**14.2**	**-0.1**
PIRO	**Carate, Puerto**	**0.68**	**337**	Pg	**Pb**	**05**	**19**	**13.8**	**-0.4**
PIRO				Sg	**Sb**	**05**	**19**	**23.1**	**-0.9**
PIRO	**Carate, Puerto**	**0.68**	**337**	*eP*	**Pb**	**05**	**19**	**13.8**	**-0.4**
PIRO				*eS*	**Sb**	**05**	**19**	**24.4**	**+0.4**
PIRO	**Carate, Puerto**	**0.68**	**337**	*eP*	**Pb**	**05**	**19**	**13.9**	**-0.3**
PIRO				*eS*	**Sb**	**05**	**19**	**23.7**	**-0.3**
CDITO	**Canoas**	**0.82**	**14**	P	**Pb**	**05**	**19**	**16.5**	**-0.1**
CDITO				S	**Sn**	**05**	**19**	**29.2**	**-1.3**
CDITO	**Canoas**	**0.82**	**14**	*eP*	**Pb**	**05**	**19**	**16.3**	**-0.3**
CDITO				*eS*	**Sb**	**05**	**19**	**28.0**	**+0.1**
FITO	**Golfito**	**0.85**	**354**	*eP*	**Pg**	**05**	**19**	**16.4**	**+0.2**
FITO				*eS*	**Sb**	**05**	**19**	**28.7**	**-0.2**
FITO	**Golfito**	**0.85**	**354**	*eP*	**Pg**	**05**	**19**	**16.4**	**+0.2**
FITO				*eS*	**Sb**	**05**	**19**	**29.1**	**+0.2**
BAGA3	**Bagala, Chiriq**	**0.87**	**38**	*eP*	**Pb**	**05**	**19**	**17.7**	**+0.2**
BAGA3				*eS*	**Sb**	**05**	**19**	**29.7**	**+0.2**
NELY	**Ciudad Neily**	**0.88**	**8**	*eP*	**Pb**	**05**	**19**	**17.4**	**-0.3**
NELY	**Ciudad Neily**	**0.88**	**8**	*eP*	**Pb**	**05**	**19**	**17.6**	**0.0**
NELY				*eS*	**Sn**	**05**	**19**	**31.2**	**-0.8**
DVD	**David**	**0.90**	**43**	*eP*	**Pg**	**05**	**19**	**17.6**	**+0.5**
DVD				*eS*	**Sb**	**05**	**19**	**30.4**	**+0.4**
LOMA3	**Las Lomas, Chi**	**0.94**	**46**	*iP*	**Pg**	**05**	**19**	**18.2**	**+0.4**
LOMA3				*eS*	**Sb**	**05**	**19**	**31.6**	**+0.3**
BGUAL	**Bijagual, Pana**	**1.03**	**45**	*eP*	**Pg**	**05**	**19**	**19.7**	**0.0**
BGUAL	**Bijagual, Pana**	**1.03**	**45**	*iP*	**Pg**	**05**	**19**	**19.7**	**0.0**
BGUAL				*eS*	**Sb**	**05**	**19**	**34.5**	**+0.5**
MLIR3	**Monte Lirio, C**	**1.04**	**13**	*eP*	**Pb**	**05**	**19**	**20.9**	**+0.4**
MLIR3				*eS*	**Sb**	**05**	**19**	**33.5**	**-0.9**
VITO	**San Vito**	**1.04**	**5**	*eP*	**Pb**	**05**	**19**	**20.5**	**0.0**
VITO	**San Vito**	**1.04**	**5**	*eP*	**Pn**	**05**	**19**	**21.1**	**-0.1**
VITO				*eS*	**Sn**	**05**	**19**	**36.4**	**+0.1**
ISECA	**Islas Secas**	**1.05**	**78**	*eS*	**Sn**	**05**	**19**	**37.3**	**+1.2**
PTAR3	**Potrerillos Ar**	**1.07**	**32**	*eP*	**Pg**	**05**	**19**	**20.7**	**+0.1**
PTAR3				*eS*	**Sb**	**05**	**19**	**35.8**	**+0.4**
BRU2	**Volcan**	**1.08**	**20**	P	**Pb**	**05**	**19**	**21.1**	**-0.1**
BRU2				S	**Sn**	**05**	**19**	**37.8**	**+0.5**
BRU2	**Volcan**	**1.08**	**20**		**Pg**	**05**	**19**	**20.5**	**-0.2**
BRU2				Sg	**Sg**	**05**	**19**	**32.7**	**-2.0**
BRU2	**Volcan**	**1.08**	**20**	*eP*	**Pg**	**05**	**19**	**20.8**	**+0.1**
BRU2	**Volcan**	**1.08**	**20**	*iP*	**Pg**	**05**	**19**	**21.0**	**-0.1**
BRU2				*eS*	**Sb**	**05**	**19**	**35.9**	**+0.2**
SCLRA	**Santa Clara, W**	**1.09**	**15**	*eP*	**Pb**	**05**	**19**	**21.3**	**0.0**
SCLRA	**Santa Clara, W**	**1.09**	**15**	*iP*	**Pb**	**05**	**19**	**21.4**	**+0.1**
SCLRA				*eS*	**Sn**	**05**	**19**	**38.7**	**+1.2**
BQTLY	**Boquete Panama**	**1.15**	**31**	*eP*	**Pg**	**05**	**19**	**21.5**	**-0.4**
BQTLY	**Boquete Panama**	**1.15**	**31**	*iP*	**Pg**	**05**	**19**	**21.6**	**-0.4**
BQTLY				*eS*	**Sn**	**05**	**19**	**38.9**	**-0.1**
BQSF3	**Alto Boquete,**	**1.15**	**33**	*eP*	**Pg**	**05**	**19**	**21.5**	**-0.5**
BQSF3				*eS*	**Sb**	**05**	**19**	**36.9**	**-0.7**
CTCR	**Cotoan**	**1.16**	**15**	*eP*	**Pg**	**05**	**19**	**22.1**	**0.0**
CTCR				*eS*	**Sb**	**05**	**19**	**37.1**	**-0.8**
PSOM3	**Paja de Sombre**	**1.17**	**39**	*eP*	**Pg**	**05**	**19**	**21.6**	**-0.8**
PSOM3				*eS*	**Sb**	**05**	**19**	**37.7**	**-0.4**
LNBQ3	**Los Naranjos,**	**1.19**	**31**	*eP*	**Pg**	**05**	**19**	**22.2**	**-0.5**
LNBQ3				*eS*	**Sb**	**05**	**19**	**38.2**	**-0.5**
EDP2	**Potrero Grande**	**1.24**	**355**	*eP*	**Pg**	**05**	**19**	**23.5**	**-0.2**
FIMO	**Fila Mora**	**1.24**	**347**	*eP*	**Pg**	**05**	**19**	**23.1**	**-0.6**
PANP	**Palmar Norte**	**1.24**	**342**	*eP*	**Pg**	**05**	**19**	**22.8**	**-0.9**
REME3	**Remedios, Chir**	**1.30**	**70**	*eP*	**Pg**	**05**	**19**	**23.5**	**-1.4**
REME3				*eS*	**Sg**	**05**	**19**	**41.6**	**-0.3**
BURE	**Buenos Aires**	**1.42**	**349**	*eP*	**Pn**	**05**	**19**	**26.2**	**-0.1**
RBALA	**Bur**	**1.42**	**39**	*eP*	**Pn**	**05**	**19**	**25.5**	**-0.9**
RBALA	**Bur**	**1.42**	**39**	*eP*	**Pn**	**05**	**19**	**25.7**	**-0.7**
RBALA				*eS*	**Sb**	**05**	**19**	**45.0**	**-0.4**
OCHAL	**Ojochal**	**1.44**	**337**	P	**Pn**	**05**	**19**	**25.9**	**-0.7**
OCHAL				S	**Sn**	**05**	**19**	**46.2**	**+0.4**
PDCAN	**Manzana , Fuen**	**1.45**	**69**	*eP*	**Pn**	**05**	**19**	**26.0**	**-0.9**
PDCAN	**Manzana , Fuen**	**1.45**	**69**	*eP*	**Pn**	**05**	**19**	**27.1**	**+0.3**
PDCAN				*eS*	**Sb**	**05**	**19**	**46.5**	**+0.3**
EDPE	**Pejibaye, P**	**1.47**	**340**	*eP*	**Pn**	**05**	**19**	**26.4**	**-0.6**
PVID3	**Puerto Vidal,**	**1.47**	**79**	*eP*	**Pn**	**05**	**19**	**25.8**	**-1.2**
PVID3				*eS*	**Sb**	**05**	**19**	**45.8**	**-0.9**
CHGR2	**Aguacate**	**1.48**	**38**	*eP*	**Pn**	**05**	**19**	**26.1**	**-1.0**
CHGR2				*eS*	**Sb**	**05**	**19**	**45.5**	**-1.4**
ZEDO	**Perez Zeledon**	**1.69**	**339**	*eP*	**Pb**	**05**	**19**	**30.9**	**-0.6**
CNI2	**El Empalme, Bo**	**1.74**	**20**	*eP*	**Pn**	**05**	**19**	**30.1**	**-0.7**
CNI2				*eS*	**Sn**	**05**	**19**	**51.1**	**-2.3**
CEUA	**Cerro Uatsi, L**	**1.84**	**4**	*eP*	**Pb**	**05**	**19**	**33.8**	**-0.3**
RGM0	**Gandoca**	**1.86**	**14**		**Pn**	**05**	**19**	**33.0**	**+0.6**
RSUS3	**Rio de Jesus,**	**1.90**	**84**	*eP*	**Pn**	**05**	**19**	**32.4**	**-0.5**
RSUS3				*eS*	**Sn**	**05**	**19**	**57.5**	**+0.2**
LAES	**El Progreso Va**	**1.98**	**1**	*eP*	**Pn**	**05**	**19**	**35.0**	**+1.0**
MARI3	**Mariato, Verag**	**2.06**	**93**	*eP*	**Pn**	**05**	**19**	**34.7**	**-0.5**
MARI3				*eS*	**Sn**	**05**	**20**	**01.3**	**0.0**
STIA3	**Santiago, Vera**	**2.10**	**81**	*eP*	**Pn**	**05**	**19**	**36.0**	**+0.3**
STIA3				*eS*	**Sn**	**05**	**20**	**02.2**	**0.0**
SAFE3	**Santa Fe, Vera**	**2.10**	**69**	*eP*	**Pn**	**05**	**19**	**36.4**	**+0.6**
SAFE3				*eS*	**Sn**	**05**	**20**	**01.4**	**-1.0**
VERH	**Veragua Rainfo**	**2.14**	**357**	*eP*	**Pn**	**05**	**19**	**36.8**	**+0.5**
LCR2	**La Lucha 2**	**2.17**	**335**	P	**Pn**	**05**	**19**	**36.9**	**+0.1**
LCR2				S	**Sb**	**05**	**20**	**06.8**	**-0.2**
LCR2	**La Lucha 2**	**2.17**	**335**		**Pn**	**05**	**19**	**36.6**	**-0.2**
LCR2	**La Lucha 2**	**2.17**	**335**	*iP*	**Pn**	**05**	**19**	**36.6**	**-0.2**
LCR2	**La Lucha 2**	**2.17**	**335**	*eP*	**Pn**	**05**	**19**	**36.8**	**+0.1**
LCR2				*eS*	**Sn**	**05**	**20**	**03.4**	**-0.8**
ACOS	**Acosta**	**2.28**	**332**	*eP*	**Pn**	**05**	**19**	**38.0**	**-0.3**
HDC	**Heredia**	**2.44**	**335**		**Pn**	**05**	**19**	**40.9**	**+0.3**
CVTG	**V. Turrialba,**	**2.46**	**344**	*eP*	**Pn**	**05**	**19**	**41.7**	**+1.0**
EGUB	**Earth Gujpi**	**2.48**	**348**		**Pn**	**05**	**19**	**41.9**	**+1.0**
UELA	**Alajuela**	**2.50**	**333**	*eP*	**Pn**	**05**	**19**	**40.2**	**-1.1**
CHIT3	**Chitre**	**2.63**	**86**	*eP*	**Pn**	**05**	**19**	**42.9**	**-0.1**
CHIT3				*eS*	**Sn**	**05**	**20**	**14.8**	**-0.5**
AZU	**Azuero**	**2.77**	**89**	P	**Pn**	**05**	**19**	**44.8**	**0.0**
AZU				S	**Sn**	**05**	**20**	**15.7**	**-3.0**
AZU	**Azuero**	**2.77**	**89**	*eP*	**Pn**	**05**	**19**	**44.9**	**0.0**
AZU				*eS*	**Sn**	**05**	**20**	**17.3**	**-1.4**
PNME	**Penonome**	**2.80**	**75**	P	**Pn**	**05**	**19**	**46.9**	**+1.5**
PNME	**Penonome**	**2.80**	**75**	*eP*	**Pn**	**05**	**19**	**46.2**	**+0.8**
PNME				*eS*	**Sn**	**05**	**20**	**19.2**	**-0.4**
JTS	**Las Juntas de**	**3.12**	**323**	Pn	**Pn**	**05**	**19**	**51.0**	**+1.3**
	95nm,0.3s,baz=141,slow=4.8,SNR=239								
JTS				Sn	**Sn**	**05**	**20**	**27.1**	**-0.3**
	25nm,0.3s,baz=68,slow=24,SNR=7.4 213nm,0.4s								
JTS				AML	AML				
JTS	**Las Juntas de**	**3.12**	**323**	P	**Pn**	**05**	**19**	**51.1**	**+1.3**
JTS	**Las Juntas de**	**3.12**	**323**		**Pn**	**05**	**19**	**49.6**	**-0.2**
JTS	**Las Juntas de**	**3.12**	**323**	P	**Pn**	**05**	**19**	**49.5**	**-0.2**
JTS				S	**Sn**	**05**	**20**	**24.1**	**-3.3**
COVE	**Coope Vega, Sa**	**3.21**	**336**	P	**Pn**	**05**	**19**	**52.7**	**+1.7**
COVE				S	Sn	05	20	03.6	-26
CMARA	**Lajas Hojancha**	**3.23**	**314**	P	**Pn**	**05**	**19**	**51.3**	**+0.1**
CMARA				S	**Sn**	**05**	**20**	**29.1**	**-1.0**
JUD3	**Juan Diaz 3**	**3.41**	**314**	Pn	**Pn**	**05**	**19**	**54.3**	**+0.5**
BCIP	**Isla Barro Col**	**3.48**	**66**	P	**Pn**	**05**	**19**	**57.4**	**+2.7**
BCIP	**Isla Barro Col**	**3.48**	**66**	P	**Pn**	**05**	**19**	**55.4**	**+0.7**
BCIP				S	**Sn**	**05**	**20**	**37.1**	**+0.8**
BCIP	**Isla Barro Col**	**3.48**	**66**	*eP*	**Pn**	**05**	**19**	**55.8**	**+1.0**
BCIP	**Isla Barro Col**	**3.48**	**66**	*eP*	**Pn**	**05**	**19**	**54.9**	**+0.2**
BCIP				*eS*	**Sn**	**05**	**20**	**35.5**	**-0.9**
UPA	**Univ. de Panam**	**3.70**	**71**	P	**Pn**	**05**	**19**	**59.1**	**+1.4**
UPA				S	**Sn**	**05**	**20**	**42.5**	**+0.9**
CARN	**Rivas**	**4.17**	**325**		**Pn**	**05**	**20**	**04.4**	**+0.3**
BLUN	**Bluefields**	**4.26**	**351**	P	**Pn**	**05**	**20**	**04.7**	**-0.8**
ACON	**Acoyapa**	**4.66**	**334**	P	**Pn**	**05**	**20**	**12.9**	**+2.0**
UPD2	**Meteti**	**5.06**	**81**	P	**Pn**	**05**	**20**	**17.4**	**+1.0**
UPD2				S	**Sn**	**05**	**21**	**12.0**	**-3.3**
BOAB	**BOACO BROADBAN**	**5.30**	**331**	P	**Pn**	**05**	**20**	**21.8**	**+2.0**
BOAB	**BOACO BROADBAN**	**5.30**	**331**			**05**	**20**	**20.3**	**+0.5**
MOM3	**MOM3**	**5.81**	**324**	P	**Pn**	**05**	**20**	**28.6**	**+1.9**
SIUN	**Universidad Ur**	**6.14**	**344**	Pn	**Pn**	**05**	**20**	**32.1**	**+0.8**
APAC	**Apartado, Choc**	**6.43**	**88**	P	**Pn**	**05**	**20**	**38.1**	**+2.8**
	19nm,1.0s								
APAC				S	**Sn**	**05**	**21**	**48.3**	**-0.8**
	19nm,1.0s								
CBOC	**Ciudad Bolivar**	**7.26**	**105**	P	**Pn**	**05**	**20**	**46.8**	**0.0**
	8.1nm,0.8s								
CBOC				S	**Sn**	**05**	**22**	**04.8**	**-4.9**
	8.1nm,0.8s								
YOTC	**Yotoco, Valle**	**7.67**	**119**	P	**Pn**	**05**	**20**	**52.9**	**+0.4**
	7.5nm,0.6s								
GUY2C	**Guyana, Caldas**	**8.06**	**108**	P	**Pn**	**05**	**20**	**59.9**	**+1.8**
	13nm,0.7s								
GUY2C				S	Sn	05	22	19.4	-11
	13nm,0.7s								
SJCC	**San Jacinto, C**	**8.08**	**74**	Pn	**Pn**	**05**	**20**	**59.1**	**+1.2**
BBAC	**Balboa, Cauca**	**8.14**	**134**	P	**Pn**	**05**	**21**	**00.1**	**+1.1**
	11nm,0.9s								
POPC	**Popayan, Colom**	**8.22**	**129**	P	**Pn**	**05**	**21**	**02.7**	**+2.7**
	9.3nm,1.0s								
ORTC	**Ortega, Tolima**	**8.68**	**116**	P	**Pn**	**05**	**21**	**06.7**	**+0.5**
	16nm,0.9s								
PRAC	**Prado**	**9.08**	**116**	P	**Pn**	**05**	**21**	**14.6**	**+2.8**
RUSC	**La Rusia**	**10.09**	**100**	Pn	**Pn**	**05**	**21**	**28.2**	**+2.3**
APG	**El Apazote**	**10.21**	**315**	Pn	**Pn**	**05**	**21**	**29.9**	**+2.6**
	0.1nm,0.3s,baz=101,slow=15,SNR=5.2								
APG				AML	AML				
URIC	**Uribia, Colomb**	**11.59**	**69**	Pn	**Pn**	**05**	**21**	**46.3**	**+0.2**
CMIG	**Matias Romero**	**14.79**	**310**	Pn	**Pn**	**05**	**22**	**30.0**	**+0.2**
	0.3nm,0.3s,baz=151,slow=13,SNR=7.1 1.8nm,0.6s								
CMIG				AML	AML				
ATAH	**Atahualpa**	**15.53**	**162**	LR	LR	05	27	59.7	
	comp=Z,207nm,21.5s,baz=350,slow=35								
BANI	**BANI**	**16.26**	**48**		**Pn**	**05**	**22**	**49.1**	**-0.1**
CZSB	**Cruzeiro do Su**	**18.54**	**146**		**Pn**	**05**	**23**	**20.0**	**+2.3**
CZSB				IAmb	IAmb	05	23	26.3	
	comp=Z,31nm,1.2s								
CELP	**Cerrillos**	**19.04**	**56**	P	**P**	**05**	**23**	**23.0**	**0.0**
CELP				IAmb	IAmb	05	23	46.0	
	comp=Z,30nm,1.2s								
ECPR	**Experimental S**	**19.34**	**56**	P	**P**	**05**	**23**	**27.0**	**+0.7**
ECPR				IAmb	IAmb	05	23	55.2	
	comp=Z,56nm,1.4s								
SJG	**San Juan**	**19.41**	**56**	LR	LR	05	30	12.2	
	comp=Z,43nm,19.1s,baz=246,slow=35								
BOAV	**Boa Vista**	**23.07**	**102**	P	**P**	**05**	**24**	**07.1**	**+0.5**
ZAIG	**Zacatecas**	**23.95**	**311**	P	**P**	**05**	**24**	**15.0**	**-0.5**
146A	**Union**	**25.36**	**348**	P	**P**	**05**	**24**	**28.2**	**+0.3**
TKL	**Tuckaleechee C**	**27.76**	**359**	LR	LR	05	34	47.7	
	comp=Z,98nm,19.3s,baz=172,slow=34								
LPAZ	**La Paz**	**28.11**	**148**	P	**P**	**05**	**24**	**52.9**	**-0.6**
	comp=Z,0.8nm,0.7s,baz=338,slow=7.8,SNR=4.6								
LPAZ				LR	LR	05	36	15.2	
	comp=Z,79nm,22.0s,baz=329,slow=37 comp=Z,0.8nm,0.7s								
TXAR	**Lajitas Array**	**28.91**	**321**	P	**P**	**05**	**25**	**00.9**	**+0.9**
	comp=Z,0.8nm,0.9s,baz=134,slow=11,SNR=5.6 comp=Z,0.8nm,0.9s								
LCAR	**Lake Charles**	**29.12**	**346**		**P**	**05**	**25**	**01.6**	**-0.1**
LCAR				IAmb	IAmb	05	25	02.3	
	comp=Z,8.6nm,0.9s								
121A	**Cookes Peak, D**	**33.67**	**320**	P	**P**	**05**	**25**	**43.2**	**+1.1**
121A				IAmb	IAmb	05	25	51.8	
	comp=Z,10nm,1.2s								
319A	**Douglas**	**33.90**	**317**	P	**P**	**05**	**25**	**44.9**	**+0.9**
DUN6	**Lazy B Ranch**	**34.52**	**319**	P	**P**	**05**	**25**	**50.0**	**+0.7**
W18A	**Petrified Fore**	**36.59**	**322**	P	**P**	**05**	**26**	**07.0**	**-0.3**
W18A				IAmb	IAmb	05	26	11.5	
	comp=Z,18nm,1.2s								
SADO	**Sadowa**	**37.01**	**5**	LR	LR	05	41	36.0	
	comp=Z,44nm,19.3s,baz=182,slow=37								
X16A	**Lo Mia Camp, P**	**37.21**	**319**		**P**	**05**	**26**	**14.3**	**+1.8**
PDAR	**Pinedale Array**	**41.93**	**331**	P	**P**	**05**	**26**	**52.3**	**+0.5**
	comp=Z,0.3nm,0.8s,baz=141,slow=8.6,SNR=2.3 comp=Z,0.3nm,0.8s								
NVAR	**Mina Array Bea**	**44.04**	**319**	P	**P**	**05**	**27**	**10.0**	**+1.0**
	comp=Z,0.3nm,0.4s,baz=93,slow=7.4,SNR=4.8 comp=Z,0.3nm,0.4s								
WVOR	**Wild Horse Val**	**46.60**	**324**	P	**P**	**05**	**27**	**29.6**	**+0.5**
PLCA	**Paso Flores**	**49.62**	**168**	P	**P**	**05**	**27**	**51.0**	**-1.4**
	comp=Z,1.8nm,1.0s,baz=328,slow=9.5,SNR=3.2 comp=Z,1.8nm,1.0s								
YKA	**Yellowknife Ar**	**59.26**	**344**	P	**P**	**05**	**29**	**01.7**	**-0.4**
	comp=Z,1.9nm,0.9s,baz=147,slow=6.6,SNR=3.9 comp=Z,1.9nm,0.9s								
M29M	**Somme Creek**	**67.62**	**336**	P	**P**	**05**	**29**	**58.8**	**+1.2**
M29M				IAmb	IAmb	05	30	00.5	
	comp=Z,8.7nm,1.1s								
BCAR	**Beaver Creek A**	**69.27**	**335**	P	**P**	**05**	**30**	**09.7**	**+1.8**
L27K	**Beaver Creek,**	**69.29**	**335**	P	**P**	**05**	**30**	**09.5**	**+1.5**
L27K				IAmb	IAmb	05	30	10.9	
	comp=Z,5.5nm,0.9s								
J25K	**Salcha River,**	**71.35**	**336**	P	**P**	**05**	**30**	**21.6**	**+1.1**
J25K				IAmb	IAmb	05	30	22.7	
	comp=Z,7.6nm,1.2s								
ILAR	**Eielson Array**	**72.02**	**336**	P	**P**	**05**	**30**	**24.9**	**+0.4**
	comp=Z,2.1nm,1.0s,baz=105,slow=3.8,SNR=15 comp=Z,2.1nm,1.0s								
ILAR	**Eielson Array**	**72.02**	**336**	P	**P**	**05**	**30**	**25.0**	**+0.5**
RND	**Reindeer**	**72.37**	**334**		**P**	**05**	**30**	**28.0**	**+1.2**
ESDC	**Sonseca Array**	**76.70**	**51**	P	**P**	**05**	**30**	**52.6**	**+0.2**
	comp=Z,2.5nm,1.0s,baz=264,slow=5.4,SNR=7.4 comp=Z,2.3nm,1.0s								
DBIC	**Dimbokro**	**77.49**	**85**	P	**P**	**05**	**30**	**57.2**	**0.0**
	comp=Z,10nm,1.1s,baz=299,slow=6.9,SNR=3.4 comp=Z,10nm,1.1s								
EKA	**Eskdalemuir Ar**	**77.91**	**35**	P	**P**	**05**	**30**	**58.1**	**-0.6**
	comp=Z,0.5nm,0.5s,baz=260,slow=5.0,SNR=4.3 comp=Z,0.5nm,0.5s								
TORD	**Torodi Ar. Bea**	**83.19**	**78**	P	**P**	**05**	**31**	**28.1**	**+0.1**
	comp=Z,0.9nm,0.8s,baz=246,slow=6.2,SNR=3.6 comp=Z,0.9nm,0.8s								
NOA	**NORSAR Array B**	**85.33**	**29**	P	**P**	**05**	**31**	**36.5**	**-1.4**
	comp=Z,2.0nm,1.0s,baz=275,slow=5.2,SNR=3.4 comp=Z,2.0nm,1.0s								
GERES	**GERESS Array B**	**88.64**	**41**	P	**P**	**05**	**31**	**54.6**	**+0.3**
	comp=Z,0.9nm,0.9s,baz=224,slow=3.7,SNR=5.6 comp=Z,0.9nm,0.9s								
SONM	**Songino Array**	**124.00**	**352**	PKP	**PKPdf**	**05**	**37**	**57.4**	**-2.3**
	comp=Z,0.3nm,0.4s,baz=124,slow=0.5,SNR=4.0								
KSRS	**Korea Array**	**126.49**	**329**	PKP	**PKPdf**	**05**	**38**	**04.2**	**-0.3**
	comp=Z,1.3nm,0.6s,baz=315,slow=0.9,SNR=6.2								
HHC	**Hu-ho-hao-te**	**129.78**	**346**	*eP*	**PKPdf**	**05**	**38**	**09.4**	**-1.5**
NJ2	**Nanjing**	**135.

	comp=Z,16nm,0.8s							
TULEG	**Thule**	**13.42**	**291**	Pn		**Pn**	**05 29 25.2**	**-0.9**
POIN	**Pond Inlet**	**17.95**	**289**	Pn		**Pn**	**05 30 22.6**	**-2.5**
POIN				IAmb		IAmb	05 30 34.3	
	comp=Z,12nm,1.2s							
SFJD	**Kangerlussuaq**	**18.28**	**253**	P		**Pn**	**05 30 26.4**	**-2.8**
	comp=Z,2.8nm,0.3s,baz=19,slow=12,SNR=8.3							
SFJD				LR		LR	05 38 06.1	
	comp=Z,121nm,18.1s,baz=38,slow=39							
SFJD	**Kangerlussuaq**	**18.28**	**253**	Pn		**Pn**	**05 30 26.1**	**-3.1**
RES	**Resolute Bay**	**18.87**	**305**	LR		LR	05 37 15.0	
	comp=Z,67nm,18.4s,baz=24,slow=35							
NOA	**NORSAR Array B**	**19.49**	**162**	LR		LR	05 36 54.2	
	comp=Z,24nm,21.0s,baz=340,slow=32							
FIA1	**FINESS Array S**	**20.30**	**141**	P		Pn	05 30 52.7	-0.8
FIA0	**FINESS Array S**	**20.30**	**141**	P		Pn	05 30 54.3	+0.8
	baz=348,slow=11							
FIA0	**FINESS Array S**	**20.30**	**141**	P		Pn	05 30 54.3	+0.8
FINES	**FINESS Array B**	**20.30**	**141**	P		Pn	05 30 54.2	+0.8
	comp=Z,3.6nm,0.8s,baz=350,slow=10,SNR=13							
FINES				LR		LR	05 39 32.7	
	comp=Z,188nm,18.1s,baz=300,slow=39							
	comp=Z,3.6nm,0.8s							
FINES	**FINESS Array B**	**20.30**	**141**	P		Pn	05 30 53.4	-0.1
HFS	**Hagfors**	**20.53**	**159**	LR		LR	05 37 14.6	
	comp=Z,129nm,20.2s,baz=328,slow=32							
KLMR	**Klimovskoe**	**22.58**	**124**	*eP*		**P**	**05 31 17.2**	**+1.3**
	comp=Z,16nm,1.3s							
NRIK	**Noril'sk**	**22.70**	**67**	P		**P**	**05 31 20.7**	**+3.6**
	comp=Z,6.6nm,0.8s,baz=346,slow=10.0,SNR=6.5							
NRIK				LR		LR	05 41 02.4	
	comp=Z,69nm,18.9s,baz=331,slow=39							
	comp=Z,6.6nm,0.8s							
NRIK	**Noril'sk**	**22.70**	**67**	P		**P**	**05 31 18.2**	**+1.1**
NRIK				IAmb		IAmb	05 31 25.2	
	comp=Z,8.2nm,0.8s							
A36M	**Sachs Harbour**	**25.09**	**323**	P		**P**	**05 31 42.2**	**+2.2**
A36M				IAmb		IAmb	05 31 59.2	
	comp=Z,4.2nm,0.8s							
INK	**Inuvik**	**29.46**	**326**	LR		LR	05 47 04.4	
	comp=Z,45nm,19.1s,baz=5.5,slow=42							
INK	**Inuvik**	**29.46**	**326**	P		**P**	**05 32 20.2**	**+1.0**
E29M	**Blow River**	**29.78**	**329**	P		**P**	**05 32 24.4**	**+2.3**
D23K	**Nanushuk River**	**30.17**	**339**	P		**P**	**05 32 28.4**	**+2.8**
D23K				IAmb		IAmb	05 33 03.0	
	comp=Z,5.2nm,1.4s							
TOLK	**Toolik Lake Re**	**30.42**	**338**	P		**P**	**05 32 29.8**	**+2.0**
TOLK				IAmb		IAmb	05 33 11.3	
	comp=Z,5.3nm,1.3s							
E24K	**Your Creek**	**30.91**	**337**	P		**P**	**05 32 33.8**	**+1.7**
F26K	**Sheenjek River**	**30.97**	**334**	P		**P**	**05 32 34.8**	**+2.1**
F26K				IAmb		IAmb	05 32 36.8	
	comp=Z,3.6nm,1.4s							
AKASG	**Malin Array Be**	**31.20**	**142**	LR		LR	05 44 40.4	
	comp=Z,92nm,21.7s,baz=35,slow=35							
BMAR	**Burnt Mountain**	**31.27**	**334**	P		**P**	**05 32 36.9**	**+1.6**
VRAC	**Vranov**	**31.50**	**158**	LR		LR	05 43 48.9	
	comp=Z,114nm,18.4s,baz=344,slow=33							
GERES	**GERESS Array B**	**31.79**	**162**	P		P	05 32 45.3	+5.2
	comp=Z,0.2nm,0.4s,baz=347,slow=5.5,SNR=4.1							
	comp=Z,0.2nm,0.4s							
GERES	**GERESS Array B**	**31.79**	**162**	P		**P**	**05 32 40.8**	**+0.7**
H29M	**Whitestone**	**31.94**	**329**	P		**P**	**05 32 42.9**	**+1.7**
H29M				IAmb		IAmb	05 32 55.7	
	comp=Z,3.9nm,1.2s							
DAVOX	**Davos/Dischmat**	**33.67**	**167**	LR		LR	05 47 28.6	
	comp=Z,62nm,18.4s,baz=360,slow=38							
SENIN	**Lac Senin/Sane**	**33.99**	**170**	P		**P**	**05 33 01.7**	**+2.2**
ILAR	**Eielson Array**	**34.06**	**335**	P		**P**	**05 33 02.3**	**+2.6**
	comp=Z,0.8nm,0.7s,baz=3.5,slow=7.8,SNR=10							
	comp=Z,0.8nm,0.7s							
BCAR	**Beaver Creek A**	**35.34**	**330**	P		**P**	**05 33 13.3**	**+2.5**
ZALV	**Zalesovo Beam**	**36.66**	**81**	P		**P**	**05 33 23.2**	**+1.1**
	comp=Z,1.0nm,0.8s,baz=335,slow=6.6,SNR=4.2							
ZALV				LR		LR	05 50 06.9	
	comp=Z,58nm,19.7s,baz=10.0,slow=39							
	comp=Z,1.0nm,0.8s							
ZALV	**Zalesovo Beam**	**36.66**	**81**	P		**P**	**05 33 23.1**	**+1.0**
KURK	**Kurchatov**	**38.70**	**88**	P		**P**	**05 33 40.6**	**+1.3**
KURK				IAmb		IAmb	05 33 43.1	
	comp=Z,2.4nm,0.8s							
KURBB	**Kurchatov Arra**	**38.77**	**88**	P		**P**	**05 33 41.4**	**+1.4**
	comp=Z,1.7nm,0.6s,baz=344,slow=7.5,SNR=14							
	comp=Z,1.7nm,0.6s							
TLY	**Talaya**	**41.94**	**64**	LR		LR	05 53 18.3	
	comp=Z,44nm,18.6s,baz=348,slow=39							
BRTR	**Keskin Array B**	**42.53**	**140**	LR		LR	05 53 21.6	
	comp=Z,55nm,18.1s,baz=344,slow=38							
MKAR	**Makanchi Array**	**43.12**	**86**	P		**P**	**05 34 18.1**	**+2.2**
	comp=Z,1.8nm,0.7s,baz=344,slow=7.4,SNR=7.8							
	comp=Z,1.8nm,0.7s							
MKAR	**Makanchi Array**	**43.12**	**86**	P		**P**	**05 34 18.3**	**+2.4**
AAK	**Ala-Archa**	**45.81**	**95**	LR		LR	05 56 08.7	
	comp=Z,61nm,19.1s,baz=340,slow=39							
SONM	**Songino Array**	**46.11**	**63**	P		**P**	**05 34 41.9**	**+2.1**
	comp=Z,0.4nm,0.6s,baz=0.0,slow=5.0,SNR=2.8							
SONM				LR		LR	05 55 32.7	
	comp=Z,110nm,19.4s,baz=356,slow=38							
	comp=Z,0.4nm,0.6s							
EIL	**Elat**	**52.62**	**140**	LR		LR	06 00 29.1	
	comp=Z,32nm,18.2s,baz=315,slow=39							
TXAR	**Lajitas Array**	**63.48**	**288**	P		**P**	**05 36 47.3**	**+1.6**
	comp=Z,0.1nm,0.6s,baz=31,slow=5.7,SNR=3.7							
	comp=Z,0.1nm,0.6s							
TXAR	**Lajitas Array**	**63.48**	**288**	P		**P**	**05 36 45.3**	**-0.4**
SJG	**San Juan**	**68.10**	**249**	LR		LR	06 07 44.3	
	comp=Z,51nm,19.6s,baz=290,slow=36							

*IDC **07** 05:43:12.3±0.9, 14°.79N×104°.97W, h0km, mb4.0/11, mbtmp4.0/12, ML3.2/1, MS4.1/47, Error ellipse: s-maj=36.2km s-min=14.0km az=58.0*

*NEIC **07** 05:43:17.5±2.3, 15°.2N±0°.1×104°.5W±0°.1, h10km±2km, mb4.4/35, Md4.5/37(MEX), Error ellipse: s-maj=22.1km s-min=15.3km az=229.0*

*GCMT **07** 05:43:19.5±0.4, 15°.26N±0°.02×104°.51W±0°.02, h21km±1km, MW4.9/103, Moment Tensor Solution. s23,c31; s103,c146; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr-0.67±.14; Mθθ0.41±.10; Mφφ0.26±.12; Mrθ-0.18±.18; Mθφ-3.11±.09; Mφr0.36±.19; Best double couple: M=3.13300×10^16^ NP1:φs269.00000°, δ84.00000°, λ179.00000°. NP2:φs359.00000°, δ89.00000°, λ6.00000°. Principal axes: T 3.4830, Plg5.0000°, Azm224.0000°; N -0.7000, Plg84.0000°, Azm8.0000°; P -2.7830, Plg4.0000°, Azm134.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*MEX **07** 05:43:21.4±0.3, 15°.44N×104°.09W, h10km, MD4.5, Presumed earthquake*

ISC 07 05:43:16.2±0.6, **15°.25N**±0°.06×**104°.36W**±0°.06, **h10**km, **n134**, σ2**s02**/101, **mb4.3**/16, **MS4.1**/42, **Off coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MMIG	**Aquila**	**3.17**	**18**	*eP*		**Pn**	**05 44 04.7**	**-1.5**
MMIG				*eS*		**Sn**	**05 44 39.2**	**-4.9**
ZIIG	**Zihuatanejo**	**3.63**	**50**	*eP*		**Pn**	**05 44 10.8**	**-1.8**
ZIIG				*eS*		**Sn**	**05 44 52.6**	**-2.9**
CEGR	**Campo Tres**	**4.14**	**7**	*eP*		**Pn**	**05 44 19.2**	**-0.6**
CEGR				*eS*		**Sn**	**05 45 04.6**	**-3.8**
INCO	**Volcan de Coli**	**4.31**	**10**	*eP*		**Pn**	**05 44 22.1**	**-0.2**
INCO				*eS*		**Sn**	**05 45 09.0**	**-3.8**
CAIG	**El Cayaco**	**4.32**	**65**	*eP*		**Pn**	**05 44 20.6**	**-1.4**
CAIG				*eS*		**Sn**	**05 45 10.1**	**-2.5**
DAIG	**Los Arroyos**	**4.86**	**68**	*eP*		**Pn**	**05 44 29.5**	**+0.1**
DAIG				*eS*		**Sn**	**05 45 24.7**	**-1.1**
ARIG	**Puente Sto Nin**	**4.88**	**51**	*eP*		**Pn**	**05 44 29.6**	**-0.2**
ARIG				*eS*		**Sn**	**05 45 22.1**	**-4.4**
CRIG	**Cruz Grande**	**5.24**	**73**	*eP*		**Pn**	**05 44 33.7**	**-1.0**
MEIG	**Mezcala**	**5.27**	**59**	*eP*		**Pn**	**05 44 34.8**	**-0.4**
YELA	**Yelapa**	**5.30**	**349**	*eP*		**Pn**	**05 44 37.7**	**+2.2**
MOIG	**Morelia**	**5.34**	**34**			**Pn**	**05 44 36.9**	**+0.6**
MOIG	**Morelia**	**5.34**	**34**	*eP*		**Pn**	**05 44 37.0**	**+0.6**
PLIG	**Platanillo**	**5.61**	**55**	*eP*		**Pn**	**05 44 39.6**	**-0.2**
PLIG				*eS*		**Sn**	**05 45 39.5**	**-4.8**
TLIG	**Tlapa**	**6.02**	**67**			**Pn**	**05 44 46.6**	**+1.1**
TLIG	**Tlapa**	**6.02**	**67**	*eP*		**Pn**	**05 44 44.8**	**-0.7**
YAIG	**Yautepec**	**6.21**	**54**	*eP*		**Pn**	**05 44 46.8**	**-1.3**
AOVM	**Tlapan**	**6.26**	**50**	*eP*		**Pn**	**05 44 49.6**	**+0.6**
UNM	**Universidad Na**	**6.40**	**50**	Pn		**Pn**	**05 44 52.5**	**+1.7**
FTIG	**Fresnillo de T**	**6.53**	**65**	*eP*		**Pn**	**05 44 52.3**	**-0.2**
PPCL	**Tochimilco**	**6.59**	**56**	*eP*		**Pn**	**05 44 53.0**	**-0.5**
PBXN	**Popocatepetl**	**6.61**	**55**	*eP*		**Pn**	**05 44 54.3**	**+0.3**
PPPT	**Popocatepetl**	**6.62**	**55**	*eP*		**Pn**	**05 44 53.9**	**-0.2**
PPCU	**Popocatepetl**	**6.63**	**55**	*eP*		**Pn**	**05 44 54.3**	**0.0**
TXIG	**Tlaxiaco**	**6.64**	**72**	*eP*		**Pn**	**05 44 53.8**	**-0.4**
PBPN	**Popocatepetl**	**6.65**	**55**	*eP*		**Pn**	**05 44 54.3**	**-0.3**
PPM	**Popocatepetl**	**6.67**	**55**	*eP*		**Pn**	**05 44 54.9**	**+0.2**
YOIG	**Yosondua**	**6.75**	**75**	*eP*		**Pn**	**05 44 55.5**	**-0.2**
HLIG	**Huajuapan de L**	**6.79**	**67**	*eP*		**Pn**	**05 44 55.4**	**-0.8**
TOIG	**Toxpalan**	**7.54**	**67**	*eP*		**Pn**	**05 45 04.9**	**-1.5**
ZAIG	**Zacatecas**	**7.67**	**13**			**Pn**	**05 45 10.1**	**+1.8**
CMIG	**Matias Romero**	**9.29**	**77**	LR		LR	05 48 42.6	
	comp=Z,1μm,19.4s,baz=262,slow=33							
LPIG	**La Paz**	**10.43**	**328**	LR		LR	05 48 50.6	
	comp=Z,1μm,21.9s,baz=148,slow=32							
HPIG		**11.69**	**354**			**Pn**	**05 46 05.9**	**+2.6**
APG	**El Apazote**	**13.42**	**89**	LR		LR	05 50 35.3	
	comp=Z,22nm,21.8s,baz=109,slow=32							
833A	**Chaparral WMA,**	**13.80**	**19**			**Pn**	**05 46 33.0**	**+1.1**
TX31	**Lajitas Ar. Si**	**14.03**	**3**			**Pn**	**05 46 37.1**	**+1.9**
TXAR	**Lajitas Array**	**14.03**	**3**	Pn		Pn	05 46 40.4	+5.2
	baz=182,slow=13,SNR=11							
TXAR				LR		LR	05 52 16.3	
	comp=Z,419nm,18.1s,baz=178,slow=38							
	1.1nm,0.8s							
TXAR	**Lajitas Array**	**14.03**	**3**			**Pn**	**05 46 38.5**	**+3.3**
PETF	**Flores**	**14.03**	**81**	Pn		**Pn**	**05 46 37.4**	**+2.2**
SRIG	**Santa Rosalia**	**14.07**	**330**			**Pn**	**05 46 35.5**	**-0.1**
EF02	**Christine**	**14.50**	**21**	Pn		**Pn**	**05 46 44.1**	**+2.5**
ESQI	**Esquipulas**	**14.54**	**91**			**Pn**	**05 46 44.2**	**+2.0**
SAND	**Sanderson**	**14.78**	**8**			**Pn**	**05 46 47.3**	**+1.8**
735A	**Kenedy**	**14.83**	**23**	Pn		**Pn**	**05 46 46.8**	**+0.7**
HNDO	**Hondo**	**14.96**	**17**			**Pn**	**05 46 50.6**	**+2.7**
HNDO				IAmb		IAmb	05 47 03.3	
	comp=Z,17nm,1.0s							
HSIG		**14.99**	**337**	Pn		**Pn**	**05 46 48.7**	**+0.4**
HSIG				IAmb		IAmb	05 46 54.7	
	comp=Z,23nm,1.5s							
ALPN	**Alpine**	**15.07**	**2**			**Pn**	**05 46 51.5**	**+2.1**
ALPN				IAmb		IAmb	05 47 06.5	
	comp=Z,21nm,1.1s							
VHRN	**Van Horn**	**15.47**	**358**			**Pn**	**05 46 57.7**	**+3.0**
VHRN				IAmb		IAmb	05 47 14.2	
	comp=Z,18nm,1.2s							
TPB01	**Permian Basin**	**15.63**	**2**	P		**Pn**	**05 47 00.9**	**+4.2**
TPB01				IAmb		IAmb	05 47 12.7	
	comp=Z,13nm,1.0s							
JCT	**Junction City**	**15.72**	**15**			**Pn**	**05 47 00.7**	**+2.7**
JCT				IAmb		IAmb	05 47 33.4	
	comp=Z,18nm,1.1s							
MNTX	**Cornudas Mount**	**16.40**	**357**			**Pn**	**05 47 09.9**	**+3.4**
TMB01	**Midkiff**	**16.47**	**7**	P		**Pn**	**05 47 11.1**	**+3.5**
TGUH	**Tegucigalpa,Un**	**16.58**	**92**			**P**	**05 47 13.5**	**+1.9**
TGUH				IAmb		IAmb	05 47 42.1	
	comp=Z,77nm,1.4s							
HKT	**Hockley**	**16.60**	**27**			**P**	**05 47 12.8**	**+1.3**
319A	**Douglas**	**16.67**	**345**			**P**	**05 47 13.4**	**+0.9**
319A				IAmb		IAmb	05 47 32.7	
	comp=Z,30nm,1.2s							
GDL2	**Guadalupe Moun**	**16.87**	**360**	P		**P**	**05 47 17.0**	**+2.2**
129A	**Stewart Farms,**	**17.45**	**7**	P		**P**	**05 47 23.6**	**+2.5**
121A	**Cookes Peak, D**	**17.48**	**350**			**P**	**05 47 24.0**	**+2.4**
WHTX	**Lake Whitney,**	**17.81**	**20**			**Pn**	**05 47 24.8**	**+0.5**
WHTX				IAmb		IAmb	05 47 35.2	
	comp=Z,18nm,1.0s							
TUC	**Tucson**	**17.96**	**342**			**Pn**	**05 47 27.2**	**+1.0**
BOAB	**BOACO BROADBAN**	**18.37**	**96**			**Pn**	**05 47 34.4**	**+3.2**
NATX	**Nacogdoches**	**18.67**	**27**	P		**P**	**05 47 36.5**	**+2.0**
NATX				IAmb		IAmb	05 47 42.7	
	comp=Z,63nm,1.4s							
JTS	**Las Juntas de**	**19.56**	**102**	P		**Pn**	**05 47 48.6**	**+3.0**
	comp=Z,32nm,1.1s,baz=274,slow=7.7,SNR=5.6							
JTS				LR		LR	05 53 23.9	
	comp=Z,366nm,21.8s,baz=289,slow=30							
	comp=Z,32nm,1.1s							
JTS	**Las Juntas de**	**19.56**	**102**	P		P	**05 47 43.4**	**-0.9**
ANMO	**Albuquerque**	**19.70**	**355**	P		**P**	**05 47 47.4**	**+1.4**
	comp=Z,2.2nm,1.2s,baz=157,slow=11,SNR=9.9							
ANMO				LR		LR	05 54 57.4	
	comp=Z,344nm,18.3s,baz=178,slow=35							
	comp=Z,2.2nm,1.2s							
ANMO	**Albuquerque**	**19.70**	**355**			**P**	**05 47 48.4**	**+2.4**
X34A	**Smith Ranch, M**	**20.14**	**16**			**P**	**05 47 52.3**	**+1.7**
X34A				IAmb		IAmb	05 48 08.8	
	comp=Z,27nm,1.1s							
PFO	**Pinyon Flats O**	**21.30**	**331**	P		**P**	**05 48 03.1**	**-0.2**
	comp=Z,1.7nm,0.3s,baz=184,slow=12,SNR=1.2							
PFO				LR		LR	05 55 19.3	
	comp=Z,768nm,18.5s,baz=176,slow=34							
	comp=Z,1.7nm,0.3s							
X40A	**Basin Creek Fa**	**21.79**	**26**	P		**P**	**05 48 09.3**	**+0.9**
X40A				IAmb		IAmb	05 48 27.2	
	comp=Z,13nm,1.2s							
T25A	**Trinidad**	**21.80**	**360**			**P**	**05 48 11.1**	**+2.4**
T25A				IAmb		IAmb	05 48 32.7	
	comp=Z,20nm,1.3s							
MVCO	**Mesa Verde**	**22.18**	**351**			**P**	**05 48 15.0**	**+2.2**
MVCO				IAmb		IAmb	05 48 29.1	
	comp=Z,14nm,1.2s							
SDCO	**Great Sand Dun**	**22.43**	**358**	P		**P**	**05 48 16.3**	**+0.8**
WVT	**Waverly**	**25.50**	**32**			**P**	**05 48 47.3**	**+2.5**
WVT				IAmb		IAmb	05 48 50.4	
	comp=Z,15nm,1.2s							
NVAR	**Mina Array Bea**	**26.16**	**335**	P		**P**	**05 48 50.4**	**-0.6**
	comp=Z,0.2nm,0.5s,baz=172,slow=6.3,SNR=3.8							
NVAR				LR		LR	05 58 20.5	
	comp=Z,338nm,19.0s,baz=96,slow=35							
	comp=Z,0.2nm,0.5s							
PDAR	**Pinedale Array**	**27.78**	**352**	P		**P**	**05 49 05.0**	**-0.6**
	comp=Z,0.5nm,0.8s,baz=176,slow=8.6,SNR=4.5							
PDAR				LR		LR	06 00 10.2	
	comp=Z,219nm,18.2s,baz=167,slow=36							
	comp=Z,0.5nm,0.8s							
SJCC	**San Jacinto, C**	**28.96**	**97**			**P**	**05 49 18.2**	**+2.0**
OTAV	**Otavalo**	**29.63**	**118**			**P**	**05 49 23.1**	**+0.5**
OTAV				IAmb		IAmb	05 49 28.9	
	comp=Z,23nm,1.5s							
YBH	**Yreka Blue Hor**	**30.78**	**333**	LR		LR	06 01 12.1	
	comp=Z,231nm,20.0s,baz=152,slow=35							
ROSC	**El Rosal**	**31.30**	**106**	P		**P**	**05 49 39.0**	**+1.7**
	comp=Z,5.9nm,0.5s,baz=58,slow=0.4,SNR=9.2							
ROSC				LR		LR	05 59 58.9	
	comp=Z,119nm,20.3s,baz=347,slow=32							
	comp=Z,5.9nm,0.5s							
ROSC	**El Rosal**	**31.30**	**106**	P		**P**	**05 49 39.5**	**+2.2**
RUSC	**La Rusia**	**32.08**	**103**			**P**	**05 49 45.2**	**+0.9**
ATAH	**Atahualpa**	**34.02**	**129**	LR		LR	06 00 57.3	
	comp=Z,479nm,19.8s,baz=300,slow=31							
ULM	**Lac du Bonnet**	**35.58**	**9**	LR		LR	06 04 36.4	
	comp=Z,322nm,21.7s,baz=192,slow=36							
SADO	**Sadowa**	**36.34**	**31**	LR		LR	06 06 30.4	
	comp=Z,270nm,19.0s,baz=244,slow=38							
NNA	**Nana**	**38.41**	**133**	LR		LR	06 03 00.2	
	comp=Z,470nm,21.2s,baz=306,slow=31							
BBB	**Bella Bella**	**41.41**	**338**	LR		LR	06 07 55.1	
	comp=Z,167nm,18.6s,baz=173,slow=36							
RPN	**Rapa Nui**	**42.40**	**187**	LR		LR	06 04 32.2	
	comp=Z,187nm,21.6s,baz=0.5,slow=31							
TAOE	**Nuku Hiva Isla**	**42.79**	**238**	*e*LR		LR	06 02 52.1	
	comp=Z,266nm,21.5s							
DLBC	**Dease Lake**	**47.16**	**342**	LR		LR	06 11 33.3	
	comp=Z,219nm,21.8s,baz=92,slow=36							
LPAZ	**La Paz**	**47.56**	**130**	P		**P**	**05 51 50.9**	**-2.1**
	comp=Z,4.1nm,1.1s,baz=321,slow=7.1,SNR=8.5							
LPAZ				LR		LR	06 09 17.5	
	comp=Z,516nm,21.5s,baz=300,slow=33							
	comp=Z,4.1nm,1.1s							
LPAZ	**La Paz**	**47.56**	**130**	P		**P**	**05 51 53.1**	**+0.1**
LPAZ				IAmb		IAmb	05 51 56.4	
	comp=Z,9.6nm,1.3s							
SCHQ	**Schefferville**	**49.00**	**28**	LR		LR	06 13 40.5	
	comp=Z,245nm,19.2s,baz=244,slow=37							
SIV	**San Ignacio**	**52.83**	**124**	P		**P**	**05 52 31.6**	**-0.8**
	comp=Z,3.8nm,1.1s,baz=310,slow=11,SNR=6.5							
	comp=Z,3.8nm,1.1s							
PTLB	**Pontes e Lacer**	**54.10**	**122**	P		**P**	**05 52 42.1**	**+0.4**
PTLB				IAmb		IAmb	05 52 44.5	
	comp=Z,12nm,1.4s							
FRB	**Frobisher Bay**	**54.39**	**19**	LR		LR	06 16 31.6	
	comp=Z,104nm,18.2s,baz=240,slow=36							
PPT	**Papeete**	**55.23**	**236**	LR		LR	06 09 30.5	
	comp=Z,157nm,20.1s,baz=14,slow=29							
PPT2	**Papeete2**	**55.25**	**235**	*e*S		**S**	**06 00 33.7**	**-0.4**
	comp=Z,98nm,25.5s							
PPT2				*e*LR		LR	06 08 33.0	
	comp=Z,318nm,25.8s							
PPT2				*e*LR		LR	06 08 39.0	
	comp=Z,492nm,25.5s							
KDAK	**Kodiak Island**	**55.58**	**331**	LR		LR	06 13 16.8	
	comp=Z,82nm,18.1s,baz=118,slow=32							
RIDG	**Independent Ri**	**55.89**	**340**	P		**P**	**05 52 55.6**	**+1.6**
INK	**Inuvik**	**56.22**	**347**	LR		LR	06 17 24.4	
	comp=Z,123nm,18.9s,baz=88,slow=36							
INK	**Inuvik**	**56.22**	**347**	P		**P**	**05 52 56.9**	**+0.8**
INK				IAmb		IAmb	05 53 07.7	
	comp=Z,6.0nm,1.1s							
ILAR	**Eielson Array**	**57.24**	**340**	P		**P**	**05 53 03.1**	**-0.4**
	comp=Z,0.6nm,1.0s,baz=149,slow=5.2,SNR=6.2							
ILAR				LR		LR	06 19 07.5	
	comp=Z,83nm,18.3s,baz=94,slow=38							
	comp=Z,0.6nm,1.0s							
ILAR	**Eielson Array**	**57.24**	**340**	P		**P**	**05 53 03.3**	**-0.2**
CFA	**Coronel Fontan**	**58.07**	**144**	P		**P**	**05 53 07.7**	**-2.2**
	comp=Z,1.9nm,0.9s,baz=349,slow=6.8,SNR=4.8							
	comp=Z,1.9nm,0.9s							
TBI	**Tubuai**	**58.45**	**230**	*e*LR		LR	06 10 04.7	
	comp=Z,2μm,28.5s							
RES	**Resolute Bay**	**59.66**	**3**	LR		LR	06 20 05.6	
	comp=Z,223nm,19.3s,baz=230,slow=37							
CPUP	**Villa Florida**	**61.64**	**132**	P		**P**	**05 53 32.5**	**-1.9**
	comp=Z,4.1nm,1.0s,baz=331,slow=8.8,SNR=7.2							
CPUP				LR		LR	06 19 44.7	
	comp=Z,120nm,18.9s,baz=295,slow=36							
	comp=Z,4.1nm,1.0s							
CPUP	**Villa Florida**	**61.64**	**132**	P		**P**	**05 53 34.5**	**0.0**
SFJD	**Kangerlussuaq**	**62.30**	**21**	LR		LR	06 21 25.1	
	comp=Z,139nm,19.1s,baz=219,slow=36							
PLCA	**Paso Flores**	**63.93**	**152**	LR		LR	06 15 54.6	
	comp=Z,152nm,20.1s,baz=330,slow=31							
RAR	**Rarotonga**	**65.34**	**238**	LR		LR	06 13 43.5	
	comp=Z,222nm,22.0s,baz=78,slow=28							
BORG	**Borgarnes**	**73.36**	**26**	LR		LR	06 26 51.1	
	comp=Z,154nm,18.7s,baz=291,slow=35							
SPITS	**Spitsbergen Ar**	**81.14**	**10**	LR		LR	06 31 16.7	
	comp=Z,147nm,20.4s,baz=292,slow=35							
PETK	**Petropavlovsk-**	**82.63**	**323**	LR		LR	06 25 38.9	
	comp=Z,32nm,20.2s,baz=80,slow=31							
RAO	**Raoul Island**	**83.59**	**238**	LR		LR	06 22 56.4	
	comp=Z,54nm,21.0s,baz=41,slow=29							
EKA	**Eskdalemuir Ar**	**83.83**	**34**	LR		LR	06 31 52.3	
	comp=Z,99nm,20.2s,baz=300,slow=34							
MA2	**Magadan**	**84.32**	**330**	LR		LR	06 31 05.0	
	comp=Z,32nm,18.4s,baz=110,slow=34							
ESDC	**Sonseca Array**	**88.18**	**49**	LR		LR	06 38 08.2	
	comp=Z,55nm,18.9s,baz=314,slow=37							
ARCES	**ARCESS Array B**	**88.44**	**16**	LR		LR	06 35 47.5	
	comp=Z,190nm,19.1s,baz=283,slow=35							
NOA	**NORSAR Array B**	**88.53**	**26**	LR		LR	06 36 48.6	
	comp=Z,84nm,18.6s,baz=290,slow=36							
MDT	**Midelt**	**89.81**	**56**	LR		LR	06 30 42.0	
	comp=Z,45nm,21.9s,baz=358,slow=32							
HFS	**Hagfors**	**90.05**	**26**	LR		LR	06 38 05.0	
	comp=Z,197nm,18.2s,baz=330,slow=36							
URZ	**Urewera**	**90.58**	**230**	LR		LR	06 28 59.5	
	comp=Z,70nm,18.9s,baz=86,slow=31							
FINES	**FINESS Array B**	**94.10**	**22**	LR		LR	06 39 16.6	
	comp=Z,169nm,18.9s,baz=284,slow=36							
DAVOX	**Davos/Dischmat**	**94.73**	**39**	LR		LR	06 40 10.0	
	comp=Z,144nm,18.9s,baz=318,slow=36							
NRIK	**Noril'sk**	**95.21**	**356**	LR		LR	06 42 39.4	
	comp=Z,75nm,19.1s,baz=7.0,slow=37							
GERES	**GERESS Array B**	**95.95**	**36**	LR		LR	06 40 15.6	
	comp=Z,71nm,19.2s,baz=335,slow=35							
VRAC	**Vranov**	**97.31**	**34**	LR		LR	06 42 43.5	
	comp=Z,65nm,18.4s,baz=332,slow=36							
KLR	**Kul'dur**	**98.94**	**327**	LR		LR	06 36 59.2	
	com

	comp=Z,1.8nm,0.6s						
MKAR	**Makanchi Array**	**67.09**	**326**	P	**P**	05 55 18.6	**+0.8**
	comp=Z,0.2nm,0.3s,baz=114,slow=7.8,SNR=8.9						
	comp=Z,0.2nm,0.3s						
MKAR	**Makanchi Array**	**67.09**	**326**	P	**P**	05 55 18.9	**+1.0**
KURBB	**Kurchatov Arra**	**71.31**	**328**	P	**P**	05 55 46.2	**+2.4**
	comp=Z,0.2nm,0.5s,baz=120,slow=5.5,SNR=1.9						
	comp=Z,0.2nm,0.5s						
KURK	**Kurchatov**	**71.31**	**328**	P	**P**	05 55 45.0	**+1.2**
M16K	**Timber Creek**	**84.64**	**27**	P	**P**	05 56 58.6	**+1.1**
QSPA	**South Pole Qui**	**85.11**	**180**	P	**P**	05 57 01.1	**+1.2**
QSPA				IAmb	IAmb	05 57 09.6	
	comp=Z,1.5nm,1.1s						
L18K	**Granite Mounta**	**86.06**	**27**	P	**P**	05 57 06.0	**+1.5**
L19K	**White Mountain**	**86.86**	**27**	P	**P**	05 57 10.1	**+1.6**
L19K				IAmb	IAmb	05 57 22.6	
	comp=Z,2.8nm,1.1s						

*SNET **07** 05:47:53.4±3.5, 15°.38N×88°.88W, h25km, ML3.1, Presumed earthquake*
*GCG **07** 05:47:57.7±1.4, 15°.20N×89°.03W, h12km±18km, MD3.6, Presumed earthquake*
ISC 07 05:47:52.3±2.5, 15°.28N±0°.09×88°.84W±0°.08, h4km±12km, n12, σ0s92/20, Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAFR2	**Estanzuela, Za**	**0.86**	**215**	*i* P	**Pg**	**05 48 08.9**	**+0.1**
ZAFR2				*i* S	**Sg**	**05 48 17.9**	**-2.0**
ESQI	**Esquipulas**	**0.87**	**214**	*eS*	**Sg**	**05 48 20.0**	**-0.2**
ESQI				*eS*	**Sb**	**05 48 20.8**	**-1.2**
MTO3	**Montecristo**	**1.01**	**210**	*i* P	**Pn**	**05 48 13.9**	**+0.5**
LLGN	**La Laguna**	**1.12**	**185**	*eS*	**Sn**	**05 48 31.3**	**+0.6**
JUAM	**Asuncion Mita**	**1.26**	**222**	*i* P	**Pb**	**05 48 16.7**	**+0.1**
JUAM				*i* S	**Sg**	**05 48 32.5**	**-0.3**
P5NO	**Presa 5 de nov**	**1.29**	**177**	*eS*	**Sn**	**05 48 36.0**	**+1.2**
APG	**El Apazote**	**1.59**	**260**	*i* P	**Pg**	**05 48 24.0**	**+1.2**
APG				*i* S	**Sn**	**05 48 41.7**	**-0.9**
CEVE	**Cerro Verde**	**1.64**	**208**	*eP*	**Pn**	**05 48 21.2**	**-0.8**
CEVE				*eS*	**Sg**	**05 48 46.0**	**+1.1**
NUBE	**Las Nubes**	**1.65**	**214**	*i* P	**Pg**	**05 48 24.3**	**+0.4**
NUBE				*i* S	**Sn**	**05 48 44.5**	**+0.7**
JAYA	**Jayaque - finc**	**1.73**	**200**	*i* P	**Pb**	**05 48 24.4**	**-0.2**
JAYA				*i* S	**Sb**	**05 48 47.2**	**+0.5**
JAYA	**Jayaque - finc**	**1.73**	**200**	*eP*	**Pn**	**05 48 22.4**	**-0.8**
JAYA				*eS*	**Sb**	**05 48 47.1**	**+0.4**
LCND	**La Caada**	**2.17**	**155**	*eP*	**Pb**	**05 48 31.5**	**-0.6**

*RSNC **07** 06:06:05.6±0.0, 7°.N±3°×7°.2W±°, h16km±6km, M2.6, ML2.4*
*FUNV **07** 06:06:06.1, 7°.46N×72°.05W, h5km, MW3.4, Presumed earthquake*
ISC 07 06:06:03.3±1.4, 7°.45N±0°.03×71°.95W±0°.03, h7km±11km, n31, σ2s05/55, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CAPV	**Capacho**	**0.55**	**319**	*eP*	**Pg**	**06 06 14.1**	**+0.3**
CAPV				*eS*	**Sg**	**06 06 22.7**	**+1.7**
TAMC	**Tame, Arauca**	**1.02**	**171**	P	**Pn**	**06 06 25.0**	**+0.9**
BARC	**Barichara**	**1.49**	**235**	P	**Pn**	**06 06 29.4**	**-1.4**
BARC				S	**Sn**	**06 06 46.8**	**-3.9**
OCAC	**Ocana**	**1.57**	**300**	P	**Pn**	**06 06 31.5**	**-0.2**
OCAC				S	**Sn**	**06 06 50.2**	**-2.2**
BRJC	**Barrancabermej**	**1.84**	**255**	P	**Pn**	**06 06 35.7**	**+0.3**
BRJC				S	**Sn**	**06 06 59.6**	**+0.6**
RUSC	**La Rusia**	**1.92**	**216**	P	**Pn**	**06 06 37.6**	**+0.8**
RUSC				S	**Sn**	**06 07 01.3**	**-0.2**
RUSC	**La Rusia**	**1.92**	**216**	*eP*	**Pn**	**06 06 38.1**	**+1.2**
RUSC				*eS*	**Sn**	**06 07 01.6**	**+0.1**
PTBC	**PUERTO BERRIO,**	**2.65**	**250**	P	**Pn**	**06 06 46.3**	**-0.2**
PTBC				S	**Sn**	**06 07 18.1**	**-0.8**
SPBC	**San Pablo de B**	**2.77**	**230**	P	**Pn**	**06 06 50.1**	**+1.9**
SPBC				S	**Sn**	**06 07 24.0**	**+2.1**
PTGC	**Puerto Gaitan,**	**3.24**	**183**	P	**Pb**	**06 06 59.6**	**-1.6**
PTGC				S	**Sn**	**06 07 34.8**	**+1.3**
ARGC	**Ariguani, Magd**	**3.30**	**317**	P	**Pn**	**06 06 57.2**	**+1.8**
ARGC				S	**Sn**	**06 07 37.2**	**+2.3**
CHIC	**Chingaza**	**3.32**	**212**	P	**Pn**	**06 06 57.6**	**+1.5**
NORC	**Norcasia**	**3.46**	**237**	P	**Pn**	**06 06 58.3**	**+0.7**
NORC				S	**Sn**	**06 07 41.2**	**+2.3**
UREC	**San Jos de Ur**	**3.56**	**275**	P	**Pn**	**06 07 01.0**	**+1.9**
UREC				S	**Sn**	**06 07 42.8**	**+1.2**
CRJC	**Cerrejon, Guaj**	**3.66**	**346**	P	**Pn**	**06 07 01.7**	**+1.2**
TEPV	**Terepaima**	**3.69**	**47**	*eP*	**Pn**	**06 07 04.1**	**+3.2**
VILC	**Villavicencio,**	**3.75**	**208**	P	**Pn**	**06 07 05.8**	**+4.1**
SJCC	**San Jacinto, C**	**4.01**	**307**	P	**Pn**	**06 07 07.6**	**+2.3**
SJCC				S	**Sn**	**06 07 55.1**	**+2.4**
SJCC	**San Jacinto, C**	**4.01**	**307**	*eP*	**Pn**	**06 07 06.6**	**+1.3**
SJCC				*eS*	**Sn**	**06 07 50.2**	**-2.5**
GUY2C	**Guyana, Caldas**	**4.05**	**237**	P	**Pn**	**06 07 08.1**	**+1.9**
GUY2C				S	**Sn**	**06 07 55.9**	**+1.6**
MAPV	**Macapo**	**4.18**	**55**	*eP*	**Pn**	**06 07 11.0**	**+3.3**
MAPV				*eS*	**Sn**	**06 07 58.1**	**+1.3**
URIC	**Uribia, Colomb**	**4.22**	**359**	P	**Pn**	**06 07 09.2**	**+1.1**
URIC				S	**Sn**	**06 07 57.7**	**-0.1**
URIC	**Uribia, Colomb**	**4.22**	**359**	*eP*	**Pn**	**06 07 09.9**	**+1.7**
URIC				*eS*	**Sn**	**06 07 56.7**	**-1.1**
CBOC	**Ciudad Bolivar**	**4.33**	**249**	P	**Pn**	**06 07 09.3**	**-0.5**
APAC	**Apartado, Choc**	**4.61**	**276**	P	**Pn**	**06 07 14.7**	**+1.2**
APAC				S	**Sn**	**06 08 08.9**	**+1.5**
PRAC	**Prado**	**4.73**	**218**	P	**Pn**	**06 07 19.0**	**+3.9**
PRAC				S	**Sn**	**06 08 13.4**	**+3.1**
ORTC	**Ortega, Tolima**	**4.81**	**223**	P	**Pn**	**06 07 17.6**	**+1.3**
BENV	**Beln**	**4.97**	**60**	*eP*	**Pn**	**06 07 21.7**	**+3.2**
BENV				*eS*	**Sn**	**06 08 16.6**	**+0.2**
TURV	**Turiamo**	**5.03**	**53**	*eP*	**Pn**	**06 07 22.2**	**+2.9**
TURV				*eS*	**Sn**	**06 08 17.6**	**-0.2**
CACV	**CAICARA DEL OR**	**5.36**	**88**	*eP*	**Pb**	**06 07 33.8**	**-3.6**
CACV				*eS*	**Sb**	**06 08 38.2**	**-3.9**
TACV	**Tcata**	**5.55**	**61**	*eP*	**Pn**	**06 07 28.1**	**+1.7**
TACV				*eS*	**Sn**	**06 08 29.6**	**-1.0**

*IDC **07** 06:19:09.3±0.6, 13°.89N×92°.94E, h0km, mb4.0/12, mbtmp4.0/14, ML4.0/2, MS3.5/6, Error ellipse: s-maj=17.4km s-min=16.0km az=87.0*
*NEIC **07** 06:19:11.5±1.4, 13°.95N±0°.06×93°.0E±0°.1, h10km±1km, mb4.5/21, Error ellipse: s-maj=16.7km s-min=10.5km az=277.0*
ISC 07 06:19:13.8±0.5, 13°.97N±0°.07×93°.00E±0°.07, h32km, n60, σ1s04/53, mb4.3/20, MS3.5/4, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBA	**Port Blair**	**2.32**	**186**	Pn	**Pn**	**06 19 49.1**	**-0.7**
CM31	**Chiang Mai Arr**	**7.24**	**51**	Pn	**Pn**	**06 20 57.8**	**+0.3**
CMAR	**Chiang Mai Arr**	**7.24**	**51**	Pn	**Pn**	**06 20 59.9**	**+2.4**
	0.6nm,0.3s,baz=240,slow=15,SNR=14						
CMAR				Sn	**Sn**	**06 22 15.0**	**-3.7**
	0.7nm,0.3s,baz=238,slow=27,SNR=7.6						
CMAR				LR	LR	06 24 35.6	
	comp=Z,208nm,18.1s,baz=240,slow=44						
	1.1nm,0.4s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**7.24**	**51**		**Pn**	**06 20 56.9**	**-0.6**
CHTO	**Chiang Mai**	**7.46**	**49**	Pn	**Pn**	**06 21 00.6**	**+0.1**
PALK	**Pallekele**	**13.80**	**242**	Pn	**Pn**	**06 22 25.3**	**-2.1**
	1.0nm,0.3s,baz=72,slow=12,SNR=4.8						
PALK				Sn	Sn	06 24 40.3	-19
	0.3nm,0.3s,baz=181,slow=5.2,SNR=1.9						
PALK				LR	LR	06 27 37.5	
	comp=Z,104nm,18.8s,baz=50,slow=37						
	2.7nm,0.3s						
PALK				AML	AML		
PALK	**Pallekele**	**13.80**	**242**		**Pn**	**06 22 25.6**	**-1.7**
HYB	**Hyderabad**	**14.33**	**286**	*eP*	**P**	**06 22 41.5**	**+0.2**
HYB				IVMs_BB	IVMs_BB	06 56 27.4	
	comp=Z,162nm,5.0s						
EVN	**Everest**	**15.06**	**338**		**Pn**	**06 22 43.6**	**-1.4**
EVN				IAmb	IAmb	06 22 52.7	
	comp=Z,14nm,0.7s						
LSA	**Lhasa**	**15.75**	**354**	Pn	**Pn**	**06 22 52.4**	**-1.3**
LSA				IAmb	IAmb	06 23 19.9	
	comp=Z,8.4nm,0.5s						
H08S3	**Diego Garcia H**	**29.59**	**225**	T	T	06 56 05.2	
	baz=42,slow=74						
H08S2	**Diego Garcia H**	**29.59**	**225**	T	T	06 56 04.0	
	baz=42,slow=74						
H08S1	**Diego Carcia H**	**29.61**	**225**	T	T	06 56 02.9	
	baz=42						

KBL	**Kabul**	**29.80**	**318**	P	**P**	06 25 17.5	**-0.7**
KBL				IAmb	IAmb	06 25 19.8	
	comp=Z,3.4nm,0.7s						
PDGK	**Podgornoye**	**31.48**	**341**	P	**P**	06 25 33.1	**+0.3**
BTK	**Batken**	**32.46**	**327**	P	**P**	06 25 41.5	**+0.1**
BTK				IAmb	IAmb	06 25 57.7	
	comp=Z,3.2nm,0.6s						
KAPI	**Kappang**	**32.56**	**124**	LR	LR	06 41 01.4	
	comp=Z,26nm,19.3s,baz=256,slow=40						
MKAR	**Makanchi Array**	**33.93**	**347**	P	**P**	06 25 55.1	**+1.0**
	comp=Z,2.0nm,0.7s,baz=158,slow=8.5,SNR=10						
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	**33.93**	**347**	P	**P**	06 25 54.6	**+0.6**
KK31	**Karatay Array**	**34.89**	**331**	P	**P**	06 26 02.7	**+0.3**
KK31				IAmb	IAmb	06 26 04.5	
	comp=Z,6.2nm,1.5s						
KKAR	**Karatay Array**	**34.89**	**331**	P	**P**	06 26 03.1	**+0.8**
SONM	**Songino Array**	**35.55**	**16**	P	**P**	06 26 09.6	**+1.5**
	comp=Z,1.3nm,0.8s,baz=196,slow=10.0,SNR=6.3						
	comp=Z,1.3nm,0.8s						
SONM	**Songino Array**	**35.55**	**16**	P	**P**	06 26 08.8	**+0.6**
KURBB	**Kurchatov Arra**	**38.40**	**345**	P	**P**	06 26 33.0	**+0.9**
	comp=Z,2.4nm,0.8s,baz=163,slow=8.1,SNR=15						
	comp=Z,2.4nm,0.8s						
KURK	**Kurchatov**	**38.46**	**345**		**P**	06 26 33.5	**+0.8**
TLY	**Talaya**	**38.58**	**11**	LR	LR	06 42 42.2	
	comp=Z,56nm,20.7s,baz=17,slow=36						
ZAA0	**Zalesovo Array**	**40.40**	**353**	P	**P**	06 26 48.4	**-0.4**
ZALV	**Zalesovo Beam**	**40.40**	**353**	P	**P**	06 26 49.2	**+0.5**
	comp=Z,2.0nm,0.7s,baz=183,slow=7.9,SNR=9.4						
	comp=Z,2.0nm,0.7s						
ZALV	**Zalesovo Beam**	**40.40**	**353**		**P**	06 26 48.6	**-0.2**
AB31	**Akbulak array**	**44.41**	**329**		**P**	06 27 22.3	**+0.8**
AB31				IAmb	IAmb	06 27 24.3	
	comp=Z,7.4nm,1.4s						
ABKAR	**Akbulak array**	**44.41**	**329**	P	**P**	06 27 22.1	**+0.6**
FITZ	**Fitzroy Crossi**	**45.29**	**134**	P	**P**	06 27 28.2	**-0.6**
KLR	**Kul'dur**	**47.35**	**34**	LR	LR	06 49 12.9	
	comp=Z,71nm,19.8s,baz=352,slow=38						
NWAO	**Narrogin (SRO)**	**52.07**	**154**	P		06 28 20.7	**0.0**
WRA	**Warramunga Arr**	**52.81**	**129**	P	**P**	06 28 26.2	**-0.4**
	comp=Z,1.5nm,0.9s,baz=306,slow=8.0,SNR=7.7						
WRA				PcP	**PcP**	06 29 36.0	**+0.3**
	comp=Z,0.7nm,0.6s,baz=313,slow=3.5,SNR=7.3						
	comp=Z,1.5nm,0.9s						
WRA	**Warramunga Arr**	**52.81**	**129**	P	**P**	06 28 26.2	**-0.4**
WR8	**Warramunga Arr**	**52.94**	**129**	P	**P**	06 28 27.5	**0.0**
WR8				IAmb	IAmb	06 28 51.6	
	comp=Z,7.8nm,1.4s						
ASAR	**Alice Springs**	**54.76**	**133**	P	**P**	06 28 40.8	**0.0**
	comp=Z,1.0nm,0.4s,baz=304,slow=6.5,SNR=25						
ASAR				PcP	**PcP**	06 29 43.5	**+0.5**
	comp=Z,0.4nm,0.5s,baz=308,slow=4.0,SNR=2.1						
	comp=Z,1.0nm,0.4s						
ASAR	**Alice Springs**	**54.76**	**133**	P	**P**	06 28 41.0	**+0.3**
BRTR	**Keskin Array B**	**57.71**	**308**	P	**P**	06 29 02.1	**+0.4**
	comp=Z,0.5nm,0.6s,baz=122,slow=6.1,SNR=2.4						
	comp=Z,0.5nm,0.6s						
FINES	**FINESS Array B**	**66.84**	**331**	P	**P**	06 30 02.1	**-0.2**
	comp=Z,4.0nm,1.1s,baz=117,slow=6.6,SNR=5.2						
	comp=Z,4.0nm,1.1s						
FINES	**FINESS Array B**	**66.84**	**331**	P	**P**	06 30 02.3	**-0.1**
ARCES	**ARCESS Array B**	**69.19**	**340**	LR	LR	07 06 14.4	
	comp=Z,127nm,19.6s,baz=250,slow=41						
H04N2	**CROZET ISLANDS**	**70.42**	**209**	T	T	07 46 47.8	
	baz=42,slow=75						
H04N1	**CROZET ISLANDS**	**70.43**	**209**	T	T	07 46 46.6	
	baz=42,slow=75						
H04N3	**CROZET ISLANDS**	**70.44**	**209**	T	T	07 46 48.3	
	baz=42,slow=75						
GERES	**GERESS Array B**	**72.59**	**317**	P	**P**	06 30 38.0	**-0.2**
	comp=Z,0.3nm,0.6s,baz=77,slow=5.9,SNR=4.7						
	comp=Z,0.3nm,0.6s						
LPHEP	**Lephephe**	**75.41**	**241**	P	**P**	06 30 56.1	**+1.1**
LPHEP				IAmb	IAmb	06 30 58.1	
	comp=Z,6.2nm,0.9s						
LBTB	**Lobatse**	**76.26**	**240**	P	**P**	06 31 00.5	**+0.7**
LBTB				IAmb	IAmb	06 31 18.9	
	comp=Z,12nm,1.4s						
KDWAN	**Kaudwane**	**76.44**	**241**	P	**P**	06 31 02.2	**+1.3**
BOSA	**Boshof**	**77.94**	**236**	P	**P**	06 31 10.8	**+1.5**
	comp=Z,3.0nm,0.7s,baz=82,slow=5.7,SNR=7.8						
	comp=Z,3.0nm,0.7s						
BOSA	**Boshof**	**77.94**	**236**	P	**P**	06 31 10.1	**+0.8**
LKGWB	**Lokgwabe**	**79.64**	**242**	P	**P**	06 31 17.7	**-1.0**
CASY	**Casey**	**81.08**	**173**	P	**P**	06 31 26.3	**+1.0**
CASY				IAmb	IAmb	06 31 52.3	
	comp=Z,8.2nm,1.5s						
TORD	**Torodi Ar. Bea**	**88.13**	**283**	P	**P**	06 32 01.2	**-0.9**
	comp=Z,0.7nm,0.8s,baz=64,slow=4.0,SNR=3.2						
	comp=Z,0.7nm,0.8s						
CAST	**Castle Rocks**	**88.26**	**24**	P	**P**	06 32 03.8	**+2.0**
CAST				IAmb	IAmb	06 32 12.7	
	comp=Z,3.3nm,0.8s						
BMAR	**Burnt Mountain**	**88.83**	**19**	P	**P**	06 32 05.0	**+0.6**
SKT	**Skwentna**	**89.18**	**25**	P	**P**	06 32 06.6	**+0.4**
ILAR	**Eielson Array**	**89.54**	**22**	P	**P**	06 32 07.7	**-0.1**
	comp=Z,0.4nm,0.9s,baz=313,slow=5.2,SNR=5.2						
	comp=Z,0.4nm,0.9s						
CPUP	**Villa Florida**	**149.64**	**241**	PKPbc	**PKPbc**	06 39 01.0	**+0.1**
	comp=Z,1.6nm,0.9s,baz=74,slow=5.9,SNR=4.5						

*NEIC **07** 06:30:35.2±1.6, 15°.90N±0°.07×98°.15W±0°.05, h10km±2km, mb4.2/7, Md4.3/100(MEX), Error ellipse: s-maj=12.5km s-min=7.2km az=193.0*
*MEX **07** 06:30:39.0±0.8, 15°.93N×98°.18W, h16km±13km, MD4.3, Presumed earthquake*
ISC 07 06:30:33.1±1.3, 15°.84N±0°.05×98°.21W±0°.02, h11km±10km, n103, σ1s69/164, 1C, Off coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.56**	**8**	*eP*	**Pn**	**06 30 46.1**	**-0.8**
PNIG				*eS*	**Sb**	**06 30 52.2**	**-0.6**
PEIG	**Puerto Escondi**	**1.04**	**81**		**Pg**	**06 30 54.2**	**+1.2**
PEIG	**Puerto Escondi**	**1.04**	**81**	*eP*	**Pg**	**06 30 54.2**	**+1.2**
PEIG				*eS*	**Sg**	**06 31 06.5**	**-0.1**
YOIG	**Yosondua**	**1.20**	**32**		**Pg**	**06 30 56.3**	**+0.1**
YOIG	**Yosondua**	**1.20**	**32**	*eP*	**Pg**	**06 30 56.3**	**+0.1**
YOIG				*eS*	**Sb**	**06 31 10.3**	**-1.2**
CRIG	**Cruz Grande**	**1.26**	**315**		**Pg**	**06 30 57.7**	**+0.4**
CRIG	**Cruz Grande**	**1.26**	**315**	*eP*	**Pg**	**06 30 57.7**	**+0.4**
CRIG				*eS*	**Sb**	**06 31 12.1**	**-0.9**
TXIG	**Tlaxiaco**	**1.47**	**17**		**Pb**	**06 31 00.4**	**-0.2**
TXIG	**Tlaxiaco**	**1.47**	**17**	*eP*	**Pb**	**06 31 00.4**	**-0.2**
TXIG				*eS*	**Sn**	**06 31 17.2**	**-2.0**
TLIG	**Tlapa**	**1.75**	**349**		**Pb**	**06 31 05.0**	**-0.3**
TLIG	**Tlapa**	**1.75**	**349**	*eP*	**Pb**	**06 31 05.2**	**0.0**
TLIG				*eS*	**Sn**	**06 31 24.6**	**-1.3**
DAIG	**Los Arroyos**	**1.82**	**311**		**Pb**	**06 31 06.0**	**-0.4**
DAIG	**Los Arroyos**	**1.82**	**311**	*eP*	**Pb**	**06 31 06.0**	**-0.4**
DAIG				*eS*	**Sn**	**06 31 26.4**	**-0.8**
VHO	**Vista Hermosa**	**1.88**	**49**	*eP*	**Pb**	**06 31 06.4**	**-1.1**
VHO				*eS*	**Sn**	**06 31 27.8**	**-1.2**
OXIG	**Oaxaca**	**1.88**	**49**		**Pb**	**06 31 06.4**	**-1.1**
OXIG					**Sn**	**06 31 27.8**	**-1.2**
OXBJ	**Oaxaca**	**1.88**	**49**		**Pb**	**06 31 07.3**	**-0.2**
OXBJ					**Sb**	**06 31 30.6**	**-0.5**
OXBJ	**Oaxaca**	**1.88**	**49**	*eP*	**Pb**	**06 31 07.3**	**-0.2**
OXBJ				*eS*	**Sb**	**06 31 30.6**	**-0.5**
OXLC	**Oaxaca**	**1.89**	**50**		**Pb**	**06 31 07.4**	**-0.4**
OXLC					**Sb**	**06 31 29.9**	**-1.6**
OXLC	**Oaxaca**	**1.89**	**50**	*eP*	**Pb**	**06 31 07.4**	**-0.4**
OXLC				*eS*	**Sb**	**06 31 29.9**	**-1.6**
HMTT	**Tlapaneco**	**1.98**	**350**		**Pb**	**06 31 08.5**	**-0.7**
HMTT					**Sn**	**06 31 31.4**	**0.0**
HMTT	**Tlapaneco**	**1.98**	**350**	*eP*	**Pb**	**06 31 08.5**	**-0.7**
HMTT				*eS*	**Sn**	**06 31 31.4**	**0.0**
HLIG	**Huajuapan de L**	**2.02**	**11**		**Pb**	**06 31 08.6**	**-1.4**
HLIG	**Huajuapan de L**	**2.02**	**11**	*eP*	**Pb**	**06 31 08.6**	**-1.4**
HLIG				*eS*	**Sn**	**06 31 31.3**	**-1.3**
HUIG	**Huatulco**	**2.03**	**92**		**Pb**	**06 31 08.8**	**-1.0**
HUIG	**Huatulco**	**2.03**	**92**	*eP*	**Pb**	**06 31 08.8**	**-1.0**
HUIG				*eS*	**Sn**	**06 31 30.4**	**-2.0**
FTIG	**Fresnillo de T**	**2.06**	**2**		**Pb**	**06 31 09.2**	**-1.4**
FTIG	**Fresnillo de T**	**2.06**	**2**	*eP*	**Pb**	**06 31 09.2**	**-1.4**
FTIG				*eS*	**Sn**	**06 31 32.2**	**-1.2**
CAIG	**El Cayaco**	**2.31**	**302**		**Pb**	**06 31 13.8**	**-1.0**
CAIG	**El Cayaco**	**2.31**	**302**	*eP*	**Pb**	**06 31 13.8**	**-1.0**
CAIG				*eS*	**Sn**	**06 31 37.8**	**-1.7**
MEIG	**Mezcala**	**2.48**	**327**		**Pb**	**06 31 16.7**	**-0.9**
MEIG	**Mezcala**	**2.48**	**327**	*eP*	**Pb**	**06 31 16.7**	**-0.9**
MEIG				*eS*	**Sn**	**06 31 42.1**	**-1.6**

TOIG	**Toxpalan**	**2.50**	**26**		**Pn**	**06 31 14.9**	**+1.2**
TOIG					**Sn**	**06 31 43.7**	**-0.6**
TOIG	**Toxpalan**	**2.50**	**26**	*eP*	**Pn**	**06 31 14.9**	**+1.2**
TOIG				*eS*	**Sn**	**06 31 43.7**	**-0.6**
PLIG	**Platanillo**	**2.83**	**334**		**Pb**	**06 31 20.9**	**-2.7**
PLIG					**Sn**	**06 31 53.1**	**+0.8**
PLIG	**Platanillo**	**2.83**	**334**	*eP*	**Pb**	**06 31 20.9**	**-2.7**
PLIG				*eS*	**Sn**	**06 31 53.1**	**+0.8**
NEUV	**Arroyo Zacate**	**2.97**	**51**		**Pn**	**06 31 21.5**	**+1.4**
NEUV					**Sn**	**06 31 56.0**	**+0.3**
NEUV	**Arroyo Zacate**	**2.97**	**51**	*eP*	**Pn**	**06 31 21.5**	**+1.4**
NEUV				*eS*	**Sn**	**06 31 56.0**	**+0.3**
PPAX	**Atlixo**	**3.08**	**356**		**Pb**	**06 31 24.4**	**-3.5**
PPAX					**Sn**	**06 31 59.3**	**+0.7**
PPAX	**Atlixo**	**3.08**	**356**	*eP*	**Pb**	**06 31 24.4**	**-3.5**
PPAX				*eS*	**Sn**	**06 31 59.3**	**+0.7**
PPCL	**Tochimilco**	**3.08**	**353**		**Sn**	**06 32 00.8**	**+1.9**
PPCL	**Tochimilco**	**3.08**	**353**	*eP*	**Pb**	**06 31 25.8**	**-2.3**
PPCL				*eS*	**Sn**	**06 32 00.8**	**+1.9**
YAIG	**Yautepec**	**3.12**	**345**		**Pn**	**06 31 23.6**	**+1.3**
YAIG					**Sn**	**06 32 00.6**	**+1.0**
YAIG	**Yautepec**	**3.12**	**345**	*eP*	**Pn**	**06 31 23.6**	**+1.3**
YAIG				*eS*	**Sn**	**06 32 00.6**	**+1.0**
PPPT	**Popocatepetl**	**3.14**	**353**		**Sn**	**06 32 01.4**	**+0.7**
PPPT	**Popocatepetl**	**3.14**	**353**	*eP*	**Pb**	**06 31 27.5**	**-1.8**
PPPT				*eS*	**Sn**	**06 32 01.4**	**+0.7**
PPCU	**Popocatepetl**	**3.17**	**353**	*eP*	**Pb**	**06 31 27.6**	**-2.1**
PPCU				*eS*	**Sn**	**06 32 00.1**	**-1.3**
ARIG	**Puente Sto Nin**	**3.17**	**320**		**Pb**	**06 31 26.2**	**-3.3**
ARIG					**Sn**	**06 32 01.5**	**+0.6**
ARIG	**Puente Sto Nin**	**3.17**	**320**	*eP*	**Pb**	**06 31 26.2**	**-3.3**
ARIG				*eS*	**Sn**	**06 32 01.5**	**+0.6**
PBXN	**Popocatepetl**	**3.18**	**352**	*eP*	**Pb**	**06 31 28.7**	**-1.3**
PBXN				*eS*	**Sn**	**06 32 03.2**	**+1.5**
PHPU	**Puebla**	**3.19**	**1**		**Sn**	**06 32 00.6**	**-1.0**
PHPU	**Puebla**	**3.19**	**1**	*eS*	**Sn**	**06 32 00.6**	**-1.0**
PBPN	**Popocatepetl**	**3.21**	**353**	*eP*	**Pb**	**06 31 28.7**	**-1.8**
PBPN				*eS*	**Sn**	**06 32 04.2**	**+1.7**
AMVM	**AMECAMECA**	**3.32**	**351**		**Sn**	**06 32 04.4**	**-0.5**
AMVM	**AMECAMECA**	**3.32**	**351**	*eP*	**Pb**	**06 31 29.1**	**-3.1**
AMVM				*eS*	**Sn**	**06 32 04.4**	**-0.5**
MAVM	**Malinalco, Edo**	**3.34**	**339**	*eP*	**Pb**	**06 31 29.6**	**-2.8**
MAVM				*eS*	**Sn**	**06 32 07.7**	**+2.6**
CMIG	**Matias Romero**	**3.43**	**68**		**Pn**	**06 31 27.8**	**+1.4**
CMIG					**Sn**	**06 32 06.5**	**-0.5**
CMIG	**Matias Romero**	**3.43**	**68**	*eP*	**Pn**	**06 31 27.8**	**+1.4**
CMIG				*eS*	**Sn**	**06 32 06.5**	**-0.5**
MPVM	**San Francisco**	**3.43**	**347**	*eP*	**Pb**	**06 31 32.5**	**-1.6**
TLVM	**San Miguel Top**	**3.47**	**345**		**Sn**	**06 32 07.7**	**-1.0**
TLVM	**San Miguel Top**	**3.47**	**345**	*eP*	**Pb**	**06 31 30.8**	**-4.0**
TLVM				*eS*	**Sn**	**06 32 07.7**	**-1.0**
XCVM	**Xochimilco**	**3.50**	**346**		**Pn**	**06 31 29.4**	**+1.7**
XCVM					**Sn**	**06 32 10.4**	**+1.0**
XCVM	**Xochimilco**	**3.50**	**346**	*eP*	**Pn**	**06 31 29.4**	**+1.7**
XCVM				*eS*	**Sn**	**06 32 10.4**	**+1.0**
THVM	**De Xico**	**3.53**	**348**		**Pn**	**06

HRFI S Sb 06 40 57.6 +7.0
NBNS Bani Suef 2.80 297 P **Pn** **06 40 11.3 -0.5**
TAMRE El Minia 2.88 276 P **Pn** **06 40 12.5 -0.4**
RMNI Mount Ramon 3.24 10 P **Pb** **06 40 27.8 +2.1**
RMNI S Sb 06 41 11.5 +6.8
ZFRI Zfri 3.28 16 P **Pb** **06 40 27.5 +1.1**
ZFRI S **Sb** **06 41 11.0 +5.2**
KZIT Kziot 3.51 4 P **Pb** **06 40 32.8 +2.5**
KZIT S Sb 06 41 20.6 +8.2
MSBI Mazada 4.04 15 P **Pb** **06 40 38.4 -1.0**
MSBI S **Sb** **06 41 30.2 +2.4**

*IDC **07** 06:55:39.1±0.5,25°.56N×143°.64E, h0km, mb4.3/22, mbtmp4.2/25, ML3.8/3, Error ellipse: s-maj=19.8km s-min=12.5km az=59.0*
*NEIC **07** 06:55:41.5±0.9,25°.60N±0°.07×143°.5E±0°.1, h10km±1km, mb4.6/33, Error ellipse: s-maj=19.1km s-min=11.3km az=70.0*
*JMA **07** 06:55:42.8±0.2,25°.8N±0°.6×14°.4E±°, h138km, IOTO ISLANDS REGION*
ISC 07 06:55:44.4±0.4,25°.64N±0°.06×143°.64E±0°.08, h35km, n89, σ1§46/90, mb4.5/36, 2D, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**1.65**	**307**	*eP*		**Pn**	**06 56 13.1**	**+2.3**
JHH2				*eS*		**Sn**	**06 56 35.9**	**+5.1**
JCJ	**Chichijima**	**1.95**	**318**	Pn		**Pn**	**06 56 13.2**	**-1.8**
	103nm,0.3s,baz=305,slow=23,SNR=103							
JCJ				Sn		**Sn**	**06 56 37.1**	**-1.1**
	438nm,0.3s,baz=270,slow=23,SNR=16							
	352nm,0.3s							
JCJ				AML		AML		
JCJ	**Chichijima**	**1.95**	**318**			**Pn**	**06 56 13.6**	**-1.4**
CBIJ	**Chichi`jima**	**1.95**	**318**	*eP*		**Pn**	**06 56 16.1**	**+1.1**
CBIJ				*eS*		**Sn**	**06 56 42.1**	**+3.9**
JHJ2	**Mitsune**	**8.16**	**337**	Pn		**Pn**	**06 57 40.0**	**-0.2**
BSO1	**Boso 1**	**9.27**	**346**	*eP*		**Pn**	**06 57 53.3**	**-1.8**
BSO1				*eS*		**Sn**	**06 59 33.3**	**-4.6**
BSO3	**Boso 3**	**9.52**	**344**	*eP*		**Pn**	**06 57 59.9**	**+1.2**
DPSS	**Saipan**	**10.54**	**169**	Pn		**Pn**	**06 58 11.4**	**-1.6**
JHO	**Hitachi**	**11.25**	**347**	*eP*		**Pn**	**06 58 20.4**	**-2.2**
JAG	**Ashikaga**	**11.33**	**343**	*eP*		**Pn**	**06 58 23.7**	**-0.1**
MJAR	**Matsushiro Arr**	**11.82**	**338**	Pn		**Pn**	**06 58 29.5**	**-0.9**
	0.2nm,0.3s,baz=157,slow=12,SNR=4.0							
	1.8nm,0.3s							
MJAR				AML		AML		
MJAR	**Matsushiro Arr**	**11.82**	**338**	Pn		**Pn**	**06 58 28.6**	**-1.8**
MAJO	**Matsushiro**	**11.82**	**338**	Pn		**Pn**	**06 58 29.4**	**-1.1**
MJB9	**Matsu-Tunnel**	**11.82**	**338**	Pn		**Pn**	**06 58 28.8**	**-1.7**
JMK	**Ichinoseki**	**13.43**	**352**	*eP*		**Pn**	**06 58 48.0**	**-4.4**
JMK				*eS*		Sn	07 01 09.0	-11
JOW	**Kunigami**	**13.84**	**278**	Pn		**Pn**	**06 58 55.0**	**-3.1**
KSRS	**Korea Array**	**17.81**	**315**	P		**P**	**06 59 49.0**	**-0.8**
	0.3nm,0.3s,baz=121,slow=11,SNR=4.0							
	2.2nm,1.0s							
KSRS				AML		AML		
KS19	**Wonju Array Si**	**17.87**	**315**			**P**	**06 59 49.5**	**-1.1**
JKA	**Kamikawa-asahi**	**18.45**	**358**	P		**P**	**06 59 57.1**	**+0.2**
JKA				IAmb		IAmb	07 00 03.3	
	comp=Z,44nm,1.4s							
USA0B	**Ussuriysk Arra**	**20.80**	**336**	P		**P**	**07 00 21.8**	**-0.7**
USRK	**Ussuriysk Ar.**	**20.80**	**336**	P		**P**	**07 00 21.0**	**-1.4**
	comp=Z,1.0nm,0.5s,baz=163,slow=11,SNR=9.3							
	comp=Z,1.0nm,0.5s							
USRK	**Ussuriysk Ar.**	**20.80**	**336**	P		**P**	**07 00 21.9**	**-0.6**
H11N1	**WAKE ISLAND Hy**	**22.24**	**101**	T		T	07 23 23.4	
	baz=290,slow=74							
H11N2	**WAKE ISLAND Hy**	**22.24**	**101**	T		T	07 23 25.4	
	baz=290,slow=74,SNR=37							
H11N3	**WAKE ISLAND Hy**	**22.25**	**101**	T		T	07 23 25.4	
	baz=290,slow=74,SNR=39							
H11S3	**WAKE ISLAND Hy**	**22.49**	**104**	T		T	07 23 46.6	
	baz=292,slow=74,SNR=33							
H11S1	**WAKE ISLAND Hy**	**22.50**	**104**	T		T	07 23 45.7	
	baz=292,slow=74,SNR=26							
H11S2	**WAKE ISLAND Hy**	**22.51**	**104**	T		T	07 23 45.6	
	baz=292,slow=74,SNR=22							
MIDW	**Midway**	**34.76**	**77**	P		**P**	**07 02 32.9**	**+1.4**
PMG	**Port Moresby**	**35.00**	**174**	P		**P**	**07 02 34.5**	**+0.8**
PMG				IAmb		IAmb	07 02 42.4	
	comp=Z,9.8nm,1.1s							
LZDM	**Lanzhou Array**	**35.60**	**297**	P		**P**	**07 02 38.0**	**-1.0**
	comp=Z,0.9nm,0.3s,baz=116,slow=7.2,SNR=3.7							
	comp=Z,0.9nm,0.3s							
SONM	**Songino Array**	**36.66**	**317**	P		**P**	**07 02 48.3**	**+0.5**
	comp=Z,0.5nm,0.4s,baz=135,slow=8.2,SNR=4.0							
SONM				PcP		**PcP**	**07 05 10.0**	**-0.1**
	comp=Z,0.6nm,0.6s,baz=112,slow=3.0,SNR=2.1							
	comp=Z,0.5nm,0.4s							
SONM	**Songino Array**	**36.66**	**317**	P		**P**	**07 02 47.9**	**+0.1**
KAPI	**Kappang**	**38.29**	**221**	P		**P**	**07 03 01.7**	**0.0**
KAPI				IAmb		IAmb	07 03 05.1	
	comp=Z,12nm,1.1s							
WB0	**Warramunga Arr**	**46.02**	**192**	P		**P**	**07 04 04.0**	**-0.6**
WRA	**Warramunga Arr**	**46.20**	**192**	P		**P**	**07 04 05.9**	**-0.1**
	comp=Z,12nm,0.8s,baz=12,slow=8.3,SNR=52							
	comp=Z,12nm,0.8s							
WRA	**Warramunga Arr**	**46.20**	**192**	P		**P**	**07 04 05.3**	**-0.7**
FITZ	**Fitzroy Crossi**	**46.87**	**204**	P		**P**	**07 04 11.0**	**-0.2**
AS31	**Alice Springs**	**49.91**	**192**			**P**	**07 04 33.9**	**-0.8**
ASAR	**Alice Springs**	**49.91**	**192**	P		**P**	**07 04 34.1**	**-0.6**
	comp=Z,0.9nm,0.4s,baz=11,slow=9.9,SNR=20							
ASAR				PcP		**PcP**	**07 05 53.8**	**-0.9**
	comp=Z,0.3nm,0.7s,baz=25,slow=4.6,SNR=3.2							
	comp=Z,0.9nm,0.4s							
ASAR	**Alice Springs**	**49.91**	**192**	P		**P**	**07 04 33.9**	**-0.9**
ZALV	**Zalesovo Beam**	**51.44**	**320**	P		**P**	**07 04 46.2**	**+0.3**
	comp=Z,2.0nm,0.5s,baz=108,slow=7.5,SNR=9.6							
ZALV				PcP		**PcP**	**07 05 59.5**	**-0.5**
	comp=Z,1.6nm,0.6s,baz=127,slow=3.1,SNR=6.3							
	comp=Z,2.0nm,0.5s							
ZALV	**Zalesovo Beam**	**51.44**	**320**	P		**P**	**07 04 45.4**	**-0.5**
MBWA	**Marble Bar**	**51.99**	**209**	P		**P**	**07 04 49.5**	**-0.9**
MKAR	**Makanchi Array**	**52.41**	**310**	P		**P**	**07 04 53.1**	**-0.1**
	comp=Z,0.8nm,0.5s,baz=90,slow=9.0,SNR=11							
MKAR				PcP		**PcP**	**07 06 03.8**	**0.0**
	comp=Z,0.6nm,0.6s,baz=85,slow=3.6,SNR=3.0							
	comp=Z,0.8nm,0.5s							
MKAR	**Makanchi Array**	**52.41**	**310**	P		**P**	**07 04 52.7**	**-0.5**
M17K	**Holitna River**	**53.02**	**31**	P		**P**	**07 04 59.1**	**+1.6**
O18K	**Koktuh Hills**	**53.75**	**33**	P		**P**	**07 05 04.2**	**+1.3**
O18K				IAmb		IAmb	07 05 17.3	
	comp=Z,12nm,1.1s							
NRIK	**Noril'sk**	**54.47**	**339**	P		**P**	**07 05 08.9**	**+0.9**
	comp=Z,8.2nm,0.7s,baz=98,slow=8.9,SNR=6.8							
	comp=Z,8.2nm,0.7s							
NRIK	**Noril'sk**	**54.47**	**339**			**P**	**07 05 08.7**	**+0.7**
NRIK				IAmb		IAmb	07 05 10.1	
	comp=Z,7.1nm,0.8s							
M19K	**Big River Lodg**	**54.56**	**31**	P		**P**	**07 05 09.4**	**+0.6**
M19K				IAmb		IAmb	07 05 09.5	
	comp=Z,12nm,1.5s							
E19K	**Redstone River**	**54.85**	**24**	P		**P**	**07 05 12.3**	**+1.5**
E19K				IAmb		IAmb	07 05 48.1	
	comp=Z,9.7nm,1.3s							
KURK	**Kurchatov**	**54.93**	**315**	P		**P**	**07 05 11.2**	**-0.4**
KURBB	**Kurchatov Arra**	**54.99**	**315**	P		**P**	**07 05 12.2**	**+0.2**
	comp=Z,2.5nm,0.5s,baz=91,slow=8.1,SNR=50							
	comp=Z,2.5nm,0.5s							
KURBB	**Kurchatov Arra**	**54.99**	**315**	⇓Pg		PKiKP	07 12 35.2	-11
	comp=Z,0.5nm,0.5s,baz=196,slow=15							
KURBB				⇓Lg		Lg	07 13 03.8	
	comp=Z,1.6nm,0.5s,baz=193,slow=28							
K20K	**Telida**	**55.01**	**29**	P		**P**	**07 05 13.9**	**+1.9**
K20K				IAmb		IAmb	07 05 14.8	
	comp=Z,6.1nm,0.9s							
J20K	**Nowinta River**	**55.17**	**28**	P		**P**	**07 05 14.5**	**+1.3**
J20K				IAmb		IAmb	07 05 26.1	
	comp=Z,5.5nm,0.9s							
IMAR	**Indian Mountai**	**55.76**	**26**	P		**P**	**07 05 18.9**	**+1.5**
CAST	**Castle Rocks**	**55.90**	**29**	P		**P**	**07 05 19.3**	**+0.8**
CAST				IAmb		IAmb	07 05 21.5	
	comp=Z,4.7nm,0.9s							
I21K	**Tanana**	**56.30**	**27**	P		**P**	**07 05 23.0**	**+1.8**
I21K				IAmb		IAmb	07 05 24.4	
	comp=Z,6.2nm,0.9s							
H22K	**Ishtalitna Cre**	**56.69**	**26**	P		**P**	**07 05 25.9**	**+1.9**
D23K	**Nanushuk River**	**57.62**	**23**	P		**P**	**07 05 32.6**	**+2.1**
ILAR	**Eielson Array**	**58.37**	**28**	P		**P**	**07 05 35.9**	**0.0**
	comp=Z,3.1nm,0.8s,baz=263,slow=5.9,SNR=22							
	comp=Z,3.1nm,0.8s							
D25K	**Kavik River**	**59.20**	**23**			**P**	**07 05 43.1**	**+1.5**
D25K				IAmb		IAmb	07 05 44.6	
	comp=Z,5.0nm,0.7s							
SCRK	**Sand Creek**	**59.55**	**29**			**P**	**07 05 44.9**	**+0.7**
SCRK				IAmb		IAmb	07 05 46.4	
	comp=Z,5.5nm,0.9s							
BVAR	**Borovoye Array**	**59.99**	**318**	P		**P**	**07 05 48.1**	**+0.8**
	comp=Z,5.7nm,0.5s,baz=95,slow=7.8,SNR=22							
	comp=Z,5.7nm,0.5s							
BORK	**Borovoye**	**60.03**	**318**			**P**	**07 05 47.9**	**+0.4**
KKAR	**Karatay Array**	**60.99**	**307**			**P**	**07 05 54.5**	**+0.1**
DAWY	**Dawson**	**61.57**	**29**	P		**P**	**07 05 59.3**	**+1.4**
DAWY				IAmb		IAmb	07 06 00.2	
	comp=Z,4.6nm,0.9s							
E28M	**Babbage River**	**61.59**	**24**	P		**P**	**07 05 59.1**	**+1.2**
E28M				IAmb		IAmb	07 06 01.2	
	comp=Z,5.0nm,1.1s							
J30M	**Hart River**	**62.89**	**29**	P		**P**	**07 06 08.3**	**+1.5**
J30M				IAmb		IAmb	07 06 20.7	
	comp=Z,6.5nm,1.5s							
ARTI	**Arti**	**66.47**	**323**			**P**	**07 06 30.5**	**+0.4**
AB31	**Akbulak array**	**67.04**	**315**			**P**	**07 06 34.1**	**+0.3**
AB31				IAmb		IAmb	07 06 35.1	
	comp=Z,2.5nm,0.7s							
YKA	**Yellowknife Ar**	**72.80**	**28**	P		**P**	**07 07 09.3**	**+0.4**
	comp=Z,1.7nm,0.6s,baz=296,slow=6.3,SNR=6.6							
	comp=Z,1.7nm,0.6s							
ARCES	**ARCESS Array B**	**75.33**	**341**	P		**P**	**07 07 25.2**	**+1.4**
	comp=Z,5.6nm,1.0s,baz=43,slow=7.3,SNR=2.2							
	comp=Z,5.6nm,1.0s							
FINES	**FINESS Array B**	**79.82**	**334**	P		**P**	**07 07 49.5**	**+0.7**
	comp=Z,2.9nm,0.4s,baz=66,slow=4.8,SNR=43							
	comp=Z,2.9nm,0.4s							
KBZ	**Khabaz**	**79.95**	**314**	P		**P**	**07 07 51.2**	**+1.3**
	comp=Z,8.4nm,0.9s,baz=136,slow=1.2,SNR=9.7							
	comp=Z,8.4nm,0.9s							
NVAR	**Mina Array Bea**	**80.39**	**52**	P		**P**	**07 07 53.7**	**+1.0**
	comp=Z,0.9nm,0.8s,baz=285,slow=6.4,SNR=8.1							
	comp=Z,2.0nm,0.8s							
PDAR	**Pinedale Array**	**84.32**	**45**	P		**P**	**07 08 14.1**	**+0.9**
	comp=Z,0.8nm,0.9s,baz=107,slow=0.6,SNR=4.1							
	comp=Z,0.8nm,0.9s							
AKASG	**Malin Array Be**	**84.56**	**324**	P		**P**	**07 08 13.7**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=50,slow=5.1,SNR=7.2							
	comp=Z,1.0nm,0.5s							
HFS	**Hagfors**	**85.27**	**337**	P		**P**	**07 08 17.1**	**-0.2**
	comp=Z,1.5nm,0.6s,baz=79,slow=7.5,SNR=5.5							
	comp=Z,1.5nm,0.6s							
NB2	**NORSAR Subarra**	**85.44**	**339**	P		**P**	**07 08 18.0**	**-0.2**
	comp=Z,1.4nm,0.8s,baz=42,slow=4.8							
NOA	**NORSAR Array B**	**85.44**	**339**	P		**P**	**07 08 18.2**	**0.0**
	comp=Z,2.0nm,0.8s,baz=42,slow=4.8,SNR=5.6							
	comp=Z,2.0nm,0.8s							
PV20	**West Nyswonger**	**86.92**	**49**	P		**P**	**07 08 27.1**	**+0.9**
BRTR	**Keskin Array B**	**87.94**	**314**	P		**P**	**07 08 31.0**	**0.0**
	comp=Z,0.7nm,0.5s,baz=94,slow=3.7,SNR=3.5							
	comp=Z,0.7nm,0.5s							
TXAR	**Lajitas Array**	**95.41**	**54**	P		**P**	**07 09 06.9**	**+1.1**
	comp=Z,0.1nm,0.6s,baz=341,slow=1.7,SNR=3.7							
	comp=Z,0.1nm,0.6s							
QSPA	**South Pole Qui**	**115.42**	**180**	PKP		**PKiKP**	**07 14 21.1**	**-0.7**
	comp=Z,0.6nm,0.8s,baz=324,slow=1.5,SNR=1.9							
PLCA	**Paso Flores**	**147.90**	**127**	PKPbc		**PKPbc**	**07 15 26.6**	**+0.6**
	comp=Z,1.9nm,0.6s,baz=225,slow=4.1,SNR=9.0							
LPAZ	**La Paz**	**148.98**	**79**	PKPbc		**PKPbc**	**07 15 29.3**	**-0.8**
	comp=Z,1.6nm,0.6s,baz=299,slow=2.8,SNR=10							

*IDC **07** 07:01:02.7±8.7, 10°.50N×93°.04E, h121km±73km, mb3.5/8, mbtmp3.9/9, MS3.9/2, Error ellipse: s-maj=80.5km s-min=15.5km az=55.0*
ISC 07 07:00:60.0±1.1, 10°.4N±0°.2×92°.9E±0°.2, h100km, n13, σ0§76/10, mb3.8/8, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.97**	**36**	P		**Pn**	**07 03 20.6**	**+0.3**
	2.1nm,0.3s,baz=224,slow=15,SNR=8.8							
H08S3	**Diego Garcia H**	**27.04**	**229**	T		T	07 34 44.9	
	baz=47,slow=74,SNR=48							
H08S2	**Diego Garcia H**	**27.05**	**229**	T		T	07 34 48.4	
	baz=47,slow=74							
H08S1	**Diego Carcia H**	**27.06**	**229**	T		T	07 34 47.2	
	baz=47							
MKAR	**Makanchi Array**	**37.40**	**348**	P		**P**	**07 08 02.1**	**-1.1**
	0.5nm,0.6s,baz=165,slow=7.8,SNR=3.3							
	0.5nm,0.6s							
KURBB	**Kurchatov Arra**	**41.84**	**346**	P		**P**	**07 08 40.0**	**+0.1**
	0.6nm,0.7s,baz=167,slow=7.2,SNR=5.9							
KURBB				PcP		**PcP**	**07 10 34.0**	**-0.1**
	0.1nm,0.3s,baz=134,slow=1.8,SNR=4.7							
	0.7nm,0.7s							
WRA	**Warramunga Arr**	**50.74**	**126**	P		**P**	**07 09 49.9**	**-0.2**
	0.3nm,0.4s,baz=297,slow=8.9,SNR=16							
WRA				LR		LR	07 31 56.7	
	comp=Z,206nm,20.6s,baz=270,slow=37							
	0.3nm,0.4s							
ASAR	**Alice Springs**	**52.48**	**131**	P		**P**	**07 10 03.0**	**0.0**
	0.7nm,0.5s,baz=307,slow=7.6,SNR=17							
	0.7nm,0.5s							
FINES	**FINESS Array B**	**69.93**	**332**	P		**P**	**07 11 59.2**	**-0.9**
	3.7nm,0.9s,baz=57,slow=7.0,SNR=3.7							
	3.7nm,0.9s							
ARCES	**ARCESS Array B**	**72.51**	**340**	P		**P**	**07 12 16.2**	**+0.6**
	5.9nm,1.1s,baz=108,slow=6.7,SNR=3.6							
	5.9nm,1.1s							
GERES	**GERESS Array B**	**75.14**	**318**	P		**P**	**07 12 32.6**	**+1.1**
	0.9nm,0.6s,baz=88,slow=4.3,SNR=7.5							
	0.9nm,0.6s							
TSUM	**Tsumeb**	**79.76**	**248**	LR		LR	07 43 48.4	
	comp=Z,34nm,18.2s,baz=320,slow=32							
ILAR	**Eielson Array**	**92.92**	**22**	P		**P**	**07 14 01.1**	**-0.5**
	0.3nm,0.7s,baz=320,slow=6.1,SNR=5.3							
	0.3nm,0.7s							

*UPA **07** 07:09:44.1±1.2, 8°.72N×83°.02W, h25km±3km, MW3.2, Presumed earthquake*
*CATAC **07** 07:09:44.1±0.5, 9°N±3°×8°3W±°, h6km±5km, M2.5/5, MLv2.5/5, Error ellipse: s-maj=7.0km s-min=4.5km az=178.1, confirmed*
ISC 07 07:09:42.9±1.0, 8°.75N±0°.04×83°.06W±0°.03, h32km±7km, n22, σ0§60/42, 5C-5D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
VITO	**San Vito**	**0.11**	**50**	*i* P		**Pn**	**07 09 48.9**	**+0.3**
VITO				*eS*		**Sn**	**07 09 53.2**	**+0.5**
NELY	**Ciudad Neily**	**0.15**	**132**	⇑*i*P		**Pn**	**07 09 49.3**	**+0.3**
NELY				*eS*		**Sn**	**07 09 53.7**	**+0.8**
FITO	**Golfito**	**0.15**	**218**	⇑*i*P		**Pn**	**07 09 48.9**	**-0.3**
FITO				*eS*		**Sn**	**07 09 52.9**	**-0.1**
MLIR3	**Monte Lirio, C**	**0.23**	**79**	⇓*i*P		**Pn**	**07 09 50.4**	**+0.1**
MLIR3				*eS*		**Sn**	**07 09 54.1**	**-0.5**
CDITO	**Canoas**	**0.25**	**134**	P		**Pn**	**07 09 50.3**	**-0.1**
CDITO				S		**Sb**	**07 09 56.0**	**+1.3**
CDITO	**Canoas**	**0.25**	**134**	⇑*i*P		**Pn**	**07 09 50.4**	**-0.1**
CDITO				*eS*		**Sb**	**07 09 52.9**	**-1.8**
SCLRA	**Santa Clara, W**	**0.28**	**73**	⇓*i*P		**Pn**	**07 09 50.9**	**-0.1**
SCLRA				*eS*		**Sn**	**07 09 56.4**	**+0.1**
CTCR	**Cotoan**	**0.33**	**63**	⇓*i*P		**Pn**	**07 09 51.1**	**-0.6**
CTCR				*eS*		**Sb**	**07 09 55.5**	**-1.2**
BRU2	**Volcan**	**0.36**	**83**	P		**Pn**	**07 09 52.3**	**+0.2**
BRU2	**Volcan**	**0.36**	**83**	⇓*i*P		**Pn**	**07 09 52.0**	**-0.2**
BRU2				*eS*		**Sn**	**07 09 58.5**	**+0.2**
PIRO	**Carate, Puerto**	**0.44**	**219**	P		**Pn**	**07 09 53.2**	**+0.1**
PIRO				S		**Sn**	**07 09 59.0**	**-1.0**
PIRO	**Carate, Puerto**	**0.44**	**219**	⇓*i*P		**Pn**	**07 09 53.2**	**+0.1**
PIRO				*eS*		**Sn**	**07 10 00.1**	**+0.2**
PTAR3	**Potrerillos Ar**	**0.56**	**96**	*eP*		**Pn**	**07 09 55.3**	**+0.5**
PTAR3				*eS*		**Sn**	**07 10 02.5**	**-0.4**
BQTLY	**Boquete Panama**	**0.59**	**89**	*i* P		**Pn**	**07 09 55.2**	**0.0**
BQTLY				*eS*		**Sn**	**07 10 04.7**	**+0.8**
LNBQ3	**Los Naranjos,**	**0.61**	**86**	*eP*		**Pn**	**07 09 55.2**	**-0.3**
LNBQ3				*eS*		**Sn**	**07 10 04.5**	**+0.2**
BQSF3	**Alto Boquete,**	**0.62**	**90**	*eP*		**Pn**	**07 09 55.5**	**0.0**
BQSF3				*eS*		**Sb**	**07 10 03.8**	**-0.2**
OCHAL	**Ojochal**	**0.68**	**301**	P		**Pn**	**07 09 56.5**	**+0.2**
OCHAL				S		**Sn**	**07 10 05.7**	**-0.1**
PSOM3	**Paja de Sombre**	**0.73**	**95**	*eP*		**Pn**	**07 09 57.3**	**+0.2**
PSOM3				*eS*		**Sn**	**07 10 07.1**	**0.0**
BGUAL	**Bijagual, Pana**	**0.75**	**108**	⇑*i*P		**Pn**	**07 09 57.9**	**+0.6**
BGUAL				*eS*		**Sn**	**07 10 09.1**	**+1.4**
CNI2	**El Empalme, Bo**	**0.89**	**41**	*eP*		**Pn**	**07 09 59.1**	**-0.1**
CNI2				*eS*		**Sn**	**07 10 11.3**	**+0.3**
RBALA	**Bur**	**0.90**	**82**	⇑*eP*		**Pb**	**07 09 59.6**	**-0.5**
RBALA				*eS*		**Sn**	**07 10 11.3**	**-0.1**
LCR2	**La Lucha 2**	**1.36**	**317**	P		**Pb**	**07 10 08.3**	**+0.4**

*KRNET **07** 07:25:58.5±0.1, 41°.58N×73°.21E, h30km, mb3.9*
*ISU **07** 07:26:00, 41°.62N×73°.25E, h11km*
*NNC **07** 07:26:00.2±0.6, 41°.69N×73°.21E, h0km, mb4.4, mpv4.0, Error ellipse: s-maj=4.8km s-min=2.5km az=176.0*
*SOME **07** 07:26:00.9, 41°.68N×73°.22E, h15km*
*KNET **07** 07:26:01.8±0.6, 41°.74N×73°.37E, h8km±2km, ml2.9, Error ellipse: s-maj=3.8km s-min=2.8km az=171.0*
ISC 07 07:25:57.9±1.1, 41°.55N±0°.02×73°.27E±0°.02, h1km±10km, n70, σ1§10/119, 35C-21D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
ARSB	**Arslanbob**	**0.32**	**223**	⇓*i*P		**Pb**	**07 26 05.9**	**-0.5**
ARSB				⇓*i*S		**Sb**	**07 26 11.0**	**-1.0**
SALK	**Salom-Alik**	**0.79**	**148**	⇑*i*P		**Pb**	**07 26 14.4**	**0.0**
SALK				⇑*i*S		**Sb**	**07 26 25.9**	**+0.2**
MNAS	**Manas**	**1.09**	**329**	⇓*i*P		**Pg**	**07 26 17.9**	**-0.9**
MNAS				⇓*i*P		**Sg**	**07 26 32.1**	**-0.9**
OHH	**Osh**	**1.09**	**200**	⇑*i*P		**Pg**	**07 26 18.5**	**-0.3**
OHH				⇑*i*S		**Sg**	**07 26 33.3**	**+0.4**
TSTA	**Tashata**	**1.15**	**212**	P		**Pn**	**07 26 21.1**	**+0.1**
TSTA				S		**Sn**	**07 26 37.9**	**+0.6**
UCH	**Uchtor**	**1.15**	**54**	P		**Pb**	**07 26 21.2**	**+0.5**
	SNR=369							
UCH				⇓S		**Sb**	**07 26 35.8**	**-0.5**
	144nm,0.2s							
UCH	**Uchtor**	**1.15**	**54**	⇑*i*P		**Pg**	**07 26 20.3**	**+0.5**
UCH				⇑*i*S		**Sb**	**07 26 36.1**	**-0.2**
EKS2	**Erkin-Say**	**1.17**	**19**	⇑P		**Pg**	**07 26 20.6**	**+0.3**
	36nm,0.1s,SNR=107							
EKS2				⇑S		**Sg**	**07 26 34.1**	**-1.3**
	93nm,0.2s							
EKS2	**Erkin-Say**	**1.17**	**19**	⇓*i*P		**Pg**	**07 26 19.9**	**-0.4**
EKS2				⇓*i*S		**Sg**	**07 26 35.4**	**0.0**
MRKS	**Merke**	**1.19**	**358**	P		**Pg**	**07 26 20.8**	**+0.1**
	66nm,0.2s							
MRKS				S		**Sg**	**07 26 35.7**	**-0.5**
	407nm,0.3s							
MRKS	**Merke**	**1.19**	**358**	*eP*		**Pg**	**07 26 21.1**	**+0.4**
	66nm,0.2s							
MRKS				*eS*		**Sg**	**07 26 35.7**	**-0.5**
	407nm,0.3s							
AAK	**Ala-Archa**	**1.42**	**40**	P		**Pb**	**07 26 25.7**	**+0.6**
	96nm,0.2s,SNR=235							
AAK				⇓S		**Sb**	**07 26 44.0**	**+0.3**
	194nm,0.3s							
AAK	**Ala-Archa**	**1.42**	**40**	⇑P		**Pb**	**07 26 25.7**	**+0.6**
	23nm,0.4s							
AAK				⇓S		**Sg**	**07 26 43.7**	**+0.4**
	2.4nm,0.2s							
AAK	**Ala-Archa**	**1.42**	**40**	⇓*i*P		**Pn**	**07 26 24.4**	**-0.5**
AAK				⇓*i*S		**Sg**	**07 26 43.1**	**-0.2**
SFK	**Sufi-Kurgan**	**1.55**	**173**	⇑*i*P		**Pn**	**07 26 26.9**	**+0.1**
SFK				⇑*i*S		**Sg**	**07 26 47.6**	**0.0**
TRKS	**Terek-Say**	**1.60**	**270**	⇑*i*P		**Pn**	**07 26 26.4**	**-1.0**
TRKS				⇑*i*S		**Sn**	**07 26 46.2**	**-2.5**
FRU1	**Bishkek**	**1.61**	**38**	⇑*i*P		**Pn**	**07 26 27.6**	**+0.1**
FRU1				⇑*i*S		**Sn**	**07 26 48.7**	**-0.2**
FRG	**Fergana**	**1.63**	**224**	S		**Sg**	**07 26 54.4**	**+4.2**
KBK	**Karagaybulak**	**1.67**	**48**	⇓P		**Pg**	**07 26 30.3**	**+0.5**
	185nm,0.2s,SNR=88							
KBK				⇓S		**Sg**	**07 26 52.4**	**+1.0**
	210nm,0.2s							
KBK	**Karagaybulak**	**1.67**	**48**

TNSS	**Tian-Shan**	**3.10**	**60**	*eP*		**Pg**	**07 26 56.8**	**-0.5**
	6.2nm,0.3s							
TNSS				*eS*		**Sg**	**07 27 36.9**	**-0.7**
	7.6nm,0.6s							
NZBK	**Nazarbek**	**3.14**	**265**	S		**Sg**	**07 27 40.5**	**+1.7**
KNDC	**Almaty**	**3.20**	**58**	⇑Pg		**Pg**	**07 26 58.8**	**-0.4**
	25nm,0.3s							
KNDC				⇑Lg		Lg	07 27 41.7	
	57nm,0.5s							
MDOK	**Medeo**	**3.23**	**59**	Pg		**Pg**	**07 26 58.3**	**-1.4**
	42nm,0.3s							
MDOK				Lg		Lg	07 27 40.7	
	55nm,0.5s							
MDOK	**Medeo**	**3.23**	**59**	*eP*		**Pg**	**07 26 59.0**	**-0.7**
	42nm,0.3s							
MDOK				*eS*		**Sg**	**07 27 40.7**	**-0.8**
	55nm,0.5s							
KUU	**Kurty**	**3.25**	**43**	Pg		**Pb**	**07 26 58.1**	**+1.8**
	7.9nm,0.2s							
KUU				Lg		Lg	07 27 39.3	
	62nm,0.6s							
KUU	**Kurty**	**3.25**	**43**	*eP*		**Pb**	**07 26 58.2**	**+1.8**
	7.9nm,0.2s							
KUU				*eS*		**Sb**	**07 27 39.3**	**+2.8**
	62nm,0.6s							
KTBS	**Karatobe**	**3.31**	**48**	Pg		**Pg**	**07 27 00.1**	**-1.3**
	0.2nm,0.1s							
KTBS				Lg		Lg	07 27 42.2	
	58nm,0.4s							
KTBS	**Karatobe**	**3.31**	**48**	*eP*		**Pg**	**07 26 59.9**	**-1.5**
	0.2nm,0.1s							
KTBS				*eS*		**Sg**	**07 27 42.2**	**-2.1**
	58nm,0.4s							
ANVS	**Anan'yevo**	**3.49**	**68**	⇓*eP*		**Pn**	**07 26 53.9**	**+0.5**
ANVS				⇓*eS*		**Sn**	**07 27 34.6**	**-0.9**
BTLS	**Baital**	**3.53**	**9**	Pg		**Pb**	**07 27 02.6**	**+1.5**
	7.2nm,0.1s							
BTLS				Lg		Lg	07 27 46.4	
	35nm,0.2s							
BTLS	**Baital**	**3.53**	**9**	*eP*		**Pb**	**07 27 02.4**	**+1.3**
	7.2nm,0.1s							
BTLS				*eS*		**Sb**	**07 27 46.4**	**+2.0**
	35nm,0.2s							
PRZ	**Przheval'sk**	**3.93**	**75**	⇑*iP*		**Pn**	**07 27 00.3**	**+0.8**
PRZ				⇑*iS*		**Sn**	**07 27 45.2**	**-1.2**
SATY	**Saty**	**4.09**	**67**	Pg		**Pg**	**07 27 14.6**	**-1.7**
	20nm,0.5s							
SATY				Lg		Lg	07 28 08.5	
	20nm,0.5s							
SATY	**Saty**	**4.09**	**67**	*eP*		**Pg**	**07 27 15.2**	**-1.1**
	20nm,0.5s							
SATY				*eS*		**Sg**	**07 28 08.5**	**-0.9**
	20nm,0.5s							
KPKS	**Kokpek**	**4.43**	**63**	Pg		**Pg**	**07 27 21.7**	**-1.1**
	0.3nm,0.1s							
KPKS				Lg		Lg	07 28 19.6	
	36nm,0.5s							
KPKS	**Kokpek**	**4.43**	**63**	*eP*		**Pg**	**07 27 21.8**	**-1.1**
	0.3nm,0.1s							
KPKS				*eS*		**Sg**	**07 28 19.6**	**-0.6**
	36nm,0.5s							
UZB	**Uzynbulak**	**4.55**	**68**	Pg		**Pg**	**07 27 22.7**	**-2.3**
	8.2nm,0.3s							
UZB				Lg		Lg	07 28 21.3	
	21nm,0.3s							
UZB	**Uzynbulak**	**4.55**	**68**	*eP*		**Pg**	**07 27 22.7**	**-2.3**
	8.2nm,0.3s							
UZB				*eS*		**Sg**	**07 28 21.4**	**-2.6**
	21nm,0.3s							
SHLS	**Shalkode**	**4.86**	**69**	Pg		**Pg**	**07 27 34.6**	**+3.7**
	4.5nm,0.2s							
SHLS				Lg		Lg	07 28 41.8	
	26nm,0.6s							

*NNC **07** 07:35:52.3±0.4,49°.96N×78°.83E,h0km,mpv2.6,Error ellipse: s-maj=14.1km s-min=2.3km az=74.0,Suspected Mining explosion.*
*IDC **07** 07:35:54.3±1.4,50°.01N×78°.81E,h0km,mbtmp2.7/2, ML2.0/2,Error ellipse: s-maj=12.9km s-min=10.2km az=68.0*

ISC 07 07:35:54.1±1.6,**49°.98N**±0°.08×**78°.7E**±0°.2,**h0**km,**n15,**
σ0°78/24,13C-7D,Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
KUR07	**Kurchatov Arra**	**0.62**	**347**	⇑P	**Pg**	**07 36 05.2**		**-0.7**
KUR07				⇑S	**Sg**	**07 36 14.7**		**+0.8**
KUR06	**Kurchatov Arra**	**0.64**	**348**	⇓P	**Pg**	**07 36 05.5**		**-0.8**
KUR06				⇓S	**Sg**	**07 36 15.2**		**+0.7**
KUR14	**Kurchatov Arra**	**0.64**	**352**	⇑P	**Pg**	**07 36 05.2**		**-1.1**
KUR14				⇓S	**Sg**	**07 36 14.7**		**+0.1**
KUR15	**Kurchatov Arra**	**0.65**	**350**	⇑P	**Pg**	**07 36 05.5**		**-0.9**
KUR15				⇑S	**Sg**	**07 36 14.9**		**0.0**
KURBB	**Kurchatov Arra**	**0.65**	**349**	Pg	**Pg**	**07 36 06.2**		**-0.4**
	1.4nm,0.3s,baz=166,slow=18,SNR=48							
KURBB				Lg	Lg	07 36 15.3		
	1.2nm,0.3s,baz=161,slow=34,SNR=20							
KURBB	**Kurchatov Arra**	**0.65**	**349**	⇓P	**Pg**	**07 36 05.8**		**-0.8**
	19nm,0.5s							
KURBB				⇑S	**Sg**	**07 36 15.8**		**+0.8**
	62nm,0.6s							
KUR16	**Kurchatov Arra**	**0.66**	**347**	⇓P	**Pg**	**07 36 06.1**		**-0.6**
KUR16				⇓S	**Sg**	**07 36 15.8**		**+0.5**
KUR17	**Kurchatov Arra**	**0.67**	**346**	⇑P	**Pg**	**07 36 06.4**		**-0.6**
KUR17				⇑S	**Sg**	**07 36 16.2**		**+0.6**
KUR05	**Kurchatov Arra**	**0.67**	**349**	⇓P	**Pg**	**07 36 06.1**		**-0.9**
KUR05				⇓S	**Sg**	**07 36 15.9**		**+0.2**
KUR04	**Kurchatov Arra**	**0.69**	**350**	⇑P	**Pg**	**07 36 06.7**		**-0.7**
KUR04				⇑S	**Sg**	**07 36 16.8**		**+0.5**
KURK	**Kurchatov**	**0.74**	**355**	⇑P	**Pg**	**07 36 07.7**		**-0.5**
	2.5nm,0.4s							
KURK				⇑S	**Sg**	**07 36 18.4**		**+0.6**
	11nm,0.6s							
MKAR	**Makanchi Array**	**3.98**	**142**	Pn	**Pn**	**07 36 57.7**		**+1.4**
	0.1nm,0.3s,baz=321,slow=10,SNR=6.5							
MKAR				Pg	**Pb**	**07 37 04.0**		**-1.0**
	0.4nm,0.3s,baz=324,slow=14,SNR=9.0							
MKAR				Lg	Lg	07 37 59.3		
	0.3nm,0.3s,baz=329,slow=33,SNR=3.9							
	0.3nm,0.4s							
MKAR				AML	AML			
ZALV	**Zalesovo Beam**	**5.47**	**41**	Pn	**Pn**	**07 37 17.5**		**+0.7**
	0.2nm,0.3s,baz=228,slow=15,SNR=9.2							
ZALV				Lg	Lg	07 38 46.4		
	0.2nm,0.3s,baz=227,slow=24,SNR=4.8							
	1.6nm,0.5s							
ZALV				AML	AML			
I46RU	**ZALESOVO INFRA**	**5.47**	**41**	I	I	08 09 40.0		
	baz=224,slow=316,SNR=1.3							
AAK	**Ala-Archa**	**7.91**	**203**	Lg	Lg	07 40 02.6		
	0.2nm,0.3s,baz=46,slow=23,SNR=3.9							

*IDC **07** 07:38:52.8±2.1,44°.53N×25°.67W,h0km,mb4.2/3, mbtmp4.0/5,ML4.1/2,MS3.4/1,Error ellipse: s-maj=56.4km s-min=33.9km az=78.0*

ISC 07 07:39:01.0±1.3,**44°.6N**±0°.1×**24°.3W**±0°.1,**h10**km,**n24,**
σ2°66/25,Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
PGAV	**Gavieira, Arco**	**11.99**	**97**	*eP*	**Pn**	**07 41 55.3**		**+3.3**
PCAB	**Cabril**	**12.24**	**98**	*eP*	**Pn**	**07 41 59.3**		**+3.9**
PSBE	**So Bento**	**12.60**	**108**	*eP*	**Pn**	**07 42 03.3**		**+3.0**
PSBE				*eS*	**Sn**	**07 44 16.9**		**-3.8**
PVIS	**Viseu**	**12.70**	**102**	*eP*	**Pn**	**07 42 05.8**		**+4.2**
PSARD	**Sardoal**	**12.99**	**107**	*eP*	**Pn**	**07 42 08.1**		**+2.4**
PSARD				*eS*	**Sn**	**07 44 26.4**		**-3.8**
PBRG	**Braganca**	**13.12**	**96**	*eP*	**Pn**	**07 42 11.3**		**+3.9**
PMAR	**Madeira**	**13.20**	**152**	*eP*	**Pn**	**07 42 09.1**		**+0.5**
PMTG	**Montargil**	**13.21**	**109**	*eP*	**Pn**	**07 42 11.4**		**+2.9**
PMTG				*eS*	**Sn**	**07 44 33.8**		**-1.6**
MOE	**Montemor**	**13.40**	**111**	*eP*	**Pn**	**07 42 13.3**		**+2.1**
MOE				*eS*	**Sn**	**07 44 40.9**		**+0.6**
PARRA	**Arraiolos**	**13.46**	**110**	*eP*	**Pn**	**07 42 14.4**		**+2.4**
PARRA				*eS*	**Sn**	**07 44 40.5**		**-1.1**
PBAR	**Barrancos**	**14.46**	**110**	*eP*	**Pn**	**07 42 28.5**		**+2.8**
PBAR				*eS*	**Sn**	**07 45 07.2**		**+1.1**
ESDC	**Sonseca Array**	**15.87**	**101**	Pn	**P**	**07 42 46.6**		**-1.6**
	0.2nm,0.3s,baz=292,slow=13,SNR=7.8							
ESDC				Sn	**Sn**	**07 45 37.9**		**-2.5**
	0.2nm,0.3s,baz=291,slow=25,SNR=2.0							
	0.6nm,0.4s							
ESDC				AML	AML			

EKA	**Eskdalemuir Ar**	**17.25**	**44**	P	**P**	**07 43 04.0**		**+0.6**
	baz=238,slow=11							
	1.4nm,0.8s							
AKASG	**Malin Array Be**	**35.89**	**61**	LR	LR	08 02 56.5		
	comp=Z,58nm,18.2s,baz=14,slow=39							
TORD	**Torodi Ar. Bea**	**38.42**	**137**	P	**P**	**07 46 21.5**		**-1.3**
	2.1nm,0.7s,baz=328,slow=9.4,SNR=9.6							
	2.1nm,0.7s							
H10N2	**ASCENSION HYDR**	**52.95**	**168**	T	T	08 45 18.9		
	baz=349,slow=75,SNR=4.0							
H10N3	**ASCENSION HYDR**	**52.96**	**168**	T	T	08 45 20.0		
	baz=349,slow=75,SNR=5.2							
H10N1	**ASCENSION HYDR**	**52.97**	**168**	T	T	08 45 22.1		
	baz=349,slow=75,SNR=5.9							
H10S3	**ASCENSION HYDR**	**54.03**	**168**	T	T	08 46 33.0		
	baz=230,slow=74,SNR=12							
H10S2	**ASCENSION HYDR**	**54.04**	**168**	T	T	08 46 33.5		
	baz=350,slow=74,SNR=10							
KURBB	**Kurchatov Arra**	**63.99**	**44**	P	**P**	**07 49 32.7**		**-1.6**
	1.3nm,0.2s,baz=314,slow=6.9,SNR=6.2							
	1.3nm,0.2s							
MKAR	**Makanchi Array**	**68.39**	**45**	P	**P**	**07 50 00.6**		**-2.0**
	0.5nm,0.5s,baz=317,slow=5.8,SNR=3.5							
	0.5nm,0.5s							
WRA	**Warramunga Arr**	**149.67**	**43**	PKPbc	**PKPdf**	**07 58 46.1**		**-0.3**
	0.4nm,0.5s,baz=332,slow=2.1,SNR=4.7							
ASAR	**Alice Springs**	**152.56**	**48**	PKPbc	**PKPdf**	**07 58 52.4**		**+1.6**
	0.3nm,0.7s,baz=328,slow=2.9,SNR=4.1							

*ISK **07** 07:40:07.3,37°.85N×26°.81E,h8km,ML2.5/18*
*AFAD **07** 07:40:07.2,37°.83N×26°.79E,h7km±2km,ML2.6*
*THE **07** 07:40:07.5,37°.8N±0°.8×26°.8E±0°.9,h6km±2km,M2.7/9, MLh2.7/9*

ISC 07 07:40:07.4±0.9,**37°.83N**±0°.02×**26°.78E**±0°.02,**h10**km±7km,
n42,σ0°66/66,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
SMG	**Samos**	**0.13**	**161**	P	**Pg**	**07 40 10.1**		**-0.3**
SMG				S	**Sg**	**07 40 12.8**		**+0.2**
SMG				AML	AML			
DGB	**zmir**	**0.23**	**20**	P	**Pg**	**07 40 12.0**		**-0.2**
DGB				S	**Sg**	**07 40 15.8**		**+0.4**
DGB				IAML		07 40 17.0		
	comp=E,620nm,0.1s							
GMLD	**Gumuldur**	**0.27**	**23**	Pg	**Pg**	**07 40 12.7**		**-0.1**
GMLD				Sg	**Sg**	**07 40 17.2**		**+0.8**
GMLD				AML	AML			
GCAM	**G?zelcaml?**	**0.38**	**110**	P	**Pg**	**07 40 14.6**		**-0.3**
GCAM				IAML		07 40 21.0		
	comp=N,633nm,0.2s							
GCAM				IAML		07 40 21.0		
	comp=E,639nm,0.3s							
GCAM				S	**Sb**	**07 40 21.1**		**-1.1**
GCAM	**G?zelcaml?**	**0.38**	**110**	Pg	**Pg**	**07 40 14.8**		**-0.1**
GCAM				Sg	**Sg**	**07 40 20.7**		**+0.7**
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.40**	**86**	Pg	**Pg**	**07 40 15.1**		**-0.2**
KUSD				Sg	**Sg**	**07 40 20.5**		**-0.1**
KUSD				AML	AML			
BEYE	**izmir**	**0.41**	**16**	P	**Pg**	**07 40 15.3**		**-0.2**
BEYE				S	**Sg**	**07 40 21.5**		**+0.6**
BEYE				IAML		07 40 22.0		
	comp=N,236nm,0.3s							
BEYE				IAML		07 40 23.0		
	comp=E,308nm,0.3s							
ZEYE	**Izmir, Urla-Ze**	**0.46**	**332**	P	**Pg**	**07 40 16.2**		**-0.3**
ZEYE				S	**Sg**	**07 40 23.5**		**+0.9**
ZEYE				IAML		07 40 24.0		
	comp=N,806nm,0.2s							
ZEYE				IAML		07 40 24.0		
	comp=E,520nm,0.2s							
BLCB	**Balcova**	**0.59**	**20**	P	**Pg**	**07 40 18.5**		**-0.3**
BLCB				S	**Sb**	**07 40 27.3**		**-1.0**
BLCB	**Balcova**	**0.59**	**20**	Pg	**Pg**	**07 40 18.7**		**-0.2**
BLCB				Sg	**Sg**	**07 40 27.0**		**+0.4**
BLCB				AML	AML			
DUVT	**Torbali**	**0.65**	**53**	P	**Pg**	**07 40 19.4**		**-0.7**
DUVT				S	**Sg**	**07 40 28.9**		**+0.2**
DUVT				IAML		07 40 32.0		
	comp=E,323nm,0.5s							
KRBN	**Karaburun**	**0.78**	**347**	Pg	**Pg**	**07 40 21.8**		**-0.7**
KRBN				AML	AML			
DAGE	**izmir**	**0.79**	**77**	P	**Pg**	**07 40 22.5**		**-0.1**
DAGE				S	**Sb**	**07 40 33.2**		**-0.7**
DAGE				IAML		07 40 35.0		
	comp=N,176nm,0.3s							
DAGE				IAML		07 40 36.0		
	comp=E,176nm,0.2s							
CHOS	**Chios island**	**0.80**	**314**	P	**Pg**	**07 40 22.9**		**0.0**
CHOS				S	**Sb**	**07 40 34.5**		**+0.1**
CHOS				AML	AML			
CHOS	**Chios island**	**0.80**	**314**	Pg	**Pb**	**07 40 23.7**		**+0.2**
CHOS				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.81**	**151**	Pg	**Pg**	**07 40 23.2**		**+0.2**
YKAV				AML	AML			
BAGT	**Foa**	**0.82**	**4**	P	**Pg**	**07 40 21.1**		**-2.2**
BAGT				IAML		07 40 37.0		
	comp=N,210nm,0.9s							
BAGT				S	**Sn**	**07 40 37.4**		**0.0**
BAGT				IAML		07 40 38.0		
	comp=E,267nm,0.4s							
BODT	**Bodrum**	**0.88**	**151**	P	**Pb**	**07 40 24.7**		**-0.1**
BODT				AML	AML			
BODT	**Bodrum**	**0.88**	**151**	Pg	**Pn**	**07 40 25.5**		**-0.3**
BODT				AML	AML			
FOCM	**Foa**	**0.88**	**357**	Pg	**Pg**	**07 40 24.1**		**-0.3**
FOCM				Sg	**Sb**	**07 40 36.6**		**0.0**
FOCM				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.88**	**82**	Pg	**Pg**	**07 40 23.9**		**-0.6**
AYDB				AML	AML			
AYDN	**Tasoluk**	**0.89**	**101**	P	**Pg**	**07 40 24.3**		**-0.2**
AYDN				S	**Sb**	**07 40 37.4**		**+0.5**
BDRM	**Kayabasi**	**0.93**	**145**	P	**Pb**	**07 40 25.8**		**+0.1**
BDRM				S	**Sg**	**07 40 37.6**		**+0.2**
BDRM				IAML		07 40 40.0		
	comp=E,135nm,0.3s							
BDRM				IAML		07 40 42.0		
	comp=N,180nm,0.3s							
MLSB	**Milas**	**0.95**	**124**	Pg	**Pg**	**07 40 25.7**		**-0.1**
MLSB				AML	AML			
IZMR	**zmir-demi**	**0.97**	**71**	P	**Pg**	**07 40 24.5**		**-1.7**
IZMR				S	**Sg**	**07 40 38.3**		**-0.6**
CAMT	**Merkez**	**1.00**	**24**	P	**Pg**	**07 40 26.6**		**-0.2**
CAMT				S	**Sn**	**07 40 41.4**		**-0.5**
CAMT				IAML		07 40 43.0		
	comp=N,658nm,0.4s							
CAMT				IAML		07 40 43.0		
	comp=E,613nm,0.3s							
ZEDA	**zmir-Bergama**	**1.16**	**11**	P	**Pg**	**07 40 29.3**		**-0.4**
ZEDA				S	**Sn**	**07 40 46.2**		**+0.6**
ZEDA				IAML		07 40 48.0		
	comp=E,118nm,0.2s							
ZEDA				IAML		07 40 49.0		
	comp=N,147nm,0.6s							
NAZL	**Nazilli-Aydin**	**1.20**	**83**	Pn	**Pn**	**07 40 31.1**		**+0.8**
NAZL				AML	AML			
DKL	**Dikili**	**1.24**	**4**	Pn	**Pg**	**07 40 31.3**		**0.0**
DKL				AML	AML			
GOMA	**Golmarmara-Man**	**1.25**	**45**	Pn	**Pg**	**07 40 31.2**		**-0.2**
APE	**Apeiranthos**	**1.25**	**233**	P	**Pn**	**07 40 29.9**		**-1.2**
APE				S	**Sg**	**07 40 46.3**		**-1.5**
APE				AML	AML			
APE	**Apeiranthos**	**1.25**	**233**	Pn	**Pg**	**07 40 31.7**		**+0.2**
APE				AML	AML			
DAT	**Datca**	**1.27**	**150**	P	**Pn**	**07 40 31.5**		**+0.1**
DAT				AML	AML			
DAT	**Datca**	**1.27**	**150**	Pn	**Pg**	**07 40 32.2**		**+0.4**
DAT				AML	AML			
AKHS	**Akhisar**	**1.32**	**37**	P	**Pn**	**07 40 31.8**		**-0.2**
AKHS				S	**Sn**	**07 40 52.0**		**+2.2**
AKHS				IAML		07 40 52.0		
	comp=N,174nm,0.4s							
KTTT	**Salihli**	**1.34**	**50**	P	**Pb**	**07 40 32.6**		**-0.1**
KTTT				S	**Sb**	**07 40 49.6**		**-0.3**
KTTT				IAML		07 40 52.0		
	comp=N,86nm,0.5s							
YER	**Yerkesik**	**1.38**	**120**	Pn	**Pb**	**07 40 33.5**		**+0.1**
PRK	**Paraskevi**	**1.47**	**344**	P	**Pn**	**07 40 33.9**		**-0.1**
PRK				S	**Sb**	**07 40 53.9**		**+0.4**
PRK				AML	AML			
GORD	**Gordes-Manisa**	**1.54**	**45**	Pn	**Pb**	**07 40 35.6**		**-0.4**
GORD				AML	AML			
SNT5	**Nea Kammeni, S**	**1.81**	**218**	P	**Pn**	**07 40 38.9**		**+0.3**
EZN	**Ezine**	**2.02**	**350**	P	**Pn**	**07 40 42.0**		**+0.4**
DION	**Dionisos Attik**	**2.27**	**277**	P	**Pn**	**07 40 44.8**		**-0.2**

WEL 07 07:53:19.6±0.9,**35°.5**±7°×**17°.9E**±1°.1,**h256**km±10km,
M3.6/12,mB4.3/1,ML3.5/12,MLv3.6/12,Mw(mB)3.5/1,
Error ellipse: s-maj=13.9km s-min=8.6km az=100.6,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
MXZ	**Matakaoa Point**	**2.45**	**184**	S	S	07 54 44.2		**+0.3**
WMGZ	**Waiomatatini S**	**2.70**	**182**	P	Pn	07 54 09.7		**+0.5**
WMGZ				S	S	07 54 48.3		**-0.2**
WMGZ				AML	AML			
WMGZ				AML	AML			
HAZ	**Te Kaha**	**2.71**	**193**	P	Pn	07 54 09.4		**+0.2**
HAZ				S	S	07 54 49.5		**+0.9**
HAZ				AML	AML			
PKGZ	**Pakihiroa**	**2.77**	**188**	P	Pn	07 54 09.8		**-0.1**
PKGZ				AML	AML			
RUGZ	**Raukumara Rang**	**2.93**	**193**	P	Pn	07 54 12.0		**+0.4**
RUGZ				S	S	07 54 52.7		**-0.4**
RUGZ				AML	AML			
RUGZ				AML	AML			
PUZ	**Puketiti**	**2.96**	**184**	P	Pn	07 54 11.7		**-0.2**
PUZ				S	S	07 54 52.8		**-0.7**
PUZ				AML	AML			
MWZ	**Matawai**	**3.31**	**194**	P	Pn	07 54 15.6		**-0.2**
MWZ				S	S	07 55 01.3		**+0.9**
URZ	**Urewera**	**3.34**	**200**	P	Pn	07 54 16.4		**+0.4**
URZ				S	S	07 55 01.9		**+1.0**
URZ				AML	AML			
URZ				AML	AML			
TKGZ	**Te Karaka**	**3.36**	**189**	P	Pn	07 54 16.5		**+0.2**
TKGZ				S	S	07 55 01.6		**+0.2**
TKGZ				AML	AML			
TKGZ				AML	AML			
CNGZ	**Carnagh Statio**	**3.37**	**184**	P	Pn	07 54 17.1		**+0.7**
CNGZ				AML	AML			
CNGZ				AML	AML			
WCZ	**Waipu Caves**	**3.52**	**255**	P	Pn	07 54 18.0		**-0.1**
RIGZ	**Rimuhau**	**3.64**	**190**	P	Pn	07 54 18.7		**-0.6**
RIGZ				S	S	07 55 07.7		**+0.7**
RIGZ				AML	AML			
OUZ	**Omahuta**	**4.05**	**267**	P	Pn	07 54 23.4		**-0.8**
ARHZ	**Aropaoanui**	**4.32**	**196**	P	Pn	07 54 27.9		**+0.6**
ARHZ				S	S	07 55 22.4		**+1.2**
ARHZ				AML	AML			
ARHZ				AML	AML			
BKZ	**Black Stump Fm**	**4.36**	**201**	P	Pn	07 54 28.9		**+1.1**
BKZ				S	S	07 55 23.5		**+1.3**
KWHZ	**Kaweka Forest**	**4.62**	**201**	P	Pn	07 54 31.4		**+0.5**
KWHZ				S	S	07 55 28.8		**+1.0**
KWHZ				AML	AML			
KWHZ				AML	AML			
OTVZ	**Oturere**	**4.65**	**209**	P	Pn	07 54 32.3		**+0.9**
BHHZ	**Black Hill Sta**	**4.79**	**204**	P	Pn	07 54 33.0		**+0.1**
BHHZ				S	S	07 55 31.5		**-0.1**
BHHZ				AML	AML			
BHHZ				AML	AML			
KRHZ	**Kereru**	**4.84**	**200**	P	Pn	07 54 33.2		**-0.3**
KRHZ				S	S	07 55 31.9		**-0.6**
KRHZ				AML	AML			
KRHZ				AML	AML			
KAHZ	**Kahuranaki**	**4.86**	**195**	P	Pn	07 54 34.2		**+0.5**
KAHZ				S	S	07 55 34.4		**+1.5**
KAHZ				AML	AML			
KAHZ				AML	AML			
PXZ	**Pawanui**	**5.08**	**195**	P	Pn	07 54 35.5		**-0.9**
PXZ				S	S	07 55 36.0		**-1.9**
PXZ				AML	AML			
PXZ				AML	AML			
PNHZ	**Pukenui**	**5.14**	**201**	P	Pn	07 54 36.5		**-0.7**
PNHZ				S	S	07 55 38.3		**-0.9**
PNHZ				AML	AML			
PNHZ				AML	AML			
PRHZ	**Porangahau**	**5.36**	**196**	P	Pn	07 54 39.2		**-0.6**
PRHZ				S	S	07 55 44.9		**+0.9**
PRHZ				AML	AML			
PRHZ				AML	AML			
DVHZ	**Dannevirke**	**5.51**	**199**	P	Pn	07 54 40.8		**-0.8**
DVHZ				AML	AML			
DVHZ				AML	AML			
BFZ	**Birch Farm**	**5.85**	**197**	P	Pn	07 54 45.0		**-0.8**
MRZ	**Mangatainoka R**	**6.01**	**202**	P	Pn	07 54 46.8		**-1.0**
MRZ				S	S	07 55 56.3		**-2.3**
HOWZ	**Holdsworth Sta**	**6.25**	**202**	P	Pn	07 54 49.3		**-1.5**
HOWZ				S	S	07 55 60.0		**-4.0**
OGWZ	**Otaki Gorge**	**6.28**	**204**	P	Pn	07 54 50.1		**-1.2**
OGWZ				S	S	07 56 02.9		**-1.8**
TMWZ	**Te Maipa**	**6.34**	**198**	P	Pn	07 54 50.8		**-1.1**
KIW	**Kapiti Island**	**6.41**	**205**	P	Pn	07 54 51.7		**-1.1**
KIW				S	S	07 56 04.8		**-2.8**
CAW	**Cannon Point**	**6.58**	**204**	P	Pn	07 54 53.4		**-1.5**
CAW				S	S	07 56 09.7		**-1.7**
WEL	**Wellington**	**6.84**	**205**	P	Pn	07 54 57.2		**-0.9**
TCW	**Tory Channel**	**6.95**	**208**	P	Pn	07 54 57.9		**-1.6**
TCW				S	S	07 56 16.3		**-3.5**
THZ	**Tophouse**	**7.97**	**212**	P	Pn	07 55 12.6		**+0.1**
THZ				S	S	07 56 41.5		**-2.0**
KHZ	**Kahutara**	**8.27**	**207**	P	Pn	07 55 14.5		**-1.6**
KHZ				S	S	07 56 47.1		**-3.0**

*THE **07** 07:57:06.5,37°.9N±0°.7×2°.7E±°,h8km±2km,M2.5/5, MLh2.5/5*
*AFAD **07** 07:57:06.1,37°.89N×26°.85E,h8km±3km,ML2.5*
*ISK **07** 07:57:06.2,37°.90N×26°.89E,h8km,ML2.5/16*

ISC 07 07:57:06.0±0.8,**37°.90N**±0°.02×**26°.90E**±0°.02,**h14**km±6km,
n44,σ0°61/64,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
DGB	**zm

BAGT	**Foa**	**0.76**	**357**	P	**Pn**	**07 57 22.6**	**+0.4**
BAGT				S	**Sn**	**07 57 32.6**	**-0.9**
BAGT				IAML		07 57 34.0	
	comp=N,244nm,0.5s						
BAGT				IAML		07 57 34.0	
	comp=E,192nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.79**	**86**	Pg	**Pb**	**07 57 22.1**	**+0.6**
AYDB				Sg	**Sb**	**07 57 32.7**	**+0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.81**	**107**	P	**Pn**	**07 57 22.6**	**-0.4**
FOCM	**Foa**	**0.82**	**351**	Pg	**Pb**	**07 57 22.3**	**+0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.83**	**307**	P	**Pg**	**07 57 22.2**	**+0.2**
CHOS				S	**Sb**	**07 57 34.3**	**+1.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**307**	Pg	**Pb**	**07 57 22.6**	**+0.4**
CHOS				Sg	**Sb**	**07 57 34.4**	**+1.2**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.86**	**334**	P	**Pb**	**07 57 22.3**	**-0.3**
IZMR	**zmir-demi**	**0.86**	**74**	Pg	**Pn**	**07 57 24.0**	**+0.3**
BODT	**Bodrum**	**0.90**	**158**	P	**Pg**	**07 57 23.5**	**+0.1**
BODT				S	**Sn**	**07 57 36.6**	**-0.3**
BODT	**Bodrum**	**0.90**	**158**	Pg	**Pn**	**07 57 23.9**	**-0.3**
BODT				Sg	**Sn**	**07 57 36.6**	**-0.3**
BODT				AML	AML		
CAMT	**Merkez**	**0.91**	**21**	P	**Pn**	**07 57 24.9**	**+0.5**
MLSB	**Milas**	**0.92**	**131**	Pg	**Pn**	**07 57 24.5**	**0.0**
MLSB				Sg	**Sn**	**07 57 37.6**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.94**	**152**	P	**Pn**	**07 57 24.9**	**+0.1**
ZEDA	**zmir-Bergama**	**1.08**	**7**	P	**Pg**	**07 57 26.8**	**0.0**
NAZL	**Nazilli-Aydin**	**1.10**	**86**	Pn	**Pg**	**07 57 27.9**	**+0.6**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.15**	**94**	P	**Pg**	**07 57 29.0**	**+0.7**
KIRA	**zmir-Kiraz**	**1.22**	**75**	P	**Pg**	**07 57 30.8**	**+1.2**
KIRA				S	**Sb**	**07 57 41.8**	**-2.8**
KTTT	**Salihli**	**1.23**	**50**	P	**Pg**	**07 57 30.6**	**+0.9**
DAT	**Datca**	**1.28**	**155**	Pn	**Pg**	**07 57 31.0**	**+0.2**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.29**	**160**	P	**Pg**	**07 57 31.1**	**+0.2**
MULA	**Mugla, Merkez-**	**1.30**	**119**	P	**Pb**	**07 57 30.5**	**+0.3**
YER	**Yerkesik**	**1.34**	**124**	P	**Pb**	**07 57 31.0**	**+0.1**
YER	**Yerkesik**	**1.34**	**124**	Pn	**Pg**	**07 57 32.5**	**+0.7**
APE	**Apeiranthos**	**1.37**	**233**	P	**Pn**	**07 57 31.1**	**+0.4**
APE	**Apeiranthos**	**1.37**	**233**	Pn	**Pn**	**07 57 31.1**	**+0.4**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.42**	**44**	Pn	**Pg**	**07 57 33.2**	**-0.2**
GORD				AML	AML		
SULTU	**Buldan**	**1.48**	**83**	P	**Pg**	**07 57 35.1**	**+0.5**
TURN	**Turunc**	**1.55**	**136**	Pn	**Pb**	**07 57 34.6**	**+0.1**
HARTU	**Esme**	**1.56**	**73**	P	**Pg**	**07 57 36.9**	**+0.8**
BUHA	**Balikesir, Bur**	**1.61**	**5**	P	**Pb**	**07 57 35.5**	**+0.1**
DALY	**Dalyan (Mula)**	**1.77**	**127**	Pn	**Pb**	**07 57 37.6**	**-0.5**

*GFZ **07** 08:00:46.8±0.3,5°N±3°×12°8E±°,h116km±3km,M4.8/27, mb4.6/27,Error ellipse: s-maj=6.8km s-min=5.6km az=131.4,confirmed*

*NEIC **07** 08:00:50.7±1.3,4.71N±0.07°×127.78E±0.1,h149km±6km, mb4.3/37,Error ellipse: s-maj=17.2km s-min=9.3km az=71.0*

*MAN **07** 08:00:51.0,4.89N×127.90E,h33km,MS4.0*

*IDC **07** 08:00:51.8±0.7,4.66N×127.86E,h166km±6km,mb4.0/25, mbtmp4.4/27,Error ellipse: s-maj=17.3km s-min=7.4km az=71.0*

ISC 07 08:00:50.0±0.3,**4.67N**±0.04×**127.87E**±0.06,**h150**km,**n129,** σ1§**42**/140,**mb4.3**/57,**Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.57**	**304**	*eP*		**Pn**	**Pn**	**08 01 31.2**	**-0.9**
DDMP				*eS*		**Sn**	**Sn**	**08 02 04.0**	**-0.5**
GSPH	**General Santos**	**3.23**	**296**	*i P*		**Pn**	**Pn**	**08 01 38.4**	**-2.0**
GSPH				*i S*		**Sn**	**Sn**	**08 02 15.0**	**-4.4**
DAV	**Davao City (W)**	**3.29**	**316**	P		**Pn**	**Pn**	**08 01 45.6**	**+4.5**
	231nm,0.4s,baz=40,slow=9.0,SNR=2.3								
DAV				S		**Sn**	**Sn**	**08 02 22.9**	**+2.2**
	250nm,0.4s,baz=321,slow=23,SNR=9.0								
DAV	**Davao City (W)**	**3.29**	**316**	Pn		**Pn**	**Pn**	**08 01 40.6**	**-0.5**
CDOP	**Cateel, Davao**	**3.40**	**335**	*i* P		**Pn**	**Pn**	**08 01 41.9**	**-0.7**
CDOP				*i* S		**Sn**	**Sn**	**08 02 18.1**	**-5.2**
KCP	**Kidapawan**	**3.61**	**310**	*i* P		**Pn**	**Pn**	**08 01 45.5**	**+0.2**
KCP				*i* S		**Sn**	**Sn**	**08 02 27.9**	**-0.2**
BIPH	**Bislig**	**3.80**	**337**	*eP*		**Pn**	**Pn**	**08 01 49.7**	**+2.1**
BIPH				*eS*		**Sn**	**Sn**	**08 02 26.2**	**-6.2**
TNTI	**Ternate**	**3.91**	**187**	Pn		**Pn**	**Pn**	**08 01 50.5**	**+1.5**
TNTI	**Ternate**	**3.91**	**187**	P		**Pn**	**Pn**	**08 01 45.7**	**-3.4**
BUKP	**Musuan**	**4.23**	**319**	*i* P		**Pn**	**Pn**	**08 01 54.3**	**+0.9**
BUKP				*i* S		**Sn**	**Sn**	**08 02 42.2**	**-0.5**
KMSI	**Cibinong**	**5.62**	**224**	P		**Pn**	**Pn**	**08 02 12.1**	**+0.3**
	comp=Z,224nm,0.6s								
GTOI	**Gorontalo**	**6.29**	**231**	P		**Pn**	**Pn**	**08 02 20.3**	**-0.3**
SIJI	**Sorong**	**6.47**	**148**	P		**Pn**	**Pn**	**08 02 26.7**	**+3.7**
	comp=Z,26nm,0.3s,baz=342,slow=19,SNR=13								
SIJI				S		**Sn**	**Sn**	**08 03 35.5**	**-0.3**
	comp=Z,19nm,0.3s,baz=190,slow=22,SNR=8.5								
SANI	**Sanana**	**6.94**	**196**	P		**Pn**	**Pn**	**08 02 28.0**	**-1.2**
	comp=Z,17nm,1.1s								
LUWI	**Luwuk**	**7.62**	**222**	Pn		**Pn**	**Pn**	**08 02 38.7**	**+0.3**
LUWI	**Luwuk**	**7.62**	**222**	P		**Pn**	**Pn**	**08 02 38.5**	**+0.1**
	comp=Z,84nm,0.8s								
TOLI2	**Tolitoli**	**7.91**	**244**				**Pn**	**08 02 41.2**	**-1.0**
FAKI	**Fak Fak**	**8.72**	**150**	Pn		**Pn**	**Pn**	**08 02 52.8**	**-0.3**
MPSI	**Mapaga**	**9.05**	**242**	P		**Pn**	**Pn**	**08 02 56.2**	**-1.3**
	comp=Z,9.6nm,0.6s								
BNDI	**Bandanaira**	**9.36**	**167**	P		**Pn**	**Pn**	**08 02 58.2**	**-3.3**
	comp=Z,186nm,0.8s								
TTSI	**Tana Toraja**	**11.11**	**227**	P		**Pn**	**Pn**	**08 03 23.8**	**-0.9**
	comp=Z,13nm,0.5s								
MMSI	**Mamuju**	**11.56**	**231**	P		**Pn**	**Pn**	**08 03 28.6**	**-2.1**
	comp=Z,304nm,0.6s								
SPSI	**Sidrap Palu**	**11.79**	**223**	P		**Pn**	**Pn**	**08 03 32.3**	**-1.3**
	comp=Z,9.2nm,0.6s								
JAY	**Jayapura**	**14.68**	**119**	P		**Pn**	**Pn**	**08 04 07.6**	**-3.0**
	comp=Z,22nm,1.1s								
EDFI	**Ende, Flores**	**14.69**	**205**	P		**Pn**	**Pn**	**08 04 11.9**	**+1.2**
	comp=Z,11nm,1.1s								
LBFI	**Labuhan Bajo,**	**15.29**	**211**	P		**Pn**	**Pn**	**08 04 19.1**	**+0.9**
	comp=Z,18nm,0.5s								
BBKI	**Banjar Baru**	**15.32**	**238**	P		**Pn**	**Pn**	**08 04 18.5**	**0.0**
	comp=Z,50nm,1.7s								
SBUM	**Sibu**	**15.77**	**262**				**P**	**08 04 25.5**	**+0.6**
SBUM					IAmb	IAmb	IAmb	08 04 28.7	
	comp=Z,12nm,0.8s								
DBNI	**Kabupaten Domp**	**16.19**	**216**	P		**Pn**	**Pn**	**08 04 28.8**	**-0.3**
	comp=Z,12nm,1.3s								
PLAI	**Plampang**	**16.76**	**217**	P		**Pn**	**Pn**	**08 04 38.0**	**+1.9**
	comp=Z,35nm,1.1s								
STKI	**Sintang**	**17.00**	**255**	P		**Pn**	**Pn**	**08 04 39.5**	**+0.5**
TWSI	**Taliwang, Sumb**	**17.25**	**219**	P		**P**	**P**	**08 04 41.3**	**+0.1**
	comp=Z,44nm,0.9s								
MTN	**Manton Dam**	**17.70**	**169**	P		**P**	**P**	**08 04 45.3**	**-0.8**
JAGI	**Jajag, Banyuwa**	**18.91**	**226**			**P**	**P**	**08 04 59.5**	**+0.2**
JAGI	**Jajag, Banyuwa**	**18.91**	**226**	P		**Pn**	**Pn**	**08 05 01.8**	**+0.2**
	comp=Z,52nm,0.8s								
YULB	**Yu-li**	**19.66**	**342**	P		**P**	**P**	**08 05 05.7**	**-1.8**
KNRA	**Kununurra**	**20.24**	**178**	P		**P**	**P**	**08 05 13.6**	**0.0**
SJI	**Sawahan**	**20.25**	**233**	P		**P**	**P**	**08 05 14.7**	**+0.8**
	comp=Z,18nm,1.5s								
NACB	**Ninganchiao**	**20.31**	**343**	P		**P**	**P**	**08 05 12.4**	**-1.9**
NACB					IAmb	IAmb	IAmb	08 05 28.4	
	comp=Z,10nm,0.9s								
PWJI	**Pagerwojo**	**20.39**	**232**	P		**P**	**P**	**08 05 16.4**	**+1.1**
	comp=Z,17nm,1.3s								
YHNB	**Yeheng**	**20.84**	**343**	P		**P**	**P**	**08 05 20.5**	**+0.4**
JOW	**Kunigami**	**22.04**	**1**	P		**P**	**P**	**08 05 33.0**	**+0.3**
	comp=Z,13nm,0.5s,baz=188,slow=11,SNR=6.1								
	comp=Z,13nm,0.5s								
JOW	**Kunigami**	**22.04**	**1**	P		**P**	**P**	**08 05 32.3**	**-0.4**
FITZ	**Fitzroy Crossi**	**22.73**	**185**	P		**P**	**P**	**08 05 40.0**	**+0.7**
WRAB	**Tennant Creek**	**25.27**	**166**	P		**P**	**P**	**08 06 03.0**	**+0.5**
	comp=Z,4.4nm,1.3s								
WRA	**Warramunga Arr**	**25.27**	**166**	P		**P**	**P**	**08 06 02.2**	**-0.4**
	comp=Z,1.2nm,0.4s,baz=351,slow=10,SNR=24								
	comp=Z,1.2nm,0.4s								
WRA	**Warramunga Arr**	**25.27**	**166**	P		**P**	**P**	**08 06 01.4**	**-1.2**
WR8	**Warramunga Arr**	**25.33**	**165**	P		**P**	**P**	**08 06 03.3**	**+0.3**
WR8					IAmb	IAmb	IAmb	08 06 09.0	
	comp=Z,4.3nm,1.1s								
MDSI	**Maura Dua**	**25.35**	**249**	P		**P**	**P**	**08 06 03.2**	**-0.1**
	comp=Z,7.1nm,1.1s								
LWLI	**Liwa**	**25.65**	**248**	P		**P**	**P**	**08 06 06.2**	**0.0**
	comp=Z,85nm,0.8s								
QIS	**Mount Isa**	**27.59**	**156**	P		**P**	**P**	**08 06 23.9**	**+0.5**
	comp=Z,6.2nm,0.7s								
JNU	**Nakatsue**	**28.45**	**5**	P		**P**	**P**	**08 06 30.5**	**-0.3**
	comp=Z,5.3nm,0.4s,baz=238,slow=5.9,SNR=12								
	comp=Z,5.3nm,0.4s								
AS31	**Alice Springs**	**28.77**	**168**	P		**P**	**P**	**08 06 34.5**	**+0.6**
ASAR	**Alice Springs**	**28.77**	**168**	P		**P**	**P**	**08 06 34.0**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=352,slow=7.1,SNR=34								
ASAR					PcP		**PcP**	**08 09 40.5**	**+0.2**
	comp=Z,0.7nm,0.4s,baz=347,slow=2.3,SNR=12								
ASAR					ScP		**ScP**	**08 13 06.8**	**-1.1**
	comp=Z,0.3nm,0.4s,baz=345,slow=3.0,SNR=5.4								
	comp=Z,0.5nm,0.4s								
ASAR	**Alice Springs**	**28.77**	**168**	P		**P**	**P**	**08 06 34.3**	**+0.5**
RPSI	**Rantau Prapat**	**28.95**	**267**	P		**P**	**P**	**08 06 34.5**	**-1.0**
	comp=Z,6.2nm,0.9s								
CTAO	**Charters Tower**	**30.53**	**144**	pP		pP		08 07 16.2	-3.9
	comp=Z,7.7nm,0.4s								
TPTI		**30.64**	**269**	P		**P**	**P**	**08 06 51.3**	**+0.8**
	comp=Z,347nm,1.1s								
CMAR	**Chiang Mai Arr**	**31.40**	**298**	P		**P**	**P**	**08 06 57.2**	**+0.1**
	comp=Z,1.5nm,0.6s,baz=112,slow=7.0,SNR=8.5								
	comp=Z,1.5nm,0.6s								
CMAR	**Chiang Mai Arr**	**31.40**	**298**	P		**P**	**P**	**08 06 56.6**	**-0.5**
TJN	**Taejon**	**31.56**	**359**	P		**P**	**P**	**08 06 58.2**	**+0.1**
	comp=Z,79nm,1.3s								
INU	**Inuyama**	**31.68**	**14**	P		**P**	**P**	**08 06 59.5**	**+0.2**
	comp=Z,19nm,0.8s								
JGF	**Kuroka**	**32.00**	**15**	P		**P**	**P**	**08 07 00.4**	**-1.8**
	comp=Z,12nm,2.1s								
KSRS	**Korea Array**	**32.63**	**0**	P		**P**	**P**	**08 07 08.5**	**+1.0**
	comp=Z,6.4nm,0.6s,baz=178,slow=9.7,SNR=28								
	comp=Z,6.4nm,0.6s								
MAJO	**Matsushiro**	**33.11**	**15**	P		**P**	**P**	**08 07 11.2**	**-0.6**
	comp=Z,9.0nm,0.8s								
MJAR	**Matsushiro Arr**	**33.11**	**15**	P		**P**	**P**	**08 07 11.2**	**-0.6**
	comp=Z,1.8nm,0.5s,baz=188,slow=8.8,SNR=12								
	comp=Z,1.8nm,0.5s								
MJAR	**Matsushiro Arr**	**33.11**	**15**	P		**P**	**P**	**08 07 11.7**	**-0.1**
JSD	**Sado**	**34.54**	**15**	pP		pP		08 07 46.7	-8.0
	comp=Z,7.6nm,0.8s								
MORW	**Morawa**	**35.42**	**198**	P		**P**	**P**	**08 07 31.4**	**-0.3**
MORW					IAmb		IAmb	08 07 43.4	
	comp=Z,6.7nm,1.1s								
EIDS	**Eidsvold**	**37.42**	**144**	P		**P**	**P**	**08 07 49.0**	**+0.3**
	comp=Z,8.7nm,2.1s								
BBOO	**Buckleboo**	**38.08**	**169**	P		**P**	**P**	**08 07 54.6**	**+0.4**
BBOO					IAmb		IAmb	08 08 07.7	
	comp=Z,5.1nm,1.0s								
LZH	**Lanzhou**	**38.29**	**328**	*eP*		**P**	**P**	**08 07 57.0**	**+0.8**
LZH					pP		pP	08 08 21.4	-5.9
LZH					pmax		pmax		
	comp=Z,22nm,1.6s								
STKA	**Stephens Creek**	**38.63**	**161**	P		**P**	**P**	**08 07 59.3**	**+0.5**
	comp=Z,5.8nm,0.4s,baz=340,slow=8.0,SNR=16								
	comp=Z,5.8nm,0.4s								
STKA	**Stephens Creek**	**38.63**	**161**	P		**P**	**P**	**08 07 58.8**	**0.0**
STKA	**Stephens Creek**	**38.63**	**161**	P		**P**	**P**	**08 07 58.8**	**0.0**
	comp=Z,49nm,1.5s								
HHC	**Hu-ho-hao-te**	**38.88**	**340**	*eP*		**P**	**P**	**08 08 03.2**	**+2.2**
HHC					pmax		pmax		
	comp=Z,8.0nm,0.6s								
HHC					pmax		pmax		
	comp=Z,100nm,5.1s								
HHC					LR		LR		
	comp=N,280nm,17.7s								
HHC					LR		LR		
	comp=E,240nm,16.0s								
HHC					LR		LR		
	comp=Z,290nm,17.7s								
USRK	**Ussuriysk Ar.**	**39.53**	**5**	P		**P**	**P**	**08 08 06.6**	**+0.4**
	comp=Z,3.5nm,0.7s,baz=152,slow=3.9,SNR=4.9								
	comp=Z,3.5nm,0.7s								
USRK	**Ussuriysk Ar.**	**39.53**	**5**	P		**P**	**P**	**08 08 06.3**	**+0.2**
SHL	**Shillong**	**40.25**	**305**			**P**	**P**	**08 08 12.4**	**-0.2**
ASAJ	**Asahikawa**	**41.37**	**16**	P		**P**	**P**	**08 08 21.7**	**+0.4**
	comp=Z,7.8nm,0.6s,baz=213,slow=11,SNR=11								
	comp=Z,7.8nm,0.6s								
JKA	**Kamikawa-asahi**	**41.37**	**16**	P		**P**	**P**	**08 08 22.9**	**+1.6**
ARMA	**Armidale**	**41.65**	**148**	P		**P**	**P**	**08 08 25.0**	**+1.1**
ARMA					IAmb		IAmb	08 08 52.0	
	comp=Z,9.6nm,1.1s								
ARMA	**Armidale**	**41.65**	**148**	P		**P**	**P**	**08 08 23.8**	**-0.1**
KLR	**Kul'dur**	**44.52**	**4**	P		**P**	**P**	**08 08 47.0**	**+0.4**
	comp=Z,1.6nm,0.3s,baz=191,slow=9.2,SNR=8.7								
	comp=Z,1.6nm,0.3s								
DZM	**Mont Dzumac**	**46.17**	**127**	P		**P**	**P**	**08 09 00.3**	**+0.3**
	comp=Z,4.0nm,0.4s,baz=249,slow=12,SNR=15								
	comp=Z,4.0nm,0.4s								
ULN	**Ulaanbaatar**	**46.59**	**341**	P		**P**	**P**	**08 09 03.4**	**+0.4**
ULN					IAmb		IAmb	08 09 05.1	
	comp=Z,6.8nm,0.8s								
SONM	**Songino Array**	**46.79**	**340**	P		**P**	**P**	**08 09 05.1**	**+0.6**
	comp=Z,2.4nm,0.8s,baz=153,slow=10,SNR=8.1								
	comp=Z,2.4nm,0.8s								
SONM	**Songino Array**	**46.79**	**340**	P		**P**	**P**	**08 09 04.6**	**+0.1**
WMQ	**Urumqi**	**52.62**	**324**	*eP*		**P**	**P**	**08 09 51.9**	**+3.3**
WMQ					LR		LR		
	comp=Z,150nm,19.7s								
PEA0B	**Petropavlovsk-**	**54.14**	**22**	P		**P**	**P**	**08 10 00.2**	**+0.8**
PETK	**Petropavlovsk-**	**54.14**	**22**	P		**P**	**P**	**08 10 00.8**	**+1.4**
	comp=Z,9.5nm,0.7s,baz=200,slow=4.0,SNR=9.2								
	comp=Z,9.5nm,0.7s								
PETK	**Petropavlovsk-**	**54.14**	**22**	P		**P**	**P**	**08 10 00.4**	**+0.9**
MKAR	**Makanchi Array**	**57.44**	**324**	P		**P**	**P**	**08 10 23.8**	**+0.6**
	comp=Z,3.6nm,0.4s,baz=118,slow=8.0,SNR=47								
MKAR					pP		**pwP**	**08 11 02.3**	**-2.0**
	comp=Z,2.3nm,0.6s,baz=121,slow=8.2,SNR=5.8								
	comp=Z,3.6nm,0.4s								
MKAR	**Makanchi Array**	**57.44**	**324**	P		**P**	**P**	**08 10 23.6**	**+0.4**
MAKZ	**Makanchi**	**57.63**	**324**	P		**P**	**P**	**08 10 24.3**	**-0.2**
MAKZ					IAmb		IAmb	08 10 25.7	
	comp=Z,3.9nm,0.7s								
KSH2	**Kashi**	**58.34**	**314**	P		**P**	**P**	**08 10 30.9**	**+1.2**
KSH2					pmax		pmax		
	comp=Z,3.0nm,0.9s								
ZALV	**Zalesovo Beam**	**60.28**	**332**	P		**P**	**P**	**08 10 41.8**	**-0.7**
	comp=Z,0.9nm,0.4s,baz=83,slow=4.8,SNR=4.4								
ZALV					pP		**pP**	**08 11 20.3**	**+4.7**
	comp=Z,0.7nm,0.7s,baz=117,slow=8.3,SNR=1.6								
	comp=Z,0.9nm,0.4s								
ZALV	**Zalesovo Beam**	**60.28**	**332**	P		**P**	**P**	**08 10 41.5**	**-1.0**
KURK	**Kurchatov**	**61.57**	**327**			**P**	**P**	**08 10 51.5**	**+0.2**
KURBB	**Kurchatov Arra**	**61.57**	**327**	P		**P**	**P**	**08 10 51.5**	**+0.2**
	comp=Z,7.8nm,0.7s,baz=125,slow=6.1,SNR=69								
KURBB					pP		**PcP**	**08 11 30.8**	**-0.7**
	comp=Z,1.9nm,0.6s,baz=124,slow=6.0,SNR=3.9								
	comp=Z,7.8nm,0.7s								
KK31	**Karatay Array**	**63.33**	**316**				**P**	**08 11 03.3**	**+0.1**
KK31					IAmb		IAmb	08 11 04.2	
	comp=Z,2.9nm,1.0s								
KKAR	**Karatay Array**	**63.33**	**316**	P		**P**	**P**	**08 11 03.0**	**-0.2**
TIXI	**Tiksi**	**66.90**	**0**			**P**	**P**	**08 11 25.4**	**-0.2**
TIXI					IAmb		IAmb	08 11 26.0	
	comp=Z,4.4nm,0.8s								
BVAR	**Borovoye Array**	**67.16**	**326**	P		**P**	**P**	**08 11 27.9**	**+0.3**
	comp=Z,3.9nm,0.8s,baz=111,slow=8.1,SNR=8.3								
	comp=Z,3.9nm,0.8s								
BORK	**Borovoye**	**67.21**	**326**	P		**P**	**P**	**08 11 28.8**	**+0.9**
BORK					IAmb		IAmb	08 11 29.1	
	comp=Z,3.9nm,0.7s								
AB31	**Akbulak array**	**72.15**	**320**	P		**P**	**P**	**08 11 57.9**	**-0.4**
ABKAR	**Akbulak array**	**72.15**	**320**	P		**P**	**P**	**08 11 58.1**	**-0.2**
ARTI	**Arti**	**74.84**	**327**	P		**P**	**P**	**08 12 13.6**	**-0.2**
ARTI					IAmb		IAmb	08 12 14.3	
	comp=Z,4.1nm,0.5s								
N15K	**Kwethluk River**	**77.07**	**29**	P		**P**	**P**	**08 12 27.8**	**+1.4**
N15K					IAmb		IAmb	08 12 49.0	
	comp=Z,6.8nm,1.1s								
P16K	**Nushagak River**	**77.87**	**31**	P		**P**	**P**	**08 12 31.9**	**+1.1**
ACHA	**Angle Creek He**	**79.10**	**32**	P		**P**	**P**	**08 12 37.7**	**-0.1**
ACHA					IAmb		IAmb	08 13 04.4	
	comp=Z,3.8nm,1.2s								
OHAK	**Old Harbor**	**80.05**	**33**	P		**P**	**P**	**08 12 43.5**	**+0.7**
OHAK					IAmb		IAmb	08 13 02.4	
	comp=Z,4.8nm,1.0s								
Q19K	**Cape Douglas,**	**80.08**	**31**	P		**P**	**P**	**08 12 43.3**	**+0.4**
SML	**Sawmill**	**82.97**	**28**	P		**P**	**P**	**08 12 59.1**	**+0.9**
SML					IAmb		IAmb	08 13 00.2	
	comp=Z,8.8nm,0.7s								
HDA	**Harding Lake**	**83.73**	**26**	P		**P**	**P**	**08 13 02.2**	**+0.3**
HDA					IAmb		IAmb	08 13 02.9	
	comp=Z,3.9nm,0.8s								
ILAR	**Eielson Array**	**83.77**	**25**	P		**P**	**P**	**08 13 02.1**	**0.0**
	comp=Z,1.1nm,0.6s,baz=244,slow=5.1,SNR=14								
	comp=Z,1.1nm,0.6s								
ILAR	**Eielson Array**	**83.77**	**25**	P		**P**	**P**	**08 13 02.4**	**+0.3**
VNDA	**Vanda**	**84.21**	**173**	P		**P**	**P**	**08 13 04.3**	**+0.2**
	comp=Z,0.7nm,0.7s,baz=330,slow=6.3,SNR=5.6								
	comp=Z,0.7nm,0.7s								
DAWY	**Dawson**	**87.04**	**26**	P		**P**	**P**	**08 13 19.2**	**+0.8**
DAWY					IAmb		IAmb	08 13 23.4	
	comp=Z,2.2nm,1.0s								
INK	**Inuvik**	**88.88**	**22**	P		**P**	**P**	**08 13 26.8**	**0.0**
ARCES	**ARCESS Array B**	**89.96**	**340**	P		**P**	**P**	**08 13 30.7**	**-1.3**
	comp=Z,2.6nm,0.7s,baz=96,slow=5.0,SNR=7.3								
	comp=Z,2.6nm,0.7s								
FINES	**FINESS Array B**	**91.54**	**332**	P		**P**	**P**	**08 13 37.9**	**-1.5**
	comp=Z,2.4nm,0.9s,baz=65,slow=6.8,SNR=2.6								
	comp=Z,2.4nm,0.9s								
AKASG	**Malin Array Be**	**91.88**	**321**	P		**P**	**P**	**08 13 39.7**	**-1.5**
	comp=Z,0.4nm,0.4s,baz=69,slow=5.2,SNR=2.8								
	comp=Z,0.4nm,0.4s								
QSPA	**South Pole Qui**	**94.57**	**180**	P		**P**	**P**	**08 13 53.3**	**-0.1**
	comp=Z,1.3nm,1.1s,baz=28,slow=6.8,SNR=2.2								
	comp=Z,1.3nm,1.1s								
QSPA	**South Pole Qui**	**94.57**	**180**	P		**P**	**P**	**08 13 53.9**	**+0.5**
QSPA					IAmb		IAmb	08 14 12.3	
	comp=Z,4.8nm,1.5s								
YKA	**Yellowknife Ar**	**98.18**	**25**	P		**P**	**P**	**08 14 09.5**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=295,slow=4.8,SNR=1.6								
	comp=Z,0.8nm,0.8s								
SCHQ	**Schefferville**	**119.46**	**10**	PKP		**PKPdf**	**PKPdf**	**08 19 21.7**	**0.0**
	comp=Z,1.2nm,0.3s,baz=43,slow=2.5,SNR=7.5								
TXAR	**Lajitas Array**	**120.13**	**52**	PKP		**PKPdf**	**PKPdf**	**08 19 24.4**	**+0.5**
	comp=Z,0.3nm,0.7s,baz=307,slow=0.6,SNR=4.4								
TORD	**Torodi Ar. Bea**	**123.69**	**289**	PKP		**PKPdf**	**PKPdf**	**08 19 30.3**	**-0.7**
	comp=Z,0.1nm,0.3s,baz=41,slow=4.1,SNR=2.9								

*BJI **07** 08:06:51.5,32.32N×141.78E,h15km,mB4.8/17,mb4.6/51, Ms4.4/33,Ms7 4.3/35*

*IDC **07** 08:06:52.6±0.5,32.39N×141.70E,h0km,mb4.4/22, mbtmp4.4/28,ML3.5/5,MS3.9/41,Error ellipse: s-maj=14.2km s-min=9.4km az=76.0*

*MOS **07** 08:06:53.3±0.9,32.33N×141.60E,h16km,mb4.9/46, MS4.2/4,Error ellipse: s-maj=11.7km s-min=5.7km az=120.1*

*NEIC **07** 08:06:55.1±1.2,32.41N±0.09×141.6E±0.1,h10km±1km, mb4.7/62,Error ellipse: s-maj=15.3km s-min=14.8km az=135.0*

*JMA **07** 08:06:57.0±0.3,32.5N±1.0×14.2E±°,h62km,MV4.1/33,E OFF HACHIJOJIMA ISLAND*

*NIED **07** 08:06:57.0,32.51N×141.77E,h62km,MW4.6,Moment Tensor Solution. s3

BNX pmax pmax
comp=E,19nm,1.2s
DL2 Dalian 17.54 298 P **Pn** **08 10 57.4 -1.6**
DL2 S **Sn** **08 14 09.4 -4.0**
DL2 pmax pmax
comp=E,31nm,1.0s
DL2 pmax pmax
comp=E,250nm,5.5s
DL2 L L
comp=E,910nm,12.8s
DL2 L L
comp=E,830nm,15.2s
DL2 L L
comp=E,820nm,14.8s
YOJ Yonaguni jima 18.16 249 P **Pn** **08 11 03.8 -2.9**
KLR Kul'dur 18.45 339 Pn **P** **08 11 06.5 -3.3**
comp=E,0.8nm,0.3s,baz=179,slow=8.8,SNR=8.8
KLR LR LR 08 18 11.5
comp=E,183nm,19.0s,baz=150,slow=37
KLR Kul'dur 18.45 339 *i* P **P** **08 11 07.1 -2.7**
TYV Tymovskoe 18.54 2 *eP* **Pn** **08 11 10.4 -0.6**
TYV pmax pmax
comp=Z,6.0nm,1.4s
TYV pmax pmax
comp=Z,100nm,3.6s
GUMO Guam 18.88 170 P **P** **08 11 11.7 -3.0**
comp=Z,243nm,1.1s,baz=338,slow=19,SNR=4.5
NJ2 Nanjing 19.30 275 *eP* **P** **08 11 19.2 0.0**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
NACB Ninganchiao 19.43 250 P **P** **08 11 20.7 0.0**
TIA Tai'an 20.63 288 P **P** **08 11 30.5 -3.2**
TIA pmax pmax
comp=Z,6.0nm,0.7s
TIA L L
comp=Z,440nm,14.6s
TIA L L
comp=Z,1μm,16.6s
TIA L L
comp=Z,1μm,17.0s
HEH HeiHe 20.80 334 *eP* **P** **08 11 34.4 -1.0**
HEH pP Pn 08 11 39.0 +1.1
HEH ScS ScS 08 23 01.8 +0.8
HEH pmax pmax
comp=Z,15nm,0.9s
HEH L L
comp=Z,330nm,16.6s
HEH L L
comp=Z,380nm,17.9s
HEH L L
comp=Z,660nm,16.1s
HNS HongShan 22.65 290 ⇑P **P** **08 11 56.2 +0.9**
HNS pmax pmax
comp=Z,13nm,0.9s
HNS L L
comp=Z,380nm,15.8s
HNS L L
comp=Z,700nm,16.9s
HNS L L
comp=Z,890nm,16.5s
XLT XiLinHaoTe 23.11 307 *eP* **P** **08 12 01.3 +1.1**
XLT sP pwP 08 12 13.4 +0.8
XLT sS sS 08 16 18.9 -3.8
XLT SS **SnSn** **08 16 50.8 +7.3**
XLT pmax pmax
comp=Z,22nm,1.5s
XLT pmax pmax
comp=Z,120nm,8.4s
XLT L L
comp=Z,37nm,14.3s
XLT L L
comp=Z,300nm,15.8s
XLT L L
comp=Z,420nm,16.8s
ZEA Zeya 23.76 338 *eP* **P** **08 12 06.5 +0.2**
ZEA pmax pmax
comp=Z,100nm,1.1s
ZEA pmax pmax
comp=N,30nm,0.9s
ZEA pmax pmax
comp=Z,70nm,1.0s
ZEA MLR MLR
comp=Z,200nm,7.0s
PETK Petropavlovsk- 23.78 24 LR LR 08 21 54.0
comp=Z,150nm,21.3s,baz=207,slow=38
HHC Hu-ho-hao-te 25.52 298 *eP* **P** **08 12 23.5 +0.8**
HHC pmax pmax
comp=Z,9.0nm,0.6s
HHC pmax pmax
comp=Z,89nm,5.3s
HHC L L
comp=Z,290nm,17.8s
HHC L L
comp=Z,240nm,16.6s
HHC L L
comp=Z,290nm,17.8s
H11N2 WAKE ISLAND Hy 25.84 113 T T 08 39 48.3
baz=309,slow=74,SNR=3.5
H11N1 WAKE ISLAND Hy 25.85 113 T T 08 39 52.8
baz=309,slow=74,SNR=5.2
H11N3 WAKE ISLAND Hy 25.86 113 T T 08 39 55.4
baz=309,slow=74,SNR=3.7
H11S3 WAKE ISLAND Hy 26.39 115 T T 08 40 29.8
baz=309
H11S1 WAKE ISLAND Hy 26.39 115 T T 08 40 42.3
baz=309
H11S2 WAKE ISLAND Hy 26.41 115 T T 08 40 15.9
baz=309
MA2 Magadan 27.93 10 LR LR 08 25 56.3
comp=Z,123nm,18.6s,baz=139,slow=41
ULN Ulaanbaatar 30.38 311 *ceP* **P** **08 13 07.1 +1.0**
ULN pmax pmax
comp=Z,13nm,0.8s
ULN Ulaanbaatar 30.38 311 **P** **08 13 06.3 +0.1**
ULN IAmb IAmb 08 13 10.9
comp=Z,23nm,1.1s
YAK Yakutsk 30.71 349 LR LR 08 25 51.4
comp=Z,148nm,18.6s,baz=168,slow=37
YAK Yakutsk 30.71 349 *ceP* **P** **08 13 08.4 -0.2**
YAK pmax pmax
comp=Z,13nm,0.6s
YAK Yakutsk 30.71 349 P **P** **08 13 08.4 -0.2**
SONM Songino Array 30.80 311 P **P** **08 13 11.4 +1.6**
comp=Z,15nm,1.0s,baz=122,slow=8.3,SNR=36
comp=Z,15nm,1.0s
SONM Songino Array 30.80 311 P **P** **08 13 10.2 +0.5**
SONM pmax pmax
comp=Z,13nm,1.0s
SONM Songino Array 30.80 311 **P** **08 13 10.2 +0.5**
SONM IAmb IAmb 08 13 13.9
comp=Z,13nm,1.0s
LZH Lanzhou 31.37 287 *eP* **P** **08 13 12.9 -2.1**
LZH sP pP 08 13 21.1 -1.6
LZH pmax pmax
comp=Z,19nm,1.3s
LZH pmax pmax
comp=Z,140nm,4.7s
LZH L L
comp=Z,410nm,13.3s
LZH L L
comp=Z,440nm,12.7s
LZH L L
comp=Z,510nm,15.2s
LZDM Lanzhou Array 31.50 287 P **P** **08 13 16.1 -0.2**
comp=Z,1.2nm,0.3s,baz=95,slow=7.4,SNR=1.6
LZDM LR LR 08 27 08.6
comp=Z,248nm,18.6s,baz=110,slow=39
comp=Z,1.2nm,0.3s
ZAK Zakamensk 33.52 314 *eP* **P** **08 13 33.3 -0.2**
ZAK pmax pmax
comp=Z,7.0nm,1.4s
TLY Talaya 33.72 316 LR LR 08 27 31.0
comp=Z,192nm,18.1s,baz=109,slow=37
GTA2 Gaotai 34.44 294 *eP* **P** **08 13 41.3 -0.4**
GTA2 pmax pmax
comp=Z,8.0nm,0.9s
GTA2 L L
comp=Z,200nm,17.8s
GTA2 L L
comp=Z,360nm,15.9s
GTA2 L L
comp=Z,390nm,15.6s
SIJI Sorong 34.45 199 LR LR 08 26 07.1
comp=Z,188nm,18.8s,baz=60,slow=33
JAY Jayapura 34.66 182 LR LR 08 26 33.4
comp=Z,169nm,19.4s,baz=358,slow=34
KNGR Kungurtug, Tuv 37.13 313 *i* P **P** **08 14 04.9 +0.3**
KNGR pmax pmax
comp=Z,6.0nm,1.0s
GOMU GeErMu 38.62 289 P **P** **08 14 17.6 -0.1**
GOMU pP pP 08 14 20.8 -4.8
GOMU sP sP 08 14 24.7 -3.7
GOMU pmax pmax
comp=Z,33nm,1.0s
TIXI Tiksi 39.98 354 *ceP* **P** **08 14 28.3 +0.2**
TIXI pmax pmax
comp=Z,8.0nm,1.7s
CMAR Chiang Mai Arr 40.72 261 P **P** **08 14 34.4 -0.5**
comp=Z,0.7nm,0.3s,baz=57,slow=7.7,SNR=4.5
CMAR LR LR 08 33 09.8
comp=Z,84nm,18.3s,baz=55,slow=39
comp=Z,0.7nm,0.3s
CMAR Chiang Mai Arr 40.72 261 *i* P **P** **08 14 37.0 +2.1**
CMAR pmax pmax
comp=Z,1.0nm,0.4s
WMQ Urumqi 43.30 301 *eP* **P** **08 14 57.8 +2.0**
WMQ pmax pmax
comp=Z,22nm,1.9s
WMQ L L
comp=Z,130nm,12.3s
DGZ Jazzator, Alta 43.44 310 *i* P **P** **08 14 58.0 +1.1**
DGZ pmax pmax
comp=Z,15nm,1.0s
ZAA0 Zalesovo Array 45.33 316 **P** **08 15 11.7 -0.1**
ZAA0 IAmb IAmb 08 15 12.8
comp=Z,12nm,1.1s
ZALV Zalesovo Beam 45.33 316 P **P** **08 15 11.8 0.0**
comp=Z,5.1nm,0.8s,baz=100,slow=7.7,SNR=20
ZALV PcP **PcP** **08 16 51.0 +0.1**
comp=Z,4.1nm,0.8s,baz=104,slow=2.8,SNR=5.2
ZALV LR LR 08 35 23.3
comp=Z,103nm,19.2s,baz=74,slow=38
comp=Z,5.1nm,0.8s
ZALV Zalesovo Beam 45.33 316 *i* P **P** **08 15 12.1 +0.3**
ZALV pmax pmax
comp=Z,5.0nm,0.9s
ZALV Zalesovo Beam 45.33 316 **P** **08 15 11.5 -0.3**
MTN Manton Dam 46.03 194 P **P** **08 15 18.1 +0.5**
MTN IAmb IAmb 08 15 26.1
comp=Z,7.0nm,0.9s
MK31 Makanchi Array 46.92 306 *i* P **P** **08 15 24.9 +0.5**
MKAR Makanchi Array 46.92 306 P **P** **08 15 25.3 +0.9**
comp=Z,9.5nm,0.8s,baz=90,slow=9.6,SNR=38
comp=Z,9.5nm,0.8s
MKAR Makanchi Array 46.92 306 *i* P **P** **08 15 25.2 +0.8**
MKAR pmax pmax
comp=Z,10.0nm,0.8s
MKAR Makanchi Array 46.92 306 **P** **08 15 25.1 +0.6**
MAKZ Makanchi 47.13 306 P **P** **08 15 26.5 +0.4**
MAKZ pmax pmax
comp=Z,26nm,1.3s
MAKZ Makanchi 47.13 306 **P** **08 15 26.5 +0.4**
EVN Everest 47.20 280 P **P** **08 15 27.3 -0.3**
EVN IAmb IAmb 08 15 51.9
comp=Z,5.7nm,0.8s
M16K Timber Creek 47.56 35 P **P** **08 15 30.2 +1.1**
M16K IAmb IAmb 08 15 46.5
comp=Z,13nm,1.2s
NRIK Noril'sk 47.65 337 P **P** **08 15 29.7 0.0**
comp=Z,6.1nm,0.9s,baz=102,slow=9.3,SNR=4.9
NRIK LR LR 08 35 23.6
comp=Z,77nm,19.0s,baz=161,slow=36
comp=Z,6.1nm,0.9s
NRIK Noril'sk 47.65 337 *i* P **P** **08 15 29.0 -0.7**
NRIK pmax pmax
comp=Z,5.0nm,0.9s
NRIK Noril'sk 47.65 337 P **P** **08 15 30.1 +0.4**
NRIK IAmb IAmb 08 15 43.5
comp=Z,12nm,1.2s
KURK Kurchatov 49.09 311 P **P** **08 15 41.2 +0.1**
KURK pmax pmax
comp=Z,18nm,1.2s
KURK Kurchatov 49.09 311 **P** **08 15 41.2 +0.1**
KURBB Kurchatov Arra 49.16 311 P **P** **08 15 41.7 +0.1**
comp=Z,7.9nm,0.8s,baz=86,slow=7.8,SNR=26
KURBB LR LR 08 37 17.2
comp=Z,277nm,18.2s,baz=168,slow=37
comp=Z,7.9nm,0.8s
KURBB Kurchatov Arra 49.16 311 P **P** **08 15 40.9 -0.7**
PDGK Podgornoye 49.28 302 P **P** **08 15 43.2 +0.3**
PDGK Podgornoye 49.28 302 P **P** **08 15 43.2 +0.3**
PRZ Przheval'sk 50.22 301 P **P** **08 15 50.5 +0.4**
PRZ pmax pmax
comp=Z,16nm,1.0s
PRZ Przheval'sk 50.22 301 P **P** **08 15 50.5 +0.4**
PRZ IAmb IAmb 08 15 52.6
comp=Z,16nm,1.0s
NRN Naryn 52.18 300 P **P** **08 16 05.5 +0.6**
NRN pmax pmax
comp=Z,3.0nm,0.7s
NRN Naryn 52.18 300 P **P** **08 16 05.5 +0.6**
WB0 Warramunga Arr 52.26 189 P **P** **08 16 06.1 +0.8**
CTA Charters Tower 52.30 175 LR LR 08 37 11.0
comp=Z,57nm,21.4s,baz=21,slow=35
WRAB Tennant Creek 52.43 189 P **P** **08 16 07.5 +1.0**
WRAB pmax pmax
comp=Z,31nm,1.2s
WRAB Tennant Creek 52.43 189 P **P** **08 16 07.5 +1.0**
FITZ Fitzroy Crossi 52.43 199 P **P** **08 16 08.2 +1.7**
WR8 Warramunga Arr 52.43 189 P **P** **08 16 07.5 +0.9**
WRA Warramunga Arr 52.44 189 P **P** **08 16 07.2 +0.6**
comp=Z,13nm,0.6s,baz=5.9,slow=7.7,SNR=108
comp=Z,13nm,0.6s
WRA Warramunga Arr 52.44 189 P **P** **08 16 06.1 -0.5**
WRA pmax pmax
comp=Z,2.0nm,1.1s
WRA Warramunga Arr 52.44 189 P **P** **08 16 06.1 -0.5**
E24K Your Creek 52.94 26 P **P** **08 16 10.1 +0.2**
AAK Ala-Archa 53.01 302 *ceP* **P** **08 16 12.0 +1.1**
AAK pmax pmax
comp=Z,8.0nm,1.3s
AAK Ala-Archa 53.01 302 P **P** **08 16 11.1 +0.1**
KSH2 Kashi 53.03 297 P **P** **08 16 12.3 +1.2**
KSH2 pmax pmax
comp=Z,8.0nm,0.8s
ILAR Eielson Array 53.40 30 P **P** **08 16 12.8 -0.5**
comp=Z,1.4nm,0.7s,baz=258,slow=6.4,SNR=12
comp=Z,1.4nm,0.7s
BVAR Borovoye Array 53.96 315 P **P** **08 16 17.8 +0.3**
comp=Z,8.4nm,0.8s,baz=96,slow=7.4,SNR=15
comp=Z,8.4nm,0.8s
F25K Christian Rive 53.98 27 P **P** **08 16 18.6 +1.0**
BORK Borovoye 54.00 315 *i* P **P** **08 16 18.3 +0.5**
BORK pmax pmax
comp=Z,11nm,1.0s
BORK Borovoye 54.00 315 P **P** **08 16 18.2 +0.5**
BORK IAmb IAmb 08 16 23.3
comp=Z,9.4nm,0.9s
BMAR Burnt Mountain 54.39 27 P **P** **08 16 21.7 +1.3**
ARSB Arslanbob 54.41 300 P **P** **08 16 21.7 +0.5**
ARSB pmax pmax
comp=Z,18nm,1.2s
ARSB Arslanbob 54.41 300 P **P** **08 16 21.7 +0.5**
ARSB IAmb IAmb 08 16 24.2
comp=Z,18nm,1.2s
F26K Sheenjek River 54.56 27 P **P** **08 16 23.1 +1.4**
C27K Jago River 54.76 24 P **P** **08 16 24.7 +1.6**
E27K Coleen River 55.52 26 P **P** **08 16 28.8 +0.2**
G27K Doyon Strip 55.54 28 P **P** **08 16 28.5 -0.3**
KK31 Karatay Array 55.76 303 P **P** **08 16 31.3 +0.6**
KK31 pmax pmax
comp=Z,21nm,1.0s
KK31 Karatay Array 55.76 303 P **P** **08 16 31.3 +0.6**
KKAR Karatay Array 55.76 303 P **P** **08 16 31.2 +0.5**
KKAR Karatay Array 55.76 303 P **P** **08 16 31.1 +0.5**
AS31 Alice Springs 56.17 189 P **P** **08 16 34.9 +1.2**
ASAR Alice Springs 56.17 189 P **P** **08 16 34.5 +0.8**
comp=Z,3.1nm,0.9s,baz=18,slow=13,SNR=35
ASAR LR LR 08 38 42.0
comp=Z,74nm,21.7s,baz=317,slow=34
comp=Z,3.1nm,0.9s
ASAR Alice Springs 56.17 189 P **P** **08 16 34.4 +0.7**
NIL Nilore 56.40 291 P **P** **08 16 35.8 +0.3**
NIL pmax pmax
comp=Z,17nm,0.8s
NIL Nilore 56.40 291 P **P** **08 16 35.8 +0.3**
I29M Ogilvie Camp, 57.01 29 P **P** **08 16 40.6 +1.4**
I29M IAmb IAmb 08 16 54.5
comp=Z,5.2nm,0.8s
L29M L29M 57.36 32 P **P** **08 16 43.3 +1.5**
L29M IAmb IAmb 08 17 00.1
comp=Z,5.0nm,0.9s
K29M Barlow Dome 57.53 31 P **P** **08 16 44.3 +1.2**
K29M IAmb IAmb 08 16 59.1
comp=Z,6.5nm,0.9s
EPYK Eagle Plains 57.54 28 P **P** **08 16 43.9 +0.9**
EPYK IAmb IAmb 08 16 57.6
comp=Z,14nm,0.9s
G30M tAoh Zraii Nji 57.66 27 P **P** **08 16 45.0 +1.1**
G30M IAmb IAmb 08 17 09.2
comp=Z,15nm,1.2s
M30M Minto, Yukon 58.04 33 P **P** **08 16 48.4 +1.8**
M30M IAmb IAmb 08 17 05.1
comp=Z,7.8nm,1.2s
EIDS Eidsvold 58.07 170 P **P** **08 16 48.7 +1.6**
EIDS IAmb IAmb 08 17 11.6
comp=Z,6.0nm,0.9s
INK Inuvik 58.50 26 LR LR 08 45 04.3
comp=Z,39nm,19.9s,baz=37,slow=39
INK Inuvik 58.50 26 P **P** **08 16 49.8 +0.2**
INK pmax pmax
comp=Z,4.0nm,1.0s
INK Inuvik 58.50 26 P **P** **08 16 49.8 +0.2**
SVE Sverdlovsk 58.86 321 *eP* **P** **08 16 52.9 +0.6**
SVE pmax pmax
comp=Z,14nm,1.0s
DZM Mont Dzumac 59.06 153 LR LR 08 41 49.9
comp=Z,126nm,19.8s,baz=299,slow=36
KBL Kabul 59.39 294 P **P** **08 16 56.9 +0.2**
KBL pmax pmax
comp=Z,10.0nm,0.9s
KBL Kabul 59.39 294 P **P** **08 16 56.9 +0.2**
KBL IAmb IAmb 08 16 58.0
comp=Z,10.0nm,0.9s
ARTI Arti 60.17 320 *c i* P **P** **08 17 01.4 0.0**
ARTI 08 17 45.7
ARTI 08 19 09.8
ARTI S **S** **08 25 13.0 +0.3**
ARTI SS **SS** **08 29 04.6 -4.9**
ARTI pmax pmax
comp=Z,12nm,0.8s
ARTI Arti 60.17 320 P **P** **08 17 01.6 +0.2**
A36M Sachs Harbour 60.56 21 P **P** **08 17 05.1 +1.3**
A36M IAmb IAmb 08 17 17.1
comp=Z,5.2nm,0.9s
MSVF Nonsavu 60.76 140 LR LR 08 38 14.1
comp=Z,60nm,20.9s,baz=22,slow=31
AB31 Akbulak array 61.19 312 *i* P **P** **08 17 08.6 +0.2**
AB31 Akbulak array 61.19 312 P **P** **08 17 08.9 +0.5**
AB31 IAmb IAmb 08 17 09.9
comp=Z,12nm,1.2s
ABKAR Akbulak array 61.19 312 P **P** **08 17 08.7 +0.3**
PALK Pallekele 61.66 260 LR LR 08 46 01.7
comp=Z,89nm,18.5s,baz=171,slow=38
AKTO Aktyubinsk 62.02 314 LR LR 08 47 15.0
comp=Z,94nm,20.5s,baz=5.5,slow=39
DLBC Dease Lake 62.24 36 LR LR 08 41 37.5
comp=Z,32nm,21.5s,baz=282,slow=34
STKA Stephens Creek 63.86 180 P **P** **08 17 26.7 +0.4**
comp=Z,2.6nm,0.7s,baz=42,slow=2.4,SNR=3.2
STKA LR LR 08 44 49.1
comp=Z,103nm,19.6s,baz=274,slow=36
comp=Z,2.6nm,0.7s
AFI Afiamalu 64.02 128 LR LR 08 40 44.3
comp=Z,120nm,21.4s,slow=32
FORT Forrest 64.07 193 P **P** **08 17 29.5 +1.8**
KIRV Kirov 64.15 324 *ceP* **P** **08 17 28.7 +0.7**
RES Resolute Bay 67.11 14 LR LR 08 49 19.9
comp=Z,43nm,20.7s,baz=14,slow=38
BELG Belogornoye 67.42 319 *i* P **P** **08 17 50.0 +0.9**
BELG pmax pmax
comp=Z,2.0nm,1.1s
YKA Yellowknife Ar 67.79 29 P **P** **08 17 51.2 -0.1**
comp=Z,1.5nm,0.7s,baz=313,slow=6.6,SNR=6.1
comp=Z,1.5nm,0.7s
YKA Yellowknife Ar 67.79 29 *i* P **P** **08 17 51.2 -0.1**
YKA pmax pmax
comp=Z,1.0nm,0.7s
POIN Pond Inlet 71.78 12 P **P** **08 18 16.1 +0.4**
POIN IAmb IAmb 08 18 31.2
comp=Z,8.1nm,1.0s
OBN Obninsk 72.00 324 LR LR 08 52 45.4
comp=Z,211nm,18.1s,baz=354,slow=38
OBN Obninsk 72.00 324‖ *eP* **P** **08 18 17.6 +0.3**
OBN *SP **PcP** **08 18 36.0 +0.2**
OBN 08 20 55.0
OBN pmax pmax
comp=Z,34nm,2.0s
OBN MLR MLR
comp=Z,254nm,20.0s
I04A Tendick Farm, 72.32 49 P **P** **08 18 21.7 +2.2**
FINES FINESS Array B 73.08 333 P **P** **08 18 23.8 +0.2**
comp=Z,2.1nm,0.7s,baz=96,slow=6.7,SNR=6.2
comp=Z,2.1nm,0.7s
FINES FINESS Array B 73.08 333 P **P** **08 18 24.1 +0.5**
YBH Yreka Blue Hor 73.10 51 LR LR 08 46 07.0
comp=Z,97nm,19.8s,baz=300,slow=32
PINE Pine Mountain 73.26 49 P **P** **08 18 26.6 +1.3**
NEW Newport 73.39 43 P **P** **08 18 26.6 +0.8**
NEW pmax pmax
comp=Z,6.0nm,1.1s
NEW Newport 73.39 43 P **P** **08 18 26.6 +0.8**
NEW IAmb IAmb 08 18 44.0
comp=Z,5.5nm,1.1s
K05A Summer Lake 73.81 50 P **P** **08 18 30.5 +1.9**
K05A IAmb IAmb 08 18 47.7
comp=Z,13nm,1.2s
KBZ Khabaz 74.15 312 P **P** **08 18 31.2 +1.0**
comp=Z,6.3nm,1.0s,baz=79,slow=8.3,SNR=6.4
comp=Z,6.3nm,1.0s
KBZ Khabaz 74.15 312 *ceP* **P** **08 18 31.2 +1.0**
KBZ pmax pmax
comp=Z,20nm,1.5s
KIV Kislovodsk 74.17 312 *eP* **P** **08 18 31.6 +1.1**
KIV pmax pmax
comp=Z,14nm,1.1s
MNK Minsk 76.52 327 *i* P **P** **08 18 43.8 +0.2**
MNK *i* *PP **PcP** **08 18 55.9 +0.8**
MNK *i* 08 21 35.8
MNK *i* PPP PPP 08 23 22.8
MNK *i* S **S** **08 28 27.2 0.0**
MNK *i* *SS **SKSac** **08 28 47.9 -4.9**
MNK *i* 08 28 56.1
MNK *i* SS **SS** **08 33 23.5 +2.1**
MNK *i* SSS SSS 08 36 47.3
MNK pmax pmax
comp=Z,5.0nm,0.6s
MNK pmax pmax
comp=N,4.0nm,0.6s
MNK pmax pmax
comp=E,15nm,0.8s
MNK MLR MLR
comp=E,211nm,16.0s
MNK MLR MLR
comp=N,132nm,14.0s
MNK MLR MLR
comp=Z,217nm,17.0s
MNK Minsk 76.52 327 *i* P **P** **08 18 43.9 +0.2**
comp=E,15nm,0.8s
MNK *i* P **P** **08 18 43.9 +0.2**
comp=N,4.0nm,0.6s
MNK *i* P **P** **08 18 43.9 +0.2**
comp=Z,5.0nm,0.6s,baz=53
MNK *i* pP **PcP** **08 18 56.0 +0.8**
MNK *i* PP **PP** **08 21 35.9 +0.7**
MNK *i* PPP PPP 08 23 22.9
MNK *i* S **S** **08 28 27.3 0.0**
MNK *i* sS **SKSac** **08 28 48.0 -4.9**
MNK *i* SS **SS** **08 33 23.6 +2.1**
MNK *i* SSS SSS 08 36 47.3
MNK *i* LQ LQ 08 48 22.8
MNK *i* LR LR 08 53 32.4
RAR Rarotonga 77.26 125 LR LR 08 49 13.0
comp=Z,91nm,19.2s,baz=291,slow=33
DLMT Dillon 77.56 44 P **P** **08 18 51.2 +1.3**
DLMT IAmb IAmb 08 18 54.6
comp=Z,5.2nm,0.9s
FFC Flin Flon 77.56 32 P **P** **08 18 50.0 +0.4**
FFC pmax pmax
comp=Z,7.0nm,1.0s
FFC Flin Flon 77.56 32 P **P** **08 18 50.0 +0.4**
FFC IAmb IAmb 08 18 52.6
comp=Z,6.8nm,1.0s
NVAR Mina Array Bea 77.67 52 P **P** **08 18 51.1 +0.4**
comp=Z,0.9nm,0.5s,baz=283,slow=5.8,SNR=6.5
comp=Z,0.9nm,0.5s
BOZ Bozeman (W) 77.99 43 P **P** **08 18 53.3 +1.0**

BOZ					pmax	pmax		
	comp=Z,3.0nm,0.8s							
BOZ	**Bozeman (W)**	**77.99**	**43**	P		**P**	**08 18 53.3**	**+1.0**
AK03	**Malin Array Si**	**78.14**	**323**	P		**P**	**08 18 52.8**	**0.0**
AKASG	**Malin Array Be**	**78.16**	**323**	P		**P**	**08 18 53.0**	**+0.1**
	comp=Z,1.9nm,0.5s,baz=48,slow=6.0,SNR=9.6							
	comp=Z,1.9nm,0.5s							
AKASG	**Malin Array Be**	**78.16**	**323**	*i* P		**P**	**08 18 53.0**	**+0.1**
AKASG					pmax	pmax		
	comp=Z,2.0nm,0.5s							
AKBB	**Malin Array Si**	**78.16**	**323**	*ce* P		**P**	**08 18 52.5**	**-0.4**
AKBB					pmax	pmax		
	comp=Z,3.0nm,0.5s							
AK01	**Malin Array Si**	**78.17**	**323**	P		**P**	**08 18 53.1**	**+0.1**
AK22	**Malin Array Si**	**78.20**	**323**	P		**P**	**08 18 53.1**	**0.0**
AK20	**Malin Array Si**	**78.24**	**323**	P		**P**	**08 18 53.6**	**+0.2**
HFS	**Hagfors**	**78.46**	**336**	P		**P**	**08 18 55.0**	**+0.6**
	comp=Z,2.3nm,0.8s,baz=54,slow=3.7,SNR=2.4							
HFS					LR	LR	08 55 40.1	
	comp=Z,82nm,19.3s,baz=352,slow=37							
	comp=Z,2.3nm,0.8s							
NC204	**NORSAR Array S**	**78.57**	**338**	P		**P**	**08 18 55.6**	**+0.5**
NB2	**NORSAR Subarra**	**78.60**	**338**	P		**P**	**08 18 55.5**	**+0.2**
	comp=Z,1.1nm,0.8s,baz=41,slow=5.6							
NOA	**NORSAR Array B**	**78.60**	**338**	P		**P**	**08 18 55.3**	**0.0**
	comp=Z,3.1nm,0.9s,baz=40,slow=5.3,SNR=6.0							
NOA					LR	LR	08 58 00.6	
	comp=Z,107nm,18.5s,baz=15,slow=39							
	comp=Z,3.1nm,0.9s							
LUBAR	**Lubar, Ukraine**	**79.38**	**323**	P		**P**	**08 19 00.1**	**+0.5**
HVU	**Hansel Valley**	**79.44**	**47**	P		**P**	**08 19 02.0**	**+1.7**
HVU					pmax	pmax		
	comp=Z,6.0nm,0.9s							
HVU	**Hansel Valley**	**79.44**	**47**	P		**P**	**08 19 02.0**	**+1.7**
HVU					IAmb	IAmb	08 19 07.2	
	comp=Z,6.2nm,0.9s							
PDAR	**Pinedale Array**	**80.83**	**45**	P		**P**	**08 19 08.8**	**+0.8**
	comp=Z,1.0nm,0.8s,baz=272,slow=2.3,SNR=8.3							
	comp=Z,1.0nm,0.8s							
NLU	**North Lily Min**	**80.90**	**48**	P		**P**	**08 19 09.7**	**+1.4**
FRB	**Frobisher Bay**	**81.30**	**13**	LR		LR	08 58 32.9	
	comp=Z,35nm,19.9s,baz=72,slow=38							
PFO	**Pinyon Flats O**	**81.50**	**56**	LR		LR	08 50 19.2	
	comp=Z,116nm,20.4s,baz=202,slow=32							
LCMT	**Little Creek M**	**81.81**	**51**	P		**P**	**08 19 14.2**	**+1.1**
LCMT					IAmb	IAmb	08 19 17.3	
	comp=Z,6.2nm,1.1s							
P17A	**Butcher Ranch,**	**82.02**	**48**	P		**P**	**08 19 15.2**	**+1.0**
P17A					IAmb	IAmb	08 19 18.5	
	comp=Z,7.3nm,0.9s							
RDMU	**Red Mountain**	**82.11**	**47**	P		**P**	**08 19 15.4**	**+0.7**
RDMU					IAmb	IAmb	08 19 17.6	
	comp=Z,5.1nm,0.6s							
BUR08	**Bucovina Ar. S**	**82.13**	**322**	P		**P**	**08 19 14.8**	**+0.2**
BUR08					IAmb	IAmb	08 19 15.9	
	comp=Z,4.9nm,0.8s							
BURAR	**Bucovina Array**	**82.14**	**322**	P		**P**	**08 19 15.0**	**+0.4**
BURAR					pmax	pmax		
	comp=Z,5.0nm,1.1s							
BURAR	**Bucovina Array**	**82.14**	**322**	P		**P**	**08 19 15.0**	**+0.4**
BURAR					IAmb	IAmb	08 19 16.7	
	comp=Z,4.7nm,1.1s							
BR131	**Keskin Array S**	**82.14**	**312**	*i* P		**P**	**08 19 15.8**	**+1.0**
BRTR	**Keskin Array B**	**82.14**	**312**	P		**P**	**08 19 15.9**	**+1.1**
	comp=Z,2.7nm,0.8s,baz=96,slow=3.9,SNR=9.0							
	comp=Z,2.7nm,0.8s							
BRTR	**Keskin Array B**	**82.14**	**312**	*i* P		**P**	**08 19 15.8**	**+1.0**
BRTR					pmax	pmax		
	comp=Z,3.0nm,0.8s							
PPT	**Papeete**	**82.36**	**116**	LR		LR	08 51 46.0	
	comp=Z,87nm,19.9s,baz=320,slow=33							
SRU	**San Rafael Swe**	**82.37**	**48**	P		**P**	**08 19 16.9**	**+0.8**
SRU					pmax	pmax		
	comp=Z,11nm,0.6s							
SRU	**San Rafael Swe**	**82.37**	**48**	P		**P**	**08 19 16.9**	**+0.8**
PPT2	**Papeete2**	**82.38**	**116**	*e* LR		LR	08 45 03.5	
	comp=Z,133nm,24.8s							
PPT2				*e*	LR	LR	08 45 09.3	
	comp=Z,74nm,20.8s							
RAYN	**Ar Rayn**	**82.65**	**293**	P		**P**	**08 19 18.5**	**+0.9**
RAYN					pmax	pmax		
	comp=Z,8.0nm,0.9s							
RAYN	**Ar Rayn**	**82.65**	**293**	P		**P**	**08 19 18.5**	**+0.9**
RAYN					IAmb	IAmb	08 19 24.0	
	comp=Z,8.1nm,0.8s							
KOLS	**Kolonicke sedl**	**82.75**	**325**	*e* P		**P**	**08 19 19.3**	**+1.6**
KOLS					pmax	pmax		
	comp=Z,4.0nm,0.9s							
KOLS	**Kolonicke sedl**	**82.75**	**325**	*e* P		**P**	**08 19 19.2**	**+1.6**
OJC	**Ojcow**	**83.06**	**327**	P		**P**	**08 19 20.1**	**+0.9**
	comp=Z,13nm,1.2s							
PV11	**David Mesa, Pe**	**83.89**	**48**	P		**P**	**08 19 25.2**	**+1.2**
LANS	**Liptovska Anna**	**83.96**	**326**	*e* P		**P**	**08 19 26.0**	**+2.1**
LANS					pmax	pmax		
	comp=Z,4.0nm,0.9s							
LANS	**Liptovska Anna**	**83.96**	**326**	*e* P		**P**	**08 19 26.0**	**+2.1**
KSP	**Ksiaz**	**84.21**	**329**	P		**P**	**08 19 26.0**	**+0.9**
MORC	**Moravsky Berou**	**84.41**	**327**	*e* P		**P**	**08 19 27.0**	**+0.8**
DPC	**Dobruska-Polom**	**84.55**	**328**	P		**P**	**08 19 27.6**	**+0.7**
	comp=Z,8.4nm,1.3s							
PSZ	**Piszkesteto**	**84.61**	**325**	P		**P**	**08 19 27.3**	**0.0**
PSZ					pmax	pmax		
	comp=Z,14nm,1.2s							
VYHS	**Vyhne**	**84.72**	**326**	*e* P		**P**	**08 19 28.9**	**+1.2**
VYHS					pmax	pmax		
	comp=Z,12nm,1.2s							
VYHS	**Vyhne**	**84.72**	**326**	*e* P		**P**	**08 19 28.9**	**+1.2**
TAOE	**Nuku Hiva Isla**	**84.85**	**104**	*e* LR		LR	08 46 19.0	
	comp=Z,130nm,20.7s							
JAVC	**Velka Javorina**	**85.01**	**327**	*e* P		**P**	**08 19 30.4**	**+1.2**
VRAC	**Vranov**	**85.18**	**327**	LR		LR	09 02 38.6	
	comp=Z,127nm,18.4s,baz=6.5,slow=39							
VRAC	**Vranov**	**85.18**	**327**	*e* P		**P**	**08 19 31.0**	**+1.0**
CLL	**Collm**	**85.28**	**331**	*e* P		**P**	**08 19 31.0**	**+0.6**
CLL					pmax	pmax		
	comp=Z,12nm,1.3s							
CLL	**Collm**	**85.28**	**331**	P		**P**	**08 19 30.7**	**+0.3**
CLL	**Collm**	**85.28**	**331**	*e* P		**P**	**08 19 31.0**	**+0.6**
	comp=Z,12nm,1.3s							
CLL				*i* x		x	08 19 43.9	
	comp=Z,7.0nm,1.1s							
SMOL	**Smolenice**	**85.36**	**327**	*e* P		**P**	**08 19 32.2**	**+1.2**
SMOL					pmax	pmax		
	comp=Z,4.0nm,0.8s							
KRUC	**Moravsky**	**85.45**	**327**	*e* P		**P**	**08 19 31.4**	**0.0**
TBI	**Tubuai**	**85.95**	**121**	*e* LR		LR	08 46 44.7	
	comp=Z,1μm,28.0s							
TBI				*e*	LR	LR	08 46 51.1	
	comp=Z,1μm,36.8s							
ANMO	**Albuquerque**	**87.47**	**50**	LR		LR	08 53 04.7	
	comp=Z,97nm,21.9s,baz=318,slow=32							
DAVOX	**Davos/Dischmat**	**90.06**	**329**	LR		LR	09 04 11.1	
	comp=Z,118nm,18.3s,baz=42,slow=38							
LPIG	**La Paz**	**91.34**	**60**	LR		LR	08 54 49.8	
	comp=Z,46nm,20.1s,baz=274,slow=32							
TXAR	**Lajitas Array**	**92.82**	**53**	P		**P**	**08 20 07.8**	**+1.0**
	comp=Z,1.9nm,0.9s,baz=295,slow=3.2,SNR=13							
	comp=Z,1.9nm,0.9s							
QSPA	**South Pole Qui**	**122.08**	**180**	PKP		**PKPdf**	**08 25 47.8**	**+0.4**
	comp=Z,1.4nm,0.7s,baz=302,slow=3.1,SNR=12							

IDC 07 08:32:07.6±2.5, 20°.19S×178°.35W, h527km±27km, mb2.7/4, mbtmp3.5/5, Error ellipse: s-maj=34.2km s-min=32.6km az=24.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.19**	**305**	P	P	08 33 29.5	-0.1
	2.0nm,0.5s,baz=233,slow=20,SNR=4.5						
ASAR	**Alice Springs**	**44.27**	**256**	P	P	08 39 30.6	0.0
	0.8nm,0.5s,baz=99,slow=7.9,SNR=20						
	0.8nm,0.5s						
WRA	**Warramunga Arr**	**44.32**	**262**	P	P	08 39 30.6	-0.3
	0.4nm,0.5s,baz=98,slow=8.0,SNR=14						
	0.4nm,0.5s						
VNDA	**Vanda**	**58.19**	**185**	P	P	08 41 10.4	0.0
	0.2nm,0.3s,baz=53,slow=5.1,SNR=5.7						
	0.2nm,0.3s						
ILAR	**Eielson Array**	**88.08**	**13**	P	P	08 44 01.2	-0.1
	0.2nm,0.6s,baz=203,slow=6.7,SNR=1.7						
	0.2nm,0.6s						

*IDC **07** 08:39:14.6±1.4, 32°.36N×135°.66E, h458km±18km, mb2.7/7, mbtmp3.5/11, Error ellipse: s-maj=25.9km s-min=14.3km az=72.0*

*JMA **07** 08:39:15.4±0.4, 33°.N±2°.×13°.6E±°, h453km±3km, MV3.0/23, S OFF KII PENINSULA*

ISC 07 08:39:14.3±1.0, 32°.5N±0°.1×135°.83E±0°.09, h450km, n23, σ1°.65/25, mb3.1/7, Southeast of Shikoku

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTNC	**Tanabenakahech**	**1.36**	**352**	*eP*	P	**08 40 13.4**	**+1.7**
JAI	**Aioi**	**1.76**	**319**	P	P	**08 40 15.5**	**+2.0**
JWY	**Kouya**	**1.76**	**354**	P	P	**08 40 15.4**	**+1.9**
JIE	**Ise**	**2.06**	**21**	P	P	**08 40 16.4**	**+1.4**
JMN	**Monobe**	**2.07**	**308**	P	P	**08 40 17.5**	**+2.3**
JTO	**Tosashimizu**	**2.59**	**280**	*eP*	P	**08 40 20.7**	**+2.3**
JWT	**Wachi**	**2.83**	**353**	P	P	**08 40 21.4**	**+1.4**
JNA	**Nagahama**	**3.02**	**292**	P	P	**08 40 23.9**	**+2.5**
JHS	**Saijyo**	**3.39**	**319**	*eP*	P	**08 40 26.1**	**+1.8**
JHT	**Toyohira**	**3.59**	**309**	P	P	**08 40 27.6**	**+1.7**
JGT2	**ShimaneMisato**	**3.79**	**314**	*eP*	P	**08 40 29.1**	**+1.5**
JNU	**Nakatsue**	**4.22**	**280**	P	P	**08 40 32.6**	**+1.2**
	9.6nm,1.2s,baz=293,slow=15,SNR=1.3						
JRY	**Ryogami san**	**4.36**	**35**	P	P	**08 40 33.7**	**+1.1**
JRY				*eS*	S	**08 41 36.8**	**+0.3**
MJAR	**Matsushiro Arr**	**4.52**	**25**	P	P	**08 40 35.3**	**+1.3**
	3.3nm,0.5s,baz=185,slow=9.5,SNR=17						
MJAR				S	S	**08 41 36.6**	**-2.5**
	0.6nm,0.4s,baz=106,slow=8.1,SNR=1.7						
KSRS	**Korea Array**	**8.18**	**310**	P	P	**08 41 11.8**	**+0.3**
	1.5nm,0.6s,baz=122,slow=9.2,SNR=6.2						
KLR	**Kul'dur**	**17.03**	**351**	P	P	**08 42 47.2**	**+0.6**
	0.8nm,0.6s,baz=168,slow=9.3,SNR=2.1						
SONM	**Songino Array**	**27.03**	**313**	P	P	**08 44 17.7**	**-0.9**
	0.3nm,0.5s,baz=119,slow=6.5,SNR=1.7						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**42.84**	**306**	P	P	**08 46 30.5**	**-0.6**
	1.1nm,0.5s,baz=93,slow=9.2,SNR=3.7						
	1.1nm,0.5s						
KURBB	**Kurchatov Arra**	**45.36**	**311**	P	P	**08 46 49.8**	**-0.8**
	0.5nm,0.4s,baz=91,slow=9.9,SNR=6.8						
	0.5nm,0.4s						
BVAR	**Borovoye Array**	**50.36**	**314**	P	P	**08 47 27.3**	**-1.0**
	0.6nm,0.5s,baz=79,slow=7.5,SNR=1.2						
	0.6nm,0.5s						
WRA	**Warramunga Arr**	**52.13**	**182**	P	P	**08 47 40.3**	**-1.3**
	0.4nm,0.4s,baz=359,slow=7.6,SNR=14						
	0.4nm,0.4s						
ILAR	**Eielson Array**	**55.78**	**30**	P	P	**08 48 08.6**	**+1.7**
	0.2nm,0.8s,baz=269,slow=5.3,SNR=2.9						
	0.2nm,0.8s						
ASAR	**Alice Springs**	**55.84**	**182**	P	P	**08 48 06.5**	**-1.5**
	0.2nm,0.6s,baz=0.0,slow=7.7,SNR=7.4						
	0.2nm,0.6s						

*JMA **07** 09:00:36.1±0.2, 44°.1N±0°.6×14°.1E±°, h224km±1km, MV4.0/39, NW OFF HOKKAIDO*

*NIED **07** 09:00:36.1, 44°.11N×141°.04E, h224km, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^15Nm; Mrr=1.04; Mθθ 0.01; Mϕϕ 1.04; Mrθ 0.08; Mθϕ -0.30; Mϕr -0.20; Fault plane solution: M0 1.10000×10^15 NP1: ϕs=166.00000°, δ39.00000°, λ-88.00000°. NP2: ϕs=344.00000°, δ51.00000°, λ-92.00000°.*

*IDC **07** 09:00:36.4±0.5, 44°.15N×141°.04E, h215km±5km, mb3.5/22, mbtmp4.0/27 Error ellipse: s-maj=10.7km s-min=10.2km az=165.0*

*SKHL **07** 09:00:38.0±0.3, 44°.20N×141°.30E, h186km±5km, mb4.6/6, msha5.1/6*

ISC 07 09:00:36.6±0.6, 44°.10N±0°.05×141°.13E±0°.05, h221km±5km, n57, σ0°.85/76, mb3.7/22, 20D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYG	**Yagishiri**	**0.40**	**33**	⇓P	Pn	**09 01 05.5**	**-0.3**
JHR	**Hokuryu**	**0.56**	**129**	⇓P	Pn	**09 01 06.9**	**+0.4**
JHR				⇓S	S	**09 01 30.6**	**+1.0**
JSS	**Shosan**	**0.60**	**60**	⇓P	Pn	**09 01 07.0**	**+0.4**
JISS	**Ishikarishitsu**	**0.85**	**165**	⇓P	Pn	**09 01 08.2**	**+0.4**
JAB	**Ashibetsu**	**0.99**	**126**	⇓*i* P	Pn	**09 01 08.9**	**+0.4**
JAB				⇓S	S	**09 01 34.1**	**+0.8**
JRR	**Rishiri**	**1.05**	**7**	⇓P	Pn	**09 01 09.1**	**+0.3**
ASAJ	**Asahikawa**	**1.06**	**88**	P	Pn	**09 01 08.3**	**-0.6**
	153nm,0.3s,baz=252,slow=6.1,SNR=531						
ASAJ				S	S	**09 01 33.7**	**-0.4**
	101nm,0.9s,baz=111,slow=29,SNR=8.0						
JKK2	**Kamakawa 2**	**1.19**	**100**	⇓*i* P	Pn	**09 01 09.9**	**+0.1**
JKK2				⇓S	S	**09 01 35.9**	**+0.2**
JEW	**Eniwo**	**1.28**	**169**	P	Pn	**09 01 10.7**	**+0.1**
JEW				S	S	**09 01 36.9**	**0.0**
JRBN	**Rebuntou**	**1.33**	**358**	⇓P	Pn	**09 01 10.3**	**-0.5**
JRBN				⇓S	S	**09 01 36.0**	**-1.5**
JWK2	**Keihoku**	**1.34**	**24**	⇓*i* P	Pn	**09 01 11.1**	**+0.2**
JWK2				⇓S	S	**09 01 37.9**	**+0.2**
JSE	**Soyaes**	**1.35**	**50**	⇓P	Pn	**09 01 10.8**	**-0.2**
JSE				⇓S	S	**09 01 37.1**	**-0.7**
JTKR	**Abashiri--Toko**	**2.01**	**93**	⇓P	Pn	**09 01 17.3**	**+0.5**
JTKR				⇓S	S	**09 01 49.3**	**+1.3**
JAR	**Ashorobuto**	**2.08**	**112**	⇓*i* P	Pn	**09 01 18.1**	**+0.6**
JAR				⇓S	S	**09 01 50.7**	**+1.5**
JNBK	**Urakawa-nobuka**	**2.17**	**146**	*eP*	Pn	**09 01 18.1**	**-0.4**
JCH	**Churui**	**2.20**	**131**	P	Pn	**09 01 17.8**	**-1.0**
JCH				S	S	**09 01 49.4**	**-2.2**
JOSM	**Okushiri--Mats**	**2.35**	**212**	P	Pn	**09 01 19.9**	**-0.4**
JOT	**Ohata**	**2.71**	**181**	P	Pn	**09 01 24.2**	**0.0**
JAK	**Akkeshi**	**2.82**	**112**	S	S	**09 02 02.2**	**-1.1**
JRA	**Rausu**	**2.89**	**92**	*eP*	Pn	**09 01 27.2**	**+1.1**
AKK	**Akkeshi**	**2.91**	**110**	*eP*	Pn	**09 01 25.4**	**-0.9**
KHLM	**Kholmsk**	**3.03**	**12**	*eP*	Pn	**09 01 28.1**	**+0.5**
YSS	**Yuzhno-Sakhali**	**3.08**	**21**	*eP*	Pn	**09 01 28.1**	**-0.1**
YSS				AMB	AMB	09 01 29.1	
	40nm,0.3s						
YSS				*i* S	S	**09 02 07.2**	**-1.4**
YSS				A	A	09 02 07.8	
	130nm,0.6s						
YSS				A	A	09 02 07.8	
	90nm,0.6s						
NMR	**Nemuro--Hokkai**	**3.41**	**101**	*eP*	Pn	**09 01 31.2**	**-0.9**
NMR				*eS*	S	**09 02 13.3**	**-2.2**
YUK	**Yuzh-Kuril'sk**	**3.41**	**89**	*eP*	Pn	**09 01 31.7**	**-0.4**
YUK				AMB	AMB	09 01 37.8	
	280nm,0.8s						
YUK				*eS*	S	**09 02 13.1**	**-2.4**
YUK				A	A	09 02 27.4	
	450nm,0.9s						
YUK				A	A	09 02 27.4	
	330nm,0.9s						
SHO	**Shikotan**	**4.12**	**91**	*eP*	Pn	09 01 59.8	+19
SHO				AMB	AMB	09 02 01.0	
	50nm,0.7s						
SHO				*eS*	S	09 02 47.2	+16
SHO				A	A	09 02 50.8	
	140nm,0.3s						
SHO				A	A	09 02 50.8	
	170nm,0.3s						
KUR	**Kuril'sk**	**4.94**	**74**	*eP*	Pn	**09 01 49.9**	**-0.8**
KUR				*eS*	S	**09 02 48.4**	**-0.8**
USRK	**Ussuriysk Ar.**	**6.58**	**274**	P	Pn	**09 02 10.8**	**-0.7**
	47nm,0.8s,baz=83,slow=14,SNR=30						
TYV	**Tymovskoe**	**6.85**	**8**	*eP*	Pn	**09 02 15.7**	**+0.8**
TYV				AMB	AMB	09 02 16.5	
	10.0nm,0.4s						
TYV				*eS*	S	**09 03 34.1**	**+0.8**
TYV				A	A	09 03 34.6	
	10.0nm,0.5s						
TYV				A	A	09 03 34.6	
	10.0nm,0.5s						
MJAR	**Matsushiro Arr**	**7.87**	**197**	P	Pn	**09 02 27.5**	**-0.7**
	0.6nm,0.4s,baz=39,slow=18,SNR=4.2						
KLR	**Kul'dur**	**8.24**	**312**	P	Pn	**09 02 31.1**	**-1.7**
	1.4nm,0.7s,baz=124,slow=16,SNR=3.9						
KSRS	**Korea Array**	**12.00**	**241**	P	Pn	**09 03 19.8**	**-1.1**
	2.1nm,0.8s,baz=54,slow=13,SNR=5.7						
PETK	**Petropavlovsk-**	**14.17**	**45**	P	P	**09 03 49.2**	**+0.4**
	6.2nm,0.7s,baz=247,slow=5.7,SNR=7.1						
SONM	**Songino Array**	**24.30**	**291**	P	P	**09 05 34.1**	**+0.2**
	1.2nm,0.5s,baz=98,slow=11,SNR=5.9						
	1.2nm,0.5s						
ZALV	**Zalesovo Beam**	**37.29**	**306**	P	P	**09 07 26.6**	**-0.5**
	1.0nm,0.3s,baz=76,slow=10,SNR=7.4						
ZALV				PcP	PcP	**09 09 41.4**	**0.0**
	1.1nm,0.5s,baz=92,slow=4.7,SNR=5.6						
	1.0nm,0.3s						
MKAR	**Makanchi Array**	**40.53**	**295**	P	P	**09 07 54.0**	**-0.1**
	1.6nm,0.6s,baz=85,slow=11,SNR=11						
MKAR				PcP	PcP	**09 09 51.6**	**-0.3**
	0.3nm,0.3s,baz=72,slow=5.1,SNR=6.7						
	1.6nm,0.6s						
KURBB	**Kurchatov Arra**	**41.77**	**302**	P	P	**09 08 03.9**	**-0.2**
	4.9nm,0.7s,baz=72,slow=8.9,SNR=30						
	4.9nm,0.7s						
CMAR	**Chiang Mai Arr**	**43.53**	**248**	P	P	**09 08 19.6**	**+1.0**
	1.1nm,0.3s,baz=36,slow=6.8,SNR=4.7						
	1.1nm,0.3s						
ILAR	**Eielson Array**	**43.78**	**36**	P	P	**09 08 20.7**	**+0.7**
	0.2nm,0.5s,baz=280,slow=10,SNR=7.8						
	0.2nm,0.5s						
BVAR	**Borovoye Array**	**45.88**	**307**	P	P	**09 08 36.7**	**+0.1**
	4.2nm,0.4s,baz=72,slow=8.8,SNR=9.6						
	4.2nm,0.4s						
ARCES	**ARCESS Array B**	**57.35**	**338**	P	P	**09 09 59.8**	**-1.3**
	4.2nm,1.0s,baz=59,slow=5.6,SNR=1.5						
	4.2nm,1.0s						
YKA	**Yellowknife Ar**	**57.88**	**32**	P	P	**09 10 05.3**	**+0.4**
	0.8nm,0.5s,baz=306,slow=6.4,SNR=8.3						
YKA				PcP	PcP	**09 10 55.3**	**+0.7**
	0.9nm,0.7s,baz=312,slow=3.8,SNR=7.2						
	0.8nm,0.5s						
FINES	**FINESS Array B**	**62.51**	**331**	P	P	**09 10 35.6**	**-0.7**
	3.6nm,0.7s,baz=58,slow=7.8,SNR=14						
	3.6nm,0.7s						
WRA	**Warramunga Arr**	**64.03**	**187**	P	P	**09 10 46.6**	**0.0**
	0.6nm,0.4s,baz=2.0,slow=6.7,SNR=24						
WRA				PcP	PcP	**09 11 19.9**	**-0.1**
	0.2nm,0.6s,baz=2.5,slow=4.6,SNR=5.0						
	0.6nm,0.4s						
KBZ	**Khabaz**	**66.24**	**308**	P	P	**09 11 01.3**	**+0.6**
	1.4nm,0.6s,baz=14,slow=8.3,SNR=2.0						
	1.4nm,0.6s						
HFS	**Hagfors**	**67.59**	**335**	P	P	**09 11 08.1**	**-0.9**
	2.0nm,0.5s,baz=36,slow=4.6,SNR=9.6						
	2.0nm,0.5s						
NB2	**NORSAR Subarra**	**67.62**	**336**	P	P	**09 11 08.4**	**-0.7**
	comp=Z,0.4nm,0.3s,baz=34,slow=6.9						
NOA	**NORSAR Array B**	**67.62**	**336**	P	P	**09 11 08.7**	**-0.4**
	comp=Z,1.7nm,0.7s,baz=36,slow=6.6,SNR=5.9						
	comp=Z,1.5nm,0.7s						
ASAR	**Alice Springs**	**67.75**	**187**	P	P	**09 11 11.4**	**+1.0**
	comp=Z,1.1nm,0.6s,baz=6.3,slow=6.0,SNR=25						
	comp=Z,1.1nm,0.6s						
AKASG	**Malin Array Be**	**68.64**	**321**	P	P	**09 11 15.1**	**-0.5**
	comp=Z,0.7nm,0.4s,baz=42,slow=6.6,SNR=5.1						
	comp=Z,0.7nm,0.4s						
PDAR	**Pinedale Array**	**72.92**	**47**	P	P	**09 11 42.8**	**+1.0**
	comp=Z,1.0nm,0.6s,baz=248,slow=1.4,SNR=12						
	comp=Z,1.0nm,0.6s						
ULM	**Lac du Bonnet**	**73.75**	**34**	P	P	**09 11 46.0**	**-0.2**
	comp=Z,2.1nm,0.7s,baz=323,slow=2.0,SNR=4.2						
	comp=Z,2.1nm,0.7s						
EKA	**Eskdalemuir Ar**	**76.42**	**340**	P	P	**09 12 00.8**	**-0.6**
	comp=Z,0.3nm,0.3s,baz=30,slow=4.2,SNR=5.5						
	comp=Z,0.3nm,0.3s						
GERES	**GERESS Array B**	**76.62**	**327**	P	P	**09 12 02.4**	**-0.4**
	comp=Z,0.4nm,0.3s,baz=46,slow=5.8,SNR=4.2						
	comp=Z,0.4nm,0.3s						
TXAR	**Lajitas Array**	**85.98**	**52**	P	P	**09 12 52.9**	**+0.7**
	comp=Z,0.1nm,0.4s,baz=278,slow=2.2,SNR=5.9						
	comp=Z,0.1nm,0.4s						
ESDC	**Sonseca Array**	**90.86**	**334**	P	P	**09 13 15.0**	**0.0**
	comp=Z,0.6nm,0.7s,baz=31,slow=4.8,SNR=4.2						
	comp=Z,0.6nm,0.7s						
QSPA	**South Pole Qui**	**133.83**	**180**	PKP	PKPdf	**09 19 26.5**	**+0.6**
	comp=Z,0.4nm,0.6s,baz=67,slow=0.6,SNR=1.2						

*SJA **07** 09:22:37.7±0.6, 21°.80S×68°.51W, h131km±4km, ML3.4, MW3.6*

*GUC **07** 09:22:38.8±0.7, 21°.76S×68°.55W, h129km±5km, ML3.3, Presumed earthquake*

ISC 07 09:22:39.0±1.9, 21°.78S±0°.04×68°.55W±0°.08, h127km±13km, n28, σ0°.51/47, 4C-4D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.64**	**269**	*i* P	Pn	**09 22 58.8**	**-0.1**
PB09				*i* S	Sn	**09 23 14.1**	**+0.2**
PB09				IAML		09 23 15.7	
	comp=Z,867nm,0.6s						
PB09	**IPOC Station P**	**0.64**	**269**	*eP*	Pn	**09 22 58.6**	**-0.3**
PB09				*eS*	Sn	**09 23 13.2**	**-0.7**
PB09				IAML		09 23 16.1	
	comp=E,596nm,0.4s						
PB03	**IPOC Station P**	**1.15**	**256**	*i* P	Pn	**09 23 03.2**	**-0.1**
PB03				IAML		09 23 22.1	
	comp=Z,953nm,0.3s						
PB03				*i* S	Sn	**09 23 22.3**	**+0.6**
PB03	**IPOC Station P**	**1.15**	**256**	⇑*eP*	Pn	**09 23 02.9**	**-0.4**
PB03				*eS*	Sn	**09 23 21.3**	**-0.4**
PB03				IAML		09 23 21.7	
	comp=N,1μm,0.2

PSGCX	**Pisagua**	**2.62**	**326**	*eP*		**Pn**	**09 23 21.0**	**+0.2**
PB14	**IPOC Station P**	**3.30**	**211**	*i* P		**Pn**	**09 23 29.7**	**-0.2**
PB14				IAML			09 24 20.5	
	comp=Z,60nm,0.3s							

IDC ***07*** *09:27:00.0±0.3, 15°.27S×173°.54W, h0km, mb5.5/40, mbtmp5.5/42, ML5.9/1, MS5.9/71, Error ellipse: s-maj=12.5km s-min=9.6km az=143.0*

MOS ***07*** *09:27:00.9±1.1, 15°.24S×173°.62W, h10km, mb6.0/57, MS6.3/25, Error ellipse: s-maj=7.9km s-min=6.8km az=118.5*

BJI ***07*** *09:27:00.6, 15°.19S×173°.32W, h10km, mB6.0/63, mb5.5/63, Ms6.1/88, Ms7 6.0/88*

IPGP ***07*** *09:27:04.0, 15°.27S×173°.55W, h46km, Mw6.3, Fault plane solution: NP1:φs160.00000°, δ13.00000°, λ144.00000°. NP2:φs285.00000°, δ83.00000°, λ80.00000°.*

ISC-PP ***07*** *09:27:05, 15°.25S×173°.53W, h11km±1km, Mwppsm6.4, Moment Tensor Solution. s28 Moment tensor: Scale 10¹⁸Nm; Mrr-0.20±.12; Mθθ0.20±.27; Mφφ0.04±.15; Mrθ-0.11±.14; Mrφ0.45±.14; Mθr-0.49±.18; Fault plane solution: M₀4.32000×10¹⁸ NP1:φs166.60000°, δ78.60000°, λ311.60000°. NP2:φs269.10000°, δ42.90000°, λ-163.20000°.*

NEIC ***07*** *09:27:05.5±1.5, 15°.25S±0°.09×173°.53W±0°.08, h34km±1km, mb6.0/671, Ms_20 6.3/789, Mwb6.1/202, Mww6.2/34 Error ellipse: s-maj=15.2km s-min=11.4km az=209.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr0.00; Mθθ-0.06; Mφφ0.06; Mrθ-1.71; Mθφ0.02; Mφr0.38; Fault plane solution: M₀1.75000×10¹⁸ NP1: φs282.43000°, δ89.45000°, λ90.39000°. NP2:φs66.88000°, δ0.68000°, λ54.45000°. Principal axes: T 1.7209, Plg46.0000°, Azm193.0000°; N 0.0606, Plg0.0000°, Azm102.0000°; P -1.7815, Plg44.0000°, Azm12.0000°;*

NEIC ***07*** *09:27:05, 15°.28S×173°.55W, h30km*

NEIC ***07*** *09:27:05.5, 15°.25S×173°.53W, h34km*

NOU ***07*** *09:27:08.9, 15°.46S×173°.45W, h68km, ML6.1/166, Tonga Islands*

GFZ ***07*** *09:27:09.0±0.1, 15°.S±2°.×17°.4W±°, h64km, M6.1/107, mB6.4/86, mb5.8/107, Mw(mB)6.2/86, MwMwp6.1/83, Mwp6.1/83*

GFZ ***07*** *09:27:09.0, 15°.21S×173°.82W, h58km, Mw6.2/133, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr-1.19; Mθθ0.77; Mφφ0.42; Mrθ-2.55; Mθφ-0.03; Mφr0.43; Fault plane solution: M₀2.79475×10¹⁸ NP1:φs99.33298°, δ79.61085°, λ-89.50682°. NP2:φs276.60014°, δ10.40072°, λ-92.68800°. Principal axes: T 2.5598, Plg34.6091°, Azm188.9093°; N 0.4219, Plg0.4851°, Azm279.2440°; P -2.9817, Plg55.3865°, Azm9.9469°;*

GCMT ***07*** *09:27:10.5±0.0, 15°.14S×173°.43W, h56km, MW6.3/178, Moment Tensor Solution. s169,c409; s178,c626; Duration: 3ᵝ3 Moment tensor: Scale 10¹⁸Nm; Mrr-0.20±.01; Mθθ0.52±.01; Mφφ-0.31±.01; Mrθ-3.14±.03; Mθφ0.25±.01; Mφr0.55±.01; Best double couple: M₀3.22500×10¹⁸ NP1:φs212.00000°, δ7.00000°, λ-158.00000°. NP2:φs100.00000°, δ87.00000°, λ-83.00000°. Principal axes: T 3.3260, Plg42.0000°, Azm184.0000°; N -0.2030, Plg7.0000°, Azm280.0000°; P -3.1230, Plg47.0000°, Azm17.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

NEIC ***07*** *09:27:14.3, 14°.95S×173°.53W, h50km, Moment Tensor Solution. Duration: 6ᵝ4 Moment tensor: Scale 10¹⁸Nm; Mrr0.54; Mθθ-0.27; Mφφ-0.27; Mrθ-2.50; Mθφ0.02; Mφr0.85; Fault plane solution: M₀2.69000×10¹⁸ NP1: φs113.53000°, δ4.42000°, λ94.74000°. NP2:φs288.77000°, δ85.60000°, λ89.63000°. Principal axes: T 2.8070, Plg49.0000°, Azm198.0000°; N -0.2623, Plg0.0000°, Azm289.0000°; P -2.5447, Plg41.0000°, Azm19.0000°;*

ISC 07 09:27:06.5±0.2, 15°.39S±0°.03×173°.49W±0°.03, h46km±1km, h46km:pP-P, n1985, σ1960/1545, mb5.9/478, MS6.3/512, 114C-110D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**2.21**	**49**	Pn	Pn	09 27 34.5	-6.3
	29µm,0.5s						
AFI				Sn	Sn	09 27 56.5	-11
FUTU	**Fugatoga**	**4.61**	**283**	P	**Pn**	**09 28 15.4**	**+1.8**
FUTU	**Fugatoga**	**4.61**	**283**	S	**Sn**	**09 29 09.5**	**+3.6**
FUTU	**Fugatoga**	**4.61**	**283**		**Pn**	**09 28 11.9**	**-1.7**
FUTU	**Fugatoga**	**4.61**	**283**	P	**Pn**	**09 28 15.5**	**+1.8**
FUTU				S	**Sn**	**09 29 05.7**	**-0.2**
FUTU				AML	AML		
FUTU				AML	AML		
NIUE	**Niue**	**5.01**	**138**	P	**Pn**	**09 28 19.9**	**+0.8**
NIUE	**Niue**	**5.01**	**138**	P	**Pn**	**09 28 19.6**	**+0.4**
	comp=Z,11µm,0.7s,comp=Z,0.0nm						
NIUE				S	**Sn**	**09 29 14.1**	**-1.6**
NIUE	**Niue**	**5.01**	**138**	P	**Pn**	**09 28 19.5**	**+0.4**
NIUE	**Niue**	**5.01**	**138**	S	**Sn**	**09 29 14.5**	**-1.3**
NIUE	**Niue**	**5.01**	**138**		**Pn**	**09 28 19.4**	**+0.2**
NIUE	**Niue**	**5.01**	**138**	P	**Pn**	**09 28 19.8**	**+0.6**
NIUE				S	**Sn**	**09 29 12.5**	**-3.2**
NIUE				AML	AML		
NIUE				AML	AML		
NIUE	**Niue**	**5.01**	**138**	⇓P	**Pn**	**09 28 19.0**	**-0.2**
LKBA	**Tubou, Lakemba**	**5.83**	**240**	P	**Pn**	**09 28 34.6**	**+4.1**
TAVE	**Taveuni**	**6.31**	**257**	P	**Pn**	**09 28 41.8**	**+4.8**
DGTI	**Dogotuki**	**6.58**	**261**	P	Pn	09 28 45.9	+5.1
MSVF	**Nonsavu**	**8.44**	**253**	Pn	Pn	09 29 11.8	+5.4
	comp=Z,27nm,0.3s,baz=86,slow=13,SNR=130						
MSVF				LR	LR	09 32 07.4	
	comp=Z,227µm,20.4s,baz=87,slow=36						
MSVF	**Nonsavu**	**8.44**	**253**	P	**Pn**	**09 29 09.8**	**+3.4**
MSVF	**Nonsavu**	**8.44**	**253**	P	Pn	09 29 14.4	+8.0
FUNA	**Funafuti**	**9.88**	**313**		**Pn**	**09 29 22.7**	**-3.4**
FUNA	**Funafuti**	**9.88**	**313**	P	**Pn**	**09 29 23.3**	**-2.8**
	comp=Z,378nm,1.0s						
RAR	**Rarotonga**	**14.25**	**116**	Pn	**Pn**	**09 30 23.7**	**-2.0**
	comp=Z,22nm,0.3s,baz=260,slow=10,SNR=44						
RAR				Sn	Sn	09 32 51.8	-11
	comp=Z,18nm,0.3s,baz=101,slow=19,SNR=1.5						
RAR				LR	LR	09 34 37.3	
	comp=Z,18µm,19.9s,baz=304,slow=32						
RAR	**Rarotonga**	**14.25**	**116**	P	**Pn**	**09 30 24.3**	**-1.4**
RAR	**Rarotonga**	**14.25**	**116**		**Pn**	**09 30 24.8**	**-0.9**
RAR	**Rarotonga**	**14.25**	**116**	P	**Pn**	**09 30 25.1**	**-0.7**
RAR				S	Sn	09 32 50.6	-12
RAR	**Rarotonga**	**14.25**	**116**	⇑P	**Pn**	**09 30 24.6**	**-1.1**
RAO	**Raoul Island**	**14.39**	**196**	Pn	**Pn**	**09 30 24.6**	**-3.0**
	comp=Z,54nm,0.3s,baz=66,slow=23,SNR=1.5						
RAO				Sn	**Sn**	**09 33 02.7**	**-3.1**
	comp=Z,50nm,0.3s,baz=253,slow=22,SNR=1.7 comp=Z,118nm,0.3s						
RAO				AML	AML		
GLKZ	**Green Lake**	**14.40**	**196**	P	**Pn**	**09 30 27.0**	**-0.6**
GLKZ				S	**Sn**	**09 33 03.5**	**-2.5**
RTV	**Rentapao**	**17.50**	**260**	P	**P**	**09 31 11.4**	**+3.4**
DVP	**Devils Point**	**17.72**	**260**	P	**P**	**09 31 12.4**	**+2.0**
MARNC	**Mare, Loyalty**	**18.54**	**248**	P	**P**	**09 31 18.5**	**-1.0**
MARNC	**Mare, Loyalty**	**18.54**	**248**		**P**	**09 31 19.2**	**-0.2**
MARNC	**Mare, Loyalty**	**18.54**	**248**	⇑P	**P**	**09 31 19.7**	**+0.2**
SANVU	**Saraoutou**	**18.61**	**267**	P	**Pn**	**09 31 22.8**	**+1.8**
SANVU	**Saraoutou**	**18.61**	**267**		**P**	**09 31 19.5**	**-0.8**
SANVU	**Saraoutou**	**18.61**	**267**	P	**Pn**	**09 31 20.9**	**-0.1**
SANVU				S	**Sn**	**09 34 46.3**	**-2.0**
SANVU	**Saraoutou**	**18.61**	**267**	⇑P	**Pn**	**09 31 21.4**	**+0.4**
SANVU	**Saraoutou**	**18.61**	**267**	P	**P**	**09 31 18.8**	**-1.5**
PINNC	**Pines Island,**	**19.39**	**245**	P	**P**	**09 31 29.0**	**+0.2**
PINNC	**Pines Island,**	**19.39**	**245**		**P**	**09 31 28.3**	**-0.5**
YATNC	**Mamie plateau,**	**19.72**	**247**	P	**P**	**09 31 33.1**	**+0.7**
OUENC	**Ouen Island, N**	**19.87**	**246**	P	**P**	**09 31 33.1**	**-0.9**
OUENC				IAmb	IAmb	09 31 42.5	
	comp=Z,712nm,1.1s						
DZM	**Mont Dzumac**	**20.12**	**248**	P	**P**	**09 31 35.8**	**-1.1**
	comp=Z,55nm,0.7s,baz=82,slow=20,SNR=43						
DZM				LR	LR	09 38 22.5	
	comp=Z,71µm,20.4s,baz=82,slow=34 comp=Z,55nm,0.7s						
ONTNC	**Ouen Toro**	**20.18**	**247**	P	**P**	**09 31 38.3**	**+0.9**
ONTNC	**Ouen Toro**	**20.18**	**247**	P	**P**	**09 31 36.8**	**-0.6**
ONTNC				IAmb	IAmb	09 31 46.3	
	comp=Z,799nm,1.0s						

ONTNC	**Ouen Toro**	**20.18**	**247**	⇑P		**P**	**09 31 37.9**	**+0.6**
NOUC	**Port Laguerre**	**20.26**	**248**	P		**P**	**09 31 39.0**	**+0.8**
NOUC	**Port Laguerre**	**20.26**	**248**	P		**P**	**09 31 37.4**	**-0.8**
NOUC				S		Sn	09 35 33.0	+5.1
TARA	**Tarawa**	**21.38**	**320**	P		**P**	**09 31 49.8**	**-0.6**
TARA	**Tarawa**	**21.38**	**320**	⇓P		**P**	**09 31 49.4**	**-1.0**
TARA	**Tarawa**	**21.38**	**320**	P		**P**	**09 31 48.2**	**-2.2**
	comp=Z,857nm,1.1s,comp=Z,19µmcomp=Z,59µm							
KOUNC	**Koumac, New Ca**	**21.75**	**253**	P		**P**	**09 31 55.6**	**+1.3**
KOUNC	**Koumac, New Ca**	**21.75**	**253**			**P**	**09 31 53.8**	**-0.5**
KOUNC	**Koumac, New Ca**	**21.75**	**253**	⇑P		**P**	**09 31 53.5**	**-0.8**
NFK	**Norfolk Island**	**21.87**	**228**	P		**P**	**09 31 57.6**	**+2.1**
	comp=Z,357nm,1.0s,comp=Z,0.0nm							
NFK	**Norfolk Island**	**21.87**	**228**	P		**P**	**09 31 56.1**	**+0.6**
	comp=Z,357nm,1.0s,comp=Z,0.0nm							
NFK	**Norfolk Island**	**21.87**	**228**	P		**P**	**09 31 55.6**	**0.0**
OUZ	**Omahuta**	**22.90**	**208**	IAMs_20		IAMs_20	09 39 15.2	
	comp=Z,144µm,20.0s							
OUZ	**Omahuta**	**22.90**	**208**	P		**P**	**09 32 09.3**	**+2.9**
OUZ	**Omahuta**	**22.90**	**208**	⇑P		**P**	**09 32 06.9**	**+0.5**
OUZ	**Omahuta**	**22.90**	**208**	P		**P**	**09 32 08.1**	**+1.7**
	comp=Z,248nm,2.4s,comp=Z,10µmcomp=Z,87µm							
GRZ	**Great Barrier**	**23.00**	**203**	P		**P**	**09 32 10.4**	**+2.9**
PAE	**Paea**	**23.03**	**99**	*eP*		**P**	**09 32 08.6**	**+0.7**
	comp=Z,620nm,1.3s							
PAE				*e*LR		LR	09 37 29.0	
	comp=Z,11µm,26.1s							
PPT	**Papeete**	**23.03**	**99**	P		**P**	**09 32 08.2**	**+0.3**
	comp=Z,212nm,1.2s,baz=320,slow=3.5,SNR=8.3							
PPT				S		**S**	**09 36 21.1**	**+5.6**
	comp=Z,17nm,0.7s,baz=118,slow=22,SNR=1.2							
PPT				LR		LR	09 37 42.7	
	comp=Z,5µm,21.4s,baz=266,slow=28 comp=Z,212nm,1.2s							
PPT2	**Papeete2**	**23.03**	**99**	*eP*		**P**	**09 32 09.7**	**+1.7**
	comp=Z,477nm,1.3s							
PPT2				*e*S		**S**	**09 36 12.1**	**-3.5**
	comp=Z,67µm,32.5s							
PPT2				*e*LR		LR	09 37 35.3	
	comp=Z,9µm,28.2s							
PPT2				*e*LR		LR	09 37 40.5	
	comp=Z,15µm,27.2s							
PPTF	**Pamatai, Papee**	**23.04**	**99**	P		**P**	**09 32 09.4**	**+1.3**
PPTF	**Pamatai, Papee**	**23.04**	**99**	P		**P**	**09 32 06.9**	**-1.2**
PPTF	**Pamatai, Papee**	**23.04**	**99**	⇓P		**P**	**09 32 10.6**	**+2.5**
PPTF	**Pamatai, Papee**	**23.04**	**99**	P		**P**	**09 32 10.3**	**+2.2**
	comp=Z,420nm,1.2s,comp=Z,14µm							
WCZ	**Waipu Caves**	**23.18**	**206**	P		**P**	**09 32 12.0**	**+2.8**
TIAR	**Tiarei**	**23.25**	**99**	*eP*		**P**	**09 32 12.3**	**+2.2**
	comp=Z,3µm,1.1s							
TIAR				*e*LR		LR	09 37 42.6	
	comp=Z,44µm,27.0s							
MXZ	**Matakaoa Point**	**23.25**	**197**	IAMs_20		IAMs_20	09 40 48.0	
	comp=Z,116µm,20.0s							
MXZ	**Matakaoa Point**	**23.25**	**197**	P		**P**	**09 32 06.6**	**-3.3**
TVO	**Taravao**	**23.35**	**99**	*eP*		**P**	**09 32 12.5**	**+1.4**
	comp=Z,624nm,1.0s							
TVO				*e*LR		LR	09 37 45.8	
	comp=Z,8µm,26.6s							
WMGZ	**Waiomatatini S**	**23.47**	**196**	P		**P**	**09 32 10.7**	**-1.3**
XMAS	**Kiritimati**	**23.49**	**44**	P		**P**	**09 32 11.2**	**-1.2**
XMAS	**Kiritimati**	**23.49**	**44**	P		**P**	**09 32 11.5**	**-0.9**
XMAS	**Kiritimati**	**23.49**	**44**	IAMs_20		IAMs_20	09 38 26.7	
	comp=Z,78µm,22.0s							
XMAS	**Kiritimati**	**23.49**	**44**	P		**P**	**09 32 11.8**	**-0.6**
	comp=Z,63µmcomp=Z,28µmcomp=Z,720nm,1.0s,comp=Z,28µm							
HAZ	**Te Kaha**	**23.59**	**197**	P		**P**	**09 32 15.2**	**+2.1**
HAZ				S		**S**	**09 36 25.9**	**+1.9**
MBAZ	**Motutapu North**	**23.67**	**204**	P		**P**	**09 32 16.5**	**+2.6**
PUZ	**Puketiti**	**23.75**	**196**	P		**P**	**09 32 16.5**	**+1.9**
HBAZ	**Herne Bay Bore**	**23.81**	**204**	P		**P**	**09 32 17.9**	**+2.8**
RUGZ	**Raukumara Rang**	**23.81**	**197**	P		**P**	**09 32 19.1**	**+3.8**
TBI	**Tubuai**	**23.99**	**113**	*eP*		**P**	**09 32 18.8**	**+1.8**
	comp=Z,565nm,1.2s							
TBI				*e*S		**S**	**09 36 30.1**	**-0.8**
	comp=Z,205µm,27.8s							
TBI				*e*LR		LR	09 38 05.0	
	comp=Z,141µm,25.2s							
TBI				*e*LR		LR	09 38 07.8	
	comp=Z,31µm,24.0s							
MWZ	**Matawai**	**24.20**	**197**	P		**P**	**09 32 19.3**	**+0.5**
MWZ				S		**S**	**09 36 34.9**	**+0.9**
URZ	**Urewera**	**24.25**	**198**	LR		LR	09 41 07.7	
	comp=Z,108µm,19.0s,baz=30,slow=35							
URZ	**Urewera**	**24.25**	**198**	P		**P**	**09 32 19.1**	**-0.1**
URZ	**Urewera**	**24.25**	**198**	P		**P**	**09 32 18.8**	**-0.5**
URZ	**Urewera**	**24.25**	**198**	P		**P**	**09 32 19.2**	**0.0**
	comp=Z,72µmcomp=Z,8µmcomp=Z,224nm,0.7s							
TOZ	**Tahuroa Road**	**24.30**	**202**	P		**P**	**09 32 20.9**	**+1.3**
TOZ				IAMs_20		IAMs_20	09 40 13.4	
	comp=Z,157µm,22.0s							
TOZ	**Tahuroa Road**	**24.30**	**202**	P		**P**	**09 32 22.1**	**+2.4**
RTZ	**Ruatahuna**	**24.62**	**198**	IAMs_20		IAMs_20	09 41 08.0	
	comp=Z,108µm,20.0s							
PMOR	**Pomariorio Ree**	**24.70**	**93**	*eP*		**P**	**09 32 24.2**	**+0.7**
	comp=Z,3µm,1.2s							
PMOR				*e*LR		LR	09 38 34.8	
	comp=Z,14µm,22.2s							
KNZ	**Kokohu**	**24.80**	**197**	P		**P**	**09 32 23.3**	**-0.9**
TLZ	**Tolley Road**	**24.82**	**201**	P		**P**	**09 32 26.8**	**+2.3**
VAH	**Vaihoa**	**24.94**	**93**	*eP*		**P**	**09 32 25.6**	**-0.1**
	comp=Z,2µm,1.3s							
VAH				*e*LR		LR	09 38 41.5	
	comp=Z,12µm,21.6s							
HIZ	**Hauiti**	**25.23**	**202**	IAMs_20		IAMs_20	09 40 43.0	
	comp=Z,120µm,22.0s							
HIZ	**Hauiti**	**25.23**	**202**	P		**P**	**09 32 28.1**	**0.0**
HIZ	**Hauiti**	**25.23**	**202**	P		**P**	**09 32 29.2**	**+1.1**
	comp=Z,336nm,0.9s,comp=Z,21µmcomp=Z,76µm							
BKZ	**Black Stump Fm**	**25.27**	**198**	P		**P**	**09 32 27.9**	**-0.7**
BKZ	**Black Stump Fm**	**25.27**	**198**	P		**P**	**09 32 26.6**	**-1.9**
VRZ	**Vera Road**	**25.80**	**201**	P		**P**	**09 32 35.3**	**+1.9**
PXZ	**Pawanui**	**25.96**	**197**	P		**P**	**09 32 36.0**	**+1.3**
NEZ	**North Egmont**	**26.17**	**202**	P		**P**	**09 32 39.5**	**+2.8**
TSZ	**Takapari Road**	**26.25**	**199**	P		**P**	**09 32 38.4**	**+1.0**
WAZ	**Wanganui**	**26.29**	**200**	P		**P**	**09 32 39.9**	**+2.1**
HNR	**Honiara**	**26.59**	**280**	LR		LR	09 42 07.2	
	comp=Z,6µm,18.3s,baz=216,slow=34							
HNR	**Honiara**	**26.59**	**280**	P		**P**	**09 32 42.2**	**+1.5**
HNR	**Honiara**	**26.59**	**280**	P		**P**	**09 32 40.0**	**-0.7**
HNR				pmax		pmax		
	comp=Z,157nm,0.8s							
HNR				MLR		MLR		
	comp=Z,7µm,19.0s							
HNR	**Honiara**	**26.59**	**280**	P		**P**	**09 32 40.0**	**-0.7**
HNR	**Honiara**	**26.59**	**280**	⇑P		**P**	**09 32 39.3**	**-1.4**
HNR	**Honiara**	**26.59**	**280**	P		**P**	**09 32 38.1**	**-2.6**
	comp=Z,196nm,0.9s,comp=Z,4µmcomp=Z,10µm							
BFZ	**Birch Farm**	**26.74**	**198**	P		**P**	**09 32 41.4**	**-0.4**
BFZ	**Birch Farm**	**26.74**	**198**	IAMs_20		IAMs_20	09 42 16.1	
	comp=Z,101µm,21.0s							
BFZ	**Birch Farm**	**26.74**	**198**	P		**P**	**09 32 42.5**	**+0.7**
BFZ	**Birch Farm**	**26.74**	**198**	P		**P**	**09 32 41.9**	**+0.1**
	comp=Z,290nm,0.9s,comp=Z,6µmcomp=Z,53µm							
SAVO	**Savo Central**	**26.80**	**280**	P		**P**	**09 32 43.8**	**+1.2**
MRZ	**Mangatainoka R**	**26.92**	**199**	IAMs_20		IAMs_20	09 42 07.9	
	comp=Z,105µm,22.0s							
MRZ	**Mangatainoka R**	**26.92**	**199**	P		**P**	**09 32 43.1**	**-0.3**
TATA	**Tatamba Isabel**	**27.02**	**282**	P		**P**	**09 32 43.0**	**-1.6**
SNZO	**South Karori**	**27.79**	**199**	P		**P**	**09 32 51.1**	**0.0**
SNZO	**South Karori**	**27.79**	**199**	IAMs_20		IAMs_20	09 43 48.8	
	comp=Z,80µm,18.0s							
SNZO	**South Karori**	**27.79**	**199**	⇑P		**P**	**09 32 49.9**	**-1.2**
SNZO	**South Karori**	**27.79**	**199**	P		**P**	**09 32 51.3**	**+0.2**
	comp=Z,43µmcomp=Z,4µmcomp=Z,220nm,0.9s							
BHW	**Baring Head**	**27.82**	**199**	P		**P**	**09 32 51.1**	**-0.3**
QRZ	**Quartz Range**	**28.11**	**203**	P		**P**	**09 32 55.2**	**+1.1**
QRZ	**Quartz Range**	**28.11**	**203**	IAMs_20		IAMs_20	09 42 33.3	
	comp=Z,85µm,21.0s							
QRZ	**Quartz Range**	**28.11**	**203**	P		**P**	**09 32 55.0**	**+0.9**
NNZ	**Nelson**	**28.15**	**201**	IAMs_20		IAMs_20	09 43 41.3	
	comp=Z,71µm,21.0s							
NNZ	**Nelson**	**28.15**	**201**	P		**P**	**09 32 53.4**	**-1.0**
CTZ	**Chatham Island**	**28.38**	**185**	P		**P**	**09 32 57.5**	**+1.1**
THZ	**Tophouse**	**28.79**	**201**	IAMs_20		IAMs_20	09 43 06.4	
	comp=Z,115µm,22.0s							
THZ	**Tophouse**	**28.79**	**201**	P		**P**	**09 33 00.4**	**+0.2**
KHZ	**Kahutara**	**29.16**	**200**	IAMs_20		IAMs_20	09 43 44.1	
	comp=Z,63µm,21.0s							
KHZ	**Kahutara**	**29.16**	**200**	P		**P**	**09 33 03.5**	**+0.2**
KHZ	**Kahutara**	**29.16**	**200**	⇑P		**P**	**09 33 03.4**	**0.0**
KHZ	**Kahutara**	**29.16**	**200**	P		**P**	**09 33 03.9**	**+0.6**
	comp=Z,39µmcomp=Z,148nm,0.7s							
DSZ	**Denniston Nort**	**29.18**	**203**	IAMs_20		IAMs_20	09 44 00.6	
	comp=Z,93µm,20.0s							

DSZ	**Denniston Nort**	**29.18**	**203**	P		**P**	**09 33 03.9**	**+0.3**
GVZ	**Greta Valley S**	**29.82**	**200**	IAMs_20		IAMs_20	09 44 13.6	
	comp=Z,58µm,20.0s							
GVZ	**Greta Valley S**	**29.82**	**200**	P		**P**	**09 33 09.3**	**+0.1**
LTZ	**Lake Taylor**	**29.91**	**201**	IAMs_20		IAMs_20	09 44 47.1	
	comp=Z,106µm,20.0s							
LTZ	**Lake Taylor**	**29.91**	**201**	P		**P**	**09 33 09.1**	**-1.0**
INZ	**Inchbonnie**	**30.16**	**202**	IAMs_20		IAMs_20	09 44 32.6	
	comp=Z,101µm,20.0s							
INZ	**Inchbonnie**	**30.16**	**202**	P		**P**	**09 33 12.4**	**+0.2**
OXZ	**Oxford**	**30.47**	**201**	IAMs_20		IAMs_20	09 45 13.9	
	comp=Z,94µm,19.0s							
OXZ	**Oxford**	**30.47**	**201**	P		**P**	**09 33 15.3**	**+0.3**
MQZ	**McQueen's Vall**	**30.60**	**200**	IAMs_20		IAMs_20	09 44 19.3	
	comp=Z,56µm,22.0s							
MQZ	**McQueen's Vall**	**30.60**	**200**	P		**P**	**09 33 16.4**	**+0.3**
WVZ	**Waitaha Valley**	**30.73**	**203**	P		**P**	**09 33 16.9**	**-0.3**
RPZ	**Rata Peaks**	**31.16**	**202**	LR		LR	09 45 46.9	
	comp=Z,28µm,19.7s,baz=40,slow=36							
RPZ	**Rata Peaks**	**31.16**	**202**	P		**P**	**09 33 21.9**	**+0.9**
FOZ	**Fox Glacier**	**31.47**	**204**	IAMs_20		IAMs_20	09 44 57.1	
	comp=Z,62µm,22.0s							
FOZ	**Fox Glacier**	**31.47**	**204**	P		**P**	**09 33 22.9**	**-0.8**
TMZ	**Timaru**	**31.76**	**201**	P		**P**	**09 33 26.4**	**+0.1**
LBZ	**Lake Benmore**	**32.06**	**202**	IAMs_20		IAMs_20	09 46 00.8	
	comp=Z,94µm,20.0s							
LBZ	**Lake Benmore**	**32.06**	**202**	P		**P**	**09 33 27.8**	**-1.1**
JOHN	**Johnston Islan**	**32.15**	**7**	IAMs_20		IAMs_20	09 42 53.4	
	comp=Z,51µm,21.0s							
JCZ	**Jackson Bay**	**32.33**	**204**	P		**P**	**09 33 30.8**	**-0.6**
JCZ	**Jackson Bay**	**32.33**	**204**	P		**P**	**09 33 30.7**	**-0.7**
ODZ	**Otahua Downs**	**32.46**	**201**	P		**P**	**09 33 33.0**	**+0.6**
ODZ	**Otahua Downs**	**32.46**	**201**	IAMs_20		IAMs_20	09 46 18.5	
	comp=Z,72µm,18.0s							
ODZ	**Otahua Downs**	**32.46**	**201**	P		**P**	**09 33 32.9**	**+0.4**
ODZ	**Otahua Downs**	**32.46**	**201**	⇑P		**P**	**09 33 33.0**	**+0.6**
ODZ	**Otahua Downs**	**32.46**	**201**	P		**P**	**09 33 31.8**	**-0.7**
	comp=Z,32µmcomp=Z,104nm,1.8s							
WKZ	**Wanaka**	**32.87**	**203**	P		**P**	**09 33 35.5**	**-0.6**
GC1S	**Gold Coast 1 S**	**33.06**	**242**	P		**P**	**09 33 39.3**	**+1.4**
EAZ	**Earnscleugh**	**33.10**	**202**	P		**P**	**09 33 38.2**	**+0.1**
MSZ	**Milford Sound**	**33.17**	**205**	P		**P**	**09 33 38.8**	**+0.2**
TAOE	**Nuku Hiva Isla**	**33.21**	**83**	*eP*		**P**	**09 33 38.0**	**-1.5**
	comp=Z,869nm,1.2s							
TAOE				*e*S		**S**	**09 38 50.2**	**-6.3**
	comp=Z,15µm,28.4s							
TAOE				*e*LQ		LQ	09 41 03.5	
	comp=Z,19µm,26.0s							
TAOE				*e*LR		LR	09 42 23.8	
	comp=Z,43µm,25.3s							
TAOE	**Nuku Hiva Isla**	**33.21**	**83**	P		**P**	**09 33 40.7**	**+1.2**
TAOE	**Nuku Hiva Isla**	**33.21**	**83**	⇑P		**P**	**09 33 40.2**	**+0.7**
TAOE	**Nuku Hiva Isla**	**33.21**	**83**	P		**P**	**09 33 39.9**	**+0.5**
	comp=Z,260nm,1.2s							
TAOE	**Nuku Hiva Isla**	**33.21**	**83**	P		**P**	**09 33 39.7**	**+0.2**
TAOE				sP		**pwP**	**09 33 54.9**	**+1.5**
TUZ	**Tuapeka**	**33.61**	**201**	P		**P**	**09 33 44.1**	**+1.7**
MLZ	**Mavora Lakes**	**33.67**	**204**	IAMs_20		IAMs_20	09 48 45.3	
	comp=Z,47µm,18.0s							
MLZ	**Mavora Lakes**	**33.67**	**204**	P		**P**	**09 33 43.4**	**+0.4**
DCZ	**Deep Cove**	**34.13**	**205**	IAMs_20		IAMs_20	09 48 39.5	
	comp=Z,39µm,20.0s							
DCZ	**Deep Cove**	**34.13**	**205**	P		**P**	**09 33 48.0**	**+1.1**
WHZ	**Wether Hill Ro**	**34.17**	**203**

POHA **Pohakuloa** 39.13 27 IAMs_20 IAMs_20 09 46 58.3
comp=Z,34µm,20.0s
POHA **Pohakuloa** 39.13 27 ⇑P **P** **09 34 29.6 -0.5**
POHA **Pohakuloa** 39.13 27 P **P** **09 34 29.7 -0.5**
comp=Z,336nm,1.0s
POHA **Pohakuloa** 39.13 27 P **P** **09 34 29.5 -0.6**
POHA pP **pP** **09 34 39.7 -2.0**
HPAH **Hawaii Prepara** 39.30 27 P **P** **09 34 30.9 -0.4**
comp=Z,24µmcomp=Z,14µmcomp=Z,774nm,1.2s,comp=Z,14µm
MILA **Mila** 39.50 230 P **P** **09 34 32.8 -0.1**
comp=Z,23nm,2.2s,comp=Z,0.0nm
KEKH **Kekaha** 39.52 20 IAmb IAmb 09 34 34.4
comp=Z,352nm,1.1s
HON **Honolulu** 39.52 23 P **P** **09 34 33.2 +0.2**
HON pmax pmax
comp=Z,288nm,1.0s
HON **Honolulu** 39.52 23 P **P** **09 34 33.2 +0.2**
HON IAmb IAmb 09 34 56.9
comp=Z,288nm,1.0s
HON **Honolulu** 39.52 23 P **P** **09 34 32.8 -0.2**
comp=Z,330nm,1.4s
KIP **Kipapa** 39.61 23 P **P** **09 34 34.3 +0.6**
KIP **Kipapa** 39.61 23 P **P** **09 34 33.1 -0.6**
KIP pmax pmax
comp=Z,288nm,0.8s
KIP **Kipapa** 39.61 23 P **P** **09 34 33.1 -0.6**
KIP IAmb IAmb 09 34 35.3
comp=Z,288nm,0.8s
KIP **Kipapa** 39.61 23 IAMs_20 IAMs_20 09 47 09.6
comp=Z,34µm,20.0s
KIP **Kipapa** 39.61 23 P **P** **09 34 34.1 +0.3**
comp=Z,437nm,0.8s
KIP **Kipapa** 39.61 23 P **P** **09 34 33.6 -0.1**
KIP pP **pP** **09 34 44.5 -1.2**
WAKE **Wake Island** 39.61 330 P **P** **09 34 33.8 0.0**
WAKE **Wake Island** 39.61 330 P **P** **09 34 32.7 -1.1**
WAKE **Wake Island** 39.61 330 ⇑P **P** **09 34 33.1 -0.6**
WAKE **Wake Island** 39.61 330 P **P** **09 34 33.5 -0.3**
comp=Z,15µmcomp=Z,551nm,1.6s
AUSMG **Snowy Mountain** 39.66 231 P **P** **09 34 33.9 -0.4**
HLK **Haleakala** 39.71 26 P **P** **09 34 35.3 +0.3**
comp=Z,26µmcomp=Z,16µmcomp=Z,614nm,1.4s
KHLH **Kahului Airpor** 39.76 25 P **P** **09 34 35.3 +0.3**
comp=Z,510nm,1.9s
H11N3 **WAKE ISLAND Hy** 39.86 330 T T 10 16 37.5
baz=148,slow=76,SNR=11
H11N1 **WAKE ISLAND Hy** 39.86 330 T T 10 16 38.1
baz=148,slow=76,SNR=16
H11N2 **WAKE ISLAND Hy** 39.87 330 T T 10 17 02.6
baz=148,slow=76,SNR=9.9
MTSU **Mount Surprise** 40.43 260 P **P** **09 34 39.8 -1.0**
comp=Z,143nm,0.8s
MTSU **Mount Surprise** 40.43 260 P **P** **09 34 40.4 -0.4**
MTSU **Mount Surprise** 40.43 260 P **P** **09 34 40.4 -0.4**
comp=Z,1µmcomp=Z,143nm,0.8s,comp=Z,1µm
CMSA **Cobar Meteorol** 40.49 239 P **P** **09 34 39.6 -1.5**
comp=Z,116nm,0.7s,comp=Z,0.0nm
CMSA **Cobar Meteorol** 40.49 239 P **P** **09 34 39.9 -1.2**
CMSA **Cobar Meteorol** 40.49 239 P **P** **09 34 39.7 -1.3**
comp=Z,20µmcomp=Z,4µmcomp=Z,116nm,0.7s
MANU **Manus Island** 40.80 285 P **P** **09 34 42.6 -1.3**
QLP **Quilpie** 40.80 247 P **P** **09 34 42.1 -2.0**
comp=Z,101nm,0.7s,comp=Z,0.0nm
QLP **Quilpie** 40.84 247 P **P** **09 34 42.4 -1.7**
QLP **Quilpie** 40.84 247 ⇓P **P** **09 34 42.4 -1.7**
QLP **Quilpie** 40.84 247 P **P** **09 34 42.2 -1.8**
comp=Z,16µmcomp=Z,3µmcomp=Z,101nm,0.7s,comp=Z,3µm
GLAD **Gladstone** 41.95 225 P **P** **09 34 52.6 -0.3**
AUMAG **Moama Anglican** 42.49 233 P **P** **09 34 57.3 -0.1**
MLBS **Spotswood, Mel** 42.94 231 P **P** **09 35 01.0 0.0**
MOO **Moorlands** 43.14 223 P **P** **09 35 02.6 0.0**
comp=Z,135nm,0.9s,comp=Z,0.0nm
MOO **Moorlands** 43.14 223 P **P** **09 35 03.4 +0.8**
MOO **Moorlands** 43.14 223 P **P** **09 35 03.0 +0.4**
comp=Z,24µmcomp=Z,135nm,0.9s
TAU **Tasmania Unive** 43.27 223 P **P** **09 35 03.8 +0.1**
TAU **Tasmania Unive** 43.27 223 P **P** **09 35 03.7 +0.1**
TAU pmax pmax
comp=Z,335nm,1.6s
TAU MLR MLR
comp=Z,42µm,18.0s
TAU **Tasmania Unive** 43.27 223 P **P** **09 35 03.6 +0.1**
TAU **Tasmania Unive** 43.27 223 IAMs_20 IAMs_20 09 52 28.9
comp=Z,41µm,18.0s
TAU **Tasmania Unive** 43.27 223 ⇓P **P** **09 35 03.3 -0.3**
TAU **Tasmania Unive** 43.27 223 P **P** **09 35 03.7 +0.1**
comp=Z,4µmcomp=Z,160nm,0.7s,comp=Z,4µm
AUBRN **Burnie High Sc** 43.44 226 P **P** **09 35 05.0 0.0**
MIDW **Midway** 43.51 355 IAMs_20 IAMs_20 09 49 13.7
comp=Z,33µm,20.0s
BRAT **Ballarat** 43.57 231 P **P** **09 35 05.7 -0.4**
AUMTC **Mt Clear Colle** 43.63 231 P **P** **09 35 06.1 -0.5**
STKA **Stephens Creek** 43.97 240 P **P** **09 35 08.4 -1.0**
comp=Z,80nm,0.8s,baz=82,slow=8.7,SNR=78
STKA LR LR 09 50 60.0
comp=Z,20µm,21.9s,baz=78,slow=33
comp=Z,80nm,0.8s
STKA **Stephens Creek** 43.97 240 P **P** **09 35 08.7 -0.7**
STKA pmax pmax
comp=Z,413nm,0.9s
STKA **Stephens Creek** 43.97 240 P **P** **09 35 08.7 -0.7**
STKA **Stephens Creek** 43.97 240 P **P** **09 35 08.7 -0.7**
comp=Z,80µmcomp=Z,14µmcomp=Z,520nm,1.0s
INKA **Innaminka** 44.07 246 P **P** **09 35 09.4 -0.8**
QIS **Mount Isa** 44.80 256 P **P** **09 35 14.4 -1.8**
comp=Z,89nm,1.5s,comp=Z,0.0nm
QIS **Mount Isa** 44.80 256 P **P** **09 35 15.0 -1.2**
QIS **Mount Isa** 44.80 256 P **P** **09 35 14.4 -1.8**
comp=Z,12µmcomp=Z,2µmcomp=Z,89nm,1.5s,comp=Z,2µm
ARPS **Mount Arapiles** 44.93 233 P **P** **09 35 15.7 -1.3**
comp=Z,28nm,2.1s,comp=Z,0.0nm
HTT **Hallett** 46.48 238 P **P** **09 35 28.4 -1.0**
comp=Z,35nm,2.2s,comp=Z,0.0nm
HTT **Hallett** 46.48 238 P **P** **09 35 28.6 -0.8**
HTT **Hallett** 46.48 238 ⇑P **P** **09 35 28.3 -1.0**
AUMBR **Murray Bridge** 46.53 236 P **P** **09 35 28.6 -1.1**
JAY **Jayapura** 46.90 281 LR LR 09 53 19.5
comp=Z,14µm,21.2s,baz=104,slow=34
JAY **Jayapura** 46.90 281 P P 09 35 37.8 +4.9
AUMAR **Marden Senior** 47.00 236 P **P** **09 35 32.9 -0.4**
GENI **Genyem** 47.38 281 P **P** **09 35 37.6 +1.0**
BBOO **Buckleboo** 48.74 240 P **P** **09 35 45.6 -1.3**
comp=Z,103nm,1.0s,comp=Z,0.0nm
BBOO **Buckleboo** 48.74 240 P **P** **09 35 46.6 -0.3**
BBOO **Buckleboo** 48.74 240 P **P** **09 35 46.0 -0.9**
BBOO **Buckleboo** 48.74 240 P **P** **09 35 45.8 -1.2**
comp=Z,20µmcomp=Z,4µmcomp=Z,103nm,1.0s
WR8 **Warramunga Arr** 49.61 257 P **P** **09 35 52.0 -1.7**
WB0 **Warramunga Arr** 49.72 257 P **P** **09 35 52.7 -1.9**
WRAB **Tennant Creek** 49.75 257 P **P** **09 35 52.4 -2.4**
WRAB **Tennant Creek** 49.75 257 P **P** **09 35 52.7 -2.1**
WRAB pmax pmax
comp=Z,90nm,1.0s
WRAB MLR MLR
comp=Z,14µm,19.0s
WRAB **Tennant Creek** 49.75 257 P **P** **09 35 52.7 -2.1**
WRAB **Tennant Creek** 49.75 257 P **P** **09 35 52.6 -2.2**
comp=Z,15µmcomp=Z,3µmcomp=Z,61nm,0.9s
WRA **Warramunga Arr** 49.76 257 P **P** **09 35 52.6 -2.3**
comp=Z,32nm,0.5s,baz=89,slow=7.0,SNR=60
WRA PcP **PcP** **09 37 14.6 -0.8**
comp=Z,17nm,1.0s,baz=98,slow=3.3,SNR=2.1
WRA S **S** **09 42 57.7 -3.6**
comp=Z,1.8nm,0.9s,baz=98,slow=14,SNR=2.1
WRA LR LR 09 57 03.6
comp=Z,13µm,18.9s,baz=92,slow=36
comp=Z,32nm,0.5s
WRA **Warramunga Arr** 49.76 257 P **P** **09 35 52.6 -2.3**
WRA pmax pmax
comp=Z,41nm,1.8s
WRA **Warramunga Arr** 49.76 257 P **P** **09 35 52.6 -2.3**
AS17 **Alice Springs** 49.95 252 P **P** **09 35 54.8 -1.5**
comp=Z,497nm,0.7s
AS01 **Alice Springs** 49.99 252 P **P** **09 35 54.7 -1.9**
AS09 **Alice Springs** 50.00 252 P **P** **09 35 55.3 -1.4**
comp=Z,268nm,0.7s
AS15 **Alice Springs** 50.03 252 P **P** **09 35 55.4 -1.4**
comp=Z,274nm,0.6s
AS31 **Alice Springs** 50.03 252 P **P** **09 35 55.4 -1.5**
comp=Z,68nm,0.8s,comp=Z,0.0nm
AS31 **Alice Springs** 50.03 252 P **P** **09 35 55.6 -1.3**
ASAR **Alice Springs** 50.03 252 P **P** **09 35 55.5 -1.4**
comp=Z,193nm,0.5s,baz=85,slow=8.4,SNR=845
ASAR S **S** **09 42 58.2 -6.8**
comp=Z,2.6nm,1.1s,baz=91,slow=15,SNR=3.1
ASAR LR LR 09 55 37.2
comp=Z,30µm,21.9s,baz=91,slow=34
comp=Z,193nm,0.5s
AUALC **St Philip's Co** 50.05 252 P **P** **09 35 55.3 -1.8**
GUMO **Guam** 50.25 303 LR LR 09 53 49.6
comp=Z,5µm,20.3s,baz=118,slow=32
KDU **Kakadu** 52.38 266 P **P** **09 36 13.0 -1.6**
comp=Z,39nm,2.6s,comp=Z,0.0nm
MTN **Manton Dam** 53.65 265 P **P** **09 36 22.2 -1.7**
comp=Z,43nm,0.8s,comp=Z,0.0nm
MTN **Manton Dam** 53.65 265 P **P** **09 36 22.3 -1.7**
DRS **Darwin Rock St** 53.94 266 P **P** **09 36 25.4 -0.7**
FAKI **Fak Fak** 54.83 277 P **P** **09 36 31.0 -1.5**
FAKI **Fak Fak** 54.83 277 P **P** **09 36 30.6 -2.0**
comp=Z,60nm,1.2s,comp=Z,3µmcomp=Z,5µm
WRKA **Warakurna** 55.12 250 P **P** **09 36 32.9 -1.7**
comp=Z,76nm,0.7s,comp=Z,0.0nm
FORT **Forrest** 55.34 243 P **P** **09 36 34.2 -1.8**
comp=Z,97nm,0.7s,comp=Z,0.0nm
FORT **Forrest** 55.34 243 P **P** **09 36 34.5 -1.5**
KNRA **Kununurra** 55.48 261 P **P** **09 36 34.5 -2.7**
KNRA **Kununurra** 55.48 261 P **P** **09 36 35.2 -2.0**
SIJI **Sorong** 56.37 279 LR LR 09 58 56.3
comp=Z,6µm,21.3s,baz=114,slow=34
SIJI **Sorong** 56.37 279 P **P** **09 36 44.1 +0.5**
BNDI **Bandanaira** 56.64 275 P **P** **09 36 42.2 -3.3**
comp=Z,198nm,1.0s,comp=Z,5µmcomp=Z,6µm
FITZ **Fitzroy Crossi** 58.13 258 P **P** **09 36 54.7 -1.2**
comp=Z,6.6nm,1.6s,comp=Z,0.0nm
FITZ **Fitzroy Crossi** 58.13 258 LR LR 10 00 12.1
comp=Z,13µm,20.7s,baz=99,slow=34
FITZ **Fitzroy Crossi** 58.13 258 P **P** **09 36 55.3 -0.7**
FITZ **Fitzroy Crossi** 58.13 258 P **P** **09 36 55.0 -1.0**
FITZ **Fitzroy Crossi** 58.13 258 ⇑P **P** **09 36 54.3 -1.7**
FITZ **Fitzroy Crossi** 58.13 258 P **P** **09 36 54.9 -1.1**
comp=Z,3µmcomp=Z,488nmcomp=Z,6.6nm,1.6s
DRV **Dumont d'Urvil** 59.58 200 P **P** **09 37 06.1 +0.9**
DRV sP **sP** **09 37 21.2 -1.8**
JCJ **Chichijima** 60.28 314 LR LR 09 58 02.4
comp=Z,13µm,21.3s,baz=131,slow=31
RPN **Rapa Nui** 60.37 113 LR LR 09 56 24.7
comp=Z,3µm,19.3s,baz=273,slow=29
KMBL **Kambalda** 60.65 242 P **P** **09 37 12.0 -1.2**
comp=Z,24nm,1.4s,comp=Z,0.0nm
KMBL **Kambalda** 60.65 242 P **P** **09 37 10.7 -2.5**
comp=Z,24nm,1.4s,comp=Z,0.0nm
SOEI **Soe** 60.84 267 P **P** **09 37 14.5 -0.4**
SOEI **Soe** 60.84 267 P **P** **09 37 15.1 +0.1**
SOEI **Soe** 60.84 267 P **P** **09 37 14.9 0.0**
SOEI **Soe** 60.84 267 ⇑P **P** **09 37 14.8 -0.1**
SOEI **Soe** 60.84 267 P **P** **09 37 15.3 +0.4**
SOEI **Soe** 60.84 267 P **P** **09 37 15.0 +0.1**
comp=Z,10µmcomp=Z,4µmcomp=Z,217nm,0.9s
SANI **Sanana** 61.07 276 P **P** **09 37 13.9 -2.4**
SANI **Sanana** 61.07 276 P **P** **09 37 16.6 +0.3**
SANI **Sanana** 61.07 276 P **P** **09 37 16.6 +0.3**
SANI **Sanana** 61.07 276 P **P** **09 37 16.3 0.0**
comp=Z,5µmcomp=Z,2µmcomp=Z,88nm,0.9s
MMRI **Maumere** 63.04 268 P **P** **09 37 28.1 -1.4**
MMRI **Maumere** 63.04 268 P **P** **09 37 27.5 -2.0**
MMRI IAmb IAmb 09 38 31.8
comp=Z,205nm,1.3s
MMRI **Maumere** 63.04 268 P **P** **09 37 31.0 +1.5**
MMRI **Maumere** 63.04 268 P **P** **09 37 27.7 -1.8**
comp=Z,7µmcomp=Z,3µmcomp=Z,88nm,1.0s
SBA **Scott Base** 63.26 185 P **P** **09 37 33.3 +3.4**
SBA pmax pmax
comp=Z,139nm,0.8s
SBA **Scott Base** 63.26 185 P **P** **09 37 33.3 +3.4**
SBA IAmb IAmb 09 37 35.0
comp=Z,139nm,0.8s
SBA **Scott Base** 63.26 185 P **P** **09 37 33.6 +3.7**
comp=Z,23µmcomp=Z,11µmcomp=Z,395nm,0.9s
SBA **Scott Base** 63.26 185 P **P** **09 37 33.2 +3.4**
SBA pP **pP** **09 37 44.5 +1.7**
MBWA **Marble Bar** 63.28 254 P **P** **09 37 28.4 -2.7**
comp=Z,70nm,1.0s,comp=Z,0.0nm
MBWA **Marble Bar** 63.28 254 P **P** **09 37 29.0 -2.0**
comp=Z,70nm,1.0s,comp=Z,0.0nm
MBWA **Marble Bar** 63.28 254 P **P** **09 37 29.0 -2.0**
MBWA **Marble Bar** 63.28 254 P **P** **09 37 28.9 -2.1**
MBWA **Marble Bar** 63.28 254 P **P** **09 37 29.5 -1.6**
MBWA **Marble Bar** 63.28 254 IAMs_20 IAMs_20 10 04 59.9
comp=Z,16µm,19.0s
MBWA **Marble Bar** 63.28 254 ⇑P **P** **09 37 29.4 -1.7**
MBWA **Marble Bar** 63.28 254 P **P** **09 37 28.4 -2.7**
comp=Z,12µmcomp=Z,2µmcomp=Z,70nm,1.0s
VNDA **Vanda** 63.38 186 P **P** **09 37 33.4 +2.7**
comp=Z,86nm,0.9s,baz=7.7,slow=6.3,SNR=298
VNDA LR LR 09 58 04.7
comp=Z,4µm,21.6s,baz=23,slow=29
VNDA PKP2bc **P'P'bc** **10 06 31.3 -5.8**
comp=Z,1.3nm,1.1s,baz=221,slow=3.4,SNR=3.8
comp=Z,86nm,0.9s
VNDA **Vanda** 63.38 186 P **P** **09 37 33.5 +2.7**
VNDA pmax pmax
comp=Z,165nm,1.1s
VNDA **Vanda** 63.38 186 P **P** **09 37 33.5 +2.7**
VNDA IAmb IAmb 09 37 35.6
comp=Z,165nm,1.1s
VNDA **Vanda** 63.38 186 P **P** **09 37 33.5 +2.8**
comp=Z,21µmcomp=Z,5µmcomp=Z,180nm,1.0s
VNDA **Vanda** 63.38 186 P **P** **09 37 33.5 +2.8**
VNDA pP **pP** **09 37 45.4 +1.7**
EDFI **Ende, Flores** 63.54 268 P **P** **09 37 30.8 -2.2**
MEEK **Meekatharra** 63.74 248 P **P** **09 37 33.1 -0.9**
comp=Z,72nm,2.5s,comp=Z,0.0nm
MEEK **Meekatharra** 63.74 248 P **P** **09 37 32.1 -2.0**
comp=Z,72nm,2.5s,comp=Z,0.0nm
MEEK **Meekatharra** 63.74 248 P **P** **09 37 33.8 -0.2**
MEEK **Meekatharra** 63.74 248 P **P** **09 37 33.2 -0.9**
comp=Z,13µmcomp=Z,3µmcomp=Z,72nm,2.5s,comp=Z,3µm
KMSI **Cibinong** 63.75 278 P **P** **09 37 35.3 +1.1**
AUKUL **Kulin High Sch** 63.79 241 P **P** **09 37 33.6 -0.6**
KLBR **Kellerberrin** 64.17 242 P **P** **09 37 35.7 -1.1**
comp=Z,175nm,0.8s
KLBR **Kellerberrin** 64.17 242 P **P** **09 37 34.9 -1.9**
comp=Z,175nm,0.8s
KLBR **Kellerberrin** 64.17 242 P **P** **09 37 35.9 -0.8**
KLBR **Kellerberrin** 64.17 242 P **P** **09 37 35.7 -1.1**
comp=Z,2µmcomp=Z,175nm,0.8s
DAV **Davao City (W)** 64.35 286 LR LR 10 04 07.0
comp=Z,6µm,18.4s,baz=84,slow=35
DAV **Davao City (W)** 64.35 286 P **P** **09 37 38.0 -0.1**
LUWI **Luwuk** 64.44 276 P **P** **09 37 37.8 -1.0**
LUWI **Luwuk** 64.44 276 P **P** **09 37 39.6 +0.9**
LUWI **Luwuk** 64.44 276 P **P** **09 37 36.5 -2.2**
LUWI IAmb IAmb 09 38 04.2
comp=Z,167nm,1.0s
LUWI **Luwuk** 64.44 276 pP pP 09 37 53.2 +1.7
comp=Z,185nm,1.0s
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 39.0 -0.2**
comp=Z,59nm,1.5s,comp=Z,0.0nm
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 39.0 -0.2**
comp=Z,98nm,1.5s,comp=Z,0.0nm
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 38.1 -1.1**
comp=Z,60nm,1.5s,comp=Z,0.0nm
NWAO **Narrogin (SRO)** 64.55 241 LR LR 10 03 39.1
comp=Z,21µm,21.4s,baz=89,slow=34
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 39.1 -0.1**
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 39.0 -0.2**
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 38.6 -0.7**
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 38.0 -1.2**
NWAO pmax pmax
comp=Z,132nm,1.7s
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 38.0 -1.2**
NWAO **Narrogin (SRO)** 64.55 241 IAMs_20 IAMs_20 10 03 15.7
comp=Z,20µm,21.0s
NWAO **Narrogin (SRO)** 64.55 241 P **P** **09 37 37.7 -1.5**
comp=Z,58nm,1.5s,comp=Z,3µmcomp=Z,16µm
RKGY **Rocky Gully** 64.70 239 P **P** **09 37 41.8 +1.6**
RKGY **Rocky Gully** 64.70 239 P **P** **09 37 39.6 -0.6**
comp=Z,34nm,2.7s,comp=Z,0.0nm
BLDU **Ballidu** 65.12 243 P **P** **09 37 42.3 -0.7**
comp=Z,53nm,1.1s
BLDU **Ballidu** 65.12 243 P **P** **09 37 41.4 -1.5**
comp=Z,53nm,1.1s
BLDU **Ballidu** 65.12 243 P **P** **09 37 43.6 +0.6**
BLDU **Ballidu** 65.12 243 P **P** **09 37 42.1 -0.8**
comp=Z,53nm,1.1s,comp=Z,3µm
LBFI **Labuhan Bajo,** 65.34 268 P **P** **09 37 45.2 +0.6**
JHJ2 **Mitsune** 65.67 318 P **P** **09 37 45.6 -0.8**
MORW **Morawa** 65.81 245 P **P** **09 37 46.1 -1.3**
comp=Z,38nm,1.0s,comp=Z,0.0nm
MORW **Morawa** 65.81 245 P **P** **09 37 47.9 +0.4**
MORW **Morawa** 65.81 245 P **P** **09 37 46.0 -1.3**
MORW **Morawa** 65.81 245 ⇑P **P** **09 37 46.1 -1.3**
MORW **Morawa** 65.81 245 P **P** **09 37 46.2 -1.3**
comp=Z,13µmcomp=Z,3µmcomp=Z,38nm,1.0s,comp=Z,3µm
KAPI **Kappang** 66.29 271 LR LR 10 07 21.8
comp=Z,1µm,19.1s,baz=111,slow=37
KAPI **Kappang** 66.29 271 P **P** **09 37 52.0 +1.3**
KAPI **Kappang** 66.29 271 *i* P **P** **09 37 50.0 -0.7**
KAPI pmax pmax
comp=Z,16nm,0.9s
KAPI **Kappang** 66.29 271 P **P** **09 37 49.6 -1.2**
KAPI **Kappang** 66.29 271 P **P** **09 37 50.0 -0.7**
comp=Z,41nm,0.9s,comp=Z,2µmcomp=Z,7µm
DBNI **Kabupaten Domp** 66.85 267 P **P** **09 37 53.7 -0.6**
TOLI2 **Tolitoli** 66.96 278 P **P** **09 37 55.1 +0.1**
TOLI2 **Tolitoli** 66.96 278 P **P** **09 37 53.3 -1.7**
TOLI2 **Tolitoli** 66.96 278 P **P** **09 37 54.7 -0.4**
comp=Z,4µmcomp=Z,1µmcomp=Z,43nm,1.0s
TOLI2 pP **pwP** **09 38 09.3 +1.4**
H01W1 **Cape Leeuwin H** 67.02 238 P **P** **09 37 55.4 +0.7**
baz=120,slow=6.1,SNR=4.3
H01W3 **Cape Leeuwin H** 67.03 238 P **P** **09 37 56.6 +1.8**
baz=120,slow=6.1,SNR=3.0
H01W2 **Cape Leeuwin H** 67.03 238 P **P** **09 37 56.2 +1.4**
baz=120,slow=6.1,SNR=3.4
ADK **Adak** 67.04 358 P **P** **09 37 55.7 +1.1**
ADK **Adak** 67.04 358 P **P** **09 37 53.3 -1.4**
ADK pmax pmax
comp=Z,558nm,1.7s
ADK **Adak** 67.04 358 P **P** **09 37 53.3 -1.4**
ADK **Adak** 67.04 358 IAMs_20 IAMs_20 10 00 36.7
comp=Z,24µm,21.0s
ADK **Adak** 67.04 358 P **P** **09 37 53.7 -0.9**
comp=Z,19µmcomp=Z,5µmcomp=Z,151nm,1.7s
PCI **Palu** 67.29 276 P **P** **09 38 00.7 +3.6**
PLAI **Plampang** 67.30 267 P **P** **09 37 57.3 +0.2**
PLAI **Plampang** 67.30 267 P **P** **09 37 57.9 +0.8**
PLAI **Plampang** 67.30 267 P **P** **09 37 55.2 -1.9**
comp=Z,7µmcomp=Z,2µmcomp=Z,66nm,1.2s,comp=Z,2µm
ATKA **Atka Island** 67.31 360 IAMs_20 IAMs_20 10 01 13.8
comp=Z,16µm,20.0s
ATKA **Atka Island** 67.31 360 ⇓P **P** **09 37 54.8 -1.5**
PMSI **Majene** 67.48 273 P **P** **09 37 57.1 -1.3**
JSG **Sagara** 67.71 318 P **P** **09 38 00.9 +1.6**
JSG **Sagara** 67.71 318 P **P** **09 37 59.2 -0.1**
comp=Z,15µmcomp=Z,7µmcomp=Z,330nm,1.2s
JMM **Marumori** 68.17 322 P **P** **09 38 01.6 -0.5**
TWSI **Taliwang, Sumb** 68.18 267 P **P** **09 38 03.0 +0.3**
SHEM **Shemya Is, Ala** 68.68 352 LR LR 10 01 15.9
comp=Z,36µm,21.8s,baz=166,slow=30
JGF **Kuroka** 68.82 319 P **P** **09 38 05.9 -0.4**
JGF **Kuroka** 68.82 319 IAmb IAmb 09 38 20.6
comp=Z,366nm,2.0s
JGF **Kuroka** 68.82 319 ⇓P **P** **09 38 05.7 -0.6**
JGF **Kuroka** 68.82 319 P **P** **09 38 06.0 -0.2**
comp=Z,11µmcomp=Z,4µmcomp=Z,52nm,1.0s
MJAR **Matsushiro Arr** 68.87 320 P **P** **09 38 05.0 -1.6**
comp=Z,28nm,1.0s,baz=154,slow=5.6,SNR=48
MJAR S **S** **09 47 10.8 +3.4**
comp=Z,0.8nm,0.8s,baz=355,slow=12,SNR=4.3
MJAR LR LR 10 02 48.5
comp=Z,15µm,21.7s,baz=116,slow=31
comp=Z,28nm,1.0s
MJAR **Matsushiro Arr** 68.87 320 P **P** **09 38 05.5 -1.1**
MJAR pmax pmax
comp=Z,139nm,1.6s
MJAR **Matsushiro Arr** 68.87 320 P **P** **09 38 05.5 -1.1**
MAJO **Matsushiro** 68.87 320 P **P** **09 38 05.9 -0.7**
MAJO **Matsushiro** 68.87 320 P **P** **09 38 05.7 -0.9**
MAJO pmax pmax
comp=Z,96nm,1.2s
MAJO **Matsushiro** 68.87 320 P **P** **09 38 05.7 -0.9**
MAJO IAMs_20 IAMs_20 10 01 51.7
comp=Z,18µm,22.0s
MAJO **Matsushiro** 68.87 320 ⇓P **P** **09 38 06.2 -0.3**
MAJO **Matsushiro** 68.87 320 P **P** **09 38 06.5 -0.1**
comp=Z,11µmcomp=Z,3µmcomp=Z,71nm,1.4s
MAJO **Matsushiro** 68.87 320 P **P** **09 38 06.3 -0.3**
MAJO pP **pP** **09 38 17.5 -1.9**
MAJO sP **sP** **09 38 21.9 -2.6**
MAT **Matsushiro** 68.87 320 P **P** **09 38 06.2 -0.4**
INU **Inuyama** 68.88 318 P **P** **09 38 07.5 +0.9**
INU **Inuyama** 68.88 318 ⇓P **P** **09 38 07.1 +0.5**
INU **Inuyama** 68.88 318 P **P** **09 38 07.0 +0.4**
comp=Z,11µmcomp=Z,3µmcomp=Z,56nm,0.9s
UNV **Unalaska Valle** 69.21 4 P **P** **09 38 07.1 -1.1**
UNV **Unalaska Valle** 69.21 4 IAmb IAmb 09 38 27.6
comp=Z,143nm,1.1s
JGN **Niukaw** 69.23 319 P **P** **09 38 09.0 +0.1**
JYA **Atsumi** 69.29 322 P **P** **09 38 09.4 +0.4**
ERM **Erimo** 69.70 327 IAMs_20 IAMs_20 10 02 37.4
comp=Z,16µm,22.0s
KUR **Kuril'sk** 69.77 332 *e*P **P** **09 38 12.8 +0.9**
KUR *i* S **S** **09 47 19.8 +2.2**
KUR 09 48 09.6
KUR pmax pmax
comp=Z,395nm,2.7s
KUR pmax pmax
comp=Z,5µm,4.3s
KUR MLR MLR
comp=Z,10µm,19.0s
YUK **Yuzh-Kuril'sk** 69.80 330 *e*P **P** **09 38 14.1 +2.0**
YUK *e* 09 40 53.8
YUK *e*PPP PPP 09 42 29.8
YUK *e*S **S** **09 47 16.8 -1.2**
YUK *e*SS **SS** **09 51 48.6 +0.8**
IGBI **Denpasar** 69.83 266 P **P** **09 38 14.4 +1.4**
JTM **Tenmabayashi** 69.98 325 P **P** **09 38 14.2 +0.9**
JTM **Tenmabayashi** 69.98 325 IAmb IAmb 09 38 26.4
comp=Z,238nm,1.3s
JTM **Tenmabayashi** 69.98 325 ⇓P **P** **09 38 13.2 -0.1**
JTM **Tenmabayashi** 69.98 325 P **P** **09 38 12.1 -1.2**
comp=Z,175nm,1.4s,comp=Z,5µmcomp=Z,15µm
JTM **Tenmabayashi** 69.98 325 P **P** **09 38 13.8 +0.5**
JMN **Monobe** 69.99 315 P **P** **09 38 15.6 +2.0**
JMN **Monobe** 69.99 315 IAmb IAmb 09 38 30.4
comp=Z,336nm,1.6s
JMN **Monobe** 69.99 315 ⇓P **P** **09 38 14.6 +1.0**
JMN **Monobe** 69.99 315 P **P** **09 38 12.4 -1.1**
comp=Z,125nm,1.4s,comp=Z,5µm
JMN pP **pP** **09 38 27.4 +1.0**
H06S1 **SOCORRO T** 70.28 63 P **P** **09 38 15.8 +0.2**
H06N1 **SOCORRO T-PHAS** 70.31 63 P **P** **09 38 16.1 +0.4**
CASY **Casey** 70.39 205 P **P** **09 38 15.7 +0.3**
CASY **Casey** 70.39 205 IAMs_20 IAMs_20 10 05 05.2
comp=Z,16µm,20.0s
CASY **Casey** 70.39 205 ⇑P **P** **09 38 15.7 +0.3**
CASY **Casey** 70.39 205 P **P** **09 38 16.0 +0.6**
comp=Z,19µmcomp=Z,5µmcomp=Z,135nm,1.7s
CASY pP **sP** **09 38 32.5 -1.0**
CASY **Casey** 70.39 205 P **P** **09 38 15.6 +0.3**
CASY sP **sP** **09 38 31.3 -2.1**
JOW **Kunigami** 70.41 306 P **P** **09 38 16.1 -0.1**
comp=Z,25nm,1.0s,baz=128,slow=9.1,SNR=7.2
JOW LR LR 10 03 12.3
comp=Z,11µm,21.9s,baz=106,slow=31
comp=Z,25nm,1.0s
JOW **Kunigami** 70.41 306 P **P** **09 38 17.2 +1.0**
JOW **Kunigami** 70.41 306 IAmb IAmb 09 38 30.9
comp=Z,227nm,1.3s
JOW **Kunigami** 70.41 306 ⇓P **P** **09 38 18.5 +2.3**
JOW **Kunigami** 70.41 306 P **P** **09 38 14.6 -1.6**
comp=Z,154nm,1.3s,comp=Z,4µmcomp=Z,9µm
JOW pP **pP** **09 38 29.8 +0.7**
JAGI **Jajag, Banyuwa** 70.87 266 P **P** **09 38 16.9 -2.4**
JAGI **Jajag, Banyuwa** 70.87 266 ⇑P **P** **09 38 16.9 -2.4**
JAGI **Jajag, Banyuwa** 70.87 266 P **P** **09 38 18.5 -0.8**
JAGI **Jajag, Banyuwa** 70.87 266 P **P** **09 38 16.7 -2.6**
comp=Z,7µmcomp=Z,2µmcomp=Z,105nm,0.9s
JAGI pP **pP** **09 38 34.5 +2.2**
CNBA **Chernabura Isl** 70.92 8 IAMs_20 IAMs_20 10 01 42.0
comp=Z,28µm,22.0s
FARB **Farallon Islan** 70.96 40 IAMs_20 IAMs_20 10 02 32.0
comp=Z,21µm,20.0s
SKR **Severo-Kuril's** 70.98 340 *e*P **P** **09 38 18.4 -0.7**
SKR *e*S **S** **09 47 24.0 -7.5**
SKR pmax pmax
comp=Z,3µm,11.1s
SKR MLR MLR
comp=Z,5µm,17.0s
JMP **Maruseppu** 71.02 329 P P **09 38 20.5 +0.9**
HULI **Fort Hunter Li** 71.08 43 IAmb IAmb 09 38 22.9
comp=Z,282nm,1.4s
FORD **Fort Ord Natur** 71.12 42 IAMs_20 IAMs_20 10 02 57.3
comp=Z,19µm,19.0s
JSU **Suzuyama** 71.16 312 P **P** **09 38 21.5 +0.8**

JSU Suzuyama 71.16 312 P **P** **09 38 19.1 -1.6**
comp=Z,133nm,1.3s,comp=Z,4µmcomp=Z,8µm
JEW Eniwo 71.18 327 P **P** **09 38 21.6 +1.0**
JHS Saijyo 71.23 316 P **P** **09 38 21.5 +0.4**
JRSC Jasper Ridge 71.26 41 IAmb IAmb 09 38 25.2
comp=Z,223nm,1.3s
JRSC IAMs_20 IAMs_20 10 02 22.0
comp=Z,20µm,20.0s
MCCM Marconi Confer 71.31 40 IAMs_20 IAMs_20 10 02 14.2
comp=Z,20µm,20.0s
SAO San Andreas Ge 71.38 42 IAmb IAmb 09 38 25.0
comp=Z,159nm,1.1s
SAO IAMs_20 IAMs_20 10 01 45.2
comp=Z,22µm,21.0s
SAO San Andreas Ge 71.38 42 ⇓P **P** **09 38 22.4 +0.5**
BBKI Banjar Baru 71.42 272 P **P** **09 38 24.5 +1.8**
S12K Black Hills 71.47 7 IAmb IAmb 09 38 41.3
comp=Z,201nm,1.2s
JKA Kamikawa-asahi 71.48 328 IAmb IAmb 09 38 36.3
comp=Z,242nm,1.3s
JKA Kamikawa-asahi 71.48 328 P **P** **09 38 22.4 +0.1**
comp=Z,17µmcomp=Z,5µmcomp=Z,164nm,1.3s
ASAJ Asahikawa 71.48 328 P **P** **09 38 23.1 +0.8**
comp=Z,48nm,0.9s,baz=118,slow=2.5,SNR=12
ASAJ LR LR 10 03 46.8
comp=Z,6µm,21.7s,baz=112,slow=31
comp=Z,48nm,0.9s
PKD Bear Valley Ra 71.49 43 IAmb IAmb 09 38 26.1
comp=Z,137nm,1.1s
BLJI Banyuglugur 71.57 267 P **P** **09 38 24.1 +0.5**
MHC Mount Hamilton 71.60 41 IAMs_20 IAMs_20 10 02 54.0
comp=Z,22µm,20.0s
CVS Carmenet Viney 71.69 40 IAmb IAmb 09 38 26.5
comp=Z,164nm,1.1s
CVS IAMs_20 IAMs_20 10 02 04.4
comp=Z,24µm,21.0s
JNU Nakatsue 71.73 313 P **P** **09 38 24.0 -0.1**
comp=Z,21nm,0.6s,baz=75,slow=1.8,SNR=32
JNU LR LR 10 04 26.3
comp=Z,6µm,21.4s,baz=126,slow=31
comp=Z,21nm,0.6s
JNU Nakatsue 71.73 313 P **P** **09 38 24.1 -0.1**
JSH Shimam 71.80 326 P **P** **09 38 25.7 +1.4**
KCPM Cahto Peak 71.84 38 IAmb IAmb 09 38 28.1
comp=Z,307nm,1.3s
KMPM Mount Pierce 71.98 38 IAmb IAmb 09 38 29.0
comp=Z,314nm,1.2s
CBX Cerro Bola 72.14 48 IAmb IAmb 09 38 28.9
comp=Z,300nm,1.6s
MWC Mount Wilson 72.19 46 IAmb IAmb 09 38 29.0
comp=Z,190nm,1.3s
PET Petropavlovsk 72.24 343 P **P** **09 38 27.2 +0.6**
PET Petropavlovsk 72.24 343 *e*P P 09 38 21.8 -4.8
PET *e*S **S** **09 47 42.7 -3.2**
PET *e*PS **PnS** **09 48 25.1 +3.6**
PET pmax pmax
comp=Z,900nm,5.5s
PET pmax pmax
comp=Z,2µm,3.9s
PET pmax pmax
comp=Z,59nm,1.8s
PET MLR MLR
comp=Z,6µm,17.0s
PET Petropavlovsk 72.24 343 P **P** **09 38 25.2 -1.4**
PET Petropavlovsk 72.24 343 P **P** **09 38 25.3 -1.4**
comp=Z,15µmcomp=Z,5µmcomp=Z,100nm,1.6s
JCC Jacoby Creek, 72.29 37 IAMs_20 IAMs_20 10 01 41.0
comp=Z,24µm,22.0s
ELS Elsinore Mount 72.31 47 IAmb IAmb 09 38 29.9
comp=Z,291nm,1.6s
BAR Barrett 72.33 48 IAmb IAmb 09 38 29.8
comp=Z,275nm,1.9s
BAR IAMs_20 IAMs_20 10 02 22.8
comp=Z,24µm,20.0s
SPIA Saint Paul Isl 72.34 2 IAMs_20 IAMs_20 10 05 46.0
comp=Z,13µm,20.0s
VES Vestal, Richgr 72.39 44 IAMs_20 IAMs_20 10 01 56.2
comp=Z,25µm,22.0s
TPO Tropico Hills 72.43 45 IAmb IAmb 09 38 30.6
comp=Z,439nm,1.6s
ESJX Sierra Juarez 72.50 49 P **P** **09 38 28.2 -0.7**
ESJX IAmb IAmb 09 38 31.5
comp=Z,175nm,1.3s
KHMM Horse Mountain 72.50 37 IAmb IAmb 09 38 33.4
comp=Z,157nm,1.1s
KHMM IAMs_20 IAMs_20 10 02 31.6
comp=Z,25µm,21.0s
CHGN Chignik 72.53 9 IAmb IAmb 09 38 51.6
comp=Z,189nm,1.3s
KARE Kearney REC, C 72.55 43 IAMs_20 IAMs_20 10 02 01.3
comp=Z,21µm,22.0s
PEA0B Petropavlovsk- 72.59 342 P **P** **09 38 27.9 -0.9**
PEA0B pmax pmax
comp=Z,583nm,1.7s
PEA0B Petropavlovsk- 72.59 342 P **P** **09 38 27.9 -0.9**
PETK Petropavlovsk- 72.59 342 P **P** **09 38 27.9 -0.9**
comp=Z,52nm,0.7s,baz=117,slow=5.7,SNR=75
PETK LR LR 10 03 08.1
comp=Z,6µm,21.9s,baz=153,slow=30
comp=Z,52nm,0.7s
PETK Petropavlovsk- 72.59 342 P **P** **09 38 27.6 -1.2**
O02D Mt. Diablo Mer 72.62 38 IAmb IAmb 09 38 33.0
comp=Z,373nm,1.4s
SUTB Sutter Butte 72.65 40 IAmb IAmb 09 38 31.2
comp=Z,291nm,1.4s
SUTB IAMs_20 IAMs_20 10 02 23.7
comp=Z,14µm,22.0s
KHBM Hayfork Bally 72.67 38 IAmb IAmb 09 38 33.0
comp=Z,158nm,1.1s
ISA Isabella, Lake 72.70 44 IAmb IAmb 09 38 32.3
comp=Z,239nm,1.5s
KKM Kota Kinabalu 72.79 281 P **P** **09 38 31.9 +0.9**
KKM Kota Kinabalu 72.79 281 P **P** **09 38 29.5 -1.4**
KKM Kota Kinabalu 72.79 281 ⇑P **P** **09 38 29.7 -1.2**
KKM Kota Kinabalu 72.79 281 P **P** **09 38 31.6 +0.6**
comp=Z,2µmcomp=Z,55nm,0.7s
KKM Kota Kinabalu 72.79 281 P **P** **09 38 28.5 -2.5**
comp=Z,55nm,0.7s,comp=Z,2µm
CMB Columbia Colle 72.81 41 IAMs_20 IAMs_20 10 03 21.1
comp=Z,18µm,20.0s
KRMB Red Mountain 72.81 37 IAmb IAmb 09 38 34.1
comp=Z,186nm,1.1s
KRMB IAMs_20 IAMs_20 10 02 19.8
comp=Z,21µm,22.0s
BORC Borrego Spring 72.82 47 IAmb IAmb 09 38 32.8
comp=Z,260nm,1.6s
DNR Dunn Ranch,Anz 72.83 47 IAmb IAmb 09 38 33.1
comp=Z,377nm,1.6s
WELL Weller Preserv 72.83 41 IAMs_20 IAMs_20 10 03 51.7
comp=Z,21µm,20.0s
AONC Vina, CA USA 72.91 39 IAMs_20 IAMs_20 10 02 34.7
comp=Z,20µm,21.0s
PFO Pinyon Flats O 72.97 47 P **P** **09 38 30.4 -1.3**
comp=Z,9.8nm,0.3s,baz=168,slow=3.9,SNR=4.0
PFO LR LR 10 04 13.6
comp=Z,29µm,19.3s,baz=274,slow=31
comp=Z,9.8nm,0.3s
PFO Pinyon Flats O 72.97 47 P **P** **09 38 29.6 -2.1**
PFO pmax pmax
comp=Z,219nm,1.7s
PFO Pinyon Flats O 72.97 47 P **P** **09 38 29.6 -2.1**
PFO IAmb IAmb 09 38 33.9
comp=Z,219nm,1.6s
PFO Pinyon Flats O 72.97 47 P **P** **09 38 31.9 +0.3**
comp=Z,13µmcomp=Z,52nm,1.6s
PFO Pinyon Flats O 72.97 47 P **P** **09 38 32.1 +0.4**
PFO pP **pP** **09 38 44.1 -0.3**
XPFO Pinon Flat 72.98 47 P **P** **09 38 32.1 +0.4**
XPFO pP **pP** **09 38 44.1 -0.3**
SRIG Santa Rosalia 73.00 55 P **P** **09 38 31.5 -0.2**
SRIG Santa Rosalia 73.00 55 P **P** **09 38 32.1 +0.3**
comp=Z,11µmcomp=Z,3µmcomp=Z,123nm,1.2s,comp=Z,3µm
ORV Oroville 73.02 40 IAMs_20 IAMs_20 10 03 09.5
comp=Z,14µm,21.0s
KSXB Camp Six Broad 73.03 37 IAmb IAmb 09 38 34.5
comp=Z,367nm,1.5s
KSXB IAMs_20 IAMs_20 10 02 59.4
comp=Z,20µm,20.0s
PMD Palm Desert 73.05 47 IAmb IAmb 09 38 34.1
comp=Z,229nm,1.8s
LPIG La Paz 73.10 58 P **P** **09 38 33.1 +0.7**
comp=Z,77nm,1.1s,baz=196,slow=5.7,SNR=9.5
LPIG LR LR 10 02 13.6
comp=Z,13µm,21.1s,baz=245,slow=29
comp=Z,77nm,1.1s
LRMC Laurel Mtn Rad 73.14 45 IAmb IAmb 09 38 34.9
comp=Z,195nm,1.4s

PWJI Pagerwojo 73.23 266 P **P** **09 38 36.3 +2.9**
O03E Paynes Creek 73.29 39 IAMs_20 IAMs_20 10 03 50.5
comp=Z,20µm,20.0s
SNJI Sawahan-Nganju 73.33 266 P **P** **09 38 35.8 +1.5**
M02C Callahan 73.34 37 IAMs_20 IAMs_20 10 02 37.9
comp=Z,25µm,22.0s
CCCA Chr Cany lake 73.38 45 IAmb IAmb 09 38 36.3
comp=Z,372nm,1.6s
CLC China Lake 73.38 45 IAmb IAmb 09 38 36.2
comp=Z,321nm,1.6s
L02F Cave Junction 73.39 36 IAmb IAmb 09 38 38.4
comp=Z,293nm,1.5s
YSS Yuzhno-Sakhali 73.43 330 P **P** **09 38 33.8 -0.1**
YSS Yuzhno-Sakhali 73.43 330 κ*e*P **P** **09 38 33.7 -0.1**
YSS *e**SP **pP** **09 38 47.7 +1.2**
YSS *e* 09 41 26.0
YSS *e*S **S** **09 47 57.2 -2.5**
YSS *e*PS **PnS** **09 48 35.4 -1.9**
YSS pmax pmax
comp=Z,1µm,4.4s
YSS pmax pmax
comp=N,300nm,3.4s
YSS pmax pmax
comp=E,200nm,4.0s
YSS pmax pmax
comp=Z,110nm,0.7s
YSS smax smax
comp=N,2µm,10.1s
YSS smax smax
comp=E,5µm,10.1s
YSS Yuzhno-Sakhali 73.43 330 P **P** **09 38 32.9 -0.9**
YSS IAmb IAmb 09 38 47.3
comp=Z,269nm,1.3s
YSS IAMs_20 IAMs_20 10 03 59.8
comp=Z,12µm,22.0s
YSS Yuzhno-Sakhali 73.43 330 ⇑P **P** **09 38 33.4 -0.4**
YSS Yuzhno-Sakhali 73.43 330 P **P** **09 38 32.8 -1.1**
comp=Z,137nm,0.9s,comp=Z,5µmcomp=Z,14µm
YSS Yuzhno-Sakhali 73.43 330 P **P** **09 38 33.9 -0.1**
YSS pP **pP** **09 38 44.7 -1.8**
SII Sitkinak Islan 73.47 11 P **P** **09 38 34.0 +0.1**
SII Sitkinak Islan 73.47 11 IAmb IAmb 09 38 46.3
comp=Z,417nm,1.8s
SII IAMs_20 IAMs_20 10 04 21.4
comp=Z,24µm,20.0s
BELC Belle Mtn. Jos 73.50 47 IAmb IAmb 09 38 37.0
comp=Z,176nm,1.4s
YBH Yreka Blue Hor 73.64 37 P **P** **09 38 36.0 +0.7**
comp=Z,114nm,1.0s,baz=195,slow=3.0,SNR=68
YBH LR LR 10 03 19.9
comp=Z,21µm,21.5s,baz=259,slow=30
comp=Z,114nm,1.0s
YBH Yreka Blue Hor 73.64 37 IAmb IAmb 09 38 38.8
comp=Z,293nm,1.4s
WAKR Walker 73.69 41 IAmb IAmb 09 38 41.0
comp=Z,140nm,1.0s
M03C McCloud 73.70 38 IAmb IAmb 09 38 38.7
comp=Z,362nm,1.3s
K02D Willamette Mer 73.70 36 IAmb IAmb 09 38 39.1
comp=Z,181nm,1.2s
BC3 Big Chuckawall 73.71 47 IAmb IAmb 09 38 38.4
comp=Z,259nm,1.5s
BC3 IAMs_20 IAMs_20 10 04 16.3
comp=Z,24µm,20.0s
HATC Hat Creek Radi 73.81 39 IAmb IAmb 09 38 39.6
comp=Z,374nm,1.3s
HATC IAMs_20 IAMs_20 10 04 27.4
comp=Z,22µm,20.0s
GLA Glamis 73.85 48 IAmb IAmb 09 38 41.3
comp=Z,189nm,1.2s
GLA IAMs_20 IAMs_20 10 03 31.0
comp=Z,23µm,20.0s
J01E Myrtle Point 73.85 35 IAmb IAmb 09 38 39.8
comp=Z,260nm,1.2s
R16K Pilot Point 73.87 9 IAMs_20 IAMs_20 10 04 57.8
comp=Z,16µm,21.0s
BEKR Beckworth 73.91 40 IAmb IAmb 09 38 40.0
comp=Z,185nm,1.2s
PNTR Pine Nut 73.93 41 IAmb IAmb 09 38 40.3
comp=Z,272nm,1.3s
PIX Pinacate 74.09 50 IAmb IAmb 09 38 42.1
comp=Z,216nm,1.2s
WOJI Wonogiri, Jawa 74.12 266 P **P** **09 38 40.9 +2.2**
ELFS Eagle Lake Fie 74.14 39 IAMs_20 IAMs_20 10 03 46.1
comp=Z,27µm,21.0s
LHV Little Huntoon 74.14 42 IAmb IAmb 09 38 41.6
comp=Z,157nm,1.1s
IRM Iron Mountain 74.19 47 IAmb IAmb 09 38 43.2
comp=Z,260nm,1.4s
GWY Greenwater Val 74.21 45 IAmb IAmb 09 38 40.9
comp=Z,239nm,1.6s
FURC Furnace Creek, 74.23 44 IAmb IAmb 09 38 41.1
comp=Z,199nm,1.3s
OHAK Old Harbor 74.27 11 P **P** **09 38 37.9 -0.6**
OHAK Old Harbor 74.27 11 IAmb IAmb 09 38 59.1
comp=Z,241nm,1.8s
NVAR Mina Array Bea 74.38 42 P **P** **09 38 40.0 +0.1**
comp=Z,40nm,0.7s,baz=233,slow=9.8,SNR=136
NVAR LR LR 10 03 36.1
comp=Z,25µm,21.8s,baz=249,slow=30
comp=Z,40nm,0.7s
PAHR Pah Rah Range 74.42 40 IAmb IAmb 09 38 44.3
comp=Z,157nm,1.2s
YULB Yu-li 74.49 300 P **P** **09 38 41.1 +0.5**
I02E Swisshome, OR 74.51 35 IAmb IAmb 09 38 45.8
comp=Z,257nm,1.2s
NACB Ninganchiao 74.57 301 P **P** **09 38 41.7 +0.7**
NACB Ninganchiao 74.57 301 P **P** **09 38 39.9 -1.1**
comp=Z,98nm,1.5s,comp=Z,3µmcomp=Z,5µm
WCT Wildcat Mounta 74.57 44 IAmb IAmb 09 38 43.3
comp=Z,292nm,1.7s
MTPC Mountain Pass 74.60 46 IAmb IAmb 09 38 43.5
comp=Z,323nm,1.7s
QSPA South Pole Qui 74.66 180 P **P** **09 38 43.0 +2.0**
comp=Z,281nm,0.8s,baz=34,slow=1.5,SNR=577
QSPA PKPPKP **P'P'df** **10 06 08.8 -2.6**
comp=Z,2.3nm,1.0s,baz=288,slow=7.1,SNR=3.8
QSPA LR LR 10 07 03.5
comp=Z,7µm,21.3s,baz=35,slow=32
comp=Z,281nm,0.8s
QSPA South Pole Qui 74.66 180 P **P** **09 38 43.0 +2.0**
QSPA South Pole Qui 74.66 180 ⇑P **P** **09 38 42.8 +1.7**
QSPA South Pole Qui 74.66 180 P **P** **09 38 43.3 +2.2**
comp=Z,23µmcomp=Z,12µmcomp=Z,602nm,1.0s
QSPA South Pole Qui 74.66 180 P **P** **09 38 43.0 +2.0**
QSPA sP **sP** **09 38 58.0 -0.9**
HSIG 74.79 54 P **P** **09 38 41.6 -0.7**
KVN Kaiserville 74.86 42 P **P** **09 38 42.1 -0.6**
KVN pmax pmax
comp=Z,165nm,1.2s
KVN Kaiserville 74.86 42 P **P** **09 38 42.1 -0.6**
KVN IAmb IAmb 09 38 46.7
comp=Z,165nm,1.2s
TPH Tonopah 74.88 43 IAmb IAmb 09 38 46.3
comp=Z,294nm,1.2s
TPNV Topopah Spring 74.91 44 IAmb IAmb 09 38 45.3
comp=Z,382nm,1.7s
TPNV Topopah Spring 74.91 44 ⇓P **P** **09 38 43.3 +0.3**
KDAK Kodiak Island 74.92 11 LR LR 10 04 25.7
comp=Z,22µm,21.9s,baz=212,slow=30
KDAK Kodiak Island 74.92 11 P **P** **09 38 41.3 -1.0**
KDAK pmax pmax
comp=Z,101nm,1.0s
KDAK Kodiak Island 74.92 11 P **P** **09 38 41.3 -1.0**
KDAK Kodiak Island 74.92 11 IAMs_20 IAMs_20 10 03 51.8
comp=Z,24µm,22.0s
KDAK Kodiak Island 74.92 11 ⇑P **P** **09 38 41.5 -0.9**
KDAK Kodiak Island 74.92 11 P **P** **09 38 41.9 -0.4**
comp=Z,20µmcomp=Z,6µmcomp=Z,142nm,2.0s
KDAK Kodiak Island 74.92 11 P **P** **09 38 41.6 -0.7**
KDAK PcP **PcP** **09 38 55.9 -0.1**
SSLB Suanglung 74.94 300 P **P** **09 38 41.9 -1.4**
comp=Z,86nm,1.3s
YHNB Yeheng 74.95 301 P **P** **09 38 44.8 +1.4**
YHNB Yeheng 74.95 301 P **P** **09 38 41.8 -1.6**
comp=Z,147nm,1.7s,comp=Z,6µm
YHNB pP **pP** **09 38 56.3 0.0**
TATO Taipei 74.99 302 P **P** **09 38 40.1 -3.3**
TPUB Ta-pu 75.01 300 P **P** **09 38 44.8 +1.2**
O14K Tigyukauivet M 75.04 6 IAMs_20 IAMs_20 10 06 38.5
comp=Z,16µm,20.0s
I04A Tendick Farm, 75.11 36 IAmb IAmb 09 38 46.6
comp=Z,166nm,1.1s
COR Corvallis 75.11 35 IAMs_20 IAMs_20 10 03 18.5
comp=Z,20µm,22.0s
O15K Ungalikthiuk R 75.13 7 IAmb IAmb 09 39 03.7
comp=Z,402nm,1.8s

O15K IAMs_20 IAMs_20 10 04 59.0
comp=Z,21µm,21.0s
MOD Modoc Plateau 75.16 38 IAmb IAmb 09 38 47.4
comp=Z,222nm,1.1s
MOD IAMs_20 IAMs_20 10 04 31.4
comp=Z,20µm,20.0s
P16K Nushagak River 75.23 8 IAMs_20 IAMs_20 10 06 01.6
comp=Z,16µm,20.0s
TEY Ternei 75.25 326 ⇓*e*P P 09 38 32.6 -12
TEY *e* 09 38 51.5
TEY pmax pmax
comp=N,10.0nm,1.3s
UGL Uglegorsk 75.28 332 *e*P **P** **09 38 45.5 +1.0**
UGL *e*S **S** **09 48 18.8 -1.5**
UGL pmax pmax
comp=Z,3µm,4.2s
UGL smax smax
comp=E,5µm,11.0s
UGL smax smax
comp=N,800nm,5.6s
UGL MLR MLR
comp=N,4µm,17.0s
UGL MLR MLR
comp=E,4µm,17.0s
UGL MLR MLR
comp=Z,6µm,17.0s
Q09A Carvers 75.33 42 IAmb IAmb 09 38 49.6
comp=Z,297nm,1.2s
H04D Lebanon 75.39 35 IAmb IAmb 09 39 07.5
comp=Z,267nm,1.2s
SHPR Sheep Range 75.41 45 IAmb IAmb 09 38 48.4
comp=Z,384nm,1.8s
J05D Fort Rock, OR 75.46 37 IAmb IAmb 09 38 49.9
comp=Z,304nm,1.1s
SBUM Sibu 75.54 277 P **P** **09 38 47.4 +0.6**
SBUM Sibu 75.54 277 P **P** **09 38 45.9 -1.0**
SBUM Sibu 75.54 277 P **P** **09 38 47.5 +0.6**
SBUM Sibu 75.54 277 P **P** **09 38 44.7 -2.1**
comp=Z,16nm,1.1s,comp=Z,686nmcomp=Z,3µm
SBUM pP **pP** **09 39 01.7 +1.8**
W13A Hualapai Mount 75.56 47 IAmb IAmb 09 38 49.3
comp=Z,276nm,1.7s
P17K Kvichak River 75.61 9 IAmb IAmb 09 39 07.9
comp=Z,320nm,1.3s
P17K IAMs_20 IAMs_20 10 07 01.7
comp=Z,13µm,20.0s
WIFE Three Sisters- 75.61 36 IAmb IAmb 09 38 50.0
comp=Z,195nm,1.1s
S11A Rachel 75.62 44 IAmb IAmb 09 38 49.2
comp=Z,338nm,1.6s
N14K Kuskokwak Cree 75.65 6 IAMs_20 IAMs_20 10 04 32.7
comp=Z,13µm,22.0s
O16K Kokwok River B 75.76 8 IAMs_20 IAMs_20 10 04 21.6
comp=Z,19µm,22.0s
Q19K Cape Douglas, 75.81 10 IAmb IAmb 09 39 01.2
comp=Z,532nm,2.0s
Q19K IAMs_20 IAMs_20 10 04 47.1
comp=Z,25µm,21.0s
TJN Taejon 75.91 314 P **P** **09 38 51.2 +2.8**
TJN Taejon 75.91 314 *i*P **P** **09 38 49.4 +1.0**
PINE Pine Mountain 75.94 36 P **P** **09 38 49.0 +0.2**
G04A Mulino 75.96 34 P **P** **09 38 48.4 -0.2**
G04A IAmb IAmb 09 38 53.1
comp=Z,255nm,1.0s
PRN Pahroc Range 75.96 44 IAmb IAmb 09 39 17.4
comp=Z,177nm,1.2s
CTJI Waduk Cacaban 75.99 266 P **P** **09 38 51.3 +1.8**
I05D Terrebonne, OR 76.05 36 IAmb IAmb 09 38 52.4
comp=Z,327nm,1.2s
N15K Kwethluk River 76.07 7 IAmb IAmb 09 39 08.5
comp=Z,293nm,2.0s
N15K IAMs_20 IAMs_20 10 07 30.7
comp=Z,21µm,20.0s
KSRS Korea Array 76.09 316 P **P** **09 38 50.5 +1.0**
comp=Z,11nm,0.7s,baz=125,slow=5.7,SNR=38
KSRS LR LR 10 06 31.9
comp=Z,6µm,21.9s,baz=120,slow=31
comp=Z,11nm,0.7s
KSAR Wonju Array Be 76.11 316 P **P** **09 38 49.1 -0.5**
KSAR Wonju Array Be 76.11 316 P **P** **09 38 49.1 -0.5**
F04D Rainier, OR 76.23 34 IAmb IAmb 09 38 53.7
comp=Z,304nm,1.1s
TYV Tymovskoe 76.30 333 *e*P **P** **09 38 49.6 -0.8**
TYV *e*S **S** **09 48 29.8 -1.7**
TYV pmax pmax
comp=Z,1µm,5.7s
TYV pmax pmax
comp=Z,48nm,0.8s
TYV smax smax
comp=N,1µm,5.2s
TYV smax smax
comp=E,2µm,5.2s
O18K Koktuh Hills 76.43 9 IAmb IAmb 09 38 53.4
comp=Z,462nm,1.8s
O18K IAMs_20 IAMs_20 10 05 06.4
comp=Z,15µm,22.0s
TUC Tucson 76.45 51 P **P** **09 38 52.5 +0.7**
TUC pmax pmax
comp=Z,187nm,1.1s
TUC Tucson 76.45 51 P **P** **09 38 52.5 +0.7**
TUC IAmb IAmb 09 38 56.6
comp=Z,187nm,1.1s
TUC Tucson 76.45 51 IAMs_20 IAMs_20 10 05 01.1
comp=Z,21µm,20.0s
TUC Tucson 76.45 51 ⇓P **P** **09 38 52.4 +0.7**
TUC Tucson 76.45 51 P **P** **09 38 52.6 +0.7**
comp=Z,14µmcomp=Z,3µmcomp=Z,172nm,1.3s
TUC Tucson 76.45 51 P **P** **09 38 52.5 +0.7**
WVOR Wild Horse Val 76.48 39 IAmb IAmb 09 38 56.0
comp=Z,257nm,1.2s
WVOR Wild Horse Val 76.48 39 ⇓P **P** **09 38 52.0 +0.2**
WVOR Wild Horse Val 76.48 39 P **P** **09 38 52.0 +0.2**
comp=Z,17µmcomp=Z,5µmcomp=Z,184nm,1.2s
HOOD Mount Hood Mea 76.49 35 IAmb IAmb 09 38 54.6
comp=Z,230nm,1.1s
G05A Wamic 76.62 35 IAmb IAmb 09 38 55.5
comp=Z,340nm,1.3s
NLWA Neilton Lookou 76.64 32 IAMs_20 IAMs_20 10 05 50.5
comp=Z,14µm,20.0s
NLWA Neilton Lookou 76.64 32 ⇑P **P** **09 38 52.7 +0.3**
N17K Nushagak Hills 76.78 8 IAMs_20 IAMs_20 10 05 04.7
comp=Z,16µm,22.0s
CNPM China Poot 76.81 11 IAmb IAmb 09 39 13.9
comp=Z,415nm,1.6s
HOM Homer 76.86 11 IAmb IAmb 09 39 38.6
comp=Z,197nm,1.1s
HOM IAMs_20 IAMs_20 10 04 31.8
comp=Z,21µm,22.0s
MSHR Mys Shultsa 76.86 321 *i*P **P** **09 38 53.9 +0.2**
MSHR pmax pmax
comp=Z,121nm,1.7s
H02S1 DAWSON INLET T 76.86 24 P **P** **09 38 51.5 -2.0**
SNR=6.2
H02S1 T T 11 02 12.1
SNR=19
H02S2 DAWSON INLET T 76.86 24 P **P** **09 38 52.1 -1.4**
SNR=6.0
H02S2 T T 11 02 10.3
SNR=19
O19K Port Alsworth 76.89 10 IAMs_20 IAMs_20 10 05 41.7
comp=Z,17µm,21.0s
X16A Lo Mia Camp, P 76.97 49 IAmb IAmb 09 38 59.7
comp=Z,172nm,1.1s
INCN Inchon 76.98 315 P **P** **09 38 56.1 +1.5**
INCN Inchon 76.98 315 P **P** **09 38 53.4 -1.2**
comp=Z,159nm,1.6s,comp=Z,7µmcomp=Z,11µm
INCN pP **pP** **09 39 08.5 +1.0**
LCMT Little Creek M 76.99 45 IAmb IAmb 09 38 57.4
comp=Z,251nm,1.7s
G06A Carlson Farm, 77.00 35 IAmb IAmb 09 38 57.5
comp=Z,242nm,1.3s
M16K Timber Creek 77.03 7 IAMs_20 IAMs_20 10 08 20.2
comp=Z,19µm,20.0s
BRLK Bradley Lake 77.10 12 IAMs_20 IAMs_20 10 05 43.8
comp=Z,24µm,21.0s
N18K Kilae Creek 77.11 9 IAMs_20 IAMs_20 10 05 27.5
comp=Z,13µm,22.0s
J08A Circle Bar Ran 77.11 38 IAmb IAmb 09 38 59.0
comp=Z,212nm,1.1s
319A Douglas 77.15 52 IAmb IAmb 09 39 00.5
comp=Z,253nm,1.1s
CCUT Cedar City 77.18 45 IAmb IAmb 09 38 58.9
comp=Z,287nm,2.0s
B04A Port Angeles 77.26 32 P **P** **09 38 55.8 -0.1**
USRK Ussuriysk Ar. 77.32 323 P **P** **09 38 57.0 +0.7**
comp=Z,28nm,0.9s,baz=124,slow=4.4,SNR=32
USRK LR LR 10 06 26.2

comp=Z,17µm,21.9s,baz=121,slow=31
comp=Z,28nm,0.9s
USRK Ussuriysk Ar. 77.32 323 P **P** **09 38 57.0 +0.7**
USRK Ussuriysk Ar. 77.32 323 P **P** **09 38 56.0 -0.3**
USA0B Ussuriysk Arra 77.32 323 P **P** **09 38 55.5 -0.8**
USA0B pmax pmax
comp=Z,271nm,1.7s
USA0B Ussuriysk Arra 77.32 323 P **P** **09 38 55.5 -0.8**
USA0B IAmb IAmb 09 39 10.3
comp=Z,271nm,1.7s
BBJI Bungbulang 77.36 266 P **P** **09 38 56.8 -0.5**
BBJI Bungbulang 77.36 266 P **P** **09 38 56.2 -1.0**
BBJI Bungbulang 77.36 266 P **P** **09 38 58.3 +1.0**
BBJI Bungbulang 77.36 266 P **P** **09 38 56.3 -1.0**
comp=Z,47nm,0.9s,comp=Z,753nmcomp=Z,3µm
RED Redoubt Volcan 77.36 10 IAmb IAmb 09 39 16.4
comp=Z,353nm,1.7s
QZH2 Quanzhou 77.37 300 P **P** **09 38 58.5 +1.5**
QZH2 pmax pmax
comp=Z,2µm,8.2s
QZH2 L L
comp=Z,3µm,16.1s
QZH2 L L
comp=Z,2µm,14.1s
QZH2 L L
comp=Z,10µm,33.3s
K13K Kusilvak Mount 77.38 4 IAmb IAmb 09 39 11.0
comp=Z,213nm,1.6s
K13K IAMs_20 IAMs_20 10 07 16.3
comp=Z,10µm,20.0s
SZCU Shurtz Canyon 77.39 45 IAmb IAmb 09 39 02.7
comp=Z,187nm,1.4s
N19K Bonanza Creek 77.45 9 IAMs_20 IAMs_20 10 06 08.5
comp=Z,16µm,21.0s
LEM Lembang 77.55 266 LR LR 10 13 48.3
comp=Z,5µm,20.8s,baz=107,slow=36
WUAZ Wupatki 77.55 48 IAmb IAmb 09 39 03.0
comp=Z,221nm,1.4s
WUAZ IAMs_20 IAMs_20 10 05 58.1
comp=Z,18µm,20.0s
WUAZ Wupatki 77.55 48 ⇑P **P** **09 38 58.7 +0.7**
M17K Holitna River 77.59 8 IAMs_20 IAMs_20 10 06 03.1
comp=Z,20µm,21.0s
ELK Elko 77.63 41 P **P** **09 38 58.5 +0.1**
comp=Z,70nm,1.0s,baz=220,slow=5.1,SNR=32
ELK LR LR 10 05 35.5
comp=Z,17µm,21.9s,baz=228,slow=30
comp=Z,70nm,1.0s
ELK Elko 77.63 41 IAMs_20 IAMs_20 10 05 23.7
comp=Z,16µm,21.0s
ELK Elko 77.63 41 ⇓P **P** **09 38 58.5 +0.1**
CBB Campbell River 77.66 29 IAmb IAmb 09 39 02.2
comp=Z,133nm,1.1s
HHU Hamhung 77.66 318 P **P** **09 38 58.3 0.0**
HHU S **S** **09 48 49.2 +2.4**
HHU AmB
comp=Z,3µm,3.4s
HHU AMS AMS
comp=Z,11µm,25.9s
PGC Sidney 77.67 31 P **P** **09 38 57.4 -0.7**
SEW Seward 77.69 12 IAMs_20 IAMs_20 10 05 15.1
comp=Z,19µm,22.0s
MID Middleton Isla 77.75 14 IAMs_20 IAMs_20 10 05 38.7
comp=Z,16µm,21.0s
F07A Phinny Hill Vi 77.79 35 P **P** **09 38 58.3 -0.6**
F07A IAmb IAmb 09 39 03.0
comp=Z,167nm,1.4s
SSE Sheshan 77.88 307 P **P** **09 38 58.1 -1.6**
SSE S **S** **09 48 46.7 -2.9**
SSE pmax pmax
comp=Z,200nm,8.4s
SSE L L
comp=Z,2µm,27.7s
SSE L L
comp=Z,2µm,28.9s
HJU Haeju 77.88 315 P **P** **09 38 59.4 -0.1**
HJU S **S** **09 48 51.9 +2.6**
HJU AmB
comp=Z,3µm,3.4s
HJU AMS AMS
comp=Z,10µm,21.6s
BBB Bella Bella 77.91 27 P **P** **09 38 59.2 -0.1**
comp=Z,51nm,1.0s,baz=269,slow=3.4,SNR=10.0
BBB LR LR 10 05 26.4
comp=Z,16µm,21.6s,baz=235,slow=30
comp=Z,51nm,1.0s
BBB Bella Bella 77.91 27 IAmb IAmb 09 39 15.9
comp=Z,176nm,1.4s
SLKM Skilak Lake 77.92 12 IAmb IAmb 09 39 01.6
comp=Z,266nm,1.2s
SLKM IAMs_20 IAMs_20 10 06 40.9
comp=Z,16µm,20.0s
G08A Pilot Rock 77.97 36 IAmb IAmb 09 39 04.2
comp=Z,227nm,1.2s
O22K Cooper Landing 77.99 12 IAmb IAmb 09 39 44.5
comp=Z,150nm,0.9s
O22K IAMs_20 IAMs_20 10 06 09.8
comp=Z,17µm,21.0s
K15K Wolf Creek Mou 78.00 6 IAMs_20 IAMs_20 10 10 17.7
comp=Z,12µm,20.0s
P23K Montague Islan 78.03 13 IAmb IAmb 09 39 02.3
comp=Z,156nm,1.3s
HPIG 78.10 58 IAmb IAmb 09 39 05.8
comp=Z,238nm,1.4s
HPIG 78.10 58 P **P** **09 39 01.8 +0.5**
comp=Z,11µmcomp=Z,3µmcomp=Z,116nm,1.3s
X18A Snowflake 78.11 49 IAmb IAmb 09 39 05.9
comp=Z,174nm,1.3s
LTY Liberty 78.23 34 IAmb IAmb 09 39 26.5
comp=Z,258nm,1.8s
E07A Sunnyside 78.24 35 IAmb IAmb 09 39 04.5
comp=Z,163nm,1.1s
J14K Nanvaranak Lak 78.27 5 IAMs_20 IAMs_20 10 07 11.9
comp=Z,11µm,21.0s
HAWA Hanford 78.31 35 IAmb IAmb 09 39 04.9
HAWA comp=Z,172nm,1.2s IAMs_20 IAMs_20 10 05 31.2
comp=Z,18µm,22.0s
HAWA Hanford 78.31 35 ⇓P **P** **09 39 01.8 0.0**
TCRU Three Creeks R 78.34 44 IAmb IAmb 09 39 26.8
comp=Z,211nm,1.3s
CRAG Craig 78.36 22 P **P** **09 39 01.4 -0.4**
PYAG Pyongyang 78.37 316 P **P** **09 39 03.3 +1.1**
PYAG S **S** **09 48 58.1 +3.6**
PYAG AmB
comp=Z,3µm,3.0s
PYAG AMS AMS
comp=Z,8µm,26.9s
YPT Yellepit 78.42 35 IAmb IAmb 09 39 04.4
comp=Z,404nm,1.9s
L18K Granite Mounta 78.48 8 IAMs_20 IAMs_20 10 05 57.2
comp=Z,18µm,22.0s
FIS Fire Island 78.50 11 IAMs_20 IAMs_20 10 05 59.4
comp=Z,15µm,22.0s
M19K Big River Lodg 78.50 9 IAMs_20 IAMs_20 10 06 21.3
comp=Z,8µm,22.0s
WAH2 Wahluke Slope 78.52 35 IAmb IAmb 09 39 05.9
comp=Z,188nm,1.4s
W18A Petrified Fore 78.54 49 IAmb IAmb 09 39 06.3
comp=Z,457nm,1.9s
RC01 Rabbit Creek A 78.55 12 IAmb IAmb 09 39 23.5
comp=Z,221nm,1.3s
RC01 IAMs_20 IAMs_20 10 07 42.5
comp=Z,13µm,20.0s
HIN Hinchinbrook I 78.58 13 IAmb IAmb 09 39 23.7
comp=Z,279nm,1.4s
PWL Port Wells 78.61 12 IAmb IAmb 09 39 05.2
comp=Z,159nm,1.2s
PWL IAMs_20 IAMs_20 10 07 26.3
comp=Z,17µm,20.0s
E08A Dider Farm, El 78.64 35 IAmb IAmb 09 39 06.6
comp=Z,165nm,1.2s
BMO Blue Mountains 78.67 37 IAmb IAmb 09 39 06.7
comp=Z,147nm,1.2s
BMO IAMs_20 IAMs_20 10 06 43.7
comp=Z,14µm,20.0s
M20K Styx River 78.68 10 IAMs_20 IAMs_20 10 09 38.0
comp=Z,18µm,20.0s
L19K White Mountain 78.70 9 IAMs_20 IAMs_20 10 12 57.4
comp=Z,10µm,19.0s
MFID Camas Ranch 78.73 39 IAMs_20 IAMs_20 10 06 22.6
comp=Z,13µm,21.0s
K17K Iditarod 78.75 7 IAMs_20 IAMs_20 10 09 03.8
comp=Z,18µm,20.0s
NKL Nikolayevsk 78.79 334 *e*P **P** **09 39 03.4 -0.8**
NKL *e*S **S** **09 48 57.1 -1.3**
NKL smax smax
comp=N,1µm,5.2s
NKL smax smax
comp=E,793nm,5.2s
121A Cookes Peak, D 78.81 52 IAmb IAmb 09 39 09.5
comp=Z,235nm,1.2s
V35K Ketchikan 78.81 23 IAmb IAmb 09 39 26.1
comp=Z,253nm,1.5s
V35K IAMs_20 IAMs_20 10 06 32.2
comp=Z,18µm,20.0s
SIT Sitka 78.84 20 P **P** **09 39 04.7 +0.3**
U33K Whale Pass 78.86 22 IAmb IAmb 09 39 07.7
comp=Z,197nm,1.3s
U33K IAMs_20 IAMs_20 10 08 46.5
comp=Z,14µm,19.0s
EYAK Cordova Ski Ar 78.89 14 P **P** **09 39 03.7 -0.9**
GLI Glacier Island 78.89 13 IAmb IAmb 09 39 06.7
comp=Z,394nm,1.6s
GLI IAMs_20 IAMs_20 10 07 02.7
comp=Z,22µm,21.0s
DUG Dugway, Tooele 78.91 43 P **P** **09 39 05.6 +0.2**
DUG pmax pmax
comp=Z,155nm,1.1s
DUG Dugway, Tooele 78.91 43 IAmb IAmb 09 39 09.5
comp=Z,149nm,1.1s
DUG IAMs_20 IAMs_20 10 06 07.7
comp=Z,21µm,21.0s
DUG Dugway, Tooele 78.91 43 P **P** **09 39 05.6 +0.2**
comp=Z,15µmcomp=Z,4µmcomp=Z,155nm,1.1s
GAMB Gambell 78.92 1 IAMs_20 IAMs_20 10 08 31.0
comp=Z,14µm,20.0s
MDJ Mudanjiang 78.96 322 P **P** **09 39 05.4 0.0**
MDJ Mudanjiang 78.96 322 P **P** **09 39 05.6 +0.2**
MDJ S **S** **09 49 02.9 +2.3**
MDJ SS **SS** **09 54 09.1 +1.9**
MDJ pmax pmax
comp=Z,51nm,1.0s
MDJ pmax pmax
comp=Z,1µm,6.5s
MDJ L L
comp=Z,24µm,23.4s
MDJ Mudanjiang 78.96 322 IAMs_20 IAMs_20 10 06 54.2
comp=Z,20µm,22.0s
SKT Skwentna 79.04 10 IAmb IAmb 09 39 07.0
comp=Z,233nm,1.8s
SKT IAMs_20 IAMs_20 10 06 16.6
comp=Z,23µm,22.0s
D08A Wollman Farm, 79.05 35 IAmb IAmb 09 39 08.9
comp=Z,202nm,1.3s
J16K Anvik River 79.06 6 IAMs_20 IAMs_20 10 07 01.8
comp=Z,13µm,22.0s
ZAIG Zacatecas 79.07 63 IAmb IAmb 09 39 12.0
comp=Z,259nm,1.4s
ZAIG Zacatecas 79.07 63 P **P** **09 39 08.1 +1.3**
comp=Z,11µmcomp=Z,3µmcomp=Z,146nm,1.3s
GRNR Gornyy 79.09 330 ⇓*i*P **P** **09 39 05.6 -0.3**
GRNR pmax pmax
comp=Z,20nm,1.1s
KNK Knik Glacier 79.09 12 IAMs_20 IAMs_20 10 06 41.0
comp=Z,17µm,21.0s
PMR Palmer 79.12 12 P **P** **09 39 04.1 -1.7**
L20K Farewell, AK 79.13 9 IAMs_20 IAMs_20 10 06 39.8
comp=Z,13µm,22.0s
E09A Wood Farm, Sta 79.16 35 IAmb IAmb 09 39 10.3
comp=Z,206nm,1.5s
HMU Henry Mountain 79.17 46 IAmb IAmb 09 39 31.7
comp=Z,355nm,1.5s
J17K VABM Dome 79.33 7 IAMs_20 IAMs_20 10 08 21.9
comp=Z,16µm,20.0s
GHO Glory Hole Cre 79.33 12 IAMs_20 IAMs_20 10 08 05.2
comp=Z,11µm,21.0s
WRAK Wrangell Islan 79.37 22 IAMs_20 IAMs_20 10 09 10.0
comp=Z,15µm,19.0s
DIV Divide 79.40 13 IAmb IAmb 09 39 09.8
comp=Z,439nm,1.6s
S32K Killisnoo 79.42 20 IAMs_20 IAMs_20 10 06 50.1
comp=Z,19µm,20.0s
EPT El Paso 79.45 53 IAmb IAmb 09 39 31.4
comp=Z,222nm,1.4s
EPT IAMs_20 IAMs_20 10 06 24.8
comp=Z,13µm,21.0s
CGJI Cibinong 79.45 266 P **P** **09 39 08.8 +0.1**
SML Sawmill 79.48 12 IAMs_20 IAMs_20 10 07 05.2
comp=Z,16µm,21.0s
BMRM Bremner River 79.52 14 IAmb IAmb 09 39 10.7
comp=Z,342nm,1.3s
BMRM IAMs_20 IAMs_20 10 06 05.5
comp=Z,24µm,22.0s
TMUT Trail Mountain 79.52 44 IAmb IAmb 09 39 13.9
comp=Z,231nm,1.1s
PLID Pearl Lake 79.56 37 IAMs_20 IAMs_20 10 06 52.4
comp=Z,21µm,21.0s
I17K Unalakleet 79.64 6 IAmb IAmb 09 39 31.0
comp=Z,268nm,1.5s
I17K IAMs_20 IAMs_20 10 07 20.1
comp=Z,11µm,22.0s
HLID Hailey 79.67 39 IAMs_20 IAMs_20 10 07 12.5
comp=Z,14µm,21.0s
HLID Hailey 79.67 39 ⇓P **P** **09 39 10.0 +0.5**
HLID Hailey 79.67 39 P **P** **09 39 10.1 +0.5**
comp=Z,15µmcomp=Z,4µmcomp=Z,213nm,1.1s
J18K Innoko River 79.67 8 IAMs_20 IAMs_20 10 09 32.1
comp=Z,18µm,20.0s
YAH Yahtse 79.69 15 IAmb IAmb 09 39 30.7
comp=Z,313nm,1.3s
KLU Kluina 79.69 13 IAMs_20 IAMs_20 10 07 07.0
comp=Z,23µm,21.0s
SCM Sheep Creek Mo 79.70 12 IAMs_20 IAMs_20 10 06 27.1
comp=Z,17µm,22.0s
SPUT South Promonto 79.72 42 IAmb IAmb 09 39 14.1
comp=Z,165nm,1.2s
PNL Peninsula 79.73 17 P **P** **09 39 08.6 -0.7**
SUJ Sinuiju 79.75 317 P **P** **09 39 09.9 +0.2**
HVU Hansel Valley 79.75 42 IAmb IAmb 09 39 13.6
comp=Z,149nm,1.0s
TGL Tana Glacier 79.76 15 IAmb IAmb 09 39 30.7
comp=Z,280nm,1.3s
PPLA Purkeypile 79.79 10 IAMs_20 IAMs_20 10 08 46.3
comp=Z,18µm,20.0s
PCA Pinnacle 79.86 16 IAmb IAmb 09 39 31.1
comp=Z,167nm,1.3s
SRU San Rafael Swe 79.89 45 IAmb IAmb 09 39 15.3
comp=Z,264nm,1.3s
P17A Butcher Ranch, 79.92 44 IAmb IAmb 09 39 15.8
comp=Z,279nm,1.3s
K20K Telida 79.93 9 IAMs_20 IAMs_20 10 07 27.0
comp=Z,11µm,22.0s
ANM Nome 79.94 4 IAMs_20 IAMs_20 10 10 29.1
comp=Z,9µm,20.0s
GRNC Granite Creek 80.01 15 IAmb IAmb 09 39 32.1
comp=Z,367nm,1.4s
VRDI Verde Repeater 80.02 14 IAMs_20 IAMs_20 10 06 07.7
comp=Z,20µm,22.0s
Y22A Socorro 80.04 51 IAmb IAmb 09 39 35.0
comp=Z,258nm,1.4s
NJ2 Nanjing 80.09 307 *e*P **P** **09 39 13.1 +1.3**
NJ2 PcP **pP** **09 39 25.6 +0.8**
NJ2 S **SKSac** **09 49 15.7 -10**
NJ2 pmax pmax
comp=Z,24nm,0.6s
NJ2 pmax pmax
comp=Z,2µm,8.5s
NJ2 L L
comp=Z,2µm,22.7s
NJ2 L L
comp=Z,3µm,20.4s
NJ2 L L
comp=Z,9µm,20.8s
JIS Juneau Island 80.12 20 P **P** **09 39 11.1 -0.2**
GLB Gilahina Butte 80.12 14 IAMs_20 IAMs_20 10 06 35.4
comp=Z,18µm,22.0s
MA2 Magadan 80.12 342 LR LR 10 10 02.6
comp=Z,7µm,20.2s,baz=133,slow=32
MA2 Magadan 80.12 342 P **P** **09 39 11.7 +0.3**
MA2 Magadan 80.12 342 *i*P **P** **09 39 10.7 -0.7**
MA2 pmax pmax
comp=Z,107nm,1.9s
MA2 Magadan 80.12 342 P **P** **09 39 10.1 -1.2**
MA2 Magadan 80.12 342 P **P** **09 39 09.9 -1.4**
comp=Z,152nm,2.9s,comp=Z,6µmcomp=Z,14µm
MA2 Magadan 80.12 342 P **P** **09 39 10.6 -0.7**
MA2 pP **pP** **09 39 21.7 -2.5**
HKPS Hong Kong Po S 80.14 296 P **P** **09 39 12.8 +0.5**
HKPS Hong Kong Po S 80.14 296 P **P** **09 39 10.8 -1.5**
comp=Z,104nm,1.2s,comp=Z,2µmcomp=Z,5µm
HKPS pP **pwP** **09 39 27.2 -0.2**
BESE Bessie Mountai 80.20 19 IAmb IAmb 09 39 33.5
comp=Z,252nm,1.5s
VHRN Van Horn 80.22 54 IAmb IAmb 09 39 16.4
comp=Z,148nm,0.9s
MCARA McCarthy VSAT 80.26 14 IAMs_20 IAMs_20 10 06 16.0
comp=Z,19µm,22.0s
LOGN Logan Glacier 80.28 15 IAmb IAmb 09 39 33.5
comp=Z,277nm,1.5s
MNTX Cornudas Mount 80.29 53 IAmb IAmb 09 39 17.0
comp=Z,145nm,1.1s
MNTX IAMs_20 IAMs_20 10 06 51.0
comp=Z,10µm,21.0s
MNTX Cornudas Mount 80.29 53 ⇓P **P** **09 39 13.4 +0.5**
MNTX Cornudas Mount 80.29 53 P **P** **09 39 13.7 +0.8**
comp=Z,13µmcomp=Z,4µmcomp=Z,143nm,1.3s,comp=Z,4µm
CAST Castle Rocks 80.30 10 IAMs_20 IAMs_20 10 09 20.7
comp=Z,19µm,20.0s
BARN Barnard Glacie 80.31 15 IAmb IAmb 09 39 34.5
comp=Z,216nm,1.2s
J19K Poorman 80.32 8 IAMs_20 IAMs_20 10 09 42.3
comp=Z,18µm,20.0s
P18A Preston Nutter 80.33 44 IAmb IAmb 09 39 18.0
comp=Z,179nm,1.3s
MVCO Mesa Verde 80.40 47 ⇑P **P** **09 39 13.8 +0.2**
MVCO Mesa Verde 80.40 47 P **P** **09 39 14.1 +0.5**
comp=Z,16µmcomp=Z,6µmcomp=Z,87nm,1.5s,comp=Z,6µm
HWUT Hardware Ranch 80.44 42 ⇓P **P** **09 39 13.4 -0.3**
HWUT Hardware Ranch 80.44 42 P **P** **09 39 13.6 -0.1**
comp=Z,13µmcomp=Z,4µmcomp=Z,113nm,1.1s
KLR Kul'dur 80.46 327 P **P** **09 39 13.4 0.0**
comp=Z,10nm,0.8s,baz=110,slow=3.3,SNR=27
KLR LR LR 10 10 47.6
comp=Z,4µm,20.2s,baz=128,slow=33
comp=Z,10nm,0.8s
KLR Kul'dur 80.46 327 *d i*P **P** **09 39 12.7 -0.7**
KLR pmax pmax
comp=Z,43nm,1.6s
T35M Bob Quinn 80.56 22 IAmb IAmb 09 39 35.8
comp=Z,204nm,1.5s
T35M IAMs_20 IAMs_20 10 08 05.4
comp=Z,18µm,20.0s
KTH Kantishna Hill 80.61 10 IAmb IAmb 09 39 26.9
comp=Z,466nm,1.9s
KTH IAMs_20 IAMs_20 10 07 18.1
comp=Z,23µm,22.0s
TRF Thorofare Moun 80.62 10 IAmb IAmb 09 39 42.8
comp=Z,122nm,0.9s
HARP HAARP 80.67 13 IAmb IAmb 09 39 28.6
comp=Z,243nm,1.4s
HARP IAMs_20 IAMs_20 10 08 08.7
comp=Z,17µm,21.0s
TX31 Lajitas Ar. Si 80.67 56 IAmb IAmb 09 39 19.7
comp=Z,192nm,1.1s
TXAR Lajitas Array 80.68 56 P **P** **09 39 15.9 +0.7**
comp=Z,148nm,1.1s,baz=220,slow=8.4,SNR=115
TXAR PKPPKP **P'P'df** **10 05 60.0 +1.4**
comp=Z,0.6nm,1.0s,baz=11,slow=1.9,SNR=3.9
TXAR LR LR 10 08 51.9
comp=Z,13µm,19.0s,baz=246,slow=31
comp=Z,148nm,1.1s
TXAR Lajitas Array 80.68 56 P **P** **09 39 15.6 +0.5**
J20K Nowinta River 80.70 8 IAmb IAmb 09 39 27.5
comp=Z,282nm,1.5s
J20K IAMs_20 IAMs_20 10 07 39.3
comp=Z,13µm,22.0s
H17K Granite Mounta 80.74 6 IAMs_20 IAMs_20 10 08 16.3
comp=Z,14µm,21.0s
NEW Newport 80.75 34 P **P** **09 39 14.1 -0.9**
comp=Z,14nm,0.9s,baz=221,slow=6.6,SNR=11
NEW LR LR 10 07 05.3
comp=Z,11µm,21.5s,baz=225,slow=30
comp=Z,14nm,0.9s
NEW Newport 80.75 34 P **P** **09 39 13.9 -1.1**
NEW pmax pmax
comp=Z,96nm,1.5s
NEW Newport 80.75 34 P **P** **09 39 13.9 -1.1**
NEW Newport 80.75 34 IAMs_20 IAMs_20 10 06 32.4
comp=Z,11µm,22.0s
NEW Newport 80.75 34 P **P** **09 39 14.4 -0.6**
comp=Z,15µmcomp=Z,3µmcomp=Z,48nm,2.5s,comp=Z,3µm
SKAG Skagway 80.76 19 P **P** **09 39 15.4 +0.7**
SKAG Skagway 80.76 19 P **P** **09 39 14.3 -0.4**
PV22 Blue Mesa, Par 80.81 46 IAmb IAmb 09 39 20.3
comp=Z,250nm,1.0s
UNM Universidad Na 80.82 67 IAMs_20 IAMs_20 10 06 04.2
comp=Z,14µm,22.0s
UNM Universidad Na 80.82 67 P **P** **09 39 17.4 +1.1**
comp=Z,168nm,1.5s,comp=Z,6µmcomp=Z,11µm
UNM pP **sP** **09 39 38.6 +4.7**
DHY Denali Highway 80.82 12 P **P** **09 39 14.0 -1.2**
RND Reindeer 80.84 11 IAmb IAmb 09 39 17.7
comp=Z,234nm,1.2s
TASM ASL Pad, Albuq 80.86 50 IAMs_20 IAMs_20 10 07 11.8
comp=Z,20µm,21.0s
TASM ASL Pad, Albuq 80.86 50 IAMs_20 IAMs_20 10 07 11.7
comp=Z,20µm,21.0s
TASM ASL Pad, Albuq 80.86 50 IAMs_20 IAMs_20 10 07 11.7
comp=Z,20µm,21.0s
TASM ASL Pad, Albuq 80.86 50 IAMs_20 IAMs_20 10 07 11.7
comp=Z,20µm,21.0s
ABQ Albuquerque 80.86 50 IAMs_20 IAMs_20 10 07 11.8
comp=Z,20µm,21.0s
ALQ Albuquerque 80.86 50 IAMs_20 IAMs_20 10 07 11.7
comp=Z,19µm,21.0s
ALQ Albuquerque 80.86 50 IAmb IAmb 09 39 19.8
comp=Z,148nm,1.2s
ALQ IAMs_20 IAMs_20 10 07 11.8
comp=Z,19µm,21.0s
ANMO Albuquerque 80.86 50 P **P** **09 39 16.7 +0.6**
comp=Z,81nm,1.0s,baz=219,slow=6.2,SNR=77
ANMO LR LR 10 07 02.3
comp=Z,20µm,21.7s,baz=227,slow=30
comp=Z,81nm,1.0s
ANMO Albuquerque 80.86 50 P **P** **09 39 16.3 +0.2**
ANMO pmax pmax
comp=Z,85nm,1.0s
ANMO Albuquerque 80.86 50 P **P** **09 39 16.3 +0.2**
ANMO Albuquerque 80.86 50 IAMs_20 IAMs_20 10 07 11.8
comp=Z,19µm,21.0s
ANMO Albuquerque 80.86 50 ⇓P **P** **09 39 16.6 +0.5**
ANMO Albuquerque 80.86 50 P **P** **09 39 16.9 +0.8**
comp=Z,14µmcomp=Z,5µmcomp=Z,114nm,1.2s,comp=Z,5µm
ANMO pP **sP** **09 39 37.7 +3.8**
BNX BinXian 80.87 323 ⇑P **P** **09 39 15.1 -0.6**
BNX S **S** **09 49 15.6 -5.1**
BNX pmax pmax
comp=Z,120nm,0.8s
BNX pmax pmax
comp=Z,3µm,8.1s
BNX L L
comp=Z,4µm,23.3s
BNX L L
comp=Z,10µm,23.9s
BNX L L
comp=Z,17µm,20.6s
KASI Kota Agung 80.87 267 P **P** **09 39 17.6 +1.2**
S34M Telegraph Cree 80.94 21 IAMs_20 IAMs_20 10 09 42.4
comp=Z,14µm,20.0s
TPB28 80.96 54 IAmb IAmb 09 39 20.9
comp=Z,131nm,1.1s
G16K Koyuk River 80.98 5 IAmb IAmb 09 39 30.9
comp=Z,250nm,1.6s
CN2 Changchun 81.02 320 ⇑P **P** **09 39 16.3 -0.2**
CN2 *e*PP **PP** **09 42 24.1 +2.0**
CN2 S **S** **09 49 18.8 -3.5**
CN2 pmax pmax
comp=Z,20nm,0.8s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 L L
comp=Z,300nm,17.0s
CN2 L L
comp=Z,700nm,17.0s
CN2 L L
comp=Z,800nm,20.0s
GZH2 Guangzhou 81.05 297 P **P** **09 39 16.6 -0.5**
GZH2 S **S** **09 49 31.1 +7.6**
GZH2 L L
comp=Z,3µm,22.4s
GZH2 L L
comp=Z,4µm,25.1s
GZH2 L L
comp=Z,9µm,32.6s
DL2 Dalian 81.11 314 P **P** **09 39 17.2 +0.1**
DL2 sP **pP** **09 39 31.3 +1.1**
DL2 S **SKSac** **09 49 27.9 -4.5**
DL2 SKS **SKKSac** **09 49 32.6 -2.4**
DL2 pmax pmax
comp=Z,54nm,1.2s

DL2 pmax pmax
comp=Z,4µm,6.8s
DL2 L L
comp=Z,3µm,24.2s
DL2 L L
comp=Z,6µm,25.1s
DL2 L L
comp=Z,9µm,27.5s
BPAW Bear Paw Mtn. **81.11 10** IAMs_20 IAMs_20 10 07 55.2
comp=Z,12µm,21.0s
PAX Paxson **81.11 13** IAmb IAmb 09 39 37.4
comp=Z,340nm,2.0s
PAX IAMs_20 IAMs_20 10 07 10.4
comp=Z,21µm,22.0s
ALPN Alpine **81.11 55** IAmb IAmb 09 39 21.5
comp=Z,207nm,1.1s
H18K Honhosa River **81.11 6** IAMs_20 IAMs_20 10 09 59.1
comp=Z,15µm,20.0s
F15K North Star Dit **81.12 4** IAMs_20 IAMs_20 10 10 53.3
comp=Z,10µm,20.0s
MCK McKinley **81.12 11** IAmb IAmb 09 39 18.9
comp=Z,199nm,1.0s
SNY Shenyang **81.21 318** ⇑P **P** **09 39 17.6 +0.1**
SNY PP **PP** **09 42 31.2 +7.6**
SNY S **SKSac** **09 49 27.0 -6.0**
SNY pmax pmax
comp=Z,26nm,0.8s
SNY L L
comp=Z,2µm,19.2s
SNY L L
comp=Z,1µm,18.7s
SNY L L
comp=Z,3µm,22.0s
HYT Haines Junctio **81.22 17** P **P** **09 39 17.1 -0.3**
TPB01 Permian Basin **81.23 55** IAmb IAmb 09 39 22.0
comp=Z,194nm,1.0s
I20K Naaghedeneel **81.24 8** IAMs_20 IAMs_20 10 07 42.6
comp=Z,16µm,22.0s
AHID Auburn Hatcher **81.32 41** P **P** **09 39 18.0 -0.4**
AHID IAmb IAmb 09 39 22.5
comp=Z,169nm,1.1s
AHID IAMs_20 IAMs_20 10 10 37.4
comp=Z,11µm,19.0s
AHID Auburn Hatcher **81.32 41** ⇓P **P** **09 39 18.4 0.0**
AHID Auburn Hatcher **81.32 41** P **P** **09 39 18.6 +0.1**
comp=Z,14µmcomp=Z,4µmcomp=Z,153nm,1.1s,comp=Z,4µm
AHID pP **sP** **09 39 39.3 +3.1**
PECS Pecos **81.33 54** IAmb IAmb 09 39 42.4
comp=Z,178nm,1.4s
Q32M Nakina River **81.35 20** IAMs_20 IAMs_20 10 06 59.1
comp=Z,20µm,21.0s
M27K Edge Creek, AK **81.38 14** IAMs_20 IAMs_20 10 08 58.6
comp=Z,16µm,20.0s
MENT Mentasta **81.46 13** P **P** **09 39 17.9 -0.6**
TPB07 Mentone **81.57 54** IAmb IAmb 09 39 23.9
comp=Z,232nm,1.1s
TPB05 Hovey Rd **81.58 55** IAmb IAmb 09 39 25.0
comp=Z,290nm,1.4s
L26K Log Cabin Wild **81.62 13** IAMs_20 IAMs_20 10 07 13.9
comp=Z,23µm,22.0s
H19K Roundabout Mou **81.69 7** IAMs_20 IAMs_20 10 09 14.5
comp=Z,18µm,21.0s
DLBC Dease Lake **81.72 21** P **P** **09 39 19.6 -0.4**
comp=Z,23nm,1.0s,baz=208,slow=6.5,SNR=29
DLBC LR LR 10 07 32.7
comp=Z,14µm,21.6s,baz=216,slow=30
comp=Z,23nm,1.0s
MSO Missoula **81.72 37** IAMs_20 IAMs_20 10 07 45.5
comp=Z,20µm,22.0s
MSO Missoula **81.72 37** ⇓P **P** **09 39 19.6 -0.7**
DLMT Dillon **81.73 38** IAmb IAmb 09 39 23.8
comp=Z,249nm,1.3s
DLMT IAMs_20 IAMs_20 10 09 42.9
comp=Z,21µm,20.0s
K24K Donnelly Dome **81.79 12** IAmb IAmb 09 39 51.4
comp=Z,165nm,1.0s
K24K IAMs_20 IAMs_20 10 08 36.4
comp=Z,18µm,21.0s
G18K Tagagawik **81.80 6** IAMs_20 IAMs_20 10 11 11.4
comp=Z,14µm,20.0s
WHY Whitehorse **81.85 18** IAmb IAmb 09 39 42.4
comp=Z,206nm,1.3s
SNOW Snow King Moun **81.89 41** IAmb IAmb 09 39 25.8
comp=Z,224nm,1.0s
SNOW IAMs_20 IAMs_20 10 10 00.4
comp=Z,12µm,20.0s
O20A White River Ci **81.93 45** IAmb IAmb 09 40 14.9
comp=Z,335nm,1.8s
I21K Tanana **81.96 9** IAMs_20 IAMs_20 10 09 32.7
comp=Z,12µm,20.0s
L27K Beaver Creek, **82.00 14** IAMs_20 IAMs_20 10 08 19.9
comp=Z,20µm,21.0s
BCAR Beaver Creek A **82.01 14** P **P** **09 39 20.6 -0.8**
DOT Dot Lake **82.01 13** IAmb IAmb 09 39 43.2
comp=Z,123nm,1.0s
DOT IAMs_20 IAMs_20 10 07 49.1
comp=Z,21µm,22.0s
MLY Manley **82.02 10** IAMs_20 IAMs_20 10 10 32.2
comp=Z,9µm,20.0s
BUT Butte **82.09 38** IAmb IAmb 09 39 25.7
comp=Z,147nm,1.0s
F17K Baldwin Pennin **82.10 5** IAmb IAmb 09 39 36.6
comp=Z,244nm,1.4s
HDA Harding Lake **82.11 11** IAmb IAmb 09 39 35.8
comp=Z,173nm,1.0s
HDA IAMs_20 IAMs_20 10 08 10.7
comp=Z,12µm,22.0s
R33M Jennings River **82.11 20** IAMs_20 IAMs_20 10 07 12.4
comp=Z,20µm,22.0s
P33M Teslin, Yukon **82.13 19** IAmb IAmb 09 39 46.7
comp=Z,227nm,1.9s
SAND Sanderson **82.15 56** IAmb IAmb 09 39 26.6
comp=Z,142nm,1.0s
CCB Clear Creek Bu **82.17 11** IAmb IAmb 09 39 23.6
comp=Z,131nm,0.8s
MNHN Monahans **82.19 55** IAmb IAmb 09 39 26.7
comp=Z,140nm,1.0s
G19K Purcell Mounta **82.21 7** IAMs_20 IAMs_20 10 10 43.2
comp=Z,15µm,20.0s
N31M Braeburn, Yuko **82.25 17** IAmb IAmb 09 39 50.6
comp=Z,141nm,1.1s
YPP Pitchstone Pla **82.27 40** IAmb IAmb 09 39 49.8
comp=Z,196nm,1.6s
YHB Horse Butte **82.27 40** IAmb IAmb 09 39 27.8
comp=Z,166nm,1.0s
H21K Melozitna Rive **82.29 8** IAMs_20 IAMs_20 10 08 28.4
comp=Z,15µm,22.0s
BW06 Boulder Array **82.31 42** IAmb IAmb 09 39 26.5
comp=Z,140nm,1.1s
BW06 IAMs_20 IAMs_20 10 09 46.6
comp=Z,21µm,20.0s
BW06 Boulder Array **82.31 42** ⇑P **P** **09 39 22.3 -1.4**
PD31 Pinedale Array **82.31 42** IAmb IAmb 09 39 26.5
comp=Z,127nm,1.1s
PDAR Pinedale Array **82.31 42** P **P** **09 39 23.2 -0.5**
comp=Z,72nm,1.0s,baz=215,slow=3.7,SNR=74
PDAR LR LR 10 10 37.8
comp=Z,21µm,19.2s,baz=232,slow=32
comp=Z,72nm,1.0s
PDAR Pinedale Array **82.31 42** P **P** **09 39 23.1 -0.6**
SCRK Sand Creek **82.32 13** IAMs_20 IAMs_20 10 08 09.2
comp=Z,22µm,22.0s
YFT Old Faithful **82.34 40** IAmb IAmb 09 39 32.4
comp=Z,111nm,1.0s
I23K Minto, Yukon-K **82.35 10** IAmb IAmb 09 39 35.5
comp=Z,254nm,1.6s
COLA College **82.36 11** P **P** **09 39 21.6 -1.5**
COLA College **82.36 11** P **P** **09 39 22.0 -1.1**
COLA pmax pmax
comp=Z,184nm,0.8s
COLA College **82.36 11** P **P** **09 39 22.0 -1.1**
COLA IAmb IAmb 09 39 24.7
comp=Z,184nm,0.8s
COLA College **82.36 11** ⇓P **P** **09 39 21.8 -1.3**
COLA College **82.36 11** P **P** **09 39 22.0 -1.1**
comp=Z,16µmcomp=Z,7µmcomp=Z,275nm,1.0s,comp=Z,7µm
COLA College **82.36 11** P **P** **09 39 22.1 -0.9**
COLA pP **pP** **09 39 34.2 -1.7**
YMR Madison River **82.37 40** IAmb IAmb 09 39 47.1
comp=Z,176nm,1.2s
BOZ Bozeman (W) **82.43 39** IAMs_20 IAMs_20 10 09 35.6
comp=Z,17µm,20.0s
IL31 **82.45 11** IAmb IAmb 09 39 36.1
comp=Z,284nm,1.6s
ILAR Eielson Array **82.45 11** P **P** **09 39 22.2 -1.4**
comp=Z,24nm,0.7s,baz=221,slow=5.6,SNR=338
ILAR LR LR 10 09 06.9
comp=Z,12µm,21.9s,baz=202,slow=31
comp=Z,24nm,0.7s
ILAR Eielson Array **82.45 11** P **P** **09 39 22.3 -1.2**
H17A Grant Village **82.47 40** IAmb IAmb 09 39 28.9
comp=Z,167nm,1.2s
IMAR Indian Mountai **82.47 8** P **P** **09 39 22.9 -0.8**
SEY Seymchan **82.48 345** LR LR 10 10 52.7
comp=Z,11µm,20.8s,baz=148,slow=32
SEY Seymchan **82.48 345** *ce*P **P** **09 39 22.7 -1.1**
SEY pmax pmax
comp=Z,81nm,1.1s
YNR Norris Junctio **82.57 40** IAmb IAmb 09 39 49.5
comp=Z,212nm,1.3s
J25K Salcha River, **82.60 12** IAMs_20 IAMs_20 10 12 34.6
comp=Z,10µm,19.0s
POKR Poker Plat Res **82.66 11** IAmb IAmb 09 39 39.3
comp=Z,175nm,0.9s
H22K Ishtalitna Cre **82.72 9** IAmb IAmb 09 39 39.5
comp=Z,160nm,1.3s
H22K IAMs_20 IAMs_20 10 10 36.8
comp=Z,13µm,20.0s
SDCO Great Sand Dun **82.77 48** P **P** **09 39 26.1 -0.2**
SDCO IAmb IAmb 09 39 49.2
comp=Z,394nm,1.9s
SDCO IAMs_20 IAMs_20 10 09 26.2
comp=Z,16µm,20.0s
SDCO Great Sand Dun **82.77 48** ⇓P **P** **09 39 26.4 +0.1**
HAYD Hayden **82.78 45** IAmb IAmb 09 39 29.7
comp=Z,119nm,1.1s
HAYD IAMs_20 IAMs_20 10 08 55.1
comp=Z,13µm,21.0s
K27K Chicken **82.78 13** IAmb IAmb 09 39 40.3
comp=Z,258nm,1.7s
K27K IAMs_20 IAMs_20 10 09 26.5
comp=Z,18µm,20.0s
F19K Shaleruckik Mo **82.81 6** IAMs_20 IAMs_20 10 09 06.8
comp=Z,15µm,22.0s
QIZ Qiongzhong **82.82 292** P **P** **09 39 27.0 +0.5**
QIZ S **S** **09 49 44.4 +2.5**
QIZ L L
comp=Z,2µm,23.5s
QIZ L L
comp=Z,4µm,24.5s
QIZ L L
comp=Z,7µm,24.3s
TMB01 Midkiff **82.85 55** IAmb IAmb 09 39 30.8
comp=Z,177nm,1.5s
M30M Minto, Yukon **82.85 16** IAmb IAmb 09 39 28.6
comp=Z,161nm,1.6s
128A Castleberry Fa **82.91 54** IAmb IAmb 09 39 31.1
comp=Z,186nm,1.0s
H23K Yukon River **82.95 10** IAMs_20 IAMs_20 10 09 02.8
comp=Z,16µm,22.0s
G21K Allakaket **83.01 8** IAMs_20 IAMs_20 10 09 11.3
comp=Z,13µm,21.0s
WHN Wuhan **83.01 304** P **P** **09 39 29.2 +1.9**
WHN pP **pP** **09 39 37.3 -3.1**
WHN PP **PP** **09 42 44.6 +5.8**
WHN S **S** **09 49 47.7 +4.3**
WHN SS **SS** **09 55 18.2 +10**
WHN pmax pmax
comp=Z,460nm,2.0s
WHN pmax pmax
comp=Z,5µm,8.8s
WHN L L
comp=Z,5µm,17.4s
WHN L L
comp=Z,22µm,26.4s
WHN L L
comp=Z,12µm,19.8s
E18K Tukpahlearik C **83.11 5** IAMs_20 IAMs_20 10 09 19.9
comp=Z,12µm,22.0s
YNE Yellowstone No **83.13 40** IAmb IAmb 09 39 34.0
comp=Z,160nm,1.0s
TIA Tai'an **83.13 310** P **P** **09 39 27.5 -0.3**
TIA sP **pP** **09 39 39.6 -1.3**
TIA S **SKSac** **09 49 43.9 -2.3**
TIA pmax pmax
comp=Z,21nm,1.6s
TIA pmax pmax
comp=Z,4µm,8.0s
TIA L L
comp=Z,2µm,25.2s
TIA L L
comp=Z,6µm,23.9s
TIA L L
comp=Z,9µm,23.4s
229A Bryant Ranch, **83.18 54** IAmb IAmb 09 39 32.4
comp=Z,166nm,1.0s
MSTX Muleshoe **83.22 52** IAMs_20 IAMs_20 10 08 16.5
comp=Z,18µm,21.0s
F20K Avaraart Lake **83.24 7** IAMs_20 IAMs_20 10 11 05.3
comp=Z,18µm,20.0s
CNSH ChangSha **83.29 302** P **P** **09 39 28.8 0.0**
CNSH S **S** **09 49 48.9 +2.6**
CNSH L L
comp=Z,2µm,21.1s
CNSH L L
comp=Z,3µm,22.5s
CNSH L L
comp=Z,5µm,34.9s
T25A Trinidad **83.30 49** IAmb IAmb 09 39 32.1
comp=Z,144nm,1.2s
T25A IAMs_20 IAMs_20 10 09 35.2
comp=Z,11µm,20.0s
OZNA Ozona **83.32 56** IAmb IAmb 09 39 32.1
comp=Z,102nm,1.1s
HEH HeiHe **83.35 326** *e*P **P** **09 39 27.4 -1.1**
HEH sP **pP** **09 39 39.1 -2.5**
HEH PP **PP** **09 42 38.4 -2.7**
HEH S **SKSac** **09 49 43.4 -3.5**
HEH pmax pmax
comp=Z,37nm,1.5s
HEH L L
comp=Z,2µm,20.4s
HEH L L
comp=Z,4µm,22.0s
HEH L L
comp=Z,4µm,21.6s
BTDF Bukit Timah Da **83.36 273** P **P** **09 39 29.4 -0.1**
BTDF Bukit Timah Da **83.36 273** P **P** **09 39 31.5 +2.0**
PRP Porcupine Dome **83.38 11** IAMs_20 IAMs_20 10 14 33.2
comp=Z,9µm,19.0s
129A Stewart Farms, **83.39 54** IAmb IAmb 09 39 32.7
comp=Z,119nm,1.0s
DAWY Dawson **83.43 14** P **P** **09 39 28.3 -0.5**
DAWY IAmb IAmb 09 39 41.9
comp=Z,201nm,1.4s
E19K Redstone River **83.47 6** IAMs_20 IAMs_20 10 09 39.3
comp=Z,16µm,22.0s
RDOG Red Dog Mine **83.56 4** IAMs_20 IAMs_20 10 09 13.8
comp=Z,10µm,22.0s
ISCO Idaho Springs **83.58 46** IAMs_20 IAMs_20 10 10 44.5
comp=Z,17µm,20.0s
ISCO Idaho Springs **83.58 46** P **P** **09 39 30.8 +0.4**
comp=Z,12µmcomp=Z,4µmcomp=Z,93nm,2.4s,comp=Z,4µm
RLMT Red Lodge **83.64 40** IAmb IAmb 09 39 34.0
comp=Z,154nm,1.1s
I26K Coal Creek Min **83.66 12** IAMs_20 IAMs_20 10 10 04.7
comp=Z,13µm,20.0s
F21K Alatna River **83.68 8** IAmb IAmb 09 39 44.6
comp=Z,154nm,1.4s
F21K IAMs_20 IAMs_20 10 12 26.0
comp=Z,13µm,20.0s
SGCY Sterling City **83.69 55** IAmb IAmb 09 39 35.0
comp=Z,216nm,1.1s
833A Chaparral WMA, **83.77 59** IAmb IAmb 09 39 35.5
comp=Z,118nm,1.1s
CMIG Matias Romero **83.96 71** LR LR 10 08 23.1
comp=Z,7µm,20.4s,baz=252,slow=30
J29N Klondike Camp **84.04 15** IAmb IAmb 09 39 54.2
comp=Z,198nm,1.3s
J29N IAMs_20 IAMs_20 10 09 00.8
comp=Z,20µm,22.0s
JCT Junction City **84.21 56** IAmb IAmb 09 39 37.1
comp=Z,108nm,1.1s
JCT IAMs_20 IAMs_20 10 10 35.2
comp=Z,12µm,20.0s
PMSA Palmer Station **84.22 156** LR LR 10 08 31.6
comp=Z,9µm,21.9s,baz=245,slow=30
PMSA Palmer Station **84.22 156** IAMs_20 IAMs_20 10 06 38.2
comp=Z,12µm,22.0s
K22A Casper **84.23 43** IAmb IAmb 09 39 56.9
comp=Z,227nm,1.2s
K22A IAMs_20 IAMs_20 10 09 32.6
comp=Z,11µm,22.0s
I27K Kandik River **84.24 13** IAMs_20 IAMs_20 10 09 52.1
comp=Z,19µm,21.0s
C18K Utukok River **84.27 4** IAMs_20 IAMs_20 10 14 02.5
comp=Z,9µm,20.0s
HNDO Hondo **84.29 57** IAmb IAmb 09 39 39.8
comp=Z,180nm,0.9s
SN07 Snyder 07 **84.32 54** IAmb IAmb 09 39 37.2
comp=Z,134nm,0.9s
FYU Fort Yukon **84.37 11** IAMs_20 IAMs_20 10 09 21.3
comp=Z,19µm,22.0s
D19K Kuna River **84.38 6** IAMs_20 IAMs_20 10 13 04.5
comp=Z,14µm,20.0s
AMTX Amarillo **84.41 52** IAMs_20 IAMs_20 10 09 55.9
comp=Z,16µm,20.0s
GULI GuiLin **84.43 298** P **P** **09 39 32.3 -2.4**
GULI S **S** **09 49 55.4 -2.5**
GULI pmax pmax
comp=Z,2µm,6.3s
GULI L L
comp=Z,2µm,22.2s
GULI L L
comp=Z,3µm,26.1s
GULI L L
comp=Z,6µm,35.7s
D20K Etivluk River **84.74 6** P **P** **09 39 35.2 -0.1**
D20K IAMs_20 IAMs_20 10 11 26.0
comp=Z,16µm,21.0s
EGMT Eagleton **84.77 37** IAmb IAmb 09 39 38.9
comp=Z,150nm,1.1s
EGMT IAMs_20 IAMs_20 10 09 44.2
comp=Z,20µm,22.0s
I29M Ogilvie Camp, **84.77 14** IAmb IAmb 09 39 51.8
comp=Z,138nm,1.4s
I29M IAMs_20 IAMs_20 10 11 17.2
comp=Z,17µm,20.0s
E21K Killik River **84.78 7** IAmb IAmb 09 39 48.7
comp=Z,184nm,1.2s
E21K IAMs_20 IAMs_20 10 12 24.0
comp=Z,19µm,20.0s
H27K Steamboat Moun **84.80 12** IAMs_20 IAMs_20 10 10 40.8
comp=Z,14µm,21.0s
G26K Porcupine Rive **84.98 11** IAMs_20 IAMs_20 10 09 51.5
comp=Z,12µm,22.0s
E23K Chandalar **85.00 9** IAMs_20 IAMs_20 10 11 47.9
comp=Z,10µm,21.0s
GO10 Punta Arenas **85.10 144** IAMs_20 IAMs_20 10 08 11.1
comp=Z,11µm,20.0s
I30M Mount Dempster **85.12 15** IAmb IAmb 09 39 59.1
comp=Z,238nm,1.6s
ABTX Abilene, Hawle **85.12 54** IAMs_20 IAMs_20 10 09 47.1
comp=Z,16µm,21.0s
BRDY Brady **85.15 56** IAmb IAmb 09 39 41.2
comp=Z,131nm,1.2s
E24K Your Creek **85.18 9** IAMs_20 IAMs_20 10 10 12.8
comp=Z,12µm,22.0s
MG03 Isla Dawson **85.21 145** IAmb IAmb 09 39 42.2
comp=Z,105nm,1.2s
MG03 IAMs_20 IAMs_20 10 07 38.8
comp=Z,15µm,22.0s
BMAR Burnt Mountain **85.25 11** P **P** **09 39 37.9 0.0**
735A Kenedy **85.26 59** IAMs_20 IAMs_20 10 09 45.0
comp=Z,12µm,21.0s
G27K Doyon Strip **85.27 12** IAmb IAmb 09 39 53.0
comp=Z,212nm,1.7s
G27K IAMs_20 IAMs_20 10 11 57.3
comp=Z,14µm,20.0s
H03S2 Juan Fernandez **85.28 124** T T 11 14 17.8
baz=251,slow=74,SNR=13
H03S1 Juan Fernandez **85.30 124** T T 11 14 15.2
baz=251,slow=74,SNR=13
H03S3 Juan Fernandez **85.30 124** T T 11 14 20.0
baz=251,slow=74,SNR=12
KSCO Kaye Shedlock' **85.35 48** IAMs_20 IAMs_20 10 09 29.5
comp=Z,16µm,22.0s
D22K Ayikyak River **85.35 7** IAMs_20 IAMs_20 10 15 50.1
comp=Z,12µm,20.0s
ZEA Zeya **85.36 329** *e*P **P** **09 39 38.4 -0.3**
ZEA *e* 09 42 50.6
ZEA *e*S **S** **09 50 00.3 -5.6**
ZEA *e* 09 55 41.8
ZEA pmax pmax
comp=E,10.0nm,1.2s
ZEA pmax pmax
comp=N,30nm,1.5s
ZEA pmax pmax
comp=Z,60nm,1.4s
ZEA pmax pmax
comp=E,500nm,9.1s
ZEA pmax pmax
comp=Z,2µm,7.5s
ZEA smax smax
comp=E,3µm,12.0s
HNS HongShan **85.39 311** ⇑P **P** **09 39 39.4 +0.2**
HNS sP **pP** **09 39 52.7 +0.4**
HNS PP **PP** **09 42 57.5 -0.5**
HNS SKS **SKSac** **09 49 58.2 -2.4**
HNS S **SKKSac** **09 50 11.1 +3.8**
HNS pmax pmax
comp=E,46nm,2.0s
HNS L L
comp=E,830nm,24.1s
HNS L L
comp=E,5µm,23.4s
HNS L L
comp=E,8µm,23.7s
BJI2 Beijing **85.39 313** P **P** **09 39 39.1 -0.1**
BJI2 pP **PcP** **09 39 46.6 +4.5**
BJI2 sP **pP** **09 39 48.8 -3.5**
BJI2 PP **PP** **09 42 57.1 -0.9**
BJI2 SKS **SKSac** **09 49 57.0 -3.6**
BJI2 S **SKKSac** **09 50 09.8 +2.5**
BJI2 SS **SS** **09 55 45.2 +2.2**
BJI2 pmax pmax
comp=E,35nm,2.1s
BJI2 pmax pmax
comp=E,1.0nm,2.9s
BJI2 L L
comp=E,1µm,25.0s
BJI2 L L
comp=E,3µm,25.0s
BJI2 L L
comp=E,6µm,24.9s
BJT Baijiatuau **85.39 313** P **P** **09 39 39.7 +0.5**
EDM Edmonton **85.52 32** IAmb IAmb 09 39 41.8
comp=Z,174nm,1.3s
TOLK Toolik Lake Re **85.54 9** IAMs_20 IAMs_20 10 15 00.3
comp=Z,11µm,20.0s
F26K Sheenjek River **85.57 11** IAMs_20 IAMs_20 10 11 45.1
comp=Z,19µm,20.0s
SMWD Samnorwood **85.58 52** IAmb IAmb 09 40 02.8
comp=Z,206nm,1.5s
D23K Nanushuk River **85.69 8** IAmb IAmb 09 40 02.4
comp=Z,140nm,1.1s
D23K IAMs_20 IAMs_20 10 12 04.2
comp=Z,20µm,21.0s
GO08 Villa O'Higgin **85.70 139** IAMs_20 IAMs_20 10 08 32.7
comp=Z,12µm,22.0s
GO08 Villa O'Higgin **85.70 139** P **P** **09 39 42.7 +2.0**
comp=Z,886m,2.9s,comp=Z,10µm
BKNI Bangkinang **85.72 272** P **P** **09 39 38.7 -2.7**
BKNI Bangkinang **85.72 272** P **P** **09 39 41.9 +0.5**
BKNI Bangkinang **85.72 272** P **P** **09 39 42.5 +1.1**
EPYK Eagle Plains **85.98 14** IAmb IAmb 09 39 54.6
comp=Z,217nm,1.4s
EPYK IAMs_20 IAMs_20 10 09 38.1
comp=Z,19µm,22.0s
USHA Ushuaia **85.98 146** LR LR 10 09 28.9
comp=Z,13µm,21.3s,baz=253,slow=30
LYN LuoYang **85.98 307** P **P** **09 39 43.3 +1.1**
LYN PP **PP** **09 43 03.4 +0.5**
LYN S **S** **09 50 06.4 -6.5**
LYN pmax pmax
comp=Z,24nm,0.9s
LYN pmax pmax
comp=Z,940nm,5.4s
LYN L L
comp=Z,3µm,16.7s
LYN L L
comp=Z,6µm,18.3s
LYN L L
comp=Z,11µm,19.2s
435B Jarrell **86.11 57** IAmb IAmb 09 39 46.5
comp=Z,176nm,1.1s
D24K Happy Valley **86.12 9** IAMs_20 IAMs_20 10 12 55.7
comp=Z,9µm,20.0s
PPI Padang Panjang **86.13 271** P **P** **09 39 44.5 +1.1**
CCIG Comitan **86.22 72** IAmb IAmb 09 39 59.3
comp=Z,213nm,1.6s
F28M Old Crow **86.32 12** IAmb IAmb 09 39 58.0

comp=Z,90nm,1.1s
F28M IAMs_20 IAMs_20 10 12 09.1
comp=Z,17µm,20.0s
E27K Coleen River 86.47 11 IAMs_20 IAMs_20 10 10 48.0
comp=Z,11µm,22.0s
RSSD Black Hills 86.51 43 P **P** **09 39 44.3 -0.6**
RSSD pmax pmax
comp=Z,300nm,1.5s
RSSD Black Hills 86.51 43 P **P** **09 39 44.3 -0.6**
RSSD Black Hills 86.51 43 IAMs_20 IAMs_20 10 12 19.7
comp=Z,13µm,20.0s
RSSD Black Hills 86.51 43 P **P** **09 39 44.0 -0.9**
comp=Z,9µmcomp=Z,4µmcomp=Z,129nm,1.2s,comp=Z,4µm
OGNE Ogallala 86.55 46 IAmb IAmb 09 40 07.1
comp=Z,217nm,1.6s
OGNE IAMs_20 IAMs_20 10 10 32.0
comp=Z,16µm,22.0s
WMOK Wichita Mounta 86.56 53 IAmb IAmb 09 40 07.2
comp=Z,110nm,1.4s
WMOK Wichita Mounta 86.56 53 IAMs_20 IAMs_20 10 09 48.1
comp=Z,13µm,22.0s
WMOK Wichita Mounta 86.56 53 P **P** **09 39 44.7 -0.4**
comp=Z,12µmcomp=Z,3µmcomp=Z,63nm,1.4s,comp=Z,3µm
G30M tAoh Zraii Nji 86.59 14 IAMs_20 IAMs_20 10 10 52.3
comp=Z,16µm,21.0s
GO07 Milladeo Hill, 86.62 134 IAMs_20 IAMs_20 10 09 04.4
comp=Z,11µm,22.0s
GO07 Milladeo Hill, 86.62 134 P **P** **09 39 46.0 +0.7**
comp=Z,95nm,1.0s
WHTX Lake Whitney, 86.63 56 IAMs_20 IAMs_20 10 11 42.1
comp=Z,14µm,20.0s
D25K Kavik River 86.65 9 IAmb IAmb 09 39 58.9
comp=Z,213nm,1.9s
D25K IAMs_20 IAMs_20 10 11 22.5
comp=Z,18µm,22.0s
C24K Franklin Bluff 86.66 8 IAMs_20 IAMs_20 10 14 22.9
comp=Z,10µm,20.0s
IPM Ipoh 86.83 275 P **P** **09 39 46.3 -0.6**
IPM Ipoh 86.83 275 P **P** **09 39 46.8 -0.1**
comp=Z,4µmcomp=Z,1µmcomp=Z,74nm,0.9s
IPM Ipoh 86.83 275 P **P** **09 39 45.7 -1.2**
comp=Z,74nm,0.9s,comp=Z,1µmcomp=Z,4µm
ENH Enshi 86.84 302 P **P** **09 39 47.8 +1.2**
COYC Coyhaique 86.92 136 IAmb IAmb 09 40 17.0
comp=Z,201nm,1.5s
COYC Coyhaique 86.92 136 P **P** **09 39 48.3 +1.5**
comp=Z,94nm,1.9s
G31M Satah River 87.00 14 IAmb IAmb 09 39 59.4
comp=Z,190nm,1.2s
XLT XiLinHaoTe 87.06 317 *e*P **P** **09 39 46.9 -0.5**
XLT pP pP 09 39 59.2 -1.3
XLT SKS **SKSac** **09 50 08.7 -2.3**
XLT S **ScS** **09 50 27.6 -2.9**
XLT pmax pmax
comp=Z,20nm,0.8s
XLT pmax pmax
comp=Z,470nm,5.5s
XLT L L
comp=Z,6µm,24.9s
XLT L L
comp=Z,9µm,24.7s
HIA Hailar 87.13 323 P **P** **09 39 47.9 +0.3**
HIA Hailar 87.13 323 IAMs_20 IAMs_20 10 11 58.4
comp=Z,14µm,22.0s
TIY Taiyuan 87.18 310 *e*P **P** **09 39 48.4 +0.3**
TIY pP **pP** **09 40 00.3 -1.0**
TIY PP **PP** **09 43 19.2 +6.6**
TIY SKS S 09 50 14.6 -10
TIY S **SKKSac** **09 50 24.3 +3.3**
TIY SS **SS** **09 56 15.3 +5.9**
TIY pmax pmax
comp=Z,860nm,6.2s
TIY L L
comp=Z,2µm,19.9s
TIY L L
comp=Z,3µm,22.0s
TIY L L
comp=Z,6µm,25.4s
F30M Barrier River 87.20 14 IAMs_20 IAMs_20 10 11 32.4
comp=Z,15µm,21.0s
OK038 West end E0370 87.22 51 IAmb IAmb 09 40 11.9
comp=Z,182nm,1.4s
E28M Babbage River 87.23 12 IAMs_20 IAMs_20 10 14 34.1
comp=Z,10µm,20.0s
HKT Hockley 87.25 58 *i* P **P** **09 39 49.7 +1.3**
HKT pmax pmax
comp=Z,93nm,1.3s
HKT Hockley 87.25 58 P **P** **09 39 48.5 0.0**
HKT IAMs_20 IAMs_20 10 11 40.8
comp=Z,11µm,20.0s
HKT Hockley 87.25 58 P **P** **09 39 49.7 +1.3**
comp=Z,13µmcomp=Z,6µmcomp=Z,171nm,2.0s
HKT Hockley 87.25 58 P **P** **09 39 50.3 +1.9**
HKT pP **pP** **09 40 01.9 +0.6**
HKT sP **sP** **09 40 06.5 +0.4**
Z35A Perchaven, San 87.25 54 IAMs_20 IAMs_20 10 11 04.5
comp=Z,16µm,21.0s
HILR Hailar Array B 87.26 323 P **P** **09 39 48.6 +0.4**
comp=Z,17nm,0.7s,baz=124,slow=7.4,SNR=7.0
HILR LR LR 10 13 20.8
comp=Z,8µm,21.8s,baz=90,slow=32
comp=Z,17nm,0.7s
LL05 Los Muermos 87.28 132 IAMs_20 IAMs_20 10 10 52.9
comp=Z,12µm,21.0s
LL05 Los Muermos 87.28 132 P **P** **09 39 49.8 +1.3**
comp=Z,234nm,1.9s,comp=Z,7µm
CBKS Cedar Bluff 87.35 49 IAMs_20 IAMs_20 10 12 50.5
comp=Z,11µm,20.0s
E29M Blow River 87.38 12 IAMs_20 IAMs_20 10 13 03.1
comp=Z,17µm,20.0s
APG El Apazote 87.40 74 LR LR 10 11 29.1
comp=Z,330nm,20.4s,baz=245,slow=30
KULM Kulim 87.41 276 P **P** **09 39 50.2 +0.5**
KULM Kulim 87.41 276 P **P** **09 39 52.5 +2.8**
KULM Kulim 87.41 276 P **P** **09 39 47.1 -2.5**
comp=Z,26nm,1.0s,comp=Z,1µmcomp=Z,4µm
D27M Malcolm River 87.50 11 IAMs_20 IAMs_20 10 11 55.2
comp=Z,13µm,22.0s
MAW Mawson 87.78 199 P **P** **09 39 51.5 +1.2**
MAW Mawson 87.78 199 P **P** **09 39 51.4 +1.0**
comp=Z,128nm,0.7s,baz=136,slow=5.3,SNR=334
MAW LR LR 10 16 35.1
comp=Z,28µm,20.3s,baz=124,slow=34
comp=Z,128nm,0.7s
MAW Mawson 87.78 199 P **P** **09 39 50.5 +0.2**
MAW pmax pmax
comp=Z,89nm,1.6s
MAW Mawson 87.78 199 P **P** **09 39 50.5 +0.2**
MAW Mawson 87.78 199 P **P** **09 39 51.5 +1.2**
comp=Z,2µmcomp=Z,790nmcomp=Z,42nm,0.7s,comp=Z,790nm
CROK Carrier 87.80 51 IAmb IAmb 09 40 19.1
comp=Z,178nm,1.6s
FNO Franklin 87.81 53 IAmb IAmb 09 40 05.9
comp=Z,115nm,0.9s
LL02 Futaleuf 87.85 134 IAmb IAmb 09 40 20.9
comp=Z,118nm,1.4s
LL02 IAMs_20 IAMs_20 10 10 16.1
comp=Z,9µm,21.0s
LL02 Futaleuf 87.85 134 P **P** **09 39 53.9 +2.6**
comp=Z,4µmcomp=Z,78nm,1.9s,comp=Z,4µm
R32A Long Quarter, 87.95 49 IAmb IAmb 09 39 55.2
comp=Z,161nm,1.2s
OK029 Liberty Lake 87.95 52 IAMs_20 IAMs_20 10 11 47.8
comp=Z,14µm,21.0s
GYA Guiyang 87.96 298 ⇓P **P** **09 39 53.7 +1.5**
GYA SKS **SKSac** **09 50 16.0 -1.3**
GYA pmax pmax
comp=Z,20nm,0.6s
GYA pmax pmax
comp=Z,1µm,6.1s
GYA L L
comp=Z,1µm,19.9s
GYA L L
comp=Z,1µm,19.2s
GYA L L
comp=Z,760nm,19.4s
W35A Tecumseh 88.17 53 IAmb IAmb 09 40 09.0
comp=Z,170nm,1.3s
INK Inuvik 88.27 14 LR LR 10 12 06.6
comp=Z,13µm,21.9s,baz=220,slow=31
RPSI Rantau Prapat 88.38 273 P **P** **09 39 53.3 -1.0**
comp=Z,3µmcomp=Z,1µmcomp=Z,25nm,1.2s,comp=Z,1µm
PSI Prapat 88.41 273 P **P** **09 39 53.8 -0.8**
PSI Prapat 88.41 273 P **P** **09 39 53.3 -1.3**
PSI pmax pmax
comp=Z,25nm,1.3s
PSI Prapat 88.41 273 P **P** **09 39 54.6 0.0**
comp=Z,3µmcomp=Z,1µmcomp=Z,25nm,1.2s
OK052 Battle Ridge R 88.52 52 IAMs_20 IAMs_20 10 12 15.8
comp=Z,15µm,21.0s
XAN Xi'an 88.55 306 ⇓P **P** **09 39 55.8 +1.1**
XAN pP PcP 09 40 01.2 +4.9
XAN S **S** **09 50 41.9 +4.2**
XAN pmax pmax
comp=Z,40nm,2.0s
XAN pmax pmax
comp=Z,760nm,4.2s
XAN L L
comp=Z,2µm,23.5s
XAN L L
comp=Z,4µm,23.1s
XAN L L
comp=Z,5µm,19.6s
OK048 Pawnee Station 88.56 52 IAMs_20 IAMs_20 10 11 36.8
comp=Z,19µm,22.0s
QUOK Quay 88.65 52 IAmb IAmb 09 40 20.0
comp=Z,191nm,1.7s
NATX Nacogdoches 88.79 57 IAMs_20 IAMs_20 10 13 38.5
comp=Z,12µm,19.0s
SLVN Son La 88.83 292 P **P** **09 39 57.0 +0.7**
SLVN Son La 88.83 292 P **P** **09 39 55.8 -0.5**
comp=Z,30nm,1.9s,comp=Z,1µm
SLVN pP **pP** **09 40 12.1 +2.4**
HHC Hu-ho-hao-te 88.95 313 ⇓*i*P **P** **09 39 57.4 +0.9**
HHC pP pP 09 40 08.4 -1.2
HHC PP **PP** **09 43 32.1 +5.3**
HHC SKS **SKSac** **09 50 22.2 -0.4**
HHC S **S** **09 50 42.3 +1.0**
HHC pmax pmax
comp=Z,42nm,1.4s
HHC L L
comp=Z,1µm,20.2s
HHC L L
comp=Z,2µm,21.0s
HHC L L
comp=Z,3µm,20.2s
Z38A Mt. Pleasant 89.02 55 IAMs_20 IAMs_20 10 13 19.3
comp=Z,18µm,20.0s
T35A Sooner Cattle 89.05 51 IAmb IAmb 09 40 00.6
comp=Z,81nm,1.1s
YAK Yakutsk 89.07 337 P **P** **09 39 55.5 -0.8**
comp=Z,34nm,0.7s,baz=117,slow=4.0,SNR=14
YAK PP **PP** **09 43 24.0 -3.0**
comp=Z,9.8nm,0.5s,baz=130,slow=18,SNR=6.2
YAK LR LR 10 13 02.4
comp=Z,6µm,21.9s,baz=121,slow=31
comp=Z,34nm,0.7s
YAK Yakutsk 89.07 337 *e*P **P** **09 39 55.3 -1.0**
YAK *e* 09 43 22.7
YAK *e*S **SKSac** **09 50 20.9 -1.1**
YAK *e**SS **ScS** **09 50 47.2 +1.1**
YAK pmax pmax
comp=Z,50nm,1.3s
YAK pmax pmax
comp=N,7.0nm,1.2s
YAK pmax pmax
comp=E,8.0nm,0.9s
YAK pmax pmax
comp=Z,684nm,4.2s
YAK pmax pmax
comp=N,310nm,4.7s
YAK pmax pmax
comp=E,320nm,4.3s
YAK smax smax
comp=E,3µm,8.6s
YAK smax smax
comp=N,3µm,7.4s
YAK Yakutsk 89.07 337 P **P** **09 39 54.1 -2.3**
YAK Yakutsk 89.07 337 P **P** **09 39 54.7 -1.7**
comp=Z,9µmcomp=Z,3µmcomp=Z,111nm,1.3s
TUL3 Leonard 89.26 52 IAmb IAmb 09 40 22.1
comp=Z,95nm,1.4s
TUL3 IAMs_20 IAMs_20 10 12 39.5
comp=Z,10µm,21.0s
GO06 Curarrehue 89.31 131 IAmb IAmb 09 40 27.6
comp=Z,147nm,1.2s
GO06 Curarrehue 89.31 131 P **P** **09 40 00.7 +2.3**
comp=Z,6µmcomp=Z,3µmcomp=Z,131nm,1.5s
GSI Gunungsitoli 89.31 272 P **P** **09 39 59.0 +0.3**
GSI Gunungsitoli 89.31 272 IAmb IAmb 09 40 01.0
comp=Z,64nm,0.8s
GSI Gunungsitoli 89.31 272 P **P** **09 39 59.8 +1.1**
GSI Gunungsitoli 89.31 272 P **P** **09 39 57.7 -1.0**
comp=Z,108nm,0.8s,comp=Z,3µmcomp=Z,5µm
PLCA Paso Flores 89.58 132 P **P** **09 40 00.5 +0.9**
comp=Z,12nm,1.0s,baz=228,slow=4.1,SNR=15
PLCA LR LR 10 12 46.5
comp=Z,8µm,19.9s,baz=240,slow=31
comp=Z,12nm,1.0s
PLCA Paso Flores 89.58 132 IAmb IAmb 09 40 29.2
comp=Z,163nm,1.4s
PLCA Paso Flores 89.58 132 P **P** **09 40 02.1 +2.5**
comp=Z,6µmcomp=Z,96nm,1.5s
PLCA Paso Flores 89.58 132 *e*P **P** **09 40 02.5 +2.9**
PLCA Paso Flores 89.58 132 P **P** **09 40 02.1 +2.5**
PLCA sP **sP** **09 40 17.7 0.0**
E28A Huff 89.66 41 IAmb IAmb 09 40 21.3
comp=Z,125nm,1.4s
E28A IAMs_20 IAMs_20 10 14 51.0
comp=Z,13µm,20.0s
441A DeRidder 89.67 58 IAMs_20 IAMs_20 10 13 48.8
comp=Z,8µm,20.0s
KCSI Kotacane, Aceh 89.71 274 P **P** **09 40 00.0 -0.6**
BTO2 Baotou 90.11 312 *e*P **P** **09 40 03.0 +1.0**
BTO2 SKS **SKSac** **09 50 26.7 -2.8**
BTO2 S **ScS** **09 50 56.8 +0.7**
BTO2 SS **SS** **09 56 50.7 -1.5**
BTO2 pmax pmax
comp=Z,130nm,0.9s
BTO2 pmax pmax
comp=Z,6µm,6.7s
BTO2 L L
comp=Z,3µm,18.7s
BTO2 L L
comp=Z,5µm,19.4s
BTO2 L L
comp=Z,6µm,18.4s
YKA Yellowknife Ar 90.12 23 P **P** **09 40 00.9 -0.3**
comp=Z,20nm,1.0s,baz=240,slow=4.5,SNR=39
YKA LR LR 10 13 27.6
comp=Z,17µm,20.7s,baz=233,slow=31
comp=Z,20nm,1.0s
YKA Yellowknife Ar 90.12 23 P **P** **09 40 01.0 -0.3**
YKA Yellowknife Ar 90.12 23 P **P** **09 40 00.8 -0.4**
YKAW3 Yellowknife Wh 90.16 23 P **P** **09 40 01.2 -0.3**
YKAW3 IAmb IAmb 09 40 23.3
comp=Z,99nm,1.4s
YKAW1 Yellowknife Wh 90.16 23 IAmb IAmb 09 40 23.4
comp=Z,102nm,1.4s
TPTI 90.21 273 P **P** **09 40 03.2 +0.3**
BI02 San Fabin de 90.42 128 P **P** **09 40 05.8 +2.2**
comp=Z,6µmcomp=Z,3µmcomp=Z,134nm,1.6s
BI02 pP **sP** **09 40 25.7 +4.0**
GO05 Hualane 90.46 126 P **P** **09 40 05.9 +2.2**
comp=Z,5µmcomp=Z,3µmcomp=Z,110nm,1.5s
U38A Gravette 90.51 52 IAMs_20 IAMs_20 10 12 24.5
comp=Z,13µm,22.0s
MIAR Mount Ida 90.54 54 IAMs_20 IAMs_20 10 15 51.5
comp=Z,11µm,20.0s
MIAR Mount Ida 90.54 54 P **P** **09 40 05.5 +1.6**
ML02 Panimavida 90.61 127 P **P** **09 40 06.6 +2.2**
ML02 Panimavida 90.61 127 P **P** **09 40 06.6 +2.2**
comp=Z,3µmcomp=Z,215nm,1.4s
MDND Maddock 90.83 40 IAmb IAmb 09 40 17.8
comp=Z,66nm,1.1s
MDND IAMs_20 IAMs_20 10 16 18.0
comp=Z,10µm,19.0s
L34A Svendsen Farm, 90.87 47 IAMs_20 IAMs_20 10 13 04.5
comp=Z,18µm,21.0s
KMI2 Kunming 90.94 296 ⇑P **P** **09 40 06.7 +0.4**
KMI2 sP pwP 09 40 21.8 0.0
KMI2 SKS **SKSac** **09 50 34.4 -0.7**
KMI2 S **ScS** **09 51 03.7 -0.1**
KMI2 pmax pmax
comp=Z,35nm,1.3s
KMI2 pmax pmax
comp=Z,690nm,5.7s
KMI2 L L
comp=Z,930nm,20.1s
KMI2 L L
comp=Z,3µm,25.2s
KMI2 L L
comp=Z,7µm,34.5s
X40A Basin Creek Fa 91.10 55 IAmb IAmb 09 40 22.9
comp=Z,106nm,1.9s
BOAB BOACO BROADBAN 91.19 78 IAMs_20 IAMs_20 10 10 31.7
comp=Z,12µm,21.0s
JTS Las Juntas de 91.29 80 LR LR 10 11 15.3
comp=Z,7µm,21.1s,baz=262,slow=29
JTS Las Juntas de 91.29 80 *i* P **P** **09 40 09.3 +1.4**
JTS pmax pmax
comp=Z,78nm,1.1s
JTS Las Juntas de 91.29 80 IAMs_20 IAMs_20 10 11 23.7
comp=Z,8µm,21.0s
JTS Las Juntas de 91.29 80 P **P** **09 40 11.0 +3.0**
comp=Z,4µmcomp=Z,6µmcomp=Z,304nm,1.7s,comp=Z,6µm
ECSD EROS Data Cent 91.31 45 IAmb IAmb 09 40 28.9
comp=Z,126nm,1.6s
ECSD EROS Data Cent 91.31 45 P **P** **09 40 07.5 +0.2**
comp=Z,2µmcomp=Z,54nm,1.3s,comp=Z,2µm
BO01 Tunca 91.32 126 P **P** **09 40 09.9 +2.2**
comp=Z,3µmcomp=Z,111nm,1.5s
C36M Paulatuk 91.37 16 IAmb IAmb 09 40 19.7
comp=Z,114nm,1.6s
BO02 Sierra Bellavi 91.42 127 P **P** **09 40 10.6 +2.3**
comp=Z,4µmcomp=Z,2µmcomp=Z,99nm,1.7s,comp=Z,2µm
UALR University of 91.58 54 IAmb IAmb 09 40 26.6
comp=Z,77nm,1.1s
MT09 Talagante 91.61 126 IAmb IAmb 09 40 37.8
comp=Z,158nm,1.4s
545A Edgard 91.69 59 IAMs_20 IAMs_20 10 16 39.4
comp=Z,12µm,22.0s
143A Socs Landing, 91.71 57 IAMs_20 IAMs_20 10 16 43.7
comp=Z,8µm,20.0s
S39A Bolivar 91.71 51 IAmb IAmb 09 40 23.6
comp=Z,108nm,1.5s
CD2 Chengdu 91.73 301 P **P** **09 40 09.7 +0.1**
CD2 sP pP 09 40 22.4 -0.4
CD2 SKS **SKSac** **09 50 37.7 -1.3**
CD2 S **ScS** **09 51 12.3 +2.5**
CD2 pmax pmax
comp=Z,2µm,8.0s
CD2 L L
comp=Z,7µm,22.2s
CD2 L L
comp=Z,7µm,23.2s
CD2 L L
comp=Z,5µm,21.0s
CIT Chita 91.87 324 *e*P P 09 39 58.2 -12
CIT *e* 09 43 43.6
CIT *e* 09 45 51.0
MT05 Renca 91.93 125 P **P** **09 40 11.8 +1.2**
HDC Heredia 92.01 80 P **P** **09 40 15.5 +4.1**
comp=Z,4µmcomp=Z,6µmcomp=Z,316nm,1.8s,comp=Z,6µm
HDC Heredia 92.01 80 *e*P **P** **09 40 13.7 +2.3**
PEL Peldehue 92.06 125 P **P** **09 40 13.2 +2.0**
comp=Z,3µmcomp=Z,179nm,1.2s,comp=Z,3µm
FFC Flin Flon 92.14 33 P **P** **09 40 10.5 -0.4**
FFC pmax pmax
comp=Z,98nm,1.6s
FFC Flin Flon 92.14 33 P **P** **09 40 10.5 -0.4**
FFC IAmb IAmb 09 40 32.5
comp=Z,98nm,1.6s
FFC Flin Flon 92.14 33 IAMs_20 IAMs_20 10 15 10.7
comp=Z,10µm,21.0s
FFC Flin Flon 92.14 33 P **P** **09 40 12.2 +1.3**
comp=Z,8µmcomp=Z,40nm,1.8s
ELIB Princess Elisa 92.14 185 *d*P **P** **09 40 11.4 +0.5**
comp=Z,110nm,0.8s
PZH PanZhiHua 92.19 297 P **P** **09 40 14.0 +2.1**
PZH SKS **SKSac** **09 50 39.6 -2.3**
PZH S **ScS** **09 51 14.1 +0.2**
PZH pmax pmax
comp=Z,10.0nm,1.1s
PZH pmax pmax
comp=Z,250nm,8.3s
PZH L L
comp=Z,2µm,22.2s
PZH L L
comp=Z,4µm,19.8s
PZH L L
comp=Z,3µm,21.4s
F33A 5 Mile Ranch, 92.24 43 IAmb IAmb 09 40 32.9
comp=Z,119nm,1.7s
VBMS Vicksburg 92.28 57 IAMs_20 IAMs_20 10 15 48.0
comp=Z,9µm,21.0s
VA03 San Esteban 92.29 125 P **P** **09 40 14.6 +2.2**
comp=Z,133nm,1.6s
CO02 Combarbal 92.45 123 P **P** **09 40 15.9 +2.8**
comp=Z,163nm,1.6s
CMAR Chiang Mai Arr 92.53 288 P **P** **09 40 13.7 +0.1**
comp=Z,6.4nm,0.8s,baz=88,slow=2.5,SNR=19
CMAR PKKPbc **PKKPbc** **09 57 26.3 -0.2**
comp=Z,0.7nm,0.3s,baz=286,slow=3.9,SNR=5.5
CMAR LR LR 10 16 04.2
comp=Z,3µm,21.7s,baz=115,slow=32
comp=Z,6.4nm,0.8s
CMAR Chiang Mai Arr 92.53 288 *i* P **P** **09 40 13.6 +0.1**
CMAR pmax pmax
comp=Z,7.0nm,0.8s
CMAR Chiang Mai Arr 92.53 288 P **P** **09 40 12.2 -1.3**
SYO Syowa Base 92.60 191 ⇑*i*P **P** **09 40 13.0 +0.2**
CHTO Chiang Mai 92.62 289 P **P** **09 40 13.7 -0.3**
CHTO Chiang Mai 92.62 289 P **P** **09 40 13.5 -0.4**
CHTO Chiang Mai 92.62 289 P **P** **09 40 12.7 -1.2**
CHTO pmax pmax
comp=Z,66nm,1.8s
CHTO Chiang Mai 92.62 289 P **P** **09 40 12.7 -1.2**
CHTO Chiang Mai 92.62 289 P **P** **09 40 14.6 +0.7**
comp=Z,3µmcomp=Z,745nmcomp=Z,11nm,0.8s
CHTO Chiang Mai 92.62 289 P **P** **09 40 13.7 -0.3**
comp=Z,3µmcomp=Z,745nmcomp=Z,18nm,1.9s
R40A Maddies Statio 92.69 51 IAMs_20 IAMs_20 10 15 46.0
comp=Z,15µm,20.0s
N38A Joes South For 92.73 49 IAMs_20 IAMs_20 10 16 35.9
comp=Z,13µm,20.0s
TROLL Troll, Antarti 92.78 179 ⇑P **P** **09 40 14.9 +1.1**
comp=Z,2µm,0.9s
TROLL ⇓SKSac **SKSac** **09 50 45.4 +1.7**
comp=N,151µm,8.6s
TROLL PKKPbc **PKKPdf** **09 57 24.9 +0.8**
comp=Z,168nm,0.9s
CO03 El Pedregal 92.83 123 IAmb IAmb 09 40 43.1
comp=Z,102nm,1.1s
CO03 El Pedregal 92.83 123 P **P** **09 40 14.9 0.0**
comp=Z,92nm,1.3s
VNA3 Neumayer Olymp 92.88 175 ⇑P **P** **09 40 15.2 +1.0**
comp=Z,109nm,0.6s
VNA3 ⇑SKSac **SKSac** **09 50 44.0 -0.1**
comp=N,1µm,7.8s
VNA3 ⇓PKKPbc **PKKPdf** **09 57 24.3 +0.6**
comp=Z,3.9nm,1.0s
VNA3 Neumayer Olymp 92.88 175 P **P** **09 40 15.5 +1.4**
comp=Z,4µmcomp=Z,256nm,0.9s,comp=Z,4µm
LCAR Lake Charles 92.88 54 IAmb IAmb 09 40 29.2
comp=Z,176nm,1.8s
A36M Sachs Harbour 92.91 13 IAmb IAmb 09 40 17.5
comp=Z,69nm,0.8s
A36M IAMs_20 IAMs_20 10 16 47.2
comp=Z,14µm,20.0s
SNAA Sanae 92.92 177 ⇑P **P** **09 40 15.1 +0.6**
comp=Z,817nm,0.8s
SNAA ⇑SKSac **SKSac** **09 50 45.5 +1.1**
comp=N,50µm,7.8s
SNAA Sanae 92.92 177 P **P** **09 40 15.5 +1.1**
comp=N,44nm,0.9s,baz=208,slow=4.8,SNR=46
SNAA LR LR 10 22 50.4
comp=N,5µm,18.1s,baz=202,slow=36
comp=N,44nm,0.9s
SNAA Sanae 92.92 177 P **P** **09 40 15.5 +1.1**
SNAA pmax pmax
comp=Z,79nm,1.0s
SNAA Sanae 92.92 177 P **P** **09 40 15.5 +1.1**
SNAA IAmb IAmb 09 40 17.8
comp=Z,79nm,1.0s
SNAA IAMs_20 IAMs_20 10 15 41.4
comp=Z,9µm,22.0s
SNAA Sanae 92.92 177 P **P** **09 40 15.6 +1.2**
comp=Z,10µmcomp=Z,3µmcomp=Z,83nm,1.5s,comp=Z,3µm
EFI East Falkland 92.96 146 IAMs_20 IAMs_20 10 13 52.7
comp=Z,10µm,20.0s
GO04 Tololo Observa 92.96 122 P **P** **09 40 18.1 +2.4**
comp=Z,3µmcomp=Z,287nm,1.1s
ATAH Atahualpa 93.01 98 LR LR 10 14 54.3
comp=Z,3µm,18.1s,baz=268,slow=31
NNA Nana 93.14 103 LR LR 10 11 38.8
comp=Z,1µm,21.1s,baz=256,slow=29
LZH Lanzhou 93.15 306 P **P** **09 40 14.3 -1.9**
LZH sP pP 09 40 28.2 -1.2
LZH PP **PP** **09 43 58.9 -1.3**
LZH S **S** **09 51 17.2 -2.7**

LZH pmax pmax
comp=Z,33nm,1.7s
LZH pmax pmax
comp=Z,450nm,4.6s
LZH L L
comp=Z,2µm,17.5s
LZH L L
comp=Z,3µm,17.5s
LZH L L
comp=Z,5µm,16.5s
T42A Van Buren 93.21 53 IAmb IAmb 09 40 39.1
T42A IAMs_20 IAMs_20 10 14 33.0
comp=Z,100nm,1.5s
comp=Z,10µm,22.0s
P40A Paris 93.22 50 IAmb IAmb 09 40 38.1
comp=Z,114nm,1.3s
LZDM Lanzhou Array 93.22 306 P **P** **09 40 16.8 +0.1**
comp=Z,1.6nm,0.3s,baz=51,slow=9.7,SNR=4.8
LZDM LR LR 10 19 03.0
comp=Z,3µm,20.6s,baz=75,slow=34
comp=Z,1.6nm,0.3s
AGMN Agassiz Nation 93.34 41 P **P** **09 40 15.6 -1.0**
comp=Z,6µmcomp=Z,65nm,1.6s
VNA2 Neumayer--Watz 93.37 175 ⇑P **P** **09 40 17.8 +1.4**
comp=Z,91nm,0.6s,baz=180,slow=3.4
VNA2 ⇑SKSac **SKSac** **09 50 47.5 +0.7**
comp=E,1µm,7.6s
VNA2 Neumayer--Watz 93.37 175 P **P** **09 40 18.1 +1.7**
comp=Z,4µmcomp=Z,248nm,1.1s,comp=Z,4µm
CCM Cathedral Cave 93.39 52 IAMs_20 IAMs_20 10 14 14.6
comp=Z,17µm,22.0s
LCO Las Campanas 93.43 121 P **P** **09 40 17.9 0.0**
Y45A Yeager Farm, C 93.53 56 IAMs_20 IAMs_20 10 16 09.9
comp=Z,15µm,20.0s
VNA1 Neumayer--Stat 93.57 175 ⇑P **P** **09 40 19.1 +1.8**
comp=Z,178nm,1.0s
146A Union 93.59 57 IAMs_20 IAMs_20 10 17 08.5
comp=Z,9µm,21.0s
I37A Lemond, Waseca 93.60 45 IAMs_20 IAMs_20 10 14 56.6
comp=Z,19µm,22.0s
CO01 Juntas del Tor 93.60 122 P **P** **09 40 21.4 +2.7**
comp=Z,5µmcomp=Z,28nm,1.4s
PBMO Poplar Bluff 93.65 53 IAmb IAmb 09 40 41.5
comp=Z,97nm,1.5s
OXF Oxford 93.82 55 IAMs_20 IAMs_20 10 16 55.4
comp=Z,14µm,20.0s
AC05 El Transito 93.84 121 IAmb IAmb 09 40 48.4
comp=Z,98nm,1.1s
AC05 El Transito 93.84 121 P **P** **09 40 22.2 +2.6**
comp=Z,102nm,1.3s
ULM Lac du Bonnet 93.97 39 P **P** **09 40 17.9 -1.5**
comp=Z,29nm,1.3s,baz=265,slow=4.6,SNR=12
ULM LR LR 10 17 45.2
comp=Z,23µm,19.2s,baz=248,slow=32
comp=Z,29nm,1.3s
FVM French Village 93.99 52 IAmb IAmb 09 40 42.1
comp=Z,150nm,1.5s
NVL N'lazarevskaya 93.99 182 *e*P **P** **09 40 18.9 -0.3**
NVL *e*S **SKSac** **09 50 52.1 +2.1**
NVL *e*SS SS 09 58 01.0 +16
NVL *e*SSS SSS 10 01 35.4
NVL pmax pmax
comp=Z,17nm,0.8s
NVL MLR MLR
comp=Z,10µm,19.0s
ZON Zonda 94.20 124 P **P** **09 40 23.0 +1.9**
ZON pmax pmax
comp=Z,24nm,1.8s
ZON Zonda 94.20 124 IAmb IAmb 09 40 50.0
comp=Z,104nm,1.5s
ZON Zonda 94.20 124 P **P** **09 40 24.0 +2.8**
comp=E,2µmcomp=E,24nm,1.8s
ULN Ulaanbaatar 94.36 318 P **P** **09 40 20.9 -0.6**
ULN IAmb IAmb 09 40 35.8
comp=Z,112nm,1.7s
ULN Ulaanbaatar 94.36 318 P **P** **09 40 23.5 +2.0**
ULN Ulaanbaatar 94.36 318 P **P** **09 40 21.1 -0.4**
comp=Z,4µmcomp=Z,1µmcomp=Z,37nm,2.0s
CFA Coronel Fontan 94.53 124 LR LR 10 13 26.9
comp=Z,2µm,21.4s,baz=226,slow=29
L40A Anamosa 94.55 48 IAMs_20 IAMs_20 10 15 31.0
comp=Z,16µm,21.0s
PAF Port-aux-Franc 94.59 216 IAMs_20 IAMs_20 10 15 27.4
comp=Z,13µm,22.0s
TNCH TengChong 94.60 295 P **P** **09 40 24.0 +0.8**
TNCH SKS **SKSac** **09 50 57.4 +2.0**
TNCH S **ScS** **09 51 39.4 +5.2**
TNCH L L
comp=Z,770nm,21.5s
TNCH L L
comp=Z,2µm,27.1s
TNCH L L
comp=Z,9µm,36.2s
SONM Songino Array 94.78 318 P **P** **09 40 22.9 -0.5**
comp=Z,4.6nm,0.8s,baz=137,slow=6.1,SNR=13
SONM PP **PP** **09 44 12.6 0.0**
comp=Z,2.9nm,1.0s,baz=124,slow=9.2,SNR=3.6
SONM LR LR 10 18 04.4
comp=Z,5µm,21.9s,baz=100,slow=32
comp=Z,4.6nm,0.8s
SONM Songino Array 94.78 318 P **P** **09 40 22.7 -0.7**
SONM pmax pmax
comp=Z,119nm,2.0s
SONM Songino Array 94.78 318 P **P** **09 40 22.7 -0.7**
SONM IAmb IAmb 09 40 38.6
comp=Z,119nm,2.0s
S44A Carbondale 94.80 52 IAmb IAmb 09 40 46.2
comp=Z,109nm,1.4s
S44A IAMs_20 IAMs_20 10 18 50.1
comp=Z,9µm,20.0s
OTAV Otavalo 94.92 91 ⇑P P 09 40 35.3 +10
OTAV Otavalo 94.92 91 *e*P **P** **09 40 27.4 +2.2**
TIXI Tiksi 94.97 344 LR LR 10 19 01.8
comp=Z,10µm,21.1s,baz=126,slow=33
TIXI Tiksi 94.97 344 *c*e**P** **P** **09 40 22.7 -0.8**
TIXI pmax pmax
comp=Z,60nm,1.3s
TIXI Tiksi 94.97 344 P **P** **09 40 22.2 -1.3**
TIXI IAmb IAmb 09 40 38.0
comp=Z,110nm,1.6s
TIXI Tiksi 94.97 344 P **P** **09 40 22.4 -1.1**
comp=Z,2µmcomp=Z,55nm,2.9s
T45A Paducah 95.09 53 IAMs_20 IAMs_20 10 15 27.8
comp=Z,15µm,22.0s
PB14 IPOC Station P 95.14 117 P **P** **09 40 27.8 +2.0**
Q44A Meyer Farm, Va 95.30 51 IAmb IAmb 09 40 40.2
comp=Z,67nm,1.1s
AC02 Maricunga 95.47 120 P **P** **09 40 30.9 +3.3**
comp=Z,31nm,1.9s
WVT Waverly 95.49 54 P **P** **09 40 26.1 -0.6**
WVT pmax pmax
comp=Z,55nm,1.2s
WVT Waverly 95.49 54 P **P** **09 40 26.1 -0.6**
WVT IAmb IAmb 09 40 50.0
comp=Z,55nm,1.2s
WVT Waverly 95.49 54 IAMs_20 IAMs_20 10 16 31.6
comp=Z,13µm,21.0s
WVT Waverly 95.49 54 P **P** **09 40 27.9 +1.2**
comp=Z,5µmcomp=Z,1µmcomp=Z,57nm,1.4s
HDIL Hopedale 95.53 50 IAmb IAmb 09 40 49.4
comp=Z,100nm,1.1s
E38A The Farm, Brul 95.61 43 IAMs_20 IAMs_20 10 18 54.5
comp=Z,16µm,20.0s
L42A Oliver, Polo 95.65 48 IAMs_20 IAMs_20 10 17 06.1
comp=Z,10µm,21.0s
X48A Hartselle 95.68 56 IAMs_20 IAMs_20 10 17 33.9
comp=Z,13µm,20.0s
OLIL Olney 95.95 52 IAmb IAmb 09 40 51.0
comp=Z,137nm,1.7s
EYMN Ely 96.02 42 IAMs_20 IAMs_20 10 17 15.3
comp=Z,14µm,21.0s
Y49A Blount Mountai 96.04 57 IAMs_20 IAMs_20 10 18 38.5
comp=Z,13µm,20.0s
USIN University of 96.08 52 IAmb IAmb 09 40 52.6
comp=Z,61nm,1.2s
G40A Rib Lake 96.15 45 IAmb IAmb 09 40 51.4
comp=Z,90nm,1.4s
V48A Smith Brothers 96.18 55 IAmb IAmb 09 40 53.1
comp=Z,92nm,1.7s
V48A IAMs_20 IAMs_20 10 19 25.0
comp=Z,9µm,19.0s
M44A Midewin, Midew 96.66 49 IAMs_20 IAMs_20 10 20 38.1
comp=Z,14µm,19.0s
I42A Draeger Farm, 96.67 46 IAmb IAmb 09 40 53.5
comp=Z,103nm,1.3s
SFIN Lafayette 97.11 50 IAmb IAmb 09 40 56.4
comp=Z,107nm,1.6s

152A Waverly Hall 97.13 58 IAMs_20 IAMs_20 10 19 02.5
comp=Z,8µm,20.0s
GTA2 Gaotai 97.16 309 *e*P Pdif 09 40 34.9 +0.4
GTA2 sP pP 09 40 46.2 -1.5
GTA2 SKS **SKSac** **09 51 05.6 -2.5**
GTA2 S **ScS** **09 51 56.7 +1.8**
GTA2 pmax pmax
comp=Z,11nm,1.5s
GTA2 L L
comp=Z,3µm,22.2s
GTA2 L L
comp=Z,5µm,24.4s
GTA2 L L
comp=Z,10µm,23.5s
U49A Red Boiling Sp 97.19 54 IAMs_20 IAMs_20 10 17 53.5
comp=Z,11µm,20.0s
WCI Wyandotte Cave 97.20 52 P Pdif 09 40 36.4 +1.9
WCI pmax pmax
comp=Z,70nm,1.9s
WCI Wyandotte Cave 97.20 52 P Pdif 09 40 36.4 +1.9
WCI IAmb IAmb 09 40 37.9
comp=Z,70nm,1.9s
WCI Wyandotte Cave 97.20 52 IAMs_20 IAMs_20 10 17 56.6
comp=Z,16µm,21.0s
W50A Signal Mountai 97.25 56 IAMs_20 IAMs_20 10 18 43.3
comp=Z,10µm,21.0s
IRK Irkutsk 97.34 322 *e*P Pdif 09 40 44.9 +10
IRK pmax pmax
comp=Z,94nm,3.3s
ZAK Zakamensk 97.45 320 *e*P **P** **09 40 35.4 0.0**
ZAK pmax pmax
comp=Z,16nm,1.7s
X51A Calhoun 97.46 56 IAMs_20 IAMs_20 10 17 41.1
comp=Z,11µm,21.0s
TBO Thunder Bay 97.55 42 IAmb IAmb 09 40 48.7
comp=Z,52nm,0.9s
TLY Talaya 97.57 321 P **P** **09 40 35.2 -0.7**
comp=Z,3.3nm,0.8s,baz=152,slow=6.3,SNR=4.3
TLY LR LR 10 21 12.6
comp=Z,7µm,20.3s,baz=98,slow=33
comp=Z,3.3nm,0.8s
TLY Talaya 97.57 321 P **P** **09 40 34.5 -1.3**
TLY IAmb IAmb 09 40 56.4
comp=Z,76nm,1.9s
H43A Windswept, Lux 97.61 46 IAMs_20 IAMs_20 10 20 10.9
comp=Z,13µm,19.0s
PB08 IPOC Station P 97.71 113 P Pdif 09 40 37.8 0.0
Y52A Lilburn 97.94 57 IAMs_20 IAMs_20 10 19 00.9
comp=Z,12µm,21.0s
T50A Nancy 98.04 54 IAmb IAmb 09 44 36.7
comp=Z,110nm,2.0s
T50A IAMs_20 IAMs_20 10 19 29.1
comp=Z,9µm,20.0s
R49A Shelbyville 98.07 53 IAmb IAmb 09 41 00.8
comp=Z,62nm,1.3s
R49A IAMs_20 IAMs_20 10 19 41.8
comp=Z,15µm,20.0s
P48A Milroy 98.14 51 IAMs_20 IAMs_20 10 17 46.5
comp=Z,15µm,21.0s
CZSB Cruzeiro do Su 98.26 100 *e*P Pdif 09 40 40.8 +1.0
W52A Murphy 98.33 56 IAMs_20 IAMs_20 10 19 35.9
comp=Z,10µm,20.0s
BLKN Baker Lake 98.41 25 IAmb IAmb 09 41 00.4
comp=Z,98nm,1.6s
TKL Tuckaleechee C 98.58 55 P **P** **09 40 40.3 -0.5**
comp=Z,36nm,1.2s,baz=212,slow=7.1,SNR=7.2
TKL LR LR 10 21 01.0
comp=Z,8µm,19.1s,baz=271,slow=33
comp=Z,36nm,1.2s
R50A Paris 98.72 53 IAMs_20 IAMs_20 10 18 53.9
comp=Z,15µm,21.0s
TZTN Tazewell 98.95 55 IAMs_20 IAMs_20 10 19 09.1
comp=Z,12µm,20.0s
S51A Beattyville 99.14 54 IAMs_20 IAMs_20 10 18 47.3
comp=Z,13µm,21.0s
V53A Saluda 99.34 56 IAMs_20 IAMs_20 10 21 32.7
comp=Z,11µm,20.0s
N49A Columbus Grove 99.39 50 IAmb IAmb 09 41 06.5
comp=Z,45nm,1.2s
J47A Sunmer 99.42 48 IAMs_20 IAMs_20 10 18 28.7
comp=Z,14µm,21.0s
Q51A Peebles 99.63 52 IAMs_20 IAMs_20 10 18 33.9
comp=Z,15µm,22.0s
GLMI Grayling 99.89 46 IAMs_20 IAMs_20 10 22 52.1
comp=Z,13µm,19.0s
LPAZ La Paz 99.90 110 P **Pdif** **09 40 48.0 +0.2**
comp=Z,1.9nm,0.9s,baz=300,slow=2.5,SNR=4.7
LPAZ LR LR 10 19 07.3
comp=Z,1µm,18.9s,baz=248,slow=31
comp=Z,1.9nm,0.9s
LPAZ La Paz 99.90 110 *e*P **Pdif** **09 40 49.1 +1.3**
257A Skidaway Islan 100.03 60 IAMs_20 IAMs_20 10 21 39.4
comp=Z,7µm,19.0s
AAM Ann Arbor 100.06 49 IAMs_20 IAMs_20 10 19 56.0
comp=Z,8µm,21.0s
U54A Nelsons Funny 100.30 55 IAMs_20 IAMs_20 10 20 02.1
comp=Z,10µm,20.0s
KMSC Kings Mountain 100.42 56 IAMs_20 IAMs_20 10 20 52.3
comp=Z,10µm,20.0s
Q52A Bidwell 100.44 52 IAMs_20 IAMs_20 10 20 38.3
comp=Z,12µm,20.0s
V55A Taylorsville 100.65 56 IAMs_20 IAMs_20 10 22 41.4
comp=Z,8µm,19.0s
K50A Casco 100.90 49 IAMs_20 IAMs_20 10 19 03.2
comp=Z,10µm,22.0s
S54A Dingess, Beckl 100.95 54 IAMs_20 IAMs_20 10 19 22.1
comp=Z,13µm,22.0s
Y57A Sumter 100.96 58 IAMs_20 IAMs_20 10 22 25.8
comp=Z,8µm,19.0s
ANCO Parque Anchore 101.33 130 *e*P **Pdif** **09 40 54.8 +1.7**
U56A King 101.41 55 IAMs_20 IAMs_20 10 20 06.4
comp=Z,9µm,20.0s
BLA Blacksburg 101.54 54 IAMs_20 IAMs_20 10 22 12.7
comp=Z,12µm,20.0s
X58A Rowland 101.92 57 IAMs_20 IAMs_20 10 21 29.1
comp=Z,11µm,21.0s
R55A Marlinton 101.96 53 IAMs_20 IAMs_20 10 20 45.9
comp=Z,15µm,21.0s
V58A Windy Hill, Pi 102.32 56 IAMs_20 IAMs_20 10 22 37.5
comp=Z,9µm,20.0s
ERPA Erie 102.71 50 IAMs_20 IAMs_20 10 21 37.1
comp=Z,13µm,20.0s
Y60A Bolivia 102.73 58 IAMs_20 IAMs_20 10 23 48.8
comp=Z,11µm,20.0s
W59A Clinton 102.75 57 IAMs_20 IAMs_20 10 21 44.1
comp=Z,14µm,21.0s
S57A Dark Hollow, R 102.78 54 IAMs_20 IAMs_20 10 20 39.6
comp=Z,12µm,22.0s
PSAL Palomas, Salto 103.05 128 *e*P **Pdif** **09 41 04.3 +3.5**
R58B Mineral 103.65 54 IAMs_20 IAMs_20 10 21 27.7
comp=Z,13µm,22.0s
SADO Sadowa 103.72 47 Pdiff **Pdif** **09 41 05.9 +2.5**
comp=Z,5.6nm,1.0s,baz=305,slow=5.4,SNR=3.6
T59A Double "B" Far 103.75 55 IAMs_20 IAMs_20 10 23 51.5
comp=Z,10µm,20.0s
CBN Corbin Frederi 104.08 54 IAMs_20 IAMs_20 10 21 50.1
comp=Z,13µm,22.0s
MMNY Mt. Morris Dam 104.32 49 IAMs_20 IAMs_20 10 23 35.8
comp=Z,13µm,21.0s
V61A Roper 104.35 56 IAMs_20 IAMs_20 10 24 18.4
comp=Z,7µm,20.0s
J55A Hilton 104.46 49 IAMs_20 IAMs_20 10 30 29.4
comp=Z,13µm,21.0s
S61A Accomac 105.34 55 IAMs_20 IAMs_20 10 22 06.4
comp=Z,11µm,22.0s
CPUP Villa Florida 105.39 123 Pdiff **Pdif** **09 41 12.2 +0.8**
comp=Z,2.2nm,1.2s,baz=296,slow=9.3,SNR=3.0
R61A Willards 105.69 54 IAMs_20 IAMs_20 10 23 10.5
comp=Z,12µm,21.0s
SDDR Presa de Saban 106.15 74 IAMs_20 IAMs_20 10 19 52.0
comp=Z,9µm,21.0s
P61A Hammonton 106.27 53 IAMs_20 IAMs_20 10 23 29.9
comp=Z,12µm,20.0s
WMQ Urumqi 106.79 312 Pdif **Pdif** **09 41 17.7 +0.5**
WMQ PP **PP** **09 45 46.8 +3.3**
WMQ S **Sdif** **09 53 15.2 +0.3**
WMQ SS **SS** **10 00 52.5 +6.5**
WMQ L L
comp=Z,3µm,22.5s
WMQ L L
comp=Z,3µm,24.2s
WMQ L L
comp=Z,3µm,24.5s
TRY Troy 107.43 50 IAMs_20 IAMs_20 10 24 51.0
comp=Z,12µm,20.0s
NRIK Noril'sk 107.44 338 PKiKP **PKiKP** **09 45 26.1 -1.4**
comp=Z,1.8nm,0.5s,baz=90,slow=1.0,SNR=1.5
TULEG Thule 108.27 14 IAMs_20 IAMs_20 10 26 16.8
comp=Z,12µm,21.0s
ZSN Zaisan 109.01 315 *e*PKiKP **PKiKP** **09 45 31.6 +0.5**
ZALV Zalesovo Beam 109.16 322 Pdiff **Pdif** **09 41 26.9 -0.4**
comp=Z,0.6nm,0.4s,baz=78,slow=6.8,SNR=4.9
ZALV PKiKP **PKiKP** **09 45 30.4 -0.7**
comp=Z,2.3nm,0.6s,baz=146,slow=1.3,SNR=8.9
ZALV PKKPbc **PKKPbc** **09 56 37.9 -1.8**
comp=Z,0.9nm,0.5s,baz=259,slow=5.2,SNR=4.4
ZALV Zalesovo Beam 109.16 322 **PKiKP** **09 45 30.9 -0.3**
G62A West of Eustis 109.84 47 IAMs_20 IAMs_20 10 28 17.5
comp=Z,7µm,19.0s
PKME Peaks-Kenny Pk 110.72 47 IAMs_20 IAMs_20 10 29 11.7
comp=Z,9µm,19.0s
MK31 Makanchi Array 110.75 315 *i* PKiKP **PKiKP** **09 45 33.9 -0.6**
MKAR Makanchi Array 110.75 315 Pdiff **Pdif** **09 41 34.3 -0.3**
comp=Z,0.7nm,0.9s,baz=246,slow=5.7,SNR=3.1
MKAR PKiKP **PKiKP** **09 45 34.0 -0.4**
comp=Z,4.7nm,0.7s,baz=80,slow=0.7,SNR=24
MKAR PKKPbc **PKKPbc** **09 56 34.1 -0.2**
comp=Z,1.1nm,0.7s,baz=265,slow=4.5,SNR=5.9
MKAR Makanchi Array 110.75 315 *i* PKiKP **PKiKP** **09 45 34.2 -0.3**
MKAR Makanchi Array 110.75 315 **PKiKP** **09 45 34.2 -0.3**
DGAR Diego Garcia 110.87 256 IAMs_20 IAMs_20 10 28 15.8
comp=Z,8µm,21.0s
HYB Hyderabad 111.25 283 *e*Pdif **Pdif** **09 41 37.7 +0.2**
HYB *es*Pdif **pPdif** **09 41 51.5 +0.6**
HYB *e*PKiKP **PKiKP** **09 45 34.1 -2.1**
HYB *e*PP **PP** **09 46 14.8 -1.7**
HYB *e*SKPdf **SKPdf** **09 49 07.9 -0.1**
HYB *e*SKSac **SKSac** **09 52 13.1 -0.4**
HYB *e*SKKSac **SKKSac** **09 53 14.2 -1.5**
F64A Sherman 111.39 46 IAMs_20 IAMs_20 10 25 31.3
comp=Z,13µm,22.0s
G65A Princeton 111.94 47 IAMs_20 IAMs_20 10 28 01.0
comp=Z,9µm,20.0s
SHLS Shalkode 112.75 311 *i* PKiKP **PKiKP** **09 45 38.0 -0.5**
SHLS Shalkode 112.75 311 *e*PKiKP **PKiKP** **09 45 38.0 -0.5**
UZB Uzynbulak 113.07 311 *i* PKiKP **PKiKP** **09 45 39.2 +0.1**
UZB Uzynbulak 113.07 311 *e*PKiKP **PKiKP** **09 45 39.3 +0.1**
KURK Kurchatov 113.07 319 *i* PKiKP **PKiKP** **09 45 38.5 -0.2**
KURK Kurchatov 113.07 319 IAMs_20 IAMs_20 10 31 05.2
comp=Z,6µm,22.0s
KURBB Kurchatov Arra 113.14 319 Pdiff **Pdif** **09 41 44.9 -0.2**
comp=Z,0.1nm,0.3s,baz=341,slow=2.0,SNR=2.9
KURBB PKiKP **PKiKP** **09 45 38.5 -0.3**
comp=Z,5.0nm,0.7s,baz=89,slow=1.8,SNR=34
KURBB PKKPbc **PKKPbc** **09 56 25.1 -1.4**
comp=Z,1.2nm,0.2s,baz=264,slow=4.3,SNR=6.4
KURBB Kurchatov Arra 113.14 319 PKiKP **PKiKP** **09 45 38.0 -0.8**
KPKS Kokpek 113.31 311 *i* PKiKP **PKiKP** **09 45 39.7 +0.2**
KPKS Kokpek 113.31 311 *e*PKiKP **PKiKP** **09 45 39.8 +0.2**
TDK Taldyqorghan 113.48 313 *i* PKiKP **PKiKP** **09 45 40.0 +0.3**
TDK *e* 09 46 30.3
TDK Taldyqorghan 113.48 313 *e*PKiKP **PKiKP** **09 45 40.1 +0.3**
TDK *e*PP **PP** **09 46 30.3 -1.4**
SATY Saty 113.52 311 *i* PKiKP **PKiKP** **09 45 40.2 +0.2**
SATY Saty 113.52 311 *e*PKiKP **PKiKP** **09 45 40.2 +0.2**
MDOK Medeo 114.51 311 *e*PKiKP **PKiKP** **09 45 42.1 +0.2**
MDOK Medeo 114.51 311 *e*PKP **PKiKP** **09 45 42.1 +0.2**
SPB Sao Paulo 114.58 125 IAMs_20 IAMs_20 10 27 26.4
comp=Z,6µm,20.0s
TNSS Tian-Shan 114.59 311 *e*PKiKP PKPdf 09 45 42.1 -0.3
TNSS *e* 09 46 38.1
TNSS Tian-Shan 114.59 311 *e*PKP PKPdf 09 45 42.2 -0.2
TNSS *e*PP **PP** **09 46 38.2 -1.9**
AAA Alma-Ata 114.61 311 *e*PKiKP **PKiKP** **09 45 42.2 +0.2**
AAA Alma-Ata 114.61 311 *e*PKP **PKiKP** **09 45 42.2 +0.2**
KSH2 Kashi 115.72 306 PKP **PKiKP** **09 45 44.6 +0.2**
KSH2 PP PP 09 46 56.8 +9.0
KSH2 SS SS 10 02 46.2 +0.8
KSH2 PPMZ
comp=Z,1µm,7.7s
KSH2 L L
comp=Z,2µm,19.2s
KSH2 L L
comp=Z,3µm,21.3s
KSH2 L L
comp=Z,4µm,22.7s
BBGH Gun Hill 116.15 83 IAMs_20 IAMs_20 10 26 39.6
comp=Z,6µm,22.0s
KBS Kingsbay 116.38 359 *i* P **PKiKP** **09 45 44.4 +0.1**
AAK Ala-Archa 116.41 310 PKiKP **PKPdf** **09 45 45.0 -0.6**
comp=Z,2.9nm,0.6s,baz=129,slow=3.2,SNR=8.4
AAK PKKPbc **PKKPbc** **09 56 15.4 +0.2**
comp=Z,0.9nm,0.4s,baz=272,slow=2.9,SNR=6.6
AAK Ala-Archa 116.41 310 P **PKPdf** **09 45 45.3 -0.3**
AAK Ala-Archa 116.41 310 PKiKP **PKPdf** **09 45 44.9 -0.7**
AAK Ala-Archa 116.41 310 **PKPdf** **09 45 44.9 -0.7**
SPITS Spitsbergen Ar 117.00 358 PKP **PKPdf** **09 45 45.4 -0.2**
comp=Z,24nm,0.7s,baz=101,slow=4.3,SNR=13
SPB2 Spitsbergen Ar 117.00 358 **PKiKP** **09 45 45.7 +0.1**
DAG Danmarks Havn 117.23 6 *i* P **PKPdf** **09 45 45.0 -1.0**
BVA0 Borovoye Array 117.82 322 *i* PKiKP **PKPdf** **09 45 47.0 -0.8**
BVAR Borovoye Array 117.82 322 PKP **PKPdf** **09 45 47.4 -0.4**
comp=Z,10nm,0.7s,baz=86,slow=1.9,SNR=20
BORK Borovoye 117.86 322 PKiKP **PKPdf** **09 45 47.4 -0.4**
BORK Borovoye 117.86 322 **PKPdf** **09 45 47.4 -0.4**
BORK IAMs_20 IAMs_20 10 32 17.4
comp=Z,7µm,22.0s
BDFB Brasilia 117.95 117 PKP **PKPdf** **09 45 48.8 -0.5**
comp=Z,3.1nm,0.6s,baz=194,slow=2.7,SNR=5.8
DBG Daneborg 119.22 8 *i* P **PKPdf** **09 45 49.3 -0.5**
KK31 Karatay Array 119.29 311 *i* PKiKP **PKPdf** **09 45 50.2 -0.7**
KK31 Karatay Array 119.29 311 **PKPdf** **09 45 50.2 -0.7**
KKAR Karatay Array 119.29 311 PKiKP **PKPdf** **09 45 50.1 -0.8**
KKAR Karatay Array 119.29 311 **PKPdf** **09 45 50.1 -0.8**
BTK Batken 119.34 307 PKiKP **PKPdf** **09 45 51.0 -0.2**
IUG luzhnay 119.74 310 *e*PKiKP **PKiKP** **09 45 52.4 +0.4**
IUG *e* 09 47 14.5
IUG luzhnay 119.74 310 *e*PKP **PKiKP** **09 45 52.4 +0.4**
IUG *e*PP **PP** **09 47 14.5 -1.1**
BRLS Borolday 119.79 311 *e*PKiKP **PKiKP** **09 45 52.4 +0.5**
BRLS Borolday 119.79 311 *e*PKP **PKiKP** **09 45 52.5 +0.5**
CHM Chimkent 120.04 310 *e*PKiKP **PKiKP** **09 45 52.8 +0.3**
CHM Chimkent 120.04 310 *e*PKP **PKiKP** **09 45 52.9 +0.3**
KBL Kabul 121.07 301 P **PKPdf** **09 45 54.2 -0.7**
SNR=11
KBL Kabul 121.07 301 PKiKP **PKPdf** **09 45 54.1 -0.8**
KBL Kabul 121.07 301 **PKPdf** **09 45 54.1 -0.8**
SMTB Santa Maria do 121.24 111 *e*P **PKiKP** **09 45 57.2 +1.6**
SVE Sverdlovsk 122.07 328 *i* PKiKP **PKPdf** **09 45 55.7 -0.1**
SVE pmax pmax
comp=Z,19nm,1.0s
SJMB Sao Joao De Ma 122.10 124 *e*P **PKPdf** **09 45 57.0 0.0**
SDBA SAO DESIDERIO 122.10 116 *e*P **PKiKP** **09 45 58.0 +0.7**
SCO Scoresbysund 122.23 11 IAMs_20 IAMs_20 10 35 52.8
comp=Z,10µm,20.0s
SCO Scoresbysund 122.23 11 *i* P **PKiKP** **09 45 56.3 +0.5**
BSFB Barra de Sao F 122.30 124 *e*P **PKPdf** **09 45 56.8 -0.6**
RIB01 Linhares ES 122.39 125 *e*P **PKPdf** **09 45 57.1 -0.5**
ARCA Araşuai, MG 122.45 122 *e*P **PKiKP** **09 45 58.5 +0.5**
ARTI Arti 123.39 328 *i* PKiKP **PKPdf** **09 45 58.1 -0.2**
ARTI 09 47 38.5
ARTI 09 53 09.7
ARTI SS SS 10 04 21.1 -1.3
ARTI Arti 123.39 328 **PKPdf** **09 45 58.2 -0.2**
ARTI IAMs_20 IAMs_20 10 38 16.7
comp=Z,7µm,21.0s
FOMA Nahampoana Res 123.73 225 IAMs_20 IAMs_20 10 27 41.4
comp=Z,5µm,21.0s
KEV Kevo 124.17 352 IAMs_20 IAMs_20 10 37 29.1
comp=Z,7µm,20.0s
GUA01 Guaratinga, BA 124.34 123 *e*P **PKPdf** **09 46 01.4 0.0**
LVZ Lovozero 124.47 347 *i* PKiKP **PKiKP** **09 46 01.0 +0.5**
LVZ Lovozero 124.47 347 **PKiKP** **09 46 00.5 +0.1**
LVZ IAMs_20 IAMs_20 10 40 46.0
comp=Z,7µm,19.0s
ARCES ARCESS Array B 124.58 352 PKP **PKPdf** **09 46 00.1 -0.2**
comp=Z,45nm,0.7s,baz=44,slow=1.2,SNR=50
ARCES ARCESS Array B 124.58 352 PKiKP **PKPdf** **09 46 00.3 0.0**
ARCES ARCESS Array B 124.58 352 **PKPdf** **09 46 00.2 0.0**
APA Apatity 125.00 348 *i* PKiKP **PKPdf** **09 45 59.6 -1.5**
APA *e* 09 47 47.8
APA pmax pmax
comp=Z,23nm,0.9s
AB31 Akbulak array 125.15 320 *i* PKiKP **PKPdf** **09 46 00.9 -1.0**
AB31 Akbulak array 125.15 320 **PKPdf** **09 46 01.4 -0.5**
ABKAR Akbulak array 125.15 320 **PKPdf** **09 46 01.3 -0.7**
CMC01 Camacan, BA 125.22 122 *e*P **PKPdf** **09 46 02.5 -0.6**
NBIT Itapeh - BA 125.51 121 *e*P **PKPdf** **09 46 02.9 -0.8**
VOI Vohitsoka 125.84 228 P **PKiKP** **09 46 04.5 -0.2**
VOI Vohitsoka 125.84 228 IAMs_20 IAMs_20 10 31 29.5
comp=Z,6µm,20.0s

AKTO	**Aktyubinsk**	**125.92**	**322**	PKP	**PKPdf**	**09 46**	**02.7**	**-0.7**
	comp=Z,7,9nm,0.8s,baz=5.6,slow=1.5,SNR=14							
KIRV	**Kirov**	**126.49**	**334**	*i* PKIKP	**PKiKP**	**09 46**	**05.1**	**+0.5**
ADZR	**Andozero**	**126.79**	**343**	*e*PKIKP	**PKPdf**	**09 46**	**02.7**	**-1.9**
ADZR				pmax	pmax			
	comp=Z,45nm,1.2s							
NBPN	**Ponto Novo - B**	**126.90**	**117**	*e*P	**PKPdf**	**09 46**	**05.7**	**-0.7**
MSF	**Maaselka**	**127.31**	**349**	PKIKP	**PKiKP**	**09 46**	**05.9**	**-0.2**
ABPO	**Ambohimpanom**	**127.32**	**231**	IAMs_20	IAMs_20	10 36	08.9	
	comp=Z,9μm,19.0s							
MSEY	**Mahe Island**	**127.58**	**252**	IAMs_20	IAMs_20	10 35	06.6	
	comp=Z,7μm,22.0s							
NBPS	**Pedro II - PI**	**128.61**	**109**	*e*P	**PKPdf**	**09 46**	**09.4**	**-0.3**
OUL	**Oulu**	**128.63**	**350**	PKIKP	**PKiKP**	**09 46**	**08.2**	**+0.1**
KLMR	**Klimovskoe**	**128.75**	**340**	*e*PKIKP	**PKPdf**	**09 46**	**06.3**	**-2.1**
KLMR				pmax	pmax			
	comp=Z,92nm,1.5s							
NBTA	**Tacaratu-PE**	**129.57**	**116**	*e*P	**PKPdf**	**09 46**	**11.6**	**+0.2**
JLN	**Jalan Bani Buh**	**129.66**	**286**	P	**PKPdf**	**09 46**	**11.2**	**-0.2**
NBMA	**Muriti-CE**	**129.77**	**114**	*e*P	**PKPdf**	**09 46**	**12.1**	**+0.2**
BELG	**Belogornoye**	**130.82**	**328**	PKP	**PKPdf**	**09 46**	**11.8**	**-0.8**
	comp=Z,54nm,1.0s,baz=134,slow=1.3,SNR=12							
BELG	**Belogornoye**	**130.82**	**328**	*i* PKIKP	**PKiKP**	**09 46**	**13.8**	**+0.3**
BIDO	**Bidbid**	**130.88**	**288**	P	**PKPdf**	**09 46**	**13.5**	**-0.2**
JMDO	**Jabal Madar**	**130.88**	**286**	P	**PKPdf**	**09 46**	**13.8**	**+0.1**
BSY	**Bisya**	**131.72**	**287**	P	**PKPdf**	**09 46**	**14.4**	**-0.9**
FIA1	**FINESS Array S**	**131.91**	**348**		**PKiKP**	**09 46**	**15.0**	**-0.4**
FINES	**FINESS Array B**	**131.91**	**348**	PKhKP	PKPpre	09 46	03.9	
	comp=Z,2.1nm,0.7s,baz=20,slow=6.1,SNR=5.3							
FINES				PKP	**PKPdf**	**09 46**	**13.8**	**-0.6**
	comp=Z,22nm,0.8s,baz=48,slow=2.8,SNR=6.0							
FINES	**FINESS Array B**	**131.91**	**348**	PKIKP	**PKPdf**	**09 46**	**14.9**	**+0.5**
FINES	**FINESS Array B**	**131.91**	**348**		**PKPdf**	**09 46**	**14.9**	**+0.5**
NBPA	**Parau_RN**	**131.96**	**113**	*e*P	**PKiKP**	**09 46**	**16.7**	**-0.3**
SOHO	**SOHO**	**132.33**	**289**	P	**PKPdf**	**09 46**	**15.8**	**-0.5**
	SNR=6.0							
BANOM	**Banah**	**132.49**	**291**	P	**PKPdf**	**09 46**	**15.9**	**-0.8**
MDH	**Madha**	**132.52**	**290**	P	**PKPdf**	**09 46**	**15.9**	**-0.8**
UOSS	**Minazif**	**132.61**	**290**	P	**PKPdf**	**09 46**	**15.9**	**-1.0**
MASF	**Masafi**	**132.64**	**290**	P	**PKPdf**	**09 46**	**16.5**	**-0.5**
BOSA	**Boshof**	**132.65**	**203**	PKP	**PKiKP**	**09 46**	**18.1**	**-0.2**
	comp=Z,3.4nm,0.7s,baz=167,slow=5.2,SNR=5.0							
HATD	**Hatta, Dubai**	**132.68**	**290**	P	**PKPdf**	**09 46**	**16.4**	**-0.7**
ASHO	**Ashiyiah**	**132.75**	**289**	P	**PKPdf**	**09 46**	**16.1**	**-1.2**
RCBR	**Riachuelo**	**133.00**	**113**	IAMs_20	IAMs_20	10 38	06.3	
	comp=Z,4μm,22.0s							
ALNE	**Al Ain**	**133.05**	**289**	P	**PKPdf**	**09 46**	**17.0**	**-0.8**
	SNR=5.4							
MOS	**Moscow**	**133.20**	**336**	*i* PKIKP	**PKiKP**	**09 46**	**17.8**	**-0.4**
MOS				*e*		09 48	44.8	
MOS				*e*PPP	PPP	09 51	38.7	
MOS				*e*		09 53	30.9	
ASUD	**Al Ashush, Dub**	**133.42**	**289**	P	**PKPdf**	**09 46**	**17.6**	**-0.8**
DMTO	**DMTO**	**133.61**	**280**	P	**PKPdf**	**09 46**	**18.2**	**-0.8**
OBN	**Obninsk**	**134.06**	**336**	⇓*i* PKIKP	**PKPdf**	**09 46**	**18.7**	**+0.1**
OBN				*i*		09 46	20.0	
OBN				*e*		09 46	21.8	
OBN				*i*		09 53	26.8	
OBN				*i* SS	SS	10 06	30.5	-3.3
OBN				pmax	pmax			
	comp=Z,7.0nm,0.8s							
OBN				MLR	MLR			
	comp=Z,5μm,20.0s							
OBN	**Obninsk**	**134.06**	**336**	IAMs_20	IAMs_20	10 45	59.3	
	comp=Z,5μm,20.0s							
NB2	**NORSAR Subarra1**	**134.28**	**357**	PKPdf	**PKPdf**	**09 46**	**18.9**	**-0.1**
	comp=Z,377nm,2.5s,baz=6.6,slow=1.8							
NB2	**NORSAR Subarra1**	**134.28**	**357**	PKPdf	**PKPdf**	**09 46**	**18.0**	**-1.0**
NB2				AMP		09 46	18.0	
NOA	**NORSAR Array B**	**134.28**	**357**	PKhKP	PKPpre	09 46	05.7	
	comp=Z,1.0nm,0.7s,baz=30,slow=1.9,SNR=3.6							
NOA				PKP	**PKPdf**	**09 46**	**19.1**	**+0.1**
	comp=Z,7.8nm,0.8s,baz=13,slow=4.0,SNR=20							
RBK	**Rabkut**	**134.30**	**280**	P	**PKiKP**	**09 46**	**21.0**	**-0.6**
	SNR=6.0							
VSU	**Vasula**	**134.43**	**345**	*i* PKIKP	**PKiKP**	**09 46**	**21.1**	**+0.5**
DOK	**Doka**	**134.45**	**281**	P	**PKPdf**	**09 46**	**19.7**	**-0.8**
VRH	**Novokhopyorsk**	**134.49**	**329**	*e*PKIKP	**PKiKP**	**09 46**	**21.3**	**+0.3**
VRH				pmax	pmax			
	comp=Z,27nm,1.0s							
NORES	**NORESS Array B**	**134.57**	**357**	PKIKP	**PKPdf**	**09 46**	**19.5**	**0.0**
NORES				pmax	pmax			
	comp=Z,15nm,0.7s							
WHFO	**Wadi Hawf**	**134.74**	**280**	P	**PKPdf**	**09 46**	**20.5**	**-0.6**
LPSR	**Galich'ya Gora**	**134.88**	**333**	*e*PKIKP	**PKiKP**	**09 46**	**21.2**	**-0.5**
LPSR				pmax	pmax			
	comp=Z,53nm,2.0s							
HFS	**Hagfors**	**135.01**	**355**	PKP	**PKPdf**	**09 46**	**20.3**	**0.0**
	comp=Z,13nm,0.7s,baz=191,slow=1.5,SNR=14							
ABTO	**Aybut**	**135.15**	**279**	P	**PKiKP**	**09 46**	**22.7**	**-0.7**
VORR	**Voronezh**	**135.38**	**331**	*e*PKIKP	**PKiKP**	**09 46**	**22.8**	**0.0**
VORR				pmax	pmax			
	comp=Z,24nm,0.4s							
MAK	**Makhachkala**	**135.52**	**317**	*e*P	**Pdif**	**09 43**	**27.1**	**+2.3**
MAK				*i*		09 46	19.9	
MAK				*e*PPP	PPP	09 52	01.0	
MAK				*e*		09 53	29.4	
MAK				*e*SS	SS	10 06	57.5	+4.9
MAK				*e*SSS	SSS	10 11	51.0	
MAK				pmax	pmax			
	comp=Z,337nm,1.8s							
JRN	**Qarnain Island**	**135.66**	**290**	P	**PKPdf**	**09 46**	**21.7**	**-0.9**
VSR	**Storozhevoye**	**135.71**	**331**	*e*PKIKP	**PKPdf**	**09 46**	**22.6**	**+0.7**
VSR				pmax	pmax			
	comp=Z,41nm,1.5s							
KONO	**Kongsberg**	**135.75**	**358**	IAMs_20	IAMs_20	10 47	16.4	
	comp=Z,5μm,20.0s							
VORD	**Divnogorie**	**135.81**	**331**	*e*PKIKP	**PKPdf**	**09 46**	**22.7**	**+0.6**
VORD				pmax	pmax			
	comp=Z,20nm,1.2s							
LKRN	**Lenkeran, Azer**	**136.28**	**310**	PKIKP	**PKPdf**	**09 46**	**22.8**	**-0.5**
STRU	**Stroemstad**	**136.28**	**357**	*i* P	**PKPdf**	**09 46**	**23.1**	**+0.4**
SEKA	**Sheki**	**136.46**	**314**	PKIKP	**PKPdf**	**09 46**	**23.0**	**-0.7**
MNGR	**Mingechevir, A**	**136.72**	**314**	PKIKP	**PKPdf**	**09 46**	**23.6**	**-0.5**
SNART	**Snartemo**	**137.12**	**359**	*i* P	**PKiKP**	**09 46**	**27.0**	**+0.9**
HOMB	**Homborsund**	**137.16**	**358**	*i* P	**PKiKP**	**09 46**	**27.2**	**+1.0**
TJOU	**Tjoern**	**137.26**	**356**	*i* P	**PKiKP**	**09 46**	**25.8**	**-0.6**
GANJ	**Ganja**	**137.30**	**314**	PKIKP	**PKPdf**	**09 46**	**24.7**	**-0.5**
MNK	**Minsk**	**137.57**	**342**	*i* PKIKP	**PKPdf**	**09 46**	**26.1**	**+0.9**
MNK				*i*		09 49	12.2	
MNK				*i* PPP	PPP	09 52	11.6	
MNK				*i*		09 53	36.8	
MNK				*i* SS	SS	10 07	21.5	+6.0
MNK				*i* SSS	SSS	10 12	27.9	
MNK				pmax	pmax			
	comp=E,21nm,0.8s							
MNK				pmax	pmax			
	comp=N,7.0nm,0.8s							
MNK				pmax	pmax			
	comp=Z,37nm,0.8s							
MNK				MLR	MLR			
	comp=E,5μm,19.0s							
MNK				MLR	MLR			
	comp=Z,7μm,20.0s							
MNK	**Minsk**	**137.57**	**342**	*i* PKP	**PKPdf**	**09 46**	**26.1**	**+0.9**
	comp=E,21nm,0.8s							
MNK				*i* PKP	**PKPdf**	**09 46**	**26.1**	**+0.9**
	comp=N,7.0nm,0.8s							
MNK				*i* PKP	**PKPdf**	**09 46**	**26.1**	**+0.9**
	comp=Z,37nm,0.8s,baz=31							
MNK				*i* PP	**PP**	**09 49**	**12.2**	**+1.1**
MNK				*i* PPP	PPP	09 52	11.7	
MNK				*i* SKS	**SKSac**	**09 53**	**36.8**	**+1.0**
MNK				*i* SKKS	**SKKSdf**	**10 03**	**12.5**	**+2.4**
MNK				*i* SS	**SS**	**10 07**	**21.5**	**+6.1**
MNK				*i* SSS	SSS	10 12	27.9	
MNK				*i* LQ	LQ	10 39	50.0	
ONAU	**Onsala**	**137.87**	**356**	*i* P	**PKiKP**	**09 46**	**27.0**	**-0.6**
KIV	**Kislovodsk**	**138.13**	**320**	*i* PKIKP	**PKiKP**	**09 46**	**28.5**	**-0.3**
KIV				*e*		09 49	13.9	
KIV				*e*SS	SS	10 07	24.2	+0.5
KIV				pmax	pmax			
	comp=Z,11nm,1.0s							
KIV				MLR	MLR			
	comp=Z,6μm,24.0s							
KIV	**Kislovodsk**	**138.13**	**320**	IAMs_20	IAMs_20	10 52	05.7	
	comp=Z,6μm,21.0s							
FABU	**Falkenberg**	**138.19**	**355**	*i* P	**PKiKP**	**09 46**	**28.6**	**+0.2**
SHA1	**Shidzhatmaz**	**138.27**	**320**	*i* PKIKP	**PKiKP**	**09 46**	**28.9**	**-0.4**
ERBR	**Yeremizino-Bor**	**138.47**	**324**	*e*PKIKP	**PKPdf**	**09 46**	**26.7**	**-0.5**
ERBR				*i*		09 46	29.2	
ERBR				*e*		09 49	25.6	
ERBR				*e*PPP	PPP	09 52	24.5	
ERBR				MLR	MLR			
	comp=Z,7μm,22.0s							
NAX	**Nakhchivan**	**138.48**	**312**	PKIKP	**PKPdf**	**09 46**	**26.8**	**-0.7**
NEUR	**Neytrino**	**138.48**	**319**	*i* PKIKP	**PKiKP**	**09 46**	**29.3**	**-0.4**
BLEU	**Blekinge**	**138.54**	**352**	*i* P	**PKiKP**	**09 46**	**28.4**	**-0.7**
GNI	**Garni**	**138.60**	**314**	PKP	**PKPdf**	**09 46**	**26.5**	**-1.4**
	comp=Z,13nm,0.7s,baz=219,slow=9.9,SNR=4.6							
GNI	**Garni**	**138.60**	**314**	*i* PKIKP	**PKiKP**	**09 46**	**29.7**	**-0.3**
GNI	**Garni**	**138.60**	**314**	IAMs_20	IAMs_20	10 48	09.8	
	comp=Z,4μm,22.0s							
DEL	**Delary**	**138.61**	**354**	*i* P	**PKiKP**	**09 46**	**29.1**	**-0.1**
LABN	**Labinsk**	**138.95**	**322**	*i* PKIKP	**PKPdf**	**09 46**	**28.3**	**+0.2**
LABN				*e*		09 49	27.3	
LABN				*e*		09 53	36.7	
LABN				MLR	MLR			
	comp=Z,14μm,23.0s							
SUW	**Suwalki**	**139.31**	**345**	*e*PKPdf	**PKPdf**	**09 46**	**25.3**	**-3.1**
SUW				*e*PP	**PP**	**09 49**	**26.3**	**+4.5**
SUW				*e*L	L	10 38	18.3	
	comp=Z,17μm,29.9s							
EKA	**Eskdalemuir Ar**	**139.44**	**8**	PKhKP	PKPpre	09 46	23.4	
	comp=Z,2.1nm,0.7s,baz=321,slow=3.6,SNR=5.3							
EKA				PKP	**PKiKP**	**09 46**	**30.1**	**-0.9**
	comp=Z,4.3nm,0.7s,baz=303,slow=1.0,SNR=13							
SOC	**Sochi**	**140.14**	**322**	*i* P	**Pdif**	**09 43**	**43.7**	**-1.7**
SOC				*e*		09 49	32.8	
SOC				*e*SS	SS	10 07	47.1	+0.1
SOC				*e*SSS	SSS	10 13	03.4	
SOC				MLR	MLR			
	comp=Z,9μm,22.0s							
AKASG	**Malin Array Be**	**140.29**	**337**	PKhKP	PKPpre	09 46	23.4	
	comp=Z,4.5nm,0.6s,baz=40,slow=3.7,SNR=17							
AKASG				PKP	**PKPdf**	**09 46**	**30.1**	**-0.2**
	comp=Z,2.4nm,0.6s,baz=38,slow=3.2,SNR=4.2							
AKBB	**Malin Array Si**	**140.29**	**337**	PKP	**PKPdf**	**09 46**	**30.2**	**-0.1**
AK04	**Malin Array Si**	**140.30**	**337**	PKP	**PKPdf**	**09 46**	**30.0**	**-0.3**
AK21	**Malin Array Si**	**140.30**	**338**	PKP	**PKPdf**	**09 46**	**29.5**	**-0.8**
KIEV	**Kiev**	**140.30**	**337**	⇑PKHKP	PKPpre	09 46	23.2	
KIEV	**Kiev**	**140.30**	**337**	IAMs_20	IAMs_20	10 50	47.0	
	comp=Z,8μm,21.0s							
KIEV	**Kiev**	**140.30**	**337**	⇑P	PKPpre	09 46	23.2	
KIEV	**Kiev**	**140.30**	**337**	PKP	**PKPdf**	**09 46**	**30.4**	**+0.1**
AK09	**Malin Array Si**	**140.34**	**337**	PKP	**PKPdf**	**09 46**	**30.8**	**+0.4**
AK13	**Malin Array Si**	**140.43**	**337**	PKP	**PKPdf**	**09 46**	**31.1**	**+0.5**
RGN	**Rugen**	**140.56**	**354**	IAMs_20	IAMs_20	10 44	45.4	
	comp=Z,8μm,21.0s							
ANN	**Anapa**	**140.74**	**325**	*i* PKIKP	**PKPdf**	**09 46**	**32.4**	**+1.1**
ANN				*e*		09 49	39.9	
ANN				*e*PPP	PPP	09 52	34.1	
ANN				*e*SS	SS	10 07	58.3	+4.6
ANN				pmax	pmax			
	comp=Z,47nm,1.0s							
RNPP8	**Varash**	**140.92**	**341**	PKP	**PKPdf**	**09 46**	**32.5**	**+1.1**
RNPP5	**Staryi Chortor**	**141.00**	**341**	PKP	**PKPdf**	**09 46**	**32.6**	**+1.0**
BEL	**Belsk**	**141.89**	**346**	*e*PKPdf	**PKPdf**	**09 46**	**32.3**	**-0.9**
BEL				*e*L	L	10 38	01.3	
	comp=Z,14μm,32.0s							
SIM	**Simferopol'**	**142.43**	**327**	*e*PKIKP	**PKPdf**	**09 46**	**32.7**	**-1.7**
SIM				PPP	PPP	09 52	49.0	
SIM				SS	SS	10 08	22.0	+8.7
SIM				pmax	pmax			
	comp=Z,27nm,1.0s							
RAYN	**Ar Rayn**	**142.45**	**289**	⇓PKIKP	**PKPdf**	**09 46**	**32.6**	**-2.5**
RAYN	**Ar Rayn**	**142.45**	**289**	IAMs_20	IAMs_20	10 53	40.7	
	comp=Z,4μm,21.0s							
SORM	**Soroca**	**142.71**	**336**	⇓PKIKP	PKPpre	09 46	30.7	
SORM	**Soroca**	**142.71**	**336**	⇓P	PKPpre	09 46	30.7	
ARPR	**Arapgir-MALATY**	**143.46**	**316**	IAMs_20	IAMs_20	11 02	22.6	
	comp=Z,4μm,20.0s							
OJC	**Ojcow**	**143.62**	**346**	*e*PKPdf	PKPbc	09 46	34.3	+0.5
OJC				*e*L	L	10 46	45.4	
	comp=Z,13μm,23.1s							
OJC	**Ojcow**	**143.62**	**346**	PKIKP	PKPab	09 46	33.0	+0.1
KSP	**Ksiaz**	**143.76**	**350**	*e*PKPdf	PKPbc	09 46	33.8	-0.3
KSP				*e*PP	**PP**	**09 49**	**49.7**	**+0.9**
KSP				*e*L	L	10 46	12.0	
	comp=Z,11μm,23.8s							
CLL	**Collm**	**143.79**	**353**	*i* PKIKP	**PKiKP**	**09 46**	**40.6**	**+0.6**
CLL				pmax	pmax			
	comp=Z,154nm,1.6s							
CLL				MLR	MLR			
	comp=Z,7μm,24.7s							
CLL	**Collm**	**143.79**	**353**	IAMs_20	IAMs_20	10 48	18.8	
	comp=Z,7μm,21.0s							
CLL	**Collm**	**143.79**	**353**	*i* PKPpre	PKPpre	09 46	34.3	
	comp=Z,33nm,1.0s							
CLL				*i* PKPdf	**PKiKP**	**09 46**	**40.6**	**+0.6**
	comp=Z,154nm,1.6s							
CLL				*e*PKPlp		09 46	52.0	
CLL				*e*PP	**PP**	**09 49**	**47.0**	**-1.9**
CLL				*e*PPlp		09 49	56.0	
CLL				*i* SKPdf	**SKPbc**	**09 50**	**11.6**	**0.0**
CLL				*e*PPP	PPP	09 53	06.0	
CLL				*e*SKKSac	**SKKSac**	**09 56**	**42.0**	**+3.5**
CLL				*e*Sdif	**Sdif**	**09 58**	**31.0**	**+7.9**
CLL				*e*PSKS		10 00	06.0	
CLL				*e*PPS	PPS	10 02	30.0	
CLL				*e*SS	**SS**	**10 08**	**30.0**	**+2.3**
CLL				*e*SKSSKSac	**S'ac**	**10 10**	**00.0**	**+6.6**
CLL				*e*SSS	SSS	10 13	54.0	
CLL				LR	LR	10 34	00.0	
CLL				AMS	AMS	10 44	00.0	
	comp=Z,7μm,24.7s							
CLL				AMS	AMS	10 50	00.0	
	comp=N,6μm,22.0s							
CLL				AMS	AMS	10 50	00.0	
	comp=E,3μm,19.8s							
TSUM	**Tsumeb**	**143.94**	**198**		PKPbc	09 46	36.8	+1.0
TSUM	**Tsumeb**	**143.94**	**198**	IAMs_20	IAMs_20	10 56	19.9	
	comp=Z,4μm,18.0s							
CHVC	**Chvalec**	**144.05**	**350**	*e*PKIKP	PKPbc	09 46	36.0	+0.9
CHVC				MLR	MLR			
	comp=Z,10μm,22.3s							
CHVC	**Chvalec**	**144.05**	**350**	*e*PKP	PKPbc	09 46	36.0	+0.9
CHVC				AMS	AMS	10 45	50.0	
	comp=Z,10μm,22.3s							
OSTC	**Ostas**	**144.05**	**349**	*e*PKIKP	PKPbc	09 46	35.7	+0.6
OSTC				*e*		09 49	57.0	
OSTC				MLR	MLR			
	comp=Z,12μm,23.8s							
OSTC	**Ostas**	**144.05**	**349**	*e*PKP	PKPbc	09 46	35.7	+0.6
OSTC				*e*SKP	SKPdf	09 49	57.0	-11
OSTC				AMS	AMS	10 46	00.0	
	comp=Z,12μm,23.8s							
UPC	**Upice**	**144.13**	**350**	*e*PKIKP	PKPbc	09 46	35.8	+0.5
UPC				MLR	MLR			
	comp=Z,11μm,22.9s							
UPC	**Upice**	**144.13**	**350**	*e*PKP	PKPbc	09 46	35.8	+0.5
UPC				*e*SKKS		09 56	42.5	
UPC				AMS	AMS	10 45	50.0	
	comp=Z,11μm,22.9s							
KOLS	**Kolonicke sedl**	**144.13**	**342**	*e*PKIKP	**PKPdf**	**09 46**	**36.9**	**-0.4**
KOLS	**Kolonicke sedl**	**144.13**	**342**	*e*PKP	**PKPdf**	**09 46**	**36.9**	**-0.4**
PDRR	**Padureni**	**144.16**	**335**	⇓P	PKPbc	09 46	35.8	+0.3
KIBK	**Kibwezi**	**144.17**	**243**	PKP	**PKPab**	**09 46**	**35.5**	**-0.7**
KIBK	**Kibwezi**	**144.17**	**243**	P	PKPbc	09 46	37.4	+0.7
	SNR=37							
KIBK	**Kibwezi**	**144.17**	**243**		PKPbc	09 46	37.6	+0.9
KIBK				IAMs_20	IAMs_20	10 45	07.0	
	comp=Z,6μm,21.0s							
DMBR	**Dumbraveni**	**144.22**	**335**	⇓P	PKPbc	09 46	36.1	+0.4
DPC	**Dobruska-Polom**	**144.23**	**349**	*e*PKIKP	PKPbc	09 46	36.2	+0.5
DPC				*e*		09 49	58.6	
DPC				MLR	MLR			
	comp=Z,12μm,24.8s							
DPC	**Dobruska-Polom**	**144.23**	**349**	*e*PKP	PKPbc	09 46	36.2	+0.5
DPC				*e*PP	**PP**	**09 49**	**58.6**	**+6.9**
DPC				AMS	AMS	10 46	10.0	
	comp=Z,12μm,24.8s							
NIE	**Niedzica**	**144.24**	**345**	*e*PKPdf	**PKPdf**	**09 46**	**37.5**	**0.0**
NIE				*e*L	L	10 40	14.8	
	comp=Z,7μm,30.3s							
BMOL	**Mol**	**144.24**	**2**	*d*PKP	**PKPdf**	**09 46**	**37.2**	**-0.1**
BMOL				*dp*PKP	**pPKPdf**	**09 46**	**48.6**	**-2.4**
BUR08	**Bucovina Ar. S**	**144.30**	**338**		**PKPdf**	**09 46**	**37.4**	**-0.4**
BURAR	**Bucovina Array**	**144.32**	**338**	⇑PKIKP	PKPbc	09 46	36.4	+0.3
BURAR	**Bucovina Array**	**144.32**	**338**		PKPbc	09 46	36.7	+0.6
BURAR	**Bucovina Array**	**144.32**	**338**	⇑P	PKPbc	09 46	36.4	+0.2
STEB	**Steborice**	**144.34**	**347**	*e*PKP	PKPbc	09 46	36.4	+0.4
PVCC	**Panska Ves**	**144.35**	**351**	*e*PKIKP	PKPbc	09 46	36.6	+0.6
PVCC				*e*		09 49	57.0	
PVCC				MLR	MLR			
	comp=Z,14μm,21.3s							
PVCC	**Panska Ves**	**144.35**	**351**	*e*PKP	PKPbc	09 46	36.6	+0.6
PVCC				*e*PP	**PP**	**09 49**	**57.0**	**+4.7**
PVCC				AMS	AMS	10 49	00.0	
	comp=Z,14μm,21.3s							
RICC	**Richard**	**144.40**	**352**	*e*PKP	**PKPdf**	**09 46**	**37.6**	**-0.1**
RICC				AMS	AMS	10 48	30.0	
	comp=Z,8μm,20.5s							
KRLC	**Kraliky**	**144.41**	**349**	*e*PKIKP	PKPbc	09 46	36.6	+0.3
KRLC	**Kraliky**	**144.41**	**349**	*e*PKP	PKPbc	09 46	36.6	+0.3
HSKC	**Hora Svate Kat**	**144.43**	**352**	AMS	AMS	10 48	10.0	
	comp=Z,9μm,23.3s							
BZK	**Bozkurt**	**144.47**	**324**	⇑P	PKPbc	09 46	36.7	0.0
ATD	**Arta Tunnel**	**144.48**	**268**	IAMs_20	IAMs_20	10 48	53.4	
	comp=Z,5μm,20.0s							
MORC	**Moravsky Berou**	**144.54**	**348**	⇑PKIKP	**PKPab**	**09 46**	**36.5**	**0.0**
MORC	**Moravsky Berou**	**144.54**	**348**	*e*PKP	**PKPdf**	**09 46**	**37.7**	**-0.3**
MORC				*e*		09 46	49.9	
MORC	**Moravsky Berou**	**144.54**	**348**	⇑P	**PKPab**	**09 46**	**36.5**	**0.0**
BIZ	**Bicaz**	**144.56**	**337**	⇑P	**PKPab**	**09 46**	**36.7**	**+0.1**
MOX	**Moxa**	**144.59**	**354**	PKIKP	PKPbc	09 46	36.9	+0.1
UCC	**Uccle**	**144.63**	**2**	*d*PKPdf	**PKPab**	**09 46**	**36.6**	**-0.1**
UCC				*dp*PKP	**pPKPdf**	**09 46**	**50.1**	**-1.5**
LANS	**Liptovska Anna**	**144.69**	**345**	*e*PKIKP	**PKPdf**	**09 46**	**37.9**	**-0.4**
LANS	**Liptovska Anna**	**144.69**	**345**	*e*PKP	**PKPdf**	**09 46**	**37.9**	**-0.4**
TESR	**Tescani**	**144.70**	**336**	⇓P	**PKPab**	**09 46**	**37.0**	**-0.1**
GHRR		**144.76**	**335**	⇑P	**PKPdf**	**09 46**	**38.6**	**+0.2**
BSKQ	**Steenkerk**	**144.77**	**3**	*d*PKPdf	PKPbc	09 46	37.5	+0.2
BSKQ				*dp*PKP	pPKPdf	09 46	50.6	-1.3
TLCR		**144.84**	**332**	⇑PKIKP	PKPbc	09 46	37.9	+0.2
TLCR		**144.84**	**332**	⇑P	PKPbc	09 46	37.9	+0.2
MEM	**Membach**	**144.87**	**1**	*d*PKPdf	**PKPab**	**09 46**	**37.4**	**-0.2**
MEM				*dp*PKP	**pPKPdf**	**09 46**	**50.7**	**-1.4**
BMR	**Baia Mare**	**144.87**	**340**	⇑PKIKP	**PKPab**	**09 46**	**37.3**	**-0.4**
BMR	**Baia Mare**	**144.87**	**340**	⇑P	**PKPab**	**09 46**	**37.3**	**-0.4**
PRU	**Pruhonice**	**144.88**	**351**	*e*PKIKP	**PKPdf**	**09 46**	**38.5**	**0.0**
PRU				MLR	MLR			
	comp=Z,15μm,21.1s							
PRU	**Pruhonice**	**144.88**	**351**	*e*PKP	**PKPdf**	**09 46**	**38.5**	**0.0**
PRU				AMS	AMS	10 49	30.0	
	comp=Z,15μm,21.1s							
NKC	**Novy Kostel**	**144.91**	**353**	*e*PKIKP	**PKPdf**	**09 46**	**38.6**	**0.0**
NKC				MLR	MLR			
	comp=Z,8μm,22.2s							
NKC	**Novy Kostel**	**144.91**	**353**	*e*PKP	**PKPdf**	**09 46**	**38.6**	**0.0**
NKC				AMS	AMS	10 47	50.0	
	comp=Z,8μm,22.2s							
ONER	**Baraj Valea Uz**	**144.95**	**336**	⇓P	**PKPdf**	**09 46**	**38.6**	**-0.2**
NEGRR	**Negrea**	**144.98**	**334**	⇓P	PKPbc	09 46	38.3	+0.2
IZVR	**Izvoarele**	**145.02**	**334**	⇑P	**PKPbc**	**09 46**	**37.8**	**-0.5**
BCLA	**Clavier**	**145.04**	**1**	*d*PKPdf	**PKPb

BRTR	Keskin Array B	146.09 321	PKPbc	PKPbc	09 46 41.8	-0.2		
	comp=Z,101nm,0.7s,baz=116,slow=1.7,SNR=241							
BRTR	Keskin Array B	146.09 321		PKPdf	09 46 40.0	-1.1		
GERES	GERESS Array B	146.11 351	PKPbc	PKPdf	09 46 41.1	+0.3		
	comp=Z,33nm,0.8s,baz=19,slow=2.5,SNR=144							
GERES	GERESS Array B	146.11 351		PKPdf	09 46 40.4	-0.4		
ICOR	Ion Corvin	146.12 332	⇓P	PKPab	09 46 42.4	0.0		
VOIR		146.22 336	⇓PKP2	PKPab	09 46 42.6	-0.3		
VOIR		146.22 336	⇓P	PKPab	09 46 42.6	-0.3		
SRO	Srobarova	146.22 346	ePKP2	PKPab	09 46 43.5	+0.8		
SRO	Srobarova	146.22 346	ePKP	PKPab	09 46 43.5	+0.8		
SRO		e			09 46 56.5			
LEHL	Lehliu	146.28 333	⇓P	PKPab	09 46 43.0	0.0		
KIRS	Kirsehir-Merke	146.28 320	⇓P	PKPdf	09 46 42.1	-0.4		
TNR	Turnu Rosu	146.33 337	⇑PKP2	PKPab	09 46 43.3	+0.1		
TNR	Turnu Rosu	146.33 337	⇑P	PKPab	09 46 43.3	+0.1		
SULR		146.35 334	⇑P	PKPab	09 46 43.2	-0.1		
MTUR	Matau	146.39 336	⇓PKP2	PKiKP	09 46 45.7	0.0		
MTUR	Matau	146.39 336	⇓P	PKiKP	09 46 45.7	0.0		
WINA	Alland / Wiene	146.43 348	ePKP	PKPdf	09 46 40.8	-0.5		
	comp=Z,247nm,1.8s,SNR=21							
WINA			epPKiKP	pPKPbc	09 46 55.7	-0.4		
	comp=Z,481nm,1.6s,SNR=56							
ARR	Arges	146.44 337	⇑P	PKPab	09 46 43.6	-0.1		
SHEL	Horse Pasture	146.59 158	iPKP2	PKiKP	09 46 47.5	+0.6		
SHEL	Horse Pasture	146.59 158	IAMs_20	IAMs_20	10 46 59.7			
	comp=Z,4μm,22.0s							
DEV	Deva	146.62 339	⇑P	PKPbc	09 46 43.3	+0.1		
STU	Stuttgart	146.63 357	IAMs_20	IAMs_20	10 51 09.2			
	comp=Z,7μm,20.0s							
CONA	Conrad Observa	146.64 349	ePKP	PKPdf	09 46 41.1	-0.6		
	comp=Z,57nm,0.8s,SNR=72							
CONA			ipPKiKP	pPKPbc	09 46 56.5	-0.4		
	comp=Z,485nm,1.6s,SNR=54							
LOT	Lotru	146.69 338	⇑P	PKPbc	09 46 42.9	-0.7		
SIRR	Siria	146.70 341	⇓P	PKPdf	09 46 41.8	+0.1		
RONA	Rosalia, Austr	146.77 348	ePKP	PKPdf	09 46 41.1	-0.8		
	comp=Z,53nm,0.7s,SNR=54							
RONA			epPKiKP	pPKPbc	09 46 56.7	-0.5		
	comp=Z,258nm,1.6s,SNR=46							
SGRR	Singureni	146.84 334	⇑P	PKPbc	09 46 43.8	-0.1		
SAHE	Sakarya_HENDEK	146.98 325	⇑P	PKPbc	09 46 43.8	-0.7		
MOA	Molln	147.00 350	ePKP	PKPdf	09 46 41.6	-0.7		
	comp=Z,51nm,0.7s,SNR=28							
MOA			epPKiKP	pPKPdf	09 46 56.6	+0.7		
	comp=Z,182nm,1.5s							
SURR	Surduc	147.00 340	⇑P	PKPbc	09 46 44.2	-0.1		
PRD	Provadia	147.05 331	iP	PKPbc	09 46 44.4	-0.1		
GZR	Gura Zlata	147.09 339	⇓PKP2	PKPbc	09 46 44.4	-0.3		
GZR	Gura Zlata	147.09 339	⇓P	PKPbc	09 46 44.4	-0.3		
BFO	Black Forest	147.11 358		PKPbc	09 46 44.0	-0.6		
BFO			IAMs_20	IAMs_20	10 48 13.0			
	comp=Z,7μm,22.0s							
RAZG	Razgrad	147.14 333	⇑P	PKPbc	09 46 45.0	+0.2		
BEIL	Beino	147.21 311	eP	PKPdf	09 46 36.4	-6.6		
COPA	Copaceanca	147.23 335	⇓P	PKPab	09 46 46.0	-0.7		
BIOA	Bad Ischl, Aus	147.25 351	ePKP	PKPdf	09 46 42.1	-0.6		
	comp=Z,53nm,1.0s,SNR=24							
BIOA			epPKiKP	pPKPbc	09 46 57.9	-0.7		
	comp=Z,167nm,1.1s							
LOZB	Loznitsa	147.25 332	⇑P	PKPbc	09 46 45.1	0.0		
ECH	Echery	147.26 359	PKP2	PKPbc	09 46 45.7	+0.7		
BZS	Buzias	147.29 340	⇑PKIKP	PKPdf	09 46 42.7	0.0		
BZS	Buzias	147.29 340	⇑P	PKPdf	09 46 42.7	0.0		
ARSA	Arzberg	147.36 349	ePKP	PKPdf	09 46 42.1	-0.8		
	comp=Z,31nm,0.8s,SNR=27							
ARSA			epPKiKP	pPKPbc	09 46 57.9	-0.9		
	comp=Z,63nm,0.9s,SNR=15							
HWQ	Hawqa	147.51 311	eP	PKPdf	09 46 37.0	-6.6		
SRE	Strehaia	147.57 338	⇓PKP2	PKPbc	09 46 46.0	+0.1		
SRE	Strehaia	147.57 338	⇓P	PKPbc	09 46 46.0	+0.1		
SZH	Strazhitsa	147.61 333	P	PKPdf	09 46 44.3	+0.9		
MORH	Mrgy, Hungar	147.63 344	⇓P	PKPdf	09 46 43.5	+0.2		
MORH	Mrgy, Hungar	147.63 344	⇑iP	PKPdf	09 46 42.8	-0.5		
LESA	Schwarzleotal	147.65 352	ePKP	PKPdf	09 46 42.6	-0.8		
	comp=Z,54nm,0.9s,SNR=11							
LESA			epPKiKP	pPKPbc	09 46 58.5	-1.0		
	comp=Z,181nm,1.5s,SNR=14							
BANR	Banloc	147.66 341	⇓P	PKPbc	09 46 46.1	+0.1		
SESA	Seetaler Alpe,	147.66 350	ePKP	PKPdf	09 46 42.7	-0.9		
	comp=Z,117nm,0.7s,SNR=31							
SESA			epPKiKP	pPKPdf	09 46 58.2	+0.9		
	comp=Z,196nm,1.0s,SNR=73							
HERR	Herculane	147.67 339	⇑P	PKPbc	09 46 45.7	-0.5		
VLAD	Vladila	147.67 336	⇑P	PKPbc	09 46 46.7	+0.5		
ASF	Jabal al Asfar	147.75 307	PKPbc	PKPbc	09 46 46.5	-0.3		
	comp=Z,12nm,0.8s,baz=136,slow=0.7,SNR=11							
ASF	Jabal al Asfar	147.75 307	P	PKiKP	09 46 47.9	-0.9		
ASF			AML	AML				
RETA	Reutte	147.80 355	iPKP	PKPdf	09 46 43.6	0.0		
	comp=Z,145nm,1.3s,SNR=23							
RETA			epPKiKP	pPKPbc	09 46 59.3	-0.6		
	comp=Z,344nm,1.5s							
BEHE	Becsehely	147.84 347	eP	PKPdf	09 46 43.3	-0.3		
WATA	Walderalm	147.87 354	iPKP	PKPdf	09 46 43.2	-0.6		
	comp=Z,83nm,0.9s,SNR=33							
WATA			epPKiKP	pPKPbc	09 46 59.2	-0.9		
	comp=Z,300nm,1.8s,SNR=21							
KBA	Koelnbreinsper	147.89 351	ePKP	PKPdf	09 46 42.8	-1.1		
	comp=Z,37nm,0.6s,SNR=35							
KBA			epPKiKP	pPKPdf	09 46 58.9	+1.3		
	comp=Z,60nm,0.8s,SNR=40							
KBA			eSKP	SKPdf	09 50 13.4	-0.8		
	comp=Z,20nm,1.5s							
BHL	Bhannes	147.90 310	eP	PKPdf	09 46 37.2	-7.0		
MOTA	Moosalm	147.91 354	iPKP	PKPdf	09 46 43.3	-0.6		
	comp=Z,46nm,0.8s,SNR=32							
MOTA			epPKiKP	pPKPbc	09 46 59.6	-0.7		
	comp=Z,242nm,1.3s							
ELND	Elena	147.92 333	⇓P	PKPdf	09 46 45.1	+1.2		
FURI	Furi	147.93 262	IAMs_20	IAMs_20	10 48 38.9			
	comp=Z,5μm,22.0s							
WTTA	Wattenberg	147.93 353	iPKP	PKPdf	09 46 43.5	-0.5		
	comp=Z,70nm,0.9s,SNR=51							
WTTA			epPKiKP	pPKPbc	09 46 59.1	-1.2		
	comp=Z,409nm,1.5s,SNR=27							
JMB	Yambol	147.97 331	P	PKPdf	09 46 44.8	+0.8		
MDVR	Moldovita	148.00 339	⇓P	PKPdf	09 46 45.1	+1.0		
SOKA	Soboth	148.00 349	ePKP	PKPdf	09 46 43.0	-1.1		
	comp=Z,46nm,0.8s,SNR=31							
SOKA			epPKiKP	pPKPdf	09 46 58.9	+1.2		
	comp=Z,160nm,1.1s,SNR=22							
SOKA			eSKP	SKPdf	09 50 13.6	-0.7		
	comp=Z,11nm,1.3s							
SQTA	Sankt Quirin	148.02 354	ePKP	PKPdf	09 46 43.2	-0.8		
	comp=Z,102nm,1.1s,SNR=37							
SQTA			epPKiKP	pPKPbc	09 46 59.5	-1.0		
	comp=Z,194nm,1.2s							
DAVA	Damuels	148.07 356	iPKP	PKPdf	09 46 43.6	-0.6		
	comp=Z,46nm,0.8s,SNR=32							
DAVA			epPKiKP	pPKPbc	09 46 59.6	-1.1		
	comp=Z,323nm,1.3s							
PLVB	Pleven	148.09 335	⇓P	PKPbc	09 46 47.5	+0.1		
GEM	Giv'at Ha'Em	148.21 309	P	PKiKP	09 46 48.9	-0.8		
GEM			AML	AML				
OBKA	Obir	148.25 349	ePKP	PKPdf	09 46 43.3	-1.1		
	comp=Z,47nm,0.7s,SNR=18							
OBKA			epPKP	pPKPdf	09 46 59.5	+1.4		
	comp=Z,76nm,1.0s,SNR=13							
OBKA			eSKP	SKPdf	09 50 14.8	+0.1		
	comp=Z,17nm,1.3s							
FETA	Feichten	148.26 355	ePKP	PKPdf	09 46 44.0	-0.5		
	comp=Z,36nm,1.0s,SNR=12							
FETA			epPKP	pPKPbc	09 47 00.3	-0.9		
	comp=Z,193nm,1.5s,SNR=34							
FRGS	Fruska Gora	148.27 342	⇑iP	PKPdf	09 46 43.7	-0.7		
MYKA	Terra Mystica	148.28 351	ePKP	PKPdf	09 46 43.8	-0.7		
	comp=Z,39nm,0.6s,SNR=20							
MYKA			epPKP	pPKPdf	09 46 59.5	+1.4		
	comp=Z,221nm,1.6s,SNR=29							
MYKA			eSKP	SKPdf	09 50 14.9	+0.2		
	comp=Z,6.4nm,1.0s							
HSUJ	Al Zarqa	148.29 307	P	PKiKP	09 46 50.4	+0.4		
HSUJ			AML	AML				
ABTA	Abfaltersbach	148.33 352	ePKP	PKPdf	09 46 43.6	-0.9		
	comp=Z,75nm,0.7s,SNR=8.9							
ABTA			epPKP	pPKPdf	09 46 59.6	+1.4		
	comp=Z,186nm,1.0s,SNR=44							
MFF	Saint Martin d	148.38 9	PKP2	PKPbc	09 46 47.3	-0.7		
MPEP	Malo Peshtene	148.47 336	iP	PKPdf	09 46 45.7	+0.9		
MMAI	Mount Meron Ar	148.49 309	PKPbc	PKPbc	09 46 49.5	+0.7		
	comp=Z,36nm,0.9s,baz=62,slow=7.7,SNR=28							
DAVOX	Davos/Dischmat	148.57 356	PKP	PKPdf	09 46 44.5	-0.6		
	comp=Z,59nm,0.6s,baz=35,slow=3.3,SNR=20							
DAVOX			PKPbc	PKPbc	09 46 48.9	+0.1		
	comp=Z,59nm,0.6s,baz=2.1,slow=3.3,SNR=67							
BLKB	Belogradchik	148.66 337	⇓P	PKPdf	09 46 46.9	+1.8		
QRNJ	Al-Qirein	148.66 308	P	PKiKP	09 46 50.5	-0.1		
QRNJ			AML	AML				
LJU	Ljubljana	148.70 349	iPKPdf	PKPdf	09 46 45.0	-0.1		
LJU			epPKPbc	PKPbc	09 46 48.5	-0.4		
LJU			e		09 47 02.1			
LJU			ePP	PP	09 50 17.7	-0.4		
LJU			e		10 00 06.7			
LJU			e		10 03 09.1			
LJU			eSS	SS	10 09 25.9	+2.3		
DIM	Dimitrovgrad	148.76 332	P	PKiKP	09 46 49.8	-0.7		
DIM	Dimitrovgrad	148.76 332	iP	PKPbc	09 46 49.0	-0.1		
BAND	Balkesir-Ban	148.81 327	⇑P	PKPbc	09 46 49.4	+0.1		
TUE	Stuetta	148.92 356	IAMs_20	IAMs_20	10 49 24.6			
	comp=Z,8μm,22.0s							
H10N3	ASCENSION HYDR	148.92 137	PKPbc	PKPbc	09 46 49.4	-0.6		
H10N1	ASCENSION HYDR	148.93 137	PKPbc	PKPbc	09 46 49.4	-0.6		
H10N2	ASCENSION HYDR	148.94 137	PKPbc	PKPbc	09 46 50.0	-0.1		
ASCN	Ascension	148.94 137	IAMs_20	IAMs_20	10 55 41.7			
	comp=Z,4μm,21.0s							
PGB	Panagyurishte	148.99 334	iP	PKiKP	09 46 51.4	+0.3		
BOVS	Bovan	149.00 338	⇓P	PKPdf	09 46 47.2	+1.6		
CSS	Mathiatis	149.03 314	IAMs_20	IAMs_20	11 03 25.0			
	comp=Z,4μm,20.0s							
PLD	Plovdiv	149.05 333	P	PKPbc	09 46 49.7	-0.2		
SALP	Salfit	149.07 308	P	PKiKP	09 46 51.4	-0.1		
SALP			AML	AML				
BLSH	Balsha	149.07 336	iP	PKiKP	09 46 50.7	-0.6		
KEPZ	Antalya-Kepez	149.08 319	⇓P	PKPbc	09 46 48.8	-1.4		
BOJS	Bojanci	149.09 348	ePKPdf	PKPdf	09 46 45.9	+0.2		
BOJS			ipPKPbc	PKPbc	09 46 50.1	+0.3		
GHAJ	Ghor Haditha	149.10 306	IAMs_20	IAMs_20	10 56 28.9			
	comp=Z,4μm,21.0s							
SENIN	Lac Senin/Sane	149.11 359	IAMs_20	IAMs_20	10 56 20.8			
	comp=Z,7μm,20.0s							
CTI	Castel Tesino	149.13 353	PKIKP	PKPdf	09 46 45.9	0.0		
CTI	Castel Tesino	149.13 353		PKPdf	09 46 45.9	0.0		
ISP	Isparta	149.18 321	IAMs_20	IAMs_20	11 00 13.8			
	comp=Z,5μm,21.0s							
KDZ	Kurdzhali	149.20 332	P	PKPbc	09 46 49.8	-0.4		
LODK	Lodwar	149.21 250	P	PKPdf	09 46 47.6	+0.7		
	SNR=12							
VTS	Vitosha	149.29 335	P	PKPbc	09 46 50.1	-0.6		
BLY	Banja Luka	149.37 345	IAMs_20	IAMs_20	11 00 25.6			
	comp=Z,6μm,20.0s							
BLY	Banja Luka	149.37 345	⇓P	PKPdf	09 46 48.1	+2.0		
BLY	Banja Luka	149.37 345	⇑iP	PKPbc	09 46 49.9	-0.7		
RZN	Rozhen	149.42 333	P	PKPbc	09 46 50.3	-0.8		
HSNJ	Maan	149.42 304	P	PKiKP	09 46 53.4	+1.0		
HSNJ			AML	AML				
ALN	Alexandroupoli	149.44 330	P	PKPbc	09 46 49.5	-1.4		
ENEZ	Enez	149.51 330	P	PKPbc	09 46 50.3	-0.7		
AMAZ	Amatzia	149.51 307	P	PKiKP	09 46 53.9	+1.4		
AMAZ			AML	AML				
CAVK	Edirne/Enez-Ca	149.54 330	⇑P	PKPbc	09 46 51.3	+0.2		
BBLS	Lazi&#263i	149.56 341	⇑iP	PKPbc	09 46 51.4	+0.2		
SALO	Salr	149.67 354		PKPdf	09 46 46.1	-0.6		
SALO			PKPbc	PKPbc	09 46 51.6	+0.3		
SJES	Sjenica	149.92 340	eP	PKPdf	09 46 46.9	-0.4		
PRNI	Paran	149.93 305	P	PKPbc	09 46 50.1	-2.3		
PRNI			P	PKiKP	09 46 52.7	-0.7		
PRNI			AML	AML				
MMB	Musomishta	149.97 334	P	PKPbc	09 46 51.5	-0.8		
MMB	Musomishta	149.97 334	iP	PKPbc	09 46 51.8	-0.4		
KKB	Krupnik	149.99 335	P	PKPbc	09 46 51.8	-0.4		
KKB	Krupnik	149.99 335	iP	PKPbc	09 46 52.4	+0.2		
SMH	Samothraki Isl	150.02 330	P	PKPbc	09 46 51.8	-0.5		
HRFI	Mount Harif	150.02 304	P	PKPbc	09 46 53.0	+0.3		
HRFI			AML	AML				
GADA	Gvkgeada	150.06 329	P	PKPbc	09 46 51.3	-1.1		
KAVA	Kavala	150.08 332	P	PKPbc	09 46 51.2	-1.2		
NVR	Nevrokopi	150.08 333	P	PKPbc	09 46 51.5	-1.0		
EZN	Ezine	150.12 328	P	PKPbc	09 46 51.7	-0.9		
EZN	Ezine	150.12 328	⇑P	PKPbc	09 46 51.9	-0.6		
AQBJ	Aqaba	150.13 303	P	PKiKP	09 46 54.9	+1.1		
AQBJ			AML	AML				
PEHC	Pehcevo	150.13 335	iP	PKPbc	09 46 52.6	-0.1		
KZIT	Kziot	150.18 306	P	PKiKP	09 46 53.5	-0.3		
KZIT			AML	AML				
EIL	Elat	150.23 303	PKP	PKPdf	09 46 48.3	+0.3		
	comp=Z,9.8nm,0.9s,baz=275,slow=3.5,SNR=9.6							
EIL			PKPbc	PKPbc	09 46 53.0	-0.2		
	comp=Z,39nm,0.7s,baz=33,slow=2.0,SNR=26							
EIL	Elat	150.23 303	P	PKPdf	09 46 49.8	+1.8		
EIL			AML	AML				
THAS	Thassos island	150.29 331	P	PKPbc	09 46 51.8	-1.2		
UPM	Unac-Piva	150.31 342	eP	PKPbc	09 46 52.3	-0.9		
TAVA	DENIZLI_Tavas	150.38 322	⇓P	PKPbc	09 46 52.9	-0.5		
SRS	Serrai	150.39 333	P	PKPbc	09 46 51.6	-1.6		
BNI	Bardonecchia	150.43 360	PKIKP	PKPdf	09 46 49.5	+1.5		
KLINJ	Klinje	150.44 342	eP	PKPbc	09 46 52.3	-1.1		
PRK	Paraskevi	150.58 328	P	PKPbc	09 46 51.6	-2.1		
PGAV	Gavieira, Arco	150.60 23	ePKP	PKPdf	09 46 51.0	+2.6		
PGAV			ePP	PP	09 50 48.5	+19		
PGAV			eSS	SS	10 09 48.4	+2.9		
PGAV			eLR	LR	10 36 56.6			
PGAV			eLQ	LQ	10 37 39.2			
LIA	Limnos Island	150.63 330	P	PKPbc	09 46 52.5	-1.3		
KNT	Kendrikon	150.65 334	P	PKPbc	09 46 52.1	-1.7		
VAY	Valandovo	150.65 335	iP	PKPbc	09 46 53.2	-0.6		
BRY	Bratogost	150.70 342	⇑iP	PKPbc	09 46 53.2	-0.9		
SOH	Sokhos	150.73 333	P	PKPbc	09 46 52.1	-1.9		
BLCB	Balcova	150.80 326	P	PKPbc	09 46 52.4	-1.8		
OUR	Ouranopolis	150.85 332	P	PKPbc	09 46 52.8	-1.4		
PDG	Podgorica	150.90 340	⇓P	PKPdf	09 46 50.9	+2.3		
PDG	Podgorica	150.90 340	⇑iP	PKPbc	09 46 53.9	-0.4		
PCAB	Cabril	150.91 23	ePKP	PKiKP	09 46 55.9	+0.8		
PCAB			ePP	PP	09 50 48.3	+17		
TREB	Trebinje	150.93 342	eP	PKPbc	09 46 53.8	-0.6		
SACV	Santiago Islan	150.94 87	IAMs_20	IAMs_20	10 50 16.8			
	comp=Z,4μm,21.0s							
YER	Yerkesik	150.97 322	P	PKPbc	09 46 53.3	-1.5		
GRG	Griva	151.02 335	P	PKPbc	09 46 52.8	-1.9		
THE	Thessaloniki	151.06 334	P	PKPbc	09 46 52.5	-2.2		
PLG	Polygyros	151.06 333	P	PKPbc	09 46 53.4	-1.5		
HCY	Herceg Novi	151.13 341	eP	PKPbc	09 46 54.8	-0.1		
DRME	Dracevica, Mon	151.15 340	⇑iP	PKPbc	09 46 52.9	-2.0		
PHP	Peshkopia	151.16 338	P	PKPbc	09 46 53.9	-1.1		
ECAL	Calabor	151.17 21	PKP	PKPdf	09 46 50.8	+1.6		
PTO	Porto	151.18 24	ePKP	PKPbc	09 46 53.2	-1.8		
PTO			ePP	PP	09 50 43.6	+11		
PBRG	Braganca	151.29 21	ePKP	PKiKP	09 46 57.0	+1.2		
PBRG			ePP	PP	09 50 49.8	+17		
POLO	Lamas de Olo	151.29 23	ePKP	PKiKP	09 46 56.2	+0.3		
POLO			ePP	PP	09 50 44.0	+11		
PAIG	Paliouri	151.31 332	P	PKPbc	09 46 53.5	-1.8		
CHOS	Chios island	151.33 327	P	PKPbc	09 46 54.3	-1.3		
SMG	Samos	151.40 325	P	PKPbc	09 46 54.6	-1.1		
PVRL	Vila Real	151.41 23	ePKP	PKPbc	09 46 55.1	-0.5		
BDRM	Kayabasi	151.51 323	⇓P	PKPdf	09 46 50.9	+1.1		
OHR	Ohrid	151.53 337	iP	PKPbc	09 46 56.1	+0.2		
BOUT	Bodrum	151.59 323	P	PKPbc	09 46 54.4	-1.7		
ARG	Arkhangelos	151.58 321	P	PKPbc	09 46 55.9	-0.4		
PVIS	Viseu	151.82 24	ePKP	PKiKP	09 46 57.1	+0.1		
PVIS			ePP	PP	09 50 47.3	+11		
KZN	Kozani	151.83 335	P	PKPbc	09 46 55.1	-1.5		
KBN	Korca	151.95 336	P	PKPbc	09 46 55.6	-1.3		
NEST	Nestorio	152.03 336	P	PKPbc	09 46 56.8	-0.4		
TYRN	Tyrnavos	152.13 333	P	PKPbc	09 46 55.2	-2.1		
KYMI	Kymi, Euboea I	152.14 330	P	PKPbc	09 46 56.6	-0.7		
PENT	Pentalofos	152.18 336	P	PKPbc	09 46 56.6	-0.9		
MTE	Manteigas	152.23 23	ePKP	PKiKP	09 46 58.4	+0.5		
MTE			eSS	SS	10 10 39.0	+36		
MTE			eLQ	LQ	10 36 32.2			
MTE			eLR	LR	10 37 56.6			
MTE			IAMs_20	IAMs_20	10 48 53.4			
	comp=Z,11μm,22.0s							
KPRO	Kipourio	152.29 335	P	PKPbc	09 46 57.2	-0.6		
THL	Klokotos Trika	152.35 334	P	PKPbc	09 46 57.2	-0.5		
PMOZ	Porto Moniz, M	152.36 47	ePKP	PKPbc	09 46 55.2	-3.0		
PMOZ			ePP	PP	09 50 45.5	+5.1		
PMOZ			eSS	SS	10 10 11.9	+5.3		
PMOZ			eLR	LR	10 38 20.0			
PMOZ			eLQ	LQ	10 38 25.2			
PMOZ			IAMs_20	IAMs_20	10 47 04.8			
	comp=Z,5μm,22.0s							
PSBE	So Bento	152.47 26	ePKP	PKiKP	09 46 58.8	+0.4		
PSBE			ePP	PP	09 50 57.4	+17		
AQU	L'Aquila	152.48 349	PKP	PKPdf	09 46 51.1	0.0		
AQU	L'Aquila	152.48 349	⇑iP	PKiKP	09 46 58.3	0.0		
PMAR	Madeira	152.62 47	ePKP	PKiKP	09 46 59.6	+0.6		
PMAR			ePP	PP	09 50 46.9	+5.0		
AGG	Agios Georgios	152.66 332	P	PKPbc	09 46 57.3	-1.2		
PSARD	Sardoal	152.67 25	ePKP	PKiKP	09 46 59.3	+0.6		
PSARD			ePP	PP	09 50 50.7	+10		
FUL	Funchal	152.67 47	ePKP	PKPab	09 47 09.4	0.0		
FUL			ePP	PP	09 50 56.2	+14		
KARP	Karpathos	152.71 321	IAMs_20	IAMs_20	10 59 08.3			
	comp=Z,5μm,22.0s							
AXAR	Agios Charalam	152.72 332	P	PKPbc	09 46 57.3	-1.4		
PMAFR	Mafra	152.72 28	PKP	PKPdf	09 46 52.8	+1.3		
PMAFR	Mafra	152.72 28	ePKP	PKiKP	09 47 03.2	+4.3		
PMAFR			ePP	PP	09 50 51.0	+9.5		
PCBR	Castelo Branco	152.74 24	ePKP	PKiKP	09 46 58.9	+0.1		
PRMD	Pramanda	152.76 335	P	PKPbc	09 46 57.8	-1.0		
PMPST	Porto Santo, M	152.82 46	ePKP	PKPbc	09 46 58.4	-0.6		
PMPST			ePP	PP	09 50 57.4	+15		
TETR	Tetrakomo, Epi	152.85 334	P	PKPbc	09 46 58.8	-0.2		
VILL	Villia	152.89 330	P	PKPbc	09 46 58.1	-0.9		
SRN	Sarande	152.90 337	P	PKPbc	09 46 58.1	-0.9		
EVR	Evrytania	152.97 333	P	PKPbc	09 46 59.0	-0.3		
LIS	Lisbon	152.98 28	ePKPdf	PKPdf	09 46 51.6	-0.3		
LIS			ePP	PP	09 50 43.9	+1.0		
LIS			IAMs_20	IAMs_20	10 48 30.9			
	comp=Z,12μm,18.7s							
LIS	Lisbon	152.98 28	ePKIKP	PKPdf	09 46 51.6	-0.3		
LIS			e		09 50 43.9			
LIS	Lisbon	152.98 28	ePKP	PKPab	09 47 11.4	+1.0		
LIS			ePP	PP	09 50 52.1	+9.2		
IGT	Igoumenitsa	153.07 336	P	PKPbc	09 46 58.3	-1.0		
PMTG	Montargil	153.09 26	ePKP	PKPdf	09 46 55.1	+3.1		
PMTG			ePP	PP	09 50 46.9	+3.4		
KEK	Kerkira	153.12 337	P	PKPbc	09 46 56.8	-2.7		
PMRV	Marv??o	153.12 24	ePKP	PKiKP	09 46 60.0	+0.3		
PMRV			ePP	PP	09 50 55.0	+11		
PMRV			eLQ	LQ	10 37 17.4			
PMRV			eLR	LR	10 38 12.0			
PMRV			IAMs_20	IAMs_20	10 50 54.2			
	comp=Z,8μm,18.0s							
LTK	Loutraki	153.17 330	P	PKPbc	09 46 56.9	-2.7		
ANX	Ano Chora	153.19 333	P	PKPbc	09 46 58.4	-1.4		
AMPL	Ampelaki	153.23 334	P	PKPbc	09 46 59.2	-0.6		
KALE	Kalithea	153.26 332	P	PKPbc	09 46 59.9	0.0		
SERG	Sergoula	153.28 332	P	PKPbc	09 46 59.2	-0.7		
EFP	Efpalio	153.34 332	P	PKPbc	09 46 59.5	-0.4		
PVO	Paravola	153.35 333	P	PKiKP	09 47 00.2	+0.1		
PARRA	Arraiolos	153.38 26	ePKP	PKiKP	09 47 04.3	+4.1		
PARRA			ePP	PP	09 50 52.1	+6.9		
VVK	Vomvokou	153.38 332	P	PKPbc	09 47 00.1	-0.1		
LAKA	Lakka	153.46 332	P	PKPbc	09 46 59.8	-0.5		
PDO	Prodromos	153.51 334	P	PKPbc	09 47 00.1	-0.3		
PEST

KLNJ	Kolanjah	2.80	117	Pn		Pn	09 44 35.4	+1.9
IQOM	Qom	3.22	38	Pn		Pn	09 44 41.7	+2.4
KRSH	Karshahi	3.34	59	Pn		Pn	09 44 43.0	+2.2
SNJK	Sanadaj _Korde	3.39	337	Pn		Pn	09 44 44.6	+3.1
QABG	Abgarm-Qazvin	3.48	12	Pn		Pn	09 44 45.5	+2.8
IVRN	Varamin	3.69	43	Pn		Pn	09 44 48.2	+2.6
IGZV	Ghazvin	4.26	17	Pn		Pn	09 44 55.9	+2.4
ZNJK	Zanjan	4.35	0	Pn		Pn	09 44 57.3	+2.6
DSBU	Dashti - Bushe	4.52	150	Pn		Pn	09 44 59.1	+2.1
GIDE	GILAN DEYLAMAN	4.71	12	Pn		Pn	09 45 02.0	+2.3
IFIR	Firoozkooh	4.75	44	Pn		Pn	09 45 02.1	+1.9
ASF	Jabal al Asfar	9.98	272	Pn		Pn	09 46 11.8	-0.1
	1.9nm,0.3s,baz=69,slow=8.8,SNR=6.6							
ASF				Sn		Sn	09 48 00.5	-3.5
	0.7nm,0.3s,baz=176,slow=14,SNR=1.5							
ASF				Lg		Lg	09 49 13.0	
	0.4nm,0.3s,baz=22,slow=17,SNR=1.2 2.1nm,0.4s							
ASF				AML		AML		
MMAI	Mount Meron Ar	11.21	277	Pn		Pn	09 46 30.0	+1.3
	1.0nm,0.3s,baz=290,slow=15,SNR=2.1 1.0nm,0.7s							
MMAI				AML		AML		
AKTO	Aktyubinsk	19.39	18	P		P	09 48 13.7	-0.7
	0.5nm,0.3s,baz=198,slow=5.4,SNR=5.2 3.8nm,0.7s							
AKTO				AML		AML		
AAK	Ala-Archa	22.86	56	LR		LR	09 59 42.2	
	comp=Z,212nm,19.6s,baz=178,slow=42							
BVAR	Borovoye Array	25.96	31	P		P	09 49 19.4	-1.5
	1.5nm,0.6s,baz=164,slow=5.8,SNR=2.4 1.5nm,0.6s							
KURBB	Kurchatov Arra	28.62	41	P		P	09 49 44.6	-0.1
	0.5nm,0.2s,baz=246,slow=9.0,SNR=1.5 0.5nm,0.2s							
MKAR	Makanchi Array	29.42	51	P		P	09 49 51.9	-0.1
	1.0nm,0.5s,baz=245,slow=11,SNR=5.8 1.0nm,0.5s							
GERES	GERESS Array B	30.94	313	P		P	09 50 06.9	+1.4
	2.2nm,1.0s,baz=120,slow=9.9,SNR=1.3 2.2nm,1.0s							
FINES	FINESS Array B	32.64	340	P		P	09 50 19.6	-0.4
	3.6nm,0.8s,baz=137,slow=6.8,SNR=6.3 3.6nm,0.8s							
ZALV	Zalesovo Beam	33.57	39	P		P	09 50 27.9	-0.4
	1.3nm,0.5s,baz=238,slow=8.0,SNR=5.0 1.3nm,0.5s							
HFS	Hagfors	36.12	331	P		P	09 50 50.4	+0.1
	1.2nm,0.4s,baz=134,slow=6.4,SNR=9.5 1.2nm,0.4s							
NOA	NORSAR Array B	37.65	331	P		P	09 51 02.7	-0.6
	0.3nm,0.4s,baz=163,slow=16,SNR=3.3 0.3nm,0.4s							
ARCES	ARCESS Array B	39.49	347	P		P	09 51 18.1	-0.6
	3.6nm,0.9s,baz=104,slow=2.5,SNR=4.6 3.6nm,0.9s							
SONM	Songino Array	45.75	53	P		P	09 52 07.9	-2.0
	0.3nm,0.4s,baz=308,slow=7.1,SNR=1.5 0.3nm,0.4s							
TORD	Torodi Ar. Bea	46.92	257	P		P	09 52 21.1	+1.7
	0.7nm,0.6s,baz=19,slow=9.3,SNR=2.0 0.7nm,0.6s							
SPITS	Spitsbergen Ar	48.08	351	P		P	09 52 27.2	-0.4
	9.5nm,0.9s,baz=134,slow=9.6,SNR=4.0 9.5nm,0.9s							
KSRS	Korea Array	63.40	61	P		P	09 54 17.4	-0.6
	0.6nm,0.5s,baz=273,slow=5.9,SNR=3.7 0.6nm,0.5s							
SCHQ	Schefferville	77.12	328	P		P	09 55 41.4	-0.5
	5.4nm,0.9s,baz=45,slow=4.3,SNR=2.4 5.4nm,0.9s							
ILAR	Eielson Array	82.47	7	P		P	09 56 09.9	-0.8
	0.2nm,0.7s,baz=314,slow=4.8,SNR=4.6 0.2nm,0.7s							
YKA	Yellowknife Ar	84.58	352	P		P	09 56 20.7	-0.8
	0.4nm,0.6s,baz=16,slow=4.8,SNR=1.1 0.4nm,0.6s							
ULM	Lac du Bonnet	92.01	338	P		P	09 56 57.1	-0.2
	0.8nm,0.5s,baz=320,slow=2.0,SNR=3.5 0.8nm,0.5s							
WRA	Warramunga Arr	96.90	109	P		P	09 57 18.6	-1.6
	0.4nm,0.8s,baz=335,slow=4.6,SNR=2.2 0.4nm,0.8s							

JMA 07 09:57:08.8±0.5, 25°N±2°×123°6E±0°8, h13km, MV1.7/6, NW OFF ISHIGAKIJIMA IS, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IRIF	Iriomote-Funau	0.69	169	eP	Pg	09 57 22.0	-0.2
JISG	Ishigakijimahi	0.79	123	eP	Pg	09 57 23.7	-0.3
JIJ	Ishigaki jima	0.82	142	eP	Pg	09 57 24.1	-0.7
JIJ				eS	Sg	09 57 34.4	-1.1
JKRS	Kuro-shima	0.87	154	eP	Pb	09 57 25.6	0.0
JKRS				eS	Sg	09 57 36.6	-0.3

TAP 07 09:57:49.3, 24°54N×121°95E, h17km, ML1.8, B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESAO	Su ao	0.10	288	P	Pg	09 57 52.7	-0.1
ESAO				S	Sg	09 57 54.8	-0.3
TWC	Suao	0.11	305	P	Pb	09 57 53.1	0.0
TWC				i S	Sg	09 57 55.2	-0.2
EWUT	Wuta	0.18	238	P	Pb	09 57 54.1	-0.2
EWUT				S	Sg	09 57 57.0	+0.1
ENA	Nanau	0.22	239	i P	Pg	09 57 54.6	+0.1
ENA				eS	Sb	09 57 58.4	-0.4
NDS	Dongshan	0.23	293	P	Pg	09 57 54.8	+0.2
NDS				eS	Sg	09 57 58.4	+0.2
EOS2	EOS2	0.28	116	eP	Pb	09 57 56.6	+0.7
EOS2				eS	Sb	09 58 00.8	+0.4
EAHA	Aohua	0.29	222	i P	Pg	09 57 55.7	+0.1
EAHA				S	Sg	09 57 59.9	+0.1
ILA	Ilan	0.29	320	i P	Pb	09 57 56.1	0.0
ILA				i S	Sb	09 58 00.8	+0.2
ENTT	Nioudou	0.36	285	i P	Pg	09 57 56.9	+0.1
ENTT				S	Sg	09 58 02.2	+0.3
LATG	Datong	0.39	269	P	Pg	09 57 57.0	-0.3
LATG				S	Sb	09 58 03.5	-0.1
NWLT	Wulai	0.47	300	eP	Pg	09 57 58.3	-0.5
NWLT				S	Sb	09 58 06.5	+0.6
NACB	Ninganchiao	0.49	221	eP	Pg	09 57 58.2	-0.9
NACB				eS	Sg	09 58 05.5	-0.3
NNSB	Datong	0.53	258	P	Pg	09 58 00.1	+0.1
NNSB				eS	Sb	09 58 08.0	+0.3
NNSH	Datong	0.53	258	i P	Pg	09 57 60.0	0.0
NNSH				S	Sg	09 58 07.1	0.0
SXI1	Grass Mountain	0.55	353	P	Pb	09 58 01.4	+0.8
SXI1				eS	Sn	09 58 10.1	-1.3

*IDC **07** 10:09:20.5±1.1, 21°.53N×73°.18E, h0km, mb3.7/7, mbtmp3.7/8, ML3.8/1, Error ellipse: s-maj=32.9km s-min=19.9km az=64.0*
*NEIC **07** 10:09:22.6±1.1, 21°.5N±0°.1×73°.22E±0°.08, h10km±2km, mb3.9/9, Error ellipse: s-maj=26.6km s-min=9.3km az=200.0*
*NDI **07** 10:09:51.4±50.0, 21°.41N×72°.99E, h40km±366km, ML3.9, MW4.5, Presumed earthquake*

ISC 07 10:09:21.1±0.7, 21°.45N±0°.05×73°.29E±0°.05, h10km, n32, σ2s37/35, mb3.6/7, Southern India

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BHV	Bhavnagar	1.11	286	i P	Pb	10 09 41.9	-0.5
BHV				i S	Sb	10 09 57.1	+0.3
BHPL	Bhopal	4.22	64	i S	Sb	10 11 27.8	+1.2
AJM	Ajmer	5.11	14	i P	Pg	10 11 20.5	+22
AJM				i S	Sb	10 11 50.0	-2.0
AJM	Ajmer	5.11	14	i S	Sb	10 11 50.4	-1.7
JASL	Jaisalmer	5.87	339	i S	Sg	10 12 28.0	-1.7
JHNI	Jhansi	6.31	50	i P	Pg	10 11 36.1	+14
JHNI				i S	Sg	10 12 39.7	-4.0
HYB	Hyderabad	6.38	128	i P	Pg	10 11 35.2	+12
HYB				i S	Sg	10 12 49.9	+3.8
BKNR	BIKANER	6.55	360	i P	Pg	10 11 42.2	+16
BKNR				i S	Sb	10 12 33.6	+0.2
BKNR				i S	Sg	10 12 55.8	+4.5
AYAN	Aya Nagar	7.82	26	i P	Pg	10 12 02.8	+12
AYAN				i S	Sg	10 13 35.6	+3.4
NIL	Nilore	12.16	360	Pn	Pn	10 12 14.1	-0.4
KBL	Kabul	13.57	345	Pn	Pn	10 12 32.1	-1.9
EVN	Everest	13.89	60	Pn	Pn	10 12 36.0	-2.8
PALK	Pallekele	15.80	152	Pn	Pn	10 13 02.7	-1.2
	0.4nm,0.3s,baz=344,slow=13,SNR=1.7						
PALK				Sn	Sn	10 15 51.0	-8.3
	0.5nm,0.3s,baz=349,slow=9.8,SNR=3.5						
PALK				Lg	Lg	10 17 36.6	
	1.1nm,0.3s,baz=24,slow=20,SNR=3.6 3.1nm,0.6s						
PALK				AML	AML		
PALK	Pallekele	15.80	152	Pn	Pn	10 13 03.3	-0.6
LSA	Lhasa	18.07	59	Pn	Pn	10 13 32.3	-0.6
LSA				IAmb	IAmb	10 14 01.6	
	comp=Z,7.5nm,0.8s						
BTK	Batken	18.67	354	P	P	10 13 37.7	-1.7
BTK				IAmb	IAmb	10 13 48.7	
	comp=Z,9.0nm,1.0s						
ARSB	Arslanbob	19.82	359	P	P	10 13 52.5	+0.4
ARSB				IAmb	IAmb	10 14 01.1	
	comp=Z,7.5nm,1.4s						
NRN	Naryn	20.06	6	P	P	10 13 54.9	0.0
KDJ	Kajisay	20.88	8	P	P	10 14 04.0	+0.4
KDJ				IAmb	IAmb	10 14 16.4	
	comp=Z,5.7nm,1.0s						
KK31	Karatay Array	21.72	354	P	P	10 14 12.3	-0.1
KKAR	Karatay Array	21.72	354	P	P	10 14 13.0	+0.5
CMAR	Chiang Mai Arr	24.29	92	P	P	10 14 41.0	+2.2
	comp=Z,0.3nm,0.3s,baz=288,slow=8.7,SNR=11 comp=Z,0.3nm,0.3s						
CMAR	Chiang Mai Arr	24.29	92	P	P	10 14 39.5	+0.7
MKAR	Makanchi Array	26.32	14	P	P	10 14 55.9	-1.1
	comp=Z,0.5nm,0.8s,baz=206,slow=8.5,SNR=2.8 comp=Z,0.5nm,0.8s						
MKAR	Makanchi Array	26.32	14	P	P	10 14 56.2	-0.8
ZAA0	Zalesovo Array	33.62	12	P	P	10 16 02.8	+1.3
ZAA0				IAmb	IAmb	10 16 06.1	
	comp=Z,1.1nm,0.8s						
ZALV	Zalesovo Beam	33.62	12	P	P	10 16 02.9	+1.4
	comp=Z,0.3nm,0.4s,baz=185,slow=8.7,SNR=1.8 comp=Z,0.3nm,0.4s						
ZALV	Zalesovo Beam	33.62	12	P	P	10 16 02.5	+0.9
TORD	Torodi Ar. Bea	68.37	276	P	P	10 20 23.8	+0.4
	comp=Z,0.8nm,0.9s,baz=78,slow=6.8,SNR=3.8 comp=Z,0.8nm,0.9s						
PETK	Petropavlovsk-	69.83	40	P	P	10 20 33.1	+1.2
	comp=Z,2.4nm,0.9s,baz=245,slow=5.9,SNR=1.5 comp=Z,2.4nm,0.9s						
WRA	Warramunga Arr	72.48	120	P	P	10 20 49.9	+1.5
	comp=Z,0.4nm,1.0s,baz=309,slow=5.9,SNR=5.4 comp=Z,0.4nm,1.0s						
ASAR	Alice Springs	74.09	124	P	P	10 21 00.0	+2.1
	comp=Z,0.9nm,0.7s,baz=305,slow=5.9,SNR=12 comp=Z,0.9nm,0.7s						

*UPA **07** 10:16:29.2±1.3, 6°.54N×82°.42W, h30km±6km, MW3.6, Presumed earthquake*
*UCR **07** 10:16:30.0±1.2, 6°.67N×82°.41W, h20km±999km, MW3.7, Presumed earthquake*

ISC 07 10:16:27.1±3.7, 6°.5N±0°.1×82°.41W±0°.05, h15km±26km, n55, σ0s88/83, 1D, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTPA	Petro Terminal	1.72	345	eP	Pn	10 16 56.6	0.0
PTPM	Petroterminale	1.73	344	eP	Pn	10 16 56.8	+0.2
PTPM				eS	Sn	10 17 17.2	-1.3
REME3	Remedios, Chir	1.79	19	eP	Pn	10 16 57.3	-0.1
REME3				eS	Sn	10 17 19.6	-0.3
MARI3	Mariato, Verag	1.80	52	eP	Pn	10 16 57.7	+0.1
MARI3				eS	Sn	10 17 19.7	-0.5
DVD	David	1.90	359	eP	Pn	10 16 58.7	-0.2
DVD				eS	Sn	10 17 21.0	-1.6
RSUS3	Rio de Jesus,	1.91	41	eP	Pn	10 16 59.2	+0.1
RSUS3				eS	Sn	10 17 22.7	-0.1
BAGA3	Bagala, Chiriq	1.93	357	eP	Pb	10 17 01.3	-0.7
BAGA3				eS	Sn	10 17 23.7	+0.2
BGUAL	Bijagual, Pana	1.97	2	eP	Pn	10 17 00.1	+0.2
BGUAL	Bijagual, Pana	1.97	2	eP	Pn	10 17 00.5	+0.5
BGUAL				eS	Sb	10 17 26.8	-0.3
PIRO	Carate, Puerto	2.08	334	eP	Pn	10 17 00.5	-0.9
PIRO	Carate, Puerto	2.08	334	eP	Pn	10 17 00.5	-0.9
PIRO				eS	Sn	10 17 26.0	-1.1
CDITO	Canoas	2.08	347	eP	Pn	10 17 01.2	-0.4
CDITO				eS	Sn	10 17 27.2	-0.1
STIA3	Santiago, Vera	2.12	42	eP	Pn	10 17 03.0	+1.0
STIA3				eS	Sn	10 17 28.1	0.0
TOSI3	Tonosi	2.14	66	eP	Pn	10 17 02.5	+0.2
PSOM3	Paja de Sombre	2.15	2	eP	Pn	10 17 03.0	+0.6
PSOM3				eS	Sn	10 17 28.3	-0.5
PTAR3	Potrerillos Ar	2.15	358	eP	Pn	10 17 03.7	+1.1
PTAR3				eS	Sn	10 17 29.0	-0.2
NELY	Ciudad Neily	2.18	346	eP	Pn	10 17 02.5	-0.2
NELY	Ciudad Neily	2.18	346	eP	Pn	10 17 02.6	-0.2
NELY				eS	Sn	10 17 29.4	-0.1
BQSF3	Alto Boquete,	2.20	359	eP	Pn	10 17 03.7	+0.5
BQSF3				eS	Sn	10 17 30.1	-0.2
FITO	Golfito	2.21	341	eP	Pn	10 17 02.4	-0.9
FITO	Golfito	2.21	341	eP	Pn	10 17 02.4	-0.9
FITO				eS	Sn	10 17 29.0	-1.3
BQTLY	Boquete Panama	2.22	359	eP	Pn	10 17 03.7	+0.2
BQTLY	Boquete Panama	2.22	359	eP	Pn	10 17 03.7	+0.2
BQTLY				eS	Sn	10 17 32.7	+1.9
LNBQ3	Los Naranjos,	2.25	359	eP	Pn	10 17 04.8	+0.9
LNBQ3				eS	Sn	10 17 30.8	-0.8
BRU2	Volcan	2.27	353	eP	Pn	10 17 06.0	+1.8
BRU2				eS	Sn	10 17 31.6	-0.5
MLIR3	Monte Lirio, C	2.29	350	eP	Pn	10 17 05.2	+0.7
MLIR3				eS	Sn	10 17 32.2	-0.2
SCLRA	Santa Clara, W	2.32	351	eP	Pn	10 17 05.5	+0.5
SCLRA	Santa Clara, W	2.32	351	eP	Pn	10 17 05.4	+0.5
SCLRA				eS	Sn	10 17 35.3	+2.0
VITO	San Vito	2.34	346	eP	Pn	10 17 05.9	+0.7
VITO	San Vito	2.34	346	eP	Pn	10 17 05.9	+0.7
VITO				eS	Sn	10 17 33.9	+0.1
RBALA	Bur	2.35	6	eP	Pn	10 17 05.7	+0.5
RBALA	Bur	2.35	6	eP	Pn	10 17 05.9	+0.7
RBALA				eS	Sn	10 17 35.3	+1.5
SAFE3	Santa Fe, Vera	2.38	34	eP	Pn	10 17 06.3	+0.7
SAFE3				eS	Sn	10 17 34.8	+0.3
CTCR	Cotoan	2.38	352	eP	Pn	10 17 06.9	+1.1
CTCR				eS	Sn	10 17 34.6	-0.2
CHIT3	Chitre	2.44	54	eP	Pn	10 17 06.9	+0.6
CHIT3				eS	Sn	10 17 35.5	-0.4
AZU	Azuero	2.47	59	eP	Pn	10 17 07.2	+0.5
AZU	Azuero	2.47	59	i P	Pn	10 17 07.3	+0.5
AZU				eS	Sn	10 17 35.6	-1.0
EDP2	Potrero Grande	2.59	343	eP	Pn	10 17 09.2	+0.7
FIMO	Fila Mora	2.62	339	eP	Pn	10 17 09.6	+0.6
EDPE	Pejibaye, P	2.86	336	eP	Pn	10 17 12.6	+0.4
ABE2	San Pablo	3.55	333	eP	Pn	10 17 22.9	+0.9
LCR2	La Lucha 2	3.56	334	eP	Pn	10 17 22.9	+0.8
LCR2	La Lucha 2	3.56	334	eP	Pn	10 17 22.9	+0.8
LCR2				eS	Sn	10 18 03.9	-0.2
BCIP	Isla Barro Col	3.66	44	eP	Pn	10 17 24.1	+0.9
BCIP	Isla Barro Col	3.66	44	eP	Pn	10 17 24.6	+1.4
BCIP				eS	Sn	10 18 05.1	-1.0
VTCV	VTCV, Calle Va	3.67	339	eP	Pn	10 17 24.7	+1.1
CVTQ	Turrialba Volc	3.71	339	eP	Pn	10 17 25.5	+1.4
VTR0	Volcan Turrial	3.72	339	eP	Pn	10 17 25.7	+1.3
VICA	Volcano Irazu	3.72	338	eP	Pn	10 17 25.5	+1.1
CVTR	Volcan Turrial	3.72	339	eP	Pn	10 17 25.7	+1.3
FRIJ	El Hiral	3.77	45	eP	Pn	10 17 25.9	+1.1
HDC	Heredia	3.84	334	eP	Pn	10 17 27.2	+1.3
JTS	Las Juntas de	4.51	326	eP	Pn	10 17 36.2	+1.3
CEDE	Laguna Cedeo	4.54	330	eP	Pn	10 17 37.1	+1.7
CUI	Cuipilapa	4.92	327	eP	Pn	10 17 42.4	+1.7

*IDC **07** 10:30:29.4±0.5, 32°.39N×141°.65E, h0km, mb4.0/18, mbtmp4.0/22, ML4.2/3, Error ellipse: s-maj=18.7km s-min=10.1km az=75.0*
*NEIC **07** 10:30:30.2±1.1, 32°.32N±0°.07×141°.9E±0°.1, h10km±1km, mb4.5/13, Error ellipse: s-maj=16.7km s-min=11.3km az=246.0*
*JMA **07** 10:30:33.6±0.3, 32°.5N±1°.0×14°.2E±°, h70km, MV3.7/42, E OFF HACHIJOJIMA ISLAND*

ISC 07 10:30:35.0±0.6, 32°.51N±0°.07×141°.78E±0°.08, h39km, n70, σ1s45/73, mb4.0/25, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAOM	Aogashimamukai	1.71	269	eP	Pn	10 31 03.2	+1.0
JHJ2	Mitsune	1.76	290		Pn	10 31 02.9	0.0
JHJ2	Mitsune	1.76	290	eP	Pn	10 31 03.0	0.0
JHCJ	Hachijojimakas	1.76	289	eP	Pn	10 31 03.0	0.0
BSO1	Boso 1	2.24	343	P	Pn	10 31 09.3	+0.3
BSO1				eS	Sn	10 31 38.8	+3.6
BSO3	Boso 3	2.52	335	eP	Pn	10 31 13.5	+0.4
JSG	Sagara	3.69	307	Pn	Pn	10 31 29.1	-0.5
JHU2	Hanno	3.91	329	eP	Pn	10 31 33.8	+1.2
JYT	Yasato	3.93	341	eP	Pn	10 31 33.3	+0.5
JHO	Hitachi	4.21	347	eP	Pn	10 31 36.1	-0.5
JRY	Ryogami san	4.23	326	P	Pn	10 31 38.7	+1.7
JAG	Ashikaga	4.35	334	eP	Pn	10 31 39.2	+0.7
JAG				eS	Sn	10 32 28.8	+0.8
JGF	Kuroka	4.79	311		Pn	10 31 43.9	-0.8
INU	Inuyama	4.87	307	Pn	Pn	10 31 44.5	-1.2
JFK	Kawauchi	4.90	351	P	Pn	10 31 44.9	-1.3
JFK				eS	Sn	10 32 39.2	-2.3
JKN2	Miekihoku	4.92	292	eP	Pn	10 31 48.9	+2.5
MJAR	Matsushiro Arr	4.98	325	Pn	Pn	10 31 46.9	-0.4
	3.5nm,0.4s,baz=224,slow=8.4,SNR=39						
MJAR				Sn	Sn	10 32 37.8	-5.9
	0.4nm,0.3s,baz=144,slow=15,SNR=4.2						
MJAR	Matsushiro Arr	4.98	325		Pn	10 31 48.0	+0.7
MAJO	Matsushiro	4.99	325	Pn	Pn	10 31 48.3	+1.0
JCJ	Chichijima	5.41	176	Pn	Pn	10 31 46.7	-6.5
	23nm,0.3s,baz=109,slow=21,SNR=25						
JCJ				Sn	Sn	10 32 40.7	-13
	11nm,0.3s,baz=279,slow=21,SNR=3.7 53nm,0.3s						
JCJ				AML	AML		
JCJ	Chichijima	5.41	176		Pn	10 31 47.0	-6.1
JTM	Tenmabayashi	8.28	356	Pn	Pn	10 32 31.6	-0.8
ERM	Erimo	9.55	6	Pn	Pn	10 32 48.9	-0.9
ASAJ	Asahikawa	11.60	3	Pn	Pn	10 33 15.0	-3.0
	1.8nm,0.3s,baz=228,slow=8.3,SNR=12 4.4nm,0.4s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	11.60	3		Pn	10 33 14.1	-3.8
KLR	Kul'dur	18.31	339	P	P	10 34 43.9	-1.8
	0.6nm,0.3s,baz=184,slow=6.1,SNR=10 2.1nm,0.5s						
KLR				AML	AML		
SONM	Songino Array	30.75	310	P	P	10 36 46.9	+0.2
	1.3nm,0.6s,baz=117,slow=10,SNR=7.1 1.3nm,0.6s						
ZALV	Zalesovo Beam	45.27	316	P	P	10 38 48.4	-0.1
	0.4nm,0.3s,baz=58,slow=9.0,SNR=2.8						
ZALV				PcP	PcP	10 40 28.3	+0.5
	0.9nm,0.5s,baz=66,slow=3.5,SNR=4.3 0.4nm,0.3s						
ZALV	Zalesovo Beam	45.27	316	P	P	10 38 48.6	+0.1
MKAR	Makanchi Array	46.89	306	P	P	10 39 01.6	+0.1
	1.5nm,0.6s,baz=86,slow=9.1,SNR=8.9 1.5nm,0.6s						
MKAR	Makanchi Array	46.89	306		P	10 39 01.4	-0.1
M16K	Timber Creek	47.35	35	P	P	10 39 04.1	-0.6
M16K				IAmb	IAmb	10 39 12.4	
	comp=Z,5.6nm,1.2s						
KURK	Kurchatov	49.05	311	P	P	10 39 18.5	+0.5
KURK				IAmb	IAmb	10 39 34.5	
	comp=Z,2.3nm,0.8s						
KURBB	Kurchatov Arra	49.11	311	P	P	10 39 18.6	+0.2
	comp=Z,0.7nm,0.5s,baz=89,slow=7.8,SNR=8.8 comp=Z,0.7nm,0.5s						
GHO	Glory Hole Cre	52.22	34	P	P	10 39 42.1	+0.3
GHO				IAmb	IAmb	10 39 45.0	
	comp=Z,5.0nm,1.0s						
WB0	Warramunga Arr	52.46	189	P	P	10 39 43.2	-0.8
WB0				IAmb	IAmb	10 39 43.9	
	comp=Z,6.5nm,0.8s						
WRAB	Tennant Creek	52.63	189	P	P	10 39 43.1	-2.1
WRAB				IAmb	IAmb	10 40 06.9	
	comp=Z,6.3nm,1.1s						
WRA	Warramunga Arr	52.64	189	P	P	10 39 43.9	-1.4
	comp=Z,5.0nm,0.7s,baz=5.0,slow=7.5,SNR=64 comp=Z,5.0nm,0.7s						
WRA	Warramunga Arr	52.64	189		P	10 39 41.8	-3.5
IL31		53.19	30	P	P	10 39 48.6	-0.1
ILAR	Eielson Array	53.19	30	P	P	10 39 49.5	+0.6
	comp=Z,1.7nm,0.8s,baz=261,slow=6.7,SNR=19 comp=Z,1.7nm,0.8s						
ILAR	Eielson Array	53.19	30	P	P	10 39 48.7	-0.2
BVAR	Borovoye Array	53.90	315	P	P	10 39 54.9	+0.6
	comp=Z,0.5nm,0.3s,baz=102,slow=6.2,SNR=1.6 comp=Z,0.5nm,0.3s						
I28M	Miner Creek	56.10	30	P	P	10 40 09.9	-0.2
I28M				IAmb	IAmb	10 40 13.4	
	comp=Z,2.2nm,0.8s						
ASAR	Alice Springs	56.37	189	P	P	10 40 10.8	-1.6
	comp=Z,0.8nm,0.8s,baz=2.4,slow=6.2,SNR=14 comp=Z,0.8nm,0.8s						
ASAR	Alice Springs	56.37	189	P	P	10 40 09.6	-2.8
EPYK	Eagle Plains	57.32	28	P	P	10 40 18.2	-0.5
F30M	Barrier River	57.54	27	P	P	10 40 20.1	0.0
F30M				IAmb	IAmb	10 40 45.0	
	comp=Z,9.6nm,1.1s						
YKA	Yellowknife Ar	67.58	29	P	P	10 41 28.2	+1.1
	comp=Z,0.7nm,0.6s,baz=307,slow=7.0,SNR=4.5 comp=Z,0.7nm,0.6s						
YKA	Yellowknife Ar	67.58	29	P	P	10 41 27.9	+0.7
YKAW1	Yellowknife Wh	67.63	29	P	P	10 41 27.9	+0.4
FINES	FINESS Array B	72.96	333	P	P	10 42 00.7	+0.6
	comp=Z,1.8nm,0.9s,baz=145,slow=3.4,SNR=5.1 comp=Z,1.8nm,0.9s						
FINES	FINESS Array B	72.96	333	P	P	10 42 01.1	+1.1
NVAR	Mina Array Bea	77.47	52	P	P	10 42 27.9	+1.1
	comp=Z,0.9nm,0.7s,baz=312,slow=5.1,SNR=5.7 comp=Z,0.9nm,0.7s						
NVAR	Mina Array Bea	77.47	52	P	P	10 42 26.0	-0.8
AK

ESAO	**Su ao**	**0.79**	**301**	*i* P	**Pb**	**10 54 09.4**	**-0.5**
ESAO				*i* S	**Sb**	**10 54 20.1**	**-0.2**
EAHA	**Aohua**	**0.79**	**282**	P	**Pb**	**10 54 10.1**	**+0.1**
EAHA				*e*S	**Sn**	**10 54 21.9**	**-0.3**
TWC	**Suao**	**0.81**	**303**	*i* P	**Pb**	**10 54 09.6**	**-0.6**
TWC				*i* S	**Sb**	**10 54 20.3**	**-0.3**
ENA	**Nanau**	**0.82**	**288**	P	**Pb**	**10 54 09.9**	**-0.4**
ENA				S	**Sg**	**10 54 21.4**	**-0.3**
NACB	**Ninganchiao**	**0.91**	**270**	*e*P	**Pb**	**10 54 12.3**	**+0.4**
NACB				*e*S	**Sn**	**10 54 26.1**	**+1.0**
TWD	**Chiawan**	**0.91**	**265**	P	**Pn**	**10 54 12.5**	**-0.1**
TWD				S	**Sn**	**10 54 25.8**	**+0.6**
NDS	**Dongshan**	**0.92**	**300**	*e*P	**Pb**	**10 54 12.3**	**+0.2**
NDS				*e*S	**Sn**	**10 54 25.1**	**-0.3**
ILA	**Ilan**	**0.97**	**308**	P	**Pb**	**10 54 12.2**	**-0.8**
ILA				S	**Sb**	**10 54 24.9**	**-0.5**
ETLH	**Xiulin Townshi**	**1.01**	**272**	P	**Pb**	**10 54 13.9**	**+0.1**
ETLH				S	**Sg**	**10 54 29.0**	**+1.1**
SHUL	**Shoufeng**	**1.01**	**248**	P	**Pb**	**10 54 13.3**	**-0.5**
SHUL				S	**Sb**	**10 54 27.1**	**+0.4**
ETM	**Tongmen**	**1.02**	**259**	P	**Pb**	**10 54 13.7**	**-0.2**
ETM				*e*S	**Sg**	**10 54 29.4**	**+1.2**
LATG	**Datong**	**1.04**	**291**	*e*P	**Pb**	**10 54 14.3**	**+0.1**
LATG				*e*S	**Sb**	**10 54 27.0**	**-0.4**
ENTT	**Nioudou**	**1.04**	**297**	*e*P	**Pn**	**10 54 14.5**	**+0.1**
ENTT				S	**Sn**	**10 54 28.4**	**-0.1**
IRIF	**Iriomote-Funau**	**1.05**	**81**	*e*P	**Pb**	**10 54 14.6**	**+0.2**
TIPB	**Shuangxi**	**1.06**	**319**	*e*P	**Pg**	**10 54 15.9**	**+0.5**
TIPB				*e*S	**Sg**	**10 54 29.6**	**+0.2**
NDT	**Datong Townshi**	**1.07**	**294**	P	**Pn**	**10 54 15.0**	**+0.2**
NDT				S	**Sg**	**10 54 29.5**	**-0.3**
FUSB	**Fushanzhiwuyua**	**1.09**	**303**	P	**Pn**	**10 54 15.4**	**+0.3**
SXI1	**Grass Mountain**	**1.13**	**325**	P	**Pb**	**10 54 15.7**	**-0.1**
SXI1				S	**Sn**	**10 54 30.3**	**-0.3**
NNSB	**Datong**	**1.13**	**283**	P	**Pb**	**10 54 16.1**	**+0.2**
NNSB				S	**Sn**	**10 54 30.8**	**0.0**
NNSH	**Datong**	**1.13**	**283**	P	**Pb**	**10 54 16.2**	**+0.3**
NNSH				S	**Sn**	**10 54 30.9**	**+0.1**
NNS	**Nan Shan**	**1.14**	**284**	P	**Pb**	**10 54 16.2**	**+0.2**
NNS				S	**Sn**	**10 54 31.3**	**+0.2**
NWLT	**Wulai**	**1.16**	**302**	*e*P	**Pg**	**10 54 16.9**	**-0.4**
NWLT				*e*S	**Sn**	**10 54 31.6**	**+0.2**
WARBT	**Fenglin Townsh**	**1.19**	**248**	P	**Pn**	**10 54 15.4**	**-1.0**
WARBT				S	**Sb**	**10 54 31.6**	**-0.2**
WHF	**Hehuan Shan**	**1.21**	**269**	P	**Pn**	**10 54 17.1**	**0.0**
WHF				S	**Sn**	**10 54 33.9**	**+0.7**
YHNB	**Yeheng**	**1.21**	**294**	*i* P	**Pb**	**10 54 17.8**	**+0.5**
YHNB				*i* S	**Sn**	**10 54 33.0**	**+0.3**
TWA	**Mucha**	**1.22**	**312**	P	**Pn**	**10 54 15.8**	**-1.0**
TWA				S	**Sn**	**10 54 32.8**	**-0.1**
NSK	**Sanguang**	**1.23**	**294**	P	**Sn**	**10 54 16.9**	**-0.1**
NSK				S	**Sn**	**10 54 33.5**	**+0.4**
FUSS	**Fushou**	**1.23**	**274**	P	**Pb**	**10 54 17.9**	**+0.3**
FUSS				*e*S	**Sg**	**10 54 35.5**	**+0.5**
HGSD	**Ruisui**	**1.26**	**238**	P	**Pn**	**10 54 16.5**	**-0.9**
HGSD				*e*S	**Sg**	**10 54 36.0**	**+0.1**
TWT	**Tachien**	**1.29**	**274**	P	**Pb**	**10 54 19.0**	**+0.3**
TWT				*e*S	**Sg**	**10 54 37.0**	**+0.1**
JKRS	**Kuro-shima**	**1.30**	**87**	*e*P	**Pb**	**10 54 18.8**	**+0.2**
JKRS				*e*S	**Sg**	**10 54 36.8**	**-0.1**
OWD	**Renai**	**1.31**	**261**	*e*P	**Pn**	**10 54 18.3**	**+0.1**
OWD				*i* S	**Sn**	**10 54 35.1**	**-0.2**
EHYH	**Wanrong**	**1.32**	**240**	*e*P	**Pn**	**10 54 18.0**	**-0.3**
EHYH				*e*S	**Sn**	**10 54 35.0**	**-0.4**
WUSB	**Renai**	**1.36**	**263**	P	**Pn**	**10 54 19.1**	**+0.2**
WUSB				S	**Sn**	**10 54 36.0**	**-0.4**
YM08	**YM08**	**1.36**	**318**	P	**Pn**	**10 54 18.4**	**-0.4**
YM08				S	**Sb**	**10 54 36.6**	**-0.2**
VWDT	**VWDT**	**1.39**	**253**	P	**Pn**	**10 54 19.6**	**+0.4**
VWDT				S	**Sn**	**10 54 37.5**	**+0.6**
YULB	**Yu-li**	**1.42**	**237**	P	**Pn**	**10 54 18.9**	**-0.6**
YULB				*e*S	**Sn**	**10 54 36.8**	**-0.9**
NFF	**Wufeng Townshi**	**1.42**	**289**	P	**Pb**	**10 54 20.3**	**-0.4**
NFF				S	**Sb**	**10 54 38.6**	**+0.2**
KSHI	**Guanxi Townshi**	**1.42**	**295**	P	**Pn**	**10 54 20.2**	**+0.5**
KSHI				S	**Sb**	**10 54 39.1**	**+0.6**
EYUL	**Yuli**	**1.42**	**235**	P	**Pn**	**10 54 19.1**	**-0.6**
EYUL				S	**Sn**	**10 54 37.7**	**-0.1**
JIJ	**Ishigaki jima**	**1.43**	**82**	*e*P	**Pn**	**10 54 19.9**	**+0.2**
JIJ				*e*S	**Sn**	**10 54 38.1**	**+0.1**
TWF1	**Yuli**	**1.44**	**236**	P	**Pn**	**10 54 19.3**	**-0.5**
TWF1				S	**Sn**	**10 54 38.1**	**-0.1**
CHKH	**Chenggong**	**1.47**	**229**	*e*P	**Pb**	**10 54 22.6**	**+1.1**
CHKH				*e*S	**Sb**	**10 54 41.5**	**+1.8**
LIOB	**Emei**	**1.51**	**289**	*e*P	**Pg**	**10 54 23.3**	**-0.7**
LIOB				*e*S	**Sg**	**10 54 43.0**	**-0.8**
NSTT	**Nanjuang**	**1.52**	**288**	P	**Pb**	**10 54 22.4**	**0.0**
NSTT				S	**Sg**	**10 54 42.8**	**-1.2**
WCS	**Beigang Elemen**	**1.54**	**266**	*e*P	**Pb**	**10 54 22.8**	**+0.1**
WCS				*e*S	**Sb**	**10 54 43.3**	**+1.5**
SSLB	**Suanglung**	**1.54**	**256**	P	**Pn**	**10 54 21.0**	**-0.3**
SSLB				*e*S	**Sn**	**10 54 41.3**	**+0.4**
CHKT	**Chengkung**	**1.55**	**227**	*e*P	**Pn**	**10 54 21.9**	**+0.6**
CHKT				S	**Sn**	**10 54 39.9**	**-1.0**
SMLT	**Sun Moon Lake**	**1.57**	**260**	P	**Pb**	**10 54 23.1**	**-0.3**
SMLT				*e*S	**Sb**	**10 54 43.8**	**+0.9**
TYC	**Yuchr**	**1.61**	**261**	P	**Pb**	**10 54 23.3**	**-0.6**
TYC				*e*S	**Sb**	**10 54 44.0**	**+0.2**
WHYT	**Xinyi Township**	**1.66**	**254**	P	**Pn**	**10 54 23.6**	**+0.7**
WHYT				*e*S	**Sb**	**10 54 46.7**	**+1.4**
TWQ1	**Liyutan**	**1.67**	**276**	*e*P	**Pb**	**10 54 24.3**	**-0.6**
TWQ1				*e*S	**Sb**	**10 54 45.7**	**+0.1**
ELDTW	**Lidau**	**1.74**	**236**	P	**Pn**	**10 54 23.8**	**-0.6**
ELDTW				S	**Sn**	**10 54 44.5**	**-1.4**
ALS	**Alishan**	**1.76**	**248**	P	**Pn**	**10 54 25.5**	**+1.0**
ALS				*e*S	**Sb**	**10 54 48.8**	**+0.2**
CHN5	**Tsauling**	**1.84**	**252**	P	**Pn**	**10 54 26.8**	**+1.3**
CHN5				*e*S	**Sb**	**10 54 52.1**	**+1.5**
TWGBT	**Beinan**	**1.93**	**226**	P	**Pn**	**10 54 27.0**	**+0.3**
STYH	**Taoyuan**	**1.94**	**239**	P	**Pn**	**10 54 27.1**	**+0.4**
STYH				*e*S	**Sb**	**10 54 53.1**	**-0.2**
STYT	**Tauyuan**	**1.96**	**240**	*e*P	**Pb**	**10 54 29.7**	**-0.2**
WCKO	**Fanlu**	**1.96**	**249**	P	**Pb**	**10 54 29.1**	**-0.8**
WCKO				S	**Sb**	**10 54 54.4**	**+0.4**
TPUB	**Ta-pu**	**2.00**	**245**	*e*P	**Pb**	**10 54 29.8**	**-0.7**
TPUB				*e*S	**Sb**	**10 54 55.1**	**+0.2**
CHN4	**Tsaushan**	**2.00**	**246**	P	**Pb**	**10 54 29.6**	**-1.0**
CHN4				S	**Sb**	**10 54 55.6**	**+0.4**
WTP	**Ta-pu**	**2.03**	**243**	P	**Sn**	**10 54 29.3**	**+1.2**
WTP				S	**Sb**	**10 54 55.1**	**-0.3**
TWK	**Hsinying**	**2.13**	**245**	*e*P	**Pn**	**10 54 31.3**	**+1.9**
TWK				*e*S	**Sb**	**10 54 58.5**	**-0.3**
CHN1	**Nanshi**	**2.13**	**243**	*e*P	**Pb**	**10 54 31.8**	**-1.0**
CHN1				*e*S	**Sb**	**10 54 59.7**	**+0.9**
SGST	**Jiashian**	**2.14**	**240**	*e*P	**Pb**	**10 54 32.0**	**-0.9**
SGST				*e*S	**Sb**	**10 54 58.7**	**-0.3**
SNST	**Tainan City**	**2.14**	**244**	*e*P	**Pb**	**10 54 31.8**	**-1.1**
SNST				*e*S	**Sb**	**10 54 58.7**	**-0.4**
WSL	**Shuilin Townsh**	**2.26**	**254**	P	**Pn**	**10 54 33.2**	**+2.1**
WSL				*e*S	**Sb**	**10 55 00.8**	**-1.7**
SSD	**Sandimen**	**2.29**	**232**	*e*P	**Pb**	**10 54 34.4**	**-1.2**
SSD				*e*S	**Sb**	**10 55 03.5**	**0.0**
TSMG	**Majia**	**2.31**	**231**	*e*P	**Pb**	**10 54 34.5**	**-1.3**
TSMG				*e*S	**Sb**	**10 55 03.7**	**-0.2**
SCST	**Cishan**	**2.31**	**237**	P	**Pb**	**10 54 34.5**	**-1.3**
SCST				*e*S	**Sb**	**10 55 03.7**	**-0.3**

IDC 07 11:20:20.2±2.1, 6°04'S×130°12'E, h0km, mb3.7/1, mbtmp3.6/4, ML3.5/3, Error ellipse: s-maj=55.1km s-min=22.0km az=75.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.76**	**200**	Pn	Pn	11 23 16.3	-6.7
	0.1nm,0.3s,baz=20,slow=10,SNR=8.5						
FITZ				Sn	Sn	11 25 18.1	-28
	0.2nm,0.3s,baz=31,slow=12,SNR=1.8						
	1.4nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.42**	**164**	Pn	Pn	11 23 41.1	-4.6
	0.3nm,0.3s,baz=347,slow=11,SNR=13						
WRA				Sn	Sn	11 26 07.7	-19
	0.5nm,0.3s,baz=347,slow=21,SNR=6.9						
	0.3nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.90**	**169**	Pn	Pn	11 24 26.1	-4.7
	0.2nm,0.3s,baz=347,slow=11,SNR=20						
ASAR				Sn	Sn	11 27 29.4	-22
	0.1nm,0.3s,baz=347,slow=25,SNR=2.2						
	1.3nm,0.7s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.49**	**327**	P	P	11 31 18.1	0.0
	0.5nm,0.5s,baz=117,slow=6.7,SNR=3.2						
	0.5nm,0.5s						

*ATH **07** 11:36:08.4, 37°.85N×27°.02E, h10km±2km, ML3.3/8,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
*ISK **07** 11:36:08.5, 37°.88N×26°.97E, h10km, ML3.4/21*
*AFAD **07** 11:36:08.7, 37°.89N×26°.99E, h7km±1km, ML3.2*
*THE **07** 11:36:09.1, 37°.9N±0°.7×27°.0E±0°.8, h7km±2km, M3.2/7, MLh3.2/7*

ISC 07 11:36:08.9±0.8, 37°.88N±0°.01×26°.98E±0°.02, h10km±6km, n71, σ0s.85/110, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.19**	**336**	P	**Pg**	**11 36 12.9**	**-0.1**
DGB				S	**Sg**	**11 36 15.7**	**-0.1**
DGB				IAML		11 36 16.0	
	comp=N,3μm,0.3s						
DGB				IAML		11 36 16.0	
	comp=E,4μm,0.1s						
SMG	**Samos**	**0.20**	**214**	P	**Pg**	**11 36 13.0**	**-0.1**
SMG				S	**Sg**	**11 36 16.6**	**+0.6**
SMG				AML	AML		
SMG	**Samos**	**0.20**	**214**	P	**Pg**	**11 36 12.9**	**-0.3**
SMG				S	**Sg**	**11 36 15.9**	**-0.1**
GMLD	**Gumuldur**	**0.21**	**346**	Pg	**Pg**	**11 36 13.3**	**0.0**
GMLD				Sg	**Sg**	**11 36 16.8**	**+0.6**
KRL1	**Karlovasi Samo**	**0.23**	**250**	P	**Pg**	**11 36 13.7**	**0.0**
KRL1				S	**Sg**	**11 36 17.5**	**+0.7**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**93**	Pg	**Pg**	**11 36 14.2**	**+0.3**
KUSD				Sg	**Sg**	**11 36 18.1**	**+0.9**
GCAM	**G?zelcaml?**	**0.27**	**131**	P	**Pg**	**11 36 14.5**	**+0.2**
GCAM				S	**Sg**	**11 36 18.6**	**+0.7**
GCAM				IAML		11 36 19.0	
	comp=N,10μm,0.3s						
GCAM				IAML		11 36 19.0	
	comp=E,6μm,0.3s						
GCAM	**G?zelcaml?**	**0.27**	**131**	Pg	**Pg**	**11 36 14.6**	**+0.3**
GCAM				Sg	**Sg**	**11 36 18.6**	**+0.7**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.32**	**248**	P	**Pg**	**11 36 14.9**	**-0.3**
SAM2				S	**Sg**	**11 36 19.8**	**+0.3**
SAM2				AML	AML		
BEYE	**izmir**	**0.35**	**353**	P	**Pg**	**11 36 15.8**	**-0.2**
BEYE				IAML		11 36 21.0	
	comp=N,3μm,0.3s						
BEYE				IAML		11 36 21.0	
	comp=E,2μm,0.2s						
BEYE				S	**Sg**	**11 36 21.1**	**+0.4**
DDIM	**Aydin, Didim**	**0.47**	**154**	P	**Pg**	**11 36 18.2**	**+0.1**
DDIM				IAML		11 36 25.0	
	comp=N,2μm,0.3s						
DDIM				S	**Sb**	**11 36 25.7**	**-0.5**
DDIM				IAML		11 36 26.0	
	comp=E,1μm,0.5s						
DUVT	**Torbali**	**0.51**	**47**	P	**Pg**	**11 36 18.4**	**-0.4**
DUVT				S	**Sg**	**11 36 25.2**	**-0.2**
DUVT				IAML		11 36 28.0	
	comp=E,1μm,0.2s						
BLCB	**Balcova**	**0.51**	**5**	P	**Pg**	**11 36 18.8**	**-0.1**
BLCB				S	**Sg**	**11 36 26.1**	**+0.4**
BLCB	**Balcova**	**0.51**	**5**	Pg	**Pg**	**11 36 18.8**	**-0.1**
ZEYE	**Izmir, Urla-Ze**	**0.52**	**314**	P	**Pg**	**11 36 19.0**	**-0.1**
ZEYE				IAML		11 36 26.0	
	comp=N,3μm,0.4s						
ZEYE				S	**Sg**	**11 36 26.7**	**+0.7**
ZEYE				IAML		11 36 27.0	
	comp=E,2μm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.72**	**84**	Pg	**Pb**	**11 36 23.6**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.74**	**106**	P	**Pg**	**11 36 23.1**	**-0.2**
BAGT	**Foa**	**0.79**	**353**	P	**Pg**	**11 36 23.4**	**-0.7**
BAGT				S	**Sb**	**11 36 34.7**	**-0.7**
BAGT				IAML		11 36 35.0	
	comp=E,2μm,0.4s						
BAGT				IAML		11 36 38.0	
	comp=N,2μm,0.7s						
YKAV	**Yalikavak-Bodr**	**0.79**	**162**	Pg	**Pb**	**11 36 24.5**	**-0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**335**	Pg	**Pb**	**11 36 24.4**	**-0.4**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.81**	**71**	P	**Pg**	**11 36 23.9**	**-0.6**
BODT	**Bodrum**	**0.85**	**162**	P	**Pg**	**11 36 25.1**	**-0.2**
BODT				S	**Sb**	**11 36 37.9**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**162**	Pg	**Pg**	**11 36 25.3**	**-0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**132**	Pg	**Pb**	**11 36 25.8**	**-0.2**
MLSB				AML	AML		
FOCM	**Foa**	**0.86**	**347**	Pg	**Pg**	**11 36 25.3**	**-0.2**
FOCM				AML	AML		
BDRM	**Kayabasi**	**0.89**	**155**	P	**Pg**	**11 36 25.4**	**-0.6**
BDRM				S	**Sn**	**11 36 39.9**	**-0.7**
BDRM				IAML		11 36 42.0	
	comp=N,499nm,0.4s						
CHOS	**Chios island**	**0.89**	**305**	P	**Pb**	**11 36 26.5**	**-0.1**
CHOS				S	**Sb**	**11 36 38.9**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	Pg	**Pg**	**11 36 26.1**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	P	**Pg**	**11 36 25.9**	**-0.3**
CHOS				S	**Sb**	**11 36 39.0**	**+0.4**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**331**	P	**Pg**	**11 36 26.3**	**-0.1**
KARB				S	**Sb**	**11 36 39.0**	**+0.1**
KARB				IAML		11 36 41.0	
	comp=N,1μm,0.6s						
KARB				IAML		11 36 41.0	
	comp=E,2μm,0.7s						
CAMT	**Merkez**	**0.91**	**17**	P	**Pg**	**11 36 26.1**	**-0.4**
CAMT				S	**Sn**	**11 36 40.7**	**-0.4**
CAMT				IAML		11 36 41.0	
	comp=N,3μm,0.5s						
CAMT				IAML		11 36 42.0	
	comp=E,2μm,0.6s						
BODA	**Bodrum-Mula**	**0.91**	**157**	Pg	**Pb**	**11 36 26.6**	**-0.3**
KLNA	**Kalymnos**	**0.92**	**180**	P	**Pg**	**11 36 25.8**	**-0.8**
KLNA				AML	AML		
EAG2	**Marmaro, Chios**	**0.96**	**314**	P	**Pb**	**11 36 27.5**	**-0.1**
EAG2				S	**Sb**	**11 36 40.6**	**+0.2**
NAZL	**Nazilli-Aydin**	**1.04**	**85**	Pg	**Pb**	**11 36 28.9**	**-0.2**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.08**	**94**	P	**Pb**	**11 36 29.5**	**-0.3**
ESEN				S	**Sn**	**11 36 47.1**	**+1.8**
ZEDA	**zmir-Bergama**	**1.09**	**4**	P	**Pg**	**11 36 28.4**	**-1.6**
ZEDA				S	**Sn**	**11 36 46.3**	**+0.8**
ZEDA				IAML		11 36 48.0	
	comp=E,1μm,0.5s						
ZEDA				IAML		11 36 49.0	
	comp=N,1μm,0.4s						
GOMA	**Golmarmara-Man**	**1.11**	**41**	Pn	**Pn**	**11 36 30.5**	**-0.1**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.17**	**74**	P	**Pb**	**11 36 29.2**	**-2.0**
KIRA				S	**Sb**	**11 36 46.4**	**-0.1**
KTTT	**Salihli**	**1.19**	**47**	P	**Pb**	**11 36 30.6**	**-1.1**
KTTT				S	**Sb**	**11 36 46.2**	**-1.1**
DKL	**Dikili**	**1.20**	**357**	Pn	**Pg**	**11 36 32.0**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.20**	**357**	P	**Pg**	**11 36 31.9**	**0.0**
AKHS	**Akhisar**	**1.20**	**33**	P	**Pb**	**11 36 29.0**	**-2.8**
AKHS				S	**Sn**	**11 36 47.9**	**-0.2**
AKS	**Akhisar**	**1.20**	**33**	Pn	**Pg**	**11 36 31.7**	**-0.2**
AKS				AML	AML		
MULA	**Mugla, Merkez-**	**1.23**	**120**	P	**Pn**	**11 36 31.7**	**-0.6**
MULA				S	**Sn**	**11 36 49.6**	**+0.5**
MULA				IAML		11 36 51.0	
	comp=N,362nm,0.4s						
MULA				IAML		11 36 51.0	
	comp=E,334nm,0.7s						
DAT	**Datca**	**1.24**	**157**	P	**Pn**	**11 36 30.8**	**-1.7**
DAT				S	**Sn**	**11 36 50.0**	**+0.7**
DAT	**Datca**	**1.24**	**157**	Pn	**Pn**	**11 36 32.1**	**-0.4**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.25**	**162**	P	**Pn**	**11 36 29.5**	**-3.0**
YAZI				S	**Sn**	**11 36 51.6**	**+2.2**
YER	**Yerkesik**	**1.27**	**125**	P	**Pg**	**11 36 32.9**	**-0.5**
YER				S	**Sn**	**11 36 50.9**	**+0.8**
YER	**Yerkesik**	**1.27**	**125**	Pn	**Pg**	**11 36 32.9**	**-0.5**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.35**	**19**	Pn	**Pb**	**11 36 34.1**	**-0.3**
SOMA				AML	AML		
MANT	**Manisa**	**1.39**	**63**	P	**Pg**	**11 36 35.4**	**-0.2**
MANT				S	**Sg**	**11 36 54.6**	**+1.0**
GORD	**Gordes-Manisa**	**1.40**	**42**	Pn	**Pb**	**11 36 34.8**	**-0.4**
GORD				AML	AML		
APE	**Apeiranthos**	**1.41**	**236**	Pn	**Pb**	**11 36 35.1**	**-0.2**
APE				AML	AML		
SULTU	**Buldan**	**1.42**	**82**	P	**Pg**	**11 36 36.0**	**-0.3**
SULTU				S	**Sg**	**11 36 57.2**	**+2.5**
AYVA	**Ayvalik**	**1.45**	**351**	P	**Pb**	**11 36 35.8**	**-0.2**
AYVA				S	**Sg**	**11 36 57.1**	**+1.5**
AYVA				IAML		11 36 58.0	
	comp=N,412nm,0.3s						
AYVA				IAML		11 36 59.0	
	comp=E,504nm,0.7s						
PRK	**Paraskevi**	**1.48**	**338**	P	**Pn**	**11 36 35.2**	**-0.4**
PRK				S	**Sg**	**11 36 55.9**	**-0.6**
PRK	**Paraskevi**	**1.48**	**338**	P	**Pn**	**11 36 35.4**	**-0.2**
TURN	**Turunc**	**1.49**	**137**	Pn	**Pn**	**11 36 35.5**	**-0.3**
TURN				AML	AML		
HARTU	**Esme**	**1.51**	**71**	P	**Pg**	**11 36 37.5**	**-0.4**
HARTU				S	**Sg**	**11 36 58.3**	**+0.8**
STEP	**BALIKESIR_Sava**	**1.61**	**21**	P	**Pb**	**11 36 38.1**	**-0.7**
STEP				IAML	**Sg**	**11 37 03.0**	**+2.4**
	comp=N,415nm,0.6s						
STEP				S	**Sg**	**11 37 03.0**	**+2.4**
STEP				IAML		11 37 15.0	
	comp=E,323nm,0.7s						
BUHA	**Balikesir, Bur**	**1.62**	**3**	P	**Pn**	**11 36 36.8**	**-0.9**
BUHA				S	**Sg**	**11 37 02.5**	**+1.2**
DALY	**Dalyan (Mula)**	**1.70**	**128**	Pn	**Pb**	**11 36 39.3**	**-1.0**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.89**	**102**	Pn	**Pn**	**11 36 41.6**	**+0.3**
APMY				AML	AML		
ARG	**Arkhangelos**	**1.89**	**151**	Pn	**Pn**	**11 36 41.9**	**+0.6**
ARG				AML	AML		
EZN	**Ezine**	**2.01**	**345**	P	**Pn**	**11 36 43.1**	**+0.1**
EZN				AML	AML		
DION	**Dionisos Attik**	**2.42**	**276**	P	**Pn**	**11 36 48.4**	**-0.2**
DION				AML	AML		
LIA	**Limnos Island**	**2.46**	**326**	P	**Pn**	**11 36 49.2**	**+0.1**
LIA				AML	AML		
VLY	**Voula,Athens**	**2.52**	**270**	P	**Pn**	**11 36 49.9**	**-0.1**
VLY				AML	AML		
SMTH	**Samothraki Isl**	**2.83**	**337**	P	**Pn**	**11 36 54.2**	**0.0**
SMTH	**Samothraki Isl**	**2.83**	**337**	P	**Pn**	**11 36 54.5**	**+0.3**
SMTH				AML	AML		

*ISK **07** 11:39:29.5, 37°.89N×26°.99E, h8km, ML2.8/17*
*THE **07** 11:39:29.7, 37°.9N±1°.0×27°.0E±0°.8, h10km±2km, M2.7/7, MLh2.7/7*

ISC 07 11:39:29.9±0.9, 37°.88N±0°.02×26°.98E±0°.03, h11km±7km, n24, σ0s.48/33, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMLD	**Gumuldur**	**0.20**	**345**	Pg	**Pg**	**11 39 33.9**	**-0.4**
GMLD				Sg	**Sg**	**11 39 37.6**	**+0.4**
GMLD				AML	AML		
SMG	**Samos**	**0.21**	**213**	P	**Pg**	**11 39 33.9**	**-0.5**
SMG				S	**Sg**	**11 39 38.0**	**+0.7**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**95**	Pg	**Pg**	**11 39 34.9**	**-0.1**
KUSD				Sg	**Sg**	**11 39 38.6**	**+0.2**
GCAM	**G?zelcaml?**	**0.27**	**132**	Pg	**Pg**	**11 39 35.3**	**-0.2**
GCAM				Sg	**Sg**	**11 39 39.4**	**+0.2**
GCAM				AML	AML		
BLCB	**Balcova**	**0.51**	**6**	P	**Pg**	**11 39 39.6**	**-0.2**
BLCB				S	**Sb**	**11 39 47.6**	**-0.6**
BLCB	**Balcova**	**0.51**	**6**	Pg	**Pg**	**11 39 39.6**	**-0.2**
BLCB				Sg	**Sg**	**11 39 46.5**	**0.0**
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**85**	Pg	**Pg**	**11 39 43.9**	**-0.1**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**162**	Pg	**Pb**	**11 39 45.9**	**+0.2**
YKAV				AML	AML		
BODT	**Bodrum**	**0.86**	**162**	P	**Pg**	**11 39 46.0**	**-0.6**
BODT				S	**Sb**	**11 39 59.1**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**162**	Pg	**Pb**	**11 39 46.4**	**-0.5**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**133**	Pg	**Pb**	**11 39 46.9**	**0.0**
MLSB				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	P	**Pb**	**11 39 47.5**	**+0.1**
CHOS				S	**Sb**	**11 39 59.9**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	Pg	**Pn**	**11 39 48.3**	**-0.1**
CHOS				AML	AML		
NAZL	**Nazilli-Aydin**	**1.04**	**85**	Pg	**Pg**	**11 39 49.5**	**-0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.11**	**42**	Pn	**Pn**	**11 39 51.3**	**-0.1**

*IDC **07** 12:01:29.6±0.9,24°.37N×121°.94E,h0km,mb3.6/9, mbtmp3.6/11,ML3.3/2,Error ellipse: s-maj=22.9km s-min=18.9km az=66.0*
*JMA **07** 12:01:31.3±0.1,24°.5N±0°.3×122°.0E±0°.3,h11km,MV3.9/18, TAIWAN REGION*
*TAP **07** 12:01:31.7,24°.50N×121°.90E,h11km,ML4.4,B*
*ASIES **07** 12:01:31.5,24°.50N×121°.90E,h8km,Mw3.8,Fault plane solution: NP1:φs306.00000°,δ49.00000°,λ53.00000°. NP2:φs176.00000°,δ53.00000°,λ125.00000°.*

ISC 07 12:01:31.2±0.8,24°.50N±0°.01×121°.96E±0°.01,h11km±5km, n196,σ0s80/295,mb3.5/9,11C-12D,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESAO	**Su ao**	**0.13**	**306**	↑*i*P	**Pg**	**12 01 34.3**	**0.0**
ESAO				*i*S	**Sg**	**12 01 36.5**	**0.0**
TWC	**Suao**	**0.15**	**317**	↑*i*P	**Pg**	**12 01 34.7**	**+0.1**
TWC				S	**Sg**	**12 01 37.0**	**0.0**
ENA	**Nanau**	**0.21**	**251**	↓*i*P	**Pg**	**12 01 35.5**	**-0.1**
ENA				S	**Sg**	**12 01 38.4**	**-0.3**
EOS2	**EOS2**	**0.26**	**108**	*i*P	**Pg**	**12 01 37.7**	**+1.3**
EOS2				S	**Sb**	**12 01 42.2**	**-0.1**
NDS	**Dongshan**	**0.26**	**301**	↑*i*P	**Pg**	**12 01 36.6**	**+0.1**
NDS				S	**Sg**	**12 01 40.0**	**-0.1**
EAHA	**Aohua**	**0.26**	**230**	*i*P	**Pg**	**12 01 36.5**	**0.0**
EAHA				*i*S	**Sg**	**12 01 40.3**	**+0.1**
EHP	**Heping Village**	**0.28**	**227**	P	**Pg**	**12 01 36.9**	**+0.1**
EHP				S	**Sg**	**12 01 41.0**	**+0.5**
ILA	**Ilan**	**0.33**	**324**	P	**Pg**	**12 01 38.0**	**+0.2**
EGS		**0.35**	**356**	P	**Pg**	**12 01 38.6**	**+0.5**
EGS				S	**Sg**	**12 01 43.4**	**+0.7**
TWE	**Neicheng**	**0.35**	**310**	↑*i*P	**Pg**	**12 01 38.3**	**+0.2**
TWE				eS	**Sg**	**12 01 42.6**	**-0.2**
NTC	**Toucheng**	**0.37**	**341**	P	**Pg**	**12 01 39.3**	**+0.7**
ENTT	**Nioudou**	**0.39**	**291**	↑*i*P	**Pg**	**12 01 38.9**	**+0.1**
ENTT				S	**Sg**	**12 01 43.9**	**-0.1**
EOS3	**EOS3**	**0.39**	**123**	↑*i*P	**Pg**	**12 01 39.9**	**+1.1**
EOS3				S	**Sb**	**12 01 46.1**	**+0.1**
LATG	**Datong**	**0.40**	**275**	↑*i*P	**Pg**	**12 01 39.0**	**-0.1**
NDT	**Datong Townshi**	**0.42**	**284**	↑*i*P	**Pg**	**12 01 39.7**	**+0.2**
NDT				S	**Sg**	**12 01 45.0**	**-0.1**
FUSB	**Fushanzhiwuyua**	**0.43**	**307**	*i*P	**Pg**	**12 01 40.0**	**+0.4**
FUSB				eS	**Sg**	**12 01 46.0**	**+0.7**
ETL	**Fush Village**	**0.46**	**223**	↓*i*P	**Pg**	**12 01 40.0**	**-0.1**
ETL				*i*S	**Sg**	**12 01 46.6**	**+0.4**
NACB	**Ninganchiao**	**0.47**	**226**	P	**Pg**	**12 01 40.5**	**+0.2**
NACB	**Ninganchiao**	**0.47**	**226**	↓*i*P	**Pg**	**12 01 40.0**	**-0.2**
NACB				*i*S	**Sg**	**12 01 46.4**	**0.0**
TIPB	**Shuangxi**	**0.49**	**345**	↑*i*P	**Pg**	**12 01 41.1**	**+0.3**
TIPB				S	**Sg**	**12 01 47.3**	**+0.1**
EOS4	**EOS4**	**0.50**	**139**	*e*P	**Pg**	**12 01 41.2**	**+0.4**
NWLT	**Wulai**	**0.50**	**304**	↑*i*P	**Pg**	**12 01 41.3**	**+0.3**
NWLT				S	**Sg**	**12 01 47.5**	**-0.2**
TWB1	**Santiao Chiao**	**0.51**	**3**	*i*P	**Pg**	**12 01 41.5**	**+0.4**
TWB1				S	**Sg**	**12 01 48.5**	**+0.7**
ETLH	**Xiulin Townshi**	**0.53**	**237**	↓*i*P	**Pg**	**12 01 41.2**	**-0.3**
ETLH				*i*S	**Sg**	**12 01 48.1**	**-0.3**
NNSB	**Datong**	**0.53**	**263**	↓*i*P	**Pg**	**12 01 41.4**	**-0.2**
NNSB				eS	**Sg**	**12 01 48.0**	**-0.6**
NNSH	**Datong**	**0.53**	**263**	*i*P	**Pg**	**12 01 41.5**	**0.0**
NNSH				S	**Sg**	**12 01 48.2**	**-0.4**
TWD	**Chiawan**	**0.53**	**219**	↓*i*P	**Pg**	**12 01 41.3**	**-0.3**
TWD				*i*S	**Sg**	**12 01 48.0**	**-0.6**
NNS	**Nan Shan**	**0.54**	**264**	↓*i*P	**Pg**	**12 01 41.5**	**-0.2**
NNS				eS	**Sg**	**12 01 48.5**	**-0.4**
YHNB	**Yeheng**	**0.56**	**288**	P	**Pg**	**12 01 42.4**	**+0.3**
YHNB	**Yeheng**	**0.56**	**288**	*i*P	**Pg**	**12 01 42.3**	**+0.2**
YHNB				S	**Sg**	**12 01 49.0**	**-0.5**
NSK	**Sanguang**	**0.58**	**288**	*i*P	**Pg**	**12 01 42.6**	**+0.2**
NSK				S	**Sg**	**12 01 49.5**	**-0.6**
TWA	**Mucha**	**0.59**	**324**	↑P	**Pb**	**12 01 43.3**	**-0.3**
TWA				S	**Sb**	**12 01 51.4**	**-0.6**
NWF	**Wu-fen Shan**	**0.59**	**344**	*i*P	**Pb**	**12 01 43.6**	**-0.1**
NWF				S	**Sg**	**12 01 50.6**	**0.0**
WFSB	**Wu-fen Shan**	**0.59**	**344**	P	**Pb**	**12 01 43.4**	**-0.2**
WFSB				S	**Sg**	**12 01 51.3**	**+0.8**
SXI1	**Grass Mountain**	**0.60**	**352**	P	**Pg**	**12 01 43.4**	**+0.6**
SXI1				S	**Sg**	**12 01 51.7**	**+0.9**
NHDH	**Xindian Distri**	**0.61**	**319**	P	**Pb**	**12 01 44.0**	**+0.1**
NHDH				S	**Sb**	**12 01 51.9**	**-0.7**
HWA	**Hwalien**	**0.61**	**212**	*e*P	**Pb**	**12 01 44.1**	**+0.2**
TATO	**Taipei**	**0.64**	**318**	P	**Pb**	**12 01 44.4**	**0.0**
TATO	**Taipei**	**0.64**	**318**	P	**Pb**	**12 01 44.3**	**-0.2**
TATO				S	**Sg**	**12 01 52.2**	**+0.2**
NHY	**Taipei**	**0.65**	**327**	P	**Pb**	**12 01 44.9**	**+0.4**
NHY				S	**Sb**	**12 01 53.7**	**+0.1**
TNOU	**National Taiwa**	**0.67**	**345**	P	**Pb**	**12 01 44.9**	**0.0**
TNOU				S	**Sg**	**12 01 53.4**	**+0.3**
TAP	**Taipei**	**0.68**	**323**	*e*P	**Pb**	**12 01 45.3**	**+0.3**
TAP				S	**Sb**	**12 01 54.7**	**+0.2**
ETM	**Tongmen**	**0.68**	**219**	↓*i*P	**Pg**	**12 01 43.9**	**-0.5**
ETM				S	**Sg**	**12 01 52.9**	**-0.5**
BACT	**New Taipei Cit**	**0.69**	**317**	P	**Pb**	**12 01 45.7**	**+0.5**
BACT				S	**Sb**	**12 01 55.4**	**+0.7**
LXIB	**Xiulin Townshi**	**0.69**	**227**	↓*i*P	**Pg**	**12 01 44.1**	**-0.5**
LXIB				*i*S	**Sg**	**12 01 53.9**	**+0.3**
FUSS	**Fushou**	**0.70**	**249**	↓P	**Pg**	**12 01 44.6**	**-0.2**
FUSS				S	**Sg**	**12 01 53.8**	**-0.2**
TEYL	**Yanliau Villag**	**0.71**	**208**	P	**Pb**	**12 01 45.5**	**-0.1**
WHF	**Hehuan Shan**	**0.73**	**241**	↓P	**Pg**	**12 01 45.0**	**-0.4**
WHF				*i*S	**Sg**	**12 01 55.0**	**+0.1**
YM01	**YM01**	**0.74**	**331**	P	**Pb**	**12 01 46.4**	**+0.3**
TWT	**Tachien**	**0.76**	**251**	*e*P	**Pg**	**12 01 46.1**	**+0.2**
ZUZH	**Zhuzihu**	**0.76**	**330**	*i*P	**Pb**	**12 01 47.1**	**+0.6**
YM08	**YM08**	**0.77**	**334**	P	**Pb**	**12 01 46.7**	**+0.1**
KSHI	**Guanxi Townshi**	**0.77**	**291**	*i*P	**Pb**	**12 01 47.1**	**+0.5**
KSHI				eS	**Sb**	**12 01 57.3**	**+0.2**
TDCB	**Techi**	**0.77**	**252**	*e*P	**Pg**	**12 01 46.0**	**-0.2**
TDCB				*i*S	**Sg**	**12 01 55.5**	**-0.8**
TWS1	**Kuangyinshan**	**0.78**	**321**	*i*P	**Pb**	**12 01 47.5**	**+0.7**
NFF	**Wufeng Townshi**	**0.78**	**280**	*i*P	**Pb**	**12 01 46.7**	**-0.1**
NFF				S	**Sg**	**12 01 55.8**	**-0.7**
ANP	**Anpu**	**0.79**	**330**	*e*P	**Pb**	**12 01 47.5**	**+0.4**
SHUL	**Shoufeng**	**0.80**	**207**	*e*P	**Pb**	**12 01 47.7**	**+0.6**
NTST	**Danshui**	**0.81**	**325**	*i*P	**Pn**	**12 01 48.4**	**-0.2**
NTST				eS	**Sn**	**12 02 00.2**	**-0.4**
ESL	**Shilin**	**0.83**	**215**	*e*P	**Pg**	**12 01 46.6**	**-0.7**
TWY	**Chenhua**	**0.84**	**337**	*e*P	**Pb**	**12 01 48.3**	**+0.4**
TWY				*i*S	**Sb**	**12 01 59.2**	**+0.1**
NCU	**National Centr**	**0.85**	**304**	*e*P	**Pn**	**12 01 49.3**	**+0.2**
NCU				*i*S	**Sn**	**12 02 00.7**	**-0.9**
LIOB	**Emei**	**0.87**	**280**	*i*P	**Pb**	**12 01 48.9**	**+0.5**
LIOB				S	**Sb**	**12 01 59.6**	**-0.5**
TEGC	**Jichi Village**	**0.88**	**206**	*e*P	**Pb**	**12 01 49.1**	**+0.7**
TEGC				eS	**Sn**	**12 02 03.6**	**+1.4**
NSTT	**Nanjuang**	**0.89**	**279**	P	**Pg**	**12 01 49.0**	**+0.4**
NSTT				S	**Sg**	**12 01 59.8**	**0.0**
JYNG	**Yonagunijimaku**	**0.90**	**93**	P	**Pg**	**12 01 48.5**	**0.0**
JYNG				eS	**Sg**	**12 02 00.3**	**+0.1**
OWD	**Renai**	**0.90**	**233**	*e*P	**Pg**	**12 01 48.1**	**-0.4**
OWD				eS	**Sg**	**12 02 00.1**	**-0.2**
WUSB	**Renai**	**0.92**	**237**	↓P	**Pg**	**12 01 48.8**	**-0.2**
WUSB				eS	**Sg**	**12 02 00.7**	**-0.2**
SBCB	**Hsinchu**	**0.94**	**288**	*e*P	**Pn**	**12 01 51.3**	**+1.0**
SBCB				eS	**Sn**	**12 02 03.4**	**-0.3**
WARBT	**Fenglin Townsh**	**0.94**	**214**	*e*P	**Pg**	**12 01 48.6**	**-0.6**
HSN	**Hsinchu**	**0.95**	**289**	*e*P	**Pn**	**12 01 50.6**	**+0.1**
HSN				S	**Sb**	**12 02 03.0**	**+0.7**
WHP	**Taichung City**	**0.95**	**257**	*e*P	**Pb**	**12 01 49.9**	**+0.1**
WHP				S	**Sg**	**12 02 01.4**	**-0.6**
YOJ	**Yonaguni jima**	**0.96**	**92**	P	**Pg**	**12 01 49.8**	**+0.2**
YOJ	**Yonaguni jima**	**0.96**	**92**	*e*P	**Pg**	**12 01 49.6**	**0.0**
YOJ				eS	**Sg**	**12 02 03.0**	**+0.9**
YOJ	**Yonaguni jima**	**0.96**	**92**	P	**Pg**	**12 01 49.4**	**-0.2**
YOJ				S	**Sg**	**12 02 02.3**	**+0.2**
VWDT	**VWDT**	**1.05**	**225**	P	**Pb**	**12 01 50.8**	**-0.6**
VWDT				eS	**Sb**	**12 02 05.8**	**+0.5**
WCS	**Beigang Elemen**	**1.05**	**246**	*e*P	**Pg**	**12 01 51.7**	**+0.3**
NMLH	**Miaoli**	**1.07**	**272**	*e*P	**Pn**	**12 01 53.2**	**+1.1**
TWQ1	**Liyutan**	**1.09**	**262**	*e*P	**Pn**	**12 01 53.1**	**+0.6**
TWQ1				eS	**Sn**	**12 02 07.1**	**-0.6**
HGSD	**Ruisui**	**1.12**	**206**	*e*P	**Pn**	**12 01 53.4**	**+0.6**
PCYT	**Pengchaiyu**	**1.13**	**5**	*e*P	**Pg**	**12 01 53.2**	**+0.3**
SMLT	**Sun Moon Lake**	**1.15**	**238**	*e*P	**Pb**	**12 01 53.0**	**-0.1**
EHY	**Hungye**	**1.15**	**211**	*e*P	**Pb**	**12 01 53.0**	**-0.1**
EHYH	**Wanrong**	**1.15**	**210**	*e*P	**Pb**	**12 01 53.2**	**+0.1**
SSLB	**Suanglung**	**1.16**	**233**	P	**Pb**	**12 01 52.8**	**-0.5**
SSLB	**Suanglung**	**1.16**	**233**	P	**Pb**	**12 01 53.0**	**-0.4**
SSLB				S	**Sb**	**12 02 07.6**	**-0.8**
TYC	**Yuchr**	**1.17**	**240**	*e*P	**Pb**	**12 01 53.5**	**0.0**
WDJ	**Dajia District**	**1.21**	**263**	*e*P	**Pg**	**12 01 55.8**	**+1.3**
TCU	**Taichung**	**1.22**	**254**	*e*P	**Pg**	**12 01 56.3**	**+1.6**
YULB	**Yu-li**	**1.26**	**209**	P	**Pg**	**12 01 55.5**	**+0.2**
YULB	**Yu-li**	**1.26**	**209**	*e*P	**Pn**	**12 01 54.1**	**-0.6**
ECBN	**Changbin**	**1.27**	**202**	*e*P	**Pn**	**12 01 54.7**	**-0.2**
EYUL	**Yuli**	**1.29**	**207**	*e*P	**Pn**	**12 01 55.5**	**+0.3**
WHYT	**Xinyi Township**	**1.29**	**232**	*e*P	**Pb**	**12 01 55.6**	**+0.1**
TWF1	**Yuli**	**1.29**	**208**	*e*P	**Pn**	**12 01 55.4**	**+0.1**
WJS	**Zhushan**	**1.31**	**239**	P	**Pg**	**12 01 57.2**	**+0.8**
WNT	**Mingjian**	**1.32**	**242**	P	**Pg**	**12 01 57.4**	**+0.9**
WNT				eS	**Sg**	**12 02 16.2**	**+2.5**
WCHH	**Zhanghua**	**1.35**	**252**	*e*P	**Pg**	**12 01 57.5**	**+0.5**
WCHH				eS	**Sg**	**12 02 16.1**	**+1.6**
WCH1	**Changhua City**	**1.36**	**252**	*e*P	**Pg**	**12 01 58.1**	**+0.8**
WCH1				eS	**Sg**	**12 02 16.6**	**+1.6**
CHKH	**Chenggong**	**1.40**	**202**	*e*P	**Pn**	**12 01 57.1**	**+0.4**
FULB	**Fuli**	**1.43**	**205**	*e*P	**Pn**	**12 01 57.4**	**+0.2**
ALS	**Alishan**	**1.44**	**227**	*e*P	**Pg**	**12 01 58.8**	**-0.2**
CHN5	**Tsauling**	**1.48**	**233**	*e*P	**Pg**	**12 02 00.1**	**+0.6**
CHN5				eS	**Sg**	**12 02 20.8**	**+2.0**
CHKT	**Chengkung**	**1.50**	**202**	*e*P	**Pn**	**12 01 57.4**	**-0.6**
CHKT				eS	**Sg**	**12 02 19.3**	**0.0**
EHD	**Haiduan**	**1.51**	**207**	*e*P	**Pb**	**12 01 59.0**	**-0.3**
WGK	**Gukeng**	**1.51**	**238**	*e*P	**Pg**	**12 02 00.9**	**+0.7**
WGK				eS	**Sg**	**12 02 21.9**	**+2.0**
WDL	**Douliou City**	**1.52**	**239**	*e*P	**Pg**	**12 02 01.1**	**+0.8**
WDL				eS	**Sg**	**12 02 21.7**	**+1.8**
WDLH	**Douliu**	**1.53**	**239**	P	**Pg**	**12 02 01.0**	**+0.5**
WDLH				eS	**Sg**	**12 02 21.5**	**+1.1**
ECS	**Chishang**	**1.55**	**206**	*e*P	**Pn**	**12 01 59.6**	**+0.8**
ELDTW	**Lidau**	**1.56**	**214**	*e*P	**Pn**	**12 01 58.9**	**-0.2**
RLNB	**Erlin**	**1.58**	**248**	*e*P	**Pb**	**12 02 01.0**	**+0.5**
RLNB				eS	**Sg**	**12 02 22.1**	**0.0**
IRIF	**Iriomote-Funau**	**1.62**	**95**	P	**Pn**	**12 01 59.0**	**-0.7**
IRIF				eS	**Sn**	**12 02 19.6**	**-1.0**
WCKO	**Fanlu**	**1.63**	**230**	*e*P	**Pg**	**12 02 02.2**	**-0.2**
WCKO				eS	**Sg**	**12 02 24.5**	**+0.9**
EDH	**Donghe**	**1.63**	**202**	*e*P	**Pn**	**12 01 58.9**	**-1.1**
EDH				eS	**Sb**	**12 02 21.9**	**-0.1**
WTK	**Tuku**	**1.65**	**241**	*e*P	**Pg**	**12 02 02.5**	**-0.3**
WTK				eS	**Sg**	**12 02 25.2**	**+0.9**
CHN2	**Minshiung**	**1.67**	**235**	P	**Pg**	**12 02 03.6**	**+0.5**
CHN2				eS	**Sg**	**12 02 26.5**	**+1.7**
CHN4	**Tsaushan**	**1.69**	**228**	*e*P	**Pg**	**12 02 04.0**	**+0.3**
CHN4				eS	**Sg**	**12 02 27.6**	**+1.9**
TPUB	**Ta-pu**	**1.71**	**226**	P	**Pg**	**12 02 03.7**	**-0.2**
TPUB	**Ta-pu**	**1.71**	**226**	P	**Pb**	**12 02 03.3**	**+0.7**
TPUB				eS	**Sg**	**12 02 26.0**	**-0.1**
STYH	**Taoyuan**	**1.71**	**220**	*e*P	**Pn**	**12 02 03.1**	**+0.4**
CHY	**Chiayi**	**1.72**	**235**	*e*P	**Pg**	**12 02 04.0**	**-0.2**
HATJ	**Hateruma jima**	**1.74**	**104**	*e*P	**Pn**	**12 02 01.6**	**+0.2**
WTP	**Ta-pu**	**1.75**	**225**	*e*P	**Pg**	**12 02 04.7**	**-0.2**
LONT	**Longtian**	**1.76**	**206**	*e*P	**Pn**	**12 02 01.1**	**-0.5**
WSF	**Szhu**	**1.81**	**242**	P	**Pb**	**12 02 04.9**	**+0.6**
WSF				eS	**Sg**	**12 02 29.1**	**-0.2**
TWK	**Hsinying**	**1.82**	**228**	*e*P	**Pb**	**12 02 05.5**	**+0.9**
TWK				eS	**Sg**	**12 02 30.3**	**+0.4**
CHN1	**Nanshi**	**1.85**	**225**	*e*P	**Pg**	**12 02 07.2**	**+0.4**
CHN1				eS	**Sg**	**12 02 32.4**	**+1.7**
TWGBT	**Beinan**	**1.86**	**206**	P	**Pn**	**12 02 04.2**	**+1.2**
TWGBT	**Beinan**	**1.86**	**206**	*e*P	**Pn**	**12 02 02.0**	**-1.0**
TWG	**Pinlang**	**1.86**	**206**	*e*P	**Pn**	**12 02 02.5**	**-0.5**
WSL	**Shuilin Townsh**	**1.86**	**239**	*e*P	**Pb**	**12 02 06.0**	**+0.8**
WSL				eS	**Sg**	**12 02 31.3**	**+0.3**
LDUT	**Ludao**	**1.87**	**194**	*e*P	**Pn**	**12 02 02.1**	**-1.1**
JKRS	**Kuro-shima**	**1.89**	**97**	P	**Pn**	**12 02 02.2**	**-0.2**
JKRS				eS	**Sn**	**12 02 25.7**	**-1.5**
TTN	**Taitung**	**1.89**	**203**	*e*P	**Pn**	**12 02 03.7**	**+0.2**
SGST	**Jiashian**	**1.89**	**222**	*e*P	**Pb**	**12 02 05.5**	**-0.3**
SGST				eS	**Sg**	**12 02 31.4**	**-0.7**
ICHU	**Yijhu**	**1.91**	**234**	*e*P	**Pb**	**12 02 06.6**	**+0.5**
SLGT	**Liugui**	**1.92**	**219**	*e*P	**Pb**	**12 02 06.6**	**+0.3**
CHN8	**Yiju**	**1.97**	**235**	*e*P	**Pb**	**12 02 07.0**	**-0.1**
CHN8				eS	**Sg**	**12 02 35.9**	**+1.4**
JIJ	**Ishigaki jima**	**1.99**	**93**	P	**Pn**	**12 02 04.1**	**-0.7**
JIJ				S	**Sn**	**12 02 28.2**	**-1.6**
CHN3	**Shinhua**	**2.04**	**226**	*e*P	**Pg**	**12 02 10.7**	**+0.4**
SCLT	**Jiali**	**2.09**	**231**	*e*P	**Pb**	**12 02 09.9**	**+0.8**
SCLT				eS	**Sg**	**12 02 37.4**	**-0.9**
SCST	**Cishan**	**2.10**	**220**	*e*P	**Pb**	**12 02 10.1**	**+0.9**
ECL	**Taimali**	**2.11**	**206**	*e*P	**Pn**	**12 02 07.0**	**+0.5**
SSD	**Sandimen**	**2.13**	**215**	*e*P	**Pb**	**12 02 09.6**	**-0.3**
JISG	**Ishigakijimahi**	**2.14**	**87**	P	**Pn**	**12 02 09.2**	**-0.7**
JISG				eS	**Sn**	**12 02 32.1**	**-1.4**
TAI1	**Yung-k'ang**	**2.15**	**228**	*e*P	**Pb**	**12 02 10.5**	**+0.3**
TSMG	**Majia**	**2.15**	**214**	*e*P	**Pb**	**12 02 09.6**	**-0.7**
TSMG				S	**Sb**	**12 02 38.6**	**+1.6**
TSCK	**Chigu Township**	**2.18**	**232**	*e*P	**Pb**	**12 02 10.0**	**-0.7**
TSCK				eS	**Sb**	**12 02 39.4**	**+1.6**
TWM1	**Shoushan**	**2.18**	**221**	*e*P	**Pb**	**12 02 11.8**	**+1.0**
SGLT	**Jiouru**	**2.22**	**218**	*e*P	**Pb**	**12 02 11.4**	**0.0**
MASBT	**Mashibuluo**	**2.24**	**213**	*e*P	**Pn**	**12 02 10.1**	**+1.8**
MASBT				S	**Sb**	**12 02 40.9**	**+1.5**
VWUC	**VWUC**	**2.34**	**283**	*e*P	**Pn**	**12 02 09.8**	**+0.2**
VWUC				eS	**Sn**	**12 02 36.6**	**-1.7**
EAST	**Anshuo**	**2.34**	**206**	*e*P	**Pn**	**12 02 10.8**	**+1.1**
TAW	**Tawu**	**2.34**	**205**	*e*P	**Pb**	**12 02 12.3**	**-1.2**
SSPT	**Xinbi**	**2.38**	**213**	*e*P	**Pb**	**12 02 14.3**	**+0.3**
PNG	**Penghu**	**2.39**	**248**	*e*P	**Pn**	**12 02 10.8**	**+0.5**
PHUB	**P'eng-hu**	**2.40**	**246**	*e*P	**Pn**	**12 02 11.2**	**+0.8**
PHUB				S	**Sb**	**12 02 41.0**	**-1.6**
WSSB	**Gushan**	**2.42**	**221**	*e*P	**Pb**	**12 02 15.6**	**+0.9**
WDGT	**Dungji**	**2.44**	**240**	*e*P	**Pn**	**12 02 12.9**	**+1.8**
SCZT	**Fangliau**	**2.45**	**210**	*e*P	**Pb**	**12 02 14.3**	**-1.0**
MATB	**Ma-tsu**	**2.46**	**312**	*e*P	**Pn**	**12 02 11.4**	**+0.1**
MATB				eS	**Sn**	**12 02 40.4**	**-0.9**
JTJ	**Tarama**	**2.50**	**86**	P	**Pn**	**12 02 12.2**	**+0.4**
JTJ				eS	**Sn**	**12 02 42.2**	**-0.1**
LYUB	**Lan-yu**	**2.51**	**188**	*e*P	**Pn**	**12 02 10.5**	**-1.5**
SLIU	**Shizi**	**2.51**	**205**	*e*P	**Pn**	**12 02 13.5**	**+1.5**
PTMZ	**Houxiangcun**	**2.64**	**282**	*e*P	**Pn**	**12 02 14.0**	**+0.2**
PTMZ				S	**Sn**	**12 02 45.1**	**-0.7**
VCHM	**Qimei**	**2.65**	**242**	*e*P	**Pn**	**12 02 14.0**	**+0.1**
SMST	**Manzhou Townsh**	**2.67**	**203**	*e*P	**Pb**	**12 02 17.9**	**-1.3**
HEN	**Hengchun**	**2.73**	**205**	*e*P	**Pb**	**12 02 17.9**	**-2.1**
TWK1	**Hengchun**	**2.76**	**203**	*e*P	**Pn**	**12 02 17.1**	**+1.7**
TWKBT	**Hengchun**	**2.76**	**203**	*e*P	**Pn**	**12 02 15.5**	**+0.1**
TSEB	**Hengchuen, Pin**	**2.77**	**201**	*e*P	**Pn**	**12 02 17.9**	**+2.4**
LYJJ	**Jianjiangzhen**	**2.85**	**316**	*e*P	**Pn**	**12 02 16.9**	**+0.2**
LYJJ				eS	**Sn**	**12 02 49.2**	**-1.8**
XPSS	**Dashiqiu**	**2.90**	**327**	*e*P	**Pn**	**12 02 17.2**	**-0.2**
XPSS				S	**Sn**	**12 02 50.9**	**-1.4**
JIRJ	**Irabujima**	**2.96**	**83**	*e*P	**Pn**	**12 02 19.0**	**+0.8**
JIRJ				eS	**Sn**	**12 02 53.5**	**-0.3**
JIKM	**Ikemajima**	**3.02**	**81**	eS	**Sn**	**12 02 55.2**	**+0.1**
JMJ2	**Miyako jima3**	**3.07**	**85**	*e*P	**Pn**	**12 02 20.4**	**+0.7**
JMJ2				eS	**Sn**	**12 02 57.0**	**+0.4**
MHZQ	**Yeshan**	**3.10**	**302**	*e*P	**Pn**	**12 02 20.6**	**+0.6**
JOGS	**Gusukube**	**3.15**	**85**	*e*P	**Pn**	**12 02 21.6**	**+0.8**
JOGS				eS	**Sn**	**12 02 58.8**	**+0.4**
KNM	**Kinmen**	**3.22**	**269**	*e*P	**Pn**	**12 02 24.0**	**+2.3**
KNMB	**Chin-men Tao**	**3.26**	**270**	*e*P	**Pn**	**12 02 22.8**	**+0.6**
KNMB				eS	**Sn**	**12 02 59.9**	**-1.1**
AXDP	**Jialang**	**3.65**	**277**	*e*P	**Pn**	**12 02 27.6**	**-0.1**
ZPLA	**Ao Xicun**	**3.89**	**262**	*e*P	**Pn**	**12 02 31.5**	**+0.6**
DSXP	**Dongshan**	**4.22**	**260**	*e*P	**Pn**	**12 02 35.2**	**+0.3**
SXFK	**Yanhouchang**	**4.34**	**297**	*e*P	**Pn**	**12 02 38.1**	**+1.0**
PACPP	**Pamplona Cagay**	**6.04**	**186**	*i*P	**Pn**	**12 03 02.3**	**+1.8**
JOW	**Kunigami**	**6.15**	**66**	Pn	**Pn**	**12 03 03.7**	**+1.6**
	1.7nm,0.3s,baz=274,slow=19,SNR=6.0 4.0nm,0.3s						
JOW				AML	AML		
KSRS	**Korea Array**	**13.88**	**20**	Pn	**P**	**12 04 53.0**	**-3.2**
	0.2nm,0.3s,baz=204,slow=12,SNR=6.2 0.4nm,0.5s						
KSRS				AML	AML		
SONM	**Songino Array**	**26.36**	**336**	P	**P**	**12 07 08.9**	**+1.4**
	0.7nm,0.4s,baz=152,slow=10.0,SNR=4.1 0.7nm,0.4s						
MKAR	**Makanchi Array**	**38.61**	**315**	P	**P**	**12 08 55.5**	**+1.1**
	0.3nm,0.5s,baz=105,slow=9.2,SNR=2.9 0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**40.37**	**327**	P	**P**	**12 09 09.7**	**+0.8**
	0.6nm,0.7s,baz=132,slow=6.6,SNR=4.4 0.6nm,0.7s						
WRA	**Warramunga Arr**	**45.79**	**164**	P	**P**	**12 09 52.3**	**-0.8**
	0.4nm,0.7s,baz=345,slow=8.0,SNR=6.8 0.4nm,0.7s						
BVAR	**Borovoye Array**	**47.88**	**320**	P	**P**	**12 10 09.8**	**+0.5**
	0.4nm,0.5s,baz=97,slow=11,SNR=2.0 0.4nm,0.5s						
ASAR	**Alice Springs**	**49.26**	**165**	P	**P**	**12 10 19.5**	**-0.6**
	0.2nm,0.5s,baz=349,slow=8.4,SNR=1.9 0.2nm,0.5s						
ILAR	**Eielson Array**	**68.61**	**27**	P	**P**	**12 12 34.5**	**+0.5**
	0.2nm,0.8s,baz=294,slow=6.8,SNR=3.1 0.2nm,0.8s						
FINES	**FINESS Array B**	**71.53**	**330**	P	**P**	**12 12 52.9**	**+0.9**
	1.2nm,0.8s,baz=68,slow=5.9,SNR=1.1 1.2nm,0.8s						
YKA	**Yellowknife Ar**	**82.41**	**23**	P	**P**	**12 13 52.6**	**-0.6**
	0.9nm,0.9s,baz=310,slow=5.1,SNR=1.8 0.9nm,0.9s						

KOLA 07 12:06:58.8,67°.61N×30°.51E,h0km,ML2.1,Error ellipse: s-maj=6.9km s-min=2.9km az=40.0,Kovdor City, Mines, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APA0	**Apatity Array**	**0.95**	**89**	P	Pg	12 07 16.2	-0.8
APA0				S	Sg	12 07 28.1	-1.2
KVDA	**Kovda**	**1.30**	**134**	P	Pg	12 07 21.2	-2.5
KVDA				S	Sg	12 07 39.4	-1.1
LVZ	**Lovozero**	**1.60**	**78**	S	Sn	12 07 47.8	-2.0

KOLA 07 12:07:27.0±0.7,67°.50N±0°.04×30°.5E±0°.1,h0km, M2.4(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APA0	**Apatity Array**	**0.98**	**83**	P	Pg	12 07 45.4	-0.3
APA0				S	Sg	12 07 58.6	+0.3
KVDA	**Kovda**	**1.24**	**130**	P	Pg	12 07 49.0	-1.8
KVDA				S	Sg	12 08

GANE Gareloi Northe 0.63 16 Pn 12 15 52.9 +1.3
GANE Sn **12 16 02.8 +1.9**
TACS Tanaga Cape Sa 0.86 41 Pn 12 15 56.5 +1.5
TACS Sn **12 16 08.7 +1.8**
TASE Tanaga Southea 0.89 46 Pb 12 15 56.5 +1.5
TASE Sn **12 16 10.0 +2.6**
TAFL Tanaga Flats 0.90 53 Pb 12 15 56.5 +1.2
TAFL Sn **12 16 08.9 +1.1**
TANO Tanaga North 0.91 40 Pb 12 15 57.1 +1.7
TAPA Tanaga Point A 0.98 52 Pb 12 15 57.8 +1.2
TAPA Sn **12 16 11.0 +1.2**
AMKA Amchitka 1.04 279 Pn 12 15 57.1 -0.2
AMKA Sn **12 16 10.5 -0.6**
CERB Semis' Cerberu 1.09 312 Pb 12 15 59.8 +1.5
CESW Semis' Southwe 1.10 309 Pb 12 15 59.8 +1.2
CEPE Semis' Perret 1.10 313 Pb 12 15 59.9 +1.3
KIMD Kanaga Island 1.26 64 Sn 12 16 16.8 +0.2
KIWB Kanaga Island 1.35 61 Pn 12 16 02.5 +0.9
KIWB IAML 12 16 23.2
comp=N,16µm,0.5s
KIWB IAML 12 16 24.6
comp=E,12µm,0.5s
KIKV Kanaga Island 1.35 60 Sn 12 16 19.2 +0.4
KICM Kanaga Island 1.36 58 Pb 12 16 03.0 +0.1
ADK Adak 1.62 65 P Pn 12 16 06.5 +1.1
ADK 12 16 26.2
ADK Adak 1.62 65 Pn 12 16 06.5 +1.1
ADK Sn **Sn 12 16 26.2 +0.6**
ADK IAML 12 16 32.6
comp=E,12µm,0.5s
ADK Adak 1.62 65 P Pn 12 16 06.6 +1.1
ETKA Kagalaska Isla 1.78 68 Sn 12 16 30.4 +1.1
GSSP Great Sitkin S 2.00 63 Pn 12 16 12.3 +1.8
GSSP Pb **12 16 12.9 -0.9**
GSTR Great Sitkin T 2.06 64 Pn Pn 12 16 12.7 +1.2
ATKA Atka Island 3.18 70 Pn Pn 12 16 27.7 +1.0
ATKA IAML 12 17 12.4
comp=E,1µm,0.6s
ATKA IAML 12 17 13.3
comp=N,2µm,0.7s
KOWE Korovin West 3.20 67 Pn 12 16 28.8 +1.8
KOKL Mount Kliuchef 3.21 68 Pn 12 16 29.4 +2.1
KOFP Korovin Flat P 3.26 69 Pn 12 16 30.4 +2.5
KOSE Korovin Southe 3.31 68 Pn 12 16 30.7 +2.1
SHEM Shemya Is, Ala 4.49 292 Pn Pn 12 16 45.3 +0.6
comp=N,14nm,0.3s,baz=106,slow=2.7,SNR=14
SHEM LR LR 12 17 32.6
comp=N,178nm,20.4s,baz=116,slow=26
SHEM Sn **Sb 12 17 43.2 -6.8**
comp=N,40nm,0.3s,baz=278,slow=20,SNR=6.0
comp=N,49nm,0.4s
SHEM AML AML
SHEM Shemya Is, Ala 4.49 292 Pn Pn 12 16 43.8 -0.9
SMY Shemya 4.49 292 P Pn 12 16 44.3 -0.5
SMY Shemya 4.49 292 Pn Pn 12 16 44.2 -0.5
SMY IAML 12 17 57.9
comp=N,733nm,1.1s
SMY IAML 12 18 01.5
comp=E,811nm,1.1s
OKWR Okmok West Rim 7.01 67 Pn 12 17 21.7 +2.2
OKTU Okmok Mt. Tuli 7.10 68 Pn 12 17 22.8 +2.3
SPIA Saint Paul Isl 7.89 37 Pn Pn 12 17 33.3 +2.0
MNAT Makushin Natee 8.00 66 Pn 12 17 35.5 +2.6
UNV Unalaska Valle 8.10 66 Pn Pn 12 17 35.7 +1.6
LVA Lava Point 8.44 65 Pn Pn 12 17 42.8 +3.9
AKUT Akutan 8.59 65 Pn Pn 12 17 40.1 -0.8
S12K Black Hills 11.07 59 Pn Pn 12 18 16.2 +1.2
SDPT Sand Point 11.86 62 Pn Pn 12 18 25.7 +0.1
CNBA Chernabura Isl 12.26 65 Pn Pn 12 18 31.0 -0.1
VNFG Fog Glacier, M 12.59 59 Pn Pn 12 18 37.6 +1.8
M13K Dall Lake 12.73 38 Pn Pn 12 18 42.2 +4.7
CHGN Chignik 13.21 59 Pn Pn 12 18 44.1 0.0
N15K Kwethluk River 13.90 43 Pn Pn 12 18 53.8 +0.2
PEA0B Petropavlovsk- 14.38 287 P Pn 12 19 00.7 +0.6
PEA0B Petropavlovsk- 14.38 287 Pn Pn 12 19 00.7 +0.6
PETK Petropavlovsk- 14.38 287 Pn Pn 12 19 02.3 +2.2
comp=E,0.7nm,0.3s,baz=93,slow=9.9,SNR=21
PETK Sn **Sn 12 21 43.8 +5.2**
comp=E,0.1nm,0.3s,baz=101,slow=30,SNR=1.8
PETK Petropavlovsk- 14.38 287 P Pn 12 19 01.7 +1.6
PETK Petropavlovsk- 14.38 287 Pn Pn 12 19 01.7 +1.6
O16K Kokwok River B 14.51 47 Pn Pn 12 19 04.0 +2.2
M16K Timber Creek 14.83 41 Pn Pn 12 19 07.4 +1.1
N17K Nushagak Hills 15.34 44 IAmb IAmb 12 19 23.0
comp=Z,39nm,0.8s
M17K Holitna River 15.66 41 IAmb IAmb 12 19 27.7
comp=Z,29nm,0.8s
O18K Koktuh Hills 15.95 48 P P 12 19 23.7 -0.6
N18K Kilae Creek 15.98 45 P P 12 19 24.3 -0.3
Q19K Cape Douglas, 16.39 52 Pn Pn 12 19 27.7 +1.2
Q19K IAmb IAmb 12 19 55.3
comp=Z,24nm,0.7s
KDAK Kodiak Island 16.65 56 Pn Pn 12 19 27.2 -2.5
comp=Z,0.5nm,0.3s,baz=281,slow=5.2,SNR=56
KDAK Sn **Sn 12 22 28.2 -5.4**
comp=Z,0.4nm,0.3s,baz=184,slow=19,SNR=1.3
comp=Z,3.3nm,0.3s
KDAK AML AML
KDAK Kodiak Island 16.65 56 Pn Pn 12 19 26.9 -2.8
KDAK Kodiak Island 16.65 56 P P 12 19 31.1 -0.9
comp=Z,19nm,1.5s
N19K Bonanza Creek 16.66 45 Pn Pn 12 19 30.4 +0.4
N19K IAmb IAmb 12 19 39.1
comp=Z,28nm,0.8s
CNPM China Poot 17.75 51 Pn 12 19 43.6 +0.1
SPU Mount Spurr 17.89 46 P Pn 12 19 45.5 +0.2
BRLK Bradley Lake 17.98 51 P 12 19 46.9 +0.2
STLK Strandline Lak 18.11 45 P P 12 19 48.6 +0.4
SKT Skwentna 18.43 44 P Pn 12 19 52.2 +0.4
SKT IAmb IAmb 12 19 58.3
comp=Z,89nm,1.2s
SLKM Skilak Lake 18.52 49 Pn 12 19 53.5 +0.7
PPLA Purkeypile 18.54 41 P Pn 12 19 54.1 +0.8
PPLA IAmb IAmb 12 20 05.1
comp=Z,29nm,0.9s
SUA Susitna One 18.59 46 P Pn 12 19 53.8 0.0
O22K Cooper Landing 18.74 49 IAmb IAmb 12 20 15.7
comp=Z,61nm,0.7s
CAST Castle Rocks 18.82 39 Pn 12 19 57.5 +0.9
M22K Willow 18.97 45 IAmb IAmb 12 20 19.2
comp=Z,30nm,1.1s
SEY Seymchan 19.26 318 P P 12 19 59.1 -1.6
comp=Z,0.1nm,0.3s,baz=37,slow=20,SNR=1.9
comp=Z,1.5nm,0.8s
SEY AML AML
SEY Seymchan 19.26 318 *i* P **Pn 12 20 01.2 -0.5**
SEY pmax pmax
comp=Z,9.0nm,1.5s
KTH Kantishna Hill 19.35 40 P Pn 12 20 03.0 +0.1
KTH IAmb IAmb 12 20 07.2
comp=Z,44nm,0.8s
TRF Thorofare Moun 19.56 40 IAmb IAmb 12 20 11.7
comp=Z,30nm,0.8s
BPAW Bear Paw Mtn. 19.57 38 IAmb IAmb 12 20 10.4
comp=Z,26nm,0.7s
IMAR Indian Mountai 19.60 31 P Pn 12 20 05.6 -0.2
H21K Melozitna Rive 19.72 33 IAmb IAmb 12 20 13.4
comp=Z,29nm,1.0s
I21K Tanana 19.75 35 IAmb IAmb 12 20 09.5
comp=Z,20nm,0.9s
G21K Allakaket 20.00 30 IAmb IAmb 12 20 11.2
comp=Z,20nm,0.7s
D19K Kuna River 20.07 23 IAmb IAmb 12 20 17.3
comp=Z,25nm,0.9s
GLI Glacier Island 20.10 49 IAmb IAmb 12 20 18.4
comp=Z,38nm,1.4s
RND Reindeer 20.13 41 IAmb IAmb 12 20 16.1
comp=Z,19nm,0.6s
SCM Sheep Creek Mo 20.25 46 IAmb IAmb 12 20 15.3
comp=Z,22nm,0.6s
FID Port Fidalgo 20.36 49 IAmb IAmb 12 20 18.2
comp=Z,19nm,0.8s
F21K Alatna River 20.45 29 IAmb IAmb 12 20 16.5
comp=Z,11nm,0.6s
NEA2 Nenana 20.54 38 IAmb IAmb 12 20 20.3
comp=Z,55nm,1.1s
D20K Etivluk River 20.60 23 IAmb IAmb 12 20 19.9
comp=Z,43nm,0.6s
DHY Denali Highway 20.63 43 IAmb IAmb 12 20 21.8
comp=Z,25nm,0.6s
I23K Minto, Yukon-K 20.69 36 IAmb IAmb 12 20 21.1
comp=Z,18nm,0.6s
DIV Divide 20.78 49 IAmb IAmb 12 20 25.0
comp=Z,14nm,0.6s

COLA College 21.14 38 P P 12 20 21.7 +0.7
COLA pmax pmax
comp=Z,19nm,0.9s
COLA College 21.14 38 P P 12 20 21.7 +0.7
COLA IAmb IAmb 12 20 30.4
comp=Z,19nm,0.8s
COLA College 21.14 38 P P 12 20 21.3 +0.3
comp=Z,22nm,0.9s
HDA Harding Lake 21.30 39 IAmb IAmb 12 20 25.8
comp=Z,10nm,0.5s
HARP HAARP 21.39 45 IAmb IAmb 12 20 39.6
comp=Z,40nm,0.9s
PAX Paxson 21.42 44 IAmb IAmb 12 20 33.0
comp=Z,36nm,1.3s
IL31 21.47 39 IAmb IAmb 12 20 41.8
comp=Z,22nm,1.1s
ILAR Eielson Array 21.47 39 P P 12 20 22.9 -1.7
comp=Z,2.7nm,0.5s,baz=245,slow=8.8,SNR=94
comp=Z,2.7nm,0.5s
ILAR Eielson Array 21.47 39 P 12 20 24.6 0.0
K24K Donnelly Dome 21.55 42 IAmb IAmb 12 20 35.8
comp=Z,34nm,1.0s
D22K Ayikyak River 21.75 26 IAmb IAmb 12 20 34.5
comp=Z,12nm,0.7s
GLB Gilahina Butte 21.78 48 IAmb IAmb 12 20 30.4
comp=Z,15nm,0.6s
RIDG Independent Ri 21.93 42 IAmb IAmb 12 20 32.4
comp=Z,12nm,0.4s
G24K Hadweenzic Riv 22.11 34 IAmb IAmb 12 20 36.0
comp=Z,24nm,0.9s
MCARA McCarthy VSAT 22.14 49 IAmb IAmb 12 21 05.4
comp=Z,16nm,0.8s
MENT Mentasta 22.17 45 IAmb IAmb 12 20 43.3
comp=Z,16nm,0.8s
DOT Dot Lake 22.23 43 IAmb IAmb 12 20 34.5
comp=Z,20nm,0.7s
D23K Nashuk River 22.36 27 IAmb IAmb 12 20 39.0
comp=Z,18nm,0.9s
L26K Log Cabin Wild 22.36 44 IAmb IAmb 12 20 45.4
comp=Z,30nm,1.1s
SCRK Sand Creek 22.36 42 P 12 20 33.1 -1.3
SCRK IAmb IAmb 12 20 36.0
comp=Z,12nm,0.6s
F24K Squaw Lake 22.39 32 IAmb IAmb 12 20 37.8
comp=Z,27nm,0.9s
TOLK Toolik Lake Re 22.48 28 IAmb IAmb 12 20 37.9
comp=Z,17nm,1.0s
BARN Barnard Glacie 22.73 50 IAmb IAmb 12 20 43.5
comp=Z,8.8nm,0.6s
FYU Fort Yukon 22.85 35 IAmb IAmb 12 20 40.9
comp=Z,16nm,0.9s
M27K Edge Creek, AK 22.86 47 IAmb IAmb 12 20 45.3
comp=Z,18nm,1.0s
D24K Happy Valley 23.01 27 IAmb IAmb 12 20 50.9
comp=Z,47nm,1.5s
LOGN Logan Glacier 23.02 51 IAmb IAmb 12 20 56.6
comp=Z,22nm,1.4s
L27K Beaver Creek, 23.04 45 IAmb IAmb 12 20 42.7
comp=Z,7.2nm,0.5s
BCAR Beaver Creek A 23.06 45 P 12 20 41.5 -0.2
K27K Chicken 23.18 42 IAmb IAmb 12 20 44.4
comp=Z,28nm,1.4s
C24K Franklin Bluff 23.38 26 IAmb IAmb 12 21 03.4
comp=Z,30nm,1.2s
BMAR Burnt Mountain 23.46 33 P 12 20 45.6 0.0
G26K Porcupine Rive 23.53 35 IAmb IAmb 12 20 51.6
comp=Z,23nm,0.7s
D25K Kavik River 23.82 28 IAmb IAmb 12 20 53.0
comp=Z,11nm,0.8s
TYV Tymovskoe 23.90 284 *eP* **P 12 20 51.4 +1.6**
TYV *eS* **S 12 25 07.4 +2.9**
TYV pmax pmax
comp=Z,200nm,5.0s
TYV pmax pmax
comp=Z,14nm,1.0s
TYV smax smax
comp=E,200nm,4.7s
DAWY Dawson 24.33 43 P 12 20 53.5 -0.4
DAWY IAmb IAmb 12 20 58.5
comp=Z,8.6nm,0.7s
M29M Somme Creek 24.44 47 IAmb IAmb 12 21 01.2
comp=Z,8.3nm,0.6s
I28M Miner Creek 24.46 40 IAmb IAmb 12 20 56.5
comp=Z,19nm,0.8s
L29M L29M 24.70 45 IAmb IAmb 12 21 02.6
comp=Z,10nm,0.7s
I29M Ogilvie Camp, 25.10 40 P 12 20 60.0 -0.7
I29M IAmb IAmb 12 21 00.9
comp=Z,21nm,1.2s
K29M Barlow Dome 25.10 44 IAmb IAmb 12 21 01.4
comp=Z,8.1nm,0.7s
YSS Yuzhno-Sakhali 25.17 275 *i* P **P 12 21 02.3 +0.8**
YSS pmax pmax
comp=Z,39nm,1.4s
YSS Yuzhno-Sakhali 25.17 275 P 12 21 03.6 +2.1
YSS IAmb IAmb 12 21 04.1
comp=Z,23nm,0.8s
YSS Yuzhno-Sakhali 25.17 275 P P 12 21 02.1 +0.6
comp=Z,32nm,1.3s
F28M Old Crow 25.19 35 IAmb IAmb 12 21 07.3
comp=Z,11nm,0.7s
D27M Malcolm River 25.46 31 IAmb IAmb 12 21 14.2
comp=Z,15nm,1.4s
E28M Babbage River 25.68 33 IAmb IAmb 12 21 09.8
comp=Z,18nm,1.4s
I30M Mont Dempster 25.85 41 IAmb IAmb 12 21 08.3
comp=Z,12nm,0.7s
EPYK Eagle Plains 25.98 38 IAmb IAmb 12 21 08.6
comp=Z,7.3nm,0.6s
JKA Kamikawa-asahi 26.54 270 P P 12 21 15.2 +1.3
comp=Z,25nm,1.4s
INK Inuvik 27.68 35 P P 12 21 22.9 -1.0
comp=Z,1.7nm,0.4s,baz=257,slow=5.5,SNR=23
comp=Z,1.7nm,0.4s
INK Inuvik 27.68 35 P P 12 21 24.0 +0.1
KLR Kul'dur 31.07 286 *i* P **P 12 21 54.5 +0.3**
KLR pmax pmax
comp=Z,17nm,0.8s
A36M Sachs Harbour 31.30 29 IAmb IAmb 12 22 12.2
comp=Z,7.9nm,0.8s
USA0B Ussuriysk Arra 33.15 277 *i* P **P 12 22 12.2 -0.3**
USRK Ussuriysk Ar. 33.15 277 P P 12 22 13.0 +0.5
comp=Z,2.5nm,0.6s,baz=62,slow=9.5,SNR=5.9
comp=Z,2.5nm,0.6s
USRK Ussuriysk Ar. 33.15 277 P P 12 22 12.4 -0.1
USRK Ussuriysk Ar. 33.15 277 P P 12 22 12.4 -0.1
HEH HeiHe 33.27 290 *eP* **P 12 22 12.2 -1.2**
HEH pmax pmax
comp=Z,9.0nm,0.7s
H11N2 WAKE ISLAND Hy 33.32 205 T T 12 57 30.5
baz=16,slow=76,SNR=245
H11N3 WAKE ISLAND Hy 33.33 205 T T 12 57 31.2
baz=16,slow=76,SNR=336
H11N1 WAKE ISLAND Hy 33.34 205 T T 12 57 32.3
baz=16,slow=76,SNR=235
MAJO Matsushiro 33.60 261 *i* P **P 12 22 17.0 +0.5**
MAJO pmax pmax
comp=Z,3.0nm,0.6s
MAJO Matsushiro 33.60 261 P P 12 22 17.6 +1.2
comp=Z,9.3nm,2.4s
MJAR Matsushiro Arr 33.60 261 P P 12 22 17.6 +1.1
comp=Z,2.0nm,0.7s,baz=50,slow=8.4,SNR=8.4
comp=Z,2.0nm,0.7s
MJAR Matsushiro Arr 33.60 261 P P 12 22 15.8 -0.7
MJAR pmax pmax
comp=Z,6.0nm,1.4s
MJAR Matsushiro Arr 33.60 261 P P 12 22 15.8 -0.7
HON Honolulu 34.08 143 P P 12 22 22.6 +1.9
HON Honolulu 34.08 143 P P 12 22 22.6 +1.9
MDJ Mudanjiang 34.44 280 P P 12 22 23.0 -0.7
H11S1 WAKE ISLAND Hy 34.54 204 T T 12 59 07.1
baz=15,slow=76,SNR=265
H11S2 WAKE ISLAND Hy 34.55 204 T T 12 59 07.0
baz=15,slow=76,SNR=154
H11S3 WAKE ISLAND Hy 34.55 204 T T 12 59 32.1
baz=15,slow=76,SNR=10
BNX BinXian 35.24 283 ⇑P **P 12 22 29.8 -0.8**
BNX pmax pmax
comp=Z,23nm,0.7s
YKA Yellowknife Ar 35.46 46 P P 12 22 31.9 -0.4
comp=Z,4.2nm,0.7s,baz=285,slow=7.2,SNR=23
YKA PcP **PcP 12 25 01.7 +0.4**
comp=Z,2.1nm,1.0s,baz=284,slow=3.0,SNR=6.2
comp=Z,4.2nm,0.7s
YKA Yellowknife Ar 35.46 46 *eP* **P 12 22 31.8 -0.4**
YKA pmax pmax
comp=Z,5.0nm,0.6s

YKA Yellowknife Ar 35.46 46 P P 12 22 31.3 -1.0
SHUK Shuksan-Mt. Ba 36.13 71 IAmb IAmb 12 22 40.6
comp=Z,7.2nm,0.7s
LON Longmire 37.02 74 IAmb IAmb 12 22 49.0
comp=Z,6.2nm,0.7s
LTY Liberty 37.46 73 IAmb IAmb 12 22 51.8
comp=Z,5.0nm,0.5s
HIA Hailar 38.19 292 P P 12 22 55.2 -0.5
HIA pmax pmax
comp=Z,10.0nm,0.7s
HIA Hailar 38.19 292 P P 12 22 55.2 -0.5
comp=Z,10.0nm,0.7s
E07A Sunnyside 38.29 73 IAmb IAmb 12 23 07.6
comp=Z,7.0nm,0.8s
HAWA Hanford 38.56 73 IAmb IAmb 12 23 01.5
comp=Z,9.0nm,0.6s
F07A Phinny Hill Vi 38.57 74 IAmb IAmb 12 23 01.9
comp=Z,13nm,0.6s
D08A Wollman Farm, 38.60 72 IAmb IAmb 12 23 01.1
comp=Z,8.1nm,0.9s
C09A Chrisman Ranch 38.63 70 IAmb IAmb 12 23 01.1
comp=Z,9.2nm,0.8s
EDM Edmonton 39.03 60 IAmb IAmb 12 23 03.8
comp=Z,11nm,0.6s
NEW Newport 39.09 69 P P 12 23 04.2 +0.9
NEW pmax pmax
comp=Z,18nm,0.8s
NEW Newport 39.09 69 IAmb IAmb 12 23 04.8
comp=Z,12nm,0.7s
NEW Newport 39.09 69 P P 12 23 04.2 +0.9
comp=Z,18nm,0.8s
E09A Wood Farm, Sta 39.34 72 IAmb IAmb 12 23 07.6
comp=Z,9.6nm,1.2s
KSRS Korea Array 39.48 271 P P 12 23 07.3 +0.8
comp=Z,3.4nm,0.8s,baz=57,slow=8.3,SNR=10
comp=Z,3.4nm,0.8s
KSRS Korea Array 39.48 271 *eP* **P 12 23 07.8 +1.3**
KSRS pmax pmax
comp=Z,4.0nm,0.9s
RES Resolute Bay 39.96 24 P P 12 23 11.0 +0.9
RES pmax pmax
comp=Z,11nm,2.9s
RES Resolute Bay 39.96 24 P P 12 23 11.0 +0.9
comp=Z,11nm,2.9s
TJN Taejon 40.49 270 P P 12 23 15.9 +0.9
TJN pmax pmax
comp=Z,84nm,1.1s
TJN Taejon 40.49 270 P P 12 23 15.9 +0.9
comp=Z,84nm,1.1s
WVOR Wild Horse Val 41.19 78 P P 12 23 22.3 +1.4
MSO Missoula 41.67 70 IAmb IAmb 12 23 26.0
comp=Z,8.8nm,0.8s
MFID Camas Ranch 42.37 75 P 12 23 31.2 +0.7
GBMT Granite Butte, 42.53 69 IAmb IAmb 12 23 33.0
comp=Z,8.2nm,0.9s
XLT XiLinHaoTe 43.08 287 *eP* **P 12 23 37.4 +1.2**
XLT pmax pmax
comp=Z,13nm,1.0s
XLT pmax pmax
comp=Z,150nm,6.2s
HLID Hailey 43.14 74 P P 12 23 38.2 +1.4
comp=Z,8.5nm,0.8s
EGMT Eagleton 43.49 66 IAmb IAmb 12 23 41.1
comp=Z,9.8nm,0.8s
BOZ Bozeman (W) 43.69 70 IAmb IAmb 12 23 43.0
comp=Z,12nm,0.8s
NVAR Mina Array Bea 43.73 82 P P 12 23 42.2 +0.5
comp=Z,1.6nm,0.8s,baz=302,slow=6.9,SNR=8.3
comp=Z,1.6nm,0.8s
NVAR Mina Array Bea 43.73 82 P P 12 23 41.1 -0.6
YHL Hebgen Lake 44.36 70 IAmb IAmb 12 23 55.3
comp=Z,13nm,0.8s
FFC Flin Flon 44.37 54 P P 12 23 47.0 +0.7
YHB Horse Butte 44.41 71 IAmb IAmb 12 23 49.1
comp=Z,10nm,1.0s
YMR Madison River 44.59 71 IAmb IAmb 12 23 50.7
comp=Z,6.4nm,0.9s
YHH Holmes Hill 44.59 70 IAmb IAmb 12 23 50.5
comp=Z,15nm,0.7s
YNR Norris Junctio 44.73 70 IAmb IAmb 12 23 52.3
comp=Z,14nm,0.9s
YFT Old Faithful 44.79 71 IAmb IAmb 12 23 53.7
comp=Z,9.4nm,0.8s
YNE Yellowstone No 44.97 70 IAmb IAmb 12 23 53.3
comp=Z,8.2nm,0.8s
HVU Hansel Valley 45.15 75 IAmb IAmb 12 23 55.7
comp=Z,11nm,0.6s
AHID Auburn Hatcher 45.59 73 IAmb IAmb 12 23 59.8
comp=Z,5.7nm,0.8s
AHID Auburn Hatcher 45.59 73 P P 12 23 57.6 +1.2
comp=Z,7.6nm,1.1s
TPNV Topopah Spring 45.93 83 P P 12 23 58.3 -0.8
TPNV pmax pmax
comp=Z,10.0nm,0.7s
TPNV Topopah Spring 45.93 83 P P 12 23 58.3 -0.8
TPNV IAmb IAmb 12 24 15.0
comp=Z,9.6nm,0.7s
HWUT Hardware Ranch 45.98 74 IAmb IAmb 12 24 02.6
comp=Z,13nm,1.3s
HWUT Hardware Ranch 45.98 74 P P 12 24 00.8 +1.3
comp=Z,10.0nm,1.0s
DUG Dugway, Tooele 46.06 77 P P 12 24 01.7 +1.5
DUG pmax pmax
comp=Z,12nm,1.4s
DUG Dugway, Tooele 46.06 77 IAmb IAmb 12 24 04.2
comp=Z,25nm,1.4s
DUG Dugway, Tooele 46.06 77 P P 12 24 01.6 +1.5
comp=Z,12nm,1.4s
ULN Ulaanbaatar 46.19 296 P P 12 23 58.9 -2.1
ULN pmax pmax
comp=Z,8.0nm,0.9s
ULN Ulaanbaatar 46.19 296 P P 12 23 58.9 -2.1
ULN IAmb IAmb 12 24 02.6
comp=Z,7.9nm,0.9s
ULN Ulaanbaatar 46.19 296 P P 12 24 01.9 +0.9
comp=Z,12nm,1.2s
PD31 Pinedale Array 46.51 72 IAmb IAmb 12 24 05.1
comp=Z,10nm,0.6s
PDAR Pinedale Array 46.51 72 P P 12 24 04.2 +0.5
comp=Z,11nm,0.5s,baz=305,slow=3.6,SNR=174
comp=Z,11nm,0.5s
PDAR Pinedale Array 46.51 72 P 12 24 04.3 +0.6
SONM Songino Array 46.57 297 P P 12 24 04.6 +0.6
comp=Z,4.5nm,0.7s,baz=63,slow=8.9,SNR=21
SONM PcP **PcP 12 25 38.2 +0.4**
comp=Z,0.4nm,0.5s,baz=80,slow=2.8,SNR=2.3
comp=Z,4.5nm,0.7s
SONM Songino Array 46.57 297 P 12 24 03.9 -0.1
SONM IAmb IAmb 12 24 05.8
comp=Z,11nm,1.4s
SONM PcP **PcP 12 25 38.5 +0.6**
NLU North Lily Min 46.66 77 IAmb IAmb 12 24 07.9
comp=Z,3.5nm,0.7s
ZAK Zakamensk 46.90 301 *eP* **P 12 24 06.5 0.0**
ZAK pmax pmax
comp=Z,7.0nm,1.5s
BSUT Blindstream Ca 47.11 75 IAmb IAmb 12 24 19.6
comp=Z,7.4nm,1.0s
HHC Hu-ho-hao-te 47.58 286 *eP* **P 12 24 12.7 +0.8**
HHC pmax pmax
comp=Z,8.0nm,0.5s
HHC pmax pmax
comp=Z,160nm,4.7s
TMUT Trail Mountain 47.59 77 IAmb IAmb 12 24 16.0
comp=Z,11nm,0.7s
P17A Butcher Ranch, 47.77 76 IAmb IAmb 12 24 16.7
comp=Z,5.0nm,0.7s
Q16A Castle Valley 47.85 77 IAmb IAmb 12 24 20.1
comp=Z,6.5nm,0.9s
P18A Preston Nutter 47.98 76 IAmb IAmb 12 24 21.4
comp=Z,14nm,1.2s
K22A Casper 48.39 70 IAmb IAmb 12 24 19.7
comp=Z,7.8nm,0.5s
NJ2 Nanjing 48.65 272 *eP* **P 12 24 20.4 +0.2**
NJ2 pmax pmax
comp=Z,9.0nm,0.5s
RSSD Black Hills 48.97 67 P P 12 24 22.1 -0.7
RSSD pmax pmax
comp=Z,7.0nm,0.7s
RSSD Black Hills 48.97 67 P 12 24 22.1 -0.7
RSSD IAmb IAmb 12 24 23.3
comp=Z,7.0nm,0.7s
RSSD Black Hills 48.97 67 P P 12 24 22.9 +0.1
comp=Z,11nm,1.0s
HAYD Hayden 49.24 73 IAmb IAmb 12 24 28.3
comp=Z,7.8nm,1.2s
SPITS Spitsbergen Ar 50.52 356 P P 12 24 32.6 -1.2

comp=Z,12nm,0.5s,baz=28,slow=5.7,SNR=26
comp=Z,12nm,0.5s
SPB2 Spitsbergen Ar 50.52 356 P P 12 24 33.3 -0.6
MVCO Mesa Verde 50.56 77 IAmb IAmb 12 24 41.5
comp=Z,12nm,1.3s
MVCO Mesa Verde 50.56 77 P P 12 24 36.1 +1.2
comp=Z,8.6nm,1.3s
ISCO Idaho Springs 50.67 73 P P 12 24 35.8 0.0
ISCO Idaho Springs 50.67 73 IAmb IAmb 12 24 38.8
comp=Z,5.2nm,0.9s
ISCO Idaho Springs 50.67 73 P P 12 24 35.8 0.0
SDCO Great Sand Dun 52.04 75 IAmb IAmb 12 24 49.0
comp=Z,4.3nm,0.8s
T25A Trinidad 53.10 75 IAmb IAmb 12 24 56.8
comp=Z,15nm,1.1s
ANMO Albuquerque 53.29 78 *i* P **P 12 24 54.7 -0.5**
ANMO pmax pmax
comp=Z,1.0nm,0.9s
SUMG Summit 53.49 14 P P 12 24 56.0 -0.5
SUMG pmax pmax
comp=Z,23nm,1.2s
SUMG Summit 53.49 14 P P 12 24 56.0 -0.5
ZALV Zalesovo Beam 54.02 313 P P 12 24 59.7 -0.4
comp=Z,0.4nm,0.3s,baz=47,slow=6.3,SNR=2.4
ZALV PcP **PcP 12 26 05.1 +0.2**
comp=Z,4.5nm,0.7s,baz=30,slow=4.7,SNR=15
comp=Z,0.4nm,0.3s
RTBA Rita Blanca 54.57 74 IAmb IAmb 12 25 06.8
comp=Z,9.2nm,1.0s
LZH Lanzhou 55.27 286 *e*P **P 12 25 10.9 +1.3**
LZH pmax pmax
comp=Z,21nm,1.4s
GTA2 Gaotai 55.46 292 *e*P **P 12 25 11.6 +0.7**
GTA2 pmax pmax
comp=Z,25nm,0.7s
DGZ Jazzator, Alta 55.51 308 *i* P **P 12 25 10.9 -0.2**
DGZ pmax pmax
comp=Z,4.0nm,1.6s
MSTX Muleshoe 56.20 76 IAmb IAmb 12 25 20.1
comp=Z,17nm,1.4s
SMWD Samnorwood 56.97 74 IAmb IAmb 12 25 24.4
comp=Z,9.3nm,0.9s
POST Post 57.59 76 IAmb IAmb 12 25 32.2
comp=Z,8.3nm,0.7s
SN07 Snyder 07 57.94 76 IAmb IAmb 12 25 32.6
comp=Z,5.3nm,0.7s
WMOK Wichita Mounta 58.10 73 IAmb IAmb 12 25 31.7
comp=Z,5.0nm,0.8s
WMOK Wichita Mounta 58.10 73 P P 12 25 30.0 +0.4
ARCES ARCESS Array B 58.22 350 P P 12 25 29.3 -0.6
comp=Z,2.8nm,0.5s,baz=27,slow=8.1,SNR=14
comp=Z,2.8nm,0.5s
ARCES ARCESS Array B 58.22 350 P P 12 25 28.8 -1.1
ARCES pmax pmax
comp=Z,30nm,1.4s
ARCES ARCESS Array B 58.22 350 P P 12 25 28.8 -1.1
APMT Aspermont 58.25 75 IAmb IAmb 12 25 33.5
comp=Z,12nm,1.0s
TX31 Lajitas Ar. Si 58.84 81 P 12 25 30.9 -4.0
TX31 IAmb IAmb 12 26 07.3
comp=Z,3.1nm,0.8s
TXAR Lajitas Array 58.84 81 P P 12 25 30.1 -4.8
TXAR Lajitas Array 58.84 81 P P 12 25 30.1 -4.8
KURK Kurchatov 59.01 314 *i* P **P 12 25 35.6 0.0**
KURK pmax pmax
comp=Z,5.0nm,0.9s
KURK Kurchatov 59.01 314 P P 12 25 36.1 +0.5
comp=Z,7.1nm,1.1s
ABTX Abilene, Hawle 59.03 75 IAmb IAmb 12 25 39.4
comp=Z,9.7nm,0.8s
TUL3 Leonard 59.08 70 IAmb IAmb 12 25 36.9
comp=Z,5.7nm,0.8s
KURBB Kurchatov Arra 59.12 314 P P 12 25 34.2 -2.2
comp=Z,2.2nm,0.6s,baz=42,slow=6.6,SNR=11
KURBB PcP **PcP 12 26 24.9 +0.1**
comp=Z,1.9nm,0.8s,baz=46,slow=4.7,SNR=4.8
comp=Z,2.2nm,0.6s
KURBB Kurchatov Arra 59.12 314 P P 12 25 35.5 -0.9
S39A Bolivar 59.31 67 IAmb IAmb 12 25 36.9
comp=Z,3.7nm,0.8s
PLPT Palo Pinto 59.70 74 IAmb IAmb 12 25 43.4
comp=Z,18nm,1.4s
MK31 Makanchi Array 60.01 308 P P 12 25 41.8 -0.8
MK31 pmax pmax
comp=Z,2.0nm,0.6s
MK31 Makanchi Array 60.01 308 P P 12 25 41.8 -0.8
MKAR Makanchi Array 60.01 308 P P 12 25 41.4 -1.2
comp=Z,2.1nm,0.4s,baz=49,slow=6.5,SNR=42
MKAR PcP **PcP 12 26 28.6 +0.1**
comp=Z,1.6nm,0.6s,baz=30,slow=3.2,SNR=6.1
comp=Z,2.1nm,0.4s
MKAR Makanchi Array 60.01 308 *i* P **P 12 25 41.9 -0.7**
MKAR pmax pmax
comp=Z,2.0nm,0.4s
MKAR Makanchi Array 60.01 308 P P 12 25 41.6 -1.0
MKAR PcP **PcP 12 26 28.3 -0.2**
MAKZ Makanchi 60.15 309 P P 12 25 43.6 0.0
MAKZ pmax pmax
comp=Z,6.0nm,1.3s
MAKZ Makanchi 60.15 309 P P 12 25 43.6 0.0
MAKZ IAmb IAmb 12 26 08.9
comp=Z,5.8nm,1.2s
SCHQ Schefferville 60.23 38 P P 12 25 42.4 -1.6
comp=Z,5.5nm,0.8s,baz=5.9,slow=7.4,SNR=6.9
comp=Z,5.5nm,0.8s
SCHQ Schefferville 60.23 38 P P 12 25 42.4 -1.6
CCM Cathedral Cave 60.25 65 P P 12 25 43.0 -1.4
CCM pmax pmax
comp=Z,5.0nm,0.7s
CCM Cathedral Cave 60.25 65 P P 12 25 43.0 -1.4
CCM IAmb IAmb 12 25 44.0
comp=Z,4.8nm,0.7s
BRDY Brady 60.35 76 P P 12 25 44.9 -0.3
BRDY IAmb IAmb 12 25 48.8
comp=Z,5.6nm,1.1s
GOMU GeErMu 60.56 292 P P 12 25 46.6 -0.4
GOMU pmax pmax
comp=Z,6.0nm,0.8s
FVM French Village 60.77 65 P P 12 25 47.6 -0.3
FVM pmax pmax
comp=Z,10.0nm,0.6s
FVM French Village 60.77 65 P 12 25 47.6 -0.3
BVAR Borovoye Array 60.91 320 P P 12 25 47.8 -0.8
comp=Z,2.8nm,0.4s,baz=50,slow=7.3,SNR=12
comp=Z,2.8nm,0.4s
BORK Borovoye 60.92 320 *i* P **P 12 25 49.6 +0.9**
BORK pmax pmax
comp=Z,2.0nm,0.4s
Q44A Meyer Farm, Va 60.93 63 P 12 25 48.8 -0.2
MIAR Mount Ida 61.33 70 IAmb IAmb 12 25 54.4
comp=Z,10nm,1.1s
ARTI Arti 62.75 328 *d* *i* P **P 12 26 03.9 +3.0**
ARTI 12 26 38.6
ARTI 12 28 17.3
ARTI S **S 12 34 30.4 +2.4**
ARTI SS **SS 12 38 29.2 -2.6**
ARTI pmax pmax
comp=Z,3.0nm,0.5s
WCI Wyandotte Cave 62.92 62 P P 12 26 02.4 0.0
WCI pmax pmax
comp=Z,17nm,0.7s
WCI Wyandotte Cave 62.92 62 P 12 26 02.4 0.0
WCI Wyandotte Cave 62.92 62 P P 12 26 02.3 -0.1
comp=Z,23nm,0.9s
WVT Waverly 63.55 65 P P 12 26 06.4 -0.1
WVT pmax pmax
comp=Z,10.0nm,0.8s
WVT Waverly 63.55 65 P P 12 26 06.4 -0.1
WVT IAmb IAmb 12 26 07.4
comp=Z,10nm,0.8s
WVT Waverly 63.55 65 P P 12 26 06.7 +0.1
comp=Z,14nm,1.0s
R50A Paris 63.97 61 IAmb IAmb 12 26 09.8
comp=Z,7.8nm,0.8s
G62A West of Eustis 65.87 47 P P 12 26 20.5 -1.1
G62A IAmb IAmb 12 26 46.5
comp=Z,10nm,1.3s
KDJ Kajisay 65.90 308 IAmb IAmb 12 26 24.3
comp=Z,4.3nm,0.7s
KDJ Kajisay 65.90 308 P P 12 26 22.1 +0.1
comp=Z,6.0nm,0.9s
CPCT Cooper Cave 65.90 63 IAmb IAmb 12 26 22.4
comp=Z,8.0nm,0.6s
FINES FINESS Array B 65.90 347 P P 12 26 20.3 -1.2
comp=Z,5.3nm,0.6s,baz=15,slow=7.2,SNR=30
comp=Z,5.3nm,0.6s

FINES FINESS Array B 65.90 347 *i* P **P 12 26 21.2 -0.3**
FINES pmax pmax
comp=Z,5.0nm,0.6s
FINES FINESS Array B 65.90 347 P **P 12 26 20.4 -1.1**
SIJI Sorong 66.72 236 P **P 12 26 27.6 +0.2**
comp=Z,21nm,0.8s,baz=355,slow=6.8,SNR=7.7
comp=Z,21nm,0.8s
NRN Naryn 67.01 308 IAmb IAmb 12 26 58.8
comp=Z,2.9nm,0.8s
ASAI AK-SAY(Kyrgyzs 67.13 307 P P 12 26 30.4 +0.3
comp=Z,6.2nm,0.9s
LSA Lhasa 67.34 289 P P 12 26 32.2 +0.4
LSA pmax pmax
comp=Z,17nm,0.7s
LSA Lhasa 67.34 289 P P 12 26 32.2 +0.4
comp=Z,17nm,0.7s
NOA NORSAR Array B 67.79 355 P P 12 26 32.6 -1.0
comp=Z,1.5nm,0.6s,baz=7.3,slow=6.4,SNR=12
comp=Z,1.5nm,0.6s
AB31 Akbulak array 67.97 323 P P 12 26 33.8 -1.0
AB31 Akbulak array 67.97 323 P P 12 26 34.0 -0.8
ABKAR Akbulak array 67.97 323 P P 12 26 33.8 -1.1
NORES NORESS Array B 68.07 354 P P 12 26 36.6 +1.3
KK31 Karatay Array 68.37 312 *i* P **P 12 26 37.0 -0.5**
KKAR Karatay Array 68.37 312 P P 12 26 37.3 -0.2
KKAR Karatay Array 68.37 312 P P 12 26 37.3 -0.2
HFS Hagfors 68.52 353 P P 12 26 36.9 -1.2
comp=Z,1.2nm,0.3s,baz=31,slow=6.7,SNR=14
comp=Z,1.2nm,0.3s
ARSB Arslanbob 68.57 310 IAmb IAmb 12 26 41.0
comp=Z,8.0nm,0.6s
JSC Jenkinsville 68.58 62 IAmb IAmb 12 26 39.8
comp=Z,10.0nm,0.7s
KSH2 Kashi 68.95 307 P P 12 26 42.4 +1.0
KSH2 pP sP 12 26 55.0 +3.4
KSH2 pmax pmax
comp=Z,11nm,0.7s
TRKS Terek-Say 69.29 311 P P 12 26 43.0 -0.5
TRKS pmax pmax
comp=Z,5.0nm,0.4s
BTK Batken 70.59 310 P P 12 26 52.3 +0.9
BTK P **sP 12 27 01.6 0.0**
BTK pmax pmax
comp=Z,15nm,1.0s
BTK Batken 70.59 310 IAmb IAmb 12 26 53.2
comp=Z,8.6nm,0.8s
BTK Batken 70.59 310 P P 12 26 52.3 +0.9
comp=Z,13nm,1.0s
BTK pP **sP 12 27 01.6 0.0**
CMAR Chiang Mai Arr 70.87 276 P P 12 26 53.4 +0.2
comp=Z,9.9nm,0.8s,baz=27,slow=6.9,SNR=18
comp=Z,2.9nm,0.8s
CMAR Chiang Mai Arr 70.87 276 P P 12 26 53.0 -0.2
EVN Everest 71.18 291 IAmb IAmb 12 27 13.8
comp=Z,15nm,1.5s
EVN Everest 71.18 291 P P 12 26 55.4 -0.4
comp=Z,5.1nm,1.2s
EKA Eskdalemuir Ar 73.76 2 P P 12 27 09.3 -0.6
comp=Z,0.3nm,0.3s,baz=2.0,slow=6.5,SNR=6.9
comp=Z,0.3nm,0.3s
NIL Nilore 74.37 304 P P 12 27 14.9 +1.0
NIL pmax pmax
comp=Z,60nm,1.5s
NIL Nilore 74.37 304 P P 12 27 14.9 +1.0
NIL Nilore 74.37 304 P P 12 27 14.5 +0.6
comp=Z,30nm,0.9s
AK23 Malin Array Si 75.61 342 P P 12 27 20.2 -0.5
AK21 Malin Array Si 75.61 342 P P 12 27 20.1 -0.6
AK22 Malin Array Si 75.62 342 P P 12 27 20.1 -0.7
AK03 Malin Array Si 75.63 342 P P 12 27 20.0 -0.8
AK04 Malin Array Si 75.64 342 P P 12 27 20.1 -0.8
AKASG Malin Array Be 75.65 342 P P 12 27 19.9 -1.1
comp=Z,2.1nm,0.3s,baz=21,slow=5.9,SNR=20
comp=Z,2.1nm,0.3s
AKBB Malin Array Si 75.65 342 P P 12 27 20.4 -0.5
KIEV Kiev 75.66 342 P P 12 27 19.9 -1.1
KIEV pmax pmax
comp=Z,22nm,1.2s
KIEV Kiev 75.66 342 P P 12 27 19.9 -1.1
KIEV IAmb IAmb 12 27 21.5
comp=Z,22nm,1.2s
KIEV Kiev 75.66 342 P P 12 27 20.4 -0.6
comp=Z,62nm,1.1s
KIEV Kiev 75.66 342 P P 12 27 20.4 -0.6
comp=Z,16nm,1.1s
KIEV pP **sP 12 27 32.2 +1.1**
AK01 Malin Array Si 75.66 342 P P 12 27 20.2 -0.8
AK11 Malin Array Si 75.68 342 P P 12 27 20.3 -0.8
AK17 Malin Array Si 75.70 342 P P 12 27 20.3 -0.9
AK07 Malin Array Si 75.80 342 P P 12 27 21.1 -0.7
KBL Kabul 75.81 308 P P 12 27 22.1 -0.3
KBL pmax pmax
comp=Z,9.0nm,0.7s
KBL Kabul 75.81 308 P P 12 27 22.1 -0.3
KBL IAmb IAmb 12 27 22.9
comp=Z,9.2nm,0.7s
KBL Kabul 75.81 308 P P 12 27 22.1 -0.3
comp=Z,15nm,0.9s
LUBAR Lubar, Ukraine 76.68 343 P P 12 27 26.0 -0.8
CTA Charters Tower 77.26 213 P P 12 27 31.0 +0.7
comp=Z,4.8nm,0.9s,baz=334,slow=6.5,SNR=3.6
comp=Z,4.8nm,0.9s
CTA Charters Tower 77.26 213 P P 12 27 31.0 +0.7
KWP Kalwaria Pacla 77.82 346 P P 12 27 33.3 0.0
comp=Z,25nm,1.3s
MORC Moravsky Berou 78.39 349 *e*P **P 12 27 33.8 -2.6**
KOLS Kolonicke sedl 78.57 346 *e*P **P 12 27 37.9 +0.5**
KOLS Kolonicke sedl 78.57 346 *e*P **P 12 27 37.9 +0.5**
KOLS Kolonicke sedl 78.57 346 P P 12 27 38.1 +0.7
comp=Z,9.0nm,0.7s
BMRD Maredsous 78.80 358 *d*P **P 12 27 38.0 -0.6**
comp=Z,7.2nm,0.8s
VRAC Vranov 78.96 350 *e*P **P 12 27 39.1 -0.5**
DOU Dourbes 79.01 358 *d*P **P 12 27 39.8 0.0**
comp=Z,5.4nm,1.2s
KRUC Moravsky 79.23 350 *e*P **P 12 27 39.7 -1.3**
JAVC Velka Javorina 79.28 349 *e*P **P 12 27 41.1 -0.3**
TRPA Tarpa 79.31 345 P P 12 27 42.0 +0.6
comp=Z,20nm,0.8s
BUR08 Bucovina Ar. S 79.33 344 IAmb IAmb 12 27 43.6
comp=Z,12nm,0.9s
BURAR Bucovina Array 79.36 344 P P 12 27 42.0 +0.1
BURAR pmax pmax
comp=Z,17nm,1.1s
BURAR Bucovina Array 79.36 344 P 12 27 42.0 +0.1
BURAR IAmb IAmb 12 27 43.5
comp=Z,17nm,1.1s
WLF Walferdange 79.40 357 *d*P **P 12 27 39.9 -2.0**
VYHS Vyhne 79.49 348 *e*P **P 12 27 43.1 +0.6**
VYHS Vyhne 79.49 348 *e*P **P 12 27 43.1 +0.6**
GERES GERESS Array B 79.72 351 P P 12 27 43.2 -0.6
comp=Z,1.2nm,0.6s,baz=30,slow=4.6,SNR=10
comp=Z,1.2nm,0.6s
GERES GERESS Array B 79.72 351 P P 12 27 42.9 -0.9
CONA Conrad Observa 80.40 350 *e*P **P 12 27 48.1 +0.6**
comp=Z,9.8nm,1.5s
DRGR 80.58 345 P P 12 27 47.8 -0.7
DRGR P **sP 12 27 58.7 -0.2**
DRGR pmax pmax
comp=Z,8.0nm,1.0s
DRGR 80.58 345 P P 12 27 47.8 -0.7
comp=Z,8.1nm,1.0s
DRGR pP **sP 12 27 58.7 -0.2**
BIOA Bad Ischl, Aus 80.87 351 *e*P **P 12 27 50.1 +0.2**
comp=Z,3.6nm,0.7s
MPLH Magyarpolny 80.95 349 P P 12 27 51.1 +0.8
comp=Z,30nm,0.6s
ARSA Arzberg 81.11 350 *e*P **P 12 27 51.4 +0.2**
comp=Z,4.0nm,0.6s
LESA Schwarzleotal 81.22 352 *e*P **P 12 27 51.4 -0.5**
comp=Z,2.4nm,0.5s
MLR Muntele Rosu 81.27 342 P P 12 27 52.9 +0.6
MLR pmax pmax
comp=Z,12nm,0.8s
MLR Muntele Rosu 81.27 342 IAmb IAmb 12 27 54.0
comp=Z,8.6nm,0.8s
MLR Muntele Rosu 81.27 342 P P 12 27 52.9 +0.6
comp=Z,12nm,0.8s
SESA Seetaler Alpe, 81.35 351 *e*P **P 12 27 51.4 -1.4**
comp=Z,5.5nm,0.4s
WATA Walderalm 81.40 353 *i* P **P 12 27 52.2 -0.7**
comp=Z,13nm,1.5s
MOTA Moosalm 81.43 353 *i* P **P 12 27 52.7 -0.3**
comp=Z,6.0nm,0.9s
WTTA Wattenberg 81.47 353 *i* P **P 12 27 52.7 -0.6**
comp=Z,8.2nm,0.8s

VOIR 81.49 343 P **P 12 27 53.9 +0.5**
VOIR pmax pmax
comp=Z,11nm,1.1s
VOIR 81.49 343 P **P 12 27 53.2 -0.2**
comp=Z,11nm,1.1s
VOIR 81.49 343 P **P 12 27 53.9 +0.5**
comp=Z,11nm,1.1s
KBA Koelnbreinsper 81.50 351 *e*P **P 12 27 53.4 -0.1**
comp=Z,19nm,1.0s
KBA Koelnbreinsper 81.50 351 P **P 12 27 53.8 +0.3**
comp=Z,27nm,0.8s
SQTA Sankt Quirin 81.54 353 *i* P **P 12 27 52.9 -0.7**
comp=Z,2.9nm,0.5s
SOKA Soboth 81.73 350 *i* P **P 12 27 54.3 -0.3**
comp=Z,8.9nm,0.9s
FETA Feichten 81.78 353 *i* P **P 12 27 54.4 -0.6**
comp=Z,6.4nm,1.1s
WRA Warramunga Arr 81.78 224 P **P 12 27 54.2 -0.7**
comp=Z,1.2nm,0.7s,baz=34,slow=5.8,SNR=8.1
comp=Z,1.2nm,0.7s
WRA Warramunga Arr 81.78 224 *i* P **P 12 27 54.5 -0.5**
WRA pmax pmax
comp=Z,1.0nm,0.7s
WRA Warramunga Arr 81.78 224 P P 12 27 53.5 -1.5
BZS Buzias 81.90 346 P P 12 27 54.8 -0.6
comp=Z,6.2nm,1.5s
ABTA Abfaltersbach 81.91 352 *e*P **P 12 27 54.8 -0.7**
comp=Z,8.4nm,1.2s
OBKA Obir 81.95 351 *e*P **P 12 27 55.9 +0.2**
comp=Z,3.9nm,0.6s
FUORN Ofenpass-Fuorn 82.21 354 IAmb IAmb 12 27 60.0
comp=Z,3.6nm,0.6s
TUE Stuetta 82.42 354 IAmb IAmb 12 28 00.5
comp=Z,6.2nm,1.1s
PSI Prapat 82.82 266 P P 12 28 00.7 -0.1
PSI pmax pmax
comp=Z,11nm,0.9s
RPSI Rantau Prapat 82.90 265 P P 12 28 00.7 -0.3
comp=Z,11nm,0.9s
FITZ Fitzroy Crossi 84.23 232 P P 12 28 07.9 +0.3
comp=Z,5.0nm,0.6s,baz=4.8,slow=5.5,SNR=5.8
comp=Z,5.0nm,0.6s
BR106 Keskin Array S 85.02 335 P P 12 28 11.0 -0.7
comp=Z,6.9nm,1.0s
BR131 Keskin Array S 85.02 335 IAmb IAmb 12 28 12.1
comp=Z,6.0nm,0.8s
BRTR Keskin Array B 85.02 335 P P 12 28 11.4 -0.3
comp=Z,4.3nm,0.7s,baz=46,slow=2.9,SNR=16
BRTR LR LR 13 11 12.7
comp=Z,52nm,18.6s,baz=331,slow=39
comp=Z,4.3nm,0.7s
BRTR Keskin Array B 85.02 335 P P 12 28 11.1 -0.6
BR105 Keskin Array S 85.03 335 P P 12 28 11.2 -0.6
comp=Z,8.7nm,0.8s
BR104 Keskin Array S 85.04 335 P P 12 28 11.4 -0.4
BNN Bunyan 85.24 333 IAmb IAmb 12 28 13.5
comp=Z,7.8nm,0.9s
ASAR Alice Springs 85.26 222 P P 12 28 12.7 -0.1
comp=Z,1.4nm,0.7s,baz=25,slow=5.2,SNR=9.6
comp=Z,1.4nm,0.7s
ASAR Alice Springs 85.26 222 P P 12 28 12.6 -0.2
KKUL Konya-Kulu 85.73 336 P P 12 28 15.7 +0.4
comp=Z,18nm,1.0s
CESX Cesi 86.00 351 IAmb IAmb 12 28 17.0
comp=Z,6.2nm,0.6s
ESDC Sonseca Array 89.38 4 P P 12 28 31.3 -1.4
comp=Z,2.3nm,0.9s,baz=346,slow=4.5,SNR=10
comp=Z,2.3nm,0.9s
ESDC Sonseca Array 89.38 4 P P 12 28 31.4 -1.3
STKA Stephens Creek 89.70 213 P P 12 28 34.5 +0.5
comp=Z,4.7nm,0.8s,baz=12,slow=3.7,SNR=6.2
comp=Z,4.7nm,0.8s
STKA Stephens Creek 89.70 213 *e*P **P 12 28 35.3 +1.4**
STKA pmax pmax
comp=Z,5.0nm,0.8s
TORD Torodi Ar. Bea 115.90 359 PKP **PKiKP 12 34 18.0 -1.1**
comp=Z,0.4nm,0.4s,baz=346,slow=2.1,SNR=4.3
H03N2 Juan Fernandez 121.26 106 T T 14 47 33.8
baz=313,slow=76,SNR=26
H03N1 Juan Fernandez 121.27 106 T T 14 47 35.1
baz=309,slow=76,SNR=32
DBIC Dimbokro 122.13 7 PKP **PKPdf 12 34 30.1 -0.9**
comp=Z,1.5nm,0.3s,baz=305,slow=2.7,SNR=6.6
PLCA Paso Flores 131.08 107 PKP **PKPdf 12 34 47.5 +0.2**
comp=Z,2.0nm,0.8s,baz=269,slow=5.7,SNR=4.1
QSPA South Pole Qui 140.97 180 PKhKP PKPpre 12 35 00.7
comp=Z,0.7nm,0.7s,baz=317,slow=2.4,SNR=7.3
MAW Mawson 146.26 217 PKPbc **PKPdf 12 35 15.1 +1.1**
comp=Z,3.0nm,0.8s,baz=88,slow=3.8,SNR=8.2
BOSA Boshof 150.96 312 PKPbc **PKPbc 12 35 28.6 -0.2**
comp=Z,4.2nm,0.6s,baz=30,slow=3.0,SNR=13

NEIC ***07*** *12:16:42.3±1.5, 6.16S±0.08×149.0E±0.1, h71km±5km, mb4.4/20, Error ellipse: s-maj=17.0km s-min=9.8km az=121.0*

IDC ***07*** *12:16:42.8±1.5, 6.19S×148.92E, h79km±13km, mb3.9/12, mbtmp4.3/16, MS3.2/1, Error ellipse: s-maj=21.9km s-min=8.9km az=117.0*

DJA ***07*** *12:16:49.2±3.9, 7.7°S±22.2°×14.9E±2.2°, h95km±19km, M4.8/7, mb4.8/7, mB4.0/1, MLv4.8/1, Mw(mB)3.0/1*

ISC 07 12:16:40.9±0.5, 6.18S±0.07°×149.07E±0.0°, h60km, n52, σ1s54/56, mb4.3/19, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I40PG	**Keravat**	**3.47**	**58**	I	I	12 40 00.0	
	83nm,0.4s,baz=248,slow=314,SNR=0.8						
KRVT	**Keravat (AS076**	**3.48**	**58**	P	**Pn**	**12 17 34.9**	**+2.2**
	341nm,0.4s,baz=297,slow=9.0,SNR=8.2						
KRVT				LR	LR	12 18 49.9	
	comp=Z,402nm,21.5s,baz=258,slow=35						
RABL	**Rabaul**	**3.66**	**57**	Pn	**Pn**	**12 17 36.1**	**+1.0**
PMG	**Port Moresby**	**3.72**	**211**	P	**Pn**	**12 17 37.3**	**+1.3**
	147nm,0.4s,baz=40,slow=7.1,SNR=118						
PMG				S	**Sn**	**12 18 19.1**	**+0.6**
	494nm,0.4s,baz=30,slow=12,SNR=16						
PMG	**Port Moresby**	**3.72**	**211**	P	**Pn**	**12 17 37.8**	**+1.9**
PMG				AML	AML		
CTA	**Charters Tower**	**14.09**	**191**	P	**Pn**	**12 19 59.7**	**+2.1**
	4.9nm,1.0s,baz=336,slow=16,SNR=3.0						
MTN	**Manton Dam**	**18.88**	**248**				
EIDS	**Eidsvold**	**19.17**	**174**	P	**P**	**12 21 00.3**	**+0.6**
WB0	**Warramunga Arr**	**19.64**	**225**	P	**P**	**12 21 05.5**	**+0.6**
WB0				IAmb	IAmb	12 21 08.6	
	comp=Z,9.7nm,0.7s						
WR8	**Warramunga Arr**	**19.70**	**225**		**P**	**12 21 05.7**	**+0.3**
WR8				IAmb	IAmb	12 21 16.3	
	comp=Z,22nm,1.4s						
WRAB	**Tennant Creek**	**19.79**	**225**	P	**P**	**12 21 05.9**	**-0.5**
WRAB				IAmb	IAmb	12 21 10.0	
	comp=Z,11nm,0.8s						
WRA	**Warramunga Arr**	**19.80**	**225**	P	**P**	**12 21 06.0**	**-0.6**
	comp=Z,7.1nm,0.5s,baz=47,slow=11,SNR=60						
WRA				S	**S**	**12 24 41.5**	**-5.1**
	comp=Z,1.1nm,0.7s,baz=51,slow=22,SNR=4.7						
WRA				PcP	**PcP**	**12 25 22.9**	**+0.1**
	comp=Z,1.7nm,0.6s,baz=47,slow=1.8,SNR=7.3						
WRA	**Warramunga Arr**	**19.80**	**225**	P	**P**	**12 21 03.9**	**-2.7**
KNRA	**Kununurra**	**22.04**	**243**		**P**	**12 21 30.2**	**-0.5**
KNRA				IAmb	IAmb	12 21 33.7	
	comp=Z,7.9nm,0.7s						
AS31	**Alice Springs**	**22.69**	**218**		**P**	**12 21 38.4**	**+0.7**
ASAR	**Alice Springs**	**22.70**	**218**	P	**P**	**12 21 37.6**	**-0.1**
	comp=Z,5.0nm,0.7s,baz=50,slow=9.4,SNR=45						
ASAR				PcP	**PcP**	**12 25 27.8**	**-0.6**
	comp=Z,1.2nm,0.7s,baz=55,slow=3.3,SNR=5.5						
ASAR				S	**S**	**12 25 40.9**	**-1.0**
	comp=Z,1.7nm,0.9s,baz=32,slow=21,SNR=6.4						
	comp=Z,5.0nm,0.7s						
ASAR	**Alice Springs**	**22.70**	**218**	P	**P**	**12 21 38.3**	**+0.5**
ARMA	**Armidale**	**24.23**	**175**	P	**P**	**12 21 52.5**	**+0.2**
ARMA				IAmb	IAmb	12 21 53.6	
	comp=Z,18nm,1.1s						
BATI	**Baumata**	**25.46**	**259**	P	**P**	**12 22 10.4**	**+6.8**
	comp=Z,38nm,0.5s						
FITZ	**Fitzroy Crossi**	**25.75**	**241**	P	**P**	**12 22 06.4**	**+0.2**
	comp=Z,21nm,0.6s,baz=47,slow=10.0,SNR=61						
	comp=Z,21nm,0.6s						
FITZ	**Fitzroy Crossi**	**25.75**	**241**	P	**P**	**12 22 05.4**	**-0.7**
FITZ				IAmb	IAmb	12 22 10.6	
	comp=Z,3.8nm,0.6s						
STKA	**Stephens Creek**	**26.50**	**194**	P	**P**	**12 22 13.2**	**+0.4**
	comp=Z,3.9nm,0.6s,baz=357,slow=8.6,SNR=6.9						
	comp=Z,3.9nm,0.6s						
STKA	**Stephens Creek**	**26.50**	**194**	P	**P**	**12 22 11.5**	**-1.3**

EDFI	**Ende, Flores**	**27.27**	**263**	P		**P**	**12 22 18.9**	**-1.1**
	comp=Z,12nm,0.7s								
BBOO	**Buckleboo**	**29.13**	**203**	P		**P**	**12 22 35.9**	**-0.4**
BBOO				IAmb		IAmb	12 22 53.8		
	comp=Z,16nm,1.1s								
MMSI	**Mamuju**	**30.27**	**275**	P		**P**	**12 22 48.2**	**+1.6**
FORT	**Forrest**	**31.43**	**216**	P		**P**	**12 22 56.5**	**-0.1**
FORT				IAmb		IAmb	12 23 30.4		
	comp=Z,14nm,1.1s								
TUWZ	**Tuamarina**	**41.51**	**151**	P		**P**	**12 24 22.6**	**+0.3**
MRZ	**Mangatainoka R**	**41.73**	**149**	P		**P**	**12 24 23.4**	**-0.7**
LTZ	**Lake Taylor**	**41.82**	**154**	P		**P**	**12 24 25.3**	**+0.4**
MSWZ	**Moikau Station**	**42.13**	**150**	P		**P**	**12 24 26.2**	**-1.2**
MJAR	**Matsushiro Arr**	**43.70**	**347**	P		**P**	**12 24 39.3**	**-0.9**
	comp=Z,1.9nm,0.9s,baz=170,slow=6.2,SNR=4.6								
	comp=Z,1.9nm,0.9s								
KSRS	**Korea Array**	**47.69**	**337**	P		**P**	**12 25 11.5**	**0.0**
	comp=Z,1.0nm,0.8s,baz=135,slow=6.6,SNR=4.0								
	comp=Z,1.0nm,0.8s								
HHC	**Hu-ho-hao-te**	**58.09**	**327**	*e*P		**P**	**12 26 30.1**	**+1.8**
HHC				pmax		pmax			
	comp=Z,9.0nm,0.7s								
HHC				pmax		pmax			
	comp=Z,170nm,5.5s								
PEA0B	**Petropavlovsk-**	**59.52**	**6**	P		**P**	**12 26 37.8**	**-0.1**
PETK	**Petropavlovsk-**	**59.52**	**6**	P		**P**	**12 26 37.5**	**-0.3**
	comp=Z,2.2nm,0.6s,baz=167,slow=5.7,SNR=13								
	comp=Z,2.2nm,0.6s								
CASY	**Casey**	**65.64**	**196**	P		**P**	**12 27 17.8**	**-0.7**
VNDA	**Vanda**	**71.62**	**177**	P		**P**	**12 27 55.7**	**+0.1**
	comp=Z,1.7nm,0.5s,baz=332,slow=7.4,SNR=17								
	comp=Z,1.7nm,0.5s								
VNDA	**Vanda**	**71.62**	**177**	P		**P**	**12 27 55.8**	**+0.3**
VNDA				IAmb		IAmb	12 27 56.2		
	comp=Z,2.2nm,0.6s								
WMQ	**Urumqi**	**74.28**	**319**	*e*P		**P**	**12 28 12.8**	**+0.8**
WMQ				LR		LR			
	comp=Z,190nm,24.0s								
MKAR	**Makanchi Array**	**78.96**	**320**	P		**P**	**12 28 38.4**	**+0.1**
	comp=Z,0.2nm,0.5s,baz=116,slow=3.4,SNR=2.5								
	comp=Z,0.2nm,0.5s								
ZALV	**Zalesovo Beam**	**80.27**	**327**	P		**P**	**12 28 43.4**	**-1.8**
	comp=Z,0.6nm,0.6s,baz=137,slow=5.1,SNR=2.4								
	comp=Z,0.6nm,0.6s								
ZALV	**Zalesovo Beam**	**80.27**	**327**	P		**P**	**12 28 43.7**	**-1.5**
KURBB	**Kurchatov Arra**	**82.62**	**323**	P		**P**	**12 28 56.7**	**-0.9**
	comp=Z,0.4nm,0.2s,baz=54,slow=8.2,SNR=1.3								
	comp=Z,0.4nm,0.2s								
MAW	**Mawson**	**82.87**	**203**	P		**P**	**12 28 58.0**	**-0.6**
	comp=Z,1.6nm,0.6s,baz=108,slow=7.4,SNR=8.2								
	comp=Z,1.6nm,0.6s								
MAW	**Mawson**	**82.87**	**203**	P		**P**	**12 28 58.1**	**-0.6**
QSPA	**South Pole Qui**	**83.78**	**180**	P		**P**	**12 29 03.1**	**-0.5**
	comp=Z,4.6nm,0.6s,baz=276,slow=0.4,SNR=44								
	comp=Z,4.6nm,0.6s								
QSPA	**South Pole Qui**	**83.78**	**180**	P		**P**	**12 29 03.2**	**-0.4**
QSPA				IAmb		IAmb	12 29 03.9		
	comp=Z,5.2nm,0.8s								
BMAR	**Burnt Mountain**	**86.83**	**21**	P		**P**	**12 29 16.9**	**-1.7**
LPAZ	**La Paz**	**136.94**	**122**	PKP		**PKPdf**	**12 35 58.4**	**-0.4**
	comp=Z,0.9nm,0.6s,baz=278,slow=3.8,SNR=4.1								
TORD	**Torodi Ar. Bea**	**147.13**	**285**	PKPbc		**PKPdf**	**12 36 16.9**	**+0.8**
	comp=Z,1.3nm,0.5s,baz=63,slow=3.0,SNR=9.6								
BDFB	**Brasilia**	**152.49**	**142**	PKPbc		**PKPbc**	**12 36 30.3**	**-1.3**
	comp=Z,5.2nm,0.5s,baz=169,slow=2.3,SNR=6.7								

MOS ***07*** *12:23:08.9±0.8, 61.56N×150.13W, h50km, mb5.4/85, Error ellipse: s-maj=10.0km s-min=3.5km az=91.3*

BJI ***07*** *12:23:08.0, 61.50N×149.90W, h49km, mB5.3/15, mb5.0/54, Ms4.9/15, Ms7 4.6/16*

IDC ***07*** *12:23:10.6±1.1, 61.60N×150.15W, h50km±9km, mb4.7/36, mbtmp4.9/42, MS4.1/43, Error ellipse: s-maj=8.3km s-min=7.4km az=116.0*

GFZ ***07*** *12:23:11.3±0.1, 62.N×2.×15.0W×, h51km, M5.4/156, mb5.3/156, Mw4.8/7*

NEIC ***07*** *12:23:11.0±1.5, 61.51N±0.04×149.89W±0.08, h48km±3km, mb5.3/596, ML5.2/224, Mwr4.9/166, Mww4.9/96, ML5.1(AEIC), Error ellipse: s-maj=5.7km s-min=5.2km az=162.0, Moment Tensor Solution. Moment tensor: Scale 10^16 Nm; Mrr-2.37; Mθθ 0.30; Mϕϕ 2.07; Mrθ 0.00; Mrϕ 0.12; Mθϕ 2.18; Fault plane solution: M0 3.13000×10^16 NP1: ϕs 181.34000°, δ 67.24000°, λ -91.64000°. Principal axes: T 2.9685, Plg 22.0000°, Azm 273.0000°; N 0.2945, Plg 2.0000°, Azm 182.0000°; P -3.2630, Plg 68.0000°, Azm 88.0000°;*

NEIC ***07*** *12:23:11.1, 61.52N×149.90W, h49km*

NEIC ***07*** *12:23:11.1, 61.52N×149.90W, h49km*

GCMT ***07*** *12:23:12.0±0.3, 61.58N±0.03×150.19W±0.05, h51km±2km, MW5.1/79, Moment Tensor Solution. s38,c43; s79,c103; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-3.58±.42; Mθθ-1.76±.37; Mϕϕ 5.35±.24; Mrθ-0.83±.19; Mθϕ 0.06±.20; Mrϕ 2.72±.16; Best double couple: M0 5.34700×10^16 NP1: ϕs 20.00000°, δ 32.00000°, λ -61.00000°. NP2: ϕs 166.00000°, δ 62.00000°, λ -107.00000°. Principal axes: T 6.1170, Plg 16.0000°, Azm 269.0000°; N -1.5280, Plg 15.0000°, Azm 174.0000°; P -4.5780, Plg 68.0000°, Azm 43.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

AEIC ***07*** *12:23:12.0±2.4, 61.52N±0.04×149.91W±0.08, h42km±4km Error ellipse: s-maj=5.9km s-min=5.2km az=181.0*

NEIC ***07*** *12:23:13.6, 61.52N×149.90W, h50km, Moment Tensor Solution. Duration: 185 Moment tensor: Scale 10^16 Nm; Mrr-2.55; Mθθ 0.31; Mϕϕ 2.24; Mrθ 0.10; Mθϕ -0.19; Mrϕ 1.76; Fault plane solution: M0 2.99000×10^16 NP1: ϕs 350.59000°, δ 27.12000°, λ -97.76000°. NP2: ϕs 179.29000°, δ 63.15000°, λ -86.05000°. Principal axes: T 2.8238, Plg 18.0000°, Azm 266.0000°; N 0.3118, Plg 4.0000°, Azm 357.0000°; P -3.1356, Plg 72.0000°, Azm 98.0000°;*

ISC 07 12:23:11.1±0.3, 61°53N±0°03×149°94W±0°02, h55km±2km, h54km: pP-P, n1403, σ0s 98/1196, mb5.2/550, MS4.2/53, 64C-64D, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	**Willow**	**0.24**	**339**		**Pn**	**12 23 19.1**	**-1.1**
M22K					**Sn**	**12 23 25.8**	**-1.0**
SUA	**Susitna One**	**0.39**	**261**		**Pn**	**12 23 21.0**	**-0.7**
SUA					**Sn**	**12 23 29.0**	**-0.3**
PMR	**Palmer**	**0.39**	**80**	P	**Pn**	**12 23 20.2**	**-1.2**
PMR	**Palmer**	**0.39**	**80**	S	**Sn**	**12 23 24.5**	**-4.5**
PMR	**Palmer**	**0.39**	**80**	P	**Pn**	**12 23 20.3**	**-1.2**
PMR						12 23 27.8	
PMR	**Palmer**	**0.39**	**80**		**Pn**	**12 23 20.3**	**-1.2**
PMR	**Palmer**	**0.39**	**80**		**Sn**	**12 23 27.8**	**-1.3**
PMR				IAML		12 23 28.4	
	comp=N,142μm,0.6s						
PMR				IAML		12 23 29.8	
	comp=E,160μm,0.5s						
FIS	**Fire Island**	**0.41**	**199**		**Pn**	**12 23 21.8**	**+0.1**
FIS					**Sn**	**12 23 30.9**	**+1.7**
FIS				IAML		12 23 31.4	
	comp=N,161μm,1.0s						
FIS				IAML		12 23 31.7	
	comp=E,252μm,0.8s						
RC01	**Rabbit Creek A**	**0.45**	**167**		**Pn**	**12 23 21.4**	**-0.7**
RC01				IAML		12 23 30.4	
	comp=E,130μm,0.7s						
RC01				IAML		12 23 30.8	
	comp=N,105μm,0.5s						
RC01	**Rabbit Creek A**	**0.45**	**167**		**Sn**	**12 23 29.1**	**-0.9**
GHO	**Glory Hole Cre**	**0.55**	**62**		**Pn**	**12 23 22.4**	**-0.8**
GHO	**Glory Hole Cre**	**0.55**	**62**		**Sn**	**12 23 31.3**	**-0.8**
KNK	**Knik Glacier**	**0.72**	**98**		**Pn**	**12 23 25.2**	**-0.1**
KNK					**Sn**	**12 23 36.1**	**+0.4**
KNK	**Knik Glacier**	**0.72**	**98**	IAML		12 23 39.0	
	comp=E,139μm,0.6s						
SML	**Sawmill**	**0.82**	**69**	P	**Pn**	**12 23 25.9**	**-0.7**
SML	**Sawmill**	**0.82**	**69**		**Pn**	**12 23 26.0**	**-0.6**
SML					**Sn**	**12 23 36.9**	**-1.1**
SML	**Sawmill**	**0.82**	**69**	IAML		12 23 40.1	
	comp=N,78μm,0.7s						
SKT	**Skwentna**	**0.88**	**302**		**Pn**	**12 23 26.9**	**-0.5**
SKT				IAML		12 23 40.5	
	comp=N,105μm,0.5s						
SKT	**Skwentna**	**0.88**	**302**		**Sn**	**12 23 39.4**	**0.0**
STLK	**Strandline Lak**	**0.91**	**269**		**Pn**	**12 23 27.9**	**+0.1**
STLK				IAML		12 23 43.2	
	comp=E,74μm,0.9s						
STLK	**Strandline Lak**	**0.91**	**269**		**Sn**	**12 23 40.3**	**+0.3**
CAPN	**Captain Cook N**	**0.96**	**218**		**Pn**	**12 23 29.9**	**+1.5**
PWL	**Port Wells**	**1.02**	**130**		**Pn**	**12 23 29.2**	**-0.1**
PWL	**Port Wells**	**1.02**	**130**		**Sn**	**12 23 43.6**	**+0.9**
SLKM	**Skilak Lake**	**1.03**	**188**		**Pn**	**12 23 29.1**	**-0.3**
SLKM				IAML		12 23 46.1	
	comp=E,49μm,0.6s						
SLKM	**Skilak Lake**	**1.03**	**188**		**Sn**	**12 23 43.2**	**+0.3**
O22K	**Cooper Landing**	**1.05**	**174**		**Pn**	**12 23 29.3**	**-0.3**
SPU	**Mount Spurr**	**1.07**	**252**		**Pn**	**12 23 30.2**	**+0.2**
SPU				IAML		12 23 46.5	
	comp=N,68μm,1.0s						
SPU	**Mount Spurr**	**1.07**	**252**		**Sn**	**12 23 44.8**	**+0.8**
M23K	**Glacier View**	**1.09**	**75**		**Sn**	**12 23 45.7**	**+1.4**
SPCR	**Spurr Chakacha**	**1.14**	**254**		**Sn**	**12 23 46.3**	**+0.7**
SCM	**Sheep Creek Mo**	**1.28**	**75**	P	**Pn**	**12 23 32.8**	**0.0**
SCM						12 23 50.0	
SCM	**Sheep Creek Mo**	**1.28**	**75**		**Pn**	**12 23 32.8**	**0.0**
WAT7	**Susitna Watana**	**1.41**	**21**		**Sn**	**12 23 52.6**	**+0.5**
SEW	**Seward**	**1.45**	**170**		**Pn**	**12 23 34.3**	**-0.6**
WAT1	**Susitna Watana**	**1.46**	**26**		**Sn**	**12 23 54.1**	**+0.8**
GLI	**Glacier Island**	**1.52**	**114**		**Pn**	**12 23 35.8**	**-0.2**
GLI				IAML		12 23 56.1	
	comp=E,37μm,0.8s						
GLI				IAML		12 24 00.8	
	comp=N,34μm,0.8s						
GLI	**Glacier Island**	**1.52**	**114**		**Sn**	**12 23 55.1**	**+0.5**
M20K	**Styx River**	**1.56**	**285**	IAML		12 23 59.5	
	comp=N,24μm,0.9s						
M20K				IAML		12 24 00.7	
	comp=E,22μm,0.9s						
RDJH	**Redoubt Jeurge**	**1.68**	**237**		**Sn**	**12 24 00.3**	**+1.7**
PPLA	**Purkeypile**	**1.73**	**324**		**Pn**	**12 23 39.3**	**+0.3**
PPLA				IAML		12 24 04.8	
	comp=N,30μm,0.9s						
PPLA				IAML		12 24 17.4	
	comp=E,32μm,1.3s						
PPLA	**Purkeypile**	**1.73**	**324**		**Sn**	**12 24 00.5**	**+0.5**
RED	**Redoubt Volcan**	**1.77**	**232**		**Pn**	**12 23 39.9**	**+0.4**
RED				IAML		12 24 05.2	
	comp=E,18μm,1.0s						
BRLK	**Bradley Lake**	**1.83**	**195**		**Pn**	**12 23 40.2**	**0.0**
BRSE	**Bradley Lake S**	**1.83**	**193**		**Sn**	**12 24 05.2**	**+3.0**
FID	**Port Fidalgo**	**1.85**	**113**		**Pn**	**12 23 39.7**	**-0.7**
FID				IAML		12 24 12.7	
	comp=E,26μm,0.8s						
FID				IAML		12 24 13.0	
	comp=N,28μm,0.4s						
KLU	**Klutina**	**1.93**	**89**	IAML		12 24 14.1	
	comp=N,24μm,1.0s						
KLU				IAML		12 24 16.9	
	comp=E,22μm,1.0s						
TRF	**Thorofare Moun**	**1.94**	**355**		**Pn**	**12 23 42.3**	**+0.5**
TRF				IAML		12 24 20.0	
	comp=N,17μm,0.7s						
TRF				IAML		12 24 24.3	
	comp=E,17μm,0.9s						
RND	**Reindeer**	**1.96**	**14**	P	**Pn**	**12 23 42.2**	**+0.3**
RND	**Reindeer**	**1.96**	**14**		**Pn**	**12 23 42.2**	**+0.3**
RND				IAML		12 24 19.0	
	comp=N,15μm,1.3s						
DHY	**Denali Highway**	**1.96**	**36**		**Pn**	**12 23 42.6**	**+0.5**
DHY				IAML		12 24 10.4	
	comp=E,14μm,0.5s						
DHY				IAML		12 24 10.9	
	comp=N,17μm,1.3s						
DHY	**Denali Highway**	**1.96**	**36**		**Sn**	**12 24 07.8**	**+2.2**
P23K	**Montague Islan**	**1.98**	**140**		**Pn**	**12 23 41.3**	**-0.8**
HIN	**Hinchinbrook I**	**2.02**	**123**		**Pn**	**12 23 42.8**	**0.0**
DIV	**Divide**	**2.05**	**99**		**Pn**	**12 23 42.9**	**-0.3**
DIV				IAML		12 24 15.8	
	comp=N,19μm,1.0s						
DIV				IAML		12 24 17.5	
	comp=E,15μm,0.7s						
HOM	**Homer**	**2.05**	**205**		**Pn**	**12 23 43.9**	**+0.7**
KTH	**Kantishna Hill**	**2.09**	**348**		**Pn**	**12 23 44.2**	**+0.5**
KTH				IAML		12 24 11.4	
	comp=E,18μm,0.8s						
KTH				IAML		12 24 23.1	
	comp=N,19μm,0.8s						
L20K	**Farewell, AK**	**2.09**	**299**		**Pn**	**12 23 44.2**	**+0.5**
L20K	**Farewell, AK**	**2.09**	**299**	IAML		12 24 14.6	
	comp=N,22μm,0.8s						
L20K				IAML		12 24 21.1	
	comp=E,14μm,0.9s						
CNPM	**China Poot**	**2.11**	**198**		**Pn**	**12 23 44.0**	**+0.1**
CNPM				IAML		12 24 14.0	
	comp=E,14μm,0.9s						
CAST	**Castle Rocks**	**2.15**	**333**		**Pn**	**12 23 44.5**	**0.0**
M19K	**Big River Lodg**	**2.15**	**282**		**Pn**	**12 23 45.1**	**+0.5**
M19K	**Big River Lodg**	**2.15**	**282**	IAML		12 24 25.7	
	comp=E,13μm,1.0s						
M19K				IAML		12 24 28.8	
	comp=N,13μm,0.9s						
ILSW	**Iliamna Southw**	**2.21**	**227**		**Pn**	**12 23 46.4**	**+1.0**
EYAK	**Cordova Ski Ar**	**2.26**	**114**	P	**Pn**	**12 23 45.8**	**-0.2**
EYAK	**Cordova Ski Ar**	**2.26**	**114**		**Pn**	**12 23 45.6**	**-0.4**
EYAK				IAML		12 24 24.1	
	comp=N,16μm,0.7s						
MCK	**McKinley**	**2.26**	**11**	P	**Pn**	**12 23 46.8**	**+0.7**
MCK	**McKinley**	**2.26**	**11**		**Pn**	**12 23 46.8**	**+0.7**
MCK				IAML		12 24 27.2	
	comp=E,15μm,0.7s						
MCK				IAML		12 24 28.5	
	comp=N,15μm,1.0s						
PS12	**TAPS Pump St12**	**2.30**	**89**		**Pn**	**12 23 46.8**	**+0.2**
N19K	**Bonanza Creek**	**2.31**	**254**		**Pn**	**12 23 47.5**	**+0.7**
N19K				IAML		12 24 31.5	
	comp=N,10μm,1.0s						
L19K	**White Mountain**	**2.42**	**288**		**Pn**	**12 23 48.9**	**+0.7**
L19K				IAML		12 24 20.1	
	comp=E,11μm,0.7s						
L19K				IAML		12 24 33.6	
	comp=N,10μm,1.3s						
HARP	**HAARP**	**2.42**	**67**		**Pn**	**12 23 49.6**	**+1.3**
O19K	**Port Alsworth**	**2.52**	**240**		**Pn**	**12 23 49.8**	**+0.2**
O19K				IAML		12 24 25.3	
	comp=E,18μm,0.5s						
O19K				IAML		12 24 26.4	
	comp=N,14μm,0.7s						
PAX	**Paxson**	**2.54**	**53**	P	**Pn**	**12 23 50.8**	**+0.8**
PAX	**Paxson**	**2.54**	**53**		**Pn**	**12 23 50.8**	**+0.8**
CHUM	**Lake Minchumin**	**2.61**	**336**		**Pn**	**12 23 50.8**	**+0.1**
BPAW	**Bear Paw Mtn.**	**2.63**	**350**		**Pn**	**12 23 51.0**	**0.0**
BMRM	**Bremner River**	**2.64**	**100**		**Pn**	**12 23 50.9**	**-0.3**
BMRM				IAML		12 24 30.9	
	comp=E,11μm,0.7s						
BMRM				IAML		12 24 35.3	
	comp=N,13μm,0.7s						
K20K	**Telida**	**2.66**	**316**		**Pn**	**12 23 51.7**	**+0.2**
BWN	**Browne**	**2.67**	**4**		**Pn**	**12 23 52.0**	**+0.5**
BWN				IAML		12 24 47.8	
	comp=N,17μm,0.8s						
PS10	**TAPS Pump St10**	**2.72**	**44**		**Pn**	**12 23 53.5**	**+1.2**
AU22	**Augustine Moun**	**2.75**	**220**		**Pn**	**12 23 53.6**	**+1.0**
MID	**Middleton Isla**	**2.76**	**138**	Pn	**Pn**	**12 23 54.0**	**+1.3**
MID				IAML		12 24 45.1	
	comp=N,10μm,1.0s						
MID				IAML		12 24 52.2	
	comp=E,11μm,1.0s						
AUJK	**Augustine Jueg**	**2.78**	**220**		**Pn**	**12 23 53.8**	**+0.7**
AUCH	**Augustine Cone**	**2.78**	**220**		**Pn**	**12 23 54.1**	**+0.9**
AUW	**Augustine West**	**2.78**	**221**		**Pn**	**12 23 54.0**	**+0.9**
AUI	**Augustine Isla**	**2.79**	**220**		**Pn**	**12 23 53.9**	**+0.6**
M18K	**Stony River**	**2.82**	**272**		**Pn**	**12 23 54.1**	**+0.5**
GLB	**Gilahina Butte**	**2.94**	**89**		**Pn**	**12 23 55.1**	**-0.2**
GLB				IAML		12 24 44.3	
	comp=N,12μm,0.8s						
GLB				IAML		12 24 45.0	
	comp=E,6μm,0.6s						
N18K	**Kilae Creek**	**3.01**	**256**		**Pn**	**12 23 56.6**	**+0.3**
O18K	**Koktuh Hills**	**3.09**	**239**		**Pn**	**12 23 57.2**	**-0.1**
O18K				IAML		12 24 44.9	
	comp=N,6μm,0.8s						
VRDI	**Verde Repeater**	**3.14**	**93**		**Pn**	**12 23 57.4**	**-0.8**
VRDI	**Verde Repeater**	**3.14**	**93**	IAML		12 24 56.5	
	comp=N,6μm,1.2s						
HDA	**Harding Lake**	**3.20**	**24**		**Pn**	**12 23 59.3**	**+0.4**
HDA	**Harding Lake**	**3.20**	**24**	IAML		12 24 53.4	
	comp=E,8μm,0.8s						
HDA				IAML		12 24 53.5	
	comp=N,11μm,1.0s						
MENT	**Mentasta**	**3.24**	**61**		**Pn**	**12 24 00.3**	**+0.9**
L18K	**Granite Mounta**	**3.27**	**285**	IAML		12 25 01.6	
	comp=N,5μm,1.0s						
J20K	**Nowinta River**	**3.29**	**326**		**Pn**	**12 23 59.8**	**-0.2**
J20K	**Nowinta River**	**3.29**	**326**	IAML		12 24 54.4	
	comp=E,6μm,0.6s						
J20K				IAML		12 25 07.1	
	comp=N,5μm,0.9s						
M26K	**Nabesna, AK**	**3.40**	**72**		**Pn**	**12 24 02.1**	**+0.5**
M26K	**Nabesna, AK**	**3.40**	**72**	IAML		12 24 59.2	
	comp=N,6μm,0.7s						
M26K				IAML		12 25 01.9	
	comp=E,5μm,1.1s						
L26K	**Log Cabin Wild**	**3.43**	**61**		**Pn**	**12 24 03.1**	**+1.1**
L26K	**Log Cabin Wild**	**3.43**	**61**	IAML		12 25 02.1	
	comp=N,9μm,0.9s						
I53US	**FAIRBANKS INFR**	**3.49**	**15**	P	**Pn**	**12 24 05.0**	**+2.2**
	baz=200,slow=30						
I53US				I	I	12 38 40.0	
	baz=213,slow=320,SNR=1.3						
COLA	**College**	**3.49**	**15**	P	**Pn**	**12 24 03.2**	**+0.4**
COLA	**College**	**3.49**	**15**	S	**Sn**	**12 24 44.4**	**+1.6**
COLA	**College**	**3.49**	**15**	*d* iP	**Pn**	**12 24 02.9**	**+0.1**
COLA	**College**	**3.49**	**15**		**Pn**	**12 24 02.8**	**0.0**
COLA	**College**	**3.49**	**15**	P	**Pn**	**12 24 03.0**	**+0.1**
TGL	**Tana Glacier**	**3.53**	**99**	IAML		12 25 09.5	
	comp=N,7μm,0.8s						
TGL				IAML		12 25 12.1	
	comp=E,7μm,1.0s						
MLY	**Manley**	**3.54**	**354**		**Pn**	**12 24 03.5**	**0.0**
ILAR	**Eielson Array**	**3.54**	**22**	P	**Pn**	**12 24 03.6**	**+0.1**
	comp=E,149nm,0.5s,baz=204,slow=13,SNR=264						
ILAR				S	**Sn**	**12 24 43.2**	**-0.8**
	comp=E,1μm,0.8s,baz=210,slow=20,SNR=10						
ILAR	**Eielson Array**	**3.54**	**22**		**Pn**	**12 24 03.4**	**-0.1**
J19K	**Poorman**	**3.60**	**316**	IAML		12 25 03.1	
	comp=N,5μm,0.8s						
J19K				IAML		12 25 04.8	
	comp=E,5μm,1.0s						
M17K	**Holitna River**	**3.60**	**271**		**Pn**	**12 24 04.6**	**+0.3**
I23K	**Minto, Yukon-K**	**3.65**	**4**	IAML		12 25 13.9	
	comp=N,3μm,1.3s						
N17K	**Nushagak Hills**	**3.67**	**257**		**Pn**	**12 24 05.6**	**+0.4**
N17K	**Nushagak Hills**	**3.67**	**257**	IAML		12 25 19.1	
	comp=N,3μm,1.4s						
SCRK	**Sand Creek**	**3.68**	**45**	IAML		12 25 03.4	
	comp=N,4μm,1.2s						
SCRK				IAML		12 25 06.4	
	comp=E,5μm,0.8s						
J18K	**Innoko River**	**3.70**	**305**		**Pn**	**12 24 06.0**	**+0.4**
J18K	**Innoko River**	**3.70**	**305**	IAML		12 25 09.5	
	comp=E,3μm,0.8s						
J18K				IAML		12 25 11.3	
	comp=N,4μm,0.8s						
J25K	**Salcha River,**	**3.73**	**32**	IAML		12 24 57.3	
	comp=E,6μm,0.6s						
J25K				IAML		12 24 58.1	
	comp=N,6μm,0.5s						
POKR	**Poker Plat Res**	**3.78**	**16**	IAML		12 25 17.4	
	comp=E,3μm,0.9s						
POKR				IAML		12 25 18.0	
	comp=N,3μm,1.1s						
PS07	**TAPS Pump Stn7**	**3.87**	**10**		**Pn**	**12 24 08.3**	**+0.2**
I20K	**Naaghedeneel**	**3.88**	**330**		**Pn**	**12 24 08.1**	**+0.1**
M27K	**Edge Creek, AK**	**3.90**	**74**	IAML		12 25 16.5	
	comp=N,4μm,1.0s						
M27K				IAML		12 25 29.1	
	comp=E,3μm,1.1s						
KDAK	**Kodiak Island**	**3.99**	**201**	P	**Pn**	**12 24 08.5**	**-1.1**
	comp=E,98nm,0.5s,baz=25,slow=8.7,SNR=59						
KDAK				S	**Sn**	**12 24 55.6**	**+0.6**
	comp=E,883nm,0.7s,baz=72,slow=5.2,SNR=5.5						
KDAK				LR	LR	12 26 05.9	
	comp=E,4μm,21.3s,baz=28,slow=44						
KDAK	**Kodiak Island**	**3.99**	**201**		**Pn**	**12 24 08.4**	**-1.1**
KDAK	**Kodiak Island**	**3.99**	**201**	P	**Pn**	**12 24 10.2**	**+0.6**
BARN	**Barnard Glacie**	**4.02**	**93**	IAML		12 25 17.1	
	comp=E,4μm,0.7s						
BARN				IAML		12 25 19.6	
	comp=N,4μm,0.8s						
GRNC	**Granite Creek**	**4.05**	**98**		**Pn**	**12 24 10.2**	**-0.5**
GRNC	**Granite Creek**	**4.05**	**98**	IAML		12 25 17.5	
	comp=N,3μm,0.5s						
BC01	**Beaver Creek A**	**4.09**	**64**		**Pn**	**12 24 11.5**	**+0.4**
L27K	**Beaver Creek,**	**4.09**	**64**		**Pn**	**12 24 11.6**	**+0.6**
L27K	**Beaver Creek,**	**4.09**	**64**	IAML		12 25 19.8	
	comp=N,3μm,1.5s						
K17K	**Iditarod**	**4.11**	**291**		**Pn**	**12 24 11.6**	**+0.4**
K17K	**Iditarod**	**4.11**	**291**	IAML		12 25 29.3	
	comp=N,4μm,1.0s						
K17K				IAML		12 25 39.3	
	comp=E,4μm,0.9s						
BCAR	**Beaver Creek A**	**4.11**	**64**		**Pn**	**12 24 11.9**	**+0.5**
YAH	**Yahtse**	**4.16**	**103**		**Pn**	**12 24 12.4**	**+0.1**
YAH	**Yahtse**	**4.16**	**103**	IAML		12 25 28.9	
	comp=N,3μm,0.9s						
YAH				IAML		12 25 31.0	
	comp=E,2μm,0.9s						
ACHA	**Angle Creek He**	**4.29**	**222**		**Pn**	**12 24 14.1**	**+0.3**
H23K	**Yukon River**	**4.32**	**2**		**Pn**	**12 24 14.3**	**+0.1**
H21K	**Melozitna River**	**4.34**	**344**		**Pn**	**12 24 14.8**	**+0.4**
PS06	**TAPS Pump Stn6**	**4.35**	**1**		**Pn**	**12 24 15.0**	**+0.5**
ANCK	**Angle Creek**	**4.36**	**222**		**Pn**	**12 24 15.1**	**+0.3**
BVCY	**Beaver Creek**	**4.38**	**74**		**Pn**	**12 24 15.6**	**+0.6**
M16K	**Timber Creek**	**4.

comp=E,2µm,0.7s
G21K IAML 12 26 04.3
comp=N,1µm,0.8s
H18K Honhosa River 5.26 317 Pn 12 24 27.0 0.0
H18K Honhosa River 5.26 317 IAML 12 26 05.0
comp=N,1µm,1.5s
H18K IAML 12 26 20.3
comp=E,1µm,1.9s
J16K Anvik River 5.26 294 Pn 12 24 26.9 -0.2
J16K Anvik River 5.26 294 IAML 12 26 03.2
comp=E,1µm,0.8s
J16K IAML 12 26 20.5
comp=N,1µm,1.2s
M15K Kasigluk River 5.28 266 Pn 12 24 27.4 +0.1
G24K Hadweenzic Riv 5.31 11 IAML 12 26 06.7
comp=E,1µm,1.3s
G24K IAML 12 26 09.4
comp=N,2µm,1.2s
PS05 TAPS Pump Stn5 5.32 357 Pn 12 24 28.5 +0.7
SII Sitkinak Islan 5.44 206 P **Pn 12 24 29.9 +0.3**
SII Sitkinak Islan 5.44 206 Pn 12 24 29.5 -0.1
FYU Fort Yukon 5.47 20 Pn 12 24 30.1 +0.3
DAWY Dawson 5.47 58 Pn 12 24 30.3 +0.3
I17K Unalakleet 5.49 300 Pn 12 24 30.5 +0.4
M29M Somme Creek 5.49 75 Pn 12 24 30.4 +0.1
PNL Peninsula 5.52 105 P **Pn 12 24 30.2 -0.4**
G25K Bearman Lake 5.52 16 Pn 12 24 31.3 +0.7
K15K Wolf Creek Mou 5.53 283 Pn 12 24 31.2 +0.4
R16K Pilot Point 5.55 228 Pn 12 24 31.6 +0.6
H17K Granite Mounta 5.66 312 Pn 12 24 32.9 +0.5
L29M L29M 5.73 69 Pn 12 24 33.8 +0.3
M14K Bethel 5.88 268 Pn 12 24 35.8 +0.3
F21K Alatna River 5.92 347 Pn 12 24 36.7 +0.5
N14K Kuskokwak Cree 5.98 260 Pn 12 24 37.5 +0.6
H27K Steamboat Moun 6.01 35 Pn 12 24 38.0 +0.7
G26K Porcupine Rive 6.07 24 Pn 12 24 38.3 +0.3
F22K John River 6.08 352 Pn 12 24 38.6 +0.2
J29N Klondike Camp 6.09 56 Pn 12 24 39.2 +0.7
N30M Aishikik Lake 6.16 85 Pn 12 24 38.6 -0.7
K29M Barlow Dome 6.17 62 Pn 12 24 39.4 -0.2
G17K Kiwalik Mounta 6.23 314 Pn 12 24 40.8 +0.5
P29M Windy Craggy 6.31 102 Pn 12 24 41.8 +0.3
BMAR Burnt Mountain 6.36 19 Pn 12 24 43.2 +1.1
F25K Christian Rive 6.37 15 Pn 12 24 43.1 +0.8
ANPB Aniakchak Plen 6.39 226 Pn 12 24 42.9 +0.3
G27K Doyon Strip 6.42 31 Pn 12 24 43.2 +0.3
CHIR Chirikof Islan 6.44 210 P **Pn 12 24 44.3 +1.1**
CHIR Chirikof Islan 6.44 210 Pn 12 24 42.5 -0.8
P30M Million Dollar 6.50 97 Pn 12 24 44.2 0.0
E23K Chandalar 6.56 1 Pn 12 24 45.8 +0.8
BPBCA Veniaminof 6.61 225 Pn 12 24 45.6 0.0
F18K Selawik 6.63 324 Pn 12 24 46.4 +0.6
F26K Sheenjek River 6.67 19 Pn 12 24 47.1 +0.7
G16K Koyuk River 6.78 310 Pn 12 24 48.7 +0.9
N31M Braeburn, Yuko 6.78 84 Pn 12 24 48.3 +0.4
CHGN Chignik 6.83 224 Pn 12 24 48.6 +0.1
PS04 TAPS Pump Stn4 6.93 2 Pn 12 24 51.3 +1.3
H29M Whitestone 6.94 42 Pn 12 24 51.0 +1.0
F17K Baldwin Pennin 7.00 320 Pn 12 24 51.2 +0.4
I30M Mount Dempster 7.13 53 Pn 12 24 53.9 +1.1
E21K Killik River 7.15 348 Pn 12 24 54.4 +1.5
VNSG Veniaminof 6 7.20 225 Pn 12 24 53.2 -0.4
G15K Niukluk 7.24 305 Pn 12 24 54.8 +0.6
VNSS Veniaminof 8 7.24 227 Pn 12 24 55.8 +1.4
WHY Whitehorse 7.35 90 Pn 12 24 55.8 0.0
VNKR Veniaminof 5 7.37 226 Pn 12 24 55.9 -0.1
D22K Ayikyak River 7.47 352 Pn 12 24 59.4 +2.1
D23K Nanushuk River 7.48 358 Pn 12 24 58.7 +1.3
G29M Pine Creek 7.49 39 Pn 12 24 58.9 +1.4
E18K Tukpahlearik C 7.49 327 Pn 12 24 57.9 +0.4
SKAG Skagway 7.51 100 P **Pn 12 24 57.4 -0.4**
SKAG Skagway 7.51 100 Pn 12 24 58.1 +0.4
E27K Coleen River 7.56 24 Pn 12 24 58.9 +0.3
E17K Hotham Inlet 7.59 322 Pn 12 24 59.6 +0.7
ANM Nome 7.64 300 P **Pn 12 25 00.8 +1.2**
ANM Nome 7.64 300 Pn 12 25 00.8 +1.2
D24K Happy Valley 7.68 3 Pn 12 25 02.3 +2.3
D20K Etivluk River 7.74 342 Pn 12 25 02.5 +1.5
F15K North Star Dit 7.77 309 Pn 12 25 01.3 -0.1
S31K Pelican 7.79 111 Pn 12 25 00.7 -0.9
D19K Kuna River 7.80 337 Pn 12 25 02.1 +0.3
C21K Kniefelbade Rid 7.92 347 Pn 12 25 04.3 +0.8
D25K Kavik River 7.97 9 Pn 12 25 05.7 +1.5
M11K Mekoryuk 8.00 269 Pn 12 25 04.5 +0.1
G30M tAoh Zraii Nji 8.09 42 Pn 12 25 05.7 -0.1
BESE Bessie Mountai 8.10 105 Pn 12 25 06.1 0.0
H31M Peel River 8.14 51 Pn 12 25 08.0 +1.5
C24K Franklin Bluff 8.25 5 Pn 12 25 08.3 +1.4
SDPT Sand Point 8.29 226 P **Pn 12 25 09.6 +1.1**
SDPT Sand Point 8.29 226 Pn 12 25 09.1 +0.6
F14K Arctic Creek 8.32 306 Pn 12 25 10.0 +1.1
E28M Babbage River 8.34 27 Pn 12 25 09.5 +0.3
C23K Itkillik River 8.35 358 Pn 12 25 10.0 +0.7
D17K Noatak River 8.37 323 Pn 12 25 09.7 +0.2
R32K Eaglecrest 8.40 106 Pn 12 25 09.6 -0.5
P33M Teslin, Yukon 8.46 91 Pn 12 25 10.3 -0.6
JIS Juneau Island 8.47 106 P **Pn 12 25 10.6 -0.3**
JIS Juneau Island 8.47 106 Pn 12 25 10.3 -0.6
C27K Jago River 8.53 15 Pn 12 25 12.5 +0.8
E29M Blow River 8.56 31 Pn 12 25 12.3 +0.1
C18K Utukok River 8.57 331 Pn 12 25 12.8 +0.5
D27M Malcolm River 8.60 22 Pn 12 25 13.7 +1.0
S12K Black Hills 8.60 233 Pn 12 25 13.7 +0.9
C19K Lookout Ridge 8.60 336 Pn 12 25 13.8 +1.0
C26K Camden Bay 8.68 12 Pn 12 25 15.1 +1.4
G31M Satah River 8.70 45 Pn 12 25 13.7 -0.3
SIT Sitka 8.71 114 P **Pn 12 25 13.4 -0.8**
SIT Sitka 8.71 114 P **Pn 12 25 13.1 -1.1**
SIT Sitka 8.71 114 Pn 12 25 13.1 -1.1
S32K Killisnoo 8.80 111 Pn 12 25 14.3 -1.2
DOL Dolgoi Island 8.94 230 Pn 12 25 17.3 -0.2
B22K Teshekpuk Lake 8.96 352 Pn 12 25 17.6 0.0
TNA Tin City 8.97 305 Pn 12 25 19.3 +1.5
B20K Meade River 9.01 344 Pn 12 25 18.1 -0.2
DTNA Dutton South F 9.09 231 Pn 12 25 19.0 -0.4
DT1 Dutton Round H 9.13 231 Pn 12 25 19.5 -0.5
F31M Tsiigehtchic 9.14 43 Pn 12 25 19.3 -0.8
Q32M Nakina River 9.15 98 Pn 12 25 19.6 -0.9
B18K Kokolik River 9.27 333 Pn 12 25 21.4 -0.4
C16K Lisburne Hills 9.39 323 Pn 12 25 24.9 +1.5
R33M Jennings River 9.61 94 Pn 12 25 26.3 -0.3
INK Inuvik 9.71 39 P **Pn 12 25 27.7 -0.1**
comp=N,36nm,0.7s,baz=247,slow=15,SNR=37
INK S **Sn 12 27 15.6 +0.4**
comp=N,118nm,0.7s,baz=252,slow=32,SNR=6.9
INK LR LR 12 29 40.7
comp=N,1µm,19.3s,baz=198,slow=40
INK Inuvik 9.71 39 Pn 12 25 27.8 0.0
INK Inuvik 9.71 39 P **Pn 12 25 28.0 +0.2**
comp=Z,211nm,0.9s
A22K Sinclair Lake 9.73 350 Pn 12 25 27.4 -0.6
A19K Wainwright 9.81 337 Pn 12 25 29.1 -0.1
ISNN Isanotski Nort 9.90 234 Pn 12 25 31.5 +0.9
S34M Telegraph Cree 10.15 103 Pn 12 25 33.2 -0.8
U33K Whale Pass 10.25 114 Pn 12 25 34.1 -1.1
DLBC Dease Lake 10.43 98 P **Pn 12 25 37.8 -0.1**
comp=Z,14nm,0.8s,baz=272,slow=12,SNR=24
DLBC S **Sn 12 27 36.1 +3.0**
comp=Z,34nm,1.0s,baz=233,slow=20,SNR=2.0
CRAG Craig 10.67 117 P **Pn 12 25 40.8 -0.2**
AKUT Akutan 11.20 236 P **Pn 12 25 49.6 +1.3**
UNV Unalaska Valle 11.71 236 P **Pn 12 25 56.5 +1.3**
WRGLY Wrigley 12.37 70 Pn 12 26 04.3 +0.1
DIB Dawson Inlet, 12.55 124 Pn **Pn 12 26 06.2 -0.4**
C36M Paulatuk 13.20 43 Pn 12 26 12.3 -3.1
A36M Sachs Harbour 14.17 32 Pn 12 26 26.0 -2.4
BBB Bella Bella 15.09 118 P **Pn 12 26 41.4 +0.8**
comp=Z,23nm,1.0s,baz=309,slow=10,SNR=6.9
BBB Bella Bella 15.09 118 P **Pn 12 26 42.5 +1.9**
comp=Z,121nm,1.2s
ATKA Atka Island 16.12 246 P **P 12 26 56.1 -0.1**
YKA Yellowknife Ar 16.49 71 P **Pn 12 26 57.3 -1.1**
comp=Z,16nm,0.6s,baz=283,slow=10,SNR=45
YKA PcP **PcP 12 31 46.7 +0.2**
comp=Z,6.5nm,0.7s,baz=264,slow=1.4,SNR=6.8
YKA LR LR 12 34 13.0
comp=Z,272nm,20.8s,baz=269,slow=40
YKA ScP **ScP 12 35 16.2 +0.2**
comp=Z,2.7nm,0.8s,baz=285,slow=2.2,SNR=4.9
YKA Yellowknife Ar 16.49 71 Pn **Pn 12 26 56.8 -1.6**
YKAW1 Yellowknife Wh 16.55 71 Pn **Pn 12 26 59.2 +0.1**

ADK Adak 17.44 249 P **P 12 27 12.9 +2.1**
ADK Adak 17.44 249 P **P 12 27 10.4 -0.4**
ADK pmax pmax
comp=Z,71nm,1.1s
ADK Adak 17.44 249 P **P 12 27 10.4 -0.4**
ADK Adak 17.44 249 P **P 12 27 10.5 -0.4**
comp=Z,143nm,1.1s
CLRS Cowichan Lake 19.30 119 P **P 12 27 31.2 0.0**
A05A Maple Falls 20.03 116 IAmb IAmb 12 27 43.2
comp=Z,286nm,1.7s
NLWA Neiltoo Lookou 20.53 122 IAmb IAmb 12 27 48.4
comp=Z,117nm,0.9s
EDM Edmonton 21.15 96 IAmb IAmb 12 27 56.0
comp=Z,111nm,0.8s
SHEM Shemya Is, Ala 21.15 262 P **P 12 27 50.5 -0.7**
ADK comp=Z,46nm,0.9s,baz=75,slow=19,SNR=1.9
SHEM LR LR 12 35 51.6
comp=Z,410nm,20.0s,baz=70,slow=36
JRO Jston Ridge Ob 22.11 121 IAmb IAmb 12 28 06.2
comp=Z,73nm,1.0s
MXC Moxie City 22.67 118 IAmb IAmb 12 28 11.6
comp=Z,104nm,1.2s
NEW Newport 22.76 111 P **P 12 28 10.1 +1.5**
NEW pmax pmax
comp=Z,88nm,1.2s
NEW Newport 22.76 111 IAmb IAmb 12 28 11.5
comp=Z,87nm,1.1s
NEW Newport 22.76 111 P **P 12 28 10.1 +1.5**
comp=Z,83nm,1.2s
G04A Mulino 22.87 123 IAmb IAmb 12 28 13.5
comp=Z,155nm,1.0s
D08A Wollman Farm, 22.88 115 IAmb IAmb 12 28 12.3
comp=Z,73nm,1.0s
RES Resolute Bay 23.21 34 LR LR 12 37 37.4
comp=Z,310nm,20.9s,baz=214,slow=37
RES Resolute Bay 23.21 34 P **P 12 28 11.9 -0.8**
RES pmax pmax
comp=Z,19nm,0.7s
RES Resolute Bay 23.21 34 P **P 12 28 11.9 -0.8**
RES Resolute Bay 23.21 34 P **P 12 28 12.1 -0.6**
comp=Z,42nm,1.0s
E08A Dider Farm, El 23.26 116 IAmb IAmb 12 28 15.8
comp=Z,117nm,1.5s
G05A Wamic 23.31 121 IAmb IAmb 12 28 23.3
comp=Z,64nm,0.8s
F07A Phinny Hill Vi 23.36 118 IAmb IAmb 12 28 17.5
comp=Z,64nm,1.0s
I05D Terrebonne, OR 24.05 123 IAmb IAmb 12 28 23.7
comp=Z,58nm,0.7s
I04A Tendick Farm, 24.07 125 IAmb IAmb 12 28 25.8
comp=Z,165nm,1.5s
WIFE Three Sisters- 24.08 124 IAmb IAmb 12 28 24.5
comp=Z,90nm,0.8s
BLKN Baker Lake 24.09 60 P **P 12 28 21.7 +0.8**
BLKN IAmb IAmb 12 28 24.0
comp=Z,80nm,0.8s
PINE Pine Mountain 24.66 123 IAmb IAmb 12 28 30.6
comp=Z,147nm,1.3s
L04D Klamath Falls 25.45 127 IAmb IAmb 12 28 37.0
comp=Z,68nm,1.1s
FFC Flin Flon 25.70 83 P **P 12 28 36.3 +0.6**
FFC pmax pmax
comp=Z,27nm,1.1s
FFC Flin Flon 25.70 83 P **P 12 28 36.3 +0.6**
FFC Flin Flon 25.70 83 P **P 12 28 36.8 +1.1**
comp=Z,23nm,1.4s
YBH Yreka Blue Hor 25.71 128 LR LR 12 36 57.6
comp=Z,379nm,20.2s,baz=326,slow=32
SEY Seymchan 26.14 299 P **P 12 28 37.9 -1.7**
comp=Z,4.2nm,0.7s,baz=10,slow=11,SNR=4.2
SEY LR LR 12 39 26.9
comp=Z,349nm,21.5s,baz=52,slow=38
comp=Z,4.2nm,0.7s
SEY Seymchan 26.14 299 *e*P **P 12 28 39.4 -0.2**
SEY pmax pmax
comp=Z,21nm,0.8s
BUT Butte 26.51 109 IAmb IAmb 12 28 45.5
comp=Z,41nm,0.8s
KMRM Mail Ridge 26.66 131 IAmb IAmb 12 28 48.4
comp=Z,49nm,0.8s
WVOR Wild Horse Val 26.72 121 P **P 12 28 47.4 +2.2**
comp=Z,45nm,1.1s
MFID Camas Ranch 27.10 116 IAmb IAmb 12 28 50.9
comp=Z,43nm,0.9s
FCC Fort Churchill 27.22 71 P **P 12 28 49.8 +0.5**
FCC pmax pmax
comp=Z,72nm,0.9s
FCC Fort Churchill 27.22 71 P **P 12 28 49.8 +0.5**
FCC IAmb IAmb 12 28 50.9
comp=Z,72nm,0.9s
O03E Paynes Creek 27.30 128 IAmb IAmb 12 28 53.0
comp=Z,64nm,1.0s
HLID Hailey 27.59 114 P **P 12 28 54.4 +1.3**
comp=Z,35nm,0.9s
ILON Igloolik, Nuna 27.87 45 P **P 12 28 56.0 +1.0**
ILON IAmb IAmb 12 28 57.0
comp=Z,63nm,1.1s
YHL Hebgen Lake 28.03 109 IAmb IAmb 12 28 60.0
comp=Z,118nm,1.6s
MA2 Magadan 28.35 293 LR LR 12 41 33.1
comp=Z,490nm,19.1s,baz=88,slow=39
YNE Yellowstone No 28.44 107 IAmb IAmb 12 29 03.5
comp=Z,38nm,0.9s
DGMT Dagmar 28.64 96 IAmb IAmb 12 29 04.3
comp=Z,58nm,1.1s
PETK Petropavlovsk- 28.75 277 P **P 12 29 02.3 -0.8**
comp=Z,2.6nm,0.6s,baz=70,slow=12,SNR=11
PETK LR LR 12 40 18.8
comp=Z,362nm,21.2s,baz=25,slow=36
comp=Z,2.6nm,0.6s
PETK Petropavlovsk- 28.75 277 P **P 12 29 02.4 -0.7**
MPK Martis Peak 28.84 127 IAmb IAmb 12 29 07.3
comp=Z,66nm,1.0s
SNOW Snow King Moun 29.30 110 IAmb IAmb 12 29 11.7
comp=Z,40nm,0.8s
AHID Auburn Hatcher 29.70 111 P **P 12 29 13.1 +1.3**
comp=Z,29nm,1.3s
HVU Hansel Valley 29.75 114 IAmb IAmb 12 29 15.3
comp=Z,60nm,0.9s
CMB Columbia Colle 29.81 128 IAmb IAmb 12 29 15.4
comp=Z,77nm,2.0s
NVAR Mina Array Bea 30.26 125 P **P 12 29 18.9 +2.1**
comp=Z,20nm,0.8s,baz=313,slow=9.5,SNR=120
NVAR PcP **PcP 12 32 16.9 +0.8**
comp=Z,5.4nm,0.6s,baz=303,slow=2.3,SNR=7.9
NVAR ScP **ScP 12 35 54.1 +0.7**
comp=Z,0.3nm,0.3s,baz=294,slow=4.8,SNR=4.2
comp=Z,20nm,0.8s
SPUT South Promonto 30.27 115 IAmb IAmb 12 29 19.9
comp=Z,55nm,1.0s
LHV Little Huntoon 30.34 126 IAmb IAmb 12 29 20.8
comp=Z,41nm,1.1s
PDAR Pinedale Array 30.39 109 P **P 12 29 19.5 +1.6**
comp=Z,13nm,0.6s,baz=320,slow=5.1,SNR=100
PDAR PcP **PcP 12 32 16.1 -0.3**
comp=Z,5.4nm,0.8s,baz=95,slow=0.3,SNR=7.5
PDAR ScP **ScP 12 35 54.0 +0.3**
comp=Z,0.4nm,0.8s,baz=33,slow=0.7,SNR=2.3
comp=Z,13nm,0.6s
PDAR Pinedale Array 30.39 109 P **P 12 29 18.9 +1.0**
HWUT Hardware Ranch 30.42 113 P **P 12 29 19.8 +1.7**
comp=Z,32nm,0.9s
TPH Tonopah 30.99 124 IAmb IAmb 12 29 26.4
comp=Z,43nm,0.9s
DUG Dugway, Tooele 31.03 116 P **P 12 29 25.3 +1.8**
DUG pmax pmax
comp=Z,29nm,0.9s
DUG Dugway, Tooele 31.03 116 P **P 12 29 25.3 +1.8**
comp=Z,29nm,0.9s
TIXI Tiksi 31.16 323 P **P 12 29 23.3 -0.8**
comp=Z,2.2nm,0.3s,baz=80,slow=8.3,SNR=11
TIXI PcP **PcP 12 32 16.8 -0.8**
comp=Z,5.3nm,0.7s,baz=30,slow=2.4,SNR=4.9
TIXI LR LR 12 43 25.7
comp=Z,278nm,20.9s,baz=38,slow=39
comp=Z,2.2nm,0.3s
TIXI Tiksi 31.16 323 *ce*P **P 12 29 23.7 -0.4**
TIXI pmax pmax
comp=Z,9.0nm,1.4s
TIXI Tiksi 31.16 323 P **P 12 29 23.6 -0.4**
TIXI Tiksi 31.16 323 P **P 12 29 23.8 -0.3**
comp=Z,17nm,1.0s
MZP Montezuma Peak 31.25 125 IAmb IAmb 12 29 28.6
comp=Z,58nm,1.3s
ULM Lac du Bonnet 31.41 86 P **P 12 29 27.2 +0.7**
comp=Z,83nm,0.9s,baz=306,slow=8.3,SNR=78
ULM PcP **PcP 12 32 18.4 -0.2**
comp=Z,16nm,0.7s,baz=327,slow=2.1,SNR=10
ULM LR LR 12 42 46.6
comp=Z,976nm,18.2s,baz=346,slow=37
comp=Z,83nm,0.9s
NLU North Lily Min 31.55 116 IAmb IAmb 12 29 30.7
comp=Z,37nm,1.2s
BSUT Blindstream Ca 31.64 113 IAmb IAmb 12 29 32.6
comp=Z,73nm,1.0s
K22A Casper 31.86 106 IAmb IAmb 12 29 33.0
comp=Z,49nm,1.0s
RSSD Black Hills 31.89 102 P **P 12 29 31.9 +0.8**
RSSD pmax pmax
comp=Z,129nm,1.4s
RSSD Black Hills 31.89 102 P **P 12 29 31.9 +0.8**
RSSD Black Hills 31.89 102 P **P 12 29 32.7 +1.6**
comp=Z,69nm,1.6s
RSSD Black Hills 31.89 102 P **P 12 29 32.5 +1.5**
RSSD pP **pP 12 29 47.5 +2.4**
RSSD sP **sP 12 29 53.8 +2.2**
RSSD PcP **PcP 12 32 20.3 0.0**
PSUT Pine Spring 31.98 119 IAmb IAmb 12 29 35.0
comp=Z,37nm,1.2s
VES Vestal, Richgr 32.23 129 IAmb IAmb 12 29 36.6
comp=Z,119nm,1.7s
P18A Preston Nutter 32.61 114 IAmb IAmb 12 29 42.7
comp=Z,33nm,0.9s
AGMN Agassiz Nation 32.75 89 P **P 12 29 39.2 +0.9**
comp=Z,150nm,0.8s
EPLO Experimental L 32.82 85 IAmb IAmb 12 29 40.6
comp=Z,53nm,1.1s
NEEM North Greenlan 32.84 23 *i* P **P 12 29 38.8 -0.3**
NEEM IAmb IAmb 12 29 40.0
comp=Z,48nm,0.7s
GWY Greenwater Val 32.85 125 IAmb IAmb 12 29 42.9
comp=Z,103nm,1.8s
KULLO Kullorsuaq 32.90 29 *i* P **P 12 29 40.1 +0.8**
KULLO IAmb IAmb 12 29 41.3
comp=Z,33nm,0.6s
LRMC Laurel Mtn Rad 33.08 127 IAmb IAmb 12 29 44.5
comp=Z,33nm,0.8s
O20A White River Ci 33.09 111 IAmb IAmb 12 29 44.4
comp=Z,32nm,0.8s
HMU Henry Mountain 33.80 116 IAmb IAmb 12 29 50.6
comp=Z,87nm,1.6s
F33A 5 Mile Ranch, 34.29 92 IAmb IAmb 12 29 53.5
comp=Z,78nm,1.4s
U15A North Rim 34.42 119 IAmb IAmb 12 29 56.4
comp=Z,36nm,1.1s
ISCO Idaho Springs 34.54 108 P **P 12 29 55.8 +1.4**
ISCO pmax pmax
comp=Z,11nm,1.6s
ISCO Idaho Springs 34.54 108 P **P 12 29 55.8 +1.4**
comp=Z,11nm,1.6s
W13A Hualapai Mount 34.91 123 IAmb IAmb 12 30 00.7
comp=Z,29nm,1.1s
NOR Nord 34.93 11 *i* P **P 12 29 56.0 -0.9**
NOR IAmb IAmb 12 29 57.4
comp=Z,7.6nm,0.9s
BELC Belle Mtn. Jos 35.03 126 P **P 12 29 59.3 +0.9**
BELC IAmb IAmb 12 30 00.8
comp=Z,17nm,0.8s
EYMN Ely 35.08 85 P **P 12 29 59.5 +0.9**
comp=Z,103nm,1.1s
FRB Frobisher Bay 35.12 50 LR LR 12 44 43.2
comp=Z,543nm,18.1s,baz=305,slow=37
PMD Palm Desert 35.20 127 IAmb IAmb 12 30 02.1
comp=Z,21nm,0.8s
PFO Pinyon Flats O 35.20 127 LR LR 12 43 00.9
comp=Z,326nm,18.3s,baz=324,slow=34
PFO Pinyon Flats O 35.20 127 *i* P **P 12 30 00.4 +0.6**
PFO pmax pmax
comp=Z,23nm,0.8s
PFO Pinyon Flats O 35.20 127 P **P 12 30 01.5 +1.7**
comp=Z,36nm,1.2s
PFO Pinyon Flats O 35.20 127 P **P 12 30 01.0 +1.2**
PFO pP **pP 12 30 15.8 +1.9**
XPFO Pinon Flat 35.20 127 P **P 12 30 01.2 +1.3**
XPFO pP **pP 12 30 15.9 +1.9**
IRM Iron Mountain 35.23 125 IAmb IAmb 12 30 03.4
comp=Z,52nm,1.3s
OGNE Ogallala 35.28 103 IAmb IAmb 12 30 03.4
comp=Z,46nm,0.9s
MVCO Mesa Verde 35.38 114 IAmb IAmb 12 30 03.6
comp=Z,26nm,0.8s
MVCO Mesa Verde 35.38 114 P **P 12 30 02.9 +1.4**
comp=Z,45nm,0.9s
Q24A Divide 35.43 109 IAmb IAmb 12 30 04.6
comp=Z,27nm,0.9s
ECSD EROS Data Cent 35.70 95 IAmb IAmb 12 30 05.3
comp=Z,44nm,1.0s
ECSD EROS Data Cent 35.70 95 P **P 12 30 04.3 +0.4**
comp=Z,48nm,1.1s
YAK Yakutsk 35.73 307 P **P 12 30 03.0 -0.9**
comp=Z,26nm,0.7s,baz=56,slow=18,SNR=8.9
YAK LR LR 12 46 01.8
comp=Z,589nm,18.1s,baz=58,slow=38
comp=Z,26nm,0.7s
YAK Yakutsk 35.73 307 *e*P **P 12 30 02.4 -1.5**
YAK *e**PP **pP 12 30 17.5 -0.4**
YAK *e* 12 31 26.3
YAK *e* 12 32 29.6
YAK *e*S **S 12 35 33.9 -2.6**
YAK *e* 12 40 11.5
YAK pmax pmax
comp=Z,25nm,0.9s
YAK pmax pmax
comp=N,8.0nm,1.3s
YAK pmax pmax
comp=E,16nm,1.1s
YAK pmax pmax
comp=Z,72nm,2.8s
YAK pmax pmax
comp=E,35nm,2.1s
YAK pmax pmax
comp=N,66nm,2.3s
YAK smax smax
comp=E,113nm,2.3s
YAK smax smax
comp=N,80nm,3.2s
YAK MLR MLR
comp=Z,608nm,16.0s
YAK MLR MLR
comp=N,209nm,18.0s
YAK MLR MLR
comp=E,234nm,16.0s
YAK Yakutsk 35.73 307 P **P 12 30 03.0 -0.9**
YAK Yakutsk 35.73 307 P **P 12 30 03.2 -0.7**
comp=Z,98nm,1.0s
SDCO Great Sand Dun 36.27 110 IAmb IAmb 12 30 12.0
comp=Z,27nm,0.9s
SAATT Saattut 36.35 34 *i* P **P 12 30 09.0 -0.1**
SAATT IAmb IAmb 12 30 09.6
comp=Z,44nm,0.9s
X16A Lo Mia Camp, P 36.50 120 IAmb IAmb 12 30 14.3
comp=Z,21nm,0.8s
KSCO Kaye Shedlock' 36.55 106 IAmb IAmb 12 30 13.8
comp=Z,53nm,1.0s
GDH Godhavn 36.77 36 *i* P **P 12 30 13.6 +0.9**
GDH IAmb IAmb 12 30 14.7
comp=Z,106nm,0.9s
X18A Snowflake 37.02 118 IAmb IAmb 12 30 18.6
comp=Z,44nm,1.0s
TYV Tymovskoe 37.28 285 *e*P P 12 30 24.1 +6.8
TYV pmax pmax
comp=Z,300nm,3.8s
TYV pmax pmax
comp=Z,8.0nm,0.9s
ILULI Ilulissat 37.48 35 *i* P **P 12 30 18.8 +0.1**
ILULI IAmb IAmb 12 30 20.3
comp=Z,53nm,1.2s
TASM ASL Pad, Albuq 38.17 114 IAmb IAmb 12 30 28.8
comp=Z,30nm,1.3s
ANMO Albuquerque 38.17 114 *ce*P **P 12 30 25.7 +0.5**
ANMO pmax pmax
comp=Z,30nm,1.3s
ANMO Albuquerque 38.17 114 P **P 12 30 25.5 +0.3**
ANMO IAmb IAmb 12 30 28.8
comp=Z,30nm,1.3s
ANMO Albuquerque 38.17 114 P **P 12 30 26.9 +1.7**
comp=Z,18nm,1.3s
ALQ Albuquerque 38.18 114 IAmb IAmb 12 30 28.9
comp=Z,30nm,1.3s
ALQ Albuquerque 38.18 114 IAmb IAmb 12 30 28.8
comp=Z,29nm,1.3s
F42A Maple Grove Fa 38.26 85 IAmb IAmb 12 30 27.7
comp=Z,63nm,1.0s
SUMG Summit 38.37 27 P **P 12 30 27.0 +0.3**

SUMG pmax pmax
comp=Z,136nm,1.5s
SUMG Summit 38.37 27 P **P** **12 30 26.9 +0.3**
I40A Norwalk 38.45 89 IAmb IAmb 12 30 29.0
comp=Z,34nm,0.7s
RTBA Rita Blanca 38.59 108 IAmb IAmb 12 30 31.0
comp=Z,40nm,1.1s
TUC Tucson 38.60 121 P **P** **12 30 28.1 -0.6**
TUC pmax pmax
comp=Z,37nm,1.4s
TUC Tucson 38.60 121 P **P** **12 30 28.1 -0.6**
TUC IAmb IAmb 12 30 31.9
comp=Z,37nm,1.4s
TUC Tucson 38.60 121 P **P** **12 30 30.9 +2.3**
comp=Z,20nm,1.2s
TUC Tucson 38.60 121 P **P** **12 30 30.5 +1.9**
TUC pP **pP** **12 30 45.4 +2.4**
TUC sP **sP** **12 30 51.4 +2.0**
TUC PcP **PcP** **12 32 40.7 +0.8**
DAG Danmarks Havn 38.62 16 P **P** **12 30 27.9 -0.4**
DAG pmax pmax
comp=Z,67nm,0.9s
DAG Danmarks Havn 38.62 16 P **P** **12 30 27.9 -0.4**
comp=Z,67nm,0.9s
DAG Danmarks Havn 38.62 16 *i* P **P** **12 30 27.7 -0.6**
DAG IAmb IAmb 12 30 28.6
comp=Z,39nm,0.8s
SCIA State Center 38.71 94 IAmb IAmb 12 30 31.2
comp=Z,34nm,0.7s
Y22A Socorro 38.81 115 IAmb IAmb 12 30 33.5
comp=Z,112nm,1.8s
SFJD Kangerlussuaq 39.05 38 P **P** **12 30 32.9 +1.0**
SFJD pmax pmax
comp=Z,139nm,0.8s
SFJD Kangerlussuaq 39.05 38 P **P** **12 30 32.9 +1.0**
SFJD Kangerlussuaq 39.05 38 P **P** **12 30 33.2 +1.2**
comp=Z,208nm,0.9s
SFJD Kangerlussuaq 39.05 38 *i* P **P** **12 30 33.0 +1.0**
SFJD IAmb IAmb 12 30 33.7
comp=Z,148nm,0.8s
SFJD Kangerlussuaq 39.05 38 P **P** **12 30 32.9 +1.0**
SFJD sP **sP** **12 30 54.2 +1.4**
I42A Draeger Farm, 39.27 88 IAmb IAmb 12 30 35.8
comp=Z,25nm,0.7s
JFWS Jewell Farm 39.36 90 IAmb IAmb 12 30 36.3
comp=Z,49nm,0.7s
KBS Kingsbay 39.37 5 *i* P **P** **12 30 35.5 +1.0**
N38A Joes South For 39.56 95 IAmb IAmb 12 30 38.6
comp=Z,36nm,0.9s
E46A Sault Ste Mari 39.64 81 IAmb IAmb 12 30 38.3
comp=Z,32nm,0.7s
121A Cookes Peak, D 39.66 117 IAmb IAmb 12 31 01.3
comp=Z,64nm,1.4s
YSS Yuzhno-Sakhali 40.00 281 *e*P P 12 30 44.9 +4.9
YSS pmax pmax
comp=Z,20nm,0.9s
YSS MLR MLR
comp=Z,300nm,16.0s
YSS MLR MLR
comp=E,300nm,18.0s
KAN08 Anthony NE Sta 40.15 103 IAmb IAmb 12 30 42.9
comp=Z,53nm,0.9s
GRNR Gornyy 40.20 289 ⇑ *i* P **P** **12 30 41.7 0.0**
GRNR pmax pmax
comp=Z,6.0nm,0.7s
GRNR MLR MLR
comp=E,150nm,15.0s
GRNR MLR MLR
comp=N,150nm,14.0s
SPA0 Spitsbergen Ar 40.29 4 *e*P **P** **12 30 41.5 -0.6**
SPITS Spitsbergen Ar 40.29 4 P **P** **12 30 41.3 -0.8**
comp=N,32nm,0.8s,baz=27,slow=6.6,SNR=36
SPITS PcP **PcP** **12 32 44.1 -0.4**
comp=N,4.7nm,0.6s,baz=58,slow=5.6,SNR=1.6
SPITS LR LR 12 45 50.9
comp=N,143nm,21.6s,baz=321,slow=34
comp=N,32nm,0.8s
SPITS Spitsbergen Ar 40.29 4 P **P** **12 30 41.4 -0.8**
SPITS pmax pmax
comp=Z,51nm,0.9s
SPB2 Spitsbergen Ar 40.29 4 P **P** **12 30 41.3 -0.8**
SPB2 IAmb IAmb 12 31 29.2
comp=Z,101nm,1.4s
KAN01 Argonia South 40.31 103 P **P** **12 30 42.2 -0.5**
P38A Dawn 40.33 96 P **P** **12 30 43.2 +0.3**
P38A IAmb IAmb 12 30 44.1
comp=Z,38nm,0.9s
L42A Oliver, Polo 40.34 90 P **P** **12 30 43.0 +0.1**
L42A IAmb IAmb 12 30 43.8
comp=Z,57nm,1.0s
AMTX Amarillo 40.36 109 IAmb IAmb 12 30 45.7
comp=Z,73nm,1.5s
OK038 West end E0370 40.40 104 IAmb IAmb 12 30 45.2
comp=Z,54nm,0.9s
DBG Daneborg 40.43 19 P **P** **12 30 43.0 -0.3**
comp=Z,76nm,0.9s
DBG Daneborg 40.43 19 *i* P **P** **12 30 42.8 -0.5**
DBG IAmb IAmb 12 30 43.6
comp=Z,51nm,0.8s
K43A Burlington 40.44 89 IAmb IAmb 12 30 45.0
comp=Z,57nm,0.8s
NUUK Nuuk 40.62 42 *i* P **P** **12 30 46.3 +1.4**
NUUK IAmb IAmb 12 30 47.1
comp=Z,36nm,0.5s
CROK Carrier 40.73 103 IAmb IAmb 12 30 47.0
comp=Z,23nm,0.7s
N41A Harden Midland 40.77 93 IAmb IAmb 12 30 48.1
comp=Z,63nm,1.0s
BLOK Blackwell 40.88 102 IAmb IAmb 12 30 48.9
comp=Z,71nm,0.9s
L44A Lake County Fo 41.04 89 IAmb IAmb 12 30 50.0
comp=Z,59nm,0.9s
P40A Paris 41.12 95 IAmb IAmb 12 30 50.2
comp=Z,120nm,1.5s
OK051 E0350 and S346 41.26 102 IAmb IAmb 12 30 51.9
comp=Z,87nm,1.0s
OK048 Pawnee Station 41.29 103 IAmb IAmb 12 30 52.1
comp=Z,70nm,1.1s
MNTX Cornudas Mount 41.41 115 P **P** **12 30 53.6 +1.8**
comp=Z,22nm,1.0s
HSIG 41.42 124 P **P** **12 30 52.9 +0.9**
SCHQ Schefferville 41.48 60 P **P** **12 30 52.2 0.0**
comp=Z,25nm,0.8s,baz=320,slow=8.2,SNR=20
SCHQ LR LR 12 48 29.5
comp=Z,328nm,18.6s,baz=308,slow=37
comp=Z,25nm,0.8s
SCHQ Schefferville 41.48 60 P **P** **12 30 52.2 0.0**
VLDQ Val d'Or 41.58 74 P **P** **12 30 51.4 -1.6**
M44A Midewin, Midew 41.59 90 IAmb IAmb 12 30 54.4
comp=Z,62nm,0.9s
OK052 Battle Ridge R 41.70 103 IAmb IAmb 12 30 55.3
comp=Z,65nm,0.8s
DKNS Dickens 41.72 109 IAmb IAmb 12 30 56.2
comp=Z,31nm,0.9s
WMOK Wichita Mounta 41.81 106 IAmb IAmb 12 30 57.0
comp=Z,49nm,0.8s
WMOK Wichita Mounta 41.81 106 P **P** **12 30 56.0 +0.9**
comp=Z,63nm,1.2s
DEOK Depew 41.96 103 IAmb IAmb 12 30 57.5
comp=Z,61nm,0.8s
POST Post 41.96 110 IAmb IAmb 12 30 58.4
comp=Z,66nm,0.9s
R40A Maddies Statio 41.99 96 IAmb IAmb 12 30 57.2
comp=Z,73nm,1.3s
ZEA Zeya 42.13 299 *e*P **P** **12 30 56.1 -1.3**
ZEA pmax pmax
comp=Z,10.0nm,1.0s
ZEA MLR MLR
comp=E,200nm,20.0s
ZEA MLR MLR
comp=N,300nm,17.0s
ZEA MLR MLR
comp=Z,300nm,17.0s
ASAJ Asahikawa 42.17 278 P **P** **12 30 57.1 -0.8**
comp=Z,5.1nm,0.8s,baz=71,slow=7.9,SNR=4.5
ASAJ LR LR 12 48 31.2
comp=Z,213nm,20.0s,baz=83,slow=36
comp=Z,5.1nm,0.8s
SN07 Snyder 07 42.22 109 IAmb IAmb 12 31 00.1
comp=Z,38nm,0.9s
P43A Skaggs, Pawnee 42.24 93 IAmb IAmb 12 30 58.9
comp=Z,32nm,0.7s
TUL3 Leonard 42.24 102 IAmb IAmb 12 30 59.7
comp=Z,57nm,0.9s
VHRN Van Horn 42.37 116 IAmb IAmb 12 31 03.0
comp=Z,52nm,0.9s
U38A Gravette 42.47 100 IAmb IAmb 12 31 00.9
comp=Z,65nm,0.8s
BUKO Buck Lake 42.63 79 IAmb IAmb 12 31 02.7
comp=Z,37nm,1.0s
CCM Cathedral Cave 42.66 96 P **P** **12 31 01.5 -0.5**
CCM PcP **PcP** **12 32 53.0 0.0**
CCM Cathedral Cave 42.66 96 P **P** **12 31 01.5 -0.5**
comp=Z,29nm,1.1s
CCM Cathedral Cave 42.66 96 P **P** **12 31 01.1 -0.9**
CCM PcP **PcP** **12 32 52.7 -0.2**
WTFS Witchita Falls 42.76 106 IAmb IAmb 12 31 04.4
comp=Z,38nm,0.7s
SFIN Lafayette 42.82 90 IAmb IAmb 12 31 04.5
comp=Z,40nm,0.8s
Q44A Meyer Farm, Va 43.06 93 IAmb IAmb 12 31 06.1
comp=Z,53nm,0.9s
SGCY Sterling City 43.10 111 IAmb IAmb 12 31 07.4
comp=Z,45nm,1.0s
N47A Urbana 43.10 88 IAmb IAmb 12 31 06.3
comp=Z,80nm,0.9s
FVM French Village 43.11 95 IAmb IAmb 12 31 06.5
comp=Z,87nm,1.4s
LOOK Love County 43.16 105 IAmb IAmb 12 31 07.9
comp=Z,42nm,0.8s
NRIK Noril'sk 43.19 334 P **P** **12 31 04.8 -1.0**
comp=Z,13nm,0.6s,baz=46,slow=6.8,SNR=18
NRIK LR LR 12 50 46.2
comp=Z,230nm,21.7s,baz=48,slow=38
comp=Z,13nm,0.6s
NRIK Noril'sk 43.19 334 *i* P **P** **12 31 05.2 -0.6**
NRIK pmax pmax
comp=Z,18nm,0.8s
SCO Scoresbysund 43.32 23 *i* P **P** **12 31 06.2 -0.7**
SCO IAmb IAmb 12 31 07.8
comp=Z,8.9nm,0.7s
P46A Rosedale 43.36 91 IAmb IAmb 12 31 08.8
comp=Z,71nm,0.8s
ISOG Isortoq, Green 43.39 34 *i* P **P** **12 31 07.2 -0.3**
ISOG IAmb IAmb 12 31 08.6
comp=Z,53nm,0.8s
KLR Kul'dur 43.41 291 P **P** **12 31 07.0 -0.9**
comp=Z,5.2nm,0.6s,baz=37,slow=7.8,SNR=19
comp=Z,5.2nm,0.6s
KLR Kul'dur 43.41 291 *c e*P **P** **12 31 07.3 -0.6**
KLR pmax pmax
comp=Z,7.0nm,0.8s
T42A Van Buren 43.55 96 IAmb IAmb 12 31 09.2
comp=Z,23nm,0.7s
PLPT Palo Pinto 43.62 107 IAmb IAmb 12 31 11.2
comp=Z,38nm,0.8s
Z35A Perchaven, San 43.68 105 IAmb IAmb 12 31 11.7
comp=Z,69nm,1.0s
ANGG Ammassalik, Gr 43.70 34 *i* P **P** **12 31 09.5 -0.5**
ANGG IAmb IAmb 12 31 10.6
comp=Z,85nm,0.7s
N49A Columbus Grove 43.80 87 IAmb IAmb 12 31 12.1
comp=Z,44nm,0.9s
IVI Ivigtut 43.89 43 *i* P **P** **12 31 12.9 +1.3**
IVI IAmb IAmb 12 31 13.8
comp=Z,43nm,0.6s
S44A Carbondale 43.90 94 IAmb IAmb 12 31 12.8
comp=Z,53nm,1.0s
OZNA Ozona 43.95 111 IAmb IAmb 12 31 14.2
comp=Z,32nm,0.9s
BLO Bloomington 44.04 90 IAmb IAmb 12 31 14.3
comp=Z,36nm,0.7s
TXAR Lajitas Array 44.19 115 P **P** **12 31 15.9 +1.4**
comp=Z,14nm,0.8s,baz=333,slow=6.8,SNR=155
TXAR PcP **PcP** **12 32 58.7 +0.4**
comp=Z,4.6nm,0.8s,baz=46,slow=2.7,SNR=8.0
TXAR LR LR 12 52 14.8
comp=Z,230nm,19.4s,baz=312,slow=39
comp=Z,14nm,0.8s
O49A Covington 44.29 88 IAmb IAmb 12 31 15.7
comp=Z,77nm,1.3s
TRQ Mont Tremblant 44.31 74 IAmb IAmb 12 31 49.4
comp=Z,75nm,1.3s
P48A Milroy 44.34 89 IAmb IAmb 12 31 15.7
comp=Z,43nm,1.1s
MIAR Mount Ida 44.39 101 IAmb IAmb 12 31 17.0
comp=Z,39nm,0.8s
MIAR Mount Ida 44.39 101 P **P** **12 31 16.2 +0.2**
comp=Z,56nm,1.4s
BOD Bodaibo 44.41 310 *e*P **P** **12 31 14.1 -1.7**
BOD pmax pmax
comp=Z,33nm,1.1s
FW13 Cleburne 44.41 106 IAmb IAmb 12 31 17.7
comp=Z,52nm,0.9s
LDAQ Lac Daran 44.52 70 IAmb IAmb 12 31 18.2
comp=Z,34nm,0.9s
HEH HeiHe 44.57 295 *e*P **P** **12 31 15.4 -1.8**
HEH pmax pmax
comp=Z,27nm,0.7s
HEH L L
comp=Z,150nm,17.5s
HEH L L
comp=Z,330nm,16.7s
HEH L L
comp=Z,440nm,16.1s
BRDY Brady 44.59 109 IAmb IAmb 12 31 19.1
comp=Z,31nm,0.9s
N51A Ashland 44.66 85 IAmb IAmb 12 31 19.1
comp=Z,91nm,1.3s
M52A Chesterland 44.67 84 IAmb IAmb 12 31 19.5
comp=Z,48nm,0.8s
WHTX Lake Whitney, 44.70 107 IAmb IAmb 12 31 20.0
comp=Z,44nm,0.9s
Z38A Mt. Pleasant 44.79 103 IAmb IAmb 12 31 22.0
comp=Z,38nm,1.1s
MEDO Medina 44.80 80 IAmb IAmb 12 31 20.3
comp=Z,47nm,0.8s
NRS Narsarsuaq 44.82 42 *i* P **P** **12 31 19.5 +0.5**
NRS IAmb IAmb 12 31 20.2
comp=Z,76nm,1.0s
ERPA Erie 44.87 82 IAmb IAmb 12 31 21.1
comp=Z,36nm,0.7s
WCI Wyandotte Cave 44.89 91 P **P** **12 31 20.0 +0.1**
WCI pmax pmax
comp=Z,34nm,0.9s
WCI Wyandotte Cave 44.89 91 P **P** **12 31 20.0 +0.1**
WCI IAmb IAmb 12 31 20.7
comp=Z,34nm,0.9s
WCI Wyandotte Cave 44.89 91 P **P** **12 31 19.8 -0.1**
comp=Z,40nm,1.1s
ACSO Alum Creek Sta 44.91 86 IAmb IAmb 12 31 21.0
comp=Z,33nm,0.8s
JMIC Jan Mayen 45.06 17 LR LR 12 52 36.0
comp=Z,101nm,19.1s,baz=180,slow=39
LMQ La Malbaie 45.24 70 IAmb IAmb 12 31 23.5
comp=Z,28nm,1.0s
MNTQ Montreal, Queb 45.28 74 IAmb IAmb 12 31 23.1
comp=Z,24nm,0.8s
WLAR White Oak Lake 45.32 101 IAmb IAmb 12 31 24.7
comp=Z,44nm,1.0s
MMNY Mt. Morris Dam 45.39 80 IAmb IAmb 12 31 24.2
comp=Z,25nm,0.8s
HPIG 45.43 119 IAmb IAmb 12 31 27.1
comp=Z,26nm,0.8s
HPIG 45.43 119 P **P** **12 31 26.2 +1.7**
comp=Z,38nm,0.9s
P51A Williamsport 45.46 87 IAmb IAmb 12 31 25.0
comp=Z,51nm,1.3s
PAOC Oil Creek Stat 45.48 82 IAmb IAmb 12 31 25.8
comp=Z,40nm,1.0s
LONY Lake Ozonia 45.50 76 IAmb IAmb 12 31 25.4
comp=Z,75nm,1.8s
435B Jarrell 45.66 108 IAmb IAmb 12 31 27.9
comp=Z,49nm,0.9s
PAMR Moraine State 45.73 83 IAmb IAmb 12 31 27.7
comp=Z,55nm,1.0s
P52A Corning 45.78 86 IAmb IAmb 12 31 27.4
comp=Z,36nm,1.1s
R50A Paris 45.80 89 IAmb IAmb 12 31 28.5
comp=Z,64nm,1.4s
Z41A Richland Creek 45.82 101 IAmb IAmb 12 31 28.8
comp=Z,42nm,1.1s
WVT Waverly 45.84 94 P **P** **12 31 27.4 +0.1**
WVT pmax pmax
comp=Z,22nm,0.7s
WVT Waverly 45.84 94 P **P** **12 31 27.4 +0.1**
WVT IAmb IAmb 12 31 28.5
comp=Z,22nm,0.7s
WVT Waverly 45.84 94 P **P** **12 31 27.7 +0.3**
comp=Z,37nm,1.2s
HNDO Hondo 45.96 110 IAmb IAmb 12 31 30.2
comp=Z,32nm,1.0s
K57A Scipio Center 46.04 79 IAmb IAmb 12 31 29.3
comp=Z,23nm,0.9s
D62A Allapoint, All 46.16 69 IAmb IAmb 12 31 31.1
comp=Z,43nm,0.8s
NATX Nacogdoches 46.19 104 IAmb IAmb 12 31 31.9
comp=Z,44nm,1.0s
Q52A Bidwell 46.24 87 IAmb IAmb 12 31 30.9
comp=Z,43nm,0.8s
E62A Clayton Lake 46.30 70 IAmb IAmb 12 31 31.9
comp=Z,40nm,0.8s
CLTN Cedars of Leba 46.58 93 IAmb IAmb 12 31 34.9
comp=Z,31nm,0.8s
SNAG San Augustine 46.62 104 IAmb IAmb 12 31 35.0
comp=Z,36nm,0.8s
V48A Smith Brothers 46.63 93 IAmb IAmb 12 31 34.9
comp=Z,43nm,0.9s
S51A Beattyville 46.66 89 IAmb IAmb 12 31 34.6
comp=Z,37nm,0.7s
BINY Binghamton 46.70 79 IAmb IAmb 12 31 34.8
comp=Z,30nm,0.7s
BINY Binghamton 46.70 79 P **P** **12 31 34.4 +0.3**
comp=Z,54nm,1.3s
M57A Sunshine Farm, 46.83 81 IAmb IAmb 12 31 36.2
comp=Z,36nm,1.0s
MCWV Mont Chateau 46.85 84 IAmb IAmb 12 31 35.9
comp=Z,27nm,0.7s
G62A West of Eustis 46.91 72 IAmb IAmb 12 31 37.0
comp=Z,52nm,1.6s
Q54A Coxs Mills 46.91 86 IAmb IAmb 12 31 36.1
comp=Z,25nm,0.8s
SSPA Standing Stone 47.02 82 P **P** **12 31 36.8 +0.3**
SSPA IAmb IAmb 12 31 37.3
comp=Z,25nm,0.7s
SSPA Standing Stone 47.02 82 P **P** **12 31 36.9 +0.3**
comp=Z,37nm,1.3s
SSPA Standing Stone 47.02 82 P **P** **12 31 36.7 +0.1**
SSPA sP **sP** **12 31 58.0 +0.7**
USRK Ussuriysk Ar. 47.08 286 LR LR 12 53 27.8
comp=Z,370nm,19.5s,baz=56,slow=39
H62A Milan 47.12 73 IAmb IAmb 12 31 38.4
comp=Z,31nm,1.0s
L59A Walton 47.15 78 IAmb IAmb 12 31 38.8
comp=Z,21nm,1.0s
HKT Hockley 47.17 107 P **P** **12 31 38.8 +1.0**
HKT pmax pmax
comp=Z,48nm,1.3s
HKT Hockley 47.17 107 P **P** **12 31 38.8 +1.0**
HKT IAmb IAmb 12 31 40.0
comp=Z,48nm,1.3s
HKT Hockley 47.17 107 P **P** **12 31 39.2 +1.4**
comp=Z,36nm,1.3s
KSPA Keystone Colle 47.30 79 IAmb IAmb 12 31 40.0
comp=Z,39nm,0.9s
BATG Bathurst New B 47.35 67 IAmb IAmb 12 31 39.7
comp=Z,28nm,0.8s
N58A Sunbury 47.41 81 IAmb IAmb 12 31 40.8
comp=Z,48nm,0.9s
PKME Peaks-Kenny Pk 47.44 71 IAmb IAmb 12 31 41.3
comp=Z,60nm,1.2s
SWET Sewanee 47.48 93 IAmb IAmb 12 31 40.6
comp=Z,33nm,0.6s
TZTN Tazewell 47.55 90 IAmb IAmb 12 31 42.2
comp=Z,57nm,1.1s
TZTN Tazewell 47.55 90 P **P** **12 31 41.4 +0.5**
comp=Z,60nm,1.1s
S54A Dingess, Beckl 47.62 87 IAmb IAmb 12 31 42.2
comp=Z,28nm,0.9s
Q56A Snyder Ridge, 47.65 84 IAmb IAmb 12 31 42.7
comp=Z,47nm,1.2s
W50A Signal Mountai 47.79 93 IAmb IAmb 12 31 45.6
comp=Z,19nm,0.9s
R55A Marlinton 47.81 86 IAmb IAmb 12 31 44.1
comp=Z,73nm,1.6s
MDJ Mudanjiang 47.85 288 P **P** **12 31 44.3 +1.3**
MDJ pmax pmax
comp=Z,10.0nm,0.8s
NPNY Mohonk Preserv 47.91 78 IAmb IAmb 12 31 44.5
comp=Z,22nm,0.9s
CPCT Cooper Cave 47.97 92 IAmb IAmb 12 31 45.0
comp=Z,26nm,0.7s
BNX BinXian 47.98 291 ⇓ P **P** **12 31 43.0 -0.9**
BNX pmax pmax
comp=Z,9.0nm,0.8s
BNX pmax pmax
comp=Z,230nm,4.9s
K62A Royalston 48.09 76 IAmb IAmb 12 31 46.0
comp=Z,30nm,0.8s
ODNJ Ogdensburg 48.22 79 IAmb IAmb 12 31 46.6
comp=Z,41nm,0.9s
KSCT Kent School, K 48.24 77 IAmb IAmb 12 31 46.6
comp=Z,15nm,0.8s
HILR Hailar Array B 48.37 299 P **P** **12 31 45.7 -1.3**
comp=Z,19nm,0.7s,baz=38,slow=7.5,SNR=14
HILR LR LR 12 53 43.7
comp=Z,359nm,19.5s,baz=125,slow=38
comp=Z,19nm,0.7s
W52A Murphy 48.54 91 IAmb IAmb 12 31 49.3
comp=Z,31nm,0.7s
HIA Hailar 48.59 299 P **P** **12 31 48.5 -0.2**
comp=Z,20nm,0.9s
PAL Palisades 48.61 78 IAmb IAmb 12 31 49.8
comp=Z,26nm,0.9s
V53A Saluda 48.61 90 IAmb IAmb 12 31 50.4
comp=Z,31nm,0.8s
VADS Vadso 48.64 0 *e*P **P** **12 31 48.5 -0.1**
WES Weston 48.73 75 IAmb IAmb 12 31 50.8
comp=Z,38nm,0.9s
WSPT Westport, CT 48.75 78 IAmb IAmb 12 31 50.6
comp=Z,27nm,1.0s
LRAL Lakeview Retre 48.75 96 IAmb IAmb 12 31 50.3
comp=Z,19nm,0.7s
S57A Dark Hollow, R 48.78 85 IAmb IAmb 12 31 52.5
comp=Z,50nm,1.5s
JETT Jettan, Norway 49.03 4 *e*P **P** **12 31 51.8 0.0**
BG3 Lake Jocassee 49.10 91 IAmb IAmb 12 31 53.7
comp=Z,22nm,0.8s
R58B Mineral 49.13 84 IAmb IAmb 12 31 54.6
comp=Z,34nm,1.0s
M63A Gales Ferry 49.17 76 IAmb IAmb 12 31 54.0
comp=Z,38nm,0.8s
ARA0 ARCESS Array S 49.19 2 *e*P **P** **12 31 51.8 -1.2**
ARCES ARCESS Array B 49.19 2 P **P** **12 31 51.9 -1.0**
comp=Z,11nm,0.8s,baz=3.6,slow=7.9,SNR=9.2
ARCES PcP **PcP** **12 33 14.9 -0.4**
comp=Z,14nm,0.7s,baz=358,slow=3.6,SNR=7.8
comp=Z,11nm,0.8s
ARCES ARCESS Array B 49.19 2 P **P** **12 31 52.2 -0.7**
ARCES 12 33 15.2
ARCES pmax pmax
comp=Z,154nm,1.9s
ARCES ARCESS Array B 49.19 2 P **P** **12 31 52.2 -0.7**
ARCES PcP **PcP** **12 33 15.2 0.0**
V55A Taylorsville 49.23 88 IAmb IAmb 12 31 55.0
comp=Z,36nm,1.1s
DRLN Deer Lake 49.48 59 IAmb IAmb 12 31 56.2
comp=Z,41nm,0.9s
KTK1 Kautokeino 49.66 3 *e*P **P** **12 31 55.9 -0.7**
KMSC Kings Mountain 49.74 89 IAmb IAmb 12 31 58.8
comp=Z,70nm,1.6s
T59A Double "B" Far 50.08 84 IAmb IAmb 12 32 01.4
comp=Z,56nm,1.4s
GOGA Godfrey 50.13 92 P **P** **12 31 58.1 -2.4**
GOGA Godfrey 50.13 92 IAmb IAmb 12 32 01.0
comp=Z,17nm,0.8s
MJAR Matsushiro Arr 50.17 275 P **P** **12 32 00.3 -0.6**
comp=Z,3.5nm,0.7s,baz=22,slow=6.9,SNR=14
MJAR LR LR 12 54 41.7
comp=Z,82nm,21.1s,baz=90,slow=38
comp=Z,3.5nm,0.7s
MJAR Matsushiro Arr 50.17 275 P **P** **12 32 00.3 -0.6**
MJAR pmax pmax
comp=Z,22nm,1.8s
MJAR Matsushiro Arr 50.17 275 P **P** **12 32 00.2 -0.6**
MJB9 Matsu-Tunnel 50.17 275 P **P** **12 32 01.5 +0.7**
MAJO Matsushiro 50.17 275 P **P** **12 32 00.6 -0.2**
MAJO pmax pmax
comp=Z,12nm,0.7s
MAJO Matsushiro 50.17 275 P **P** **12 32 00.6 -0.2**
MAJO Matsushiro 50.17 275 P **P** **12 32 00.7 -0.1**
comp=Z,16nm,1.1s
MAJO Matsushiro 50.17 275 P **P** **12 32 00.3 -0.5**
MAJO pP **pP** **12 32 15.6 +0.2**
V58A Windy Hill, Pi 50.28 87 IAmb IAmb 12 32 02.9
comp=Z,38nm,1.3s
CN2 Changchun 50.36 291 *e*P **P** **12 32 01.3 -0.9**
CN2 pmax pmax
comp=Z,10.0nm,0.8s
ZAIG Zacatecas 50.41 118 IAmb IAmb 12 32 05.5
comp=Z,40nm,1.4s
ZAIG Zacatecas 50.41 118 P **P** **12 32 04.5 +1.4**

comp=Z,23nm,1.8s
BIRD Birdtown, Kers 50.56 89 lAmb lAmb 12 32 05.0
comp=Z,37nm,0.9s
LVZ Lovozero 50.83 358 *i* P **P**
LVZ pmax pmax
comp=Z,26nm,1.1s
Y57A Sumter 51.11 89 lAmb lAmb 12 32 09.0
comp=Z,36nm,0.8s
APA Apatity 51.18 358 *e*P **P** **12 32 06.0 -2.0**
APA *e* 12 33 22.0
APA *e* 12 34 00.1
APA pmax pmax
comp=Z,15nm,0.9s
APA MLR MLR
comp=Z,2μm,6.6s
JGF Kuroka 51.33 275 lAmb lAmb 12 32 14.4
comp=Z,19nm,0.7s
JGF Kuroka 51.33 275 P **P** **12 32 10.1 +0.5**
comp=Z,28nm,0.7s
IRK Irkutsk 52.27 312 *e*P **P** **12 32 18.4 +2.1**
IRK pmax pmax
comp=Z,41nm,1.7s
TLY Talaya 52.95 312 *i* P **P** **12 32 19.5 -1.9**
TLY pmax pmax
comp=Z,6.0nm,0.8s
TLY Talaya 52.95 312 P **P** **12 32 22.5 +1.0**
comp=Z,8.9nm,1.6s
MOY Mondy 53.90 313 *e*P **P** **12 32 32.4 +3.9**
MOY pmax pmax
comp=Z,42nm,1.8s
KS19 Wonju Array Si 54.28 284 P **P** **12 32 31.3 0.0**
KS19 lAmb lAmb 12 33 10.9
comp=Z,22nm,1.2s
KSRS Korea Array 54.29 284 P **P** **12 32 31.6 +0.3**
comp=Z,5.4nm,0.7s,baz=30,slow=6.9,SNR=30
KSRS LR LR 12 55 10.7
comp=Z,249nm,22.0s,baz=40,slow=35
comp=Z,5.4nm,0.7s
KSAR Wonju Array Be 54.32 284 P **P** **12 32 31.1 -0.4**
KSAR Wonju Array Be 54.32 284 P **P** **12 32 31.1 -0.4**
XLT XiLinHaoTe 54.38 297 *e*P **P** **12 32 32.8 +0.8**
XLT pmax pmax
comp=Z,11nm,0.8s
XLT pmax pmax
comp=Z,93nm,4.9s
ULN Ulaanbaatar 54.81 307 *ce*P **P** **12 32 35.9 +0.7**
ULN pmax pmax
comp=Z,18nm,1.0s
ULN Ulaanbaatar 54.81 307 P **P** **12 32 35.5 +0.2**
ULN lAmb lAmb 12 32 54.7
comp=Z,14nm,0.8s
ULN Ulaanbaatar 54.81 307 P **P** **12 32 35.4 +0.2**
comp=Z,78nm,0.8s
ULN Ulaanbaatar 54.81 307 P **P** **12 32 35.9 +0.7**
comp=Z,20nm,0.8s
ULN Ulaanbaatar 54.81 307 P **P** **12 32 35.7 +0.5**
MOL Molde 55.05 12 *e*P **P** **12 32 36.2 -0.2**
SONM Songino Array 55.09 307 P **P** **12 32 37.4 +0.2**
comp=Z,20nm,0.8s,baz=46,slow=7.0,SNR=97
SONM LR LR 12 57 43.6
comp=Z,402nm,18.6s,baz=29,slow=38
comp=Z,20nm,0.8s
SONM Songino Array 55.09 307 P **P** **12 32 38.0 +0.8**
SONM pmax pmax
comp=Z,20nm,0.9s
SONM Songino Array 55.09 307 P **P** **12 32 38.0 +0.8**
SONM lAmb lAmb 12 32 39.5
comp=Z,20nm,0.9s
AKN Aaknes 55.38 13 *e*P **P** **12 32 38.9 0.0**
TJN Taejon 55.43 284 *i* P **P** **12 32 38.9 -0.7**
DOMB Dombas 55.72 12 *e*P **P** **12 32 40.2 -1.1**
KNGR Kungurtug, Tuv 55.99 315 *i* P **P** **12 32 44.0 +0.4**
KNGR pmax pmax
comp=Z,7.0nm,0.9s
DL2 Dalian 56.00 290 P **P** **12 32 45.2 +1.6**
DL2 pmax pmax
comp=Z,48nm,1.6s
JCJ Chichijima 56.05 265 LR LR 12 53 59.3
comp=Z,70nm,22.0s,baz=26,slow=33
SUE Sulen 56.22 14 *e*P **P** **12 32 44.2 -0.6**
JNU Nakatsue 56.44 278 LR LR 12 56 01.7
comp=Z,142nm,21.9s,baz=58,slow=35
NC204 NORSAR Array S 56.63 11 lAmb lAmb 12 32 49.0
comp=Z,33nm,1.2s
TLIG Tlapa 56.73 117 lAmb lAmb 12 32 51.7
comp=Z,26nm,0.8s
ASK Askoy 56.83 14 *e*P **P** **12 32 48.7 -0.5**
NC405 NORSAR Array S 56.88 11 lAmb lAmb 12 32 49.7
comp=Z,21nm,0.7s
NB2 NORSAR Subarra 56.91 11 P **P** **12 32 48.8 -1.1**
comp=Z,5.3nm,0.6s,baz=350,slow=7.4
NB2 NORSAR Subarra 56.91 11 P **P** **12 32 48.0 -1.9**
NOA NORSAR Array B 56.91 11 P **P** **12 32 49.0 -0.8**
comp=Z,7.8nm,0.7s,baz=350,slow=7.1,SNR=41
NOA LR LR 12 59 21.0
comp=Z,33nm,18.8s,baz=355,slow=38
comp=Z,7.8nm,0.7s
SKAR Skarslia 56.98 13 *e*P **P** **12 32 49.4 -0.9**
ZAA0 Zalesovo Array 57.01 325 P **P** **12 32 49.8 -0.9**
ZALV Zalesovo Beam 57.01 325 P **P** **12 32 49.3 -1.3**
comp=Z,8.3nm,0.8s,baz=34,slow=6.1,SNR=28
ZALV LR LR 13 00 52.5
comp=Z,207nm,19.0s,baz=36,slow=40
comp=Z,8.3nm,0.8s
ZALV Zalesovo Beam 57.01 325 *i* P **P** **12 32 49.2 -1.4**
ZALV pmax pmax
comp=Z,9.0nm,0.8s
ZALV Zalesovo Beam 57.01 325 P **P** **12 32 49.6 -1.0**
NC602 NORSAR Array S 57.24 11 *e*P **P** **12 32 50.9 -1.2**
NORES NORESS Array B 57.24 11 P **P** **12 32 52.8 +0.7**
NORES pmax pmax
comp=Z,1.0nm,0.5s
FINES FINESS Array B 57.32 2 P **P** **12 32 51.6 -1.0**
comp=Z,7.5nm,0.6s,baz=1.8,slow=8.9,SNR=38
FINES PKPPKP **P'P'df** **13 02 40.9 -4.6**
comp=Z,4.9nm,0.9s,baz=238,slow=3.6,SNR=5.6
comp=Z,7.5nm,0.6s
FINES FINESS Array B 57.32 2 *i* P **P** **12 32 52.2 -0.4**
FINES pmax pmax
comp=Z,8.0nm,0.6s
FINES FINESS Array B 57.32 2 P **P** **12 32 51.8 -0.8**
BJI2 Beijing 57.51 295 P **P** **12 32 54.0 -0.3**
BJI2 S **S** **12 40 49.6 +2.2**
BJI2 pmax pmax
comp=Z,6.0nm,1.2s
BJI2 L L
comp=Z,210nm,21.8s
BJI2 L L
comp=Z,130nm,21.4s
BJI2 L L
comp=Z,170nm,20.4s
KLMR Klimovskoe 57.73 355 *e*P **P** **12 32 53.0 -2.6**
KLMR pmax pmax
comp=Z,128nm,1.4s
BLS5 Blasjo 58.01 14 *e*P **P** **12 32 56.9 -0.7**
HFS Hagfors 58.02 10 P **P** **12 32 56.3 -1.3**
comp=Z,9.6nm,0.7s,baz=34,slow=6.1,SNR=14
comp=Z,9.6nm,0.7s
KONO Kongsberg 58.12 12 *e*P **P** **12 32 58.3 0.0**
KPL Plockton 58.23 22 *e*P **P** **12 32 58.8 -0.3**
KPL lAmb lAmb 12 33 00.2
comp=Z,39nm,0.8s
MCD Coleburn Disti 58.42 20 *e*P **P** **12 32 59.8 -0.6**
MCD lAmb lAmb 12 33 01.6
comp=Z,47nm,0.9s
HHC Hu-ho-hao-te 58.79 299 *e*P **P** **12 33 07.3 +3.9**
HHC pmax pmax
comp=Z,11nm,0.6s
HHC pmax pmax
comp=Z,140nm,4.2s
HHC L L
comp=Z,180nm,15.1s
HHC L L
comp=Z,190nm,16.8s
HHC L L
comp=Z,290nm,15.1s
TEIG Tepich 58.98 105 P **P** **12 33 04.3 -0.5**
TEIG pP **pP** **12 33 20.3 +0.5**
TEIG PcP **PcP** **12 33 52.1 -1.2**
SNART Snartemo 59.16 14 *e*P **P** **12 33 05.3 -0.2**
SNART Snartemo 59.16 14 *i* P **P** **12 33 05.0 -0.5**
DRUM Mains of Drumt 59.18 20 *e*P **P** **12 33 05.0 -0.7**
DRUM Mains of Drumt 59.18 20 P **P** **12 33 05.6 -0.2**
comp=Z,165nm,0.9s
KIRV Kirov 59.28 348 *ce*P **P** **12 33 06.2 -0.1**
LAWE Loch Awe, Argy 59.30 22 *e*P **P** **12 33 05.9 -0.6**
LAWE lAmb lAmb 12 33 07.6
comp=Z,40nm,0.8s
HOMB Homborsund 59.37 13 *e*P **P** **12 33 06.2 -0.7**
HOMB Homborsund 59.37 13 *i* P **P** **12 33 06.2 -0.7**
INVG Invergeldie, C 59.38 21 *e*P **P** **12 33 06.6 -0.5**
INVG lAmb lAmb 12 33 08.4
comp=Z,33nm,0.8s
EAB Aberfoyle 59.56 21 *e*P **P** **12 33 07.9 -0.4**
EAB lAmb lAmb 12 33 09.4
comp=Z,64nm,0.8s
SVE Sverdlovsk 59.58 341⇓ *e*P **P** **12 33 08.4 -0.1**
SVE pmax pmax
comp=Z,39nm,1.2s
BTO2 Baotou 59.59 300 *e*P **P** **12 33 10.4 +1.5**
BTO2 pP **pP** **12 33 21.8 -2.0**
BTO2 S **S** **12 41 17.4 +2.7**
BTO2 pmax pmax
comp=Z,11nm,0.6s
BTO2 pmax pmax
comp=Z,300nm,5.0s
BTO2 L L
comp=Z,420nm,7.8s
BTO2 L L
comp=Z,410nm,9.5s
BTO2 L L
comp=Z,690nm,17.6s
PGBU Glenifferbraes 59.89 22 *e*P **P** **12 33 10.2 -0.4**
BBSR BB Station 59.91 77 P **P** **12 33 10.3 -0.8**
TJOU Tjoern 59.91 11 *i* P **P** **12 33 10.2 -0.5**
EDI Edinburgh 60.01 21 *e*P **P** **12 33 10.7 -0.7**
EDI lAmb lAmb 12 33 12.4
comp=Z,33nm,0.8s
DGZ Jazzator, Alta 60.02 321 *i* P **P** **12 33 11.2 -0.6**
DGZ pmax pmax
comp=Z,7.0nm,0.9s
IDGL Inch Island, C 60.03 24 P **P** **12 33 11.4 -0.2**
IDGL Inch Island, C 60.03 24 P **P** **12 33 11.2 -0.4**
comp=Z,79nm,1.4s
IDGL pP **pP** **12 33 27.2 +0.7**
VSU Vasula 60.32 2 *ce*P **P** **12 33 12.6 -0.9**
VSU pmax pmax
comp=Z,55nm,1.3s
VSU Vasula 60.32 2 P **P** **12 33 12.3 -1.1**
comp=Z,46nm,0.9s
ARTI Arti 60.34 342 *d* iP **P** **12 33 12.9 -0.8**
ARTI *PP **pP** **12 33 26.0 -2.6**
ARTI 12 33 54.7
ARTI S **S** **12 41 26.9 +3.2**
ARTI SS **SS** **12 45 21.1 +0.2**
ARTI pmax pmax
comp=Z,31nm,0.7s
ARTI Arti 60.34 342 P **P** **12 33 13.1 -0.6**
ARTI Arti 60.34 342 P **P** **12 33 12.9 -0.8**
ONAU Onsala 60.57 11 *i* P **P** **12 33 14.4 -0.8**
EKA Eskdalemuir Ar 60.58 21 P **P** **12 33 15.2 -0.1**
comp=Z,41nm,0.8s,baz=340,slow=5.5,SNR=101
EKA LR LR 13 01 44.1
comp=Z,87nm,19.6s,baz=355,slow=38
comp=Z,41nm,0.8s
ESK Eskdalemuir 60.59 21 P **P** **12 33 15.2 -0.2**
ESK pmax pmax
comp=Z,64nm,0.9s
ESK Eskdalemuir 60.59 21 P **P** **12 33 15.2 -0.2**
ESK Eskdalemuir 60.59 21 *e*P **P** **12 33 14.8 -0.6**
ESK lAmb lAmb 12 33 16.6
comp=Z,41nm,0.9s
ESK Eskdalemuir 60.59 21 P **P** **12 33 15.4 +0.1**
comp=Z,81nm,0.9s
ESK Eskdalemuir 60.59 21 P **P** **12 33 15.5 +0.1**
comp=Z,79nm,0.9s
GAL1 Galloway 60.75 22 *e*P **P** **12 33 15.9 -0.6**
GAL1 lAmb lAmb 12 33 17.5
comp=Z,57nm,0.8s
FABU Falkenberg 61.03 11 *i* P **P** **12 33 17.4 -1.0**
IGLA Glengowla, Co 61.21 26 P **P** **12 33 19.6 0.0**
ILTH Belurgan, Co L 61.24 24 P **P** **12 33 19.8 0.0**
ILTH Belurgan, Co L 61.24 24 *e*P **P** **12 33 19.7 -0.1**
ILTH lAmb lAmb 12 33 20.8
comp=Z,19nm,0.9s
EDMD Edmundbyers 61.26 20 P **P** **12 33 19.7 -0.3**
comp=Z,44nm,1.1s
KESW Keswick, Cumbr 61.30 21 *e*P **P** **12 33 19.5 -0.8**
KESW lAmb lAmb 12 33 21.3
comp=Z,33nm,0.9s
BORK Borovoye 61.39 334 P **P** **12 33 19.8 -1.1**
BORK pmax pmax
comp=Z,13nm,1.0s
BORK Borovoye 61.39 334 P **P** **12 33 19.8 -1.1**
BVAR Borovoye Array 61.40 334 P **P** **12 33 19.9 -0.9**
comp=Z,14nm,0.6s,baz=34,slow=7.2,SNR=58
BVAR PKPPKP **P'P'df** **13 02 34.4 -4.4**
comp=Z,1.0nm,0.6s,baz=197,slow=4.5,SNR=4.5
comp=Z,14nm,0.6s
BVAR Borovoye Array 61.40 334 P **P** **12 33 20.0 -0.9**
KURK Kurchatov 61.59 327 *ce*P **P** **12 33 21.1 -1.1**
KURK pmax pmax
comp=Z,11nm,0.7s
KURK Kurchatov 61.59 327 P **P** **12 33 20.7 -1.5**
KURK lAmb lAmb 12 33 50.9
comp=Z,12nm,0.8s
KURK Kurchatov 61.59 327 P **P** **12 33 21.1 -1.1**
comp=Z,20nm,0.9s
KURK Kurchatov 61.59 327 P **P** **12 33 20.9 -1.3**
KURK pP **pP** **12 33 36.4 -0.8**
DEL Delary 61.66 10 *i* P **P** **12 33 21.6 -1.0**
KURBB Kurchatov Arra 61.69 327 P **P** **12 33 21.8 -1.2**
comp=Z,6.8nm,0.6s,baz=25,slow=6.4,SNR=32
KURBB PcP **PcP** **12 34 03.0 -0.8**
comp=Z,5.8nm,0.7s,baz=28,slow=5.0,SNR=5.2
comp=Z,6.8nm,0.6s
KURBB Kurchatov Arra 61.69 327 P **P** **12 33 21.6 -1.3**
BLEU Blekinge 61.98 9 *i* P **P** **12 33 23.8 -0.9**
LUNU Lund 62.45 11 *i* P **P** **12 33 27.0 -0.9**
APG El Apazote 62.55 110 LR LR 13 04 15.1
comp=Z,13nm,20.8s,baz=34,slow=39
LBWR Ladybower, Pea 62.68 21 *e*P **P** **12 33 29.0 -0.5**
LBWR lAmb lAmb 12 33 31.0
comp=Z,40nm,0.9s
LBWR Ladybower, Pea 62.68 21 P **P** **12 33 29.4 -0.1**
comp=Z,88nm,1.0s
IWEX Carrickbyrne, 62.73 24 P **P** **12 33 30.0 +0.2**
ZSN Zaisan 62.80 321 *e*P **P** **12 33 29.7 -0.7**
ZSN pmax pmax
comp=Z,10.0nm,1.0s
ZSN Zaisan 62.80 321 *e*P **P** **12 33 29.8 -0.7**
comp=Z,10nm,1.0s
FOEL Foel Wylfa 62.91 22 *e*P **P** **12 33 30.4 -0.7**
FOEL lAmb lAmb 12 33 31.8
comp=Z,21nm,0.8s
JOW Kunigami 62.92 277 LR LR 13 01 09.5
comp=Z,136nm,20.9s,baz=74,slow=36
JOW Kunigami 62.92 277 P **P** **12 33 31.6 +0.2**
MOS Moscow 62.93 355 *e*P **P** **12 33 30.9 -0.2**
MOS *e*PP **pP** **12 33 44.9 -1.2**
MOS *e* 12 35 50.3
MOS *e*PPP PPP 12 37 19.3
MOS *e*S **S** **12 41 59.4 +3.1**
MOS *e*SS **sS** **12 42 23.5 +1.9**
MOS *e* 12 43 19.3
MOS *e*SS **SS** **12 46 08.4 +7.2**
MOS pmax pmax
comp=Z,64nm,0.6s
NJ2 Nanjing 62.94 288 *e*P **P** **12 33 34.0 +2.5**
NJ2 pmax pmax
comp=Z,11nm,0.6s
BSD Bornholm Skovb 63.09 10 *i* P **P** **12 33 30.7 -1.4**
BSD lAmb lAmb 12 33 33.1
comp=Z,16nm,0.7s
PABE Paberze 63.21 4 P **P** **12 33 32.9 -0.1**
comp=Z,101nm,1.0s
HLM1 Long Mynd 63.32 22 *e*P **P** **12 33 32.8 -1.0**
HLM1 lAmb lAmb 12 33 35.0
comp=Z,12nm,0.9s
CWF Charnwood Fore 63.38 21 *e*P **P** **12 33 33.2 -1.0**
CWF Charnwood Fore 63.38 21 P **P** **12 33 34.5 +0.3**
comp=Z,30nm,1.8s
OBN Obninsk 63.59 356⇓ *i*P **P** **12 33 35.2 -0.2**
OBN *PP **pP** **12 33 52.0 +1.5**
OBN 12 34 12.0
OBN S **S** **12 42 13.0 +8.4**
OBN *SS **pS** **12 42 23.0 +0.5**
OBN *e* 12 43 19.5
OBN pmax pmax
comp=Z,92nm,0.9s
OBN MLR MLR
comp=Z,155nm,18.0s
OBN Obninsk 63.59 356 P **P** **12 33 35.1 -0.4**
OBN Obninsk 63.59 356⇓ P **P** **12 33 35.4 -0.1**
OBN Obninsk 63.59 356 P **P** **12 33 35.2 -0.2**
comp=Z,197nm,0.8s
LYN LuoYang 63.69 294 P **P** **12 33 36.8 +0.3**
LYN pP pP 12 33 48.1 -3.4
LYN sP sP 12 33 55.5 -2.2
LYN pmax pmax
comp=Z,33nm,0.9s
BSEG Bad Segeberg 63.83 13 P **P** **12 33 37.2 +0.2**
comp=Z,27nm,1.0s
MK31 Makanchi Array 64.15 323 *ce*P **P** **12 33 38.1 -1.3**
MKAR Makanchi Array 64.15 323 P **P** **12 33 37.7 -1.6**
comp=Z,6.9nm,0.8s,baz=40,slow=5.9,SNR=30
MKAR PKPPKP **P'P'df** **13 02 30.5 -3.6**
comp=Z,1.5nm,1.1s,baz=210,slow=33,SNR=4.9
comp=Z,6.9nm,0.8s
MAKZ Makanchi 64.23 323 P **P** **12 33 38.7 -1.1**
MAKZ pmax pmax
comp=Z,15nm,1.0s
MAKZ Makanchi 64.23 323 P **P** **12 33 38.7 -1.1**
MAKZ Makanchi 64.23 323 P **P** **12 33 38.8 -1.0**
comp=Z,21nm,1.0s
MNK Minsk 64.30 1 *i* P **P** **12 33 40.7 +0.5**
MNK *i* *PP **pP** **12 33 54.7 -0.5**
MNK *i* 12 34 14.5
MNK *i* 12 36 02.7
MNK *i* PPP PPP 12 37 34.1
MNK *i* S **S** **12 42 16.2 +2.7**
MNK *i* *SS **sS** **12 42 40.3 +1.3**
MNK *i* 12 43 30.4
MNK *i* SS **SS** **12 46 28.0 +5.4**
MNK pmax pmax
comp=N,29nm,1.0s
MNK pmax pmax
comp=Z,80nm,0.9s
MNK pmax pmax
comp=E,54nm,0.9s
MNK MLR MLR
comp=Z,140nm,16.0s
MNK MLR MLR
comp=E,95nm,17.0s
MNK MLR MLR
comp=N,195nm,17.0s
MNK Minsk 64.30 1 *i* P **P** **12 33 40.7 +0.5**
comp=E,54nm,0.9s
MNK *i* P **P** **12 33 40.7 +0.5**
comp=N,29nm,1.0s
MNK *i* P **P** **12 33 40.7 +0.5**
comp=Z,80nm,0.9s,baz=359
MNK *i* pP **pP** **12 33 54.8 -0.5**
MNK *i* PP **PP** **12 36 02.8 +1.4**
MNK *i* PPP PPP 12 37 34.2
MNK *i* S **S** **12 42 16.2 +2.7**
MNK *i* sS **sS** **12 42 40.3 +1.3**
MNK *i* SS **SS** **12 46 28.1 +5.4**
MNK *i* SSS SSS 12 49 30.5
MNK *i* LQ LQ 12 57 16.4
MNK *i* LR LR 13 03 04.0
MNK *i* LRM MLR 13 04 35.8
comp=Z,140nm,15.5s
MNK *i* LRM MLR 13 04 40.8
comp=E,95nm,17.0s
MNK *i* LRM MLR 13 04 51.0
comp=N,195nm,17.5s
GTA2 Gaotai 64.71 307 *e*P **P** **12 33 43.2 -0.1**
GTA2 S **S** **12 42 19.0 -0.2**
GTA2 pmax pmax
comp=N,25nm,0.9s
GTA2 L L
comp=N,300nm,19.0s
GTA2 L L
comp=N,210nm,17.8s
GTA2 L L
comp=N,410nm,18.1s
RETH Rethem/Aller, 64.90 14 *e*P **P** **12 33 44.1 +0.1**
comp=N,9.3nm,0.8s,baz=351,slow=6.5
RETH Rethem/Aller, 64.90 14 P **P** **12 33 44.3 +0.3**
comp=Z,25nm,1.3s
GKP Gorka Klasztor 65.10 8 *e*P **P** **12 33 44.1 -1.3**
IBBN Ibbenburen 65.13 15 *e*P **P** **12 33 45.9 +0.3**
comp=Z,33nm,0.7s,baz=351,slow=6.5
IBBN Ibbenburen 65.13 15 P **P** **12 33 45.9 +0.3**
comp=Z,54nm,0.9s
WMQ Urumqi 65.17 318 *e*P P 12 33 52.8 +6.7
WMQ pmax pmax
comp=Z,20nm,0.9s
WMQ LR LR
comp=Z,160nm,24.1s
WTSB Winterswijk 65.35 16 P **P** **12 33 47.0 0.0**
comp=Z,44nm,0.7s
WTSB pP **pP** **12 34 02.1 0.0**
FLTG Flechtingen 65.51 13 *e*P **P** **12 33 47.5 -0.5**
comp=Z,17nm,0.8s,baz=351,slow=6.5
FLTG Flechtingen 65.51 13 P **P** **12 33 47.5 -0.5**
comp=Z,31nm,1.0s
FLTG pP **pP** **12 34 01.3 -1.8**
BOST Ostende 65.52 18 *d*P **P** **12 33 48.0 0.0**
comp=Z,19nm,1.1s
BOST *d*pP **pP** **12 34 02.0 -1.3**
BELG Belogornoye 65.57 348 *i* P **P** **12 33 47.0 -1.4**
BELG pmax pmax
comp=Z,15nm,0.8s
RUE Ruedersdorf 65.61 11 P **P** **12 33 48.9 +0.3**
comp=Z,81nm,1.1s
ASSE Asse, Remlinge 65.64 13 *e*P **P** **12 33 48.7 -0.1**
comp=Z,23nm,1.0s,baz=351,slow=6.5
ASSE Asse, Remlinge 65.64 13 P **P** **12 33 49.2 +0.4**
comp=Z,30nm,1.6s
MTDJ Mount Denham 65.76 96 P **P** **12 33 50.5 +0.3**
comp=Z,171nm,0.9s
MTDJ Mount Denham 65.76 96 P **P** **12 33 50.9 +0.6**
comp=Z,172nm,0.9s
BMOL Mol 65.85 17 *d*P **P** **12 33 50.9 +0.7**
CLZ Clausthal 65.90 13 *e*P **P** **12 33 51.0 +0.4**
comp=Z,45nm,0.8s,baz=351,slow=6.5
CLZ Clausthal 65.90 13 P **P** **12 33 51.1 +0.4**
comp=Z,68nm,0.9s
BUG Bochum--Univer 65.92 15 *e*P **P** **12 33 50.5 -0.1**
comp=Z,35nm,0.8s,baz=351,slow=6.5
BUG Bochum--Univer 65.92 15 P **P** **12 33 50.4 -0.3**
comp=Z,56nm,0.9s
LPSR Galich'ya Gora 66.00 354 *e*P **P** **12 33 50.4 -0.8**
LPSR pmax pmax
comp=Z,101nm,0.8s
LZH Lanzhou 66.03 302 *e*P **P** **12 33 51.7 -0.2**
LZH pP pP 12 34 05.2 -1.8
LZH sP sP 12 34 15.8 +2.6
LZH pmax pmax
comp=Z,21nm,1.5s
LZH L L
comp=Z,420nm,15.6s
LZH L L
comp=Z,330nm,15.6s
LZH L L
comp=Z,590nm,15.6s
BOPT Opiter 66.03 17 *d*P **P** **12 33 52.2 +0.8**
GTTG Gottingen 66.14 14 *e*P **P** **12 33 52.6 +0.5**
comp=Z,67nm,1.0s,baz=351,slow=6.5
GTTG Gottingen 66.14 14 P **P** **12 33 52.0 -0.1**
comp=Z,101nm,1.0s
UCC Uccle 66.16 18 lAmb lAmb 12 33 52.8
comp=Z,35nm,1.4s
UCC Uccle 66.16 18 *d*P **P** **12 33 52.2 0.0**
UCC Uccle 66.16 18 P **P** **12 33 52.1 -0.1**
comp=Z,3.6nm,1.1s
LZDM Lanzhou Array 66.20 302 P **P** **12 33 51.7 -1.5**
comp=Z,2.4nm,0.4s,baz=64,slow=10,SNR=4.0
LZDM LR LR 13 05 18.8
comp=Z,418nm,19.1s,baz=20,slow=38
comp=Z,2.4nm,0.4s
WHN Wuhan 66.25 290 P **P** **12 33 52.6 -0.5**
BSKQ Steenkerk 66.26 18 *d*P **P** **12 33 52.6 -0.2**
SIUN Universidad Ur 66.27 106 lAmb lAmb 12 33 54.5
comp=Z,15nm,0.8s
KASTN Kahler Asten 66.30 15 *e*P **P** **12 33 53.2 +0.1**
comp=Z,16nm,1.0s,baz=351,slow=6.5
WIMM Wimmelburg 66.33 13 P **P** **12 33 53.4 +0.1**
comp=Z,82nm,1.1s
GUMO Guam 66.39 254 LR LR 13 01 41.7
comp=Z,85nm,19.2s,baz=79,slow=35
HGN Heimansgroeve 66.41 16 P **P** **12 33 53.7 -0.1**
comp=Z,26nm,1.5s
MEM Membach 66.57 16 *d*P **P** **12 33 54.5 -0.4**
comp=Z,18nm,1.2s

MEM Membach 66.57 16 P **P** 12 33 54.7 -0.2
comp=Z,41nm,1.1s
BCLA Clavier 66.66 17 *dP* **P** 12 33 55.1 -0.3
comp=Z,10nm,1.1s
BCLA *dPP* **PP** 12 36 24.1 +2.1
NEUB Neuenburg 66.67 12 *eP* **P** 12 33 55.6 +0.1
comp=Z,44nm,0.9s,baz=351,slow=6.5
NEUB Neuenburg 66.67 12 P **P** 12 33 55.5 +0.1
comp=Z,62nm,1.1s
CLL Collm 66.69 12 ⇓*iP* **P** 12 33 55.2 -0.4
CLL pmax pmax
comp=Z,27nm,0.9s
CLL Collm 66.69 12 IAmb IAmb 12 33 56.3
comp=Z,25nm,0.9s
CLL Collm 66.69 12 *eP* **P** 12 33 55.4 -0.3
comp=Z,25nm,0.9s,baz=351,slow=6.5
CLL Collm 66.69 12 P **P** 12 33 55.3 -0.4
comp=Z,36nm,1.2s
CLL Collm 66.69 12 P **P** 12 33 55.4 -0.3
comp=Z,36nm,1.2s
CLL Collm 66.69 12 ⇓*iP* **P** 12 33 55.2 -0.4
comp=Z,27nm,0.9s
BMRD Maredsous 66.70 17 *dP* **P** 12 33 55.6 -0.1
comp=Z,20nm,1.1s
BEL Belsk 66.75 6 *eP* **P** 12 33 56.1 +0.1
BEL Belsk 66.75 6 P **P** 12 33 56.3 +0.4
comp=Z,7μm,1.2s
DOU Dourbes 66.87 18 *dP* **P** 12 33 56.6 -0.2
comp=Z,15nm,1.1s
RCHB Rochefort 66.91 17 *dP* **P** 12 33 56.5 -0.5
comp=Z,21nm,1.0s
RCHB Rochefort 66.91 17 P **P** 12 33 56.9 -0.1
comp=Z,36nm,1.1s
VORR Voronezh 66.92 354 *eP* **P** 12 33 56.4 -0.6
VORR pmax pmax
comp=Z,42nm,0.4s
AB31 Akbulak array 67.00 339 *iP* **P** 12 33 56.8 -0.8
AB31 Akbulak array 67.00 339 IAmb IAmb 12 33 57.8
comp=Z,19nm,0.8s
ABKAR Akbulak array 67.00 339 P **P** 12 33 56.6 -1.0
MOX Moxa 67.21 13 P **P** 12 33 59.2 +0.2
MOX pmax pmax
comp=Z,64nm,0.8s
MOX Moxa 67.21 13 *eP* **P** 12 33 59.1 +0.1
comp=Z,42nm,0.8s,baz=351,slow=6.5
MOX Moxa 67.21 13 P **P** 12 33 59.2 +0.2
comp=Z,64nm,0.8s
VRH Novokhopyorsk 67.24 352 *eP* **P** 12 33 57.8 -1.3
VRH pmax pmax
comp=Z,34nm,0.6s
TNS Taunus Mts 67.27 15 *eP* **P** 12 33 59.4 +0.1
comp=Z,18nm,0.8s,baz=351,slow=6.5
TNS Taunus Mts 67.27 15 P **P** 12 33 59.5 +0.1
comp=Z,29nm,1.4s
RNPP9 Sopachiv 67.36 3 P **P** 12 33 59.2 -0.7
VSR Storozhevoye 67.37 354 *eP* **P** 12 33 58.9 -1.0
VSR pmax pmax
comp=Z,50nm,0.7s
PLN Plauen 67.42 12 *eP* **P** 12 34 00.4 +0.1
comp=Z,8.7nm,0.8s,baz=351,slow=6.5
HSKC Hora Svate Kat 67.43 11 *eP* **P** 12 34 00.8 +0.4
HSKC Hora Svate Kat 67.43 11 P **P** 12 34 00.7 +0.3
comp=Z,75nm,1.4s
RNPP8 Varash 67.44 3 P **P** 12 33 59.8 -0.6
KSP Ksiaz 67.44 9 *eP* **P** 12 34 00.4 0.0
KSP Ksiaz 67.44 9 P **P** 12 34 00.4 0.0
comp=Z,64nm,1.5s
WLF Walferdange 67.52 17 IAmb IAmb 12 34 02.4
comp=Z,50nm,1.1s
WLF Walferdange 67.52 17 *dP* **P** 12 34 01.4 +0.5
comp=Z,24nm,1.1s
WLF Walferdange 67.52 17 *eP* **P** 12 34 01.4 +0.5
comp=Z,46nm,1.1s,baz=351,slow=6.5
WLF Walferdange 67.52 17 P **P** 12 34 00.9 +0.1
comp=Z,50nm,1.2s
TANN Tannenbergstha 67.52 12 *eP* **P** 12 34 01.3 +0.3
comp=Z,29nm,1.1s,baz=351,slow=6.5
TANN Tannenbergstha 67.52 12 P **P** 12 34 01.2 +0.2
comp=Z,49nm,1.3s
RNPP5 Staryi Chortor 67.55 3 P **P** 12 34 00.5 -0.5
RICC Richard 67.55 11 *eP* **P** 12 34 02.0 +0.9
PVCC Panska Ves 67.61 11 *eP* **P** 12 34 01.8 +0.3
PVCC Panska Ves 67.61 11 *eP* **P** 12 34 01.8 +0.3
PVCC Panska Ves 67.61 11 P **P** 12 34 01.9 +0.3
comp=Z,68nm,0.9s
VORD Divnogorie 67.62 354 *eP* **P** 12 34 00.2 -1.3
VORD pmax pmax
comp=Z,50nm,0.7s
CHVC Chvalec 67.68 10 *eP* **P** 12 34 02.4 +0.5
CHVC Chvalec 67.68 10 *eP* **P** 12 34 02.4 +0.5
NKC Novy Kostel 67.70 12 *eP* **P** 12 34 02.4 +0.3
NKC Novy Kostel 67.70 12 *eP* **P** 12 34 02.4 +0.3
NKC Novy Kostel 67.70 12 P **P** 12 34 02.4 +0.3
comp=Z,42nm,0.9s
OSTC Ostas 67.72 9 *eP* **P** 12 34 02.6 +0.4
OSTC Ostas 67.72 9 *eP* **P** 12 34 02.6 +0.4
UPC Upice 67.75 10 *eP* **P** 12 34 02.6 +0.2
UPC Upice 67.75 10 *eP* **P** 12 34 02.6 +0.2
UPC Upice 67.75 10 P **P** 12 34 02.7 +0.3
comp=Z,53nm,1.5s
DPC Dobruska-Polom 67.93 9 *eP* **P** 12 34 04.1 +0.5
DPC *e* 12 34 20.8
DPC Dobruska-Polom 67.93 9 *eP* **P** 12 34 04.1 +0.5
DPC epP **pP** 12 34 20.8 +2.0
DPC Dobruska-Polom 67.93 9 P **P** 12 34 04.2 +0.6
comp=Z,108nm,0.9s
AK21 Malin Array Si 68.05 1 P **P** 12 34 03.5 -0.7
GRA3 Grafenberg Arr 68.05 13 P **P** 12 34 04.7 +0.5
comp=Z,32nm,1.6s
AK23 Malin Array Si 68.06 1 P **P** 12 34 03.4 -0.9
AK22 Malin Array Si 68.06 1 P **P** 12 34 03.5 -0.8
AK04 Malin Array Si 68.10 1 P **P** 12 34 03.7 -0.8
GRA1 Grafenberg Arr 68.11 13 IAmb IAmb 12 34 05.5
comp=Z,23nm,0.9s
GRA1 Grafenberg Arr 68.11 13 P **P** 12 34 05.1 +0.4
comp=Z,42nm,1.4s
GRFO Grafenberg 68.11 13 P **P** 12 34 05.3 +0.7
AKASG Malin Array Be 68.12 1 P **P** 12 34 03.9 -0.8
comp=Z,53nm,0.6s,baz=3.1,slow=6.2,SNR=153
AKASG LR LR 13 07 38.5
comp=Z,96nm,18.0s,baz=17,slow=39
comp=Z,53nm,0.6s
AKASG Malin Array Be 68.12 1 *iP* **P** 12 34 03.9 -0.8
AKASG pmax pmax
comp=Z,55nm,0.6s
AKBB Malin Array Si 68.12 1 *iP* **P** 12 34 03.9 -0.8
AKBB pmax pmax
comp=Z,71nm,0.9s
AKBB Malin Array Si 68.12 1 P **P** 12 34 03.6 -1.1
KIEV Kiev 68.13 1 P **P** 12 34 03.9 -0.8
KIEV pmax pmax
comp=Z,73nm,0.9s
KIEV Kiev 68.13 1 P **P** 12 34 03.9 -0.8
KIEV Kiev 68.13 1 ⇓P **P** 12 34 04.1 -0.6
KIEV Kiev 68.13 1 P **P** 12 34 03.7 -1.0
comp=Z,449nm,0.9s
KIEV Kiev 68.13 1 P **P** 12 34 04.1 -0.6
comp=Z,114nm,0.9s
KIEV Kiev 68.13 1 P **P** 12 34 03.9 -0.8
KIEV pP **pP** 12 34 19.4 -0.5
KIEV PcP **PcP** 12 34 29.4 -0.9
PRU Pruhonice 68.14 11 *eP* **P** 12 34 04.9 +0.1
PRU Pruhonice 68.14 11 *eP* **P** 12 34 04.9 +0.1
PRU Pruhonice 68.14 11 P **P** 12 34 05.2 +0.3
comp=Z,37nm,1.0s
AK16 Malin Array Si 68.15 1 P **P** 12 34 04.1 -0.8
KPKS Kokpek 68.22 324 *eP* **P** 12 34 04.9 -0.7
KPKS Kokpek 68.22 324 *eP* **P** 12 34 04.9 -0.7
KRLC Kraliky 68.24 9 *eP* **P** 12 34 05.7 +0.2
KRLC *e* 12 34 20.7
KRLC Kraliky 68.24 9 *eP* **P** 12 34 05.7 +0.2
KRLC epP **pP** 12 34 20.7 0.0
KRLC Kraliky 68.24 9 P **P** 12 34 06.0 +0.5
comp=Z,112nm,1.3s
SHLS Shalkode 68.29 323 *eP* **P** 12 34 04.7 -1.3
SHLS pmax pmax
comp=Z,13nm,0.9s
SHLS Shalkode 68.29 323 *eP* **P** 12 34 04.8 -1.3
comp=Z,13nm,0.9s
OJC Ojcow 68.30 7 *eP* **P** 12 34 05.5 -0.3
OJC Ojcow 68.30 7 P **P** 12 34 05.8 0.0
OJC pmax pmax
comp=Z,36nm,0.9s
OJC Ojcow 68.30 7 P **P** 12 34 05.8 0.0
comp=Z,36nm,0.9s

GRB4 Grafenberg Arr 68.37 13 P **P** 12 34 06.4 +0.1
comp=Z,44nm,1.1s
UZB Uzynbulak 68.42 324 *eP* **P** 12 34 06.1 -0.8
UZB Uzynbulak 68.42 324 *eP* **P** 12 34 06.1 -0.8
GRB1 Grafenberg Arr 68.45 13 P **P** 12 34 07.2 +0.4
comp=Z,47nm,1.3s
STEB Steborice 68.46 9 *eP* **P** 12 34 06.7 -0.1
KUU Kurty 68.47 326 *eP* **P** 12 34 06.4 -0.6
KUU Kurty 68.47 326 *eP* **P** 12 34 06.4 -0.6
GRB2 Grafenberg Arr 68.57 13 P **P** 12 34 07.9 +0.3
comp=Z,50nm,1.1s
OKC Ostrava-Krasne 68.58 8 *eP* **P** 12 34 07.8 +0.3
OKC Ostrava-Krasne 68.58 8 *eP* **P** 12 34 07.8 +0.3
OKC Ostrava-Krasne 68.58 8 P **P** 12 34 07.8 +0.3
comp=Z,78nm,1.1s
MORC Moravsky Berou 68.60 9 P **P** 12 34 07.5 -0.2
MORC Moravsky Berou 68.60 9 *eP* **P** 12 34 07.5 -0.2
MORC Moravsky Berou 68.60 9 ⇑P **P** 12 34 07.5 -0.2
MORC Moravsky Berou 68.60 9 P **P** 12 34 08.0 +0.2
comp=Z,52nm,1.2s
ZVC Zvikov 68.66 11 *eP* **P** 12 34 08.4 +0.3
ZVC epP **pP** 12 34 22.8 -0.5
SATY Saty 68.68 324 *eP* **P** 12 34 07.6 -0.9
SATY Saty 68.68 324 *eP* **P** 12 34 07.6 -0.9
GRB5 Grafenberg Arr 68.73 13 P **P** 12 34 08.7 +0.2
comp=Z,36nm,0.9s
GRC4 Grafenberg Arr 68.74 13 P **P** 12 34 08.9 +0.3
comp=Z,38nm,1.3s
STU Stuttgart 68.78 15 P **P** 12 34 09.1 +0.2
comp=Z,12nm,0.5s
WET Wettzell 68.82 12 *eP* **P** 12 34 09.8 +0.6
comp=Z,40nm,1.1s,baz=351,slow=6.5
WET Wettzell 68.82 12 P **P** 12 34 08.5 -0.6
comp=Z,32nm,1.4s
GRC1 Grafenberg Arr 68.83 13 P **P** 12 34 09.3 +0.2
comp=Z,38nm,1.4s
KHC Kasperske Hory 68.90 12 *cP* **P** 12 34 10.2 +0.6
KHC pmax pmax
comp=Z,53nm,1.3s
KHC Kasperske Hory 68.90 12 IAmb IAmb 12 34 11.3
comp=Z,34nm,0.9s
KHC Kasperske Hory 68.90 12 *eP* **P** 12 34 10.1 +0.4
KHC epP **pP** 12 34 25.9 +1.0
KHC Kasperske Hory 68.90 12 P **P** 12 34 10.3 +0.6
comp=Z,45nm,1.1s
TREC Trest 68.91 10 *eP* **P** 12 34 09.9 +0.2
TREC Trest 68.91 10 *eP* **P** 12 34 09.9 +0.2
TREC Trest 68.91 10 P **P** 12 34 09.9 +0.2
comp=Z,46nm,1.5s
GRC2 Grafenberg Arr 68.94 13 P **P** 12 34 10.0 +0.2
comp=Z,46nm,1.1s
GRC3 Grafenberg Arr 68.94 13 P **P** 12 34 10.0 +0.2
comp=Z,41nm,1.0s
AAA Alma-Ata 68.95 325 *eP* **P** 12 34 09.4 -0.7
AAA pmax pmax
comp=Z,14nm,0.5s
AAA Alma-Ata 68.95 325 *eP* **P** 12 34 09.4 -0.7
comp=Z,14nm,0.5s
MDOK Medeo 68.96 325 *eP* **P** 12 34 09.2 -1.0
MDOK Medeo 68.96 325 *eP* **P** 12 34 09.3 -1.0
VRAC Vranov 68.99 9 P **P** 12 34 10.4 +0.3
VRAC Vranov 68.99 9 *eP* **P** 12 34 10.2 +0.1
VRAC Vranov 68.99 9 ⇓P **P** 12 34 10.4 +0.3
VRAC Vranov 68.99 9 P **P** 12 34 10.5 +0.4
comp=Z,22nm,1.1s
KWP Kalwaria Pacla 69.04 5 *eP* **P** 12 34 10.4 0.0
ECH Echery 69.07 16 P **P** 12 34 10.8 +0.1
ECH pmax pmax
comp=Z,34nm,1.2s
ECH Echery 69.07 16 IAmb IAmb 12 34 11.8
comp=Z,37nm,1.1s
ECH Echery 69.07 16 P **P** 12 34 10.8 +0.1
comp=Z,34nm,1.2s
ECH Echery 69.07 16 P **P** 12 34 10.4 -0.2
ECH pP **pP** 12 34 26.1 +0.1
ECH PcP **PcP** 12 34 34.6 +0.2
TNSS Tian-Shan 69.10 325 *eP* **P** 12 34 10.3 -1.1
TNSS Tian-Shan 69.10 325 *eP* **P** 12 34 10.3 -1.1
BFO Black Forest 69.11 15 P **P** 12 34 10.4 -0.5
BFO pmax pmax
comp=Z,31nm,1.2s
BFO Black Forest 69.11 15 P **P** 12 34 10.4 -0.5
BFO IAmb IAmb 12 34 11.9
comp=Z,31nm,1.2s
BFO Black Forest 69.11 15 *eP* **P** 12 34 11.0 0.0
comp=Z,34nm,1.2s,baz=351,slow=6.5
NIE Niedzica 69.13 7 *eP* **P** 12 34 11.4 +0.3
GEC2 GERESS Array S 69.20 11 IAmb IAmb 12 34 12.7
comp=Z,27nm,1.1s
GEC2 GERESS Array S 69.20 11 *eP* **P** 12 34 11.8 +0.2
comp=Z,27nm,1.1s,baz=351,slow=6.5
GEC2 GERESS Array S 69.20 11 P **P** 12 34 11.8 +0.2
comp=Z,29nm,1.1s
GERES GERESS Array B 69.20 11 P **P** 12 34 11.6 0.0
comp=Z,12nm,0.8s,baz=343,slow=4.2,SNR=70
comp=Z,12nm,0.8s
PRZ Przheval'sk 69.21 324 P **P** 12 34 11.6 -0.3
PRZ pmax pmax
comp=Z,20nm,0.8s
PRZ Przheval'sk 69.21 324 P **P** 12 34 11.6 -0.3
comp=Z,20nm,0.8s
KRUC Moravsky 69.22 10 *eP* **P** 12 34 11.5 -0.1
KRUC Moravsky 69.22 10 P **P** 12 34 11.8 +0.2
comp=Z,71nm,1.0s
CKRC Cesky Krumlov 69.28 11 *eP* **P** 12 34 11.5 -0.5
CKRC Cesky Krumlov 69.28 11 *eP* **P** 12 34 11.5 -0.5
LANS Liptovska Anna 69.35 7 *eP* **P** 12 34 13.5 +1.1
LANS pmax pmax
comp=Z,27nm,0.8s
LANS Liptovska Anna 69.35 7 *eP* **P** 12 34 13.5 +1.1
GOMU GeErMu 69.47 309 P **P** 12 34 13.5 -0.3
GOMU pmax pmax
comp=Z,16nm,0.9s
MFF Saint Martin d 69.50 22 P **P** 12 34 13.4 0.0
MFF pmax pmax
comp=Z,9.0nm,1.4s
MFF Saint Martin d 69.50 22 P **P** 12 34 13.4 0.0
comp=Z,8.6nm,1.4s
JAVC Velka Javorina 69.52 9 *eP* **P** 12 34 14.4 +0.9
JAVC Velka Javorina 69.52 9 P **P** 12 34 14.8 +1.3
comp=Z,79nm,1.3s
LOR Lormes 69.52 19 P **P** 12 34 13.6 +0.1
comp=Z,37nm,1.3s
ABNA Allensteig Bun 69.53 10 *eP* **P** 12 34 13.6 +0.1
comp=Z,45nm,0.9s
USP Ospenovka 69.55 327 P **P** 12 34 13.2 -0.5
SNR=6.3
TKM2 Tokmak 2 69.58 326 P **P** 12 34 13.6 -0.6
SNR=24
FUR Furstenfeldbru 69.62 13 P **P** 12 34 14.3 +0.3
comp=Z,86nm,0.9s
SLE Schleitheim 69.69 15 P **P** 12 34 14.3 -0.2
comp=Z,17nm,0.9s
KOLS Kolonicke sedl 69.72 5 *eP* **P** 12 34 15.1 +0.5
KOLS pmax pmax
comp=Z,38nm,1.0s
KOLS Kolonicke sedl 69.72 5 *eP* **P** 12 34 15.1 +0.5
KOLS *e* 12 59 34.4
KOLS Kolonicke sedl 69.72 5 P **P** 12 34 15.4 +0.8
comp=Z,48nm,0.7s
CHMS Chumnysh 69.73 327 P **P** 12 34 14.6 -0.3
SNR=7.3
SMOL Smolenice 69.84 9 *eP* **P** 12 34 16.4 +1.0
SMOL pmax pmax
comp=Z,11nm,0.8s
KDJ Kajisay 69.88 325 P **P** 12 34 15.4 -0.6
KDJ pmax pmax
comp=Z,25nm,0.9s
KDJ Kajisay 69.88 325 IAmb IAmb 12 34 16.2
comp=Z,21nm,0.9s
KDJ Kajisay 69.88 325 P **P** 12 34 15.4 -0.6
comp=Z,25nm,0.9s
BOURR Bourrignon 69.89 16 P **P** 12 34 16.1 +0.3
comp=Z,51nm,1.1s
VYHS Vyhne 69.96 8 *eP* **P** 12 34 16.5 +0.3
VYHS pmax pmax
comp=Z,63nm,1.1s
VYHS Vyhne 69.96 8 *eP* **P** 12 34 16.5 +0.3
VYHS Vyhne 69.96 8 P **P** 12 34 16.4 +0.3
comp=Z,19nm,1.0s
UBR Ueberruh 69.97 14 *eP* **P** 12 34 16.6 +0.3
comp=Z,34nm,0.9s,baz=351,slow=6.5
UBR Ueberruh 69.97 14 P **P** 12 34 16.6 +0.3
comp=Z,43nm,1.0s
MODS Modra-Piesok 69.97 9 *eP* **P** 12 34 16.8 +0.6
MODS pmax pmax
comp=Z,120nm,1.0s
MODS Modra-Piesok 69.97 9 *eP* **P** 12 34 16.8 +0.6
MODS Modra-Piesok 69.97 9 P **P** 12 34 16.9 +0.7
comp=Z,103nm,1.0s
KBK Karagaybulak 70.00 326 P **P** 12 34 16.3 -0.4
SNR=14
ULHL Ulahol 70.03 325 P **P** 12 34 16.4 -0.5
SNR=5.8
KECS Kecovo 70.07 7 *eP* **P** 12 34 16.9 +0.1
KECS pmax pmax
comp=Z,55nm,0.7s
KECS Kecovo 70.07 7 *eP* **P** 12 34 16.9 +0.1
KECS *e* 12 59 22.5
KECS Kecovo 70.07 7 P **P** 12 34 17.0 +0.2
comp=Z,38nm,0.8s
AAK Ala-Archa 70.13 327 P **P** 12 34 17.2 -0.3
SNR=8.8
AAK Ala-Archa 70.13 327 P **P** 12 34 17.4 -0.1
AAK pmax pmax
comp=Z,14nm,0.8s
AAK Ala-Archa 70.13 327 P **P** 12 34 17.4 -0.1
AAK Ala-Archa 70.13 327 P **P** 12 34 17.3 -0.3
comp=Z,23nm,0.9s
ZST Bratislava 70.14 9 *eP* **P** 12 34 19.1 +1.9
ZST Bratislava 70.14 9 *eP* **P** 12 34 19.1 +1.9
WINA Alland / Wiene 70.14 10 *eP* **P** 12 34 17.4 +0.1
comp=Z,38nm,0.9s,SNR=15
WUS Wushi 70.16 323 P **P** 12 34 17.1 -0.5
comp=Z,21nm,0.8s
WUS Wushi 70.16 323 P **P** 12 34 17.1 -0.5
RJOB Jochberg 70.21 12 P **P** 12 34 17.9 +0.2
comp=Z,29nm,0.9s
RETA Reutte 70.23 14 *iP* **P** 12 34 17.8 -0.1
comp=Z,16nm,1.1s,SNR=12
MOA Molln 70.24 11 *eP* **P** 12 34 17.7 -0.2
comp=Z,14nm,1.0s,SNR=8.8
MOA Molln 70.24 11 P **P** 12 34 17.9 0.0
comp=Z,34nm,1.2s
EKS2 Erkin-Say 70.30 327 P **P** 12 34 18.2 -0.2
SNR=35
ABAH Abaujker 70.30 6 P **P** 12 34 18.6 +0.4
comp=Z,71nm,1.1s
CONA Conrad Observa 70.30 10 *iP* **P** 12 34 18.6 +0.2
comp=Z,40nm,0.9s,SNR=22
DAVA Damuels 70.33 14 *iP* **P** 12 34 18.7 +0.1
comp=Z,18nm,1.1s,SNR=5.1
DAVA Damuels 70.33 14 P **P** 12 34 16.9 -1.7
comp=Z,26nm,1.4s
BIOA Bad Ischl, Aus 70.33 12 *eP* **P** 12 34 18.4 -0.1
comp=Z,22nm,1.0s,SNR=12
MOTA Moosalm 70.41 14 *eP* **P** 12 34 19.0 -0.1
comp=Z,30nm,1.1s,SNR=17
WATA Walderalm 70.47 13 *iP* **P** 12 34 19.6 +0.1
comp=Z,41nm,0.9s,SNR=24
LESA Schwarzleotal 70.50 12 *eP* **P** 12 34 19.8 +0.2
comp=Z,29nm,1.0s,SNR=18
TRPA Tarpa 70.53 5 P **P** 12 34 19.9 +0.4
comp=Z,114nm,0.9s
SQTA Sankt Quirin 70.55 14 *eP* **P** 12 34 20.2 +0.3
comp=Z,58nm,1.0s,SNR=38
WTTA Wattenberg 70.55 13 *eP* **P** 12 34 20.2 +0.3
comp=Z,64nm,0.9s,SNR=28
WTTA Wattenberg 70.55 13 P **P** 12 34 20.4 +0.4
comp=Z,92nm,1.1s
BNALP Bannalp 70.56 16 P **P** 12 34 20.6 +0.6
comp=Z,34nm,1.2s
RONA Rosalia, Austr 70.56 10 *eP* **P** 12 34 20.2 +0.3
comp=Z,24nm,0.9s,SNR=11
SOP Sopron 70.60 10 P **P** 12 34 20.7 +0.6
comp=Z,49nm,0.9s
PSZ Piszkesteto 70.60 7 P **P** 12 34 19.8 -0.3
PSZ Piszkesteto 70.60 7 ⇑P **P** 12 34 19.8 -0.3
PSZ Piszkesteto 70.60 7 P **P** 12 34 19.9 -0.3
comp=Z,83nm,1.0s
SRO Srobarova 70.60 8 *eP* **P** 12 34 20.6 +0.6
SRO pmax pmax
comp=Z,36nm,1.1s
SRO Srobarova 70.60 8 *eP* **P** 12 34 20.6 +0.6
SORM Soroca 70.68 1 P **P** 12 34 19.9 -0.6
SORM Soroca 70.68 1 ⇓P **P** 12 34 19.9 -0.6
FETA Feichten 70.69 14 *eP* **P** 12 34 20.9 +0.1
comp=Z,35nm,1.0s,SNR=14
DZA Taraz 70.70 329 *eP* **P** 12 34 19.8 -1.0
DZA Taraz 70.70 329 *eP* **P** 12 34 19.9 -0.9
KK31 Karatay Array 70.70 330 *iP* **P** 12 34 19.9 -0.9
KKAR Karatay Array 70.70 330 P **P** 12 34 19.5 -1.3
KKAR Karatay Array 70.70 330 P **P** 12 34 19.5 -1.3
DAVOX Davos/Dischmat 70.83 15 LR LR 13 09 51.8
comp=Z,113nm,18.2s,baz=110,slow=40
SENIN Lac Senin/Sane 70.91 16 IAmb IAmb 12 34 23.6
comp=Z,39nm,1.1s
KBA Koelnbreinsper 70.91 12 *eP* **P** 12 34 22.6 +0.4
comp=Z,75nm,0.9s,SNR=46
KBA Koelnbreinsper 70.91 12 P **P** 12 34 22.8 +0.6
comp=Z,146nm,1.0s
ARSA Arzberg 70.95 10 IAmb IAmb 12 34 23.7
comp=Z,24nm,0.9s
ARSA Arzberg 70.95 10 *eP* **P** 12 34 22.6 +0.4
comp=Z,23nm,0.9s,SNR=12
ARSA Arzberg 70.95 10 P **P** 12 34 22.7 +0.5
comp=Z,34nm,1.4s
SESA Seetaler Alpe, 71.00 11 *eP* **P** 12 34 23.1 +0.4
comp=Z,35nm,0.9s,SNR=18
BMR Baia Mare 71.03 5 P **P** 12 34 22.7 +0.1
BMR Baia Mare 71.03 5 ⇑P **P** 12 34 22.8 +0.1
BMR Baia Mare 71.03 5 P **P** 12 34 23.4 +0.7
comp=Z,97nm,0.9s
FUORN Ofenpass-Fuorn 71.03 14 IAmb IAmb 12 34 24.8
comp=Z,48nm,1.0s
FUORN Ofenpass-Fuorn 71.03 14 P **P** 12 34 23.8 +0.8
comp=Z,50nm,1.3s
TUE Stuetta 71.06 15 IAmb IAmb 12 34 24.9
comp=Z,41nm,0.8s
TUE Stuetta 71.06 15 P **P** 12 34 23.9 +0.8
comp=Z,52nm,0.9s
BUR08 Bucovina Ar. S 71.11 3 IAmb IAmb 12 34 24.2
comp=Z,25nm,0.7s
BURAR Bucovina Array 71.14 3 P **P** 12 34 23.5 +0.1
BURAR Bucovina Array 71.14 3 P **P** 12 34 23.4 -0.1
BURAR Bucovina Array 71.14 3 ⇓P **P** 12 34 23.6 +0.1
ABTA Abfaltersbach 71.16 13 *eP* **P** 12 34 23.3 -0.2
comp=Z,29nm,1.5s,SNR=7.1
GCPR Guaynabo City 71.17 86 IAmb IAmb 12 34 23.6
comp=Z,30nm,0.8s
ASAI AK-SAY(Kyrgyzs 71.19 325 P **P** 12 34 23.9 -0.2
comp=Z,11nm,1.0s
MPLH Magyarpolny 71.19 9 P **P** 12 34 24.3 +0.7
comp=Z,58nm,1.0s
BSZH Besenyszg 71.24 7 ⇓P **P** 12 34 23.4 -0.5
LTVH Ltavrtes, Hu 71.24 6 ⇑P **P** 12 34 24.4 +0.5
MYKA Terra Mystica 71.39 12 *eP* **P** 12 34 24.5 -0.4
comp=Z,23nm,1.0s,SNR=14
PRAR RASCA 71.42 3 ⇑P **P** 12 34 24.3 -0.7
ACOM Acomizza, Ital 71.45 12 P **P** 12 34 25.6 +0.1
comp=Z,45nm,1.1s
SOKA Soboth 71.47 11 *eP* **P** 12 34 25.2 -0.2
comp=Z,33nm,1.0s,SNR=16
MESR Meseseni 71.53 5 ⇓P **P** 12 34 25.9 +0.2
PRED Cave del Predi 71.56 12 P **P** 12 34 25.5 -0.5
comp=Z,19nm,1.3s
SSB Saint Sauveur 71.57 19 IAmb IAmb 12 34 27.9
comp=Z,38nm,1.4s
SSB Saint Sauveur 71.57 19 P **P** 12 34 26.1 +0.1
comp=Z,24nm,2.3s
OBKA Obir 71.59 11 *eP* **P** 12 34 26.1 -0.1
comp=Z,95nm,0.8s,SNR=45
OBKA Obir 71.59 11 P **P** 12 34 26.3 +0.1
comp=Z,202nm,0.9s
IASR Iasi 71.63 2 ⇑P **P** 12 34 25.5 -0.7
ARCR ARCALIA 71.64 4 ⇑P **P** 12 34 26.7 +0.3
CHM Chimkent 71.66 330 *eP* **P** 12 34 25.9 -0.7
CHM pmax pmax
comp=Z,10.0nm,0.4s
CHM Chimkent 71.66 330 *eP* **P** 12 34 26.0 -0.7
comp=Z,9.8nm,0.4s
IUG Iuzhnay 71.72 330 *eP* **P** 12 34 26.5 -0.5
IUG pmax pmax
comp=Z,15nm,0.5s
IUG Iuzhnay 71.72 330 *eP* **P** 12 34 26.6 -0.5
comp=Z,15nm,0.5s
CTI Castel Tesino 71.75 13 IAmb IAmb 12 34 27.6
comp=Z,37nm,1.4s
KOGS Kog 71.80 10 *iP* **P** 12 34 27.7 +0.4
GIRR Girov 71.83 3 ⇓P **P** 12 34 26.8 -0.7
DRE Drenchia 71.84 12 P **P** 12 34 26.9 -0.7

comp=Z,50nm,1.0s
BIZ Bicaz 71.84 3 ⇓P P 12 34 27.3 -0.2
DRGR 71.87 5 P P 12 34 27.5 -0.3
DRGR 71.87 5 ⇑P P 12 34 27.5 -0.3
DRGR 71.87 5 P P 12 34 27.8 -0.1
comp=Z,30nm,1.3s
CGRP Cima Grappa 71.94 13 P P 12 34 27.7 -0.7
comp=Z,47nm,1.3s
NGRR Negresti 71.97 2 ⇓P P 12 34 27.4 -0.9
CJR Cluj-Napoca 71.99 5 P P 12 34 28.9 +0.4
CJR Cluj-Napoca 71.99 5 ⇑P P 12 34 29.0 +0.4
MARR Marisel-Cluj 72.01 5 ⇓P P 12 34 28.7 0.0
PDRR Padureni 72.03 2 ⇓P P 12 34 27.9 -0.7
SABO M.te Sabotino 72.03 12 IAmb IAmb 12 34 29.1
comp=Z,51nm,0.9s
TRKS Terek-Say 72.03 329 P P 12 34 28.7 -0.3
TRKS pmax pmax
comp=Z,17nm,1.0s
DMBR Dumbraveni 72.04 2 ⇓P P 12 34 28.2 -0.6
MNTR Muntenesti 72.05 2 ⇓P P 12 34 28.2 -0.6
LJU Ljubljana 72.05 11 *i*P P 12 34 28.6 -0.2
BNI Bardonecchia 72.11 17 P P 12 34 30.9 +1.6
BNI pmax pmax
comp=Z,39nm,1.3s
BNI Bardonecchia 72.11 17 IAmb IAmb 12 34 31.5
comp=Z,48nm,1.1s
BNI Bardonecchia 72.11 17 P P 12 34 30.9 +1.6
comp=Z,38nm,1.3s
MORH Mrgy, Hungar 72.22 8 ⇓P P 12 34 29.5 -0.2
MORH Mrgy, Hungar 72.22 8 *e*P P 12 34 29.1 -0.7
MORH Mrgy, Hungar 72.22 8 P P 12 34 29.4 -0.4
comp=Z,27nm,1.1s
MORH Mrgy, Hungar 72.22 8 P P 12 34 29.7 -0.1
comp=Z,30nm,1.1s
PGAV Gavieira, Arco 72.28 29 *e*P P 12 34 30.9 +0.5
PGAV IAmb IAmb 12 34 31.8
comp=Z,97nm,1.5s
TESR Tescani 72.28 2 P P 12 34 29.7 -0.5
comp=Z,17nm,1.0s
PURM Purcari 72.30 0 ⇑P P 12 34 30.0 -0.2
GCIS Gornji Cirnik 72.33 11 *i*P P 12 34 30.3 -0.2
SIRR Siria 72.35 6 ⇓P P 12 34 30.4 -0.2
ONER Baraj Valea Uz 72.45 3 ⇓P P 12 34 30.8 -0.5
OHH Osh 72.56 327 P P 12 34 30.6 -1.5
OHH pmax pmax
comp=Z,41nm,0.9s
OHH Osh 72.56 327 P P 12 34 30.6 -1.5
comp=Z,41nm,0.9s
MDB Medias 72.59 4 P P 12 34 31.9 -0.1
MDB Medias 72.59 4 ⇓P P 12 34 32.0 -0.1
OZUR 72.68 3 ⇓P P 12 34 32.4 -0.2
BOSR Bodos 72.69 3 ⇑P P 12 34 32.6 -0.1
TURR Turia 72.72 3 ⇓P P 12 34 33.0 +0.1
GHRR 72.75 2 ⇓P P 12 34 33.2 +0.2
GHRR 72.75 2 P P 12 34 33.7 +0.7
comp=Z,97nm,0.7s
ERBR Yeremizino-Bor 72.78 352 *e*P P 12 34 32.1 -1.1
ERBR *e**PP pP 12 34 46.8 -1.7
ERBR *e*S S 12 43 54.2 -0.1
ERBR pmax pmax
comp=Z,51nm,1.0s
PBRG Braganca 72.78 28 *e*P P 12 34 33.9 +0.6
PBRG IAML 12 34 34.5
DEV Deva 72.79 5 P P 12 34 33.3 +0.1
DEV Deva 72.79 5 ⇓P P 12 34 33.4 +0.1
DOPR Dopca 72.80 3 ⇓P P 12 34 32.9 -0.4
SURR Surduc 72.88 6 ⇑P P 12 34 33.7 -0.1
VRI Vrincioaia 72.93 2 P P 12 34 34.5 +0.5
VRI Vrincioaia 72.93 2 ⇑P P 12 34 34.6 +0.5
VRI Vrincioaia 72.93 2 P P 12 34 34.2 +0.1
comp=Z,28nm,1.1s
VRI Vrincioaia 72.93 2 P P 12 34 34.2 +0.1
comp=Z,28nm,1.1s
COVR Voineasa-Covas 72.94 3 ⇓P P 12 34 34.8 +0.6
PLOR Plostina 72.94 2 P P 12 34 34.3 +0.1
PLOR Plostina 72.94 2 ⇓P P 12 34 34.3 +0.1
VLDR Vladesti 72.97 1 ⇑P P 12 34 34.6 +0.3
PTO Porto 72.99 30 *e*P P 12 34 34.8 +0.3
BZS Buzias 72.99 6 P P 12 34 34.0 -0.4
BZS Buzias 72.99 6 ⇑P P 12 34 34.0 -0.4
BZS Buzias 72.99 6 P P 12 34 34.3 -0.1
comp=Z,40nm,1.0s
ISO Isola 73.01 17 P P 12 34 35.5 +0.9
comp=Z,33nm,1.6s
RUSF Rustrel 73.02 18 P P 12 34 34.9 +0.2
comp=Z,44nm,1.4s
ODBI Odobesti 73.04 2 ⇑P P 12 34 33.8 -0.9
PVRL Vila Real 73.07 29 *e*P P 12 34 35.5 +0.5
SAHR Sahastru 73.07 2 ⇓P P 12 34 35.3 +0.4
KSH2 Kashi 73.10 325 P P 12 34 34.9 -0.5
KSH2 pmax pmax
comp=Z,21nm,0.8s
BISRR Bisoca 73.25 2 ⇑P P 12 34 36.0 0.0
LOT Lotru 73.26 5 ⇓P P 12 34 35.5 -0.7
LOT Lotru 73.26 5 P P 12 34 35.3 -0.9
comp=Z,26nm,1.0s
IZVR Izvoarele 73.27 2 ⇑P P 12 34 35.8 -0.2
GZR Gura Zlata 73.27 5 P P 12 34 35.3 -0.9
GZR Gura Zlata 73.27 5 ⇑P P 12 34 35.3 -0.9
NEGRR Negrea 73.28 2 ⇑P P 12 34 36.1 0.0
MLR Muntele Rosu 73.29 3 P P 12 34 36.6 +0.3
MLR Muntele Rosu 73.29 3 IAmb IAmb 12 34 38.7
comp=Z,28nm,1.0s
MLR Muntele Rosu 73.29 3 ⇑P P 12 34 36.7 +0.3
MLR Muntele Rosu 73.29 3 P P 12 34 37.3 +1.0
comp=Z,33nm,1.1s
SCHL Schela 73.31 2 ⇑P P 12 34 36.2 0.0
VOIR 73.31 4 P P 12 34 36.5 +0.1
VOIR 73.31 4 ⇓P P 12 34 36.6 +0.1
VOIR 73.31 4 P P 12 34 36.1 -0.3
comp=Z,21nm,1.1s
VOIR 73.31 4 P P 12 34 36.3 -0.1
comp=Z,21nm,1.1s
SCHLR Schela 73.34 2 ⇑P P 12 34 36.5 0.0
FRGS Fruska Gora 73.35 8 ⇑*i*P P 12 34 35.9 -0.7
ZCCA Zocca 73.35 14 IAmb IAmb 12 34 60.0
comp=Z,43nm,1.3s
NEHR Nehoiu 73.36 3 ⇑P P 12 34 37.2 +0.6
ARR Arges 73.37 4 ⇑P P 12 34 37.3 +0.6
SMRC Santa Marta, M 73.45 97 IAmb IAmb 12 34 38.4
comp=Z,98nm,0.9s
VLC Villacollemand 73.47 15 P P 12 34 37.0 -0.3
comp=Z,29nm,1.4s
BTK Batken 73.50 328 P P 12 34 36.7 -0.9
BTK pmax pmax
comp=Z,25nm,1.0s
BTK Batken 73.50 328 P P 12 34 36.7 -0.9
comp=Z,25nm,1.0s
PVIS Viseu 73.56 29 *e*P P 12 34 38.5 +0.6
BLY Banja Luka 73.57 10 ⇓P P 12 34 38.2 +0.4
BLY Banja Luka 73.57 10 ⇑P P 12 34 37.7 -0.1
BLY Banja Luka 73.57 10 P P 12 34 37.9 +0.1
comp=Z,24nm,1.0s
TLCR 73.64 1 P P 12 34 37.8 -0.3
TLCR 73.64 1 ⇓P P 12 34 37.9 -0.3
CFR Carcaliu 73.64 1 P P 12 34 38.2 0.0
CFR Carcaliu 73.64 1 ⇑P P 12 34 38.3 0.0
HERR Herculane 73.77 6 ⇓P P 12 34 38.6 -0.4
DRK Karamyk 73.80 328 P P 12 34 39.5 -0.1
DRK pmax pmax
comp=Z,39nm,0.8s
DRK Karamyk 73.80 328 IAmb IAmb 12 34 40.3
comp=Z,28nm,0.7s
DRK Karamyk 73.80 328 P P 12 34 39.5 -0.1
comp=Z,38nm,0.8s
SIM Simferopol' 73.83 357 *e*P P 12 34 36.6 -2.7
SIM pmax pmax
comp=Z,27nm,1.0s
MDVR Moldovita 73.83 6 ⇓P P 12 34 38.7 -0.8
LABN Labinsk 73.84 352 *e*P P 12 34 37.1 -2.3
LABN *e**PP pP 12 34 52.6 -2.2
LABN *e*S S 12 44 07.6 +1.3
LABN pmax pmax
comp=Z,26nm,0.6s
STFAR Stefanesti-Arg 73.89 4 ⇑P P 12 34 39.5 -0.2
PGOR Pogoanele 73.89 2 ⇑P P 12 34 39.3 -0.4
MTE Manteigas 73.94 29 *e*P P 12 34 40.6 +0.5
TPGR Topolog 73.96 1 ⇑P P 12 34 39.6 -0.6
SRE Strehaia 74.02 5 P P 12 34 40.4 -0.1
SRE Strehaia 74.02 5 ⇑P P 12 34 40.4 -0.1
URIC Uribia, Colomb 74.05 95 IAmb IAmb 12 34 42.2
comp=Z,26nm,0.9s
HARR Harsova 74.12 2 P P 12 34 40.8 -0.2
comp=Z,31nm,0.8s
EZN Ezine 78.95 3 P P 12 35 08.0 -0.4
comp=Z,30nm,1.2s
BR106 Keskin Array S 79.05 357 P P 12 35 09.0 -0.2
comp=Z,112nmcomp=Z,13nm,1.1s
BR131 Keskin Array S 79.06 357 *i*P P 12 35 08.5 -0.7
BR131 Keskin Array S 79.06 357 IAmb IAmb 12 35 10.1
comp=Z,28nm,1.2s
BRTR Keskin Array B 79.06 357 P P 12 35 08.9 -0.2
comp=Z,8.7nm,0.9s,baz=5.7,slow=2.5,SNR=27
BRTR PKPPKP **P'P'df** 13 02 02.5 -6.0
comp=Z,0.2nm,0.3s,baz=222,slow=6.5,SNR=3.6
comp=Z,8.7nm,0.9s
BRTR Keskin Array B 79.06 357 *i*P P 12 35 09.0 -0.2
BRTR pmax pmax
comp=Z,8.0nm,0.9s
TIP Timpagrande 79.06 10 IAmb IAmb 12 35 09.6
TIP Timpagrande 79.06 10 P P 12 35 08.8 -0.4
comp=Z,35nm,0.9s
TIP Timpagrande 79.06 10 ⇑P Pn 12 35 08.8 +0.6
TIP Timpagrande 79.06 10 ⇑P Pn 12 35 08.8 +0.6
TIP Timpagrande 79.06 10 P Pn 12 35 08.5 +1.0
comp=Z,28nm,0.9s
BR105 Keskin Array S 79.07 357 P P 12 35 09.0 -0.2
comp=Z,133nmcomp=Z,15nm,1.0s
BR104 Keskin Array S 79.08 357 P P 12 35 09.0 -0.3
comp=Z,113nmcomp=Z,15nm,1.1s
KBL Kabul 79.17 328 P P 12 35 08.5 -1.5
comp=Z,9.5nm,0.8s
JAMC Jamundi, Valle 79.24 103 P P 12 35 10.0 -0.6
comp=Z,38nm,1.1s
KEMA Kemaliye 79.32 353 P P 12 35 10.2 -0.3
comp=Z,63nm,0.8s
OZAP Van, Ozalp-Mer 79.52 349 ⇓P P 12 35 12.3 +0.5
AGG Agios Georgios 79.61 6 P P 12 35 11.1 -0.9
AGG pmax pmax
comp=Z,49nm,1.2s
AGG Agios Georgios 79.61 6 P P 12 35 11.1 -0.9
comp=Z,49nm,1.2s
KKUL Konya-Kulu 79.63 358 P P 12 35 12.5 +0.3
comp=Z,23nm,1.1s
KIRS Kirsehir-Merke 79.64 357 ⇓P P 12 35 12.2 -0.1
EVN Everest 79.81 311 IAmb IAmb 12 35 18.8
comp=Z,18nm,0.8s
EVN Everest 79.81 311 P P 12 35 14.2 +0.1
comp=Z,25nm,1.0s
POPC Popayan, Colom 79.83 104 P P 12 35 12.0 -1.8
comp=Z,24nm,1.2s
BNN Bunyan 79.86 355 IAmb IAmb 12 35 15.7
comp=Z,26nm,0.8s
CEL Celeste 79.90 11 P P 12 35 11.6 -2.1
comp=Z,32nm,0.8s
GEVA Gevas 79.95 350 IAmb IAmb 12 35 15.5
comp=Z,24nm,0.9s
CLTB Caltabellotta 80.30 14 P P 12 35 15.7 -0.1
comp=Z,109nm,0.8s
MANT Manisa 80.33 1 IAmb IAmb 12 35 16.7
comp=Z,35nm,1.1s
HAKT HAKKARI 80.64 349 P P 12 35 18.0 0.0
comp=Z,61nm,0.9s
ISP Isparta 81.00 360 *ce*P P 12 35 19.8 +0.1
ISP pmax pmax
comp=Z,57nm,1.7s
OTAV Otavalo 81.04 106 P P 12 35 20.5 0.0
OTAV pmax pmax
comp=Z,9.0nm,1.0s
OTAV Otavalo 81.04 106 P P 12 35 20.5 0.0
OTAV Otavalo 81.04 106 P P 12 35 20.7 +0.2
comp=Z,14nm,1.0s
IFR Ifrane 81.07 29 P P 12 35 20.6 +0.4
comp=Z,8.0nm,0.9s
AYDN Tasoluk 81.15 2 P P 12 35 20.5 +0.2
comp=Z,203nm,1.3s
ITM Ithomi 81.42 7 IAmb IAmb 12 35 22.0
comp=Z,39nm,0.7s
KEST Kesra 81.63 17 P P 12 35 23.1 +0.1
comp=Z,44nm,0.8s,baz=337,slow=2.3,SNR=58
comp=Z,44nm,0.8s
MD01 Midelt array s 81.78 29 P P 12 35 24.2 +0.3
MD31 MD31 81.78 29 IAmb IAmb 12 35 25.5
comp=Z,35nm,0.8s
PIAT Ana Tenorio 82.22 107 P P 12 35 26.6 0.0
comp=Z,24nm,1.1s
BRDH Bariadhaia 82.77 305 LR LR 13 16 12.3
comp=Z,242nm,21.3s,baz=0.5,slow=38
PTLC Puerto Leguiza 82.79 103 P P 12 35 30.3 +1.1
comp=Z,979nmcomp=Z,72nm,1.0s
MSVF Nonsavu 83.02 211 P P 12 35 31.3 +1.1
MSVF pmax pmax
comp=Z,25nm,1.1s
MSVF Nonsavu 83.02 211 P P 12 35 31.3 +1.1
MSVF IAmb IAmb 12 35 32.2
comp=Z,25nm,1.1s
MSVF Nonsavu 83.02 211 P P 12 35 30.6 +0.4
comp=Z,27nm,1.1s
TIO Tiouine 83.03 32 P P 12 35 30.8 +0.3
comp=Z,78nm,1.0s
CHTO Chiang Mai 83.23 297 P P 12 35 30.1 -1.3
CHTO Chiang Mai 83.23 297 P P 12 35 30.1 -1.3
CHTO Chiang Mai 83.23 297 P P 12 35 30.8 -0.7
comp=Z,6.0nm,0.9s
CHTO Chiang Mai 83.23 297 P P 12 35 30.2 -1.3
comp=Z,6.0nm,0.9s
CHTO Chiang Mai 83.23 297 P P 12 35 29.7 -1.7
CHTO pP **pP** 12 35 45.7 -1.4
CMAR Chiang Mai Arr 83.55 297 P P 12 35 32.5 -0.7
comp=Z,7.9nm,0.9s,baz=6.4,slow=5.9,SNR=50
CMAR LR LR 13 16 21.8
comp=Z,92nm,19.8s,baz=25,slow=38
comp=Z,7.9nm,0.9s
SIJI Sorong 85.42 260 LR LR 13 08 33.5
comp=Z,139nm,20.5s,baz=64,slow=32
GEM Giv'at Ha'Em 85.49 355 P P 12 35 43.8 +1.1
MMAI Mount Meron Ar 85.70 356 P P 12 35 43.0 -0.8
comp=Z,4.4nm,0.8s,baz=5.7,slow=2.5,SNR=3.6
comp=Z,4.4nm,0.8s
ASF Jabal al Asfar 86.47 354 LR LR 13 21 06.2
comp=Z,24nm,19.0s,baz=11,slow=40
ASF Jabal al Asfar 86.47 354 P P 12 35 48.3 +0.6
ATAH Atahualpa 87.58 110 LR LR 13 18 02.7
comp=Z,90nm,18.9s,baz=339,slow=38
BOAV Boa Vista 87.63 89 IAmb IAmb 12 35 53.5
comp=Z,20nm,1.2s
PRNI Paran 88.36 356 P P 12 35 57.1 +0.4
HRFI Mount Harif 88.68 356 P P 12 35 58.4 +0.2
HRFI Mount Harif 88.68 356 P P 12 35 58.1 -0.1
comp=Z,27nm,1.1s
MDP Montagnes des 89.03 81 LR LR 13 15 17.5
comp=Z,53nm,20.2s,baz=300,slow=35
EIL Elat 89.05 356 P P 12 36 00.2 +0.3
EIL Elat 89.05 356 P P 12 35 59.9 0.0
comp=Z,21nm,1.4s
CZSB Cruzeiro do Su 90.71 105 P P 12 36 06.9 -0.8
NNA Nana 92.57 110 *i*P P 12 36 16.5 +0.1
RPN Rapa Nui 94.23 144 LR LR 13 10 52.1
comp=Z,106nm,19.5s,baz=348,slow=30
RAYN Ar Rayn 94.34 346 P P 12 36 24.4 -0.2
RAYN pmax pmax
comp=Z,10.0nm,0.9s
RAYN Ar Rayn 94.34 346 P P 12 36 24.4 -0.2
RAYN IAmb IAmb 12 36 25.1
comp=Z,9.6nm,0.8s
RAYN Ar Rayn 94.34 346 P P 12 36 24.4 -0.2
comp=Z,15nm,1.1s
BATI Baumata 97.17 262 LR LR 13 16 26.5
comp=Z,90nm,19.8s,baz=125,slow=33
WRA Warramunga Arr 100.74 248 P **Pdif** 12 36 52.5 -0.7
comp=Z,0.7nm,0.8s,baz=34,slow=5.9,SNR=5.0
WRA PKiKP **PKiKP** 12 41 17.3 -1.6
comp=Z,0.3nm,0.3s,baz=352,slow=1.7,SNR=2.4
WRA Warramunga Arr 100.74 248 *i*P **Pdif** 12 36 53.5 +0.3
WRA pmax pmax
comp=Z,1.0nm,0.9s
TORD Torodi Ar. Bea 102.27 28 PKKPbc PKKPbc 12 52 57.9 -1.2
comp=Z,1.2nm,0.8s,baz=188,slow=3.0,SNR=5.1
ASAR Alice Springs 104.19 247 PKiKP **PKiKP** 12 41 23.9 -1.1
comp=Z,0.7nm,0.7s,baz=19,slow=3.1,SNR=8.2
ASAR PKKPbc **PKKPbc** 12 52 53.0 -1.0
comp=Z,0.4nm,0.8s,baz=194,slow=1.7,SNR=5.4
PLCA Paso Flores 120.23 120 PKP **PKPdf** 12 41 54.8 -0.2
comp=Z,2.2nm,0.7s,baz=302,slow=4.0,SNR=7.9
VNDA Vanda 141.92 195 PKhKP PKPpre 12 42 30.4
comp=Z,1.4nm,0.7s,baz=47,slow=1.7,SNR=10
HOPE Hope Point 145.37 109 PKiKP **PKPdf** 12 42 41.4 +0.2
HOPE Hope Point 145.37 109 PKPbc **PKPdf** 12 42 41.4 +0.2
CASY Casey 146.59 226 PKPdf **PKPdf** 12 42 44.2 +1.3

BOSA	**Boshof**	**146.93**	**8**	PKPbc	**PKPdf**	**12 42 46.2**	**+1.2**		
	comp=Z,28nm,0.9s,baz=4.0,slow=2.4,SNR=29								
QSPA	**South Pole Qui**	**151.33**	**180**	PKP	**PKPdf**	**12 42 47.8**	**-2.9**		
	comp=Z,2.6nm,0.8s,baz=93,slow=0.4,SNR=13								
QSPA				PKPbc	**PKPbc**	**12 42 56.8**	**0.0**		
	comp=Z,51nm,0.8s,baz=1.0,slow=2.4,SNR=145								
VNA3	**Neumayer Olymp**	**161.75**	**139**	PKPab	**PKPab**	**12 43 49.6**	**-0.3**		
	comp=Z,14nm,0.8s								
VNA1	**Neumayer--Stat**	**162.33**	**137**	⇓PKPab	**PKPab**	**12 43 51.0**	**-1.4**		
	comp=Z,10nm,0.8s								
VNA2	**Neumayer--Watz**	**162.55**	**138**	⇑PKPab	**PKPab**	**12 43 53.2**	**-0.2**		
	comp=Z,8.6nm,0.7s,baz=270,slow=4.1								
SNAA	**Sanae**	**163.72**	**142**	⇓PKPab	**PKPab**	**12 43 57.8**	**-0.9**		
	comp=Z,104nm,0.9s								
SNAA	**Sanae**	**163.72**	**142**	PKPab	**PKPab**	**12 43 57.7**	**-0.9**		
	comp=Z,4.2nm,0.8s,baz=232,slow=4.2,SNR=5.2								
MAW	**Mawson**	**164.80**	**232**	PKP	**PKPdf**	**12 43 05.1**	**-1.8**		
	comp=Z,1.5nm,0.9s,baz=35,slow=12,SNR=2.1								
MAW				PKPab	**PKPab**	**12 44 02.4**	**-1.0**		
	comp=Z,5.1nm,0.9s,baz=93,slow=5.2,SNR=7.3								
TROLL	**Troll, Antarti**	**165.08**	**146**	PKPab	**PKPab**	**12 44 04.3**	**-0.4**		
	comp=Z,315nm,0.9s								

AEIC ***07*** *12:24:22.5±1.1,61°.57N±0°.02×149°.95W±0°.05,h43km±1km, Error ellipse: s-maj=3.6km s-min=3.4km az=50.0*

NEIC 07 12:24:22.5±1.1,61°.55N±0°.02×149°.89W±0°.02,h39km±4km, ML4.0/18,ML3.7(AEIC),Error ellipse: s-maj=3.4km s-min=1.6km az=187.0,Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	**Willow**	**0.23**	**332**		Pn	12 24 30.0	-0.3
M22K					Sn	12 24 35.9	-0.2
PMR	**Palmer**	**0.37**	**83**		Pn	12 24 31.1	-0.3
PMR	**Palmer**	**0.37**	**83**		Sn	12 24 38.5	+0.7
PMR	**Palmer**	**0.37**	**83**	IAML		12 24 35.0	
	comp=E,4μm,0.6s						
PMR				IAML		12 24 37.9	
	comp=N,4μm,1.0s						
SUA	**Susitna One**	**0.42**	**258**		Pn	12 24 32.0	-0.2
SUA				IAML		12 24 35.5	
	comp=E,7μm,1.1s						
SUA				IAML		12 24 40.1	
	comp=N,8μm,1.1s						
GHO	**Glory Hole Cre**	**0.51**	**64**		Pn	12 24 33.3	-0.1
GHO				IAML		12 24 39.7	
	comp=N,7μm,0.7s						
GHO					Sn	12 24 42.5	+1.4
KNK	**Knik Glacier**	**0.70**	**101**		Pn	12 24 36.0	0.0
KNK				IAML		12 24 40.4	
	comp=N,7μm,0.8s						
KNK					Sn	12 24 46.8	+1.2
KNK				IAML		12 24 53.7	
	comp=E,4μm,0.8s						
SML	**Sawmill**	**0.79**	**70**		Pn	12 24 36.7	-0.4
SML				IAML		12 25 01.8	
	comp=N,5μm,0.8s						
STLK	**Strandline Lak**	**0.93**	**268**		Pn	12 24 39.0	-0.1
STLK				IAML		12 24 56.5	
	comp=N,3μm,0.9s						
PWL	**Port Wells**	**1.02**	**132**		Pn	12 24 40.4	0.0
PWL				IAML		12 24 48.3	
	comp=N,4μm,0.6s						
PWL				IAML		12 24 51.4	
	comp=E,4μm,1.0s						
GLI	**Glacier Island**	**1.51**	**115**	Pn	Pn	12 24 46.8	-0.2
GLI				IAML		12 25 08.3	
	comp=N,2μm,1.0s						

AEIC ***07*** *12:25:39.1±0.9,61°.55N±0°.04×149°.92W±0°.05,h43km±5km, Error ellipse: s-maj=5.7km s-min=3.4km az=166.0*

NEIC 07 12:25:38.6±0.7,61°.53N±0°.04×149°.90W±0°.05,h44km±5km, ML3.8/68,ML3.4(AEIC),Error ellipse: s-maj=5.5km s-min=3.3km az=173.0,Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	**Willow**	**0.24**	**335**		Pn	12 25 46.4	-0.3
M22K					Sn	12 25 52.3	-0.1
M22K				IAML		12 25 59.7	
	comp=N,11μm,1.4s						
M22K				IAML		12 26 02.5	
	comp=E,9μm,1.6s						
PMR	**Palmer**	**0.37**	**80**		Pn	12 25 47.6	-0.4
PMR					Sn	12 25 54.8	+0.2
PMR	**Palmer**	**0.37**	**80**	IAML		12 25 55.4	
	comp=N,4μm,0.4s						
PMR				IAML		12 25 55.7	
	comp=E,5μm,0.3s						
SUA	**Susitna One**	**0.41**	**261**		Pn	12 25 48.4	-0.2
SUA					Sn	12 25 56.2	+0.6
SUA				IAML		12 25 56.7	
	comp=N,6μm,0.5s						
SUA				IAML		12 25 56.9	
	comp=E,4μm,0.8s						
FIS	**Fire Island**	**0.42**	**202**		Pn	12 25 48.8	+0.3
FIS	**Fire Island**	**0.42**	**202**	IAML		12 25 55.0	
	comp=E,8μm,1.6s						
FIS				IAML		12 26 04.2	
	comp=N,6μm,1.2s						
RC01	**Rabbit Creek A**	**0.45**	**170**		Pn	12 25 48.6	-0.4
RC01				IAML		12 25 57.9	
	comp=N,4μm,0.3s						
RC01	**Rabbit Creek A**	**0.45**	**170**		Sn	12 25 56.7	+0.4
GHO	**Glory Hole Cre**	**0.53**	**62**		Pn	12 25 49.8	-0.2
GHO					Sn	12 25 58.5	+0.5
GHO	**Glory Hole Cre**	**0.53**	**62**	IAML		12 25 59.1	
	comp=E,4μm,0.5s						
GHO				IAML		12 25 59.6	
	comp=N,5μm,0.4s						
KNK	**Knik Glacier**	**0.70**	**99**		Pn	12 25 52.2	0.0
KNK					Sn	12 26 03.3	+1.2
KNK	**Knik Glacier**	**0.70**	**99**	IAML		12 26 05.3	
	comp=E,3μm,0.3s						
KNK				IAML		12 26 05.8	
	comp=N,3μm,0.5s						
SML	**Sawmill**	**0.80**	**69**		Pn	12 25 53.0	-0.5
SML	**Sawmill**	**0.80**	**69**		Sn	12 26 04.5	+0.1
SML	**Sawmill**	**0.80**	**69**	IAML		12 26 05.7	
	comp=E,1μm,0.9s						
SML				IAML		12 26 09.7	
	comp=N,1μm,0.9s						
SKT	**Skwentna**	**0.90**	**301**		Pn	12 25 54.2	-0.6
SKT					Sn	12 26 06.3	-0.4
STLK	**Strandline Lak**	**0.93**	**269**		Pn	12 25 55.1	-0.2
STLK					Sn	12 26 08.0	+0.5
STLK				IAML		12 26 08.2	
	comp=N,2μm,0.2s						
PWL	**Port Wells**	**1.02**	**131**		Pn	12 25 56.4	0.0
PWL					Sn	12 26 10.9	+1.4
PWL	**Port Wells**	**1.02**	**131**	IAML		12 26 12.6	
	comp=N,3μm,0.4s						
PWL				IAML		12 26 13.1	
	comp=E,2μm,0.6s						
SLKM	**Skilak Lake**	**1.04**	**189**		Pn	12 25 56.5	-0.3
SLKM				IAML		12 26 13.0	
	comp=E,1μm,0.6s						
SLKM	**Skilak Lake**	**1.04**	**189**		Sn	12 26 11.1	+0.9
SLKM	**Skilak Lake**	**1.04**	**189**	IAML		12 26 10.8	
	comp=N,906nm,1.2s						
SPCG	**Spurr Capps Gl**	**1.05**	**258**		Pn	12 25 56.8	-0.2
SPCG					Sn	12 26 11.2	+0.7
O22K	**Cooper Landing**	**1.06**	**175**		Pn	12 25 56.6	-0.4
SPU	**Mount Spurr**	**1.09**	**252**		Pn	12 25 57.4	-0.1
SCM	**Sheep Creek Mo**	**1.26**	**75**		Pn	12 26 00.1	+0.2
SCM				IAML		12 26 12.2	
	comp=N,2μm,1.1s						
SCM				IAML		12 26 18.9	
	comp=E,2μm,0.8s						
SEW	**Seward**	**1.45**	**171**	Pn	Pn	12 26 02.1	-0.2
GLI	**Glacier Island**	**1.51**	**115**	Pn	Pn	12 26 03.0	-0.1
GLI				IAML		12 26 16.6	
	comp=E,914nm,0.8s						
M20K	**Styx River**	**1.58**	**284**	Pn	Pn	12 26 05.0	+0.8
PPLA	**Purkeypile**	**1.74**	**323**	Pn	Pn	12 26 07.1	+0.6
PPLA				IAML		12 26 26.8	
	comp=E,874nm,0.9s						
PPLA				IAML		12 26 37.0	
	comp=N,1μm,1.3s						
RED	**Redoubt Volcan**	**1.79**	**233**	Pn	Pn	12 26 07.4	+0.3
FID	**Port Fidalgo**	**1.84**	**114**	Pn	Pn	12 26 07.3	-0.4
FID				IAML		12 26 22.9	
	comp=E,639nm,1.7s						
FID				IAML		12 26 39.3	
	comp=N,653nm,0.7s						
KLU	**Klutina**	**1.91**	**89**	Pn	Pn	12 26 09.2	+0.5
KLU				IAML		12 26 26.6	
	comp=N,642nm,1.0s						
TRF	**Thorofare Moun**	**1.93**	**355**	Pn	Pn	12 26 08.4	-0.7
TRF				IAML		12 26 24.0	
	comp=N,1μm,1.4s						
TRF				IAML		12 26 51.9	
	comp=E,810nm,1.9s						
HIN	**Hinchinbrook I**	**2.01**	**123**	Pn	Pn	12 26 09.7	-0.3
HIN				IAML		12 26 28.9	
	comp=N,758nm,1.6s						
HIN				IAML		12 26 43.0	
	comp=E,880nm,1.1s						
DIV	**Divide**	**2.03**	**100**	Pn	Pn	12 26 10.2	-0.2
DIV				IAML		12 26 35.3	
	comp=N,586nm,1.0s						
L20K	**Farewell, AK**	**2.10**	**299**	Pn	Pn	12 26 11.7	+0.4
L20K				IAML		12 26 27.5	
	comp=N,603nm,0.8s						
L20K				IAML		12 26 46.3	
	comp=E,589nm,1.1s						
L19K	**White Mountain**	**2.44**	**288**	Pn	Pn	12 26 16.6	+0.7
L19K				IAML		12 26 36.3	
	comp=N,409nm,1.4s						
L19K				IAML		12 26 36.8	
	comp=E,646nm,1.1s						
BPAW	**Bear Paw Mtn.**	**2.62**	**350**	Pn	Pn	12 26 19.0	+0.5
BPAW				IAML		12 26 46.0	
	comp=E,528nm,1.7s						
L18K	**Granite Mounta**	**3.29**	**285**	Pn	Pn	12 26 27.6	0.0
J20K	**Nowinta River**	**3.29**	**326**	Pn	Pn	12 26 27.6	0.0
M17K	**Holitna River**	**3.62**	**271**	Pn	Pn	12 26 31.9	-0.2
J18K	**Innoko River**	**3.71**	**305**	Pn	Pn	12 26 33.5	+0.1
H21K	**Melozitna Rive**	**4.34**	**344**	Pn	Pn	12 26 42.0	+0.1
G21K	**Allakaket**	**5.25**	**344**	Pn	Pn	12 26 54.9	+0.5
J16K	**Anvik River**	**5.28**	**294**	Pn	Pn	12 26 54.8	0.0
K15K	**Wolf Creek Mou**	**5.55**	**283**	Pn	Pn	12 26 58.5	-0.1
H17K	**Granite Mounta**	**5.67**	**311**	Pn	Pn	12 27 01.6	+1.4

AEIC ***07*** *12:27:00.1±0.7,61°.57N±0°.02×149°.90W±0°.05,h46km±5km, Error ellipse: s-maj=4.0km s-min=1.8km az=119.0*

NEIC 07 12:26:59.8±0.7,61°.55N±0°.03×149°.88W±0°.05,h47km±2km, ML3.5/28,ML2.8(AEIC),Error ellipse: s-maj=4.1km s-min=3.1km az=152.0,Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	**Willow**	**0.24**	**331**		Pn	12 27 07.8	-0.2
M22K					Sn	12 27 14.4	+0.6
M22K				IAML		12 27 21.8	
	comp=E,1μm,1.1s						
PMR	**Palmer**	**0.36**	**82**		Pn	12 27 09.1	-0.1
PMR					Sn	12 27 16.2	+0.3
PMR	**Palmer**	**0.36**	**82**	IAML		12 27 17.1	
	comp=E,834nm,0.2s						
PMR				IAML		12 27 18.1	
	comp=N,573nm,0.2s						
SUA	**Susitna One**	**0.42**	**259**		Pn	12 27 09.8	-0.2
SUA					Sn	12 27 17.8	+0.5
SUA				IAML		12 27 18.2	
	comp=N,1μm,0.8s						
SUA				IAML		12 27 18.5	
	comp=E,1μm,0.7s						
RC01	**Rabbit Creek A**	**0.46**	**171**		Sn	12 27 18.0	+0.1
RC01	**Rabbit Creek A**	**0.46**	**171**		Pn	12 27 10.6	+0.2
RC01	**Rabbit Creek A**	**0.46**	**171**	IAML		12 27 19.4	
	comp=E,377nm,0.3s						
RC01				IAML		12 27 19.4	
	comp=N,386nm,0.3s						
GHO	**Glory Hole Cre**	**0.51**	**63**		Pn	12 27 11.1	+0.1
GHO					Sn	12 27 19.9	+0.8
GHO	**Glory Hole Cre**	**0.51**	**63**	IAML		12 27 20.4	
	comp=E,767nm,0.4s						
GHO				IAML		12 27 20.8	
	comp=N,901nm,0.4s						
KNK	**Knik Glacier**	**0.70**	**100**		Sn	12 27 24.5	+1.4
KNK	**Knik Glacier**	**0.70**	**100**		Pn	12 27 13.1	-0.2
KNK	**Knik Glacier**	**0.70**	**100**	IAML		12 27 42.3	
	comp=E,4μm,0.3s						
KNK				IAML		12 27 44.1	
	comp=N,3μm,0.5s						
SML	**Sawmill**	**0.78**	**70**		Sn	12 27 26.0	+0.7
SML	**Sawmill**	**0.78**	**70**		Pn	12 27 14.2	-0.4
SML	**Sawmill**	**0.78**	**70**	IAML		12 27 44.7	
	comp=N,1μm,0.7s						
SML				IAML		12 27 47.1	
	comp=E,2μm,0.5s						
SKT	**Skwentna**	**0.90**	**300**		Pn	12 27 15.6	-0.5
SKT				IAML		12 27 52.8	
	comp=N,1μm,0.3s						
SKT				IAML		12 27 53.0	
	comp=E,1μm,0.4s						
SKT	**Skwentna**	**0.90**	**300**		Sn	12 27 27.9	0.0
STLK	**Strandline Lak**	**0.94**	**268**		Sn	12 27 28.8	-0.2
STLK	**Strandline Lak**	**0.94**	**268**		Pn	12 27 16.6	0.0
STLK				IAML		12 27 45.6	
	comp=E,957nm,0.3s						
STLK				IAML		12 27 54.3	
	comp=N,943nm,0.4s						
PWL	**Port Wells**	**1.02**	**132**		Pn	12 27 17.9	+0.3
PWL					Sn	12 27 32.8	+2.0
PWL	**Port Wells**	**1.02**	**132**	IAML		12 27 46.6	
	comp=N,3μm,0.6s						
SPU	**Mount Spurr**	**1.11**	**252**		Pn	12 27 19.0	+0.1
SPU				IAML		12 28 03.6	
	comp=E,2μm,0.4s						
KLU	**Klutina**	**1.90**	**90**	Pn	Pn	12 27 27.1	-2.6
TRF	**Thorofare Moun**	**1.92**	**355**	Pn	Pn	12 27 29.1	-1.0
RND	**Reindeer**	**1.93**	**14**	Pn	Pn	12 27 27.2	-2.9
F25K	**Christian Rive**	**6.34**	**15**	Pn	Pn	12 28 30.1	-0.4

IDC ***07*** *12:27:26.8±1.2,61°.48N×150°.42W,h49km±13km,mb3.7/14, mbtmp4.0/18,ML3.7/3,Error ellipse: s-maj=14.7km s-min=9.3km az=108.0*

NEIC ***07*** *12:27:28.0±1.1,61°.54N±0°.03×149°.91W±0°.05,h44km±5km, mb4.4/16,ML4.1/154,ML3.9(AEIC),Error ellipse: s-maj=4.5km s-min=3.4km az=177.0*

AEIC ***07*** *12:27:28.7±1.1,61°.54N±0°.03×149°.90W±0°.05,h38km±5km, Error ellipse: s-maj=4.2km s-min=3.3km az=166.0*

ISC 07 12:27:27.6±0.7,61°.53N±0°.03×149°.93W±0°.02,h52km±6km, n196,o0§98/196,mb4.2/20,Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	**Willow**	**0.24**	**338**		Pn	12 27 35.7	-0.7
M22K					Sn	12 27 42.1	-0.6
PMR	**Palmer**	**0.39**	**81**		Pn	12 27 36.9	-0.7
PMR					Sn	12 27 44.4	-0.5
PMR				IAML		12 27 45.1	
	comp=E,22μm,0.2s						
PMR				IAML		12 27 46.2	
	comp=N,15μm,0.2s						
SUA	**Susitna One**	**0.40**	**260**		Pn	12 27 37.9	-0.1
SUA					Sn	12 27 45.5	+0.1
SUA				IAML		12 27 46.2	
	comp=E,20μm,0.3s						
FIS	**Fire Island**	**0.41**	**200**	Pn	Pn	12 27 38.6	+0.6
FIS				Sn	Sn	12 27 47.5	+2.1
FIS				IAML		12 27 47.9	
	comp=E,17μm,0.6s						
FIS				IAML		12 27 49.7	
	comp=N,11μm,0.6s						
RC01	**Rabbit Creek A**	**0.46**	**168**	Pn	Pn	12 27 38.0	-0.4
RC01				Sn	Sn	12 27 46.0	-0.2
RC01				IAML		12 27 46.9	
	comp=E,15μm,0.5s						
RC01				IAML		12 27 47.3	
	comp=N,9μm,0.3s						
GHO	**Glory Hole Cre**	**0.54**	**63**	Pn	Pn	12 27 38.9	-0.6
GHO				Sn	Sn	12 27 47.8	-0.2
GHO				IAML		12 27 48.6	
	comp=N,13μm,0.6s						
KNK	**Knik Glacier**	**0.72**	**99**	Pn	Pn	12 27 41.7	0.0
KNK					Sn	12 27 52.4	+0.6
KNK				IAML		12 27 54.4	
	comp=E,16μm,0.3s						
KNK				IAML		12 27 54.9	
	comp=N,19μm,0.5s						
SML	**Sawmill**	**0.81**	**69**	Pn	Pn	12 27 42.3	-0.6
SML					Sn	12 27 54.0	-0.1
SML				IAML		12 27 55.1	
	comp=E,5μm,0.8s						
SML				IAML		12 27 55.7	
	comp=N,6μm,0.6s						
SKT	**Skwentna**	**0.89**	**301**	Pn	Pn	12 27 43.5	-0.3
SKT					Sn	12 27 56.0	+0.2
STLK	**Strandline Lak**	**0.91**	**269**	Pn	Pn	12 27 44.4	+0.1
STLK					Sn	12 27 57.0	+0.6
CAPN	**Captain Cook N**	**0.97**	**218**	Pn	Pn	12 27 46.5	+1.6
PWL	**Port Wells**	**1.03**	**131**	Pn	Pn	12 27 46.0	+0.4
PWL				IAML		12 28 02.0	
	comp=N,32μm,0.6s						
PWL				IAML		12 28 02.4	
	comp=E,26μm,0.7s						
SPCG	**Spurr Capps Gl**	**1.03**	**257**		Pn	12 27 46.5	+0.6
SPCG					Sn	12 28 00.3	+0.8
SLKM	**Skilak Lake**	**1.04**	**188**	Pn	Pn	12 27 46.3	+0.4
SLKM				IAML		12 28 00.8	
	comp=N,4μm,0.6s						
SLKM				IAML		12 28 01.1	
	comp=E,6μm,0.7s						
O22K	**Cooper Landing**	**1.06**	**175**	Pn	Pn	12 27 46.3	+0.2
M23K	**Glacier View**	**1.08**	**75**		Pn	12 27 46.4	0.0
M23K					Sn	12 28 01.6	+1.1
SPU	**Mount Spurr**	**1.08**	**252**	Pn	Pn	12 27 46.9	+0.4
SPU					Sn	12 28 01.6	+1.1
SPCR	**Spurr Chakacha**	**1.15**	**254**		Pn	12 27 47.8	+0.4
SPCR					Sn	12 28 02.9	+0.8
SPBG	**Spurr Blockage**	**1.21**	**258**		Pn	12 27 48.7	+0.5
SCM	**Sheep Creek Mo**	**1.28**	**75**	Pn	Pn	12 27 49.3	+0.2
SCM					Sn	12 28 06.8	+1.6
WAT7	**Susitna Watana**	**1.40**	**21**		Pn	12 27 51.2	+0.3
SEW	**Seward**	**1.45**	**171**	Pn	Pn	12 27 52.3	+0.9
SEW				IAML		12 28 18.4	
	comp=E,2μm,0.6s						
WAT1	**Susitna Watana**	**1.45**	**26**		Pn	12 27 51.8	+0.4
WAT6	**Susitna Watana**	**1.47**	**43**		Pn	12 27 52.2	+0.4
GLI	**Glacier Island**	**1.52**	**114**	Pn	Pn	12 27 52.2	-0.1
GLI				IAML		12 28 15.0	
	comp=N,3μm,0.3s						
GLI				IAML		12 28 18.6	
	comp=E,4μm,0.4s						
M20K	**Styx River**	**1.57**	**284**	Pn	Pn	12 27 54.0	+0.9
M20K				IAML		12 28 16.6	
	comp=N,2μm,0.8s						
M20K				IAML		12 28 16.9	
	comp=E,3μm,0.8s						
RDJH	**Redoubt Jeurge**	**1.69**	**237**		Pn	12 27 55.3	+0.6
PPLA	**Purkeypile**	**1.73**	**323**	Pn	Pn	12 27 56.0	+0.6
PPLA				IAML		12 28 18.7	
	comp=E,3μm,0.5s						
PPLA				IAML		12 28 21.4	
	comp=N,2μm,0.9s						
RDSO	**Redoubt South**	**1.75**	**233**		Pn	12 27 56.0	+0.4
NCT	**North Crescent**	**1.76**	**238**		Pn	12 27 56.2	+0.6
RDWB	**Redoubt West**	**1.76**	**235**		Pn	12 27 56.2	+0.4
VMT	**TAPS Tl Valdez**	**1.78**	**103**		Pn	12 27 55.9	0.0
RED	**Redoubt Volcan**	**1.78**	**232**	Pn	Pn	12 27 56.8	+0.8
RED				IAML		12 28 21.2	
	comp=E,2μm,0.5s						
RED				IAML		12 28 21.6	
	comp=N,1μm,0.7s						
BRSE	**Bradley Lake S**	**1.84**	**193**		Pn	12 27 56.4	-0.3
BRSE					Sn	12 28 20.0	+1.2
FID	**Port Fidalgo**	**1.85**	**114**	Pn	Pn	12 27 56.6	-0.2
FID				IAML		12 28 25.8	
	comp=N,3μm,0.5s						
FID				IAML		12 28 25.9	
	comp=E,3μm,0.5s						
FID	**Port Fidalgo**	**1.85**	**114**		Sn	12 28 19.9	+0.8
KLU	**Klutina**	**1.92**	**89**		Pn	12 27 57.9	0.0
KLU				IAML		12 28 30.4	
	comp=N,2μm,0.5s						
KLU				IAML		12 28 33.1	
	comp=E,2μm,0.7s						
TRF	**Thorofare Moun**	**1.93**	**355**	Pn	Pn	12 27 58.9	+0.8
TRF				IAML		12 28 25.7	
	comp=E,2μm,0.7s						
TRF				IAML		12 28 36.2	
	comp=N,2μm,0.6s						
RND	**Reindeer**	**1.95**	**14**		Pn	12 27 58.3	+0.1
RND				IAML		12 28 35.3	
	comp=N,1μm,0.9s						
DHY	**Denali Highway**	**1.95**	**36**		Pn	12 27 59.3	+0.8
DHY	**Denali Highway**	**1.95**	**36**	IAML		12 28 27.1	
	comp=N,1μm,1.0s						
DHY				IAML		12 28 28.5	
	comp=E,1μm,0.7s						
O20K	**Slope Mountain**	**1.97**	**223**		Pn	12 27 59.4	+0.9
P23K	**Montague Islan**	**1.98**	**140**	Pn	Pn	12 27 57.9	-0.7
HIN	**Hinchinbrook I**	**2.02**	**123**	Pn	Pn	12 27 59.0	-0.3
HOM	**Homer**	**2.06**	**205**		Pn	12 27 59.3	-0.4
KTH	**Kantishna Hill**	**2.08**	**348**		Pn	12 28 00.6	+0.6
KTH	**Kantishna Hill**	**2.08**	**348**	IAML		12 28 27.5	
	comp=E,1μm,0.9s						
KTH				IAML		12 28 40.8	
	comp=N,2μm,0.9s						
L20K	**Farewell, AK**	**2.09**	**299**	Pn	Pn	12 28 00.5	+0.3
L20K				IAML		12 28 27.7	
	comp=N,1μm,0.7s						
L20K				IAML		12 28 27.9	
	comp=E,2μm,1.0s						
CNPM	**China Poot**	**2.12**	**198**		Pn	12 28 02.0	+1.5
CNPM				IAML		12 28 32.1	
	comp=E,1μm,0.7s						
CNPM				IAML		12 28 32.8	
	comp=N,2μm,0.4s						
CAST	**Castle Rocks**	**2.14**	**333**		Pn	12 28 01.0	+0.2
IVE	**Iliamna Volcan**	**2.15**	**226**		Pn	12 28 01.8	+0.8
M19K	**Big River Lodg**	**2.16**	**282**		Pn	12 28 01.3	+0.2
M19K	**Big River Lodg**	**2.16**	**282**	IAML		12 28 32.8	
	comp=E,816nm,0.4s						
M19K				IAML		12 28 44.6	
	comp=N,807nm,0.8s						
PS11	**TAPS Pump St11**	**2.19**	**74**		Pn	12 28 02.4	+1.0
ILS	**Iliamna Low So**	**2.21**	**226**		Pn	12 28 02.6	+0.8
ILSW	**Iliamna Southw**	**2.21**	**227**	Pn	Pn	12 28 03.0	+1.1
EYAK	**Cordova Ski Ar**	**2.26**	**114**	Pn	Pn	12 28 02.3	-0.2
EYAK				IAML		12 28 40.4	
	comp=N,2μm,0.5s						
EYAK				IAML		12 28 42.2	
	comp=E,820nm,0.3s						
N19K	**Bonanza Creek**	**2.32**	**254**		Pn	12 28 03.9	+0.5
N19K	**Bonanza Creek**	**2.32**	**254**	IAML		12 28 49.8	
	comp=N,694nm,0.5s						
HARP	**HAARP**	**2.42**	**67**	Pn	Pn	12 28 06.8	+2.2
L19K	**White Mountain**	**2.42**	**288**		Pn	12 28 05.4	+0.6
P19K	**Oil Pt**	**2.49**	**222**		Pn	12 28 06.2	+0.5
O19K	**Port Alsworth**	**2.53**	**240**	Pn	Pn	12 28 06.3	+0.2
PAX	**Paxson**	**2.54**	**53**		Pn	12 28 07.6	+1.3
N25K	**Chitina, Valde**	**2.55**	**86**		Pn	12 28 07.0	+0.5
CHUM	**Lake Minchumin**	**2.60**	**336**		Pn	12 28 07.3	+0.2
BPAW	**Bear Paw Mtn.**	**2.62**	**350**		Pn	12 28 07.4	0.0
BMRM	**Bremner River**	**2.63**	**100**		Pn	12 28 08.8	+1.2
BMRM	**Bremner River**	**2.63**	**100**	IAML		12 28 50.0	
	comp=E,803nm,0.6s						
BMRM				IAML		12 28 52.8	
	comp=N,877nm,0.5s						
K20K	**Telida**	**2.66**

P18K	**Big Mountain,**	**3.39**	**233**			**Pn**	**12 28 17.7**	**-0.3**
MDM	**Murphy Dome**	**3.52**	**12**			**Pn**	**12 28 20.5**	**+0.7**
TGL	**Tana Glacier**	**3.53**	**100**			**Pn**	**12 28 19.8**	**-0.1**
TGL	**Tana Glacier**	**3.53**	**100**	IAML			12 29 16.1	
	comp=N,693nm,0.5s							
TGL				IAML			12 29 17.9	
	comp=E,609nm,0.7s							
MLY	**Manley**	**3.53**	**354**	Pn		**Pn**	**12 28 19.8**	**-0.1**
ILAR	**Eielson Array**	**3.53**	**22**	P		**Pn**	**12 28 21.7**	**+1.9**
	comp=E,7.5nm,0.3s,baz=212,slow=14,SNR=4.0							
ILAR				S		**Sn**	**12 29 03.8**	**+3.5**
	comp=E,102nm,0.8s,baz=211,slow=21,SNR=6.1							
	comp=E,19nm,0.6s							
ILAR				AML	AML			
J19K	**Poorman**	**3.60**	**316**	Pn		**Pn**	**12 28 20.7**	**0.0**
J19K				IAML			12 29 21.3	
	comp=E,425nm,0.8s							
J19K				IAML			12 29 35.5	
	comp=N,306nm,1.0s							
M17K	**Holitna River**	**3.61**	**271**			**Pn**	**12 28 21.1**	**+0.2**
M17K	**Holitna River**	**3.61**	**271**	IAML			12 29 24.2	
	comp=N,532nm,0.9s							
M17K				IAML			12 29 34.8	
	comp=E,604nm,0.9s							
PTPK	**Patty Peak**	**3.61**	**92**			**Pn**	**12 28 21.0**	**-0.1**
I23K	**Minto, Yukon-K**	**3.64**	**4**	Pn		**Pn**	**12 28 21.6**	**+0.3**
I23K				IAML			12 29 27.9	
	comp=E,230nm,1.1s							
N17K	**Nushagak Hills**	**3.67**	**257**			**Pn**	**12 28 21.7**	**-0.1**
BALM	**Baldy**	**3.69**	**94**			**Pn**	**12 28 21.7**	**-0.5**
J18K	**Innoko River**	**3.70**	**305**			**Pn**	**12 28 22.6**	**+0.4**
J18K	**Innoko River**	**3.70**	**305**	IAML			12 29 20.5	
	comp=E,212nm,0.8s							
J18K				IAML			12 29 22.9	
	comp=N,252nm,0.8s							
KIAG	**Kiagna River**	**3.71**	**96**			**Pn**	**12 28 21.9**	**-0.5**
POKR	**Poker Plat Res**	**3.77**	**16**			**Pn**	**12 28 23.7**	**+0.6**
I21K	**Tanana**	**3.78**	**347**			**Pn**	**12 28 23.7**	**+0.5**
I21K	**Tanana**	**3.78**	**347**	IAML			12 29 25.4	
	comp=N,225nm,0.8s							
Q18K	**Katmai Hardscr**	**3.85**	**224**			**Pn**	**12 28 24.4**	**0.0**
PS07	**TAPS Pump Stn7**	**3.86**	**10**			**Pn**	**12 28 25.5**	**+1.1**
I20K	**Naaghedeneel**	**3.87**	**330**			**Pn**	**12 28 25.0**	**+0.6**
KARR	**Katmai Rainbow**	**3.87**	**220**			**Pn**	**12 28 24.6**	**0.0**
O17K	**Koliganek Bris**	**3.94**	**247**			**Pn**	**12 28 26.1**	**+0.6**
P17K	**Kvichak River**	**3.99**	**237**	Pn		**Pn**	**12 28 26.8**	**+0.6**
KAWH	**Katmai**	**4.00**	**220**			**Pn**	**12 28 26.6**	**+0.3**
KDAK	**Kodiak Island**	**4.00**	**201**	P		**Pn**	**12 28 25.0**	**-1.2**
	comp=N,3.5nm,0.3s,baz=15,slow=12,SNR=1.5							
KDAK				S		**Sn**	**12 29 06.8**	**-4.9**
	comp=N,27nm,0.3s,baz=350,slow=14,SNR=1.6							
	comp=N,22nm,0.4s							
KDAK				AML	AML			
L17K	**Donlin**	**4.01**	**282**			**Pn**	**12 28 26.7**	**+0.2**
GRNC	**Granite Creek**	**4.04**	**98**			**Pn**	**12 28 26.8**	**-0.3**
GRNC	**Granite Creek**	**4.04**	**98**	IAML			12 29 34.1	
	comp=E,176nm,0.6s							
GRNC				IAML			12 29 37.8	
	comp=N,267nm,0.5s							
K17K	**Iditarod**	**4.11**	**290**			**Pn**	**12 28 28.1**	**+0.4**
K17K	**Iditarod**	**4.11**	**290**	IAML			12 29 17.2	
	comp=E,228nm,0.7s							
K17K				IAML			12 29 35.0	
	comp=N,257nm,1.1s							
YAH	**Yahtse**	**4.16**	**103**	Pn		**Pn**	**12 28 28.8**	**+0.2**
YAH				IAML			12 29 36.0	
	comp=N,276nm,0.7s							
YAH				IAML			12 29 41.3	
	comp=E,200nm,0.8s							
H21K	**Melozitna Rive**	**4.33**	**344**			**Pn**	**12 28 31.2**	**+0.3**
H21K	**Melozitna Rive**	**4.33**	**344**	IAML			12 29 53.1	
	comp=N,129nm,1.0s							
M16K	**Timber Creek**	**4.39**	**267**	Pn		**Pn**	**12 28 32.4**	**+0.8**
M16K				IAML			12 29 56.4	
	comp=N,132nm,0.9s							
CAHL	**Cahill**	**4.42**	**220**			**Pn**	**12 28 32.6**	**+0.5**
H22K	**Ishtalitna Cre**	**4.43**	**352**			**Pn**	**12 28 32.8**	**+0.7**
N16K	**Nishlik Lake**	**4.43**	**260**			**Pn**	**12 28 32.5**	**+0.3**
Q17K	**Contact Creek**	**4.44**	**225**			**Pn**	**12 28 32.9**	**+0.5**
O16K	**Kokwok River B**	**4.47**	**248**	Pn		**Pn**	**12 28 33.0**	**+0.3**
O16K				IAML			12 29 56.8	
	comp=E,139nm,0.5s							
O16K				IAML			12 30 06.9	
	comp=N,148nm,1.0s							
GCSA	**Galena City Sc**	**4.51**	**319**			**Pn**	**12 28 33.5**	**+0.3**
H20K	**Anotleneega Mo**	**4.55**	**333**			**Pn**	**12 28 33.7**	**-0.1**
L16K	**Owhat River**	**4.56**	**276**			**Pn**	**12 28 33.8**	**-0.1**
CHX	**Chaix Hills**	**4.56**	**105**			**Pn**	**12 28 33.8**	**-0.2**
J17K	**VABM Dome**	**4.64**	**298**	Pn		**Pn**	**12 28 35.1**	**+0.1**
J17K				IAML			12 29 27.6	
	comp=N,127nm,0.9s							
OHAK	**Old Harbor**	**4.65**	**203**	Pn		**Pn**	**12 28 35.1**	**-0.1**
SAMH	**Samovar Hills**	**4.69**	**103**			**Pn**	**12 28 36.2**	**+0.4**
P16K	**Nushagak River**	**4.73**	**242**	Pn		**Pn**	**12 28 37.1**	**+0.8**
IM05	**Indian Mountai**	**4.77**	**341**			**Pn**	**12 28 37.5**	**+0.7**
O28M	**Mount Upton**	**4.78**	**95**			**Pn**	**12 28 37.5**	**+0.3**
O28M	**Mount Upton**	**4.78**	**95**	IAML			12 30 02.9	
	comp=N,131nm,0.7s							
PCA	**Pinnacle**	**4.95**	**103**			**Pn**	**12 28 39.2**	**-0.2**
H19K	**Roundabout Mou**	**4.96**	**327**			**Pn**	**12 28 39.8**	**+0.5**
H19K	**Roundabout Mou**	**4.96**	**327**	IAML			12 29 37.6	
	comp=E,112nm,0.8s							
PLK2	**Peulik 2**	**4.98**	**223**			**Pn**	**12 28 40.1**	**+0.4**
N15K	**Kwethluk River**	**5.16**	**259**	Pn		**Pn**	**12 28 42.8**	**+0.6**
N15K				IAML			12 30 21.5	
	comp=N,133nm,1.0s							
N15K				IAML			12 30 22.7	
	comp=E,127nm,0.7s							
G21K	**Allakaket**	**5.24**	**344**			**Pn**	**12 28 44.6**	**+1.3**
G21K	**Allakaket**	**5.24**	**344**	IAML			12 29 44.7	
	comp=E,96nm,0.8s							
H18K	**Honhosa River**	**5.25**	**317**			**Pn**	**12 28 43.7**	**+0.2**
H18K	**Honhosa River**	**5.25**	**317**	IAML			12 29 44.8	
	comp=E,93nm,0.5s							
J16K	**Anvik River**	**5.26**	**294**			**Pn**	**12 28 43.5**	**-0.1**
J16K	**Anvik River**	**5.26**	**294**	IAML			12 30 19.4	
	comp=N,75nm,1.1s							
M15K	**Kasigluk River**	**5.29**	**266**			**Pn**	**12 28 43.9**	**0.0**
BCPM	**Bancas Point**	**5.29**	**103**			**Pn**	**12 28 44.0**	**0.0**
O15K	**Ungalikthiuk R**	**5.45**	**249**	Pn		**Pn**	**12 28 47.0**	**+0.9**
I17K	**Unalakleet**	**5.49**	**300**			**Pn**	**12 28 47.2**	**+0.6**
PNL	**Peninsula**	**5.51**	**105**			**Pn**	**12 28 46.7**	**-0.3**
L15K	**Ungalak Mounta**	**5.52**	**277**			**Pn**	**12 28 47.1**	**0.0**
K15K	**Wolf Creek Mou**	**5.54**	**283**			**Pn**	**12 28 47.6**	**+0.3**
H17K	**Granite Mounta**	**5.66**	**311**			**Pn**	**12 28 49.5**	**+0.6**
G18K	**Tagagawik**	**5.84**	**322**	Pn		**Pn**	**12 28 51.8**	**+0.3**
O14K	**Tigyukauivet M**	**6.07**	**253**	Pn		**Pn**	**12 28 55.3**	**+0.7**
F20K	**Avaraart Lake**	**6.08**	**338**			**Pn**	**12 28 55.8**	**+1.1**
L14K	**Kuka Creek**	**6.12**	**274**	Pn		**Pn**	**12 28 56.1**	**+0.8**
P29M	**Windy Craggy**	**6.30**	**102**			**Pn**	**12 28 58.3**	**+0.4**
J14K	**Nanvaranak Lak**	**6.50**	**287**			**Pn**	**12 29 00.7**	**+0.2**
G16K	**Koyuk River**	**6.78**	**310**			**Pn**	**12 29 05.8**	**+1.5**
CHGN	**Chignik**	**6.84**	**224**	Pn		**Pn**	**12 29 04.7**	**-0.5**
K13K	**Kusilvak Mount**	**7.01**	**280**	Pn		**Pn**	**12 29 07.3**	**-0.2**
ANM	**Nome**	**7.64**	**300**			**Pn**	**12 29 17.4**	**+1.3**
INK	**Inuvik**	**9.70**	**39**	P		**Pn**	**12 29 47.2**	**+3.0**
	comp=N,27nm,0.8s,baz=234,slow=16,SNR=0.8							
INK				S		**Sn**	**12 31 32.8**	**+1.3**
	comp=N,8.9nm,0.8s,baz=239,slow=18,SNR=1.4							
DLBC	**Dease Lake**	**10.43**	**98**	P		**Pn**	**12 29 57.3**	**+3.0**
	comp=N,40nm,0.9s,baz=234,slow=19,SNR=1.5							
YKA	**Yellowknife Ar**	**16.48**	**71**	P		**P**	**12 31 17.6**	**+0.7**
	comp=N,0.3nm,0.3s,baz=279,slow=9.7,SNR=5.1							
	comp=N,1.3nm,0.6s							
YKA				AML	AML			
CLRS	**Cowichan Lake**	**19.30**	**120**	P		**P**	**12 31 47.6**	**-0.3**
CLRS				IAmb	IAmb		12 32 01.4	
	comp=Z,18nm,1.2s							
AMKA	**Amchitka**	**19.61**	**253**	P		**P**	**12 31 51.5**	**+0.2**
PGC	**Sidney**	**19.71**	**119**	P		**P**	**12 31 53.6**	**+1.2**
PGC				IAmb	IAmb		12 32 09.1	
	comp=Z,19nm,1.0s							
C03A	**Quillayute Air**	**19.80**	**122**	P		**P**	**12 31 53.6**	**+0.2**
GNW	**Green Mountain**	**20.82**	**120**	P		**P**	**12 32 04.5**	**+0.1**
SHEM	**Shemya Is, Ala**	**21.16**	**262**	P		**P**	**12 32 07.3**	**-0.7**
HOOD	**Mount Hood Mea**	**23.11**	**122**	P		**P**	**12 32 28.9**	**0.0**
HOOD				IAmb	IAmb		12 32 40.8	
	comp=Z,10nm,1.0s							
WIFE	**Three Sisters-**	**24.08**	**124**	P		**P**	**12 32 38.5**	**+0.3**
WIFE				IAmb	IAmb		12 32 40.3	
	comp=Z,5.1nm,0.6s							
K02D	**Willamette Mer**	**24.52**	**128**	P		**P**	**12 32 44.2**	**+2.2**
K02D				IAmb	IAmb		12 32 55.7	
	comp=Z,14nm,1.1s							

BMO	**Blue Mountains**	**25.31**	**116**	P		**P**	**12 32 50.2**	**+1.0**
PET	**Petropavlovsk**	**28.36**	**276**	P		**P**	**12 33 16.7**	**+0.4**
PET				IAmb	IAmb		12 33 27.1	
	comp=Z,23nm,1.1s							
NVAR	**Mina Arroy Bea**	**30.26**	**125**	P		**P**	**12 33 35.1**	**+1.6**
	comp=Z,1.8nm,0.7s,baz=322,slow=10,SNR=2.9							
	comp=Z,1.8nm,0.7s							
PDAR	**Pinedale Array**	**30.38**	**109**	P		**P**	**12 33 35.9**	**+1.2**
	comp=Z,1.4nm,0.6s,baz=314,slow=8.4,SNR=4.7							
	comp=Z,1.4nm,0.6s							
PV03	**Paradox Valley**	**34.36**	**114**	P		**P**	**12 34 08.8**	**-0.6**
PBMO	**Poplar Bluff**	**44.07**	**96**	P		**P**	**12 35 29.3**	**-0.8**
PBMO				IAmb	IAmb		12 35 30.2	
	comp=Z,10nm,0.7s							
TXAR	**Lajitas Array**	**44.19**	**115**	P		**P**	**12 35 32.4**	**+1.2**
	comp=Z,0.9nm,0.8s,baz=330,slow=8.9,SNR=4.2							
	comp=Z,0.9nm,0.8s							
HILR	**Hailar Array B**	**48.37**	**299**	P		**P**	**12 36 01.6**	**-2.1**
	comp=Z,4.9nm,0.5s,baz=38,slow=7.5,SNR=3.6							
	comp=Z,4.9nm,0.5s							
MJAR	**Matsushiro Arr**	**50.17**	**275**	P		**P**	**12 36 15.6**	**-2.1**
	comp=Z,0.5nm,0.6s,baz=52,slow=6.2,SNR=2.1							
	comp=Z,0.5nm,0.6s							
KSRS	**Korea Array**	**54.30**	**284**	P		**P**	**12 36 46.9**	**-1.3**
	comp=Z,1.8nm,0.6s,baz=30,slow=6.8,SNR=8.6							
	comp=Z,1.8nm,0.6s							
SONM	**Songino Array**	**55.09**	**307**	P		**P**	**12 36 53.9**	**-0.1**
	comp=Z,2.3nm,0.8s,baz=52,slow=6.1,SNR=3.8							
	comp=Z,2.3nm,0.8s							
ZALV	**Zalesovo Beam**	**57.01**	**325**	P		**P**	**12 37 05.9**	**-1.5**
	comp=Z,0.8nm,0.3s,baz=24,slow=6.2,SNR=4.6							
	comp=Z,0.8nm,0.3s							
FINES	**FINESS Array B**	**57.31**	**2**	P		**P**	**12 37 08.9**	**-0.5**
	comp=Z,1.8nm,0.9s,baz=0.7,slow=11,SNR=1.3							
	comp=Z,1.8nm,0.9s							
HHC	**Hu-ho-hao-te**	**58.79**	**299**	*e*P		**P**	**12 37 24.4**	**+4.2**
HHC				pmax	pmax			
	comp=Z,9.0nm,0.5s							
HHC				pmax	pmax			
	comp=Z,80nm,5.0s							
HHC				LR	LR			
	comp=N,210nm,16.0s							
HHC				LR	LR			
	comp=E,190nm,17.7s							
HHC				LR	LR			
	comp=Z,290nm,15.1s							
EKA	**Eskdalemuir Ar**	**60.57**	**21**	P		**P**	**12 37 31.7**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=325,slow=5.7,SNR=4.2							
	comp=Z,0.3nm,0.3s							
BVAR	**Borovoye Array**	**61.39**	**334**	P		**P**	**12 37 36.8**	**-0.9**
	comp=Z,0.8nm,0.5s,baz=27,slow=4.3,SNR=2.3							
	comp=Z,0.8nm,0.5s							
KURBB	**Kurchatov Arra**	**61.69**	**327**	P		**P**	**12 37 38.4**	**-1.3**
	comp=Z,0.4nm,0.4s,baz=29,slow=6.5,SNR=2.4							
	comp=Z,0.4nm,0.4s							
MKAR	**Makanchi Array**	**64.15**	**323**	P		**P**	**12 37 54.5**	**-1.7**
	comp=Z,0.6nm,0.5s,baz=20,slow=6.4,SNR=4.6							
	comp=Z,0.6nm,0.5s							
AKASG	**Malin Array Be**	**68.11**	**1**	P		**P**	**12 38 20.2**	**-1.2**
	comp=Z,0.7nm,0.3s,baz=2.1,slow=6.6,SNR=4.4							
	comp=Z,0.7nm,0.3s							
QSPA	**South Pole Qui**	**151.34**	**180**	PKPbc		**PKPbc**	**12 47 13.3**	**-0.4**
	comp=Z,1.8nm,0.7s,baz=104,slow=0.9,SNR=3.0							

AFAD 07 12:33:13.0, 37.87N×26.82E, h7km±4km, ML1.4, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
DGB	**zmir**	**0.19**	**15**	P		Pg	12 33 17.1	+0.2
DGB				S		Sg	12 33 19.9	+0.4
GCAM	**G?zelcaml?**	**0.37**	**117**	P		Pg	12 33 19.6	-0.6
GCAM				S		Sb	12 33 26.9	-0.9
GCAM				IAML			12 33 28.0	
	comp=E,53nm,1.4s							
BEYE	**zmir**	**0.37**	**13**	P		Pg	12 33 20.2	-0.1
BEYE				IAML			12 33 25.0	
	comp=N,33nm,1.0s							
BEYE				IAML			12 33 25.0	
	comp=E,30nm,1.3s							
BEYE				S		Sg	12 33 26.2	+1.0
ZEYE	**Izmir, Urla-Ze**	**0.45**	**326**	P		Pg	12 33 19.4	-2.3
ZEYE				IAML			12 33 29.0	
	comp=N,47nm,0.3s							
ZEYE				S		Sb	12 33 29.1	-1.1
ZEYE				IAML			12 33 32.0	
	comp=E,52nm,0.2s							

ISK 07 12:33:18.2, 37.87N×26.41E, h15km, ML2.0/5, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
CHOS	**Chios island**	**0.59**	**332**	Pg		Pb	12 33 30.4	+0.2
CHOS				Sg		Sb	12 33 39.0	+0.6
CHOS				AML		AML		
GCAM	**G?zelcaml?**	**0.68**	**104**	Pg		Pb	12 33 31.7	+0.1
GCAM				Sg		Sb	12 33 41.9	+1.1
GCAM				AML		AML		
BLCB	**Balcova**	**0.72**	**44**	Pg		Pg	12 33 32.1	-0.1
BLCB				Sg		Sn	12 33 43.4	-1.1
BLCB				AML		AML		
BODT	**Bodrum**	**1.08**	**138**	Pg		Pg	12 33 39.0	0.0
BODT				Sg		Sn	12 33 54.8	+1.4
BODT				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**1.18**	**86**	Pn		Pb	12 33 40.4	+0.1
AYDB				Sn		Sg	12 33 56.9	+0.6
AYDB				AML		AML		

IDC 07 12:35:22.3±1.5, 4.18S×129.62E, h0km, mb3.3/1, mbtmp3.2/4, ML3.0/3, MS4.2/1, Error ellipse: s-maj=38.8km s-min=18.9km az=101.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
SIJI	**Sorong**	**3.68**	**27**	Pn		Pn	12 36 20.4	-0.1
	1.6nm,0.3s,baz=213,slow=22,SNR=7.4							
SIJI				Sn		Sn	12 37 01.1	-3.5
	0.6nm,0.3s,baz=233,slow=23,SNR=1.5							
	5.6nm,0.3s							
SIJI				AML		AML		
WRA	**Warramunga Arr**	**16.32**	**164**	Pn		Pn	12 39 06.4	-6.7
	baz=343,slow=13,SNR=2.0							
	0.4nm,1.1s							
ASAR	**Alice Springs**	**19.81**	**168**	P		P	12 39 53.6	-0.9
	0.1nm,0.3s,baz=348,slow=10,SNR=6.6							
	0.3nm,0.6s							
ASAR				AML		AML		
MSVF	**Nonsavu**	**49.26**	**110**	LR		LR	13 05 38.2	
	comp=Z,256nm,18.3s,baz=83,slow=37							
MKAR	**Makanchi Array**	**65.68**	**326**	P		P	12 46 09.0	+0.4
	0.1nm,0.4s,baz=124,slow=7.7,SNR=2.9							
	0.1nm,0.4s							

*IDC **07** 12:56:01.7±0.6, 62.07S×57.68W, h0km, mb4.2/10, mbtmp4.2/11, ML4.2/1, MS3.9/8, Error ellipse: s-maj=24.1km s-min=15.1km az=97.0*
*NEIC **07** 12:56:02.5±1.2, 62.33S±0.04×58.2W±0.2, h10km±1km, mb4.7/27, Error ellipse: s-maj=17.1km s-min=5.8km az=77.0*

ISC 07 12:56:03.1±0.5, 62.14S±0.06×57.92W±0.09, h10km, n65, σ1°45/57, mb4.5/21, MS3.8/8, 3D, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
ESPZ	**Base Esperanza**	**1.33**	**162**	Pn		**Pn**	**12 56 25.5**	**-2.1**
PMSA	**Palmer Station**	**3.81**	**223**	Pn		**Pn**	**12 56 60.0**	**-1.7**
	16nm,0.3s,baz=57,slow=10,SNR=9.8							
PMSA				Sn		**Sn**	**12 57 49.6**	**+3.0**
	18nm,0.3s,baz=97,slow=17,SNR=7.4							
	18nm,0.3s							
PMSA				AML		AML		
PMSA	**Palmer Station**	**3.81**	**223**	Pn		**Pn**	**12 56 58.1**	**-3.6**
BELA	**Belgrano 2**	**17.43**	**164**	P		**Pn**	**13 00 04.7**	**-1.2**
COYC	**Coyhaique**	**18.51**	**327**	P		**P**	**13 00 19.1**	**-0.1**
VNA3	**Neumayer Olymp**	**20.52**	**136**	||P	Pn	13 00 43.7	+0.4
	comp=Z,20nm,0.7s							
LL02	**Futaleuf**	**20.69**	**330**	P		**P**	**13 00 43.2**	**+0.2**
LL02				IAmb	IAmb		13 00 50.7	
	comp=Z,25nm,1.2s							
VNA1	**Neumayer--Stat**	**20.98**	**135**	P		Pn	13 00 49.6	+1.1
	comp=Z,12nm,0.7s							
VNA2	**Neumayer--Watz**	**21.26**	**136**	P		**P**	**13 00 52.3**	**+3.3**
	comp=Z,11nm,0.8s,baz=271,slow=11							
SNAA	**Sanae**	**22.70**	**138**	P		**P**	**13 01 06.1**	**+1.7**
	comp=Z,195nm,0.8s							
SNAA	**Sanae**	**22.70**	**138**	P		**P**	**13 01 05.7**	**+1.2**
	comp=Z,13nm,1.0s,baz=255,slow=8.9,SNR=11							
SNAA				LR		LR	13 08 31.0	
	comp=Z,256nm,21.1s,baz=218,slow=33							
	comp=Z,13nm,1.0s							
SNAA	**Sanae**	**22.70**	**138**			**P**	**13 01 03.8**	**-0.6**
SNAA				IAmb		IAmb	13 01 10.0	
	comp=Z,31nm,1.4s							
PLCA	**Paso Flores**	**22.76**	**335**	P		**P**	**13 01 06.1**	**+0.8**
	comp=Z,9.3nm,1.1s,baz=160,slow=9.3,SNR=10.0							
PLCA				LR		LR	13 10 03.8	
	comp=Z,244nm,19.6s,baz=185,slow=37							
	comp=Z,9.3nm,1.1s							
PLCA	**Paso Flores**	**22.76**	**335**			**P**	**13 01 05.2**	**-0.1**
PLCA				IAmb		IAmb	13 01 08.6	
	comp=Z,18nm,1.2s							
LR05	**Currie**	**23.55**	**332**	P		**P**	**13 01 12.7**	**-0.6**
LR05				IAmb		IAmb	13 01 15.7	
	comp=Z,28nm,1.0s							
GO06	**Curarrehue**	**24.05**	**334**	P		**P**	**13 01 17.7**	**-0.5**
GO06				IAmb		IAmb	13 01 26.4	
	comp=Z,33nm,1.1s							
TROLL	**Troll, Antarti**	**24.34**	**139**	P		**P**	**13 01 23.4**	**+2.7**
	comp=Z,264nm,0.9s							
BI02	**San Fabin de**	**26.83**	**336**	P		**P**	**13 01 42.8**	**-0.6**
BI02				IAmb		IAmb	13 01 49.7	
	comp=Z,11nm,1.0s							
QSPA	**South Pole Qui**	**28.08**	**180**	P		**P**	**13 01 56.7**	**+2.1**
	comp=Z,4.5nm,0.7s,baz=164,slow=2.1,SNR=16							
	comp=Z,4.5nm,0.7s							
QSPA	**South Pole Qui**	**28.08**	**180**			**P**	**13 01 52.7**	**-1.8**
QSPA				IAmb		IAmb	13 02 06.7	
	comp=Z,13nm,1.1s							
GO05	**Hualane**	**28.56**	**335**	P		**P**	**13 01 60.0**	**+1.1**
GO05				IAmb		IAmb	13 02 01.2	
	comp=Z,23nm,1.0s							
MT09	**Talagante**	**29.58**	**338**	P		**P**	**13 02 08.5**	**+0.5**
MT08	**Bocatoma Ro**	**29.74**	**339**	P		**P**	**13 02 10.3**	**+0.8**
MT08				IAmb		IAmb	13 02 12.8	
	comp=Z,18nm,1.0s							
ELIB	**Princess Elisa**	**30.57**	**143**	*d*P		**P**	**13 02 18.1**	**+1.7**
	comp=Z,2.0nm,0.9s							
ELIB				*d*PcP		**PcP**	**13 05 14.6**	**+0.1**
ZON	**Zonda**	**31.39**	**342**	P		**P**	**13 02 24.1**	**+0.1**
ZON				IAmb		IAmb	13 02 43.3	
	comp=Z,10nm,1.2s							
CO03	**El Pedregal**	**32.40**	**339**	P		**P**	**13 02 32.8**	**0.0**
CO01	**Juntas del Tor**	**33.15**	**340**			**P**	**13 02 40.0**	**+0.4**
AC04	**Llanos de Chal**	**35.04**	**340**	P		**P**	**13 02 56.9**	**+1.1**
CPUP	**Villa Florida**	**35.81**	**1**	P		**P**	**13 03 00.9**	**-1.4**
	comp=Z,0.8nm,0.3s,baz=187,slow=17,SNR=3.2							
	comp=Z,0.8nm,0.3s							
CPUP	**Villa Florida**	**35.81**	**1**	P		**P**	**13 03 02.9**	**+0.6**
VNDA	**Vanda**	**38.45**	**193**	P		**P**	**13 03 26.2**	**+1.9**
	comp=Z,0.7nm,1.0s,baz=148,slow=13,SNR=2.6							
VNDA				PcP		**PcP**	**13 05 38.4**	**+1.4**
	comp=Z,0.5nm,0.8s,baz=170,slow=1.7,SNR=3.8							
	comp=Z,0.7nm,1.0s							
PB02	**IPOC Station P**	**41.62**	**343**	P		**P**	**13 03 51.4**	**+0.1**
MAW	**Mawson**	**43.67**	**152**	PcP		**PcP**	**13 05 55.2**	**+1.2**
	comp=Z,3.0nm,0.9s,baz=182,slow=2.1,SNR=4.4							
MAW				LR		LR	13 22 17.6	
	comp=Z,258nm,18.4s,baz=146,slow=36							
LPAZ	**La Paz**	**46.37**	**346**	P		**P**	**13 04 30.7**	**+0.8**
	comp=Z,0.7nm,0.4s,baz=163,slow=7.0,SNR=2.3							
LPAZ				LR		LR	13 27 23.5	
	comp=Z,77nm,18.7s,baz=322,slow=41							
	comp=Z,0.7nm,0.4s							
LPAZ	**La Paz**	**46.37**	**346**	P		**P**	**13 04 28.2**	**-1.8**
PTLB	**Pontes e Lacer**	**46.64**	**358**	P		**P**	**13 04 32.2**	**+0.8**
PTLB				IAmb		IAmb	13 04 33.3	
	comp=Z,6.5nm,1.3s							
BDFB	**Brasilia**	**46.97**	**13**	P		**P**	**13 04 34.7**	**+0.6**
	comp=Z,6.8nm,1.0s,baz=119,slow=6.0,SNR=5.2							
	comp=Z,6.8nm,1.0s							
BDFB	**Brasilia**	**46.97**	**13**	P		**P**	**13 04 34.1**	**0.0**
BDFB				IAmb		IAmb	13 05 05.0	
	comp=Z,10nm,1.4s							
SMTB	**Santa Maria do**	**53.72**	**13**	P		**P**	**13 05 26.4**	**+1.4**
SMTB				IAmb		IAmb	13 05 27.2	

MORC				*e*Sg	**Sg**	12 59 01.8	+0.1		
	110nm,0.5s,baz=61								
MORC				AML	AML				
ANAC	**Anensky vrch**	**0.69**	**271**	*e*Pg	**Pg**	12 58 54.1	+0.2		
	baz=88								
ANAC				*e*Sg	**Sg**	12 59 02.4	-0.5		
	98nm,0.4s,baz=88								
ANAC				AML	AML				
LOSC	**Losov**	**0.83**	**238**	*e*Pg	**Pg**	12 58 56.9	+0.4		
	baz=55								
LOSC				*e*Sg	**Sg**	12 59 07.2	-0.1		
	99nm,0.5s,baz=55								
LOSC				AML	AML				
OJC	**Ojcow**	**0.88**	**79**	*e*Pg	**Pg**	12 58 57.4	-0.2		
OJC				*e*Sg	**Sg**	12 59 09.7	+0.8		
KRLC	**Kraliky**	**1.08**	**271**	*e*PG	**Pg**	12 59 00.4	-0.9		
KRLC				*e*SG	**Sg**	12 59 14.6	-0.6		
LANS	**Liptovska Anna**	**1.13**	**144**	*e*PG	**Pb**	12 59 03.0	-0.1		
LANS				*e*SG	**Sn**	12 59 20.0	0.0		
LANS				*e*LG	Lg	12 59 22.1			
JAVC	**Velka Javorina**	**1.31**	**203**	*e*Pg	**Pb**	12 59 06.2	0.0		
	baz=22								
NIE	**Niedzica**	**1.36**	**118**	*e*Pg	**Pb**	12 59 07.3	+0.2		
NIE				*e*Sg	**Sn**	12 59 26.8	+1.1		
DPC	**Dobruska-Polom**	**1.40**	**283**	*e*PG	**Pg**	12 59 06.8	-0.7		
DPC				*e*SG	**Sb**	12 59 25.9	-0.2		
	comp=Z,98nm,0.6s								
DPC				AML	AML				
VRAC	**Vranov**	**1.43**	**239**	*e*Pg	**Pn**	12 59 07.3	-0.5		
	baz=56								
VRAC				*e*Sg	**Sg**	12 59 25.9	-0.5		
	40nm,0.4s,baz=56								
VRAC				AML	AML				
OSTC	**Ostas**	**1.52**	**290**	*e*PG	**Pn**	12 59 08.4	-0.7		
OSTC				*e*SG	**Sn**	12 59 29.8	+0.3		
	comp=Z,45nm,0.9s								
OSTC				AML	AML				
KSP	**Ksiaz**	**1.58**	**300**	*e*Pg	**Pn**	12 59 09.2	-0.9		
KSP				*e*Sg	**Sg**	12 59 31.3	-0.3		
VYHS	**Vyhne**	**1.59**	**171**	*e*PG	**Pn**	12 59 09.9	-0.2		
VYHS				*e*SG	**Sn**	12 59 31.2	-0.2		
VYHS				*e*LG	Lg	12 59 33.8			
CHVC	**Chvalec**	**1.62**	**290**	*e*PG	**Pn**	12 59 10.4	-0.2		
UPC	**Upice**	**1.63**	**287**	*e*PG	**Pn**	12 59 10.3	-0.3		
KRUC	**Moravsky**	**1.67**	**234**	*e*Pn	**Pn**	12 59 11.3	+0.1		
	baz=52								
KRUC				*e*Sg	**Sn**	12 59 33.6	+0.2		
	41nm,0.4s,baz=52								
KRUC				AML	AML				
KRUC	**Moravsky**	**1.67**	**234**	*e*PN	**Pn**	12 59 11.4	+0.2		
KRUC				*e*SG	**Sn**	12 59 33.7	+0.3		
MODS	**Modra-Piesok**	**1.86**	**205**	*e*SN	**Sb**	12 59 39.0	-0.4		
KECS	**Kecovo**	**2.07**	**139**	*e*SN	**Sn**	12 59 42.4	-0.7		
KECS				*e*LG	Lg	12 59 47.0			
TREC	**Trest**	**2.08**	**249**	*e*SG	**Sb**	12 59 45.2	-0.3		
ABNA	**Allensteig Bun**	**2.42**	**236**	*e*Pn	**Pn**	12 59 21.1	-0.4		
	0.6nm,0.1s								
PRU	**Pruhonice**	**2.52**	**270**	*e*PG	**Pb**	12 59 26.0	-0.8		
PRU				*e*SG	**Sb**	12 59 58.6	+0.2		
	comp=Z,20nm,0.7s								
PRU				AML	AML				
PVCC	**Panska Ves**	**2.53**	**282**	*e*SG	**Sg**	13 00 01.6	-0.4		
	comp=Z,25nm,0.3s								
PVCC				AML	AML				
CONA	**Conrad Observa**	**2.74**	**220**	*e*Pn	**Pn**	12 59 25.7	-0.2		
	0.3nm,0.1s								
CONA				*e*Sn	**Sn**	12 59 59.9	+0.2		
	4.3nm,0.5s								
KOLS	**Kolonicke sedl**	**2.74**	**113**	*e*SN	**Sn**	12 59 59.5	-0.1		
ZVC	**Zvikov**	**2.83**	**259**	*e*PG	**Pb**	12 59 32.9	+0.8		
CKRC	**Cesky Krumlov**	**2.98**	**247**	*e*SG	**Sb**	13 00 13.9	+2.4		
	comp=Z,25nm,0.9s								
CKRC				AML	AML				
HSKC	**Hora Svate Kat**	**3.26**	**281**	*e*PG	**Pb**	12 59 40.8	+1.4		
KHC	**Kasperske Hory**	**3.31**	**255**	*e*PN	**Pn**	12 59 32.8	-0.9		
KHC				*e*PG	**Pb**	12 59 40.3	+0.1		
KHC				*e*SG	**Sg**	13 00 24.8	-2.0		
	comp=Z,12nm,0.4s								
KHC				AML	AML				
MOA	**Molln**	**3.54**	**233**	Sg	**Sg**	13 00 31.4	-2.9		
	8.6nm,0.6s,SNR=16								
CLL	**Collm**	**3.68**	**292**	*i* Pg	**Pg**	12 59 51.4	+0.2		
CLL				*i* x	x	12 59 53.3			
CLL				*e*Sg	**Sg**	13 00 38.0	-0.9		
	comp=Z,11nm,0.6s								

*NEIC **07** 13:10:16.0±1.3,62.°32S±0.°08×58.°3W±0.°1,h10km±1km, mb4.3/17,Error ellipse: s-maj=15.4km s-min=5.9km az=25.0*
*IDC **07** 13:10:16.6±1.1,62.°10S×56.°85W,h0km,mb3.9/5, mbtmp3.9/6,ML4.0/1,MS3.8/4,Error ellipse: s-maj=25.0km s-min=19.5km az=135.0*
ISC 07 13:10:16.5±0.6,62.°35S±0.°06×58.°48W±0.°07,h10km,n35, σ2s10/32,mb4.2/14,MS3.7/3,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.25**	**148**		Pn	**Pn**	**13 10 39.1**	**-0.9**
ESPZ						**Sb**	**13 10 55.9**	**-0.4**
PMSA	**Palmer Station**	**3.48**	**223**		Pn	**Pb**	**13 11 17.9**	**-0.2**
	9.1nm,0.3s,baz=47,slow=13,SNR=8.5							
PMSA					Sn	**Sg**	**13 12 06.9**	**-1.1**
	15nm,0.3s,baz=295,slow=23,SNR=8.6							
PMSA					LR	LR	13 12 31.3	
	comp=Z,760nm,20.0s,baz=350,slow=32							
	72nm,0.7s							
PMSA					AML	AML		
PMSA	**Palmer Station**	**3.48**	**223**			**Pn**	**13 11 11.5**	**+0.9**
SMAI	**San Martin Ant**	**6.83**	**208**		Pn	Pn	13 12 01.0	+4.4
VNA3	**Neumayer Olymp**	**20.55**	**136**		P	Pn	13 14 58.5	+1.4
	comp=Z,12nm,0.7s							
VNA1	**Neumayer--Stat**	**21.02**	**134**		P	**P**	**13 15 03.6**	**+3.8**
	comp=Z,18nm,0.9s							
VNA2	**Neumayer--Watz**	**21.30**	**135**		P	**P**	**13 15 06.8**	**+4.0**
	comp=Z,6.4nm,0.6s,baz=260,slow=9.9							
SNAA	**Sanae**	**22.72**	**137**		P	**P**	**13 15 21.4**	**+3.3**
	comp=Z,140nm,0.7s							
SNAA	**Sanae**	**22.72**	**137**		P	**P**	**13 15 14.8**	**-3.3**
	comp=Z,0.9nm,0.5s,baz=258,slow=11,SNR=9.4							
SNAA					LR	LR	13 22 44.7	
	comp=Z,129nm,21.0s,baz=190,slow=33							
	comp=Z,0.9nm,0.5s							
SNAA	**Sanae**	**22.72**	**137**		P	**P**	**13 15 14.6**	**-3.6**
SNAA					IAmb	IAmb	13 15 23.8	
	comp=Z,13nm,1.0s							
PLCA	**Paso Flores**	**22.84**	**336**		P	**P**	**13 15 21.6**	**+2.1**
	comp=Z,3.1nm,1.0s,baz=164,slow=10.0,SNR=4.6							
	comp=Z,3.1nm,1.0s							
PLCA	**Paso Flores**	**22.84**	**336**		P	**P**	**13 15 19.3**	**-0.3**
GO06	**Curarrehue**	**24.13**	**335**		P	**P**	**13 15 33.5**	**+1.1**
TROLL	**Troll, Antarti**	**24.36**	**139**		P	**P**	**13 15 37.7**	**+3.4**
	comp=Z,201nm,0.8s							
BI02	**San Fabin de**	**26.92**	**337**		P	**P**	**13 15 59.2**	**+1.5**
BI02					IAmb	IAmb	13 16 25.6	
	comp=Z,3.4nm,0.7s							
QSPA	**South Pole Qui**	**27.87**	**180**		P	**P**	**13 16 09.2**	**+3.1**
	comp=Z,1.8nm,1.0s,baz=166,slow=3.3,SNR=3.8							
	comp=Z,1.8nm,1.0s							
QSPA	**South Pole Qui**	**27.87**	**180**		P	**P**	**13 16 04.8**	**-1.3**
CO04	**Los Peladeros**	**31.37**	**339**		P	**P**	**13 16 36.7**	**-0.8**
CO01	**Juntas del Tor**	**33.26**	**341**		P	**P**	**13 16 54.6**	**+0.6**
CO01					IAmb	IAmb	13 17 05.6	
	comp=Z,3.3nm,0.8s							
LCO	**Las Campanas**	**34.30**	**341**		P	P	13 16 56.0	-7.1
AC06	**Mina Casimiro**	**35.87**	**342**		P	**P**	**13 17 12.0**	**-4.3**
AC06					IAmb	IAmb	13 17 38.2	
	comp=Z,4.4nm,0.9s							
PB10	**IPOC Station P**	**39.68**	**343**		P	**P**	**13 17 47.7**	**-0.8**
PB08	**IPOC Station P**	**42.82**	**345**		P	**P**	**13 18 13.8**	**-1.0**
PB08					IAmb	IAmb	13 18 33.3	
	comp=Z,3.6nm,0.9s							
PSGCX	**Pisagua**	**43.48**	**344**		P	**P**	**13 18 20.9**	**+1.1**
PSGCX					IAmb	IAmb	13 18 25.5	
	comp=Z,4.7nm,0.8s							
MAW	**Mawson**	**43.61**	**152**		P	**P**	**13 18 21.8**	**+1.5**
	comp=Z,2.3nm,1.0s,baz=205,slow=14,SNR=3.6							
	comp=Z,2.3nm,1.0s							
MAW	**Mawson**	**43.61**	**152**		P	**P**	**13 18 19.5**	**-0.7**
PB12	**IPOC Station P**	**44.47**	**344**		P	**P**	**13 18 28.1**	**+0.3**
PB12					IAmb	IAmb	13 18 41.6	
	comp=Z,5.1nm,0.8s							
PB16	**IPOC Station P**	**44.64**	**345**		P	**P**	**13 18 28.3**	**-1.4**
PB16					IAmb	IAmb	13 18 42.9	
	comp=Z,2.3nm,0.8s							
CASY	**Casey**	**51.42**	**174**		P	**P**	**13 19 19.8**	**-1.1**
OTAV	**Otavalo**	**64.23**	**338**		P	**P**	**13 20 51.1**	**-0.9**
OTAV					IAmb	IAmb	13 21 19.9	
	comp=Z,2.4nm,0.6s							
AFI	**Afiamalu**	**88.16**	**243**		LR	LR	13 55 14.6	
	comp=Z,29nm,19.3s,baz=160,slow=30							
WRA	**Warramunga Arr**	**97.35**	**192**		P	Pdif	13 23 53.7	+3.7
	comp=Z,0.3nm,0.8s,baz=177,slow=4.0,SNR=1.8							
WRA					LR	LR	14 07 53.3	
	comp=Z,229nm,20.4s,baz=270,slow=35							
	comp=Z,0.3nm,0.8s							
ILAR	**Eielson Array**	**142.52**	**315**	PKP		**PKiKP**	**13 29 50.5**	**-0.4**
	comp=Z,0.3nm,0.8s,baz=134,slow=1.1,SNR=4.7							
BVAR	**Borovoye Array**	**151.86**	**86**	PKPbc		**PKiKP**	**13 30 10.2**	**-0.3**
	comp=Z,2.7nm,0.8s,baz=117,slow=0.6,SNR=6.3							
MKAR	**Makanchi Array**	**153.00**	**107**	PKPbc		**PKiKP**	**13 30 13.3**	**+0.2**
	comp=Z,1.1nm,0.9s,baz=279,slow=2.3,SNR=4.6							

*AFAD **07** 13:20:27.5,37.°81N×26.°96E,h7km±3km,ML1.9*
*ISK **07** 13:20:28.8,37.°86N×26.°97E,h7km,ML2.2/8*
ISC 07 13:20:28.7±1.0,37.°84N±0.°03×26.°97E±0.°03,h10km±8km, n23,σ0s67/40,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.22**	**342**		P	**Pg**	**13 20 33.2**	**-0.1**
DGB					S	**Sg**	**13 20 36.1**	**-0.2**
GCAM	**G?zelcaml?**	**0.26**	**124**		P	**Pg**	**13 20 33.1**	**-0.8**
GCAM					IAML		13 20 38.0	
	comp=E,168nm,0.2s							
GCAM					S	**Sb**	**13 20 38.9**	**-1.0**
GCAM					IAML		13 20 39.0	
	comp=N,208nm,0.3s							
GCAM	**G?zelcaml?**	**0.26**	**124**		P	**Pg**	**13 20 34.0**	**+0.1**
GCAM					IAML		13 20 38.0	
	comp=E,168nm,0.2s							
GCAM					S	**Sb**	**13 20 38.9**	**-1.0**
GCAM					IAML		13 20 39.0	
	comp=N,209nm,0.3s							
GCAM	**G?zelcaml?**	**0.26**	**124**		Pg	**Pg**	**13 20 34.3**	**+0.4**
GCAM					Sg	**Sb**	**13 20 38.7**	**-1.2**
GCAM					AML	AML		
BEYE	**izmir**	**0.38**	**355**		P	**Pg**	**13 20 35.2**	**-1.2**
BEYE					S	**Sg**	**13 20 42.6**	**+1.1**
BEYE					IAML		13 20 47.0	
	comp=N,81nm,0.2s							
BEYE	**izmir**	**0.38**	**355**		P	**Pg**	**13 20 35.7**	**-0.6**
BEYE					S	**Sg**	**13 20 42.5**	**+1.1**
BEYE					IAML		13 20 47.0	
	comp=N,81nm,0.2s							
DUVT	**Torbali**	**0.54**	**45**		P	**Pg**	**13 20 38.6**	**-0.5**
DUVT					S	**Sg**	**13 20 46.7**	**+0.5**
DUVT					IAML		13 20 47.0	
	comp=E,63nm,0.2s							
ZEYE	**Izmir, Urla-Ze**	**0.54**	**317**		P	**Pg**	**13 20 38.6**	**-0.6**
ZEYE					S	**Sg**	**13 20 46.7**	**+0.4**
ZEYE					IAML		13 20 47.0	
	comp=N,112nm,0.2s							
ZEYE					IAML		13 20 47.0	
	comp=E,90nm,0.3s							
ZEYE	**Izmir, Urla-Ze**	**0.54**	**317**		P	**Pg**	**13 20 38.8**	**-0.5**
ZEYE					S	**Sg**	**13 20 46.8**	**+0.4**
ZEYE					IAML		13 20 47.0	
	comp=N,130nm,0.2s							
ZEYE					IAML		13 20 47.0	
	comp=E,91nm,0.3s							
BLCB	**Balcova**	**0.54**	**6**		Pg	**Pg**	**13 20 39.4**	**+0.1**
BLCB					Sg	**Sg**	**13 20 47.4**	**+0.9**
BLCB					AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**82**		Pg	**Pb**	**13 20 43.5**	**-0.3**
AYDB					Sg	**Sb**	**13 20 54.2**	**+0.2**
AYDB					AML	AML		
BODT	**Bodrum**	**0.83**	**161**		Pg	**Pb**	**13 20 45.6**	**+0.4**
BODT					AML	AML		
IZMR	**zmir-demi**	**0.83**	**69**		P	**Pg**	**13 20 43.7**	**-1.1**
IZMR					S	**Sg**	**13 20 55.8**	**+0.2**
IZMR	**zmir-demi**	**0.83**	**69**		P	**Pg**	**13 20 44.6**	**-0.1**
IZMR					S	**Sb**	**13 20 56.8**	**+0.3**
MLSB	**Milas**	**0.84**	**130**		Pg	**Pn**	**13 20 46.4**	**-0.3**
MLSB					AML	AML		
BODA	**Bodrum-Mula**	**0.89**	**155**		Pg	**Pn**	**13 20 46.8**	**-0.5**
CHOS	**Chios island**	**0.90**	**307**		Pg	**Pb**	**13 20 46.5**	**0.0**
CHOS					AML	AML		
CAMT	**Merkez**	**0.94**	**17**		P	**Pb**	**13 20 47.3**	**0.0**
CAMT					IAML		13 21 03.0	
	comp=N,62nm,0.4s							
CAMT					IAML		13 21 03.0	
	comp=E,94nm,0.5s							
CAMT					S	**Sn**	**13 21 03.0**	**+1.4**
CAMT	**Merkez**	**0.94**	**17**		P	**Pb**	**13 20 47.4**	**+0.1**
CAMT					S	**Sn**	**13 21 02.5**	**+0.9**
CAMT					IAML		13 21 03.0	
	comp=N,62nm,0.4s							
CAMT					IAML		13 21 03.0	
	comp=E,94nm,0.5s							
ZEDA	**zmir-Bergama**	**1.12**	**4**		P	**Pb**	**13 20 49.9**	**-0.4**
ZEDA					S	**Sn**	**13 21 05.9**	**-0.2**
ZEDA					IAML		13 21 09.0	
	comp=E,31nm,0.8s							
ZEDA	**zmir-Bergama**	**1.12**	**4**		P	**Pn**	**13 20 50.7**	**+0.1**
ZEDA					S	**Sn**	**13 21 06.5**	**+0.4**
ZEDA					IAML		13 21 09.0	
	comp=E,31nm,0.8s							
DAT	**Datca**	**1.22**	**156**		Pn	**Pg**	**13 20 52.6**	**+0.5**
GORD	**Gordes-Manisa**	**1.43**	**41**		Pn	**Pb**	**13 20 55.7**	**+0.2**

*SKHL **07** 13:41:01.2±0.4,44.°90N×149.°60E,h53km±6km,mb4.4/4*
*JMA **07** 13:41:04.1±1.3,45.°5N×14.°9E±.°,h30km,MV3.5/10,SE OFF ETOROFU*
ISC 07 13:41:02.7±4.4,44.°9N±0.°1×149.°4E±0.°2,h60km,n10, σ1s20/16,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**1.12**	**288**	*e*P		**Pn**	**13 41 21.7**	**-0.6**
KUR					AMB	AMB	13 41 24.3	
	60nm,0.2s							
KUR				*e*S		**Sn**	**13 41 36.3**	**-0.6**
KUR				A		A	13 41 39.0	
	420nm,0.3s							
KUR				A		A	13 41 39.0	
	440nm,0.3s							
SHO	**Shikotan**	**2.09**	**242**	*e*P		Pn	13 41 53.5	+18
SHO					AMB	AMB	13 41 55.2	
	20nm,0.3s							
SHO				*e*S		Sn	13 42 17.6	+17
SHO				A		A	13 42 22.4	
	80nm,0.3s							
SHO				A		A	13 42 22.4	
	90nm,0.3s							
YUK	**Yuzh-Kuril'sk**	**2.66**	**252**	*e*P		**Pn**	**13 41 43.2**	**+0.2**
YUK					AMB	AMB	13 41 44.7	
	70nm,0.2s							
YUK				*i* S		**Sn**	**13 42 14.6**	**+0.6**
YUK				A		A	13 42 21.0	
	230nm,0.4s							
YUK				A		A	13 42 21.0	
	340nm,0.4s							
NEM2	**Nemuro 2**	**3.02**	**241**	*e*P		**Pn**	**13 41 47.4**	**-0.7**
NEM2				*e*S		**Sn**	**13 42 20.9**	**-2.2**
NMR	**Nemuro--Hokkai**	**3.03**	**241**	*i* P		**Pn**	**13 41 47.5**	**-0.7**
NMR				*i* S		**Sn**	**13 42 21.9**	**-1.4**
JRA	**Rausu**	**3.19**	**254**	*e*P		**Pn**	**13 41 51.3**	**+1.0**
JNK	**Nakash**	**3.59**	**250**	*e*P		**Pn**	**13 41 56.8**	**+1.0**
JNK				*e*S		**Sn**	**13 42 36.3**	**-0.6**
AKK	**Akkeshi**	**3.77**	**242**	*e*P		**Pn**	**13 41 59.1**	**+0.8**
JAR	**Ashorobuto**	**4.34**	**250**	*e*P		**Pn**	**13 42 07.8**	**+1.7**
JAR				*e*S		**Sn**	**13 42 56.7**	**+1.3**
JCH	**Churui**	**4.91**	**245**	*e*P		**Pn**	**13 42 15.0**	**+1.1**
JCH				*e*S		**Sn**	**13 43 08.5**	**-0.9**

*IDC **07** 13:51:14.2±0.7,62.°15S×57.°82W,h0km,mb4.0/11, mbtmp4.0/12,ML3.6/1,Error ellipse: s-maj=24.2km s-min=15.6km az=92.0*
ISC 07 13:51:15.7±0.6,62.°16S±0.°09×58.°1W±0.°1,h10km,n22, σ1s09/20,mb4.0/10,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PMSA	**Palmer Station**	**3.74**	**223**		Pn	**Pn**	**13 52 13.1**	**-0.4**
	4.4nm,0.3s,baz=55,slow=11,SNR=6.0							
PMSA					Sn	**Sn**	**13 52 58.9**	**+1.4**
	13nm,0.3s,baz=140,slow=21,SNR=4.9							
	16nm,0.4s							
PMSA					AML	AML		
VNA3	**Neumayer Olymp**	**20.58**	**136**		P	Pn	13 55 57.5	+1.0
	comp=Z,1nm,0.7s							
PLCA	**Paso Flores**	**22.73**	**335**		P	**P**	**13 56 17.3**	**-0.3**
	comp=Z,3.2nm,0.8s,baz=176,slow=8.7,SNR=7.7							
	comp=Z,3.2nm,0.8s							
SNAA	**Sanae**	**22.75**	**138**		P	**P**	**13 56 20.1**	**+2.4**
	comp=Z,101nm,0.7s							
SNAA	**Sanae**	**22.75**	**138**		P	**P**	**13 56 16.7**	**-1.0**
	comp=Z,3.5nm,0.8s,baz=257,slow=12,SNR=6.3							
	comp=Z,3.5nm,0.8s							
TROLL	**Troll, Antarti**	**24.39**	**139**		P	**P**	**13 56 35.3**	**+1.5**
	comp=Z,91nm,0.7s							
QSPA	**South Pole Qui**	**28.07**	**180**		P	**P**	**13 57 07.1**	**0.0**
	comp=Z,2.2nm,0.7s,baz=188,slow=1.9,SNR=17							
	comp=Z,2.2nm,0.7s							
CPUP	**Villa Florida**	**35.82**	**1**		P	**P**	**13 58 15.2**	**+0.1**
	comp=Z,0.7nm,0.5s,baz=191,slow=10,SNR=2.6							
	comp=Z,0.7nm,0.5s							
MAW	**Mawson**	**43.71**	**152**		P	**P**	**13 59 20.6**	**+0.4**
	comp=Z,1.5nm,0.7s,baz=307,slow=8.6,SNR=4.1							
	comp=Z,1.5nm,0.7s							
LPAZ	**La Paz**	**46.36**	**347**		P	**P**	**13 59 43.6**	**+1.0**
	comp=Z,0.6nm,0.5s,baz=108,slow=6.4,SNR=2.5							
	comp=Z,0.6nm,0.5s							
BDFB	**Brasilia**	**47.01**	**13**		P	**P**	**13 59 48.0**	**+1.0**
	comp=Z,1.6nm,0.4s,baz=209,slow=13,SNR=4.7							
	comp=Z,1.6nm,0.4s							
BOSA	**Boshof**	**62.07**	**99**		P	**P**	**14 01 36.9**	**+0.4**
	comp=Z,1.4nm,0.6s,baz=208,slow=9.6,SNR=4.2							
	comp=Z,1.4nm,0.6s							
TORD	**Torodi Ar. Bea**	**88.25**	**57**		P	**P**	**14 04 06.5**	**-0.5**
	comp=Z,0.5nm,0.8s,baz=199,slow=2.1,SNR=3.7							
	comp=Z,0.5nm,0.8s							
ASAR	**Alice Springs**	**93.94**	**191**		P	**P**	**14 04 32.2**	**-1.3**
	comp=Z,0.3nm,0.4s,baz=168,slow=4.2,SNR=7.4							
	comp=Z,0.3nm,0.4s							
WRA	**Warramunga Arr**	**97.58**	**192**		P	**P**	**14 04 48.7**	**-1.5**
	comp=Z,0.5nm,0.7s,baz=173,slow=4.5,SNR=5.0							
	comp=Z,0.5nm,0.7s							
GERES	**GERESS Array B**	**124.47**	**50**		PKP	**PKPdf**	**14 10 13.1**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=163,slow=1.4,SNR=5.3							
CMAR	**Chiang Mai Arr**	**133.49**	**149**		PKP	**PKPdf**	**14 10 31.1**	**-0.9**
	comp=Z,0.3nm,0.3s,baz=193,slow=1.9,SNR=1.7							
ILAR	**Eielson Array**	**142.51**	**315**		PKhKP	PKPpre	14 10 42.1	
	comp=Z,0.1nm,0.5s,baz=180,slow=1.6,SNR=4.9							
ARCES	**ARCESS Array B**	**143.91**	**36**		PKhKP	PKPpre	14 10 45.9	
	comp=Z,4.3nm,0.7s,baz=263,slow=2.1,SNR=8.4							
BVAR	**Borovoye Array**	**151.66**	**85**		PKPbc	**PKPbc**	**14 11 08.4**	**-0.5**
	comp=Z,6.8nm,0.9s,baz=228,slow=2.6,SNR=18							
MKAR	**Makanchi Array**	**152.88**	**106**		PKPbc	**PKPbc**	**14 11 11.3**	**-0.6**
	comp=Z,0.8nm,0.6s,baz=198,slow=3.0,SNR=7.8							
KURBB	**Kurchatov Arra**	**153.91**	**96**		PKPbc	**PKPbc**	**14 11 13.2**	**-0.7**
	comp=Z,0.7nm,0.7s,baz=240,slow=2.5,SNR=6.9							

*IDC **07** 14:02:42.9±0.7,62.°06S×57.°58W,h0km,mb4.1/9, mbtmp4.1/10,ML4.0/1,MS3.7/15,Error ellipse: s-maj=22.5km s-min=15.5km az=122.0*
*NEIC **07** 14:02:43.0±2.5,62.°30S±0.°04×58.°21W±0.°10,h10km±1km, mb4.0/12,Error ellipse: s-maj=9.2km s-min=3.9km az=53.0*
ISC 07 14:02:43.8±0.5,62.°31S±0.°06×58.°24W±0.°08,h10km,n49, σ1s74/40,mb4.1/10,MS3.6/14,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.23**	**153**			**Pb**	**14 03 05.6**	**-1.4**
ESPZ						**Sn**	**14 03 22.8**	**-0.8**
PMSA	**Palmer Station**	**3.59**	**224**		Pn	**Pn**	**14 03 43.3**	**+4.0**
	9.3nm,0.3s,baz=33,slow=8.2,SNR=9.7							
PMSA					Sn	**Sb**	**14 04 28.3**	**-2.4**
	6.8nm,0.3s,baz=147,slow=23,SNR=4.7							
PMSA					LR	LR	14 05 06.2	
	comp=Z,1μm,18.6s,baz=82,slow=36							
	26nm,0.5s							
PMSA					AML	AML		
PMSA	**Palmer Station**	**3.59**	**224**			**Pn**	**14 03 39.9**	**+0.5**
SMAI	**San Martin Ant**	**6.92**	**209**		Pn	**Pn**	**14 04 23.0**	**-2.0**
GO08	**Villa O'Higgin**	**16.03**	**323**		Pn	**Pn**	**14 06 29.5**	**+0.5**
GO08					IAmb	IAmb	14 06 55.8	
	comp=Z,7.8nm,1.0s							
BELA	**Belgrano 2**	**17.31**	**163**			**P**	**14 06 48.1**	**+1.6**
VNA3	**Neumayer Olymp**	**20.50**	**136**		P	Pn	14 07 27.8	+4.1
	comp=Z,7.7nm,0.8s							
LL02	**Futaleuf**	**20.77**	**331**		P	**P**	**14 07 25.9**	**+1.3**
LL02					IAmb	IAmb	14 07 37.5	
	comp=Z,6.3nm,0.8s							
VNA2	**Neumayer--Watz**	**21.25**	**135**		P	**P**	**14 07 33.9**	**+4.3**
	comp=Z,6.2nm,0.7s,baz=264,slow=9.3							
SNAA	**Sanae**	**22.67**	**138**		P	**P**	**14 07 48.0**	**+3.1**
	comp=Z,125nm,0.7s							
SNAA	**Sanae**	**22.67**	**138**		P	**P**	**14 07 46.

comp=Z,0.3nm,0.7s,baz=180,slow=4.0,SNR=2.4
comp=Z,0.3nm,0.7s
GERES GERESS Array B 124.62 50 PKP **PKPdf 14 21 40.5 -1.8**
comp=Z,0.5nm,0.6s,baz=204,slow=2.9,SNR=4.2
CMAR Chiang Mai Arr 133.38 150 PKP **PKPdf 14 21 59.6 -0.1**
comp=Z,0.2nm,0.3s,baz=260,slow=3.3,SNR=4.5
FINES FINESS Array B 138.87 47 PKP **PKPdf 14 22 09.1 +0.6**
comp=Z,2.4nm,0.9s,baz=180,slow=1.4,SNR=3.6
ILAR Eielson Array 142.58 315 PKhKP PKPpre 14 22 09.9
comp=Z,0.2nm,0.7s,baz=136,slow=1.5,SNR=3.3
ARCES ARCESS Array B 144.08 37 PKhKP PKPpre 14 22 13.3
comp=Z,4.1nm,0.8s,baz=212,slow=3.2,SNR=5.8
AAK Ala-Archa 146.16 103 PKPbc **PKPab 14 22 24.0 -0.1**
comp=Z,2.0nm,0.7s,baz=201,slow=8.6,SNR=1.8
AAK Ala-Archa 146.16 103 PKPdf **PKPbc 14 22 23.3 -0.1**
BVAR Borovoye Array 151.74 85 PKPbc **PKPbc 14 22 36.3 -0.8**
comp=Z,2.0nm,0.4s,baz=233,slow=2.2,SNR=13
MJAR Matsushiro Arr 152.25 209 PKPbc **PKiKP 14 22 40.0 +0.8**
comp=Z,0.9nm,0.9s,baz=182,slow=4.0,SNR=2.0
MKAR Makanchi Array 152.90 107 PKPbc **PKPbc 14 22 38.4 -1.6**
comp=Z,1.4nm,0.8s,baz=205,slow=1.5,SNR=4.4
GTA2 Gaotai 153.53 139 *ePKiKP* **14 22 42.6 +0.7**
GTA2 pmax pmax
comp=Z,5.0nm,0.9s
SONM Songino Array 163.11 142 PKPab **PKPab 14 23 36.6 +1.1**
comp=Z,0.3nm,0.3s,baz=181,slow=7.2,SNR=3.0

*TEH **07** 14:12:23.7, 39°.54N×44°.57E, h10km±276km, ML2.6, Presumed earthquake*
*AZER **07** 14:12:23.8, 39°.31N×44°.40E, h14km, ml2.8*
*AFAD **07** 14:12:24.0, 39°.33N×44°.34E, h7km±4km, ML2.3*
ISC 07 14:12:24.0±1.1, 39°.34N±0°.03×44°.37E±0°.02, h9km±10km, n19, σ0°.78/35, Iran-Armenia-Azerbaijan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CLDR	**Caldiran**	**0.40**	**242**	P	**Pg**	**14 12 31.5**	**-0.4**
CLDR				S	**Sg**	**14 12 38.0**	**+0.8**
CLDR				IAML		14 12 42.0	
	comp=E,435nm,0.4s						
CLDR				IAML		14 12 45.0	
	comp=N,366nm,0.5s						
HYR	**Heyderabad**	**0.53**	**44**	P	**Pb**	**14 12 35.4**	**-0.2**
HYR				S	**Sb**	**14 12 44.3**	**+0.9**
DYDN	**Diyadin**	**0.57**	**292**	P	**Pg**	**14 12 35.2**	**+0.2**
DYDN				S	**Sb**	**14 12 44.9**	**+0.3**
DYDN				IAML		14 12 45.0	
	comp=N,242nm,0.3s						
DYDN				IAML		14 12 45.0	
	comp=E,234nm,0.6s						
IGDI	**IGDIR**	**0.58**	**337**	P	**Pg**	**14 12 35.0**	**-0.2**
IGDI				S	**Sb**	**14 12 44.3**	**-0.5**
IGDI				IAML		14 12 45.0	
	comp=N,240nm,0.2s						
IGDI				IAML		14 12 45.0	
	comp=E,172nm,0.3s						
VMUR	**Van-Muradiye**	**0.71**	**241**	P	**Pg**	**14 12 36.5**	**-1.2**
VMUR				S	**Sg**	**14 12 47.1**	**+0.1**
OZAP	**Van, Ozalp-Mer**	**0.73**	**204**	P	**Pb**	**14 12 38.5**	**-0.6**
OZAP				S	**Sb**	**14 12 49.6**	**+0.2**
OZAP				IAML		14 12 53.0	
	comp=E,58nm,0.8s						
OZAP				IAML		14 12 56.0	
	comp=N,83nm,0.7s						
NAX	**Nakhchivan**	**0.89**	**100**	P	**Pn**	**14 12 41.9**	**-0.8**
NAX				S	**Sn**	**14 12 55.0**	**-0.8**
SBZ	**Shahbuz**	**0.92**	**86**	P	**Pn**	**14 12 42.6**	**-0.6**
SBZ				S	**Sn**	**14 12 56.7**	**0.0**
KOTA	**Agri, Merkez-K**	**1.01**	**298**	P	**Pg**	**14 12 42.9**	**-0.6**
KOTA				S	**Sb**	**14 12 57.8**	**+0.4**
IMRD	**Marand**	**1.21**	**120**	Pg	**Pn**	**14 12 47.3**	**+0.1**
IMRD				Sg	**Sn**	**14 13 05.5**	**+1.6**
DORK	**Agr/Tutak/Do**	**1.23**	**273**	P	**Pg**	**14 12 48.8**	**+1.1**
DORK				S	**Sn**	**14 13 04.7**	**+0.1**
DORK				IAML		14 13 08.0	
	comp=E,42nm,0.4s						
DORK				IAML		14 13 09.0	
	comp=N,50nm,0.7s						
ORD	**Ordubad**	**1.33**	**107**	P	**Pg**	**14 12 49.3**	**-0.1**
ORD				S	**Sg**	**14 13 08.6**	**+1.9**
ISHB	**Shabestar**	**1.43**	**137**	Pg	**Pg**	**14 12 51.6**	**+0.1**
GDB	**GEDABAY**	**1.75**	**37**	Pn	**Pg**	**14 12 56.9**	**-0.5**
GDB				Sn	**Sg**	**14 13 21.1**	**+1.0**
QZX	**Qazax, Azerbai**	**1.88**	**24**	Pn	**Pg**	**14 12 59.4**	**-0.7**
QZX				Sn	**Sg**	**14 13 24.5**	**0.0**
GANJ	**Ganja**	**1.99**	**48**	Pn	**Pb**	**14 13 00.7**	**+0.3**
GANJ				Sn	**Sg**	**14 13 28.5**	**+0.5**
IHRS	**Heris**	**2.32**	**115**	Pn	**Pg**	**14 13 07.5**	**-0.9**
YRD	**Yardimli**	**3.04**	**97**	Pg	**Pb**	**14 13 19.0**	**+0.7**
YRD				Sg	**Sg**	**14 14 01.4**	**-0.2**
GLBA	**Clilabad**	**3.12**	**90**	Sg	**Sg**	**14 14 02.8**	**-1.4**

IDC 07 14:24:44.8±2.9, 5°.95S×130°.24E, h92km±41km, mb3.3/1, mbtmp3.5/5, Error ellipse: s-maj=76.2km s-min=17.0km az=91.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**5.15**	**12**	P	Pn	14 26 01.5	+2.0
	4.7nm,0.2s,baz=195,slow=20,SNR=20						
SIJI				S	Sn	14 26 57.1	-0.5
	7.4nm,0.2s,baz=150,slow=20,SNR=14						
FITZ	**Fitzroy Crossi**	**12.89**	**200**	P	Pn	14 27 44.8	+0.3
	1.3nm,0.7s,baz=28,slow=17,SNR=3.4						
FITZ				S	Sn	14 30 00.7	-5.5
	1.7nm,0.7s,baz=165,slow=16,SNR=2.0						
WRA	**Warramunga Arr**	**14.47**	**164**	P	Pn	14 28 04.3	-1.0
	0.2nm,0.4s,baz=344,slow=13,SNR=8.5						
WRA				S	Sn	14 30 33.6	-11
	0.2nm,0.4s,baz=342,slow=21,SNR=5.7						
ASAR	**Alice Springs**	**17.97**	**169**	P	P	14 28 47.7	-0.4
	0.4nm,0.6s,baz=351,slow=10,SNR=11						
MKAR	**Makanchi Array**	**67.48**	**326**	P	P	14 35 31.1	+0.2
	0.4nm,0.5s,baz=118,slow=6.6,SNR=4.2						
	0.4nm,0.5s						

*ISK **07** 14:28:13.8, 37°.85N×26°.74E, h18km, ML2.5/13*
*AFAD **07** 14:28:14.0, 37°.84N×26°.72E, h7km±3km, ML2.3*
*THE **07** 14:28:14.3, 37°.8N±0°.8×26°.7E±0°.5, h7km±1km, M2.5/5, MLh2.5/5*
ISC 07 14:28:14.5±1.0, 37°.84N±0°.02×26°.74E±0°.03, h10km±7km, n33, σ0°.86/58, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**149**	P	**Pg**	**14 28 17.8**	**-0.1**
SMG				S	**Sg**	**14 28 20.7**	**+0.5**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**29**	P	**Pg**	**14 28 18.6**	**-0.7**
DGB				S	**Sg**	**14 28 23.2**	**+0.5**
GMLD	**Gumuldur**	**0.27**	**31**	Pg	**Pg**	**14 28 19.9**	**-0.1**
GMLD				Sg	**Sg**	**14 28 24.4**	**+0.7**
GMLD				AML	AML		
BEYE	**izmir**	**0.41**	**22**	P	**Pg**	**14 28 21.9**	**-0.7**
BEYE				S	**Sg**	**14 28 29.0**	**+0.9**
BEYE				IAML		14 28 29.0	
	comp=N,196nm,0.5s						
BEYE				IAML		14 28 29.0	
	comp=E,243nm,0.5s						
GCAM	**G?zelcaml?**	**0.42**	**110**	P	**Pg**	**14 28 22.5**	**-0.2**
GCAM				IAML		14 28 29.0	
	comp=E,296nm,0.6s						
GCAM				S	**Sb**	**14 28 29.4**	**-1.0**
GCAM				IAML		14 28 30.0	
	comp=N,307nm,0.3s						
GCAM	**G?zelcaml?**	**0.42**	**110**	Pg	**Pg**	**14 28 22.7**	**0.0**
GCAM				Sg	**Sg**	**14 28 29.3**	**+1.1**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.44**	**335**	P	**Pg**	**14 28 21.0**	**-1.9**
ZEYE				S	**Sb**	**14 28 29.6**	**-1.3**
KUSD	**Kusadasi-Aydin**	**0.44**	**87**	Pg	**Pg**	**14 28 22.6**	**-0.4**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.56**	**134**	P	**Pg**	**14 28 25.0**	**-0.2**
DDIM				S	**Sb**	**14 28 33.9**	**-0.5**
DDIM				IAML		14 28 34.0	
	comp=N,359nm,0.5s						
DDIM				IAML		14 28 35.0	
	comp=E,334nm,0.6s						
BLCB	**Balcova**	**0.59**	**24**	P	**Pg**	**14 28 25.9**	**0.0**
BLCB				S	**Sb**	**14 28 34.8**	**-0.7**
BLCB	**Balcova**	**0.59**	**24**	Pg	**Pg**	**14 28 25.8**	**-0.2**
BLCB				Sg	**Sb**	**14 28 34.5**	**-1.0**
BLCB				AML	AML		
CHOS	**Chios island**	**0.76**	**316**	P	**Pg**	**14 28 28.8**	**-0.4**
CHOS				S	**Sb**	**14 28 40.4**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.76**	**316**	Pg	**Pg**	**14 28 29.0**	**-0.2**
CHOS				Sg	**Sb**	**14 28 40.4**	**0.0**
CHOS				AML	AML		
DAGE	**izmir**	**0.82**	**78**	P	**Pg**	**14 28 30.0**	**-0.2**
DAGE				S	**Sg**	**14 28 41.2**	**+0.3**
DAGE				IAML		14 28 43.0	
	comp=E,92nm,0.2s						
DAGE				IAML		14 28 44.0	
	comp=N,86nm,0.2s						
KARB	**zmir-Karabur**	**0.86**	**343**	P	**Pn**	**14 28 35.3**	**+2.6**
KARB				S	**Sn**	**14 28 45.2**	**-0.1**
BODT	**Bodrum**	**0.90**	**149**	P	**Pg**	**14 28 31.7**	**-0.1**
BODT				S	**Sb**	**14 28 45.2**	**+0.9**
BODT	**Bodrum**	**0.90**	**149**	Pg	**Pb**	**14 28 31.9**	**-0.4**
BODT				Sg	**Sb**	**14 28 44.9**	**+0.5**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.92**	**83**	Pg	**Pg**	**14 28 31.9**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.93**	**101**	P	**Pg**	**14 28 31.6**	**-0.6**
AYDN				S	**Sn**	**14 28 46.5**	**-0.5**
AYDN				IAML		14 28 48.0	
	comp=E,80nm,0.3s						
BDRM	**Kayabasi**	**0.96**	**144**	P	**Pb**	**14 28 33.4**	**+0.2**
BDRM				S	**Sb**	**14 28 47.0**	**+1.0**
BDRM				IAML		14 28 49.0	
	comp=N,118nm,0.5s						
BDRM				IAML		14 28 50.0	
	comp=E,84nm,0.6s						
MLSB	**Milas**	**0.99**	**123**	Pg	**Pb**	**14 28 33.5**	**-0.3**
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.01**	**73**	P	**Pg**	**14 28 33.4**	**-0.4**
IZMR				S	**Sg**	**14 28 46.7**	**-0.1**
CAMT	**Merkez**	**1.01**	**27**	P	**Pg**	**14 28 33.5**	**-0.4**
CAMT				S	**Sn**	**14 28 49.0**	**-0.1**
CAMT				IAML		14 28 51.0	
	comp=N,242nm,0.3s						
CAMT				IAML		14 28 51.0	
	comp=E,256nm,0.3s						
ZEDA	**zmir-Bergama**	**1.15**	**13**	P	**Pg**	**14 28 36.1**	**-0.6**
ZEDA				S	**Sn**	**14 28 53.5**	**+0.9**
ZEDA				IAML		14 28 54.0	
	comp=E,67nm,0.3s						
ZEDA				IAML		14 28 56.0	
	comp=N,66nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.24**	**84**	Pn	**Pn**	**14 28 36.6**	**-1.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.27**	**47**	Pn	**Pn**	**14 28 37.3**	**-1.0**
GOMA				AML	AML		
DAT	**Datca**	**1.30**	**149**	Pn	**Pn**	**14 28 37.9**	**-0.9**
DAT				AML	AML		
AKHS	**Akhisar**	**1.34**	**39**	P	**Pn**	**14 28 38.9**	**-0.3**
AKHS				S	**Sn**	**14 28 58.5**	**+1.4**
AKHS				IAML		14 29 05.0	
	comp=N,72nm,0.4s						
KIRA	**zmir-Kiraz**	**1.36**	**74**	P	**Pn**	**14 28 39.3**	**-0.3**
KIRA				S	**Sn**	**14 28 59.4**	**+1.5**
KTTT	**Salihli**	**1.36**	**51**	P	**Pg**	**14 28 40.4**	**-0.2**
KTTT				IAML		14 29 00.0	
	comp=N,39nm,0.6s						
KTTT				S	**Sg**	**14 29 00.1**	**+1.8**
YER	**Yerkesik**	**1.42**	**119**	Pn	**Pn**	**14 28 38.9**	**-1.5**
YER				AML	AML		
MANT	**Manisa**	**1.58**	**65**	P	**Pg**	**14 28 45.5**	**+0.8**
MANT				S	**Sg**	**14 29 05.8**	**+0.6**
TURN	**Turunc**	**1.61**	**131**	Pn	**Pn**	**14 28 41.9**	**-1.0**
TURN				AML	AML		

*IDC **07** 14:39:15.5±3.6, 30°.10N×79°.67E, h0km, mb3.4/5, mbtmp3.5/6, ML3.4/1, Error ellipse: s-maj=121.7km s-min=23.1km az=69.0*
*DMN **07** 14:39:20.5±0.3, 30°.89N×80°.48E, h10km, Ml4.1/9, Error ellipse: s-maj=30.1km s-min=5.6km az=34.0*
ISC 07 14:39:24.2±1.9, 30°.6N±0°.2×80°.6E±0°.2, h35km, n15, σ0°.94/24, mb3.3/3, Western Xizang-India border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DANN	**Dangsing**	**3.56**	**129**	Pn	**Pn**	**14 40 17.4**	**+0.2**
	baz=131,slow=0.0						
DANN				Sn	**Sn**	**14 41 00.3**	**+2.1**
	59nm,0.3s,baz=131,slow=0.0						
DANN				AML	AML		
GKN	**Gorkha**	**4.38**	**125**	Pn	**Pn**	**14 40 29.1**	**+0.7**
	baz=127,slow=0.0						
GKN				Sn	**Sn**	**14 41 19.6**	**+1.4**
	84nm,0.3s,baz=127,slow=0.0						
GKN				AML	AML		
DMN	**Daman**	**4.95**	**126**	Pn	**Pn**	**14 40 36.3**	**0.0**
	baz=128,slow=0.0						
DMN				Sn	**Sn**	**14 41 32.9**	**+0.5**
	28nm,0.3s,baz=128,slow=0.0						
DMN				AML	AML		
KKN	**Kakani**	**4.96**	**123**	Pn	**Pn**	**14 40 36.7**	**+0.2**
	baz=125,slow=0.0						
KKN				Sn	**Sn**	**14 41 33.3**	**+0.6**
	28nm,0.3s,baz=125,slow=0.0						
KKN				AML	AML		
PKIN	**Phulchoki**	**5.17**	**125**	Pn	**Pn**	**14 40 39.3**	**-0.1**
	baz=126,slow=0.0						
PKIN				Sn	**Sn**	**14 41 38.4**	**+0.5**
	57nm,0.3s,baz=126,slow=0.0						
PKIN				AML	AML		
PKI	**Pulchoki**	**5.18**	**125**	Pn	**Pn**	**14 40 39.5**	**-0.1**
	baz=126,slow=0.0						
PKI				Sn	**Sn**	**14 41 38.4**	**+0.1**
	52nm,0.3s,baz=126,slow=0.0						
PKI				AML	AML		
GUN	**Gumba**	**5.34**	**119**	Pn	**Pn**	**14 40 41.7**	**0.0**
	baz=121,slow=0.0						
GUN				Sn	**Sn**	**14 41 41.8**	**-0.4**
	21nm,0.3s,baz=121,slow=0.0						
GUN				AML	AML		
RAMN	**Ramite**	**6.40**	**123**	Pn	**Pn**	**14 40 56.5**	**+0.2**
	baz=125,slow=0.0						
RAMN				Sn	**Sn**	**14 42 07.4**	**-0.9**
	50nm,0.2s,baz=125,slow=0.0						
RAMN				AML	AML		
ODAN	**Odare**	**7.03**	**120**	Pn	**Pn**	**14 41 05.3**	**+0.4**
	baz=122,slow=0.0						
ODAN				Sn	**Sn**	**14 42 21.7**	**-2.1**
	45nm,0.5s,baz=122,slow=0.0						
ODAN				AML	AML		
MKAR	**Makanchi Array**	**16.21**	**4**	Pn	**P**	**14 43 12.1**	**0.0**
	0.1nm,0.3s,baz=191,slow=12,SNR=11						
	2.0nm,0.8s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**20.05**	**356**	P	**P**	**14 43 55.3**	**+1.1**
	2.1nm,0.7s,baz=181,slow=9.9,SNR=18						
	2.1nm,0.7s						
CMAR	**Chiang Mai Arr**	**20.57**	**122**	P	**P**	**14 44 00.7**	**+0.5**
	0.5nm,0.4s,baz=316,slow=9.5,SNR=6.8						
	0.5nm,0.4s						
ZALV	**Zalesovo Beam**	**23.52**	**6**	P	**P**	**14 44 31.6**	**+0.7**
	0.5nm,0.5s,baz=189,slow=8.8,SNR=2.2						
	0.5nm,0.5s						
WRA	**Warramunga Arr**	**72.06**	**127**	P	**P**	**14 50 44.2**	**-0.9**
	0.3nm,0.7s,baz=308,slow=6.3,SNR=1.5						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**74.33**	**130**	P	**P**	**14 50 56.8**	**-1.6**
	0.2nm,0.9s,baz=316,slow=6.6,SNR=4.3						
	0.2nm,0.9s						

*AFAD **07** 15:01:22.9, 37°.77N×26°.84E, h7km±2km, ML1.9*
*ISK **07** 15:01:23.1, 37°.80N×26°.81E, h4km, ML2.5/4*
ISC 07 15:01:23.2±1.2, 37°.78N±0°.04×26°.82E±0°.04, h10km±12km, n14, σ0°.57/23, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.28**	**10**	P	**Pg**	**15 01 28.7**	**-0.1**
DGB				S	**Sg**	**15 01 32.5**	**-0.1**
GCAM	**G?zelcaml?**	**0.34**	**103**	P	**Pg**	**15 01 29.8**	**0.0**
GCAM	**G?zelcaml?**	**0.34**	**103**	Pg	**Pb**	**15 01 30.6**	**-0.6**
GCAM				Sg	**Sb**	**15 01 35.9**	**-0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.46**	**10**	P	**Pg**	**15 01 32.1**	**-0.1**
BEYE				S	**Sg**	**15 01 38.7**	**+0.5**
BEYE				IAML		15 01 40.0	
	comp=N,64nm,0.3s						
BEYE				IAML		15 01 41.0	
	comp=E,61nm,0.3s						
DDIM	**Aydin, Didim**	**0.46**	**134**	P	**Pb**	**15 01 32.9**	**-0.5**
DDIM				S	**Sg**	**15 01 38.8**	**+0.5**
DDIM				IAML		15 01 41.0	
	comp=N,125nm,0.4s						
DDIM				IAML		15 01 41.0	
	comp=E,152nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.53**	**331**	P	**Pg**	**15 01 33.4**	**-0.1**
BLCB	**Balcova**	**0.63**	**16**	Pg	**Pb**	**15 01 35.7**	**-0.6**
BLCB				Sg	**Sb**	**15 01 44.7**	**-0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.66**	**48**	P	**Pg**	**15 01 35.8**	**-0.3**
AYDN	**Tasoluk**	**0.85**	**98**	P	**Pg**	**15 01 38.8**	**-0.7**
AYDN				S	**Sg**	**15 01 50.8**	**+0.2**
CHOS	**Chios island**	**0.86**	**315**	Pg	**Pb**	**15 01 39.9**	**-0.3**
CHOS				Sg	**Sb**	**15 01 52.4**	**+0.6**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.86**	**78**	Pg	**Pb**	**15 01 40.6**	**+0.3**
AYDB				Sg	**Sb**	**15 01 53.6**	**+1.6**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.87**	**145**	P	**Pb**	**15 01 40.7**	**+0.4**
BDRM				S	**Sb**	**15 01 52.0**	**+0.1**
BDRM				IAML		15 01 56.0	
	comp=N,52nm,0.4s						
IZMR	**zmir-demi**	**0.96**	**68**	P	**Pb**	**15 01 42.1**	**+0.1**
CAMT	**Merkez**	**1.04**	**22**	P	**Pb**	**15 01 43.6**	**+0.2**

IDC 07 15:01:36.9±4.3, 7°.61N×136°.36E, h0km, mb3.5/5, mbtmp3.5/5, MS3.0/3, Error ellipse: s-maj=224.6km s-min=22.6km az=76.0, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**27.45**	**184**	P	P	15 07 25.8	+1.0
	0.6nm,0.8s,baz=4.2,slow=10,SNR=9.8						
	0.6nm,0.8s						
HNR	**Honiara**	**28.96**	**125**	LR	LR	15 16 54.0	
	comp=Z,44nm,20.1s,baz=350,slow=32						
ASAR	**Alice Springs**	**31.18**	**184**	P	P	15 07 56.6	-1.3
	0.2nm,0.6s,baz=11,slow=13,SNR=4.7						
	0.2nm,0.6s						
H11S3	**WAKE ISLAND Hy**	**31.41**	**67**	T	T	15 39 50.2	
	baz=253,slow=75,SNR=50						
H11S1	**WAKE ISLAND Hy**	**31.42**	**67**	T	T	15 39 51.7	
	baz=253,slow=75,SNR=22						
H11S2	**WAKE ISLAND Hy**	**31.42**	**67**	T	T	15 40 06.3	
	baz=253,slow=75,SNR=40						
H11N1	**WAKE ISLAND Hy**	**31.95**	**65**	T	T	15 40 49.7	
	baz=249						
H11N2	**WAKE ISLAND Hy**	**31.96**	**65**	T	T	15 40 47.6	
	baz=249						
H11N3	**WAKE ISLAND Hy**	**31.96**	**65**	T	T	15 40 49.0	
	baz=249						
CMAR	**Chiang Mai Arr**	**37.94**	**290**	LR	LR	15 26 46.1	
	comp=Z,5.9nm,18.0s,baz=190,slow=40						
URZ	**Urewera**	**59.33**	**143**	LR	LR	15 33 43.2	
	comp=Z,4.1nm,21.1s,baz=352,slow=32						
MKAR	**Makanchi Array**	**60.32**	**320**	P	P	15 11 48.2	+0.6
	0.4nm,0.7s,baz=117,slow=8.0,SNR=3.3						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**64.05**	**323**	P	P	15 12 11.7	-0.9
	0.3nm,0.6s,baz=99,slow=5.9,SNR=2.4						
	0.3nm,0.6s						
BVAR	**Borovoye Array**	**69.60**	**324**	P	P	15 12 48.0	+0.1
	0.4nm,0.5s,baz=114,slow=7.0,SNR=2.2						
	0.4nm,0.5s						

*NOU **07** 15:01:38.4, 40°.74S×176°.96E, h16km, ML3.6/7, North Island, New Zealand*
*WEL **07** 15:01:42.7±0.8, 41°.5±4°.×17°.7E±°, h13km±8km, M3.6/9, ML3.7/9, MLv3.6/9, Error ellipse: s-maj=8.6km s-min=3.4km az=124.7*
ISC 07 15:01:39.0±1.6, 40°.67S±0°.04×176°.87E±0°.05, h9km±10km, n92, σ0°.81/102, North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ANWZ	**Angora Road**	**0.37**	**305**	P	**Pg**	**15 01 46.9**	**+0.6**
ANWZ				S	**Sg**	**15 01 50.4**	**-0.8**
ANWZ				AML	AML		
ANWZ				AML	AML		
PGFS	**Porangahau Fir**	**0.42**	**332**	P	**Pg**	**15 01 48.1**	**+0.9**
PGFS				S	**Sg**	**15 01 52.7**	**0.0**
PRHZ	**Porangahau**	**0.44**	**336**	P	**Pb**	**15 01 48.8**	**-0.1**
PRHZ				AML	AML		
PRHZ				AML	AML		
BFZ	**Birch Farm**	**0.48**	**268**	P	**Pb**	**15 01 50.8**	**+1.2**
BFZ	**Birch Farm**	**0.48**	**268**	S	**Sb**	**15 01 57.9**	**+1.3**
BFZ	**Birch Farm**	**0.48**	**268**	P	**Pb**	**15 01 50.7**	**+1.2**
BFZ				S	**Sb**	**15 01 57.2**	**+0.6**
BFZ				AML	AML		
BFZ				AML	AML		
WBFS	**Weber Fire Sta**	**0.51**	**302**	P	**Pg**	**15 01 49.3**	**+0.5**
WBFS				S	**Sg**	**15 01 54.7**	**-0.7**
CPFS	**Castlepoint Fi**	**0.54**	**245**	P	**Pn**	**15 01 54.0**	**+1.1**
CPFS				S	**Sn**	**15 02 03.6**	**+1.5**
CPWZ	**Castlepoint**	**0.56**	**245**	P	**Pn**	**15 01 54.0**	**+0.8**
CPWZ				AML	AML		
CPWZ				AML	AML		
PWZ	**Pawanui**	**0.64**	**359**	P	**Pb**	**15 01 53.6**	**+1.3**
PXZ	**Pawanui**	**0.64**	**359**	P	**Pn**	**15 01 53.7**	**-0.5**
PXZ				S	**Sn**	**15 02 03.5**	**-1.0**
PXZ				AML	AML		
PXZ				AML	AML		
DVHZ	**Dannevirke**	**0.65**	**304**	P	**Pg**	**15 01 51.8**	**+0.2**
DVHZ				S	**Sg**	**15 01 59.2**	**-1.0**
DVHZ				AML	AML		
DVHZ				AML	AML		
TRMS	**Tiraumea**	**0.67**	**270**	P	**Pb**	**15 01 53.6**	**+0.8**
WPHZ	**Waipukurau**	**0.69**	**331**	P	**Pg**	**15 01 53.0**	**+0.7**
WPHZ				S	**Sb**	**15 02 02.0**	**-0.8**
WPHZ				AML	AML		
WPHZ				AML	AML		
PRWZ	**Pori Road**	**0.69**	**279**	P	**Pb**	**15 01 53.8**	**+0.5**
PRWZ				S	**Sb**	**15 02 02.8**	**-0.2**
PRWZ				AML	AML		
PRWZ				AML	AML		
DVHS	**Dannevirke Hig**	**0.75**	**308**	P	**Pg**	**15 01 53.7**	**+0.2**
TIWZ	**Tintock**	**0.76**	**262**	P	**Pb**	**15 01 55.3**	**+1.0**
TIWZ				AML	AML		
TIWZ				AML	AML		
WPWS	**Waipawa Distri**	**0.76**	**343**	P	**Pg**	**15 01 54.3**	**+0.7**
WPWS				S	**Sb**	**15 02 03.9**	**-0.8**
TMWZ	**Te Maipa**	**0.86**	**239**	P	**Pn**	**15 01 57.6**	**+0.3**
KAHZ	**Kahuranaki**	**0.88**	**0**	P	**Pb**	**15 01 57.1**	**+0.7**
KAHZ				AML	AML		
KAHZ				AML	AML		
POWZ	**Post Office Ro**	**0.89**	**288**	P	**Pg**	**15 01 56.2**	**+0.1**
POWZ				AML	AML		
POWZ				AML	AML		
PNHZ	**Pukenui**	**0.92**	**326**	P	**Pg**	**15 01 56.4**	**-0.2**
TSZ	**Takapari Road

WEL	Wellington	1.71	248	P	Pn	15 02 08.3 -0.6
WAZ	Wanganui	1.71	302	P	Pn	15 02 09.4 +0.4
MAVZ	Matarangi	1.73	324	P	Pn	15 02 10.1 +0.6
FWVZ	Far West T-bar	1.74	324	P	Pn	15 02 10.3 +0.7
KNZ	Kokohu	1.76	21	P	Pn	15 02 09.1 -0.5
SNVZ	South Ngauruho	1.76	327	P	Pn	15 02 10.0 +0.2
RAHZ	Arahi	1.76	5	P	Pn	15 02 09.0 -0.6
SNZO	South Karori	1.76	248	P	Pn	15 02 08.8 -0.8
OTVZ	Oturere	1.77	328	P	Pn	15 02 10.2 +0.3
ETVZ	East Tongariro	1.77	329	P	Pn	15 02 10.8 +0.9
NGZ	Ngauruhoe	1.79	326	P	Pb	15 02 11.2 -0.8
COVZ	Chateau Observ	1.79	325	P	Pn	15 02 10.4 +0.3
TMVZ	Te Maari	1.79	330	P	Pn	15 02 10.6 +0.4
NTVZ	North Tongarir	1.82	329	P	Pn	15 02 10.8 +0.2
KRVZ	Karewarewa	1.84	329	P	Pn	15 02 11.4 +0.6
WTVZ	West Tongariro	1.84	327	P	Pn	15 02 11.4 +0.6
RITZ	Rihia Road	1.86	335	P	Pn	15 02 11.9 +0.8
MRHZ	Matea Rd	1.87	349	P	Pn	15 02 11.2 0.0
KATZ	Kakaramea	1.92	331	P	Pn	15 02 12.7 +0.7
TWVZ	Taurewa	1.94	325	P	Pn	15 02 13.1 +0.8
RATZ	Rangitukua	1.99	334	P	Pn	15 02 14.0 +1.1
TCW	Tory Channel	2.04	254	P	Pn	15 02 12.4 -1.0
RIGZ	Rimuhau	2.08	20	P	Pn	15 02 13.7 -0.4
WATZ	Wairara	2.15	336	P	Pg	15 02 20.1 -0.1
PRRZ	Plateau Road	2.20	350	P	Pn	15 02 15.1 -0.6
VRZ	Vera Road	2.24	313	P	Pn	15 02 16.7 +0.5
DUWZ	D'Urville Isla	2.25	266	P	Pn	15 02 16.6 +0.3
LREZ	Lake Rotokare	2.25	302	P	Pb	15 02 19.3 -0.4
TUWZ	Tuamarina	2.34	250	P	Pn	15 02 16.5 -1.1
TKGZ	Te Karaka	2.35	19	P	Pn	15 02 17.5 -0.3
URZ	Urewera	2.42	4	P	Pn	15 02 17.7 -1.0
URZ	Urewera	2.42	4	P	Pn	15 02 17.6 -1.0
HIZ	Hauiti	2.66	323	P	Pn	15 02 22.7 +0.7
HIZ	Hauiti	2.66	323	P	Pb	15 02 27.9 +1.1
PKE	Pukeiti	2.66	303	P	Pb	15 02 26.4 -0.4
NBEZ	Newall Road No	2.70	300	P	Pb	15 02 26.9 -0.6
NNZ	Nelson	2.70	257	P	Pn	15 02 21.9 -0.7
KHZ	Kahutara	3.05	234	P	Pn	15 02 25.6 -1.7
KHZ	Kahutara	3.05	234	P	Pn	15 02 26.0 -1.4
TOZ	Tahuroa Road	3.12	340	P	Pn	15 02 28.5 +0.2
MRNZ	Matariki Terra	3.20	256	P	Pn	15 02 28.6 -0.8
MKAZ	Moumakai	3.80	339	P	Pn	15 02 38.7 +1.0
ETAZ	East Tamaki Re	4.01	337	P	Pn	15 02 42.1 +1.5
LTZ	Lake Taylor	4.04	237	P	Pn	15 02 41.0 +0.1

*ATH **07** 15:02:24.6, 37˚.83N×26˚.44E, h11km±1km, ML3.4/6,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
*ISK **07** 15:02:24.3, 37˚.86N×26˚.45E, h12km, ML3.4/11*
*AFAD **07** 15:02:25.0, 37˚.88N×26˚.48E, h7km±3km, MW3.5*
*THE **07** 15:02:25.3, 38˚N±1˚×2˚6E±˚, h8km±2km, M3.2/14, MLh3.2/14*

ISC 07 15:02:24.7±0.9**, 37˚.87N**±0˚.02×**26˚.45E**±0˚.02**, h11**km±7km**, n69**, σ0**859**/103**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAM2	**Drakei, Karlov**	**0.17**	**129**	P	**Pg**	**15 02 28.7**	**+0.2**
SAM2				S	**Sg**	**15 02 30.6**	**-0.4**
KRL1	**Karlovasi Samo**	**0.22**	**109**	P	**Pg**	**15 02 29.3**	**+0.1**
KRL1				S	**Sg**	**15 02 32.3**	**-0.1**
KRL1				AML	AML		
SMG	**Samos**	**0.35**	**117**	P	**Pg**	**15 02 32.1**	**+0.4**
SMG				S	**Sg**	**15 02 37.0**	**+0.8**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**7**	P	**Pg**	**15 02 32.7**	**+0.5**
ZEYE				S	**Sb**	**15 02 38.3**	**-0.9**
ZEYE				IAML		15 02 40.0	
	comp=N,8μm,0.6s						
DGB	**zmir**	**0.39**	**61**	P	**Pg**	**15 02 32.1**	**-0.4**
DGB				S	**Sg**	**15 02 37.4**	**-0.3**
DGB				IAML		15 02 38.0	
	comp=N,3μm,0.4s						
GMLD	**Gumuldur**	**0.43**	**60**	Pg	**Pg**	**15 02 32.6**	**-0.5**
GMLD				Sg	**Sg**	**15 02 38.9**	**+0.1**
GMLD				AML	AML		
CESE	**eme**	**0.48**	**346**	Pg	Pg	**15 02 34.3**	**+0.2**
BEYE	**izmir**	**0.52**	**46**	P	**Pg**	**15 02 34.3**	**-0.6**
CHOS	**Chios island**	**0.61**	**329**	P	**Pg**	**15 02 36.9**	**+0.3**
CHOS				S	**Sb**	**15 02 46.8**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.61**	**329**	Pg	**Pg**	**15 02 36.8**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.61**	**329**	P	**Pb**	**15 02 37.2**	**-0.1**
CHOS				S	**Sb**	**15 02 46.0**	**+0.1**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.64**	**105**	P	**Pg**	**15 02 36.6**	**-0.6**
GCAM	**G?zelcaml?**	**0.64**	**105**	Pg	**Pg**	**15 02 37.4**	**+0.2**
GCAM				Sg	**Sb**	**15 02 46.6**	**-0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.66**	**90**	Pg	**Pg**	**15 02 37.9**	**+0.3**
BLCB	**Balcova**	**0.70**	**42**	P	**Pg**	**15 02 38.0**	**-0.2**
BLCB				S	**Sb**	**15 02 48.6**	**+0.1**
BLCB	**Balcova**	**0.70**	**42**	Pg	**Pg**	**15 02 38.1**	**-0.2**
EAG2	**Marmaro, Chios**	**0.73**	**339**	P	**Pg**	**15 02 39.3**	**+0.5**
EAG2				S	**Sb**	**15 02 49.3**	**-0.1**
KRBN	**Karaburun**	**0.73**	**7**	Pg	**Pg**	**15 02 38.7**	**-0.2**
KRBN				AML	AML		
DDIM	**Aydin, Didim**	**0.75**	**123**	P	**Pb**	**15 02 39.9**	**+0.2**
KARB	**zmir-Karabur**	**0.80**	**358**	P	**Pg**	**15 02 39.4**	**-0.8**
KARB				S	**Sg**	**15 02 50.9**	**+0.3**
KARB				IAML		15 02 54.0	
	comp=N,2μm,0.5s						
KARB				IAML		15 02 54.0	
	comp=E,1μm,0.4s						
BAGT	**Foa**	**0.85**	**22**	P	**Pg**	**15 02 40.8**	**-0.4**
BAGT				S	**Sg**	**15 02 51.1**	**-1.1**
BAGT				IAML		15 02 55.0	
	comp=N,4μm,1.2s						
DUVT	**Torbali**	**0.87**	**66**	P	**Pg**	**15 02 41.6**	**+0.2**
FOCM	**Foa**	**0.88**	**15**	Pg	**Pg**	**15 02 41.5**	**-0.1**
YKAV	**Yalikavak-Bodr**	**0.99**	**138**	Pg	**Pg**	**15 02 43.7**	**-0.1**
KLNA	**Kalymnos**	**1.00**	**155**	P	**Pg**	**15 02 44.2**	**+0.2**
KLNA				S	**Sg**	**15 02 56.9**	**0.0**
BODT	**Bodrum**	**1.05**	**139**	P	**Pb**	**15 02 45.0**	**+0.1**
BODT				S	**Sn**	**15 03 01.2**	**+1.1**
BODT				AML	AML		
BODT	**Bodrum**	**1.05**	**139**	Pg	**Pb**	**15 02 44.8**	**-0.2**
BODT				AML	AML		
TNSA	**Tinos**	**1.07**	**253**	P	**Pb**	**15 02 44.9**	**-0.3**
TNSA				S	**Sb**	**15 02 58.2**	**-0.9**
TNSA				AML	AML		
APE	**Apeiranthos**	**1.08**	**223**	P	**Pb**	**15 02 45.1**	**-0.3**
APE				S	**Sn**	**15 03 02.4**	**+1.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.08**	**223**	P	**Pb**	**15 02 44.9**	**-0.5**
APE				S	**Sb**	**15 02 59.1**	**-0.4**
APE				AML	AML		
CAMT	**Merkez**	**1.11**	**37**	P	**Pb**	**15 02 46.1**	**+0.1**
CAMT				S	**Sg**	**15 03 00.7**	**0.0**
CAMT				IAML		15 03 09.0	
	comp=N,1μm,0.4s						
BDRM	**Kayabasi**	**1.12**	**135**	P	**Pb**	**15 02 46.4**	**+0.2**
BDRM				S	**Sb**	**15 03 00.9**	**+0.2**
BDRM				IAML		15 03 04.0	
	comp=N,534nm,0.9s						
AYDB	**Zeytinkoy-Aydi**	**1.14**	**85**	Pn	**Pn**	**15 02 47.1**	**+0.4**
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.15**	**100**	P	**Pb**	**15 02 46.1**	**-0.6**
AYDN				S	**Sb**	**15 03 00.9**	**-0.7**
MLSB	**Milas**	**1.20**	**118**	Pn	**Pn**	**15 02 47.3**	**-0.1**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.21**	**24**	P	**Pn**	**15 02 46.4**	**-1.1**
ZEDA				S	**Sn**	**15 03 03.7**	**0.0**
ZEDA				IAML		15 03 06.0	
	comp=E,519nm,0.7s						
ZEDA				IAML		15 03 08.0	
	comp=N,621nm,0.4s						
IZMR	**zmir-demi**	**1.22**	**77**	P	**Pg**	**15 02 48.3**	**+0.2**
IZMR				P	**Pb**	**15 02 48.6**	**+0.9**
IZMR				S	**Sb**	**15 03 02.1**	**-1.4**
PRK	**Paraskevi**	**1.39**	**354**	P	**Pn**	**15 02 49.4**	**-0.5**
PRK				S	**Sg**	**15 03 10.9**	**+1.5**
PRK	**Paraskevi**	**1.39**	**354**	P	**Pg**	**15 02 51.3**	**-0.1**
PRK				S	**Sg**	**15 03 09.9**	**+0.5**
YAZI	**Mula-Dat§a-**	**1.43**	**146**	P	**Pn**	**15 02 49.7**	**-0.8**
GOMA	**Golmarmara-Man**	**1.43**	**54**	Pn	**Pb**	**15 02 51.1**	**-0.2**
DAT	**Datca**	**1.45**	**141**	P	**Pn**	**15 02 51.5**	**+0.6**
DAT				AML	AML		
DAT	**Datca**	**1.45**	**141**	Pn	**Pn**	**15 02 50.8**	**-0.1**
DAT				AML	AML		
AYVA	**Ayvalik**	**1.45**	**7**	P	**Pb**	**15 02 52.0**	**+0.2**
AYVA				S	**Sg**	**15 03 13.0**	**+1.5**
AYVA				IAML		15 03 19.0	
	comp=N,506nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.46**	**86**	Pn	**Pn**	**15 02 51.3**	**+0.3**
NAZL				AML	AML		
AKHS	**Akhisar**	**1.48**	**46**	P	**Pb**	**15 02 52.5**	**+0.4**
AKHS				S	**Sb**	**15 03 10.7**	**-0.2**
AKHS				IAML		15 03 21.0	
	comp=N,328nm,0.5s						
AKS	**Akhisar**	**1.48**	**46**	Pn	**Pn**	**15 02 51.2**	**0.0**
AKS				AML	AML		
ESEN	**Aydn-Nazilli**	**1.51**	**92**	P	**Pb**	**15 02 53.1**	**+0.5**
KTTT	**Salihli**	**1.53**	**57**	P	**Pg**	**15 02 53.9**	**-0.2**
KTTT				S	**Sg**	**15 03 13.2**	**-0.8**
KTTT				IAML		15 03 17.0	
	comp=N,300nm,0.5s						
KIRA	**zmir-Kiraz**	**1.58**	**77**	P	**Pn**	**15 02 52.8**	**+0.1**
KARY	**Karystos**	**1.60**	**277**	P	**Pn**	**15 02 52.6**	**-0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.60**	**277**	P	**Pn**	**15 02 53.0**	**+0.1**
KARY				S	**Sn**	**15 03 12.7**	**-0.8**
MULA	**Mugla, Merkez-**	**1.61**	**112**	P	**Pn**	**15 02 51.1**	**-1.9**
YER	**Yerkesik**	**1.63**	**116**	P	**Pn**	**15 02 54.0**	**+0.6**
YER	**Yerkesik**	**1.63**	**116**	Pn	**Pn**	**15 02 53.4**	**0.0**
BUHA	**Balikesir, Bur**	**1.71**	**17**	P	**Pb**	**15 02 55.9**	**-0.2**
BUHA				S	**Sb**	**15 03 16.3**	**+0.8**
BUHA				IAML		15 03 24.0	
	comp=E,771nm,0.6s						
BUHA				IAML		15 03 25.0	
	comp=N,528nm,0.6s						
MANT	**Manisa**	**1.78**	**69**	P	**Pb**	**15 02 57.9**	**+0.5**
TURN	**Turunc**	**1.80**	**127**	Pn	**Pn**	**15 02 55.6**	**0.0**
TURN				AML	AML		
STEP	**BALIKESIR_Sava**	**1.81**	**33**	P	**Pb**	**15 02 57.6**	**-0.2**
STEP				S	**Sg**	**15 03 23.0**	**+0.2**
STEP				IAML		15 03 39.0	
	comp=N,440nm,0.9s						
SULTU	**Buldan**	**1.84**	**83**	P	**Pb**	**15 02 58.4**	**0.0**
HARTU	**Esme**	**1.92**	**75**	P	**Pg**	**15 03 02.3**	**+0.9**
DION	**Dionisos Attik**	**2.00**	**277**	P	**Pn**	**15 02 57.8**	**-0.6**
DION				S	**Sn**	**15 03 23.1**	**-0.3**
DION				AML	AML		
PTL	**Penteli**	**2.05**	**276**	P	**Pn**	**15 02 59.5**	**+0.4**
PTL				AML	AML		
VLY	**Voula,Athens**	**2.10**	**270**	P	**Pn**	**15 03 00.3**	**+0.5**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.10**	**270**	P	**Pn**	**15 02 59.8**	**0.0**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.11**	**274**	P	**Pn**	**15 02 59.7**	**-0.2**
ATHU				S	**Sn**	**15 03 24.8**	**-1.3**
LIA	**Limnos Island**	**2.26**	**334**	P	**Pn**	**15 03 02.3**	**+0.4**
LIA				AML	AML		
SMTH	**Samothraki Isl**	**2.70**	**345**	P	**Pn**	**15 03 08.2**	**+0.2**
SMTH				AML	AML		
ALN	**Alexandroupoli**	**3.04**	**354**	P	**Pn**	**15 03 12.7**	**0.0**

*IDC **07** 15:03:53.0±1.3, 61˚.54N×150˚.20W, h52km±12km, mb4.0/26,*
mbtmp4.2/32, ML3.9/6, MS3.5/36, Error ellipse:
s-maj=10.5km s-min=8.1km az=105.0
*NEIC **07** 15:03:53.9±1.3, 61˚.52N±0˚.04×149˚.93W±0˚.05, h49km±4km,*
mb4.5/74, ML4.6/220, Mwr4.4/151, ML4.4(AEIC), Error
ellipse: s-maj=5.6km s-min=3.5km az=162.0, Moment
Tensor Solution. Moment tensor: Scale 10^{15}Nm;
M_{rr}=3.46; $M_{\theta\theta}$=0.45; $M_{\phi\phi}$=3.90; $M_{r\theta}$=1.58; $M_{\theta\phi}$=0.42; $M_{\phi r}$=1.95;
Fault plane solution: M_o4.49000×10^{15} NP1:
ϕ_s346.82000°, δ33.16000°, λ-122.21000°. NP2:
ϕ_s203.78000°, δ62.43000°, λ-70.80000°. Principal axes:
T 4.5205, Plg15.0000°, Azm280.0000°; N -0.0606,
Plg17.0000°, Azm15.0000°; P -4.4599, Plg67.0000°,
Azm150.0000°;
*NEIC **07** 15:03:53.9, 61˚.53N×149˚.92W, h46km*
*AEIC **07** 15:03:54.6±1.5, 61˚.52N±0˚.04×149˚.92W±0˚.05, h44km±3km,*
Error ellipse: s-maj=5.5km s-min=3.2km az=169.0

ISC 07 15:03:53.4±0.6**, 61˚.52N**±0˚.03×**149˚.94W**±0˚.03**, h53**km±5km**, n436**, σ1**°01**/375**, mb4.4**/82**, MS3.5**/31**, 10C-10D, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
M22K	**Willow**	**0.26**	**340**		**Pn**	**15 04 01.4**	**-0.9**
M22K				IAML		15 04 09.4	
	comp=E,51μm,0.4s						
M22K				IAML		15 04 12.8	
	comp=N,43μm,0.5s						
M22K	**Willow**	**0.26**	**340**		**Sn**	**15 04 08.8**	**0.0**
PMR	**Palmer**	**0.39**	**78**	P	**Pn**	**15 04 03.1**	**-0.5**
PMR	**Palmer**	**0.39**	**78**	S	**Sn**	**15 04 10.7**	**-0.2**
PMR	**Palmer**	**0.39**	**78**		**Pn**	**15 04 02.8**	**-0.8**
PMR				Sn	**Sn**	**15 04 10.6**	**-0.3**
PMR				IAML		15 04 11.2	
	comp=N,48μm,0.6s						
SUA	**Susitna One**	**0.39**	**263**		**Pn**	**15 04 03.4**	**-0.3**
SUA				IAML		15 04 12.6	
	comp=E,64μm,0.9s						
SUA	**Susitna One**	**0.39**	**263**		**Sn**	**15 04 11.7**	**+0.5**
FIS	**Fire Island**	**0.40**	**200**		**Pn**	**15 04 04.4**	**+0.8**
FIS	**Fire Island**	**0.40**	**200**	IAML		15 04 13.9	
	comp=E,25μm,0.9s						
FIS				IAML		15 04 14.4	
	comp=N,28μm,0.6s						
RC01	**Rabbit Creek A**	**0.44**	**167**		**Pn**	**15 04 03.8**	**-0.3**
RC01				IAML		15 04 13.1	
	comp=E,26μm,0.3s						
RC01				IAML		15 04 14.5	
	comp=N,40μm,0.5s						
RC01	**Rabbit Creek A**	**0.44**	**167**		**Sn**	**15 04 12.2**	**+0.5**
GHO	**Glory Hole Cre**	**0.55**	**61**		**Pn**	**15 04 04.9**	**-0.5**
GHO				Sn	**Sn**	**15 04 14.4**	**+0.3**
KNK	**Knik Glacier**	**0.72**	**98**		**Pn**	**15 04 07.4**	**-0.1**
KNK	**Knik Glacier**	**0.72**	**98**		**Sn**	**15 04 18.9**	**+1.2**
SML	**Sawmill**	**0.82**	**68**		**Pn**	**15 04 08.6**	**-0.2**
SML				IAML		15 04 21.6	
	comp=E,27μm,0.5s						
SML				IAML		15 04 22.8	
	comp=N,28μm,0.7s						
SML	**Sawmill**	**0.82**	**68**		**Sn**	**15 04 20.2**	**+0.1**
SKT	**Skwentna**	**0.89**	**302**		**Pn**	**15 04 09.3**	**-0.4**
STLK	**Strandline Lak**	**0.91**	**270**		**Pn**	**15 04 10.1**	**+0.1**
STLK				IAML		15 04 23.7	
	comp=N,23μm,0.6s						
STLK				IAML		15 04 25.2	
	comp=E,13μm,0.4s						
STLK	**Strandline Lak**	**0.91**	**270**		**Sn**	**15 04 22.8**	**+0.6**
CAPN	**Captain Cook N**	**0.95**	**219**		**Pn**	**15 04 12.3**	**+1.8**
PWL	**Port Wells**	**1.02**	**130**		**Pn**	**15 04 11.9**	**+0.5**
PWL	**Port Wells**	**1.02**	**130**		**Sn**	**15 04 26.1**	**+1.4**
SLKM	**Skilak Lake**	**1.02**	**188**		**Pn**	**15 04 11.8**	**+0.4**
SLKM	**Skilak Lake**	**1.02**	**188**	IAML		15 04 28.2	
	comp=E,16μm,0.5s						
SPCG	**Spurr Capps Gl**	**1.03**	**258**		**Pn**	**15 04 12.2**	**+0.6**
SPCG					**Sn**	**15 04 26.3**	**+1.2**
O22K	**Cooper Landing**	**1.04**	**174**		**Pn**	**15 04 10.9**	**-0.7**
SPU	**Mount Spurr**	**1.07**	**253**		**Pn**	**15 04 12.8**	**+0.6**
SPU				IAML		15 04 29.1	
	comp=N,20μm,0.7s						
SPU				IAML		15 04 29.4	
	comp=E,10μm,0.7s						
M23K	**Glacier View**	**1.09**	**74**		**Pn**	**15 04 12.7**	**+0.3**
M23K					**Sn**	**15 04 27.7**	**+1.3**
SPCR	**Spurr Chakacha**	**1.14**	**255**		**Pn**	**15 04 13.6**	**+0.6**
SPCR					**Sn**	**15 04 28.7**	**+1.0**
SCM	**Sheep Creek Mo**	**1.28**	**74**		**Pn**	**15 04 15.5**	**+0.5**
SCM	**Sheep Creek Mo**	**1.28**	**74**		**Sn**	**15 04 32.6**	**+1.4**
WAT7	**Susitna Watana**	**1.42**	**21**		**Pn**	**15 04 17.4**	**+0.6**
WAT7					**Sn**	**15 04 35.2**	**+0.8**
SEW	**Seward**	**1.44**	**170**		**Pn**	**15 04 16.6**	**-0.3**
WAT1	**Susitna Watana**	**1.47**	**26**		**Sn**	**15 04 36.3**	**+0.6**
WAT6	**Susitna Watana**	**1.49**	**43**		**Pn**	**15 04 18.2**	**+0.4**
GLI	**Glacier Island**	**1.52**	**114**		**Sn**	**15 04 37.2**	**+0.6**
GLI	**Glacier Island**	**1.52**	**114**	Pn	**Pn**	**15 04 18.4**	**+0.3**
GLI				IAML		15 04 45.4	
	comp=E,13μm,0.5s						
RDT	**Redoubt**	**1.53**	**233**		**Sn**	**15 04 38.6**	**+1.5**
M20K	**Styx River**	**1.57**	**285**		**Pn**	**15 04 19.5**	**+0.6**
DFR	**Drift River**	**1.63**	**237**		**Pn**	**15 04 20.4**	**+0.7**
DFR					**Sn**	**15 04 41.0**	**+1.4**
PPLA	**Purkeypile**	**1.74**	**324**		**Sn**	**15 04 43.0**	**+0.5**
PPLA	**Purkeypile**	**1.74**	**324**		**Pn**	**15 04 21.5**	**+0.2**
PPLA				IAML		15 04 44.7	
	comp=E,9μm,0.7s						
PPLA				IAML		15 04 47.5	
	comp=N,6μm,1.0s						
RED	**Redoubt Volcan**	**1.77**	**233**		**Pn**	**15 04 22.2**	**+0.6**
RED				IAML		15 04 47.3	
	comp=E,6μm,0.5s						
RED				IAML		15 04 47.5	
	comp=N,5μm,0.9s						
BRLK	**Bradley Lake**	**1.82**	**195**	Pn	**Pn**	**15 04 22.5**	**+0.3**
BRLK				IAML		15 04 49.5	
	comp=E,5μm,0.6s						
FID	**Port Fidalgo**	**1.84**	**113**		**Pn**	**15 04 22.3**	**-0.3**
FID				IAML		15 04 57.6	
	comp=E,9μm,0.4s						
FID				IAML		15 04 59.0	
	comp=N,7μm,0.5s						
KLU	**Klutina**	**1.92**	**89**	Pn	**Pn**	**15 04 24.0**	**+0.3**
KLU				IAML		15 04 56.4	
	comp=E,5μm,0.7s						
KLU				IAML		15 04 56.6	
	comp=N,7μm,0.6s						
TRF	**Thorofare Moun**	**1.95**	**355**		**Pn**	**15 04 24.7**	**+0.6**
TRF				IAML		15 04 54.6	
	comp=N,4μm,0.6s						
TRF				IAML		15 05 03.2	
	comp=E,3μm,0.8s						
RND	**Reindeer**	**1.96**	**14**		**Pn**	**15 04 25.0**	**+0.7**
P23K	**Montague Islan**	**1.96**	**140**		**Pn**	**15 04 23.6**	**-0.6**
DHY	**Denali Highway**	**1.97**	**36**		**Pn**	**15 04 25.0**	**+0.6**
DHY				IAML		15 04 53.8	
	comp=E,5μm,0.4s						
DHY				IAML		15 04 56.9	
	comp=N,4μm,0.6s						
HIN	**Hinchinbrook I**	**2.02**	**122**		**Pn**	**15 04 24.8**	**-0.1**
DIV	**Divide**	**2.04**	**99**		**Pn**	**15 04 25.3**	**-0.1**
DIV				IAML		15 04 57.3	
	comp=N,6μm,0.5s						
DIV				IAML		15 05 00.5	
	comp=E,5μm,0.5s						
HOM	**Homer**	**2.04**	**205**		**Pn**	**15 04 26.1**	**+0.8**
KTH	**Kantishna Hill**	**2.10**	**348**		**Pn**	**15 04 26.7**	**+0.7**
KTH				IAML		15 04 55.9	
	comp=N,4μm,0.7s						
CNPM	**China Poot**	**2.10**	**198**		**Pn**	**15 04 26.2**	**+0.2**
CNPM				IAML		15 04 57.9	
	comp=N,4μm,0.5s						
CNPM				IAML		15 04 58.7	
	comp=E,4μm,0.5s						
L20K	**Farewell, AK**	**2.10**	**299**		**Pn**	**15 04 26.7**	**+0.7**
L20K				IAML		15 04 54.0	
	comp=E,3μm,0.6s						
L20K				IAML		15 04 55.3	
	comp=N,5μm,0.5s						
IVE	**Iliamna Volcan**	**2.13**	**227**		**Pn**	**15 04 27.3**	**+0.7**
CAST	**Castle Rocks**	**2.16**	**333**		**Pn**	**15 04 26.9**	**+0.1**
M19K	**Big River Lodg**	**2.16**	**282**		**Pn**	**15 04 27.4**	**+0.5**
ILSW	**Iliamna Southw**	**2.20**	**227**		**Pn**	**15 04 28.3**	**+0.8**
EYAK	**Cordova Ski Ar**	**2.26**	**114**	P	**Pn**	**15 04 27.8**	**-0.3**
EYAK	**Cordova Ski Ar**	**2.26**	**114**		**Pn**	**15 04 28.2**	**+0.1**
EYAK				IAML		15 05 06.1	
	comp=E,3μm,0.5s						
EYAK				IAML		15 05 06.5	
	comp=N,4μm,0.7s						
MCK	**McKinley**	**2.27**	**11**		**Pn**	**15 04 29.2**	**+0.8**
MCK				IAML		15 05 09.6	
	comp=N,4μm,0.9s						
MCK				IAML		15 05 11.7	
	comp=E,4μm,0.5s						
PS12	**TAPS Pump St12**	**2.30**	**89**		**Pn**	**15 04 29.2**	**+0.4**
N19K	**Bonanza Creek**	**2.31**	**254**		**Pn**	**15 04 29.9**	**+0.8**
N19K	**Bonanza Creek**	**2.31**	**254**	IAML		15 05 13.1	
	comp=N,3μm,1.2s						
HARP	**HAARP**	**2.42**	**66**		**Pn**	**15 04 31.7**	**+1.2**
L19K	**White Mountain**	**2.43**	**288**		**Pn**	**15 04 31.4**	**+0.9**
L19K	**White Mountain**	**2.43**	**288**	IAML		15 05 01.2	
	comp=N,2μm,0.5s						
L19K				IAML		15 05 02.4	
	comp=E,2μm,0.6s						
O19K	**Port Alsworth**	**2.52**	**240**		**Pn**	**15 04 32.2**	**+0.5**
PAX	**Paxson**	**2.55**	**53**		**Pn**	**15 04 33.1**	**+0.9**
PAX				IAML		15 05 10.9	
	comp=N,3μm,0.6s						
PAX				IAML		15 05 17.6	
	comp=E,2μm,0.8s						
BMRM	**Bremner River**	**2.63**	**100**		**Pn**	**15 04 32.8**	**-0.6**
BMRM				IAML		15 05 15.9	
	comp=E,3μm,0.3s						
BMRM				IAML		15 05 21.1	
	comp=N,4μm,0.6s						
BPAW	**Bear Paw Mtn.**	**2.64**	**350**		**Pn**	**15 04 33.4**	**0.0**
K20K	**Telida**	**2.67**	**316**		**Pn**	**15 04 34.1**	**+0.3**
K20K	**Telida**	**2.67**	**316**	IAML		15 05 12.9	
	comp=N,2μm,0.8s						
K20K				IAML		15 05 13.1	
	comp=E,2μm,0.8s						
BWN	**Browne**	**2.67**	**4**		**Pn**	**15 04 35.5**	**+1.6**
PS10	**TAPS Pump St10**	**2.72**	**43**		**Pn**	**15 04 36.4**	**+1.8**
MID	**Middleton Isla**	**2.75**	**138**		**Pn**	**15 04 36.3**	**+1.5**
MID				IAML		15 05 27.1	
	comp=N,3μm,0.7s						
MID				IAML		15 05 33.8	
	comp=E,3μm,1.1s						
AUJK	**Augustine Jueg**	**2.77**	**220**		**Pn**	**15 04 36.4**	**+1.2**
AUCH	**Augustine Cone**

comp=E,2µm,0.9s
J19K Poorman 3.61 316 Pn 15 04 46.6 0.0
J19K Poorman 3.61 316 IAML 15 05 45.3
comp=N,1µm,0.8s
J19K IAML 15 06 01.8
comp=E,1µm,1.1s
I23K Minto, Yukon-K 3.66 4 IAML 15 06 01.4
comp=E,820nm,1.1s
I23K IAML 15 06 02.7
comp=N,836nm,1.4s
N17K Nushagak Hills 3.67 258 Pn 15 04 47.9 +0.5
N17K Nushagak Hills 3.67 258 IAML 15 06 00.8
comp=N,745nm,1.1s
SCRK Sand Creek 3.69 45 IAML 15 05 49.6
comp=N,978nm,0.7s
SCRK IAML 15 05 51.1
comp=E,1µm,0.8s
J18K Innoko River 3.71 305 IAML 15 05 51.9
comp=E,803nm,0.8s
J25K Salcha River, 3.74 32 Pn 15 04 49.3 +0.8
J25K Salcha River, 3.74 32 IAML 15 05 40.1
comp=E,1µm,0.7s
J25K IAML 15 05 40.3
comp=N,892nm,0.8s
I21K Tanana 3.79 347 IAML 15 05 59.8
comp=E,653nm,0.9s
KAHG Katmai Hook Gl 3.81 219 Pn 15 04 50.1 +0.5
Q18K Katmai Hardscr 3.84 224 Pn 15 04 50.3 +0.4
PS07 TAPS Pump Stn7 3.88 10 Pn 15 04 51.5 +1.1
M27K Edge Creek, AK 3.90 74 Pn 15 04 51.9 +1.1
M27K Edge Creek, AK 3.90 74 IAML 15 06 09.8
comp=N,662nm,1.1s
KDAK Kodiak Island 3.98 201 P **Pn 15 04 50.7 -1.0**
comp=N,3.5nm,0.3s,baz=35,slow=3.7,SNR=209
KDAK S **Sn 15 05 35.7 -1.4**
comp=N,239nm,0.8s,baz=336,slow=6.3,SNR=5.6
KDAK LR LR 15 06 39.4
comp=N,525nm,21.9s,baz=29,slow=42
comp=N,31nm,0.4s
KDAK AML AML
KDAK Kodiak Island 3.98 201 Pn 15 04 50.7 -1.0
BARN Barnard Glacie 4.02 93 Pn 15 04 52.4 0.0
BARN Barnard Glacie 4.02 93 IAML 15 05 59.3
comp=E,1µm,0.6s
BARN IAML 15 06 02.1
comp=N,975nm,0.7s
GRNC Granite Creek 4.04 98 IAML 15 06 07.6
comp=N,827nm,0.6s
L27K Beaver Creek, 4.09 64 Pn 15 04 53.9 +0.6
BCAR Beaver Creek A 4.11 64 Pn 15 04 53.9 +0.3
K17K Iditarod 4.11 291 IAML 15 06 07.9
comp=N,825nm,0.9s
K17K IAML 15 06 23.9
comp=E,803nm,1.1s
YAH Yahtse 4.16 103 Pn 15 04 54.3 -0.2
YAH Yahtse 4.16 103 IAML 15 06 01.0
comp=E,508nm,0.7s
YAH IAML 15 06 06.0
comp=N,804nm,0.9s
YUK2 White River 4.34 82 Pn 15 04 56.8 0.0
ANCK Angle Creek 4.35 223 Pn 15 04 57.6 +0.7
H21K Melozitna Rive 4.35 344 Pn 15 04 57.3 +0.4
H21K Melozitna Rive 4.35 344 IAML 15 06 03.0
comp=E,453nm,0.8s
LOGN Logan Glacier 4.38 95 IAML 15 06 12.0
comp=E,709nm,0.7s
LOGN IAML 15 06 13.3
comp=N,515nm,0.7s
K27K Chicken 4.40 52 Pn 15 04 58.1 +0.5
K27K Chicken 4.40 52 IAML 15 06 13.7
comp=E,447nm,0.7s
K27K IAML 15 06 14.7
comp=N,549nm,0.8s
CAHL Cahill 4.41 220 Pn 15 04 58.3 +0.6
N16K Nishlik Lake 4.43 260 Pn 15 04 58.5 +0.6
H24K Noodor Dome 4.43 11 Pn 15 04 58.7 +0.7
H24K Noodor Dome 4.43 11 IAML 15 06 17.6
comp=E,423nm,0.9s
O16K Kokwok River B 4.46 248 Pn 15 04 59.0 +0.6
O16K Kokwok River B 4.46 248 IAML 15 06 18.7
comp=N,653nm,1.7s
O16K IAML 15 06 20.0
comp=E,440nm,1.1s
PRP Porcupine Dome 4.48 24 Pn 15 04 59.8 +1.1
PRP Porcupine Dome 4.48 24 IAML 15 05 59.1
comp=E,562nm,0.6s
PRP IAML 15 06 18.3
comp=N,670nm,0.7s
GCSA Galena City Sc 4.52 319 Pn 15 04 59.3 +0.2
L16K Owhat River 4.56 277 Pn 15 04 59.9 +0.2
CHX Chaix Hills 4.56 105 Pn 15 05 00.0 +0.2
H20K Anotleneega Mo 4.56 333 Pn 15 04 59.7 0.0
OHAK Old Harbor 4.63 203 P **Pn 15 05 01.8 +1.1**
OHAK Old Harbor 4.63 203 Pn 15 04 59.8 -0.9
J17K VABM Dome 4.65 298 IAML 15 06 24.0
comp=N,495nm,1.2s
J17K IAML 15 06 24.4
comp=E,374nm,0.9s
SAMH Samovar Hills 4.69 103 Pn 15 05 02.3 +0.7
P16K Nushagak River 4.72 242 Pn 15 05 03.0 +1.1
O28M Mount Upton 4.78 95 Pn 15 05 03.4 +0.4
O28M Mount Upton 4.78 95 IAML 15 06 26.0
comp=N,497nm,1.1s
O28M IAML 15 06 27.1
comp=E,338nm,0.9s
IMAR Indian Mountai 4.79 341 Pn 15 05 02.7 -0.2
YUK8 Steele Glacier 4.89 88 Pn 15 05 05.1 +0.5
PCA Pinnacle 4.95 102 Pn 15 05 04.8 -0.3
H19K Roundabout Mou 4.97 327 IAML 15 06 39.4
comp=E,494nm,1.0s
H19K IAML 15 06 45.3
comp=N,395nm,1.6s
H25L Birch Creek 5.10 19 Pn 15 05 09.3 +2.2
N15K Kwethluk River 5.15 259 IAML 15 06 41.4
comp=N,486nm,1.0s
N15K IAML 15 06 59.8
comp=E,483nm,0.9s
G23K Bananza Creek 5.22 360 Pn 15 05 09.6 +0.9
BRWY Burwash Landin 5.23 87 Pn 15 05 09.4 +0.5
G21K Allakaket 5.26 344 Pn 15 05 10.0 +0.7
G21K Allakaket 5.26 344 IAML 15 06 10.8
comp=E,485nm,0.6s
G21K IAML 15 06 10.8
comp=N,402nm,0.7s
H18K Honhosa River 5.26 318 Pn 15 05 09.6 +0.3
H18K Honhosa River 5.26 318 IAML 15 06 36.5
comp=N,268nm,1.8s
H18K IAML 15 06 41.7
comp=E,232nm,1.3s
J16K Anvik River 5.27 294 IAML 15 06 49.0
comp=N,228nm,0.9s
M15K Kasigluk River 5.28 266 Pn 15 05 09.7 +0.2
BCPM Bancas Point 5.29 103 Pn 15 05 09.5 -0.2
G24K Hadweenzic Riv 5.32 11 IAML 15 06 52.0
comp=N,257nm,1.2s
SII Sitkinak Islan 5.43 206 P **Pn 15 05 13.4 +1.7**
O15K Ungalikthiuk R 5.44 249 Pn 15 05 12.7 +0.9
FYU Fort Yukon 5.47 20 Pn 15 05 13.8 +1.6
M29M Somme Creek 5.49 75 Pn 15 05 13.1 +0.6
PNL Peninsula 5.51 105 P **Pn 15 05 12.8 0.0**
PNL Peninsula 5.51 105 Pn 15 05 12.5 -0.3
G25K Bearman Lake 5.53 16 Pn 15 05 14.8 +1.8
I27K Kandik River 5.53 39 Pn 15 05 14.0 +1.0
K15K Wolf Creek Mou 5.54 283 Pn 15 05 13.6 +0.5
G19K Purcell Mounta 5.62 329 Pn 15 05 13.8 -0.4
H17K Granite Mounta 5.67 312 Pn 15 05 15.2 +0.4
O29M Mount Kennedy 5.67 97 Pn 15 05 14.7 -0.4
YUK7 Dusty Glacier 5.82 95 Pn 15 05 17.1 -0.1
YUK5 Granite Creek 5.83 88 Pn 15 05 17.2 0.0
G18K Tagagawik 5.86 322 Pn 15 05 17.7 +0.3
M14K Bethel 5.88 268 Pn 15 05 18.2 +0.5
F21K Alatna River 5.93 347 Pn 15 05 19.6 +1.1
I28M Miner Creek 5.97 44 Pn 15 05 19.6 +0.5
HYT Haines Junctio 6.05 91 Pn 15 05 20.5 +0.2
O14K Tigyukauivet M 6.06 253 Pn 15 05 20.8 +0.6
F24K Squaw Lake 6.09 7 Pn 15 05 22.0 +1.3
F22K John River 6.09 352 Pn 15 05 21.6 +0.9
L14K Kuka Creek 6.12 274 Pn 15 05 21.9 +0.9
N30M Aishikik Lake 6.15 85 Pn 15 05 21.0 -0.6
K29M Barlow Dome 6.17 62 Pn 15 05 22.6 +0.6
G17K Kiwalik Mounta 6.24 314 Pn 15 05 23.0 +0.3
P29M Windy Craggy 6.30 102 Pn 15 05 24.0 +0.4
F19K Shaleruckik Mo 6.34 331 Pn 15 05 24.0 0.0
BMAR Burnt Mountain 6.37 19 Pn 15 05 25.7 +1.2

F25K Christian River 6.38 15 Pn 15 05 25.8 +1.2
H16K Elim 6.40 305 Pn 15 05 25.8 +0.9
G27K Doyon Strip 6.42 31 Pn 15 05 25.8 +0.5
P30M Million Dollar 6.50 97 Pn 15 05 26.2 -0.1
J14K Nanvaranak Lak 6.50 287 Pn 15 05 26.8 +0.5
E23K Chandalar 6.57 1 Pn 15 05 28.6 +1.3
M13K Dall Lake 6.62 266 Pn 15 05 28.7 +0.7
F18K Selawik 6.64 324 Pn 15 05 28.4 +0.2
F26K Sheenjek River 6.68 19 Pn 15 05 29.8 +1.1
E19K Redstone River 6.74 335 Pn 15 05 30.0 +0.4
N31M Braeburn, Yuko 6.78 84 Pn 15 05 30.2 +0.1
G16K Koyuk River 6.79 310 Pn 15 05 30.4 +0.2
J30M Hart River 6.90 58 Pn 15 05 33.0 +1.1
K13K Kusilvak Mount 7.01 280 Pn 15 05 33.6 +0.4
F17K Baldwin Pennin 7.01 320 Pn 15 05 33.8 +0.6
PLBC Pleasant Camp 7.01 101 Pn 15 05 33.4 +0.1
I30M Mount Dempster 7.13 53 Pn 15 05 36.0 +1.0
TOLK Toolik Lake Re 7.16 1 Pn 15 05 36.8 +1.5
G15K Niukluk 7.25 305 Pn 15 05 37.1 +0.6
E20K Nigu River 7.27 341 Pn 15 05 38.0 +1.2
WHY Whitehorse 7.35 90 Pn 15 05 37.7 -0.3
F28M Old Crow 7.49 31 Pn 15 05 40.7 +0.9
SKAG Skagway 7.50 99 P **Pn 15 05 40.5 +0.5**
E27K Coleen River 7.57 24 Pn 15 05 41.6 +0.6
E17K Hotham Inlet 7.60 322 Pn 15 05 41.9 +0.6
ANM Nome 7.65 300 Pn 15 05 42.8 +0.8
F15K North Star Dit 7.78 309 Pn 15 05 44.3 +0.6
S31K Pelican 7.78 111 Pn 15 05 43.4 -0.4
C21K Knifeblade Rid 7.93 347 Pn 15 05 47.6 +1.7
M11K Mekoryuk 8.00 269 Pn 15 05 47.9 +1.1
P32M Atlin 8.22 96 Pn 15 05 49.5 -0.4
F14K Arctic Creek 8.33 306 Pn 15 05 52.1 +0.9
C23K Itkillik River 8.36 358 Pn 15 05 52.6 +0.9
D17K Noatak River 8.38 323 Pn 15 05 52.5 +0.6
P33M Teslin, Yukon 8.45 91 Pn 15 05 52.4 -0.7
JIS Juneau Island 8.46 106 P **Pn 15 05 52.7 -0.4**
JIS Juneau Island 8.46 106 Pn 15 05 52.8 -0.2
C27K Jago River 8.54 15 Pn 15 05 55.5 +1.4
E29M Blow River 8.57 31 Pn 15 05 55.6 +1.2
D27M Malcolm River 8.60 22 Pn 15 05 56.3 +1.2
G31M Satah River 8.70 45 Pn 15 05 57.3 +1.0
SIT Sitka 8.70 114 P **Pn 15 05 56.0 -0.4**
S32K Killisnoo 8.79 111 Pn 15 05 58.3 +0.6
B22K Teshekpuk Lake 8.97 352 Pn 15 06 01.4 +1.4
TNA Tin City 8.98 305 Pn 15 06 01.1 +1.0
B20K Meade River 9.02 344 Pn 15 06 01.2 +0.5
Q32M Nakina River 9.15 98 Pn 15 06 02.4 -0.2
F31M Tsiigehtchic 9.15 43 Pn 15 06 02.3 -0.1
R33M Jennings River 9.60 94 Pn 15 06 08.5 -0.3
INK Inuvik 9.71 38 P **Pn 15 06 10.4 +0.3**
comp=N,1.2nm,0.3s,baz=240,slow=21,SNR=27
INK S **Sn 15 07 59.7 +2.1**
comp=N,24nm,0.7s,baz=333,slow=6.0,SNR=4.5
INK LR LR 15 10 12.1
comp=N,257nm,18.4s,baz=288,slow=39
comp=N,4.1nm,0.4s
INK AML AML
S34M Telegraph Cree 10.15 102 Pn 15 06 17.2 +1.0
DLBC Dease Lake 10.43 98 P **Pn 15 06 20.8 +0.7**
comp=N,0.9nm,0.3s,baz=291,slow=12,SNR=7.6
DLBC S **Sn 15 08 19.3 +4.0**
comp=N,2.6nm,0.5s,baz=294,slow=20,SNR=1.3
DLBC LR LR 15 10 44.4
comp=N,302nm,21.8s,baz=276,slow=39
comp=N,2.2nm,0.4s
DLBC AML AML
CRAG Craig 10.66 117 P **Pn 15 06 24.0 +0.8**
T35M Bob Quinn 11.04 106 Pn 15 06 28.7 +0.4
UNV Unalaska Valle 11.71 236 P **Pn 15 06 39.5 +2.1**
C36M Paulatuk 13.21 43 Pn 15 06 54.3 -3.5
A36M Sachs Harbour 14.17 32 Pn 15 07 09.8 -1.1
BBB Bella Bella 15.08 118 Pn 15 07 23.7 +0.8
comp=N,0.2nm,0.3s,baz=280,slow=6.1,SNR=1.7
BBB S **Sn 15 10 04.2 -4.4**
comp=N,26nm,1.2s,baz=357,slow=20,SNR=1.5
BBB LR LR 15 13 10.8
comp=N,94nm,18.6s,baz=346,slow=37
comp=N,13nm,0.9s
BBB AML AML
ATKA Atka Island 16.12 246 P **Pn 15 07 39.6 +1.0**
YKA Yellowknife Ar 16.49 71 P **Pn 15 07 39.9 -0.8**
comp=N,0.5nm,0.3s,baz=279,slow=10.0,SNR=13
YKA PcP **PcP 15 12 28.8 -0.3**
comp=N,1.2nm,0.6s,baz=291,slow=1.3,SNR=7.8
YKA LR LR 15 14 08.8
comp=N,168nm,21.1s,baz=278,slow=37
comp=N,1.5nm,0.6s
YKA AML AML
SHEM Shemya Is, Ala 21.15 262 LR LR 15 16 44.7
comp=N,86nm,20.0s,baz=130,slow=37
SMY Shemya 21.15 262 P **P 15 08 37.3 +3.7**
NEW Newport 22.76 111 LR LR 15 17 11.4
comp=N,120nm,21.1s,baz=311,slow=35
NEW Newport 22.76 111 P **P 15 08 51.5 +0.6**
LDM Libby Dam 23.43 108 P **P 15 08 58.2 +0.6**
LDM IAmb IAmb 15 09 31.3
comp=Z,9.3nm,0.9s
WIFE Three Sisters- 24.08 124 P 15 09 06.0 +2.2
BMO Blue Mountains 25.31 116 P **P 15 09 14.5 -0.3**
PLID Pearl Lake 25.69 114 P **P 15 09 18.7 +0.3**
EGMT Eagleton 26.32 102 P **P 15 09 24.4 +0.5**
EGMT IAmb IAmb 15 09 26.3
comp=Z,23nm,1.0s
MFID Camas Ranch 27.09 116 P **P 15 09 31.4 +0.4**
BOZ Bozeman (W) 27.25 108 P **P 15 09 33.4 +1.0**
MA2 Magadan 28.36 293 LR LR 15 22 33.4
comp=Z,72nm,18.2s,baz=150,slow=40
YNE Yellowstone No 28.44 107 IAmb IAmb 15 09 45.8
comp=Z,6.8nm,0.9s
YMP Mirror Lake Pl 28.57 108 IAmb IAmb 15 09 47.6
comp=Z,12nm,1.3s
RLMT Red Lodge 28.69 106 P **P 15 09 47.4 +2.1**
RLMT IAmb IAmb 15 09 49.0
comp=Z,18nm,1.1s
PETK Petropavlovsk- 28.76 277 P **P 15 09 43.1 -2.5**
comp=Z,1.5nm,0.7s,baz=65,slow=13,SNR=1.8
PETK LR LR 15 21 49.6
comp=Z,36nm,19.2s,baz=52,slow=38
comp=Z,1.5nm,0.7s
LAO LASA Array 28.94 101 P **P 15 09 49.1 +1.7**
LAO IAmb IAmb 15 09 50.1
comp=Z,22nm,1.3s
HVU Hansel Valley 29.74 114 IAmb IAmb 15 09 57.7
comp=Z,7.5nm,0.9s
NVAR Mina Array Bea 30.25 125 P **P 15 10 00.9 +1.7**
comp=Z,3.4nm,0.7s,baz=316,slow=9.6,SNR=20
NVAR PcP **PcP 15 12 59.2 +0.6**
comp=Z,1.6nm,0.7s,baz=295,slow=2.4,SNR=8.1
NVAR LR LR 15 20 57.4
comp=Z,55nm,18.8s,baz=272,slow=34
comp=Z,3.4nm,0.7s
BW06 Boulder Array 30.38 109 IAmb IAmb 15 10 02.7
comp=Z,9.8nm,1.4s
PD31 Pinedale Array 30.38 109 IAmb IAmb 15 10 02.8
comp=Z,8.9nm,1.4s
PDAR Pinedale Array 30.38 109 P **P 15 10 01.9 +1.5**
comp=Z,2.4nm,0.6s,baz=321,slow=5.2,SNR=20
PDAR PcP **PcP 15 12 58.5 -0.3**
comp=Z,0.9nm,0.4s,baz=122,slow=1.9,SNR=4.8
PDAR LR LR 15 22 42.5
comp=Z,82nm,20.6s,baz=356,slow=37
comp=Z,2.4nm,0.6s
PDAR Pinedale Array 30.38 109 P **P 15 10 00.1 -0.2**
TCUT Toone Canyon 30.88 114 IAmb IAmb 15 10 07.6
comp=Z,11nm,0.8s
TPH Tonopah 30.99 124 P **P 15 10 07.4 +1.8**
TPH IAmb IAmb 15 10 08.7
comp=Z,7.4nm,0.9s
DUG Dugway, Tooele 31.02 116 P **P 15 10 05.8 -0.1**
TIXI Tiksi 31.17 323 LR LR 15 24 07.8
comp=Z,47nm,19.2s,baz=14,slow=39
ULM Lac du Bonnet 31.40 86 P **P 15 10 09.0 0.0**
comp=Z,8.4nm,0.9s,baz=316,slow=9.3,SNR=7.6
ULM PcP **PcP 15 13 00.6 -0.5**
comp=Z,2.5nm,0.7s,baz=225,slow=0.9,SNR=5.9
ULM LR LR 15 23 27.9
comp=Z,133nm,19.2s,baz=3.0,slow=37
comp=Z,8.4nm,0.9s
ULM Lac du Bonnet 31.40 86 IAmb IAmb 15 10 10.7
comp=Z,8.2nm,0.8s
BSUT Blindstream Ca 31.63 113 P **P 15 10 11.6 0.0**
BSUT IAmb IAmb 15 10 14.4
comp=Z,13nm,1.1s
RSSD Black Hills 31.88 102 P 15 10 15.3 +1.8

CWC Cottonwood Cre 32.07 127 P **P 15 10 18.0 +2.8**
CWC IAmb IAmb 15 10 18.1
comp=Z,3.5nm,0.7s
RDMU Red Mountain 32.13 112 IAmb IAmb 15 10 18.9
comp=Z,10nm,0.9s
TMUT Trail Mountain 32.46 115 IAmb IAmb 15 10 22.1
comp=Z,7.2nm,1.1s
Q16A Castle Valley 32.79 116 IAmb IAmb 15 10 24.1
comp=Z,5.9nm,0.7s
NEEM North Greenlan 32.84 23 *i* P **P 15 10 22.0 +0.4**
NEEM IAmb IAmb 15 10 22.7
comp=Z,7.4nm,0.7s
SRU San Rafael Swe 32.91 115 P **P 15 10 24.1 +1.6**
QSM Queen of Sheba 32.96 126 P **P 15 10 24.9 +2.2**
QSM IAmb IAmb 15 10 25.6
comp=Z,5.8nm,0.6s
CCUT Cedar City 33.01 120 P **P 15 10 25.1 +1.7**
CCUT IAmb IAmb 15 10 26.4
comp=Z,3.5nm,0.7s
HAYD Hayden 33.21 109 P **P 15 10 26.4 +1.3**
KNB Kanab 33.69 119 IAmb IAmb 15 10 32.5
comp=Z,7.7nm,0.8s
PV18 Skein Mesa, Pa 34.33 114 P **P 15 10 35.5 +0.6**
PV05 Paradox Valley 34.39 114 P **P 15 10 35.2 -0.2**
PV15 Paradox Valley 34.44 113 P **P 15 10 36.7 +0.8**
FRB Frobisher Bay 35.12 50 LR LR 15 24 26.9
comp=Z,100nm,21.1s,baz=336,slow=35
PFO Pinyon Flats O 35.19 127 LR LR 15 22 54.1
comp=Z,57nm,18.9s,baz=212,slow=32
YAK Yakutsk 35.74 307 LR LR 15 27 03.1
comp=Z,76nm,19.2s,baz=42,slow=39
SDCO Great Sand Dun 36.26 110 IAmb IAmb 15 10 54.2
comp=Z,3.9nm,0.9s
TASM ASL Pad, Albug 38.17 114 IAmb IAmb 15 11 12.0
comp=Z,7.4nm,1.5s
TASM ASL Pad, Albug 38.17 114 IAmb IAmb 15 11 12.0
comp=Z,7.5nm,1.5s
ANMO Albuquerque 38.17 114 LR LR 15 25 56.3
comp=Z,41nm,20.4s,baz=352,slow=35
ANMO Albuquerque 38.17 114 P 15 11 09.5 +1.9
ANMO IAmb IAmb 15 11 11.7
comp=Z,8.3nm,1.5s
ALQ Albuquerque 38.17 114 IAmb IAmb 15 11 12.0
comp=Z,7.6nm,1.5s
ALQ Albuquerque 38.17 114 IAmb IAmb 15 11 12.0
comp=Z,7.5nm,1.4s
DAG Danmarks Havn 38.63 16 *i* P **P 15 11 10.2 -0.6**
DAG IAmb IAmb 15 11 11.2
comp=Z,6.7nm,0.6s
SFJD Kangerlussuaq 39.06 38 *i* P **P 15 11 15.2 +0.7**
SFJD IAmb IAmb 15 11 16.8
comp=Z,13nm,0.8s
SPITS Spitsbergen Ar 40.30 4 P **P 15 11 23.3 -1.3**
comp=Z,2.2nm,0.5s,baz=34,slow=6.1,SNR=9.4
comp=Z,2.2nm,0.5s
DBG Daneborg 40.44 19 *i* P **P 15 11 25.2 -0.7**
DBG IAmb IAmb 15 11 29.0
comp=Z,13nm,1.2s
SCHQ Schefferville 41.49 60 LR LR 15 27 42.2
comp=Z,100nm,20.3s,baz=303,slow=34
WMOK Wichita Mounta 41.80 106 IAmb IAmb 15 11 39.2
comp=Z,6.5nm,0.8s
S39A Bolivar 41.96 98 P **P 15 11 38.6 -0.2**
W35A Tecumseh 42.34 104 P **P 15 11 41.7 -0.2**
VHRN Van Horn 42.36 116 P 15 11 44.8 +2.6
VHRN IAmb IAmb 15 11 44.9
comp=Z,6.3nm,0.8s
NRIK Noril'sk 43.20 334 LR LR 15 31 25.0
comp=Z,49nm,18.7s,baz=359,slow=38
SADO Sadowa 43.26 79 LR LR 15 29 41.0
comp=Z,9nm,19.5s,baz=341,slow=36
KLR Kul'dur 43.42 291 LR LR 15 31 21.2
comp=Z,55nm,18.2s,baz=54,slow=38
T42A Van Buren 43.55 96 IAmb IAmb 15 11 51.6
comp=Z,5.4nm,0.9s
TXAR Lajitas Array 44.18 115 P **P 15 11 58.4 +1.5**
comp=Z,2.5nm,0.8s,baz=328,slow=6.8,SNR=17
TXAR PcP **PP 15 13 40.5 0.0**
comp=Z,0.7nm,0.5s,baz=33,slow=2.1,SNR=7.8
TXAR LR LR 15 30 45.2
comp=Z,34nm,20.0s,baz=332,slow=36
comp=Z,2.5nm,0.8s
HEH HeiHe 44.58 295 *e*P **P 15 11 58.1 -1.6**
T50A Nancy 46.55 91 P **P 15 12 15.1 -0.4**
USRK Ussuriysk Ar. 47.08 286 LR LR 15 34 31.2
comp=Z,65nm,19.0s,baz=58,slow=39
TKL Tuckaleechee C 48.16 91 LR LR 15 34 13.9
comp=Z,123nm,18.0s,baz=344,slow=38
FPAL Fort Paine 48.18 93 P **P 15 12 28.3 +0.1**
HILR Hailar Array B 48.37 299 P **P 15 12 28.6 -0.9**
comp=Z,3.4nm,0.5s,baz=38,slow=7.5,SNR=4.4
comp=Z,3.4nm,0.5s
ARCES ARCESS Array B 49.20 2 P **P 15 12 34.9 -0.6**
comp=Z,3.1nm,0.7s,baz=16,slow=9.1,SNR=3.6
ARCES PcP **PcP 15 13 56.2 -1.6**
comp=Z,1.8nm,0.5s,baz=349,slow=2.5,SNR=4.5
comp=Z,3.1nm,0.7s
MJAR Matsushiro Arr 50.17 275 P **P 15 12 43.1 -0.3**
comp=Z,1.0nm,0.7s,baz=66,slow=6.0,SNR=4.5
comp=Z,1.0nm,0.7s
KSRS Korea Array 54.30 284 P **P 15 13 14.2 +0.4**
comp=Z,2.3nm,0.6s,baz=26,slow=6.8,SNR=15
KSRS LR LR 15 35 53.5
comp=Z,32nm,21.9s,baz=350,slow=35
comp=Z,2.3nm,0.6s
SONM Songino Array 55.10 307 P **P 15 13 20.3 +0.6**
comp=Z,3.3nm,0.7s,baz=47,slow=6.6,SNR=19
SONM LR LR 15 38 17.5
comp=Z,62nm,18.2s,baz=28,slow=38
comp=Z,3.3nm,0.7s
NB2 NORSAR Subarra 56.92 11 P **P 15 13 31.4 -1.0**
comp=Z,0.5nm,0.5s,baz=349,slow=7.4
NOA NORSAR Array B 56.92 11 P **P 15 13 31.1 -1.3**
comp=Z,1.0nm,0.7s,baz=350,slow=7.1,SNR=5.7
comp=Z,1.0nm,0.7s
ZALV Zalesovo Beam 57.02 325 P **P 15 13 31.9 -1.2**
comp=Z,1.0nm,0.5s,baz=52,slow=6.3,SNR=5.2
comp=Z,1.0nm,0.5s
FINES FINESS Array B 57.33 2 P **P 15 13 34.2 -1.0**
comp=Z,1.4nm,0.5s,baz=5.1,slow=8.6,SNR=13
comp=Z,1.4nm,0.5s
HFS Hagfors 58.02 10 P **P 15 13 39.2 -0.9**
comp=Z,2.3nm,0.9s,baz=0.0,slow=2.2,SNR=6.6
comp=Z,2.3nm,0.9s
HHC Hu-ho-hao-te 58.80 299 *e*P **P 15 13 49.4 +3.4**
HHC pmax pmax
comp=Z,9.0nm,0.6s
HHC pmax pmax
comp=Z,45nm,4.1s
ARTI Arti 60.35 342 LR LR 15 41 21.6
comp=Z,34nm,20.3s,baz=346,slow=37
EKA Eskdalemuir Ar 60.59 21 P **P 15 13 57.6 -0.2**
comp=Z,2.1nm,0.5s,baz=329,slow=5.8,SNR=30
comp=Z,2.1nm,0.5s
BVAR Borovoye Array 61.41 334 P **P 15 14 02.3 -1.2**
comp=Z,1.4nm,0.5s,baz=25,slow=8.1,SNR=8.4
comp=Z,1.4nm,0.5s
KURBB Kurchatov Arra 61.70 327 P **P 15 14 04.2 -1.3**
comp=Z,0.8nm,0.4s,baz=26,slow=6.3,SNR=7.5
comp=Z,0.8nm,0.4s
MKAR Makanchi Array 64.16 323 P **P 15 14 20.1 -1.7**
comp=Z,0.9nm,0.6s,baz=35,slow=6.8,SNR=9.4
MKAR LR LR 15 46 44.7
comp=Z,52nm,18.3s,baz=269,slow=40
comp=Z,0.9nm,0.6s
GTA2 Gaotai 64.72 307 *e*P **P 15 14 25.6 -0.2**
GTA2 pmax pmax
comp=Z,5.0nm,0.8s
WMQ Urumqi 65.18 318 *e*P P 15 14 34.4 +5.7
WMQ pP pP 15 14 39.1 -4.1
WMQ pmax pmax
comp=Z,21nm,0.8s
GUMO Guam 66.39 254 LR LR 15 40 34.4
comp=Z,11nm,20.6s,baz=120,slow=33
CLL Collm 66.70 12 *i* P **P 15 14 37.7 -0.5**
comp=Z,5.0nm,1.0s
KSP Ksiaz 67.45 9 P **P 15 14 43.6 +0.6**
comp=Z,11nm,1.4s
AK21 Malin Array Si 68.06 1 P **P 15 14 46.0 -0.7**
AK22 Malin Array Si 68.07 1 P **P 15 14 46.1 -0.7**
AK20 Malin Array Si 68.09 1 P **P 15 14 46.1 -0.8**
AK03 Malin Array Si 68.11 1 P **P 15 14 46.2 -0.9**
AK04 Malin Array Si 68.11 1 P **P 15 14 46.2 -0.9**
AK18 Malin Array Si 68.11 1 P **P 15 14 46.2 -0.9**
AK19 Malin Array Si 68.11 1 P **P 15 14 46.3 -0.8**
AKASG Malin Array Be 68.13 1 P **P 15 14 46.4 -0.9**
comp=Z,5.0nm,0.4s,baz=3.1,slow=6.2,SNR=27
comp=Z,5.0nm,0.4s

AKBB	**Malin Array Si**	**68.13**	**1**	P	**P**		**15 14 46.3**	**-0.9**
KIEV	**Kiev**	**68.14**	**1**	⇓P	**P**		**15 14 46.6**	**-0.6**
KIEV	**Kiev**	**68.14**	**1**	P	**P**		**15 14 46.3**	**-0.9**
	comp=Z,67nm,1.9s							
AK17	**Malin Array Si**	**68.15**	**1**	P	**P**		**15 14 46.4**	**-0.9**
AK11	**Malin Array Si**	**68.15**	**1**	P	**P**		**15 14 46.5**	**-0.9**
AK14	**Malin Array Si**	**68.20**	**1**	P	**P**		**15 14 46.9**	**-0.8**
AK07	**Malin Array Si**	**68.28**	**1**	P	**P**		**15 14 47.3**	**-0.9**
MORC	**Moravsky Berou**	**68.61**	**9**	⇓P	**P**		**15 14 50.3**	**0.0**
JTS	**Las Juntas de**	**69.19**	**107**	LR	LR		15 51 36.5	
	comp=Z,41nm,18.4s,baz=18,slow=41							
GERES	**GERESS Array B**	**69.21**	**11**	P	**P**		**15 14 53.6**	**-0.5**
	comp=Z,1.7nm,0.8s,baz=343,slow=4.2,SNR=11							
	comp=Z,1.7nm,0.8s							
GOMU	**GeErMu**	**69.47**	**309**	P	**P**		**15 14 56.0**	**-0.3**
GOMU				pP	pP		15 14 59.5	-11
GOMU				sP	sP		15 15 02.9	-14
GOMU				pmax	pmax			
	comp=Z,4.0nm,0.8s							
JAVC	**Velka Javorina**	**69.53**	**9**	*eP*	**P**		**15 14 57.1**	**+1.1**
ABNA	**Allensteig Bun**	**69.54**	**10**	*eP*	**P**		**15 14 56.3**	**+0.3**
	comp=Z,4.5nm,0.8s							
WINA	**Alland / Wiene**	**70.15**	**10**	*eP*	**P**		**15 15 00.3**	**+0.5**
	comp=Z,4.2nm,1.1s							
MOA	**Molln**	**70.25**	**11**	*eP*	**P**		**15 15 00.7**	**+0.3**
	comp=Z,6.1nm,1.1s							
CONA	**Conrad Observa**	**70.31**	**10**	*eP*	**P**		**15 15 01.4**	**+0.5**
	comp=Z,6.4nm,0.9s							
BIOA	**Bad Ischl, Aus**	**70.34**	**12**	*eP*	**P**		**15 15 01.1**	**+0.1**
	comp=Z,3.2nm,0.7s							
MOTA	**Moosalm**	**70.42**	**14**	*eP*	**P**		**15 15 02.2**	**+0.5**
	comp=Z,7.1nm,1.3s							
WATA	**Walderalm**	**70.48**	**13**	*eP*	**P**		**15 15 02.8**	**+0.8**
	comp=Z,9.6nm,1.4s							
LESA	**Schwarzleotal**	**70.51**	**12**	*eP*	**P**		**15 15 02.5**	**+0.4**
	comp=Z,9.7nm,1.7s							
SQTA	**Sankt Quirin**	**70.56**	**14**	*eP*	**P**		**15 15 03.1**	**+0.7**
	comp=Z,11nm,0.9s							
WTTA	**Wattenberg**	**70.56**	**13**	*eP*	**P**		**15 15 03.0**	**+0.5**
	comp=Z,8.8nm,0.9s							
RONA	**Rosalia, Austr**	**70.57**	**10**	*eP*	**P**		**15 15 03.2**	**+0.8**
	comp=Z,2.2nm,0.7s							
PSZ	**Piszkesteto**	**70.61**	**7**	⇓P	**P**		**15 15 03.4**	**+0.7**
SORM	**Soroca**	**70.69**	**1**	⇓P	**P**		**15 14 60.0**	**-3.1**
FETA	**Feichten**	**70.70**	**14**	*eP*	**P**		**15 15 03.9**	**+0.6**
	comp=Z,5.9nm,1.2s							
DAVOX	**Davos/Dischmat**	**70.83**	**15**	LR	LR		15 47 51.8	
	comp=Z,22nm,18.4s,baz=272,slow=37							
KBA	**Koelnbreinsper**	**70.92**	**12**	*eP*	**P**		**15 15 05.0**	**+0.2**
	comp=Z,11nm,0.8s							
ARSA	**Arzberg**	**70.95**	**10**	*eP*	**P**		**15 15 05.4**	**+0.7**
	comp=Z,3.4nm,1.0s							
SESA	**Seetaler Alpe,**	**71.00**	**11**	*eP*	**P**		**15 15 05.8**	**+0.6**
	comp=Z,5.0nm,0.9s							
TUE	**Stuetta**	**71.07**	**15**	P	**P**		**15 15 06.5**	**+0.8**
	comp=Z,33nm,1.1s							
BURAR	**Bucovina Array**	**71.15**	**3**	⇑P	**P**		**15 15 06.0**	**0.0**
MPLH	**Magyarpolny**	**71.20**	**9**	P	**P**		**15 15 06.6**	**+0.4**
	comp=Z,19nm,1.0s							
SJG	**San Juan**	**71.31**	**87**	LR	LR		15 48 00.7	
	comp=Z,32nm,20.3s,baz=98,slow=37							
MYKA	**Terra Mystica**	**71.39**	**12**	*eP*	**P**		**15 15 07.7**	**+0.3**
	comp=Z,5.6nm,1.3s							
OBKA	**Obir**	**71.60**	**11**	*eP*	**P**		**15 15 09.2**	**+0.5**
	comp=Z,18nm,0.8s							
BIZ	**Bicaz**	**71.85**	**3**	⇑P	**P**		**15 15 10.4**	**+0.3**
MARR	**Marisel-Cluj**	**72.02**	**5**	⇓P	**P**		**15 15 10.8**	**-0.4**
MORH	**Mrgy, Hungar**	**72.23**	**8**	⇓P	**P**		**15 15 12.2**	**-0.1**
MORH	**Mrgy, Hungar**	**72.23**	**8**	P	**P**		**15 15 12.2**	**-0.1**
VRI	**Vrincioaia**	**72.94**	**2**	⇑P	**P**		**15 15 12.4**	**-4.2**
PLOR	**Plostina**	**72.95**	**2**	⇓P	**P**		**15 15 16.5**	**-0.3**
BZS	**Buzias**	**73.00**	**6**	⇓P	**P**		**15 15 16.9**	**-0.1**
KSH2	**Kashi**	**73.11**	**325**	P	**P**		**15 15 17.6**	**-0.3**
KSH2				pmax	pmax			
	comp=Z,3.0nm,0.9s							
VOIR		**73.32**	**4**	⇑P	**P**		**15 15 19.0**	**0.0**
ARR	**Arges**	**73.38**	**4**	⇓P	**P**		**15 15 19.4**	**+0.1**
HERR	**Herculane**	**73.78**	**6**	⇑P	**P**		**15 15 20.6**	**-0.9**
MDVR	**Moldovita**	**73.84**	**6**	⇑P	**P**		**15 15 21.8**	**-0.2**
HARR	**Harsova**	**74.14**	**2**	⇑P	**P**		**15 15 23.4**	**-0.2**
KBZ	**Khabaz**	**74.59**	**350**	P	**P**		**15 15 26.0**	**-0.3**
	comp=Z,3.2nm,0.8s,baz=329,slow=6.0,SNR=3.7							
	comp=Z,3.2nm,0.8s							
BOVS	**Bovan**	**74.98**	**6**	⇑P	**P**		**15 15 28.4**	**-0.1**
BLKB	**Belogradchik**	**75.04**	**6**	⇑P	**P**		**15 15 28.2**	**-0.8**
ESDC	**Sonseca Array**	**75.44**	**27**	P	**P**		**15 15 31.3**	**0.0**
	comp=Z,2.8nm,0.8s,baz=339,slow=5.8,SNR=15							
	comp=Z,2.8nm,0.8s							
ESDC	**Sonseca Array**	**75.44**	**27**	P	**P**		**15 15 31.8**	**+0.5**
PPT	**Papeete**	**78.81**	**180**	LR	LR		15 42 12.1	
	comp=Z,49nm,21.4s,baz=128,slow=29							
BRTR	**Keskin Array B**	**79.07**	**357**	P	**P**		**15 15 51.4**	**-0.4**
	comp=Z,2.0nm,1.0s,baz=0.0,slow=4.9,SNR=5.3							
	comp=Z,2.0nm,1.0s							
KEST	**Kesra**	**81.64**	**17**	P	**P**		**15 16 05.5**	**0.0**
	comp=Z,7.3nm,0.8s,baz=338,slow=3.8,SNR=8.3							
	comp=Z,7.3nm,0.8s							
KEST	**Kesra**	**81.64**	**17**		**P**		**15 16 06.2**	**+0.7**
CMAR	**Chiang Mai Arr**	**83.56**	**297**	P	**P**		**15 16 15.1**	**-0.6**
	comp=Z,1.6nm,0.8s,baz=6.3,slow=5.9,SNR=16							
CMAR				LR	LR		15 57 13.0	
	comp=Z,15nm,21.1s,baz=15,slow=38							
	comp=Z,1.6nm,0.8s							
ASF	**Jabal al Asfar**	**86.48**	**354**	LR	LR		16 04 04.3	
	comp=Z,20nm,18.1s,baz=310,slow=42							
MDP	**Montagnes des**	**89.03**	**81**	LR	LR		15 57 47.4	
	comp=Z,18nm,18.9s,baz=13,slow=36							
BOSA	**Boshof**	**146.94**	**8**	PKPbc	**PKPbc**		**15 23 28.6**	**-0.9**
	comp=Z,3.1nm,0.5s,baz=345,slow=2.5,SNR=9.8							
QSPA	**South Pole Qui**	**151.32**	**180**	PKPbc	**PKPbc**		**15 23 38.9**	**-0.4**
	comp=Z,12nm,0.7s,baz=140,slow=4.3,SNR=84							
QSPA	**South Pole Qui**	**151.32**	**180**		**PKPbc**		**15 23 39.1**	**-0.2**
VNA3	**Neumayer Olymp**	**161.75**	**139**	⇓PKPab	**PKPab**		**15 24 31.3**	**-1.1**
	comp=Z,2.9nm,0.7s							
TROLL	**Troll, Antarti**	**165.07**	**146**	⇑PKPab	**PKPab**		**15 24 46.3**	**-0.8**
	comp=Z,68nm,0.8s							

*AEIC **07** 15:04:18.4±1.0,61°.55N±0°.03×149°.92W±0°.04,h47km±4km, Error ellipse: s-maj=3.8km s-min=2.3km az=165.0*
NEIC 07 15:04:17.9±1.4,**61°.54N**±0°.02×**149°.93W**±0°.05,**h47**km±4km, **ML4.2**/20,**ML3.9**(AEIC),**Error ellipse: s-maj=3.4km s-min=3.0km az=165.0,Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	**Willow**	**0.23**	**337**		Pn	15 04 25.9	-0.2
M22K	**Willow**	**0.23**	**337**	IAML		15 04 32.2	
	comp=E,27µm,0.5s						
M22K				IAML		15 04 33.2	
	comp=N,25µm,0.6s						
PMR	**Palmer**	**0.39**	**82**		Pn	15 04 27.1	-0.5
PMR					Sn	15 04 34.7	+0.2
PMR	**Palmer**	**0.39**	**82**	IAML		15 04 35.4	
	comp=N,10µm,0.4s						
PMR				IAML		15 04 35.7	
	comp=E,18µm,0.3s						
SUA	**Susitna One**	**0.40**	**259**		Pn	15 04 27.9	0.0
SUA					Sn	15 04 35.5	+0.6
SUA	**Susitna One**	**0.40**	**259**	IAML		15 04 36.2	
	comp=E,14µm,0.8s						
SUA				IAML		15 04 36.7	
	comp=N,19µm,0.8s						
RC01	**Rabbit Creek A**	**0.46**	**168**		Pn	15 04 28.3	-0.2
RC01					Sn	15 04 36.1	+0.1
RC01	**Rabbit Creek A**	**0.46**	**168**	IAML		15 04 37.1	
	comp=E,11µm,0.5s						
RC01				IAML		15 04 37.9	
	comp=N,10µm,0.3s						
GHO	**Glory Hole Cre**	**0.53**	**64**		Pn	15 04 29.3	-0.1
GHO					Sn	15 04 38.2	+0.5
GHO	**Glory Hole Cre**	**0.53**	**64**	IAML		15 04 39.2	
	comp=N,12µm,0.5s						
SKT	**Skwentna**	**0.88**	**301**		Sn	15 04 45.9	+0.3
STLK	**Strandline Lak**	**0.91**	**268**		Sn	15 04 47.0	+0.5
PWL	**Port Wells**	**1.03**	**131**		Sn	15 04 50.9	+1.6
SPCG	**Spurr Capps Gl**	**1.04**	**257**		Sn	15 04 51.0	+1.4
M20K	**Styx River**	**1.56**	**284**	Pn	Pn	15 04 41.5	-1.8
M20K				IAML		15 05 05.9	
	comp=N,2µm,0.8s						
PPLA	**Purkeypile**	**1.72**	**323**	Pn	Pn	15 04 43.9	-1.6
PPLA				IAML		15 05 01.1	
	comp=E,6µm,1.0s						
PPLA				IAML		15 05 01.1	
	comp=N,5µm,1.0s						
RED	**Redoubt Volcan**	**1.79**	**232**	Pn	Pn	15 04 45.1	-1.2
RED				IAML		15 05 04.1	
	comp=E,2µm,0.8s						
FID	**Port Fidalgo**	**1.85**	**114**	Pn	Pn	15 04 44.8	-2.3
DIV	**Divide**	**2.05**	**100**	Pn	Pn	15 04 49.8	-0.1

*SJA **07** 15:22:16.3±0.7,25°.42S×71°.37W,h10km±4km, ML3.6, MW3.4*
*GUC **07** 15:22:20.5±0.3,25°.49S×71°.03W,h32km±1km, ML3.7, Presumed earthquake*
ISC 07 15:22:20.9±1.5,**25°.50S**±0°.02×**70°.96W**±0°.08,**h19**km±3km, **n32**,σ1°**53**/52,**4C-1D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC01	**Pan de Azucar**	**0.73**	**153**	*eP*	**Pg**	**15 22 35.3**	**+0.1**
AC01				*eS*	**Sg**	**15 22 44.9**	**0.0**
AC01				IAML		15 22 48.6	
	comp=Z,1µm,0.5s						
AC01	**Pan de Azucar**	**0.73**	**153**	⇑*eP*	**Pg**	**15 22 35.3**	**+0.1**
AC01				*eS*	**Sb**	**15 22 44.6**	**+0.1**
PB14	**IPOC Station P**	**1.00**	**30**	*eP*	**Pb**	**15 22 39.2**	**-0.7**
PB14				IAML		15 22 57.6	
	comp=Z,813nm,0.7s						
PB14	**IPOC Station P**	**1.00**	**30**	⇓*eP*	**Pb**	**15 22 39.0**	**-0.8**
PB14				*eS*	**Sb**	**15 22 51.8**	**-1.0**
AC06	**Mina Casimiro**	**1.93**	**164**	*eP*	**Pb**	**15 22 54.5**	**-1.0**
AC06				*eS*	**Sb**	**15 23 18.5**	**-0.8**
AC06				IAML		15 23 23.1	
	comp=E,739nm,0.3s						
PB10	**IPOC Station P**	**2.01**	**11**	*eP*	**Pn**	**15 22 53.4**	**-0.4**
PB10				*eS*	**Sb**	**15 23 23.2**	**+1.7**
PB10				IAML		15 23 28.8	
	comp=Z,210nm,0.6s						
PB10	**IPOC Station P**	**2.01**	**11**	*eP*	**Pn**	**15 22 53.3**	**-0.4**
AC02	**Maricunga**	**2.12**	**129**	*eP*	**Pb**	**15 22 58.5**	**-0.5**
AC02				*eS*	**Sb**	**15 23 25.1**	**0.0**
AC02				IAML		15 23 27.1	
	comp=Z,371nm,0.6s						
AC02	**Maricunga**	**2.12**	**129**	⇑*eP*	**Pb**	**15 22 58.3**	**-0.7**
AC02				*eS*	**Sb**	**15 23 24.4**	**-0.7**
AC02				IAML		15 23 28.0	
	comp=N,742nm,0.2s						
GO03	**Copiapo**	**2.19**	**163**	*eP*	**Pb**	**15 22 58.9**	**-1.0**
GO03				*eS*	**Sb**	**15 23 28.7**	**+2.0**
GO03				IAML		15 23 31.6	
	comp=Z,308nm,0.6s						
GO03	**Copiapo**	**2.19**	**163**	*eP*	**Pb**	**15 22 58.6**	**-1.3**
GO03				*eS*	**Sb**	**15 23 25.0**	**-1.6**
GO03				IAML		15 23 34.1	
	comp=E,370nm,0.3s						
AC04	**Llanos de Chal**	**2.70**	**182**	*eP*	**Pn**	**15 23 03.2**	**-0.1**
AC04				*eS*	**Sb**	**15 23 38.5**	**-2.9**
AC04				IAML		15 23 55.6	
	comp=Z,102nm,0.7s						
AC04	**Llanos de Chal**	**2.70**	**182**	*eP*	**Pn**	**15 23 03.0**	**-0.3**
AC04				*eS*	**Sn**	**15 23 35.7**	**+0.3**
AC04				IAML		15 23 51.8	
	comp=E,121nm,0.6s						
PB05	**IPOC Station P**	**2.72**	**15**	*eP*	**Pn**	**15 23 03.4**	**-0.3**
PB05				*eS*	**Sb**	**15 23 43.9**	**+1.8**
PB05				IAML		15 23 55.8	
	comp=Z,146nm,0.4s						
PB05	**IPOC Station P**	**2.72**	**15**	⇑*eP*	**Pn**	**15 23 03.2**	**-0.5**
PB05				*eS*	**Sn**	**15 23 34.8**	**-1.3**
PB05				IAML		15 23 50.0	
	comp=E,199nm,0.5s						
PB06	**IPOC Station P**	**3.06**	**25**	*eP*	**Pn**	**15 23 09.9**	**+1.6**
PB06				*eS*	**Sb**	**15 23 51.7**	**0.0**
PB06				IAML		15 24 04.2	
	comp=Z,171nm,0.3s						
PB06	**IPOC Station P**	**3.06**	**25**	⇑*eP*	**Pn**	**15 23 09.2**	**+0.8**
PB06				*eS*	**Sb**	**15 23 54.3**	**+2.6**
PB06				IAML		15 24 03.7	
	comp=N,264nm,0.7s						
AC05	**El Transito**	**3.38**	**170**	*eP*	**Pn**	**15 23 15.7**	**+2.8**
AC05				*eS*	**Sb**	**15 23 58.6**	**-2.5**
AC05				IAML		15 24 11.6	
	comp=Z,100nm,0.8s						
AC05	**El Transito**	**3.38**	**170**	*eP*	**Pn**	**15 23 15.6**	**+2.8**
AC05				*eS*	**Sn**	**15 23 56.1**	**+3.6**
AC05				IAML		15 24 14.1	
	comp=N,198nm,0.4s						
LCO	**Las Campanas**	**3.51**	**176**	*eP*	**Pn**	**15 23 16.1**	**+1.4**
LCO				*eS*	**Sb**	**15 24 04.9**	**0.0**
LCO				IAML		15 24 16.9	
	comp=Z,180nm,0.7s						
LCO	**Las Campanas**	**3.51**	**176**	*eP*	**Pn**	**15 23 15.5**	**+0.8**
LCO				*eS*	**Sn**	**15 23 57.4**	**+1.6**
PB03	**IPOC Station P**	**3.61**	**18**	*eP*	**Pn**	**15 23 16.1**	**+0.2**
PB03				IAML		15 24 18.6	
	comp=Z,175nm,0.4s						
PB03	**IPOC Station P**	**3.61**	**18**	*eP*	**Pn**	**15 23 15.6**	**-0.4**
PB07	**IPOC Station P**	**3.88**	**15**	*eP*	**Pn**	**15 23 19.8**	**+0.1**
PB07				IAML		15 24 23.4	
	comp=Z,141nm,0.9s						
PB07	**IPOC Station P**	**3.88**	**15**	*eP*	**Pn**	**15 23 19.2**	**-0.5**
PB07				*eS*	**Sn**	**15 24 03.9**	**-0.9**
TINO	**Tinogasta**	**3.97**	**131**	*eP*	**Pb**	**15 23 25.6**	**-4.7**
TINO				IAML		15 24 33.6	
	comp=Z,53nm,1.0s						
PB09	**IPOC Station P**	**4.01**	**24**	*eP*	**Pn**	**15 23 22.7**	**+1.2**
PB09				IAML		15 24 36.0	
	comp=Z,145nm,0.8s						
PB09	**IPOC Station P**	**4.01**	**24**	*eP*	**Pn**	**15 23 22.6**	**+1.2**
PB02	**IPOC Station P**	**4.27**	**13**	*eP*	**Pn**	**15 23 24.9**	**-0.1**
PB02				IAML		15 24 42.2	
	comp=Z,141nm,0.5s						
PB02	**IPOC Station P**	**4.27**	**13**	*eP*	**Pn**	**15 23 24.1**	**-0.9**
GO04	**Tololo Observa**	**4.66**	**178**	*eP*	**Pn**	**15 23 32.2**	**+1.7**
GO04				IAML		15 24 54.7	
	comp=Z,58nm,0.6s						
GO04	**Tololo Observa**	**4.66**	**178**	*eP*	**Pn**	**15 23 31.6**	**+1.1**

*KRNET **07** 15:27:36.2±0.1,42°.28N×76°.43E,h19km,mb2.6*
*NNC **07** 15:27:37.1±0.5,42°.29N×76°.40E,h6km±4km,mb1.9, mpv2.6,Error ellipse: s-maj=4.2km s-min=2.3km az=148.0*
*SOME **07** 15:27:37.1,42°.22N×76°.42E,h20km*
ISC 07 15:27:36.3±1.1,**42°.25N**±0°.04×**76°.43E**±0°.02,**h17**km±7km, **n23**,σ0°**67**/44,**17C-1D,Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ULHL	**Ulahol**	**0.14**	**270**	⇑*eP*	**Pb**	**15 27 40.3**	**-0.2**
ULHL				*eS*	**Sg**	**15 27 43.0**	**-0.4**
KDJ	**Kajisay**	**0.57**	**101**	⇑*eP*	**Pb**	**15 27 47.6**	**-0.4**
KDJ				⇑*eS*	**Sb**	**15 27 55.6**	**-0.3**
KST	**Kastek**	**0.87**	**337**	P	**Pb**	**15 27 53.2**	**+0.3**
	1.5nm,0.2s						
KST				S	**Sg**	**15 28 05.0**	**+0.3**
	24nm,0.3s						
KST	**Kastek**	**0.87**	**337**	*eP*	**Pb**	**15 27 53.2**	**+0.3**
	1.5nm,0.2s						
KST				*eS*	**Sg**	**15 28 05.0**	**+0.3**
	24nm,0.3s						
TNSS	**Tian-Shan**	**0.88**	**26**	P	**Pg**	**15 27 54.0**	**+0.5**
	0.5nm,0.1s						
TNSS				S	**Sn**	**15 28 06.3**	**-0.5**
	1.3nm,0.1s						
TNSS	**Tian-Shan**	**0.88**	**26**	*eP*	**Pg**	**15 27 54.0**	**+0.5**
	0.5nm,0.1s						
TNSS				*eS*	**Sn**	**15 28 06.3**	**-0.5**
	1.3nm,0.1s						
MTBS	**Maitube**	**0.88**	**0**	P	**Pg**	**15 27 53.7**	**+0.1**
	3.0nm,0.1s						
MTBS				S	**Sn**	**15 28 05.7**	**-0.7**
	19nm,0.1s						
MTBS	**Maitube**	**0.88**	**0**	*eP*	**Pg**	**15 27 53.7**	**+0.1**
	3.0nm,0.1s						
MTBS				*eS*	**Sn**	**15 28 05.7**	**-0.7**
	19nm,0.1s						
TKM2	**Tokmak 2**	**0.91**	**318**	⇑*eP*	**Pb**	**15 27 53.0**	**-0.8**
TKM2				⇑*eS*	**Sb**	**15 28 05.1**	**-0.6**
MDOK	**Medeo**	**1.03**	**26**	Pg	**Pb**	**15 27 56.0**	**+0.3**
	0.5nm,0.0s						
MDOK				Lg	Lg	15 28 09.8	
	5.0nm,0.4s						
MDOK	**Medeo**	**1.03**	**26**	*eP*	**Pb**	**15 27 56.0**	**+0.3**
	0.5nm,0.0s						
MDOK				*eS*	**Sg**	**15 28 09.8**	**0.0**
	5.0nm,0.4s						
KBK	**Karagaybulak**	**1.17**	**291**	⇑*eP*	**Pn**	**15 27 57.8**	**-0.2**
KBK				⇑*eS*	**Sn**	**15 28 13.5**	**-0.1**
UCH	**Uchtor**	**1.42**	**270**	⇑*eP*	**Pn**	**15 28 02.5**	**+0.8**
UCH				⇑*eS*	**Sb**	**15 28 21.6**	**+1.1**
CHMS	**Chumysh**	**1.45**	**302**	⇑*eP*	**Pb**	**15 28 02.6**	**-0.2**
CHMS				⇑*eS*	**Sb**	**15 28 21.6**	**+0.7**
KTBS	**Karatobe**	**1.48**	**7**	P	**Pb**	**15 28 03.5**	**+0.2**
	0.4nm,0.0s						
KTBS				S	**Sg**	**15 28 22.8**	**-1.2**
	9.4nm,0.2s						
KTBS	**Karatobe**	**1.48**	**7**	*eP*	**Pb**	**15 28 03.5**	**+0.2**
	0.4nm,0.0s						
KTBS				*eS*	**Sg**	**15 28 22.8**	**-1.2**
	9.4nm,0.2s						
AAK	**Ala-Archa**	**1.48**	**286**	⇑Pg	**Pb**	**15 28 04.2**	**+0.8**
	0.4nm,0.6s						
AAK				⇓Lg	Lg	15 28 23.0	
	0.2nm,0.3s						
KRBS	**Karabastau**	**1.55**	**339**	*eP*	**Pb**	**15 28 05.2**	**+0.6**
	1.1nm,0.1s						
KRBS				*eS*	**Sg**	**15 28 25.4**	**-1.0**
	1.0nm,0.2s						
SATY	**Saty**	**1.67**	**60**	*eP*	**Pg**	**15 28 08.6**	**+0.1**
	1.0nm,0.1s						
SATY				*eS*	**Sg**	**15 28 31.3**	**+1.0**
	7.2nm,0.1s						
USP	**Ospenovka**	**1.75**	**306**	⇑*eP*	**Pb**	**15 28 07.7**	**-0.2**
USP				⇑*eS*	**Sb**	**15 28 30.6**	**+1.1**
EKS2	**Erkin-Say**	**2.00**	**283**	⇑*eP*	**Pb**	**15 28 11.6**	**-0.7**
EKS2				⇑*eS*	**Sb**	**15 28 37.1**	**+0.1**
KPKS	**Kokpek**	**2.06**	**53**	*eP*	**Pg**	**15 28 15.1**	**-0.8**
	0.3nm,0.2s						
KPKS				*eS*	**Sg**	**15 28 42.4**	**-0.3**
	4.2nm,0.3s						
UZB	**Uzynbulak**	**2.12**	**64**	*eP*	**Pb**	**15 28 15.5**	**+1.3**
	2.6nm,0.2s						
UZB				*eS*	**Sg**	**15 28 43.1**	**-1.3**
	2.3nm,0.3s						

*ISK **07** 15:34:08.7,39°.06N×25°.93E,h4km,ML2.5/10*
*THE **07** 15:34:10.2,39°.N±33°×2°.6E±3°.0,h7km±17km,M2.3/4, MLh2.3/4*
*AFAD **07** 15:34:11.5,39°.01N×26°.06E,h7km±3km,ML2.2*
ISC 07 15:34:09.8±1.2,**39°.04N**±0°.02×**25°.94E**±0°.04,**h10**km±11km, **n28**,σ0°**75**/42,**Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRK	**Paraskevi**	**0.33**	**52**	P	**Pg**	**15 34 16.1**	**-0.2**
PRK				S	**Sb**	**15 34 22.3**	**-0.8**
KARB	**zmir-Karabur**	**0.53**	**136**	P	**Pg**	**15 34 20.4**	**+0.4**
AYVA	**Ayvalik**	**0.64**	**65**	P	**Pb**	**15 34 22.8**	**-0.3**
AYVA				S	**Sg**	**15 34 30.5**	**0.0**
AYVA				IAML		15 34 31.0	
	comp=N,181nm,0.6s						
KRBN	**Karaburun**	**0.66**	**133**	Pg	**Pg**	**15 34 22.3**	**-0.2**
CHOS	**Chios island**	**0.66**	**172**	P	**Pg**	**15 34 23.1**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.66**	**172**	Pg	**Pg**	**15 34 23.2**	**+0.6**
CHOS				Sg	**Sb**	**15 34 32.7**	**-0.1**
CHOS				AML	AML		
DKL	**Dikili**	**0.75**	**88**	Pg	**Pg**	**15 34 24.6**	**+0.3**
DKL				Sg	**Sb**	**15 34 35.3**	**0.0**
DKL				AML	AML		
EZNE	**Ezine-Canakkal**	**0.78**	**25**	Pg	**Pg**	**15 34 23.9**	**-1.0**
EZNE				Sg	**Sg**	**15 34 35.5**	**+0.4**
BOZC	**Bozcaada**	**0.80**	**6**	Pg	**Pg**	**15 34 24.7**	**-0.5**
BOZC				Sg	**Sg**	**15 34 36.1**	**+0.4**
BOZC				AML	AML		
EZN	**Ezine**	**0.84**	**21**	P	**Pg**	**15 34 25.4**	**-0.5**
EZN				S	**Sb**	**15 34 38.6**	**+0.9**
EZN	**Ezine**	**0.84**	**21**	Pg	**Pg**	**15 34 25.1**	**-0.8**
EZN				Sg	**Sb**	**15 34 37.3**	**-0.4**
EZN				AML	AML		
ZEDA	**zmir-Bergama**	**0.89**	**95**	P	**Pg**	**15 34 27.1**	**+0.2**
ZEDA				S	**Sg**	**15 34 38.7**	**+0.2**
ZEDA				IAML		15 34 42.0	
	comp=N,93nm,0.3s						
ZEDA				IAML		15 34 42.0	
	comp=E,83nm,0.5s						
ZEYE	**Izmir, Urla-Ze**	**0.92**	**151**	P	**Pg**	**15 34 24.6**	**-2.8**
LIA	**Limnos Island**	**1.03**	**326**	P	**Pg**	**15 34 29.7**	**+0.1**
LIA				AML	AML		
YAYO	**Edremit-Balk**	**1.05**	**57**	Pg	**Pg**	**15 34 29.4**	**-0.5**
YAYO				Sg	**Sb**	**15 34 44.7**	**+0.9**
YAYO				AML	AML		
BLCB	**Balcova**	**1.08**	**127**	Pn	**Pg**	**15 34 30.5**	**-0.1**
CAMT	**Merkez**	**1.11**	**105**	P	**Pb**	**15 34 31.3**	**+0.2**
CAMT				S	**Sg**	**15 34 45.5**	**0.0**
CAMT				IAML		15 34 50.0	
	comp=N,62nm,0.4s						
BEYE	**izmir**	**1.12**	**136**	P	**Pg**	**15 34 29.5**	**-1.9**
BEYE				S	**Sg**	**15 34 45.5**	**-0.4**

GO03 eS Sn 15 35 55.2 -0.1
GO03 IAML 15 35 56.5
comp=Z,188nm,0.2s
GO03 Copiapo 2.75 292 Pn 15 35 22.4 +0.6
RTLL Cerro Villicun 2.81 200 eP Pn 15 35 17.7 -5.0
RTLL eP 15 35 23.3
RTLL eS Sn **15 35 57.4 +0.6**
RTLL IAML 15 35 58.2
comp=Z,673nm,0.6s
LCO Las Campanas 2.94 263 eP **Pn 15 35 25.1 +0.6**
LCO eS Sn **15 36 00.5 +0.5**
LCO IAML 15 36 01.3
comp=Z,586nm,0.4s
LCO Las Campanas 2.94 263 Pn 15 35 24.9 +0.4
AC06 Mina Casimiro 2.94 296 Pn 15 35 24.7 +0.4
CFA Coronel Fontan 3.01 194 P **Pn 15 35 25.6 +0.4**
comp=Z,399nm,0.3s,baz=34,slow=14,SNR=589
CFA S Sn **15 36 00.5 -0.9**
comp=Z,97nm,0.3s,baz=130,slow=17,SNR=16
CFA Coronel Fontan 3.01 194 eP **Pn 15 35 25.7 +0.4**
CFA eS Sn **15 36 01.6 +0.2**
CFA IAML 15 36 10.5
comp=Z,222nm,0.3s
SJA San Juan 3.02 200 eP **Pn 15 35 26.5 +1.1**
SJA eS Sn **15 36 02.6 +0.9**
SJA IAML 15 36 03.9
comp=Z,129nm,0.6s
ZON Zonda 3.08 201 eP **Pn 15 35 26.8 +0.7**
ZON IAML 15 36 16.4
comp=Z,148nm,0.7s
ZON Zonda 3.08 201 Pn 15 35 26.4 +0.4
AC04 Llanos de Chal 3.29 277 eP **Pn 15 35 28.7 -0.1**
AC04 Llanos de Chal 3.29 277 Pn 15 35 28.3 -0.5
GO04 Tololo Observa 3.34 243 eP **Pn 15 35 30.0 +0.3**
GO04 eS Sn **15 36 10.4 +1.1**
GO04 IAML 15 36 11.4
comp=Z,301nm,0.3s
GO04 Tololo Observa 3.34 243 Pn 15 35 29.8 +0.1
RTLS Leoncito 3.53 208 eP **Pn 15 35 32.9 +0.6**
RTLS eS Sn **15 36 16.6 +2.7**
RTLS IAML 15 36 21.4
comp=Z,205nm,0.3s
TCA Tanti 3.58 138 eP **Pn 15 35 33.3 +0.5**
TCA IAML 15 36 30.6
comp=Z,97nm,0.5s
ACAN Cantantal 3.59 177 eP **Pn 15 35 33.5 +0.8**
ACAN IAML 15 36 23.5
comp=Z,466nm,0.3s
CO05 La Serena 3.60 249 Pn 15 35 31.6 -1.2
CO03 El Pedregal 3.60 232 eP **Pn 15 35 33.5 +0.5**
CO03 eS Sn **15 36 17.3 +2.1**
CO03 IAML 15 36 20.9
comp=Z,102nm,0.6s
CO03 El Pedregal 3.60 232 Pn 15 35 33.0 +0.1
AC01 Pan de Azucar 3.81 311 eP **Pn 15 35 36.1 +0.3**
AC01 Pan de Azucar 3.81 311 Pn 15 35 35.8 +0.1
MRA San Martin 4.00 159 eP **Pn 15 35 36.4 -1.8**
CO02 Combarbal 4.03 230 eP **Pn 15 35 38.3 -0.4**
CO02 eS Sn **15 36 25.4 -0.1**
CO02 IAML 15 36 51.0
comp=Z,91nm,0.4s
CO02 Combarbal 4.03 230 Pn 15 35 37.9 -0.8
CO06 Fray Jorge 4.21 241 Pn 15 35 39.0 -1.9
ARCO CERRO ARCO 4.36 198 eP **Pn 15 35 43.9 +0.7**
AAGR Agrelo 4.57 196 eP **Pn 15 35 46.3 +0.5**
CO04 Los Peladeros 4.58 222 Pn 15 35 45.0 -1.1
PB14 IPOC Station P 4.86 325 eP **Pn 15 35 51.1 +1.2**
PB14 IPOC Station P 4.86 325 Pn 15 35 50.7 +0.8
AVIZ Vizcacheras 4.88 191 eP **Pn 15 35 51.6 +1.6**
VA03 San Esteban 4.91 213 eP **Pn 15 35 50.8 +0.5**
VA03 San Esteban 4.91 213 Pn 15 35 50.0 -0.3
MT08 Bocatoma Ro 5.27 205 eP **Pn 15 35 57.0 +1.7**
MT04 Ro Olivares 5.28 206 eP **Pn 15 35 57.3 +1.9**
PEL Peldehue 5.29 212 Pn 15 35 54.6 -0.7
PB05 IPOC Station P 6.33 336 Pn 15 36 08.6 -0.9
PB03 IPOC Station P 6.94 341 Pn 15 36 17.2 -0.6
BI02 San Fabin de 8.62 201 Pn 15 36 37.6 -2.6
PB11 IPOC Station P 9.12 346 Pn **Pn 15 36 44.5 -2.5**
GO01 Chusmiza 9.12 349 Pn **Pn 15 36 45.2 -2.2**
CPUP Villa Florida 9.22 78 P **Pn 15 36 46.5 -1.8**
comp=Z,0.9nm,0.4s,baz=264,slow=14,SNR=6.2
GO06 Curarrehue 11.40 196 Pn **Pn 15 37 14.3 -3.1**
LR04 Corral 12.24 202 Pn Pn 15 37 23.7 -4.5
PLCA Paso Flores 12.31 191 P **Pn 15 37 27.6 -1.6**
comp=Z,0.7nm,0.6s,baz=360,slow=19,SNR=2.9
LPAZ La Paz 12.35 357 P **Pn 15 37 30.2 -0.3**
comp=Z,0.9nm,0.5s,baz=177,slow=3.7,SNR=4.2
LPAZ La Paz 12.35 357 Pn 15 37 28.2 -2.2
SIV San Ignacio 13.90 26 P **Pn 15 37 48.7 -1.2**
comp=Z,2.0nm,0.7s,baz=207,slow=15,SNR=10.0
VILB Vilhena 17.01 25 P **P 15 38 25.7 -2.6**
BDFB Brasilia 22.09 58 P **P 15 39 22.2 -1.0**
comp=Z,2.7nm,0.3s,baz=202,slow=8.3,SNR=5.4
comp=Z,2.7nm,0.3s
BDFB Brasilia 22.09 58 P **P 15 39 21.5 -1.7**
TEIG Tepich 52.64 335 P **P 15 43 39.5 +0.4**
QSPA South Pole Qui 61.55 180 P **P 15 44 42.8 +1.3**
comp=Z,1.6nm,0.6s,baz=204,slow=0.9,SNR=11
comp=Z,1.6nm,0.6s
QSPA South Pole Qui 61.55 180 P **P 15 44 40.7 -0.7**
QSPA IAmb IAmb 15 45 06.4
comp=Z,3.4nm,1.3s
BRDY Brady 66.80 331 P **P 15 45 16.6 +0.6**
BRDY IAmb IAmb 15 45 40.3
comp=Z,6.1nm,1.5s
SAND Sanderson 67.08 328 P **P 15 45 18.7 +0.9**
SAND IAmb IAmb 15 45 20.1
comp=Z,1.6nm,0.7s
WVT Waverly 67.28 342 P **P 15 45 18.9 +0.1**
WVT IAmb IAmb 15 45 19.8
comp=Z,3.0nm,0.7s
TXAR Lajitas Array 67.31 326 P **P 15 45 20.4 +1.1**
comp=Z,0.2nm,0.5s,baz=151,slow=8.0,SNR=3.8
comp=Z,0.2nm,0.5s
TXAR Lajitas Array 67.31 326 P **P 15 45 19.1 -0.2**
S39A Bolivar 70.36 338 P **P 15 45 38.5 +0.7**
S39A IAmb IAmb 15 45 39.4
comp=Z,3.0nm,0.7s
SUR Sutherland 73.86 118 P **P 15 46 00.2 +0.9**
TSUM Tsumeb 76.76 105 P **P 15 46 17.6 +1.6**
TORD Torodi Ar. Bea 78.59 68 P **P 15 46 27.1 +1.1**
comp=Z,1.8nm,0.6s,baz=268,slow=5.1,SNR=11
comp=Z,1.8nm,0.6s
BOSA Boshof 78.93 116 P **P 15 46 28.7 +0.8**
comp=Z,1.2nm,0.3s,baz=249,slow=4.0,SNR=6.1
comp=Z,1.2nm,0.3s
BOSA Boshof 78.93 116 P **P 15 46 28.2 +0.3**
BOSA IAmb IAmb 15 46 29.2
comp=Z,5.2nm,1.1s
PDAR Pinedale Array 81.00 330 P **P 15 46 39.6 +1.0**
comp=Z,0.2nm,0.3s,baz=146,slow=7.7,SNR=3.7
comp=Z,0.2nm,0.3s
ASAR Alice Springs 124.07 204 PKP **PKPdf 15 53 21.8 -0.1**
comp=Z,0.7nm,0.4s,baz=146,slow=1.9,SNR=19
ASAR pPKP **pPKPdf 15 53 55.0 -2.5**
comp=Z,0.2nm,0.5s,baz=137,slow=1.9,SNR=2.0
ASAR Alice Springs 124.07 204 PKPdf **PKPdf 15 53 22.1 +0.1**
WRA Warramunga Arr 127.31 206 PKP **PKPdf 15 53 28.4 +0.2**
comp=Z,1.3nm,0.5s,baz=163,slow=1.8,SNR=21
WRA pPKP **pPKPdf 15 54 01.1 -2.7**
comp=Z,0.3nm,0.6s,baz=152,slow=1.9,SNR=1.9
WRA Warramunga Arr 127.31 206 PKPdf **PKPdf 15 53 28.7 +0.5**
KURBB Kurchatov Arra 146.25 40 PKPbc **PKPab 15 54 04.9 +0.7**
comp=Z,0.8nm,0.3s,baz=293,slow=3.5,SNR=7.7
ZALV Zalesovo Beam 147.62 31 PKPbc **PKPbc 15 54 08.3 +1.3**
comp=Z,2.0nm,0.4s,baz=301,slow=4.5,SNR=11
ZALV pPKPbc **pPKPbc 15 54 42.0 -0.1**
comp=Z,0.8nm,0.5s,baz=336,slow=3.2,SNR=2.6
ZALV Zalesovo Beam 147.62 31 PKPbc **PKiKP 15 54 08.5 -0.4**
MKAR Makanchi Array 150.22 44 PKPbc **PKiKP 15 54 14.8 +0.3**
comp=Z,0.8nm,0.7s,baz=302,slow=2.7,SNR=5.7
MKAR pPKPbc **pPKPbc 15 54 47.4 -1.8**
comp=Z,0.8nm,0.7s,baz=277,slow=4.3,SNR=4.0

*IDC **07** 15:40:51.1±0.7,33˚.40N×141˚.07E,h0km,mb3.9/9, mbtmp3.9/13,ML3.5/4,MS3.3/3,Error ellipse: s-maj=20.6km s-min=10.4km az=77.0*
*NIED **07** 15:40:57.2,33˚.52N×141˚.06E,h47km,MW3.8,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}5.22; $M_{\theta\theta}$-0.14; $M_{\phi\phi}$-5.07; $M_{r\theta}$0.63; $M_{\theta\phi}$-2.06; $M_{\phi r}$1.84; Fault plane solution: $M_0$5.85000×10^{14} NP1: ϕ_s200.00000°,δ35.00000°,λ91.00000°. NP2:ϕ_s20.00000°,δ55.00000°,λ90.00000°.*
*JMA **07** 15:40:57.2-0.1,33˚.5N±0˚.4×141˚.1E±0˚.4,h47km,MV3.7/39, E OFF HACHIJOJIMA ISLAND*
ISC 07 15:40:55.4±1.7,**33˚.46N**±0˚.06×**141˚.13E**±0˚.07,**h30**km±11km, **n38**,σ0°.77/36,**mb3.9**/10,**Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**1.15**	**253**	*i* P		**Pb**	**15 41 17.0**	**+0.3**
JHJ2					S	**Sb**	**15 41 31.8**	**+0.4**
JHCJ	**Hachijojimakas**	**1.18**	**251**	P		**Pb**	**15 41 17.4**	**+0.2**
JHCJ					S	**Sb**	**15 41 31.8**	**-0.3**
BSO1	**Boso 1**	**1.20**	**354**	P		**Pn**	**15 41 16.2**	**+0.5**
BSO2	**Boso 2**	**1.33**	**347**	*eS*		**Sb**	**15 41 36.4**	**+0.2**
JMKN	**Mikurajimanish**	**1.35**	**289**	*i* P		**Pn**	**15 41 19.0**	**+0.7**
JMKN				*eS*		**Sb**	**15 41 35.8**	**-1.3**
BSO3	**Boso 3**	**1.44**	**339**	P		**Pn**	**15 41 19.9**	**+0.7**
JMYK	**Miyake Tsubota**	**1.45**	**295**	P		**Pn**	**15 41 20.3**	**+0.7**
JMYK				*eS*		**Sn**	**15 41 37.5**	**0.0**
JAOM	**Aogashimamukai**	**1.52**	**230**	*eP*		**Pb**	**15 41 22.3**	**-0.6**
BSO4	**Boso 4**	**1.67**	**337**	P		**Pn**	**15 41 23.4**	**+0.9**
JKO	**Kozu shima**	**1.81**	**294**	P		**Pn**	**15 41 25.5**	**+0.9**
JKO				*eS*		**Sn**	**15 41 47.1**	**+0.6**
JSKK	**Shikinejimakit**	**1.82**	**299**	*eP*		**Pn**	**15 41 25.4**	**+0.7**
JTHY	**Toshimahigashi**	**1.86**	**305**	P		**Pn**	**15 41 26.0**	**+0.7**
JKUC	**kamogawauchiur**	**1.87**	**336**	S		**Sn**	**15 41 48.6**	**+0.7**
JIM2	**Oshima 3**	**1.89**	**312**	P		**Pn**	**15 41 25.7**	**0.0**
MJAR	**Matsushiro Arr**	**3.90**	**323**	Pn		**Pn**	**15 41 55.0**	**+1.7**
	1.7nm,0.3s,baz=153,slow=14,SNR=170							
MJAR					Sn	**Sn**	**15 42 36.6**	**-1.6**
	0.9nm,0.3s,baz=184,slow=20,SNR=5.6 16nm,0.3s							
MJAR					AML	AML		
JCJ	**Chichijima**	**6.40**	**172**	Pn		Pn	15 42 23.8	-4.0
	4.7nm,0.3s,baz=305,slow=23,SNR=8.3							
JCJ					Sn	Sn	15 43 29.5	-10
	19nm,0.3s,baz=273,slow=20,SNR=5.9 46nm,0.8s							
JCJ					AML	AML		
JNU	**Nakatsue**	**8.59**	**271**	Pn		**Pn**	**15 42 58.3**	**+0.6**
	0.3nm,0.3s,baz=104,slow=20,SNR=1.4 4.5nm,0.8s							
JNU					AML	AML		
ASAJ	**Asahikawa**	**10.71**	**6**	Pn		**Pn**	**15 43 25.2**	**-1.4**
	0.4nm,0.3s,baz=221,slow=11,SNR=5.5							
ASAJ					Sn	Sn	15 45 16.4	-9.0
	0.2nm,0.3s,baz=247,slow=29,SNR=1.4 1.7nm,0.5s							
ASAJ					AML	AML		
KSRS	**Korea Array**	**11.48**	**294**	LR		LR	15 48 03.5	
	comp=Z,39nm,19.6s,baz=65,slow=38							
H11N2	**WAKE ISLAND Hy**	**26.70**	**114**	T		T	16 15 32.6	
	baz=306,slow=75,SNR=18							
H11N1	**WAKE ISLAND Hy**	**26.71**	**114**	T		T	16 15 27.5	
	baz=306,slow=75,SNR=13							
H11N3	**WAKE ISLAND Hy**	**26.72**	**114**	T		T	16 15 29.2	
	baz=306,slow=75,SNR=14							
H11S3	**WAKE ISLAND Hy**	**27.28**	**117**	T		T	16 16 12.8	
	baz=306							
H11S1	**WAKE ISLAND Hy**	**27.29**	**117**	T		T	16 16 19.5	
	baz=306							
H11S2	**WAKE ISLAND Hy**	**27.30**	**117**	T		T	16 16 16.1	
	baz=306							
SONM	**Songino Array**	**29.73**	**309**	LR		LR	15 58 21.9	
	comp=Z,34nm,19.3s,baz=300,slow=35							
ZALV	**Zalesovo Beam**	**44.22**	**315**	P		**P**	**15 49 01.4**	**-0.2**
	0.2nm,0.3s,baz=90,slow=10,SNR=1.5							
ZALV					PcP	**PP**	**15 50 45.3**	**+0.5**
	1.2nm,0.4s,baz=108,slow=4.5,SNR=5.4 0.2nm,0.3s							
MKAR	**Makanchi Array**	**45.90**	**305**	P		**P**	**15 49 14.7**	**-0.5**
	0.3nm,0.5s,baz=81,slow=10.0,SNR=4.0 0.3nm,0.5s							
KURBB	**Kurchatov Arra**	**48.08**	**311**	P		**P**	**15 49 32.1**	**+0.1**
	0.9nm,0.3s,baz=89,slow=7.7,SNR=1.9 0.9nm,0.3s							
ILAR	**Eielson Array**	**52.66**	**31**	P		**P**	**15 50 06.8**	**+0.3**
	0.6nm,0.8s,baz=265,slow=6.5,SNR=9.8 0.6nm,0.8s							
WRA	**Warramunga Arr**	**53.49**	**188**	P		**P**	**15 50 12.9**	**-0.1**
	3.9nm,0.3s,baz=5.2,slow=7.6,SNR=78							
ASAR	**Alice Springs**	**57.22**	**188**	P		**P**	**15 50 40.0**	**+0.1**
	1.3nm,0.5s,baz=2.4,slow=6.6,SNR=43 1.3nm,0.5s							
AKASG	**Malin Array Be**	**76.99**	**323**	P		**P**	**15 52 44.7**	**-0.4**
	0.6nm,0.5s,baz=53,slow=5.8,SNR=2.1 0.6nm,0.5s							
HFS	**Hagfors**	**77.25**	**336**	P		**P**	**15 52 45.9**	**-0.5**
	3.7nm,1.1s,baz=52,slow=5.9,SNR=1.8							
HFS					LR	LR	16 32 22.1	
	comp=Z,106nm,18.4s,baz=349,slow=40 3.7nm,1.1s							
NOA	**NORSAR Array B**	**77.39**	**338**	P		**P**	**15 52 47.0**	**-0.2**
	0.6nm,0.6s,baz=40,slow=5.8,SNR=3.7 0.6nm,0.6s							
TXAR	**Lajitas Array**	**92.49**	**52**	P		**P**	**15 54 03.4**	**-0.6**
	0.3nm,0.5s,baz=317,slow=2.2,SNR=4.7 0.3nm,0.5s							
QSPA	**South Pole Qui**	**123.21**	**180**	PKP		**PKPdf**	**15 59 48.1**	**-0.2**
	0.5nm,0.7s,baz=330,slow=2.0,SNR=1.5							
LPAZ	**La Paz**	**148.58**	**64**	PKPbc		**PKPbc**	**16 00 42.1**	**+1.4**
	2.4nm,0.7s,baz=357,slow=5.2,SNR=8.1							

*IDC **07** 15:42:18.8±0.8,62˚.01S×57˚.33W,h0km,mb4.0/6, mbtmp4.0/7,ML3.7/1,MS3.5/7,Error ellipse: s-maj=27.1km s-min=18.1km az=126.0*
ISC 07 15:42:20.4±0.8,**62˚.2S**±0˚.1×**58˚.4W**±0˚.1,**h10**km,**n22**, σ1°**.47**/18,**mb4.1**/5,**MS3.4**/7,**South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
PMSA	**Palmer Station**	**3.64**	**222**	Pn		**Pn**	**15 43 19.2**	**+2.5**
	4.6nm,0.3s,baz=63,slow=10,SNR=4.3							
PMSA					Sn	**Sb**	**15 44 06.4**	**-2.5**
	13nm,0.3s,baz=144,slow=19,SNR=6.1 82nm,1.1s							
PMSA					AML	AML		
VNA3	**Neumayer Olymp**	**20.66**	**136**	P		**P**	**15 47 01.5**	**+1.6**
	comp=Z,6.0nm,0.8s							
PLCA	**Paso Flores**	**22.69**	**335**	P		**P**	**15 47 23.6**	**+1.7**
	comp=Z,6.5nm,1.1s,baz=197,slow=3.5,SNR=4.9							
PLCA					LR	LR	15 55 31.4	
	comp=Z,107nm,18.3s,baz=182,slow=35 comp=Z,6.5nm,1.1s							
SNAA	**Sanae**	**22.83**	**138**	P		**P**	**15 47 24.1**	**+0.9**
	comp=Z,108nm,0.7s							
SNAA	**Sanae**	**22.83**	**138**	P		**P**	**15 47 22.0**	**-1.1**
	comp=Z,6.2nm,0.9s,baz=263,slow=8.3,SNR=7.1							
SNAA					LR	LR	15 55 09.1	
	comp=Z,44nm,19.3s,baz=190,slow=34 comp=Z,6.2nm,0.9s							
TROLL	**Troll, Antarti**	**24.47**	**139**	P		**P**	**15 47 40.4**	**+1.2**
	comp=Z,105nm,0.8s							
QSPA	**South Pole Qui**	**28.05**	**180**	P		**P**	**15 48 12.4**	**+0.8**
	comp=Z,1.3nm,0.8s,baz=134,slow=8.6,SNR=4.5							
QSPA					LR	LR	15 58 57.6	
	comp=Z,68nm,21.6s,baz=154,slow=35 comp=Z,1.3nm,0.8s							
VNDA	**Vanda**	**38.37**	**193**	LR		LR	16 05 32.9	
	comp=Z,71nm,21.9s,baz=154,slow=36							
MAW	**Mawson**	**43.75**	**152**	LR		LR	16 08 34.2	
	comp=Z,140nm,18.0s,baz=258,slow=36							
LBTB	**Lobatse**	**65.42**	**97**	LR		LR	16 17 48.6	
	comp=Z,34nm,18.1s,baz=192,slow=33							
SJG	**San Juan**	**80.25**	**353**	LR		LR	16 32 24.0	
	comp=Z,21nm,18.0s,baz=152,slow=38							
TORD	**Torodi Ar. Bea**	**88.37**	**58**	P		P	15 55 08.3	-3.9
	comp=Z,0.2nm,0.4s,baz=224,slow=4.0,SNR=1.8 comp=Z,0.2nm,0.4s							
ASAR	**Alice Springs**	**93.89**	**191**	P		**P**	**15 55 38.5**	**+0.5**
	comp=Z,1.0nm,1.0s,baz=173,slow=5.3,SNR=4.8 comp=Z,1.0nm,1.0s							
WRA	**Warramunga Arr**	**97.54**	**192**	P		**P**	**15 55 53.9**	**-0.7**
	comp=Z,0.4nm,0.7s,baz=177,slow=4.1,SNR=2.4 comp=Z,0.4nm,0.7s							
GERES	**GERESS Array B**	**124.58**	**50**	PKP		**PKPdf**	**16 01 17.4**	**-1.4**
	comp=Z,0.3nm,0.6s,baz=222,slow=4.0,SNR=2.8							
CMAR	**Chiang Mai Arr**	**133.54**	**150**	PKP		**PKPdf**	**16 01 36.8**	**+0.1**
	comp=Z,1.1nm,0.8s,baz=218,slow=3.9,SNR=5.8							
ILAR	**Eielson Array**	**142.43**	**315**	PKP		**PKPdf**	**16 01 49.3**	**-2.2**
	comp=Z,0.2nm,0.9s,baz=175,slow=2.3,SNR=3.5							
ARCES	**ARCESS Array B**	**144.01**	**37**	PKP		**PKPab**	**16 01 51.1**	**-0.6**
	comp=Z,4.4nm,0.8s,baz=219,slow=2.3,SNR=4.4							
LZDM	**Lanzhou Array**	**151.46**	**149**	PKPbc		**PKPbc**	**16 02 14.3**	**+0.2**
	comp=Z,0.8nm,0.3s,baz=182,slow=4.5,SNR=4.4							
BVAR	**Borovoye Array**	**151.80**	**85**	PKPbc		**PKPbc**	**16 02 13.3**	**-0.5**
	comp=Z,2.9nm,0.8s,baz=242,slow=1.6,SNR=12							
MKAR	**Makanchi Array**	**153.01**	**106**	PKPbc		**PKPbc**	**16 02 16.2**	**-0.6**
	comp=Z,0.7nm,0.6s,baz=212,slow=2.5,SNR=4.7							
SONM	**Songino Array**	**163.26**	**142**	PKPab		**PKPab**	**16 03 11.5**	**-1.2**
	comp=Z,1.4nm,1.1s,baz=194,slow=5.8,SNR=3.9							

*IDC **07** 16:01:53.6±1.3,3˚.23S×130˚.56E,h0km,mb3.6/2, mbtmp3.5/5,ML3.4/3,MS2.8/2,Error ellipse: s-maj=52.6km s-min=14.9km az=99.0*
*DJA **07** 16:01:55.4±0.3,3˚.5±2˚×13˚.1E±˚,h12km±2km,M3.9/13, mb4.1/2,MLv3.7/13*
ISC 07 16:01:54.0±0.9,**3˚.29S**±0˚.07×**130˚.49E**±0˚.07,**h10**km,**n14**, σ1°**77**/15,**Seram**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**1.36**	**205**	P		**Pb**	**16 02 21.4**	**+1.8**
BNDI					AML	AML		
FAKI	**Fak Fak**	**1.79**	**78**	P		**Pn**	**16 02 24.9**	**-0.1**
FAKI					S	**Sn**	**16 02 48.2**	**+0.3**
SIJI	**Sorong**	**2.52**	**18**	Pn		**Pn**	**16 02 35.1**	**0.0**
	3.3nm,0.3s,baz=191,slow=16,SNR=36							
SIJI					Sn	**Sn**	**16 03 03.9**	**-2.0**
	3.5nm,0.3s,baz=264,slow=22,SNR=5.7 7.3nm,0.3s							
SIJI					AML	AML		
SIJI	**Sorong**	**2.52**	**18**	P		**Pn**	**16 02 35.5**	**+0.4**
SIJI					AML	AML		
NLAI	**Namlea**	**3.39**	**271**	P		**Pn**	**16 02 48.8**	**+1.8**
NLAI					AML	AML		
MWPI	**Manokwari, Pap**	**4.25**	**57**	P		**Pn**	**16 03 01.6**	**+2.8**
MWPI					AML	AML		
SANI	**Sanana**	**4.66**	**285**	P		**Pn**	**16 03 04.7**	**+0.2**
SANI					AML	AML		
BAKI	**Biak**	**5.98**	**70**	P		**Pn**	**16 03 24.3**	**+1.6**
KAPI	**Kappang**	**10.85**	**261**	LR		LR	16 09 19.5	
	comp=Z,39nm,19.6s,baz=297,slow=41							
FITZ	**Fitzroy Crossi**	**15.47**	**198**	Pn		**Pn**	**16 05 30.7**	**-1.7**
	baz=19,slow=13,SNR=1.5							
FITZ					Sn	Sn	16 08 13.7	-10
	baz=338,slow=16,SNR=1.5 0.7nm,0.6s							
WRA	**Warramunga Arr**	**16.98**	**168**	Pn		**Pn**	**16 05 48.5**	**-3.2**
	0.4nm,0.3s,baz=353,slow=13,SNR=14							
WRA					Sn	Sn	16 08 45.6	-15
	0.1nm,0.3s,baz=347,slow=24,SNR=4.8 0.2nm,0.4s							
WRA					AML	AML		
ASAR	**Alice Springs**	**20.53**	**171**	P		**P**	**16 06 32.4**	**-0.3**
	1.2nm,0.4s,baz=352,slow=11,SNR=43							
ASAR					S	**S**	**16 10 20.9**	**-1.7**
	0.3nm,0.7s,baz=352,slow=26,SNR=1.6 1.2nm,0.4s							
KRVT	**Keravat (AS076**	**21.51**	**93**	LR		LR	16 16 18.4	
	comp=Z,28nm,18.8s,baz=78,slow=40							
MKAR	**Makanchi Array**	**65.43**	**326**	P		**P**	**16 12 37.6**	**+0.5**
	0.3nm,0.6s,baz=120,slow=7.7,SNR=2.2 0.3nm,0.6s							

*AEIC **07** 16:18:27.6±1.6,54˚.97N±0˚.06×158˚.04W±0˚.06,h7km±6km, Error ellipse: s-maj=8.3km s-min=4.9km az=166.0*
*NEIC **07** 16:18:28.7±1.7,54˚.92N±0˚.06×158˚.05W±0˚.05,h21km±7km, mb3.9/9,ML3.6/38,ML3.5(AEIC),Error ellipse: s-maj=8.9km s-min=2.6km az=159.0*
*IDC **07** 16:18:29.4±2.2,55˚.56N×158˚.45W,h0km,mb3.8/4, mbtmp3.8/8,ML3.7/4,Error ellipse: s-maj=46.8km s-min=16.7km az=155.0*
ISC 07 16:18:26.1±1.5,**54˚.95N**±0˚.06×**158˚.00W**±0˚.04,**h5**km±10km, **n129**,σ1°**39**/139,**mb3.8**/5,**South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
CHNA	**Chernabura Isl**	**0.93**	**263**	P		**Pg**	**16 18 43.2**	**-0.7**
CHNA	**Chernabura Isl**	**0.93**	**263**	S		**Sg**	**16 18 55.9**	**0.0**
CNBA	**Chernabura Isl**	**0.93**	**262**			**Pg**	**16 18 43.1**	**-0.8**
CNBA					Sg	**Sg**	**16 18 55.8**	**-0.2**
VNKR	**Veniaminof 5**	**1.33**	**325**			**Pn**	**16 18 51.0**	**-0.4**
VNKR						**Sg**	**16 19 08.2**	**-0.7**
CHGN	**Chignik**	**1.37**	**350**			**Pn**	**16 18 51.6**	**-0.3**
CHGN					Sn	**Sg**	**16 19 10.8**	**+0.7**
CHGN					IAML		16 19 13.9	
	comp=N,730nm,0.7s							
CHGN					IAML		16 19 14.1	
	comp=E,1μm,0.5s							
VNHG	**Veniaminof 1**	**1.43**	**333**			**Pn**	**16 18 52.9**	**+0.1**
VNHG						**Pb**	**16 18 53.8**	**+0.5**
SDPT	**Sand Point**	**1.48**	**287**	P		**Pn**	**16 18 52.8**	**-0.5**
SDPT	**Sand Point**	**1.48**	**287**	S		**Sb**	**16 19 01.5**	**-1.5**
SDPT	**Sand Point**	**1.48**	**287**			**Pn**	**16 18 53.1**	**-0.2**
SDPT					IAML		16 19 17.4	
	comp=E,756nm,0.8s							
SDPT					IAML		16 19 20.4	
	comp=N,608nm,1.0s							
SDPT	**Sand Point**	**1.48**	**287**			**Sg**	**16 19 14.1**	**+0.6**
SDPT						**Sn**	**16 19 14.9**	**+2.0**
VNWF	**Veniaminof 8**	**1.49**	**324**			**Pn**	**16 18 53.9**	**+0.2**
VNSS	**Veniaminof 8**	**1.52**	**328**			**Pn**	**16 18 54.5**	**+0.4**
VNSS						**Pb**	**16 18 55.0**	**+0.1**
VNFG	**Fog Glacier, M**	**1.60**	**327**			**Pn**	**16 18 55.8**	**+0.7**
VNFG						**Pb**	**16 18 56.0**	**-0.2**
CHIR	**Chirikof Islan**	**1.61**	**56**			**Pn**	**16 18 56.5**	**+1.3**
CHIR					IAML		16 19 30.0	
	comp=E,396nm,1.1s							
CHIR					IAML		16 19 37.8	
	comp=N,382nm,0.8s							
BPBCA	**Veniaminof**	**1.66**	**351**			**Pn**	**16 18 56.2**	**+0.3**
ANPB	**Aniakchak Plen**	**1.86**	**355**			**Pn**	**16 18 59.8**	**+1.2**
AZAC	**Aniakchak**	**1.95**	**356**			**Pn**	**16 19 01.5**	**+1.6**
PS1A	**Pavlof South-1**	**2.20**	**284**			**Pn**	**16 19 04.3**	**+1.0**
PS1A						**Pb**	**16 19 04.5**	**-1.7**
PS1A						**Sb**	**16 19 33.5**	**-0.3**
DOL	**Dolgoi Island**	**2.23**	**277**			**Pn**	**16 19 04.2**	**+0.5**
DOL						**Pn**	**16 19 05.0**	**-1.9**
DOL						**Sn**	**16 19 32.4**	**+0.8**
PS4A	**Pavlof South-4**	**2.25**	**282**			**Pn**	**16 19 05.0**	**+1.1**
PS4A						**Sn**	**16 19 32.1**	**+0.1**
PN7A	**Pavlof North-7**	**2.34**	**283**			**Pn**	**16 19 06.2**	**+0.9**
PN7A						**Pb**	**16 19 07.3**	**-1.5**
PN7A						**Sn**	**16 19 35.4**	**+0.9**
S12K	**Black Hills**	**2.44**	**

	comp=E,49nm,0.9s								
O15K					IAML			16 21 04.4	
	comp=N,38nm,0.7s								
AKUT	**Akutan**	**4.60**	**263**		P		**Pn**	**16 19 37.8**	**+1.6**
Q19K	**Cape Douglas,**	**4.64**	**29**				**Pn**	**16 19 38.0**	**+1.1**
O16K	**Kokwok River B**	**4.65**	**359**				**Pn**	**16 19 38.9**	**+1.9**
O14K	**Tigyukauivet M**	**4.66**	**339**				**Pn**	**16 19 38.5**	**+1.4**
O14K					IAML			16 20 35.9	
	comp=E,32nm,1.0s								
O14K					IAML			16 21 08.8	
	comp=N,52nm,1.0s								
UNV	**Unalaska Valle**	**5.09**	**261**		P		**Pn**	**16 19 43.3**	**+0.3**
UNV	**Unalaska Valle**	**5.09**	**261**				**Pn**	**16 19 43.2**	**+0.2**
O18K	**Koktuh Hills**	**5.14**	**16**				**Pn**	**16 19 45.4**	**+1.7**
O18K					IAML			16 21 27.5	
	comp=E,26nm,1.1s								
MGOD	**Makushin Gods**	**5.32**	**261**				**Pn**	**16 19 46.4**	**+0.2**
N15K	**Kwethluk River**	**5.35**	**349**				**Pn**	**16 19 48.5**	**+2.0**
N15K					IAML			16 21 25.7	
	comp=N,35nm,1.0s								
N14K	**Kuskokwak Cree**	**5.37**	**340**				**Pn**	**16 19 48.3**	**+1.6**
N16K	**Nishlik Lake**	**5.55**	**356**				**Pn**	**16 19 50.4**	**+1.1**
N17K	**Nushagak Hills**	**5.61**	**4**				**Pn**	**16 19 50.7**	**+0.7**
N18K	**Kilae Creek**	**5.85**	**10**				**Pn**	**16 19 54.7**	**+1.3**
CNPM	**China Poot**	**5.87**	**36**				**Pn**	**16 19 54.6**	**+0.9**
M15K	**Kasigluk River**	**5.93**	**347**				**Pn**	**16 19 55.4**	**+0.9**
M16K	**Timber Creek**	**6.11**	**356**				**Pn**	**16 19 58.5**	**+1.6**
RED	**Redoubt Volcan**	**6.15**	**25**		Pn		**Pn**	**16 19 59.0**	**+1.4**
N19K	**Bonanza Creek**	**6.17**	**16**				**Pn**	**16 19 59.2**	**+1.4**
BRLK	**Bradley Lake**	**6.17**	**36**				**Pn**	**16 19 58.1**	**+0.4**
M13K	**Dall Lake**	**6.18**	**335**				**Pn**	**16 19 58.5**	**+0.6**
M14K	**Bethel**	**6.19**	**342**				**Pn**	**16 19 58.9**	**+0.9**
RDWB	**Redoubt West**	**6.20**	**24**				**Pn**	**16 19 59.4**	**+1.2**
BRSE	**Bradley Lake S**	**6.20**	**36**				**Pn**	**16 19 58.8**	**+0.6**
M17K	**Holitna River**	**6.47**	**2**				**Pn**	**16 20 03.1**	**+1.2**
L14K	**Kuka Creek**	**6.87**	**341**				**Pn**	**16 20 07.9**	**+0.6**
SEW	**Seward**	**6.91**	**38**				**Pn**	**16 20 07.8**	**-0.1**
SLKM	**Skilak Lake**	**6.95**	**34**				**Pn**	**16 20 09.0**	**+0.5**
L15K	**Ungalak Mounta**	**6.99**	**346**				**Pn**	**16 20 09.6**	**+0.7**
SPBG	**Spurr Blockage**	**6.99**	**23**				**Pn**	**16 20 10.6**	**+1.6**
L17K	**Donlin**	**7.20**	**359**				**Pn**	**16 20 13.0**	**+1.0**
M19K	**Big River Lodg**	**7.22**	**14**				**Pn**	**16 20 14.3**	**+2.1**
L18K	**Granite Mounta**	**7.32**	**5**				**Pn**	**16 20 16.6**	**+3.1**
STLK	**Strandline Lak**	**7.32**	**24**				**Pn**	**16 20 13.4**	**-0.2**
M20K	**Styx River**	**7.40**	**18**				**Pn**	**16 20 16.9**	**+2.2**
L19K	**White Mountain**	**7.43**	**11**				**Pn**	**16 20 16.7**	**+1.6**
RC01	**Rabbit Creek A**	**7.55**	**32**				**Pn**	**16 20 18.0**	**+1.3**
SUA	**Susitna Dnr**	**7.56**	**27**				**Pn**	**16 20 18.0**	**+1.1**
K15K	**Wolf Creek Mou**	**7.59**	**347**				**Pn**	**16 20 18.5**	**+1.3**
P23K	**Montague Islan**	**7.62**	**44**				**Pn**	**16 20 18.2**	**+0.5**
K17K	**Iditarod**	**7.79**	**359**				**Pn**	**16 20 20.8**	**+0.8**
K13K	**Kusilvak Mount**	**7.82**	**336**				**Pn**	**16 20 21.4**	**+1.1**
PWL	**Port Wells**	**7.84**	**37**				**Pn**	**16 20 21.0**	**+0.4**
L20K	**Farewell, AK**	**7.84**	**14**				**Pn**	**16 20 22.6**	**+1.9**
KNK	**Knik Glacier**	**8.20**	**34**				**Pn**	**16 20 25.7**	**+0.1**
HIN	**Hinchinbrook I**	**8.22**	**44**				**Pn**	**16 20 26.8**	**+0.9**
J16K	**Anvik River**	**8.46**	**352**				**Pn**	**16 20 30.4**	**+1.2**
EYAK	**Cordova Ski Ar**	**8.61**	**44**		P		**Pn**	**16 20 32.9**	**+1.7**
EYAK	**Cordova Ski Ar**	**8.61**	**44**				**Pn**	**16 20 32.0**	**+0.7**
SCM	**Sheep Creek Mo**	**8.88**	**35**				**Pn**	**16 20 35.8**	**+0.9**
CAST	**Castle Rocks**	**9.01**	**17**				**Pn**	**16 20 38.7**	**+2.0**
TGL	**Tana Glacier**	**9.94**	**48**				**Pn**	**16 20 50.9**	**+1.4**
HARP	**HAARP**	**10.00**	**37**		Pn		**Pn**	**16 20 51.9**	**+1.6**
ATKA	**Atka Island**	**10.02**	**261**		P		**Pn**	**16 20 52.6**	**+2.1**
BARN	**Barnard Glacie**	**10.59**	**48**		Pn		**Pn**	**16 21 00.1**	**+1.6**
I21K	**Tanana**	**10.68**	**14**		Pn		**Pn**	**16 21 00.5**	**+0.9**
LOGN	**Logan Glacier**	**10.77**	**50**		Pn		**Pn**	**16 21 03.0**	**+2.0**
I23K	**Minto, Yukon-K**	**11.09**	**19**		Pn		**Pn**	**16 21 03.8**	**-1.2**
PNL	**Peninsula**	**11.10**	**57**		P		**Pn**	**16 21 07.6**	**+2.3**
M27K	**Edge Creek, AK**	**11.18**	**42**		Pn		**Pn**	**16 21 04.8**	**-1.7**
ILAR	**Eielson Array**	**11.30**	**25**		Pn		**Pn**	**16 21 05.8**	**-2.2**
	comp=N,0.2nm,0.3s,baz=218,slow=13,SNR=21								
ILAR					Sn		**Sn**	**16 23 08.4**	**-6.0**
	baz=218,slow=28								
	comp=N,0.6nm,0.5s								
ILAR					AML	AML			
SCRK	**Sand Creek**	**11.49**	**32**		Pn		**Pn**	**16 21 11.5**	**+0.8**
J25K	**Salcha River,**	**11.56**	**28**				**Pn**	**16 21 10.9**	**-0.8**
L27K	**Beaver Creek,**	**11.61**	**39**				**Pn**	**16 21 13.8**	**+1.5**
M29M	**Somme Creek**	**12.59**	**46**				**Pn**	**16 21 27.2**	**+1.5**
O30N	**Mendenhall**	**13.00**	**55**		Pn		**Pn**	**16 21 33.6**	**+2.4**
SKAG	**Skagway**	**13.06**	**61**		P		**Pn**	**16 21 34.7**	**+2.7**
WHY	**Whitehorse**	**13.54**	**56**		Pn		**Pn**	**16 21 41.6**	**+2.9**
G27K	**Doyon Strip**	**14.24**	**27**		Pn		**Pn**	**16 21 47.5**	**-0.7**
EPYK	**Eagle Plains**	**15.37**	**33**		P		**P**	**16 22 09.6**	**+1.4**
EPYK					IAmb		IAmb	16 22 11.5	
	comp=Z,9.1nm,0.8s								
DLBC	**Dease Lake**	**15.70**	**66**		Pn		**Pn**	**16 22 10.2**	**+2.4**
	comp=Z,0.1nm,0.3s,baz=236,slow=9.5,SNR=4.1								
	comp=Z,0.7nm,0.6s								
DLBC					AML	AML			
H31M	**Peel River**	**15.84**	**37**		Pn		**Pn**	**16 22 09.0**	**-0.6**
H31M					IAmb		IAmb	16 22 17.0	
	comp=Z,7.8nm,0.7s								
F30M	**Barrier River**	**16.44**	**31**		Pn		**Pn**	**16 22 18.6**	**+1.4**
F30M					IAmb		IAmb	16 22 25.7	
	comp=Z,11nm,1.1s								
G31M	**Satah River**	**16.49**	**34**				**Pn**	**16 22 18.3**	**+0.5**
G31M					IAmb		IAmb	16 22 23.4	
	comp=Z,8.0nm,0.8s								
F31M	**Tsiigehtchic**	**16.96**	**33**				**Pn**	**16 22 23.6**	**-0.1**
INK	**Inuvik**	**17.54**	**31**		P		**Pn**	**16 22 31.1**	**+0.1**
	comp=Z,0.8nm,0.3s,baz=233,slow=12,SNR=39								
	comp=Z,3.5nm,0.4s								
INK					AML	AML			
INK	**Inuvik**	**17.54**	**31**				**Pn**	**16 22 31.6**	**+0.6**
C36M	**Paulatuk**	**21.01**	**34**				**Pn**	**16 23 10.0**	**0.0**
A36M	**Sachs Harbour**	**21.99**	**27**		P		**P**	**16 23 20.5**	**0.0**
A36M					IAmb		IAmb	16 23 42.7	
	comp=Z,4.4nm,1.0s								
YKAW3	**Yellowknife Wh**	**23.35**	**53**		P		**P**	**16 23 34.3**	**-0.6**
H11N2	**WAKE ISLAND Hy**	**44.05**	**231**		T		T	17 13 30.8	
	baz=28,slow=76,SNR=4.4								
H11N3	**WAKE ISLAND Hy**	**44.06**	**231**		T		T	17 13 31.8	
	baz=28,slow=76,SNR=2.6								
H11N1	**WAKE ISLAND Hy**	**44.07**	**231**		T		T	17 13 31.9	
	baz=28,slow=76,SNR=4.1								
H11S1	**WAKE ISLAND Hy**	**45.21**	**231**		T		T	17 14 59.7	
	baz=28,slow=76,SNR=7.3								
H11S2	**WAKE ISLAND Hy**	**45.23**	**231**		T		T	17 15 02.4	
	baz=28,slow=76,SNR=7.7								
H11S3	**WAKE ISLAND Hy**	**45.23**	**231**		T		T	17 15 02.2	
	baz=28,slow=76,SNR=4.8								
FINES	**FINESS Array B**	**63.90**	**358**		P		**P**	**16 28 59.0**	**-0.2**
	comp=Z,1.7nm,0.8s,baz=3.3,slow=6.6,SNR=4.6								
	comp=Z,1.7nm,0.8s								
HFS	**Hagfors**	**65.07**	**5**		P		**P**	**16 29 06.9**	**0.0**
	comp=Z,2.8nm,1.0s,baz=5.2,slow=6.3,SNR=2.2								
	comp=Z,2.8nm,1.0s								
MKAR	**Makanchi Array**	**66.60**	**319**		P		**P**	**16 29 16.8**	**-0.2**
	comp=Z,0.4nm,0.7s,baz=39,slow=5.9,SNR=2.3								
	comp=Z,0.4nm,0.7s								
EKA	**Eskdalemuir Ar**	**68.16**	**15**		P		**P**	**16 29 27.5**	**+0.8**
	comp=Z,0.3nm,0.5s,baz=348,slow=6.5,SNR=1.7								
	comp=Z,0.3nm,0.5s								

*RSNC **07** 16:54:58.6±0.0, 7˚N±1˚×7˚3W±˚, h150km±2km, M4.0, mB5.3, mb4.6, ML3.5, Mw(mB)4.7*
*FUNV **07** 16:54:58.2, 6˚.83N×73˚.11W, h154km, MW3.9, Presumed earthquake*
*IDC **07** 16:54:58.2±2.0, 6˚.70N×73˚.11W, h168km±18km, mb3.3/7, mbtmp3.8/8, Error ellipse: s-maj=37.7km s-min=21.5km az=93.0*

ISC 07 16:54:56.8±0.7, 6˚.86N±0˚.03×73˚.06W±0˚.04, h153km±6km, n65, σ1$63/110, mb3.1/7, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.30**	**205**	P	**Pn**	**16 55 18.7**	**+0.7**
BARC				S	**Sn**	**16 55 33.8**	**-0.3**
BRJC	**Barrancabermej**	**0.69**	**279**	P	**Pn**	**16 55 20.4**	**+0.9**
BRJC				S	**Sn**	**16 55 37.6**	**+0.8**
RUSC	**La Rusia**	**0.96**	**181**	P	**Pn**	**16 55 22.5**	**+0.3**
RUSC				S	**Sn**	**16 55 41.3**	**-0.2**
RUSC	**La Rusia**	**0.96**	**181**	*e*P	**Pn**	**16 55 22.7**	**+0.5**
RUSC				*e*S	**Sn**	**16 55 39.7**	**-1.8**
CAPV	**Capacho**	**1.24**	**37**	*e*P	**Pn**	**16 55 26.4**	**+2.1**
TAMC	**Tame, Arauca**	**1.33**	**109**	P	**Pn**	**16 55 27.0**	**+2.1**
TAMC				S	**Sn**	**16 55 48.6**	**+2.2**
OCAC	**Ocana**	**1.39**	**349**	P	**Pn**	**16 55 26.7**	**+1.0**
OCAC				S	**Sn**	**16 55 49.2**	**+1.4**
PTBC	**PUERTO BERRIO,**	**1.43**	**257**	P	**Pn**	**16 55 25.1**	**-0.7**
PTBC				S	**Sn**	**16 55 46.4**	**-1.6**
SPBC	**San Pablo de B**	**1.57**	**220**	P	**Pn**	**16 55 27.4**	**-0.1**
SPBC				S	**Sn**	**16 55 50.2**	**-0.7**
NORC	**Norcasia**	**2.22**	**234**	P	**Pn**	**16 55 34.5**	**-0.2**
NORC				S	**Sn**	**16 56 03.4**	**-0.5**
CHIC	**Chingaza**	**2.32**	**197**	P	**Pn**	**16 55 36.5**	**+0.2**
CHIC				S	**Sn**	**16 56 06.4**	**-0.3**
ROSC	**El Rosal**	**2.37**	**212**	P	**Pn**	**16 55 38.2**	**+1.3**
	396nm,0.3s,baz=348,slow=4.4,SNR=230						
ROSC				S	**Sn**	**16 56 07.5**	**-0.3**
	381nm,0.3s,baz=124,slow=19,SNR=8.2						
ROSC	**El Rosal**	**2.37**	**212**	P	**Pn**	**16 55 38.3**	**+1.3**
ROSC				S	**Sn**	**16 56 09.1**	**+1.3**
CVER	**Cruz Verde, Cu**	**2.54**	**204**	P	**Pn**	**16 55 40.1**	**+1.1**
CVER				S	**Sn**	**16 56 12.3**	**+0.8**
HELC	**Santa Helena**	**2.54**	**255**	P	**Pn**	**16 55 38.7**	**-0.3**
HELC				S	**Sn**	**16 56 12.8**	**+1.4**
HELC	**Santa Helena**	**2.54**	**255**	*e*P	**Pn**	**16 55 39.4**	**+0.4**
HELC				*e*S	**Sn**	**16 56 08.8**	**-2.7**
MEDEC	**Medeln, Ant**	**2.58**	**257**	P	**Pn**	**16 55 41.1**	**+1.8**
MEDEC				S	**Sn**	**16 56 12.7**	**+0.7**
UREC	**San Jos de Ur**	**2.61**	**290**	P	**Pn**	**16 55 38.5**	**-0.9**
UREC				S	**Sn**	**16 56 09.5**	**-2.8**
PTGC	**Puerto Gaitan,**	**2.80**	**161**	P	**Pn**	**16 55 41.8**	**-0.1**
PTGC				S	**Sn**	**16 56 14.7**	**-2.0**
VILC	**Villavicencio,**	**2.81**	**193**	P	**Pn**	**16 55 41.9**	**-0.1**
VILC				S	**Sn**	**16 56 17.1**	**+0.1**
GUY2C	**Guyana, Caldas**	**2.81**	**235**	P	**Pn**	**16 55 42.9**	**+0.5**
GUY2C				S	**Sn**	**16 56 17.4**	**-0.2**
NIZA	**Niza - Manizal**	**3.00**	**233**	P	**Pn**	**16 55 46.2**	**+1.6**
NIZA				S	**Sn**	**16 56 23.1**	**+1.7**
CBOC	**Ciudad Bolivar**	**3.10**	**251**	P	**Pn**	**16 55 46.5**	**+0.8**
CBOC				S	**Sn**	**16 56 23.4**	**-0.2**
ARGC	**Ariguani, Magd**	**3.20**	**339**	P	**Pn**	**16 55 48.9**	**+2.0**
ARGC				S	**Sn**	**16 56 27.5**	**+1.8**
PRAC	**Prado**	**3.62**	**210**	P	**Pn**	**16 55 51.6**	**-0.7**
PRAC				S	**Sn**	**16 56 34.8**	**-0.6**
APAC	**Apartado, Choc**	**3.64**	**287**	P	**Pn**	**16 55 52.7**	**+0.2**
APAC				S	**Sn**	**16 56 34.6**	**-1.1**
ORTC	**Ortega, Tolima**	**3.66**	**217**	P	**Pn**	**16 55 52.6**	**-0.2**
ORTC				S	**Sn**	**16 56 36.2**	**0.0**
SJCC	**San Jacinto, C**	**3.67**	**325**	P	**Pn**	**16 55 52.6**	**-0.4**
SJCC				S	**Sn**	**16 56 34.1**	**-2.5**
SJCC	**San Jacinto, C**	**3.67**	**325**	*e*P	**Pn**	**16 55 53.0**	**0.0**
SJCC				*e*S	**Sn**	**16 56 33.7**	**-2.9**
URMC	**La Uribe, Meta**	**3.83**	**200**	P	**Pn**	**16 55 55.3**	**+0.3**
URMC				S	**Sn**	**16 56 39.1**	**-1.1**
LCBC	**Los crdobas,**	**3.83**	**301**	P	**Pn**	**16 55 54.8**	**-0.2**
LCBC				S	**Sn**	**16 56 41.2**	**+1.1**
CRJC	**Cerrejon, Guaj**	**4.13**	**2**	P	**Pn**	**16 55 58.9**	**-0.1**
CRJC				S	**Sn**	**16 56 45.9**	**-1.5**
GUVC	**San Jose del G**	**4.31**	**174**	P	**Pn**	**16 56 01.4**	**+0.1**
GUVC				S	**Sn**	**16 56 49.2**	**-2.3**
YOTC	**Yotoco, Valle**	**4.35**	**229**	P	**Pn**	**16 56 01.4**	**-0.4**
YOTC				S	**Sn**	**16 56 51.4**	**-1.0**
SMRC	**Santa Marta, M**	**4.42**	**345**	P	**Pn**	**16 56 04.0**	**+1.2**
SMRC				S	**Sn**	**16 56 52.0**	**-2.1**
MACC	**Macarena, Meta**	**4.75**	**190**	P	**Pn**	**16 56 05.6**	**-1.5**
MACC				S	**Sn**	**16 56 57.7**	**-4.2**
BETC	**Betania**	**4.79**	**210**	P	**Pn**	**16 56 06.8**	**-0.8**
BETC				S	**Sn**	**16 57 00.6**	**-2.1**
TEPV	**Terepaima**	**4.91**	**51**	*e*P	**Pn**	**16 56 10.1**	**+0.9**
TEPV				*e*S	**Sn**	**16 57 02.6**	**-3.1**
URIC	**Uribia, Colomb**	**4.92**	**12**	P	**Pn**	**16 56 08.9**	**-0.4**
URIC				S	**Sn**	**16 57 04.1**	**-1.7**
URIC	**Uribia, Colomb**	**4.92**	**12**	*e*P	**Pn**	**16 56 09.0**	**-0.3**
URIC				*e*S	**Sn**	**16 57 01.8**	**-4.0**
JAMC	**Jamundi, Valle**	**5.11**	**225**	P	**Pn**	**16 56 12.0**	**0.0**
	1µm21nm,0.5s						
JAMC				S	**Sn**	**16 57 10.9**	**+0.3**
	1µm21nm,0.5s						
JAMC				AML	AML		
MAPV	**Macapo**	**5.42**	**57**	*e*P	**Pn**	**16 56 16.5**	**+0.5**
MAPV				*e*S	**Sn**	**16 57 14.1**	**-3.7**
POPC	**Popayan, Colom**	**5.61**	**220**	P	**Pn**	**16 56 18.8**	**+0.2**
	12nm,0.5s						
POPC				S	**Sn**	**16 57 20.1**	**-2.4**
	12nm,0.5s						
POPC				AML	AML		
BENV	**Beln**	**6.22**	**60**	*e*P	**Pn**	**16 56 26.4**	**-0.1**
BENV				*e*S	**Sn**	**16 57 32.2**	**-4.6**
TURV	**Turiamo**	**6.27**	**55**	*e*P	**Pn**	**16 56 27.2**	**+0.1**
TURV				*e*S	**Sn**	**16 57 33.1**	**-4.9**
BBAC	**Balboa, Cauca**	**6.37**	**221**	P	**Pn**	**16 56 29.5**	**+0.8**
BBAC				S	**Sn**	**16 57 38.6**	**-2.1**
CACV	**CAICARA DEL OR**	**6.50**	**83**	*e*P	Pn	16 56 36.6	+6.3
CRUC	**La Cruz**	**6.54**	**217**	P	**Pn**	**16 56 33.6**	**+2.5**
TACV	**Tcata**	**6.79**	**61**	*e*P	**Pn**	**16 56 33.9**	**-0.3**
TACV				*e*S	**Sn**	**16 57 45.4**	**-5.3**
MEAV	**Las Mercedes**	**7.10**	**70**	*e*P	**Pn**	**16 56 37.7**	**-0.6**
PCRV	**Puerto La Cruz**	**8.96**	**68**	*e*P	**Pn**	**16 57 02.5**	**-0.5**
MTDJ	**Mount Denham**	**12.11**	**339**	*e*P	**P**	**16 57 48.1**	**-2.7**
GTBY	**Guantanamo Bay**	**13.14**	**351**	*e*P	**P**	**16 58 02.1**	**-0.1**
QMBU	**Quimbuelo**	**13.37**	**353**	*e*P	**P**	**16 58 04.4**	**-0.4**
SABCS	**La Quijada**	**13.60**	**351**	*e*P	**P**	**16 58 08.0**	**+0.7**
TXAR	**Lajitas Array**	**36.48**	**312**	P	**P**	**17 01 48.6**	**+1.0**
	0.2nm,0.6s,baz=122,slow=8.3,SNR=5.1						
	0.2nm,0.6s						
ULM	**Lac du Bonnet**	**47.27**	**340**	P	**P**	**17 03 14.6**	**0.0**
	1.5nm,0.4s,baz=146,slow=5.4,SNR=6.7						
	1.5nm,0.4s						
PDAR	**Pinedale Array**	**48.08**	**324**	P	**P**	**17 03 22.1**	**+0.8**
	0.2nm,0.5s,baz=118,slow=7.5,SNR=4.2						
	0.2nm,0.5s						
SCHQ	**Schefferville**	**48.09**	**5**	P	**P**	**17 03 22.3**	**+1.4**
	2.9nm,0.5s,baz=181,slow=7.0,SNR=5.4						
	2.9nm,0.5s						
YKA	**Yellowknife Ar**	**63.24**	**340**	P	**P**	**17 05 09.1**	**+0.3**
	1.2nm,0.5s,baz=136,slow=6.6,SNR=15						
	1.2nm,0.5s						
EKA	**Eskdalemuir Ar**	**73.00**	**34**	P	**P**	**17 06 10.3**	**+0.6**
	0.2nm,0.5s,baz=246,slow=6.7,SNR=3.3						
	0.2nm,0.5s						
ILAR	**Eielson Array**	**76.95**	**335**	P	**P**	**17 06 32.5**	**+0.3**
	0.2nm,0.6s,baz=104,slow=6.4,SNR=1.2						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**122.26**	**20**	PKP	**PKPdf**	**17 13 33.6**	**-0.3**
	0.3nm,0.5s,baz=337,slow=2.2,SNR=1.8						
ASAR	**Alice Springs**	**149.19**	**234**	PKPbc	**PKPbc**	**17 14 26.6**	**-1.6**
	0.3nm,0.8s,baz=112,slow=3.8,SNR=8.9						
WRA	**Warramunga Arr**	**150.41**	**241**	PKPbc	**PKPbc**	**17 14 30.4**	**-0.8**
	0.2nm,0.4s,baz=107,slow=2.8,SNR=8.8						

*IDC **07** 16:56:57.7±1.3, 36˚.48S×177˚.31E, h293km±10km, mb3.6/9, mbtmp4.2/11, Error ellipse: s-maj=21.6km s-min=12.7km az=61.0*
*NOU **07** 16:56:58.2, 36˚.96S×177˚.27E, h293km, mb4.3/27, Off E. Coast of N. Island, N.Z.*
*WEL **07** 16:57:01.7±1.5, 37˚.S±16˚×17˚7E±1˚1, h260km±14km, M4.6/95, MLv4.6/95, Error ellipse: s-maj=22.8km s-min=11.0km az=27.3*

ISC 07 16:56:58.3±0.6, 36˚.89S±0˚.05×177˚.07E±0˚.06, h298km±5km, n184, σ1$33/196, mb3.8/11, 2D, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WIZ	**White Island**	**0.65**	**172**	P	**Pn**	**16 57 37.5**	**+0.6**
WIZ				AML	AML		
MYRZ	**Mayor Island**	**0.77**	**239**	P	**Pn**	**16 57 38.0**	**+0.6**
MYRZ				AML	AML		
WHRZ	**Whale Island**	**0.97**	**184**	P	**Pn**	**16 57 39.2**	**+1.0**
WHRZ				AML	AML		
MWFS	**Matata Watchor**	**1.02**	**198**	P	**Pn**	**16 57 38.9**	**+0.4**
HAZ	**Te Kaha**	**1.04**	**147**	P	**Pn**	**16 57 38.1**	**-0.4**
HAZ				S	**S**	**16 58 07.8**	**-2.7**
HAZ				AML	AML		
OPRZ	**Ohinepanea**	**1.04**	**203**	P	**Pn**	**16 57 38.7**	**+0.1**
OPRZ				AML	AML		
TGRZ	**Tauranga**	**1.06**	**217**	P	**Pn**	**16 57 39.2**	**+0.6**
TGRZ				AML	AML		
TBCS	**Tauranga Boys**	**1.09**	**221**	P	**Pn**	**16 57 39.6**	**+0.8**
OPCS	**Opotiki Colleg**	**1.14**	**171**	P	**Pn**	**16 57 39.0**	**0.0**
MARZ	**Manawahe**	**1.14**	**196**	P	**Pn**	**16 57 39.8**	**+0.7**
MARZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.18**	**156**	P	**Pn**	**16 57 38.8**	**-0.7**
RUGZ				S	**S**	**16 58 09.4**	**-2.8**
RUGZ				AML	AML		
MXZ	**Matakaoa Point**	**1.20**	**125**	P	**Pn**	**16 57 39.1**	**-0.2**
MXZ	**Matakaoa Point**	**1.20**	**125**	S	**S**	**16 58 09.3**	**-2.7**
MXZ	**Matakaoa Point**	**1.20**	**125**	P	**Pn**	**16 57 39.2**	**-0.2**
MXZ				S	**S**	**16 58 09.2**	**-2.9**
MXZ				AML	AML		
LIRZ	**Lichensteins R**	**1.24**	**206**	P	**Pn**	**16 57 40.3**	**+0.7**
LIRZ				AML	AML		
EDRZ	**Edgecumbe**	**1.25**	**192**	P	**Pn**	**16 57 40.3**	**+0.6**
EDRZ				AML	AML		
PKGZ	**Pakihiroa**	**1.27**	**141**	P	**Pn**	**16 57 40.2**	**+0.4**
PKGZ				S	**S**	**16 58 11.2**	**-1.6**
PKGZ				AML	AML		
TDHS	**Te Araroa Dist**	**1.27**	**126**	P	**Pn**	**16 57 40.4**	**+0.7**
KARZ	**Kaharoa**	**1.31**	**210**	P	**Pn**	**16 57 40.7**	**+0.7**
KARZ				AML	AML		
KMRZ	**Kaimai**	**1.31**	**223**	P	**Pn**	**16 57 41.0**	**+0.9**
KMRZ				AML	AML		
MKRZ	**Makatiti**	**1.34**	**201**	P	**Pn**	**16 57 42.0**	**+1.7**
MKRZ				AML	AML		
URZ	**Urewera**	**1.37**	**179**	P	**Pn**	**16 57 40.1**	**-0.2**
	2µm,0.3s,baz=348,slow=4.8,SNR=2555						
URZ				S	**S**	**16 58 10.7**	**-3.1**
	666nm,0.3s,baz=256,slow=4.2,SNR=32						
URZ	**Urewera**	**1.37**	**179**	P	**Pn**	**16 57 40.1**	**-0.2**
URZ	**Urewera**	**1.37**	**179**	S	**S**	**16 58 11.9**	**-1.9**
URZ	**Urewera**	**1.37**	**179**	P	**Pn**	**16 57 40.1**	**-0.2**
URZ				S	**S**	**16 58 12.0**	**-1.9**
URZ				AML	AML		
NGRZ	**Ngongotaha**	**1.40**	**210**	P	**Pn**	**16 57 41.7**	**+1.1**
NGRZ				AML	AML		
TARZ	**Mount Tarawera**	**1.42**	**198**	P	**Pn**	**16 57 41.8**	**+1.0**
TARZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.42**	**131**	P	**Pn**	**16 57 40.9**	**+0.3**
WMGZ				S	**S**	**16 58 12.8**	**-1.5**
WMGZ				AML	AML		
GRZ	**Great Barrier**	**1.44**	**296**	P	**Pn**	**16 57 40.5**	**-0.4**
UTU	**Utuhina**	**1.47**	**208**	P	**Pn**	**16 57 42.1**	**+1.2**
UTU				AML	AML		
HLRZ	**Highlands Stat**	**1.48**	**202**	P	**Pn**	**16 57 42.0**	**+0.9**
HLRZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.48**	**151**	P	**Pn**	**16 57 41.8**	**+0.8**
TWGZ				AML	AML		
MWZ	**Matawai**	**1.49**	**166**	P	**Pn**	**16 57 41.3**	**+0.2**
MWZ				AML	AML		
TOZ	**Tahuroa Road**	**1.51**	**235**	P	**Pn**	**16 57 42.4**	**+1.2**
TOZ				AML	AML		
PUZ	**Puketiti**	**1.52**	**142**	P	**Pn**	**16 57 41.4**	**+0.1**
PUZ				AML	AML		
RRRZ	**Republican Roa**	**1.52**	**197**	P	**Pn**	**16 57 41.8**	**+0.5**
RRRZ				AML	AML		
MKAZ	**Moumakai**	**1.54**	**261**	P	**Pn**	**16 57 42.2**	**+0.8**
MKAZ				AML	AML		
WIAZ	**Waiheke Island**	**1.56**	**273**	P	**Pn**	**16 57 42.1**	**+0.6**
WIAZ				AML	AML		
MUGZ	**Murupara**	**1.61**	**188**	P	**Pn**	**16 57 42.0**	**+0.1**
MUGZ				AML	AML		
HRRZ	**Handcock Road**	**1.63**	**202**	P	**Pn**	**16 57 43.1**	**+1.

TUVZ	**Tukino**	**2.63 205**	P	**Pn**	**16 57 51.1**	**+0.7**
TUVZ			AML	AML		
FWVZ	**Far West T-bar**	**2.65 206**	P	**Pn**	**16 57 51.4**	**+0.7**
FWVZ			AML	AML		
MAVZ	**Matarangi**	**2.66 206**	P	**Pn**	**16 57 51.3**	**+0.5**
MAVZ			AML	AML		
WHVZ	**Whangaehu Hut**	**2.66 206**	P	**Pn**	**16 57 51.3**	**+0.4**
WHVZ			AML	AML		
TRVZ	**Turoa**	**2.69 206**	P	**Pn**	**16 57 51.8**	**+0.7**
TRVZ			AML	AML		
WNVZ	**Wahianoa**	**2.70 205**	P	**Pn**	**16 57 51.3**	**+0.2**
WNVZ			AML	AML		
BHHZ	**Black Hill Sta**	**2.72 197**	P	**Pn**	**16 57 51.1**	**0.0**
BHHZ			AML	AML		
MOVZ	**Moawhango**	**2.72 202**	P	**Pn**	**16 57 51.1**	**-0.1**
MOVZ			AML	AML		
PKVZ	**Pokaka**	**2.76 209**	P	**Pn**	**16 57 52.2**	**+0.7**
PKVZ			AML	AML		
CKHZ	**Cape Kidnapper**	**2.77 180**	P	**Pn**	**16 57 52.0**	**+0.5**
CKHZ			AML	AML		
MTVZ	**Mangateitei**	**2.80 206**	P	**Pn**	**16 57 52.7**	**+0.8**
MTVZ			AML	AML		
KRHZ	**Kereru**	**2.81 191**	P	**Pn**	**16 57 51.9**	**0.0**
KRHZ			AML	AML		
VRZ	**Vera Road**	**2.89 219**	P	**Pn**	**16 57 53.9**	**+1.2**
VRZ			AML	AML		
KAHZ	**Kahuranaki**	**2.91 183**	P	**Pn**	**16 57 53.4**	**+0.5**
KAHZ			AML	AML		
PNHZ	**Pukenui**	**3.10 192**	P	**Pn**	**16 57 54.5**	**-0.3**
PNHZ			AML	AML		
PXZ	**Pawanui**	**3.15 183**	P	**Pn**	**16 57 55.3**	**+0.1**
PXZ			AML	AML		
WPHZ	**Waipukurau**	**3.21 189**	P	**Pn**	**16 57 55.9**	**-0.1**
WPHZ			AML	AML		
DREZ	**Durham Road**	**3.23 224**	P	**Pn**	**16 57 58.5**	**+2.4**
OUZ	**Omahuta**	**3.27 300**	P	**Pn**	**16 57 56.9**	**+0.3**
OUZ	**Omahuta**	**3.27 300**	P	**Pn**	**16 57 56.9**	**+0.3**
OUZ			AML	AML		
TSZ	**Takapari Road**	**3.29 195**	P	**Pn**	**16 57 56.4**	**-0.3**
TSZ			AML	AML		
WAZ	**Wanganui**	**3.30 209**	P	**Pn**	**16 57 57.2**	**+0.4**
WAZ			AML	AML		
LREZ	**Lake Rotokare**	**3.32 218**	P	**Pn**	**16 57 58.3**	**+1.3**
LREZ			AML	AML		
NEZ	**North Egmont**	**3.34 224**	P	**Pn**	**16 57 59.7**	**+2.3**
NEZ			AML	AML		
PKE	**Pukeiti**	**3.35 226**	P	**Pn**	**16 57 59.5**	**+2.2**
PKE			AML	AML		
PREZ	**Palmer Road**	**3.36 222**	P	**Pn**	**16 57 57.6**	**+0.1**
PRHZ	**Porangahau**	**3.39 186**	P	**Pn**	**16 57 57.7**	**0.0**
PRHZ			AML	AML		
KHEZ	**Kahui Hut**	**3.41 224**	P	**Pn**	**16 57 59.5**	**+1.5**
KHEZ	**Kahui Hut**	**3.41 224**	P	**Pn**	**16 57 60.0**	**+2.0**
NBEZ	**Newall Road No**	**3.47 226**	P	**Pn**	**16 58 00.7**	**+2.1**
NBEZ			AML	AML		
DVHZ	**Dannevirke**	**3.48 191**	P	**Pn**	**16 57 58.2**	**-0.5**
DVHZ			AML	AML		
NMEZ	**Namu Road**	**3.56 224**	P	**Pn**	**16 58 01.5**	**+2.0**
OHWZ	**Ohakea**	**3.59 202**	P	**Pn**	**16 58 00.1**	**+0.3**
OHWZ			AML	AML		
POWZ	**Post Office Ro**	**3.65 196**	P	**Pn**	**16 58 00.0**	**-0.4**
POWZ			AML	AML		
BFZ	**Birch Farm**	**3.84 189**	P	**Pn**	**16 58 02.0**	**-0.6**
BFZ	**Birch Farm**	**3.84 189**	P	**Pn**	**16 58 02.2**	**-0.4**
BFZ			AML	AML		
MRZ	**Mangatainoka R**	**3.94 197**	P	**Pn**	**16 58 02.8**	**-0.8**
MRZ			AML	AML		
TIWZ	**Tintock**	**3.99 193**	P	**Pn**	**16 58 04.1**	**-0.1**
TIWZ			AML	AML		
CPWZ	**Castlepoint**	**4.08 189**	P	**Pn**	**16 58 05.4**	**+0.4**
CPWZ			AML	AML		
HOWZ	**Holdsworth Sta**	**4.19 196**	P	**Pn**	**16 58 05.4**	**-1.0**
HOWZ			AML	AML		
OGWZ	**Otaki Gorge**	**4.20 200**	P	**Pn**	**16 58 05.7**	**-0.7**
OGWZ			AML	AML		
KIW	**Kapiti Island**	**4.31 202**	P	**Pn**	**16 58 06.8**	**-1.0**
KIW			AML	AML		
TMWZ	**Te Maipa**	**4.31 192**	P	**Pn**	**16 58 07.5**	**-0.3**
TMWZ			AML	AML		
MTW	**Mount Morrison**	**4.44 195**	P	**Pn**	**16 58 08.1**	**-1.1**
MTW			AML	AML		
CAW	**Cannon Point**	**4.50 200**	P	**Pn**	**16 58 08.7**	**-1.1**
CAW			AML	AML		
DUWZ	**D'Urville Isla**	**4.62 211**	P	**Pn**	**16 58 10.0**	**-1.2**
DUWZ			AML	AML		
TRWZ	**Traveller**	**4.63 193**	P	**Pn**	**16 58 10.7**	**-0.7**
TRWZ			AML	AML		
PAWZ	**Paruwai Farm**	**4.67 195**	P	**Pn**	**16 58 10.6**	**-1.2**
PAWZ			AML	AML		
MSWZ	**Moikau Station**	**4.74 197**	P	**Pn**	**16 58 11.3**	**-1.3**
MSWZ			AML	AML		
WEL	**Wellington**	**4.74 201**	P	**Pn**	**16 58 11.6**	**-1.0**
WEL			AML	AML		
SNZO	**South Karori**	**4.79 202**	P	**Pn**	**16 58 11.6**	**-1.5**
BHW	**Baring Head**	**4.83 200**	P	**Pn**	**16 58 12.4**	**-1.2**
BHW			AML	AML		
TCW	**Tory Channel**	**4.83 206**	P	**Pn**	**16 58 12.6**	**-1.1**
TCW			AML	AML		
QRZ	**Quartz Range**	**5.29 221**	P	**Pn**	**16 58 17.3**	**-1.7**
KHZ	**Kahutara**	**6.16 205**	P	**Pn**	**16 58 28.5**	**-0.7**
RPZ	**Rata Peaks**	**8.22 212**	P	**Pn**	**16 58 52.4**	**-2.0**
	4.3nm,0.3s,baz=34,slow=3.6,SNR=27					
RPZ			S	**S**	**17 00 22.1**	**-6.6**
	15nm,0.3s,baz=129,slow=22,SNR=21					
RPZ	**Rata Peaks**	**8.22 212**	P	**Pn**	**16 58 52.8**	**-1.6**
RAO	**Raoul Island**	**8.70 30**	S	S	17 00 22.1	-18
	225nm,0.4s,baz=210,slow=20,SNR=2.1					
ODZ	**Otahua Downs**	**9.48 209**	P	**Pn**	**16 59 08.9**	**-1.0**
SYZ	**Scrubby Hill**	**11.31 209**	P	**P**	**16 59 33.5**	**-0.9**
OUENC	**Ouen Island, N**	**16.92 326**	P	**Pn**	**17 00 38.4**	**-0.8**
YATNC	**Mamie plateau,**	**17.21 326**	P	**Pn**	**17 00 41.6**	**-1.1**
DZM	**Mont Dzumac**	**17.40 325**	P	**P**	**17 00 39.5**	**-2.3**
	2.3nm,0.4s,baz=222,slow=7.8,SNR=12					
MSVF	**Nonsavu**	**19.10 3**	P	**P**	**17 00 56.2**	**-3.8**
	3.5nm,0.5s,baz=270,slow=23,SNR=5.2					
MSVF	**Nonsavu**	**19.10 3**	P	**P**	**17 01 00.1**	**+0.2**
CMSA	**Cobar Meteorol**	**26.42 272**	P	**P**	**17 02 11.5**	**+3.3**
STKA	**Stephens Creek**	**29.59 269**	P	**P**	**17 02 36.8**	**+0.6**
	0.9nm,0.3s,baz=117,slow=9.0,SNR=1.7					
	0.9nm,0.3s					
HTT	**Hallett**	**31.24 265**	P	**P**	**17 02 53.9**	**+3.1**
CTA	**Charters Tower**	**31.65 293**	P	**P**	**17 02 54.3**	**-0.1**
	1.1nm,0.6s,baz=140,slow=16,SNR=1.6					
	1.1nm,0.6s					
TATA	**Tatamba Isabel**	**32.42 327**	P	**P**	**17 03 00.0**	**-1.0**
BBOO	**Buckleboo**	**33.72 265**	P	**P**	**17 03 13.9**	**+1.8**
QIS	**Mount Isa**	**36.39 286**	P	**P**	**17 03 36.9**	**+1.9**
AS01	**Alice Springs**	**39.18 277**	P	**P**	**17 03 59.9**	**+1.7**
ASAR	**Alice Springs**	**39.22 277**	P	**P**	**17 04 00.2**	**+1.7**
	9.3nm,0.6s,baz=119,slow=8.0,SNR=314					
ASAR			ScP	**ScP**	**17 09 18.4**	**-2.1**
	0.6nm,0.9s,baz=107,slow=3.8,SNR=4.8					
ASAR			S	**S**	**17 09 36.7**	**+0.5**
	2.0nm,0.8s,baz=122,slow=16,SNR=14					
	9.3nm,0.6s					
WRAB	**Tennant Creek**	**40.82 282**	P	**P**	**17 04 12.8**	**+1.2**
WRA	**Warramunga Arr**	**40.83 282**	P	**P**	**17 04 12.6**	**+1.0**
	4.3nm,0.6s,baz=121,slow=7.8,SNR=46					
WRA			PcP	**PcP**	**17 06 06.2**	**0.0**
	0.7nm,0.9s,baz=116,slow=8.3,SNR=3.2					
WRA			ScP	**ScP**	**17 09 25.3**	**-1.5**
	1.0nm,1.0s,baz=142,slow=3.7,SNR=4.6					
WRA			S	**S**	**17 09 58.7**	**-1.2**
	0.6nm,0.8s,baz=122,slow=13,SNR=4.1					
	4.3nm,0.6s					
VNDA	**Vanda**	**41.27 185**	P	**P**	**17 04 17.7**	**+3.3**
	0.4nm,0.6s,baz=13,slow=8.5,SNR=5.4					
	0.4nm,0.6s					
QSPA	**South Pole Qui**	**53.24 180**	P	**P**	**17 05 50.3**	**+4.0**
	8.7nm,0.6s,baz=30,slow=7.5,SNR=86					
	8.7nm,0.6s					
VNA3	**Neumayer Olymp**	**72.07 178**	⇓P	**P**	**17 07 51.3**	**+1.6**
	comp=Z,7.8nm,1.0s					
VNA2	**Neumayer--Watz**	**72.44 178**	⇓P	**P**	**17 07 54.1**	**+2.2**
	comp=Z,7.4nm,0.8s,baz=167,slow=5.1					
PLCA	**Paso Flores**	**81.00 135**	P	**P**	**17 08 41.8**	**+1.7**
	comp=Z,1.3nm,0.7s,baz=231,slow=6.5,SNR=4.2					
	comp=Z,1.3nm,0.7s					
KSRS	**Korea Array**	**86.82 323**	P	**P**	**17 09 08.9**	**-0.1**
	comp=Z,1.3nm,0.9s,baz=139,slow=5.1,SNR=4.5					
	comp=Z,1.3nm,0.9s					
CMAR	**Chiang Mai Arr**	**91.80 292**	P	**P**	**17 09 33.1**	**+0.3**
	comp=Z,0.3nm,0.4s,baz=129,slow=5.1,SNR=1.4					
	comp=Z,0.3nm,0.4s					
MKAR	**Makanchi Array**	**118.69 309**	PKP	**PKiKP**	**17 15 09.8**	**-0.8**
	comp=Z,1.1nm,1.0s,baz=113,slow=1.7,SNR=3.6					
ZALV	**Zalesovo Beam**	**120.04 317**	PKP	**PKPdf**	**17 15 10.6**	**-2.2**
	comp=Z,0.3nm,0.4s,baz=98,slow=2.0,SNR=1.7					
KURBB	**Kurchatov Arra**	**122.45 312**	PKP	**PKiKP**	**17 15 16.6**	**-1.1**
	comp=Z,1.1nm,0.9s,baz=134,slow=2.0,SNR=6.7					
ARCES	**ARCESS Array B**	**143.84 344**	PKP	**PKPdf**	**17 15 55.0**	**-1.9**
	comp=Z,4.9nm,0.6s,baz=27,slow=2.5,SNR=12					
MMAI	**Mount Meron Ar**	**148.49 274**	PKPbc	**PKiKP**	**17 16 10.1**	**-1.2**
	comp=Z,0.6nm,0.4s,baz=114,slow=5.2,SNR=2.1					
FINES	**FINESS Array B**	**149.43 333**	PKPbc	**PKPbc**	**17 16 10.2**	**-1.1**
	comp=Z,4.2nm,0.7s,baz=66,slow=4.3,SNR=18					
BRTR	**Keskin Array B**	**151.29 287**	PKPbc	**PKiKP**	**17 16 15.9**	**-1.0**
	comp=Z,2.1nm,1.0s,baz=134,slow=3.6,SNR=6.5					
TORD	**Torodi Ar. Bea**	**156.00 191**	PKPab	**PKPab**	**17 16 46.6**	**+0.5**
	comp=Z,0.8nm,0.8s,baz=199,slow=3.5,SNR=3.8					

*ISK **07** 17:15:16.3,37.87N×26.91E,h13km,ML3.1/16*
*ATH **07** 17:15:16.1,37.84N×26.88E,h11km±1km,ML2.8/7,*
Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
*AFAD **07** 17:15:16.3,37.87N×26.89E,h7km±3km,ML2.9*
*THE **07** 17:15:16.6,37.9N±0.7×26.9E±0.6,h8km±1km,M2.9/13,*
MLh2.9/13

ISC 07 17:15:16.2±0.8,37.87N±0.02×26.89E±0.02,h10km±7km, n56,σ0.80/86, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
KRL1	**Karlovasi Samo**	**0.16**	**244**	P		**Pg**	**Pg**	**17 15 19.5**	**-0.3**
KRL1				S		**Sg**	**Sg**	**17 15 21.8**	**-0.5**
KRL1				AML			AML		
SMG	**Samos**	**0.16**	**196**	P		**Pg**	**Pg**	**17 15 19.8**	**0.0**
SMG				S		**Sg**	**Sg**	**17 15 22.6**	**+0.3**
SMG				AML			AML		
SMG	**Samos**	**0.16**	**196**	P		**Pg**	**Pg**	**17 15 19.4**	**-0.4**
SMG				S		**Sg**	**Sg**	**17 15 21.9**	**-0.4**
SMG				AML			AML		
DGB	**zmir**	**0.18**	**358**	P		**Pg**	**Pg**	**17 15 20.3**	**+0.1**
GMLD	**Gumuldur**	**0.21**	**5**	Pg		**Pg**	**Pg**	**17 15 21.2**	**+0.6**
GMLD				Sg		**Sg**	**Sg**	**17 15 24.9**	**+1.3**
GMLD				AML			AML		
SAM2	**Drakei, Karlov**	**0.25**	**244**	P		**Pg**	**Pg**	**17 15 21.0**	**-0.4**
SAM2				S		**Sg**	**Sg**	**17 15 23.9**	**-0.8**
SAM2				AML			AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**91**	Pg		**Pg**	**Pg**	**17 15 22.9**	**+0.4**
KUSD				Sg		**Sg**	**Sg**	**17 15 27.5**	**+0.8**
KUSD				AML			AML		
GCAM	**G?zelcaml?**	**0.32**	**122**	P		**Pg**	**Pg**	**17 15 22.9**	**+0.3**
GCAM				S		**Sg**	**Sg**	**17 15 27.4**	**+0.6**
GCAM				IAML				17 15 28.0	
	comp=N,2μm,0.2s								
GCAM	**G?zelcaml?**	**0.32**	**122**	Pg		**Pg**	**Pg**	**17 15 22.9**	**+0.3**
GCAM				Sg		**Sg**	**Sg**	**17 15 28.0**	**+1.2**
GCAM				AML			AML		
BEYE	**izmir**	**0.36**	**4**	P		**Pg**	**Pg**	**17 15 23.8**	**+0.4**
BEYE				S		**Sg**	**Sg**	**17 15 29.0**	**+0.7**
BEYE				IAML				17 15 29.0	
	comp=E,1μm,0.2s								
BEYE				IAML				17 15 31.0	
	comp=N,1μm,0.3s								
ZEYE	**Izmir, Urla-Ze**	**0.48**	**320**	P		**Pg**	**Pg**	**17 15 25.7**	**0.0**
ZEYE				S		**Sg**	**Sg**	**17 15 32.6**	**+0.5**
ZEYE				IAML				17 15 33.0	
	comp=E,820nm,0.2s								
ZEYE				IAML				17 15 37.0	
	comp=N,1μm,0.3s								
DDIM	**Aydin, Didim**	**0.49**	**146**	P		**Pg**	**Pg**	**17 15 25.6**	**-0.3**
DDIM				S		**Sb**	**Sb**	**17 15 34.2**	**-0.1**
DDIM				IAML				17 15 35.0	
	comp=N,731nm,0.8s								
DDIM				IAML				17 15 37.0	
	comp=E,532nm,0.3s								
BLCB	**Balcova**	**0.53**	**13**	P		**Pg**	**Pg**	**17 15 27.1**	**+0.6**
BLCB				S		**Sb**	**Sb**	**17 15 35.0**	**-0.4**
BLCB				AML			AML		
BLCB	**Balcova**	**0.53**	**13**	Pg		**Pg**	**Pg**	**17 15 26.9**	**+0.3**
BLCB				Sg		**Sb**	**Sb**	**17 15 34.8**	**-0.6**
DUVT	**Torbali**	**0.56**	**51**	P		**Pg**	**Pg**	**17 15 27.5**	**+0.3**
DUVT				S		**Sg**	**Sg**	**17 15 35.1**	**+0.4**
DUVT				IAML				17 15 40.0	
	comp=E,2μm,0.3s								
CESE	**eme**	**0.66**	**315**	Pg		**Pb**	**Pb**	**17 15 29.7**	**-0.1**
KRBN	**Karaburun**	**0.77**	**340**	Pg		**Pb**	**Pb**	**17 15 31.9**	**+0.1**
KRBN				AML			AML		
BAQT	**Foa**	**0.79**	**358**	P		**Pg**	**Pg**	**17 15 31.6**	**+0.2**
AYDB	**Zeytinkoy-Aydi**	**0.79**	**84**	Pg		**Pg**	**Pg**	**17 15 31.7**	**+0.1**
AYDB				Sg		**Sb**	**Sb**	**17 15 43.2**	**+0.2**
AYDB				AML			AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**157**	Pg		**Pb**	**Pb**	**17 15 32.3**	**0.0**
YKAV				Sg		**Sb**	**Sb**	**17 15 43.9**	**+0.8**
YKAV				AML			AML		
AYDN	**Tasoluk**	**0.81**	**104**	P		**Pg**	**Pg**	**17 15 32.0**	**+0.2**
CHOS	**Chios island**	**0.84**	**308**	P		**Pb**	**Pb**	**17 15 32.8**	**-0.1**
CHOS				S		**Sb**	**Sb**	**17 15 45.0**	**+0.7**
CHOS				AML			AML		
CHOS	**Chios island**	**0.84**	**308**	Pg		**Pb**	**Pb**	**17 15 33.1**	**+0.1**
CHOS				Sg		**Sb**	**Sb**	**17 15 45.2**	**+0.9**
CHOS				AML			AML		
CHOS	**Chios island**	**0.84**	**308**	P		**Pb**	**Pb**	**17 15 33.2**	**+0.2**
CHOS				S		**Sg**	**Sg**	**17 15 43.7**	**+0.2**
CHOS				AML			AML		
FOCM	**Foa**	**0.85**	**351**	Pg		**Pg**	**Pg**	**17 15 32.9**	**+0.2**
FOCM				AML			AML		
BODT	**Bodrum**	**0.87**	**157**	P		**Pg**	**Pg**	**17 15 32.7**	**-0.3**
BODT				S		**Sb**	**Sb**	**17 15 45.7**	**+0.6**
BODT				AML			AML		
BODT	**Bodrum**	**0.87**	**157**	Pg		**Pb**	**Pb**	**17 15 33.8**	**+0.4**
BODT				Sg		**Sb**	**Sb**	**17 15 45.9**	**+0.8**
BODT				AML			AML		
IZMR	**zmir-demi**	**0.88**	**72**	P		**Pb**	**Pb**	**17 15 34.1**	**+0.5**
IZMR				P		**Pn**	**Pn**	**17 15 34.2**	**-0.5**
IZMR				S		**Sg**	**Sg**	**17 15 44.2**	**-0.4**
IZMR				S		**Sb**	**Sb**	**17 15 44.5**	**-0.9**
KARB	**zmir-Karabur**	**0.88**	**335**	P		**Pb**	**Pb**	**17 15 33.7**	**+0.1**
KARB				S		**Sb**	**Sb**	**17 15 45.8**	**+0.4**
KARB				IAML				17 15 49.0	
	comp=N,713nm,0.3s								
MLSB	**Milas**	**0.91**	**129**	Pg		**Pb**	**Pb**	**17 15 34.3**	**+0.3**
MLSB				AML			AML		
BDRM	**Kayabasi**	**0.91**	**151**	P		**Pb**	**Pb**	**17 15 34.6**	**+0.4**
BDRM				S		**Sb**	**Sb**	**17 15 46.3**	**0.0**
BDRM				IAML				17 15 49.0	
	comp=E,581nm,0.4s								
BODA	**Bodrum-Mula**	**0.94**	**153**	Pg		**Pb**	**Pb**	**17 15 34.5**	**0.0**
ZEDA	**zmir-Bergama**	**1.11**	**7**	P		**Pb**	**Pb**	**17 15 33.6**	**-3.9**
NAZL	**Nazilli-Aydin**	**1.11**	**85**	Pn		**Pn**	**Pn**	**17 15 37.8**	**-0.1**
NAZL				AML			AML		
ESEN	**Aydn-Nazilli**	**1.16**	**93**	P		**Pb**	**Pb**	**17 15 37.7**	**-0.6**
GOMA	**Golmarmara-Man**	**1.16**	**44**	Pn		**Pb**	**Pb**	**17 15 38.4**	**0.0**
GOMA				AML			AML		
DKL	**Dikili**	**1.20**	**0**	Pn		**Pb**	**Pb**	**17 15 39.1**	**0.0**
DKL				AML			AML		
DKL	**Dikili**	**1.20**	**0**	P		**Pn**	**Pn**	**17 15 39.0**	**-0.1**
DKL				S		**Sn**	**Sn**	**17 15 55.5**	**0.0**
KIRA	**zmir-Kiraz**	**1.23**	**74**	P		**Pn**	**Pn**	**17 15 39.5**	**-0.2**
AKS	**Akhisar**	**1.24**	**35**	Pn		**Pn**	**Pn**	**17 15 39.7**	**0.0**
AKS				AML			AML		
AKHS	**Akhisar**	**1.24**	**35**	P		**Pn**	**Pn**	**17 15 37.2**	**-2.4**
KTTT	**Salihli**	**1.25**	**49**	P		**Pn**	**Pn**	**17 15 35.8**	**-4.0**
MULA	**Mugla, Merkez-**	**1.29**	**118**	P		**Pn**	**Pn**	**17 15 39.8**	**-0.6**
YER	**Yerkesik**	**1.32**	**123**	P		**Pn**	**Pn**	**17 15 40.6**	**-0.3**
YER				AML			AML		
APE	**Apeiranthos**	**1.34**	**234**	P		**Pn**	**Pn**	**17 15 40.7**	**-0.4**
APE				AML			AML		
APE	**Apeiranthos**	**1.34**	**234**	P		**Pn**	**Pn**	**17 15 40.7**	**-0.4**
APE				S		**Sb**	**Sb**	**17 15 58.7**	**-0.1**
APE				AML			AML		
SOMA	**Soma-Manisa**	**1.38**	**21**	Pn		**Pb**	**Pb**	**17 15 41.9**	**-0.3**
SOMA				AML			AML		
GORD	**Gordes-Manisa**	**1.45**	**44**	Pn		**Pn**	**Pn**	**17 15 42.8**	**+0.2**
GORD				AML			AML		
MANT	**Manisa**	**1.45**	**64**	P		**Pg**	**Pg**	**17 15 44.2**	**+0.1**
PRK	**Paraskevi**	**1.46**	**341**	P		**Pb**	**Pb**	**17 15 43.3**	**-0.2**
PRK				S		**Sg**	**Sg**	**17 16 02.9**	**-0.3**
PRK				AML			AML		
PRK	**Paraskevi**	**1.46**	**341**	P		**Pn**	**Pn**	**17 15 43.0**	**+0.3**
PRK				S		**Sb**	**Sb**	**17 16 02.4**	**+0.3**
ARG	**Arkhangelos**	**1.92**	**149**	P		**Pn**	**Pn**	**17 15 48.8**	**-0.2**
ARG				AML			AML		
LIA	**Limnos Island**	**2.43 327**		P		**Pn**	**Pn**	**17 15 56.3**	**+0.4**
LIA				AML			AML		
VLY	**Voula,Athens**	**2.45 271**		P		**Pn**	**Pn**	**17 15 56.8**	**+0.5**
SMTH	**Samothraki Isl**	**2.81 338**		P		**Pn**	**Pn**	**17 16 01.1**	**-0.1**
ENEZ	**Enez**	**2.92 349**		P		**Pn**	**Pn**	**17 16 03.2**	**+0.5**

*BGR **07** 17:16:35.0,22.02S×176.28W,h33km*
*BJI **07** 17:17:00.0,20.67S×176.06W,h241km,mB5.0/2,*
mb4.6/11
*NOU **07** 17:17:02.0,20.96S×176.39W,h241km,mb4.6/43,Fiji*
Islands Region
*GFZ **07** 17:17:03.4±0.5,21.°S±3.°×17.°7W±.°,h247km±5km,M4.7/36,*
mb4.7/36,Error ellipse: s-maj=7.3km s-min=5.6km
az=117.2,confirmed
*NEIC **07** 17:17:04.1±1.8,20.92S±0.08×176.65W±0.07,*
h248km±5km,mb4.9/362,Error ellipse: s-maj=11.8km
s-min=9.0km az=191.0
*IDC **07** 17:17:04.4±0.9,20.78S×176.80W,h253km±7km,mb4.1/17,*
mbtmp4.7/20,Error ellipse: s-maj=12.8km s-min=10.7km
az=149.0

ISC 07 17:17:03.2±0.3,21.03S±0.04×176.66W±0.04, h250km±3km,h251km:pP-P,n570,σ1s51/491,mb4.8/222, 13C-16D,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
LKBA	**Tubou, Lakemba**	**3.44**	**324**	P		**Pn**	**Pn**	**17 17 59.9**	**-0.8**
DGTI	**Dogotuki**	**5.81**	**323**	P		**Pn**	**Pn**	**17 18 28.3**	**-0.8**
MSVF	**Nonsavu**	**5.97**	**302**	P		**Pn**	**Pn**	**17 18 31.2**	**+0.1**
	36nm,0.5s,baz=136,slow=8.6,SNR=59								
MSVF				S		**S**		**17 19 36.2**	**-5.1**
	24nm,0.9s,baz=328,slow=15,SNR=0.9								
MSVF	**Nonsavu**	**5.97**	**302**	P		**Pn**	**Pn**	**17 18 31.7**	**+0.6**
MSVF	**Nonsavu**	**5.97**	**302**				**Pn**	**17 18 31.4**	**+0.3**
MSVF	**Nonsavu**	**5.97**	**302**	P		**Pn**	**Pn**	**17 18 31.7**	**+0.6**
MSVF				AML		AML	AML		
MSVF	**Nonsavu**	**5.97**	**302**	P		**Pn**	**Pn**	**17 18 30.8**	**-0.4**
	comp=Z,60nm,0.7s								
NIUE	**Niue**	**6.62**	**74**	P		**Pn**	**Pn**	**17 18 34.8**	**-4.4**
NIUE	**Niue**	**6.62**	**74**				**Pn**	**17 18 35.0**	**-4.3**
NIUE				Sn		S	S	17 19 43.4	-13
NIUE	**Niue**	**6.62**	**74**	P		**Pn**	**Pn**	**17 18 34.8**	**-4.4**
NIUE				S		S	S	17 19 43.8	-12
NIUE				AML		AML	AML		
FUTU	**Fugatoga**	**6.82**	**348**	P		**Pn**	**Pn**	**17 18 40.5**	**-1.3**
FUTU	**Fugatoga**	**6.82**	**348**				**Pn**	**17 18 39.4**	**-2.4**
FUTU	**Fugatoga**	**6.82**	**348**	P		**Pn**	**Pn**	**17 18 40.3**	**-1.5**
FUTU				AML		AML	AML		
FUTU	**Fugatoga**	**6.82**	**348**	P		**Pn**	**Pn**	**17 18 40.7**	**-1.1**
	comp=Z,646nm,1.0s								
RIZ	**Raoul Island**	**8.26**	**188**	P		Pn		17 18 54.2	-5.6
RIZ				S		S	**S**	**17 20 31.7**	**-2.1**
RAO	**Raoul Island**	**8.27**	**188**	S		S	**S**	**17 20 30.2**	**-3.7**
	comp=Z,550nm,0.3s,baz=117,slow=21,SNR=6.4								
RAO	**Raoul Island**	**8.27**	**188**	Pn		**Pn**	**Pn**	**17 18 58.4**	**-1.5**
RAO				Sn		S	**S**	**17 20 32.2**	**-1.7**
RAO	**Raoul Island**	**8.27**	**188**	S		S	**S**	**17 20 31.2**	**-3.0**
GLKZ	**Green Lake**	**8.28**	**188**	P		**Pn**	**Pn**	**17 18 58.4**	**-1.6**
GLKZ				S		S	**S**	**17 20 31.1**	**-3.0**
AFI	**Afiamalu**	**8.47**	**34**	P		**Pn**		17 18 56.1	-6.6
	comp=Z,8.6nm,0.3s,baz=166,slow=2.6,SNR=12								
AFI				S		S		17 20 19.4	-20
	comp=Z,28nm,0.3s,baz=156,slow=19,SNR=7.7								
FUNA	**Funafuti**	**13.05**	**342**				**Pn**	**17 19 58.7**	**-1.3**
FUNA	**Funafuti**	**13.05**	**342**	P			**Pn**	**17 19 58.9**	**-1.0**
	comp=Z,230nm,1.6s								
MARNC	**Mare, Loyalty**	**14.28**	**265**	P			**P**	**17 20 15.0**	**-0.1**
MARNC	**Mare, Loyalty**	**14.28**	**265**				**Pn**	**17 20 14.1**	**-0.7**
PINNC	**Pines Island,**	**14.84**	**261**	P			**Pn**	**17 20 24.0**	**+2.4**
PINNC	**Pines Island,**	**14.84**	**261**				**Pn**	**17 20 21.7**	**+0.2**
YATNC	**Mamie plateau,**	**15.34**	**263**	P			**Pn**	**17 20 30.3**	**+2.8**
OUENC	**Ouen Island, N**	**15.39**	**262**	P			**Pn**	**17 20 29.6**

TWVZ **Taurewa** 19.22 199 P **P** 17 21 10.5 +1.5
KWHZ **Kaweka Forest** 19.27 196 P **P** 17 21 07.5 -2.0
KWHZ S **S** 17 24 31.1 -3.0
CKHZ **Cape Kidnapper** 19.33 195 P **P** 17 21 08.4 -1.6
CKHZ S **S** 17 24 32.3 -2.7
WNVZ **Wahianoa** 19.41 198 P **P** 17 21 11.4 +0.4
BHHZ **Black Hill Sta** 19.43 197 P **P** 17 21 09.7 -1.5
VRZ **Vera Road** 19.49 200 P **P** 17 21 13.6 +2.0
KRHZ **Kereru** 19.49 196 P **P** 17 21 10.1 -1.7
KAHZ **Kahuranaki** 19.51 195 P **P** 17 21 12.2 +0.2
PXZ **Pawanui** 19.73 195 P **P** 17 21 14.9 +0.6
PXZ S **S** 17 24 41.4 -1.5
PNHZ **Pukenui** 19.79 196 P **P** 17 21 13.4 -1.5
PKE **Pukeiti** 19.81 202 P **Pn** 17 21 20.8 +0.8
WPHZ **Waipukurau** 19.87 196 P **P** 17 21 16.1 +0.4
NBEZ **Newall Road No** 19.92 202 P **Pn** 17 21 20.3 -0.9
WAZ **Wanganui** 19.99 199 P **P** 17 21 19.2 +2.1
TSZ **Takapari Road** 19.99 197 P **P** 17 21 16.2 -0.9
PRHZ **Porangahau** 20.01 195 P **P** 17 21 19.2 +1.9
NMEZ **Namu Road** 20.04 202 P Pn 17 21 22.8 +0.1
DVHZ **Dannevirke** 20.16 196 P **P** 17 21 17.8 -1.1
ANWZ **Angora Road** 20.24 195 P **P** 17 21 22.2 +2.5
POWZ **Post Office Ro** 20.35 197 P **P** 17 21 20.4 -0.5
PRWZ **Pori Road** 20.45 196 P **P** 17 21 22.3 +0.3
BFZ **Birch Farm** 20.50 196 P **P** 17 21 20.7 -1.8
BFZ **Birch Farm** 20.50 196 P **P** 17 21 20.9 -1.6
BFZ **Birch Farm** 20.50 196 P **P** 17 21 22.9 +0.4
comp=Z,83nm,0.7s
MRZ **Mangatainoka R** 20.66 197 P **P** 17 21 21.9 -2.3
MRZ **Mangatainoka R** 20.66 197 P **P** 17 21 22.1 -2.0
CPWZ **Castlepoint** 20.73 195 P **P** 17 21 26.0 +1.2
HOWZ **Holdsworth Sta** 20.89 197 P **P** 17 21 26.1 -0.6
OGWZ **Otaki Gorge** 20.91 198 P **P** 17 21 24.6 -2.2
CAW **Cannon Point** 21.21 197 P **P** 17 21 28.4 -1.4
PAWZ **Paruwai Farm** 21.37 197 P **P** 17 21 29.5 -1.8
MSWZ **Moikau Station** 21.45 197 P **P** 17 21 30.3 -1.8
MSWZ **Moikau Station** 21.45 197 P **P** 17 21 30.5 -1.6
SNZO **South Karori** 21.50 198 P **P** 17 21 31.7 -0.8
SNZO **South Karori** 21.50 198 P **P** 17 21 31.1 -1.3
SNZO **South Karori** 21.50 198 P **P** 17 21 33.1 +0.6
comp=Z,200nm,0.7s
TCW **Tory Channel** 21.54 199 P **P** 17 21 30.5 -2.3
BHW **Baring Head** 21.55 198 P **P** 17 21 30.2 -2.7
PLWZ **Palliser** 21.59 197 P **P** 17 21 31.1 -2.3
QRZ **Quartz Range** 21.77 203 P **P** 17 21 36.1 +1.1
QRZ **Quartz Range** 21.77 203 P **P** 17 21 36.3 +1.3
THZ **Tophouse** 22.47 201 P **P** 17 21 42.1 +0.6
KHZ **Kahutara** 22.86 199 P **P** 17 21 45.0 +0.1
KHZ **Kahutara** 22.86 199 P **P** 17 21 45.0 +0.1
KHZ **Kahutara** 22.86 199 P **P** 17 21 45.7 +0.7
comp=Z,81nm,0.7s
OXZ **Oxford** 24.16 200 P **P** 17 21 57.0 +0.3
NGOA **Tingoa Renbel** 24.21 289 P **P** 17 22 00.6 +3.1
RPZ **Rata Peaks** 24.83 202 P **P** 17 22 03.7 +0.9
RPZ **Rata Peaks** 24.83 202 P **P** 17 22 02.4 -0.4
RPZ **Rata Peaks** 24.83 202 P **P** 17 22 04.1 +1.3
FOZ **Fox Glacier** 25.12 204 P **P** 17 22 05.5 +0.2
LBZ **Lake Benmore** 25.72 202 P **P** 17 22 10.2 -0.6
PAE **Paea** 25.76 87 *e*P **P** 17 22 08.3 -3.1
comp=Z,135nm,1.3s
PPT2 **Papeete2** 25.78 87 *e*P **P** 17 22 08.4 -3.3
comp=Z,60nm,0.9s
PPT2 *es*S **sS** 17 27 52.2 +2.7
comp=Z,124nm,38.8s
PPT **Papeete** 25.78 87 P **P** 17 22 12.5 +0.9
comp=Z,79nm,0.9s,baz=344,slow=1.5,SNR=7.8
comp=Z,79nm,0.9s
PPTF **Pamatai, Papee** 25.79 87 P **P** 17 22 11.3 -0.5
TATA **Tatamba Isabel** 25.95 295 P **P** 17 22 14.4 +1.2
JCZ **Jackson Bay** 25.97 204 P **P** 17 22 14.0 +0.9
TIAR **Tiarei** 26.00 87 *e*P **P** 17 22 14.3 +0.7
comp=Z,544nm,1.0s
TVO **Taravao** 26.04 88 *e*P **P** 17 22 19.4 +5.4
comp=Z,96nm,1.0s
ODZ **Otahua Downs** 26.14 201 P **P** 17 22 15.2 +0.7
ODZ **Otahua Downs** 26.14 201 P **P** 17 22 14.8 +0.3
comp=Z,45nm,1.1s
MLZ **Mavora Lakes** 27.32 204 P **P** 17 22 25.8 +0.7
WHZ **Wether Hill Ro** 27.83 203 **P** 17 22 29.3 -0.2
XMAS **Kiritimati** 29.66 42 P **P** 17 22 45.4 -0.6
comp=Z,86nm,1.0s
EIDS **Eidsvold** 29.92 255 P **P** 17 22 49.2 +0.9
EIDS IAmb IAmb 17 22 51.4
comp=Z,51nm,2.0s
ARMA **Armidale** 29.97 245 P **P** 17 22 50.6 +1.8
ARMA **Armidale** 29.97 245 P **P** 17 22 50.4 +1.6
ARMA IAmb IAmb 17 23 45.5
comp=Z,35nm,1.4s
ARMA **Armidale** 29.97 245 P **P** 17 22 50.1 +1.3
comp=Z,17nm,1.4s
CAN **Canberra** 33.27 237 P **P** 17 23 18.7 +1.3
CAN **Canberra** 33.27 237 P **P** 17 23 18.5 +1.2
CAN **Canberra** 33.27 237 P **P** 17 23 18.6 +1.2
comp=Z,14nm,1.2s
CAN **Canberra** 33.27 237 P **P** 17 23 18.8 +1.3
CAN pP **pP** 17 24 06.9 0.0
CAN sP **sP** 17 24 36.2 +0.5
CTA **Charters Tower** 34.68 265 P **P** 17 23 31.4 +1.7
CTAO **Charters Tower** 34.68 265 P **P** 17 23 30.8 +1.1
CTAO **Charters Tower** 34.68 265 P **P** 17 23 30.6 +0.9
CTAO **Charters Tower** 34.68 265 P **P** 17 23 30.6 +0.9
comp=Z,12nm,1.1s
CTAO **Charters Tower** 34.68 265 P **P** 17 23 30.5 +0.9
CTAO pP **pP** 17 24 20.8 +1.0
CMSA **Cobar Meteorol** 35.19 245 P **P** 17 23 35.2 +1.4
CMSA **Cobar Meteorol** 35.19 245 P **P** 17 23 34.6 +0.8
comp=Z,26nm,1.0s
QLP **Quilpie** 36.10 253 P **P** 17 23 43.2 +1.6
QLP **Quilpie** 36.10 253 P **P** 17 23 42.0 +0.3
comp=Z,19nm,1.7s
TOO **Toolangi** 36.61 235 P **P** 17 23 46.1 +0.3
PMG **Port Moresby** 36.68 283 P **P** 17 23 47.2 +0.6
PMG **Port Moresby** 36.68 283 P **P** 17 23 46.6 -0.1
comp=Z,13nm,0.9s
PMG **Port Moresby** 36.68 283 P **P** 17 23 47.3 +0.6
PMG pP **pP** 17 24 39.1 +1.7
PMG sP **sP** 17 25 05.8 +0.1
MTSU **Mount Surprise** 36.81 268 P **P** 17 23 49.4 +1.6
MTSU **Mount Surprise** 36.81 268 P **P** 17 23 48.4 +0.6
comp=Z,4.1nm,0.8s
TAU **Tasmania Unive** 37.14 226 P **P** 17 23 51.3 +1.2
TAU **Tasmania Unive** 37.14 226 P **P** 17 23 50.9 +0.8
TAU IAmb IAmb 17 24 17.2
comp=Z,54nm,1.4s
STKA **Stephens Creek** 38.69 245 P **P** 17 24 04.1 +0.8
comp=Z,9.5nm,0.6s,baz=99,slow=9.4,SNR=18
comp=Z,9.5nm,0.6s
STKA **Stephens Creek** 38.69 245 P **P** 17 24 04.8 +1.5
STKA **Stephens Creek** 38.69 245 P **P** 17 24 03.9 +0.6
STKA IAmb IAmb 17 24 04.9
comp=Z,40nm,0.7s
STKA **Stephens Creek** 38.69 245 P **P** 17 24 04.1 +0.8
comp=Z,58nm,0.9s
INKA **Innaminka** 39.22 252 P **P** 17 24 08.8 +1.2
MANU **Manus Island** 39.80 294 P **P** 17 24 13.7 +1.1
HTT **Hallett** 41.09 243 P **P** 17 24 24.2 +1.2
BBOO **Buckleboo** 43.44 244 P **P** 17 24 42.5 +0.7
BBOO **Buckleboo** 43.44 244 P **P** 17 24 41.8 0.0
BBOO IAmb IAmb 17 26 12.7
comp=Z,94nm,1.9s
BBOO **Buckleboo** 43.44 244 P **P** 17 24 41.9 0.0
comp=Z,15nm,1.3s
KHLU **Kahalu`u** 45.20 28 P **P** 17 24 54.9 -1.0
HUH **Hualalai** 45.30 28 P **P** 17 24 56.1 -0.8
STCH **Steam Cracks** 45.36 29 P **P** 17 24 56.5 -0.6
STCH IAmb IAmb 17 25 53.1
comp=Z,61nm,1.0s
HMH **Humu'ula Sheep** 45.39 29 P **P** 17 24 57.3 -0.3
JAY **Jayapura** 45.39 288 P **P** 17 24 58.3 +0.8
comp=Z,46nm,1.5s
AS01 **Alice Springs** 45.57 257 P **P** 17 24 59.9 +1.1
AS31 **Alice Springs** 45.62 257 **P** 17 24 59.6 +0.4
WR8 **Warramunga Arr** 45.62 262 P **P** 17 24 58.9 -0.3
ASAR **Alice Springs** 45.62 257 P **P** 17 24 59.1 0.0
comp=Z,4.1nm,0.8s,baz=88,slow=7.8,SNR=52
ASAR pP **pP** 17 25 52.3 +0.7
comp=Z,4.8nm,0.9s,baz=86,slow=8.5,SNR=4.2
ASAR PcP **PcP** 17 26 33.2 +0.1
comp=Z,1.2nm,0.6s,baz=103,slow=4.0,SNR=4.2
ASAR ScP **ScP** 17 30 01.4 -0.5
comp=Z,0.5nm,0.8s,baz=95,slow=4.1,SNR=2.9
ASAR S **S** 17 31 19.5 -3.1
comp=Z,0.4nm,0.7s,baz=98,slow=13,SNR=5.4
ASAR PKiKP **PKiKP** 17 33 28.7 -0.8
comp=Z,0.4nm,1.0s,baz=106,slow=1.4,SNR=4.6
comp=Z,4.1nm,0.8s
HPAH **Hawaii Prepara** 45.67 28 P **P** 17 24 58.4 -1.1
comp=Z,143nm,0.9s
WB0 **Warramunga Arr** 45.75 263 P **P** 17 24 60.0 -0.3
WRAB **Tennant Creek** 45.76 262 P **P** 17 25 00.3 0.0
WRA **Warramunga Arr** 45.77 262 P **P** 17 24 59.7 -0.6
comp=Z,1.0nm,0.3s,baz=96,slow=7.8,SNR=44
WRA pP **pP** 17 25 53.8 +0.8
comp=Z,4.3nm,0.9s,baz=97,slow=6.9,SNR=5.4
WRA PcP **PcP** 17 26 33.5 0.0
comp=Z,0.6nm,0.6s,baz=102,slow=7.1,SNR=0.9
WRA ScP **ScP** 17 30 02.2 -0.3
comp=Z,0.6nm,0.9s,baz=94,slow=4.3,SNR=3.3
WRA S **S** 17 31 18.9 -5.8
comp=Z,0.7nm,0.9s,baz=98,slow=14,SNR=2.4
comp=Z,1.0nm,0.3s
KIP **Kipapa** 45.96 24 P **P** 17 24 58.8 -2.8
SMPI **Sarmi** 47.41 288 P **P** 17 25 14.3 +1.3
comp=Z,37nm,2.1s
FORT **Forrest** 50.24 247 P **P** 17 25 33.9 -0.4
MTN **Manton Dam** 50.42 271 P **P** 17 25 35.7 -0.1
KNRA **Kununurra** 51.87 266 **P** 17 25 46.8 +0.2
DRV **Dumont d'Urvil** 53.28 200 P **P** 17 25 57.8 +1.7
DRV pP **pP** 17 26 50.8 +1.0
FITZ **Fitzroy Crossi** 54.20 262 P **P** 17 26 03.5 0.0
SIJI **Sorong** 54.58 285 P **P** 17 26 06.4 +0.1
comp=Z,18nm,0.7s
SBA **Scott Base** 57.44 184 **P** 17 26 29.2 +3.8
SBA **Scott Base** 57.44 184 P **P** 17 26 28.4 +2.9
VNDA **Vanda** 57.50 185 P **P** 17 26 29.2 +3.3
comp=Z,3.1nm,0.7s,baz=15,slow=6.7,SNR=23
comp=Z,3.1nm,0.7s
VNDA **Vanda** 57.50 185 **P** 17 26 27.8 +1.8
VNDA **Vanda** 57.50 185 P **P** 17 26 27.8 +1.8
VNDA **Vanda** 57.50 185 P **P** 17 26 29.2 +3.3
VNDA PcP **pP** 17 27 19.0 -1.7
VNDA pP **pwP** 17 27 24.1 +0.3
SOEI **Soe** 57.77 272 P **P** 17 26 29.6 +0.6
SOEI IAmb IAmb 17 26 42.1
comp=Z,42nm,1.4s
SOEI **Soe** 57.77 272 P **P** 17 26 29.4 +0.4
comp=Z,27nm,1.4s
SANI **Sanana** 58.91 281 P **P** 17 26 35.8 -0.9
comp=Z,23nm,1.2s
MBWA **Marble Bar** 58.96 257 P **P** 17 26 37.1 +0.1
MBWA IAmb IAmb 17 27 24.6
comp=Z,29nm,1.3s
MBWA **Marble Bar** 58.96 257 P **P** 17 26 35.7 -1.2
comp=Z,15nm,1.3s
KLBR **Kellerberrin** 58.97 245 P **P** 17 26 39.4 +2.5
KLBR **Kellerberrin** 58.97 245 P **P** 17 26 36.9 +0.1
comp=Z,15nm,1.1s
NWAO **Narrogin (SRO)** 59.25 243 P **P** 17 26 39.7 +0.9
BLDU **Ballidu** 59.98 246 P **P** 17 26 45.0 +1.2
EDFI **Ende, Flores** 60.49 272 P **P** 17 26 47.6 0.0
comp=Z,6.0nm,0.9s
MORW **Morawa** 60.78 248 P **P** 17 26 50.6 +1.3
MORW **Morawa** 60.78 248 P **P** 17 26 51.9 +2.6
MORW IAmb IAmb 17 27 36.2
comp=Z,87nm,1.9s
LUWI **Luwuk** 62.26 280 P **P** 17 26 57.8 -1.4
comp=Z,18nm,1.2s
CCD **Concordia, Ant** 62.27 195 P **P** 17 27 01.2 +2.4
CCD pP **pwP** 17 27 58.9 +1.2
APSI **Ampana** 63.34 280 P **P** 17 27 05.1 -1.3
KAPI **Kappang** 63.58 275 P **P** 17 27 08.2 +0.3
comp=Z,7.1nm,1.3s
DBNI **Kabupaten Domp** 63.73 271 P **P** 17 27 08.3 -0.7
comp=Z,5.9nm,0.8s
CASY **Casey** 64.03 205 **P** 17 27 11.7 +1.7
CASY **Casey** 64.03 205 P **P** 17 27 11.5 +1.6
comp=Z,12nm,0.9s
QSPA **South Pole Qui** 69.05 180 P **P** 17 27 44.5 +2.7
comp=Z,8.8nm,0.8s,baz=26,slow=1.0,SNR=52
comp=Z,8.8nm,0.8s
QSPA **South Pole Qui** 69.05 180 **P** 17 27 44.1 +2.3
QSPA **South Pole Qui** 69.05 180 P **P** 17 27 44.7 +2.9
QSPA pP **pwP** 17 28 42.7 +1.2
JGF **Kuroka** 71.19 322 P **P** 17 27 54.9 -0.3
MJAR **Matsushiro Arr** 71.38 323 P **P** 17 27 55.2 -1.0
comp=Z,3.8nm,0.8s,baz=156,slow=6.3,SNR=18
comp=Z,3.8nm,0.8s
MJAR **Matsushiro Arr** 71.38 323 P **P** 17 27 55.5 -0.6
MAJO **Matsushiro** 71.38 323 P **P** 17 27 55.5 -0.7
KIWB **Kanaga Island** 72.56 360 P **P** 17 28 02.2 -0.6
ADK **Adak** 72.59 360 P **P** 17 28 02.0 -0.9
ATKA **Atka Island** 72.95 2 P **P** 17 28 03.8 -1.2
JKA **Kamikawa-asahi** 74.79 331 P **P** 17 28 16.7 +0.8
JKA IAmb IAmb 17 29 46.8
comp=Z,39nm,1.4s
TPUB **Ta-pu** 75.31 302 P **P** 17 28 18.5 -0.9
PEA0B **Petropavlovsk-** 77.10 344 P **P** 17 28 28.1 -0.7
PETK **Petropavlovsk-** 77.10 344 P **P** 17 28 27.8 -0.9
comp=Z,5.5nm,0.9s,baz=134,slow=6.4,SNR=4.6
comp=Z,5.5nm,0.9s
SAO **San Andreas Ge** 77.56 42 P **P** 17 28 32.4 +0.7
SAO IAmb IAmb 17 28 34.0
comp=Z,24nm,0.9s
PMPB **Monarch Peak** 77.64 43 P **P** 17 28 32.7 +0.5
PKD **Bear Valley Ra** 77.64 44 P **P** 17 28 33.1 +0.9
MHC **Mount Hamilton** 77.80 42 **P** 17 28 33.5 +0.4
MHC IAmb IAmb 17 28 35.8
comp=Z,23nm,1.1s
CVS **Carmenet Viney** 77.92 41 P **P** 17 28 33.6 0.0
MWC **Mount Wilson** 78.26 46 P **P** 17 28 35.8 0.0
MWC IAmb IAmb 17 28 37.8
comp=Z,19nm,0.9s
ELS **Elsinore Mount** 78.35 47 P **P** 17 28 37.2 +1.0
ELS IAmb IAmb 17 28 39.9
comp=Z,41nm,1.4s
VNFG **Fog Glacier, M** 78.36 10 P **P** 17 28 35.6 -0.1
KMRM **Mail Ridge** 78.38 39 **P** 17 28 37.9 +1.7
TPO **Tropico Hills** 78.52 46 P **P** 17 28 38.0 +0.9
ISA **Isabella, Lake** 78.82 45 P **P** 17 28 39.5 +0.8
ISA IAmb IAmb 17 28 41.2
comp=Z,31nm,0.9s
BORC **Borrego Spring** 78.83 48 P **P** 17 28 39.5 +0.8
BORC IAmb IAmb 17 31 36.4
comp=Z,19nm,1.0s
BELA **Belgrano 2** 78.88 172 **P** 17 28 39.5 +1.3
O02D **Mt. Diablo Mer** 78.89 39 P **P** 17 28 40.2 +1.2
O02D IAmb IAmb 17 28 41.9
comp=Z,28nm,0.9s
PFO **Pinyon Flats O** 79.00 48 **P** 17 28 40.6 +0.8
PFO IAmb IAmb 17 28 42.1
comp=Z,30nm,1.3s
CMB **Columbia Colle** 79.01 42 IAmb IAmb 17 28 41.7
comp=Z,19nm,0.9s
AFDM **Forest Hills D** 79.21 41 **P** 17 28 41.4 +0.8
AFDM IAmb IAmb 17 28 42.6
comp=Z,22nm,1.1s
ORV **Oroville** 79.26 40 P **P** 17 28 41.7 +0.8
ORV IAmb IAmb 17 28 42.9
comp=Z,14nm,0.9s
CCCA **Chr Cany lake** 79.47 46 IAmb IAmb 17 28 45.3
comp=Z,39nm,1.1s
CLC **China Lake** 79.48 45 IAmb IAmb 17 28 44.6
comp=Z,23nm,1.1s
BELC **Belle Mtn. Jos** 79.53 47 IAmb IAmb 17 28 45.0
comp=Z,26nm,1.2s
O03E **Paynes Creek** 79.54 39 P **P** 17 28 42.8 +0.3
MDPB **Devils Postpil** 79.59 43 IAmb IAmb 17 28 45.3
comp=Z,20nm,0.9s
M02C **Callahan** 79.63 38 IAmb IAmb 17 28 45.8
comp=Z,22nm,1.0s
MPMC **Manual Prospec** 79.70 45 P **P** 17 28 44.3 +0.8
MPMC IAmb IAmb 17 28 46.0
comp=Z,19nm,1.0s
GSC **Goldstone, Bar** 79.72 46 IAmb IAmb 17 28 45.8
comp=Z,21nm,1.1s
WAKR **Walker** 79.89 42 IAmb IAmb 17 28 47.0
comp=Z,29nm,0.9s
YBH **Yreka Blue Hor** 79.93 38 **P** 17 28 45.6 +1.1
YBH IAmb IAmb 17 28 47.0
comp=Z,18nm,0.8s
USRK **Ussuriysk Ar.** 80.10 325 P **P** 17 28 45.6 +0.3
comp=Z,3.1nm,0.8s,baz=165,slow=6.0,SNR=5.1
comp=Z,3.1nm,0.8s
BEKR **Beckworth** 80.14 41 **P** 17 28 46.7 +0.9
BEKR IAmb IAmb 17 28 47.5
comp=Z,12nm,0.7s
IRM **Iron Mountain** 80.21 48 IAmb IAmb 17 28 48.9
comp=Z,29nm,1.1s
YERR **Yerington** 80.30 42 IAmb IAmb 17 28 48.8
comp=Z,27nm,0.9s
GWY **Greenwater Val** 80.31 45 **P** 17 28 47.1 +0.3
LHV **Little Huntoon** 80.32 43 IAmb IAmb 17 28 49.3
comp=Z,20nm,1.2s
FURC **Furnace Creek,** 80.34 45 IAmb IAmb 17 28 49.0
comp=Z,16nm,0.8s
SHOC **Shoshone, Teco** 80.41 46 IAmb IAmb 17 28 49.4
comp=Z,31nm,1.1s
NVAR **Mina Array Bea** 80.56 43 P **P** 17 28 49.2 +1.1
comp=Z,8.0nm,0.8s,baz=223,slow=8.6,SNR=40
comp=Z,8.0nm,0.8s
PAHR **Pah Rah Range** 80.64 41 IAmb IAmb 17 28 50.7
comp=Z,17nm,1.0s
MTPC **Mountain Pass** 80.67 46 IAmb IAmb 17 28 51.2
comp=Z,18nm,0.9s
TPH **Tonopah** 81.04 43 P **P** 17 28 51.2 +0.6
TPH IAmb IAmb 17 28 53.0
comp=Z,26nm,1.4s
KDAK **Kodiak Island** 81.04 13 P **P** 17 28 49.7 -0.2
comp=Z,4.5nm,0.7s,baz=195,slow=5.7,SNR=4.8
comp=Z,4.5nm,0.7s
KDAK **Kodiak Island** 81.04 13 P **P** 17 28 50.2 +0.3
NJ2 **Nanjing** 81.18 309 *e*P **P** 17 28 54.7 +3.5
NJ2 pmax pmax
comp=Z,13nm,0.6s
J04A **Umpqua Nationa** 81.23 37 P **P** 17 28 52.6 +1.0
W13A **Hualapai Mount** 81.59 47 IAmb IAmb 17 28 56.3
comp=Z,14nm,1.0s
K05A **Summer Lake** 81.60 38 **P** 17 28 54.5 +1.0
P17K **Kvichak River** 81.64 10 P **P** 17 28 52.5 -0.5
O16K **Kokwok River B** 81.76 9 IAmb IAmb 17 28 53.6
comp=Z,13nm,0.8s
WIFE **Three Sisters-** 81.92 37 IAmb IAmb 17 28 57.4
comp=Z,33nm,0.9s
PRN **Pahroc Range** 82.07 45 IAmb IAmb 17 28 58.8
comp=Z,18nm,0.9s
PINE **Pine Mountain** 82.24 37 P **P** 17 28 57.8 +1.0
TUC **Tucson** 82.33 51 P **P** 17 28 58.3 +1.0
TUC **Tucson** 82.33 51 P **P** 17 28 58.1 +0.8
comp=Z,12nm,1.5s
MG03 **Isla Dawson** 82.36 145 P **P** 17 28 58.7 +1.6
BMN **Battle Mountai** 82.41 42 IAmb IAmb 17 28 59.9
comp=Z,25nm,0.9s
O18K **Koktuh Hills** 82.48 11 IAmb IAmb 17 28 58.1
comp=Z,28nm,1.0s
WVOR **Wild Horse Val** 82.74 39 P **P** 17 28 59.4 +0.1
comp=Z,35nm,1.1s
HOOD **Mount Hood Mea** 82.81 36 IAmb IAmb 17 29 01.6
comp=Z,27nm,1.0s
L14K **Kuka Creek** 82.85 7 IAmb IAmb 17 29 00.9
comp=Z,21nm,0.9s
X16A **Lo Mia Camp, P** 82.94 49 IAmb IAmb 17 29 03.6
comp=Z,26nm,0.9s
O19K **Port Alsworth** 82.95 11 IAmb IAmb 17 29 00.3
comp=Z,33nm,1.0s
ILSW **Iliamna Southw** 82.97 12 P **P** 17 28 59.6 -0.5
ILSW IAmb IAmb 17 29 00.8
comp=Z,24nm,0.9s
LCMT **Little Creek M** 83.06 46 IAmb IAmb 17 29 03.6
comp=Z,17nm,0.9s
K13K **Kusilvak Mount** 83.23 6 IAmb IAmb 17 29 11.1
comp=Z,37nm,1.4s
KNB **Kanab** 83.35 46 IAmb IAmb 17 29 05.4
comp=Z,28nm,1.1s
J08A **Circle Bar Ran** 83.39 39 IAmb IAmb 17 29 04.8
comp=Z,29nm,1.2s
CN2 **Changchun** 83.48 322 *e*P P 17 29 09.2 +6.3
CN2 pmax pmax
comp=Z,10.0nm,0.6s
SZCU **Shurtz Canyon** 83.48 46 IAmb IAmb 17 29 06.0
comp=Z,26nm,1.1s
PSUT **Pine Spring** 83.48 45 IAmb IAmb 17 29 05.4
comp=Z,11nm,0.8s
BNX **BinXian** 83.58 324 ⇓P **P** 17 29 03.1 -0.2
BNX pmax pmax
comp=Z,13nm,1.1s
M17K **Holitna River** 83.58 9 IAmb IAmb 17 29 05.1
comp=Z,25nm,0.9s
GNW **Green Mountain** 83.64 33 IAmb IAmb 17 29 05.7
comp=Z,17nm,1.0s
ELK **Elko** 83.82 42 P **P** 17 29 05.5 +0.5
ELK IAmb IAmb 17 29 07.0
comp=Z,17nm,0.9s
F07A **Phinny Hill Vi** 84.11 36 IAmb IAmb 17 29 08.1
comp=Z,22nm,0.8s
MXC **Moxie City** 84.34 35 IAmb IAmb 17 29 09.3
comp=Z,25nm,1.0s
IPM **Ipoh** 84.44 277 P **P** 17 29 08.1 -0.4
L18K **Granite Mounta** 84.48 9 IAmb IAmb 17 29 09.2
comp=Z,23nm,0.9s
LTY **Liberty** 84.56 35 IAmb IAmb 17 29 10.0
comp=Z,15nm,1.0s
STLK **Strandline Lak** 84.62 12 P **P** 17 29 06.8 -1.5
STLK IAmb IAmb 17 29 08.0
comp=Z,12nm,1.0s
121A **Cookes Peak, D** 84.64 52 P **P** 17 29 09.2 -0.1
PWL **Port Wells** 84.75 13 IAmb IAmb 17 29 09.4
comp=Z,20nm,0.9s
WAH2 **Wahluke Slope** 84.84 35 IAmb IAmb 17 29 11.7
comp=Z,16nm,1.0s
COYC **Coyhaique** 84.91 137 P **P** 17 29 11.8 +1.6
COYC IAmb IAmb 17 29 14.1
comp=Z,16nm,0.9s
E08A **Dider Farm, El** 84.96 36 IAmb IAmb 17 29 12.3
comp=Z,21nm,0.8s
J16K **Anvik River** 84.98 7 IAmb IAmb 17 29 11.5
comp=Z,21nm,0.8s
MFID **Camas Ranch** 84.98 40 IAmb IAmb 17 29 12.6
comp=Z,13nm,0.9s
EPH **Ephrata** 85.19 35 IAmb IAmb 17 29 13.3
comp=Z,17nm,0.8s
KNK **Knik Glacier** 85.22 13 IAmb IAmb 17 29 12.0
comp=Z,15nm,0.8s
J17K **VABM Dome** 85.27 8 IAmb IAmb 17 29 12.9
comp=Z,19nm,0.8s
D08A **Wollman Farm,** 85.38 35 IAmb IAmb 17 29 14.4
comp=Z,23nm,0.8s
GHO **Glory Hole Cre** 85.45 13 P **P** 17 29 11.7 -0.7
E09A **Wood Farm, Sta** 85.47 36 IAmb IAmb 17 29 14.6
comp=Z,15nm,1.0s
DIV **Divide** 85.57 14 IAmb IAmb 17 29 13.8
comp=Z,18nm,0.8s
TMUT **Trail Mountain** 85.63 45 IAmb IAmb 17 29 16.7
comp=Z,20nm,0.8s
J18K **Innoko River** 85.66 9 IAmb IAmb 17 29 14.6
comp=Z,22nm,0.8s
BMRM **Bremner River** 85.71 15 IAmb IAmb 17 29 14.6
comp=Z,14nm,0.7s
SCM **Sheep Creek Mo** 85.84 13 P **P** 17 29 14.2 -0.2
SCM IAmb IAmb 17 29 15.2
comp=Z,20nm,0.8s
CRQM **Cirque** 85.89 16 IAmb IAmb 17 29 15.8
comp=Z,18nm,1.0s
HLID **Hailey** 85.91 40 P **P** 17 29 16.6 +1.3
comp=Z,11nm,1.5s
VHRN **Van Horn** 85.93 55 P **P** 17 29 16.8 +1.3
VHRN IAmb IAmb 17 29 18.1
comp=Z,17nm,0.8s
K20K **Telida** 85.96 10 IAmb IAmb 17 29 15.7
comp=Z,18nm,0.9s
TGL **Tana Glacier** 85.97 16 IAmb IAmb 17 29 15.7
comp=Z,12nm,0.8s
MNTX **Cornudas Mount** 86.04 54 IAmb IAmb 17 29 18.4
comp=Z,16nm,0.9s
MNTX **Cornudas Mount** 86.04 54 P **P** 17 29 16.3 +0.3
comp=Z,22nm,0.9s
LL02 **Futaleuf** 86.07 135 P **P** 17 29 17.1 +1.1
LL02 IAmb IAmb 17 29 19.4
comp=Z,14nm,0.9s
LLLB **Lillooet** 86.08 31 IAmb IAmb 17 29 17.4
comp=Z,15nm,1.0s
C09A **Chrisman Ranch** 86.18 35 IAmb IAmb 17 29 18.0
comp=Z,17nm,0.9s
VRDI **Verde Repeater** 86.22 15 IAmb IAmb 17 29 18.9
comp=Z,10nm,0.8s
GRNC **Granite Creek** 86.23 16 IAmb IAmb 17 29 17.6
comp=Z,17nm,1.0s
ELIB **Princess Elisa** 86.26 186 *d*P **P** 17 29 18.0 +1.5
comp=Z,2.6nm,0.7s
ELIB *dp*P **pP** 17 30 16.5 +0.5
TX31 **Lajitas Ar. Si** 86.29 57 IAmb IAmb 17 29 20.0
comp=Z,18nm,1.1s
TXAR **Lajitas Array** 86.29 57 P **P** 17 29 18.7 +1.4
comp=Z,9.3nm,1.0s,baz=216,slow=6.9,SNR=57
comp=Z,9.3nm,1.0s
TXAR **Lajitas Array** 86.29 57 P **P** 17 29 17.8 +0.5

GLB	**Gilahina Butte**	**86.31**	**15**	IAmb	IAmb	17 29 17.5		
	comp=Z,11nm,0.7s							
CAST	**Castle Rocks**	**86.35**	**11**	IAmb	IAmb	17 29 16.2		
	comp=Z,15nm,0.9s							
PV05	**Paradox Valley**	**86.43**	**47**	IAmb	IAmb	17 29 20.3		
	comp=Z,21nm,0.9s							
MCARA	**McCarthy VSAT**	**86.46**	**15**	IAmb	IAmb	17 29 18.6		
	comp=Z,17nm,1.2s							
LOGN	**Logan Glacier**	**86.50**	**17**	IAmb	IAmb	17 29 18.9		
	comp=Z,16nm,0.8s							
BARN	**Barnard Glacie**	**86.53**	**16**	IAmb	IAmb	17 29 19.1		
	comp=Z,20nm,0.8s							
BSUT	**Blindstream Ca**	**86.57**	**44**	IAmb	IAmb	17 29 20.8		
	comp=Z,12nm,0.9s							
PV10	**Paradox Valley**	**86.62**	**47**	IAmb	IAmb	17 29 20.4		
	comp=Z,17nm,1.1s							
PV17	**East Wray Mesa**	**86.62**	**47**	P	**P**	**17 29 19.2 +0.4**		
PV14	**Lion Creek, Pa**	**86.63**	**47**	IAmb	IAmb	17 29 20.7		
	comp=Z,18nm,0.9s							
PV18	**Skein Mesa, Pa**	**86.64**	**47**	IAmb	IAmb	17 29 22.5		
	comp=Z,27nm,1.4s							
PV20	**West Nyswonger**	**86.65**	**47**	IAmb	IAmb	17 29 20.8		
	comp=Z,23nm,1.0s							
PV16	**Nyswonger Mesa**	**86.67**	**47**	IAmb	IAmb	17 29 27.1		
	comp=Z,33nm,1.5s							
PV23	**Carpenter Ridg**	**86.68**	**47**	IAmb	IAmb	17 29 22.3		
	comp=Z,29nm,0.8s							
O28M	**Mount Upton**	**86.68**	**17**	IAmb	IAmb	17 29 20.3		
	comp=Z,13nm,0.8s							
KTH	**Kantishna Hill**	**86.68**	**11**	IAmb	IAmb	17 29 18.2		
	comp=Z,15nm,0.9s							
PV03	**Paradox Valley**	**86.69**	**47**	P	**P**	**17 29 19.4 +0.3**		
PV03				IAmb	IAmb	17 29 22.7		
	comp=Z,12nm,0.9s							
PV11	**David Mesa, Pa**	**86.69**	**47**	IAmb	IAmb	17 29 24.5		
	comp=Z,11nm,0.8s							
J20K	**Nowinta River**	**86.72**	**10**	IAmb	IAmb	17 29 19.5		
	comp=Z,11nm,0.9s							
PV04	**Paradox Valley**	**86.72**	**47**	IAmb	IAmb	17 29 21.6		
	comp=Z,14nm,1.0s							
PV02	**Paradox Valley**	**86.74**	**47**	IAmb	IAmb	17 29 21.2		
	comp=Z,18nm,1.0s							
PV21	**Cone Mtn., Par**	**86.75**	**47**	IAmb	IAmb	17 29 21.9		
	comp=Z,17nm,0.9s							
ALQ	**Albuquerque**	**86.76**	**51**	IAmb	IAmb	17 29 21.2		
	comp=Z,4.0nm,0.9s							
ANMO	**Albuquerque**	**86.76**	**51**	P	**P**	**17 29 19.6 0.0**		
ANMO	**Albuquerque**	**86.76**	**51**	P	**P**	**17 29 19.4 -0.2**		
	comp=Z,7.2nm,2.5s							
ANMO	**Albuquerque**	**86.76**	**51**	P	**P**	**17 29 20.7 +1.1**		
ANMO				pP	**pwP**	**17 30 20.5 -1.7**		
ALPN	**Alpine**	**86.78**	**56**	IAmb	IAmb	17 29 22.0		
	comp=Z,18nm,1.2s							
PV01	**Paradox Valley**	**86.82**	**47**	IAmb	IAmb	17 29 21.4		
	comp=Z,17nm,1.0s							
HARP	**HAARP**	**86.83**	**14**	IAmb	IAmb	17 29 20.6		
	comp=Z,13nm,0.8s							
PV22	**Blue Mesa, Par**	**86.87**	**47**	IAmb	IAmb	17 29 21.9		
	comp=Z,15nm,1.0s							
PV07	**Paradox Valley**	**86.92**	**47**	IAmb	IAmb	17 29 21.5		
	comp=Z,19nm,1.2s							
TPB01	**Permian Basin**	**86.92**	**55**	IAmb	IAmb	17 29 22.5		
	comp=Z,17nm,1.0s							
PV15	**Paradox Valley**	**86.98**	**47**	IAmb	IAmb	17 29 22.2		
	comp=Z,18nm,1.0s							
GDL2	**Guadalupe Moun**	**87.04**	**54**	P	**P**	**17 29 21.6 +0.8**		
NEW	**Newport**	**87.07**	**35**	P	**P**	**17 29 21.1 +0.6**		
	comp=Z,9.9nm,1.1s							
TROLL	**Troll, Antarti**	**87.21**	**180**	⇓P	**P**	**17 29 22.6 +1.6**		
	comp=Z,122nm,0.5s							
MCK	**McKinley**	**87.22**	**12**	IAmb	IAmb	17 29 21.5		
	comp=Z,30nm,1.0s							
PAX	**Paxson**	**87.26**	**14**	P	**P**	**17 29 20.5 -0.6**		
S34M	**Telegraph Cree**	**87.27**	**22**	IAmb	IAmb	17 29 22.8		
	comp=Z,12nm,0.8s							
VNA3	**Neumayer Olymp**	**87.53**	**176**	P	**P**	**17 29 23.9 +1.5**		
	comp=Z,3.4nm,0.8s							
M27K	**Edge Creek, AK**	**87.57**	**15**	IAmb	IAmb	17 29 24.0		
	comp=Z,13nm,0.8s							
MENT	**Mentasta**	**87.63**	**14**	IAmb	IAmb	17 31 43.4		
	comp=Z,12nm,0.7s							
SAND	**Sanderson**	**87.77**	**57**	P	**P**	**17 29 24.7 +0.3**		
O30N	**Mendenhall**	**87.85**	**19**	IAmb	IAmb	17 29 25.7		
	comp=Z,15nm,1.1s							
VNA2	**Neumayer--Watz**	**87.99**	**176**	P	**P**	**17 29 26.5 +1.9**		
	comp=Z,4.2nm,0.6s,baz=183,slow=4.1							
DLMT	**Dillon**	**87.99**	**39**	IAmb	IAmb	17 29 27.2		
	comp=Z,13nm,0.8s							
I21K	**Tanana**	**88.00**	**10**	IAmb	IAmb	17 29 25.8		
	comp=Z,17nm,0.9s							
WRH	**Wood River Hil**	**88.05**	**12**	P	**P**	**17 29 23.8 -0.9**		
WRH				IAmb	IAmb	17 29 25.4		
	comp=Z,19nm,0.9s							
WHY	**Whitehorse**	**88.13**	**19**	IAmb	IAmb	17 29 27.0		
	comp=Z,14nm,0.9s							
G19K	**Purcell Mounta**	**88.16**	**8**	IAmb	IAmb	17 30 20.6		
	comp=Z,39nm,1.8s							
VNA1	**Neumayer--Stat**	**88.21**	**176**	P	**P**	**17 29 28.1 +2.5**		
	comp=Z,9.7nm,1.1s							
HDA	**Harding Lake**	**88.22**	**12**	IAmb	IAmb	17 29 25.7		
	comp=Z,7.8nm,0.6s							
CCB	**Clear Creek Bu**	**88.26**	**12**	IAmb	IAmb	17 29 26.0		
	comp=Z,22nm,1.2s							
I23K	**Minto, Yukon-K**	**88.42**	**11**	IAmb	IAmb	17 29 26.3		
	comp=Z,18nm,1.5s							
COLA	**College**	**88.46**	**12**	P	**P**	**17 29 25.5 -1.1**		
COLA	**College**	**88.46**	**12**	P	**P**	**17 29 26.1 -0.5**		
	comp=Z,24nm,0.9s							
COLA	**College**	**88.46**	**12**	P	**P**	**17 29 25.9 -0.7**		
COLA				PcP	**PcP**	**17 29 27.8 -0.2**		
PDAR	**Pinedale Array**	**88.49**	**43**	P	**P**	**17 29 27.9 +0.2**		
	comp=Z,3.6nm,0.8s,baz=210,slow=3.6,SNR=29							
	comp=Z,3.6nm,0.8s							
PDAR	**Pinedale Array**	**88.49**	**43**	P	**P**	**17 29 27.3 -0.4**		
M29M	**Somme Creek**	**88.53**	**17**	IAmb	IAmb	17 29 28.8		
	comp=Z,9.1nm,0.8s							
IL31		**88.55**	**12**	IAmb	IAmb	17 29 28.2		
	comp=Z,26nm,1.5s							
ILAR	**Eielson Array**	**88.55**	**12**	P	**P**	**17 29 26.4 -0.6**		
	comp=Z,3.7nm,0.7s,baz=220,slow=6.1,SNR=52							
	comp=Z,3.7nm,0.7s							
ILAR	**Eielson Array**	**88.55**	**12**	P	**P**	**17 29 25.7 -1.4**		
BOZ	**Bozeman (W)**	**88.69**	**40**	IAmb	IAmb	17 29 30.6		
	comp=Z,16nm,0.8s							
J25K	**Salcha River,**	**88.72**	**13**	IAmb	IAmb	17 29 29.7		
	comp=Z,18nm,1.5s							
POKR	**Poker Plat Res**	**88.75**	**12**	IAmb	IAmb	17 29 28.3		
	comp=Z,10.0nm,0.8s							
H22K	**Ishtalitna Cre**	**88.76**	**10**	IAmb	IAmb	17 29 28.9		
	comp=Z,16nm,0.8s							
GBMT	**Granite Butte,**	**88.88**	**38**	IAmb	IAmb	17 29 31.4		
	comp=Z,15nm,0.9s							
K27K	**Chicken**	**88.95**	**14**	IAmb	IAmb	17 29 30.8		
	comp=Z,11nm,0.9s							
G21K	**Allakaket**	**89.00**	**9**	IAmb	IAmb	17 29 30.2		
	comp=Z,15nm,0.8s							
MSTX	**Muleshoe**	**89.02**	**53**		**P**	**17 29 30.3 +0.1**		
MSTX				IAmb	IAmb	17 29 31.9		
	comp=Z,24nm,1.3s							
M30M	**Minto, Yukon**	**89.09**	**17**	IAmb	IAmb	17 29 31.0		
	comp=Z,10nm,0.8s							
L29M	**L29M**	**89.16**	**16**	IAmb	IAmb	17 29 31.9		
	comp=Z,20nm,0.9s							
F20K	**Avaraart Lake**	**89.19**	**8**	IAmb	IAmb	17 29 31.6		
	comp=Z,19nm,1.0s							
POST	**Post**	**89.59**	**54**	IAmb	IAmb	17 29 34.2		
	comp=Z,15nm,0.9s							
DAWY	**Dawson**	**89.63**	**15**	IAmb	IAmb	17 29 33.6		
	comp=Z,16nm,0.8s							
F21K	**Alatna River**	**89.67**	**9**	IAmb	IAmb	17 29 33.1		
	comp=Z,7.7nm,0.8s							
I26K	**Coal Creek Min**	**89.80**	**13**	IAmb	IAmb	17 29 34.3		
	comp=Z,11nm,0.9s							
HNDO	**Hondo**	**89.83**	**58**		**P**	**17 29 34.6 +0.6**		
HNDO				IAmb	IAmb	17 29 36.2		
	comp=Z,39nm,1.7s							
RLMT	**Red Lodge**	**89.87**	**41**	IAmb	IAmb	17 29 36.3		
	comp=Z,15nm,1.1s							
HILR	**Hailar Array B**	**90.00**	**324**	P	**P**	**17 29 33.8 -0.5**		
	comp=Z,2.0nm,0.5s,baz=123,slow=4.7,SNR=1.7							
	comp=Z,2.0nm,0.5s							
SN07	**Snyder 07**	**90.06**	**54**	P	**P**	**17 29 33.9 -1.0**		
HHC	**Hu-ho-hao-te**	**90.61**	**314**	*e*P	**P**	**17 29 34.8 -2.6**		
HHC				pmax	pmax			
	comp=Z,13nm,0.6s							
HHC				pmax	pmax			
	comp=Z,76nm,3.9s							
I28M	**Miner Creek**	**90.64**	**14**	IAmb	IAmb	17 29 37.9		
	comp=Z,9.0nm,0.8s							
APMT	**Aspermont**	**90.75**	**55**	IAmb	IAmb	17 29 39.6		
	comp=Z,15nm,0.8s							
H27K	**Steamboat Moun**	**90.94**	**13**	IAmb	IAmb	17 29 40.4		
	comp=Z,9.8nm,0.9s							
G26K	**Porcupine Rive**	**91.08**	**12**	IAmb	IAmb	17 29 41.1		
	comp=Z,15nm,0.9s							
F25K	**Christian Rive**	**91.29**	**11**	IAmb	IAmb	17 30 17.5		
	comp=Z,26nm,1.9s							
I30M	**Mount Dempster**	**91.33**	**16**	IAmb	IAmb	17 29 41.4		
	comp=Z,10nm,0.8s							
BMAR	**Burnt Mountain**	**91.35**	**12**	P	**P**	**17 29 40.6 +0.5**		
CMAR	**Chiang Mai Arr**	**91.47**	**289**	P	**P**	**17 29 42.3 +0.6**		
	comp=Z,1.8nm,0.9s,baz=127,slow=3.3,SNR=12							
CMAR				pP	**pP**	**17 30 42.6 +1.0**		
	comp=Z,0.3nm,0.4s,baz=114,slow=3.6,SNR=2.1							
	comp=Z,1.8nm,0.9s							
CMAR	**Chiang Mai Arr**	**91.47**	**289**	P	**P**	**17 29 41.7 -0.1**		
CMAR					**pwP**	**17 30 46.1 +1.2**		
PLPT	**Palo Pinto**	**91.92**	**56**	IAmb	IAmb	17 29 45.3		
	comp=Z,16nm,0.9s							
EPYK	**Eagle Plains**	**92.16**	**15**	IAmb	IAmb	17 29 45.0		
	comp=Z,14nm,0.9s							
G29M	**Pine Creek**	**92.29**	**14**	IAmb	IAmb	17 29 45.5		
	comp=Z,11nm,0.8s							
F28M	**Old Crow**	**92.46**	**13**	IAmb	IAmb	17 29 46.5		
	comp=Z,6.9nm,0.8s							
E27K	**Coleen River**	**92.58**	**12**	IAmb	IAmb	17 29 47.5		
	comp=Z,19nm,1.5s							
RSSD	**Black Hills**	**92.67**	**43**	P	**P**	**17 29 46.7 -0.3**		
RSSD	**Black Hills**	**92.67**	**43**	P	**P**	**17 29 47.6 +0.6**		
	comp=Z,28nm,1.0s							
G31M	**Satah River**	**93.20**	**15**	IAmb	IAmb	17 29 49.6		
	comp=Z,11nm,0.9s							
E28M	**Babbage River**	**93.35**	**13**	IAmb	IAmb	17 29 50.6		
	comp=Z,7.8nm,0.8s							
F30M	**Barrier River**	**93.38**	**15**	IAmb	IAmb	17 29 52.6		
	comp=Z,6.8nm,0.9s							
INK	**Inuvik**	**94.45**	**15**	P	**P**	**17 29 53.7 -0.6**		
INK				IAmb	IAmb	17 29 54.9		
	comp=Z,7.3nm,1.0s							
INK	**Inuvik**	**94.45**	**15**	P	**P**	**17 29 53.7 -0.6**		
	comp=Z,11nm,2.7s							
YKA	**Yellowknife Ar**	**96.47**	**24**	P	**P**	**17 30 03.9 +0.3**		
	comp=Z,2.2nm,0.8s,baz=237,slow=4.4,SNR=5.4							
	comp=Z,2.2nm,0.8s							
LPAZ	**La Paz**	**100.71**	**112**	P	**Pdif**	**17 30 27.5 +3.0**		
	comp=Z,1.3nm,0.9s,baz=211,slow=5.9,SNR=4.0							
LPAZ	**La Paz**	**100.71**	**112**		**Pdif**	**17 30 24.4 -0.1**		
ZALV	**Zalesovo Beam**	**111.68**	**321**	PKiKP	**PKiKP**	**17 35 05.6 -2.1**		
	comp=Z,0.6nm,0.6s,baz=175,slow=3.1,SNR=4.9							
MKAR	**Makanchi Array**	**112.47**	**313**	PKiKP	**PKiKP**	**17 35 08.2 -1.4**		
	comp=Z,0.8nm,0.6s,baz=35,slow=0.5,SNR=6.8							
BVAR	**Borovoye Array**	**120.28**	**320**	PKP	**PKPdf**	**17 35 23.5 -0.8**		
	comp=Z,1.2nm,0.5s,baz=101,slow=1.8,SNR=4.9							
SPITS	**Spitsgen Ar**	**122.46**	**357**	PKP	**PKPdf**	**17 35 27.3 -0.6**		
	comp=Z,14nm,0.8s,baz=30,slow=2.3,SNR=5.8							
ARCES	**ARCESS Array B**	**129.66**	**350**	PKP	**PKPdf**	**17 35 41.6 -0.2**		
	comp=Z,3.8nm,0.5s,baz=30,slow=1.5,SNR=29							
FINES	**FINESS Array B**	**136.62**	**344**	PKhKP	PKPpre	17 35 46.7		
	comp=Z,2.9nm,0.9s,baz=208,slow=11,SNR=5.7							
FINES				PKP	**PKiKP**	**17 35 56.2 -0.6**		
	comp=Z,2.2nm,0.5s,baz=30,slow=2.9,SNR=11							
FINES				SKPbc	**SKPbc**	**17 39 02.8 -0.9**		
	comp=Z,2.0nm,0.8s,baz=62,slow=5.5,SNR=4.2							
NB2	**NORSAR Subarra**	**139.64**	**354**	PKP	PKPpre	17 35 52.5		
	comp=Z,1.9nm,0.7s,baz=17,slow=2.6							
NB2				SKPa		17 39 15.5		
	comp=Z,0.9nm,0.8s,baz=13,slow=3.1							
NOA	**NORSAR Array B**	**139.64**	**354**	PKP	**PKiKP**	**17 36 02.5 -0.6**		
	comp=Z,1.9nm,0.7s,baz=18,slow=4.2,SNR=8.0							
HFS	**Hagfors**	**140.24**	**352**	PKhKP	PKPpre	17 35 53.9		
	comp=Z,2.7nm,0.8s,baz=60,slow=4.1,SNR=7.4							
AKASG	**Malin Array Be**	**144.07**	**332**	PKhKP	PKPpre	17 36 06.1		
	comp=Z,5.7nm,0.6s,baz=43,slow=4.4,SNR=27							
AKASG				PP	**PP**	**17 39 24.1 -1.3**		
	comp=Z,0.1nm,0.2s,baz=42,slow=2.0,SNR=5.1							
RNPP9	**Sopachiv**	**144.93**	**335**	PKP	PKPbc	17 36 09.2 -0.9		
RNPP8	**Varash**	**145.00**	**335**	PKP	PKPbc	17 36 10.0 -0.3		
LUBAR	**Lubar, Ukraine**	**145.28**	**332**	PKP	**PKPdf**	**17 36 10.5 -0.4**		
EKA	**Eskdalemuir Ar**	**145.40**	**7**	PKPbc	**PKPdf**	**17 36 11.0 0.0**		
	comp=Z,5.5nm,0.6s,baz=319,slow=2.8,SNR=50							
SORM	**Soroca**	**146.30**	**329**	PKP	**PKPbc**	**17 36 13.6 -0.7**		
KMPD	**K-Podol'skiy**	**146.86**	**331**	PKP	**PKPdf**	**17 36 13.8 +0.2**		
BRTR	**Keskin Array B**	**148.12**	**313**	PKPbc	**PKPbc**	**17 36 18.9 -0.9**		
	comp=Z,0.0nm,0.8s,baz=66,slow=3.4,SNR=14							
BRTR	**Keskin Array B**	**148.12**	**313**		**PKPbc**	**17 36 18.4 -1.4**		
FLTG	**Flechtingen**	**148.16**	**351**	*e*PKPbc	**PKPbc**	**17 36 19.3 +0.1**		
	baz=15,slow=2.4							
KOLS	**Kolonicke sedl**	**148.31**	**336**	*e*PKP	**PKPbc**	**17 36 20.1 +0.3**		
ASSE	**Asse, Remlinge**	**148.43**	**351**	*e*PKPbc	**PKPbc**	**17 36 20.3 +0.4**		
	baz=15,slow=2.4							
KSP	**Ksiaz**	**148.55**	**344**	*e*PKPbc	**PKiKP**	**17 36 21.4 -0.3**		
IBBN	**Ibbenburen**	**148.59**	**355**	*e*PKPbc	**PKPbc**	**17 36 20.6 +0.3**		
	baz=15,slow=2.4							
CLZ	**Clausthal**	**148.76**	**352**	*e*PKPbc	**PKPbc**	**17 36 21.4 +0.5**		
	baz=15,slow=2.4							
OSTC	**Ostas**	**148.83**	**344**⇑	*e*PKP	**PKiKP**	**17 36 22.3 0.0**		
CHVC	**Chvalec**	**148.84**	**344**⇑	*e*PKP	**PKiKP**	**17 36 21.9 -0.4**		
CLL	**Collm**	**148.84**	**348**	*e*PKPbc	**PKPbc**	**17 36 21.3 +0.2**		
	baz=15,slow=2.4							
CLL	**Collm**	**148.84**	**348**	*i* PKPbc	**PKPbc**	**17 36 21.4 +0.4**		
	comp=Z,54nm,0.8s							
UPC	**Upice**	**148.93**	**344**⇑	*e*PKP	**PKiKP**	**17 36 22.2 -0.3**		
STEB	**Steborice**	**148.96**	**342**	*e*PKPDF	**PKPdf**	**17 36 17.5 +0.4**		
STEB			⇑	*e*PKP	**PKiKP**	**17 36 22.0 -0.6**		
DPC	**Dobruska-Polom**	**148.99**	**344**⇑	*e*PKP	**PKiKP**	**17 36 22.3 -0.4**		
KRLC	**Kraliky**	**149.12**	**343**⇑	*e*PKP	**PKiKP**	**17 36 22.8 -0.1**		
LANS	**Liptovska Anna**	**149.12**	**339**	*e*PKP	**PKiKP**	**17 36 23.6 +0.6**		
NEUB	**Neuenburg**	**149.16**	**350**	*e*PKPbc	**PKPbc**	**17 36 22.2 +0.4**		
	baz=15,slow=2.4							
MMAI	**Mount Meron Ar**	**149.16**	**300**	PKPbc	**PKPbc**	**17 36 22.9 +0.4**		
	comp=Z,2.9nm,0.5s,baz=95,slow=3.1,SNR=11							
MORC	**Moravsky Berou**	**149.17**	**342**	*e*PKP	**PKPbc**	**17 36 22.4 +0.4**		
PVCC	**Panska Ves**	**149.25**	**346**⇑	*e*PKP	**PKiKP**	**17 36 22.8 -0.3**		
HSKC	**Hora Svate Kat**	**149.42**	**347**⇑	*e*PKP	**PKiKP**	**17 36 23.1 -0.4**		
KASTN	**Kahler Asten**	**149.62**	**354**	*e*PKPbc	**PKPbc**	**17 36 23.4 +0.4**		
	baz=15,slow=2.4							
MOX	**Moxa**	**149.73**	**350**	*e*PKPbc	**PKPbc**	**17 36 23.6 +0.3**		
	baz=15,slow=2.4							
PRU	**Pruhonice**	**149.76**	**346**⇑	*e*PKP	**PKiKP**	**17 36 24.1 -0.1**		
PLN	**Plauen**	**149.79**	**349**	*e*PKPbc	**PKiKP**	**17 36 23.8 -0.4**		
	baz=15,slow=2.4							
TANN	**Tannenbergstha**	**149.80**	**348**	*e*PKPbc	**PKPbc**	**17 36 23.9 +0.4**		
	baz=15,slow=2.4							
BMOL	**Mol**	**149.84**	**358**	*d*PKP	**PKiKP**	**17 36 24.3 0.0**		
BOST	**Ostende**	**149.85**	**0**	*d*PKP	**PKiKP**	**17 36 24.4 +0.1**		
VRAC	**Vranov**	**149.86**	**343**	*e*PKP	**PKPbc**	**17 36 24.0 +0.4**		
VYHS	**Vyhne**	**149.90**	**339**	*e*PKP	**PKiKP**	**17 36 24.6 0.0**		
BOPT	**Opiter**	**149.92**	**357**	*d*PKP	**PKiKP**	**17 36 24.3 -0.2**		
JAVC	**Velka Javorina**	**149.95**	**341**	*e*PKP	**PKiKP**	**17 36 25.3 +0.6**		
NKC	**Novy Kostel**	**149.97**	**348**⇑	*e*PKP	**PKiKP**	**17 36 24.7 0.0**		
KRUC	**Mokrsky**	**150.14**	**343**	*e*PKP	**PKPbc**	**17 36 24.5 +0.2**		
TREC	**Trest**	**150.17**	**344**⇑	*e*PKP	**PKiKP**	**17 36 25.0 -0.1**		
UCC	**Uccle**	**150.28**	**359**	*d*PKP	**PKiKP**	**17 36 24.9 -0.3**		
ZVC	**Zvikov**	**150.36**	**346**	*e*PKPDF	**PKPdf**	**17 36 20.2 +0.9**		
MEM	**Membach**	**150.40**	**357**	*d*PKP	**PKiKP**	**17 36 25.2 -0.3**		
BSKQ	**Steenkerk**	**150.43**	**359**	*d*PKP	**PKiKP**	**17 36 25.4 -0.1**		
MODS	**Modra-Piesok**	**150.50**	**341**	*e*PKP	**PKiKP**	**17 36 26.3 +0.5**		
TNS	**Taunus Mts**	**150.59**	**353**	*e*PKPbc	**PKiKP**	**17 36 25.8 -0.2**		
	baz=15,slow=2.4							
BCLA	**Clavier**	**150.63**	**357**	*d*PKP	**PKPbc**	**17 36 25.4 0.0**		
BCLA				*d*PKPab	**PKPab**	**17 36 32.7 -0.4**		
SRO	**Srobarova**	**150.67**	**339**	*e*PKP	**PKiKP**	**17 36 26.8 +0.7**		
GRF	**Grafenberg Arr**	**150.72**	**350**	*e*PKPbc	**PKiKP**	**17 36 26.2 0.0**		
	baz=15,slow=2.4							
ABNA	**Ainsteig Bun**	**150.76**	**343**	*i* PKP	**PKiKP**	**17 36 26.6 +0.2**		
	comp=Z,13nm,0.7s							
BMRD	**Maredsous**	**150.76**	**358**	*d*PKP	**PKiKP**	**17 36 26.2 0.0**		
KHC	**Kasperske Hory**	**150.79**	**346**	*e*PKPDF	**PKPdf**	**17 36 20.6 +0.6**		
KHC			⇑	*e*PKP	**PKiKP**	**17 36 25.5 +0.1**		
RCHB	**Rochefort**	**150.89**	**357**	*d*PKP	**PKiKP**	**17 36 26.4 -0.1**		
CKRC	**Cesky Krumlov**	**150.91**	**345**	*e*PKPDF	**PKPdf**	**17 36 21.0 +0.8**		
CKRC			⇑	*e*PKP	**PKiKP**	**17 36 26.7 +0.1**		
WET	**Wettzell**	**150.93**	**347**	*e*PKPbc	**PKPbc**	**17 36 26.4 +0.2**		
	baz=15,slow=2.4							
DOU	**Dourbes**	**150.97**	**358**	*d*PKP	**PKiKP**	**17 36 26.8 +0.1**		
GEC2	**GERESS Array S**	**151.03**	**346**	*e*PKPbc	**PKPbc**	**17 36 26.7 +0.2**		
	baz=15,slow=2.4							
GERES	**GERESS Array B**	**151.03**	**346**	PKP	**PKPdf**	**17 36 20.9 +0.4**		
	comp=Z,1.1nm,0.8s,baz=27,slow=1.6,SNR=9.2							
GERES				PKPbc	**PKiKP**	**17 36 26.8 -0.2**		
	comp=Z,13nm,0.8s,baz=18,slow=1.7,SNR=84							
GERES	**GERESS Array B**	**151.03**	**346**		**PKPdf**	**17 36 20.3 -0.2**		
GERES					**PKPbc**	**17 36 26.1 -0.4**		
WINA	**Alland / Wiene**	**151.10**	**342**	*i* PKiKP	**PKiKP**	**17 36 27.5 +0.4**		
	comp=Z,14nm,0.6s,SNR=8.6							
CONA	**Conrad Observa**	**151.32**	**342**	*i* PKP	**PKiKP**	**17 36 27.8 +0.2**		
	comp=Z,14nm,0.7s,SNR=8.0							
WLF	**Walferdange**	**151.34**	**356**	*d*PKP	**PKiKP**	**17 36 28.2 +0.8**		
WLF	**Walferdange**	**151.34**	**356**	*e*PKPbc	**PKiKP**	**17 36 28.1 +0.7**		
	baz=15,slow=2.4							
RONA	**Rosalia, Austr**	**151.40**	**342**	*i* PKP	**PKiKP**	**17 36 27.8 +0.1**		
	comp=Z,17nm,0.6s,SNR=7.4							
MOA	**Molln**	**151.82**	**344**	*e*PKP	**PKPbc**	**17 36 28.3 0.0**		
	comp=Z,5.2nm,0.6s,SNR=5.8							
ARSA	**Arzberg**	**152.03**	**342**	*i* PKP	**PKPbc**	**17 36 28.5 -0.3**		
	comp=Z,1.7nm,0.7s							
BIOA	**Bad Ischl, Aus**	**152.12**	**345**	*i* PKP	**PKPdf**	**17 36 22.1 0.0**		
	comp=Z,6.9nm,1.4s							
BIOA				*i* PKP	**PKPbc**	**17 36 28.8 -0.1**		
	comp=Z,5.7nm,0.8s							
SESA	**Seetaler Alpe,**	**152.42**	**343**	*e*PKP	**PKPdf**	**17 36 22.5 -0.3**		
	comp=Z,5.1nm,0.8s							
SESA				*e*PKP	**PKPbc**	**17 36 29.7 -0.2**		
	comp=Z,18nm,0.6s,SNR=8.7							
BFO	**Black Forest**	**152.46**	**353**	*e*PKPbc	**PKiKP**	**17 36 29.8 -0.1**		
	baz=15,slow=2.4							
LESA	**Schwarzleotal**	**152.60**	**346**	*e*PKP	**PKPdf**	**17 36 22.8 0.0**		
	comp=Z,6.3nm,1.0s							
LESA				*i* PKP	**PKPbc**	**17 36 30.1 0.0**		
	comp=Z,6.1nm,0.7s							
SOKA	**Soboth**	**152.69**	**342**	*i* PKP	**PKPbc**	**17 36 29.9 -0.4**		
	comp=Z,7.6nm,1.0s							
PERS	**Pernice**	**152.71**	**342**	*i* PKPbc	**PKPbc**	**17 36 29.8 -0.5**		
KBA	**Koelnbreinsper**	**152.77**	**345**	*i* PKP	**PKPbc**	**17 36 30.0 -0.6**		
	comp=Z,6.2nm,0.6s,SNR=6.0							
UBR	**Ueberruh**	**152.85**	**350**	*e*PKPbc	**PKPbc**	**17 36 30.6 0.0**		
	baz=15,slow=2.4							
WATA	**Walderalm**	**152.92**	**348**	*i* PKP	**PKPdf**	**17 36 23.4 0.0**		
	comp=Z,3.6nm,0.9s							
WATA				*e*PKP	**PKPbc**	**17 36 30.8 -0.1**		
	comp=Z,6.6nm,0.6s,SNR=5.6							
RETA	**Reutte**	**152.93**	**349**	*i* PKP	**PKPbc**	**17 36 30.7 0.0**		
	comp=Z,2.2nm,0.6s							
WTTA	**Wattenberg**	**152.97**	**348**	*e*PKP	**PKPdf**	**17 36 23.5 0.0**		
	comp=Z,2.4nm,0.6s							
WTTA				*e*PKP	**PKiKP**	**17 36 31.1 0.0**		
	comp=Z,15nm,0.7s,SNR=6.3							
OBKA	**Obir**	**152.98**	**343**	*i* PKP	**PKPbc**	**17 36 30.4 -0.5**		
	comp=Z,5.4nm,0.9s							
MOTA	**Moosalm**	**153.00**	**

ESEN	**Aydn-Nazilli**	**1.16**	**92**	P	**Pg**	17 24 16.5	**-0.5**
GOMA	**Golmarmara-Man**	**1.18**	**43**	Pn	**Pb**	17 24 17.2	**+0.2**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**1**	Pn	**Pn**	17 24 17.9	**+0.3**
DKL				AML	AML		
KIRA	**zmir-Kiraz**	**1.24**	**73**	P	**Pb**	17 24 17.5	**-0.7**
YAZI	**Mula-Dat§a-**	**1.25**	**159**	P	**Pn**	17 24 17.1	**-1.0**
AKHS	**Akhisar**	**1.26**	**35**	P	**Pg**	17 24 19.1	**+0.2**
KTTT	**Salihli**	**1.26**	**48**	P	**Pn**	17 24 18.0	**-0.3**
YER	**Yerkesik**	**1.32**	**122**	P	**Pn**	17 24 18.3	**-0.7**
YER				S	**Sb**	17 24 36.5	**+0.2**
APE	**Apeiranthos**	**1.33**	**235**	P	**Pn**	17 24 19.4	**+0.2**
APE				S	**Sn**	17 24 37.7	**+0.8**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.40**	**21**	Pn	**Pb**	17 24 21.1	**+0.3**
SOMA				AML	AML		
MANT	**Manisa**	**1.46**	**64**	P	**Pg**	17 24 22.5	**-0.4**
GORD	**Gordes-Manisa**	**1.46**	**43**	Pn	**Pb**	17 24 21.9	**0.0**
GORD				AML	AML		
PRK	**Paraskevi**	**1.48**	**341**	P	**Pg**	17 24 22.5	**-0.7**
PRK				S	**Sn**	17 24 40.9	**+0.5**
BUHA	**Balikesir, Bur**	**1.66**	**5**	P	**Pn**	17 24 23.5	**-0.1**

*TAP **07** 17:35:24.4, 24.6′63N×122.2′32E, h90km, ML3.9, C*
*JMA **07** 17:35:24.5±0.1, 24.1′N±1.1′×122.1′4E±0.2, h86km±1km, MV3.0/15, TAIWAN REGION*
ISC 07 17:35:24.2±1.2, **24.6′60N**±0.6′03×**122.3′7E**±0.6′02, **h89**km±5km, **n173**, σ1§14/332, **17C-1D**, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
EOS2	**EOS2**	**0.22**	**215**	*i*	P	**Pn**		17 35 37.6	**+0.7**
EOS2					S	**Sn**		17 35 47.9	**+1.6**
EOS3	**EOS3**	**0.32**	**189**	*i*	P	**Pn**		17 35 38.2	**+0.9**
EOS3				*i*	S	**Sn**		17 35 48.7	**+1.6**
TWC	**Suao**	**0.48**	**271**	↑*i*	P	**Pn**		17 35 38.3	**-0.2**
TWC				*i*	S	**Sn**		17 35 48.3	**-1.0**
EOS4	**EOS4**	**0.48**	**186**	*i*	P	**Pn**		17 35 38.8	**+0.6**
EOS4				*i*	S	**Sn**		17 35 49.4	**+0.8**
ESAO	**Su ao**	**0.48**	**267**	↓*i*	P	**Pn**		17 35 38.7	**+0.1**
ESAO				*i*	S	**Sn**		17 35 48.8	**-0.5**
TWB1	**Santiao Chiao**	**0.54**	**320**	*i*	P	**Pn**		17 35 38.9	**-0.1**
TWB1				*i*	S	**Sn**		17 35 49.4	**-0.7**
JYNG	**Yonagunijimaku**	**0.54**	**106**	P		**Pn**		17 35 39.3	**+0.2**
JYNG				S		**Sn**		17 35 50.2	**-0.1**
NTC	**Toucheng**	**0.55**	**297**	*e*P		**Pn**		17 35 38.3	**-0.9**
NTC				S		**Sn**		17 35 50.3	**-0.1**
EWUT	**Wuta**	**0.56**	**254**	↑*i*	P	**Pn**		17 35 39.4	**+0.1**
EWUT				*i*	S	**Sn**		17 35 50.4	**-0.1**
ILA	**Ilan**	**0.59**	**286**	*i*	P	**Pn**		17 35 39.4	**-0.1**
ILA				*i*	S	**Sn**		17 35 50.8	**-0.2**
NDS	**Dongshan**	**0.60**	**273**	*i*	P	**Pn**		17 35 39.8	**+0.2**
NDS				*i*	S	**Sn**		17 35 50.9	**-0.2**
YOJ	**Yonaguni jima**	**0.60**	**103**	P		**Pn**		17 35 39.6	**+0.1**
YOJ	**Yonaguni jima**	**0.60**	**103**	*i*	P	**Pn**		17 35 39.7	**+0.1**
YOJ				*i*	S	**Sn**		17 35 50.8	**-0.2**
YOJ	**Yonaguni jima**	**0.60**	**103**	P		**Pn**		17 35 39.8	**+0.2**
YOJ				S		**Sn**		17 35 50.8	**-0.2**
ENA	**Nanau**	**0.60**	**254**	↑*i*	P	**Pn**		17 35 39.8	**+0.2**
ENA				*i*	S	**Sn**		17 35 51.3	**+0.2**
TIPB	**Shuangxi**	**0.62**	**307**	↑*i*	P	**Pn**		17 35 39.9	**0.0**
TIPB				*i*	S	**Sn**		17 35 50.8	**-0.7**
EAHA	**Aohua**	**0.64**	**245**	↑*i*	P	**Pn**		17 35 39.9	**0.0**
EAHA				*i*	S	**Sn**		17 35 52.0	**+0.3**
TWE	**Neicheng**	**0.65**	**281**	↑*i*	P	**Pn**		17 35 40.3	**+0.2**
TWE				S		**Sn**		17 35 51.2	**-0.7**
SXI1	**Grass Mountain**	**0.67**	**318**	*i*	P	**Pn**		17 35 40.3	**-0.1**
SXI1				S		**Sn**		17 35 52.2	**-0.2**
NWF	**Wu-fen Shan**	**0.71**	**311**	↑*i*	P	**Pn**		17 35 40.9	**+0.2**
NWF				*i*	S	**Sn**		17 35 53.0	**-0.2**
WFSB	**Wu-fen Shan**	**0.71**	**311**	↑*i*	P	**Pn**		17 35 40.9	**+0.2**
WFSB				*i*	S	**Sn**		17 35 53.2	**+0.2**
FUSB	**Fushanzhiwuyua**	**0.73**	**283**	*i*	P	**Pn**		17 35 41.2	**+0.2**
FUSB				*i*	S	**Sn**		17 35 52.9	**-0.6**
ENTT	**Nioudou**	**0.73**	**273**	*i*	P	**Pn**		17 35 41.5	**+0.5**
ENTT				*i*	S	**Sn**		17 35 53.9	**+0.5**
LATG	**Datong**	**0.77**	**265**	*i*	P	**Pn**		17 35 41.6	**+0.2**
LATG				S		**Sn**		17 35 54.4	**+0.1**
TNOU	**National Taiwa**	**0.77**	**315**	*i*	P	**Pn**		17 35 41.3	**0.0**
TNOU				*i*	S	**Sn**		17 35 54.1	**0.0**
NDT	**Datong Townshi**	**0.78**	**270**	*i*	P	**Pn**		17 35 42.1	**+0.7**
NDT				*i*	S	**Sn**		17 35 54.7	**+0.5**
NWLT	**Wulai**	**0.81**	**283**	*i*	P	**Pn**		17 35 41.8	**+0.1**
NWLT				*i*	S	**Sn**		17 35 54.3	**-0.6**
TWA	**Mucha**	**0.81**	**298**	↑*i*	P	**Pn**		17 35 41.7	**0.0**
TWA				*i*	S	**Sn**		17 35 54.3	**-0.5**
ETL	**Fush Village**	**0.81**	**237**	*i*	P	**Pn**		17 35 41.5	**-0.3**
ETL				*i*	S	**Sn**		17 35 54.3	**-0.6**
NACB	**Ninganchiao**	**0.83**	**239**	P		**Pn**		17 35 41.3	**-0.5**
NACB	**Ninganchiao**	**0.83**	**239**	*i*	P	**Pn**		17 35 41.4	**-0.5**
NACB				*i*	S	**Sn**		17 35 54.4	**-0.6**
NHDH	**Xindian Distri**	**0.85**	**295**	*i*	P	**Pn**		17 35 42.1	**+0.1**
NHDH				*i*	S	**Sn**		17 35 55.0	**-0.5**
NHY	**Taipei**	**0.85**	**301**	*i*	P	**Pn**		17 35 42.3	**+0.2**
NHY				S		**Sn**		17 35 53.7	**-1.8**
TWD	**Chiawan**	**0.88**	**234**	*i*	P	**Pn**		17 35 42.2	**-0.2**
TWD				*i*	S	**Sn**		17 35 55.5	**-0.5**
TATO	**Taipei**	**0.89**	**295**	P		**Pn**		17 35 41.9	**-0.6**
TAP	**Taipei**	**0.90**	**299**	↑*i*	P	**Pn**		17 35 42.5	**-0.1**
TAP				*i*	S	**Sn**		17 35 56.4	**-0.1**
ETLH	**Xiulin Townshi**	**0.90**	**244**	*i*	P	**Pn**		17 35 42.7	**0.0**
ETLH				*i*	S	**Sn**		17 35 56.3	**-0.3**
YHNB	**Yeheng**	**0.91**	**275**	P		**Pn**		17 35 43.0	**+0.2**
YHNB	**Yeheng**	**0.91**	**275**	↑*i*	P	**Pn**		17 35 43.3	**+0.5**
YHNB				*i*	S	**Sn**		17 35 57.2	**+0.4**
YM01	**YM01**	**0.91**	**307**	↑*i*	P	**Pn**		17 35 42.7	**-0.1**
YM01				*i*	S	**Sn**		17 35 56.3	**-0.5**
NNSB	**Datong**	**0.92**	**260**	*i*	P	**Pn**		17 35 43.2	**+0.2**
NNSB				*i*	S	**Sn**		17 35 56.9	**-0.1**
YM08	**YM08**	**0.92**	**310**	*i*	P	**Pn**		17 35 42.6	**-0.3**
YM08				S		**Sn**		17 35 55.8	**-1.1**
NNS	**Nan Shan**	**0.92**	**260**	*i*	P	**Pn**		17 35 43.2	**+0.2**
NNS				*i*	S	**Sn**		17 35 57.3	**+0.1**
NSK	**Sanguang**	**0.93**	**275**	↑*i*	P	**Pn**		17 35 43.4	**+0.4**
NSK				*i*	S	**Sn**		17 35 56.9	**-0.3**
BACT	**New Taipei Cit**	**0.93**	**295**	*i*	P	**Pn**		17 35 43.1	**+0.1**
BACT				*e*S		**Sn**		17 35 58.2	**+1.1**
HWA	**Hwalien**	**0.94**	**229**	*i*	P	**Pn**		17 35 43.2	**+0.2**
HWA				*i*	S	**Sn**		17 35 58.0	**+0.9**
ZUZH	**Zhuzihu**	**0.94**	**307**	*i*	P	**Pn**		17 35 43.0	**-0.1**
ZUZH				*i*	S	**Sn**		17 35 56.3	**-1.0**
ANP	**Anpu**	**0.97**	**307**	*i*	P	**Pn**		17 35 43.3	**-0.2**
ANP				*e*S		**Sn**		17 35 55.3	**-2.7**
TWS1	**Kuangyinshan**	**1.00**	**300**	↑*i*	P	**Pn**		17 35 43.9	**+0.2**
TWS1				*i*	S	**Sn**		17 35 58.7	**+0.3**
NTST	**Danshui**	**1.01**	**304**	*i*	P	**Pn**		17 35 44.1	**+0.2**
NTST				*i*	S	**Sn**		17 35 59.1	**+0.5**
TEYL	**Yanliau Villag**	**1.01**	**224**	*i*	P	**Pn**		17 35 43.7	**-0.2**
TEYL				*i*	S	**Sn**		17 35 58.1	**-0.6**
ETM	**Tongmen**	**1.02**	**232**	*i*	P	**Pn**		17 35 43.7	**-0.3**
ETM				*i*	S	**Sn**		17 35 57.9	**-1.0**
LXIB	**Xiulin Townshi**	**1.05**	**237**	↑*i*	P	**Pn**		17 35 44.1	**-0.4**
LXIB				S		**Sn**		17 35 58.3	**-1.4**
FUSS	**Fushou**	**1.09**	**251**	*i*	P	**Pn**		17 35 45.4	**+0.4**
FUSS				*i*	S	**Sn**		17 36 00.4	**-0.3**
SHUL	**Shoufeng**	**1.09**	**223**	*i*	P	**Pn**		17 35 45.0	**+0.2**
SHUL				*i*	S	**Sn**		17 36 00.3	**-0.1**
KSHI	**Guanxi Townshi**	**1.10**	**279**	↑*i*	P	**Pn**		17 35 45.8	**+0.8**
KSHI				*i*	S	**Sn**		17 36 01.7	**+1.1**
WHF	**Hehuan Shan**	**1.11**	**246**	*i*	P	**Pn**		17 35 45.5	**+0.1**
WHF				*i*	S	**Sn**		17 36 01.1	**-0.3**
NCU	**National Centr**	**1.14**	**289**	↑*i*	P	**Pn**		17 35 46.0	**+0.6**
NCU				*i*	S	**Sn**		17 36 02.6	**+1.3**
NFF	**Wufeng Townshi**	**1.14**	**272**	*i*	P	**Pn**		17 35 46.0	**+0.5**
NFF				*i*	S	**Sn**		17 36 01.9	**+0.4**
TWT	**Tachien**	**1.14**	**253**	*i*	P	**Pn**		17 35 46.5	**+0.9**
TWT				*i*	S	**Sn**		17 36 01.9	**+0.2**
TDCB	**Techi**	**1.16**	**253**	*i*	P	**Pn**		17 35 46.5	**+0.7**
TDCB				*i*	S	**Sn**		17 36 02.0	**-0.1**
ESL	**Shilin**	**1.16**	**228**	*i*	P	**Pn**		17 35 45.2	**-0.5**
ESL				*i*	S	**Sn**		17 36 00.9	**-0.9**
TEGC	**Jichi Village**	**1.17**	**221**	*i*	P	**Pn**		17 35 46.3	**+0.6**
TEGC				*i*	S	**Sn**		17 36 02.1	**+0.1**
NJD	**Zhudong**	**1.18**	**277**	*i*	P	**Pn**		17 35 47.4	**+1.6**
NJD				*i*	S	**Sn**		17 36 04.4	**+2.2**
LIOB	**Emei**	**1.23**	**272**	*i*	P	**Pn**		17 35 47.1	**+0.6**
LIOB				*i*	S	**Sn**		17 36 04.1	**+0.6**
NSTT	**Nanjuang**	**1.25**	**272**	*i*	P	**Pn**		17 35 47.1	**+0.4**
NSTT				*i*	S	**Sn**		17 36 04.0	**+0.3**
WARBT	**Fenglin Townsh**	**1.26**	**226**	*i*	P	**Pn**		17 35 46.2	**-0.6**
WARBT				*i*	S	**Sn**		17 36 02.4	**-1.5**
IRIF	**Iriomote-Funau**	**1.27**	**102**	*e*P		**Pn**		17 35 47.2	**+0.3**
IRIF				*e*S		**Sn**		17 36 03.8	**-0.2**
OWD	**Renai**	**1.27**	**240**	*i*	P	**Pn**		17 35 47.3	**+0.2**
OWD				*i*	S	**Sn**		17 36 03.6	**-0.7**
NHW	**Xinwu Township**	**1.27**	**289**	*i*	P	**Pn**		17 35 48.4	**+1.4**
NHW				*i*	S	**Sn**		17 36 06.2	**+2.1**
SBCB	**Hsinchu**	**1.28**	**279**	*i*	P	**Pn**		17 35 47.6	**+0.5**
SBCB				*i*	S	**Sn**		17 36 04.8	**+0.5**
HSN	**Hsinchu**	**1.29**	**279**	*e*P		**Pn**		17 35 47.4	**+0.2**
HSN				*i*	S	**Sn**		17 36 03.3	**-1.3**
WUSB	**Renai**	**1.29**	**242**	*i*	P	**Pn**		17 35 48.0	**+0.6**
WUSB				*i*	S	**Sn**		17 36 04.5	**-0.4**
WHP	**Taichung City**	**1.34**	**256**	*i*	P	**Pn**		17 35 49.2	**+1.3**
WHP				*i*	S	**Sn**		17 36 06.5	**+0.7**
NJN	**Zhunan**	**1.37**	**274**	*i*	P	**Pn**		17 35 48.3	**+0.1**
NJN				*i*	S	**Sn**		17 36 07.5	**+1.2**
HGSD	**Ruisui**	**1.40**	**218**	*i*	P	**Pn**		17 35 48.6	**0.0**
HGSD				*i*	S	**Sn**		17 36 06.6	**-0.5**
VWDT	**VWDT**	**1.40**	**233**	*i*	P	**Pn**		17 35 49.2	**+0.6**
VWDT				*i*	S	**Sn**		17 36 06.5	**-0.6**
HATJ	**Hateruma jima**	**1.42**	**112**	*e*S		**Sn**		17 36 08.1	**+0.8**
WPL	**Puli Township**	**1.42**	**246**	*i*	P	**Pn**		17 35 50.0	**+1.1**
WPL				*i*	S	**Sn**		17 36 08.2	**+0.8**
DPDB	**Guoxing**	**1.43**	**247**	*i*	P	**Pn**		17 35 50.3	**+1.2**
DPDB				*i*	S	**Sn**		17 36 09.3	**+1.4**
WCS	**Beigang Elemen**	**1.44**	**248**	*i*	P	**Pn**		17 35 50.6	**+1.6**
WCS				*i*	S	**Sn**		17 36 08.9	**+1.1**
NMLH	**Miaoli**	**1.44**	**268**	*i*	P	**Pn**		17 35 50.0	**+0.9**
NMLH				*i*	S	**Sn**		17 36 08.5	**+0.6**
EHYH	**Wanrong**	**1.45**	**221**	*i*	P	**Pn**		17 35 49.4	**+0.2**
EHYH				*i*	S	**Sn**		17 36 07.2	**-0.9**
EHY	**Hungye**	**1.45**	**222**	*i*	P	**Pn**		17 35 48.7	**-0.6**
EHY				*i*	S	**Sn**		17 36 05.7	**-2.6**
TWQ1	**Liyutan**	**1.48**	**261**	*i*	P	**Pn**		17 35 50.2	**+0.6**
TWQ1				*i*	S	**Sn**		17 36 09.2	**+0.4**
SMLT	**Sun Moon Lake**	**1.52**	**242**	*i*	P	**Pn**		17 35 51.9	**+1.6**
SMLT				*i*	S	**Sn**		17 36 11.6	**+1.6**
SSLB	**Suanglung**	**1.53**	**238**	P		**Pn**		17 35 50.7	**+0.5**
SSLB	**Suanglung**	**1.53**	**238**	*i*	P	**Pn**		17 35 51.3	**+1.1**
SSLB				S		**Sn**		17 36 11.1	**+1.1**
ECBN	**Changbin**	**1.53**	**214**	*i*	P	**Pn**		17 35 50.0	**-0.3**
ECBN				*i*	S	**Sn**		17 36 09.0	**-0.9**
JKRS	**Kuro-shima**	**1.54**	**103**	P		**Pn**		17 35 51.2	**+0.9**
JKRS				*e*S		**Sn**		17 36 10.5	**+0.4**
TYC	**Yuchr**	**1.55**	**244**	*i*	P	**Pn**		17 35 51.6	**+1.2**
TYC				*i*	S	**Sn**		17 36 12.1	**+1.7**
YUJB	**Yu-li**	**1.55**	**219**	P		**Pn**		17 35 49.9	**-0.7**
YULB	**Yu-li**	**1.55**	**219**	*i*	P	**Pn**		17 35 49.9	**-0.7**
YULB				S		**Sn**		17 36 08.5	**-2.0**
EYUL	**Yuli**	**1.57**	**218**	*i*	P	**Pn**		17 35 50.8	**-0.1**
EYUL				*i*	S	**Sn**		17 36 11.9	**+0.9**
TWF1	**Yuli**	**1.58**	**219**	*i*	P	**Pn**		17 35 50.4	**-0.5**
TWF1				S		**Sn**		17 36 09.6	**-1.7**
WDJ	**Dajia District**	**1.60**	**261**	*i*	P	**Pn**		17 35 51.8	**+0.7**
WDJ				*i*	S	**Sn**		17 36 12.3	**+0.8**
TCU	**Taichung**	**1.61**	**254**	*i*	P	**Pn**		17 35 51.8	**+0.5**
TCU				*i*	S	**Sn**		17 36 12.5	**+0.7**
WWF	**Wufeng**	**1.62**	**250**	*i*	P	**Pn**		17 35 52.4	**+1.0**
WWF				*i*	S	**Sn**		17 36 13.1	**+1.0**
JIJ	**Ishigaki jima**	**1.63**	**98**	P		**Pn**		17 35 51.8	**+0.3**
WHYT	**Xinyi Township**	**1.65**	**237**	*i*	P	**Pn**		17 35 53.4	**+1.5**
WHYT				*i*	S	**Sn**		17 36 14.8	**+1.9**
CHKH	**Chenggong**	**1.66**	**213**	*i*	P	**Pn**		17 35 52.4	**+0.4**
CHKH				*i*	S	**Sn**		17 36 13.9	**-2.1**
WJS	**Zhushan**	**1.69**	**243**	*i*	P	**Pn**		17 35 53.6	**+1.3**
WJS				*i*	S	**Sn**		17 36 15.4	**+1.8**
WNT	**Mingjian**	**1.70**	**245**	*i*	P	**Pn**		17 35 52.8	**+0.4**
WNT				*i*	S	**Sn**		17 36 15.2	**+1.4**
YUS	**Yu-Shan**	**1.71**	**230**	*i*	P	**Pn**		17 35 53.6	**+0.6**
YUS				*i*	S	**Sn**		17 36 13.5	**-1.2**
FULB	**Fuli**	**1.71**	**215**	*i*	P	**Pn**		17 35 52.5	**0.0**
FULB				*i*	S	**Sn**		17 36 14.3	**+0.2**
WCHH	**Zhanghua**	**1.73**	**253**	*i*	P	**Pn**		17 35 53.4	**+0.5**
WCHH				*i*	S	**Sn**		17 36 14.8	**+0.2**
WCH1	**Changhua City**	**1.75**	**253**	*i*	P	**Pn**		17 35 53.6	**+0.6**
WCH1				*i*	S	**Sn**		17 36 15.0	**+0.1**
CHKT	**Chengkung**	**1.75**	**212**	*i*	P	**Pn**		17 35 52.3	**-0.8**
CHKT				*i*	S	**Sn**		17 36 13.2	**-2.0**
JISG	**Ishigakijimahi**	**1.77**	**90**	P		**Pn**		17 35 53.8	**+0.6**
JISG				S		**Sn**		17 36 15.6	**+0.2**
ALS	**Alishan**	**1.80**	**233**	*i*	P	**Pn**		17 35 55.6	**+1.6**
ALS				*i*	S	**Sn**		17 36 18.0	**+2.4**
EHD	**Haiduan**	**1.80**	**217**	*i*	P	**Pn**		17 35 52.9	**-0.8**
EHD				*i*	S	**Sn**		17 36 14.5	**-1.6**
ECS	**Chishang**	**1.83**	**215**	*i*	P	**Pn**		17 35 53.6	**-0.6**
ECS				*i*	S	**Sn**		17 36 17.3	**+0.3**
CHN5	**Tsauling**	**1.84**	**238**	*i*	P	**Pn**		17 35 55.7	**+1.4**
CHN5				*i*	S	**Sn**		17 36 19.2	**+1.9**
ELDTW	**Lidau**	**1.87**	**222**	*i*	P	**Pn**		17 35 54.4	**-0.4**
ELDTW				S		**Sn**		17 36 16.7	**-1.4**
WGK	**Gukeng**	**1.89**	**242**	*i*	P	**Pn**		17 35 56.1	**+1.3**
WGK				*i*	S	**Sn**		17 36 20.8	**+2.6**
WDL	**Douliou City**	**1.89**	**243**	*e*P		**Pn**		17 35 56.5	**+1.6**
WDL				*i*	S	**Sn**		17 36 20.9	**+2.6**
EDH	**Donghe**	**1.89**	**211**	*i*	P	**Pn**		17 35 54.4	**-0.5**
EDH				*i*	S	**Sn**		17 36 16.6	**-1.7**
WDLH	**Douliu**	**1.91**	**242**	*i*	P	**Pn**		17 35 56.3	**+1.2**
WDLH				*i*	S	**Sn**		17 36 19.9	**+1.3**
RLNB	**Erlin**	**1.97**	**249**	*i*	P	**Pn**		17 35 56.0	**+0.6**
RLNB				*i*	S	**Sn**		17 36 20.0	**0.0**
WCKO	**Fanlu**	**1.99**	**235**	*i*	P	**Pn**		17 35 57.8	**+1.6**
WCKO				*i*	S	**Sn**		17 36 22.7	**+2.2**
WTK	**Tuku**	**2.03**	**244**	*i*	P	**Pn**		17 35 57.6	**+1.0**
WTK				*i*	S	**Sn**		17 36 22.9	**+1.4**
CHN2	**Minshiung**	**2.03**	**239**	*e*P		**Pn**		17 35 58.3	**+1.5**
CHN2				*i*	S	**Sn**		17 36 23.6	**+2.0**
LONT	**Longtian**	**2.03**	**214**	*i*	P	**Pn**		17 35 56.0	**-0.8**
LONT				*i*	S	**Sn**		17 36 20.5	**-1.2**
STYH	**Taoyuan**	**2.04**	**226**	*i*	P	**Pn**		17 35 57.9	**+1.1**
STYH				*i*	S	**Sn**		17 36 22.6	**+0.8**
CHN4	**Tsaushan**	**2.05**	**233**	*i*	P	**Pn**		17 35 58.4	**+1.4**
CHN4				*i*	S	**Sn**		17 36 24.3	**+2.3**
TPUB	**Ta-pu**	**2.05**	**231**	P		**Pn**		17 35 58.0	**+0.9**
TPUB	**Ta-pu**	**2.05**	**231**	*i*	P	**Pn**		17 35 58.6	**+1.5**
TPUB				*i*	S	**Sn**		17 36 23.9	**+1.8**
STYT	**Tauyuan**	**2.06**	**226**	*i*	P	**Pn**		17 35 58.3	**+1.1**
STYT				*i*	S	**Sn**		17 36 23.6	**+1.3**
LDUT	**Ludao**	**2.09**	**204**	*i*	P	**Pn**		17 35 56.5	**-1.0**
LDUT				*i*	S	**Sn**		17 36 20.8	**-2.1**
CHY	**Chiayi**	**2.09**	**239**	*i*	P	**Pn**		17 35 58.7	**+1.2**
CHY				*i*	S	**Sn**		17 36 25.0	**+2.0**
WTP	**Ta-pu**	**2.10**	**230**	*i*	P	**Pn**		17 35 58.9	**+1.2**
WTP				*i*	S	**Sn**		17 36 25.7	**+2.4**
JTJ	**Tarama**	**2.12**	**88**	P		**Pn**		17 35 58.8	**+0.9**
JTJ				*e*S		**Sn**		17 36 24.1	**+0.4**
TWGBT	**Beinan**	**2.13**	**214**	P		**Pn**		17 35 57.7	**-0.4**
TWGBT	**Beinan**	**2.13**	**214**	*i*	P	**Pn**		17 35 57.4	**-0.7**
TWGBT				*i*	S	**Sn**		17 36 22.5	**-1.5**
TWG	**Pinlang**	**2.13**	**214**	*i*	P	**Pn**		17 35 57.4	**-0.7**
TWG				*i*	S	**Sn**		17 36 22.2	**-1.8**
TTN	**Taitung**	**2.15**	**212**	*e*P		**Pn**		17 35 57.6	**-0.7**
TTN				S		**Sn**		17 36 24.2	**-0.3**
TWK	**Hsinying**	**2.17**	**233**	*i*	P	**Pn**		17 35 59.8	**+1.1**
TWK				*i*	S	**Sn**		17 36 27.0	**+1.9**
WSF	**Szhu**	**2.19**	**244**	P		**Pn**		17 36 00.6	**+1.8**
WSF				*i*	S	**Sn**		17 36 25.6	**+0.4**
CHN1	**Nanshi**	**2.20**	**231**	*i*	P	**Pn**		17 36 00.3	**+1.3**
CHN1				*i*	S	**Sn**		17 36 27.8	**+2.2**
SGST	**Jiashian**	**2.23**	**228**	*i*	P	**Pn**		17 36 00.1	**+0.8**
SGST				*i*	S	**Sn**		17 36 27.9	**+1.6**
WSL	**Shuilin Townsh**	**2.23**	**242**	*i*	P	**Pn**		17 36 00.1	**+0.7**
WSL				*i*	S	**Sn**		17 36 28.0	**+1.7**
SLGT	**Liugui**	**2.25**	**225**	*i*	P	**Pn**		17 36 01.6	**+2.0**
SLGT				*i*	S	**Sn**		17 36 29.2	**+2.4**
ICHU	**Yijhu**	**2.28**	**238**	P		**Pn**		17 36 00.5	**+0.5**
ICHU				*i*	S	**Sn**		17 36 29.0	**+1.6**
CHN8	**Yiju**	**2.34**	**238**	*e*P		**Pn**		17 36 01.5	**+0.7**
CHN8				*i*	S	**Sn**		17 36 30.6	**+1.8**
ECL	**Taimali**	**2.38**	**213**	*i*	P	**Pn**		17 35 60.0	**-1.4**
ECL				S		**Sn**		17 36 27.9	**-2.0**
SCST	**Cishan**	**2.42**	**226**	*i*	P	**Pn**		17 36 03.5	**+1.6**
SCST				*i*	S	**Sn**		17 36 34.0	**+3.1**
SSD	**Sandimen**	**2.44**	**221**	*i*	P	**Pn**		17 36 03.7	**+1.5**
SSD				*i*	S	**Sn**		17 36 33.3	**+2.0**
SCLT	**Jiali**	**2.45**	**235**	*e*P		**Pn**		17 36 03.7	**+1.5**
SCLT				*i*	S	**Sn**		17 36 32.9	**+1.5**
TSMG	**Majia**	**2.46**	**220**	*i*	P	**Pn**		17 36 04.2	**+1.7**
TSMG				*i*	S	**Sn**		17 36 33.4	**+1.5**
TWM1	**Shoushan**	**2.51**	**226**	*i*	P	**Pn**		17 36 04.7	**+1.5**
TWM1				*e*S		**Sn**		17 36 36.9	**+3.8**
MASBT	**Mashibuluo**	**2.54**	**219**	*i*	P	**Pn**		17 36 04.7	**+1.1**
MASBT				*i*	S	**Sn**		17 36 34.9	**+1.1**
TSCK	**Chigu Township**	**2.54**	**236**	*i*	P	**Pn**		17 36 04.5	**+0.9**
TSCK				*i*	S	**Sn**		17 36 34.1	**+0.4**
JIRJ	**Irabujima**	**2.58**	**84**	P		**Pn**		17 36 04.9	**+0.9**
EAST	**Anshuo**	**2.61**	**213**	*i*	P	**Pn**		17 36 04.0	**-0.5**
EAST				S		**Sn**		17 36 35.2	**-0.3**
LAY	**Lan-yu**	**2.66**	**197**	*i*	P	**Pn**		17 36 04.2	**-1.0**
LAY				S		**Sn**		17 36 33.5	**-3.1**
JMJ	**Miyako jima 2**	**2.67**	**85**	P		**Pn**		17 36 05.7	**+0.5**
SSPT	**Xinbi**	**2.68**	**219**	*i*	P	**Pn**		17 36 07.1	**+1.7**
SSPT				*e*S		**Sn**		17 36 37.7	**+0.7**
LYUB	**Lan-yu**	**2.69**	**196**	*i*	P	**Pn**		17 36 04.2	**-1.3**
LYUB				*e*S		**

O15K	**Ungalikthiuk R**	**4.53**	**359**	IAML			18 09 30.9	
	comp=E,103nm,0.9s							
KAWH	**Katmai**	**4.62**	**34**			**Pn**	**18 07 57.1**	**+1.1**
O14K	**Tigyukauivet M**	**4.69**	**350**	Pn		**Pn**	**18 07 58.3**	**+1.4**
O14K				IAML			18 09 23.2	
	comp=E,91nm,1.0s							
O14K				IAML			18 09 36.5	
	comp=N,89nm,1.4s							
Q18K	**Katmai Hardscr**	**4.77**	**31**			**Pn**	**18 07 59.7**	**+1.6**
P17K	**Kvichak River**	**4.89**	**20**			**Pn**	**18 07 59.8**	**+0.2**
O16K	**Kokwok River B**	**5.03**	**9**			**Pn**	**18 08 02.0**	**+0.4**
O16K				IAML			18 09 36.3	
	comp=E,54nm,0.8s							
O16K				IAML			18 09 59.4	
	comp=N,44nm,0.9s							
KDAK	**Kodiak Island**	**5.06**	**49**	Pn		**Pn**	**18 08 02.0**	**0.0**
	comp=N,0.6nm,0.3s,baz=232,slow=5.2,SNR=22							
KDAK				Sn		**Sn**	**18 08 56.3**	**-3.0**
	comp=N,1.5nm,0.3s,baz=288,slow=23,SNR=1.3							
	comp=N,2.3nm,0.4s							
KDAK				AML	AML			
KDAK	**Kodiak Island**	**5.06**	**49**			**Pn**	**18 08 00.8**	**-1.2**
KDAK				IAML			18 09 46.1	
	comp=N,50nm,1.3s							
OKNC	**Okmok New Cone**	**5.11**	**260**	Pn		**Pn**	**18 08 01.4**	**-1.2**
O17K	**Koliganek Bris**	**5.32**	**14**			**Pn**	**18 08 07.7**	**+2.1**
N14K	**Kuskokwak Cree**	**5.39**	**349**			**Pn**	**18 08 06.8**	**+0.3**
Q19K	**Cape Douglas,**	**5.42**	**35**	Pn		**Pn**	**18 08 05.8**	**-1.2**
N15K	**Kwethluk River**	**5.53**	**358**			**Pn**	**18 08 08.1**	**-0.4**
O18K	**Koktuh Hills**	**5.75**	**23**			**Pn**	**18 08 10.2**	**-1.4**
N16K	**Nishlik Lake**	**5.86**	**5**			**Pn**	**18 08 14.3**	**+1.4**
N17K	**Nushagak Hills**	**6.04**	**12**	Pn		**Pn**	**18 08 16.6**	**+1.1**
M15K	**Kasigluk River**	**6.08**	**355**			**Pn**	**18 08 17.9**	**+1.9**
M13K	**Dall Lake**	**6.10**	**343**			**Pn**	**18 08 17.6**	**+1.3**
M14K	**Bethel**	**6.23**	**350**			**Pn**	**18 08 19.3**	**+1.2**
O19K	**Port Alsworth**	**6.27**	**25**			**Pn**	**18 08 19.6**	**+1.1**
N18K	**Kilae Creek**	**6.38**	**17**	Pn		**Pn**	**18 08 19.9**	**-0.2**
M16K	**Timber Creek**	**6.40**	**3**			**Pn**	**18 08 20.4**	**0.0**
ILSW	**Iliamna Southw**	**6.41**	**31**			**Pn**	**18 08 18.7**	**-2.0**
SPIA	**Saint Paul Isl**	**6.45**	**297**	Pn		**Pn**	**18 08 19.1**	**-1.9**
CNPM	**China Poot**	**6.71**	**40**	Pn		**Pn**	**18 08 25.5**	**+0.7**
M17K	**Holitna River**	**6.87**	**9**			**Pn**	**18 08 27.5**	**+0.6**
RED	**Redoubt Volcan**	**6.88**	**30**	Pn		**Pn**	**18 08 27.2**	**+0.2**
L14K	**Kuka Creek**	**6.89**	**348**			**Pn**	**18 08 27.5**	**+0.5**
RDWB	**Redoubt West**	**6.91**	**29**			**Pn**	**18 08 29.9**	**+2.4**
BRLK	**Bradley Lake**	**7.01**	**39**	Pn		**Pn**	**18 08 27.8**	**-0.9**
L16K	**Owhat River**	**7.08**	**1**			**Pn**	**18 08 31.0**	**+1.3**
L15K	**Ungalak Mounta**	**7.11**	**353**			**Pn**	**18 08 31.1**	**+1.0**
L17K	**Donlin**	**7.54**	**5**			**Pn**	**18 08 37.5**	**+1.5**
SPU	**Mount Spurr**	**7.70**	**29**	Pn		**Pn**	**18 08 34.1**	**-4.2**
K15K	**Wolf Creek Mou**	**7.72**	**354**	Pn		**Pn**	**18 08 38.8**	**+0.3**
K13K	**Kusilvak Mount**	**7.75**	**342**			**Pn**	**18 08 38.6**	**-0.3**
L18K	**Granite Mounta**	**7.75**	**11**	Pn		**Pn**	**18 08 38.4**	**-0.5**
SLKM	**Skilak Lake**	**7.76**	**37**	Pn		**Pn**	**18 08 37.2**	**-2.0**
SEW	**Seward**	**7.77**	**41**	Pn		**Pn**	**18 08 39.0**	**-0.2**
M19K	**Big River Lodg**	**7.79**	**19**			**Pn**	**18 08 40.3**	**+0.8**
L19K	**White Mountain**	**7.96**	**17**	Pn		**Pn**	**18 08 43.7**	**+1.8**
STLK	**Strandline Lak**	**8.02**	**28**	Pn		**Pn**	**18 08 43.8**	**+1.1**
K17K	**Iditarod**	**8.12**	**5**	Pn		**Pn**	**18 08 45.0**	**+1.0**
SUA	**Susitna One**	**8.31**	**31**	Pn		**Pn**	**18 08 47.2**	**+0.6**
J14K	**Nanvaranak Lak**	**8.36**	**348**			**Pn**	**18 08 49.3**	**+2.0**
L20K	**Farewell, AK**	**8.41**	**19**	Pn		**Pn**	**18 08 47.1**	**-0.9**
SKT	**Skwentna**	**8.50**	**27**	Pn		**Pn**	**18 08 48.9**	**-0.3**
P23K	**Montague Islan**	**8.53**	**46**	Pn		**Pn**	**18 08 48.0**	**-1.7**
J16K	**Anvik River**	**8.67**	**357**			**Pn**	**18 08 51.5**	**0.0**
PWL	**Port Wells**	**8.69**	**40**			**Pn**	**18 08 50.4**	**-1.4**
J18K	**Innoko River**	**8.97**	**9**			**Pn**	**18 08 55.5**	**-0.1**
ATKA	**Atka Island**	**9.00**	**260**	P		**Pn**	**18 08 58.5**	**+2.5**
ATKA	**Atka Island**	**9.00**	**260**	Pn		**Pn**	**18 08 54.3**	**-1.7**
KNK	**Knik Glacier**	**9.02**	**37**	Pn		**Pn**	**18 08 55.9**	**-0.4**
GHO	**Glory Hole Cre**	**9.11**	**34**	Pn		**Pn**	**18 08 57.2**	**-0.4**
HIN	**Hinchinbrook I**	**9.13**	**46**			**Pn**	**18 08 57.8**	**0.0**
PPLA	**Purkeypile**	**9.13**	**22**	Pn		**Pn**	**18 08 59.4**	**+1.4**
GLI	**Glacier Island**	**9.17**	**42**	Pn		**Pn**	**18 08 58.5**	**+0.1**
K20K	**Telida**	**9.19**	**16**	Pn		**Pn**	**18 08 59.4**	**+0.7**
I17K	**Unalakleet**	**9.28**	**357**	Pn		**Pn**	**18 09 00.5**	**+0.8**
SML	**Sawmill**	**9.34**	**35**	Pn		**Pn**	**18 09 00.9**	**+0.2**
FID	**Port Fidalgo**	**9.34**	**44**	Pn		**Pn**	**18 08 59.1**	**-1.6**
J19K	**Poorman**	**9.60**	**11**	Pn		**Pn**	**18 09 04.1**	**-0.1**
CAST	**Castle Rocks**	**9.62**	**21**			**Pn**	**18 09 03.9**	**-0.6**
SCM	**Sheep Creek Mo**	**9.70**	**37**			**Pn**	**18 09 04.7**	**-0.9**
J20K	**Nowinta River**	**9.96**	**14**	Pn		**Pn**	**18 09 09.1**	**0.0**
KTH	**Kantishna Hill**	**9.99**	**23**	Pn		**Pn**	**18 09 09.7**	**+0.1**
KLU	**Klutina**	**9.99**	**41**			**Pn**	**18 09 06.9**	**-2.8**
TRF	**Thorofare Moun**	**10.05**	**25**	Pn		**Pn**	**18 09 10.5**	**-0.1**
H17K	**Granite Mounta**	**10.32**	**355**	Pn		**Pn**	**18 09 13.9**	**-0.1**
ANM	**Nome**	**10.34**	**346**	Pn		**Pn**	**18 09 13.2**	**-1.2**
RND	**Reindeer**	**10.39**	**28**	Pn		**Pn**	**18 09 14.4**	**-0.7**
ADK	**Adak**	**10.54**	**262**	P		**Pn**	**18 09 19.7**	**+2.5**
ADK	**Adak**	**10.54**	**262**	Pn		**Pn**	**18 09 14.8**	**-2.4**
DHY	**Denali Highway**	**10.56**	**32**	Pn		**Pn**	**18 09 16.4**	**-1.2**
MCK	**McKinley**	**10.63**	**27**	Pn		**Pn**	**18 09 17.6**	**-0.8**
KIWB	**Kanaga Island**	**10.82**	**262**	Pn		**Pn**	**18 09 19.9**	**-1.1**
VRDI	**Verde Repeater**	**10.84**	**46**	Pn		**Pn**	**18 09 19.8**	**-1.5**
HARP	**HAARP**	**10.84**	**38**	Pn		**Pn**	**18 09 20.6**	**-0.7**
G16K	**Koyuk River**	**10.85**	**354**	Pn		**Pn**	**18 09 20.8**	**-0.5**
TGL	**Tana Glacier**	**10.88**	**49**	Pn		**Pn**	**18 09 20.6**	**-1.3**
H19K	**Roundabout Mou**	**11.03**	**7**	Pn		**Pn**	**18 09 22.6**	**-1.1**
MCARA	**McCarthy VSAT**	**11.10**	**46**	Pn		**Pn**	**18 09 22.9**	**-1.9**
PAX	**Paxson**	**11.11**	**36**			**Pn**	**18 09 23.4**	**-1.5**
YAH	**Yahtse**	**11.20**	**52**	Pn		**Pn**	**18 09 24.6**	**-1.8**
I21K	**Tanana**	**11.23**	**17**	Pn		**Pn**	**18 09 26.4**	**-0.1**
NEA2	**Nenana**	**11.31**	**24**	Pn		**Pn**	**18 09 27.5**	**-0.1**
GRNC	**Granite Creek**	**11.35**	**50**			**Pn**	**18 09 27.1**	**-1.2**
BARN	**Barnard Glacie**	**11.53**	**49**	Pn		**Pn**	**18 09 29.3**	**-1.5**
CCB	**Clear Creek Bu**	**11.66**	**26**	Pn		**Pn**	**18 09 31.9**	**-0.4**
HDA	**Harding Lake**	**11.70**	**28**	Pn		**Pn**	**18 09 32.0**	**-1.0**
I23K	**Minto, Yukon-K**	**11.71**	**22**	Pn		**Pn**	**18 09 31.5**	**-1.6**
LOGN	**Logan Glacier**	**11.72**	**51**	Pn		**Pn**	**18 09 32.6**	**-0.8**
RIDG	**Independent Ri**	**11.84**	**34**	Pn		**Pn**	**18 09 33.9**	**-1.0**
F17K	**Baldwin Pennin**	**11.85**	**357**	Pn		**Pn**	**18 09 34.0**	**-1.0**
IL31		**12.00**	**27**			**Pn**	**18 09 35.9**	**-1.1**
ILAR	**Eielson Array**	**12.00**	**27**	Pn		**Pn**	**18 09 35.9**	**-1.1**
	comp=N,0.2nm,0.3s,baz=216,slow=13,SNR=8.5							
ILAR				Sn		**Sn**	**18 11 44.5**	**-5.2**
	baz=222,slow=22,SNR=1.3							
	comp=N,0.3nm,0.6s							
ILAR				AML	AML			
ILAR	**Eielson Array**	**12.00**	**27**	Pn		**Pn**	**18 09 35.4**	**-1.7**
DOT	**Dot Lake**	**12.03**	**35**	Pn		**Pn**	**18 09 35.4**	**-2.1**
O28M	**Mount Upton**	**12.07**	**52**	Pn		**Pn**	**18 09 35.6**	**-2.7**
PNL	**Peninsula**	**12.09**	**57**	P		**Pn**	**18 09 41.2**	**+2.9**
SCRK	**Sand Creek**	**12.28**	**34**	Pn		**Pn**	**18 09 38.7**	**-2.3**
BCAR	**Beaver Creek A**	**12.49**	**40**	Pn		**Pn**	**18 09 43.9**	**+0.1**
O29M	**Mount Kennedy**	**12.66**	**55**	Pn		**Pn**	**18 09 46.4**	**+0.1**
P29M	**Windy Craggy**	**12.89**	**58**			**Pn**	**18 09 49.2**	**-0.1**
E19K	**Redstone River**	**12.90**	**4**	Pn		**Pn**	**18 09 48.2**	**-1.1**
PRP	**Porcupine Dome**	**12.94**	**27**	Pn		**Pn**	**18 09 49.0**	**-1.0**
AMKA	**Amchitka**	**13.05**	**264**	Pn		**Pn**	**18 09 48.6**	**-2.8**
S31K	**Pelican**	**13.42**	**66**	Pn		**Pn**	**18 09 56.2**	**-0.2**
M29M	**Somme Creek**	**13.50**	**46**	Pn		**Pn**	**18 09 58.1**	**+0.4**
DAWY	**Dawson**	**13.94**	**39**	Pn		**Pn**	**18 10 00.9**	**-2.6**
L29M	**L29M**	**13.94**	**44**	Pn		**Pn**	**18 10 01.2**	**-2.3**
O30N	**Mendenhall**	**13.97**	**54**	Pn		**Pn**	**18 10 00.2**	**-3.9**
SKAG	**Skagway**	**14.06**	**60**	Pn		**Pn**	**18 10 00.7**	**-4.5**
F24K	**Squaw Lake**	**14.07**	**19**	Pn		**Pn**	**18 10 02.3**	**-3.0**
I27K	**Kandik River**	**14.13**	**32**	Pn		**Pn**	**18 10 03.4**	**-2.7**
M30M	**Minto, Yukon**	**14.26**	**47**	Pn		**Pn**	**18 10 05.2**	**-2.7**
E24K	**Your Creek**	**14.46**	**17**	Pn		**Pn**	**18 10 07.7**	**-2.9**
WHY	**Whitehorse**	**14.52**	**56**	Pn		**Pn**	**18 10 07.1**	**-4.5**
K29M	**Barlow Dome**	**14.53**	**42**			**Pn**	**18 10 08.5**	**-3.1**
D22K	**Ayikyak River**	**14.64**	**10**	Pn		**Pn**	**18 10 09.2**	**-3.8**
BMAR	**Burnt Mountain**	**14.69**	**23**	Pn		**Pn**	**18 10 09.9**	**-3.8**
D23K	**Nanushuk River**	**14.95**	**13**	Pn		**Pn**	**18 10 13.9**	**-3.2**
J30M	**Hart River**	**15.34**	**40**	P		**Pn**	**18 10 21.0**	**-1.5**
J30M				IAmb	IAmb		18 10 44.3	
	comp=E,5.1nm,0.7s							
I30M	**Mount Dempster**	**15.65**	**38**	P		**Pn**	**18 10 28.1**	**+1.6**
I30M				IAmb	IAmb		18 10 42.4	
	comp=E,11nm,0.9s							
D25K	**Kavik River**	**15.93**	**17**	Pn		**Pn**	**18 10 28.1**	**-1.8**
F28M	**Old Crow**	**16.02**	**28**	Pn		**Pn**	**18 10 27.6**	**-3.5**
EPYK	**Eagle Plains**	**16.17**	**34**			**Pn**	**18 10 29.6**	**-3.4**
EPYK				IAmb	IAmb		18 10 46.6	
	comp=Z,13nm,0.8s							
H31M	**Peel River**	**16.68**	**38**			**Pn**	**18 10 37.6**	**-1.9**
H31M				IAmb	IAmb		18 10 57.9	
	comp=Z,15nm,1.4s							
F30M	**Barrier River**	**17.20**	**32**	P		**Pn**	**18 10 43.4**	**-2.6**
F30M				IAmb	IAmb		18 11 21.2	
	comp=Z,4.3nm,0.8s							
G31M	**Satah River**	**17.29**	**35**			**Pn**	**18 10 44.8**	**-2.3**
G31M				IAmb	IAmb		18 11 07.0	
	comp=Z,4.5nm,0.8s							
F31M	**Tsiigehtchic**	**17.75**	**34**			**Pn**	**18 10 49.4**	**-3.4**
INK	**Inuvik**	**18.31**	**31**	P		**Pn**	**18 10 59.5**	**0.0**
	comp=Z,0.2nm,0.3s,baz=229,slow=12,SNR=12							
	comp=Z,1.4nm,0.7s							
INK				AML	AML			
INK	**Inuvik**	**18.31**	**31**	P		**Pn**	**18 10 56.2**	**-3.4**
C36M	**Paulatuk**	**21.80**	**34**	P		**Pn**	**18 11 35.6**	**-1.8**
A36M	**Sachs Harbour**	**22.70**	**27**	P		**Pn**	**18 11 45.6**	**-1.4**
A36M				IAmb	IAmb		18 12 24.2	
	comp=Z,3.0nm,0.8s							
YKA	**Yellowknife Ar**	**24.32**	**53**	P		**P**	**18 12 04.0**	**+1.2**
	comp=Z,1.0nm,0.8s,baz=270,slow=8.9,SNR=3.0							
	comp=Z,1.0nm,0.8s							
YKA	**Yellowknife Ar**	**24.32**	**53**	P		**P**	**18 12 03.1**	**+0.3**
PET	**Petropavlovsk**	**24.37**	**283**	P		**P**	**18 12 01.5**	**-1.9**
PEA0B	**Petropavlovsk-**	**24.88**	**284**	P		**P**	**18 12 06.8**	**-1.2**
PETK	**Petropavlovsk-**	**24.88**	**284**	P		**P**	**18 12 08.2**	**+0.2**
	comp=Z,3.2nm,0.5s,baz=73,slow=13,SNR=26							
	comp=Z,3.2nm,0.5s							
PETK	**Petropavlovsk-**	**24.88**	**284**	P		**P**	**18 12 06.4**	**-1.6**
MA2	**Magadan**	**26.81**	**301**	LR		LR	18 23 12.1	
	comp=Z,26nm,18.4s,baz=64,slow=37							
K05A	**Summer Lake**	**27.89**	**99**	P		**P**	**18 12 32.7**	**-2.8**
TIXI	**Tiksi**	**33.84**	**327**	LR		LR	18 29 27.5	
	comp=Z,21nm,19.1s,baz=189,slow=40							
PDAR	**Pinedale Array**	**34.43**	**89**	P		**P**	**18 13 36.0**	**+2.9**
	comp=Z,0.2nm,0.3s,baz=305,slow=9.3,SNR=2.4							
	comp=Z,0.2nm,0.3s							
H11N2	**WAKE ISLAND Hy**	**43.10**	**229**	T		T	19 00 54.4	
	baz=28,slow=76,SNR=36							
H11N3	**WAKE ISLAND Hy**	**43.11**	**229**	T		T	19 00 58.0	
	baz=28,slow=76,SNR=37							
H11N1	**WAKE ISLAND Hy**	**43.12**	**229**	T		T	19 00 55.9	
	baz=28,slow=76,SNR=28							
H11S1	**WAKE ISLAND Hy**	**44.27**	**229**	T		T	19 02 21.5	
	baz=28,slow=76,SNR=45							
H11S2	**WAKE ISLAND Hy**	**44.28**	**229**	T		T	19 02 29.4	
	baz=28,slow=76,SNR=47							
H11S3	**WAKE ISLAND Hy**	**44.29**	**229**	T		T	19 02 25.2	
	baz=28,slow=76,SNR=31							
MJAR	**Matsushiro Arr**	**45.45**	**273**	P		**P**	**18 15 04.8**	**+0.6**
	comp=Z,1.1nm,0.8s,baz=38,slow=7.3,SNR=6.4							
	comp=Z,1.1nm,0.8s							
MJAR	**Matsushiro Arr**	**45.45**	**273**	P		**P**	**18 15 03.1**	**-1.2**
NRIK	**Noril'sk**	**47.07**	**333**	P		**P**	**18 15 16.9**	**+0.3**
	comp=Z,2.8nm,0.5s,baz=50,slow=6.0,SNR=4.0							
	comp=Z,2.8nm,0.5s							
NRIK	**Noril'sk**	**47.07**	**333**	IAmb		IAmb	18 15 18.1	
	comp=Z,3.0nm,0.6s							
TXAR	**Lajitas Array**	**47.15**	**99**	P		**P**	**18 15 20.3**	**+2.5**
	comp=Z,0.3nm,0.7s,baz=309,slow=4.5,SNR=3.7							
	comp=Z,0.3nm,0.7s							
TXAR	**Lajitas Array**	**47.15**	**99**	P		**P**	**18 15 15.7**	**-2.1**
SPITS	**Spitsbergen Ar**	**47.41**	**1**	P		**P**	**18 15 19.4**	**+0.3**
	comp=Z,8.0nm,0.9s,baz=0.0,slow=8.8,SNR=1.3							
	comp=Z,8.0nm,0.9s							
SONM	**Songino Array**	**54.92**	**305**	P		**P**	**18 16 16.1**	**+0.2**
	comp=Z,1.0nm,0.6s,baz=57,slow=5.7,SNR=6.1							
	comp=Z,1.0nm,0.6s							
SONM	**Songino Array**	**54.92**	**305**	P		**P**	**18 16 15.4**	**-0.6**
SONM				IAmb		IAmb	18 16 17.3	
	comp=Z,0.8nm,0.7s							
ZALV	**Zalesovo Beam**	**59.42**	**322**	P		**P**	**18 16 47.1**	**-0.4**
	comp=Z,0.4nm,0.4s,baz=19,slow=9.4,SNR=2.0							
	comp=Z,0.4nm,0.4s							
FINES	**FINESS Array B**	**64.16**	**357**	P		**P**	**18 17 19.4**	**+0.2**
	comp=Z,4.0nm,1.0s,baz=8.6,slow=6.6,SNR=4.0							
	comp=Z,4.0nm,1.0s							
NOA	**NORSAR Array B**	**64.42**	**5**	P		**P**	**18 17 21.9**	**+0.8**
	comp=Z,0.5nm,0.6s,baz=343,slow=7.0,SNR=1.8							
	comp=Z,0.5nm,0.6s							
BVAR	**Borovoye Array**	**64.95**	**329**	P		**P**	**18 17 24.8**	**+0.2**
	comp=Z,1.0nm,0.6s,baz=42,slow=4.5,SNR=3.7							
	comp=Z,1.0nm,0.6s							
HFS	**Hagfors**	**65.44**	**4**	P		**P**	**18 17 28.6**	**+1.0**
	comp=Z,0.8nm,0.5s,baz=28,slow=6.5,SNR=5.0							
	comp=Z,0.8nm,0.5s							
MKAR	**Makanchi Array**	**66.18**	**318**	P		**P**	**18 17 32.5**	**-0.2**
	comp=Z,0.7nm,0.7s,baz=39,slow=7.8,SNR=4.8							
	comp=Z,0.7nm,0.7s							
EKA	**Eskdalemuir Ar**	**68.70**	**14**	P		**P**	**18 17 49.9**	**+1.6**
	comp=Z,0.3nm,0.6s,baz=331,slow=5.0,SNR=3.5							
	comp=Z,0.3nm,0.6s							
AKASG	**Malin Array Be**	**74.75**	**354**	P		**P**	**18 18 25.3**	**+0.5**
	comp=Z,1.4nm,0.6s,baz=9.4,slow=6.4,SNR=3.2							
	comp=Z,1.4nm,0.6s							
GERES	**GERESS Array B**	**76.72**	**4**	P		**P**	**18 18 37.9**	**+1.7**
	comp=Z,0.2nm,0.6s,baz=6.5,slow=6.7,SNR=1.8							
	comp=Z,0.2nm,0.6s							
CMAR	**Chiang Mai Arr**	**81.52**	**290**	P		**P**	**18 19 04.1**	**+1.3**
	comp=Z,1.0nm,0.3s,baz=16,slow=5.1,SNR=5.5							
	comp=Z,1.0nm,0.3s							
CMAR	**Chiang Mai Arr**	**81.52**	**290**	P		**P**	**18 19 02.7**	**-0.1**
ESDC	**Sonseca Array**	**83.76**	**19**	P		**P**	**18 19 15.9**	**+1.6**
	comp=Z,4.0nm,0.7s,baz=344,slow=4.8,SNR=4.9							
	comp=Z,4.0nm,0.7s							
ESDC	**Sonseca Array**	**83.76**	**19**	P		**P**	**18 19 13.7**	**-0.5**

*AUST **07** 18:09:38.1±0.3,14°S±3°×12°9E±°, h10km,ML2.9/10, Error ellipse: s-maj=8.1km s-min=5.3km az=136.8, confirmed*
*IDC **07** 18:09:39.0±3.2, 14°39S×129°50E, h0km, mb3.5/1, mbtmp3.3/4, ML3.4/3, Error ellipse: s-maj=37.3km s-min=17.2km az=24.0*

ISC 07 18:09:38.2±0.9, 14°42S±0°05×129°44E±0°06, h10km, n44, σ1°80/52, Northern Territory

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KNRA	**Kununurra**	**1.41**	**207**	P		**Pg**		**18 10 06.5**	**+1.1**
KNRA				AML	AML				
KNRA				AML	AML				
KNRA				AML	AML				
KNRA	**Kununurra**	**1.41**	**207**	P		**Pg**		**18 10 06.4**	**+1.1**
KNRA				S		**Sg**		**18 10 25.1**	**+1.4**
KNRA				AML	AML				
MTN	**Manton Dam**	**2.27**	**47**	P		**Pn**		**18 10 15.3**	**-0.6**
MTN				AML	AML				
MTN				AML	AML				
MTN				AML	AML				
MTN	**Manton Dam**	**2.27**	**47**	P		**Pn**		**18 10 15.3**	**-0.6**
MTN				S		**Sn**		**18 10 43.5**	**-0.5**
MTN				AML	AML				
DPH	**Darwin Parliam**	**2.38**	**35**	P		**Pn**		**18 10 17.6**	**+0.3**
DPH				AML	AML				
DPH				AML	AML				
DPH				AML	AML				
DPH	**Darwin Parliam**	**2.38**	**35**	P		**Pn**		**18 10 17.5**	**+0.3**
DPH				S		**Sn**		**18 10 46.2**	**-0.3**
DPH				AML	AML				
DRS	**Darwin Rock St**	**2.44**	**36**	P		**Pn**		**18 10 18.9**	**+0.8**
DRS				AML	AML				
DRS				AML	AML				
DRS				AML	AML				
DRS	**Darwin Rock St**	**2.44**	**36**	P		**Pn**		**18 10 19.0**	**+0.9**
DRS				S		**Sn**		**18 10 47.9**	**-0.1**
DRS				AML	AML				
AUKAT	**Katherine High**	**2.76**	**91**	P		**Pn**		**18 10 24.5**	**+2.0**
AUKAT				AML	AML				
AUKAT				AML	AML				
AUKAT				AML	AML				
AUKAT	**Katherine High**	**2.76**	**91**	P		**Pn**		**18 10 24.6**	**+2.0**
AUKAT				AML	AML				
KDU	**Kakadu**	**3.42**	**60**	P		**Pn**		**18 10 31.6**	**0.0**
KDU				AML	AML				
KDU				AML	AML				
KDU				AML	AML				
KDU	**Kakadu**	**3.42**	**60**	P		**Pn**		**18 10 31.4**	**-0.2**
KDU				S		**Sn**		**18 11 09.2**	**-3.1**
KDU				AML	AML				
FITZ	**Fitzroy Crossi**	**5.16**	**224**	P		**Pn**		**18 10 56.2**	**+0.5**
	comp=Z,2.3nm,0.4s,comp=Z,0.0nm								
FITZ				AML	AML				
FITZ	**Fitzroy Crossi**	**5.16**	**224**	P		**Pn**		**18 10 56.5**	**+0.9**
FITZ	**Fitzroy Crossi**	**5.16**	**224**	Pn		**Pn**		**18 10 56.5**	**+0.9**
	comp=Z,4.1nm,0.3s,baz=39,slow=12,SNR=185								
FITZ				Sn		**Sn**		**18 11 52.4**	**-2.9**
	comp=Z,7.1nm,0.3s,baz=190,slow=19,SNR=17								
FITZ				Lg		Lg		18 12 20.2	
	comp=Z,3.5nm,0.3s,baz=140,slow=17,SNR=5.8								
	comp=Z,8.3nm,0.3s								
FITZ				AML	AML				
WC1	**Warramunga Arr**	**7.21**	**140**	P		**Pn**		**18 11 25.3**	**+1.6**
WC1	**Warramunga Arr**	**7.21**	**140**	P		**Pn**		**18 11 25.1**	**+1.4**
WRA	**Warramunga Arr**	**7.22**	**140**	Pn		**Pn**		**18 11 23.2**	**-0.7**
	comp=Z,0.5nm,0.3s,baz=322,slow=16,SNR=22								
WRA				Sn		**Sn**		**18 12 42.3**	**-3.8**
	comp=Z,0.8nm,0.3s,baz=319,slow=23,SNR=3.7								
WRA				Lg		Lg		18 13 25.2	
	comp=Z,1.1nm,0.3s,baz=320,slow=24,SNR=5.1								
	comp=Z,0.4nm,0.4s								
WRA				AML	AML				
WB1	**Warramunga Ar.**	**7.24**	**140**	P		**Pn**		**18 11 25.8**	**+1.6**
WR8	**Warramunga Arr**	**7.33**	**139**	P		**Pn**		**18 11 27.0**	**+1.6**
WR8	**Warramunga Arr**	**7.33**	**139**	P		**Pn**		**18 11 26.7**	**+1.2**
CAAN	**Eighty Mile Be**	**8.98**	**236**	P		**Pn**		**18 11 47.3**	**-0.8**
	comp=Z,100nm,1.1s,comp=Z,0.2nm								
CAAN				AML	AML				
CAAN	**Eighty Mile Be**	**8.98**	**236**	P		**Pn**		**18 11 47.4**	**-0.8**
	comp=Z,99nm,1.1s,comp=Z,0.2nm								
CAAN				AML	AML				
AS15	**Alice Springs**	**10.10**	**156**	P		**Pn**		**18 12 05.3**	**+1.9**
	comp=Z,2.3nm,0.9s,comp=Z,0.0nm								
AS15				AML	AML				
AS15	**Alice Springs**	**10.10**	**156**	P		**Pn**		**18 12 05.3**	**+1.9**
	comp=Z,2.3nm,0.9s,comp=Z,0.0nm								
AS15				AML	AML				
AS31	**Alice Springs**	**10.12**	**156**	P		**Pn**		**18 12 07.4**	**+3.7**
	comp=Z,0.8nm,0.7s,comp=Z,0.0nm								
AS31				AML	AML				
AS31	**Alice Springs**	**10.12**	**156**	P		**Pn**		**18 12 06.0**	**+2.3**
	comp=Z,0.8nm,0.7s,comp=Z,0.0nm								
AS31				AML	AML				
ASAR	**Alice Springs**	**10.12**	**156**	Pn		**Pn**		**18 12 04.9**	**+1.2**
	comp=Z,0.1nm,0.3s,baz=337,slow=14,SNR=15								
ASAR				Sn		**Sn**		**18 13 53.0**	**-4.4**
	comp=Z,0.3nm,0.3s,baz=338,slow=25,SNR=6.3								
ASAR				Lg		Lg		18 14 59.7	
	comp=Z,0.5nm,0.3s,baz=328,slow=33,SNR=5.8								
	comp=Z,0.1nm,0.3s								
ASAR				AML	AML				
AS17	**Alice

LEPH				IAML		19 13 06.3
	comp=Z,67nm,0.2s					
MTLB	**Matlabas, Limp**	**2.82**	**236**	*e*P	**Pn**	**19 12 26.6 +2.5**
MTLB				*e*S	**Sn**	**19 12 59.8 +1.6**
MTLB				IAML		19 13 13.3
	comp=Z,256nm,0.1s					
TSWA	**Tswaing Meteor**	**3.45**	**204**	*e*P	**Pn**	**19 12 33.7 +1.0**
TSWA				*e*S	**Sn**	**19 13 15.3 +1.5**
TSWA				IAML		19 13 29.6
	comp=Z,54nm,0.3s					
SOOWA	**Sowa**	**3.59**	**297**	*i* P	**Pn**	**19 12 35.9 +1.3**
SOOWA				*i* S	**Sn**	**19 13 20.4 +3.2**
SOOWA				IAML		19 13 41.3
	comp=E,288nm,0.4s					
SOOWA	**Sowa**	**3.59**	**297**	*i* P	**Pn**	**19 12 36.7 +2.0**
SOOWA				*i* S	**Sn**	**19 13 11.9 -5.2**
SOOWA				IAML		19 13 37.9
	comp=N,358nm,0.4s					
LPHEP	**Lephephe**	**3.64**	**252**	*i* P	**Pn**	**19 12 37.5 +2.1**
LPHEP				IAML		19 13 34.4
	comp=N,118nm,0.4s					
LPHEP	**Lephephe**	**3.64**	**252**	*i* P	**Pn**	**19 12 37.8 +2.5**
LPHEP				*i* S	**Sn**	**19 13 16.8 -1.6**
LPHEP				IAML		19 13 34.4
	comp=N,116nm,0.4s					
HRAO	**HartRAO**	**4.03**	**206**	*e*P	**Pn**	**19 12 42.2 +1.5**
HRAO				*e*S	**Sn**	**19 13 28.5 +0.5**
LBTB	**Lobatse**	**4.60**	**233**	*e*P	**Pn**	**19 12 50.0 +1.5**
LBTB				*e*S	**Sn**	**19 13 42.6 +0.6**
LBTB				IAML		19 14 13.2
	comp=Z,35nm,0.3s					
SKOMA	**Sekoma**	**5.69**	**246**	*i* P	**Pn**	**19 13 06.2 +2.7**
SKOMA				*i* S	**Sn**	**19 14 06.4 -2.5**
SKOMA				IAML		19 14 41.0
	comp=N,45nm,0.6s					
SKOMA	**Sekoma**	**5.69**	**246**	*i* P	**Pn**	**19 13 06.1 +2.6**
SKOMA				*i* S	**Sn**	**19 14 05.8 -3.1**
SKOMA				IAML		19 14 41.0
	comp=N,45nm,0.5s					
KSANE	**Kasane**	**6.10**	**316**	*i* P	**Pn**	**19 13 11.7 +2.5**
KSANE	**Kasane**	**6.10**	**316**	*i* P	**Pn**	**19 13 10.4 +1.2**
KSANE				*i* S	**Sn**	**19 14 14.9 -4.2**
KSANE				IAML		19 14 57.6
	comp=N,70nm,0.3s					
PHPEN	**Phepeng**	**6.97**	**241**	*i* P	**Pn**	**19 13 22.6 +1.5**
PHPEN				*i* S	**Sn**	**19 14 36.5 -4.0**
PHPEN				IAML		19 15 22.8
	comp=N,196nm,0.4s					
PHPEN	**Phepeng**	**6.97**	**241**	*i* P	**Pn**	**19 13 25.7 +4.6**
PHPEN				*i* S	**Sn**	**19 14 36.9 -3.6**
PHPEN				IAML		19 15 22.8
	comp=N,198nm,0.4s					
BOSA	**Boshof**	**7.46**	**211**	*e*P	**Pn**	**19 13 29.0 +1.2**
BOSA				*e*S	**Sn**	**19 14 51.6 -0.9**
BOSA				IAML		19 15 45.8
	comp=Z,9.0nm,0.4s					
GRTLG	**Ghanzi**	**7.86**	**275**	*i* P	**Pn**	**19 13 33.2 -0.2**
ARMS	**Ukamas**	**10.64**	**235**	*e*P	**Pn**	**19 14 14.6 +3.2**
ARMS				*e*S	**Sn**	**19 16 07.3 -3.4**

*JMA **07** 19:20:06.0±0.1,25°N±1°×122°.8E±0°.6,h24km±1km, MV1.7/9,NW OFF ISHIGAKIJIMA IS*
*TAP **07** 19:20:06.0,24°.60N×122°.71E,h13km,ML2.5,C*
ISC 07 19:20:05.5±1.2,**24°.67N**±0°.05×**122°.77E**±0°.02,**h19**km±2km, **n37,**σ0°**46**/62,**1D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.27**	**143**	P	**Pg**	**19 20 12.1**	**+0.4**
JYNG				S	**Sg**	**19 20 16.3**	**+0.5**
YOJ	**Yonaguni jima**	**0.30**	**133**	⇓P	**Pb**	**19 20 12.5**	**+0.1**
YOJ				*i* S	**Sb**	**19 20 17.3**	**+0.3**
YOJ	**Yonaguni jima**	**0.30**	**133**	P	**Pb**	**19 20 12.5**	**+0.1**
YOJ				S	**Sb**	**19 20 17.2**	**+0.2**
EOS2	**EOS2**	**0.55**	**243**	*e*P	**Pb**	**19 20 16.9**	**+0.5**
EOS2				S	**Sb**	**19 20 24.9**	**+1.1**
EOS3	**EOS3**	**0.56**	**227**	*e*P	**Pb**	**19 20 16.9**	**+0.3**
EOS3				*e*S	**Sn**	**19 20 25.5**	**-1.5**
EGS		**0.78**	**283**	P	**Pb**	**19 20 20.8**	**+0.3**
TWB1	**Santiao Chiao**	**0.78**	**296**	*e*P	**Pb**	**19 20 20.5**	**0.0**
TWB1				*e*S	**Sb**	**19 20 31.6**	**+0.7**
TWC	**Suao**	**0.84**	**266**	*e*P	**Pb**	**19 20 21.3**	**-0.1**
TWC				*e*S	**Sb**	**19 20 32.1**	**-0.2**
ESAO	**Su ao**	**0.84**	**264**	*e*P	**Pb**	**19 20 21.6**	**0.0**
ESAO				*e*S	**Sb**	**19 20 32.6**	**+0.1**
TIPB	**Shuangxi**	**0.91**	**290**	*e*P	**Pb**	**19 20 21.8**	**-0.9**
SXI1	**Grass Mountain**	**0.91**	**298**	*e*P	**Pb**	**19 20 23.3**	**+0.5**
EWUT	**Wuta**	**0.93**	**256**	*e*P	**Pb**	**19 20 23.1**	**0.0**
EWUT				*i* S	**Sb**	**19 20 33.9**	**-1.0**
IRIF	**Iriomote-Funau**	**0.94**	**111**	P	**Pb**	**19 20 23.0**	**-0.3**
NDS	**Dongshan**	**0.96**	**268**	*e*P	**Pb**	**19 20 23.1**	**-0.4**
NDS				*i* S	**Sb**	**19 20 35.4**	**-0.4**
ENA	**Nanau**	**0.96**	**256**	*e*P	**Pb**	**19 20 23.4**	**-0.2**
ENA				S	**Sb**	**19 20 36.0**	**0.0**
EAHA	**Aohua**	**0.99**	**250**	*e*S	**Sb**	**19 20 36.9**	**0.0**
TWE	**Neicheng**	**1.00**	**273**	P	**Pb**	**19 20 24.1**	**-0.1**
TWE				S	**Sb**	**19 20 37.4**	**+0.3**
FUSB	**Fushanzhiwuyua**	**1.08**	**275**	*i* P	**Pn**	**19 20 26.3**	**+0.6**
FUSB				*e*S	**Sn**	**19 20 40.3**	**+0.2**
ENTT	**Nioudou**	**1.09**	**269**	*e*P	**Pb**	**19 20 25.9**	**0.0**
ENTT				*e*S	**Sb**	**19 20 40.1**	**+0.4**
LATG	**Datong**	**1.14**	**264**	*e*P	**Pb**	**19 20 27.2**	**+0.6**
LATG				S	**Sb**	**19 20 41.0**	**-0.1**
NDT	**Datong Townshi**	**1.14**	**267**	*e*P	**Pg**	**19 20 27.5**	**-0.2**
NDT				*e*S	**Sb**	**19 20 41.4**	**+0.2**
NWLT	**Wulai**	**1.15**	**276**	*e*P	**Pg**	**19 20 27.8**	**-0.1**
NWLT				*e*S	**Sb**	**19 20 41.7**	**+0.1**
NACB	**Ninganchiao**	**1.18**	**245**	*e*P	**Pn**	**19 20 26.7**	**-0.3**
NACB				S	**Sn**	**19 20 42.3**	**-0.2**
YM01	**YM01**	**1.19**	**294**	*e*P	**Pg**	**19 20 28.8**	**+0.3**
YM08	**YM08**	**1.19**	**296**	*e*P	**Pn**	**19 20 27.5**	**+0.3**
JKRS	**Kuro-shima**	**1.21**	**110**	P	**Pn**	**19 20 27.3**	**-0.2**
JKRS				*e*S	**Sb**	**19 20 43.3**	**+0.2**
ETLH	**Xiulin Townshi**	**1.26**	**249**	*e*P	**Pb**	**19 20 29.0**	**+0.2**
ETLH				*e*S	**Sn**	**19 20 45.1**	**+0.4**
YHNB	**Yeheng**	**1.27**	**270**	P	**Pb**	**19 20 29.6**	**+0.8**
YHNB				S	**Sg**	**19 20 46.0**	**-0.6**
NSK	**Sanguang**	**1.28**	**271**	*e*P	**Pg**	**19 20 30.4**	**+0.1**
NSK				*e*S	**Sb**	**19 20 44.8**	**-0.5**
NNSB	**Datong**	**1.28**	**260**	*e*P	**Pb**	**19 20 29.1**	**0.0**
NNSB				*i* S	**Sb**	**19 20 44.9**	**-0.4**
NNS	**Nan Shan**	**1.29**	**260**	*e*P	**Pb**	**19 20 29.8**	**+0.5**
NNS				*e*S	**Sb**	**19 20 45.3**	**-0.2**
JIJ	**Ishigaki jima**	**1.29**	**103**	*e*P	**Pn**	**19 20 27.9**	**-0.7**
JISG	**Ishigakijimahi**	**1.41**	**93**	*e*P	**Pn**	**19 20 29.8**	**-0.4**
FUSS	**Fushou**	**1.45**	**253**	*e*P	**Pb**	**19 20 32.4**	**+0.3**
WHF	**Hehuan Shan**	**1.46**	**249**	*e*P	**Pb**	**19 20 32.5**	**+0.1**
WHF				*e*S	**Sb**	**19 20 51.4**	**+0.5**
NFF	**Wufeng Townshi**	**1.50**	**269**	*e*P	**Pg**	**19 20 34.6**	**+0.1**
WUSB	**Renai**	**1.65**	**246**	*e*P	**Pb**	**19 20 34.7**	**-0.7**

*MDD **07** 19:46:42.8±1.7,36°.36N×11°.11W,h0km,Mb3.8/3, M_mb3.1/3,Error ellipse: s-maj=17.4km s-min=12.1km az=148.0*
*IGIL **07** 19:46:45.6,36°.37N×11°.20W,h20km,ML1.3*
*INMG **07** 19:46:46.1±1.5,36°.35N×11°.26W,h29km,ML1.7,Error ellipse: s-maj=9.7km s-min=6.1km az=100.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
*CNRM **07** 19:46:47.1,36°.11N×10°.65W,h10km*
ISC 07 19:46:41.0±3.2,**36°.24N**±0°.04×**11°.1W**±0°.1,**h14**km±23km, **n39,**σ1°**72**/65,**3C,Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**2.03**	**63**	Pn	**Pb**	**19 47 17.2**	**-0.5**
PFVI				Sn	**Sn**	**19 47 40.6**	**+0.6**
PFVI	**Vila Bisbo**	**2.03**	**63**	P	**Pn**	**19 47 16.3**	**+1.5**
PFVI				S	**Sn**	**19 47 40.2**	**+0.1**
PFVI	**Vila Bisbo**	**2.03**	**63**	*e*P	**Pb**	**19 47 17.3**	**-0.5**
PFVI				*e*S	**Sn**	**19 47 40.7**	**+0.6**
PFVI				IAML		19 47 42.3	
PFVI				IAML		19 47 42.5	
PFVI				IAML		19 47 42.6	
MORF	**Marmelete**	**2.23**	**61**	*e*P	**Pb**	**19 47 20.0**	**-1.2**
MORF				*e*S	**Sn**	**19 47 45.5**	**+0.4**
MORF				IAML		19 47 47.8	
	comp=E,6.1nm,0.1s						
MORF	**Marmelete**	**2.23**	**61**	*e*P	**Pb**	**19 47 20.1**	**-1.0**
MORF				*e*S	**Sn**	**19 47 46.4**	**+1.4**
MORF				IAML		19 47 47.5	
MORF				IAML		19 47 47.9	
PTEO	**Sao Teotonio**	**2.31**	**55**	*e*S	**Sn**	**19 47 47.6**	**+0.8**
PTEO				IAML		19 47 48.4	
PTEO				IAML		19 47 52.1	
PBDV	**Barranco-do-Ve**	**2.73**	**68**	Pn	**Pb**	**19 47 27.9**	**-1.8**
PBDV	**Barranco-do-Ve**	**2.73**	**68**	*e*P	**Pb**	**19 47 27.9**	**-1.8**
PBDV				*e*S	**Sn**	**19 47 58.0**	**+0.6**
PLOUS	**Minas do Lousa**	**2.79**	**49**	*e*P	**Pn**	**19 47 27.3**	**+2.0**
PLOUS				*e*S	**Sn**	**19 47 58.9**	**+0.2**
PLOUS				IAML		19 48 01.4	
PLOUS				IAML		19 48 01.5	
PLOUS				IAML		19 48 02.1	
MESJ	**Messejana**	**2.80**	**54**	*e*S	**Sn**	**19 47 58.6**	**-0.5**
MESJ				IAML		19 48 01.1	
	comp=N,0.4nm,0.1s						
MESJ	**Messejana**	**2.80**	**54**	*e*S	**Sn**	**19 47 59.8**	**+0.8**
PCVE	**Castro Verde**	**2.82**	**60**	Pn	**Pn**	**19 47 28.1**	**+2.4**
PCVE				Sn	**Sn**	**19 47 59.6**	**+0.1**
PCVE	**Castro Verde**	**2.82**	**60**	*e*S	**Sn**	**19 48 00.3**	**+0.8**
PCVE				IAML		19 48 01.2	
PCVE				IAML		19 48 02.3	
PVAQ	**Vaqueiros**	**2.95**	**66**	P	**Pb**	**19 47 31.1**	**-2.3**
PVAQ				S	**Sn**	**19 48 04.2**	**+1.4**
PVAQ	**Vaqueiros**	**2.95**	**66**	*e*P	**Pb**	**19 47 31.0**	**-2.4**
PVAQ				*e*S	**Sn**	**19 48 03.5**	**+0.7**
PVAQ				IAML		19 48 04.5	
PVAQ				IAML		19 48 06.4	
PVAQ				IAML		19 48 06.6	
PMAFR	**Mafra**	**3.07**	**28**	*e*S	**Sn**	**19 48 03.6**	**-2.0**
PBEJ	**Beja**	**3.14**	**54**	*e*S	**Sn**	**19 48 07.9**	**+0.5**
EGRO	**El Granado**	**3.17**	**65**	P	**Pn**	**19 47 31.8**	**+1.3**
EGRO				⇑IVmb_VC		19 47 37.6	
	comp=N,184nm,SNR=1.2						
EGRO				S	**Sn**	**19 48 09.0**	**+0.8**
EVO	**Evora**	**3.36**	**46**	Sn	**Sn**	**19 48 11.7**	**-1.0**
EVO	**Evora**	**3.36**	**46**	*e*S	**Sn**	**19 48 12.0**	**-0.7**
EVO				IAML		19 48 14.1	
EVO				IAML		19 48 14.7	
EVO				IAML		19 48 14.7	
PMTG	**Montargil**	**3.63**	**38**	*e*P	**Pn**	**19 47 38.1**	**+1.3**
PMTG				*e*S	**Sn**	**19 48 18.3**	**-1.1**
PMTG				IAML		19 48 20.2	
PMTG				IAML		19 48 20.3	
PMTG				IAML		19 48 20.9	
PSBE	**So Bento**	**3.74**	**28**	*e*P	**Pn**	**19 47 40.8**	**+2.5**
PSBE				*e*S	**Sn**	**19 48 20.4**	**-1.9**
PBAR	**Barrancos**	**3.77**	**58**	Pn	**Pn**	**19 47 41.2**	**+2.5**
PBAR				Sn	**Sn**	**19 48 21.8**	**-1.2**
PBAR	**Barrancos**	**3.77**	**58**	*e*P	**Pn**	**19 47 41.9**	**+3.1**
PBAR				*e*S	**Sn**	**19 48 24.0**	**+1.0**
PBAR				IAML		19 48 24.2	
PBAR				IAML		19 48 25.9	
PBAR				IAML		19 48 26.0	
PESTR	**Estremoz**	**3.83**	**46**	Sn	**Sn**	**19 48 22.8**	**-1.5**
PESTR	**Estremoz**	**3.83**	**46**	*e*S	**Sn**	**19 48 23.5**	**-0.8**
PSARD	**Sardoal**	**4.08**	**34**	*e*P	**Pn**	**19 47 45.6**	**+2.6**
PSARD				*e*S	**Sn**	**19 48 28.0**	**-2.5**
PSARD				IAML		19 48 29.2	
PSARD				IAML		19 48 30.1	
PSARD				IAML		19 48 30.5	
EBAD	**Badajoz**	**4.11**	**51**	Pn	**Pn**	**19 47 45.5**	**+2.1**
EBAD				Sn	**Sn**	**19 48 29.8**	**-1.4**
EBAD	**Badajoz**	**4.11**	**51**	P	**Pn**	**19 47 44.3**	**+0.9**
EBAD				⇑IVmb_VC		19 47 45.5	
	comp=N,148nm,SNR=1.6						
EBAD				S	**Sn**	**19 48 29.8**	**-1.4**
ESPR	**Espera**	**4.27**	**80**	Sn	**Sn**	**19 48 35.7**	**+0.5**
ESPR	**Espera**	**4.27**	**80**	S	**Sn**	**19 48 36.0**	**+0.8**
PMRV	**Marv??o**	**4.33**	**42**	*e*P	**Pn**	**19 47 47.7**	**+1.3**
PMRV				*e*S	**Sn**	**19 48 34.6**	**-2.1**
PMRV				IAML		19 48 35.8	
PMRV				IAML		19 48 36.2	
PMRV				IAML		19 48 37.5	
ZHG	**ZHG**	**4.61**	**126**	P	**Pn**	**19 47 52.4**	**+2.1**
ZHG				S	**Sn**	**19 48 42.4**	**-1.3**
ECAB	**El Cabril**	**4.89**	**66**	Pn	**Pn**	**19 47 56.8**	**+2.6**
ECAB				Sn	**Sn**	**19 48 49.4**	**-1.3**
ECAB	**El Cabril**	**4.89**	**66**	P	**Pn**	**19 47 55.8**	**+1.6**
ECAB				⇑IVmb_VC		19 48 00.7	
	comp=N,87nm,SNR=1.0						
ECAB				S	**Sn**	**19 48 49.4**	**-1.3**
OUK	**Oukaimeden**	**5.70**	**151**	P	**Pn**	**19 48 08.2**	**+2.6**
OUK				S	**Sn**	**19 49 10.3**	**-0.8**
AKLM	**AKL**	**6.16**	**104**	P	**Pn**	**19 48 12.5**	**+0.9**
AKLM				S	**Sn**	**19 49 17.1**	**-4.9**
MD31	**MD31**	**6.22**	**121**	P	**Pn**	**19 48 15.5**	**+3.0**
MD31				S	**Sn**	**19 49 21.0**	**-2.6**
MDT	**Midelt**	**6.36**	**121**	P	**Pn**	**19 48 15.5**	**+1.1**
MDT				S	**Sn**	**19 49 26.5**	**-0.4**

*RSPR **07** 20:02:56.6,18°.16N×68°.83W,h123km±4km,MD3.9/8*
*SDD **07** 20:02:56.8±2.5,18°.31N×68°.76W,h154km±12km,MD3.3, ML2.9,MW3.1,Presumed earthquake*
*NEIC **07** 20:02:57.2±1.3,18°.3N±0°.1×68°.74W±0°.05,h123km±14km, ML2.9/41,Md3.9/8(RSPR),Error ellipse: s-maj=19.0km s-min=4.2km az=195.0*
*OSPL **07** 20:02:57.0±1.3,17°.51N×68°.84W,h14km±7km,ML2.9, Presumed earthquake*
ISC 07 20:02:56.1±1.4,**18°.29N**±0°.07×**68°.76W**±0°.03,**h138**km±8km, **n60,**σ1°**01**/96,**24C-10D,Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SADR	**Isla Saona**	**0.10**	**192**	⇑*i*P	**Pn**	**20 03 14.8**	**0.0**
SADR				⇑*i*S	**Sn**	**20 03 29.4**	**+0.5**
SADR				IAML		20 03 34.1	
	comp=N,186nm,0.8s						
HIDR	**Higuey Centro**	**0.30**	**7**	⇑*i*S	**Sn**	**20 03 30.5**	**+0.7**
HIDR				IAML		20 03 31.1	
	comp=N,275nm,0.1s						
HIDR	**Higuey Centro**	**0.30**	**7**	⇓*e*P	**Pn**	**20 03 14.8**	**-0.5**
HIDR				*e*S	**Sn**	**20 03 29.1**	**-0.8**
PCDR	**Punta Cana, DR**	**0.42**	**58**	Pn	**Pn**	**20 03 15.6**	**-0.1**
PCDR				Sn	**Sn**	**20 03 30.0**	**-0.6**
PCDR				IAML		20 03 54.8	
	comp=N,194nm,1.6s						
PCDR	**Punta Cana, DR**	**0.42**	**58**	⇑*i*P	**Pn**	**20 03 15.9**	**+0.2**
PCDR				⇑*i*S	**Sn**	**20 03 33.0**	**+2.5**
PCDR				IAML		20 03 35.0	
	comp=N,101nm,1.4s						
PCDR	**Punta Cana, DR**	**0.42**	**58**	⇑*e*P	**Pn**	**20 03 15.6**	**-0.1**
PCDR				*e*S	**Sn**	**20 03 30.5**	**0.0**
PCDR	**Punta Cana, DR**	**0.42**	**58**	*i* P	**Pn**	**20 03 15.9**	**+0.2**
PCDR				*e*S	**Sn**	**20 03 30.5**	**0.0**
PCDR				IAML		20 03 34.4	
	comp=Z,69nm,1.4s						
SMDR	**Samana, DR**	**1.07**	**338**		**Pn**	**20 03 20.4**	**0.0**
SMDR					**Sn**	**20 03 37.5**	**-1.5**
SMDR	**Samana, DR**	**1.07**	**338**	⇑*i*P	**Pn**	**20 03 19.6**	**-0.8**
SMDR				⇑*i*S	**Sn**	**20 03 39.6**	**+0.6**
SMDR				IAML		20 03 44.8	
	comp=N,199nm,0.3s						
SMDR	**Samana, DR**	**1.07**	**338**	⇓*e*P	**Pn**	**20 03 20.4**	**0.0**
SMDR				*e*S	**Sn**	**20 03 37.5**	**-1.5**
IDE	**Isla Desecheo**	**1.22**	**85**		**Pn**	**20 03 20.1**	**-1.8**
IDE					**Sn**	**20 03 43.2**	**+1.7**
IDE	**Isla Desecheo**	**1.22**	**85**	⇓*e*P	**Pn**	**20 03 20.1**	**-1.8**
IDE				*e*S	**Sn**	**20 03 43.2**	**+1.7**
BANI	**BANI**	**1.52**	**274**	Pn	**Pn**	**20 03 25.1**	**-0.1**
BANI				Sn	**Sn**	**20 03 48.0**	**+0.7**
BANI	**BANI**	**1.52**	**274**	⇑*i*P	**Pn**	**20 03 25.2**	**+0.1**
BANI				⇑*i*S	**Sn**	**20 03 48.2**	**+0.9**
BANI				IAML		20 03 51.4	
	comp=N,321nm,0.3s						
PRSN	**Puerto Rico Se**	**1.53**	**92**	Pn	**Pn**	**20 03 25.5**	**+0.4**
PRSN				Sn	**Sn**	**20 03 48.3**	**+1.0**
PRSN	**Puerto Rico Se**	**1.53**	**92**	⇑*e*P	**Pn**	**20 03 26.2**	**+1.0**
AGPR	**Aguadilla, PR**	**1.57**	**83**		**Pn**	**20 03 25.9**	**+0.3**
AGPR				Sn	**Sn**	**20 03 48.9**	**+0.8**
AGPR				IAML		20 03 57.9	
	comp=N,114nm,1.2s						
AGPR				IAML		20 04 40.1	
	comp=N,139nm,1.7s						
AGPR	**Aguadilla, PR**	**1.57**	**83**	⇑*i*P	**Pn**	**20 03 27.0**	**+1.4**
AGPR				IAML		20 03 55.3	
	comp=N,82nm,0.5s						
AGPR	**Aguadilla, PR**	**1.57**	**83**	⇑*e*P	**Pn**	**20 03 25.4**	**-0.2**
AGPR	**Aguadilla, PR**	**1.57**	**83**	*i* P	**Pn**	**20 03 27.1**	**+1.5**
AGPR				*e*S	**Sn**	**20 03 49.5**	**+1.4**
CRPR	**Cabo Rojo, PR**	**1.59**	**100**		**Pn**	**20 03 25.6**	**-0.1**
CRPR				Sn	**Sn**	**20 03 47.3**	**-1.1**
CRPR	**Cabo Rojo, PR**	**1.59**	**100**	⇓*i*P	**Pn**	**20 03 25.7**	**-0.1**
CRPR				⇑*i*S	**Sn**	**20 03 49.9**	**+1.5**
CRPR				IAML		20 03 55.9	
	comp=N,37nm,0.6s						
CRPR	**Cabo Rojo, PR**	**1.59**	**100**	⇓*e*P	**Pn**	**20 03 25.8**	**0.0**
CRPR	**Cabo Rojo, PR**	**1.59**	**100**	*i* P	**Pn**	**20 03 25.6**	**-0.1**
CRPR				*e*S	**Sn**	**20 03 45.4**	**-3.0**
LSP	**Las Mesas**	**1.59**	**94**		**Sn**	**20 03 47.0**	**-1.5**
LSP	**Las Mesas**	**1.59**	**94**	*e*S	**Sn**	**20 03 47.0**	**-1.5**
MLPR	**Magueyes Islan**	**1.66**	**101**	Pn	**Pn**	**20 03 26.0**	**-0.5**
MLPR				Sn	**Sn**	**20 03 49.4**	**-0.4**
MLPR	**Magueyes Islan**	**1.66**	**101**	*i* P	**Pn**	**20 03 26.5**	**0.0**
MLPR				⇑*i*S	**Sn**	**20 03 49.9**	**+0.1**
MLPR				IAML		20 03 57.5	
	comp=N,15nm,0.4s						
MLPR	**Magueyes Islan**	**1.66**	**101**	⇑*e*P	**Pn**	**20 03 26.4**	**-0.2**
GBPR	**Guanica, Bosqu**	**1.81**	**100**		**Sn**	**20 03 53.6**	**+0.7**
GBPR	**Guanica, Bosqu**	**1.81**	**100**	*e*S	**Sn**	**20 03 53.6**	**+0.7**
ABDR	**Alto Bandera**	**1.85**	**287**	⇑*i*P	**Pn**	**20 03 29.4**	**+0.3**
ABDR				⇑*i*S	**Sn**	**20 03 54.1**	**-0.2**
AOPR	**Arecibo Observ**	**1.90**	**88**	Pn	**Pn**	**20 03 29.3**	**-0.1**
AOPR					**Sn**	**20 03 54.2**	**-0.7**
AOPR	**Arecibo Observ**	**1.90**	**88**	⇑*i*P	**Pn**	**20 03 29.1**	**-0.2**
AOPR				⇑*i*S	**Sn**	**20 03 53.9**	**-1.0**
AOPR				IAML		20 04 01.6	
	comp=N,229nm,0.3s						
AOPR	**Arecibo Observ**	**1.90**	**88**	⇓*e*P	**Pn**	**20 03 28.9**	**-0.5**
OBIP	**Obispado Ponce**	**2.06**	**97**		**Pn**	**20 03 31.4**	**+0.2**
OBIP					**Sn**	**20 03 58.0**	**-0.2**
OBIP				IAML		20 04 03.8	
	comp=N,42nm,0.6s						
OBIP	**Obispado Ponce**	**2.06**	**97**	⇓*e*P	**Pn**	**20 03 32.9**	**+1.7**
OBIP				*e*S	**Sn**	**20 03 58.6**	**+0.4**
OBIP	**Obispado Ponce**	**2.06**	**97**	*i* P	**Pn**	**20 03 31.1**	**-0.1**
OBIP				*e*S	**Sn**	**20 03 57.8**	**-0.4**
OBIP				IAML		20 04 03.8	
	comp=Z,124nm,0.6s						
CELP	**Cerrillos**	**2.08**	**96**		**Pn**	**20 03 31.8**	**+0.3**
CELP					**Sn**	**20 03 57.5**	**-1.2**
CELP				IAML		20 04 04.1	
	comp=Z,58nm,0.5s						
CELP				IAML		20 04 06.2	
	comp=Z,50nm,0.4s						
CELP	**Cerrillos**	**2.08**	**96**	⇑*i*P	**Pn**	**20 03 32.6**	**+1.1**
CELP				IAML		20 04 06.1	
	comp=N,18nm,0.3s						
CELP	**Cerrillos**	**2.08**	**96**	⇓*e*P	**Pn**	**20 03 31.6**	**+0.1**
EMPR	**Esperanza - Ma**	**2.12**	**85**		**Pn**	**20 03 31.7**	**-0.3**
EMPR					**Sn**	**20 03 58.9**	**-0.6**
EMPR	**Esperanza - Ma**	**2.12**	**85**	⇓*e*P	**Pn**	**20 03 31.7**	**-0.3**
EMPR				*e*S	**Sn**	**20 03 58.9**	**-0.6**
SC01	**Santiago de lo**	**2.18**	**302**		**Pn**	**20 03 32.9**	**+0.2**
SC01				IAML		20 04 09.4	
	comp=E,85nm,1.5s						
SC01				IAML		20 04 10.6	
	comp=N,73nm,0.8s						
ECPR	**Experimental S**	**2.27**	**89**		**Pn**	**20 03 34.2**	**+0.3**
ECPR					**Sn**	**20 04 02.0**	**-0.9**
ECPR	**Experimental S**	**2.27**	**89**	⇑*e*P	**Pn**	**20 03 33.6**	**-0.2**
PODR	**Polo**	**2.40**	**267**		**Pn**	**20 03 35.2**	**-0.4**
PODR				IAML		20 04 10.5	
	comp=N,67nm,0.3s						
PODR	**Polo**	**2.40**	**267**	⇑*i*P	**Pn**	**20 03 35.5**	**-0.2**
PODR				IAML		20 04 11.5	
	comp=N,89nm,0.2s						
PODR	**Polo**	**2.40**	**267**	*i* P	**Pn**	**20 03 35.0**	**-0.7**
PODR				*e*S	**Sn**	**20 04 02.6**	**-3.4**
PODR				IAML		20 04 06.7	
	comp=Z,781nm,0.1s						
SJG	**San Juan**	**2.48**	**94**		**Pn**	**20 03 36.9**	**+0.5**
SJG				IAML		20 04 11.2	
	comp=Z,51nm,0.4s						
SJG				IAML		20 04 11.9	
	comp=Z,39nm,0.4s						
SJG	**San Juan**	**2.48**	**94**	⇓*e*P	**Pn**	**20 03 37.7**	**+1.3**
SJG	**San Juan**	**2.48**	**94**	*i* P	**Pn**	**20 03 37.4**	**+1.0**
SJG				*e*S	**Sn**	**20 04 06.9**	**-0.6**
SDDR	**Presa de Saban**	**2.50**	**286**		**Pn**	**20 03 36.9**	**+0.3**
SDDR				IAML		20 04 13.4	
	comp=Z,27nm,0.7s						
SDDR	**Presa de Saban**	**2.50**	**286**	*i* P	**Pn**	**20 03 38.3**	**+1.6**
SDDR				*e*S	**Sn**	**20 04 10.2**	**+2.3**
SDD

GORD AML AML
APE Apeiranthos 1.41 237 P **Pn** **20 08 37.2 -1.1**
APE S **Sb** **20 08 57.7 +0.7**
APE AML AML
TURN Turunc 1.45 137 Pn **Pn** **20 08 39.3 +0.6**
TURN AML AML
PRK Paraskevi 1.52 338 P **Pn** **20 08 39.3 -0.4**
PRK S **Sg** **20 09 02.9 +1.1**

IDC 07 20:11:14.2±3.1, 16°87S×175°82W, h147km±67km, mb3.3/3, mbtmp3.8/4, Error ellipse: s-maj=328.9km s-min=24.3km az=143.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase Op	ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.88**	**54**	P	Pn	20 12 27.1	+1.0
	20nm,0.3s,baz=252,slow=6.4,SNR=12						
AFI				S	Sn	20 13 22.1	-0.1
	46nm,0.4s,baz=59,slow=22,SNR=9.2						
WRA	**Warramunga Arr**	**47.26**	**259**	P	P	20 19 32.9	-0.1
	0.3nm,0.4s,baz=93,slow=8.1,SNR=13						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**47.45**	**253**	P	P	20 19 34.2	-0.3
	1.2nm,0.7s,baz=88,slow=8.5,SNR=15						
	1.2nm,0.7s						
ILAR	**Eielson Array**	**84.34**	**12**	P	P	20 23 29.5	+0.1
	0.3nm,0.6s,baz=217,slow=5.6,SNR=5.8						
	0.3nm,0.6s						

*IDC **07** 20:37:21.7±0.5, 5°07S×152°99E, h0km, mb4.6/24, mbtmp4.6/27, ML3.0/2, MS4.0/43, Error ellipse: s-maj=14.7km s-min=10.5km az=93.0*
*BJI **07** 20:37:26.9, 4°78S×152°94E, h37km, mB5.2/6, mb4.6/36, Ms4.6/6, Ms7 4.4/6*
*NEIC **07** 20:37:27.8±1.4, 5°08S±0°07×153°00E±0°02, h41km±6km, mb4.9/78, Error ellipse: s-maj=10.0km s-min=1.3km az=199.0*
*DJA **07** 20:37:30.2±0.6, 5°S±5°×15°3E±°, h59km±9km, M5.0/12, mb4.7/12, mB4.8/3, MLv5.3/1, Mw(mB)4.0/3*
ISC 07 20:37:27.8±0.3, 5°08S±0°04×152°95E±0°05, h43km, n201, σ1§22/192, mb4.8/68, MS4.0/43, 4D, New Britain region

Code	Station Name	Δ°	AZ°	Phase Op	ID ISC	Time h m s	Res ISC
RABL	**Rabaul**	**1.19**	**318**		**Pn**	**20 37 48.7**	**+0.7**
RABL				Sn	**Sn**	**20 38 03.8**	**+0.9**
KRVT	**Keravat (AS076**	**1.21**	**310**	Pn	**Pn**	**20 37 49.0**	**+0.8**
	1µm,0.3s,baz=194,slow=0.3,SNR=210						
KRVT				Sn	**Sn**	**20 38 06.8**	**+3.5**
	3µm,0.3s,baz=282,slow=23,SNR=11						
PMG	**Port Moresby**	**7.18**	**233**	Pn	**Pn**	**20 39 11.3**	**+1.1**
	6.7nm,0.3s,baz=45,slow=9.2,SNR=43						
PMG				Sn	**Sn**	**20 40 30.0**	**-0.5**
	7.9nm,0.3s,baz=12,slow=16,SNR=9.5						
	81nm,0.7s						
PMG				AML	AML		
PMG	**Port Moresby**	**7.18**	**233**		**Pn**	**20 39 11.5**	**+1.3**
PMG	**Port Moresby**	**7.18**	**233**	P	**Pn**	**20 39 12.2**	**+2.0**
	0.8nm958nm126nm,0.9s						
PMG				AML	AML		
HNR	**Honiara**	**8.17**	**122**	Pn	**Pn**	**20 39 22.8**	**-1.1**
	13nm,0.4s,baz=305,slow=8.0,SNR=3.7						
HNR				Sn	**Sn**	**20 40 58.9**	**+3.9**
	5.5nm,0.3s,baz=30,slow=8.1,SNR=1.1						
HNR	**Honiara**	**8.17**	**122**	Pn	**Pn**	**20 39 23.8**	**-0.2**
PATS	**Pohnpei**	**12.99**	**24**	Pn	**Pn**	**20 40 29.4**	**-0.5**
CTA	**Charters Tower**	**16.28**	**203**	Pn	**Pn**	**20 41 13.7**	**+0.2**
	0.1nm,0.3s,baz=24,slow=3.8,SNR=3.7						
CTA				LR	LR	20 47 17.9	
	comp=Z,525nm,18.1s,baz=36,slow=37						
	3.5nm,0.7s						
CTA				AML	AML		
CTAO	**Charters Tower**	**16.28**	**203**	Pn	**Pn**	**20 41 14.0**	**+0.5**
SANVU	**Saraoutou**	**17.38**	**127**		**Pn**	**20 41 26.3**	**-1.0**
SANVU				IAmb	IAmb	20 41 30.6	
	comp=Z,44nm,0.7s						
KOUNC	**Koumac, New Ca**	**18.91**	**145**		**P**	**20 41 43.9**	**-1.1**
GUMO	**Guam**	**20.21**	**337**	LR	LR	20 50 33.5	
	comp=Z,275nm,18.3s,baz=150,slow=39						
EIDS	**Eidsvold**	**20.25**	**185**		**P**	**20 41 58.6**	**-1.0**
FAKI	**Fak Fak**	**20.77**	**275**	P	**P**	**20 42 03.6**	**-1.7**
FAKI				IAmb	IAmb	20 42 06.5	
	comp=Z,97nm,1.8s						
DZM	**Mont Dzumac**	**21.35**	**144**	P	**P**	**20 42 11.9**	**+0.3**
	comp=Z,20nm,0.5s,baz=322,slow=11,SNR=26						
	comp=Z,20nm,0.5s						
ONTNC	**Ouen Toro**	**21.54**	**144**	P	**P**	**20 42 13.3**	**-0.2**
ONTNC				IAmb	IAmb	20 42 27.6	
	comp=Z,35nm,0.8s						
OUENC	**Ouen Island, N**	**21.85**	**143**		**P**	**20 42 15.4**	**-1.4**
OUENC				IAmb	IAmb	20 42 26.0	
	comp=Z,121nm,1.8s						
MARNC	**Mare, Loyalty**	**21.89**	**139**	P	**P**	**20 42 16.4**	**-0.9**
SIJI	**Sorong**	**22.05**	**280**	P	**P**	**20 42 20.3**	**+1.1**
	comp=Z,12nm,0.6s,baz=102,slow=9.2,SNR=9.6						
	comp=Z,12nm,0.6s						
SIJI	**Sorong**	**22.05**	**280**	P	**P**	**20 42 21.7**	**+2.5**
	comp=Z,24nm,1.1s						
PINNC	**Pines Island,**	**22.36**	**143**		**P**	**20 42 20.4**	**-1.9**
MTN	**Manton Dam**	**22.88**	**249**		**P**	**20 42 25.9**	**-1.9**
WB0	**Warramunga Arr**	**23.23**	**229**	P	**P**	**20 42 30.3**	**-1.2**
WB0				IAmb	IAmb	20 42 33.4	
	comp=Z,82nm,1.2s						
WRA	**Warramunga Arr**	**23.38**	**229**	P	**P**	**20 42 31.4**	**-1.5**
	comp=Z,34nm,0.9s,baz=55,slow=9.9,SNR=21						
WRA				PcP	**PcP**	**20 46 20.2**	**+1.4**
	comp=Z,0.6nm,0.5s,baz=51,slow=2.6,SNR=1.9						
WRA				S	**S**	**20 46 45.7**	**+2.8**
	comp=Z,1.9nm,0.9s,baz=49,slow=14,SNR=4.7						
WRA				ScP	**ScP**	**20 49 59.9**	**+6.3**
	comp=Z,0.6nm,0.8s,baz=55,slow=2.8,SNR=5.7						
	comp=Z,34nm,0.9s						
WRA	**Warramunga Arr**	**23.38**	**229**		**P**	**20 42 29.0**	**-3.8**
INKA	**Innaminka**	**25.35**	**206**		**P**	**20 42 49.4**	**-1.5**
KNRA	**Kununurra**	**25.99**	**244**		**P**	**20 42 56.1**	**-0.7**
AS31	**Alice Springs**	**26.05**	**223**		**P**	**20 42 56.4**	**-0.9**
ASAR	**Alice Springs**	**26.05**	**223**	P	**P**	**20 42 56.8**	**-0.6**
	comp=Z,12nm,0.7s,baz=57,slow=9.5,SNR=39						
ASAR				PcP	**PcP**	**20 46 26.7**	**+2.1**
	comp=Z,0.8nm,0.8s,baz=45,slow=4.1,SNR=1.6						
ASAR				ScP	**ScP**	**20 50 07.6**	**+6.6**
	comp=Z,0.7nm,0.8s,baz=61,slow=3.2,SNR=4.3						
ASAR				LR	LR	20 54 35.2	
	comp=Z,282nm,19.6s,baz=37,slow=40						
	comp=Z,12nm,0.7s						
ASAR	**Alice Springs**	**26.05**	**223**		**P**	**20 42 55.8**	**-1.6**
H11S3	**WAKE ISLAND Hy**	**27.06**	**30**	T	T	21 11 01.6	
	baz=208,slow=74,SNR=5.6						
H11S2	**WAKE ISLAND Hy**	**27.07**	**30**	T	T	21 11 01.0	
	baz=208,slow=74,SNR=11						
H11S1	**WAKE ISLAND Hy**	**27.08**	**30**	T	T	21 11 01.6	
	baz=208,slow=74,SNR=3.6						
MSVF	**Nonsavu**	**27.57**	**119**	LR	LR	20 53 40.8	
	comp=Z,404nm,18.2s,baz=331,slow=36						
STKA	**Stephens Creek**	**28.70**	**200**	P	**P**	**20 43 19.9**	**-1.1**
	comp=Z,5.7nm,0.8s,baz=36,slow=13,SNR=7.5						
STKA				LR	LR	20 55 28.9	
	comp=Z,398nm,18.1s,baz=19,slow=38						
	comp=Z,5.7nm,0.8s						
STKA	**Stephens Creek**	**28.70**	**200**		**P**	**20 43 19.6**	**-1.4**
SOEI	**Soe**	**28.81**	**259**	P	**P**	**20 43 24.2**	**+1.9**
BATI	**Baumata**	**29.46**	**258**	LR	LR	20 56 28.5	
	comp=Z,455nm,21.6s,baz=86,slow=39						
FITZ	**Fitzroy Crossi**	**29.66**	**242**	LR	LR	20 56 43.3	
	comp=Z,177nm,18.8s,baz=50,slow=39						
FITZ	**Fitzroy Crossi**	**29.66**	**242**		**P**	**20 43 28.8**	**-0.8**
DAV	**Davao City (W)**	**29.87**	**294**	LR	LR	20 54 49.8	
	comp=Z,132nm,19.2s,baz=85,slow=35						
KAPI	**Kappang**	**33.07**	**269**	LR	LR	20 59 30.8	
	comp=Z,95nm,21.0s,baz=96,slow=40						
FORT	**Forrest**	**34.67**	**220**	P	**P**	**20 44 12.2**	**-1.2**
FORT				IAmb	IAmb	20 44 44.1	
	comp=Z,11nm,0.8s						
AFI	**Afiamalu**	**35.83**	**107**	LR	LR	20 58 26.6	
	comp=Z,131nm,19.0s,baz=6.5,slow=35						
MBWA	**Marble Bar**	**35.97**	**241**	P	**P**	**20 44 24.1**	**-0.6**
MBWA				IAmb	IAmb	20 44 56.7	
	comp=Z,40nm,1.5s						
MBWA	**Marble Bar**	**35.97**	**241**	P	**P**	**20 44 24.0**	**-0.7**
MBWA				pP	**pP**	**20 44 34.4**	**-1.3**
TAU	**Tasmania Unive**	**38.00**	**187**	P	**P**	**20 44 41.7**	**+0.1**
KKM	**Kota Kinabalu**	**38.31**	**286**	P	**P**	**20 44 45.1**	**+0.3**
KKM				IAmb	IAmb	20 45 52.2	
	comp=Z,19nm,1.1s						
URZ	**Urewera**	**39.66**	**150**	LR	LR	20 58 59.2	
	comp=Z,190nm,20.8s,baz=349,slow=33						
QRZ	**Quartz Range**	**39.69**	**157**	P	**P**	**20 44 55.5**	**-0.3**
JOW	**Kunigami**	**39.71**	**324**	P	**P**	**20 44 56.4**	**+0.1**
	comp=Z,9.1nm,0.8s,baz=140,slow=8.6,SNR=7.0						
JOW				LR	LR	20 58 08.1	
	comp=Z,187nm,21.5s,baz=136,slow=31						
	comp=Z,9.1nm,0.8s						
JOW	**Kunigami**	**39.71**	**324**		**P**	**20 44 56.1**	**-0.1**
RTZ	**Ruatahuna**	**39.88**	**150**	P	**P**	**20 44 57.5**	**-0.1**
TUWZ	**Tuamarina**	**40.77**	**156**		**P**	**20 45 04.9**	**+0.1**
BFZ	**Birch Farm**	**41.15**	**153**	P	**P**	**20 45 07.8**	**-0.2**
RPZ	**Rata Peaks**	**41.66**	**160**	LR	LR	21 02 02.3	
	comp=Z,153nm,18.6s,baz=324,slow=36						
TPUB	**Ta-pu**	**42.33**	**313**	P	**P**	**20 45 17.1**	**-0.8**
SSLB	**Suanglung**	**42.39**	**314**	P	**P**	**20 45 17.7**	**-0.7**
YHNB	**Yeheng**	**42.65**	**315**	P	**P**	**20 45 19.4**	**-1.0**
JYT	**Yasato**	**42.80**	**345**	P	**P**	**20 45 19.3**	**-2.1**
JGF	**Kuroka**	**43.04**	**341**	P	**P**	**20 45 22.4**	**-1.0**
NWAO	**Narrogin (SRO)**	**43.30**	**226**	LR	LR	21 03 29.4	
	comp=Z,321nm,19.8s,baz=96,slow=36						
JNU	**Nakatsue**	**43.38**	**333**	LR	LR	21 01 06.4	
	comp=Z,101nm,19.0s,baz=148,slow=33						
MJAR	**Matsushiro Arr**	**43.65**	**343**	P	**P**	**20 45 27.6**	**-0.7**
	comp=Z,2.4nm,1.1s,baz=162,slow=8.1,SNR=5.8						
MJAR				PcP	**PcP**	**20 47 16.1**	**+1.0**
	comp=Z,3.7nm,1.0s,baz=156,slow=4.4,SNR=5.2						
MJAR				LR	LR	21 01 56.5	
	comp=Z,188nm,22.0s,baz=176,slow=34						
	comp=Z,2.4nm,1.1s						
MJAR	**Matsushiro Arr**	**43.65**	**343**	P	**P**	**20 45 26.9**	**-1.4**
MAJO	**Matsushiro**	**43.65**	**343**	P	**P**	**20 45 27.1**	**-1.2**
MAJO				IAmb	IAmb	20 46 33.2	
	comp=Z,88nm,2.0s						
BBJI	**Bungbulang**	**45.08**	**265**	P	**P**	**20 45 38.9**	**-1.4**
BBJI				IAmb	IAmb	20 47 14.0	
	comp=Z,21nm,1.1s						
JTM	**Tenmabayashi**	**46.93**	**348**	P	**P**	**20 45 53.7**	**-0.5**
KSRS	**Korea Array**	**48.32**	**333**	P	**P**	**20 46 05.7**	**+0.6**
	comp=Z,3.9nm,0.8s,baz=146,slow=8.5,SNR=9.2						
KSRS				LR	LR	21 05 39.9	
	comp=Z,76nm,19.2s,baz=145,slow=35						
	comp=Z,3.9nm,0.8s						
RAR	**Rarotonga**	**48.52**	**114**	LR	LR	21 03 43.0	
	comp=Z,86nm,21.7s,baz=287,slow=33						
NJ2	**Nanjing**	**49.16**	**321**	*e*P	**P**	**20 46 13.2**	**+1.6**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
JKA	**Kamikawa-asahi**	**49.85**	**350**	P	**P**	**20 46 15.5**	**-1.2**
ASAJ	**Asahikawa**	**49.86**	**350**	LR	LR	21 04 42.7	
	comp=Z,150nm,21.4s,baz=232,slow=33						
USRK	**Ussuriysk Ar.**	**52.56**	**341**	P	**P**	**20 46 37.0**	**-0.1**
	comp=Z,7.7nm,0.9s,baz=174,slow=8.4,SNR=7.1						
USRK				LR	LR	21 09 27.6	
	comp=Z,45nm,18.1s,baz=167,slow=37						
	comp=Z,7.7nm,0.9s						
USRK	**Ussuriysk Ar.**	**52.56**	**341**	P	**P**	**20 46 36.8**	**-0.2**
MDJ	**Mudanjiang**	**53.74**	**339**	P	**P**	**20 46 46.4**	**+0.7**
MDJ				pP	**pP**	**20 46 57.5**	**-0.3**
MDJ				sP	**sP**	**20 47 02.2**	**-0.5**
ENH	**Enshi**	**54.46**	**313**	P	**P**	**20 46 50.8**	**-0.4**
ENH				IAmb	IAmb	20 47 07.5	
	comp=Z,10nm,0.9s						
ENH	**Enshi**	**54.46**	**313**	P	**P**	**20 46 51.0**	**-0.3**
ENH				sP	**sP**	**20 47 06.6**	**-1.2**
CN2	**Changchun**	**54.62**	**336**	*e*P	**P**	**20 46 53.3**	**+1.2**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BNX	**BinXian**	**55.49**	**338**	⇓P	**P**	**20 46 57.8**	**-0.5**
BNX				pmax	pmax		
	comp=Z,11nm,0.8s						
KLR	**Kul'dur**	**57.16**	**344**	P	**P**	**20 47 10.4**	**+0.2**
	comp=Z,6.5nm,0.9s,baz=161,slow=3.7,SNR=14						
KLR				LR	LR	21 11 24.7	
	comp=Z,26nm,19.3s,baz=178,slow=36						
	comp=Z,6.5nm,0.9s						
PPT	**Papeete**	**57.49**	**108**	LR	LR	21 07 56.4	
	comp=Z,59nm,19.9s,baz=286,slow=32						
PPT2	**Papeete2**	**57.49**	**108**	*e*LQ	LQ	21 01 41.3	
	comp=Z,233nm,25.5s						
PPT2				*e*LR	LR	21 04 07.8	
	comp=Z,62nm,21.8s						
PEA0B	**Petropavlovsk-**	**58.11**	**3**	P	**P**	**20 47 17.0**	**+0.2**
PETK	**Petropavlovsk-**	**58.11**	**3**	P	**P**	**20 47 17.1**	**+0.3**
	comp=Z,4.2nm,0.6s,baz=213,slow=7.2,SNR=19						
PETK				LR	LR	21 08 29.1	
	comp=Z,126nm,21.9s,baz=185,slow=32						
	comp=Z,4.2nm,0.6s						
PETK	**Petropavlovsk-**	**58.11**	**3**	P	**P**	**20 47 17.2**	**+0.4**
CM31	**Chiang Mai Arr**	**58.14**	**295**	P	**P**	**20 47 16.6**	**-1.0**
CM31				IAmb	IAmb	20 47 35.1	
	comp=Z,14nm,0.8s						
CMAR	**Chiang Mai Arr**	**58.14**	**295**	P	**P**	**20 47 17.4**	**-0.2**
	comp=Z,1.6nm,0.3s,baz=110,slow=5.3,SNR=12						
CMAR				LR	LR	21 12 40.4	
	comp=Z,33nm,18.7s,baz=125,slow=36						
	comp=Z,1.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**58.14**	**295**		**P**	**20 47 16.5**	**-1.1**
CHTO	**Chiang Mai**	**58.25**	**296**		**P**	**20 47 17.4**	**-1.0**
CHTO				IAmb	IAmb	20 47 38.3	
	comp=Z,6.5nm,0.9s						
CHTO	**Chiang Mai**	**58.25**	**296**	P	**P**	**20 47 19.2**	**+0.8**
CHTO				pP	**pP**	**20 47 30.1**	**-0.2**
CHTO				sP	**sP**	**20 47 34.5**	**-0.6**
CHTO				PcP	**PcP**	**20 48 09.5**	**+0.1**
TBI	**Tubuai**	**58.30**	**114**	*e*LR	LR	21 04 21.7	
	comp=Z,2µm,33.8s						
CD2	**Chengdu**	**59.04**	**311**	*e*P	**P**	**20 47 23.2**	**-0.6**
HHC	**Hu-ho-hao-te**	**59.37**	**324**	*e*P	**P**	**20 47 27.1**	**+1.2**
HHC				pmax	pmax		
	comp=Z,100nm,4.0s						
HEH	**HeiHe**	**59.37**	**341**	*e*P	**P**	**20 47 25.6**	**0.0**
HEH				pmax	pmax		
	comp=Z,8.0nm,1.0s						
BTO2	**Baotou**	**60.29**	**323**	*e*P	**P**	**20 47 34.6**	**+2.3**
BTO2				pmax	pmax		
	comp=Z,12nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,310nm,6.9s						
BTO2				L	L		
	comp=Z,250nm,5.6s						
BTO2				L	L		
	comp=Z,310nm,7.0s						
BTO2				L	L		
	comp=Z,260nm,7.8s						
SHEM	**Shemya Is, Ala**	**60.32**	**15**	LR	LR	21 09 40.5	
	comp=Z,323nm,21.0s,baz=198,slow=32						
LZH	**Lanzhou**	**61.54**	**316**	*e*P	**P**	**20 47 42.2**	**+1.3**
LZH				pP	pP	20 47 54.0	+0.9
LZH				pmax	pmax		
	comp=Z,14nm,1.4s						
LZDM	**Lanzhou Array**	**61.58**	**316**	P	**P**	**20 47 41.5**	**+0.2**
	comp=Z,1.4nm,0.4s,baz=117,slow=7.0,SNR=3.7						
	comp=Z,1.4nm,0.4s						
DRV	**Dumont d'Urvil**	**62.13**	**186**	P	**P**	**20 47 44.2**	**+0.1**
DRV				pP	**pP**	**20 47 55.5**	**-0.2**
MORE	**Moreh**	**64.08**	**300**		**P**	**20 47 56.7**	**-1.2**
MORE				IAmb	IAmb	20 47 58.5	
	comp=Z,5.1nm,0.4s						
MA2	**Magadan**	**64.48**	**359**	LR	LR	21 16 18.2	
	comp=Z,107nm,19.1s,baz=172,slow=36						
GTA2	**Gaotai**	**66.04**	**317**	*e*P	**P**	**20 48 11.6**	**+1.1**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
GTA2				L	L		
	comp=Z,140nm,14.9s						
GTA2				L	L		
	comp=Z,140nm,15.2s						
GTA2				L	L		
	comp=Z,160nm,16.2s						
TAOE	**Nuku Hiva Isla**	**66.44**	**97**	*e*LR	LR	21 08 17.2	
	comp=Z,269nm,26.3s						
SHL	**Shillong**	**66.58**	**301**	P	**P**	**20 48 14.0**	**-0.3**
SONM	**Songino Array**	**66.64**	**328**	P	**P**	**20 48 14.7**	**+0.5**
	comp=Z,1.0nm,0.4s,baz=145,slow=7.0,SNR=11						
SONM				LR	LR	21 15 30.8	
	comp=Z,104nm,21.7s,baz=131,slow=34						
	comp=Z,1.0nm,0.4s						
SONM	**Songino Array**	**66.64**	**328**	P	**P**	**20 48 14.5**	**+0.3**
SONM				IAmb	IAmb	20 48 44.8	
	comp=Z,11nm,1.6s						
CASY	**Casey**	**67.79**	**197**	P	**P**	**20 48 21.1**	**+0.2**
GOMU	**GeErMu**	**68.07**	**312**	P	**P**	**20 48 23.8**	**+0.1**
GOMU				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YAK	**Yakutsk**	**69.28**	**349**	LR	LR	21 17 21.1	
	comp=Z,40nm,21.7s,baz=114,slow=35						
YAK	**Yakutsk**	**69.28**	**349**	P	**P**	**20 48 30.7**	**+0.5**
YAK				IAmb	IAmb	20 48 50.1	
	comp=Z,12nm,0.9s						
YAK	**Yakutsk**	**69.28**	**349**	P	**P**	**20 48 30.9**	**+0.7**
YAK				pP	**pP**	**20 48 42.3**	**-0.1**
TLY	**Talaya**	**70.40**	**330**	LR	LR	21 20 30.5	
	comp=Z,50nm,18.0s,baz=156,slow=37						
CCD	**Concordia, Ant**	**72.01**	**188**	P	**P**	**20 48 47.9**	**+0.7**
VNDA	**Vanda**	**72.54**	**178**	P	**P**	**20 48 50.2**	**+0.3**
	comp=Z,4.1nm,0.8s,baz=351,slow=6.2,SNR=26						
	comp=Z,4.1nm,0.8s						
VNDA	**Vanda**	**72.54**	**178**		**P**	**20 48 50.1**	**+0.3**
VNDA	**Vanda**	**72.54**	**178**	P	**P**	**20 48 50.7**	**+0.8**
VNDA				sP	**sP**	**20 49 06.8**	**+0.1**
SBA	**Scott Base**	**73.09**	**177**		**P**	**20 48 53.6**	**+0.5**
SBA				IAmb	IAmb	20 48 56.3	
	comp=Z,10nm,1.1s						
SBA	**Scott Base**	**73.09**	**177**	P	**P**	**20 48 54.9**	**+1.8**
PALK	**Pallekele**	**73.13**	**279**	LR	LR	21 24 53.3	
	comp=Z,78nm,18.1s,baz=164,slow=39						
O14K	**Tigyukauivet M**	**73.66**	**23**	P	**P**	**20 48 56.8**	**+0.1**
J14K	**Nanvaranak Lak**	**75.25**	**19**	P	**P**	**20 49 06.0**	**+0.1**
WMQ	**Urumqi**	**76.05**	**317**	*e*P	**P**	**20 49 10.0**	**-1.0**
WMQ				sP	sP	20 49 30.4	+2.2
WMQ				pmax	pmax		
	comp=Z,14nm,0.7s						
L18K	**Granite Mounta**	**77.29**	**22**		**P**	**20 49 17.0**	**-0.5**
L18K				IAmb	IAmb	20 49 19.8	
	comp=Z,18nm,1.2s						
L19K	**White Mountain**	**77.95**	**22**	P	**P**	**20 49 21.5**	**+0.2**
L19K				IAmb	IAmb	20 49 23.1	
	comp=Z,8.5nm,0.9s						
J18K	**Innoko River**	**78.06**	**21**	P	**P**	**20 49 21.6**	**-0.2**
J18K				IAmb	IAmb	20 50 10.8	
	comp=Z,41nm,1.9s						
TIXI	**Tiksi**	**78.20**	**352**		**P**	**20 49 22.3**	**0.0**
SUA	**Susitna One**	**79.15**	**24**	P	**P**	**20 49 27.5**	**-0.4**
SUA				IAmb	IAmb	20 50 28.6	
	comp=Z,34nm,1.4s						
J20K	**Nowinta River**	**79.39**	**21**	P	**P**	**20 49 29.7**	**+0.6**
J20K				IAmb	IAmb	20 50 41.0	
	comp=Z,50nm,2.0s						
CAST	**Castle Rocks**	**79.71**	**22**		**P**	**20 49 30.4**	**-0.4**
IMAR	**Indian Mountai**	**80.60**	**19**	P	**P**	**20 49 35.3**	**-0.2**
MKAR	**Makanchi Array**	**80.64**	**319**	P	**P**	**20 49 36.5**	**+0.3**
	comp=Z,1.3nm,0.5s,baz=94,slow=8.1,SNR=23						
MKAR				LR	LR	21 23 55.2	
	comp=Z,80nm,21.8s,baz=70,slow=35						
	comp=Z,1.3nm,0.5s						
MKAR	**Makanchi Array**	**80.64**	**319**		**P**	**20 49 36.1**	**-0.2**
MAKZ	**Makanchi**	**80.85**	**319**	P	**P**	**20 49 37.3**	**0.0**
MAKZ				IAmb	IAmb	20 49 54.7	
	comp=Z,8.8nm,1.2s						
MCK	**McKinley**	**81.06**	**22**		**P**	**20 49 37.2**	**-0.9**
MCK				IAmb	IAmb	20 49 50.2	
	comp=Z,11nm,1.1s						
ZAA0	**Zalesovo Array**	**81.47**	**326**	P	**P**	**20 49 39.8**	**-0.7**
ZAA0				IAmb	IAmb	20 49 41.1	
	comp=Z,8.6nm,0.8s						
ZALV	**Zalesovo Beam**	**81.47**	**326**	P	**P**	**20 49 40.2**	**-0.2**
	comp=Z,8.9nm,0.7s,baz=113,slow=5.5,SNR=36						
ZALV				LR	LR	21 26 18.0	
	comp=Z,64nm,20.7s,baz=93,slow=36						
	comp=Z,8.9nm,0.7s						
ZALV	**Zalesovo Beam**	**81.47**	**326**		**P**	**20 49 39.8**	**-0.7**
PDGK	**Podgornoye**	**81.56**	**315**		**P**	**20 49 41.1**	**-0.2**
ILAR	**Eielson Array**	**82.36**	**22**	P	**P**	**20 49 44.0**	**-0.9**
	comp=Z,1.9nm,0.8s,baz=256,slow=5.3,SNR=22						
ILAR				LR	LR	21 25 10.8	
	comp=Z,115nm,18.2s,baz=249,slow=35						
	comp=Z,1.9nm,0.8s						
ILAR	**Eielson Array**	**82.36**	**22**	P	**P**	**20 49 43.7**	**-1.2**
J25K	**Salcha River,**	**82.86**	**22**		**P**	**20 49 46.7**	**-0.9**
J25K				IAmb	IAmb	20 50 13.7	
	comp=Z,13nm,1.2s						
KDJ	**Kajisay**	**82.92**	**313**	P	**P**	**20 49 48.6**	**0.0**
KSH2	**Kashi**	**83.47**	**310**	P	**P**	**20 49 52.8**	**+1.4**
KSH2				pP	pP	20 50 02.1	-1.8
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.0s						
L27K	**Beaver Creek,**	**83.58**	**25**	P	**P**	**20 49 51.0**	**-0.3**
L27K				IAmb	IAmb	20 49 53.0	
	comp=Z,7.8nm,1.2s						
BCAR	**Beaver Creek A**	**83.60**	**25**	P	**P**	**20 49 51.6**	**+0.2**
KURK	**Kurchatov**	**84.08**	**322**		**P**	**20 49 53.7**	**-0.3**
KURK				IAmb	IAmb	20 49 55.4	
	comp=Z,7.9nm,1.0s						
KURK	**Kurchatov**	**84.08**	**322**	P	**P**	**20 49 54.0**	**-0.1**
KURK				sP	**sP**	**20 50 09.5**	**-1.8**
KURBB	**Kurchatov Arra**	**84.12**	**322**	P	**P**	**20 49 54.5**	**+0.3**
	comp=Z,3.4nm,0.9s,baz=108,slow=4.2,SNR=24						
	comp=Z,3.4nm,0.9s						
NIL	**Nilore**	**84.26**	**304**		**P**	**20 49 55.1**	**-0.3**
BMAR	**Burnt Mountain**	**84.46**	**20**	P	**P**	**20 49 55.4**	**-0.3**
QSPA	**South Pole Qui**	**84.88**	**180**	P	**P**	**20 49 58.2**	**+0.3**

ABKAR	**Akbulak array**	**95.78**	**319**	P	**P**	**20 50 47.6**	**-1.9**
ELIB	**Princess Elisa**	**96.57**	**194**	*d*P	**P**	**20 50 53.1**	**+0.3**
	comp=Z,1.9nm,1.2s						
ARTI	**Arti**	**96.73**	**326**	P	**P**	**20 50 52.1**	**-1.5**
LPIG	**La Paz**	**98.19**	**66**	LR	LR	21 30 11.8	
	comp=Z,75nm,19.1s,baz=256,slow=32						
PDAR	**Pinedale Array**	**98.92**	**48**	LR	LR	21 32 51.2	
	comp=Z,170nm,18.2s,baz=246,slow=34						
CLL	**Collm**	**123.17**	**331**	*e*(PKPdf)	**PKiKP**	**20 56 23.0**	**+2.9**
	comp=Z,4.0nm,1.0s						
GERES	**GERESS Array B**	**124.38**	**329**	PKP	**PKiKP**	**20 56 22.9**	**+0.2**
	comp=Z,0.9nm,0.6s,baz=70,slow=1.6,SNR=10						
GERES	**GERESS Array B**	**124.38**	**329**		**PKPdf**	**20 56 22.4**	**0.0**
LESA	**Schwarzleotal**	**125.79**	**328**	*e*PKiKP	**PKPdf**	**20 56 24.9**	**-0.2**
	comp=Z,1.4nm,0.6s						
ABTA	**Abfaltersbach**	**126.30**	**327**	*e*PKiKP	**PKPdf**	**20 56 26.0**	**-0.1**
	comp=Z,1.4nm,0.7s						
EKA	**Eskdalemuir Ar**	**126.35**	**343**	PKP	**PKiKP**	**20 56 26.5**	**+0.2**
	comp=Z,0.5nm,0.6s,baz=29,slow=1.8,SNR=1.7						
WATA	**Walderalm**	**126.43**	**328**	*e*PKiKP	**PKiKP**	**20 56 27.7**	**+0.8**
	comp=Z,1.6nm,0.7s						
WTTA	**Wattenberg**	**126.44**	**328**	*e*PKiKP	**PKiKP**	**20 56 27.6**	**+0.6**
	comp=Z,3.8nm,0.8s						
MOTA	**Moosalm**	**126.67**	**328**	*e*PKiKP	**PKiKP**	**20 56 28.4**	**+0.9**
	comp=Z,2.9nm,0.7s						
SQTA	**Sankt Quirin**	**126.70**	**328**	*e*PKiKP	**PKiKP**	**20 56 28.0**	**+0.6**
	comp=Z,1.9nm,0.6s						
MEM	**Membach**	**126.86**	**334**	*d*PKP	**PKPdf**	**20 56 25.3**	**-1.7**
FETA	**Feichten**	**127.08**	**328**	*e*PKiKP	**PKiKP**	**20 56 29.0**	**+0.8**
	comp=Z,3.3nm,1.0s						
BMRD	**Maredsous**	**127.61**	**335**	*d*PKP	**PKiKP**	**20 56 28.9**	**0.0**
LPAZ	**La Paz**	**134.15**	**118**	PKP	**PKiKP**	**20 56 43.8**	**-0.1**
	comp=Z,1.0nm,0.7s,baz=231,slow=2.7,SNR=5.0						
ESDC	**Sonseca Array**	**139.75**	**332**	PKP	**PKiKP**	**20 56 53.2**	**-0.8**
	comp=Z,0.7nm,0.9s,baz=10,slow=3.9,SNR=3.3						
TORD	**Torodi Ar. Bea**	**150.54**	**288**	PKPbc	**PKPbc**	**20 57 15.6**	**-0.4**
	comp=Z,6.6nm,0.7s,baz=64,slow=1.9,SNR=34						
BDFB	**Brasilia**	**150.76**	**135**	PKPbc	**PKiKP**	**20 57 17.7**	**+0.4**
	comp=Z,3.0nm,0.6s,baz=223,slow=5.1,SNR=7.6						

*TEH **07** 20:39:09.0, 36°.04N×44°.56E, h10km, ML2.9, Presumed earthquake*
*AFAD **07** 20:39:12.9, 36°.20N×44°.68E, h7km±1km, ML3.1*
ISC 07 20:39:09.8±1.6, **36°.05N**±0°.06×**44°.56E**±0°.05, **h10**km±13km, **n18**, σ1s**26**/23, **Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CUKT	**Cukurca**	**1.46**	**325**	P		**Pg**	**20 39 38.4**	**+0.5**
CUKT				S		**Sg**	**20 39 58.1**	**+1.2**
CUKT				IAML			20 40 04.0	
	comp=N,422nm,0.6s							
YOVA	**Hakkari_Yksek**	**1.56**	**349**	P		**Pg**	**20 39 40.1**	**+0.2**
YOVA				S		**Sg**	**20 39 59.7**	**-0.4**
YOVA				IAML			20 40 03.0	
	comp=N,141nm,0.8s							
HAKT	**HAKKARI**	**1.69**	**333**	P		**Pg**	**20 39 41.6**	**-0.6**
HAKT				S		**Sg**	**20 40 04.3**	**+0.1**
HAKT				IAML			20 40 06.0	
	comp=N,196nm,0.4s							
IAZR	**Azarshahr**	**1.94**	**33**	Pn		**Pb**	**20 39 45.5**	**0.0**
IDHR	**Dehrash**	**1.95**	**133**	Pn		**Pb**	**20 39 44.8**	**-0.8**
SNJK	**Sanadaj _Korde**	**2.07**	**107**	Pn		**Pb**	**20 39 47.3**	**-0.4**
SIRN	**Sirnak**	**2.31**	**309**	P		**Pg**	**20 39 52.9**	**-1.1**
SIRN				S		**Sn**	**20 40 14.7**	**-1.9**
SIRN				IAML			20 40 31.0	
	comp=N,149nm,0.7s							
SIRN				IAML			20 40 39.0	
	comp=E,126nm,0.8s							
ISHB	**Shabestar**	**2.36**	**19**	Pn		**Pb**	**20 39 51.0**	**-1.6**
IHSH	**Hashtrud**	**2.44**	**58**	Pn		**Pn**	**20 39 51.5**	**+1.3**
PERV	**Siirt/Pervari-**	**2.54**	**319**	P		**Pb**	**20 39 56.3**	**+0.7**
GEVA	**Gevas**	**2.59**	**331**	P		**Pb**	**20 39 54.4**	**-2.1**
GEVA				S		**Sb**	**20 40 28.8**	**+0.2**
OZAP	**Van, Ozalp-Mer**	**2.66**	**349**	P		**Pb**	**20 39 58.1**	**+0.3**
IMRD	**Marand**	**2.79**	**17**	Pn		**Pn**	**20 39 55.6**	**+0.9**
SRTM	**Siirt_Merkez**	**2.92**	**312**	P		**Pg**	**20 40 04.6**	**-1.2**
MIDY	**Mardin/Midyat-**	**2.95**	**298**	P		**Pb**	**20 40 02.8**	**+0.2**
IHRS	**Heris**	**2.96**	**39**	Pn		**Pn**	**20 39 59.1**	**+2.0**
BLIS	**Bitlis-Merkez**	**3.11**	**320**	P		**Pb**	**20 40 07.0**	**+1.6**
CLDR	**Caldiran**	**3.14**	**349**	P		**Pb**	**20 40 04.0**	**-1.9**

IDC 07 20:57:46.8±1.9, **47°.29N×154°.08E, h0**km, **mb3.8**/2, **mbtmp3.8**/4, **ML2.8**/2, **MS4.0**/5, **Error ellipse: s-maj=46.4km s-min=19.9km az=134.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PETK	**Petropavlovsk-**	**6.27**	**20**	Pn		Pn	20 59 20.6	+0.1
	1.0nm,0.3s,baz=175,slow=12,SNR=39							
PETK				Sn		Sn	21 00 31.2	-1.6
	baz=216,slow=32 2.3nm,0.4s							
PETK				AML		AML		
ASAJ	**Asahikawa**	**8.64**	**253**	Pn		Pn	20 59 57.2	+4.2
	0.1nm,0.3s,baz=161,slow=28,SNR=1.8 7.9nm,1.0s							
ASAJ				AML		AML		
H11N2	**WAKE ISLAND Hy**	**29.42**	**155**	T		T	21 35 35.9	
	baz=341,slow=76,SNR=9.9							
H11N1	**WAKE ISLAND Hy**	**29.43**	**155**	T		T	21 35 36.4	
	baz=341,slow=76,SNR=10							
H11N3	**WAKE ISLAND Hy**	**29.43**	**155**	T		T	21 35 31.3	
	baz=341,slow=76,SNR=8.5							
H11S1	**WAKE ISLAND Hy**	**30.52**	**156**	T		T	21 36 54.0	
	baz=343,slow=76,SNR=55							
H11S3	**WAKE ISLAND Hy**	**30.53**	**156**	T		T	21 36 52.3	
	baz=343,slow=76,SNR=57							
H11S2	**WAKE ISLAND Hy**	**30.54**	**156**	T		T	21 36 52.8	
	baz=343,slow=76,SNR=50							
KURBB	**Kurchatov Arra**	**47.70**	**304**	LR		LR	21 27 34.7	
	comp=Z,78nm,20.3s,baz=168,slow=38							
AKTO	**Aktyubinsk**	**58.85**	**312**	LR		LR	21 38 00.7	
	comp=Z,104nm,19.1s,baz=42,slow=41							
FINES	**FINESS Array B**	**63.83**	**335**	P		P	21 08 19.6	-0.8
	1.7nm,0.9s,baz=28,slow=4.9,SNR=4.7 1.7nm,0.9s							
FRB	**Frobisher Bay**	**64.32**	**20**	LR		LR	21 40 02.0	
	comp=Z,143nm,19.8s,baz=313,slow=39							
SCHQ	**Schefferville**	**72.55**	**23**	LR		LR	21 46 30.7	
	comp=Z,131nm,18.2s,baz=314,slow=40							
TXAR	**Lajitas Array**	**76.65**	**61**	P		P	21 09 39.6	-0.1
	0.2nm,0.5s,baz=305,slow=4.4,SNR=4.5 0.2nm,0.5s							
SADO	**Sadowa**	**77.06**	**36**	LR		LR	21 44 01.2	
	comp=Z,85nm,20.0s,baz=328,slow=36							

TRN 07 21:03:08.4, **15°.90N×60°.56W, h40**km, **MD3.5, North-east of Dominica., Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DSDZ	**La Diserade, G**	**0.64**	**310**	*e*P		Pn	21 03 22.4	+1.3
DSDZ				*e*S		Sn	21 03 32.2	+2.2
MAGL	**Barre de l'ile**	**0.69**	**274**	*e*P		Pn	21 03 24.0	+2.1
MAGL				*e*S		Sn	21 03 34.5	+3.1
DWS	**Wesley**	**0.79**	**246**	*e*P		Pn	21 03 24.4	+1.3
DWS				*e*S		Sn	21 03 36.4	+2.6
DLPL	**La Plaine**	**0.87**	**230**	*e*P		Pn	21 03 25.9	+1.7
DLPL				*e*S		Sn	21 03 36.5	+0.8
DSLB	**Salisbury**	**0.95**	**241**	*e*P		Pn	21 03 27.2	+1.9
DSLB				*e*S		Sn	21 03 39.5	+1.9
BIM	**Bigot**	**1.46**	**200**	*e*P		Pn	21 03 33.8	+1.5
BIM				*e*S		Sn	21 03 53.1	+2.7
SLBI	**Saint Lucia, B**	**1.91**	**192**	*e*P		Pn	21 03 39.9	+1.4
SLBI				*e*S		Sn	21 04 02.9	+1.6

*IDC **07** 21:07:48.3, 4.1, 9°.09S, 124°.25E, h126km±47km, mb3.1/1, mbtmp4.1/4, Error ellipse: s-maj=89.8km s-min=26.9km az=49.0*
*DJA **07** 21:07:49.4±0.5, 9°.S±3°×12°.4E±°, h84km±5km, M3.8/16, mb4.1/5, MLv3.7/16*
ISC 07 21:07:45.4±1.1, **8°.95S**±0°.07×**124°.48E**±0°.09, **h100**km, **n17**, σ2s**61**/23, **Timor region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SOEI	**Soe**	**0.83**	**194**	P		**Pn**	**21 08 08.3**	**+4.0**
SOEI				S		**Sn**	**21 08 23.6**	**+5.3**
SOEI				AML		AML		
BATI	**Baumata**	**1.48**	**213**	P		**Pn**	**21 08 13.5**	**+1.9**
	83nm,0.4s,baz=33,slow=8.4,SNR=52							
BATI				S		**Sn**	**21 08 32.7**	**+1.3**
	1µm,0.4s,baz=50,slow=5.2,SNR=21							
BATI	**Baumata**	**1.48**	**213**	P		**Pn**	**21 08 13.9**	**+2.3**
BATI				S		**Sn**	**21 08 33.0**	**+1.6**
BATI				AML		AML		
MMRI	**Maumere**	**2.23**	**278**	P		**Pn**	**21 08 19.5**	**-1.6**
MMRI				AML		AML		
EDFI	**Ende, Flores**	**2.76**	**274**	P		**Pn**	**21 08 26.4**	**-1.7**
EDFI				AML		AML		
BBSI	**Bau Bau**	**3.92**	**331**	P		**Pn**	**21 08 44.7**	**+1.1**
BBSI				AML		AML		
WSI	**Waingapu**	**4.18**	**260**	P		**Pn**	**21 08 45.2**	**-1.9**
LBFI	**Labuhan Bajo,**	**4.56**	**276**	P		**Pn**	**21 08 51.3**	**-0.9**
BSSI	**Bau Bau, Buton**	**4.83**	**305**	P		**Pn**	**21 08 55.5**	**-0.5**
BSSI				AML		AML		
BKSI	**Bulukumba**	**5.62**	**310**	P		**Pn**	**21 09 05.3**	**-1.4**
BKSI				AML		AML		
DBNI	**Kabupaten Domp**	**6.11**	**274**	P		**Pn**	**21 09 12.9**	**-0.4**
	0.1nm13nm,0.5s							
DBNI				AML		AML		
PLAI	**Plampang**	**6.62**	**271**	P		**Pn**	**21 09 19.8**	**-0.4**
PLAI				AML		AML		
TWSI	**Taliwang, Sumb**	**7.51**	**271**	P		**Pn**	**21 09 31.5**	**-0.8**
FITZ	**Fitzroy Crossi**	**9.17**	**173**	P		**Pn**	**21 09 55.4**	**+0.6**
	5.4nm,0.3s,baz=353,slow=14,SNR=61							
FITZ				S		**Sn**	**21 11 31.8**	**-4.4**
	22nm,0.7s,baz=128,slow=8.3,SNR=13							
WRA	**Warramunga Arr**	**14.51**	**140**	P		**Pn**	**21 11 06.5**	**+0.5**
	2.0nm,0.4s,baz=312,slow=12,SNR=44							
WRA				S		**Sn**	**21 13 41.8**	**-4.2**
	2.1nm,0.6s,baz=317,slow=22,SNR=9.4							
ASAR	**Alice Springs**	**17.19**	**149**	P		**Pn**	**21 11 42.3**	**+2.8**
	2.6nm,0.4s,baz=325,slow=12,SNR=63							
ASAR				S		**Sn**	**21 14 46.5**	**-4.3**
	0.7nm,0.5s,baz=315,slow=21,SNR=4.8							
MKAR	**Makanchi Array**	**67.00**	**330**	P		**P**	**21 18 27.6**	**0.0**
	0.3nm,0.5s,baz=140,slow=6.8,SNR=5.3 0.3nm,0.5s							

*SJA **07** 21:16:00.6±0.7, 19°.70S×70°.27W, h72km±2km, ML3.6, MW3.6*
*GUC **07** 21:16:02.4±0.6, 19°.67S×70°.23W, h70km±2km, ML3.7, Presumed earthquake*
ISC 07 21:16:01.7±1.3, **19°.70S**±0°.03×**70°.32W**±0°.05, **h67**km±8km, **n32**, σ0s**93**/58, **1C-6D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PSGCX	**Pisagua**	**0.21**	**62**	*e*P		**Pn**	**21 16 12.2**	**0.0**
PSGCX				*e*S		**Sn**	**21 16 20.3**	**+0.4**
PSGCX				IAML			21 16 22.0	
	comp=Z,2µm,0.3s							
PSGCX	**Pisagua**	**0.21**	**62**	⇓*i*P		**Pn**	**21 16 12.3**	**0.0**
PSGCX				*e*S		**Sn**	**21 16 19.5**	**-0.4**
TA02	**Huaiquique**	**0.60**	**163**	*e*P		**Pn**	**21 16 15.9**	**+0.5**
TA02				*e*S		**Sn**	**21 16 26.1**	**+0.8**
TA02				IAML			21 16 27.9	
	comp=Z,4µm,0.1s							
TA02	**Huaiquique**	**0.60**	**163**	*e*P		**Pn**	**21 16 15.9**	**+0.5**
TA02				*e*S		**Sn**	**21 16 25.9**	**+0.5**
PB11	**IPOC Station P**	**0.63**	**96**	*e*P		**Pn**	**21 16 15.3**	**-0.5**
PB11				*e*S		**Sn**	**21 16 26.4**	**+0.2**
PB11				IAML			21 16 27.7	
	comp=Z,2µm,0.2s							
PB11	**IPOC Station P**	**0.63**	**96**	⇓*i*P		**Pn**	**21 16 15.3**	**-0.5**
PB11				*e*S		**Sn**	**21 16 25.6**	**-0.6**
PB11				IAML			21 16 26.1	
	comp=N,4µm,0.2s							
PX02	**IPOC Station P**	**0.74**	**9**	⇓*i*P		**Pn**	**21 16 16.1**	**-0.9**
PX02				*e*S		**Sn**	**21 16 27.0**	**-1.3**
PX02				IAML			21 16 27.6	
	comp=N,6µm,0.1s							
TA01	**Diego Aracena**	**0.88**	**171**	*e*P		**Pn**	**21 16 18.8**	**+0.3**
TA01				*e*S		**Sn**	**21 16 31.8**	**+0.8**
TA01	**Diego Aracena**	**0.88**	**171**	⇓*i*P		**Pn**	**21 16 18.9**	**+0.4**
TA01				*e*S		**Sn**	**21 16 31.1**	**+0.1**
GO01	**Chusmiza**	**1.06**	**89**	*e*P		**Pn**	**21 16 21.1**	**-0.3**
GO01				*e*S		**Sn**	**21 16 36.4**	**+0.5**
GO01				IAML			21 16 36.8	
	comp=Z,2µm,0.3s							
GO01	**Chusmiza**	**1.06**	**89**	*e*P		**Pn**	**21 16 21.1**	**-0.3**
GO01				*e*S		**Sn**	**21 16 35.4**	**-0.5**
PB12	**IPOC Station P**	**1.08**	**360**	*e*P		**Pn**	**21 16 21.4**	**+0.2**
PB12				*e*S		**Sn**	**21 16 36.0**	**+0.4**
PB12				IAML			21 16 36.6	
	comp=Z,2µm,0.4s							
PB12	**IPOC Station P**	**1.08**	**360**	⇓*i*P		**Pn**	**21 16 21.3**	**+0.1**
PB12				*e*S		**Sn**	**21 16 35.3**	**-0.3**
PB12				IAML			21 16 36.4	
	comp=N,3µm,0.3s							
PB08	**IPOC Station P**	**1.19**	**112**	*e*P		**Pn**	**21 16 22.6**	**-0.2**
PB08				*e*S		**Sn**	**21 16 38.5**	**-0.1**
PB08				IAML			21 16 39.6	
	comp=Z,2µm,0.3s							
PB08	**IPOC Station P**	**1.19**	**112**	⇑*i*P		**Pn**	**21 16 22.9**	**0.0**
PB08				*e*S		**Sn**	**21 16 38.4**	**-0.1**
PB08				IAML			21 16 39.6	
	comp=N,4µm,0.1s							
AP01	**Chacalluta**	**1.32**	**359**	*e*P		**Pn**	**21 16 24.9**	**+0.7**
AP01				*e*S		**Sn**	**21 16 42.2**	**+1.2**
AP01				IAML			21 16 44.8	
	comp=Z,1µm,0.1s							
AP01	**Chacalluta**	**1.32**	**359**	*e*P		**Pn**	**21 16 24.6**	**+0.3**
AP01				*e*S		**Sn**	**21 16 41.0**	**-0.1**
AP01				IAML			21 16 43.5	
	comp=E,3µm,0.2s							
PB16	**IPOC Station P**	**1.56**	**30**	*e*P		**Pn**	**21 16 28.0**	**+0.1**
PB16				IAML			21 16 52.2	
	comp=Z,416nm,0.4s							
PB16	**IPOC Station P**	**1.56**	**30**	⇓*i*P		**Pn**	**21 16 28.0**	**+0.1**
PB16				*e*S		**Sn**	**21 16 46.4**	**-1.2**
PB16				IAML			21 16 48.1	
	comp=N,733nm,0.2s							
PB02	**IPOC Station P**	**1.67**	**166**	*e*P		**Pn**	**21 16 29.7**	**+0.7**
PB02				*e*S		**Sn**	**21 16 50.8**	**+1.3**
PB02				IAML			21 16 51.5	
	comp=Z,813nm,0.3s							
PB02	**IPOC Station P**	**1.67**	**166**	*e*P		**Pn**	**21 16 29.2**	**+0.3**
PB02				*e*S		**Sn**	**21 16 50.0**	**+0.5**
PB07	**IPOC Station P**	**2.06**	**169**	*e*P		**Pn**	**21 16 34.6**	**+0.3**
PB07				*e*S		**Sn**	**21 16 59.6**	**+0.5**
PB07				IAML			21 17 06.2	
	comp=Z,291nm,0.3s							
PB07	**IPOC Station P**	**2.06**	**169**	*e*P		**Pn**	**21 16 34.8**	**+0.4**
PB18	**Visviri**	**2.24**	**21**	*e*P		**Pn**	**21 16 39.5**	**+2.4**
PB09	**IPOC Station P**	**2.32**	**154**	*e*P		**Pn**	**21 16 38.5**	**+0.7**
PB09				*e*S		**Sn**	**21 17 07.6**	**+2.2**
PB09				IAML			21 17 11.4	
	comp=Z,215nm,0.4s							
PB09	**IPOC Station P**	**2.32**	**154**	*e*P		**Pn**	**21 16 38.5**	**+0.7**
PB09				IAML			21 17 09.1	
	comp=E,225nm,0.5s							
PB03	**IPOC Station P**	**2.40**	**167**	*e*P		**Pn**	**21 16 39.5**	**+0.6**
PB03				*e*S		**Sn**	**21 17 07.5**	**+0.2**
PB03				IAML			21 17 12.3	
	comp=Z,173nm,0.2s							
PB03	**IPOC Station P**	**2.40**	**167**	*e*P		**Pn**	**21 16 39.1**	**+0.2**
PB06	**IPOC Station P**	**3.08**	**167**	*e*P		**Pn**	**21 16 48.5**	**+0.4**
PB06				IAML			21 17 31.7	
	comp=Z,82nm,0.4s							
PB05	**IPOC Station P**	**3.14**	**178**	*e*P		**Pn**	**21 16 48.6**	**-0.4**
PB05				*e*S		**Sn**	**21 17 25.6**	**+0.1**
PB10	**IPOC Station P**	**3.81**	**183**	*e*P		**Pn**	**21 16 57.6**	**-0.3**
PB10				*e*S		**Sn**	**21 17 39.9**	**-1.5**
PB14	**IPOC Station P**	**4.91**	**181**	*e*P		**Pn**	**21 17 12.2**	**-1.0**
PB14				*e*S		**Sn**	**21 18 04.7**	**-4.2**
PB14				IAML			21 18 07.5	
	comp=Z,32nm,0.9s							

IDC 07 21:30:30.2±417.0, **59°.64N×18°.16E, h0**km, **Error ellipse: s-maj=158.4km s-min=144.0km az=178.0, Sweden**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
I37NO	**I37NO**	**9.47**	**1**	I		I	22 28 20.0	
	baz=181,slow=328,SNR=0.8							
I43RU	**DUBNA INFRASON**	**10.47**	**98**	I		I	22 33 30.0	
	baz=294,slow=299,SNR=1.8							
I26DE	**FREYUNG INFRAS**	**11.12**	**195**	I		I	22 40 50.0	
	baz=12,slow=328,SNR=0.8							

*BJI **07** 21:30:41.0, 32°.33N×141°.97E, h15km, mB5.1/47, mb4.9/71, Ms4.9/72, Ms7.4,8/71*
*GFZ **07** 21:30:42.0±0.4, 32°N±3°×14°2E±°, h10km, M5.0/21, mb5.0/21*
*MOS **07** 21:30:43.1±1.0, 32°.32N×141°.66E, h10km, mb5.3/95, MS4.6/13, Error ellipse: s-maj=7.7km s-min=3.7km az=122.9*
*NEIC **07** 21:30:44.7±1.3, 32°.35N±0°.06×141°.70E±0°.08, h9km±3km, mb5.2/139, Mww5.2/20, Error ellipse: s-maj=10.7km s-min=8.4km az=57.0*
*NEIC **07** 21:30:45.1, 32°.45N×141°.76E, h9km*
*GFZ **07** 21:30:45.2, 32°.33N×141°.73E, h16km, Mw5.0/49, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}3.44; $M_{\theta\theta}$-0.68; $M_{\phi\phi}$-2.77; $M_{r\theta}$0.53; $M_{\theta\phi}$-0.90; $M_{\phi r}$-1.09; Fault plane solution: $M_0$3.50236×10^{16} NP1: ϕ_s187.83834°, δ53.52746°, λ75.49496°. NP2:ϕ_s31.35801°, δ38.87561°, λ108.71760°. Principal axes: T 3.7344, Plg76.1249°, Azm50.2316°; N -0.5230, Plg11.6194°, Azm196.5812°; P -3.2115, Plg7.4788°, Azm288.1280°;*
*IDC **07** 21:30:47.2±1.7, 32°.43N×141°.68E, h24km±10km, mb4.6/36, mbtmp4.8/42, ML3.9/5, MS4.4/81 Error ellipse: s-maj=11.7km s-min=8.3km az=74.0*
*JMA **07** 21:30:47.5±0.3, 33°N±1°×14°2E±°, h64km, MD5.1/37, MW5.0/37, E OFF HACHIJOJIMA ISLAND*
*NEIC **07** 21:30:47.6, 32°.35N×141°.99E, h16km, Moment Tensor Solution. Duration: 1s8 Moment tensor: Scale 10^{16}Nm; M_{rr}3.32; $M_{\theta\theta}$0.28; $M_{\phi\phi}$-3.60; $M_{r\theta}$4.16; $M_{\theta\phi}$-0.39; $M_{\phi r}$3.97; Fault plane solution: $M_0$6.73000×10^{16} NP1: ϕ_s166.23000°, δ21.68000°, λ40.33000°. NP2:ϕ_s37.95000°, δ76.17000°, λ106.86000°. Principal axes: T 7.1397, Plg56.0000°, Azm329.0000°; N -0.9228, Plg16.0000°, Azm214.0000°; P -6.2169, Plg29.0000°, Azm114.0000°;*
*NIED **07** 21:30:47.5, 32°.51N×141°.79E, h64km, MW5.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}3.51; $M_{\theta\theta}$-0.76; $M_{\phi\phi}$-2.75; $M_{r\theta}$-1.80; $M_{\theta\phi}$0.00; $M_{\phi r}$1.84; Fault plane solution: $M_0$3.97000×10^{16} NP1: ϕ_s188.00000°, δ30.00000°, λ119.00000°. NP2: ϕ_s336.00000°, δ64.00000°, λ75.00000°.*
*GCMT **07** 21:30:48.7±0.2, 32°.44N±0°.02×141°.78E±0°.01, h14km, MW5.0/135, Moment Tensor Solution. s58, c83; s135, c213; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.82±.12; $M_{\theta\theta}$-0.29±.07; $M_{\phi\phi}$-3.53±.09; $M_{r\theta}$0.00±.20; $M_{\theta\phi}$-0.64±.05; $M_{\phi r}$1.12±.17; Best double couple: $M_0$3.90000×10^{16} NP1:ϕ_s194.00000°, δ37.00000°, λ95.00000°. NP2:ϕ_s8.00000°, δ53.00000°, λ87.00000°. Principal axes: T 3.9890, Plg81.0000°, Azm262.0000°; N -0.1800, Plg3.0000°, Azm10.0000°; P -3.8100, Plg8.0000°, Azm100.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 07 21:30:45.2±0.5, **32°.39N**±0°.03×**141°.86E**±0°.04, **h17**km±2km, **h16**km:**pP-P, n818,** σ1s**58**/830, **mb5.1**/239, **MS4.5**/104, **46C-42D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	**1.77**	**273**	*e*P		**Pn**	**21 31 15.9**	**+0.7**
JAOM				A		A	21 31 15.9	
	comp=N,39nm,5.3s,comp=E,89nm,7.9s							
JHCJ	**Hachijojimakas**	**1.86**	**292**	*e*P		**Pn**	**21 31 16.1**	**-0.3**
JHCJ				A		A	21 31 16.1	
	comp=N,35nm,7.3s,comp=E,67nm,8.1s							
JHJ2	**Mitsune**	**1.86**	**293**	P		**Pn**	**21 31 16.7**	**+0.3**
JHJ2	**Mitsune**	**1.86**	**293**	S		**Sn**	**21 31 39.6**	**0.0**
JHJ2	**Mitsune**	**1.86**	**293**			**Pn**	**21 31 16.0**	**-0.4**
JHJ2				Sn		**Sn**	**21 31 37.7**	**-1.9**
JHJ2	**Mitsune**	**1.86**	**293**	P		**Pn**	**21 31 16.9**	**+0.5**
JHJ2	**Mitsune**	**1.86**	**293**	*e*P		**Pn**	**21 31 16.5**	**+0.1**
JHJ2				A		A	21 31 16.5	
	comp=N,53nm,6.4s,comp=E,84nm,5.7s							
BSO1	**Boso 1**	**2.38**	**342**	*e*P		**Pn**	**21 31 23.2**	**+0.2**
JMKN	**Mikurajimanish**	**2.42**	**309**	*e*P		**Pn**	**21 31 24.1**	**0.0**
JMKN				A		A	21 31 24.1	
	comp=N,28nm,5.8s,comp=E,31nm,7.9s							
JMYK	**Miyake Tsubota**	**2.56**	**311**	P		**Pn**	**21 31 26.0**	**+0.1**
JMYK				A		A	21 31 26.0	
	comp=N,26nm,5.9s,comp=E,23nm,3.4s							
BSO3	**Boso 3**	**2.66**	**335**	*e*P		**Pn**	**21 31 27.1**	**0.0**
JKO	**Kozu shima**	**2.90**	**309**	A		A	21 31 30.6	
	comp=N,22nm,8.7s,comp=E,38nm,3.5s							
JNIO	**Niijimaoohara**	**2.92**	**313**	A		A	21 31 30.8	
	comp=N,17nm,1.9s,comp=E,23nm,3.4s							
JSKK	**Shikinejimakit**	**2.94**	**312**	A		A	21 31 31.2	
	comp=N,12nm,3.7s,comp=E,15nm,4.6s							
JTHY	**Toshimahigashi**	**3.02**	**316**	A		A	21 31 32.2	
	comp=N,18nm,4.2s,comp=E,16nm,5.6s							
JIM2	**Oshima 3**	**3.08**	**320**	A		A	21 31 33.1	
	comp=N,13nm,7.5s,comp=E,13nm,5.4s	

comp=Z,4.4nm,0.3s,baz=207,slow=11,SNR=34
ASAJ Sn Sn 21 35 23.1 -19
comp=Z,1.1nm,0.3s,baz=278,slow=23,SNR=2.8
ASAJ LR LR 21 38 49.7
comp=Z,2μm,20.2s,baz=190,slow=41
comp=Z,13nm,0.4s
ASAJ AML AML
JKA Kamikawa-asahi 11.73 3 Pn 21 33 28.6 -3.2
KSRS Korea Array 12.50 298 Pn Pn 21 33 44.9 +2.6
comp=Z,0.4nm,0.3s,baz=109,slow=12,SNR=18
KSRS LR LR 21 38 39.6
comp=Z,2μm,18.2s,baz=110,slow=38
KSAR Wonju Array Be 12.52 298 P Pn 21 33 40.7 -2.0
KSAR Wonju Array Be 12.52 298 Pn 21 33 40.7 -2.0
KS19 Wonju Array Si 12.56 298 Pn 21 33 41.6 -1.6
TJN Taejon 12.61 292 *i* P **Pn 21 33 43.5 -0.4**
JOW Kunigami 13.04 248 Pn Pn 21 33 51.8 +1.9
comp=Z,0.5nm,0.3s,baz=61,slow=14,SNR=4.2
JOW LR LR 21 39 02.8
comp=Z,3μm,18.4s,baz=45,slow=38
comp=Z,32nm,1.1s
JOW AML AML
JOW Kunigami 13.04 248 P Pn 21 33 51.6 +1.8
JOW Kunigami 13.04 248 Pn 21 33 48.9 -0.9
TEY Ternei 13.28 344 *eP* Pn 21 33 40.2 -13
USA0B Ussuriysk Arra 14.10 330 *i* P **Pn 21 34 04.1 0.0**
USA0B Ussuriysk Arra 14.10 330 Pn 21 34 01.8 -2.3
USRK Ussuriysk Ar. 14.10 330 Pn **Pn 21 34 02.4 -1.7**
comp=Z,0.5nm,0.3s,baz=129,slow=11,SNR=12
USRK LR LR 21 39 27.1
comp=Z,2μm,18.1s,baz=144,slow=37
comp=Z,18nm,1.0s
USRK AML AML
USRK Ussuriysk Ar. 14.10 330 Pn 21 34 02.2 -1.9
YSS Yuzhno-Sakhali 14.57 2 *eP* **Pn 21 34 08.0 -2.5**
YSS *eS* **Sn 21 36 46.0 -5.5**
YSS pmax pmax
comp=Z,50nm,0.8s
YSS pmax pmax
comp=Z,200nm,2.0s
YSS MLR MLR
comp=Z,2μm,14.0s
YSS MLR MLR
comp=N,1μm,13.0s
YSS MLR MLR
comp=E,2μm,13.0s
YSS Yuzhno-Sakhali 14.57 2 Pn 21 34 07.3 -3.2
YSS Yuzhno-Sakhali 14.57 2 P Pn 21 34 01.1 -9.5
comp=Z,49nm,0.8s
MDJ Mudanjiang 15.51 325 P Pn 21 34 22.0 -1.1
MDJ pmax pmax
comp=Z,45nm,1.5s
MDJ L L
comp=Z,3μm,17.2s
MDJ Mudanjiang 15.51 325 Pn 21 34 21.0 -2.1
UGL Uglegorsk 16.68 0 P Pn 21 34 25.6 -12
UGL MLR MLR
comp=N,1μm,14.0s
UGL MLR MLR
comp=Z,2μm,14.0s
UGL MLR MLR
comp=E,3μm,18.0s
CN2 Changchun 17.19 316 ⇑P **Pn 21 34 44.4 -0.2**
CN2 *eP* pP 21 34 47.3 -1.4
CN2 *eS* **Sn 21 37 54.7 -0.6**
CN2 pmax pmax
comp=E,10.0nm,0.5s
CN2 pmax pmax
comp=E,100nm,5.0s
CN2 L L
comp=E,600nm,11.0s
CN2 L L
comp=E,700nm,11.0s
CN2 L L
comp=E,400nm,11.0s
SNY Shenyang 17.33 308 ⇓P **P 21 34 47.0 -0.6**
SNY S **Sn 21 38 00.7 +1.9**
SNY SS **SnSn 21 38 23.0 +11**
SNY pmax pmax
comp=E,44nm,1.3s
SNY L L
comp=E,2μm,15.2s
SNY L L
comp=E,2μm,17.1s
SNY L L
comp=E,3μm,15.2s
BNX BinXian 17.39 324 ⇓P **Pn 21 34 45.3 -1.7**
BNX pP **pP 21 34 49.5 -1.4**
BNX sP **sP 21 34 50.8 -1.5**
BNX S **Sn 21 38 00.4 +0.2**
BNX sS **sS 21 38 13.7 +0.9**
BNX pmax pmax
comp=E,55nm,1.2s
BNX pmax pmax
comp=E,270nm,5.4s
BNX L L
comp=E,1μm,11.9s
BNX L L
comp=E,2μm,14.3s
BNX L L
comp=E,2μm,16.7s
SSE Sheshan 17.63 271 P **Pn 21 34 49.0 -1.1**
SSE S **Sn 21 38 04.6 -1.6**
SSE pmax pmax
comp=E,4.0nm,0.5s
SSE pmax pmax
comp=E,320nm,6.2s
SSE L L
comp=E,660nm,14.4s
SSE L L
comp=E,600nm,14.4s
DL2 Dalian 17.66 297 P **P 21 34 53.1 +1.7**
DL2 S **Sn 21 38 05.5 -1.4**
DL2 pmax pmax
comp=E,64nm,1.5s
DL2 pmax pmax
comp=E,1μm,3.5s
DL2 L L
comp=E,3μm,13.3s
DL2 L L
comp=E,3μm,15.6s
DL2 L L
comp=E,4μm,14.5s
YOJ Yonaguni jima 18.34 249 P Pn 21 34 57.3 -1.6
YOJ Yonaguni jima 18.34 249 Pn 21 34 56.0 -2.9
YOJ Yonaguni jima 18.34 249 P **P 21 34 59.2 +0.3**
comp=Z,382nm,1.1s
KLR Kul'dur 18.45 339 P **P 21 34 57.3 -2.7**
comp=Z,14nm,0.6s,baz=149,slow=10,SNR=25
KLR LR LR 21 42 03.2
comp=Z,797nm,19.3s,baz=152,slow=37
KLR Kul'dur 18.45 339 *ceP* **P 21 34 57.6 -2.4**
KLR pmax pmax
comp=Z,51nm,1.3s
TYV Tymovskoe 18.47 2 *eP* **Pn 21 35 00.7 +0.4**
TYV *eS* **S 21 38 31.5 +1.2**
TYV pmax pmax
comp=Z,200nm,4.0s
TYV pmax pmax
comp=Z,20nm,1.2s
TYV smax smax
comp=N,400nm,4.4s
TYV smax smax
comp=E,700nm,4.4s
TYV MLR MLR
comp=Z,1μm,18.0s
GRNR Gornyy 18.80 349 ⇓*i*P **P 21 35 01.5 -2.3**
GRNR pmax pmax
comp=Z,10.0nm,1.2s
GRNR MLR MLR
comp=E,650nm,15.0s
GRNR MLR MLR
comp=N,480nm,14.0s
GRNR MLR MLR
comp=Z,960nm,13.0s
GUMO Guam 18.91 171 P **Pn 21 35 09.5 +3.6**
comp=Z,312nm,1.0s,baz=279,slow=3.6,SNR=6.9
GUMO Guam 18.91 171 P **P 21 35 04.6 -0.7**
GUMO pmax pmax
comp=Z,679nm,1.2s
GUMO Guam 18.91 171 P 21 35 04.5 -0.7
TATO Taipei 19.32 253 P **P 21 35 09.6 -0.1**
TATO Taipei 19.32 253 P **P 21 35 07.4 -2.2**
NJ2 Nanjing 19.46 275 *eP* **Pn 21 35 11.9 -0.5**
NJ2 pmax pmax
comp=Z,25nm,0.8s
NJ2 L L
comp=Z,890nm,18.0s
NJ2 L L
comp=Z,880nm,16.6s
NJ2 L L
comp=Z,1μm,18.0s
YHNB Yeheng 19.55 252 P **P 21 35 11.8 -0.5**
YHNB Yeheng 19.55 252 P **P 21 35 09.6 -2.6**
YHNB lAmb lAmb 21 35 21.4
comp=Z,321nm,1.9s
NACB Ninganchiao 19.61 250 P **P 21 35 12.6 -0.2**
NACB Ninganchiao 19.61 250 P **P 21 35 11.0 -1.9**
YULB Yu-li 20.23 249 P **P 21 35 20.0 +0.3**
YULB Yu-li 20.23 249 P **P 21 35 17.5 -2.2**
YULB Yu-li 20.23 249 P **P 21 35 19.1 -0.6**
comp=Z,66nm,1.4s
SSLB Suanglung 20.31 250 P **P 21 35 20.7 +0.2**
SSLB Suanglung 20.31 250 P 21 35 19.0 -1.5
SSLB Suanglung 20.31 250 P **P 21 35 20.6 +0.1**
comp=Z,57nm,1.0s
TWG Pinlang 20.71 248 P **P 21 35 22.8 -2.0**
TWG lAmb lAmb 21 35 30.7
comp=Z,337nm,1.9s
TWG Pinlang 20.71 248 P Pn 21 35 26.0 -1.2
comp=Z,80nm,1.4s
TIA Tai'an 20.77 287 P **P 21 35 22.0 -3.4**
TIA pmax pmax
comp=Z,380nm,4.5s
TIA L L
comp=Z,2μm,12.3s
TIA L L
comp=Z,5μm,16.1s
TIA L L
comp=Z,6μm,15.8s
TPUB Ta-pu 20.81 250 P Pn 21 35 27.8 -0.6
TPUB Ta-pu 20.81 250 P **P 21 35 23.4 -2.6**
TPUB lAmb lAmb 21 35 37.9
comp=Z,66nm,1.0s
HEH HeiHe 20.82 333 *eP* **P 21 35 25.2 -0.6**
HEH pP **sP 21 35 30.4 +0.6**
HEH S Sn 21 39 22.9 0.0
HEH pmax pmax
comp=Z,41nm,0.8s
HEH pmax pmax
comp=Z,420nm,7.3s
HEH L L
comp=Z,1μm,14.0s
HEH L L
comp=Z,2μm,14.4s
HEH L L
comp=Z,3μm,15.5s
BJI2 Beijing 22.03 297 P **P 21 35 36.6 -2.3**
BJI2 S **S 21 39 42.7 +1.3**
BJI2 pmax pmax
comp=Z,12nm,1.4s
BJI2 pmax pmax
comp=Z,220nm,7.0s
BJI2 L L
comp=Z,1μm,15.5s
BJI2 L L
comp=Z,820nm,16.7s
BJI2 L L
comp=Z,1μm,16.5s
BJT Baijiatuau 22.03 297 P **P 21 35 35.4 -3.5**
BJT pmax pmax
comp=Z,12nm,0.6s
BJT Baijiatuau 22.03 297 P 21 35 35.4 -3.5
HNS HongShan 22.79 290 ⇑P **P 21 35 43.7 -3.3**
HNS S **S 21 39 56.6 +1.3**
HNS pmax pmax
comp=Z,20nm,0.9s
HNS L L
comp=Z,1μm,15.7s
HNS L L
comp=Z,4μm,16.2s
HNS L L
comp=Z,4μm,16.4s
XLT XiLinHaoTe 23.21 307 *eP* **P 21 35 51.8 +0.4**
XLT sP pwP 21 35 59.3 -4.4
XLT S **S 21 40 06.3 +3.7**
XLT sS sS 21 40 10.1 +2.5
XLT SS **SnSn 21 40 38.9 +2.5**
XLT pmax pmax
comp=Z,71nm,1.4s
XLT pmax pmax
comp=Z,490nm,5.6s
XLT L L
comp=Z,150nm,14.8s
XLT L L
comp=Z,1μm,16.6s
XLT L L
comp=Z,2μm,16.7s
WHN Wuhan 23.51 273 P **P 21 35 52.9 -1.5**
WHN S **S 21 40 02.9 -4.7**
WHN pmax pmax
comp=Z,110nm,1.2s
WHN L L
comp=Z,6μm,16.2s
WHN L L
comp=Z,5μm,17.2s
WHN L L
comp=Z,4μm,15.4s
HIA Hailar 23.62 322 P **P 21 35 53.2 -2.2**
HIA pmax pmax
comp=Z,33nm,0.8s
HIA Hailar 23.62 322 P 21 35 53.2 -2.2
HIA lAmb lAmb 21 35 57.4
comp=Z,33nm,0.8s
PETK Petropavlovsk- 23.65 24 P **P 21 35 55.9 +0.3**
comp=Z,1.5nm,0.4s,baz=210,slow=8.3,SNR=2.2
PETK LR LR 21 45 55.5
comp=Z,809nm,21.0s,baz=204,slow=38
comp=Z,1.5nm,0.4s
PETK Petropavlovsk- 23.65 24 P **P 21 35 54.0 -1.6**
ZEA Zeya 23.77 338 *eP* **P 21 35 57.3 +0.6**
ZEA *e* 21 36 05.2
ZEA *eS* **S 21 40 04.1 -7.2**
ZEA pmax pmax
comp=N,100nm,1.0s
ZEA pmax pmax
comp=Z,200nm,0.9s
ZEA pmax pmax
comp=N,80nm,1.0s
ZEA pmax pmax
comp=E,30nm,0.9s
ZEA pmax pmax
comp=Z,180nm,0.9s
ZEA smax smax
comp=E,300nm,12.7s
ZEA smax smax
comp=N,500nm,11.9s
HILR Hailar Array B 23.79 323 P **P 21 35 55.6 -1.5**
comp=N,14nm,0.8s,baz=129,slow=12,SNR=11
comp=N,14nm,0.8s
PET Petropavlovsk 23.92 25 *eP* **P 21 35 56.3 -1.9**
PET *eS* **S 21 40 11.2 -2.6**
PET pmax pmax
comp=Z,39nm,1.3s
PET pmax pmax
comp=Z,300nm,4.9s
PET MLR MLR
comp=Z,600nm,14.0s
PET MLR MLR
comp=Z,600nm,14.0s
LYN LuoYang 24.57 283 P **P 21 36 02.2 -2.2**
LYN pP pP 21 36 07.2 +0.1
LYN sP sP 21 36 10.4 +2.2
LYN S **S 21 40 30.7 +6.1**
LYN pmax pmax
comp=Z,59nm,1.1s
LYN pmax pmax
comp=Z,360nm,5.1s
LYN L L
comp=Z,2μm,12.7s
LYN L L
comp=Z,3μm,15.0s
LYN L L
comp=Z,4μm,14.8s
TIY Taiyuan 24.61 291 P **P 21 36 04.5 -0.3**
TIY S **S 21 40 26.9 +1.6**
TIY SS **SnSn 21 41 20.0 +9.2**
TIY pmax pmax
comp=Z,290nm,4.1s
TIY L L
comp=Z,2μm,16.5s
TIY L L
comp=Z,3μm,17.2s
TIY L L
comp=Z,3μm,17.2s
HHC Hu-ho-hao-te 25.64 298 *eP* **P 21 36 13.7 -0.4**
HHC pmax pmax
comp=Z,31nm,1.8s
HHC pmax pmax
comp=Z,220nm,5.6s
H11N2 WAKE ISLAND Hy 25.71 113 T T 22 03 51.2
baz=305,slow=74,SNR=6.9
H11N1 WAKE ISLAND Hy 25.72 113 T T 22 03 38.0
baz=305,slow=74,SNR=6.6
H11N3 WAKE ISLAND Hy 25.73 113 T T 22 03 33.3
baz=305,slow=74,SNR=4.6
H11S3 WAKE ISLAND Hy 26.26 116 T T 22 05 20.7
baz=304,slow=75,SNR=3.2
H11S1 WAKE ISLAND Hy 26.27 116 T T 22 05 29.3
baz=304,slow=75,SNR=3.8
H11S2 WAKE ISLAND Hy 26.28 116 T T 22 05 20.7
baz=304,slow=75,SNR=3.1
BTO2 Baotou 26.89 297 *eP* **P 21 36 24.8 -0.7**
BTO2 S **S 21 41 02.0 +0.4**
BTO2 pmax pmax
comp=Z,62nm,0.9s
BTO2 pmax pmax
comp=Z,810nm,3.8s
BTO2 L L
comp=Z,3μm,14.1s
BTO2 L L
comp=Z,5μm,15.2s
BTO2 L L
comp=Z,5μm,15.8s
XAN Xi'an 27.54 282 ⇓P **P 21 36 29.6 -1.7**
XAN pP sP 21 36 37.1 +2.0
XAN S **S 21 41 16.4 +4.6**
XAN pmax pmax
comp=Z,63nm,0.5s
XAN pmax pmax
comp=Z,370nm,3.9s
XAN L L
comp=Z,1μm,14.1s
XAN L L
comp=Z,1μm,16.0s
XAN L L
comp=Z,1μm,15.9s
ENH Enshi 27.68 274 P 21 36 29.6 -2.9
MA2 Magadan 27.84 10 LR LR 21 49 47.8
comp=Z,565nm,18.7s,slow=41
CIT Chita 28.43 322 *eP* **P 21 36 38.8 -0.2**
CIT *e* 21 36 42.4
CIT *e* 21 37 37.6
CIT *e* 21 39 52.2
DAV Davao City (W) 29.40 215 LR LR 21 48 29.8
comp=Z,668nm,20.2s,baz=50,slow=36
ULN Ulaanbaatar 30.47 311 P **P 21 36 57.6 +0.3**
ULN S **S 21 42 01.9 +4.1**
ULN Ulaanbaatar 30.47 311 *ceP* **P 21 36 58.5 +1.2**
ULN pmax pmax
comp=Z,49nm,1.0s
ULN Ulaanbaatar 30.47 311 P 21 36 56.3 -0.9
ULN lAmb lAmb 21 37 03.3
comp=Z,47nm,0.9s
ULN Ulaanbaatar 30.47 311 P **P 21 36 58.4 +1.2**
ULN Ulaanbaatar 30.47 311 P **P 21 36 58.2 +0.9**
comp=Z,61nm,1.0s
YAK Yakutsk 30.68 349 LR LR 21 49 42.3
comp=Z,664nm,18.2s,baz=166,slow=37
YAK Yakutsk 30.68 349 *eP* **P 21 36 58.5 -0.2**
YAK *e* 21 39 55.6
YAK *eS* **S 21 41 58.7 -1.7**
YAK *eSSS* SSS 21 44 08.9
YAK pmax pmax
comp=Z,33nm,1.0s
YAK pmax pmax
comp=N,28nm,1.4s
YAK smax smax
comp=N,61nm,2.2s
YAK smax smax
comp=E,61nm,2.3s
YAK MLR MLR
comp=Z,931nm,14.0s
YAK MLR MLR
comp=N,343nm,9.0s
YAK MLR MLR
comp=E,220nm,12.0s
YAK Yakutsk 30.68 349 P 21 36 57.5 -1.2
YAK lAmb lAmb 21 36 59.9
comp=Z,34nm,0.9s
YAK Yakutsk 30.68 349 P **P 21 36 58.7 -0.1**
comp=Z,42nm,1.3s
SHEM Shemya Is, Ala 30.87 39 LR LR 21 47 31.4
comp=Z,741nm,19.5s,baz=247,slow=32
SONM Songino Array 30.88 310 P **P 21 37 01.9 +1.0**
comp=Z,32nm,0.8s,baz=118,slow=8.3,SNR=92
SONM PcP **PcP 21 39 58.1 +0.8**
comp=Z,1.2nm,0.7s,baz=108,slow=2.7,SNR=2.8
SONM ScP **ScP 21 43 38.5 -1.0**
comp=Z,0.5nm,0.8s,baz=101,slow=2.9,SNR=2.6
SONM LR LR 21 49 51.5
comp=Z,826nm,19.1s,baz=128,slow=37
comp=Z,32nm,0.8s
SONM Songino Array 30.88 310 P P 21 37 00.2 -0.7
SONM pmax pmax
comp=Z,75nm,1.4s
SONM Songino Array 30.88 310 P 21 37 00.2 -0.7
SONM lAmb lAmb 21 37 05.5
comp=Z,75nm,1.4s
SEY Seymchan 31.29 9 LR LR 21 51 49.0
comp=Z,833nm,19.5s,baz=192,slow=40
SEY Seymchan 31.29 9 *i* P **P 21 37 05.4 +1.3**
SEY pmax pmax
comp=Z,2.0nm,0.6s
LZH Lanzhou 31.51 287 *eP* **P 21 37 04.6 -2.0**
LZH sP sP 21 37 14.2 +3.7
LZH S **S 21 42 09.9 -4.4**
LZH pmax pmax
comp=Z,25nm,1.6s
LZH pmax pmax
comp=Z,290nm,4.5s
LZH L L
comp=Z,1μm,14.6s
LZH L L
comp=Z,2μm,15.2s
LZH L L
comp=Z,2μm,15.2s
QIZ Qiongzhong 31.63 253 P **P 21 37 08.8 +1.2**
QIZ S **S 21 42 20.6 +4.5**
QIZ pmax pmax
comp=Z,400nm,6.1s
QIZ L L
comp=Z,860nm,17.5s
QIZ L L
comp=Z,600nm,15.9s
QIZ L L
comp=Z,870nm,16.1s
LZDM Lanzhou Array 31.64 287 P **P 21 37 06.7 -1.2**
comp=Z,11nm,0.8s,baz=100,slow=8.0,SNR=8.0
LZDM LR LR 21 50 59.9
comp=Z,1μm,18.6s,baz=300,slow=38
comp=Z,11nm,0.8s
BOD Bodaibo 31.72 332 *eP* **P 21 37 07.4 -0.6**
BOD pmax pmax
comp=Z,71nm,1.2s
CD2 Chengdu 32.35 278 *eP* **P 21 37 12.6 -1.3**
CD2 S **S 21 42 29.6 +2.2**
CD2 pmax pmax
comp=Z,10.0nm,0.4s
CD2 L L
comp=Z,2μm,14.2s
CD2 L L
comp=Z,3μm,15.6s
CD2 L L
comp=Z,3μm,16.5s
ZAK Zakamensk 33.59 314 *eP* **P 21 37 24.9 +0.3**
ZAK pmax pmax
comp=Z,25nm,1.4s
IRK Irkutsk 33.63 317 *eP* **P 21 37 23.7 -1.1**
IRK pmax pmax
comp=Z,43nm,2.1s
TLY Talaya 33.79 316 LR LR 21 51 21.9
comp=Z,708nm,19.0s,baz=108,slow=37
TLY Talaya 33.79 316 P **P 21 37 25.7 -0.5**
TLY Talaya 33.79 316 *ceP* **P 21 37 28.3 +2.1**
TLY pmax pmax
comp=Z,41nm,1.3s
TLY Talaya 33.79 316 P 21 37 25.6 -0.6

TLY IAmb IAmb 21 37 31.3
comp=Z,32nm,1.1s
TLY Talaya 33.79 316 P **P** **21 37 27.2 +1.0**
comp=Z,31nm,1.2s
TNTI Ternate 34.29 206 **P** **21 37 28.7 -2.1**
TNTI IAmb IAmb 21 37 31.7
comp=Z,53nm,1.2s
TNTI Ternate 34.29 206 P **P** **21 37 29.8 -1.0**
comp=Z,22nm,1.0s
SIJI Sorong 34.56 199 LR LR 21 50 16.8
comp=Z,866nm,18.7s,baz=24,slow=34
SIJI Sorong 34.56 199 P **P** **21 37 34.0 +0.8**
comp=Z,20nm,1.0s
GTA2 Gaotai 34.57 294 *e*P **P** **21 37 31.8 -1.4**
GTA2 PP **PnPn** **21 38 44.9 -3.7**
GTA2 PcP **PcP** **21 40 09.7 +2.0**
GTA2 S **S** **21 43 05.5 +3.8**
GTA2 ScP **ScP** **21 43 52.7 +0.4**
GTA2 pmax pmax
comp=Z,23nm,1.1s
GTA2 L L
comp=Z,700nm,15.6s
GTA2 L L
comp=Z,1µm,15.5s
GTA2 L L
comp=Z,1µm,15.2s
ADK Adak 35.77 45 P **P** **21 37 42.3 -1.0**
FAKI Fak Fak 36.28 196 P **P** **21 37 47.7 -0.2**
FAKI Fak Fak 36.28 196 P **P** **21 37 47.0 -0.9**
FAKI IAmb IAmb 21 38 25.1
comp=Z,107nm,1.8s
TOLI2 Tolitoli 36.91 217 P **P** **21 37 51.5 -1.8**
KNGR Kungurtug, Tuv 37.21 313 *i* P **P** **21 37 56.9 +1.2**
KNGR pmax pmax
comp=Z,13nm,0.8s
SANI Sanana 37.40 207 P **P** **21 37 55.3 -2.2**
comp=Z,34nm,1.3s
SANI Sanana 37.40 207 P **P** **21 37 56.1 -1.4**
comp=Z,34nm,1.3s
KRVT Keravat (AS076 37.75 163 LR LR 21 51 57.6
comp=Z,254nm,20.0s,baz=328,slow=34
LUWI Luwuk 37.83 212 P **P** **21 38 01.3 +0.2**
NLAI Namlea 38.10 204 P **P** **21 38 03.4 0.0**
comp=Z,3µmcomp=Z,36nm,1.1s
TNCH TengChong 38.51 270 P **P** **21 38 07.2 +0.2**
TNCH S **S** **21 43 59.5 -2.7**
TNCH pmax pmax
comp=Z,23nm,0.9s
TNCH pmax pmax
comp=Z,120nm,3.1s
TNCH L L
comp=Z,320nm,11.5s
TNCH L L
comp=Z,660nm,14.9s
TNCH L L
comp=Z,820nm,16.2s
GOMU GeErMu 38.76 289 P **P** **21 38 08.2 -1.1**
GOMU pP pP 21 38 11.1 -0.9
GOMU sP sP 21 38 15.5 +2.3
GOMU S **S** **21 43 59.8 -6.4**
GOMU pmax pmax
comp=Z,58nm,1.2s
GOMU L L
comp=Z,890nm,15.9s
GOMU L L
comp=Z,710nm,15.3s
GOMU L L
comp=Z,1µm,15.9s
TIXI Tiksi 39.94 354 LR LR 21 58 10.9
comp=Z,466nm,18.1s,baz=187,slow=41
TIXI Tiksi 39.94 354 *ce*P **P** **21 38 18.4 +0.2**
TIXI pmax pmax
comp=Z,3.0nm,0.5s
TIXI Tiksi 39.94 354 **P** **21 38 17.2 -0.9**
TIXI Tiksi 39.94 354 P **P** **21 38 18.6 +0.4**
comp=Z,8.4nm,1.4s
CHTO Chiang Mai 40.73 261 P **P** **21 38 23.4 -2.0**
CHTO Chiang Mai 40.73 261 P **P** **21 38 23.1 -2.3**
CHTO pmax pmax
comp=Z,7.0nm,1.1s
CHTO Chiang Mai 40.73 261 **P** **21 38 23.1 -2.3**
CHTO Chiang Mai 40.73 261 P **P** **21 38 23.5 -1.9**
CHTO Chiang Mai 40.73 261 P **P** **21 38 23.2 -2.2**
comp=Z,6.5nm,1.4s
SBUM Sibu 40.77 229 P **P** **21 38 24.2 -1.5**
CMAR Chiang Mai Arr 40.89 261 P **P** **21 38 24.5 -2.3**
comp=Z,0.9nm,0.6s,baz=50,slow=7.6,SNR=9.8
CMAR PcP **PcP** **21 40 29.2 +1.9**
comp=Z,2.4nm,1.0s,baz=20,slow=2.1,SNR=8.0
CMAR LR LR 21 57 00.8
comp=Z,399nm,18.3s,baz=60,slow=39
comp=Z,0.9nm,0.6s
BBSI Bau Bau 41.90 209 P **P** **21 38 36.1 +1.2**
comp=Z,19nm,1.1s
UNV Unalaska Valle 42.22 44 P **P** **21 38 36.4 -0.8**
MORE Moreh 42.37 271 **P** **21 38 35.8 -3.0**
NPW Naypyitaw 42.64 264 P **P** **21 38 39.8 -1.3**
comp=Z,22nm,1.1s
KAPI Kappang 42.72 214 LR LR 21 57 49.2
comp=Z,155nm,18.5s,baz=353,slow=38
KAPI Kappang 42.72 214 P **P** **21 38 40.1 -1.6**
KAPI pmax pmax
comp=Z,23nm,1.3s
KAPI Kappang 42.72 214 P **P** **21 38 40.0 -1.6**
KAPI Kappang 42.72 214 P **P** **21 38 41.2 -0.5**
LSA Lhasa 43.20 280 P **P** **21 38 43.6 -2.5**
LSA pmax pmax
comp=Z,11nm,1.2s
LSA Lhasa 43.20 280 P **P** **21 38 44.3 -1.8**
LSA pmax pmax
comp=Z,10.0nm,0.9s
LSA Lhasa 43.20 280 P **P** **21 38 44.3 -1.8**
WMQ Urumqi 43.42 301 ⇑P **P** **21 38 47.9 +0.7**
WMQ sP pwP 21 38 55.3 -3.9
WMQ pmax pmax
comp=Z,44nm,1.7s
WMQ pmax pmax
comp=Z,320nm,3.7s
WMQ L L
comp=Z,710nm,14.1s
WMQ L L
comp=Z,560nm,14.1s
WMQ L L
comp=Z,370nm,15.3s
DGZ Jazzator, Alta 43.53 310 *i* P **P** **21 38 48.8 +0.7**
DGZ pmax pmax
comp=Z,59nm,1.1s
SHL Shillong 43.92 274 P **P** **21 38 49.4 -2.2**
SHL Shillong 43.92 274 P **P** **21 38 49.4 -2.2**
MMRI Maumere 44.88 208 **P** **21 38 57.5 -1.5**
MMRI IAmb IAmb 21 39 00.5
comp=Z,26nm,0.7s
MMRI Maumere 44.88 208 P **P** **21 38 57.1 -1.9**
comp=Z,35nm,1.0s
HNR Honiara 45.03 154 LR LR 21 56 46.9
comp=Z,242nm,21.4s,baz=53,slow=35
SOEI Soe 45.15 205 **P** **21 38 59.4 -1.9**
SOEI Soe 45.15 205 P **P** **21 39 01.2 -0.1**
SOEI Soe 45.15 205 P **P** **21 39 00.8 -0.5**
comp=Z,61nm,1.0s
EDFI Ende, Flores 45.21 209 P **P** **21 39 00.7 -1.0**
comp=Z,22nm,1.2s
BRDH Bariadhala 45.22 271 LR LR 22 01 10.1
comp=Z,788nm,18.0s,baz=34,slow=40
ZSN Zaisan 45.23 307 *e*P **P** **21 39 01.6 +0.1**
ZSN pmax pmax
comp=Z,37nm,1.2s
ZSN Zaisan 45.23 307 *e*P **P** **21 39 01.6 +0.1**
comp=Z,37nm,1.2s
ZAA0 Zalesovo Array 45.41 316 **P** **21 39 01.9 -0.9**
ZAA0 IAmb IAmb 21 39 03.8
comp=Z,30nm,1.1s
ZAA0 PcP **PcP** **21 40 41.9 0.0**
ZALV Zalesovo Beam 45.41 316 P **P** **21 39 02.3 -0.5**
comp=Z,25nm,1.0s,baz=97,slow=6.4,SNR=57
ZALV PcP **PcP** **21 40 41.9 0.0**
comp=Z,5.6nm,0.6s,baz=100,slow=3.3,SNR=8.1
ZALV ScP **ScP** **21 44 32.8 -1.1**
comp=Z,0.4nm,0.4s,baz=86,slow=4.3,SNR=2.7
ZALV LR LR 21 58 14.0
comp=Z,284nm,19.7s,baz=92,slow=36
comp=Z,25nm,1.0s
ZALV Zalesovo Beam 45.41 316 *i* P **P** **21 39 02.9 +0.1**
ZALV pmax pmax
comp=Z,25nm,1.0s
KDU Kakadu 45.71 193 P **P** **21 39 06.4 +0.9**
comp=Z,12nm,1.2s
BATI Baumata 45.78 205 LR LR 21 57 48.4
comp=Z,378nm,19.4s,baz=24,slow=35
BATI Baumata 45.78 205 P **P** **21 39 06.1 -0.1**
comp=Z,50nm,1.1s
MTN Manton Dam 46.13 195 P **P** **21 39 08.3 -0.6**
comp=Z,10nm,0.6s
MTN Manton Dam 46.13 195 **P** **21 39 08.2 -0.7**
MTN IAmb IAmb 21 39 09.8
comp=Z,27nm,1.2s
DBNI Kabupaten Domp 46.45 213 P **P** **21 39 10.6 -0.9**
comp=Z,23nm,1.5s
PLAI Plampang 46.99 213 P **P** **21 39 15.2 -0.4**
PLAI Plampang 46.99 213 P **P** **21 39 14.2 -1.4**
comp=Z,30nm,1.2s
MK31 Makanchi Array 47.02 306 *ce*P **P** **21 39 16.1 +0.4**
MKAR Makanchi Array 47.02 306 P **P** **21 39 15.7 +0.1**
comp=Z,23nm,0.7s,baz=90,slow=9.5,SNR=110
MKAR PcP **PcP** **21 40 48.5 +0.8**
comp=Z,2.9nm,0.7s,baz=66,slow=3.6,SNR=1.5
MKAR ScP **ScP** **21 44 41.0 +0.1**
comp=Z,0.8nm,0.8s,baz=79,slow=4.6,SNR=4.7
MKAR S **S** **21 46 03.2 -3.4**
comp=Z,2.2nm,1.2s,baz=89,slow=18,SNR=2.8
MKAR LR LR 21 58 09.0
comp=Z,343nm,20.9s,baz=82,slow=35
comp=Z,23nm,0.7s
MKAR Makanchi Array 47.02 306 *i* P **P** **21 39 16.2 +0.5**
MKAR pmax pmax
comp=Z,24nm,0.7s
MKAR Makanchi Array 47.02 306 **P** **21 39 15.7 +0.1**
MKAR **ScP** **21 44 40.6 -0.2**
IPM Ipoh 47.19 243 P **P** **21 39 16.2 -1.2**
IPM Ipoh 47.19 243 P **P** **21 39 17.8 +0.5**
comp=Z,9.3nm,1.1s
MAKZ Makanchi 47.23 306 P **P** **21 39 16.9 -0.4**
MAKZ pmax pmax
comp=Z,136nm,1.6s
MAKZ Makanchi 47.23 306 **P** **21 39 16.9 -0.4**
TWSI Taliwang, Sumb 47.33 215 P **P** **21 39 17.2 -1.1**
comp=Z,25nm,1.0s
EVN Everest 47.35 280 **P** **21 39 18.0 -1.2**
EVN IAmb IAmb 21 39 42.9
comp=Z,54nm,1.5s
KHKI Kahang-Kahang 47.64 216 P **P** **21 39 21.4 +0.7**
NRIK Noril'sk 47.66 337 P **P** **21 39 20.2 0.0**
comp=Z,17nm,1.0s,baz=115,slow=8.1,SNR=14
NRIK LR LR 22 02 37.7
comp=Z,332nm,18.1s,baz=114,slow=40
comp=Z,17nm,1.0s
NRIK Noril'sk 47.66 337 *i* P **P** **21 39 20.3 0.0**
NRIK pmax pmax
comp=Z,16nm,1.0s
NRIK Noril'sk 47.66 337 **P** **21 39 20.4 +0.2**
NRIK IAmb IAmb 21 39 34.5
comp=Z,31nm,1.2s
SEM Semipalatinsk 48.16 311 *e*P **P** **21 39 24.1 -0.6**
SEM pmax pmax
comp=Z,21nm,1.4s
SEM Semipalatinsk 48.16 311 *e*P **P** **21 39 24.2 -0.6**
comp=Z,21nm,1.4s
KURK Kurchatov 49.18 311 P **P** **21 39 32.0 -0.3**
KURK Kurchatov 49.18 311 P **P** **21 39 32.4 +0.2**
KURK S **S** **21 46 37.1 +0.1**
KURK Kurchatov 49.18 311 **P** **21 39 31.4 -0.8**
KURK Kurchatov 49.18 311 P **P** **21 39 31.8 -0.4**
comp=Z,53nm,1.3s
KURBB Kurchatov Arra 49.24 311 P **P** **21 39 32.4 -0.3**
comp=Z,19nm,0.8s,baz=87,slow=7.6,SNR=93
KURBB S **S** **21 46 37.1 -0.7**
comp=Z,0.1nm,0.3s,baz=70,slow=17,SNR=1.8
KURBB LR LR 22 01 08.8
comp=Z,1µm,18.1s,baz=146,slow=37
comp=Z,19nm,0.8s
PDGK Podgornoye 49.39 302 P **P** **21 39 33.3 -0.9**
PDGK Podgornoye 49.39 302 P **P** **21 39 33.3 -0.9**
KNRA Kununurra 49.41 197 P **P** **21 39 35.1 +0.8**
comp=Z,11nm,1.5s
KNRA Kununurra 49.41 197 **P** **21 39 34.2 -0.1**
E19K Redstone River 49.43 26 P **P** **21 39 34.9 +1.0**
E19K IAmb IAmb 21 39 52.6
comp=Z,19nm,0.8s
SHLS Shalkode 49.44 301 *e*P **P** **21 39 32.1 -2.5**
SHLS pmax pmax
comp=Z,12nm,1.1s
SHLS Shalkode 49.44 301 *e*P **P** **21 39 32.1 -2.5**
comp=Z,12nm,1.1s
UZB Uzynbulak 49.76 301 *e*P **P** **21 39 36.8 -0.2**
UZB pmax pmax
comp=Z,21nm,1.5s
UZB Uzynbulak 49.76 301 *e*P **P** **21 39 36.9 -0.2**
comp=Z,21nm,1.5s
TDK Taldyqorghan 49.91 304 *e*P **P** **21 39 38.5 +0.5**
TDK pmax pmax
comp=Z,28nm,1.3s
TDK Taldyqorghan 49.91 304 *e*P **P** **21 39 38.5 +0.5**
comp=Z,28nm,1.3s
KPKS Kokpek 49.95 302 *e*P **P** **21 39 38.6 +0.2**
KPKS Kokpek 49.95 302 *e*P **P** **21 39 38.7 +0.2**
BKNI Bangkinang 49.96 239 P **P** **21 39 39.4 +0.8**
WUS Wushi 49.97 299 **P** **21 39 38.4 -0.3**
WUS IAmb IAmb 21 39 40.4
comp=Z,57nm,1.6s
SATY Saty 50.22 301 *e*P **P** **21 39 40.5 0.0**
SATY Saty 50.22 301 *e*P **P** **21 39 40.6 0.0**
MTSU Mount Surprise 50.29 177 P **P** **21 39 43.8 +2.8**
comp=Z,8.7nm,1.3s
MTSU Mount Surprise 50.29 177 P **P** **21 39 43.5 +2.6**
comp=Z,7.7nm,0.9s
PRZ Przheval'sk 50.33 301 P **P** **21 39 41.2 -0.2**
PRZ pmax pmax
comp=Z,47nm,1.1s
PRZ Przheval'sk 50.33 301 P **P** **21 39 41.2 -0.2**
PRZ IAmb IAmb 21 39 43.5
comp=Z,47nm,1.1s
KDAK Kodiak Island 50.38 39 LR LR 21 59 22.6
comp=Z,493nm,22.0s,baz=249,slow=34
KDAK Kodiak Island 50.38 39 P **P** **21 39 41.4 +0.1**
KDAK pmax pmax
comp=Z,17nm,0.9s
KDAK Kodiak Island 50.38 39 P **P** **21 39 41.4 +0.1**
KDAK IAmb IAmb 21 39 47.0
comp=Z,16nm,0.9s
KPJI Karang Pucung 50.44 224 P **P** **21 39 41.9 -0.3**
comp=Z,35nm,1.1s
IMAR Indian Mountai 50.50 29 P **P** **21 39 43.1 +1.0**
LEM Lembang 50.83 226 LR LR 22 02 39.1
comp=Z,241nm,18.3s,baz=13,slow=38
LHSI Lahat 51.18 233 P **P** **21 39 46.7 -1.1**
comp=Z,34nm,1.1s
MDOK Medeo 51.18 302 *e*P **P** **21 39 47.8 0.0**
MDOK Medeo 51.18 302 *e*P **P** **21 39 47.8 0.0**
MDSI Maura Dua 51.23 231 P **P** **21 39 47.2 -1.0**
comp=Z,31nm,1.1s
AAA Alma-Ata 51.27 302 *e*P **P** **21 39 48.4 +0.1**
AAA pmax pmax
comp=Z,29nm,0.9s
AAA Alma-Ata 51.27 302 *e*P **P** **21 39 48.5 +0.1**
comp=Z,29nm,0.9s
TNSS Tian-Shan 51.28 302 *e*P **P** **21 39 48.5 -0.3**
TNSS Tian-Shan 51.28 302 *e*P **P** **21 39 48.5 -0.3**
KDJ Kajisay 51.28 300 P **P** **21 39 47.5 -1.1**
KDJ pmax pmax
comp=Z,10.0nm,0.8s
KDJ Kajisay 51.28 300 P **P** **21 39 47.5 -1.1**
H22K Ishtalitna Cre 51.46 29 P **P** **21 39 50.8 +1.5**
GSI Gunungsitoli 51.86 243 P **P** **21 39 51.6 -1.4**
GSI Gunungsitoli 51.86 243 P **P** **21 39 51.6 -1.4**
GSI IAmb IAmb 21 40 08.3
comp=Z,39nm,1.1s
GSI Gunungsitoli 51.86 243 P **P** **21 39 52.5 -0.4**
comp=Z,30nm,1.0s
GSI Gunungsitoli 51.86 243 P **P** **21 39 51.6 -1.4**
comp=Z,31nm,1.3s
TKM2 Tokmak 2 52.27 302 P **P** **21 39 56.6 +0.7**
SNR=34
NEA2 Nenana 52.32 31 P **P** **21 39 55.9 +0.1**
NEA2 IAmb IAmb 21 40 12.7
comp=Z,19nm,1.0s
CTA Charters Tower 52.35 175 LR LR 22 01 34.1
comp=Z,249nm,21.3s,baz=22,slow=35
WRAB Tennant Creek 52.52 189 P **P** **21 39 57.5 -0.1**
WRAB Tennant Creek 52.52 189 *ce*P **P** **21 39 58.9 +1.3**
WRAB pmax pmax
comp=Z,89nm,1.7s
WR8 Warramunga Arr 52.52 189 **P** **21 39 56.5 -1.2**
WRA Warramunga Arr 52.53 189 P **P** **21 39 56.9 -0.9**
comp=Z,35nm,0.8s,baz=5.1,slow=7.4,SNR=117
WRA ScP **ScP** **21 45 04.8 +0.2**
comp=Z,1.6nm,1.1s,baz=11,slow=3.5,SNR=6.0
WRA S **S** **21 47 19.8 -4.0**
comp=Z,2.4nm,1.1s,baz=4.1,slow=14,SNR=5.5
comp=Z,35nm,0.8s
WRA Warramunga Arr 52.53 189 P **P** **21 39 56.1 -1.7**
WRA pmax pmax
comp=Z,5.0nm,0.9s
WRA Warramunga Arr 52.53 189 P **P** **21 39 56.0 -1.7**
FITZ Fitzroy Crossi 52.55 200 P **P** **21 39 59.0 +1.1**
comp=Z,4.8nm,1.2s
FITZ Fitzroy Crossi 52.55 200 P **P** **21 39 58.0 +0.2**
FITZ Fitzroy Crossi 52.55 200 **P** **21 39 56.6 -1.2**
QIS Mount Isa 52.69 183 P **P** **21 40 00.3 +1.4**
comp=Z,20nm,1.2s
QIS Mount Isa 52.69 183 P **P** **21 39 59.5 +0.6**
KBK Karagaybulak 52.79 302 P **P** **21 40 00.2 +0.4**
SNR=25
USP Ospenovka 52.99 302 P **P** **21 40 00.8 -0.2**
SNR=26
FRU1 Bishkek 52.99 302 P **P** **21 40 00.4 -0.7**
FRU1 pmax pmax
comp=Z,41nm,1.2s
FRU1 Bishkek 52.99 302 P **P** **21 40 00.4 -0.7**
FRU1 IAmb IAmb 21 40 02.8
comp=Z,41nm,1.2s
AAK Ala-Archa 53.12 302 LR LR 22 04 01.8
comp=Z,492nm,18.3s,baz=90,slow=38
AAK Ala-Archa 53.12 302 P **P** **21 40 02.9 +0.7**
SNR=16
AAK Ala-Archa 53.12 302 *i* P **P** **21 40 02.4 +0.2**
SNR=19
AAK Ala-Archa 53.12 302 P **P** **21 40 02.1 -0.1**
AAK Ala-Archa 53.12 302 *ce*P **P** **21 40 02.8 +0.6**
AAK pmax pmax
comp=Z,18nm,1.3s
AAK Ala-Archa 53.12 302 **P** **21 40 01.4 -0.9**
KSH2 Kashi 53.15 297 P **P** **21 40 03.0 +0.5**
KSH2 pmax pmax
comp=Z,20nm,0.9s
KSH2 pmax pmax
comp=Z,220nm,8.5s
KSH2 L L
comp=Z,1µm,17.9s
KSH2 L L
comp=Z,560nm,15.1s
KSH2 L L
comp=Z,1µm,17.5s
UCH Uchtor 53.20 301 P **P** **21 40 04.5 +1.4**
SNR=18
ILAR Eielson Array 53.26 30 P **P** **21 40 02.9 +0.2**
comp=Z,9.3nm,1.1s,baz=263,slow=5.7,SNR=28
ILAR LR LR 22 02 28.2
comp=Z,90nm,21.0s,baz=266,slow=36
comp=Z,9.3nm,1.1s
EKS2 Erkin-Say 53.63 302 P **P** **21 40 06.3 +0.4**
SNR=13
BVAR Borovoye Array 54.04 315 P **P** **21 40 08.4 -0.1**
comp=Z,14nm,0.8s,baz=92,slow=7.6,SNR=40
BVAR PcP **PcP** **21 41 14.2 +0.7**
comp=Z,6.6nm,0.7s,baz=87,slow=2.4,SNR=2.5
comp=Z,14nm,0.8s
BORK Borovoye 54.08 315 P **P** **21 40 08.8 0.0**
BORK pmax pmax
comp=Z,21nm,1.0s
BORK Borovoye 54.08 315 **P** **21 40 08.8 0.0**
BORK IAmb IAmb 21 40 10.2
comp=Z,21nm,0.9s
ARSB Arslanbob 54.53 300 P **P** **21 40 12.2 -0.3**
ARSB pmax pmax
comp=Z,65nm,1.2s
ARSB Arslanbob 54.53 300 **P** **21 40 12.2 -0.3**
SCRK Sand Creek 54.53 31 **P** **21 40 13.6 +1.4**
SCRK IAmb IAmb 21 40 18.1
comp=Z,35nm,1.6s
DZA Taraz 55.33 303 *e*P **P** **21 40 18.3 +0.2**
DZA pmax pmax
comp=Z,16nm,1.5s
DZA Taraz 55.33 303 *e*P **P** **21 40 18.4 +0.2**
comp=Z,16nm,1.5s
BCAR Beaver Creek A 55.57 32 P **P** **21 40 20.9 +1.3**
KK31 Karatay Array 55.86 303 P **P** **21 40 21.4 -0.5**
KK31 pmax pmax
comp=Z,63nm,1.1s
KK31 Karatay Array 55.86 303 **P** **21 40 21.4 -0.5**
KKAR Karatay Array 55.86 303 P **P** **21 40 21.6 -0.4**
KKAR Karatay Array 55.86 303 **P** **21 40 21.6 -0.4**
DRK Karamyk 55.88 299 P **P** **21 40 22.2 -0.3**
DRK Karamyk 55.88 299 P **P** **21 40 22.2 -0.3**
AS15 Alice Springs 56.22 189 P **P** **21 40 25.7 +1.1**
comp=Z,9.2nm,0.6s
AS17 Alice Springs 56.24 189 P **P** **21 40 25.6 +0.9**
comp=Z,12nm,0.8s
AS01 Alice Springs 56.25 189 P **P** **21 40 25.4 +0.6**
AS31 Alice Springs 56.25 189 P **P** **21 40 26.3 +1.5**
comp=Z,4.1nm,0.7s
AS31 Alice Springs 56.25 189 **P** **21 40 25.4 +0.6**
ASAR Alice Springs 56.25 189 P **P** **21 40 24.9 +0.1**
comp=Z,12nm,1.0s,baz=0.2,slow=6.2,SNR=49
ASAR LR LR 22 04 37.6
comp=Z,313nm,19.4s,baz=350,slow=36
comp=Z,12nm,1.0s
ASAR Alice Springs 56.25 189 P **P** **21 40 25.1 +0.3**
ASAR Alice Springs 56.25 189 **P** **21 40 25.1 +0.3**
AS09 Alice Springs 56.28 189 P **P** **21 40 26.1 +1.1**
comp=Z,13nm,1.0s
BRLS Borolday 56.36 303 *e*P **P** **21 40 26.9 +1.4**
BRLS pmax pmax
comp=Z,15nm,1.1s
BRLS Borolday 56.36 303 *e*P **P** **21 40 26.9 +1.4**
comp=Z,15nm,1.1s
BTK Batken 56.45 299 P **P** **21 40 25.7 -0.5**
BTK pmax pmax
comp=Z,14nm,0.8s
BTK Batken 56.45 299 **P** **21 40 25.7 -0.5**
BTK IAmb IAmb 21 40 30.6
comp=Z,14nm,0.8s
IUG Iuzhnay 56.45 302 *e*P **P** **21 40 26.4 +0.1**
IUG pmax pmax
comp=Z,24nm,0.9s
IUG Iuzhnay 56.45 302 *e*P **P** **21 40 26.4 +0.1**
comp=Z,24nm,0.9s
NIL Nilore 56.53 291 P **P** **21 40 27.3 +0.4**
NIL Nilore 56.53 291 P **P** **21 40 26.7 -0.2**
NIL pmax pmax
comp=Z,38nm,0.8s
NIL Nilore 56.53 291 **P** **21 40 26.7 -0.2**
CHM Chimkent 56.71 302 *e*P **P** **21 40 28.2 +0.2**
CHM pmax pmax
comp=Z,23nm,1.2s
CHM Chimkent 56.71 302 *e*P **P** **21 40 28.3 +0.2**
comp=Z,23nm,1.2s
L29M L29M 57.22 32 **P** **21 40 33.1 +1.8**
L29M IAmb IAmb 21 40 51.5
comp=Z,19nm,0.9s
MBWA Marble Bar 57.30 205 P **P** **21 40 32.5 +0.3**
comp=Z,25nm,1.0s
MBWA Marble Bar 57.30 205 P **P** **21 40 32.7 +0.5**
MBWA Marble Bar 57.30 205 P **P** **21 40 32.3 +0.1**
MBWA Marble Bar 57.30 205 **P** **21 40 32.2 -0.1**
MBWA IAmb IAmb 21 40 46.4
comp=Z,18nm,0.8s
HYT Haines Junctio 57.85 35 P **P** **21 40 37.3 +1.4**
HYT IAmb IAmb 21 41 05.1
comp=Z,23nm,1.4s
EIDS Eidsvold 58.10 170 P **P** **21 40 39.9 +2.1**
comp=Z,14nm,1.2s
EIDS Eidsvold 58.10 170 P **P** **21 40 38.1 +0.3**
EIDS IAmb IAmb 21 40 41.0
comp=Z,63nm,1.6s
INK Inuvik 58.38 26 LR LR 22 08 55.8
comp=Z,146nm,20.1s,baz=314,slow=39
INK Inuvik 58.38 26 P **P** **21 40 40.1 +0.8**
INK pmax pmax
comp=Z,6.0nm,0.9s
INK Inuvik 58.38 26 **P** **21 40 40.1 +0.8**
WRKA Warakurna 58.55 194 P **P** **21 40 41.7 +0.7**
comp=Z,11nm,1.1s
HYB Hyderabad 58.57 272 *e*P **P** **21 40 40.8 -0.6**
HYB IVmB_BB 21 40 42.5
comp=Z,226nm,2.8s
HYB *es*P **sP** **21 40 44.9 -0.5**
HYB IVmBBB 21 40 47.1
comp=Z,143nm,2.1s

HYB eS ScS 21 50 31.3 +0.3
HYB IVMs_BB IVMs_BB 22 24 21.9
comp=Z,187nm,6.4s
QLP Quilpie 58.69 178 P P 21 40 43.4 +1.5
comp=Z,32nm,1.5s
SVE Sverdlovsk 58.92 321 eP P 21 40 43.4 +0.2
SVE pmax pmax
comp=Z,46nm,1.2s
WHY Whitehorse 59.15 35 P 21 40 46.4 +1.4
WHY IAmb IAmb 21 41 06.9
comp=Z,47nm,1.4s
KBL Kabul 59.52 294 P P 21 40 47.9 -0.1
SNR=15
KBL Kabul 59.52 294 P P 21 40 47.2 -0.8
KBL pmax pmax
comp=Z,28nm,1.0s
KBL Kabul 59.52 294 P 21 40 47.2 -0.8
KBL IAmb IAmb 21 41 01.8
comp=Z,28nm,0.9s
INKA Innaminka 59.80 181 P 21 40 49.5 -0.1
ARTI Arti 60.23 320 P P 21 40 52.2 -0.1
comp=Z,27nm,0.7s,baz=84,slow=3.5,SNR=43
ARTI LR LR 22 09 19.5
comp=Z,453nm,18.2s,baz=72,slow=38
comp=Z,27nm,0.7s
ARTI Arti 60.23 320c iP P 21 40 52.4 +0.1
ARTI 21 41 40.8
ARTI 21 43 04.7
ARTI S S 21 49 08.4 +3.1
ARTI SS SS 21 53 05.3 +3.2
ARTI pmax pmax
comp=Z,51nm,1.1s
ARTI Arti 60.23 320 P P 21 40 52.2 -0.1
A36M Sachs Harbour 60.44 21 P 21 40 55.0 +1.5
A36M IAmb IAmb 21 41 10.1
comp=Z,14nm,1.0s
MSVF Nonsavu 60.70 140 LR LR 22 06 17.4
comp=Z,189nm,18.0s,baz=328,slow=35
AB31 Akbulak array 61.27 312 P 21 40 59.6 +0.1
AB31 IAmb IAmb 21 41 05.4
comp=Z,19nm,1.0s
ABKAR Akbulak array 61.27 312 P P 21 40 59.2 -0.3
C36M Paulatuk 61.51 24 P P 21 41 01.8 +1.1
C36M IAmb IAmb 21 41 16.8
comp=Z,9.5nm,0.8s
PALK Pallekele 61.84 260 LR LR 22 09 33.6
comp=Z,222nm,19.7s,baz=81,slow=38
PALK Pallekele 61.84 260 P P 21 41 04.3 +0.4
PALK Pallekele 61.84 260 P P 21 41 04.3 +0.4
PALK Pallekele 61.84 260 P P 21 41 03.3 -0.6
PALK pmax pmax
comp=Z,30nm,1.4s
PALK Pallekele 61.84 260 P P 21 41 03.3 -0.6
PALK IAmb IAmb 21 41 05.3
comp=Z,30nm,1.4s
DLBC Dease Lake 62.10 37 LR LR 22 07 10.9
comp=Z,140nm,20.1s,baz=250,slow=35
AKTO Aktyubinsk 62.10 314 LR LR 22 10 11.4
comp=Z,172nm,18.6s,baz=15,slow=38
MEEK Meekatharra 62.73 203 P P 21 41 09.9 +0.4
comp=Z,22nm,2.0s
MEEK Meekatharra 62.73 203 P P 21 41 09.6 +0.1
CMSA Cobar Meteorol 63.68 176 P P 21 41 18.3 +2.6
comp=Z,12nm,1.3s
STKA Stephens Creek 63.92 180 P P 21 41 18.8 +1.5
comp=Z,50nm,2.8s
STKA Stephens Creek 63.92 180 P P 21 41 18.7 +1.5
comp=Z,4.5nm,0.6s,baz=343,slow=8.9,SNR=7.4
STKA LR LR 22 08 39.6
comp=Z,343nm,19.8s,baz=16,slow=36
comp=Z,4.5nm,0.6s
STKA Stephens Creek 63.92 180 P P 21 41 18.7 +1.5
STKA Stephens Creek 63.92 180 P P 21 41 17.9 +0.7
STKA pmax pmax
comp=Z,174nm,1.8s
STKA Stephens Creek 63.92 180 P P 21 41 17.9 +0.7
AFI Afiamalu 63.92 129 LR LR 22 04 34.4
comp=Z,513nm,20.7s,baz=348,slow=32
FORT Forrest 64.17 193 P P 21 41 20.3 +1.5
comp=Z,34nm,0.9s
FORT Forrest 64.17 193 P P 21 41 19.2 +0.4
KIRV Kirov 64.20 324 P P 21 41 19.1 +0.3
comp=Z,22nm,0.8s,baz=73,slow=9.9,SNR=9.4
KIRV LR LR 22 11 52.2
comp=Z,827nm,18.1s,baz=67,slow=38
comp=Z,22nm,0.8s
KIRV Kirov 64.20 324ceP P 21 41 19.5 +0.7
HRA Herat 64.80 296 P P 21 41 23.1 -0.3
BBOO Buckleboo 65.08 185 P P 21 41 26.4 +1.6
BBOO Buckleboo 65.08 185 P P 21 41 25.4 +0.6
SPITS Spitsbergen Ar 65.14 349 P P 21 41 25.5 +0.8
comp=Z,4.1nm,0.7s,baz=39,slow=9.3,SNR=1.2
SPITS LR LR 22 12 30.6
comp=Z,280nm,19.1s,baz=38,slow=38
comp=Z,4.1nm,0.7s
SPITS Spitsbergen Ar 65.14 349 P P 21 41 25.7 +0.9
SPITS pmax pmax
comp=Z,175nm,1.7s
BBB Bella Bella 65.18 43 LR LR 22 06 29.0
comp=Z,151nm,20.4s,baz=280,slow=33
MORW Morawa 65.85 205 P P 21 41 30.9 +1.0
comp=Z,38nm,1.7s
MORW Morawa 65.85 205 P P 21 41 30.6 +0.7
MORW Morawa 65.85 205 P P 21 41 30.2 +0.3
SYDH Sydney Hard Ro 66.33 172 P P 21 41 33.2 +0.4
RES Resolute Bay 67.01 14 LR LR 22 12 39.8
comp=Z,160nm,21.1s,baz=319,slow=38
RES Resolute Bay 67.01 14 P P 21 41 37.4 +0.7
RES pmax pmax
comp=Z,12nm,1.0s
RES Resolute Bay 67.01 14 P P 21 41 37.4 +0.7
RES IAmb IAmb 21 41 52.7
comp=Z,12nm,0.9s
BLDU Ballidu 67.04 203 P P 21 41 38.6 +1.2
comp=Z,35nm,1.2s
BLDU Ballidu 67.04 203 P P 21 41 37.9 +0.5
APA Apatity 67.08 337 eP P 21 41 35.1 -2.2
APA e 21 42 10.6
APA pmax pmax
comp=Z,14nm,1.2s
APA MLR MLR
comp=Z,2µm,4.4s
BELG Belogornoye 67.48 319 P P 21 41 39.8 -0.3
comp=Z,30nm,0.9s,baz=66,slow=6.5,SNR=5.2
comp=Z,30nm,0.9s
KLBR Kellerberrin 67.59 202 P P 21 41 48.6 +7.7
KLBR Kellerberrin 67.59 202 P P 21 41 41.3 +0.4
YKA Yellowknife Ar 67.66 29 P P 21 41 42.2 +1.1
comp=Z,3.6nm,0.8s,baz=308,slow=6.5,SNR=16
YKA LR LR 22 18 23.4
comp=Z,73nm,18.6s,baz=289,slow=42
comp=Z,3.6nm,0.8s
YKA Yellowknife Ar 67.66 29 P P 21 41 41.9 +0.9
CAN Canberra 67.69 174 P P 21 41 42.5 +1.0
CAN pmax pmax
comp=Z,42nm,1.3s
CAN Canberra 67.69 174 P P 21 41 42.5 +1.0
CNB Canberra Magne 67.71 173 P P 21 41 37.2 -4.5
KLMR Klimovskoe 67.89 329 eP P 21 41 39.1 -3.4
KLMR e 21 44 08.4
KLMR pmax pmax
comp=Z,31nm,1.4s
ARCES ARCESS Array B 68.47 340 P P 21 41 46.5 +0.4
comp=Z,2.9nm,0.8s,baz=51,slow=6.5,SNR=1.3
ARCES LR LR 22 17 18.5
comp=Z,379nm,18.5s,baz=11,slow=41
comp=Z,2.9nm,0.8s
ARCES ARCESS Array B 68.47 340 P P 21 41 46.2 +0.1
ARCES pmax pmax
comp=Z,106nm,1.9s
ARCES ARCESS Array B 68.47 340 P P 21 41 46.2 +0.1
NWAO Narrogin (SRO) 68.99 202 P P 21 41 50.3 +0.7
comp=Z,56nm,1.2s
NWAO Narrogin (SRO) 68.99 202 P P 21 41 50.2 +0.5
NWAO Narrogin (SRO) 68.99 202 P P 21 41 49.9 +0.2
NWAO Narrogin (SRO) 68.99 202 P P 21 41 49.6 -0.1
NWAO pmax pmax
comp=Z,66nm,1.2s
NWAO Narrogin (SRO) 68.99 202 P P 21 41 49.6 -0.1
NEEM North Greenlan 70.14 3 iP P 21 41 57.5 +0.9
SHUK Shuksan-Mt. Ba 70.29 44 P 21 41 58.7 +0.8
DAG Danmarks Havn 70.42 355 P P 21 41 59.2 +1.2
DAG Danmarks Havn 70.42 355 iP P 21 41 59.1 +1.1
MOS Moscow 71.22 325 eP P 21 42 04.1 +1.0
MOS e 21 42 22.9
MOS e 21 44 43.6
MOS eS S 21 51 22.6 +3.2
MOS pmax pmax
comp=Z,20nm,0.9s
MOS MLR MLR
comp=Z,800nm,17.0s
VRH Novokhopyorsk 71.30 319 eP P 21 42 03.2 -0.5
VRH pmax pmax
comp=Z,10.0nm,0.6s
MAK Makhachkala 71.65 310d iP P 21 42 00.0 -6.0
MAK ePPP PPP 21 46 25.9
MAK eS S 21 51 14.6 -10
MAK eSS SS 21 56 03.0 +3.3
MAK eSSS SSS 21 59 12.2
MAK pmax pmax
comp=Z,201nm,1.5s
MAK MLR MLR
comp=Z,2µm,16.0s
JASK Jask - Hormozg 71.87 289 P P 21 42 08.3 +0.6
OBN Obninsk 72.05 324 LR LR 22 16 36.9
comp=Z,891nm,18.4s,baz=12,slow=38
OBN Obninsk 72.05 324⇓iP P 21 42 08.6 +0.4
OBN *PP pP 21 42 11.0 -0.5
OBN e*SP sP 21 42 12.4 +0.2
OBN i 21 42 21.8
OBN i S SKiKP 21 51 38.6 -5.8
OBN eSS SS 21 56 01.8 -3.5
OBN pmax pmax
comp=Z,25nm,1.6s
OBN MLR MLR
comp=Z,871nm,18.0s
OBN Obninsk 72.05 324 P P 21 42 07.7 -0.4
LPSR Galich'ya Gora 72.12 321 eP P 21 42 08.6 -0.1
LPSR pmax pmax
comp=Z,20nm,1.0s
I04A Tendick Farm, 72.16 49 P P 21 42 10.8 +1.6
RAO Raoul Island 72.22 144 LR LR 22 10 12.6
comp=Z,271nm,18.2s,baz=334,slow=33
JLN Jalan Bani Buh 72.36 285 P P 21 42 10.7 +0.1
VORR Voronezh 72.44 320 eP P 21 42 10.8 +0.2
VORR pmax pmax
comp=Z,18nm,0.4s
WSAR Wadi Sarin 72.48 287 P P 21 42 11.9 +0.6
SNR=5.4
WBK Wadi Bani Khal 72.51 286 P P 21 42 12.4 +0.9
SNR=6.6
SEKA Sheki 72.66 308 P P 21 42 11.8 -0.4
VSR Storozhevoye 72.69 320 eP P 21 42 12.1 0.0
VSR pmax pmax
comp=Z,20nm,1.0s
VORD Divnogorie 72.75 320 eP P 21 42 11.6 -0.8
VORD pmax pmax
comp=Z,10.0nm,0.6s
LKRN Lenkeran, Azer 72.75 305 P P 21 42 12.6 -0.1
BIDO Bidbid 72.76 287 P P 21 42 13.4 +0.4
SNR=10
EDM Edmonton 72.78 37 P P 21 42 13.5 +0.8
EDM pmax pmax
comp=Z,23nm,1.0s
EDM Edmonton 72.78 37 P 21 42 13.5 +0.8
EDM IAmb IAmb 21 42 18.2
comp=Z,23nm,1.0s
C09A Chrisman Ranch 72.79 44 P P 21 42 14.2 +1.5
YBH Yreka Blue Hor 72.93 51 LR LR 22 09 28.3
comp=Z,388nm,21.6s,baz=293,slow=32
MNGR Mingechevir, A 72.94 308 P P 21 42 14.5 +0.7
SMDO Samad 73.04 287 P P 21 42 15.0 +0.2
SNR=10
PINE Pine Mountain 73.10 49 P P 21 42 15.5 +0.6
PINE IAmb IAmb 21 42 33.0
comp=Z,38nm,1.1s
FIA1 FINESS Array S 73.10 333 P P 21 42 14.1 -0.2
FINES FINESS Array B 73.10 333 P P 21 42 14.1 -0.2
comp=Z,3.6nm,0.5s,baz=53,slow=6.8,SNR=29
FINES LR LR 22 16 35.1
comp=Z,184nm,19.9s,baz=47,slow=38
comp=Z,3.6nm,0.5s
FINES FINESS Array B 73.10 333 P P 21 42 14.3 0.0
FINES FINESS Array B 73.10 333 P P 21 42 14.2 0.0
SHME Shamm 73.16 290 iP P 21 42 16.0 +0.7
SNR=8.1
SHME Shamm 73.16 290 P P 21 42 16.2 +0.8
NEW Newport 73.23 43 LR LR 22 11 11.2
comp=Z,145nm,20.9s,baz=304,slow=33
NEW Newport 73.23 43 P P 21 42 16.6 +1.2
NEW pmax pmax
comp=Z,15nm,1.1s
NEW Newport 73.23 43 P P 21 42 16.6 +1.2
NEW IAmb IAmb 21 42 32.8
comp=Z,15nm,1.1s
JMDO Jabal Madar 73.33 286 P P 21 42 16.6 +0.2
SNR=6.8
MDH Madha 73.39 290 P P 21 42 16.2 -0.5
MDH Madha 73.39 290 P P 21 42 17.9 +1.2
HOQ Hoqain 73.39 288 P P 21 42 17.0 +0.3
SNR=12
MASF Masafi 73.47 290 P P 21 42 18.1 +0.9
MSFE Esma-Masafi 73.47 290 P P 21 42 17.8 +0.6
GANJ Ganja 73.51 308 P P 21 42 17.8 +0.6
BLKN Baker Lake 73.52 23 P P 21 42 17.1 +0.4
UOSS Minazif 73.63 289 iP P 21 42 18.1 -0.1
SNR=8.2
UOSS Minazif 73.63 289 P P 21 42 18.8 +0.7
UOSS Minazif 73.63 289 P P 21 42 17.4 -0.8
UOSS IAmb IAmb 21 42 21.6
comp=Z,21nm,1.1s
K05A Summer Lake 73.64 50 P 21 42 19.2 +1.1
K05A IAmb IAmb 21 42 24.7
comp=Z,40nm,1.1s
HATD Hatta, Dubai 73.75 289 iP P 21 42 19.4 +0.6
SNR=11
HATD Hatta, Dubai 73.75 289 P P 21 42 19.4 +0.6
SNR=6.7
SOHO SOHO 73.75 288 iP P 21 42 19.1 +0.2
SNR=12
SOHO SOHO 73.75 288 P P 21 42 19.2 +0.4
SNR=7.3
ASHO Ashiyiah 73.87 289 iP P 21 42 20.0 +0.4
SNR=9.1
ASHO Ashiyiah 73.87 289 P P 21 42 20.1 +0.5
SNR=6.8
BSY Bisya 73.88 287 P P 21 42 20.5 +0.8
SNR=12
NCK Nalchik 73.91 311 iP P 21 42 20.1 +0.6
NCK pmax pmax
comp=Z,22nm,1.1s
NAZ Nazwa, Dubai 74.04 290 P P 21 42 21.3 +0.8
MHTO MHTO 74.10 285 P P 21 42 21.2 +0.3
SNR=12
ARQ Araqi 74.14 288 P P 21 42 21.6 +0.5
SNR=12
FAQ Al Faqa, Dubai 74.21 289 P P 21 42 21.7 +0.1
KBZ Khabaz 74.24 312 P P 21 42 22.2 +1.0
comp=Z,28nm,1.1s,baz=58,slow=2.9,SNR=19
KBZ LR LR 22 17 58.7
comp=Z,264nm,18.4s,baz=65,slow=38
comp=Z,28nm,1.1s
KBZ Khabaz 74.24 312ceP P 21 42 22.7 +1.4
KBZ pmax pmax
comp=Z,37nm,1.3s
KVAR Kislovodsk Arr 74.25 312 P P 21 42 22.5 +0.9
comp=Z,9.9nm,1.0s,baz=58,slow=5.6
comp=Z,9.9nm,1.0s
KIV Kislovodsk 74.26 312 iP P 21 42 22.5 +0.9
SNR=7.4
KIV Kislovodsk 74.26 312 P P 21 42 22.9 +1.3
KIV Kislovodsk 74.26 312 eP P 21 42 22.4 +0.8
KIV pmax pmax
comp=Z,44nm,1.1s
KIV Kislovodsk 74.26 312 P P 21 42 21.8 +0.2
KIV Kislovodsk 74.26 312 ⇑P P 21 42 22.7 +1.1
KIV Kislovodsk 74.26 312 P P 21 42 22.7 +1.1
comp=Z,699nmcomp=Z,51nm,1.4s
SHA1 Shidzhatmaz 74.38 312ceP P 21 42 24.5 +2.0
ALNE Al Ain 74.42 289 iP P 21 42 23.7 +0.9
SNR=9.8
ALNE Al Ain 74.42 289 P P 21 42 23.4 +0.7
SNR=11
ASUD Al Ashush, Dub 74.48 289 P P 21 42 22.4 -0.7
ASUD Al Ashush, Dub 74.48 289 P P 21 42 23.9 +0.8
NEUR Neytrino 74.59 312 iP P 21 42 24.4 +0.7
NEUR pmax pmax
comp=Z,24nm,1.4s
ERBR Yeremizino-Bor 74.72 315 eP P 21 42 24.3 +0.2
ERBR eS S 21 52 03.5 +3.8
ERBR pmax pmax
comp=Z,36nm,1.0s
ERBR MLR MLR
comp=Z,412nm,18.0s
NAX Nakhchivan 74.78 307 P P 21 42 25.4 +0.7
AJN Ajban 74.78 290 P P 21 42 25.5 +0.6
GNI Garni 74.81 308 LR LR 22 18 02.1
comp=Z,269nm,19.3s,baz=60,slow=38
GNI Garni 74.81 308 P P 21 42 26.2 +1.2
GNI Garni 74.81 308ceP P 21 42 27.5 +2.5
GNI pmax pmax
comp=Z,59nm,1.3s
GNI Garni 74.81 308 P P 21 42 25.3 +0.3
GNI Garni 74.81 308 P P 21 42 26.1 +1.2
comp=Z,48nm,1.2s
BMO Blue Mountains 74.84 46 P P 21 42 26.6 +1.6
BMO pmax pmax
comp=Z,8.0nm,1.0s
BMO Blue Mountains 74.84 46 P P 21 42 26.6 +1.6
J08A Circle Bar Ran 74.87 48 P P 21 42 27.1 +1.9
J08A IAmb IAmb 21 42 31.6
comp=Z,22nm,1.2s
LABN Labinsk 75.13 314 eP P 21 42 27.1 +0.6
LABN eS S 21 52 07.7 +3.4
LABN pmax pmax
comp=Z,20nm,0.9s
JTMT Jette 75.13 43 P P 21 42 28.1 +1.4
SUMG Summit 75.32 0 P P 21 42 28.4 +0.8
SUMG pmax pmax
comp=Z,51nm,1.5s
SUMG Summit 75.32 0 P 21 42 28.4 +0.8
SUMG IAmb IAmb 21 42 32.1
comp=Z,51nm,1.5s
UMZA Um Al Zommool 75.54 288 P P 21 42 29.0 -0.2
MSO Missoula 75.82 43 P P 21 42 32.0 +1.4
MSO IAmb IAmb 21 42 47.6
comp=Z,17nm,1.2s
OZAP Van, Ozalp-Mer 76.05 307 ⇑P P 21 42 33.7 +1.5
SOC Sochi 76.30 313 eP P 21 42 33.3 +0.1
SOC eS S 21 52 12.7 -4.5
SOC pmax pmax
comp=Z,22nm,1.0s
SOC MLR MLR
comp=Z,256nm,17.0s
CMB Columbia Colle 76.30 54 P P 21 42 34.7 +1.3
CMB pmax pmax
comp=Z,28nm,1.6s
CMB Columbia Colle 76.30 54 P P 21 42 34.7 +1.3
CMB IAmb IAmb 21 42 40.0
comp=Z,28nm,1.6s
MFID Camas Ranch 76.49 47 P 21 42 36.1 +1.6
MFID IAmb IAmb 21 42 52.0
comp=Z,12nm,1.0s
MNK Minsk 76.56 327 iP P 21 42 36.2 +1.8
MNK i 21 42 47.5
MNK i 21 45 28.0
MNK iPPP PPP 21 47 14.7
MNK iS S 21 52 22.9 +3.3
MNK i 21 52 52.0
MNK iSS SS 21 57 18.8 +5.1
MNK pmax pmax
comp=Z,19nm,0.8s
MNK pmax pmax
comp=N,15nm,0.9s
MNK pmax pmax
comp=E,15nm,0.8s
MNK MLR MLR
comp=Z,429nm,18.0s
MNK MLR MLR
comp=E,742nm,23.0s
MNK Minsk 76.56 327 iP P 21 42 36.3 +1.8
comp=E,15nm,0.8s
MNK iP P 21 42 36.3 +1.8
comp=N,15nm,0.9s
MNK iP P 21 42 36.3 +1.8
comp=Z,19nm,0.8s,baz=52
MNK iPcP pwP 21 42 47.6 +1.5
MNK iPP PP 21 45 28.0 +2.0
MNK iPPP PPP 21 47 14.7
MNK iS S 21 52 23.0 +3.3
MNK iScS ScS 21 52 52.0 +2.5
MNK iSS SS 21 57 18.8 +5.1
MNK iSSS SSS 22 00 42.2
MNK iLQ LQ 22 11 17.6
MNK iLR LR 22 17 07.3
MNK iLRM MLR 22 19 19.3
comp=N,829nm,21.5s
MNK iLRM MLR 22 19 23.1
comp=Z,429nm,18.4s
MNK iLRM MLR 22 19 31.4
comp=E,742nm,22.7s
GBMT Granite Butte, 76.66 43 P P 21 42 36.9 +1.4
MZR Muzera 76.75 289 iP P 21 42 36.3 +0.2
SNR=10.0
MZR Muzera 76.75 289 P P 21 42 36.0 -0.1
SNR=6.5
GEVA Gevas 76.86 307 P 21 42 36.6 -0.1
GEVA IAmb IAmb 21 42 39.9
comp=Z,38nm,1.3s
ANN Anapa 77.04 315 eP P 21 42 38.4 +1.1
ANN pmax pmax
comp=Z,63nm,1.2s
ANN MLR MLR
comp=Z,275nm,13.0s
RAR Rarotonga 77.16 125 LR LR 22 10 39.1
comp=Z,336nm,19.8s,baz=288,slow=31
FFC Flin Flon 77.42 32 P P 21 42 40.2 +0.9
FFC pmax pmax
comp=Z,17nm,1.0s
FFC Flin Flon 77.42 32 P P 21 42 40.2 +0.9
FFC IAmb IAmb 21 42 55.6
comp=Z,17nm,0.9s
GURO Guroymak-BITLI 77.43 308 P 21 42 40.2 +0.3
NVAR Mina Array Bea 77.50 52 P P 21 42 41.9 +1.5
comp=Z,2.6nm,0.7s,baz=286,slow=5.4,SNR=13
NVAR LR LR 22 14 22.1
comp=Z,365nm,18.7s,baz=282,slow=34
comp=Z,2.6nm,0.7s
NVAR Mina Array Bea 77.50 52 P P 21 42 41.0 +0.6
URZ Urewera 77.57 152 LR LR 22 12 35.6
comp=Z,174nm,22.0s,baz=327,slow=32
BOZ Bozeman (W) 77.83 44 P P 21 42 42.7 +0.7
BOZ pmax pmax
comp=Z,9.0nm,1.0s
BOZ Bozeman (W) 77.83 44 P P 21 42 42.7 +0.7
DMTO DMTO 78.19 283 P P 21 42 44.5 +0.2
AK03 Malin Array Si 78.19 323 P P 21 42 43.7 0.0
AKASG Malin Array Be 78.21 323 P P 21 42 43.4 -0.3
comp=Z,4.6nm,0.5s,baz=47,slow=6.2,SNR=21
AKASG LR LR 22 20 30.9
comp=Z,834nm,18.1s,baz=54,slow=38
comp=Z,4.6nm,0.5s
AKBB Malin Array Si 78.21 323ceP P 21 42 44.2 +0.4
AKBB pmax pmax
comp=Z,12nm,0.9s
AK01 Malin Array Si 78.22 323 P P 21 42 44.1 +0.3
KIEV Kiev 78.22 323 iP P 21 42 44.3 +0.4
SNR=6.3
KIEV Kiev 78.22 323 P P 21 42 43.1 -0.7
KIEV pmax pmax
comp=Z,52nm,1.6s
KIEV Kiev 78.22 323 P P 21 42 43.1 -0.7
KIEV IAmb IAmb 21 42 44.9
comp=Z,52nm,1.6s
KIEV Kiev 78.22 323 ⇓P P 21 42 44.2 +0.4
KIEV Kiev 78.22 323 P P 21 42 43.8 0.0
comp=Z,111nm,0.8s
AK04 Malin Array Si 78.22 323 P P 21 42 44.1 +0.2
AK09 Malin Array Si 78.23 323 P P 21 42 44.1 +0.2
AK11 Malin Array Si 78.25 323 P P 21 42 44.1 +0.1
ELK Elko 78.29 49 P P 21 42 46.3 +1.5
ELK pmax pmax
comp=Z,10.0nm,1.2s
ELK Elko 78.29 49 P 21 42 46.3 +1.5
AK17 Malin Array Si 78.30 323 P P 21 42 44.6 +0.3
AK07 Malin Array Si 78.31 323 P P 21 42 44.7 +0.4
NC405 NORSAR Array S 78.40 338 P P 21 42 44.4 -0.2
DOK Doka 78.41 285 P P 21 42 44.9 -0.5
SNR=9.9
HFS Hagfors 78.47 336 P P 21 42 45.1 0.0
comp=Z,4.2nm,0.8s,baz=43,slow=5.8,SNR=10.0
HFS LR LR 22 19 57.2
comp=Z,308nm,20.6s,baz=45,slow=38
comp=Z,4.2nm,0.8s
NB2 NORSAR Subarra 78.61 338 P P 21 42 45.9 0.0

comp=Z,3.7nm,0.8s,baz=40,slow=5.6
NOA NORSAR Array B 78.61 338 P P 21 42 46.0 +0.2
comp=Z,8.8nm,0.9s,baz=41,slow=5.4,SNR=19
NOA LR LR 22 20 53.6
comp=Z,288nm,19.5s,baz=50,slow=38
comp=Z,8.8nm,0.9s
RBK Rabkut 78.91 284 P P 21 42 48.1 -0.1
SNR=8.5
SIM Simferopol' 78.92 316 *e*P P 21 42 54.8 +7.0
SIM *e*S **SKSac 21 52 55.9 -6.8**
SIM pmax pmax
comp=Z,11nm,0.9s
SIM MLR MLR
comp=Z,147nm,16.0s
SUW Suwalki 79.00 328 *e*P **P 21 42 50.5 +2.4**
WHFO Wadi Hawf 79.05 284 P **P 21 42 48.7 -0.3**
SNR=8.3
HVU Hansel Valley 79.27 47 P P **21 42 50.1 0.0**
HVU pmax pmax
comp=Z,7.0nm,0.7s
HVU Hansel Valley 79.27 47 P 21 42 50.1 0.0
RNPP9 Sopachiv 79.42 325 P **P 21 42 50.8 +0.4**
LUBAR Lubar, Ukraine 79.43 323 P **P 21 42 50.8 +0.3**
RNPP8 Varash 79.49 325 P **P 21 42 51.5 +0.7**
TPNV Topopah Spring 79.67 53 P P **21 42 53.3 +1.0**
TPNV pmax pmax
comp=Z,21nm,1.2s
TPNV Topopah Spring 79.67 53 P 21 42 53.3 +1.0
TPNV IAmb IAmb 21 43 11.1
comp=Z,21nm,1.2s
ABTO Aybut 79.73 284 P P **21 42 52.7 -0.1**
SNR=12
DUG Dugway, Tooele 80.14 49 P P **21 42 55.9 +1.1**
DUG pmax pmax
comp=Z,15nm,1.0s
DUG Dugway, Tooele 80.14 49 P P 21 42 55.9 +1.1
DUG IAmb IAmb 21 43 00.9
comp=Z,15nm,1.0s
SORM Soroca 80.23 321 ⇑P **P 21 42 54.8 0.0**
SORM Soroca 80.23 321 ⇑P **P 21 42 54.8 0.0**
RPZ Rata Peaks 80.30 159 LR LR 22 17 23.0
comp=Z,46nm,20.4s,baz=303,slow=35
SFJD Kangerlussuaq 80.47 5 LR LR 22 20 26.5
comp=Z,116nm,20.9s,baz=346,slow=37
PD31 Pinedale Array 80.67 45 P 21 42 58.4 +0.7
PDAR Pinedale Array 80.67 45 P **P 21 42 58.6 +0.9**
comp=Z,2.7nm,0.8s,baz=320,slow=5.4,SNR=15
PDAR LR LR 22 15 09.7
comp=Z,120nm,19.6s,baz=314,slow=33
comp=Z,2.7nm,0.8s
PDAR Pinedale Array 80.67 45 P 21 42 58.9 +1.2
FRB Frobisher Bay 81.20 13 LR LR 22 22 13.7
comp=Z,165nm,20.4s,baz=306,slow=38
BNN Bunyan 81.33 311 P 21 43 01.3 +0.1
BNN IAmb IAmb 21 43 03.4
comp=Z,22nm,1.0s
PFO Pinyon Flats O 81.33 56 LR LR 22 13 53.1
comp=Z,562nm,20.4s,baz=252,slow=32
LVV L'vov 81.35 325 P **P 21 43 01.6 +0.7**
GAZ Gaziantep 81.38 309 P 21 43 01.8 +0.4
GAZ IAmb IAmb 21 43 05.4
comp=Z,55nm,1.6s
ILGA Ilgaz 81.40 313 P 21 43 01.8 +0.2
ILGA IAmb IAmb 21 43 04.2
comp=Z,20nm,0.9s
MNTR Muntenesti 81.52 321 ⇓P **P 21 43 02.7 +0.9**
PDRR Padureni 81.55 321 ⇓P **P 21 43 02.7 +0.7**
DMBR Dumbraveni 81.61 321 ⇓P **P 21 43 02.9 +0.6**
VLDR Vladesti 81.79 320 ⇓P **P 21 43 04.5 +1.3**
MORS Morshin 81.87 324 P **P 21 43 05.4 +1.8**
GIRR Girov 81.94 321 ⇑P **P 21 43 04.9 +0.8**
KWP Kalwaria Pacla 82.12 325 *e*P **P 21 43 06.0 +1.0**
KWP Kalwaria Pacla 82.12 325 P **P 21 43 06.2 +1.2**
comp=Z,58nm,1.4s
TESR Tescani 82.15 321 ⇓P **P 21 43 05.7 +0.6**
TESR Tescani 82.15 321 P **P 21 43 06.0 +0.9**
comp=Z,24nm,1.4s
BIZ Bicaz 82.16 321 ⇑P **P 21 43 05.9 +0.7**
CFR Carcaliu 82.18 319 ⇓P **P 21 43 06.0 +0.8**
CFR Carcaliu 82.18 319 ⇓P **P 21 43 06.0 +0.8**
BUR08 Bucovina Ar. S 82.18 322 P 21 43 05.3 -0.1
BUR08 IAmb IAmb 21 43 06.8
comp=Z,25nm,1.3s
BURAR Bucovina Array 82.19 322 ⇑P **P 21 43 06.4 +0.9**
BURAR Bucovina Array 82.19 322 P 21 43 06.1 +0.6
BURAR IAmb IAmb 21 43 07.2
comp=Z,10nm,0.8s
BURAR Bucovina Array 82.19 322 ⇑P **P 21 43 06.4 +0.9**
BR131 Keskin Array S 82.22 312 P **P 21 43 05.9 +0.1**
SNR=5.5
BR131 Keskin Array S 82.22 312 P P 21 43 06.2 +0.4
BR131 pmax pmax
comp=Z,18nm,1.2s
BR131 Keskin Array S 82.22 312 P 21 43 06.2 +0.4
BR131 IAmb IAmb 21 43 07.1
comp=Z,18nm,1.1s
BRTR Keskin Array B 82.22 312 P P 21 43 06.8 +0.9
comp=Z,6.0nm,0.8s,baz=57,slow=5.7,SNR=29
BRTR LR LR 22 22 41.1
comp=Z,137nm,18.7s,baz=11,slow=38
comp=Z,6.0nm,0.8s
BRTR Keskin Array B 82.22 312 P 21 43 05.8 0.0
BR106 Keskin Array S 82.23 312 P **P 21 43 06.7 +0.8**
comp=Z,103nmcomp=Z,8.2nm,1.1s
BR104 Keskin Array S 82.23 312 P **P 21 43 06.1 +0.2**
comp=Z,122nmcomp=Z,13nm,1.0s
BR105 Keskin Array S 82.24 312 P **P 21 43 06.6 +0.7**
comp=Z,148nmcomp=Z,15nm,1.2s
PPT Papeete 82.24 116 LR LR 22 15 53.7
comp=Z,429nm,19.0s,baz=6.0,slow=33
PPT2 Papeete2 82.25 116 *e*S **S 21 53 12.8 -8.4**
comp=Z,39nm,24.2s
PPT2 *e*SS **SS 21 58 43.4 +1.5**
comp=Z,196nm,24.2s
PPT2 *e*LQ LQ 22 05 22.8
comp=Z,4μm,36.0s
PPT2 *e*LR LR 22 08 37.2
comp=Z,308nm,30.0s
PPT2 *e*LR LR 22 08 43.1
comp=Z,333nm,22.0s
PANC Panciu 82.28 320 ⇑P **P 21 43 07.2 +1.4**
BORG Borgarnes 82.29 353 LR LR 22 20 07.0
comp=Z,78nm,20.3s,baz=359,slow=36
ODBI Odobesti 82.40 320 ⇓P **P 21 43 07.8 +1.3**
VRI Vrincioaia 82.51 320 ⇓P **P 21 43 08.1 +1.0**
VRI Vrincioaia 82.51 320 ⇓P **P 21 43 08.1 +1.0**
VRI Vrincioaia 82.51 320 P **P 21 43 08.5 +1.4**
comp=Z,22nm,1.5s
PLOR Plostina 82.56 320 ⇓P **P 21 43 08.6 +1.2**
PLOR Plostina 82.56 320 ⇓P **P 21 43 08.6 +1.2**
HARR Harsova 82.59 319 ⇑P **P 21 43 08.3 +0.8**
HARR Harsova 82.59 319 ⇑P **P 21 43 08.3 +0.8**
TLBR Topalu 82.62 319 ⇑P **P 21 43 08.3 +0.7**
SAHR Sahastru 82.62 320 ⇓P **P 21 43 08.9 +1.2**
BISRR Bisoca 82.72 320 ⇓P **P 21 43 10.1 +1.8**
BISRR Bisoca 82.72 320 P **P 21 43 09.8 +1.5**
comp=Z,70nm,1.1s
TURR Turia 82.78 321 ⇑P **P 21 43 10.1 +1.6**
RAYN Ar Rayn 82.78 293 *i* P **P 21 43 09.2 +0.3**
SNR=29
RAYN Ar Rayn 82.78 293 P P 21 43 09.5 +0.6
RAYN Ar Rayn 82.78 293 P **P 21 43 08.7 -0.2**
RAYN pmax pmax
comp=Z,13nm,0.8s
RAYN Ar Rayn 82.78 293 P 21 43 08.7 -0.2
RAYN IAmb IAmb 21 43 15.0
comp=Z,13nm,0.8s
KOLS Kolonicke sedl 82.80 325 *e*P **P 21 43 09.5 +1.0**
KOLS pmax pmax
comp=Z,13nm,1.1s
KOLS Kolonicke sedl 82.80 325 *e*P **P 21 43 09.5 +1.0**
KOLS *e* 21 58 23.7
COVR Voineasa-Covas 82.81 321 ⇑P **P 21 43 10.1 +1.4**
OZUR 82.87 321 ⇓P **P 21 43 10.6 +1.6**
ICOR Ion Corvin 83.03 319 ⇓P **P 21 43 11.2 +1.5**
BMR Baia Mare 83.03 323 ⇓P **P 21 43 11.6 +1.9**
BMR Baia Mare 83.03 323 ⇓P **P 21 43 11.6 +1.9**
ISR Istrita 83.09 320 ⇓P **P 21 43 11.2 +1.1**
ISR Istrita 83.09 320 ⇓P **P 21 43 11.2 +1.1**
OJC Ojcow 83.11 327 *e*P **P 21 43 10.8 +0.7**
OJC Ojcow 83.11 327 P **P 21 43 10.3 +0.3**
OJC Ojcow 83.11 327 P 21 43 10.3 +0.3
OJC Ojcow 83.11 327 P **P 21 43 10.9 +0.9**
comp=Z,30nm,1.4s
DOPR Dopca 83.17 321 ⇓P **P 21 43 11.1 +0.6**

MLR Muntele Rosu 83.17 320 P **P 21 43 11.6 +0.9**
comp=Z,3.4nm,0.5s,baz=65,slow=6.3,SNR=9.8
comp=Z,3.4nm,0.5s
MLR Muntele Rosu 83.17 320 P **P 21 43 10.8 +0.1**
MLR pmax pmax
comp=Z,29nm,1.5s
MLR Muntele Rosu 83.17 320 P 21 43 10.8 +0.1
MLR IAmb IAmb 21 43 12.5
comp=Z,29nm,1.5s
MLR Muntele Rosu 83.17 320 ⇑P **P 21 43 11.9 +1.2**
MDUB Mudurnu 83.28 314 P 21 43 11.4 +0.1
NIE Niedzica 83.42 326 *e*P **P 21 43 13.1 +1.4**
NIE Niedzica 83.42 326 P **P 21 43 13.0 +1.3**
comp=Z,13nm,1.2s
CJR Cluj-Napoca 83.62 322 ⇓P **P 21 43 14.6 +1.7**
MESR Meseseni 83.66 323 ⇓P **P 21 43 13.7 +0.8**
VOIR 83.69 321 ⇑P **P 21 43 14.6 +1.3**
VOIR 83.69 321 ⇑P **P 21 43 14.6 +1.3**
VOIR 83.69 321 P **P 21 43 14.0 +0.7**
comp=Z,11nm,1.0s
MARR Marisel-Cluj 83.89 323 ⇑P **P 21 43 15.1 +0.8**
ARR Arges 83.96 321 ⇓P **P 21 43 16.4 +1.8**
TNR Turnu Rosu 83.96 321 ⇓P **P 21 43 16.2 +1.6**
TNR Turnu Rosu 83.96 321 ⇓P **P 21 43 16.2 +1.6**
KECS Kecovo 83.98 325 *e*P **P 21 43 15.7 +1.1**
KECS pmax pmax
comp=Z,19nm,1.1s
KECS Kecovo 83.98 325 *e*P **P 21 43 15.7 +1.1**
LANS Liptovska Anna 84.00 326 *e*P **P 21 43 16.4 +1.7**
LANS pmax pmax
comp=Z,29nm,1.7s
LANS Liptovska Anna 84.00 326 *e*P **P 21 43 16.4 +1.7**
DRGR 84.02 323 ⇑P **P 21 43 15.6 +0.7**
DRGR 84.02 323 ⇑P **P 21 43 15.6 +0.7**
LOZB Loznitsa 84.18 318 ⇓P **P 21 43 16.6 +0.9**
STEB Steborice 84.24 327 *e*P **P 21 43 16.8 +1.0**
KSP Ksiaz 84.25 329 *e*P **P 21 43 16.3 +0.4**
KSP Ksiaz 84.25 329 P **P 21 43 16.7 +0.8**
ASF Jabal al Asfar 84.42 305 P **P 21 43 18.6 +1.4**
ASF AML AML
MORC Moravsky Berou 84.45 327 P **P 21 43 17.5 +0.5**
MORC pmax pmax
comp=Z,25nm,1.2s
MORC Moravsky Berou 84.45 327 P 21 43 17.4 +0.5
MORC IAmb IAmb 21 43 18.9
comp=Z,25nm,1.2s
MORC Moravsky Berou 84.45 327 *e*P **P 21 43 17.7 +0.7**
MORC Moravsky Berou 84.45 327 ⇓P **P 21 43 18.1 +1.0**
OSTC Ostas 84.49 329 *e*P **P 21 43 18.2 +1.1**
OSTC Ostas 84.49 329 *e*P **P 21 43 18.2 +1.1**
DEV Deva 84.53 322 ⇓P **P 21 43 18.2 +0.8**
DEV Deva 84.53 322 ⇓P **P 21 43 18.2 +0.8**
CHVC Chvalec 84.53 329 *e*P **P 21 43 18.8 +1.4**
CHVC Chvalec 84.53 329 *e*P **P 21 43 18.8 +1.4**
DPC Dobruska-Polom 84.59 328 *e*P **P 21 43 19.1 +1.4**
DPC Dobruska-Polom 84.59 328 *e*P **P 21 43 19.1 +1.4**
UPC Upice 84.61 329 *e*P **P 21 43 18.6 +0.9**
UPC Upice 84.61 329 *e*P **P 21 43 18.6 +0.9**
PSZ Piszkesteto 84.65 325 P **P 21 43 18.3 +0.2**
PSZ pmax pmax
comp=Z,39nm,1.2s
PSZ Piszkesteto 84.65 325 P 21 43 18.3 +0.2
PSZ Piszkesteto 84.65 325 ⇑P **P 21 43 18.7 +0.6**
GEM Giv'at Ha'Em 84.67 306 P **P 21 43 21.2 +2.8**
GEM AML AML
TAOE Nuku Hiva Isla 84.70 104 *e*LR LR 22 09 52.6
comp=Z,565nm,20.9s
VYHS Vyhne 84.76 326 *e*P **P 21 43 19.7 +1.2**
VYHS pmax pmax
comp=Z,43nm,1.3s
VYHS Vyhne 84.76 326 *e*P **P 21 43 19.7 +1.2**
ISCO Idaho Springs 84.83 46 P **P 21 43 20.5 +1.0**
ISCO pmax pmax
comp=Z,28nm,2.0s
ISCO Idaho Springs 84.83 46 P P 21 43 20.4 +1.0
ISCO IAmb IAmb 21 43 27.5
comp=Z,28nm,1.9s
ELND Elena 84.86 318 ⇓P **P 21 43 20.1 +0.9**
GZR Gura Zlata 84.92 322 ⇓P **P 21 43 19.8 +0.3**
GZR Gura Zlata 84.92 322 ⇓P **P 21 43 19.8 +0.3**
HSUJ Al Zarqa 84.95 305 P **P 21 43 21.7 +1.9**
HSUJ AML AML
MMAI Mount Meron Ar 84.97 306 P **P 21 43 19.9 -0.1**
comp=Z,10.0nm,0.8s,baz=35,slow=13,SNR=12
MMAI LR LR 22 26 28.0
comp=Z,227nm,18.3s,baz=38,slow=39
comp=Z,10.0nm,0.8s
SURR Surduc 85.02 322 ⇑P **P 21 43 20.4 +0.5**
JAVC Velka Javorina 85.05 327 *e*P **P 21 43 21.7 +1.7**
VRAC Vranov 85.22 328 LR LR 22 24 37.2
comp=Z,308nm,18.4s,baz=49,slow=38
VRAC Vranov 85.22 328 ⇑P **P 21 43 21.6 +0.7**
VRAC Vranov 85.22 328 *e*P **P 21 43 21.4 +0.6**
VRAC Vranov 85.22 328 ⇑P **P 21 43 21.6 +0.7**
PVCC Panska Ves 85.22 329 *e*P **P 21 43 22.2 +1.4**
PVCC MLR MLR
comp=Z,700nm,16.1s
PVCC Panska Ves 85.22 329 *e*P **P 21 43 22.2 +1.4**
PVCC AMS AMS 22 28 00.0
comp=Z,700nm,16.1s
QRNJ Al-Qirein 85.24 305 P **P 21 43 23.3 +2.1**
QRNJ AML AML
CLL Collm 85.31 331 P **P 21 43 21.3 +0.1**
CLL pmax pmax
comp=Z,30nm,1.1s
CLL Collm 85.31 331 P 21 43 21.3 +0.1
CLL IAmb IAmb 21 43 22.5
comp=Z,30nm,1.1s
CLL Collm 85.31 331 *i* P **P 21 43 21.2 +0.1**
comp=Z,29nm,1.1s
CLL L L 22 20 00.0
CLL AMS AMS 22 28 00.0
comp=N,300nm,18.8s
CLL AMS AMS 22 28 00.0
comp=E,400nm,16.5s
CLL AMS AMS 22 28 00.0
comp=Z,600nm,16.7s
BZS Buzias 85.37 323 ⇑P **P 21 43 21.7 +0.1**
BZS Buzias 85.37 323 ⇑P **P 21 43 21.7 +0.1**
SMOL Smolenice 85.41 327 *e*P **P 21 43 23.6 +1.8**
SMOL pmax pmax
comp=Z,9.0nm,1.0s
RICC Richard 85.42 330 AMS AMS 22 28 20.0
comp=Z,900nm,19.8s
KRUC Moravsky 85.49 327 *e*P **P 21 43 22.5 +0.3**
SRO Srobarova 85.49 326 *e*P **P 21 43 23.6 +1.4**
SRO pmax pmax
comp=Z,19nm,1.2s
SRO Srobarova 85.49 326 *e*P **P 21 43 23.6 +1.4**
MODS Modra-Piesok 85.58 327 *e*P **P 21 43 23.9 +1.3**
MODS pmax pmax
comp=Z,67nm,1.4s
MODS Modra-Piesok 85.58 327 *e*P **P 21 43 23.9 +1.3**
PRU Pruhonice 85.64 329 *e*P **P 21 43 23.8 +0.9**
PRU Pruhonice 85.64 329 *e*P **P 21 43 23.8 +0.9**
HSKC Hora Svate Kat 85.65 330 *e*P **P 21 43 23.9 +0.9**
SALP Salfit 85.66 305 P **P 21 43 25.2 +1.8**
SALP AML AML
TREC Trest 85.73 328 *e*P **P 21 43 24.5 +1.1**
TREC Trest 85.73 328 *e*P **P 21 43 24.5 +1.1**
TBI Tubuai 85.84 121 *e*S **S 21 53 56.5 -0.3**
comp=Z,706nm,26.2s
TBI *e*LR LR 22 10 27.7
comp=Z,1μm,27.2s
TBI *e*LR LR 22 10 31.4
comp=Z,2μm,23.0s
GHAJ Ghor Haditha 85.84 305 P 21 43 24.6 +0.4
GHAJ IAmb IAmb 21 43 31.3
comp=Z,24nm,0.9s
GHAJ Ghor Haditha 85.84 305 P P 21 43 29.8 +5.6
GHAJ AML AML
MDVR Moldovita 85.89 322 ⇓P **P 21 43 24.4 +0.1**
BLKB Belogradchik 86.16 321 ⇓P **P 21 43 26.1 +0.4**
ZVC Zvikov 86.19 329 *e*P **P 21 43 26.4 +0.7**
ABNA Allensteig Bun 86.21 328 *i* pP **P 21 43 26.5 +0.7**
comp=Z,13nm,1.4s
ABNA *e*PP **PP 21 46 47.4 +1.6**
comp=Z,6.0nm,1.5s
WINA Aland / Wiene 86.33 327 *e*PcP **P 21 43 27.4 +1.1**
comp=Z,21nm,1.5s,SNR=6.0
WINA *e*PP **PP 21 46 49.1 +2.4**
comp=Z,3.6nm,1.2s
MORH Mrgy, Hungar 86.46 324 ⇑P **P 21 43 26.9 -0.1**

RONA Rosalia, Austr 86.52 327 *i* pP **P 21 43 28.3 +0.9**
comp=Z,17nm,1.4s
RONA *e*PP **PP 21 46 50.3 +2.0**
comp=Z,3.5nm,0.7s
CONA Conrad Observa 86.56 327 *e*PcP **P 21 43 28.3 +0.7**
comp=Z,7.8nm,1.0s,SNR=5.4
CONA *e*PP **PP 21 46 50.4 +1.8**
comp=Z,5.2nm,1.3s
KHC Kasperske Hory 86.69 329 P **P 21 43 28.0 -0.2**
KHC pmax pmax
comp=Z,13nm,1.4s
KHC Kasperske Hory 86.69 329 P 21 43 28.0 -0.2
KHC IAmb IAmb 21 43 38.7
comp=Z,13nm,1.4s
KHC Kasperske Hory 86.69 329 *e*P **P 21 43 28.6 +0.4**
KHC AMS AMS 22 30 10.0
comp=Z,500nm,17.4s
GERES GERESS Array B 86.85 329 P **P 21 43 28.7 -0.4**
comp=Z,0.5nm,0.4s,baz=44,slow=6.4,SNR=8.0
GERES LR LR 22 25 01.5
comp=Z,132nm,18.9s,baz=44,slow=38
comp=Z,0.5nm,0.4s
GERES GERESS Array B 86.85 329 P **P 21 43 28.2 -0.8**
KZIT Kziot 86.89 305 P **P 21 43 31.2 +1.8**
KZIT AML AML
HRFI Mount Harif 86.95 304 P P 21 43 36.9 +7.1
ARSA Arzberg 87.21 327 P **P 21 43 30.1 -0.6**
ARSA IAmb IAmb 21 43 32.4
comp=Z,18nm,1.7s
ARSA Arzberg 87.21 327 *e*PcP **P 21 43 31.1 +0.4**
comp=Z,4.2nm,1.2s
EIL Elat 87.22 304 LR LR 22 25 49.1
comp=Z,142nm,19.6s,baz=58,slow=38
ANMO Albuquerque 87.30 50 LR LR 22 19 19.4
comp=Z,470nm,18.6s,baz=308,slow=33
MOA Molln 87.34 328 *e*PcP **P 21 43 31.8 +0.4**
comp=Z,7.4nm,1.1s
EKA Eskdalemuir Ar 87.63 341 P **P 21 43 33.3 +0.8**
comp=Z,2.9nm,0.8s,baz=15,slow=4.4,SNR=6.3
EKA LR LR 22 27 01.2
comp=Z,276nm,18.0s,baz=24,slow=38
comp=Z,2.9nm,0.8s
ESK Eskdalemuir 87.66 341 *i* P **P 21 43 34.6 +2.0**
BIOA Bad Ischl, Aus 87.74 328 *e*PcP **P 21 43 33.6 +0.3**
comp=Z,6.2nm,1.0s
SESA Seetaler Alpe, 87.75 327 *e*PcP **P 21 43 33.6 +0.1**
comp=Z,7.2nm,0.7s,SNR=6.3
SESA *e*PP **PP 21 46 56.0 -2.4**
comp=Z,3.5nm,1.2s
SOKA Soboth 87.86 327 *e*PcP **P 21 43 34.0 +0.1**
comp=Z,6.1nm,1.0s
OBKA Obir 88.20 327 *i* PcP **P 21 43 35.3 -0.3**
comp=Z,2.2nm,0.8s
OBKA *e*PP **PP 21 46 59.7 -2.2**
comp=Z,4.4nm,1.2s
KBA Koelnbreinsper 88.33 328 *i* PcP **P 21 43 36.1 -0.2**
comp=Z,2.6nm,0.7s
KBA *e*PP **PP 21 47 01.1 -1.9**
comp=Z,3.1nm,1.1s
LESA Schwarzleotal 88.37 328 *i* PcP **P 21 43 36.2 -0.2**
comp=Z,3.7nm,0.7s
MYKA Terra Mystica 88.53 327 *e*PcP **P 21 43 36.6 -0.5**
comp=Z,3.1nm,0.6s
PDG Podgorica 88.81 321 P 21 43 37.8 -0.5
PDG IAmb IAmb 21 43 42.2
comp=Z,9.2nm,0.9s
PDG Podgorica 88.81 321 ⇑P **P 21 43 38.1 -0.3**
WATA Walderalm 88.93 329 *e*PcP **P 21 43 38.7 -0.3**
comp=Z,3.9nm,1.2s
WTTA Wattenberg 88.96 329 *e*PcP **P 21 43 39.0 -0.2**
comp=Z,2.5nm,0.9s
ABTA Abfaltersbach 88.96 328 *e*PcP **P 21 43 38.4 -0.7**
comp=Z,6.9nm,1.2s
MOTA Moosalm 89.13 329 *e*PcP **P 21 43 39.9 -0.1**
comp=Z,7.3nm,1.5s
RETA Reutte 89.17 329 *e*PcP **P 21 43 39.8 -0.3**
comp=Z,7.9nm,1.1s
SQTA Sankt Quirin 89.18 329 *e*PcP **P 21 43 40.1 -0.1**
comp=Z,5.0nm,1.1s
BFO Black Forest 89.53 331 *i* P **P 21 43 42.5 +0.8**
FETA Feichten 89.54 329 *e*PcP **P 21 43 41.8 -0.1**
comp=Z,6.5nm,1.1s
SCHQ Schefferville 89.69 16 LR LR 22 26 39.1
comp=Z,106nm,21.0s,baz=341,slow=37
DAVA Damuels 89.70 330 *i* pP **P 21 43 42.9 +0.2**
comp=Z,7.4nm,1.0s
CTI Castel Tesino 89.88 328 P **P 21 43 42.6 -0.9**
CTI pmax pmax
comp=Z,7.0nm,1.1s
CTI Castel Tesino 89.88 328 P 21 43 42.6 -0.9
FUORN Ofenpass-Fuorn 90.05 329 P 21 43 44.1 -0.3
FUORN IAmb IAmb 21 43 45.9
comp=Z,17nm,0.8s
DAVOX Davos/Dischmat 90.09 329 P **P 21 43 45.1 +0.6**
comp=Z,5.3nm,0.8s,baz=30,slow=4.0,SNR=16
DAVOX LR LR 22 28 01.9
comp=Z,458nm,18.0s,baz=54,slow=38
comp=Z,5.3nm,0.8s
TUE Stuetta 90.56 329 P 21 43 46.8 +0.1
LPIG La Paz 91.17 60 LR LR 22 18 49.8
comp=Z,218nm,19.5s,baz=251,slow=32
TXAR Lajitas Array 92.65 53 P **P 21 43 58.6 +2.0**
comp=Z,5.6nm,1.0s,baz=302,slow=3.0,SNR=9.9
comp=Z,5.6nm,1.0s
BNI Bardonecchia 92.83 330 P **P 21 43 57.6 +0.4**
BNI pmax pmax
comp=Z,31nm,1.6s
BNI Bardonecchia 92.83 330 P 21 43 57.6 +0.4
SADO Sadowa 94.63 28 LR LR 22 28 51.4
comp=Z,73nm,20.9s,baz=344,slow=37
VAE Valguarnera 94.95 321 LR LR 22 31 22.6
comp=Z,203nm,18.1s,baz=10.0,slow=38
MIAR Mount Ida 95.47 43 P **P 21 44 09.8 +0.4**
MIAR pmax pmax
comp=Z,9.0nm,1.1s
MIAR Mount Ida 95.47 43 P 21 44 09.8 +0.4
MIAR IAmb IAmb 21 44 25.5
comp=Z,9.3nm,1.1s
KEST Kesra 98.93 323 P Pdif 21 44 25.1 0.0
comp=Z,1.5nm,0.7s,baz=59,slow=12,SNR=2.1
comp=Z,1.5nm,0.7s
TKL Tuckaleechee C 99.93 36 LR LR 22 28 37.8
comp=Z,94nm,20.8s,baz=351,slow=35
TORD Torodi Ar. Bea 120.82 313 PKP **PKiKP 21 49 37.4 +0.1**
comp=Z,1.2nm,0.6s,baz=55,slow=1.1,SNR=12
QSPA South Pole Qui 122.14 180 PKP **PKiKP 21 49 38.8 +0.4**
comp=Z,2.1nm,0.5s,baz=0.0,slow=1.8,SNR=28
QSPA South Pole Qui 122.14 180 PKiKP 21 49 39.0 +0.6
DBIC Dimbokro 129.87 315 PKP **PKiKP 21 49 55.3 -0.1**
comp=Z,3.4nm,0.7s,baz=40,slow=7.9,SNR=2.6
NVL N'lazarevskaya 133.10 200 *e*PKiKP **PKiKP 21 50 03.3 +3.2**
NVL pmax pmax
comp=Z,6.0nm,0.9s
TROLL Troll, Antarti 134.92 197 ⇑PKPdf **PKiKP 21 50 03.8 -0.2**
comp=Z,63nm,0.5s
VNA2 Neumayer--Watz 137.94 195 ⇑PKPdf **PKiKP 21 50 10.1 +0.1**
comp=Z,2.7nm,0.6s,baz=113,slow=1.9
VNA3 Neumayer Olymp 138.16 193 PKPdf **PKiKP 21 50 09.8 -0.6**
comp=Z,1.5nm,0.7s
LPAZ La Paz 148.47 67 PKPbc **PKiKP 21 50 33.5 -0.4**
comp=Z,4.9nm,0.8s,baz=12,slow=5.1,SNR=14
LPAZ La Paz 148.47 67 PKP2 **PKPbc 21 50 31.2 -1.2**
LPAZ La Paz 148.47 67 PKPbc **PKPbc 21 50 31.2 -1.2**
VILB Vilhena 152.03 51 PKPbc **PKiKP 21 50 40.7 +0.1**
CO02 Combarbal 152.11 96 PKPbc **PKPbc 21 50 40.0 -0.2**
PLCA Paso Flores 152.79 117 PKPbc **PKiKP 21 50 43.2 +1.7**
comp=Z,3.0nm,1.0s,baz=263,slow=2.3,SNR=3.1

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*ATH **07** 22:38:24.8, 39.46N, 23.77E, h30km, 3km, ML2.7/3, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
*THE **07** 22:38:25.3, 39.5N±0.7×2.4E±, h3km±2km, M2.4/6, ML2.4/6*
ISC 07 22:38:24.8±1.3, 39.50N±0.04×23.79E±0.04, h22km±7km, n14, σ0.941/23, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
AOS	**Alonnisos**	**0.34**	**168**	P		**Pb**	**22 38 32.3**	**+0.1**
AOS				S		**Sb**	**22 38 37.8**	**+0.5**
AOS				AML		AML		
AOS2	**Alonissos-2**	**0.36**	**174**	P		**Pb**	**22 38 32.3**	**-0.2**
AOS2				S		**Sb**	**22 38 38.0**	**+0.2**
PAIG	**Paliouri**	**0.43**	**348**	P		**Pb**	**22 38 33.5**	**-0.2**
PAIG				S		**Sb**	**22 38 39.9**	**0.0**
NEO	**Neokhori**	**0.48**	**246**	P		**Pb**	**22 38 34.6**	**0.0**

NEO				S	Sb	22 38 41.0	-0.3	
NEO				AML	AML			
NEO	**Neokhori**	**0.48**	**246**	P	**Pb**	**22 38 34.6**	**0.0**	
NEO				S	Sb	22 38 41.0	-0.3	
NEO				AML	AML			
VOL2	**Volos**	**0.67**	**258**	P	**Pb**	**22 38 38.0**	**+0.2**	
VOL2				S	Sb	22 38 46.3	-0.2	
VOL2				AML	AML			
OUR	**Ouranopolis**	**0.84**	**10**	P	**Pb**	**22 38 41.2**	**+0.5**	
OUR				S	Sn	22 38 53.5	+0.5	
OUR				AML	AML			
OUR	**Ouranopolis**	**0.84**	**10**	P	**Pb**	**22 38 41.0**	**+0.3**	
OUR				S	Sn	22 38 53.2	+0.3	
OUR				AML	AML			
PLG	**Polygyros**	**0.91**	**343**	P	**Pb**	**22 38 41.3**	**-0.6**	
PLG				S	Sn	22 38 54.8	+0.1	
PLG				AML	AML			
PLG	**Polygyros**	**0.91**	**343**	P	**Pb**	**22 38 41.3**	**-0.6**	
EFSA	**Agios Efstrati**	**0.93**	**87**	P	**Pb**	**22 38 42.1**	**0.0**	
LIA	**Limnos Island**	**1.14**	**69**	P	**Pn**	**22 38 45.1**	**-0.3**	
TYRN	**Tyrnavos**	**1.22**	**280**	P	**Pb**	**22 38 48.0**	**+0.8**	
TYRN				AML	AML			
THE	**Thessaloniki**	**1.29**	**331**	P	**Pb**	**22 38 49.0**	**+0.6**	

*IDC **07** 22:45:34.1±1.2,32°.27N×141°.34E, h0km, mb3.6/5, mbtmp3.6/7, ML2.9/2, Error ellipse: s-maj=42.6km s-min=13.7km az=74.0*
*JMA **07** 22:45:36.5±0.2,32°.5N±0°.8×141°.8E±0°.9, h71km±4km, MV3.2/29, E OFF HACHIJOJIMA ISLAND*
ISC 07 22:45:36.4±1.0,**32°.22N**±0°.07×**141°.9E**±0°.1,**h35**km,**n12**, σ2**5**5/14,**mb3.6/5**,**Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	**1.82**	**278**	*eP*	**Pn**	**22 46 05.0**	**-0.2**
JAOM				*eS*	**Sn**	**22 46 25.9**	**-1.2**
JHCJ	**Hachijojimakas**	**1.96**	**296**	*eP*	**Pn**	**22 46 06.0**	**-1.2**
BSO1	**Boso 1**	**2.55**	**343**	*eP*	**Pn**	**22 46 12.2**	**-2.5**
JHO	**Hitachi**	**4.52**	**346**	P	**Pn**	**22 46 39.3**	**-3.0**
JAG	**Ashikaga**	**4.66**	**335**	*eP*	**Pn**	**22 46 42.1**	**-2.2**
JCJ	**Chichijima**	**5.11**	**177**	Pn	**Pn**	**22 46 50.2**	**-0.3**
	1.9nm,0.3s,baz=15,slow=20,SNR=6.7						
JCJ				Sn	**Sn**	**22 47 43.6**	**-4.6**
	0.9nm,0.3s,baz=259,slow=21,SNR=2.2 31nm,0.8s						
JCJ				AML	AML		
MJAR	**Matsushiro Arr**	**5.28**	**326**	Pn	**Pn**	**22 46 50.6**	**-2.3**
	0.1nm,0.3s,baz=155,slow=12,SNR=6.1 1.1nm,0.5s						
MJAR				AML	AML		
PETK	**Petropavlovsk-**	**23.79**	**24**	P	**P**	**22 50 49.8**	**+4.1**
	1.0nm,0.5s,baz=214,slow=8.6,SNR=4.6 1.0nm,0.5s						
SONM	**Songino Array**	**31.02**	**311**	P	**P**	**22 51 51.1**	**+0.3**
	0.5nm,0.5s,baz=119,slow=8.4,SNR=4.0 0.5nm,0.5s						
MKAR	**Makanchi Array**	**47.14**	**306**	P	**P**	**22 54 04.9**	**-0.3**
	0.4nm,0.7s,baz=88,slow=9.3,SNR=5.0 0.4nm,0.7s						
WRA	**Warramunga Arr**	**52.36**	**189**	P	**P**	**22 54 47.1**	**+2.0**
	0.7nm,0.7s,baz=6.3,slow=7.7,SNR=5.3 0.7nm,0.7s						
BVAR	**Borovoye Array**	**54.18**	**315**	P	**P**	**22 54 58.7**	**+0.5**
	0.4nm,0.5s,baz=90,slow=7.2,SNR=2.1 0.4nm,0.5s						

*IDC **07** 22:46:59.7±1.5,2°.03N×96°.67E, h0km, mb4.1/10, mbtmp4.1/11, ML4.3/1, MS3.9/3, Error ellipse: s-maj=51.9km s-min=18.7km az=58.0*
*DJA **07** 22:47:04.2±0.4,2°.1N±2°×97°.7E±°, h28km±5km, M4.3/21, mB4.6/1, mb4.4/3, MLv4.2/21, Mw(mB)3.8/1*
*NEIC **07** 22:47:06.0±0.7,2°.04N±0°.08×96°.65E±0°.10, h39km±9km, mb4.2/16, Error ellipse: s-maj=15.2km s-min=10.1km az=60.0*
ISC 07 22:47:03.9±0.6,**2°.03N**±0°.05×**96°.60E**±0°.06,**h28**km,**n62**, σ0**6**7/52,**mb4.2**/18,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNSI	**Sinabang, Aceh**	**0.46**	**324**	P	**Pb**	**22 47 14.4**	**+0.8**
SNSI				S	**Sn**	**22 47 22.2**	**+0.3**
SNSI				AML	AML		
GSI	**Gunungsitoli**	**1.22**	**126**		**Pb**	**22 47 26.0**	**-0.3**
GSI				Sn	**Sb**	**22 47 41.1**	**-0.5**
GSI	**Gunungsitoli**	**1.22**	**126**	P	**Pb**	**22 47 25.9**	**-0.3**
TPTI		**1.35**	**26**	P	**Pn**	**22 47 26.0**	**-0.9**
TPTI				S	**Sn**	**22 47 44.2**	**+0.3**
TPTI				AML	AML		
KCSI	**Kotacane, Aceh**	**1.89**	**38**	P	**Pn**	**22 47 34.7**	**+0.4**
KCSI				S	**Sb**	**22 48 00.1**	**-0.8**
KCSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**2.23**	**355**	P	**Pn**	**22 47 38.8**	**-0.1**
MLSI				AML	AML		
RPSI	**Rantau Prapat**	**2.42**	**74**		**Pn**	**22 47 42.7**	**+1.1**
PSI	**Prapat**	**2.45**	**72**	P	**Pn**	**22 47 42.4**	**+0.3**
TSI	**Tuntungan**	**2.45**	**53**	P	**Pn**	**22 47 43.2**	**+1.2**
TSI				AML	AML		
PBSI	**Pulau Batu**	**2.67**	**141**	P	**Pn**	**22 47 46.0**	**+1.0**
BSI	**Banda Aceh**	**3.68**	**339**	P	**Pn**	**22 47 57.6**	**-1.3**
BSI				AML	AML		
IPM	**Ipoh**	**5.04**	**61**		**Pn**	**22 48 18.4**	**+0.7**
IPM	**Ipoh**	**5.04**	**61**	P	**Pn**	**22 48 18.7**	**+1.0**
	0.1nm28nm,0.7s						
IPM				AML	AML		
KULM	**Kulim**	**5.18**	**51**		**Pn**	**22 48 19.9**	**+0.4**
KULM	**Kulim**	**5.18**	**51**	P	**Pn**	**22 48 20.2**	**+0.6**
	0.2nm541nm67nm,0.8s						
KULM				AML	AML		
CM31	**Chiang Mai Arr**	**16.48**	**8**	Pn	**Pn**	**22 50 54.2**	**+0.9**
CM31				IAmb	IAmb	22 50 59.2	
	comp=Z,8.9nm,0.4s						
CMAR	**Chiang Mai Arr**	**16.48**	**8**	Pn	**Pn**	**22 50 52.7**	**-0.6**
	comp=Z,0.4nm,0.3s,baz=196,slow=12,SNR=24						
CMAR				LR	LR	22 57 25.4	
	comp=Z,46nm,19.0s,baz=195,slow=38 comp=Z,3.6nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**16.48**	**8**		**Pn**	**22 50 53.8**	**+0.5**
KKM	**Kota Kinabalu**	**19.97**	**78**	P	**P**	**22 51 33.0**	**-1.2**
H08S2	**Diego Garcia H**	**25.90**	**248**	T	T	23 19 18.0	
	baz=69,slow=76,SNR=175						
H08S3	**Diego Garcia H**	**25.90**	**248**	T	T	23 19 21.8	
	baz=69,slow=76,SNR=353						
H08S1	**Diego Carcia H**	**25.91**	**248**	T	T	23 19 19.4	
	baz=69,slow=76,SNR=57						
EVN	**Everest**	**27.42**	**341**	P	**P**	**22 52 47.7**	**-0.4**
EVN				IAmb	IAmb	22 53 12.0	
	comp=Z,8.2nm,1.5s						
LZDM	**Lanzhou Array**	**34.39**	**10**	P	**P**	**22 53 48.6**	**-0.5**
	comp=Z,0.8nm,0.3s,baz=210,slow=8.6,SNR=4.6 comp=Z,0.8nm,0.3s						
FITZ	**Fitzroy Crossi**	**34.90**	**126**	P	**P**	**22 53 52.5**	**-0.8**
GTA2	**Gaotai**	**37.39**	**4**	*eP*	**P**	**22 54 14.9**	**+0.4**
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
H01W3	**Cape Leeuwin H**	**40.24**	**157**	T	T	23 37 24.3	
	baz=333						
H01W2	**Cape Leeuwin H**	**40.25**	**157**	T	T	23 37 25.4	
	baz=333,slow=74						
H01W1	**Cape Leeuwin H**	**40.26**	**157**	T	T	23 37 25.4	
	baz=333,slow=74						
WRA	**Warramunga Arr**	**42.99**	**122**	P	**P**	**22 55 00.3**	**-0.7**
	comp=Z,1.5nm,0.8s,baz=306,slow=9.4,SNR=10 comp=Z,1.5nm,0.8s						
WRA	**Warramunga Arr**	**42.99**	**122**	P	**P**	**22 55 00.2**	**-0.8**
KDJ	**Kajisay**	**43.56**	**339**	P	**P**	**22 55 05.6**	**+0.1**
DRK	**Karamyk**	**43.58**	**332**	P	**P**	**22 55 06.8**	**+0.9**
PDGK	**Podgornoye**	**43.85**	**342**	P	**P**	**22 55 07.9**	**0.0**
ASAR	**Alice Springs**	**44.38**	**127**	P	**P**	**22 55 11.8**	**-0.4**
	comp=Z,0.5nm,0.8s,baz=299,slow=9.0,SNR=5.9 comp=Z,0.5nm,0.8s						
BTK	**Batken**	**44.50**	**332**	P	**P**	**22 55 14.3**	**+1.3**
BTK				IAmb	IAmb	22 55 19.5	
	comp=Z,5.7nm,1.3s						
ARSB	**Arslanbob**	**44.53**	**335**	P	**P**	**22 55 14.2**	**+0.9**
ARSB				IAmb	IAmb	22 55 15.3	
	comp=Z,3.0nm,0.8s						
KSRS	**Korea Array**	**45.52**	**35**	P	**P**	**22 55 20.6**	**-0.4**
	comp=Z,2.1nm,0.8s,baz=230,slow=7.0,SNR=4.5 comp=Z,2.1nm,0.8s						
MKAR	**Makanchi Array**	**46.30**	**346**	P	**P**	**22 55 27.8**	**+0.7**
	comp=Z,3.9nm,0.7s,baz=160,slow=8.7,SNR=40 comp=Z,3.9nm,0.7s						
MKAR	**Makanchi Array**	**46.30**	**346**	P	**P**	**22 55 27.0**	**-0.1**
MAKZ	**Makanchi**	**46.38**	**346**	P	**P**	**22 55 28.0**	**+0.2**
SONM	**Songino Array**	**46.41**	**9**	P	**P**	**22 55 28.6**	**+0.6**
	comp=Z,1.5nm,0.5s,baz=187,slow=9.9,SNR=14 comp=Z,1.5nm,0.5s						
SONM	**Songino Array**	**46.41**	**9**	P	**P**	**22 55 27.9**	**-0.1**
KK31	**Karatay Array**	**47.05**	**334**	P	**P**	**22 55 33.9**	**+0.8**
KK31				IAmb	IAmb	22 55 55.8	
	comp=Z,3.8nm,1.3s						
KKAR	**Karatay Array**	**47.05**	**334**	P	**P**	**22 55 33.4**	**+0.4**
KURBB	**Kurchatov Arra**	**50.78**	**345**	P	**P**	**22 56 01.8**	**+0.4**
	comp=Z,1.1nm,0.2s,baz=164,slow=6.9,SNR=8.9 comp=Z,1.1nm,0.2s						
ZAA0	**Zalesovo Array**	**52.65**	**351**		**P**	**22 56 15.8**	**+0.5**
ZALV	**Zalesovo Beam**	**52.65**	**351**	P	**P**	**22 56 15.8**	**+0.4**
	comp=Z,5.3nm,0.5s,baz=175,slow=6.9,SNR=31 comp=Z,5.3nm,0.5s						
BVAR	**Borovoye Array**	**55.27**	**341**	P	**P**	**22 56 34.2**	**-0.4**
	comp=Z,0.9nm,0.4s,baz=144,slow=8.1,SNR=7.2 comp=Z,0.9nm,0.4s						
BORK	**Borovoye**	**55.31**	**341**	P	**P**	**22 56 35.2**	**+0.3**
BORK				IAmb	IAmb	22 56 35.7	
	comp=Z,1.6nm,0.6s						
AB31	**Akbulak array**	**56.50**	**332**	P	**P**	**22 56 43.6**	**+0.1**
AB31				IAmb	IAmb	22 56 49.5	
	comp=Z,2.9nm,1.1s						
ABKAR	**Akbulak array**	**56.50**	**332**	P	**P**	**22 56 43.6**	**+0.1**
H04N2	**CROZET ISLANDS**	**62.12**	**214**	T	T	00 04 38.3	
	baz=53,slow=75,SNR=649						
H04N1	**CROZET ISLANDS**	**62.13**	**214**	T	T	00 04 42.0	
	baz=53,slow=75,SNR=779						
H04N3	**CROZET ISLANDS**	**62.14**	**214**	T	T	00 04 57.6	
	baz=53,slow=75,SNR=754						
H04S1	**CROZET ISLANDS**	**62.47**	**213**	T	T	00 05 09.8	
	baz=53,slow=76,SNR=86						
H04S3	**CROZET ISLANDS**	**62.48**	**213**	T	T	00 05 11.2	
	baz=53,slow=76,SNR=126						
H04S2	**CROZET ISLANDS**	**62.49**	**213**	T	T	00 05 08.9	
	baz=53,slow=76,SNR=100						
DZM	**Mont Dzumac**	**72.17**	**114**	LR	LR	23 31 25.5	
	comp=Z,614nm,20.8s,baz=164,slow=37						
BOSA	**Boshof**	**74.67**	**240**	P	**P**	**22 58 41.4**	**-0.1**
BOSA				IAmb	IAmb	22 59 23.1	
	comp=Z,5.4nm,1.2s						
FINES	**FINESS Array B**	**78.99**	**333**	P	**P**	**22 59 05.1**	**+0.2**
	comp=Z,1.8nm,0.8s,baz=104,slow=5.6,SNR=3.9 comp=Z,1.8nm,0.8s						
EKA	**Eskdalemuir Ar**	**93.89**	**326**	LR	LR	23 48 45.3	
	comp=Z,80nm,18.3s,baz=182,slow=39						

*IDC **07** 22:47:29.8±0.5,35°.29S×54°.20E, h0km, mb4.3/17, mbtmp4.4/18, ML4.8/1, MS4.1/33, Error ellipse: s-maj=19.1km s-min=14.8km az=61.0*
*BJI **07** 22:47:30.6,35°.26S×54°.44E, h8km, mB5.4/2, mb4.8/15*
*NEIC **07** 22:47:31.2±0.9,35°.26S±0°.02×54°.1E±0°.1, h10km±1km, mb4.8/46, Error ellipse: s-maj=18.7km s-min=4.3km az=271.0*
*GFZ **07** 22:47:32.0±0.2,35°S±3°×5°.4E±°, h10km, M4.7/25, mb4.7/25*
*GCMT **07** 22:47:34.2±0.3,35°.27S±0°.02×54°.00E±0°.02, h13km±1km, MW5.0/100, Moment Tensor Solution. s21,c24; s100,c135; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-1.04±.15; Mθθ0.41±.11; Mϕϕ0.62±.12; Mrθ1.39±.33; Mθϕ2.40±.10; Mϕr-1.69±.38; Best double couple: M₀3.31200×10¹⁶ NP1:φs261.00000°, δ59.00000°, λ-27.00000°. NP2:φs5.00000°, δ67.00000°, λ-146.00000°. Principal axes: T 2.9470, Plg5.0000°, Azm131.0000°; N 0.7340, Plg50.0000°, Azm36.0000°; P -3.6780, Plg40.0000°, Azm226.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 07 22:47:31.4±0.3,**35°.25S**±0°.06×**54°.13E**±0°.07,**h10**km,**n168**, σ1**9**17/134,**mb4.7**/64,**MS4.2**/32,**South Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04N1	**CROZET ISLANDS**	**11.05**	**189**	T	T	23 01 09.4	
	baz=11,slow=75,SNR=4522						
H04N2	**CROZET ISLANDS**	**11.05**	**188**	T	T	23 01 07.8	
	baz=11,slow=75,SNR=5365						
H04N3	**CROZET ISLANDS**	**11.06**	**189**	T	T	23 01 33.9	
	baz=11,slow=75,SNR=5407						
CRZF	**Crozet Islands**	**11.30**	**188**	P	**Pn**	**22 50 12.3**	**-0.6**
	comp=Z,78nm,1.6s						
FOMA	**Nahampoana Res**	**11.96**	**327**		**Pn**	**22 50 20.7**	**-1.3**
FOMA	**Nahampoana Res**	**11.96**	**327**	P	**Pn**	**22 50 21.7**	**-0.2**
	comp=Z,66nm,1.2s						
RER	**Riviere de l'E**	**14.11**	**6**	Pn	**Pn**	**22 50 48.7**	**-2.7**
VOI	**Vohitsoka**	**14.76**	**332**		**Pn**	**22 50 59.1**	**-1.3**
VOI	**Vohitsoka**	**14.76**	**332**	P	**Pn**	**22 50 57.4**	**-3.1**
	comp=Z,41nm,0.9s						
ABPO	**Ambohimpanom**	**17.28**	**337**		**P**	**22 51 34.3**	**-0.2**
ABPO	**Ambohimpanom**	**17.28**	**337**	P	**Pn**	**22 51 33.4**	**+0.3**
	comp=Z,48nm,1.0s						
OPO	**Ambohidratompo**	**17.72**	**338**	P	**P**	**22 51 40.3**	**+0.9**
	comp=Z,0.3nm,0.3s,baz=162,slow=12,SNR=39						
OPO				LR	LR	22 57 24.0	
	comp=Z,235nm,19.1s,baz=114,slow=33 comp=Z,8.8nm,0.5s						
OPO				AML	AML		
AIS	**Amsterdam Isla**	**19.00**	**105**	P	**Pn**	**22 51 55.3**	**+1.4**
	comp=Z,150nm,1.6s						
POGA	**Pongola**	**20.69**	**286**		**P**	**22 52 10.9**	**-0.8**
POGA				IAmb	IAmb	22 52 15.8	
	comp=Z,43nm,0.9s						
POGA	**Pongola**	**20.69**	**286**	P	**P**	**22 52 11.4**	**-0.3**
	comp=Z,165nm,0.9s						
BOSA	**Boshof**	**25.33**	**277**	P	**P**	**22 52 58.7**	**+0.1**
	comp=Z,14nm,1.0s,baz=106,slow=8.7,SNR=9.5						
BOSA				LR	LR	23 01 22.4	
	comp=Z,520nm,19.1s,baz=114,slow=33 comp=Z,14nm,1.0s						
BOSA	**Boshof**	**25.33**	**277**		**P**	**22 52 57.8**	**-0.8**
BOSA				IAmb	IAmb	22 53 02.1	
	comp=Z,28nm,1.1s						
BOSA	**Boshof**	**25.33**	**277**	P	**P**	**22 52 55.9**	**-2.7**
	comp=Z,24nm,1.8s						
LBTB	**Lobatse**	**26.62**	**285**	LR	LR	23 01 51.7	
	comp=Z,746nm,20.6s,baz=119,slow=32						
LBTB	**Lobatse**	**26.62**	**285**	P	**P**	**22 53 09.0**	**-1.3**
LBTB	**Lobatse**	**26.62**	**285**	P	**P**	**22 53 10.0**	**-0.3**
	comp=Z,18nm,1.6s						
MATP	**Matopo**	**26.95**	**296**	LR	LR	23 02 40.4	
	comp=Z,552nm,18.8s,baz=120,slow=34						
LPHEP	**Lephephe**	**27.25**	**288**	P	**P**	**22 53 15.5**	**-0.5**
LPHEP				IAmb	IAmb	22 53 20.2	
	comp=Z,24nm,1.1s						
SUR	**Sutherland**	**27.76**	**266**	LR	LR	23 02 00.7	
	comp=Z,632nm,21.9s,baz=117,slow=31						
PHPEN	**Phepeng**	**28.59**	**281**	P	**P**	**22 53 26.5**	**-1.4**
PHPEN				IAmb	IAmb	22 53 35.5	
	comp=Z,16nm,1.0s						
LKGWB	**Lokgwabe**	**30.54**	**282**	P	P	22 53 40.4	-4.9
KSANE	**Kasane**	**31.04**	**297**		**P**	**22 53 48.4**	**-1.3**
KSANE				IAmb	IAmb	22 53 53.4	
	comp=Z,18nm,1.1s						
KOOLE	**Kule**	**31.91**	**283**		**P**	**22 53 55.7**	**-1.7**
KOOLE				IAmb	IAmb	22 54 01.0	
	comp=Z,22nm,1.2s						
GRTLG	**Ghanzi**	**31.95**	**287**		**P**	**22 53 56.6**	**-1.1**
GRTLG				IAmb	IAmb	22 54 00.6	
	comp=Z,29nm,1.4s						
H08S1	**Diego Carcia H**	**32.22**	**36**	T	T	23 27 44.1	
	baz=208,slow=76,SNR=15						
H08S2	**Diego Garcia H**	**32.23**	**36**	T	T	23 27 37.6	
	baz=208,slow=76,SNR=21						
H08S3	**Diego Garcia H**	**32.24**	**36**	T	T	23 27 31.0	
	baz=208,slow=76,SNR=157						
MAW	**Mawson**	**32.79**	**174**	P	**P**	**22 54 04.0**	**-0.4**
	comp=Z,3.8nm,0.8s,baz=339,slow=14,SNR=5.2						
MAW				LR	LR	23 04 05.6	
	comp=Z,259nm,20.5s,baz=327,slow=30 comp=Z,3.8nm,0.8s						
MAW	**Mawson**	**32.79**	**174**	P	**P**	**22 54 03.8**	**-0.6**
MAW	**Mawson**	**32.79**	**174**	P	**P**	**22 54 04.6**	**+0.2**
	comp=Z,2.6nm,1.4s						
TSUM	**Tsumeb**	**35.98**	**287**	LR	LR	23 07 37.7	
	comp=Z,896nm,20.7s,baz=148,slow=34						
TSUM	**Tsumeb**	**35.98**	**287**		**P**	**22 54 32.3**	**-0.4**
TSUM	**Tsumeb**	**35.98**	**287**	P	**P**	**22 54 32.3**	**-0.4**
	comp=Z,9.8nm,1.2s						
KIBK	**Kibwezi**	**35.99**	**332**	P	**P**	**22 54 31.2**	**-1.5**
	comp=Z,4.5nm,2.3s						
MBAR	**Mbarara**	**40.78**	**323**	LR	LR	23 10 56.5	
	comp=Z,468nm,19.9s,baz=146,slow=34						
LODK	**Lodwar**	**42.31**	**331**	P	**P**	**22 55 25.6**	**+0.1**
CASY	**Casey**	**44.88**	**151**		**P**	**22 55 45.5**	**-0.1**
CASY	**Casey**	**44.88**	**151**	P	**P**	**22 55 46.8**	**+1.2**
	comp=Z,27nm,1.0s						
TROLL	**Troll, Antarti**	**45.25**	**200**	P	**P**	**22 55 47.6**	**-1.1**
	comp=Z,96nm,0.7s						
FURI	**Furi**	**46.27**	**339**	P	**P**	**22 55 57.2**	**-0.3**
SNAA	**Sanae**	**46.67**	**201**	P	**P**	**22 56 00.8**	**+0.9**
	comp=Z,216nm,1.0s						
SNAA	**Sanae**	**46.67**	**201**	P	**P**	**22 56 00.1**	**+0.2**
	comp=Z,2.7nm,0.8s,baz=54,slow=5.1,SNR=5.9 comp=Z,2.7nm,0.8s						
SNAA	**Sanae**	**46.67**	**201**		**P**	**22 55 59.8**	**-0.1**
SNAA				IAmb	IAmb	22 56 10.3	
	comp=Z,8.3nm,0.9s						
SNAA	**Sanae**	**46.67**	**201**	P	**P**	**22 55 59.5**	**-0.4**
	comp=Z,10nm,1.2s						
VNA2	**Neumayer--Watz**	**47.87**	**203**	P	**P**	**22 56 10.1**	**+1.1**
	comp=Z,6.6nm,0.7s,baz=69,slow=6.9						
VNA2	**Neumayer--Watz**	**47.87**	**203**	P	**P**	**22 56 10.2**	**+1.2**
	comp=Z,12nm,0.8s						
H01W2	**Cape Leeuwin H**	**48.43**	**108**	T	T	23 47 49.5	
	baz=251,slow=75,SNR=53						
H01W3	**Cape Leeuwin H**	**48.43**	**108**	T	T	23 47 50.0	
	baz=251,slow=75,SNR=59						
H01W1	**Cape Leeuwin H**	**48.44**	**108**	T	T	23 47 50.8	
	baz=251,slow=75,SNR=109						
VNA3	**Neumayer Olymp**	**48.66**	**203**	P	**P**	**22 56 15.9**	**+0.7**
	comp=Z,8.4nm,0.8s						
VNA3	**Neumayer Olymp**	**48.66**	**203**	P	**P**	**22 56 15.9**	**+0.7**
	comp=Z,13nm,0.8s						
NWAO	**Narrogin (SRO)**	**51.52**	**107**	LR	LR	23 13 14.6	
	comp=Z,312nm,21.4s,baz=284,slow=30						
QSPA	**South Pole Qui**	**54.94**	**180**	P	**P**	**22 57 01.4**	**-0.9**
	comp=Z,7.8nm,1.0s,baz=271,slow=4.3,SNR=15						
QSPA				LR	LR	23 17 32.2	
	comp=Z,160nm,21.4s,baz=272,slow=33 comp=Z,7.8nm,1.0s						
QSPA	**South Pole Qui**	**54.94**	**180**	P	**P**	**22 57 01.7**	**-0.6**
QSPA				IAmb	IAmb	22 57 12.8	
	comp=Z,10nm,0.9s						
QSPA	**South Pole Qui**	**54.94**	**180**	P	**P**	**22 57 02.5**	**+0.2**
	comp=Z,13nm,0.9s						
RPSI	**Rantau Prapat**	**56.40**	**58**	P	**P**	**22 57 12.9**	**-0.4**
RPSI				IAmb	IAmb	22 57 29.5	
	comp=Z,27nm,1.8s						
LEM	**Lembang**	**56.53**	**73**	LR	LR	23 16 37.9	
	comp=Z,54nm,21.0s,baz=196,slow=31						
MBWA	**Marble Bar**	**58.55**	**95**	P	**P**	**22 57 27.5**	**-0.9**
RAYN	**Ar Rayn**	**59.02**	**351**		**P**	**22 57 31.7**	**+0.2**
RAYN	**Ar Rayn**	**59.02**	**351**	P	**P**	**22 57 32.1**	**+0.6**
	comp=Z,6.0nm,1.2s						
IPM	**Ipoh**	**59.13**	**58**		**P**	**22 57 32.3**	**-0.1**
IPM	**Ipoh**	**59.13**	**58**	P	**P**	**22 57 33.8**	**+1.3**
	comp=Z,16nm,1.0s						
IPM	**Ipoh**	**59.13**	**58**	P	**P**	**22 57 32.6**	**+0.1**
	comp=Z,12nm,1.1s						
VNDA	**Vanda**	**59.57**	**166**	P	**P**	**22 57 34.2**	**-0.5**
	comp=Z,4.4nm,1.2s,baz=264,slow=4.8,SNR=8.7						
VNDA				LR	LR	23 20 25.6	
	comp=Z,199nm,20.9s,baz=244,slow=33 comp=Z,4.4nm,1.2s						
VNDA	**Vanda**	**59.57**	**166**		**P**	**22 57 33.9**	**-0.7**
VNDA				IAmb	IAmb	22 57 36.3	
	comp=Z,5.8nm,1.1s						
VNDA	**Vanda**	**59.57**	**166**	P	**P**	**22 57 35.2**	**+0.6**
	comp=Z,5.9nm,1.2s						
SBA	**Scott Base**	**60.34**	**167**	P	**P**	**22 57 39.8**	**-0.2**
SBA				IAmb	IAmb	22 58 08.6	
	comp=Z,8.4nm,1.2s						
FITZ	**Fitzroy Crossi**	**64.89**	**95**	LR	LR	23 22 13.5	
	comp=Z,2.1nm,19.2s,baz=316,slow=32						
FITZ	**Fitzroy Crossi**	**64.89**	**95**	P	**P**	**22 58 10.3**	**-0.9**
FITZ	**Fitzroy Crossi**	**64.89**	**95**	P	**P**	**22 58 11.1**	**-0.1**
	comp=Z,3.2nm,1.0s						
LBFI	**Labuhan Bajo,**	**65.38**	**83**	P	**P**	**22 58 14.9**	**+0.5**
	comp=Z,2.8nm,0.8s						
EDFI	**Ende, Flores**	**66.69**	**84**	P	**P**	**22 58 22.4**	**-0.6**
	comp=Z,16nm,1.3s						
NPW	**Naypyitaw**	**67.69**	**43**	P	**P**	**22 58 29.7**	**+0.7**
BRDH	**Bariadhala**	**67.70**	**37**	LR	LR	23 26 29.8	
	comp=Z,100nm,19.3s,baz=194,slow=35						
CM31	**Chiang Mai Arr**	**68.26**	**46**	P	**P**	**22 58 32.2**	**-0.4**
CM31				IAmb	IAmb	22 58 52.9	
	comp=Z,8.4nm,0.9s						
CMAR	**Chiang Mai Arr**	**68.26**	**46**	P	**P**	**22 58 32.6**	**0.0**
	comp=Z,1.7nm,0.4s,baz=232,slow=6.7,SNR=18						
CMAR				LR	LR	23 24 38.5	
	comp=Z,112nm,19.6s,baz=210,slow=33 comp=Z,1.7nm,0.4s						
CMAR	**Chiang Mai Arr**	**68.26**	**46**	P	**P**	**22 58 32.1**	**-0.5**
TTSI	**Tana Toraja**	**68.48**	**78**	P	**P**	**22 58 35.0**	**+0.9**
	comp=Z,14nm,1.0s						
KNRA	**Kununurra**	**68.70**	**95**	P	**P**	**22 58 34.4**	**-1.1**
KNRA				IAmb	IAmb	22 58 36.4	
	comp=Z,6.0nm,0.9s						
ASAR	**Alice Springs**	**68.74**	**104**	P	**P**	**22 58 35.4**	**-0.4**
	comp=Z,3.1nm,0.7s,baz=233,slow=6.0,SNR=26						
ASAR				LR	LR	23 24 17.0	
	comp=Z,202nm,20.2s,baz=274,slow=32 comp=Z,3.1nm,0.7s

KDJ	**Kajisay**	**79.85**	**17**	P	**P**	**22 59 39.6**	**-0.4**
KDJ				IAmb	IAmb	22 59 43.9	
	comp=Z,9.8nm,1.0s						
KDJ	**Kajisay**	**79.85**	**17**	P	**P**	**22 59 41.3**	**+1.3**
	comp=Z,8.7nm,0.9s						
CTA	**Charters Tower**	**80.35**	**108**	LR	LR	23 30 50.3	
	comp=Z,167nm,21.9s,baz=222,slow=32						
PRZ	**Przheval'sk**	**80.48**	**18**		**P**	**22 59 43.7**	**+0.2**
PRZ				IAmb	IAmb	23 00 06.2	
	comp=Z,11nm,0.9s						
PRZ	**Przheval'sk**	**80.48**	**18**	P	**P**	**22 59 45.5**	**+2.0**
	comp=Z,9.7nm,0.9s						
GOMU	**GeErMu**	**80.55**	**32**	P	**P**	**22 59 45.5**	**+1.3**
GOMU				pP	sP	22 59 48.7	+2.0
GOMU				sP	pwP	22 59 52.7	+0.8
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.7s						
VAE	**Valguarnera**	**81.21**	**329**	LR	LR	23 36 24.9	
	comp=Z,135nm,18.8s,baz=158,slow=36						
PDGK	**Podgornoye**	**81.55**	**18**	P	**P**	**22 59 48.7**	**-0.4**
KEST	**Kesra**	**82.03**	**325**	LR	LR	23 37 44.8	
	comp=Z,158nm,18.4s,baz=268,slow=37						
ENH	**Enshi**	**83.43**	**46**	P	**P**	**22 59 58.7**	**-0.4**
AB31	**Akbulak array**	**84.29**	**4**	P	**P**	**23 00 02.2**	**-0.7**
AB31				IAmb	IAmb	23 00 06.2	
	comp=Z,7.5nm,1.4s						
ABKAR	**Akbulak array**	**84.29**	**4**		**P**	**23 00 02.4**	**-0.5**
MLR	**Muntele Rosu**	**84.31**	**340**	LR	LR	23 36 21.3	
	comp=Z,56nm,21.4s,baz=175,slow=35						
MLR	**Muntele Rosu**	**84.31**	**340**	P	**P**	**23 00 02.4**	**-1.0**
WMQ	**Urumqi**	**84.42**	**24**	eP	**P**	**23 00 04.9**	**+1.0**
VRI	**Vrincioaia**	**84.45**	**341**	P	**P**	**23 00 05.1**	**+1.2**
	comp=Z,14nm,1.3s						
VOIR		**84.51**	**340**	P	**P**	**23 00 07.1**	**+2.8**
	comp=Z,7.8nm,1.4s						
LZDM	**Lanzhou Array**	**84.56**	**38**	P	**P**	**23 00 05.3**	**+0.3**
	comp=Z,0.8nm,0.3s,baz=204,slow=3.2,SNR=1.4						
	comp=Z,0.8nm,0.3s						
GTA2	**Gaotai**	**85.46**	**34**	eP	**P**	**23 00 09.6**	**+0.3**
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MKAR	**Makanchi Array**	**85.50**	**19**	P	**P**	**23 00 08.9**	**-0.3**
	comp=Z,0.5nm,0.6s,baz=187,slow=3.9,SNR=3.0						
	comp=Z,0.5nm,0.6s						
MKAR	**Makanchi Array**	**85.50**	**19**	P	**P**	**23 00 08.1**	**-1.1**
BURAR	**Bucovina Array**	**86.46**	**341**	P	**P**	**23 00 13.0**	**-1.0**
PMG	**Port Moresby**	**87.10**	**99**	LR	LR	23 36 55.2	
	comp=Z,238nm,18.2s,baz=340,slow=34						
MORH	**Mrgy, Hungar**	**87.17**	**336**	P	**P**	**23 00 19.1**	**+1.8**
	comp=Z,4.2nm,1.8s						
MDT	**Midelt**	**87.26**	**314**	LR	LR	23 40 07.1	
	comp=Z,164nm,19.1s,baz=150,slow=36						
PSZ	**Piszkesteto**	**88.28**	**338**	P	**P**	**23 00 22.8**	**+0.1**
PSZ				IAmb	IAmb	23 00 35.5	
	comp=Z,9.2nm,1.1s						
PSZ	**Piszkesteto**	**88.28**	**338**	P	**P**	**23 00 24.1**	**+1.4**
AKASG	**Malin Array Be**	**88.36**	**344**	P	**P**	**23 00 22.9**	**0.0**
	comp=Z,0.7nm,0.6s,baz=153,slow=4.1,SNR=8.6						
	comp=Z,0.7nm,0.6s						
KOLS	**Kolonicke sedl**	**88.48**	**340**	eP	**P**	**23 00 27.5**	**+3.9**
PLCA	**Paso Flores**	**88.88**	**219**	LR	LR	23 34 31.4	
	comp=Z,83nm,19.4s,baz=109,slow=32						
TEOL	**Teolo**	**88.95**	**332**	P	**P**	**23 00 25.9**	**0.0**
TEOL				IAmb	IAmb	23 00 31.4	
	comp=Z,13nm,1.3s						
BVAR	**Borovoye Array**	**89.04**	**10**	P	**P**	**23 00 26.0**	**-0.1**
	comp=Z,0.6nm,0.6s,baz=192,slow=4.1,SNR=2.9						
	comp=Z,0.6nm,0.6s						
SESA	**Seetaler Alpe,**	**89.35**	**334**	ePcP	**PcP**	**23 00 31.6**	**+2.3**
	comp=Z,3.5nm,1.1s						
ABTA	**Abfaltersbach**	**89.79**	**333**	epP	**P**	**23 00 34.5**	**+4.6**
	comp=Z,5.4nm,1.6s						
LESA	**Schwarzleotal**	**90.30**	**333**	eP	**P**	**23 00 34.2**	**+2.0**
	comp=Z,4.3nm,1.4s						
NJ2	**Nanjing**	**90.38**	**50**	eP	**P**	**23 00 34.9**	**+2.0**
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
VRAC	**Vranov**	**90.55**	**336**	LR	LR	23 43 49.8	
	comp=Z,17nm,18.4s,baz=176,slow=37						
SQTA	**Sankt Quirin**	**90.68**	**332**	epP	**P**	**23 00 37.9**	**+3.8**
	comp=Z,3.3nm,1.0s						
BDFB	**Brasilia**	**90.69**	**250**	LR	LR	23 36 10.3	
	comp=Z,92nm,18.7s,baz=74,slow=32						
FETA	**Feichten**	**90.70**	**332**	eP	**P**	**23 00 35.6**	**+1.4**
	comp=Z,6.1nm,1.2s						
MOTA	**Moosalm**	**90.82**	**332**	eP	**P**	**23 00 36.4**	**+1.6**
	comp=Z,4.6nm,1.4s						
CPUP	**Villa Florida**	**90.88**	**237**	LR	LR	23 32 43.5	
	comp=Z,40nm,21.9s,baz=76,slow=30						
ESDC	**Sonseca Array**	**91.80**	**319**	P	**P**	**23 00 39.3**	**-0.1**
	comp=Z,2.0nm,1.1s,baz=136,slow=4.3,SNR=7.3						
ESDC				LR	LR	23 43 57.2	
	comp=Z,138nm,18.2s,baz=133,slow=37						
	comp=Z,2.0nm,1.1s						
ESDC	**Sonseca Array**	**91.80**	**319**	P	**P**	**23 00 38.8**	**-0.6**
HHC	**Hu-ho-hao-te**	**92.30**	**40**	eP	**P**	**23 00 41.2**	**-0.5**
HHC				pmax	pmax		
	comp=Z,16nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,4.7s						
KRVT	**Keravat (AS076**	**93.97**	**98**	LR	LR	23 41 42.6	
	comp=Z,60nm,18.4s,baz=200,slow=35						
HNR	**Honiara**	**97.27**	**107**	LR	LR	23 41 14.9	
	comp=Z,52nm,19.2s,baz=310,slow=33						
PPT2	**Papeete2**	**122.84**	**153**	eLR	LR	23 44 25.2	
PPT2	comp=Z,114nm,34.8s						
				eLR	LR	23 44 25.6	
	comp=Z,82nm,23.5s						
TAOE	**Nuku Hiva Isla**	**134.11**	**160**	eLR	LR	23 49 41.5	
	comp=Z,98nm,23.7s						
ILAR	**Eielson Array**	**147.83**	**17**	PKPbc	**PKPbc**	**23 07 14.6**	**-1.1**
	comp=Z,2.3nm,0.7s,baz=313,slow=3.7,SNR=18						
ILAR	**Eielson Array**	**147.83**	**17**		**PKPbc**	**23 07 14.5**	**-1.3**
G31M	**Satah River**	**147.91**	**6**	PKPbc	**PKPbc**	**23 07 14.8**	**-1.0**
YKA	**Yellowknife Ar**	**151.83**	**349**	PKPbc	**PKPbc**	**23 07 25.4**	**-0.2**
	comp=Z,1.0nm,0.8s,baz=21,slow=2.2,SNR=2.8						
YKA				PKPab	**PKPab**	**23 07 34.5**	**-0.1**
	comp=Z,1.7nm,0.7s,baz=27,slow=1.9,SNR=7.9						

*IDC **07** 22:57:25.3±0.7,25°.48S×69°.98E,h0km,mb4.0/13, mbtmp4.0/13,MS3.6/9,Error ellipse: s-maj=29.0km s-min=18.5km az=81.0*
*NEIC **07** 22:57:25.7±1.0,25°.4S±0°.1×69°.83E±0°.08,h10km±1km, mb4.5/8,Error ellipse: s-maj=23.5km s-min=12.5km az=183.0*

ISC 07 22:57:28.2±0.7,25°.4S±0°.1×70°.0E±0°.2,h21km,n40, σ1§10/25,mb4.0/15,MS3.7/9,Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H04N2	**CROZET ISLANDS**	**25.32**	**211**	T	T	23 29 14.9	
	baz=41,slow=74,SNR=1342						
H04N1	**CROZET ISLAND**	**25.33**	**211**	T	T	23 29 13.1	
	baz=41,slow=74,SNR=1283						
H04N3	**CROZET ISLAND**	**25.34**	**211**	T	T	23 29 14.3	
	baz=41,slow=74,SNR=1251						
H04S1	**CROZET ISLANDS**	**25.78**	**209**	T	T	23 29 59.8	
	baz=45						
H04S3	**CROZET ISLANDS**	**25.79**	**209**	T	T	23 29 53.5	
	baz=45						
H04S2	**CROZET ISLANDS**	**25.80**	**209**	T	T	23 29 58.7	
	baz=45						
MATP	**Matopo**	**38.45**	**269**	LR	LR	23 17 45.3	
	comp=Z,80nm,19.1s,baz=74,slow=32						
BOSA	**Boshof**	**39.83**	**255**	LR	LR	23 17 25.2	
	comp=Z,116nm,18.9s,baz=117,slow=30						
LBTB	**Lobatse**	**40.05**	**261**	LR	LR	23 20 07.0	
	comp=Z,96nm,18.4s,baz=131,slow=34						
MAW	**Mawson**	**42.43**	**184**	LR	LR	23 19 51.1	
	comp=Z,52nm,21.6s,baz=179,slow=32						
SUR	**Sutherland**	**43.33**	**249**	LR	LR	23 21 25.1	
	comp=Z,145nm,18.1s,baz=156,slow=33						
TSUM	**Tsumeb**	**48.65**	**266**	LR	LR	23 23 39.7	
	comp=Z,59nm,22.0s,baz=336,slow=32						
CM31	**Chiang Mai Arr**	**51.91**	**36**	P	**P**	**23 06 35.3**	**-0.2**
CM31				IAmb	IAmb	23 06 39.5	
	comp=Z,5.8nm,1.0s						
CMAR	**Chiang Mai Arr**	**51.91**	**36**	P	**P**	**23 06 38.0**	**+2.5**
	comp=Z,1.3nm,0.8s,baz=227,slow=7.0,SNR=9.8						
	comp=Z,1.3nm,0.8s						
CMAR	**Chiang Mai Arr**	**51.91**	**36**	P	**P**	**23 06 34.7**	**-0.9**
ASAR	**Alice Springs**	**57.64**	**103**	P	**P**	**23 07 17.3**	**+0.1**
	comp=Z,0.7nm,0.8s,baz=254,slow=6.8,SNR=6.4						
	comp=Z,0.7nm,0.8s						
WRA	**Warramunga Arr**	**59.11**	**99**	P	**P**	**23 07 27.8**	**+0.2**
	comp=Z,0.8nm,0.8s,baz=251,slow=6.8,SNR=4.9						
	comp=Z,0.8nm,0.8s						
QSPA	**South Pole Qui**	**64.71**	**180**	P	**P**	**23 08 05.0**	**+0.4**
	comp=Z,4.4nm,1.0s,baz=284,slow=4.0,SNR=9.1						
	comp=Z,4.4nm,1.0s						
QSPA	**South Pole Qui**	**64.71**	**180**	P	**P**	**23 08 03.6**	**-1.0**
VNDA	**Vanda**	**65.78**	**166**	P	**P**	**23 08 11.5**	**+0.3**
	comp=Z,1.6nm,0.8s,baz=272,slow=7.3,SNR=8.8						
	comp=Z,1.6nm,0.8s						
VNDA	**Vanda**	**65.78**	**166**	P	**P**	**23 08 10.8**	**-0.4**
VNDA				IAmb	IAmb	23 08 14.4	
	comp=Z,3.3nm,1.4s						
KK31	**Karatay Array**	**68.18**	**0**	P	**P**	**23 08 25.6**	**-1.3**
KK31				IAmb	IAmb	23 08 42.4	
	comp=Z,6.3nm,1.5s						
KKAR	**Karatay Array**	**68.18**	**0**	P	**P**	**23 08 25.1**	**-1.7**
LZDM	**Lanzhou Array**	**68.84**	**29**	P	**P**	**23 08 32.6**	**+1.1**
	comp=Z,0.9nm,0.3s,baz=211,slow=6.0,SNR=1.9						
	comp=Z,0.9nm,0.3s						
PDGK	**Podgornoye**	**68.96**	**7**	P	**P**	**23 08 31.0**	**-0.8**
MKAR	**Makanchi Array**	**72.72**	**9**	P	**P**	**23 08 55.0**	**+0.5**
	comp=Z,1.2nm,0.7s,baz=179,slow=6.1,SNR=9.0						
	comp=Z,1.2nm,0.7s						
MKAR	**Makanchi Array**	**72.72**	**9**	P	**P**	**23 08 53.4**	**-1.1**
BRTR	**Keskin Array B**	**73.15**	**331**	P	**P**	**23 08 57.9**	**+0.5**
	comp=Z,0.9nm,0.8s,baz=156,slow=6.6,SNR=5.9						
	comp=Z,0.9nm,0.8s						
BRTR	**Keskin Array B**	**73.15**	**331**	P	**P**	**23 08 56.4**	**-1.0**
KURBB	**Kurchatov Arra**	**76.08**	**6**	P	**P**	**23 09 13.7**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=200,slow=5.9,SNR=4.7						
	comp=Z,0.5nm,0.3s						
TORD	**Torodi Ar. Bea**	**76.76**	**292**	P	**P**	**23 09 19.5**	**+1.0**
	comp=Z,0.6nm,0.7s,baz=117,slow=4.9,SNR=3.2						
	comp=Z,0.6nm,0.7s						
BVAR	**Borovoye Array**	**78.11**	**0**	P	**P**	**23 09 26.7**	**+1.4**
	comp=Z,0.5nm,0.6s,baz=172,slow=6.0,SNR=2.5						
	comp=Z,0.5nm,0.6s						
SONM	**Songino Array**	**79.91**	**24**	P	**P**	**23 09 36.5**	**+1.0**
	comp=Z,1.0nm,0.9s,baz=205,slow=6.2,SNR=5.3						
	comp=Z,1.0nm,0.9s						
SONM	**Songino Array**	**79.91**	**24**	P	**P**	**23 09 34.1**	**-1.4**
ZALV	**Zalesovo Beam**	**80.07**	**9**	P	**P**	**23 09 36.8**	**+0.9**
	comp=Z,1.3nm,0.7s,baz=204,slow=3.2,SNR=5.9						
	comp=Z,1.3nm,0.7s						
ZALV	**Zalesovo Beam**	**80.07**	**9**	P	**P**	**23 09 35.4**	**-0.6**
ULN	**Ulaanbaatar**	**80.18**	**24**	P	**P**	**23 09 35.4**	**-1.6**
ULN				IAmb	IAmb	23 09 50.5	
	comp=Z,6.0nm,1.2s						
MJAR	**Matsushiro Arr**	**89.00**	**48**	LR	LR	23 47 22.7	
	comp=Z,17nm,21.6s,baz=202,slow=34						
ASAJ	**Asahikawa**	**95.80**	**44**	LR	LR	23 49 47.1	
	comp=Z,39nm,22.0s,baz=80,slow=33						
YAK	**Yakutsk**	**99.27**	**24**	LR	LR	23 53 46.5	
	comp=Z,24nm,20.8s,baz=237,slow=34						

NOU 07 23:00:48.8,17°.06S×168°.47E,h204km,MLv4.3/18, Vanuatu Islands,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DVP	**Devils Point**	**0.71**	**202**	P	Pn	23 01 18.6	+1.3
DVP	**Devils Point**	**0.71**	**202**	S	S	23 01 41.5	+2.0
RTV	**Rentapao**	**0.73**	**183**	P	Pn	23 01 18.2	+0.8
RTV	**Rentapao**	**0.73**	**183**	S	S	23 01 40.9	+1.2
SANVU	**Saraoutou**	**2.01**	**323**	P	Pn	23 01 27.1	-0.7
SANVU	**Saraoutou**	**2.01**	**323**	P	S	23 01 58.5	+0.9
MARNC	**Mare, Loyalty**	**4.42**	**185**	P	Pn	23 01 55.3	-0.6
MARNC	**Mare, Loyalty**	**4.42**	**185**	S	S	23 02 47.6	-0.8
YATNC	**Mamie plateau,**	**5.19**	**196**	P	Pn	23 02 04.8	-0.9
NOUC	**Port Laguerre**	**5.42**	**202**	P	Pn	23 02 09.8	+1.2
OUENC	**Ouen Island, N**	**5.55**	**196**	P	Pn	23 02 10.6	+0.3
ONTNC	**Ouen Toro**	**5.55**	**200**	P	Pn	23 02 11.0	+0.6
PINNC	**Pines Island,**	**5.61**	**190**	P	Pn	23 02 11.7	+0.7

MEX 07 23:02:15.7±0.5,16°.26N×97°.99W,h6km±18km,MD3.6, Presumed earthquake,Oaxaca

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PNIG	**Pinotepa**	**0.19**	**315**	*i* P	Pg	23 02 19.1	-0.4
PNIG				*i* S	Sg	23 02 22.0	0.0
YOIG	**Yosondua**	**0.73**	**35**	eP	Pg	23 02 29.0	-0.9
YOIG				eS	Sg	23 02 38.8	-0.6
PEIG	**Puerto Escondi**	**0.85**	**108**	eS	Sg	23 02 41.0	-2.0
TXIG	**Tlaxiaco**	**1.01**	**12**	eP	Pg	23 02 33.3	-1.9
TXIG				eS	Sg	23 02 46.0	-2.4
HLIG	**Huajuapan de L**	**1.57**	**6**	eP	Pn	23 02 40.4	-4.1
HLIG				eS	Sn	23 03 01.1	-4.2
FTIG	**Fresnillo de T**	**1.65**	**355**	eP	Pn	23 02 41.9	-3.5
FTIG				eS	Sn	23 03 03.3	-3.7
HUIG	**Huatulco**	**1.87**	**105**	eS	Sn	23 03 07.3	-5.0
MEIG	**Mezcala**	**2.28**	**317**	eP	Pn	23 02 51.2	-2.8
MEIG				eS	Sn	23 03 19.4	-3.1

*SJA **07** 23:10:41.8±0.7,23°.16S×69°.22W,h86km±4km,ML3.8, MW3.8*
*GUC **07** 23:10:42.8±0.6,23°.15S×69°.23W,h90km±3km,ML3.7, Presumed earthquake*
*IDC **07** 23:10:46.4±4.5,23°.09S×68°.92W,h117km±44km,mb3.8/2, mbtmp4.1/3,Error ellipse: s-maj=72.4km s-min=30.5km az=116.0*

ISC 07 23:10:42.7±0.9,23°.16S±0°.03×69°.23W±0°.04,h87km±7km, n43,σ1§04/55,4D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB06	**IPOC Station P**	**0.55**	**325**	eP	**Pn**	**23 10 57.5**	**-0.3**
PB06				eS	**Sn**	**23 11 09.1**	**+0.1**
PB06				IAML		23 11 09.8	
	comp=Z,4μm,0.1s						
PB06	**IPOC Station P**	**0.55**	**325**	⇓*i* P	**Pn**	**23 10 57.5**	**-0.3**
PB06				eS	**Sn**	**23 11 08.5**	**-0.4**
PB06				IAML		23 11 09.6	
	comp=E,5μm,0.1s						
PB05	**IPOC Station P**	**0.95**	**289**	⇓*i* P	**Pn**	**23 11 01.6**	**-0.1**
PB05				eS	**Sn**	**23 11 16.1**	**+0.1**
PB05				IAML		23 11 19.7	
	comp=E,1μm,0.2s						
AF01	**San Pedro de A**	**0.99**	**78**	eP	**Pn**	**23 11 02.2**	**-0.2**
AF01				eS	**Sn**	**23 11 17.3**	**+0.2**
AF01				IAML		23 11 26.2	
	comp=Z,4μm,0.2s						
AF01	**San Pedro de A**	**0.99**	**78**	eP	**Pn**	**23 11 02.3**	**0.0**
AF01				eS	**Sn**	**23 11 17.3**	**+0.2**
PB03	**IPOC Station P**	**1.21**	**336**	eP	**Pn**	**23 11 04.9**	**0.0**
PB03				eS	**Sn**	**23 11 22.0**	**+0.5**
PB03				IAML		23 11 22.7	
	comp=Z,2μm,0.1s						
PB03	**IPOC Station P**	**1.21**	**336**	⇓*i* P	**Pn**	**23 11 04.8**	**0.0**
PB03				IAML		23 11 24.5	
	comp=E,2μm,0.1s						
PB10	**IPOC Station P**	**1.27**	**254**	eP	**Pn**	**23 11 05.7**	**+0.3**
PB10				eS	**Sn**	**23 11 23.2**	**+0.7**
PB10				IAML		23 11 24.1	
	comp=Z,847nm,0.4s						
PB10	**IPOC Station P**	**1.27**	**254**	eP	**Pn**	**23 11 05.7**	**+0.3**
PB10				eS	**Sn**	**23 11 22.6**	**+0.1**
PB10				IAML		23 11 30.1	
	comp=E,1μm,0.3s						
PB09	**IPOC Station P**	**1.36**	**359**	eP	**Pn**	**23 11 07.1**	**+0.4**
PB09				eS	**Sn**	**23 11 26.0**	**+1.2**
PB09				IAML		23 11 29.4	
	comp=Z,1μm,0.2s						
PB09	**IPOC Station P**	**1.36**	**359**	eP	**Pn**	**23 11 07.3**	**+0.6**
PB09				eS	**Sn**	**23 11 25.1**	**+0.4**
PB09				IAML		23 11 29.7	
	comp=E,2μm,0.4s						
PB07	**IPOC Station P**	**1.55**	**337**	eP	**Pn**	**23 11 09.1**	**-0.1**
PB07				eS	**Sn**	**23 11 29.2**	**0.0**
PB07				IAML		23 11 34.1	
	comp=Z,841nm,0.2s						
PB07	**IPOC Station P**	**1.55**	**337**	⇓*i* P	**Pn**	**23 11 09.1**	**-0.1**
PB07				eS	**Sn**	**23 11 29.6**	**+0.4**
PB07				IAML		23 11 33.6	
	comp=N,1μm,0.2s						
PB14	**IPOC Station P**	**1.81**	**216**	eP	**Pn**	**23 11 13.6**	**+0.9**
PB14				IAML		23 11 43.2	
	comp=Z,693nm,0.6s						
PB14	**IPOC Station P**	**1.81**	**216**	eP	**Pn**	**23 11 13.2**	**+0.5**
PB14				eS	**Sn**	**23 11 36.7**	**+1.3**
PB14				IAML		23 11 40.4	
	comp=E,362nm,0.5s						
PB02	**IPOC Station P**	**1.93**	**341**	eP	**Pn**	**23 11 14.2**	**+0.2**
PB02				eS	**Sn**	**23 11 39.0**	**+1.1**
PB02				IAML		23 11 47.3	
	comp=Z,2μm,0.3s						
PB02	**IPOC Station P**	**1.93**	**341**	eP	**Pn**	**23 11 14.3**	**+0.2**
PB02				eS	**Sn**	**23 11 38.4**	**+0.5**
TA01	**Diego Aracena**	**2.73**	**341**	eP	**Pn**	**23 11 24.8**	**+0.2**
TA01				IAML		23 12 09.7	
	comp=N,485nm,0.2s						
PB08	**IPOC Station P**	**3.01**	**1**	eP	**Pn**	**23 11 28.7**	**+0.1**
PB08				eS	**Sn**	**23 12 07.2**	**+3.3**
PB08				IAML		23 12 15.5	
	comp=Z,192nm,0.2s						
PB08	**IPOC Station P**	**3.01**	**1**	eP	**Pn**	**23 11 28.6**	**-0.1**
PB08				IAML		23 12 15.7	
	comp=N,316nm,0.2s						
AC01	**Pan de Azucar**	**3.22**	**202**	eP	**Pn**	**23 11 30.2**	**-1.0**
AC01				IAML		23 12 22.9	
	comp=Z,188nm,0.3s						
PB11	**IPOC Station P**	**3.41**	**353**	eP	**Pn**	**23 11 32.9**	**-1.0**
PB11				eS	**Sn**	**23 12 13.7**	**+0.4**
PB11				IAML		23 12 34.1	
	comp=Z,179nm,0.6s						
PB11	**IPOC Station P**	**3.41**	**353**	eP	**Pn**	**23 11 32.7**	**-1.1**
GO01	**Chusmiza**	**3.48**	**1**	eP	**Pn**	**23 11 35.3**	**+0.2**
GO01				eS	Sn	23 12 26.3	+11
GO01				IAML		23 12 29.7	
	comp=Z,190nm,0.5s						
GO01	**Chusmiza**	**3.48**	**1**	eP	**Pn**	**23 11 35.0**	**-0.1**
PSGCX	**Pisagua**	**3.64**	**347**	eP	**Pn**	**23 11 34.9**	**-2.1**
PSGCX				IAML		23 12 35.1	
	comp=Z,176nm,0.3s						
AC02	**Maricunga**	**3.66**	**179**	eP	**Pn**	**23 11 38.5**	**+1.0**
AC02				eS	Sn	23 12 02.2	-18
AC02				eS		23 12 03.7	
AC02				IAML		23 12 49.7	
	comp=Z,84nm,0.6s						
GO03	**Copiapo**	**4.51**	**191**	eP	**Pn**	**23 11 48.0**	**-0.7**
GO03				eS	Sn	23 12 49.4	+10
GO03				IAML		23 13 05.8	
	comp=Z,86nm,0.4s						
PB12	**IPOC Station P**	**4.64**	**347**	eP	**Pn**	**23 11 48.7**	**-1.8**
PB12				eS	**Sn**	**23 12 46.7**	**+3.5**
PB12				IAML		23 13 02.4	
	comp=Z,102nm,0.3s						
PB16	**IPOC Station P**	**4.81**	**357**	eP	**Pn**	**23 11 54.3**	**+1.0**
PB16				IAML		23 13 10.8	
	comp=Z,55nm,0.3s						
TINO	**Tinogasta**	**5.11**	**163**	eP	**Pn**	**23 11 57.8**	**+1.0**
LPAZ	**La Paz**	**6.92**	**9**	P	**Pn**	**23 12 24.4**	**+2.4**
	comp=Z,4.8nm,0.4s,baz=186,slow=3.8,SNR=26						
QSPA	**South Pole Qui**	**67.04**	**180**	P	**P**	**23 21 27.2**	**+0.9**
	comp=Z,1.1nm,0.4s,baz=43,slow=6.2,SNR=10						
	comp=Z,1.1nm,0.4s						
TORD	**Torodi Ar. Bea**	**78.19**	**70**	P	**P**	**23 22 31.9**	**-1.2**
	comp=Z,1.3nm,0.6s,baz=256,slow=4.5,SNR=12						
	comp=Z,1.3nm,0.6s						
H11S2	**WAKE ISLAND Hyl**	**27.77**	**276**	T	T	01 49 41.2	
	baz=105,slow=75,SNR=7.2						
H11S1	**WAKE ISLAND Hyl**	**27.78**	**276**	T	T	01 49 43.0	
	baz=105,slow=75,SNR=10						
H11S3	**WAKE ISLAND Hyl**	**27.79**	**276**	T	T	01 49 53.6	
	baz=105,slow=75,SNR=8.2						
H11N3	**WAKE ISLAND Hyl**	**27.90**	**278**	T	T	01 50 21.9	
	baz=104						
H11N2	**WAKE ISLAND Hyl**	**27.91**	**278**	T	T	01 50 21.1	
	baz=104						
H11N1	**WAKE ISLAND Hyl**	**27.92**	**278**	T	T	01 50 22.7	
	baz=104						
ASAR	**Alice Springs**	**128.31**	**207**	PKP	**PKiKP**	**23 29 40.0**	**-0.5**
	comp=Z,0.2nm,0.4s,baz=129,slow=2.0,SNR=2.1						
WRA	**Warramunga Arr**	**131.38**	**210**	PKP	**PKPdf**	**23 29 45.8**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=139,slow=1.9,SNR=1.3						
MKAR	**Makanchi Array**	**147.14**	**37**	PKPbc	**PKPbc**	**23 30 14.3**	**-1.4**
	comp=Z,0.8nm,0.8s,baz=315,slow=3.2,SNR=4.3						

*NEIC **07** 23:10:55.5±1.1,17°.80N±0°.03×66°.84W±0°.02,h10km±1km, ML3.3/41,Md3.1/16(RSPR),Error ellipse: s-maj=5.3km s-min=2.9km az=356.0*
*RSPR **07** 23:10:56.8,17°.90N×66°.87W,h14km,MD3.1/16*
*SDD **07** 23:10:56.3±2.1,17°.86N×66°.83W,h12km±18km,MD2.7, ML3.0,MW3.1,Presumed earthquake*
*OSPL **07** 23:10:56.5±0.6,17°.83N×66°.87W,h14km±9km,ML3.8, Presumed earthquake*

ISC 07 23:10:55.4±1.0,17°.86N±0°.05×66°.85W±0°.02,h18km±5km, n51,σ0§42/74,21C-5D,Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GBPR	**Guanica, Bosqu**	**0.12**	**346**		**Pg**	**23 10 59.6**	**+0.3**
GBPR					**Sg**	**23 11 01.9**	**0.0**
GBPR	**Guanica, Bosqu**	**0.12**	**346**	⇓*eP*	**Pg**	**23 10 59.6**	**+0.3**
GBPR				eS	**Sg**	**23 11 01.9**	**0.0**
MLPR	**Magueyes Islan**	**0.22**	**301**		**Pg**	**23 11

AGPR				IAML			23 11 22.1	
	comp=N,580nm,0.2s							
AGPR	**Aguadilla, PR**	**0.66**	**338**	⇑*eP*		**Pb**	**23 11 08.2**	**-0.1**
AGPR	**Aguadilla, PR**	**0.66**	**338**	*i* P		**Pb**	**23 11 08.2**	**-0.1**
AGPR				*eS*		**Sb**	**23 11 17.4**	**+0.3**
EMPR	**Esperanza - Ma**	**0.69**	**26**			**Pg**	**23 11 09.4**	**+0.4**
EMPR						**Sg**	**23 11 18.6**	**+0.4**
EMPR	**Esperanza - Ma**	**0.69**	**26**	⇑*eP*		**Pg**	**23 11 09.4**	**+0.4**
EMPR				*eS*		**Sg**	**23 11 18.6**	**+0.4**
SJG	**San Juan**	**0.71**	**69**			**Pg**	**23 11 09.5**	**+0.2**
SJG	**San Juan**	**0.71**	**69**	⇑*eP*		**Pg**	**23 11 09.8**	**+0.4**
SJG				⇑*eSg*		**Sb**	**23 11 17.6**	**-1.1**
SJG	**San Juan**	**0.71**	**69**	*i* P		**Pg**	**23 11 09.6**	**+0.2**
SJG				*eS*		**Sg**	**23 11 19.8**	**+0.9**
SJG				IAML			23 11 23.9	
	comp=Z,10μm,0.2s							
IGPR	**InterUniversit**	**0.71**	**81**			**Pn**	**23 11 10.2**	**-0.4**
IGPR						**Sn**	**23 11 20.3**	**-0.9**
IGPR	**InterUniversit**	**0.71**	**81**	⇓*eP*		**Pn**	**23 11 10.2**	**-0.4**
IDE	**Isla Desecheo**	**0.80**	**312**			**Pb**	**23 11 10.5**	**-0.2**
IDE	**Isla Desecheo**	**0.80**	**312**	⇑*eP*		**Pb**	**23 11 10.5**	**-0.2**
IDE				*eS*		**Sb**	**23 11 20.3**	**-0.8**
PDPR	**Patillas Dam,**	**0.80**	**78**			**Pg**	**23 11 11.2**	**+0.1**
PDPR	**Patillas Dam,**	**0.80**	**78**			**Sg**	**23 11 21.9**	**+0.1**
PDPR	**Patillas Dam,**	**0.80**	**78**	⇑*eP*		**Pg**	**23 11 11.4**	**+0.3**
GCPR	**Guaynabo City**	**0.86**	**58**			**Pb**	**23 11 11.7**	**-0.1**
HUMP	**Col San Antoni**	**0.99**	**73**			**Pb**	**23 11 14.1**	**+0.1**
HUMP				IAML			23 11 31.1	
	comp=Z,1μm,0.3s							
HUMP				IAML			23 11 31.1	
	comp=Z,1μm,0.2s							
HUMP	**Col San Antoni**	**0.99**	**73**			**Sb**	**23 11 26.2**	**-0.6**
HUMP	**Col San Antoni**	**0.99**	**73**	⇓*eP*		**Pb**	**23 11 14.2**	**+0.2**
PCDR	**Punta Cana, DR**	**1.60**	**294**			**Pn**	**23 11 23.6**	**+0.8**
PCDR	**Punta Cana, DR**	**1.60**	**294**	⇑*eP*		**Pb**	**23 11 24.2**	**-0.2**
PCDR				⇑*eSg*		**Sg**	**23 11 47.7**	**+0.7**
PCDR				IAML			23 11 55.8	
	comp=N,98nm,1.1s							
HIDR	**Higuey Centro**	**1.92**	**293**	⇑*eP*		**Pb**	**23 11 29.1**	**-0.8**
HIDR				IAML			23 12 04.5	
	comp=N,59nm,0.2s							
BANI	**BANI**	**3.38**	**280**	Pn		**Pn**	**23 11 48.2**	**+0.8**
PODR	**Polo**	**4.23**	**275**	Pn		**Pn**	**23 11 59.5**	**+0.3**
PODR				IAML			23 13 37.6	
	comp=E,38nm,2.4s							
PODR				IAML			23 14 13.9	
	comp=N,35nm,2.1s							
CBE	**Ff, Capester**	**5.32**	**109**	Pn		**Pn**	**23 12 13.8**	**-0.2**

*IDC **07** 23:10:55.8±0.9, 35°.26N×106°.83E, h0km, mb3.8/8, mbtmp3.9/10, ML4.3/2, MS3.9/4, Error ellipse: s-maj=25.2km s-min=14.4km az=47.0*

ISC 07 23:11:00.8±1.2, 35°.4N±0°.1×107°.0E±0°.2, h35km, n14, σ0s41/10, mb3.9/8, MS4.0/4, Gansu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LZDM	**Lanzhou Array**	**2.72**	**283**	Pn	**Pn**	**23 11 42.0**	**-0.3**
	baz=128,slow=14						
LZDM				Lg	Lg	23 12 18.8	
	baz=137,slow=32 169nm,0.3s						
SONM	**Songino Array**	**12.45**	**358**	Pn	**Pn**	**23 13 55.3**	**-0.1**
	0.2nm,0.3s,baz=179,slow=16,SNR=4.0						
SONM				Lg	Lg	23 17 26.2	
	0.1nm,0.3s,baz=172,slow=31,SNR=1.9 0.6nm,0.5s						
SONM				AML	AML		
MKAR	**Makanchi Array**	**21.72**	**309**	P	**P**	**23 15 49.3**	**+0.5**
	1.2nm,0.7s,baz=108,slow=12,SNR=9.0 1.2nm,0.7s						
ZALV	**Zalesovo Beam**	**24.17**	**327**	P	**P**	**23 16 12.9**	**-0.6**
	1.0nm,0.6s,baz=122,slow=8.7,SNR=4.2 1.0nm,0.6s						
KURBB	**Kurchatov Arra**	**25.57**	**315**	P	**P**	**23 16 26.8**	**+0.6**
	2.0nm,0.7s,baz=118,slow=9.2,SNR=15 2.0nm,0.7s						
AAK	**Ala-Archa**	**26.14**	**296**	LR	LR	23 29 02.3	
	comp=Z,81nm,19.5s,baz=177,slow=42						
KVAR	**Kislovodsk Arr**	**49.09**	**301**	LR	LR	23 43 54.8	
	comp=Z,268nm,19.1s,slow=40						
FINES	**FINESS Array B**	**55.41**	**325**	P	**P**	**23 20 31.3**	**+0.1**
	3.4nm,0.9s,baz=102,slow=8.0,SNR=3.6 3.4nm,0.9s						
WRA	**Warramunga Arr**	**60.84**	**150**	P	**P**	**23 21 09.5**	**-0.2**
	1.5nm,0.6s,baz=342,slow=7.4,SNR=5.5 1.5nm,0.6s						
HFS	**Hagfors**	**61.59**	**325**	P	**P**	**23 21 14.4**	**+0.1**
	0.7nm,0.5s,baz=66,slow=7.8,SNR=1.6 0.7nm,0.5s						
NOA	**NORSAR Array B**	**62.37**	**327**	P	**P**	**23 21 19.9**	**+0.3**
	0.4nm,0.6s,baz=68,slow=6.2,SNR=3.8 0.4nm,0.6s						
ASAR	**Alice Springs**	**64.04**	**152**	P	**P**	**23 21 31.1**	**+0.1**
	0.9nm,0.7s,baz=334,slow=6.0,SNR=8.1 0.9nm,0.7s						
SFJD	**Kangerlussuaq**	**76.51**	**351**	LR	LR	23 58 59.5	
	comp=Z,78nm,18.0s,baz=123,slow=38						
FRB	**Frobisher Bay**	**81.14**	**358**	LR	LR	00 01 59.5	
	comp=Z,67nm,18.8s,baz=97,slow=38						

*IDC **07** 23:12:05.1±0.9, 60°.51S×26°.22W, h0km, mb3.9/5, mbtmp4.0/6, ML4.3/1, MS3.7/4, Error ellipse: s-maj=37.0km s-min=16.6km az=67.0*

*NEIC **07** 23:12:05.6±0.9, 60°.62S±0°.10×26°.0W±0°.3, h10km±1km, mb4.4/14, Error ellipse: s-maj=23.7km s-min=15.9km az=81.0*

ISC 07 23:12:08.1±0.7, 60°.65S±0°.10×26°.0W±0°.1, h28km, n38, σ1s50/27, mb4.3/9, MS3.7/4, 1C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	**12.36**	**152**	P	**Pn**	**23 15 00.3**	**-1.5**
	comp=Z,37nm,0.3s						
VNA3	**Neumayer Olymp**	**12.49**	**155**	P	**Pn**	**23 15 01.3**	**-2.3**
	comp=Z,14nm,0.3s						
VNA3				⇑S	Sn	23 17 08.6	-13
	comp=N,6.4nm,0.3s						
VNA2	**Neumayer--Watz**	**12.76**	**152**	P	**Pn**	**23 15 05.0**	**-2.3**
	comp=Z,5.8nm,0.3s,baz=305,slow=14						
SNAA	**Sanae**	**14.35**	**150**	P	**Pn**	**23 15 27.5**	**-1.6**
	comp=Z,110nm,0.4s						
SNAA	**Sanae**	**14.35**	**150**	Pn	**Pn**	**23 15 27.1**	**-2.0**
	comp=Z,1.2nm,0.3s,baz=304,slow=12,SNR=9.6						
SNAA				Sn	Sn	23 17 53.7	-13
	comp=Z,0.3nm,0.3s,baz=275,slow=21,SNR=1.7 comp=Z,4.1nm,0.4s						
SNAA				AML	AML		
SNAA	**Sanae**	**14.35**	**150**		**Pn**	**23 15 26.9**	**-2.2**
TROLL	**Troll, Antarti**	**15.93**	**147**	P	**Pn**	**23 15 48.9**	**-1.1**
	comp=Z,241nm,0.6s						
BELA	**Belgrano 2**	**17.53**	**186**	Pn	**Pn**	**23 16 09.5**	**-0.5**
SMAI	**San Martin Ant**	**18.92**	**229**	P	**P**	**23 16 25.8**	**-0.3**
QSPA	**South Pole Qui**	**29.59**	**180**	P	**P**	**23 18 12.7**	**+2.4**
	comp=Z,1.8nm,0.7s,baz=198,slow=3.2,SNR=9.2						
QSPA				LR	LR	23 29 58.6	
	comp=Z,107nm,18.4s,baz=206,slow=36 comp=Z,1.8nm,0.7s						
QSPA	**South Pole Qui**	**29.59**	**180**	P	**P**	**23 18 10.9**	**+0.5**
QSPA				IAmb	IAmb	23 18 14.1	
	comp=Z,19nm,1.5s						
GO05	**Hualane**	**38.88**	**290**	P	**P**	**23 19 30.8**	**0.0**
MT02	**Curacav**	**39.97**	**292**	P	**P**	**23 19 39.7**	**-0.2**
VA03	**San Esteban**	**40.12**	**294**	P	**P**	**23 19 41.7**	**+0.4**
VA03				IAmb	IAmb	23 19 49.1	
	comp=Z,18nm,1.2s						
CPUP	**Villa Florida**	**40.39**	**314**	P	**P**	**23 19 44.0**	**+0.6**
	comp=Z,1.1nm,0.8s,baz=158,slow=8.2,SNR=7.1 comp=Z,1.1nm,0.8s						
CPUP	**Villa Florida**	**40.39**	**314**	P	**P**	**23 19 42.1**	**-1.2**
CPUP				IAmb	IAmb	23 19 50.4	
	comp=Z,7.8nm,1.4s						
VNDA	**Vanda**	**41.99**	**183**	P	**P**	**23 19 59.2**	**+3.2**
	comp=Z,1.0nm,0.7s,baz=175,slow=7.9,SNR=7.2 comp=Z,1.0nm,0.7s						
VNDA	**Vanda**	**41.99**	**183**	P	**P**	**23 19 56.8**	**+0.8**
CO01	**Juntas del Tor**	**42.28**	**296**	P	**P**	**23 19 58.5**	**-0.7**
CO01				IAmb	IAmb	23 20 02.4	
	comp=Z,9.7nm,1.2s						
H04S2	**CROZET ISLANDS**	**45.28**	**109**	T	T	00 09 43.3	
	baz=223,slow=74						
H04S3	**CROZET ISLANDS**	**45.29**	**109**	T	T	00 09 42.0	
	baz=223						
H04S1	**CROZET ISLANDS**	**45.30**	**109**	T	T	00 09 46.3	
	baz=223,slow=74						
BOSA	**Boshof**	**46.73**	**70**	LR	LR	23 35 58.2	
	comp=Z,78nm,19.0s,baz=198,slow=31						
BOSA	**Boshof**	**46.73**	**70**	P	**P**	**23 20 34.3**	**-0.3**
CASY	**Casey**	**49.38**	**159**	P	**P**	**23 20 54.9**	**+0.5**
CASY				IAmb	IAmb	23 21 13.8	
	comp=Z,4.0nm,1.1s						
GO01	**Chusmiza**	**50.96**	**304**	P	**P**	**23 21 07.2**	**-0.3**
GO01				IAmb	IAmb	23 21 43.5	
	comp=Z,7.8nm,1.3s						
PTLB	**Pontes e Lacer**	**51.07**	**317**	P	**P**	**23 21 07.4**	**-0.4**
PTLB				IAmb	IAmb	23 21 21.8	
	comp=Z,2.5nm,0.7s						
H10S2	**ASCENSION HYDR**	**52.28**	**14**	T	T	00 18 05.7	
	baz=33,slow=74,SNR=6.1						
H10S3	**ASCENSION HYDR**	**52.29**	**14**	T	T	00 18 05.0	
	baz=187,slow=74,SNR=8.5						
H10N1	**ASCENSION HYDR**	**53.40**	**14**	T	T	00 19 28.3	
	baz=186						
H10N3	**ASCENSION HYDR**	**53.40**	**14**	T	T	00 19 34.6	
	baz=186						
H10N2	**ASCENSION HYDR**	**53.42**	**14**	T	T	00 19 34.9	
	baz=186						
LPAZ	**La Paz**	**53.59**	**307**	P	**P**	**23 21 25.6**	**-1.7**
	comp=Z,0.6nm,0.5s,baz=172,slow=6.3,SNR=5.2 comp=Z,0.6nm,0.5s						
LPAZ	**La Paz**	**53.59**	**307**	P	**P**	**23 21 25.5**	**-1.7**
LPAZ				IAmb	IAmb	23 21 32.2	
	comp=Z,6.0nm,1.4s						
TORD	**Torodi Ar. Bea**	**76.81**	**28**	P	**P**	**23 23 58.5**	**+1.5**
	comp=Z,1.5nm,0.5s,baz=196,slow=6.3,SNR=21 comp=Z,1.5nm,0.5s						
JTS	**Las Juntas de**	**84.50**	**302**	LR	LR	00 03 22.7	
	comp=Z,33nm,19.1s,baz=91,slow=36						
ASAR	**Alice Springs**	**94.41**	**162**	LR	LR	00 05 59.7	
	comp=Z,48nm,19.3s,baz=295,slow=34						
SONM	**Songino Array**	**150.11**	**94**	PKPbc	**PKPbc**	**23 31 55.3**	**+0.1**
	comp=Z,0.4nm,0.7s,baz=215,slow=1.8,SNR=2.4						

*THE **07** 23:12:37.2, 37°.8N±0°.7×27°.0E±0°.7, h8km±1km, M2.7/13, MLh2.7/13*

*AFAD **07** 23:12:37.0, 37°.84N×26°.97E, h7km±2km, ML2.9*

*ISK **07** 23:12:37.0, 37°.85N×26°.98E, h5km, ML3.2/11*

ISC 07 23:12:37.2±0.8, 37°.84N±0°.02×26°.98E±0°.02, h12km±6km, n53, σ0s52/68, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**221**	P	**Pg**	**23 12 40.5**	**-0.6**
SMG				S	**Sg**	**23 12 43.7**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**341**	P	**Pg**	**23 12 41.8**	**-0.2**
DGB				S	**Sg**	**23 12 45.0**	**-0.3**
DGB				IAML		23 12 45.0	
	comp=E,2μm,0.2s						
GMLD	**Gumuldur**	**0.24**	**348**	Pg	**Pg**	**23 12 42.3**	**0.0**
GMLD				Sg	**Sg**	**23 12 46.1**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.24**	**124**	P	**Pg**	**23 12 42.5**	**+0.1**
GCAM				S	**Sg**	**23 12 46.6**	**+0.8**
GCAM				IAML		23 12 47.0	
	comp=N,3μm,0.3s						
GCAM	**G?zelcaml?**	**0.24**	**124**	Pg	**Pg**	**23 12 42.4**	**0.0**
GCAM				Sg	**Sg**	**23 12 46.7**	**+0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**85**	Pg	**Pg**	**23 12 42.4**	**0.0**
KUSD				Sg	**Sg**	**23 12 46.3**	**+0.4**
BEYE	**izmir**	**0.39**	**354**	P	**Pg**	**23 12 45.0**	**-0.1**
BEYE				S	**Sg**	**23 12 50.6**	**+0.4**
BEYE				IAML		23 12 51.0	
	comp=E,1μm,0.2s						
DDIM	**Aydin, Didim**	**0.43**	**151**	P	**Pg**	**23 12 45.7**	**-0.1**
DDIM				S	**Sg**	**23 12 52.5**	**+1.0**
DUVT	**Torbali**	**0.53**	**44**	P	**Pg**	**23 12 47.6**	**-0.1**
DUVT				S	**Sg**	**23 12 54.8**	**+0.1**
DUVT				IAML		23 12 58.0	
	comp=E,465nm,0.2s						
BLCB	**Balcova**	**0.55**	**5**	P	**Pg**	**23 12 47.9**	**-0.1**
BLCB				S	**Sb**	**23 12 56.0**	**-0.6**
BLCB	**Balcova**	**0.55**	**5**	Pg	**Pg**	**23 12 47.8**	**-0.1**
BLCB				Sg	**Sb**	**23 12 55.9**	**-0.8**
ZEYE	**Izmir, Urla-Ze**	**0.55**	**317**	P	**Pg**	**23 12 47.6**	**-0.4**
ZEYE				S	**Sg**	**23 12 55.5**	**+0.3**
ZEYE				IAML		23 12 56.0	
	comp=N,2μm,0.6s						
CESE	**eme**	**0.73**	**313**	Pg	**Pb**	**23 12 52.1**	**+0.3**
CESE				AML	AML		
AYDN	**Zeytinkoy-Aydi**	**0.73**	**81**	Pg	**Pg**	**23 12 51.3**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.74**	**104**	P	**Pg**	**23 12 51.5**	**0.0**
YKAV	**Yalikavak-Bodr**	**0.75**	**161**	Pg	**Pg**	**23 12 51.7**	**-0.1**
YKAV				AML	AML		
BODT	**Bodrum**	**0.82**	**161**	P	**Pg**	**23 12 52.7**	**-0.4**
BODT				S	**Sb**	**23 13 05.1**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**161**	Pg	**Pg**	**23 12 53.1**	**0.0**
BODT				AML	AML		
BAGT	**Foa**	**0.82**	**353**	P	**Pg**	**23 12 53.2**	**0.0**
KRBN	**Karaburun**	**0.82**	**336**	Pg	**Pg**	**23 12 53.2**	**0.0**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.83**	**69**	P	**Pg**	**23 12 52.8**	**-0.4**
MLSB	**Milas**	**0.83**	**130**	Pg	**Pg**	**23 12 53.6**	**+0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.86**	**154**	P	**Pg**	**23 12 52.9**	**-0.9**
BODA	**Bodrum-Mula**	**0.88**	**156**	Pg	**Pb**	**23 12 54.5**	**+0.1**
FOCM	**Foa**	**0.89**	**348**	Pg	**Pg**	**23 12 54.5**	**0.0**
FOCM				AML	AML		
CHOS	**Chios island**	**0.91**	**307**	P	**Pg**	**23 12 54.2**	**-0.6**
CHOS				S	**Sb**	**23 13 08.0**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**307**	Pg	**Pb**	**23 12 55.4**	**+0.4**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**332**	P	Pg	23 12 45.6	-10
KARB				S	Sg	23 12 56.0	-12
CAMT	**Merkez**	**0.95**	**16**	P	**Pb**	**23 12 55.6**	**0.0**
NAZL	**Nazilli-Aydin**	**1.05**	**83**	Pg	**Pb**	**23 12 57.7**	**+0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.09**	**92**	P	**Pg**	**23 12 57.0**	**-1.2**
ZEDA	**zmir-Bergama**	**1.13**	**4**	P	Pg	23 12 51.5	-7.5
GOMA	**Golmarmara-Man**	**1.14**	**40**	Pn	**Pg**	**23 12 59.1**	**-0.1**
KIRA	**zmir-Kiraz**	**1.18**	**72**	P	**Pb**	**23 12 57.9**	**-1.7**
DAT	**Datca**	**1.21**	**156**	P	**Pb**	**23 12 59.3**	**-0.8**
DAT				AML	AML		
KTTT	**Salihli**	**1.22**	**46**	P	**Pb**	**23 13 00.4**	**+0.1**
AKHS	**Akhisar**	**1.23**	**32**	P	Pn	23 12 55.1	-5.2
AKS	**Akhisar**	**1.23**	**32**	Pn	**Pg**	**23 13 01.1**	**+0.2**
DKL	**Dikili**	**1.23**	**357**	Pn	**Pn**	**23 12 59.2**	**-1.1**
YER	**Yerkesik**	**1.25**	**124**	P	**Pn**	**23 13 00.6**	**-0.1**
YER				S	**Sb**	**23 13 16.3**	**-0.7**
YER				AML	AML		
APE	**Apeiranthos**	**1.38**	**237**	P	**Pn**	**23 13 01.3**	**-1.2**
APE				S	**Sb**	**23 13 21.1**	**+0.3**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**18**	Pn	**Pg**	**23 13 04.2**	**+0.3**
GORD	**Gordes-Manisa**	**1.43**	**41**	Pn	**Pb**	**23 13 03.8**	**0.0**
PRK	**Paraskevi**	**1.51**	**339**	P	**Pn**	**23 13 04.2**	**+0.1**
PRK				S	**Sn**	**23 13 23.8**	**0.0**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.86**	**150**	P	**Pn**	**23 13 08.6**	**-0.4**
ARG				S	**Sn**	**23 13 33.5**	**+1.1**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.90**	**220**	P	**Pn**	**23 13 09.2**	**-0.3**
THERA				AML	AML		
EZN	**Ezine**	**2.05**	**346**	P	**Pn**	**23 13 11.8**	**+0.2**
KARP	**Karpathos**	**2.29**	**176**	P	**Pn**	**23 13 15.1**	**+0.1**
DION	**Dionisos Attik**	**2.42**	**277**	P	**Pn**	**23 13 16.5**	**-0.2**
LIA	**Limnos Island**	**2.49**	**326**	P	**Pn**	**23 13 17.8**	**+0.2**
VLY	**Voula,Athens**	**2.52**	**271**	P	**Pn**	**23 13 17.9**	**-0.1**
NPS	**Neapolis**	**2.80**	**204**	P	**Pn**	**23 13 21.7**	**-0.1**
IDI	**Anoyia**	**3.05**	**214**	P	**Pn**	**23 13 25.2**	**-0.2**

*RSPR **07** 23:13:27.9, 17°.90N×66°.86W, h13km, MD3.1/21*

*NEIC **07** 23:13:27.1±1.2, 17°.84N±0°.03×66°.86W±0°.01, h10km±1km, ML3.2/37, Md3.1/21(RSPR), Error ellipse: s-maj=5.2km s-min=2.6km az=12.0*

*OSPL **07** 23:13:27.7±0.5, 17°.85N×66°.87W, h14km±7km, ML3.7, Presumed earthquake*

ISC 07 23:13:27.1±1.1, 17°.88N±0°.05×66°.86W±0°.02, h18km±3km, n42, σ0s44/58, 10D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GBPR	**Guanica, Bosqu**	**0.09**	**351**		**Pg**	**23 13 30.7**	**-0.1**
GBPR					**Sg**	**23 13 33.0**	**-0.2**
GBPR	**Guanica, Bosqu**	**0.09**	**351**	⇓*iP*	**Pg**	**23 13 30.7**	**-0.1**
GBPR				*eS*	**Sg**	**23 13 33.0**	**-0.2**
MLPR	**Magueyes Islan**	**0.19**	**297**		**Pg**	**23 13 32.1**	**+0.2**
MLPR				IAML		23 13 36.2	
	3μm,0.3s						
MLPR	**Magueyes Islan**	**0.19**	**297**	⇑*iP*	**Pg**	**23 13 32.2**	**+0.2**
CRPR	**Cabo Rojo, PR**	**0.26**	**298**	Pg	**Pg**	**23 13 33.1**	**+0.1**
CRPR				Sg	**Sg**	**23 13 37.2**	**+0.1**
CRPR				IAML		23 13 37.6	
	4μm,0.2s						
CRPR				IAML		23 13 37.9	
	3μm,0.2s						
CRPR	**Cabo Rojo, PR**	**0.26**	**298**	⇑*iP*	**Pg**	**23 13 33.3**	**+0.2**
CRPR	**Cabo Rojo, PR**	**0.26**	**298**	*i* P	**Pg**	**23 13 33.2**	**+0.1**
CRPR				*eS*	**Sg**	**23 13 37.4**	**+0.2**
OBIP	**Obispado Ponce**	**0.29**	**57**		**Pg**	**23 13 33.5**	**0.0**
OBIP					**Sg**	**23 13 38.0**	**0.0**
OBIP	**Obispado Ponce**	**0.29**	**57**	⇓*iP*	**Pg**	**23 13 33.7**	**+0.2**
OBIP				*eS*	**Sg**	**23 13 38.4**	**+0.4**
OBIP	**Obispado Ponce**	**0.29**	**57**	*i* P	**Pg**	**23 13 33.6**	**0.0**
OBIP				*eS*	**Sg**	**23 13 38.2**	**+0.2**
OBIP				IAML		23 13 39.9	
	comp=Z,4μm,0.1s						
CELP	**Cerrillos**	**0.33**	**55**		**Pg**	**23 13 34.2**	**0.0**
CELP				IAML		23 13 40.0	
	comp=Z,3μm,0.2s						
CELP				IAML		23 13 40.3	
	comp=Z,2μm,0.2s						
CELP	**Cerrillos**	**0.33**	**55**		**Sg**	**23 13 39.5**	**+0.4**
CELP	**Cerrillos**	**0.33**	**55**	⇓*iP*	**Pg**	**23 13 34.3**	**0.0**
PRSN	**Puerto Rico Se**	**0.43**	**321**		**Pg**	**23 13 35.9**	**0.0**
PRSN				IAML		23 13 44.3	
	comp=Z,2μm,0.3s						
PRSN	**Puerto Rico Se**	**0.43**	**321**		**Sg**	**23 13 42.2**	**+0.4**
PRSN	**Puerto Rico Se**	**0.43**	**321**	⇑*iP*	**Pg**	**23 13 35.9**	**0.0**
AOPR	**Arecibo Observ**	**0.47**	**13**		**Pg**	**23 13 36.6**	**-0.2**
AOPR				Sg	**Sg**	**23 13 42.8**	**-0.4**
AOPR				IAML		23 13 44.7	
	comp=Z,2μm,0.2s						
AOPR	**Arecibo Observ**	**0.47**	**13**	⇓*iP*	**Pg**	**23 13 36.6**	**-0.2**
AGPR	**Aguadilla, PR**	**0.63**	**338**		**Pg**	**23 13 39.3**	**-0.3**
AGPR	**Aguadilla, PR**	**0.63**	**338**		**Sg**	**23 13 48.3**	**+0.3**
AGPR	**Aguadilla, PR**	**0.63**	**338**	⇑*iP*	**Pg**	**23 13 39.3**	**-0.3**
AGPR	**Aguadilla, PR**	**0.63**	**338**	*i* P	**Pg**	**23 13 39.3**	**-0.3**
AGPR				*eS*	**Sg**	**23 13 48.3**	**+0.3**
ECPR	**Experimental S**	**0.64**	**48**		**Pg**	**23 13 39.3**	**-0.6**
ECPR				Sg	**Sg**	**23 13 48.3**	**-0.2**
ECPR				IAML		23 13 49.5	
	comp=Z,1μm,0.2s						
ECPR				IAML		23 13 50.4	
	comp=Z,1μm,0.2s						
ECPR	**Experimental S**	**0.64**	**48**	⇓*iP*	**Pg**	**23 13 39.4**	**-0.5**
EMPR	**Esperanza - Ma**	**0.67**	**28**		**Pg**	**23 13 40.4**	**+0.1**
EMPR					**Sg**	**23 13 49.9**	**+0.6**
EMPR	**Esperanza - Ma**	**0.67**	**28**	⇓*iP*	**Pg**	**23 13 40.4**	**+0.1**
EMPR				*eS*	**Sg**	**23 13 49.9**	**+0.6**
SJG	**San Juan**	**0.72**	**71**		**Pg**	**23 13 40.6**	**-0.6**
SJG	**San Juan**	**0.72**	**71**	IAML		23 13 54.2	
	comp=Z,549nm,0.4s						
SJG	**San Juan**	**0.72**	**71**	⇓*iP*	**Pg**	**23 13 40.9**	**-0.4**
SJG	**San Juan**	**0.72**	**71**	*i* P	**Pg**	**23 13 40.8**	**-0.4**
SJG				*eS*	**Sg**	**23 13 50.9**	**+0.1**
SJG				IAML		23 13 54.2	
	comp=Z,9μm,0.2s						
IGPR	**InterUniversit**	**0.73**	**83**		**Pg**	**23 13 41.5**	**+0.1**
IGPR					**Sb**	**23 13 52.1**	**+1.4**
IGPR	**InterUniversit**	**0.73**	**83**	⇓*iP*	**Pg**	**23 13 41.5**	**+0.1**
IDE	**Isla Desecheo**	**0.77**	**311**		**Pg**	**23 13 41.8**	**-0.3**
IDE					**Sg**	**23 13 51.3**	**-1.1**
IDE	**Isla Desecheo**	**0.77**	**311**	⇓*iP*	**Pg**	**23 13 41.8**	**-0.3**
IDE				*eS*	**Sg**	**23 13 51.3**	**-1.1**
PDPR	**Patillas Dam,**	**0.81**	**80**		**Pg**	**23 13 42.4**	**-0.6**
PDPR				Sg	**Sg**	**23 13 53.6**	**-0.2**
PDPR	**Patillas Dam,**	**0.81**	**80**	⇑*iP*	**Pg**	**23 13 42.4**	**-0.6**
GCPR	**Guaynabo City**	**0.85**	**60**		**Pg**	**23 13 42.9**	**-1.0**
HUMP	**Col San Antoni**	**1.00**	**75**		**Pb**	**23 13 45.2**	**-0.6**
HUMP				IAML		23 14 02.2	
	comp=Z,621nm,0.2s						
HUMP				IAML		23 14 02.4	
	comp=Z,800nm,0.2s						
HUMP	**Col San Antoni**	**1.00**	**75**		**Sb**	**23 13 58.7**	**0.0**
HUMP	**Col San Antoni**	**1.00**	**75**	⇓*iP*	**Pb**	**23 13 45.6**	**-0.2**
PCDR	**Punta Cana, DR**	**1.57**	**294**	Pn	**Pn**	**23 13 54.6**	**+0.5**
PCDR				IAML		23 14 50.7	
	comp=N,170nm,1.6s						
BANI	**BAN

MLSB					AML	AML			
BDRM	**Kayabasi**	**0.73**	**154**		P	**Pg**	**23 16 17.2**	**-0.1**	
BODA	**Bodrum-Mula**	**0.76**	**155**		Pg	**Pb**	**23 16 18.1**	**+0.1**	
KLNA	**Kalymnos**	**0.77**	**184**		P	**Pg**	**23 16 17.7**	**-0.2**	
KLNA					S	**Sg**	**23 16 27.7**	**-0.2**	
IZMR	**zmir-demi**	**0.83**	**60**		P	**Pb**	**23 16 19.2**	**-0.1**	
IZMR					P	**Pn**	**23 16 19.7**	**-0.7**	
IZMR					S	**Sg**	**23 16 28.0**	**-2.1**	
CESE	**eme**	**0.84**	**316**		Pg	**Pb**	**23 16 19.3**	**-0.2**	
CESE					AML	AML			
BAGT	**Foa**	**0.94**	**351**		P	**Pb**	**23 16 21.4**	**+0.2**	
BAGT					S	**Sb**	**23 16 34.3**	**+0.8**	
BAGT					IAML		23 16 36.0		
	comp=N,749nm,0.5s								
BAGT					IAML		23 16 36.0		
	comp=E,582nm,0.4s								
KRBN	**Karaburun**	**0.95**	**336**		Pg	**Pb**	**23 16 21.1**	**-0.2**	
KRBN					AML	AML			
FOCM	**Foa**	**1.02**	**346**		Pg	**Pb**	**23 16 22.7**	**+0.2**	
FOCM					AML	AML			
CHOS	**Chios island**	**1.02**	**311**		P	**Pb**	**23 16 22.5**	**-0.1**	
CHOS					S	**Sn**	**23 16 37.3**	**0.0**	
CHOS					AML	AML			
CHOS	**Chios island**	**1.02**	**311**		Pg	**Pb**	**23 16 22.6**	**0.0**	
CHOS					AML	AML			
CHOS	**Chios island**	**1.02**	**311**		P	**Pb**	**23 16 22.7**	**+0.1**	
CHOS					S	**Sb**	**23 16 36.5**	**+0.6**	
CHOS					AML	AML			
NAZL	**Nazilli-Aydin**	**1.02**	**76**		Pg	**Pb**	**23 16 22.8**	**+0.2**	
NAZL					AML	AML			
ESEN	**Aydn-Nazilli**	**1.04**	**85**		P	**Pg**	**23 16 22.6**	**-0.5**	
CAMT	**Merkez**	**1.05**	**12**		P	**Pb**	**23 16 22.9**	**-0.1**	
KARB	**zmir-Karabur**	**1.06**	**332**		P	**Pg**	**23 16 22.8**	**-0.7**	
KARB					S	**Sb**	**23 16 37.6**	**+0.6**	
KARB					IAML		23 16 41.0		
	comp=N,232nm,0.5s								
DAT	**Datca**	**1.08**	**156**		P	**Pn**	**23 16 24.1**	**+0.1**	
DAT					AML	AML			
YAZI	**Mula-Dat§a-**	**1.09**	**162**		P	**Pb**	**23 16 23.9**	**+0.2**	
EAG2	**Marmaro, Chios**	**1.10**	**318**		P	**Pn**	**23 16 24.4**	**+0.4**	
EAG2					S	**Sb**	**23 16 38.7**	**+0.6**	
MULA	**Mugla, Merkez-**	**1.12**	**114**		P	**Pb**	**23 16 24.5**	**+0.1**	
YER	**Yerkesik**	**1.15**	**120**		P	**Pn**	**23 16 25.2**	**+0.3**	
YER					S	**Sb**	**23 16 40.5**	**+0.8**	
KIRA	**zmir-Kiraz**	**1.18**	**66**		P	**Pg**	**23 16 25.2**	**-0.5**	
GOMA	**Golmarmara-Man**	**1.20**	**35**		Pn	**Pn**	**23 16 26.2**	**+0.7**	
GOMA					AML	AML			
ZEDA	**zmir-Bergama**	**1.24**	**1**		P	**Pg**	**23 16 26.5**	**-0.5**	
KTTT	**Salihli**	**1.27**	**40**		P	**Pn**	**23 16 25.9**	**-0.6**	
ASTA	**Astypalaia**	**1.30**	**205**		P	**Pn**	**23 16 27.0**	**+0.2**	
ASTA					S	**Sg**	**23 16 44.4**	**-0.4**	
AKHS	**Akhisar**	**1.30**	**28**		P	**Pg**	**23 16 28.0**	**-0.2**	
AKS	**Akhisar**	**1.30**	**28**		Pn	**Pg**	**23 16 27.8**	**-0.4**	
AKS					AML	AML			
DKL	**Dikili**	**1.35**	**356**		Pn	**Pn**	**23 16 27.8**	**+0.3**	
DKL					AML	AML			
DKL	**Dikili**	**1.35**	**356**		P	**Pn**	**23 16 27.5**	**-0.1**	
DKL					S	**Sg**	**23 16 46.2**	**-0.4**	
TURN	**Turunc**	**1.35**	**134**		P	**Pb**	**23 16 28.1**	**0.0**	
APE	**Apeiranthos**	**1.37**	**242**		P	**Pb**	**23 16 28.4**	**-0.1**	
APE					S	**Sg**	**23 16 47.5**	**+0.4**	
APE					AML	AML			
APE	**Apeiranthos**	**1.37**	**242**		P	**Pg**	**23 16 28.8**	**-0.6**	
APE					S	**Sg**	**23 16 46.7**	**-0.4**	
SULTU	**Buldan**	**1.41**	**76**		P	**Pg**	**23 16 30.2**	**+0.1**	
SOMA	**Soma-Manisa**	**1.48**	**15**		Pn	**Pb**	**23 16 30.3**	**-0.1**	
SOMA					AML	AML			
GORD	**Gordes-Manisa**	**1.48**	**37**		Pn	**Pb**	**23 16 30.2**	**-0.3**	
GORD					AML	AML			
TAVA	**DENIZLI_Tavas**	**1.51**	**99**		P	**Pn**	**23 16 30.5**	**+0.6**	
DNIZ	**Denizli-Tavas-**	**1.59**	**93**		P	**Pb**	**23 16 32.8**	**+0.5**	
PRK	**Paraskevi**	**1.64**	**339**		P	**Pb**	**23 16 32.4**	**-0.6**	
PRK					S	**Sn**	**23 16 51.7**	**-0.6**	
PRK					AML	AML			
STEP	**BALIKESIR_Sava**	**1.73**	**18**		P	**Pb**	**23 16 35.0**	**+0.3**	
ARG	**Arkhangelos**	**1.74**	**150**		P	**Pb**	**23 16 34.2**	**-0.6**	
ARG					AML	AML			
BUHA	**Balikesir, Bur**	**1.77**	**1**		P	**Pn**	**23 16 34.5**	**+1.1**	
THERA	**Ancient Thera,**	**1.84**	**223**		P	**Pn**	**23 16 35.3**	**+0.9**	
THR3	**Thira Island,**	**1.85**	**225**		P	**Pn**	**23 16 35.2**	**+0.8**	
SNT5	**Nea Kammeni, S**	**1.86**	**225**		P	**Pn**	**23 16 34.9**	**+0.3**	
DEMI	**Demirci**	**1.86**	**45**		P	**Pb**	**23 16 37.6**	**+0.7**	
SAP3	**Santorini-Thir**	**1.87**	**227**		P	**Pn**	**23 16 35.8**	**+1.2**	
THR9	**Santorini-Faro**	**1.92**	**225**		P	**Pn**	**23 16 34.8**	**-0.5**	
BAYC	**CANAKKALE_Bayr**	**2.05**	**349**		P	**Pn**	**23 16 36.8**	**-0.5**	
KARY	**Karystos**	**2.08**	**279**		P	**Pn**	**23 16 38.3**	**+0.8**	
KARY	**Karystos**	**2.08**	**279**		P	**Pn**	**23 16 38.1**	**+0.5**	
EZN	**Ezine**	**2.17**	**345**		P	**Pn**	**23 16 39.7**	**+0.9**	
KARP	**Karpathos**	**2.17**	**177**		P	**Pn**	**23 16 38.6**	**-0.3**	
DION	**Dionisos Attik**	**2.48**	**279**		P	**Pn**	**23 16 43.0**	**-0.2**	
VLY	**Voula,Athens**	**2.57**	**274**		P	**Pn**	**23 16 44.6**	**+0.3**	
ATHU	**Athens Univers**	**2.59**	**276**		P	**Pn**	**23 16 44.5**	**0.0**	
ATHP	**Athens-Neo Psi**	**2.60**	**277**		P	**Pn**	**23 16 45.8**	**+1.1**	
LIA	**Limnos Island**	**2.61**	**327**		P	**Pn**	**23 16 45.7**	**+0.9**	
GADA	**Gvkgeada**	**2.62**	**341**		P	**Pn**	**23 16 45.9**	**+0.9**	
VILL	**Villia**	**2.98**	**280**		P	**Pn**	**23 16 51.0**	**+1.0**	
IDI	**Anoyia**	**2.98**	**216**		P	**Pn**	**23 16 51.4**	**+1.4**	
SMTH	**Samothraki Isl**	**2.98**	**337**		P	**Pn**	**23 16 51.2**	**+1.2**	

*HLW **07** 23:28:57.7,24˚.04N×36˚.51E,h15km±9km,Ml2.6*
*SGS **07** 23:29:01.1,24˚.18N×36˚.58E,h14km,Ml1.9*
ISC 07 23:28:55.6±1.1,**24˚.06N**±0˚.06×**36˚.49E**±0˚.04,**h10km,n34,**
σ0ˢ**65**/37,**Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SUMJS	**Umluj**	**1.08**	**50**	P	**Pn**	**23 29 17.7**	**+0.9**
SUMJS				S	**Sb**	**23 29 30.9**	**+0.2**
UMJS	**Umm Lajj**	**1.39**	**32**	P	**Pg**	**23 29 22.1**	**-0.2**
UMJS				S	**Sn**	**23 29 38.9**	**-0.5**
LNY07	**LNY07**	**1.45**	**42**	P	**Pg**	**23 29 23.2**	**-0.3**
LNY05	**LNY05**	**1.48**	**48**	P	**Pg**	**23 29 23.9**	**0.0**
LNY13	**LNY13**	**1.52**	**43**	P	**Pg**	**23 29 24.6**	**-0.2**
LNY08	**LNY08**	**1.58**	**52**	P	**Pg**	**23 29 25.5**	**-0.4**
LNY04	**LNY04**	**1.60**	**41**	P	**Pb**	**23 29 25.6**	**+0.2**
LNY16	**LNY16**	**1.64**	**38**	P	**Pb**	**23 29 25.8**	**-0.1**
LNY06	**LNY06**	**1.64**	**45**	P	**Pg**	**23 29 26.8**	**-0.2**
LNY02	**LNY02**	**1.65**	**49**	P	**Pb**	**23 29 26.5**	**+0.4**
LNY14	**LNY14**	**1.67**	**44**	P	**Pb**	**23 29 26.7**	**+0.3**
LNYS	**LNYS**	**1.67**	**52**	P	**Pb**	**23 29 27.0**	**+0.4**
LNY12	**LNY12**	**1.68**	**44**	P	**Pb**	**23 29 27.1**	**+0.5**
LNY17	**LNY17**	**1.68**	**45**	P	**Pg**	**23 29 27.4**	**-0.5**
LNY09	**LNY09**	**1.71**	**38**	P	**Pb**	**23 29 27.6**	**+0.4**
LNY11	**LNY11**	**1.71**	**43**	P	**Pb**	**23 29 27.4**	**+0.2**
LNY10	**LNY10**	**1.74**	**46**	P	**Pb**	**23 29 28.2**	**+0.6**
LNY01	**LNY01**	**1.77**	**49**	P	**Pb**	**23 29 28.5**	**+0.3**
FGALY	**Al Ais**	**1.80**	**68**	P	**Pb**	**23 29 28.8**	**+0.1**
LNY03	**LNY03**	**1.81**	**43**	P	**Pb**	**23 29 29.0**	**+0.1**
UMJ06	**UMJ06**	**1.83**	**24**	P	**Pn**	**23 29 28.2**	**+1.1**
UMJ08	**UMJ08**	**1.84**	**32**	P	**Pb**	**23 29 28.7**	**-0.5**
UMJ04	**UMJ04**	**1.91**	**25**	P	**Pb**	**23 29 29.5**	**-1.0**
BADR	**Badr**	**1.99**	**95**	P	**Pn**	**23 29 29.7**	**+0.4**
UMJ05	**UMJ05**	**2.00**	**16**	P	**Pn**	**23 29 30.5**	**+1.1**
UMJ09	**UMJ09**	**2.03**	**30**	P	**Pb**	**23 29 31.7**	**-0.8**
YOBS		**2.08**	**81**	P	**Pb**	**23 29 32.3**	**-1.1**
TRAS	**Al Qrash**	**2.14**	**62**	P	**Pb**	**23 29 34.3**	**-0.1**
UMJ10	**UMJ10**	**2.18**	**28**	P	**Pb**	**23 29 34.0**	**-1.1**
BRNS	**Bernies**	**2.18**	**265**	P	**Pn**	**23 29 33.0**	**+1.1**
BRNS				S	**Sn**	**23 29 58.5**	**-0.5**
NSAFS	**Ar Rayis**	**2.21**	**104**	P	**Pn**	**23 29 32.4**	**+0.1**
NADB	**Abo Dabab**	**2.21**	**306**	P	**Pn**	**23 29 33.7**	**+1.4**
MSTR	**Mastorah**	**2.41**	**110**	P	**Pn**	**23 29 35.9**	**+0.8**
HHRG	**Al Ghardaqah**	**4.11**	**321**	P	**Pn**	**23 29 57.7**	**-0.7**

*JMA **07** 23:35:46.9±0.2,42˚.7N±1˚.0×14˚.8E±˚,h49km±4km,*
MV3.6/33,FAR SE OFF HOKKAIDO
*SKHL **07** 23:35:47.5±0.5,42˚.70N×148˚.20E,h73km±3km,mb4.4/3*
ISC 07 23:35:48.3±2.9,**42˚.7N**±0˚.1×**148˚.2E**±0˚.1,**h37km,n15,**
σ0ˢ**63**/26,**Off southeast coast of Hokkaido**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHO	**Shikotan**	**1.50**	**319**	*eP*	Pn	23 36 31.5	+19
SHO				AMB	AMB	23 36 32.6	
	70nm,0.2s						
SHO				*e*S	Sn	23 36 50.6	+20
SHO				A	A	23 36 51.7	
	410nm,0.4s						
SHO				A	A	23 36 51.7	
	570nm,0.4s						
NEM2	**Nemuro 2**	**1.90**	**290**	P	**Pn**	**23 36 17.6**	**-0.5**
NEM2				S	**Sn**	**23 36 41.3**	**+0.5**
NMR	**Nemuro--Hokkai**	**1.92**	**290**	*i* P	**Pn**	**23 36 17.6**	**-0.7**
NMR				*i* S	**Sn**	**23 36 40.7**	**-0.4**
YUK	**Yuzh-Kuril'sk**	**2.14**	**308**	*eP*	**Pn**	**23 36 21.1**	**-0.2**
YUK				AMB	AMB	23 36 22.2	
	50nm,0.3s						
YUK				*i* S	**Sn**	**23 36 46.4**	**-0.2**
YUK				A	A	23 36 47.2	
	160nm,0.5s						
YUK				A	A	23 36 47.2	
	300nm,0.5s						
JKHN	**Kushirohamanak**	**2.26**	**280**	P	**Pn**	**23 36 23.4**	**+0.4**
JKHN				S	**Sn**	**23 36 50.3**	**+0.7**
AKK	**Akkeshi**	**2.48**	**277**	*i* P	**Pn**	**23 36 25.4**	**-0.7**
KUR	**Kuril'sk**	**2.50**	**355**	*eP*	**Pn**	**23 36 26.1**	**-0.2**
KUR				AMB	AMB	23 36 27.9	
	50nm,0.4s						
KUR				*e*S	**Sn**	**23 36 55.7**	**+0.2**
KUR				A	A	23 36 57.8	
	60nm,0.2s						
KUR				A	A	23 36 57.8	
	50nm,0.2s						
JRA	**Rausu**	**2.54**	**299**	*eP*	**Pn**	**23 36 26.7**	**-0.2**
JRA				*e*S	**Sn**	**23 36 57.4**	**+0.8**
JAK	**Akkeshi**	**2.59**	**277**	P	**Pn**	**23 36 27.2**	**-0.3**
JAK				*e*S	**Sn**	**23 36 57.0**	**-0.6**
JNK	**Nakash**	**2.68**	**289**	S	**Sn**	**23 36 59.3**	**-0.8**
JOB	**Onbets**	**3.21**	**274**	*eP*	**Pn**	**23 36 35.9**	**-0.2**
JOB				*e*S	**Sn**	**23 37 12.6**	**-0.6**
JAR	**Ashorobuto**	**3.29**	**281**	P	**Pn**	**23 36 37.2**	**0.0**
JAR				*e*S	**Sn**	**23 37 14.9**	**-0.2**
JTKR	**Abashiri--Toko**	**3.36**	**293**	*eP*	**Pn**	**23 36 39.1**	**+0.9**
JTKR				*e*S	**Sn**	**23 37 18.0**	**+1.3**
JCH	**Churui**	**3.57**	**270**	P	**Pn**	**23 36 41.1**	**+0.1**
JCH				*e*S	**Sn**	**23 37 20.8**	**-1.1**
JEM	**Erimo**	**3.80**	**261**	*eP*	**Pn**	**23 36 44.9**	**+0.6**
JEM				*e*S	**Sn**	**23 37 28.3**	**+0.6**

*IDC **07** 23:42:03.2±0.6,13˚.15N×57˚.48E,h0km,mb4.0/23,*
mbtmp4.0/23,MS3.5/29,Error ellipse: s-maj=17.4km
s-min=14.5km az=170.0
*NEIC **07** 23:42:06.7±1.2,13˚.36N±0˚.10×57˚.4E±0˚.1,h10km±1km,*
mb4.5/38,Error ellipse: s-maj=17.4km s-min=15.7km
az=118.0
*OMAN **07** 23:42:08.9±0.2,13˚.48N×57˚.75E,h41km±2km,mb3.9/18,*
ml3.5/3,ms3.1/6,Error ellipse: s-maj=3.0km s-min=1.5km
az=343.0
ISC 07 23:42:05.9±0.4,**13˚.35N**±0˚.06×**57˚.50E**±0˚.06,**h10km,n160,**
σ1ᵍ**13**/141,**mb4.3**/57,**MS3.5**/29,**7C-6D,Owen Fracture**
Zone region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHAO	**Shalim**	**4.98**	**339**	P	**Pn**	**23 43 20.0**	**-0.8**
SHAO				S	**Sn**	**23 44 17.2**	**-1.3**
DMTO	**DMTO**	**4.98**	**331**	P	**Pn**	**23 43 20.3**	**-0.5**
	SNR=33						
RBK	**Rabkut**	**5.21**	**323**	P	**Pn**	**23 43 25.0**	**+1.1**
RBK				S	**Sn**	**23 44 24.5**	**+0.4**
ABTO	**Aybut**	**5.68**	**315**	P	**Pn**	**23 43 32.8**	**+2.4**
DOK	**Doka**	**6.15**	**329**	P	**Pn**	**23 43 40.0**	**+3.0**
	SNR=11						
MHTO	**MHTO**	**7.61**	**3**	P	**Pn**	**23 43 53.8**	**-3.0**
JLN	**Jalan Bani Buh**	**8.94**	**12**	P	**Pn**	**23 44 12.5**	**-2.6**
JMDO	**Jabal Madar**	**8.99**	**4**	P	**Pn**	**23 44 15.9**	**+0.1**
	SNR=7.8						
WBK	**Wadi Bani Khal**	**9.31**	**8**	P	**Pn**	**23 44 20.0**	**-0.4**
	SNR=14						
BSY	**Bisya**	**9.35**	**358**	P	**Pn**	**23 44 21.2**	**+0.4**
	SNR=6.4						
UMZA	**Um Al Zommool**	**9.57**	**347**	P	**Pn**	**23 44 25.0**	**+1.2**
SMDO	**Samad**	**9.67**	**3**	P	**Pn**	**23 44 24.5**	**-0.8**
WSAR	**Wadi Sarin**	**9.89**	**6**	P	**Pn**	**23 44 26.8**	**-1.5**
ARQ	**Araqi**	**9.97**	**355**	P	**Pn**	**23 44 31.3**	**+1.9**
BIDO	**Bidbid**	**10.13**	**3**	P	**Pn**	**23 44 31.4**	**-0.1**
HOQ	**Hoqain**	**10.18**	**359**	P	**Pn**	**23 44 33.4**	**+1.2**
MZR	**Muzera**	**10.33**	**339**	P	**Pn**	**23 44 34.5**	**+0.3**
SOHO	**SOHO**	**10.76**	**355**	P	**Pn**	**23 44 39.6**	**-0.6**
ALNE	**Al Ain**	**10.77**	**351**	P	**Pn**	**23 44 40.3**	**0.0**
ASHO	**Ashiyiah**	**11.35**	**353**	P	**Pn**	**23 44 47.4**	**-0.9**
HATD	**Hatta, Dubai**	**11.48**	**354**	P	**Pn**	**23 44 49.5**	**-0.6**
UOSS	**Minazif**	**11.60**	**354**	P	**Pn**	**23 44 50.7**	**-0.9**
UOSS	**Minazif**	**11.60**	**354**	Pn	**Pn**	**23 44 50.2**	**-1.4**
NAZ	**Nazwa, Dubai**	**11.70**	**352**	P	**Pn**	**23 44 53.9**	**+0.9**
MASF	**Masafi**	**12.02**	**354**	P	**Pn**	**23 44 57.9**	**+0.4**
RAYN	**Ar Rayn**	**15.21**	**313**	P	**Pn**	**23 45 39.1**	**-1.8**
FURI	**Furi**	**18.98**	**258**	P	**P**	**23 46 26.7**	**-1.4**
HYB	**Hyderabad**	**20.70**	**76**	*eP*	**P**	**23 46 47.6**	**+1.1**
HYB				*e*S	**S**	**23 50 40.2**	**+2.3**
HRA	**Herat**	**21.38**	**11**		**P**	**23 46 54.8**	**+0.9**
KBL	**Kabul**	**23.55**	**24**	P	**P**	**23 47 17.3**	**+0.5**
PALK	**Pallekele**	**23.61**	**103**	LR	LR	23 54 55.4	
	comp=Z,66nm,18.0s,baz=236,slow=33						
LODK	**Lodwar**	**23.99**	**248**	P	**P**	**23 47 22.8**	**+1.7**
	SNR=14						
LODK	**Lodwar**	**23.99**	**248**	P	**P**	**23 47 20.4**	**-0.6**
LODK				IAmb	IAmb	23 47 24.6	
	comp=Z,11nm,0.9s						
KMBO	**Kilima Mbogo**	**24.70**	**236**	P	**P**	**23 47 26.0**	**-1.7**
	baz=66,slow=5.4						
NIL	**Nilore**	**24.78**	**33**	P	**P**	**23 47 29.2**	**+1.1**
NIL				IAmb	IAmb	23 47 52.3	
	comp=Z,10nm,1.1s						
KIBK	**Kibwezi**	**24.81**	**232**	P	**P**	**23 47 29.6**	**+1.0**
	SNR=5.6						
KIBK	**Kibwezi**	**24.81**	**232**		**P**	**23 47 28.2**	**-0.3**
KIBK				IAmb	IAmb	23 47 30.9	
	comp=Z,11nm,1.2s						
EIL	**Elat**	**26.44**	**311**	LR	LR	23 57 28.1	
	comp=Z,66nm,20.3s,baz=146,slow=35						
ASF	**Jabal al Asfar**	**26.62**	**318**	LR	LR	23 58 39.7	
	comp=Z,77nm,19.2s,baz=145,slow=37						
MMAI	**Mount Meron Ar**	**28.09**	**318**	LR	LR	23 59 35.2	
	comp=Z,66nm,18.5s,baz=146,slow=37						
GNI	**Garni**	**28.95**	**340**	LR	LR	00 01 40.8	
	comp=Z,57nm,19.1s,baz=149,slow=40						
BTK	**Batken**	**29.07**	**21**	P	**P**	**23 48 06.9**	**+0.2**
KSH2	**Kashi**	**30.25**	**29**	P	**P**	**23 48 19.1**	**+1.9**
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.2s						
EVN	**Everest**	**30.94**	**57**	P	**P**	**23 48 23.9**	**-0.1**
EVN				IAmb	IAmb	23 48 35.4	
	comp=Z,4.5nm,0.7s						
KK31	**Karatay Array**	**31.70**	**18**		**P**	**23 48 30.2**	**+0.4**
KKAR	**Karatay Array**	**31.70**	**18**	P	**P**	**23 48 30.2**	**+0.4**
AAK	**Ala-Archa**	**32.68**	**24**	LR	LR	00 03 05.0	
	comp=Z,101nm,20.2s,baz=218,slow=38						
AAK	**Ala-Archa**	**32.68**	**24**	P	**P**	**23 48 39.7**	**+1.2**
AAK				IAmb	IAmb	23 48 43.9	
	comp=Z,7.1nm,1.1s						
KBZ	**Khabaz**	**32.77**	**340**	P	**P**	**23 48 40.5**	**+1.5**
	comp=Z,3.0nm,0.8s,baz=170,slow=9.2,SNR=4.4						
	comp=Z,3.0nm,0.8s						
KIV	**Kislovodsk**	**33.04**	**340**	P	**P**	**23 48 42.4**	**+0.9**
BRTR	**Keskin Array B**	**33.63**	**326**	P	**P**	**23 48 46.9**	**0.0**
	comp=Z,0.5nm,0.8s,baz=133,slow=11,SNR=2.2						
BRTR				LR	LR	00 02 38.1	
	comp=Z,62nm,18.6s,baz=85,slow=36						
	comp=Z,0.5nm,0.8s						
BRTR	**Keskin Array B**	**33.63**	**326**	P	**P**	**23 48 46.6**	**-0.3**
BRDH	**Bariadhala**	**33.70**	**69**	LR	LR	00 03 22.0	
	comp=Z,96nm,19.4s,baz=284,slow=38						
SHL	**Shillong**	**34.52**	**64**	P	**P**	**23 48 55.3**	**+0.5**
PDGK	**Podgornoye**	**35.37**	**28**	P	**P**	**23 49 02.6**	**+0.7**
AB31	**Akbulak array**	**35.85**	**3**	P	**P**	**23 49 06.0**	**+0.3**
AB31				IAmb	IAmb	23 49 08.7	
	comp=Z,5.5nm,1.2s						
ABKAR	**Akbulak array**	**35.85**	**3**	P	**P**	**23 49 06.0**	**+0.3**
MORE	**Moreh**	**36.38**	**67**	P	**P**	**23 49 11.6**	**+0.9**
MORE				IAmb	IAmb	23 49 14.9	
	comp=Z,4.0nm,0.7s						
VOI	**Vohitsoka**	**36.58**	**197**	P	**P**	**23 49 12.8**	**+0.4**
AKTO	**Aktyubinsk**	**36.98**	**1**	LR	LR	00 05 16.3	
	comp=Z,73nm,21.6s,baz=266,slow=38						
MKAR	**Makanchi Array**	**39.30**	**27**	P	**P**	**23 49 35.7**	**+0.6**
	comp=Z,1.9nm,0.7s,baz=213,slow=7.8,SNR=13						
MKAR				LR	LR	00 07 23.9	
	comp=Z,82nm,18.3s,baz=213,slow=38						
	comp=Z,1.9nm,0.7s						
MKAR	**Makanchi Array**	**39.30**	**27**	P	**P**	**23 49 35.5**	**+0.4**
WMQ	**Urumqi**	**39.89**	**35**	*eP*	**P**	**23 49 42.4**	**+2.3**
WMQ				pmax	pmax		
	comp=Z,130nm,3.9s						
CM31	**Chiang Mai Arr**	**40.12**	**77**	P	**P**	**23 49 42.8**	**+0.6**
CM31				IAmb	IAmb	23 49 46.7	
	comp=Z,7.2nm,0.9s						
CMAR	**Chiang Mai Arr**	**40.12**	**77**	P	**P**	**23 49 43.1**	**+0.8**
	comp=Z,1.3nm,0.4s,baz=276,slow=8.6,SNR=20						
CMAR				LR	LR	00 07 04.6	
	comp=Z,20nm,19.9s,baz=270,slow=37						
	comp=Z,1.3nm,0.4s						
CMAR	**Chiang Mai Arr**	**40.12**	**77**	P	**P**	**23 49 43.2**	**+0.9**
GOMU	**GeErMu**	**40.45**	**49**	P	**P**	**23 49 45.8**	**+0.7**
GOMU				pP	sP	23 49 49.0	+1.0
GOMU				sP	pwP	23 49 52.8	+0.9
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BVAR	**Borovoye Array**	**40.89**	**12**	P	**P**	**23 49 49.1**	**+1.0**
	comp=Z,0.6nm,0.6s,baz=191,slow=6.8,SNR=3.7						
	comp=Z,0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**40.92**	**20**	P	**P**	**23 49 49.5**	**+1.1**
	comp=Z,1.5nm,0.8s,baz=218,slow=7.9,SNR=8.3						
KURBB				PcP	**PcP**	**23 51 46.3**	**-2.5**
	comp=Z,0.4nm,0.7s,baz=226,slow=3.6,SNR=2.3						
	comp=Z,1.5nm,0.8s						
VRI	**Vrincioaia**	**41.53**	**327**	⇑P	**P**	**23 49 54.2**	**+0.6**
PLOR	**Plostina**	**41.57**	**327**	⇓P	**P**	**23 49 55.5**	**+1.6**
MLR	**Muntele Rosu**	**41.71**	**326**	P	**P**	**23 49 55.3**	**+0.2**
MLR				IAmb	IAmb	23 50 07.6	
	comp=Z,4.8nm,0.8s						
MLR	**Muntele Rosu**	**41.71**	**326**	⇓P	**P**	**23 49 57.0**	**+1.9**
COVR	**Voineasa-Covas**	**41.80**	**327**	⇑P	**P**	**23 49 58.2**	**+2.5**
TESR	**Tescani**	**42.01**	**328**	⇓P	**P**	**23 49 57.6**	**+0.2**
TURR	**Turia**	**42.03**	**327**	⇑P	**P**	**23 49 57.4**	**-0.3**
OZUR		**42.18**	**327**	⇑P	**P**	**23 49 57.4**	**-1.5**
SORM	**Soroca**	**42.28**	**331**	⇓P	**P**	**23 49 58.6**	**-1.0**
DOPR	**Dopca**	**42.31**	**327**	⇓P	**P**	**23 49 58.7**	**-1.2**
ARR	**Arges**	**42.34**	**325**	⇑P	**P**	**23 50 01.4**	**+1.1**
PUNG	**Punghina**	**42.66**	**323**	⇑P	P	23 49 57.7	-5.0
LOT	**Lotru**	**42.87**	**325**	⇑P	**P**	**23 50 03.6**	**-1.0**
ARTI	**Arti**	**42.95**	**1**	LR	LR	00 08 28.5	
	comp=Z,56nm,19.6s,baz=160,slow=37						
BURAR	**Bucovina Array**	**43.47**	**328**	P	**P**	**23 50 09.7**	**+0.4**
BUR08	**Bucovina Ar. S**	**43.50**	**328**	P	**P**	**23 50 10.0**	**+0.4**
AKASG	**Malin Array Be**	**43.76**	**334**	P	**P**	**23 50 11.4**	**-0.1**
	comp=Z,0.2nm,0.2s,baz=139,slow=7.4,SNR=4.9						
	comp=Z,0.2nm,0.2s						
MATP	**Matopo**	**44.04**	**221**	LR	LR	00 09 00.8	
	comp=Z,60nm,18.5s,baz=56,slow=37						
ZAA0	**Zalesovo Array**	**45.87**	**22**	P	**P**	**23 50 29.2**	**+0.9**
ZAA0				IAmb	IAmb	23 50 36.7	
	comp=Z,4.0nm,0.8s						
ZALV	**Zalesovo Beam**	**45.87**	**22**	P	**P**	**23 50 28.2**	**-0.1**
	comp=Z,2.9nm,0.7s,baz=226,slow=7.2,SNR=15						
ZALV				LR	LR	00 11 51.3	
	comp=Z,114nm,18.2s,baz=221,slow=39						
	comp=Z,2.9nm,0.7s						
ZALV	**Zalesovo Beam**	**45.87**	**22**	P	**P**	**23 50 28.5**	**+0.2**
LZDM	**Lanzhou Array**	**47.10**	**53**	LR	LR	00 11 04.7	
	comp=Z,158nm,21.4s,baz=275,slow=37						
NRCA	**Norcia**	**48.15**	**316**	P	**P**	**23 50 46.8**	**+0.4**
NRCA				IAmb	IAmb	23 50 49.2

DBIC	**Dimbokro**	**61.63**	**270**	P	**P**	**23 52 24.2**	**-0.2**	
	comp=Z,1.7nm,0.6s,baz=77,slow=7.0,SNR=3.7							
DBIC				LR	LR	00 16 35.9		
	comp=Z,30nm,18.3s,baz=90,slow=34							
	comp=Z,1.7nm,0.6s							
DBIC	**Dimbokro**	**61.63**	**270**	P	**P**	**23 52 23.7**	**-0.7**	
EKA	**Eskdalemuir Ar**	**62.55**	**326**	P	**P**	**23 52 29.1**	**-0.8**	
	comp=Z,0.9nm,0.7s,baz=112,slow=7.5,SNR=3.6							
	comp=Z,0.9nm,0.7s							
KSRS	**Korea Array**	**66.52**	**55**	P	**P**	**23 52 55.2**	**-1.0**	
	comp=Z,1.0nm,0.6s,baz=267,slow=6.1,SNR=4.0							
KSRS				LR	LR	00 23 22.2		
	comp=Z,21nm,20.4s,baz=225,slow=37							
	comp=Z,1.0nm,0.6s							
HEH	**HeiHe**	**67.02**	**41**	*e*P	**P**	**23 53 00.4**	**+1.3**	
USRK	**Ussuriysk Ar.**	**69.72**	**48**	P	**P**	**23 53 16.3**	**+0.1**	
	comp=Z,2.9nm,0.8s,baz=260,slow=5.4,SNR=3.3							
	comp=Z,2.9nm,0.8s							
YAK	**Yakutsk**	**69.95**	**29**	LR	LR	00 25 53.0		
	comp=Z,55nm,20.1s,baz=223,slow=38							
H01W3	**Cape Leeuwin H**	**71.98**	**134**	T	T	01 11 49.6		
	baz=301,slow=75,SNR=41							
H01W2	**Cape Leeuwin H**	**71.99**	**134**	T	T	01 11 54.6		
	baz=301,slow=75,SNR=42							
H01W1	**Cape Leeuwin H**	**72.00**	**134**	T	T	01 11 50.3		
	baz=301,slow=75,SNR=49							
FITZ	**Fitzroy Crossi**	**74.11**	**113**	P	**P**	**23 53 41.9**	**-1.0**	
MJAR	**Matsushiro Arr**	**74.78**	**55**	P	**P**	**23 53 45.4**	**-1.2**	
	comp=Z,1.3nm,0.8s,baz=278,slow=5.9,SNR=2.0							
MJAR				LR	LR	00 28 09.2		
	comp=Z,32nm,20.0s,baz=308,slow=37							
	comp=Z,1.3nm,0.8s							
WB0	**Warramunga Arr**	**82.49**	**112**	P	**P**	**23 54 27.6**	**-1.8**	
WB0				IAmb	IAmb	23 54 37.4		
	comp=Z,7.5nm,1.4s							
WRA	**Warramunga Arr**	**82.50**	**112**	P	**P**	**23 54 27.1**	**-2.3**	
	comp=Z,0.8nm,0.7s,baz=295,slow=4.3,SNR=8.1							
	comp=Z,0.8nm,0.7s							
WRA	**Warramunga Arr**	**82.50**	**112**	P	**P**	**23 54 27.6**	**-1.8**	
ASAR	**Alice Springs**	**83.22**	**116**	P	**P**	**23 54 31.2**	**-1.9**	
	comp=Z,1.4nm,0.8s,baz=289,slow=4.8,SNR=16							
	comp=Z,1.4nm,0.8s							
ASAR	**Alice Springs**	**83.22**	**116**	P	**P**	**23 54 31.4**	**-1.7**	
PETK	**Petropavlovsk-**	**85.46**	**37**	LR	LR	00 36 34.1		
	comp=Z,37nm,20.2s,baz=274,slow=38							
ELIB	**Princess Elisa**	**88.10**	**190**	*d*P	**P**	**23 54 58.5**	**+2.1**	
RES	**Resolute Bay**	**90.46**	**353**	LR	LR	00 40 40.8		
	comp=Z,22nm,18.2s,baz=28,slow=39							
C27K	**Jago River**	**95.90**	**7**	P	**P**	**23 55 33.0**	**+0.4**	
C27K				IAmb	IAmb	23 55 36.6		
	comp=Z,2.0nm,0.8s							
PDAR	**Pinedale Array**	**122.91**	**349**	PKP	**PKPdf**	**00 01 02.1**	**-1.0**	
	comp=Z,0.2nm,0.8s,baz=18,slow=5.4,SNR=2.0							

*ATH **08** 00:13:45.6, 39.˚28N×20.˚35E, h33km±1km, ML2.8/19, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*TIR **08** 00:13:45.8, 39.˚24N×20.˚33E, h28km±1km, ML2.9, ML2.9, Presumed earthquake*
*THE **08** 00:13:46.7, 39.˚2N±0.˚7×2.˚0E±.˚, h11km±1km, M2.6/15, MLh2.6/15*

ISC 08 00:13:45.3±0.9, **39.˚25N**±0.˚02×**20.˚32E**±0.˚02, **h32**km±5km, **n82**, σ1°**52**/120, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PRGA	**Parga**	**0.07**	**64**	P	**Pb**	**00 13 50.8**	**0.0**
PRGA				S	**Sb**	**00 13 55.1**	**+0.6**
PRGA				AML	AML		
IGT	**Igoumenitsa**	**0.28**	**3**	P	**Pb**	**00 13 52.8**	**+0.1**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.28**	**3**	Pg	**Pb**	**00 13 52.9**	**+0.1**
IGT				Sg	**Sb**	**00 13 58.4**	**+0.7**
IGT				IAML		00 13 59.0	
	3μm,0.3s						
IGT	**Igoumenitsa**	**0.28**	**3**	P	**Pb**	**00 13 52.8**	**+0.1**
IGT				S	**Sb**	**00 13 57.9**	**+0.2**
IGT				AML	AML		
TSLK	**Tsoukalades, L**	**0.50**	**148**	P	**Pb**	**00 13 55.9**	**+0.1**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**0.50**	**148**	P	**Pb**	**00 13 56.0**	**+0.1**
TSLK				S	**Sn**	**00 14 04.2**	**+0.4**
TSLK				AML	AML		
ARTB	**Arta**	**0.52**	**100**	P	**Pb**	**00 13 55.6**	**-0.6**
ARTB				S	**Sb**	**00 14 03.4**	**-0.2**
ARTB				AML	AML		
LKD2	**Lefkada island**	**0.53**	**150**	P	**Pb**	**00 13 56.3**	**-0.1**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.53**	**150**	Pg	**Pb**	**00 13 56.5**	**+0.1**
LKD2				Sg	**Sn**	**00 14 05.0**	**+0.4**
LKD2				IAML		00 14 08.1	
	2μm,0.3s						
LKD2	**Lefkada island**	**0.53**	**150**	P	**Pb**	**00 13 56.4**	**+0.1**
LKD2				S	**Sn**	**00 14 04.9**	**+0.2**
LKD2				AML	AML		
ART2	**Arta**	**0.54**	**101**	P	**Pb**	**00 13 55.3**	**-1.1**
ART2				S	**Sb**	**00 14 03.5**	**-0.5**
JAN	**Janina**	**0.58**	**46**	S	**Sb**	**00 14 05.6**	**+0.4**
JAN	**Janina**	**0.58**	**46**	P	**Pb**	**00 13 56.3**	**-0.8**
JAN				S	**Sb**	**00 14 04.5**	**-0.7**
DRAG	**Dragano-Lefkad**	**0.60**	**160**	P	**Pb**	**00 13 57.7**	**+0.1**
DRAG	**Dragano-Lefkad**	**0.60**	**160**	P	**Pb**	**00 13 57.6**	**+0.1**
DRAG				S	**Sn**	**00 14 07.2**	**+0.8**
KEK	**Kerkira**	**0.61**	**319**	Pg	**Pb**	**00 13 57.3**	**-0.3**
KEK				Sg	**Sb**	**00 14 07.0**	**+1.0**
KEK	**Kerkira**	**0.61**	**319**	P	**Pb**	**00 13 57.2**	**-0.3**
KEK				S	**Sb**	**00 14 06.6**	**+0.6**
KEK				AML	AML		
NYDR	**Nydri-Lefkada**	**0.62**	**151**	P	**Pb**	**00 13 57.5**	**-0.2**
NYDR				S	**Sn**	**00 14 06.6**	**0.0**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.62**	**151**	P	**Pb**	**00 13 57.5**	**-0.2**
NYDR				S	**Sn**	**00 14 06.6**	**0.0**
PRMD	**Pramanda**	**0.67**	**65**	S	**Sn**	**00 14 08.0**	**0.0**
PRMD	**Pramanda**	**0.67**	**65**	P	**Pb**	**00 13 58.0**	**-0.6**
PRMD				S	**Sb**	**00 14 07.5**	**-0.1**
PRMD				AML	AML		
SRN	**Sarande**	**0.67**	**339**	P	**Pn**	**00 13 59.9**	**+1.3**
SRN	**Sarande**	**0.67**	**339**	Pg	**Pn**	**00 13 59.9**	**+1.3**
SRN				Sg	**Sn**	**00 14 10.0**	**+2.0**
SRN				IAML		00 14 11.8	
	429nm,0.3s						
EVGI	**Lefkada island**	**0.68**	**157**	P	**Pb**	**00 13 58.8**	**-0.1**
EVGI				AML	AML		
EVGI	**Lefkada island**	**0.68**	**157**	P	**Pb**	**00 13 58.7**	**-0.1**
EVGI				S	**Sn**	**00 14 08.9**	**+0.6**
EVGI				AML	AML		
TETR	**Tetrakomo, Epi**	**0.75**	**83**	P	**Pb**	**00 13 58.9**	**-1.0**
TETR				S	**Sb**	**00 14 09.6**	**-0.3**
TETR				AML	AML		
AMPL	**Ampelaki**	**0.77**	**115**	P	**Pb**	**00 13 59.6**	**-0.7**
AMPL				S	**Sn**	**00 14 10.7**	**+0.1**
AMPL				AML	AML		
MSVA	**Metsovo**	**0.85**	**52**	P	**Pb**	**00 14 01.2**	**-0.5**
MSVA				S	**Sb**	**00 14 11.5**	**-1.2**
MSVA				AML	AML		
VSK1	**VASILIKIADES**	**0.86**	**167**	P	**Pb**	**00 14 02.4**	**+0.6**
LSK	**Leskovik**	**0.92**	**14**	Pg	**Pb**	**00 14 03.3**	**+0.4**
LSK				Sg	**Sn**	**00 14 16.7**	**+2.4**
PDO	**Prodromos**	**0.94**	**134**	S	**Sn**	**00 14 16.7**	**+2.1**
PDO	**Prodromos**	**0.94**	**134**	P	**Pn**	**00 14 02.5**	**+0.2**
PDO				AML	AML		
DMLN	**Damoulianata-K**	**1.01**	**177**	P	**Pn**	**00 14 03.5**	**+0.1**
KPRO	**Kipourio**	**1.07**	**49**	P	**Pn**	**00 14 04.4**	**+0.2**
KPRO				AML	AML		
VLS	**Valsamata**	**1.09**	**169**	P	**Pn**	**00 14 05.2**	**+0.7**
VLS				AML	AML		
PENT	**Pentalofos**	**1.14**	**34**	S	**Sb**	**00 14 23.7**	**+2.8**
PENT	**Pentalofos**	**1.14**	**34**	P	**Pn**	**00 14 05.8**	**+0.7**
PVO	**Paravola**	**1.14**	**124**	P	**Pb**	**00 14 06.6**	**+0.2**
PVO				AML	AML		
PVO	**Paravola**	**1.14**	**124**	P	**Pn**	**00 14 05.2**	**+0.2**
PVO				AML	AML		
PSDA	**Pessada-Kefalo**	**1.16**	**169**	P	**Pn**	**00 14 06.0**	**+0.7**
PLEV	**Plevrona-Mesol**	**1.20**	**134**	P	**Pn**	**00 14 06.7**	**+0.8**
EVR	**Evrytania**	**1.21**	**106**	P	**Pb**	**00 14 08.0**	**+0.4**
EVR	**Evrytania**	**1.21**	**106**	P	**Pn**	**00 14 07.1**	**+1.0**
RTZL	**Ratzakli, Kefa**	**1.23**	**163**	P	**Pb**	**00 14 08.3**	**+0.4**
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**1.23**	**163**	P	**Pn**	**00 14 06.9**	**+0.7**
NEST	**Nestorio**	**1.29**	**26**	P	**Pb**	**00 14 10.0**	**+0.9**
NEST				AML	AML		
NEST	**Nestorio**	**1.29**	**26**	Pg	**Pb**	**00 14 09.8**	**+0.8**
NEST				Sg	**Sb**	**00 14 28.1**	**+2.7**
NEST				IAML		00 14 32.0	
	393nm,0.4s						
NEST				IAML		00 14 33.4	
	214nm,0.4s						
NEST	**Nestorio**	**1.29**	**26**	P	**Pn**	**00 14 08.2**	**+1.0**
NEST				AML	AML		
AXS	**Araxos**	**1.34**	**141**	P	**Pn**	**00 14 08.2**	**+0.4**
THL	**Klokotos Trika**	**1.35**	**76**	P	**Pb**	**00 14 10.0**	**0.0**
THL				AML	AML		
THL	**Klokotos Trika**	**1.35**	**76**	Pg	**Pb**	**00 14 09.8**	**-0.2**
THL				Sg	**Sb**	**00 14 26.2**	**-0.8**
THL	**Klokotos Trika**	**1.35**	**76**	P	**Pn**	**00 14 07.9**	**-0.1**
THL				AML	AML		
VLO	**Vlora**	**1.37**	**333**	Pg	**Pb**	**00 14 12.9**	**+2.7**
VLO				Sg	**Sb**	**00 14 31.9**	**+4.5**
VLO				IAML		00 14 40.3	
	357nm,0.3s						
AGRP	**Agrapidokambos**	**1.39**	**127**	P	**Pn**	**00 14 09.1**	**+0.6**
ANX	**Ano Chora**	**1.42**	**117**	P	**Pb**	**00 14 11.1**	**-0.1**
ANX				AML	AML		
ANX	**Ano Chora**	**1.42**	**117**	P	**Pn**	**00 14 09.5**	**+0.6**
KBN	**Korca**	**1.42**	**15**	Pg	**Pb**	**00 14 12.6**	**+1.5**
KBN				Sg	**Sb**	**00 14 31.4**	**+2.5**
KBN				IAML		00 14 40.1	
	143nm,0.5s						
VVK	**Vomvokou**	**1.43**	**125**	P	**Pn**	**00 14 08.0**	**-1.1**
BERA	**Berati**	**1.48**	**349**	Pg	**Pb**	**00 14 13.1**	**+1.0**
BERA				Sg	**Sb**	**00 14 34.4**	**+3.9**
BERA				IAML		00 14 37.2	
	179nm,0.3s						
EFP	**Efpalio**	**1.49**	**123**	P	**Pn**	**00 14 10.1**	**+0.3**
TYRN	**Tyrnavos**	**1.55**	**72**	P	**Pb**	**00 14 12.5**	**-0.9**
TYRN				S	**Sb**	**00 14 32.8**	**+0.1**
TYRN				AML	AML		
AGG	**Agios Georgios**	**1.58**	**98**	P	**Pb**	**00 14 13.4**	**-0.5**
AGG				AML	AML		
DRO	**Drossia**	**1.70**	**139**	P	**Pb**	**00 14 14.9**	**-1.0**
DRO				AML	AML		
KLV	**Kalavryta, Ach**	**1.88**	**129**	P	**Pb**	**00 14 17.5**	**-1.5**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**1.88**	**129**	Pg	**Pb**	**00 14 18.6**	**-0.3**
OHR	**Ohrid**	**1.89**	**11**	*i* Pn	**Pb**	**00 14 18.7**	**-0.5**
AMT	**Artemida-Makis**	**2.04**	**147**	P	**Pn**	**00 14 19.4**	**+2.0**
TIR	**Tirane**	**2.12**	**351**	Pn	**Pn**	**00 14 20.3**	**+1.7**
TIR				IAML		00 15 00.9	
	36nm,0.7s						
NEO	**Neokhori**	**2.26**	**88**	S	**Sn**	**00 14 50.0**	**+2.8**
PHP	**Peshkopia**	**2.43**	**2**	Pn	**Pn**	**00 14 25.1**	**+2.2**
SDA	**Shkodra**	**2.86**	**348**	Pn	**Pn**	**00 14 29.9**	**+1.2**
DBRK	**Dubrovnik**	**3.79**	**335**	*e*Pn	**Pn**	**00 14 39.9**	**-1.5**
DBRK				Sn	**Sn**	**00 15 21.7**	**-3.2**
STON	**Ston**	**4.12**	**332**	*e*Pn	**Pn**	**00 14 45.5**	**-0.5**
STON				Sn	**Sn**	**00 15 29.8**	**-3.3**
LSTV	**Lastovo**	**4.36**	**325**	*e*Pn	**Pn**	**00 14 48.2**	**-1.1**
LSTV				Sn	**Sn**	**00 15 36.7**	**-2.3**
MAKA	**Makarska**	**4.73**	**329**	*e*Pn	**Pn**	**00 14 53.3**	**-1.1**
MAKA				Sn	**Sn**	**00 15 45.1**	**-3.1**
RICI	**Ricice**	**4.87**	**332**	*e*Pn	**Pn**	**00 14 55.2**	**-1.1**
RICI				Sn	**Sn**	**00 15 47.9**	**-3.6**
HVAR	**Hvar**	**4.89**	**325**	*e*Pn	**Pn**	**00 14 55.4**	**-1.1**
HVAR				Sn	**Sn**	**00 15 48.4**	**-3.6**
KIJV	**Kijevo**	**5.58**	**330**	*i* Pn	**Pn**	**00 15 05.5**	**-0.5**
KIJV				Sn	**Sn**	**00 16 05.4**	**-3.7**
MORI	**Morici**	**5.76**	**325**	*e*Pn	**Pn**	**00 15 08.0**	**-0.5**
MORI				Sn	**Sn**	**00 16 09.8**	**-3.7**
DUGI	**Dugi Otok**	**6.16**	**322**	*e*Pn	**Pn**	**00 15 14.4**	**+0.4**
DUGI				Sn	**Sn**	**00 16 20.1**	**-3.2**
UDBI	**Udbina**	**6.27**	**329**	*e*Pn	**Pn**	**00 15 15.2**	**-0.4**
UDBI				Sn	**Sn**	**00 16 22.7**	**-3.4**
NVLJ	**Novalja**	**6.68**	**324**	*e*Pn	**Pn**	**00 15 20.8**	**-0.3**
NVLJ				Sn	**Sn**	**00 16 31.8**	**-4.3**

*UCR **08** 00:23:21.8±0.7, 8.˚33N×82.˚84W, h28km±3km, MW3.6, Presumed earthquake*
*UPA **08** 00:23:22.0±1.1, 8.˚36N×82.˚81W, h29km±3km, MW3.7, Presumed earthquake*

ISC 08 00:23:21.6±1.0, **8.˚34N**±0.˚03×**82.˚81W**±0.˚02, **h33**km±2km, **n49**, σ0°**72**/74, **4C-8D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PTPA	**Petro Terminal**	**0.15**	**202**	*e*P	**Pb**	**00 23 27.5**	**-0.3**
PTPM	**Petroterminale**	**0.15**	**206**	↑*i*P	**Pb**	**00 23 27.5**	**-0.3**
PTPM				*e*S	**Sb**	**00 23 33.1**	**+1.1**
CCOL	**Caracol de Cor**	**0.17**	**293**	↑*i*P	**Pn**	**00 23 27.4**	**+0.4**
CCOL				*e*S	**Sb**	**00 23 32.8**	**+0.5**
CDITO	**Canoas**	**0.24**	**345**	↑*i*P	**Pn**	**00 23 28.1**	**-0.4**
CDITO				*e*S	**Sn**	**00 23 32.5**	**+0.6**
LIMO3	**Limones**	**0.24**	**192**	*e*P	**Pn**	**00 23 28.6**	**0.0**
LIMO3				*e*S	**Sb**	**00 23 33.8**	**+0.3**
BAGA3	**Bagala, Chiriq**	**0.31**	**66**	↓*i*P	**Pn**	**00 23 29.8**	**+0.1**
BAGA3				*e*S	**Sb**	**00 23 35.2**	**+0.4**
NELY	**Ciudad Neily**	**0.33**	**337**	*e*P	**Pb**	**00 23 29.3**	**-0.5**
NELY				*e*S	**Sb**	**00 23 35.6**	**+0.2**
NELY	**Ciudad Neily**	**0.33**	**337**	↑*i*P	**Pb**	**00 23 29.3**	**-0.5**
NELY				*e*S	**Sb**	**00 23 35.3**	**-0.1**
DVD	**David**	**0.37**	**75**	*e*P	**Pb**	**00 23 30.3**	**0.0**
DVD				*e*S	**Sb**	**00 23 36.4**	**+0.2**
LOMA3	**Las Lomas, Chi**	**0.43**	**78**	*e*P	**Pb**	**00 23 31.1**	**0.0**
LOMA3				*e*S	**Sb**	**00 23 37.0**	**-0.6**
FITO	**Golfito**	**0.44**	**310**	*e*P	**Pb**	**00 23 30.4**	**-0.9**
FITO				*e*S	**Sb**	**00 23 37.0**	**-1.0**
CLLRA	**Cordillera,**	**0.45**	**26**	*e*P	**Pb**	**00 23 31.4**	**-0.1**
CLLRA	**Cordillera,**	**0.45**	**26**	↓*i*P	**Pb**	**00 23 31.5**	**-0.1**
MLIR3	**Monte Lirio, C**	**0.45**	**359**	*e*P	**Pn**	**00 23 31.9**	**0.0**
MLIR3				*e*S	**Sb**	**00 23 37.6**	**-0.8**
BRU2	**Volcan**	**0.47**	**15**	*e*P	**Pb**	**00 23 31.7**	**-0.1**
BRU2				*e*S	**Sn**	**00 23 39.5**	**+0.2**
BRU2	**Volcan**	**0.47**	**15**	↓*i*P	**Pb**	**00 23 31.7**	**-0.1**
BRU2				*e*S	**Sn**	**00 23 39.4**	**+0.1**
BRU2				*e*S	**Sb**	**00 23 39.7**	**+0.9**
PTAR3	**Potrerillos Ar**	**0.47**	**42**	↓*i*P	**Pb**	**00 23 31.9**	**+0.1**
PTAR3				*e*S	**Sb**	**00 23 38.3**	**-0.5**
SCLRA	**Santa Clara, W**	**0.49**	**4**	*e*P	**Pb**	**00 23 32.3**	**+0.1**
SCLRA				*e*S	**Sb**	**00 23 39.1**	**-0.4**
BGUAL	**Bijagual, Pana**	**0.50**	**71**	*e*P	**Pb**	**00 23 32.1**	**-0.1**
BGUAL	**Bijagual, Pana**	**0.50**	**71**	↓*i*P	**Pb**	**00 23 32.1**	**-0.1**
BGUAL				*e*S	**Sb**	**00 23 39.6**	**0.0**
PIRO	**Carate, Puerto**	**0.52**	**277**	*e*P	**Pb**	**00 23 31.6**	**-0.9**
BQTLY	**Boquete Panama**	**0.54**	**40**	*e*P	**Pb**	**00 23 32.8**	**-0.2**
BQTLY	**Boquete Panama**	**0.54**	**40**	*i* P	**Pb**	**00 23 32.8**	**-0.2**
BQTLY				*e*S	**Sn**	**00 23 42.1**	**+1.0**
JIME	**Puerto Jimenez**	**0.54**	**291**	*e*P	**Pb**	**00 23 32.4**	**-0.5**
BQSF3	**Alto Boquete,**	**0.55**	**43**	*e*P	**Pb**	**00 23 32.8**	**-0.3**
BQSF3				*e*S	**Sb**	**00 23 41.1**	**+0.2**
CTCR	**Cotoan**	**0.55**	**5**	*e*P	**Pb**	**00 23 32.9**	**-0.4**
CTCR				*e*S	**Sb**	**00 23 40.8**	**-0.4**
LNBQ3	**Los Naranjos,**	**0.58**	**39**	↓*i*P	**Pb**	**00 23 33.1**	**-0.5**
LNBQ3				*e*S	**Sb**	**00 23 41.5**	**-0.3**
PSOM3	**Paja de Sombre**	**0.59**	**55**	*e*P	**Pn**	**00 23 33.3**	**-0.4**
PSOM3				*e*S	**Sb**	**00 23 41.5**	**-0.6**
FIMO	**Fila Mora**	**0.84**	**320**	*e*P	**Pn**	**00 23 37.2**	**0.0**
RBALA	**Bur**	**0.84**	**51**	*e*P	**Pn**	**00 23 37.2**	**+0.1**
RBALA	**Bur**	**0.84**	**51**	↓*i*P	**Pn**	**00 23 37.2**	**+0.1**
RBALA				*e*S	**Sn**	**00 23 48.6**	**+0.2**
PANP	**Palmar Norte**	**0.89**	**314**	*e*P	**Pn**	**00 23 37.8**	**0.0**
CHGR2	**Aguacate**	**0.89**	**48**	↓*i*P	**Pn**	**00 23 37.6**	**-0.2**
CHGR2				*e*S	**Sn**	**00 23 49.7**	**+0.1**
PDCAN	**Manzana , Fuen**	**1.10**	**92**	*e*P	**Pn**	**00 23 40.9**	**+0.1**
PDCAN	**Manzana , Fuen**	**1.10**	**92**	*e*P	**Pn**	**00 23 40.9**	**+0.1**
EDPE	**Pejibaye, P**	**1.11**	**317**	*e*P	**Pn**	**00 23 41.2**	**+0.4**
CEUA	**Cerro Uatsi, L**	**1.28**	**354**	*e*P	**Pb**	**00 23 45.8**	**+0.6**
LAES	**El Progreso Va**	**1.43**	**351**	*e*P	**Pb**	**00 23 48.1**	**+0.3**
VERH	**Veragua Rainfo**	**1.62**	**347**	*e*P	**Pb**	**00 23 49.6**	**-1.3**
GMAL	**Guarumal, Vera**	**1.67**	**110**	*e*P	**Pn**	**00 23 47.8**	**-0.7**
GMAL				*e*S	**Sn**	**00 24 08.7**	**-0.1**
VTCV	**VTCV, Calle Va**	**1.86**	**331**	*e*P	**Pb**	**00 23 53.9**	**-1.3**
RESJ	**San Isidro (Tu**	**1.87**	**334**	*e*P	**Pb**	**00 23 54.0**	**-1.1**
ABRB	**Las Abras (San**	**1.88**	**332**	*e*P	**Pb**	**00 23 54.0**	**-1.5**
CVTV	**Tajo**	**1.89**	**331**	*e*P	**Pb**	**00 23 54.7**	**-1.1**
CVTQ	**Turrialba Volc**	**1.90**	**330**	*e*P	**Pn**	**00 23 54.1**	**+2.0**
VTR0	**Volcan Turrial**	**1.91**	**331**	*e*P	**Pn**	**00 23 54.3**	**+2.0**
CVTG	**V. Turrialba,**	**2.03**	**332**	*e*P	**Pn**	**00 23 55.9**	**-2.0**
VBV1	**V. Barva**	**2.17**	**324**	*e*P	**Pn**	**00 23 57.6**	**+1.9**
LAFE	**Finca La Fe, P**	**2.53**	**305**	*e*P	**Pn**	**00 24 01.0**	**+0.6**

*THE **08** 00:27:00.2, 39.˚0N±1.˚0×2.˚5E±,˚ h13km±1km, M2.4/28, MLh2.4/28*

ATH 08 00:26:59.8, 38.˚98N×24.˚54E, h18km±1km, **ML2.5**/16, **Latitude uncertainty: 0 km; Longitude uncertainty: 1 km, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKY1	**Skyros Island**	**0.08**	**164**	P	Pg	00 27 03.6	+0.4
SKY1				S	Sg	00 27 05.1	-0.3
SKY	**Skiros Island**	**0.10**	**174**	P	Pg	00 27 03.5	+0.1
SKY				S	Sb	00 27 05.3	-0.3
SKY				AML	AML		
SKY	**Skiros Island**	**0.10**	**174**	P	Pg	00 27 03.5	+0.1
SKY				S	Sb	00 27 05.1	-0.5
KYMI	**Kymi, Euboea I**	**0.49**	**225**	P	Pg	00 27 09.7	+0.1
KYMI				S	Sb	00 27 16.8	+0.1
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**0.49**	**225**	P	Pg	00 27 09.7	+0.1
KYMI				S	Sb	00 27 17.0	+0.3
KYMI				AML	AML		
AOS	**Alonnisos**	**0.55**	**291**	P	Pb	00 27 11.1	+0.2
AOS				S	Sb	00 27 18.9	+0.5
AOS				AML	AML		
AOS2	**Alonissos-2**	**0.56**	**287**	P	Pg	00 27 11.1	0.0
AOS2				S	Sg	00 27 18.5	-0.2
EFSA	**Agios Efstrati**	**0.66**	**32**	P	Pb	00 27 12.9	+0.1
EFSA				S	Sb	00 27 22.1	+0.5
KARY	**Karystos**	**0.95**	**185**	P	Pg	00 27 18.1	-0.1
KARY				S	Sg	00 27 31.1	+0.3
KARY				AML	AML		
KARY	**Karystos**	**0.95**	**185**	P	Pg	00 27 18.1	-0.2
KARY				AML	AML		
DION	**Dionisos Attik**	**1.02**	**208**	P	Pn	00 27 19.1	-0.1
DION				S	Sn	00 27 33.8	+0.7
DION				AML	AML		
DION	**Dionisos Attik**	**1.02**	**208**	P	Pb	00 27 19.1	+0.1
DION				S	Sg	00 27 32.6	-0.3
DION				AML	AML		
LIA	**Limnos Island**	**1.04**	**28**	P	Pb	00 27 19.3	-0.1
LIA				S	Sn	00 27 33.7	-0.1
LIA				AML	AML		
LIA	**Limnos Island**	**1.04**	**28**	P	Pb	00 27 19.3	-0.1
LIA				S	Sb	00 27 32.7	-0.1
LIA				AML	AML		
PTL	**Penteli**	**1.07**	**210**	P	Pb	00 27 19.8	0.0
PTL				S	Sg	00 27 34.8	+0.3
PTL				AML	AML		
PTL	**Penteli**	**1.07**	**210**	P	Pb	00 27 19.6	-0.2
PTL				S	Sb	00 27 33.0	-0.4
PTL				AML	AML		
NEO	**Neokhori**	**1.07**	**288**	P	Pb	00 27 19.8	-0.1
NEO				S	Sg	00 27 35.7	+1.0
NEO				AML	AML		
NEO	**Neokhori**	**1.07**	**288**	P	Pb	00 27 19.6	-0.3
NEO				S	Sb	00 27 33.9	+0.3
NEO				AML	AML		
ACHAR	**Athens-Acharne**	**1.10**	**215**	P	Pg	00 27 21.1	0.0
ACHAR				S	Sb	00 27 34.4	+0.1
STFN	**Stefani**	**1.12**	**224**	P	Pb	00 27 21.0	+0.3
STFN				S	Sg	00 27 37.1	+1.0
STFN				AML	AML		
STFN	**Stefani**	**1.12**	**224**	P	Pg	00 27 21.1	-0.4
STFN				S	Sn	00 27 35.7	+0.1
STFN				AML	AML		
ATHP	**Athens-Neo Psi**	**1.15**	**212**	P	Pn	00 27 20.6	-0.4
PAIG	**Paliouri**	**1.16**	**325**	P	Pg	00 27 22.2	+0.1
PAIG				S	Sg	00 27 38.3	+1.1
PAIG				AML	AML		
PAIG	**Paliouri**	**1.16**	**325**	P	Pb	00 27 21.3	0.0
PAIG				S	Sn	00 27 36.5	0.0
ATHU	**Athens Univers**	**1.17**	**210**	P	Pn	00 27 21.0	-0.4
ATHU				S	Sg	00 27 37.8	0.0
ATHU				AML	AML		
ATHU	**Athens Univers**	**1.17**	**210**	P	Pn	00 27 20.9	-0.5
ATHU				S	Sb	00 27 36.5	+0.1
**ATH

*BJI **08** 00:39:00.0, 11°.60S×165°.00E, h5km, mB5.5/25, mb5.6/73, Ms4.9/8, Ms7 4.6/12*

*IDC **08** 00:39:00.9±0.3, 11°.57S×165°.02E, h0km, mb5.2/32, mbtmp5.2/37, ML5.0/4, MS4.2/57, Error ellipse: s-maj=12.0km s-min=9.9km az=66.0*

*MOS **08** 00:39:01.8±0.9, 11°.57S×164°.91E, h13km, mb5.7/66, Error ellipse: s-maj=7.2km s-min=5.7km az=131.2*

*NOU **08** 00:39:02.0, 11°.58S×165°.00E, h0km, ML5.2/126, Santa Cruz Islands*

*NEIC **08** 00:39:03.7, 11°.64S×164°.99E, h12km*

*NEIC **08** 00:39:03.3±1.2, 11°.60S±0°.07×165°.02E±0°.07, h12km±2km, mb5.6/140, Mww5.3/13, Error ellipse: s-maj=11.5km s-min=9.4km az=45.0*

*GFZ **08** 00:39:03.7±0.3, 11°.5S±4°×16°.5E±°, h10km, M5.0/23, mb5.3/23*

*GFZ **08** 00:39:03.3, 11°.55S×165°.00E, h11km, Mw5.1/62, Moment Tensor Solution. Moment tensor: Scale 10^16^Nm; Mrr=6.47; Mθθ3.10; Mϕϕ3.37; Mrθ=0.51; Mθϕ=2.87; Mϕr0.73; Fault plane solution: M0=6.35865×10^16^ NP1: ϕs=137.48318°, δ48.98458°, λ=88.54199°. NP2: ϕs=315.26213°, δ41.03674°, λ=91.67568°. Principal axes: T 6.1689, Plg3.9747°, Azm226.4498°; N 0.3639, Plg1.1001°, Azm316.5262°; P -6.5328, Plg85.8754°, Azm61.9694°;*

*NEIC **08** 00:39:04.1, 11°.64S×164°.99E, h16km, Moment Tensor Solution. Duration: 2s1 Moment tensor: Scale 10^17^Nm; Mrr=0.73; Mθθ0.29; Mϕϕ0.44; Mrθ=0.70; Mθϕ=0.34; Mϕr0.79; Fault plane solution: M0=1.28000×10^17^ NP1: ϕs=323.27000°, δ17.26000°, λ=85.74000°. NP2: ϕs=138.81000°, δ72.79000°, λ=91.32000°. Principal axes: T 1.2703, Plg28.0000°, Azm230.0000°; N 0.0184, Plg1.0000°, Azm139.0000°; P -1.2887, Plg62.0000°, Azm47.0000°;*

*GCMT **08** 00:39:06.3±0.1, 11°.58S±0°.01×164°.91E±0°.01, h12km, MW5.2/141, Moment Tensor Solution. s81,c117; s141,c232; Duration: 1s0 Moment tensor: Scale 10^17^ Nm; Mrr=0.77±.01; Mθθ0.25±.01; Mϕϕ0.52±.01; Mrθ=0.24±.04; Mθϕ=0.41±.01; Mϕr0.13±.03; Best double couple: M0=0.84300×10^17^ NP1:ϕs=333.00000°, δ37.00000°, λ=-76.00000°. NP2:ϕs=136.00000°, δ54.00000°, λ=-100.00000°. Principal axes: T 0.8600, Plg9.0000°, Azm233.0000°; N -0.0340, Plg8.0000°, Azm142.0000°; P -0.8260, Plg78.0000°, Azm8.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 08 00:39:03.0±0.6, 11°.64S±0°.04×165°.05E±0°.04, h15km±3km, h16km:pP-P, n776, σ1§17/795, mb5.5/203, **MS4.3**/60, **14C-22D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HURO	**Huro Makira**	**3.30**	**290**	P	**Pn**	**00 39 53.7**	**-0.5**
SANVU	**Saraoutou**	**4.32**	**151**	P	**Pn**	**00 40 08.9**	**+0.8**
SANVU	**Saraoutou**	**4.32**	**151**		**Pn**	**00 40 08.5**	**+0.3**
SANVU	**Saraoutou**	**4.32**	**151**	P	**Pn**	**00 40 08.8**	**+0.6**
SANVU				AML	AML		
SANVU				AML	AML		
SANVU	**Saraoutou**	**4.32**	**151**	P	**Pn**	**00 40 09.0**	**+0.8**
NGOA	**Tingoa Renbel**	**4.89**	**271**	P	**Pn**	**00 40 14.9**	**-1.1**
HNR	**Honiara**	**5.48**	**293**	Pn	**Pn**	**00 40 21.8**	**-2.3**
	68nm,0.3s,baz=346,slow=0.9,SNR=20						
HNR				Sn	**Sn**	**00 41 22.9**	**-4.0**
	30nm,0.3s,baz=128,slow=22,SNR=9.6						
HNR				LR	LR	00 42 34.0	
	comp=Z,4μm,20.9s,baz=212,slow=39						
	539nm,0.6s						
HNR				AML	AML		
HNR	**Honiara**	**5.48**	**293**	P	**Pn**	**00 40 24.7**	**+0.6**
HNR	**Honiara**	**5.48**	**293**	S	**Sn**	**00 41 26.1**	**-0.8**
HNR	**Honiara**	**5.48**	**293**		**Pn**	**00 40 22.0**	**-2.1**
HNR	**Honiara**	**5.48**	**293**	P	**Pn**	**00 40 24.6**	**+0.5**
HNR				S	**Sn**	**00 41 25.9**	**-0.9**
HNR				AML	AML		
HNR				AML	AML		
HNR	**Honiara**	**5.48**	**293**	P	**Pn**	**00 40 23.7**	**-0.4**
	comp=Z,782nm,0.7s						
SAVO	**Savo Central**	**5.72**	**295**	P	**Pn**	**00 40 28.2**	**+0.8**
SAVO	**Savo Central**	**5.72**	**295**	S	**Sn**	**00 41 31.5**	**-1.3**
TATA	**Tatamba Isabel**	**6.09**	**302**	P	**Pn**	**00 40 32.6**	**0.0**
TATA	**Tatamba Isabel**	**6.09**	**302**	S	**Sn**	**00 41 40.9**	**-1.2**
DVP	**Devils Point**	**6.77**	**154**	P	**Pn**	**00 40 42.8**	**+1.0**
KOUNC	**Koumac, New Ca**	**8.89**	**185**	P	**Pn**	**00 41 11.6**	**+0.7**
KOUNC	**Koumac, New Ca**	**8.89**	**185**		**Pn**	**00 41 11.4**	**+0.4**
MARNC	**Mare, Loyalty**	**10.19**	**164**	P	**Pn**	**00 41 30.8**	**+2.0**
MARNC	**Mare, Loyalty**	**10.19**	**164**		**Pn**	**00 41 28.3**	**-0.5**
DZM	**Mont Dzumac**	**10.46**	**173**	Pn	**Pn**	**00 41 33.1**	**+0.6**
	comp=Z,11nm,0.3s,baz=312,slow=9.6,SNR=218						
DZM				Sn	**Sn**	**00 43 22.2**	**-7.3**
	comp=Z,5.1nm,0.3s,baz=132,slow=15,SNR=3.9						
	comp=Z,35nm,0.5s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**10.47**	**174**	P	**Pn**	**00 41 34.7**	**+2.1**
NOUC	**Port Laguerre**	**10.47**	**174**	P	**Pn**	**00 41 34.2**	**+1.6**
YATNC	**Mamie plateau,**	**10.51**	**171**	P	**Pn**	**00 41 34.0**	**+0.9**
ONTNC	**Ouen Toro**	**10.69**	**173**	P	**Pn**	**00 41 37.6**	**+2.0**
ONTNC	**Ouen Toro**	**10.69**	**173**		**Pn**	**00 41 36.4**	**+0.8**
OUENC	**Ouen Island, N**	**10.85**	**171**	P	**Pn**	**00 41 40.0**	**+2.2**
OUENC	**Ouen Island, N**	**10.85**	**171**		**Pn**	**00 41 38.6**	**+0.8**
PINNC	**Pines Island,**	**11.15**	**168**	P	**Pn**	**00 41 43.4**	**+1.5**
PINNC	**Pines Island,**	**11.15**	**168**		**Pn**	**00 41 42.8**	**+0.9**
MSVF	**Nonsavu**	**13.96**	**117**	Pn	**Pn**	**00 42 23.2**	**+2.8**
	comp=Z,0.4nm,0.3s,baz=267,slow=9.3,SNR=9.8						
MSVF				LR	LR	00 46 35.0	
	comp=Z,796nm,19.9s,baz=302,slow=32						
	comp=Z,7.3nm,0.9s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**13.96**	**117**	P	**Pn**	**00 42 22.0**	**+1.6**
MSVF	**Nonsavu**	**13.96**	**117**		**Pn**	**00 42 19.8**	**-0.6**
MSVF	**Nonsavu**	**13.96**	**117**	P	**P**	**00 42 26.6**	**-1.8**
	comp=Z,68nm,1.4s						
KRVT	**Keravat (AS076**	**14.81**	**298**	LR	LR	00 48 28.0	
	comp=Z,2μm,18.9s,baz=164,slow=38						
DGTI	**Dogotuki**	**14.98**	**110**	P	**Pn**	**00 42 35.5**	**+1.1**
TARA	**Tarawa**	**15.10**	**32**	P	**Pn**	**00 42 37.0**	**+1.1**
TARA	**Tarawa**	**15.10**	**32**	P	**Pn**	**00 42 35.3**	**-0.6**
	comp=Z,178nm,0.9s						
LKBA	**Tubou, Lakemba**	**16.91**	**115**	P	**P**	**00 43 00.9**	**-0.2**
PMG	**Port Moresby**	**17.73**	**276**	P	**P**	**00 43 10.8**	**+0.5**
	comp=Z,30nm,0.9s,baz=99,slow=12,SNR=11						
PMG				LR	LR	00 49 00.6	
	comp=Z,2μm,21.7s,baz=60,slow=34						
PMG	**Port Moresby**	**17.73**	**276**	P	**P**	**00 43 10.2**	**-0.1**
PMG	**Port Moresby**	**17.73**	**276**	P	**Pn**	**00 43 09.5**	**0.0**
PMG	**Port Moresby**	**17.73**	**276**		**Pn**	**00 43 09.4**	**0.0**
PMG	**Port Moresby**	**17.73**	**276**	P	**P**	**00 43 11.2**	**+0.9**
	comp=Z,3μmcomp=Z,1μmcomp=Z,87nm,1.1s						
PMG	**Port Moresby**	**17.73**	**276**	P	**P**	**00 43 12.0**	**+1.7**
	comp=Z,88nm,1.1s						
AUNRC	**North Rockhamp**	**18.07**	**228**	P	**P**	**00 43 15.1**	**+1.1**
AUAYR	**Ayr State High**	**18.72**	**243**	P	**Pn**	**00 43 23.2**	**+1.6**
AUBSH	**Beerwah State**	**18.94**	**215**	P	**Pn**	**00 43 25.8**	**+1.6**
EIDS	**Eidsvold**	**19.00**	**222**	P	**Pn**	**00 43 26.4**	**+1.5**
	comp=Z,86nm,1.0s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**19.00**	**222**	P	**Pn**	**00 43 25.8**	**+0.9**
	comp=Z,86nm,1.0s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**19.00**	**222**	P	**Pn**	**00 43 25.9**	**+0.9**
EIDS	**Eidsvold**	**19.00**	**222**	P	**P**	**00 43 23.8**	**-0.3**
EIDS	**Eidsvold**	**19.00**	**222**	P	**Pn**	**00 43 26.3**	**+1.4**
	comp=Z,86nm,1.0s						
PATS	**Pohnpei**	**19.54**	**340**	P	**Pn**	**00 43 30.9**	**-0.6**
	comp=Z,381nm,1.1s						
PATS	**Pohnpei**	**19.54**	**340**	P	**P**	**00 43 30.7**	**+0.5**
PATS	**Pohnpei**	**19.54**	**340**	P	**P**	**00 43 30.0**	**-0.2**
PATS				IAmb	IAmb	00 43 32.8	
	comp=Z,381nm,1.0s						
PATS	**Pohnpei**	**19.54**	**340**	P	**Pn**	**00 43 31.8**	**+0.3**
	comp=Z,381nm,1.1s						
GC1S	**Gold Coast 1 S**	**19.67**	**212**	P	**Pn**	**00 43 33.1**	**+0.2**
CTA	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 36.0**	**0.0**
	comp=Z,78nm,1.2s						
CTA	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 35.7**	**-0.2**
	comp=Z,78nm,1.2s						
CTA	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 36.0**	**0.0**
	comp=Z,1.1nm,0.3s,baz=70,slow=11,SNR=29						
CTA				LR	LR	00 49 48.5	
	comp=Z,2μm,21.9s,baz=51,slow=32						
	comp=Z,31nm,0.8s						
CTA				AML	AML		
CTA	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 35.6**	**-0.4**
CTA	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 36.0**	**0.0**
CTAO	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 35.8**	**-0.2**
CTAO	**Charters Tower**	**19.92**	**243**	P	**P**	**00 43 34.0**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,125nm,1.3s						
CTAO	**Charters Tower**	**19.92**	**243**		**P**	**00 43 34.0**	**-0.3**
CTAO	**Charters Tower**	**19.92**	**243**	P	**Pn**	**00 43 36.4**	**+0.4**
	comp=Z,196nm,1.2s						
MANU	**Manus Island**	**19.96**	**297**	P	**P**	**00 43 34.4**	**-0.5**
TW1H	**Toowoomba 1 Ha**	**20.02**	**216**	P	Pn	00 43 37.5	+0.3
AUTOO	**Toowoomba Stat**	**20.03**	**216**	P	Pn	00 43 37.9	+0.6
LHI	**Lord Howe Isla**	**20.54**	**195**	P	Pn	00 43 43.8	+0.6
	comp=Z,67nm,1.8s						
MTSU	**Mount Surprise**	**21.04**	**250**	P	**P**	**00 43 48.4**	**+1.9**
	comp=Z,55nm,0.9s						
MTSU	**Mount Surprise**	**21.04**	**250**	P	**P**	**00 43 47.8**	**+1.3**
	comp=Z,55nm,0.9s						
MTSU	**Mount Surprise**	**21.04**	**250**	P	**P**	**00 43 48.6**	**+2.1**
MTSU	**Mount Surprise**	**21.04**	**250**	P	**P**	**00 43 48.7**	**+2.1**
	comp=Z,56nm,0.9s						
RMQ	**Roma**	**21.30**	**224**	P	**P**	**00 43 53.5**	**+4.3**
	comp=Z,60nm,1.6s						
RMQ	**Roma**	**21.30**	**224**	P	**P**	**00 43 52.1**	**+2.9**
	comp=Z,60nm,1.6s						
RMQ	**Roma**	**21.30**	**224**	P	**P**	**00 43 50.2**	**+1.0**
RMQ	**Roma**	**21.30**	**224**	P	**P**	**00 43 52.1**	**+2.9**
	comp=Z,60nm,1.6s						
ARMA	**Armidale**	**22.45**	**212**	P	**P**	**00 44 03.7**	**+2.0**
	comp=Z,90nm,1.2s						
ARMA	**Armidale**	**22.45**	**212**	P	**P**	**00 44 03.7**	**+2.0**
ARMA	**Armidale**	**22.45**	**212**	P	**P**	**00 44 01.8**	**+0.1**
ARMA	**Armidale**	**22.45**	**212**	P	**P**	**00 44 04.7**	**+3.0**
	comp=Z,90nm,1.2s						
AFI	**Afiamalu**	**22.71**	**98**	P	**P**	**00 44 05.9**	**+1.4**
	comp=Z,19nm,0.8s,baz=257,slow=21,SNR=1.6						
AFI				LR	LR	00 51 05.7	
	comp=Z,947nm,20.3s,baz=277,slow=32						
	comp=Z,19nm,0.8s						
AUPHS	**Peel High Scho**	**23.38**	**212**	P	**P**	**00 44 13.7**	**+2.5**
AULRC	**Lightning Ridg**	**23.79**	**219**	P	**P**	**00 44 16.6**	**+1.4**
QLP	**Quilpie**	**24.59**	**230**	P	**P**	**00 44 24.7**	**+2.0**
	comp=Z,59nm,1.7s						
QLP	**Quilpie**	**24.59**	**230**	P	**P**	**00 44 24.0**	**+1.3**
	comp=Z,59nm,1.7s						
QLP	**Quilpie**	**24.59**	**230**	P	**P**	**00 44 25.0**	**+2.3**
QLP	**Quilpie**	**24.59**	**230**	P	**P**	**00 44 24.1**	**+1.4**
	comp=Z,59nm,1.7s						
OUZ	**Omahuta**	**24.72**	**163**	P	**P**	**00 44 26.2**	**+2.5**
OUZ	**Omahuta**	**24.72**	**163**	P	**P**	**00 44 28.1**	**+4.3**
	comp=Z,85nm,1.2s						
MGCD	**Mangrove Creek**	**24.98**	**209**	P	**P**	**00 44 29.6**	**+3.4**
	comp=Z,35nm,1.1s						
AUDCS	**Dubbo College**	**25.46**	**214**	P	**P**	**00 44 32.3**	**+1.8**
RIV	**Riverview**	**25.48**	**208**	P	**P**	**00 44 29.7**	**-0.8**
	comp=Z,90nm,0.9s						
WCZ	**Waipu Caves**	**25.61**	**162**	P	**P**	**00 44 37.0**	**+5.3**
JAY	**Jayapura**	**25.78**	**289**	P	**P**	**00 44 32.3**	**-1.3**
	comp=Z,32nm,0.9s						
QIS	**Mount Isa**	**25.97**	**247**	P	**P**	**00 44 36.5**	**+1.2**
	comp=Z,52nm,1.0s						
QIS	**Mount Isa**	**25.97**	**247**	P	**P**	**00 44 36.2**	**+0.9**
	comp=Z,52nm,1.0s						
QIS	**Mount Isa**	**25.97**	**247**	P	**P**	**00 44 36.0**	**+0.7**
QIS	**Mount Isa**	**25.97**	**247**	P	**P**	**00 44 36.0**	**+0.7**
	comp=Z,52nm,1.0s						
GENI	**Genyem**	**26.25**	**288**	P	**P**	**00 44 38.7**	**+0.9**
CMSA	**Cobar Meteorol**	**26.67**	**219**	P	**P**	**00 44 43.4**	**+1.9**
	comp=Z,41nm,0.9s						
CMSA	**Cobar Meteorol**	**26.67**	**219**	P	**P**	**00 44 44.1**	**+2.6**
CMSA	**Cobar Meteorol**	**26.67**	**219**	P	**P**	**00 44 44.0**	**+2.6**
	comp=Z,41nm,0.9s						
YNG	**Young**	**27.19**	**211**	P	**P**	**00 44 49.9**	**+3.7**
	comp=Z,0.8nm,1.2s						
CNB	**Canberra Magne**	**27.53**	**209**	P	**P**	**00 44 51.5**	**+2.2**
	comp=Z,24nm,1.1s						
TOZ	**Tahuroa Road**	**27.62**	**162**	P	**P**	**00 44 50.6**	**+0.8**
CAN	**Canberra**	**27.71**	**209**	P	**P**	**00 44 55.0**	**+4.2**
	comp=Z,31nm,1.4s						
CAN	**Canberra**	**27.71**	**209**	P	**P**	**00 44 50.7**	**-0.1**
CAN				pmax	pmax		
	comp=Z,71nm,1.6s						
CAN	**Canberra**	**27.71**	**209**	P	**P**	**00 44 50.7**	**-0.1**
SMPI	**Sarmi**	**27.82**	**288**	P	**P**	**00 44 51.8**	**-0.2**
INKA	**Innaminka**	**27.84**	**231**	P	**P**	**00 44 52.0**	**0.0**
HIZ	**Hauiti**	**28.15**	**164**	P	P	00 44 59.7	+5.0
HAZ	**Te Kaha**	**28.40**	**158**	P	**P**	**00 44 59.1**	**+2.3**
MWZ	**Matawai**	**28.82**	**159**	P	**P**	**00 45 02.1**	**+1.5**
PUZ	**Puketiti**	**28.85**	**158**	P	**P**	**00 45 01.9**	**+1.0**
RTZ	**Ruatahuna**	**28.89**	**160**	P	**P**	**00 45 02.1**	**+0.8**
RTZ				IAmb	IAmb	00 45 04.4	
	comp=Z,74nm,0.8s						
BKZ	**Black Stump Fm**	**29.24**	**162**	P	**P**	**00 45 06.3**	**+1.9**
BKZ	**Black Stump Fm**	**29.24**	**162**	P	**P**	**00 45 06.9**	**+2.5**
NMHZ	**Naumai**	**29.27**	**161**	P	**P**	**00 45 08.6**	**+3.9**
WHHZ	**Waihua**	**29.39**	**160**	P	**P**	**00 45 08.0**	**+2.3**
BHHZ	**Black Hill Sta**	**29.41**	**162**	P	**P**	**00 45 09.8**	**+3.9**
KNZ	**Kohu**	**29.49**	**160**	P	**P**	**00 45 08.1**	**+1.6**
STKA	**Stephens Creek**	**29.54**	**223**	P	**P**	**00 45 08.8**	**+1.7**
	comp=Z,61nm,0.7s						
STKA	**Stephens Creek**	**29.54**	**223**	P	**P**	**00 45 08.5**	**+1.4**
	comp=Z,61nm,0.7s						
STKA	**Stephens Creek**	**29.54**	**223**	P	**P**	**00 45 08.3**	**+1.2**
	comp=Z,13nm,0.9s,baz=27,slow=9.4,SNR=15						
STKA				PcP	**PcP**	**00 48 12.5**	**+0.3**
	comp=Z,11nm,0.8s,baz=282,slow=0.7,SNR=5.8						
STKA				LR	LR	00 56 05.2	
	comp=Z,2μm,20.9s,baz=43,slow=35						
	comp=Z,13nm,0.9s						
STKA	**Stephens Creek**	**29.54**	**223**	P	**P**	**00 45 09.2**	**+2.1**
STKA	**Stephens Creek**	**29.54**	**223**	P	**P**	**00 45 07.1**	**0.0**
STKA				IAmb	IAmb	00 45 11.2	
	comp=Z,86nm,1.1s						
STKA					**PcP**	**00 48 12.8**	**+0.6**
STKA	**Stephens Creek**	**29.54**	**223**	P	**P**	**00 45 08.8**	**+1.7**
	comp=Z,61nm,0.7s						
MCHZ	**McNeill Hill**	**29.56**	**162**	P	**P**	**00 45 11.5**	**+4.3**
KRHZ	**Kereru**	**29.64**	**162**	P	**P**	**00 45 09.4**	**+1.5**
MHGZ	**Mahia Peninsul**	**29.69**	**160**	P	**P**	**00 45 10.6**	**+2.3**
PNHZ	**Pukenui**	**29.84**	**163**	P	**P**	**00 45 11.4**	**+1.8**
TSZ	**Takapari Road**	**29.90**	**163**	P	**P**	**00 45 11.6**	**+1.4**
KAHZ	**Kahuranaki**	**29.93**	**162**	P	**P**	**00 45 13.4**	**+2.9**
H11S2	**WAKE ISLAND Hy**	**29.99**	**3**	T	T	01 16 40.5	
	baz=183,slow=76,SNR=105						
H11S3	**WAKE ISLAND Hy**	**29.99**	**3**	T	T	01 16 40.0	
	baz=183,slow=76,SNR=15						
H11S1	**WAKE ISLAND Hy**	**30.00**	**3**	T	T	01 16 44.2	
	baz=183,slow=76,SNR=8.9						
DVHZ	**Dannevirke**	**30.18**	**163**	P	**P**	**00 45 14.3**	**+1.6**
MRZ	**Mangatainoka R**	**30.36**	**164**	P	**P**	**00 45 16.7**	**+2.5**
WR0	**Warramunga Arr**	**30.46**	**250**	P	**P**	**00 45 15.9**	**+0.6**
	comp=Z,30nm,1.0s						
WR9	**Warramunga Arr**	**30.48**	**250**	P	**P**	**00 45 13.4**	**-2.2**
WB0	**Warramunga Arr**	**30.56**	**251**	P	**P**	**00 45 15.7**	**-0.6**
WB0				IAmb	IAmb	00 45 17.8	
	comp=Z,68nm,0.9s						
BFZ	**Birch Farm**	**30.56**	**163**	P	**P**	**00 45 16.9**	**+0.9**
WC3	**Warramunga Arr**	**30.61**	**250**	P	**P**	**00 45 16.9**	**+0.1**
	comp=Z,48nm,1.3s						
WB4	**Warramunga Arr**	**30.61**	**251**	P	**P**	**00 45 16.9**	**+0.1**
	comp=Z,54nm,1.4s						
WRAB	**Tennant Creek**	**30.63**	**251**	P	**P**	**00 45 16.8**	**-0.1**
WRAB	**Tennant Creek**	**30.63**	**251**	*ceP*	**P**	**00 45 17.5**	**+0.6**
WRAB				pmax	pmax		
	comp=Z,105nm,1.7s						
WRAB	**Tennant Creek**	**30.63**	**251**	P	**P**	**00 45 17.2**	**+0.3**
	comp=Z,58nm,1.3s						
WRA	**Warramunga Arr**	**30.64**	**251**	P	**P**	**00 45 16.2**	**-0.8**
	comp=Z,26nm,0.9s,baz=81,slow=8.9,SNR=28						
WRA				PcP	**PcP**	**00 48 16.3**	**+1.0**
	comp=Z,13nm,0.9s,baz=79,slow=2.7,SNR=14						
WRA				S	**S**	**00 50 16.0**	**-3.1**
	comp=Z,5.4nm,1.1s,baz=82,slow=15,SNR=6.3						
WRA				PKiKP	**PKiKP**	**00 55 45.4**	**-1.1**
	comp=Z,0.1nm,0.2s,baz=34,slow=1.3,SNR=5.8						
WRA				LR	LR	00 55 46.5	
	comp=Z,857nm,22.0s,baz=89,slow=33						
	comp=Z,26nm,0.9s						
WRA	**Warramunga Arr**	**30.64**	**251**	P	**P**	**00 45 15.4**	**-1.6**
WRA						00 48 15.6	
WRA	**Warramunga Arr**	**30.64**	**251**	P	**P**	**00 45 15.4**	**-1.6**
WRA					**PcP**	**00 48 15.6**	**+0.3**
H11N1	**WAKE ISLAND Hy**	**31.21**	**3**	T	T	01 18 11.2	
	baz=182,slow=76,SNR=14						
TOO	**Toolangi**	**31.21**	**211**	P	**P**	**00 45 23.0**	**+1.1**
	comp=Z,8.1nm,1.2s						
TOO	**Toolangi**	**31.21**	**211**	P	**P**	**00 45 23.1**	**+1.3**
	comp=Z,8.1nm,1.2s						
TOO	**Toolangi**	**31.21**	**211**	P	**P**	**00 45 21.9**	**0.0**
TOO				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TOO	**Toolangi**	**31.21**	**211**	P	**P**	**00 45 21.9**	**0.0**
H11N3	**WAKE ISLAND Hy**	**31.22**	**3**	T	T	01 18 13.3	
	baz=182,slow=76,SNR=14						
H11N2	**WAKE ISLAND Hy**	**31.23**	**3**	T	T	01 18 13.6	
	baz=182,slow=76,SNR=15						
LTZ	**Lake Taylor**	**31.65**	**170**	P	**P**	**00 45 26.4**	**+0.7**
AS17	**Alice Springs**	**31.84**	**244**	P	**P**	**00 45 27.1**	**-0.5**
	comp=Z,24nm,1.1s						
AS17	**Alice Springs**	**31.84**	**244**	P	**P**	**00 45 27.2**	**-0.3**
	comp=Z,24nm,1.1s						
KDU	**Kakadu**	**31.85**	**265**	P	**P**	**00 45 27.0**	**-0.7**
	comp=Z,13nm,1.2s						
KDU	**Kakadu**	**31.85**	**265**	P	**P**	**00 45 26.3**	**-1.4**
	comp=Z,13nm,1.2s						
AS01	**Alice Springs**	**31.87**	**244**	P	**P**	**00 45 28.9**	**+1.0**
AS09	**Alice Springs**	**31.89**	**244**	P	**P**	**00 45 27.2**	**-0.9**
	comp=Z,29nm,1.1s						
AS15	**Alice Springs**	**31.90**	**244**	P	**P**	**00 45 27.9**	**-0.3**
	comp=Z,26nm,1.1s						
AS31	**Alice Springs**	**31.91**	**244**	P	**P**	**00 45 28.4**	**+0.1**
	comp=Z,6.7nm,1.4s						
AS31	**Alice Springs**	**31.91**	**244**	P	**P**	**00 45 27.3**	**-0.9**
ASAR	**Alice Springs**	**31.92**	**244**	P	**P**	**00 45 27.8**	**-0.5**
	comp=Z,7.0nm,1.0s,baz=75,slow=9.4,SNR=40						
ASAR				PcP	**PcP**	**00 48 19.1**	**+0.5**
	comp=Z,12nm,0.8s,baz=75,slow=2.6,SNR=17						
ASAR				S	**S**	**00 50 37.1**	**-1.9**
	comp=Z,0.7nm,1.0s,baz=71,slow=17,SNR=1.9						
ASAR				ScP	**ScP**	**00 52 01.0**	**-0.8**
	comp=Z,0.8nm,1.1s,baz=27,slow=8.4,SNR=4.2						
ASAR				LR	LR	00 57 06.2	
	comp=Z,1μm,21.8s,baz=78,slow=34						
	comp=Z,7.0nm,1.0s						
ASAR	**Alice Springs**	**31.92**	**244**	P	**P**	**00 45 27.2**	**-1.0**
ASAR					**PcP**	**00 48 18.4**	**-0.2**
AUALC	**St Philip's Co**	**31.94**	**244**	P	**P**	**00 45 28.8**	**+0.3**
BRAT	**Ballarat**	**32.00**	**213**	P	**P**	**00 45 31.1**	**+2.4**
AUMTC	**Mt Clear Colle**	**32.07**	**213**	P	**P**	**00 45 31.1**	**+1.8**
GUMO	**Guam**	**32.08**	**321**	LR	LR	00 57 12.4	
	comp=Z,476nm,21.1s,baz=164,slow=34						
HTT	**Hallett**	**32.27**	**224**	P	**P**	**00 45 32.1**	**+0.8**
	comp=Z,16nm,1.1s						
HTT	**Hallett**	**32.27**	**224**	P	**P**	**00 45 32.6**	**+1.3**
	comp=Z,16nm,1.1s						
HTT	**Hallett**	**32.27**	**224**	P	**P**	**00 45 32.8**	**+1.5**
RPZ	**Rata Peaks**	**32.38**	**172**	LR	LR	00 58 08.9	
	comp=Z,177nm,18.0s,baz=360,slow=35						
RPZ	**Rata Peaks**	**32.38**	**172**	P	**P**	**00 45 32.7**	**+0.7**
ARPS	**Mount Arapiles**	**32.59**	**216**	P	**P**	**00 45 36.8**	**+2.8**
	comp=Z,8.8nm,1.2s						
ARPS	**Mount Arapiles**	**32.59**	**216**	P	**P**	**00 45 36.1**	**+2.2**
	comp=Z,8.8nm,1.2s						
LBZ	**Lake Benmore**	**32.92**	**173**	P	**P**	**00 45 37.5**	**+0.7**
AUMBR	**Murray Bridge**	**33.07**	**221**	P	**P**	**00 45 40.3**	**+2.2**
MTN	**Manton Dam**	**33.15**	**264**	P	**P**	**00 45 38.6**	**-0.5**
	comp=Z,9.2nm,0.9s						
MTN	**Manton Dam**	**33.15**	**264**	P	**P**	**00 45 38.0**	**-1.2**
	comp=Z,9.2nm,0.9s						
MTN	**Manton Dam**	**33.15**	**264**	P	**P**	**00 45 38.2**	**-0.9**
AUMAR	**Marden Senior**	**33.33**	**222**	P	**P**	**00 45 42.5**	**+2.0**
SAUI	**Saumlaki**	**33.44**	**273**	P	**P**	**00 45 41.0**	**-0.6**
EAZ	**Earnscleugh**	**33.67**	**175**	P	**P**	**00 45 43.3**	**+0.1**
BBOO	**Buckleboo**	**33.92**	**227**	P	**P**	**00 45 46.6**	**+0.9**
	comp=Z,30nm,1.0s						
BBOO	**Buckleboo**	**33.92**	**227**	P	**P**	**00 45 46.4**	**+0.7**
	comp=Z,30nm,1.0s						
BBOO	**Buckleboo**	**33.92**	**227**	P	**P**	**00 45 45.4**	**-0.2**
TUZ	**Tuapeka**

KMBL **Kambalda** 44.35 237 P **P** **00 47 13.2 +0.3**
comp=Z,21nm,1.3s
MBWA **Marble Bar** 44.36 252 P **P** **00 47 13.4 +0.3**
comp=Z,76nm,1.0s
MBWA **Marble Bar** 44.36 252 P **P** **00 47 13.5 +0.4**
comp=Z,76nm,1.0s
MBWA **Marble Bar** 44.36 252 P **P** **00 47 13.7 +0.6**
MBWA **Marble Bar** 44.36 252 P **P** **00 47 13.0 -0.1**
MBWA IAmb IAmb 00 47 24.7
comp=Z,76nm,1.1s
MBWA **Marble Bar** 44.36 252 P **P** **00 47 13.7 +0.6**
comp=Z,76nm,1.0s
APSI **Ampana** 44.37 281 P **P** **00 47 12.5 -0.7**
comp=Z,71nm,1.2s
JCJ **Chichijima** 44.45 330 LR LR 01 04 19.9
comp=Z,216nm,21.1s,baz=138,slow=34
TBI **Tubuai** 44.75 111 *e*LQ LQ 00 57 52.6
comp=Z,6μm,30.5s
TBI *e*LR LR 00 59 49.0
comp=Z,3μm,27.5s
TBI *e*LR LR 00 59 52.6
comp=Z,1μm,33.5s
BKSI **Bulukumba** 44.83 274 P **P** **00 47 15.7 -1.2**
comp=Z,26nm,1.0s
KAPI **Kappang** 45.26 274 LR LR 01 07 16.3
comp=Z,126nm,20.1s,baz=95,slow=38
KAPI **Kappang** 45.26 274 P **P** **00 47 20.8 +0.5**
KAPI **Kappang** 45.26 274 P **P** **00 47 19.7 -0.6**
KAPI pmax pmax
comp=Z,41nm,1.0s
KAPI **Kappang** 45.26 274 P **P** **00 47 19.7 -0.6**
KAPI **Kappang** 45.26 274 P **P** **00 47 20.4 +0.1**
comp=Z,273nmcomp=Z,26nm,1.1s
SPSI **Sidrap Palu** 45.45 276 P **P** **00 47 21.3 -0.6**
comp=Z,2μmcomp=Z,35nm,0.9s
TTSI **Tana Toraja** 45.61 277 P **P** **00 47 23.9 +0.8**
comp=Z,40nm,0.9s
TOLI2 **Tolitoli** 45.77 283 P **P** **00 47 23.7 -0.7**
TOLI2 **Tolitoli** 45.77 283 P **P** **00 47 22.7 -1.6**
TOLI2 IAmb IAmb 00 47 25.1
comp=Z,50nm,1.1s
TOLI2 **Tolitoli** 45.77 283 P **P** **00 47 23.0 -1.4**
comp=Z,46nm,1.1s
MEEK **Meekatharra** 46.07 244 P **P** **00 47 27.0 +0.3**
comp=Z,55nm,1.2s
MEEK **Meekatharra** 46.07 244 P **P** **00 47 27.4 +0.8**
comp=Z,55nm,1.2s
MEEK **Meekatharra** 46.07 244 P **P** **00 47 27.6 +1.0**
MEEK **Meekatharra** 46.07 244 P **P** **00 47 27.7 +1.0**
comp=Z,55nm,1.2s
DBNI **Kabupaten Domp** 46.08 269 P **P** **00 47 27.6 +0.7**
comp=Z,21nm,0.9s
PCI **Palu** 46.11 280 P **P** **00 47 27.3 +0.2**
PLAI **Plampang** 46.56 269 P **P** **00 47 30.3 -0.4**
comp=Z,32nm,1.6s
AUKUL **Kulin High Sch** 47.75 236 P **P** **00 47 40.4 +0.7**
KLBR **Kellerberrin** 47.81 238 P **P** **00 47 40.1 -0.1**
comp=Z,68nm,1.0s
KLBR **Kellerberrin** 47.81 238 P **P** **00 47 40.1 -0.1**
KLBR **Kellerberrin** 47.81 238 P **P** **00 47 40.2 0.0**
comp=Z,68nm,1.0s
BLDU **Ballidu** 48.47 239 P **P** **00 47 44.8 -0.5**
comp=Z,31nm,1.2s
BLDU **Ballidu** 48.47 239 P **P** **00 47 46.2 +0.9**
BLDU **Ballidu** 48.47 239 P **P** **00 47 44.5 -0.8**
comp=Z,31nm,1.2s
NWAO **Narrogin (SRO)** 48.56 236 P **P** **00 47 46.2 +0.2**
comp=Z,37nm,1.2s
NWAO **Narrogin (SRO)** 48.56 236 LR LR 01 08 16.5
comp=Z,2μm,19.3s,baz=80,slow=36
NWAO **Narrogin (SRO)** 48.56 236 P **P** **00 47 46.9 +0.9**
NWAO **Narrogin (SRO)** 48.56 236 P **P** **00 47 44.9 -1.1**
NWAO pmax pmax
comp=Z,60nm,1.2s
NWAO **Narrogin (SRO)** 48.56 236 P **P** **00 47 44.9 -1.1**
NWAO IAmb IAmb 00 47 49.6
comp=Z,60nm,1.1s
MORW **Morawa** 48.74 242 P **P** **00 47 47.8 +0.4**
comp=Z,41nm,1.3s
MORW **Morawa** 48.74 242 P **P** **00 47 48.2 +0.8**
MORW **Morawa** 48.74 242 P **P** **00 47 47.3 -0.1**
MORW IAmb IAmb 00 47 48.7
comp=Z,36nm,0.9s
KIP **Kipapa** 48.94 48 *ce*P **P** **00 47 49.2 +0.3**
KIP pmax pmax
comp=Z,131nm,1.7s
DAH **Dandelion** 49.47 52 P **P** **00 47 53.4 0.0**
HMH **Humu'ula Sheep** 49.75 52 P **P** **00 47 55.6 +0.1**
MHA **Mahukona** 49.77 51 P **P** **00 47 56.4 +1.1**
MHA **Mahukona** 49.77 51 P **P** **00 47 56.4 +1.1**
JAGI **Jajag, Banyuwa** 50.16 269 P **P** **00 47 59.3 +0.9**
JAGI **Jajag, Banyuwa** 50.16 269 P **P** **00 47 57.8 -0.6**
JAGI **Jajag, Banyuwa** 50.16 269 P **P** **00 47 58.6 +0.1**
comp=Z,47nm,0.8s
KKM **Kota Kinabalu** 51.66 287 P **P** **00 48 10.6 +0.8**
KKM **Kota Kinabalu** 51.66 287 P **P** **00 48 09.0 -0.8**
JOW **Kunigami** 52.33 317 P **P** **00 48 15.3 +0.9**
JOW **Kunigami** 52.33 317 P **P** **00 48 14.2 -0.2**
JOW IAmb IAmb 00 48 16.6
comp=Z,106nm,1.0s
INU **Inuyama** 53.74 332 P **P** **00 48 25.2 +0.5**
INU **Inuyama** 53.74 332 P **P** **00 48 24.4 -0.2**
INU IAmb IAmb 00 48 26.9
comp=Z,124nm,1.3s
JGF **Kuroka** 53.79 332 P **P** **00 48 25.4 +0.3**
JGF **Kuroka** 53.79 332 P **P** **00 48 24.8 -0.3**
TAOE **Nuku Hiva Isla** 53.93 93 *e*S **S** **00 56 03.0 +0.9**
comp=Z,220nm,26.1s
TAOE *e*LR LR 01 03 55.7
comp=Z,528nm,23.0s
JMN **Monobe** 54.00 328 P **P** **00 48 27.3 +0.6**
JMN **Monobe** 54.00 328 P **P** **00 48 27.1 +0.4**
SMRI **Semarang** 54.01 270 P **P** **00 48 27.4 +0.3**
SMRI IAmb IAmb 00 48 29.2
comp=Z,72nm,0.8s
MJAR **Matsushiro Arr** 54.19 333 P **P** **00 48 27.3 -0.7**
comp=Z,40nm,0.9s,baz=165,slow=8.3,SNR=73
MJAR LR LR 01 08 27.4
comp=Z,79nm,21.1s,baz=140,slow=33
comp=Z,40nm,0.9s
MJAR **Matsushiro Arr** 54.19 333 P **P** **00 48 27.1 -0.9**
MJAR pmax pmax
comp=Z,58nm,1.0s
MJAR **Matsushiro Arr** 54.19 333 P **P** **00 48 27.1 -0.9**
MJAR IAmb IAmb 00 48 28.6
comp=Z,58nm,1.0s
MAJO **Matsushiro** 54.19 333 P **P** **00 48 27.4 -0.6**
MAJO **Matsushiro** 54.19 333 P **P** **00 48 27.3 -0.7**
MAJO pmax pmax
comp=Z,81nm,1.0s
MAJO **Matsushiro** 54.19 333 P **P** **00 48 27.3 -0.7**
MAJO IAmb IAmb 00 48 28.7
comp=Z,81nm,1.0s
JSU **Suzuyama** 54.23 323 P **P** **00 48 29.0 +0.7**
JSU **Suzuyama** 54.23 323 P **P** **00 48 28.3 -0.1**
SBUM **Sibu** 54.35 282 P **P** **00 48 30.1 +0.6**
SBUM **Sibu** 54.35 282 P **P** **00 48 29.7 +0.1**
JNU **Nakatsue** 55.17 325 LR LR 01 08 31.5
comp=Z,108nm,20.5s,baz=140,slow=32
YULB **Yu-li** 55.18 309 P **P** **00 48 36.7 +1.3**
YULB **Yu-li** 55.18 309 P **P** **00 48 34.6 -0.8**
YULB IAmb IAmb 00 48 37.7
comp=Z,57nm,0.8s
NACB **Ninganchiao** 55.40 310 P **P** **00 48 37.9 +1.0**
NACB **Ninganchiao** 55.40 310 P **P** **00 48 36.4 -0.5**
NACB IAmb IAmb 00 48 38.2
comp=Z,70nm,1.0s
TPUB **Ta-pu** 55.63 309 P **P** **00 48 38.8 +0.1**
SSLB **Suanglung** 55.66 309 P **P** **00 48 39.3 +0.4**
SSLB **Suanglung** 55.66 309 P **P** **00 48 38.4 -0.5**
SSLB IAmb IAmb 00 48 39.7
comp=Z,100nm,1.2s
YHNB **Yeheng** 55.84 311 P **P** **00 48 41.3 +1.1**
YHNB **Yeheng** 55.84 311 P **P** **00 48 40.4 +0.2**
BBJI **Bungbulang** 56.68 269 P **P** **00 48 47.1 +0.7**
BBJI **Bungbulang** 56.68 269 P **P** **00 48 45.8 -0.6**
LEM **Lembang** 56.81 269 LR LR 01 13 11.5
comp=Z,139nm,21.9s,baz=175,slow=36
ERM **Erimo** 57.06 341 P **P** **00 48 49.2 +0.8**
ERM pmax pmax
comp=Z,128nm,1.4s
ERM **Erimo** 57.06 341 P **P** **00 48 49.2 +0.8**
ERM IAmb IAmb 00 49 05.4
comp=Z,128nm,1.4s
QZH2 **Quanzhou** 58.09 309 ⇑ *i*P **P** **00 48 57.4 +1.4**
QZH2 PcP **PcP** **00 49 51.0 +3.2**
QZH2 pmax pmax
comp=Z,120nm,1.1s
JKA **Kamikawa-asahi** 59.13 341 P **P** **00 49 03.5 +0.6**
ASAJ **Asahikawa** 59.13 341 P **P** **00 49 03.5 +0.6**
comp=Z,76nm,0.9s,baz=213,slow=12,SNR=23
ASAJ LR LR 01 10 58.1
comp=Z,136nm,20.6s,baz=92,slow=32
comp=Z,76nm,0.9s
ASAJ **Asahikawa** 59.13 341 P **P** **00 49 03.5 +0.6**
ASAJ pmax pmax
comp=Z,101nm,1.0s
TJN **Taejon** 59.52 325 P **P** **00 49 06.3 +0.6**
TJN **Taejon** 59.52 325 P **P** **00 49 05.9 +0.1**
TJN pmax pmax
comp=Z,315nm,1.1s
TJN **Taejon** 59.52 325 P **P** **00 49 05.9 +0.1**
KSRS **Korea Array** 59.99 326 P **P** **00 49 08.6 -0.3**
comp=Z,22nm,1.0s,baz=142,slow=6.9,SNR=38
comp=Z,22nm,1.0s
KSAR **Wonju Array Be** 60.00 326 P **P** **00 49 09.0 -0.1**
KSAR **Wonju Array Be** 60.00 326 P **P** **00 49 09.0 -0.1**
KS19 **Wonju Array Si** 60.05 326 P **P** **00 49 09.4 0.0**
KS19 IAmb IAmb 00 49 10.8
comp=Z,72nm,1.3s
INCN **Inchon** 60.72 325 P **P** **00 49 15.5 +1.5**
INCN **Inchon** 60.72 325 P **P** **00 49 14.1 +0.1**
INCN pmax pmax
comp=Z,158nm,1.4s
INCN **Inchon** 60.72 325 P **P** **00 49 14.1 +0.1**
YSS **Yuzhno-Sakhali** 61.65 343 P **P** **00 49 21.3 +1.2**
YSS **Yuzhno-Sakhali** 61.65 343 *e*P **P** **00 49 20.6 +0.5**
YSS *e*S **S** **00 57 37.4 -4.4**
YSS pmax pmax
comp=Z,80nm,1.2s
YSS MLR MLR
comp=Z,300nm,17.0s
YSS **Yuzhno-Sakhali** 61.65 343 P **P** **00 49 20.5 +0.4**
NJ2 **Nanjing** 61.97 316 ⇓P **P** **00 49 23.2 +0.7**
NJ2 sP **pwP** **00 49 32.9 +0.7**
NJ2 pmax pmax
comp=Z,74nm,0.8s
TEY **Ternei** 62.01 338 ⇓ *e*P **P** **00 49 18.5 -4.0**
TEY pmax pmax
comp=N,20nm,1.2s
TEY pmax pmax
comp=Z,30nm,1.2s
TEY pmax pmax
comp=E,10.0nm,1.2s
BTDF **Bukit Timah Da** 62.23 278 P **P** **00 49 25.7 +1.0**
VLA **Vladivostok** 62.36 333 *i* P **P** **00 49 26.3 +1.4**
VLA pmax pmax
comp=Z,40nm,0.6s
SKR **Severo-Kuril's** 62.55 354 *ce*P **P** **00 49 27.1 +1.1**
USA0B **Ussuriysk Arra** 63.18 334 P **P** **00 49 30.6 +0.3**
USA0B pmax pmax
comp=Z,86nm,1.1s
USA0B **Ussuriysk Arra** 63.18 334 P **P** **00 49 30.6 +0.3**
USRK **Ussuriysk Ar.** 63.18 334 P **P** **00 49 31.2 +0.9**
comp=Z,44nm,0.8s,baz=138,slow=6.0,SNR=37
comp=Z,44nm,0.8s
USRK **Ussuriysk Ar.** 63.18 334 P **P** **00 49 31.0 +0.6**
WHN **Wuhan** 64.28 312 P **P** **00 49 37.1 -0.8**
WHN pmax pmax
comp=Z,120nm,0.9s
DL2 **Dalian** 64.55 324 P **P** **00 49 40.3 +0.8**
DL2 pmax pmax
comp=Z,110nm,1.1s
MDJ **Mudanjiang** 64.56 333 P **P** **00 49 40.0 +0.5**
MDJ **Mudanjiang** 64.56 333 P **P** **00 49 40.4 +0.9**
MDJ pmax pmax
comp=Z,81nm,1.0s
MDJ **Mudanjiang** 64.56 333 P **P** **00 49 39.6 +0.1**
SHEM **Shemya Is, Ala** 64.58 6 P **P** **00 49 39.7 +0.3**
comp=Z,57nm,0.8s,baz=91,slow=13,SNR=2.1
SHEM LR LR 01 10 58.1
comp=Z,221nm,21.8s,baz=193,slow=30
comp=Z,57nm,0.8s
PET **Petropavlovsk** 64.64 356 *e*P **P** **00 49 36.6 -3.2**
PET *e*S **S** **00 58 16.1 -2.9**
PET *e*SS **SS** **01 02 26.0 -4.3**
PET MLR MLR
comp=Z,200nm,12.0s
PET MLR MLR
comp=Z,200nm,14.0s
PET **Petropavlovsk** 64.64 356 P **P** **00 49 39.5 -0.3**
PET IAmb IAmb 00 49 40.8
comp=Z,68nm,1.2s
PET **Petropavlovsk** 64.64 356 P **P** **00 49 40.0 +0.2**
comp=Z,46nm,0.9s
BKNI **Bangkinang** 64.65 276 P **P** **00 49 41.6 +0.9**
BKNI **Bangkinang** 64.65 276 P **P** **00 49 40.6 -0.1**
PEA0B **Petropavlovsk-** 64.80 355 P **P** **00 49 41.2 +0.3**
PEA0B pmax pmax
comp=Z,101nm,1.2s
PEA0B **Petropavlovsk-** 64.80 355 P **P** **00 49 41.2 +0.3**
PETK **Petropavlovsk-** 64.80 355 P **P** **00 49 41.1 +0.2**
comp=Z,30nm,0.8s,baz=142,slow=7.5,SNR=43
PETK LR LR 01 12 38.7
comp=Z,70nm,20.3s,baz=166,slow=31
comp=Z,30nm,0.8s
PETK **Petropavlovsk-** 64.80 355 P **P** **00 49 40.7 -0.2**
TYV **Tymovskoe** 65.23 345 *e*P **P** **00 49 44.4 +0.7**
TYV *e*S **S** **00 58 24.5 -1.9**
TYV pmax pmax
comp=Z,33nm,1.6s
TYV pmax pmax
comp=Z,300nm,4.5s
TYV smax smax
comp=N,500nm,9.7s
TYV smax smax
comp=E,500nm,9.7s
CASY **Casey** 65.58 201 P **P** **00 49 45.7 -0.1**
TIA **Tai'an** 65.61 319 P **P** **00 49 46.5 0.0**
TIA pmax pmax
comp=E,52nm,1.1s
IPM **Ipoh** 65.65 280 P **P** **00 49 47.4 +0.1**
IPM **Ipoh** 65.65 280 P **P** **00 49 46.9 -0.4**
VNDA **Vanda** 65.89 181 P **P** **00 49 48.5 +0.8**
comp=E,6.0nm,1.0s,baz=347,slow=7.1,SNR=18
VNDA LR LR 01 16 03.8
comp=E,142nm,18.1s,baz=354,slow=34
comp=E,6.0nm,1.0s
VNDA **Vanda** 65.89 181 P **P** **00 49 47.7 0.0**
VNDA pmax pmax
comp=Z,20nm,1.3s
VNDA **Vanda** 65.89 181 P **P** **00 49 47.7 0.0**
SBA **Scott Base** 66.21 180 P **P** **00 49 51.3 +1.6**
SBA pmax pmax
comp=Z,19nm,1.0s
SBA **Scott Base** 66.21 180 P **P** **00 49 51.3 +1.6**
KULM **Kulim** 66.22 281 P **P** **00 49 51.8 +0.9**
KULM **Kulim** 66.22 281 P **P** **00 49 50.6 -0.3**
KULM IAmb IAmb 00 49 53.4
comp=Z,73nm,1.3s
BNX **BinXian** 66.41 332 ⇓P **P** **00 49 51.6 +0.1**
BNX pmax pmax
comp=Z,87nm,1.3s
GRNR **Gornyy** 66.97 341 ⇓ *i*P **P** **00 49 56.1 +1.2**
GRNR pmax pmax
comp=Z,60nm,1.0s
RPSI **Rantau Prapat** 67.25 278 P **P** **00 49 56.8 -0.7**
RPSI IAmb IAmb 00 49 58.6
comp=Z,88nm,1.5s
PSI **Prapat** 67.27 278 P **P** **00 49 57.1 -0.7**
PSI **Prapat** 67.27 278 P **P** **00 49 56.8 -1.0**
PSI pmax pmax
comp=Z,88nm,1.5s
KLR **Kul'dur** 67.33 337 P **P** **00 49 57.9 +0.6**
comp=Z,33nm,1.0s,baz=134,slow=4.0,SNR=40
KLR LR LR 01 18 00.9
comp=Z,122nm,19.8s,baz=158,slow=35
comp=Z,33nm,1.0s
KLR **Kul'dur** 67.33 337 *ce*P **P** **00 49 58.0 +0.8**
KLR pmax pmax
comp=Z,98nm,1.7s
ENH **Enshi** 67.75 310 P **P** **00 50 00.3 0.0**
ENH **Enshi** 67.75 310 P **P** **00 49 60.0 -0.4**
LYN **LuoYang** 67.78 315 P **P** **00 50 00.6 +0.2**
LYN pmax pmax
comp=Z,98nm,0.8s
LYN pmax pmax
comp=Z,320nm,5.8s
HNS **HongShan** 67.87 319 ⇓P **P** **00 50 01.7 +0.8**
HNS pmax pmax
comp=Z,110nm,1.3s
GYA **Guiyang** 68.19 305 ⇓P **P** **00 50 03.8 +0.5**
GYA pmax pmax
comp=Z,38nm,0.6s
GSI **Gunungsitoli** 68.24 276 P **P** **00 50 04.3 +0.6**
GSI **Gunungsitoli** 68.24 276 P **P** **00 50 03.5 -0.3**
SLVN **Son La** 68.39 299 P **P** **00 50 06.0 +1.4**
SLVN **Son La** 68.39 299 P **P** **00 50 05.0 +0.4**
BJI2 **Beijing** 68.51 322 P **P** **00 50 05.4 +0.6**
BJI2 sP **pwP** **00 50 12.5 -2.0**
BJI2 S **S** **00 59 05.5 -1.0**
BJI2 pmax pmax
comp=Z,39nm,1.3s
BJI2 pmax pmax
comp=Z,220nm,4.4s
BJI2 L L
comp=Z,140nm,18.0s
BJI2 L L
comp=Z,160nm,20.5s
BJI2 L L
comp=Z,150nm,19.8s
BJT **Baijiatuau** 68.51 322 P **P** **00 50 05.7 +0.8**
BJT **Baijiatuau** 68.51 322 P **P** **00 50 05.2 +0.4**
BJT pmax pmax
comp=Z,94nm,1.4s
BJT **Baijiatuau** 68.51 322 P **P** **00 50 05.2 +0.4**
BJT IAmb IAmb 00 50 06.6
comp=Z,94nm,1.4s
TIY **Taiyuan** 69.54 318 *e*P **P** **00 50 12.1 +0.7**
TIY pmax pmax
comp=Z,60nm,1.3s
HEH **HeiHe** 69.86 335 *e*P **P** **00 50 13.0 0.0**
HEH pmax pmax
comp=Z,40nm,1.1s
XAN **Xi'an** 70.02 313 ⇓P **P** **00 50 14.9 +0.5**
XAN pmax pmax
comp=Z,95nm,0.9s
KMI2 **Kunming** 70.86 302 ⇓P **P** **00 50 21.5 +1.6**
KMI2 pmax pmax
comp=Z,51nm,1.5s
KMI2 pmax pmax
comp=Z,200nm,3.8s
KMI2 L L
comp=Z,260nm,22.6s
XLT **XiLinHaoTe** 70.95 325 *e*P **P** **00 50 20.9 +0.9**
XLT pP sP 00 50 24.6 -0.1
XLT PcP **PcP** **00 50 37.8 -2.6**
XLT pmax pmax
comp=Z,140nm,1.2s
CM31 **Chiang Mai Arr** 71.73 294 P **P** **00 50 25.2 +0.1**
CM31 IAmb IAmb 00 50 27.6
comp=Z,48nm,1.2s
CMAR **Chiang Mai Arr** 71.73 294 P **P** **00 50 26.2 +1.2**
comp=Z,14nm,0.9s,baz=119,slow=4.3,SNR=61
CMAR LR LR 01 23 59.6
comp=Z,26nm,18.6s,baz=115,slow=38
comp=Z,14nm,0.9s
CMAR **Chiang Mai Arr** 71.73 294 *i* P **P** **00 50 26.2 +1.2**
CMAR pmax pmax
comp=Z,15nm,0.9s
CMAR **Chiang Mai Arr** 71.73 294 P **P** **00 50 25.4 +0.3**
CHTO **Chiang Mai** 71.84 294 P **P** **00 50 26.5 +0.7**
CHTO **Chiang Mai** 71.84 294 P **P** **00 50 25.8 +0.1**
CHTO pmax pmax
comp=Z,51nm,1.4s
CHTO **Chiang Mai** 71.84 294 P **P** **00 50 25.8 +0.1**
CHTO IAmb IAmb 00 50 27.9
comp=Z,51nm,1.4s
HHC **Hu-ho-hao-te** 71.84 320 ⇑ *i*P **P** **00 50 27.1 +1.6**
HHC S **S** **00 59 45.9 +0.1**
HHC sS SKiKP 00 59 57.6 -5.7
HHC pmax pmax
comp=Z,67nm,1.1s
HHC pmax pmax
comp=Z,230nm,4.4s
HHC L L
comp=Z,140nm,18.0s
HHC L L
comp=Z,190nm,18.8s
HHC L L
comp=Z,190nm,18.6s
MA2 **Magadan** 71.91 352 P **P** **00 50 24.5 -0.7**
comp=Z,11nm,0.7s,baz=214,slow=23,SNR=1.9
MA2 LR LR 01 16 55.7
comp=Z,160nm,21.4s,baz=179,slow=32
comp=Z,11nm,0.7s
CD2 **Chengdu** 72.42 308 P **P** **00 50 29.4 +0.3**
CD2 pmax pmax
comp=Z,90nm,0.9s
HIA **Hailar** 72.55 331 P **P** **00 50 29.9 +0.5**
HIA **Hailar** 72.55 331 P **P** **00 50 29.2 -0.2**
HIA pmax pmax
comp=Z,78nm,1.0s
HIA **Hailar** 72.55 331 P **P** **00 50 29.2 -0.2**
HIA IAmb IAmb 00 50 31.1
comp=Z,78nm,1.0s
ZEA **Zeya** 72.63 338 *e*P **P** **00 50 30.8 +1.1**
ZEA pmax pmax
comp=N,100nm,2.3s
ZEA pmax pmax
comp=Z,200nm,2.1s
ZEA pmax pmax
comp=E,10.0nm,1.0s
ZEA pmax pmax
comp=N,20nm,1.1s
ZEA pmax pmax
comp=Z,60nm,1.0s
ZEA MLR MLR
comp=Z,100nm,12.0s
HILR **Hailar Array B** 72.75 331 P **P** **00 50 30.6 0.0**
comp=Z,19nm,0.7s,baz=132,slow=8.7,SNR=15
comp=Z,19nm,0.7s
BTO2 **Baotou** 72.86 319 *e*P **P** **00 50 32.8 +1.3**
BTO2 sP **pwP** **00 50 39.4 -1.8**
BTO2 PP **PP** **00 53 18.6 +4.7**
BTO2 S **S** **01 00 00.8 +3.4**
BTO2 pmax pmax
comp=Z,660nm,5.4s
BTO2 L L
comp=Z,310nm,9.5s
BTO2 L L
comp=Z,360nm,6.5s
BTO2 L L
comp=Z,340nm,17.6s
LZH **Lanzhou** 74.65 313 *e*P **P** **00 50 43.9 +1.7**
LZH sP pwP 00 50 50.2 -1.7
LZH pmax pmax
comp=Z,95nm,1.9s
LZDM **Lanzhou Array** 74.70 312 P **P** **00 50 44.4 +1.6**
comp=Z,35nm,0.9s,baz=114,slow=5.5,SNR=18
comp=Z,35nm,0.9s
SEY **Seymchan** 74.99 354 P **P** **00 50 43.1 -0.2**
comp=Z,35nm,1.0s,baz=157,slow=5.5,SNR=23
comp=Z,35nm,1.0s
SEY **Seymchan** 74.99 354 *ce*P **P** **00 50 43.9 +0.6**
SEY pmax pmax
comp=Z,104nm,1.7s
N15K **Kwethluk River** 76.81 17 P **P** **00 50 54.2 +0.4**
N15K IAmb IAmb 00 50 55.7
comp=Z,45nm,1.2s
L14K **Kuka Creek** 77.08 15 P **P** **00 50 55.5 +0.3**
L14K IAmb IAmb 00 50 57.1
comp=Z,51nm,1.3s
CIT **Chita** 77.33 330 *e*P **P** **00 50 57.8 +0.8**
CIT *e* 00 51 02.8
CIT pmax pmax
comp=Z,233nm,1.4s
KDAK **Kodiak Island** 77.38 22 LR LR 01 19 10.2
comp=Z,154nm,19.6s,baz=213,slow=31
MORE **Moreh** 77.70 298 P **P** **00 50 58.1 -1.5**
M16K **Timber Creek** 77.83 17 P **P** **00 50 59.7 +0.2**
M16K IAmb IAmb 00 51 01.7
comp=Z,119nm,1.4s
K15K **Wolf Creek Mou** 78.17 15 P **P** **00 51 01.7 +0.3**
K15K IAmb IAmb 00 51 03.5
comp=Z,114nm,1.4s
QSPA **South Pole Qui** 78.36 180 P **P** **00 51 03.5 +0.8**
comp=Z,92nm,1.0s,baz=2.4,slow=1.4,SNR=169
QSPA LR LR 01 24 02.5
comp=Z,206nm,18.4s,baz=24,slow=34
comp=Z,92nm,1.0s
QSPA **South Pole Qui** 78.36 180 P **P** **00 51 03.4 +0.8**
ULN **Ulaanbaatar** 78.38 324 *ce*P **P** **00 51 04.0 +0.9**
ULN pmax pmax
comp=Z,91nm,1.0s
ULN **Ulaanbaatar** 78.38 324 P **P** **00 51 03.8 +0.7**

ULN IAmb IAmb 00 51 05.3
comp=Z,71nm,0.8s
YAK Yakutsk 78.47 344 P **P** **00 51 03.2 +0.2**
comp=Z,61nm,0.8s,baz=114,slow=3.1,SNR=29
YAK LR LR 01 26 29.2
comp=Z,99nm,18.2s,baz=139,slow=36
comp=Z,61nm,0.8s
YAK Yakutsk 78.47 344 *d* P **P** **00 51 03.0 0.0**
YAK *e* PP **sP** **00 51 06.8 -1.0**
YAK *e* 00 51 11.8
YAK *e* 00 54 00.4
YAK *e* PPP PPP 00 55 48.4
YAK *e* S **S** **01 01 00.1 +1.7**
YAK *e* SS **SKSac** **01 01 16.8 -0.2**
YAK *e* 01 01 19.8
YAK *e* SS **SS** **01 06 03.9 +1.8**
YAK pmax pmax
comp=Z,78nm,1.0s
YAK pmax pmax
comp=N,43nm,1.5s
YAK pmax pmax
comp=E,27nm,1.5s
YAK pmax pmax
comp=Z,200nm,5.3s
YAK pmax pmax
comp=E,104nm,2.5s
YAK pmax pmax
comp=N,79nm,2.3s
YAK smax smax
comp=E,167nm,4.2s
YAK smax smax
comp=N,102nm,2.4s
YAK Yakutsk 78.47 344 P **P** **00 51 03.0 0.0**
SONM Songino Array 78.74 324 P **P** **00 51 05.7 +0.6**
comp=N,23nm,0.9s,baz=143,slow=8.4,SNR=106
comp=N,23nm,0.9s
SONM Songino Array 78.74 324 P **P** **00 51 05.0 -0.1**
SONM pmax pmax
comp=Z,40nm,1.0s
SONM Songino Array 78.74 324 P **P** **00 51 05.0 -0.1**
SONM IAmb IAmb 00 51 07.1
comp=Z,40nm,1.0s
GTA2 Gaotai 79.05 314 P **P** **00 51 08.1 +1.2**
GTA2 pmax pmax
comp=Z,150nm,1.0s
K17K Iditarod 79.38 16 P **P** **00 51 08.5 +0.5**
K17K IAmb IAmb 00 51 10.3
comp=Z,90nm,1.2s
SHL Shillong 80.20 299 P **P** **00 51 13.5 0.0**
SHL Shillong 80.20 299 P **P** **00 51 13.5 0.0**
G16K Koyuk River 80.59 13 P **P** **00 51 15.3 +0.9**
G16K IAmb IAmb 00 51 16.7
comp=Z,107nm,1.6s
BOD Bodaibo 80.78 335 *e* P **P** **00 51 15.1 -0.6**
BOD pmax pmax
comp=Z,45nm,1.6s
RPN Rapa Nui 80.93 116 LR LR 01 21 00.5
comp=Z,122nm,21.7s,baz=288,slow=31
PMR Palmer 81.35 20 P **P** **00 51 19.9 +1.3**
GOMU GeErMu 81.37 310 P **P** **00 51 20.7 +0.9**
GOMU pP PcP 00 51 25.3 -0.6
GOMU sP pwP 00 51 28.3 -1.2
GOMU pmax pmax
comp=Z,15nm,0.8s
GLI Glacier Island 81.57 22 P **P** **00 51 20.0 +0.2**
GLI IAmb IAmb 00 51 21.7
comp=Z,120nm,1.4s
ZAK Zakamensk 81.80 325 *e* P **P** **00 51 21.3 -0.1**
ZAK pmax pmax
comp=Z,40nm,1.1s
EYAK Cordova Ski Ar 81.83 22 P **P** **00 51 22.2 +1.0**
LSA Lhasa 82.09 302 P **P** **00 51 22.6 -1.3**
LSA pmax pmax
comp=Z,22nm,1.1s
LSA Lhasa 82.09 302 P **P** **00 51 23.8 -0.1**
LSA pmax pmax
comp=Z,28nm,1.1s
LSA Lhasa 82.09 302 P **P** **00 51 23.8 -0.1**
IRK Irkutsk 82.19 327 *e* P **P** **00 51 21.5 -1.8**
IRK pmax pmax
comp=Z,55nm,2.1s
TLY Talaya 82.24 327 LR LR 01 25 43.7
comp=Z,38nm,20.5s,baz=128,slow=34
TLY Talaya 82.24 327 *ce* P **P** **00 51 24.3 +0.7**
TLY pmax pmax
comp=Z,61nm,1.7s
TLY Talaya 82.24 327 P **P** **00 51 23.9 +0.3**
TLY IAmb IAmb 00 51 24.9
comp=Z,28nm,0.9s
IMAR Indian Mountai 83.18 16 P **P** **00 51 28.3 +0.2**
DIB Dawson Inlet, 83.56 32 P **P** **00 51 30.6 +0.3**
DIB IAmb IAmb 00 51 33.7
comp=Z,65nm,1.2s
PCA Pinnacle 83.67 24 P **P** **00 51 31.3 +0.4**
PNL Peninsula 83.77 25 P **P** **00 51 32.6 +1.3**
MAW Mawson 83.92 202 P **P** **00 51 33.0 +1.0**
comp=Z,4.5nm,1.1s
MAW Mawson 83.92 202 P **P** **00 51 32.4 +0.4**
comp=Z,4.1nm,0.4s,baz=98,slow=6.7,SNR=7.2
MAW LR LR 01 25 32.9
comp=Z,126nm,18.1s,baz=94,slow=33
comp=Z,4.1nm,0.4s
MAW Mawson 83.92 202 P **P** **00 51 32.4 +0.4**
MAW pmax pmax
comp=Z,6.0nm,1.3s
MAW Mawson 83.92 202 P **P** **00 51 32.4 +0.4**
HDA Harding Lake 84.03 19 P **P** **00 51 32.3 -0.2**
HDA IAmb IAmb 00 51 34.4
comp=Z,43nm,0.8s
COLA College 84.06 18 P **P** **00 51 33.0 +0.4**
COLA College 84.06 18 *i* P **P** **00 51 32.1 -0.5**
COLA pmax pmax
comp=Z,56nm,0.9s
MENT Mentasta 84.13 21 P **P** **00 51 34.7 +1.6**
IL31 84.29 19 P **P** **00 51 33.6 -0.2**
IL31 IAmb IAmb 00 51 35.6
comp=Z,23nm,0.8s
ILAR Eielson Array 84.29 19 P **P** **00 51 33.2 -0.6**
comp=Z,18nm,0.7s,baz=238,slow=4.6,SNR=164
ILAR PKKP **PKKPdf** **01 09 43.6 +1.7**
comp=Z,0.4nm,0.8s,baz=33,slow=4.8,SNR=4.1
ILAR LR LR 01 22 52.9
comp=Z,205nm,21.2s,baz=250,slow=31
comp=Z,18nm,0.7s
ILAR Eielson Array 84.29 19 P **P** **00 51 33.1 -0.7**
POKR Poker Plat Res 84.36 18 P **P** **00 51 33.2 -1.0**
M02C Callahan 84.58 46 P **P** **00 51 36.3 +0.3**
M02C IAmb IAmb 00 51 38.5
comp=Z,73nm,1.5s
SUTB Sutter Butte 84.60 48 P **P** **00 51 35.8 -0.2**
SCRK Sand Creek 84.71 20 P **P** **00 51 36.2 0.0**
YBH Yreka Blue Hor 84.80 46 LR LR 01 20 30.0
comp=Z,199nm,21.5s,baz=264,slow=29
BCAR Beaver Creek A 84.90 21 P **P** **00 51 37.1 +0.1**
JIS Juneau Island 85.17 28 P **P** **00 51 40.3 +1.9**
KNGR Kungurtug, Tuv 85.18 324 *i* P **P** **00 51 39.4 +0.6**
KNGR pmax pmax
comp=Z,30nm,0.8s
HYT Haines Junctio 85.21 24 P **P** **00 51 38.6 -0.1**
HYT IAmb IAmb 00 51 40.3
comp=Z,29nm,1.1s
EVN Everest 85.22 300 P **P** **00 51 40.3 +0.1**
SKAG Skagway 85.38 26 P **P** **00 51 40.2 +0.8**
BBB Bella Bella 85.45 35 LR LR 01 22 19.6
comp=Z,349nm,20.6s,baz=245,slow=30
VES Vestal, Richgr 85.56 52 P **P** **00 51 41.1 +0.2**
BEKR Beckworth 85.85 48 P **P** **00 51 42.7 +0.2**
BEKR IAmb IAmb 00 51 45.1
comp=Z,93nm,1.7s
PALK Pallekele 85.96 278 LR LR 01 34 26.3
comp=Z,46nm,18.2s,baz=116,slow=39
PALK Pallekele 85.96 278 ⇓ *i* P **P** **00 51 45.1 +1.7**
PALK pmax pmax
comp=Z,64nm,1.0s
PALK Pallekele 85.96 278 P **P** **00 51 44.0 +0.7**
PALK IAmb IAmb 00 51 46.2
comp=Z,62nm,1.1s
CBB Campbell River 86.15 37 P **P** **00 51 43.7 +0.2**
CBB IAmb IAmb 00 51 45.5
comp=Z,68nm,1.1s
WHY Whitehorse 86.20 25 P **P** **00 51 42.7 -1.0**
WHY IAmb IAmb 00 51 45.0
comp=Z,38nm,1.4s
DAWY Dawson 86.36 21 P **P** **00 51 44.5 +0.3**
DAWY IAmb IAmb 00 51 46.9
comp=Z,41nm,1.3s
TIXI Tiksi 86.54 349 P **P** **00 51 44.2 -0.8**
comp=Z,12nm,1.0s,baz=158,slow=3.5,SNR=25
TIXI LR LR 01 28 37.2
comp=Z,78nm,19.3s,baz=192,slow=34
comp=Z,12nm,1.0s
TIXI Tiksi 86.54 349 *ce* P **P** **00 51 44.8 -0.1**
TIXI pmax pmax
comp=Z,55nm,1.7s
TIXI Tiksi 86.54 349 P **P** **00 51 44.2 -0.8**
TIXI IAmb IAmb 00 51 46.0
comp=Z,51nm,1.4s
JRO Jston Ridge Ob 86.72 42 P **P** **00 51 47.0 +0.5**
PINE Pine Mountain 86.72 44 P **P** **00 51 47.1 +0.4**
PINE IAmb IAmb 00 51 51.0
comp=Z,55nm,1.1s
HOOD Mount Hood Mea 86.76 43 P **P** **00 51 47.3 +0.5**
BMAR Burnt Mountain 86.78 17 P **P** **00 51 47.2 +1.0**
NVAR Mina Array Bea 86.93 50 P **P** **00 51 48.2 +0.3**
comp=Z,19nm,1.0s,baz=234,slow=7.3,SNR=46
NVAR LR LR 01 24 16.9
comp=Z,540nm,19.3s,baz=267,slow=31
comp=Z,19nm,1.0s
NVAR Mina Array Bea 86.93 50 P **P** **00 51 47.7 -0.2**
PFO Pinyon Flats O 86.98 55 LR LR 01 24 50.1
comp=Z,365nm,18.4s,baz=234,slow=32
PFO Pinyon Flats O 86.98 55 P **P** **00 51 48.6 +0.5**
PFO pmax pmax
comp=Z,36nm,1.3s
PFO Pinyon Flats O 86.98 55 P **P** **00 51 48.6 +0.5**
PFO IAmb IAmb 00 51 50.2
comp=Z,36nm,1.3s
D05A Enumclaw 87.18 41 P **P** **00 51 49.1 +0.5**
DLBC Dease Lake 87.26 28 LR LR 01 24 47.0
comp=Z,253nm,19.1s,baz=256,slow=32
TPH Tonopah 87.64 51 P **P** **00 51 51.3 0.0**
TPH pmax pmax
comp=Z,23nm,1.2s
TPH Tonopah 87.64 51 P **P** **00 51 51.3 0.0**
TPH IAmb IAmb 00 51 53.2
comp=Z,23nm,1.2s
TPNV Topopah Spring 88.06 52 P **P** **00 51 53.5 +0.2**
TPNV pmax pmax
comp=Z,101nm,1.8s
TPNV Topopah Spring 88.06 52 P **P** **00 51 53.5 +0.2**
HAWA Hanford 88.51 42 P **P** **00 51 55.2 +0.3**
HAWA IAmb IAmb 00 51 57.1
comp=Z,41nm,1.1s
WMQ Urumqi 89.03 315 ⇓ P **P** **00 51 58.0 +0.4**
WMQ pmax pmax
comp=Z,38nm,0.9s
WMQ pmax pmax
comp=Z,210nm,4.9s
ELK Elko 89.85 48 LR LR 01 24 48.9
comp=Z,221nm,21.7s,baz=260,slow=31
ELK Elko 89.85 48 P **P** **00 52 02.0 +0.3**
ELK pmax pmax
comp=Z,51nm,1.3s
ELK Elko 89.85 48 P **P** **00 52 02.0 +0.3**
ELK IAmb IAmb 00 52 03.9
comp=Z,51nm,1.3s
LPIG La Paz 89.88 65 LR LR 01 24 24.9
comp=Z,214nm,20.8s,baz=252,slow=30
BELA Belgrano 2 89.94 176 P **P** **00 52 00.7 -0.5**
HYB Hyderabad 90.14 288 *e* P **P** **00 52 03.0 -0.3**
MFID Camas Ranch 90.15 46 P **P** **00 52 03.6 +0.7**
MFID IAmb IAmb 00 52 05.1
comp=Z,51nm,1.1s
LCMT Little Creek M 90.41 52 P **P** **00 52 05.0 +0.8**
LCMT IAmb IAmb 00 52 06.6
comp=Z,56nm,1.2s
HSIG 90.41 61 P **P** **00 52 04.2 0.0**
NEW Newport 90.64 41 LR LR 01 25 44.5
comp=Z,194nm,19.6s,baz=272,slow=31
NEW Newport 90.64 41 P **P** **00 52 04.7 -0.3**
NEW pmax pmax
comp=Z,51nm,1.4s
NEW Newport 90.64 41 P **P** **00 52 04.7 -0.3**
NEW IAmb IAmb 00 52 06.6
comp=Z,51nm,1.4s
INK Inuvik 90.68 19 LR LR 01 26 33.5
comp=Z,210nm,21.5s,baz=198,slow=32
DGZ Jazzator, Alta 90.92 321 *i* P **P** **00 52 06.4 0.0**
DGZ pmax pmax
comp=Z,30nm,1.3s
U15A North Rim 91.01 53 P **P** **00 52 07.8 +0.6**
SYO Syowa Base 91.02 197 ⇑ *e* P **P** **00 52 02.1 -4.2**
SYO Syowa Base 91.02 197 ⇓ *e* P **P** **00 52 04.4 -1.9**
HLID Hailey 91.18 46 P **P** **00 52 08.0 +0.2**
HLID IAmb IAmb 00 52 10.2
comp=Z,44nm,1.1s
TUC Tucson 91.28 57 P **P** **00 52 08.7 +0.3**
TUC pmax pmax
comp=Z,27nm,1.2s
TUC Tucson 91.28 57 P **P** **00 52 08.7 +0.3**
TUC IAmb IAmb 00 52 11.2
comp=Z,27nm,1.1s
DUG Dugway, Tooele 91.50 49 P **P** **00 52 09.6 +0.3**
DUG pmax pmax
comp=Z,56nm,1.5s
DUG Dugway, Tooele 91.50 49 P **P** **00 52 09.6 +0.3**
DUG IAmb IAmb 00 52 11.5
comp=Z,56nm,1.5s
ZSN Zaisan 91.94 318 *e* P **P** **00 52 11.2 +0.2**
ZSN pmax pmax
comp=Z,21nm,1.4s
ZSN Zaisan 91.94 318 *e* P **P** **00 52 11.3 +0.2**
comp=Z,21nm,1.4s
SMAI San Martin Ant 92.25 163 P **P** **00 52 13.0 +0.9**
ELIB Princess Elisa 92.82 191 *d* P **P** **00 52 14.6 -0.3**
comp=Z,5.1nm,1.4s
DLMT Dillon 92.88 44 P **P** **00 52 16.0 +0.4**
MK31 Makanchi Array 93.49 317 P **P** **00 52 18.1 -0.1**
MK31 pmax pmax
comp=Z,43nm,1.1s
MK31 Makanchi Array 93.49 317 P **P** **00 52 18.1 -0.1**
MK31 IAmb IAmb 00 52 19.7
comp=Z,43nm,1.1s
MKAR Makanchi Array 93.49 317 P **P** **00 52 18.4 +0.2**
comp=Z,26nm,0.8s,baz=100,slow=6.1,SNR=120
MKAR PP **PP** **00 56 02.9 +0.1**
comp=Z,3.1nm,1.0s,baz=96,slow=11,SNR=5.4
MKAR PKiKP **PKiKP** **00 57 03.6 -0.6**
comp=Z,1.0nm,0.8s,baz=90,slow=2.0,SNR=2.8
MKAR PKKP **PKKPdf** **01 09 23.8 -1.2**
comp=Z,1.7nm,0.8s,baz=291,slow=3.6,SNR=7.6
MKAR LR LR 01 35 24.6
comp=Z,46nm,19.9s,baz=70,slow=36
comp=Z,26nm,0.8s
MKAR Makanchi Array 93.49 317 *i* P **P** **00 52 18.3 +0.1**
MKAR pmax pmax
comp=Z,27nm,0.8s
BOZ Bozeman (W) 93.60 44 P **P** **00 52 19.2 +0.3**
BOZ pmax pmax
comp=Z,46nm,1.2s
BOZ Bozeman (W) 93.60 44 P **P** **00 52 19.2 +0.3**
BOZ IAmb IAmb 00 52 21.1
comp=Z,46nm,1.1s
ZAA0 Zalesovo Array 93.64 324 P **P** **00 52 17.5 -1.1**
ZAA0 IAmb IAmb 00 52 19.0
comp=Z,29nm,1.0s
ZALV Zalesovo Beam 93.64 324 P **P** **00 52 17.8 -0.8**
comp=Z,18nm,0.8s,baz=108,slow=4.8,SNR=88
ZALV LR LR 01 31 58.2
comp=Z,54nm,21.9s,baz=108,slow=34
comp=Z,18nm,0.8s
ZALV Zalesovo Beam 93.64 324 *i* P **P** **00 52 17.7 -0.9**
ZALV pmax pmax
comp=Z,18nm,0.8s
ZALV Zalesovo Beam 93.64 324 P **P** **00 52 17.5 -1.1**
MAKZ Makanchi 93.70 317 P **P** **00 52 19.0 -0.1**
MAKZ Makanchi 93.70 317 P **P** **00 52 19.0 -0.1**
YMR Madison River 93.86 45 P **P** **00 52 20.4 +0.2**
YMR IAmb IAmb 00 52 22.8
comp=Z,25nm,1.4s
PD31 Pinedale Array 94.46 47 P **P** **00 52 22.6 -0.4**
PDAR Pinedale Array 94.46 47 P **P** **00 52 23.3 +0.3**
comp=Z,9.2nm,1.1s,baz=256,slow=2.4,SNR=36
PDAR PKKP **PKKPdf** **01 09 22.6 -0.8**
comp=Z,0.4nm,0.6s,baz=101,slow=4.7,SNR=4.2
comp=Z,9.2nm,1.1s
PDAR Pinedale Array 94.46 47 P **P** **00 52 22.7 -0.3**
WUS Wushi 94.46 311 P **P** **00 52 23.1 +0.1**
WUS IAmb IAmb 00 52 24.8
comp=Z,29nm,1.1s
SHLS Shalkode 94.67 313 *e* P **P** **00 52 22.4 -1.4**
SHLS pmax pmax
comp=Z,30nm,1.4s
SHLS Shalkode 94.67 313 *e* P **P** **00 52 22.4 -1.4**
comp=Z,30nm,1.4s
PDGK Podgornoye 94.69 313 P **P** **00 52 23.3 -0.6**
PDGK Podgornoye 94.69 313 P **P** **00 52 23.3 -0.6**
A36M Sachs Harbour 94.87 17 P **P** **00 52 24.0 +0.1**
UZB Uzynbulak 94.99 313 *e* P **P** **00 52 25.2 -0.1**
UZB pmax pmax
comp=Z,19nm,1.4s
UZB Uzynbulak 94.99 313 *e* P **P** **00 52 25.3 -0.1**
comp=Z,19nm,1.4s
KPKS Kokpek 95.29 313 *e* P **P** **00 52 26.6 0.0**
KPKS Kokpek 95.29 313 *e* P **P** **00 52 26.7 0.0**
PRZ Przheval'sk 95.31 312 P **P** **00 52 27.6 +0.7**
PRZ pmax pmax
comp=Z,66nm,1.5s
PRZ Przheval'sk 95.31 312 P **P** **00 52 27.6 +0.7**
ANMO Albuquerque 95.35 56 LR LR 01 27 39.5
comp=Z,201nm,20.5s,baz=270,slow=31
ANMO Albuquerque 95.35 56 P **P** **00 52 26.9 -0.3**
ANMO pmax pmax
comp=Z,8.0nm,1.2s
ANMO Albuquerque 95.35 56 P **P** **00 52 26.9 -0.3**
SATY Saty 95.42 313 *e* P **P** **00 52 27.2 0.0**
SATY Saty 95.42 313 *e* P **P** **00 52 27.2 0.0**
TROLL Troll, Antarti 95.73 185 ⇓ P **P** **00 52 28.1 -0.1**
comp=Z,695nm,1.0s
TDK Taldyqorghan 95.77 315 *e* P **P** **00 52 28.8 +0.1**
TDK pmax pmax
comp=Z,12nm,0.6s
TDK Taldyqorghan 95.77 315 *e* P **P** **00 52 28.8 +0.1**
comp=Z,12nm,0.6s
NVL N'lazarevskaya 95.78 189 *e* P **P** **00 52 27.1 -1.1**
NVL pmax pmax
comp=Z,5.0nm,0.8s
YKA Yellowknife Ar 95.81 27 P **P** **00 52 27.6 -0.8**
comp=Z,9.4nm,0.8s,baz=258,slow=4.6,SNR=27
YKA LR LR 01 30 24.6
comp=Z,206nm,18.4s,baz=263,slow=32
comp=Z,9.4nm,0.8s
YKA Yellowknife Ar 95.81 27 P **P** **00 52 27.4 -1.0**
KDJ Kajisay 96.14 312 P **P** **00 52 30.2 -0.4**
KDJ pmax pmax
comp=Z,18nm,1.1s
KDJ Kajisay 96.14 312 P **P** **00 52 30.2 -0.4**
KDJ IAmb IAmb 00 52 32.1
comp=Z,18nm,1.1s
MDOK Medeo 96.41 313 *e* P **P** **00 52 31.7 -0.1**
MDOK Medeo 96.41 313 *e* P **P** **00 52 31.7 -0.1**
NRIK Noril'sk 96.44 340 P **P** **00 52 29.9 -1.2**
comp=Z,7.6nm,0.9s,baz=102,slow=3.0,SNR=9.0
NRIK LR LR 01 38 05.2
comp=Z,86nm,18.8s,baz=113,slow=37
comp=Z,7.6nm,0.9s
NRIK Noril'sk 96.44 340 *i* P **P** **00 52 30.1 -1.0**
NRIK pmax pmax
comp=Z,7.0nm,0.9s
NRIK Noril'sk 96.44 340 P **P** **00 52 30.2 -0.9**
NRIK IAmb IAmb 00 52 31.6
comp=Z,33nm,1.4s
TNSS Tian-Shan 96.46 312 *e* P **P** **00 52 31.9 -0.5**
TNSS Tian-Shan 96.46 312 *e* P **P** **00 52 31.9 -0.5**
SNAA Sanae 96.48 184 ⇓ P **P** **00 52 31.2 -0.4**
comp=Z,183nm,1.0s
SNAA Sanae 96.48 184 P **P** **00 52 30.9 -0.6**
comp=Z,7.6nm,0.9s,baz=190,slow=6.9,SNR=8.7
SNAA LR LR 01 34 25.6
comp=Z,288nm,19.2s,baz=188,slow=34
comp=Z,7.6nm,0.9s
SNAA Sanae 96.48 184 *ce* P **P** **00 52 31.4 -0.1**
SNAA pmax pmax
comp=Z,7.0nm,0.9s
SNAA Sanae 96.48 184 P **P** **00 52 30.6 -0.9**
SNAA IAmb IAmb 00 52 32.2
comp=Z,18nm,1.3s
AAA Alma-Ata 96.52 313 *e* P **P** **00 52 32.2 0.0**
AAA Alma-Ata 96.52 313 *e* P **P** **00 52 32.2 0.0**
KURK Kurchatov 96.66 320 *ce* P **P** **00 52 32.2 -0.3**
KURK pmax pmax
comp=Z,8.0nm,1.0s
KURK Kurchatov 96.66 320 P **P** **00 52 31.4 -1.1**
KURBB Kurchatov Arra 96.70 320 P **P** **00 52 31.8 -0.9**
comp=Z,2.4nm,0.9s,baz=95,slow=3.7,SNR=15
KURBB PP **PP** **00 56 28.0 +0.4**
comp=Z,2.6nm,0.9s,baz=101,slow=7.7,SNR=6.1
KURBB LR LR 01 34 33.2
comp=Z,98nm,21.8s,baz=166,slow=34
comp=Z,2.4nm,0.9s
TXAR Lajitas Array 96.71 62 P **P** **00 52 33.6 +0.1**
comp=Z,1.4nm,0.8s,baz=220,slow=6.2,SNR=11
TXAR PKKP **PKKPbc** **01 09 16.7 -0.2**
comp=Z,0.3nm,0.7s,baz=112,slow=3.1,SNR=4.3
TXAR LR LR 01 28 19.8
comp=Z,410nm,20.4s,baz=235,slow=31
comp=Z,1.4nm,0.8s
TXAR Lajitas Array 96.71 62 P **P** **00 52 33.0 -0.5**
KSH2 Kashi 96.84 308 P **P** **00 52 34.7 +0.8**
KSH2 pmax pmax
comp=Z,7.0nm,1.0s
VNA3 Neumayer Olymp 97.23 182 P **P** **00 52 34.0 -0.8**
comp=Z,3.4nm,0.7s
VNA2 Neumayer--Watz 97.47 182 P **P** **00 52 35.6 -0.3**
comp=Z,4.8nm,0.8s,baz=166,slow=4.0
LAO LASA Array 97.50 44 P Pdif 00 52 36.7 +0.1
LAO IAmb IAmb 00 52 38.9
comp=Z,28nm,1.1s
VNA1 Neumayer--Stat 97.78 182 P **P** **00 52 35.8 -1.4**
comp=Z,6.6nm,1.2s
NIL Nilore 97.83 303 P **P** **00 52 37.0 -1.3**
NIL pmax pmax
comp=Z,33nm,1.7s
NIL Nilore 97.83 303 P **P** **00 52 37.0 -1.3**
NIL IAmb IAmb 00 52 39.1
comp=Z,33nm,1.6s
AAK Ala-Archa 98.18 312 LR LR 01 38 37.8
comp=Z,38nm,19.3s,baz=130,slow=36
AAK Ala-Archa 98.18 312 *ce* P Pdif 00 52 40.2 +0.3
AAK pmax pmax
comp=Z,6.0nm,1.2s
AAK Ala-Archa 98.18 312 P **P** **00 52 39.3 -0.5**
DZA Taraz 100.53 312 *e* P **Pdif** **00 52 50.0 -0.1**
DZA Taraz 100.53 312 *e* P **Pdif** **00 52 50.1 -0.1**
IUG Iuzhnay 101.41 311 *e* P **Pdif** **00 52 54.2 0.0**
IUG Iuzhnay 101.41 311 *e* P **Pdif** **00 52 54.2 0.0**
BRLS Borolday 101.63 312 *e* P **Pdif** **00 52 55.0 0.0**
BRLS Borolday 101.63 312 *e* P **Pdif** **00 52 55.1 0.0**
BVAR Borovoye Array 102.00 322 P **Pdif** **00 52 54.8 -1.6**
comp=Z,4.0nm,0.8s,baz=101,slow=4.7,SNR=14
BVAR PP **PP** **00 57 06.5 -1.4**
comp=Z,4.5nm,1.2s,baz=83,slow=4.6,SNR=4.4
BORK Borovoye 102.04 322 *i* P **Pdif** **00 52 55.7 -0.9**
BORK pmax pmax
comp=Z,7.0nm,1.2s
PLCA Paso Flores 106.88 139 PKKPbc PKKPbc 01 08 47.9 +0.4
comp=Z,1.0nm,0.7s,baz=62,slow=6.7,SNR=2.9
APA Apatity 115.78 341 *e* PKIKP **PKiKP** **00 57 42.8 -1.6**
APA pmax pmax
comp=Z,11nm,1.3s
APA MLR MLR
comp=Z,2μm,4.4s
ARCES ARCESS Array B 116.74 345 PKP **PKPdf** **00 57 45.6 -0.6**
comp=Z,4.8nm,0.6s,baz=51,slow=1.0,SNR=13
ARCES ARCESS Array B 116.74 345 PKIKP **PKPdf** **00 57 46.0 -0.2**
ARCES ARCESS Array B 116.74 345 **PKPdf** **00 57 46.0 -0.2**
MOS Moscow 120.14 329 *i* PKIKP **PKPdf** **00 57 52.5 -0.6**
MOS *e* 00 59 17.4
MOS pmax pmax
comp=Z,24nm,0.9s
LPAZ La Paz 120.53 117 PKP **PKiKP** **00 57 56.4 +0.4**
comp=Z,3.2nm,0.7s,baz=263,slow=3.2,SNR=9.5
LPAZ La Paz 120.53 117 **PKPdf** **00 57 55.2 -0.7**
OBN Obninsk 120.95 328 *e* PKIKP **PKiKP** **00 57 55.1 +0.3**
OBN *e* 00 59 24.0
OBN *e* SSS SSS 01 20 18.5
OBN pmax pmax
comp=Z,11nm,1.3s
KBZ Khabaz 121.07 314 PKP **PKiKP** **00 57 56.0 +0.6**
comp=Z,2.5nm,0.9s,baz=99,slow=6.1,SNR=3.7
KBZ Khabaz 121.07 314 PKIKP **PKiKP** **00 57 56.0 +0.6**
RAYN Ar Rayn 121.53 290 PKIKP **PKPdf** **00 57 56.7 -0.1**
RAYN Ar Rayn 121.53 290 **PKPdf** **00 57 56.7 -0.1**
FINES FINESS Array B 122.07 338 PKP **PKPdf** **00 57 56.5 -0.1**
comp=Z,6.9nm,0.9s,baz=11,slow=3.9,SNR=10
FINES FINESS Array B 122.07 338 **PKPdf** **00 57 56.4 -0.3**

ERBR	**Yeremizino-Bor**	**122.17**	**317**	*i* PKIKP	**PKPdf**	**00 57 56.7**	**-0.7**
ERBR				pmax	pmax		
	comp=Z,17nm,0.9s						
CPUP	**Villa Florida**	**124.13**	**133**	PKP	**PKPdf**	**00 58 01.6**	**-0.1**
	comp=Z,6.9nm,0.9s,baz=231,slow=1.4,SNR=22						
CPSB	**Cacapava Do Su**	**124.16**	**139**		**PKPdf**	**00 58 01.3**	**-0.4**
BOSA	**Boshof**	**124.22**	**223**	PKP	**PKiKP**	**00 58 02.2**	**-0.1**
	comp=Z,6.5nm,0.7s,baz=142,slow=1.9,SNR=14						
BOSA				PKKPbc	**PKKPbc**	**01 07 44.8**	**-1.9**
	comp=Z,4.9nm,1.0s,baz=334,slow=4.4,SNR=4.6						
MNK	**Minsk**	**125.58**	**331**	*i* PKIKP	**PKPdf**	**00 58 03.3**	**-0.3**
MNK				*i*		00 59 55.1	
MNK				*i* PPP	PPP	01 02 35.8	
MNK				*i*		01 05 11.2	
MNK				*i* PS	**PS**	**01 09 56.2**	**-0.5**
MNK				*i* SS	SS	01 16 56.3	+3.1
MNK				*i* SSS	SSS	01 21 34.5	
MNK				pmax	pmax		
	comp=N,5.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,13nm,0.9s						
MNK				pmax	pmax		
	comp=Z,19nm,0.8s						
MNK	**Minsk**	**125.58**	**331**	*i* PKP	**PKPdf**	**00 58 03.3**	**-0.3**
	comp=E,13nm,0.9s						
MNK				*i* PKP	**PKPdf**	**00 58 03.3**	**-0.3**
	comp=N,5.0nm,0.7s						
MNK				*i* PKP	**PKPdf**	**00 58 03.3**	**-0.3**
	comp=Z,19nm,0.8s,baz=55						
MNK				*i* PP	**PP**	**00 59 55.1**	**+0.4**
MNK				*i* PPP	PPP	01 02 35.8	
MNK				*i* SKS	**SKSac**	**01 05 11.3**	**+3.7**
MNK				*i* PS	**PS**	**01 09 56.2**	**-0.5**
MNK				*i* SKKS	**SKKSdf**	**01 15 37.0**	**-0.5**
MNK				*i* SS	**SS**	**01 16 56.3**	**+3.1**
MNK				*i* SSS	SSS	01 21 34.5	
GAZ	**Gaziantep**	**126.92**	**308**		**PKPdf**	**00 58 06.3**	**-0.5**
AKASG	**Malin Array Be**	**126.98**	**326**	PKP	**PKPdf**	**00 58 06.5**	**+0.1**
	comp=Z,8.7nm,1.1s,baz=61,slow=1.9,SNR=12						
AKASG				PP	**PP**	**01 00 03.4**	**-0.8**
	comp=Z,0.3nm,0.4s,baz=47,slow=7.9,SNR=4.0						
AKBB	**Malin Array Si**	**126.98**	**326**	*i* PKIKP	**PKPdf**	**00 58 05.6**	**-0.8**
KIEV	**Kiev**	**126.99**	**326**	PKIKP	**PKPdf**	**00 58 06.0**	**-0.4**
KIEV	**Kiev**	**126.99**	**326**		**PKPdf**	**00 58 06.0**	**-0.4**
NB2	**NORSAR Subarra**	**127.09**	**344**	PKPdf	**PKPdf**	**00 58 06.0**	**-0.4**
	comp=Z,1.7nm,0.7s,baz=31,slow=1.9						
NOA	**NORSAR Array B**	**127.09**	**344**	PKP	**PKPdf**	**00 58 06.4**	**0.0**
	comp=Z,3.6nm,0.8s,baz=33,slow=2.0,SNR=16						
HFS	**Hagfors**	**127.15**	**342**	PKP	**PKPdf**	**00 58 06.4**	**0.0**
	comp=Z,3.6nm,0.8s,baz=195,slow=4.6,SNR=5.0						
NORES	**NORESS Array B**	**127.26**	**344**	PKIKP	**PKiKP**	**00 58 07.0**	**-0.2**
NORES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BNN	**Bunyan**	**127.50**	**310**		**PKPdf**	**00 58 08.0**	**0.0**
KDWAN	**Kaudwane**	**127.91**	**228**	PKPdf	**PKiKP**	**00 58 09.8**	**0.0**
ASF	**Jabal al Asfar**	**128.28**	**302**	P	**PKiKP**	**00 58 11.5**	**+1.3**
ILGA	**Ilgaz**	**128.35**	**314**		**PKPdf**	**00 58 09.8**	**+0.2**
PTLB	**Pontes e Lacer**	**128.64**	**121**		**PKPdf**	**00 58 10.3**	**-0.3**
AQDB	**Aquidauana**	**128.77**	**128**		**PKPdf**	**00 58 10.5**	**-0.2**
BR131	**Keskin Array S**	**128.86**	**312**	PKIKP	**PKPdf**	**00 58 10.1**	**-0.4**
BR131	**Keskin Array S**	**128.86**	**312**		**PKPdf**	**00 58 10.1**	**-0.4**
BRTR	**Keskin Array B**	**128.86**	**312**	PKP	**PKPdf**	**00 58 10.7**	**+0.1**
	comp=Z,6.8nm,1.1s,baz=128,slow=2.0,SNR=17						
BRTR				PP	**PP**	**01 00 16.2**	**-1.1**
	comp=Z,3.1nm,1.1s,baz=55,slow=6.8,SNR=6.0						
BRTR	**Keskin Array B**	**128.86**	**312**		**PKPdf**	**00 58 10.2**	**-0.4**
VILB	**Vilhena**	**128.88**	**117**		**PKPdf**	**00 58 11.1**	**-0.1**
GEM	**Giv'at Ha'Em**	**129.09**	**303**	P	**PKiKP**	**00 58 13.8**	**+2.1**
MMAI	**Mount Meron Ar**	**129.34**	**303**	PKP	**PKPdf**	**00 58 11.4**	**-0.1**
	comp=Z,4.0nm,0.8s,baz=4.5,slow=12,SNR=4.4						
QRNJ	**Al-Qirein**	**129.34**	**302**	P	**PKiKP**	**00 58 14.3**	**+2.2**
PRNI	**Paran**	**130.22**	**300**	P	**PKiKP**	**00 58 15.7**	**+1.6**
HRFI	**Mount Harif**	**130.25**	**300**	P	**PKiKP**	**00 58 15.6**	**+1.5**
EIL	**Elat**	**130.39**	**299**	P	**PKiKP**	**00 58 15.6**	**+1.2**
HUMP	**Col San Antoni**	**130.51**	**76**		**PKPdf**	**00 58 13.9**	**-0.1**
KZIT	**Kziot**	**130.62**	**301**	P	**PKiKP**	**00 58 15.5**	**+0.7**
GRTLG	**Ghanzi**	**131.65**	**227**		**PKPdf**	**00 58 15.6**	**-0.8**
KOLS	**Kolonicke sedl**	**131.69**	**328**	*e*PKIKP	**PKiKP**	**00 58 17.3**	**+0.8**
KOLS	**Kolonicke sedl**	**131.69**	**328**	*e*PKP	**PKiKP**	**00 58 17.3**	**+0.8**
LANS	**Liptovska Anna**	**132.99**	**330**	*e*PKIKP	**PKiKP**	**00 58 20.2**	**+1.1**
LANS	**Liptovska Anna**	**132.99**	**330**	*e*PKP	**PKiKP**	**00 58 20.2**	**+1.1**
STEB	**Steborice**	**133.28**	**331**	*e*PKPDF	**PKPdf**	**00 58 18.9**	**+0.5**
MORC	**Moravsky Berou**	**133.50**	**331**	*e*PKP	**PKiKP**	**00 58 19.7**	**-0.4**
OSTC	**Ostas**	**133.56**	**333**	*e*PKIKP	**PKPdf**	**00 58 18.8**	**-0.1**
OSTC	**Ostas**	**133.56**	**333**	*e*PKPDF	**PKPdf**	**00 58 18.8**	**-0.1**
CHVC	**Chvalec**	**133.61**	**333**	*e*PKIKP	**PKPdf**	**00 58 18.9**	**-0.1**
CHVC	**Chvalec**	**133.61**	**333**	*e*PKPDF	**PKPdf**	**00 58 18.9**	**-0.1**
DPC	**Dobruska-Polom**	**133.66**	**333**	*e*PKIKP	**PKiKP**	**00 58 19.8**	**-0.6**
DPC	**Dobruska-Polom**	**133.66**	**333**	*e*PKPDF	**PKiKP**	**00 58 19.8**	**-0.6**
UPC	**Upice**	**133.69**	**333**	*e*PKIKP	**PKPdf**	**00 58 19.3**	**+0.1**
UPC	**Upice**	**133.69**	**333**	*e*PKPDF	**PKPdf**	**00 58 19.3**	**+0.1**
JAVC	**Velka Javorina**	**134.07**	**330**	*e*PKP	**PKiKP**	**00 58 21.8**	**+0.5**
VRAC	**Vranov**	**134.27**	**331**	*e*PKP	**PKPdf**	**00 58 20.9**	**+0.6**
PVCC	**Panska Ves**	**134.30**	**334**	*e*PKIKP	**PKiKP**	**00 58 21.2**	**-0.5**
PVCC	**Panska Ves**	**134.30**	**334**	*e*PKPDF	**PKiKP**	**00 58 21.2**	**-0.5**
CLL	**Collm**	**134.37**	**336**	*i* PKIKP	**PKiKP**	**00 58 21.2**	**-0.6**
CLL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CLL	**Collm**	**134.37**	**336**	*i* PKPdf	**PKiKP**	**00 58 21.2**	**-0.6**
	comp=Z,7.0nm,0.9s						
CLL				*e*PP	**PP**	**01 00 50.0**	**-1.7**
CLL				L	L	01 41 00.0	
CLL				AMS	AMS	02 01 00.0	
	comp=Z,200nm,16.7s						
KRUC	**Moravsky**	**134.54**	**331**	*e*PKP	**PKPdf**	**00 58 21.4**	**+0.6**
MODS	**Modra-Piesok**	**134.59**	**330**	*e*PKIKP	**PKiKP**	**00 58 22.9**	**+0.6**
MODS	**Modra-Piesok**	**134.59**	**330**	*e*PKP	**PKiKP**	**00 58 22.9**	**+0.6**
PRU	**Pruhonice**	**134.71**	**333**	*e*PKIKP	**PKPdf**	**00 58 21.5**	**+0.4**
PRU	**Pruhonice**	**134.71**	**333**	*e*PKPDF	**PKPdf**	**00 58 21.5**	**+0.4**
TREC	**Trest**	**134.79**	**332**	*e*PKIKP	**PKPdf**	**00 58 21.9**	**+0.6**
TREC	**Trest**	**134.79**	**332**	*e*PKPDF	**PKPdf**	**00 58 21.9**	**+0.6**
ABNA	**Allensteig Bun**	**135.26**	**332**	*e*PKP	**PKiKP**	**00 58 23.3**	**-0.4**
	comp=Z,3.4nm,0.8s						
ZVC	**Zvikov**	**135.27**	**333**	*e*PKPDF	**PKPdf**	**00 58 22.7**	**+0.5**
WINA	**Alland / Wiene**	**135.36**	**331**	*e*PKP	**PKiKP**	**00 58 23.4**	**-0.5**
	comp=Z,8.5nm,0.9s						
NKC	**Novy Kostel**	**135.42**	**335**	*e*PKIKP	**PKiKP**	**00 58 24.9**	**+0.9**
NKC	**Novy Kostel**	**135.42**	**335**	*e*PKPDF	**PKiKP**	**00 58 24.9**	**+0.9**
EKA	**Eskdalemuir Ar**	**135.44**	**350**	PKP	**PKPdf**	**00 58 21.1**	**-1.1**
	comp=Z,2.5nm,0.8s,baz=0.0,slow=2.7,SNR=4.9						
RONA	**Rosalia, Austr**	**135.53**	**330**	*e*PKP	**PKPdf**	**00 58 23.5**	**+0.7**
	comp=Z,4.2nm,0.7s						
CONA	**Conrad Observa**	**135.58**	**331**	*e*PKP	**PKPdf**	**00 58 23.6**	**+0.7**
	comp=Z,4.5nm,0.9s						
CKRC	**Cesky Krumlov**	**135.67**	**332**	*e*PKIKP	**PKPdf**	**00 58 21.2**	**-1.8**
CKRC	**Cesky Krumlov**	**135.67**	**332**	*e*PKPDF	**PKPdf**	**00 58 21.2**	**-1.8**
KHC	**Kasperske Hory**	**135.77**	**333**	*e*PKIKP	**PKPdf**	**00 58 23.8**	**+0.6**
KHC	**Kasperske Hory**	**135.77**	**333**	*e*PKPDF	**PKPdf**	**00 58 23.8**	**+0.6**
GERES	**GERESS Array B**	**135.93**	**333**	PKhKP	PKPpre	00 58 12.2	
	comp=Z,0.6nm,0.8s,baz=107,slow=1.4,SNR=6.4						
GERES				PKP	**PKPdf**	**00 58 23.6**	**+0.1**
	comp=Z,3.0nm,0.8s,baz=74,slow=1.2,SNR=15						
GERES				PP	**PP**	**01 01 03.5**	**+1.7**
	comp=Z,0.3nm,0.4s,baz=45,slow=6.4,SNR=5.0						
GERES				PKKP	**PKKPdf**	**01 08 02.9**	**-2.1**
	comp=Z,0.2nm,0.7s,baz=245,slow=4.2,SNR=4.0						
GERES	**GERESS Array B**	**135.93**	**333**		**PKPdf**	**00 58 22.6**	**-1.0**
MOA	**Molln**	**136.40**	**332**	*e*PKP	**PKPdf**	**00 58 24.5**	**+0.2**
	comp=Z,4.1nm,0.8s						
SESA	**Seetaler Alpe,**	**136.78**	**331**	*e*PKP	**PKPdf**	**00 58 24.0**	**-1.3**
	comp=Z,5.4nm,0.9s						
SOKA	**Soboth**	**136.86**	**330**	*e*PKP	**PKPdf**	**00 58 25.6**	**+0.3**
	comp=Z,6.1nm,0.9s						
OBKA	**Obir**	**137.22**	**330**	*e*PKP	**PKPdf**	**00 58 25.3**	**-0.7**
	comp=Z,4.9nm,1.9s						
BMOL	**Mol**	**137.29**	**341**	*d*PKP	**PKPdf**	**00 58 26.5**	**+0.7**
KBA	**Koelnbreinsper**	**137.39**	**331**	*e*PKP	**PKPdf**	**00 58 25.1**	**-1.3**
	comp=Z,6.1nm,1.0s						
LESA	**Schwarzleotal**	**137.44**	**332**	*e*PKP	**PKPdf**	**00 58 25.4**	**-1.0**
	comp=Z,5.3nm,0.7s						
BDFB	**Brasilia**	**137.50**	**129**	PKP	**PKPdf**	**00 58 28.1**	**+0.6**
	comp=Z,9.4nm,0.9s,baz=174,slow=2.7,SNR=13						
MEM	**Membach**	**137.51**	**340**	*d*PKP	**PKiKP**	**00 58 28.5**	**+0.3**
STU	**Stuttgart**	**137.88**	**336**	PKIKP	**PKPdf**	**00 58 27.5**	**+0.5**
STU	**Stuttgart**	**137.88**	**336**		**PKPdf**	**00 58 27.5**	**+0.5**
BCLA	**Clavier**	**137.91**	**341**	*d*PKPdf	**PKPdf**	**00 58 27.4**	**+0.4**
WATA	**Walderalm**	**138.00**	**333**	*e*PKP	**PKPdf**	**00 58 27.7**	**+0.2**
	comp=Z,5.7nm,0.9s						
ABTA	**Abfaltersbach**	**138.02**	**332**	*e*PKP	**PKPdf**	**00 58 27.1**	**-0.3**
	comp=Z,7.7nm,0.9s						
WTTA	**Wattenberg**	**138.03**	**333**	*e*PKP	**PKPdf**	**00 58 28.0**	**+0.4**
	comp=Z,9.3nm,0.9s						
BSKQ	**Steenkerk**	**138.09**	**342**	*d*PKPdf	**PKPdf**	**00 58 28.0**	**+0.7**
BMRD	**Maredsous**	**138.18**	**341**	*d*PKPdf	**PKPdf**	**00 58 28.1**	**+0.6**
MOTA	**Moosalm**	**138.21**	**333**	*e*PKP	**PKPdf**	**00 58 27.1**	**-0.8**
	comp=Z,8.1nm,1.0s						
RETA	**Reutte**	**138.25**	**334**	*e*PKP	**PKPdf**	**00 58 28.1**	**+0.2**
	comp=Z,7.9nm,1.3s						
SQTA	**Sankt Quirin**	**138.25**	**333**	*e*PKP	**PKPdf**	**00 58 28.8**	**+0.9**
	comp=Z,6.6nm,1.0s						
WLF	**Walferdange**	**138.27**	**339**	*d*PKP	**PKPdf**	**00 58 28.2**	**+0.5**
STAL	**STALIGIAL**	**138.28**	**331**		**PKPdf**	**00 58 27.4**	**-0.5**
DOU	**Dourbes**	**138.42**	**341**	*d*PKPdf	**PKPdf**	**00 58 28.0**	**0.0**
FETA	**Feichten**	**138.62**	**333**	*e*PKP	**PKPdf**	**00 58 29.4**	**+0.7**
	comp=Z,9.2nm,0.9s						
DAVA	**Damuels**	**138.78**	**334**	*e*PKP	**PKPdf**	**00 58 28.1**	**-0.9**
	comp=Z,6.5nm,0.9s						
FUORN	**Ofenpass-Fuorn**	**139.13**	**333**		**PKPdf**	**00 58 29.5**	**-0.2**
VSL	**Villasalto**	**144.86**	**326**		PKPbc	00 58 38.9	0.0
KEST	**Kesra**	**147.47**	**322**	PKPbc	**PKPbc**	**00 58 47.8**	**+0.8**
	comp=Z,59nm,0.9s,baz=328,slow=1.7,SNR=65						
CKFL	**Kef-Lekhel**	**148.54**	**325**	P	**PKPbc**	**00 58 50.6**	**+0.7**
CASM	**Ain Smara**	**148.77**	**325**	P	**PKiKP**	**00 58 51.3**	**-0.5**
DFRA	**Djebel Bou Aff**	**148.90**	**326**	P	**PKiKP**	**00 58 52.2**	**0.0**
COAT	**Oued Athmania**	**148.90**	**325**	P	**PKPdf**	**00 58 47.5**	**+0.7**
PBRG	**Braganca**	**149.10**	**348**	*e*PKPbc	**PKiKP**	**00 58 51.8**	**-0.5**
PGAV	**Gavieira, Arco**	**149.23**	**350**	*e*PKPbc	**PKPbc**	**00 58 51.6**	**+0.1**
CTGD	**Timgad**	**149.27**	**324**	P	**PKPdf**	**00 58 47.5**	**0.0**
CJSR	**Ain Djasser**	**149.36**	**325**	P	**PKPbc**	**00 58 52.0**	**+0.1**
POLO	**Lamas de Olo**	**149.72**	**349**	*e*PKPbc	**PKiKP**	**00 58 53.5**	**-0.2**
PVRL	**Vila Real**	**149.81**	**349**	*e*PKPbc	**PKiKP**	**00 58 53.6**	**-0.1**
PTO	**Porto**	**150.09**	**350**	*e*PKPbc	**PKiKP**	**00 58 54.3**	**0.0**
PVIS	**Viseu**	**150.38**	**349**	*e*PKPbc	**PKiKP**	**00 58 54.6**	**-0.4**
ESDC	**Sonseca Array**	**150.43**	**343**	PKPbc	**PKiKP**	**00 58 54.9**	**-0.3**
	comp=Z,4.1nm,1.1s,baz=297,slow=13,SNR=28						
ESDC				PP	**PP**	**01 02 28.4**	**-0.4**
	comp=Z,2.2nm,1.1s,baz=16,slow=6.1,SNR=4.8						
MTE	**Manteigas**	**150.62**	**348**	*e*PKPbc	**PKiKP**	**00 58 56.0**	**+0.4**
PCBR	**Castelo Branco**	**150.85**	**348**	*e*PKPbc	**PKiKP**	**00 58 56.5**	**0.0**
PSARD	**Sardoal**	**151.51**	**349**	*e*PKPbc	**PKiKP**	**00 58 57.5**	**+0.2**
PMRV	**Marv??o**	**151.52**	**348**	*e*PKPbc	**PKiKP**	**00 58 57.4**	**0.0**
PSBE	**So Bento**	**151.71**	**350**	*e*PKPbc	**PKiKP**	**00 58 58.1**	**+0.4**
PMTG	**Montargil**	**152.04**	**349**	*e*PKPbc	**PKiKP**	**00 58 58.2**	**-0.1**
PESTR	**Estremoz**	**152.10**	**348**	*e*PKPbc	**PKiKP**	**00 58 59.0**	**+0.4**
EVO	**Evora**	**152.51**	**348**	*e*PKPbc	**PKiKP**	**00 58 59.7**	**+0.3**
PBAR	**Barrancos**	**152.65**	**346**	*e*PKPdf	**PKPdf**	**00 58 52.6**	**+0.1**
PBAR				*e*PKPbc	**PKiKP**	**00 58 60.0**	**+0.3**
PBEJ	**Beja**	**152.97**	**348**	*e*PKPbc	**PKiKP**	**00 59 01.3**	**+0.9**
PLOUS	**Minas do Lousa**	**153.08**	**349**	*e*PKPdf	**PKPdf**	**00 58 54.4**	**+1.3**
PLOUS				*e*PKPbc	**PKiKP**	**00 59 01.4**	**+0.8**
MESJ	**Messejana**	**153.22**	**348**	*e*PKPbc	**PKPbc**	**00 59 00.6**	**-0.1**
PCVE	**Castro Verde**	**153.39**	**348**	*e*PKPdf	**PKPdf**	**00 58 54.5**	**+0.9**
PCVE				*e*PKPbc	**PKiKP**	**00 59 01.9**	**+0.7**
PTEO	**Sao Teotonio**	**153.61**	**349**	*e*PKPdf	**PKPdf**	**00 58 54.9**	**+1.1**
PTEO				*e*PKPbc	**PKiKP**	**00 59 02.3**	**+0.7**
MD01	**Midelt array s**	**156.89**	**338**		**PKPdf**	**00 58 58.2**	**-0.4**
TAM	**Tamanrasset**	**157.55**	**302**	PKIKP	**PKPdf**	**00 58 59.8**	**0.0**
TAM	**Tamanrasset**	**157.55**	**302**	PKPdf	**PKPdf**	**00 58 59.8**	**0.0**
PMOZ	**Porto Moniz, M**	**158.82**	**5**	*e*PKPdf	**PKPdf**	**00 59 02.4**	**+1.5**
PMAR	**Madeira**	**158.94**	**5**	*e*PKPab	**PKPab**	**00 59 39.0**	**+1.8**
TORD	**Torodi Ar. Bea**	**163.67**	**277**	PKP	**PKPdf**	**00 59 06.4**	**0.0**
	comp=Z,9.8nm,1.0s,baz=25,slow=1.0,SNR=32						
TORD				PKPab	**PKPab**	**00 59 58.3**	**-0.1**
	comp=Z,9.2nm,1.0s,baz=76,slow=6.3,SNR=10						
TORD				PP	**PP**	**01 03 45.3**	**+1.2**
	comp=Z,2.1nm,1.2s,baz=101,slow=12,SNR=3.6						
TORD	**Torodi Ar. Bea**	**163.67**	**277**		**PKPdf**	**00 59 05.2**	**-1.2**
DBIC	**Dimbokro**	**168.88**	**244**	PKP	**PKPdf**	**00 59 09.8**	**-0.7**
	comp=Z,6.6nm,1.0s,baz=132,slow=2.3,SNR=4.6						
DBIC				PKPab	**PKPab**	**01 00 22.3**	**+1.0**
	comp=Z,3.4nm,0.7s,baz=121,slow=9.5,SNR=2.5						

*SFS **08** 00:43:01.4, 35°.82N×2°.90W, h22km, ML1.7/5, ML2.0/5, MLv2.1/5*

*CNRM **08** 00:43:11.9, 34°.86N×3°.29W, h10km*

MDD 08 00:43:00.7±0.5, 35°.87N×2°.78W, h2km±5km, mb_Lg1.8/9, Error ellipse: s-maj=6.4km s-min=3.1km az=101.0, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMELI	**Melilla**	**0.57**	**195**	Pg	Pg	00 43 10.4	-1.1
WMELI				Sg	Sg	00 43 18.4	-0.4
EMLI	**Melilla**	**0.58**	**194**	Pg	Pg	00 43 12.1	+0.3
EMLI				Sg	Sg	00 43 18.6	-0.8
EMEL	**Melilla**	**0.58**	**195**	Pg	Pg	00 43 11.9	+0.1
EMEL				Pg	Pb	00 43 11.9	-1.6
EMEL				Sg	Sg	00 43 19.1	-0.3
EMEL				Sg	Sb	00 43 19.3	-3.0
EXEJI	**El Ejido**	**0.91**	**358**	Sg	Sg	00 43 30.0	+0.2
EBER	**Berja**	**1.03**	**355**	Pg	Pb	00 43 21.1	-0.3
EBER				Sg	Sb	00 43 34.9	-0.6
EBER	**Berja**	**1.03**	**355**	Pn	Pg	00 43 20.7	+0.2
EBER				Sn	Sb	00 43 35.3	-0.2
EBER				IVmb_Lg		00 43 38.5	
PALE	**Palemas**	**1.15**	**236**	P	Pn	00 43 24.1	+0.4
PALE				S	Sg	00 43 34.1	-3.5
ENIJ	**Nijar**	**1.20**	**22**	Pn	Pg	00 43 21.9	-1.6
ENIJ				Sn	Sg	00 43 39.3	+0.2
ENIJ				IVmb_Lg		00 43 39.5	
ELGU	**Los Guajares,**	**1.21**	**326**	Pg	Pg	00 43 22.3	-1.6
ELGU				Sg	Sg	00 43 38.7	-0.9
ELGU	**Los Guajares,**	**1.21**	**326**	Pn	Pg	00 43 23.5	-0.4
ELGU				Sn	Sb	00 43 40.1	-0.4
ELGU				IVmb_Lg		00 43 43.8	
JBK	**JBK**	**1.54**	**174**	P	Pn	00 43 27.1	-2.1
JBK				S	Sn	00 43 37.3	-13
AKLM	**AKL**	**1.62**	**214**	P	Pn	00 43 23.2	-7.1
AKLM				S	Sn	00 43 33.2	-19
EMIJ	**Mijas**	**1.76**	**294**	Pn	Pn	00 43 30.9	-1.2
EMIJ				Sn	Sn	00 43 53.7	-1.4
EMIJ				IVmb_Lg		00 43 56.4	
EQES	**Quesada**	**1.95**	**353**	Pn	Pn	00 43 33.5	-1.4
EQES				Pg	Pb	00 43 35.6	-1.3
EQES				Sn	Sn	00 43 57.2	-2.7
EQES				IVmb_Lg		00 44 01.1	
EQES				Sg	Sg	00 44 02.6	-0.7

*IDC **08** 01:00:56.9±3.3, 20°.72S×178°.15W, h549km±23km, mb3.0/4, mbtmp4.0/6, Error ellipse: s-maj=80.2km s-min=20.5km az=145.0*

ISC 08 01:00:57.6±1.3, 20°.5S±0°.2×178°.3W±0°.2, h550km, n10, σ0§99/12, mb3.5/4, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.39**	**308**	P	**P**	**01 02 24.4**	**+1.8**
	3.7nm,0.6s,baz=190,slow=21,SNR=4.9						
MSVF				S	**S**	**01 03 30.1**	**-1.7**
	3.0nm,0.2s,baz=254,slow=23,SNR=6.9						
AFI	**Afiamalu**	**9.05**	**45**	P	**P**	**01 03 05.8**	**-0.3**
	19nm,0.6s,baz=169,slow=14,SNR=2.1						
ASAR	**Alice Springs**	**44.22**	**257**	P	**P**	**01 08 19.0**	**+0.4**
	1.2nm,0.6s,baz=86,slow=8.6,SNR=13						
ASAR				PcP	**PcP**	**01 09 51.4**	**+0.1**
	0.4nm,0.7s,baz=108,slow=3.9,SNR=4.2						
	1.2nm,0.6s						
WRA	**Warramunga Arr**	**44.30**	**262**	P	**P**	**01 08 18.6**	**-0.7**
	0.9nm,0.6s,baz=98,slow=8.1,SNR=8.0						
WRA				PcP	**PcP**	**01 09 50.4**	**-1.1**
	0.4nm,0.8s,baz=95,slow=3.9,SNR=1.7						
	0.9nm,0.6s						
PETK	**Petropavlovsk-**	**76.19**	**345**	P	**P**	**01 11 49.9**	**+0.6**
	2.9nm,0.9s,baz=158,slow=5.4,SNR=2.9						
	2.9nm,0.9s						
ILAR	**Eielson Array**	**88.38**	**13**	P	**P**	**01 12 50.5**	**-0.2**
	0.2nm,0.4s,baz=207,slow=5.5,SNR=5.1						
	0.2nm,0.4s						
AKASG	**Malin Array Be**	**142.86**	**331**	PKP		01 19 25.3	
	1.5nm,0.4s,baz=44,slow=4.2,SNR=10						
BRTR	**Keskin Array B**	**146.61**	**312**	PKPbc	**PKPbc**	**01 19 38.2**	**+0.1**
	0.5nm,0.7s,baz=62,slow=3.7,SNR=2.4						
MMAI	**Mount Meron Ar**	**147.54**	**300**	PKPbc	**PKiKP**	**01 19 41.8**	**-0.5**
	1.9nm,0.7s,baz=12,slow=8.5,SNR=4.2						
GERES	**GERESS Array B**	**150.11**	**344**	PKPbc	**PKPbc**	**01 19 46.5**	**0.0**
	0.2nm,0.5s,baz=94,slow=1.9,SNR=5.2						

*IDC **08** 01:13:01.1±1.2, 16°.24S×174°.80W, h305km±15km, mb3.0/5, mbtmp3.7/7, Error ellipse: s-maj=33.6km s-min=17.3km az=150.0*

ISC 08 01:13:01.2±0.9, 16°.3S±0°.2×174°.8W±0°.2, h300km, n7, σ1§17/8, mb3.1/5, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.75**	**51**	P	**Pn**	**01 14 06.1**	**+1.3**
	6.4nm,0.3s,baz=232,slow=3.4,SNR=5.2						
AFI				S	**S**	**01 14 55.2**	**-0.7**
	23nm,0.3s,baz=257,slow=23,SNR=6.1						
MSVF	**Nonsavu**	**7.02**	**258**	P	**Pn**	**01 14 44.1**	**+1.3**
	5.7nm,0.9s,baz=85,slow=12,SNR=3.5						
WRA	**Warramunga Arr**	**48.36**	**258**	P	**P**	**01 21 12.3**	**-1.4**
	0.3nm,0.4s,baz=92,slow=7.5,SNR=2.9						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**48.58**	**253**	P	**P**	**01 21 14.3**	**-1.0**
	2.0nm,0.7s,baz=86,slow=8.2,SNR=28						
	2.0nm,0.7s						
VNDA	**Vanda**	**62.32**	**186**	P	**P**	**01 22 51.8**	**+0.1**
	0.7nm,0.7s,baz=337,slow=7.7,SNR=8.3						
	0.7nm,0.7s						
ILAR	**Eielson Array**	**83.61**	**12**	P	**P**	**01 24 55.5**	**-0.2**
	0.3nm,0.9s,baz=226,slow=4.8,SNR=2.0						
	0.3nm,0.9s						
PDAR	**Pinedale Array**	**83.83**	**42**	P	**P**	**01 24 57.2**	**-0.5**
	0.2nm,0.6s,baz=237,slow=5.6,SNR=2.3						
	0.2nm,0.6s						

*CATAC **08** 01:23:24.2±0.4, 14°N±2°×9°1W±°, h19km±4km, M5.1/37, mb5.5/5, mB5.6/4, MLv5.0/37, Mw(mB)5.1/4, Error ellipse: s-maj=6.4km s-min=2.7km az=43.3, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.48; $M_{\theta\theta}$1.01; $M_{\phi\phi}$1.47; $M_{r\theta}$4.35; $M_{\theta\phi}$-1.13; $M_{\phi r}$-4.64; Fault plane solution: $M_0$6.81862×10^{15} NP1:φs143.96738°, δ10.54373°, λ-83.26050°. NP2:φs317.11323°, δ79.52995°, λ-91.25132°. Principal axes: T 6.7701, Plg34.5184°, Azm48.1871°; N 0.0960, Pl

PACA S **Sn** 01 24 45.4 +2.2
PACA Pacayal 2.87 96 *e*P **Pn** 01 24 11.0 +1.4
RANC El Ranchito 2.91 97 ⇑P **Pn** 01 24 10.7 +0.5
RANC S **Sn** 01 24 44.5 +0.4
LCND La Caada 3.31 98 ⇑P **Pn** 01 24 15.3 -0.2
LCND La Caada 3.31 98 *e*P **Pn** 01 24 15.5 0.0
PETF Flores 3.37 23 ⇑P **Pn** 01 24 17.1 +0.8
PETF Flores 3.37 23 **Pn** 01 24 17.2 +0.8
PETF Flores 3.37 23 *i* P **Pn** 01 24 16.8 +0.5
PETF Flores 3.37 23 *i* P **Pn** 01 24 17.0 +0.7
CNCH Conchagua 3.37 99 ⇑P **Pn** 01 24 16.1 -0.3
CNCH S **Sn** 01 24 56.6 +1.3
TGIG 3.46 329 *i* P **Pn** 01 24 17.6 0.0
CSGN Cosiguina Volc 3.69 103 P **Pn** 01 24 20.4 -0.4
CSGN S **Sn** 01 25 02.8 -0.4
POTN Potosi Cosigui 3.73 102 S **Sn** 01 25 06.0 +1.9
TGUH Tegucigalpa,Un 3.87 86 P **Pn** 01 24 22.6 -0.7
TGUH Tegucigalpa,Un 3.87 86 **Pn** 01 24 22.8 -0.5
CRIN San Cristobal 4.24 105 P **Pn** 01 24 28.5 +0.2
CRIN S **Sn** 01 25 17.6 +1.1
CRIN San Cristobal 4.24 105 **Pn** 01 24 28.4 +0.1
PKGN Cerro Pekin 4.32 105 P **Pn** 01 24 28.8 -0.4
PKGN S **Sn** 01 25 17.6 -0.7
QUEN Al S del Volca 4.45 105 P **Pn** 01 24 32.8 +1.6
QUEN S **Sn** 01 25 21.8 -0.1
PLRN Geotermica Pol 4.54 105 S **Sn** 01 25 18.9 -4.9
PACN Al O del Volca 4.54 106 P **Pn** 01 24 30.8 -1.5
PACN S **Sn** 01 25 21.3 -2.5
CMIG Matias Romero 4.79 313 P **Pn** 01 24 35.3 -0.3
comp=E,102nm,0.7s,baz=145,slow=11,SNR=44
CMIG S **Sn** 01 25 27.7 -2.2
comp=E,180nm,0.5s,baz=96,slow=19,SNR=6.4
CMIG LR LR 01 26 15.5
comp=E,141nm,21.9s,baz=180,slow=33
MOM3 MOM3 4.79 105 P **Pn** 01 24 34.9 -0.8
MOM3 S **Sn** 01 25 30.9 +0.9
MOM2 El Cardon 4.84 106 P **Pn** 01 24 36.4 -0.1
MOM2 S **Sn** 01 25 29.5 -1.7
RCFN Al S de San Ju 4.91 93 P **Pn** 01 24 36.3 -1.2
RCVN Varillal2 4.92 92 ⇓P **Pn** 01 24 37.6 -0.1
SAPS Ciudad Sandino 5.00 108 P **Pn** 01 24 38.1 -0.5
SAPS S **Sn** 01 25 33.1 -2.0
APQ2 Apoyeque 5.06 108 P **Pn** 01 24 40.1 +0.7
APQ2 S **Sn** 01 25 35.4 -1.3
SCIG Sabancuy 5.13 1 ⇑P **Pn** 01 24 40.0 -0.3
TISN Laguna Tiscapa 5.13 108 P **Pn** 01 24 39.7 -0.7
MGAN Managua 5.15 108 **Pn** 01 24 41.2 +0.5
NANN Nandasmo 5.34 110 P **Pn** 01 24 44.6 +1.3
BOAB BOACO BROADBAN 5.61 103 P **Pn** 01 24 46.4 -0.5
BOAB BOACO BROADBAN 5.61 103 **Pn** 01 24 46.0 -0.9
SIUN Universidad Ur 6.30 90 **Pn** 01 24 56.7 +0.4
VORI VORI 6.49 117 *e*P **Pn** 01 25 00.5 +1.3
MESS Mesas 6.66 117 *e*P **Pn** 01 25 03.1 +1.8
VMAR Armenia, Volca 6.70 116 *e*P **Pn** 01 25 02.8 +1.0
CUI Cuipilapa 6.73 117 *e*P **Pn** 01 25 03.4 +1.2
TIMP Tierras Morena 6.89 117 *e*P **Pn** 01 25 06.8 +2.3
TEIG Tepich 6.99 24 **Pn** 01 25 06.5 +0.7
JTS Las Juntas de 7.09 119 P **Pn** 01 25 08.0 +0.9
comp=E,10nm,0.3s,baz=315,slow=14,SNR=16
JTS S **Sn** 01 26 26.8 +0.5
comp=E,19nm,0.6s,baz=293,slow=21,SNR=1.5
JTS Las Juntas de 7.09 119 **Pn** 01 25 07.5 +0.4
JTS Las Juntas de 7.09 119 *e*P **Pn** 01 25 09.3 +2.2
ARE1 Arenal 1 7.20 117 *e*P **Pn** 01 25 11.2 +2.5
VARE2 V. Arenal 7.20 117 *e*P **Pn** 01 25 10.9 +2.1
TLIG Tlapa 7.97 299 **Pn** 01 25 20.2 +0.9
LCR2 La Lucha 2 8.17 119 **Pn** 01 25 23.8 +1.7
LCR2 La Lucha 2 8.17 119 *e*P **Pn** 01 25 25.7 +3.7
VICA Volcano Irazu 8.19 117 *e*P **Pn** 01 25 24.5 +1.9
ABRB Las Abras (San 8.29 116 *e*P **Pn** 01 25 28.8 +2.0
VERH Veragua Rainfo 8.78 115 *e*P **Pn** 01 25 31.8 +1.5
PIRO Carate, Puerto 9.44 124 **Pn** 01 25 38.8 -0.5
BRU2 Volcan 9.76 120 **Pn** 01 25 44.7 +0.9
MOIG Morelia 11.16 303 **Pn** 01 26 05.0 +2.0
SOR Soroa 11.88 40 **Pn** 01 26 14.1 +1.7
SOR Soroa 11.88 40 *e*P **Pn** 01 26 16.0 +3.6
LCCY Blossom Villag 12.18 60 *e*P P 01 27 02.0 +36
ZAIG Zacatecas 13.95 311 **Pn** 01 26 42.7 +2.1
CAIB Caibarien 14.13 51 **Pn** 01 26 44.6 +1.9
CAIB Caibarien 14.13 51 *e*P **P** 01 26 46.8 -1.2
CCCC Cccc 14.81 58 *e*P P 01 27 01.4 +5.8
SJCC San Jacinto, C 16.20 102 P **Pn** 01 27 08.8 -0.6
HKT Hockley 16.61 346 **P** 01 27 15.4 -0.1
HNVL Huntsville, TX 17.31 348 IAmb IAmb 01 27 26.2
comp=Z,59nm,1.3s
HNDO Hondo 17.32 336 P **P** 01 27 25.0 +1.7
656A Willston 17.46 26 P **P** 01 27 26.6 +1.7
451A Vernon 17.48 16 P **P** 01 27 27.3 +2.2
SNAG San Augustine 17.83 352 IAmb IAmb 01 27 45.5
comp=Z,38nm,0.9s
VBMS Vicksburg 18.34 2 P **Pn** 01 27 36.6 +1.3
HPIG 18.77 316 P **Pn** 01 27 41.6 +0.9
BRDY Brady 18.80 339 P **Pn** 01 27 40.9 +0.1
143A Socs Landing, 18.81 360 IAmb IAmb 01 27 50.5
comp=Z,23nm,0.7s
146A Union 18.85 6 IAmb IAmb 01 27 51.5
comp=Z,42nm,0.9s
ROSC El Rosal 18.92 116 P **Pn** 01 27 42.3 -0.6
WHTX Lake Whitney, 18.97 344 IAmb IAmb 01 27 56.1
comp=Z,20nm,0.6s
TX31 Lajitas Ar. Si 19.26 325 **Pn** 01 27 47.6 +1.2
TXAR Lajitas Array 19.26 325 P **Pn** 01 27 47.6 +1.1
comp=Z,3.5nm,0.6s,baz=151,slow=12,SNR=52
TXAR PcP **PcP** 01 32 05.9 +0.8
comp=Z,0.5nm,0.8s,baz=98,slow=2.3,SNR=4.1
TXAR ScP **ScP** 01 35 33.9 -0.7
comp=Z,0.8nm,0.8s,baz=142,slow=6.3,SNR=6.9
TXAR Lajitas Array 19.26 325 P **Pn** 01 27 47.8 +1.4
OZNA Ozona 19.30 334 IAmb IAmb 01 27 50.1
comp=Z,15nm,0.6s
TREL Terrell 19.35 348 IAmb IAmb 01 28 04.5
comp=Z,23nm,0.8s
Z41A Richland Creek 19.41 356 IAmb IAmb 01 27 51.6
comp=Z,42nm,1.3s
RUSC La Rusia 19.54 112 P **P** 01 27 48.9 +0.6
Z38A Mt. Pleasant 19.66 351 IAmb IAmb 01 28 08.6
comp=Z,44nm,1.2s
152A Waverly Hall 19.70 17 IAmb IAmb 01 28 07.7
comp=Z,22nm,0.8s
WLAR White Oak Lake 19.86 355 IAmb IAmb 01 28 21.9
comp=Z,29nm,0.8s
Z35A Perchaven, San 20.19 345 IAmb IAmb 01 28 22.6
comp=Z,20nm,0.8s
ABTX Abilene, Hawle 20.24 339 IAmb IAmb 01 27 58.0
comp=Z,22nm,0.6s
TMB01 Midkiff 20.36 333 IAmb IAmb 01 27 59.7
comp=Z,11nm,0.6s
MNHN Monahans 20.40 331 IAmb IAmb 01 28 00.7
comp=Z,19nm,0.6s
Y49A Blount Mountai 20.44 12 IAmb IAmb 01 28 22.6
comp=Z,22nm,0.8s
TPB01 Permian Basin 20.58 328 IAmb IAmb 01 28 04.3
comp=Z,11nm,0.7s
MIAR Mount Ida 20.75 355 IAmb IAmb 01 28 10.2
comp=Z,37nm,1.4s
TPB06 Permian Basin 20.87 330 IAmb IAmb 01 28 08.2
comp=Z,13nm,0.6s
UALR University of 20.90 357 IAmb IAmb 01 28 08.2
comp=Z,21nm,0.8s
X48A Hartselle 20.90 10 IAmb IAmb 01 28 17.4
comp=Z,22nm,0.7s
ODSA Odessa 20.96 332 IAmb IAmb 01 28 06.7
comp=Z,15nm,0.8s
PECS Pecos 20.97 329 IAmb IAmb 01 28 08.0
comp=Z,19nm,0.7s
APMT Aspermont 21.04 339 IAmb IAmb 01 28 08.6
comp=Z,19nm,0.6s
129A Stewart Farms, 21.09 334 IAmb IAmb 01 28 08.4
comp=Z,20nm,0.8s
VHRN Van Horn 21.10 325 IAmb IAmb 01 28 08.8
comp=Z,18nm,0.9s
FPAL Fort Paine 21.26 13 IAmb IAmb 01 28 24.6
comp=Z,21nm,0.9s
POST Post 21.32 336 IAmb IAmb 01 28 10.5
comp=Z,13nm,0.7s
WHAR Wooly Hollow 21.41 358 IAmb IAmb 01 28 32.1
comp=Z,16nm,0.9s
TPB11 China Draw 21.51 329 IAmb IAmb 01 28 43.8
comp=Z,21nm,1.4s
TPB28 21.53 328 IAmb IAmb 01 28 13.2
comp=Z,11nm,0.6s
DKNS Dickens 21.64 338 P **P** 01 28 14.4 +4.1
DKNS IAmb IAmb 01 28 42.9
comp=Z,9.7nm,0.7s

CLNB Carlsbad 21.70 330 P **P** 01 28 12.0 +1.0
SWET Sewanee 21.85 12 IAmb IAmb 01 28 30.1
comp=Z,22nm,0.8s
W35A Tecumseh 21.85 348 P **P** 01 28 12.3 -0.2
W35A IAmb IAmb 01 28 37.9
comp=Z,18nm,0.9s
FCAR Ozark Folk Cen 22.00 358 IAmb IAmb 01 28 17.3
comp=Z,9.7nm,0.8s
MNTX Cornudas Mount 22.02 326 IAmb IAmb 01 28 19.1
comp=Z,18nm,0.8s
LCAR Lake Charles 22.17 0 IAmb IAmb 01 28 35.5
comp=Z,16nm,0.8s
CPCT Cooper Cave 22.39 15 IAmb IAmb 01 28 36.4
comp=Z,24nm,0.9s
BG3 Lake Jocassee 22.39 18 IAmb IAmb 01 28 41.7
comp=Z,18nm,0.8s
MSTX Muleshoe 22.63 334 IAmb IAmb 01 28 24.1
comp=Z,9.4nm,0.6s
SMWD Samnorwood 22.70 341 IAmb IAmb 01 28 46.4
comp=Z,32nm,1.1s
U38A Gravette 22.71 353 P **P** 01 28 22.2 +0.5
PBMO Poplar Bluff 22.89 2 IAmb IAmb 01 28 46.7
comp=Z,17nm,0.8s
T42A Van Buren 23.13 0 IAmb IAmb 01 28 57.8
comp=Z,21nm,1.1s
T50A Nancy 23.82 13 P **P** 01 28 31.8 -0.4
T50A IAmb IAmb 01 29 10.2
comp=Z,9.2nm,0.8s
S44A Carbondale 23.85 4 IAmb IAmb 01 28 50.6
comp=Z,18nm,0.7s
S39A Bolivar 23.86 356 IAmb IAmb 01 28 34.2
comp=Z,24nm,1.2s
121A Cookes Peak, D 23.99 324 IAmb IAmb 01 28 39.6
comp=Z,13nm,1.0s
CCM Cathedral Cave 24.15 0 P **P** 01 28 34.8 -0.4
CCM IAmb IAmb 01 28 36.8
comp=Z,17nm,0.7s
R40A Maddies Statio 24.40 358 IAmb IAmb 01 28 40.5
comp=Z,15nm,0.8s
V58A Windy Hill, Pi 24.46 24 IAmb IAmb 01 28 39.1
comp=Z,15nm,0.8s
WCI Wyandotte Cave 24.72 9 P **P** 01 28 38.8 -1.5
P40A Paris 25.63 359 IAmb IAmb 01 28 51.7
comp=Z,11nm,0.7s
P38A Dawn 25.79 356 IAmb IAmb 01 28 54.4
comp=Z,8.8nm,0.8s
Q51A Peebles 26.07 14 P **P** 01 28 52.3 -0.3
X16A Lo Mia Camp, P 27.47 322 IAmb IAmb 01 29 11.9
comp=Z,6.8nm,0.8s
KNB Kanab 30.08 324 IAmb IAmb 01 29 34.9
comp=Z,6.2nm,0.7s
TCRU Three Creeks R 31.02 327 IAmb IAmb 01 29 49.1
comp=Z,4.6nm,0.7s
PDAR Pinedale Array 32.90 335 P **P** 01 29 54.1 +0.8
comp=Z,0.5nm,0.7s,baz=132,slow=10,SNR=5.0
PDAR PcP **PcP** 01 32 37.8 +1.4
comp=Z,0.3nm,0.5s,baz=318,slow=0.8,SNR=2.8
PDAR ScP **ScP** 01 36 10.6 -3.5
comp=Z,0.9nm,0.9s,baz=146,slow=2.3,SNR=4.5
PDAR LR LR 01 46 56.2
comp=Z,83nm,18.8s,baz=174,slow=43
comp=Z,0.5nm,0.7s
SNOW Snow King Moun 33.97 334 IAmb IAmb 01 30 22.1
comp=Z,7.0nm,0.7s
ELK Elko 34.05 327 LR LR 01 47 18.2
comp=Z,31nm,19.0s,baz=162,slow=42
ELK Elko 34.05 327 IAmb IAmb 01 30 08.2
comp=Z,3.2nm,0.8s
NVAR Mina Array Bea 34.28 321 P **P** 01 30 08.4 +3.0
comp=Z,6.3nm,0.7s,baz=133,slow=8.6,SNR=32
NVAR PcP **PcP** 01 32 42.8 +2.4
comp=Z,0.7nm,0.6s,baz=147,slow=3.8,SNR=4.1
NVAR ScP **ScP** 01 36 17.9 -1.1
comp=Z,1.4nm,0.8s,baz=141,slow=3.5,SNR=5.9
comp=Z,6.3nm,0.7s
NVAR Mina Array Bea 34.28 321 P **P** 01 30 08.7 +3.2
LHV Little Huntoon 34.29 320 IAmb IAmb 01 30 12.4
comp=Z,5.6nm,0.7s
KVN Kaiserville 34.54 322 IAmb IAmb 01 30 12.6
comp=Z,4.7nm,0.9s
BMN Battle Mountai 34.93 324 IAmb IAmb 01 30 15.0
comp=Z,4.9nm,0.9s
BEKR Beckworth 36.42 321 IAmb IAmb 01 30 28.3
comp=Z,4.3nm,0.9s
ULM Lac du Bonnet 36.54 355 P **P** 01 30 22.7 -1.6
comp=Z,3.3nm,0.7s,baz=162,slow=6.6,SNR=3.5
ULM LR LR 01 48 29.5
comp=Z,90nm,18.3s,baz=194,slow=41
comp=Z,3.3nm,0.7s
ULM Lac du Bonnet 36.54 355 IAmb IAmb 01 30 45.1
comp=Z,7.7nm,1.0s
WVOR Wild Horse Val 37.06 326 IAmb IAmb 01 30 33.6
comp=Z,5.6nm,0.9s
LPAZ La Paz 37.64 142 P **P** 01 30 35.5 +0.8
comp=Z,1.5nm,0.8s,baz=283,slow=3.8,SNR=5.3
comp=Z,1.5nm,0.8s
LPAZ La Paz 37.64 142 IAmb IAmb 01 30 39.4
comp=Z,1.8nm,0.9s
PB16 IPOC Station P 38.47 146 P **P** 01 30 43.8 +2.1
YBH Yreka Blue Hor 38.96 322 LR LR 01 47 36.3
comp=Z,73nm,18.8s,baz=160,slow=37
GO01 Chusmiza 39.73 146 P **P** 01 30 53.6 +1.5
GO01 IAmb IAmb 01 30 55.0
comp=Z,6.0nm,0.8s
NEW Newport 40.49 333 LR LR 01 49 28.6
comp=Z,47nm,18.4s,baz=129,slow=38
C09A Chrisman Ranch 40.66 332 P **P** 01 31 00.8 +1.9
C09A IAmb IAmb 01 31 02.5
comp=Z,6.0nm,0.6s
RPN Rapa Nui 44.32 203 LR LR 01 45 11.5
comp=Z,102nm,20.7s,baz=309,slow=29
SCHQ Schefferville 45.15 20 P **P** 01 31 33.1 -2.1
comp=Z,11nm,0.9s,baz=213,slow=5.9,SNR=9.0
comp=Z,11nm,0.9s
BBB Bella Bella 48.28 330 LR LR 01 57 03.5
comp=Z,77nm,18.0s,baz=203,slow=42
SMTB Santa Maria do 48.84 115 P **P** 01 32 03.6 -0.9
CFA Coronel Fontan 50.27 154 P **P** 01 32 15.9 +0.8
comp=Z,1.0nm,0.5s,baz=3.4,slow=5.5,SNR=3.7
comp=Z,1.0nm,0.5s
YKA Yellowknife Ar 51.38 346 P **P** 01 32 22.6 -0.3
comp=Z,5.5nm,0.6s,baz=151,slow=7.5,SNR=8.9
comp=Z,1.5nm,0.6s
YKA Yellowknife Ar 51.38 346 P **P** 01 32 23.4 +0.5
BDFB Brasilia 51.81 123 P **P** 01 32 27.4 +0.4
comp=Z,1.1nm,0.5s,baz=96,slow=23,SNR=1.8
comp=Z,1.1nm,0.5s
FRB Frobisher Bay 52.34 13 LR LR 01 55 49.0
comp=Z,128nm,19.5s,baz=288,slow=37
TAOE Nuku Hiva Isla 53.49 248 *e*LR LR 01 48 08.1
comp=Z,100nm,27.4s
PLCA Paso Flores 57.56 161 LR LR 01 51 56.4
comp=Z,37nm,20.1s,baz=201,slow=30
M29M Somme Creek 58.88 337 P **P** 01 33 18.0 +0.9
M29M IAmb IAmb 01 33 39.5
comp=Z,3.0nm,0.8s
SFJD Kangerlussuaq 59.48 17 LR LR 01 59 48.9
comp=Z,140nm,19.6s,baz=250,slow=37
RES Resolute Bay 60.90 359 LR LR 02 01 47.5
comp=Z,114nm,18.3s,baz=208,slow=38
F28M Old Crow 62.28 341 P **P** 01 33 41.0 +0.9
F28M IAmb IAmb 01 34 12.6
comp=Z,5.2nm,0.8s
ILAR Eielson Array 63.30 337 P **P** 01 33 47.0 +0.2
comp=Z,1.0nm,0.9s,baz=164,slow=4.6,SNR=12
ILAR LR LR 02 03 33.6
comp=Z,66nm,19.2s,baz=77,slow=38
comp=Z,1.0nm,0.9s
ILAR Eielson Array 63.30 337 P **P** 01 33 47.5 +0.7
MLY Manley 64.91 336 P **P** 01 33 58.2 +0.8
MLY IAmb IAmb 01 34 15.2
comp=Z,3.8nm,0.7s
PPT2 Papeete2 65.46 243 *e*LR LR 01 53 33.4
comp=Z,142nm,26.2s
PPT2 *e*LR LR 01 53 44.5
comp=Z,140nm,25.5s
CHGN Chignik 65.98 326 P **P** 01 34 05.1 +0.7
SUMG Summit 66.23 15 P **P** 01 34 05.4 -0.8
SUMG IAmb IAmb 01 34 34.8
comp=Z,6.5nm,1.1s
IMAR Indian Mountai 66.42 337 P **P** 01 34 07.0 -0.1
EKA Eskdalemuir Ar 77.70 36 P **P** 01 35 11.4 -3.2
comp=Z,1.2nm,0.7s,baz=278,slow=5.8,SNR=4.0
comp=Z,1.2nm,0.7s
ESDC Sonseca Array 79.27 52 P **P** 01 35 20.5 -3.2
comp=Z,0.7nm,1.0s,baz=292,slow=5.0,SNR=5.3
comp=Z,0.7nm,1.0s
SPITS Spitsbergen Ar 80.13 12 P **P** 01 35 26.8 -0.8
comp=Z,20nm,1.1s,baz=119,slow=12,SNR=2.9
SPITS LR LR 02 12 53.1
comp=Z,105nm,19.2s,baz=260,slow=37
comp=Z,20nm,1.1s
NOA NORSAR Array B 83.97 29 P **P** 01 35 46.6 -1.4
comp=Z,0.2nm,0.6s,baz=99,slow=16,SNR=1.5
NOA LR LR 02 12 39.6
comp=Z,31nm,18.9s,baz=70,slow=35
comp=Z,0.2nm,0.6s
ARCES ARCESS Array B 86.09 18 P **P** 01 35 55.4 -3.0
comp=Z,9.6nm,1.1s,baz=303,slow=6.1,SNR=3.7
comp=Z,9.6nm,1.1s
FINES FINESS Array B 90.36 25 LR LR 02 15 41.5
comp=Z,51nm,19.2s,baz=335,slow=35
NRIK Noril'sk 97.06 0 LR LR 02 24 34.5
comp=Z,54nm,19.0s,baz=336,slow=38
KURBB Kurchatov Arra 115.22 7 PKP **PKPdf** 01 41 59.3 +0.3
comp=Z,0.3nm,0.4s,baz=345,slow=2.2,SNR=5.3
MKAR Makanchi Array 119.40 5 PKP **PKPdf** 01 42 06.7 -0.6
comp=Z,0.3nm,0.4s,baz=335,slow=3.4,SNR=5.0
HHC Hu-ho-hao-te 121.65 340 *e*P **PKPdf** 01 42 08.5 -3.3
NJ2 Nanjing 126.04 328 *e*P **PKiKP** 01 42 22.0 +1.3
NJ2 pmax pmax
comp=Z,9.0nm,0.6s
STKA Stephens Creek 128.59 240 PKP **PKiKP** 01 42 26.4 +0.6
comp=Z,0.7nm,0.3s,baz=143,slow=7.4,SNR=4.0
WRA Warramunga Arr 136.05 256 PKP **PKiKP** 01 42 40.7 -0.5
comp=Z,1.2nm,0.8s,baz=88,slow=1.9,SNR=6.3
ASAR Alice Springs 136.28 250 PKP **PKPdf** 01 42 40.6 +0.7
comp=Z,1.1nm,0.9s,baz=116,slow=1.3,SNR=8.4
ASAR Alice Springs 136.28 250 **PKiKP** 01 42 41.3 -0.4
CMAR Chiang Mai Arr 146.40 342 PKPbc **PKPab** 01 42 60.0 -0.4
comp=Z,3.3nm,0.5s,baz=353,slow=3.0,SNR=13
CMAR Chiang Mai Arr 146.40 342 **PKPab** 01 43 00.1 -0.3

KRSC 08 01:58:21.9±1.6, 50.04N×159.21E, h68km±38km, MI4.0,
East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
KDTR	**Khodutka, Kamc**	**1.91**	**338**	*e*P		**Pn**		01 58 54.4	+2.2
KDTR				eS		Sn		01 59 17.6	+2.3
SKR	**Severo-Kuril's**	**2.08**	**289**	*e*P		**Pn**		01 58 55.3	+0.7
SKR				eS		Sn		01 59 19.3	-0.2
PAU	**Pauzhetka**	**2.09**	**314**	*e*P		**Pn**		01 58 56.7	+2.1
PAU				eS		Sn		01 59 21.8	+2.2
RUS	**Russkaya**	**2.44**	**350**	*e*P		**Pn**		01 59 01.7	+2.4
RUS				eS		Sn		01 59 30.5	+2.5
ASAK	**Asacha**	**2.49**	**341**	*e*P		**Pn**		01 59 02.8	+2.7
MTVR	**Mutnovka**	**2.53**	**346**	*e*P		**Pn**		01 59 03.4	+2.7
MTVR				eS		Sn		01 59 33.8	+3.2
GRL	**Gorelyy**	**2.62**	**345**	*e*P		**Pn**		01 59 05.1	+3.2
GRL				eS		Sn		01 59 36.4	+3.8
MIPR	**Malaya Ipel'ka**	**2.72**	**326**	*e*P		**Pn**		01 59 06.0	+2.8
KRMR	**Karymshinskiy**	**2.88**	**347**	*e*P		**Pn**		01 59 08.4	+3.2
KRMR				eS		Sn		01 59 43.2	+4.5
DALK	**Dalny**	**3.01**	**355**	*e*P		**Pn**		01 59 09.8	+2.7
DALK				eS		Sn		01 59 44.3	+2.3
PET	**Petropavlovsk**	**3.01**	**354**	*e*P		**Pn**		01 59 09.8	+2.7
PET				eS		Sn		01 59 44.7	+2.8
INSR	**Institute**	**3.06**	**353**	*e*P		**Pn**		01 59 10.3	+2.6
SPN	**Mys Shipunski**	**3.10**	**9**	*e*P		**Pn**		01 59 12.0	+3.6
SPN				eS		Sn		01 59 47.4	+3.1
NLC	**Nalytchevo**	**3.14**	**1**	*e*P		**Pn**		01 59 10.7	+1.9
NLC				eS		Sn		01 59 47.2	+2.1
APC	**Apacha**	**3.16**	**337**	*e*P		**Pn**		01 59 11.8	+2.6
UGLR	**Uglovaya**	**3.18**	**356**	*e*P		**Pn**		01 59 12.6	+3.0
SMAR	**Somma**	**3.24**	**356**	*e*P		**Pn**		01 59 13.1	+2.7
AVH	**Avacha**	**3.25**	**355**	*e*P		**Pn**		01 59 13.4	+3.0
SDLR	**Sedlovina**	**3.25**	**357**	*e*P		**Pn**		01 59 13.0	+2.5
KOK	**Koryaka**	**3.28**	**354**	*e*P		**Pn**		01 59 14.2	+3.4
KRER	**Koryakskii**	**3.28**	**355**	*e*P		**Pn**		01 59 14.1	+3.1
KRX	**Arik**	**3.34**	**354**	*e*P		**Pn**		01 59 14.8	+3.0
GNL	**Ganaly**	**3.75**	**348**	*e*P		**Pn**		01 59 20.9	+3.7
KII	**Karymskiy**	**4.01**	**2**	*e*P		**Pn**		01 59 24.7	+4.0
KII				eS		Sn		02 00 11.0	+4.6
MKZ	**Mys Kozlova**	**4.78**	**18**	*e*P		**Pn**		01 59 33.4	+2.2
MKZ				eS		Sn		02 00 26.6	+1.4
KZV	**Kizimen**	**5.13**	**7**	*e*P		**Pn**		01 59 40.8	+4.7
TUMD	**Tumrok D**	**5.22**	**7**	*e*P		**Pn**		01 59 41.0	+3.7
TUMD				eS		Sn		02 00 38.9	+2.8
KBTR	**Krutoberegovo**	**6.55**	**18**	*e*P		**Pn**		01 59 59.0	+3.6

*RSNC **08** 02:08:41.3±0.0, 7.1N×3.7W, h144km±5km, M3.6, mB7.3, mb4.8, ML3.2, Mw(mB)7.4*
*IDC **08** 02:08:43.1±2.4, 6.77N×73.39W, h163km±19km, mb3.2/6, mbtmp3.7/7, Error ellipse: s-maj=48.1km s-min=18.5km az=82.0*
*FUNV **08** 02:08:43.3, 7.14N×73.05W, h5km, MW3.8, Presumed earthquake*

ISC 08 02:08:40.8±0.7, 6.87N±0.03×73.10W±0.04, h147km±6km, n57, σ1.9 76/104, mb3.6/6, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.29**	**196**	P		**Pn**		**02 09 02.1**	**+0.7**
BARC				S		**Sn**		**02 09 17.0**	**+0.1**
BRJC	**Barrancabermej**	**0.64**	**279**	P		**Pn**		**02 09 03.9**	**+1.2**
BRJC				S		**Sn**		**02 09 20.6**	**+1.3**
RUSC	**La Rusia**	**0.97**	**179**	P		**Pn**		**02 09 06.0**	**+0.3**
RUSC				S		**Sn**		**02 09 24.5**	**-0.1**
RUSC	**La Rusia**	**0.97**	**179**	*e*P		**Pn**		**02 09 06.0**	**+0.3**
RUSC				*e*S		**Sn**		**02 09 22.8**	**-1.8**
TAMC	**Tame, Arauca**	**1.37**	**108**	P		**Pn**		**02 09 10.5**	**+1.6**
TAMC				S		**Sn**		**02 09 31.9**	**+1.5**
OCAC	**Ocana**	**1.38**	**351**	P		**Pn**		**02 09 10.5**	**+1.4**
OCAC				S		**Sn**		**02 09 32.1**	**+1.3**
PTBC	**PUERTO BERRIO,**	**1.38**	**256**	P		**Pn**		**02 09 08.6**	**-0.4**
PTBC				S		**Sn**		**02 09 30.4**	**-0.1**
SPBC	**San Pablo de B**	**1.55**	**219**	P		**Pn**		**02 09 11.0**	**+0.2**
SPBC				S		**Sn**		**02 09 33.5**	**-0.2**
NORC	**Norcasia**	**2.18**	**234**	P		**Pn**		**02 09 17.8**	**-0.2**
NORC				S		**Sn**		**02 09 45.9**	**-0.7**
CHIC	**Chingaza**	**2.31**	**196**	P		**Pn**		**02 09 20.5**	**+0.5**
CHIC				S		**Sn**		**02 09 49.5**	**-0.5**
ROSC	**El Rosal**	**2.35**	**211**	P		**Pn**		**02 09 21.6**	**+1.1**
	91nm,0.4s,baz=27,slow=18,SNR=129								
ROSC				S		**Sn**		**02 09 50.2**	**-0.6**
	117nm,0.3s,baz=322,slow=21,SNR=8.6								
ROSC	**El Rosal**	**2.35**	**211**	P		**Pn**		**02 09 21.9**	**+1.5**
ROSC				S		**Sn**		**02 09 52.8**	**+1.9**
CVER	**Cruz Verde, Cu**	**2.52**	**203**	P		**Pn**		**02 09 23.6**	**+1.0**
CVER				S		**Sn**		**02 09 56.8**	**+2.0**
UREC	**San Jos de Ur**	**2.56**	**290**	P		**Pn**		**02 09 22.6**	**0.0**
UREC				S		**Sn**		**02 09 54.7**	**-0.1**
GUY2C	**Guyana, Caldas**	**2.78**	**234**	P		**Pn**		**02 09 26.7**	**+0.9**
GUY2C				S		**Sn**		**02 09 59.6**	**-0.8**
VILC	**Villavicencio,**	**2.80**	**192**	P		**Pn**		**02 09 25.7**	**-0.1**
VILC				S		**Sn**		**02 10 01.3**	**+0.8**
PTGC	**Puerto Gaitan,**	**2.82**	**160**	P		**Pn**		**02 09 25.4**	**-0.5**
PTGC				S		**Sn**		**02 09 58.1**	**-2.6**
NIZA	**Niza - Manizal**	**2.96**	**233**	P		**Pn**		**02 09 29.7**	**+1.8**
NIZA				S		**Sn**		**02 10 04.8**	**+0.5**
CBOC	**Ciudad Bolivar**	**3.06**	**251**	P		**Pn**		**02 09 30.2**	**+1.2**
CBOC				S		**Sn**		**02 10 06.7**	**+0.5**
ARGC	**Ariguani, Magd**	**3.18**	**339**	P		**Pn**		**02 09 32.9**	**+2.5**
ARGC				S		**Sn**		**02 10 09.9**	**+1.1**
APAC	**Apartado, Choc**	**3.60**	**287**	P		**Pn**		**02 09 36.7**	**+0.9**
APAC				S		**Sn**		**02 10 18.6**	**+0.2**
PRAC	**Prado**	**3.60**	**210**	P		**Pn**		**02 09 35.4**	**-0.5**
PRAC				S		**Sn**		**02 10 17.6**	**-1.1**
ORTC	**Ortega, Tolima**	**3.63**	**216**	P		**Pn**		**02 09 36.5**	**+0.2**
ORTC				S		**Sn**		**02 10 19.6**	**+0.2**
SJCC	**San Jacinto, C**	**3.64**	**326**	P		**Pn**		**02 09 36.5**	**+0.1**
SJCC				S		**Sn**		**02 10 18.3**	**-1.3**
SJCC	**San Jacinto, C**	**3.64**	**326**	*e*P		**Pn**		**02 09 36.5**	**+0.1**
SJCC				*e*S		**Sn**		**02 10 17.1**	**-2.5**
LCBC	**Los crdobas,**	**3.79**	**302**	P		**Pn**		**02 09 38.6**

MACC				S		Sn	02 10 41.5	-4.2
BETC	**Betania**	**4.77**	**209**	P		Pn	02 09 51.5	+0.2
BETC				S		Sn	02 10 42.9	-3.2
URIC	**Uribia, Colomb**	**4.92**	**13**	P		Pn	02 09 52.8	-0.4
URIC				S		Sn	02 10 47.5	-2.2
URIC	**Uribia, Colomb**	**4.92**	**13**	*eP*		Pn	02 09 53.1	-0.1
URIC				*eS*		Sn	02 10 43.8	-5.9
TEPV	**Terepaima**	**4.94**	**51**	*eP*		Pn	02 09 54.1	+0.6
TEPV				*eS*		Sn	02 10 47.1	-3.0
JAMC	**Jamundi, Valle**	**5.08**	**225**	P		Pn	02 09 55.6	0.0
JAMC				S		Sn	02 10 52.3	-1.5
UPD2	**Meteti**	**5.14**	**289**	P		Pn	02 09 55.9	-0.2
UPD2				S		Sn	02 10 53.9	-1.0
MAPV	**Macapo**	**5.46**	**57**	*eP*		Pn	02 10 00.3	0.0
MAPV				*eS*		Sn	02 10 59.2	-3.3
POPC	**Popayan, Colom**	**5.58**	**220**	P		Pn	02 10 02.4	+0.2
POPC				S		Sn	02 11 05.3	-0.5
BENV	**Beln**	**6.25**	**60**	*eP*		Pn	02 10 10.5	-0.5
BENV				*eS*		Sn	02 11 17.6	-4.0
TURV	**Turiamo**	**6.30**	**55**	*eP*		Pn	02 10 11.8	+0.2
TURV				*eS*		Sn	02 11 18.7	-3.9
BBAC	**Balboa, Cauca**	**6.34**	**221**	P		Pn	02 10 13.3	+0.9
BBAC				S		Sn	02 11 20.9	-3.1
CRUC	**La Cruz**	**6.52**	**216**	P		Pn	02 10 17.7	+2.9
	383µm35µm,0.4s							
TACV	**Tcata**	**6.83**	**61**	*eP*		Pn	02 10 18.2	-0.5
TACV				*eS*		Sn	02 11 31.4	-4.0
PTLC	**Puerto Leguiza**	**6.87**	**194**	P		Pn	02 10 20.0	+0.8
	7.6nm,0.6s							
BCIP	**Isla Barro Col**	**7.05**	**289**	P		Pn	02 10 19.8	-1.8
BCIP				S		Sn	02 11 36.1	-4.4
MERV	**Las Mercedes**	**7.14**	**70**	*eP*		Pn	02 10 24.6	+1.8
MERV				*eS*		Sn	02 11 39.6	-3.2
FUNV	**FUNVISIS**	**7.18**	**60**	*eP*		Pn	02 10 23.2	-0.2
FUNV				*eS*		Sn	02 11 39.3	-4.5
LPAZ	**La Paz**	**23.53**	**168**	P		**P**	02 13 40.0	+1.4
	0.8nm,0.6s,baz=283,slow=3.3,SNR=2.5 0.8nm,0.6s							
TXAR	**Lajitas Array**	**36.44**	**312**	P		**P**	02 15 31.6	-0.1
	0.2nm,0.6s,baz=138,slow=8.7,SNR=2.1 0.2nm,0.6s							
ULM	**Lac du Bonnet**	**47.24**	**340**	P		**P**	02 16 59.2	+0.2
	2.2nm,0.8s,baz=140,slow=22,SNR=2.0 2.2nm,0.8s							
PDAR	**Pinedale Array**	**48.05**	**324**	P		**P**	02 17 06.1	+0.5
	0.1nm,0.4s,baz=147,slow=11,SNR=2.7 0.1nm,0.4s							
SCHQ	**Schefferville**	**48.09**	**5**	P		**P**	02 17 06.5	+1.1
	5.5nm,1.0s,baz=178,slow=6.9,SNR=3.9 5.5nm,1.0s							
YKA	**Yellowknife Ar**	**63.22**	**340**	P		**P**	02 18 53.5	+0.3
	0.7nm,0.5s,baz=136,slow=6.6,SNR=10.0 0.7nm,0.5s							
ASAR	**Alice Springs**	**149.15**	**234**	PKPbc		**PKPbc**	02 28 11.8	-0.9
	0.9nm,0.6s,baz=117,slow=3.5,SNR=17							
WRA	**Warramunga Arr**	**150.37**	**241**	PKPbc		**PKPbc**	02 28 14.4	-1.4
	0.3nm,0.5s,baz=107,slow=2.7,SNR=8.4							

MAN ***08*** *02:17:25.0, 11°.99N×123°.98E, h3km, MS3.7*
IDC ***08*** *02:18:10.5±3.7, 7°.40N×127°.63E, h0km, mb3.4/3, mbtmp3.4/3, MS2.8/1, Error ellipse: s-maj=290.7km s-min=27.6km az=67.0*

ISC 08 02:17:26.2±1.3, 11°.99N±0°.05×123°.94E±0°.05, h14km±10km, n16, σ2s59/24, Cebu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMPH	**Masbate**	**0.48**	**320**	*eP*	**Pb**	**02 17 37.1**	**+0.7**
MMPH				*eS*	**Sb**	**02 17 45.5**	**+2.1**
PLP	**Palo**	**1.31**	**129**	*eP*	**Pn**	**02 17 49.3**	**-0.8**
PLP				*eS*	**Sg**	**02 18 08.0**	**-0.5**
LLP	**Lapu-Lapu**	**1.66**	**179**	*eP*	**Pn**	**02 17 55.0**	**+0.1**
LLP				*eS*	**Sg**	**02 18 20.5**	**+0.7**
IBAJ	**Ibajay, Aklan**	**1.74**	**265**	*eP*	**Pg**	**02 17 59.0**	**-0.7**
IBAJ				*eS*	**Sg**	**02 18 21.7**	**-0.5**
TBP	**Tagbilaran**	**2.28**	**182**	*eP*	**Pn**	**02 18 03.8**	**+0.3**
TBP				*eS*	**Sg**	**02 18 45.1**	**+5.4**
JAP	**San Jose, Anti**	**2.31**	**238**	*eP*	**Pg**	**02 18 09.1**	**-1.5**
GQP	**Guinayangan**	**2.40**	**323**	*iP*	**Pb**	**02 18 08.1**	**-1.0**
GQP				*eS*	**Sg**	**02 18 44.3**	**+1.0**
SCPH	**Surigao**	**2.67**	**145**	*eP*	**Pn**	**02 18 06.0**	**-2.9**
SCPH				*eS*	**Sg**	**02 18 51.9**	**-0.3**
SNPH	**Sibulan**	**2.72**	**195**	*iP*	**Pn**	**02 18 11.3**	**+1.7**
SNPH				*iS*	Sg	02 19 04.8	+11
DCPH	**Dipolog City**	**3.43**	**190**	*iP*	**Pn**	**02 18 19.7**	**+0.4**
DCPH				*iS*	**Sn**	**02 18 53.2**	**-6.7**
CGP	**Cagayan de Oro**	**3.59**	**168**	*eP*	**Pg**	**02 18 32.0**	**-3.1**
BIPH	**Bislig**	**4.47**	**148**	*eP*	**Pn**	**02 19 36.4**	**+2.8**
BIPH				*eS*	**Sn**	**02 19 29.8**	**+4.3**
KCP	**Kidapawan**	**5.08**	**167**	*eP*	**Pg**	**02 19 04.9**	**+1.4**
JNU	**Nakatsue**	**21.98**	**16**	LR	LR	02 33 51.6	
	comp=Z,18nm,19.3s,baz=270,slow=36						
WRA	**Warramunga Arr**	**33.34**	**162**	P	**P**	**02 24 03.8**	**-0.3**
	0.2nm,0.6s,baz=348,slow=8.5,SNR=1.8 0.2nm,0.6s						
ASAR	**Alice Springs**	**36.75**	**165**	P	**P**	**02 24 33.4**	**-0.1**
	0.3nm,0.5s,baz=347,slow=7.0,SNR=7.0 0.3nm,0.5s						

DJA 08 02:17:44.0±0.6, 2°.N×7°.12°.8E±°, h29km±9km, M3.8/8, mB5.1/1, mb4.2/3, MLv3.6/8, Mw(mB)4.5/1, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.37**	**225**	P	Pn	02 18 07.1	-0.1
SIJI	**Sorong**	**3.91**	**132**	P	Pn	02 18 42.0	-0.1
SIJI				AML	AML		
SANI	**Sanana**	**4.44**	**212**	P	Pn	02 18 48.8	-0.6
SANI				AML	AML		
LUWI	**Luwuk**	**6.22**	**244**	P	Pn	02 19 14.1	+0.2
	0.2nm2µm22nm,0.7s						
LUWI				AML	AML		
APSI	**Ampana**	**7.19**	**249**	P	Pn	02 19 26.7	-0.6
	19nm,0.8s						
MKAR	**Makanchi Array**	**60.10**	**325**	P	P	02 27 44.6	-4.1
	0.4nm,0.5s,baz=115,slow=8.1,SNR=6.1						
MKAR	**Makanchi Array**	**60.10**	**325**				
	0.4nm,0.5s						

IDC ***08*** *02:20:41.2±0.6, 55°.88N×163°.11E, h0km, mb3.9/19, mbtmp4.0/22, ML3.7/3, MS3.2/2, Error ellipse: s-maj=18.1km s-min=12.8km az=147.0*
KRSC ***08*** *02:20:42.1±0.9, 55°.64N×163°.47E, h20km±15km, Ml4.4*
NEIC ***08*** *02:20:43.1±1.6, 56°.0N±0°.1×163°.1E±0°.1, h10km±1km, mb4.3/9, Error ellipse: s-maj=20.4km s-min=11.8km az=171.0*
MOS ***08*** *02:20:44.6±0.9, 55°.74N×163°.45E, h41km, mb4.5/8, Error ellipse: s-maj=7.0km s-min=4.7km az=64.2*

ISC 08 02:20:42.5±1.4, 55°.69N±0°.03×163°.45E±0°.03, h12km±8km, n144, σ1s67/154, mb4.1/26, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBTR	**Krutoberegovo**	**0.63**	**326**	PN	**Pg**	**02 20 54.4**	**-0.4**
KBTR				S	**Sg**	**02 21 03.3**	**+0.2**
KBTR	**Krutoberegovo**	**0.63**	**326**	*eP*	**Pg**	**02 20 54.5**	**-0.4**
KBTR				*eS*	**Sg**	**02 21 03.4**	**+0.2**
SMKR	**Semkarok**	**1.43**	**310**	PN	**Pn**	**02 21 08.0**	**-0.3**
SMKR				S	**Sn**	**02 21 28.2**	**+1.1**
SMKR	**Semkarok**	**1.43**	**310**	*eP*	**Pn**	**02 21 08.0**	**-0.3**
SMKR				*eS*	**Sn**	**02 21 28.2**	**+1.1**
MKZ	**Mys Kozlova**	**1.50**	**222**	PN	**Pn**	**02 21 08.8**	**-0.4**
MKZ				S	**Sn**	**02 21 27.8**	**-0.9**
MKZ	**Mys Kozlova**	**1.50**	**222**	*eP*	**Pn**	**02 21 08.9**	**-0.4**
MKZ				*eS*	**Sn**	**02 21 27.8**	**-0.9**
BKI	**Bering**	**1.52**	**108**	PN	**Pn**	**02 21 09.5**	**+0.1**
BKI				S	**Sn**	**02 21 29.6**	**+0.6**
BKI	**Bering**	**1.52**	**108**	*eP*	**Pn**	**02 21 09.5**	**+0.1**
BKI				*eS*	**Sn**	**02 21 29.7**	**+0.6**
ZLN	**Zelenaya**	**1.53**	**284**	PN	**Pn**	**02 21 09.9**	**+0.2**
ZLN	**Zelenaya**	**1.53**	**284**	*eP*	**Pn**	**02 21 09.9**	**+0.2**
BDR	**Baidarnaya**	**1.54**	**306**	PN	**Pn**	**02 21 10.1**	**+0.3**
BDR	**Baidarnaya**	**1.54**	**306**	*eP*	**Pn**	**02 21 10.1**	**+0.3**
BZGR	**Bezymyannyi-Gr**	**1.58**	**280**	PN	**Pn**	**02 21 10.1**	**-0.3**
BZGR	**Bezymyannyi-Gr**	**1.58**	**280**	*eP*	**Pn**	**02 21 10.1**	**-0.3**
SRKR	**Sorokina**	**1.60**	**308**	PN	**Pn**	**02 21 11.5**	**+0.8**
SRKR	**Sorokina**	**1.60**	**308**	*eP*	**Pn**	**02 21 11.6**	**+0.8**
BZWR	**Bezymyannyi-We**	**1.69**	**281**	PN	**Pn**	**02 21 12.5**	**+0.5**
BZWR	**Bezymyannyi-We**	**1.69**	**281**	*eP*	**Pn**	**02 21 12.5**	**+0.5**
KLY	**Klyuchi**	**1.69**	**293**	PN	**Pn**	**02 21 10.8**	**-1.0**
KLY				S	**Sn**	**02 21 32.1**	**-1.3**
KLY	**Klyuchi**	**1.69**	**293**	*eP*	**Pn**	**02 21 10.9**	**-1.0**
KLY				*eS*	**Sn**	**02 21 32.2**	**-1.3**
KIRR	**Kirishev**	**1.77**	**280**	PN	**Pn**	**02 21 13.9**	**+0.7**
KIRR	**Kirishev**	**1.77**	**280**	*eP*	**Pn**	**02 21 13.9**	**+0.7**
TUMD	**Tumrok D**	**1.81**	**256**	PN	**Pn**	**02 21 14.3**	**+0.9**
TUMD				S	**Sn**	**02 21 36.7**	**+0.4**
TUMD	**Tumrok D**	**1.81**	**256**	*eP*	**Pn**	**02 21 14.4**	**+0.9**
TUMD				*eS*	**Sn**	**02 21 36.8**	**+0.4**
KMNR	**Kamenistaya**	**1.82**	**274**	PN	**Pn**	**02 21 14.5**	**+0.8**
KMNR	**Kamenistaya**	**1.82**	**274**	*eP*	**Pn**	**02 21 14.6**	**+0.8**
KPT	**Kopyto**	**1.84**	**280**	PN	**Pn**	**02 21 14.5**	**+0.5**
KPT	**Kopyto**	**1.84**	**280**	*eP*	**Pn**	**02 21 14.5**	**+0.5**
KZV	**Kizimen**	**1.89**	**254**	PN	**Pn**	**02 21 15.9**	**+1.2**
KZV	**Kizimen**	**1.89**	**254**	*eP*	**Pn**	**02 21 15.9**	**+1.2**
TUMR	**Tumrok**	**1.92**	**259**	PN	**Pn**	**02 21 16.7**	**+1.5**
TUMR	**Tumrok**	**1.92**	**259**	*eP*	**Pn**	**02 21 16.7**	**+1.5**
KOZ	**Kozyrevsk**	**2.05**	**282**	PN	**Pn**	**02 21 18.2**	**+1.4**
KOZ	**Kozyrevsk**	**2.05**	**282**	*eP*	**Pn**	**02 21 18.3**	**+1.4**
SRDR	**Sredinnyy**	**2.19**	**288**	PN	**Pn**	**02 21 20.3**	**+1.5**
SRDR	**Sredinnyy**	**2.19**	**288**	*eP*	**Pn**	**02 21 20.3**	**+1.5**
ESO	**Esso**	**2.69**	**277**	PN	**Pn**	**02 21 26.5**	**+0.9**
ESO	**Esso**	**2.69**	**277**	*eP*	**Pn**	**02 21 26.5**	**+0.9**
KII	**Karymskiy**	**2.84**	**236**	PN	**Pn**	**02 21 29.4**	**+1.7**
KII	**Karymskiy**	**2.84**	**236**	*eP*	**Pn**	**02 21 29.4**	**+1.7**
SPN	**Mys Shipunski**	**3.28**	**219**	PN	**Pn**	**02 21 35.0**	**+1.4**
SPN	**Mys Shipunski**	**3.28**	**219**	*eP*	**Pn**	**02 21 35.1**	**+1.4**
TIGL	**Tigil**	**3.36**	**310**	PN	**Pn**	**02 21 38.5**	**+3.8**
TIGL				S	**Sn**	**02 22 18.7**	**+4.2**
TIGL	**Tigil**	**3.36**	**310**	*eP*	**Pn**	**02 21 38.5**	**+3.8**
TIGL				*eS*	**Sn**	**02 22 18.7**	**+4.2**
NLC	**Nalytchevo**	**3.48**	**225**	PN	**Pn**	**02 21 38.2**	**+1.8**
NLC	**Nalytchevo**	**3.48**	**225**	*eP*	**Pn**	**02 21 38.2**	**+1.8**
OSSR	**Ossora**	**3.58**	**357**	PN	**Pn**	**02 21 38.3**	**+0.5**
OSSR	**Ossora**	**3.58**	**357**	*eP*	**Pn**	**02 21 38.3**	**+0.5**
SDLR	**Sedlovina**	**3.59**	**230**	PN	**Pn**	**02 21 39.8**	**+1.7**
SDLR	**Sedlovina**	**3.59**	**230**	*eP*	**Pn**	**02 21 39.8**	**+1.7**
KRER	**Koryakskii**	**3.63**	**231**	PN	**Pn**	**02 21 40.6**	**+1.9**
KRER	**Koryakskii**	**3.63**	**231**	*eP*	**Pn**	**02 21 40.6**	**+1.9**
SMAR	**Somma**	**3.64**	**230**	PN	**Pn**	**02 21 40.6**	**+1.8**
SMAR	**Somma**	**3.64**	**230**	*eP*	**Pn**	**02 21 40.6**	**+1.8**
KRX	**Arik**	**3.64**	**232**	PN	**Pn**	**02 21 41.2**	**+2.4**
KRX	**Arik**	**3.64**	**232**	*eP*	**Pn**	**02 21 41.2**	**+2.4**
AVH	**Avacha**	**3.67**	**231**	PN	**Pn**	**02 21 40.8**	**+1.8**
AVH	**Avacha**	**3.67**	**231**	*eP*	**Pn**	**02 21 40.9**	**+1.8**
UGLR	**Uglovaya**	**3.67**	**229**	PN	**Pn**	**02 21 40.9**	**+1.8**
UGLR	**Uglovaya**	**3.67**	**229**	*eP*	**Pn**	**02 21 40.9**	**+1.8**
KOK	**Koryaka**	**3.69**	**231**	PN	**Pn**	**02 21 41.4**	**+1.8**
KOK	**Koryaka**	**3.69**	**231**	*eP*	**Pn**	**02 21 41.2**	**+1.8**
GNL	**Ganaly**	**3.77**	**240**	PN	**Pn**	**02 21 42.3**	**+1.8**
GNL	**Ganaly**	**3.77**	**240**	*eP*	**Pn**	**02 21 42.3**	**+1.8**
DALK	**Dalny**	**3.82**	**228**	PN	**Pn**	**02 21 42.6**	**+1.5**
DALK	**Dalny**	**3.82**	**228**	*eP*	**Pn**	**02 21 42.6**	**+1.5**
PET	**Petropavlovsk**	**3.87**	**228**	*eP*	**Pn**	**02 21 43.3**	**+1.5**
PET				*eS*	**Sn**	**02 22 28.2**	**+1.0**
PET				pmax	pmax		
	comp=Z,77nm,0.6s						
PET				smax	smax		
	comp=N,164nm,0.6s						
PET				smax	smax		
	comp=E,162nm,0.6s						
PET	**Petropavlovsk**	**3.87**	**228**		**Pn**	**02 21 43.1**	**+1.3**
PET	**Petropavlovsk**	**3.87**	**228**	*eP*	**Pn**	**02 21 43.4**	**+1.6**
PALN	**Palana**	**3.90**	**333**	PN	**Pn**	**02 21 46.0**	**+3.9**
PALN	**Palana**	**3.90**	**333**	*eP*	**Pn**	**02 21 46.1**	**+3.9**
KRMR	**Karymshinskiy**	**4.23**	**230**	PN	**Pn**	**02 21 49.3**	**+2.6**
KRMR	**Karymshinskiy**	**4.23**	**230**	*eP*	**Pn**	**02 21 49.3**	**+2.6**
PEA0B	**Petropavlovsk-**	**4.24**	**235**	PN	**Pn**	**02 21 49.1**	**+2.2**
PEA0B	**Petropavlovsk-**	**4.24**	**235**		**Pn**	**02 21 47.9**	**+1.0**
PETK	**Petropavlovsk-**	**4.24**	**235**	Pn	**Pn**	**02 21 48.2**	**+1.3**
	comp=E,2.9nm,0.3s,baz=58,slow=15,SNR=35						
PETK				Sn	**Sn**	**02 22 39.5**	**+3.2**
	comp=E,1.2nm,0.3s,baz=82,slow=33,SNR=4.5						
PETK				LR	LR	02 23 46.2	
	comp=E,189nm,18.3s,baz=55,slow=44 comp=E,8.7nm,0.6s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**4.24**	**235**	PN	**Pn**	**02 21 48.5**	**+1.6**
PETK	**Petropavlovsk-**	**4.24**	**235**		**Pn**	**02 21 48.5**	**+1.6**
RUS	**Russkaya**	**4.37**	**224**	PN	**Pn**	**02 21 49.8**	**+1.2**
RUS	**Russkaya**	**4.37**	**224**	*eP*	**Pn**	**02 21 49.8**	**+1.2**
GRL	**Gorelyy**	**4.46**	**227**	PN	**Pn**	**02 21 52.8**	**+2.8**
GRL	**Gorelyy**	**4.46**	**227**	*eP*	**Pn**	**02 21 52.8**	**+2.8**
MTVR	**Mutnovka**	**4.46**	**226**	PN	**Pn**	**02 21 52.8**	**+2.8**
MTVR	**Mutnovka**	**4.46**	**226**	*eP*	**Pn**	**02 21 52.8**	**+2.8**
APC	**Apacha**	**4.61**	**236**	PN	**Pn**	**02 21 55.2**	**+3.3**
APC	**Apacha**	**4.61**	**236**	*eP*	**Pn**	**02 21 55.2**	**+3.3**
ASAK	**Asacha**	**4.65**	**227**	PN	**Pn**	**02 21 54.9**	**+2.3**
ASAK	**Asacha**	**4.65**	**227**	*eP*	**Pn**	**02 21 55.0**	**+2.3**
KDTR	**Khodutka, Kamc**	**5.03**	**222**	PN	**Pn**	**02 21 58.9**	**+1.3**
KDTR	**Khodutka, Kamc**	**5.03**	**222**	*eP*	**Pn**	**02 21 59.0**	**+1.3**
SHEM	**Shemya Is, Ala**	**6.91**	**111**	Pn	**Pn**	**02 22 26.6**	**+3.1**
	comp=E,1.8nm,0.3s,baz=105,slow=20,SNR=1.1 comp=E,32nm,0.7s						
SHEM				AML	AML		
JKA	**Kamikawa-asahi**	**17.65**	**238**	P	**Pn**	**02 24 49.0**	**+1.0**
JKA				IAmb	IAmb	02 24 51.1	
	comp=Z,23nm,0.8s						
ASAJ	**Asahikawa**	**17.65**	**238**	P	**Pn**	**02 24 49.1**	**+1.1**
	comp=Z,0.9nm,0.3s,baz=59,slow=1.0,SNR=7.5						
ASAJ				LR	LR	02 32 16.7	
	comp=Z,117nm,18.2s,baz=72,slow=40 comp=Z,20nm,0.8s						
ASAJ				AML	AML		
YAK	**Yakutsk**	**18.42**	**304**	*eP*	**Pn**	**02 24 56.7**	**-0.6**
YAK				pmax	pmax		
	comp=Z,14nm,1.1s						
YAK				pmax	pmax		
	comp=N,11nm,3.0s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.5s						
ERM	**Erimo**	**19.02**	**232**	*iP*	**P**	**02 25 03.0**	**-1.0**
KLR	**Kul'dur**	**20.24**	**265**	P	**P**	**02 25 17.0**	**-0.3**
	comp=E,1.3nm,0.7s,baz=100,slow=14,SNR=2.5 comp=E,1.3nm,0.7s						
KLR	**Kul'dur**	**20.24**	**265**	P	**P**	**02 25 17.0**	**-0.3**
TIXI	**Tiksi**	**21.65**	**331**	P	**P**	**02 25 31.3**	**-1.0**
	comp=E,5.3nm,0.6s,baz=125,slow=9.5,SNR=30 comp=E,5.3nm,0.6s						
TIXI	**Tiksi**	**21.65**	**331**	*iP*	**P**	**02 25 32.0**	**-0.4**
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.7s						
E24K	**Your Creek**	**25.04**	**41**	P	**P**	**02 26 05.6**	**-0.6**
E24K				IAmb	IAmb	02 26 18.2	
	comp=Z,3.6nm,0.9s						
ILAR	**Eielson Array**	**25.61**	**49**	P	**P**	**02 26 11.7**	**+0.4**
	comp=Z,0.8nm,0.9s,baz=272,slow=8.2,SNR=6.9 comp=Z,0.8nm,0.9s						
MJA0	**Matsu Arr-Jizo**	**25.68**	**232**	*eP*	**P**	**02 26 12.7**	**+0.5**
MJA0				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MJB9	**Matsu-Tunnel**	**25.69**	**232**	P	**P**	**02 26 13.7**	**+1.4**
MAJO	**Matsushiro**	**25.69**	**232**	P	**P**	**02 26 12.3**	**0.0**
MAJO				pmax	pmax		
	comp=Z,11nm,0.8s						
MAJO	**Matsushiro**	**25.69**	**232**	P	**P**	**02 26 12.3**	**0.0**
MJAR	**Matsushiro Arr**	**25.69**	**232**	P	**P**	**02 26 12.8**	**+0.5**
	comp=Z,3.7nm,0.7s,baz=28,slow=8.8,SNR=12 comp=Z,3.7nm,0.7s						
D25K	**Kavik River**	**25.94**	**39**	P	**P**	**02 26 12.3**	**-1.9**
D25K				IAmb	IAmb	02 26 26.4	
	comp=Z,3.2nm,1.0s						
SONM	**Songino Array**	**35.26**	**282**	P	**P**	**02 27 35.7**	**-1.2**
	comp=Z,5.0nm,0.4s,baz=64,slow=7.8,SNR=4.7 comp=Z,0.5nm,0.4s						
SONM	**Songino Array**	**35.26**	**282**	*eP*	**P**	**02 27 38.0**	**+1.1**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
H11N2	**WAKE ISLAND Hy**	**35.99**	**174**	T	T	03 06 41.2	
	baz=357,slow=76,SNR=403						
H11N3	**WAKE ISLAND Hy**	**36.01**	**174**	T	T	03 07 01.4	
	baz=357,slow=76,SNR=126						
H11N1	**WAKE ISLAND Hy**	**36.01**	**174**	T	T	03 07 05.9	
	baz=357,slow=76,SNR=220						
H11S1	**WAKE ISLAND Hy**	**37.20**	**175**	T	T	03 08 31.2	
	baz=360,slow=76,SNR=12						
H11S3	**WAKE ISLAND Hy**	**37.21**	**175**	T	T	03 08 14.3	
	baz=360,slow=76,SNR=10						
H11S2	**WAKE ISLAND Hy**	**37.21**	**175**	T	T	03 08 29.0	
	baz=360,slow=76,SNR=8.9						
YKA	**Yellowknife Ar**	**39.93**	**46**	P	**P**	**02 28 16.4**	**+0.4**
	comp=Z,0.4nm,0.8s,baz=298,slow=8.2,SNR=1.6 comp=Z,0.4nm,0.8s						
DGZ	**Jazzator, Alta**	**44.30**	**296**	*iP*	**P**	**02 28 51.1**	**-0.9**
DGZ				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SPITS	**Spitsbergen Ar**	**44.89**	**351**	P	**P**	**02 28 55.1**	**-1.1**
	comp=Z,11nm,0.9s,baz=72,slow=8.0,SNR=2.2 comp=Z,11nm,0.9s						
KURK	**Kurchatov**	**48.04**	**302**	P	**P**	**02 29 18.6**	**-2.6**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KURK	**Kurchatov**	**48.04**	**302**	P	**P**	**02 29 18.6**	**-2.6**
KURK				IAmb	IAmb	02 29 20.3	
	comp=Z,3.4nm,0.7s						
KURBB	**Kurchatov Arra**	**48.14**	**302**	P	**P**	**02 29 19.4**	**-2.6**
	comp=Z,1.6nm,0.4s,baz=55,slow=8.5,SNR=7.6 comp=Z,1.6nm,0.4s						
MK31	**Makanchi Array**	**48.80**	**296**	*iP*	**P**	**02 29 27.1**	**-0.1**
MKAR	**Makanchi Array**	**48.80**	**296**	P	**P**	**02 29 24.7**	**-2.5**
	comp=Z,1.1nm,0.6s,baz=57,slow=8.2,SNR=8.7 comp=Z,1.1nm,0.6s						
BVAR	**Borovoye Array**	**50.32**	**308**	P	**P**	**02 29 36.5**	**-2.1**
	comp=Z,0.7nm,0.4s,baz=49,slow=10.0,SNR=3.9 comp=Z,0.7nm,0.4s						
BORK	**Borovoye**	**50.33**	**308**	*iP*	**P**	**02 29 36.8**	**-1.9**
BORK				pmax	pmax		
	comp=Z,4.0nm,1.1s						
NVAR	**Mina Array Bea**	**53.07**	**74**	P	**P**	**02 30 01.9**	**+2.2**
	comp=Z,0.4nm,0.8s,baz=308,slow=7.1,SNR=2.0 comp=Z,0.4nm,0.8s						
AAK	**Ala-Archa**	**55.68**	**297**	*iP*	**P**	**02 30 16.9**	**-1.6**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s						
AB31	**Akbulak array**	**57.59**	**311**	P	**P**	**02 30 30.4**	**-1.4**
ABKAR	**Akbulak array**	**57.59**	**311**	P	**P**	**02 30 30.1**	**-1.7**
FINES	**FINESS Array B**	**58.49**	**338**	P	**P**	**02 30 36.9**	**-1.0**
	comp=Z,2.6nm,0.8s,baz=18,slow=13,SNR=5.6 comp=Z,2.6nm,0.8s						
FINES	**FINESS Array B**	**58.49**	**338**	*eP*	**P**	**02 30 36.9**	**-1.0**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**60.61**	**260**	P	**P**	**02 30 52.9**	**-0.3**
	comp=Z,0.9nm,0.3s,baz=20,slow=6.7,SNR=6.2 comp=Z,0.9nm,0.3s						
TXAR	**Lajitas Array**	**67.86**	**70**	P	**P**	**02 31 42.7**	**+2.0**
	comp=Z,0.7nm,0.7s,baz=294,slow=5.0,SNR=9.8 comp=Z,0.7nm,0.7s						
TXAR	**Lajitas Array**	**67.86**	**70**	P	**P**	**02 31 42.5**	**+1.8**
BURAR	**Bucovina Array**	**71.27**	**332**	P	**P**	**02 32 01.2**	**-0.2**
GERES	**GERESS Array B**	**72.81**	**340**	P	**P**	**02 32 09.9**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=25,slow=4.7,SNR=4.2 comp=Z,0.3nm,0.5s						
NRCA	**Norcia**	**78.68**	**338**	P	**P**	**02 32 44.9**	**+0.6**
NRCA				IAmb	IAmb	02 32 58.3	
	comp=Z,5.5nm,1.1s						
WRA	**Warramunga Arr**	**79.28**	**208**	P	**P**	**02 32 48.9**	**+1.4**
	comp=Z,0.3nm,0.7s,baz=24,slow=5.9,SNR=2.4 comp=Z,0.3nm,0.7s						
MMAI	**Mount Meron Ar**	**81.16**	**318**	P	**P**	**02 32 57.2**	**-0.7**
	comp=Z,4.3nm,0.9s,baz=24,slow=5.0,SNR=2.0 comp=Z,4.3nm,0.9s						
ASAR	**Alice Springs**	**82.95**	**207**	P	**P**	**02 33 08.3**	**+1.3**
	comp=Z,0.8nm,0.9s,baz=26,slow=5.1,SNR=5.6 comp=Z,0.8nm,0.9s						
ASAR	**Alice Springs**	**82.95**	**207**	P	**P**	**02 33 08.7**	**+1.6**
ASAR	**Alice Springs**	**82.95**	**207**	P	**P**	**02 33 08.7**	**

CHKH	**Chenggong**	**0.68**	**29**	*eP*	**Pg**	**02 45 13.5**	**-0.3**
CHKH				*eS*	**Sb**	**02 45 23.7**	**-0.4**
TWK1	**Hengchun**	**0.69**	**198**	||*P*	**Pb**	**02 45 14.5**	**-0.4**
TWKBT	**Hengchun**	**0.69**	**198**	||*P*	**Pb**	**02 45 14.5**	**-0.4**
TSEB	**Hengchuen, Pin**	**0.71**	**190**	P	**Pb**	**02 45 15.4**	**+0.2**
TSEB				*eS*	**Sb**	**02 45 26.6**	**+1.6**
WSSB	**Gushan**	**0.72**	**273**	*eP*	**Pn**	**02 45 17.4**	**+0.4**
WSSB				*eS*	**Sn**	**02 45 29.4**	**+1.2**
LAY	**Lan-yu**	**0.73**	**140**	*eP*	**Pg**	**02 45 14.5**	**-0.3**
CHN1	**Nanshi**	**0.75**	**321**	*eP*	**Pb**	**02 45 15.8**	**-0.1**
WTP	**Ta-pu**	**0.75**	**329**	*eP*	**Pb**	**02 45 15.7**	**-0.3**
CHN3	**Shinhua**	**0.78**	**307**	*eP*	**Pn**	**02 45 18.0**	**+0.1**
LYUB	**Lan-yu**	**0.78**	**140**	*eP*	**Pg**	**02 45 13.7**	**-2.0**
TWF1	**Yuli**	**0.79**	**18**	*eP*	**Pg**	**02 45 14.3**	**-1.6**
TWF1				*eS*	**Sg**	**02 45 25.8**	**-0.3**
TPUB	**Ta-pu**	**0.79**	**332**	P	**Pb**	**02 45 16.6**	**0.0**
TPUB	**Ta-pu**	**0.79**	**332**	*eP*	**Pb**	**02 45 16.6**	**0.0**
ECBN	**Changbin**	**0.81**	**28**	*eP*	**Pg**	**02 45 15.2**	**-1.1**
YULB	**Yu-li**	**0.82**	**17**	P	**Pg**	**02 45 14.8**	**-1.8**
YULB	**Yu-li**	**0.82**	**17**	*eP*	**Pg**	**02 45 14.7**	**-1.8**
TWK	**Hsinying**	**0.84**	**323**	*eP*	**Pb**	**02 45 17.6**	**+0.2**
CHN4	**Tsaushan**	**0.85**	**331**	||*eP*	**Pb**	**02 45 17.9**	**+0.2**
CHN4				*eS*	**Sn**	**02 45 30.9**	**-0.6**
TAI1	**Yung-k'ang**	**0.87**	**301**	*eP*	**Pn**	**02 45 19.2**	**+0.2**
SSHA	**Shanhua**	**0.87**	**308**	*eP*	**Pn**	**02 45 19.6**	**+0.4**
SSHA				*eS*	**Sn**	**02 45 34.7**	**+2.7**
YUS	**Yu-Shan**	**0.89**	**355**	*eP*	**Pg**	**02 45 17.3**	**-0.6**
WCKO	**Fanlu**	**0.93**	**335**	*eP*	**Pn**	**02 45 19.4**	**-0.5**
WCKO				*eS*	**Sn**	**02 45 33.0**	**-0.3**
ALS	**Alishan**	**0.93**	**347**	||*eP*	**Pg**	**02 45 18.4**	**-0.3**
ALS				*eS*	**Sn**	**02 45 32.6**	**-1.2**
EHYH	**Wanrong**	**0.93**	**18**	*eP*	**Pg**	**02 45 17.0**	**-1.7**
EHY	**Hungye**	**0.94**	**16**	*eP*	**Pg**	**02 45 17.3**	**-1.5**
HGSD	**Ruisui**	**0.96**	**22**	*eP*	**Pg**	**02 45 17.9**	**-1.2**
SCLT	**Jiali**	**0.97**	**306**	*i* P	**Pn**	**02 45 20.4**	**0.0**
SCLT				S	**Sn**	**02 45 36.3**	**+2.1**
TSCK	**Chigu Township**	**1.03**	**302**	P	**Pn**	**02 45 21.6**	**+0.3**
TSCK				S	**Sn**	**02 45 37.5**	**+1.6**
CHN5	**Tsauling**	**1.05**	**342**	P	**Pn**	**02 45 21.2**	**-0.4**
CHN5				S	**Sn**	**02 45 37.7**	**+1.3**
CHY	**Chiayi**	**1.06**	**328**	*eP*	**Pn**	**02 45 21.9**	**+0.3**
CHY				*eS*	**Sn**	**02 45 39.2**	**+2.7**
CHN2	**Minshiung**	**1.06**	**331**	*i* P	**Pn**	**02 45 22.3**	**+0.5**
CHN2				*eS*	**Sn**	**02 45 38.5**	**+1.8**
CHN8	**Yiju**	**1.06**	**314**	P	**Pn**	**02 45 21.9**	**+0.1**
CHN8				S	**Sn**	**02 45 38.6**	**+2.0**
WHYT	**Xinyi Township**	**1.10**	**351**	*i* P	**Pb**	**02 45 21.7**	**-0.3**
WHYT				S	**Sn**	**02 45 37.1**	**-0.6**
VWDT	**VWDT**	**1.15**	**5**	*eP*	**Pg**	**02 45 21.7**	**-1.2**
WARBT	**Fenglin Townsh**	**1.16**	**16**	*eP*	**Pg**	**02 45 20.5**	**-2.5**
WGK	**Gukeng**	**1.17**	**338**	*eP*	**Pn**	**02 45 24.1**	**+0.9**
WDLH	**Douliu**	**1.18**	**337**	*i* P	**Pn**	**02 45 23.7**	**+0.4**
WDLH				S	**Sn**	**02 45 42.0**	**+2.6**
WSL	**Shuilin Townsh**	**1.18**	**321**	*eP*	**Pn**	**02 45 24.0**	**+0.6**
SSLB	**Suanglung**	**1.19**	**356**	P	**Pg**	**02 45 22.8**	**-0.7**
SSLB	**Suanglung**	**1.19**	**356**	P	**Pg**	**02 45 22.7**	**-0.7**
SSLB				*eS*	**Sn**	**02 45 41.6**	**+1.8**
ESL	**Shilin**	**1.26**	**17**	*eP*	**Pn**	**02 45 23.3**	**-1.2**
SHUL	**Shoufeng**	**1.28**	**22**	*eP*	**Pn**	**02 45 23.7**	**-1.0**
WSF	**Szhu**	**1.28**	**324**	*eP*	**Pg**	**02 45 25.1**	**-0.1**
WSF				*eS*	**Sn**	**02 45 44.9**	**+3.0**
SMLT	**Sun Moon Lake**	**1.28**	**354**	*eP*	**Pg**	**02 45 25.1**	**-0.3**
SMLT				S	**Sn**	**02 45 44.4**	**+2.1**
TYC	**Yuchr**	**1.31**	**353**	P	**Pg**	**02 45 26.1**	**+0.2**
TYC				*eS*	**Sn**	**02 45 45.0**	**+2.3**
WNT	**Mingjian**	**1.31**	**346**	*eP*	**Pg**	**02 45 26.6**	**+0.6**
WNT				*eS*	**Sn**	**02 45 45.1**	**+2.3**
OWD	**Renai**	**1.35**	**5**	*eP*	**Pn**	**02 45 24.9**	**-1.0**
WUSB	**Renai**	**1.39**	**3**	*eP*	**Pn**	**02 45 25.9**	**-0.5**
WUSB				*eS*	**Sn**	**02 45 48.0**	**+3.2**
ETM	**Tongmen**	**1.42**	**17**	*eP*	**Pn**	**02 45 24.6**	**-2.2**
RLNB	**Erlin**	**1.43**	**334**	*eP*	**Pg**	**02 45 27.7**	**-0.4**
WDGT	**Dungji**	**1.43**	**298**	*eP*	**Pb**	**02 45 26.9**	**-0.7**
WCS	**Beigang Elemen**	**1.46**	**355**	*i* P	**Pg**	**02 45 28.5**	**-0.1**
WCS				S	**Sg**	**02 45 49.6**	**+2.1**
LXIB	**Xiulin Townshi**	**1.46**	**14**	*eP*	**Pn**	**02 45 24.3**	**-3.0**
HWA	**Hwalien**	**1.47**	**21**	*eP*	**Pn**	**02 45 26.7**	**-0.6**
WCHH	**Zhanghua**	**1.54**	**343**	*eP*	**Pg**	**02 45 29.8**	**-0.5**
WCHH				S	**Sg**	**02 45 52.0**	**+1.8**
WHF	**Hehuan Shan**	**1.55**	**8**	*eP*	**Pn**	**02 45 28.3**	**-0.6**
WHF				S	**Sn**	**02 45 49.1**	**-0.3**
TWD	**Chiawan**	**1.56**	**19**	*eP*	**Pn**	**02 45 27.7**	**-0.8**
TCU	**Taichung**	**1.58**	**348**	*eP*	**Pb**	**02 45 30.0**	**0.0**
TCU				*eS*	**Sg**	**02 45 53.1**	**+1.6**
VCHM	**Qimei**	**1.60**	**293**	*eP*	**Pn**	**02 45 28.0**	**-1.2**
VCHM				*eS*	**Sb**	**02 45 50.7**	**-0.1**
PHUB	**P'eng-hu**	**1.63**	**304**	*eP*	**Pn**	**02 45 26.7**	**-2.8**
PHUB				*eS*	**Sb**	**02 45 50.7**	**-0.8**
ETL	**Fush Village**	**1.64**	**19**	*eP*	**Pb**	**02 45 30.9**	**-0.2**
NACB	**Ninganchiao**	**1.65**	**18**	P	**Pn**	**02 45 28.7**	**-1.1**
NACB	**Ninganchiao**	**1.65**	**18**	*eP*	**Pn**	**02 45 27.4**	**-2.4**
TDCB	**Techi**	**1.65**	**4**	*eP*	**Pb**	**02 45 30.6**	**-0.8**
ETLH	**Xiulin Townshi**	**1.65**	**14**	*eP*	**Pn**	**02 45 29.3**	**-0.7**
TWT	**Tachien**	**1.65**	**4**	*eP*	**Pn**	**02 45 30.0**	**0.0**
TWT				*eS*	**Sg**	**02 45 53.5**	**-0.3**
PNG	**Penghu**	**1.67**	**305**	*eP*	**Pn**	**02 45 29.4**	**-0.7**
TWQ1	**Liyutan**	**1.76**	**352**	*eP*	**Pb**	**02 45 33.4**	**+0.2**
WDJ	**Dajia District**	**1.78**	**348**	*eP*	**Pb**	**02 45 32.5**	**-1.0**
WDJ				*eS*	**Sg**	**02 45 58.7**	**+0.8**
EAHA	**Aohua**	**1.84**	**20**	*eP*	**Pb**	**02 45 33.6**	**-0.9**
NNSB	**Datong**	**1.85**	**10**	*eP*	**Pn**	**02 45 32.2**	**-0.5**
NNS	**Nan Shan**	**1.86**	**9**	*eP*	**Pn**	**02 45 34.5**	**-0.4**
EOS4	**EOS4**	**1.92**	**38**	*eP*	**Pn**	**02 45 31.6**	**-1.6**
EWUT	**Wuta**	**1.96**	**20**	*eP*	**Pn**	**02 45 34.0**	**-0.1**
LATG	**Datong**	**1.98**	**13**	*eP*	**Pn**	**02 45 34.5**	**+0.1**
NSTT	**Nanjuang**	**2.02**	**359**	*eP*	**Pb**	**02 45 38.0**	**+0.3**
NSTT				*eS*	**Sg**	**02 46 06.2**	**+0.5**
NFF	**Wufeng Townshi**	**2.02**	**2**	*eP*	**Pn**	**02 45 35.9**	**+0.9**
LIOB	**Emei**	**2.04**	**359**	*eP*	**Pb**	**02 45 37.2**	**-0.7**
LIOB				*eS*	**Sg**	**02 46 05.9**	**-0.3**
NDT	**Datong Townshi**	**2.04**	**12**	*eP*	**Pb**	**02 45 38.5**	**+0.5**
EOS3	**EOS3**	**2.05**	**35**	*eP*	**Pn**	**02 45 34.0**	**-1.2**
YHNB	**Yeheng**	**2.08**	**8**	P	**Pn**	**02 45 36.2**	**+0.3**
YHNB	**Yeheng**	**2.08**	**8**	*eP*	**Pn**	**02 45 35.7**	**-0.2**
YHNB				*eS*	**Sg**	**02 46 06.6**	**-1.1**
ENTT	**Nioudou**	**2.09**	**13**	*eP*	**Pn**	**02 45 35.2**	**-0.7**
NSK	**Sanguang**	**2.09**	**8**	*eP*	**Pb**	**02 45 37.3**	**-1.4**
NSK				*eS*	**Sg**	**02 46 07.2**	**-0.7**
EOS2	**EOS2**	**2.12**	**31**	*eP*	**Pn**	**02 45 35.3**	**-0.8**
NDS	**Dongshan**	**2.12**	**17**	*eP*	**Pn**	**02 45 35.7**	**-0.6**
TWC	**Suao**	**2.13**	**20**	*eP*	**Pb**	**02 45 38.2**	**-1.3**
KSHI	**Guanxi Townshi**	**2.17**	**3**	*eP*	**Pb**	**02 45 39.4**	**-0.8**
TWE	**Neicheng**	**2.19**	**15**	*eP*	**Pn**	**02 45 38.1**	**+0.9**
HSN	**Hsinchu**	**2.19**	**358**	*eP*	**Pn**	**02 45 40.4**	**-0.1**
FUSB	**Fushanzhiwuyua**	**2.21**	**13**	*eP*	**Pn**	**02 45 37.6**	**0.0**
NWLT	**Wulai**	**2.21**	**11**	*eP*	**Pn**	**02 45 38.6**	**+1.0**
TATO	**Taipei**	**2.40**	**10**	P	**Pn**	**02 45 40.5**	**+0.4**
TIPB	**Shuangxi**	**2.47**	**17**	*eP*	**Pn**	**02 45 42.0**	**+0.9**
TWB1	**Santiao Chiao**	**2.55**	**20**	*eP*	**Pn**	**02 45 43.1**	**+0.9**
WFSB	**Wu-fen Shan**	**2.55**	**15**	*eP*	**Pn**	**02 45 43.3**	**+1.1**
ZUZH	**Zhuzihu**	**2.59**	**10**	*eP*	**Pn**	**02 45 44.2**	**+1.4**
SXI1	**Grass Mountain**	**2.60**	**17**	*eP*	**Pn**	**02 45 43.4**	**+0.5**
VWUC	**VWUC**	**2.79**	**329**	*eP*	**Pn**	**02 45 46.1**	**+0.6**
VWUC				*eS*	**Sn**	**02 46 20.4**	**+1.1**
PTMZ	**Houxiangcun**	**3.00**	**325**	*eP*	**Pn**	**02 45 47.0**	**-1.3**
AXDP	**Jialang**	**3.63**	**310**	*eP*	**Pn**	**02 45 56.7**	**-0.3**
MATB	**Ma-tsu**	**3.67**	**344**	*eP*	**Pn**	**02 45 57.9**	**+0.2**
MHZQ	**Yeshan**	**3.94**	**333**	*eP*	**Pn**	**02 46 01.9**	**+0.7**
LYJJ	**Jianjiangzhen**	**4.10**	**344**	*eP*	**Pn**	**02 46 03.1**	**-0.4**
SXFK	**Yanhouchang**	**4.88**	**321**	*eP*	**Pn**	**02 46 13.9**	**-0.4**
DAV	**Davao City (W)**	**16.05**	**163**	LR	LR	02 55 33.6	
	comp=Z,52nm,18.2s,baz=340,slow=40						
MKAR	**Makanchi Array**	**39.39**	**317**	P	**P**	**02 52 32.3**	**+1.6**
	0.7nm,0.8s,baz=98,slow=8.9,SNR=3.6						
	0.7nm,0.8s						
PMG	**Port Moresby**	**40.83**	**138**	LR	LR	03 12 29.6	
	comp=Z,22nm,18.1s,baz=250,slow=41						
ZALV	**Zalesovo Beam**	**41.51**	**328**	P	**P**	**02 52 49.0**	**+0.9**
	0.9nm,0.6s,baz=116,slow=6.6,SNR=4.8						
	0.9nm,0.6s						
H11N1	**WAKE ISLAND Hy**	**42.73**	**85**	T	T	03 38 35.9	
	baz=282,slow=74,SNR=29						
H11N2	**WAKE ISLAND Hy**	**42.73**	**85**	T	T	03 38 35.0	
	baz=282,slow=74,SNR=31						
H11N3	**WAKE ISLAND Hy**	**42.75**	**85**	T	T	03 38 38.7	
	baz=282,slow=74,SNR=22						
H11S3	**WAKE ISLAND Hy**	**42.82**	**87**	T	T	03 38 41.6	
	baz=284,slow=75,SNR=73						
H11S1	**WAKE ISLAND Hy**	**42.83**	**87**	T	T	03 38 42.7	
	baz=284,slow=75,SNR=91						
H11S2	**WAKE ISLAND Hy**	**42.83**	**87**	T	T	03 38 43.9	
	baz=284,slow=75,SNR=59						
WRA	**Warramunga Arr**	**44.23**	**162**	P	**P**	**02 53 08.5**	**-2.0**
	0.3nm,0.5s,baz=344,slow=8.4,SNR=2.7						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**47.66**	**164**	P	**P**	**02 53 35.9**	**-1.7**
	0.1nm,0.4s,baz=342,slow=6.7,SNR=4.4						
	0.1nm,0.4s						

*SNET **08** 02:47:34.7±2.2, 12°.52N×88°.71W, h15km, ML4.1, Presumed earthquake*

*CATAC **08** 02:47:34.9±0.5, 13°.N±2°×8°.9W±°, h23km±4km, M4.1/29, MLv4.1/29, Error ellipse: s-maj=5.3km s-min=2.1km az=30.0, confirmed*

*IDC **08** 02:47:36.6±3.0, 12°.32N×88°.82W, h62km±27km, mb3.4/4, mbtmp3.6/7, ML3.1/3, MS2.3/1, Error ellipse: s-maj=99.2km s-min=20.9km az=35.0*

*NEIC **08** 02:47:39.9±1.2, 12°.9N±0°.2×88°.3W±0°.1, h45km±11km, mb4.1/14, Error ellipse: s-maj=30.2km s-min=9.0km az=220.0*

*GCG **08** 02:47:39.9±1.1, 12°.69N×89°.06W, h23km±9km, MD4.1, ML4.3, Presumed earthquake*

ISC 08 02:47:34.3±1.2, 12°.54N±0°.05×88°.72W±0°.03, h19km±3km, n82, σ1§03°/111°, mb4.1/9, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALJI	**Alcalda de J**	**0.79**	**10**	P	**Pn**	**02 47 51.0**	**+0.5**
ALJI				*S*	**Sn**	**02 48 03.0**	**+1.2**
JUCU	**Jucuar¡n**	**0.84**	**33**	*eP*	**Pg**	**02 47 50.9**	**+0.1**
INTP	**Intipuca**	**0.92**	**45**	*eP*	**Pb**	**02 47 51.8**	**+0.2**
INTP				*eS*	**Sg**	**02 48 04.2**	**-0.1**
LCY	**Lacayo**	**0.97**	**25**	*eP*	**Pg**	**02 47 53.5**	**+0.3**
TECA	**Tecapa**	**0.97**	**12**	*i* P	**Pg**	**02 47 53.4**	**+0.2**
RANC	**El Ranchito**	**0.98**	**25**	P	**Pg**	**02 47 53.7**	**+0.2**
RANC				*S*	**Sn**	**02 48 07.5**	**+0.8**
TECO	**Alcaldia de Te**	**0.99**	**356**	P	**Pn**	**02 47 53.2**	**-0.1**
TECO				*S*	**Sn**	**02 48 07.0**	**+0.2**
TECO	**Alcaldia de Te**	**0.99**	**356**	*eP*	**Pn**	**02 47 53.5**	**+0.2**
PACA	**Pacayal**	**1.00**	**22**	P	**Pg**	**02 47 53.6**	**-0.1**
PACA				*S*	**Sn**	**02 48 07.9**	**+0.9**
LALI	**Alcalda de L**	**1.11**	**328**	P	**Pn**	**02 47 54.6**	**-0.3**
LALI				*S*	**Sn**	**02 48 09.7**	**+0.1**
LALI	**Alcalda de L**	**1.11**	**328**	*i* P	**Pb**	**02 47 55.1**	**+0.2**
LALI				*i* S	**Sb**	**02 48 07.1**	**-1.9**
CNCH	**Conchagua**	**1.13**	**50**	P	**Pb**	**02 47 55.3**	**0.0**
CNCH				*S*	**Sg**	**02 48 11.8**	**+0.7**
CNCH	**Conchagua**	**1.13**	**50**	*eP*	**Pb**	**02 47 55.3**	**0.0**
PANCS	**Alcalda de**	**1.16**	**337**	P	**Sb**	**02 48 09.6**	**-0.8**
LOMA	**Loma Larga**	**1.18**	**338**	P	**Pn**	**02 47 56.0**	**0.0**
LOMA				*S*	**Sn**	**02 48 11.7**	**0.0**
LOMA	**Loma Larga**	**1.18**	**338**	*eP*	**Pb**	**02 47 56.2**	**0.0**
UTEC	**Universidad Te**	**1.25**	**338**	P	**Pg**	**02 47 58.0**	**-0.4**
UTEC				*S*	**Sn**	**02 48 13.3**	**+0.2**
SEMO	**Seminario San**	**1.26**	**337**	P	**Pn**	**02 47 57.8**	**+0.3**
SEMO				*S*	**Sn**	**02 48 13.9**	**+0.5**
POTN	**Potosi Cosigui**	**1.26**	**69**	P	**Pn**	**02 47 56.6**	**-0.4**
UEES	**Universidad Ev**	**1.27**	**336**	P	**Pn**	**02 47 57.5**	**+0.3**
PMON	**Piamonte**	**1.30**	**333**	P	**Pb**	**02 47 58.1**	**-0.2**
PMON				*S*	**Sn**	**02 48 14.2**	**-0.3**
PIC2	**El Picacho**	**1.31**	**336**	*eP*	**Pb**	**02 47 58.4**	**0.0**
JAYA	**Jayaque - finc**	**1.32**	**327**	P	**Pb**	**02 47 58.3**	**-0.2**
JAYA				*S*	**Sb**	**02 48 15.4**	**+0.2**
JAYA	**Jayaque - finc**	**1.32**	**327**	*i* P	**Pn**	**02 47 58.0**	**+0.1**
JAYA				IAML		02 48 19.1	
	comp=N,13μm,0.3s						
CEDA	**San Andres**	**1.42**	**332**	P	**Pb**	**02 48 00.0**	**-0.2**
CEDA				*S*	**Sb**	**02 48 18.6**	**+0.7**
CEDA	**San Andres**	**1.42**	**332**	*eP*	**Pn**	**02 47 59.5**	**+0.4**
P5NO	**Presa 5 de nov**	**1.44**	**358**	P	**Pg**	**02 48 00.6**	**-0.5**
P5NO				*S*	**Sg**	**02 48 20.0**	**-0.9**
P5NO	**Presa 5 de nov**	**1.44**	**358**	*eP*	**Pb**	**02 48 00.8**	**+0.3**
P5NO				*eS*	**Sb**	**02 48 18.5**	**+0.1**
CEVE	**Cerro Verde**	**1.56**	**325**	P	**Pb**	**02 48 02.0**	**-0.6**
CEVE				*S*	**Sb**	**02 48 23.4**	**+1.3**
SBLS	**San Blas**	**1.56**	**326**	*eP*	**Pg**	**02 48 04.3**	**-0.3**
SBLS				*eS*	**Sb**	**02 48 22.0**	**-0.3**
CRIN	**San Cristobal**	**1.63**	**84**	P	**Pn**	**02 48 01.6**	**-0.5**
CRIN				*S*	**Sb**	**02 48 24.6**	**+0.5**
CRIN	**San Cristobal**	**1.63**	**84**		**Pn**	**02 48 01.8**	**-0.3**
UNIC	**Universidad Ca**	**1.65**	**331**	P	**Pb**	**02 48 03.6**	**-0.5**
UNIC				*S*	**Sb**	**02 48 24.9**	**+0.4**
NUBE	**Las Nubes**	**1.71**	**323**	P	**Pn**	**02 48 03.4**	**+0.3**
NUBE				*S*	**Sn**	**02 48 25.4**	**+0.8**
NUBE	**Las Nubes**	**1.71**	**323**	*i* P	**Pn**	**02 48 03.7**	**+0.5**
NUBE				*i* S	**Sn**	**02 48 23.8**	**-0.8**
NUBE				IAML		02 48 28.9	
	comp=N,3μm,0.3s						
LOAL	**Lomas de Alarc**	**1.78**	**325**	P	**Pb**	**02 48 05.9**	**-0.5**
LOAL				*S*	**Sb**	**02 48 28.5**	**+0.1**
SLOZ	**Alcaldia de Sa**	**1.81**	**325**	P	**Pb**	**02 48 05.8**	**-1.0**
SLOZ	**Alcaldia de Sa**	**1.81**	**325**	*eP*	**Pb**	**02 48 05.9**	**-1.0**
FAME	**Alcaldia de Sa**	**1.81**	**316**	P	**Pn**	**02 48 04.9**	**+0.4**
FAME				*S*	**Sn**	**02 48 27.4**	**+0.4**
QUEN	**Al S del Volca**	**1.82**	**88**	P	**Pn**	**02 48 04.0**	**-0.6**
QUEN				*S*	**Sb**	**02 48 29.0**	**-0.5**
TEL3	**Telica 3**	**1.83**	**89**	P	**Pn**	**02 48 04.0**	**-0.7**
PLRN	**Geotermica Pol**	**1.90**	**89**	P	**Pn**	**02 48 04.6**	**-1.2**
PLRN				*S*	**Sn**	**02 48 28.4**	**-0.8**
JUAM	**Asuncion Mita**	**2.03**	**332**	*i* P	**Pn**	**02 48 08.8**	**+1.3**
TGUH	**Tegucigalpa,Un**	**2.06**	**43**	P	**Pn**	**02 48 09.2**	**+1.1**
ESQI	**Esquipulas**	**2.10**	**343**	P	**Pb**	**02 48 10.5**	**-1.3**
ESQI	**Esquipulas**	**2.10**	**343**	P	**Pb**	**02 48 10.3**	**-1.5**
ZAFR2	**Estanzuela, Za**	**2.12**	**343**	*i* P	**Pg**	**02 48 16.6**	**+1.6**
MOM3	**MOM3**	**2.15**	**91**	P	**Pn**	**02 48 08.3**	**-0.7**
MOM3				*S*	**Sn**	**02 48 34.9**	**-0.3**
MOM2	**El Cardon**	**2.18**	**92**	P	**Pn**	**02 48 09.2**	**-0.4**
APQ2	**Apoyeque**	**2.36**	**98**	P	**Pn**	**02 48 11.9**	**-0.1**
NANN	**Nandasmo**	**2.60**	**103**	P	**Pn**	**02 48 16.5**	**+1.1**
RCFN	**Al S de San Ju**	**2.63**	**68**	P	**Pn**	**02 48 15.1**	**-0.8**
RCFN				*S*	**Sn**	**02 48 48.2**	**+0.8**
RCVN	**Varillal2**	**2.67**	**67**	P	**Pn**	**02 48 16.8**	**+0.4**
RCPN	**Sur Rio San Ju**	**2.74**	**69**	P	**Pn**	**02 48 19.1**	**+1.8**
RCPN				*S*	**Sn**	**02 48 50.4**	**+0.5**
BOAB	**BOACO BROADBAN**	**2.98**	**91**	P	**Pn**	**02 48 20.5**	**-0.1**
BOAB	**BOACO BROADBAN**	**2.98**	**91**		**Pn**	**02 48 19.1**	**-1.5**
APG	**El Apazote**	**2.98**	**325**	P	**Pn**	**02 48 22.8**	**+2.0**
	comp=N,0.3nm,0.3s,baz=149,slow=9.6,SNR=7.4						
	comp=N,1.0nm,0.3s						
APG				AML	AML		
APG	**El Apazote**	**2.98**	**325**	*i* P	**Pn**	**02 48 23.2**	**+2.4**
MORN	**Al O del Volca**	**3.16**	**108**	P	**Pn**	**02 48 23.8**	**+0.8**
JTS	**Las Juntas de**	**4.31**	**121**	P	**Pn**	**02 48 39.6**	**+0.7**
	comp=N,2.1nm,0.3s,baz=279,slow=15,SNR=7.7						
JTS				LR	LR	02 49 58.6	
	comp=N,42nm,20.9s,baz=322,slow=33						
	comp=N,5.2nm,0.3s						
JTS				AML	AML		
LCR2	**La Lucha 2**	**5.39**	**121**		**Pn**	**02 48 55.9**	**+1.9**
PIRO	**Carate, Puerto**	**6.70**	**127**		**Pn**	**02 49 14.4**	**+2.6**
CMIG	**Matias Romero**	**7.49**	**308**	P	**Pn**	**02 49 24.5**	**+2.0**
	comp=N,1.1nm,0.3s,baz=124,slow=11,SNR=9.2						
CMIG				*S*	**Sn**	**02 50 48.0**	**+1.0**
	comp=N,3.2nm,0.5s,baz=29,slow=2.8,SNR=1.6						
	comp=N,2.2nm,0.3s						
CMIG				AML	AML		
HNDO	**Hondo**	**19.55**	**331**		**P**	**02 52 01.4**	**+0.5**
HNDO				IAmb	IAmb	02 52 03.2	
	comp=Z,4.8nm,0.6s						
435B	**Jarrell**	**19.92**	**337**	P	**Pn**	**02 52 06.2**	**-0.5**
435B				IAmb	IAmb	02 52 09.6	
	comp=Z,6.8nm,0.6s						
Z47A	**Carrollton**	**20.57**	**2**	P	Pn	02 52 16.3	+1.9
BRDY	**Brady**	**20.93**	**335**	P	**P**	**02 52 16.6**	**+0.6**
Y49A	**Blount Mountai**	**21.32**	**5**	P	**P**	**02 52 18.5**	**-1.7**
Y49A				IAmb	IAmb	02 52 25.2	
	comp=Z,7.1nm,0.8s						
OZNA	**Ozona**	**21.59**	**330**		**P**	**02 52 25.3**	**+2.1**
TXAR	**Lajitas Array**	**21.73**	**323**	P	**P**	**02 52 26.2**	**+1.4**
	comp=Z,1.2nm,0.5s,baz=144,slow=10,SNR=21						
	comp=Z,1.2nm,0.5s						
TXAR	**Lajitas Array**	**21.73**	**323**	P	**P**	**02 52 26.9**	**+2.2**
TX31	**Lajitas Ar. Si**	**21.74**	**323**		**P**	**02 52 26.6**	**+1.9**
PLPT	**Palo Pinto**	**22.01**	**338**	P	**P**	**02 52 28.7**	**+1.2**
PLPT				IAmb	IAmb	02 52 31.1	
	comp=Z,4.8nm,0.7s						
MNHN	**Monahans**	**22.75**	**328**		**P**	**02 52 37.5**	**+1.9**
MNHN				IAmb	IAmb	02 52 38.4	
	comp=Z,5.5nm,0.6s						
FNO	**Franklin**	**23.95**	**342**	P	**P**	**02 52 47.7**	**+0.3**
MNTX	**Cornudas Mount**	**24.47**	**324**	P	**P**	**02 52 53.2**	**+0.9**
AMTX	**Amarillo**	**25.16**	**334**	P	**P**	**02 52 58.9**	**+0.4**
AMTX				IAmb	IAmb	02 53 01.8	
	comp=Z,5.2nm,0.6s						
S39A	**Bolivar**	**25.38**	**351**	P	**P**	**02 53 00.5**	**0.0**
S39A				IAmb	IAmb	02 53 01.9	
	comp=Z,2.8nm,0.9s						
PDAR	**Pinedale Array**	**35.12**	**333**	P	**P**	**02 54 24.8**	**-2.1**
	comp=Z,0.2nm,0.6s,baz=143,slow=8.9,SNR=2.6						
	comp=Z,0.2nm,0.6s						
PDAR	**Pinedale Array**	**35.12**	**333**	P	**P**	**02 54 30.5**	**+3.6**
ULM	**Lac du Bonnet**	**38.06**	**353**	P	**P**	**02 54 49.4**	**-2.1**
	comp=Z,2.9nm,0.8s,baz=169,slow=10,SNR=2.1						
	comp=Z,2.9nm,0.8s						
YKA	**Yellowknife Ar**	**53.20**	**345**	P	**P**	**02 56 49.9**	**-1.2**
	comp=Z,0.5nm,0.4s,baz=153,slow=7.3,SNR=8.7						
	comp=Z,0.5nm,0.4s						

IDC 08 02:51:06.9±3.2, 23°.65S×148°.68E, h0km, mbtmp3.2/4, ML3.1/4, Error ellipse: s-maj=35.4km s-min=15.8km az=89.0, Queensland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**4.20**	**327**	Pn	Pn	02 52 13.0	+0.8
	1.3nm,0.3s,baz=144,slow=16,SNR=11						
CTA				Lg	Lg	02 53 16.7	
	3.7nm,0.3s,baz=34,slow=21,SNR=10						
	2.8nm,0.4s						
CTA				AML	AML		
STKA	**Stephens Creek**	**10.31**	**216**	Pn	Pn	02 53 33.9	-2.3
	0.1nm,0.3s,baz=37,slow=8.5,SNR=2.9						
STKA				Sn	Sn	02 55 28.2	-4.3
	baz=119,slow=22,SNR=1.2						
STKA				Lg	Lg	02 56 22.1	
	baz=250,slow=8.2,SNR=3.1						
	1.3nm,0.7s						
STKA				AML	AML		
ASAR	**Al

comp=Z,538nm,18.7s,baz=145,slow=37
YSS Yuzhno-Sakhali 14.54 3 *i* P **Pn 03 03 01.0 +1.7**
MDJ Mudanjiang 15.46 325 P **Pn 03 03 11.6 0.0**
MDJ pmax pmax
comp=Z,13nm,1.0s
MDJ Mudanjiang 15.46 325 P **Pn 03 03 11.7 +0.1**
comp=Z,13nm,0.8s
CN2 Changchun 17.14 316 *e*P **Pn 03 03 34.2 +1.4**
CN2 *e*sP pP 03 03 45.2 +2.7
CN2 *e*S **Sn 03 06 42.8 +0.5**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 L L
comp=Z,200nm,11.0s
CN2 L L
comp=Z,200nm,11.0s
CN2 L L
comp=Z,200nm,11.0s
DL2 Dalian 17.61 297 P **Pn 03 03 40.2 +1.5**
DL2 S **Sn 03 06 57.6 +3.7**
DL2 pmax pmax
comp=Z,94nm,1.4s
DL2 pmax pmax
comp=Z,620nm,7.7s
DL2 L L
comp=Z,2μm,14.0s
DL2 L L
comp=Z,1μm,15.7s
DL2 L L
comp=Z,1μm,14.5s
KLR Kul'dur 18.41 339 P **P 03 03 47.2 -1.0**
comp=Z,0.5nm,0.3s,baz=158,slow=6.8,SNR=10
comp=Z,3.4nm,0.6s
KLR AML AML
KLR Kul'dur 18.41 339*ce*P **Pn 03 03 49.5 +1.1**
KLR pmax pmax
comp=Z,3.0nm,0.5s
TYV Tymovskoe 18.45 2 *e*P **P 03 03 43.5 -4.9**
TYV *e*S **Sn 03 07 04.8 -9.0**
TYV pmax pmax
comp=Z,9.0nm,1.2s
TYV pmax pmax
comp=Z,100nm,4.0s
TYV smax smax
comp=N,400nm,4.6s
TYV smax smax
comp=E,300nm,4.6s
TYV MLR MLR
comp=Z,800nm,18.0s
NJ2 Nanjing 19.42 275 *e*P **P 03 04 00.0 +0.8**
NJ2 pmax pmax
comp=Z,7.0nm,0.6s
HEH HeiHe 20.78 333 *e*P Pn 03 04 17.0 +0.5
HEH pP pwP 03 04 30.2 +0.6
HEH pmax pmax
comp=Z,12nm,0.8s
HEH L L
comp=Z,570nm,12.6s
HEH L L
comp=Z,410nm,12.3s
HEH L L
comp=Z,410nm,12.8s
BJT Baijiatuau 21.98 297 P **P 03 04 26.0 -0.9**
BJT pmax pmax
comp=Z,9.0nm,1.2s
BJT Baijiatuau 21.98 297 P **P 03 04 26.0 -0.9**
comp=Z,8.9nm,1.2s
HNS HongShan 22.74 290 ⇑P **P 03 04 36.5 +1.5**
HNS S **S 03 08 34.0 -7.0**
HNS pmax pmax
comp=Z,11nm,1.0s
HNS L L
comp=Z,340nm,14.0s
HNS L L
comp=Z,1μm,16.2s
HNS L L
comp=Z,1μm,16.9s
XLT XiLinHaoTe 23.16 307 *e*P **P 03 04 40.0 +0.6**
XLT sP sP 03 04 52.3 -0.9
XLT S **S 03 08 53.8 +5.6**
XLT pmax pmax
comp=Z,17nm,1.5s
XLT pmax pmax
comp=Z,190nm,4.1s
XLT L L
comp=Z,41nm,15.9s
XLT L L
comp=Z,370nm,14.4s
XLT L L
comp=Z,410nm,15.6s
WHN Wuhan 23.47 273 P **P 03 04 40.1 -2.3**
WHN L L
comp=Z,2μm,14.7s
HIA Hailar 23.57 322 P **P 03 04 41.6 -1.7**
HIA pmax pmax
comp=Z,9.0nm,0.8s
HIA Hailar 23.57 322 P **P 03 04 41.6 -1.7**
comp=Z,9.0nm,0.8s
PETK Petropavlovsk- 23.64 24 LR LR 03 15 15.6
comp=Z,173nm,19.9s,baz=181,slow=40
ZEA Zeya 23.73 338 *e*P **P 03 04 46.1 +1.5**
ZEA *e*S **S 03 08 50.7 -6.3**
ZEA pmax pmax
comp=Z,100nm,3.2s
ZEA pmax pmax
comp=N,30nm,0.9s
ZEA pmax pmax
comp=Z,70nm,0.7s
ZEA smax smax
comp=E,100nm,3.4s
HILR Hailar Array B 23.75 323 P **P 03 04 46.3 +1.4**
comp=E,2.1nm,0.4s,baz=162,slow=20,SNR=1.9
comp=E,2.1nm,0.4s
HHC Hu-ho-hao-te 25.59 298 *e*P **P 03 05 02.2 +0.3**
HHC pmax pmax
comp=E,11nm,0.5s
HHC pmax pmax
comp=E,80nm,3.9s
HHC L L
comp=E,480nm,15.9s
HHC L L
comp=E,430nm,15.4s
HHC L L
comp=E,350nm,15.5s
H11N2 WAKE ISLAND Hy 25.76 113 T T 03 32 36.6
baz=305
H11N1 WAKE ISLAND Hy 25.77 113 T T 03 32 30.9
baz=305
H11N3 WAKE ISLAND Hy 25.78 113 T T 03 32 42.2
baz=305
BTO2 Baotou 26.84 297 *e*P **P 03 05 14.3 +1.0**
BTO2 S **S 03 09 50.7 +3.6**
BTO2 pmax pmax
comp=E,19nm,0.5s
BTO2 pmax pmax
comp=E,540nm,5.1s
BTO2 L L
comp=E,2μm,12.9s
BTO2 L L
comp=E,2μm,13.1s
BTO2 L L
comp=E,2μm,15.9s
XAN Xi'an 27.49 282 ⇑P **P 03 05 17.4 -1.7**
XAN pmax pmax
comp=E,13nm,1.3s
DAV Davao City (W) 29.39 214 LR LR 03 17 07.8
comp=E,294nm,20.2s,baz=18,slow=36
ULN Ulaanbaatar 30.42 311*ce*P **P 03 05 46.5 +1.4**
ULN pmax pmax
comp=Z,8.0nm,0.8s
ULN Ulaanbaatar 30.42 311 **P 03 05 46.3 +1.2**
ULN IAmb IAmb 03 05 59.6
comp=Z,8.4nm,0.9s
ULN Ulaanbaatar 30.42 311 P **P 03 05 46.2 +1.2**
comp=Z,10nm,0.8s
YAK Yakutsk 30.65 349 *e*P **P 03 05 46.7 0.0**
YAK *e**PP **pP 03 05 54.3 -1.2**
YAK *e*PPP PPP 03 06 52.2
YAK *e* 03 08 47.7
YAK *e*S **S 03 10 46.6 +0.4**
YAK *e**SS **sS 03 10 55.7 -4.9**
YAK *e*SSS SSS 03 12 32.1
YAK *e* 03 16 25.4
YAK pmax pmax
comp=Z,10.0nm,0.9s
YAK pmax pmax
comp=E,3.0nm,1.1s
YAK pmax pmax
comp=N,7.0nm,1.3s
YAK smax smax
comp=E,88nm,3.0s
YAK smax smax
comp=N,43nm,2.1s
YAK MLR MLR
comp=E,126nm,17.0s
YAK MLR MLR
comp=Z,303nm,18.0s
YAK MLR MLR
comp=N,285nm,16.0s
YAK Yakutsk 30.65 349 P **P 03 05 47.4 +0.7**
comp=Z,16nm,1.0s
SONM Songino Array 30.83 310 P **P 03 05 49.1 +0.4**
comp=Z,3.6nm,0.8s,baz=120,slow=9.5,SNR=13
SONM LR LR 03 18 14.0
comp=Z,162nm,18.2s,baz=111,slow=36
comp=Z,3.6nm,0.8s
SONM Songino Array 30.83 310 P **P 03 05 49.6 +0.9**
SONM pmax pmax
comp=Z,8.0nm,1.1s
SONM Songino Array 30.83 310 **P 03 05 49.6 +0.9**
SHEM Shemya Is, Ala 30.88 39 LR LR 03 16 29.6
comp=Z,162nm,19.2s,baz=287,slow=33
SEY Seymchan 31.27 9 P **P 03 05 55.4 +3.2**
comp=Z,1.0nm,0.5s,baz=270,slow=19,SNR=1.3
LZH Lanzhou 31.46 287 *e*P **P 03 05 54.0 -0.4**
LZH pP pP 03 06 06.1 +2.3
LZH S **S 03 11 03.1 +3.2**
LZH pmax pmax
comp=Z,23nm,1.5s
LZH pmax pmax
comp=Z,93nm,4.4s
LZH L L
comp=Z,670nm,13.0s
LZH L L
comp=Z,640nm,14.9s
LZH L L
comp=Z,640nm,16.2s
LZDM Lanzhou Array 31.59 287 LR LR 03 19 48.6
comp=Z,399nm,18.4s,baz=65,slow=38
QIZ Qiongzhong 31.60 253 P **P 03 05 54.0 -1.5**
QIZ S **S 03 11 02.4 +0.5**
QIZ L L
comp=Z,260nm,10.3s
QIZ L L
comp=Z,250nm,8.2s
QIZ L L
comp=Z,340nm,14.4s
GAMI Galela, Maluku 33.15 206 P **P 03 06 05.6 -3.5**
comp=Z,28nm,0.9s
ZAK Zakamensk 33.55 314 *e*P **P 03 06 12.6 +0.2**
ZAK pmax pmax
comp=Z,5.0nm,1.3s
TLY Talaya 33.75 316 LR LR 03 20 09.9
comp=Z,177nm,19.0s,baz=77,slow=37
TLY Talaya 33.75 316 *i* P **P 03 06 15.4 +1.4**
TLY pmax pmax
comp=Z,14nm,1.5s
TLY Talaya 33.75 316 P **P 03 06 12.5 -1.5**
comp=Z,10.0nm,1.3s
TNTI Ternate 34.29 206 P **P 03 06 18.1 -0.9**
comp=Z,41nm,1.2s
GTA2 Gaotai 34.52 294 *e*P **P 03 06 20.3 -0.7**
GTA2 pmax pmax
comp=Z,6.0nm,1.2s
GTA2 L L
comp=Z,370nm,17.1s
GTA2 L L
comp=Z,450nm,17.1s
GTA2 L L
comp=Z,420nm,18.4s
SIJI Sorong 34.57 199 LR LR 03 18 54.4
comp=Z,196nm,19.2s,baz=22,slow=34
GOMU GeErMu 38.71 289 P **P 03 06 55.6 -1.4**
GOMU S S 03 12 42.7 -9.0
GOMU pmax pmax
comp=Z,11nm,1.2s
GOMU L L
comp=Z,400nm,14.9s
GOMU L L
comp=Z,220nm,14.7s
GOMU L L
comp=Z,290nm,14.6s
TIXI Tiksi 39.91 354*ce*P **P 03 07 09.6 +3.5**
TIXI pmax pmax
comp=Z,1.0nm,0.3s
TIXI Tiksi 39.91 354 P **P 03 07 07.4 +1.4**
comp=Z,4.7nm,0.7s
CMAR Chiang Mai Arr 40.86 261 LR LR 03 26 53.1
comp=Z,98nm,18.1s,baz=65,slow=40
TARA Tarawa 42.57 130 P **P 03 07 25.0 -3.6**
comp=Z,33nm,1.0s
KAPI Kappang 42.72 213 LR LR 03 26 09.0
comp=Z,76nm,19.9s,baz=327,slow=37
KSM Kuching 42.73 230 P **P 03 07 28.4 -1.5**
comp=Z,0.2nm,1.0s
WMQ Urumqi 43.37 301 *e*P **P 03 07 37.2 +2.3**
WMQ pP sP 03 07 49.0 -0.1
WMQ pmax pmax
comp=Z,20nm,0.7s
WMQ L L
comp=Z,520nm,12.7s
WMQ L L
comp=Z,430nm,16.3s
WMQ L L
comp=Z,110nm,20.9s
DGZ Jazzator, Alta 43.48 310 *i* P **P 03 07 36.8 +1.0**
DGZ pmax pmax
comp=Z,15nm,1.2s
BRDH Bariadhala 45.17 271 LR LR 03 29 49.0
comp=Z,277nm,18.3s,baz=250,slow=40
ZAA0 Zalesovo Array 45.36 316 P **P 03 07 48.9 -1.7**
ZALV Zalesovo Beam 45.36 316 P **P 03 07 50.9 +0.3**
comp=Z,0.7nm,0.4s,baz=90,slow=8.0,SNR=8.0
ZALV PcP **PcP 03 09 31.3 +1.8**
comp=Z,0.7nm,0.4s,baz=104,slow=1.5,SNR=2.6
ZALV LR LR 03 27 52.8
comp=Z,105nm,20.4s,baz=78,slow=38
comp=Z,0.7nm,0.4s
ZALV Zalesovo Beam 45.36 316 **P 03 07 48.1 -2.5**
MK31 Makanchi Array 46.97 306*ce*P **P 03 08 05.1 +1.7**
MKAR Makanchi Array 46.97 306 P **P 03 08 04.7 +1.3**
comp=Z,6.6nm,0.8s,baz=88,slow=8.6,SNR=23
MKAR LR LR 03 27 08.8
comp=Z,110nm,20.2s,baz=70,slow=35
comp=Z,6.6nm,0.8s
MKAR Makanchi Array 46.97 306 **P 03 08 02.9 -0.5**
MAKZ Makanchi 47.18 306 P **P 03 08 04.6 -0.4**
comp=Z,12nm,1.3s
EVN Everest 47.31 280 **P 03 08 09.6 +2.6**
EVN IAmb IAmb 03 08 28.9
comp=Z,4.4nm,0.9s
EVN Everest 47.31 280 P **P 03 08 05.8 -1.2**
comp=Z,4.9nm,0.8s
KURK Kurchatov 49.13 311*ce*P **P 03 08 20.8 +0.8**
KURK pmax pmax
comp=Z,25nm,2.5s
KURK Kurchatov 49.13 311 **P 03 08 20.6 +0.6**
KURK IAmb IAmb 03 08 23.7
comp=Z,6.9nm,0.9s
KURK Kurchatov 49.13 311 P **P 03 08 19.4 -0.6**
comp=Z,12nm,1.3s
KURBB Kurchatov Arra 49.19 311 P **P 03 08 20.9 +0.4**
comp=Z,2.3nm,0.4s,baz=90,slow=7.7,SNR=35
KURBB LR LR 03 30 05.4
comp=Z,288nm,18.3s,baz=178,slow=37
comp=Z,2.3nm,0.4s
PDGK Podgornoye 49.34 302 P **P 03 08 22.1 +0.2**
PDGK Podgornoye 49.34 302 **P 03 08 22.1 +0.2**
LEM Lembang 50.82 226 LR LR 03 29 54.7
comp=Z,107nm,21.1s,baz=188,slow=36
MDSI Maura Dua 51.21 231 P P 03 08 32.5 -3.6
comp=Z,9.9nm,0.8s
ASAI AK-SAY(Kyrgyzs 51.97 299 P **P 03 08 41.2 -0.8**
comp=Z,3.2nm,2.0s
WRAB Tennant Creek 52.54 189*ce*P **P 03 08 46.8 +0.9**
WRAB pmax pmax
comp=Z,9.0nm,1.0s
WR8 Warramunga Arr 52.54 189 **P 03 08 45.9 +0.1**
WRA Warramunga Arr 52.55 189 P **P 03 08 45.8 -0.2**
comp=Z,8.1nm,0.7s,baz=5.7,slow=7.7,SNR=58
comp=Z,8.1nm,0.7s
WRA Warramunga Arr 52.55 189 P **P 03 08 44.1 -1.9**
WRA pmax pmax
comp=Z,3.0nm,1.0s
WRA Warramunga Arr 52.55 189 **P 03 08 44.1 -1.9**
FITZ Fitzroy Crossi 52.56 199 **P 03 08 46.4 +0.3**
FITZ Fitzroy Crossi 52.56 199 P **P 03 08 43.7 -2.3**
comp=Z,1.5nm,1.1s
QIS Mount Isa 52.71 183 P **P 03 08 46.1 -1.1**
comp=Z,12nm,1.7s
AAK Ala-Archa 53.08 302 LR LR 03 34 52.2
comp=Z,193nm,18.1s,baz=83,slow=40
AAK Ala-Archa 53.08 302*ce*P **P 03 08 50.5 +0.6**
AAK pmax pmax
comp=Z,2.0nm,0.9s
AAK Ala-Archa 53.08 302 P **P 03 08 49.5 -0.4**
comp=Z,3.0nm,1.0s
KSH2 Kashi 53.10 297 P **P 03 08 51.2 +1.0**
KSH2 pP pP 03 09 03.1 +3.4
KSH2 pmax pmax
comp=Z,5.0nm,1.2s
ILAR Eielson Array 53.26 30 P **P 03 08 51.2 +0.4**
comp=Z,1.0nm,0.8s,baz=260,slow=6.0,SNR=12
ILAR LR LR 03 31 48.0
comp=Z,25nm,20.7s,baz=212,slow=36
comp=Z,1.0nm,0.8s
BVAR Borovoye Array 53.99 315 P **P 03 08 57.5 +1.2**
comp=Z,2.5nm,0.5s,baz=94,slow=7.6,SNR=10
comp=Z,2.5nm,0.5s
BORK Borovoye 54.03 315 *i* P **P 03 08 57.4 +0.9**
BORK pmax pmax
comp=Z,5.0nm,0.8s
BORK Borovoye 54.03 315 P **P 03 08 56.6 +0.1**
BORK IAmb IAmb 03 09 31.4
comp=Z,3.5nm,0.7s
TRKS Terek-Say 55.76 301 P **P 03 09 07.2 -2.3**
TRKS pmax pmax
comp=Z,8.0nm,1.1s
KK31 Karatay Array 55.81 303 P **P 03 09 10.0 +0.3**
KK31 pmax pmax
comp=Z,8.0nm,1.0s
KK31 Karatay Array 55.81 303 **P 03 09 10.0 +0.3**
KK31 IAmb IAmb 03 09 11.3
comp=Z,8.2nm,1.0s
KKAR Karatay Array 55.81 303 P **P 03 09 09.9 +0.2**
KKAR Karatay Array 55.81 303 P **P 03 09 09.9 +0.2**
I28M Miner Creek 56.18 29 P **P 03 09 14.7 +2.7**
I28M IAmb IAmb 03 09 34.5
comp=Z,4.4nm,0.9s
AS31 Alice Springs 56.27 189 P **P 03 09 13.4 +0.4**
ASAR Alice Springs 56.27 189 P **P 03 09 12.3 -0.7**
comp=Z,2.3nm,0.8s,baz=356,slow=5.4,SNR=23
ASAR LR LR 03 31 51.1
comp=Z,189nm,21.3s,baz=320,slow=34
comp=Z,2.3nm,0.8s
ASAR Alice Springs 56.27 189 P **P 03 09 13.0 0.0**
ASAR Alice Springs 56.27 189 P **P 03 09 13.0 0.0**
BTK Batken 56.40 299 P **P 03 09 12.3 -1.6**
BTK pmax pmax
comp=Z,5.0nm,1.2s
BTK Batken 56.40 299 P **P 03 09 12.3 -1.6**
comp=Z,5.0nm,1.2s
NIL Nilore 56.48 291 P **P 03 09 13.3 -1.3**
NIL pmax pmax
comp=Z,1.0nm,0.7s
NIL Nilore 56.48 291 P **P 03 09 13.3 -1.3**
comp=Z,12nm,0.7s
I29M Ogilvie Camp, 56.87 30 IAmb IAmb 03 09 21.5
comp=Z,14nm,1.4s
L29M L29M 57.22 32 P **P 03 09 22.4 +3.0**
L29M IAmb IAmb 03 09 57.5
comp=Z,11nm,1.2s
MBWA Marble Bar 57.30 205 P **P 03 09 17.8 -2.5**
comp=Z,15nm,1.1s
G30M tAoh Zraii Nji 57.53 27 IAmb IAmb 03 09 46.9
comp=Z,8.4nm,1.1s
M30M Minto, Yukon 57.90 33 P **P 03 09 26.3 +2.2**
QLP Quilpie 58.71 177 P **P 03 09 28.3 -1.8**
comp=Z,17nm,1.2s
KBL Kabul 59.47 294 P **P 03 09 34.2 -1.5**
comp=Z,6.2nm,1.1s
INKA Innaminka 59.83 181 P **P 03 09 38.7 +0.9**
INKA IAmb IAmb 03 09 53.0
comp=Z,11nm,1.4s
ARTI Arti 60.18 320*d* *i* P **P 03 09 40.8 +0.8**
ARTI 03 10 22.9
ARTI 03 11 51.4
ARTI S **S 03 17 52.3 +1.6**
ARTI SS **SS 03 21 46.4 -1.2**
ARTI pmax pmax
comp=Z,7.0nm,0.9s
ARTI Arti 60.18 320 P **P 03 09 40.2 +0.2**
AB31 Akbulak array 61.22 312 P **P 03 09 47.7 +0.5**
AB31 IAmb IAmb 03 09 54.8
comp=Z,2.9nm,0.6s
ABKAR Akbulak array 61.22 312 P **P 03 09 47.5 +0.3**
PALK Pallekele 61.80 260 LR LR 03 38 42.9
comp=Z,72nm,19.8s,baz=98,slow=38
STKA Stephens Creek 63.94 180 P **P 03 10 06.1 +0.7**
comp=Z,1.4nm,0.7s,baz=311,slow=5.0,SNR=4.3
STKA LR LR 03 37 16.6
comp=Z,122nm,20.8s,baz=15,slow=35
comp=Z,1.4nm,0.7s
STKA Stephens Creek 63.94 180 P **P 03 10 06.1 +0.7**
STKA pmax pmax
comp=Z,21nm,0.9s
STKA Stephens Creek 63.94 180 P **P 03 10 03.7 -1.6**
comp=Z,33nm,1.2s
AFI Afiamalu 63.97 128 LR LR 03 33 12.8
comp=Z,90nm,21.9s,baz=11,slow=32
KIRV Kirov 64.15 324 LR LR 03 40 31.6
comp=Z,156nm,18.1s,baz=48,slow=38
KIRV Kirov 64.15 324*ce*P **P 03 10 06.6 +0.1**
XMAS Kiritimati 64.41 105 P **P 03 10 07.5 -1.4**
comp=Z,47nm,0.9s
SPITS Spitsbergen Ar 65.11 349 P **P 03 10 13.0 +0.5**
comp=Z,9.5nm,1.0s,baz=205,slow=3.7,SNR=1.2
comp=Z,9.5nm,1.0s
YKA Yellowknife Ar 67.65 29 P **P 03 10 29.9 +0.9**
comp=Z,1.3nm,0.9s,baz=294,slow=6.6,SNR=7.0
comp=Z,1.3nm,0.9s
YKA Yellowknife Ar 67.65 29*ce*P **P 03 10 32.7 +3.7**
YKA pmax pmax
comp=Z,1.0nm,0.7s
OBN Obninsk 72.01 324 *e*P **P 03 10 57.0 +1.2**
OBN *e* 03 13 37.8
OBN pmax pmax
comp=Z,5.0nm,0.9s
YBH Yreka Blue Hor 72.95 51 LR LR 03 35 54.2
comp=Z,129nm,21.6s,baz=292,slow=30
FINES FINESS Array B 73.06 333 P **P 03 11 03.1 +1.0**
comp=Z,3.6nm,1.1s,baz=90,slow=9.5,SNR=8.2
comp=Z,3.6nm,1.1s
FINES FINESS Array B 73.06 333 *i* P **P 03 11 03.0 +1.0**
FINES pmax pmax
comp=Z,2.0nm,0.8s
KBZ Khabaz 74.19 312 P **P 03 11 09.9 +1.0**
comp=Z,5.0nm,1.2s,baz=86,slow=8.1,SNR=5.8
comp=Z,5.0nm,1.2s
KBZ Khabaz 74.19 312*ce*P **P 03 11 10.8 +1.9**
KBZ pmax pmax
comp=Z,6.0nm,1.3s
KIV Kislovodsk 74.21 312 *e*P **P 03 11 10.2 +1.0**
KIV pmax pmax
comp=Z,9.0nm,1.1s
RAR Rarotonga 77.21 125 LR LR 03 39 03.1
comp=Z,133nm,19.7s,baz=289,slow=31
NVAR Mina Array Bea 77.52 52 P **P 03 11 28.0 -0.4**
comp=Z,1.2nm,0.8s,baz=285,slow=6.2,SNR=8.6
NVAR LR LR 03 37 26.6
comp=Z,117nm,20.9s,baz=275,slow=29
comp=Z,1.2nm,0.8s
BOZ Bozeman (W) 77.84 44 P **P 03 11 31.9 +1.9**
BOZ pmax pmax
comp=Z,3.0nm,1.0s
BOZ Bozeman (W) 77.84 44 P **P 03 11 31.9 +1.9**
AKASG Malin Array Be 78.16 323 P **P 03 11 31.5 +0.1**
comp=Z,1.0nm,0.5s,baz=52,slow=5.5,SNR=5.5
comp=Z,1.0nm,0.5s
AKASG Malin Array Be 78.16 323*ce*P **P 03 11 34.9 +3.5**
AKASG pmax pmax
comp=Z,1.0nm,0.5s
HFS Hagfors 78.43 336 P **P 03 11 33.7 +0.9**
comp=Z,1.3nm,0.6s,baz=53,slow=7.9,SNR=4.1
comp=Z,1.3nm,0.6s
NB2 NORSAR Subarra 78.57 338 P **P 03 11 34.7 +1.1**
comp=Z,0.5nm,0.6s,baz=41,slow=5.6
NOA NORSAR Array B 78.57 338 P **P 03 11 35.0 +1.5**

comp=Z,0.7nm,0.6s,baz=41,slow=5.4,SNR=5.4
NOA LR LR 03 51 02.5
comp=Z,75nm,18.4s,baz=35,slow=39
comp=Z,0.7nm,0.6s
PDAR Pinedale Array 80.69 45 P **P 03 11 46.0 +0.3**
comp=Z,0.7nm,0.6s,baz=302,slow=2.8,SNR=5.8
comp=Z,0.7nm,0.6s
FRB Frobisher Bay 81.19 13 LR LR 03 50 42.1
comp=Z,39nm,21.0s,baz=290,slow=38
PFO Pinyon Flats O 81.35 56 LR LR 03 43 00.1
comp=Z,182nm,21.4s,baz=246,slow=32
P17A Butcher Ranch, 81.87 48 IAmb IAmb 03 11 56.2
comp=Z,5.7nm,1.0s
BRTR Keskin Array B 82.17 312 P **P 03 11 55.2 +1.7**
comp=Z,1.0nm,0.7s,baz=69,slow=7.0,SNR=5.7
BRTR LR LR 03 51 30.5
comp=Z,38nm,19.4s,baz=96,slow=38
comp=Z,1.0nm,0.7s
SRU San Rafael Swe 82.22 48 P **P 03 11 53.8 0.0**
SRU pmax pmax
comp=Z,8.0nm,0.9s
SRU San Rafael Swe 82.22 48 P **P 03 11 53.8 0.0**
PPT2 Papeete2 82.30 116 *e*LR LR 03 37 47.8
comp=Z,126nm,23.0s
PPT2 *e*LR LR 03 37 53.1
comp=Z,121nm,26.8s
RAYN Ar Rayn 82.73 293 P **P 03 11 56.3 -0.3**
RAYN pmax pmax
comp=Z,4.0nm,0.8s
RAYN Ar Rayn 82.73 293 P **P 03 11 56.3 -0.3**
RAYN IAmb IAmb 03 12 10.9
comp=Z,3.5nm,0.8s
KOLS Kolonicke sedl 82.76 325 *e*P **P 03 11 59.9 +3.7**
KOLS Kolonicke sedl 82.76 325 *e*P **P 03 11 59.9 +3.7**
STEB Steborice 84.19 327 *e*P **P 03 12 05.0 +1.5**
OSTC Ostas 84.44 329 *e*P **P 03 12 04.5 -0.3**
OSTC Ostas 84.44 329 *e*P **P 03 12 04.5 -0.3**
CHVC Chvalec 84.49 329 *e*P **P 03 12 05.9 +0.9**
CHVC Chvalec 84.49 329 *e*P **P 03 12 05.9 +0.9**
KRLC Kraliky 84.54 328 *e*P **P 03 12 06.4 +1.1**
KRLC Kraliky 84.54 328 *e*P **P 03 12 06.4 +1.1**
DPC Dobruska-Polom 84.54 328 *e*P **P 03 12 06.5 +1.2**
DPC Dobruska-Polom 84.54 328 *e*P **P 03 12 06.5 +1.2**
UPC Upice 84.57 329 *e*P **P 03 12 06.8 +1.4**
UPC Upice 84.57 329 *e*P **P 03 12 06.8 +1.4**
VYHS Vyhne 84.71 326 *e*P **P 03 12 08.1 +1.9**
TAOE Nuku Hiva Isla 84.75 104 *e*LR LR 03 38 59.9
comp=Z,140nm,22.5s
VRAC Vranov 85.17 328 *e*P **P 03 12 10.1 +1.6**
PVCC Panska Ves 85.18 329 *e*P **P 03 12 10.6 +2.1**
PVCC Panska Ves 85.18 329 *e*P **P 03 12 10.6 +2.1**
CLL Collm 85.26 331 *i* P **P 03 12 10.2 +1.3**
CLL pmax pmax
comp=Z,3.0nm,0.8s
CLL Collm 85.26 331 *i* P **P 03 12 10.2 +1.3**
comp=Z,3.0nm,0.8s
KRUC Moravsky 85.44 327 *e*P **P 03 12 10.0 +0.2**
MODS Modra-Piesok 85.53 327 *e*P **P 03 12 11.4 +1.1**
MODS Modra-Piesok 85.53 327 *e*P **P 03 12 11.4 +1.1**
TBI Tubuai 85.89 121 *e*LR LR 03 39 18.0
comp=Z,997nm,25.5s
TBI *e*LR LR 03 39 30.3
comp=Z,1μm,33.8s
GERES GERESS Array B 86.81 329 P **P 03 12 18.7 +2.0**
comp=Z,0.1nm,0.3s,baz=27,slow=9.4,SNR=1.3
comp=Z,0.1nm,0.3s
ANMO Albuquerque 87.31 50 LR LR 03 47 36.5
comp=Z,124nm,21.2s,baz=318,slow=33
BMRD Maredsous 89.29 334 *d*P **P 03 12 29.3 +1.0**
SCHQ Schefferville 89.68 16 LR LR 03 56 09.4
comp=Z,27nm,20.6s,baz=357,slow=38
FUORN Ofenpass-Fuorn 90.01 329 P **P 03 12 33.6 +1.5**
FUORN IAmb IAmb 03 12 47.8
comp=Z,2.6nm,0.8s
LPIG La Paz 91.19 60 LR LR 03 47 28.7
comp=Z,54nm,19.2s,baz=236,slow=32
TX31 Lajitas Ar. Si 92.67 53 P **P 03 12 46.9 +2.3**
TX31 IAmb IAmb 03 13 11.5
comp=Z,3.6nm,1.3s
TXAR Lajitas Array 92.67 53 P **P 03 12 47.0 +2.4**
comp=Z,0.8nm,0.7s,baz=295,slow=3.5,SNR=10
comp=Z,0.8nm,0.7s
TXAR Lajitas Array 92.67 53 **P 03 12 46.8 +2.2**
QSPA South Pole Qui 122.17 180 PKP **PKiKP 03 18 27.0 +0.8**
comp=Z,1.0nm,0.7s,baz=295,slow=1.5,SNR=6.9
LPAZ La Paz 148.50 67 PKPbc **PKiKP 03 19 22.0 +0.3**
comp=Z,2.1nm,0.7s,baz=19,slow=9.9,SNR=7.1
LPAZ La Paz 148.50 67 PKP2 **PKiKP 03 19 22.3 +0.5**
LPAZ La Paz 148.50 67 **PKiKP 03 19 22.3 +0.5**

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*KRSC **08** 03:04:18.4≟1.7,52.˙01N×172.˙93E,h46^{km},25^{km},Ml4.5*
*IDC **08** 03:04:18.5≟0.6,52.˙10N×173.˙12E,h0^{km}, mb4.0/27, mbtmp4.1/30,ML3.9/3,MS3.5/11,Error ellipse: s-maj=16.0km s-min=10.0km az=162.0*
*MOS **08** 03:04:19.3≟0.9,52.˙07N×172.˙88E,h16^{km},mb4.9/6,Error ellipse: s-maj=9.9km s-min=6.2km az=38.1*
*NEIC **08** 03:04:20.5≟1.7,52.˙12N±0.˙08×173.˙00E±0.˙08,h10^{km}±1^{km}, mb4.5/72,ML3.9/6,Error ellipse: s-maj=14.2km s-min=6.6km az=152.0*

ISC 08 03:04:22.2±0.5,**52.˙13N**±0.˙08×**172.˙97E**±0.˙04,**h24**^{km},**n193**, σ1**852**/162,**mb4.3**/71,**MS3.4**/11,**Near Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SHEM	**Shemya Is, Ala**	**0.92**	**48**	Pn	Op	**Pb**	**03 04 37.0**	**-2.3**
	320nm,0.3s,baz=189,slow=5.4,SNR=148							
SHEM				Sn		**Sn**	**03 04 52.7**	**+0.8**
	589nm,0.3s,baz=237,slow=22,SNR=12							
SHEM				LR	LR	LR	03 05 01.4	
	comp=Z,821nm,20.1s,baz=322,slow=49							
SHEM	**Shemya Is, Ala**	**0.92**	**48**	IAML			03 04 56.9	
	comp=E,3μm,0.8s							
SMY	**Shemya**	**0.92**	**48**	P		**Pb**	**03 04 37.2**	**-2.1**
SMY				S		**Sb**	**03 04 48.9**	**-2.2**
SMY	**Shemya**	**0.92**	**48**			**Pb**	**03 04 36.8**	**-2.5**
SMY				IAML			03 04 54.2	
	comp=N,4μm,0.9s							
AMKA	**Amchitka**	**4.00**	**98**			**Pn**	**03 05 20.9**	**-1.0**
AMKA				IAML			03 06 24.8	
	comp=N,143nm,0.7s							
AMKA				IAML			03 06 25.7	
	comp=E,175nm,0.7s							
BKI	**Bering**	**5.18**	**309**	P		**Pn**	**03 05 36.5**	**-1.5**
BKI	**Bering**	**5.18**	**309**	*e*P		**Pn**	**03 05 36.6**	**-1.5**
MKZ	**Mys Kozlova**	**7.16**	**294**	P		**Pn**	**03 06 05.5**	**+0.3**
MKZ	**Mys Kozlova**	**7.16**	**294**	*e*P		**Pn**	**03 06 05.5**	**+0.3**
KBTR	**Krutoberegovo**	**7.22**	**308**	P		**Pn**	**03 06 07.4**	**+1.3**
KBTR	**Krutoberegovo**	**7.22**	**308**	*e*P		**Pn**	**03 06 07.5**	**+1.3**
ATKA	**Atka Island**	**7.89**	**84**	Pn		**Pn**	**03 06 16.0**	**+0.7**
SPN	**Mys Shipunski**	**7.95**	**282**	P		**Pn**	**03 06 15.2**	**-0.8**
SPN				S		**Sn**	**03 07 41.7**	**-3.3**
SPN	**Mys Shipunski**	**7.95**	**282**	*e*P		**Pn**	**03 06 15.3**	**-0.8**
SPN				*e*S		**Sn**	**03 07 41.7**	**-3.3**
TUMD	**Tumrok D**	**8.08**	**297**	P		**Pn**	**03 06 19.4**	**+1.6**
TUMD				S		**Sn**	**03 07 47.8**	**-0.5**
TUMD	**Tumrok D**	**8.08**	**297**	*e*P		**Pn**	**03 06 19.5**	**+1.6**
TUMD				*e*S		**Sn**	**03 07 47.8**	**-0.5**
KZV	**Kizimen**	**8.11**	**297**	P		**Pn**	**03 06 19.9**	**+1.5**
KZV	**Kizimen**	**8.11**	**297**	*e*P		**Pn**	**03 06 20.0**	**+1.5**
KII	**Karymskiy**	**8.37**	**289**	P		**Pn**	**03 06 21.3**	**-0.6**
KII	**Karymskiy**	**8.37**	**289**	*e*P		**Pn**	**03 06 21.3**	**-0.6**
SDLR	**Sedlovina**	**8.64**	**283**	P		**Pn**	**03 06 25.7**	**+0.1**
SDLR	**Sedlovina**	**8.64**	**283**	*e*P		**Pn**	**03 06 25.7**	**+0.1**
UGLR	**Uglovaya**	**8.67**	**283**	P		**Pn**	**03 06 24.9**	**-1.1**
UGLR	**Uglovaya**	**8.67**	**283**	*e*P		**Pn**	**03 06 24.9**	**-1.1**
SMAR	**Somma**	**8.69**	**283**	P		**Pn**	**03 06 26.6**	**+0.3**
SMAR	**Somma**	**8.69**	**283**	*e*P		**Pn**	**03 06 26.7**	**+0.3**
KRER	**Koryakskii**	**8.72**	**283**	P		**Pn**	**03 06 27.1**	**+0.3**
KRER	**Koryakskii**	**8.72**	**283**	*e*P		**Pn**	**03 06 27.1**	**+0.3**
KRX	**Arik**	**8.78**	**284**	P		**Pn**	**03 06 27.4**	**-0.2**
KRX	**Arik**	**8.78**	**284**	*e*P		**Pn**	**03 06 27.5**	**-0.2**
KOK	**Koryaka**	**8.79**	**283**	P		**Pn**	**03 06 27.6**	**0.0**
KOK	**Koryaka**	**8.79**	**283**	*e*P		**Pn**	**03 06 27.6**	**0.0**
RUS	**Russkaya**	**8.87**	**278**	P		**Pn**	**03 06 27.9**	**-0.8**
RUS	**Russkaya**	**8.87**	**278**	*e*P		**Pn**	**03 06 28.0**	**-0.8**
MTVR	**Mutnovka**	**9.07**	**278**	P		**Pn**	**03 06 31.8**	**+0.2**
MTVR	**Mutnovka**	**9.07**	**278**	*e*P		**Pn**	**03 06 31.9**	**+0.2**
KRMR	**Karymshinskiy**	**9.09**	**280**	P		**Pn**	**03 06 31.0**	**-0.7**
KRMR				S		**Sn**	**03 08 11.2**	**-1.9**
KRMR	**Karymshinskiy**	**9.09**	**280**	*e*P		**Pn**	**03 06 31.0**	**-0.7**
KRMR				*e*S		**Sn**	**03 08 11.3**	**-1.9**
GRL	**Gorelyy**	**9.13**	**279**	P		**Pn**	**03 06 32.6**	**+0.2**
GRL	**Gorelyy**	**9.13**	**279**	*e*P		**Pn**	**03 06 32.7**	**+0.2**
KDTR	**Khodutka, Kamc**	**9.21**	**274**	P		**Pn**	**03 06 32.6**	**-0.6**
KDTR				S		**Sn**	**03 08 11.5**	**-4.4**
KDTR	**Khodutka, Kamc**	**9.21**	**274**	*e*P		**Pn**	**03 06 32.6**	**-0.6**
KDTR				*e*S		**Sn**	**03 08 11.6**	**-4.4**
PEA0B	**Petropavlovsk-**	**9.35**	**282**	P		**Pn**	**03 06 35.9**	**+0.7**
PEA0B	**Petropavlovsk-**	**9.35**	**282**			**Pn**	**03 06 35.9**	**+0.7**
PETK	**Petropavlovsk-**	**9.35**	**282**	Pn		**Pn**	**03 06 35.9**	**+0.7**
	comp=E,0.7nm,0.3s,baz=90,slow=19,SNR=46							
PETK				Sn		**Sn**	**03 08 14.0**	**-5.5**
	comp=E,0.8nm,0.3s,baz=56,slow=5.5,SNR=6.0							
	comp=E,31nm,0.8s							
PETK				AML		AML		
APC	**Apacha**	**9.68**	**281**	P		**Pn**	**03 06 41.4**	**+1.7**
APC	**Apacha**	**9.68**	**281**	*e*P		**Pn**	**03 06 41.5**	**+1.7**
SKR	**Severo-Kuril's**	**10.63**	**269**	P		**Pn**	**03 06 52.8**	**0.0**
SKR	**Severo-Kuril's**	**10.63**	**269**	*e*P		**Pn**	**03 06 52.8**	**0.0**
MA2	**Magadan**	**14.47**	**310**	Pn		**Pn**	**03 07 47.1**	**+1.9**
	comp=E,0.2nm,0.3s,baz=143,slow=13,SNR=0.9							
	comp=E,7.4nm,0.8s							
MA2				AML		AML		
SEY	**Seymchan**	**15.39**	**323**	Pn		**Pn**	**03 07 58.3**	**+0.9**
	comp=E,0.1nm,0.3s,baz=34,slow=23,SNR=1.0							
	comp=E,1.7nm,0.7s							
SEY				AML		AML		
M13K	**Dall Lake**	**15.47**	**48**	P		**P**	**03 08 02.1**	**-0.7**
K13K	**Kusilvak Mount**	**15.55**	**42**	Pn		**Pn**	**03 07 58.7**	**-0.9**
L14K	**Kuka Creek**	**16.14**	**46**			**P**	**03 08 09.1**	**-1.0**
I17K	**Unalakleet**	**18.09**	**39**	P		**P**	**03 08 33.6**	**+1.9**
J18K	**Innoko River**	**19.52**	**43**	P		**P**	**03 08 48.1**	**+0.7**
G18K	**Tagagawik**	**19.83**	**35**			**Pn**	**03 08 51.9**	**-0.7**
J19K	**Poorman**	**20.17**	**42**			**P**	**03 08 54.5**	**0.0**
KDAK	**Kodiak Island**	**20.41**	**60**	P		**P**	**03 08 55.6**	**-1.6**
	comp=E,22nm,0.9s,baz=221,slow=5.7,SNR=10							
	comp=E,22nm,0.9s							
KDAK	**Kodiak Island**	**20.41**	**60**	P		**P**	**03 08 55.6**	**-1.6**
KDAK				pmax	pmax			
	comp=Z,60nm,1.3s							
H19K	**Roundabout Mou**	**20.46**	**37**	P		**P**	**03 08 57.9**	**+0.3**
H19K				IAmb	IAmb		03 08 59.8	
	comp=Z,22nm,1.4s							
G19K	**Purcell Mounta**	**20.51**	**35**			**P**	**03 08 59.0**	**+0.7**
K20K	**Telida**	**20.61**	**44**	P		**P**	**03 08 59.4**	**+0.1**
M20K	**Styx River**	**20.64**	**49**	P		Pn	03 09 01.1	-0.9
M20K				IAmb		IAmb	03 09 09.0	
	comp=Z,14nm,0.9s							
J20K	**Nowinta River**	**20.84**	**42**	P		**P**	**03 09 02.0**	**+0.2**
J20K				IAmb		IAmb	03 09 03.0	
	comp=Z,16nm,0.7s							
STLK	**Strandline Lak**	**21.17**	**50**	P		**P**	**03 09 06.9**	**+1.5**
PPLA	**Purkeypile**	**21.30**	**46**	P		**P**	**03 09 08.0**	**+1.1**
PPLA				IAmb		IAmb	03 09 22.4	
	comp=Z,21nm,1.0s							
CAST	**Castle Rocks**	**21.48**	**45**			**P**	**03 09 08.5**	**-0.1**
H21K	**Melozitna Rive**	**21.90**	**39**	P		**P**	**03 09 13.1**	**-0.1**
KTH	**Kantishna Hill**	**22.02**	**45**	P		**P**	**03 09 15.3**	**+0.7**
KTH				IAmb		IAmb	03 09 21.8	
	comp=Z,13nm,0.8s							
TRF	**Thorofare Moun**	**22.27**	**45**			**P**	**03 09 17.8**	**+0.5**
TRF				IAmb		IAmb	03 09 31.0	
	comp=Z,16nm,1.0s							
F21K	**Alatna River**	**22.29**	**35**			**P**	**03 09 17.4**	**+0.1**
F21K				IAmb		IAmb	03 09 22.4	
	comp=Z,13nm,1.0s							
MLY	**Manley**	**22.50**	**41**	P		**P**	**03 09 20.3**	**+0.7**
MLY				IAmb		IAmb	03 09 40.8	
	comp=Z,15nm,1.4s							
KNK	**Knik Glacier**	**22.76**	**51**	P		**P**	**03 09 21.9**	**-0.4**
KNK				IAmb		IAmb	03 09 25.2	
	comp=Z,18nm,0.8s							
SML	**Sawmill**	**22.86**	**50**	P		**P**	**03 09 22.2**	**-1.3**
SML				pmax	pmax			
	comp=Z,30nm,0.7s							
SML	**Sawmill**	**22.86**	**50**			**P**	**03 09 22.2**	**-1.3**
MCK	**McKinley**	**22.92**	**45**	P		**P**	**03 09 24.2**	**+0.1**
MCK				pmax	pmax			
	comp=Z,12nm,0.9s							
MCK	**McKinley**	**22.92**	**45**	P		**P**	**03 09 24.2**	**+0.1**
MCK				IAmb		IAmb	03 09 30.1	
	comp=Z,12nm,0.9s							
I23K	**Minto, Yukon-K**	**23.10**	**41**	P		**P**	**03 09 25.7**	**-0.1**
I23K				IAmb		IAmb	03 09 52.8	
	comp=Z,13nm,1.3s							
WRH	**Wood River Hil**	**23.45**	**43**	IAmb		IAmb	03 09 33.5	
	comp=Z,11nm,0.8s							
CCB	**Clear Creek Bu**	**23.61**	**43**			**P**	**03 09 30.2**	**-0.6**
POKR	**Poker Plat Res**	**23.88**	**42**	IAmb		IAmb	03 09 38.0	
	comp=Z,9.7nm,0.7s							
H24K	**Noodor Dome**	**23.88**	**40**	IAmb		IAmb	03 09 50.5	
	comp=Z,13nm,1.2s							
ILAR	**Eielson Array**	**24.02**	**43**	P		**P**	**03 09 34.8**	**0.0**
	comp=Z,2.8nm,0.7s,baz=252,slow=8.8,SNR=20							
	comp=Z,2.8nm,0.7s							
TOLK	**Toolik Lake Re**	**24.23**	**33**			**P**	**03 09 36.8**	**+0.1**
TOLK				IAmb		IAmb	03 09 42.2	
	comp=Z,12nm,0.8s							
PAX	**Paxson**	**24.33**	**47**	IAmb		IAmb	03 09 57.0	
	comp=Z,12nm,1.1s							
GLB	**Gilahina Butte**	**24.99**	**51**	IAmb		IAmb	03 09 47.4	
	comp=Z,8.7nm,0.8s							
DOT	**Dot Lake**	**25.05**	**46**	IAmb		IAmb	03 09 48.4	
	comp=Z,8.2nm,0.8s							
YAK	**Yakutsk**	**25.05**	**310**	P		**P**	**03 09 43.9**	**-0.2**
YAK				pmax	pmax			
	comp=Z,35nm,1.1s							
YAK	**Yakutsk**	**25.05**	**310**	P		**P**	**03 09 43.9**	**-0.2**
SCRK	**Sand Creek**	**25.12**	**45**			**P**	**03 09 43.2**	**-1.7**
SCRK				IAmb		IAmb	03 09 56.4	
	comp=Z,9.2nm,0.9s							
MENT	**Mentasta**	**25.13**	**48**	IAmb		IAmb	03 10 04.8	
	comp=Z,11nm,0.8s							
F25K	**Christian Rive**	**25.24**	**36**	IAmb		IAmb	03 10 10.4	
	comp=Z,12nm,1.4s							
M26K	**Nabesna, AK**	**25.42**	**49**	IAmb		IAmb	03 09 52.3	
	comp=Z,6.5nm,0.9s							
D25K	**Kavik River**	**25.55**	**32**	IAmb		IAmb	03 10 00.2	
	comp=Z,6.2nm,0.8s							
G26K	**Porcupine Rive**	**25.76**	**38**			**P**	**03 09 50.7**	**+0.1**
G26K				IAmb		IAmb	03 09 59.6	
	comp=Z,7.7nm,0.9s							
F26K	**Sheenjek River**	**25.82**	**37**	IAmb		IAmb	03 10 18.6	
	comp=Z,7.3nm,1.1s							
M27K	**Edge Creek, AK**	**25.94**	**49**	IAmb		IAmb	03 10 07.1	
	comp=Z,13nm,0.8s							
GRNC	**Granite Creek**	**25.98**	**53**	IAmb		IAmb	03 10 05.4	
	comp=Z,15nm,1.0s							
BARN	**Barnard Glacie**	**26.02**	**52**	IAmb		IAmb	03 10 04.9	
	comp=Z,12nm,0.8s							
KLR	**Kul'dur**	**26.03**	**280**	P		**P**	**03 09 53.3**	**+0.1**
	comp=Z,2.1nm,0.7s,baz=58,slow=9.2,SNR=4.4							
KLR				LR		LR	03 20 04.7	
	comp=Z,80nm,20.2s,baz=86,slow=36							
	comp=Z,2.1nm,0.7s							
C26K	**Camden Bay**	**26.25**	**32**	IAmb		IAmb	03 10 00.1	
	comp=Z,15nm,0.8s							
C27K	**Jago River**	**26.54**	**33**	IAmb		IAmb	03 10 04.4	
	comp=Z,6.7nm,0.8s							
O28M	**Mount Upton**	**26.75**	**53**	IAmb		IAmb	03 10 03.5	
	comp=Z,9.9nm,0.8s							
HYT	**Haines Junctio**	**28.06**	**52**			**P**	**03 10 11.6**	**+0.1**
HYT				IAmb		IAmb	03 10 15.5	
	comp=Z,5.2nm,0.7s							
USRK	**Ussuriysk Ar.**	**28.15**	**270**	LR		LR	03 20 47.0	
	comp=Z,84nm,21.8s,baz=97,slow=35							
Q32M	**Nakina River**	**30.93**	**55**	IAmb		IAmb	03 11 02.0	
	comp=Z,12nm,1.2s							
R33M	**Jennings River**	**31.50**	**54**	IAmb		IAmb	03 10 47.5	
	comp=Z,5.0nm,0.8s							
H11N2	**WAKE ISLAND Hy**	**32.68**	**191**	T		T	03 45 47.3	
	baz=6.7							
H11N3	**WAKE ISLAND Hy**	**32.69**	**191**	T		T	03 46 20.2	
	baz=6.7,slow=74							
H11N1	**WAKE ISLAND Hy**	**32.70**	**191**	T		T	03 46 17.3	
	baz=6.7,slow=74							
HILR	**Hailar Array B**	**33.08**	**287**	LR		LR	03 26 31.0	
	comp=Z,81nm,19.6s,baz=80,slow=40							
H11S1	**WAKE ISLAND Hy**	**33.91**	**191**	T		T	03 47 24.6	
	baz=6.9,slow=76,SNR=14							
H11S3	**WAKE ISLAND Hy**	**33.93**	**191**	T		T	03 47 52.9	
	baz=6.9,slow=76,SNR=8.8							
H11S2	**WAKE ISLAND Hy**	**33.93**	**191**	T		T	03 47 53.4	
	baz=6.9,slow=76,SNR=6.3							
JCJ	**Chichijima**	**34.02**	**235**	LR		LR	03 22 22.5	
	comp=Z,27nm,20.4s,baz=196,slow=32							
KSRS	**Korea Array**	**34.57**	**263**	LR		LR	03 26 08.3	
	comp=Z,34nm,19.3s,baz=55,slow=38							
BBB	**Bella Bella**	**35.27**	**66**	LR		LR	03 24 29.4	
	comp=Z,71nm,20.4s,baz=238,slow=34							
YKA	**Yellowknife Ar**	**38.39**	**45**	P		**P**	**03 11 41.0**	**0.0**
	comp=Z,1.5nm,0.6s,baz=290,slow=7.4,SNR=5.6							
	comp=Z,1.5nm,0.6s							
YKA	**Yellowknife Ar**	**38.39**	**45**	P		**P**	**03 11 41.0**	**0.0**
YKA	**Yellowknife Ar**	**38.39**	**45**	P		**P**	**03 11 41.0**	**0.0**
SONM	**Songino Array**	**41.67**	**292**	P		**P**	**03 12 09.6**	**+1.0**
	comp=Z,0.7nm,0.4s,baz=66,slow=9.1,SNR=3.5							
	comp=Z,0.7nm,0.4s							
SONM	**Songino Array**	**41.67**	**292**	P		**P**	**03 12 09.6**	**+1.0**
SONM				pmax	pmax			
	comp=Z,3.0nm,1.4s							
HHC	**Hu-ho-hao-te**	**42.54**	**280**	*e*P		**P**	**03 12 15.5**	**-0.2**
HHC				pmax	pmax			
	comp=E,14nm,0.6s							
HHC				pmax	pmax			
	comp=Z,78nm,4.9s							
HAWA	**Hanford**	**42.98**	**70**	P		**P**	**03 12 18.6**	**-0.5**
HAWA				IAmb		IAmb	03 12 27.0	
	comp=Z,8.3nm,0.8s							
NVAR	**Mina Array Bea**	**48.47**	**78**	P		**P**	**03 13 02.5**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=289,slow=7.2,SNR=5.9							
	comp=Z,0.4nm,0.7s							
SPITS	**Spitsbergen Ar**	**49.17**	**354**	P		**P**	**03 13 07.6**	**+0.1**
	comp=Z,3.8nm,0.7s,baz=65,slow=6.6,SNR=5.2							
	comp=Z,3.8nm,0.7s							
GTA2	**Gaotai**	**50.47**	**286**	*e*P		**P**	**03 13 19.6**	**+1.6**
GTA2				pmax	pmax			
	comp=Z,5.0nm,1.1s							
PDAR	**Pinedale Array**	**50.86**	**68**	P		**P**	**03 13 21.1**	**+0.1**
	comp=Z,1.1nm,0.9s,baz=318,slow=2.0,SNR=4.0							
	comp=Z,1.1nm,0.9s							
CCCA	**Chr Cany lake**	**50.93**	**80**	P		**P**	**03 13 22.3**	**+0.9**
KURK	**Kurchatov**	**54.69**	**309**	P		**P**	**03 13 49.7**	**+0.8**
KURK				pmax	pmax			
	comp=Z,3.0nm,0.8s							
KURK	**Kurchatov**	**54.69**	**309**	P		**P**	**03 13 49.7**	**+0.8**
KURK				IAmb		IAmb	03 14 13.7	
	comp=Z,3.0nm,0.8s							
KURBB	**Kurchatov Arra**	**54.79**	**309**	P		**P**	**03 13 50.0**	**+0.4**
	comp=Z,2.5nm,0.7s,baz=51,slow=7.1,SNR=14							
	comp=Z,2.5nm,0.7s							
MKAR	**Makanchi Array**	**55.45**	**303**	P		**P**	**03 13 54.7**	**+0.2**
	comp=Z,0.7nm,0.6s,baz=51,slow=9.6,SNR=4.1							
	comp=Z,0.7nm,0.6s							
ARCES	**ARCESS Array B**	**56.34**	**347**	P		**P**	**03 14 00.8**	**+0.3**
	comp=Z,3.6nm,0.8s,baz=34,slow=13,SNR=1.6							
	comp=Z,3.6nm,0.8s							
ARCES	**ARCESS Array B**	**56.34**	**347**	P		**P**	**03 14 00.8**	**+0.3**
ARCES				pmax	pmax			
	comp=Z,33nm,1.4s							
ARCES	**ARCESS Array B**	**56.34**	**347**	IAmb		IAmb	03 14 08.2	
	comp=Z,33nm,1.4s							
BVAR	**Borovoye Array**	**56.88**	**315**	P		**P**	**03 14 05.3**	**+0.7**
	comp=Z,1.7nm,0.7s,baz=51,slow=8.6,SNR=4.3							
	comp=Z,1.7nm,0.7s							
ARTI	**Arti**	**59.22**	**324**	LR		LR	03 40 08.5	
	comp=Z,84nm,18.0s,baz=66,slow=36							
MNTX	**Cornudas Mount**	**60.79**	**75**	P		**P**	**03 14 32.0**	**0.0**
VHRN	**Van Horn**	**61.67**	**76**	P		**P**	**03 14 38.5**	**+0.3**
SCHQ	**Schefferville**	**62.43**	**34**	P		**P**	**03 14 42.2**	**-0.6**
	comp=Z,5.4nm,0.9s,baz=350,slow=8.6,SNR=4.3							
	comp=Z,5.4nm,0.9s							
TXAR	**Lajitas Array**	**63.51**	**76**	P		**P**	**03 14 50.2**	**-0.2**
	comp=Z,1.7nm,0.6s,baz=306,slow=3.8,SNR=12							
	comp=Z,1.7nm,0.6s							
FINES	**FINESS Array B**	**63.74**	**343**	P		**P**	**03 14 51.7**	**+0.4**
	comp=Z,3.6nm,0.8s,baz=49,slow=5.8,SNR=5.5							
FINES				LR		LR	03 47 30.9	
	comp=Z,72nm,18.0s,baz=50,slow=41							
	comp=Z,3.6nm,0.8s							
ABKAR	**Akbulak array**	**64.10**	**318**	P		**P**	**03 14 53.8**	**0.0**
SADO	**Sadowa**	**65.31**	**48**	LR		LR	03 43 19.3	
	comp=Z,36nm,21.2s,baz=357,slow=36							
CMAR	**Chiang Mai Arr**	**65.87**	**269**	P		**P**	**03 15 06.1**	**+0.3**
	comp=Z,0.5nm,0.3s,baz=38,slow=7.1,SNR=1.6							
CMAR				LR		LR	03 45 43.4	
	comp=Z,18nm,19.5s,baz=85,slow=38							
	comp=Z,0.5nm,0.3s							
NB2	**NORSAR Subarra**	**66.24**	**350**	P		**P**	**03 15 08.0**	**+0.4**
	comp=Z,2.3nm,1.0s,baz=13,slow=6.5							
NOA	**NORSAR Array B**	**66.24**	**350**	P		**P**	**03 15 07.8**	**+0.2**
	comp=Z,0.8nm,0.7s,baz=12,slow=6.4,SNR=5.2							
	comp=Z,0.8nm,0.7s							
HFS	**Hagfors**	**66.85**	**349**	P		**P**	**03 15 10.6**	**-0.9**
	comp=Z,1.1nm,0.5s,baz=9.9,slow=3.5,SNR=7.0							
	comp=Z,1.1

comp=Z,4.2nm,0.9s,baz=11,slow=1.6,SNR=4.7

AEIC ***08*** *03:04:24.6±1.3,54.˚49N±0.˚03×159.˚96W±0.˚09,h16km±7km, Error ellipse: s-maj=8.2km s-min=3.7km az=102.0*

NEIC 08 03:04:22.9±0.9,54.˚41N±0.˚04×159.˚99W±0.˚04,h10km±2km, ML3.0/8,ML2.8(AEIC)**,Error ellipse: s-maj=7.2km s-min=3.7km az=2.0,South of Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
CNBA	**Chernabura Isl**	**0.47**	**29**			Pg	03 04 32.2	+0.1
CNBA						Sg	03 04 38.9	+0.6
CNBA	**Chernabura Isl**	**0.47**	**29**	IAML			03 04 39.3	
	comp=N,164nm,0.4s							
CNBA				IAML			03 04 39.6	
	comp=E,105nm,0.7s							
SDPT	**Sand Point**	**0.98**	**343**			Pg	03 04 41.5	-0.2
SDPT				IAML			03 05 08.1	
	comp=E,229nm,0.4s							
SDPT				IAML			03 05 08.5	
	comp=N,156nm,0.4s							
SDPT	**Sand Point**	**0.98**	**343**			Sb	03 04 55.1	+0.2
DOL	**Dolgoi Island**	**1.31**	**305**			Pn	03 04 46.9	-0.4
DOL						Sb	03 05 04.5	0.0
HAG	**Hague Volcano**	**1.43**	**310**			Pn	03 04 48.8	-0.1
PS1A	**Pavlof South-1**	**1.43**	**316**			Pn	03 04 48.9	0.0
DT1	**Dutton Round H**	**1.50**	**299**			Pn	03 04 49.5	-0.3
DT1						Sn	03 05 09.7	+0.2
PN7A	**Pavlof North-7**	**1.55**	**312**			Pb	03 04 51.5	-0.2
S12K	**Black Hills**	**1.76**	**318**			Pn	03 04 54.1	+0.7
SII	**Sitkinak Islan**	**3.94**	**55**	Pn		Pn	03 05 23.0	-0.4

DJA ***08*** *03:16:24.0±0.4,3.˚5S×12.˚6E±.˚, h10km,M3.9/7,mB6.4/1, mb4.3/4,MLv3.6/7,Mw(mB)6.2/1*

IDC ***08*** *03:16:35.6±4.6,3.˚34S×127.˚07E,h96km±49km,mb3.5/3, mbtmp3.8/6,Error ellipse: s-maj=40.6km s-min=21.0km az=91.0*

ISC 08 03:16:22.1±1.3,2.˚99S±0.˚09×126.˚20E±0.˚09,h21km,n10, σ1s62/10,mb3.9/3,Ceram Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
NLAI	**Namlea**	**0.94**	**106**	P		**Pn**	**03 16 40.8**	**+0.8**
NLAI				S		**Sn**	**03 16 52.7**	**0.0**
NLAI				AML		AML		
SANI	**Sanana**	**0.95**	**347**	P		**Pn**	**03 16 41.0**	**+0.8**
GTOI	**Gorontalo**	**4.81**	**318**	P		Pn	03 17 39.4	+6.1
	0.1nm11nm,1.3s							
GTOI				AML		AML		
SIJI	**Sorong**	**5.49**	**68**	P		**Pn**	**03 17 44.7**	**+2.1**
	15nm,0.3s,baz=260,slow=12,SNR=16							
SIJI				S		**Sn**	**03 18 43.0**	**-2.2**
	5.4nm,0.4s,baz=217,slow=10,SNR=2.0							
SIJI	**Sorong**	**5.49**	**68**	P		**Pn**	**03 17 44.1**	**+1.5**
	0.1nm13nm,0.4s							
SIJI				AML		AML		
FITZ	**Fitzroy Crossi**	**15.03**	**182**	P		**P**	**03 19 58.5**	**-0.1**
	1.5nm,0.7s,baz=4.5,slow=11,SNR=7.1							
WRA	**Warramunga Arr**	**18.63**	**155**	P		**P**	**03 20 38.8**	**+0.3**
	0.5nm,0.5s,baz=336,slow=11,SNR=6.4							
ASAR	**Alice Springs**	**21.87**	**161**	P		**P**	**03 21 14.6**	**+0.9**
	1.0nm,0.6s,baz=341,slow=11,SNR=15							
	1.0nm,0.6s							
CTA	**Charters Tower**	**25.92**	**132**	P		**P**	**03 21 50.8**	**-2.2**
	5.4nm,0.9s,baz=295,slow=19,SNR=2.7							
	5.4nm,0.9s							
MKAR	**Makanchi Array**	**62.82**	**328**	P		P	03 26 56.5	+10
	1.0nm,0.9s,baz=134,slow=8.3,SNR=3.0							
	1.0nm,0.9s							

SJA ***08*** *03:34:27.7±0.7,27.˚81S×71.˚15W,h33km±2km, ML4.4, MW4.4*

GFZ ***08*** *03:34:28.6±0.2,28.˚3S±1.˚×7.˚1W±.˚, h38km, M4.6/25, mb4.6/25*

NEIC ***08*** *03:34:28, 27.˚84S×71.˚22W, h14km*

NEIC ***08*** *03:34:29.8±1.9,27.˚76S±0.˚03×71.˚01W±0.˚05, h28km±3km, mb4.6/19, Mwr4.1/46, Mwr4.3(GUC), Error ellipse: s-maj=6.8km s-min=4.3km az=71.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.44; $M_{\theta\theta}$0.25; $M_{\phi\phi}$-1.69; $M_{r\theta}$0.40; $M_{\theta\phi}$0.23; $M_{\phi r}$-0.37; Fault plane solution: M_o1.68000×10^{15} NP1:φs8.37000°, δ39.67000°, λ113.38000°. NP2:φs159.04000°, δ54.13000°, λ71.78000°. Principal axes: T 1.5831, Plg73.0000°, Azm18.0000°; N 0.1860, Plg15.0000°, Azm170.0000°; P -1.7691, Plg7.0000°, Azm262.0000°;*

GUC ***08*** *03:34:29.9±0.6,27.˚82S×71.˚10W,h27km±5km, ML4.2, Presumed earthquake*

IDC ***08*** *03:34:32.9±2.4,27.˚60S×70.˚97W,h56km±21km, mb3.9/9, mbtmp4.1/13,ML3.8/4,MS3.5/8,Error ellipse: s-maj=25.1km s-min=14.8km az=74.0*

VAO ***08*** *03:34:33.7±2.3,27.˚53S×70.˚46W,h22km±15km, mb4.4, Presumed earthquake*

ISC 08 03:34:28.0±0.5,27.˚75S±0.˚02×71.˚17W±0.˚04,h22km±4km, n183,σ1s61/190,mb4.5/16,MS3.7/5,1C-2D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.46**	**170**	*eP*		**Pb**	**03 34 37.4**	**-0.1**
AC04				*eS*		**Sb**	**03 34 43.9**	**0.0**
AC04				IAML			03 34 44.1	
	comp=Z,12μm,0.7s							
AC04	**Llanos de Chal**	**0.46**	**170**			**Pb**	**03 34 37.7**	**+0.3**
AC04						**Sb**	**03 34 43.5**	**-0.3**
AC04	**Llanos de Chal**	**0.46**	**170**	⇑ *i*	P	**Pb**	**03 34 37.8**	**+0.3**
AC04				*i*	S	**Sb**	**03 34 43.2**	**-0.7**
AC04				IAML			03 34 44.2	
	comp=N,18μm,0.2s							
AC06	**Mina Casimiro**	**0.82**	**62**			**Pb**	**03 34 44.1**	**+0.6**
AC06	**Mina Casimiro**	**0.82**	**62**	‖ *i*	P	**Pb**	**03 34 44.2**	**+0.6**
AC06				*eS*		**Sn**	**03 34 54.6**	**-1.1**
GO03	**Copiapo**	**0.84**	**80**	*eP*		**Pb**	**03 34 54.5**	**+0.5**
GO03				*eS*		**Sn**	**03 34 58.1**	**+1.8**
GO03				IAML			03 34 59.4	
	comp=Z,5μm,0.5s							
GO03	**Copiapo**	**0.84**	**80**			**Pb**	**03 34 44.3**	**+0.4**
GO03						**Sn**	**03 34 54.0**	**-2.3**
GO03	**Copiapo**	**0.84**	**80**	*eP*		**Pb**	**03 34 44.4**	**+0.5**
GO03				IAML			03 34 55.8	
	comp=N,12μm,0.2s							
GO03	**Copiapo**	**0.84**	**80**	P		**Pb**	**03 34 44.5**	**+0.5**
LCO	**Las Campanas**	**1.32**	**162**	*eP*		**Pn**	**03 34 51.2**	**-0.2**
LCO				*eS*		**Sn**	**03 35 08.3**	**-0.2**
LCO				IAML			03 35 10.0	
	comp=Z,12μm,0.4s							
LCO	**Las Campanas**	**1.32**	**162**			**Pn**	**03 34 51.2**	**-0.2**
LCO	**Las Campanas**	**1.32**	**162**	*eP*		**Pn**	**03 34 51.3**	**-0.1**
AC05	**El Transito**	**1.34**	**144**	*eP*		**Pn**	**03 34 51.6**	**+0.1**
AC05				IAML			03 35 12.2	
	comp=Z,3μm,0.6s							
AC05	**El Transito**	**1.34**	**144**			**Pn**	**03 34 51.6**	**+0.1**
AC05	**El Transito**	**1.34**	**144**	*eP*		**Pn**	**03 34 51.6**	**+0.1**
AC05				IAML			03 35 11.8	
	comp=N,6μm,0.5s							
AC05	**El Transito**	**1.34**	**144**	P		**Pn**	**03 34 51.7**	**+0.1**
AC01	**Pan de Azucar**	**1.67**	**18**	*eP*		**Pb**	**03 34 57.4**	**-0.8**
AC01				*eS*		**Sb**	**03 35 23.5**	**+4.8**
AC01				IAML			03 35 28.4	
	comp=Z,3μm,0.2s							
AC01	**Pan de Azucar**	**1.67**	**18**			**Pb**	**03 34 57.3**	**-0.8**
AC01	**Pan de Azucar**	**1.67**	**18**	*eP*		**Pb**	**03 34 57.3**	**-0.8**
AC01				IAML			03 35 27.5	
	comp=N,3μm,0.3s							
AC01	**Pan de Azucar**	**1.67**	**18**	P		**Pn**	**03 34 56.5**	**+0.5**
AC02	**Maricunga**	**2.03**	**64**	*eP*		**Pb**	**03 35 04.2**	**-0.3**
AC02				*eS*		**Sb**	**03 35 30.5**	**+1.1**
AC02				IAML			03 35 33.0	
	comp=Z,3μm,0.3s							
AC02	**Maricunga**	**2.03**	**64**			**Pb**	**03 35 04.2**	**-0.3**
AC02	**Maricunga**	**2.03**	**64**	*eP*		**Pb**	**03 35 04.2**	**-0.3**
AC02				*eS*		**Sb**	**03 35 30.2**	**+0.8**
AC02				IAML			03 35 35.1	
	comp=E,4μm,0.3s							
CO05	**La Serena**	**2.16**	**182**			**Pn**	**03 35 02.5**	**-0.2**
CO05	**La Serena**	**2.16**	**182**	*eP*		**Pn**	**03 35 02.7**	**0.0**
CO05				IAML			03 35 42.5	
	comp=N,5μm,0.5s							
CO01	**Juntas del Tor**	**2.41**	**157**	*eP*		**Pn**	**03 35 07.8**	**+1.4**
CO01				*eS*		**Sn**	**03 35 34.4**	**-1.0**
CO01				IAML			03 35 47.0	
	comp=Z,3μm,0.7s							
CO01	**Juntas del Tor**	**2.41**	**157**			**Pn**	**03 35 07.8**	**+1.4**
CO01	**Juntas del Tor**	**2.41**	**157**	*eP*		**Pn**	**03 35 08.3**	**+1.9**
CO01				IAML			03 35 47.6	
	comp=N,2μm,0.4s							
CO01	**Juntas del Tor**	**2.41**	**157**	P		**Pn**	**03 35 08.0**	**+1.6**
GO04	**Tololo Observa**	**2.44**	**173**	*eP*		**Pn**	**03 35 07.5**	**+0.8**
GO04				*eS*		Sn	03 35 17.2	-19
GO04				IAML			03 35 48.7	
	comp=Z,2μm,1.0s							
GO04	**Tololo Observa**	**2.44**	**173**			**Pn**	**03 35 07.6**	**+0.9**
GO04	**Tololo Observa**	**2.44**	**173**	*eP*		**Pn**	**03 35 07.5**	**+0.8**
GO04	**Tololo Observa**	**2.44**	**173**	P		**Pn**	**03 35 07.5**	**+0.8**
AROD	**Rodeo**	**2.83**	**149**	*eP*		**Pn**	**03 35 15.3**	**+3.1**
AROD				*eS*		**Sb**	**03 35 51.3**	**-1.0**
CO06	**Fray Jorge**	**2.94**	**188**			**Pn**	**03 35 12.4**	**-1.0**
CO06	**Fray Jorge**	**2.94**	**188**	‖ *eP*		**Pn**	**03 35 12.4**	**-1.0**
CO06				IAML			03 36 06.3	
	comp=N,611nm,0.5s							
ACDV	**Cuesta del Vie**	**3.01**	**144**	*eP*		**Pn**	**03 35 15.1**	**+0.6**
ACDV				IAML			03 36 07.1	
	comp=Z,551nm,0.5s							
CO03	**El Pedregal**	**3.11**	**172**	*eP*		**Pn**	**03 35 16.6**	**+0.8**
CO03				*eS*		**Sn**	**03 35 53.9**	**+1.5**
CO03				IAML			03 36 08.4	
	comp=Z,1μm,0.8s							
CO03	**El Pedregal**	**3.11**	**172**			**Pn**	**03 35 16.5**	**+0.8**
CO03	**El Pedregal**	**3.11**	**172**	*eP*		**Pn**	**03 35 16.4**	**+0.6**
CO03				IAML			03 36 07.8	
	comp=N,1μm,0.5s							
CO03	**El Pedregal**	**3.11**	**172**	P		**Pn**	**03 35 16.3**	**+0.6**
PB14	**IPOC Station P**	**3.18**	**13**	*eP*		**Pn**	**03 35 17.7**	**+0.7**
PB14				*eS*		**Sn**	**03 35 56.3**	**+1.7**
PB14				IAML			03 36 12.8	
	comp=Z,1μm,0.8s							
PB14	**IPOC Station P**	**3.18**	**13**			**Pn**	**03 35 17.3**	**+0.2**
PB14	**IPOC Station P**	**3.18**	**13**	*eP*		**Pn**	**03 35 17.4**	**+0.3**
PB14				IAML			03 36 14.0	
	comp=N,433nm,0.5s							
PB14	**IPOC Station P**	**3.18**	**13**	P		**Pn**	**03 35 16.4**	**-0.6**
TINO	**Tinogasta**	**3.20**	**96**	*eP*		**Pn**	**03 35 19.8**	**+2.7**
TINO				*eS*		**Sb**	**03 36 05.6**	**+2.9**
TINO				IAML			03 36 08.4	
	comp=Z,515nm,0.5s							
ACCO	**Cerro Coronel**	**3.37**	**148**	*eP*		**Pn**	**03 35 22.9**	**+3.3**
ACCO				*eS*		**Sb**	**03 36 11.1**	**+3.1**
ACCO				IAML			03 36 21.9	
	comp=Z,604nm,0.7s							
CO02	**Combarbal**	**3.45**	**178**	*eP*		**Pn**	**03 35 20.5**	**0.0**
CO02				*eS*		**Sn**	**03 36 04.0**	**+3.2**
CO02				IAML			03 36 13.6	
	comp=Z,2μm,0.6s							
CO02	**Combarbal**	**3.45**	**178**			**Pn**	**03 35 20.4**	**0.0**
CO02	**Combarbal**	**3.45**	**178**	*eP*		**Pn**	**03 35 23.4**	**+2.9**
CO02	**Combarbal**	**3.45**	**178**	P		**Pn**	**03 35 20.2**	**-0.3**
ACLC	**CERRO LA CRUZ**	**4.07**	**115**	*eP*		**Pn**	**03 35 31.7**	**+2.7**
ACLC				*eS*		**Sb**	**03 36 25.9**	**-1.8**
ACLC				IAML			03 36 26.5	
	comp=Z,300nm,0.7s							
PB10	**IPOC Station P**	**4.25**	**8**			**Pn**	**03 35 31.0**	**-0.5**
PB10	**IPOC Station P**	**4.25**	**8**	*eP*		**Pn**	**03 35 30.1**	**-1.4**
RTLL	**Cerro Villicun**	**4.27**	**147**	*eP*		**Pn**	**03 35 35.6**	**+3.8**
RTLL				*eS*		**Sn**	**03 36 23.3**	**+2.3**
RTLL				IAML			03 36 41.9	
	comp=Z,945nm,0.7s							
CO04	**Los Peladeros**	**4.28**	**178**			**Pn**	**03 35 32.4**	**+0.3**
CO04	**Los Peladeros**	**4.28**	**178**	P		**Pn**	**03 35 32.1**	**-0.1**
ZON	**Zonda**	**4.36**	**151**			**Pn**	**03 35 35.5**	**+2.6**
ZON	**Zonda**	**4.36**	**151**	P		**Pn**	**03 35 34.5**	**+1.5**
CFA	**Coronel Fontan**	**4.61**	**147**	P		**Pn**	**03 35 39.6**	**+3.2**
	comp=Z,12nm,0.3s,baz=333,slow=12,SNR=92							
CFA				S		**Sn**	**03 36 34.9**	**+5.6**
	comp=Z,88nm,0.6s,baz=156,slow=18,SNR=9.7							
	comp=Z,32nm,0.3s							
CFA				AML		AML		
CYA	**Choya**	**4.79**	**100**	*eP*		**Pn**	**03 35 40.9**	**+2.0**
CYA				*eS*		**Sn**	**03 36 34.7**	**+0.9**
CYA				IAML			03 36 42.4	
	comp=Z,166nm,1.1s							
PB05	**IPOC Station P**	**4.95**	**10**	*eP*		**Pn**	**03 35 40.8**	**-0.4**
PB05				*eS*		**Sb**	**03 36 58.2**	**+4.9**
PB05				IAML			03 37 08.6	
	comp=Z,295nm,0.9s							
PB05	**IPOC Station P**	**4.95**	**10**			**Pn**	**03 35 40.7**	**-0.4**
PB05	**IPOC Station P**	**4.95**	**10**	P		**Pn**	**03 35 39.9**	**-1.3**
VA03	**San Esteban**	**5.03**	**174**	*eP*		**Pn**	**03 35 44.2**	**+2.0**
VA03				IAML			03 37 12.3	
	comp=Z,517nm,0.8s							
VA03	**San Esteban**	**5.03**	**174**	P		**Pn**	**03 35 43.0**	**+0.8**
	comp=Z,171nm,0.7s							
PB06	**IPOC Station P**	**5.22**	**16**	*eP*		**Pn**	**03 35 44.9**	**-0.1**
PB06				*eS*		**Sb**	**03 36 59.5**	**-1.6**
PB06				IAML			03 37 20.4	
	comp=Z,685nm,0.6s							
PB06	**IPOC Station P**	**5.22**	**16**	P		**Pn**	**03 35 43.7**	**-1.3**
	comp=Z,114nm,0.8s							
VA01	**Torpederas**	**5.27**	**184**	P		**Pn**	**03 35 46.1**	**+0.7**
	comp=Z,98nm,0.8s							
PEL	**Peldehue**	**5.39**	**176**			**Pn**	**03 35 48.0**	**+0.8**
PEL	**Peldehue**	**5.39**	**176**	P		**Pn**	**03 35 48.8**	**+1.6**
	comp=Z,113nm,0.6s							
AF01	**San Pedro de A**	**5.49**	**30**			**Pn**	**03 35 49.1**	**+0.4**
SALTA		**5.58**	**52**	P		**Pn**	**03 35 49.4**	**-0.8**
	comp=Z,49nm,0.8s							
PB03	**IPOC Station P**	**5.82**	**13**	P		**Pn**	**03 35 50.9**	**-2.2**
	comp=Z,52nm,0.6s							
PB07	**IPOC Station P**	**6.11**	**11**	P		**Pn**	**03 35 56.5**	**-0.6**
	comp=Z,58nm,0.6s							
PB09	**IPOC Station P**	**6.18**	**17**	P		**Pn**	**03 35 57.2**	**-0.9**
	comp=Z,80nm,1.1s							
PB02	**IPOC Station P**	**6.50**	**11**	P		**Pn**	**03 36 01.7**	**-0.8**
	comp=Z,66nm,0.6s							
BO01	**Tunca**	**6.62**	**179**	P		**Pn**	**03 36 04.3**	**+0.3**
	comp=Z,44nm,0.7s							
BO02	**Sierra Bellavi**	**7.03**	**177**	P		**Pn**	**03 36 11.2**	**+1.5**
	comp=Z,41nm,0.5s							
TA01	**Diego Aracena**	**7.21**	**7**	P		**Pn**	**03 36 09.8**	**-2.3**
	comp=Z,15nm,0.5s							
PB08	**IPOC Station P**	**7.79**	**14**	P		**Pn**	**03 36 19.8**	**-0.7**
	comp=Z,21nm,0.5s							
ML02	**Panimavida**	**7.99**	**181**	P		**Pn**	**03 36 24.7**	**+1.9**
	comp=Z,59nm,0.8s							
PB11	**IPOC Station P**	**8.07**	**10**	P		**Pn**	**03 36 21.6**	**-2.5**
	comp=Z,18nm,0.5s							
PSGCX	**Pisagua**	**8.17**	**7**	P		**Pn**	**03 36 22.9**	**-2.5**
	comp=Z,36nm,0.5s							
GO01	**Chusmiza**	**8.24**	**13**	P		**Pn**	**03 36 25.9**	**-0.8**
	comp=Z,11nm,0.7s							
H03N1	**Juan Fernandez**	**8.76**	**228**	P		Pn	03 36 31.0	-2.0
	baz=36,slow=28,SNR=26							
H03N1				T		T	03 46 04.2	
	baz=53							
H03N2	**Juan Fernandez**	**8.77**	**228**	P		**Pn**	**03 36 31.6**	**-1.6**
	baz=36,slow=28,SNR=8.8							
H03N2				T		T	03 45 36.0	
	baz=53							
H03N3	**Juan Fernandez**	**8.78**	**228**	P		Pn	03 36 30.7	-2.6
	baz=36,slow=28,SNR=27							
H03N3				T		T	03 45 55.4	
	baz=53							
VA04	**Juan Fernndez**	**8.83**	**226**	P		Pn	03 36 31.2	-3.1
	comp=Z,125nm,1.3s							
BI02	**San Fabin de**	**8.89**	**181**	P		**Pn**	**03 36 35.1**	**-0.1**
	comp=Z,22nm,0.8s							
H03S3	**Juan Fernandez**	**9.00**	**226**	P		Pn	03 36 33.7	-2.7
	baz=250,slow=71,SNR=15							
H03S1	**Juan Fernandez**	**9.01**	**226**	P		Pn	03 36 33.5	-3.0
	baz=250,slow=71,SNR=10							
H03S2	**Juan Fernandez**	**9.02**	**226**	P		Pn	03 36 33.5	-3.1
	baz=250,slow=71,SNR=13							
PB12	**IPOC Station P**	**9.12**	**5**	P		**Pn**	**03 36 36.2**	**-2.2**
	comp=Z,16nm,0.4s							
PB16	**IPOC Station P**	**9.49**	**10**	P		**Pn**	**03 36 43.0**	**-0.9**
	comp=Z,7.5nm,0.8s							
PB18	**Visviri**	**10.23**	**9**	P		**Pn**	**03 36 53.6**	**-0.4**
	comp=Z,23nm,0.8s							
LPAZ	**La Paz**	**11.75**	**14**	P		**Pn**	**03 37 14.1**	**-0.8**
	comp=Z,0.7nm,0.3s,baz=205,slow=6.0,SNR=20							
LPAZ				LR		LR	03 42 11.1	
	comp=Z,123nm,21.7s,baz=167,slow=40							
	comp=Z,2.2nm,0.4s							
LPAZ				AML		AML		
LPAZ	**La Paz**	**11.75**	**14**			**Pn**	**03 37 13.1**	**-1.7**
LPAZ	**La Paz**	**11.75**	**14**	P		**Pn**	**03 37 13.2**	**-1.7**
	comp=Z,5.7nm,0.6s							
LPAZ	**La Paz**	**11.75**	**14**	*eP*		**Pn**	**03 37 14.5**	**-0.3**
GO06	**Curarrehue**	**11.81**	**181**	P		**Pn**	**03 37 16.7**	**+1.5**
	comp=Z,7.8nm,2.2s							
PSAL	**Palomas, Salto**	**12.28**	**109**	*eP*		**Pn**	**03 37 19.7**	**-1.8**
CPUP	**Villa Florida**	**12.41**	**87**	P		**Pn**	**03 37 24.6**	**+1.2**
	comp=Z,0.1nm,0.3s,baz=254,slow=12,SNR=4.0							
CPUP				LR		LR	03 42 36.1	
	comp=Z,192nm,18.5s,baz=256,slow=40							
	comp=Z,0.9nm,0.7s							
CPUP				AML		AML		
CPUP	**Villa Florida**	**12.41**	**87**	P		**Pn**	**03 37 24.7**	**+1.2**
	comp=Z,7.3nm,0.7s							
ITQB	**Itaqui**	**12.91**	**102**	*eP*		**Pn**	**03 37 28.6**	**-1.6**
PLCA	**Paso Flores**	**12.96**	**178**	P		P	03 37 37.9	-3.5
	baz=99,slow=18,SNR=1.8							
PLCA				LR		LR	03 42 16.3	
	comp=Z,186nm,20.6s,baz=353,slow=35							
	comp=Z,0.9nm,0.7s							
BBSD	**Serra de San D**	**14.33**	**45**	*eP*		**Pn**	**03 37 47.4**	**-2.3**
COIM	**Forte Coimbra**	**14.51**	**60**	*eP*		**Pn**	**03 37 48.9**	**-3.2**
SIV	**San Ignacio**	**14.98**	**41**	P		Pn	03 37 52.5	-5.9
	comp=Z,1.2nm,0.4s,baz=239,slow=9.3,SNR=9.8							
SIV				S		**Sn**	**03 40 38.9**	**-4.9**
	comp=Z,0.4nm,0.3s,baz=249,slow=14,SNR=1.5							
CPSB	**Cacapava Do Su**	**15.72**	**104**	P		**P**	**03 38 10.6**	**-1.5**
	comp=Z,12nm,0.8s							
CPSB	**Cacapava Do Su**	**15.72**	**104**	*eP*		**Pn**	**03 38 06.0**	**-2.2**
AQDB	**Aquidauana**	**15.86**	**66**	*eP*		**Pn**	**03 38 06.6**	**-3.3**
PTLB	**Pontes e Lacer**	**16.56**	**45**	P		**Pn**	**03 38 15.7**	**-3.3**
ITAB	**Concordia**	**16.90**	**93**			**P**	**03 38 23.6**	**-1.5**
VILB	**Vilhena**	**17.94**	**37**	P		**Pn**	**03 38 34.7**	**-1.4**
VILB	**Vilhena**	**17.94**	**37**	*eP*		**Pn**	**03 38 35.1**	**-1.1**
PP1B	**Ponte de Pedra**	**18.09**	**59**	*eP*		**Pn**	**03 38 35.9**	**-2.1**
SALV	**Santo Antonio**	**18.56**	**54**	*eP*		**P**	**03 38 41.9**	**-1.5**
LDASE	**Londrina, Braz**	**18.59**	**81**	*eP*		**Pn**	**03 38 43.2**	**-1.0**
PCMB	**Pacaembu**	**19.08**	**76**	P		**Pn**	**03 38 49.2**	**-0.9**
	comp=Z,18nm,2.1s							
PCMB	**Pacaembu**	**19.08**	**76**	*eP*		**P**	**03 38 47.9**	**-1.3**
CZSB	**Cruzeiro do Su**	**19.96**	**356**	*eP*		**Pn**	**03 39 04.0**	**+3.4**
PDRB	**Porto dos Gac**	**21.00**	**43**	*eP*		**P**	**03 39 09.6**	**-0.5**
ARAG	**Araguaiana, MT**	**21.57**	**60**	*eP*		**P**	**03 39 15.4**	**-0.8**
CLDB	**Colider**	**22.14**	**44**	P		**P**	**03 39 21.5**	**-0.8**
	comp=Z,6.9nm,0.8s							
CLDB	**Colider**	**22.14**	**44**	*eP*		**P**	**03 39 21.2**	**-1.1**
VAO	**Valinhos**	**22.36**	**83**	P		**P**	**03 39 23.3**	**-1.4**
VAO	**Valinhos**	**22.36**	**83**	*eP*		**P**	**03 39 23.6**	**-1.1**
IPMB	**Ipameri, GO**	**23.24**	**70**	*eP*		**P**	**03 39 32.8**	**-1.2**
CANS	**Sao Roque de M**	**23.79**	**77**	*eP*		**P**	**03 39 38.2**	**-1.2**
SNDB	**Serra Nova Dou**	**24.34**	**54**	*eP*		**P**	**03 39 43.8**	**-0.6**
PMNB	**Patos De Minas**	**24.48**	**73**	P		**P**	**03 39 44.3**	**-1.5**
	comp=Z,17nm,0.8s							
BDFB	**Brasilia**	**24.60**	**65**	P		**P**	**03 39 44.9**	**-2.1**
	comp=Z,1.4nm,0.4s,baz=262,slow=5.5,SNR=4.2							
BDFB				LR		LR	03 50 44.8	
	comp=Z,221nm,19.4s,baz=278,slow=40							
	comp=Z,1.4nm,0.4s							
BDFB	**Brasilia**	**24.60**	**65**	P		**P**	**03 39 45.5**	**-1.4**
BDFB				IAmb		IAmb	03 40 02.9	
	comp=Z,9.8nm,1.1s							
NPGB	**Novo Progresso**	**25.47**	**39**	*eP*		**P**	**03 39 54.0**	**-0.6**
ROSC	**El Rosal**	**32.54**	**354**	P		**P**	**03 40 56.4**	**-1.6**
	comp=Z,2.0nm,0.3s,baz=156,slow=23,SNR=1.8							
	comp=Z,2.0nm,0.3s							
ROSC	**El Rosal**	**32.54**	**354**	IAmb		IAmb	03 41 04.6	
	comp=Z,7.4nm,1.1s							
RUSC	**La Rusia**	**33.49**	**357**	P		**P**	**03 41 08.4**	**+1.9**
RUSC				IAmb		IAmb	03 41 41.2	
	comp=Z,7.8nm,1.2s							
RPN	**Rapa Nui**	**33.79**	**262**	LR		LR	03 49 48.3	
	comp=Z,26nm,21.3s,baz=317,slow=27							
MDP	**Montagnes des**	**37.23**	**32**	LR		LR	03 57 37.6	
	comp=Z,72nm,18.0s,baz=358,slow=37							
VNA3	**Neumayer Olymp**	**54.90**	**160**	P		**P**	**03 43 56.4**	**-0.1**
	comp=Z,3.4nm,0.6s							
VNA3	**Neumayer Olymp**	**54.90**	**160**	P		**P**	**03 43 56.4**	**-0.1**
	comp=Z,10nm,0.9s							
VNA1	**Neumayer--Stat**	**55.16**	**159**	P		**P**	**03 43 58.6**	**+0.2**
	comp=Z,3.7nm,1.1s							
**VNA

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PETK	**Petropavlovsk-**	**6.14**	**27**	P	**Pn**	**03 52 15.3**	**-1.1**
	1.5nm,0.9s,baz=180,slow=10,SNR=5.1						
PETK				S	**Sn**	**03 53 26.2**	**+0.9**
	0.6nm,0.5s,baz=218,slow=45,SNR=1.7						
H11N2	**WAKE ISLAND Hy**	**30.15**	**153**	T	T	04 28 54.6	
	baz=342						
H11N1	**WAKE ISLAND Hy**	**30.16**	**153**	T	T	04 28 56.8	
	baz=342						
H11N3	**WAKE ISLAND Hy**	**30.16**	**153**	T	T	04 28 50.8	
	baz=342						
H11S1	**WAKE ISLAND Hy**	**31.24**	**154**	T	T	04 30 30.4	
	baz=343,slow=76,SNR=11						
H11S3	**WAKE ISLAND Hy**	**31.25**	**154**	T	T	04 30 15.2	
	baz=343,slow=76,SNR=14						
H11S2	**WAKE ISLAND Hy**	**31.26**	**154**	T	T	04 30 23.6	
	baz=343,slow=76,SNR=9.7						
MKAR	**Makanchi Array**	**46.42**	**296**	P	**P**	**03 59 02.4**	**+0.6**
	0.3nm,0.5s,baz=70,slow=4.7,SNR=2.1						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**46.85**	**303**	P	**P**	**03 59 05.2**	**+0.2**
	0.9nm,0.7s,baz=68,slow=8.6,SNR=4.5						
	0.9nm,0.7s						
YKA	**Yellowknife Ar**	**50.16**	**37**	P	**P**	**03 59 31.2**	**+1.1**
	0.6nm,0.9s,baz=319,slow=8.2,SNR=1.6						
	0.6nm,0.9s						
FINES	**FINESS Array B**	**63.10**	**334**	P	**P**	**04 01 00.6**	**-1.0**
	2.9nm,1.0s,baz=23,slow=7.1,SNR=4.1						
	2.9nm,1.0s						
EKA	**Eskdalemuir Ar**	**75.34**	**346**	P	**P**	**04 02 17.4**	**+0.3**
	1.5nm,0.9s,baz=22,slow=5.9,SNR=3.6						
	1.5nm,0.9s						
TXAR	**Lajitas Array**	**77.06**	**61**	P	**P**	**04 02 27.0**	**-0.3**
	0.1nm,0.4s,baz=298,slow=4.5,SNR=1.5						
	0.1nm,0.4s						

*ATH **08** 03:52:09.8,37°.85N×26°.88E,h17km±1km, ML2.4/6,*
Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
*THE **08** 03:52:10.4,37°.9N±0°.9×26°.9E±0°.7, h10km±1km, M2.5/8, MLh2.5/8*
*AFAD **08** 03:52:10.1,37°.90N×26°.94E, h8km±2km, ML2.2*
*ISK **08** 03:52:10.6,37°.91N×26°.95E, h8km, ML2.5/18*
ISC 08 03:52:10.1±0.8,37°.88N±0°.02×26°.91E±0°.02,h14km±5km,
n53,σ0s50/83,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**353**	P	**Pg**	**03 52 14.0**	**-0.2**
DGB				IAML		03 52 16.0	
	comp=N,703nm,0.4s						
DGB				S	**Sg**	**03 52 16.6**	**-0.3**
DGB				IAML		03 52 17.0	
	comp=E,757nm,0.2s						
KRL1	**Karlovasi Samo**	**0.18**	**241**	P	**Pg**	**03 52 14.0**	**-0.4**
KRL1				S	**Sg**	**03 52 17.1**	**-0.1**
KRL1				AML	AML		
SMG	**Samos**	**0.18**	**198**	P	**Pg**	**03 52 14.4**	**0.0**
SMG				S	**Sg**	**03 52 17.4**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**198**	P	**Pg**	**03 52 14.2**	**-0.2**
SMG				S	**Sg**	**03 52 16.8**	**-0.5**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.19**	**2**	Pg	**Pg**	**03 52 14.7**	**+0.2**
GMLD				Sg	**Sg**	**03 52 17.9**	**+0.4**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.27**	**242**	P	**Pg**	**03 52 15.2**	**-0.6**
SAM2				S	**Sg**	**03 52 19.1**	**-0.5**
SAM2				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**94**	Pg	**Pg**	**03 52 16.6**	**+0.2**
KUSD				Sg	**Sg**	**03 52 20.8**	**+0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.32**	**125**	P	**Pg**	**03 52 16.8**	**+0.2**
GCAM	**G?zelcaml?**	**0.32**	**125**	Pg	**Pg**	**03 52 16.8**	**+0.2**
GCAM				Sg	**Sb**	**03 52 21.9**	**-0.6**
GCAM				AML	AML		
BEYE	**izmir**	**0.34**	**3**	P	**Pg**	**03 52 16.7**	**-0.4**
BEYE				S	**Sg**	**03 52 21.5**	**-0.5**
BEYE				IAML		03 52 22.0	
	comp=E,223nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**318**	P	**Pg**	**03 52 19.3**	**-0.3**
ZEYE				S	**Sg**	**03 52 25.7**	**-0.3**
ZEYE				IAML		03 52 26.0	
	comp=N,462nm,0.2s						
DDIM	**Aydin, Didim**	**0.50**	**148**	P	**Pg**	**03 52 20.3**	**+0.3**
DDIM				S	**Sg**	**03 52 27.2**	**+0.6**
DDIM				IAML		03 52 28.0	
	comp=N,140nm,0.4s						
BLCB	**Balcova**	**0.51**	**12**	P	**Pg**	**03 52 20.2**	**0.0**
BLCB				S	**Sg**	**03 52 27.2**	**+0.1**
BLCB	**Balcova**	**0.51**	**12**	Pg	**Pg**	**03 52 20.3**	**0.0**
BLCB				Sg	**Sg**	**03 52 27.5**	**+0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.54**	**52**	P	**Pg**	**03 52 20.6**	**-0.2**
DUVT				S	**Sg**	**03 52 27.2**	**-0.8**
DUVT				IAML		03 52 28.0	
	comp=E,223nm,0.1s						
CESE	**eme**	**0.66**	**313**	Pg	**Pb**	**03 52 24.3**	**+0.9**
KRBN	**Karaburun**	**0.76**	**339**	Pg	**Pb**	**03 52 25.9**	**+0.7**
KRBN				AML	AML		
BAGT	**Foa**	**0.77**	**357**	P	**Pg**	**03 52 25.1**	**-0.1**
AYDB	**Zeytinkoy-Aydi**	**0.78**	**85**	Pg	**Pb**	**03 52 25.9**	**+0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.80**	**106**	P	**Pg**	**03 52 25.1**	**-0.5**
AYDN				S	**Sg**	**03 52 36.0**	**-0.2**
YKAV	**Yalikavak-Bodr**	**0.81**	**159**	Pg	**Pn**	**03 52 27.6**	**+0.4**
YKAV				AML	AML		
CHOS	**Chios island**	**0.84**	**307**	P	**Pg**	**03 52 26.5**	**+0.1**
CHOS				S	**Sg**	**03 52 37.7**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**307**	Pg	**Pb**	**03 52 27.2**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**307**	P	**Pg**	**03 52 26.2**	**-0.3**
CHOS				S	**Sg**	**03 52 37.6**	**+0.2**
CHOS				AML	AML		
FOCM	**Foa**	**0.84**	**351**	Pg	**Pn**	**03 52 27.5**	**-0.1**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.86**	**73**	P	**Pg**	**03 52 26.5**	**-0.3**
IZMR				S	**Sg**	**03 52 37.1**	**-1.1**
KARB	**zmir-Karabur**	**0.87**	**334**	P	**Pg**	**03 52 26.5**	**-0.5**
KARB				S	**Sg**	**03 52 37.8**	**-0.6**
KARB				IAML		03 52 40.0	
	comp=N,140nm,0.4s						
BODT	**Bodrum**	**0.88**	**159**	P	**Pg**	**03 52 26.9**	**-0.2**
BODT				S	**Sb**	**03 52 39.9**	**+1.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.88**	**159**	Pg	**Pg**	**03 52 27.3**	**+0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.91**	**130**	Pg	**Pb**	**03 52 28.4**	**+0.8**
MLSB				AML	AML		
EAG2	**Marmaro, Chios**	**0.91**	**317**	P	**Pg**	**03 52 27.8**	**0.0**
EAG2				S	**Sg**	**03 52 39.8**	**0.0**
BDRM	**Kayabasi**	**0.92**	**152**	P	**Pg**	**03 52 28.2**	**+0.3**
BDRM				S	**Sg**	**03 52 40.1**	**+0.1**
BDRM				IAML		03 52 43.0	
	comp=N,96nm,0.3s						
CAMT	**Merkez**	**0.92**	**20**	P	**Pb**	**03 52 28.0**	**+0.1**
KLNA	**Kalymnos**	**0.93**	**177**	P	**Pg**	**03 52 26.9**	**-1.1**
KLNA				S	**Sg**	**03 52 38.8**	**-1.3**
ZEDA	**zmir-Bergama**	**1.09**	**7**	P	**Pb**	**03 52 30.0**	**-0.8**
ZEDA				S	**Sn**	**03 52 46.0**	**+0.1**
ZEDA				IAML		03 52 48.0	
	comp=N,42nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.10**	**85**	Pg	**Pg**	**03 52 31.0**	**-0.3**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.14**	**94**	P	**Pb**	**03 52 31.4**	**-0.2**
GOMA	**Golmarmara-Man**	**1.14**	**44**	Pn	**Pn**	**03 52 32.6**	**+0.9**
GOMA				AML	AML		
DKL	**Dikili**	**1.19**	**360**	Pn	**Pg**	**03 52 33.2**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.19**	**360**	P	**Pb**	**03 52 31.6**	**-0.8**
KIRA	**zmir-Kiraz**	**1.22**	**75**	P	**Pg**	**03 52 33.4**	**-0.2**
KIRA				S	**Sg**	**03 52 48.8**	**-0.7**
AKHS	**Akhisar**	**1.22**	**35**	P	**Pb**	**03 52 33.1**	**+0.1**
AKS	**Akhisar**	**1.22**	**35**	Pn	**Pg**	**03 52 33.5**	**-0.2**
AKS				AML	AML		
KTTT	**Salihli**	**1.23**	**49**	P	**Pb**	**03 52 33.1**	**-0.1**
KTTT				S	**Sb**	**03 52 48.4**	**-0.6**
KTTT				IAML		03 52 52.0	
	comp=N,69nm,0.5s						
MULA	**Mugla, Merkez-**	**1.28**	**119**	P	**Pn**	**03 52 33.6**	**-0.1**
YER	**Yerkesik**	**1.32**	**124**	P	**Pn**	**03 52 34.5**	**+0.2**
YER				S	**Sg**	**03 52 53.1**	**+0.2**
SOMA	**Soma-Manisa**	**1.36**	**21**	Pn	**Pg**	**03 52 35.9**	**-0.4**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.36**	**234**	P	**Pn**	**03 52 34.2**	**-0.6**
APE				S	**Sb**	**03 52 53.3**	**+0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.36**	**234**	P	**Pn**	**03 52 33.6**	**-1.2**
GORD	**Gordes-Manisa**	**1.43**	**44**	Pn	**Pb**	**03 52 36.8**	**+0.2**
GORD				AML	AML		
MANT	**Manisa**	**1.44**	**64**	P	**Pn**	**03 52 36.4**	**+0.4**
MANT				S	**Sb**	**03 52 54.6**	**-0.4**
MANT				IAML		03 52 58.0	
	comp=N,36nm,0.3s						
PRK	**Paraskevi**	**1.45**	**340**	P	**Pn**	**03 52 36.6**	**+0.7**
PRK				S	**Sb**	**03 52 55.7**	**+0.5**
PRK	**Paraskevi**	**1.45**	**340**	P	**Pn**	**03 52 36.3**	**+0.4**

*NEIC **08** 04:01:45.0±1.0,5°.99S±0°.07×147°.68E±0°.09, h46km±11km,*
mb4.2/13, Error ellipse: s-maj=12.2km s-min=9.5km
az=93.0
*IDC **08** 04:01:48.6±2.1,6°.16S×147°.37E, h79km±17km, mb3.7/4,*
mbtmp4.0/8, MS3.0/3, Error ellipse: s-maj=27.3km
s-min=14.5km az=103.0
ISC 08 04:01:46.6±0.7,6°.00S±0°.08×147°.64E±0°.10,h77km,n27,
σ1s70/26,mb4.1/8,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.42**	**188**	P	**Pn**	**04 02 36.2**	**-1.4**
	258nm,0.7s,baz=42,slow=5.6,SNR=25						
PMG				S	**Sn**	**04 03 14.9**	**-2.0**
	88nm,0.4s,baz=28,slow=23,SNR=12						
RABL	**Rabaul**	**4.86**	**68**	Pn	**Pn**	**04 02 54.5**	**-2.7**
JAY	**Jayapura**	**7.73**	**296**	P	**Pn**	**04 03 35.4**	**-1.2**
	3.1nm,0.4s,baz=173,slow=7.8,SNR=5.0						
CTA	**Charters Tower**	**14.07**	**185**	P	**Pn**	**04 05 02.2**	**-0.2**
	2.8nm,0.8s,baz=8.1,slow=14,SNR=1.5						
WR8	**Warramunga Arr**	**18.85**	**221**	P	**P**	**04 06 00.6**	**-0.1**
WR8				IAmb	IAmb	04 06 04.4	
	comp=Z,15nm,1.5s						
WRA	**Warramunga Arr**	**18.95**	**222**	P	**P**	**04 06 01.4**	**-0.4**
	comp=Z,1.4nm,0.5s,baz=50,slow=11,SNR=18						
WRA	**Warramunga Arr**	**18.95**	**222**	P	**P**	**04 05 59.4**	**-2.3**
EIDS	**Eidsvold**	**19.54**	**171**	P	**P**	**04 06 08.8**	**+0.6**
EIDS				IAmb	IAmb	04 06 34.1	
	comp=Z,24nm,1.5s						
GUMO	**Guam**	**19.66**	**352**	LR	LR	04 13 09.3	
	comp=Z,21nm,19.4s,baz=118,slow=34						
KNRA	**Kununurra**	**20.86**	**241**	P	**P**	**04 06 22.6**	**+0.1**
AS31	**Alice Springs**	**21.98**	**216**	P	**P**	**04 06 35.1**	**+0.7**
AS31				IAmb	IAmb	04 06 39.3	
	comp=Z,2.8nm,0.3s						
ASAR	**Alice Springs**	**21.98**	**216**	P	**P**	**04 06 34.9**	**+0.4**
	comp=Z,2.2nm,0.4s,baz=53,slow=8.6,SNR=51						
ASAR				S	**S**	**04 10 28.6**	**-4.3**
	comp=Z,1.6nm,0.9s,baz=33,slow=22,SNR=7.1						
	comp=Z,2.2nm,0.4s						
INKA	**Innaminka**	**22.59**	**196**	P	**P**	**04 06 41.1**	**+0.2**
INKA				IAmb	IAmb	04 06 43.1	
	comp=Z,5.5nm,0.5s						
FITZ	**Fitzroy Crossi**	**24.61**	**239**	LR	LR	04 16 25.4	
	comp=Z,85nm,21.9s,baz=338,slow=36						
FITZ	**Fitzroy Crossi**	**24.61**	**239**	P	**P**	**04 07 01.4**	**+1.5**
TARA	**Tarawa**	**26.28**	**75**	P	**P**	**04 07 14.3**	**-0.9**
STKA	**Stephens Creek**	**26.36**	**192**	P	**P**	**04 07 16.3**	**+0.7**
	comp=Z,2.2nm,0.3s,baz=358,slow=7.6,SNR=9.8						
	comp=Z,2.2nm,0.3s						
STKA	**Stephens Creek**	**26.36**	**192**	P	**P**	**04 07 16.6**	**+1.0**
BBOO	**Buckleboo**	**28.77**	**201**	P	**P**	**04 07 37.9**	**+0.7**
MORW	**Morawa**	**37.64**	**229**	P	**P**	**04 08 55.5**	**+1.1**
MORW				IAmb	IAmb	04 09 22.9	
	comp=Z,6.4nm,1.1s						
KSRS	**Korea Array**	**46.98**	**338**	LR	LR	04 27 43.5	
	comp=Z,14nm,21.2s,baz=335,slow=33						
VNDA	**Vanda**	**71.87**	**177**	P	**P**	**04 13 03.5**	**+2.6**
VNDA				IAmb	IAmb	04 13 35.3	
	comp=Z,3.4nm,1.4s						
QSPA	**South Pole Qui**	**83.97**	**180**	P	**P**	**04 14 10.1**	**+1.9**
	comp=Z,0.8nm,0.6s,baz=281,slow=1.1,SNR=9.8						
	comp=Z,0.8nm,0.6s						
QSPA	**South Pole Qui**	**83.97**	**180**	P	**P**	**04 14 10.0**	**+1.7**
QSPA				IAmb	IAmb	04 14 32.8	
	comp=Z,4.8nm,1.4s						
ILAR	**Eielson Array**	**85.23**	**23**	P	**P**	**04 14 15.9**	**+1.5**
	comp=Z,0.2nm,0.5s,baz=240,slow=4.5,SNR=5.1						
	comp=Z,0.2nm,0.5s						
TORD	**Torodi Ar. Bea**	**145.70**	**284**	PKPbc	**PKiKP**	**04 21 19.3**	**-2.1**
	comp=Z,0.3nm,0.5s,baz=72,slow=4.0,SNR=5.6						
BDFB	**Brasilia**	**153.49**	**144**	PKPbc	**PKiKP**	**04 21 38.2**	**+0.7**
	comp=Z,1.0nm,0.4s,baz=114,slow=2.2,SNR=3.8						

*VIE **08** 04:01:54.5±0.3,50°.27N×18°.69E, h0km, mb2.4/5, ml2.3/9,*
ms3.6/1, Error ellipse: s-maj=2.3km s-min=1.9km az=169.0
21 km W of Katowice Suspected Mining induced.
*IPEC **08** 04:01:54.6±0.1,50°.17N×18°.75E, h1km, ML2.0/6, Error*
ellipse: s-maj=1.9km s-min=0.8km az=172.0
*PRU **08** 04:01:57.0,50°.19N×18°.56E, h0km*
ISC 08 04:01:54.4±0.8,50°.20N±0°.03×18°.72E±0°.02,h0km,n44,
σ1s06/80,6C-1D,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	**0.52**	**226**	*e*PG	**Pg**	**04 02 05.0**	**+0.8**
OKC				*e*SG	**Sg**	**04 02 11.5**	**+0.6**
	comp=Z,18nm,0.5s						
OKC				AML	AML		
STEB	**Steborice**	**0.67**	**247**	*e*PG	**Pg**	**04 02 07.8**	**+0.7**
STEB				*e*SG	**Sg**	**04 02 15.5**	**-0.2**
	comp=Z,43nm,0.3s						
STEB				AML	AML		
OJC	**Ojcow**	**0.69**	**88**	*e*Pg	**Pg**	**04 02 07.7**	**+0.1**
OJC				*e*Sg	**Sg**	**04 02 17.6**	**+1.0**
MORC	**Moravsky Berou**	**0.87**	**242**	*e*Pg	**Pg**	**04 02 11.1**	**+0.1**
	baz=63						
MORC				*e*Sg	**Sg**	**04 02 21.9**	**-0.4**
	33nm,0.3s,baz=63						
MORC				AML	AML		
MORC	**Moravsky Berou**	**0.87**	**242**	⇑P	**Pg**	**04 02 11.5**	**+0.5**
MORC				⇑S	**Sg**	**04 02 23.2**	**+0.9**
ANAC	**Anensky vrch**	**0.87**	**263**	*e*Pg	**Pg**	**04 02 11.7**	**+0.6**
	baz=83						
ANAC				*e*Sg	**Sg**	**04 02 22.4**	**0.0**
	33nm,0.2s,baz=83						
ANAC				AML	AML		
LOSC	**Losov**	**1.04**	**237**	*e*Pg	**Pg**	**04 02 14.6**	**+0.2**
	baz=58						
LOSC				*e*Sg	**Sg**	**04 02 27.0**	**-0.9**
	32nm,0.4s,baz=58						
LOSC				AML	AML		
KRLC	**Kraliky**	**1.25**	**265**	*e*PG	**Pg**	**04 02 17.6**	**-0.8**
KRLC				*e*SG	**Sg**	**04 02 33.7**	**-0.9**
	comp=Z,24nm,0.5s						
KRLC				AML	AML		
NIE	**Niedzica**	**1.28**	**127**	*e*Pg	**Pg**	**04 02 18.9**	**-0.1**
NIE				*e*Sg	**Sn**	**04 02 37.4**	**-0.1**
JAVC	**Velka Javorina**	**1.50**	**208**	*e*Pn	**Pn**	**04 02 22.1**	**-0.5**
	baz=28						
JAVC	**Velka Javorina**	**1.50**	**208**	*e*PN	**Pn**	**04 02 22.2**	**-0.4**
DPC	**Dobruska-Polom**	**1.55**	**277**	*e*PG	**Pn**	**04 02 23.0**	**-0.2**
DPC				*e*SG	**Sg**	**04 02 43.2**	**-0.9**
	comp=Z,27nm,0.9s						
DPC				AML	AML		
VRAC	**Vranov**	**1.64**	**238**	*e*Pn	**Pn**	**04 02 24.3**	**-0.2**
	baz=58						
VRAC				*e*Sg	**Sn**	**04 02 46.2**	**-0.1**
	10nm,0.3s,baz=58						
VRAC				AML	AML		
VRAC	**Vranov**	**1.64**	**238**	⇑P	**Pn**	**04 02 24.8**	**+0.3**
VRAC				⇑S	**Sb**	**04 02 47.0**	**+0.3**
OSTC	**Ostas**	**1.65**	**284**	*e*PG	**Pn**	**04 02 24.3**	**-0.3**
OSTC				*e*SG	**Sn**	**04 02 46.5**	**+0.1**
KSP	**Ksiaz**	**1.68**	**294**	*e*Pg	**Pg**	**04 02 26.9**	**+0.3**
KSP				*e*Sg	**Sg**	**04 02 48.1**	**-0.2**
CHVC	**Chvalec**	**1.75**	**284**	*e*PG	**Pn**	**04 02 25.9**	**-0.1**
CHVC				*e*SG	**Sn**	**04 02 49.0**	**-0.1**
	comp=Z,4.5nm,0.5s						
CHVC				AML	AML		
UPC	**Upice**	**1.76**	**281**	*e*PG	**Pb**	**04 02 27.8**	**+0.2**
UPC				*e*SG	**Sn**	**04 02 49.5**	**+0.2**
	comp=Z,6.4nm,0.5s						
UPC				AML	AML		
KRUC	**Moravsky**	**1.89**	**234**	*e*Pn	**Pn**	**04 02 28.0**	**+0.1**
	baz=53						
KRUC				*e*Sg	**Sb**	**04 02 53.8**	**-0.1**
	7.5nm,0.2s,baz=53						
KRUC				AML	AML		
KRUC	**Moravsky**	**1.89**	**234**	*e*PN	**Pn**	**04 02 28.1**	**+0.1**
KRUC				*e*SG	**Sb**	**04 02 53.9**	**0.0**
KECS	**Kecovo**	**2.07**	**145**	*e*PG	**Pb**	**04 02 32.8**	**+0.1**
KECS				*e*SN	**Sn**	**04 02 55.1**	**-1.7**
KECS				*e*LG	Lg	04 03 01.1	
TREC	**Trest**	**2.28**	**248**	*e*PG	**Pb**	**04 02 35.1**	**-1.4**
TREC				*e*SG	**Sb**	**04 03 06.1**	**+0.9**
	comp=Z,4.5nm,0.4s						
TREC				AML	AML		
PSZ	**Piszkesteto**	**2.41**	**161**	⇑P	**Pg**	**04 02 42.1**	**+1.6**
ABNA	**Allensteig Bun**	**2.63**	**236**	*e*Pn	**Pn**	**04 02 39.3**	**+1.1**
	0.4nm,0.1s						
KOLS	**Kolonicke sedl**	**2.63**	**117**	*e*PN	**Pn**	**04 02 38.6**	**+0.5**
KOLS				*e*SN	**Sn**	**04 03 10.1**	**-0.7**
PVCC	**Panska Ves**	**2.68**	**279**	*e*PG	**Pb**	**04 02 43.6**	**+0.4**
PVCC				*e*SG	**Sg**	**04 03 19.6**	**-0.8**
	comp=Z,8.5nm,0.4s						
PVCC				AML	AML		
PRU	**Pruhonice**	**2.70**	**267**	*e*PG	**Pb**	**04 02 43.2**	**-0.3**
PRU				*e*SG	**Sb**	**04 03 18.5**	**+1.3**
	comp=Z,6.5nm,0.9s						
PRU				AML	AML		
WINA	**Alland / Wiene**	**2.72**	**221**	*e*Sn	**Sn**	**04 03 11.9**	**-1.0**
	1.0nm,0.1s						
CONA	**Conrad Observa**	**2.95**	**221**	Pn	**Pn**	**04 02 42.6**	**+0.1**
	0.2nm,0.2s						
CONA				Sg	**Sg**	**04 03 29.8**	**+0.7**
	3.6nm,0.5s						
RONA	**Rosalia, Austr**	**2.97**	**214**	*i* Pn	**Pn**	**04 02 43.8**	**+1.1**
	1.1nm,0.4s						
RONA				*i* Sn	**Sn**	**04 03 19.9**	**+0.8**
	1.0nm,0.2s						
RICC	**Richard**	**2.98**	**278**	*e*SG	**Sg**	**04 03 28.7**	**-1.4**
ZVC	**Zvikov**	**3.03**	**257**	*e*PN	**Pn**	**04 02 44.0**	**+0.4**
ZVC				*e*PG	**Pb**	**04 02 50.0**	**+0.8**
ZVC				*e*SG	**Sg**	**04 03 29.5**	**-2.2**
	comp=Z,5.6nm,0.6s						
ZVC				AML	AML		
CKRC	**Cesky Krumlov**	**3.19**	**246**	*e*PG	**Pb**	**04 02 53.0**	**+1.1**
CKRC				*e*SG	**Sg**	**04 03 35.1**	**-1.7**
	comp=Z,2.0nm,0.3s						
CKRC				AML	AML		
HSKC	**Hora Svate Kat**	**3.41**	**279**	*e*PG	**Pb**	**04 02 56.4**	**+0.7**
HSKC				*e*SG	**Sg**	**04 03 42.1**	**-1.8**
	comp=Z,2.4nm,0.4s						
HSKC				AML	AML		
KHC	**Kasperske Hory**	**3.51**	**254**	*e*PN	**Pn**	**04 02 50.4**	**+0.2**
KHC				*e*PG	**Pb**	**04 02 58.5**	**+1.2**
KHC				*e*SN	**Sn**	**04 03 31.3**	**-1.1**
KHC				*e*SG	**Sg**	**04 03 45.7**	**-1.3**
	comp=Z,7.1nm,0.5s						
KHC				AML	AML		
ARSA	**Arzberg**	**3.63**	**217**	*i* Pn	**Pn**	**04 02 53.2**	**+1.4**
	0.4nm,0.3s						
MOA	**Molln**	**3.76**	**233**	Pg	**Pg**	**04 03 05.0**	**-1.3**
	0.8nm,0.4s						
MOA				*e*Sg	**Sg**	**04 03 52.6**	**-2.3**
	3.2nm,0.5s						
CLL	**Collm**	**3.80**	**289**	*i* Pg	**Pg**	**04 03 07.2**	**+0.1**
CLL				*i* x	x	04 03 10.5	
CLL				*e*Sg	**Sg**	**04 03 58.0**	**+1.7**
NKC	**Novy Kostel**	**4.03**	**273**	*e*PG	**Pb**	**04 03 07.6**	**+1.4**
NKC				*e*SG	**Sg**	**04 04 01.1**	**-2.7**
BIOA	**Bad Ischl, Aus**	**4.18**	**235**	Sg	**Sg**	**04 04 07.0**	**-1.7**
	3.2nm,0.4s						
DRGR		**4.32**	**141**	⇓P	**Pn**	**04 03 00.6**	**-0.8**
DRGR				⇑S	**Sn**	**04 03 48.8**	**-3.6**
LESA	**Schwarzleotal**	**4.86**	**238**	*e*Sg	**Sg**	**04 04 32.0**	**+1.6**
	2.4nm,0.5s						
WTTA	**Wattenberg**	**5.53**	**241**	Sg	**Sg**	**04 04 53.7**	**+1.8**
	3.8nm,0.7s						
MOTA	**Moosalm**	**5.79**	**243**	Sg	**Sg**	**04 04 59.5**	**-0.7**
	1.5nm,0.6s						

*CATAC **08** 04:10:42.5±0.6, 11°.N±2°.×8°.7W±°., h4km±4km, M3.6/29,*
MLv3.6/29, Error ellipse: s-maj=7.0km s-min=3.2km
az=47.6, confirmed
*UCR **08** 04:10:43.1±0.6, 10°.58N×86°.60W, h13km±8km, MW4.3,*
Presumed earthquake
ISC 08 04:10:42.3±1.9,10°.56N±0°.05×86°.54W±0°.05,h8km±13km,
n75,σ1s02/90,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALIBA	**Liberia Airpor**	**0.98**	**88**	*e*P	**Pn**	**04 11 02.9**	**+0.6**
LCRUZ	**La Cruz**	**1.03**	**60**	*e*P	**Pb**	**04 11 03.1**	**+0.7**
ERIA	**Liberia**	**1.08**	**86**	*e*P	**Pb**	**04 11 04.4**	**+1.1**
LAPC	**Finca la Perla**	**1.11**	**79**	*e*P	**Pg**	**04 11 03.1**	**-0.5**
GPS3	**Bodega del ICE**	**1.17**	**80**	*e*P	**Pb**	**04 11 05.7**	**+0.9**
VRLE	**La Escondida,**	**1.18**	**79**	*e*P	**Pb**	**04 11 05.3**	**+0.3**
CARN	**Rivas**	**1.18**	**58**	P	**Pb**	**04 11 04.8**	**-0.1**
CARN				S	**Sb**	**04 11 20.4**	**0.0**
CARN	**Rivas**	**1.18**	**58**	*e*P	**Pb**	**04 11 05.6**	**+0.7**
GPS2	**Hotel Rincn d**	**1.19**	**81**	*e*P	**Pb**	**04 11 05.4**	**+0.4**
VORI	**VORI**	**1.20**	**78**	*e*P	**Pb**	**04 11 05.7**	**+0.3**
CMARA	**Lajas Hojancha**	**1.22**	**116**	P	**Pn**	**04 11 05.6**	**-0.2**
CMARA				S	**Sb**	**04 11 20.3**	**-1.4**
CMARA	**Lajas Hojancha**	**1.22**	**116**	*e*P	**Pn**	**04 11 05.7**	**0

POTN	Potosi Cosigui	2.60	339	S	Sn	04 11 56.2	-0.3	
LCR2	La Lucha 2	2.63	108	eP	Pn	04 11 28.2	+3.0	
VICA	Volcano Irazu	2.71	102	eP	Pb	04 11 30.0	-1.4	
CVTG	V. Turrialba,	2.75	98	eP	Pb	04 11 30.7	-1.1	
TRT2	Tortugero	2.76	90	P	Pb	04 11 31.1	-0.8	
CVTQ	Turrialba Volc	2.79	101	eP	Pn	04 11 29.2	+1.7	
ABRB	Las Abras (San	2.83	101	eP	Pb	04 11 31.8	-1.5	
RCPN	Sur Rio San Ju	2.98	8	P	Pn	04 11 31.3	+1.3	
CNCH	Conchagua	2.98	335	P	Pn	04 11 31.6	+1.6	
CNCH				S	Sn	04 12 05.8	-0.2	
LCND	La Caada	3.04	334	P	Pn	04 11 31.7	+1.1	
OCHAL	Ojochal	3.20	117	S	Sn	04 12 09.3	-2.0	
RANC	El Ranchito	3.33	329	P	Pn	04 11 36.2	+1.4	
RANC				S	Sn	04 12 14.7	+0.1	
PACA	Pacayal	3.38	329	P	Pn	04 11 37.3	+1.9	
PACA				S	Sn	04 12 14.6	-1.2	
LAES	El Progreso Va	3.53	103	eP	Pn	04 11 40.5	+3.1	
JAYA	Jayaque - finc	4.19	318	P	Pn	04 11 46.9	+0.2	

IDC ***08*** *04:43:42.6±2.1,11°.69N×141°.96E,h68km±20km,mb4.0/21, mbtmp4.3/24,MS3.2/14,Error ellipse: s-maj=15.9km s-min=12.1km az=97.0*

NEIC ***08*** *04:43:43.3±2.3,11°.69N±0°.07×142°.04E±0°.08,h70km±8km, mb4.6/38,Error ellipse: s-maj=13.5km s-min=7.4km az=55.0*

ISC 08 04:43:41.0±0.5,**11°.72N**±0°.07×**141°.90E**±0°.09,**h49**km,**n74**, σ1$**07**/51,**mb4.6**/39,**MS3.2**/10,**Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**3.44**	**57**	P		**Pn**		**04 44 32.9**	**+0.8**
	501nm,0.3s,baz=184,slow=5.3,SNR=23								
GUMO				S		**Sn**		**04 45 13.5**	**+1.8**
	167nm,0.3s,baz=148,slow=23,SNR=1.9								
GUMO				LR		LR		04 45 58.3	
	comp=Z,249nm,19.1s,baz=177,slow=40								
GUMO	**Guam**	**3.44**	**57**			**Pn**		**04 44 32.3**	**+0.1**
JAY	**Jayapura**	**14.20**	**185**	P		**Pn**		**04 46 59.8**	**+0.3**
	6.4nm,0.4s,baz=250,slow=3.5,SNR=11								
JAY				LR		LR		04 51 17.4	
	comp=Z,74nm,18.7s,baz=334,slow=32								
JCJ	**Chichijima**	**15.29**	**1**	P		**P**		**04 47 16.6**	**-1.1**
	31nm,0.5s,baz=250,slow=18,SNR=2.8								
SIJI	**Sorong**	**16.37**	**221**	P		**P**		**04 47 32.1**	**+2.2**
	26nm,1.1s,baz=67,slow=12,SNR=4.9								
SIJI				LR		LR		04 53 00.6	
	comp=Z,72nm,18.2s,baz=200,slow=34								
FAKI	**Fak Fak**	**17.43**	**214**	P		**P**		**04 47 42.9**	**+1.4**
KRVT	**Keravat (AS076**	**18.84**	**147**	LR		LR		04 54 25.3	
	comp=Z,211nm,21.9s,baz=286,slow=34								
JOW	**Kunigami**	**19.75**	**321**	P		**P**		**04 48 08.2**	**+1.2**
	26nm,0.7s,baz=156,slow=8.0,SNR=4.4								
PMG	**Port Moresby**	**21.63**	**166**	P		**P**		**04 48 28.3**	**+1.0**
	2.9nm,0.3s,baz=360,slow=8.4,SNR=4.6								
	2.9nm,0.3s								
JSU	**Suzuyama**	**22.34**	**334**	P		**P**		**04 48 36.6**	**+1.7**
JMN	**Monobe**	**23.10**	**343**	P		**P**		**04 48 44.2**	**+1.5**
JMN				IAmb		IAmb		04 48 45.0	
	comp=Z,16nm,0.6s								
SSLB	**Suanglung**	**23.24**	**304**	P		**P**		**04 48 45.2**	**+1.0**
SSLB				IAmb		IAmb		04 49 21.0	
	comp=Z,37nm,1.1s								
JNU	**Nakatsue**	**23.57**	**336**	P		**P**		**04 48 48.4**	**+1.0**
	comp=Z,12nm,0.8s,baz=162,slow=4.3,SNR=6.6								
JNU				LR		LR		04 56 53.3	
	comp=Z,23nm,20.1s,baz=346,slow=34								
	comp=Z,12nm,0.8s								
H11S3	**WAKE ISLAND Hy**	**24.84**	**71**	T		T		05 13 08.3	
	baz=253,slow=74								
H11S1	**WAKE ISLAND Hy**	**24.86**	**71**	T		T		05 13 20.1	
	baz=253								
H11S2	**WAKE ISLAND Hy**	**24.86**	**71**	T		T		05 13 16.9	
	baz=253								
MJAR	**Matsushiro Arr**	**24.93**	**353**	P		**P**		**04 48 59.4**	**-0.3**
	comp=Z,1.4nm,0.6s,baz=153,slow=6.9,SNR=4.8								
MJAR				LR		LR		04 58 09.5	
	comp=Z,34nm,20.0s,baz=180,slow=35								
	comp=Z,1.4nm,0.6s								
H11N1	**WAKE ISLAND Hy**	**25.31**	**69**	T		T		05 15 01.3	
	baz=252								
H11N2	**WAKE ISLAND Hy**	**25.32**	**69**	T		T		05 14 39.5	
	baz=252								
H11N3	**WAKE ISLAND Hy**	**25.33**	**69**	T		T		05 14 09.5	
	baz=252								
KSRS	**Korea Array**	**28.53**	**336**	P		**P**		**04 49 32.5**	**+0.5**
	comp=Z,0.5nm,0.4s,baz=153,slow=9.5,SNR=1.6								
KSRS				LR		LR		04 59 16.0	
	comp=Z,16nm,20.4s,baz=155,slow=33								
	comp=Z,0.5nm,0.4s								
WR8	**Warramunga Arr**	**32.31**	**193**	P		**P**		**04 50 04.2**	**-1.4**
WRA	**Warramunga Arr**	**32.34**	**193**	P		**P**		**04 50 04.4**	**-1.4**
	comp=Z,1.0nm,0.6s,baz=11,slow=9.6,SNR=11								
	comp=Z,1.0nm,0.6s								
WRA	**Warramunga Arr**	**32.34**	**193**	P		**P**		**04 50 04.1**	**-1.7**
USRK	**Ussuriysk Ar.**	**33.47**	**347**	P		**P**		**04 50 13.9**	**-1.6**
	comp=Z,7.2nm,0.8s,baz=166,slow=8.8,SNR=7.6								
	comp=Z,7.2nm,0.8s								
ASAR	**Alice Springs**	**36.03**	**193**	P		**P**		**04 50 37.5**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=20,slow=12,SNR=11								
	comp=Z,0.3nm,0.6s								
KLR	**Kul'dur**	**38.33**	**349**	LR		LR		05 04 54.2	
	comp=Z,49nm,21.6s,baz=319,slow=33								
DZM	**Mont Dzumac**	**41.33**	**144**	LR		LR		05 07 35.0	
	comp=Z,71nm,20.1s,baz=293,slow=35								
CMAR	**Chiang Mai Arr**	**41.93**	**285**	P		**P**		**04 51 26.6**	**-0.7**
	comp=Z,1.4nm,0.3s,baz=84,slow=6.8,SNR=13								
CMAR				LR		LR		05 10 12.1	
	comp=Z,13nm,19.0s,baz=200,slow=38								
	comp=Z,1.4nm,0.3s								
PETK	**Petropavlovsk-**	**43.18**	**14**	LR		LR		05 06 27.2	
	comp=Z,26nm,20.2s,baz=223,slow=32								
SONM	**Songino Array**	**46.66**	**327**	P		**P**		**04 52 06.6**	**+1.7**
	comp=Z,0.6nm,0.5s,baz=147,slow=7.1,SNR=3.2								
SONM				PcP		**PcP**		**04 53 36.9**	**-1.1**
	comp=Z,1.5nm,0.7s,baz=141,slow=4.8,SNR=4.6								
	comp=Z,0.6nm,0.5s								
TLY	**Talaya**	**50.45**	**330**	LR		LR		05 15 15.9	
	comp=Z,33nm,19.4s,baz=142,slow=38								
MKAR	**Makanchi Array**	**60.85**	**317**	P		**P**		**04 53 49.4**	**+0.9**
	comp=Z,0.8nm,0.6s,baz=97,slow=8.8,SNR=5.7								
	comp=Z,0.8nm,0.6s								
MKAR	**Makanchi Array**	**60.85**	**317**	P		**P**		**04 53 49.8**	**+1.3**
ZALV	**Zalesovo Beam**	**61.48**	**326**	P		**P**		**04 53 52.3**	**-0.3**
	comp=Z,0.6nm,0.4s,baz=91,slow=5.9,SNR=4.4								
	comp=Z,0.6nm,0.4s								
ZALV	**Zalesovo Beam**	**61.48**	**326**	P		**P**		**04 53 51.4**	**-1.2**
K13K	**Kusilvak Mount**	**63.01**	**25**	P		**P**		**04 54 02.5**	**-0.2**
L14K	**Kuka Creek**	**63.59**	**26**	P		**P**		**04 54 07.0**	**+0.6**
KURK	**Kurchatov**	**64.16**	**321**			**P**		**04 54 10.6**	**+0.1**
KURK				IAmb		IAmb		04 54 11.5	
	comp=Z,5.0nm,0.6s								
KURBB	**Kurchatov Arra**	**64.20**	**321**	P		**P**		**04 54 11.3**	**+0.6**
	comp=Z,3.3nm,0.6s,baz=106,slow=6.6,SNR=30								
	comp=Z,3.3nm,0.6s								
H19K	**Roundabout Mou**	**67.84**	**23**	IAmb		IAmb		04 54 34.7	
	comp=Z,6.5nm,0.9s								
CAST	**Castle Rocks**	**68.94**	**26**	P		**P**		**04 54 40.8**	**0.0**
BPAW	**Bear Paw Mtn.**	**69.59**	**26**	IAmb		IAmb		04 54 45.5	
	comp=Z,5.7nm,0.8s								
BVAR	**Borovoye Array**	**69.60**	**322**	P		**P**		**04 54 45.6**	**+0.5**
	comp=Z,2.0nm,0.3s,baz=101,slow=7.7,SNR=12								
	comp=Z,2.0nm,0.3s								
BORK	**Borovoye**	**69.65**	**322**			**P**		**04 54 45.5**	**+0.1**
PMR	**Palmer**	**69.80**	**28**	P		**P**		**04 54 44.8**	**-1.2**
PMR				IAmb		IAmb		04 54 57.8	
	comp=Z,10nm,1.2s								
G23K	**Bananza Creek**	**70.69**	**23**	P		**P**		**04 54 52.3**	**+0.7**
G23K				IAmb		IAmb		04 54 53.0	
	comp=Z,5.5nm,0.7s								
E23K	**Chandalar**	**71.21**	**22**	IAmb		IAmb		04 54 56.6	
	comp=Z,9.5nm,0.8s								
HDA	**Harding Lake**	**71.38**	**26**	IAmb		IAmb		04 54 55.5	
	comp=Z,4.8nm,0.7s								
IL31		**71.48**	**25**	P		**P**		**04 54 55.2**	**-1.1**
IL31				IAmb		IAmb		04 54 55.8	
	comp=Z,5.3nm,0.7s								
ILAR	**Eielson Array**	**71.48**	**25**	P		**P**		**04 54 55.0**	**-1.4**
	comp=Z,5.4nm,0.5s,baz=249,slow=6.1,SNR=118								
	comp=Z,5.4nm,0.5s								
DOT	**Dot Lake**	**72.49**	**27**	IAmb		IAmb		04 55 02.8	
	comp=Z,7.2nm,0.8s								
H27K	**Steamboat Moun**	**73.94**	**24**	IAmb		IAmb		04 55 12.0	
	comp=Z,5.7nm,0.7s								
DAWY	**Dawson**	**74.59**	**27**	IAmb		IAmb		04 55 16.1	
	comp=Z,8.6nm,1.1s								

F28M	**Old Crow**	**74.75**	**23**	IAmb		IAmb		04 55 17.1
	comp=Z,8.1nm,0.8s							
E28M	**Babbage River**	**74.99**	**22**	IAmb		IAmb		04 55 18.2
	comp=Z,5.9nm,0.8s							
G29M	**Pine Creek**	**75.40**	**24**	IAmb		IAmb		04 55 22.0
	comp=Z,8.8nm,1.2s							
K29M	**Barlow Dome**	**75.40**	**27**	IAmb		IAmb		04 55 21.1
	comp=Z,7.4nm,0.8s							
AB31	**Akbulak array**	**75.98**	**318**	P		**P**		**04 55 22.9**	**-0.1**
ABKAR	**Akbulak array**	**75.98**	**318**	P		**P**		**04 55 22.9**	**-0.1**
G31M	**Satah River**	**76.88**	**24**	IAmb		IAmb		04 55 28.9
	comp=Z,8.6nm,0.9s							
A36M	**Sachs Harbour**	**79.82**	**18**			**P**		**04 55 43.6**	**-0.3**
A36M				IAmb		IAmb		04 55 44.4
	comp=Z,7.5nm,0.8s							
SPITS	**Spitsbergen Ar**	**85.40**	**350**	P		**P**		**04 56 13.2**	**+0.4**
	comp=Z,5.6nm,0.8s,baz=94,slow=7.6,SNR=5.3							
	comp=Z,5.6nm,0.8s							
YKA	**Yellowknife Ar**	**85.83**	**27**	P		**P**		**04 56 14.8**	**-0.3**
	comp=Z,0.9nm,0.5s,baz=289,slow=5.0,SNR=13							
YKA				LR		LR		05 33 29.6
	comp=Z,28nm,20.9s,baz=336,slow=35							
	comp=Z,0.9nm,0.5s							
ARCES	**ARCESS Array B**	**87.94**	**342**	P		**P**		**04 56 24.5**	**-0.9**
	comp=Z,6.3nm,1.0s,baz=76,slow=6.5,SNR=14							
	comp=Z,6.3nm,1.0s							
ARCES	**ARCESS Array B**	**87.94**	**342**	P		**P**		**04 56 24.5**	**-0.9**
NVAR	**Mina Array Bea**	**90.34**	**51**	P		**P**		**04 56 37.2**	**-0.4**
	comp=Z,1.7nm,0.7s,baz=264,slow=5.7,SNR=14							
	comp=Z,1.7nm,0.7s							
NVAR	**Mina Array Bea**	**90.34**	**51**	P		**P**		**04 56 37.8**	**+0.2**
FINES	**FINESS Array B**	**91.60**	**334**	P		**P**		**04 56 40.9**	**-1.7**
	comp=Z,3.9nm,0.5s,baz=67,slow=5.2,SNR=42							
	comp=Z,3.9nm,0.5s							
FINES	**FINESS Array B**	**91.60**	**334**	P		**P**		**04 56 41.0**	**-1.6**
PDAR	**Pinedale Array**	**95.32**	**45**	P		**P**		**04 56 59.8**	**-0.6**
	comp=Z,0.2nm,0.6s,baz=329,slow=7.0,SNR=2.2							
	comp=Z,0.2nm,0.6s							
HFS	**Hagfors**	**97.38**	**337**	P		Pdif		04 57 09.6	+0.5
	comp=Z,2.0nm,0.9s,baz=23,slow=4.7,SNR=1.7							
	comp=Z,2.0nm,0.9s							
NOA	**NORSAR Array B**	**97.72**	**338**	LR		LR		05 43 31.6
	comp=Z,11nm,18.5s,baz=320,slow=37							
LPAZ	**La Paz**	**150.53**	**102**	PKPbc		**PKPbc**		**05 03 28.2**	**-0.9**
	comp=Z,2.2nm,0.5s,baz=355,slow=3.2,SNR=6.5							

SJA ***08*** *04:56:01.1±0.6,20°.71S×70°.96W,h25km±2km,ML4.3, MW4.5*

NEIC ***08*** *04:56:03.7±2.2,20°.68S±0°.03×70°.81W±0°.04,h10km±1km, mb4.6/16,Mwr4.2/43,Mwr4.6(GUC),Error ellipse: s-maj=6.1km s-min=5.0km az=120.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr2.01; Mθθ0.07; Mϕϕ-2.07; Mrθ0.58; Mϕθ0.36; Mϕr-0.93; Fault plane solution: M₀2.34000×10¹⁵ NP1:φs1.79000°, δ32.93000°,λ108.41000°. NP2:φs160.16000°,δ58.95000°, λ78.44000°. Principal axes: T 2.3177, Plg73.0000°, Azm40.0000°; N 0.0513, Plg10.0000°, Azm166.0000°; P -2.3690, Plg13.0000°, Azm259.0000°;*

NEIC ***08*** *04:56:03.7,20°.68S×70°.81W,h10km*

GUC ***08*** *04:56:04.7±0.8,20°.69S×70°.87W,h17km±9km,ML4.2, Presumed earthquake*

VAO ***08*** *04:56:05.9±0.9,20°.73S×70°.71W,h48km±7km,mb4.3, Presumed earthquake*

IDC ***08*** *04:56:10.4±2.2,20°.73S×70°.56W,h63km±20km,mb3.8/8, mbtmp4.0/14,MS3.4/5,Error ellipse: s-maj=20.8km s-min=15.5km az=91.0*

ISC 08 04:56:04.9±1.3,**20°.69S**±0°.02×**70°.76W**±0°.05,**h25**km±9km, **n126**,σ1$**76**/137,**mb4.4**/15,**MS3.8**/3,**9C-4D**,**Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TA01	**Diego Aracena**	**0.56**	**78**	eP		**Pb**		**04 56 15.8**	**-0.4**
TA01				IAML				04 56 28.4	
	comp=Z,6µm,0.3s								
TA01	**Diego Aracena**	**0.56**	**78**			**Pb**		**04 56 15.7**	**-0.4**
TA01				Sg		**Sb**		**04 56 21.2**	**-2.5**
TA01	**Diego Aracena**	**0.56**	**78**	⇓iP		**Pb**		**04 56 15.7**	**-0.4**
TA01				IAML				04 56 26.2	
	comp=N,16µm,0.3s								
TA02	**Huaiquique**	**0.72**	**55**	eP		**Pb**		**04 56 18.6**	**-0.3**
TA02				eS		**Sn**		**04 56 31.3**	**+1.6**
TA02				IAML				04 56 32.2	
	comp=Z,6µm,0.6s								
TA02	**Huaiquique**	**0.72**	**55**	⇓iP		**Pb**		**04 56 18.6**	**-0.3**
TA02				iS		**Sb**		**04 56 29.2**	**+0.9**
TA02				IAML				04 56 31.3	
	comp=N,12µm,0.5s								
PB02	**IPOC Station P**	**1.02**	**128**	eP		**Pn**		**04 56 23.6**	**-0.3**
PB02				IAML				04 56 42.5	
	comp=Z,18µm,0.4s								
PB02	**IPOC Station P**	**1.02**	**128**			**Pn**		**04 56 23.5**	**-0.3**
PB02				Sg		**Sb**		**04 56 37.4**	**+0.2**
PB02	**IPOC Station P**	**1.02**	**128**	⇓iP		**Pn**		**04 56 23.5**	**-0.3**
PB02				iS		**Sn**		**04 56 37.8**	**+0.4**
PB02				IAML				04 56 41.7	
	comp=E,35µm,0.4s								
PSGCX	**Pisagua**	**1.24**	**29**	eP		**Pn**		**04 56 26.4**	**-0.3**
PSGCX				eS		**Sb**		**04 56 45.3**	**+2.0**
PSGCX				IAML				04 56 46.3	
	comp=Z,3µm,0.6s								
PSGCX	**Pisagua**	**1.24**	**29**			**Pn**		**04 56 26.2**	**-0.5**
PSGCX	**Pisagua**	**1.24**	**29**	⇑iP		**Pn**		**04 56 26.2**	**-0.5**
PSGCX				iS		**Sn**		**04 56 42.6**	**-0.1**
PB07	**IPOC Station P**	**1.32**	**142**	eP		**Pn**		**04 56 28.0**	**0.0**
PB07				eS		**Sb**		**04 56 47.0**	**+1.4**
PB07				IAML				04 56 49.6	
	comp=Z,6µm,0.3s								
PB07	**IPOC Station P**	**1.32**	**142**			**Pn**		**04 56 27.9**	**0.0**
PB07	**IPOC Station P**	**1.32**	**142**	⇑iP		**Pn**		**04 56 28.0**	**0.0**
PB07				iS		**Sb**		**04 56 45.3**	**-0.4**
PB07				IAML				04 56 50.8	
	comp=E,6µm,0.6s								
PB11	**IPOC Station P**	**1.39**	**49**	eP		**Pn**		**04 56 29.2**	**+0.2**
PB11				IAML				04 56 52.8	
	comp=Z,4µm,0.4s								
PB11	**IPOC Station P**	**1.39**	**49**			**Pn**		**04 56 29.1**	**+0.2**
PB11	**IPOC Station P**	**1.39**	**49**	⇑iP		**Pn**		**04 56 29.1**	**+0.2**
PB11				iS		**Sn**		**04 56 47.9**	**+1.4**
PB11				IAML				04 56 51.3	
	comp=N,8µm,0.4s								
PB08	**IPOC Station P**	**1.60**	**70**	eP		**Pn**		**04 56 32.9**	**+0.9**
PB08				eS		**Sb**		**04 56 55.0**	**+1.0**
PB08				IAML				04 56 59.0	
	comp=Z,3µm,0.4s								
PB08	**IPOC Station P**	**1.60**	**70**			**Pn**		**04 56 32.7**	**+0.7**
PB08	**IPOC Station P**	**1.60**	**70**	⇑iP		**Pn**		**04 56 32.7**	**+0.7**
PB08				iS		**Sb**		**04 56 54.2**	**+0.2**
PB08				IAML				04 56 58.4	
	comp=E,4µm,0.3s								
PB03	**IPOC Station P**	**1.65**	**145**	eP		**Pn**		**04 56 32.4**	**0.0**
PB03				eS		**Sb**		**04 56 59.3**	**+4.1**
PB03				IAML				04 57 07.0	
	comp=Z,2µm,0.2s								
PB03	**IPOC Station P**	**1.65**	**145**			**Pn**		**04 56 32.5**	**0.0**
PB03	**IPOC Station P**	**1.65**	**145**	⇑iP		**Pn**		**04 56 32.5**	**0.0**
PB03				iS		**Sn**		**04 56 53.2**	**+0.2**
PB03				IAML				04 57 04.7	
	comp=N,3µm,0.5s								
GO01	**Chusmiza**	**1.79**	**56**	eP		**Pn**		**04 56 35.4**	**+0.7**
GO01				eS		**Sn**		**04 56 54.0**	**-2.7**
GO01				IAML				04 57 06.2	
	comp=Z,3µm,0.8s								
GO01	**Chusmiza**	**1.79**	**56**			**Pn**		**04 56 35.4**	**+0.7**
GO01	**Chusmiza**	**1.79**	**56**	⇑iP		**Pn**		**04 56 35.3**	**+0.7**
GO01				iS		**Sb**		**04 57 00.3**	**+0.9**
GO01				IAML				04 57 05.3	
	comp=N,5µm,0.4s								
PX02	**IPOC Station P**	**1.79**	**17**	eP		**Pn**		**04 56 36.0**	**+1.6**
PB09	**IPOC Station P**	**1.80**	**128**	eP		**Pb**		**04 56 36.0**	**-1.2**
PB09				eS		**Sb**		**04 57 01.3**	**+1.9**
PB09				IAML				04 57 05.5	
	comp=Z,4µm,0.6s								
PB09	**IPOC Station P**	**1.80**	**128**			**Pb**		**04 56 36.1**	**-1.2**
PB09	**IPOC Station P**	**1.80**	**128**	⇑iP		**Pb**		**04 56 36.1**	**-1.2**
PB09				iS		**Sb**		**04 57 00.2**	**+0.8**
PB09				IAML				04 57 04.7	
	comp=E,5µm,0.4s								
PB12	**IPOC Station P**	**2.10**	**11**	eP		**Pn**		**04 56 39.2**	**+0.6**
PB12				eS		**Sb**		**04 57 08.5**	**+0.3**
PB12				IAML				04 57 13.9	
	comp=Z,2µm,0.9s								
PB12	**IPOC Station P**	**2.10**	**11**			**Pn**		**04 56 38.4**	**-0.3**
PB12	**IPOC Station P**	**2.10**	**11**	eP		**Pb**		**04 56 40.8**	**-1.6**
PB12				IAML				04 57 14.5	
	comp=E,2µm,0.5s								
PB05	**IPOC Station P**	**2.22**	**167**	eP		**Pn**		**04 56 39.3**	**-1.0**
PB05				eS		**Sb**		**04 57 19.5**	**+8.0**
PB05	**IPOC Station P**	**2.22**	**167**			**Pn**		**04 56 39.3**	**-1.0**
PB05	**IPOC Station P**	**2.22**	**167**	⇑eP		**Pn**		**04 56 39.2**	**-1.0**
PB05				IAML				04 57 21.6	
	comp=N,2µm,0.7s								
PB06	**IPOC Station P**	**2.29**	**151**	eP		**Pn**		**04 56 41.1**	**-0.3**
PB06				eS		**Sn**		**04 57 10.4**	**+1.5**
PB06				IAML				04 57 22.4	
	comp=Z,2µm,0.5s								
PB06	**IPOC Station P**	**2.29**	**151**			**Pn**		**04 56 41.2**	**-0.2**
PB06	**IPOC Station P**	**2.29**	**151**	⇑eP		**Pn**		**04 56 41.1**	**-0.3**
PB06				IAML				04 57 20.4	
	comp=N,4µm,0.8s								
AP01	**Chacalluta**	**2.34**	**10**	eP		**Pn**		**04 56 41.0**	**-0.8**
AP01				eS		**Sb**		**04 57 19.5**	**+4.7**
AP01				IAML				04 57 25.2	
	comp=Z,3µm,1.4s								
AP01	**Chacalluta**	**2.34**	**10**	eP		**Pb**		**04 56 45.4**	**-1.0**
AP01				IAML				04 57 25.5	
	comp=N,4µm,0.6s								
PB16	**IPOC Station P**	**2.62**	**27**	eP		**Pn**		**04 56 47.3**	**+1.1**
PB16				IAML				04 57 34.8	
	comp=Z,837nm,0.7s								
PB16	**IPOC Station P**	**2.62**	**27**			**Pn**		**04 56 46.7**	**+0.5**
PB16	**IPOC Station P**	**2.62**	**27**	eP		**Pn**		**04 56 46.9**	**+0.7**
PB16				IAML				04 57 34.0	
	comp=N,700nm,0.3s								
PB10	**IPOC Station P**	**2.82**	**176**	eP		**Pn**		**04 56 47.2**	**-1.3**
PB10				eS		**Sb**		**04 57 33.2**	**+4.4**
PB10	**IPOC Station P**	**2.82**	**176**			**Pn**		**04 56 46.9**	**-1.5**
PB10	**IPOC Station P**	**2.82**	**176**	⇓eP		**Pn**		**04 56 46.9**	**-1.5**
AF01	**San Pedro de A**	**3.29**	**134**	eP		**Pn**		**04 56 54.2**	**-1.0**
AF01	**San Pedro de A**	**3.29**	**134**			**Pn**		**04 56 57.8**	**+2.7**
AF01	**San Pedro de A**	**3.29**	**134**	eP		**Pn**		**04 56 57.9**	**+2.7**
PB14	**IPOC Station P**	**3.94**	**175**	eP		**Pn**		**04 57 03.2**	**-0.9**
PB14				eS		**Sn**		**04 57 40.7**	**-8.9**
PB14				IAML				04 58 20.3	
	comp=Z,304nm,0.6s								
PB14	**IPOC Station P**	**3.94**	**175**			**Pn**		**04 57 02.1**	**-2.0**
LPAZ	**La Paz**	**5.04**	**30**	P		Pn		04 57 25.2	+5.7
	comp=Z,9.2nm,0.5s,baz=229,slow=6.9,SNR=22								
LPAZ				LR		LR		04 58 55.9	
	comp=Z,72nm,18.9s,baz=228,slow=33								
LPAZ	**La Paz**	**5.04**	**30**	eP		**Pn**		**04 57 20.4**	**+0.9**
YJA	**Yavi**	**5.11**	**108**	eP		**Pn**		**04 57 24.8**	**+4.6**
BBSD	**Serra de San D**	**10.21**	**72**	eP		**Pn**		**04 58 30.3**	**+0.3**
SIV	**San Ignacio**	**10.31**	**65**	P		**Pn**		**04 58 33.2**	**+1.7**
	comp=Z,15nm,0.5s,baz=258,slow=9.6,SNR=62								
SIV				S		**Sn**		**05 00 28.2**	**+1.9**
	comp=Z,1.9nm,0.7s,baz=165,slow=21,SNR=0.9								
NNA	**Nana**	**10.43**	**325**	P		Pn		04 58 40.1	+7.0
	comp=Z,2.2nm,0.3s,baz=204,slow=13,SNR=1.5								
CFA	**Coronel Fontan**	**11.11**	**169**	P		**Pn**		**04 58 44.2**	**+1.9**
	comp=Z,0.2nm,0.3s,baz=350,slow=12,SNR=7.1								
COIM	**Forte Coimbra**	**12.20**	**89**	eP		**Pn**		**04 58 55.4**	**-1.7**
PTLB	**Pontes e Lacer**	**12.22**	**67**			**Pn**		**04 58 59.1**	**+1.7**
PTLB	**Pontes e Lacer**	**12.22**	**67**	eP		**Pn**		**04 58 57.0**	**-0.4**
VILB	**Vilhena**	**12.70**	**54**			**Pn**		**04 59 04.7**	**+0.7**
VILB	**Vilhena**	**12.70**	**54**	eP		**Pn**		**04 59 04.3**	**+0.3**
BDQN	**Bodoquena, MS**	**13.13**	**91**	eP		**Pn**		**04 59 07.4**	**

baz=103,slow=74,SNR=71
H11N3 WAKE ISLAND Hyl 26.12 280 T T 07 34 18.9
baz=102,slow=74,SNR=53
H11N2 WAKE ISLAND Hyl 26.14 280 T T 07 34 20.4
baz=102,slow=74,SNR=46
H11N1 WAKE ISLAND Hyl 26.14 280 T T 07 34 06.8
baz=102,slow=74,SNR=32
ZALV Zalesovo Beam 141.92 23 PKhKP PKPpre 05 15 29.7
comp=Z,0.6nm,0.5s,baz=316,slow=4.0,SNR=4.3
KSH2 Kashi 145.76 50 PKPbc **PKPab 05 15 43.8 +1.2**
KSH2 pmax pmax
comp=Z,6.0nm,1.0s
MKAR Makanchi Array 145.96 34 PKPbc **PKPab 05 15 43.2 +0.2**
comp=Z,3.6nm,0.7s,baz=322,slow=3.1,SNR=21
MKAR Makanchi Array 145.96 34 **PKPab 05 15 43.4 +0.5**
MJAR Matsushiro Arr 150.21 308 PKPbc **PKiKP 05 15 55.5 +0.5**
comp=Z,1.3nm,0.8s,baz=104,slow=2.5,SNR=4.5
SONM Songino Array 152.82 4 PKPbc **PKiKP 05 16 00.1 +0.1**
comp=Z,0.4nm,0.4s,baz=349,slow=2.9,SNR=2.8
NJ2 Nanjing 165.78 325 *eP* **PKPdf 05 16 07.0 -1.0**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s

*IDC **08** 05:01:00.6±0.5, 19°.34N×42°.55W, h0km, mb4.2/23, mbtmp4.2/24, ML4.3/1, MS3.5/23, Error ellipse: s-maj=17.9km s-min=12.3km az=127.0*
*NEIC **08** 05:01:03.0±1.0, 19°.4N±0°.1×42°.6W±0°.1, h10km±1km, mb4.7/58, Error ellipse: s-maj=19.5km s-min=16.2km az=151.0*

ISC 08 05:01:02.2±0.4, **19°.33N**±0°.08×**42°.57W**±0°.07, **h10**km, **n133, g071/109, mb4.5/59, MS3.5**/22, **North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDP	**Montagnes des**	**17.22**	**216**	P	**Pn**	**05 05 02.0**	**-1.0**
	1.0nm,0.3s,baz=20,slow=15,SNR=24						
MDP				LR	LR	05 10 03.2	
	comp=Z,100nm,21.2s,baz=114,slow=32						
	13nm,0.9s						
MDP				AML	AML		
MAGL	**Barre de l'ile**	**18.15**	**262**	P	**Pn**	**05 05 14.8**	**+0.3**
MPOM	**Morne Pois Mar**	**18.16**	**257**	P	**Pn**	**05 05 14.1**	**-0.5**
MPOM				IAmb	IAmb	05 05 40.6	
	comp=Z,42nm,0.8s						
HUMP	**Col San Antoni**	**22.08**	**271**	P	**P**	**05 05 56.5**	**-1.0**
GCPR	**Guaynabo City**	**22.28**	**271**	P	**P**	**05 05 59.4**	**-0.4**
SJG	**San Juan**	**22.36**	**271**	LR	LR	05 13 24.8	
	comp=Z,75nm,20.8s,baz=84,slow=33						
OBIP	**Obispado Ponce**	**22.80**	**271**	P	**P**	**05 06 03.6**	**-1.7**
BOAV	**Boa Vista**	**24.33**	**228**		**P**	**05 06 20.2**	**-0.1**
BOAV				IAmb	IAmb	05 06 22.8	
	comp=Z,13nm,1.1s						
MACI	**Morro de la Ar**	**25.40**	**65**	P	**P**	**05 06 28.6**	**-1.6**
MACI				IAmb	IAmb	05 06 36.4	
	comp=Z,20nm,0.8s						
PMOZ	**Porto Moniz, M**	**26.37**	**54**	*eT*	T	05 33 40.5	
PMAR	**Madeira**	**26.55**	**55**	*eT*	T	05 33 41.4	
URIC	**Uribia, Colomb**	**29.32**	**259**	P	**P**	**05 07 05.3**	**+0.1**
URIC				IAmb	IAmb	05 07 06.4	
	comp=Z,10nm,1.1s						
SMRC	**Santa Marta, M**	**31.56**	**260**		**P**	**05 07 24.6**	**-0.5**
RUSC	**La Rusia**	**32.56**	**250**		**P**	**05 07 33.8**	**-0.6**
SJCC	**San Jacinto, C**	**32.87**	**258**		**P**	**05 07 36.7**	**+0.1**
SJCC				IAmb	IAmb	05 07 47.3	
	comp=Z,14nm,0.9s						
ROSC	**El Rosal**	**34.13**	**249**	LR	LR	05 23 15.5	
	comp=Z,42nm,18.1s,baz=53,slow=39						
BDFB	**Brasilia**	**35.17**	**189**	P	**P**	**05 07 56.9**	**+0.3**
	comp=Z,5.9nm,0.7s,baz=17,slow=9.0,SNR=13						
BDFB				LR	LR	05 21 12.2	
	comp=Z,131nm,19.6s,baz=333,slow=34						
	comp=Z,5.9nm,0.7s						
BDFB	**Brasilia**	**35.17**	**189**		**P**	**05 07 56.7**	**+0.1**
BDFB				IAmb	IAmb	05 07 59.5	
	comp=Z,7.4nm,1.0s						
MD31	**MD31**	**36.33**	**61**		**P**	**05 08 06.1**	**-0.4**
MDT	**Midelt**	**36.45**	**61**	LR	LR	05 20 19.7	
	comp=Z,53nm,19.8s,baz=268,slow=32						
VILB	**Vilhena**	**36.48**	**210**	P	**P**	**05 08 08.3**	**+0.5**
VILB				IAmb	IAmb	05 08 10.2	
	comp=Z,11nm,1.3s						
H10N3	**ASCENSION HYDR**	**38.65**	**132**	T	T	05 49 18.3	
	baz=314,slow=75,SNR=83						
H10N2	**ASCENSION HYDR**	**38.65**	**132**	T	T	05 49 19.0	
	baz=314,slow=75,SNR=64						
H10N1	**ASCENSION HYDR**	**38.67**	**132**	T	T	05 49 20.3	
	baz=314,slow=75,SNR=122						
DBIC	**Dimbokro**	**38.74**	**104**	P	**P**	**05 08 26.6**	**-0.3**
	comp=Z,7.5nm,0.7s,baz=302,slow=9.3,SNR=12						
DBIC				LR	LR	05 21 43.6	
	comp=Z,87nm,20.6s,baz=288,slow=32						
	comp=Z,7.5nm,0.7s						
DBIC	**Dimbokro**	**38.74**	**104**	IAmb	IAmb	05 08 28.2	
	comp=Z,9.2nm,0.8s						
ESDC	**Sonseca Array**	**38.85**	**50**	P	**P**	**05 08 27.4**	**-0.2**
	comp=Z,1.2nm,0.9s,baz=248,slow=8.6,SNR=7.8						
ESDC				LR	LR	05 20 23.4	
	comp=Z,66nm,20.8s,baz=250,slow=30						
	comp=Z,1.2nm,0.9s						
ESDC	**Sonseca Array**	**38.85**	**50**	P	**P**	**05 08 27.1**	**-0.6**
ESBB	**Sonseca Array**	**38.85**	**50**	P	**P**	**05 08 27.4**	**-0.3**
H10S3	**ASCENSION HYDR**	**39.32**	**133**	T	T	05 50 12.7	
	baz=314,slow=74,SNR=24						
H10S2	**ASCENSION HYDR**	**39.34**	**133**	T	T	05 50 14.6	
	baz=266,slow=74,SNR=28						
SADO	**Sadowa**	**39.54**	**318**	LR	LR	05 21 29.7	
	comp=Z,72nm,19.1s,baz=142,slow=31						
TKL	**Tuckaleechee C**	**39.69**	**303**	LR	LR	05 20 57.1	
	comp=Z,76nm,21.6s,baz=116,slow=30						
TZTN	**Tazewell**	**39.72**	**304**	P	**P**	**05 08 35.7**	**+0.8**
TZTN				IAmb	IAmb	05 08 50.9	
	comp=Z,20nm,1.4s						
CZSB	**Cruzeiro do Su**	**40.06**	**231**		**P**	**05 08 38.2**	**+0.2**
CZSB				IAmb	IAmb	05 08 38.8	
	comp=Z,22nm,0.7s						
AQDB	**Aquidauana**	**41.60**	**199**		**P**	**05 08 51.2**	**+0.6**
TORD	**Torodi Ar. Bea**	**42.85**	**91**	P	**P**	**05 09 00.5**	**-0.4**
	comp=Z,8.2nm,0.9s,baz=286,slow=7.8,SNR=20						
	comp=Z,8.2nm,0.9s						
WVT	**Waverly**	**43.01**	**303**	P	**P**	**05 09 02.7**	**+0.8**
ACRG	**Accra**	**43.40**	**103**	P	**P**	**05 09 05.5**	**+0.1**
ACRG				IAmb	IAmb	05 09 06.0	
	comp=Z,16nm,0.9s						
LPAZ	**La Paz**	**43.42**	**217**	P	**P**	**05 09 06.1**	**+0.1**
	comp=Z,5.5nm,0.8s,baz=22,slow=11,SNR=17						
LPAZ				LR	LR	05 25 59.3	
	comp=Z,39nm,21.6s,baz=37,slow=34						
	comp=Z,5.5nm,0.8s						
LPAZ	**La Paz**	**43.42**	**217**		**P**	**05 09 05.9**	**-0.2**
ATAH	**Atahualpa**	**44.01**	**237**	LR	LR	05 26 57.0	
	comp=Z,50nm,21.1s,baz=40,slow=35						
TAM	**Tamanrasset**	**44.86**	**77**	P	**P**	**05 09 17.0**	**-0.3**
FVM	**French Village**	**45.38**	**305**	IAmb	IAmb	05 09 26.0	
	comp=Z,6.9nm,0.8s						
PB16	**IPOC Station P**	**45.84**	**217**	P	**P**	**05 09 24.5**	**-0.9**
EKA	**Eskdalemuir Ar**	**46.61**	**30**	P	**P**	**05 09 30.3**	**-0.1**
	comp=Z,0.7nm,0.5s,baz=229,slow=7.5,SNR=6.6						
	comp=Z,0.7nm,0.5s						
PSGCX	**Pisagua**	**47.19**	**216**	P	**P**	**05 09 34.1**	**-1.3**
ITAB	**Concordia**	**47.21**	**192**	P	**P**	**05 09 36.6**	**+1.3**
ITAB				IAmb	IAmb	05 09 41.9	
	comp=Z,8.5nm,1.2s						
CPUP	**Villa Florida**	**47.60**	**198**	P	**P**	**05 09 38.2**	**-0.2**
	comp=Z,3.5nm,0.9s,baz=14,slow=12,SNR=9.0						
CPUP				LR	LR	05 28 54.6	
	comp=Z,29nm,18.1s,baz=71,slow=35						
	comp=Z,3.5nm,0.9s						
CPUP	**Villa Florida**	**47.60**	**198**		**P**	**05 09 38.5**	**+0.1**
CPUP				IAmb	IAmb	05 09 39.9	
	comp=Z,5.0nm,1.0s						
FRB	**Frobisher Bay**	**47.76**	**345**	LR	LR	05 27 49.5	
	comp=Z,36nm,18.9s,baz=110,slow=34						
KEST	**Kesra**	**48.30**	**59**	P	**P**	**05 09 43.9**	**-0.1**
	comp=Z,9.2nm,0.8s,baz=245,slow=6.7,SNR=12						
	comp=Z,9.2nm,0.8s						
KEST	**Kesra**	**48.30**	**59**		**P**	**05 09 44.0**	**+0.1**
KEST				IAmb	IAmb	05 09 45.8	
	comp=Z,12nm,0.9s						
TUE	**Stuetta**	**50.18**	**45**	P	**P**	**05 09 59.6**	**+1.3**
TUE				IAmb	IAmb	05 10 00.3	
	comp=Z,8.6nm,1.4s						
DAVOX	**Davos/Dischmat**	**50.61**	**45**	LR	LR	05 29 30.9	
	comp=Z,67nm,18.9s,baz=270,slow=34						
ZCCA	**Zocca**	**50.82**	**48**	P	**P**	**05 10 03.3**	**+0.3**
ZCCA				IAmb	IAmb	05 10 09.5	
	comp=Z,12nm,1.0s						
FUORN	**Ofenpass-Fuorn**	**50.83**	**45**	P	**P**	**05 10 03.4**	**+0.1**
FETA	**Feichten**	**51.23**	**45**	*eP*	**P**	**05 10 07.0**	**+0.7**
	comp=Z,6.1nm,1.4s						
RETA	**Reutte**	**51.37**	**44**	P	**P**	**05 10 08.4**	**+1.3**
	comp=Z,3.6nm,1.2s						
TEOL	**Teolo**	**51.50**	**47**	P	**P**	**05 10 08.1**	**+0.1**
TEOL				IAmb	IAmb	05 10 13.3	
	comp=Z,4.4nm,0.8s						
MOTA	**Moosalm**	**51.56**	**44**	*eP*	**P**	**05 10 09.4**	**+0.7**
	comp=Z,6.9nm,1.2s						
SQTA	**Sankt Quirin**	**51.60**	**45**	*eP*	**P**	**05 10 09.7**	**+0.8**
	comp=Z,3.8nm,0.8s						
CTI	**Castel Tesino**	**51.63**	**46**		**P**	**05 10 08.7**	**-0.4**
CTI				IAmb	IAmb	05 10 09.8	
	comp=Z,5.5nm,0.9s						
WATA	**Walderalm**	**51.87**	**44**	*eP*	**P**	**05 10 11.4**	**+0.5**
	comp=Z,5.6nm,1.2s						
WTTA	**Wattenberg**	**51.89**	**45**	*eP*	**P**	**05 10 11.8**	**+0.6**
	comp=Z,4.4nm,1.0s						
ULM	**Lac du Bonnet**	**52.08**	**319**	LR	LR	05 30 14.0	
	comp=Z,37nm,18.4s,baz=40,slow=34						
AQU	**L'Aquila**	**52.22**	**51**		**P**	**05 10 13.7**	**+0.2**
AQU				IAmb	IAmb	05 10 17.8	
	comp=Z,20nm,1.1s						
LESA	**Schwarzleotal**	**52.62**	**45**	*eP*	**P**	**05 10 16.8**	**+0.3**
	comp=Z,7.0nm,1.5s						
KBA	**Koelnbreinsper**	**52.99**	**45**	*eP*	**P**	**05 10 19.7**	**+0.4**
	comp=Z,2.2nm,0.7s						
MYKA	**Terra Mystica**	**53.10**	**46**	*eP*	**P**	**05 10 20.6**	**+0.6**
	comp=Z,5.1nm,0.6s						
BIOA	**Bad Ischl, Aus**	**53.31**	**44**	*eP*	**P**	**05 10 22.7**	**+1.2**
	comp=Z,5.6nm,1.4s						
KHC	**Kasperske Hory**	**53.58**	**43**	*eP*	**P**	**05 10 23.5**	**0.0**
GERES	**GERESS Array B**	**53.60**	**43**	P	**P**	**05 10 23.2**	**-0.5**
	comp=Z,0.5nm,0.6s,baz=267,slow=6.6,SNR=7.5						
	comp=Z,0.5nm,0.6s						
OBKA	**Obir**	**53.70**	**46**	*eP*	**P**	**05 10 25.0**	**+0.6**
	comp=Z,3.8nm,0.7s						
CLL	**Collm**	**53.75**	**40**	*eP*	**P**	**05 10 25.0**	**+0.4**
CKRC	**Cesky Krumlov**	**53.98**	**43**	*eP*	**P**	**05 10 25.6**	**-0.8**
ZVC	**Zvikov**	**54.04**	**42**	*eP*	**P**	**05 10 26.6**	**-0.2**
PRU	**Pruhonice**	**54.38**	**42**	*eP*	P	05 10 08.4	-21
ARSA	**Arzberg**	**54.48**	**45**	*eP*	**P**	**05 10 29.9**	**-0.1**
	comp=Z,3.2nm,0.9s						
ABNA	**Allensteig Bun**	**54.68**	**44**	*eP*	**P**	**05 10 32.1**	**+0.6**
	comp=Z,3.2nm,1.3s						
CONA	**Conrad Observa**	**54.83**	**45**	*eP*	**P**	**05 10 32.9**	**+0.3**
	comp=Z,1.8nm,0.7s						
AC05	**El Transito**	**54.86**	**210**	P	**P**	**05 10 33.4**	**+0.3**
AC05				IAmb	IAmb	05 10 34.1	
	comp=Z,7.5nm,0.7s						
WINA	**Alland / Wiene**	**55.00**	**44**	*eP*	**P**	**05 10 34.5**	**+0.7**
	comp=Z,4.0nm,1.0s						
RONA	**Rosalia, Austr**	**55.08**	**45**	*eP*	**P**	**05 10 34.9**	**+0.6**
	comp=Z,3.6nm,1.0s						
UPC	**Upice**	**55.42**	**41**	*eP*	**P**	**05 10 36.8**	**+0.1**
CHVC	**Chvalec**	**55.46**	**41**	*eP*	**P**	**05 10 37.2**	**+0.1**
OSTC	**Ossa**	**55.55**	**41**	*eP*	**P**	**05 10 37.3**	**-0.4**
DPC	**Dobruska-Polom**	**55.58**	**42**	*eP*	**P**	**05 10 34.0**	**-4.0**
KRLC	**Kraliky**	**55.82**	**42**	*eP*	**P**	**05 10 40.2**	**+0.5**
NOA	**NORSAR Array B**	**56.01**	**28**	P	**P**	**05 10 41.1**	**+0.2**
	comp=Z,1.7nm,0.9s,baz=247,slow=7.0,SNR=3.6						
NOA				LR	LR	05 31 12.3	
	comp=Z,36nm,18.0s,baz=325,slow=32						
	comp=Z,1.7nm,0.9s						
TX31	**Lajitas Ar. Si**	**56.02**	**293**	P	**P**	**05 10 41.9**	**+0.4**
TXAR	**Lajitas Array**	**56.02**	**293**	P	**P**	**05 10 41.4**	**-0.1**
	comp=Z,0.9nm,0.8s,baz=77,slow=5.5,SNR=6.4						
	comp=Z,0.9nm,0.8s						
TXAR	**Lajitas Array**	**56.02**	**293**	P	**P**	**05 10 40.7**	**-0.8**
PDG	**Podgorica**	**56.54**	**51**	P	**P**	**05 10 45.2**	**+0.3**
PDG				IAmb	IAmb	05 10 56.4	
	comp=Z,16nm,1.2s						
HFS	**Hagfors**	**56.81**	**30**	P	**P**	**05 10 46.2**	**-0.3**
	comp=Z,3.1nm,0.8s,baz=255,slow=5.7,SNR=5.8						
	comp=Z,3.1nm,0.8s						
VHRN	**Van Horn**	**57.05**	**295**		**P**	**05 10 48.5**	**-0.4**
VHRN				IAmb	IAmb	05 11 04.0	
	comp=Z,4.9nm,1.1s						
ITM	**Ithomi**	**58.48**	**58**	P	**P**	**05 10 59.1**	**+0.4**
MT09	**Talagante**	**59.36**	**207**	P	**P**	**05 11 05.2**	**+0.4**
MT01	**Popeta**	**59.55**	**208**	P	**P**	**05 11 06.4**	**+0.5**
PV03	**Paradox Valley**	**59.87**	**304**	P	**P**	**05 11 08.2**	**-0.3**
BO02	**Sierra Bellavi**	**60.14**	**207**	P	**P**	**05 11 11.4**	**+1.3**
PDAR	**Pinedale Array**	**60.36**	**309**	P	**P**	**05 11 12.0**	**+0.1**
	comp=Z,0.8nm,0.9s,baz=75,slow=5.0,SNR=4.6						
	comp=Z,0.8nm,0.9s						
BURAR	**Bucovina Array**	**61.06**	**46**	P	**P**	**05 11 16.1**	**-0.3**
MLR	**Muntele Rosu**	**61.50**	**48**	LR	LR	05 34 34.9	
	comp=Z,225nm,21.7s,baz=244,slow=33						
ALN	**Alexandroupoli**	**61.60**	**53**	P	**P**	**05 11 20.3**	**+0.3**
FINES	**FINESS Array B**	**63.01**	**30**	P	**P**	**05 11 28.5**	**-0.5**
	comp=Z,14nm,1.2s,baz=251,slow=4.3,SNR=6.0						
	comp=Z,14nm,1.2s						
FINES	**FINESS Array B**	**63.01**	**30**	P	**P**	**05 11 29.4**	**+0.3**
FIA1	**FINESS Array S**	**63.01**	**30**	P	**P**	**05 11 29.7**	**+0.7**
KIEV	**Kiev**	**63.78**	**42**	P	**P**	**05 11 34.6**	**+0.3**
KIEV				IAmb	IAmb	05 11 35.1	
	comp=Z,5.5nm,0.8s						
AKASG	**Malin Array Be**	**63.79**	**42**	P	**P**	**05 11 34.1**	**-0.3**
	comp=Z,4.6nm,0.6s,baz=274,slow=5.7,SNR=17						
	comp=Z,4.6nm,0.6s						
ARCES	**ARCESS Array B**	**64.40**	**21**	LR	LR	05 34 55.1	
	comp=Z,72nm,18.4s,baz=250,slow=32						
YKA	**Yellowknife Ar**	**64.74**	**331**	P	**P**	**05 11 40.4**	**-0.1**
	comp=Z,1.0nm,0.8s,baz=93,slow=5.8,SNR=5.5						
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**64.74**	**331**	P	**P**	**05 11 40.8**	**+0.3**
ELL	**Elmali**	**64.89**	**58**	P	**P**	**05 11 42.0**	**0.0**
PLCA	**Paso Flores**	**65.18**	**203**	P	**P**	**05 11 43.7**	**0.0**
	comp=Z,2.9nm,0.8s,baz=344,slow=2.0,SNR=7.6						
PLCA				LR	LR	05 39 42.2	
	comp=Z,62nm,18.1s,baz=35,slow=36						
	comp=Z,2.9nm,0.8s						
PLCA	**Paso Flores**	**65.18**	**203**	P	**P**	**05 11 44.3**	**+0.7**
PLCA				IAmb	IAmb	05 11 45.1	
	comp=Z,5.8nm,1.0s						
NEW	**Newport**	**65.61**	**315**	LR	LR	05 37 44.5	
	comp=Z,46nm,20.3s,baz=70,slow=34						
BRTR	**Keskin Array B**	**67.47**	**54**	P	**P**	**05 11 58.9**	**+0.2**
	comp=Z,1.5nm,0.6s,baz=268,slow=4.8,SNR=8.4						
	comp=Z,1.5nm,0.6s						
BRTR	**Keskin Array B**	**67.47**	**54**	P	**P**	**05 11 59.2**	**+0.6**
LL06	**Loncomilla**	**67.63**	**204**	P	**P**	**05 12 00.1**	**+0.9**
LL06				IAmb	IAmb	05 12 07.2	
	comp=Z,3.5nm,0.8s						
TSUM	**Tsumeb**	**70.33**	**119**	LR	LR	05 36 50.4	
	comp=Z,55nm,19.6s,baz=333,slow=31						
BBB	**Bella Bella**	**72.27**	**320**	LR	LR	05 42 16.1	
	comp=Z,60nm,19.2s,baz=356,slow=34						
ILAR	**Eielson Array**	**78.62**	**335**	P	**P**	**05 13 04.8**	**+0.8**
	comp=Z,1.0nm,0.8s,baz=60,slow=6.2,SNR=7.4						
	comp=Z,1.0nm,0.8s						
ILAR	**Eielson Array**	**78.62**	**335**	P	**P**	**05 13 04.2**	**+0.2**
BOSA	**Boshof**	**80.99**	**124**	P	**P**	**05 13 17.7**	**+0.1**
	comp=Z,2.6nm,0.9s,baz=270,slow=5.1,SNR=2.1						
	comp=Z,2.6nm,0.9s						
BOSA	**Boshof**	**80.99**	**124**	P	**P**	**05 13 17.4**	**-0.2**
BOSA				IAmb	IAmb	05 13 25.1	
	comp=Z,5.4nm,1.1s						
BVAR	**Borovoye Array**	**87.72**	**34**	P	**P**	**05 13 50.4**	**-0.8**
	comp=Z,0.5nm,0.4s,baz=319,slow=4.2,SNR=1.6						
	comp=Z,0.5nm,0.4s						
KURK	**Kurchatov**	**93.26**	**33**	P	**P**	**05 14 16.8**	**-0.3**
KURK				IAmb	IAmb	05 14 21.0	
	comp=Z,1.2nm,0.6s						
KURBB	**Kurchatov Array**	**93.27**	**33**	P	**P**	**05 14 18.0**	**+0.9**
	comp=Z,1.0nm,0.2s,baz=310,slow=5.3,SNR=4.8						
	comp=Z,1.0nm,0.2s						
ZALV	**Zalesovo Beam**	**94.21**	**28**	P	**P**	**05 14 21.8**	**+0.3**
	comp=Z,0.4nm,0.4s,baz=272,slow=5.2,SNR=1.6						
ZALV				LR	LR	05 55 06.4	
	comp=Z,39nm,18.1s,baz=49,slow=34						
	comp=Z,0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**94.21**	**28**	P	**P**	**05 14 20.9**	**-0.5**
HHC	**Hu-ho-hao-te**	**115.48**	**22**	*eP*	**Pdif**	**05 15 56.8**	**-0.1**
CMAR	**Chiang Mai Arr**	**126.73**	**47**	PKP	**PKPdf**	**05 20 07.1**	**+0.3**
	comp=Z,0.4nm,0.3s,baz=302,slow=3.3,SNR=1.6						

*IDC **08** 05:02:25.4±1.9, 7°.58S×128°.21E, h154km±22km, mb3.5/2, mbtmp4.0/7, MS3.1/1, Error ellipse: s-maj=24.0km s-min=19.2km az=123.0*
*NEIC **08** 05:02:25.7±0.9, 7°.6S±0°.1×128°.35E±0°.09, h170km±8km, mb4.1/3, Error ellipse: s-maj=14.7km s-min=12.0km az=192.0*

*DJA **08** 05:02:26.3±0.4, 7°.5S±5°×12°.8E±°, h182km±16km, M4.3/13, mB5.1/5, mb4.2/6, MLv4.4/13, Mw(mB)4.5/5*

ISC 08 05:02:26.1±0.7, **7°.58S**±0°.07×**128°.29E**±0°.07, **h200**km, **n29, g209/31, mb4.1/4, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**3.01**	**98**	Pn	**Pn**	**05 03 13.4**	**-2.5**
SAUI	**Saumlaki**	**3.01**	**98**	P	**Pn**	**05 03 16.3**	**+0.4**
SAUI				AML	AML		
SOEI	**Soe**	**4.53**	**241**		**Pn**	**05 03 33.9**	**-0.8**
SOEI	**Soe**	**4.53**	**241**	P	**Pn**	**05 03 34.1**	**-0.5**
SOEI					AML		
BATI	**Baumata**	**5.26**	**240**	P	**Pn**	**05 03 42.4**	**-1.6**
	134nm,0.4s,baz=91,slow=4.4,SNR=22						
BATI				S	**Sn**	**05 04 41.5**	**-3.9**
	57nm,0.3s,baz=61,slow=19,SNR=7.6						
BATI	**Baumata**	**5.26**	**240**	P	**Pn**	**05 03 44.1**	**+0.2**
BATI				AML	AML		
MTN	**Manton Dam**	**5.93**	**152**	Pn	**Pn**	**05 03 50.5**	**-2.0**
FAKI	**Fak Fak**	**6.08**	**41**	Pn	**Pn**	**05 03 52.8**	**-1.7**
FAKI	**Fak Fak**	**6.08**	**41**	P	**Pn**	**05 03 52.3**	**-2.2**
FAKI				AML	AML		
EDFI	**Ende, Flores**	**6.64**	**259**	P	**Pn**	**05 04 01.5**	**-0.2**
	7.7nm,0.6s						
SIJI	**Sorong**	**7.30**	**24**	P	**Pn**	**05 04 09.9**	**-0.4**
	4.1nm,0.3s,baz=218,slow=19,SNR=22						
SIJI				S	**Sn**	**05 05 28.7**	**-4.3**
	6.5nm,0.2s,baz=253,slow=19,SNR=5.2						
SIJI	**Sorong**	**7.30**	**24**	P	**Pn**	**05 04 10.3**	**0.0**
SIJI				AML	AML		
KNRA	**Kununurra**	**8.06**	**177**		**Pn**	**05 04 20.5**	**+0.3**
WSI	**Waingapu**	**8.17**	**255**	P	**Pn**	**05 04 21.0**	**-0.6**
FITZ	**Fitzroy Crossi**	**10.77**	**194**	P	**Pn**	**05 04 53.9**	**-1.3**
	2.2nm,0.3s,baz=16,slow=10,SNR=22						
FITZ				S	Sn	05 06 45.6	-10
	7.0nm,0.4s,baz=330,slow=20,SNR=9.2						
FITZ	**Fitzroy Crossi**	**10.77**	**194**		**Pn**	**05 04 54.1**	**-1.2**
WB0	**Warramunga Arr**	**13.48**	**155**	Pn	**Pn**	**05 05 30.2**	**+0.4**
WRA	**Warramunga Arr**	**13.62**	**155**	P	**Pn**	**05 05 32.1**	**+0.7**
	0.4nm,0.3s,baz=328,slow=14,SNR=16						
WRA				S	S	05 07 53.9	-9.3
	3.8nm,0.6s,baz=331,slow=24,SNR=10						
WRA	**Warramunga Arr**	**13.62**	**155**	Pn	**Pn**	**05 05 29.5**	**-1.8**
WR8	**Warramunga Arr**	**13.70**	**155**	Pn	**Pn**	**05 05 32.8**	**+0.4**
JAGI	**Jajag, Banyuwa**	**14.03**	**265**	Pn	**P**	**05 05 37.0**	**-1.3**
ASAR	**Alice Springs**	**16.88**	**162**	P	**Pn**	**05 06 14.3**	**+3.3**
	1.1nm,0.6s,baz=344,slow=11,SNR=12						
ASAR				S	**S**	**05 09 14.2**	**-1.6**
	0.7nm,0.4s,baz=321,slow=22,SNR=5.2						
SBUM	**Sibu**	**18.88**	**301**	P	**Pn**	**05 06 33.1**	**-1.5**
SBUM				IAmb	IAmb	05 06 38.3	
	comp=Z,1.1nm,0.5s						
INKA	**Innaminka**	**23.27**	**151**	P	**P**	**05 07 15.4**	**-0.5**
INKA				IAmb	IAmb	05 07 19.6	
	comp=Z,4.0nm,0.6s						
EIDS	**Eidsvold**	**28.03**	**132**	P	**P**	**05 08 00.1**	**+1.3**
EIDS				IAmb	IAmb	05 08 02.1	
	comp=Z,13nm,1.1s						
ASAJ	**Asahikawa**	**53.06**	**13**	LR	LR	05 33 12.4	
	comp=Z,21nm,22.0s,baz=88,slow=35						
MKAR	**Makanchi Array**	**67.79**	**328**	P	**P**	**05 13 06.3**	**+3.8**
	comp=Z,0.2nm,0.4s,baz=123,slow=7.6,SNR=4.2						
	comp=Z,0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**72.13**	**329**	P	**P**	**05 13 32.8**	**+4.2**
	comp=Z,0.7nm,0.2s,baz=132,slow=5.0,SNR=7.3						
	comp=Z,0.7nm,0.2s						
KKAR	**Karatay Array**	**72.67**	**320**	P	**P**	**05 13 34.8**	**+2.8**

*THE **08** 05:07:32.9, 37°.9N±0°.9×2°.7E±°, h9km±1km, M2.7/9, MLh2.7/9*
*AFAD **08** 05:07:32.5, 37°.85N×27°.01E, h7km±5km, ML2.6*
*ISK **08** 05:07:32.7, 37°.86N×27°.00E, h9km, ML2.6/26*

ISC 08 05:07:33.0±0.8, **37°.85N**±0°.02×**26°.99E**±0°.02, **h12**km±6km, **n54, g047/70, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.19**	**222**	P	**Pg**	**05 07 37.0**	**-0.2**
SMG

AKS	**Akhisar**	**1.22**	**32**	Pn	**Pn**	**05 07 55.9**	**0.0**
AKS				AML	AML		
DKL	**Dikili**	**1.22**	**357**	Pn	**Pb**	**05 07 56.3**	**+0.1**
DKL				AML	AML		
YER	**Yerkesik**	**1.25**	**124**	P	**Pn**	**05 07 56.2**	**-0.2**
YER				S	**Sg**	**05 08 13.2**	**0.0**
YER	**Yerkesik**	**1.25**	**124**	Pn	**Pn**	**05 07 56.5**	**+0.1**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.37**	**18**	Pn	**Pb**	**05 07 58.5**	**-0.2**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.40**	**237**	P	**Pn**	**05 07 56.9**	**-1.5**
APE				S	**Sb**	**05 08 17.4**	**+0.4**
APE				AML	AML		
APE	**Apeiranthos**	**1.40**	**237**	Pn	**Pb**	**05 07 59.3**	**+0.1**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.41**	**41**	Pn	**Pn**	**05 07 58.9**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.46**	**137**	Pn	**Pn**	**05 07 58.9**	**-0.4**
TURN				AML	AML		
PRK	**Paraskevi**	**1.51**	**338**	P	**Pn**	**05 08 00.2**	**+0.2**
YAYO	**Edremit-Balk**	**1.76**	**2**	Pn	**Pn**	**05 08 04.0**	**+0.6**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.86**	**151**	S	**Sn**	**05 08 28.8**	**+0.5**
BALB	**Balikesir**	**1.92**	**21**	Pn	**Pn**	**05 08 06.3**	**+0.7**
BALB				AML	AML		
DION	**Dionisos Attik**	**2.43**	**276**	P	**Pn**	**05 08 12.2**	**-0.4**
VLY	**Voula,Athens**	**2.53**	**271**	P	**Pn**	**05 08 13.7**	**-0.3**
SMTH	**Samothraki Isl**	**2.86**	**337**	S	**Sn**	**05 08 53.1**	**+0.3**

ISC 08 05:15:12.4±1.1, 44°85N±0°.02×15°02E±0°.03, h5km±10km, n18, σ0°50/33, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RABC	**Rab**	**0.20**	**240**	*e*Pg	**Pg**	**05 15 16.3**	**0.0**
RABC				Sg	**Sg**	**05 15 19.6**	**+0.7**
NVLJ	**Novalja**	**0.30**	**200**	*e*Pg	**Pg**	**05 15 18.1**	**-0.2**
NVLJ				Sg	**Sg**	**05 15 23.1**	**+0.8**
PLIT	**Plitvice**	**0.43**	**86**	*i*Pg	**Pg**	**05 15 20.7**	**-0.1**
PLIT				Sg	**Sg**	**05 15 26.5**	**+0.1**
UDBI	**Udbina**	**0.62**	**121**	*e*Pg	**Pg**	**05 15 24.2**	**-0.1**
UDBI				Sg	**Sg**	**05 15 32.3**	**-0.1**
BOJS	**Bojanci**	**0.68**	**14**	*i*Pg	**Pg**	**05 15 25.6**	**+0.1**
BOJS				*i*Sg	**Sg**	**05 15 34.5**	**+0.4**
BOJS				IAML		05 15 36.9	
	comp=Z,3.5nm,0.1s						
GBRS	**Gornja Briga**	**0.70**	**348**	*i*Pg	**Pg**	**05 15 25.6**	**-0.3**
GBRS				*i*Sg	**Sb**	**05 15 36.6**	**-0.5**
GBRS				IAML		05 15 38.2	
	comp=Z,2.5nm,0.1s						
KNDS	**Knezji Dol**	**0.82**	**327**	*i*Pg	**Pg**	**05 15 27.9**	**-0.2**
OZLJ	**Ozalj**	**0.83**	**22**	*e*Pg	**Pg**	**05 15 28.4**	**+0.1**
OZLJ				Sg	**Sg**	**05 15 39.5**	**+0.4**
DUGI	**Dugi Otok**	**0.86**	**178**	*e*Pg	**Pg**	**05 15 28.6**	**-0.3**
DUGI				Sg	**Sb**	**05 15 41.1**	**-0.5**
VISS	**Visnje**	**0.96**	**352**	*i*Sg	**Sb**	**05 15 44.4**	**-0.2**
SKDS	**Skadanscina**	**1.00**	**315**	*i*Pg	**Pn**	**05 15 32.9**	**-0.2**
SKDS				*i*Sg	**Sn**	**05 15 48.3**	**+0.8**
SKDS				IAML		05 15 50.4	
	comp=Z,3.4nm,0.2s						
MORI	**Morici**	**1.10**	**153**	*e*Pg	**Pg**	**05 15 33.3**	**-0.2**
MORI				Sg	**Sb**	**05 15 49.0**	**+0.5**
GCIS	**Gornji Cirnik**	**1.10**	**23**	*i*Pg	**Pg**	**05 15 33.6**	**0.0**
KIJV	**Kijevo**	**1.30**	**130**	*e*Pg	**Pb**	**05 15 37.9**	**+0.6**
KIJV				Sg	**Sn**	**05 15 55.5**	**+0.5**
MOSL	**Moslavina**	**1.44**	**57**	*e*Pg	**Pn**	**05 15 39.4**	**+0.2**
MOSL				Sg	**Sb**	**05 15 58.2**	**-0.3**
HVAR	**Hvar**	**1.96**	**148**	*e*Pn	**Pb**	**05 15 47.7**	**-0.9**
HVAR				Sn	**Sb**	**05 16 13.4**	**0.0**
RICI	**Ricice**	**2.04**	**131**	*e*Pn	**Pb**	**05 15 49.1**	**-0.8**
RICI				Sn	**Sb**	**05 16 16.5**	**+0.9**
MAKA	**Makarska**	**2.12**	**137**	*e*Pn	**Pb**	**05 15 50.3**	**-1.1**
MAKA				Sn	**Sb**	**05 16 18.1**	**+0.1**

*CATAC **08** 05:23:54.6±0.4, 9°N±2°×8°4W±°, h18km±2km, M3.3/10, MLv3.3/10, Error ellipse: s-maj=5.6km s-min=2.9km az=45.9, confirmed*
*UCR **08** 05:23:54.9±1.1, 9°.43N×84°.22W, h32km±1km, MW3.5, Presumed earthquake*

ISC 08 05:23:55.1±0.9, 9°43N±0°.03×84°23W±0°.02, h32km±5km, n87, σ0°76/117, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QUEP	**Quepos**	**0.06**	**86**	P	**Pb**	**05 24 00.0**	**-0.5**
QUEP	**Quepos**	**0.06**	**86**	*e*P	**Pb**	**05 24 00.1**	**-0.5**
QUEP				*e*S	**Sb**	**05 24 04.3**	**0.0**
PICV	**PH. Pirrs**	**0.20**	**9**	*e*P	**Pn**	**05 24 01.5**	**-0.5**
PICV				*e*S	**Sb**	**05 24 06.8**	**+0.5**
RAZU	**San Marcos de**	**0.31**	**41**	*e*P	**Pb**	**05 24 02.5**	**-0.5**
RAZU				*e*S	**Sn**	**05 24 08.9**	**-0.1**
PITB	**Pirrs, San**	**0.31**	**41**	*e*P	**Pb**	**05 24 02.8**	**-0.3**
PITB				*e*S	**Sn**	**05 24 09.1**	**0.0**
ABE2	**San Pablo**	**0.33**	**32**	*e*P	**Pb**	**05 24 02.8**	**-0.5**
ACOS	**Acosta**	**0.37**	**10**	*e*P	**Pb**	**05 24 03.4**	**-0.5**
ACOS				*e*S	**Sb**	**05 24 10.0**	**0.0**
LCR2	**La Lucha 2**	**0.38**	**35**	P	**Pb**	**05 24 03.6**	**-0.5**
LCR2				S	**Sb**	**05 24 09.9**	**-0.4**
LCR2	**La Lucha 2**	**0.38**	**35**	*e*P	**Pb**	**05 24 03.5**	**-0.6**
PURI	**Puriscal**	**0.43**	**349**	*e*P	**Pb**	**05 24 04.0**	**-0.7**
AMPA	**Desamparados**	**0.49**	**19**	*e*P	**Pb**	**05 24 04.8**	**-0.9**
AMPA				*e*S	**Sb**	**05 24 12.9**	**-0.1**
LUJA	**Lujan**	**0.52**	**17**	*e*P	**Pb**	**05 24 05.6**	**-0.6**
PAVB	**Pavas, San Jos**	**0.52**	**12**	*e*P	**Pb**	**05 24 05.6**	**-0.6**
TRIO	**Tres Rios**	**0.53**	**26**	*e*P	**Pb**	**05 24 04.3**	**-2.0**
TAGO	**Cartago**	**0.53**	**34**	*e*P	**Pb**	**05 24 05.7**	**-0.6**
TAGO				*e*S	**Sn**	**05 24 14.4**	**-0.2**
REPA	**Paraso**	**0.53**	**42**	*e*P	**Pb**	**05 24 05.7**	**-0.7**
REPA				*e*S	**Sb**	**05 24 14.1**	**0.0**
ECI	**Escuela Centro**	**0.54**	**19**	*e*P	**Pb**	**05 24 05.9**	**-0.5**
ECI				*e*S	**Sn**	**05 24 14.5**	**-0.2**
SJS3	**Mercedes San J**	**0.54**	**19**	*e*P	**Pb**	**05 24 06.0**	**-0.4**
SJS	**Escuela Geolog**	**0.54**	**18**	*e*P	**Pb**	**05 24 05.8**	**-0.6**
SJS				*e*S	**Sn**	**05 24 14.5**	**-0.2**
ZEDO	**Perez Zeledon**	**0.54**	**97**	*e*P	**Pb**	**05 24 06.5**	**+0.1**
LUPE	**Guadalupe**	**0.55**	**18**	*e*P	**Pb**	**05 24 06.0**	**-0.5**
LUPE				*e*S	**Sn**	**05 24 14.8**	**-0.2**
BELE	**Belen**	**0.55**	**4**	*e*P	**Pb**	**05 24 05.8**	**-0.7**
BELE				*e*S	**Sb**	**05 24 14.5**	**+0.2**
ATEO	**Atenas**	**0.57**	**344**	*e*P	**Pb**	**05 24 05.8**	**-1.1**
ATEO				*e*S	**Sn**	**05 24 15.5**	**+0.1**
CORON	**Coronado**	**0.59**	**22**	*e*P	**Pb**	**05 24 07.0**	**-0.2**
TCS1	**Tacares**	**0.62**	**353**	P	**Pn**	**05 24 07.8**	**0.0**
PCAYA	**Pacayas**	**0.64**	**40**	*e*P	**Pb**	**05 24 07.5**	**-0.6**
PCAYA				*e*S	**Sb**	**05 24 17.1**	**+0.2**
PALD	**Palmares**	**0.66**	**342**	*e*P	**Pb**	**05 24 07.6**	**-0.8**
OCHAL	**Ojochal**	**0.66**	**120**	P	**Pb**	**05 24 07.3**	**-1.0**
OCHAL				S	**Sb**	**05 24 17.1**	**-0.2**
VINA	**Juan Vinas**	**0.67**	**45**	*e*P	**Pb**	**05 24 07.7**	**-0.8**
RAFA	**San Farael, Vo**	**0.67**	**38**	*e*P	**Pb**	**05 24 08.1**	**-0.6**
VICA	**Volcano Irazu**	**0.67**	**34**	*e*P	**Pb**	**05 24 08.1**	**-0.6**
VBV1	**V. Barva**	**0.69**	**10**	*e*P	**Pb**	**05 24 08.6**	**-0.5**
RAMO	**San Ramon**	**0.70**	**340**	*e*P	**Pb**	**05 24 07.9**	**-1.1**
RAMO				*e*S	**Sn**	**05 24 19.0**	**+0.4**
EDPE	**Pejibaye, P**	**0.70**	**112**	*e*P	**Pb**	**05 24 08.0**	**-1.0**
EDPE				*e*S	**Sb**	**05 24 18.4**	**0.0**
SRA1	**San Ramn**	**0.70**	**339**	*e*P	**Pb**	**05 24 08.3**	**-0.7**
ARZA	**Esparza**	**0.71**	**322**	*e*P	**Pb**	**05 24 08.3**	**-0.8**
CVTQ	**Turrialba Volc**	**0.73**	**38**	*e*P	**Pb**	**05 24 09.0**	**-0.8**
VTCV	**VTCV, Calle Va**	**0.74**	**42**	*e*P	**Pb**	**05 24 08.9**	**-0.9**
CVTV	**Tajo**	**0.74**	**39**	*e*P	**Pb**	**05 24 09.2**	**-0.7**
CVTV				*e*S	**Sn**	**05 24 20.3**	**+0.2**
VTR0	**Volcan Turrial**	**0.75**	**38**	*e*P	**Pb**	**05 24 09.3**	**-0.7**
VPS8	**V Poas**	**0.75**	**359**	*e*P	**Pb**	**05 24 09.4**	**-0.6**
CVTR	**Volcan Turrial**	**0.75**	**38**	*e*P	**Pb**	**05 24 09.3**	**-0.7**
ABRB	**Las Abras (San**	**0.77**	**41**	*e*P	**Pb**	**05 24 09.4**	**-0.8**
ABRB				*e*S	**Sn**	**05 24 20.9**	**+0.5**
PAQE	**Paquera**	**0.80**	**299**	*e*P	**Pb**	**05 24 09.4**	**-1.2**
PAQE				*e*S	**Sn**	**05 24 22.2**	**+1.3**
RESJ	**San Isidro (Tu**	**0.83**	**44**	*e*P	**Pb**	**05 24 10.3**	**-0.9**
CVTG	**V. Turrialba,**	**0.84**	**32**	*e*P	**Pb**	**05 24 10.8**	**-0.6**
VPL2	**V. Platanar**	**0.89**	**350**	*e*P	**Pb**	**05 24 10.5**	**-1.7**
PANP	**Palmar Norte**	**0.89**	**121**	*e*P	**Pb**	**05 24 11.0**	**-1.1**
BURE	**Buenos Aires**	**0.91**	**106**	*e*P	**Pb**	**05 24 11.3**	**-1.2**
RVLA	**Villa Bonita**	**0.93**	**43**	*e*P	**Pn**	**05 24 11.1**	**-0.8**
LCOC	**El Coco**	**0.93**	**45**	*e*P	**Pn**	**05 24 11.4**	**-0.6**
FIMO	**Fila Mora**	**0.96**	**117**	*e*P	**Pn**	**05 24 12.7**	**+0.2**
EGUB	**Earth Gu¡pi**	**1.00**	**39**	*e*P	**Pn**	**05 24 12.5**	**-0.5**
EGUB				*e*S	**Sn**	**05 24 28.1**	**+2.1**
CARI	**Cariari**	**1.05**	**27**	*e*P	**Pn**	**05 24 13.9**	**+0.3**
MTEVE	**Monteverde**	**1.07**	**326**	*e*P	**Pn**	**05 24 13.9**	**-0.1**
TAAN	**Batan**	**1.09**	**53**	*e*P	**Pn**	**05 24 14.3**	**+0.2**
TAAN				*e*S	**Sb**	**05 24 30.6**	**+1.3**
JUNT	**Juntas**	**1.11**	**320**	*e*P	**Pn**	**05 24 14.7**	**+0.2**
JTS	**Las Juntas de**	**1.12**	**320**	P	**Pb**	**05 24 15.1**	**-0.9**
JTS				S	**Sb**	**05 24 30.2**	**0.0**
JTS	**Las Juntas de**	**1.12**	**320**	*e*P	**Pn**	**05 24 14.7**	**+0.1**
CASO	**Castillo**	**1.12**	**334**	*e*P	**Pn**	**05 24 15.0**	**+0.3**
VACR	**Volcan Arenal**	**1.13**	**337**	*e*P	**Pn**	**05 24 15.3**	**+0.5**
ARE1	**Arenal 1**	**1.14**	**335**	*e*P	**Pb**	**05 24 15.7**	**-0.6**
VERH	**Veragua Rainfo**	**1.14**	**64**	*e*P	**Pn**	**05 24 15.1**	**+0.2**
CEDE	**Laguna Cedeo**	**1.15**	**336**	*e*P	**Pb**	**05 24 15.9**	**-0.7**
TABAC	**Tabacon**	**1.19**	**334**	*e*P	**Pn**	**05 24 15.8**	**+0.2**
LAES	**El Progreso Va**	**1.21**	**74**	*e*P	**Pn**	**05 24 16.3**	**+0.5**
TRT2	**Tortugero**	**1.22**	**23**	P	**Pn**	**05 24 16.4**	**+0.4**
TRT2				S	**Sb**	**05 24 33.4**	**+0.2**
TRT2	**Tortugero**	**1.22**	**23**	*e*P	**Pn**	**05 24 16.2**	**+0.2**
COVE	**Coope Vega, Sa**	**1.30**	**352**	P	**Pn**	**05 24 17.8**	**+0.8**
COVE				S	**Sb**	**05 24 36.3**	**+1.0**
CMARA	**Lajas Hojancha**	**1.32**	**297**	P	**Pn**	**05 24 16.7**	**-0.6**
CMARA				S	**Sn**	**05 24 34.2**	**+0.3**
COTE	**Lago Cote**	**1.33**	**329**	*e*P	**Pb**	**05 24 18.9**	**-0.7**
PIRO	**Carate, Puerto**	**1.34**	**139**	P	**Pn**	**05 24 18.5**	**+0.9**
PIRO				S	**Sb**	**05 24 38.3**	**+1.6**
PIRO	**Carate, Puerto**	**1.34**	**139**	*e*P	**Pn**	**05 24 17.8**	**+0.1**
QUEB	**Quebradon, Cot**	**1.36**	**331**	*e*P	**Pb**	**05 24 19.1**	**-0.9**
TENO	**El Achiote**	**1.47**	**330**	*e*P	**Pn**	**05 24 20.0**	**+0.5**
CUI	**Cuipilapa**	**1.53**	**323**	*e*P	**Pn**	**05 24 21.0**	**+0.7**
CDITO	**Canoas**	**1.58**	**122**	P	**Pn**	**05 24 21.6**	**+0.7**
CDITO				S	**Sb**	**05 24 43.1**	**-0.4**
RGM0	**Gandoca**	**1.61**	**84**	S	**Sb**	**05 24 43.3**	**-0.8**
MESS	**Mesas**	**1.62**	**324**	*e*P	**Pn**	**05 24 21.9**	**+0.4**
VMAR	**Armenia, Volca**	**1.63**	**328**	*e*P	**Pn**	**05 24 22.5**	**+0.8**
BRU2	**Volcan**	**1.64**	**112**	S	**Sb**	**05 24 45.4**	**0.0**
UPAL	**Upala**	**1.65**	**332**	S	**Sb**	**05 24 44.8**	**-0.7**
CLLRA	**Cordillera,**	**1.73**	**113**	*e*P	**Pn**	**05 24 23.2**	**+0.1**
ALIBA	**Liberia Airpor**	**1.74**	**312**	*e*P	**Pn**	**05 24 21.9**	**-1.2**
BQTLY	**Boquete Panama**	**1.87**	**111**	*e*P	**Pn**	**05 24 25.2**	**+0.2**
RBALA	**Bur**	**2.12**	**105**	*e*P	**Pn**	**05 24 27.8**	**-0.5**
ACON	**Acoyapa**	**2.69**	**340**	P	**Pn**	**05 24 37.2**	**+1.0**
ACON				S	**Sn**	**05 25 10.4**	**+2.7**

*CATAC **08** 05:39:08.5±0.8, 13°N±4°×9°0W±°, h9km±4km, M3.0/8, MLv3.0/8, Error ellipse: s-maj=7.8km s-min=6.7km az=11.8, confirmed*
*SNET **08** 05:39:11.3±1.3, 13°.14N×90°.00W, h27km, ML3.0, Presumed earthquake*
*GCG **08** 05:39:11.3±1.0, 13°.19N×90°.11W, h20km±13km, MD3.8, Presumed earthquake*

ISC 08 05:39:09.7±2.8, 13°1N±0°.1×90°03W±0°.10, h21km±6km, n26, σ0°55/36, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAME	**Alcaldia de Sa**	**0.79**	**1**	P	**Pb**	**05 39 24.6**	**-0.1**
FAME				S	**Sn**	**05 39 35.5**	**-1.2**
JAYA	**Jayaque - finc**	**0.82**	**43**	P	**Pb**	**05 39 25.6**	**+0.1**
JAYA	**Jayaque - finc**	**0.82**	**43**	*i*P	**Pb**	**05 39 25.5**	**+0.1**
JAYA				*i*S	**Sn**	**05 39 37.0**	**-0.8**
JAYA	**Jayaque - finc**	**0.82**	**43**	*e*P	**Pb**	**05 39 25.5**	**+0.1**
JAYA				*e*S	**Sn**	**05 39 37.3**	**-0.6**
CEVE	**Cerro Verde**	**0.86**	**27**	P	**Pb**	**05 39 26.0**	**-0.3**
CEVE				S	**Sn**	**05 39 39.6**	**+0.6**
CEVE	**Cerro Verde**	**0.86**	**27**	*e*P	**Pb**	**05 39 26.1**	**-0.1**
NUBE	**Las Nubes**	**0.88**	**16**	P	**Pb**	**05 39 26.0**	**-0.4**
NUBE				S	**Sn**	**05 39 38.1**	**-1.1**
NUBE	**Las Nubes**	**0.88**	**16**	*i*P	**Pb**	**05 39 26.1**	**-0.3**
NUBE				*i*S	**Sb**	**05 39 37.1**	**-0.4**
SNJE	**San Jose**	**0.91**	**27**	*e*P	**Pb**	**05 39 26.7**	**-0.3**
RTR	**El Retiro**	**0.92**	**24**	*e*P	**Pb**	**05 39 27.1**	**0.0**
PMON	**Piamonte**	**0.95**	**47**	P	**Pb**	**05 39 27.8**	**+0.1**
PMON				S	**Sn**	**05 39 41.7**	**+0.6**
PMON	**Piamonte**	**0.95**	**47**	*e*P	**Pb**	**05 39 27.8**	**+0.1**
CEDA	**San Andres**	**0.97**	**39**	S	**Sn**	**05 39 41.3**	**+0.1**
SLOZ	**Alcaldia de Sa**	**1.00**	**14**	P	**Pb**	**05 39 28.1**	**-0.3**
SLOZ	**Alcaldia de Sa**	**1.00**	**14**	*e*P	**Pb**	**05 39 28.3**	**-0.1**
UEES	**Universidad Ev**	**1.01**	**49**	S	**Sb**	**05 39 41.2**	**-0.4**
LOMA	**Loma Larga**	**1.02**	**55**	P	**Pb**	**05 39 28.2**	**-0.6**
LOMA				S	**Sn**	**05 39 42.9**	**+0.2**
LOMA	**Loma Larga**	**1.02**	**55**	*e*P	**Pb**	**05 39 28.4**	**-0.4**
UDBS	**Universidad Do**	**1.07**	**52**	S	**Sb**	**05 39 42.7**	**-0.7**
TECO	**Alcaldia de Te**	**1.31**	**68**	P	**Pn**	**05 39 32.6**	**-0.2**
TECO				S	**Sn**	**05 39 49.5**	**-0.1**
TECO	**Alcaldia de Te**	**1.31**	**68**	*e*P	**Pn**	**05 39 32.6**	**-0.2**
JUAM	**Asuncion Mita**	**1.31**	**14**	*i*P	**Pn**	**05 39 33.3**	**+0.4**
SCLA	**Alcaldia de Sa**	**1.42**	**63**	S	**Sb**	**05 39 54.2**	**+0.9**
LLGN	**La Lagna**	**1.52**	**44**	S	**Sb**	**05 39 57.1**	**+0.8**
ESQI	**Esquipulas**	**1.64**	**24**	P	**Pn**	**05 39 37.8**	**+0.4**
ESQI				S	**Sb**	**05 40 00.5**	**+0.8**
APG	**El Apazote**	**1.98**	**348**	*i*P	**Pn**	**05 39 43.1**	**+0.8**

*IDC **08** 05:49:41.8±1.0, 24°.39S×176°.85W, h0km, mb3.9/7, mbtmp4.1/9, ML4.5/2, Error ellipse: s-maj=28.3km s-min=19.8km az=117.0*
*NEIC **08** 05:49:54.3±1.4, 24°.79S±0°.07×177°.1W±0°.1, h89km±8km, mb4.1/21, Error ellipse: s-maj=14.7km s-min=9.7km az=92.0*

ISC 08 05:49:54.4±0.5, 24°76S±0°.07×177°09W±0°.09, h100km, n47, σ1°32/46, mb4.0/20, 1D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**4.54**	**189**	Pn	**Pn**	**05 50 59.7**	**-1.1**
RAO				Sn	**Sn**	**05 51 51.7**	**-0.7**
NIUE	**Niue**	**8.73**	**51**	Pn	**Pn**	**05 51 58.8**	**+1.0**
NIUE				Sn	**Sn**	**05 53 31.1**	**-3.4**
AFI	**Afiamalu**	**11.90**	**26**	Pn	Pn	05 52 21.2	-20
	4.9nm,0.3s,baz=118,slow=11,SNR=6.5 18nm,0.5s						
AFI				AML	AML		
MARNC	**Mare, Loyalty**	**14.07**	**280**	Pn	**Pn**	**05 53 08.3**	**-1.0**
PINNC	**Pines Island,**	**14.33**	**275**	Pn	**Pn**	**05 53 10.5**	**-2.1**
URZ	**Urewera**	**14.33**	**199**	Pn	**Pn**	**05 53 13.6**	**+1.1**
	1.4nm,0.3s,baz=268,slow=4.9,SNR=12 4.5nm,0.2s						
URZ				AML	AML		
RTZ	**Ruatahuna**	**14.70**	**199**	Pn	**Pn**	**05 53 14.6**	**-2.8**
MRZ	**Mangatainoka R**	**17.00**	**199**	Pn	**Pn**	**05 53 42.9**	**-3.1**
THZ	**Tophouse**	**18.89**	**204**	P	**P**	**05 54 05.3**	**-1.7**
THZ				IAmb	IAmb	05 54 18.2	
	comp=Z,14nm,1.0s						
RPZ	**Rata Peaks**	**21.26**	**204**	P	**P**	**05 54 30.0**	**-2.4**
WHZ	**Wether Hill Ro**	**24.29**	**206**	P	**P**	**05 55 01.0**	**-1.3**
WHZ				IAmb	IAmb	05 55 05.9	
	comp=Z,11nm,1.1s						
CTA	**Charters Tower**	**34.14**	**270**	P	**P**	**05 56 31.9**	**+1.9**
	comp=Z,2.4nm,0.3s,baz=103,slow=9.1,SNR=6.9 comp=Z,2.4nm,0.3s						
AS31	**Alice Springs**	**44.52**	**261**	P	**P**	**05 57 56.6**	**+0.3**
ASAR	**Alice Springs**	**44.52**	**261**	P	**P**	**05 57 56.4**	**+0.1**
	comp=Z,0.3nm,0.4s,baz=100,slow=7.8,SNR=9.7 comp=Z,0.3nm,0.4s						
ASAR	**Alice Springs**	**44.52**	**261**	P	**P**	**05 57 55.7**	**-0.6**
WR0	**Warramunga Arr**	**44.81**	**266**	P	**P**	**05 57 58.7**	**+0.1**
WR0				IAmb	IAmb	05 58 00.5	
	comp=Z,2.6nm,1.0s						
WR8	**Warramunga Arr**	**44.85**	**266**	P	**P**	**05 57 59.1**	**+0.2**
WR8				IAmb	IAmb	05 58 13.9	
	comp=Z,2.5nm,1.1s						
WB2	**Warramunga Arr**	**44.99**	**266**	P	**P**	**05 57 59.8**	**-0.3**
WB2				IAmb	IAmb	05 58 03.8	
	comp=Z,2.2nm,0.9s						
WRAB	**Tennant Creek**	**44.99**	**266**	P	**P**	**05 58 00.3**	**+0.2**
WRAB				IAmb	IAmb	05 58 07.5	
	comp=Z,1.3nm,0.9s						
WB0	**Warramunga Arr**	**44.99**	**266**	P	**P**	**05 58 00.4**	**+0.3**
WB0				IAmb	IAmb	05 58 01.7	
	comp=Z,2.3nm,1.0s						
WRA	**Warramunga Arr**	**45.00**	**266**	P	**P**	**05 57 59.8**	**-0.3**
	comp=Z,0.8nm,0.4s,baz=103,slow=7.7,SNR=25 comp=Z,0.8nm,0.4s						
WRA	**Warramunga Arr**	**45.00**	**266**	P	**P**	**05 57 59.8**	**-0.3**
MTN	**Manton Dam**	**50.16**	**274**	P	**P**	**05 58 39.8**	**-0.3**
MTN				IAmb	IAmb	05 59 07.2	
	comp=Z,3.4nm,1.1s						
KNRA	**Kununurra**	**51.34**	**269**	P	**P**	**05 58 48.5**	**-0.4**
KNRA				IAmb	IAmb	05 58 53.6	
	comp=Z,1.5nm,1.0s						
FITZ	**Fitzroy Crossi**	**53.41**	**265**	P	**P**	**05 59 05.2**	**+1.0**
	comp=Z,0.8nm,0.5s,baz=109,slow=7.1,SNR=8.7 comp=Z,0.8nm,0.5s						
FITZ	**Fitzroy Crossi**	**53.41**	**265**	P	**P**	**05 59 04.3**	**+0.1**
SBA	**Scott Base**	**53.70**	**184**	P	**P**	**05 59 06.7**	**+1.2**
SBA				IAmb	IAmb	05 59 11.9	
	comp=Z,5.1nm,1.1s						
VNDA	**Vanda**	**53.77**	**186**	P	**P**	**05 59 08.2**	**+2.2**
	comp=Z,0.3nm,0.5s,baz=25,slow=7.5,SNR=1.7 comp=Z,0.3nm,0.5s						
VNDA	**Vanda**	**53.77**	**186**	P	**P**	**05 59 06.9**	**+0.9**
NWAO	**Narrogin (SRO)**	**57.30**	**246**	P	**P**	**05 59 32.0**	**0.0**
CASY	**Casey**	**60.51**	**206**	P	**P**	**05 59 54.1**	**+0.6**
KAPI	**Kappang**	**63.57**	**277**	P	**P**	**06 00 14.8**	**-0.1**
QSPA	**South Pole Qui**	**65.33**	**180**	P	**P**	**06 00 27.3**	**+1.6**
	comp=Z,0.9nm,0.6s,baz=70,slow=1.9,SNR=9.2 comp=Z,0.9nm,0.6s						
QSPA	**South Pole Qui**	**65.33**	**180**	P	**P**	**06 00 26.2**	**+0.5**
BELA	**Belgrano 2**	**75.25**	**172**	P	**P**	**06 01 26.2**	**+0.4**
BELA				IAmb	IAmb	06 01 26.8	
	comp=Z,1.9nm,0.8s						
MAW	**Mawson**	**77.86**	**200**	P	**P**	**06 01 42.0**	**+1.3**
PETK	**Petropavlovsk-**	**80.58**	**345**	P	**P**	**06 01 54.0**	**-1.5**
	comp=Z,0.9nm,0.6s,baz=153,slow=9.7,SNR=5.1 comp=Z,0.9nm,0.6s						
H03S2	**Juan Fernandez**	**82.91**	**124**	T	T	07 33 30.6	
	baz=243,slow=74,SNR=3.4						
H03S1	**Juan Fernandez**	**82.92**	**124**	T	T	07 33 29.2	
	baz=243,slow=74,SNR=3.2						
H03S3	**Juan Fernandez**	**82.93**	**124**	T	T	07 33 29.4	
	baz=243						
TROLL	**Troll, Antarti**	**83.49**	**180**	⇓P	**P**	**06 02 11.4**	**+0.6**
	comp=Z,104nm,0.5s						
VNA3	**Neumayer Olymp**	**83.86**	**176**	P	**P**	**06 02 12.6**	**+0.1**
	comp=Z,1.5nm,0.4s						
VNA2	**Neumayer--Watz**	**84.30**	**177**	P	**P**	**06 02 15.3**	**+0.5**
	comp=Z,1.5nm,0.4s,baz=177,slow=4.6						
VNA1	**Neumayer--Stat**	**84.53**	**176**	P	**P**	**06 02 16.4**	**+0.6**
	comp=Z,2.0nm,0.8s						
AKASG	**Malin Array Be**	**147.10**	**329**	PKPbc	**PKPab**	**06 09 27.1**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=48,slow=4.5,SNR=6.4						
BRTR	**Keskin Array B**	**150.21**	**308**	PKPbc	**PKiKP**	**06 09 36.9**	**+2.1**
	comp=Z,0.5nm,0.5s,baz=75,slow=2.6,SNR=2.5						
BRTR	**Keskin Array B**	**150.21**	**308**	PKPdf	**PKPdf**	**06 09 28.8**	**0.0**
BRTR					**PKPab**	**06 09 41.0**	**+0.6**

*RSNC **08** 05:50:12.4±0.0, 10°N±2°×7°3W±°, h0km±4km, M2.9, mb4.0, ML2.7*
*FUNV **08** 05:50:15.3, 9°75N×72°80W, h5km, MW3.5, Presumed earthquake*

ISC 08 05:50:13.2±3.2, 9°74N±0°.03×72°82W±0°.03, h7km±23km, n28, σ2°03/50, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC

RTZ	**Ruatahuna**	**1.12 136**	P	**Pn**	**06 18 56.0**	**+0.6**
RTZ			S	**S**	**06 19 26.2**	**-1.5**
RITZ	**Rihia Road**	**1.16 185**	P	**Pn**	**06 18 56.2**	**+0.7**
RITZ			AML	AML		
KATZ	**Kakaramea**	**1.18 191**	P	**Pn**	**06 18 57.1**	**+1.4**
MTHZ	**Maungataniwha**	**1.24 147**	P	**Pn**	**06 18 57.1**	**+1.1**
MTHZ			S	**S**	**06 19 27.3**	**-1.5**
MTHZ			AML	AML		
NTVZ	**North Tongarir**	**1.30 190**	P	**Pn**	**06 18 57.9**	**+1.5**
KRVZ	**Karewarewa**	**1.30 192**	P	**Pn**	**06 18 57.9**	**+1.5**
KRVZ			AML	AML		
TMVZ	**Te Maari**	**1.32 189**	P	**Pn**	**06 18 58.1**	**+1.6**
TWVZ	**Taurewa**	**1.32 199**	P	**Pn**	**06 18 56.6**	**+0.1**
TWVZ			AML	AML		
MWZ	**Matawai**	**1.33 113**	P	**Pn**	**06 18 57.2**	**+0.7**
WTVZ	**West Tongariro**	**1.33 193**	P	**Pn**	**06 18 58.0**	**+1.4**
WTVZ			AML	AML		
ETVZ	**East Tongariro**	**1.33 189**	P	**Pn**	**06 18 58.0**	**+1.4**
RUGZ	**Raukumara Rang**	**1.35 97**	P	**Pn**	**06 18 56.0**	**-0.8**
RUGZ			AML	AML		
OTVZ	**Oturere**	**1.37 190**	P	**Pn**	**06 18 58.3**	**+1.4**
NGZ	**Ngauruhoe**	**1.39 192**	P	**Pn**	**06 18 58.4**	**+1.4**
NGZ			AML	AML		
SNVZ	**South Ngauruho**	**1.39 191**	P	**Pn**	**06 18 58.6**	**+1.6**
RAHZ	**Arahi**	**1.40 142**	P	**Pn**	**06 18 58.4**	**+1.5**
RAHZ			AML	AML		
BKZ	**Black Stump Fm**	**1.41 164**	P	**Pn**	**06 18 57.9**	**+0.9**
BKZ	**Black Stump Fm**	**1.41 164**	S	**S**	**06 19 28.8**	**-1.8**
BKZ	**Black Stump Fm**	**1.41 164**	P	**Pn**	**06 18 58.1**	**+1.2**
BKZ			S	**S**	**06 19 28.9**	**-1.7**
HAZ	**Te Kaha**	**1.43 88**	P	**Pn**	**06 18 56.5**	**-0.6**
NMHZ	**Naumai**	**1.44 153**	P	**Pn**	**06 18 59.1**	**+1.9**
NMHZ			S	**S**	**06 19 31.2**	**+0.2**
NMHZ			AML	AML		
TUVZ	**Tukino**	**1.47 190**	P	**Pn**	**06 18 58.9**	**+1.4**
TUVZ			AML	AML		
TRVZ	**Turoa**	**1.52 193**	P	**Pn**	**06 18 59.3**	**+1.4**
WNVZ	**Wahianoa**	**1.54 191**	P	**Pn**	**06 18 59.3**	**+1.3**
WNVZ			AML	AML		
PKVZ	**Pokaka**	**1.55 198**	P	**Pn**	**06 18 59.3**	**+1.5**
PKVZ			AML	AML		
MOVZ	**Moawhango**	**1.60 186**	P	**Pn**	**06 18 59.2**	**+1.0**
MOVZ			AML	AML		
TKGZ	**Te Karaka**	**1.60 113**	P	**Pn**	**06 18 58.9**	**+0.7**
TKGZ			S	**S**	**06 19 30.6**	**-2.1**
TKGZ			AML	AML		
MTVZ	**Mangateitei**	**1.62 194**	P	**Pn**	**06 18 59.2**	**+0.9**
MTVZ			AML	AML		
KWHZ	**Kaweka Forest**	**1.64 168**	P	**Pn**	**06 19 00.1**	**+1.6**
KWHZ			AML	AML		
ARHZ	**Aropaoanui**	**1.65 151**	P	**Pn**	**06 19 00.0**	**+1.6**
ARHZ			AML	AML		
RIGZ	**Rimuhau**	**1.66 123**	P	**Pn**	**06 18 59.7**	**+1.1**
RIGZ			S	**S**	**06 19 32.5**	**-1.1**
RIGZ			AML	AML		
PKGZ	**Pakihiroa**	**1.67 92**	P	**Pn**	**06 18 59.1**	**+0.4**
PKGZ			AML	AML		
BHHZ	**Black Hill Sta**	**1.67 178**	P	**Pn**	**06 18 59.9**	**+1.2**
BHHZ			AML	AML		
MCHZ	**McNeill Hill**	**1.72 161**	P	**Pn**	**06 19 00.8**	**+1.8**
MCHZ			AML	AML		
KRHZ	**Kereru**	**1.85 171**	P	**Pn**	**06 19 01.3**	**+1.4**
KRHZ			AML	AML		
WMGZ	**Waiomatatini S**	**1.93 91**	P	**Pn**	**06 19 00.9**	**+0.3**
WMGZ			AML	AML		
MHGZ	**Mahia Peninsul**	**2.02 132**	P	**Pn**	**06 19 02.3**	**+1.0**
CKHZ	**Cape Kidnapper**	**2.03 155**	P	**Pn**	**06 19 02.9**	**+1.6**
PKE	**Pukeiti**	**2.08 228**	P	**Pn**	**06 19 04.6**	**+2.8**
PKE			AML	AML		
WAZ	**Wanganui**	**2.09 202**	P	**Pn**	**06 19 03.6**	**+1.8**
KAHZ	**Kahuranaki**	**2.10 161**	P	**Pn**	**06 19 03.6**	**+1.7**
KAHZ			AML	AML		
PNHZ	**Pukenui**	**2.10 175**	P	**Pn**	**06 19 03.1**	**+1.1**
PNHZ			AML	AML		
TSZ	**Takapari Road**	**2.24 180**	P	**Pn**	**06 19 04.3**	**+1.1**
TSZ			AML	AML		
WPHZ	**Waipukurau**	**2.27 171**	P	**Pn**	**06 19 04.7**	**+1.3**
WPHZ			AML	AML		
WCZ	**Waipu Caves**	**2.29 325**	P	**Pn**	**06 19 04.3**	**+0.7**
PXZ	**Pawanui**	**2.32 163**	P	**Pn**	**06 19 05.2**	**+1.5**
DVHZ	**Dannevirke**	**2.48 177**	P	**Pn**	**06 19 06.2**	**+0.9**
DVHZ			AML	AML		
PRHZ	**Porangahau**	**2.50 168**	P	**Pn**	**06 19 06.8**	**+1.4**
POWZ	**Post Office Ro**	**2.58 184**	P	**Pn**	**06 19 07.1**	**+1.1**
POWZ			AML	AML		
ANWZ	**Angora Road**	**2.67 172**	P	**Pn**	**06 19 07.9**	**+1.0**
ANWZ			AML	AML		
PRWZ	**Pori Road**	**2.74 180**	P	**Pn**	**06 19 08.9**	**+1.3**
MRZ	**Mangatainoka R**	**2.86 186**	P	**Pn**	**06 19 09.5**	**+0.8**
BFZ	**Birch Farm**	**2.87 176**	P	**Pn**	**06 19 10.0**	**+1.2**
BFZ	**Birch Farm**	**2.87 176**	P	**S**	**06 19 52.0**	**-0.1**
BFZ	**Birch Farm**	**2.87 176**	P	**Pn**	**06 19 10.1**	**+1.2**
OGWZ	**Otaki Gorge**	**3.06 192**	P	**Pn**	**06 19 11.8**	**+1.1**
HOWZ	**Holdsworth Sta**	**3.10 187**	P	**Pn**	**06 19 11.8**	**+0.7**
KIW	**Kapiti Island**	**3.15 195**	P	**Pn**	**06 19 12.5**	**+0.8**
MTW	**Mount Morrison**	**3.36 186**	P	**Pn**	**06 19 14.4**	**+0.6**
CAW	**Cannon Point**	**3.36 192**	P	**Pn**	**06 19 14.5**	**+0.7**
DUWZ	**D'Urville Isla**	**3.38 208**	P	**Pn**	**06 19 14.8**	**+0.8**
PAWZ	**Paruwai Farm**	**3.59 187**	P	**Pn**	**06 19 16.9**	**+0.8**
WEL	**Wellington**	**3.59 195**	P	**Pn**	**06 19 16.9**	**+0.8**
SNZO	**South Karori**	**3.63 195**	P	**Pn**	**06 19 17.6**	**+1.1**
SNZO	**South Karori**	**3.63 195**	P	**S**	**06 20 05.5**	**-0.5**
TCW	**Tory Channel**	**3.64 201**	P	**Pn**	**06 19 17.7**	**+1.1**
MSWZ	**Moikau Station**	**3.64 189**	P	**Pn**	**06 19 17.4**	**+0.7**
PLWZ	**Palliser**	**3.79 188**	P	**Pn**	**06 19 18.9**	**+0.5**
TUWZ	**Tuamarina**	**3.94 203**	P	**Pn**	**06 19 20.9**	**+1.0**
NNZ	**Nelson**	**3.95 210**	P	**Pn**	**06 19 20.4**	**+0.4**
TKNZ	**Takaka Hill**	**3.97 215**	P	**Pn**	**06 19 20.2**	**-0.1**
QRZ	**Quartz Range**	**4.02 221**	P	**Pn**	**06 19 20.6**	**-0.3**
QRZ	**Quartz Range**	**4.02 221**	P	**S**	**06 20 11.5**	**-2.4**
QRZ	**Quartz Range**	**4.02 221**	P	**Pn**	**06 19 20.8**	**0.0**
BSWZ	**Blackbirch Sta**	**4.22 202**	P	**Pn**	**06 19 24.1**	**+1.1**
MRNZ	**Matariki Terra**	**4.36 214**	P	**Pn**	**06 19 24.7**	**+0.1**
THZ	**Tophouse**	**4.60 210**	P	**Pn**	**06 19 27.7**	**+0.3**
KHZ	**Kahutara**	**4.96 201**	P	**Pn**	**06 19 32.3**	**+0.9**
KHZ	**Kahutara**	**4.96 201**	S	**S**	**06 20 32.3**	**-0.9**
KHZ	**Kahutara**	**4.96 201**	P	**Pn**	**06 19 32.4**	**+0.9**
DSZ	**Denniston Nort**	**5.07 218**	P	**Pn**	**06 19 32.6**	**-0.2**
GVZ	**Greta Valley S**	**5.62 203**	P	**Pn**	**06 19 39.8**	**+0.7**
LTZ	**Lake Taylor**	**5.71 209**	P	**Pn**	**06 19 40.8**	**+0.5**
INZ	**Inchbonnie**	**6.00 214**	P	**Pn**	**06 19 44.0**	**+0.2**
OXZ	**Oxford**	**6.27 207**	P	**Pn**	**06 19 46.9**	**0.0**
OKCZ	**Okains Bay**	**6.30 200**	P	**Pn**	**06 19 48.1**	**+0.7**
WVZ	**Waitaha Valley**	**6.60 216**	P	**Pn**	**06 19 50.6**	**-0.3**
MHCZ	**Mount Hutt**	**6.62 209**	P	**Pn**	**06 19 51.1**	**-0.2**
ARCZ	**Arundel**	**7.12 209**	P	**Pn**	**06 19 57.3**	**0.0**
TMZ	**Timaru**	**7.56 208**	P	**Pn**	**06 20 03.2**	**+0.6**
ODZ	**Otahua Downs**	**8.26 207**	P	**Pn**	**06 20 12.1**	**+0.9**
ODZ	**Otahua Downs**	**8.26 207**	P	**Pn**	**06 20 12.0**	**+0.8**
JCZ	**Jackson Bay**	**8.29 219**	P	**Pn**	**06 20 12.2**	**+0.5**
JCZ	**Jackson Bay**	**8.29 219**	P	**Pn**	**06 20 12.1**	**+0.4**
SYZ	**Scrubby Hill**	**10.08 208**	P	**Pn**	**06 20 34.8**	**+1.2**
SYZ	**Scrubby Hill**	**10.08 208**	P	**P**	**06 20 37.8**	**+0.7**

*MOS **08** 06:31:12.1±1.1, 1°.03N×28°.22W, h12km, mb5.3/50, MS4.5/7, Error ellipse: s-maj=11.3km s-min=4.7km az=53.9*

*IDC **08** 06:31:12.0±0.4, 1°.00N×28°.15W, h0km, mb4.5/30, mbtmp4.5/31, ML4.9/1, MS4.5/76, Error ellipse: s-maj=17.2km s-min=9.5km az=136.0*

*GFZ **08** 06:31:14.9, 1°.09N×28°.26W, h15km, Mw5.3/136, Moment Tensor Solution. Moment tensor: Scale 10^17^Nm; Mrr=0.10; Mθθ0.21; Mϕϕ-0.10; Mrθ-0.01; Mθϕ-0.97; Mϕr0.19; Fault plane solution: M0 1.00648×10^17^ NP1: ϕs=175.18292°, δ87.90763°, λ-10.97039°. NP2: ϕs=265.58842°, δ79.03701°, λ-177.86872°. Principal axes: T 1.0498, Plg6.2379°, Azm220.8906°; N -0.0931, Plg78.8343°, Azm344.5162°; P -0.9567, Plg9.2238°, Azm129.8735°;*

*NEIC **08** 06:31:14.5±0.8, 0°.99N±0°.09×28°.25W±0°.08, h10km±1km, mb5.1/151, Mww5.3/27 Error ellipse: s-maj=15.2km s-min=12.7km az=144.0*

*GFZ **08** 06:31:14.7±0.2, 1°N±5°×2°8W±°, h10km, M4.9/28, mb4.9/28*

*INMG **08** 06:31:15.0±3.0, 0°.97N×28°.26W, h10km, M4.9, mb5.2, Ms4.5, #DIST_RANGE: DISTANT*

*GCMT **08** 06:31:16.5±0.1, 1°.02N±0°.01×28°.08W±0°.01, h15km, MW5.3/150, Moment Tensor Solution. s107,c177; s150,c285; Duration: 1s1 Moment tensor: Scale 10^17^ Nm; Mrr-0.10±.01; Mθθ0.31±.02; Mϕϕ-0.20±.01; Mrθ0.13±.03; Mθϕ-1.20±.02; Mϕr0.01±.03; Best double couple: M0 1.23500×10^17^ NP1:ϕs174.00000°, δ84.00000°, λ-1.00000°. NP2:ϕs264.00000°, δ89.00000°, λ-174.00000°. Principal axes: T 1.2870, Plg4.0000°, Azm39.0000°; N -0.1040, Plg84.0000°, Azm270.0000°; P -1.1830, Plg5.0000°, Azm129.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*BGR **08** 06:31:18.0, 1°.10N×27°.20W, h10km, mb5.0, Ms4.5*

ISC 08 06:31:14.7±0.3, 0°.96N±0°.05×28°.22W±0°.05, h17km, n601, σ1s22/554, mb5.0/207, MS4.5/83, 53C-17D, Central Mid-Atlantic Ridge

2020 NOV

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res
NBPV	**Pedro Velho**	**10.18**	**224**	*eP*	**Pn**	**06 33 37.8**	**-2.4**
RCBR	**Riachuelo**	**10.21**	**229**	Pn	**Pn**	**06 33 38.1**	**-2.6**
	9.4nm,0.3s,baz=47,slow=19,SNR=83						
RCBR				Sn	Sn	06 35 24.5	-10
	baz=18,slow=20						
RCBR				LR	LR	06 36 41.3	
	comp=Z,2µm,21.6s,baz=52,slow=32						
	26nm,0.3s						
RCBR				AML	AML		
RCBR	**Riachuelo**	**10.21**	**229**		**Pn**	**06 33 39.4**	**-1.3**
RCBR	**Riachuelo**	**10.21**	**229**	P	**Pn**	**06 33 39.6**	**-1.1**
	comp=Z,203nm,0.7s						
RCBR	**Riachuelo**	**10.21**	**229**	*eP*	**Pn**	**06 33 38.9**	**-1.8**
NBPA	**Parau_RN**	**11.11**	**233**	*eP*	**Pn**	**06 33 50.8**	**-2.1**
NBMO	**Morrinhos-CE**	**12.56**	**250**	*eP*	**Pn**	**06 34 10.2**	**-2.6**
NBMA	**Muriti-CE**	**13.38**	**232**	*eP*	**Pn**	**06 34 22.4**	**-1.7**
NBTA	**Tacaratu-PE**	**14.02**	**224**	*eP*	**Pn**	**06 34 32.6**	**-0.2**
NBPS	**Pedro II - PI**	**14.25**	**248**	*eP*	**Pn**	**06 34 34.6**	**-1.4**
SACV	**Santiago Islan**	**14.64**	**18**	Pn	**Pn**	**06 34 38.8**	**-2.5**
SACV	**Santiago Islan**	**14.64**	**18**	P	**Pn**	**06 34 38.3**	**-3.0**
	comp=Z,608nm,0.7s						
H10N3	**ASCENSION HYDR**	**16.24**	**123**	Pn	**Pn**	**06 35 01.7**	**-0.3**
	baz=327,slow=19						
H10N3				T	T	06 51 28.4	
	baz=302,slow=74,SNR=1114						
H10N2	**ASCENSION HYDR**	**16.24**	**123**	Pn	**Pn**	**06 35 01.7**	**-0.3**
	baz=327,slow=19						
H10N2				T	T	06 51 22.0	
	baz=302,slow=74,SNR=742						
H10N1	**ASCENSION HYDR**	**16.26**	**123**	Pn	**Pn**	**06 35 02.0**	**-0.3**
	baz=327,slow=19						
H10N1				T	T	06 51 23.1	
	baz=302,slow=74,SNR=735						
ASCN	**Ascension**	**16.40**	**123**	Pn	**Pn**	**06 35 04.9**	**+0.6**
H10S3	**ASCENSION HYDR**	**16.72**	**126**	Pn	**Pn**	**06 35 07.2**	**-0.9**
	baz=326,slow=74						
H10S3				T	T	06 52 05.2	
	baz=304,slow=74,SNR=1180						
H10S2	**ASCENSION HYDR**	**16.73**	**126**	Pn	**Pn**	**06 35 06.9**	**-1.5**
	baz=254,slow=74						
H10S2				T	T	06 52 06.6	
	baz=276,slow=74,SNR=349						
NBIT	**Itapeh - BA**	**19.30**	**215**	*eP*	**P**	**06 35 39.5**	**+0.4**
CMC01	**Camacan, BA**	**19.69**	**214**	*eP*	**Pn**	**06 35 44.8**	**-0.1**
GUA01	**Guaratinga, BA**	**20.85**	**213**	*eP*	**P**	**06 35 56.5**	**+0.6**
SDBA	**SAO DESIDERIO**	**21.23**	**231**	*eP*	**P**	**06 35 59.5**	**-0.6**
SMTB	**Santa Maria do**	**21.63**	**243**		**P**	**06 36 04.8**	**+0.4**
SMTB				IAmb	IAmb	06 36 14.4	
	comp=Z,160nm,1.5s						
SMTB	**Santa Maria do**	**21.63**	**243**	*eP*	**P**	**06 36 04.3**	**-0.1**
ARCA	**Araçuai, MG**	**22.29**	**217**	*eP*	**P**	**06 36 11.7**	**+0.2**
BSFB	**Barra de Sao F**	**23.26**	**212**	P	**P**	**06 36 23.1**	**+1.6**
	comp=Z,50nm,1.0s						
BSFB	**Barra de Sao F**	**23.26**	**212**	*eP*	**P**	**06 36 23.1**	**+1.6**
SJMB	**Sao Joao De Ma**	**23.33**	**212**	*eP*	**P**	**06 36 23.4**	**+1.1**
RIB01	**Linhares ES**	**23.43**	**210**	*eP*	**P**	**06 36 24.8**	**+1.5**
DBIC	**Dimbokro**	**23.98**	**76**	P	**P**	**06 36 27.6**	**-1.1**
	comp=Z,86nm,0.8s,baz=256,slow=11,SNR=82						
DBIC				LR	LR	06 43 22.1	
	comp=Z,960nm,20.1s,baz=256,slow=30						
	comp=Z,86nm,0.8s						
DBIC	**Dimbokro**	**23.98**	**76**	P	**P**	**06 36 27.9**	**-0.8**
DBIC				pmax	pmax		
	comp=Z,109nm,0.9s						
DBIC	**Dimbokro**	**23.98**	**76**		**P**	**06 36 27.9**	**-0.8**
DIAM	**Diamantina, MG**	**24.44**	**218**	*eP*	**P**	**06 36 33.7**	**+0.7**
MDP	**Montagnes des**	**24.73**	**280**	LR	LR	06 44 13.9	
	comp=Z,305nm,19.3s,baz=86,slow=32						
BDFB	**Brasilia**	**25.59**	**229**	P	**P**	**06 36 43.5**	**+0.1**
	comp=Z,8.7nm,0.7s,baz=52,slow=14,SNR=21						
BDFB				LR	LR	06 45 42.5	
	comp=Z,3µm,20.2s,baz=59,slow=34						
	comp=Z,8.7nm,0.7s						
BDFB	**Brasilia**	**25.59**	**229**	P	**P**	**06 36 43.5**	**+0.1**
BDFB				pmax	pmax		
	comp=Z,38nm,1.4s						
BDFB	**Brasilia**	**25.59**	**229**		**P**	**06 36 43.5**	**+0.1**
CAM01	**Campos-RJ**	**26.18**	**209**	*eP*	**P**	**06 36 49.0**	**+0.5**
SNDB	**Serra Nova Dou**	**26.28**	**240**	*eP*	**P**	**06 36 49.2**	**-0.4**
PMNB	**Patos De Minas**	**26.39**	**222**	P	**P**	**06 36 52.6**	**+2.0**
	comp=Z,35nm,1.4s						
PMNB	**Patos De Minas**	**26.39**	**222**	*eP*	**P**	**06 36 51.2**	**+0.6**
BSCB	**Bom Sucesso**	**27.18**	**216**	P	**P**	**06 36 58.2**	**+0.5**
	comp=Z,20nm,1.2s						
BSCB	**Bom Sucesso**	**27.18**	**216**	*eP*	**P**	**06 36 57.9**	**+0.2**
IPMB	**Ipameri, GO**	**27.23**	**225**	*eP*	**P**	**06 36 57.8**	**-0.4**
VAS01	**Vassouras-RJ**	**27.46**	**212**	*eP*	**P**	**06 37 01.8**	**+1.7**
CANS	**Sao Roque de M**	**27.62**	**219**	*eP*	**P**	**06 37 01.4**	**-0.3**
ITTB	**Itaituba**	**28.00**	**259**	*eP*	**P**	**06 37 04.8**	**-0.2**
NPGB	**Novo Progresso**	**28.22**	**253**	*eP*	**P**	**06 37 07.8**	**+0.7**
ACRG	**Accra**	**28.34**	**80**	P	**P**	**06 37 07.7**	**-0.4**
ARAG	**Araguaiana, MT**	**28.60**	**234**	*eP*	**P**	**06 37 10.8**	**+0.5**
CLDB	**Colider**	**29.84**	**246**	P	**P**	**06 37 21.9**	**+0.4**
	comp=Z,6.7nm,2.2s						
CLDB	**Colider**	**29.84**	**246**	*eP*	**P**	**06 37 21.7**	**+0.3**
PDRB	**Porto dos Gac**	**30.96**	**245**	*eP*	**P**	**06 37 31.9**	**+0.6**
PCMB	**Pacaembu**	**31.78**	**224**	P	**P**	**06 37 39.7**	**+1.2**
	comp=Z,16nm,1.7s						
PCMB	**Pacaembu**	**31.78**	**224**	*eP*	**P**	**06 37 39.6**	**+1.1**
SALV	**Santo Antonio**	**31.89**	**237**	*eP*	**P**	**06 37 40.3**	**+0.7**
TORD	**Torodi Ar. Bea**	**32.01**	**66**	P	**P**	**06 37 39.6**	**-1.0**
	comp=Z,34nm,0.8s,baz=255,slow=11,SNR=134						
TORD				LR	LR	06 48 37.2	
	comp=Z,974nm,21.2s,baz=244,slow=33						
	comp=Z,34nm,0.8s						
TORD	**Torodi Ar. Bea**	**32.01**	**66**	P	**P**	**06 37 39.8**	**-0.7**
PP1B	**Ponte de Pedra**	**32.09**	**234**	*eP*	**P**	**06 37 42.5**	**+1.3**
BOAV	**Boa Vista**	**32.32**	**273**		**P**	**06 37 42.8**	**-0.5**
BOAV	**Boa Vista**	**32.32**	**273**	*eP*	**P**	**06 37 44.1**	**+0.8**
LDASE	**Londrina, Braz**	**32.90**	**221**	*eP*	**P**	**06 37 49.9**	**+1.6**
PMOZ	**Porto Moniz, M**	**33.35**	**17**	P	**P**	**06 37 52.2**	**0.0**
PMOZ	**Porto Moniz, M**	**33.35**	**17**	*e*LR	LR	06 46 33.9	
PMOZ				IAMs_20	IAMs_20	06 48 03.2	
	comp=Z,900nm,22.0s						
AQDB	**Aquidauana**	**34.32**	**230**		**P**	**06 38 00.7**	**0.0**
AQDB	**Aquidauana**	**34.32**	**230**	P	**P**	**06 38 01.7**	**+1.0**
	comp=Z,11nm,1.3s						
AQDB	**Aquidauana**	**34.32**	**230**	*eP*	**P**	**06 38 01.4**	**+0.7**
VILB	**Vilhena**	**34.60**	**245**		**P**	**06 38 03.5**	**+0.2**
VILB				IAmb	IAmb	06 38 07.0	
	comp=Z,40nm,1.3s						
VILB	**Vilhena**	**34.60**	**245**	*eP*	**P**	**06 38 03.5**	**+0.2**
PTLB	**Pontes e Lacer**	**34.64**	**241**		**P**	**06 38 04.0**	**+0.5**
PTLB	**Pontes e Lacer**	**34.64**	**241**	*eP*	**P**	**06 38 04.2**	**+0.8**
H05S1	**Guadeloupe/Mar**	**34.91**	**294**	T	T	07 15 07.0	
BDQN	**Bodoquena, MS**	**35.12**	**231**	*eP*	**P**	**06 38 08.6**	**+1.0**
CXM	**Morne La Croix**	**35.34**	**295**		**P**	**06 38 09.8**	**+0.1**
SVN	**Savane Anatole**	**35.35**	**295**	P	**P**	**06 38 09.3**	**-0.4**
COIM	**Forte Coimbra**	**35.65**	**233**	*eP*	**P**	**06 38 13.2**	**+1.1**
H05N1	**Guadeloupe/Mar**	**35.77**	**297**	T	T	07 16 17.7	
TIO	**Tiouine**	**35.81**	**32**	P	**P**	**06 38 14.3**	**+0.7**
	comp=Z,41nm,2.0s						
ITAB	**Concordia**	**36.27**	**218**	*eP*	**P**	**06 38 16.4**	**-1.0**
BBSD	**Serra de San D**	**36.66**	**239**	*eP*	**P**	**06 38 22.2**	**+1.3**
ANWB	**Willy Bob**	**36.93**	**299**	P	**P**	**06 38 22.2**	**-1.0**
ANWB				IAmb	IAmb	06 38 30.9	
	comp=Z,44nm,0.7s						
CNLB	**Canela**	**37.08**	**214**	*eP*	**P**	**06 38 23.1**	**-1.2**
SJPY	**San Joaquin**	**37.35**	**224**	*eP*	**P**	**06 38 27.7**	**+1.1**
AVE	**Averroes**	**37.64**	**29**	P	**P**	**06 38 28.9**	**-0.1**
AVE				IAmb	IAmb	06 38 42.6	
	comp=Z,25nm,0.9s						
EDA	**Edea**	**38.44**	**85**	P	**P**	**06 38 35.2**	**-0.8**
MD01	**Midelt array s**	**38.66**	**32**		**P**	**06 38 38.1**	**+0.4**
MD31	**MD31**	**38.66**	**32**		**P**	**06 38 37.6**	**-0.1**
MDT	**Midelt**	**38.70**	**33**	LR	LR	06 53 58.1	
	comp=Z,1µm,18.4s,baz=240,slow=35						
IFR	**Ifrane**	**38.96**	**31**	P	**P**	**06 38 39.9**	**-0.4**
	comp=Z,4.5nm,1.2s						
CPUP	**Villa Florida**	**39.05**	**224**	P	**P**	**06 38 41.9**	**+0.9**
	comp=Z,7.3nm,1.1s,baz=52,slow=13,SNR=16						
CPUP				LR	LR	06 54 30.3	
	comp=Z,3µm,19.1s,baz=58,slow=36						
	comp=Z,7.3nm,1.1s						
CPUP	**Villa Florida**	**39.05**	**224**	P	**P**	**06 38 41.4**	**+0.4**
CPUP				pmax	pmax		
	comp=Z,52nm,1.7s						
CPUP	**Villa Florida**	**39.05**	**224**		**P**	**06 38 41.4**	**+0.4**
CPUP	**Villa Florida**	**39.05**	**224**	P	**P**	**06 38 42.6**	**+1.7**
	comp=Z,19nm,1.7s						
CPUP	**Villa Florida**	**39.05**	**224**	*eP*	**P**	**06 38 42.1**	**+1.2**
TAM	**Tamanrasset**	**39.31**	**54**	P	**P**	**06 38 43.7**	**+0.3**
TAM				pmax	pmax		
	comp=Z,255nm,1.8s						
TAM	**Tamanrasset**	**39.31**	**54**		**P**	**06 38 43.7**	**+0.3**
TAM	**Tamanrasset**	**39.31**	**54**	P	**P**	**06 38 44.0**	**+0.6**
	comp=Z,36nm,1.4s						
CPSB	**Cacapava Do Su**	**39.37**	**215**		**P**	**06 38 44.8**	**+1.3**
CPSB	**Cacapava Do Su**	**39.37**	**215**	*eP*	**P**	**06 38 45.1**	**+1.6**
MORF	**Marmelete**	**40.42**	**24**	*eP*	**P**	**06 38 53.1**	**+0.8**
MORF				IAmb	IAmb	06 38 53.5	
	comp=Z,36nm,1.0s						
MORF	**Marmelete**	**40.42**	**24**	*eP*	**P**	**06 38 53.1**	**+0.8**
MORF	**Marmelete**	**40.42**	**24**	*eP*	**P**	**06 38 53.0**	**+0.8**
MORF				IAmb	IAmb	06 39 13.1	
	comp=Z,83nm,1.7s						
PTEO	**Sao Teotonio**	**40.60**	**24**	*eP*	**P**	**06 38 54.5**	**+0.9**
PTEO				IAmb	IAmb	06 39 12.8	
	comp=Z,109nm,1.4s						
H09N1	**TRISTAN DA CUN**	**40.61**	**160**	T	T	07 22 32.2	
	SNR=20						
H09W1	**TRISTAN DA CUN**	**40.63**	**160**	T	T	07 22 16.1	
	SNR=15						
PBDV	**Barranco-do-Ve**	**40.67**	**25**	*eP*	**P**	**06 38 55.4**	**+1.1**
PBDV				IAmb	IAmb	06 39 12.3	
	comp=Z,102nm,1.5s						
ITQB	**Itaqui**	**40.78**	**219**	*eP*	**P**	**06 38 56.3**	**+1.0**
PVAQ	**Vaqueiros**	**40.90**	**25**	*eP*	**P**	**06 38 57.6**	**+1.4**
PVAQ				*e*S	**S**	**06 45 12.8**	**+5.7**
PVAQ				*e*LR	LR	06 50 18.5	
PVAQ				IAMs_20	IAMs_20	06 53 09.7	
	comp=Z,563nm,18.0s						
PCVE	**Castro Verde**	**40.95**	**25**	*eP*	**P**	**06 38 57.7**	**+1.1**
PCVE				IAmb	IAmb	06 39 08.6	
	comp=Z,66nm,1.8s						
SJG	**San Juan**	**40.96**	**297**	LR	LR	06 52 16.9	
	comp=Z,623nm,21.8s,baz=110,slow=31						
SJG	**San Juan**	**40.96**	**297**	P	**P**	**06 38 57.0**	**+0.1**
SJG				pmax	pmax		
	comp=Z,29nm,1.2s						
SJG	**San Juan**	**40.96**	**297**	P	**P**	**06 38 57.0**	**+0.1**
GCPR	**Guaynabo City**	**40.97**	**297**	P	**P**	**06 38 57.5**	**+0.5**
MESJ	**Messejana**	**41.06**	**24**	*eS*	**S**	**06 45 11.8**	**+2.4**
MESJ	**Messejana**	**41.06**	**24**	P	**P**	**06 38 58.9**	**+1.4**
MESJ				pmax	pmax		
	comp=Z,29nm,1.9s						
MESJ	**Messejana**	**41.06**	**24**	P	**P**	**06 38 58.9**	**+1.4**
MESJ	**Messejana**	**41.06**	**24**	*eP*	**P**	**06 38 58.2**	**+0.7**
ECPR	**Experimental S**	**41.22**	**297**	P	**P**	**06 38 59.1**	**+0.1**
ECPR				IAmb	IAmb	06 39 13.5	
	comp=Z,33nm,0.9s						
CELP	**Cerrillos**	**41.33**	**297**	P	**P**	**06 38 59.9**	**0.0**
PBEJ	**Beja**	**41.36**	**25**	*eP*	**P**	**06 39 00.9**	**+1.0**
EVO	**Evora**	**41.73**	**24**	*eP*	**P**	**06 39 04.2**	**+1.2**
EVO				IA

ROSC El Rosal 46.19 276 P P 06 39 39.1 -0.6
ROSC IAmb IAmb 06 39 46.4
comp=Z,25nm,1.3s
PB02 IPOC Station P 46.35 239 P P 06 39 39.7 -0.8
PB02 IAmb IAmb 06 39 44.2
comp=Z,16nm,1.1s
LODA1 ITESIL, Dajabo 46.39 296 P P 06 39 40.3 -0.4
PB07 IPOC Station P 46.50 238 P P 06 39 41.4 -0.3
PB07 IAmb IAmb 06 40 04.3
comp=Z,15nm,1.0s
SJCC San Jacinto, C 47.53 282 P P 06 39 49.4 -0.4
SJCC IAmb IAmb 06 40 43.7
comp=Z,23nm,1.5s
ATE Arette 48.62 27 P P 06 39 59.5 +1.8
comp=Z,37nm,1.7s
KEST Kesra 49.12 41 P P 06 40 01.7 0.0
comp=Z,7.3nm,0.7s,baz=257,slow=5.0,SNR=10
KEST LR LR 07 00 31.0
comp=Z,942nm,21.8s,baz=234,slow=36
comp=Z,7.3nm,0.7s
KEST Kesra 49.12 41 P 06 40 02.1 +0.4
KEST IAmb IAmb 06 40 09.4
comp=Z,22nm,0.8s
CEST Esterri de Car 49.16 29 P P 06 40 02.9 +0.9
CEST IAmb IAmb 06 40 03.8
comp=Z,21nm,0.9s
TSUM Tsumeb 49.21 117 LR LR 06 57 36.8
comp=Z,256nm,18.7s,baz=309,slow=32
TSUM Tsumeb 49.21 117 P P 06 40 03.2 +0.4
TSUM IAmb IAmb 06 40 14.2
comp=Z,21nm,1.4s
TSUM Tsumeb 49.21 117 P P 06 40 03.2 +0.4
comp=Z,11nm,1.6s
NMDO Nuevo Mundo 49.63 296 P P 06 40 05.7 -0.1
NMDO IAmb IAmb 06 40 36.3
comp=Z,52nm,1.4s
CFA Coronel Fontan 49.86 226 LR LR 07 01 30.5
comp=Z,1µm,18.6s,baz=30,slow=36
WIN Windhoek 49.95 121 P P 06 40 08.5 +0.1
WIN pmax pmax
comp=Z,53nm,1.7s
WIN Windhoek 49.95 121 P 06 40 08.5 +0.1
WIN IAmb IAmb 06 40 19.8
comp=Z,53nm,1.7s
WIN Windhoek 49.95 121 P P 06 40 09.6 +1.3
comp=Z,17nm,1.4s
NNA Nana 49.97 254 P P 06 40 08.1 -0.4
NNA pmax pmax
comp=Z,34nm,1.4s
NNA Nana 49.97 254 P P 06 40 08.1 -0.4
NNA IAmb IAmb 06 40 13.1
comp=Z,34nm,1.4s
OTAV Otavalo 50.23 270 P P 06 40 10.3 -0.7
OTAV pmax pmax
comp=Z,8.0nm,1.2s
OTAV Otavalo 50.23 270 P P 06 40 10.3 -0.7
OTAV Otavalo 50.23 270 P P 06 40 12.7 +1.6
comp=Z,6.8nm,1.4s
OTAV Otavalo 50.23 270 eP P 06 40 09.5 -1.5
ATAH Atahualpa 50.70 260 LR LR 07 01 45.6
comp=Z,292nm,18.1s,baz=78,slow=36
MT08 Bocatoma Ro 52.12 225 P P 06 40 25.6 +1.0
WDD Wied Dalam 52.67 44 P P 06 40 29.4 +1.0
CLTB Caltabellotta 52.72 41 P P 06 40 30.6 +1.8
comp=Z,72nm,0.9s
KOOLE Kule 52.77 120 P P 06 40 29.8 +0.3
KOOLE IAmb IAmb 06 40 57.2
comp=Z,24nm,1.2s
VAE Valguarnera 53.46 42 LR LR 07 04 03.1
comp=Z,992nm,18.5s,baz=202,slow=37
BNI Bardonecchia 53.63 30 P P 06 40 37.5 +2.0
comp=Z,18nm,1.7s
ML02 Panimavida 54.33 223 P P 06 40 40.9 +0.3
GIMEL St. Georges / 54.48 29 P P 06 40 42.1 +0.6
comp=Z,15nm,2.2s
SENIN Lac Senin/Sane 54.86 29 P P 06 40 44.7 +0.2
SENIN IAmb IAmb 06 41 07.2
comp=Z,19nm,1.1s
CEL Celeste 54.87 42 P P 06 40 44.7 +0.3
CEL IAmb IAmb 06 41 06.6
comp=Z,23nm,0.9s
CEL Celeste 54.87 42 P P 06 40 44.8 +0.3
comp=Z,27nm,0.9s
CEL Celeste 54.87 42 P P 06 40 45.4 +0.8
comp=Z,28nm,0.9s
CESX Cesi 55.25 36 P P 06 40 47.0 -0.1
CESX IAmb IAmb 06 40 58.1
comp=Z,17nm,1.2s
ZCCA Zocca 55.42 33 P P 06 40 48.7 +0.4
PAOL Paolisi 55.52 39 P P 06 40 49.0 -0.1
PAOL IAmb IAmb 06 41 00.7
comp=Z,22nm,1.3s
BOURR Bourrignon 55.55 29 P P 06 40 50.3 +1.0
comp=Z,26nm,1.6s
AQU L'Aquila 55.58 37 P P 06 40 49.9 +0.3
AQU pmax pmax
comp=Z,34nm,0.9s
AQU L'Aquila 55.58 37 P 06 40 49.9 +0.3
AQU L'Aquila 55.58 37 P P 06 40 49.8 +0.2
comp=Z,33nm,1.1s
AQU L'Aquila 55.58 37 P P 06 40 50.8 +1.2
comp=Z,41nm,1.1s
MURB Monte Urbino 55.61 35 P P 06 40 49.5 -0.3
MURB IAmb IAmb 06 41 11.5
comp=Z,38nm,1.3s
INTR Introdacqua 55.68 37 P 06 40 50.4 +0.1
INTR IAmb IAmb 06 41 03.6
comp=Z,41nm,1.4s
NRCA Norcia 55.70 36 P P 06 40 50.3 -0.2
NRCA IAmb IAmb 06 41 08.8
comp=Z,30nm,1.3s
CUC Castrocucco 55.74 40 P P 06 40 50.9 +0.1
CUC IAmb IAmb 06 41 07.6
comp=Z,19nm,1.2s
CUC Castrocucco 55.74 40 P P 06 40 51.2 +0.4
comp=Z,12nm,1.3s
FDMO Fiordimonte 55.80 36 P 06 40 50.9 -0.2
FDMO IAmb IAmb 06 41 04.0
comp=Z,26nm,1.3s
MARCO Tramutola 55.90 40 P P 06 40 52.8 +0.8
TIP Timpagrande 55.93 42 P 06 40 51.7 -0.4
TIP IAmb IAmb 06 40 54.3
comp=Z,20nm,1.1s
TIP Timpagrande 55.93 42 ⇑P P 06 40 52.4 +0.2
TIP Timpagrande 55.93 42 P P 06 40 51.5 -0.6
comp=Z,14nm,1.4s
TIP Timpagrande 55.93 42 P P 06 40 52.1 0.0
comp=Z,18nm,1.4s
TUE Stuetta 55.96 31 P 06 40 52.2 -0.1
TUE Stuetta 55.96 31 P P 06 40 52.3 -0.1
comp=Z,36nm,1.5s
TUE pP **pP 06 40 55.3 -1.3**
comp=Z,36nm,1.5s
TUE Stuetta 55.96 31 P P 06 40 52.5 +0.1
comp=Z,9.2nm,1.5s
GUMA Gualdo di Mace 55.96 36 P P 06 40 52.5 +0.2
ECH Echery 56.11 28 P P 06 40 53.6 +0.4
ECH pmax pmax
comp=Z,16nm,1.3s
ECH Echery 56.11 28 P 06 40 53.6 +0.4
SLE Schleitheim 56.42 29 P P 06 40 54.4 -1.0
comp=Z,9.3nm,0.9s
DAVOX Davos/Dischmat 56.44 31 LR LR 07 03 32.7
comp=Z,384nm,18.8s,baz=238,slow=34
TEOL Teolo 56.45 33 P P 06 40 55.4 -0.2
TEOL IAmb IAmb 06 41 05.9
comp=Z,30nm,1.1s
GO06 Curarrehue 56.48 219 P 06 40 56.1 0.0
GO06 IAmb IAmb 06 40 59.2
comp=Z,16nm,0.9s
GO06 Curarrehue 56.48 219 P P 06 40 57.1 +0.9
comp=Z,22nm,0.8s
FUORN Ofenpass-Fuorn 56.52 31 P 06 40 56.3 -0.2
FUORN Ofenpass-Fuorn 56.52 31 P P 06 40 55.6 -0.9
comp=Z,9.9nm,1.0s
PLCA Paso Flores 56.57 218 P P 06 40 57.2 +0.4
comp=Z,1.7nm,0.7s,baz=56,slow=7.8,SNR=5.9
PLCA LR LR 07 05 18.4
comp=Z,794nm,18.7s,baz=54,slow=36
comp=Z,1.7nm,0.7s
PLCA Paso Flores 56.57 218 P P 06 40 56.6 -0.1
PLCA pmax pmax
comp=Z,27nm,1.7s
PLCA Paso Flores 56.57 218 P P 06 40 56.6 -0.1
PLCA IAmb IAmb 06 40 58.1
comp=Z,26nm,1.6s

PLCA Paso Flores 56.57 218 eP P 06 40 57.8 +1.1
BATG Bathurst New B 56.64 330 P P 06 40 57.0 0.0
HRV Adam Dziewonsk 56.70 323 P P 06 40 57.7 +0.2
HRV pmax pmax
comp=Z,53nm,1.4s
HRV Adam Dziewonsk 56.70 323 P P 06 40 57.7 +0.2
WLF Walferdange 56.71 26 dP P 06 40 58.0 +0.6
WLF Walferdange 56.71 26 eP P 06 40 58.0 +0.6
comp=Z,25nm,1.6s,baz=226,slow=7.0
BFO Black Forest 56.74 28 iP P 06 40 59.0 +1.3
BFO Black Forest 56.74 28 eP P 06 40 58.1 +0.4
comp=Z,22nm,1.6s,baz=226,slow=7.0
DAVA Damuels 56.78 30 eP P 06 40 58.4 +0.3
comp=Z,26nm,1.0s
DAVA Damuels 56.78 30 P P 06 40 57.8 -0.3
comp=Z,32nm,1.1s
KDWAN Kaudwane 56.78 119 P P 06 40 58.7 +0.2
KDWAN IAmb IAmb 06 41 10.7
comp=Z,18nm,0.9s
CTI Castel Tesino 56.88 32 P P 06 40 58.9 +0.1
CTI pmax pmax
comp=Z,17nm,0.8s
CTI Castel Tesino 56.88 32 P 06 40 58.9 +0.1
CTI IAmb IAmb 06 41 09.0
comp=Z,17nm,0.8s
F64A Sherman 56.90 327 P P 06 40 58.9 +0.1
F64A IAmb IAmb 06 42 59.5
comp=Z,65nm,1.8s
SUR Sutherland 56.92 130 LR LR 06 59 38.6
comp=Z,354nm,21.8s,baz=305,slow=30
FETA Feichten 57.03 31 iP P 06 40 60.0 0.0
comp=Z,16nm,1.0s,SNR=16
JTS Las Juntas de 57.13 282 LR LR 07 06 02.7
comp=Z,180nm,20.2s,baz=103,slow=37
UBR Ueberruh 57.16 30 eP P 06 41 00.6 -0.2
comp=Z,44nm,1.5s,baz=226,slow=7.0
UBR Ueberruh 57.16 30 P P 06 41 00.4 -0.4
comp=Z,20nm,1.4s
MEM Membach 57.34 25 dP P 06 41 02.2 +0.4
comp=Z,8.9nm,1.2s
MEM Membach 57.34 25 P P 06 41 01.4 -0.4
comp=Z,16nm,1.3s
RETA Reutte 57.36 30 iP P 06 41 02.1 -0.1
comp=Z,7.3nm,1.0s
SQTA Sankt Quirin 57.41 31 iP P 06 41 02.6 0.0
comp=Z,21nm,1.1s,SNR=10
MOTA Moosalm 57.44 31 eP P 06 41 02.6 -0.2
comp=Z,10nm,1.0s,SNR=5.5
STU Stuttgart 57.46 28 P P 06 41 03.4 +0.7
STU pmax pmax
comp=Z,12nm,1.2s
STU Stuttgart 57.46 28 P P 06 41 03.4 +0.7
STU Stuttgart 57.46 28 eP P 06 41 03.0 +0.3
comp=Z,22nm,1.2s,baz=226,slow=7.0
STAL STALIGIAL 57.58 33 P P 06 41 04.3 +0.6
STAL IAmb IAmb 06 41 19.3
comp=Z,29nm,1.1s
WTTA Wattenberg 57.66 31 eP P 06 41 04.5 +0.1
comp=Z,18nm,1.4s
WATA Walderalm 57.67 31 eP P 06 41 04.2 -0.3
comp=Z,18nm,1.3s
ABTA Abfaltersbach 57.78 32 iP P 06 41 05.5 +0.4
comp=Z,40nm,1.3s,SNR=22
TRI Trieste 57.81 34 P P 06 41 05.4 +0.1
TRI pmax pmax
comp=Z,28nm,1.1s
TRI Trieste 57.81 34 P P 06 41 05.4 +0.1
TRI IAmb IAmb 06 41 16.5
comp=Z,28nm,1.1s
HNH Hanover 57.82 323 P P 06 41 05.4 0.0
HNH IAmb IAmb 06 41 11.2
comp=Z,28nm,1.3s
ODNJ Ogdensburg 57.84 320 P P 06 41 05.9 +0.4
ODNJ IAmb IAmb 06 41 15.0
comp=Z,32nm,1.4s
T59A Double "B" Far 57.87 314 P P 06 41 05.8 0.0
T59A IAmb IAmb 06 41 11.1
comp=Z,16nm,1.1s
SABO M.te Sabotino 57.89 33 P 06 41 06.6 +0.8
SABO IAmb IAmb 06 41 17.5
comp=Z,32nm,1.0s
EKA Eskdalemuir Ar 57.91 17 P P 06 41 05.1 -0.7
comp=Z,4.5nm,1.0s,baz=209,slow=5.7,SNR=4.0
EKA LR LR 07 01 58.5
comp=Z,566nm,19.4s,baz=212,slow=32
comp=Z,4.5nm,1.0s
FUR Furstenfeldbru 58.07 30 eP P 06 41 07.2 +0.2
comp=Z,82nm,1.7s,baz=226,slow=7.0
JAVS Javornik 58.09 34 eP P 06 41 07.8 +0.4
LBTB Lobatse 58.09 120 LR LR 07 02 15.7
comp=Z,99nm,19.5s,baz=283,slow=32
TNS Taunus Mts 58.13 27 eP P 06 41 08.0 +0.4
comp=Z,15nm,1.2s,baz=226,slow=7.0
PRED Cave del Predi 58.16 33 IAmb IAmb 06 41 21.1
comp=Z,36nm,1.5s
CEY Cerknica 58.20 34 eP P 06 41 08.3 +0.2
GBRS Gornja Briga 58.29 34 eP P 06 41 09.3 +0.6
LESA Schwarzleotal 58.30 32 iP P 06 41 08.6 -0.2
comp=Z,32nm,1.0s
CRNS Crni Vrh 58.31 34 eP P 06 41 09.3 +0.5
MYKA Terra Mystica 58.31 33 eP P 06 41 09.8 +0.9
comp=Z,25nm,1.6s,SNR=7.5
KBA Koelnbreinsper 58.43 32 eP P 06 41 09.8 0.0
comp=Z,9.7nm,1.2s
BUG Bochum--Univer 58.50 25 eP P 06 41 10.6 +0.7
comp=Z,232nm,2.8s,baz=226,slow=7.0
ITM Ithomi 58.55 46 P P 06 41 10.8 +0.2
RJOB Jochberg 58.56 31 P P 06 41 10.7 +0.1
comp=Z,9.3nm,0.7s
OBKA Obir 58.73 33 eP P 06 41 12.8 +0.9
comp=Z,11nm,1.2s
LL02 Futaleuf 58.81 216 P 06 41 11.7 -0.6
LL02 IAmb IAmb 06 41 23.8
comp=Z,13nm,0.9s
KASTN Kahler Asten 58.82 26 eP P 06 41 12.7 +0.4
comp=Z,12nm,1.2s,baz=226,slow=7.0
KSPA Keystone Colle 58.83 320 P 06 41 12.7 +0.1
KSPA IAmb IAmb 06 41 21.8
comp=Z,20nm,1.2s
BIOA Bad Ischl, Aus 58.98 32 eP P 06 41 12.8 -0.6
comp=Z,23nm,1.7s,SNR=9.4
MBAR Mbarara 58.98 91 LR LR 07 04 00.2
comp=Z,392nm,18.3s,baz=262,slow=33
BOSA Boshof 58.99 124 P P 06 41 13.1 -0.9
comp=Z,6.7nm,0.7s,baz=291,slow=9.9,SNR=13
BOSA LR LR 07 01 33.3
comp=Z,637nm,21.5s,baz=282,slow=31
comp=Z,6.7nm,0.7s
BOSA Boshof 58.99 124 P P 06 41 13.5 -0.5
BOSA pmax pmax
comp=Z,61nm,1.9s
BOSA Boshof 58.99 124 P P 06 41 13.5 -0.5
J59A Piesco 59.03 322 P P 06 41 13.7 -0.2
J59A IAmb IAmb 06 41 18.7
comp=Z,20nm,1.2s
GRA1 Grafenberg Arr 59.06 29 P 06 41 14.4 +0.4
GRA1 IAmb IAmb 06 41 41.3
comp=Z,20nm,1.2s
GRF Grafenberg Arr 59.06 29 P P 06 41 14.4 +0.4
GRF pmax pmax
comp=Z,20nm,1.2s
GRF Grafenberg Arr 59.06 29 eP P 06 41 13.7 -0.2
comp=Z,35nm,1.5s,baz=226,slow=7.0
GRF eL L 07 02 06.3
comp=Z,324nm,21.8s
SOKA Soboth 59.10 33 iP P 06 41 15.3 +0.9
comp=Z,14nm,1.0s,SNR=7.2
SESA Seetaler Alpe, 59.11 33 eP P 06 41 14.1 -0.5
comp=Z,3.2nm,1.2s
BLY Banja Luka 59.21 36 IAmb IAmb 06 41 32.5
comp=Z,21nm,1.2s
BLY Banja Luka 59.21 36 ⇓P P 06 41 14.6 -0.5
PDG Podgorica 59.23 39 ⇑P P 06 41 14.6 -0.6
IBBN Ibbenburen 59.34 25 eP P 06 41 16.4 +0.6
comp=Z,20nm,0.9s,baz=226,slow=7.0
MOA Molln 59.40 32 eP P 06 41 15.8 -0.5
comp=Z,13nm,1.5s
MATP Matopo 59.42 114 LR LR 07 02 15.4
comp=Z,371nm,20.7s,baz=280,slow=31
WETT Wettzell 59.51 30 eP P 06 41 16.6 -0.5
comp=Z,14nm,1.3s,baz=226,slow=7.0
ARSA Arzberg 59.71 33 IAmb IAmb 06 41 28.7
comp=Z,14nm,1.3s
ARSA Arzberg 59.71 33 eP P 06 41 18.8 +0.3
comp=Z,4.9nm,1.0s
GEC2 GERESS Array S 59.74 31 IAmb IAmb 06 41 29.8
comp=Z,19nm,1.1s

GEC2 GERESS Array S 59.74 31 eP P 06 41 18.8 +0.1
comp=Z,12nm,1.1s,baz=226,slow=7.0
GERES GERESS Array B 59.74 31 P P 06 41 18.3 -0.5
comp=Z,4.3nm,0.8s,baz=231,slow=6.2,SNR=45
GERES LR LR 07 06 02.0
comp=Z,266nm,19.8s,baz=250,slow=35
comp=Z,4.3nm,0.8s
GERES GERESS Array B 59.74 31 P P 06 41 18.9 +0.2
GERES GERESS Array B 59.74 31 P P 06 41 18.9 +0.2
GTTG Gottingen 59.75 27 eP P 06 41 19.4 +0.8
comp=Z,20nm,1.1s,baz=226,slow=7.0
KHC Kasperske Hory 59.85 30 ⇑iP P 06 41 18.6 -0.9
KHC pmax pmax
comp=Z,15nm,1.1s
KHC Kasperske Hory 59.85 30 IAmb IAmb 06 41 30.6
comp=Z,14nm,1.1s
KHC Kasperske Hory 59.85 30 eP P 06 41 19.2 -0.3
KHC Kasperske Hory 59.85 30 P P 06 41 19.6 +0.1
comp=Z,13nm,1.9s
MOX Moxa 59.89 28 eP P 06 41 20.1 +0.5
comp=Z,6.5nm,0.9s,baz=226,slow=7.0
MOX eL L 07 05 45.8
comp=Z,347nm,19.8s
CKRC Cesky Krumlov 60.03 31 eP P 06 41 20.6 -0.1
CKRC Cesky Krumlov 60.03 31 eP P 06 41 20.6 -0.1
PLN Plauen 60.04 29 eP P 06 41 20.9 +0.2
comp=Z,5.7nm,1.2s,baz=226,slow=7.0
CLZ Clausthal 60.14 27 eP P 06 41 22.1 +0.7
comp=Z,27nm,1.8s,baz=226,slow=7.0
TANN Tannenbergstha 60.14 29 eP P 06 41 21.8 +0.3
comp=Z,15nm,1.2s,baz=226,slow=7.0
CONA Conrad Observa 60.30 33 iP P 06 41 23.0 +0.3
comp=Z,13nm,1.4s,SNR=5.3
RETH Rethem/Aller, 60.33 25 eP P 06 41 23.6 +1.1
comp=Z,21nm,1.4s,baz=226,slow=7.0
NEUB Neuenburg 60.34 28 eP P 06 41 23.3 +0.6
comp=Z,15nm,1.0s,baz=226,slow=7.0
ZVC Zvikov 60.36 30 eP P 06 41 22.6 -0.3
RONA Rosalia, Austr 60.40 33 iP P 06 41 23.5 +0.3
comp=Z,13nm,1.0s,SNR=10
ABNA Allensteig Bun 60.52 32 eP P 06 41 24.6 +0.5
comp=Z,18nm,0.9s
WINA Alland / Wiene 60.52 33 eP P 06 41 24.7 +0.6
comp=Z,13nm,1.0s
TRQ Mont Tremblant 60.57 325 P 06 41 24.0 -0.5
TRQ IAmb IAmb 06 41 40.8
comp=Z,22nm,1.2s
HSKC Hora Svate Kat 60.73 29 eP P 06 41 23.7 -1.7
MPLH Magyarpolny 60.78 34 P P 06 41 25.6 -0.2
comp=Z,39nm,1.2s
MPLH pP **pP 06 41 28.9 -1.1**
comp=Z,39nm,1.2s
MMNY Mt. Morris Dam 60.80 320 P P 06 41 26.0 0.0
MMNY IAmb IAmb 06 41 31.5
comp=Z,24nm,1.1s
FLTG Flechtingen 60.86 27 eP P 06 41 26.7 +0.5
comp=Z,6.1nm,1.1s,baz=226,slow=7.0
MORH Mrgy, Hungar 60.88 35 ⇑P P 06 41 24.9 -1.6
PRU Pruhonice 60.88 30 eP P 06 41 31.9 +5.5
PRU Pruhonice 60.88 30 eP P 06 41 31.9 +5.5
TREC Trest 60.93 31 eP P 06 41 26.1 -0.7
TREC Trest 60.93 31 eP P 06 41 26.1 -0.7
CLL Collm 60.98 28 iP P 06 41 28.8 +1.7
CLL pmax pmax
comp=Z,24nm,1.6s
CLL MLR MLR
comp=Z,300nm,17.7s
CLL Collm 60.98 28 eP P 06 41 27.8 +0.8
comp=Z,7.3nm,1.3s,baz=226,slow=7.0
CLL Collm 60.98 28 iP P 06 41 28.8 +1.7
comp=Z,24nm,1.6s
CLL *i* x x 06 41 37.6
CLL *e*S **S 06 49 52.0 +7.2**
CLL *e*PS **PnS 06 50 00.0 +0.7**
CLL *e*SS **SS 06 53 36.0 -8.5**
CLL *e*SSS SSS 06 56 28.0
CLL LH 06 58 00.0
CLL LR LR 07 00 00.0
CLL AMS AMS 07 04 00.0
comp=N,300nm,20.5s
CLL AMS AMS 07 04 00.0
comp=E,200nm,19.2s
CLL AMS AMS 07 04 00.0
comp=Z,300nm,17.7s
ZST Bratislava 61.13 33 eP P 06 41 31.6 +3.4
ZST pmax pmax
comp=Z,5.0nm,1.1s
ZST Bratislava 61.13 33 eP P 06 41 31.6 +3.4
PVCC Panska Ves 61.24 30 eP P 06 41 29.2 +0.4
PVCC Panska Ves 61.24 30 eP P 06 41 29.2 +0.4
KRUC Moravsky 61.27 32 eP P 06 41 28.9 -0.2
MODS Modra-Piesok 61.33 33 eP P 06 41 30.1 +0.5
MODS pmax pmax
comp=Z,39nm,1.1s
MODS Modra-Piesok 61.33 33 eP P 06 41 30.1 +0.5
BOVS Bovan 61.39 39 ⇑P P 06 41 29.7 -0.3
SMOL Smolenice 61.49 33 eP P 06 41 31.4 +0.8
SMOL pmax pmax
comp=Z,3.0nm,1.1s
VRAC Vranov 61.52 32 LR LR 07 06 15.1
comp=Z,200nm,20.4s,baz=240,slow=34
VRAC Vranov 61.52 32 ⇑P P 06 41 29.6 -1.2
VRAC Vranov 61.52 32 eP P 06 41 30.9 +0.1
VRAC Vranov 61.52 32 ⇑P P 06 41 29.6 -1.2
SRO Srobarova 61.58 34 eP P 06 41 31.7 +0.5
SRO Srobarova 61.58 34 eP P 06 41 31.7 +0.5
BSEG Bad Segeberg 61.58 25 eP P 06 41 31.4 +0.3
comp=Z,21nm,1.2s,baz=226,slow=7.0
JAVC Velka Javorina 61.83 33 eP P 06 41 33.8 +0.9
N53A Lisbon 61.86 317 P P 06 41 32.6 -0.6
ERPA Erie 61.87 318 P P 06 41 33.1 -0.1
UPC Upice 61.95 30 eP P 06 41 34.5 +0.9
UPC Upice 61.95 30 eP P 06 41 34.5 +0.9
TKL Tuckaleechee C 61.95 310 LR LR 07 02 31.7
comp=Z,341nm,21.5s,baz=117,slow=30
MDVR Moldovita 61.96 38 ⇑P P 06 41 32.4 -1.5
BLKB Belogradchik 62.00 40 ⇑P P 06 41 34.5 +0.3
DPC Dobruska-Polom 62.01 31 eP P 06 41 34.3 +0.2
DPC Dobruska-Polom 62.01 31 eP P 06 41 34.3 +0.2
CHVC Chvalec 62.02 30 eP P 06 41 34.5 +0.4
CHVC Chvalec 62.02 30 eP P 06 41 34.5 +0.4
KRLC Kraliky 62.08 31 eP P 06 41 34.7 +0.1
KRLC Kraliky 62.08 31 eP P 06 41 34.7 +0.1
OSTC Ostas 62.08 30 eP P 06 41 34.8 +0.2
OSTC Ostas 62.08 30 eP P 06 41 34.8 +0.2
RUE Ruedersdorf 62.12 28 eP P 06 41 36.0 +1.3
comp=Z,9.9nm,0.7s,baz=226,slow=7.0
SCHQ Schefferville 62.25 336 P P 06 41 35.2 -0.4
comp=Z,7.2nm,0.9s,baz=134,slow=9.7,SNR=3.7
SCHQ LR LR 07 03 47.3
comp=Z,244nm,22.0s,baz=134,slow=31
comp=Z,7.2nm,0.9s
VYHS Vyhne 62.25 33 eP P 06 41 35.8 +0.1
VYHS pmax pmax
comp=Z,28nm,1.4s
O52A Adamsville 62.25 316 P P 06 41 35.8 -0.1
MORC Moravsky Berou 62.30 32 P P 06 41 36.2 +0.2
MORC pmax pmax
comp=Z,39nm,1.6s
MORC Moravsky Berou 62.30 32 P 06 41 36.2 +0.2
MORC IAmb IAmb 06 41 47.8
comp=Z,39nm,1.6s
MORC Moravsky Berou 62.30 32 eP P 06 41 36.8 +0.8
MORC Moravsky Berou 62.30 32 ⇓P P 06 41 33.8 -2.2
BZS Buzias 62.32 37 ⇑P P 06 41 35.4 -0.9
BZS Buzias 62.32 37 ⇑P P 06 41 35.4 -0.9
HERR Herculane 62.45 38 ⇑P P 06 41 36.4 -0.7
PSZ Piszkesteto 62.52 34 P P 06 41 38.4 +0.7
PSZ pmax pmax
comp=Z,30nm,0.9s
PSZ Piszkesteto 62.52 34 P 06 41 38.4 +0.7
PSZ Piszkesteto 62.52 34 ⇑P P 06 41 36.1 -1.5
SADO Sadowa 62.57 321 LR LR 07 03 25.5
comp=Z,302nm,20.6s,baz=139,slow=31
SURR Surduc 62.70 37 ⇑P P 06 41 38.1 -0.6
GZR Gura Zlata 62.92 38 ⇑P P 06 41 39.1 -1.2
GZR Gura Zlata 62.92 38 ⇑P P 06 41 39.1 -1.2
APG El Apazote 62.98 286 LR LR 07 08 00.8
comp=Z,20nm,21.4s,baz=302,slow=35
DRGR 63.57 37 ⇑P P 06 41 42.5 -2.1
DRGR 63.57 37 ⇑P P 06 41 42.5 -2.1
OJC Ojcow 63.74 32 P P 06 41 45.6 0.0
OJC Ojcow 63.74 32 P 06 41 45.6 0.0
MARR Marisel-Cluj 63.76 37 ⇑P P 06 41 44.3 -1.6

BORG Borgarnes 63.84 3 LR LR 07 04 28.2
comp=Z,131nm,18.2s,baz=180,slow=31
ARR Arges 64.06 39 ⇑P **P 06 41 47.6 -0.2**
VOIR 64.35 39 ⇑P **P 06 41 48.5 -1.3**
VOIR 64.35 39 ⇑P **P 06 41 48.5 -1.3**
KOLS Kolonicke sedl 64.41 34 *eP* **P 06 41 51.0 +1.0**
KOLS pmax pmax
comp=Z,4.0nm,0.7s
KOLS Kolonicke sedl 64.41 34 *eP* **P 06 41 51.0 +1.0**
LOZB Loznitsa 64.43 41 ⇓P **P 06 41 50.2 -0.1**
DOPR Dopca 64.80 38 ⇑P **P 06 41 51.6 -1.1**
MLR Muntele Rosu 64.94 39 LR LR 07 11 25.7
comp=Z,507nm,19.0s,baz=180,slow=37
MLR Muntele Rosu 64.94 39 P **P 06 41 53.7 0.0**
MLR pmax pmax
comp=Z,116nm,1.7s
MLR Muntele Rosu 64.94 39 **P 06 41 53.7 0.0**
MLR Muntele Rosu 64.94 39 ⇓P **P 06 41 52.0 -1.7**
ISP Isparta 65.10 48⇑ *eP* **P 06 41 57.3 +2.4**
ISP pmax pmax
comp=Z,29nm,1.8s
OZUR 65.11 38 ⇑P **P 06 41 53.7 -1.0**
ISR Istrita 65.15 40 ⇑P **P 06 41 53.8 -1.2**
ISR Istrita 65.15 40 ⇑P **P 06 41 53.8 -1.2**
COVR Voineasa-Covas 65.26 39 ⇑P **P 06 41 53.9 -1.8**
BISRR Bisoca 65.44 39 ⇑P **P 06 41 56.7 -0.2**
KONO Kongsberg 65.45 20⇑ *eP* **P 06 41 57.1 +0.6**
BURAR Bucovina Array 65.46 37 ⇑P **P 06 41 55.4 -1.7**
BURAR Bucovina Array 65.46 37 ⇑P **P 06 41 55.4 -1.7**
BUR08 Bucovina Ar. S 65.47 37 IAmb IAmb 06 42 10.0
comp=Z,27nm,1.4s
KMBO Kilima Mbogo 65.50 92 LR LR 07 06 46.0
comp=Z,377nm,20.1s,baz=278,slow=33
SAHR Sahastru 65.51 39 ⇓P **P 06 41 56.9 -0.4**
ICOR Ion Corvin 65.54 41 ⇑P **P 06 41 57.3 -0.1**
PLOR Plostina 65.54 39 ⇑P **P 06 41 56.9 -0.6**
PLOR Plostina 65.54 39 ⇑P **P 06 41 56.9 -0.9**
VRI Vrinceioaia 65.59 39 ⇑P **P 06 41 56.9 -0.9**
VRI Vrinceioaia 65.59 39 ⇑P **P 06 41 56.9 -0.9**
KEPZ Antalya-Kepez 65.61 50 ⇑P **P 06 41 58.1 -0.1**
ODBI Odobesti 65.76 39 ⇑P **P 06 41 58.6 -0.3**
TESR Tescani 65.83 38 ⇓P **P 06 41 57.7 -1.6**
HARR Harsova 65.86 40 ⇑P **P 06 41 58.7 -0.8**
HARR Harsova 65.86 40 ⇑P **P 06 41 58.7 -0.8**
CFR Carcaliu 66.20 40 ⇑P **P 06 42 00.4 -1.3**
CFR Carcaliu 66.20 40 ⇑P **P 06 42 00.4 -1.3**
TPGR Topolog 66.25 40 ⇑P **P 06 42 01.7 -0.3**
EIL Elat 66.36 58 LR LR 07 12 06.2
comp=Z,1μm,18.0s,baz=258,slow=37
MNTR Muntenesti 66.48 38 ⇑P **P 06 42 02.7 -0.8**
KMPD K-Podol'skiy 66.64 36 P **P 06 42 04.2 -0.2**
NOA NORSAR Array B 67.02 20 P **P 06 42 06.6 0.0**
comp=Z,3.8nm,0.9s,baz=223,slow=6.5,SNR=12
NOA LR LR 07 06 26.3
comp=Z,232nm,21.9s,baz=235,slow=32
comp=Z,3.8nm,0.9s
HFS Hagfors 67.24 21 P **P 06 42 07.5 -0.5**
comp=Z,2.5nm,0.9s,baz=227,slow=9.6,SNR=3.7
HFS LR LR 07 07 08.0
comp=Z,364nm,21.7s,baz=228,slow=32
comp=Z,2.5nm,0.9s
CMIG Matias Romero 67.44 288 LR LR 07 10 35.8
comp=Z,104nm,22.0s,baz=102,slow=35
MMAI Mount Meron Ar 67.53 55 P **P 06 42 09.9 -0.6**
comp=Z,0.9nm,0.3s,baz=224,slow=8.0,SNR=3.6
MMAI LR LR 07 13 15.1
comp=Z,422nm,18.4s,baz=281,slow=37
comp=Z,0.9nm,0.3s
RNPP5 Staryi Chortor 67.57 33 P **P 06 42 10.4 +0.1**
SORM Soroca 67.58 37 ⇑P **P 06 42 08.5 -1.9**
SORM Soroca 67.58 37 ⇑P **P 06 42 08.5 -1.9**
SORM Soroca 67.58 37 P **P 06 42 09.7 -0.7**
comp=Z,23nm,1.0s
RNPP8 Varash 67.60 33 P **P 06 42 10.6 +0.1**
RNPP9 Sopachiv 67.66 33 P **P 06 42 11.1 +0.3**
SFJD Kangerlussuaq 67.75 351 LR LR 07 05 56.3
comp=Z,384nm,18.9s,baz=163,slow=31
LUBAR Lubar, Ukraine 68.02 35 P **P 06 42 12.0 -1.1**
BR131 Keskin Array S 68.02 47 P **P 06 42 13.7 +0.1**
BR131 pmax pmax
comp=Z,13nm,0.8s
BR131 Keskin Array S 68.02 47 **P 06 42 13.7 +0.1**
BR131 IAmb IAmb 06 42 23.9
comp=Z,13nm,0.8s
BRTR Keskin Array B 68.02 47 P **P 06 42 13.4 -0.2**
comp=Z,7.3nm,0.8s,baz=242,slow=5.6,SNR=40
BRTR LR LR 07 12 55.8
comp=Z,420nm,20.7s,baz=244,slow=37
comp=Z,7.3nm,0.8s
BRTR Keskin Array B 68.02 47 P **P 06 42 13.6 +0.1**
BRTR Keskin Array B 68.02 47 P **P 06 42 13.6 +0.1**
KIRS Kirsehir-Merke 68.04 48 ⇑P **P 06 42 12.7 -1.0**
ILGA Ilgaz 68.49 46 IAmb IAmb 06 42 30.1
comp=Z,18nm,1.0s
ASF Jabal al Asfar 68.55 56 LR LR 07 14 11.1
comp=Z,546nm,18.1s,baz=223,slow=38
AK13 Malin Array Si 69.07 35 P **P 06 42 19.1 -0.6**
AK19 Malin Array Si 69.09 35 P **P 06 42 19.2 -0.6**
AK20 Malin Array Si 69.10 35 P **P 06 42 19.2 -0.7**
AK17 Malin Array Si 69.10 35 P **P 06 42 19.2 -0.7**
AK14 Malin Array Si 69.11 35 P **P 06 42 19.4 -0.5**
AK16 Malin Array Si 69.12 35 P **P 06 42 19.5 -0.5**
AK18 Malin Array Si 69.12 35 P **P 06 42 19.7 -0.3**
AK07 Malin Array Si 69.13 35 P **P 06 42 19.7 -0.3**
AK21 Malin Array Si 69.13 35 P **P 06 42 19.7 -0.4**
AK06 Malin Array Si 69.14 35 P **P 06 42 19.8 -0.3**
AK02 Malin Array Si 69.17 35 P **P 06 42 19.8 -0.5**
AK10 Malin Array Si 69.18 35 P **P 06 42 19.7 -0.6**
KIEV Kiev 69.19 35 P **P 06 42 20.7 +0.2**
KIEV pmax pmax
comp=Z,37nm,1.0s
KIEV Kiev 69.19 35 **P 06 42 20.7 +0.2**
KIEV Kiev 69.19 35 ⇑P **P 06 42 18.9 -1.5**
AKBB Malin Array Si 69.20 35*c i* P **P 06 42 20.5 0.0**
AKBB pmax pmax
comp=Z,52nm,1.2s
AKASG Malin Array Be 69.20 35 P **P 06 42 20.4 -0.2**
comp=Z,22nm,0.8s,baz=245,slow=6.1,SNR=14
AKASG LR LR 07 10 36.6
comp=Z,151nm,21.6s,baz=210,slow=34
comp=Z,22nm,0.8s
AKASG Malin Array Be 69.20 35 *i* P **P 06 42 19.3 -1.2**
AKASG pmax pmax
comp=Z,24nm,0.8s
R40A Maddies Statio 69.23 311 IAmb IAmb 06 42 35.0
comp=Z,11nm,0.9s
FRB Frobisher Bay 69.27 342 LR LR 07 07 43.0
comp=Z,145nm,20.2s,baz=142,slow=32
BNN Bunyan 69.40 49 P **P 06 42 22.2 +0.1**
BNN IAmb IAmb 06 42 32.5
comp=Z,18nm,0.9s
GAZ Gaziantep 69.99 51 **P 06 42 25.7 -0.1**
GAZ IAmb IAmb 06 42 43.7
comp=Z,16nm,0.9s
MNK Minsk 70.20 31 *i* P **P 06 42 26.1 -0.4**
MNK *i* 06 45 00.9
MNK *i* PPP PPP 06 46 42.7
MNK *i* S **S 06 51 37.4 +0.1**
MNK *i* SS **SS 06 56 08.3 +0.7**
MNK pmax pmax
comp=N,22nm,0.8s
MNK pmax pmax
comp=E,18nm,1.1s
MNK pmax pmax
comp=Z,31nm,0.8s
MNK MLR MLR
comp=N,180nm,15.0s
MNK MLR MLR
comp=Z,158nm,18.0s
MNK MLR MLR
comp=E,114nm,13.0s
MNK Minsk 70.20 31 *i* P **P 06 42 26.1 -0.4**
comp=E,18nm,1.1s
MNK *i* P **P 06 42 26.1 -0.4**
comp=N,22nm,0.8s
MNK *i* P **P 06 42 26.1 -0.4**
comp=Z,31nm,0.8s,baz=242
MNK *i* PP **PP 06 45 00.9 -1.1**
MNK *i* PPP PPP 06 46 42.8
MNK *i* S **S 06 51 37.4 +0.1**
MNK *i* SS **SS 06 56 08.3 +0.7**
MNK *i* SSS SSS 06 59 26.3
MNK *i* LR LR 07 13 40.5
MNK *i* LRM MLR 07 16 01.4
comp=N,180nm,14.7s
MNK *i* LRM MLR 07 16 05.2
comp=Z,158nm,17.9s
MNK *i* LRM MLR 07 16 16.9
comp=E,114nm,13.1s
HKT Hockley 70.20 301⇓ *eP* **P 06 42 27.5 +0.5**
HKT pmax pmax
comp=Z,11nm,1.4s
TOKA Tokat 70.28 47 P **P 06 42 27.6 +0.2**
TOKA IAmb IAmb 06 42 38.1
comp=Z,12nm,0.7s
PMSA Palmer Station 70.59 195 LR LR 07 07 45.7
comp=Z,298nm,19.4s,baz=46,slow=31
JMIC Jan Mayen 71.08 7 LR LR 07 08 33.3
comp=Z,138nm,18.5s,baz=192,slow=32
SUMG Summit 71.80 357 P **P 06 42 37.0 +0.6**
SUMG pmax pmax
comp=Z,23nm,1.3s
SUMG Summit 71.80 357 P **P 06 42 37.0 +0.6**
SUMG IAmb IAmb 06 43 01.1
comp=Z,23nm,1.3s
T35A Sooner Cattle 72.16 309 IAmb IAmb 06 42 53.9
comp=Z,22nm,1.2s
ANN Anapa 72.23 43 *eP* **P 06 42 40.9 +1.8**
ANN *eS* **S 06 51 57.0 -4.2**
ANN pmax pmax
comp=Z,50nm,1.1s
VNA1 Neumayer--Stat 72.69 173 P **P 06 42 42.8 +1.5**
comp=Z,13nm,1.0s
FINES FINESS Array B 72.84 24 P **P 06 42 42.8 +0.4**
comp=Z,11nm,0.8s,baz=198,slow=2.6,SNR=19
FINES LR LR 07 11 45.6
comp=Z,487nm,20.3s,baz=238,slow=33
comp=Z,11nm,0.8s
FINES FINESS Array B 72.84 24 P **P 06 42 43.0 +0.6**
FINES FINESS Array B 72.84 24 P **P 06 42 43.0 +0.6**
FIA1 FINESS Array S 72.84 24 P **P 06 42 43.1 +0.7**
VNA2 Neumayer--Watz 73.05 173 P **P 06 42 44.4 +0.9**
comp=Z,9.7nm,0.7s,baz=341,slow=5.2
VNA3 Neumayer Olymp 73.09 174 P **P 06 42 46.1 +2.4**
comp=Z,5.1nm,0.7s
SOC Sochi 73.48 45 *eP* **P 06 42 45.8 -0.7**
SOC *eS* **S 06 52 13.7 -1.8**
SOC *eSS* **SS 06 56 54.7 -3.6**
SOC *eSSS* SSS 07 00 15.6
SOC MLR MLR
comp=Z,92nm,14.0s
VSLR Vesyoloye 73.67 45⇓ *iP* **P 06 42 48.1 +0.4**
VSLR pmax pmax
comp=Z,37nm,1.1s
GURO Guroymak-BITLI 74.02 50 IAmb IAmb 06 43 01.7
comp=Z,25nm,0.9s
SNAA Sanae 74.34 172 P P 06 42 56.1 +5.0
comp=Z,83nm,0.6s
SNAA Sanae 74.34 172 P **P 06 42 51.5 +0.5**
comp=Z,7.5nm,1.1s,baz=328,slow=7.7,SNR=5.4
comp=Z,7.5nm,1.1s
SNAA Sanae 74.34 172⇑ *eP* **P 06 42 53.6 +2.5**
SNAA pmax pmax
comp=Z,8.0nm,1.1s
SNAA Sanae 74.34 172 **P 06 42 52.5 +1.4**
LABN Labinsk 74.45 44 *eP* **P 06 42 54.0 +1.8**
LABN *eS* **SKiKP 06 52 22.0 +3.6**
LABN pmax pmax
comp=Z,32nm,0.7s
ERBR Yeremizino-Bor 74.55 43 *eP* **P 06 42 52.6 -0.2**
ERBR pmax pmax
comp=Z,22nm,0.7s
RAYN Ar Rayn 74.70 66 P **P 06 42 53.9 -0.3**
RAYN pmax pmax
comp=Z,17nm,1.0s
RAYN Ar Rayn 74.70 66 **P 06 42 53.9 -0.3**
RAYN IAmb IAmb 06 43 05.3
comp=Z,17nm,0.9s
OBN Obninsk 75.03 33 LR LR 07 14 08.0
comp=Z,260nm,21.6s,baz=193,slow=34
OBN Obninsk 75.03 33⇓ *eP* **P 06 42 55.3 0.0**
OBN *e**PP **pP 06 42 59.0 -0.5**
OBN *e* 06 43 09.4
OBN *e* 06 45 42.2
OBN *eS* **S 06 52 35.4 +3.0**
OBN *eSS* **SS 06 57 29.0 +7.7**
OBN pmax pmax
comp=Z,48nm,1.8s
OBN MLR MLR
comp=Z,281nm,18.0s
ULM Lac du Bonnet 75.12 322 P **P 06 42 54.9 -1.0**
comp=Z,2.3nm,0.8s,baz=96,slow=10,SNR=3.1
ULM LR LR 07 10 51.8
comp=Z,244nm,21.2s,baz=105,slow=32
comp=Z,2.3nm,0.8s
VSR Storozhevoye 75.24 37 *eP* **P 06 42 54.4 -2.2**
VSR pmax pmax
comp=Z,10.0nm,0.9s
VORR Voronezh 75.40 36 *eP* **P 06 42 56.6 -0.9**
VORR pmax pmax
comp=Z,20nm,0.9s
TROLL Troll, Antarti 75.45 171 P **P 06 42 59.8 +2.2**
comp=Z,238nm,0.7s
NEUR Neytrino 75.51 45⇓ *eP* **P 06 42 59.2 +0.6**
NEUR pmax pmax
comp=Z,15nm,1.7s
LPSR Galich'ya Gora 75.52 35 *eP* **P 06 42 56.7 -1.5**
LPSR pmax pmax
comp=Z,20nm,0.9s
SHA1 Shidzhatmaz 75.59 45*ceP* **P 06 43 00.9 +1.8**
KIV Kislovodsk 75.66 45 *eP* **P 06 43 00.3 +1.0**
KIV pmax pmax
comp=Z,17nm,1.1s
KIV MLR MLR
comp=Z,174nm,18.0s
KIV Kislovodsk 75.66 45 P **P 06 42 59.3 0.0**
KVAR Kislovodsk Arr 75.66 45 LR LR 07 17 56.7
comp=Z,218nm,21.5s,baz=104,slow=37
KBZ Khabaz 75.75 45 P **P 06 42 58.0 -1.7**
comp=Z,5.6nm,0.8s,baz=262,slow=6.1,SNR=8.4
KBZ LR LR 07 17 52.8
comp=Z,230nm,21.8s,baz=250,slow=37
comp=Z,5.6nm,0.8s
KBZ Khabaz 75.75 45*ceP* **P 06 43 00.8 +1.1**
KBZ pmax pmax
comp=Z,17nm,1.5s
MOS Moscow 75.81 32 *eP* **P 06 43 00.6 +0.8**
MOS *e* 06 43 15.0
MOS pmax pmax
comp=Z,39nm,0.9s
MOS MLR MLR
comp=Z,500nm,17.0s
DAG Danmarks Havn 75.92 2 P P 06 43 12.6 +13
NVL N'lazarevskaya 76.24 167 *eP* P 06 42 46.7 -15
NVL *eS* **S 06 52 44.8 -0.5**
NVL pmax pmax
comp=Z,6.0nm,0.8s
GNI Garni 76.39 49 LR LR 07 18 12.5
comp=Z,253nm,20.5s,baz=264,slow=37
GNI Garni 76.39 49⇓ *eP* **P 06 43 07.1 +3.4**
GNI pmax pmax
comp=Z,46nm,1.3s
GNI Garni 76.39 49 P **P 06 43 03.7 0.0**
TX31 Lajitas Ar. Si 76.85 300 P **P 06 43 05.8 -0.7**
TXAR Lajitas Array 76.85 300 P **P 06 43 06.0 -0.4**
comp=Z,0.9nm,0.9s,baz=94,slow=5.6,SNR=11
TXAR LR LR 07 12 39.2
comp=Z,168nm,21.7s,baz=76,slow=32
comp=Z,0.9nm,0.9s
TXAR Lajitas Array 76.85 300 P **P 06 43 06.0 -0.4**
TXAR Lajitas Array 76.85 300 P **P 06 43 05.8 -0.6**
MDND Maddock 76.86 319 P **P 06 43 05.4 -0.6**
ARCES ARCESS Array B 77.08 17 P **P 06 43 07.1 +0.4**
comp=Z,5.5nm,1.0s,baz=252,slow=1.8,SNR=1.7
ARCES LR LR 07 12 29.1
comp=Z,347nm,20.4s,baz=219,slow=32
comp=Z,5.5nm,1.0s
ARCES ARCESS Array B 77.08 17 P **P 06 43 07.2 +0.4**
ARCES pmax pmax
comp=Z,206nm,2.0s
ARCES ARCESS Array B 77.08 17 P **P 06 43 07.2 +0.4**
PECS Pecos 77.25 302 P **P 06 43 08.6 0.0**
PECS IAmb IAmb 06 43 47.7
comp=Z,19nm,1.5s
GDL2 Guadalupe Moun 77.77 303 P **P 06 43 10.8 -0.7**
T25A Trinidad 78.42 308 P **P 06 43 14.7 -0.5**
T25A IAmb IAmb 06 45 31.1
comp=Z,19nm,0.9s
KLMR Klimovskoe 78.46 28 *eP* **P 06 43 13.5 -1.1**
KLMR pmax pmax
comp=Z,48nm,1.4s
APA Apatity 78.59 20 *eP* **P 06 43 13.2 -2.0**
APA *e* 06 43 25.3
APA pmax pmax
comp=Z,15nm,1.1s
BELA Belgrano 2 78.83 181 **P 06 43 17.0 +0.6**
MAK Makhachkala 78.91 46 *eP* **P 06 43 15.4 -2.0**
MAK *e*PPP PPP 06 48 04.4
MAK *eS* S **06 53 13.8 -1.5**
MAK *eSSS* SSS 07 01 36.7
MAK MLR MLR
comp=Z,350nm,18.0s
BLKN Baker Lake 79.64 336 P **P 06 43 20.8 -0.1**
BLKN IAmb IAmb 06 43 37.5
comp=Z,24nm,1.0s
ELIB Princess Elisa 79.75 166 *dP* **P 06 43 22.6 +1.0**
comp=Z,8.0nm,1.0s
ANMO Albuquerque 79.81 305 LR LR 07 13 26.0
comp=Z,511nm,21.5s,baz=92,slow=32
FFC Flin Flon 79.87 326 P **P 06 43 22.2 -0.3**
FFC pmax pmax
comp=Z,59nm,1.9s
FFC Flin Flon 79.87 326 P **P 06 43 22.2 -0.3**
FFC IAmb IAmb 06 43 25.2
comp=Z,59nm,1.9s
SPITS Spitsbergen Ar 80.61 8 LR LR 07 11 42.9
comp=Z,189nm,19.2s,baz=220,slow=30
BELG Belogornoye 80.62 37 LR LR 07 17 49.2
comp=Z,301nm,21.9s,baz=272,slow=35
LPIG La Paz 82.38 294 LR LR 07 19 21.3
comp=Z,138nm,19.7s,baz=66,slow=35
RPN Rapa Nui 82.53 243 LR LR 07 16 43.8
comp=Z,209nm,21.4s,baz=87,slow=33
KIRV Kirov 82.74 31 LR LR 07 18 28.6
comp=Z,453nm,20.9s,baz=266,slow=34
KIRV Kirov 82.74 31⇓ *eP* **P 06 43 38.1 +0.6**
PD31 Pinedale Array 82.98 313 P **P 06 43 39.6 0.0**
PDAR Pinedale Array 82.98 313 P **P 06 43 40.0 +0.5**
comp=Z,0.4nm,0.8s,baz=94,slow=3.1,SNR=2.2
PDAR LR LR 07 15 20.8
comp=Z,376nm,21.9s,baz=106,slow=32
comp=Z,0.4nm,0.8s
RES Resolute Bay 83.03 346 LR LR 07 13 23.2
comp=Z,135nm,20.5s,baz=150,slow=30
RES Resolute Bay 83.03 346 P **P 06 43 38.6 -0.2**
RES pmax pmax
comp=Z,24nm,1.3s
RES Resolute Bay 83.03 346 **P 06 43 38.6 -0.2**
RES IAmb IAmb 06 43 50.8
comp=Z,24nm,1.3s
HWUT Hardware Ranch 84.38 312 IAmb IAmb 06 44 03.1
comp=Z,7.8nm,0.7s
UOSS Minazif 84.54 65 **P 06 43 47.0 -0.6**
AKTO Aktyubinsk 86.86 40 LR LR 07 25 56.2
comp=Z,213nm,20.7s,baz=264,slow=38
ELK Elko 87.11 311 LR LR 07 17 26.4
comp=Z,306nm,22.0s,baz=89,slow=32
ARTI Arti 87.32 34 LR LR 07 23 19.1
comp=Z,186nm,19.0s,baz=235,slow=36
ARTI Arti 87.32 34*d iP* **P 06 44 02.8 +2.2**
ARTI 06 47 26.5
ARTI S **SKSac 06 54 29.6 +2.1**
ARTI SS **SS 07 00 26.0 +1.5**
ARTI pmax pmax
comp=Z,11nm,1.7s
YKA Yellowknife Ar 87.47 332 P **P 06 44 01.0 -0.2**
comp=Z,1.1nm,0.8s,baz=98,slow=5.2,SNR=6.8
YKA LR LR 07 20 08.1
comp=Z,357nm,20.2s,baz=82,slow=34
comp=Z,1.1nm,0.8s
PFO Pinyon Flats O 88.00 303 LR LR 07 20 51.9
comp=Z,189nm,22.0s,baz=113,slow=34
AB31 Akbulak array 88.07 41 P **P 06 44 04.5 +0.1**
ABKAR Akbulak array 88.07 41 P **P 06 44 04.5 +0.1**
WCT Wildcat Mounta 88.15 307 IAmb IAmb 06 44 21.2
comp=Z,12nm,1.2s
NEW Newport 88.56 318 LR LR 07 18 31.4
comp=Z,330nm,21.4s,baz=108,slow=32
NVAR Mina Array Bea 89.47 308 P **P 06 44 12.7 +1.1**
comp=Z,0.1nm,0.3s,baz=65,slow=5.0,SNR=5.3
NVAR LR LR 07 19 37.7
comp=Z,134nm,18.2s,baz=99,slow=32
comp=Z,0.1nm,0.3s
QSPA South Pole Qui 91.03 180 P **P 06 44 19.3 +1.2**
comp=Z,0.9nm,0.7s,baz=213,slow=3.0,SNR=8.4
QSPA LR LR 07 19 00.7
comp=Z,105nm,20.6s,baz=185,slow=32
comp=Z,0.9nm,0.7s
QSPA South Pole Qui 91.03 180 P **P 06 44 17.7 -0.4**
MAW Mawson 91.30 157 LR LR 07 16 55.8
comp=Z,214nm,20.3s,baz=302,slow=30
YBH Yreka Blue Hor 92.72 312 LR LR 07 25 32.8
comp=Z,104nm,18.1s,baz=84,slow=35
BVAR Borovoye Array 94.42 37 P **P 06 44 33.6 -0.3**
comp=Z,0.4nm,0.4s,baz=278,slow=4.1,SNR=1.3
comp=Z,0.4nm,0.4s
INK Inuvik 94.74 339 LR LR 07 23 24.6
comp=Z,373nm,20.9s,baz=22,slow=33
BBB Bella Bella 95.31 322 LR LR 07 23 02.6
comp=Z,210nm,20.9s,baz=56,slow=33
DLBC Dease Lake 95.36 329 LR LR 07 23 07.0
comp=Z,262nm,21.7s,baz=70,slow=33
NRIK Noril'sk 97.97 19 LR LR 07 26 14.4
comp=Z,251nm,21.8s,baz=306,slow=34
AAK Ala-Archa 98.69 47 LR LR 07 33 58.2
comp=Z,130nm,18.2s,baz=288,slow=38
KURBB Kurchatov Arra 99.83 38 P **Pdif 06 44 57.1 -1.2**
comp=Z,0.5nm,0.2s,baz=283,slow=4.4,SNR=1.6
KURBB PP **PP 06 49 01.0 -1.8**
comp=Z,0.2nm,0.3s,baz=281,slow=7.4,SNR=7.4
KURBB LR LR 07 30 10.8
comp=Z,129nm,20.6s,baz=203,slow=36
comp=Z,0.5nm,0.2s
KURK Kurchatov 99.86 38 P **Pdif 06 44 57.1 -1.4**
KSH2 Kashi 100.07 50 P **Pdif 06 45 00.4 +0.5**
KSH2 pmax pmax
comp=Z,1.0nm,0.9s
ILAR Eielson Array 100.98 337 P **Pdif 06 45 02.9 -0.2**
comp=Z,0.3nm,0.9s,baz=51,slow=3.7,SNR=1.3
HYB Hyderabad 105.69 72 *eP* **Pdif 06 45 24.8 -0.3**
KNGR Kungurtug, Tuv 111.06 34⇓ *iP*KIKP **PKiKP 06 49 49.1 +1.5**
TAOE Nuku Hiva Isla 111.81 261 *e*LR LR 07 23 00.8
comp=Z,78nm,23.0s
SONM Songino Array 117.44 33 PKP **PKiKP 06 50 00.4 +0.4**
comp=Z,0.3nm,0.4s,baz=350,slow=2.6,SNR=2.1
SONM PP **PP 06 51 10.9 -0.1**
comp=Z,0.6nm,0.8s,baz=292,slow=4.5,SNR=4.2
TBI Tubuai 118.89 244 *e*LR LR 07 26 17.6
comp=Z,2μm,34.2s
TBI *e*LR LR 07 26 17.7
comp=Z,1μm,32.0s
PPT2 Papeete2 120.08 250 *e*LR LR 07 26 50.9
comp=Z,205nm,25.5s
PPT2 *e*LR LR 07 27 00.5
comp=Z,183nm,24.8s
CD2 Chengdu 124.49 51 PKP **PKPdf 06 50 13.0 -0.9**
CMAR Chiang Mai Arr 124.61 67 PKP **PKPdf 06 50 13.2 -1.1**
comp=Z,0.7nm,0.3s,baz=327,slow=3.8,SNR=4.0
HHC Hu-ho-hao-te 124.63 37 *eP* **PKPdf 06 50 10.2 -3.8**
HHC LR LR
comp=N,200nm,19.2s
HHC LR LR
comp=E,280nm,19.2s
HHC LR LR
comp=Z,330nm,19.8s
PETK Petropavlovsk- 125.89 356 PKP **PKPdf 06 50 14.5 -1.4**
comp=Z,0.9nm,0.7s,baz=336,slow=3.2,SNR=4.7
CN2 Changchun 129.59 25 *eP* **PKiKP 06 50 23.9 0.0**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
DL2 Dalian 131.62 32 PKP **PKiKP 06 50 29.3 +1.2**
NJ2 Nanjing 134.74 41 *eP* **PKPdf 06 50 33.3 +0.1**
NJ2 pmax pmax
comp=Z,9.0nm,0.5s
ASAR Alice Springs 151.54 144 PKPbc **PKPbc 06 51 08.5 -0.5**
comp=Z,2.6nm,0.7s,baz=202,slow=2.0,SNR=29
WRA Warramunga Arr 154.56 139 PKPbc **PKiKP 06 51 17.5 +1.8**
comp=Z,1.1nm,1.0s,baz=234,slow=1.5,SNR=4.6

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*THE **08** 06:32:56.5, 37.8N±0.6×27.0E±0.8, h0km±2km, M2.8/7, MLh2.8/7*
*AFAD **08** 06:32:56.4, 37.80N×26.94E, h7km±2km, ML2.7*
*ISK **08** 06:32:56.1, 37.82N×26.97E, h15km, ML2.7/19*
*ATH **08** 06:32:56.2, 37.79N×26.98E, h8km±1km, ML2.8/7, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

ISC 08 06:32:56.5±0.8,**37.80N**±0.02×**26.96E**±0.02,**h11**km±6km,
n54,σ0.59/88,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**226**	P	**Pg**	**06 32 59.4**	**-0.4**
SMG				S	**Sg**	**06 33 01.8**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**226**	P	**Pg**	**06 32 59.4**	**-0.4**
SMG				S	**Sg**	**06 33 01.7**	**-0.4**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.20**	**268**	P	**Pg**	**06 33 00.7**	**-0.1**
KRL1				S	**Sg**	**06 33 03.7**	**-0.1**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.24**	**115**	P	**Pg**	**06 33 01.5**	**0.0**
GCAM				IAML		06 33 06.0	
	comp=N,2μm,0.2s						
GCAM				IAML	**Sg**	**06 33 06.0**	**+1.1**
	comp=E,2μm,0.2s						
GCAM				S	**Sg**	**06 33 06.0**	**+1.1**
GCAM	**G?zelcaml?**	**0.24**	**115**	Pg	**Pg**	**06 33 01.7**	**+0.2**
GCAM				Sg	**Sg**	**06 33 06.0**	**+1.1**
GCAM				AML	AML		
DGB	**zmir**	**0.26**	**346**	P	**Pg**	**06 33 01.6**	**-0.3**
DGB				S	**Sg**	**06 33 06.3**	**+1.0**
KUSD	**Kusadasi-Aydin**	**0.27**	**77**	Pg	**Pg**	**06 33 02.1**	**+0.1**
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.28**	**353**	Pg	**Pg**	**06 33 02.0**	**-0.2**
GMLD				Sg	**Sg**	**06 33 06.5**	**+0.5**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.28**	**261**	P	**Pg**	**06 33 01.8**	**-0.4**
SAM2				S	**Sg**	**06 33 06.2**	**+0.1**
SAM2				AML	AML		
DDIM	**Aydin, Didim**	**0.41**	**147**	P	**Pg**	**06 33 05.0**	**+0.3**
DDIM				S	**Sb**	**06 33 11.5**	**-0.5**
DDIM				IAML		06 33 12.0	
	comp=N,2μm,0.3s						
DDIM				IAML		06 33 12.0	
	comp=E,868nm,0.8s						
BEYE	**izmir**	**0.42**	**357**	P	**Pg**	**06 33 04.6**	**-0.3**
BEYE				S	**Sg**	**06 33 11.2**	**+0.6**
BEYE				IAML		06 33 15.0	
	comp=E,395nm,0.3s						
DIDI	**Didim-Aydin**	**0.48**	**152**	Pg	**Pb**	**06 33 06.5**	**-0.4**
DIDI				Sg	**Sb**	**06 33 14.0**	**0.0**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**320**	P	**Pg**	**06 33 06.9**	**-0.6**
ZEYE				S	**Sg**	**06 33 15.8**	**+0.8**
ZEYE				IAML		06 33 19.0	
	comp=N,500nm,0.5s						
DUVT	**Torbali**	**0.57**	**43**	P	**Pg**	**06 33 07.2**	**-0.4**
DUVT				S	**Sg**	**06 33 15.7**	**+0.6**
DUVT				IAML		06 33 20.0	
	comp=E,550nm,0.3s						
BLCB	**Balcova**	**0.58**	**6**	P	**Pg**	**06 33 07.7**	**-0.2**
BLCB				S	**Sb**	**06 33 16.5**	**-0.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**6**	Pg	**Pg**	**06 33 07.8**	**-0.1**
BLCB				Sg	**Sg**	**06 33 16.2**	**+0.5**
BLCB				AML	AML		
DAGE	**izmir**	**0.66**	**72**	P	**Pb**	**06 33 09.6**	**-0.4**
DAGE				S	**Sb**	**06 33 19.6**	**+0.5**
DAGE				IAML		06 33 22.0	
	comp=N,302nm,0.5s						
DAGE				IAML		06 33 22.0	
	comp=E,494nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.72**	**159**	Pg	**Pb**	**06 33 11.2**	**+0.1**
YKAV				AML	AML		
CESE	**eme**	**0.74**	**316**	Pg	**Pg**	**06 33 10.8**	**-0.1**
CESE				AML	AML		
AYDN	**Tasoluk**	**0.74**	**101**	P	**Pg**	**06 33 11.0**	**+0.1**
AYDN				S	**Sb**	**06 33 21.7**	**+0.1**
AYDN				IAML		06 33 26.0	
	comp=E,218nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.75**	**79**	Pg	**Pg**	**06 33 11.0**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.79**	**159**	P	**Pg**	**06 33 11.6**	**-0.2**
BODT				S	**Sb**	**06 33 23.8**	**+0.9**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**159**	Pg	**Pg**	**06 33 11.5**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.82**	**128**	Pg	**Pb**	**06 33 12.6**	**-0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.83**	**152**	P	**Pg**	**06 33 12.5**	**-0.1**
BDRM				S	**Sb**	**06 33 24.6**	**+0.5**
BDRM				IAML		06 33 28.0	
	comp=N,276nm,0.4s						
KLNA	**Kalymnos**	**0.84**	**179**	P	**Pg**	**06 33 12.5**	**-0.3**
KLNA				S	**Sg**	**06 33 23.9**	**+0.1**
KRBN	**Karaburun**	**0.85**	**338**	Pg	**Pg**	**06 33 12.9**	**-0.1**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.85**	**67**	P	**Pg**	**06 33 12.4**	**-0.6**
IZMR				S	**Sg**	**06 33 23.3**	**-0.8**
BODA	**Bodrum-Mula**	**0.85**	**154**	Pg	**Pb**	**06 33 13.3**	**0.0**
BAGT	**Foa**	**0.85**	**354**	P	**Pb**	**06 33 13.2**	**-0.1**
BAGT				S	**Sn**	**06 33 26.3**	**-0.6**
BAGT				IAML		06 33 28.0	
	comp=N,238nm,0.6s						
BAGT				IAML		06 33 28.0	
	comp=E,170nm,0.3s						
CHOS	**Chios island**	**0.92**	**310**	P	**Pg**	**06 33 14.1**	**-0.2**
CHOS				S	**Sb**	**06 33 27.5**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**310**	Pg	**Pg**	**06 33 14.3**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**310**	P	**Pg**	**06 33 14.1**	**-0.2**
CHOS				S	**Sb**	**06 33 27.4**	**+0.6**
CHOS				AML	AML		
FOCM	**Foa**	**0.93**	**349**	Pg	**Pg**	**06 33 13.9**	**-0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**334**	P	**Pg**	**06 33 14.9**	**-0.1**
KARB				S	**Sb**	**06 33 29.1**	**+1.3**
KARB				IAML		06 33 31.0	
	comp=N,150nm,0.5s						
KARB				IAML		06 33 31.0	
	comp=E,144nm,0.6s						
CAMT	**Merkez**	**0.98**	**16**	P	**Pb**	**06 33 16.0**	**+0.4**
CAMT				S	**Sn**	**06 33 30.7**	**+0.6**
CAMT				IAML		06 33 32.0	
	comp=N,260nm,0.3s						
CAMT				IAML		06 33 32.0	
	comp=E,189nm,0.3s						
EAG2	**Marmaro, Chios**	**1.00**	**318**	P	**Pg**	**06 33 15.7**	**0.0**
EAG2				S	**Sb**	**06 33 29.2**	**+0.3**
NAZL	**Nazilli-Aydin**	**1.07**	**81**	Pg	**Pg**	**06 33 16.6**	**-0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.10**	**90**	P	**Pg**	**06 33 17.4**	**-0.3**
ESEN				S	**Sn**	**06 33 33.2**	**+0.2**
ZEDA	**zmir-Bergama**	**1.17**	**5**	P	**Pb**	**06 33 17.4**	**-1.3**
ZEDA				S	**Sn**	**06 33 35.4**	**+0.8**
ZEDA				IAML		06 33 37.0	
	comp=N,114nm,0.3s						
GOMA	**Golmarmara-Man**	**1.18**	**40**	Pn	**Pb**	**06 33 18.4**	**-0.4**
GOMA				AML	AML		
DAT	**Datca**	**1.18**	**155**	P	**Pg**	**06 33 18.6**	**-0.6**
DAT				AML	AML		
DAT	**Datca**	**1.18**	**155**	Pn	**Pg**	**06 33 18.9**	**-0.3**
DAT				AML	AML		
KIRA	**zmir-Kiraz**	**1.20**	**71**	P	**Pb**	**06 33 17.3**	**-2.1**
KIRA				S	**Sg**	**06 33 34.3**	**-1.0**
YER	**Yerkesik**	**1.25**	**122**	P	**Pg**	**06 33 20.2**	**-0.3**
YER	**Yerkesik**	**1.25**	**122**	Pn	**Pn**	**06 33 19.8**	**-0.1**
YER				AML	AML		
KTTT	**Salihli**	**1.26**	**45**	P	**Pg**	**06 33 20.6**	**0.0**
KTTT				S	**Sn**	**06 33 37.9**	**+1.0**
AKS	**Akhisar**	**1.27**	**32**	Pn	**Pn**	**06 33 19.6**	**-0.5**
AKS				AML	AML		
AKHS	**Akhisar**	**1.27**	**32**	P	**Pn**	**06 33 19.4**	**-0.7**
AKHS				S	**Sn**	**06 33 38.7**	**+1.6**
DKL	**Dikili**	**1.27**	**358**	P	**Pn**	**06 33 19.7**	**-0.4**
DKL				S	**Sg**	**06 33 37.2**	**-0.1**
APE	**Apeiranthos**	**1.35**	**238**	P	**Pb**	**06 33 22.0**	**+0.1**
APE	**Apeiranthos**	**1.35**	**238**	P	**Pn**	**06 33 20.5**	**-0.9**
TURN	**Turunc**	**1.45**	**135**	Pn	**Pn**	**06 33 22.4**	**-0.2**
TURN				AML	AML		
PRK	**Paraskevi**	**1.54**	**340**	P	**Pn**	**06 33 24.0**	**+0.2**
PRK				AML	AML		

*AFAD **08** 06:34:27.7,37.80N×26.93E,h7km±3km,ML2.8*
*THE **08** 06:34:27.9,37.8N±0.8×27.0E±0.6,h7km±1km,M2.9/9,*
MLh2.9/9
*ISK **08** 06:34:27.5,37.81N×26.95E,h12km,ML2.9/19*
*ATH **08** 06:34:27.1,37.75N×26.99E,h14km±2km,ML3.0/6,*
Latitude uncertainty: 1 km; Longitude uncertainty: 0 km

ISC 08 06:34:27.9±0.8,**37.80N**±0.02×**26.95E**±0.02,**h13**km±5km,
n53,σ0.51/83,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.13**	**224**	P	**Pg**	**06 34 31.0**	**-0.3**
SMG				S	**Sg**	**06 34 33.6**	**-0.1**
SMG				AML	AML		
SMG	**Samos**	**0.13**	**224**	P	**Pg**	**06 34 31.0**	**-0.3**
SMG				S	**Sg**	**06 34 33.2**	**-0.5**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.19**	**268**	P	**Pg**	**06 34 32.1**	**-0.1**
KRL1				S	**Sg**	**06 34 35.5**	**+0.3**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**115**	P	**Pg**	**06 34 33.2**	**0.0**
GCAM				S	**Sg**	**06 34 37.9**	**+1.3**
GCAM				IAML		06 34 38.0	
	comp=N,4μm,0.2s						
GCAM				IAML		06 34 38.0	
	comp=E,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.25**	**115**	Pg	**Pg**	**06 34 33.1**	**0.0**
GCAM				Sg	**Sg**	**06 34 37.7**	**+1.0**
GCAM				AML	AML		
DGB	**zmir**	**0.25**	**348**	P	**Pg**	**06 34 33.0**	**-0.2**
DGB				S	**Sg**	**06 34 37.0**	**+0.1**
KUSD	**Kusadasi-Aydin**	**0.27**	**78**	Pg	**Pg**	**06 34 33.6**	**0.0**
KUSD				Sg	**Sg**	**06 34 37.4**	**0.0**
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.27**	**354**	Pg	**Pg**	**06 34 33.5**	**-0.1**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.27**	**261**	P	**Pg**	**06 34 33.4**	**-0.2**
SAM2				S	**Sg**	**06 34 37.6**	**+0.1**
SAM2				AML	AML		
DDIM	**Aydin, Didim**	**0.42**	**146**	P	**Pg**	**06 34 35.9**	**-0.3**
DDIM				IAML		06 34 43.0	
	comp=N,2μm,0.3s						
DDIM				IAML		06 34 43.0	
	comp=E,1μm,0.8s						
DDIM				S	**Sb**	**06 34 43.3**	**0.0**
BEYE	**izmir**	**0.42**	**357**	P	**Pg**	**06 34 36.2**	**-0.1**
BEYE				S	**Sg**	**06 34 42.6**	**+0.6**
BEYE				IAML		06 34 47.0	
	comp=E,646nm,0.3s						
BEYE				IAML		06 34 48.0	
	comp=N,517nm,0.2s						
DIDI	**Didim-Aydin**	**0.48**	**152**	Pg	**Pg**	**06 34 37.4**	**0.0**
DIDI				Sg	**Sb**	**06 34 44.8**	**-0.4**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**321**	P	**Pg**	**06 34 38.1**	**-0.8**
ZEYE				S	**Sg**	**06 34 46.8**	**+0.4**
ZEYE				IAML		06 34 49.0	
	comp=E,444nm,0.2s						
ZEYE				IAML		06 34 50.0	
	comp=N,930nm,0.3s						
DUVT	**Torbali**	**0.57**	**43**	P	**Pg**	**06 34 37.8**	**-1.4**
DUVT				S	**Sg**	**06 34 46.8**	**+0.1**
DUVT				IAML		06 34 52.0	
	comp=E,905nm,0.3s						
BLCB	**Balcova**	**0.58**	**7**	P	**Pg**	**06 34 39.3**	**-0.1**
BLCB				S	**Sb**	**06 34 47.9**	**-0.3**
BLCB	**Balcova**	**0.58**	**7**	Pg	**Pg**	**06 34 39.2**	**-0.1**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.73**	**159**	Pg	**Pg**	**06 34 41.8**	**-0.2**
YKAV				Sg	**Sb**	**06 34 52.6**	**+0.4**
YKAV				AML	AML		
CESE	**eme**	**0.74**	**316**	Pg	**Pg**	**06 34 42.3**	**+0.1**
CESE				AML	AML		
AYDN	**Tasoluk**	**0.75**	**101**	P	**Pg**	**06 34 42.1**	**-0.3**
AYDN				S	**Sb**	**06 34 52.3**	**-0.6**
AYDN				IAML		06 34 56.0	
	comp=N,228nm,0.2s						
AYDN				IAML		06 34 58.0	
	comp=E,315nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.76**	**79**	Pg	**Pb**	**06 34 42.7**	**-0.3**
AYDB				AML	AML		
BODT	**Bodrum**	**0.79**	**159**	P	**Pg**	**06 34 43.1**	**-0.2**
BODT				S	**Sb**	**06 34 55.0**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**159**	Pg	**Pg**	**06 34 42.8**	**-0.5**
BODT				AML	AML		
MLSB	**Milas**	**0.83**	**127**	Pg	**Pb**	**06 34 43.9**	**-0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.83**	**152**	P	**Pg**	**06 34 43.8**	**-0.3**
BDRM				S	**Sb**	**06 34 55.9**	**+0.6**
BDRM				IAML		06 34 59.0	
	comp=N,477nm,0.3s						
KLNA	**Kalymnos**	**0.84**	**179**	P	**Pg**	**06 34 44.0**	**-0.2**
KRBN	**Karaburun**	**0.85**	**338**	Pg	**Pb**	**06 34 44.4**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.85**	**355**	P	**Pg**	**06 34 44.3**	**-0.1**
BAGT				S	**Sn**	**06 34 57.2**	**-0.8**
BAGT				IAML		06 34 59.0	
	comp=N,414nm,0.9s						
BAGT				IAML		06 34 59.0	
	comp=E,340nm,0.4s						
BODA	**Bodrum-Mula**	**0.86**	**153**	Pg	**Pb**	**06 34 44.6**	**0.0**
IZMR	**zmir-demi**	**0.86**	**67**	P	**Pb**	**06 34 44.7**	**+0.1**
IZMR				S	**Sg**	**06 34 54.8**	**-0.9**
IZMR				IAML		06 34 57.0	
	comp=N,163nm,0.5s						
CHOS	**Chios island**	**0.92**	**310**	P	**Pg**	**06 34 45.1**	**-0.5**
CHOS				S	**Sb**	**06 34 58.9**	**+1.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**310**	Pg	**Pg**	**06 34 45.7**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**310**	P	**Pg**	**06 34 45.1**	**-0.5**
CHOS				S	**Sb**	**06 34 58.8**	**+1.0**
CHOS				AML	AML		
FOCM	**Foa**	**0.92**	**349**	Pg	**Pg**	**06 34 45.4**	**-0.4**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**334**	P	**Pg**	**06 34 45.1**	**-1.3**
KARB				IAML		06 35 01.0	
	comp=N,212nm,0.5s						
KARB				S	**Sn**	**06 35 01.1**	**+0.6**
KARB				IAML		06 35 04.0	
	comp=E,220nm,0.7s						
CAMT	**Merkez**	**0.98**	**17**	P	**Pn**	**06 34 47.1**	**-0.3**
CAMT				S	**Sn**	**06 35 02.1**	**+0.9**
CAMT				IAML		06 35 03.0	
	comp=N,381nm,0.3s						
CAMT				IAML		06 35 03.0	
	comp=E,330nm,0.3s						
EAG2	**Marmaro, Chios**	**0.99**	**318**	P	**Pn**	**06 34 47.4**	**-0.1**
EAG2				S	**Sn**	**06 35 01.2**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.07**	**81**	Pg	**Pn**	**06 34 48.6**	**0.0**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.17**	**5**	P	**Pg**	**06 34 50.0**	**-0.3**
ZEDA				S	**Sn**	**06 35 06.6**	**+0.9**
ZEDA				IAML		06 35 08.0	
	comp=N,159nm,0.3s						
ZEDA				IAML		06 35 10.0	
	comp=E,143nm,0.5s						
GOMA	**Golmarmara-Man**	**1.18**	**40**	Pn	**Pg**	**06 34 50.5**	**-0.1**
GOMA				AML	AML		
DAT	**Datca**	**1.18**	**155**	P	**Pb**	**06 34 49.6**	**-0.6**
DAT				S	**Sn**	**06 35 06.6**	**+0.4**
DAT				AML	AML		
DAT	**Datca**	**1.18**	**155**	Pn	**Pg**	**06 34 50.5**	**-0.2**
DAT				AML	AML		
YER	**Yerkesik**	**1.25**	**122**	P	**Pg**	**06 34 51.8**	**-0.2**
YER				S	**Sg**	**06 35 08.7**	**+0.4**
YER	**Yerkesik**	**1.25**	**122**	Pn	**Pb**	**06 34 51.2**	**-0.2**
YER				AML	AML		
DKL	**Dikili**	**1.27**	**358**	P	**Pn**	**06 34 51.0**	**-0.3**
DKL				S	**Sg**	**06 35 08.8**	**+0.1**
AKS	**Akhisar**	**1.27**	**32**	Pn	**Pb**	**06 34 51.5**	**-0.2**
AKS				AML	AML		
APE	**Apeiranthos**	**1.35**	**237**	P	**Pn**	**06 34 51.7**	**-0.8**
APE				S	**Sg**	**06 35 11.4**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.35**	**237**	P	**Pn**	**06 34 51.6**	**-0.8**
APE				AML	AML		
TURN	**Turunc**	**1.46**	**134**	Pn	**Pb**	**06 34 54.2**	**-0.6**
TURN				AML	AML		
PRK	**Paraskevi**	**1.54**	**340**	P	**Pn**	**06 34 55.2**	**+0.2**
PRK	**Paraskevi**	**1.54**	**340**	P	**Pb**	**06 34 55.6**	**-0.5**
PRK				AML	AML		
KARY	**Karystos**	**2.00**	**277**	P	**Pn**	**06 35 01.9**	**+0.5**
DION	**Dionisos Attik**	**2.40**	**277**	P	**Pn**	**06 35 07.1**	**+0.2**
VLY	**Voula,Athens**	**2.50**	**272**	P	**Pn**	**06 35 08.6**	**+0.4**

*WEL **08** 06:41:15.0±0.5,42.2°S±3°×17.4E±°,h11km±4km,ML3.0/12,*
MLv3.0/12,Error ellipse: s-maj=3.9km s-min=3.5km
az=98.7
*NOU **08** 06:41:19.2,41.81S×173.86E,h27km,MLv3.9/7,South*
Island,New Zealand

ISC 08 06:41:13.2±1.0,**41.84S**±0.03×**174.21E**±0.03,**h30**km±4km,
n61,σ1.33/60,**Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WDFS	**Ward Fire Stat**	**0.06**	**280**	S	**Sb**	**06 41 23.6**	**+2.0**
CMWZ	**Cape Campbell**	**0.09**	**360**	P	**Pn**	**06 41 18.5**	**+0.1**
CMWZ				S	**Sb**	**06 41 21.7**	**-0.2**
CMWZ				AML	AML		
CMWZ				AML	AML		
SDNS	**Seddon**	**0.18**	**342**	S	**Sb**	**06 41 21.9**	**-1.3**
SEDS	**Seddon Fire St**	**0.20**	**328**	P	**Pb**	**06 41 19.1**	**-0.2**
SEDS				S	**Sb**	**06 41 22.3**	**-1.1**
KEKS	**Kekerengu Vall**	**0.21**	**236**	P	Pn	06 41 22.8	+2.5
BSWZ	**Blackbirch Sta**	**0.28**	**296**	P	**Pn**	**06 41 21.4**	**+0.1**
BSWZ				S	**Sn**	**06 41 26.6**	**0.0**
BSWZ				AML	AML		
BSWZ				AML	AML		
TUWZ	**Tuamarina**	**0.46**	**333**	P	**Pb**	**06 41 22.5**	**-0.4**
TUWZ				S	**Sb**	**06 41 28.1**	**-1.4**
BWRS	**Waikakaho Road**	**0.46**	**330**	S	**Sb**	**06 41 28.3**	**-1.3**
QCCS	**Picton Queen C**	**0.58**	**346**	P	**Pb**	**06 41 23.6**	**-1.2**
TCW	**Tory Channel**	**0.63**	**4**	P	**Pb**	**06 41 24.1**	**-1.6**
TCW				S	**Sb**	**06 41 30.8**	**-3.4**
TCW				AML	AML		
TCW				AML	AML		
WNHS	**Wellington Hig**	**0.68**	**38**	P	**Pn**	**06 41 25.6**	**-1.3**
WEL	**Wellington**	**0.69**	**37**	P	**Pn**	**06 41 25.7**	**-1.3**
WEL				AML	AML		
WEL				AML	AML		
KHZ	**Kahutara**	**0.77**	**221**	P	Pn	06 41 32.6	+4.6
KHZ	**Kahutara**	**0.77**	**221**	P	Pn	06 41 32.6	+4.6
KHZ				AML	AML		
KHZ				AML	AML		
PLWZ	**Palliser**	**0.82**	**71**	P	**Pb**	**06 41 29.9**	**+0.9**
PLWZ				AML	AML		
PLWZ				AML	AML		
NNZ	**Nelson**	**0.88**	**314**	P	**Pb**	**06 41 30.4**	**+0.5**
NNZ				AML	AML		
NNZ				AML	AML		
MSWZ	**Moikau Station**	**0.88**	**62**	P	**Pb**	**06 41 30.4**	**+0.4**
MSWZ				AML	AML		
MSWZ				AML	AML		
CAW	**Cannon Point**	**0.97**	**42**	P	**Pn**	**06 41 30.6**	**-0.3**
CAW				AML	AML		
CAW				AML	AML		
THZ	**Tophouse**	**0.98**	**274**	P	Pb	06 41 34.3	+2.6
PAWZ	**Paruwai Farm**	**1.02**	**64**	P	**Pb**	**06 41 32.4**	**+0.2**
PAWZ				AML	AML		
PAWZ				AML	AML		
DUWZ	**D'Urville Isla**	**1.06**	**348**	P	**Pn**	**06 41 32.1**	**0.0**
DUWZ				AML	AML		
DUWZ				AML	AML		
KIW	**Kapiti Island**	**1.11**	**28**	P	**Pn**	**06 41 32.6**	**-0.2**
KIW				AML	AML		
KIW				AML	AML		
MRNZ	**Matariki Terra**	**1.18**	**291**	P	**Pb**	**06 41 37.0**	**+2.1**
MTW	**Mount Morrison**	**1.18**	**55**	P	**Pb**	**06 41 35.4**	**+0.4**
MTW				S	**Sn**	**06 41 50.6**	**+1.7**
MTW				AML	AML		
MTW				AML	AML		
TRWZ	**Traveller**	**1.19**	**69**	P	**Pn**	**06 41 34.1**	**+0.2**
TKNZ	**Takaka Hill**	**1.24**	**310**	P	**Pb**	**06 41 36.9**	**+0.9**
TKNZ				AML	AML		
TKNZ				AML	AML		
OGWZ	**Otaki Gorge**	**1.25**	**36**	P	**Pn**	**06 41 35.1**	**+0.5**
HOWZ	**Holdsworth Sta**	**1.36**	**47**	P	**Pn**	**06 41 36.7**	**+0.5**
GVZ	**Greta Valley S**	**1.43**	**217**	P	Pb	06 41 41.4	+2.2
TMWZ	**Te Maipa**	**1.46**	**60**	P	**Pn**	**06 41 37.2**	**-0.3**
MRZ	**Mangatainoka R**	**1.56**	**42**	P	**Pn**	**06 41 39.6**	**+0.6**
QRZ	**Quartz Range**	**1.62**	**308**	P	**Pb**	**06 41 43.1**	**+0.6**
QRZ	**Quartz Range**	**1.62**	**308**	P	**Pb**	**06 41 43.2**	**+0.7**
LTZ	**Lake Taylor**	**1.72**	**236**	P	Pb	06 41 45.5	+1.3
AMCZ	**Amberley**	**1.77**	**220**	P	**Pb**	**06 41 45.5**	**+0.6**
DSZ	**Denniston Nort**	**1.80**	**272**	P	**Pb**	**06 41 47.3**	**+1.7**
PRWZ	**Pori Road**	**1.84**	**47**	P	**Pb**	**06 41 47.4**	**+1.1**
POWZ	**Post Office Ro**	**1.86**	**40**	P	**Pb**	**06 41 47.7**	**+1.1**
OKCZ	**Okains Bay**	**2.07**	**204**	P	**Pb**	**06 41 49.3**	**-0.7**
DVHZ	**Dannevirke**	**2.13**	**44**	P	**Pb**	**06 41 51.9**	**+0.7**
WAZ	**Wanganui**	**2.16**	**16**	P	**Pb**	**06 41 51.3**	**-0.4**
OXZ	**Oxford**	**2.19**	**226**	P	**Pb**	**06 41 51.2**	**-0.9**
MQZ	**McQueen's Vall**	**2.19**	**211**	P	**Pb**	**06 41 50.4**	**-1.8**
TSZ	**Takapari Road**	**2.22**	**37**	P	**Pb**	**06 41 53.3**	**+0.7**
INZ	**Inchbonnie**	**2.24**	**246**	P	**Pb**	**06 41 52.8**	**-0.1**
PNHZ	**Pukenui**	**2.44**	**39**	P	**Pn**	**06 41 51.9**	**+0.8**
KHEZ	**Kahui Hut**	**2.54**	**357**	P	**Pb**	**06 41 58.1**	**-0.1**
KHEZ	**Kahui Hut**	**2.54**	**357**	P	**Pb**	**06 41 57.7**	**-0.6**
PKE	**Pukeiti**	**2.65**	**356**	P	**Pn**	**06 41 57.2**	**+3.3**
MOVZ	**Moawhango**	**2.70**	**26**	P	**Pb**	**06 41 60.0**	**-0.8**
WNVZ	**Wahianoa**	**2.72**	**23**	P	**Pn**	**06 41 57.7**	**+2.6**
BHHZ	**Black Hill Sta**	**2.73**	**32**	P	**Pb**	**06 42 00.7**	**-0.8**
VRZ	**Vera Road**	**2.74**	**9**	P	**Pb**	**06 41 58.9**	**-2.6**
TUVZ	**Tukino**	**2.79**	**24**	P	**Pb**	**06 42 02.2**	**-0.3**
SNVZ	**South Ngauruho**	**2.86**	**23**	P	**Pb**	**06 42 02.9**	**-0.8**
OTVZ	**Oturere**	**2.89**	**23**	P	**Pn**	**06 41 59.2**	**+1.8**
ETVZ	**East Tongariro**	**2.93**	**23**	P	**Pb**	**06 42 04.2**	**-0.6**
RPZ	**Rata Peaks**	**2.99**	**230**	P	**Pb**	**06 42 02.4**	**-3.3**
BKZ	**Black Stump Fm**	**3.18**	**34**	P	**Pb**	**06 42 09.5**	**+0.4**
HIZ	**Hauiti**	**3.36**	**9**	P	**Pb**	**06 42 10.2**	**-1.8**
ODZ	**Otahua Downs**	**4.13**	**218**	P	Pb	06 42 18.4	-6.7

*AFAD **08** 07:02:46.8,37.73N×27.04E,h14km±1km,ML2.8*
*ISK **08** 07:02:46.5,37.73N×27.02E,h12km,ML2.8/19*
*ATH **08** 07:02:46.8,37.73N×27.07E,h6km±1km,ML3.0/6,Latitude*
uncertainty: 1 km; Longitude uncertainty: 1 km
*THE **08** 07:02:47.5,37.7N±0.7×27.0E±0.7,h2km±1km,M2.9/11,*
MLh2.9/11

ISC 08 07:02:47.1±0.8,**37.73N**±0.02×**27.03E**±0.02,**h12**km±5km,
n59,σ0.61/92,**Turkey**

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

BEYE				IAML		07 03 08.0		
	comp=N,554nm,0.2s							
DUVT	**Torbali**	**0.59**	**34**	P	**Pg**	**07 02 58.6**	**0.0**	
DUVT				S	**Sg**	**07 03 06.6**	**+0.2**	
DUVT				IAML		07 03 11.0		
	comp=E,416nm,0.5s							
YKAV	**Yalikavak-Bodr**	**0.64**	**162**	Pg	**Pg**	**07 02 59.4**	**-0.1**	
YKAV				Sg	**Sb**	**07 03 08.5**	**-0.5**	
YKAV				AML	AML			
BLCB	**Balcova**	**0.65**	**1**	P	**Pg**	**07 02 59.7**	**-0.1**	
BLCB				S	**Sb**	**07 03 09.0**	**-0.4**	
BLCB	**Balcova**	**0.65**	**1**	Pg	**Pg**	**07 02 59.8**	**0.0**	
BLCB				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.66**	**321**	P	**Pg**	**07 02 59.4**	**-0.5**	
ZEYE				S	**Sb**	**07 03 09.5**	**0.0**	
ZEYE				IAML		07 03 10.0		
	comp=N,990nm,0.4s							
ZEYE				IAML		07 03 12.0		
	comp=E,464nm,0.2s							
AYDN	**Tasoluk**	**0.68**	**96**	P	**Pg**	**07 02 59.7**	**-0.5**	
AYDN				S	**Sb**	**07 03 09.6**	**-0.5**	
AYDN				IAML		07 03 13.0		
	comp=E,481nm,0.3s							
AYDN				IAML		07 03 14.0		
	comp=N,489nm,0.3s							
BODT	**Bodrum**	**0.70**	**162**	P	**Pg**	**07 03 00.7**	**-0.1**	
BODT				S	**Sb**	**07 03 11.7**	**+0.8**	
BODT				AML	AML			
BODT	**Bodrum**	**0.70**	**162**	Pg	**Pg**	**07 03 00.5**	**-0.3**	
BODT				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.71**	**72**	Pg	**Pb**	**07 03 01.1**	**-0.4**	
AYDB				AML	AML			
MLSB	**Milas**	**0.73**	**126**	Pg	**Pg**	**07 03 01.2**	**-0.1**	
MLSB				AML	AML			
BDRM	**Kayabasi**	**0.74**	**154**	P	**Pg**	**07 03 00.8**	**-0.6**	
BDRM				S	**Sb**	**07 03 12.3**	**+0.3**	
BDRM				IAML		07 03 15.0		
	comp=N,435nm,0.3s							
BODA	**Bodrum-Mula**	**0.77**	**155**	Pg	**Pg**	**07 03 01.7**	**-0.2**	
KLNA	**Kalymnos**	**0.78**	**184**	P	**Pg**	**07 03 01.8**	**-0.3**	
KLNA				S	**Sb**	**07 03 12.6**	**-0.4**	
IZMR	**zmir-demi**	**0.83**	**61**	P	**Pb**	**07 03 03.0**	**-0.4**	
IZMR				S	**Sg**	**07 03 12.9**	**-1.2**	
KRBN	**Karaburun**	**0.94**	**336**	Pg	**Pb**	**07 03 05.1**	**-0.2**	
KRBN				AML	AML			
FOCM	**Foa**	**1.01**	**346**	Pg	**Pn**	**07 03 06.6**	**-0.4**	
FOCM				AML	AML			
CHOS	**Chios island**	**1.01**	**311**	P	**Pn**	**07 03 07.0**	**-0.1**	
CHOS				S	**Sn**	**07 03 21.6**	**+0.3**	
CHOS				AML	AML			
CHOS	**Chios island**	**1.01**	**311**	Pg	**Pb**	**07 03 06.5**	**0.0**	
CHOS				AML	AML			
CHOS	**Chios island**	**1.01**	**311**	P	**Pn**	**07 03 06.8**	**-0.3**	
CHOS				S	**Sn**	**07 03 21.2**	**-0.1**	
CHOS				AML	AML			
NAZL	**Nazilli-Aydin**	**1.02**	**77**	Pg	**Pn**	**07 03 06.9**	**-0.3**	
NAZL				AML	AML			
CAMT	**Merkez**	**1.04**	**12**	P	**Pg**	**07 03 06.8**	**-0.2**	
CAMT				S	**Sn**	**07 03 22.9**	**+1.1**	
CAMT				IAML		07 03 28.0		
	comp=E,290nm,0.7s							
CAMT				IAML		07 03 31.0		
	comp=N,225nm,0.5s							
ESEN	**Aydn-Nazilli**	**1.04**	**86**	P	**Pb**	**07 03 06.6**	**-0.5**	
ESEN				S	**Sn**	**07 03 23.0**	**+1.1**	
ESEN				IAML		07 03 24.0		
	comp=E,222nm,0.6s							
KARB	**zmir-Karabur**	**1.05**	**332**	P	**Pn**	**07 03 08.2**	**+0.6**	
KARB				S	**Sn**	**07 03 22.0**	**-0.2**	
KARB				IAML		07 03 24.0		
	comp=N,183nm,0.5s							
KARB				IAML		07 03 24.0		
	comp=E,174nm,0.9s							
EAG2	**Marmaro, Chios**	**1.09**	**318**	P	**Pn**	**07 03 08.4**	**+0.3**	
EAG2				S	**Sn**	**07 03 23.1**	**0.0**	
DAT	**Datca**	**1.09**	**156**	P	**Pn**	**07 03 08.5**	**+0.2**	
DAT				AML	AML			
DAT	**Datca**	**1.09**	**156**	Pn	**Pg**	**07 03 07.9**	**-0.2**	
DAT				AML	AML			
DATC	**Datca-Mugla**	**1.09**	**153**	Pn	**Pn**	**07 03 07.9**	**-0.3**	
DATC				AML	AML			
YER	**Yerkesik**	**1.16**	**121**	P	**Pg**	**07 03 09.2**	**-0.2**	
YER				S	**Sn**	**07 03 26.4**	**+1.4**	
YER	**Yerkesik**	**1.16**	**121**	Pn	**Pn**	**07 03 08.9**	**-0.3**	
YER				AML	AML			
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn	**Pg**	**07 03 09.7**	**-0.4**	
GOMA				AML	AML			
ZEDA	**zmir-Bergama**	**1.23**	**2**	P	**Pg**	**07 03 10.3**	**-0.5**	
ZEDA				S	**Sg**	**07 03 27.4**	**+0.6**	
ZEDA				IAML		07 03 32.0		
	comp=E,190nm,0.5s							
KTTT	**Salihli**	**1.27**	**41**	P	**Pb**	**07 03 10.6**	**-0.3**	
KTTT				S	**Sg**	**07 03 27.7**	**-0.2**	
AKHS	**Akhisar**	**1.30**	**28**	P	**Pg**	**07 03 11.7**	**-0.3**	
AKHS				S	**Sg**	**07 03 30.4**	**+1.4**	
AKHS				IAML		07 03 35.0		
	comp=N,130nm,0.5s							
AKS	**Akhisar**	**1.30**	**28**	Pn	**Pb**	**07 03 11.1**	**-0.3**	
AKS				AML	AML			
ASTA	**Astypalaia**	**1.30**	**205**	P	**Pb**	**07 03 11.4**	**-0.1**	
ASTA				AML	AML			
DKL	**Dikili**	**1.34**	**356**	P	**Pg**	**07 03 12.2**	**-0.6**	
DKL				S	**Sg**	**07 03 30.3**	**+0.1**	
TURN	**Turunc**	**1.36**	**134**	Pn	**Pb**	**07 03 11.9**	**-0.5**	
TURN				AML	AML			
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**07 03 11.5**	**-0.5**	
APE				S	**Sg**	**07 03 32.2**	**+1.1**	
APE				AML	AML			
APE	**Apeiranthos**	**1.37**	**241**	P	**Pn**	**07 03 11.4**	**-0.6**	
APE				S	**Sg**	**07 03 31.0**	**-0.1**	
APE				AML	AML			
PRK	**Paraskevi**	**1.62**	**339**	P	**Pb**	**07 03 16.6**	**-0.3**	
PRK				AML	AML			
THERA	**Ancient Thera,**	**1.85**	**223**	P	**Pb**	**07 03 19.9**	**-0.8**	
THERA				AML	AML			
KARY	**Karystos**	**2.08**	**279**	P	**Pb**	**07 03 23.0**	**-1.6**	
KARP	**Karpathos**	**2.18**	**177**	P	**Pb**	**07 03 24.8**	**-1.7**	
VLY	**Voula,Athens**	**2.57**	**274**	P	**Pn**	**07 03 29.7**	**+1.2**	
NPS	**Neapolis**	**2.72**	**205**	P	**Pn**	**07 03 32.2**	**+1.6**	
VILL	**Villia**	**2.97**	**279**	P	**Pn**	**07 03 35.4**	**+1.3**	
IDI	**Anoyia**	**2.99**	**216**	P	**Pn**	**07 03 35.8**	**+1.5**	

NNC 08 07:03:14.1±5.2, 36°.84N×70°.81E, h103km±96km, mb3.1, mpv3.5, 3C-1D, Error ellipse: s-maj=40.6km s-min=35.8km az=36.0, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.26**	**358**	P	Pn	07 04 44.8	+1.0
	5.6nm,0.4s,baz=176,slow=13,SNR=81						
KK31				S	Sn	07 05 56.3	+2.4
	9.0nm,0.5s,baz=179,slow=22,SNR=11						
AAK	**Ala-Archa**	**6.45**	**25**	⇓P	Pn	07 04 45.0	-1.6
	0.6nm,0.4s						
AAK				⇑S	Sn	07 05 59.0	+0.3
	2.6nm,0.4s						
AB31	**Akbulak array**	**14.71**	**331**	P	Pn	07 06 37.2	+0.4
	1.1nm,0.6s,baz=141,slow=13,SNR=19						
AB31				S	Sn	07 09 15.9	-3.0
	0.4nm,0.3s,baz=149,slow=24,SNR=7.1						
AKTO	**Aktyubinsk**	**16.41**	**330**	⇑P	P	07 07 00.3	+1.3
	1.4nm,0.8s						
AKTO				⇑S	Sn	07 09 57.9	-2.0
	0.5nm,0.5s						

*TEH **08** 07:07:09.9, 39°.73N×50°.18E, h10km, ML3.4, Presumed earthquake*
*AZER **08** 07:07:12.8, 39°.75N×50°.07E, h62km, ml2.9*
*DRS **08** 07:07:19.7, 40°.17N×49°.93E, h15km*

ISC 08 07:07:11.9±1.3, 39°.73N±0°.03×50°.06E±0°.04, h15km±10km, n46, σ1s59/68, Caspian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GALA	**Gala**	**0.69**	**6**	P	**Pn**	**07 07 27.9**	**+0.8**
GALA				S	**Sn**	**07 07 41.0**	**+3.6**
GOBA	**Gobu**	**0.72**	**340**	P	**Pn**	**07 07 29.6**	**+2.1**
GOBA				S	**Sn**	**07 07 42.9**	**+4.7**
ALIB	**&Aumlli-Bayram**	**0.84**	**286**	P	Pn	07 07 34.2	+5.0
NDR	**Nardaran**	**0.85**	**356**	P	**Pn**	**07 07 29.7**	**+0.4**
NDR				S	**Sn**	**07 07 44.9**	**+3.4**
GBS	**Qobustan**	**1.18**	**314**	P	**Pg**	**07 07 36.2**	**+1.6**
GBS				S	**Sn**	**07 07 54.0**	**+4.3**
ATGJ	**Altiaghaj**	**1.42**	**323**	Pn	**Pg**	**07 07 38.6**	**-0.7**
ATGJ				Sg	**Sg**	**07 07 59.2**	**+1.5**
ASTR	**Astara**	**1.53**	**221**	Pn	**Pn**	**07 07 38.4**	**-0.3**
ASTR				Sn	**Sg**	**07 08 01.1**	**-0.1**
PQL	**Pirkuli**	**1.54**	**314**	Sn	**Sg**	**07 08 01.9**	**+0.2**
SIZA	**Siyzn**	**1.61**	**327**	Pn	**Pb**	**07 07 40.6**	**-0.9**
SIZA				Sn	**Sg**	**07 08 02.6**	**-1.3**
YRD	**Yardimli**	**1.63**	**241**	Pn	**Pb**	**07 07 41.4**	**-0.3**
YRD				Sn	**Sn**	**07 08 02.1**	**+1.2**
LRK	**Lerik**	**1.72**	**232**	Pn	**Pn**	**07 07 41.8**	**+0.3**
LRK				Sn	**Sn**	**07 08 04.7**	**+1.5**
IML	**Ismayilli**	**1.79**	**307**	Pn	**Pn**	**07 07 42.9**	**+0.6**
IML				Sn	**Sn**	**07 08 04.5**	**-0.2**
GRMI	**Germi**	**1.92**	**242**	Pn	**Pb**	**07 07 45.4**	**-1.2**
QUBA	**Quba, Azerbaij**	**2.02**	**324**	Pn	**Pn**	**07 07 46.1**	**+0.7**
QUBA				Sn	**Sn**	**07 08 10.7**	**+0.3**
XNQ	**Khinaliq**	**2.06**	**315**	Pn	**Pn**	**07 07 46.5**	**+0.3**
XNQ				Sn	**Sn**	**07 08 11.4**	**-0.2**
QBL	**Gabala**	**2.09**	**306**	Pn	**Pn**	**07 07 45.8**	**-0.6**
QBL				Sn	**Sn**	**07 08 12.1**	**-0.1**
QSAR	**Qusar**	**2.25**	**323**	Pn	**Pn**	**07 07 49.2**	**+0.6**
QSAR				Sn	**Sn**	**07 08 14.3**	**-1.8**
AGDM	**Agdam**	**2.30**	**280**	Pn	**Pn**	**07 07 49.0**	**-0.3**
AGDM				Sn	**Sn**	**07 08 18.8**	**+1.5**
KSMR	**Kasumkent**	**2.38**	**322**	*e*Pg	**Pb**	**07 07 52.1**	**-2.4**
	50nm,0.1s						
SEKA	**Sheki**	**2.64**	**305**	Pn	**Pn**	**07 07 54.4**	**+0.4**
SEKA				Sn	**Sn**	**07 08 25.7**	**0.0**
IHRS	**Heris**	**2.74**	**240**	Pn	**Pn**	**07 07 57.7**	**+2.2**
GIDE	**GILAN DEYLAMAN**	**2.80**	**182**	Pn	**Pn**	**07 07 56.4**	**0.0**
GANJ	**Ganja**	**3.01**	**289**	Pn	**Pn**	**07 07 59.4**	**+0.4**
GANJ				Sn	**Sn**	**07 08 33.5**	**-1.2**
URKR	**Urkarakh**	**3.05**	**324**	*e*Pn	**Pn**	**07 07 59.9**	**+0.2**
	29nm,0.1s						
URKR				*e*Sn	**Sn**	**07 08 32.1**	**-3.9**
	137nm,0.0s						
ZNJK	**Zanjan**	**3.24**	**200**	Pn	**Pn**	**07 08 03.2**	**+0.8**
ORD	**Ordubad**	**3.25**	**257**	Sn	**Sn**	**07 08 42.0**	**+1.0**
IHSH	**Hashtrud**	**3.27**	**223**	Pn	**Pn**	**07 08 04.9**	**+2.1**
SGKR	**Sergokala**	**3.28**	**327**	*e*Pn	**Pn**	**07 08 03.8**	**+1.0**
	38nm,0.3s						
KMKR	**Kumukh**	**3.29**	**318**	*e*Pn	**Pn**	**07 08 03.9**	**+0.9**
	22nm,0.5s						
KMKR				*e*Sn	**Sn**	**07 08 39.1**	**-2.8**
	23nm,0.5s						
IGZV	**Ghazvin**	**3.34**	**178**	Pn	**Pn**	**07 08 04.2**	**+0.5**
GDB	**GEDABAY**	**3.44**	**288**	Pn	**Pn**	**07 08 05.9**	**+0.8**
GDB				Sn	**Sn**	**07 08 44.5**	**-1.2**
MZPU	**Pul - Mazandar**	**3.49**	**160**	Pn	**Pn**	**07 08 06.0**	**+0.2**
GNBR	**Gunib**	**3.54**	**320**	*e*Pn	**Pn**	**07 08 08.0**	**+1.6**
	17nm,0.6s						
ARKR	**Arakani**	**3.69**	**322**	*e*Pn	**Pn**	**07 08 09.7**	**+1.3**
	5.0nm,0.6s						
ARKR				*e*Sn	**Sn**	**07 08 49.5**	**-2.1**
	11nm,0.4s						
XNZR	**Khunzakh**	**3.78**	**319**	*e*Pn	**Pn**	**07 08 11.2**	**+1.4**
	8.0nm,0.7s						
QZX	**Qazax, Azerbai**	**3.82**	**292**	Pn	**Pn**	**07 08 10.7**	**+0.6**
QZX				Sn	**Sn**	**07 08 53.9**	**-0.9**
UNCR	**Uncukul**	**3.87**	**322**	*e*Pn	**Pn**	**07 08 11.7**	**+0.8**
	7.0nm,0.5s						
KRNR	**Karanay**	**3.90**	**324**	*e*Pn	**Pn**	**07 08 11.9**	**+0.5**
	5.0nm,1.9s						
KRNR				*e*Sn	**Sn**	**07 08 53.6**	**-3.3**
	8.0nm,0.4s						
IPRN	**Peran**	**3.92**	**152**	Pn	**Pn**	**07 08 12.0**	**+0.3**
IGLO	**Ghaloghah**	**4.38**	**136**	Pn	**Pn**	**07 08 17.7**	**-0.5**
ISHM	**Shahmirzad**	**4.68**	**146**	Pn	**Pn**	**07 08 22.6**	**+0.3**
MRVT	**Maraveh tapeh**	**5.15**	**112**	Pn	**Pn**	**07 08 27.7**	**-0.8**
IANJ	**Anjilo**	**5.24**	**143**	Pn	**Pn**	**07 08 30.2**	**+0.3**
SHRO	**Shahrood**	**6.01**	**127**	Pn	**Pn**	**07 08 40.6**	**+0.3**
ISFR	**Sfrayin**	**6.78**	**111**	Pn	**Pn**	**07 08 50.7**	**-0.5**
SBZV	**Sabzevar**	**6.83**	**117**	Pn	**Pn**	**07 08 51.6**	**-0.1**

IDC 08 07:14:10.6±1.4, 16°.43S×177°.96W, h0km, mb4.0/3, mbtmp4.1/4, ML4.1/1, Error ellipse: s-maj=170.0km s-min=20.3km az=159.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**6.48**	**68**	Pn	Pn	07 15 44.1	-3.1
	3.7nm,0.3s,baz=247,slow=15,SNR=6.3						
AFI				Sn	Sn	07 16 43.2	-19
	1.7nm,0.3s,baz=253,slow=11,SNR=1.0						
	15nm,0.5s						
AFI				AML	AML		
STKA	**Stephens Creek**	**39.73**	**240**	P	P	07 21 45.8	+0.8
	1.3nm,0.8s,baz=90,slow=10,SNR=1.5						
	1.3nm,0.8s						
WRA	**Warramunga Arr**	**45.34**	**258**	P	P	07 22 30.5	-0.3
	1.0nm,0.6s,baz=94,slow=8.5,SNR=21						
	1.0nm,0.6s						
ASAR	**Alice Springs**	**45.62**	**253**	P	P	07 22 32.6	-0.5
	1.5nm,0.3s,baz=90,slow=7.9,SNR=78						
	1.5nm,0.3s						

*SOF **08** 07:19:43.5, 39°.20N±0°.08×23°.85E±0°.02, h10km±4km, MD3.8/3*
*ISK **08** 07:19:47.5, 39°.44N×23°.68E, h8km, ML3.4/19*
*THE **08** 07:19:49.4, 39°.5N±0°.6×23°.8E±0°.9, h10km±1km, M3.1/56, MLh3.1/56*
*ATH **08** 07:19:49.1, 39°.51N×23°.76E, h17km, ML3.4/42, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 08 07:19:49.3±0.9, 39°.51N±0°.01×23°.75E±0°.02, h18km±6km, n180, σ1s26/213, 12C-13D, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AOS	**Alonnisos**	**0.35**	**163**	P	**Pb**	**07 19 56.7**	**-0.4**
AOS				S	**Sb**	**07 20 02.3**	**-0.1**
AOS				AML	AML		
AOS2	**Alonissos-2**	**0.37**	**169**	P	**Pg**	**07 19 56.8**	**-0.2**
AOS2				S	**Sg**	**07 20 02.2**	**0.0**
AOS2				AML	AML		
PAIG	**Paliouri**	**0.42**	**353**	P	**Pg**	**07 19 57.7**	**-0.2**
PAIG				S	**Sb**	**07 20 04.2**	**-0.1**
NEO	**Neokhori**	**0.46**	**244**	P	**Pg**	**07 19 58.4**	**-0.2**
NEO				S	**Sg**	**07 20 05.6**	**+0.8**
NEO				AML	AML		
NEO	**Neokhori**	**0.46**	**244**	P	**Pg**	**07 19 58.4**	**-0.2**
NEO				S	**Sg**	**07 20 05.0**	**+0.2**
NEO				AML	AML		
VOL2	**Volos**	**0.64**	**257**	P	**Pg**	**07 20 01.8**	**-0.1**
VOL2				S	**Sg**	**07 20 11.1**	**+0.8**
VOL2				AML	AML		
OUR	**Ouranopolis**	**0.84**	**12**	P	**Pg**	**07 20 05.3**	**-0.4**
OUR				S	**Sb**	**07 20 17.4**	**+0.9**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.84**	**12**	Pg	**Pb**	**07 20 05.6**	**+0.1**
OUR				Sg	**Sn**	**07 20 18.8**	**+0.5**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.84**	**12**	P	**Pg**	**07 20 05.4**	**-0.4**
OUR				S	**Sg**	**07 20 15.8**	**-1.1**
OUR				AML	AML		
SKY	**Skiros Island**	**0.89**	**135**	P	**Pb**	**07 20 06.7**	**+0.5**
SKY				S	**Sb**	**07 20 18.3**	**+0.6**
SKY				AML	AML		
SKY	**Skiros Island**	**0.89**	**135**	P	**Pb**	**07 20 06.7**	**+0.5**
PLG	**Polygyros**	**0.89**	**345**	P	**Pg**	**07 20 05.7**	**-1.0**
PLG				S	**Sb**	**07 20 18.8**	**+0.8**
PLG				AML	AML		
PLG	**Polygyros**	**0.89**	**345**	P	**Pg**	**07 20 05.6**	**-1.2**
KYMI	**Kymi, Euboea I**	**0.92**	**163**	P	**Pb**	**07 20 06.9**	**+0.1**
KYMI				S	**Sb**	**07 20 19.7**	**+1.1**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**0.92**	**163**	P	**Pb**	**07 20 06.8**	**+0.1**
KYMI				S	**Sg**	**07 20 18.3**	**-1.0**
KYMI				AML	AML		
EFSA	**Agios Efstrati**	**0.96**	**88**	P	**Pb**	**07 20 07.4**	**0.0**
EFSA				S	**Sb**	**07 20 20.0**	**+0.2**
EFSA				AML	AML		
ATAL	**Atalanti**	**0.99**	**215**	P	**Pg**	**07 20 08.1**	**-0.6**
ATAL	**Atalanti**	**0.99**	**215**	P	**Pg**	**07 20 08.0**	**-0.6**
LKR	**Lokris**	**1.04**	**214**	P	**Pg**	**07 20 08.6**	**-0.8**
LKR				S	**Sb**	**07 20 23.7**	**+1.7**
LKR				AML	AML		
LKR	**Lokris**	**1.04**	**214**	P	**Pg**	**07 20 08.6**	**-0.8**
LKR				S	**Sg**	**07 20 22.4**	**-0.6**
LKR				AML	AML		
GINA	**Giannouli**	**1.06**	**279**	P	**Pb**	**07 20 09.0**	**-0.2**
GINA				AML	AML		
LMN1	**MIRINA LIMNOU**	**1.07**	**70**	P	**Pb**	**07 20 09.5**	**+0.2**
LMN1				S	**Sb**	**07 20 23.1**	**+0.1**
AXAR	**Agios Charalam**	**1.13**	**229**	P	**Pb**	**07 20 11.0**	**+0.7**
AXAR				S	**Sn**	**07 20 27.7**	**+2.4**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**1.13**	**229**	P	**Pb**	**07 20 10.5**	**+0.2**
AXAR				S	**Sb**	**07 20 24.5**	**-0.1**
LIA	**Limnos Island**	**1.17**	**70**	P	**Pb**	**07 20 10.5**	**-0.6**
LIA				S	**Sn**	**07 20 27.5**	**+1.1**
LIA				AML	AML		
LIA	**Limnos Island**	**1.17**	**70**	P	**Pb**	**07 20 10.2**	**-0.9**
LIA				S	**Sb**	**07 20 26.0**	**+0.1**
LIA				AML	AML		
TYRN	**Tyrnavos**	**1.19**	**280**	P	**Pn**	**07 20 11.2**	**+0.1**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.19**	**280**	P	**Pn**	**07 20 11.0**	**-0.1**
TYRN				S	**Sb**	**07 20 27.1**	**+0.7**
TYRN				AML	AML		
AGG	**Agios Georgios**	**1.20**	**247**	P	**Pn**	**07 20 11.6**	**+0.3**
AGG				AML	AML		
AGG	**Agios Georgios**	**1.20**	**247**	P	**Pn**	**07 20 11.1**	**-0.2**
AGG				S	**Sb**	**07 20 27.1**	**+0.2**
AGG				AML	AML		
THE	**Thessaloniki**	**1.27**	**332**	P	**Pn**	**07 20 13.1**	**+0.9**
THE				S	**Sn**	**07 20 30.2**	**+1.3**
THE				AML	AML		
THE	**Thessaloniki**	**1.27**	**332**	P	**Pn**	**07 20 12.2**	**0.0**
THE				S	**Sb**	**07 20 29.1**	**+0.3**
THAS	**Thassos island**	**1.32**	**34**	P	**Pn**	**07 20 12.3**	**-0.7**
THAS				AML	AML		
THAS	**Thassos island**	**1.32**	**34**	P	**Pn**	**07 20 11.8**	**-1.1**
THAS				AML	AML		
STFN	**Stefani**	**1.34**	**187**	P	**Pn**	**07 20 13.4**	**+0.1**
STFN				AML	AML		
STFN	**Stefani**	**1.34**	**187**	P	**Pn**	**07 20 13.3**	**+0.1**
STFN				AML	AML		
THL	**Klokotos Trika**	**1.34**	**273**	P	**Pn**	**07 20 13.2**	**0.0**
THL				AML	AML		
THL	**Klokotos Trika**	**1.34**	**273**	P	**Pn**	**07 20 13.1**	**0.0**
SOH	**Sokhos**	**1.34**	**347**	P	**Pn**	**07 20 13.7**	**+0.4**
SOH				S	**Sn**	**07 20 32.2**	**+1.4**
SOH				AML	AML		
SOH	**Sokhos**	**1.34**	**347**	P	**Pn**	**07 20 13.4**	**+0.1**
SOH				AML	AML		
VIL2	**Platees**	**1.35**	**196**	P	**Pn**	**07 20 13.6**	**+0.2**
VILL	**Villia**	**1.39**	**194**	P	**Pn**	**07 20 13.6**	**-0.2**
VILL				AML	AML		
DLFA	**Delphi**	**1.42**	**224**	P	**Pn**	**07 20 14.4**	**+0.1**
DLFA				AML	AML		
ACHAR	**Athens-Acharne**	**1.43**	**180**	P	**Pn**	**07 20 13.9**	**-0.6**
DION	**Dionisos Attik**	**1.44**	**174**	P	**Pn**	**07 20 14.4**	**-0.1**
DION				AML	AML		
DION	**Dionisos Attik**	**1.44**	**174**	P	**Pn**	**07 20 14.3**	**-0.2**
DION				AML	AML		
PTL	**Penteli**	**1.46**	**176**	P	**Pn**	**07 20 15.0**	**+0.1**
PTL				S	**Sg**	**07 20 35.8**	**-0.8**
PTL	**Penteli**	**1.46**	**176**	P	**Pn**	**07 20 14.9**	**+0.1**
ELFA	**Athens-Elefsin**	**1.47**	**186**	P	**Pn**	**07 20 15.0**	**+0.1**
ELFA				AML	AML		
ATHP	**Athens-Neo Psi**	**1.51**	**179**	P	**Pn**	**07 20 15.2**	**-0.2**
ATHP				AML	AML		
NOAC	**Athens-Thissio**	**1.53**	**181**	P	**Pn**	**07 20 15.8**	**0.0**
NOAC				AML	AML		
ATH	**Athens Observa**	**1.54**	**181**	P	**Pn**	**07 20 15.7**	**-0.1**
ATH				AML	AML		
ATH	**Athens Observa**	**1.54**	**181**	P	**Pn**	**07 20 15.9**	**+0.1**
ATH				AML	AML		
ATHU	**Athens Univers**	**1.54**	**179**	P	**Pn**	**07 20 15.8**	**-0.1**
ATHU				S	**Sb**	**07 20 37.8**	**+1.3**
ATHU				AML	AML		
ATHU	**Athens Univers**	**1.54**	**179**	P	**Pn**	**07 20 15.8**	**-0.1**
ATHU				AML	AML		
KARY	**Karystos**	**1.57**	**160**	P	**Pn**	**07 20 16.3**	**0.0**
KARY				S	**Sg**	**07 20 38.8**	**-1.2**
KARY				AML	AML		
KARY	**Karystos**	**1.57**	**160**	P	**Pn**	**07 20 16.4**	**0.0**
KARY				AML	AML		
KAVA	**Kavala**	**1.60**	**21**	P	**Pn**	**07 20 16.3**	**-0.4**
KAVA				AML	AML		
LTK	**Loutraki**	**1.61**	**203**	P	**Pn**	**07 20 16.7**	**-0.1**
LTK				AML	AML		
LTK	**Loutraki**	**1.61**	**203**	P	**Pn**	**07 20 16.7**	**-0.1**
LTK				AML	AML		
SRS	**Serrai**	**1.61**	**356**	P	**Pn**	**07 20 17.2**	**+0.3**
SRS				AML	AML		
EVR	**Evrytania**	**1.62**	**249**	P	**Pn**	**07 20 17.8**	**+0.7**
EVR				AML	AML		
EVR	**Evrytania**	**1.62**	**249**	P	**Pn**	**07 20 17.9**	**+0.7**
LOUT	**Loutraki**	**1.64**	**202**	P	**Pn**	**07 20 16.9**	**-0.3**
VLY	**Voula,Athens**	**1.66**	**179**	P	**Pn**	**07 20 17.5**	**-0.1**
VLY				AML	AML		
VLY	**Voula,Athens**	**1.66**	**179**	P	**Pn**	**07 20 17.4**	**-0.1**
VLY				AML	AML		
SMTH	**Samothraki Isl**	**1.67**	**54**	P	**Pn**	**07 20 17.1**	**-0.7**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.67**	**54**	P	**Pn**	**07 20 16.6**	**-1.2**
SMTH				AML	AML		
KALE	**Kalithea**	**1.68**	**229**	P	**Pn**	**07 20 18.7**	**+0.8**
KALE				AML	AML		
KALE	**Kalithea**	**1.68**	**229**	P	**Pn**	**07 20 18.4**	**+0.5**
KALE				AML	AML		
ANX	**Ano Chora**	**1.69**	**238**	P	**Pn**	**07 20 18.4**	**+0.3**
ANX				S	**Sn**	**07 20 41.0**	**+1.7**
ANX				AML	AML		
ANX	**Ano Chora**	**1.69**	**238**	P	**Pn**	**07 20 18.5**	**+0.3**
AN

EPID					AML	AML			
EPID	**Epidavros**	**1.96**	**195**		P	**Pn**	**07 20 21.6**	**0.0**
EPID					AML	AML			
PRK	**Paraskevi**	**1.97**	**97**		P	**Pn**	**07 20 22.8**	**+1.0**
PRK					AML	AML			
EZN	**Ezine**	**2.01**	**80**	⇓	P	**Pn**	**07 20 18.6**	**-3.8**
EZN	**Ezine**	**2.01**	**80**		Pn	**Pn**	**07 20 23.7**	**+1.3**
EZN					AML	AML			
EZNE	**Ezine-Canakkal**	**2.04**	**82**		Pn	**Pn**	**07 20 23.8**	**+1.1**
MMB	**Musomishta**	**2.04**	**0**		P	**Pn**	**07 20 23.4**	**+0.6**
MMB					AML	AML			
MMB	**Musomishta**	**2.04**	**0**		P	**Pn**	**07 20 23.7**	**+0.9**
PRMD	**Pramanda**	**2.05**	**271**		P	**Pn**	**07 20 23.9**	**+0.8**
PRMD					AML	AML			
PRMD	**Pramanda**	**2.05**	**271**		P	**Pn**	**07 20 23.8**	**+0.8**
PRMD					AML	AML			
AMPL	**Ampelaki**	**2.06**	**254**		P	**Pn**	**07 20 24.3**	**+1.3**
AMPL					AML	AML			
AMPL	**Ampelaki**	**2.06**	**254**		P	**Pn**	**07 20 24.1**	**+1.1**
AMPL					AML	AML			
CHOS	**Chios island**	**2.12**	**121**		P	**Pn**	**07 20 24.3**	**+0.3**
CHOS					AML	AML			
CHOS	**Chios island**	**2.12**	**121**		Pn	**Pn**	**07 20 24.3**	**+0.3**
CHOS					AML	AML			
PLEV	**Plevrona-Mesol**	**2.13**	**240**		P	**Pn**	**07 20 25.5**	**+1.5**
PLEV					AML	AML			
PLEV	**Plevrona-Mesol**	**2.13**	**240**		P	**Pn**	**07 20 24.8**	**+0.7**
COMU	**Canakkale**	**2.18**	**73**		Pn	**Pn**	**07 20 26.0**	**+1.3**
COMU					AML	AML			
PDO	**Prodromos**	**2.19**	**246**		P	**Pn**	**07 20 26.5**	**+1.6**
PDO					AML	AML			
CAVK	**Edirne/Enez-Ca**	**2.20**	**57**	⇑	P	**Pn**	**07 20 26.0**	**+1.1**
ENEZ	**Enez**	**2.21**	**56**		Pn	**Pn**	**07 20 26.6**	**+1.4**
ENEZ					AML	AML			
DRO	**Drossia**	**2.23**	**226**		P	**Pn**	**07 20 27.0**	**+1.6**
DRO					AML	AML			
DRO	**Drossia**	**2.23**	**226**		P	**Pn**	**07 20 26.5**	**+1.1**
DRO					AML	AML			
ALN	**Alexandroupoli**	**2.24**	**51**		Pn	**Pn**	**07 20 26.9**	**+1.4**
NEST	**Nestorio**	**2.26**	**294**		P	**Pn**	**07 20 27.1**	**+1.2**
NEST					AML	AML			
AXS	**Araxos**	**2.27**	**235**		P	**Pb**	**07 20 28.7**	**-1.1**
GELI	**Tayfur-Gelibol**	**2.27**	**66**		Pn	**Pn**	**07 20 27.6**	**+1.6**
GELI					AML	AML			
RLS	**Riolos of Patr**	**2.30**	**232**		P	**Pn**	**07 20 28.9**	**+2.5**
RLS					AML	AML			
RZN	**Rozhen**	**2.31**	**19**		P	**Pn**	**07 20 26.5**	**-0.1**
RZN					AML	AML			
RZN	**Rozhen**	**2.31**	**19**		P	**Pn**	**07 20 27.0**	**+0.3**
RZN					S	**Sg**	**07 21 02.0**	**-1.6**
PEHC	**Pehcevo**	**2.36**	**344**	*i*	Pn	**Pg**	**07 20 35.8**	**+1.2**
KKB	**Krupnik**	**2.38**	**349**		P	**Pn**	**07 20 28.5**	**+1.0**
KKB					AML	AML			
KKB	**Krupnik**	**2.38**	**349**		P	**Pn**	**07 20 28.6**	**+1.1**
KKB					S	**Sg**	**07 21 06.2**	**+0.4**
VLX	**Vlachokerasia**	**2.39**	**207**		P	**Pn**	**07 20 28.7**	**+0.9**
VLX					AML	AML			
ERIK	**Erikli-Kesan**	**2.42**	**60**		Pn	**Pn**	**07 20 29.4**	**+1.5**
ERIK					AML	AML			
KDZ	**Kurdzhali**	**2.44**	**29**		P	**Pn**	**07 20 28.3**	**0.0**
KDZ	**Kurdzhali**	**2.44**	**29**		Pn	**Pn**	**07 20 28.6**	**+0.3**
KDZ					AML	AML			
YAYO	**Edremit-Balk**	**2.57**	**87**		Pn	**Pn**	**07 20 31.6**	**+1.5**
YAYO					AML	AML			
CANM	**Can-anakkale**	**2.59**	**78**		Pn	**Pn**	**07 20 31.9**	**+1.5**
CANM					AML	AML			
ITM	**Ithomi**	**2.73**	**212**		Pn	**Pn**	**07 20 31.9**	**-0.4**
ITM					AML	AML			
PLD	**Plovdiv**	**2.74**	**16**		Pn	**Pn**	**07 20 33.3**	**+0.9**
OHR	**Ohrid**	**2.77**	**306**	*i*	Pn	**Pb**	**07 20 38.6**	**+0.3**
APE	**Apeiranthos**	**2.81**	**150**		Pn	**Pn**	**07 20 33.5**	**0.0**
APE					AML	AML			
APE	**Apeiranthos**	**2.81**	**150**		P	**Pn**	**07 20 33.4**	**0.0**
VLI	**Veliai**	**2.86**	**193**		P	**Pn**	**07 20 34.5**	**+0.4**
PLNA	**Plana**	**2.97**	**355**		P	**Pn**	**07 20 37.1**	**+1.3**
KEK	**Kerkira**	**3.06**	**275**		Pn	**Pn**	**07 20 36.9**	**+0.1**
KEK					AML	AML			
VTS	**Vitosha**	**3.13**	**353**		P	**Pn**	**07 20 39.0**	**+1.1**
BALB	**Balikesir**	**3.19**	**86**		Pn	**Pn**	**07 20 40.3**	**+1.6**
BALB					AML	AML			
EDRB	**Edirne**	**3.26**	**43**		Pn	**Pn**	**07 20 41.6**	**+2.0**
EDRB					AML	AML			
GCAM	**G?zelcaml?**	**3.27**	**122**		Pn	**Pn**	**07 20 40.5**	**+0.8**
KTHA	**Kythira Island**	**3.29**	**190**		Pn	**Pn**	**07 20 39.4**	**-0.6**
KTHA					AML	AML			
SUSR	**Susurluk-Balik**	**3.37**	**81**		Pn	**Pn**	**07 20 43.0**	**+1.9**
SUSR					AML	AML			
ELND	**Elena**	**3.77**	**24**	⇑	P	**Pn**	**07 20 50.8**	**+4.2**
MPEP	**Malo Peshtene**	**3.84**	**360**		P	**Pn**	**07 20 49.2**	**+1.6**
PLVB	**Pleven**	**3.93**	**9**	⇓	P	**Pn**	**07 20 50.8**	**+2.1**
BLKB	**Belogradchik**	**4.19**	**349**	⇑	P	Pn	07 20 47.7	-4.7
BOVS	**Bovan**	**4.40**	**340**	⇑	P	Pn	07 20 45.9	-9.2
HERR	**Herculane**	**5.46**	**350**	⇑	P	Pn	07 21 04.0	-5.8
MDVR	**Moldovita**	**5.48**	**345**	⇑	P	Pn	07 21 01.7	-8.4
ARR	**Arges**	**5.89**	**6**	⇓	P	**Pn**	**07 21 16.3**	**+0.5**
GZR	**Gura Zlata**	**5.92**	**353**	⇑	P	Pn	07 21 11.7	-4.5
LOT	**Lotru**	**5.94**	**0**	⇓	P	**Pn**	**07 21 14.2**	**-2.2**
VOIR		**6.00**	**9**	⇑	P	**Pn**	**07 21 17.8**	**+0.5**
LSTV	**Lastovo**	**6.12**	**304**	*e*	Pn	**Pn**	**07 21 19.3**	**+0.5**
LSTV					Sn	**Sn**	**07 22 21.5**	**-6.7**
TNR	**Turnu Rosu**	**6.15**	**3**	⇑	P	**Pn**	**07 21 18.5**	**-0.8**
MLR	**Muntele Rosu**	**6.19**	**14**	⇑	P	**Pn**	**07 21 22.1**	**+2.1**
NEHR	**Nehoiu**	**6.21**	**17**	⇓	P	**Pn**	**07 21 22.1**	**+2.0**
MAKA	**Makarska**	**6.31**	**309**	*e*	Pn	**Pn**	**07 21 23.1**	**+1.7**
MAKA					Sn	**Sn**	**07 22 30.5**	**-2.6**
RICI	**Ricice**	**6.36**	**311**	*i*	Pn	**Pn**	**07 21 25.5**	**+3.2**
RICI					Sn	**Sn**	**07 22 33.0**	**-1.5**
DOPR	**Dopca**	**6.57**	**10**	⇓	P	**Pn**	**07 21 25.7**	**+0.7**
SAHR	**Sahastru**	**6.58**	**18**	⇓	P	**Pn**	**07 21 28.4**	**+3.2**
COVR	**Voineasa-Covas**	**6.58**	**15**	⇓	P	**Pn**	**07 21 27.8**	**+2.5**
HVAR	**Hvar**	**6.60**	**306**	*e*	Pn	**Pn**	**07 21 25.5**	**0.0**
MDB	**Medias**	**6.64**	**4**	⇓	P	**Pn**	**07 21 24.6**	**-1.5**
PLOR	**Plostina**	**6.69**	**18**	⇓	P	**Pn**	**07 21 29.9**	**+3.3**
VRI	**Vrincioaia**	**6.72**	**18**	⇓	P	**Pn**	**07 21 28.9**	**+1.8**
OZUR		**6.75**	**12**	⇑	P	**Pn**	**07 21 28.8**	**+1.2**
KIJV	**Kijevo**	**7.09**	**312**	*e*	Pn	**Pn**	**07 21 35.0**	**+2.8**
KIJV					Sn	**Sn**	**07 22 50.0**	**-2.3**
MARR	**Marisel-Cluj**	**7.18**	**357**	⇓	P	Pn	07 21 29.0	-4.5
TESR	**Tescani**	**7.31**	**16**	⇓	P	**Pn**	**07 21 36.6**	**+1.4**
MORI	**Morici**	**7.43**	**308**	*e*	Pn	**Pn**	**07 21 37.6**	**+0.8**
MORI					Sn	**Sn**	**07 22 54.6**	**-5.9**
DUGI	**Dugi Otok**	**7.89**	**307**	*e*	Pn	**Pn**	**07 21 43.9**	**+0.7**
DUGI					Sn	Sn	07 23 04.4	-7.6
BURAR	**Bucovina Array**	**8.17**	**7**	⇑	P	**Pn**	**07 21 47.6**	**+0.5**

*IDC **08** 07:21:52.2±1.4,54.°67N×159.°99W,h0km,mb3.8/12, mbtmp3.8/15,ML3.6/3,MS3.6/3,Error ellipse: s-maj=32.3km s-min=14.1km az=160.0*

*NEIC **08** 07:21:56.9±1.3,54.°42N±0.°05×159.°73W±0.°09,h35km±2km, mb3.8/9,ML3.7/26,ML3.5(AEIC),Error ellipse: s-maj=9.9km s-min=7.3km az=140.0*

*AEIC **08** 07:21:57.7±2.3,54.°46N±0.°04×159.°83W±0.°05,h16km±5km, Error ellipse: s-maj=6.7km s-min=3.6km az=155.0*

ISC 08 07:21:56.7±1.0,54.°46N±0.°07×159.°69W±0.°05,h43km±9km, n152,σ1§01/159,mb3.9/13,MS3.7/3,South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
CNBA	**Chernabura Isl**	**0.36**	**9**				**Pn**	**07 22 05.5**	**-0.4**
CNBA							**Sn**	**07 22 12.3**	**0.0**
CHNA	**Chernabura Isl**	**0.38**	**9**	P		Pn	**Pn**	**07 22 05.2**	**-0.8**
CHNA	**Chernabura Isl**	**0.38**	**9**	S		Sn	**Sn**	**07 22 12.3**	**-0.2**
SDPT	**Sand Point**	**1.00**	**333**	P			**Pn**	**07 22 14.2**	**0.0**
SDPT	**Sand Point**	**1.00**	**333**	S			**Sn**	**07 22 28.4**	**+1.3**
SDPT	**Sand Point**	**1.00**	**333**				**Pn**	**07 22 14.2**	**0.0**
SDPT							**Sn**	**07 22 27.9**	**+0.8**
SDPT						AML		07 22 28.5	
	comp=N,2μm,0.7s								
DOL	**Dolgoi Island**	**1.44**	**300**				**Pn**	**07 22 20.0**	**-0.3**
DOL							**Sn**	**07 22 37.8**	**0.0**
PVV	**Pavlof Volcano**	**1.52**	**308**				**Pn**	**07 22 21.8**	**+0.5**
PS1A	**Pavlof South-1**	**1.53**	**310**				**Pn**	**07 22 22.1**	**+0.6**
PS1A							**Sn**	**07 22 39.5**	**-0.5**
PS4A	**Pavlof South-4**	**1.53**	**306**				**Pn**	**07 22 22.0**	**+0.5**
PS4A							**Sn**	**07 22 39.9**	**-0.4**
HAG	**Hague Volcano**	**1.54**	**305**				**Pn**	**07 22 22.3**	**+0.6**
VNKR	**Veniaminof 5**	**1.58**	**7**				**Pn**	**07 22 24.0**	**+1.7**
DT1	**Dutton Round H**	**1.64**	**294**				**Pn**	**07 22 22.6**	**-0.3**
DT1							**Sn**	**07 22 41.9**	**-0.9**
DTNA	**Dutton South F**	**1.64**	**296**				**Pn**	**07 22 22.9**	**-0.1**
DTNA							**Sn**	**07 22 43.2**	**+0.5**
PN7A	**Pavlof North-7**	**1.65**	**307**				**Pn**	**07 22 23.9**	**+0.7**
VNWF	**Veniaminof 8**	**1.70**	**2**				**Pn**	**07 22 25.2**	**+1.3**
VNHG	**Veniaminof 1**	**1.79**	**9**				**Pn**	**07 22 26.9**	**+1.7**
S12K	**Black Hills**	**1.85**	**313**				**Pn**	**07 22 26.7**	**+0.9**
CHGN	**Chignik**	**1.98**	**21**				**Pn**	**07 22 28.7**	**+1.0**
CHGN						IAML		07 23 01.9	
	comp=E,716nm,0.7s								
CHGN						IAML		07 23 04.9	
	comp=N,610nm,0.6s								
BPBCA	**Veniaminof**	**2.25**	**18**				**Pn**	**07 22 32.4**	**+1.0**
ISLZ	**Isanotski Laza**	**2.35**	**278**				**Pn**	**07 22 32.9**	**0.0**
ISNN	**Isanotski Nort**	**2.41**	**281**				**Pn**	**07 22 33.6**	**+0.1**
ANPB	**Aniakchak Plen**	**2.48**	**18**				**Pn**	**07 22 35.6**	**+1.0**
SSLS	**Shishaldin Sou**	**2.52**	**277**				**Pn**	**07 22 35.4**	**+0.2**
SSLN	**Shishaldin Nor**	**2.53**	**280**				**Pn**	**07 22 36.4**	**+1.2**
SSLN							**Sn**	**07 23 06.1**	**+1.3**
CHIR	**Chirikof Islan**	**2.70**	**58**	P		P	**Pn**	**07 22 37.7**	**+0.1**
CHIR	**Chirikof Islan**	**2.70**	**58**				**Pn**	**07 22 37.8**	**+0.2**
CHIR						IAML		07 23 37.9	
	comp=E,212nm,1.1s								
WTUG	**Tugumak**	**2.76**	**280**				**Pn**	**07 22 38.8**	**+0.4**
WESN	**West Dahl Nort**	**2.85**	**274**				**Pn**	**07 22 40.2**	**+0.5**
WESN							**Sn**	**07 23 13.8**	**+0.9**
WESP	**Westdahl Peak**	**2.94**	**273**				**Pn**	**07 22 41.4**	**+0.5**
WECS	**Westdahl Cape**	**2.97**	**273**				**Pn**	**07 22 41.5**	**+0.3**
WECS						IAML		07 23 28.9	
	comp=E,216nm,1.2s								
WECS						IAML		07 23 53.6	
	comp=N,313nm,0.9s								
R16K	**Pilot Point**	**3.33**	**20**				**Pn**	**07 22 47.2**	**+1.0**
R16K						IAML		07 24 08.9	
	comp=N,172nm,1.2s								
AKUT	**Akutan**	**3.58**	**267**	P		**Pn**	**Pn**	**07 22 51.1**	**+1.5**
AKUT	**Akutan**	**3.58**	**267**	Pn		**Pn**	**Pn**	**07 22 50.1**	**+0.6**
AKUT						IAML		07 23 31.2	
	comp=E,93nm,0.5s								
AHB	**Akutan Harbor**	**3.61**	**267**				**Pn**	**07 22 51.0**	**+0.9**
AHB							**Sn**	**07 23 30.9**	**-0.5**
R17L	**Mt. Peulik Vol**	**3.69**	**29**				**Pn**	**07 22 52.9**	**+1.8**
ZRO	**Akutan Zero**	**3.71**	**267**				**Pn**	**07 22 51.8**	**+0.4**
ZRO							**Sn**	**07 23 32.7**	**-1.0**
PLK1	**Peulik 1**	**3.77**	**26**				**Pn**	**07 22 53.7**	**+1.5**
SII	**Sitkinak Islan**	**3.77**	**54**	Pn		Pn	**Pn**	**07 22 52.6**	**+0.4**
SII						IAML		07 24 16.1	
	comp=E,147nm,0.8s								
SII						IAML		07 24 18.9	
	comp=N,150nm,1.2s								
UNV	**Unalaska Valle**	**4.05**	**264**	P			**Pn**	**07 22 56.2**	**+0.1**
UNV	**Unalaska Valle**	**4.05**	**264**				**Pn**	**07 22 56.2**	**+0.1**
UNV						Sn	**Sn**	**07 23 40.6**	**-1.7**
MNAT	**Makushin Natee**	**4.15**	**265**				**Pn**	**07 22 57.6**	**+0.2**
MNAT							**Sn**	**07 23 42.7**	**-2.0**
MGOD	**Makushin Gods**	**4.28**	**264**				**Pn**	**07 22 59.1**	**-0.1**
MGOD							**Sn**	**07 23 46.5**	**-1.4**
CAHL	**Cahill**	**4.35**	**32**				**Pn**	**07 23 01.4**	**+1.1**
OHAK	**Old Harbor**	**4.55**	**50**	P			**Pn**	**07 23 02.9**	**0.0**
OHAK	**Old Harbor**	**4.55**	**50**				**Pn**	**07 23 02.9**	**0.0**
KAWH	**Katmai**	**4.78**	**33**				**Pn**	**07 23 06.7**	**+0.6**
O14K	**Tigyukauivet M**	**4.88**	**350**	Pn			**Pn**	**07 23 08.5**	**+1.0**
O14K						IAML		07 24 17.6	
	comp=N,56nm,0.9s								
O14K						IAML		07 24 58.3	
	comp=E,48nm,1.1s								
KARR	**Katmai Rainbow**	**4.90**	**32**				**Pn**	**07 23 08.3**	**+0.5**
KAHG	**Katmai Hook Gl**	**4.95**	**33**				**Pn**	**07 23 09.3**	**+0.9**
KDAK	**Kodiak Island**	**5.18**	**47**	Pn			**Pn**	**07 23 10.8**	**-0.8**
	comp=E,2.2nm,0.3s,baz=253,slow=18,SNR=37								
KDAK						Sn	**Sn**	**07 24 06.5**	**-3.6**
	comp=E,2.0nm,0.3s,baz=168,slow=9.3,SNR=6.5								
	comp=E,5.4nm,0.3s								
KDAK						AML	AML		
KDAK	**Kodiak Island**	**5.18**	**47**				**Pn**	**07 23 11.3**	**-0.3**
KDAK						IAML		07 24 10.0	
	comp=E,26nm,1.1s								
KDAK						IAML		07 24 14.2	
	comp=E,32nm,1.1s								
Q19K	**Cape Douglas,**	**5.58**	**34**				**Pn**	**07 23 17.8**	**+0.7**
N14K	**Kuskokwak Cree**	**5.58**	**350**				**Pn**	**07 23 18.1**	**+1.0**
N17K	**Nushagak Hills**	**6.23**	**11**	Pn			**Pn**	**07 23 27.2**	**+1.3**
M15K	**Kasigluk River**	**6.28**	**356**				**Pn**	**07 23 27.2**	**+0.7**
M13K	**Dall Lake**	**6.29**	**343**				**Pn**	**07 23 27.0**	**+0.3**
SPIA	**Saint Paul Isl**	**6.54**	**299**	P			**Pn**	**07 23 32.1**	**+1.9**
M16K	**Timber Creek**	**6.59**	**3**	Pn			**Pn**	**07 23 32.2**	**+1.3**
N19K	**Bonanza Creek**	**6.95**	**22**	Pn			**Pn**	**07 23 37.0**	**+1.0**
L14K	**Kuka Creek**	**7.08**	**348**	Pn			**Pn**	**07 23 37.7**	**+0.1**
L17K	**Donlin**	**7.73**	**5**				**Pn**	**07 23 47.2**	**+0.7**
SEW	**Seward**	**7.92**	**40**	Pn			**Pn**	**07 23 50.1**	**+1.1**
K13K	**Kusilvak Mount**	**7.94**	**343**	Pn			**Pn**	**07 23 50.3**	**+1.0**
L19K	**White Mountain**	**8.15**	**16**				**Pn**	**07 23 52.5**	**+0.3**
STLK	**Strandline Lak**	**8.19**	**27**	Pn			**Pn**	**07 23 53.8**	**+0.9**
SUA	**Susitna One**	**8.47**	**30**	Pn			**Pn**	**07 23 56.5**	**-0.3**
RC01	**Rabbit Creek A**	**8.50**	**35**	Pn			**Pn**	**07 23 58.0**	**+0.9**
P23K	**Montague Islan**	**8.66**	**45**	Pn			**Pn**	**07 23 59.7**	**+0.4**
PWL	**Port Wells**	**8.83**	**39**	Pn			**Pn**	**07 24 02.5**	**+0.9**
ATKA	**Atka Island**	**8.97**	**261**	P			**Pn**	**07 24 04.4**	**+0.9**
PMR	**Palmer**	**9.07**	**34**	P			**Pn**	**07 24 04.2**	**-0.6**
KNK	**Knik Glacier**	**9.17**	**36**				**Pn**	**07 24 07.1**	**+0.9**
HIN	**Hinchinbrook I**	**9.26**	**45**	Pn			**Pn**	**07 24 07.8**	**+0.2**
GHO	**Glory Hole Cre**	**9.27**	**33**	Pn			**Pn**	**07 24 08.1**	**+0.4**
GLI	**Glacier Island**	**9.31**	**41**	Pn			**Pn**	**07 24 08.8**	**+0.6**
FID	**Port Fidalgo**	**9.47**	**43**				**Pn**	**07 24 09.6**	**-0.8**
SML	**Sawmill**	**9.49**	**35**				**Pn**	**07 24 10.9**	**+0.3**
EYAK	**Cordova Ski Ar**	**9.66**	**45**	P			**Pn**	**07 24 13.2**	**+0.3**
EYAK	**Cordova Ski Ar**	**9.66**	**45**	Pn			**Pn**	**07 24 13.2**	**+0.3**
CAST	**Castle Rocks**	**9.80**	**20**	Pn			**Pn**	**07 24 14.7**	**+0.2**
SCM	**Sheep Creek Mo**	**9.85**	**36**				**Pn**	**07 24 15.8**	**+0.2**
KLU	**Klutina**	**10.14**	**40**	Pn			**Pn**	**07 24 19.5**	**0.0**
BMRM	**Bremner River**	**10.36**	**45**	Pn			**Pn**	**07 24 22.4**	**-0.1**
DHY	**Denali Highway**	**10.72**	**31**	Pn			**Pn**	**07 24 27.9**	**+0.3**
GLB	**Gilahina Butte**	**10.94**	**44**	Pn			**Pn**	**07 24 30.7**	**+0.2**
HARP	**HAARP**	**10.99**	**38**	Pn			**Pn**	**07 24 32.6**	**+1.5**
PAX	**Paxson**	**11.26**	**35**	Pn			**Pn**	**07 24 35.7**	**+0.8**
M26K	**Nabesna, AK**	**11.79**	**41**	Pn			**Pn**	**07 24 43.0**	**+0.9**
LOGN	**Logan Glacier**	**11.84**	**50**	Pn			**Pn**	**07 24 43.3**	**+0.4**
PCA	**Pinnacle**	**11.91**	**54**	Pn			**Pn**	**07 24 45.1**	**+1.4**
RIDG	**Independent Ri**	**11.99**	**33**	Pn			**Pn**	**07 24 44.9**	**+0.1**
BCPM	**Bancas Point**	**12.16**	**55**	Pn			**Pn**	**07 24 48.6**	**+1.5**
ILAR	**Eielson Array**	**12.17**	**27**	Pn			**Pn**	**07 24 44.4**	**-2.8**
	comp=E,0.1nm,0.3s,baz=219,slow=14,SNR=6.7								
ILAR						Sn	**Sn**	**07 26 56.7**	**-4.6**
	baz=225,slow=23,SNR=1.5								
	comp=E,0.3nm,0.4s								
ILAR						AML	AML		
O28M	**Mount Upton**	**12.19**	**51**	Pn			**Pn**	**07 24 48.5**	**+0.8**
SCRK	**Sand Creek**	**12.44**	**34**	Pn			**Pn**	**07 24 50.6**	**-0.4**
J25K	**Salcha River,**	**12.47**	**30**	Pn			**Pn**	**07 24 50.7**	**-0.6**
L27K	**Beaver Creek,**	**12.61**	**40**				**Pn**	**07 24 53.8**	**+0.5**
BCAR	**Beaver Creek A**	**12.63**	**40**	Pn			**Pn**	**07 24 53.3**	**-0.2**
O29M	**Mount Kennedy**	**12.77**	**54**	Pn			**Pn**	**07 24 57.1**	**+1.5**
H24K	**Noodor Dome**	**12.80**	**22**	Pn			**Pn**	**07 24 55.1**	**-0.7**
P29M	**Windy Craggy**	**12.99**	**58**	Pn			**Pn**	**07 24 58.9**	**+0.4**
S31K	**Pelican**	**13.49**	**65**	Pn			**Pn**	**07 25 05.4**	**+0.2**
I26K	**Coal Creek Min**	**13.62**	**31**	Pn			**Pn**	**07 25 06.2**	**-0.8**
M29M	**Somme Creek**	**13.63**	**46**	Pn			**Pn**	**07 25 07.5**	**+0.2**
SIT	**Sitka**	**13.94**	**69**	Pn			**Pn**	**07 25 10.3**	**-1.0**
L29M	**L29M**	**14.07**	**43**	Pn			**Pn**	**07 25 14.2**	**+1.0**
DAWY	**Dawson**	**14.08**	**39**	Pn			**Pn**	**07 25 13.5**	**+0.2**
BESE	**Bessie Mountai**	**14.28**	**63**	Pn			**Pn**	**07 25 17.6**	**+1.6**
I27K	**Kandik River**	**14.29**	**31**	Pn			**Pn**	**07 25 17.5**	**+1.4**
S32K	**Killisnoo**	**14.35**	**68**	Pn			**Pn**	**07 25 17.4**	**+0.6**
M30M	**Minto, Yukon**	**14.39**	**46**	Pn			**Pn**	**07 25 17.6**	**+0.2**
R32K	**Eaglecrest**	**14.42**	**64**	Pn			**Pn**	**07 25 19.1**	**+1.3**
WHY	**Whitehorse**	**14.63**	**55**	Pn			**Pn**	**07 25 22.8**	**+2.1**
E24K	**Your Creek**	**14.64**	**17**	Pn			**Pn**	**07 25 21.6**	**+0.8**
I28M	**Miner Creek**	**14.72**	**34**	Pn			**Pn**	**07 25 21.5**	**-0.3**
BMAR	**Burnt Mountain**	**14.87**	**23**	Pn			**Pn**	**07 25 23.4**	**-0.4**
P32M	**Atlin**	**14.99**	**59**	Pn			**Pn**	**07 25 27.1**	**+1.7**
P32M						IAmb	IAmb	07 25 38.2	
	comp=Z,7.5nm,1.1s								
D23K	**Nanushuk River**	**15.14**	**13**	Pn			**Pn**	**07 25 28.4**	**+1.1**
U33K	**Whale Pass**	**15.19**	**73**	Pn			**Pn**	**07 25 28.3**	**+0.3**
J30M	**Hart River**	**15.48**	**40**	Pn			**Pn**	**07 25 31.4**	**-0.6**
H31M	**Peel River**	**16.83**	**38**	Pn			**Pn**	**07 25 49.0**	**+0.1**
H31M						IAmb	IAmb	07 26 05.6	
	comp=Z,7.4nm,1.0s								
F30M	**Barrier River**	**17.37**	**31**	P			**Pn**	**07 25 55.7**	**+0.2**
F30M						IAmb	IAmb	07 26 17.7	
	comp=Z,3.0nm,0.7s								
G31M	**Satah River**	**17.45**	**34**	P			**Pn**	**07 25 56.7**	**+0.2**
G31M						IAmb	IAmb	07 26 04.3	
	comp=Z,5.4nm,1.1s								
INK	**Inuvik**	**18.47**	**31**	P			**P**	**07 26 08.1**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=238,slow=9.9,SNR=20								
	comp=Z,1.0nm,0.4s								
INK						AML	AML		
INK	**Inuvik**	**18.47**	**31**	P			**P**	**07 26 08.8**	**+0.4**
YKA	**Yellowknife Ar**	**24.43**	**53**	P			**P**	**07 27 11.7**	**+0.9**
	comp=Z,0.7nm,0.8s,baz=268,slow=8.1,SNR=4.1								
	comp=Z,0.7nm,0.8s								
PEA0B	**Petropavlovsk-**	**24.94**	**285**	P			**P**	**07 27 14.6**	**-1.0**
PETK	**Petropavlovsk-**	**24.94**	**285**	P			**P**	**07 27 14.3**	**-1.2**
	comp=Z,0.7nm,0.5s,baz=70,slow=12,SNR=7.8								
	comp=Z,0.7nm,0.5s								
PETK	**Petropavlovsk-**	**24.94**	**285**	P			**P**	**07 27 15.4**	**-0.2**
SEY	**Seymchan**	**25.72**	**309**	P			**P**	**07 27 20.0**	**-2.6**
	comp=Z,3.1nm,0.8s,baz=38,slow=19,SNR=3.1								
	comp=Z,3.1nm,0.8s								
H11N2	**WAKE ISLAND Hy**	**42.99**	**230**	T			T	08 15 40.3	
	baz=28,slow=76,SNR=47								
H11N3	**WAKE ISLAND Hy**	**42.99**	**230**	T			T	08 15 44.1	
	baz=28,slow=76,SNR=41								
H11N1	**WAKE ISLAND Hy**	**43.00**	**230**	T			T	08 15 42.7	
	baz=28,slow=76,SNR=35								
USRK	**Ussuriysk Ar.**	**44.01**	**286**	LR			LR	07 49 22.5	
	comp=Z,167nm,20.3s,baz=341,slow=38								
H11S1	**WAKE ISLAND Hy**	**44.15**	**229**	T			T	08 17 10.7	
	baz=28,slow=76,SNR=58								
H11S2	**WAKE ISLAND Hy**	**44.16**	**229**	T			T	08 17 31.2	
	baz=28,slow=76,SNR=60								
H11S3	**WAKE ISLAND Hy**	**44.16**	**229**	T			T	08 17 08.7	
	baz=28,slow=76,SNR=36								
**TXAR

comp=Z,78nm,19.0s,baz=172,slow=38
ZALV Zalesovo Beam 55.32 350 P **P** 08 19 36.6 +1.6
0.9nm,0.3s,baz=179,slow=5.8,SNR=2.7
0.9nm,0.3s
H04N2 CROZET ISLANDS 61.48 215 T T 09 26 51.0
baz=56,slow=74,SNR=34
H04N1 CROZET ISLANDS 61.49 215 T T 09 26 51.4
baz=56,slow=74,SNR=48
H04N3 CROZET ISLANDS 61.50 215 T T 09 26 36.1
baz=56,slow=74,SNR=33
H04S1 CROZET ISLANDS 61.80 215 T T 09 26 48.4
baz=57
H04S3 CROZET ISLANDS 61.81 215 T T 09 26 49.5
baz=57,SNR=3.6
H04S2 CROZET ISLANDS 61.81 215 T T 09 26 48.9
baz=57

*IDC **08** 08:18:47.7±3.6, 19°.85S×178°.22W, h586km±29km, mb2.9/7, mbtmp3.8/8, Error ellipse: s-maj=99.4km s-min=17.0km az=151.0*

ISC 08 08:18:45.3±1.3, 20°.2S±0°.4×178°.0W±0°.2, h569km, n10, σ1§14/11, mb3.4/7, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.50**	**303**	P	**P**	**08 20 12.9**	**+0.5**
	10.0nm,0.5s,baz=220,slow=4.7,SNR=9.0						
ASAR	**Alice Springs**	**44.59**	**256**	P	**P**	**08 26 08.0**	**+0.1**
	0.9nm,0.6s,baz=97,slow=7.6,SNR=19						
ASAR				PcP	**PcP**	**08 27 38.5**	**+0.1**
	0.4nm,0.5s,baz=108,slow=3.9,SNR=7.1						
	0.9nm,0.6s						
WRA	**Warramunga Arr**	**44.65**	**262**	P	**P**	**08 26 08.3**	**0.0**
	0.4nm,0.3s,baz=98,slow=7.7,SNR=28						
	0.4nm,0.3s						
FITZ	**Fitzroy Crossi**	**53.08**	**262**	P	**P**	**08 27 11.1**	**+0.6**
	0.6nm,0.4s,baz=108,slow=3.2,SNR=1.9						
	0.6nm,0.4s						
NVAR	**Mina Array Bea**	**80.82**	**43**	P	**P**	**08 30 01.2**	**+0.5**
	0.8nm,0.8s,baz=225,slow=7.9,SNR=4.7						
	0.8nm,0.8s						
TXAR	**Lajitas Array**	**86.90**	**57**	P	**P**	**08 30 31.6**	**+1.0**
	0.5nm,0.7s,baz=222,slow=6.4,SNR=7.8						
	0.5nm,0.7s						
ILAR	**Eielson Array**	**88.06**	**13**	P	**P**	**08 30 34.4**	**-0.6**
	0.4nm,0.5s,baz=199,slow=4.5,SNR=9.0						
	0.4nm,0.5s						
PDAR	**Pinedale Array**	**88.76**	**43**	P	**P**	**08 30 39.4**	**+0.2**
	0.5nm,0.6s,baz=206,slow=4.5,SNR=6.1						
	0.5nm,0.6s						
AKASG	**Malin Array Be**	**142.79**	**331**	PKP	**PKPdf**	**08 37 11.3**	**-2.8**
	1.1nm,0.5s,baz=31,slow=4.3,SNR=6.0						
GERES	**GERESS Array B**	**149.95**	**345**	PKPbc	**PKPbc**	**08 37 31.9**	**-0.1**
	0.4nm,0.8s,baz=344,slow=2.1,SNR=4.0						

AUST 08 08:27:13.5±1.2, 25°.S±4°.×117°.3E±1°.3, h10km, mb3.9/12, ML3.4/12, Error ellipse: s-maj=28.4km s-min=6.9km az=98.2, confirmed, Western Australia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CVQOZ	**Cooralya Stati**	**1.19**	**66**	P	Pg	08 27 38.6	+2.2
CVQOZ				AML	AML		
GIRL	**Giralia**	**2.59**	**29**	P	Pn	08 27 56.1	+0.5
GIRL				S	Sn	08 28 24.9	-2.2
GIRL				AML	AML		
GIRL	**Giralia**	**2.59**	**29**	P	Pn	08 27 56.2	+0.6
GIRL				AML	AML		
MORW	**Morawa**	**4.99**	**146**	P	Pn	08 28 29.8	+1.3
	comp=Z,14nm,1.0s,comp=Z,0.1nm						
MORW				S	Sn	08 29 26.2	-0.1
MORW				AML	AML		
MORW	**Morawa**	**4.99**	**146**	P	Pn	08 28 29.6	+1.1
MORW				AML	AML		
MEEK	**Meekatharra**	**5.44**	**109**	P	Pn	08 28 36.4	+1.7
	comp=Z,13nm,2.2s,comp=Z,0.2nm						
MEEK				S	Sn	08 29 37.2	-0.2
MEEK				AML	AML		
MEEK	**Meekatharra**	**5.44**	**109**	P	Pn	08 28 36.4	+1.7
	comp=Z,13nm,2.2s,comp=Z,0.2nm						
MEEK				AML	AML		
BLDU	**Ballidu**	**6.60**	**150**	P	Pn	08 28 51.0	+0.4
BLDU				AML	AML		
BLDU	**Ballidu**	**6.60**	**150**	P	Pn	08 28 51.4	+0.8
BLDU				AML	AML		
BCON	**Beacon, Wester**	**6.91**	**142**	P	Pn	08 28 55.6	+0.7
	comp=Z,20nm,1.8s,comp=Z,0.1nm						
BCON				AML	AML		
BCON	**Beacon, Wester**	**6.91**	**142**	P	Pn	08 28 55.2	+0.3
	comp=Z,27nm,1.9s,comp=Z,0.1nm						
BCON				AML	AML		
KORDA	**Koorda, Wester**	**7.19**	**146**	P	Pn	08 28 59.1	+0.2
	comp=Z,19nm,2.0s,comp=Z,0.1nm						
KORDA				AML	AML		
KORDA	**Koorda, Wester**	**7.19**	**146**	P	Pn	08 28 58.8	0.0
	comp=Z,19nm,2.0s,comp=Z,0.1nm						
KORDA				AML	AML		
MBWA	**Marble Bar**	**7.34**	**61**	P	Pn	08 29 01.4	+0.6
	comp=Z,8.8nm,1.5s,comp=Z,0.1nm						
MBWA				AML	AML		
WATNG	**Wattoning, WA**	**7.45**	**142**	P	Pn	08 29 02.0	-0.4
	comp=Z,20nm,2.6s,comp=Z,0.1nm						
WATNG				AML	AML		
KLBR	**Kellerberrin**	**7.90**	**148**	P	Pn	08 29 08.5	0.0
	comp=Z,9.6nm,1.1s,comp=Z,0.2nm						
KLBR				AML	AML		
NWAO	**Narrogin (SRO)**	**8.83**	**155**	P	Pn	08 29 19.8	-1.4
	comp=Z,39nm,1.9s,comp=Z,0.1nm						
NWAO				AML	AML		
NWAO	**Narrogin (SRO)**	**8.83**	**155**	P	Pn	08 29 19.2	-2.0
	comp=Z,39nm,1.9s,comp=Z,0.1nm						
NWAO				AML	AML		
CAAN	**Eighty Mile Be**	**9.79**	**57**	P	Pn	08 29 35.3	+0.9
	comp=Z,53nm,1.1s,comp=Z,0.1nm						
CAAN				AML	AML		
CAAN	**Eighty Mile Be**	**9.79**	**57**	P	Pn	08 29 35.0	+0.7
	comp=Z,72nm,1.2s,comp=Z,0.1nm						
CAAN				AML	AML		
KMBL	**Kambalda**	**10.20**	**131**	P	Pn	08 29 40.0	-0.1
	comp=Z,7.4nm,2.8s,comp=Z,0.0nm						
KMBL				AML	AML		
DNDOZ	**Balladonia**	**12.21**	**130**	P	Pn	08 30 07.5	0.0
	comp=Z,61nm,1.2s						
DNDOZ	**Balladonia**	**12.21**	**130**	P	Pn	08 30 06.8	-0.7
	comp=Z,62nm,1.2s						
DNDOZ	**Balladonia**	**12.21**	**130**	P	Pn	08 30 06.7	-0.9
	comp=Z,62nm,1.2s						
FITZ	**Fitzroy Crossi**	**13.68**	**63**	P	Pn	08 30 26.6	-1.0
	comp=Z,0.8nm,1.2s						
FITZ	**Fitzroy Crossi**	**13.68**	**63**	P	Pn	08 30 26.7	-0.9
	comp=Z,0.8nm,1.2s						
FITZ	**Fitzroy Crossi**	**13.68**	**63**	P	Pn	08 30 26.6	-1.0
	comp=Z,0.8nm,1.2s						
WRKA	**Warakurna**	**13.98**	**94**	P	Pn	08 30 30.1	-1.7
WRKA	**Warakurna**	**13.98**	**94**	P	Pn	08 30 29.7	-2.1
WRKA	**Warakurna**	**13.98**	**94**	P	Pn	08 30 29.7	-2.1
KNRA	**Kununurra**	**17.50**	**61**	P	Pn	08 31 16.6	-1.1
	comp=Z,4.5nm,2.1s						

*IDC **08** 09:12:21.9±0.7, 28°.62N×96°.35E, h0km, mb4.1/16, mbtmp4.1/18, ML4.2/2, MS3.6/17, Error ellipse: s-maj=26.2km s-min=12.5km az=64.0*

*MOS **08** 09:12:22.8±1.0, 28°.60N×96°.35E, h19km, mb4.5/24, Error ellipse: s-maj=9.5km s-min=5.3km az=113.5*

*NEIC **08** 09:12:23.8±1.2, 28°.63N±0°.08×96°.40E±0°.09, h10km±1km, mb4.3/34, Error ellipse: s-maj=15.6km s-min=11.8km az=48.0*

*BJI **08** 09:12:24.0, 28°.59N×96°.35E, h5km, mB4.8/5, mb4.5/22, ML3.9/7, Ms4.0/18, Ms7 3.9/17*

ISC 08 09:12:23.1±0.4, 28°.57N±0°.04×96°.40E±0°.04, h10km, n138, σ1§47/136, mb4.3/45, MS3.5/17, 4C-12D, Eastern Xizang-India border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JORH	**JORHAT**	**2.63**	**227**	*i* S	**Sb**	**09 13 44.8**	**+2.0**
JORH				IAML		09 14 03.4	
	comp=N,2μm,0.3s						
ITAN	**ITANAGAR**	**2.76**	**240**	*i* P	Pg	09 13 28.6	+13
MOKO	**MOKOCHONG**	**2.80**	**217**	*i* S	**Sn**	**09 13 35.8**	**-6.1**
MOKO				IAML		09 14 02.0	
	comp=N,2μm,0.8s						
KOHI	**KOHIMA**	**3.50**	**216**	*i* P	**Pn**	**09 13 20.3**	**+2.6**
KOHI				*i* S	Sn	09 13 46.7	-13
KOHI				IAML		09 14 25.7	
	comp=N,1μm,0.6s						
TEZP	**TEZPUR**	**3.74**	**240**	*i* P	**Pg**	**09 13 37.2**	**+2.4**
TNCH	**TengChong**	**4.00**	**151**	Pn	**Pn**	**09 13 24.2**	**-0.5**
TNCH				Pg	**Pg**	**09 13 39.2**	**-0.7**
TNCH				Sn	**Sn**	**09 14 11.3**	**-0.5**
TNCH				Sg	**Sg**	**09 14 30.2**	**-1.6**
TNCH				AML	AML		
	comp=N,220nm,0.5s						
TNCH				AML	AML		
	comp=N,230nm,0.4s						
IMP	**Imphal**	**4.32**	**211**	*i* P	**Pn**	**09 13 26.7**	**-2.3**
IMP				*i* S	Sn	09 13 58.8	-21
MORE	**Moreh**	**4.71**	**204**		**Pn**	**09 13 36.3**	**+2.0**
LSA	**Lhasa**	**4.73**	**285**	Pg	**Pb**	**09 13 44.9**	**-1.5**
LSA				Sn	**Sb**	**09 14 38.6**	**-5.0**
LSA				AML	AML		
	comp=N,78nm,0.6s						
LSA				AML	AML		
	comp=N,59nm,0.6s						
LSA	**Lhasa**	**4.73**	**285**	P	**Pn**	**09 13 35.8**	**+0.9**
LSA				SN	**Sn**	**09 14 31.6**	**+1.5**
LSA	**Lhasa**	**4.73**	**285**		**Pn**	**09 13 35.4**	**+0.5**
LSA				Sn	**Sn**	**09 14 31.0**	**+0.9**
SHL	**Shillong**	**5.01**	**234**	P	**Pn**	**09 13 38.6**	**0.0**
SHL	**Shillong**	**5.01**	**234**	Pn	**Pn**	**09 13 38.6**	**0.0**
AZL	**Aizawl**	**5.85**	**216**	*i* P	**Pn**	**09 13 50.2**	**+0.1**
AZL				*i* S	Sn	09 14 40.1	-17
KMI2	**Kunming**	**6.62**	**120**	Pg	**Pg**	**09 14 26.6**	**-3.2**
KMI2				AML	AML		
	comp=N,57nm,1.5s						
KMI2				AML	AML		
	comp=N,34nm,1.2s						
KMI2				L	L		
	comp=N,590nm,7.8s						
KMI2				L	L		
	comp=N,450nm,7.4s						
KMI2				L	L		
	comp=N,250nm,15.5s						
GOMU	**GeErMu**	**7.72**	**350**	Pn	**Pn**	**09 14 16.9**	**+0.9**
EVN	**Everest**	**8.47**	**268**		**Pn**	**09 14 27.0**	**+0.5**
LZDM	**Lanzhou Array**	**9.61**	**38**	Pn	**Pn**	**09 14 43.7**	**+1.9**
	baz=212,slow=10						
	comp=N,1.9nm,0.3s						
LZH	**Lanzhou**	**9.79**	**38**	*e*P	**Pn**	**09 14 47.3**	**+3.2**
LZH				pP		09 14 56.1	
LZH				pmax	pmax		
	comp=N,36nm,1.3s						
CHTO	**Chiang Mai**	**9.99**	**166**	P	**Pn**	**09 14 48.0**	**+1.2**
CHTO	**Chiang Mai**	**9.99**	**166**		**Pn**	**09 14 48.0**	**+1.2**
CM31	**Chiang Mai Arr**	**10.33**	**166**	Pn	**Pn**	**09 14 49.9**	**-1.5**
CMAR	**Chiang Mai Arr**	**10.33**	**166**	Pn	**Pn**	**09 14 55.1**	**+3.6**
	comp=N,0.4nm,0.3s,baz=338,slow=13,SNR=17						
CMAR				LR	LR	09 19 13.0	
	comp=N,265nm,18.7s,baz=340,slow=40						
	comp=N,1.7nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**10.33**	**166**	*i* P	**Pn**	**09 14 55.7**	**+4.2**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR	**Chiang Mai Arr**	**10.33**	**166**		**Pn**	**09 14 52.1**	**+0.7**
WHN	**Wuhan**	**15.75**	**78**	⇓P	**Pn**	**09 16 05.3**	**+0.3**
BTO2	**Baotou**	**16.42**	**39**	*e*P	**Pn**	**09 16 13.7**	**-0.1**
BTO2				S	**Sn**	**09 19 13.9**	**-2.2**
BTO2				pmax	pmax		
	comp=Z,16nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,260nm,4.5s						
BTO2				L	L		
	comp=Z,510nm,10.4s						
BTO2				L	L		
	comp=Z,440nm,5.2s						
BTO2				L	L		
	comp=Z,1μm,11.5s						
WMQ	**Urumqi**	**16.75**	**338**	*e*P	**Pn**	**09 16 18.4**	**+0.6**
HHC	**Hu-ho-hao-te**	**17.45**	**41**	*e*P	**Pn**	**09 16 27.0**	**+0.3**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,4.9s						
HHC				L	L		
	comp=Z,340nm,10.4s						
HHC				L	L		
	comp=Z,200nm,10.6s						
HHC				L	L		
	comp=Z,290nm,10.8s						
WUS	**Wushi**	**18.86**	**316**	P	**P**	**09 16 42.4**	**-1.1**
PDGK	**Podgornoye**	**20.05**	**322**	P	**P**	**09 16 56.0**	**-0.5**
PDGK	**Podgornoye**	**20.05**	**322**	P	**P**	**09 16 56.0**	**-0.5**
PRZ	**Przheval'sk**	**20.12**	**318**	P	**P**	**09 16 57.6**	**+0.2**
PRZ				pmax	pmax		
	comp=Z,12nm,0.6s						
KSH2	**Kashi**	**20.22**	**307**	P	Pn	09 17 00.0	-0.3
KSH2				pP	sP	09 17 04.0	-0.2
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
NIL	**Nilore**	**20.44**	**290**	P	**P**	**09 17 00.6**	**-0.2**
NIL				pmax	pmax		
	comp=Z,8.0nm,1.0s						
NIL	**Nilore**	**20.44**	**290**	P	**P**	**09 17 00.6**	**-0.2**
KDJ	**Kajisay**	**20.64**	**316**	P	**P**	**09 17 02.4**	**-0.6**
KDJ				pmax	pmax		
	comp=Z,12nm,0.9s						
KDJ	**Kajisay**	**20.64**	**316**	P	**P**	**09 17 02.4**	**-0.6**
KDJ				IAmb	IAmb	09 17 20.1	
	comp=Z,12nm,0.9s						
SONM	**Songino Array**	**20.74**	**19**	P	**P**	**09 17 03.8**	**-0.1**
	comp=Z,2.9nm,0.5s,baz=198,slow=9.0,SNR=15						
SONM				LR	LR	09 26 22.5	
	comp=Z,123nm,18.9s,baz=174,slow=41						
	comp=Z,2.9nm,0.5s						
SONM	**Songino Array**	**20.74**	**19**	P	**P**	**09 17 03.9**	**-0.1**
SONM				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SONM	**Songino Array**	**20.74**	**19**		**P**	**09 17 03.9**	**-0.1**
ULN	**Ulaanbaatar**	**20.97**	**20**	*c* *i* P	**P**	**09 17 06.0**	**-0.4**
ULN				pmax	pmax		
	comp=Z,11nm,1.4s						
ULN	**Ulaanbaatar**	**20.97**	**20**		**P**	**09 17 05.3**	**-1.1**
NRN	**Naryn**	**21.01**	**313**	P	**P**	**09 17 06.6**	**-0.5**
NRN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
NRN	**Naryn**	**21.01**	**313**		**P**	**09 17 06.6**	**-0.5**
MK31	**Makanchi Array**	**21.29**	**333**	*d* *i* P	**P**	**09 17 09.5**	**-0.2**
MKAR	**Makanchi Array**	**21.29**	**333**	P	**P**	**09 17 09.6**	**-0.2**
	comp=Z,4.1nm,0.5s,baz=140,slow=12,SNR=28						
MKAR				LR	LR	09 26 12.6	
	comp=Z,81nm,21.2s,baz=146,slow=39						
	comp=Z,4.1nm,0.5s						
MKAR	**Makanchi Array**	**21.29**	**333**		**P**	**09 17 09.4**	**-0.3**
MAKZ	**Makanchi**	**21.43**	**332**	P	**P**	**09 17 11.1**	**-0.2**
MAKZ				pmax	pmax		
	comp=Z,11nm,1.0s						
MAKZ	**Makanchi**	**21.43**	**332**		**P**	**09 17 11.1**	**-0.2**
MAKZ				IAmb	IAmb	09 17 15.4	
	comp=Z,11nm,0.9s						
KNGR	**Kungurtug, Tuv**	**22.02**	**2**	⇓*i* P	**P**	**09 17 19.8**	**+2.1**
KNGR				pmax	pmax		
	comp=Z,20nm,0.9s						
ZAK	**Zakamensk**	**22.40**	**12**	*e*P	**P**	**09 17 21.4**	**-0.4**
ZAK				pmax	pmax		
	comp=Z,16nm,1.1s						
AAK	**Ala-Archa**	**22.59**	**314**	P	**P**	**09 17 23.6**	**-0.2**
	comp=Z,3.0nm,0.7s,baz=118,slow=12,SNR=3.6						
	comp=Z,3.0nm,0.7s						
AAK	**Ala-Archa**	**22.59**	**314**	*de*P	**P**	**09 17 25.0**	**+1.1**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AAK	**Ala-Archa**	**22.59**	**314**	P	**P**	**09 17 23.7**	**-0.2**
AAK				IAmb	IAmb	09 17 47.9	
	comp=Z,4.5nm,0.7s						
ARSB	**Arslanbob**	**22.95**	**310**	P	**P**	**09 17 27.1**	**-0.6**
ARSB				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ARSB	**Arslanbob**	**22.95**	**310**	P	**P**	**09 17 27.1**	**-0.6**
ARSB				IAmb	IAmb	09 17 55.4	
	comp=Z,7.7nm,1.2s						
DRK	**Karamyk**	**23.04**	**305**	P	**P**	**09 17 27.3**	**-1.5**
DRK				pmax	pmax		
	comp=Z,17nm,0.9s						
DRK	**Karamyk**	**23.04**	**305**	P	**P**	**09 17 27.3**	**-1.5**
TLY	**Talaya**	**23.72**	**11**	P	**P**	**09 17 36.5**	**+1.3**
	comp=Z,4.0nm,0.8s,baz=188,slow=8.1,SNR=3.7						
TLY				LR	LR	09 27 39.5	
	comp=Z,109nm,20.9s,baz=186,slow=39						
	comp=Z,4.0nm,0.8s						
TLY	**Talaya**	**23.72**	**11**	⇓*e*P	**P**	**09 17 36.0**	**+0.8**
TLY				pmax	pmax		
	comp=Z,6.0nm,0.9s						
TLY	**Talaya**	**23.72**	**11**	P	**P**	**09 17 35.7**	**+0.5**
TLY				IAmb	IAmb	09 17 37.9	
	comp=Z,5.2nm,0.9s						
BTK	**Batken**	**23.95**	**305**	P	**P**	**09 17 36.1**	**-1.5**
BTK				pmax	pmax		
	comp=Z,14nm,1.2s						
BTK	**Batken**	**23.95**	**305**		**P**	**09 17 36.1**	**-1.5**
BTK				IAmb	IAmb	09 17 58.0	
	comp=Z,14nm,1.2s						
KBL	**Kabul**	**24.02**	**291**	P	**P**	**09 17 37.4**	**-1.1**
KBL				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KBL	**Kabul**	**24.02**	**291**	P	**P**	**09 17 37.4**	**-1.1**
KBL				IAmb	IAmb	09 17 56.8	
	comp=Z,8.9nm,0.9s						
KK31	**Karatay Array**	**25.38**	**312**	P	**P**	**09 17 49.8**	**-0.7**
KK31				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KK31	**Karatay Array**	**25.38**	**312**		**P**	**09 17 49.8**	**-0.7**
KKAR	**Karatay Array**	**25.38**	**312**	P	**P**	**09 17 49.7**	**-0.8**
KKAR	**Karatay Array**	**25.38**	**312**		**P**	**09 17 49.7**	**-0.8**
KURBB	**Kurchatov Arra**	**25.84**	**333**	P	**P**	**09 17 54.7**	**+0.1**
	comp=Z,1.6nm,0.2s,baz=142,slow=10,SNR=9.0						
KURBB				LR	LR	09 28 59.3	
	comp=Z,78nm,21.6s,baz=168,slow=39						
	comp=Z,1.6nm,0.2s						
PALK	**Pallekele**	**25.86**	**218**	LR	LR	09 30 28.1	
	comp=Z,66nm,20.0s,baz=108,slow=42						
PALK	**Pallekele**	**25.86**	**218**	P	**P**	**09 17 55.5**	**+0.4**
PALK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PALK	**Pallekele**	**25.86**	**218**	P	**P**	**09 17 55.5**	**+0.4**
PALK				IAmb	IAmb	09 17 58.8	
	comp=Z,10nm,0.9s						
KURK	**Kurchatov**	**25.88**	**334**	⇓*i* P	**P**	**09 17 56.2**	**+1.3**
KURK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KURK	**Kurchatov**	**25.88**	**334**	P	**P**	**09 17 54.2**	**-0.7**
KURK				IAmb	IAmb	09 18 08.6	
	comp=Z,3.0nm,0.7s						
ZAA0	**Zalesovo Array**	**26.74**	**345**		**P**	**09 18 02.7**	**0.0**
ZAA0				IAmb	IAmb	09 18 05.3	
	comp=Z,5.8nm,0.7s						
ZALV	**Zalesovo Beam**	**26.74**	**345**	P	**P**	**09 18 02.6**	**0.0**
	comp=Z,6.8nm,0.6s,baz=162,slow=9.5,SNR=22						
ZALV				LR	LR	09 29 44.5	
	comp=Z,68nm,21.6s,baz=105,slow=39						
	comp=Z,6.8nm,0.6s						
GSI	**Gunungsitoli**	**27.14**	**177**		**P**	**09 18 07.4**	**+0.8**
GSI				IAmb	IAmb	09 18 35.1	
	comp=Z,9.4nm,0.8s						
KS19	**Wonju Array Si**	**27.74**	**63**	P	**P**	**09 18 12.1**	**+0.2**
KSRS	**Korea Array**	**27.78**	**63**	LR	LR	09 29 39.8	
	comp=Z,37nm,19.3s,baz=220,slow=37						
BVAR	**Borovoye Array**	**31.06**	**329**	P	**P**	**09 18 41.2**	**+0.1**
	comp=Z,1.4nm,0.5s,baz=139,slow=9.2,SNR=8.5						
	comp=Z,1.4nm,0.5s						
BORK	**Borovoye**	**31.10**	**329**	⇑*i* P	**P**	**09 18 41.7**	**+0.2**
BORK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BORK	**Borovoye**	**31.10**	**329**		**P**	**09 18 40.9**	**-0.7**
BORK				IAmb	IAmb	09 18 42.5	
	comp=Z,2.7nm,0.7s						
HEH	**HeiHe**	**31.93**	**39**	*e*P	**P**	**09 18 49.7**	**+0.9**
HEH				pmax	pmax		
	comp=Z,9.0nm,1.1s						
HEH				L	L		
	comp=Z,210nm,13.9s						
HEH				L	L		
	comp=Z,210nm,14.7s						
HEH				L	L		
	comp=Z,320nm,14.1s						
VLA	**Vladivostok**	**31.96**	**53**	⇓*e*P	**P**	**09 18 51.3**	**+2.2**
KLR	**Kul'dur**	**33.95**	**43**	LR	LR	09 34 21.2	
	comp=Z,135nm,18.8s,baz=298,slow=39						
KLR	**Kul'dur**	**33.95**	**43**	*de*P	**P**	**09 19 06.7**	**+0.2**
KLR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
AB31	**Akbulak array**	**34.62**	**317**		**P**	**09 19 12.3**	**0.0**
AB31				IAmb	IAmb	09 19 24.0	
	comp=Z,3.0nm,0.9s						
ABKAR	**Akbulak array**	**34.62**	**317**	P	**P**	**09 19 12.3**	**0.0**
AKTO	**Aktyubinsk**	**36.23**	**318**	LR	LR	09 36 10.5	
	comp=Z,90nm,20.6s,baz=52,slow=40						
LEM	**Lembang**	**36.82**	**161**	LR	LR	09 34 40.2	
	comp=Z,153nm,19.1s,baz=352,slow=36						
ARTI	**Arti**	**38.67**	**327**	*c* *i* P	**P**	**09 19 47.0**	**+0.3**
ARTI				S	**S**	**09 25 43.3**	**+0.1**
ARTI				SS	**SnSn**	**09 28 23.2**	**-7.9**
ARTI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ERM	**Erimo**	**39.98**	**58**	P	**P**	**09 19 58.5**	**+0.7**
ERM				pmax	pmax		
	comp=Z,44nm,1.1s						
ERM	**Erimo**	**39.98**	**58**	P	**P**	**09 19 58.5**	**+0.7**
YAK	**Yakutsk**	**39.98**	**24**	LR	LR	09 36 00.2	
	comp=Z,57nm,18.1s,baz=228,slow=36						
NRIK	**Noril'sk**	**41.13**	**355**	P	**P**	**09 20 06.5**	**-0.5**
NRIK				pmax	pmax		
	comp=Z,6.0nm,1.2s						
NRIK	**Noril'sk**	**41.13**	**355**	P	**P**	**09 20 06.5**	**-0.5**
NRIK				IAmb	IAmb	09 20 35.2	
	comp=Z,6.0nm,1.1s						
KIRV	**Kirov**	**43.98**	**327**	⇓*e*P	**P**	**09 20 30.2**	**-0.1**
TIXI	**Tiksi**	**46.66**	**14**	⇑*i* P	**P**	**09 20 51.6**	**+0.2**
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.0s						
VSLR	**Vesyoloye**	**47.09**	**304**	⇓*e*P	**P**	**09 20 56.5**	**+1.3**
VSLR				pmax	pmax		
	comp=Z,30nm,0.9s						
MA2	**Magadan**	**47.91**	**34**	LR	LR	09 43 10.4	
	comp=Z,153nm,18.0s,baz=299,slow=39						
KLMR	**Klimovskoe**	**49.45**	**327**	*e*P	**P**	**09 21 10.0**	**-3.1**
KLMR				pmax	pmax		
	comp=Z,31nm,1.7s						
OBN	**Obninsk**	**49.96**	**320**	*e*P	**P**	**09 21 17.9**	**+0.9**
OBN				*e*		09 22 36.2	
OBN				*e*		09 23 10.5	
OBN				*e*PPP	PPP	09 24 08.4	
OBN				pmax	pmax		
	comp=Z,5.0nm,1.0s						
PEA0B	**Petropavlovsk-**	**50.64**	**43**	P	**P**	**09 21 22.9**	**+0.6**
PEA0B				pmax	pmax		
	comp=Z,14nm,1.1s						
PEA0B	**Petropavlovsk-**	**50.64**	**43**	P	**P**	**09 21 22.9**	**+0.6**
PETK	**Petropavlovsk-**	**50.64**	**43**	P	**P**	**09 21 21.9**	**-0.4**
	comp=Z,3.1nm,0.8s,baz=230,slow=6.0,SNR=5.9						
PETK				LR	LR	09 45 11.1	
	comp=Z,81nm,18.0s,baz=256,slow=39						
	com

comp=Z,0.8nm,0.6s,baz=79,slow=6.5
NOA NORSAR Array B 63.16 327 P **P** **09 22 50.2 -0.8**
comp=Z,0.8nm,0.6s,baz=81,slow=6.5,SNR=6.7
NOA LR LR 09 53 18.7
comp=Z,44nm,18.4s,baz=355,slow=39
comp=Z,0.8nm,0.6s
AS31 Alice Springs 63.26 141 P **P** **09 22 51.8 -0.3**
ASAR Alice Springs 63.26 141 P **P** **09 22 52.8 +0.7**
comp=Z,0.8nm,0.6s,baz=324,slow=6.8,SNR=21
comp=Z,0.8nm,0.6s
ASAR Alice Springs 63.26 141 P **P** **09 22 52.0 -0.1**
GERES GERESS Array B 64.47 313 P **P** **09 22 59.9 -0.1**
comp=Z,0.1nm,0.3s,baz=80,slow=6.7,SNR=2.0
comp=Z,0.1nm,0.3s
KHC Kasperske Hory 64.47 314⇓*eP* **P** **09 23 00.7 +0.8**
KHC pmax pmax
comp=Z,17nm,3.3s
C18K Utukok River 68.07 23 P **P** **09 23 22.9 +0.3**
G16K Koyuk River 68.89 26 P **P** **09 23 27.9 +0.2**
F17K Baldwin Pennin 68.90 25 P **P** **09 23 27.6 -0.1**
E19K Redstone River 69.92 23 P **P** **09 23 33.8 -0.3**
E19K IAmb IAmb 09 23 42.4
comp=Z,1.7nm,0.8s
F19K Shaleruckik Mo 70.00 24 P **P** **09 23 33.8 -0.7**
F19K IAmb IAmb 09 23 45.1
comp=Z,3.7nm,0.9s
F20K Avaraart Lake 70.62 23 P **P** **09 23 37.9 -0.5**
ILAR Eielson Array 74.91 23 P **P** **09 24 03.1 -0.7**
comp=Z,0.5nm,0.8s,baz=277,slow=5.1,SNR=5.6
comp=Z,0.5nm,0.8s
KDAK Kodiak Island 76.54 31 LR LR 09 59 07.6
comp=Z,112nm,19.0s,baz=325,slow=37
FRB Frobisher Bay 87.23 353 LR LR 10 06 25.8
comp=Z,31nm,18.6s,baz=34,slow=37

SJA ***08*** *09:22:23.5±0.7,21.17S×70.24W,h35km±2km, ML3.5, MW3.6*
GUC ***08*** *09:22:24.9±0.9,21.17S×70.25W,h39km±2km, ML3.3, Presumed earthquake*
ISC 08 09:22:24.2±1.2,21.18S±0.02×70.24W±0.05,h23km±11km, n29,σ1§04/51,1C-8D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB02	**IPOC Station P**	**0.34**	**114**	*e*P			Pb	09 22 27.8	-4.0
PB02				*e*S			**Sb**	**09 22 33.5**	**-3.6**
PB02	**IPOC Station P**	**0.34**	**114**	⇓*i*P			**Pb**	**09 22 33.6**	**+1.8**
PB02				*i* S			**Sn**	**09 22 39.8**	**-0.4**
TA01	**Diego Aracena**	**0.61**	**5**	*e*P			**Pb**	**09 22 36.3**	**+0.1**
TA01				*e*S			**Sb**	**09 22 44.6**	**+0.1**
TA01				IAML				09 22 45.8	
comp=Z,1μm,0.2s									
TA01	**Diego Aracena**	**0.61**	**5**	⇓*i*P			**Pb**	**09 22 36.4**	**+0.1**
TA01				*i* S			**Sb**	**09 22 44.4**	**-0.1**
TA01				IAML				09 22 47.6	
comp=N,3μm,0.3s									
PB07	**IPOC Station P**	**0.63**	**149**	*e*P			**Pb**	**09 22 37.3**	**+0.6**
PB07				*e*S			**Sb**	**09 22 44.5**	**-0.7**
PB07				IAML				09 22 47.0	
comp=Z,4μm,0.2s									
PB07	**IPOC Station P**	**0.63**	**149**	*i* P			**Pb**	**09 22 37.2**	**+0.6**
PB07				*i* S			**Sb**	**09 22 46.2**	**+1.0**
PB07				IAML				09 22 47.2	
comp=N,3μm,0.2s									
TA02	**Huaiquique**	**0.91**	**6**	*e*S			**Sn**	**09 22 54.8**	**+0.8**
TA02				IAML				09 22 59.1	
comp=Z,1μm,0.1s									
TA02	**Huaiquique**	**0.91**	**6**	*i* P			**Pn**	**09 22 40.3**	**-1.3**
PB03	**IPOC Station P**	**0.97**	**153**	*e*P			**Pn**	**09 22 42.3**	**-0.3**
PB03				*e*S			**Sb**	**09 22 55.2**	**+0.2**
PB03				IAML				09 23 01.5	
comp=Z,1μm,0.5s									
PB03	**IPOC Station P**	**0.97**	**153**	⇓*i*P			**Pn**	**09 22 42.2**	**-0.3**
PB03				*i* S			**Sb**	**09 22 55.0**	**0.0**
PB03				IAML				09 23 01.0	
comp=E,1μm,0.3s									
PB09	**IPOC Station P**	**1.11**	**124**	*e*P			**Pn**	**09 22 45.0**	**+0.5**
PB09				*e*S			**Sb**	**09 23 00.1**	**+1.3**
PB09				IAML				09 23 00.2	
comp=Z,1μm,0.5s									
PB09	**IPOC Station P**	**1.11**	**124**	⇓*i*P			**Pn**	**09 22 45.0**	**+0.5**
PB09				*i* S			**Sn**	**09 22 58.3**	**-0.8**
PB09				IAML				09 23 01.6	
comp=E,986nm,0.5s									
PB08	**IPOC Station P**	**1.45**	**45**	*e*P			**Pn**	**09 22 49.5**	**+0.2**
PB08				*e*S			**Sn**	**09 23 08.0**	**+0.2**
PB08				IAML				09 23 10.3	
comp=Z,880nm,0.3s									
PB08	**IPOC Station P**	**1.45**	**45**	⇓*i*P			**Pn**	**09 22 49.4**	**+0.1**
PB08				*i* S			**Sn**	**09 23 07.8**	**0.0**
PB08				IAML				09 23 10.4	
comp=N,1μm,0.2s									
PB11	**IPOC Station P**	**1.51**	**21**	*e*P			**Pn**	**09 22 50.0**	**0.0**
PB11				*e*S			**Sn**	**09 23 09.7**	**+0.6**
PB11				IAML				09 23 14.0	
comp=Z,587nm,0.3s									
PB11	**IPOC Station P**	**1.51**	**21**	⇓*i*P			**Pn**	**09 22 49.8**	**-0.2**
PB11				*i* S			**Sn**	**09 23 08.6**	**-0.5**
PB11				IAML				09 23 11.8	
comp=E,1μm,0.3s									
PB06	**IPOC Station P**	**1.64**	**158**	*e*P			**Pn**	**09 22 52.4**	**+0.7**
PB06				*e*S			Sn	09 22 57.4	-15
PB06				IAML				09 23 17.4	
comp=Z,561nm,0.7s									
PB06	**IPOC Station P**	**1.64**	**158**	⇑*i*P			**Pn**	**09 22 52.2**	**+0.4**
PB06				*i* S			**Sn**	**09 23 13.1**	**+0.9**
PB06				IAML				09 23 18.5	
comp=N,617nm,0.4s									
PB05	**IPOC Station P**	**1.66**	**179**	*e*P			**Pn**	**09 22 51.9**	**-0.2**
PB05				*e*S			**Sn**	**09 23 10.4**	**-2.4**
PB05				IAML				09 23 22.8	
comp=Z,385nm,0.5s									
PB05	**IPOC Station P**	**1.66**	**179**	⇓*i*P			**Pn**	**09 22 51.8**	**-0.2**
PB05				*i* S			**Sn**	**09 23 12.3**	**-0.5**
PB05				IAML				09 23 20.7	
comp=E,543nm,0.3s									
GO01	**Chusmiza**	**1.79**	**33**	*e*P			**Pn**	**09 22 55.2**	**+1.0**
GO01				*e*S			**Sb**	**09 23 18.1**	**-0.7**
GO01				IAML				09 23 20.1	
comp=Z,628nm,0.5s									
GO01	**Chusmiza**	**1.79**	**33**	⇓*i*P			**Pn**	**09 22 54.6**	**+0.4**
GO01				*i* S			**Sn**	**09 23 15.3**	**-1.1**
PB10	**IPOC Station P**	**2.34**	**187**	*e*P			**Pn**	**09 23 00.4**	**-0.9**
PB10				*e*S			**Sb**	**09 23 33.4**	**-0.8**
PB10	**IPOC Station P**	**2.34**	**187**	*e*P			**Sn**	**09 23 00.3**	**-0.9**
PB10				*e*S			**Sn**	**09 23 29.1**	**-0.2**
PB10				IAML				09 23 44.7	
comp=E,118nm,0.7s									
AF01	**San Pedro de A**	**2.60**	**133**	*e*P			**Pn**	**09 23 04.8**	**-0.3**
AF01				*e*S			Sn	09 23 18.8	-17
AF01				IAML				09 24 03.0	
comp=Z,756nm,0.5s									
AF01	**San Pedro de A**	**2.60**	**133**	*i* P			**Pb**	**09 23 08.6**	**-1.7**
PB16	**IPOC Station P**	**2.91**	**14**	*e*P			**Pn**	**09 23 10.5**	**+0.9**
PB16				IAML				09 24 02.8	
comp=Z,72nm,0.7s									
PB16	**IPOC Station P**	**2.91**	**14**	*e*P			**Pn**	**09 23 10.1**	**+0.5**
PB16				*e*S			**Sn**	**09 23 44.4**	**+0.2**
PB16				IAML				09 23 57.7	
comp=N,86nm,0.4s									
PB14	**IPOC Station P**	**3.43**	**183**	*e*P			**Pn**	**09 23 18.0**	**+1.4**
PB14				*e*S			**Sb**	**09 24 08.7**	**+2.8**
PB14				IAML				09 24 21.4	
comp=Z,81nm,0.4s									

ISK ***08*** *09:22:53.7,39.38N×40.77E,h3km,ML4.1/20*
TIF ***08*** *09:22:53.9,39.37N×40.76E,h13km*
IDC ***08*** *09:22:54.6±0.7,39.40N×40.75E,h0km, mb3.6/9, mbtmp3.6/18, ML3.3/9, MS3.3/16, Error ellipse: s-maj=12.9km s-min=7.8km az=138.0*
AFAD ***08*** *09:22:54.6,39.38N×40.75E,h9km±3km, ML4.2*
CFUSG ***08*** *09:22:55.7,39.40N×40.80E,h5km, Mb3.3/5, MD3.6/3, MSH3.2/5*
NEIC ***08*** *09:22:56.2±0.9,39.37N±0.03×40.80E±0.06,h10km±2km, mb4.0/12, Error ellipse: s-maj=8.8km s-min=3.9km az=56.0*
ISC 08 09:22:55.1±1.0,39.39N±0.02×40.77E±0.01,h5km±7km, n137,σ1§45/160,mb3.8/18,MS3.4/12,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC

YEDI	**Yedisu-Bingol**	**0.18**	**285**	Pg			**Pg**	**09 22 58.6**	**0.0**
YEDI				Sg			**Sg**	**09 23 01.9**	**+0.9**
YEDI				AML					
ECAT	**Cat-ERZURUM**	**0.27**	**37**	P			**Pg**	**09 23 00.1**	**-0.2**
ECAT				S			**Sg**	**09 23 04.9**	**+1.0**
ECAT				IAML				09 23 05.0	
comp=E,8μm,0.7s									
ECAT				IAML				09 23 07.0	
comp=N,8μm,0.3s									
BNGB	**Bingl**	**0.41**	**189**	Pg			**Pg**	**09 23 02.1**	**-0.8**
BNGB				Sg			**Sg**	**09 23 08.6**	**+0.4**
BNGB				AML					
SLHN	**Bingol, Solhan**	**0.48**	**155**	P			**Pg**	**09 23 04.1**	**-0.2**
SLHN				S			**Sb**	**09 23 12.0**	**-1.5**
SLHN				IAML				09 23 13.0	
comp=N,2μm,0.4s									
SLHN				IAML				09 23 13.0	
comp=E,4μm,0.9s									
ETEKE	**Tekederesi - E**	**0.49**	**35**	P			**Pg**	**09 23 04.0**	**-0.6**
ETEKE				S			**Sb**	**09 23 12.5**	**-1.6**
ETEKE				IAML				09 23 14.0	
comp=N,1μm,0.4s									
ETEKE				IAML				09 23 15.0	
comp=E,1μm,0.6s									
VRTB	**Varto-Mus**	**0.58**	**113**	P			**Pg**	**09 23 05.6**	**-0.7**
VRTB				S			**Sn**	**09 23 21.9**	**+1.6**
VRTB				IAML				09 23 23.0	
comp=E,6μm,1.0s									
VRTB				IAML				09 23 26.0	
comp=N,2μm,0.9s									
VRTB	**Varto-Mus**	**0.58**	**113**	Pg			**Pg**	**09 23 05.5**	**-0.7**
VRTB				Sg			**Sb**	**09 23 14.7**	**-1.8**
VRTB				AML					
EMRE	**Erzurum,Aziziy**	**0.66**	**14**	P			**Pg**	**09 23 07.6**	**-0.2**
EMRE				S			**Sb**	**09 23 19.3**	**+0.5**
EMRE				IAML				09 23 25.0	
comp=N,2μm,0.6s									
EMRE				IAML				09 23 28.0	
comp=E,3μm,0.6s									
KOPT	**Kop Dagi**	**0.66**	**342**	P			**Pg**	**09 23 07.2**	**-0.6**
KOPT				S			**Sb**	**09 23 18.2**	**-0.7**
KOPT				IAML				09 23 19.0	
comp=N,8μm,0.5s									
KOPT				IAML				09 23 19.0	
comp=E,9μm,0.5s									
KOPT	**Kop Dagi**	**0.66**	**342**				**Pg**	**09 23 07.7**	**-0.1**
KOPT				Sg			**Sb**	**09 23 18.8**	**-0.1**
ERZM	**Erzurum**	**0.69**	**42**	P			**Pg**	**09 23 07.9**	**-0.5**
ERZM				S			**Sb**	**09 23 18.9**	**-0.9**
ERZM				IAML				09 23 20.0	
comp=N,3μm,0.5s									
ERZM				IAML				09 23 20.0	
comp=E,3μm,0.4s									
ERZN	**Erzincan**	**0.83**	**284**	Pg			**Pg**	**09 23 10.3**	**-0.7**
ERZN				Sg			**Sb**	**09 23 23.0**	**-0.6**
ERZN				AML					
AKDA	**Akdag**	**0.85**	**33**	P			**Pb**	**09 23 11.6**	**-0.9**
AKDA				S			**Sb**	**09 23 22.9**	**-1.3**
AKDA				IAML				09 23 38.0	
comp=N,2μm,0.6s									
EUZM	**Uzumlu**	**0.88**	**291**	P			**Pg**	**09 23 10.8**	**-1.2**
EUZM				S			**Sb**	**09 23 24.4**	**-0.7**
BAYB	**BAYBURT**	**0.95**	**336**	P			**Pg**	**09 23 13.1**	**-0.2**
BAYB				S			**Sn**	**09 23 28.8**	**-0.6**
KRIK	**Erzurum-spir**	**0.95**	**7**	P			**Pg**	**09 23 13.0**	**-0.4**
KRIK				S			**Sb**	**09 23 27.5**	**+0.2**
KRIK				IAML				09 23 32.0	
comp=N,8μm,0.5s									
KRIK				IAML				09 23 34.0	
comp=E,5μm,0.5s									
TNCL	**Tunceli-Merkez**	**0.99**	**254**	P			**Pg**	**09 23 11.8**	**-2.3**
TNCL				S			**Sn**	**09 23 28.1**	**-2.1**
KOVA	**Elazig, Kovanc**	**1.01**	**228**	P			**Pg**	**09 23 12.9**	**-1.5**
KOVA				S			**Sb**	**09 23 27.4**	**-1.3**
EKAR	**Karacoban**	**1.02**	**97**	P			**Pb**	**09 23 14.4**	**-0.9**
EKAR				S			**Sn**	**09 23 32.7**	**+1.6**
EKAR				IAML				09 23 33.0	
comp=E,1μm,0.7s									
EKAR				IAML				09 23 37.0	
comp=N,9μm,1.2s									
KOPR	**Koprukoy-ERZUR**	**1.03**	**54**	Pg			**Pg**	**09 23 14.0**	**-0.9**
KOPR				Sg			**Sn**	**09 23 29.5**	**-1.9**
KOPR				AML					
HOMI	**Horasan**	**1.10**	**53**	P			**Pg**	**09 23 14.8**	**-1.2**
HOMI				S			**Sn**	**09 23 32.6**	**-0.4**
HOMI				IAML				09 23 33.0	
comp=N,4μm,0.4s									
HOMI				IAML				09 23 50.0	
comp=E,6μm,0.7s									
BAYT	**Aydıntepe-Bayb**	**1.11**	**335**	Pn			**Pg**	**09 23 15.5**	**-0.9**
BAYT				AML			AML		
SVAN	**Silvan-Diyarba**	**1.28**	**165**	Pn			**Pb**	**09 23 18.8**	**-0.9**
SVAN				AML			AML		
GURO	**Guroymak-BITLI**	**1.30**	**130**				**Pn**	**09 23 17.6**	**-2.4**
GURO				Sg			**Sg**	**09 23 36.0**	**-0.7**
GURO	**Guroymak-BITLI**	**1.30**	**130**	Pn			**Pn**	**09 23 18.1**	**-1.9**
GURO				AML			AML		
KELT	**Kelkit**	**1.39**	**304**	P			**Pn**	**09 23 19.9**	**-1.5**
KELT				S			**Sg**	**09 23 41.1**	**+1.5**
IZDR	**Rize**	**1.40**	**354**	P			**Pb**	**09 23 20.9**	**-0.9**
IZDR				S			**Sg**	**09 23 40.5**	**+0.4**
IZDR				IAML				09 23 43.0	
comp=N,1μm,0.7s									
IZDR				IAML				09 23 43.0	
comp=E,2μm,0.5s									
MLAZ	**Malazgirt-MUS**	**1.41**	**100**	Pn			**Pb**	**09 23 20.8**	**-1.1**
MLAZ				AML			AML		
EATA	**Eleskirt**	**1.41**	**70**	P			**Pn**	**09 23 20.5**	**-1.3**
EATA				S			**Sg**	**09 23 44.3**	**+3.7**
EATA				IAML				09 23 46.0	
comp=N,3μm,0.8s									
EATA				IAML				09 23 48.0	
comp=E,2μm,1.0s									
BLIS	**Bitlis-Merkez**	**1.44**	**132**	P			**Pn**	**09 23 20.2**	**-1.8**
BLIS				S			**Sg**	**09 23 43.5**	**+2.3**
EOLT	**Oltu**	**1.48**	**38**	P			**Pn**	**09 23 21.6**	**-0.9**
EOLT				S			**Sg**	**09 23 45.2**	**+2.6**
EOLT				IAML				09 23 48.0	
comp=E,2μm,1.0s									
DYBB	**Diyarbakir**	**1.52**	**199**	Pn			**Pb**	**09 23 22.5**	**-1.2**
DYBB				AML			AML		
SVRC	**Sivrice-ELAZID**	**1.52**	**229**	Pn			**Pb**	**09 23 22.7**	**-1.2**
SVRC				AML			AML		
DORK	**Agr/Tutak/Do**	**1.56**	**90**	P			**Pn**	**09 23 23.0**	**-0.7**
DORK				S			**Sg**	**09 23 48.8**	**+3.6**
ADCV	**BITLIS_Adilcev**	**1.63**	**110**	P			**Pn**	**09 23 23.4**	**-1.2**
ADCV				S			**Sg**	**09 23 48.5**	**+1.0**
DDEM	**Demirkent**	**1.68**	**26**	P			**Pn**	**09 23 24.5**	**-0.8**
DDEM				S			**Sg**	**09 23 48.5**	**-0.5**
DDEM				IAML				09 23 51.0	
comp=N,7μm,0.6s									
DDEM				IAML				09 23 51.0	
comp=E,3μm,0.4s									
SENK	**Senkaya-Erzuru**	**1.69**	**46**	Pn			**Pn**	**09 23 25.1**	**-0.4**
SENK				AML			AML		
ILIC	**ilic-Erzincan**	**1.70**	**273**	Pn			**Pn**	**09 23 25.4**	**-0.2**
ILIC				AML			AML		
CHOM	**Cayeli-Rize**	**1.70**	**360**	Pn			**Pb**	**09 23 25.8**	**-1.1**
CHOM				AML			AML		
MACK	**Trabzon**	**1.73**	**334**	P			**Pb**	**09 23 26.3**	**-1.0**
MACK				S			**Sg**	**09 23 51.9**	**+1.3**
AGRB	**Hanur-Agry**	**1.73**	**83**	Pn			**Pb**	**09 23 25.9**	**-1.6**
AGRB				AML			AML		
KTUT	**Trabzon**	**1.77**	**335**	Pn			**Pn**	**09 23 26.4**	**+0.1**
KTUT				AML			AML		
DBAD	**Bademkaya**	**1.77**	**23**	P			**Pn**	**09 23 26.5**	**-0.1**
DBAD				S			**Sg**	**09 23 51.7**	**-0.4**
DAGI	**Agillar**	**1.90**	**27**	P			**Pn**	**09 23 28.1**	**-0.2**
DAGI				S			**Sg**	**09 23 55.5**	**-0.6**
ARPR	**Arapgir-MALATY**	**1.91**	**262**				**Pn**	**09 23 28.6**	**+0.1**
AKDM	**Akdamar-Van**	**2.03**	**121**	Pn			**Pn**	**09 23 29.9**	**-0.2**
AKDM				AML			AML		
DBOC	**Borcka**	**2.07**	**19**	P			**Pn**	**09 23 30.4**	**-0.2**
DBOC				S			**Sb**	**09 23 59.0**	**-0.2**
GEVA	**Gevas**	**2.09**	**120**	P			**Pn**	**09 23 30.7**	**-0.3**
GEVA				S			**Sg**	**09 24 02.3**	**+0.1**
GEVA	**Gevas**	**2.09**	**120**				**Pn**	**09 23 30.8**	**-0.2**
KARS	**Kars**	**2.16**	**54**	Pn			**Pn**	**09 23 32.0**	**+0.1**
KARS				AML			AML		
AHAN	**Ardahan-Merkez**	**2.27**	**38**	P			Pn	09 23 26.7	-6.8
AHAN				S			**Sn**	**09 24 00.1**	**-1.9**
BATM	**Batumi**	**2.32**	**17**	P			**Pb**	**09 23 35.5**	**-1.9**
BATM				S			**Sb**	**09 24 07.2**	**+0.8**
CLDR	**Caldiran**	**2.46**	**95**	Pn			**Pn**	**09 23 36.2**	**+0.1**
CLDR				AML			AML		
DARE	**Darende-Malaty**	**2.69**	**253**	Pn			**Pn**	**09 23 39.5**	**+0.4**
DARE				AML			AML		
BGD	**Bogdanovka**	**2.86**	**48**	P			**Pn**	**09 23 42.0**	**+0.4**
AKH	**Akhalkalaki**	**2.90**	**45**	P			**Pn**	**09 23 43.7**	**+1.6**
GNI	**Garni**	**3.16**	**75**	Pn			**Pn**	**09 23 47.1**	**+1.5**
3.0nm,0.3s,baz=321,slow=5.0,SNR=7.3									
GNI				Pg			**Pb**	**09 23 52.6**	**+0.9**
16nm,0.3s,baz=293,slow=8.1,SNR=41									
14nm,0.4s									
GNI				AML			AML		
GNI	**Garni**	**3.16**	**75**				**Pn**	**09 23 46.1**	**+0.5**
TRLG	**Trialeti**	**3.33**	**49**	P			**Pb**	**09 23 54.9**	**+0.2**
TKB	**Tkibuli**	**3.41**	**29**	P			**Pn**	**09 23 50.3**	**+1.4**
TKB				S			**Sg**	**09 24 42.9**	**-1.5**
KZRT	**Kazreti**	**3.42**	**53**	P			Pn	09 23 43.6	-5.5
TOKA	**Tokat**	**3.43**	**287**				**Pn**	**09 23 49.9**	**+0.7**
GAZ	**Gaziantep**	**3.57**	**233**				**Pn**	**09 23 52.0**	**+0.9**
BNN	**Bunyan**	**3.86**	**264**				**Pn**	**09 23 56.8**	**+1.5**
CHRG	**Chargali**	**4.31**	**46**	P			**Pn**	**09 24 02.0**	**+0.6**
DDFL	**Dedoflistskaro**	**4.57**	**62**	P			**Pg**	**09 24 19.6**	**-3.0**
KBZ	**Khabaz**	**4.62**	**20**	Pn			**Pn**	**09 24 06.8**	**+1.3**
0.4nm,0.3s,baz=190,slow=10,SNR=6.6									
KBZ				Pg			**Pg**	**09 24 20.3**	**-3.2**
1.1nm,0.3s,baz=176,slow=12,SNR=8.7									
KBZ				LR			LR	09 26 16.4	
comp=Z,200nm,19.7s,baz=182,slow=44									
1.4nm,0.5s									
KBZ				AML			AML		
SHTL	**Shatili**	**4.65**	**44**	P			**Pn**	**09 24 06.7**	**+0.6**
VSHL	**Vashlovani**	**4.68**	**65**	P			**Pg**	**09 24 21.1**	**-3.6**
KVAR	**Kislovodsk Arr**	**4.78**	**17**	Pn			**Pn**	**09 24 09.1**	**+1.2**
baz=224,slow=18									
KVAR				LR			LR	09 26 16.1	
comp=Z,336nm,18.6s,slow=42									
2.2nm,0.4s									
LGD	**Lagodekhi**	**4.83**	**58**	P			**Pb**	**09 24 20.8**	**+0.6**
SNOP	**Sinop**	**4.97**	**304**	Pn			**Pn**	**09 24 10.5**	**+0.1**
BR131	**Keskin Array S**	**5.52**	**276**				**Pn**	**09 24 19.1**	**+1.1**
BRTR	**Keskin Array B**	**5.52**	**276**	Pn			**Pn**	**09 24 19.0**	**+1.0**
0.3nm,0.3s,baz=105,slow=13,SNR=9.7									
BRTR				Lg			Lg	09 25 50.6	
baz=97,slow=25									
1.5nm,0.5s									
BRTR				AML			AML		
ILGA	**Ilgaz**	**5.64**	**289**	Pn			**Pn**	**09 24 20.4**	**+0.5**
SUDU	**Sudak**	**6.97**	**324**	*e*P			Pn	09 24 44.4	+6.7
SUDU				pmax			pmax	09 24 57.4	
comp=Z,25nm,0.7s									
SUDU				*e*S			Sb	09 26 07.8	-12
SUDU				smax			smax	09 26 13.6	
comp=N,47nm,0.7s									
SUDU				smax			smax	09 26 13.6	
comp=E,29nm,0.8s									
YAL	**Yalta**	**7.08**	**318**	*e*P			Pb	09 24 48.5	-10
YAL				pmax			pmax	09 24 49.0	
comp=Z,21nm,0.8s									
YAL				*e*S			Sb	09 26 13.9	-9.5
YAL				smax			smax	09 26 16.6	
comp=N,27nm,0.9s									
YAL				smax			smax	09 26 16.6	
comp=E,11nm,0.6s									
ALU	**Alushta**	**7.10**	**320**	*e*P			Pb	09 24 49.4	-9.3
ALU				pmax			pmax	09 24 50.6	
comp=Z,8.0nm,0.4s									
ALU				*e*S			**Sb**	**09 26 16.4**	**-7.3**
ALU				smax			smax	09 26 18.4	
comp=N,4.0nm,0.4s									
ALU				smax			smax	09 26 18.4	
comp=E,14nm,0.8s									
CY604	**RAF Akrotiri,**	**7.11**	**227**	Pn			**Pn**	**09 24 40.1**	**+0.6**
SEV	**Sevastopol'**	**7.38**	**317**	*e*P			Pn	09 24 49.7	+6.3
SEV				pmax			pmax	09 25 14.9	
comp=Z,4.0nm,0.6s									
SEV				*e*S			Sn	09 26 18.1	+11
SEV				smax			smax	09 26 19.4	
comp=N,1.0nm,0.9s									
SEV				smax			smax	09 26 19.4	
comp=E,7.0nm,0.9s									
MMAI	**Mount Meron Ar**	**7.70**	**216**	Pn			**Pn**	**09 24 49.9**	**+2.0**
comp=E,0.8nm,0.3s,baz=59,slow=18,SNR=3.7									
MMAI				Lg			Lg	09 27 01.1	
baz=16,slow=38									
comp=E,1.4nm,0.5s									
MMAI				AML			AML		
ASF	**Jabal al Asfar**	**7.87**	**205**	Pn			**Pn**	**09 24 51.6**	**+1.4**
comp=E,0.5nm,0.3s,baz=160,slow=12,SNR=4.0									
ASF				Lg			Lg	09 27 07.3	
comp=E,1.3nm,0.3s,baz=144,slow=23,SNR=3.9									
ASF				LR			LR	09 27 52.7	
comp=E,75nm,20.7s,baz=20,slow=38									
comp=E,2.1nm,0.4s									
ASF				AML			AML		
DNZ2	**Donuzlav2**	**8.18**	**319**	*e*P			Pn	09 25 01.8	+7.4
DNZ2				pmax			pmax	09 25 08.4	
comp=Z,35nm,0.9s									
DNZ2				*e*S			Sb	09 26 40.3	-15
DNZ2				smax			smax	09 26 48.6	
comp=N,29nm,1.1s									
DNZ2				smax			smax	09 26 48.6	
comp=E,33nm,1.0s									
EIL	**Elat**	**10.81**	**208**	Pn			**Pn**	**09 25 31.3**	**+0.8**
comp=E,0.3nm,0.3s,baz=11,slow=18,SNR=2.4									
EIL				Lg			Lg	09 28 38.1	
comp=E,0.2nm,0.3s,baz=18,slow=20,SNR=2.3									
comp=E,3.5nm,0.8s									
EIL				AML			AML		
MLR	**Muntele Rosu**	**12.52**	**304**	Pn	

GERES	GERESS Array B	21.51	305	P		P	09 27 45.0	+0.1	
MURB	Monte Urbino	21.51	290	P		P	09 27 45.5	+0.7	
ABTA	Abfaltersbach	21.83	299	*eP*		P	09 27 51.4	+3.1	
	comp=Z,3.6nm,1.1s								
LESA	Schwarzleotal	21.84	301	P		P	09 27 51.2	+2.8	
	comp=Z,3.6nm,0.9s								
WTTA	Wattenberg	22.51	300	P		P	09 27 57.9	+2.3	
	comp=Z,4.1nm,1.0s								
KK31	Karatay Array	22.61	71			P	09 27 56.4	-0.3	
KK31					IAmb	IAmb	09 28 03.7		
	comp=Z,5.5nm,1.1s								
KKAR	Karatay Array	22.61	71	P		P	09 27 56.4	-0.3	
MOTA	Moosalm	22.88	300	*eP*		P	09 27 59.9	+0.4	
	comp=Z,4.8nm,1.2s								
BTK	Batken	23.08	79	P		P	09 28 01.3	-0.4	
BTK					IAmb	IAmb	09 28 23.3		
	comp=Z,5.2nm,1.2s								
GRA1	Grafenberg Arr	23.30	306	P		P	09 28 04.1	+0.4	
DAVOX	Davos/Dischmat	23.62	298	LR		LR	09 40 07.5		
	comp=Z,54nm,18.9s,baz=82,slow=44								
FINES	FINESS Array B	23.87	342	P		P	09 28 09.1	0.0	
	comp=Z,2.0nm,0.7s,baz=134,slow=11,SNR=4.6								
FINES					LR	LR	09 39 50.0		
	comp=Z,110nm,18.9s,baz=57,slow=43								
	comp=Z,2.0nm,0.7s								
BORK	Borovoye	24.38	46	P		P	09 28 14.4	+0.4	
BVAR	Borovoye Array	24.41	46	P		P	09 28 14.7	+0.4	
	comp=Z,0.4nm,0.4s,baz=253,slow=8.9,SNR=1.7								
	comp=Z,0.4nm,0.4s								
KEST	Kesra	25.11	272	P		P	09 28 21.9	+1.1	
	comp=Z,3.5nm,0.7s,baz=113,slow=7.7,SNR=6.0								
	comp=Z,3.5nm,0.7s								
SENIN	Lac Senin/Sane	25.36	297	P		P	09 28 22.3	-0.9	
SENIN					IAmb	IAmb	09 28 32.7		
	comp=Z,3.1nm,0.8s								
AAK	Ala-Archa	25.56	72	LR		LR	09 41 15.4		
	comp=Z,40nm,18.2s,baz=243,slow=43								
NOA	NORSAR Array B	28.33	330	LR		LR	09 41 33.1		
	comp=Z,35nm,19.1s,baz=120,slow=40								
KURBB	Kurchatov Arra	28.66	54	P		P	09 28 53.0	+0.4	
	comp=Z,0.4nm,0.6s,baz=266,slow=8.5,SNR=4.1								
	comp=Z,0.4nm,0.6s								
MKAR	Makanchi Array	30.92	62	P		P	09 29 13.5	+0.8	
	comp=Z,1.2nm,0.9s,baz=272,slow=8.1,SNR=3.3								
MKAR					LR	LR	09 42 30.2		
	comp=Z,41nm,18.6s,baz=188,slow=38								
	comp=Z,1.2nm,0.9s								
ZALV	Zalesovo Beam	32.96	49	LR		LR	09 44 13.5		
	comp=Z,37nm,20.1s,baz=294,slow=39								
ESDC	Sonseca Array	34.23	285	P		P	09 29 41.1	-0.7	
	comp=Z,0.4nm,0.6s,baz=77,slow=7.9,SNR=2.3								
	comp=Z,0.4nm,0.6s								
WMQ	Urumqi	35.00	67	*eP*		P	09 29 51.6	+3.2	
NRIK	Noril'sk	38.81	24	LR		LR	09 47 14.6		
	comp=Z,51nm,18.0s,baz=233,slow=38								
TORD	Torodi Ar. Bea	43.20	244	P		P	09 30 56.5	-0.7	
	comp=Z,0.5nm,0.7s,baz=50,slow=9.5,SNR=2.7								
	comp=Z,0.5nm,0.7s								
BORG	Borgarnes	43.40	327	LR		LR	09 51 03.0		
	comp=Z,49nm,18.3s,baz=71,slow=39								
TLY	Talaya	44.39	52	LR		LR	09 51 43.0		
	comp=Z,52nm,18.5s,baz=159,slow=39								
SONM	Songino Array	46.96	57	LR		LR	09 51 36.5		
	comp=Z,59nm,20.3s,baz=242,slow=37								
HHC	Hu-ho-hao-te	52.76	64	*eP*		P	09 32 11.3	+0.2	
HHC					pmax	pmax			
	comp=Z,6.0nm,0.6s								
HHC					pmax	pmax			
	comp=Z,41nm,4.5s								
YAK	Yakutsk	55.65	35	LR		LR	10 01 19.6		
	comp=Z,45nm,18.0s,baz=270,slow=41								
DAV	Davao City (W)	81.56	88	LR		LR	10 16 12.8		
	comp=Z,35nm,18.8s,baz=282,slow=39								

NDI ***08*** *09:32:32.2±0.5, 24°.18N×94°.38E, h185km±2km, ML3.7, MW3.6, Presumed earthquake*

IDC ***08*** *09:32:34.0±0.9, 23°.98N×93°.97E, h0km, mb4.0/7, mbtmp4.0/8, MS3.3/3, Error ellipse: s-maj=38.5km s-min=11.8km az=59.0*

NEIC ***08*** *09:32:42.8±0.9, 24°.20N±0°.05×94°.20E±0°.07, h65km±3km, mb4.3/9, Error ellipse: s-maj=9.6km s-min=7.5km az=74.0*

ISC 08 09:32:42.2±0.6, 24°.18N±0°.05×94°.16E±0°.05, h68km, n52, σ2ˢ32/59, mb4.0/12, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
MORE	Moreh	0.14	67			Pn	09 32 52.2	-0.2
MORE					Sn	Sn	09 32 59.5	-0.3
IMP	Imphal	0.68	343	*i*	P	Pn	09 32 58.7	+1.9
IMP					S	Sn	09 33 18.0	+10
SILR	SILCHAR	1.37	296	*i*	P	Pn	09 33 04.7	-0.7
SILR					S	Sn	09 33 28.9	+6.0
AZL	Aizawl	1.42	252	*i*	P	Pn	09 33 05.7	-0.5
AZL					S	Sn	09 33 29.9	+5.8
KOHI	KOHIMA	1.53	358	*i*	P	Pn	09 33 05.1	-2.7
KOHI					S	Sn	09 33 29.0	+2.1
KOHI					IAML		09 33 30.3	
	comp=N,431nm,1.1s							
MOKO	MOKOCHONG	2.15	9	*i*	S	Sn	09 33 39.3	-2.6
MOKO					IAML		09 34 00.2	
	comp=N,260nm,0.9s							
SHL	Shillong	2.48	304			Pn	09 33 20.7	+0.1
SHL	Shillong	2.48	304	*i*	P	Pn	09 33 17.3	-3.3
SHL					S	Sn	09 33 50.3	+0.4
TEZP	TEZPUR	2.72	333	*i*	P	Pn	09 33 18.4	-5.2
TEZP					S	Sn	09 33 52.7	-2.6
TEZP					IAML		09 33 58.3	
	comp=N,297nm,0.1s							
ITAN	ITANAGAR	2.98	352	*i*	P	Pn	09 33 21.1	-6.0
ZIRO	ZIRO	3.34	355	*i*	P	Pn	09 33 25.9	-6.4
ZIRO					S	Sn	09 34 04.2	-6.6
ZIRO					IAML		09 34 12.7	
	comp=N,663nm,0.4s							
DHUB	DHUBRI	4.20	297	*i*	P	Pn	09 33 38.1	-5.6
LSA	Lhasa	6.12	335		Pn	Pn	09 34 11.3	+0.9
ODAN	Odare	6.67	295		Sn	Sn	09 35 29.3	-3.3
	comp=N,207nm,0.5s,baz=290,slow=0.0							
ODAN					AML	AML		
CHTO	Chiang Mai	6.95	139		Pn	Pn	09 34 21.7	+0.2
CRAI	Chiangrai	6.97	123		Pn	Pn	09 34 21.8	0.0
CM31	Chiang Mai Arr	7.23	141		Pn	Pn	09 34 25.6	+0.3
CMAR	Chiang Mai Arr	7.23	141		Pn	Pn	09 34 23.0	-2.4
	comp=N,3.1nm,0.5s,baz=321,slow=13,SNR=18							
CMAR					Sn	Sn	09 35 47.9	+1.8
	comp=N,0.5nm,0.3s,baz=322,slow=20,SNR=1.2							
CMAR					Lg	Lg	09 36 22.7	
	comp=N,0.1nm,0.3s,baz=314,slow=28,SNR=1.9							
CMAR	Chiang Mai Arr	7.23	141		Pn	Pn	09 34 25.3	0.0
RAMN	Ramite	7.36	294		Pn	Pn	09 34 27.6	+0.3
	baz=289,slow=0.0							
EVN	Everest	7.60	301			Pn	09 34 31.4	+0.5
EVN					Sn	Sn	09 35 55.9	+0.1
GUN	Gumba	8.32	298		Pn	Pn	09 34 39.6	-0.9
	baz=294,slow=0.0							
GUN					Sn	Sn	09 36 09.1	-4.0
	comp=N,90nm,0.6s,baz=294,slow=0.0							
GUN					AML	AML		
PKI	Pulchoki	8.57	295		Pn	Pn	09 34 43.3	-0.6
	baz=291,slow=0.0							
PKI					Sn	Sn	09 36 15.4	-3.9
	comp=N,26nm,0.4s,baz=291,slow=0.0							
PKI					AML	AML		
PKIN	Phulchoki	8.58	295		Pn	Pn	09 34 43.3	-0.7
	baz=291,slow=0.0							
PKIN					Sn	Sn	09 36 15.7	-3.8
	comp=N,20nm,0.3s,baz=291,slow=0.0							
PKIN					AML	AML		
KKN	Kakani	8.76	296		Sn	Sn	09 36 19.6	-4.1
	comp=N,32nm,0.5s,baz=292,slow=0.0							
KKN					AML	AML		
DMN	Daman	8.84	295		Pn	Pn	09 34 46.8	-0.7
	baz=291,slow=0.0							
DMN					Sn	Sn	09 36 22.3	-3.3
	comp=N,35nm,0.5s,baz=291,slow=0.0							
DMN					AML	AML		
GKN	Gorkha	9.37	296		Pn	Pn	09 34 53.2	-1.4
	baz=292,slow=0.0							
GKN					Sn	Sn	09 36 33.5	-5.0
	comp=N,64nm,0.3s,baz=292,slow=0.0							
GKN					AML	AML		
DANN	Dangsing	10.21	296		Sn	Sn	09 36 54.7	-4.7
	comp=N,23nm,0.5s,baz=293,slow=0.0							
DANN					AML	AML		
ENH	Enshi	14.92	63		Pn	Pn	09 36 08.9	-0.5

IPM	Ipoh	20.68	160	P		P	09 37 14.6	-2.1	
WUS	Wushi	21.07	327	P		P	09 37 21.8	+0.9	
WUS					IAmb	IAmb	09 37 23.5		
	comp=Z,6.0nm,0.7s								
MKAR	Makanchi Array	24.49	340	P		P	09 37 56.6	+1.7	
	comp=Z,2.3nm,0.5s,baz=157,slow=10,SNR=24								
	comp=Z,2.3nm,0.5s								
MKAR	Makanchi Array	24.49	340	P		P	09 37 55.8	+0.8	
SONM	Songino Array	25.53	19	P		P	09 38 06.8	+2.2	
	comp=Z,1.7nm,0.8s,baz=193,slow=11,SNR=7.5								
	comp=Z,1.7nm,0.8s								
KURBB	Kurchatov Arra	29.05	339	P		P	09 38 37.4	+1.5	
	comp=Z,0.8nm,0.6s,baz=151,slow=8.7,SNR=6.4								
	comp=Z,0.8nm,0.6s								
ZALV	Zalesovo Beam	30.54	349	P		P	09 38 51.0	+1.9	
	comp=Z,1.3nm,0.4s,baz=173,slow=7.8,SNR=5.9								
	comp=Z,1.3nm,0.4s								
ZALV	Zalesovo Beam	30.54	349	P		P	09 38 50.0	+0.9	
AB31	Akbulak array	36.63	322	P		P	09 39 43.5	+1.6	
AB31					IAmb	IAmb	09 40 01.4		
	comp=Z,4.2nm,1.5s								
ABKAR	Akbulak array	36.63	322	P		P	09 39 43.0	+1.1	
ASF	Jabal al Asfar	50.60	293	LR		LR	10 07 17.7		
	comp=Z,24nm,18.6s,baz=52,slow=41								
MMAI	Mount Meron Ar	51.76	294	LR		LR	10 06 22.7		
	comp=Z,38nm,18.3s,baz=136,slow=39								
PETK	Petropavlovsk-	55.23	41	LR		LR	10 08 40.8		
	comp=Z,23nm,16.6s,baz=254,slow=39								
WB0	Warramunga Arr	58.69	135	P		P	09 42 31.8	-1.2	
WB0					IAmb	IAmb	09 43 06.1		
	comp=Z,5.0nm,1.3s								
WB0					PcP	PcP	09 43 22.2	-0.1	
WRA	Warramunga Arr	58.78	135	P		P	09 42 32.6	-1.0	
	comp=Z,0.7nm,0.5s,baz=323,slow=7.4,SNR=27								
	comp=Z,0.7nm,0.5s								
WRA	Warramunga Arr	58.78	135	P		P	09 42 33.0	-0.6	
ASAR	Alice Springs	61.23	138	P		P	09 42 49.5	-0.9	
	comp=Z,0.8nm,0.6s,baz=320,slow=6.9,SNR=17								
	comp=Z,0.8nm,0.6s								
M16K	Timber Creek	76.90	29	P		P	09 44 26.9	0.0	
H21K	Melozitna Rive	77.14	23	P		P	09 44 29.0	+0.8	
H21K					IAmb	IAmb	09 44 45.7		
	comp=Z,5.5nm,1.4s								
D25K	Kavik River	77.22	18	P		P	09 44 30.1	+1.5	
D25K					IAmb	IAmb	09 44 38.4		
	comp=Z,6.9nm,1.4s								
BMAR	Burnt Mountain	78.88	20	P		P	09 44 39.9	+2.1	
BOSA	Boshof	84.55	235	P		P	09 45 09.1	+0.7	
	comp=Z,3.7nm,0.7s,baz=80,slow=3.9,SNR=5.6								
	comp=Z,3.7nm,0.7s								
BOSA	Boshof	84.55	235	P		P	09 45 09.0	+0.7	

IDC 08 09:33:11.6±1.7, 1°.18S×149°.78E, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=80.2km s-min=24.7km az=114.0, New Ireland region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
WRA	Warramunga Arr	24.00	218	P		P	09 38 28.7	+0.5
	1.8nm,0.6s,baz=42,slow=10,SNR=27							
	1.8nm,0.6s							
H11S3	WAKE ISLAND Hy	25.67	40	T		T	10 06 02.6	
	baz=221,slow=75,SNR=87							
H11S2	WAKE ISLAND Hy	25.68	40	T		T	10 05 49.2	
	baz=221,slow=75,SNR=37							
H11S1	WAKE ISLAND Hy	25.69	40	T		T	10 05 48.7	
	baz=221,slow=75,SNR=34							
H11N1	WAKE ISLAND Hy	26.70	38	T		T	10 07 05.6	
	baz=220,slow=76,SNR=4.3							
H11N3	WAKE ISLAND Hy	26.72	38	T		T	10 07 07.3	
	baz=220,slow=76,SNR=6.9							
H11N2	WAKE ISLAND Hy	26.72	38	T		T	10 07 07.0	
	baz=220,slow=76,SNR=8.4							
ASAR	Alice Springs	27.14	213	P		P	09 38 56.8	+0.1
	0.6nm,0.5s,baz=48,slow=7.9,SNR=16							
	0.6nm,0.5s							
KURBB	Kurchatov Arra	79.11	322	P		P	09 45 18.2	+0.2
	0.2nm,0.4s,baz=108,slow=3.0,SNR=6.1							
	0.2nm,0.4s							
ILAR	Eielson Array	79.99	23	P		P	09 45 22.1	-0.6
	0.3nm,0.7s,baz=258,slow=5.5,SNR=4.7							
	0.3nm,0.7s							

IDC ***08*** *09:34:13.0±1.4, 36°.37N×137°.45E, h276km±64km, mb3.3/2, mbtmp3.9/2, Error ellipse: s-maj=367.2km s-min=32.3km az=76.0*

JMA ***08*** *09:34:13.2±0.2, 36°.2N±0°.8×137°.2E±0°.8, h267km±2km, MV3.1/47, NORTHERN GIFU PREF*

ISC 08 09:34:13.1±1.3, 36°.2N±0°.2×137°.17E±0°.07, h268km±9km, n15, σ0ˢ86/17, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
JGN	Niukaw	0.12	74	*eP*		Pn	09 34 47.7	+0.3
JKG	Kaga	0.68	278	*eP*		Pn	09 34 49.1	+0.6
JNG	Nsakai	0.78	74	*eP*		Pn	09 34 49.7	+0.7
MJAR	Matsushiro Arr	0.91	7	P		Pn	09 34 50.2	+0.6
	9.0nm,0.5s,baz=253,slow=6.7,SNR=5.3							
MJAR					S	S	09 35 18.9	+0.5
	7.9nm,0.9s,baz=260,slow=11,SNR=10.0							
JSZ	Suzu	1.27	7	*eP*		Pn	09 34 51.6	+0.2
JWT	Wachi	1.70	238	*eP*		Pn	09 34 54.8	+0.2
JHU2	Hanno	1.75	101	*eS*		S	09 35 28.6	+0.5
JKY	Yasaka	1.77	252	P		Pn	09 34 55.0	-0.1
JKY				*eS*		S	09 35 27.2	-1.2
JKSM	Kasumi	2.12	254	*eP*		Pn	09 34 58.0	0.0
JYT	Yasato	2.45	88	*eS*		S	09 35 36.7	-2.4
JHO	Hitachi	2.77	80	*eP*		Pn	09 35 04.0	-0.3
BSO3	Boso 3	3.06	116	*eS*		S	09 35 49.8	-0.1
JMM	Marumori	3.35	59	*eP*		Pn	09 35 10.4	+0.2
WRA	Warramunga Arr	55.89	183	P		P	09 43 24.0	+0.6
	1.4nm,0.4s,baz=2.2,slow=7.2,SNR=42							
	1.4nm,0.4s							
ASAR	Alice Springs	59.61	183	P		P	09 43 49.1	0.0
	0.3nm,0.3s,baz=13,slow=13,SNR=6.5							
	0.3nm,0.3s							

NOU ***08*** *09:46:41.3, 34°.23S×179°.16W, h337km, mb4.3/9, South of Kermadec Islands*

WEL ***08*** *09:46:52.4±0.9, 34°.5±6°.1×18°.0E±1°.2, h145km±33km, M4.5/13, ML4.3/14, MLv4.5/13, Error ellipse: s-maj=16.9km s-min=5.5km az=112.3*

ISC 08 09:46:46.9±1.4, 34°.17S±0°.08×179°.8E±0°.1, h250km, n54, σ2ˢ40/63, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
MXZ	Matakaoa Point	3.59	199	P		Pn	09 47 49.1	+3.3
MXZ	Matakaoa Point	3.59	199	P		Pn	09 47 48.8	+3.0
MXZ					AML	AML		
WMGZ	Waiomatatini S	3.81	197	P		Pn	09 47 52.1	+3.7
WMGZ					S	S	09 48 38.4	+1.2
WMGZ					AML	AML		
WMGZ					AML	AML		
HAZ	Te Kaha	3.93	204	P		Pn	09 47 52.6	+2.9
HAZ					AML	AML		
HAZ					AML	AML		
PKGZ	Pakihiroa	3.94	200	P		Pn	09 47 53.1	+3.2
PKGZ					S	S	09 48 39.9	-0.1
PKGZ					AML	AML		
PKGZ					AML	AML		
PUZ	Puketiti	4.08	197	P		Pn	09 47 54.5	+2.9
PUZ					S	S	09 48 42.7	-0.4
PUZ					AML	AML		
GRZ	Great Barrier	4.11	238	P		Pn	09 47 53.0	+1.1
RUGZ	Raukumara Rang	4.15	204	P		Pn	09 47 55.2	+2.7
RUGZ					S	S	09 48 43.3	-1.4
RUGZ					AML	AML		
RUGZ					AML	AML		
TWGZ	Tauwhareparae	4.26	200	P		Pn	09 47 56.8	+3.1
TWGZ					S	S	09 48 47.9	+1.1
TWGZ					AML	AML		
TWGZ					AML	AML		
CNGZ	Carnagh Statio	4.49	196	P		Pn	09 47 59.8	+3.4
CNGZ					AML	AML		
CNGZ					AML	AML		
OPRZ	Ohinepanea	4.51	215	P		Pn	09 47 59.5	+2.9
OPRZ					AML	AML		
OPRZ					AML	AML		
MWZ	Matawai	4.54	203	P		Pn	09 47 59.6	+2.5
MWZ					AML	AML		
MWZ					AML	AML		
TKGZ	Te Karaka	4.54	200	P		Pn	09 47 59.6	+2.6
TKGZ					S	S	09 48 51.7	-1.1
TKGZ					AML	AML		
TKGZ					AML	AML		
TGRZ	Tauranga	4.56	218	P		Pn	09 48 00.6	+3.4
TGRZ					AML	AML		
MARZ	Manawahe	4.57	213	P		Pn	09 48 01.8	+4.5
MARZ					AML	AML		
MARZ					AML	AML		
URZ	Urewera	4.62	207	P		Pn	09 47 59.5	+1.6
URZ	Urewera	4.62	207	P		Pn	09 47 59.8	+1.9
URZ					AML	AML		
URZ					AML	AML		
EDRZ	Edgecumbe	4.64	211	P		Pn	09 48 02.3	+4.0
EDRZ					AML	AML		
EDRZ					AML	AML		
KARZ	Kaharoa	4.79	216	P		Pn	09 48 03.3	+3.2
KARZ					AML	AML		
KARZ					AML	AML		
WCZ	Waipu Caves	4.80	247	P		Pn	09 48 01.4	+1.2
WCZ					AML	AML		
RIGZ	Rimuhau	4.81	199	P		Pn	09 48 02.7	+2.4
RIGZ					S	S	09 48 57.9	-1.0
RIGZ					AML	AML		
RIGZ					AML	AML		
MUGZ	Murupara	4.94	209	P		Pn	09 48 03.8	+2.0
MUGZ					S	S	09 48 57.7	-3.9
MUGZ					AML	AML		
MUGZ					AML	AML		
TOZ	Tahuroa Road	4.97	223	P		Pn	09 48 06.1	+3.9
RTZ	Ruatahuna	4.98	206	P		Pn	09 48 03.9	+1.5
RTZ					S	S	09 48 59.6	-3.0
RTZ					AML	AML		
KNZ	Kokohu	5.13	199	P		Pn	09 48 06.1	+2.0
GLKZ	Green Lake	5.27	22	S		S	09 49 07.6	-1.5
TLZ	Tolley Road	5.39	218	P		Pn	09 48 10.9	+3.5
BKZ	Black Stump Fm	5.64	207	P		Pn	09 48 11.6	+1.0
BKZ	Black Stump Fm	5.64	207	P		Pn	09 48 12.0	+1.5
HIZ	Hauiti	5.88	221	P		Pn	09 48 17.1	+3.6
HIZ	Hauiti	5.88	221	P		Pn	09 48 17.5	+4.0
NGZ	Ngauruhoe	6.02	213	P		Pn	09 48 17.2	+1.8
PXZ	Pawanui	6.30	201	P		Pn	09 48 20.0	+1.3
VRZ	Vera Road	6.39	218	P		Pn	09 48 23.7	+4.0
TSZ	Takapari Road	6.62	206	P		Pn	09 48 23.0	+0.2
WAZ	Wanganui	6.77	213	P		Pn	09 48 26.9	+2.3
NEZ	North Egmont	6.84	220	P		Pn	09 48 28.7	+3.2
KHEZ	Kahui Hut	6.90	221	P		Pn	09 48 29.8	+3.5
BFZ	Birch Farm	7.08	202	P		Pn	09 48 28.7	+0.3
BFZ	Birch Farm	7.08	202	P		Pn	09 48 28.8	+0.3
MRZ	Mangatainoka R	7.29	206	P		Pn	09 48 30.7	-0.4
SNZO	South Karori	8.18	208	P		Pn	09 48 42.3	0.0
NNZ	Nelson	8.67	214	P		Pn	09 48 48.2	-0.3
QRZ	Quartz Range	8.79	219	P		Pn	09 48 50.0	-0.1
QRZ	Quartz Range	8.79	219	P		Pn	09 48 49.8	-0.3
THZ	Tophouse	9.32	214	P		Pn	09 48 56.5	-0.4
KHZ	Kahutara	9.58	209	P		Pn	09 48 58.8	-1.2
KHZ	Kahutara	9.58	209	P		Pn	09 48 58.9	-1.1
DSZ	Denniston Nort	9.84	217	P		Pn	09 49 03.2	-0.1
GVZ	Greta Valley S	10.25	209	P		Pn	09 49 07.7	-0.8
LTZ	Lake Taylor	10.42	212	P		Pn	09 49 09.5	-1.2
INZ	Inchbonnie	10.75	215	P		Pn	09 49 14.6	-0.2
OXZ	Oxford	10.96	211	P		Pn	09 49 15.6	-1.7
MQZ	McQueen's Vall	11.02	208	P		Pn	09 49 16.5	-1.6

NAO ***08*** *09:48:05.2±0.7, 70°.66N×9°.38E, h10km, ML2.4*

BER ***08*** *09:48:05.8±2.9, 70°.63N×9°.21E, h10km, Mw3.7, ML2.4(NAO), Confirmed Earthquake*

KOLA ***08*** *09:48:07.1, 70°.54N×9°.73E, h0km, ML2.1, Error ellipse: s-maj=55.3km s-min=20.5km az=120.0, Norwegian sea*

UPP ***08*** *09:48:08.1±3.1, 70°.89N×10°.75E, h0km, ML2.3, Presumed earthquake*

ISC 08 09:48:03.2±2.9, 70°.6N±0°.1×9°.3E±0°.1, h10km, n42, σ2ˢ22/65, Norwegian Sea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
LOF	Lofoten	2.93	147		Pn	Pn	09 48 52.2	+2.5
LOF					Sn	Sn	09 49 23.3	-1.6
LOF	Lofoten	2.93	147	*eP*		Pn	09 48 52.0	+2.3
LOF				*eS*		Sn	09 49 23.3	-1.6
LOF					IAML		09 49 25.6	
	comp=Z,10.0nm,0.8s							
TRO	Tromso	3.43	103		Pn	Pn	09 48 57.3	+0.7
TRO					Sn	Sn	09 49 35.2	-2.1
TRO	Tromso	3.43	103	*eP*		Pn	09 48 57.3	+0.7
TRO				*eS*		Sn	09 49 35.0	-2.3
TRO					IAML		09 49 38.9	
	comp=Z,11nm,0.3s							
STEI	Steigen	3.44	139		Pn	Pn	09 49 00.0	+3.3
STEI					Sn	Sn	09 49 36.6	-0.8
STEI	Steigen	3.44	139	*eP*		Pn	09 48 59.8	+3.1
STEI				*eS*		Sn	09 49 36.8	-0.6
STEI					IAML		09 49 41.7	
	comp=Z,5.8nm,1.0s							
FAUS	Fauske	3.91	144		Pn	Pn	09 49 05.4	+2.2
FAUS					Sn	Sn	09 49 48.5	-0.7
FAUS	Fauske	3.91	144	*eP*		Pn	09 49 05.6	+2.4
FAUS				*eS*		Sn	09 49 48.4	-0.7
FAUS					IAML		09 49 54.9	
	comp=Z,5.0nm,0.2s							
FAUS	Fauske	3.91	144	P		Pn	09 49 06.1	+2.9
FAUS				S		Sn	09 49 48.4	-0.7
JETT	Jettan, Norway	3.94	101	Pn		Pn	09 49 05.0	+1.3
JETT				Sn		Sn	09 49 48.7	-1.3
JETT	Jettan, Norway	3.94	101	Pn		Pn	09 49 05.0	+1.3
JETT				Sn		Sn	09 49 48.7	-1.3
VAGH	Vaagaholmen	4.18	158	Pn		Pn	09 49

MOL	**Molde**	**8.13**	**186**	Pn	Pn	09 50 00.2	-1.0	
MOL				Sn	Sn	09 51 23.3	-10	
AKN	**Aaknes**	**8.55**	**187**	Pn	**Pn**	**09 50 07.5**	**+0.7**	
AKN				Sn	Sn	09 51 36.5	-6.7	
AKN	**Aaknes**	**8.55**	**187**	Pn	**Pn**	**09 50 07.5**	**+0.7**	
AKN				Sn	Sn	09 51 36.5	-6.7	
KVDA	**Kovda**	**9.41**	**103**	S	**Sn**	**09 51 59.5**	**-4.6**	
NB2	**NORSAR Subarra**	**9.67**	**175**	Pn	**Pn**	**09 50 23.2**	**+0.9**	
	baz=347,slow=14							
NB2	**NORSAR Subarra**	**9.67**	**175**	Pn	**Pn**	**09 50 23.2**	**+0.9**	
NRA0	**NORESS Array S**	**9.99**	**174**	Pn	**Pn**	**09 50 26.8**	**+0.2**	
	baz=357,slow=18							
NRA0				Sn	Sn	09 52 11.4	-7.1	
	baz=354,slow=28							
NRA0	**NORESS Array S**	**9.99**	**174**	Pn	**Pn**	**09 50 26.8**	**+0.2**	
NRA0				Sn	Sn	09 52 11.4	-7.1	

*IDC **08** 09:54:06.9±1.6,5.°70S×128.°83E,h301km±19km,mb3.3/5, mbtmp4.2/9,Error ellipse: s-maj=29.4km s-min=16.0km az=84.0*

*DJA **08** 09:54:06.8±0.4,6°S±3°×12°9E±°,h317km±8km,M4.2/17, mB4.7/5,mb4.2/7,MLv4.3/17,Mw(mB)3.9/5*

*NEIC **08** 09:54:06.6±1.7,5.°74S±0.°08×128.°7E±0.°1,h295km±8km, mb4.4/11,Error ellipse: s-maj=15.6km s-min=12.1km az=93.0*

*GFZ **08** 09:54:06.3±0.3,6°S±3°×12°9E±°,h306km±4km,M4.2/12, mb4.2/12,Error ellipse: s-maj=9.3km s-min=6.9km az=94.9,confirmed*

ISC 08 09:54:06.2±0.6,5.°75S±0.°05×128.°85E±0.°08,h300km,n61, σ1s32/64,mb3.9/11,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**1.61**	**41**	P		**Pn**	**Pn**	**09 54 52.3**	**+2.2**
BNDI	**Bandanaira**	**1.61**	**41**	P		**Pn**	**Pn**	**09 54 51.6**	**+1.5**
AAI	**Ambon**	**2.15**	**342**	P		**Pn**	**Pn**	**09 54 54.8**	**+0.5**
MSAI	**Masohi**	**2.39**	**2**	P		**Pn**	**Pn**	**09 54 56.2**	**-0.1**
MSAI				AML		AML	AML		
MSAI	**Masohi**	**2.39**	**2**	P		**Pn**	**Pn**	**09 54 56.0**	**-0.3**
NLAI	**Namlea**	**3.04**	**325**	P		**Pn**	**Pn**	**09 55 05.9**	**+3.5**
NLAI				AML		AML	AML		
SAUI	**Saumlaki**	**3.29**	**132**	Pn		**Pn**	**Pn**	**09 55 06.8**	**+1.9**
FAKI	**Fak Fak**	**4.41**	**50**			**Pn**	**Pn**	**09 55 17.5**	**+0.5**
FAKI	**Fak Fak**	**4.41**	**50**	P		**Pn**	**Pn**	**09 55 17.7**	**+0.7**
FAKI				AML		AML	AML		
FAKI	**Fak Fak**	**4.41**	**50**	P		**Pn**	**Pn**	**09 55 17.3**	**+0.3**
SANI	**Sanana**	**4.65**	**322**	P		**Pn**	**Pn**	**09 55 20.2**	**+0.4**
SANI				AML		AML	AML		
SANI	**Sanana**	**4.65**	**322**	P		**Pn**	**Pn**	**09 55 20.0**	**+0.2**
SIJI	**Sorong**	**5.42**	**27**	P		**Pn**	**Pn**	**09 55 28.8**	**+0.1**
	13nm,0.3s,baz=201,slow=17,SNR=22								
SIJI				S			**S**	**09 56 30.9**	**-4.2**
	40nm,0.2s,baz=77,slow=23,SNR=42								
SIJI	**Sorong**	**5.42**	**27**	P		**Pn**	**Pn**	**09 55 28.4**	**-0.3**
	0.4nm2µm21nm,0.6s								
SIJI				AML		AML	AML		
SIJI	**Sorong**	**5.42**	**27**	P		**Pn**	**Pn**	**09 55 28.6**	**0.0**
	comp=Z,18nm,0.5s								
SOEI	**Soe**	**6.03**	**228**	Pn		**Pn**	**Pn**	**09 55 34.3**	**-1.8**
SOEI	**Soe**	**6.03**	**228**	P		**Pn**	**Pn**	**09 55 37.1**	**+1.0**
	comp=Z,0.3nmcomp=Z,79nm,0.7s								
SOEI				AML		AML	AML		
SOEI	**Soe**	**6.03**	**228**	P		**Pn**	**Pn**	**09 55 35.5**	**-0.6**
	comp=Z,80nm,0.7s								
TNTI	**Ternate**	**6.64**	**347**	P		**Pn**	**Pn**	**09 55 43.0**	**-0.4**
	comp=Z,20nm,1.9s								
BATI	**Baumata**	**6.78**	**229**	P		**Pn**	**Pn**	**09 55 46.1**	**+1.2**
	comp=Z,160nm,0.4s,baz=82,slow=2.7,SNR=20								
BATI	**Baumata**	**6.78**	**229**	P		**Pn**	**Pn**	**09 55 46.2**	**+1.2**
BATI	**Baumata**	**6.78**	**229**	P		**Pn**	**Pn**	**09 55 45.1**	**+0.1**
	comp=Z,157nm,0.5s								
MTN	**Manton Dam**	**7.40**	**162**				**Pn**	**09 55 53.1**	**+0.6**
GAMI	**Galela, Maluku**	**7.61**	**352**	P		**Pn**	**Pn**	**09 55 55.3**	**+0.2**
	comp=Z,36nm,1.2s								
EDFI	**Ende, Flores**	**7.70**	**247**	P		**Pn**	**Pn**	**09 55 57.2**	**+1.0**
EDFI				AML		AML	AML		
KNRA	**Kununurra**	**9.87**	**180**				**Pn**	**09 56 22.5**	**-0.2**
MMSI	**Mamuju**	**10.36**	**287**	P		**Pn**	**Pn**	**09 56 28.3**	**-0.6**
	comp=Z,220nm,0.5s								
TOLI2	**Tolitoli**	**10.55**	**310**	Pn		**Pn**	**Pn**	**09 56 30.3**	**-0.9**
FITZ	**Fitzroy Crossi**	**12.66**	**194**	P		**Pn**	**Pn**	**09 56 56.9**	**+0.1**
	comp=Z,4.7nm,0.4s,baz=14,slow=7.7,SNR=42								
FITZ				S			**S**	**09 59 15.9**	**-1.4**
	comp=Z,1.5nm,0.3s,baz=121,slow=21,SNR=2.2								
FITZ	**Fitzroy Crossi**	**12.66**	**194**				**Pn**	**09 56 56.7**	**-0.1**
FITZ	**Fitzroy Crossi**	**12.66**	**194**	P		**Pn**	**Pn**	**09 56 57.1**	**+0.3**
	comp=Z,1.7nm,0.9s								
WB0	**Warramunga Arr**	**14.94**	**159**				**P**	**09 57 23.4**	**+0.7**
WB0				IAmb		IAmb	IAmb	09 57 26.2	
	comp=Z,12nm,0.8s								
WRAB	**Tennant Creek**	**15.08**	**160**	P			**P**	**09 57 25.1**	**+0.9**
WRAB				IAmb		IAmb	IAmb	09 57 27.8	
	comp=Z,11nm,0.5s								
WRAB	**Tennant Creek**	**15.08**	**160**	P		**P**	**P**	**09 57 24.9**	**+0.7**
	comp=Z,15nm,0.4s								
WRA	**Warramunga Arr**	**15.08**	**160**	P		**Pn**	**Pn**	**09 57 25.5**	**-0.2**
	comp=Z,6.5nm,0.4s,baz=342,slow=12,SNR=99								
WRA				S			**S**	**10 00 05.6**	**-3.1**
	comp=Z,1.5nm,0.6s,baz=344,slow=21,SNR=6.4								
WRA	**Warramunga Arr**	**15.08**	**160**				**P**	**09 57 24.2**	**-0.1**
WR8	**Warramunga Arr**	**15.15**	**159**				**P**	**09 57 25.9**	**+0.9**
WR8				IAmb		IAmb	IAmb	09 57 28.3	
	comp=Z,12nm,0.5s								
STKI	**Sintang**	**18.28**	**288**	P		**P**	**P**	**09 57 58.1**	**-0.9**
	comp=Z,27nm,0.4s								
AS31	**Alice Springs**	**18.47**	**165**				**P**	**09 58 02.3**	**+1.4**
AS31				IAmb		IAmb	IAmb	09 58 04.2	
	comp=Z,4.2nm,0.7s								
ASAR	**Alice Springs**	**18.47**	**165**	P		**P**	**P**	**09 58 02.6**	**+1.7**
	comp=Z,7.4nm,0.5s,baz=346,slow=12,SNR=98								
ASAR				S			**S**	**10 01 13.7**	**-2.1**
	comp=Z,2.9nm,0.9s,baz=348,slow=23,SNR=16								
ASAR	**Alice Springs**	**18.47**	**165**				**P**	**09 58 02.1**	**+1.2**
SBUM	**Sibu**	**18.50**	**296**	P		**P**	**P**	**09 58 01.8**	**+0.5**
	comp=Z,3.5nm,1.7s								
BBJI	**Bungbulang**	**21.12**	**264**	P		**P**	**P**	**09 58 28.0**	**-0.5**
BBJI				IAmb		IAmb	IAmb	09 58 30.3	
	comp=Z,10nm,0.7s								
KLBR	**Kellerberrin**	**27.73**	**201**	P		**P**	**P**	**09 59 26.3**	**-1.3**
	comp=Z,18nm,1.4s								
BBOO	**Buckleboo**	**27.75**	**167**	P		**P**	**P**	**09 59 28.8**	**+1.0**
BBOO				IAmb		IAmb	IAmb	10 00 00.7	
	comp=Z,25nm,1.5s								
BBOO	**Buckleboo**	**27.75**	**167**	P		**P**	**P**	**09 59 28.0**	**+0.1**
	comp=Z,9.1nm,1.8s								
STKA	**Stephens Creek**	**28.60**	**157**	P		**P**	**P**	**09 59 36.8**	**+1.4**
STKA				IAmb		IAmb	IAmb	10 00 07.8	
	comp=Z,26nm,1.2s								
YOJ	**Yonaguni jima**	**30.56**	**350**	P		**P**	**P**	**09 59 51.8**	**-0.9**
NACB	**Ninganchiao**	**30.57**	**347**	P		**P**	**P**	**09 59 53.0**	**+0.3**
CMAR	**Chiang Mai Arr**	**38.05**	**310**	P		**P**	**P**	**10 00 57.1**	**+0.3**
	comp=Z,1.0nm,0.5s,baz=135,slow=7.3,SNR=7.2								
	comp=Z,1.0nm,0.5s								
CHTO	**Chiang Mai**	**38.27**	**310**	P		**P**	**P**	**10 00 58.0**	**-0.5**
	comp=Z,3.8nm,0.8s								
HHC	**Hu-ho-hao-te**	**49.01**	**343**	*eP*			**P**	**10 02 27.7**	**+4.3**
HHC				pmax			pmax		
	comp=Z,7.0nm,0.7s								
HHC				pmax			pmax		
	comp=Z,75nm,4.7s								
SONM	**Songino Array**	**56.91**	**342**	P			**P**	**10 03 21.4**	**+0.8**
	comp=Z,0.3nm,0.3s,baz=139,slow=6.8,SNR=1.9								
	comp=Z,0.3nm,0.3s								
MKAR	**Makanchi Array**	**66.56**	**327**	P			**P**	**10 04 24.8**	**+0.3**
	comp=Z,1.3nm,0.5s,baz=116,slow=8.4,SNR=13								
	comp=Z,1.3nm,0.5s								
MKAR	**Makanchi Array**	**66.56**	**327**	P			**P**	**10 04 24.6**	**0.0**
ZAA0	**Zalesovo Array**	**69.96**	**334**	P			**P**	**10 04 44.7**	**-0.6**
ZALV	**Zalesovo Beam**	**69.96**	**334**	P			**P**	**10 04 45.3**	**0.0**
	comp=Z,0.8nm,0.6s,baz=114,slow=6.8,SNR=4.0								
	comp=Z,0.8nm,0.6s								
ZALV	**Zalesovo Beam**	**69.96**	**334**	P			**P**	**10 04 44.6**	**-0.7**
KURBB	**Kurchatov Arra**	**70.85**	**329**	P			**P**	**10 04 51.0**	**+0.3**
	comp=Z,0.8nm,0.5s,baz=135,slow=5.2,SNR=11								
	comp=Z,0.8nm,0.5s								
SCHQ	**Schefferville**	**129.45**	**12**	PKhKP		PKPpre		10 12 35.9	
	comp=Z,4.2nm,0.5s,baz=358,slow=4.4,SNR=8.5								
CFA	**Coronel Fontan**	**139.43**	**157**	PKP		**PKPdf**		**10 12 57.2**	**-1.4**
	comp=Z,1.0nm,0.3s,baz=184,slow=2.0,SNR=35								

*RSPR **08** 10:29:56.3,19.°00N×65.°46W,h26km±13km,MD3.4/19*

*NEIC **08** 10:29:56.4±1.3,18.°96N±0.°06×65.°54W±0.°04,h35km±2km, ML3.4/41,Md3.4/19(RSPR),Error ellipse: s-maj=10.1km s-min=6.1km az=181.0*

ISC 08 10:29:53.1±2.3,19.°18N±0.°08×65.°56W±0.°09,h33km±8km, n58,σ1s64/66,3C-12D,Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GCPR	**Guaynabo City**	**1.00**	**210**				**Pn**	**10 30 10.7**	**-0.2**
HUMP	**Col San Antoni**	**1.07**	**195**				**Pn**	**10 30 11.4**	**-0.4**
HUMP							**Sn**	**10 30 23.2**	**-2.4**
HUMP	**Col San Antoni**	**1.07**	**195**	IAML				10 30 24.9	
	1µm,0.2s								
HUMP	**Col San Antoni**	**1.07**	**195**	*i*	*P*		**Pn**	**10 30 11.4**	**-0.4**
ECPR	**Experimental S**	**1.15**	**222**				**Pn**	**10 30 13.7**	**+0.8**
ECPR	**Experimental S**	**1.15**	**222**				**Sn**	**10 30 26.9**	**-0.6**
ECPR	**Experimental S**	**1.15**	**222**	*i*	*P*		**Pn**	**10 30 13.7**	**+0.8**
EMPR	**Esperanza - Ma**	**1.15**	**233**				**Pb**	**10 30 14.3**	**-0.2**
EMPR							**Sn**	**10 30 28.4**	**+0.7**
EMPR	**Esperanza - Ma**	**1.15**	**233**	*e*	*P*		**Pb**	**10 30 14.3**	**-0.2**
EMPR				*eS*			**Sn**	**10 30 28.4**	**+0.7**
SJG	**San Juan**	**1.20**	**208**				**Pn**	**10 30 13.8**	**+0.2**
SJG				IAML				10 30 31.2	
	629nm,0.3s								
SJG				IAML				10 30 32.1	
	674nm,0.5s								
SJG	**San Juan**	**1.20**	**208**	*i*	*P*		**Pn**	**10 30 13.9**	**+0.2**
PDPR	**Patillas Dam,**	**1.24**	**201**				**Pn**	**10 30 14.0**	**-0.2**
PDPR	**Patillas Dam,**	**1.24**	**201**	IAML				10 30 28.6	
	773nm,0.4s								
PDPR							**Sn**	**10 30 28.8**	**-1.0**
PDPR				IAML				10 30 28.9	
	725nm,0.5s								
PDPR	**Patillas Dam,**	**1.24**	**201**	*i*	*P*		**Pn**	**10 30 14.0**	**-0.2**
IGPR	**InterUniversit**	**1.32**	**203**				**Pn**	**10 30 15.3**	**+0.1**
IGPR							**Sn**	**10 30 29.7**	**-1.9**
IGPR	**InterUniversit**	**1.32**	**203**	*i*	*P*		**Pn**	**10 30 15.3**	**+0.1**
AOPR	**Arecibo Observ**	**1.40**	**234**				**Pn**	**10 30 17.7**	**+1.3**
AOPR	**Arecibo Observ**	**1.40**	**234**	Sn			**Sn**	**10 30 33.4**	**-0.4**
AOPR	**Arecibo Observ**	**1.40**	**234**	*i*	*P*		**Pn**	**10 30 17.7**	**+1.3**
CELP	**Cerrillos**	**1.46**	**221**				**Sn**	**10 30 35.4**	**+0.1**
CELP	**Cerrillos**	**1.46**	**221**				**Pn**	**10 30 18.2**	**+0.9**
CELP	**Cerrillos**	**1.46**	**221**	IAML				10 30 40.8	
	493nm,0.3s								
CELP				IAML				10 30 43.4	
	348nm,0.4s								
CELP	**Cerrillos**	**1.46**	**221**	*i*	*P*		**Pn**	**10 30 18.3**	**+1.0**
OBIP	**Obispado Ponce**	**1.50**	**221**				**Sn**	**10 30 36.4**	**+0.1**
OBIP	**Obispado Ponce**	**1.50**	**221**				**Pn**	**10 30 18.9**	**+1.1**
OBIP	**Obispado Ponce**	**1.50**	**221**	IAML				10 30 39.6	
	comp=N,365nm,0.7s								
OBIP	**Obispado Ponce**	**1.50**	**221**	*i*	*P*		**Pn**	**10 30 19.0**	**+1.2**
OBIP				*eS*			**Sn**	**10 30 36.4**	**+0.1**
AGPR	**Aguadilla, PR**	**1.63**	**244**				**Pn**	**10 30 21.2**	**+1.7**
AGPR	**Aguadilla, PR**	**1.63**	**244**				**Sn**	**10 30 40.8**	**+1.4**
AGPR				IAML				10 30 45.0	
	comp=N,451nm,0.3s								
AGPR				IAML				10 30 50.4	
	comp=N,334nm,0.7s								
AGPR	**Aguadilla, PR**	**1.63**	**244**	*e*	*P*		**Pn**	**10 30 21.2**	**+1.7**
GBPR	**Guanica, Bosqu**	**1.73**	**226**				**Pn**	**10 30 22.8**	**+1.8**
GBPR							**Sn**	**10 30 43.4**	**+1.5**
GBPR	**Guanica, Bosqu**	**1.73**	**226**	*e*	*P*		**Pn**	**10 30 22.8**	**+1.8**
GBPR				*eS*			**Sn**	**10 30 43.4**	**+1.5**
LSP	**Las Mesas**	**1.76**	**235**				**Pn**	**10 30 23.3**	**+2.0**
LSP							**Sn**	**10 30 43.9**	**+1.3**
LSP	**Las Mesas**	**1.76**	**235**	*e*	*P*		**Pn**	**10 30 23.3**	**+2.0**
LSP				*eS*			**Sn**	**10 30 43.9**	**+1.3**
PRSN	**Puerto Rico Se**	**1.78**	**238**				**Sn**	**10 30 44.9**	**+1.8**
PRSN	**Puerto Rico Se**	**1.78**	**238**	Pn			**Pn**	**10 30 22.7**	**+1.1**
PRSN	**Puerto Rico Se**	**1.78**	**238**	IAML				10 30 47.5	
	comp=N,641nm,0.2s								
PRSN				IAML				10 30 54.5	
	comp=N,712nm,0.3s								
PRSN	**Puerto Rico Se**	**1.78**	**238**	*e*	*P*		**Pn**	**10 30 23.7**	**+2.1**
MLPR	**Magueyes Islan**	**1.85**	**230**				**Pn**	**10 30 24.0**	**+1.4**
MLPR	**Magueyes Islan**	**1.85**	**230**				**Sn**	**10 30 44.4**	**-0.5**
MLPR	**Magueyes Islan**	**1.85**	**230**	*i*	*P*		**Pn**	**10 30 24.0**	**+1.4**
CRPR	**Cabo Rojo, PR**	**1.88**	**232**				**Pn**	**10 30 24.4**	**+1.5**
CRPR	**Cabo Rojo, PR**	**1.88**	**232**				**Sn**	**10 30 46.0**	**+0.5**
CRPR	**Cabo Rojo, PR**	**1.88**	**232**	*i*	*P*		**Pn**	**10 30 24.4**	**+1.5**
IDE	**Isla Desecheo**	**1.98**	**247**				**Pn**	**10 30 26.0**	**+1.7**
IDE							**Sn**	**10 30 49.4**	**+1.4**
IDE	**Isla Desecheo**	**1.98**	**247**	*e*	*P*		**Pn**	**10 30 26.0**	**+1.7**
IDE				*eS*			**Sn**	**10 30 49.4**	**+1.4**
SMRT	**St. Maarten**	**2.62**	**115**	Pn			**Pn**	**10 30 34.1**	**+0.9**
SMRT				IAML				10 31 13.2	
	comp=N,174nm,0.4s								
SMRT				IAML				10 31 31.4	
	comp=E,285nm,0.2s								
SABA	**Saba**	**2.70**	**125**	Pn			**Pn**	**10 30 34.9**	**+0.7**
SABA				IAML				10 31 29.1	
	comp=N,227nm,0.5s								
PCDR	**Punta Cana, DR**	**2.75**	**256**	Pn			**Pn**	**10 30 36.9**	**+1.9**
PCDR				IAML				10 31 15.5	
	comp=E,132nm,1.6s								
PCDR				IAML				10 32 09.2	
	comp=N,210nm,1.6s								
BANI	**BANI**	**4.61**	**261**	Pn			**Pn**	**10 31 04.5**	**+3.9**
CBE	**Ff, Capester**	**4.88**	**129**	Pn			**Pn**	**10 31 05.8**	**+1.6**
SDDR	**Presa de Saban**	**5.42**	**269**	Pn			**Pn**	**10 31 15.1**	**+3.4**
PODR	**Polo**	**5.51**	**260**	Pn			**Pn**	**10 31 14.1**	**+1.0**
QMBU	**Quimbuelo**	**8.77**	**278**	*eP*			**Pn**	**10 31 56.1**	**-1.6**
QMBU				*eS*			**Sn**	**10 33 30.1**	**-5.4**
QMBU				IAML				10 33 35.1	
	comp=N,7.8nm,0.4s								
QMBU				IAML				10 33 36.9	
	comp=E,17nm,0.3s								
MOAC	**Moa**	**8.96**	**281**	*eP*			**Pn**	**10 31 59.2**	**-1.1**
NMDO	**Nuevo Mundo**	**8.97**	**280**	*eP*			**Pn**	**10 31 60.0**	**-0.5**
NMDO				*eS*			**Sn**	**10 33 36.8**	**-3.6**
MARVS	**Santiago de Cu**	**9.78**	**276**	*eP*			**Pn**	**10 32 08.9**	**-2.6**
CCCC	**Cccc**	**11.63**	**282**	*eP*			**Pn**	**10 32 31.4**	**-5.5**

*IDC **08** 10:45:56.8±0.5,5.°58S×76.°61W,h0km,mb4.1/13, mbtmp4.2/17,ML4.3/4,MS3.5/15,Error ellipse: s-maj=16.7km s-min=9.5km az=52.0*

*VAO **08** 10:46:02.3±1.1,5.°78S×76.°53W,h32km±9km,mb4.9, Presumed earthquake*

*NEIC **08** 10:46:03.8±1.7,5.°69S±0.°06×76.°69W±0.°06,h49km±7km, mb4.6/41,Error ellipse: s-maj=9.0km s-min=8.6km az=147.0*

*GFZ **08** 10:46:03.4±0.2,6°S±3°×7°6W±°,h39km,M4.6/37, mb4.6/37*

ISC 08 10:46:02.0±0.3,5.°67S±0.°04×76.°65W±0.°05,h35km,n230, σ1s11/224,mb4.7/48,MS3.4/11,4C-2D,Northern Peru

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**2.27**	**230**	Pn			**Pn**	**10 46 38.9**	**+1.6**
	79nm,0.3s,baz=29,slow=13,SNR=182								
ATAH				Sn			**Sn**	**10 47 06.7**	**+2.4**
	151nm,0.3s,baz=356,slow=11,SNR=8.1								
ATAH				LR			LR	10 47 46.8	
	comp=Z,2µm,20.5s,baz=123,slow=47								
	378nm,0.5s								
ATAH				AML			AML		
CZSB	**Cruzeiro do Su**	**4.42**	**118**				**Pn**	**10 47 08.6**	**+1.9**
CZSB	**Cruzeiro do Su**	**4.42**	**118**	P			**Pn**	**10 47 08.5**	**+1.9**
CZSB				S			**Sn**	**10 48 00.4**	**+3.5**
CZSB	**Cruzeiro do Su**	**4.42**	**118**	*eP*			**Pn**	**10 47 05.5**	**-1.2**
PIAT	**Ana Tenorio**	**4.91**	**341**	P			**Pn**	**10 47 12.2**	**-1.6**
SLOR	**San Lorenzo -**	**5.24**	**339**				**Pn**	**10 47 18.9**	**+0.5**
CASC	**Dorado de Casc**	**5.81**	**353**	P			**Pn**	**10 47 24.9**	**-1.0**
	4µm119nm,0.6s								
CASC				S			**Sn**	**10 48 28.5**	**-2.9**
	4µm119nm,0.6s								
CASC				AML			AML		
PPLP	**Puerto Lpez**	**5.81**	**315**	P			**Pn**	**10 47 26.5**	**+0.7**
PTLC	**Puerto Leguiza**	**6.09**	**18**	P			Pn	10 47 25.9	-3.7
OTAV	**Otavalo**	**6.14**	**343**	Pn			**Pn**	**10 47 32.0**	**+1.3**
OTAV	**Otavalo**	**6.14**	**343**	P			**Pn**	**10 47 32.6**	**+1.9**
	725nm25nm,0.5s								
OTAV				AML			AML		
OTAV	**Otavalo**	**6.14**	**343**	P			**Pn**	**10 47 32.0**	**+1.3**
	comp=Z,26nm,0.6s								
OTAV	**Otavalo**	**6.14**	**343**	*eP*			**Pn**	**10 47 32.7**	**+1.9**
FLF1	**Flavio Alfaro-**	**6.17**	**329**	P			**Pn**	**10 47 29.5**	**-1.2**
CUSE	**Cuicocha Este**	**6.19**	**344**	P			**Pn**	**10 47 32.1**	**+0.7**
	comp=Z,4µmcomp=Z,77nm,0.5s								
CUSE				AML			AML		

PAC1	**Pacto, Paraso**	**6.27**	**340**	P			**Pn**	**10 47 34.0**	**+1.7**
	comp=Z,2µmcomp=Z,102nm,0.6s								
PAC1				AML			AML		
NNA	**Nana**	**6.28**	**182**	Pn			**Pn**	**10 47 32.5**	**+0.3**
	comp=Z,22nm,0.3s,baz=349,slow=9.2,SNR=41								
NNA				Sn			**Sn**	**10 48 38.9**	**-4.0**
	comp=Z,74nm,0.3s,baz=105,slow=19,SNR=15								
	comp=Z,58nm,0.3s								
NNA				AML			AML		
NNA	**Nana**	**6.28**	**182**				**Pn**	**10 47 32.8**	**+0.6**
NNA	**Nana**	**6.28**	**182**	P			**Pn**	**10 47 32.3**	**0.0**
	comp=Z,2µmcomp=Z,130nm,0.9s								
NNA				AML			AML		
NNA	**Nana**	**6.28**	**182**	P			**Pn**	**10 47 33.0**	**+0.7**
	comp=Z,123nm,0.9s								
CMBC	**Cumbal**	**6.67**	**350**	P			**Pn**	**10 47 39.8**	**+1.8**
CRUC	**La Cruz**	**7.20**	**358**	P			**Pn**	**10 47 44.9**	**-0.3**
	comp=Z,1.1nmcomp=Z,79µm,0.6s								
BBAC	**Balboa, Cauca**	**7.66**	**356**	P			**Pn**	**10 47 51.8**	**+0.3**
	comp=Z,73nm,0.6s								
POPC	**Popayan, Colom**	**8.16**	**360**	P			**Pn**	**10 47 58.6**	**+0.4**
	comp=Z,479nmcomp=Z,46nm,0.9s								
BETC	**Betania**	**8.38**	**8**	P			**Pn**	**10 48 02.4**	**+1.2**
JAMC	**Jamundi, Valle**	**8.83**	**360**	P			**Pn**	**10 48 10.0**	**+2.6**
	comp=Z,48nm,0.7s								
GUVC	**San Jose del G**	**9.10**	**26**	P			**Pn**	**10 48 12.1**	**+1.2**
URMC	**La Uribe, Meta**	**9.14**	**14**	P			**Pn**	**10 48 11.6**	**0.0**
	comp=Z,3µmcomp=Z,214nm,0.8s								
URMC	**La Uribe, Meta**	**9.14**	**14**	P			**Pn**	**10 48 13.8**	**+2.2**
PRAC	**Prado**	**9.49**	**11**	P			**Pn**	**10 48 15.9**	**-0.4**
	comp=Z,1µmcomp=Z,50nm,0.5s								
YOTC	**Yotoco, Valle**	**9.59**	**2**	P			**Pn**	**10 48 16.9**	**-1.0**
	comp=Z,27nm,0.9s								
ORTC	**Ortega, Tolima**	**9.62**	**8**	P			**Pn**	**10 48 18.5**	**+0.4**
	comp=Z,885nmcomp=Z,96nm,0.9s								
VILC	**Villavicencio,**	**10.15**	**17**	P			**Pn**	**10 48 27.4**	**+1.8**
VILC	**Villavicencio,**	**10.15**	**17**	P			**Pn**	**10 48 28.1**	**+2.5**
CVER	**Cruz Verde, Cu**	**10.45**	**14**	P			**Pn**	**10 48 30.3**	**+0.5**
CHIC	**Chingaza**	**10.64**	**16**	P			**Pn**	**10 48 33.3**	**+0.9**
	comp=Z,883nmcomp=Z,71nm,0.6s								
CHIC	**Chingaza**	**10.64**	**16**	P			**Pn**	**10 48 34.0**	**+1.6**
ROSC	**El Rosal**	**10.70**	**13**	Pn			**Pn**	**10 48 35.4**	**+2.2**
	comp=Z,4.6nm,0.3s,baz=183,slow=4.5,SNR=9.2								
ROSC				LR			LR	10 53 51.4	
	comp=Z,972nm,18.2s,baz=181,slow=45								
ROSC	**El Rosal**	**10.70**	**13**	Pn			**Pn**	**10 48 34.5**	**+1.2**
ROSC	**El Rosal**	**10.70**	**13**	P			**Pn**	**10 48 34.6**	**+1.4**
	comp=Z,61nm,0.8s								
PTGC	**Puerto Gaitan,**	**10.79**	**25**	P			**Pn**	**10 48 35.6**	**+1.4**
	comp=Z,65nm,0.7s								
GUY2C	**Guyana, Caldas**	**10.90**	**7**	P			**Pn**	**10 48 37.0**	**+1.0**
	comp=Z,442nmcomp=Z,29nm,0.7s								
NORC	**Norcasia**	**11.30**	**9**	P			**Pn**	**10 48 42.2**	**+1.0**
	comp=Z,516nmcomp=Z,

AC02 **Maricunga** **22.24 162** P **P** **10 50 56.5 +0.2**
AC02 IAmb IAmb 10 50 58.7
comp=Z,18nm,0.8s
AC02 **Maricunga** **22.24 162** P **P** **10 50 57.1 +0.8**
comp=Z,30nm,1.4s
AC06 **Mina Casimiro** **22.38 165** P **P** **10 50 57.3 -0.2**
GO03 **Copiapo** **22.64 165** P **P** **10 50 59.9 -0.3**
comp=Z,13nm,2.1s
SALV **Santo Antonio** **22.93 118** *e*P **P** **10 51 02.1 -1.3**
COIM **Forte Coimbra** **23.16 129** *e*P **P** **10 51 04.4 -1.3**
AC05 **El Transito** **23.82 166** P **P** **10 51 12.0 -0.1**
comp=Z,17nm,2.0s
LCO **Las Campanas** **23.89 167** P **P** **10 51 12.9 +0.1**
comp=Z,14nm,1.4s
BDQN **Bodoquena, MS** **24.27 129** *e*P **P** **10 51 15.7 -0.5**
MURT **Porto Murtinho** **24.34 133** *e*P **P** **10 51 15.6 -1.1**
PP1B **Ponte de Pedra** **24.36 121** *e*P **P** **10 51 17.1 +0.1**
CO01 **Juntas del Tor** **24.96 166** P **P** **10 51 22.4 -0.2**
comp=Z,11nm,1.4s
GO04 **Tololo Observa** **24.99 168** **P** **10 51 22.6 -0.3**
GO04 IAmb IAmb 10 51 25.7
comp=Z,16nm,0.9s
GO04 **Tololo Observa** **24.99 168** P **P** **10 51 23.2 +0.3**
comp=Z,18nm,1.0s
SDDR **Presa de Saban** **25.06 12** P **P** **10 51 24.7 +1.4**
comp=Z,16nm,1.7s
AQDB **Aquidauana** **25.11 128** P **P** **10 51 23.5 -0.3**
AQDB **Aquidauana** **25.11 128** P **P** **10 51 23.6 -0.2**
comp=Z,31nm,1.0s
AQDB **Aquidauana** **25.11 128** *e*P **P** **10 51 23.8 +0.1**
CO03 **El Pedregal** **25.66 168** P **P** **10 51 29.0 +0.3**
CO03 IAmb IAmb 10 51 31.8
comp=Z,22nm,1.1s
CO03 **El Pedregal** **25.66 168** P **P** **10 51 29.2 +0.5**
comp=Z,20nm,1.1s
SJG **San Juan** **25.80 23** LR LR 11 03 26.1
comp=Z,116nm,18.7s,baz=232,slow=41
SJG **San Juan** **25.80 23** P **P** **10 51 30.9 +0.8**
SJG **San Juan** **25.80 23** P **P** **10 51 29.5 -0.6**
comp=Z,43nm,0.9s
SNDB **Serra Nova Dou** **25.81 106** *e*P **P** **10 51 29.3 -0.9**
CO02 **Combarbal** **25.95 169** P **P** **10 51 32.7 +1.3**
comp=Z,16nm,0.7s
GCPR **Guaynabo City** **26.01 23** P **P** **10 51 32.1 +0.2**
ARAG **Araguaiana, MT** **26.33 114** *e*P **P** **10 51 33.7 -1.2**
C2SB **Chapadao do Su** **26.61 121** P **P** **10 51 37.6 +0.2**
comp=Z,33nm,0.8s
C2SB **Chapadao do Su** **26.61 121** *e*P **P** **10 51 37.5 +0.1**
ZON **Zonda** **26.80 165** P **P** **10 51 39.9 +0.8**
comp=E,8.1nm,1.3s
SJPY **San Joaquin** **27.52 136** *e*P **P** **10 51 44.3 -1.2**
CPUP **Villa Florida** **27.61 140** P **P** **10 51 46.1 -0.2**
comp=E,4.6nm,0.8s,baz=324,slow=11,SNR=19
CPUP LR LR 11 05 35.4
comp=E,79nm,19.7s,baz=315,slow=43
comp=E,4.6nm,0.8s
CPUP **Villa Florida** **27.61 140** **P** **10 51 46.0 -0.2**
CPUP **Villa Florida** **27.61 140** P **P** **10 51 46.3 0.0**
comp=Z,11nm,1.1s
CMIG **Matias Romero** **28.92 322** LR LR 11 01 26.4
comp=Z,40nm,21.5s,baz=146,slow=32
PCMB **Pacaembu** **29.24 125** P **P** **10 52 00.5 -0.4**
comp=Z,20nm,1.8s
PCMB **Pacaembu** **29.24 125** *e*P **P** **10 51 59.7 -1.2**
GO05 **Hualane** **29.52 172** P **P** **10 52 02.8 -0.5**
comp=Z,34nm,1.3s
BDFB **Brasilia** **29.79 112** P **P** **10 52 06.0 0.0**
comp=Z,1.5nm,0.4s,baz=283,slow=9.2,SNR=4.8
comp=Z,1.5nm,0.4s
LDASE **Londrina, Braz** **30.25 128** *e*P **P** **10 52 08.8 -1.1**
IPMB **Ipameri, GO** **30.34 116** *e*P **P** **10 52 10.2 -0.6**
ITQB **Itaqui** **30.45 144** *e*P **P** **10 52 11.0 -0.4**
BB19B **Bebedouro** **31.26 122** *e*P **P** **10 52 18.0 -0.8**
ITAB **Concordia** **31.69 135** P **P** **10 52 21.3 -1.2**
comp=Z,22nm,0.8s
ITAB **Concordia** **31.69 135** *e*P **P** **10 52 22.4 -0.1**
PMNB **Patos De Minas** **32.12 116** P **P** **10 52 25.9 -0.6**
comp=Z,18nm,1.0s
PMNB **Patos De Minas** **32.12 116** *e*P **P** **10 52 25.1 -1.4**
CANS **Sao Roque de M** **32.78 119** *e*P **P** **10 52 31.0 -1.3**
CPSB **Cacapava Do Su** **32.90 141** P **P** **10 52 31.9 -1.2**
comp=Z,10nm,1.4s
SPB **Sao Paulo** **33.29 125** P **P** **10 52 34.8 -1.7**
comp=Z,19nm,0.7s
BSCB **Bom Sucesso** **34.45 119** P **P** **10 52 46.4 -0.3**
BSCB pP **pP** **10 52 56.4 -0.6**
BSCB **Bom Sucesso** **34.45 119** *e*P **P** **10 52 46.0 -0.7**
DIAM **Diamantina, MG** **34.53 114** *e*P **P** **10 52 47.1 -0.4**
PARB **Paraibuna** **34.66 124** P **P** **10 52 47.3 -1.3**
comp=Z,99nm,2.3s
PARB **Paraibuna** **34.66 124** *e*P **P** **10 52 46.1 -2.5**
NBPS **Pedro II - PI** **35.09 90** *e*P **P** **10 52 52.5 +0.1**
PLCA **Paso Flores** **35.34 172** P **P** **10 52 54.0 -0.1**
comp=Z,1.3nm,0.5s,baz=334,slow=8.5,SNR=7.3
PLCA PcP **PcP** **10 55 24.5 +0.5**
comp=Z,1.4nm,0.6s,baz=9.9,slow=6.8,SNR=5.5
PLCA LR LR 11 05 09.0
comp=Z,39nm,20.1s,baz=24,slow=32
comp=Z,1.3nm,0.5s
SJMB **Sao Joao De Ma** **36.91 114** *e*P **P** **10 53 07.9 +0.1**
BSFB **Barra de Sao F** **37.25 114** P **P** **10 53 10.5 -0.2**
comp=Z,31nm,0.9s
BSFB **Barra de Sao F** **37.25 114** *e*P **P** **10 53 10.6 -0.2**
CMC01 **Camacan, BA** **37.69 108** *e*P **P** **10 53 14.6 +0.1**
RIB01 **Linhares ES** **37.80 114** *e*P **P** **10 53 14.6 -0.7**
TKL **Tuckaleechee C** **41.65 351** LR LR 11 12 35.4
comp=Z,50nm,18.4s,baz=168,slow=38
SAND **Sanderson** **43.03 327** **P** **10 53 58.6 0.0**
TXAR **Lajitas Array** **43.42 325** P **P** **10 54 02.0 +0.3**
comp=Z,0.4nm,0.7s,baz=156,slow=9.0,SNR=5.3
TXAR PcP **PcP** **10 55 49.9 0.0**
comp=Z,0.7nm,0.8s,baz=149,slow=5.8,SNR=4.0
comp=Z,0.4nm,0.7s
TXAR **Lajitas Array** **43.42 325** P **P** **10 54 01.9 +0.2**
TX31 **Lajitas Ar. Si** **43.43 325** P **P** **10 54 02.4 +0.6**
APMT **Aspermont** **44.72 332** **P** **10 54 12.1 +0.1**
APMT IAmb IAmb 10 54 23.6
comp=Z,12nm,0.7s
VHRN **Van Horn** **45.27 325** **P** **10 54 16.7 +0.2**
VHRN IAmb IAmb 10 54 27.6
comp=Z,6.4nm,0.7s
DKNS **Dickens** **45.38 331** P **P** **10 54 17.8 +0.5**
MNTX **Cornudas Mount** **46.17 325** **P** **10 54 24.2 +0.7**
MNTX IAmb IAmb 10 54 34.4
comp=Z,4.3nm,0.8s
MNTX **Cornudas Mount** **46.17 325** P **P** **10 54 25.2 +1.6**
comp=Z,5.9nm,0.7s
SMWD **Samnorwood** **46.25 333** P **P** **10 54 24.2 +0.1**
BINY **Binghamton** **47.64 1** P **P** **10 54 36.5 +1.6**
comp=Z,22nm,1.4s
ANMO **Albuquerque** **49.20 327** **P** **10 54 46.3 -1.0**
ANMO **Albuquerque** **49.20 327** P **P** **10 54 48.1 +0.9**
comp=Z,16nm,0.8s
SADO **Sadowa** **50.26 358** LR LR 11 19 44.6
comp=Z,34nm,18.4s,baz=173,slow=40
PDAR **Pinedale Array** **56.71 331** P **P** **10 55 42.5 -0.1**
comp=Z,0.3nm,0.6s,baz=142,slow=8.4,SNR=3.8
comp=Z,0.3nm,0.6s
PDAR **Pinedale Array** **56.71 331** P **P** **10 55 42.2 -0.3**
ULM **Lac du Bonnet** **58.13 346** P **P** **10 55 50.9 -1.2**
comp=Z,1.9nm,0.6s,baz=141,slow=7.7,SNR=4.3
comp=Z,1.9nm,0.6s
ULM **Lac du Bonnet** **58.13 346** P **P** **10 55 51.4 -0.7**
NVAR **Mina Array Bea** **58.45 322** P **P** **10 55 55.4 +0.5**
comp=Z,0.7nm,0.6s,baz=117,slow=6.7,SNR=6.4
comp=Z,0.7nm,0.6s
NVAR **Mina Array Bea** **58.45 322** P **P** **10 55 54.8 0.0**
MFID **Camas Ranch** **60.34 328** P **P** **10 56 08.2 +0.6**
SCHQ **Schefferville** **60.84 6** LR LR 11 22 54.1
comp=Z,19nm,21.7s,baz=106,slow=36
TAOE **Nuku Hiva Isla** **63.01 263** *e*LR LR 11 15 13.1
comp=Z,28nm,22.6s
NEW **Newport** **64.36 331** LR LR 11 28 35.3
comp=Z,34nm,18.6s,baz=145,slow=40
JRO **Jston Ridge Ob** **65.64 327** P **P** **10 56 42.6 -0.3**
FRB **Frobisher Bay** **69.50 4** LR LR 11 29 43.4
comp=Z,57nm,19.5s,baz=84,slow=38
PPT2 **Papeete2** **72.05 253** *e*LR LR 11 19 28.3
comp=Z,37nm,24.2s
DBIC **Dimbokro** **72.69 81** P **P** **10 57 27.0 -0.1**
comp=Z,1.6nm,0.3s,baz=255,slow=3.2,SNR=2.7
comp=Z,1.6nm,0.3s
DBIC **Dimbokro** **72.69 81** P **P** **10 57 26.4 -0.6**
DBIC IAmb IAmb 10 57 38.3
comp=Z,7.3nm,1.0s
YKA **Yellowknife Ar** **73.90 343** P **P** **10 57 32.9 -0.3**
comp=Z,1.5nm,0.7s,baz=142,slow=6.2,SNR=14
comp=Z,1.5nm,0.7s
VNA3 **Neumayer Olymp** **77.36 162** ⇑P **P** **10 57 53.1 +0.1**
comp=Z,4.3nm,0.8s
VNA3 **Neumayer Olymp** **77.36 162** P **P** **10 57 53.3 +0.3**
comp=Z,9.2nm,1.1s
VNA1 **Neumayer--Stat** **77.60 162** P **P** **10 57 54.8 +0.5**
comp=Z,7.1nm,0.9s
VNA2 **Neumayer--Watz** **77.96 162** ⇑P **P** **10 57 56.3 0.0**
comp=Z,5.9nm,0.7s,baz=296,slow=5.3
VNA2 **Neumayer--Watz** **77.96 162** P **P** **10 57 56.5 +0.2**
comp=Z,10nm,0.7s
SNAA **Sanae** **79.58 162** ⇑P **P** **10 58 05.4 +0.1**
comp=Z,99nm,0.5s
SNAA **Sanae** **79.58 162** P **P** **10 58 05.6 +0.4**
comp=Z,3.6nm,0.5s,baz=278,slow=8.0,SNR=7.6
comp=Z,3.6nm,0.5s
SNAA **Sanae** **79.58 162** P **P** **10 58 05.3 +0.1**
SNAA IAmb IAmb 10 58 06.3
comp=Z,9.2nm,1.1s
SNAA **Sanae** **79.58 162** P **P** **10 58 05.5 +0.3**
comp=Z,7.9nm,0.9s
TORD **Torodi Ar. Bea** **80.00 76** P **P** **10 58 08.4 -0.1**
comp=Z,1.5nm,0.6s,baz=294,slow=5.7,SNR=11
comp=Z,1.5nm,0.6s
TROLL **Troll, Antarti** **81.29 162** ⇑P **P** **10 58 14.8 +0.3**
comp=Z,257nm,0.8s
M29M **Somme Creek** **82.43 336** P **P** **10 58 21.0 +0.4**
M29M IAmb IAmb 10 58 37.6
comp=Z,7.0nm,1.0s
L29M **L29M** **82.61 336** **P** **10 58 22.0 +0.6**
L29M IAmb IAmb 10 58 37.3
comp=Z,7.0nm,0.8s
A36M **Sachs Harbour** **83.60 346** **P** **10 58 25.8 -0.5**
INK **Inuvik** **83.62 342** **P** **10 58 26.6 +0.1**
INK IAmb IAmb 10 58 38.4
comp=Z,8.7nm,1.1s
QSPA **South Pole Qui** **84.42 180** P **P** **10 58 31.3 +0.4**
comp=Z,4.6nm,0.9s,baz=153,slow=4.1,SNR=12
comp=Z,4.6nm,0.9s
QSPA **South Pole Qui** **84.42 180** P **P** **10 58 30.7 -0.1**
QSPA IAmb IAmb 10 58 32.2
comp=Z,5.5nm,0.9s
E29M **Blow River** **85.06 341** **P** **10 58 33.2 -0.6**
E29M IAmb IAmb 10 58 50.0
comp=Z,6.9nm,1.0s
D27M **Malcolm River** **86.44 341** P **P** **10 58 41.2 +0.5**
D27M IAmb IAmb 10 58 52.7
comp=Z,6.0nm,1.1s
ILAR **Eielson Array** **86.82 336** P **P** **10 58 42.7 +0.1**
comp=Z,1.1nm,0.9s,baz=134,slow=3.4,SNR=8.1
comp=Z,1.1nm,0.9s
ILAR **Eielson Array** **86.82 336** P **P** **10 58 42.4 -0.1**
ELIB **Princess Elisa** **87.74 162** *d*P **P** **10 58 46.7 -0.5**
comp=Z,3.7nm,0.9s
ELIB dpP **pP** **10 59 00.9 +2.4**
NOA **NORSAR Array B** **93.88 29** LR LR 11 38 56.7
comp=Z,7.4nm,19.7s,baz=345,slow=34
BOSA **Boshof** **97.68 120** LR LR 11 41 41.0
comp=Z,48nm,18.9s,baz=32,slow=34
BVAR **Borovoye Array** **125.63 24** PKP **PKPdf** **11 05 00.1 +0.3**
comp=Z,0.9nm,0.4s,baz=270,slow=3.0,SNR=3.5
STKA **Stephens Creek** **127.83 222** PKP **PKPdf** **11 05 04.2 -0.5**
comp=Z,1.4nm,1.0s,baz=64,slow=3.6,SNR=5.1
ZALV **Zalesovo Beam** **129.56 14** PKP **PKPdf** **11 05 06.7 -0.5**
comp=Z,2.6nm,0.6s,baz=281,slow=2.4,SNR=15
KURBB **Kurchatov Arra** **130.62 21** PKP **PKPdf** **11 05 09.7 +0.4**
comp=Z,1.0nm,0.3s,baz=323,slow=2.7,SNR=7.0
MKAR **Makanchi Array** **135.19 21** PKP **PKPdf** **11 05 17.9 -0.2**
comp=Z,1.0nm,0.5s,baz=310,slow=2.5,SNR=7.6
SONM **Songino Array** **137.91 357** PKP **PKPdf** **11 05 23.1 -0.2**
comp=Z,0.6nm,0.6s,baz=299,slow=0.5,SNR=3.8
ASAR **Alice Springs** **138.30 224** PKhKP PKPpre 11 05 16.1
comp=Z,0.5nm,0.6s,baz=135,slow=3.3,SNR=7.2
ASAR PKP **PKPdf** **11 05 23.7 -0.9**
comp=Z,1.4nm,0.8s,baz=113,slow=2.0,SNR=13
WRA **Warramunga Arr** **140.29 229** PKhKP PKPpre 11 05 19.6
comp=Z,1.0nm,0.6s,baz=121,slow=2.2,SNR=7.0
WRA PKP **PKPdf** **11 05 27.5 -0.8**
comp=Z,1.5nm,0.5s,baz=120,slow=2.0,SNR=21
HHC **Hu-ho-hao-te** **144.21 349** *e*P PKPbc 11 05 35.2 +2.3
FITZ **Fitzroy Crossi** **147.73 222** PKPbc **PKPdf** **11 05 43.6 +2.4**
comp=Z,7.8nm,0.8s,baz=156,slow=3.8,SNR=13
LZH **Lanzhou** **149.73 359** sPKP 11 06 02.2
LZH **Lanzhou** **149.73 359** PKPbc **PKPbc** **11 05 49.0 +0.1**
NJ2 **Nanjing** **150.02 333** *e*P **PKPdf** **11 05 44.4 -0.2**
NJ2 pmax pmax
comp=Z,5.0nm,0.5s

*AZER **08** 10:57:37.3,41.°73N×45.°95E,h10km,ml2.5*
*MOS **08** 10:57:38.7,41.°87N×45.°85E,h26km,MPVA3.5*
*NORS **08** 10:57:38.0,41.°88N×45.°82E,h16km,MPVA3.4*
*DRS **08** 10:57:39.3,41.°89N×45.°81E,h18km*

ISC 08 10:57:38.6±1.1,**41.°83N**±0.°02×**45.°82E**±0.°02,**h18**km±5km,
n29,σ0.°87/57,Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TLTR	**Tlyarata**	**0.49**	**56**	*e*Pg	**Pb**	**10 57 49.0**	**+0.2**
TLTR				*e*Sg	**Sb**	**10 57 56.4**	**+0.8**
ZKTA	**Zakatala**	**0.64**	**108**	P	**Pg**	**10 57 51.7**	**+0.5**
ZKTA				S	**Sn**	**10 58 01.6**	**-0.9**
TBLG	**Delisi**	**0.81**	**263**	*e*Pg	**Pb**	**10 57 53.9**	**-0.4**
TBLG				*e*Sg	**Sg**	**10 58 05.5**	**+0.3**
QZX	**Qazax, Azerbai**	**0.84**	**203**	P	**Pb**	**10 57 54.6**	**-0.1**
QZX				S	**Sg**	**10 58 06.9**	**+0.6**
BTLR	**Botlikh**	**0.88**	**20**	*e*Pg	**Pg**	**10 57 55.6**	**-0.3**
BTLR				*e*Sg	**Sn**	**10 58 07.9**	**-0.8**
XNZR	**Khunzakh**	**0.97**	**43**	*e*Pg	**Pg**	**10 57 58.0**	**+0.4**
XNZR				*e*Sg	**Sn**	**10 58 11.6**	**+0.6**
KMKR	**Kumukh**	**1.00**	**72**	*e*Pg	**Pg**	**10 57 58.0**	**-0.2**
KMKR				*e*Sg	**Sn**	**10 58 12.1**	**+0.3**
GNBR	**Gunib**	**1.02**	**57**	*e*Pg	**Pg**	**10 57 58.5**	**+0.1**
GNBR				*e*Sg	**Sn**	**10 58 13.0**	**+1.0**
GDB	**GEDABAY**	**1.11**	**182**	P	**Pn**	**10 57 58.5**	**-1.0**
GDB				S	**Sb**	**10 58 13.8**	**+0.2**
UNCR	**Uncukul**	**1.14**	**39**	*e*Pg	**Pg**	**10 58 00.8**	**0.0**
UNCR				*e*Sg	**Sg**	**10 58 16.4**	**+0.7**
DVE	**Vedeno**	**1.15**	**11**	*e*Pg	**Pg**	**10 58 00.3**	**-0.5**
DVE				*e*Sg	**Sg**	**10 58 16.3**	**+0.4**
ARKR	**Arakani**	**1.17**	**48**	*e*Pg	**Pg**	**10 58 01.1**	**-0.2**
ARKR				*e*Sg	**Sg**	**10 58 17.0**	**+0.4**
SEKA	**Sheki**	**1.21**	**120**	P	**Pb**	**10 58 01.1**	**0.0**
SEKA				S	**Sg**	**10 58 18.0**	**+0.1**
GANJ	**Ganja**	**1.25**	**162**	P	**Pn**	**10 58 00.7**	**-0.5**
GANJ				S	**Sn**	**10 58 17.8**	**+0.3**
KRNR	**Karanay**	**1.28**	**39**	*e*Pg	**Pg**	**10 58 03.1**	**-0.4**
KRNR				*e*Sg	**Sg**	**10 58 20.4**	**+0.2**
TRLG	**Trialeti**	**1.32**	**258**	*e*Pg	**Pn**	**10 58 01.9**	**-0.4**
TRLG				*e*Sg	**Sn**	**10 58 19.5**	**0.0**
DBC	**Dubki**	**1.41**	**32**	*e*Pg	**Pg**	**10 58 05.3**	**-0.5**
DBC				*e*Sg	**Sg**	**10 58 24.7**	**+0.6**
KMGR	**Komgaron**	**1.41**	**330**	*e*Pg	**Pg**	**10 58 06.0**	**+0.1**
KMGR				*e*Sg	**Sg**	**10 58 26.3**	**+2.0**
MNGR	**Mingechevir, A**	**1.43**	**137**	P	**Pb**	**10 58 05.2**	**+0.5**
MNGR				S	**Sg**	**10 58 26.8**	**+2.0**
LACR	**Lac**	**1.50**	**312**	*e*Pg	**Pb**	**10 58 05.8**	**-0.3**
LACR				*e*Sg	**Sb**	**10 58 25.2**	**+0.4**
KSMR	**Kasumkent**	**1.75**	**97**	*e*Pg	**Pb**	**10 58 10.7**	**+0.4**
KSMR				*e*Sg	**Sg**	**10 58 34.3**	**-0.7**
QBL	**Gabala**	**1.76**	**120**	Pn	**Pn**	**10 58 09.1**	**+0.8**
QBL				Sn	**Sg**	**10 58 34.4**	**-1.0**
KORR	**Kora**	**1.80**	**315**	*e*Pg	**Pg**	**10 58 12.6**	**-0.7**
KORR				*e*Sg	**Sg**	**10 58 37.0**	**+0.3**
GNI	**Garni**	**1.87**	**206**	*e*Pg	**Pn**	**10 58 10.2**	**+0.3**
GNI				*e*Sg	**Sb**	**10 58 36.9**	**+1.5**
XNQ	**Khinaliq**	**1.87**	**110**	Pg	**Pn**	**10 58 07.0**	**-2.9**
XNQ				Sn	**Sb**	**10 58 34.9**	**-0.5**
DIGR	**Digorskoe uzhe**	**1.97**	**304**	*e*Pg	**Pb**	**10 58 13.6**	**-0.5**
DIGR				*e*Sg	**Sb**	**10 58 39.4**	**+1.0**
AGDM	**Agdam**	**1.98**	**150**	Pn	**Pb**	**10 58 13.4**	**-0.8**
AGDM				Sg	**Sb**	**10 58 39.9**	**+1.4**
ZRD	**Zardab**	**2.10**	**137**	Sg	**Sg**	**10 58 47.0**	**+0.8**
SBZ	**Shahbuz**	**2.44**	**185**	Pg	**Pb**	**10 58 20.1**	**-2.0**
SBZ				Sg	**Sb**	**10 58 53.3**	**+1.4**

*NEIC **08** 11:19:56.8±0.9,38.°27N±0.°02×108.°92W±0.°03,h3km±3km,*
ML3.8/98,ML3.8/16(UUSS),Error ellipse: s-maj=3.5km
s-min=2.9km az=208.0
*UUSS **08** 11:19:56.9±0.7,38.°27N±0.°01×108.°93W±0.°02,h-0km,*
Error ellipse: s-maj=2.2km s-min=1.4km az=61.0

*IDC **08** 11:19:58.5±1.4,38.°72N×107.°52W,h0km,mbtmpz2.9/4,*
ML3.5/3,Error ellipse: s-maj=22.1km s-min=10.5km
az=65.0

ISC 08 11:19:57.4±0.8,**38.°25N**±0.°03×**108.°96W**±0.°03,**h10**km,**n75,**
σ1.°79/78,Colorado

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PV18	**Skein Mesa, Pa**	**0.04**	**93**		**Pg**	**11 19 58.1**	**-1.6**
PV18				Sg	**Sg**	**11 19 59.0**	**-2.2**
PV18				IAML		11 19 59.4	
	comp=N,88μm,0.2s						
PV18				IAML		11 19 59.6	
	comp=E,152μm,0.5s						
PV16	**Nyswonger Mesa**	**0.07**	**31**	Pg	**Pg**	**11 19 58.1**	**-1.8**
PV16				IAML		11 19 59.6	
	comp=N,104μm,0.8s						
PV11	**David Mesa, Pa**	**0.09**	**55**	Pg	**Pg**	**11 19 58.2**	**-1.9**
PV11				Sg	**Sg**	**11 19 59.3**	**-2.7**
PV03	**Paradox Valley**	**0.09**	**87**	Pg	**Pg**	**11 19 58.5**	**-1.7**
PV03				IAML		11 20 00.4	
	comp=N,59μm,0.3s						
PV03				IAML		11 20 00.4	
	comp=E,53μm,0.3s						
PV20	**West Nyswonger**	**0.09**	**358**		**Pg**	**11 19 58.7**	**-1.5**
PV20				Sg	**Sg**	**11 20 00.1**	**-2.0**
PV20				IAML		11 20 03.7	
	comp=N,82μm,0.7s						
PV05	**Paradox Valley**	**0.20**	**212**		**Pg**	**11 19 60.0**	**-1.8**
PV05	**Paradox Valley**	**0.20**	**212**		**Sg**	**11 20 02.2**	**-2.6**
PV05				IAML		11 20 02.6	
	comp=E,57μm,0.5s						
PV05				IAML		11 20 03.1	
	comp=N,84μm,0.5s						
R19A	**Curley Farm, L**	**0.24**	**280**		**Pg**	**11 20 02.3**	**-0.1**
PV21	**Cone Mtn., Par**	**0.31**	**358**		**Pg**	**11 20 02.9**	**-1.0**
PV21	**Cone Mtn., Par**	**0.31**	**358**		**Sg**	**11 20 07.2**	**-0.8**
PV21				IAML		11 20 09.6	
	comp=E,17μm,0.9s						
PV21				IAML		11 20 09.7	
	comp=N,18μm,0.5s						
PV15	**Paradox Valley**	**0.39**	**76**		**Pg**	**11 20 03.9**	**-1.4**
PV15					**Sg**	**11 20 09.3**	**-1.2**
PV15	**Paradox Valley**	**0.39**	**76**	IAML		11 20 10.1	
	comp=N,12μm,0.9s						
PV15				IAML		11 20 13.8	
	comp=E,10μm,0.8s						
MVCO	**Mesa Verde**	**1.10**	**160**		**Pg**	**11 20 18.0**	**-0.6**
MVCO	**Mesa Verde**	**1.10**	**160**	Sg	**Sg**	**11 20 32.4**	**-0.5**
MVCO				IAML		11 20 33.3	
	comp=E,1μm,0.4s						
HMU	**Henry Mountain**	**1.44**	**258**		**Pb**	**11 20 24.1**	**-0.3**
SRU	**San Rafael Swe**	**1.49**	**306**		**Pn**	**11 20 46.2**	**+0.1**
SRU	**San Rafael Swe**	**1.49**	**306**		**Sb**	**11 20 44.2**	**-0.2**
SRU				IAML		11 20 47.8	
	comp=N,989nm,0.6s						
SRU				IAML		11 20 51.1	
	comp=E,1μm,0.3s						
P18A	**Preston Nutter**	**1.70**	**324**		**Pb**	**11 20 28.6**	**-0.4**
P18A				IAML		11 20 53.8	
	comp=E,1μm,0.8s						
P18A				IAML		11 20 54.5	
	comp=N,1μm,0.4s						
BCE	**Book Cliffs Ea**	**1.77**	**321**		**Pb**	**11 20 29.6**	**-0.5**
ROA	**Roan Cliffs**	**1.78**	**323**		**Pb**	**11 20 29.9**	**-0.5**
P17A	**Butcher Ranch,**	**1.85**	**312**	Pn	**Pb**	**11 20 31.0**	**-0.4**
P17A				IAML		11 20 56.0	
	comp=N,1μm,0.6s						
P17A				IAML		11 20 57.1	
	comp=E,1μm,0.4s						
Q16A	**Castle Valley**	**1.85**	**292**		**Pb**	**11 20 31.0**	**-0.6**
Q16A	**Castle Valley**	**1.85**	**292**	IAML		11 20 59.7	
	comp=N,1μm,0.3s						
Q16A				IAML		11 21 02.3	
	comp=E,729nm,0.5s						
DCM	**Dugout Coal Mi**	**1.92**	**319**		**Pb**	**11 20 32.4**	**-0.3**
O20A	**White River Ci**	**1.96**	**16**	Pn	**Pb**	**11 20 32.9**	**-0.6**
ARGU	**Argyle Ridge**	**2.00**	**322**		**Pb**	**11 20 33.8**	**-0.2**
OWUT	**Old Woman Plat**	**2.00**	**286**		**Pb**	**11 20 33.9**	**-0.2**
TMUT	**Trail Mountain**	**2.04**	**302**		**Pb**	**11 20 33.6**	**-1.2**
TMUT	**Trail Mountain**	**2.04**	**302**	IAML		11 21 04.3	
	comp=N,933nm,0.4s						
EMUT	**Emma Park**	**2.13**	**318**		**Pb**	**11 20 35.5**	**-0.7**
ELU	**Electric Lake**	**2.23**	**309**		**Pb**	**11 20 38.0**	**0.0**
SNO	**Snow College**	**2.28**	**299**		**Pb**	**11 20 38.8**	**0.0**
RDMU	**Red Mountain**	**2.37**	**349**		**Pn**	**11 20 38.2**	**+1.7**
RDMU	**Red Mountain**	**2.37**	**349**	IAML		11 21 10.2	
	comp=E,731nm,0.7s						
RDMU				IAML		11 21 12.5	
	comp=N,272nm,0.8s						
WCU	**Willow Creek**	**2.55**	**287**		**Pb**	**11 20 41.5**	**-2.0**
BSUT	**Blindstream Ca**	**2.67**	**329**		**Pn**	**11 20 42.5**	**+1.6**
BSUT				IAML		11 21 21.3	
	comp=N,208nm,0.8s						
BSUT				IAML		11 21 24.6	
	comp=E,318nm,0.5s						
TCRU	**Three Creeks R**	**2.76**	**279**	Pn	**Pn**	**11 20 43.2**	**+1.3**
TCRU				IAML		11 21 30.1	
	comp=N,327nm,1.0s						
TCRU				IAML		11 21 39.1	
	comp=E,288nm,0.9s						
PKCU	**Pink Cliffs**	**2.77**	**254**	Pn	**Pb**	**11 20 45.0**	**-2.2**
SDCO	**Great Sand Dun**	**2.78**	**99**		**Pn**	**11 20 43.1**	**+0.8**
DAU	**Daniels Canyon**	**2.80**	**321**		**Pn**	**11 20 44.8**	**+2.2**
NLU	**North Lily Min**	**2.96**	**306**		**Pn**	**11 20 45.6**	**+1.0**
HTU	**Hoyt Peak**	**2.99**	**325**		**Pn**	**11 20 47.3**	**+2.2**
ISCO	**Idaho Springs**	**3.04**	**58**		**Pn**	**11 20 46.8**	**+1.0**
W18A	**Petrified Fore**	**3.19**	**191**		**Pn**	**11 20 48.4**	**+0.6**
CTU	**Camp Tracy**	**3.26**	**319**		**Pn**	**11 20 49.8**	**+1.1**
KNB	**Kanab**	**3.30**	**249**	Pn	**Pn**	**11 20 51.4**	**+2.1**
KNB				IAML		11 21 45.9	
	comp=E,277nm,0.7s						
KNB				IAML		11 21 47.5	
	comp=N,203nm,0.6s						
SZCU	**Shurtz Canyon**	**3.33**	**260**		**Pn**	**11 20 51.1**	**+1.4**
WUAZ	**Wupatki**	**3.34**	**216**	Pn	**Pn**	**11 20 52.5**	**+2.7**
TCUT	**Toone Canyon**	**3.43**	**327**		**Pn**	**11 20 52.1**	**+0.9**
DUG	**Dugway, Tooele**	**3.57**	**304**	Pn	**Pn**	**11 20 53.9**	**+1.0**
X18A	**Snowflake**	**3.80**	**192**	Pn	**Pn**	**11 20 57.8**	**+1.6**
X18A				IAML		11 22 00.4	
	comp=E,230nm,0.8s						
ANMO	**Albuquerque**	**3.86**	**148**	Pn	**Pn**	**11 20 59.7**	**+2.6**
	comp=E,0.6nm,0.3s,baz=334,slow=12,SNR=5.3						
ANMO				Pg	**Pb**	**11 21 08.0**	**+2.2**
	comp=E,2.7nm,0.3s,baz=329,slow=17,SNR=20						
ANMO				Lg	Lg	11 21 55.9	
	comp=E,20nm,0.3s,baz=252

W13A	**Hualapai Mount**	**5.05**	**233**	Pn	**Pn**	**11 21 14.5**	**+1.0**
W13A				IAML		11 22 36.4	
	comp=E,31nm,0.6s						
W13A				IAML		11 22 38.8	
	comp=N,43nm,0.7s						
SNOW	**Snow King Moun**	**5.38**	**346**		**Pn**	**11 21 18.9**	**+0.9**
ELK	**Elko**	**5.46**	**299**	Pn	**Pb**	**11 21 34.6**	**+1.6**
	comp=N,0.3nm,0.3s,baz=87,slow=11,SNR=4.3						
ELK				Sn	**Sg**	**11 22 46.5**	**-6.1**
	comp=N,0.6nm,0.3s,baz=37,slow=21,SNR=5.0 comp=N,0.6nm,0.3s						
ELK				AML	AML		
TPNV	**Topopah Spring**	**5.93**	**260**		**Pn**	**11 21 27.3**	**+1.8**
BLYC	**Blythe**	**6.36**	**227**		**Pn**	**11 21 31.3**	**+0.1**
FURC	**Furnace Creek,**	**6.54**	**257**		**Pn**	**11 21 34.8**	**+1.1**
HLID	**Hailey**	**6.72**	**324**		**Pn**	**11 21 37.5**	**+1.2**
RSSD	**Black Hills**	**6.94**	**31**	Pn	**Pn**	**11 21 40.3**	**+0.9**
NVAR	**Mina Array Bea**	**7.34**	**274**	Pn	**Pb**	**11 22 04.8**	**-0.3**
	comp=N,0.3nm,0.3s,baz=75,slow=15,SNR=8.1						
NVAR				Sn	**Sb**	**11 23 40.9**	**+8.1**
	comp=N,0.2nm,0.3s,baz=94,slow=16,SNR=1.5 comp=N,0.6nm,0.7s						
NVAR				AML	AML		
TXAR	**Lajitas Array**	**9.92**	**152**	Pg	Pn	11 22 57.6	+37
	comp=N,0.1nm,0.3s,baz=338,slow=15,SNR=5.7						

*MEX **08** 11:31:18.8±0.7, 17°.59N×101°.25W, h47km±6km, MD4.3, Presumed earthquake*
*IDC **08** 11:31:35.1±14.0, 18°.09N×105°.07W, h0km, mb3.3/2, mbtmp3.3/3, ML2.9/1, Error ellipse: s-maj=227.2km s-min=76.9km az=141.0*
ISC 08 11:31:16.8±1.1, 17°.46N±0°.04×101°.28W±0°.03, h48km±7km, n62, σ2.8 s49/119, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PET2	**Petatlan**	**0.08**	**13**	*eP*	**Pn**	**11 31 24.1**	**-0.2**
PET2				*i* S	**Sn**	**11 31 29.5**	**-0.1**
ZIIG	**Zihuatanejo**	**0.23**	**310**	*i* P	**Pn**	**11 31 25.1**	**0.0**
ZIIG				*i* S	**Sn**	**11 31 30.9**	**-0.1**
ATYC	**Atoyac**	**0.85**	**107**	*eP*	**Pn**	**11 31 33.2**	**+0.8**
ATYC				*eS*	**Sn**	**11 31 43.2**	**-0.6**
CAIG	**El Cayaco**	**1.05**	**113**	*eP*	**Pn**	**11 31 36.2**	**+1.0**
CAIG				*eS*	**Sn**	**11 31 49.5**	**+0.8**
ARIG	**Puente Sto Nin**	**1.21**	**47**	*eP*	**Pn**	**11 31 35.8**	**-1.5**
ARIG				*eS*	**Sn**	**11 31 47.7**	**-4.9**
DAIG	**Los Arroyos**	**1.62**	**105**	*eP*	**Pn**	**11 31 44.1**	**+1.2**
DAIG				*eS*	**Sn**	**11 32 02.4**	**-0.2**
MEIG	**Mezcala**	**1.65**	**73**	*eP*	**Pn**	**11 31 43.3**	**-0.1**
MEIG				*eS*	**Sn**	**11 31 56.2**	**-7.3**
PLIG	**Platanillo**	**1.93**	**61**	*eP*	**Pn**	**11 31 47.0**	**-0.3**
PLIG				*eS*	**Sn**	**11 32 10.8**	**+0.4**
MMIG	**Aquila**	**2.13**	**293**	*eP*	**Pn**	**11 31 50.1**	**+0.2**
MMIG				*eS*	**Sn**	**11 32 13.5**	**-1.7**
CRIG	**Cruz Grande**	**2.18**	**109**	*eP*	**Pn**	**11 31 51.7**	**+1.1**
CRIG				*eS*	**Sn**	**11 32 10.3**	**-6.1**
MOIG	**Morelia**	**2.21**	**2**	*eP*	**Pn**	**11 31 51.3**	**+0.1**
MOIG				*eS*	**Sn**	**11 32 13.4**	**-4.1**
MAVM	**Malinalco, Edo**	**2.26**	**48**	*eP*	**Pn**	**11 31 51.3**	**-0.6**
MAVM				*eS*	**Sn**	**11 32 20.4**	**+1.7**
TOVM	**TOLUCA**	**2.37**	**40**	*eP*	**Pn**	**11 31 54.5**	**+1.0**
TOVM				*eS*	**Sn**	**11 32 22.6**	**+1.0**
YAIG	**Yautepec**	**2.53**	**56**	*eP*	**Pn**	**11 31 54.5**	**-1.0**
YAIG				*eS*	**Sn**	**11 32 20.4**	**-4.8**
INVM	**La Marquesa**	**2.56**	**44**	*eP*	**Pn**	**11 31 54.7**	**-1.5**
INVM				*eS*	**Sn**	**11 32 25.1**	**-1.4**
AOVM	**Tlapan**	**2.59**	**46**	*eP*	**Pn**	**11 31 56.7**	**+0.1**
AOVM				*eS*	**Sn**	**11 32 29.3**	**+2.2**
TLIG	**Tlapa**	**2.59**	**87**	*eP*	**Pn**	**11 31 57.7**	**+1.3**
TLIG				*eS*	**Sn**	**11 32 23.8**	**-3.0**
HMTT	**Tlapaneco**	**2.62**	**82**	*eP*	**Pn**	**11 31 58.4**	**+1.7**
HMTT				*eS*	**Sn**	**11 32 27.6**	**+0.3**
ATVM	**ATLACOMULCO**	**2.67**	**31**	*eP*	**Pn**	**11 31 57.4**	**-0.2**
ATVM				*eS*	**Sn**	**11 32 27.7**	**-1.2**
TLVM	**San Miguel Top**	**2.67**	**49**	*eP*	**Pn**	**11 31 56.5**	**-1.1**
TLVM				*eS*	**Sn**	**11 32 32.2**	**+3.3**
CNCY	**Coyoacan**	**2.72**	**47**	*eP*	**Pn**	**11 31 60.0**	**+1.7**
CNCY				*eS*	**Sn**	**11 32 32.8**	**+2.6**
XCVM	**Xochimilco**	**2.72**	**49**	*eP*	**Pn**	**11 32 02.6**	**+4.3**
XCVM				*eS*	**Sn**	**11 32 32.0**	**+1.9**
CUP5	**Mexico City**	**2.73**	**47**	*eP*	**Pn**	**11 32 01.5**	**+3.1**
CUP5				*eS*	**Sn**	**11 32 31.8**	**+1.5**
UNM	**Universidad Na**	**2.73**	**47**	*eP*	**Pn**	**11 32 00.7**	**+2.3**
UNM				*eS*	**Sn**	**11 32 31.9**	**+1.6**
MHVM	**Bosque de Chap**	**2.76**	**45**	*eP*	**Pn**	**11 31 57.9**	**-0.9**
MHVM				*eS*	**Sn**	**11 32 31.6**	**+0.4**
MPVM	**San Francisco**	**2.77**	**51**	*eP*	**Pn**	**11 31 58.8**	**-0.1**
MPVM				*eS*	**Sn**	**11 32 33.2**	**+2.0**
APVM	**Azcapotzalco**	**2.82**	**44**	*eP*	**Pn**	**11 32 02.1**	**+2.5**
APVM				*eS*	**Sn**	**11 32 32.4**	**-0.2**
AZVM	**Cuida Lopez Ma**	**2.84**	**42**	*eP*	**Pn**	**11 31 59.0**	**-0.9**
AZVM				*eS*	**Sn**	**11 32 31.4**	**-1.7**
THVM	**De Xico**	**2.86**	**50**	*eP*	**Pn**	**11 31 59.0**	**-1.2**
THVM				*eS*	**Sn**	**11 32 33.2**	**-0.5**
PBVM	**Pinon**	**2.87**	**46**	*eP*	**Pn**	**11 32 00.2**	**+0.2**
PBVM				*eS*	**Sn**	**11 32 33.9**	**+0.5**
PPCL	**Tochimilco**	**2.91**	**60**	*eP*	**Pn**	**11 32 00.2**	**-0.7**
PPCL				*eS*	**Sn**	**11 32 32.6**	**-2.3**
PPPT	**Popocatepetl**	**2.94**	**59**	*eP*	**Pn**	**11 32 00.6**	**-1.0**
PPPT				*eS*	**Sn**	**11 32 33.6**	**-2.3**
PPCU	**Popocatapetl**	**2.96**	**58**	*eP*	**Pn**	**11 32 01.2**	**-0.5**
PPCU				*eS*	**Sn**	**11 32 38.0**	**+1.8**
PTVM	**Pico Tres Padr**	**2.96**	**44**	*eP*	**Pn**	**11 31 60.0**	**-1.5**
PTVM				*eS*	**Sn**	**11 32 37.6**	**+1.7**
PBPN	**Popocatepetl**	**2.97**	**58**	*eP*	**Pn**	**11 32 01.1**	**-0.8**
PBPN				*eS*	**Sn**	**11 32 35.1**	**-1.6**
PPM	**Popocatepetl**	**2.99**	**57**	*eP*	**Pn**	**11 32 01.8**	**-0.4**
PPM				*eS*	**Sn**	**11 32 33.7**	**-3.3**
INCO	**Volcan de Coli**	**3.02**	**313**	*eP*	**Pn**	**11 32 04.2**	**+1.7**
INCO				*eS*	**Sn**	**11 32 38.4**	**+0.9**
FTIG	**Fresnillo de T**	**3.04**	**81**	*eP*	**Pn**	**11 32 03.3**	**+0.9**
FTIG				*eS*	**Sn**	**11 32 34.1**	**-3.5**
PPAX	**Atlixo**	**3.09**	**61**	*eP*	**Pn**	**11 32 02.0**	**-1.2**
PPAX				*eS*	**Sn**	**11 32 43.1**	**+4.1**
CEGR	**Campo Tres**	**3.11**	**309**	*eP*	**Pn**	**11 32 05.2**	**+1.7**
CEGR				*eS*	**Sn**	**11 32 37.8**	**-1.8**
PNIG	**Pinotepa**	**3.20**	**109**	*eP*	**Pn**	**11 32 06.2**	**+1.6**
PNIG				*eS*	**Sn**	**11 32 37.9**	**-3.7**
VTVM	**Tizayuca**	**3.31**	**46**	*eP*	**Pn**	**11 32 04.6**	**-1.8**
VTVM				*eS*	**Sn**	**11 32 41.9**	**-2.7**
HLIG	**Huajuapan de L**	**3.34**	**83**	*eP*	**Pn**	**11 32 07.8**	**+1.2**
HLIG				*eS*	**Sn**	**11 32 41.8**	**-3.4**
TXIG	**Tlaxiaco**	**3.36**	**93**	*eP*	**Pn**	**11 32 09.1**	**+2.0**
TXIG				*eS*	**Sn**	**11 32 43.3**	**-2.6**
DEIG	**Demacu**	**3.54**	**37**	*eP*	**Pn**	**11 32 06.9**	**-2.6**
DEIG				*eS*	**Sn**	**11 32 49.3**	**-0.9**
YOIG	**Yosondua**	**3.62**	**99**	*eP*	**Pn**	**11 32 12.9**	**+2.2**
YOIG				*eS*	**Sn**	**11 32 51.4**	**-1.0**
CIHU	**Emiliano Zapat**	**3.74**	**299**	*eP*	**Pn**	**11 32 12.5**	**+0.5**
CIHU				*eS*	**Sn**	**11 32 50.8**	**-4.1**
TPIG	**Tehuac#an**	**3.85**	**75**	*eP*	**Pn**	**11 32 13.2**	**-0.5**
TPIG				*eS*	**Sn**	**11 32 58.1**	**+0.2**
TOIG	**Toxpalan**	**4.07**	**80**	*eP*	**Pn**	**11 32 17.8**	**+1.2**
TOIG				*eS*	**Sn**	**11 33 00.1**	**-2.9**
CJM	**Chamela**	**4.11**	**300**	*eP*	**Pn**	**11 32 17.6**	**+0.6**
CJM				*eS*	**Sn**	**11 33 01.7**	**-2.2**
PEIG	**Puerto Escondi**	**4.22**	**110**	*eP*	**Pn**	**11 32 21.1**	**+2.5**
PEIG				*eS*	**Sn**	**11 33 01.7**	**-5.0**
VHO	**Vista Hermosa**	**4.36**	**94**	*eP*	**Pn**	**11 32 23.2**	**+2.5**
VHO				*eS*	**Sn**	**11 33 05.1**	**-5.3**
ESTA	**Talpa de Allen**	**4.46**	**311**	*eP*	**Pn**	**11 32 24.9**	**+2.8**
ESTA				*eS*	**Sn**	**11 33 11.3**	**-1.6**
RPIG	**Rio Verde**	**4.57**	**15**	*eP*	**Pn**	**11 32 24.6**	**+1.1**
RPIG				*eS*	**Sn**	**11 33 15.5**	**+0.1**
YELA	**Yelapa**	**4.96**	**308**	*eP*	**Pn**	**11 32 30.9**	**+2.0**
YELA				*eS*	**Sn**	**11 33 17.7**	**-7.4**
NEUV	**Arroyo Zacate**	**5.23**	**86**	*eP*	**Pn**	**11 32 34.0**	**+1.5**
NEUV				*eS*	**Sn**	**11 33 28.3**	**-3.2**
HUIG	**Huatulco**	**5.24**	**108**	*eP*	**Pn**	**11 32 35.2**	**+2.6**
HUIG				*eS*	**Sn**	**11 33 26.9**	**-4.8**
CMIG	**Matias Romero**	**6.12**	**92**	*eP*	**Pn**	**11 32 46.6**	**+1.8**
CMIG				*eS*	**Sn**	**11 33 47.6**	**-5.9**
UXUV	**UXUV**	**6.81**	**90**	*eP*	**Pn**	**11 32 51.6**	**-2.7**
UXUV				*eS*	**Sn**	**11 34 16.1**	**+5.6**
TXAR	**Lajitas Array**	**12.02**	**350**	Pn	Pn	11 34 19.4	+14
	baz=187,slow=12,SNR=4.3 0.6nm,0.9s						
NVAR	**Mina Array Bea**	**25.66**	**328**	P	**P**	**11 36 45.0**	**+2.6**
	1.5nm,0.9s,baz=145,slow=12,SNR=7.8 1.5nm,0.9s						
PDAR	**Pinedale Array**	**26.19**	**346**	P	**P**	11 36 59.9	+13
	0.4nm,0.9s,baz=147,slow=12,SNR=4.1 0.4nm,0.9s						

*JSO **08** 11:31:46.4±1.1, 30°.N±6°×3°.5E±°, h53km±13km, M2.2/8, MLv2.2/8*
GII 08 11:31:34.6±0.0, 29°.688N±0°.003×36°.365E±0°.001, h0km, confirmed, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HSNJ	**Maan**	**0.82**	**314**	P	Pn	11 31 59.4	+5.9
HSNJ				AML	AML		
AQBJ	**Aqaba**	**1.15**	**272**	P	Pn	11 31 58.6	+0.7
AQBJ				AML	AML		
HRFI	**Mount Harif**	**1.21**	**287**	P	Pn	11 31 59.4	+0.6
HRFI				AML	AML		
HRFI	**Mount Harif**	**1.21**	**287**	P	Pg	11 31 58.0	+0.3
HRFI				S	Sn	11 32 15.3	-0.5
EIL	**Elat**	**1.23**	**269**	P	Pn	11 32 00.0	+0.9
EIL				AML	AML		
EIL	**Elat**	**1.23**	**269**	P	Pb	11 31 58.9	+0.1
EIL				S	Sn	11 32 17.0	+0.6
PRNI	**Paran**	**1.35**	**300**	P	Pg	11 32 00.5	-0.1
PRNI				AML	AML		
IDAN	**Idan**	**1.48**	**321**	P	Pn	11 32 02.8	+0.2
IDAN				S	Sn	11 32 22.8	+0.2
RMNI	**Mount Ramon**	**1.66**	**303**	P	Pn	11 32 04.8	-0.3
RMNI				S	Sn	11 32 27.2	+0.1
GHAJ	**Ghor Haditha**	**1.75**	**337**	P	Pb	11 32 07.5	-0.1
MSBI	**Mazada**	**1.84**	**332**	P	Pn	11 32 07.2	-0.2
MSBI				S	Sb	11 32 32.3	-0.4

*MEX **08** 11:52:30.2±0.9, 15°.15N×92°.65W, h102km±9km, MD3.9, Presumed earthquake*
*GCG **08** 11:52:30.9±2.1, 15°.19N×92°.60W, h84km±28km, MD4.0, Presumed earthquake*
ISC 08 11:52:29.0±1.8, 15°.12N±0°.07×92°.65W±0°.05, h99km±11km, n19, σ1.9 s42/32, Mexico-Guatemala border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PATR	**El Naranjo**	**0.41**	**90**	*eP*	**Pn**	**11 52 43.8**	**-0.6**
PATR				*eS*	**Sn**	**11 52 55.3**	**-0.5**
THIG		**0.43**	**119**	*i* P	**Pn**	**11 52 44.4**	**+0.2**
THIG		**0.43**	**119**	*eP*	**Pn**	**11 52 44.4**	**+0.2**
THIG				*eS*	**Sn**	**11 52 56.1**	**+0.6**
PAVE	**Pavencul**	**0.47**	**81**	*eP*	**Pn**	**11 52 44.7**	**0.0**
PAVE				*eS*	**Sn**	**11 52 57.0**	**+0.5**
CHUJ	**Union Juarez**	**0.53**	**92**	*eP*	**Pn**	**11 52 45.0**	**-0.2**
CHUJ				*eS*	**Sn**	**11 52 57.6**	**+0.3**
PCIG		**0.80**	**317**	*eP*	**Pn**	**11 52 47.3**	**0.0**
PCIG				*eS*	**Sn**	**11 53 00.8**	**-0.2**
RTAL	**Retalhuleu**	**1.10**	**122**	*eP*	**Pn**	**11 52 51.7**	**+1.2**
RTAL				*eS*	**Sn**	**11 53 07.0**	**+0.3**
HUEH	**Huehuetenango**	**1.13**	**80**	*i* S	**Sn**	**11 53 09.0**	**+1.4**
HUEH	**Huehuetenango**	**1.13**	**80**	*eP*	**Pn**	**11 52 50.1**	**-1.0**
HUEH				*eS*	**Sn**	**11 53 07.2**	**-0.5**
CCIG	**Comitan**	**1.26**	**23**	*i* P	**Pn**	**11 52 54.2**	**+1.7**
CCIG	**Comitan**	**1.26**	**23**	*eP*	**Pn**	**11 52 54.0**	**+1.5**
CCIG				*eS*	**Sn**	**11 53 09.0**	**-1.3**
STG8	**El Palmar, Qui**	**1.42**	**118**	*i* P	**Pn**	**11 52 51.4**	**-3.1**
TGIG		**1.71**	**345**	*i* P	**Pn**	**11 52 57.8**	**-0.2**
TGIG		**1.71**	**345**	*eP*	**Pn**	**11 52 57.9**	**0.0**
TGIG				*eS*	**Sn**	**11 53 18.9**	**-1.1**
APG	**El Apazote**	**2.12**	**93**	*i* P	**Pn**	**11 53 05.2**	**+1.9**
UXUV	**UXUV**	**2.62**	**327**	*eP*	**Pn**	**11 53 10.7**	**+1.1**
UXUV				*eS*	**Sn**	**11 53 40.1**	**-0.8**
CMIG	**Matias Romero**	**2.91**	**313**	*eP*	**Pn**	**11 53 14.3**	**+0.8**
CMIG				*eS*	**Sn**	**11 53 47.6**	**-0.2**
PETF	**Flores**	**3.22**	**56**	*i* P	**Pn**	**11 53 19.4**	**+1.7**
PETF				*i* S	**Sn**	**11 53 53.9**	**-1.5**
SCIG	**Sabancuy**	**4.08**	**20**	*eP*	**Pn**	**11 53 51.0**	**+1.8**
SCIG				*eS*	**Sn**	**11 54 11.6**	**-4.3**

*IDC **08** 11:57:00.8±1.9, 3°.77N×126°.23E, h0km, mb3.4/4, mbtmp3.4/4, MS2.9/2, Error ellipse: s-maj=127.1km s-min=24.0km az=68.0*
*MAN **08** 11:57:06.0, 4°.16N×126°.53E, h6km, MS3.4*
ISC 08 11:57:01.4±1.3, 4°.02N±0°.09×126°.6E±0°.2, h10km, n10, σ1.9 s79/10, mb3.3/4, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.25**	**337**	*eP*	**Pn**	**11 57 42.2**	**+3.5**
DDMP				*eS*	**Sb**	**11 58 09.4**	**-0.6**
GSPH	**General Santos**	**2.62**	**321**	*i* P	**Pn**	**11 57 43.1**	**-0.9**
GSPH				*i* S	**Sn**	**11 58 16.6**	**+0.7**
KCP	**Kidapawan**	**3.32**	**333**	*eP*	**Pn**	**11 57 52.2**	**-1.3**
BIPH	**Bislig**	**4.14**	**357**	*eP*	**Pg**	**11 58 20.7**	**-0.1**
BIPH				*eS*	**Sb**	**11 59 02.3**	**-2.2**
GUMO	**Guam**	**20.39**	**61**	LR	LR	12 08 42.8	
	comp=Z,16nm,21.5s,baz=76,slow=34						
FITZ	**Fitzroy Crossi**	**22.00**	**182**	P	**P**	**12 01 55.2**	**-0.8**
	0.8nm,0.5s,baz=3.6,slow=16,SNR=1.2 0.8nm,0.5s						
WRA	**Warramunga Arr**	**25.00**	**163**	P	**P**	**12 02 25.0**	**-0.7**
	0.3nm,0.5s,baz=338,slow=10,SNR=16 0.3nm,0.5s						
ASAR	**Alice Springs**	**28.43**	**166**	P	P	12 02 55.9	-0.7
	0.3nm,0.9s,baz=341,slow=9.3,SNR=6.8 0.3nm,0.9s						
MKAR	**Makanchi Array**	**57.24**	**325**	P	**P**	**12 06 50.1**	**+1.0**
	0.7nm,0.9s,baz=108,slow=7.5,SNR=3.0 0.7nm,0.9s						
ZALV	**Zalesovo Beam**	**60.27**	**333**	LR	LR	12 36 37.7	
	comp=Z,21nm,20.5s,baz=302,slow=39						

*IDC **08** 12:08:07.9±0.6, 46°.75S×42°.28E, h0km, mb4.1/15, mbtmp4.1/15, MS3.8/19, Error ellipse: s-maj=22.6km s-min=15.1km az=47.0*
*NEIC **08** 12:08:08.7±0.8, 46°.7S±0°.1×42°.3E±0°.1, h10km±1km, mb4.7/25, Error ellipse: s-maj=21.7km s-min=13.9km az=34.0*
ISC 08 12:08:08.3±0.5, 46°.59S±0°.09×42°.52E±0°.06, h10km, n70, σ1.9 s27/62, mb4.5/22, MS3.8/20, 2C, Prince Edward Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04N1	**CROZET ISLANDS**	**6.42**	**90**	Pn	**Pn**	**12 09 40.4**	**-2.3**
	baz=247,slow=13						
H04N1				Sn	**Sn**	**12 10 55.6**	**-0.2**
H04N3	**CROZET ISLANDS**	**6.42**	**90**	Pn	**Pn**	**12 09 40.6**	**-2.1**
	baz=247,slow=13						
H04N3				Sn	**Sn**	**12 10 55.8**	**0.0**
H04N2	**CROZET ISLANDS**	**6.44**	**90**	Pn	**Pn**	**12 09 40.5**	**-2.4**
	baz=247,slow=13						
H04N2				Sn	**Sn**	**12 10 55.4**	**-0.8**
H04S3	**CROZET ISLANDS**	**6.45**	**96**	Pn	**Pn**	**12 09 41.5**	**-1.5**
	baz=270,slow=14						
H04S3				Sn	**Sn**	**12 10 55.1**	**-1.4**
	baz=240,slow=79						
CRZF	**Crozet Islands**	**6.45**	**92**	Pn	**Pn**	**12 09 43.2**	**0.0**
H04S2	**CROZET ISLANDS**	**6.45**	**96**	Pn	**Pn**	**12 09 41.3**	**-1.8**
	baz=270,slow=14						
H04S2				Sn	**Sn**	**12 10 55.2**	**-1.5**
	baz=240,slow=79						
H04S1	**CROZET ISLANDS**	**6.46**	**96**	Pn	**Pn**	**12 09 41.1**	**-2.2**
	baz=270,slow=14						
H04S1				Sn	**Sn**	**12 10 55.3**	**-1.7**
	baz=240,slow=79						
GRHM	**Grahamstown, E**	**18.12**	**311**	Pn	**Pn**	**12 12 17.9**	**-2.1**
GRHM				IAmb	IAmb	12 12 30.7	
	comp=Z,73nm,1.4s						
SUR	**Sutherland**	**21.86**	**303**	P	**P**	**12 13 01.2**	**-0.1**
	comp=Z,6.1nm,0.7s,baz=139,slow=14,SNR=10						
SUR				LR	LR	12 19 49.3	
	comp=Z,328nm,19.5s,baz=149,slow=32 comp=Z,6.1nm,0.7s						
SUR	**Sutherland**	**21.86**	**303**	P	**P**	**12 12 59.8**	**-1.4**
SUR				IAmb	IAmb	12 13 08.2	
	comp=Z,42nm,1.0s						
BOSA	**Boshof**	**22.48**	**317**	P	**P**	**12 13 08.9**	**+1.1**
	comp=Z,2.4nm,0.7s,baz=157,slow=10,SNR=12						
BOSA				LR	LR	12 20 23.2	
	comp=Z,256nm,18.6s,baz=198,slow=33 comp=Z,2.4nm,0.7s						
BOSA	**Boshof**	**22.48**	**317**	P	**P**	**12 13 06.8**	**-0.9**
BOSA				IAmb	IAmb	12 13 16.4	
	comp=Z,22nm,1.0s						
ALKP	**Alkanpan, Nort**	**22.91**	**309**	P	**P**	**12 13 12.1**	**-0.2**
ALKP				IAmb	IAmb	12 13 20.6	
	comp=Z,31nm,1.0s						
MAW	**Mawson**	**23.56**	**161**	P	**P**	**12 13 18.8**	**+0.2**
	comp=Z,5.0nm,0.7s,baz=314,slow=12,SNR=5.8						
MAW				LR	LR	12 20 35.2	
	comp=Z,54nm,20.5s,baz=10.0,slow=32 comp=Z,5.0nm,0.7s						
MAW	**Mawson**	**23.56**	**161**	P	**P**	**12 13 19.5**	**+1.0**
LBTB	**Lobatse**	**25.43**	**322**	LR	LR	12 21 44.0	
	comp=Z,132nm,21.0s,baz=148,slow=32						
LBTB	**Lobatse**	**25.43**	**322**	P	**P**	**12 13 36.1**	**-0.1**
LKGWB	**Lokgwabe**	**28.20**	**315**	P	**P**	**12 13 58.4**	**-2.8**
OPO	**Ambohidratompo**	**28.20**	**9**	LR	LR	12 23 31.9	
	comp=Z,469nm,19.0s,baz=80,slow=32						
KOOLE	**Kule**	**29.64**	**315**		**P**	**12 14 13.6**	**-0.5**
TROLL	**Troll, Antarti**	**31.52**	**202**	⇑P	**P**	**12 14 29.9**	**-0.3**
	comp=Z,190nm,0.7s						
KSANE	**Kasane**	**32.09**	**328**	P	**P**	**12 14 35.5**	**-0.2**
KSANE				IAmb	IAmb	12 14 43.2	
	comp=Z,8.5nm,0.6s						
SNAA	**Sanae**	**32.84**	**205**	P	**P**	**12 14 42.1**	**+0.4**
	comp=Z,196nm,0.7s						
SNAA	**Sanae**	**32.84**	**205**	P	**P**	**12 14 41.4**	**-0.2**
	comp=Z,6.8nm,0.7s,baz=86,slow=5.0,SNR=3.7						
SNAA				LR	LR	12 24 35.9	
	comp=Z,160nm,21.9s,baz=16,slow=30 comp=Z,6.8nm,0.7s						
SNAA	**Sanae**	**32.84**	**205**	P	**P**	**12 14 40.6**	**-1.0**
SNAA				IAmb	IAmb	12 14 42.6	
	comp=Z,9.1nm,0.9s						
VNA2	**Neumayer--Watz**	**33.91**	**207**	P	**P**	**12 14 50.8**	**-0.2**
	comp=Z,12nm,0.7s,baz=23,slow=8.9						
TSUM	**Tsumeb**	**34.13**	**315**	LR	LR	12 27 25.6	
	comp=Z,213nm,18.1s,baz=152,slow=34						
TSUM	**Tsumeb**	**34.13**	**315**	P	**P**	**12 14 52.6**	**-0.8**
TSUM				IAmb	IAmb	12 15 01.2	
	comp=Z,17nm,1.1s						
VNA3	**Neumayer Olymp**	**34.72**	**207**	⇑P	**P**	**12 14 57.6**	**-0.4**
	comp=Z,6.6nm,0.7s						
QSPA	**South Pole Qui**	**43.62**	**180**	P	**P**	**12 16 12.5**	**-0.1**
	comp=Z,4.4nm,1.0s,baz=256,slow=2.0,SNR=11						
QSPA				LR	LR	12 33 21.5	
	comp=Z,106nm,18.3s,baz=256,slow=35 comp=Z,4.4nm,1.0s						
QSPA	**South Pole Qui**	**43.62**	**180**		**P**	**12 16 12.4**	**-0.1**
QSPA				IAmb	IAmb	12 16 15.4	
	comp=Z,10nm,1.2s						
VNDA	**Vanda**	**50.71**	**166**	P	**P**	**12 17 07.6**	**+0.2**
	comp=Z,0.5nm,0.7s,baz=261,slow=6.2,SNR=6.5						
VNDA				LR	LR	12 37 33.9	
	comp=Z,40nm,19.8s,baz=239,slow=35 comp=Z,0.5nm,0.7s						
VNDA	**Vanda**	**50.71**	**166**	P	**P**	**12 17 07.1**	**-0.3**
SBA	**Scott Base**	**51.28**	**167**	P	**P**	**12 17 11.9**	**+0.2**
SBA				IAmb	IAmb	12 17 37.3	
	comp=Z,11nm,1.4s						
EFI	**East Falkland**	**60.81**	**225**	P	**P**	**12 18 19.4**	**-0.8**
H10S2	**ASCENSION HYDR**	**61.22**	**289**	T	T	13 24 26.4	
	baz=83,slow=74,SNR=50						
H10S3	**ASCENSION HYDR**	**61.23**	**289**	T	T	13 24 24.9	
	baz=137,slow=74,SNR=50						
DBIC	**Dimbokro**	**67.64**	**308**	P	**P**	**12 19 06.6**	**+1.2**
	comp=Z,1.9nm,0.6s,baz=162,slow=7.6,SNR=3.6						
DBIC				LR	LR	12 44 33.2	
	comp=Z,64nm,20.8s,baz=150,slow=32 comp=Z,1.9nm,0.6s						
DBIC	**Dimbokro**	**67.64**	**308**	P	**P**	**12 19 06.3**	**+0.9**
DBIC				IAmb	IAmb	12 19 18.2	
	comp=Z,4.8nm,0.7s						
TOA0	**Torodi Ar. Sit**	**69.83**	**317**	P	**P**	**12 19 18.2**	**-0.9**
TORD	**Torodi Ar. Bea**	**69.83**	**317**	P	**P**	**12 19 20.3**	**+1.2**
	comp=Z,0.9nm,0.7s,baz=160,slow=6.9,SNR=4.9 comp=Z,0.9nm,0.7s						
TORD	**Torodi Ar. Bea**	**69.83**	**317**	P	**P**	**12 19 17.9**	**-1.2**
FITZ	**Fitzroy Crossi**	**72.41**	**98**	P	**P**	**12 19 35.7**	**+0.9**
STKA	**Stephens Creek**	**73.26**	**119**	P	**P**	**12 19 41.3**	**+1.6**
	comp=Z,4.3nm,0.6s,baz=221,slow=4.1,SNR=7.4						
STKA				LR	LR	12 46 29.6	
	comp=Z,70nm,20.4s,baz=230,slow=31 comp=Z,4.3nm,0.6s						

EFSA	**Agios Efstrati**	**0.98**	**89**	P		**Pb**	**12 11 08.8**	**-0.2**	**OUR**	**Ouranopolis**	**0.84**	**12**	P		**Pg**	**12 12 12.5**	**-0.4**	**KALE**	**Kalithea**	**1.69**	**229**	P	Pn	**12 12 25.8**	**-0.5**
EFSA				S		**Sn**	**12 11 22.1**	**-1.3**	OUR				S		**Sb**	**12 12 24.7**	**+0.1**	KALE				AML	AML		
EFSA				AML		AML			OUR				AML		AML			**KALE**	**Kalithea**	**1.69**	**229**	P	**Pn**	**12 12 25.3**	**-1.0**
ATAL	**Atalanti**	**1.00**	**213**	P		**Pb**	**12 11 08.7**	**-0.6**	**OUR**	**Ouranopolis**	**0.84**	**12**	Pg		**Pg**	**12 12 12.4**	**-0.4**	KALE				AML	AML		
GINA	**Giannouli**	**1.04**	**278**	P		**Pb**	**12 11 09.7**	**-0.2**	OUR				Sg		**Sb**	**12 12 24.6**	**0.0**	**ANX**	**Ano Chora**	**1.70**	**238**	P	**Pn**	**12 12 25.8**	**-0.8**
GINA				AML		AML			OUR				AML		AML			ANX				S	**Sn**	**12 12 48.1**	**-0.3**
AXAR	**Agios Charalam**	**1.13**	**228**	P		**Pn**	**12 11 11.6**	**0.0**	**OUR**	**Ouranopolis**	**0.84**	**12**	P		**Pg**	**12 12 12.5**	**-0.4**	ANX				AML	AML		
TYRN	**Tyrnavos**	**1.16**	**279**	P		**Pn**	**12 11 12.1**	**-0.1**	OUR				S		**Sg**	**12 12 23.6**	**-0.2**	**ANX**	**Ano Chora**	**1.70**	**238**	P	**Pn**	**12 12 25.3**	**-1.2**
TYRN				AML		AML			**SKY**	**Skiros Island**	**0.88**	**136**	P		**Pb**	**12 12 13.8**	**-0.3**	ANX				AML	AML		
HORT	**Hortiatis**	**1.17**	**336**	P		**Pb**	**12 11 12.3**	**+0.1**	SKY				AML		AML			**THAL**	**Thalero**	**1.71**	**211**	P	**Pn**	**12 12 25.4**	**-1.0**
LIA	**Limnos Island**	**1.19**	**72**	P		**Pg**	**12 11 12.6**	**-0.2**	**SKY**	**Skiros Island**	**0.88**	**136**	P		**Pb**	**12 12 13.9**	**-0.2**	THAL				AML	AML		
LIA				S		**Sg**	**12 11 28.2**	**-0.1**	**PLG**	**Polygyros**	**0.89**	**344**	P		**Pg**	**12 12 12.8**	**-1.1**	**THAL**	**Thalero**	**1.71**	**211**	P	**Pn**	**12 12 25.2**	**-1.2**
LIA				AML		AML			PLG				S		**Sb**	**12 12 26.2**	**-0.2**	THAL				AML	AML		
AGG	**Agios Georgios**	**1.19**	**245**	P		**Pn**	**12 11 12.2**	**-0.4**	PLG				AML		AML			**SERG**	**Sergoula**	**1.73**	**231**	P	**Pn**	**12 12 25.9**	**-0.9**
AGG				AML		AML			**PLG**	**Polygyros**	**0.89**	**344**	P		**Pg**	**12 12 12.8**	**-1.1**	SERG				AML	AML		
THE	**Thessaloniki**	**1.24**	**332**	P		**Pb**	**12 11 13.6**	**+0.2**	**KYMI**	**Kymi, Euboea I**	**0.92**	**163**	P		**Pg**	**12 12 13.9**	**-0.5**	**SERG**	**Sergoula**	**1.73**	**231**	P	**Pn**	**12 12 25.1**	**-1.7**
THE				S		**Sb**	**12 11 29.4**	**+0.1**	KYMI				S		**Sb**	**12 12 27.2**	**+0.3**	SERG				AML	AML		
THE				AML		AML			KYMI				AML		AML			**KZN**	**Kozani**	**1.73**	**298**	P	**Pn**	**12 12 25.3**	**-1.5**
SOFA	**Sofades**	**1.27**	**262**	P		**Pn**	**12 11 13.8**	**+0.1**	**KYMI**	**Kymi, Euboea I**	**0.92**	**163**	P		**Pg**	**12 12 14.1**	**-0.3**	KZN				AML	AML		
SOH	**Sokhos**	**1.32**	**348**	P		**Pg**	**12 11 15.4**	**0.0**	KYMI				S		**Sg**	**12 12 25.4**	**-0.9**	**ACOR**	**Acrocorinthos**	**1.77**	**204**	P	**Pn**	**12 12 26.0**	**-1.3**
SOH				S		**Sb**	**12 11 31.9**	**+0.3**	KYMI				AML		AML			ACOR				AML	AML		
SOH				AML		AML			**EFSA**	**Agios Efstrati**	**0.95**	**88**	P		**Pg**	**12 12 14.5**	**-0.4**	**KNT**	**Kendrikon**	**1.77**	**338**	P	**Pn**	**12 12 26.8**	**-0.6**
THAS	**Thassos island**	**1.32**	**35**	P		**Pb**	**12 11 14.8**	**+0.1**	EFSA				S		**Sg**	**12 12 27.2**	**-0.1**	KNT				S	**Sn**	**12 12 48.1**	**-2.0**
THAS				AML		AML			EFSA				AML		AML			KNT				AML	AML		
THL	**Klokotos Trika**	**1.32**	**272**	P		**Pn**	**12 11 13.6**	**-0.7**	**ATAL**	**Atalanti**	**1.00**	**215**	P		**Pb**	**12 12 15.2**	**-0.9**	**GADA**	**Gvkgeada**	**1.78**	**67**	P	**Pn**	**12 12 26.0**	**-1.4**
STFN	**Stefani**	**1.36**	**186**	P		**Pn**	**12 11 15.3**	**+0.4**	**LMN1**	**MIRINA LIMNOU**	**1.06**	**70**	P		**Pb**	**12 12 16.2**	**-1.0**	GADA				AML	AML		
STFN				AML		AML			LMN1				S		**Sb**	**12 12 30.4**	**-0.7**	**GADA**	**Gvkgeada**	**1.78**	**67**	Pn	**Pg**	**12 12 29.9**	**-0.9**
VIL2	**Platees**	**1.37**	**195**	P		**Pn**	**12 11 15.4**	**+0.5**	LMN1				AML		AML			GADA				Sn	**Sg**	**12 12 54.9**	**+1.0**
VIL2				S		**Sb**	**12 11 33.2**	**+0.2**	**GINA**	**Giannouli**	**1.07**	**279**	P		**Pb**	**12 12 16.2**	**-1.2**	GADA				AML	AML		
DLFA	**Delphi**	**1.42**	**223**	P		**Pn**	**12 11 15.3**	**-0.4**	GINA				AML		AML			**GRG**	**Griva**	**1.78**	**325**	P	**Pn**	**12 12 27.0**	**-0.5**
DLFA				AML		AML			**AXAR**	**Agios Charalam**	**1.14**	**229**	P		**Pb**	**12 12 17.7**	**-0.8**	GRG				AML	AML		
DION	**Dionisos Attik**	**1.46**	**173**	P		**Pb**	**12 11 17.3**	**+0.1**	AXAR				S		**Sn**	**12 12 34.4**	**+0.1**	**GRG**	**Griva**	**1.78**	**325**	P	**Pn**	**12 12 26.9**	**-0.6**
DION				AML		AML			AXAR				AML		AML			GRG				S	**Sn**	**12 12 47.6**	**-2.6**
PTL	**Penteli**	**1.49**	**176**	P		**Pb**	**12 11 17.3**	**-0.3**	**AXAR**	**Agios Charalam**	**1.14**	**229**	P		**Pb**	**12 12 16.9**	**-1.5**	**MG00**	**Magoula, Dorid**	**1.79**	**233**	P	**Pn**	**12 12 27.0**	**-0.7**
PTL				S		**Sn**	**12 11 35.6**	**-0.3**	AXAR				S		**Sb**	**12 12 32.4**	**-0.9**	MG00				AML	AML		
PTL				AML		AML			**LIA**	**Limnos Island**	**1.16**	**70**	P		**Pb**	**12 12 17.2**	**-1.6**	**BOZC**	**Bozcaada**	**1.80**	**79**	Pn	**Pb**	**12 12 29.8**	**+0.1**
NOAC	**Athens-Thissio**	**1.56**	**180**	P		**Pn**	**12 11 17.4**	**-0.1**	LIA				S		**Sn**	**12 12 34.4**	**-0.4**	BOZC				AML	AML		
NOAC				AML		AML			LIA				AML		AML			**EFP**	**Efpalio**	**1.81**	**234**	P	**Pn**	**12 12 27.3**	**-0.5**
ATH	**Athens Observa**	**1.56**	**180**	P		**Pn**	**12 11 16.9**	**-0.7**	**LIA**	**Limnos Island**	**1.16**	**70**	P		**Pb**	**12 12 17.5**	**-1.3**	EFP				AML	AML		
ATH				AML		AML			LIA				S		**Sb**	**12 12 33.5**	**-0.5**	**EFP**	**Efpalio**	**1.81**	**234**	P	**Pn**	**12 12 27.4**	**-0.5**
ATHU	**Athens Univers**	**1.56**	**178**	P		**Pn**	**12 11 18.4**	**+0.7**	LIA				AML		AML			EFP				AML	AML		
KAVA	**Kavala**	**1.58**	**22**	P		**Pn**	**12 11 17.3**	**-0.6**	**HORT**	**Hortiatis**	**1.20**	**335**	P		**Pn**	**12 12 18.6**	**-1.0**	**LVRA**	**Laurium**	**1.81**	**173**	P	**Pn**	**12 12 26.6**	**-1.3**
KAVA				AML		AML			**TYRN**	**Tyrnavos**	**1.20**	**280**	P		**Pn**	**12 12 18.3**	**-1.2**	LVRA				AML	AML		
SRS	**Serrai**	**1.59**	**356**	P		**Pn**	**12 11 18.4**	**+0.4**	TYRN				S		**Sg**	**12 12 34.9**	**-0.4**	**TEME**	**Temeni, Aigial**	**1.81**	**226**	P	**Pn**	**12 12 27.5**	**-0.4**
SRS				S		**Sn**	**12 11 38.1**	**-0.3**	TYRN				AML		AML			**AGEO**	**AgiosGiorgios,**	**1.82**	**227**	P	**Pn**	**12 12 27.4**	**-0.6**
SRS				AML		AML			**TYRN**	**Tyrnavos**	**1.20**	**280**	P		**Pn**	**12 12 18.3**	**-1.2**	**NVR**	**Nevrokopi**	**1.84**	**2**	P	**Pn**	**12 12 27.8**	**-0.6**
KARY	**Karystos**	**1.60**	**159**	P		**Pn**	**12 11 18.3**	**+0.1**	TYRN				S		**Sb**	**12 12 34.4**	**-0.6**	NVR				AML	AML		
EVR	**Evrytania**	**1.61**	**248**	P		**Pn**	**12 11 18.6**	**+0.2**	TYRN				AML		AML			**NVR**	**Nevrokopi**	**1.84**	**2**	P	**Pn**	**12 12 27.0**	**-1.4**
EVR				S		**Sn**	**12 11 39.1**	**0.0**	**AGG**	**Agios Georgios**	**1.22**	**247**	P		**Pn**	**12 12 18.2**	**-1.6**	NVR				S	**Sn**	**12 12 50.5**	**-1.2**
EVR				AML		AML			AGG				S		**Sn**	**12 12 35.9**	**-0.3**	NVR				AML	AML		
LTK	**Loutraki**	**1.62**	**202**	P		**Pn**	**12 11 19.3**	**+0.9**	AGG				AML		AML			**VVK**	**Vomvokou**	**1.87**	**235**	P	**Pn**	**12 12 28.6**	**-0.2**
LTK				AML		AML			**AGG**	**Agios Georgios**	**1.22**	**247**	P		**Pn**	**12 12 18.4**	**-1.4**	VVK				S	**Sn**	**12 12 50.7**	**-1.8**
LOUT	**Loutraki**	**1.65**	**201**	P		**Pn**	**12 11 19.4**	**+0.6**	AGG				S		**Sb**	**12 12 34.6**	**-0.9**	VVK				AML	AML		
LOUT				AML		AML			AGG				AML		AML			**AIOA**	**Agios Ioannis,**	**1.87**	**226**	P	**Pn**	**12 12 27.6**	**-1.1**
SMTH	**Samothraki Isl**	**1.68**	**55**	P		**Pn**	**12 11 19.1**	**-0.1**	**THE**	**Thessaloniki**	**1.27**	**332**	P		**Pn**	**12 12 19.7**	**-0.9**	**LAKA**	**Lakka**	**1.89**	**228**	P	**Pn**	**12 12 28.1**	**-0.9**
KALE	**Kalithea**	**1.68**	**228**	P		**Pn**	**12 11 18.9**	**-0.4**	THE				S		**Sb**	**12 12 36.6**	**-0.6**	LAKA				S	**Sn**	**12 12 50.8**	**-2.0**
KALE				AML		AML			THE				AML		AML			**KPRO**	**Kipourio**	**1.90**	**284**	P	**Pn**	**12 12 29.1**	**-0.2**
VLY	**Voula,Athens**	**1.68**	**178**	P		**Pn**	**12 11 18.6**	**-0.6**	**THE**	**Thessaloniki**	**1.27**	**332**	P		**Pn**	**12 12 19.6**	**-0.9**	KPRO				AML	AML		
VLY				AML		AML			THE				S		**Sb**	**12 12 35.3**	**-1.9**	**MET4**	**Agioi Theodoro**	**1.91**	**189**	P	**Pn**	**12 12 28.4**	**-0.8**
ANX	**Ano Chora**	**1.69**	**237**	P		**Pn**	**12 11 19.4**	**0.0**	THE				AML		AML			**MET5**	**Makryloggos,Me**	**1.92**	**190**	P	**Pn**	**12 12 28.9**	**-0.5**
ANX				S		**Sn**	**12 11 41.0**	**0.0**	**SOFA**	**Sofades**	**1.30**	**263**	P		**Pn**	**12 12 19.2**	**-1.7**	**GUR**	**Goura**	**1.93**	**216**	P	**Pn**	**12 12 28.3**	**-1.3**
ANX				AML		AML			**THAS**	**Thassos island**	**1.32**	**34**	P		**Pn**	**12 12 19.4**	**-1.7**	GUR				S	**Sn**	**12 12 52.6**	**-1.3**
KZN	**Kozani**	**1.69**	**298**	P		**Pn**	**12 11 18.9**	**-0.6**	THAS				S		**Sg**	**12 12 39.6**	**+0.5**	GUR				AML	AML		
THAL	**Thalero**	**1.71**	**209**	P		**Pn**	**12 11 19.6**	**0.0**	THAS				AML		AML			**MET2**	**Kameni Chora,**	**1.93**	**190**	P	**Pn**	**12 12 27.7**	**-1.8**
THAL				AML		AML			**THAS**	**Thassos island**	**1.32**	**34**	P		**Pn**	**12 12 19.4**	**-1.7**	**KLV**	**Kalavryta, Ach**	**1.93**	**221**	P	**Pn**	**12 12 28.1**	**-1.6**
GRG	**Griva**	**1.75**	**325**	P		**Pn**	**12 11 20.5**	**+0.3**	THAS				S		**Sb**	**12 12 36.5**	**-1.9**	**TETR**	**Tetrakomo, Epi**	**1.94**	**266**	P	**Pn**	**12 12 29.4**	**-0.3**
GRG				S		**Sn**	**12 11 42.2**	**-0.2**	THAS				AML		AML			TETR				AML	AML		
GRG				AML		AML			**SOH**	**Sokhos**	**1.34**	**347**	P		**Pn**	**12 12 20.6**	**-1.0**	**AGRP**	**Agrapidokambos**	**1.94**	**236**	P	**Pn**	**12 12 28.8**	**-0.9**
KNT	**Kendrikon**	**1.75**	**339**	P		**Pn**	**12 11 20.9**	**+0.7**	SOH				S		**Sn**	**12 12 39.0**	**-0.5**	AGRP				S	**Sn**	**12 12 52.0**	**-2.1**
KNT				AML		AML			SOH				AML		AML			AGRP				AML	AML		
MG00	**Magoula, Dorid**	**1.78**	**232**	P		**Pn**	**12 11 20.8**	**+0.2**	**SOH**	**Sokhos**	**1.34**	**347**	P		**Pn**	**12 12 20.6**	**-1.0**	**MET6**	**Megalochori,Me**	**1.94**	**190**	P	**Pn**	**12 12 28.7**	**-1.1**
MG00				AML		AML			SOH				S		**Sn**	**12 12 38.9**	**-0.6**	**MET1**	**Methana Town,**	**1.95**	**189**	P	**Pn**	**12 12 28.3**	**-1.6**
EFP	**Efpalio**	**1.79**	**233**	P		**Pn**	**12 11 20.9**	**+0.1**	SOH				AML		AML			MET1				S	**Sn**	**12 12 53.6**	**-0.8**
EFP				AML		AML			**STFN**	**Stefani**	**1.34**	**187**	P		**Pn**	**12 12 20.3**	**-1.2**	MET1				AML	AML		
GADA	**Gvkgeada**	**1.80**	**68**	Pn		**Pg**	**12 11 25.0**	**+0.4**	STFN				AML		AML			**PVO**	**Paravola**	**1.96**	**244**	P	**Pn**	**12 12 29.3**	**-0.7**
GADA				AML		AML			**STFN**	**Stefani**	**1.34**	**187**	P		**Pn**	**12 12 20.5**	**-1.1**	PVO				S	**Sn**	**12 12 52.9**	**-1.6**
TEME	**Temeni, Aigial**	**1.80**	**224**	P		**Pn**	**12 11 21.2**	**+0.3**	STFN				S		**Sb**	**12 12 37.1**	**-2.2**	PVO				AML	AML		
NVR	**Nevrokopi**	**1.82**	**3**	P		**Pn**	**12 11 21.8**	**+0.6**	STFN				AML		AML			**EPID**	**Epidavros**	**1.96**	**195**	P	**Pn**	**12 12 28.7**	**-1.4**
NVR				AML		AML			**THL**	**Klokotos Trika**	**1.35**	**273**	P		**Pn**	**12 12 20.3**	**-1.4**	EPID				AML	AML		
BOZC	**Bozcaada**	**1.82**	**80**	Pn		**Pg**	**12 11 26.1**	**+1.0**	THL				AML		AML			**PRK**	**Paraskevi**	**1.96**	**97**	P	**Pn**	**12 12 29.5**	**-0.5**
BOZC				AML		AML			**THL**	**Klokotos Trika**	**1.35**	**273**	P		**Pn**	**12 12 20.5**	**-1.1**	PRK				AML	AML		
VVK	**Vomvokou**	**1.86**	**234**	P		**Pn**	**12 11 22.1**	**+0.4**	**VIL2**	**Platees**	**1.35**	**197**	P		**Pn**	**12 12 21.0**	**-0.7**	**KLV1**	**Kalavrita**	**1.96**	**222**	P	**Pn**	**12 12 29.2**	**-0.9**
VVK				AML		AML			VIL2				S		**Sb**	**12 12 38.7**	**-0.9**	KLV1				AML	AML		
AIOA	**Agios Ioannis,**	**1.86**	**225**	P		**Pn**	**12 11 21.7**	**0.0**	VIL2				AML		AML			**MET3**	**Ano Fanari,Met**	**1.98**	**192**	P	**Pn**	**12 12 29.0**	**-1.3**
TETR	**Tetrakomo, Epi**	**1.90**	**265**	P		**Pn**	**12 11 22.0**	**-0.4**	**THS1**	**Thassos, Thass**	**1.37**	**27**	P		**Pn**	**12 12 20.2**	**-1.7**	MET3				AML	AML		
TETR				AML		AML			THS1				S		**Sn**	**12 12 37.8**	**-2.3**	**EZN**	**Ezine**	**2.00**	**80**	Pn	**Pb**	**12 12 33.5**	**+0.3**
GUR	**Goura**	**1.93**	**215**	P		**Pn**	**12 11 22.3**	**-0.4**	THS1				AML		AML			EZN				AML	AML		
KLV	**Kalavryta, Ach**	**1.93**	**220**	P		**Pn**	**12 11 22.1**	**-0.6**	**VILL**	**Villia**	**1.39**	**195**	P		**Pn**	**12 12 20.7**	**-1.5**	**EZNE**	**Ezine-Canakkal**	**2.02**	**82**	Pn	**Pb**	**12 12 34.3**	**+0.8**
PVO	**Paravola**	**1.94**	**243**	P		**Pn**	**12 11 22.8**	**0.0**	VILL				AML		AML			**AMPL**	**Ampelaki**	**2.07**	**254**	P	**Pn**	**12 12 31.0**	**-0.5**
PRK	**Paraskevi**	**2.00**	**97**	P		**Pn**	**12 11 24.5**	**+0.9**	**DLFA**	**Delphi**	**1.43**	**224**	P		**Pn**	**12 12 20.8**	**-1.9**	AMPL				AML	AML		
PRMD	**Pramanda**	**2.03**	**271**	P		**Pn**	**12 11 24.6**	**+0.5**	DLFA				S		**Sn**	**12 12 40.2**	**-1.3**	**CHOS**	**Chios island**	**2.11**	**121**	Pn	**Pb**	**12 12 35.3**	**+0.2**
CHOS	**Chios island**	**2.15**	**121**	P		**Pn**	**12 11 26.1**	**+0.4**	DLFA				AML		AML			CHOS				AML	AML		
PDO	**Prodromos**	**2.19**	**246**	P		**Pn**	**12 11 26.9**	**+0.8**	**ACHAR**	**Athens-Acharne**	**1.44**	**181**	P		**Pn**	**12 12 21.8**	**-1.0**	**CHOS**	**Chios island**	**2.11**	**121**	P	**Pn**	**12 12 31.4**	**-0.8**
ENEZ	**Enez**	**2.22**	**56**	Pn		**Pb**	**12 11 30.8**	**+0.8**	ACHAR				S		**Sn**	**12 12 40.1**	**-1.5**	CHOS				AML	AML		
ENEZ				AML		AML			**DION**	**Dionisos Attik**	**1.44**	**175**	P		**Pn**	**12 12 21.4**	**-1.4**	**ALEX**	**Alexandroupoli**	**2.12**	**50**	P	**Pn**	**12 12 31.6**	**-0.6**
ALN	**Alexandroupoli**	**2.24**	**52**	Pn		**Pb**	**12 11 31.3**	**+0.9**	DION				S		**Sb**	**12 12 41.6**	**-0.4**	ALEX				AML	AML		
ALN				AML		AML			DION				AML		AML			**PENT**	**Pentalofos**	**2.13**	**289**	P	**Pn**	**12 12 30.6**	**-1.8**
PEHC	**Pehcevo**	**2.33**	**345**	*e*Pn		**Pb**	**12 11 30.9**	**-1.1**	**DION**	**Dionisos Attik**	**1.44**	**175**	P		**Pn**	**12 12 21.8**	**-1.1**	**PLEV**	**Plevrona-Mesol**	**2.14**	**240**	P	**Pn**	**12 12 32.1**	**-0.4**
OHR	**Ohrid**	**2.73**	**306**	*e*Pn		**Pn**	**12 11 35.4**	**+1.6**	DION				S		**Sn**	**12 12 39.6**	**-2.2**	**COMU**	**Canakkale**	**2.17**	**73**	Pn	**Pb**	**12 12 35.9**	**-0.1**
IDI	**Anoyia**	**4.34**	**167**	Pn		Pn	12 11 45.4	-10	DION				AML		AML			COMU				AML	AML		
	10nm,0.6s,baz=346,slow=13,SNR=6.2								**PTL**	**Penteli**	**1.46**	**177**	P		**Pn**	**12 12 22.1**	**-1.2**	**ENEZ**	**Enez**	**2.20**	**56**	Pn	**Pb**	**12 12 35.5**	**-1.1**
TIP	**Timpagrande**	**5.41**	**268**	⇑P		**Pn**	**12 12 10.5**	**0.0**	PTL				S		**Sb**	**12 12 42.8**	**+0.1**	ENEZ				AML	AML		
ICOR	**Ion Corvin**	**5.50**	**32**	⇓P		Pn	12 12 06.8	-4.9	PTL				AML		AML			**PDO**	**Prodromos**	**2.21**	**246**	P	**Pn**	**12 12 32.5**	**-0.8**
HARR	**Harsova**	**6.03**	**30**	⇑P		**Pn**	**12 12 14.8**	**-4.2**	**PTL**	**Penteli**	**1.46**	**177**	P		**Pn**	**12 12 22.0**	**-1.2**	PDO				AML	AML		
MLR	**Muntele Rosu**	**6.18**	**15**	Pn		Pn	12 12 28.0	+6.9	PTL				S		**Sn**	**12 12 41.2**	**-1.2**	**ALN**	**Alexandroupoli**	**2.23**	**51**	Pn	**Pb**	**12 12 35.4**	**-1.6**
	1.5nm,0.3s,baz=101,slow=8.0,SNR=6.5								PTL				AML		AML			**ALN**	**Alexandroupoli**	**2.23**	**51**	P	**Pn**	**12 12 31.4**	**-2.2**
	12nm,0.5s								**ELFA**	**Athens-Elefsin**	**1.48**	**187**	P		**Pn**	**12 12 21.8**	**-1.5**	**DRO**	**Drossia**	**2.24**	**227**	P	**Pn**	**12 12 32.8**	**-1.0**
MLR				AML		AML			ELFA				AML		AML			DRO				AML	AML		
MLR	**Muntele Rosu**	**6.18**	**15**	⇑P		Pn	12 12 15.7	-5.5	**ATHP**	**Athens-Neo Psi**	**1.51**	**180**	P		**Pn**	**12 12 22.4**	**-1.4**	**JAN**	**Janina**	**2.25**	**275**	P	**Pn**	**12 12 33.6**	**-0.5**
TPGR	**Topolog**	**6.36**	**32**	⇓P		**Pn**	**12 12 19.4**	**-4.2**	ATHP				S		**Sn**	**12 12 39.9**	**-3.6**	**TNSA**	**Tinos**	**2.25**	**150**	P	**Pn**	**12 12 32.1**	**-1.9**
CFR	**Carcaliu**	**6.52**	**29**	⇓P		**Pn**	**12 12 21.5**	**-4.2**	ATHP				AML		AML			TNSA				AML	AML		
VRI	**Vrincioaia**	**6.71**	**18**	⇑P		Pn	12 12 22.9	-5.3	**ATH5**	**Athens Parliam**	**1.54**	**181**	P		**Pn**	**12 12 22.2**	**-1.9**	**GELI**	**Tayfur-Gelibol**	**2.26**	**66**	Pn	**Pb**	**12 12 36.7**	**-0.9**
TLCR		**6.79**	**32**	⇑P		**Pn**	**12 12 25.4**	**-4.0**	ATH5				AML		AML			GELI				AML	AML		
CONA	**Conrad Observa**	**10.13**	**328**	*e*Pn		Pn	12 13 22.2	+6.9	**NOAC**	**Athens-Thissio**	**1.54**	**181**	P		**Pn**	**12 12 23.3**	**-0.9**	**AXS**	**Araxos**	**2.28**	**236**	P	**Pn**	**12 12 33.0**	**-1.3**
	1.1nm,0.4s								NOAC				S		**Sn**	**12 12 43.3**	**-0.9**	**RLS**	**Riolos of Patr**	**2.31**	**232**	P	**Pn**	**12 12 34.0**	**-0.8**
WINA	**Alland / Wiene**	**10.19**	**330**	*e*Pn		Pn	12 13 22.4	+6.3	NOAC				AML		AML			RLS				AML	AML		
	1.9nm,0.3s								**ATH**	**Athens Observa**	**1.54**	**181**	P		**Pn**	**12 12 23.3**	**-1.0**	**KRBN**	**Karaburun**	**2.36**	**112**	Pn	**Pb**	**12 12 38.9**	**-0.4**
ARCES	**ARCESS Array B**	**30.08**	**1**	LR		LR	12 31 21.6		ATH				AML		AML			KRBN				AML	AML		
	comp=Z,150nm,19.2s,baz=191,slow=40								**ATH**	**Athens Observa**	**1.54**	**181**	P		**Pn**	**12 12 23.2**	**-1.0**	**LMS2**	**Laimos Florina**	**2.40**	**304**	P	**Pn**	**12 12 34.7**	**-1.5**
TORD	**Torodi Ar. Bea**	**32.69**	**223**	P		**P**	**12 17 21.8**	**-0.5**	ATH				S		**Sn**	**12 12 42.8**	**-1.4**	LMS2				AML	AML		
	0.2nm,0.3s,baz=37,slow=8.9,SNR=2.8								ATH				AML		AML			**ERIK**	**Erikli-Kesan**	**2.41**	**60**	Pn	**Pb**	**12 12 38.8**	**-1.3**
	0.2nm,0.3s								**ATHU**	**Athens Univers**	**1.54**	**179**	P		**Pn**	**12 12 23.1**	**-1.2**	ERIK				AML	AML		
MKAR	**Makanchi Array**	**42.46**	**60**	P		**P**	**12 18 45.6**	**+0.8**	ATHU				S		**Sb**	**12 12 44.6**	**-0.4**	**KDZ**	**Kurdzhali**	**2.43**	**29**	Pn	**Pn**	**12 12 36.9**	**+0.4**
	0.4nm,0.6s,baz=276,slow=7.1,SNR=4.6								ATHU				AML		AML			**LPK**	**Lapseki**	**2.46**	**69**	Pn	**Pb**	**12 12 40.0**	**-1.0**
	0.4nm,0.6s								**ATHU**	**Athens Univers**	**1.54**	**179**	P		**Pn**	**12 12 22.9**	**-1.3**	LPK				AML	AML		
ZALV	**Zalesovo Beam**	**42.92**	**49**	P		P	12 18 50.4	+2.1	ATHU				S		**Sn**	**12 12 41.8**	**-2.5**	**DKL**	**Dikili**	**2.48**	**99**	Pn	**Pb**	**12 12 40.8**	**-0.5**
	0.4nm,0.4s,baz=278,slow=10.0,SNR=2.2								**KARY**	**Karystos**	**1.57**	**160**	P		**Pn**	**12 12 23.5**	**-1.1**	DKL				AML	AML		
	0.4nm,0.4s								KARY				AML		AML			**DKL**	**Dikili**	**2.48**	**99**	P	**Pn**	**12 12 36.8**	**-0.3**
									KARY	**Karystos**	**1.57**	**160**	P		**Pn**	**12 12 23.6**	**-1.0**	**TSLK**	**Tsoukalades, L**	**2.51**	**255**	P	**Pn**	**12 12 36.8**	**-0.7**
									KARY				S		**Sn**	**12 12 42.6**	**-2.3**	TSLK				AML	AML		
									KARY				AML		AML			**NYDR**	**Nydri-Lefkada**	**2.51**	**252**	P	**Pn**	**12 12 37.1**	**-0.5**
									KAVA	**Kavala**	**1.59**	**21**	P		**Pn**	**12 12 23.2**	**-1.7**	**AMT**	**Artemida-Makis**	**2.55**	**220**	P	**Pn**	**12 12 37.6**	**-0.5**
									KAVA				AML		AML			AMT				AML	AML		
									KAVA	**Kavala**	**1.59**	**21**	P		**Pn**	**12 12 23.2**	**-1.7**	**YAYO**	**Edremit-Balk**	**2.56**	**87**	Pn	**Pb**	**12 12 41.6**	**-1.1**
									KAVA				S		**Sn**	**12 12 43.4**	**-2.1**	YAYO				AML	AML		
									KAVA				AML		AML			**EVGI**	**Lefkada island**	**2.58**	**251**	P	**Pn**	**12 12 38.2**	**-0.3**
									SRS	**Serrai**	**1.61**	**355**	P		**Pn**	**12 12 24.4**	**-0.8**	EVGI				AML	AML		
									SRS				AML		AML			**CANM**	**Can-anakkale**	**2.58**	**78**	Pn	**Pb**	**12 12 42.1**	**-1.0**
									SRS	**Serrai**	**1.61**	**355**	P		**Pn**	**12 12 24.4**	**-0.8**	CANM				AML	AML		
									SRS				S		**Sn**	**12 12 44.4**	**-1.6**	**DRAG**	**Dragano-Lefkad**	**2.62**	**253**	P	**Pn**	**12 12 38.6**	**-0.4**
									SRS				AML		AML			DRAG				AML	AML		
									LTK	**Loutraki**	**1.61**	**203**	P		**Pn**	**12 12 23.5**	**-1.7**	**IGT**	**Igoumenitsa**	**2.65**	**272**	P	**Pn**	**12 12 38.7**	**-0.9**
									LTK				AML		AML			IGT				AML	AML		
									EVR	**Evrytania**	**1.63**	**249**	P		**Pn**	**12 12 24.9**	**-0.7**	**VALY**	**Valyra**	**2.73**	**211**	P	**Pn**	**12 12 39.7**	**-0.9**
									EVR				AML		AML			VALY				AML	AML		
									EVR	**Evrytania**	**1.63**	**249**	P		**Pn**	**12 12 24.9**	**-0.7**	**ITM**	**Ithomi**	**2.74**	**212**	P	**Pn**	**12 12 39.9**	**-0.8**
									EVR				AML		AML			**ITM**	**Ithomi**	**2.74**	**212**	Pn	**Pn**	**12 12 39.5**	**-1.2**
									LOUT	**Loutraki**	**1.64**	**202**	P		**Pn**	**12 12 24.4**	**-1.2**	**ITM**	**Ithomi**	**2.74**	**212**	P	**

KNDR	**Palaiochora Ch**	**4.27**	**182**	P		**Pn**	**12 13 01.1**	**-0.6**
KNDR				AML		AML			
IDI	**Anoyia**	**4.31**	**168**	Pn		**Pn**	**12 13 01.9**	**-0.5**
	4.7nm,0.3s,baz=345,slow=15,SNR=7.5 10nm,0.3s								
IDI				AML		AML			
IDI	**Anoyia**	**4.31**	**168**	P		**Pn**	**12 13 00.5**	**-1.9**
NPS	**Neapolis**	**4.49**	**160**	P		**Pn**	**12 13 04.1**	**-0.7**
KARP	**Karpathos**	**4.79**	**145**	P		**Pn**	**12 13 07.3**	**-1.7**
MLR	**Muntele Rosu**	**6.19**	**14**	Pn		**Pn**	**12 13 30.8**	**+2.6**
	8.0nm,0.5s,baz=218,slow=6.9,SNR=7.1								
MLR				LR		LR	12 16 31.6		
	comp=Z,203nm,19.4s,baz=192,slow=44								
VAE	**Valguarnera**	**7.61**	**257**	Pn		**Pn**	**12 13 48.6**	**+1.0**
	0.4nm,0.3s,baz=164,slow=19,SNR=1.5 3.2nm,0.5s								
VAE				AML		AML			
BRTR	**Keskin Array B**	**7.63**	**85**	Pn		**Pn**	**12 13 49.5**	**+1.5**
	0.3nm,0.3s,baz=262,slow=12,SNR=4.6 0.6nm,0.6s								
BRTR				AML		AML			
OBKA	**Obir**	**9.71**	**319**	*e*Pn		Pn	12 14 24.3	+7.8	
	1.3nm,0.4s								
ARSA	**Arzberg**	**9.78**	**325**	*e*Pn		**Pn**	**12 14 21.5**	**+4.1**	
	3.3nm,0.5s								
RONA	**Rosalia, Austr**	**9.81**	**329**	*e*Pn		Pn	12 14 22.8	+5.1	
	1.1nm,0.4s								
SESA	**Seetaler Alpe,**	**10.12**	**322**	*e*Pn		**Pn**	**12 14 24.3**	**+2.1**	
	1.4nm,0.5s								
CONA	**Conrad Observa**	**10.17**	**328**	*e*Pn		Pn	12 14 28.3	+5.6	
	1.9nm,0.6s								
WINA	**Alland / Wiene**	**10.23**	**330**	*e*Pn		Pn	12 14 29.0	+5.5	
	2.5nm,0.3s								
KBA	**Koelnbreinsper**	**10.71**	**318**	*e*Pn		**Pn**	**12 14 33.8**	**+3.6**	
	1.3nm,0.6s								
ABTA	**Abfaltersbach**	**10.94**	**315**	*e*Pn		**Pn**	**12 14 36.6**	**+3.3**	
	1.0nm,0.5s								
VRAC	**Vranoy**	**11.05**	**335**	LR		LR	12 18 32.0		
	comp=Z,22nm,19.8s,baz=150,slow=36								
GERES	**GERESS Array B**	**11.79**	**326**	Pn		**Pn**	**12 14 46.0**	**+1.1**	
	baz=145,slow=14,SNR=4.1 0.2nm,0.4s								
AKASG	**Malin Array Be**	**11.83**	**17**	Pn		**Pn**	**12 14 46.3**	**+0.9**	
	0.5nm,0.4s,baz=195,slow=12,SNR=3.0								
AKASG				LR		LR	12 19 58.4		
	comp=Z,38nm,21.0s,baz=211,slow=40								
BELG	**Belogornoye**	**20.88**	**44**	P		Pn	12 16 40.8	-0.5	
	5.6nm,0.7s,baz=148,slow=6.8,SNR=4.3 5.6nm,0.7s								
ESDC	**Sonseca Array**	**21.34**	**279**	P		**P**	**12 16 44.6**	**+0.6**	
	0.6nm,0.7s,baz=88,slow=11,SNR=4.3 0.6nm,0.7s								
HFS	**Hagfors**	**21.59**	**346**	P		**P**	**12 16 47.8**	**+1.5**	
	1.0nm,0.6s,baz=171,slow=11,SNR=4.1 1.0nm,0.6s								
FINES	**FINESS Array B**	**22.00**	**3**	P		**P**	**12 16 52.1**	**+1.4**	
	5.5nm,1.1s,baz=172,slow=10,SNR=3.8								
FINES				LR		LR	12 26 11.1		
	comp=Z,104nm,20.9s,baz=174,slow=39 5.5nm,1.1s								
NOA	**NORSAR Array B**	**22.91**	**344**	P		**P**	**12 17 01.9**	**+1.3**	
	2.2nm,1.0s,baz=153,slow=11,SNR=4.0 2.2nm,1.0s								
MDT	**Midelt**	**23.80**	**263**	LR		LR	12 27 14.3		
	comp=Z,26nm,19.4s,baz=159,slow=39								
EKA	**Eskdalemuir Ar**	**23.91**	**320**	P		**P**	**12 17 12.1**	**+1.6**	
	1.1nm,0.7s,baz=120,slow=10.0,SNR=2.5 1.1nm,0.7s								
TORD	**Torodi Ar. Bea**	**32.69**	**223**	P		**P**	**12 18 28.4**	**-0.9**	
	0.6nm,0.7s,baz=28,slow=9.1,SNR=3.4 0.6nm,0.7s								
KURBB	**Kurchatov Arra**	**39.40**	**55**	P		**P**	**12 19 27.5**	**+1.1**	
	0.5nm,0.7s,baz=285,slow=8.7,SNR=4.7 0.5nm,0.7s								
DBIC	**Dimbokro**	**41.61**	**226**	P		**P**	**12 19 44.3**	**-0.7**	
	4.0nm,0.8s,baz=23,slow=7.7,SNR=3.3 4.0nm,0.8s								
MKAR	**Makanchi Array**	**42.44**	**60**	P		**P**	**12 19 52.5**	**+1.0**	
	0.9nm,0.6s,baz=282,slow=7.4,SNR=4.2 0.9nm,0.6s								
ZALV	**Zalesovo Beam**	**42.91**	**49**	P		**P**	**12 19 56.6**	**+1.4**	
	0.9nm,0.4s,baz=273,slow=9.6,SNR=5.6 0.9nm,0.4s								
BRDH	**Bariadhala**	**59.20**	**85**	LR		LR	12 51 08.5		
	comp=Z,140nm,18.4s,baz=159,slow=40								

*BJI **08** 12:19:00.5,37˚.46N×71˚.82E,h143km,mB4.8/6,mb4.5/25*
*IDC **08** 12:19:02.0±1.8,37˚.35N×72˚.03E,h137km±15km,mb3.9/26, mbtmp4.4/31,MS3.2/2, Error ellipse: s-maj=12.5km s-min=8.0km az=24.0*
*MOS **08** 12:19:01.3±0.8,37˚.36N×72˚.00E,h142km,mb4.6/36,Error ellipse: s-maj=5.4km s-min=3.4km az=92.5*
*NEIC **08** 12:19:02.8±1.3,37˚.36N±0˚.06×71˚.94E±0˚.0,h141km±8km, mb4.6/57,Error ellipse: s-maj=11.0km s-min=8.2km az=87.0*
*GFZ **08** 12:19:02.8±0.3,37˚N±3˚×7˚2E±˚,h136km±3km,M4.7/18, mb4.7/18*
*NNC **08** 12:19:05.0±3.8,37˚.63N×71˚.85E,h143km±34km,mb4.0, mpv4.7,Error ellipse: s-maj=32.4km s-min=19.2km az=6.0*

ISC 08 12:19:02.5±0.5,37˚.39N±0˚.04×71˚.95E±0˚.04,h142km±3km, h142km:pP-P,n475,σ1s29/478,mb4.5/117,51C-24D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
DRK	**Karamyk**	**2.09**	**357**	PN		**Pn**	**12 19 39.2**	**+0.7**
DRK							12 20 05.4	
DRK	**Karamyk**	**2.09**	**357**	Pn		**Pn**	**12 19 39.2**	**+0.7**
DRK				Sn		**Sn**	**12 20 05.4**	**-0.8**
DRK	**Karamyk**	**2.09**	**357**	P		**Pn**	**12 19 39.3**	**+0.8**
BTK	**Batken**	**2.81**	**342**	PN		**Pn**	**12 19 48.1**	**+1.0**
BTK				S		**Sn**	**12 20 21.5**	**-0.1**
BTK	**Batken**	**2.81**	**342**	Pn		**Pn**	**12 19 47.6**	**+0.5**
BTK				Sn		**Sn**	**12 20 21.5**	**-0.1**
BTK	**Batken**	**2.81**	**342**	P		**Pn**	**12 19 48.1**	**+1.0**
OHH	**Osh**	**3.20**	**12**	PN		**Pn**	**12 19 51.6**	**-0.6**
OHH	**Osh**	**3.20**	**12**	P		**Pn**	**12 19 51.5**	**-0.6**
KSH2	**Kashi**	**3.34**	**57**	P		**Pn**	**12 19 56.2**	**+2.1**
KSH2				S		**Sn**	**12 20 35.8**	**+1.7**
KSH2				SMN				
	2μm,0.5s							
KSH2				SME				
	730nm,0.4s							
KBL	**Kabul**	**3.69**	**220**	PN		**Pn**	**12 19 57.5**	**-1.2**
KBL	**Kabul**	**3.69**	**220**			**Pn**	**12 19 57.5**	**-1.2**
KBL	**Kabul**	**3.69**	**220**	P		**Pn**	**12 19 57.6**	**-1.2**
NIL	**Nilore**	**3.88**	**164**	PN		**Pn**	**12 20 00.0**	**-1.1**
NIL	**Nilore**	**3.88**	**164**			**Pn**	**12 20 00.0**	**-1.1**
NIL	**Nilore**	**3.88**	**164**	P		**Pn**	**12 20 00.5**	**-0.5**
ARSB	**Arslanbob**	**4.01**	**11**	PN		**Pn**	**12 20 03.0**	**+0.2**
ARSB	**Arslanbob**	**4.01**	**11**			**Pn**	**12 20 03.0**	**+0.2**
SRNI	**Srinagar**	**4.06**	**144**	*i* S		Sn	12 20 25.3	-26
TRKS	**Terek-Say**	**4.18**	**352**	PN		**Pn**	**12 20 04.0**	**-1.1**
ASAI	**AK-SAY(Kyrgyzs**	**5.00**	**44**	P		**Pn**	**12 20 16.5**	**+0.4**
NRN	**Naryn**	**5.11**	**37**	PN		**Pn**	**12 20 17.0**	**-0.6**
NRN	**Naryn**	**5.11**	**37**			**Pn**	**12 20 16.9**	**-0.6**
JMU	**Jammu**	**5.17**	**152**	*i* P		Pn	12 20 12.7	-5.4
JMU				*i* S		Sn	12 21 02.2	-15
UCH	**Uchtor**	**5.22**	**21**	P		**Pn**	**12 20 19.6**	**+0.5**
	SNR=405							
CHM	**Chimkent**	**5.24**	**341**	*e*PN		**Pn**	**12 20 19.7**	**+0.7**
CHM	**Chimkent**	**5.24**	**341**	*e*P		**Pn**	**12 20 19.7**	**+0.7**
ALCI	**Alchi Leh**	**5.31**	**125**	*i* P		Pn	12 19 56.0	-24
EKS2	**Erkin-Say**	**5.45**	**14**	P		**Pn**	**12 20 22.3**	**+0.4**
	SNR=141							
DZA	**Taraz**	**5.51**	**355**	*e*PN		**Pn**	**12 20 23.0**	**+0.4**
DZA	**Taraz**	**5.51**	**355**	*e*P		**Pn**	**12 20 23.0**	**+0.4**
AAK	**Ala-Archa**	**5.59**	**20**	P		**Pn**	**12 20 24.7**	**+0.9**
	159nm,0.4s,baz=187,slow=5.3,SNR=228							
AAK				S		**Sn**	**12 21 26.5**	**-0.7**
	76nm,0.3s,baz=145,slow=23,SNR=18							
AAK				LR		LR	12 22 55.0	
	comp=Z,100nm,18.4s,baz=216,slow=42							
AAK	**Ala-Archa**	**5.59**	**20**	P		**Pn**	**12 20 24.7**	**+0.9**
	SNR=105							
AAK	**Ala-Archa**	**5.59**	**20**	⇑P		**Pn**	**12 20 24.6**	**+0.7**
	36nm,0.4s							
AAK				⇑S		**Sn**	**12 21 25.8**	**-1.4**
	52nm,0.5s							
AAK	**Ala-Archa**	**5.59**	**20**	PN		**Pn**	**12 20 24.5**	**+0.7**
AAK	**Ala-Archa**	**5.59**	**20**			**Pn**	**12 20 24.0**	**+0.2**
AAK	**Ala-Archa**	**5.59**	**20**	P		**Pn**	**12 20 24.8**	**+1.0**
	comp=Z,268nm,0.7s							
TSSA	**Tissa**	**5.70**	**142**	*i* P		Pn	12 20 11.0	-14
TSSA				*i* S		Sn	12 20 54.9	-35
KBK	**Karagaybulak**	**5.74**	**23**	P		**Pn**	**12 20 27.6**	**+1.8**
	SNR=36							
FRU1	**Bishkek**	**5.79**	**20**	PN		**Pn**	**12 20 26.9**	**+0.5**
FRU1	**Bishkek**	**5.79**	**20**			**Pn**	**12 20 26.9**	**+0.5**
KK31	**Karatay Array**	**5.81**	**350**	⇑P		**Pn**	**12 20 26.4**	**-0.2**
	comp=Z,94nm,0.4s,baz=173,slow=12,SNR=957							
KK31				⇑S		**Sn**	**12 21 28.7**	**-3.6**
	comp=Z,525nm,0.6s,baz=168,slow=23,SNR=35							
KK31	**Karatay Array**	**5.81**	**350**	*e*PN		**Pn**	**12 20 26.3**	**-0.2**
KK31	**Karatay Array**	**5.81**	**350**			**Pn**	**12 20 26.2**	**-0.4**
KKAR	**Karatay Array**	**5.81**	**350**	PN		**Pn**	**12 20 26.4**	**-0.2**
KKAR	**Karatay Array**	**5.81**	**350**			**Pn**	**12 20 26.4**	**-0.2**
ULHL	**Ulahol**	**5.87**	**33**	P		**Pn**	**12 20 27.6**	**+0.1**
	SNR=59							
CHMS	**Chumysh**	**6.00**	**20**	P		**Pn**	**12 20 29.7**	**+0.6**
	SNR=44							
USP	**Ospenovka**	**6.18**	**18**	P		**Pn**	**12 20 31.5**	**-0.1**
	SNR=58							
TKM2	**Tokmak 2**	**6.19**	**26**	P		**Pn**	**12 20 32.3**	**+0.5**
	SNR=91							
KDJ	**Kajisay**	**6.22**	**39**	PN		**Pn**	**12 20 32.1**	**-0.1**
KDJ	**Kajisay**	**6.22**	**39**			**Pn**	**12 20 32.1**	**-0.1**
KDJ	**Kajisay**	**6.22**	**39**	P		**Pn**	**12 20 32.0**	**-0.1**
	comp=Z,24nm,0.9s							
DHRM	**DHARAMSHALA**	**6.25**	**144**	*i* S		Sn	12 21 07.1	-36
TLWR	**Talawar**	**6.35**	**147**	*i* P		Pn	12 20 22.9	-11
TLWR				*i* S		Sn	12 21 19.7	-26
WUS	**Wushi**	**6.80**	**54**			**Pn**	**12 20 40.3**	**+0.3**
TNSS	**Tian-Shan**	**6.81**	**33**	*e*PN		**Pn**	**12 20 39.8**	**-0.5**
TNSS	**Tian-Shan**	**6.81**	**33**	*e*P		**Pn**	**12 20 39.8**	**-0.5**
AAA	**Alma-Ata**	**6.94**	**32**	*e*PN		**Pn**	**12 20 41.5**	**-0.2**
AAA	**Alma-Ata**	**6.94**	**32**	*e*P		**Pn**	**12 20 41.5**	**-0.2**
MDOK	**Medeo**	**6.96**	**32**	*e*PN		**Pn**	**12 20 42.3**	**+0.2**
MDOK	**Medeo**	**6.96**	**32**	*e*P		**Pn**	**12 20 42.3**	**+0.2**
BHK	**Bhakra**	**7.01**	**147**	*i* P		Pn	12 20 33.1	-10
BHK				*i* S		Sn	12 21 33.6	-28
PRZ	**Przheval'sk**	**7.10**	**42**	PN		**Pn**	**12 20 44.9**	**+0.9**
PRZ	**Przheval'sk**	**7.10**	**42**			**Pn**	**12 20 44.9**	**+0.9**
PRZ	**Przheval'sk**	**7.10**	**42**	P		**Pn**	**12 20 44.9**	**+0.9**
	comp=Z,140nm,0.7s							
KUU	**Kurty**	**7.30**	**26**	*e*PN		**Pn**	**12 20 46.3**	**-0.2**
KUU	**Kurty**	**7.30**	**26**	*e*P		**Pn**	**12 20 46.3**	**-0.2**
SATY	**Saty**	**7.51**	**39**	*e*PN		**Pn**	**12 20 49.2**	**-0.2**
SATY	**Saty**	**7.51**	**39**	*e*P		**Pn**	**12 20 49.2**	**-0.2**
SMLA	**Simla**	**7.59**	**144**	*i* P		Pn	12 20 31.9	-19
SMLA				*i* S		Sn	12 21 36.3	-39
KLP	**Kalpa**	**7.82**	**136**	*i* P		Pn	12 20 34.9	-19
KLP					IAmb	IAmb	12 20 55.8	
	comp=Z,193nm,0.7s							
KLP				*i* S		Sn	12 21 34.7	-47
UZB	**Uzynbulak**	**7.89**	**41**	*e*PN		**Pn**	**12 20 54.3**	**-0.2**
UZB	**Uzynbulak**	**7.89**	**41**	*e*P		**Pn**	**12 20 54.3**	**-0.2**
KPKS	**Kokpek**	**7.95**	**38**	*e*PN		**Pn**	**12 20 54.7**	**-0.6**
KPKS	**Kokpek**	**7.95**	**38**	*e*P		**Pn**	**12 20 54.7**	**-0.6**
SHLS	**Shalkode**	**8.13**	**43**	*e*PN		**Pn**	**12 21 00.6**	**+2.9**
SHLS	**Shalkode**	**8.13**	**43**	*e*P		**Pn**	**12 21 00.7**	**+2.9**
PDGK	**Podgornoye**	**8.27**	**42**	⇓P		**Pn**	**12 20 58.5**	**-1.0**
	comp=Z,11nm,0.8s							
PDGK	**Podgornoye**	**8.27**	**42**	PN		**Pn**	**12 20 58.5**	**-1.0**
PDGK	**Podgornoye**	**8.27**	**42**			**Pn**	**12 20 59.0**	**-0.5**
UTK	**UTTARKASHI**	**8.55**	**139**	*i* P		Pn	12 20 45.9	-18
UTK				*i* S		Sn	12 21 54.9	-44
TDK	**Taldyqorghan**	**9.03**	**31**	*e*P		**Pn**	**12 21 09.2**	**-0.3**
TDK	**Taldyqorghan**	**9.03**	**31**	*e*P		**Pn**	**12 21 09.3**	**-0.3**
RTK	**Rohtak**	**9.13**	**155**	*i* S		Sn	12 22 25.8	-27
JOSI	**Joshimath**	**9.29**	**135**	*i* P		Pn	12 20 53.4	-20
JOSI				*i* S		Sn	12 22 04.0	-53
NDI	**New Delhi**	**9.74**	**152**	*i* P		Pn	12 21 08.5	-11
NDI				*i* S		Sn	12 22 36.4	-31
NPLP	**NPLP New Delhi**	**9.77**	**152**	*i* P		Pn	12 21 14.6	-5.0
NPLP				*i* S		Sn	12 22 40.7	-27
LDR	**Lodi Road**	**9.83**	**152**	*i* S		Sn	12 22 43.1	-26
JMIU	**JAMIA UNIVERSI**	**9.87**	**151**	*i* S		Sn	12 22 42.4	-28
AYAN	**Aya Nagar**	**9.89**	**152**	*i* P		Pn	12 21 09.6	-12
AYAN				*i* S		Sn	12 22 37.9	-33
KUDL	**Kundal**	**9.98**	**156**	*i* P		Pn	12 21 16.9	-5.5
KUDL				*i* S		Sn	12 22 49.0	-24
SONA	**Sohna**	**10.08**	**153**	*i* P		Pn	12 21 15.8	-8.0
SONA				*i* S		Sn	12 22 47.5	-28
UGON	**Onchagaon**	**10.35**	**149**	*i* S		Sn	12 22 48.2	-34
PTH	**Pithoragarh**	**10.39**	**136**	*i* P		Pn	12 21 07.5	-21
PTH				*i* S		Sn	12 22 33.5	-50
JASL	**Jaisalmer**	**10.47**	**185**	*i* S		Sn	12 23 41.0	+16
LGTI	**Lohaghat**	**10.47**	**137**	*i* S		Sn	12 22 36.0	-49
AJM	**Ajmer**	**11.17**	**167**	*i* P		**Pn**	**12 21 37.3**	**-1.0**
AJM				*i* S		Sn	12 23 29.2	-12
MAKZ	**Makanchi**	**11.99**	**35**	P		**Pn**	**12 21 48.2**	**-0.6**
MAKZ	**Makanchi**	**11.99**	**35**			**Pn**	**12 21 48.2**	**-0.6**
MAKZ	**Makanchi**	**11.99**	**35**	P		Pn	12 21 43.0	-5.9
	comp=Z,20nm,0.7s							
MK31	**Makanchi Array**	**12.13**	**36**	P		**Pn**	**12 21 49.2**	**-1.3**
	comp=Z,2.4nm,0.5s,baz=226,slow=11,SNR=63							
MK31	**Makanchi Array**	**12.13**	**36**	*c* P		**Pn**	**12 21 50.3**	**-0.3**
MK31	**Makanchi Array**	**12.13**	**36**	Pn		**Pn**	**12 21 49.7**	**-0.9**
MKAR	**Makanchi Array**	**12.13**	**36**	P		**Pn**	**12 21 49.7**	**-0.9**
	comp=Z,4.0nm,0.8s,baz=233,slow=10,SNR=16							
MKAR				S		**Sn**	**12 24 02.6**	**-1.8**
	comp=Z,1.2nm,0.6s,baz=250,slow=17,SNR=2.1							
MKAR	**Makanchi Array**	**12.13**	**36**	Pn		**Pn**	**12 21 49.2**	**-1.4**
JHNI	**Jhansi**	**13.18**	**153**	*i* P		Pn	12 21 51.7	-13
JHNI				*i* S		Sn	12 23 57.7	-32
GUNA	**GUNA**	**13.51**	**159**	*i* S		Sn	12 24 09.8	-28
WMQ	**Urumqi**	**13.57**	**57**	*e*P		**Pn**	**12 22 10.1**	**+0.8**
ZSN	**Zaisan**	**13.84**	**39**	*e*P		**Pn**	**12 22 12.3**	**-0.3**
ZSN	**Zaisan**	**13.84**	**39**	*e*P		**Pn**	**12 22 12.4**	**-0.3**
KURBB	**Kurchatov Arra**	**14.04**	**18**	P		**Pn**	**12 22 12.2**	**-2.9**
	comp=Z,3.4nm,0.7s,baz=205,slow=12,SNR=22							
KURBB	**Kurchatov Arra**	**14.04**	**18**	⇑P		**Pn**	**12 22 16.7**	**+1.6**
	comp=Z,25nm,0.7s							
KURBB	**Kurchatov Arra**	**14.04**	**18**	P		**Pn**	**12 22 16.7**	**+1.6**
KURK	**Kurchatov**	**14.15**	**18**	⇑P		**P**	**12 22 18.3**	**-1.3**
	comp=Z,7.5nm,0.8s							
KURK	**Kurchatov**	**14.15**	**18**	*d* iP		**P**	**12 22 19.7**	**+0.1**
KURK	**Kurchatov**	**14.15**	**18**	P		**Pn**	**12 22 13.9**	**-2.5**
	comp=Z,29nm,1.1s							
ALBI	**Allahabad**	**14.69**	**142**	*i* P		Pn	12 22 04.9	-19
ALBI				*i* S		Sn	12 24 18.5	-48
AB31	**Akbulak array**	**14.71**	**328**	P		**Pn**	**12 22 22.1**	**-1.4**
	comp=Z,7.0nm,0.3s,baz=142,slow=12,SNR=302							
AB31	**Akbulak array**	**14.71**	**328**	*e*P		**Pn**	**12 22 22.0**	**-1.4**
AB31	**Akbulak array**	**14.71**	**328**	Pn		**Pn**	**12 22 22.3**	**-1.1**
ABKAR	**Akbulak array**	**14.71**	**328**	Pn		**Pn**	**12 22 21.2**	**-2.3**
BHPL	**Bhopal**	**14.87**	**160**	*i* P		Pn	12 22 16.1	-10
BHPL				*i* S		Sn	12 24 46.1	-25
BVB9	**Borovoye Array**	**15.66**	**357**	⇓P		**Pn**	**12 22 33.9**	**-1.4**
	comp=Z,17nm,0.5s							
BVAR	**Borovoye Array**	**15.67**	**357**	P		**Pn**	**12 22 34.3**	**-1.1**
	comp=Z,19nm,0.4s,baz=158,slow=12,SNR=43							
BVAR				S		**Sn**	**12 25 19.4**	**-10**
	comp=Z,19nm,0.9s,baz=168,slow=21,SNR=9.5							
BORK	**Borovoye**	**15.70**	**356**	P		**Pn**	**12 22 34.2**	**-1.5**
BORK				pmax		pmax		
	comp=Z,57nm,1.1s							
BORK	**Borovoye**	**15.70**	**356**			**Pn**	**12 22 34.2**	**-1.5**
BORK				IAmb		IAmb	12 22 39.6	
	comp=Z,57nm,1.1s							
AKTO	**Aktyubinsk**	**16.42**	**327**	P		**Pn**	**12 22 44.4**	**-0.2**
	comp=Z,43nm,0.5s,baz=132,slow=6.7,SNR=47							
AKTO				S		Sn	12 25 33.1	-14
	comp=Z,26nm,0.7s,baz=341,slow=23,SNR=9.6							
AKTO	**Aktyubinsk**	**16.42**	**327**	⇓P		**P**	**12 22 45.0**	**+0.3**
	comp=Z,41nm,0.7s							
GAYA	**Gaya**	**16.91**	**134**	*i* P		P	12 22 30.3	-20
AKL	**Akola**	**17.20**	**164**	*i* P		**P**	**12 22 47.0**	**-6.7**
AKL					IVmB_BB		12 22 55.9	
	comp=Z,310nm,0.3s							
AKL				*i* S		S	12 25 45.1	-21
NGP	**Nagpur**	**17.30**	**157**	*i* S		S	12 25 41.9	-26
LSA	**Lhasa**	**17.73**	**110**	P		**P**	**12 22 59.7**	**-0.2**
LSA				pmax		pmax		
	comp=Z,16nm,0.7s							
LSA	**Lhasa**	**17.73**	**110**	P		**P**	**12 22 59.7**	**-0.2**
LSA					IAmb	IAmb	12 23 05.2	
	comp=Z,16nm,0.7s							
BOK	**Bokaro**	**18.07**	**135**	*i* P		P	12 22 41.0	-22
BOK					IVmB_BB		12 23 03.2	
	comp=Z,886nm,1.1s							
GOMU	**GeErMu**	**18.35**	**87**	P		**Pn**	**12 23 07.8**	**-0.5**
GOMU				pmax		pmax		
	comp=Z,5.0nm,0.5s							
ZAA0	**Zalesovo Array**	**18.79**	**24**	⇓P		**P**	**12 23 10.9**	**+0.1**
	comp=Z,14nm,0.8s							
ZAA0	**Zalesovo Array**	**18.79**	**24**			**P**	**12 23 10.4**	**-0.3**
ZAA0				IAmb		IAmb	12 23 12.0	
	comp=Z,22nm,0.5s							
ZALV	**Zalesovo Beam**	**18.79**	**24**	P		**P**	**12 23 11.1**	**+0.3**
	comp=Z,24nm,0.5s,baz=220,slow=10,SNR=118							
ZALV				S		**S**	**12 26 34.5**	**-2.4**
	comp=Z,0.7nm,0.4s,baz=220,slow=17,SNR=1.8							
ZALV	**Zalesovo Beam**	**18.79**	**24**	*i* P		**P**	**12 23 11.3**	**+0.6**
ZALV				pmax		pmax		
	comp=Z,23nm,0.5s							
ZALV	**Zalesovo Beam**	**18.79**	**24**	P		**P**	**12 23 10.6**	**-0.2**
MAK	**Makhachkala**	**19.46**	**294**	*e*P		**P**	**12 23 14.6**	**-3.4**
MAK				*e*S		**S**	**12 26 45.3**	**-4.9**
MAK				pmax		pmax		
	comp=Z,155nm,1.1s							
KAD	**Karad**	**20.10**	**174**	*i* P		Pn	12 23 28.9	+0.4
RAGD	**RAYAGADA**	**20.69**	**148**	*i* P		P	12 23 19.7	-12
RAGD				IAmb		IAmb	12 23 34.9	
	comp=Z,42nm,1.3s							
RAGD				*i* S		S	12 26 44.9	-30
HYB	**Hyderabad**	**20.73**	**162**	*e*P		**P**	**12 23 31.8**	**-0.2**
HYB				*e*S		**S**	**12 27 15.8**	**+0.1**
SVE	**Sverdlovsk**	**20.86**	**342**	*e*P		**P**	**12 23 33.7**	**+0.8**
SVE				*e*S		**S**	**12 27 21.8**	**+4.3**
SVE				pmax		pmax		
	comp=Z,22nm,0.6s							
ARTI	**Arti**	**21.07**	**339**	P		**P**	**12 23 35.7**	**+0.5**
	comp=Z,13nm,0.5s,baz=141,slow=9.8,SNR=15							
ARTI				S		**S**	**12 27 21.8**	**+0.3**
	comp=Z,1.1nm,0.4s,baz=330,slow=23,SNR=1.1 comp=Z,13nm,0.5s							
ARTI	**Arti**	**21.07**	**339**	*c* iP		**P**	**12 23 35.7**	**+0.5**
ARTI							12 24 08.5	
ARTI				S		**S**	**12 27 20.9**	**-0.6**
ARTI				pmax		pmax		
	comp=Z,24nm,0.7s							
ARTI	**Arti**	**21.07**	**339**			**P**	**12 23 35.0**	**-0.2**
ARTI				IAmb		IAmb	12 23 39.7	
	comp=Z,27nm,0.6s							
GNI	**Garni**	**21.36**	**286**	P		**P**	**12 23 39.4**	**+0.7**
	comp=Z,3.9nm,0.4s,baz=106,slow=15,SNR=8.0							
GNI				S		**S**	**12 27 30.8**	**+3.4**
	comp=Z,1.8nm,0.3s,baz=326,slow=21,SNR=1.0 comp=Z,3.9nm,0.4s							
GNI	**Garni**	**21.36**	**286**	⇓*e*P		**P**	**12 23 40.8**	**+2.1**
GNI				pmax		pmax		
	comp=Z,49nm,1.5s							
GNI	**Garni**	**21.36**	**286**	P		**P**	**12 23 37.5**	**-1.2**
GNI				IAmb		IAmb	12 23 46.6	
	comp=Z,20nm,0.8s							
GNI	**Garni**	**21.36**	**286**	P		**P**	**12 23 41.7**	**+2.9**
	comp=Z,32nm,1.0s							
GTA2	**Gaotai**	**21.86**	**76**	*e*P		**P**	**12 23 46.5**	**+2.6**
GTA2				pmax		pmax		
	comp=Z,10.0nm,0.5s							
NCK	**Nalchik**	**22.36**	**295**	⇑*e*P		**P**	**12 23 50.3**	**+1.5**
NCK				pmax		pmax		
	comp=Z,15nm,0.4s							
KNGR	**Kungurtug, Tuv**	**22.51**	**46**	*i* P		**P**	**12 23 53.9**	**+3.6**
KN

HHC pmax pmax
comp=Z,85nm,4.5s
KLMR Klimovskoe 31.09 329 *e*P **P 12 25 05.0 -2.0**
KLMR *e**SP **sP 12 25 54.9 +0.1**
KLMR pmax pmax
comp=Z,35nm,1.4s
AK09 Malin Array Si 32.94 307 P **P 12 25 24.2 +0.9**
AK10 Malin Array Si 32.96 307 P **P 12 25 24.1 +0.6**
AK08 Malin Array Si 32.96 307 P **P 12 25 24.1 +0.6**
AK07 Malin Array Si 32.98 307 P **P 12 25 24.3 +0.6**
AKASG Malin Array Be 32.99 308 P **P 12 25 24.2 +0.5**
comp=Z,9.2nm,0.6s,baz=107,slow=9.1,SNR=38
comp=Z,9.2nm,0.6s
AKASG Malin Array Be 32.99 308*ce*P **P 12 25 25.1 +1.4**
AKASG pmax pmax
comp=Z,9.0nm,0.5s
AKBB Malin Array Si 32.99 308*d i*P **P 12 25 24.1 +0.4**
AKBB pmax pmax
comp=Z,11nm,0.6s
AKBB Malin Array Si 32.99 308 P **P 12 25 24.2 +0.5**
AK06 Malin Array Si 32.99 307 P **P 12 25 24.2 +0.5**
AK05 Malin Array Si 32.99 307 P **P 12 25 24.2 +0.4**
AK01 Malin Array Si 33.00 308 P **P 12 25 24.0 +0.2**
AK02 Malin Array Si 33.00 308 P **P 12 25 24.0 +0.2**
KIEV Kiev 33.00 308 P **P 12 25 24.0 +0.2**
KIEV pmax pmax
comp=Z,11nm,0.7s
KIEV Kiev 33.00 308 **P 12 25 24.0 +0.2**
KIEV IAmb IAmb 12 25 24.7
comp=Z,11nm,0.7s
KIEV Kiev 33.00 308 ⇑P **P 12 25 24.6 +0.8**
KIEV Kiev 33.00 308 P **P 12 25 24.2 +0.4**
comp=Z,96nm,0.7s
AK11 Malin Array Si 33.02 308 P **P 12 25 24.3 +0.3**
AK12 Malin Array Si 33.03 307 P **P 12 25 24.4 +0.4**
AK15 Malin Array Si 33.05 308 P **P 12 25 24.2 -0.1**
AK14 Malin Array Si 33.06 307 P **P 12 25 24.2 -0.1**
AK16 Malin Array Si 33.06 308 P **P 12 25 24.3 0.0**
AK13 Malin Array Si 33.08 307 P **P 12 25 24.5 0.0**
AK18 Malin Array Si 33.09 308 P **P 12 25 24.5 -0.1**
AK17 Malin Array Si 33.09 308 P **P 12 25 24.5 -0.1**
AK22 Malin Array Si 33.09 308 P **P 12 25 24.5 -0.1**
AK21 Malin Array Si 33.12 308 P **P 12 25 24.7 -0.1**
NRIK Noril'sk 33.12 10 P **P 12 25 25.8 +1.2**
comp=Z,12nm,0.5s,baz=206,slow=6.7,SNR=26
comp=Z,12nm,0.5s
NRIK Noril'sk 33.12 10*d i*P **P 12 25 25.8 +1.2**
NRIK pmax pmax
comp=Z,14nm,0.6s
NRIK Noril'sk 33.12 10 **P 12 25 25.1 +0.5**
AK19 Malin Array Si 33.13 308 P **P 12 25 24.8 -0.1**
AK20 Malin Array Si 33.13 308 P **P 12 25 24.9 0.0**
TPGR Topolog 33.30 297 ⇓P **P 12 25 26.9 +0.3**
SORM Soroca 33.35 303 ⇓P **P 12 25 27.4 +0.6**
SORM Soroca 33.35 303 ⇓P **P 12 25 27.4 +0.6**
CFR Carcaliu 33.49 297 ⇑P **P 12 25 28.4 +0.3**
CFR Carcaliu 33.49 297 ⇑P **P 12 25 28.4 +0.3**
VLDR Vladesti 33.51 299 ⇑P **P 12 25 28.5 +0.2**
MI29 MI29, Kamyanyy 33.83 307 P **P 12 25 30.8 -0.2**
comp=Z,142nm,2.3s
LUBAR Lubar, Ukraine 33.85 306 P **P 12 25 31.2 0.0**
PANC Panciu 34.16 299 ⇑P **P 12 25 33.9 0.0**
MNK Minsk 34.41 314 *i* P **P 12 25 36.6 +0.7**
MNK *i* *PP **pP 12 26 08.8 +1.0**
MNK *i* *SP **sP 12 26 26.3 +1.7**
MNK *i* 12 26 57.2
MNK *i* S **S 12 30 54.8 +1.6**
MNK *i* *SS **sS 12 31 51.4 +2.5**
MNK pmax pmax
comp=E,13nm,0.8s
MNK pmax pmax
comp=Z,15nm,0.8s
MNK pmax pmax
comp=N,7.0nm,0.8s
MNK Minsk 34.41 314 *i* P **P 12 25 36.7 +0.7**
comp=E,13nm,0.8s
MNK *i* P **P 12 25 36.7 +0.7**
comp=N,7.0nm,0.8s
MNK *i* P **P 12 25 36.7 +0.7**
comp=Z,15nm,0.8s,baz=101
MNK *i* pP **pP 12 26 08.9 +1.0**
MNK *i* sP **sP 12 26 26.3 +1.7**
MNK *i* PP **PP 12 26 57.2 +0.6**
MNK *i* S **S 12 30 54.8 +1.6**
MNK *i* sS **sS 12 31 51.5 +2.5**
MNK *i* SS **SS 12 33 24.1 -2.6**
MNK *i* LR LR 12 39 23.8
VRI Vrincioaia 34.45 299 ⇑P **P 12 25 37.4 +0.9**
VRI Vrincioaia 34.45 299 ⇑P **P 12 25 37.4 +0.9**
TESR Tescani 34.49 300 ⇑P **P 12 25 37.5 +0.7**
TESR Tescani 34.49 300 P **P 12 25 37.4 +0.6**
comp=Z,19nm,0.6s
PLOR Plostina 34.51 299 ⇑P **P 12 25 37.9 +0.9**
PLOR Plostina 34.51 299 ⇑P **P 12 25 37.9 +0.9**
GIRR Girov 34.58 301 ⇑P **P 12 25 38.5 +0.9**
KMPD K-Podol'skiy 34.62 304 P **P 12 25 38.3 +0.5**
ONER Baraj Valea Uz 34.67 300 ⇑P **P 12 25 38.6 +0.2**
COVR Voineasa-Covas 34.82 299 ⇑P **P 12 25 40.3 +0.7**
BIZ Bicaz 34.85 301 ⇓P **P 12 25 40.9 +1.0**
MLR Muntele Rosu 35.02 298 P **P 12 25 42.8 +1.3**
MLR pmax pmax
comp=Z,13nm,0.8s
MLR Muntele Rosu 35.02 298 **P 12 25 42.8 +1.3**
MLR IAmb IAmb 12 25 44.5
comp=Z,13nm,0.8s
MLR Muntele Rosu 35.02 298 ⇑P **P 12 25 41.8 +0.3**
MLR Muntele Rosu 35.02 298 P **P 12 25 44.5 +3.0**
comp=Z,29nm,1.2s
NACGM Naroch 35.12 315 ⇓*i*P **P 12 25 42.8 +0.8**
comp=Z,21nm,0.7s,baz=101
RNPP5 Staryi Chortor 35.15 308 P **P 12 25 43.0 +0.7**
RNPP9 Sopachiv 35.16 308 P **P 12 25 42.9 +0.5**
RNPP8 Varash 35.17 308 P **P 12 25 43.1 +0.6**
ELND Elena 35.29 294 ⇑P **P 12 25 44.5 +0.8**
DOPR Dopca 35.38 299 ⇑P **P 12 25 45.0 +0.5**
BURAR Bucovina Array 35.45 302 ⇑P **P 12 25 46.1 +1.0**
BURAR Bucovina Array 35.45 302 P **P 12 25 45.9 +0.8**
BURAR IAmb IAmb 12 25 47.1
comp=Z,4.8nm,0.7s
BURAR Bucovina Array 35.45 302 ⇑P **P 12 25 46.1 +1.0**
BUR08 Bucovina Ar. S 35.46 302 **P 12 25 45.6 +0.4**
VOIR 35.65 298 ⇑P **P 12 25 47.5 +0.7**
VOIR 35.65 298 ⇑P **P 12 25 47.5 +0.7**
VOIR 35.65 298 P **P 12 25 47.5 +0.7**
comp=Z,5.4nm,2.0s
VOIR 35.65 298 P **P 12 25 44.7 -2.2**
ARR Arges 35.95 298 ⇑P **P 12 25 50.1 +0.8**
ARR Arges 35.95 298 P **P 12 25 51.1 +1.7**
LVV L'vov 36.25 306 P **P 12 25 53.2 +1.4**
MORS Morshin 36.33 304 P **P 12 25 53.8 +1.4**
LOT Lotru 36.55 298 ⇑P **P 12 25 55.4 +0.9**
LOT Lotru 36.55 298 P **P 12 25 56.4 +1.9**
comp=Z,8.6nm,1.1s
PABE Paberze 36.81 315 P **P 12 25 56.7 +0.3**
MARR Marisel-Cluj 36.91 300 ⇑P **P 12 25 58.4 +0.9**
LVZ Lovozero 36.92 338 ⇓*e*P **P 12 25 57.0 -0.2**
LVZ pmax pmax
comp=Z,199nm,1.8s
LVZ Lovozero 36.92 338 P **P 12 25 57.4 +0.2**
KWP Kalwaria Pacla 37.10 305 P **P 12 26 00.0 +1.0**
comp=Z,22nm,1.2s
APA Apatity 37.11 337 *e*P **P 12 25 58.4 -0.4**
APA *e**PP **pP 12 26 29.3 -1.3**
APA pmax pmax
comp=Z,14nm,1.2s
APA MLR MLR
comp=Z,2µm,5.5s
FIA1 FINESS Array S 37.18 325 P **P 12 26 00.3 +0.9**
FINES FINESS Array B 37.18 325 P **P 12 26 00.1 +0.7**
comp=Z,4.9nm,0.5s,baz=117,slow=8.7,SNR=52
comp=Z,4.9nm,0.5s
DRGR 37.19 301 ⇓P **P 12 26 00.8 +1.0**
DRGR 37.19 301 ⇓P **P 12 26 00.8 +1.0**
DRGR 37.19 301 P **P 12 26 01.7 +1.9**
comp=Z,11nm,1.5s
TRPA Tarpa 37.24 303 P **P 12 25 57.5 -2.6**
comp=Z,26nm,2.4s
GZR Gura Zlata 37.25 298 ⇑P **P 12 26 01.6 +1.2**
GZR Gura Zlata 37.25 298 ⇑P **P 12 26 01.6 +1.2**
KOLS Kolonicke sedl 37.40 304 *e*P **P 12 26 03.0 +1.5**
KOLS Kolonicke sedl 37.40 304 *e*P **P 12 26 03.0 +1.5**
KOLS Kolonicke sedl 37.40 304 P **P 12 26 03.2 +1.7**
comp=Z,7.0nm,0.7s

BLKB Belogradchik 37.52 295 ⇑P **P 12 26 04.0 +1.4**
BZS Buzias 38.04 299 ⇑P **P 12 26 08.3 +1.4**
BZS Buzias 38.04 299 ⇑P **P 12 26 08.3 +1.4**
BZS Buzias 38.04 299 P **P 12 26 08.8 +1.8**
comp=Z,8.0nm,1.6s
MDVR Moldovita 38.06 297 ⇑P **P 12 26 08.6 +1.4**
BOVS Bovan 38.22 296 ⇑P **P 12 26 09.7 +1.3**
NJ2 Nanjing 38.61 84 *e*P **P 12 26 12.1 +0.3**
NJ2 pmax pmax
comp=Z,6.0nm,0.7s
NIE Niedzica 38.68 305 *e*P **P 12 26 14.3 +2.0**
NIE Niedzica 38.68 305 P **P 12 26 13.3 +1.1**
comp=Z,11nm,1.1s
DL2 Dalian 38.71 72 P **P 12 26 13.9 +1.3**
DL2 pmax pmax
comp=Z,47nm,1.9s
OJC Ojcow 38.98 306 *e*P **P 12 26 15.6 +0.9**
OJC Ojcow 38.98 306 P **P 12 26 15.2 +0.5**
comp=Z,15nm,1.2s
ITM Ithomi 39.41 285 P **P 12 26 17.7 -0.8**
ITM IAmb IAmb 12 26 40.8
comp=Z,21nm,1.2s
VYHS Vyhne 39.69 304 *e*P **P 12 26 23.7 +3.1**
VADS Vadso 39.75 339 *e*P **P 12 26 21.6 +0.8**
MORH Mrgy, Hungar 40.04 300 ⇑P **P 12 26 25.2 +1.7**
MORH Mrgy, Hungar 40.04 300 P **P 12 26 24.0 +0.5**
comp=Z,4.0nm,1.3s
MORH Mrgy, Hungar 40.04 300 P **P 12 26 22.6 -0.9**
comp=Z,4.5nm,1.3s
KEV Kevo 40.26 338 P **P 12 26 25.5 +0.5**
KEV pmax pmax
comp=Z,34nm,1.2s
KEV Kevo 40.26 338 P **P 12 26 25.4 +0.5**
STEB Seborice 40.30 306 *e*P **P 12 26 27.0 +1.4**
JAVC Velka Javorina 40.43 304 *e*P **P 12 26 28.5 +1.7**
MORC Moravsky Berou 40.45 306 P **P 12 26 27.1 +0.1**
MORC pmax pmax
comp=Z,5.0nm,0.8s
MORC Moravsky Berou 40.45 306 P **P 12 26 27.1 +0.1**
MORC Moravsky Berou 40.45 306 *e*P **P 12 26 28.2 +1.3**
CN2 Changchun 40.53 64 *e*P **P 12 26 24.9 -2.7**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
ARA0 ARCESS Array S 40.62 337 *e*P **P 12 26 28.9 +1.0**
ARCES ARCESS Array B 40.62 337 P **P 12 26 28.9 +0.9**
comp=Z,6.7nm,0.5s,baz=110,slow=8.6,SNR=69
comp=Z,6.7nm,0.5s
ARCES ARCESS Array B 40.62 337 P **P 12 26 29.1 +1.1**
ARCES pmax pmax
comp=Z,55nm,1.5s
ARCES ARCESS Array B 40.62 337 P **P 12 26 29.1 +1.1**
MODS Modra-Piesok 40.73 304 *e*P **P 12 26 30.2 +1.0**
MODS Modra-Piesok 40.73 304 *e*P **P 12 26 30.2 +1.0**
ZEA Zeya 40.91 48 *e*P **P 12 26 32.8 +2.2**
KRLC Kraliky 40.92 306 *e*P **P 12 26 31.4 +0.6**
KRLC Kraliky 40.92 306 *e*P **P 12 26 31.4 +0.6**
VRAC Vranov 41.10 305 *e*P **P 12 26 34.0 +1.8**
HEH HeiHe 41.11 54 *e*P **P 12 26 33.6 +1.4**
HEH pmax pmax
comp=Z,25nm,0.9s
HEH pmax pmax
comp=Z,130nm,5.5s
KTK1 Kautokeino 41.11 336 *e*P **P 12 26 32.7 +0.7**
DPC Dobruska-Polom 41.20 307 *e*P **P 12 26 34.1 +1.0**
DPC Dobruska-Polom 41.20 307 *e*P **P 12 26 34.1 +1.0**
DPC Dobruska-Polom 41.20 307 P **P 12 26 33.9 +0.8**
comp=Z,11nm,1.3s
KRUC Moravsky 41.25 305 *e*P **P 12 26 34.9 +1.5**
OSTC Ostas 41.26 307 *e*P **P 12 26 37.7 +4.2**
OSTC Ostas 41.26 307 *e*P **P 12 26 37.7 +4.2**
KULM Kulim 41.32 134 P **P 12 26 34.6 +0.3**
CHVC Chvalec 41.36 307 *e*P **P 12 26 35.9 +1.6**
CHVC Chvalec 41.36 307 *e*P **P 12 26 35.9 +1.6**
UPC Upice 41.39 307 *e*P **P 12 26 35.4 +0.8**
UPC Upice 41.39 307 *e*P **P 12 26 35.4 +0.8**
BLEU Blekinge 41.46 316 *i* P **P 12 26 35.0 0.0**
RONA Rosalia, Austr 41.46 303 *e*P **P 12 26 36.5 +1.3**
comp=Z,2.5nm,0.6s
WINA Alland / Wiene 41.56 303 *e*P **P 12 26 38.4 +2.4**
comp=Z,11nm,1.5s
HAMF Hammerfest 41.68 338 *e*P **P 12 26 38.1 +1.5**
CONA Conrad Observa 41.72 303 *i* P **P 12 26 38.8 +1.4**
comp=Z,8.2nm,0.9s,SNR=5.0
TREC Trest 41.83 305 *e*P **P 12 26 39.5 +1.4**
TREC Trest 41.83 305 *e*P **P 12 26 39.5 +1.4**
ABNA Allensteig Bun 41.92 304 *e*P **P 12 26 40.3 +1.4**
comp=Z,2.4nm,0.7s
ARSA Arzberg 42.03 302 *i* P **P 12 26 40.9 +1.0**
comp=Z,4.0nm,1.0s
GROS Grobnik 42.16 301 *i* P **P 12 26 41.7 +0.8**
IPM Ipoh 42.19 134 **P 12 26 41.1 -0.3**
IPM IAmb IAmb 12 26 41.4
comp=Z,8.8nm,0.5s
JETT Jettan, Norway 42.25 336 *e*P **P 12 26 42.3 +1.0**
CRES Cresnjevec Ost 42.29 300 *i* P **P 12 26 43.1 +1.2**
PRU Pruhonice 42.37 306 *e*P **P 12 26 43.5 +1.0**
PRU Pruhonice 42.37 306 *e*P **P 12 26 43.5 +1.0**
PERS Pernice 42.40 301 *i* P **P 12 26 44.0 +1.1**
SOKA Soboth 42.45 301 *e*P **P 12 26 44.4 +1.1**
comp=Z,9.8nm,1.4s
DEL Delary 42.55 316 *i* P **P 12 26 44.3 +0.5**
CKRC Cesky Krumlov 42.65 305 *e*P **P 12 26 46.1 +1.3**
CKRC Cesky Krumlov 42.65 305 *e*P **P 12 26 46.1 +1.3**
ZVC Zvikov 42.65 305 *e*P **P 12 26 45.7 +0.9**
SESA Seetaler Alpe, 42.70 302 *e*P **P 12 26 46.7 +1.2**
comp=Z,7.2nm,1.3s,SNR=5.5
TRO Tromso 42.77 336 *e*P **P 12 26 46.2 +0.8**
LUNU Lund 42.77 315 *i* P **P 12 26 46.6 +1.0**
TIP Timpagrande 42.79 290 P **P 12 26 46.7 +0.6**
MOA Molln 42.80 303 *e*P **P 12 26 47.0 +1.0**
comp=Z,5.8nm,1.0s
YAK Yakutsk 42.80 36*ce*P **P 12 26 46.4 +0.6**
YAK pmax pmax
comp=Z,19nm,1.0s
OBKA Obir 42.80 301 *e*P **P 12 26 47.0 +0.8**
comp=Z,6.6nm,1.0s
HFS Hagfors 42.84 321 P **P 12 26 46.8 +0.7**
comp=Z,7.0nm,0.4s,baz=95,slow=11,SNR=38
comp=Z,7.0nm,0.4s
GSI Gunungsitoli 42.98 141 **P 12 26 47.7 -0.1**
HSKC Hora Svate Kat 43.02 307 *e*P **P 12 26 49.6 +1.8**
GERES GERESS Array B 43.04 305 P **P 12 26 48.7 +0.6**
comp=Z,0.7nm,0.6s,baz=90,slow=6.6,SNR=9.4
comp=Z,0.7nm,0.6s
KHC Kasperske Hory 43.09 305⇑*e*P **P 12 26 49.2 +0.8**
KHC pmax pmax
comp=Z,7.0nm,1.0s
KHC Kasperske Hory 43.09 305 **P 12 26 48.8 +0.4**
KHC Kasperske Hory 43.09 305 *e*P **P 12 26 49.6 +1.2**
FABU Falkenberg 43.17 317 *i* P **P 12 26 49.2 +0.3**
CLL Collm 43.23 308 *i* P **P 12 26 50.0 +0.6**
CLL pmax pmax
comp=Z,6.0nm,0.8s
CLL Collm 43.23 308 P **P 12 26 49.8 +0.4**
comp=Z,7.5nm,1.3s
CLL Collm 43.23 308 *i* P **P 12 26 50.0 +0.6**
comp=Z,6.0nm,0.8s
BIOA Bad Ischl, Aus 43.24 303 *e*P **P 12 26 50.6 +1.0**
comp=Z,3.1nm,0.6s
CUC Castrocucco 43.27 291 P **P 12 26 50.2 +0.3**
CUC IAmb IAmb 12 26 52.4
comp=Z,14nm,0.7s
FAUS Fauske 43.37 332 *e*P **P 12 26 51.1 +0.8**
MOR8 Moi Rana 43.42 330 *e*P **P 12 26 50.6 -0.1**
TRI Trieste 43.48 300 P **P 12 26 52.2 +0.7**
TRI pmax pmax
comp=Z,6.0nm,0.6s
TRI Trieste 43.48 300 P **P 12 26 52.2 +0.7**
TRI IAmb IAmb 12 26 52.8
comp=Z,6.0nm,0.6s
STEI Steigen 43.52 333 *e*P **P 12 26 52.2 +0.7**
KBA Koelnbreinsper 43.53 302 *e*P **P 12 26 52.7 +0.6**
comp=Z,4.2nm,0.8s
SABO M.te Sabotino 43.54 300 **P 12 26 52.5 +0.4**
ONAU Onsala 43.63 317 *i* P **P 12 26 52.9 +0.4**
RAUS Rausandaksla 43.63 330 *e*P **P 12 26 53.6 +1.2**
NC405 NORSAR Array S 43.89 323 P **P 12 26 53.9 -0.7**
NC405 IAmb IAmb 12 26 56.7
comp=Z,24nm,1.3s
LESA Schwarzleotal 43.92 303 *e*P **P 12 26 55.9 +0.8**
comp=Z,13nm,1.4s,SNR=5.5
LEIR Leirfjorden 43.93 330 *e*P **P 12 26 55.4 +0.6**
NC602 NORSAR Array S 43.95 322 *e*P **P 12 26 55.0 -0.1**
VAGH Vaagaholmen 43.99 331 *e*P **P 12 26 56.5 +1.2**

KONS Konsvik 44.01 330 *e*P **P 12 26 55.8 +0.4**
KLR Kul'dur 44.01 55⇓*e*P **P 12 26 54.4 -1.3**
KLR pmax pmax
comp=Z,8.0nm,1.2s
STOK Stokkvaagen 44.02 330 *e*P **P 12 26 56.0 +0.6**
STRU Stroemstad 44.05 320 *i* P **P 12 26 55.9 +0.1**
STAL STALIGIAL 44.10 301 P **P 12 26 56.8 +0.3**
STAL IAmb IAmb 12 26 57.8
comp=Z,15nm,1.3s
NB2 NORSAR Subarra 44.13 322 P **P 12 26 56.8 +0.3**
comp=Z,2.1nm,0.5s,baz=93,slow=7.9
NB2 NORSAR Subarra 44.13 322 P **P 12 26 56.0 -0.5**
NOA NORSAR Array B 44.13 322 P **P 12 26 56.6 0.0**
comp=Z,1.9nm,0.5s,baz=101,slow=7.3,SNR=25
NOA LR LR 12 48 18.8
comp=Z,48nm,18.4s,baz=105,slow=40
comp=Z,1.9nm,0.5s
ABTA Abfaltersbach 44.15 302 *e*P **P 12 26 56.7 -0.2**
comp=Z,2.7nm,1.1s
NSS Namsos 44.15 327 *e*P **P 12 26 57.0 +0.5**
LOF Lofoten 44.20 333 *e*P **P 12 26 57.6 +0.8**
FDMO Fiordimonte 44.51 296 **P 12 27 00.3 +0.6**
FDMO IAmb IAmb 12 27 01.3
comp=Z,8.4nm,0.6s
WTTA Wattenberg 44.65 303 *e*P **P 12 27 01.4 +0.4**
comp=Z,4.7nm,1.1s
TIXI Tiksi 44.66 22⇓*i*P **P 12 27 01.0 +0.5**
TIXI pmax pmax
comp=Z,9.0nm,0.7s
TIXI Tiksi 44.66 22 **P 12 27 00.8 +0.3**
TIXI IAmb IAmb 12 27 01.6
comp=Z,8.3nm,0.8s
WATA Walderalm 44.68 303 *e*P **P 12 27 01.4 +0.2**
comp=Z,10nm,1.6s
MURB Monte Urbino 44.85 297 P **P 12 27 03.5 +1.0**
CTI Castel Tesino 44.86 301 P **P 12 27 02.6 0.0**
CTI pmax pmax
comp=Z,4.0nm,0.7s
CTI Castel Tesino 44.86 301 **P 12 27 02.6 0.0**
KONO Kongsberg 44.88 320 P **P 12 27 03.0 +0.6**
KONO pmax pmax
comp=Z,38nm,1.5s
KONO Kongsberg 44.88 320 P **P 12 27 03.0 +0.6**
KONO IAmb IAmb 12 27 03.8
comp=Z,38nm,1.5s
KONO Kongsberg 44.88 320 *e*P **P 12 27 02.9 +0.5**
CESX Cesi 44.97 296 P **P 12 27 03.5 +0.1**
CESX IAmb IAmb 12 27 06.1
comp=Z,13nm,1.3s
TEOL Teolo 44.99 300 P **P 12 27 03.6 +0.1**
TEOL IAmb IAmb 12 27 06.2
comp=Z,10nm,0.6s
MOTA Moosalm 44.99 303 *i* P **P 12 27 03.8 +0.1**
comp=Z,7.3nm,1.3s
RETA Reutte 45.19 303 *e*P **P 12 27 05.5 +0.3**
comp=Z,4.9nm,0.8s
FETA Feichten 45.30 302 *i* P **P 12 27 06.3 +0.1**
comp=Z,6.5nm,1.3s
HOMB Homborsund 45.45 318 *e*P **P 12 27 07.2 +0.4**
HOMB Homborsund 45.45 318 *i* P **P 12 27 07.1 +0.2**
SKAR Skarslia 45.54 322 *e*P **P 12 27 08.6 +0.9**
DAVA Damuels 45.82 303 *e*P **P 12 27 10.8 +0.6**
comp=Z,13nm,0.6s,SNR=5.1
MOL Molde 45.95 324 *e*P **P 12 27 11.8 +1.0**
SNART Snartemo 46.13 319 *e*P **P 12 27 13.1 +0.8**
TUE Stuetta 46.34 302 P **P 12 27 14.1 -0.3**
ODD1 Odda 46.38 321 *e*P **P 12 27 16.3 +2.1**
BLS5 Blasjo 46.48 320 *e*P **P 12 27 16.3 +1.3**
BFO Black Forest 46.64 305 *i* P **P 12 27 18.0 +1.5**
SPB2 Spitsbergen Ar 46.80 347 P **P 12 27 17.3 +0.1**
SPITS Spitsbergen Ar 46.80 347 P **P 12 27 18.0 +0.7**
comp=Z,3.7nm,0.6s,baz=134,slow=12,SNR=6.8
comp=Z,3.7nm,0.6s
SPITS Spitsbergen Ar 46.80 347 P **P 12 27 18.0 +0.7**
WLF Walferdange 47.79 307 *dP* **P 12 27 26.1 +0.8**
BMRD Maredsous 48.54 308 *dP* **P 12 27 31.7 +0.7**
comp=Z,4.7nm,1.1s
KEST Kesra 49.48 288 P **P 12 27 39.4 +0.9**
comp=Z,4.2nm,0.5s,baz=317,slow=1.6,SNR=9.5
comp=Z,4.2nm,0.5s
KIBK Kibwezi 50.51 226 **P 12 27 45.9 -0.5**
KIBK IAmb IAmb 12 27 47.1
comp=Z,6.7nm,0.8s
MJAR Matsushiro Arr 51.93 69 P **P 12 27 56.5 -0.2**
comp=Z,2.5nm,0.9s,baz=310,slow=7.2,SNR=5.5
comp=Z,2.5nm,0.9s
EKA Eskdalemuir Ar 52.18 316 P **P 12 27 58.1 -0.2**
comp=Z,1.8nm,0.6s,baz=87,slow=7.2,SNR=13
comp=Z,1.8nm,0.6s
ESK Eskdalemuir 52.21 316 *i* P **P 12 28 00.0 +1.5**
NOR Nord 53.06 349 *i* P **P 12 28 05.3 +0.9**
NOR IAmb IAmb 12 28 06.1
comp=Z,3.7nm,0.7s
DAG Danmarks Havn 54.09 343 *i* P **P 12 28 12.8 +0.8**
DAG IAmb IAmb 12 28 13.2
comp=Z,8.8nm,0.7s
DBG Daneborg 54.99 341 *i* P **P 12 28 19.9 +1.4**
SCO Scoresbysund 56.54 336 *i* P **P 12 28 31.4 +1.8**
ESDC Sonseca Array 57.71 298 P **P 12 28 38.6 +0.3**
comp=Z,3.2nm,0.5s,baz=54,slow=7.4,SNR=54
comp=Z,3.2nm,0.5s
ESDC Sonseca Array 57.71 298 **P 12 28 38.3 -0.1**
ESDC IAmb IAmb 12 28 39.2
comp=Z,10nm,1.1s
PETK Petropavlovsk- 58.80 45 P **P 12 28 45.4 -0.2**
comp=Z,0.6nm,0.5s,baz=303,slow=6.8,SNR=7.9
comp=Z,0.6nm,0.5s
NEEM North Greenlan 60.32 348 *i* P **P 12 28 57.2 +1.1**
NEEM IAmb IAmb 12 28 57.4
comp=Z,9.6nm,0.7s
SUMG Summit 60.47 341 P **P 12 28 58.2 +1.0**
SUMG pmax pmax
comp=Z,44nm,1.5s
SUMG Summit 60.47 341 **P 12 28 58.2 +1.0**
TORD Torodi Ar. Bea 66.50 269 P **P 12 29 35.6 -1.6**
comp=Z,1.3nm,0.6s,baz=46,slow=5.5,SNR=8.0
comp=Z,1.3nm,0.6s
SIJI Sorong 66.59 110 P **P 12 29 37.4 -0.4**
comp=Z,7.9nm,1.0s,baz=330,slow=5.8,SNR=5.1
comp=Z,7.9nm,1.0s
D19K Kuna River 68.07 18 P **P 12 29 46.8 +0.5**
TOLK Toolik Lake Re 69.87 15 P **P 12 29 58.3 +0.8**
TOLK IAmb IAmb 12 30 02.4
comp=Z,6.0nm,0.6s
D25K Kavik River 69.92 14 P **P 12 29 58.3 +0.5**
A36M Sachs Harbour 70.25 6 **P 12 30 00.2 +0.6**
A36M IAmb IAmb 12 30 01.9
comp=Z,9.8nm,0.8s
IMAR Indian Mountai 71.09 18 P **P 12 30 05.1 +0.3**
INK Inuvik 72.90 10 P **P 12 30 16.5 +0.9**
INK pmax pmax
comp=Z,19nm,1.4s
INK Inuvik 72.90 10 **P 12 30 16.4 +0.9**
INK IAmb IAmb 12 30 17.5
comp=Z,19nm,1.4s
COLA College 73.41 17⇓*i*P **P 12 30 19.1 +0.5**
COLA pmax pmax
comp=Z,29nm,2.1s
ILAR Eielson Array 73.72 16 P **P 12 30 20.1 -0.4**
comp=Z,2.3nm,0.9s,baz=323,slow=4.8,SNR=18
comp=Z,2.3nm,0.9s
ILAR Eielson Array 73.72 16 P **P 12 30 20.3 -0.1**
ILAR Eielson Array 73.72 16 P **P 12 30 20.3 -0.1**
G30M tAoh Zraii Nji 73.75 11 P **P 12 30 20.9 +0.2**
G30M IAmb IAmb 12 30 26.2
comp=Z,10.0nm,1.3s
H29M Whitestone 74.10 12 P **P 12 30 23.2 +0.5**
H29M IAmb IAmb 12 30 27.3
comp=Z,5.9nm,0.8s
DAWY Dawson 75.88 14 P **P 12 30 33.4 +0.4**
SML Sawmill 75.90 18 P **P 12 30 33.5 +0.4**
SML pmax pmax
comp=Z,30nm,1.2s
YKA Yellowknife Ar 80.32 3 P **P 12 30 57.7 +0.4**
comp=Z,5.6nm,0.6s,baz=353,slow=5.5,SNR=54
comp=Z,5.6nm,0.6s
YKA Yellowknife Ar 80.32 3*ce*P **P 12 30 57.7 +0.4**
YKA pmax pmax
comp=Z,5.0nm,0.5s
YKA Yellowknife Ar 80.32 3 P **P 12 30 57.8 +0.5**
WRA Warramunga Arr 81.83 123 P **P 12 31 05.4 -0.5**
comp=Z,0.5nm,0.5s,baz=322,slow=4.8,SNR=12
comp=Z,0.5nm,0.5s
WRA Warramunga Arr 81.83 123 *i* P **P 12 31 05.5 -0.4**
ASAR Alice Springs 84.15 126 P **P 12 31 17.4 -0.4**
comp=Z,0.2nm,0.6s,baz=315,slow=5.3,SNR=6.1

comp=Z,0.2nm,0.6s

*IDC **08** 12:24:32.6±1.2, 11°.50S×165°.00E, h0km, mb3.8/5, mbtmp3.9/7, ML3.8/2, MS3.2/6, Error ellipse: s-maj=27.5km s-min=17.8km az=47.0*

ISC 08 12:24:37.7±1.2, 11°.6S±0°.1×164°.9E±0°.1, h34km, n12, σ0s58/8, mb3.8/5, MS3.6/3, Santa Cruz Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**5.35**	**293**	Pn	**Pn**	**12 25 55.9**	**+0.6**
	6.3nm,0.3s,baz=15,slow=3.3,SNR=5.4						
HNR				Sn	**Sn**	**12 26 55.2**	**-0.6**
	3.4nm,0.3s,baz=68,slow=19,SNR=1.8						
HNR				LR	LR	12 28 03.5	
	comp=Z,118nm,18.9s,baz=158,slow=39						
	24nm,0.4s						
HNR				AML	AML		
DZM	**Mont Dzumac**	**10.51**	**172**	Pn	**Pn**	**12 27 05.9**	**-0.2**
	0.4nm,0.3s,baz=6.8,slow=8.4,SNR=18						
	4.9nm,0.7s						
DZM				AML	AML		
MSVF	**Nonsavu**	**14.08**	**117**	LR	LR	12 32 16.6	
	comp=Z,61nm,18.4s,baz=243,slow=33						
CTA	**Charters Tower**	**19.83**	**243**	LR	LR	12 36 10.0	
	comp=Z,68nm,18.1s,baz=222,slow=35						
AFI	**Afiamalu**	**22.83**	**98**	LR	LR	12 36 08.2	
	comp=Z,36nm,20.4s,baz=231,slow=30						
WRA	**Warramunga Arr**	**30.54**	**250**	P	**P**	**12 30 48.2**	**-0.1**
	0.8nm,0.8s,baz=82,slow=8.8,SNR=6.4						
	0.8nm,0.8s						
ASAR	**Alice Springs**	**31.83**	**244**	P	**P**	**12 30 59.2**	**-0.4**
	0.9nm,0.9s,baz=70,slow=10,SNR=7.1						
	0.9nm,0.9s						
QSPA	**South Pole Qui**	**78.40**	**180**	P	**P**	**12 36 35.4**	**+0.6**
	1.4nm,0.9s,baz=307,slow=5.1,SNR=5.8						
	1.4nm,0.9s						
SONM	**Songino Array**	**78.64**	**324**	LR	LR	13 08 14.2	
	comp=Z,28nm,21.4s,baz=227,slow=33						
ILAR	**Eielson Array**	**84.29**	**19**	P	**P**	**12 37 05.2**	**-0.5**
	0.4nm,0.6s,baz=208,slow=5.2,SNR=7.9						
	0.4nm,0.6s						
MKAR	**Makanchi Array**	**93.38**	**317**	P	**P**	**12 37 49.7**	**+0.2**
	0.3nm,0.5s,baz=97,slow=6.3,SNR=2.9						
	0.3nm,0.5s						
TXAR	**Lajitas Array**	**96.80**	**62**	LR	LR	13 13 24.1	
	comp=Z,28nm,20.4s,baz=339,slow=30						

*SDD **08** 12:29:06.0±2.0, 18°.80N×68°.44W, h79km±18km, MD3.2, ML2.7, MW3.1, Presumed earthquake*
*NEIC **08** 12:29:07.1±1.7, 19°.01N±0°.07×68°.20W±0°.04, h35km±2km, ML2.8/35, Md3.4/14(RSPR), Error ellipse: s-maj=12.0km s-min=6.7km az=172.0*
*OSPL **08** 12:29:07.9±0.7, 19°.03N×68°.08W, h0km±3km, ML3.1, Presumed earthquake*
*RSPR **08** 12:29:08.6, 19°.27N×68°.13W, h29km±25km, MD3.4/14*

ISC 08 12:29:04.8±1.8, 19°.13N±0°.08×68°.12W±0°.04, h14km±10km, n40, σ0s84/59, 19C-10D, North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCDR	**Punta Cana, DR**	**0.66**	**202**		**Pb**	**12 29 18.6**	**+0.5**
PCDR					**Sg**	**12 29 26.2**	**-0.1**
PCDR				IAML		12 29 26.9	
	comp=N,424nm,0.3s						
PCDR	**Punta Cana, DR**	**0.66**	**202**	⇑*e*Pg	**Pg**	**12 29 17.4**	**-0.2**
PCDR				⇓*e*Sg	**Sg**	**12 29 26.3**	**-0.1**
PCDR				IAML		12 29 26.8	
	comp=N,236nm,0.3s						
PCDR	**Punta Cana, DR**	**0.66**	**202**	*i* P	**Pb**	**12 29 18.8**	**+0.8**
PCDR				*e*S	**Sg**	**12 29 26.2**	**-0.1**
PCDR				IAML		12 29 26.3	
	comp=Z,179nm,0.2s						
AGPR	**Aguadilla, PR**	**1.16**	**124**		**Pn**	**12 29 25.0**	**-1.5**
AGPR				Sn	**Sb**	**12 29 41.5**	**+0.1**
AGPR				IAML		12 29 44.8	
	comp=Z,342nm,0.2s						
AGPR				IAML		12 29 45.2	
	comp=Z,201nm,0.2s						
AGPR	**Aguadilla, PR**	**1.16**	**124**	⇑*e*Pg	**Pg**	**12 29 27.3**	**+0.1**
AGPR				⇑*e*Sg	**Sn**	**12 29 42.8**	**+0.6**
AGPR				IAML		12 29 45.2	
	comp=N,160nm,0.2s						
AGPR	**Aguadilla, PR**	**1.16**	**124**	⇓*e*P	**Pg**	**12 29 27.6**	**+0.5**
AGPR	**Aguadilla, PR**	**1.16**	**124**	*i* P	**Pg**	**12 29 27.2**	**+0.1**
AGPR				*e*S	**Sb**	**12 29 41.6**	**+0.1**
PRSN	**Puerto Rico Se**	**1.29**	**134**		**Pn**	**12 29 27.9**	**-0.5**
PRSN				Sn	**Sb**	**12 29 45.1**	**-0.3**
PRSN	**Puerto Rico Se**	**1.29**	**134**	⇑*e*Pg	**Pn**	**12 29 28.0**	**-0.5**
PRSN				⇑*e*Sg	**Sb**	**12 29 45.1**	**-0.3**
PRSN				IAML		12 29 50.9	
	comp=N,360nm,0.2s						
PRSN	**Puerto Rico Se**	**1.29**	**134**	⇓*e*P	**Pg**	**12 29 29.9**	**+0.2**
LSP	**Las Mesas**	**1.36**	**134**	⇑*e*P	**Pg**	**12 29 31.0**	**0.0**
LSP				*e*S	**Sg**	**12 29 48.8**	**0.0**
CRPR	**Cabo Rojo, PR**	**1.47**	**139**		**Pn**	**12 29 29.7**	**-1.1**
CRPR	**Cabo Rojo, PR**	**1.47**	**139**	⇑*e*Pg	**Pn**	**12 29 29.3**	**-1.5**
CRPR				⇑*e*Sg	**Sn**	**12 29 48.1**	**-1.7**
CRPR				IAML		12 29 56.2	
	comp=N,53nm,0.3s						
CRPR	**Cabo Rojo, PR**	**1.47**	**139**	⇓*e*P	**Pg**	**12 29 33.8**	**+0.8**
CRPR	**Cabo Rojo, PR**	**1.47**	**139**	*i* P	**Pb**	**12 29 32.4**	**+0.5**
CRPR				*e*S	**Sn**	**12 29 50.1**	**+0.2**
AOPR	**Arecibo Observ**	**1.51**	**121**		**Pb**	**12 29 32.6**	**-0.1**
AOPR				IAML		12 30 00.3	
	comp=N,172nm,0.3s						
AOPR	**Arecibo Observ**	**1.51**	**121**	⇓*e*Pg	**Pb**	**12 29 32.5**	**-0.1**
AOPR				⇑*e*Sg	**Sb**	**12 29 52.0**	**+0.4**
AOPR				IAML		12 29 55.4	
	comp=N,147nm,0.3s						
AOPR	**Arecibo Observ**	**1.51**	**121**	⇑*e*P	**Pb**	**12 29 32.7**	**+0.1**
MLPR	**Magueyes Islan**	**1.54**	**138**		**Pn**	**12 29 31.6**	**-0.2**
MLPR	**Magueyes Islan**	**1.54**	**138**	⇑*e*Pg	**Pn**	**12 29 30.8**	**-1.0**
MLPR				⇑*e*Sg	**Sn**	**12 29 48.8**	**-2.8**
MLPR				IAML		12 29 56.0	
	comp=N,20nm,0.5s						
MLPR	**Magueyes Islan**	**1.54**	**138**	⇓*e*P	**Pb**	**12 29 33.5**	**+0.5**
EMPR	**Esperanza - Ma**	**1.64**	**113**	⇑*e*P	**Pb**	**12 29 35.0**	**+0.2**
EMPR				*e*S	**Sn**	**12 29 54.6**	**+0.6**
GBPR	**Guanica, Bosqu**	**1.64**	**134**	⇓*e*P	**Pb**	**12 29 35.4**	**+0.6**
GBPR				*e*S	**Sb**	**12 29 56.6**	**+1.2**
OBIP	**Obispado Ponce**	**1.79**	**127**	Pn	**Pn**	**12 29 35.7**	**+0.3**
OBIP				IAML		12 30 01.8	
	comp=N,110nm,0.5s						
OBIP	**Obispado Ponce**	**1.79**	**127**	⇓*e*P	**Pb**	**12 29 37.1**	**-0.3**
OBIP				*e*S	**Sb**	**12 30 00.4**	**+0.6**
OBIP	**Obispado Ponce**	**1.79**	**127**	*i* P	**Pb**	**12 29 37.0**	**-0.5**
OBIP				*e*S	**Sn**	**12 29 58.7**	**+0.8**
OBIP				IAML		12 30 01.8	
	comp=Z,292nm,0.4s						
CELP	**Cerrillos**	**1.80**	**125**		**Pn**	**12 29 36.0**	**+0.7**
CELP				IAML		12 30 01.7	
	comp=Z,105nm,0.3s						
CELP	**Cerrillos**	**1.80**	**125**	⇑*e*Pg	**Pb**	**12 29 37.1**	**-0.4**
CELP				⇑*e*Sg	**Sn**	**12 29 58.9**	**+0.9**
CELP	**Cerrillos**	**1.80**	**125**	⇑*e*P	**Pb**	**12 29 37.4**	**-0.1**
ECPR	**Experimental S**	**1.85**	**116**		**Pn**	**12 29 36.0**	**-0.1**
ECPR	**Experimental S**	**1.85**	**116**	⇓*e*P	**Pb**	**12 29 38.0**	**-0.4**
GCPR	**Guaynabo City**	**2.09**	**113**	Pn	**Pn**	**12 29 40.4**	**+1.0**
SJG	**San Juan**	**2.12**	**118**		**Pn**	**12 29 40.5**	**+0.7**
SJG				IAML		12 30 11.3	
	comp=Z,53nm,0.2s						
SJG				IAML		12 30 13.2	
	comp=Z,56nm,0.3s						
SJG	**San Juan**	**2.12**	**118**	⇑*e*P	**Pb**	**12 29 42.0**	**-1.0**
SJG	**San Juan**	**2.12**	**118**	*i* P	**Pn**	**12 29 41.3**	**+1.4**
SJG				*e*S	**Sn**	**12 30 07.2**	**+1.2**
SJG				IAML		12 30 11.8	
	comp=Z,618nm,0.2s						
IGPR	**InterUniversit**	**2.23**	**121**	⇑*e*P	**Pb**	**12 29 43.7**	**-1.2**
PDPR	**Patillas Dam,**	**2.27**	**119**		**Pn**	**12 29 42.1**	**+0.2**
PDPR				IAML		12 30 13.6	
	comp=Z,31nm,0.2s						
PDPR				IAML		12 30 15.6	
	comp=Z,32nm,0.2s						
PDPR	**Patillas Dam,**	**2.27**	**119**	⇓*e*P	**Pb**	**12 29 44.5**	**-1.1**
HUMP	**Col San Antoni**	**2.36**	**114**	⇑*e*P	**Pb**	**12 29 45.4**	**-1.8**
SDDR	**Presa de Saban**	**3.00**	**268**	Pn	**Pn**	**12 29 51.6**	**-0.4**
SDDR				IAML		12 30 47.5	
	comp=Z,30nm,1.1s						
SDDR				IAML		12 30 49.5	
	comp=Z,27nm,0.7s						

*IDC **08** 13:01:12.0±2.6, 14°.32N×93°.96W, h0km, mb3.5/3, mbtmp3.4/5, ML3.2/3, MS3.0/1, Error ellipse: s-maj=50.6km s-min=17.1km az=16.0*
*MEX **08** 13:01:19.4±0.5, 14°.66N×93°.77W, h21km±28km, MD4.1, Presumed earthquake*
*GCG **08** 13:01:19.8±2.4, 14°.59N×93°.63W, h35km±999km, MD4.7, Presumed earthquake*

ISC 08 13:01:15.3±3.2, 14°.67N±0°.06×93°.84W±0°.03, h17km±20km, n38, σ2s37/63, mb3.7/3, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.19**	**30**	*e*P	**Pn**	**13 01 37.2**	**0.0**
PCIG				*e*S	**Sb**	**13 01 51.2**	**-1.4**
THIG		**1.54**	**81**	*i* P	**Pn**	**13 01 42.2**	**+0.2**
THIG		**1.54**	**81**	*e*P	**Pn**	**13 01 41.9**	**-0.1**
THIG				*e*S	**Sn**	**13 02 00.1**	**-1.6**
PATR	**El Naranjo**	**1.62**	**74**	*e*P	**Pn**	**13 01 42.7**	**-0.5**
PATR				*e*S	**Sn**	**13 02 01.8**	**-2.1**
PAVE	**Pavencul**	**1.69**	**72**	*e*P	**Pn**	**13 01 44.0**	**-0.2**
PAVE				*e*S	**Sn**	**13 02 03.8**	**-1.8**
CHUJ	**Union Juarez**	**1.73**	**76**	*e*P	**Pn**	**13 01 44.4**	**-0.3**
CHUJ				*e*S	**Sn**	**13 02 04.2**	**-2.3**
RTAL	**Retalhuleu**	**2.08**	**94**	*e*P	**Pn**	**13 01 49.9**	**+0.5**
RTAL				*e*S	**Sn**	**13 02 12.4**	**-2.6**
TGIG		**2.21**	**18**	*i* P	**Pb**	**13 01 53.7**	**-1.1**
TGIG		**2.21**	**18**	*e*P	**Pn**	**13 01 53.2**	**+2.0**
TGIG				*e*S	**Sn**	**13 02 18.1**	**-0.1**
QUEO	**Labor Ovalle**	**2.26**	**85**	*i* P	**Pn**	**13 01 52.4**	**+0.3**
QUEO				*i* S	**Sn**	**13 02 17.9**	**-1.9**
CCIG	**Comitan**	**2.30**	**46**	*i* P	**Pb**	**13 01 55.8**	**-0.6**
CCIG				*i* S	**Sn**	**13 02 21.7**	**+1.2**
CCIG	**Comitan**	**2.30**	**46**	*e*P	**Pb**	**13 01 55.5**	**-0.9**
CCIG				*i* S	**Sn**	**13 02 17.7**	**-2.8**
HUEH	**Huehuetenango**	**2.35**	**74**	*i* P	**Pn**	**13 01 54.0**	**+0.7**
HUEH				*i* S	**Sn**	**13 02 22.5**	**+0.5**
HUEH	**Huehuetenango**	**2.35**	**74**	*e*P	**Pn**	**13 01 53.4**	**+0.1**
HUEH				*e*S	**Sn**	**13 02 19.6**	**-2.3**
STG8	**El Palmar, Qui**	**2.42**	**95**	*i* P	Pn	13 01 50.1	-4.2
HUIG	**Huatulco**	**2.44**	**297**	*e*P	**Pn**	**13 01 53.7**	**-0.8**
HUIG				*e*S	**Sn**	**13 02 20.0**	**-3.9**
CMIG	**Matias Romero**	**2.61**	**338**	Pn	**Pn**	**13 01 58.5**	**+1.9**
	5.3nm,0.3s,baz=160,slow=13,SNR=50						
CMIG				Sn	**Sn**	**13 02 29.1**	**+1.2**
	8.7nm,0.3s,baz=142,slow=20,SNR=12						
	22nm,0.4s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**2.61**	**338**	*e*P	**Pn**	**13 01 58.2**	**+1.5**
CMIG				*e*S	**Sn**	**13 02 27.3**	**-0.7**
UXUV	**UXUV**	**2.65**	**354**	*e*P	**Pb**	**13 02 00.3**	**-2.0**
UXUV				*i* S	**Sn**	**13 02 26.2**	**-2.8**
APG	**El Apazote**	**3.28**	**84**	Pn	**Pn**	**13 02 06.3**	**+0.2**
	0.6nm,0.3s,baz=150,slow=9.3,SNR=16						
APG				Sn	**Sn**	**13 02 47.3**	**+2.3**
	1.0nm,0.3s,baz=204,slow=14,SNR=8.8						
APG				AML	AML		
APG	**El Apazote**	**3.28**	**84**	*i* P	**Pn**	**13 02 07.6**	**+1.4**
PEIG	**Puerto Escondi**	**3.45**	**293**	*e*P	**Pn**	**13 02 06.9**	**-1.4**
PEIG				*e*S	**Sn**	**13 02 44.0**	**-4.8**
NEUV	**Arroyo Zacate**	**3.56**	**328**	*e*P	**Pn**	**13 02 11.3**	**+1.5**
NEUV				*e*S	**Sn**	**13 02 46.2**	**-5.3**
YOIG	**Yosondua**	**4.18**	**302**	*e*P	**Pn**	**13 02 21.5**	**+3.0**
YOIG				*e*S	**Sn**	**13 03 05.5**	**-1.5**
PETF	**Flores**	**4.43**	**59**	*i* P	**Pn**	**13 02 24.7**	**+3.0**
PNIG	**Pinotepa**	**4.47**	**293**	*e*P	**Pn**	**13 02 24.3**	**+2.0**
PNIG				*e*S	**Sn**	**13 03 10.8**	**-3.2**
TXIG	**Tlaxiaco**	**4.57**	**305**	*e*P	**Pn**	**13 02 28.1**	**+4.2**
TXIG				*e*S	**Sn**	**13 03 16.1**	**-0.6**
TOIG	**Toxpalan**	**4.60**	**318**	*e*P	**Pn**	**13 02 26.4**	**+2.2**
TOIG				*e*S	**Sn**	**13 03 20.1**	**+2.8**
HLIG	**Huajuapan de L**	**4.93**	**310**	*e*P	**Pn**	**13 02 31.8**	**+2.9**
HLIG				*e*S	**Sn**	**13 03 29.5**	**+3.8**
SCIG	**Sabancuy**	**4.97**	**30**	*e*P	**Pn**	**13 02 30.4**	**+1.2**
SCIG				*e*S	**Sn**	**13 03 20.1**	**-6.2**
FTIG	**Fresnillo de T**	**5.23**	**309**	*e*P	**Pn**	**13 02 32.5**	**-0.3**
FTIG				*e*S	**Sn**	**13 03 27.9**	**-5.0**
JAUV	**Jalcomulco**	**5.46**	**329**	*e*P	**Pn**	**13 02 36.9**	**+0.9**
JAUV				*e*S	**Sn**	**13 03 33.5**	**-4.9**
TXAR	**Lajitas Array**	**17.19**	**330**	P	**P**	**13 05 16.5**	**+0.2**
	baz=150,slow=13,SNR=6.4						
	0.2nm,0.8s						
TKL	**Tuckaleechee C**	**22.77**	**22**	LR	LR	13 15 36.1	
	comp=Z,35nm,19.9s,baz=224,slow=37						
PDAR	**Pinedale Array**	**31.09**	**337**	P	**P**	**13 07 33.5**	**+0.5**
	0.3nm,0.8s,baz=138,slow=8.1,SNR=3.5						
	0.3nm,0.8s						
YKA	**Yellowknife Ar**	**49.98**	**348**	P	**P**	**13 10 09.7**	**+1.5**
	0.7nm,0.6s,baz=154,slow=7.6,SNR=2.7						
	0.7nm,0.6s						
ILAR	**Eielson Array**	**61.53**	**337**	P	**P**	**13 11 32.4**	**+1.3**
	0.4nm,0.7s,baz=142,slow=6.5,SNR=5.8						
	0.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**144.75**	**339**	PKPbc	**PKPab**	**13 20 51.3**	**+0.4**
	0.4nm,0.3s,baz=342,slow=3.2,SNR=4.6						

*IDC **08** 13:13:53.8±1.8, 5°.48S×123°.40E, h0km, mb3.0/2, mbtmp3.2/4, ML2.9/2, Error ellipse: s-maj=92.8km s-min=21.5km az=71.0*
*DJA **08** 13:14:03.8±1.6, 6°.5S±7°.2E±°, h89km±42km, M3.0/6, MLv3.0/6*

ISC 08 13:13:56.2±0.9, 6°.10S±0°.07×122°.6E±0°.1, h10km, n12, σ2s41/13, Flores Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BBSI	**Bau Bau**	**0.61**	**358**	P	**Pg**	**13 14 06.3**	**-1.8**
BSSI	**Bau Bau, Buton**	**2.09**	**269**	P	**Pn**	**13 14 30.0**	**-1.4**
BSSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**2.13**	**334**	P	**Pg**	**13 14 40.3**	**+3.1**
BKSI	**Bulukumba**	**2.58**	**287**	P	**Pn**	**13 14 36.1**	**-2.0**
BKSI				AML	AML		
KAPI	**Kappang**	**3.03**	**291**	P	**Pn**	**13 14 42.6**	**-1.7**
KAPI				AML	AML		
MKS	**Makassar**	**3.23**	**286**	P	**Pn**	**13 14 44.1**	**-2.9**
LBFI	**Labuhan Bajo,**	**3.57**	**228**	P	**Pn**	**13 14 51.7**	**-0.1**
TTSI	**Tana Toraja**	**4.11**	**318**	P	**Pn**	**13 15 02.2**	**+3.1**
FITZ	**Fitzroy Crossi**	**12.29**	**166**	Pn	**Pn**	**13 16 54.1**	**+2.7**
	baz=349,slow=16,SNR=1.3						
FITZ				Sn	**Sn**	**13 19 08.2**	**-0.4**
	baz=219,slow=10,SNR=1.2						
	1.1nm,0.9s						
WRA	**Warramunga Arr**	**17.88**	**141**	P	**Pn**	**13 18 02.6**	**-2.6**
	0.1nm,0.3s,baz=316,slow=12,SNR=5.3						
	0.5nm,1.1s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.58**	**149**	P	**P**	**13 18 36.8**	**+1.3**
	0.2nm,0.6s,baz=332,slow=12,SNR=7.5						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**63.62**	**330**	P	**P**	**13 24 25.9**	**-1.6**
	0.2nm,0.5s,baz=141,slow=7.4,SNR=1.8						
	0.2nm,0.5s						

*IDC **08** 13:26:22.3±0.8, 33°.39N×75°.49E, h0km, mb4.1/12, mbtmp4.0/16, ML3.4/4, MS3.3/4, Error ellipse: s-maj=22.6km s-min=14.3km az=59.0*
*NEIC **08** 13:26:25.1±1.2, 33°.49N±0°.08×75°.74E±0°.07, h10km±1km, mb4.4/23, Error ellipse: s-maj=14.1km s-min=10.3km az=193.0*
*NDI **08** 13:26:29.1±2.7, 33°.27N×75°.80E, h12km±6km, ML3.8, MW3.9, Presumed earthquake*

ISC 08 13:26:27.6±0.7, 33°.36N±0°.04×75°.73E±0°.04, h36km±1km, n89, σ2s49/104, mb4.3/24, Eastern Kashmir

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TSSA	**Tissa**	**0.62**	**146**	*i* P	**Pn**	**13 26 39.5**	**-0.7**
JMU	**Jammu**	**0.95**	**233**	*i* P	**Pn**	**13 26 47.2**	**+2.8**
JMU				*i* S	**Sn**	**13 27 03.6**	**+6.9**
JMU				IAML		13 27 08.9	
	comp=N,2μm,1.1s						
SRNI	**Srinagar**	**1.04**	**312**	*i* S	**Sn**	**13 27 06.5**	**+7.3**
DHRM	**DHARAMSHALA**	**1.20**	**156**	*i* P	**Pn**	**13 26 48.4**	**+0.3**
TLWR	**Talawar**	**1.41**	**172**	*i* P	**Pn**	**13 26 53.9**	**+3.2**
TLWR				*i* S	**Sn**	**13 27 09.7**	**+1.6**
ALCI	**Alchi Leh**	**1.48**	**54**	*i* P	Pn	13 26 57.1	+5.1
ALCI				*i* S	**Sn**	**13 27 17.2**	**+6.8**
ALCI				IAML		13 27 21.2	
	comp=N,1μm,1.1s						
BHK	**Bhakra**	**2.03**	**164**	*i* P	**Pn**	**13 27 02.7**	**+3.4**
BHK				*i* S	**Sn**	**13 27 25.9**	**+2.5**
NIL	**Nilore**	**2.09**	**279**		**Pn**	**13 27 01.3**	**+1.2**
KLP	**Kalpa**	**2.80**	**130**	*i* P	**Pn**	**13 27 13.2**	**+3.1**
KLP				*i* S	**Sn**	**13 27 44.8**	**+2.1**
UTK	**UTTARKASHI**	**3.49**	**138**	*i* P	**Pn**	**13 27 19.7**	**+0.3**
UTK				*i* S	**Sn**	**13 28 00.3**	**+0.9**
KKR	**Kurukshetra**	**3.51**	**164**	*i* S	**Sn**	**13 28 00.9**	**+1.1**
SRGN	**SRI GANGA NAGA**	**3.77**	**205**	*i* S	**Sn**	**13 28 07.5**	**+1.2**
JOSI	**Joshimath**	**4.29**	**130**	*i* P	**Pn**	**13 27 32.1**	**+1.7**
JOSI				*i* S	**Sn**	**13 28 21.1**	**+1.8**
JOSI				IAML		13 28 30.8	
	comp=N,175nm,0.5s						
NDI	**New Delhi**	**4.83**	**164**	*i* P	**Pn**	**13 27 40.2**	**+2.5**
NDI				*i* S	**Sn**	**13 28 31.8**	**-0.6**
NPLP	**NPLP New Delhi**	**4.86**	**165**	*i* P	Pn	13 27 43.7	+5.5
NPLP				*i* S	**Sn**	**13 28 36.6**	**+3.4**
LDR	**Lodi Road**	**4.92**	**165**	*i* P	**Pn**	**13 27 41.5**	**+2.5**
LDR				*i* S	**Sn**	**13 28 34.9**	**+0.1**
JMIU	**JAMIA UNIVERSI**	**4.96**	**164**	*i* S	**Sn**	**13 28 35.5**	**-0.1**
JMIU				IAML		13 28 42.9	
	comp=N,825nm,0.5s						
TKRD	**Thakurdwara**	**4.97**	**147**	*i* S	**Sn**	**13 28 36.3**	**+0.3**
AYAN	**Aya Nagar**	**5.00**	**166**	*i* P	**Pn**	**13 27 40.6**	**+0.5**
AYAN				*i* S	**Sn**	**13 28 35.9**	**-0.8**
AYAN				IAML		13 28 42.3	
	comp=N,119nm,0.3s						
KUDL	**Kundal**	**5.24**	**173**	*i* P	**Pn**	**13 27 45.4**	**+2.1**
KUDL				*i* S	**Sn**	**13 28 41.2**	**-1.2**
PTH	**Pithoragarh**	**5.36**	**133**	*i* P	**Pn**	**13 27 46.9**	**+1.7**
PTH				*i* S	**Sn**	**13 28 46.3**	**+0.6**
LGTI	**Lohaghat**	**5.42**	**135**	*i* S	**Sn**	**13 28 47.9**	**+0.6**
KBL	**Kabul**	**5.69**	**284**		**Pn**	**13 27 49.0**	**-0.6**
BKNR	**BIKANER**	**5.72**	**202**	*i* P	**Pn**	**13 27 52.8**	**+2.8**
BKNR				*i* S	**Sn**	**13 28 53.9**	**-0.6**
KSH2	**Kashi**	**5.78**	**359**	P	**Pn**	**13 27 55.2**	**+4.3**
KSH2				sP		13 28 02.1	
KSH2				S	**Sn**	**13 29 01.5**	**+5.5**
KSH2				pmax	pmax		
	comp=Z,20nm,0.7s						
KSH2				LR	LR		
	comp=N,470nm,6.9s						
KSH2				LR	LR		
	comp=E,420nm,6.5s						
KSH2				LR	LR		
	comp=Z,540nm,10.3s						
AJM	**Ajmer**	**6.97**	**188**	*i* P	**Pn**	**13 28 08.8**	**+1.6**
AJM				*i* S	**Sn**	**13 29 21.5**	**-3.9**
JASL	**Jaisalmer**	**7.65**	**214**	*i* S	**Sn**	**13 29 38.9**	**-3.0**
NRN	**Naryn**	**8.07**	**1**		**Pn**	**13 28 19.7**	**-2.8**
JHNI	**Jhansi**	**8.26**	**162**	*i* P	**Pn**	**13 28 25.4**	**+0.5**
JHNI				*i* S	**Sn**	**13 29 52.0**	**-5.0**
WUS	**Wushi**	**8.31**	**19**		**Pn**	**13 28 22.2**	**-3.4**
GUNA	**GUNA**	**8.79**	**170**	*i* P	**Pn**	**13 28 34.1**	**+1.9**
GUNA				*i* S	**Sn**	**13 30 03.9**	**-6.0**
GUNA				IAML		13 30 08.8	
	comp=N,70nm,0.5s						
KDJ	**Kajisay**	**8.83**	**7**		**Pn**	**13 28 31.7**	**-1.1**
AAK	**Ala-Archa**	**9.32**	**354**	Pn	**Pn**	**13 28 39.1**	**-0.3**
	comp=N,0.2nm,0.3s,baz=228,slow=9.9,SNR=7.0						
AAK				Sn	**Sn**	**13 30 18.1**	**-5.0**
	baz=247,slow=5.0,SNR=1.6						
AAK				LR	LR	13 32 29.6	
	comp=N,111nm,20.2s,baz=178,slow=40						
	comp=N,1.3nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**9.32**	**354**		**Pn**	**13 28 37.2**	**-2.3**
BHPL	**Bhopal**	**10.19**	**171**	*i* P	**Pn**	**13 28 51.9**	**+0.6**
BHPL				*i* S	**Sn**	**13 30 38.5**	**-5.8**
PDGK	**Podgornoye**	**10.38**	**15**		**Pn**	**13 28 52.6**	**-1.4**
KKAR	**Karatay Array**	**10.56**	**339**		**Pn**	**13 28 54.2**	**-2.1**
EVN	**Everest**	**10.95**	**116**		**Pn**	**13 29 02.4**	**0.0**
GAYA	**Gaya**	**11.89**	**133**	*i* P	Pn	13 29 20.6	+6.0
NGP	**Nagpur**	**12.49**	**166**	*i* P	**Pn**	**13 29 25.6**	**+2.7**
NGP				*i* S	**Sn**	**13 31 34.9**	**-5.8**
AKL	**Akola**	**12.66**	**175**	*i* P	**Pn**	**13 29 26.6**	**+1.6**
AKL				*i* S	Sn	13 31 36.0	-8.8
WMQ	**Urumqi**	**14.01**	**38**	*e*P	**Pn**	**13 29 44.4**	**+0.9**
MKAR	**Makanchi Array**	**14.32**	**18**	Pn	**Pn**	**13 29 45.9**	**-1.8**
	comp=N,0.2nm,0.3s,baz=199,slow=14,SNR=7.1						
MKAR				Sn	**Sn**	**13 32 18.9**	**-6.3**
	comp=N,0.2nm,0.3s,baz=199,slow=26,SNR=5.0						
MKAR				LR	LR	13 35 44.2	
	comp=N,100nm,18.8s,baz=200,slow=39						
	comp=N,0.7nm,0.7s						
MKAR

comp=Z,1.6nm,0.8s,baz=51,slow=6.2,SNR=8.7
comp=Z,1.6nm,0.8s
TORD Torodi Ar. Bea 69.64 273 IAmb IAmb 13 37 33.0
comp=Z,1.9nm,0.9s
KNRA Kununurra 70.25 125 P **P** **13 37 38.5 +1.2**
KNRA IAmb IAmb 13 38 05.5
comp=Z,4.7nm,1.2s
F15K North Star Dit 70.91 22 P **P** **13 37 41.9 +1.2**
E29M Blow River 75.51 12 P **P** **13 38 07.9 +0.2**
E29M IAmb IAmb 13 38 10.5
comp=Z,3.8nm,1.1s
K20K Telida 75.82 21 P **P** **13 38 10.4 +0.8**
K20K IAmb IAmb 13 38 24.4
comp=Z,5.5nm,1.1s
ILAR Eielson Array 76.67 17 P **P** **13 38 14.7 +0.3**
comp=Z,0.8nm,0.8s,baz=312,slow=5.0,SNR=4.1
comp=Z,0.8nm,0.8s
WB0 Warramunga Arr 76.94 124 P **P** **13 38 17.7 +1.2**
WB0 IAmb IAmb 13 38 19.1
comp=Z,2.9nm,0.8s
WRA Warramunga Arr 77.02 125 P **P** **13 38 18.1 +1.1**
comp=Z,2.3nm,0.6s,baz=316,slow=6.4,SNR=48
comp=Z,2.3nm,0.6s
WRAB Tennant Creek 77.02 124 P **P** **13 38 18.2 +1.2**
WRAB IAmb IAmb 13 38 19.1
comp=Z,8.2nm,1.3s
H31M Peel River 78.46 12 P **P** **13 38 24.8 +0.4**
H31M IAmb IAmb 13 39 06.1
comp=Z,6.7nm,1.3s
AS31 Alice Springs 79.26 128 P **P** **13 38 30.5 +1.0**
ASAR Alice Springs 79.26 128 P **P** **13 38 30.4 +1.0**
comp=Z,2.5nm,0.8s,baz=314,slow=5.3,SNR=41
comp=Z,2.5nm,0.8s
ASAR Alice Springs 79.26 128 P **P** **13 38 30.7 +1.3**
YKA Yellowknife Ar 84.12 5 P **P** **13 38 54.4 -0.1**
comp=Z,1.9nm,0.7s,baz=345,slow=5.1,SNR=6.5
comp=Z,1.9nm,0.7s
YKAW1 Yellowknife Wh 84.14 5 P **P** **13 38 54.8 +0.3**
YKAW1 IAmb IAmb 13 39 37.5
comp=Z,11nm,1.2s

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*SKHL **08** 13:29:17.9±0.1,53˚.10N×142˚.90E, h8^{km}±2^{km}, mb5.4/6*
*BJI **08** 13:29:20.9,53˚.11N×143˚.39E, h36^{km}, mB4.8/7, mb4.5/25, Ms4.7/26, Ms7 4.5/27*
*IDC **08** 13:29:20.7±0.4,52˚.96N×142˚.83E, h0^{km}, mb4.3/28, mbtmp4.2/39, ML4.0/10, MS3.6/30, Error ellipse: s-maj=10.4km s-min=7.6km az=136.0*
*MOS **08** 13:29:20.7±1.1,52˚.96N×142˚.92E, h11^{km}, mb4.7/36, Error ellipse: s-maj=8.2km s-min=5.1km az=91.8*
MOS Felt (III) at Okha, Tungor.
*NEIC **08** 13:29:22.7±1.2,52˚.95N±0˚.01×142˚.8E±0˚.1, h10^{km}±1km, mb4.6/143, Error ellipse: s-maj=12.6km s-min=2.8km az=267.0*
*GFZ **08** 13:29:22.6±0.2,53˚N±3˚×14˚3E±˚, h10^{km}, M4.7/28, mb4.7/28*
ISC 08 13:29:23.7±0.9,53˚.07N±0˚.03×142˚.67E±0˚.03, h17^{km}±6km, n366, σ1§52/342, mb4.6/152, MS3.7/36, 17C-9D, Sakhalin Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OKH	**Okha**	**0.51**	**18**	⇓*e*PN	Pg	13 29 25.0	-8.8
OKH	**Okha**	**0.51**	**18**	*e*P	Pg	13 29 24.6	-9.2
OKH				*e*Pg	Pb	13 29 26.3	-7.9
OKH				AMB	AMB	13 29 26.9	
	24μm,0.5s						
OKH				*i* Sg	**Sg**	**13 29 35.9**	**-4.8**
OKH				A	A	13 29 37.1	
	34μm,0.5s						
OKH				A	A	13 29 37.1	
	89μm,0.5s						
NKL	**Nikolayevsk**	**1.20**	**275**	*e*PN	**Pn**	**13 29 45.6**	**-0.2**
NKL				*e*S	**Sn**	**13 30 03.3**	**+1.6**
NKL				pmax	pmax		
	comp=N,2μm,0.5s						
NKL				pmax	pmax		
	comp=E,2μm,0.5s						
NKL				pmax	pmax		
	comp=Z,5μm,0.5s						
NKL				smax	smax		
	comp=E,21μm,0.4s						
NKL				smax	smax		
	comp=N,17μm,0.5s						
NKL	**Nikolayevsk**	**1.20**	**275**	*e*Pg	**Pb**	**13 29 44.7**	**-1.3**
NKL				AMB	AMB	13 29 46.4	
	comp=N,3μm,0.5s						
NKL				*e*Sg	**Sn**	**13 30 03.4**	**+1.7**
NKL				A	A	13 30 05.4	
	comp=N,7μm,0.5s						
NKL				A	A	13 30 05.4	
	comp=N,12μm,0.5s						
TYV	**Tymovskoe**	**2.21**	**180**	*e*PN	**Pn**	**13 29 56.4**	**-3.3**
TYV				pmax	pmax		
	comp=Z,1μm,2.9s						
TYV				pmax	pmax		
	comp=Z,537nm,1.0s						
TYV	**Tymovskoe**	**2.21**	**180**	*e*P	**Pn**	**13 29 56.2**	**-3.5**
TYV				AMB	AMB	13 29 56.7	
	comp=Z,540nm,1.0s						
TYV				*e*Pg	**Pb**	**13 30 03.2**	**0.0**
TYV				AMB	AMB	13 30 05.7	
	comp=Z,770nm,0.8s						
TYV				*e*Sg	**Sg**	**13 30 34.4**	**-0.4**
TYV				A	A	13 30 43.9	
	comp=Z,900nm,0.8s						
TYV				A	A	13 30 43.9	
	comp=Z,1μm,0.8s						
UGL	**Uglegorsk**	**4.02**	**186**	*e*P	Pn	13 30 30.1	+5.7
UGL				*e*Pg	**Pb**	**13 30 37.9**	**+3.9**
UGL				AMB	AMB	13 30 38.3	
	comp=Z,150nm,1.0s						
UGL				*e*Sg	**Sg**	**13 31 35.0**	**+2.4**
UGL				A	A	13 31 45.3	
	comp=Z,430nm,0.6s						
UGL				A	A	13 31 45.3	
	comp=Z,630nm,0.6s						
GRNR	**Gornyy**	**4.50**	**242**	⇑*i*PN	**Pn**	**13 30 32.3**	**+1.2**
GRNR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
GRNR				MLR	MLR		
	comp=E,2μm,12.0s						
GRNR				MLR	MLR		
	comp=N,610nm,10.0s						
GRNR				MLR	MLR		
	comp=Z,2μm,12.0s						
GRNR	**Gornyy**	**4.50**	**242**	*e*P	**Pn**	**13 30 30.3**	**-0.8**
GRNR				*e*Pg	**Pg**	**13 30 48.4**	**-1.5**
GRNR				AMB	AMB	13 30 51.9	
	comp=Z,50nm,0.5s						
GRNR				*e*Sg	**Sg**	**13 31 50.6**	**+2.5**
GRNR				A	A	13 31 51.2	
	comp=Z,440nm,0.9s						
GRNR				A	A	13 31 51.2	
	comp=Z,370nm,0.9s						
EKMR	**Ekimchan**	**5.86**	**274**	*e*P	**Pn**	**13 30 49.9**	**+0.1**
EKMR				*e*Pg	**Pg**	**13 31 14.7**	**-1.1**
EKMR				AMB	AMB	13 31 14.8	
	comp=Z,30nm,0.7s						
YSS	**Yuzhno-Sakhali**	**6.12**	**179**	*e*PN	**Pn**	**13 30 50.4**	**-3.0**
YSS				*e*S	**Sn**	**13 32 04.7**	**+1.7**
YSS				MLR	MLR		
	comp=Z,900nm,15.0s						
YSS	**Yuzhno-Sakhali**	**6.12**	**179**		**Pn**	**13 30 50.6**	**-2.8**
YSS	**Yuzhno-Sakhali**	**6.12**	**179**	*e*P	**Pn**	**13 30 51.1**	**-2.3**
YSS				AMB	AMB	13 30 52.7	
	comp=Z,120nm,0.6s						
YSS				*e*Pg	**Pg**	**13 31 19.9**	**-1.0**
YSS				AMB	AMB	13 31 20.4	
	comp=Z,40nm,0.8s						
YSS				*e*Sg	**Sg**	**13 32 43.7**	**+3.6**
YSS				A	A	13 32 44.2	
	comp=Z,50nm,0.9s						
YSS	**Yuzhno-Sakhali**	**6.12**	**179**	P	**Pn**	**13 30 51.1**	**-2.3**
	comp=Z,107nm,0.7s						
KLR	**Kul'dur**	**7.87**	**245**	Pn	**Pn**	**13 31 19.6**	**+2.3**
	comp=Z,0.4nm,0.3s,baz=43,slow=13,SNR=5.9						
KLR				Pg	Pb	13 31 44.6	+5.0
	comp=Z,0.6nm,0.3s,baz=61,slow=16,SNR=4.1						
KLR				Sn	**Sn**	**13 32 37.4**	**-8.6**
	comp=Z,2.2nm,0.3s,baz=34,slow=12,SNR=3.8						
KLR				Lg	Lg	13 33 29.3	
	comp=Z,2.4nm,0.3s,baz=129,slow=21,SNR=18						
KLR				LR	LR	13 34 43.0	
	comp=Z,959nm,18.5s,baz=56,slow=41						
	comp=Z,2.0nm,0.5s						
KLR				AML	AML		
KLR	**Kul'dur**	**7.87**	**245**	⇑*e*PN	**Pn**	**13 31 20.8**	**+3.5**
KLR				MLR	MLR		
	comp=Z,1μm,10.0s						
KLR	**Kul'dur**	**7.87**	**245**	*e*P	**Pn**	**13 31 17.8**	**+0.5**
KLR				*e*Pg		13 31 55.1	
KLR				*e*Sg		13 33 31.0	
MA2	**Magadan**	**7.92**	**31**	Pn	**Pn**	**13 31 17.8**	**-0.2**
	comp=Z,0.9nm,0.3s,baz=180,slow=12,SNR=5.4						
MA2				Lg	Lg	13 33 30.7	
	comp=Z,0.3nm,0.3s,baz=305,slow=14,SNR=1.1						
MA2				LR	LR	13 34 54.4	
	comp=Z,351nm,18.2s,baz=237,slow=42						
	comp=Z,12nm,0.6s						
MA2				AML	AML		
MA2	**Magadan**	**7.92**	**31**	PN	**Pn**	**13 31 18.2**	**+0.2**
MA2	**Magadan**	**7.92**	**31**	Pn	**Pn**	**13 31 18.2**	**+0.2**
MA2	**Magadan**	**7.92**	**31**	*e*P	**Pn**	**13 31 18.2**	**+0.2**
ASAJ	**Asahikawa**	**8.96**	**180**	Pn	**Pn**	**13 31 29.8**	**-2.6**
	comp=Z,1.9nm,0.3s,baz=354,slow=11,SNR=17						
ASAJ				LR	LR	13 35 36.9	
	comp=Z,523nm,18.1s,baz=28,slow=42						
	comp=Z,11nm,0.6s						
ASAJ				AML	AML		
ASAJ	**Asahikawa**	**8.96**	**180**	PN	**Pn**	**13 31 30.5**	**-1.8**
JKA	**Kamikawa-asahi**	**8.96**	**180**	Pn	**Pn**	**13 31 30.5**	**-1.8**
JKA	**Kamikawa-asahi**	**8.96**	**180**	*e*P	**Pn**	**13 31 30.5**	**-1.8**
PEA0B	**Petropavlovsk-**	**9.05**	**84**	PN	**Pn**	**13 31 31.6**	**-1.9**
PEA0B	**Petropavlovsk-**	**9.05**	**84**	Pn	**Pn**	**13 31 31.6**	**-1.9**
PETK	**Petropavlovsk-**	**9.05**	**84**	Pn	**Pn**	**13 31 31.0**	**-2.5**
	comp=Z,0.8nm,0.3s,baz=215,slow=3.7,SNR=39						
PETK				Sn	Sn	13 33 05.5	-9.4
	comp=Z,0.7nm,0.3s,baz=285,slow=9.3,SNR=4.4						
PETK				LR	LR	13 35 30.9	
	comp=Z,372nm,18.2s,baz=273,slow=41						
	comp=Z,1.4nm,0.4s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**9.05**	**84**	PN	**Pn**	**13 31 31.0**	**-2.5**
PETK	**Petropavlovsk-**	**9.05**	**84**	Pn	**Pn**	**13 31 31.6**	**-2.0**
ZEA	**Zeya**	**9.24**	**280**	*e*PN	**Pn**	**13 31 40.5**	**+4.4**
ZEA				pmax	pmax		
	comp=N,10.0nm,0.6s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ZEA				MLR	MLR		
	comp=E,800nm,10.0s						
ZEA				MLR	MLR		
	comp=Z,800nm,12.0s						
ZEA	**Zeya**	**9.24**	**280**	*e*P	**Pn**	**13 31 35.8**	**-0.3**
ZEA				AMB	AMB	13 31 42.9	
	comp=Z,10.0nm,0.6s						
PET	**Petropavlovsk**	**9.63**	**84**	*e*PN	**Pn**	**13 31 40.4**	**-1.1**
PET				pmax	pmax		
	comp=Z,29nm,0.7s						
PET				MLR	MLR		
	comp=Z,500nm,12.0s						
PET	**Petropavlovsk**	**9.63**	**84**	P	**Pn**	**13 31 39.5**	**-2.0**
	comp=Z,28nm,1.1s						
HEH	**HeiHe**	**9.89**	**260**	*e*P	Pn	13 31 54.4	+9.4
HEH				S	Sn	13 33 52.1	+17
JEW	**Eniwo**	**10.27**	**185**	P	**Pn**	**13 31 48.9**	**-1.3**
	comp=Z,0.4nm,1.2s						
ERM	**Erimo**	**11.07**	**178**	P	**Pn**	**13 32 00.1**	**-1.1**
	comp=Z,99nm,1.4s						
SEY	**Seymchan**	**11.13**	**24**	Pn	**Pn**	**13 32 02.3**	**+0.3**
	comp=Z,0.3nm,0.3s,baz=202,slow=18,SNR=6.3						
	comp=Z,1.4nm,0.5s						
SEY				AML	AML		
SEY	**Seymchan**	**11.13**	**24**	⇑*e*PN	**Pn**	**13 32 02.8**	**+0.8**
SEY				MLR	MLR		
	comp=Z,211nm,12.0s						
SEY	**Seymchan**	**11.13**	**24**	*e*P	**Pn**	**13 32 02.8**	**+0.8**
USRK	**Ussuriysk Ar.**	**11.33**	**223**	Pn	**Pn**	**13 32 03.4**	**-1.4**
	comp=Z,0.1nm,0.3s,baz=32,slow=16,SNR=2.3						
USRK				Lg	Lg	13 35 14.5	
	comp=Z,0.3nm,0.3s,baz=59,slow=22,SNR=4.6						
USRK				LR	LR	13 36 50.8	
	comp=Z,586nm,18.4s,baz=35,slow=40						
	comp=Z,3.2nm,0.8s						
USRK				AML	AML		
YAK	**Yakutsk**	**11.35**	**327**	Pn	**Pn**	**13 32 05.8**	**+0.9**
	comp=Z,1.2nm,0.3s,baz=342,slow=16,SNR=5.7						
YAK				Lg	Lg	13 35 19.2	
	comp=Z,0.8nm,0.3s,baz=203,slow=20,SNR=4.2						
	comp=Z,17nm,0.9s						
YAK				AML	AML		
YAK	**Yakutsk**	**11.35**	**327**	*e*PN	**Pn**	**13 32 06.2**	**+1.3**
YAK				pmax	pmax		
	comp=Z,29nm,1.3s						
YAK				pmax	pmax		
	comp=N,15nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
YAK				MLR	MLR		
	comp=Z,254nm,24.0s						
YAK				MLR	MLR		
	comp=N,173nm,16.0s						
YAK				MLR	MLR		
	comp=E,164nm,19.0s						
YAK	**Yakutsk**	**11.35**	**327**		**Pn**	**13 32 06.4**	**+1.5**
YAK	**Yakutsk**	**11.35**	**327**	*e*P	**Pn**	**13 32 06.2**	**+1.3**
YAK	**Yakutsk**	**11.35**	**327**	P	**Pn**	**13 32 06.5**	**+1.6**
	comp=Z,21nm,0.6s						
BNX	**BinXian**	**12.34**	**240**	⇓P	**Pn**	**13 32 16.2**	**-2.3**
BNX				LR	LR		
	comp=N,520nm,1.3s						
BNX				LR	LR		
	comp=E,360nm,1.4s						
CN2	**Changchun**	**14.68**	**238**	*e*P	**Pn**	**13 32 51.1**	**+0.5**
CN2				*es*P	P	13 33 02.0	+5.3
CN2				*e*S	**Sn**	**13 35 32.6**	**-0.2**
CN2				pmax	pmax		
	comp=E,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=E,100nm,5.0s						
CN2				L	L		
	comp=E,400nm,10.0s						
CN2				L	L		
	comp=E,400nm,10.0s						
CN2				L	L		
	comp=E,400nm,11.0s						
HILR	**Hailar Array B**	**14.74**	**265**	Pn	**Pn**	**13 32 51.5**	**+0.1**
	baz=80,slow=10						
HILR				Lg	Lg	13 37 10.9	
	baz=80,slow=33						
	comp=E,1.0nm,0.4s						
MJB9	**Matsu-Tunnel**	**16.82**	**193**	P	**Pn**	**13 33 18.6**	**+0.3**
MAJO	**Matsushiro**	**16.82**	**193**	P	**Pn**	**13 33 18.7**	**+0.3**
MAJO				pmax	pmax		
	comp=Z,30nm,1.4s						
MAJO	**Matsushiro**	**16.82**	**193**	P	**Pn**	**13 33 18.7**	**+0.3**
MJAR	**Matsushiro Arr**	**16.82**	**192**	Pn	**Pn**	**13 33 17.7**	**-0.7**
	comp=Z,2.3nm,1.0s,baz=2.9,slow=12,SNR=2.9						
MJAR				LR	LR	13 39 06.7	
	comp=Z,77nm,18.6s,baz=20,slow=35						
MJAR	**Matsushiro Arr**	**16.82**	**192**	P	**Pn**	**13 33 17.7**	**-0.7**
MJAR				pmax	pmax		
	comp=Z,4.0nm,1.3s						
MJAR	**Matsushiro Arr**	**16.82**	**192**	IAmb	IAmb	13 33 24.6	
	comp=Z,4.2nm,1.3s						
JGF	**Kuroka**	**17.86**	**194**		**Pn**	**13 33 29.5**	**-1.9**
KSRS	**Korea Array**	**18.69**	**219**	P	**P**	**13 33 41.5**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=37,slow=10,SNR=7.5						
KSRS				LR	LR	13 40 54.4	
	comp=Z,241nm,19.8s,baz=30,slow=37						
	comp=Z,5.5nm,0.8s						
KSRS				AML	AML		
SHEM	**Shemya Is, Ala**	**18.89**	**78**	LR	LR	13 40 05.0	
	comp=Z,169nm,20.5s,baz=324,slow=34						
TIXI	**Tiksi**	**19.61**	**347**	P	**P**	**13 33 51.2**	**+0.3**
	comp=Z,1.2nm,0.3s,baz=163,slow=12,SNR=13						
	comp=Z,15nm,0.8s						
TIXI				AML	AML		
TIXI	**Tiksi**	**19.61**	**347**	⇑*e*P	**Pn**	**13 33 52.6**	**+0.3**
TIXI				pmax	pmax		
	comp=Z,33nm,1.1s						
TIXI				MLR	MLR		
	comp=Z,306nm,13.0s						
TIXI	**Tiksi**	**19.61**	**347**		**Pn**	**13 33 52.4**	**+0.1**
TIXI				IAmb	IAmb	13 33 56.0	
	comp=Z,36nm,1.1s						
TIXI	**Tiksi**	**19.61**	**347**	*e*P	**Pn**	**13 33 52.6**	**+0.3**
TIXI	**Tiksi**	**19.61**	**347**	P	**Pn**	**13 33 52.6**	**+0.3**
	comp=Z,33nm,1.0s						
JHJ2	**Mitsune**	**20.05**	**187**	P	**P**	**13 33 54.3**	**-1.7**
JNU	**Nakatsue**	**21.66**	**208**	P	**P**	**13 34 12.3**	**-1.1**
	comp=Z,9.3nm,0.8s,baz=98,slow=20,SNR=4.2						
	comp=Z,9.3nm,0.8s						
JNU	**Nakatsue**	**21.66**	**208**	IAmb	IAmb	13 34 21.7	
	comp=Z,5.0nm,0.5s						
BJI2	**Beijing**	**22.26**	**245**	P	**P**	**13 34 19.0**	**-0.7**
BJI2				S	**S**	**13 38 18.3**	**-5.6**
BJI2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
BJI2				L	L		
	comp=Z,640nm,8.2s						
BJI2				L	L		
	comp=Z,440nm,9.6s						
BJI2				L	L		
	comp=Z,970nm,14.3s						
ULN	**Ulaanbaatar**	**23.09**	**271**	⇓*e*P	**P**	**13 34 31.4**	**+2.8**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ULN	**Ulaanbaatar**	**23.09**	**271**		**P**	**13 34 30.3**	**+1.7**
ULN	**Ulaanbaatar**	**23.09**	**271**	P	**P**	**13 34 29.8**	**+1.2**
	comp=Z,6.3nm,0.9s						
SONM	**Songino Array**	**23.50**	**272**	P	**P**	**13 34 33.0**	**+0.3**
	comp=Z,1.2nm,0.8s,baz=76,slow=8.8,SNR=5.0						
SONM				Lg	Lg	13 41 49.0	
	baz=77,slow=6.4						
	comp=Z,1.2nm,0.8s						
SONM	**Songino Array**	**23.50**	**272**	P	**P**	**13 34 34.3**	**+1.5**
SONM				pmax	pmax		
	comp=Z,1.0nm,1.0s						
SONM	**Songino Array**	**23.50**	**272**	P	**P**	**13 34 34.3**	**+1.5**
TLY	**Talaya**	**23.67**	**282**	⇑*e*P	**P**	**13 34 36.7**	**+2.5**
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s						
TLY				MLR	MLR		
	comp=Z,308nm,16.0s						
HHC	**Hu-ho-hao-te**	**24.29**	**252**	*e*P	**P**	**13 34 38.4**	**-1.8**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,91nm,4.9s						
HHC				L	L		
	comp=Z,620nm,8.8s						
HHC				L	L		
	comp=Z,990nm,8.1s						
HHC				L	L		
	comp=Z,900nm,8.6s						
ZAK	**Zakamensk**	**24.34**	**280**	*e*P	**P**	**13 34 42.0**	**+1.5**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.1s						
BTO2	**Baotou**	**25.33**	**254**	*e*P	**P**	**13 34 51.2**	**+1.6**
BTO2				S	**S**	**13 39 17.3**	**+2.3**
BTO2				pmax	pmax		
	comp=Z,14nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,310nm,3.5s						
BTO2				L	L		
	comp=Z,1μm,9.3s						
BTO2				L	L		
	comp=Z,2μm,10.0s						
BTO2				L	L		
	comp=Z,2μm,11.2s						
NJ2	**Nanjing**	**27.14**	**229**	*e*P	**P**	**13 35 06.2**	**+0.3**
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
LYN	**LuoYang**	**28.28**	**241**	P	**P**	**13 35 16.8**	**+0.7**
LYN				pmax	pmax		
	comp=Z,23nm,0.7s						
LYN				L	L		
	comp=Z,600nm,12.4s						
LYN				L	L		
	comp=Z,230nm,8.2s						
LYN				L	L		
	comp=Z,700nm,10.0s						
NRIK	**Noril'sk**	**29.77**	**324**	⇑*e*P	**P**	**13 35 33.5**	**+4.5**
NRIK				pmax	pmax		
	comp=Z,30nm,3.9s						
NRIK				MLR	MLR		
	comp=Z,65nm,13.0s						
F17K	**Baldwin Pennin**	**30.06**	**42**	P	**P**	**13 35 32.8**	**+1.3**
F17K				IAmb	IAmb	13 36 05.3	
	comp=Z,13nm,1.4s						
G18K	**Tagagawik**	**31.14**	**43**	P	**P**	**13 35 42.6**	**+1.4**
G18K				IAmb	IAmb	13 35 43.1	
	comp=Z,12nm,1.5s						
D19K	**Kuna River**	**31.23**	**38**	P	**P**	**13 35 42.4**	**+0.5**
F19K	**Shaleruckik Mo**	**31.43**	**41**	P	**P**	**13 35 43.8**	**+0.2**
F19K				IAmb	IAmb	13 35 46.6	
	comp=Z,7.1nm,1.1s						
E19K	**Redstone River**	**31.60**	**40**	P	**P**	**13 35 45.7**	**+0.6**
E19K				IAmb	IAmb	13 35 53.9	
	comp=Z,7.0nm,1.0s						
D20K	**Etivluk River**	**31.77**	**37**	P	**P**	**13 35 47.2**	**+0.5**
D20K				IAmb	IAmb	13 35 49.6	
	comp=Z,13nm,0.9s						
LZH	**Lanzhou**	**31.96**	**254**	*e*P	P	13 35 54.9	+6.1
LZH				pP	sP	13 36 00.2	+4.2
LZH				pmax	pmax		
	comp=Z,29nm,1.3s						
LZH				L	L		
	comp=Z,490nm,12.7s						
LZH				L	L		
	comp=Z,560nm,13.0s						
LZH				L	L		
	comp=Z,940nm,14.9s						
H19K	**Roundabout Mou**	**32.09**	**43**	P	**P**	**13 35 49.8**	**+0.4**
GTA2	**Gaotai**	**32.10**	**262**	*e*P	**P**	**13 35 51.3**	**+1.3**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.2s						
GTA2				L	L		
	comp=Z,440nm,13.3s						
GTA2				L	L		
	comp=Z,520nm,14.9s						
GTA2				L	L		
	comp=Z,610nm,15.9s						
LZDM	**Lanzhou Array**	**32.14**	**254**	LR	LR	13 50 13.1	
	comp=Z,336nm,18.2s,baz=290,slow=39						
F20K	**Avaraart Lake**	**32.21**	**40**	P	**P**	**13 35 51.0**	**+0.5**
L18K	**Granite Mounta**	**32.53**	**49**	P	**P**	**13 35 53.9**	**+0.5**
L18K				IAmb	IAmb	13 36 34.1	
	comp=Z,13nm,1.4s						
F21K	**Alatna River**	**33.06**	**40**	P	**P**	**13 35 58.0**	**-0.1**
IMAR	**Indian Mountai**	**33.13**	**42**	P	**P**	**13 35 58.8**	**+0.3**
G21K	**Allakaket**	**33.15**	**41**	IAmb	IAmb	13 36 02.7	
	comp=Z,13nm,1.4s						
D22K	**Ayikyak River**	**33.19**	**37**	P	**P**	**13 35 59.7**	**+0.6**
D22K				IAmb	IAmb	13 36 21.0	
	comp=Z,6.2nm,1.1s						
ZALV	**Zalesovo Beam**	**33.59**	**295**	P	**P**	**13 36 03.0**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=69,slow=8.1,SNR=4.3						
ZALV				PcP	**PcP**	**13 38 41.5**	**-1.1**
	comp=Z,1.3nm,0.6s,baz=285,slow=2.9,SNR=5.1						
ZALV				LR	LR	13 50 23.9	
	comp=Z,108nm,18.2s,baz=268,slow=38						
	comp=Z,0.9nm,0.5s						
ZALV	**Zalesovo Beam**	**33.59**	**295**	*i* P	**P**	**13 36 04.5**	**+1.8**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s						
N19K	**Bonanza Creek**	**33.90**	**51**	P	**P**	**13 36 06.2**	**+0.8**
N19K				IAmb	IAmb	13 36 14.0	
	comp=Z,7.2nm,1.0s						
E23K	**Chandalar**	**34.41**	**38**	P	**P**	**13 36 10.5**	**+0.7**
E23K				IAmb	IAmb	13 36 13.7	
	comp=Z,4.6nm,0.7s						
E24K	**Your Creek**	**34.83**	**38**	P	**P**	**13 36 13.7**	**+0.3**
E24K				IAmb	IAmb	13 36 16.7	
	comp=Z,8.0nm,1.2s						
STLK	**Strandline Lak**	**34.94**	**50**	P	**P**	**13 36 15.6**	**+1.2**
STLK				IAmb	IAmb	13 36 24.5	
	comp=Z,22nm,1.4s						
I23K	**Minto, Yukon-K**	**35.08**	**43**	P	**P**	**13 36 16.5**	**+1.1**
I23K				IAmb	IAmb	13 36 18.3	
	comp=Z,13nm,1.2s						
F24K	**Squaw Lake**	**35.16**	**39**	IAmb	IAmb	13 36 19.9	
	comp=Z,7.2nm,0.6s						
BWN	**Browne**	**35.27**	**45**	P	**P**	**13 36 19.2**	**+2.1**
D25K	**Kavik River**	**35.38**	**35**	P	**P**	**13 36 18.5**	**+0.4**
G24K	**Hadweenzic Riv**	**35.48**	**40**	IAmb	IAmb	13 36 22.7	
	comp=Z,16nm,1.5s						
H24K	**Noodor Dome**	**35.52**	**42**	P	**P**	**13 36 20.0**	**+0.7**
H24K				IAmb	IAmb	13 36 22.8	
	comp=Z,7.2nm,1.0s						
MCK	**McKinley**	**35.61**	**45**	P	**P**	**13 36 21.1**	**+1.0**
MCK				p

COLA College 35.77 43⇑ *eP* **P** **13 36 22.7 +1.4**
COLA pmax pmax
comp=Z,37nm,3.2s
KDAK Kodiak Island 35.78 56 LR LR 13 52 08.0
comp=Z,110nm,18.2s,baz=266,slow=38
CCB Clear Creek Bu 35.84 44 P **P** **13 36 22.5 +0.5**
CCB IAmb IAmb 13 36 24.6
comp=Z,8.8nm,1.2s
IL31 36.19 43 P **P** **13 36 24.4 -0.6**
IL31 IAmb IAmb 13 36 28.2
comp=Z,7.9nm,0.9s
ILAR Eielson Array 36.19 43 P **P** **13 36 25.3 +0.3**
comp=Z,7.1nm,1.0s,baz=281,slow=7.4,SNR=29
ILAR LR LR 13 52 54.3
comp=Z,83nm,19.7s,baz=275,slow=39
comp=Z,7.1nm,1.0s
ILAR Eielson Array 36.19 43 P **P** **13 36 24.5 -0.5**
C27K Jago River 36.24 35 P **P** **13 36 26.5 +1.0**
C27K IAmb IAmb 13 36 29.8
comp=Z,9.0nm,1.3s
BMAR Burnt Mountain 36.42 38 P **P** **13 36 28.1 +1.1**
WMQ Urumqi 36.78 278 *eP* **P** **13 36 33.7 +3.3**
WMQ L L
comp=Z,600nm,13.7s
WMQ L L
comp=Z,350nm,13.1s
WMQ L L
comp=Z,140nm,20.9s
G26K Porcupine Rive 36.84 39 P **P** **13 36 31.6 +1.1**
GOMU GeErMu 37.21 263 P **P** **13 36 32.5 -2.0**
GOMU S **S** **13 42 12.8 -8.0**
GOMU pmax pmax
comp=Z,2.0nm,0.5s
GOMU L L
comp=Z,250nm,10.1s
GOMU L L
comp=Z,220nm,11.0s
GOMU L L
comp=Z,440nm,10.8s
E27K Coleen River 37.33 37 P **P** **13 36 35.3 +0.6**
G27K Doyon Strip 37.69 39 IAmb IAmb 13 36 41.4
comp=Z,14nm,1.5s
I27K Kandik River 38.07 41 **P** **13 36 41.8 +0.8**
I27K IAmb IAmb 13 36 44.7
comp=Z,11nm,0.9s
MK31 Makanchi Array 38.34 286 *d iP* **P** **13 36 44.1 +0.6**
MKAR Makanchi Array 38.34 286 P **P** **13 36 44.2 +0.7**
comp=Z,3.1nm,0.7s,baz=58,slow=6.6,SNR=14
MKAR PcP **PcP** **13 38 56.1 -0.8**
comp=Z,0.3nm,0.4s,baz=46,slow=3.5,SNR=4.6
MKAR LR LR 13 54 36.7
comp=Z,53nm,18.8s,baz=20,slow=39
comp=Z,3.1nm,0.7s
MKAR Makanchi Array 38.34 286 P **P** **13 36 44.1 +0.6**
KURK Kurchatov 38.42 293 *c iP* **P** **13 36 44.5 +0.4**
KURK pmax pmax
comp=Z,6.0nm,0.8s
KURK MLR MLR
comp=Z,112nm,15.0s
KURK Kurchatov 38.42 293 **P** **13 36 44.9 +0.8**
KURK Kurchatov 38.42 293 **PcP** **13 38 56.9 -0.2**
KURK Kurchatov 38.42 293 *eP* **P** **13 36 44.5 +0.4**
KURK Kurchatov 38.42 293 P **P** **13 36 44.8 +0.8**
comp=Z,9.4nm,0.8s
MAKZ Makanchi 38.52 286 P **P** **13 36 47.3 +2.3**
KURBB Kurchatov Arra 38.52 293 P **P** **13 36 45.5 +0.6**
comp=Z,6.5nm,0.8s,baz=64,slow=8.7,SNR=11
KURBB PcP **PcP** **13 38 56.9 -0.5**
comp=Z,0.9nm,0.4s,baz=64,slow=3.3,SNR=4.8
comp=Z,6.5nm,0.8s
I28M Miner Creek 38.78 41 P **P** **13 36 47.8 +0.7**
L27K Beaver Creek, 38.86 45 P **P** **13 36 48.0 +0.3**
L27K IAmb IAmb 13 36 51.0
comp=Z,9.7nm,1.1s
G29M Pine Creek 39.02 38 P **P** **13 36 49.7 +0.7**
H29M Whitestone 39.13 39 P **P** **13 36 50.3 +0.5**
DAWY Dawson 39.50 43 P **P** **13 36 53.1 +0.1**
G30M tAoh Zraii Nji 39.66 38 P **P** **13 36 55.2 +0.9**
INK Inuvik 40.14 35 P **P** **13 36 58.6 +0.4**
INK pmax pmax
comp=Z,9.0nm,1.4s
INK Inuvik 40.14 35 P **P** **13 36 58.6 +0.4**
INK Inuvik 40.14 35 P **P** **13 36 58.0 -0.1**
comp=Z,4.1nm,1.7s
M29M Somme Creek 40.53 45 P **P** **13 37 02.5 +0.9**
H31M Peel River 40.81 39 **P** **13 37 04.3 +0.5**
A36M Sachs Harbour 41.32 28 **P** **13 37 09.1 +1.2**
BVAR Borovoye Array 41.72 300 P **P** **13 37 12.1 +0.7**
comp=Z,2.2nm,0.7s,baz=60,slow=7.0,SNR=9.9
BVAR PcP **PcP** **13 39 07.5 -0.1**
comp=Z,1.7nm,0.5s,baz=53,slow=2.9,SNR=6.1
comp=Z,2.2nm,0.7s
BORK Borovoye 41.74 300⇓ *iP* **P** **13 37 13.5 +1.9**
BORK pmax pmax
comp=Z,5.0nm,0.9s
BORK MLR MLR
comp=Z,79nm,15.0s
P29M Windy Craggy 42.08 48 P **P** **13 37 14.8 +0.5**
KDJ Kajisay 44.01 283 P **P** **13 37 30.5 +0.1**
KDJ pmax pmax
comp=Z,3.0nm,1.2s
KDJ Kajisay 44.01 283 P **P** **13 37 30.5 +0.1**
comp=Z,2.6nm,1.2s
KBS Kingsbay 45.07 348 P **P** **13 37 37.2 -0.9**
KBS pmax pmax
comp=Z,55nm,2.8s
KBS Kingsbay 45.07 348 P **P** **13 37 37.2 -0.9**
comp=Z,55nm,2.8s
ASAI AK-SAY(Kyrgyzs 45.15 282 P **P** **13 37 40.7 +1.0**
comp=Z,5.2nm,0.8s
AAK Ala-Archa 45.27 285 P **P** **13 37 41.1 +0.7**
comp=Z,1.4nm,0.5s,baz=48,slow=4.4,SNR=6.1
AAK LR LR 13 55 50.6
comp=Z,79nm,21.7s,baz=42,slow=35
comp=Z,1.4nm,0.5s
AAK Ala-Archa 45.27 285⇑ *iP* **P** **13 37 40.6 +0.2**
AAK pmax pmax
comp=Z,3.0nm,0.9s
AAK MLR MLR
comp=Z,89nm,16.0s
AAK Ala-Archa 45.27 285 P **P** **13 37 41.5 +1.2**
AAK Ala-Archa 45.27 285 *eP* **P** **13 37 40.6 +0.2**
AAK Ala-Archa 45.27 285 P **P** **13 37 40.7 +0.3**
comp=Z,2.4nm,0.8s
ARTI Arti 45.88 310 *c iP* **P** **13 37 45.0 +0.2**
ARTI 13 39 27.5
ARTI S **S** **13 44 31.7 +3.7**
ARTI SS **SS** **13 47 49.1 -3.0**
ARTI pmax pmax
comp=Z,5.0nm,0.6s
ARTI Arti 45.88 310 P **P** **13 37 46.9 +2.1**
DLBC Dease Lake 46.12 47 LR LR 13 59 58.4
comp=Z,76nm,18.6s,baz=274,slow=40
SHL Shillong 46.62 254 P **P** **13 37 50.3 -0.9**
RES Resolute Bay 46.94 18 P **P** **13 37 53.6 +0.8**
RES pmax pmax
comp=Z,10.0nm,0.8s
RES Resolute Bay 46.94 18 **P** **13 37 53.6 +0.8**
RES Resolute Bay 46.94 18 P **P** **13 37 53.2 +0.3**
comp=Z,15nm,1.2s
CHTO Chiang Mai 48.03 242 P **P** **13 38 02.1 0.0**
CHTO pmax pmax
comp=Z,3.0nm,0.6s
CHTO Chiang Mai 48.03 242 **P** **13 38 02.1 0.0**
CHTO IAmb IAmb 13 38 02.7
comp=Z,2.9nm,0.6s
CHTO Chiang Mai 48.03 242 P **P** **13 38 02.1 0.0**
comp=Z,6.4nm,0.9s
CMAR Chiang Mai Arr 48.33 241 P **P** **13 38 04.6 +0.3**
comp=Z,1.5nm,0.8s,baz=18,slow=6.8,SNR=10
CMAR LR LR 14 01 04.0
comp=Z,53nm,18.7s,baz=155,slow=39
comp=Z,1.5nm,0.8s
APA Apatity 48.70 331 *eP* **P** **13 38 08.2 +1.6**
APA pmax pmax
comp=Z,10.0nm,1.1s
NPW Naypyitaw 48.76 245 P **P** **13 38 08.4 +0.8**
comp=Z,11nm,1.1s
BRDH Bariadhala 48.99 252 LR LR 14 02 21.8
comp=Z,231nm,18.4s,baz=152,slow=40
ABKAR Akbulak array 49.27 301 **P** **13 38 12.0 +0.8**
ARCES ARCESS Array B 49.49 336 P **P** **13 38 11.8 -0.8**
comp=Z,5.1nm,0.8s,baz=34,slow=7.9,SNR=2.2
comp=Z,5.1nm,0.8s
ARCES ARCESS Array B 49.49 336 P **P** **13 38 11.8 -0.8**
ARCES pmax pmax
comp=Z,38nm,1.4s
AKTO Aktyubinsk 49.53 303 P **P** **13 38 13.9 +0.7**
comp=Z,2.1nm,0.8s,baz=63,slow=10,SNR=5.4
AKTO LR LR 14 01 00.4
comp=Z,121nm,18.4s,baz=92,slow=38
comp=Z,2.1nm,0.8s
YKA Yellowknife Ar 49.87 36 P **P** **13 38 15.8 +0.2**
comp=Z,1.7nm,0.6s,baz=309,slow=7.9,SNR=12
comp=Z,1.7nm,0.6s
YKA Yellowknife Ar 49.87 36 *i* P **P** **13 38 17.6 +2.0**
YKA pmax pmax
comp=Z,2.0nm,0.6s
YKAW1 Yellowknife Wh 49.92 36 P **P** **13 38 17.0 +1.1**
YKAW1 IAmb IAmb 13 38 35.6
comp=Z,16nm,1.3s
BBB Bella Bella 50.70 53 LR LR 14 00 11.3
comp=Z,40nm,18.5s,baz=12,slow=36
SGF Sodankyl 50.72 333 P **P** **13 38 22.8 +0.8**
comp=Z,56nm,2.8s
HEF Hetta 50.77 335 P **P** **13 38 23.1 +0.8**
KU6 Riekki 50.77 331 P **P** **13 38 23.7 +1.3**
RNF Rovaniemi 51.46 333 P **P** **13 38 27.9 +0.4**
comp=Z,41nm,1.3s
OUL Oulu 52.61 332 P **P** **13 38 36.3 +0.2**
OUL pmax pmax
comp=Z,24nm,1.5s
OUL Oulu 52.61 332 P **P** **13 38 36.3 +0.2**
comp=Z,24nm,1.5s
BELG Belogornoye 53.30 310⇑ *eP* **P** **13 38 41.0 -0.3**
BELG pmax pmax
comp=Z,4.0nm,0.9s
OUF Merijarvi 53.48 331 P **P** **13 38 42.2 -0.3**
ILON Igloolik, Nuna 53.62 18 P **P** **13 38 44.5 +1.0**
SIJI Sorong 54.59 194 P **P** **13 38 49.4 -1.8**
comp=Z,7.0nm,1.3s
FIA1 FINESS Array S 55.28 328 P **P** **13 38 55.6 -0.1**
FINES FINESS Array B 55.28 328 P **P** **13 38 56.2 +0.5**
comp=Z,1.8nm,0.4s,baz=30,slow=8.1,SNR=15
FINES PcP **PcP** **13 39 57.2 +1.0**
comp=Z,3.8nm,1.1s,baz=351,slow=6.0,SNR=3.5
comp=Z,1.8nm,0.4s
FINES FINESS Array B 55.28 328 P **P** **13 38 55.6 0.0**
OBN Obninsk 56.18 318 *eP* **P** **13 39 03.1 +0.9**
OBN *e* 13 40 01.7
OBN *e* 13 41 08.8
OBN *e*PPP PPP 13 42 24.2
OBN pmax pmax
comp=Z,2.0nm,0.9s
OBN MLR MLR
comp=Z,91nm,16.0s
SBUM Sibu 56.39 217 **P** **13 39 03.9 -0.2**
SBUM IAmb IAmb 13 39 05.6
comp=Z,4.0nm,0.9s
SBUM Sibu 56.39 217 P **P** **13 39 03.1 -1.0**
comp=Z,6.1nm,1.1s
FCC Fort Churchill 59.46 30 P **P** **13 39 26.5 +1.4**
FCC pmax pmax
comp=Z,40nm,1.3s
FCC Fort Churchill 59.46 30 P **P** **13 39 26.5 +1.4**
NC303 NORSAR Array S 59.66 335 P **P** **13 39 27.2 +0.7**
NC405 NORSAR Array S 59.66 335 P **P** **13 39 27.3 +0.7**
NB201 NORSAR Array S 59.83 335 P **P** **13 39 28.1 +0.4**
NB2 NORSAR Subarra 59.85 335 P **P** **13 39 28.4 +0.5**
comp=Z,7.5nm,0.7s,baz=32,slow=6.9
NOA NORSAR Array B 59.85 335 P **P** **13 39 28.1 +0.2**
comp=Z,6.6nm,0.7s,baz=32,slow=6.8,SNR=21
comp=Z,6.6nm,0.7s
HFS Hagfors 59.97 333 P **P** **13 39 29.2 +0.6**
comp=Z,6.1nm,0.6s,baz=42,slow=4.6,SNR=21
HFS LR LR 14 07 35.2
comp=Z,25nm,21.3s,baz=20,slow=38
comp=Z,6.1nm,0.6s
FFC Flin Flon 60.02 37 P **P** **13 39 28.9 -0.2**
FFC pmax pmax
comp=Z,7.0nm,0.9s
FFC Flin Flon 60.02 37 P **P** **13 39 28.9 -0.2**
FFC IAmb IAmb 13 39 31.8
comp=Z,7.5nm,0.8s
NORES NORESS Array B 60.03 335 P **P** **13 39 30.9 +1.8**
NORES pmax pmax
comp=Z,2.0nm,0.4s
YBH Yreka Blue Hor 60.50 59 LR LR 14 06 42.1
comp=Z,34nm,18.2s,baz=352,slow=37
PLID Pearl Lake 61.39 52 **P** **13 39 39.0 +0.1**
PLID IAmb IAmb 13 39 46.0
comp=Z,3.8nm,0.9s
NCK Nalchik 61.47 305⇑ *eP* **P** **13 39 40.5 +1.4**
KIV Kislovodsk 61.57 306 *eP* **P** **13 39 41.0 +1.1**
KIV pmax pmax
comp=Z,17nm,1.1s
KIV MLR MLR
comp=Z,42nm,17.0s
KIV Kislovodsk 61.57 306 P **P** **13 39 41.6 +1.7**
comp=Z,20nm,1.0s
KBZ Khabaz 61.64 306 P **P** **13 39 40.1 -0.1**
comp=Z,2.1nm,0.7s,baz=276,slow=5.6,SNR=4.9
comp=Z,2.1nm,0.7s
KBZ Khabaz 61.64 306⇑ *eP* **P** **13 39 43.1 +2.9**
KBZ pmax pmax
comp=Z,20nm,3.5s
KBZ MLR MLR
comp=Z,86nm,15.0s
SHA1 Shidzhatmaz 61.75 306⇑ *iP* **P** **13 39 44.3 +3.0**
O03E Paynes Creek 62.02 60 P **P** **13 39 43.0 0.0**
WVOR Wild Horse Val 62.06 56 IAmb IAmb 13 39 52.6
comp=Z,9.5nm,1.2s
NEUR Neytrino 62.08 305⇑ *eP* **P** **13 39 42.7 -0.8**
NEUR pmax pmax
comp=Z,6.0nm,1.5s
AKASG Malin Array Be 62.43 319 P **P** **13 39 45.5 0.0**
comp=Z,1.6nm,0.6s,baz=39,slow=7.5,SNR=7.3
comp=Z,1.6nm,0.6s
AKASG Malin Array Be 62.43 319 *i* P **P** **13 39 46.7 +1.2**
AKASG pmax pmax
comp=Z,2.0nm,0.6s
BOZ Bozeman (W) 63.05 49 P **P** **13 39 50.0 +0.1**
BOZ pmax pmax
comp=Z,4.0nm,0.9s
BOZ Bozeman (W) 63.05 49 P **P** **13 39 50.0 +0.1**
BOZ IAmb IAmb 13 39 52.8
comp=Z,3.8nm,0.9s
VSLR Vesyoloye 63.23 307⇑ *eP* **P** **13 39 53.4 +2.5**
VSLR pmax pmax
comp=Z,27nm,1.1s
GNI Garni 63.36 302 LR LR 14 11 32.7
comp=Z,30nm,19.6s,baz=76,slow=40
PAHR Pah Rah Range 63.70 58 P **P** **13 39 54.5 +0.2**
YHH Holmes Hill 64.03 49 IAmb IAmb 13 39 59.3
comp=Z,9.7nm,1.4s
YFT Old Faithful 64.29 50 IAmb IAmb 13 40 02.8
comp=Z,6.9nm,0.9s
RLMT Red Lodge 64.49 48 **P** **13 39 59.4 -0.1**
RLMT IAmb IAmb 13 40 03.8
comp=Z,4.3nm,0.6s
KVN Kaiserville 64.85 58 P **P** **13 40 01.8 -0.1**
KVN pmax pmax
comp=Z,7.0nm,1.2s
KVN Kaiserville 64.85 58 **P** **13 40 01.8 -0.1**
KVN IAmb IAmb 13 40 03.5
comp=Z,7.2nm,1.2s
ELK Elko 65.01 55 IAmb IAmb 13 40 04.8
comp=Z,3.1nm,1.0s
NVAR Mina Array Bea 65.21 59 P **P** **13 40 05.0 +0.7**
comp=Z,1.7nm,0.7s,baz=316,slow=4.4,SNR=12
NVAR LR LR 14 06 50.6
comp=Z,20nm,18.9s,baz=282,slow=34
comp=Z,1.7nm,0.7s
ULM Lac du Bonnet 65.84 37 P **P** **13 40 06.9 -1.0**
comp=Z,7.5nm,0.7s,baz=329,slow=6.5,SNR=8.1
ULM LR LR 14 10 19.1
comp=Z,87nm,19.1s,baz=16,slow=37
comp=Z,7.5nm,0.7s
ULM Lac du Bonnet 65.84 37 P **P** **13 40 07.5 -0.4**
ULM pmax pmax
comp=Z,8.0nm,0.8s
ULM Lac du Bonnet 65.84 37 P **P** **13 40 07.5 -0.4**
TPH Tonopah 66.04 58 IAmb IAmb 13 40 12.2
comp=Z,4.8nm,1.0s
HWUT Hardware Ranch 66.14 52 IAmb IAmb 13 40 13.4
comp=Z,3.9nm,0.8s
HWUT Hardware Ranch 66.14 52 P **P** **13 40 09.8 -0.3**
comp=Z,5.4nm,1.1s
BW06 Boulder Array 66.18 50 IAmb IAmb 13 40 12.8
comp=Z,5.0nm,1.0s
PD31 Pinedale Array 66.18 50 IAmb IAmb 13 40 12.8
comp=Z,4.9nm,1.0s
PDAR Pinedale Array 66.18 50 P **P** **13 40 10.6 +0.1**
comp=Z,1.6nm,0.6s,baz=328,slow=1.7,SNR=17
PDAR LR LR 14 12 10.3
comp=Z,54nm,21.0s,baz=346,slow=39
comp=Z,1.6nm,0.6s
PDAR Pinedale Array 66.18 50 **P** **13 40 10.2 -0.2**
BUR08 Bucovina Ar. S 66.47 319 **P** **13 40 12.6 +0.6**
BUR08 IAmb IAmb 13 40 14.7
comp=Z,3.2nm,0.7s
BURAR Bucovina Array 66.48 319 P **P** **13 40 12.6 +0.4**
BURAR pmax pmax
comp=Z,3.0nm,0.7s
BURAR Bucovina Array 66.48 319 P **P** **13 40 12.6 +0.4**
BURAR IAmb IAmb 13 40 14.9
comp=Z,2.6nm,0.7s
DUG Dugway, Tooele 66.62 54 IAmb IAmb 13 40 15.5
comp=Z,9.6nm,1.4s
BSUT Blindstream Ca 67.35 52 IAmb IAmb 13 40 21.4
comp=Z,2.9nm,0.9s
CHVC Chvalec 67.36 326 *eP* **P** **13 40 19.7 +2.1**
CHVC Chvalec 67.36 326 *eP* **P** **13 40 19.7 +2.1**
UPC Upice 67.44 326 *eP* **P** **13 40 18.0 -0.1**
UPC Upice 67.44 326 *eP* **P** **13 40 18.0 -0.1**
DPC Dobruska-Polom 67.47 326 *eP* **P** **13 40 19.1 +0.8**
DPC Dobruska-Polom 67.47 326 *eP* **P** **13 40 19.1 +0.8**
MORC Moravsky Berou 67.54 325 P **P** **13 40 19.5 +0.7**
MORC pmax pmax
comp=Z,6.0nm,0.7s
MORC Moravsky Berou 67.54 325 **P** **13 40 19.5 +0.7**
MORC IAmb IAmb 13 40 22.1
comp=Z,5.6nm,0.7s
MORC Moravsky Berou 67.54 325 P **P** **13 40 19.7 +0.9**
comp=Z,9.1nm,0.8s
KRLC Kraliky 67.55 326 *eP* **P** **13 40 19.2 +0.4**
KRLC Kraliky 67.55 326 *eP* **P** **13 40 19.2 +0.4**
PALK Pallekele 67.56 251 LR LR 14 16 25.5
comp=Z,82nm,18.1s,baz=124,slow=42
PRN Pahroc Range 67.66 57 IAmb IAmb 13 40 23.6
comp=Z,5.4nm,1.2s
CLL Collm 67.73 329 P **P** **13 40 20.2 +0.3**
CLL pmax pmax
comp=Z,6.0nm,0.6s
CLL Collm 67.73 329 **P** **13 40 20.2 +0.3**
CLL Collm 67.73 329 P **P** **13 40 20.2 +0.3**
comp=Z,8.6nm,0.7s
CLL Collm 67.73 329⇑ *iP* **P** **13 40 19.9 +0.1**
comp=Z,6.0nm,0.6s
PVCC Panska Ves 67.90 327 *eP* **P** **13 40 23.3 +2.4**
PVCC Panska Ves 67.90 327 *eP* **P** **13 40 23.3 +2.4**
TMUT Trail Mountain 68.10 53 IAmb IAmb 13 40 28.1
comp=Z,2.1nm,0.7s
HSKC Hora Svate Kat 68.20 328 *eP* **P** **13 40 22.3 -0.6**
VRAC Vranov 68.26 325 LR LR 14 12 53.6
comp=Z,57nm,18.5s,baz=22,slow=38
VOIR 68.33 318 P **P** **13 40 24.9 +1.0**
comp=Z,6.4nm,1.2s
EKA Eskdalemuir Ar 68.33 340 P **P** **13 40 23.7 +0.1**
comp=Z,1.2nm,0.7s,baz=31,slow=6.8,SNR=3.6
comp=Z,1.2nm,0.7s
PRU Pruhonice 68.37 327 *eP* **P** **13 40 25.1 +1.2**
PRU Pruhonice 68.37 327 *eP* **P** **13 40 25.1 +1.2**
TREC Trest 68.65 326 *eP* **P** **13 40 27.5 +1.8**
TREC Trest 68.65 326 *eP* **P** **13 40 27.5 +1.8**
ZVC Zvikov 68.96 327 *eP* **P** **13 40 28.4 +0.8**
BR131 Keskin Array S 69.15 309⇓ *eP* **P** **13 40 30.0 +0.9**
BR131 Keskin Array S 69.15 309 IAmb IAmb 13 40 32.4
comp=Z,9.3nm,1.4s
BRTR Keskin Array B 69.15 309 P **P** **13 40 29.1 0.0**
comp=Z,2.1nm,0.9s,baz=31,slow=2.9,SNR=9.8
comp=Z,2.1nm,0.9s
BRTR Keskin Array B 69.15 309 *i* P **P** **13 40 30.0 +0.8**
BRTR pmax pmax
comp=Z,4.0nm,1.1s
BRTR Keskin Array B 69.15 309 **P** **13 40 29.5 +0.3**
ABNA Allensteig Bun 69.20 326 *i* pP **P** **13 40 32.1 +2.9**
comp=Z,3.9nm,0.6s
KHC Kasperske Hory 69.43 327⇓ *eP* **P** **13 40 31.6 +1.0**
KHC pmax pmax
comp=Z,15nm,2.8s
KHC Kasperske Hory 69.43 327 IAmb IAmb 13 40 34.1
comp=Z,3.5nm,0.9s
KHC Kasperske Hory 69.43 327 *eP* **P** **13 40 30.0 -0.6**
CKRC Cesky Krumlov 69.46 326 *eP* **P** **13 40 29.6 -1.1**
CKRC Cesky Krumlov 69.46 326 *eP* **P** **13 40 29.6 -1.1**
KNRA Kununurra 69.51 194 P **P** **13 40 30.0 -1.2**
KNRA IAmb IAmb 13 40 31.4
comp=Z,3.8nm,0.9s
BZS Buzias 69.54 320 P **P** **13 40 31.4 +0.1**
comp=Z,5.6nm,0.9s
GERES GERESS Array B 69.64 327 P **P** **13 40 32.1 +0.2**
comp=Z,1.0nm,0.6s,baz=35,slow=4.4,SNR=14
comp=Z,1.0nm,0.6s
CONA Conrad Observa 69.69 325 *ep* P **P** **13 40 35.6 +3.3**
comp=Z,3.4nm,0.7s
RONA Rosalia, Austr 69.74 325 *ep* P **P** **13 40 33.6 +1.1**
comp=Z,2.8nm,1.2s
MPLH Magyarpolny 69.75 324 P **P** **13 40 34.2 +1.7**
comp=Z,12nm,1.2s
U15A North Rim 69.81 56 IAmb IAmb 13 40 36.6
comp=Z,3.2nm,0.7s
PV22 Blue Mesa, Par 69.86 52 P **P** **13 40 33.6 0.0**
PV05 Paradox Valley 70.08 53 IAmb IAmb 13 40 37.8
comp=Z,7.8nm,0.9s
PV01 Paradox Valley 70.29 52 P **P** **13 40 36.2 -0.1**
PV01 IAmb IAmb 13 40 38.4
comp=Z,7.3nm,0.9s
ARSA Arzberg 70.39 325 P **P** **13 40 37.7 +1.2**
ARSA Arzberg 70.39 325 *ep* P **P** **13 40 39.8 +3.3**
comp=Z,1.6nm,0.5s
SESA Seetaler Alpe, 70.84 325 *ep* P **P** **13 40 40.9 +1.4**
comp=Z,2.2nm,0.5s
ECSD EROS Data Cent 70.98 41 **P** **13 40 39.5 -0.6**
ECSD EROS Data Cent 70.98 41 P **P** **13 40 40.0 -0.2**
comp=Z,16nm,0.7s
BMRD Maredsous 71.05 333 *dP* **P** **13 40 40.8 +0.4**
comp=Z,4.8nm,0.0s
SOKA Soboth 71.06 325 *ep* P **P** **13 40 42.1 +1.4**
comp=Z,2.0nm,0.7s
LESA Schwarzleotal 71.21 327 *ep* P **P** **13 40 42.8 +1.2**
comp=Z,2.9nm,0.7s
WLF Walferdange 71.24 332 *dP* **P** **13 40 42.5 +0.9**
KBA Koelnbreinsper 71.29 326 *ep* P **P** **13 40 43.5 +1.4**
comp=Z,8.8nm,0.7s
KBA Koelnbreinsper 71.29 326 P **P** **13 40 43.9 +1.8**
comp=Z,14nm,0.8s
OBKA Obir 71.37 325 *eP* **P** **13 40 43.4 +0.8**
comp=Z,3.1nm,0.9s
MYKA Terra Mystica 71.58 326 *ep* P **P** **13 40 44.8 +1.0**
comp=Z,3.4nm,0.6s
WATA Walderalm 71.65 327 *ep* P **P** **13 40 46.2 +1.9**
comp=Z,3.1nm,0.6s
ACOM Acomizza, Ital 71.69 326 P **P** **13 40 45.2 +0.6**
comp=Z,17nm,0.7s
WTTA Wattenberg 71.69 327 *ep* P **P** **13 40 46.4 +1.8**
comp=Z,7.8nm,1.0s
WTTA Wattenberg 71.69 327 P **P** **13 40 46.2 +1.6**
comp=Z,8.5nm,1.0s
PRED Cave del Predi 71.77 326 **P** **13 40 45.8 +0.9**
PRED IAmb IAmb 13 40 47.6
comp=Z,6.3nm,0.6s
PRED Cave del Predi 71.77 326 P **P** **13 40 45.6 +0.7**
comp=Z,9.8nm,0.7s
RETA Reutte 71.78 328 *ep* P **P** **13 40 47.8 +2.8**
comp=Z,1.3nm,0.8s
MOTA Moosalm 71.80 328 *ep* P **P** **13 40 46.7 +1.5**
comp=Z,4.9nm,0.9s
X16A Lo Mia Camp, P 71.81 57 **P** **13 40 45.5 -0.1**
X16A IAmb IAmb 13 40 50.8
comp=Z,4.6nm,1.1s
ABTA Abfaltersbach 71.86 326 *ep* P **P** **13 40 46.5 +1.0**
comp=Z,2.8nm,0.8s
FETA Feichten 72.20 328 *eP* **P** **13 40 48.4 +0.8**
comp=Z,3.8nm,1.1s
DAVA Damuels 72.24 328 *i* pP **P** **13 40 49.2 +1.4**
comp=Z,2.0nm,0.6s
SRS Serrai 72.49 316 P **P** **13 40 50.0 +0.7**
comp=Z,11nm,1.8s
FUORN Ofenpass-Fuorn 72.71 328 **P** **13 40 50.4 -0.4**
FUORN IAmb IAmb 13 40 53.9
comp=Z,3.2nm,0.7s
WB0 Warramunga Arr 72.89 188 P **P** **13 40 50.0 -1.6**
WB0 IAmb IAmb 13 40 51.1
comp=Z,8.5nm,1.1s
WRAB Tennant Creek 73.05 188 P **P** **13 40 51.0 -1.6**
WRAB pmax pmax
comp=Z,5.0nm,1.1s
WRAB Tennant Creek 73.05 188 P **P** **13 40 51.0 -1.6**

WRAB					IAmb	IAmb	13 40 52.4	
	comp=Z,5.2nm,1.1s							
WR8	**Warramunga Arr**	**73.06**	**188**		P	**P**	**13 40 51.3**	**-1.4**
WR8					IAmb	IAmb	13 40 52.3	
	comp=Z,8.1nm,1.1s							
WRA	**Warramunga Arr**	**73.06**	**188**		P	**P**	**13 40 51.4**	**-1.3**
	comp=Z,3.5nm,0.8s,baz=5.8,slow=6.6,SNR=24							
	comp=Z,3.5nm,0.8s							
WRA	**Warramunga Arr**	**73.06**	**188**			**P**	**13 40 51.2**	**-1.5**
TUE	**Stuetta**	**73.13**	**328**			**P**	**13 40 51.5**	**+0.2**
TUE					IAmb	IAmb	13 40 57.5	
	comp=Z,4.1nm,0.7s							
FDMO	**Fiordimonte**	**74.91**	**324**		IAmb	IAmb	13 41 06.2	
	comp=Z,4.2nm,0.8s							
NRCA	**Norcia**	**75.08**	**324**		P	**P**	**13 41 05.2**	**+0.7**
NRCA					IAmb	IAmb	13 41 07.9	
	comp=Z,6.8nm,0.8s							
BNI	**Bardonecchia**	**75.23**	**329**		P	**P**	**13 41 05.8**	**+0.4**
BNI					pmax	pmax		
	comp=Z,10.0nm,1.5s							
BNI	**Bardonecchia**	**75.23**	**329**		P	**P**	**13 41 05.8**	**+0.4**
BNI					IAmb	IAmb	13 41 16.1	
	comp=Z,10nm,1.4s							
P38A	**Dawn**	**75.68**	**41**		IAmb	IAmb	13 41 09.8	
	comp=Z,5.7nm,0.7s							
M44A	**Midewin, Midew**	**76.25**	**37**		P	**P**	**13 41 11.2**	**+0.1**
ITM	**Ithomi**	**76.50**	**315**		P	**P**	**13 41 12.4**	**-0.2**
AS31	**Alice Springs**	**76.79**	**188**			**P**	**13 41 13.4**	**-0.8**
ASAR	**Alice Springs**	**76.79**	**188**		P	**P**	**13 41 13.6**	**-0.6**
	comp=Z,4.7nm,0.7s,baz=1.3,slow=5.2,SNR=85							
	comp=Z,4.7nm,0.7s							
ASAR	**Alice Springs**	**76.79**	**188**		P	**P**	**13 41 13.4**	**-0.8**
R40A	**Maddies Statio**	**77.33**	**41**		P	**P**	**13 41 16.7**	**-0.6**
R40A					IAmb	IAmb	13 41 18.8	
	comp=Z,4.2nm,0.7s							
TPB28		**77.47**	**54**		IAmb	IAmb	13 41 21.7	
	comp=Z,6.2nm,1.4s							
U38A	**Gravette**	**78.06**	**44**		IAmb	IAmb	13 41 23.1	
	comp=Z,6.0nm,0.8s							
HHAR	**Hobbs**	**78.38**	**44**		IAmb	IAmb	13 41 24.9	
	comp=Z,7.2nm,0.7s							
T42A	**Van Buren**	**78.89**	**41**		P	**P**	**13 41 26.0**	**+0.1**
T42A					IAmb	IAmb	13 41 27.9	
	comp=Z,6.7nm,1.0s							
FCAR	**Ozark Folk Cen**	**79.46**	**42**		P	**P**	**13 41 28.3**	**-0.8**
FCAR					IAmb	IAmb	13 41 30.7	
	comp=Z,5.7nm,0.7s							
TX31	**Lajitas Ar. Si**	**79.79**	**54**		IAmb	IAmb	13 41 32.7	
	comp=Z,6.8nm,1.2s							
TXAR	**Lajitas Array**	**79.80**	**54**		P	**P**	**13 41 31.9**	**+0.9**
	comp=Z,2.2nm,0.9s,baz=287,slow=5.5,SNR=18							
	comp=Z,2.2nm,0.9s							
TXAR	**Lajitas Array**	**79.80**	**54**		P	**P**	**13 41 32.0**	**+0.9**
TXAR	**Lajitas Array**	**79.80**	**54**		P	**P**	**13 41 30.8**	**-0.3**
WHAR	**Wooly Hollow**	**79.91**	**43**			**P**	**13 41 30.8**	**-0.8**
TKL	**Tuckaleechee C**	**82.87**	**36**		LR	LR	14 23 49.4	
	comp=Z,52nm,18.6s,baz=312,slow=39							
ESDC	**Sonseca Array**	**83.22**	**335**		P	**P**	**13 41 49.2**	**+0.2**
	comp=Z,2.0nm,0.7s,baz=18,slow=3.9,SNR=20							
	comp=Z,2.0nm,0.7s							
STKA	**Stephens Creek**	**84.59**	**181**		P	**P**	**13 41 54.0**	**-1.8**
	comp=Z,1.8nm,0.8s,baz=203,slow=18,SNR=3.1							
	comp=Z,1.8nm,0.8s							
STKA	**Stephens Creek**	**84.59**	**181**		P	**P**	**13 41 54.0**	**-1.8**
BBOO	**Buckleboo**	**85.71**	**186**		P	**P**	**13 42 00.7**	**-0.7**
TAOE	**Nuku Hiva Isla**	**89.41**	**105**	*e*LR		LR	14 10 50.4	
	comp=Z,50nm,24.1s							
MDT	**Midelt**	**89.85**	**333**		LR	LR	14 28 33.7	
	comp=Z,22nm,19.1s,baz=156,slow=40							
PPT2	**Papeete2**	**91.24**	**118**	*e*LR		LR	14 11 33.9	
	comp=Z,40nm,23.2s							
PPT2				*e*LR		LR	14 11 38.2	
	comp=Z,78nm,25.2s							
RPZ	**Rata Peaks**	**99.45**	**160**		LR	LR	14 27 21.7	
	comp=Z,6.9nm,18.8s,baz=289,slow=35							
QSPA	**South Pole Qui**	**142.81**	**180**		PKhKP	PKPpre	13 48 49.1	
	comp=Z,0.9nm,0.6s,baz=169,slow=0.6,SNR=6.9							
CPUP	**Villa Florida**	**149.39**	**37**		PKPbc	**PKPdf**	**13 49 09.6**	**+2.5**
	comp=Z,1.1nm,0.6s,baz=356,slow=5.3,SNR=5.3							
TROLL	**Troll, Antarti**	**154.41**	**207**		PKPab	**PKPab**	**13 49 36.0**	**-0.2**
	comp=Z,130nm,0.9s							
VNA3	**Neumayer Olymp**	**158.04**	**204**		PKPab	**PKPab**	**13 49 51.3**	**-0.4**
	comp=Z,1.4nm,0.9s							

*SKHL **08** 13:35:09.9±0.2, 42.°90N×145.°50E, h44km±2km, mb3.9/3*
*JMA **08** 13:35:09.1±0.1, 42.°9N±0.°4×145.°5E±0.°6, h37km±1km, MV3.0/34, OFF NEMURO PENINSULA*

ISC 08 13:35:08.8±2.4, 42.°9N±0.°1×145.°50E±0.°07, h43km±15km, n12, σ0°40/20, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKHN	**Kushirohamanak**	**0.32**	**309**	*i* P	**Pn**	**13 35 17.8**	**+0.2**
JKHN				S	**Sn**	**13 35 23.9**	**+0.3**
AKK	**Akkeshi**	**0.50**	**286**	*e*P	**Pn**	**13 35 19.7**	**0.0**
AKK				*e*S	**Sn**	**13 35 27.2**	**-0.2**
NEM2	**Nemuro 2**	**0.51**	**20**	*i* P	**Pn**	**13 35 19.9**	**0.0**
NEM2				S	**Sn**	**13 35 27.4**	**-0.3**
NMR	**Nemuro--Hokkai**	**0.51**	**19**	*e*P	**Pn**	**13 35 19.9**	**0.0**
NMR				*e*S	**Sn**	**13 35 27.2**	**-0.5**
JAK	**Akkeshi**	**0.60**	**281**	*i* P	**Pn**	**13 35 21.1**	**+0.1**
JAK				*e*S	**Sn**	**13 35 29.5**	**-0.2**
JNK	**Nakash**	**0.91**	**321**	*i* P	**Pn**	**13 35 25.1**	**-0.1**
JNK				S	**Sn**	**13 35 36.1**	**-0.9**
JNSB	**Nemuroshibetsu**	**0.96**	**338**	P	**Pn**	**13 35 26.2**	**+0.3**
JNSB				S	**Sn**	**13 35 38.9**	**+0.5**
JRA	**Rausu**	**1.09**	**345**	P	**Pn**	**13 35 27.9**	**+0.3**
JRA				S	**Sn**	**13 35 42.0**	**+0.5**
YUK	**Yuzh-Kuril'sk**	**1.18**	**13**	*e*P	**Pn**	**13 35 28.9**	**0.0**
YUK				AMB	AMB	13 35 29.5	
	40nm,0.3s						
YUK				*e*S	**Sn**	**13 35 43.1**	**-0.7**
YUK				A	A	13 35 44.7	
	190nm,0.5s						
YUK				A	A	13 35 44.7	
	350nm,0.5s						
JOB	**Onbets**	**1.23**	**272**	P	**Pn**	**13 35 29.6**	**+0.1**
SHO	**Shikotan**	**1.38**	**44**	*e*P	Pn	13 35 51.6	+20
SHO				AMB	AMB	13 35 54.0	
	20nm,0.3s						
SHO				*e*S	Sn	13 36 08.1	+19
SHO				A	A	13 36 11.9	
	60nm,0.2s						
SHO				A	A	13 36 11.9	
	60nm,0.2s						
KUR	**Kuril'sk**	**2.90**	**35**	*e*P	**Pn**	**13 35 52.9**	**+0.4**

IDC 08 13:36:33.2±13.0, 54.°32N×160.°13E, h0km, Error ellipse: s-maj=107.9km s-min=41.3km az=51.0, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I44RU	**PETROPAVLOVSK-**	**1.88**	**231**	I	I	13 46 25.0	
	0.1nm,1.1s,baz=49,slow=339,SNR=2.5						
PETK	**Petropavlovsk-**	**1.89**	**231**	Pg	Pb	13 37 07.8	-0.6
	0.2nm,0.3s,baz=58,slow=18,SNR=4.3						
I53US	**FAIRBANKS INFR**	**27.52**	**47**	I	I	16 20 30.0	
	baz=273,slow=321,SNR=2.3						

*IDC **08** 13:42:19.7±1.8, 1.°05N×125.°85E, h0km, mb3.5/3, mbtmp3.5/4, ML3.0/1, Error ellipse: s-maj=118.4km s-min=23.3km az=67.0*
*DJA **08** 13:42:25.4±1.0, 1.°1N±3.°×12.°6E±.°, h15km±9km, M3.4/11, MLv3.4/11*

ISC 08 13:42:25.6±1.1, 1.°33N±0.°09×126.°40E±0.°04, h35km, n11, σ3°11/14, mb3.7/3, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.11**	**120**	P	**Pn**	**13 42 46.5**	**+1.8**
TNTI				S	**Sn**	**13 43 02.7**	**+3.9**
GAMI	**Galela, Maluku**	**1.48**	**70**	P	**Pn**	**13 42 51.6**	**+1.9**
GAMI				AML	AML		
MNI	**Manado**	**1.56**	**274**	P	**Pn**	**13 42 51.7**	**+0.8**
MNI				S	**Sn**	**13 43 11.3**	**+1.4**
MNI				AML	AML		
KMSI	**Cibinong**	**2.53**	**253**	P	**Pn**	**13 43 05.7**	**+1.5**
KMSI				S	**Sn**	**13 43 36.2**	**+2.4**
SANI	**Sanana**	**3.38**	**187**	P	**Pn**	**13 43 16.8**	**+0.9**
SANI				AML	AML		
GTOI	**Gorontalo**	**3.46**	**259**	P	**Pn**	**13 43 19.4**	**+2.5**
LUWI	**Luwuk**		**4.32**	**237**	P	**Pn**	**13 43 33.0**	**+4.1**
FITZ	**Fitzroy Crossi**		**19.32**	**182**	P	**P**	**13 46 41.4**	**-6.4**
	baz=11,slow=10,SNR=1.7							
	1.6nm,1.0s							
WRA	**Warramunga Arr**		**22.53**	**160**	P	**P**	**13 47 20.0**	**-2.6**
	0.8nm,0.3s,baz=339,slow=11,SNR=33							
	0.8nm,0.3s							
ASAR	**Alice Springs**		**25.89**	**164**	P	**P**	**13 47 53.9**	**-0.5**
	0.4nm,0.6s,baz=345,slow=8.7,SNR=12							
	0.4nm,0.6s							
MKAR	**Makanchi Array**		**59.34**	**326**	P	**P**	**13 52 23.1**	**-1.1**
	0.4nm,0.7s,baz=118,slow=7.7,SNR=3.4							
	0.4nm,0.7s							

*AEIC **08** 13:49:39.4±0.9, 53.°12N±0.°06×166.°76W±0.°08, h30km±8km, Error ellipse: s-maj=10.0km s-min=5.5km az=151.0*

NEIC 08 13:49:40.4±1.3, 53.°14N±0.°06×166.°79W±0.°06, h35km±2km, ML3.7/16, ML3.4(AEIC), Error ellipse: s-maj=11.1km s-min=4.4km az=334.0, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGOD	**Makushin Gods**	**0.65**	**356**		Pn	13 49 52.7	-0.6
MGOD					Sn	13 50 02.4	+0.1
MAPS	**Pakushin South**	**0.67**	**353**		Pn	13 49 53.1	-0.4
MAPS					Sn	13 50 02.8	+0.1
OKFG	**Magazine Ridge**	**0.72**	**292**		Pn	13 49 53.5	-0.7
UNV	**Unalaska Valle**	**0.72**	**14**		Pn	13 49 52.9	-1.3
UNV	**Unalaska Valle**	**0.72**	**14**		Sn	13 50 03.4	-0.6
MNAT	**Makushin Natee**	**0.74**	**5**		Pn	13 49 53.8	-0.7
MNAT					Sn	13 50 04.5	0.0
MSW	**Makushin Switc**	**0.77**	**0**		Pn	13 49 54.4	-0.5
MSW					Sn	13 50 05.4	+0.1
OKTU	**Okmok Mt. Tuli**	**0.79**	**288**		Pn	13 49 54.7	-0.4
MTBL	**Makushin Table**	**0.83**	**5**		Pn	13 49 55.5	-0.2
MTBL					Sn	13 50 07.5	+0.7
OKNC	**Okmok New Cone**	**0.86**	**292**		Pn	13 49 55.5	-0.5
OKNC				IAML		13 50 07.9	
	comp=N,2μm,0.4s						
OKNC	**Okmok New Cone**	**0.86**	**292**		Sn	13 50 07.2	-0.1
OKRE	**Okmok R'deer P**	**0.90**	**295**		Pn	13 49 56.3	-0.4
ZRO	**Akutan Zero**	**1.07**	**27**		Sn	13 50 12.8	+0.3
AKRB	**Akutan Reef Bi**	**1.08**	**23**		Sn	13 50 14.0	+1.2
LVA	**Lava Point**	**1.11**	**24**		Sn	13 50 14.1	+0.4
LVA	**Lava Point**	**1.11**	**24**	IAML		13 50 16.0	
	comp=E,2μm,0.3s						
LVA				IAML		13 50 17.1	
	comp=N,3μm,0.4s						
AKUT	**Akutan**	**1.17**	**31**		Pn	13 49 59.4	-0.8
AKUT				IAML		13 50 18.1	
	comp=E,983nm,0.2s						
CLCO	**Concord Point,**	**1.81**	**260**		Pn	13 50 08.8	-0.2
WECS	**Westdahl Cape**	**1.83**	**40**		Pn	13 50 09.8	+0.3
WECS					Sn	13 50 33.5	+2.1
WECS	**Westdahl Cape**	**1.83**	**40**	IAML		13 50 38.0	
	comp=E,954nm,0.5s						
WECS				IAML		13 50 38.7	
	comp=N,1μm,0.3s						
WEBT	**Westdahl Beart**	**1.89**	**39**		Pn	13 50 10.3	+0.1
CLES	**Cleveland East**	**1.90**	**262**		Pn	13 50 10.1	-0.2
WESN	**West Dahl Nort**	**1.94**	**42**		Pn	13 50 11.3	+0.5
WTUG	**Tugumak**	**2.22**	**39**		Pn	13 50 14.8	0.0
SSBA	**Shishaldin**	**2.27**	**43**		Pn	13 50 15.7	+0.2
ISLZ	**Isanotski Laza**	**2.42**	**48**		Pn	13 50 17.7	+0.2
ISNN	**Isanotski Nort**	**2.46**	**45**		Pn	13 50 18.7	+0.8
SPIA	**Saint Paul Isl**	**4.50**	**335**		Pn	13 50 46.1	+0.1
SPIA				IAML		13 51 52.1	
	comp=E,97nm,1.2s						
KOWE	**Korovin West**	**4.60**	**263**		Pn	13 50 49.2	+1.9
ATKA	**Atka Island**	**4.60**	**261**		Pn	13 50 49.3	+1.9
ATKA	**Atka Island**	**4.60**	**261**	IAML		13 52 01.2	
	comp=N,43nm,0.8s						
ATKA				IAML		13 52 07.0	
	comp=E,50nm,1.1s						

*RSPR **08** 13:54:50.1, 17.°87N×66.°87W, h12km*

NEIC 08 13:54:50.2±1.2, 17.°88N±0.°03×66.°858W±0.°009, h10km±1km, ML2.6/33, ML2.6(RSPR), 4C-2D, Error ellipse: s-maj=5.3km s-min=2.6km az=11.0, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GBPR	**Guanica, Bosqu**	**0.10**	**348**		Pg	13 54 53.1	+0.4
GBPR					Sg	13 54 55.4	+0.8
GBPR	**Guanica, Bosqu**	**0.10**	**348**	⇑*i*P	Pg	13 54 53.1	+0.4
GBPR				*e*S	Sg	13 54 55.4	+0.8
MLPR	**Magueyes Islan**	**0.20**	**296**		Pg	13 54 54.3	0.0
MLPR				IAML		13 54 58.1	
	2μm,0.5s						
MLPR				IAML		13 54 59.0	
	1μm,0.3s						
MLPR	**Magueyes Islan**	**0.20**	**296**		Sg	13 54 57.9	+0.7
MLPR	**Magueyes Islan**	**0.20**	**296**	⇑*i*P	Pg	13 54 54.6	+0.2
CRPR	**Cabo Rojo, PR**	**0.27**	**297**		Pg	13 54 55.5	-0.2
CRPR				IAML		13 54 59.9	
	955nm,0.5s						
CRPR				IAML		13 55 00.1	
	951nm,0.3s						
CRPR	**Cabo Rojo, PR**	**0.27**	**297**		Sg	13 54 59.7	+0.4
CRPR	**Cabo Rojo, PR**	**0.27**	**297**	⇑*i*P	Pg	13 54 55.6	-0.1
OBIP	**Obispado Ponce**	**0.29**	**56**		Pg	13 54 56.0	0.0
OBIP	**Obispado Ponce**	**0.29**	**56**		Sg	13 55 01.0	+1.0
OBIP	**Obispado Ponce**	**0.29**	**56**	⇑*i*P	Pg	13 54 56.3	+0.2
OBIP				*e*S	Sg	13 55 01.0	+1.0
CELP	**Cerrillos**	**0.33**	**54**		Pg	13 54 56.7	0.0
CELP				IAML		13 55 02.6	
	816nm,0.2s						
CELP				IAML		13 55 02.8	
	570nm,0.1s						
CELP	**Cerrillos**	**0.33**	**54**		Sb	13 55 02.4	-1.1
CELP	**Cerrillos**	**0.33**	**54**	⇑*i*P	Pg	13 54 56.8	+0.1
LSP	**Las Mesas**	**0.36**	**324**		Pg	13 54 57.4	-0.1
LSP					Sb	13 55 03.7	-0.9
LSP	**Las Mesas**	**0.36**	**324**	⇑*i*P	Pg	13 54 57.4	-0.1
LSP				*e*S	Sb	13 55 03.7	-0.9
PRSN	**Puerto Rico Se**	**0.43**	**321**		Pg	13 54 58.1	-0.5
PRSN	**Puerto Rico Se**	**0.43**	**321**		Sg	13 55 05.3	+0.9
PRSN	**Puerto Rico Se**	**0.43**	**321**	⇑*i*P	Pg	13 54 58.5	-0.2
AOPR	**Arecibo Observ**	**0.47**	**12**		Pg	13 54 59.0	-0.5
AOPR	**Arecibo Observ**	**0.47**	**12**		Sg	13 55 05.7	0.0
AOPR	**Arecibo Observ**	**0.47**	**12**	⇑*i*P	Pg	13 54 59.2	-0.3
AGPR	**Aguadilla, PR**	**0.63**	**338**		Pg	13 55 01.7	-0.8
AGPR	**Aguadilla, PR**	**0.63**	**338**		Sg	13 55 10.8	+0.1
AGPR	**Aguadilla, PR**	**0.63**	**338**	⇑*i*P	Pg	13 55 01.9	-0.5
ECPR	**Experimental S**	**0.64**	**47**		Pg	13 55 01.8	-0.9
ECPR				IAML		13 55 11.8	
	516nm,0.2s						
ECPR	**Experimental S**	**0.64**	**47**		Sg	13 55 10.6	-0.5
ECPR	**Experimental S**	**0.64**	**47**	⇑*e*P	Pg	13 55 02.0	-0.7
EMPR	**Esperanza - Ma**	**0.67**	**28**		Pg	13 55 02.9	-0.3
EMPR					Sg	13 55 12.6	+0.7
EMPR	**Esperanza - Ma**	**0.67**	**28**	⇑*e*P	Pg	13 55 02.9	-0.3
EMPR				*e*S	Sg	13 55 12.6	+0.7
SJG	**San Juan**	**0.71**	**71**		Pg	13 55 03.0	-1.0
SJG	**San Juan**	**0.71**	**71**	⇓*e*P	Pg	13 55 03.4	-0.6
IGPR	**InterUniversit**	**0.72**	**83**		Pg	13 55 03.9	-0.2
IGPR					Sb	13 55 14.4	-0.3
IGPR	**InterUniversit**	**0.72**	**83**	⇑*e*P	Pg	13 55 03.9	-0.2
IDE	**Isla Desecheo**	**0.77**	**311**		Pg	13 55 04.2	-0.9
IDE					Sg	13 55 14.8	-0.4
IDE	**Isla Desecheo**	**0.77**	**311**	⇑*i*P	Pg	13 55 04.2	-0.9
IDE				*e*S	Sg	13 55 14.8	-0.4
PDPR	**Patillas Dam,**	**0.81**	**80**		Pg	13 55 05.2	-0.5
PDPR				IAML		13 55 20.1	
	183nm,0.3s						
PDPR	**Patillas Dam,**	**0.81**	**80**		Sb	13 55 17.0	-0.3
PDPR	**Patillas Dam,**	**0.81**	**80**	⇓*e*P	Pg	13 55 05.9	+0.1
GCPR	**Guaynabo City**	**0.85**	**60**		Pg	13 55 05.5	-1.1
HUMP	**Col San Antoni**	**0.99**	**75**		Pg	13 55 07.8	-1.5
HUMP				IAML		13 55 24.5	
	157nm,0.2s						
HUMP				IAML		13 55 25.1	
	191nm,0.2s						
HUMP	**Col San Antoni**	**0.99**	**75**		Sg	13 55 20.7	-1.6
HUMP	**Col San Antoni**	**0.99**	**75**	⇑*e*P	Pg	13 55 08.2	-1.1

SDD 08 13:55:21.5±0.7, 17.°84N×66.°84W, h15km±7km, MD2.8, ML3.1, MW3.2, 10C-2D, Presumed earthquake, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLPR	**Magueyes Islan**	**0.23**	**304**	⇑*e*Pg	Pg	13 55 26.1	-0.5
MLPR				IAML		13 55 29.9	
	comp=N,2μm,0.4s						
MLPR				⇑*e*Sg	Sg	13 55 29.9	-0.1
CRPR	**Cabo Rojo, PR**	**0.30**	**303**	⇑*e*Pg	Pg	13 55 27.2	-0.6
CRPR				⇑*e*Sg	Sg	13 55 30.9	-1.3
CRPR				IAML		13 55 31.9	
	comp=N,3μm,0.2s						
CELP	**Cerrillos**	**0.34**	**47**	⇑*e*Pg	Pg	13 55 28.4	-0.1
CELP				⇓*e*Sg	Sg	13 55 32.9	-0.5
PRSN	**Puerto Rico Se**	**0.47**	**323**	⇑*e*Pg	Pg	13 55 30.0	-0.9
PRSN				⇑*e*Sg	Sg	13 55 37.0	-0.3
PRSN				IAML		13 55 39.0	
	comp=N,3μm,0.3s						
AOPR	**Arecibo Observ**	**0.51**	**10**	⇑*e*Pg	Pg	13 55 30.7	-1.0
AOPR				⇓*e*Sg	Sg	13 55 37.4	-1.1
AOPR				IAML		13 55 37.5	
	comp=N,3μm,0.2s						
AGPR	**Aguadilla, PR**	**0.67**	**338**	⇑*e*Pg	Pg	13 55 33.5	-1.2
AGPR				⇑*e*Sg	Sg	13 55 42.7	-0.9
AGPR				IAML		13 55 48.3	
	comp=N,372nm,0.8s						

*IDC **08** 14:10:04.6±1.0, 41.°34N×70.°89W, h0km, mb3.6/5, mbtmp3.7/9, ML2.2/3, Error ellipse: s-maj=22.4km s-min=18.0km az=161.0*
*NEIC **08** 14:10:07.0±1.5, 41.°52N±0.°03×70.°96W±0.°02, h10km±1km, mb4.1/3, mb_Lg4.0/86, ML4.0/12, Mwr3.6/38, Error ellipse: s-maj=4.9km s-min=3.0km az=170.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}2.56; $M_{\theta\theta}$-0.05; $M_{\phi\phi}$-2.52; $M_{r\theta}$-0.71; $M_{\theta\phi}$-0.78; $M_{\phi r}$-1.16; Fault plane solution: $M_0$2.99000×10^{14} NP1:ϕ_s8.36000°, δ32.28000°, λ77.18000°. NP2:ϕ_s203.42000°, δ58.62000°, λ97.98000°. Principal axes: T 2.9164, Plg75.0000°, Azm136.0000°; N 0.1371, Plg7.0000°, Azm19.0000°; P -3.0535, Plg13.0000°, Azm288.0000°;*
*NEIC **08** 14:10:07.3, 41.°53N×70.°97W, h15km*

ISC 08 14:10:06.5±1.0, 41.°55N±0.°04×70.°97W±0.°03, h14km±7km, n77, σ0°91/54, mb3.4/4, Southern New England

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
M65A	**Busby, Falmout**	**0.24**	**86**		**Pg**	**14 10 12.3**	**+0.7**
M65A				Sg	**Sg**	**14 10 15.7**	**+0.5**
M65A				IAML		14 10 21.3	
	comp=E,23μm,0.3s						
L64A	**Middleborough**	**0.40**	**14**		**Pb**	**14 10 15.0**	**-0.4**
L64A				Sg	**Sg**	**14 10 20.0**	**0.0**
L64A				IAML		14 10 25.7	
	comp=E,10μm,0.2s						
BCX	**Boston College**	**0.80**	**349**		**Pg**	**14 10 22.3**	**+0.2**
BCX					**Sg**	**14 10 32.6**	**0.0**
BCX				IAML		14 10 35.4	
	comp=E,6μm,0.4s						
M63A	**Gales Ferry**	**0.82**	**260**		**Pb**	**14 10 22.1**	**-0.5**
M63A					**Sg**	**14 10 32.8**	**-0.5**
WES	**Weston**	**0.88**	**342**	Pg	**Pg**	**14 10 23.5**	**-0.1**
WES				IAML		14 10 36.2	
	comp=E,6μm,0.4s						
HRV	**Adam Dziewonsk**	**1.06**	**335**		**Pg**	**14 10 26.5**	**-0.4**
HRV	**Adam Dziewonsk**	**1.06**	**335**		**Sg**	**14 10 40.6**	**-0.1**
HRV				IAML		14 10 44.9	
	comp=E,4μm,0.5s						
HRV				IAML		14 10 45.7	
	comp=E,3μm,0.4s						
K62A	**Royalston**	**1.46**	**320**		**Pn**	**14 10 33.3**	**+0.7**
UNH	**University of**	**1.55**	**3**	Pn	**Pn**	**14 10 34.0**	**+0.4**
L61B	**Northampton**	**1.56**	**306**		**Pn**	**14 10 33.9**	**0.0**
WSPT	**Westport, CT**	**1.82**	**259**		**Pn**	**14 10 37.5**	**0.0**
KSCT	**Kent School, K**	**1.90**	**276**		**Pn**	**14 10 38.3**	**-0.2**
N62A	**Caumsett State**	**1.98**	**253**		**Pn**	**14 10 39.6**	**-0.1**
N62A					**Sb**	**14 11 07.2**	**+0.2**
J61A	**Chester**	**2.15**	**327**		**Pn**	**14 10 42.1**	**+0.1**
PAL	**Palisades**	**2.28**	**257**		**Pn**	**14 10 43.4**	**-0.4**
TRY	**Troy**	**2.33**	**301**		**Pn**	**14 10 44.5**	**0.0**
TRY				IAmb_Lg		14 11 27.9	
	comp=Z,766nm,1.0s						
I62A	**Tamworth**	**2.34**	**353**		**Pn**	**14 10 44.6**	**0.0**
HNH	**Hanover**	**2.37**	**336**		**Pn**	**14 10 45.1**	**+0.2**
HNH					**Sb**	**14 11 18.9**	**+0.9**
HNH				IAmb_Lg		14 11 26.7	
	comp=Z,608nm,0.8s						
CPNY	**Central Park**	**2.38**	**253**		**Pn**	**14 10 45.7**	**+0.5**
CPNY				IAmb_Lg		14 11 20.8	
	comp=Z,716nm,0.7s						
NPNY	**Mohonk Preserv**	**2.39**	**276**		**Pn**	**14 10 45.4**	**+0.1**
I63A	**Otisfield**	**2.52**	**6**		**Pn**	**14 10 47.2**	**+0.1**
LBNH	**Lisbon**	**2.78**	**346**		**Pn**	**14 10 51.5**	**+0.7**
MCVT	**Middlebury Col**	**2.83**	**329**		**Pn**	**14 10 52.1**	**+0.7**
MCVT				IAmb_Lg		14 11 38.9	
	comp=Z,499nm,0.9s						
H62A	**Milan**	**3.03**	**357**		**Pn**	**14 10 54.6**	**+0.5**
VT1	**Waterbury**	**3.08**	**335**	IAmb_Lg	

O54A	**Avella**	**7.26**	**262**	IAmb_Lg		14 13 53.7			
	comp=Z,175nm,0.8s								
N53A	**Lisbon**	**7.49**	**268**	IAmb_Lg		14 14 10.5			
	comp=Z,157nm,0.8s								
R55A	**Marlinton**	**7.75**	**248**	IAmb_Lg		14 14 11.0			
	comp=Z,174nm,1.0s								
GBN	**Guysborough**	**7.88**	**58**	IAmb_Lg		14 14 23.3			
	comp=Z,105nm,0.8s								
Q54A	**Coxs Mills**	**7.97**	**254**	IAmb_Lg		14 14 24.1			
	comp=Z,98nm,0.7s								
VLDQ	**Val d'Or**	**8.02**	**327**	IAmb_Lg		14 14 30.1			
	comp=Z,120nm,0.9s								
BLA	**Blacksburg**	**8.50**	**242**	IAmb_Lg		14 14 44.3			
	comp=Z,146nm,0.7s								
U56A	**King**	**8.98**	**238**	IAmb_Lg		14 15 07.6			
	comp=Z,86nm,0.9s								
TKL	**Tuckaleechee C**	**11.61**	**244**	Pn	**Pn**	**14 12 49.1**	**-2.8**		
	comp=Z,0.1nm,0.3s,baz=72,slow=20,SNR=1.3								
TKL				Sn	Sn	14 14 44.3	-17		
	comp=Z,0.5nm,0.3s,baz=16,slow=13,SNR=1.7								
TKL				Lg	Lg	14 15 49.5			
	comp=Z,1.1nm,0.3s,baz=179,slow=19,SNR=4.4								
	comp=Z,3.5nm,0.9s								
TKL				AML	AML				
SCHQ	**Schefferville**	**13.57**	**10**	Pn	**Pn**	**14 13 16.3**	**-2.2**		
	comp=Z,0.2nm,0.3s,baz=192,slow=12,SNR=1.3								
SCHQ				Sn	Sn	14 15 40.5	-8.6		
	comp=Z,0.3nm,0.3s,baz=177,slow=16,SNR=1.5								
SCHQ				Lg	Lg	14 16 56.9			
	comp=Z,0.6nm,0.3s,baz=82,slow=18,SNR=1.6								
	comp=Z,4.9nm,0.9s								
SCHQ				AML	AML				
ULM	**Lac du Bonnet**	**19.32**	**305**	Pn	**P**	**14 14 31.2**	**0.0**		
	baz=98,slow=14,SNR=1.8								
ULM				Sn	**Sn**	**14 18 09.6**	**+0.9**		
	comp=Z,0.2nm,0.3s,baz=184,slow=14,SNR=2.0								
ULM				Lg	Lg	14 20 01.9			
	comp=Z,0.7nm,0.3s,baz=358,slow=17,SNR=5.6								
	comp=Z,1.2nm,0.6s								
ULM	**Lac du Bonnet**	**19.32**	**305**	IAmb	IAmb	14 15 10.7			
	comp=Z,12nm,1.4s								
PDAR	**Pinedale Array**	**28.47**	**286**	P	**P**	**14 16 02.6**	**+1.3**		
	comp=Z,0.4nm,0.8s,baz=84,slow=12,SNR=5.1								
	comp=Z,0.4nm,0.8s								
TXAR	**Lajitas Array**	**29.12**	**256**	P	**P**	**14 16 06.8**	**-0.3**		
	comp=Z,0.1nm,0.3s,baz=49,slow=10,SNR=1.8								
	comp=Z,0.1nm,0.3s								
NVAR	**Mina Array Bea**	**36.05**	**281**	P	**P**	**14 17 09.7**	**+1.9**		
	comp=Z,0.6nm,0.8s,baz=54,slow=8.0,SNR=1.8								
	comp=Z,0.6nm,0.8s								
TORD	**Torodi Ar. Bea**	**68.45**	**91**	P	**P**	**14 21 06.9**	**-1.5**		
	comp=Z,0.2nm,0.7s,baz=292,slow=7.6,SNR=1.4								
	comp=Z,0.2nm,0.7s								
BVAR	**Borovoye Array**	**80.07**	**23**	P	**P**	**14 22 17.8**	**+2.2**		
	comp=Z,2.0nm,1.0s,baz=343,slow=4.6,SNR=3.9								
	comp=Z,2.0nm,1.0s								
WRA	**Warramunga Arr**	**149.59**	**307**	PKPbc	**PKiKP**	**14 29 57.0**	**0.0**		
	comp=Z,0.7nm,0.5s,baz=43,slow=2.4,SNR=19								
STKA	**Stephens Creek**	**152.31**	**280**	PKPbc	**PKPbc**	**14 30 01.9**	**-0.1**		
	comp=Z,1.0nm,0.6s,baz=100,slow=4.8,SNR=4.5								
ASAR	**Alice Springs**	**152.64**	**303**	PKPbc	**PKiKP**	**14 30 03.7**	**+0.5**		
	comp=Z,0.3nm,0.6s,baz=61,slow=2.9,SNR=9.8								

*SJA **08** 14:16:24.4±0.7,22.°29S×69.°44W,h92km±2km,ML3.9, MW3.8*
*IDC **08** 14:16:25.2±2.6,22.°62S×68.°43W,h56km±21km,mb3.8/4, mbtmp3.9/9,ML3.9/5,Error ellipse: s-maj=38.6km s-min=15.5km az=111.0*
*GUC **08** 14:16:27.2±0.7,22.°34S×69.°58W,h81km±3km,ML3.9, Presumed earthquake*

ISC 08 14:16:24.5±0.8,22.°35S±0.°04×69.°45W±0.°05,h98km±5km, n50,σ2°06/67,mb4.0/3,5C-5D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PB06	**IPOC Station P**	**0.37**	**197**	*e*P	**Pn**	**14 16 39.5**	**0.0**	
PB06				*e*S	**Sn**	**14 16 50.5**	**-0.1**	
PB06				IAML		14 16 51.4		
	comp=Z,6μm,0.1s							
PB06	**IPOC Station P**	**0.37**	**197⇑**	*e*P	**Pn**	**14 16 39.7**	**+0.2**	
PB06				*e*S	**Sn**	**14 16 49.9**	**-0.7**	
PB06				IAML		14 16 50.8		
	comp=E,18μm,0.3s							
PB03	**IPOC Station P**	**0.41**	**317**	*e*P	**Pn**	**14 16 39.6**	**-0.2**	
PB03				*e*S	**Sn**	**14 16 50.0**	**-1.0**	
PB03				IAML		14 16 51.1		
	comp=Z,8μm,0.3s							
PB03	**IPOC Station P**	**0.41**	**317⇑**	*e*P	**Pn**	**14 16 39.5**	**-0.2**	
PB03				*e*S	**Sn**	**14 16 49.8**	**-1.2**	
PB03				IAML		14 16 50.4		
	comp=N,17μm,0.2s							
PB09	**IPOC Station P**	**0.58**	**19**	*e*P	**Pn**	**14 16 40.7**	**-0.3**	
PB09				*e*S	**Sn**	**14 16 52.2**	**-1.0**	
PB09				IAML		14 16 55.0		
	comp=Z,3μm,0.3s							
PB09	**IPOC Station P**	**0.58**	**19⇓**	*e*P	**Pn**	**14 16 40.8**	**-0.2**	
PB09				*e*S	**Sn**	**14 16 52.2**	**-1.0**	
PB09				IAML		14 16 55.5		
	comp=E,3μm,0.2s							
PB07	**IPOC Station P**	**0.74**	**327**	*e*P	**Pn**	**14 16 42.6**	**+0.2**	
PB07				*e*S	**Sn**	**14 16 55.0**	**-0.6**	
PB07				IAML		14 16 55.5		
	comp=Z,7μm,0.3s							
PB07	**IPOC Station P**	**0.74**	**327⇑**	*e*P	**Pn**	**14 16 42.5**	**+0.2**	
PB07				*e*S	**Sn**	**14 16 54.0**	**-1.6**	
PB07				IAML		14 16 55.8		
	comp=E,16μm,0.4s							
PB05	**IPOC Station P**	**0.85**	**234**	*e*P	**Pn**	**14 16 44.4**	**+1.1**	
PB05				*e*S	**Sn**	**14 16 59.0**	**+1.4**	
PB05				IAML		14 17 00.8		
	comp=Z,1μm,0.2s							
PB05	**IPOC Station P**	**0.85**	**234⇑**	*e*P	**Pn**	**14 16 44.3**	**+0.9**	
PB05				*e*S	**Sn**	**14 16 55.8**	**-1.8**	
PB05				IAML		14 16 59.3		
	comp=N,3μm,0.3s							
PB05				IAML		14 17 00.5		
	comp=E,3μm,0.3s							
PB02	**IPOC Station P**	**1.11**	**338**	*e*P	**Pn**	**14 16 46.5**	**+0.4**	
PB02				*e*S	**Sn**	**14 17 01.8**	**-0.5**	
PB02				IAML		14 17 03.2		
	comp=Z,6μm,0.3s							
PB02	**IPOC Station P**	**1.11**	**338⇓**	*e*P	**Pn**	**14 16 46.5**	**+0.4**	
PB02				*e*S	**Sn**	**14 17 01.5**	**-0.8**	
PB02				IAML		14 17 04.1		
	comp=E,7μm,0.3s							
AF01	**San Pedro de A**	**1.32**	**117**	*e*P	**Pn**	**14 16 46.9**	**-1.9**	
AF01				*e*S	**Sn**	**14 17 08.4**	**+1.4**	
AF01				IAML		14 17 27.4		
	comp=Z,5μm,0.4s							
AF01	**San Pedro de A**	**1.32**	**117**	*e*P	**Pn**	**14 16 50.5**	**+1.8**	
AF01				*e*S	**Sn**	**14 17 09.2**	**+2.2**	
AF01				IAML		14 17 19.3		
	comp=N,9μm,0.5s							
PB10	**IPOC Station P**	**1.54**	**221**	*e*P	**Pn**	**14 16 52.5**	**+1.3**	
PB10				*e*S	**Sn**	**14 17 11.7**	**+0.3**	
PB10				IAML		14 17 20.5		
	comp=Z,584nm,0.3s							
PB10	**IPOC Station P**	**1.54**	**221⇑**	*e*P	**Pn**	**14 16 52.1**	**+1.0**	
PB10				*e*S	**Sn**	**14 17 10.9**	**-0.4**	
PB10				IAML		14 17 17.4		
	comp=E,735nm,0.2s							
TA01	**Diego Aracena**	**1.90**	**339**	*e*P	**Pn**	**14 16 55.5**	**-0.2**	
TA01				*e*S	**Sn**	**14 17 15.9**	**-3.6**	
TA01				IAML		14 17 25.3		
	comp=Z,500nm,0.4s							
TA01	**Diego Aracena**	**1.90**	**339⇓**	*e*P	**Pn**	**14 16 55.4**	**-0.4**	
TA01				*e*S	**Sn**	**14 17 17.8**	**-1.7**	
TA01				IAML		14 17 31.1		
	comp=E,632nm,0.3s							
TA02	**Huaiquique**	**2.16**	**343**	*e*P	**Pn**	**14 16 59.3**	**+0.1**	
TA02				IAML		14 17 42.0		
	comp=Z,377nm,0.3s							
TA02	**Huaiquique**	**2.16**	**343**	*e*P	**Pn**	**14 16 59.0**	**-0.2**	
TA02				*e*S	**Sn**	**14 17 23.4**	**-2.2**	
TA02				IAML		14 17 32.0		
	comp=N,1μm,0.1s							
PB08	**IPOC Station P**	**2.22**	**7**	*e*P	**Pn**	**14 17 00.8**	**+0.6**	
PB08				*e*S	**Sn**	**14 17 18.5**	**-8.9**	
PB08	**IPOC Station P**	**2.22**	**7⇓**	*e*P	**Pn**	**14 17 00.6**	**+0.4**	
PB08				*e*S	**Sn**	**14 17 24.8**	**-2.7**	
PB08				IAML		14 17 31.6		
	comp=N,385nm,0.1s							
PB14	**IPOC Station P**	**2.43**	**201**	*e*P	**Pn**	**14 17 03.8**	**+0.9**	
PB14				*e*S	**Sn**	**14 17 27.5**	**-4.8**	
PB14				IAML		14 17 54.5		
	comp=Z,392nm,0.5s							
PB11	**IPOC Station P**	**2.58**	**356**	*e*P	**Pn**	**14 17 04.6**	**-0.2**	
PB11				*e*S	Sn	14 17 23.4	-12	
PB11				IAML		14 17 59.9		
	comp=Z,280nm,0.3s							
PB11	**IPOC Station P**	**2.58**	**356**	*e*P	**Pn**	**14 17 04.3**	**-0.5**	
PB11				*e*S	**Sn**	**14 17 36.6**	**+0.8**	
PB11				IAML		14 17 43.0		
	comp=N,460nm,0.2s							
GO01	**Chusmiza**	**2.68**	**5**	*e*P	**Pn**	**14 17 06.8**	**+0.3**	
GO01				*e*S	Sn	14 17 24.9	-14	
GO01				IAML		14 17 31.6		
	comp=Z,430nm,0.3s							
GO01	**Chusmiza**	**2.68**	**5**	*e*P	**Pn**	**14 17 05.8**	**-0.6**	
GO01				*e*S	**Sn**	**14 17 38.6**	**0.0**	
PSGCX	**Pisagua**	**2.81**	**347**	*e*P	**Pn**	**14 17 06.7**	**-1.1**	
PSGCX				*e*S	Sn	14 17 31.2	-10	
PSGCX				IAML		14 17 32.0		
	comp=Z,313nm,0.3s							
PSGCX	**Pisagua**	**2.81**	**347⇓**	*e*P	**Pn**	**14 17 06.5**	**-1.3**	
PSGCX				*e*S	**Sn**	**14 17 39.6**	**-1.4**	
SALTA		**3.42**	**124**	*e*P	Pn	14 17 01.4	-15	
SALTA				*e*P		14 17 21.6		
SALTA				*e*P		14 17 24.7		
PB12	**IPOC Station P**	**3.81**	**347**	*e*P	**Pn**	**14 17 20.0**	**-1.2**	
PB12				IAML		14 18 33.4		
	comp=Z,98nm,0.6s							
AC01	**Pan de Azucar**	**3.92**	**195**	*e*P	**Pn**	**14 17 22.2**	**-0.4**	
AC01				IAML		14 18 40.9		
	comp=Z,89nm,0.4s							
PB16	**IPOC Station P**	**4.00**	**359**	*e*P	**Pn**	**14 17 24.7**	**+0.5**	
PB16				IAML		14 18 40.5		
	comp=Z,58nm,0.6s							
AC02	**Maricunga**	**4.47**	**176**	*e*P	**Pn**	**14 17 32.5**	**+2.0**	
AC02				IAML		14 18 52.0		
	comp=Z,81nm,0.3s							
GO03	**Copiapo**	**5.27**	**188**	*e*P	**Pn**	**14 17 40.5**	**-0.4**	
GO03				IAML		14 19 17.5		
	comp=Z,66nm,0.3s							
LPAZ	**La Paz**	**6.16**	**12**	P	**Pn**	**14 17 55.8**	**+2.2**	
	comp=Z,3.0nm,0.3s,baz=179,slow=5.3,SNR=58							
	comp=Z,8.4nm,0.4s							
LPAZ				AML	AML			
CFA	**Coronel Fontan**	**9.28**	**174**	P	**Pn**	**14 18 33.4**	**-2.1**	
	comp=Z,2.1nm,0.3s,baz=6.8,slow=12,SNR=28							
CFA				S	**Sn**	**14 20 10.7**	**-7.3**	
	comp=Z,0.6nm,0.5s,baz=309,slow=17,SNR=0.9							
	comp=Z,4.0nm,0.3s							
CFA				AML	AML			
SIV	**San Ignacio**	**10.13**	**53**	P	Pn	14 18 40.5	-6.6	
	baz=141,slow=14,SNR=6.6							
SIV				S	Sn	14 20 26.9	-12	
	comp=Z,0.8nm,0.7s,baz=125,slow=23,SNR=0.9							
	comp=Z,0.6nm,0.2s							
CPUP	**Villa Florida**	**11.74**	**112**	P	Pn	14 18 55.1	-14	
	comp=Z,0.1nm,0.3s,baz=299,slow=14,SNR=2.2							
	comp=Z,0.4nm,0.4s							
CPUP				AML	AML			
PLCA	**Paso Flores**	**18.35**	**183**	P	**Pn**	**14 20 33.8**	**+1.2**	
	comp=Z,0.1nm,0.3s,baz=342,slow=10,SNR=5.5							
	comp=Z,1.3nm,0.7s							
PLCA				AML	AML			
BDFB	**Brasilia**	**21.33**	**76**	P	**P**	**14 21 00.3**	**-3.6**	
	comp=Z,2.7nm,0.4s,baz=242,slow=10,SNR=6.0							
	comp=Z,2.7nm,0.4s							
QSPA	**South Pole Qui**	**67.84**	**180**	P	**P**	**14 27 15.3**	**+3.3**	
	comp=Z,0.5nm,0.7s,baz=117,slow=4.3,SNR=5.6							
	comp=Z,0.5nm,0.7s							
DBIC	**Dimbokro**	**69.46**	**73**	P	**P**	**14 27 22.6**	**-0.1**	
	comp=Z,5.3nm,1.2s,baz=234,slow=5.2,SNR=4.7							
	comp=Z,5.3nm,1.2s							
TORD	**Torodi Ar. Bea**	**78.11**	**70**	P	**P**	**14 28 14.6**	**+1.3**	
	comp=Z,1.5nm,0.5s,baz=253,slow=5.1,SNR=14							
	comp=Z,1.5nm,0.5s							
H11S2	**WAKE ISLAND Hyd**	**27.48**	**277**	T	T	16 55 23.0		
	baz=104,slow=74,SNR=13							
H11S1	**WAKE ISLAND Hyd**	**27.49**	**277**	T	T	16 55 22.3		
	baz=104,slow=74,SNR=11							
H11S3	**WAKE ISLAND Hyd**	**27.50**	**277**	T	T	16 55 21.6		
	baz=104,slow=74,SNR=11							
H11N3	**WAKE ISLAND Hyd**	**27.58**	**278**	T	T	16 55 28.2		
	baz=104,slow=74,SNR=15							
H11N2	**WAKE ISLAND Hyd**	**27.60**	**278**	T	T	16 55 31.2		
	baz=104,slow=74,SNR=11							
H11N1	**WAKE ISLAND Hyd**	**27.60**	**278**	T	T	16 55 25.9		
	baz=104,slow=74,SNR=9.5							

*GCG **08** 14:17:26.8±1.3,13.°73N×91.°28W,h29km±6km,MD4.4, Presumed earthquake*
*SNET **08** 14:17:31.7±1.9,13.°84N×91.°00W,h21km,ML3.6, Presumed earthquake*

ISC 08 14:17:24.0±2.7,13.°6N±0.°1×91.°27W±0.°08,h3km±13km,n14, σ1°05/23,Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
STG8	**El Palmar, Qui**	**0.81**	**354**	*i* P		**Pn**	**14 17 45.3**	**+2.7**
FG8	**Yepocapa, Chim**	**0.92**	**48**	*i* P		**Pg**	**14 17 41.8**	**+0.1**
FG16	**Alotenango, Sa**	**0.96**	**49**	*i* P		**Pg**	**14 17 42.7**	**+0.2**
PCG5	**San Vicente Pa**	**1.03**	**57**	*i* P		**Pg**	**14 17 43.6**	**-0.3**
PCG5				*i* S		**Sg**	**14 17 56.3**	**-1.0**
NUBE	**Las Nubes**	**1.47**	**80**	*i* P		**Pn**	**14 17 52.3**	**+0.8**
NUBE				*i* S		**Sn**	**14 18 10.0**	**-1.4**
NUBE	**Las Nubes**	**1.47**	**80**	*i* P		**Pn**	**14 17 52.4**	**+0.8**
NUBE				*e*S		**Sn**	**14 18 09.5**	**-1.9**
APG	**El Apazote**	**1.56**	**30**	*i* P		**Pn**	**14 17 53.0**	**+0.1**
APG				*i* S		**Sn**	**14 18 13.2**	**-0.6**
THIG		**1.59**	**322**	*i* P		**Pn**	**14 17 52.2**	**-0.9**
RTR	**El Retiro**	**1.59**	**81**	*e*P		**Pb**	**14 17 54.8**	**+0.5**
RBDL	**Robledal**	**1.60**	**73**	*i* P		**Pb**	**14 17 54.8**	**+0.3**
RBDL				*e*S		**Sn**	**14 18 14.6**	**-0.3**
CEVE	**Cerro Verde**	**1.61**	**83**	*i* P		**Pn**	**14 17 54.6**	**+1.0**
CEVE				*e*S		**Sn**	**14 18 14.6**	**-0.4**
SNJE	**San Jose**	**1.63**	**82**	*i* P		**Pn**	**14 17 55.0**	**+1.1**
SNJE				*e*S		**Sn**	**14 18 15.0**	**-0.5**
UNIC	**Universidad Ca**	**1.70**	**78**	*i* P		**Pn**	**14 17 55.6**	**+0.9**
UNIC				*e*S		**Sn**	**14 18 16.4**	**-0.7**
PMON	**Piamonte**	**1.90**	**88**	*i* P		**Pb**	**14 17 59.2**	**-0.2**
PMON				*e*S		**Sn**	**14 18 22.3**	**+0.3**

*JSO **08** 14:20:30.7±0.8,30.°1N×3.°6E±.°,h29km,M2.4/9,MLv2.4/9*

GII 08 14:20:19.2±0.0,29.°735N±0.°002×36.°551E±0.°001,h0km, confirmed,Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
AQBJ	**Aqaba**	**1.31**	**270**	P		Pn	14 20 44.7	0.0
AQBJ				AML		AML		
YTVT	**Yotvata**	**1.31**	**277**	P		Pn	14 20 44.7	0.0
YTVT				S		Sn	14 21 03.4	+0.5
HRFI	**Mount Harif**	**1.35**	**283**	P		Pb	14 20 45.6	+0.2
HRFI				AML		AML		
HRFI	**Mount Harif**	**1.35**	**283**	P		Pg	14 20 45.2	+0.1
HRFI				S		Sn	14 21 04.6	+0.6
EIL	**Elat**	**1.39**	**268**	P		Pb	14 20 46.6	+0.5
EIL				AML		AML		
EIL	**Elat**	**1.39**	**268**	P		Pn	14 20 45.6	-0.3
EIL				S		Sn	14 21 05.1	0.0
ZFRI	**Zfri**	**1.44**	**305**	P		Pg	14 20 46.9	0.0
ZFRI				S		Sn	14 21 06.5	+0.3
PRNI	**Paran**	**1.48**	**295**	P		Pn	14 20 47.0	-0.1
PRNI				AML		AML		
IDAN	**Idan**	**1.56**	**315**	P		Pn	14 20 47.9	-0.3
IDAN				S		Sg	14 21 09.5	+0.2
RMNI	**Mount Ramon**	**1.77**	**299**	P		Pn	14 20 51.8	+0.5
RMNI				S		Sb	14 21 15.3	-0.2
GHAJ	**Ghor Haditha**	**1.78**	**332**	P		Pb	14 20 52.1	-0.6
GHAJ				AML		AML		
GHAJ	**Ghor Haditha**	**1.78**	**332**	P		Pn	14 20 51.3	+0.1
GHAJ				S		Sn	14 21 15.0	+0.5
MSBI	**Mazada**	**1.88**	**327**	P		Pn	14 20 52.2	-0.3
MSBI				S		Sn	14 21 17.0	0.0
ASF	**Jabal al Asfar**	**2.44**	**6**	P		Pg	14 21 09.3	+3.1

*IDC **08** 14:41:09.9±0.7,27.°07N×53.°53E,h0km,mb3.9/22, mbtmp3.9/25,ML3.6/3,MS3.5/3,Error ellipse: s-maj=16.6km s-min=14.1km az=1.0*
*MOS **08** 14:41:10.8±1.9,26.°84N×53.°56E,h15km,mb4.5/26,Error ellipse: s-maj=7.2km s-min=5.1km az=99.5*
*TEH **08** 14:41:12.4,27.°09N×53.°53E,h19km±22km,ML3.9, Presumed earthquake*
*DSN **08** 14:41:12.6±1.2,27.°30N×53.°58E,h10km,ML3.7/17,Error ellipse: s-maj=16.4km s-min=5.0km az=177.0*
*THR **08** 14:41:12.5±0.0,27.°12N×53.°61E,h16km±4km,ML4.1, Presumed earthquake*
*NEIC **08** 14:41:13.0±1.7,27.°14N±0.°09×53.°49E±0.°08,h10km±1km, mb4.3/30,Error ellipse: s-maj=15.1km s-min=11.5km az=196.0*
*GFZ **08** 14:41:14.1±0.2,27.°1N±4.°×5.°3E±.°,h10km,M4.4/24, mb4.4/24,confirmed*
*OMAN **08** 14:41:15.0±0.1,27.°06N×53.°64E,h16km,mb3.7/9, ml3.9/19,Error ellipse: s-maj=1.3km s-min=0.9km az=355.0*

ISC 08 14:41:12.7±0.3,27.°01N±0.°03×53.°57E±0.°03,h10km,n254, σ2°22/276,mb4.2/68,MS3.5/4,7C-10D,Southern Iran

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
LMD1	**Lamerd**	**0.49**	**312**	*e*Pg		**Pb**	**14 41 21.7**	**-1.7**
LMD1				IAML			14 41 30.3	
	comp=Z,20μm,1.0s							
LMD1	**Lamerd**	**0.49**	**312**	Pg		**Pb**	**14 41 21.7**	**-1.7**
KHL1	**Khalili_Fars**	**0.67**	**339**	Pg		**Pg**	**14 41 23.4**	**-2.3**
JHRM	**Jahrom**	**1.49**	**0**	Pg		**Pn**	**14 41 38.5**	**-1.1**
JRN	**Qarnain Island**	**2.16**	**198**	P		**Pb**	**14 41 51.5**	**-0.5**
BNDS	**Bandar-Abbas**	**2.35**	**80**	*e*Pn		**Pn**	**14 41 52.0**	**+0.4**
BNDS				IAML			14 42 46.7	
	comp=Z,460nm,1.0s							
GENO	**Geno**	**2.35**	**80**	Pn		**Pn**	**14 41 51.9**	**+0.4**
DSBU	**Dashti - Bushe**	**2.45**	**304**	Pn		**Pn**	**14 41 51.9**	**-0.9**
SHME	**Shamm** SNR=15	**2.50**	**112**	*e*P		**Pn**	**14 41 54.6**	**+1.2**
SHME				S		**Sn**	**14 42 26.3**	**+2.4**
SHME	**Shamm** SNR=15	**2.50**	**112**	P		**Pn**	**14 41 54.6**	**+1.2**
BANOM	**Banah** SNR=11	**2.68**	**113**	*e*P		**Pn**	**14 41 58.0**	**+2.0**
BANOM	**Banah** SNR=11	**2.68**	**113**	P		**Pn**	**14 41 57.5**	**+1.5**
IBND	**Bandar-abas**	**2.68**	**80**	Pn		**Pn**	**14 41 56.8**	**+0.8**
NAZ	**Nazwa, Dubai** SNR=18	**2.76**	**137**	*e*P		**Pn**	**14 42 00.6**	**+3.6**
NAZ	**Nazwa, Dubai** SNR=18	**2.76**	**137**	P		**Pb**	**14 42 01.0**	**-1.2**
NAZ				S		**Sn**	**14 42 34.8**	**+4.4**
MASF	**Masafi** SNR=21	**2.84**	**125**	P		**Pn**	**14 42 01.1**	**+2.9**
MASF				S		**Sn**	**14 42 34.9**	**+2.2**
MSFE	**Esma-Masafi** SNR=21	**2.85**	**125**	*i* P		**Pn**	**14 42 01.1**	**+2.8**
ASUD	**Al Ashush, Dub** SNR=11	**2.86**	**146**	*i* P		**Pb**	**14 42 02.6**	**-1.3**
ASUD	**Al Ashush, Dub** SNR=11	**2.86**	**146**	P		**Pn**	**14 42 00.6**	**+2.2**
ASUD				S		**Sn**	**14 42 37.3**	**+4.4**
FAQ	**Al Faqa, Dubai**	**2.90**	**141**	P		**Pn**	**14 42 01.3**	**+2.3**
FAQ				S		**Sn**	**14 42 37.6**	**+3.6**
MDH	**Madha** SNR=19	**2.99**	**124**	*i* P		**Pn**	**14 42 02.5**	**+2.3**
MDH	**Madha** SNR=19	**2.99**	**124**	P		**Pn**	**14 42 02.9**	**+2.7**
MDH				S		**Sn**	**14 42 37.8**	**+1.7**
MDH				S		**Sb**	**14 42 41.0**	**-1.7**
	SNR=7.0							
UOSS	**Minazif** SNR=80	**3.14**	**130**	*i* P		**Pn**	**14 42 04.8**	**+2.5**
UOSS	**Minazif**	**3.14**	**130**	P		**Pn**	**14 42 05.0**	**+2.7**
UOSS				S		**Sn**	**14 42 41.7**	**+1.8**
UOSS	**Minazif**	**3.14**	**130**			**Pn**	**14 42 04.6**	**+2.3**
UOSS	**Minazif**	**3.14**	**130**	P		**Pn**	**14 42 05.2**	**+2.9**
HATD	**Hatta, Dubai** SNR=9.6	**3.17**	**133**	*i* P		**Pn**	**14 42 05.7**	**+2.9**
HATD	**Hatta, Dubai** SNR=9.7	**3.17**	**133**	P		**Pn**	**14 42 06.1**	**+3.3**
HATD				S		**Sn**	**14 42 43.0**	**+2.3**
ASHO	**Ashiyiah** SNR=133	**3.23**	**135**	*i* P		**Pn**	**14 42 06.4**	**+2.9**
ASHO	**Ashiyiah** SNR=133	**3.23**	**135**	P		**Pn**	**14 42 06.7**	**+3.1**
ASHO				S		**Sn**	**14 42 45.6**	**+3.5**
MZWR	**Madinat Zayed**	**3.25**	**175**	P		**Pb**	**14 42 07.9**	**-2.6**
MZWR				S		**Sn**	**14 42 46.5**	**+3.9**
ALNE	**Al Ain** SNR=13	**3.54**	**146**	*i* P		**Pn**	**14 42 11.5**	**+3.6**
ALNE	**Al Ain** SNR=13	**3.54**	**146**	P		**Pn**	**14 42 11.8**	**+4.0**
ALNE				S		**Sn**	**14 42 53.7**	**+3.8**
KHNJ	**Kahnooj**	**3.79**	**75**	Pn		**Pn**	**14 42 11.4**	**+0.2**
SOHO	**SOHO** SNR=51	**3.92**	**136**	*i* P		**Pn**	**14 42 15.5**	**+2.4**
SOHO	**SOHO** SNR=8.9	**3.92**	**136**	P		**Pn**	**14 42 15.7**	**+2.7**
SOHO				S		**Sn**	**14 43 01.9**	**+2.8**
MZR	**Muzera** SNR=8.1	**4.00**	**181**	*i* P		**Pn**	**14 42 17.5**	**+3.4**
MZR	**Muzera** SNR=7.8	**4.00**	**181**	P		**Pn**	**14 42 18.0**	**+4.0**
MZR				S		**Sn**	**14 43 03.7**	**+2.7**
JASK	**Jask - Hormozg** SNR=15	**4.02**	**106**	P		**Pn**	**14 42 15.7**	**+1.4**
JASK				S		**Sn**	**14 43 02.0**	**+0.5**
JASK	**Jask - Hormozg**	**4.02**	**106**	Pn		**Pn**	**14 42 15.6**	**+1.2

KHMZ IAML 14 44 22.5
comp=Z,37nm,1.0s
SRVN Saravan 7.87 85 *e*Pn **Pn** **14 43 07.8 +0.4**
SRVN IAML 14 44 41.9
comp=Z,5.7nm,1.0s
SRVN Saravan 7.87 85 Pn **Pn** **14 43 08.5 +1.1**
DQM DQM 7.94 152 P **Pn** **14 43 10.3 +2.1**
DQM S **Sn** **14 44 36.7 -1.5**
RAYN Ar Rayn 8.09 246 *i* P **Pn** **14 43 10.7 +0.3**
SNR=22
RAYN Ar Rayn 8.09 246 P **Pn** **14 43 11.0 +0.7**
RAYN S **Sn** **14 44 38.4 -3.4**
RAYN Ar Rayn 8.09 246 P **Pn** **14 43 10.6 +0.3**
RAYN Ar Rayn 8.09 246 P **Pn** **14 43 10.6 +0.3**
RAYN Ar Rayn 8.09 246 P **Pn** **14 43 11.2 +0.8**
comp=Z,23nm,0.7s
ASAO Ashtian 8.10 339 *e*Pn **Pn** **14 43 10.5 -0.2**
ASAO IAML_BB 14 43 16.5
comp=Z,290nm,1.0s
DOK Doka 8.37 176 P **Pn** **14 43 15.9 +1.7**
SNR=8.8
SHRT Shahrakht 8.80 40 *e*Pn **Pn** **14 43 20.7 +0.6**
SHRT IAML 14 43 27.5
comp=Z,4.7nm,0.8s
WHFO Wadi Hawf 9.05 179 P **Pn** **14 43 25.0 +1.4**
SNR=8.6
SHAO Shalim 9.15 168 P **Pn** **14 43 27.3 +2.4**
ILBA Ilam Banvizeh 9.16 318 *e*Pn **Pn** **14 43 25.7 +0.7**
ILBA IAML 14 43 26.9
comp=Z,19nm,0.8s
SHRO Shahrood 9.19 12 *e*Pn **Pn** **14 43 24.9 -0.6**
SHRO IAML 14 43 30.2
comp=Z,12nm,0.9s
DMTO DMTO 9.34 172 P **Pn** **14 43 27.5 0.0**
RBK Rabkut 9.48 176 P **Pn** **14 43 31.4 +1.9**
SNGE Sanandaj 9.66 328 *e*Pn **Pn** **14 43 32.0 0.0**
SNGE IAML 14 44 02.2
comp=Z,8.2nm,0.6s
GNI Garni 15.01 333 Pn **Pn** **14 44 42.2 -2.9**
comp=Z,0.3nm,0.3s,baz=162,slow=16,SNR=1.2
comp=Z,3.2nm,0.4s
GNI AML AML
KBL Kabul 15.26 57 P **Pn** **14 44 48.3 -0.2**
KBL pmax pmax
comp=Z,18nm,1.3s
KBL Kabul 15.26 57 Pn **Pn** **14 44 48.3 -0.2**
KBL IAmb IAmb 14 44 58.1
comp=Z,18nm,1.2s
KBL Kabul 15.26 57 P **Pn** **14 44 50.3 +1.8**
comp=Z,9.4nm,1.2s
ASF Jabal al Asfar 15.43 293 Pn **Pn** **14 44 46.7 -3.3**
comp=Z,0.4nm,0.3s,baz=72,slow=13,SNR=2.2
ASF Sn Sn 14 47 15.1 -26
comp=Z,1.0nm,0.3s,baz=108,slow=17,SNR=6.7
comp=Z,0.7nm,0.4s
ASF AML AML
HRFI Mount Harif 16.56 285 P **P** **14 45 08.0 +0.2**
comp=Z,14nm,1.2s
ANDN Andirin 17.95 310 P **P** **14 45 23.2 +0.1**
comp=Z,40nm,1.3s
NIL Nilore 18.22 64 P **Pn** **14 45 26.0 +0.2**
NIL pmax pmax
comp=Z,11nm,0.8s
NIL Nilore 18.22 64 **Pn** **14 45 26.0 +0.2**
NIL IAmb IAmb 14 45 30.5
comp=Z,10nm,0.8s
NIL Nilore 18.22 64 P **P** **14 45 26.2 +0.1**
comp=Z,16nm,0.9s
ATD Arta Tunnel 18.41 215 LR LR 14 53 47.0
comp=Z,4.5nm,19.9s,baz=45,slow=41
ATD Arta Tunnel 18.41 215 P **Pn** **14 45 30.1 +1.8**
comp=Z,23nm,1.7s
NEUR Neytrino 18.46 334⇓ *e*P **P** **14 45 33.0 +4.2**
KBZ Khabaz 18.78 335 P **P** **14 45 30.3 -1.8**
comp=Z,0.1nm,0.3s,baz=156,slow=14,SNR=5.0
comp=Z,1.0nm,0.7s
KBZ AML AML
KBZ Khabaz 18.78 335⇓ *e*P **Pn** **14 45 36.7 +4.2**
KBZ pmax pmax
comp=Z,5.0nm,1.5s
SHA1 Shidzhatmaz 18.88 335⇓ *e*P **Pn** **14 45 37.7 +3.7**
KIV Kislovodsk 19.06 335 *e*P **Pn** **14 45 38.6 +2.6**
KIV pmax pmax
comp=Z,9.0nm,1.1s
KIV MLR MLR
comp=Z,28nm,14.0s
BTK Batken 19.35 43 P **Pn** **14 45 38.9 -0.6**
BTK pmax pmax
comp=Z,12nm,1.0s
BTK Batken 19.35 43 **Pn** **14 45 38.9 -0.6**
BTK IAmb IAmb 14 45 42.7
comp=Z,12nm,1.0s
BTK Batken 19.35 43 P **P** **14 45 36.7 -1.7**
comp=Z,14nm,1.1s
SOC Sochi 19.98 329 *e*P **Pn** **14 45 45.6 -1.3**
SOC *e* 14 46 02.6
SOC *e*PPP PPP 14 46 11.4
SOC *e*S **Sn** **14 49 32.0 +0.4**
SOC *e*S **S** **14 49 34.5 +4.6**
SOC *e*SS **SnSn** **14 49 55.3 +9.1**
SOC *e*SSS SSS 14 50 10.8
SOC MLR MLR
comp=Z,97nm,16.0s
LABN Labinsk 20.40 333 *e*P Pn 14 45 50.9 -0.9
LABN pmax pmax
comp=Z,29nm,0.7s
TRKS Terek-Say 20.45 40 P **P** **14 45 50.6 +0.1**
TRKS pmax pmax
comp=Z,23nm,1.0s
OHH Osh 20.84 45 P **P** **14 45 54.5 -0.2**
OHH Osh 20.84 45 P **P** **14 45 54.5 -0.2**
BR131 Keskin Array S 20.87 312 P Pn 14 45 54.6 -3.0
BR131 pmax pmax
comp=Z,7.0nm,1.1s
BR131 Keskin Array S 20.87 312 Pn 14 45 54.6 -3.0
BRTR Keskin Array B 20.87 312 P **P** **14 45 54.1 -0.9**
comp=Z,1.9nm,0.9s,baz=131,slow=11,SNR=16
comp=Z,1.9nm,0.9s
BRTR Keskin Array B 20.87 312 *i* P Pn 14 45 55.4 -2.1
BRTR pmax pmax
comp=Z,4.0nm,0.7s
BRTR Keskin Array B 20.87 312 P Pn 14 45 54.7 -2.8
KKUL Konya-Kulu 21.07 310 P 14 45 59.4
comp=Z,19nm,1.1s
KK31 Karatay Array 21.15 36 P **P** **14 45 58.3 +0.4**
KK31 pmax pmax
comp=Z,10.0nm,1.1s
KK31 Karatay Array 21.15 36 **P** **14 45 58.3 +0.4**
KK31 IAmb IAmb 14 46 07.2
comp=Z,10nm,1.1s
KKAR Karatay Array 21.15 36 P **P** **14 45 58.3 +0.4**
KKAR Karatay Array 21.15 36 **P** **14 45 58.3 +0.4**
ERBR Yeremizino-Bor 21.38 334 *e*P **P** **14 46 02.1 +1.7**
ERBR pmax pmax
comp=Z,9.0nm,0.6s
ARSB Arslanbob 21.42 43 P **P** **14 45 59.7 -1.3**
ARSB pmax pmax
comp=Z,23nm,0.9s
ARSB Arslanbob 21.42 43 P **P** **14 45 59.7 -1.3**
ARSB IAmb IAmb 14 46 05.9
comp=Z,23nm,0.9s
ANN Anapa 21.97 328 *e*P **P** **14 46 10.8 +4.1**
ANN pmax pmax
comp=Z,11nm,0.8s
KSH2 Kashi 21.98 51 P **P** **14 46 09.0 +1.9**
KSH2 pP sP 14 46 11.6 +0.1
KSH2 pmax pmax
comp=Z,6.0nm,0.7s
AB31 Akbulak array 22.75 11 **P** **14 46 13.6 -1.3**
AB31 IAmb IAmb 14 46 20.5
comp=Z,13nm,1.3s
ABKAR Akbulak array 22.75 11 **P** **14 46 13.3 -1.6**
AAK Ala-Archa 23.10 42⇓ *e*P **P** **14 46 21.0 +2.1**
AAK pmax pmax
comp=Z,13nm,1.7s
AAK Ala-Archa 23.10 42 **P** **14 46 18.5 -0.5**
AAK Ala-Archa 23.10 42 P **P** **14 46 21.9 +2.9**
comp=Z,9.0nm,1.5s
ASAI AK-SAY(Kyrgyzs 23.46 48 P **P** **14 46 24.2 +1.4**
comp=Z,12nm,1.1s
ARG Arkhangelos 23.48 299 P **P** **14 46 22.0 -0.6**
ARG pmax pmax
comp=Z,70nm,1.1s
ARG Arkhangelos 23.48 299 P **P** **14 46 22.0 -0.6**
KDJ Kajisay 24.49 46 P **P** **14 46 32.0 -0.4**
KDJ pmax pmax
comp=Z,6.0nm,1.0s
KDJ Kajisay 24.49 46 P **P** **14 46 32.0 -0.4**
KDJ IAmb IAmb 14 46 39.3
comp=Z,5.5nm,1.0s
KDJ Kajisay 24.49 46 P **P** **14 46 33.5 +1.1**
comp=Z,6.2nm,1.3s
ZKR Zakros 24.73 296 P **P** **14 46 33.9 -0.4**
comp=Z,52nm,1.4s
WUS Wushi 25.40 50 P **P** **14 46 44.0 +3.5**
comp=Z,6.2nm,1.6s
PRZ Przheval'sk 25.45 46 P **P** **14 46 45.8 +4.7**
PRZ Przheval'sk 25.45 46 P **P** **14 46 45.8 +4.7**
BELG Belogornoye 25.74 352 *de*P **P** **14 46 47.2 +4.0**
BELG pmax pmax
comp=Z,6.0nm,0.9s
IDI Anoyia 25.83 296 P **P** **14 46 44.1 -0.3**
PDGK Podgornoye 26.57 45 P **P** **14 46 51.4 +0.3**
PDGK Podgornoye 26.57 45 **P** **14 46 51.4 +0.3**
BORK Borovoye 28.85 21⇑ *e*P **P** **14 47 13.5 +2.3**
BORK pmax pmax
comp=Z,3.0nm,1.1s
BVAR Borovoye Array 28.85 21 P **P** **14 47 11.4 +0.2**
comp=Z,2.7nm,0.8s,baz=205,slow=6.6,SNR=9.1
comp=Z,2.7nm,0.8s
VOIR 29.22 316 P P 14 47 18.2 +3.5
comp=Z,6.7nm,1.0s
EVN Everest 29.46 80 P **P** **14 47 17.6 -0.1**
EVN IAmb IAmb 14 47 24.5
comp=Z,2.5nm,0.5s
EVN Everest 29.46 80 P **P** **14 47 17.4 -0.2**
comp=Z,4.4nm,0.9s
ARTI Arti 29.56 5 LR LR 15 01 44.4
comp=Z,79nm,18.4s,baz=191,slow=42
MK31 Makanchi Array 30.03 41⇓ *e*P **P** **14 47 24.6 +2.8**
MKAR Makanchi Array 30.03 41 P **P** **14 47 19.1 -2.7**
comp=Z,0.8nm,0.5s,baz=252,slow=10,SNR=7.8
comp=Z,0.8nm,0.5s
AK01 Malin Array Si 30.05 328 P **P** **14 47 24.0 +2.1**
AKASG Malin Array Be 30.06 328 P **P** **14 47 19.0 -2.9**
comp=Z,1.1nm,0.4s,baz=136,slow=8.0,SNR=9.3
comp=Z,1.1nm,0.4s
AKASG Malin Array Be 30.06 328 *ce*P **P** **14 47 24.1 +2.2**
AKASG pmax pmax
comp=Z,2.0nm,0.4s
AKBB Malin Array Si 30.06 328⇑ *i*P **P** **14 47 23.1 +1.2**
AKBB pmax pmax
comp=Z,29nm,2.8s
KIEV Kiev 30.06 328 P **P** **14 47 19.5 -2.4**
KIEV pmax pmax
comp=Z,6.0nm,0.6s
KIEV Kiev 30.06 328 **P** **14 47 19.5 -2.4**
KIEV IAmb IAmb 14 47 24.6
comp=Z,6.3nm,0.6s
KIEV Kiev 30.06 328 P **P** **14 47 20.7 -1.2**
comp=Z,10nm,2.4s
BURAR Bucovina Array 30.25 320 P **P** **14 47 21.9 -1.9**
BURAR pmax pmax
comp=Z,2.0nm,0.9s
BURAR Bucovina Array 30.25 320 P **P** **14 47 21.9 -1.9**
BUR08 Bucovina Ar. S 30.27 320 P **P** **14 47 22.3 -1.8**
BUR08 IAmb IAmb 14 47 57.3
comp=Z,4.2nm,1.2s
KURBB Kurchatov Arra 30.29 32 P **P** **14 47 21.9 -2.1**
comp=Z,0.6nm,0.9s,baz=231,slow=8.5,SNR=11
KURBB LR LR 15 01 40.2
comp=Z,113nm,18.4s,baz=178,slow=41
comp=Z,0.6nm,0.9s
KURK Kurchatov 30.40 32⇓ *e*P **P** **14 47 27.6 +2.7**
KURK pmax pmax
comp=Z,6.0nm,1.8s
KURK Kurchatov 30.40 32 P **P** **14 47 21.9 -3.0**
KURK Kurchatov 30.40 32 IAmb IAmb 14 47 29.0
comp=Z,1.4nm,0.8s
OBN Obninsk 30.69 341 *e*P **P** **14 47 30.1 +2.7**
OBN *e* 14 48 32.3
OBN *e*PPP PPP 14 48 39.4
OBN *e* 14 50 25.3
OBN pmax pmax
comp=Z,4.0nm,0.7s
DRGR 31.30 317 P **P** **14 47 33.9 +0.8**
DRGR pmax pmax
comp=Z,7.0nm,1.1s
DRGR 31.30 317 P **P** **14 47 33.9 +0.8**
comp=Z,6.8nm,1.1s
KIRV Kirov 31.69 356⇑ *e*P P 14 47 40.6 +4.4
WMQ Urumqi 32.19 50 *e*P **P** **14 47 43.4 +2.5**
KOLS Kolonicke sedl 32.61 321 *e*P P 14 47 48.5 +4.0
KOLS Kolonicke sedl 32.61 321 *e*P P 14 47 48.5 +4.0
KOLS Kolonicke sedl 32.61 321 P **P** **14 47 47.3 +2.8**
comp=Z,11nm,0.9s
MNK Minsk 33.29 333 *i* P **P** **14 47 52.2 +1.9**
MNK *i* 14 49 03.9
MNK *i* PPP PPP 14 49 14.9
MNK *i* S **S** **14 53 16.2 +5.7**
MNK *i* SS **SnSn** **14 55 18.7 +8.0**
MNK *i* SSS SSS 14 55 36.1
MNK pmax pmax
comp=E,22nm,0.8s
MNK pmax pmax
comp=N,22nm,0.9s
MNK pmax pmax
MNK MLR MLR
comp=Z,8.0nm,0.7s
MNK MLR MLR
comp=Z,54nm,15.0s
MNK MLR MLR
comp=N,336nm,26.0s
MNK MLR MLR
comp=E,188nm,20.0s
MNK Minsk 33.29 333 *i* P **P** **14 47 52.2 +1.9**
comp=E,22nm,0.8s
MNK *i* P **P** **14 47 52.2 +1.9**
comp=N,22nm,0.9s
MNK *i* P **P** **14 47 52.2 +1.9**
comp=Z,8.0nm,0.7s,baz=136
MNK *i* PP **PP** **14 49 04.0 -1.6**
MNK *i* PPP PPP 14 49 14.9
MNK *i* S **S** **14 53 16.2 +5.7**
MNK *i* SS **SnSn** **14 55 18.8 +8.0**
MNK *i* SSS SSS 14 55 36.2
MNK *i* LR LR 15 01 12.1
MNK *i* LRM MLR 15 02 52.7
comp=Z,54nm,15.0s
MNK *i* LRM MLR 15 02 54.6
comp=N,336nm,25.7s
MNK *i* LRM MLR 15 03 04.3
comp=E,188nm,19.8s
CUC Castrocucco 33.79 302 P **P** **14 47 52.3 -2.7**
CUC IAmb IAmb 14 48 05.0
comp=Z,4.9nm,1.0s
LANS Liptovska Anna 34.33 319 *e*P P 14 48 03.8 +4.3
LANS Liptovska Anna 34.33 319 *e*P P 14 48 03.8 +4.3
OJC Ojcow 34.65 321 P **P** **14 48 01.2 -1.0**
OJC Ojcow 34.65 321 P **P** **14 48 01.2 -1.0**
OJC Ojcow 34.65 321 P **P** **14 48 01.0 -1.2**
comp=Z,14nm,0.8s
OJC P **sP** **14 48 05.2 -1.5**
ZALV Zalesovo Beam 35.39 32 P **P** **14 48 07.6 -0.9**
comp=Z,3.6nm,0.8s,baz=246,slow=9.8,SNR=13
comp=Z,3.6nm,0.8s
ZALV Zalesovo Beam 35.39 32 P **P** **14 48 07.7 -0.8**
ZALV Zalesovo Beam 35.39 32 **P** **14 48 07.7 -0.8**
RONA Rosalia, Austr 35.64 315 *e*P **P** **14 48 09.6 -1.3**
comp=Z,1.7nm,0.6s
FDMO Fiordimonte 36.41 307 P **P** **14 48 16.0 -1.5**
FDMO IAmb IAmb 14 48 26.1
comp=Z,4.0nm,0.9s
VSU Vasula 36.60 337⇓ *e*P **P** **14 48 20.0 +1.2**
VSU pmax pmax
comp=Z,98nm,3.1s
DRE Drenchia 36.84 312 P **P** **14 48 19.4 -1.8**
comp=Z,5.6nm,1.3s
GERES GERESS Array B 37.67 316 P **P** **14 48 27.0 -1.2**
comp=Z,0.2nm,0.3s,baz=68,slow=11,SNR=1.5
comp=Z,0.2nm,0.3s
GERES GERESS Array B 37.67 316 P **P** **14 48 27.0 -1.2**
KHC Kasperske Hory 37.85 317 *e*P **P** **14 48 31.9 +2.3**
KHC pmax pmax
comp=Z,18nm,3.0s
KHC Kasperske Hory 37.85 317 P **P** **14 48 28.3 -1.3**
KHC IAmb IAmb 14 48 33.6
comp=Z,4.4nm,1.0s
LESA Schwarzleotal 37.85 314 *e*P **P** **14 48 27.9 -1.8**
comp=Z,1.3nm,0.4s
CTI Castel Tesino 38.14 311 P **P** **14 48 30.6 -1.6**
CTI pmax pmax
comp=Z,4.0nm,0.9s
CTI Castel Tesino 38.14 311 P **P** **14 48 30.6 -1.6**
CTI IAmb IAmb 14 48 38.4
comp=Z,3.5nm,0.9s
WTTA Wattenberg 38.48 313 *e*P **P** **14 48 33.0 -2.1**
comp=Z,2.4nm,0.5s
WTTA Wattenberg 38.48 313 P **P** **14 48 32.8 -2.3**
comp=Z,8.1nm,0.9s
WATA Walderalm 38.54 313 *e*P **P** **14 48 33.8 -1.9**
comp=Z,2.9nm,0.6s
SQTA Sankt Quirin 38.75 313 *i* P **P** **14 48 35.2 -2.1**
comp=Z,4.0nm,0.4s
MOTA Moosalm 38.85 313 *e*P **P** **14 48 35.8 -2.5**
comp=Z,1.2nm,0.4s
CLL Collm 39.01 320 *e*P **P** **14 48 40.0 +0.7**
FETA Feichten 39.01 312 *i* P **P** **14 48 37.7 -1.9**
comp=Z,1.1nm,0.4s
FINES FINESS Array B 39.06 339 P **P** **14 48 37.4 -2.2**
comp=Z,3.7nm,0.5s,baz=138,slow=9.4,SNR=24
comp=Z,3.7nm,0.5s
RETA Reutte 39.11 313 *e*P **P** **14 48 37.8 -2.5**
comp=Z,1.9nm,0.7s
FUORN Ofenpass-Fuorn 39.21 312 P **P** **14 48 40.3 -1.1**
UBR Ueberruh 39.59 313 P **P** **14 48 41.8 -2.6**
comp=Z,9.6nm,2.1s
DAVA Damuels 39.64 313 *i* P **P** **14 48 42.7 -2.1**
comp=Z,9.5nm,0.4s
DAVA Damuels 39.64 313 P **P** **14 48 42.9 -1.9**
comp=Z,20nm,0.5s
GTA2 Gaotai 40.18 60 *e*P **P** **14 48 50.9 +1.5**
GTA2 pmax pmax
comp=Z,3.0nm,0.9s
CLZ Clausthal 40.73 319 P **P** **14 48 52.2 -1.5**
comp=Z,9.1nm,0.8s
CLZ pP **sP** **14 48 57.1 -1.1**
KNGR Kungurtug, Tuv 40.76 43⇑ *e*P P 14 48 59.6 +5.6
KNGR pmax pmax
comp=Z,11nm,1.0s
CMAR Chiang Mai Arr 42.52 92 P **P** **14 49 08.7 0.0**
comp=Z,0.6nm,0.7s,baz=285,slow=11,SNR=6.6
comp=Z,0.6nm,0.7s
CMAR Chiang Mai Arr 42.52 92 *ce*P **P** **14 49 08.6 -0.1**
CMAR pmax pmax
comp=Z,1.0nm,0.5s
HFS Hagfors 42.79 332 P **P** **14 49 08.9 -1.5**
comp=Z,1.5nm,0.5s,baz=105,slow=11,SNR=7.1
comp=Z,1.5nm,0.5s
NB2 NORSAR Subarra 44.31 332 P **P** **14 49 24.1 +1.4**
comp=Z,0.6nm,0.6s,baz=121,slow=8.6
NOA NORSAR Array B 44.31 332 P **P** **14 49 20.0 -2.6**
comp=Z,1.3nm,0.8s,baz=122,slow=7.8,SNR=7.0
comp=Z,1.3nm,0.8s
CEST Esterri de Car 44.98 304 P **P** **14 49 27.8 -0.6**
ARCES ARCESS Array B 45.59 347 P **P** **14 49 30.9 -1.7**
comp=Z,4.0nm,1.0s,baz=134,slow=8.7,SNR=4.6
comp=Z,4.0nm,1.0s
ARCES ARCESS Array B 45.59 347 P **P** **14 49 31.0 -1.7**
ARCES pmax pmax
comp=Z,14nm,1.4s
ARCES ARCESS Array B 45.59 347 IAmb IAmb 14 49 35.5
comp=Z,14nm,1.4s
SONM Songino Array 45.81 48 P **P** **14 49 33.9 -1.0**
comp=Z,2.0nm,0.9s,baz=259,slow=9.8,SNR=9.1
comp=Z,2.0nm,0.9s
SONM Songino Array 45.81 48 IAmb IAmb 14 49 39.5
comp=Z,1.6nm,0.9s
ULN Ulaanbaatar 46.25 49⇑ *i*P **P** **14 49 42.0 +3.6**
ULN pmax pmax
comp=Z,4.0nm,1.0s
ULN Ulaanbaatar 46.25 49 P **P** **14 49 42.1 +3.6**
comp=Z,2.7nm,0.6s
ESDC Sonseca Array 48.94 300 P **P** **14 49 57.3 -2.0**
comp=Z,0.9nm,1.0s,baz=84,slow=7.1,SNR=5.3
comp=Z,0.9nm,1.0s
ESDC Sonseca Array 48.94 300 IAmb IAmb 14 50 22.2
comp=Z,2.2nm,1.3s
HHC Hu-ho-hao-te 49.23 58 *e*P **P** **14 50 02.1 +0.6**
HHC pmax pmax
comp=Z,9.0nm,0.8s
HHC pmax pmax
comp=Z,48nm,4.5s
EKA Eskdalemuir Ar 49.43 321 P **P** **14 50 00.2 -2.4**
comp=Z,0.5nm,0.4s,baz=107,slow=8.0,SNR=10.0
comp=Z,0.5nm,0.4s
TORD Torodi Ar. Bea 50.31 265 P **P** **14 50 08.2 -1.8**
comp=Z,1.7nm,0.5s,baz=66,slow=7.8,SNR=18
comp=Z,1.7nm,0.5s
MD01 Midelt array s 50.34 292 P **P** **14 50 09.2 -1.0**
LBTB Lobatse 58.34 210 P **P** **14 51 08.1 -0.2**
LBTB Lobatse 58.34 210 P **P** **14 51 08.1 -0.2**
LBTB Lobatse 58.34 210 P **P** **14 51 09.3 +1.0**
DBIC Dimbokro 58.93 261 P **P** **14 51 11.1 -1.4**
comp=Z,4.1nm,0.5s,baz=61,slow=6.8,SNR=9.0
DBIC LR LR 15 18 05.3
comp=Z,33nm,18.5s,baz=136,slow=38
comp=Z,4.1nm,0.5s
DBIC Dimbokro 58.93 261 P **P** **14 51 11.7 -0.8**
DBIC pmax pmax
comp=Z,6.0nm,0.9s
DBIC Dimbokro 58.93 261 P **P** **14 51 11.7 -0.8**
DBIC IAmb IAmb 14 51 11.9
comp=Z,5.8nm,0.8s
DBIC Dimbokro 58.93 261 P **P** **14 51 11.0 -1.5**
comp=Z,8.2nm,1.3s
DAG Danmarks Havn 59.84 345 P **P** **14 51 18.9 +0.9**
DAG pmax pmax
comp=Z,12nm,3.0s
DAG Danmarks Havn 59.84 345 P **P** **14 51 18.9 +0.9**
comp=Z,12nm,3.0s
BOSA Boshof 61.62 208 P **P** **14 51 30.6 -0.1**
comp=Z,1.4nm,0.6s,baz=37,slow=5.4,SNR=5.4
comp=Z,1.4nm,0.6s
BOSA Boshof 61.62 208 P **P** **14 51 30.7 -0.1**
BOSA pmax pmax
comp=Z,9.0nm,1.4s
BOSA Boshof 61.62 208 P **P** **14 51 30.7 -0.1**
KLR Kul'dur 62.55 46⇓ *e*P **P** **14 51 38.6 +1.8**
KLR pmax pmax
comp=Z,10.0nm,2.4s
G19K Purcell Mounta 84.23 12 P **P** **14 53 43.1 -1.1**
BMAR Burnt Mountain 84.86 7 P **P** **14 53 47.2 -0.3**
IMAR Indian Mountai 84.96 11 P **P** **14 53 46.7 -1.2**
G24K Hadweenzic Riv 85.22 8 P **P** **14 53 48.5 -0.7**
ILAR Eielson Array 87.14 9 P **P** **14 53 56.1 -2.6**
comp=Z,2.0nm,0.7s,baz=336,slow=4.2,SNR=7.5
comp=Z,2.0nm,0.7s
YKA Yellowknife Ar 90.30 355 P **P** **14 54 11.0 -2.6**
comp=Z,0.6nm,0.7s,baz=17,slow=5.1,SNR=2.4
comp=Z,0.6nm,0.7s
YKA Yellowknife Ar 90.30 355 P **P** **14 54 11.0 -2.6**
WRA Warramunga Arr 91.06 112 P **P** **14 54 16.3 -1.6**
comp=Z,0.2nm,0.8s,baz=297,slow=4.8,SNR=1.5
comp=Z,0.2nm,0.8s
ASAR Alice Springs 92.46 115 P **P** **14 54 22.6 -1.7**
comp=Z,0.3nm,0.9s,baz=308,slow=4.5,SNR=4.1
comp=Z,0.3nm,0.9s
QSPA South Pole Qui 116.86 180 PKP **PKPdf** **14 59 54.8 -2.1**
comp=Z,0.9nm,0.9s,baz=293,slow=2.0,SNR=2.1

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*NEIC **08** 14:41:32.2±0.5, 19.02S±0.08×169.4E±0.1, h240km±8km, mb4.3/23, Error ellipse: s-maj=16.5km s-min=11.6km az=103.0*

*IDC **08** 14:41:33.0±4.4, 19.20S×169.28E, h248km±32km, mb3.5/5, mbtmp4.0/6, Error ellipse: s-maj=68.1km s-min=45.6km az=144.0*

ISC 08 14:41:32.3±0.7, 19.05S±0.07×169.3E±0.1, h246km, n34, σ0.71/37, mb4.2/14, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**2.71**	**207**		**Pn**	**Pn**	**14 42 21.3**	**-0.2**
MARNC					Sn	**S**	**14 43 00.1**	**-0.2**
PINNC	**Pines Island,**	**3.96**	**206**		Pn	**Pn**	**14 42 36.0**	**+0.5**
DZM	**Mont Dzumac**	**4.05**	**222**		P	**Pn**	**14 42 36.9**	**+0.3**
DZM	9.5nm,1.1s,baz=47,slow=17,SNR=5.6				S	**S**	**14 43 24.6**	**-3.0**
SANVU	5.0nm,0.5s,baz=104,slow=21,SNR=1.7 **Sarauoou**	**4.12**	**330**		Pn	**Pn**	**14 42 37.0**	**-0.5**
ONTNC	**Ouen Toro**	**4.22**	**219**		Pn	**Pn**	**14 42 38.9**	**+0.4**
EIDS	**Eidsvold**	**18.03**	**246**		P	**P**	**14 45 26.1**	**+0.6**
EIDS					IAmb	IAmb	14 45 40.3	
NIUE	comp=Z,21nm,1.4s **Niue**	**19.60**	**93**		P	**P**	**14 45 41.4**	**-1.0**
CTA	**Charters Tower**	**21.77**	**263**		P	**P**	**14 46 04.5**	**-0.3**

comp=Z,4.6nm,0.9s,baz=107,slow=11,SNR=1.0
comp=Z,4.6nm,0.9s

CTAO	Charters Tower	21.77	263	P		P	14 46 05.4	+0.6
MRZ	Mangatainoka R	22.19	167	P		P	14 46 08.2	-0.1
INKA	Innaminka	27.58	246	P		P	14 46 57.7	+0.7
TOO	Toolangi	27.82	223	P		P	14 46 59.0	-0.1
TOO				IAmb	IAmb		14 47 39.9	
	comp=Z,5.0nm,1.3s							
STKA	Stephens Creek	28.02	237	P		P	14 47 00.8	-0.1
	comp=Z,1.1nm,0.6s,baz=75,slow=12,SNR=4.5							
	comp=Z,1.1nm,0.6s							
STKA	Stephens Creek	28.02	237	P		P	14 47 01.1	+0.2
STKA				IAmb	IAmb		14 47 18.9	
	comp=Z,6.5nm,0.9s							
BBOO	Buckleboo	32.76	239	P		P	14 47 43.0	+0.5
BBOO				IAmb	IAmb		14 48 26.7	
	comp=Z,11nm,1.2s							
WR8	Warramunga Arr	32.82	263	P		P	14 47 42.8	-0.3
WB0	Warramunga Arr	32.93	263	P		P	14 47 43.6	-0.6
WB0				IAmb	IAmb		14 48 09.0	
	comp=Z,8.6nm,1.4s							
WRAB	Tennant Creek	32.96	263	P		P	14 47 43.8	-0.5
WRA	Warramunga Arr	32.97	263	P		P	14 47 43.7	-0.8
	comp=Z,0.9nm,0.5s,baz=97,slow=8.1,SNR=43							
	comp=Z,0.9nm,0.5s							
AS31	Alice Springs	33.26	256	P		P	14 47 47.2	+0.2
ASAR	Alice Springs	33.26	256	P		P	14 47 47.1	+0.2
	comp=Z,5.7nm,0.5s,baz=81,slow=8.9,SNR=267							
ASAR				PcP		PcP	14 50 22.7	-0.6
	comp=Z,0.3nm,1.0s,baz=83,slow=2.0,SNR=1.6							
	comp=Z,5.7nm,0.5s							
ASAR	Alice Springs	33.26	256	P		P	14 47 46.7	-0.3
KNRA	Kununurra	38.81	268	P		P	14 48 34.1	+0.2
KNRA				IAmb	IAmb		14 48 49.4	
	comp=Z,6.7nm,1.5s							
FORT	Forrest	39.01	244	P		P	14 48 35.8	+0.3
FORT				IAmb	IAmb		14 49 05.0	
	comp=Z,8.0nm,1.1s							
FITZ	Fitzroy Crossi	41.35	264	P		P	14 48 55.2	+0.5
MBWA	Marble Bar	46.48	259	P		P	14 49 35.4	0.0
MBWA				IAmb	IAmb		14 50 09.6	
	comp=Z,15nm,1.2s							
PETK	Petropavlovsk-	72.56	353	P		P	14 52 33.0	+0.6
M13K	Dall Lake	82.22	13	P		P	14 53 25.8	+0.2
GAMB	Gambell	83.87	8	P		P	14 53 34.6	+0.7
SMAI	San Martin Ant	83.98	162	P		P	14 53 35.2	+0.6
SMAI				IAmb	IAmb		14 54 07.8	
	comp=Z,7.3nm,1.5s							
MHC	Mount Hamilton	85.76	48	P		P	14 53 43.2	-0.9
L19K	White Mountain	85.79	16	P		P	14 53 44.0	+0.4
L19K				IAmb	IAmb		14 54 24.6	
	comp=Z,13nm,1.3s							
J18K	Innoko River	86.41	15	P		P	14 53 47.1	+0.5
J18K				IAmb	IAmb		14 53 51.3	
	comp=Z,9.3nm,1.4s							
SONM	Songino Array	87.13	323	P		P	14 53 51.0	+0.4
	comp=Z,0.4nm,0.6s,baz=123,slow=5.3,SNR=3.7							
	comp=Z,0.4nm,0.6s							

*UPA **08** 14:59:11.3±1.4, 9.56N×83.73W, h1km±34km, MW3.4, Presumed earthquake*
*UCR **08** 14:59:12.4±0.8, 9.49N×83.81W, h27km±1km, MW3.9, Presumed earthquake*

ISC 08 14:59:12.6±0.9, 9°48N±0.0°×83°82W±0.0°3, h24km±5km, n83, σ0.9s3/99, 36C-3D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUS1	Rivas	0.10	47⇓	eP	Pb	14 59 17.2	-0.6
BUS1				eS	Sb	14 59 20.7	-0.5
ZEDO	Perez Zeledon	0.19	133⇓	eP	Pb	14 59 18.7	+0.6
ZEDO				eS	Sb	14 59 22.8	+0.9
RAZU	San Marcos de	0.26	311⇑	eP	Pb	14 59 19.1	-0.1
PITB	Pirrs, San	0.27	312⇑	eP	Pb	14 59 19.1	-0.1
LCR2	La Lucha 2	0.31	325⇑	eP	Pb	14 59 19.7	-0.2
LCR2				eS	Sb	14 59 25.1	+0.1
SAJE	San Jernim	0.34	114	eP	Pb	14 59 19.4	-0.9
SAJE				eS	Sb	14 59 24.6	-0.9
QUEP	Quepos	0.34	261	eP	Pb	14 59 19.9	-0.3
REPA	Paraso	0.34	352⇑	eP	Pb	14 59 20.2	-0.2
REPA				eS	Sb	14 59 26.1	+0.4
TAGO	Cartago	0.39	345⇑	eP	Pb	14 59 21.1	-0.1
TAGO				eS	Sb	14 59 27.6	+0.6
PICV	PH. Pirrs	0.39	291⇑	eP	Pb	14 59 20.9	-0.2
EDPE	Pejibaye, P	0.41	143⇑	eP	Pb	14 59 20.9	-0.4
EDPE				eS	Sb	14 59 27.3	+0.1
VINA	Juan Vinas	0.41	10	eP	Pb	14 59 21.1	-0.4
PCAYA	Pacayas	0.43	1	eP	Pb	14 59 21.4	-0.5
TRIO	Tres Rios	0.45	338⇑	eP	Pb	14 59 21.8	-0.4
ACOS	Acosta	0.46	313	eP	Pb	14 59 21.6	-0.6
RAFA	San Farael, Vo	0.47	1⇑	eP	Pb	14 59 22.4	-0.2
RAFA				eS	Sb	14 59 29.7	+0.4
AMPA	Desamparados	0.47	330	eP	Pb	14 59 22.0	-0.5
VICA	Volcano Irazu	0.50	357⇑	eP	Pb	14 59 22.7	-0.3
LUJA	Lujan	0.50	331⇑	eP	Pb	14 59 22.8	-0.2
ECI	Escuela Centro	0.51	333⇑	eP	Pb	14 59 22.9	-0.1
SJS3	Mercedes San J	0.51	333⇑	eP	Pb	14 59 23.0	0.0
VTCV	VTCV, Calle Va	0.51	11⇑	eP	Pb	14 59 22.9	-0.2
SJS	Escuela Geolog	0.51	333⇑	eP	Pb	14 59 22.9	-0.1
LUPE	Guadalupe	0.52	334	eP	Pb	14 59 23.1	-0.1
CORON	Coronado	0.52	340⇑	eP	Pb	14 59 23.4	+0.1
CVTQ	Turrialba Volc	0.52	8⇑	eP	Pb	14 59 23.3	-0.1
CVTT	Tajo	0.52	8⇑	eP	Pb	14 59 23.3	-0.2
MEXI	Barrio Mexico	0.52	330	eP	Pb	14 59 23.2	-0.2
ABRB	Las Abras (San	0.53	11⇑	eP	Pb	14 59 23.4	-0.1
VTR0	Volcan Turrial	0.53	7⇑	eP	Pb	14 59 23.5	-0.2
CVTR	Volcan Turrial	0.54	7⇑	eP	Pb	14 59 23.5	-0.3
PAVB	Pavas, San Jos	0.54	327	eP	Pb	14 59 23.1	-0.5
DOMI	Santo Domingo	0.56	332	eP	Pb	14 59 23.8	-0.2
BURE	Buenos Aires	0.57	123⇑	eP	Pb	14 59 23.3	-0.7
RESJ	San Isidro (Tu	0.57	18⇑	eP	Pb	14 59 24.0	-0.1
HDC	Heredia	0.59	331	eP	Pb	14 59 23.7	-0.7
HEME	Heredia, Merce	0.59	329⇑	eP	Pn	14 59 25.4	-0.3
PURI	Puriscal	0.60	307	eP	Pb	14 59 24.1	-0.6
PANP	Palmar Norte	0.63	145⇑	eP	Pb	14 59 24.4	-0.6
LCOCO	El Coco	0.65	24⇑	eP	Pb	14 59 25.2	-0.2
CVTG	V. Turrialba,	0.66	4⇑	eP	Pb	14 59 25.5	-0.1
RVLA	Villa Bonita	0.66	20	eP	Pb	14 59 25.4	-0.2
FIMO	Fila Mora	0.68	137⇑	eP	Pb	14 59 25.5	-0.4
VBV1	V. Barva	0.68	336⇑	eP	Pb	14 59 26.0	-0.2
POAS	San Pedro de P	0.72	325	eP	Pb	14 59 26.7	+0.1
PILE	Guapiles	0.73	3	eP	Pb	14 59 26.6	-0.1
ATEO	Atenas	0.74	312	eP	Pb	14 59 26.2	-0.7
EGUB	Earth Gu¡pi	0.76	18⇑	eP	Pb	14 59 27.1	-0.1
VERH	Veragua Rainfo	0.76	55⇓	eP	Pb	14 59 26.7	-0.6
EDP2	Potrero Grande	0.79	126	eP	Pb	14 59 27.0	-0.7
SARCI	Sarchi	0.79	319	eP	Pb	14 59 27.9	0.0
VPS8	V Poas	0.81	329⇑	eP	Pb	14 59 28.0	-0.2
VPS5	V. Poas	0.81	330	eP	Pb	14 59 27.8	-0.5
LAES	El Progreso Va	0.81	70⇑	eP	Pb	14 59 27.4	-0.7
PALD	Palmares	0.83	313	eP	Pb	14 59 27.6	-0.9
RAMO	San Ramon	0.87	313	eP	Pb	14 59 28.7	-0.5
SRA1	San Ramn	0.88	313⇑	eP	Pb	14 59 28.5	-0.9
ZARE	Zarcero	0.89	321	eP	Pb	14 59 29.4	-0.2
VPL1	V. Platanar	0.94	325	eP	Pb	14 59 29.6	-0.7
ARTO	Ro Cuarto	0.94	336	eP	Pb	14 59 29.8	-0.5
ARZA	Esparza	0.97	301	eP	Pb	14 59 29.7	-1.1
VPL3	V. Platanar	0.98	331⇑	eP	Pb	14 59 30.9	-0.2
VPL2	V. Platanar	0.99	326	eP	Pb	14 59 30.7	-0.5
VITO	San Vito	1.07	128	eP	Pn	14 59 32.0	-0.2
VITO				eS	Sn	14 59 46.7	+0.3
FITO	Golfito	1.08	142	eS	Sn	14 59 46.9	+0.4
NELY	Ciudad Neily	1.20	134	eP	Pb	14 59 35.1	+0.5
NELY				eS	Sb	14 59 51.6	+1.8
SCLRA	Santa Clara, W	1.21	122	eP	Pn	14 59 33.7	-0.6
SCLRA				eS	Sb	14 59 51.2	+0.8
VACR	Volcan Arenal	1.29	319⇑	eP	Pn	14 59 35.6	+0.4
CASO	Castillo	1.30	316	eP	Pn	14 59 35.5	+0.1
BRU2	Volcan	1.31	121	eP	Pn	14 59 34.9	-0.7
BRU2	Volcan	1.31	121	eP	Pn	14 59 35.3	-0.3
BRU2				eS	Sb	14 59 54.2	+1.1
ARE1	Arenal 1	1.31	318	eP	Pb	14 59 36.1	-0.6
VARE2	V. Arenal	1.31	318	eP	Pn	14 59 35.6	0.0
CEDE	Laguna Cedeo	1.32	319⇑	eP	Pn	14 59 36.2	+0.5
JTS	Las Juntas de	1.37	306	eP	Pn	14 59 36.0	-0.4
JUNT	Juntas	1.37	305	eP	Pn	14 59 36.3	0.0
CLLRA	Cordillera,	1.40	122	eP	Pn	14 59 36.3	-0.5
CLLRA	Cordillera,	1.40	122	eP	Pn	14 59 36.4	-0.5
CLLRA				eS	Sb	14 59 57.0	+1.2
BQTLY	Boquete Panama	1.53	118	eP	Pn	14 59 38.4	-0.1
BQTLY	Boquete Panama	1.53	118	*i* P	Pn	14 59 38.6	+0.1
BQTLY				eS	Sb	14 59 59.2	-0.1
RBALA	Bur	1.75	110	eP	Pn	14 59 41.4	-0.2
RBALA				eS	Sn	15 00 03.4	+0.3
BGUAL	Bijagual, Pana	1.76	123	eP	Pn	14 59 41.0	-0.7
BGUAL	Bijagual, Pana	1.76	123	*i* P	Pn	14 59 42.5	+0.9
BGUAL				eS	Sb	15 00 05.1	-0.9

*IDC **08** 15:00:29.3±2.1, 26.08S×178.37E, h622km±29km, mb3.2/5, mbtmp4.2/8, Error ellipse: s-maj=31.7km s-min=21.4km az=45.0*

ISC 08 15:00:28.1±1.2, 26°2S±0.1°×178°5E±0.2, h600km, n9, σ1s32/9, mb3.9/5, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	8.43	357	P	P	15 02 32.4	+0.6
	1.3nm,0.3s,baz=248,slow=22,SNR=4.6						
DZM	Mont Dzumac	11.71	288	P	P	15 03 05.9	+1.9
	5.4nm,1.0s,baz=83,slow=15,SNR=1.6						
URZ	Urewera	12.08	185	P	P	15 03 07.8	+0.5
	28nm,1.1s,baz=348,slow=7.0,SNR=1.7						
STKA	Stephens Creek	32.61	251	P	P	15 06 11.6	-0.4
	2.1nm,0.8s,baz=106,slow=13,SNR=3.8						
	2.1nm,0.8s						
ASAR	Alice Springs	40.33	264	P	P	15 07 14.7	-0.6
	1.9nm,0.4s,baz=92,slow=7.4,SNR=154						
	1.9nm,0.4s						
WRA	Warramunga Arr	40.91	269	P	P	15 07 19.0	-1.0
	1.7nm,0.4s,baz=105,slow=7.5,SNR=64						
	0.7nm,0.4s						
SIJI	Sorong	51.89	291	P	P	15 08 41.6	-1.0
	3.9nm,0.7s,baz=124,slow=8.2,SNR=5.0						
	3.9nm,0.7s						
QSPA	South Pole Qui	63.89	180	P	P	15 10 03.5	+0.6
	1.1nm,0.5s,baz=337,slow=0.8,SNR=11						
	1.1nm,0.5s						
HFS	Hagfors	144.49	347	PKP	PKPdf	15 18 54.6	-1.8
	0.8nm,0.6s,baz=71,slow=5.2,SNR=4.1						

IDC 08 15:10:13.1±13.0, 54°31N×160°10E, h0km, Error ellipse: s-maj=107.6km s-min=39.6km az=51.0, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I44RU	PETROPAVLOVSK-	1.86	231	I	I	15 20 10.0	
	0.1nm,0.9s,baz=48,slow=332,SNR=0.5						
PETK	Petropavlovsk-	1.86	231	Pg	Pb	15 10 47.4	-0.7
	0.1nm,0.3s,baz=54,slow=14,SNR=4.1						
I53US	FAIRBANKS INFR	27.55	47	I	I	17 54 50.0	
	baz=274,slow=324,SNR=1.5						

*JMA **08** 15:10:56.4±0.0, 37.2N±0.2°×142.2E±0.2, h16km, MV3.2/28, E OFF FUKUSHIMA PREF*

IDC 08 15:10:51.4±2.1, 36°90N×142°72E, h0km, mb3.4/3, mbtmp3.4/4, ML2.4/1, Error ellipse: s-maj=38.6km s-min=28.4km az=10.0, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MJAR	Matsushiro Arr	3.65	266	Pn	Pn	15 11 48.0	-1.1
	0.3nm,0.3s,baz=87,slow=15,SNR=26						
MJAR				Sn	Sn	15 12 29.3	-3.5
	0.1nm,0.3s,baz=62,slow=12,SNR=4.5						
	2.6nm,0.4s						
MJAR				AML	AML		
H11N2	WAKE ISLAND Hy	27.19	122	T	T	15 45 38.7	
	baz=314,slow=75,SNR=9.0						
H11N1	WAKE ISLAND Hy	27.20	122	T	T	15 45 44.6	
	baz=314,slow=75,SNR=9.5						
H11N3	WAKE ISLAND Hy	27.20	122	T	T	15 45 42.2	
	baz=314,slow=75,SNR=10						
H11S1	WAKE ISLAND Hy	27.91	125	T	T	15 46 32.4	
	baz=316,slow=75,SNR=7.8						
H11S3	WAKE ISLAND Hy	27.92	125	T	T	15 46 30.9	
	baz=316,slow=75,SNR=10						
H11S2	WAKE ISLAND Hy	27.93	125	T	T	15 46 33.1	
	baz=316,slow=75,SNR=7.1						
MKAR	Makanchi Array	45.08	302	P	P	15 19 09.1	0.0
	0.6nm,0.9s,baz=75,slow=11,SNR=2.1						
	0.6nm,0.9s						
KURBB	Kurchatov Arra	46.91	308	P	P	15 19 23.2	-0.2
	0.6nm,0.5s,baz=81,slow=8.3,SNR=5.0						
	0.6nm,0.5s						
WRA	Warramunga Arr	57.09	189	P	P	15 20 39.6	+0.1
	0.1nm,0.4s,baz=3.4,slow=7.0,SNR=1.9						
	0.1nm,0.4s						

*MDD **08** 15:16:06.7±1.2, 36.71N×10.43W, h3km±27km, mb_Lg2.7/4, Error ellipse: s-maj=35.1km s-min=9.4km az=46.0*
*INMG **08** 15:16:07.5±1.0, 36.66N×10.49W, h10km, ML1.9, Error ellipse: s-maj=5.5km s-min=4.0km az=75.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
*IGIL **08** 15:16:07.7, 36.72N×10.41W, h0km, ML1.5*
*CNRM **08** 15:16:07.7, 36.65N×10.32W, h98km, ML2.7*

ISC 08 15:16:03.2±2.6, 36°62N±0.07°×10°6W±0.1, h13km±12km, n39, σ1s25/64, 2C, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	Vila Bisbo	1.48	69	Pg	Pg	15 16 31.5	-0.2
PFVI				Sg	Sn	15 16 49.0	+0.2
PFVI	Vila Bisbo	1.48	69	P	Pg	15 16 31.3	-0.4
PFVI				S	Sn	15 16 49.5	+0.6
PFVI	Vila Bisbo	1.48	69⇑	*i*P	Pg	15 16 31.5	-0.2
PFVI				eS	Sn	15 16 49.1	+0.2
PFVI				IAML		15 16 50.0	
PFVI				IAML		15 16 50.1	
PFVI				IAML		15 16 50.3	
MORF	Marmelete	1.68	65	eP	Pb	15 16 34.2	+0.3
MORF				eS	Sn	15 16 53.6	-0.1
MORF				IAML		15 16 55.0	
	comp=N,14nm,0.1s						
MORF	Marmelete	1.68	65⇑	eP	Pb	15 16 34.2	+0.3
MORF				eS	Sn	15 16 54.0	+0.4
MORF				IAML		15 16 55.0	
MORF				IAML		15 16 55.4	
MORF				IAML		15 16 56.8	
PTEO	Sao Teotonio	1.74	57	eS	Sn	15 16 55.6	+0.5
PTEO				IAML		15 16 57.2	
PTEO				IAML		15 17 00.2	
PTEO				IAML		15 17 00.8	
PMONC	Monchique	1.76	66	eP	Pb	15 16 35.4	+0.1
PMONC				eS	Sn	15 16 56.6	+0.9
PMONC				IAML		15 16 57.7	
PMONC				IAML		15 16 59.8	
PMONC				IAML		15 17 00.1	
PBDV	Barranco-do-Ve	2.20	73	eS	Sn	15 17 07.0	+0.5
PBDV				IAML		15 17 08.5	
PLOUS	Minas do Lousa	2.22	50	eP	Pn	15 16 41.3	+1.6
PLOUS				eS	Sn	15 17 07.0	+0.1
PLOUS				IAML		15 17 10.4	
PLOUS				IAML		15 17 10.8	
PLOUS				IAML		15 17 11.0	
MESJ	Messejana	2.23	56	eP	Pn	15 16 41.7	+1.8
MESJ				eS	Sn	15 17 06.6	-0.7
MESJ				IAML		15 17 10.2	
	comp=N,0.9nm,0.2s						
MESJ	Messejana	2.23	56	eP	Pn	15 16 41.7	+1.8
MESJ				eS	Sn	15 17 07.3	-0.1
PCVE	Castro Verde	2.26	63	Pn	Pb	15 16 42.3	-1.5
PCVE				Sn	Sn	15 17 07.8	-0.1
PCVE	Castro Verde	2.26	63	eP	Pb	15 16 42.4	-1.5
PCVE				eS	Sn	15 17 08.0	+0.1
PCVE				IAML		15 17 08.7	
PCVE				IAML		15 17 09.0	
PCVE				IAML		15 17 20.2	
PVAQ	Vaqueiros	2.41	70	P	Pn	15 16 44.4	+2.1
PVAQ				S	Sn	15 17 09.8	-1.9
PVAQ	Vaqueiros	2.41	70	eP	Pn	15 16 44.4	+2.1
PVAQ				eS	Sn	15 17 11.5	-0.1
PVAQ				IAML		15 17 13.9	
PVAQ				IAML		15 17 14.6	
PVAQ				IAML		15 17 15.7	
PMAFR	Mafra	2.54	23	Sn	Sn	15 17 15.4	+0.4
PMAFR	Mafra	2.54	23	eS	Sn	15 17 15.0	0.0
PBEJ	Beja	2.57	56	eS	Sn	15 17 15.7	0.0
PBEJ				IAML		15 17 16.4	
PBEJ				IAML		15 17 17.5	
EGRO	El Granado	2.63	69	Sn	Sn	15 17 16.4	-0.6
EGRO	El Granado	2.63	69	P	Pn	15 16 46.8	+1.5
EGRO				S	Sn	15 17 17.4	+0.3
EGRO				IVmb_Lg		15 17 19.2	
EVO	Evora	2.79	46	Pn	Pn	15 16 48.8	+1.3
EVO				Sn	Sn	15 17 20.0	-1.0
EVO	Evora	2.79	46	eS	Sn	15 17 20.3	-0.6
EVO				IAML		15 17 21.9	
EVO				IAML		15 17 22.2	
EVO				IAML		15 17 22.8	
PMTG	Montargil	3.07	36	eP	Pn	15 16 53.1	+1.7
PMTG				eS	Sn	15 17 26.8	-1.2
PMTG				IAML		15 17 29.3	
PMTG				IAML		15 17 29.9	
PMTG				IAML		15 17 30.6	
PSBE	So Bento	3.21	25	eS	Sn	15 17 31.7	+0.2
PESTR	Estremoz	3.26	45	Pn	Pn	15 16 54.6	+0.6
PESTR				Sn	Sn	15 17 31.7	-0.9
PESTR	Estremoz	3.26	45	P	Pn	15 16 53.4	-0.6
PESTR				S	Sn	15 17 32.1	-0.5
EMIN	Mina Concepcio	3.31	69	Sn	Sn	15 17 32.8	-1.1
PSARD	Sardoal	3.53	32	eP	Pn	15 17 00.1	+2.3
PSARD				eS	Sn	15 17 38.2	-1.1
PSARD				IAML		15 17 38.8	
PSARD				IAML		15 17 39.5	
PSARD				IAML		15 17 40.1	
EBAD	Badajoz	3.53	52	Pn	Pn	15 16 59.6	+1.8
EBAD				Sn	Sn	15 17 37.8	-1.6
EBAD	Badajoz	3.53	52	P	Pn	15 16 59.0	+1.3
EBAD				S	Sn	15 17 38.2	-1.2
EBAD				IVmb_Lg		15 17 39.9	
PMRV	Marv??o	3.76	41	eP	Pn	15 17 02.6	+1.7
PMRV				eS	Sn	15 17 43.8	-1.3
PMRV				IAML		15 17 45.1	
PMRV				IAML		15 17 45.3	
PMRV				IAML		15 17 45.3	
ESPR	Espera	3.79	85	Sn	Sn	15 17 45.2	-0.5
ECAB	El Cabril	4.35	69	Pn	Pn	15 17 10.9	+1.9
ECAB				Sn	Sn	15 17 57.8	-1.8
ECAB	El Cabril	4.35	69	P	Pn	15 17 10.5	+1.5
ECAB				S	Sn	15 17 57.5	-2.1
ECAB				IVmb_Lg		15 18 01.4	
PVIS	Viseu	4.59	26	eS	Sn	15 18 04.1	-1.5
CIBOR	Castaar de Ib	5.05	52	P	Pn	15 17 19.7	+1.0
CIBOR				S	Sn	15 18 14.1	-2.7
POLO	Lamas de Olo	5.22	24	eS	Sn	15 18 18.6	-2.4
MD31	MD31	6.07	126	P	Pn	15 17 33.6	+0.9
MDT	Midelt	6.20	126	P	Pn	15 17 34.4	-0.1

*IDC **08** 15:22:39.8±0.7, 8.31S×32.15E, h0km, mb4.0/10, mbtmp4.0/13, ML2.7/2, MS3.3/7, Error ellipse: s-maj=21.3km s-min=15.0km az=93.0*
*NEIC **08** 15:22:42.0±1.8, 8.17S±0.08×32.2E±0.2, h10km±1km, mb4.3/15, Error ellipse: s-maj=28.1km s-min=13.7km az=92.0*

ISC 08 15:22:40.9±0.5, 8.17S±0.06×32.08E±0.09, h10km, n68, σ2s42/58, mb4.2/11, MS3.4/5, Tanzania

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBAR	Mbarara	7.63	350	Pn	Pn	15 24 33.8	+1.4
	64nm,0.3s,baz=23,slow=22,SNR=74						
MBAR				Sn	Sn	15 25 54.0	-5.2
	46nm,0.3s,baz=295,slow=22,SNR=8.0						
MBAR				Lg	Lg	15 26 30.9	
	186nm,0.3s,baz=176,slow=20,SNR=6.3						
MBAR	Mbarara	7.63	350		Pn	15 24 33.6	+1.2
MBAR	Mbarara	7.63	350		Sn	15 25 54.0	-5.2
KIBK	Kibwezi	8.29	46		Pn	15 24 40.4	-1.1
KMBO	Kilima Mbogo	8.69	37	Pn	Pn	15 24 44.8	-2.2
	baz=225,slow=17						
KMBO				Sn	Sn	15 26 14.5	-11
	baz=169,slow=19						
KMBO				Lg	Lg	15 27 00.0	
	baz=235,slow=18						
KSANE	Kasane	11.70	214	Pn	Pn	15 25 27.5	-0.7
KSANE	Kasane	11.70	214	*i* P	Pn	15 25 26.9	-1.4
KSANE				IAML		15 29 07.4	
	comp=N,138nm,0.6s						
KSANE	Kasane	11.70	214	*i* P	Pn	15 25 29.0	+0.8
KSANE				*i* S	Sn	15 27 27.9	-11
KSANE				IAML		15 29 07.4	
	comp=N,141nm,0.5s						
LODK	Lodwar	11.97	16		Pn	15 25 30.8	-1.1
SOOWA	Sowa	13.56	204	*i* P	Pn	15 25 49.8	-3.8
SOOWA				*i* S	Sn	15 28 11.6	-13
SOOWA				IAML		15 29 59.5	
	comp=E,171nm,0.7s						
SOOWA	Sowa	13.56	204	*i* P	Pn	15 25 53.4	-0.2
SOOWA				*i* S	Sn	15 28 12.5	-12
SOOWA				IAML		15 29 59.5	
	comp=E,170nm,0.7s						
SOOWA	Sowa	13.56	204	*i* P	Pn	15 25 45.3	-8.3
XAUDM	Khaudum	14.67	224	*i* P	Pn	15 26 04.6	-4.2
XAUDM				*i* S	Sn	15 28 33.9	-18
XAUDM				IAML		15 30 47.2	
	comp=N,292nm,0.5s						
LPHEP	Lephephe	16.24	201	Pn	Pn	15 26 28.0	-1.5
LPHEP	Lephephe	16.24	201	*i* P	Pn	15 26 28.7	-0.7
LPHEP				*i* S	Sn	15 29 14.0	-16
LPHEP				IAML		15 31 20.1	
	comp=E,28nm,0.8s						
LPHEP	Lephephe	16.24	201	*i* P	Pn	15 26 22.4	-7.0
LPHEP				*i* S	Sn	15 29 11.2	-19
LPHEP				IAML		15 31 19.9	
	comp=E,29nm,0.8s						
KDWAN	Kaudwane	16.72	204	Pn	Pn	15 26 35.4	0.0
KDWAN				IAmb	IAmb	15 26 56.1	
	comp=Z,19nm,0.7s						
GRTLG	Ghanzi

comp=Z,27nm,1.3s
VOI Vohitsoka 19.68 136 P **P** 15 27 09.8 **-0.7**
BOSA Boshof 21.33 197 P **P** 15 27 28.4 **+0.1**
comp=Z,2.1nm,0.4s,baz=21,slow=11,SNR=9.4
BOSA S S 15 31 12.8 -13
comp=Z,3.6nm,0.6s,baz=185,slow=13,SNR=3.6
BOSA Lg Lg 15 33 38.3
comp=Z,0.1nm,0.3s,baz=108,slow=19,SNR=1.9
BOSA LR LR 15 35 42.5
comp=Z,160nm,18.2s,baz=25,slow=37
comp=Z,2.1nm,0.4s
BOSA Boshof 21.33 197 P **P** 15 27 28.3 **0.0**
BOSA IAmb IAmb 15 27 39.8
comp=Z,20nm,1.5s
BOSA Boshof 21.33 197 S 15 31 12.8 -13
ATD Arta Tunnel 22.31 29 LR LR 15 36 33.1
comp=Z,7.3nm,18.2s,baz=68,slow=37
SUR Sutherland 26.27 202 LR LR 15 38 17.2
comp=Z,73nm,18.8s,baz=352,slow=36
TORD Torodi Ar. Bea 36.87 305 P **P** 15 29 52.2 **+2.3**
comp=Z,1.8nm,1.0s,baz=115,slow=7.7,SNR=6.9
TORD LR LR 15 44 55.4
comp=Z,57nm,18.5s,baz=240,slow=36
comp=Z,1.8nm,1.0s
MDT Midelt 53.67 321 LR LR 15 56 32.7
comp=Z,48nm,18.4s,baz=114,slow=38
PRED Cave del Predi 56.83 345 P **P** 15 32 26.4 **+0.8**
PRED IAmb IAmb 15 32 42.2
comp=Z,3.2nm,1.0s
ESDC Sonseca Array 58.13 328 P **P** 15 32 36.0 **+1.1**
comp=Z,1.6nm,1.0s,baz=143,slow=7.1,SNR=7.3
comp=Z,1.6nm,1.0s
ESDC Sonseca Array 58.13 328 P **P** 15 32 36.0 **+1.1**
CKRC Cesky Krumlov 58.86 346 *eP* **P** 15 32 40.4 **+0.6**
GERES GERESS Array B 59.02 346 P **P** 15 32 41.1 **+0.1**
comp=Z,1.2nm,1.0s,baz=160,slow=4.3,SNR=9.0
comp=Z,1.2nm,1.0s
GERES GERESS Array B 59.02 346 P **P** 15 32 41.1 **+0.1**
KHC Kasperske Hory 59.32 346 P **P** 15 32 44.4 **+1.4**
KHC IAmb IAmb 15 32 47.9
comp=Z,2.2nm,1.0s
KHC Kasperske Hory 59.32 346 *eP* **P** 15 32 44.6 **+1.6**
ZVC Zvikov 59.46 347 *eP* **P** 15 32 45.6 **+1.6**
KKAR Karatay Array 61.84 31 P **P** 15 33 00.9 **+0.5**
ABKAR Akbulak array 62.17 20 P **P** 15 33 01.4 **-1.0**
MAW Mawson 62.85 167 P **P** 15 33 05.2 **-1.4**
comp=Z,3.2nm,0.6s,baz=270,slow=6.1,SNR=4.0
comp=Z,3.2nm,0.6s
MAW Mawson 62.85 167 P **P** 15 33 09.5 **+2.9**
MKAR Makanchi Array 70.57 34 P **P** 15 33 57.8 **+1.5**
comp=Z,1.7nm,0.6s,baz=226,slow=6.5,SNR=8.9
comp=Z,1.7nm,0.6s
MKAR Makanchi Array 70.57 34 P **P** 15 33 56.8 **+0.5**
NOA NORSAR Array B 70.92 349 P **P** 15 34 00.3 **+2.2**
comp=Z,1.9nm,1.1s,baz=160,slow=5.6,SNR=3.7
comp=Z,1.9nm,1.1s
NOA NORSAR Array B 70.92 349 P **P** 15 34 00.3 **+2.2**
KURBB Kurchatov Arra 71.00 29 P **P** 15 33 58.9 **+0.1**
comp=Z,0.2nm,0.3s,baz=235,slow=6.6,SNR=4.4
comp=Z,0.2nm,0.3s
CMAR Chiang Mai Arr 71.05 67 P **P** 15 34 01.1 **+1.4**
comp=Z,0.6nm,0.5s,baz=263,slow=7.3,SNR=5.3
comp=Z,0.6nm,0.5s
KURK Kurchatov 71.10 29 P **P** 15 33 58.9 **-0.5**
KURK Kurchatov 71.10 29 IAmb IAmb 15 34 21.7
comp=Z,2.8nm,1.1s
NC204 NORSAR Array S 71.22 349 P **P** 15 34 01.0 **+1.0**
QSPA South Pole Qui 81.91 180 P **P** 15 35 02.5 **+1.9**
ASAR Alice Springs 97.45 115 P Pdif 15 36 16.4 +0.7
comp=Z,0.3nm,0.5s,baz=262,slow=4.6,SNR=12
comp=Z,0.3nm,0.5s
ASAR Alice Springs 97.45 115 P Pdif 15 36 16.4 +0.7

*IDC **08** 15:44:16.9±1.2, 50.°02S×111.°56E, h0km, mb3.9/6, mbtmp3.9/6, MS3.6/3, Error ellipse: s-maj=49.3km s-min=19.9km az=97.0*
*NEIC **08** 15:44:18.4±1.1, 50.°04S±0.°08×111.°4E±0.°2, h10km±1km, mb4.3/15, Error ellipse: s-maj=25.9km s-min=8.0km az=242.0*
ISC 08 15:44:18.2±0.8, **50.°0S**±0.°1×**111.°6E**±0.°2, **h10**km, **n30, σ0°46/26, mb4.2**/12, **MS3.5/3, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**15.24**	**8**	T	T	16 03 29.6	
	baz=186,slow=74,SNR=39						
H01W1	**Cape Leeuwin H**	**15.25**	**8**	T	T	16 03 27.5	
	baz=186,slow=74,SNR=33						
H01W3	**Cape Leeuwin H**	**15.26**	**8**	T	T	16 03 30.7	
	baz=186,slow=74,SNR=33						
CAN	**Canberra**	**30.84**	**76**	P	**P**	15 50 33.8	**-0.6**
INKA	**Innaminka**	**31.47**	**56**	P	**P**	15 50 38.9	**-1.0**
INKA				IAmb	IAmb	15 51 11.6	
	comp=Z,4.2nm,1.4s						
ASAR	**Alice Springs**	**31.58**	**42**	P	**P**	15 50 41.1	**+0.2**
	comp=Z,1.6nm,0.7s,baz=208,slow=8.2,SNR=25						
ASAR				LR	LR	16 02 00.5	
	comp=Z,86nm,18.8s,baz=272,slow=34						
	comp=Z,1.6nm,0.7s						
ASAR	**Alice Springs**	**31.58**	**42**	P	**P**	15 50 40.8	**-0.1**
AS31	**Alice Springs**	**31.58**	**42**	P	**P**	15 50 40.7	**-0.2**
VNDA	**Vanda**	**33.32**	**162**	P	**P**	15 50 55.9	**+0.3**
	comp=Z,0.8nm,0.8s,baz=288,slow=8.1,SNR=7.2						
	comp=Z,0.8nm,0.8s						
VNDA	**Vanda**	**33.32**	**162**	P	**P**	15 50 55.9	**+0.3**
FITZ	**Fitzroy Crossi**	**33.81**	**25**	P	**P**	15 50 60.0	**-0.4**
	comp=Z,1.2nm,0.8s,baz=218,slow=12,SNR=1.9						
FITZ				LR	LR	16 03 17.8	
	comp=Z,139nm,19.6s,baz=312,slow=34						
	comp=Z,1.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**33.81**	**25**	P	**P**	15 50 60.0	**-0.4**
WRA	**Warramunga Arr**	**35.07**	**39**	P	**P**	15 51 11.1	**-0.2**
	comp=Z,3.7nm,0.8s,baz=206,slow=8.4,SNR=18						
	comp=Z,3.7nm,0.8s						
WRAB	**Tennant Creek**	**35.08**	**39**	P	**P**	15 51 11.8	**+0.3**
WRAB				IAmb	IAmb	15 51 12.4	
	comp=Z,4.7nm,0.9s						
WR8	**Warramunga Arr**	**35.12**	**40**	P	**P**	15 51 11.8	**0.0**
WR8				IAmb	IAmb	15 51 19.1	
	comp=Z,8.0nm,1.0s						
WB0	**Warramunga Arr**	**35.25**	**39**	P	**P**	15 51 12.8	**-0.1**
WB0				IAmb	IAmb	15 51 19.6	
	comp=Z,4.0nm,0.8s						
QSPA	**South Pole Qui**	**40.10**	**180**	P	**P**	15 51 53.5	**-0.1**
	comp=Z,1.4nm,0.9s,baz=326,slow=7.9,SNR=4.4						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	**40.10**	**180**	P	**P**	15 51 53.8	**+0.1**
QSPA				IAmb	IAmb	15 52 00.8	
	comp=Z,9.2nm,1.2s						
MTN	**Manton Dam**	**40.41**	**30**	P	**P**	15 51 56.7	**+0.2**
MTN				IAmb	IAmb	15 52 03.7	
	comp=Z,7.4nm,1.1s						
DSZ	**Denniston Nort**	**41.72**	**102**	P	**P**	15 52 07.0	**-0.1**
TUWZ	**Tuamarina**	**43.23**	**103**	P	**P**	15 52 20.1	**+0.7**
MRZ	**Mangatainoka R**	**44.69**	**103**	P	**P**	15 52 31.9	**+0.8**
SNAA	**Sanae**	**50.15**	**202**	LR	LR	16 12 03.8	
	comp=Z,42nm,18.6s,baz=91,slow=33						
BELA	**Belgrano 2**	**50.67**	**189**	P	**P**	15 53 16.3	**-0.8**
BELA				IAmb	IAmb	15 53 23.4	
	comp=Z,3.9nm,0.9s						
PBA	**Port Blair**	**63.60**	**339**	P	**P**	15 54 49.3	**+0.2**
CMAR	**Chiang Mai Arr**	**69.09**	**347**	P	**P**	15 55 24.6	**+0.3**
	comp=Z,0.9nm,0.8s,baz=189,slow=6.0,SNR=10						
	comp=Z,0.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**69.09**	**347**	P	**P**	15 55 24.2	**-0.1**
PATS	**Pohnpei**	**69.61**	**51**	P	**P**	15 55 28.4	**+0.8**
USRK	**Ussuriysk Ar.**	**95.53**	**15**	P	**P**	15 57 42.9	**+0.2**
TXAR	**Lajitas Array**	**146.36**	**115**	PKPbc	**PKPbc**	16 03 59.3	**+0.2**
	comp=Z,0.9nm,0.8s,baz=197,slow=4.8,SNR=9.9						

*HEL **08** 15:58:28.9±0.4, 67.°85N×20.°06E, h0km, ML1.1, Suspected explosion*
UPP 08 15:58:28.7±0.2, **67.°84N×20.°24E, h0**km, **ML2.6, Presumed earthquake, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.12**	**17**	P	Pg	15 58 31.3	+0.3
KUA				S	Sg	15 58 33.7	+1.2
RATU	**Laukkuluspa**	**0.25**	**267**	P	Pg	15 58 33.7	+0.3
KOVU	**Salmi**	**0.39**	**355**	P	Pg	15 58 36.1	0.0
KOVU				S	Sg	15 58 41.8	+0.8
NIKU	**Nikkaluokta**	**0.46**	**274**	P	Pg	15 58 37.4	0.0
LANU	**Lannavaara**	**0.69**	**72**	PG	Pg	15 58 42.3	+0.4
LANU				SG	Sb	15 58 52.8	-1.0
PAJU	**Pajala**	**1.38**	**125**	PG	Pg	15 58 54.6	-0.5
	baz=310						
PAJU				SB	Sb	15 59 13.6	+0.2
HEF	**Hetta**	**1.40**	**64**	PG	Pn	15 58 55.5	0.0
	baz=250						
HEF				MSG		15 59 12.7	
	comp=Z,0.8nm,0.2s						
HEF				SN	Sn	15 59 16.2	+1.6
ERTU	**Ertsjaerv**	**1.50**	**149**	PN	Pg	15 58 57.7	+0.4
ERTU				SN	Sn	15 59 17.6	+0.6
KLF	**Kolari**	**1.55**	**111**	PG	Pb	15 58 58.2	0.0
KLF				MSG		15 59 17.4	
	comp=Z,1.0nm,0.2s						
KLF				SN	Sg	15 59 19.5	+1.0
TOF	**Tornio**	**2.39**	**136**	MSG		15 59 41.2	
	comp=Z,0.8nm,0.2s						
TOF				SG	Sb	15 59 43.6	+1.2
RNF	**Rovaniemi**	**2.56**	**116**	PG	Pb	15 59 14.4	-1.1
	baz=301						
RNF				SG	Sb	15 59 48.5	+1.1
ARA0	**ARCESS Array S**	**2.57**	**46**	SG	Sg	15 59 49.5	-1.5
RAJF	**Raja-Jooseppi**	**3.08**	**74**	PG	Pb	15 59 24.6	+0.3
	baz=258						
RAJF				SG	Sb	16 00 05.0	+2.5
RANF	**Ranua**	**3.16**	**122**	SG	Sg	16 00 09.5	-0.6
KU2	**Taivalkoski**	**3.82**	**120**	PG	Pb	15 59 38.6	+1.8

*IDC **08** 16:03:13.2±3.7, 8.°60S×111.°51E, h0km, mb3.0/3, mbtmp3.0/3, MS2.9/1, Error ellipse: s-maj=209.9km s-min=31.2km az=49.0*
*DJA **08** 16:03:18.4±0.5, 9.°S±4.°×11.°1E±.°, h10km, M3.5/14, MLv3.5/14*
ISC 08 16:03:20.4±1.4, **9.°0S**±0.°1×**111.°36E**±0.°07, **h58**km, **n14, σ1°66/13, mb2.7**/3, **South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PWJI	**Pagerwojo**	**1.08**	**24**	P	**Pn**	**16 03 37.7**	**-1.7**
PWJI				S	**Sn**	**16 03 53.2**	**-0.3**
PWJI				AML	AML		
WOJI	**Wonogiri, Jawa**	**1.25**	**340**	P	**Pn**	**16 03 41.1**	**-0.5**
WOJI				S	**Sn**	**16 03 58.3**	**+0.8**
WOJI				AML	AML		
SNJI	**Sawahan-Nganju**	**1.29**	**18**	P	**Pn**	**16 03 43.4**	**+1.0**
SNJI				S	**Sn**	**16 04 02.1**	**+3.4**
SNJI				AML	AML		
SJI	**Sawahan**	**1.33**	**18**	P	**Pn**	**16 03 42.0**	**-0.9**
YOGI	**Yogyakarta**	**1.59**	**318**	P	**Pn**	**16 03 44.4**	**-1.9**
YOGI				AML	AML		
KPJI	**Karang Pucung**	**2.93**	**305**	P	**Pn**	**16 04 06.0**	**+1.5**
LEM	**Lembang**	**4.30**	**300**	Sn	**Sn**	**16 05 12.9**	**+0.5**
	2.6nm,0.3s,baz=343,slow=20,SNR=3.8						
DAV	**Davao City (W)**	**21.36**	**42**	LR	LR	16 17 42.7	
	comp=Z,35nm,20.2s,baz=256,slow=42						
WRA	**Warramunga Arr**	**24.72**	**119**	P	**P**	**16 08 36.8**	**+0.3**
	0.1nm,0.4s,baz=296,slow=9.2,SNR=1.0						
	0.1nm,0.4s						
ASAR	**Alice Springs**	**26.02**	**127**	P	**P**	**16 08 49.8**	**+1.4**
	0.2nm,0.7s,baz=304,slow=9.8,SNR=4.1						
	0.2nm,0.7s						
H08S2	**Diego Garcia H**	**38.47**	**269**	T	T	16 51 20.7	
	baz=94						
H08S3	**Diego Garcia H**	**38.48**	**269**	T	T	16 51 25.3	
	baz=94						
H08S1	**Diego Garcia H**	**38.49**	**269**	T	T	16 51 31.7	
	baz=94						
MKAR	**Makanchi Array**	**61.31**	**338**	P	**P**	**16 13 28.4**	**-1.5**
	0.2nm,0.4s,baz=156,slow=7.6,SNR=3.0						
	0.2nm,0.4s						

*ISK **08** 16:06:18.8, 37.°85N×27.°00E, h13km, ML2.6/17*
*THE **08** 16:06:19.4, 37.°8N±0.°8×27.°0E±0.°9, h9km±1km, M2.5/8, MLh2.5/8*
*AFAD **08** 16:06:19.1, 37.°83N×26.°97E, h7km±3km, ML2.4*
ISC 08 16:06:18.9±0.8, **37.°84N**±0.°02×**26.°97E**±0.°03, **h15**km±6km, **n35, σ0°43/54, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**219**	P	**Pb**	**16 06 23.3**	**-0.4**
SMG				S	**Sb**	**16 06 26.7**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**343**	P	**Pg**	**16 06 24.3**	**+0.2**
DGB				S	**Sg**	**16 06 27.3**	**-0.2**
DGB				IAML		16 06 28.0	
	comp=N,440nm,0.2s						
DGB				IAML		16 06 28.0	
	comp=E,486nm,0.2s						
GMLD	**Gumuldur**	**0.24**	**350**	Pg	**Pg**	**16 06 24.5**	**+0.2**
GMLD				Sg	**Sg**	**16 06 28.3**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**123**	P	**Pg**	**16 06 24.6**	**+0.1**
GCAM				S	**Sg**	**16 06 28.0**	**-0.1**
GCAM				IAML		16 06 28.0	
	comp=N,1μm,0.2s						
GCAM				IAML		16 06 28.0	
	comp=E,942nm,0.1s						
GCAM	**G?zelcaml?**	**0.25**	**123**	Pg	**Pg**	**16 06 24.5**	**+0.1**
GCAM				Sg	**Sg**	**16 06 28.1**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**84**	Pg	**Pg**	**16 06 24.2**	**-0.3**
KUSD				Sg	**Sg**	**16 06 27.5**	**-0.8**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**355**	P	**Pg**	**16 06 27.2**	**+0.3**
BEYE				S	**Sg**	**16 06 32.3**	**-0.1**
BEYE				IAML		16 06 33.0	
	comp=N,233nm,0.2s						
BEYE				IAML		16 06 33.0	
	comp=E,301nm,0.2s						
DDIM	**Aydin, Didim**	**0.44**	**150**	P	**Pb**	**16 06 28.1**	**-0.2**
DDIM				S	**Sg**	**16 06 34.0**	**+0.4**
DIDI	**Didim-Aydin**	**0.51**	**155**	Pg	**Pb**	**16 06 29.5**	**0.0**
DIDI				AML	AML		
DUVT	**Torbali**	**0.54**	**45**	P	**Pg**	**16 06 29.5**	**-0.2**
DUVT				S	**Sg**	**16 06 36.0**	**-0.9**
DUVT				IAML		16 06 41.0	
	comp=E,349nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**318**	P	**Pb**	**16 06 29.9**	**-0.2**
ZEYE				S	**Sb**	**16 06 38.1**	**+0.3**
ZEYE				IAML		16 06 41.0	
	comp=N,517nm,0.2s						
ZEYE				IAML		16 06 41.0	
	comp=E,310nm,0.2s						
BLCB	**Balcova**	**0.55**	**6**	P	**Pg**	**16 06 30.0**	**+0.1**
BLCB				S	**Sg**	**16 06 37.8**	**+0.5**
BLCB	**Balcova**	**0.55**	**6**	Pg	**Pg**	**16 06 29.9**	**+0.1**
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**81**	Pg	**Pg**	**16 06 33.7**	**+0.3**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.75**	**161**	Pg	**Pb**	**16 06 34.3**	**+0.6**
YKAV				AML	AML		
BODT	**Bodrum**	**0.82**	**160**	P	**Pg**	**16 06 34.5**	**-0.4**
BODT				S	**Sb**	**16 06 46.4**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**160**	Pg	**Pg**	**16 06 34.4**	**-0.5**
BODT				AML	AML		
BAGT	**Foa**	**0.82**	**354**	P	**Pn**	**16 06 35.5**	**-0.4**
BAGT				S	**Sb**	**16 06 46.5**	**+0.7**
BAGT				IAML		16 06 47.0	
	comp=N,197nm,0.8s						
BAGT				IAML		16 06 49.0	
	comp=E,123nm,0.5s						
KRBN	**Karaburun**	**0.82**	**337**	Pg	**Pn**	**16 06 35.6**	**-0.4**
IZMR	**zmir-demi**	**0.83**	**69**	P	**Pg**	**16 06 35.9**	**+0.7**
IZMR				S	**Sg**	**16 06 44.5**	**-1.7**
MLSB	**Milas**	**0.84**	**130**	Pg	**Pb**	**16 06 35.1**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.88**	**155**	Pg	**Pb**	**16 06 35.7**	**-0.2**
FOCM	**Foa**	**0.90**	**348**	Pg	**Pg**	**16 06 36.6**	**+0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**0.91**	**308**	P	**Pn**	**16 06 37.1**	**-0.1**
CHOS				S	**Sn**	**16 06 50.0**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**308**	Pg	**Pn**	**16 06 37.4**	**+0.2**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**332**	P	**Pn**	**16 06 37.3**	**-0.2**
KARB				S	**Sn**	**16 06 50.6**	**0.0**
CAMT	**Merkez**	**0.95**	**16**	P	**Pn**	**16 06 38.0**	**+0.2**
CAMT				S	**Sn**	**16 06 51.3**	**+0.3**
CAMT				IAML		16 06 52.0	
	comp=E,146nm,0.5s						
CAMT				IAML		16 06 56.0	
	comp=N,116nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.06**	**83**	Pg	**Pn**	**16 06 39.3**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.15**	**40**	Pn	**Pg**	**16 06 41.0**	**-0.1**
GOMA				AML	AML		
DAT	**Datca**	**1.21**	**156**	P	**Pb**	**16 06 41.8**	**+0.3**
DAT				S	**Sb**	**16 06 57.0**	**0.0**
DAT				AML	AML		
DAT	**Datca**	**1.21**	**156**	Pn	**Pb**	**16 06 41.6**	**+0.1**
DAT				AML	AML		
YER	**Yerkesik**	**1.26**	**123**	P	**Pb**	**16 06 42.5**	**0.0**
YER				S	**Sb**	**16 06 58.4**	**-0.1**
YER	**Yerkesik**	**1.26**	**123**	Pn	**Pb**	**16 06 42.4**	**0.0**
YER				AML	AML		
TURN	**Turunc**	**1.47**	**136**	Pn	**Pn**	**16 06 45.3**	**+0.5**
TURN				AML	AML		
PRK	**Paraskevi**	**1.51**	**339**	P	**Pg**	**16 06 47.5**	**-0.5**

ISK 08 16:29:53.4, 37.°98N×27.°20E, h8km±1km, **ML1.3/8, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.14**	**151**	Pg	Pg	16 29 56.9	+0.5
KUSD				Sg	Sg	16 29 59.3	+0.9
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.24**	**293**	Pg	Pg	16 29 59.3	+1.1
GMLD				Sg	Sg	16 30 03.7	+2.2
GCAM	**G?zelcaml?**	**0.28**	**175**	Pg	Pg	16 29 59.6	+0.6
GCAM				Sg	Sg	16 30 04.1	+1.3
GCAM				AML	AML		
BLCB	**Balcova**	**0.42**	**343**	Pg	Pg	16 30 02.2	+0.6
BLCB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.55**	**94**	Pg	Pg	16 30 04.5	+0.5
MLSB	**Milas**	**0.82**	**146**	Pg	Pb	16 30 09.8	-0.2
MLSB				Sg	Sb	16 30 21.7	+0.4
BODT	**Bodrum**	**0.92**	**174**	Pg	Pb	16 30 11.5	-0.2
CHOS	**Chios island**	**0.99**	**294**	Pg	Pb	16 30 12.9	+0.1

AFAD 08 16:30:29.9, 37.°89N×26.°87E, h7km±2km, **ML1.4, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.16**	**4**	P	Pg	16 30 34.0	+0.8
DGB				S	Sg	16 30 36.3	+0.8
DGB				IAML		16 30 37.0	
	comp=E,86nm,0.3s						
BEYE	**izmir**	**0.34**	**8**	P	Pg	16 30 37.2	+0.6
BEYE				S	Sg	16 30 41.5	+0.5
GCAM	**G?zelcaml?**	**0.35**	**123**	P	Pg	16 30 37.3	+0.7
GCAM				S	Sg	16 30 42.1	+0.8
GCAM				IAML		16 30 43.0	
	comp=N,46nm,0.2s						
GCAM				IAML		16 30 43.0	
	comp=E,57nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.45**	**320**	P	Pg	16 30 38.7	0.0
ZEYE				S	Sg	16 30 45.5	+1.0
ZEYE				IAML		16 30 47.0	
	comp=N,27nm,0.1s						
ZEYE				IAML		16 30 49.0	
	comp=E,36nm,0.1s						
DDIM	**Aydin, Didim**	**0.53**	**146**	P	Pg	16 30 40.5	+0.5
DDIM				S	Sg	16 30 45.9	-1.0
DDIM				IAML		16 30 53.0	
	comp=N,32nm,1.1s						
DDIM				IAML		16 31 05.0	
	comp=E,61nm,1.7s						

*IDC **08** 16:37:21.8±0.6, 3.°32S×135.°58E, h0km, mb4.1/10, mbtmp4.1/16, ML4.1/4, MS3.4/10, Error ellipse: s-maj=20.4km s-min=12.6km az=51.0*
*NEIC **08** 16:37:26.9±1.7, 3.°43S±0.°07×135.°58E±0.°06, h31km±5km, mb4.4/21, Error ellipse: s-maj=12.4km s-min=7.0km az=216.0*
*DJA **08** 16:37:27.1±1.2, 3.°S±2.°×13.°6E±.°, h22km±10km, M4.4/7, MLv4.4/7*
ISC 08 16:37:25.3±0.4, **3.°55S**±0.°05×**135.°57E**±0.°04, **h22**km, **n63, σ1°83/64, mb4.3**/18, **MS3.5**/4, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAKI	**Biak**	**2.40**	**13**	P	**Pn**	**16 38 03.3**	**0.0**
BAKI				S	**Sn**	**16 38 31.3**	**-0.8**
BAKI				AML	AML		
MWPI	**Manokwari, Pap**	**3.01**	**330**	P	**Pn**	**16 38 11.3**	**-0.5**
MWPI				S	**Sn**	**16 38 46.3**	**-0.9**
MWPI				AML	AML		
FAKI	**Fak Fak**	**3.37**	**281**		**Pn**	**16 38 17.1**	**+0.4**
FAKI	**Fak Fak**	**3.37**	**281**	P	**Pn**	**16 38 17.6**	**+0.9**
FAKI				S	**Sn**	**16 38 55.8**	**-0.3**
FAKI				AML	AML		
SMPI	**Sarmi**	**3.50**	**64**	P	**Pn**	**16 38 19.4**	**+1.0**
SMPI				S	**Sn**	**16 38 57.9**	**-1.3**
SMPI				AML	AML		
SIJI	**Sorong**	**5.05**	**302**	Pn	**Pn**	**16 38 39.9**	**0.0**
	13nm,0.3s,baz=92,slow=9.0,SNR=33						
SIJI				Sn	**Sn**	**16 39 32.7**	**-4.9**
	9.5nm,0.3s,baz=122,slow=13,SNR=3.6						
SIJI				LR	LR	16 41 02.8	
	comp=Z,209nm,19.0s,baz=183,slow=45						
	50nm,0.4s						
SIJI				AML	AML		
SIJI	**Sorong**	**5.05**	**302**	P	**Pn**	**16 38 39.0**	**-0.9**
JAY	**Jayapura**	**5.23**	**79**	Pn	**Pn**	**16 38 41.8**	**-0.5**
	8.4nm,0.9s,baz=200,slow=15,SNR=1.7						
JAY				Sn	**Sn**	**16 39 37.8**	**-4.3**
	0.7nm,0.3s,baz=276,slow=18,SNR=1.5						
MTN	**Manton Dam**	**10.23**	**205**		**Pn**	**16 39 52.2**	**+1.4**
PMG	**Port Moresby**	**12.90**	**117**	Pn	**Pn**	**16 40 29.2**	**+1.7**
	5.7nm,0.9s,baz=287,slow=11,SNR=1.2						
PMG				LR	LR	16 47 19.8	
	comp=Z,71nm,19.2s,baz=360,slow=46						
KNRA	**Kununurra**	**13.79**	**209**		**Pn**	**16 40 39.9**	**+0.3**
DAV	**Davao City (W)**	**14.51**	**317**	LR	LR	16 45 52.5	
	comp=Z,95nm,20.2s,baz=258,slow=36						
DAV	**Davao City (W)**	**14.51**	**317**	Pn	**Pn**	**16 40 49.9**	**+0.3**
WB0	**Warramunga Arr**	**16.16**	**184**		**Pn**	**16 41 10.4**	**-0.9**
WB0				IAmb	IAmb	16 41 18.4	
	comp=Z,20nm,0.8s						
WRAB	**Tennant Creek**	**16.33**	**184**		**Pn**	**16 41 12.7**	**-0.7**
WRAB				IAmb	IAmb	16 41 20.4	
	comp=Z,23nm,0.7s						
WRA	**Warramunga Arr**	**16.34**	**184**	Pn	**Pn**	**16 41 13.5**	**0.0**
	comp=Z,0.6nm,0.3s,baz=9.4,slow=14,SNR=13						
WRA				Sn	Sn	16 44 04.4	-10
	comp=Z,0.4nm,0.3s,baz=6.0,slow=22,SNR=6.5						
	comp=Z,1.8nm,0.5s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.34**	**184**		**Pn**	**16 41 13.1**	**-0.5**
WR8	**Warramunga Arr**	**16.34**	**184**		**Pn**	**16 41 13.0**	**-0.6**
WR8				IAmb	IAmb	16 41 20.5	
	comp=Z,21nm,0.7s						
KRVT	**Keravat (AS076**	**16.44**	**93**	LR	LR	16 47 55.9	
	comp=Z,59nm,18.1s,baz=260,slow=39	

ASAR				S	**S**	**16 45 34.3**	**-7.8**
	comp=Z,2.2nm,0.8s,baz=1.4,slow=26,SNR=5.0						
ASAR				LR	LR	16 50 37.6	
	comp=Z,178nm,19.5s,baz=340,slow=39						
	comp=Z,26nm,0.7s						
ASAR	**Alice Springs**	**20.07**	**184**		**P**	**16 41 58.2**	**+0.8**
ASAR					**S**	**16 45 36.9**	**-5.2**
MBWA	**Marble Bar**	**23.32**	**220**	P	**P**	**16 42 33.5**	**+1.5**
MBWA				IAmb	IAmb	16 42 34.9	
	comp=Z,11nm,0.7s						
INKA	**Innaminka**	**24.56**	**169**	P	**P**	**16 42 45.0**	**+1.3**
FORT	**Forrest**	**28.00**	**194**	P	**P**	**16 43 15.8**	**+1.1**
FORT				IAmb	IAmb	16 43 17.2	
	comp=Z,7.2nm,0.7s						
LEM	**Lembang**	**28.02**	**262**	LR	LR	16 57 45.2	
	comp=Z,146nm,18.1s,baz=216,slow=44						
STKA	**Stephens Creek**	**28.75**	**169**	P	**P**	**16 43 22.5**	**+1.1**
	comp=Z,2.9nm,0.6s,baz=338,slow=7.0,SNR=7.4						
	comp=Z,2.9nm,0.6s						
BBOO	**Buckleboo**	**29.12**	**179**	P	**P**	**16 43 24.1**	**-0.6**
BBOO				IAmb	IAmb	16 43 33.0	
	comp=Z,10nm,1.1s						
NJ2	**Nanjing**	**38.80**	**337**	*eP*	**P**	**16 44 51.4**	**+2.8**
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
CMAR	**Chiang Mai Arr**	**42.18**	**303**	P	**P**	**16 45 15.6**	**-1.3**
	comp=Z,0.4nm,0.4s,baz=105,slow=9.4,SNR=1.9						
	comp=Z,0.4nm,0.4s						
HHC	**Hu-ho-hao-te**	**49.33**	**336**	*eP*	**P**	**16 46 16.4**	**+3.3**
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,78nm,5.1s						
GTA2	**Gaotai**	**54.02**	**326**	*eP*	**P**	**16 46 48.7**	**+0.5**
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SONM	**Songino Array**	**57.20**	**337**	P	**P**	**16 47 07.4**	**-3.5**
	comp=Z,0.3nm,0.6s,baz=134,slow=6.2,SNR=2.2						
	comp=Z,0.3nm,0.6s						
SONM	**Songino Array**	**57.20**	**337**	P	**P**	**16 47 09.9**	**-1.0**
MKAR	**Makanchi Array**	**68.57**	**324**	P	**P**	**16 48 26.5**	**0.0**
	comp=Z,1.7nm,0.6s,baz=111,slow=8.2,SNR=14						
	comp=Z,1.7nm,0.6s						
MAKZ	**Makanchi**	**68.76**	**324**	P	**P**	**16 48 27.6**	**-0.1**
ZALV	**Zalesovo Beam**	**71.11**	**331**	P	**P**	**16 48 40.7**	**-1.2**
	comp=Z,0.9nm,0.5s,baz=105,slow=5.9,SNR=6.1						
ZALV				LR	LR	17 21 17.8	
	comp=Z,26nm,19.6s,baz=35,slow=37						
	comp=Z,0.9nm,0.5s						
KURK	**Kurchatov**	**72.62**	**326**	P	**P**	**16 48 50.2**	**-0.8**
KURK	**Kurchatov**	**72.62**	**326**	IAmb	IAmb	16 49 08.2	
	comp=Z,2.0nm,0.9s						
KURBB	**Kurchatov Arra**	**72.63**	**326**	P	**P**	**16 48 50.2**	**-0.9**
	comp=Z,0.9nm,0.4s,baz=122,slow=4.9,SNR=7.5						
	comp=Z,0.9nm,0.4s						
VNDA	**Vanda**	**75.25**	**174**	P	**P**	**16 49 06.8**	**+0.8**
BVAR	**Borovoye Array**	**78.22**	**326**	P	**P**	**16 49 22.8**	**-0.4**
	comp=Z,2.0nm,0.7s,baz=122,slow=7.3,SNR=9.0						
	comp=Z,2.0nm,0.7s						
MAW	**Mawson**	**80.18**	**202**	LR	LR	17 24 02.1	
	comp=Z,92nm,18.4s,baz=66,slow=35						
H17K	**Granite Mounta**	**82.69**	**23**	P	**P**	**16 49 47.2**	**+0.3**
H17K				IAmb	IAmb	16 49 58.3	
	comp=Z,7.5nm,1.1s						
L18K	**Granite Mounta**	**82.94**	**26**	P	**P**	**16 49 48.7**	**+0.4**
ABKAR	**Akbulak array**	**83.34**	**320**	P	**P**	**16 49 49.7**	**-0.9**
G19K	**Purcell Mounta**	**84.25**	**22**	P	**P**	**16 49 54.8**	**-0.1**
IMAR	**Indian Mountai**	**85.46**	**23**	P	**P**	**16 50 00.8**	**-0.3**
QSPA	**South Pole Qui**	**86.41**	**180**	P	**P**	**16 50 06.0**	**0.0**
	comp=Z,1.8nm,0.9s,baz=312,slow=0.1,SNR=7.8						
	comp=Z,1.8nm,0.9s						
QSPA	**South Pole Qui**	**86.41**	**180**	P	**P**	**16 50 06.4**	**+0.4**
I23K	**Minto, Yukon-K**	**86.96**	**24**	P	**P**	**16 50 08.4**	**0.0**
I23K				IAmb	IAmb	16 50 08.9	
	comp=Z,2.7nm,0.7s						
ILAR	**Eielson Array**	**87.89**	**25**	P	**P**	**16 50 11.1**	**-1.9**
	comp=Z,0.6nm,0.5s,baz=264,slow=4.4,SNR=11						
	comp=Z,0.6nm,0.5s						
BMAR	**Burnt Mountain**	**89.36**	**22**	P	**P**	**16 50 19.5**	**-0.4**
WRAK	**Wrangell Islan**	**94.09**	**34**	P	**P**	**16 50 41.9**	**0.0**
CPUP	**Villa Florida**	**147.78**	**158**	PKPbc	**PKPbc**	**16 57 10.3**	**+1.1**
	comp=Z,3.7nm,0.9s,baz=210,slow=4.7,SNR=12						
CPUP	**Villa Florida**	**147.78**	**158**		**PKiKP**	**16 57 10.5**	**-0.8**
LPAZ	**La Paz**	**149.38**	**131**	PKPbc	**PKPbc**	**16 57 13.7**	**-0.8**
	comp=Z,0.7nm,0.5s,baz=175,slow=2.4,SNR=7.2						
LPAZ	**La Paz**	**149.38**	**131**		**PKiKP**	**16 57 15.9**	**+0.3**

*SJA **08** 16:39:16.8±0.8, 19°.84S×70°.96W, h27km±3km, ML3.3, MW3.7*
*GUC **08** 16:39:19.3±0.9, 19°.80S×70°.94W, h34km±3km, ML3.5, Presumed earthquake*
ISC 08 16:39:17.6±1.6, 19°.81S±0°.03×70°.97W±0°.07, h25km±14km, n31, σ0°84/53, 3C-5D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSGCX	**Pisagua**	**0.82**	**75**	*eP*	**Pn**	**16 39 32.9**	**-0.9**
PSGCX				*eS*	**Sn**	**16 39 45.3**	**+0.1**
PSGCX				IAML		16 39 46.2	
	comp=Z,711nm,0.4s						
PSGCX	**Pisagua**	**0.82**	**75**	⇓*iP*	**Pn**	**16 39 32.7**	**-1.0**
PSGCX				*eS*	**Sb**	**16 39 43.0**	**-1.0**
TA02	**Huaiquique**	**0.91**	**120**	*eP*	**Pb**	**16 39 35.9**	**+1.2**
TA02				IAML		16 39 53.8	
	comp=Z,447nm,0.3s						
TA02	**Huaiquique**	**0.91**	**120**	*eP*	**Pn**	**16 39 34.5**	**-0.4**
TA02				*eS*	**Sb**	**16 39 47.0**	**+0.5**
TA02				IAML		16 39 48.9	
	comp=N,3μm,0.2s						
TA01	**Diego Aracena**	**1.05**	**136**	*eP*	**Pn**	**16 39 36.9**	**0.0**
TA01				*eS*	**Sb**	**16 39 51.6**	**+1.1**
TA01				IAML		16 39 52.0	
	comp=Z,916nm,0.4s						
TA01	**Diego Aracena**	**1.05**	**136**	⇑*eP*	**Pn**	**16 39 36.9**	**0.0**
TA01				*eS*	**Sb**	**16 39 50.7**	**+0.1**
PX02	**IPOC Station P**	**1.11**	**41**	*eP*	**Pn**	**16 39 37.4**	**-0.3**
PX02				*eS*	**Sb**	**16 39 52.5**	**+0.1**
PX02				IAML		16 39 59.2	
	comp=N,1μm,0.5s						
PB11	**IPOC Station P**	**1.23**	**88**	*eP*	**Pn**	**16 39 39.9**	**+0.4**
PB11				*eS*	**Sb**	**16 39 56.0**	**0.0**
PB11				IAML		16 39 57.5	
	comp=Z,932nm,0.4s						
PB11	**IPOC Station P**	**1.23**	**88**	⇑*eP*	**Pn**	**16 39 39.6**	**+0.1**
PB11				*eS*	**Sb**	**16 39 55.6**	**-0.3**
PB11				IAML		16 39 58.2	
	comp=N,2μm,0.3s						
PB12	**IPOC Station P**	**1.33**	**27**	*eP*	**Pb**	**16 39 42.3**	**+0.2**
PB12				IAML		16 40 05.3	
	comp=Z,258nm,0.7s						
PB12	**IPOC Station P**	**1.33**	**27**	⇓*iP*	**Pn**	**16 39 41.6**	**+0.8**
PB12				*eS*	**Sb**	**16 39 59.5**	**+0.8**
AP01	**Chacalluta**	**1.55**	**23**	*eP*	**Pb**	**16 39 45.1**	**-0.5**
AP01				*eS*	**Sn**	**16 40 02.1**	**-0.8**
AP01				IAML		16 40 11.3	
	comp=Z,342nm,0.4s						
AP01	**Chacalluta**	**1.55**	**23**	*eP*	**Pb**	**16 39 45.6**	**-0.1**
AP01				IAML		16 40 07.4	
	comp=N,1μm,0.4s						
GO01	**Chusmiza**	**1.68**	**85**	*eP*	**Pb**	**16 39 47.3**	**-0.8**
GO01				*eS*	**Sb**	**16 40 09.8**	**+0.9**
GO01				IAML		16 40 09.8	
	comp=Z,660nm,0.3s						
GO01	**Chusmiza**	**1.68**	**85**	⇑*eP*	**Pb**	**16 39 47.0**	**-1.0**
GO01				*eS*	**Sb**	**16 40 09.1**	**+0.2**
GO01				IAML		16 40 10.3	
	comp=N,2μm,0.3s						
PB02	**IPOC Station P**	**1.81**	**146**	*eP*	**Pn**	**16 39 48.1**	**+0.8**
PB02				*eS*	**Sb**	**16 40 11.5**	**-0.9**
PB02				IAML		16 40 19.3	
	comp=Z,793nm,0.4s						
PB02	**IPOC Station P**	**1.81**	**146**	⇓*iP*	**Pn**	**16 39 47.8**	**+0.5**
PB02				*eS*	**Sn**	**16 40 09.7**	**+0.2**
PB02				IAML		16 40 17.0	
	comp=E,1μm,0.4s						
PB16	**IPOC Station P**	**2.01**	**43**	*eP*	**Pb**	**16 39 53.5**	**-0.4**
PB16				IAML		16 40 28.7	
	comp=Z,297nm,0.6s						
PB16	**IPOC Station P**	**2.01**	**43**	⇓*eP*	**Pb**	**16 39 53.3**	**-0.6**
PB16				*eS*	**Sb**	**16 40 19.4**	**+0.6**
PB16				IAML		16 40 21.8	
	comp=N,291nm,0.4s						
PB07	**IPOC Station P**	**2.16**	**152**	*eP*	**Pn**	**16 39 52.9**	**+0.6**
PB07				*eS*	**Sb**	**16 40 21.2**	**-1.3**
PB07				IAML		16 40 33.6	
	comp=Z,172nm,0.5s						
PB07	**IPOC Station P**	**2.16**	**152**	*eP*	**Pn**	**16 39 52.6**	**+0.3**
PB07				*eS*	**Sn**	**16 40 19.6**	**+1.3**
PB07				IAML		16 40 27.6	
	comp=E,237nm,0.6s						
PB03	**IPOC Station P**	**2.50**	**153**	*eP*	**Pn**	**16 39 57.6**	**+0.6**
PB03				*eS*	**Sn**	**16 40 26.2**	**-0.5**
PB03				IAML		16 40 42.3	
	comp=Z,139nm,0.6s						
PB03	**IPOC Station P**	**2.50**	**153**	*eP*	**Pn**	**16 39 57.3**	**+0.4**
PB03				*eS*	**Sn**	**16 40 26.6**	**-0.2**
PB03				IAML		16 40 42.6	
	comp=E,140nm,0.3s						
PB09	**IPOC Station P**	**2.55**	**141**	*eP*	**Pn**	**16 39 59.7**	**+2.1**
PB09				*eS*	**Sb**	**16 40 32.8**	**-1.1**
PB09				IAML		16 40 42.9	
	comp=Z,282nm,0.7s						
PB09	**IPOC Station P**	**2.55**	**141**	⇓*iP*	**Pn**	**16 39 59.2**	**+1.6**
PB09				IAML		16 40 44.4	
	comp=N,284nm,0.6s						
PB18	**Visviri**	**2.62**	**33**	*eP*	**Pb**	**16 40 03.5**	**-0.7**
PB18				*eS*	**Sn**	**16 40 31.9**	**+1.7**
PB18				IAML		16 40 56.2	
	comp=E,256nm,0.6s						
PB05	**IPOC Station P**	**3.11**	**167**	*eP*	Pn	16 39 55.0	-10
PB05				*eS*	**Sn**	**16 40 41.0**	**-0.8**
PB05				IAML		16 41 05.4	
	comp=Z,58nm,0.5s						
PB05	**IPOC Station P**	**3.11**	**167**	IAML		16 41 03.9	
	comp=E,69nm,0.5s						
PB06	**IPOC Station P**	**3.16**	**156**	*eP*	**Pn**	**16 40 06.2**	**+0.2**
PB06				*eS*	**Sn**	**16 40 41.8**	**-1.3**
PB06				IAML		16 40 58.6	
	comp=Z,85nm,1.6s						
PB06	**IPOC Station P**	**3.16**	**156**	*eS*	**Sn**	**16 40 44.5**	**+1.4**
PB06				IAML		16 41 05.6	
	comp=E,99nm,0.7s						
PB10	**IPOC Station P**	**3.71**	**174**	*eP*	**Pn**	**16 40 12.8**	**-0.6**
PB10				*eS*	**Sn**	**16 40 55.8**	**-0.5**
PB10				IAML		16 41 23.2	
	comp=Z,25nm,3.1s						

*ROM **08** 16:43:43.2±0.1, 42°.698N±0°.003×13°.169E±0°.004, h10km, ML2.5/91, Error ellipse: s-maj=0.3km s-min=0.1km az=58.0*
*SARA **08** 16:43:43.7±0.5, 42°.698N±0°.002×13°.165E±0°.002, h7km, ML2.8/15, Mwp2.8/15*
ISC 08 16:43:43.8±0.8, 42°.69N±0°.02×13°.17E±0°.01, h11km±4km, n102, σ0°77/156, 6C-4D, Central Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RM25	**Mosicchio (Ama**	**0.10**	**129**	⇓*P*	**Pg**	**16 43 46.7**	**+0.1**
RM25				*S*	**Sg**	**16 43 49.0**	**+0.3**
UPUR	**Puro**	**0.11**	**294**	Pg	**Pg**	**16 43 46.4**	**-0.3**
UPUR				Sg	**Sg**	**16 43 48.5**	**-0.4**
UNRC	**Norcia**	**0.12**	**339**	Pg	**Pg**	**16 43 46.4**	**-0.4**
UNRC				Sg	**Sg**	**16 43 48.5**	**-0.6**
LNSS	**Leonessa**	**0.13**	**230**	⇑*P*	**Pg**	**16 43 47.0**	**0.0**
LNSS				*S*	**Sg**	**16 43 49.7**	**+0.4**
LNSS				AML	AML		
	comp=E,11500μm,0.1s						
LNSS				AML	AML		
	comp=N,9495μm,0.1s						
LNSS				AML	AML		
	comp=E,11500μm,0.2s						
LNSS				AML	AML		
	comp=N,9450μm,0.1s						
LNSS				AML	AML		
	comp=N,10035μm,0.1s						
LNSS				AML	AML		
	comp=E,12450μm,0.1s						
SMA1	**SAN MARTINO**	**0.13**	**115**	P	**Pg**	**16 43 47.2**	**+0.1**
SMA1				S	**Sg**	**16 43 50.0**	**+0.6**
SMA1				AML	AML		
	comp=E,8195μm,1.3s						
SMA1				AML	AML		
	comp=N,5350μm,0.2s						
SMA1				AML	AML		
	comp=E,8195μm,0.7s						
NRCA	**Norcia**	**0.15**	**344**	⇓*P*	**Pg**	**16 43 46.9**	**-0.4**
NRCA				S	**Sg**	**16 43 49.2**	**-0.7**
NRCA				AML	AML		
	comp=E,13800μm,0.2s						
NRCA				AML	AML		
	comp=N,9215μm,0.1s						
NRCA				AML	AML		
	comp=E,14100μm,0.2s						
NRCA				AML	AML		
	comp=N,9220μm,0.1s						
NRCA				AML	AML		
	comp=E,13800μm,0.1s						
NRCA				AML	AML		
	comp=N,11000μm,0.1s						
NRCA	**Norcia**	**0.15**	**344**	Pg	**Pg**	**16 43 46.9**	**-0.4**
NRCA				Sg	**Sg**	**16 43 49.4**	**-0.5**
MTRA	**Matera**	**0.18**	**67**	⇑*P*	**Pg**	**16 43 47.6**	**-0.2**
MTRA				S	**Sg**	**16 43 50.4**	**-0.1**
MTRA				AML	AML		
	comp=E,9395μm,1.0s						
MTRA				AML	AML		
	comp=N,6780μm,1.1s						
MTRA				AML	AML		
	comp=N,6835μm,1.1s						
MTRA				AML	AML		
	comp=N,6785μm,1.1s						
MTRA				AML	AML		
	comp=E,9580μm,1.0s						
MTRA				AML	AML		
	comp=N,6835μm,0.9s						
MTRA				AML	AML		
	comp=N,6785μm,0.9s						
MTRA				AML	AML		
	comp=E,9400μm,1.0s						
GAVE	**Gavelli**	**0.21**	**272**	⇑*P*	**Pg**	**16 43 48.0**	**-0.2**
GAVE				S	**Sg**	**16 43 51.4**	**+0.1**
GAVE				AML	AML		
	comp=N,1695μm,0.2s						
GAVE				AML	AML		
	comp=E,7695μm,0.2s						
GAVE				AML	AML		
	comp=N,4975μm,0.2s						
GAVE				AML	AML		
	comp=N,1695μm,1.8s						
GAVE				AML	AML		
	comp=E,7695μm,1.8s						
GAVE				AML	AML		
	comp=E,7465μm,0.2s						
MC2	**Monte Cornacci**	**0.23**	**3**	⇓*P*	**Pg**	**16 43 48.3**	**-0.3**
MC2				S	**Sg**	**16 43 52.1**	**+0.2**
CAMP	**Campotosto**	**0.23**	**131**	⇑*P*	**Pg**	**16 43 48.7**	**+0.1**
CAMP				S	**Sg**	**16 43 52.7**	**+0.7**
CAMP				AML	AML		
	comp=N,502μm,0.5s						
CAMP				AML	AML		
	comp=E,424μm,0.4s						
CAMP	**Campotosto**	**0.23**	**131**	Pg	**Pg**	**16 43 48.7**	**+0.1**
CAMP				Sg	**Sg**	**16 43 52.8**	**+0.9**
MMO1	**Montemonaco**	**0.24**	**28**	P	**Pg**	**16 43 48.5**	**-0.3**
MMO1				S	**Sg**	**16 43 52.5**	**+0.2**
USLL	**Sellano**	**0.25**	**321**	Pg	**Pg**	**16 43 48.6**	**-0.4**
USLL				Sg	**Sg**	**16 43 52.5**	**0.0**
FEMA	**Monte Fema**	**0.29**	**342**	P	**Pg**	**16 43 49.2**	**-0.6**
FEMA				S	**Sg**	**16 43 53.8**	**0.0**
ARRO	**Arrone**	**0.32**	**250**	P	**Pg**	**16 43 49.9**	**-0.2**
ARRO				S	**Sg**	**16 43 55.1**	**+0.6**
ARRO				AML	AML		
	comp=N,1365μm,0.2s						
ARRO				AML	AML		
	comp=E,969μm,0.5s						
ARRO	**Arrone**	**0.32**	**250**	Pg	**Pg**	**16 43 50.0**	**-0.2**
ARRO				Sg	**Sg**	**16 43 55.3**	**+0.8**
TERO	**Teramo**	**0.32**	**101**	P	**Pg**	**16 43 50.0**	**-0.2**
TERO				S	**Sg**	**16 43 55.1**	**+0.5**
TERO				AML	AML		
	comp=E,2065μm,1.1s						
TERO				AML	AML		
	comp=N,1690μm,0.7s						
TERO				AML	AML		
	comp=N,1695μm,0.7s						
TERO				AML	AML		
	comp=E,1860μm,0.3s						
TERO				AML	AML		
	comp=E,2070μm,1.1s						
TERO				AML	AML		
	comp=N,1460μm,0.3s						
TERO				AML	AML		
	comp=N,1695μm,1.3s						
TERO	**Teramo**	**0.32**	**101**	Pg	**Pg**	**16 43 50.1**	**-0.2**
TERO				Sg	**Sg**	**16 43 55.1**	**+0.5**
MTCL	**Monte Cavallo**	**0.33**	**337**	P	**Pg**	**16 43 49.9**	**-0.6**
MTCL				S	**Sg**	**16 43 55.3**	**+0.3**
FDMO	**Fiordimonte**	**0.35**	**350**	P	**Pg**	**16 43 50.3**	**-0.6**
FDMO				S	**Sg**	**16 43 55.9**	**+0.2**
FDMO				AML	AML		
	comp=N,1115μm,0.3s						
FDMO				AML	AML		
	comp=N,1120μm,0.3s						
FDMO				AML	AML		
	comp=E,878μm,0.3s						
MF5	**Montefalcone A**	**0.37**	**35**	P	**Pg**	**16 43 51.1**	**-0.1**
MF5				S	**Sb**	**16 43 57.6**	**-0.5**
MF5				AML	AML		
	comp=E,1367μm,1.4s						
MF5				AML	AML		
	comp=N,1310μm,1.3s						
MF5				AML	AML		
	comp=E,1367μm,0.6s						
MF5				AML	AML		
	comp=N,1310μm,0.7s						
TREV	**Trevi**	**0.37**	**301**	Pg	**Pg**	**16 43 50.6**	**-0.5**
TREV				Sg	**Sg**	**16 43 56.3**	**+0.3**
AQU	**L'Aquila**	**0.37**	**153**	P	**Pg**	**16 43 51.2**	**0.0**
AQU				S	**Sb**	**16 43 57.6**	**-0.6**
CESI	**CESI - Serrava**	**0.37**	**328**	⇓*P*	**Pg**	**16 43 50.7**	**-0.6**
CESI				S	**Sg**	**16 43 56.4**	**+0.1**
CESI				AML	AML		
	comp=N,1380μm,0.3s						
CESI				AML	AML		
	comp=E,684μm,0.3s						
GIGS	**Gran Sasso**	**0.38**	**129**	P	**Pg**	**16 43 50.9**	**-0.3**
GUMA	**Gualdo di Mace**	**0.39**	**18**	P	**Pg**	**16 43 51.5**	**-0.1**
GUMA				S	**Sb**	**16 43 57.9**	**-1.0**
GUMA				AML	AML		
	comp=E,4000μm,0.3s						
GUMA				AML	AML		
	comp=N,3545μm,0.4s						
GUMA				AML	AML		
	comp=N,3790μm,0.4s						
GUMA				AML	AML		
	comp=E,4805μm,0.3s						
UORV	**Monte Orve**	**0.40**	**329**	Pg	**Pg**	**16 43 51.2**	**-0.6**
UORV				Sg	**Sg**	**16 43 57.3**	**+0.1**
CSP1	**Cessapalombo**	**0.41**	**3**	⇑*P*	**Pg**	**16 43 51.3**	**-0.5**
CSP1				S	**Sg**	**16 43 57.5**	**+0.2**
CSP1				AML	AML		
	comp=E,3760μm,0.3s						
CSP1				AML	AML		
	comp=N,2840μm,0.4s						
FIAM	**Fiamignano**	**0.42**	**186**	P	**Pg**	**16 43 52.0**	**0.0**
FIAM				S	**Sb**	**16 43 58.8**	**-0.9**
FIAM				AML	AML		
	comp=N,334μm,0.3s						
FIAM				AML	AML		
	comp=E,29μm,0.7s						
SAP2	**Sant'Angelo in**	**0.44**	**22**	P	**Pg**	**16 43 52.5**	**0.0**
SAP2				S	**Sb**	**16 44 00.0**	**-0.2**
SAP2				AML	AML		
	comp=E,1140μm,0.4s						
SAP2				AML	AML		
	comp=N,4915μm,0.3s						
CESX	**Cesi**	**0.44**	**260**	P	**Pg**	**16 43 51.9**	**-0.7**
CESX				S	**Sg**	**16 43 59.2**	**+0.8**
CESX				AML	AML		
	comp=N,782μm,0.3s						
CESX				AML	AML		
	comp=E,552μm,0.4s						
OFFI	**Offida**	**0.45**	**56**	⇑*P*	**Pg**	**16 43 53.1**	**+0.4**
MML1	**Montelago di S**	**0.45**	**341**	P	**Pg**	**16 43 51.9**	**-0.8**
GNU	**Giano nell'Umb**	**0.46**	**285**	P	**Pg**	**16 43 52.7**	**-0.1**
GNU				S	**Sb**	**16 44 00.0**	**-0.8**
MOMA	**Monte Martano**	**0.46**	**285**	P	**Pg**	**16 43 52.3**	**-0.5**
MOMA				S	**Sg**	**16 43 59.7**	**+0.7**
MOMA				AML	AML		
	comp=N,1074μm,0.3s						
MOMA				AML	AML		
	comp=N,1115μm,0.3s						
MOMA				AML	AML		
	comp=E,1310μm,0.2s						
MOMA				AML	AML		
	comp=E,1265μm,0.2s						
MOMA	**Monte Martano**	**0.46**	**285**	Pg	**Pg**	**16 43 52.7**	**-0.1**
MOMA				Sg	**Sb**	**16 43 59.8**	**-1.0**
MOMA	**Monte Martano**	**0.46**	**285**	Pg	**Pg**	**16 43 52.4**	**-0.5**
MOMA				Sg	**Sb**	**16 44 00.1**	**-0.7**
PF6	**Pievefavera**	**0.46**	**2**	P	**Pg**	**16 43 52.0**	**-0.9**
MRSG	**Ripe San Gines**	**0.47**	**17**	Pg	**Pg**	**16 43 53.0**	**0.0**
MRSG				Sg	**Sb**	**16 44 01.1**	**+0.1**
USGN	**Sangemini**	**0.48**	**260**	Pg	**Pg**	**16 43 52.7**	**-0.4**
USGN				Sg	**Sg**	**16 44 00.2**	**+0.8**
MNTT	**Montottone**	**0.49**	**39**	P	**Pg**	**16 43 53.6**	**+0.3**
MNTT				AML	AML		
	comp=E,1580μm,1.0s						
MNTT				AML	AML		
	comp=E,1575μm,1.0s						
MNTT				AML	AML		
	comp=N,2275μm,0.3s						
MNTP	**Montappone**	**0.50**	**26**	P	**Pg**	**16 43 53.7**	**+0.1**
ASSB	**Assisi San Ben**	**0.52**	**313**	P	**Pg**	**16 43 53.2**	**-0.8**
ASSB				S	**Sg**	**16 44 01.2**	**+0.4**
ASSB				AML	AML		
	comp=E,544μm,0.3s						
ASSB				AML	AML		
	comp=N,446μm,0.7s						
ASSB	**Assisi San Ben**	**0.52**	**313**	Pg	**Pg**	**16 43 53.1**	**-0.8**
ASSB				Sg	**Sg**	**16 44 00.7**	**-0.1**
FAGN	**Fagnano**	**0.52**	**144**	P	**Pg**	**16 43 53.6**	**-0.3**
FAGN				AML	AML		
	comp=E,616μm,0.9s						
FAGN				AML	AML		
	comp=N,695μm,0.4s						
FAGN				AML	AML		
	comp=E,616μm,1.1s						
FAGN				AML	AML		
	comp=N,695μm,1.6s						
TRTR	**Tortoreto Alta**	**0.56**	**77**	P	**Pb**	**16 43 55.2**	**-0.3**
TRTR				AML	AML		
	comp=E,1220μm,1.3s						
TRTR				AML	AML		
	comp=N,1240μm,0.4s						
TRTR				AML	AML		
	comp=N,1240μm,1.6s						
SNTG	**Esanatoglia**	**0.59**	**343**	P	**Pg**	**16 43 54.4**	**-0.9**
SNTG				AML	AML		
	comp=E,252μm,0.6s						
SNTG				AML	AML		
	comp=N,263μm,1.2s						
SNTG				AML	AML		
	comp=E,212μm,0.5s						
SNTG				AML	AML		
	comp=N,228μm,1.0s						
SNTG				AML	AML		
	comp=E,252μm,1.4s						
SNTG				AML	AML		
	comp=N,263μm,0.8s						
BETT	**Bettona**	**0.59**	**301**	Pg	**Pg**	**16 43 54.6**	**-0.7**
BETT				Sg	**Sg**	**16 44 03.6**	**+0.4**
CIS21	**CIS array 21**	**0.60**	**299**	Pg	**Pg**	**16 43 55.0**	**-0.4**
CIS21				Sg	**Sb**	**16 44 04.1**	**-0.6**
ATCC	**AVT- Casa Cast**	**0.63**	**322**	P	**Pg**	**16 43 55.3**	**-0.8**
ATCC				AML	AML		
	comp=E,346μm,1.6s						
ATCC				AML	AML		
	comp=N,354μm,0.2s						
ATCC				AML	AML		
	comp=E,346μm,0.4s						
T0110	**Collepietro**	**0.64**	**136**	P	**Pg**	**16 43 55.6**	**-0.6**
T0110				AML	AML		
	comp=E,337μm,0.8s	

EL6					AML	AML			
	comp=N,769μm,1.3s								
EL6					AML	AML			
	comp=E,532μm,0.5s								
FOSV	**Fossato di Vic**	**0.68**	**334**	P	**Pg**	**16 43 56.0**	**-0.9**		
CING	**Cingoli**	**0.69**	**1**	P	**Pg**	**16 43 56.2**	**-0.9**		
MURB	**Monte Urbino**	**0.75**	**321**	AML	AML				
	comp=N,194μm,1.0s								
MURB					AML	AML			
	comp=E,168μm,0.3s								
MURB					AML	AML			
	comp=E,560μm,0.8s								
MURB					AML	AML			
	comp=E,540μm,0.2s								
MURB					AML	AML			
	comp=N,855μm,0.3s								
MURB					AML	AML			
	comp=E,558μm,0.8s								
MURB					AML	AML			
	comp=N,822μm,0.3s								
MURB					AML	AML			
	comp=E,571μm,0.3s								
MURB					AML	AML			
	comp=E,558μm,1.2s								
MURB	**Monte Urbino**	**0.75**	**321**	Pg	**Pg**	**16 43 58.4**	**+0.2**		
MURB				Sg	**Sb**	**16 44 09.6**	**+0.6**		
SSFR	**Montelago di S**	**0.80**	**339**	P	**Pg**	**16 43 58.5**	**-0.8**		
SSFR				AML	AML				
	comp=E,437μm,0.2s								
SSFR				AML	AML				
	comp=N,412μm,0.3s								
SSFR				AML	AML				
	comp=E,437μm,1.8s								
ATFO	**Monte Foce - G**	**0.81**	**327**	P	**Pg**	**16 43 58.7**	**-0.8**		
ATFO				AML	AML				
	comp=N,132μm,0.7s								
ATFO				AML	AML				
	comp=N,132μm,1.3s								
ATFO				AML	AML				
	comp=E,144μm,0.6s								
MGAB	**Montegabbione**	**0.81**	**286**	P	**Pg**	**16 43 58.8**	**-0.7**		
MGAB				AML	AML				
	comp=E,410μm,0.5s								
MGAB				AML	AML				
	comp=N,342μm,1.2s								
MGAB				AML	AML				
	comp=E,410μm,0.5s								
MGAB				AML	AML				
	comp=N,368μm,0.3s								
MGAB				AML	AML				
	comp=E,381μm,0.5s								
MGAB				AML	AML				
	comp=N,342μm,0.8s								
ARVD	**Arcevia**	**0.83**	**348**	P	**Pg**	**16 43 58.7**	**-1.0**		
ARVD				AML	AML				
	comp=E,31μm,1.1s								
ARVD				AML	AML				
	comp=N,30μm,0.2s								
ARVD				AML	AML				
	comp=E,129μm,0.4s								
ARVD				AML	AML				
	comp=N,157μm,0.6s								
ATLO	**AVT- Montelove**	**0.84**	**318**	P	**Pg**	**16 43 59.1**	**-0.9**		
RCAV	**Rocca di Cave**	**0.86**	**191**	P	**Pg**	**16 43 59.7**	**-0.6**		
INTR	**Introdacqua**	**0.87**	**141**	P	**Pg**	**16 43 59.3**	**-1.2**		
INTR				AML	AML				
	comp=E,292μm,0.8s								
INTR				AML	AML				
	comp=N,268μm,1.4s								
INTR				AML	AML				
	comp=E,198μm,0.6s								
INTR				AML	AML				
	comp=N,260μm,0.6s								
INTR	**Introdacqua**	**0.87**	**141**	Pg	**Pg**	**16 43 59.5**	**-0.9**		
INTR				Sg	**Sb**	**16 44 12.4**	**0.0**		
ATVA	**AVT- Monte Val**	**0.88**	**313**	P	**Pg**	**16 44 00.1**	**-0.6**		
TB01	**Gubbio**	**0.88**	**322**	P	**Pg**	**16 43 59.9**	**-0.9**		
FRON	**Frontone**	**0.89**	**339**	P	**Pg**	**16 43 59.9**	**-1.1**		
ATVO	**AVT- Monte Val**	**0.89**	**321**	P	**Pg**	**16 43 60.0**	**-1.1**		
ATVO				AML	AML				
	comp=E,99μm,0.9s								
ATVO				AML	AML				
	comp=N,100μm,0.8s								
ATVO				AML	AML				
	comp=N,100μm,1.2s								
ATVO				AML	AML				
	comp=E,99μm,1.1s								
TB03	**Pietralunga**	**0.91**	**322**	P	**Pg**	**16 44 00.5**	**-0.8**		
ATBU	**Serra di Buran**	**0.91**	**330**	P	**Pg**	**16 44 00.9**	**-0.5**		
ATMI	**Monte Miggiano**	**0.93**	**315**	P	**Pg**	**16 44 00.7**	**-1.0**		
BARO	**Barbarano Roma**	**0.94**	**243**	P	**Pg**	**16 44 01.2**	**-0.6**		
SACS	**San Casciano d**	**0.94**	**280**	P	**Pg**	**16 44 01.1**	**-0.8**		
SACS				AML	AML				
	comp=E,142μm,0.4s								
SACS				AML	AML				
	comp=N,156μm,0.4s								
ATPI	**Pietralunga -**	**0.95**	**324**	P	**Pg**	**16 44 01.1**	**-1.0**		
ATPI				AML	AML				
	comp=E,28μm,1.4s								
ATPI				AML	AML				
	comp=N,36μm,0.3s								
ATPI				AML	AML				
	comp=N,92μm,1.4s								
ATPI				AML	AML				
	comp=E,137μm,0.7s								
ATPI				AML	AML				
	comp=N,92μm,0.6s								
ATPC	**Poggio Castell**	**0.95**	**327**	P	**Pg**	**16 44 01.4**	**-0.7**		
LPEL	**Lama dei Pelig**	**0.98**	**130**	P	**Pg**	**16 44 01.7**	**-1.0**		
LPEL				AML	AML				
	comp=E,141μm,0.8s								
LPEL				AML	AML				
	comp=N,111μm,0.8s								
MPAG	**Monte Paganucc**	**0.99**	**342**	P	**Pg**	**16 44 02.0**	**-0.8**		
NARO	**Abbazia di Nar**	**1.02**	**335**	P	**Pb**	**16 44 02.4**	**-1.0**		
NARO				AML	AML				
	comp=E,99μm,0.3s								
NARO				AML	AML				
	comp=N,117μm,1.0s								
NARO				AML	AML				
	comp=E,99μm,1.7s								
NARO				AML	AML				
	comp=N,117μm,1.0s								
ATMC	**Monte Cedrone**	**1.05**	**317**	P	**Pb**	**16 44 03.5**	**-0.4**		
POFI	**Posta Fibreno**	**1.05**	**157**	P	**Pb**	**16 44 02.9**	**-1.0**		
BADI	**Badiali**	**1.07**	**321**	P	**Pb**	**16 44 03.8**	**-0.5**		
CAFI	**Castiglion Fio**	**1.09**	**306**	AML	AML				
	comp=N,53μm,0.7s								
CAFI				AML	AML				
	comp=N,42μm,0.6s								
CAFI				AML	AML				
	comp=E,57μm,1.2s								
CAFI				AML	AML				
	comp=E,57μm,0.8s								
GIUL	**Giuliano Di Ro**	**1.13**	**177**	P	**Pb**	**16 44 04.3**	**-1.0**		
GIUL				AML	AML				
	comp=N,61μm,0.6s								
GIUL				AML	AML				
	comp=E,62μm,1.0s								
SFI	**Santa Sofia**	**1.56**	**322**	AML	AML				
	comp=N,23μm,1.6s								
SFI				AML	AML				
	comp=E,23μm,1.1s								
SFI				AML	AML				
	comp=N,23μm,0.4s								
DUGI	**Dugi Otok**	**1.90**	**46**	*e*Pn	**Pn**	**16 44 16.2**	**+0.2**		
DUGI				Sn	**Sn**	**16 44 39.8**	**-0.1**		
MORI	**Morici**	**2.19**	**57**	*e*Pn	**Pn**	**16 44 21.1**	**+1.0**		
MORI				Sn	**Sn**	**16 44 47.0**	**-0.3**		
NVLJ	**Novalja**	**2.25**	**33**	*e*Pn	**Pn**	**16 44 20.9**	**+0.1**		
NVLJ				Sn	**Sn**	**16 44 47.6**	**-0.8**		
RABC	**Rab**	**2.37**	**29**	*e*Pn	**Pn**	**16 44 23.5**	**+1.0**		
RABC				Sn	**Sn**	**16 44 51.5**	**0.0**		
HVAR	**Hvar**	**2.46**	**77**	*e*Pn	**Pn**	**16 44 23.5**	**-0.2**		
HVAR				Sn	**Sn**	**16 44 53.7**	**+0.1**		
UDBI	**Udbina**	**2.63**	**45**	*e*Pn	**Pn**	**16 44 27.5**	**+1.3**		
UDBI				Sn	**Sn**	**16 44 58.2**	**+0.1**		
KIJV	**Kijevo**	**2.70**	**60**	*i* Pn	**Pn**	**16 44 28.2**	**+1.1**		
KIJV				Sn	**Sn**	**16 44 60.0**	**+0.2**		
LSTV	**Lastovo**	**2.74**	**87**	*e*Pn	**Pn**	**16 44 27.3**	**-0.3**		
PLIT	**Plitvice**	**2.82**	**38**	*e*Pn	**Pn**	**16 44 29.0**	**+0.3**		
PLIT				Sn	**Sn**	**16 45 03.0**	**+0.3**		
MAKA	**Makarska**	**2.88**	**77**	*e*Pn	**Pn**	**16 44 30.3**	**+0.7**		
MAKA				Sn	**Sn**	**16 45 04.3**	**+0.1**		
RICI	**Ricice**	**3.01**	**73**	*e*Pn	**Pn**	**16 44 32.1**	**+0.7**		
RICI				Sn	**Sn**	**16 45 07.4**	**0.0**		
STON	**Ston**	**3.34**	**85**	*e*Pn	**Pn**	**16 44 35.7**	**-0.1**		
STON				Sn	**Sn**	**16 45 14.9**	**-0.5**		
DBRK	**Dubrovnik**	**3.67**	**89**	*e*Pn	**Pn**	**16 44 41.6**	**+1.2**		
DBRK				Sn	**Sn**	**16 45 22.2**	**-1.4**		
OBKA	**Obir**	**3.95**	**14**	*e*Pg	**Pg**	**16 44 58.9**	**-0.4**		
	comp=N,1.5nm,0.4s								
OBKA				*e*Sn	**Sn**	**16 45 31.7**	**+1.2**		
	comp=N,1.3nm,0.4s								
ABTA	**Abfaltersbach**	**4.09**	**354**	*e*Pn	**Pn**	**16 44 47.6**	**+1.4**		
	comp=N,1.6nm,0.4s								
ABTA				*e*Sn	**Sn**	**16 45 36.5**	**+2.5**		
	comp=N,2.2nm,0.6s								
WTTA	**Wattenberg**	**4.71**	**347**	*e*Pn	**Pn**	**16 44 56.8**	**+2.0**		
	comp=N,0.3nm,0.2s								
WATA	**Walderalm**	**4.79**	**347**	*e*Pn	**Pn**	**16 45 00.5**	**+4.7**		
	comp=N,0.6nm,0.2s								

*IDC **08** 16:46:47.2±12.0, 2°.24N×98°.80E, h170km±119km, mb2.8/4, mbtmp3.3/5, Error ellipse: s-maj=112.4km s-min=20.6km az=61.0*
*DJA **08** 16:46:48.6±0.5, 3°N±3°×9°9E±°, h166km±4km, M3.1/11, MLv3.1/11*
ISC 08 16:46:48.5±0.9, **2°.53N**±0°.06×**99°.16E**±0°.09, **h165**km±8km, **n17**, σ0°**82**/16, **mb3.0**/4, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**0.36**	**318**	P	**Pn**	**16 47 11.2**	**+0.1**
PSI				S	**Sn**	**16 47 28.8**	**+0.3**
KCSI	**Kotacane, Aceh**	**1.70**	**305**	P	**Pn**	**16 47 20.5**	**-0.8**
KCSI				S	**Sn**	**16 47 46.1**	**-0.5**
KCSI				AML	AML		
GSI	**Gunungsitoli**	**2.00**	**232**	P	**Pn**	**16 47 24.6**	**0.0**
GSI				S	**Sn**	**16 47 52.7**	**+0.3**
GSI				AML	AML		
TPTI		**2.11**	**290**	P	**Pn**	**16 47 26.1**	**+0.4**
TPTI				S	**Sn**	**16 47 53.5**	**-1.0**
TPTI				AML	AML		
PBSI	**Pulau Batu**	**2.72**	**199**	P	**Pn**	**16 47 32.8**	**-0.2**
PBSI				S	**Sn**	**16 48 07.8**	**+0.2**
KULM	**Kulim**	**3.12**	**28**	P	**Pn**	**16 47 37.6**	**-0.3**
CMAR	**Chiang Mai Arr**	**15.83**	**359**	P	**P**	**16 50 24.8**	**+1.8**
	0.9nm,0.5s,baz=190,slow=11,SNR=9.6						
H08S2	**Diego Garcia H**	**28.46**	**249**	T	T	17 19 51.0	
	baz=70						
H08S3	**Diego Garcia H**	**28.47**	**249**	T	T	17 19 51.1	
	baz=70						
H08S1	**Diego Carcia H**	**28.48**	**249**	T	T	17 19 55.1	
	baz=70						
WRA	**Warramunga Arr**	**41.12**	**124**	P	**P**	**16 54 15.4**	**-1.2**
	0.2nm,0.4s,baz=299,slow=8.0,SNR=7.4						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**42.68**	**130**	P	**P**	**16 54 28.8**	**-0.5**
	0.1nm,0.6s,baz=298,slow=7.2,SNR=4.2						
	0.1nm,0.6s						
SONM	**Songino Array**	**45.56**	**7**	P	**P**	**16 54 52.5**	**+0.6**
	0.2nm,0.5s,baz=206,slow=9.6,SNR=1.7						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**46.47**	**344**	P	**P**	**16 54 58.6**	**-0.3**
	0.2nm,0.4s,baz=140,slow=9.2,SNR=1.4						
	0.2nm,0.4s						
H04N2	**CROZET ISLANDS**	**63.97**	**215**	T	T	18 04 37.6	
	baz=49						
H04N1	**CROZET ISLANDS**	**63.99**	**215**	T	T	18 04 47.6	
	baz=49						
H04N3	**CROZET ISLANDS**	**63.99**	**215**	T	T	18 04 42.1	
	baz=49						

*IDC **08** 17:36:59.5±1.1, 43°.21N×82°.73E, h0km, mb3.5/4, mbtmp3.4/10, ML3.0/6, MS2.5/1, Error ellipse: s-maj=17.9km s-min=15.9km az=103.0*
*NNC **08** 17:37:08.8±1.0, 43°.67N×81°.96E, h0km, mb4.2, mpv3.8, Error ellipse: s-maj=9.5km s-min=4.5km az=136.0, Suspected Mining explosion.*
*SOME **08** 17:37:08.0, 43°.53N×81°.97E, h5km*
ISC 08 17:37:04.7±1.3, **43°.52N**±0°.06×**82°.02E**±0°.07, **h0**km, **n46**, σ1°**92**/65, **mb3.4**/3, **2C-9D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PDGK	**Podgornoye**	**1.85**	**265**	⇓Pn	**Pg**	**17 37 41.7**	**+1.5**
	76nm,0.3s						
PDGK				⇓Sn	**Sg**	**17 38 07.9**	**+3.6**
	600nm,0.4s						
SHLS	**Shalkode**	**1.90**	**260**	P	**Pn**	**17 37 38.6**	**0.0**
	396nm,0.3s						
SHLS				S	**Sn**	**17 38 01.2**	**-2.1**
	3μm,0.6s						
UZB	**Uzynbulak**	**2.22**	**261**	Pg	**Pg**	**17 37 48.4**	**+1.1**
	54nm,0.2s						
UZB				Lg	Lg	17 38 18.3	
	1μm,0.3s						
UZB	**Uzynbulak**	**2.22**	**261**	*e*P	**Pg**	**17 37 48.4**	**+1.1**
	54nm,0.2s						
UZB				*e*S	**Sg**	**17 38 18.3**	**+2.3**
	1μm,0.3s						
KPKS	**Kokpek**	**2.43**	**270**	Pg	**Pg**	**17 37 51.9**	**+0.7**
	0.3nm,0.2s						
KPKS				Lg	Lg	17 38 24.3	
	992nm,0.4s						
KPKS	**Kokpek**	**2.43**	**270**	*e*P	**Pg**	**17 37 52.0**	**+0.7**
	0.3nm,0.2s						
KPKS				*e*S	**Sg**	**17 38 24.3**	**+1.5**
	992nm,0.4s						
KAPS	**Kapalarasan**	**2.60**	**314**	Pg	**Pg**	**17 37 55.2**	**+0.7**
	71nm,0.4s						
KAPS				Lg	Lg	17 38 29.5	
	604nm,0.2s						
KAPS	**Kapalarasan**	**2.60**	**314**	*e*P	**Pg**	**17 37 55.2**	**+0.7**
	71nm,0.4s						
KAPS				*e*S	**Sg**	**17 38 29.5**	**+1.3**
	604nm,0.2s						
SATY	**Saty**	**2.68**	**261**	Pg	**Pg**	**17 37 56.8**	**+0.7**
	56nm,0.4s						
SATY				Lg	Lg	17 38 32.4	
	342nm,0.3s						
SATY	**Saty**	**2.68**	**261**	*e*P	**Pg**	**17 37 56.8**	**+0.7**
	56nm,0.4s						
SATY				*e*S	**Sg**	**17 38 32.4**	**+1.6**
	342nm,0.3s						
TDK	**Taldyqorghan**	**2.99**	**301**	Pg	**Pg**	**17 38 02.0**	**0.0**
	96nm,0.5s						
TDK				Lg	Lg	17 38 41.3	
	737nm,0.7s						
TDK	**Taldyqorghan**	**2.99**	**301**	*e*P	**Pg**	**17 38 02.0**	**0.0**
	96nm,0.5s						
TDK				*e*S	**Sg**	**17 38 41.3**	**+0.5**
	737nm,0.7s						
ARXS	**Arharly**	**3.11**	**284**	Pg	**Pg**	**17 38 03.6**	**-0.7**
	38nm,0.7s						
ARXS				Lg	Lg	17 38 44.1	
	273nm,0.7s						
ARXS	**Arharly**	**3.11**	**284**	*e*P	**Pg**	**17 38 03.6**	**-0.7**
	38nm,0.7s						
ARXS				*e*S	**Sg**	**17 38 44.1**	**-0.5**
	273nm,0.7s						
MK31	**Makanchi Array**	**3.28**	**3**	Pn	**Pn**	**17 37 58.5**	**+1.1**
	0.4nm,0.2s,baz=189,slow=13,SNR=565						
MK31				⇓Pg	**Pg**	**17 38 08.2**	**+0.6**
	5.3nm,0.3s,baz=186,slow=15,SNR=61						
MK31				Lg	Lg	17 38 47.0	
	74nm,0.5s,baz=180,slow=29,SNR=9.3						
MKAR	**Makanchi Array**	**3.28**	**3**	Pn	**Pn**	**17 37 59.4**	**+2.0**
	1.2nm,0.3s,baz=184,slow=14,SNR=41						
MKAR				Pg	**Pb**	**17 38 06.5**	**+2.7**
	18nm,0.3s,baz=168,slow=16,SNR=93						
MKAR				Sn	**Sn**	**17 38 39.1**	**+2.0**
	13nm,0.3s,baz=184,slow=29,SNR=10						
MKAR				Lg	Lg	17 38 47.4	
	27nm,0.3s,baz=179,slow=27,SNR=17						
MKAR				LR	LR	17 39 34.6	
	comp=Z,74nm,21.9s,baz=342,slow=43						
	1.6nm,0.2s						
MKAR				AML	AML		
MDOK	**Medeo**	**3.65**	**266**	Pg	**Pg**	**17 38 13.9**	**-0.6**
	31nm,0.4s						
MDOK				Lg	Lg	17 39 01.7	
	115nm,0.4s						
MDOK	**Medeo**	**3.65**	**266**	*e*P	**Pg**	**17 38 13.9**	**-0.6**
	31nm,0.4s						
MDOK				*e*S	**Sg**	**17 39 01.7**	**-0.1**
	115nm,0.4s						
KNDC	**Almaty**	**3.70**	**267**	⇓Pg	**Pg**	**17 38 16.2**	**+0.6**
	40nm,0.5s						
KNDC				⇓Lg	Lg	17 39 05.7	
	96nm,0.3s						
TNSS	**Tian-Shan**	**3.74**	**264**	Pg	**Pg**	**17 38 16.8**	**+0.5**
	5.2nm,0.6s						
TNSS				Lg	Lg	17 39 06.3	
	19nm,0.5s						
TNSS	**Tian-Shan**	**3.74**	**264**	*e*P	**Pg**	**17 38 16.8**	**+0.5**
	5.2nm,0.6s						
TNSS				*e*S	**Sg**	**17 39 06.3**	**+1.6**
	19nm,0.5s						
KTBS	**Karatobe**	**3.88**	**275**	Pg	**Pg**	**17 38 18.7**	**-0.4**
	0.3nm,0.2s						
KTBS				Lg	Lg	17 39 09.9	
	102nm,0.3s						
KTBS	**Karatobe**	**3.88**	**275**	*e*P	**Pg**	**17 38 18.7**	**-0.4**
	0.3nm,0.2s						
KTBS				*e*S	**Sg**	**17 39 09.9**	**+0.5**
	102nm,0.3s						
MTBS	**Maitube**	**4.10**	**266**	Pg	**Pg**	**17 38 22.4**	**-0.8**
	14nm,0.6s						
MTBS				Lg	Lg	17 39 15.9	
	48nm,0.4s						
MTBS	**Maitube**	**4.10**	**266**	*e*P	**Pg**	**17 38 22.4**	**-0.8**
	14nm,0.6s						
MTBS				*e*S	**Sg**	**17 39 15.9**	**-0.4**
	48nm,0.4s						
KUU	**Kurty**	**4.14**	**277**	Pg	**Pg**	**17 38 22.7**	**-1.3**
	6.6nm,0.2s						
KUU				Lg	Lg	17 39 16.7	
	101nm,0.4s						
KUU	**Kurty**	**4.14**	**277**	*e*P	**Pg**	**17 38 22.7**	**-1.3**
	6.6nm,0.2s						
KUU				*e*S	**Sg**	**17 39 16.7**	**-0.9**
	101nm,0.4s						
KST	**Kastek**	**4.45**	**266**	Pg	**Pg**	**17 38 28.5**	**-1.4**
	7.8nm,0.6s						
KST				Lg	Lg	17 39 27.1	
	74nm,0.7s						
KST	**Kastek**	**4.45**	**266**	*e*P	**Pg**	**17 38 28.6**	**-1.4**
	7.8nm,0.6s						
KST				*e*S	**Sg**	**17 39 27.1**	**-0.5**
	74nm,0.7s						
KRBS	**Karabastau**	**4.61**	**274**	Pg	**Pg**	**17 38 33.2**	**+0.1**
	7.6nm,0.4s						
KRBS				Lg	Lg	17 39 34.7	
	45nm,0.4s						
KRBS	**Karabastau**	**4.61**	**274**	*e*P	**Pg**	**17 38 33.2**	**+0.1**
	7.6nm,0.4s						
KRBS				*e*S	**Sg**	**17 39 34.7**	**+1.8**
	45nm,0.4s						
AAK	**Ala-Archa**	**5.58**	**264**	Pn	**Pn**	**17 38 33.5**	**+4.4**
	0.7nm,0.3s,baz=135,slow=10.0,SNR=8.1						
AAK				Pg	**Pg**	**17 38 49.6**	**-2.1**
	1.2nm,0.3s,baz=124,slow=9.7,SNR=9.6						
AAK				Lg	Lg	17 40 02.5	
	3.1nm,0.3s,baz=212,slow=24,SNR=9.1						
	1.3nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**5.58**	**264**	⇑Pn	**Pn**	**17 38 33.2**	**+4.0**
	12nm,0.3s						
MRKS	**Merke**	**6.48**	**266**	Pg	**Pg**	**17 39 05.2**	**-3.7**
	3.0nm,0.6s						
MRKS				Lg	Lg	17 40 29.3	
	19nm,0.8s						
MRKS	**Merke**	**6.48**	**266**	*e*P	**Pg**	**17 39 05.2**	**-3.7**
	3.0nm,0.6s						
MRKS				*e*S	**Sg**	**17 40 29.3**	**-3.6**
	19nm,0.8s						
KURBB	**Kurchatov Arra**	**7.50**	**343**	Pn	**Pn**	**17 38 55.9**	**+0.7**
	0.4nm,0.3s,baz=163,slow=12,SNR=15						
KURBB				Sn	**Sn**	**17 40 18.8**	**-2.0**
	0.3nm,0.3s,baz=172,slow=17,SNR=6.6						
KURBB				Lg	Lg	17 41 01.3	
	0.8nm,0.3s,baz=160,slow=30,SNR=7.0						
	1.9nm,0.3s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**7.50**	**343**	⇓Pn	**Pn**	**17 38 55.7**	**+0.5**
	6.6nm,0.7s						
KURBB				⇓Lg	Lg	17 41 02.1	
	41nm,0.7s						
KURK	**Kurchatov**	**7.56**	**343**	⇓Pn	**Pn**	**17 38 56.7**	**+0.6**
	0.5nm,0.3s						
KURK				⇑Lg	Lg	17 41 03.6	
	8.4nm,0.8s						
KK31	**Karatay Array**	**8.40**	**271**	Pg	**Pg**	**17 39 42.9**	**-2.7**
	1.4nm,0.5s,baz=80,slow=15,SNR=4.8						
KK31				⇓Lg	Lg	17 41 34.2	
	7.8nm,0.6s,baz=78,slow=29,SNR=6.2						
ZALV	**Zalesovo Beam**	**10.60**	**9**	Pn	**Pn**	**17 39 35.2**	**-2.5**
	0.2nm,0.3s,baz=182,slow=13,SNR=3.9						
ZALV				Sn	**Sn**	**17 41 29.7**	**-7.4**
	0.5nm,0.3s,baz=210,slow=22,SNR=5.1						
ZALV				Lg	Lg	17 42 32.1	
	baz=189,slow=26						
	0.4nm,0.4s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**12.25**	**325**	Pn	**Pn**	**17 40 01.6**	**+1.3**
	baz=140,slow=12,SNR=3.0						
BVAR				Lg	Lg	17 43 30.6	
	baz=148,slow=27,SNR=2.6						
	0.7nm,0.5s						
SONM	**Songino Array**	**17.55**	**67**	P	Pn	17 41 00.4	-10
	0.1nm,0.3s,baz=266,slow=12,SNR=1.4						
	0.2nm,0.3s						
SONM				AML	AML		
NOA	**NORSAR Array B**	**44.29**	**319**	P	**P**	**17 45 15.7**	**-0.1**
	0.3nm,0.5s,baz=80,slow=8.1,SNR=2.2						
	0.3nm,0.5s						
TORD	**Torodi Ar. Bea**	**74.09**	**273**	P	**P**	**17 48 42.0**	**-0.9**
	0.5nm,0.8s,baz=46,slow=5.8,SNR=2.0						
	0.5nm,0.8s						
WRA	**Warramunga Arr**	**79.30**	**131**	P	P	17 49 03.4	-8.7
	0.3nm,0.9s,baz=320,slow=5.6,SNR=2.3						
	0.3nm,0.9s						
ASAR	**Alice Springs**	**82.08**	**133**	P	P	17 49 18.1	-8.8
	0.3nm,0.9s,baz=317,slow=5.8,SNR=2.4						
	0.3nm,0.9s						

*IDC **08** 17:37:28.9±0.8, 29°.94S×179°.06W, h318km, 9km, mb2.9/3, mbtmp3.8/5, Error ellipse: s-maj=27.8km s-min=23.3km az=42.0*
ISC 08 17:37:28.9±0.8, **29°.94S**±0°.08×**179°.3W**±0°.1, **h300**km, **n28**, σ2°**32**/44, **mb3.2**/3, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**1.34**	**60**	P	**Pn**	**17 38 13.9**	**+2.8**
GLKZ				S	**S**	**17 38 45.9**	**+1.3**
GLKZ				AML	AML		
RIZ	**Raoul Island**	**1.34**	**59**	P	**Pn**	**17 38 14.0**	**+2.9**
RIZ				AML	AML		
RAO	**Raoul Island**	**1.35**	**60**	P	**Pn**	**17 38 13.2**	**+2.1**
	175nm,0.3s,baz=54,slow=23,SNR=1.7						
RAO				S	**S**	**17 38 45.5**	**+0.8**
	290nm,0.3s,baz=111,slow=21,SNR=2.7						
RAO	**Raoul Island**	**1.35**	**60**	P	**Pn**	**17 38 13.9**	**+2.8**
RAO				S	**S**	**17 38 38.4**	**-6.3**
RAO				AML	AML		
MXZ	**Matakaoa Point**	**7.87**	**194**	P	**Pn**	**17 39 23.7**	**+3.0**
MXZ				S	**S**	**17 40 49.7**	**-1.7**
WMGZ	**Waiomatatini S**	**8.09**	**193**	P	**Pn**	**17 39 24.4**	**+0.9**
WMGZ				AML	AML		
HAZ	**Te Kaha**	**8.18**	**197**	P	**Pn**	**17 39 25.9**	**+1.5**
HAZ				S	**S**	**17 40 59.3**	**+1.0**
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**8.21**	**195**	P	**Pn**	**17 39 26.0**	**+1.1**
PKGZ				S	**S**	**17 40 57.6**	**-1.5**
PKGZ				AML	AML		
PUZ	**Puketiti**	**8.37**	**194**	P	**Pn**	**17 39 30.1**	**+3.2**

MUGZ	**Murupara**	**9.13**	**200**	P	**Pn**	**17 39 38.7**	**+2.5**
MUGZ				S	**S**	**17 41 19.0**	**-0.9**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**9.20**	**199**	P	**Pn**	**17 39 39.1**	**+2.0**
RTZ				AML	AML		
RTZ				AML	AML		
NMHZ	**Naumai**	**9.69**	**199**	P	**Pn**	**17 39 45.6**	**+2.4**
NMHZ				S	**S**	**17 41 32.9**	**+0.2**
BKZ	**Black Stump Fm**	**9.85**	**200**	P	**Pn**	**17 39 46.5**	**+1.4**
BKZ				S	**S**	**17 41 35.6**	**-0.6**
OTVZ	**Oturere**	**10.11**	**203**	P	**P**	**17 39 51.7**	**-0.1**
KRHZ	**Kereru**	**10.32**	**199**	P	**Pn**	**17 39 52.1**	**+1.2**
KRHZ				S	**S**	**17 41 44.2**	**-2.8**
PXZ	**Pawanui**	**10.56**	**197**	P	**P**	**17 39 56.5**	**-0.1**
PXZ				S	**S**	**17 41 47.1**	**-5.0**
DZM	**Mont Dzumac**	**15.05**	**298**	P	**P**	**17 40 45.7**	**-1.0**
	3.9nm,1.0s,baz=104,slow=18,SNR=6.5						
ASAR	**Alice Springs**	**42.05**	**267**	P	**P**	**17 44 52.0**	**0.0**
	0.2nm,0.6s,baz=107,slow=7.1,SNR=6.0						
ASAR				PcP	**PP**	**17 46 39.2**	**+2.9**
	0.3nm,0.8s,baz=104,slow=3.8,SNR=4.1						
	0.2nm,0.6s						
WRA	**Warramunga Arr**	**43.00**	**272**	P	**P**	**17 44 59.3**	**-0.3**
	0.8nm,0.5s,baz=110,slow=7.7,SNR=20						
	0.8nm,0.5s						
QSPA	**South Pole Qui**	**60.17**	**180**	P	**P**	**17 47 06.3**	**+1.1**
	0.6nm,0.7s,baz=330,slow=1.1,SNR=6.2						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**119.99**	**314**	PKP	**PKPdf**	**17 55 40.6**	**-2.8**
	0.3nm,0.7s,baz=96,slow=1.8,SNR=1.8						
BVAR	**Borovoye Array**	**125.33**	**316**	PKP	**PKPdf**	**17 55 50.2**	**-3.4**
	0.4nm,0.4s,baz=15,slow=6.0,SNR=2.6						
FINES	**FINESS Array B**	**144.34**	**339**	PKP	**PKPab**	**17 56 25.1**	**-2.5**
	1.8nm,0.4s,baz=44,slow=3.6,SNR=24						

*NDI **08** 17:45:45.6±1.2,32.°81N×72.°36E,h11km±28km,ML3.7, MW3.3,Presumed earthquake*
*IDC **08** 17:46:19.3±1.5,33.°49N×75.°78E,h0km,mb3.6/7, mbtmp3.7/11,ML3.3/4,MS3.5/1,Error ellipse: s-maj=44.3km s-min=16.6km az=69.0*
ISC 08 17:46:19.9±0.8,**33.°41N**±0.°06×**75.°58E**±0.°09,**h10**km,**n17,** σ1§**35**/14,**mb3.7/7,Eastern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMU	**Jammu**	**0.89**	**225**	*i* P	Pg	17 46 21.3	-16
JMU				*i* S	**Sg**	**17 46 47.4**	**-1.2**
JMU				IAML		17 46 56.6	
	comp=N,667nm,0.2s						
BHK	**Bhakra**	**2.12**	**161**	*i* P	Pn	17 46 43.0	-12
BHK				*i* S	**Sb**	**17 47 24.6**	**-0.2**
BHK				IAML		17 47 31.7	
	comp=N,2μm,0.7s						
JOSI	**Joshimath**	**4.42**	**129**	*i* P	Pn	17 47 22.0	-5.2
JOSI				*i* S	**Sb**	**17 48 32.1**	**+0.9**
JOSI				IAML		17 48 44.7	
	comp=N,49nm,0.3s						
AYAN	**Aya Nagar**	**5.09**	**164**	*i* P	Pn	17 47 13.0	-23
AYAN				*i* S	Sn	17 48 16.7	-18
AYAN				IAML		17 48 38.1	
	comp=N,23nm,0.3s						
AJM	**Ajmer**	**7.01**	**187**	*i* P	Pn	17 47 22.1	-41
AJM				*i* S	Sn	17 48 33.4	-49
AAK	**Ala-Archa**	**9.25**	**355**	Pn	**Pn**	**17 48 34.9**	**+1.4**
	comp=N,0.2nm,0.3s,baz=247,slow=10,SNR=3.8						
	comp=N,0.7nm,0.5s						
AAK				AML	AML		
MKAR	**Makanchi Array**	**14.31**	**19**	Pn	**Pn**	**17 49 39.8**	**-2.7**
	comp=N,0.2nm,0.3s,baz=196,slow=12,SNR=6.7						
MKAR				Sn	Sn	17 52 08.5	-13
	comp=N,0.1nm,0.3s,baz=193,slow=19,SNR=2.8						
	comp=N,1.3nm,1.0s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**17.34**	**6**	P	**Pn**	**17 50 20.4**	**-1.4**
	comp=N,0.1nm,0.3s,baz=195,slow=12,SNR=1.5						
	comp=N,0.8nm,0.3s						
KURBB				AML	AML		
BVAR	**Borovoye Array**	**19.96**	**351**	P	**Pn**	**17 50 53.5**	**-0.2**
	comp=N,0.1nm,0.3s,baz=164,slow=9.9,SNR=17						
	comp=N,1.8nm,0.3s						
BVAR				AML	AML		
AKTO	**Aktyubinsk**	**21.36**	**328**	P	**P**	**17 51 08.8**	**+1.5**
	comp=N,2.1nm,0.6s,baz=131,slow=8.3,SNR=6.0						
	comp=N,2.1nm,0.6s						
ZALV	**Zalesovo Beam**	**21.55**	**15**	P	**P**	**17 51 07.6**	**-1.6**
	comp=N,1.2nm,0.3s,baz=214,slow=11,SNR=7.9						
	comp=N,1.2nm,0.3s						
CMAR	**Chiang Mai Arr**	**25.67**	**120**	P	**P**	**17 51 50.5**	**+0.4**
	comp=N,0.2nm,0.5s,baz=314,slow=8.7,SNR=6.4						
	comp=N,0.2nm,0.5s						
SONM	**Songino Array**	**27.25**	**49**	P	**P**	**17 52 05.0**	**+0.7**
	comp=N,0.6nm,0.3s,baz=243,slow=9.5,SNR=2.6						
	comp=N,0.6nm,0.3s						
MA2	**Magadan**	**54.51**	**37**	LR	LR	18 21 21.1	
	comp=N,43nm,18.1s,baz=264,slow=39						
WRA	**Warramunga Arr**	**77.16**	**124**	P	**P**	**17 58 14.6**	**+0.5**
	comp=N,0.2nm,0.5s,baz=316,slow=6.2,SNR=8.7						
	comp=N,0.2nm,0.5s						
ASAR	**Alice Springs**	**79.40**	**127**	P	**P**	**17 58 26.5**	**+0.1**
	comp=N,0.2nm,0.8s,baz=301,slow=6.5,SNR=5.1						
	comp=N,0.2nm,0.8s						
YKA	**Yellowknife Ar**	**84.08**	**5**	P	**P**	**17 58 50.8**	**+0.3**
	comp=N,0.9nm,0.8s,baz=351,slow=4.9,SNR=4.1						
	comp=N,0.9nm,0.8s						

*NOU **08** 17:49:48.7,38.°42S×176.°25E,h161km,MLv3.7/16,North Island, New Zealand*
*WEL **08** 17:49:50.9±0.9,38.°S±6.°×17.°6E±.°,h146km±7km,M2.7/19, MLv2.7/19,Error ellipse: s-maj=7.9km s-min=6.7km az=29.4*
ISC 08 17:49:46.8±1.7,**38.°31S**±0.°05×**176.°19E**±0.°04,**h180**km±9km, **n86,** σ1§**45**/95,**North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GRRZ	**Galatos Road**	**0.08**	**236**	P	**Pn**	**17 50 11.5**	**+0.9**
GRRZ				AML	AML		
WPRZ	**Whakapapatarin**	**0.22**	**187**	P	**Pn**	**17 50 11.6**	**+0.8**
WPRZ				AML	AML		
PRRZ	**Plateau Road**	**0.25**	**141**	P	**Pn**	**17 50 11.6**	**+0.8**
PRRZ				AML	AML		
RRRZ	**Republican Roa**	**0.26**	**98**	P	**Pn**	**17 50 11.5**	**+0.6**
RRRZ				AML	AML		
ALRZ	**Allen Road**	**0.28**	**156**	P	**Pn**	**17 50 11.9**	**+1.0**
ALRZ				AML	AML		
MUGZ	**Murupara**	**0.48**	**111**	P	**Pn**	**17 50 12.2**	**+0.6**
MUGZ				AML	AML		
KMRZ	**Kaimai**	**0.50**	**336**	P	**Pn**	**17 50 12.6**	**+0.8**
KMRZ				AML	AML		
TLZ	**Tolley Road**	**0.52**	**267**	P	**Pn**	**17 50 12.9**	**+1.2**
TLZ				S	**Sn**	**17 50 30.3**	**-0.6**
RATZ	**Rangitukua**	**0.65**	**210**	P	**Pn**	**17 50 13.5**	**+1.1**
RTZ	**Ruatahuna**	**0.69**	**117**	P	**Pn**	**17 50 13.5**	**+0.9**
RTZ				S	**Sn**	**17 50 31.0**	**-1.5**
RTZ				AML	AML		
URZ	**Urewera**	**0.72**	**87**	P	**Pn**	**17 50 12.6**	**-0.1**
URZ	**Urewera**	**0.72**	**87**	S	**Sn**	**17 50 30.5**	**-2.1**
URZ	**Urewera**	**0.72**	**87**	P	**Pn**	**17 50 13.1**	**+0.4**
URZ				AML	AML		
MTHZ	**Maungataniwha**	**0.75**	**137**	P	**Pn**	**17 50 14.1**	**+1.2**
MTHZ				S	**Sn**	**17 50 31.8**	**-1.3**
MTHZ				AML	AML		
KATZ	**Kakaramea**	**0.78**	**210**	P	**Pn**	**17 50 14.5**	**+1.3**
KATZ				AML	AML		
TOZ	**Tahuroa Road**	**0.79**	**316**	P	**Pn**	**17 50 14.2**	**+1.0**
TOZ				S	**Sn**	**17 50 32.5**	**-0.9**
NTVZ	**North Tongarir**	**0.89**	**207**	P	**Pn**	**17 50 15.3**	**+1.4**
BKZ	**Black Stump Fm**	**0.89**	**165**	P	**Pn**	**17 50 14.7**	**+0.9**
BKZ	**Black Stump Fm**	**0.89**	**165**	P	**Sn**	**17 50 33.2**	**-1.6**
BKZ	**Black Stump Fm**	**0.89**	**165**	P	**Pn**	**17 50 15.1**	**+1.3**
BKZ				S	**Sn**	**17 50 32.9**	**-2.0**
BKZ				AML	AML		
TMVZ	**Te Maari**	**0.90**	**205**	P	**Pn**	**17 50 15.3**	**+1.4**
ETVZ	**East Tongariro**	**0.91**	**204**	P	**Pn**	**17 50 15.5**	**+1.4**
NMHZ	**Naumai**	**0.93**	**149**	P	**Pn**	**17 50 16.2**	**+2.1**
NMHZ				S	**Sn**	**17 50 35.6**	**+0.3**
NMHZ				AML	AML		
RAHZ	**Arahi**	**0.93**	**131**	P	**Pn**	**17 50 15.9**	**+1.9**
RAHZ				S	**Sn**	**17 50 34.5**	**-0.6**
RAHZ				AML	AML		
WTVZ	**West Tongariro**	**0.94**	**210**	P	**Pn**	**17 50 15.5**	**+1.3**
OTVZ	**Oturere**	**0.95**	**206**	P	**Pn**	**17 50 16.0**	**+1.6**
TWVZ	**Taurewa**	**0.97**	**218**	P	**Pn**	**17 50 15.8**	**+1.4**
RAGZ	**Rawiri**	**0.98**	**102**	P	**Pn**	**17 50 15.8**	**+1.4**
RAGZ				S	**Sn**	**17 50 34.5**	**-1.3**
SNVZ	**South Ngauruho**	**0.98**	**206**	P	**Pn**	**17 50 15.9**	**+1.3**
NGZ	**Ngauruhoe**	**0.98**	**208**	P	**Pn**	**17 50 16.3**	**+1.6**
COVZ	**Chateau Observ**	**1.03**	**209**	P	**Pn**	**17 50 16.3**	**+1.4**
MWZ	**Matawai**	**1.05**	**92**	P	**Pn**	**17 50 15.9**	**+0.9**
MWZ				S	**Sn**	**17 50 34.8**	**-1.8**
MWZ				AML	AML		
TUVZ	**Tukino**	**1.05**	**204**	P	**Pn**	**17 50 16.7**	**+1.6**
TUVZ				AML	AML		
HIZ	**Hauiti**	**1.07**	**258**	P	**Pn**	**17 50 16.4**	**+1.3**
HIZ	**Hauiti**	**1.07**	**258**	S	**Sn**	**17 50 37.1**	**+0.2**
HIZ	**Hauiti**	**1.07**	**258**	P	**Pn**	**17 50 16.6**	**+1.5**
FWVZ	**Far West T-bar**	**1.07**	**208**	P	**Pn**	**17 50 16.6**	**+1.2**
MAVZ	**Matarangi**	**1.08**	**207**	P	**Pn**	**17 50 17.1**	**+1.6**
WHVZ	**Whangaehu Hut**	**1.08**	**206**	P	**Pn**	**17 50 16.9**	**+1.4**
TRVZ	**Turoa**	**1.11**	**207**	P	**Pn**	**17 50 17.1**	**+1.4**
WNVZ	**Wahianoa**	**1.12**	**204**	P	**Pn**	**17 50 17.2**	**+1.5**
KWHZ	**Kaweka Forest**	**1.13**	**171**	P	**Pn**	**17 50 17.3**	**+1.7**
ARHZ	**Aropaoanui**	**1.14**	**147**	P	**Pn**	**17 50 17.7**	**+2.0**
MOVZ	**Moawhango**	**1.15**	**197**	P	**Pn**	**17 50 16.9**	**+1.1**
MOVZ				AML	AML		
PKVZ	**Pokaka**	**1.19**	**214**	P	**Pn**	**17 50 17.5**	**+1.5**
PKVZ				AML	AML		
BHHZ	**Black Hill Sta**	**1.19**	**185**	P	**Pn**	**17 50 17.4**	**+1.4**
BHHZ				AML	AML		
MCHZ	**McNeill Hill**	**1.20**	**161**	P	**Pn**	**17 50 18.4**	**+2.3**
MTVZ	**Mangateitei**	**1.22**	**207**	P	**Pn**	**17 50 17.9**	**+1.6**
MTVZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.22**	**74**	P	**Pn**	**17 50 16.4**	**0.0**
RIGZ	**Rimuhau**	**1.29**	**109**	P	**Pn**	**17 50 18.6**	**+1.6**
RIGZ				AML	AML		
TKGZ	**Te Karaka**	**1.31**	**96**	P	**Pn**	**17 50 18.5**	**+1.5**
KRHZ	**Kereru**	**1.34**	**174**	P	**Pn**	**17 50 19.1**	**+1.7**
KNZ	**Kokohu**	**1.36**	**122**	P	**Pn**	**17 50 19.1**	**+1.6**
HAZ	**Te Kaha**	**1.37**	**67**	P	**Pn**	**17 50 17.8**	**+0.2**
VRZ	**Vera Road**	**1.39**	**233**	P	**Pn**	**17 50 19.7**	**+2.0**
TWGZ	**Tauwhareparae**	**1.41**	**85**	P	**Pn**	**17 50 19.5**	**+1.5**
MKAZ	**Moumakai**	**1.45**	**325**	P	**Pn**	**17 50 19.6**	**+1.3**
MKAZ				AML	AML		
PRGZ	**Paritu Road**	**1.46**	**116**	P	**Pn**	**17 50 20.2**	**+1.7**
CKHZ	**Cape Kidnapper**	**1.52**	**153**	P	**Pn**	**17 50 21.1**	**+2.2**
PKGZ	**Pakihiroa**	**1.55**	**74**	P	**Pn**	**17 50 20.2**	**+0.9**
KAHZ	**Kahuranaki**	**1.58**	**161**	P	**Pn**	**17 50 21.7**	**+2.2**
MHGZ	**Mahia Peninsul**	**1.58**	**123**	P	**Pn**	**17 50 21.6**	**+2.0**
CNGZ	**Carnagh Statio**	**1.59**	**97**	P	**Pn**	**17 50 21.7**	**+2.0**
PNHZ	**Pukenui**	**1.61**	**180**	P	**Pn**	**17 50 21.3**	**+1.5**
PUZ	**Puketiti**	**1.64**	**82**	P	**Pn**	**17 50 21.1**	**+0.9**
ETAZ	**East Tamaki Re**	**1.68**	**323**	P	**Pn**	**17 50 21.8**	**+1.2**
WAZ	**Wanganui**	**1.73**	**213**	P	**Pn**	**17 50 22.9**	**+1.9**
WIAZ	**Waiheke Island**	**1.73**	**331**	P	**Pn**	**17 50 22.2**	**+1.2**
WIAZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**1.75**	**315**	P	**Pn**	**17 50 22.6**	**+1.4**
WPHZ	**Waipukurau**	**1.77**	**174**	P	**Pn**	**17 50 23.1**	**+1.7**
PXZ	**Pawanui**	**1.80**	**163**	P	**Pn**	**17 50 23.7**	**+2.0**
WMGZ	**Waiomatatini S**	**1.82**	**75**	P	**Pn**	**17 50 23.1**	**+1.1**
MXZ	**Matakaoa Point**	**1.83**	**67**	P	**Pn**	**17 50 23.8**	**+1.7**
MXZ	**Matakaoa Point**	**1.83**	**67**	S	**Sn**	**17 50 48.3**	**-1.0**
MXZ	**Matakaoa Point**	**1.83**	**67**	P	**Pn**	**17 50 23.3**	**+1.2**
MBAZ	**Motutapu North**	**1.85**	**326**	P	**Pn**	**17 50 23.7**	**+1.4**
NEZ	**North Egmont**	**1.90**	**239**	P	**Pn**	**17 50 25.6**	**+2.7**
POWZ	**Post Office Ro**	**2.11**	**189**	P	**Pn**	**17 50 26.4**	**+1.3**
BFZ	**Birch Farm**	**2.37**	**179**	P	**Pn**	**17 50 29.0**	**+1.0**
BFZ	**Birch Farm**	**2.37**	**179**	P	**Sn**	**17 50 58.7**	**-1.5**
SNZO	**South Karori**	**3.21**	**200**	P	**Pn**	**17 50 38.0**	**0.0**
SNZO	**South Karori**	**3.21**	**200**	S	**Sn**	**17 51 15.7**	**-2.3**
QRZ	**Quartz Range**	**3.79**	**227**	P	**Pn**	**17 50 44.8**	**-0.4**
QRZ	**Quartz Range**	**3.79**	**227**	S	**Sn**	**17 51 29.3**	**-1.6**
KHZ	**Kahutara**	**4.58**	**205**	P	**Pn**	**17 50 55.3**	**+0.1**
KHZ	**Kahutara**	**4.58**	**205**	S	**Sn**	**17 51 47.7**	**-1.3**

*THE **08** 17:50:54.9,37.°8N×0.°7×26.°9E±0.°5,h12km±1km,M2.5/8, MLh2.5/8*
*AFAD **08** 17:50:54.9,37.°84N×26.°86E,h7km±2km,ML2.3*
*ISK **08** 17:50:54.6,37.°85N×26.°89E,h18km,ML2.3/21*
ISC 08 17:50:55.0±0.8,**37.°84N**±0.°02×**26.°88E**±0.°03,**h13**km±6km, **n36,** σ0§**52**/57,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.13**	**193**	P	**Pg**	**17 50 58.1**	**-0.3**
SMG				S	**Sg**	**17 51 00.6**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**2**	P	**Pg**	**17 50 59.5**	**-0.2**
DGB				S	**Sg**	**17 51 02.5**	**-0.4**
GMLD	**Gumuldur**	**0.24**	**8**	Pg	**Pg**	**17 51 00.1**	**0.0**
GMLD				Sg	**Sg**	**17 51 04.1**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.32**	**116**	P	**Pg**	**17 51 01.9**	**+0.4**
GCAM				S	**Sg**	**17 51 06.6**	**+0.8**
GCAM				IAML		17 51 07.0	
	comp=N,665nm,0.4s						
GCAM				IAML		17 51 07.0	
	comp=E,628nm,0.3s						
GCAM	**G?zelcaml?**	**0.32**	**116**	Pg	**Pg**	**17 51 01.7**	**+0.3**
GCAM				Sg	**Sb**	**17 51 06.9**	**-0.6**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**86**	Pg	**Pg**	**17 51 01.7**	**0.0**
KUSD				Sg	**Sg**	**17 51 06.9**	**+0.8**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**6**	P	**Pg**	**17 51 02.8**	**-0.1**
BEYE				S	**Sg**	**17 51 08.7**	**+0.5**
DDIM	**Aydin, Didim**	**0.48**	**142**	P	**Pg**	**17 51 04.4**	**0.0**
DDIM				S	**Sb**	**17 51 11.9**	**-0.3**
DDIM				IAML		17 51 13.0	
	comp=N,341nm,0.5s						
DDIM				IAML		17 51 13.0	
	comp=E,249nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**324**	P	**Pg**	**17 51 04.7**	**-0.1**
ZEYE				S	**Sg**	**17 51 11.8**	**+0.3**
ZEYE				IAML		17 51 12.0	
	comp=N,306nm,0.4s						
DIDI	**Didim-Aydin**	**0.54**	**148**	Pg	**Pg**	**17 51 05.9**	**+0.3**
DIDI				Sg	**Sb**	**17 51 14.8**	**+0.7**
DIDI				AML	AML		
BLCB	**Balcova**	**0.56**	**13**	P	**Pg**	**17 51 06.1**	**0.0**
BLCB				S	**Sg**	**17 51 14.1**	**+0.5**
BLCB	**Balcova**	**0.56**	**13**	Pg	**Pg**	**17 51 05.9**	**-0.1**
BLCB				Sg	**Sg**	**17 51 14.0**	**+0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.59**	**50**	P	**Pg**	**17 51 06.5**	**-0.1**
DUVT				S	**Sg**	**17 51 14.0**	**-0.4**
DUVT				IAML		17 51 19.0	
	comp=E,222nm,0.4s						
CESE	**eme**	**0.67**	**317**	Pg	**Pg**	**17 51 08.2**	**+0.2**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**156**	Pg	**Pb**	**17 51 10.8**	**+0.4**
YKAV				Sg	**Sb**	**17 51 21.5**	**+0.6**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**342**	Pg	**Pb**	**17 51 10.6**	**-0.1**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.81**	**82**	Pg	**Pg**	**17 51 10.8**	**+0.1**
AYDB				AML	AML		
BAGT	**Foa**	**0.82**	**359**	P	**Pg**	**17 51 10.7**	**-0.1**
BAGT				S	**Sn**	**17 51 23.4**	**-0.7**
BAGT				IAML		17 51 25.0	
	comp=E,117nm,1.0s						
BODT	**Bodrum**	**0.85**	**156**	P	**Pg**	**17 51 10.9**	**-0.5**
BODT				S	**Sb**	**17 51 23.4**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**156**	Pg	**Pg**	**17 51 10.9**	**-0.5**
BODT				Sg	**Sb**	**17 51 23.9**	**+1.0**
BODT				AML	AML		
CHOS	**Chios island**	**0.85**	**311**	P	**Pg**	**17 51 11.3**	**-0.2**
CHOS				S	**Sb**	**17 51 23.6**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**311**	Pg	**Pb**	**17 51 11.6**	**-0.1**
CHOS				Sg	**Sb**	**17 51 23.8**	**+0.8**
CHOS				AML	AML		
FOCM	**Foa**	**0.88**	**353**	Pg	**Pb**	**17 51 12.1**	**-0.1**
FOCM				AML	AML		
MLSB	**Milas**	**0.90**	**127**	Pg	**Pg**	**17 51 12.1**	**-0.3**
MLSB				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**336**	P	**Pb**	**17 51 12.9**	**+0.4**
KARB				S	**Sb**	**17 51 25.4**	**+1.0**
KARB				IAML		17 51 27.0	
	comp=N,71nm,0.9s						
KARB				IAML		17 51 27.0	
	comp=E,135nm,0.7s						
NAZL	**Nazilli-Aydin**	**1.13**	**83**	Pn	**Pb**	**17 51 15.8**	**-0.6**
NAZL				AML	AML		
DKL	**Dikili**	**1.23**	**1**	Pn	**Pn**	**17 51 17.8**	**-0.1**
DKL				AML	AML		
DAT	**Datca**	**1.24**	**153**	P	**Pn**	**17 51 17.2**	**-1.0**
DAT				S	**Sn**	**17 51 35.7**	**+0.9**
DAT				AML	AML		
DAT	**Datca**	**1.24**	**153**	Pn	**Pn**	**17 51 17.6**	**-0.5**
DAT				AML	AML		
APE	**Apeiranthos**	**1.32**	**235**	P	**Pn**	**17 51 18.1**	**-1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.32**	**235**	Pn	**Pn**	**17 51 18.9**	**-0.2**
APE				AML	AML		
YER	**Yerkesik**	**1.32**	**122**	Pn	**Pn**	**17 51 18.5**	**-0.7**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**43**	Pn	**Pn**	**17 51 20.8**	**-0.6**
GORD				AML	AML		
PRK	**Paraskevi**	**1.48**	**342**	P	**Pn**	**17 51 20.6**	**-0.8**
TURN	**Turunc**	**1.52**	**134**	Pn	**Pn**	**17 51 21.7**	**-0.2**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.78**	**5**	Pn	**Pn**	**17 51 25.0**	**-0.4**
YAYO				AML	AML		

*GII **08** 17:56:48.0±0.0,37.°803N×0.°002×26.°534E±0.°001,h0km, Mws4.2,confirmed*
*ISK **08** 17:56:50.2,37.°88N×26.°61E,h10km,ML3.7/24*
*IDC **08** 17:56:50.1±1.6,37.°71N×26.°74E,h0km,mb3.5/3, mbtmp3.5/5,ML3.6/2,Error ellipse: s-maj=27.3km s-min=21.5km az=168.0*
*THE **08** 17:56:51.4,38.°N±1.°×2.°7E±.°,h9km±1km,M3.2/30, MLh3.2/30*
*AFAD **08** 17:56:51.1,37.°90N×26.°65E,h7km±2km,ML3.5*
*ATH **08** 17:56:51.1,37.°84N×26.°59E,h14km±1km,ML3.5/36, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 08 17:56:50.9±0.7,**37.°87N**±0.°01×**26.°62E**±0.°02,**h17**km±4km, **n187,** σ1§**11**/239,**6C-5D,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.10**	**136**	P	**Pg**	**17 56 54.1**	**-0.2**
KRL1				S	**Sg**	**17 56 55.8**	**-0.8**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.11**	**183**	P	**Pg**	**17 56 54.4**	**-0.1**
SAM2				S	**Sg**	**17 56 56.3**	**-0.5**
SAM2				AML	AML		
SMG	**Samos**	**0.23**	**132**	P	**Pg**	**17 56 56.4**	**+0.2**
SMG				S	**Sg**	**17 57 00.2**	**+0.4**
SMG	**Samos**	**0.23**	**132**	P	**Pg**	**17 56 56.4**	**+0.2**
SMG				S	**Sg**	**17 57 00.2**	**+0.4**
SMG				AML	AML		
DGB	**zmir**	**0.28**	**49**	P	**Pg**	**17 56 56.2**	**-0.8**
DGB				S	**Sg**	**17 56 59.5**	**-1.6**
GMLD	**Gumuldur**	**0.32**	**48**	Pg	**Pg**	**17 56 56.7**	**-0.8**
GMLD				Sg	**Sb**	**17 57 01.5**	**-1.4**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**346**	P	**Pg**	**17 56 58.1**	**-0.7**
ZEYE				S	**Sb**	**17 57 03.6**	**-1.2**
ZEYE				IAML		17 57 10.0	
	comp=N,4μm,0.4s						
BEYE	**izmir**	**0.43**	**34**	P	**Pb**	**17 56 59.1**	**-1.1**
BEYE				S	**Sg**	**17 57 04.2**	**-1.5**
GCAM	**G?zelcaml?**	**0.52**	**109**	P	**Pb**	**17 57 01.3**	**-0.2**
GCAM				S	**Sb**	**17 57 08.7**	**0.0**
GCAM				IAML		17 57 09.0	
	comp=N,4μm,0.5s						
GCAM				IAML		17 57 09.0	
	comp=E,4μm,0.5s						
GCAM	**G?zelcaml?**	**0.52**	**109**	Pg	**Pb**	**17 57 01.1**	**-0.4**
GCAM				AML	AML		
CESE	**eme**	**0.53**	**332**	Pg	**Pg**	**17 57 00.6**	**-0.8**
CESE				Sg	**Sb**	**17 57 08.2**	**-0.8**
CESE				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.53**	**91**	Pg	**Pb**	**17 57 00.9**	**-0.8**
KUSD				Sg	**Sb**	**17 57 08.7**	**-0.4**
KUSD				AML	AML		
BLCB	**Balcova**	**0.62**	**33**	P	**Pg**	**17 57 02.1**	**-0.9**
BLCB				S	**Sg**	**17 57 10.6**	**-0.7**
BLCB	**Balcova**	**0.62**	**33**	Pg	**Pb**	**17 57 02.5**	**-0.7**
BLCB				Sg	**Sg**	**17 57 10.6**	**-0.7**
DDIM	**Aydin, Didim**	**0.64**	**129**	P	**Pb**	**17 57 03.7**	**0.0**
DDIM				S	**Sb**	**17 57 12.8**	**+0.5**
DDIM				IAML		17 57 16.0	
	comp=N,3μm,0.6s						
DDIM				IAML		17 57 19.0	
	comp=E,3μm,0.6s						
CHOS	**Chios island**	**0.68**	**320**	P	**Pb**	**17 57 03.7**	**-0.7**
CHOS				S	**Sb**	**17 57 13.8**	**+0.2**
CHOS	**Chios island**	**0.68**	**320**	Pg	**Pb**	**17 57 03.7**	**-0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.68**	**320**	P	**Pb**	**17 57 03.7**	**-0.7**
CHOS				S	**Sb**	**17 57 13.9**	**+0.2**
CHOS				AML	AML		
DIDI	**Didim-Aydin**	**0.70**	**135**	Pg	**Pb**	**17

APE	**Apeiranthos**	**1.18**	**228**	P	**Pg**	**17 57 12.3**	**-1.3**
APE				S	**Sn**	**17 57 29.9**	**+1.6**
APE	**Apeiranthos**	**1.18**	**228**	⇓P	**Pg**	**17 57 12.3**	**-1.3**
APE				⇑S	**Sn**	**17 57 30.2**	**+1.9**
APE	**Apeiranthos**	**1.18**	**228**	Pn	**Pg**	**17 57 12.2**	**-1.3**
APE				AML	AML		
APE	**Apeiranthos**	**1.18**	**228**	P	**Pg**	**17 57 12.1**	**-1.5**
APE				S	**Sb**	**17 57 28.5**	**+0.7**
APE				AML	AML		
TNSA	**Tinos**	**1.20**	**255**	P	**Pg**	**17 57 12.4**	**-1.6**
TNSA				S	**Sg**	**17 57 27.9**	**-1.8**
TNSA				AML	AML		
DKL	**Dikili**	**1.22**	**11**	Pn	**Pn**	**17 57 13.6**	**+0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.22**	**11**	P	**Pn**	**17 57 13.6**	**+0.4**
DKL				S	**Sn**	**17 57 31.5**	**+2.1**
GOMA	**Golmarmara-Man**	**1.32**	**50**	Pn	**Pg**	**17 57 15.4**	**-1.0**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.33**	**85**	Pn	**Pg**	**17 57 15.3**	**-1.2**
NAZL				AML	AML		
ASTA	**Astypalaia**	**1.34**	**189**	P	**Pg**	**17 57 16.0**	**-0.6**
ASTA				S	**Sb**	**17 57 32.4**	**0.0**
ASTA				AML	AML		
DAT	**Datca**	**1.37**	**146**	P	**Pn**	**17 57 15.6**	**+0.2**
DAT				AML	AML		
DAT	**Datca**	**1.37**	**146**	Pn	**Pb**	**17 57 16.1**	**0.0**
DAT				AML	AML		
ESEN	**Aydn-Nazilli**	**1.37**	**92**	P	**Pb**	**17 57 15.8**	**-0.3**
ESEN				S	**Sn**	**17 57 34.8**	**+1.7**
AKHS	**Akhisar**	**1.38**	**43**	P	**Pg**	**17 57 16.6**	**-0.8**
AKHS				S	**Sn**	**17 57 35.8**	**+2.5**
AKHS				IAML		17 57 38.0	
	comp=N,1µm,0.6s						
AKS	**Akhisar**	**1.38**	**43**	Pn	**Pb**	**17 57 15.8**	**-0.5**
AKS				AML	AML		
PRK	**Paraskevi**	**1.40**	**349**	P	**Pb**	**17 57 16.3**	**-0.4**
PRK				S	**Sg**	**17 57 36.9**	**+0.7**
PRK	**Paraskevi**	**1.40**	**349**	P	**Pb**	**17 57 16.2**	**-0.4**
PRK				S	**Sg**	**17 57 36.1**	**-0.1**
KTTT	**Salihli**	**1.42**	**54**	P	**Pg**	**17 57 18.1**	**-0.1**
KTTT				S	**Sg**	**17 57 35.3**	**-1.5**
AYVA	**Ayvalik**	**1.44**	**2**	P	**Pg**	**17 57 17.9**	**-0.7**
AYVA				S	**Sg**	**17 57 37.8**	**+0.4**
AYVA				IAML		17 57 48.0	
	comp=N,988nm,0.6s						
KIRA	**zmir-Kiraz**	**1.45**	**76**	P	**Pg**	**17 57 17.9**	**-0.9**
KIRA				S	**Sg**	**17 57 36.4**	**-1.2**
KIRA				IAML		17 57 39.0	
	comp=N,682nm,0.3s						
SOMA	**Soma-Manisa**	**1.48**	**29**	Pn	**Pb**	**17 57 17.6**	**-0.3**
SOMA				AML	AML		
YER	**Yerkesik**	**1.51**	**118**	P	**Pb**	**17 57 18.2**	**-0.4**
YER	**Yerkesik**	**1.51**	**118**	Pn	**Pb**	**17 57 18.1**	**-0.4**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.61**	**49**	Pn	**Pn**	**17 57 19.3**	**+0.7**
GORD				AML	AML		
MANT	**Manisa**	**1.65**	**67**	P	**Pg**	**17 57 22.1**	**-0.5**
MANT				S	**Sn**	**17 57 41.0**	**+0.7**
TURN	**Turunc**	**1.69**	**130**	Pn	**Pn**	**17 57 20.1**	**+0.4**
TURN				AML	AML		
CMBO	**Columbo, Santo**	**1.70**	**215**	P	**Pn**	**17 57 19.9**	**+0.2**
CMBO	**Columbo, Santo**	**1.70**	**215**	P	**Pn**	**17 57 19.7**	**0.0**
THR2	**Thira island,**	**1.70**	**214**	P	**Pn**	**17 57 20.1**	**+0.3**
THR8	**Santorini-Mono**	**1.72**	**212**	P	**Pn**	**17 57 19.4**	**-0.6**
THRA	**Thira**	**1.73**	**214**	P	**Pn**	**17 57 20.2**	**-0.1**
KARY	**Karystos**	**1.73**	**276**	P	**Pn**	**17 57 20.4**	**+0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.73**	**276**	P	**Pn**	**17 57 20.0**	**-0.2**
THR3	**Thira Island,**	**1.75**	**214**	P	**Pn**	**17 57 20.5**	**0.0**
SAP3	**Santorini-Thir**	**1.75**	**216**	P	**Pn**	**17 57 20.3**	**-0.3**
THERA	**Ancient Thera,**	**1.75**	**212**	P	**Pn**	**17 57 20.9**	**+0.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.75**	**212**	P	**Pn**	**17 57 19.9**	**-0.7**
THERA				AML	AML		
SNT5	**Nea Kammeni, S**	**1.76**	**214**	P	**Pn**	**17 57 20.2**	**-0.4**
THR5	**Thira Island,**	**1.77**	**215**	P	**Pn**	**17 57 20.7**	**0.0**
YAYO	**Edremit-Balk**	**1.78**	**11**	Pn	**Pn**	**17 57 21.7**	**+0.8**
YAYO				AML	AML		
THR6	**Thira Island,**	**1.80**	**213**	P	**Pn**	**17 57 21.2**	**+0.1**
THR9	**Santorini-Faro**	**1.81**	**214**	P	**Pn**	**17 57 21.6**	**+0.3**
EZNE	**Ezine-Canakkal**	**1.90**	**354**	Pn	**Pn**	**17 57 23.4**	**+0.9**
EZN	**Ezine**	**1.97**	**353**	⇓P	**Pb**	**17 57 26.0**	**-0.3**
BALB	**Balikesir**	**2.03**	**29**	Pn	**Pn**	**17 57 25.4**	**+1.1**
BALB				AML	AML		
BALB	**Balikesir**	**2.03**	**29**	P	**Pb**	**17 57 25.8**	**-1.4**
BALB				AML	AML		
LVRA	**Laurium**	**2.04**	**266**	P	**Pn**	**17 57 23.9**	**-0.5**
LVRA				AML	AML		
ARG	**Arkhangelos**	**2.04**	**143**	P	**Pn**	**17 57 25.1**	**+0.6**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.04**	**143**	P	**Pn**	**17 57 24.6**	**+0.1**
ARG				S	**Sn**	**17 57 49.5**	**-0.1**
ARG				AML	AML		
MILOS	**Milos**	**2.08**	**238**	P	**Pn**	**17 57 24.3**	**-0.6**
MHLO	**Agia Marina, M**	**2.12**	**237**	P	**Pn**	**17 57 25.4**	**-0.2**
KYMI	**Kymi, Euboea I**	**2.12**	**292**	P	**Pn**	**17 57 26.5**	**+0.9**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.12**	**292**	P	**Pn**	**17 57 26.2**	**+0.6**
DION	**Dionisos Attik**	**2.13**	**276**	P	**Pn**	**17 57 26.0**	**+0.3**
DION				AML	AML		
PTL	**Penteli**	**2.18**	**276**	P	**Pn**	**17 57 26.9**	**+0.5**
PTL				AML	AML		
PTL	**Penteli**	**2.18**	**276**	P	**Pn**	**17 57 26.8**	**+0.3**
PTL				AML	AML		
VLY	**Voula,Athens**	**2.23**	**270**	P	**Pn**	**17 57 27.7**	**+0.5**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.23**	**270**	P	**Pn**	**17 57 27.7**	**+0.5**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.24**	**273**	P	**Pn**	**17 57 27.6**	**+0.3**
ATHU	**Athens Univers**	**2.24**	**273**	P	**Pn**	**17 57 27.4**	**+0.1**
NOAC	**Athens-Thissio**	**2.30**	**274**	P	**Pn**	**17 57 28.2**	**+0.3**
NOAC				AML	AML		
ATH	**Athens Observa**	**2.30**	**274**	P	**Pn**	**17 57 28.7**	**+0.7**
ATH				AML	AML		
LIA	**Limnos Island**	**2.32**	**332**	P	**Pn**	**17 57 29.1**	**+0.8**
LIA				AML	AML		
LIA	**Limnos Island**	**2.32**	**332**	P	**Pn**	**17 57 29.1**	**+0.8**
LIA				AML	AML		
KARP	**Karpathos**	**2.36**	**169**	P	**Pn**	**17 57 29.3**	**+0.5**
KARP				AML	AML		
KARP	**Karpathos**	**2.36**	**169**	P	**Pn**	**17 57 29.2**	**+0.3**
KARP				AML	AML		
GADA	**Gvkgeada**	**2.39**	**347**	P	**Pn**	**17 57 29.8**	**+0.6**
GADA				AML	AML		
STFN	**Stefani**	**2.45**	**278**	P	**Pn**	**17 57 30.9**	**+0.7**
STFN				AML	AML		
STFN	**Stefani**	**2.45**	**278**	P	**Pn**	**17 57 30.4**	**+0.3**
STFN				AML	AML		
AOS2	**Alonissos-2**	**2.52**	**301**	P	**Pn**	**17 57 32.0**	**+0.9**
MET4	**Agioi Theodoro**	**2.56**	**266**	P	**Pn**	**17 57 32.2**	**+0.5**
MET1	**Methana Town,**	**2.58**	**265**	P	**Pn**	**17 57 32.2**	**+0.4**
MET5	**Makryloggos,Me**	**2.60**	**266**	P	**Pn**	**17 57 32.9**	**+0.7**
MET6	**Megalochori,Me**	**2.60**	**265**	P	**Pn**	**17 57 32.9**	**+0.7**
MET2	**Kameni Chora,**	**2.62**	**265**	P	**Pn**	**17 57 33.0**	**+0.5**
VILL	**Villia**	**2.63**	**277**	P	**Pn**	**17 57 33.5**	**+0.9**
VILL				AML	AML		
VIL2	**Platees**	**2.67**	**278**	P	**Pn**	**17 57 33.2**	**+0.1**
VIL2				AML	AML		
MET3	**Ano Fanari,Met**	**2.70**	**265**	P	**Pn**	**17 57 34.0**	**+0.3**
NPS	**Neapolis**	**2.72**	**198**	P	**Pn**	**17 57 34.5**	**+0.7**
NPS				AML	AML		
NPS	**Neapolis**	**2.72**	**198**	P	**Pn**	**17 57 34.4**	**+0.5**
NPS				AML	AML		
SMTH	**Samothraki Isl**	**2.73**	**342**	P	**Pn**	**17 57 35.1**	**+1.0**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**2.73**	**342**	P	**Pn**	**17 57 34.8**	**+0.8**
SMTH				AML	AML		
BAND	**Balkesir-Ban**	**2.74**	**24**	⇓P	**Pb**	**17 57 40.2**	**+0.8**
ZKR	**Zakros**	**2.77**	**187**	P	**Pn**	**17 57 35.5**	**+1.0**
EPID	**Epidavros**	**2.79**	**266**	P	**Pn**	**17 57 35.6**	**+0.8**
EPID				AML	AML		
EPID	**Epidavros**	**2.79**	**266**	P	**Pn**	**17 57 35.5**	**+0.8**
LOUT	**Loutraki**	**2.88**	**274**	P	**Pn**	**17 57 36.0**	**-0.1**
LOUT				AML	AML		
ENEZ	**Enez**	**2.89**	**353**	P	**Pn**	**17 57 37.5**	**+1.4**
ENEZ				AML	AML		
LTK	**Loutraki**	**2.89**	**274**	P	**Pn**	**17 57 36.8**	**+0.6**
LTK				AML	AML		
LTK	**Loutraki**	**2.89**	**274**	P	**Pn**	**17 57 36.7**	**+0.5**
LTK				AML	AML		
IDI	**Anoyia**	**2.92**	**209**	P	**Pn**	**17 57 36.7**	**0.0**
IDI				AML	AML		
ATAL	**Atalanti**	**2.95**	**287**	P	**Pn**	**17 57 36.5**	**-0.4**
ACOR	**Acrocorinthos**	**2.97**	**272**	P	**Pn**	**17 57 37.8**	**+0.5**
ACOR				AML	AML		
NEO	**Neokhori**	**3.02**	**299**	P	**Pn**	**17 57 38.7**	**+0.6**
NEO				AML	AML		
NEO	**Neokhori**	**3.02**	**299**	P	**Pn**	**17 57 37.4**	**-0.7**
ALN	**Alexandroupoli**	**3.06**	**352**	P	**Pn**	**17 57 38.7**	**+0.2**
ALN				AML	AML		
THAL	**Thalero**	**3.13**	**274**	P	**Pn**	**17 57 40.3**	**+0.9**
THAL				AML	AML		
VAM	**Vamos**	**3.13**	**219**	P	**Pn**	**17 57 39.2**	**-0.3**
VLI	**Veliai**	**3.15**	**250**	P	**Pn**	**17 57 39.9**	**+0.1**
VLI				AML	AML		
VLI	**Veliai**	**3.15**	**250**	P	**Pn**	**17 57 39.2**	**-0.6**
IMMV	**Iera Moni Meta**	**3.20**	**222**	P	**Pn**	**17 57 41.0**	**+0.6**
IMMV				AML	AML		
OUR	**Ouranopolis**	**3.21**	**321**	P	**Pn**	**17 57 40.8**	**+0.3**
AXAR	**Agios Charalam**	**3.24**	**287**	P	**Pn**	**17 57 42.0**	**+1.0**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**3.24**	**287**	P	**Pn**	**17 57 41.1**	**+0.1**
RODP	**Rodopos**	**3.25**	**226**	P	**Pn**	**17 57 41.4**	**+0.2**
KTHA	**Kythira Island**	**3.27**	**242**	P	**Pn**	**17 57 42.1**	**+0.7**
KTHA				AML	AML		
KTHR	**Kythira**	**3.32**	**242**	P	**Pn**	**17 57 43.1**	**+1.0**
KTHR				AML	AML		
ANKY	**Antikythira Is**	**3.33**	**234**	P	**Pn**	**17 57 42.8**	**+0.7**
ANKY				AML	AML		
GUR	**Goura**	**3.38**	**272**	P	**Pn**	**17 57 44.0**	**+0.9**
GUR				AML	AML		
GUR	**Goura**	**3.38**	**272**	P	**Pn**	**17 57 43.8**	**+0.8**
VLX	**Vlachokerasia**	**3.40**	**263**	P	**Pn**	**17 57 44.0**	**+0.7**
PLG	**Polygyros**	**3.52**	**316**	P	**Pn**	**17 57 46.0**	**+1.2**
PLG	**Polygyros**	**3.52**	**316**	P	**Pn**	**17 57 45.6**	**+0.8**
KAVA	**Kavala**	**3.52**	**333**	P	**Pn**	**17 57 46.0**	**+1.1**
KAVA				AML	AML		
KLV	**Kalavryta, Ach**	**3.54**	**274**	P	**Pn**	**17 57 46.3**	**+1.2**
KLV	**Kalavryta, Ach**	**3.54**	**274**	P	**Pn**	**17 57 46.3**	**+1.2**
AGG	**Agios Georgios**	**3.56**	**290**	P	**Pn**	**17 57 46.5**	**+1.1**
AGG				AML	AML		
AGG	**Agios Georgios**	**3.56**	**290**	P	**Pn**	**17 57 46.5**	**+1.1**
KALE	**Kalithea**	**3.57**	**280**	P	**Pn**	**17 57 46.8**	**+1.2**
KALE				AML	AML		
KALE	**Kalithea**	**3.57**	**280**	P	**Pn**	**17 57 46.4**	**+0.9**
GVD	**Gavdhos**	**3.65**	**215**	P	**Pn**	**17 57 47.1**	**+0.5**
LAKA	**Lakka**	**3.68**	**277**	P	**Pn**	**17 57 48.2**	**+1.2**
MG00	**Magoula, Dorid**	**3.72**	**280**	P	**Pn**	**17 57 48.3**	**+0.7**
EFP	**Efpalio**	**3.76**	**280**	P	**Pn**	**17 57 49.3**	**+1.2**
EFP	**Efpalio**	**3.76**	**280**	P	**Pn**	**17 57 49.0**	**+1.0**
ANX	**Ano Chora**	**3.77**	**283**	P	**Pn**	**17 57 49.8**	**+1.4**
ITM	**Ithomi**	**3.79**	**261**	P	**Pn**	**17 57 49.4**	**+0.8**
DRO	**Drossia**	**3.88**	**273**	P	**Pn**	**17 57 50.7**	**+0.9**
TYRN	**Tyrnavos**	**3.89**	**300**	P	**Pn**	**17 57 50.5**	**+0.6**
RLS	**Riolos of Patr**	**4.08**	**274**	P	**Pn**	**17 57 53.2**	**+0.7**
KEPZ	**Antalya-Kepez**	**4.09**	**102**	⇓P	**Pn**	**17 57 56.8**	**+4.1**
BRTR	**Keskin Array B**	**5.79**	**69**	Pn	**Pn**	**17 58 18.1**	**+1.9**
	0.3nm,0.3s,baz=246,slow=15,SNR=7.1						
BRTR				Sn	**Sn**	**17 59 20.5**	**-1.8**
	baz=275,slow=17 0.9nm,0.7s						
BRTR				AML	AML		
CSS	**Mathiatis**	**6.14**	**116**	P	**Pn**	**17 58 19.2**	**-1.7**
CSS				S	**Sn**	**17 59 29.7**	**-1.0**
ICOR	**Ion Corvin**	**6.31**	**8**	⇑P	**Pn**	**17 58 24.8**	**+1.7**
CFR	**Carcaliu**	**7.39**	**8**	⇑P	**Pn**	**17 58 39.3**	**+1.3**
PLOR	**Plostina**	**7.98**	**0**	⇑P	Pb	17 58 58.7	-10
VRI	**Vrincioaia**	**7.99**	**1**	⇑P	Pn	17 58 54.8	+8.6
MMA0B	**Mount Meron ar**	**8.65**	**121**	P	**Pn**	**17 58 53.8**	**-1.5**
MMA0B				S	**Sn**	**18 00 31.2**	**-1.3**
MMAI	**Mount Meron Ar**	**8.65**	**121**	Pn	**Pn**	**17 58 53.9**	**-1.5**
	4.1nm,0.3s,baz=318,slow=15,SNR=17						
MMAI				Sn	**Sn**	**18 00 25.1**	**-7.4**
	1.3nm,0.3s,baz=320,slow=21,SNR=3.8 2.2nm,0.4s						
MMAI				AML	AML		
GEM	**Giv'at Ha'Em**	**8.71**	**120**	P	**Pn**	**17 58 54.1**	**-2.1**
GEM				S	**Sn**	**18 00 32.5**	**-1.5**
MMLI	**Mount Malkishu**	**9.01**	**124**	P	**Pn**	**17 58 58.4**	**-1.9**
MMLI				S	**Sn**	**18 00 40.1**	**-1.4**
KZIT	**Kziot**	**9.46**	**135**	P	**Pn**	**17 59 04.4**	**-1.9**
KZIT				S	**Sn**	**18 00 50.7**	**-1.7**
MSBI	**Mazada**	**9.72**	**130**	P	**Pn**	**17 59 07.7**	**-2.2**
MSBI				S	**Sn**	**18 00 57.3**	**-1.6**
GHAJ	**Ghor Haditha**	**9.86**	**129**	P	**Pn**	**17 59 09.8**	**-2.1**
GHAJ				S	**Sn**	**18 01 00.6**	**-1.6**
RMNI	**Mount Ramon**	**9.90**	**135**	P	**Pn**	**17 59 10.3**	**-2.2**
RMNI				S	**Sn**	**18 01 01.6**	**-1.7**
HRFI	**Mount Harif**	**10.48**	**136**	P	**Pn**	**17 59 17.9**	**-2.5**
HRFI				S	**Sn**	**18 01 15.0**	**-2.4**
TORD	**Torodi Ar. Bea**	**33.14**	**229**	P	**P**	**18 03 27.9**	**+1.5**
	0.9nm,0.6s,baz=36,slow=10,SNR=6.2 0.9nm,0.6s						
KURBB	**Kurchatov Arra**	**38.54**	**54**	P	**P**	**18 04 13.7**	**+1.3**
	0.2nm,0.6s,baz=277,slow=9.0,SNR=2.4 0.2nm,0.6s						
MKAR	**Makanchi Array**	**41.34**	**59**	P	**P**	**18 04 37.4**	**+1.6**
	0.5nm,0.7s,baz=277,slow=7.2,SNR=1.6 0.5nm,0.7s						

IDC 08 18:10:11.6±4.2, 3°.02S×100°.81E, h0km, mb3.4/4, mbtmp3.4/4, MS3.4/2, Error ellipse: s-maj=179.6km s-min=25.2km az=56.0, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	**Davao City (W)**	**26.68**	**68**	LR	LR	18 27 41.7	
	comp=Z,80nm,18.6s,baz=254,slow=39						
H08S2	**Diego Garcia H**	**28.56**	**260**	T	T	18 45 14.1	
	baz=82,slow=75,SNR=66						
H08S3	**Diego Garcia H**	**28.56**	**260**	T	T	18 45 14.6	
	baz=82,slow=75,SNR=235						
H08S1	**Diego Garcia H**	**28.57**	**260**	T	T	18 45 17.8	
	baz=82,slow=75,SNR=26						
H01W3	**Cape Leeuwin H**	**34.03**	**160**	T	T	18 52 38.0	
	baz=336,slow=76,SNR=12						
H01W2	**Cape Leeuwin H**	**34.05**	**160**	T	T	18 52 39.0	
	baz=336,slow=76,SNR=15						
H01W1	**Cape Leeuwin H**	**34.05**	**160**	T	T	18 52 39.2	
	baz=336,slow=76,SNR=12						
WRA	**Warramunga Arr**	**36.78**	**120**	P	P	18 17 20.6	-0.8
	0.3nm,0.8s,baz=306,slow=8.4,SNR=1.6 0.3nm,0.8s						
ASAR	**Alice Springs**	**38.00**	**126**	P	P	18 17 31.4	-0.4
	0.2nm,0.6s,baz=299,slow=7.9,SNR=11 0.2nm,0.4s						
SONM	**Songino Array**	**50.88**	**5**	P	P	18 19 14.5	0.0
	0.4nm,0.5s,baz=182,slow=8.8,SNR=2.7 0.4nm,0.5s						
MKAR	**Makanchi Array**	**52.23**	**344**	P	P	18 19 24.1	-0.4
	0.7nm,0.6s,baz=167,slow=8.1,SNR=5.2 0.7nm,0.6s						
H04N2	**CROZET ISLANDS**	**60.47**	**217**	T	T	19 25 14.3	
	baz=60,slow=74,SNR=107						
H04N1	**CROZET ISLANDS**	**60.48**	**217**	T	T	19 25 13.6	
	baz=60,slow=74,SNR=129						
H04N3	**CROZET ISLANDS**	**60.48**	**217**	T	T	19 25 13.4	
	baz=60,slow=74,SNR=139						
H04S1	**CROZET ISLANDS**	**60.74**	**216**	T	T	19 25 32.4	
	baz=58,slow=76,SNR=14						
H04S3	**CROZET ISLANDS**	**60.75**	**216**	T	T	19 25 31.9	
	baz=58,slow=76,SNR=18						
H04S2	**CROZET ISLANDS**	**60.76**	**216**	T	T	19 25 32.8	
	baz=58,slow=76,SNR=12						
KBZ	**Khabaz**	**69.61**	**319**	LR	LR	18 54 23.4	
	comp=Z,23nm,18.6s,baz=152,slow=38						
TXAR	**Lajitas Array**	**145.00**	**39**	PKPbc	PKPbc	18 29 51.2	+0.2
	0.3nm,0.5s,baz=226,slow=1.2,SNR=6.6						

*NNC **08** 18:22:52.2±10.0, 38°.05N×70°.68E, h154km±234km, mb2.4, mpv3.1, Error ellipse: s-maj=120.0km s-min=78.0km az=3.0*

*KRNET **08** 18:22:58.7±0.1, 39°.04N×70°.69E, mb3.1*

ISC 08 18:23:04.6±2.8, 39°.3N±0°.1×70°.87E±0°.09, h10km, n10, σ1§90/18, 13C-4D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRK	**Karamyk**	**0.74**	**75**	⇑*i*P	**Pg**	**18 23 17.3**	**-1.7**
DRK				⇑*i*S	**Sb**	**18 23 30.9**	**+0.7**
BTK	**Batken**	**0.77**	**357**	⇑*i*P	**Pg**	**18 23 18.2**	**-1.2**
BTK				⇑*i*S	**Sn**	**18 23 32.4**	**-0.8**
SFK	**Sufi-Kurgan**	**2.16**	**70**	⇑*i*P	**Pn**	**18 23 41.1**	**+0.3**
SFK				⇑*i*S	**Sg**	**18 24 11.9**	**-2.0**
TRKS	**Terek-Say**	**2.25**	**5**	⇑*i*P	**Pn**	**18 23 41.9**	**-0.1**
TRKS				⇑*i*S	**Sb**	**18 24 13.5**	**+0.2**
SALK	**Salom-Alik**	**2.77**	**54**	⇓*e*P	**Pn**	**18 23 50.0**	**+0.9**
SALK				⇓*i*S	**Sb**	**18 24 27.5**	**-0.7**
MNAS	**Manas**	**3.42**	**21**	⇑*e*P	**Pn**	**18 23 59.5**	**+1.3**
MNAS				⇑*e*S	**Sb**	**18 24 43.8**	**-3.3**
KK31	**Karatay Array**	**3.82**	**356**	P	**Pn**	**18 24 04.4**	**+0.9**
	1.9nm,0.5s,baz=179,slow=12,SNR=21						
KK31				S	**Sg**	**18 25 07.9**	**+0.7**
	1.6nm,0.3s,baz=181,slow=26,SNR=5.2						
UCH	**Uchtor**	**4.03**	**42**	⇓*e*P	**Pn**	**18 24 08.0**	**+1.2**
UCH				⇓*e*S	**Sn**	**18 24 58.6**	**+4.3**
AAK	**Ala-Archa**	**4.32**	**38**	⇑P	**Pn**	**18 24 13.5**	**+3.0**
	0.9nm,0.5s						
AAK				⇑S	**Sb**	**18 25 12.8**	**-0.3**
AB31	**Akbulak array**	**12.66**	**325**	⇑P	Pn	18 25 58.8	-5.8
	0.3nm,0.4s,baz=149,slow=12,SNR=11						

*NEIC **08** 18:54:33.5±2.1, 30°.56S±0°.07×178°.2W±0°.2, h35km±11km, mb4.3/16, Error ellipse: s-maj=23.1km s-min=9.1km az=100.0*

*IDC **08** 18:54:34.0±2.4, 30°.45S×178°.11W, h49km±20km, mb4.0/6, mbtmp4.3/6, MS3.2/3, Error ellipse: s-maj=27.6km s-min=17.5km az=125.0*

ISC 08 18:54:32.5±0.6, 30°.57S±0°.06×178°.3W±0°.1, h35km, n45, σ1§18/45, mb4.4/15, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.35**	**13**	P	**Pn**	**18 54 55.3**	**+0.4**
	611nm,0.2s,baz=221,slow=20,SNR=22						
RAO				S	**Sn**	**18 55 09.5**	**-2.0**
	2µm,0.3s,baz=180,slow=22,SNR=10						
RAO	**Raoul Island**	**1.35**	**13**		**Pn**	**18 54 55.4**	**+0.4**
RAO				Sn	**Sn**	**18 55 10.9**	**-0.6**
MXZ	**Matakaoa Point**	**7.53**	**201**	Pn	**Pn**	**18 56 18.7**	**-1.1**
URZ	**Urewera**	**8.57**	**205**	P	**Pn**	**18 56 32.4**	**-1.6**
	7.7nm,0.5s,baz=34,slow=16,SNR=6.7						
URZ				S	**Sn**	**18 58 08.6**	**-0.8**
	20nm,0.6s,baz=41,slow=22,SNR=12						
URZ				LR	LR	18 59 52.3	
	comp=Z,74nm,21.5s,baz=309,slow=36						
MSVF	**Nonsavu**	**13.21**	**344**	LR	LR	19 01 47.9	
	comp=Z,87nm,18.6s,baz=225,slow=33						
OXZ	**Oxford**	**14.89**	**209**	Pn	**Pn**	**18 57 59.9**	**-0.5**
OUENC	**Ouen Island, N**	**15.60**	**298**	Pn	**Pn**	**18 58 08.8**	**-1.0**
OUENC				IAmb	IAmb	18 58 29.0	
	comp=Z,32nm,1.2s						
CTAO	**Charters Tower**	**33.60**	**280**	P	**P**	**19 01 10.4**	**+0.7**
STKA	**Stephens Creek**	**34.21**	**257**	P	**P**	**19 01 17.7**	**+2.8**
	comp=Z,11nm,0.8s,baz=85,slow=9.0,SNR=21 comp=Z,11nm,0.8s						
STKA	**Stephens Creek**	**34.21**	**257**	P	**P**	**19 01 16.6**	**+1.7**
INKA	**Innaminka**	**35.77**	**264**	P	**P**	**19 01 29.4**	**+1.0**
INKA				IAmb	IAmb	19 01 47.6	
	comp=Z,3.5nm,1.4s						
BBOO	**Buckleboo**	**38.70**	**254**	P	**P**	**19 01 54.5**	**+1.4**
BBOO				IAmb	IAmb	19 01 56.5	
	comp=Z,5.8nm,0.6s						
AS31	**Alice Springs**	**42.87**	**267**	P	**P**	**19 02 27.1**	**-0.7**
ASAR	**Alice Springs**	**42.87**	**267**	P	**P**	**19 02 28.4**	**+0.7**
	comp=Z,1.6nm,0.6s,baz=105,slow=7.2,SNR=46						
ASAR				PcP	**PcP**	**19 04 16.6**	**-1.7**
	comp=Z,0.2nm,0.6s,baz=103,slow=4.0,SNR=1.5 comp=Z,1.6nm,0.6s						
ASAR	**Alice Springs**	**42.87**	**267**	P	**P**	**19 02 26.0**	**-1.7**
WR8	**Warramunga Arr**	**43.73**	**273**		**P**	**19 02 34.4**	**-0.3**
WR8				IAmb	IAmb	19 02 37.4	
	comp=Z,6.0nm,0.9s						
WRAB	**Tennant Creek**	**43.87**	**272**	P	**P**	**19 02 36.7**	**+1.0**
WRAB				IAmb	IAmb	19 02 38.4	
	comp=Z,3.6nm,0.8s						
WRA	**Warramunga Arr**	**43.87**	**272**	P	**P**	**19 02 36.6**	**+0.8**
	comp=Z,2.5nm,0.4s,baz=111,slow=8.1,SNR=63 comp=Z,2.5nm,0.4s						
WRA	**Warramunga Arr**	**43.87**	**272**		**P**	**19 02 36.4**	**+0.6**
WB0	**Warramunga Arr**	**43.90**	**273**		**P**	**19 02 36.9**	**+0.9**
WB0				IAmb	IAmb	19 02 38.7	
	comp=Z,5.3nm,0.8s						
VNDA	**Vanda**	**47.90**	**186**	P	**P**	**19 03 08.2**	**+1.4**
KNRA	**Kununurra**	**50.49**	**275**	P	**P**	**19 03 25.1**	**-2.3**
KNRA				IAmb	IAmb	19 03 32.5	
	comp=Z,6.5nm,1.

comp=N,161nm,1.0s
VMUR IAML 18 59 00.0
comp=E,157nm,0.8s
CLDR Caldiran 0.69 351 P **Pg** **18 58 46.0 -0.9**
CLDR S **Sg** **18 58 55.9 0.0**
CLDR IAML 18 58 58.0
comp=N,215nm,0.4s
CLDR IAML 18 59 01.0
comp=E,223nm,0.8s
CLDR Caldiran 0.69 351 Pg **Pg** **18 58 45.5 -1.4**
CLDR Sg **Sg** **18 58 56.2 +0.3**
CLDR AML AML
GEVA Gevas 0.80 260 P **Pg** **18 58 48.5 -0.5**
GEVA S **Sg** **18 59 00.1 +0.8**
GEVA IAML 18 59 01.0
comp=E,131nm,0.7s
GEVA IAML 18 59 03.0
comp=N,185nm,0.3s
AKDM Akdamar-Van 0.86 262 Pg **Pg** **18 58 49.3 -0.7**
AKDM Sg **Sb** **18 59 02.2 -0.7**
AKDM AML AML
HAKT HAKKARI 0.94 198 P **Pg** **18 58 50.8 -0.8**
HAKT S **Sn** **18 59 06.3 -1.2**
ISHB Shabestar 1.23 98 Pg **Pn** **18 58 57.4 -0.2**
CUKT Cukurca 1.26 197 Pn **Pg** **18 58 56.9 -0.8**
CUKT AML AML
PERV Siirt/Pervari- 1.30 247 P **Pg** **18 59 00.7 +2.2**
PERV S **Sn** **18 59 17.5 +1.3**
IMRD Marand 1.31 78 Pg **Pn** **18 58 57.5 -1.0**
IMRD Sg **Sn** **18 59 17.1 +0.6**
NAX Nakhchivan 1.33 57 P **Pn** **18 58 58.1 -0.6**
NAX S **Sg** **18 59 16.8 +0.7**
DORK Agr/Tutak/Do 1.36 313 P **Pn** **18 58 59.0 -0.3**
DORK S **Sb** **18 59 14.0 -3.4**
AGRB Hanur-Agry 1.39 324 Pn **Pn** **18 58 58.7 -1.0**
AGRB AML AML
HYR Heyderabad 1.40 26 Pn **Pg** **18 59 00.8 +0.5**
HYR Sn **Sg** **18 59 21.4 +2.8**
IGDI IGDIR 1.41 0 P **Pb** **18 59 00.9 +0.6**
IGDI S **Sb** **18 59 19.3 +0.8**
SBZ Shahbuz 1.49 51 Pn **Pb** **18 59 01.2 -0.5**
SBZ Sn **Sg** **18 59 22.4 +1.0**
KOTA Agri, Merkez-K 1.50 334 P **Pn** **18 59 01.0 -0.1**
TASB TASBURUN-IGDIR 1.53 5 Pn **Pn** **18 59 01.4 -0.1**
TASB AML AML
ORD Ordubad 1.58 72 Pn **Pb** **18 59 02.2 -1.0**
ORD Sn **Sg** **18 59 25.1 +0.7**
IAZR Azarshahr 1.70 117 Pn **Pg** **18 59 06.0 -0.1**
SRTM Siirt_Merkez 1.75 255 P **Pg** **18 59 06.9 -0.1**
SRTM S **Sg** **18 59 32.1 +2.4**
SRTM IAML 18 59 33.0
comp=E,43nm,0.8s
GNI Garni 1.77 17 Pn **Pn** **18 59 04.9 0.0**
GNI AML AML
SVAN Silvan-Diyarba 2.27 263 Pn **Pn** **18 59 11.5 -0.2**
IHRS Heris 2.34 92 Pn **Pb** **18 59 14.7 -1.6**
GDB GEDABAY 2.61 29 Pn **Pb** **18 59 21.4 +0.5**
GDB Sn **Sg** **18 59 57.4 +0.1**
GANJ Ganja 2.80 38 Pg **Pn** **18 59 20.8 +1.9**
GANJ Sg **Sg** **19 00 02.8 -0.6**
YRD Yardimli 3.30 81 Pg **Pn** **18 59 28.2 +2.3**
YRD Sg **Sb** **19 00 13.3 +0.2**

*NEIC **08** 19:18:49.8±0.6,37.59N±0.01×104.80W±0.03,h7km±5km, mb_Lg2.8/36,ML2.5/48,Error ellipse: s-maj=3.5km s-min=1.8km az=72.0*
*IDC **08** 19:18:58.3±3.4,37.23N×103.60W,h0km,mbtmp2.6/3, ML3.6/3,Error ellipse: s-maj=64.4km s-min=11.6km az=69.0.*
ISC 08 19:18:48.3±0.9,**37.52N**±0.05×**105.03W**±0.06,**h11**km,**n30,** σ1§**60**/22,**Colorado**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SDCO	**Great Sand Dun**	**0.43**	**301**	Pg	**Pn**	**19 19 01.1**	**+0.4**
SDCO				IAML		19 19 13.3	
	192nm,0.1s						
SDCO				IAML		19 19 15.1	
	317nm,0.1s						
T25A	**Trinidad**	**0.63**	**128**	Pg	**Pg**	**19 19 00.6**	**0.0**
T25A				Sg	**Sg**	**19 19 07.8**	**-1.1**
Q24A	**Divide**	**1.44**	**356**		**Pg**	**19 19 16.1**	**+0.1**
Q24A					**Sg**	**19 19 34.8**	**0.0**
RTBA	**Rita Blanca**	**2.13**	**120**	Pn	**Pn**	**19 19 25.3**	**+1.3**
RTBA				lAmb_Lg		19 19 56.7	
	comp=Z,32nm,0.8s						
KSCO	**Kaye Shedlock'**	**2.41**	**51**	Pn	**Pn**	**19 19 27.9**	**+0.1**
MVCO	**Mesa Verde**	**2.78**	**265**	Pn	**Pb**	**19 19 38.2**	**+0.1**
ANMO	**Albuquerque**	**2.82**	**205**	Pn	**Pb**	**19 19 38.1**	**-0.6**
ANMO	**Albuquerque**	**2.82**	**205**	Pn	**Pb**	**19 19 37.6**	**-1.1**
ANMO				IAML		19 20 23.6	
	comp=Z,5.6nm,0.6s						
ANMO				IAML		19 20 23.9	
	comp=Z,6.7nm,0.6s						
ANMO				lAmb_Lg		19 20 31.1	
	comp=Z,2.2nm,0.8s						
ANMO	**Albuquerque**	**2.82**	**205**	Pn	**Pb**	**19 19 37.5**	**-1.2**
ANMO				IAML		19 20 23.7	
	comp=Z,12nm,0.7s						
ANMO				IAML		19 20 24.2	
	comp=Z,8.8nm,0.7s						
TASM	**ASL Pad, Albuq**	**2.82**	**205**	Pn	**Pb**	**19 19 37.6**	**-1.2**
TASM				IAML		19 19 56.9	
	comp=Z,9.6nm,2.8s						
TASM				IAML		19 20 23.7	
	comp=Z,13nm,0.6s						
TASM	**ASL Pad, Albuq**	**2.82**	**205**	Pn	**Pb**	**19 19 38.2**	**-0.6**
TASM				IAML		19 20 23.7	
	comp=Z,13nm,0.7s						
TASM				IAML		19 20 24.4	
	comp=Z,13nm,0.4s						
ALQ	**Albuquerque**	**2.82**	**204**	Pn	**Pb**	**19 19 39.3**	**+0.5**
PV01	**Paradox Valley**	**2.87**	**283**	Pn	**Pb**	**19 19 39.0**	**-0.5**
PV01				IAML		19 20 36.4	
	comp=N,26nm,1.0s						
PV07	**Paradox Valley**	**3.00**	**289**	Pn	**Pb**	**19 19 40.5**	**-1.3**
HAYD	**Hayden**	**3.46**	**331**	Pn	**Pn**	**19 19 45.7**	**+3.4**
HAYD				IAML		19 20 43.6	
	comp=E,17nm,1.4s						
HAYD				IAML		19 20 47.6	
	comp=N,16nm,0.7s						
O20A	**White River Ci**	**3.62**	**317**	Pn	**Pn**	**19 19 48.1**	**+3.7**
O20A				IAML		19 20 49.9	
	comp=N,7.8nm,1.5s						
O20A				IAML		19 21 06.0	
	comp=N,9.3nm,1.4s						
AMTX	**Amarillo**	**3.78**	**133**	Pn	**Pn**	**19 19 48.4**	**+1.8**
AMTX				lAmb_Lg		19 20 46.3	
	comp=Z,16nm,0.7s						
MSTX	**Muleshoe**	**4.00**	**152**	Pn	**Pn**	**19 19 50.9**	**+1.3**
CBKS	**Cedar Bluff**	**4.37**	**71**	lAmb_Lg		19 21 00.6	
	comp=Z,24nm,0.8s						
SMWD	**Samnorwood**	**4.56**	**121**	lAmb_Lg		19 21 11.7	
	comp=Z,18nm,0.8s						
ELIS	**Ellis County**	**4.74**	**106**	lAmb_Lg		19 21 23.6	
	comp=Z,23nm,0.8s						
DKNS	**Dickens**	**5.10**	**138**	lAmb_Lg		19 21 41.5	
	comp=Z,13nm,0.8s						
POST	**Post**	**5.30**	**146**	lAmb_Lg		19 21 49.5	
	comp=Z,12nm,1.0s						
SN07	**Snyder 07**	**5.57**	**141**	lAmb_Lg		19 21 50.4	
	comp=Z,19nm,1.0s						
PDAR	**Pinedale Array**	**6.28**	**328**	Pn	**Pg**	**19 20 45.6**	**-2.9**
	comp=Z,0.3nm,0.3s,baz=143,slow=16,SNR=11						
PDAR				Sn	**Sg**	**19 22 09.3**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=122,slow=23,SNR=3.6						
PDAR				Lg	Lg	19 22 43.5	
	comp=Z,0.2nm,0.3s,baz=114,slow=34,SNR=3.3 comp=Z,0.3nm,0.5s						
PDAR				AML	AML		
MNHN	**Monahans**	**6.45**	**162**	lAmb_Lg		19 22 20.0	
	comp=Z,9.5nm,0.8s						
BRDY	**Brady**	**7.97**	**140**	lAmb_Lg		19 23 11.6	
	comp=Z,7.8nm,0.8s						
TXAR	**Lajitas Array**	**8.25**	**172**	Pn	Pn	19 20 57.1	+9.2
	comp=Z,0.1nm,0.3s,baz=1.2,slow=11,SNR=4.8						
TXAR				Pg	Pg	19 21 22.0	-4.2
	comp=Z,0.4nm,0.3s,baz=352,slow=15,SNR=11						
TXAR				Lg	Lg	19 23 06.8	
	comp=Z,0.3nm,0.3s,baz=1.3,slow=21,SNR=7.0 comp=Z,0.1nm,0.4s						
TXAR				AML	AML		
JCT	**Junction City**	**8.26**	**147**	lAmb_Lg		19 23 26.5	
	comp=Z,6.5nm,0.7s						
NVAR	**Mina Array Bea**	**10.52**	**279**	Pn	Pn	19 21 48.0	+29
	comp=Z,0.1nm,0.3s,baz=42,slow=11,SNR=1.6 comp=Z,0.1nm,0.3s						
NVAR				AML	AML		

*IDC **08** 19:32:22.4±0.9,6.75S×127.24E,h402km±11km,mb3.3/9, mbtmp4.1/16,Error ellipse: s-maj=13.3km s-min=8.6km az=82.0*
*DJA **08** 19:32:22.6±0.3,7.3S±2.1×127.7E±*,h408km±4km,M4.0/25, mB4.5/9,mb4.1/22,MLv4.5/25,Mw(mB)3.6/9*
*NEIC **08** 19:32:22.4±1.9,6.7S±0.1×127.1E±0.1,h410km±11km, mb4.2/22,Error ellipse: s-maj=16.7km s-min=15.2km az=48.0*
*GFZ **08** 19:32:22.3±0.2,7.3S±3.1×127.7E±*,h417km±3km,M4.0/25, mb4.2/25,Error ellipse: s-maj=6.3km s-min=4.9km az=160.4,confirmed*
ISC 08 19:32:21.8±0.4,**6.75S**±0.04×**127.21E**±0.05,**h400**km,**n111,** σ1§**44**/119,**mb4.1**/27,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AAI	**Ambon**	**3.20**	**18**	P	**Pn**	**19 33 27.7**	**+0.9**
BNDI	**Bandanaira**	**3.48**	**51**	P	**Pn**	**19 33 30.9**	**+1.8**
BNDI				AML	AML		
BNDI	**Bandanaira**	**3.48**	**51**	P	**Pn**	**19 33 30.9**	**+1.8**
NLAI	**Namlea**	**3.49**	**358**	P	**Pn**	**19 33 32.6**	**+3.4**
NLAI				S	**S**	**19 34 27.2**	**+3.4**
NLAI				AML	AML		
NLAI	**Namlea**	**3.49**	**358**	P	**Pn**	**19 33 32.1**	**+2.9**
SOEI	**Soe**	**4.17**	**224**		**Pn**	**19 33 37.6**	**+2.1**
SOEI	**Soe**	**4.17**	**224**	P	**Pn**	**19 33 37.7**	**+2.1**
SOEI				S	**S**	**19 34 36.7**	**+1.3**
SOEI				AML	AML		
SOEI	**Soe**	**4.17**	**224**	P	**Pn**	**19 33 37.3**	**+1.7**
SAUI	**Saumlaki**	**4.24**	**107**		**Pn**	**19 33 38.1**	**+1.9**
SAUI	**Saumlaki**	**4.24**	**107**	P	**Pn**	**19 33 37.8**	**+1.6**
SAUI				S	**S**	**19 34 36.5**	**0.0**
SAUI				AML	AML		
BBSI	**Bau Bau**	**4.78**	**285**	P	**Pn**	**19 33 44.7**	**+3.1**
BBSI				AML	AML		
BBSI	**Bau Bau**	**4.78**	**285**	P	**Pn**	**19 33 43.6**	**+2.0**
SANI	**Sanana**	**4.83**	**345**	P	**Pn**	**19 33 43.0**	**+0.9**
SANI	**Sanana**	**4.83**	**345**	P	**Pn**	**19 33 42.9**	**+0.9**
BATI	**Baumata**	**4.90**	**225**	P	**Pn**	**19 33 45.3**	**+2.5**
	767nm,0.5s,baz=113,slow=0.9,SNR=352						
BATI				S	**S**	**19 34 49.0**	**+0.3**
	268nm,0.7s,baz=128,slow=22,SNR=8.1						
BATI	**Baumata**	**4.90**	**225**	P	**Pn**	**19 33 45.0**	**+2.1**
BATI	**Baumata**	**4.90**	**225**	P	**Pn**	**19 33 44.8**	**+2.0**
MMRI	**Maumere**	**5.27**	**249**		**Pn**	**19 33 46.8**	**+0.2**
MMRI	**Maumere**	**5.27**	**249**	P	**Pn**	**19 33 48.2**	**+1.6**
	0.2nm898nm40nm,0.5s						
MMRI				AML	AML		
MMRI	**Maumere**	**5.27**	**249**	P	**Pn**	**19 33 47.8**	**+1.2**
	comp=Z,42nm,1.0s						
EDFI	**Ende, Flores**	**5.81**	**250**	P	**Pn**	**19 33 53.2**	**+0.7**
	comp=Z,0.1nmcomp=Z,550nmcomp=Z,25nm,0.4s						
EDFI				AML	AML		
EDFI	**Ende, Flores**	**5.81**	**250**	P	**Pn**	**19 33 53.0**	**+0.5**
	comp=Z,24nm,0.5s						
KKSI	**Kolaka, Sulawe**	**6.09**	**295**	P	**Pn**	**19 33 58.0**	**+2.5**
	comp=Z,0.2nmcomp=Z,48nm,0.7s						
KKSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**6.09**	**295**	P	**Pn**	**19 33 57.5**	**+2.1**
	comp=Z,27nm,0.7s						
FAKI	**Fak Fak**	**6.30**	**53**		**Pn**	**19 33 57.8**	**0.0**
FAKI	**Fak Fak**	**6.30**	**53**	P	**Pn**	**19 33 57.6**	**-0.2**
	comp=Z,0.4nmcomp=Z,1μmcomp=Z,71nm,0.7s						
FAKI				AML	AML		
FAKI	**Fak Fak**	**6.30**	**53**	P	**Pn**	**19 33 57.1**	**-0.7**
	comp=Z,69nm,0.7s						
BSSI	**Bau Bau, Buton**	**6.70**	**275**	P	**P**	**19 34 04.7**	**+1.9**
	comp=Z,0.2nmcomp=Z,622nmcomp=Z,67nm,0.7s						
BSSI				AML	AML		
BSSI	**Bau Bau, Buton**	**6.70**	**275**	P	**P**	**19 34 04.1**	**+1.3**
	comp=Z,67nm,0.8s						
SIJI	**Sorong**	**7.11**	**35**	P	**Pn**	**19 34 06.6**	**-0.2**
	comp=Z,12nm,0.3s,baz=202,slow=13,SNR=17						
SIJI				S	**S**	**19 35 30.9**	**-1.6**
	comp=Z,5.3nm,0.3s,baz=100,slow=23,SNR=6.3						
SIJI	**Sorong**	**7.11**	**35**	P	**Pn**	**19 34 06.2**	**-0.6**
	comp=Z,0.1nmcomp=Z,20nm,0.6s						
SIJI				AML	AML		
SIJI	**Sorong**	**7.11**	**35**	P	**Pn**	**19 34 05.8**	**-1.0**
	comp=Z,19nm,0.7s						
MTN	**Manton Dam**	**7.18**	**148**		**P**	**19 34 09.5**	**+1.4**
BKSI	**Bulukumba**	**7.19**	**281**	P	**P**	**19 34 09.6**	**+1.4**
	comp=Z,0.1nmcomp=Z,31nm,0.7s						
BKSI				AML	AML		
BKSI	**Bulukumba**	**7.19**	**281**	P	**P**	**19 34 09.0**	**+0.8**
	comp=Z,31nm,0.7s						
WSI	**Waingapu**	**7.43**	**247**	P	**Pn**	**19 34 10.2**	**-0.1**
	comp=Z,67nm,0.8s						
LBFI	**Labuhan Bajo,**	**7.45**	**256**	P	**Pn**	**19 34 09.5**	**-1.1**
KAPI	**Kappang**	**7.61**	**283**	P	**P**	**19 34 14.4**	**+1.4**
	comp=Z,12nm,0.6s,baz=97,slow=8.1,SNR=8.5						
KAPI	**Kappang**	**7.61**	**283**	P	**Pn**	**19 34 11.8**	**-0.7**
	comp=Z,19nm,0.7s						
GTOI	**Gorontalo**	**8.45**	**330**	P	**P**	**19 34 25.9**	**+3.7**
	comp=Z,20nm,1.2s						
DBNI	**Kabupaten Domp**	**8.99**	**258**	P	**Pn**	**19 34 27.4**	**-0.8**
	comp=Z,15nm,0.5s						
DBNI	**Kabupaten Domp**	**8.99**	**258**	P	**P**	**19 34 28.8**	**+0.6**
	comp=Z,8.0nm,0.9s						
KNRA	**Kununurra**	**9.00**	**170**		**P**	**19 34 30.1**	**+1.8**
PLAI	**Plampang**	**9.57**	**257**	P	**P**	**19 34 33.6**	**-1.0**
	comp=Z,13nm,1.0s						
PLAI	**Plampang**	**9.57**	**257**	P	**P**	**19 34 33.3**	**-1.3**
	comp=Z,19nm,0.6s						
TWSI	**Taliwang, Sumb**	**10.42**	**258**	P	**P**	**19 34 44.3**	**+0.2**
	comp=Z,16nm,1.2s						
FITZ	**Fitzroy Crossi**	**11.38**	**188**	P	**Pn**	**19 34 55.9**	**+0.1**
	comp=Z,1.3nm,0.3s,baz=24,slow=10,SNR=21						
FITZ	**Fitzroy Crossi**	**11.38**	**188**	P	**P**	**19 34 55.7**	**+1.1**
FITZ	**Fitzroy Crossi**	**11.38**	**188**	P	**Pn**	**19 34 55.9**	**+0.1**
	comp=Z,0.8nm,1.2s						
BKB	**Balikpapan**	**11.64**	**298**	P	**P**	**19 34 56.5**	**-1.1**
	comp=Z,84nm,1.2s						
JAGI	**Jajag, Banyuwa**	**13.05**	**262**	P	**P**	**19 35 13.2**	**+0.1**
JAGI	**Jajag, Banyuwa**	**13.05**	**262**	P	**P**	**19 35 13.6**	**+0.4**
	comp=Z,22nm,0.9s						
GENI	**Genyem**	**13.56**	**73**	P	**P**	**19 35 20.1**	**+1.4**
	comp=Z,31nm,0.5s						
JAY	**Jayapura**	**14.10**	**73**	P	**P**	**19 35 26.5**	**+1.9**
	comp=Z,9.6nm,0.3s,baz=234,slow=11,SNR=31						
JAY	**Jayapura**	**14.10**	**73**	P	**P**	**19 35 25.9**	**+1.3**
WB0	**Warramunga Arr**	**14.70**	**152**		**P**	**19 35 32.2**	**+1.1**
WRAB	**Tennant Creek**	**14.82**	**153**	P	**P**	**19 35 33.6**	**+1.2**
WRAB	**Tennant Creek**	**14.82**	**153**	P	**P**	**19 35 33.1**	**+0.7**
	comp=Z,4.0nm,1.6s						
WRA	**Warramunga Arr**	**14.83**	**153**	P	**P**	**19 35 31.5**	**-1.0**
	comp=Z,4.2nm,0.8s,baz=341,slow=10,SNR=97						
WRA				S	**S**	**19 38 07.3**	**-3.0**
	comp=Z,4.2nm,0.8s,baz=325,slow=19,SNR=7.4						
WRA	**Warramunga Arr**	**14.83**	**153**	P	**P**	**19 35 32.0**	**-0.4**
WR8	**Warramunga Arr**	**14.91**	**152**		**P**	**19 35 34.4**	**+1.0**
MBWA	**Marble Bar**	**16.05**	**206**		**P**	**19 35 46.7**	**+1.2**
MBWA				lAmb	lAmb	19 35 47.9	
	comp=Z,11nm,0.9s						
MBWA	**Marble Bar**	**16.05**	**206**	P	**P**	**19 35 45.8**	**+0.2**
	comp=Z,16nm,0.8s						
AS31	**Alice Springs**	**18.01**	**160**		**P**	**19 36 07.7**	**+1.3**
ASAR	**Alice Springs**	**18.01**	**160**	P	**P**	**19 36 08.0**	**+1.5**
	comp=Z,0.9nm,0.4s,baz=350,slow=12,SNR=55						
ASAR				S	**S**	**19 39 12.6**	**+0.2**
	comp=Z,1.9nm,0.5s,baz=343,slow=24,SNR=10						
ASAR				ScP	**ScP**	**19 43 16.1**	**-1.1**
	comp=Z,0.8nm,0.7s,baz=2.2,slow=2.6,SNR=4.2						
ASAR	**Alice Springs**	**18.01**	**160**	P	**P**	**19 36 06.8**	**+0.3**
KPJI	**Karang Pucung**	**18.15**	**267**	P	**P**	**19 36 08.5**	**+0.5**
	comp=Z,20nm,0.6s						
QIS	**Mount Isa**	**18.24**	**140**	P	**P**	**19 36 09.6**	**+0.6**
	comp=Z,17nm,0.5s						
CMJI	**Cimerak**	**18.64**	**266**	P	**P**	**19 36 12.9**	**-0.3**
	comp=Z,80nm,0.9s						
BBJI	**Bungbulang**	**19.42**	**267**	P	**P**	**19 36 20.3**	**-0.8**
	comp=Z,27nm,1.0s						
LEM	**Lembang**	**19.45**	**269**	P	**P**	**19 36 22.5**	**+1.0**
	comp=Z,19nm,0.8s,baz=28,slow=9.1,SNR=5.5						
LEM	**Lembang**	**19.45**	**269**	P	**P**	**19 36 20.5**	**-1.0**
	comp=Z,24nm,0.7s						
PMG	**Port Moresby**	**19.93**	**99**	P	**P**	**19 36 24.9**	**-0.8**
PMG				lAmb	lAmb	19 36 37.4	
	comp=Z,19nm,1.1s						
MTSU	**Mount Surprise**	**20.15**	**126**	P	**P**	**19 36 28.6**	**+0.8**
	comp=Z,5.0nm,1.5s						
CGJI	**Cibinong**	**21.37**	**269**	P	**P**	**19 36 37.7**	**-1.1**
	comp=Z,25nm,0.8s						
MEEK	**Meekatharra**	**21.40**	**202**	P	**P**	**19 36 38.5**	**-0.6**
	comp=Z,18nm,0.8s						
FORT	**Forrest**	**23.91**	**178**	P	**P**	**19 37 00.5**	**-1.2**
FORT				lAmb	lAmb	19 37 17.8	
	comp=Z,7.2nm,1.1s						
MORW	**Morawa**	**24.57**	**204**	P	**P**	**19 37 07.6**	**-0.1**
MORW	**Morawa**	**24.57**	**204**	P	**P**	**19 37 08.0**	**+0.3**
	comp=Z,14nm,1.8s						
BLDU	**Ballidu**	**25.70**	**201**	P	**P**	**19 37 17.2**	**-0.4**
	comp=Z,15nm,1.8s						
KLBR	**Kellerberrin**	**26.24**	**198**	P	**P**	**19 37 22.9**	**+0.4**
	comp=Z,15nm,0.8s						
SDSI	**Sungai Dareh**	**26.35**	**282**	P	**P**	**19 37 22.8**	**-0.8**
	comp=Z,9.3nm,0.9s						
BBOO	**Buckleboo**	**27.20**	**164**	P	**P**	**19 37 29.4**	**-1.5**
NWAO	**Narrogin (SRO)**	**27.64**	**198**	P	**P**	**19 37 33.0**	**-1.9**
NWAO				lAmb	lAmb	19 37 45.2	
	comp=Z,11nm,1.1s						
STKA	**Stephens Creek**	**28.38**	**154**	P	**P**	**19 37 42.3**	**+1.0**
	comp=Z,2.1nm,0.5s,baz=334,slow=8.6,SNR=8.3 comp=Z,2.1nm,0.5s						
STKA	**Stephens Creek**	**28.38**	**154**	P	**P**	**19 37 40.6**	**-0.7**
STKA				lAmb	lAmb	19 37 42.8	
	comp=Z,7.9nm,0.4s						
KULM	**Kulim**	**29.08**	**294**	P	**P**	**19 37 45.9**	**-1.8**
KULM				lAmb	lAmb	19 37 58.7	
	comp=Z,11nm,1.1s						
RPSI	**Rantau Prapat**	**29.75**	**287**	P	**P**	**19 37 52.9**	**-0.8**
	comp=Z,8.1nm,1.0s						
TPUB	**Ta-pu**	**30.55**	**348**	P	**P**	**19 37 57.1**	**-3.3**
TPUB				lAmb	lAmb	19 38 14.5	
	comp=Z,13nm,0.9s						
GSI	**Gunungsitoli**	**30.64**	**284**	P	**P**	**19 37 59.3**	**-2.0**
GSI				lAmb	lAmb	19 38 02.9	
	comp=Z,13nm,0.9s						
ARMA	**Armidale**	**32.86**	**139**	P	**P**	**19 38 20.6**	**+0.2**
ARMA				lAmb	lAmb	19 38 38.5	
	comp=Z,13nm,1.1s						
CMAR	**Chiang Mai Arr**	**37.48**	**312**	P	**P**	**19 38 59.3**	**-0.1**
	comp=Z,0.3nm,0.5s,baz=127,slow=8.6,SNR=4.4 comp=Z,0.3nm,0.5s						
KOUNC	**Koumac, New Ca**	**38.44**	**115**	P	**P**	**19 39 08.8**	**+1.6**
JMN	**Monobe**	**40.75**	**9**	P	**P**	**19 39 24.8**	**-1.2**
JMN				lAmb	lAmb	19 39 31.1	
	comp=Z,14nm,1.0s						
JTU	**Tsushima**	**41.11**	**3**	P	**P**	**19 39 26.1**	**-2.6**
	comp=Z,176nm,2.5s						
OUENC	**Ouen Island, N**	**41.23**	**116**	P	**P**	**19 39 30.1**	**+0.1**
OUENC				lAmb	lAmb	19 39 34.5	
	comp=Z,12nm,0.8s						
KSRS	**Korea Array**	**43.98**	**1**	P	**P**	**19 39 51.8**	**+0.4**
	comp=Z,0.8nm,0.4s,baz=177,slow=9.2,SNR=3.5 comp=Z,2.8nm,0.4s						
MJAR	**Matsushiro Arr**	**44.29**	**13**	P	**P**	**19 39 53.5**	**-0.4**
	comp=Z,2.3nm,0.5s,baz=186,slow=8.3,SNR=12 comp=Z,2.3nm,0.5s						
MJAR	**Matsushiro Arr**	**44.29**	**13**	P	**P**	**19 39 51.0**	**-2.9**
MJB9	**Matsu-Tunnel**	**44.29**	**13**	P	**P**	**19 39 51.6**	**-2.3**
MJB9				lAmb	lAmb	19 40 04.4	
	comp=Z,9.9nm,1.2s						
JTM	**Tenmabayashi**	**48.99**	**14**	P	**P**	**19 40 27.9**	**-1.9**
HHC	**Hu-ho-hao-te**	**49.51**	**344**	*eP*	**P**	**19 40 34.9**	**+1.1**
HHC				pmax	pmax		
	comp=Z,16nm,0.7s						
HHC				pmax	pmax		
	comp=Z,95nm,4.7s						
USRK	**Ussuriysk Ar.**	**50.90**	**4**	P	**P**	**19 40 44.3**	**+0.4**
	comp=Z,2.5nm,0.5s,baz=181,slow=8.7,SNR=4.5 comp=Z,2.5nm,0.5s						
JKA	**Kamikawa-asahi**	**52.51**	**14**	P	**P**	**19 40 54.6**	**-1.0**
PEA0B	**Petropavlovsk-**	**64.99**	**20**	P	**P**	**19 42 20.9**	**+0.6**
PETK	**Petropavlovsk-**	**64.99**	**20**	P	**P**	**19 42 21.7**	**+1.3**
	comp=Z,3.1nm,0.7s,baz=175,slow=4.6,SNR=7.4 comp=Z,3.1nm,0.7s						
MKAR	**Makanchi Array**	**66.53**	**328**	P	**P**	**19 42 30.9**	**+0.7**
	comp=Z,0.4nm,0.4s,baz=121,slow=7.4,SNR=9.5 comp=Z,0.4nm,0.4s						
MKAR	**Makanchi Array**	**66.53**	**328**	P	**P**	**19 42 29.8**	**-0.4**
ZALV	**Zalesovo Beam**	**70.16**	**335**	P	**P**	**19 42 52.6**	**+0.4**
	comp=Z,0.5nm,0.4s,baz=132,slow=6.2,SNR=2.3 comp=Z,0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**70.87**	**330**	P	**P**	**19 42 56.6**	**+0.1**
	comp=Z,0.6nm,0.4s,baz=131,slow=5.2,SNR=13 comp=Z,0.6nm,0.4s						
KURK	**Kurchatov**	**70.89**	**330**	P	**P**	**19 42 56.3**	**-0.3**

*JMA **08** 19:56:25.6±0.1,43.0N±0.4×144.8E±0.4,h59km±1km, MV2.6/38,OFF NEMURO PENINSULA*
*SKHL **08** 19:56:26.3±0.4,42.90N×144.90E,h54km±3km,mb4.1/3*
ISC 08 19:56:25.6±1.7,**42.98N**±0.07×**144.81E**±0.04,**h58**km±9km, **n15,** σ0§**67**/26,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AKK	**Akkeshi**	**0.04**	**29**	*eP*	**Pn**	**19 56 34.4**	**+0.2**
AKK				*eS*	**Sn**	**19 56 40.2**	**-0.2**
JAK	**Akkeshi**	**0.09**	**282**	P	**Pn**	**19 56 34.5**	**+0.2**
JAK				S	**Sn**	**19 56 41.0**	**+0.4**
JKHN	**Kushirohamanak**	**0.28**	**68**	*i* P	**Pn**	**19 56 35.6**	**+0.4**
JKHN				*eS*	**Sn**	**19 56 42.6**	**+0.4**
JNK	**Nakash**	**0.61**	**354**	P	**Pn**	**19 56 38.1**	**-0.5**
JNK				*eS*	**Sn**	**19 56 47.2**	**-1.0**
JOB	**Onbets**	**0.72**	**264**	P	**Pn**	**19 56 40.1**	**+0.2**
JOB				S	**Sn**	**19 56 50.7**	**+0.2**
NMR	**Nemuro--Hokkai**	**0.78**	**59**	*eP*	**Pn**	**19 56 39.9**	**-0.7**
NMR				*eS*	**Sn**	**19 56 50.4**	**-1.2**
NEM2	**Nemuro 2**	**0.78**	**60**	P	**

CHIV	**Chivirico**	**1.86**	**6**	*eP*	**Pn**	**20 00 07.0**	**-0.5**
CHIV				*eS*	**Sn**	**20 00 29.2**	**-1.3**
CHIV				IAML		20 00 32.3	
	comp=E,122nm,1.1s						
CHIV				IAML		20 00 33.1	
	comp=N,149nm,0.9s						
LMGC	**Las Mercedes**	**1.98**	**349**	*eP*	**Pn**	**20 00 08.8**	**-0.2**
LMGC				*eS*	**Sn**	**20 00 30.5**	**-2.9**
LMGC				IAML		20 00 33.7	
	comp=E,226nm,0.0s						
LMGC				IAML		20 00 34.1	
	comp=N,386nm,0.1s						
MARVS	**Santiago de Cu**	**1.99**	**20**	*eP*	**Pn**	**20 00 09.8**	**+0.5**
MARVS				*eS*	**Sn**	**20 00 33.5**	**-0.3**
MARVS				*eSg*	**Sb**	**20 00 35.2**	**-1.6**
MARVS				IAML		20 00 35.6	
	comp=N,274nm,0.4s						
MARVS				IAML		20 00 37.1	
	comp=E,274nm,0.2s						
GTBY	**Guantanamo Bay**	**2.30**	**38**	*iP*	**Pn**	**20 00 14.3**	**+0.8**
GTBY	**Guantanamo Bay**	**2.30**	**38**	*eP*	**Pn**	**20 00 14.3**	**+0.8**
GTBY				*eS*	**Sn**	**20 00 41.9**	**+0.7**
GTBY				IAML		20 00 46.4	
	comp=E,120nm,0.1s						
GTBY				IAML		20 00 46.9	
	comp=E,127nm,0.3s						
PINC	**Pinares de May**	**2.48**	**18**	*eP*	**Pn**	**20 00 16.1**	**0.0**
PINC				*eS*	**Sn**	**20 00 44.3**	**-1.6**
PINC				IAML		20 00 48.5	
	comp=E,114nm,0.0s						
PINC				IAML		20 00 48.7	
	comp=N,92nm,0.1s						
SABCS	**La Quijada**	**2.55**	**29**	*eP*	**Pn**	**20 00 18.1**	**+1.1**
SABCS				*eS*	**Sn**	**20 00 47.6**	**0.0**
SABCS				IAML		20 00 49.8	
	comp=E,6µm,0.3s						
SABCS				IAML		20 00 50.2	
	comp=N,2µm,0.2s						
QMBU	**Quimbuelo**	**2.68**	**39**	*eP*	**Pn**	**20 00 19.2**	**+0.4**
QMBU				*eS*	**Sn**	**20 00 49.6**	**-1.3**
HLGC	**Holguin**	**2.81**	**11**	*eP*	**Pn**	**20 00 21.9**	**+1.3**
HLGC				*eS*	**Sn**	**20 00 56.0**	**+2.0**
HLGC				IAML		20 00 59.4	
	comp=N,134nm,0.8s						
NMDO	**Nuevo Mundo**	**2.88**	**32**	*eP*	**Pn**	**20 00 21.8**	**+0.3**
NMDO				*eS*	**Sn**	**20 00 54.6**	**-1.1**
NMDO				IAML		20 00 58.0	
	comp=E,62nm,0.0s						
NMDO				IAML		20 01 04.3	
	comp=N,62nm,0.4s						
MOAC	**Moa**	**2.98**	**31**	*eP*	**Pn**	**20 00 23.8**	**+0.9**
MOAC				*eS*	**Sn**	**20 00 59.5**	**+1.5**
MOAC				IAML		20 01 04.9	
	comp=E,177nm,0.5s						
MOAC				IAML		20 01 05.1	
	comp=N,155nm,0.6s						
CCCC	**Cccc**	**3.26**	**341**	*eP*	**Pn**	**20 00 26.6**	**-0.1**
CCCC				*eS*	**Sn**	**20 01 05.3**	**+0.4**
CCCC				IAML		20 01 08.0	
	comp=N,37nm,0.4s						
CCCC				IAML		20 01 11.1	
	comp=E,41nm,0.7s						
CBCY	**The Bluff, Cay**	**3.39**	**299**	*eP*	**Pn**	**20 00 28.7**	**+0.2**
CBCY				*eS*	**Sn**	**20 01 05.3**	**-2.8**
CBCY				IAML		20 01 06.8	
	comp=E,123nm,0.4s						
CBCY				IAML		20 01 10.9	
	comp=N,96nm,0.8s						
LCCY	**Blossom Villag**	**3.63**	**296**	*eP*	**Pn**	**20 00 31.8**	**-0.1**
LCCY				*eS*	**Sn**	**20 01 12.9**	**-1.2**
LCCY				IAML		20 01 16.5	
	comp=N,120nm,0.4s						
LCCY				IAML		20 01 17.5	
	comp=E,101nm,0.3s						
CAIB	**Caibarien**	**5.12**	**329**	*eP*	**Pn**	**20 00 55.0**	**+2.7**
CAIB				*eS*	**Sn**	**20 01 54.6**	**+3.8**
CAIB				IAML		20 01 58.6	
	comp=N,30nm,0.5s						
CAIB				IAML		20 01 59.9	
	comp=E,19nm,0.6s						

*MDD **08** 20:16:18.9±0.5,36°.74N×3°.18W,h0km,mb_Lg2.7/16, Error ellipse: s-maj=4.5km s-min=1.9km az=167.0*
*SFS **08** 20:16:18.1,36°.69N×3°.19W,h0km,ML3.1/18,ML3.1/18, MLv3.0/18*
*INMG **08** 20:16:21.1±1.3,36°.81N×3°.26W,h6km±3km,ML2.2, Error ellipse: s-maj=4.2km s-min=2.4km az=135.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SE Granada (ESP)*
*CNRM **08** 20:16:23.3,36°.54N×3°.51W,h31km,ML1.8*

ISC 08 20:16:17.5±0.9,36°.66N±0°.02×3°.17W±0°.02,h12km±8km, n64,σ1§49/120,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EBER	**Berja**	**0.33**	**43**	P	**Pg**	**20 16 24.6**	**+0.4**
EBER				S	**Sg**	**20 16 29.0**	**+0.3**
EBER	**Berja**	**0.33**	**43**	Pg	**Pg**	**20 16 24.6**	**+0.4**
EBER				Sg	**Sg**	**20 16 28.4**	**-0.3**
EBER				IVmb_Lg		20 16 29.7	
ELGU	**Los Guajares,**	**0.43**	**300**	P	**Pg**	**20 16 26.7**	**+0.8**
ELGU				S	**Sg**	**20 16 31.7**	**0.0**
ELGU	**Los Guajares,**	**0.43**	**300**	Pg	**Pg**	**20 16 26.7**	**+0.8**
ELGU				Sg	**Sg**	**20 16 31.9**	**+0.2**
EQUE	**Quentar**	**0.59**	**338**	Pg	**Pg**	**20 16 28.0**	**-1.0**
EQUE				Sg	**Sg**	**20 16 33.2**	**-3.6**
EQUE				IVmb_Lg		20 16 33.3	
EQTA	**Presa de Quent**	**0.59**	**338**	P	**Pg**	**20 16 27.9**	**-1.2**
EQTA				S	**Sg**	**20 16 32.8**	**-4.1**
ENIJ	**Nijar**	**0.83**	**67**	P	**Pb**	**20 16 33.8**	**-0.1**
ENIJ				S	**Sg**	**20 16 43.6**	**-0.8**
ENIJ	**Nijar**	**0.83**	**67**	Pg	**Pb**	**20 16 33.9**	**0.0**
ENIJ				Sg	**Sg**	**20 16 44.8**	**+0.4**
ENIJ				IVmb_Lg		20 16 48.4	
EGOR	**Sierra Gorda,**	**0.88**	**301**	P	**Pg**	**20 16 34.2**	**-0.4**
EGOR	**Sierra Gorda,**	**0.88**	**301**	Pg	**Pg**	**20 16 34.3**	**-0.2**
EGOR				Sg	**Sg**	**20 16 45.9**	**-0.2**
EGOR				IVmb_Lg		20 16 53.0	
EMAL	**Malaga-Limoner**	**1.02**	**276**	P	**Pg**	**20 16 37.1**	**0.0**
EMAL				S	**Sg**	**20 16 50.4**	**0.0**
EQES	**Quesada**	**1.15**	**4**	Pg	**Pg**	**20 16 38.4**	**-1.2**
EQES				Sg	**Sg**	**20 16 53.1**	**-1.4**
EQES				IVmb_Lg		20 16 57.2	
EMIJ	**Mijas**	**1.30**	**266**	P	**Pn**	**20 16 40.0**	**-1.5**
EMIJ				S	**Sb**	**20 16 55.8**	**-2.7**
EMIJ	**Mijas**	**1.30**	**266**	Pg	**Pn**	**20 16 40.3**	**-1.2**
EMIJ				Sg	**Sg**	**20 16 59.3**	**0.0**
EMIJ				IVmb_Lg		20 17 01.2	
EMLI	**Melilla**	**1.36**	**173**	S	**Sg**	**20 17 03.3**	**+1.9**
E0802	**Ubeda,Jaen**	**1.38**	**353**	Pg	**Pn**	**20 16 43.6**	**+0.9**
E0802				Sg	**Sb**	**20 16 59.8**	**-1.1**
PALE	**Palemas**	**1.57**	**204**	P	**Pb**	**20 16 46.6**	**+0.1**
PALE				S	**Sn**	**20 17 03.3**	**-2.2**
EZAR	**Zarzadilla de**	**1.69**	**44**	Pn	**Pn**	**20 16 47.4**	**+0.4**
EZAR				Sn	**Sn**	**20 17 09.8**	**+1.1**
TAF	**Taforalt**	**1.94**	**161**	P	**Pg**	**20 16 54.5**	**-0.2**
TAF				S	**Sg**	**20 17 18.7**	**-1.1**
EMUR	**La Murta**	**1.94**	**52**	Pn	**Pn**	**20 16 50.8**	**+0.5**
EMUR				Pg	**Pb**	**20 16 53.0**	**+0.2**
EMUR				Sn	**Sn**	**20 17 14.3**	**-0.4**
ECEU	**Ceuta**	**1.94**	**248**	P	**Pn**	**20 16 51.1**	**+0.8**
ECEU				S	**Sn**	**20 17 13.0**	**-1.7**
CART	**Cartagena**	**1.96**	**61**	P	**Pn**	**20 16 50.7**	**+0.1**
CART				S	**Sn**	**20 17 12.8**	**-2.4**
SMIR	**Smir Dam**	**2.04**	**242**	P	**Pn**	**20 16 51.8**	**+0.1**
SMIR				S	**Sn**	**20 17 14.4**	**-2.6**
ESPR	**Espera**	**2.17**	**276**	P	**Pn**	**20 16 52.4**	**-1.1**
ESPR				S	**Sn**	**20 17 22.4**	**+2.1**
AKLM	**AKL**	**2.22**	**195**	P	**Pn**	**20 16 55.4**	**+1.2**
AKLM				S	**Sn**	**20 17 20.7**	**-0.9**
ECAB	**El Cabril**	**2.29**	**309**	P	**Pn**	**20 16 55.2**	**+0.1**
ECAB				S	**Sn**	**20 17 23.5**	**+0.2**
ECAB	**El Cabril**	**2.29**	**309**	Pn	**Pn**	**20 16 55.4**	**+0.3**
ECAB				Sn	**Sn**	**20 17 24.0**	**+0.8**
ETOB	**Tobarra**	**2.36**	**32**	P	**Pn**	**20 16 57.8**	**+1.6**
ETOB				S	**Sn**	**20 17 26.9**	**+1.7**
ETOB	**Tobarra**	**2.36**	**32**	Pn	**Pn**	**20 16 56.6**	**+0.4**
ETOB				Sn	**Sn**	**20 17 25.7**	**+0.5**
ETOB				IVmb_Lg		20 17 38.4	
JBK	**JBK**	**2.37**	**168**	P	**Pb**	**20 16 59.3**	**-0.9**
JBK				S	**Sb**	**20 17 27.9**	**-1.6**
EMIN	**Mina Concepcio**	**3.01**	**293**	P	**Pn**	**20 17 05.7**	**+0.6**
EMIN				S	**Sn**	**20 17 39.7**	**-1.4**
EMIN	**Mina Concepcio**	**3.01**	**293**	Pn	**Pn**	**20 17 05.9**	**+0.9**
EMIN				Sn	**Sn**	**20 17 39.9**	**-1.2**
ECHE	**Chera**	**3.40**	**30**	P	**Pn**	**20 17 12.1**	**+1.6**
PBAR	**Barrancos**	**3.44**	**297**	P	**Pn**	**20 17 10.3**	**-0.6**
PBAR				S	**Sn**	**20 17 49.9**	**-1.7**
PBAR	**Barrancos**	**3.44**	**297**	*ePn*	**Pn**	**20 17 12.2**	**+1.3**
PBAR				*eSn*	**Sn**	**20 17 50.3**	**-1.2**
PBAR				IAML		20 18 13.8	
PBAR				IAML		20 18 19.6	
PBAR				IAML		20 18 20.0	
CIBOR	**Castaar de Ib**	**3.47**	**330**	Pn	**Pn**	**20 17 11.8**	**+0.4**
CIBOR				Sn	**Sn**	**20 17 51.7**	**-0.7**
EGRO	**El Granado**	**3.56**	**286**	P	**Pn**	**20 17 13.3**	**+0.7**
EGRO				S	**Sn**	**20 17 53.4**	**-1.2**
EBAD	**Badajoz**	**3.70**	**306**	P	**Pn**	**20 17 14.5**	**0.0**
EBAD				S	**Sn**	**20 17 56.3**	**-1.8**
EBAD	**Badajoz**	**3.70**	**306**	Pn	**Pn**	**20 17 14.8**	**+0.2**
EBAD				Sn	**Sn**	**20 17 56.6**	**-1.5**
EBAD				IVmb_Lg		20 18 04.6	
PVAQ	**Vaqueiros**	**3.72**	**283**	P	**Pn**	**20 17 15.6**	**+0.9**
PVAQ				S	**Sn**	**20 17 55.4**	**-3.1**
PVAQ	**Vaqueiros**	**3.72**	**283**	*ePn*	**Pn**	**20 17 16.2**	**+1.5**
PVAQ				*eSn*	**Sn**	**20 17 58.1**	**-0.4**
PVAQ				IAML		20 18 21.1	
PVAQ				IAML		20 18 30.9	
PVAQ				IAML		20 18 32.0	
PBDV	**Barranco-do-Ve**	**3.86**	**280**	P	**Pn**	**20 17 17.6**	**+0.8**
PBDV				S	**Sn**	**20 18 00.3**	**-1.9**
PBDV	**Barranco-do-Ve**	**3.86**	**280**	*ePn*	**Pn**	**20 17 19.2**	**+2.4**
PBDV				*eSn*	**Sn**	**20 18 01.8**	**-0.3**
MD31	**MD31**	**4.00**	**200**	P	**Pn**	**20 17 19.9**	**+1.1**
MD31				S	**Sn**	**20 18 04.9**	**-0.8**
PCVE	**Castro Verde**	**4.01**	**285**	P	**Pn**	**20 17 19.5**	**+0.7**
PCVE				S	**Sn**	**20 18 05.2**	**-0.6**
PCVE	**Castro Verde**	**4.01**	**285**	*ePn*	**Pn**	**20 17 20.7**	**+1.9**
PCVE				*eSn*	**Sn**	**20 18 04.3**	**-1.5**
PESTR	**Estremoz**	**4.14**	**304**	P	**Pn**	**20 17 21.2**	**+0.6**
PESTR				S	**Sn**	**20 18 08.3**	**-0.7**
PESTR	**Estremoz**	**4.14**	**304**	P	**Pn**	**20 17 21.9**	**+1.3**
PESTR				S	**Sn**	**20 18 08.9**	**-0.1**
PESTR	**Estremoz**	**4.14**	**304**	*ePn*	**Pn**	**20 17 21.9**	**+1.3**
PESTR				*eSn*	**Sn**	**20 18 09.1**	**0.0**
PESTR				*eSg*	**Sb**	**20 18 25.5**	**+5.1**
PESTR				IAML		20 18 34.7	
PESTR				IAML		20 18 34.9	
PESTR				IAML		20 18 37.7	
MESJ	**Messejana**	**4.20**	**288**	*ePn*	**Pn**	**20 17 22.8**	**+1.3**
ETOR	**Torete**	**4.25**	**11**	Pn	**Pn**	**20 17 22.4**	**+0.3**
ETOR				Sn	**Sn**	**20 18 10.4**	**-1.3**
ETOR				IVmb_Lg		20 18 34.5	
EVO	**Evora**	**4.28**	**297**	*ePn*	**Pn**	**20 17 24.1**	**+1.6**
EVO				*eSn*	**Sn**	**20 18 11.1**	**-1.3**
EVO				IAML		20 18 39.4	
EVO				IAML		20 18 39.4	
EVO				IAML		20 18 39.5	
EIBI	**Ibiza**	**4.28**	**55**	P	**Pn**	**20 17 22.2**	**-0.3**
ZHG	**ZHG**	**4.29**	**223**	P	**Pn**	**20 17 24.6**	**+1.9**
ZHG				S	**Sn**	**20 18 12.5**	**-0.3**
PMRV	**Marv??o**	**4.33**	**311**	*ePn*	**Pn**	**20 17 24.9**	**+1.7**
PMRV				*eSn*	**Sn**	**20 18 12.2**	**-1.6**
PMRV				*eSg*	**Sb**	**20 18 31.1**	**+5.1**
PMRV				IAML		20 18 44.4	
PMRV				IAML		20 18 44.5	
PMRV				IAML		20 18 45.3	
PLOUS	**Minas do Lousa**	**4.41**	**290**	*ePn*	**Pn**	**20 17 25.6**	**+1.4**
PLOUS				*eSn*	**Sn**	**20 18 13.7**	**-1.8**
PLOUS				IAML		20 18 17.3	
PLOUS				IAML		20 18 45.5	
PLOUS				IAML		20 18 51.9	
MORF	**Marmelete**	**4.44**	**280**	*ePn*	**Pn**	**20 17 27.2**	**+2.5**
PFVI	**Vila Bisbo**	**4.56**	**278**	P	**Pn**	**20 17 28.3**	**+1.9**
PFVI	**Vila Bisbo**	**4.56**	**278**	*ePn*	**Pn**	**20 17 28.8**	**+2.5**
PFVI				*eSn*	**Sn**	**20 18 20.5**	**+1.2**
PCBR	**Castelo Branco**	**4.65**	**314**	*ePn*	**Pn**	**20 17 29.0**	**+1.4**
PMTG	**Montargil**	**4.67**	**303**	*ePn*	**Pn**	**20 17 28.7**	**+0.8**
PSARD	**Sardoal**	**4.91**	**308**	*ePn*	**Pn**	**20 17 32.5**	**+1.3**
PSARD				*eSn*	**Sn**	**20 18 26.1**	**-2.0**
PSARD				IAML		20 18 57.8	
PSARD				IAML		20 19 07.0	
PSARD				IAML		20 19 07.7	
PSBE	**So Bento**	**5.28**	**304**	*ePn*	**Pn**	**20 17 37.6**	**+1.3**
PMAFR	**Mafra**	**5.36**	**297**	*ePn*	**Pn**	**20 17 39.1**	**+1.7**

*JSN **08** 20:16:41.0±0.3, 18°.05N×76°.55W,h6km±6km,MD2.9, Confirmed Earthquake*
*SSNC **08** 20:16:42.3±1.9, 18°.10N×76°.60W,h5km±8km,MD3.1, ML2.5,Presumed earthquake*

ISC 08 20:16:41.2±1.3,18°.16N±0°.09×76°.62W±0°.04,h16km±11km, n16,σ1§21/30,2D,Jamaica region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOJ	**Hope**	**0.19**	**218**	*i* P	**Pg**	**20 16 44.9**	**-0.9**
PCJ	**Portland Cotta**	**0.65**	**231**	*i*P	**Pg**	**20 16 52.9**	**-1.1**
CVJ	**Coleyville**	**0.87**	**275**	*i* P	**Pg**	**20 16 58.1**	**0.0**
CVJ				*i* S	**Sg**	**20 17 10.9**	**+1.3**
MTDJ	**Mount Denham**	**0.87**	**275**	*eP*	**Pg**	**20 16 58.1**	**0.0**
MTDJ				*eS*	**Sg**	**20 17 11.0**	**+1.4**
MTDJ				IAML		20 17 14.1	
	200nm,0.2s						
MTDJ				*eSg*	**Sn**	**20 17 14.7**	**+3.3**
MTDJ				IAML		20 17 15.7	
	comp=Z,203nm,0.1s						
CHIV	**Chivirico**	**1.82**	**6**	*eP*	**Pn**	**20 17 11.5**	**-0.5**
CHIV				*eS*	**Sn**	**20 17 33.9**	**-0.8**
CHIV				IAML		20 17 36.4	
	comp=E,23nm,0.1s						
CHIV				IAML		20 17 36.4	
	comp=N,20nm,0.1s						
LMGC	**Las Mercedes**	**1.93**	**349**	*eP*	**Pn**	**20 17 12.8**	**-0.7**
LMGC				*eS*	**Sn**	**20 17 35.8**	**-1.7**
LMGC				IAML		20 17 38.3	
	comp=N,128nm,0.1s						
LMGC				IAML		20 17 38.4	
	comp=E,101nm,0.1s						
MARVS	**Santiago de Cu**	**1.96**	**20**	*eP*	**Pn**	**20 17 14.0**	**+0.1**
MARVS				*eS*	**Sn**	**20 17 37.8**	**-0.3**
MARVS				IAML		20 17 40.2	
	comp=E,20nm,0.1s						
MARVS				IAML		20 17 40.4	
	comp=N,19nm,0.1s						
GTBY	**Guantanamo Bay**	**2.27**	**39**	*eP*	**Pn**	**20 17 18.4**	**+0.2**
GTBY				*eS*	**Sn**	**20 17 47.0**	**+1.2**
PINC	**Pinares de May**	**2.45**	**19**	*eP*	**Pn**	**20 17 20.7**	**+0.1**
PINC				*eS*	**Sn**	**20 17 49.9**	**-0.3**
PINC				IAML		20 17 51.8	
	comp=N,32nm,0.2s						
PINC				IAML		20 17 52.1	
	comp=E,40nm,0.1s						
SABCS	**La Quijada**	**2.52**	**29**	*eP*	**Pn**	**20 17 21.9**	**+0.3**
SABCS				*eS*	**Sn**	**20 17 52.7**	**+0.6**
SABCS				IAML		20 17 53.9	
	comp=E,19nm,0.3s						
SABCS				IAML		20 17 54.1	
	comp=N,16nm,0.3s						
QMBU	**Quimbuelo**	**2.66**	**40**	*eP*	**Pn**	**20 17 23.6**	**+0.1**
QMBU				*eS*	**Sn**	**20 17 54.1**	**-1.4**
QMBU				IAML		20 17 57.5	
	comp=E,14nm,0.1s						
QMBU				IAML		20 17 57.8	
	comp=N,17nm,0.4s						
HLGC	**Holguin**	**2.77**	**11**	*i* P	**Pn**	**20 17 26.2**	**+1.1**
NMDO	**Nuevo Mundo**	**2.85**	**33**	*eP*	**Pn**	**20 17 27.0**	**+0.9**
NMDO				*eS*	**Sn**	**20 18 00.9**	**+0.7**
NMDO				IAML		20 18 05.2	
	comp=E,5.8nm,0.7s						
NMDO				IAML		20 18 06.9	
	comp=N,8.5nm,0.7s						
CCCC	**Cccc**	**3.21**	**341**	*eP*	**Pn**	**20 17 31.4**	**+0.3**
CCCC				*eS*	**Sn**	**20 18 08.9**	**-0.2**
CCCC				IAML		20 18 12.3	
	comp=N,11nm,1.1s						
CCCC				IAML		20 18 15.5	
	comp=E,7.4nm,0.1s						
CBCY	**The Bluff, Cay**	**3.36**	**298**	*eP*	**Pn**	**20 17 33.0**	**-0.1**
CBCY				*eS*	**Sn**	**20 18 10.3**	**-2.3**
LCCY	**Blossom Villag**	**3.60**	**295**	*eP*	**Pn**	**20 17 36.4**	**0.0**
LCCY				*eS*	**Sn**	**20 18 16.6**	**-2.2**

*ATH **08** 20:41:49.5,38°.43N×20°.42E,h19km±3km,ML2.6/11, Latitude uncertainty: 2 km; Longitude uncertainty: 4 km*
*THE **08** 20:41:50.6,38°.4N±0°.4×2°.0E±°,h12km±1km,M2.5/16, MLh2.5/16*
*TIR **08** 20:41:50.0,38°.41N×20°.51E,h10km,ML2.3,ML2.3, Presumed earthquake*

ISC 08 20:41:50.3±1.0,38°.43N±0°.02×20°.51E±0°.03,h19km±2km, n47,σ1§00/63,Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DMLN	**Damoulianata-K**	**0.22**	**208**	P	**Pg**	**20 41 55.4**	**-0.2**
DMLN				S	**Sg**	**20 41 59.4**	**+0.1**
DMLN				AML	AML		
EVGI	**Lefkada island**	**0.22**	**32**	P	**Pg**	**20 41 55.4**	**-0.3**
EVGI				S	**Sg**	**20 41 59.3**	**-0.1**
EVGI				AML	AML		
LXR1	**Lixouri, Cepha**	**0.24**	**193**	P	**Pg**	**20 41 56.0**	**+0.1**
DRAG	**Dragano-Lefkad**	**0.26**	**12**	P	**Pg**	**20 41 55.8**	**-0.4**
VLS	**Valsamata**	**0.26**	**165**	P	**Pg**	**20 41 56.2**	**-0.1**
VLS				S	**Sg**	**20 42 00.4**	**0.0**
VLS				AML	AML		
VLS	**Valsamata**	**0.26**	**165**	P	**Pg**	**20 41 56.0**	**-0.2**
VLS				S	**Sg**	**20 42 00.4**	**0.0**
NYDR	**Nydri-Lefkada**	**0.32**	**28**	P	**Pg**	**20 41 57.1**	**-0.1**
NYDR				S	**Sg**	**20 42 02.1**	**+0.1**
NYDR				AML	AML		
PSDA	**Pessada-Kefalo**	**0.32**	**169**	P	**Pg**	**20 41 57.0**	**-0.2**
PSDA				S	**Sb**	**20 42 02.5**	**+0.3**
LKD2	**Lefkada island**	**0.38**	**18**	P	**Pg**	**20 41 57.9**	**-0.3**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.38**	**18**	P	**Pg**	**20 41 57.9**	**-0.3**
LKD2				S	**Sg**	**20 42 03.8**	**+0.2**
TSLK	**Tsoukalades, L**	**0.41**	**17**	P	**Pg**	**20 41 58.6**	**-0.2**
TSLK				AML	AML		
AST1	**Astakos**	**0.47**	**76**	P	**Pg**	**20 41 59.9**	**0.0**
PDO	**Prodromos**	**0.56**	**72**	P	**Pg**	**20 42 01.3**	**-0.2**
PDO				S	**Sb**	**20 42 10.1**	**+1.2**
PDO				AML	AML		
PLEV	**Plevrona-Mesol**	**0.71**	**91**	P	**Pb**	**20 42 04.3**	**+0.4**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**0.71**	**91**	P	**Pb**	**20 42 03.7**	**-0.3**
PLEV				S	**Sg**	**20 42 14.7**	**+1.1**
PLEV				AML	AML		
AXS	**Araxos**	**0.72**	**109**	P	**Pb**	**20 42 04.4**	**+0.2**
AXS	**Araxos**	**0.72**	**109**	P	**Pb**	**20 42 03.9**	**-0.3**
AMPL	**Ampelaki**	**0.74**	**48**	P	**Pb**	**20 42 04.2**	**-0.3**
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.74**	**48**	P	**Pb**	**20 42 03.9**	**-0.6**
AMPL				AML	AML		
LTHK	**Lithakia**	**0.77**	**160**	P	**Pb**	**20 42 05.5**	**+0.6**
LTHK				S	**Sn**	**20 42 17.1**	**0.0**
LTHK				AML	AML		
PVO	**Paravola**	**0.82**	**77**	P	**Pb**	**20 42 06.4**	**+0.5**
PVO				AML	AML		
RLS	**Riolos of Patr**	**0.84**	**116**	P	**Pb**	**20 42 06.5**	**+0.2**
RLS	**Riolos of Patr**	**0.84**	**116**	P	**Pb**	**20 42 06.2**	**-0.1**
VVK	**Vomvokou**	**1.03**	**90**	P	**Pb**	**20 42 09.5**	**+0.1**
VVK				AML	AML		
DRO	**Drossia**	**1.06**	**116**	P	**Pb**	**20 42 10.6**	**+0.5**
DRO				AML	AML		
DRO	**Drossia**	**1.06**	**116**	P	**Pb**	**20 42 10.1**	**+0.1**
DRO				AML	AML		
TETR	**Tetrakomo, Epi**	**1.09**	**33**	P	**Pb**	**20 42 11.3**	**+0.7**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**1.09**	**33**	P	**Pb**	**20 42 10.6**	**0.0**
EFP	**Efpalio**	**1.10**	**90**	P	**Pb**	**20 42 10.9**	**+0.2**
EFP				AML	AML		
EFP	**Efpalio**	**1.10**	**90**	P	**Pb**	**20 42 10.1**	**-0.6**
IGT	**Igoumenitsa**	**1.11**	**353**	P	**Pn**	**20 42 11.9**	**+1.1**
IGT				S	**Sg**	**20 42 28.2**	**+1.9**
ANX	**Ano Chora**	**1.12**	**81**	P	**Pn**	**20 42 11.4**	**+0.4**
ANX				AML	AML		
EVR	**Evrytania**	**1.13**	**64**	P	**Pn**	**20 42 11.2**	**0.0**
EVR				AML	AML		
LAKA	**Lakka**	**1.17**	**99**	P	**Pn**	**20 42 12.1**	**+0.4**
LAKA				AML	AML		
SERG	**Sergoula**	**1.22**	**90**	P	**Pn**	**20 42 13.1**	**+0.8**
SERG				AML	AML		
KALE	**Kalithea**	**1.28**	**91**	P	**Pn**	**20 42 13.9**	**+0.7**
KALE	**Kalithea**	**1.28**	**91**	P	**Pn**	**20 42 13.4**	**+0.2**
KALE				AML	AML		
KLV	**Kalavryta, Ach**	**1.35**	**106**	P	**Pn**	**20 42 15.0**	**+0.8**
KLV	**Kalavryta, Ach**	**1.35**	**106**	P	**Pn**	**20 42 14.4**	**+0.3**
KEK	**Kerkira**	**1.39**	**337**	P	**Pb**	**20 42 17.0**	**+1.3**
KEK				S	**Sg**	**20 42 36.9**	**+1.5**
SRN	**Sarande**	**1.50**	**345**	P	**Pb**	**20 42 19.0**	**+1.6**
SRN				S	**Sg**	**20 42 40.8**	**+2.1**
GUR	**Goura**	**1.53**	**108**	P	**Pn**	**20 42 17.2**	**+0.6**
GUR				AML	AML		
ITM	**Ithomi**	**1.68**	**138**	P	**Pb**	**20 42 21.4**	**+0.8**
LSK	**Leskovik**	**1.72**	**2**	S	**Sg**	**20 42 47.7**	**+2.0**
NEST	**Nestorio**	**2.02**	**12**	P	**Pb**	**20 42 27.6**	**+1.1**
NEST				S	**Sg**	**20 42 55.3**	**-0.2**
NEST				IAML		20 43 04.6	
	36nm,0.8s						
KIJV	**Kijevo**	**6.37**	**332**	*ePn*	**Pn**	**20 43 21.9**	**-1.1**
KIJV				Sn	**Sn**	**20 44 31.8**	**-3.4**
MORI	**Morici**	**6.53**	**328**	*ePn*	**Pn**	**20 43 24.3**	**-0.9**
MORI				Sn	**Sn**	**20 44 35.2**	**-3.9**

*IDC **08** 20:54:36.0±0.6,2°.26S×119°.26E,h0km,mb4.1/11, mbtmp4.1/14,ML3.8/2,MS3.5/11,Error ellipse: s-maj=20.8km s-min=9.3km az=62.0*
*DJA **08** 20:54:39.1±0.3,2°.5S±1°×119°.9

LUWI	Luwuk	3.92	72	P	Pn	20 55 38.8	+1.0
LUWI	Luwuk	3.92	72	P	Pn	20 55 38.6	+0.7
KDI	Kendari	3.92	115	P	Pn	20 55 39.9	+2.0
BSSI	Bau Bau, Buton	4.08	160	P	Pn	20 55 43.4	+3.2
BSSI				AML	AML		
BSSI	Bau Bau, Buton	4.08	160	P	Pn	20 55 41.7	+1.6
BBSI	Bau Bau	4.73	132	P	Pn	20 55 51.0	+2.0
BBSI				AML	AML		
GTOI	Gorontalo	4.91	54	P	Pn	20 55 52.6	+1.1
GTOI				AML	AML		
KMSI	Cibinong	5.69	60	P	Pn	20 56 04.7	+2.5
	3µm269nm,0.8s						
KMSI	Cibinong	5.69	60	P	Pn	20 56 02.9	+0.7
	comp=Z,269nm,0.7s						
DBNI	Kabupaten Domp	6.21	187	P	Pn	20 56 10.7	+1.3
	comp=Z,21nm,0.9s						
DBNI	Kabupaten Domp	6.21	187	P	Pn	20 56 11.6	+2.1
	comp=Z,14nm,0.9s						
SANI	Sanana	6.93	88	P	Pn	20 56 17.8	-1.5
SANI				AML	AML		
SANI	Sanana	6.93	88	P	Pn	20 56 18.6	-0.7
	comp=Z,18nm,0.7s						
BATI	Baumata	9.10	150	LR	LR	21 00 44.0	
	comp=Z,726nm,20.7s,baz=6.0,slow=41						
DAV	Davao City (W)	11.35	35	LR	LR	21 01 57.1	
	comp=Z,116nm,20.1s,baz=217,slow=39						
SIJI	Sorong	12.29	84	Pn	Pn	20 57 32.9	+0.1
	comp=Z,0.5nm,0.3s,baz=238,slow=15,SNR=3.7						
SIJI				Sn	Sn	20 59 44.8	-3.8
	comp=Z,0.4nm,0.3s,baz=216,slow=23,SNR=1.4						
SIJI				LR	LR	21 02 57.8	
	comp=Z,84nm,18.7s,baz=49,slow=42						
	comp=Z,1.9nm,0.3s						
SIJI				AML	AML		
SIJI	Sorong	12.29	84	P	Pn	20 57 33.8	+1.0
	comp=Z,9.3nm,1.1s						
FITZ	Fitzroy Crossi	16.99	158	Pn	Pn	20 58 35.3	+0.1
	comp=Z,1.9nm,0.8s,baz=352,slow=14,SNR=1.6						
FITZ	Fitzroy Crossi	16.99	158	Pn	Pn	20 58 33.3	-1.9
IPM	Ipoh	19.23	290	P	P	20 58 58.9	-2.7
	comp=Z,14nm,1.5s						
KULM	Kulim	19.87	292	P	P	20 59 07.0	-1.5
KULM				IAmb	IAmb	20 59 21.9	
	comp=Z,21nm,1.1s						
KULM	Kulim	19.87	292	P	P	20 59 08.8	+0.3
	comp=Z,18nm,1.3s						
RPSI	Rantau Prapat	20.73	284	P	P	20 59 16.9	-0.9
RPSI				IAmb	IAmb	20 59 22.2	
	comp=Z,15nm,1.0s						
WB0	Warramunga Arr	22.95	140	P	P	20 59 40.5	-1.0
WB0				pP	pP	20 59 51.3	+0.4
WRA	Warramunga Arr	23.04	141	P	P	20 59 41.9	-0.6
	comp=Z,1.7nm,0.7s,baz=318,slow=11,SNR=14						
WRA				PcP	PcP	21 03 31.6	+0.2
	comp=Z,0.4nm,0.9s,baz=331,slow=2.1,SNR=2.1						
WRA				S	S	21 03 53.9	+2.8
	comp=Z,0.4nm,0.6s,baz=304,slow=14,SNR=7.7						
	comp=Z,1.7nm,0.7s						
WRA	Warramunga Arr	23.04	141	P	P	20 59 39.7	-2.8
WRAB	Tennant Creek	23.04	141	P	P	20 59 41.8	-0.7
WRAB	Tennant Creek	23.04	141	P	P	20 59 41.7	-0.7
	comp=Z,11nm,0.9s						
WR8	Warramunga Arr	23.15	140		P	20 59 43.4	-0.3
WR8				IAmb	IAmb	20 59 58.0	
	comp=Z,13nm,1.1s						
MEEK	Meekatharra	24.21	181	P	P	20 59 53.1	-0.6
	comp=Z,27nm,0.9s						
ASAR	Alice Springs	25.66	147	P	P	21 00 07.0	+0.1
	comp=Z,1.1nm,0.7s,baz=329,slow=8.6,SNR=15						
ASAR				PcP	PcP	21 03 37.8	+0.7
	comp=Z,0.3nm,0.6s,baz=324,slow=2.2,SNR=4.7						
ASAR				S	S	21 04 30.9	-2.3
	comp=Z,0.3nm,0.4s,baz=323,slow=13,SNR=5.0						
ASAR				LR	LR	21 10 59.1	
	comp=Z,158nm,18.8s,baz=306,slow=38						
	comp=Z,1.1nm,0.7s						
ASAR	Alice Springs	25.66	147	P	P	21 00 06.2	-0.7
CMAR	Chiang Mai Arr	28.58	317	P	P	21 00 36.6	+3.4
	comp=Z,0.2nm,0.3s,baz=154,slow=7.3,SNR=4.1						
CMAR				LR	LR	21 14 10.9	
	comp=Z,66nm,18.1s,baz=130,slow=41						
	comp=Z,0.2nm,0.3s						
CMAR	Chiang Mai Arr	28.58	317	P	P	21 00 33.2	0.0
KMI2	Kunming	31.53	331	P	P	21 01 03.7	+4.3
KMI2				pmax	pmax		
	comp=Z,11nm,1.2s						
CTA	Charters Tower	31.91	126	LR	LR	21 14 45.5	
	comp=Z,87nm,19.8s,baz=222,slow=38						
CTAO	Charters Tower	31.91	126	P	P	21 01 01.9	-0.7
	comp=Z,20nm,1.8s						
ENH	Enshi	33.65	345	P	P	21 01 17.3	-0.3
BBOO	Buckleboo	34.30	154	P	P	21 01 23.7	+0.3
	comp=Z,12nm,1.5s						
JSU	Suzuyama	35.32	17	P	P	21 01 29.3	-2.8
MORE	Moreh	35.69	319	P	P	21 01 33.8	-1.6
MORE				IAmb	IAmb	21 01 37.4	
	comp=Z,8.8nm,1.5s						
STKA	Stephens Creek	36.29	147	P	P	21 01 40.0	-0.4
	comp=Z,3.1nm,0.7s,baz=299,slow=9.5,SNR=5.6						
STKA				LR	LR	21 18 17.1	
	comp=Z,140nm,18.7s,baz=6.2,slow=39						
	comp=Z,3.1nm,0.7s						
STKA	Stephens Creek	36.29	147	P	P	21 01 39.5	-1.0
STKA	Stephens Creek	36.29	147	P	P	21 01 40.3	-0.2
	comp=Z,23nm,2.7s						
KSAR	Wonju Array Be	40.37	11	P	P	21 02 14.3	-0.3
KSRS	Korea Array	40.39	11	P	P	21 02 13.8	-1.0
	comp=Z,4.7nm,1.0s,baz=184,slow=11,SNR=8.1						
	comp=Z,4.7nm,1.0s						
LZDM	Lanzhou Array	40.67	341	P	P	21 02 20.2	+2.7
	comp=Z,0.7nm,0.3s,baz=114,slow=13,SNR=1.4						
	comp=Z,0.7nm,0.3s						
LZH	Lanzhou	40.74	341	eP	P	21 02 21.1	+3.2
LZH				pP	pP	21 02 26.3	-1.6
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
EVN	Everest	43.19	316	P	P	21 02 36.1	-2.5
EVN				IAmb	IAmb	21 02 42.3	
	comp=Z,6.0nm,1.1s						
HHC	Hu-ho-hao-te	43.48	352	eP	P	21 02 41.2	+1.1
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,56nm,6.0s						
GTA2	Gaotai	45.20	339	eP	P	21 02 57.0	+3.0
GTA2				pmax	pmax		
	comp=Z,8.0nm,1.0s						
TAU	Tasmania Unive	47.66	152	P	P	21 03 10.9	-2.1
DZM	Mont Dzumac	50.03	117	LR	LR	21 25 22.3	
	comp=Z,55nm,18.4s,baz=222,slow=37						
SONM	Songino Array	51.13	349	P	P	21 03 41.6	+2.0
	comp=Z,3.1nm,0.9s,baz=164,slow=11,SNR=18						
	comp=Z,3.1nm,0.9s						
SONM	Songino Array	51.13	349	P	P	21 03 38.2	-1.4
SONM				IAmb	IAmb	21 03 42.7	
	comp=Z,5.0nm,1.0s						
HEH	HeiHe	52.83	7	eP	P	21 03 52.7	+0.6
HEH				pmax	pmax		
	comp=Z,17nm,1.1s						
WMQ	Urumqi	53.83	332	eP	P	21 04 01.0	+1.3
WMQ				LR	LR		
	comp=Z,160nm,24.1s						
TLY	Talaya	55.34	348	LR	LR	21 30 46.1	
	comp=Z,45nm,18.5s,baz=167,slow=39						
KSH2	Kashi	57.40	321	P	P	21 04 27.7	+2.2
KSH2				pmax	pmax		
	comp=Z,2.0nm,1.4s						
PDGK	Podgornoye	57.66	327		P	21 04 27.5	+0.2
MKAR	Makanchi Array	58.59	331	P	P	21 04 35.7	+2.1
	comp=Z,2.3nm,0.9s,baz=124,slow=6.5,SNR=6.9						
	comp=Z,2.3nm,0.9s						
MKAR	Makanchi Array	58.59	331	P	P	21 04 34.7	+1.1
AAK	Ala-Archa	60.09	323	P	P	21 04 43.6	-0.6
AAK				IAmb	IAmb	21 04 47.3	
	comp=Z,3.0nm,1.1s						
ARSB	Arslanbob	60.27	321	P	P	21 04 42.2	-3.2
ARSB				IAmb	IAmb	21 04 47.8	
	comp=Z,5.5nm,1.0s						
ZAA0	Zalesovo Array	62.85	338		P	21 05 01.6	-0.8
ZALV	Zalesovo Beam	62.85	338	P	P	21 05 03.3	+0.9
	comp=Z,5.3nm,0.9s,baz=135,slow=5.2,SNR=22						
	comp=Z,5.3nm,0.9s						
ZALV	Zalesovo Beam	62.85	338		P	21 05 01.0	-1.4
KURBB	Kurchatov Arra	63.05	332	P	P	21 05 05.4	+1.7
	comp=Z,2.8nm,0.9s,baz=142,slow=6.2,SNR=20						
	comp=Z,2.8nm,0.9s						
KURK	Kurchatov	63.07	332		P	21 05 03.7	-0.2
KURK				IAmb	IAmb	21 05 06.8	
	comp=Z,6.7nm,0.9s						
BVAR	Borovoye Array	68.47	331	P	P	21 05 39.0	+0.3
	comp=Z,1.4nm,0.8s,baz=128,slow=8.1,SNR=4.1						
	comp=Z,1.4nm,0.8s						
BORK	Borovoye	68.52	331	P	P	21 05 38.8	-0.2
BORK				IAmb	IAmb	21 05 41.0	
	comp=Z,4.0nm,1.1s						
ABKAR	Akbulak array	72.18	324	P	P	21 06 01.4	0.0
QSPA	South Pole Qui	87.66	180	P	P	21 07 22.1	-2.8
AKASG	Malin Array Be	91.65	320	LR	LR	21 53 32.1	
	comp=Z,19nm,18.2s,baz=293,slow=38						
CPUP	Villa Florida	151.33	187	PKPbc	PKiKP	21 14 31.6	+0.1
	comp=Z,2.9nm,0.9s,baz=174,slow=2.4,SNR=11						
CPUP	Villa Florida	151.33	187		PKiKP	21 14 32.1	+0.6
LPAZ	La Paz	160.22	159	PKPab	PKPab	21 15 19.7	+1.9
	comp=Z,0.3nm,0.4s,baz=220,slow=5.3,SNR=3.7						

*DJA **08** 21:01:53.1±0.2,8°S±3°×12°8E±°, h10km, M4.4/14, mB4.9/4, mb4.3/11, MLv4.4/14, Mw(mB)4.2/4*
*IDC **08** 21:01:53.4±1.5, 7°56S×128°03E, h152km±14km, mb3.4/9, mbtmp4.0/13, Error ellipse: s-maj=15.2km s-min=11.3km az=86.0*
*NEIC **08** 21:01:54.0±2.2, 7°53S±0°07×128°09E±0°07, h149km±7km, mb4.1/14, Error ellipse: s-maj=11.0km s-min=9.1km az=147.0*
*GFZ **08** 21:01:53.7±0.2, 7°S±3°×12°8E±°, h167km±4km, M4.2/19, mb4.1/19, Error ellipse: s-maj=6.3km s-min=5.4km az=176.2, confirmed*

ISC 08 21:01:52.5±0.5, 7°57S±0°05×128°03E±0°05, h142km, n81, σ1°84/86, mb4.0/17, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	3.27	97		Pn	21 02 44.2	+1.1
SAUI	Saumlaki	3.27	97	P	Pn	21 02 45.0	+1.9
SAUI				S	Sn	21 03 25.2	+3.1
SAUI				AML	AML		
SAUI	Saumlaki	3.27	97	P	Pn	21 02 44.2	+1.1
BNDI	Bandanaira	3.56	32	P	Pn	21 02 46.2	-0.6
AAI	Ambon	3.86	2	P	Pn	21 02 51.8	+1.0
SOEI	Soe	4.31	239	Pn	Pn	21 03 00.1	+3.3
SOEI	Soe	4.31	239	P	Pn	21 03 00.5	+3.7
BATI	Baumata	5.05	238	P	Pn	21 03 09.5	+3.0
	41nm,0.4s,baz=131,slow=2.2,SNR=11						
BATI				S	Sn	21 04 05.2	+1.1
	187nm,0.5s,baz=314,slow=24,SNR=17						
BATI	Baumata	5.05	238	P	Pn	21 03 10.1	+3.6
	0.9nm1µ41nm,0.6s						
BATI				AML	AML		
BATI	Baumata	5.05	238	P	Pn	21 03 10.2	+3.6
	comp=Z,41nm,0.7s						
BBSI	Bau Bau	5.80	291	P	Pn	21 03 19.7	+3.1
	comp=Z,16nm,0.9s						
MMRI	Maumere	5.83	259	Pn	Pn	21 03 19.0	+2.1
MMRI	Maumere	5.83	259	P	Pn	21 03 19.8	+2.9
	comp=Z,0.2nmcomp=Z,38nm,0.6s						
MMRI				AML	AML		
MMRI	Maumere	5.83	259	P	Pn	21 03 19.8	+2.9
	comp=Z,37nm,0.6s						
SANI	Sanana	5.85	340	P	Pn	21 03 19.4	+2.2
	comp=Z,0.1nmcomp=Z,22nm,0.7s						
SANI				AML	AML		
SANI	Sanana	5.85	340	P	Pn	21 03 16.5	-0.7
	comp=Z,23nm,0.8s						
MTN	Manton Dam	6.07	150		Pn	21 03 21.2	+1.1
FAKI	Fak Fak	6.25	43	Pn	Pn	21 03 20.9	-1.6
FAKI	Fak Fak	6.25	43	P	Pn	21 03 21.5	-1.0
	comp=Z,0.1nmcomp=Z,13nm,0.7s						
FAKI				AML	AML		
EDFI	Ende, Flores	6.38	259	P	Pn	21 03 28.2	+3.8
	comp=Z,0.1nmcomp=Z,18nm,0.6s						
EDFI				AML	AML		
EDFI	Ende, Flores	6.38	259	P	Pn	21 03 27.3	+2.9
	comp=Z,18nm,0.7s						
SIJI	Sorong	7.40	26	P	Pn	21 03 38.5	+0.5
	comp=Z,11nm,0.4s,baz=263,slow=10,SNR=12						
SIJI				S	Sn	21 05 01.2	+0.6
	comp=Z,4.9nm,0.5s,baz=269,slow=24,SNR=1.8						
SIJI	Sorong	7.40	26	P	Pn	21 03 37.8	-0.1
	comp=Z,11nm,0.5s						
BSSI	Bau Bau, Buton	7.62	280	P	Pn	21 03 45.4	+4.5
	comp=Z,0.1nmcomp=Z,18nm,0.8s						
BSSI				AML	AML		
BSSI	Bau Bau, Buton	7.62	280	P	Pn	21 03 42.5	+1.6
	comp=Z,18nm,0.8s						
KNRA	Kununurra	8.09	175	Pn	Pn	21 03 48.4	+1.2
LBFI	Labuhan Bajo,	8.11	263	P	Pn	21 03 50.1	+2.6
LBFI	Labuhan Bajo,	8.11	263	P	Pn	21 03 49.4	+1.9
	comp=Z,19nm,0.6s						
BKSI	Bulukumba	8.17	285	P	Pn	21 03 47.7	-0.5
	comp=Z,13nm,1.0s						
FITZ	Fitzroy Crossi	10.72	192	P	Pn	21 04 19.3	-3.0
	comp=Z,1.4nm,0.3s,baz=46,slow=9.6,SNR=7.4						
FITZ				S	Sn	21 06 16.7	-4.1
	comp=Z,4.4nm,0.3s,baz=93,slow=20,SNR=7.1						
FITZ	Fitzroy Crossi	10.72	192	Pn	Pn	21 04 15.4	-6.9
FITZ	Fitzroy Crossi	10.72	192	P	Pn	21 04 23.4	+1.1
	comp=Z,1.1nm,0.7s						
TWSI	Taliwang, Sumb	11.10	263	P	Pn	21 04 28.3	+1.0
	comp=Z,10nm,1.1s						
WB0	Warramunga Arr	13.61	154		Pn	21 04 58.2	-1.6
WRAB	Tennant Creek	13.73	154		Pn	21 05 00.3	-1.2
WRAB	Tennant Creek	13.73	154	P	Pn	21 05 01.8	+0.3
	comp=Z,31nm,0.7s						
WRA	Warramunga Arr	13.74	154	P	Pn	21 05 00.8	-0.7
	comp=Z,5.1nm,0.6s,baz=343,slow=13,SNR=32						
WRA				S	Sn	21 07 24.7	-8.9
	comp=Z,26nm,0.8s,baz=331,slow=22,SNR=9.6						
WRA	Warramunga Arr	13.74	154		Pn	21 05 00.4	-1.2
WR8	Warramunga Arr	13.82	154		Pn	21 05 01.6	-1.0
SJI	Sawahan	16.12	268	P	Pn	21 05 32.3	+0.9
	comp=Z,20nm,1.1s						
AS31	Alice Springs	16.97	161		Pn	21 05 42.8	+1.2
AS31				IAmb	IAmb	21 05 44.5	
	comp=Z,7.1nm,0.6s						
ASAR	Alice Springs	16.97	161	P	Pn	21 05 43.5	+1.9
	comp=Z,19nm,0.6s,baz=342,slow=11,SNR=269						
ASAR				S	S	21 08 47.0	-3.8
	comp=Z,2.6nm,0.5s,baz=324,slow=17,SNR=7.6						
ASAR	Alice Springs	16.97	161		Pn	21 05 43.1	+1.6
QIS	Mount Isa	17.10	140	P	Pn	21 05 43.8	+0.6
	comp=Z,8.8nm,0.5s						
SBUM	Sibu	18.65	302		P	21 06 00.3	+0.6
SBUM				IAmb	IAmb	21 06 06.1	
	comp=Z,5.5nm,0.8s						
SBUM	Sibu	18.65	302	P	P	21 05 59.3	-0.3
	comp=Z,7.4nm,1.1s						
MTSU	Mount Surprise	19.02	125	P	P	21 06 04.8	+1.2
	comp=Z,7.7nm,1.3s						
BBJI	Bungbulang	20.20	269	P	P	21 06 15.0	-1.5
BBJI				IAmb	IAmb	21 06 36.6	
	comp=Z,25nm,1.4s						
MEEK	Meekatharra	20.97	204	P	P	21 06 25.5	+0.9
	comp=Z,9.9nm,1.8s						
CTA	Charters Tower	21.60	127	P	P	21 06 32.0	+0.6
	comp=Z,2.5nm,0.6s,baz=292,slow=11,SNR=1.3						
	comp=Z,2.5nm,0.6s						
CGJI	Cibinong	22.18	271	P	P	21 06 35.4	-2.0
	comp=Z,20nm,0.8s						
FORT	Forrest	23.09	180	P	P	21 06 47.4	+1.6
FORT				IAmb	IAmb	21 07 06.7	
	comp=Z,7.2nm,0.9s						
INKA	Innaminka	23.40	151		P	21 06 50.2	+1.4
INKA				IAmb	IAmb	21 06 52.5	
	comp=Z,4.7nm,0.8s						
BLDU	Ballidu	25.26	203	P	P	21 07 05.7	+0.1
	comp=Z,17nm,2.4s						
BBOO	Buckleboo	26.20	165	P	P	21 07 14.8	+0.7
BBOO				IAmb	IAmb	21 07 54.4	
	comp=Z,25nm,1.5s						
STKA	Stephens Creek	27.29	154	P	P	21 07 24.6	+0.8
	comp=Z,1.3nm,0.4s,baz=0.9,slow=7.1,SNR=4.3						
	comp=Z,1.3nm,0.4s						
STKA	Stephens Creek	27.29	154	P	P	21 07 25.0	+1.2
STKA	Stephens Creek	27.29	154	P	P	21 07 24.2	+0.3
DLV	Lat	27.45	315	P	P	21 07 22.9	-2.8
	comp=Z,25nm,1.3s						
DPSS	Saipan	28.70	38	P	P	21 07 36.2	-0.3
CMSA	Cobar Meteorol	28.99	148	P	P	21 07 39.4	+0.5
	comp=Z,10nm,1.4s						
CMAR	Chiang Mai Arr	38.63	312	P	P	21 09 02.6	+0.3
	comp=Z,0.3nm,0.3s,baz=136,slow=6.5,SNR=6.7						
	comp=Z,0.3nm,0.3s						
CMAR	Chiang Mai Arr	38.63	312	P	P	21 09 01.7	-0.6
MSVF	Nonsavu	49.71	107		P	21 10 30.0	-0.7
HHC	Hu-ho-hao-te	50.51	344	eP	P	21 10 39.5	+3.2
HHC				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,22nm,4.2s						
SONM	Songino Array	58.38	343	P	P	21 11 32.8	-0.3
	comp=Z,0.3nm,0.6s,baz=172,slow=8.5,SNR=2.5						
	comp=Z,0.3nm,0.6s						
SONM	Songino Array	58.38	343	P	P	21 11 33.9	+0.8
MKAR	Makanchi Array	67.65	328	P	P	21 12 33.8	-0.4
	comp=Z,4.0nm,0.5s,baz=120,slow=5.6,SNR=6.1						
	comp=Z,4.0nm,0.5s						
MKAR	Makanchi Array	67.65	328	P	P	21 12 33.6	-0.6
ZALV	Zalesovo Beam	71.24	335	P	P	21 12 55.2	-0.9
	comp=Z,0.4nm,0.3s,baz=104,slow=6.3,SNR=2.4						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	71.24	335	P	P	21 12 56.1	0.0
KURBB	Kurchatov Arra	71.98	329	P	P	21 13 00.1	-0.5
	comp=Z,0.5nm,0.7s,baz=132,slow=5.1,SNR=6.1						
	comp=Z,0.5nm,0.7s						
KURK	Kurchatov	72.00	329	P	P	21 13 00.5	-0.2
VNDA	Vanda	72.13	173	P	P	21 13 00.2	-0.8
	comp=Z,0.6nm,0.6s,baz=307,slow=4.1,SNR=5.1						
	comp=Z,0.6nm,0.6s						
VNDA	Vanda	72.13	173	P	P	21 13 01.6	+0.6
VNDA				IAmb	IAmb	21 13 23.8	
	comp=Z,2.5nm,1.2s						
AB31	Akbulak array	81.75	322	P	P	21 13 55.7	+0.4
ABKAR	Akbulak array	81.75	322	P	P	21 13 55.4	+0.1
QSPA	South Pole Qui	82.41	180	P	P	21 13 58.5	-0.2
	comp=Z,0.9nm,0.5s,baz=340,slow=0.4,SNR=6.6						
	comp=Z,0.9nm,0.5s						
QSPA	South Pole Qui	82.41	180	P	P	21 13 58.2	-0.5
QSPA				IAmb	IAmb	21 14 38.6	
	comp=Z,2.4nm,1.5s						
LPAZ	La Paz	151.41	146	PKPbc	PKPbc	21 21 30.9	-0.5
	comp=Z,0.8nm,0.8s,baz=315,slow=1.4,SNR=3.5						
LPAZ				PKPab	PKPab	21 21 40.0	+0.1
	comp=Z,1.2nm,0.7s,baz=227,slow=2.8,SNR=5.6						
LPAZ	La Paz	151.41	146		PKPbc	21 21 29.2	-2.2

*IDC **08** 21:23:27.8±0.8, 6°04S×122°52E, h0km, mb3.7/6, mbtmp3.6/10, ML3.3/4, MS2.8/1, Error ellipse: s-maj=28.9km s-min=11.4km az=58.0*
*DJA **08** 21:23:30.3±0.6, 6°S±3°×12°3E±°, h24km±5km, M3.6/9, MLv3.6/9*

ISC 08 21:23:30.3±1.8, 6°00S±0°05×122°56E±0°07, h14km±12km, n17, σ1°37/23, mb3.8/5, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BBSI	Bau Bau	0.51	1	P	Pg	21 23 40.9	+0.6
BBSI				S	Sb	21 23 49.7	+1.5
BBSI				AML	AML		
KDI	Kendari	2.03	2	P	Pn	21 24 02.9	-1.1
KDI				AML	AML		
KKSI	Kolaka, Sulawe	2.03	333	P	Pn	21 24 02.4	-1.6
KKSI				S	Sn	21 24 27.8	-1.3
KKSI				AML	AML		
BSSI	Bau Bau, Buton	2.06	266	P	Pn	21 24 03.9	-0.6
BSSI				S	Sn	21 24 30.0	-0.1
BSSI				AML	AML		
BKSI	Bulukumba	2.52	285	P	Pn	21 24 10.3	-0.5
BKSI				S	Sn	21 24 41.2	0.0
BKSI				AML	AML		
KAPI	Kappang	2.96	289	Pn	Pn	21 24 16.9	+0.1
	5.4nm,0.3s,baz=108,slow=9.2,SNR=14						
KAPI				Sn	Sn	21 24 51.1	-1.1
	1.3nm,0.3s,baz=84,slow=20,SNR=4.2						
KAPI				LR	LR	21 25 36.0	
	comp=Z,172nm,19.9s,baz=110,slow=44						
	23nm,0.5s						
KAPI				AML	AML		
KAPI	Kappang	2.96	289	P	Pn	21 24 15.7	-1.2
KAPI				AML	AML		
BATI	Baumata	4.32	165	Pn	Pn	21 24 34.5	-1.2
	4.8nm,0.3s,baz=273,slow=1.3,SNR=12						
BATI				Sn	Sn	21 25 27.1	+1.2
	2.7nm,0.3s,baz=298,slow=5.6,SNR=0.9						
	6.6nm,0.5s						
BATI				AML	AML		
FITZ	Fitzroy Crossi	12.40	166	Pn	Pn	21 26 25.0	-1.4
	0.1nm,0.3s,baz=0.0,slow=8.1,SNR=1.3						
	1.0nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	17.98	142	P	Pn	21 27 37.8	-2.2
	0.1nm,0.3s,baz=312,slow=13,SNR=7.0						
	0.8nm,0.8s						
WRA				AML	AML		
ASAR	Alice Springs	20.68	149	P	P	21 28 09.2	-0.9
	1.2nm,0.8s,baz=327,slow=12,SNR=13						
	1.2nm,0.8s						
SONM	Songino Array	55.46	347	P	P	21 33 05.9	+1.3
	0.3nm,0.6s,baz=134,slow=6.2,SNR=2.4						
	0.3nm,0.6s						
MKAR	Makanchi Array	63.51	330	P	P	21 34 01.1	+0.9
	1.0nm,0.8s,baz=126,slow=6.2,SNR=4.4						
	1.0nm,0.8s						
ZALV	Zalesovo Beam	67.59	337	P	P	21 34 25.8	-0.5
	1.7nm,0.8s,baz=122,slow=5.2,SNR=5.7						
	1.7nm,0.8s						
KURBB	Kurchatov Arra	67.94	331	P	P	21 34 27.8	-0.8
	0.3nm,0.5s,baz=148,slow=5.9,SNR=4.6						
	0.3nm,0.5s						
BVAR	Borovoye Array	73.40	330	P	P	21 35 00.7	-1.0
	0.7nm,0.7s,baz=131,slow=15,SNR=1.6						
	0.7nm,0.7s						
CPUP	Villa Florida	147.87	180	PKPbc	PKPdf	21 43 15.9	+3.1
	1.8nm,0.9s,baz=122,slow=1.3,SNR=3.7						

*MOS **08** 21:36:04.3, 42°65N×48°39E, h22km, MPVA3.5*
*DRS **08** 21:36:

TRLG	**Trialeti**	**3.42**	**251**	*e*Pn	**Pn**	**21 36 59.4**	**+1.2**
TRLG				*e*Sn	**Sn**	**21 37 38.2**	**-1.2**

*IDC **08** 21:42:02.0±0.6,5.°90S×122.°66E, h0km, mb4.0/10, mbtmp4.0/14, ML3.7/4, MS3.3/8, Error ellipse: s-maj=19.7km s-min=10.3km az=60.0*
*NEIC **08** 21:42:03.8±1.8,6.°02S±0.°06×122.°55E±0.°08, h10km±1km, mb4.0/9, Error ellipse: s-maj=14.0km s-min=9.4km az=65.0*
*DJA **08** 21:42:04.8±0.2,6.°S±2.°×12.°3E±.°, h10km, M4.4/25, mB5.4/2, mb5.0/2, MLv4.1/25, Mw(mB)4.8/2*
ISC 08 21:42:03.5±0.5,**6.°07S**±0.°04×**122.°54E**±0.°06,**h10**km,**n60,** σ1^{s}**49**/56,**mb4.3**/10,**MS3.7**/5,**Flores Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
BBSI	**Bau Bau**	**0.58**	**3**	P		**Pg**		**21 42 13.9**	**-1.0**
BBSI				AML		AML			
BSSI	**Bau Bau, Buton**	**2.04**	**268**	P		**Pn**		**21 42 37.7**	**-0.2**
BSSI				AML		AML			
KKSI	**Kolaka, Sulawe**	**2.08**	**335**	P		**Pn**		**21 42 38.7**	**+0.1**
KKSI				AML		AML			
KDI	**Kendari**	**2.10**	**2**	P		Pn		21 42 36.7	-2.1
BKSI	**Bulukumba**	**2.52**	**287**	P		**Pn**		**21 42 43.5**	**-1.0**
BKSI				AML		AML			
MMRI	**Maumere**	**2.56**	**187**			**Pn**		**21 42 46.1**	**+0.9**
MMRI	**Maumere**	**2.56**	**187**	P		**Pn**		**21 42 48.6**	**+3.4**
MMRI				AML		AML			
EDFI	**Ende, Flores**	**2.79**	**197**	P		**Pn**		**21 42 48.3**	**-0.1**
EDFI				AML		AML			
KAPI	**Kappang**	**2.97**	**291**	Pn		**Pn**		**21 42 50.9**	**+0.2**
	8.1nm,0.3s,baz=130,slow=9.1,SNR=13								
KAPI				Sn		**Sn**		**21 43 27.6**	**+1.2**
	7.2nm,0.3s,baz=224,slow=20,SNR=5.2								
	38nm,0.5s								
KAPI				AML		AML			
KAPI	**Kappang**	**2.97**	**291**			**Pn**		**21 42 50.3**	**-0.3**
KAPI	**Kappang**	**2.97**	**291**	P		**Pn**		**21 42 50.4**	**-0.3**
LBFI	**Labuhan Bajo,**	**3.55**	**228**	P		**Pn**		**21 42 58.7**	**-0.1**
SOEI	**Soe**	**4.04**	**155**			**Pn**		**21 43 07.1**	**+1.5**
SOEI	**Soe**	**4.04**	**155**	P		Pn		21 43 13.7	+8.1
TTSI	**Tana Toraja**	**4.05**	**318**	P		**Pn**		**21 43 09.1**	**+3.5**
TTSI				AML		AML			
WSI	**Waingapu**	**4.21**	**212**	P		Pn		21 43 13.4	+5.6
WSI				AML		AML			
BATI	**Baumata**	**4.26**	**165**	Pn		**Pn**		**21 43 11.3**	**+2.8**
	11nm,0.3s,baz=213,slow=1.3,SNR=14								
BATI				Sn		**Sn**		**21 44 01.8**	**+3.5**
	baz=195,slow=19								
BATI				LR		LR		21 45 37.8	
	comp=Z,377nm,20.1s,baz=234,slow=49								
	67nm,0.7s								
BATI				AML		AML			
BATI	**Baumata**	**4.26**	**165**	P		Pn		21 43 14.0	+5.5
DBNI	**Kabupaten Domp**	**4.84**	**240**	P		Pn		21 43 22.9	+6.4
MMSI	**Mamuju**	**4.94**	**313**	P		**Pb**		**21 43 31.6**	**+1.4**
LUWI	**Luwuk**	**5.00**	**3**			**Pn**		**21 43 19.2**	**+0.5**
LUWI	**Luwuk**	**5.00**	**3**	P		Pn		21 43 26.8	+8.1
APSI	**Ampana**	**5.20**	**350**	P		Pn		21 43 29.8	+8.3
SANI	**Sanana**	**5.27**	**41**	P		**Pn**		**21 43 27.0**	**+4.5**
	0.1nm16nm,0.8s								
SANI				AML		AML			
PCI	**Palu**	**5.80**	**332**	P		**Pb**		**21 43 45.2**	**+0.4**
TOLI2	**Tolitoli**	**7.35**	**346**			**Pn**		**21 43 50.8**	**-0.2**
SIJI	**Sorong**	**10.13**	**60**	Pn		**Pn**		**21 44 27.8**	**-1.4**
	0.4nm,0.3s,baz=264,slow=17,SNR=3.9								
SIJI				LR		LR		21 48 33.5	
	comp=Z,125nm,19.8s,baz=309,slow=39								
	3.7nm,0.5s								
SIJI				AML		AML			
MTN	**Manton Dam**	**10.82**	**129**			**Pn**		**21 44 38.6**	**0.0**
KNRA	**Kununurra**	**11.33**	**148**			**Pn**		**21 44 45.3**	**-0.3**
FITZ	**Fitzroy Crossi**	**12.33**	**166**	Pn		**Pn**		**21 44 59.6**	**+0.4**
	0.4nm,0.3s,baz=352,slow=7.0,SNR=11								
FITZ				Sn		**Sn**		**21 47 14.0**	**-2.9**
	0.1nm,0.3s,baz=77,slow=18,SNR=2.2								
	2.3nm,0.6s								
FITZ				AML		AML			
FITZ	**Fitzroy Crossi**	**12.33**	**166**	Pn		**Pn**		**21 44 59.0**	**-0.3**
DAV	**Davao City (W)**	**13.40**	**13**	LR		LR		21 50 35.8	
	comp=Z,27nm,18.8s,baz=196,slow=39								
WB0	**Warramunga Arr**	**17.84**	**141**	Pn		**Pn**		**21 46 10.1**	**-1.9**
WB0				IAmb		IAmb		21 46 22.3	
	comp=Z,8.3nm,0.9s								
WRA	**Warramunga Arr**	**17.93**	**141**	P		**Pn**		**21 46 10.8**	**-2.4**
	comp=Z,3.4nm,0.8s,baz=318,slow=13,SNR=21								
WRA	**Warramunga Arr**	**17.93**	**141**	Pn		**Pn**		**21 46 11.8**	**-1.4**
WR8	**Warramunga Arr**	**18.04**	**141**	Pn		**Pn**		**21 46 13.4**	**-1.2**
WR8				IAmb		IAmb		21 46 17.4	
	comp=Z,7.3nm,0.8s								
AS31	**Alice Springs**	**20.63**	**149**			**P**		**21 46 43.7**	**+0.3**
ASAR	**Alice Springs**	**20.63**	**149**	P		**P**		**21 46 44.4**	**+1.0**
	comp=Z,1.8nm,0.5s,baz=333,slow=12,SNR=22								
ASAR				PcP		**PcP**		**21 50 53.7**	**-0.3**
	comp=Z,0.8nm,0.8s,baz=343,slow=2.1,SNR=4.8								
	comp=Z,1.8nm,0.5s								
ASAR	**Alice Springs**	**20.63**	**149**			**P**		**21 46 44.4**	**+1.0**
ASAR						**PcP**		**21 50 53.3**	**-0.7**
STKA	**Stephens Creek**	**31.25**	**148**	P		**P**		**21 48 23.6**	**+0.1**
	comp=Z,1.8nm,0.8s,baz=354,slow=11,SNR=2.9								
	comp=Z,1.8nm,0.8s								
STKA	**Stephens Creek**	**31.25**	**148**	P		**P**		**21 48 22.5**	**-1.1**
CMAR	**Chiang Mai Arr**	**33.70**	**317**	P		**P**		**21 48 44.3**	**-0.9**
	comp=Z,0.4nm,0.4s,baz=126,slow=8.1,SNR=1.7								
CMAR				PcP		**PcP**		**21 51 25.8**	**+0.7**
	comp=Z,0.7nm,0.6s,baz=152,slow=3.2,SNR=5.0								
CMAR				LR		LR		22 04 49.2	
	comp=Z,52nm,18.3s,baz=195,slow=41								
	comp=Z,0.4nm,0.4s								
CMAR	**Chiang Mai Arr**	**33.70**	**317**	P		**P**		**21 48 43.7**	**-1.5**
CMAR						**PcP**		**21 51 24.4**	**-0.7**
KSRS	**Korea Array**	**43.59**	**6**	LR		LR		22 10 28.5	
	comp=Z,22nm,18.7s,baz=290,slow=39								
SONM	**Songino Array**	**55.53**	**347**	P		**P**		**21 51 38.9**	**-0.2**
	comp=Z,0.6nm,0.7s,baz=178,slow=7.1,SNR=3.5								
	comp=Z,0.6nm,0.7s								
SONM	**Songino Array**	**55.53**	**347**	P		**P**		**21 51 38.7**	**-0.4**
SONM				IAmb		IAmb		21 51 47.7	
	comp=Z,1.6nm,1.1s								
TLY	**Talaya**	**59.76**	**347**	LR		LR		22 18 43.6	
	comp=Z,59nm,19.1s,baz=164,slow=37								
KSH2	**Kashi**	**62.51**	**320**	P		**P**		**21 52 27.7**	**0.0**
KSH2				pmax		pmax			
	comp=Z,4.0nm,0.8s								
MKAR	**Makanchi Array**	**63.57**	**330**	P		**P**		**21 52 34.6**	**+0.1**
	comp=Z,2.2nm,0.8s,baz=144,slow=8.0,SNR=9.2								
	comp=Z,2.2nm,0.8s								
MKAR	**Makanchi Array**	**63.57**	**330**	P		**P**		**21 52 33.9**	**-0.5**
AAK	**Ala-Archa**	**65.19**	**323**	P		**P**		**21 52 45.6**	**+0.3**
	comp=Z,2.1nm,0.8s,baz=149,slow=6.0,SNR=5.7								
	comp=Z,2.1nm,0.8s								
AAK	**Ala-Archa**	**65.19**	**323**	P		**P**		**21 52 45.1**	**-0.2**
AAK				IAmb		IAmb		21 52 46.7	
	comp=Z,2.0nm,0.8s								
ZALV	**Zalesovo Beam**	**67.65**	**337**	P		**P**		**21 52 59.8**	**-0.9**
	comp=Z,3.9nm,0.9s,baz=143,slow=3.7,SNR=13								
	comp=Z,3.9nm,0.9s								
KURBB	**Kurchatov Arra**	**68.00**	**331**	P		**P**		**21 53 02.6**	**-0.3**
	comp=Z,1.8nm,0.9s,baz=144,slow=5.5,SNR=12								
	comp=Z,1.8nm,0.9s								
KURK	**Kurchatov**	**68.02**	**332**	P		**P**		**21 53 02.8**	**-0.2**
BVAR	**Borovoye Array**	**73.45**	**330**	P		**P**		**21 53 35.5**	**-0.6**
	comp=Z,2.0nm,0.7s,baz=152,slow=6.5,SNR=3.3								
	comp=Z,2.0nm,0.7s								
VNDA	**Vanda**	**74.34**	**172**	P		**P**		**21 53 41.7**	**+0.8**
	comp=Z,0.5nm,0.7s,baz=355,slow=3.7,SNR=6.0								
VNDA				LR		LR		22 28 11.3	
	comp=Z,41nm,18.3s,baz=326,slow=37								
	comp=Z,0.5nm,0.7s								
VNDA	**Vanda**	**74.34**	**172**	P		**P**		**21 53 41.2**	**+0.3**
VNDA				IAmb		IAmb		21 53 48.2	
	comp=Z,1.1nm,1.0s								
SNAA	**Sanae**	**94.73**	**195**	LR		LR		22 39 06.6	
	comp=Z,27nm,18.1s,baz=184,slow=36								
CPUP	**Villa Florida**	**147.79**	**180**	PKPbc		**PKPdf**		**22 01 49.9**	**+3.2**
	comp=Z,3.8nm,1.0s,baz=194,slow=2.5,SNR=8.3								

*IDC **08** 21:44:12.1±0.7,27.°68N×87.°76E, h0km, mb3.8/14, mbtmp3.8/17, ML4.4/4, Error ellipse: s-maj=28.5km s-min=10.3km az=51.0*
*NEIC **08** 21:44:14.4±1.5,27.°73N±0.°10×87.°77E±0.°06, h10km±1km, mb4.1/10, Error ellipse: s-maj=16.7km s-min=8.7km az=175.0*
*GFZ **08** 21:44:15.8±0.2,28.°N±5.°×8.°8E±.°, h10km, M4.4/18, mb4.4/18, Error ellipse: s-maj=13.7km s-min=3.8km az=33.2, confirmed*
*DMN **08** 21:44:22.2±0.2,27.°74N×87.°89E, h91km±7km, Ml5.0/7, Error ellipse: s-maj=13.7km s-min=3.0km az=30.0*
ISC 08 21:44:20.9±0.8,**27.°81N**±0.°05×**88.°01E**±0.°04,**h74**km±10km, **n95**, σ1^{s}**49**/93,**mb4.1**/30,**Sikkim**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ODAN	**Odare**	**1.09**	**211**	Pg		**Pn**		**21 44 43.5**	**+2.4**
	baz=207,slow=0.0								
ODAN	**Odare**	**1.09**	**211**	Pg		**Pn**		**21 44 43.9**	**+2.8**
	baz=207,slow=0.0								
ODAN				Sg		**Sn**		**21 44 59.5**	**+3.4**
	6μm,0.4s,baz=207,slow=0.0								
ODAN				Sg				21 44 59.7	
	baz=207,slow=0.0								
ODAN				AML		AML			
RAMN	**Ramite**	**1.52**	**236**	Pg		**Pn**		**21 44 48.1**	**+1.5**
	baz=236,slow=0.0								
RAMN				Sg		**Sn**		**21 45 07.2**	**+1.4**
	1μm,0.3s,baz=236,slow=0.0								
RAMN				AML		AML			
GUN	**Gumba**	**1.89**	**274**	Pg		**Pn**		**21 44 53.1**	**+1.5**
	baz=276,slow=0.0								
GUN				Sg		**Sn**		**21 45 16.3**	**+1.5**
	2μm,0.2s,baz=276,slow=0.0								
GUN				AML		AML			
COBR	**COOCHBEHAR**	**1.98**	**139**	*i* S		**Sn**		**21 45 14.0**	**-2.5**
PKI	**Pulchoki**	**2.32**	**265**	Pg		**Pn**		**21 44 58.6**	**+1.3**
	baz=266,slow=0.0								
PKI				Sg		**Sn**		**21 45 25.4**	**+0.3**
	2μm,0.3s,baz=266,slow=0.0								
PKI				AML		AML			
PKIN	**Phulchoki**	**2.33**	**265**	Pg		**Pn**		**21 44 58.7**	**+1.3**
	baz=266,slow=0.0								
PKIN				Sg		**Sn**		**21 45 25.5**	**+0.2**
	2μm,0.3s,baz=266,slow=0.0								
PKIN				AML		AML			
KKN	**Kakani**	**2.42**	**270**	Pg		**Pn**		**21 45 00.3**	**+1.7**
	baz=272,slow=0.0								
KKN				Sg		**Sn**		**21 45 27.9**	**+0.5**
	baz=272,slow=0.0								
DHUB	**DHUBRI**	**2.51**	**135**	*i* P		Pn		21 44 53.4	-6.2
DMN	**Daman**	**2.59**	**266**	Pg		**Pn**		**21 45 02.1**	**+1.3**
	baz=268,slow=0.0								
DMN				Sg		**Sn**		**21 45 30.8**	**-0.6**
	744nm,0.2s,baz=268,slow=0.0								
DMN				AML		AML			
GKN	**Gorkha**	**3.00**	**275**	Pg		**Pn**		**21 45 06.9**	**+0.6**
	baz=276,slow=0.0								
GKN				Sg		**Sn**		**21 45 39.9**	**-1.3**
	1μm,0.2s,baz=276,slow=0.0								
GKN				AML		AML			
JMUI	**Jamui**	**3.29**	**210**	*i* P		Pn		21 45 00.0	-10
JMUI				*i* S		Sn		21 45 56.5	+8.5
LSA	**Lhasa**	**3.34**	**55**	P		Pn		21 45 19.9	+8.7
LSA				pmax		pmax			
	comp=Z,44nm,0.6s								
LSA	**Lhasa**	**3.34**	**55**			**Pn**		**21 45 10.7**	**-0.5**
LSA	**Lhasa**	**3.34**	**55**	P		**Pn**		**21 45 13.4**	**+2.1**
DANN	**Dangsing**	**3.80**	**279**	Pn		**Pn**		**21 45 16.4**	**-0.9**
	baz=280,slow=0.0								
DANN				Sn		**Sn**		**21 45 58.6**	**-2.4**
	baz=280,slow=0.0								
GAYA	**Gaya**	**3.90**	**220**	*i* P		**Pn**		**21 45 15.1**	**-3.3**
GAYA				*i* S		**Sn**		**21 46 04.5**	**+1.6**
GAYA				IAML				21 46 07.6	
	comp=N,787nm,0.3s								
SHL	**Shillong**	**4.12**	**122**			**Pn**		**21 45 21.7**	**+0.1**
TEZP	**TEZPUR**	**4.42**	**104**	*i* P		Pn		21 45 19.5	-6.1
TEZP				*i* S		Sn		21 46 08.8	-7.0
ZIRO	**ZIRO**	**5.18**	**92**	*i* P		Pn		21 45 29.8	-6.4
ZIRO				*i* S		Sn		21 46 26.4	-8.3
AZL	**Aizawl**	**5.85**	**133**	*i* P		Pn		21 45 40.0	-5.1
AZL				*i* S		Sn		21 46 42.1	-8.8
BRDH	**Bariadhala**	**6.07**	**146**	Pn		Pn		21 45 43.6	-4.6
	comp=N,49nm,0.3s,baz=72,slow=21,SNR=1.6								
BRDH				Sn		**Sn**		**21 46 55.2**	**-1.0**
	comp=N,60nm,0.3s,baz=263,slow=21,SNR=4.0								
BRDH				AML		AML			
IMP	**Imphal**	**6.09**	**118**	*i* P		Pn		21 45 44.4	-4.1
MORE	**Moreh**	**6.68**	**121**			**Pn**		**21 45 58.2**	**+1.7**
BWNR	**Bhubaneshwar**	**7.78**	**195**	*i* P		Pn		21 46 02.4	-9.1
BWNR				*i* S		Sn		21 47 26.9	-11
BWNR				IAML				21 47 38.3	
	comp=N,74nm,0.3s								
JOSI	**Joshimath**	**7.88**	**292**	*i* P		Pn		21 46 04.9	-8.1
JOSI				*i* S		Sn		21 47 26.5	-14
JOSI				IAML				21 47 37.3	
	comp=N,138nm,0.5s								
JHNI	**Jhansi**	**8.73**	**257**	*i* P		Pn		21 46 18.1	-6.4
JHNI				*i* S		Sn		21 47 47.8	-14
JHNI				IAML				21 47 56.6	
	comp=N,197nm,0.3s								
UTK	**UTTARKASHI**	**8.85**	**291**	*i* P		Pn		21 46 18.3	-7.9
UTK				*i* S		Sn		21 47 51.0	-13
NPW	**Naypyitaw**	**10.91**	**135**	P		**Pn**		**21 46 54.1**	**-0.2**
	comp=Z,18nm,1.1s								
AJM	**Ajmer**	**12.00**	**266**	*i* P		Pn		21 47 00.9	-8.2
AJM				*i* S		Sn		21 49 04.6	-17
AKL	**Akola**	**12.27**	**237**	*i* P		Pn		21 47 05.6	-7.2
AKL				*i* S		Sn		21 49 11.1	-17
AKL				IAML				21 49 22.6	
	comp=N,16nm,0.1s								
CMAR	**Chiang Mai Arr**	**13.69**	**131**	Pn		**Pn**		**21 47 28.6**	**-3.3**
	comp=N,0.1nm,0.3s,baz=308,slow=12,SNR=4.6								
CMAR				Sn		**Sn**		**21 50 01.0**	**-1.4**
	comp=N,0.5nm,0.3s,baz=276,slow=9.2,SNR=4.5								
	comp=N,0.6nm,0.5s								
CMAR				AML		AML			
CMAR	**Chiang Mai Arr**	**13.69**	**131**			**Pn**		**21 47 29.2**	**-2.6**
NIL	**Nilore**	**13.96**	**298**			**Pn**		**21 47 31.3**	**-4.1**
NIL	**Nilore**	**13.96**	**298**	P		**Pn**		**21 47 31.5**	**-3.9**
	comp=Z,20nm,0.5s								
KSH2	**Kashi**	**15.34**	**321**	P		**Pn**		**21 47 49.3**	**-3.9**
KSH2				pmax		pmax			
	comp=Z,25nm,0.7s								
LZDM	**Lanzhou Array**	**15.59**	**55**	Pn		**Pn**		**21 47 58.5**	**+1.9**
	baz=225,slow=8.2								
	comp=Z,3.3nm,0.4s								
LZH	**Lanzhou**	**15.76**	**54**	*e*P		**Pn**		**21 47 57.2**	**-1.4**
LZH				pP		P		21 48 02.8	+1.7
LZH				pmax		pmax			
	comp=Z,10.0nm,1.5s								
WMQ	**Urumqi**	**15.98**	**359**	*e*P		**Pn**		**21 48 02.1**	**+0.8**
PRZ	**Przheval'sk**	**16.60**	**334**			**Pn**		**21 48 09.6**	**+0.5**
PRZ				IAmb		IAmb		21 48 13.5	
	comp=Z,18nm,0.7s								
PRZ	**Przheval'sk**	**16.60**	**334**	P		**P**		**21 48 10.5**	**+0.1**
	comp=Z,27nm,0.8s								
PDGK	**Podgornoye**	**16.95**	**338**			**Pn**		**21 48 13.7**	**+0.3**
KBL	**Kabul**	**17.55**	**297**			**P**		**21 48 19.1**	**-1.9**
KBL				IAmb		IAmb		21 48 22.7	
	comp=Z,11nm,0.8s								
ARSB	**Arslanbob**	**18.27**	**321**			**P**		**21 48 27.5**	**-1.2**
ARSB				IAmb		IAmb		21 48 33.2	
	comp=Z,9.1nm,0.6s								
ENH	**Enshi**	**18.93**	**77**	P		**Pn**		**21 48 38.4**	**+1.0**
	comp=Z,12nm,1.1s								
MKAR	**Makanchi Array**	**19.48**	**348**	P		**P**		**21 48 42.9**	**+1.1**
	comp=Z,0.5nm,0.3s,baz=178,slow=9.9,SNR=23								
	comp=Z,1.2nm,0.4s								
MKAR				AML		AML			
MKAR	**Makanchi Array**	**19.48**	**348**	P		**P**		**21 48 41.8**	**0.0**
KK31	**Karatay Array**	**20.82**	**322**			**P**		**21 48 56.7**	**+0.3**
KK31				IAmb		IAmb		21 48 57.1	
	comp=Z,3.9nm,0.8s								
KKAR	**Karatay Array**	**20.82**	**322**	P		**P**		**21 48 56.4**	**+0.1**
KURBB	**Kurchatov Arra**	**23.90**	**345**	P		**P**		**21 49 28.4**	**+0.7**
	comp=Z,4.6nm,0.7s,baz=165,slow=9.0,SNR=34								
	comp=Z,4.6nm,0.7s								
KURK	**Kurchatov**	**23.97**	**345**			**P**		**21 49 28.5**	**+0.2**
KURK				IAmb		IAmb		21 49 29.6	
	comp=Z,7.3nm,0.8s								
KURK	**Kurchatov**	**23.97**	**345**	P		**P**		**21 49 28.9**	**+0.7**
	comp=Z,10nm,1.0s								
SONM	**Songino Array**	**24.59**	**31**	P		**P**		**21 49 35.6**	**+1.4**
	comp=Z,1.5nm,0.5s,baz=220,slow=10,SNR=17								
	comp=Z,1.5nm,0.5s								
SONM	**Songino Array**	**24.59**	**31**	P		**P**		**21 49 35.4**	**+1.2**
ZALV	**Zalesovo Beam**	**26.22**	**356**	P		**P**		**21 49 48.9**	**+0.2**
	comp=Z,1.0nm,0.4s,baz=185,slow=8.9,SNR=7.1								
	comp=Z,1.0nm,0.4s								
ZALV	**Zalesovo Beam**	**26.22**	**356**	P		**P**		**21 49 49.3**	**+0.6**
AB31	**Akbulak array**	**30.38**	**322**			**P**		**21 50 25.3**	**-0.5**
AB31				IAmb		IAmb		21 50 28.1	
	comp=Z,1.9nm,0.8s								
KEMA	**Kemaliye**	**42.36**	**299**	P		**P**		**21 52 10.4**	**+2.5**
	comp=Z,11nm,2.5s								
BRTR	**Keskin Array B**	**46.11**	**300**	P		**P**		**21 52 37.5**	**-0.4**
	comp=Z,0.3nm,0.7s,baz=132,slow=9.3,SNR=2.6								
	comp=Z,0.3nm,0.7s								
BRTR	**Keskin Array B**	**46.11**	**300**	P		**P**		**21 52 37.1**	**-0.9**
AKASG	**Malin Array Be**	**49.46**	**314**	P		**P**		**21 53 03.2**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=81,slow=6.8,SNR=4.7								
	comp=Z,0.2nm,0.3s								
VRI	**Vrincioaia**	**51.00**	**308**	P		**P**		**21 53 16.8**	**+1.6**
	comp=Z,4.5nm,2.1s								
MLR	**Muntele Rosu**	**51.56**	**307**	P		**P**		**21 53 21.4**	**+1.8**
	comp=Z,5.4nm,1.8s								
FINES	**FINESS Array B**	**52.61**	**328**	P		**P**		**21 53 27.0**	**+0.1**
	comp=Z,1.1nm,0.5s,baz=103,slow=7.8,SNR=14								
	comp=Z,1.1nm,0.5s								
FINES	**FINESS Array B**	**52.61**	**328**	P		**P**		**21 53 27.2**	**+0.3**
DRGR		**53.74**	**309**	P		**P**		**21 53 36.6**	**+1.0**
KNT	**Kendrikon**	**54.15**	**302**	P		**P**		**21 53 38.6**	**0.0**
	comp=Z,6.0nm,2.8s								
GRG	**Griva**	**54.55**	**302**	P		**P**		**21 53 41.8**	**+0.3**
	comp=Z,14nm,1.6s								
ARCES	**ARCESS Array B**	**54.67**	**338**	P		**P**		**21 53 42.6**	**+0.7**
	comp=Z,6.0nm,1.0s,baz=100,slow=7.5,SNR=7.5								
	comp=Z,6.0nm,1.0s								
ARCES	**ARCESS Array B**	**54.67**	**338**	P		**P**		**21 53 42.5**	**+0.5**
HFS	**Hagfors**	**58.56**	**326**	P		**P**		**21 54 09.9**	**+0.3**
	comp=Z,0.7nm,0.4s,baz=108,slow=8.3,SNR=5.4								
	comp=Z,0.7nm,0.4s								
GEC2	**GERESS Array S**	**59.56**	**312**	P		**P**		**21 54 17.4**	**+0.6**
	comp=Z,3.4nm,2.7s								
GERES	**GERESS Array B**	**59.56**	**312**	P		**P**		**21 54 17.4**	**+0.6**
	comp=Z,1.0nm,0.8s,baz=90,slow=6.7,SNR=11								
	comp=Z,1.0nm,0.8s								
GERES	**GERESS Array B**	**59.56**	**312**	P		**P**		**21 54 16.9**	**0.0**
KHC	**Kasperske Hory**	**59.60**	**313**	P		**P**		**21 54 17.9**	**+0.9**
	comp=Z,4.0nm,2.8s								
NOA	**NORSAR Array B**	**59.75**	**327**	P		**P**		**21 54 18.0**	**+0.2**
	comp=Z,0.4nm,0.7s,baz=88,slow=6.7,SNR=2.4								
	comp=Z,0.4nm,0.7s								
DRE	**Drenchia**	**60.03**	**309**	P		**P**		**21 54 20.2**	**+0.1**
	comp=Z,6.2nm,0.7s								
LESA	**Schwarzleotal**	**60.47**	**311**	*i* P		**P**		**21 54 23.2**	**+0.1**
	comp=Z,1.1nm,0.4s								
WIMM	**Wimmelburg**	**60.56**	**316**	P		**P**		**21 54 23.9**	**+0.4**
	comp=Z,15nm,1.8s								
WTTA	**Wattenberg**	**61.19**	**311**	*i* P		**P**		**21 54 27.9**	**-0.3**
	comp=Z,1.1nm,0.4s								
WTTA	**Wattenberg**	**61.19**	**311**	P		**P**		**21 54 27.7**	**-0.4**
	comp=Z,5.4nm,2.8s								
CLZ	**Clausthal**	**61.21**	**316**	P		**P**		**21 54 28.9**	**+0.9**
SQTA	**Sankt Quirin**	**61.49**	**311**	*i* P		**P**		**21 54 29.7**	**-0.3**
	comp=Z,1.1nm,0.3s								
MOTA	**Moosalm**	**61.53**	**311**	*i* P		**P**		**21 54 30.0**	**-0.3**
	comp=Z,0.5nm,0.3s								
UBR	**Ueberruh**	**62.13**	**312**	P		**P**		**21 54 34.2**	**-0.1**
FUORN	**Ofenpass-Fuorn**	**62.24**	**310**	P		**P**		**21 54 35.1**	**-0.1**
	comp=Z,3.0nm,1.5s								
TUE	**Stuetta**	**62.89**	**310**	P		**P**		**21 54 39.9**	**+0.4**
	comp=Z,3.6nm,2.9s								
SAOF	**Saorge**	**64.71**	**308**	P		**P**		**21 54 51.8**	**+0.5**
WRA	**Warramunga Arr**	**65.28**	**131**	P		**P**		**21 54 57.5**	**+2.3**
	comp=Z,1.1nm,0.9s,baz=325,slow=6.5,SNR=14								
	comp=Z,1.1nm,0.9s								
WRA	**Warramunga Arr**	**65.28**	**131**	P		**P**		**21 54 57.1**	**+1.8**
ASAR	**Alice Springs**	**67.66**	**135**	P		**P**		**21 55 12.7**	**+2.3**
	comp=Z,

KRBS				*e*S		Sg	21 47 26.4	-0.3
	7.9nm,0.8s							
KTBS	**Karatobe**	**4.16**	**8**	Pg		Pb	21 46 30.2	+1.9
	0.1nm,0.1s							
KTBS				Lg		Lg	21 47 26.4	
	6.6nm,0.6s							
KTBS	**Karatobe**	**4.16**	**8**	*e*P		Pb	21 46 30.2	+1.9
	0.1nm,0.1s							
KTBS				*e*S		Sg	21 47 26.4	-2.0
	6.6nm,0.6s							
KK31	**Karatay Array**	**5.37 313**		Pn		Pn	21 46 37.0	+1.8
	0.3nm,0.3s,baz=127,slow=12,SNR=8.2							
KK31				⇓Lg		Lg	21 48 05.4	
	0.3nm,0.3s,baz=128,slow=27							

*DSN **08** 21:51:18.9±1.3,27°.39N×53°.58E,h10km,ML3.4/17,Error ellipse: s-maj=16.7km s-min=4.8km az=179.0*
*TEH **08** 21:51:19.3,27°.08N×53°.55E,h16km±24km,ML3.7, Presumed earthquake*
*OMAN **08** 21:51:20.7±0.1,27°.14N×53°.55E,h14km±1km,mb3.6/12, ml3.5/17,Error ellipse: s-maj=2.3km s-min=1.0km az=350.0*
*NEIC **08** 21:51:20.0±1.1,27°.12N±0°.08×53°.47E±0°.09,h10km±1km, mb4.0/6,Error ellipse: s-maj=16.7km s-min=9.2km az=227.0*
*IDC **08** 21:51:31.4±10.0,27°.10N×53°.45E,h126km±101km, mb3.4/10,mbtmp3.8/11,ML3.2/1,MS3.1/1,Error ellipse: s-maj=40.3km s-min=18.9km az=162.0*

ISC 08 21:51:18.4±1.4,27°.05N±0°.03×53°.55E±0°.04,h6km±10km, n99,σ1s99/117,mb3.9/17,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
LMD1	**Lamerd**	**0.45**	**310**	Pg	**Pb**	**21 51 28.5**		**-0.2**
KHL1	**Khalili_Fars**	**0.63**	**339**	Pg	**Pg**	**21 51 30.5**		**0.0**
JHRM	**Jahrom**	**1.45**	**1**	Pg	**Pb**	**21 51 45.9**		**0.0**
JRN	**Qarnain Island**	**2.19**	**197**	P	**Pg**	**21 52 00.5**		**+0.1**
JRN				S	**Sg**	**21 52 29.8**		**+1.0**
GENO	**Geno**	**2.36**	**81**	Pn	**Pn**	**21 51 59.1**		**+1.3**
DSBU	**Dashti - Bushe**	**2.42**	**303**	Pn	**Pn**	**21 51 59.6**		**+1.1**
SHME	**Shamm**	**2.52**	**113**	*e*P	**Pn**	**21 52 01.8**		**+1.8**
	SNR=11							
SHME				S	**Sb**	**21 52 33.8**		**-1.6**
SHME	**Shamm**	**2.52**	**113**	P	**Pn**	**21 52 01.5**		**+1.6**
SHME				S	**Sb**	**21 52 35.8**		**+0.4**
IBND	**Bandar-abas**	**2.69**	**81**	Pn	**Pn**	**21 52 03.6**		**+1.4**
BANOM	**Banah**	**2.71**	**114**	P	**Pn**	**21 52 04.6**		**+2.1**
	SNR=8.7							
AJN	**Ajban**	**2.79**	**152**	*i* P	**Pb**	**21 52 07.8**		**-0.9**
	SNR=7.9							
AJN	**Ajban**	**2.79**	**152**	P	**Pb**	**21 52 08.4**		**-0.3**
AJN				S	**Sb**	**21 52 42.6**		**-0.6**
NAZ	**Nazwa, Dubai**	**2.80**	**137**	*i* P	**Pb**	**21 52 07.9**		**-0.8**
	SNR=14							
NAZ	**Nazwa, Dubai**	**2.80**	**137**	P	**Pb**	**21 52 08.1**		**-0.7**
	SNR=21							
NAZ				S	**Sb**	**21 52 42.3**		**-1.0**
MASF	**Masafi**	**2.88**	**125**	P	**Pb**	**21 52 08.2**		**-2.0**
	SNR=14							
MASF				S	**Sb**	**21 52 42.5**		**-3.1**
MSFE	**Esma-Masafi**	**2.88**	**125**	*i* P	**Pn**	**21 52 07.6**		**+2.7**
	SNR=14							
ASUD	**Al Ashush, Dub**	**2.90**	**146**	*i* P	**Pb**	**21 52 09.8**		**-0.6**
	SNR=23							
ASUD	**Al Ashush, Dub**	**2.90**	**146**	P	**Pb**	**21 52 09.8**		**-0.6**
	SNR=23							
ASUD				S	**Sb**	**21 52 46.8**		**+0.7**
FAQ	**Al Faqa, Dubai**	**2.94**	**141**	*i* P	**Pb**	**21 52 10.0**		**-1.2**
	SNR=7.0							
FAQ	**Al Faqa, Dubai**	**2.94**	**141**	P	**Pn**	**21 52 07.7**		**+2.1**
	SNR=7.0							
FAQ				S	**Sb**	**21 52 46.1**		**-1.3**
MDH	**Madha**	**3.02**	**125**	*i* P	**Pn**	**21 52 09.8**		**+3.0**
	SNR=8.1							
MDH	**Madha**	**3.02**	**125**	P	**Pn**	**21 52 09.7**		**+2.9**
	SNR=8.1							
MDH				S	**Sn**	**21 52 46.0**		**+2.7**
	SNR=6.3							
UOSS	**Minazif**	**3.18**	**131**	*i* P	**Pn**	**21 52 11.7**		**+2.8**
	SNR=48							
UOSS	**Minazif**	**3.18**	**131**	P	**Pn**	**21 52 11.9**		**+3.0**
UOSS				S	**Sb**	**21 52 50.8**		**-3.4**
UOSS	**Minazif**	**3.18**	**131**		**Pn**	**21 52 11.4**		**+2.5**
UOSS				Sn	**Sn**	**21 52 49.4**		**+2.3**
HATD	**Hatta, Dubai**	**3.21**	**133**	*i* P	**Pb**	**21 52 12.8**		**-2.9**
	SNR=11							
HATD	**Hatta, Dubai**	**3.21**	**133**	P	**Pb**	**21 52 12.9**		**-2.9**
	SNR=11							
HATD				S	**Sn**	**21 52 51.1**		**+3.2**
ASHO	**Ashiyiah**	**3.26**	**136**	*i* P	**Pb**	**21 52 13.7**		**-3.0**
	SNR=71							
ASHO	**Ashiyiah**	**3.26**	**136**	P	**Pb**	**21 52 13.8**		**-3.0**
	SNR=71							
ASHO				S	**Sn**	**21 52 52.7**		**+3.4**
MZWR	**Madinat Zayed**	**3.29**	**175**	P	**Pb**	**21 52 14.9**		**-2.2**
MZWR				S	**Sb**	**21 52 53.9**		**-3.5**
ALNE	**Al Ain**	**3.58**	**146**	*i* P	**Pn**	**21 52 18.5**		**+4.0**
	SNR=22							
ALNE	**Al Ain**	**3.58**	**146**	P	**Pn**	**21 52 18.6**		**+4.0**
	SNR=22							
ALNE				S	**Sn**	**21 53 00.9**		**+3.8**
KHNJ	**Kahnooj**	**3.80**	**75**	Pn	**Pn**	**21 52 18.1**		**+0.6**
SOHO	**SOHO**	**3.96**	**136**	*i* P	**Pn**	**21 52 22.7**		**+3.1**
	SNR=30							
SOHO	**SOHO**	**3.96**	**136**	P	**Pn**	**21 52 22.7**		**+3.1**
	SNR=30							
SOHO				S	**Sn**	**21 53 08.6**		**+2.2**
JASK	**Jask - Hormozg**	**4.04**	**106**	P	**Pn**	**21 52 22.7**		**+1.9**
	SNR=12							
JASK				S	**Sn**	**21 53 10.0**		**+1.5**
JASK	**Jask - Hormozg**	**4.04**	**106**	Pn	**Pn**	**21 52 22.5**		**+1.7**
KHGB	**Koh Gabri**	**4.19**	**37**	Pn	**Pn**	**21 52 24.2**		**+1.1**
IMEH	**Mehriz**	**4.42**	**12**	Pn	**Pn**	**21 52 27.8**		**+1.5**
CHMN	**Cheshme madani**	**4.49**	**50**	Pn	**Pn**	**21 52 29.3**		**+2.0**
UMZA	**Um Al Zommool**	**4.56**	**161**	P	**Pn**	**21 52 32.0**		**+4.1**
UMZA				S	**Sn**	**21 53 24.4**		**+3.3**
ARQ	**Araqi**	**4.57**	**143**	P	**Pn**	**21 52 31.5**		**+3.4**
	SNR=54							
TAFT	**Taft - Yazd**	**4.69**	**6**	Pn	**Pn**	**21 52 31.5**		**+1.6**
ZRDN	**Zarand Kerman**	**4.70**	**33**	Pn	**Pn**	**21 52 30.7**		**+0.6**
KRM1	**Kerman Provinc**	**4.74**	**43**	Pn	**Pn**	**21 52 31.8**		**+1.2**
KBAM	**BAM**	**4.80**	**63**	Pn	**Pn**	**21 52 33.2**		**+1.8**
HOQ	**Hoqain**	**4.85**	**135**	P	**Pn**	**21 52 33.8**		**+1.9**
	SNR=26							
IRAM	**Ramesheh**	**4.85**	**348**	Pn	**Pn**	**21 52 33.2**		**+1.1**
IBAF	**Bafgh**	**4.86**	**21**	Pn	**Pn**	**21 52 32.9**		**+0.7**
BSY	**Bisya**	**5.42**	**142**	P	**Pn**	**21 52 43.0**		**+3.3**
	SNR=27							
BIDO	**Bidbid**	**5.43**	**129**	P	**Pn**	**21 52 41.9**		**+2.0**
SMDO	**Samad**	**5.69**	**133**	P	**Pn**	**21 52 46.2**		**+2.5**
	SNR=41							
SMDO				S	**Sn**	**21 53 51.0**		**+1.6**
	SNR=9.1							
WSAR	**Wadi Sarin**	**5.96**	**128**	P	**Pn**	**21 52 50.0**		**+2.7**
JMDO	**Jabal Madar**	**6.23**	**137**	P	**Pn**	**21 52 53.4**		**+2.5**
CHBR	**Chabahar**	**6.39**	**102**	Pn	**Pn**	**21 52 54.4**		**+1.4**
WBK	**Wadi Bani Khal**	**6.61**	**131**	P	**Pn**	**21 52 58.2**		**+2.0**
	SNR=25							
NGCH	**Negor - Chabah**	**7.02**	**102**	P	**Pn**	**21 53 03.9**		**+2.2**
JLN	**Jalan Bani Buh**	**7.22**	**131**	P	**Pn**	**21 53 06.6**		**+2.0**
MHTO	**MHTO**	**7.26**	**145**	P	**Pn**	**21 53 08.0**		**+3.0**
	SNR=6.5							
DQM	**DQM**	**7.97**	**152**	P	**Pn**	**21 53 17.1**		**+2.3**
RAYN	**Ar Rayn**	**8.09**	**246**	*i* P	**Pn**	**21 53 17.7**		**+1.2**
	SNR=34							
RAYN	**Ar Rayn**	**8.09**	**246**	P	**Pn**	**21 53 18.2**		**+1.8**
RAYN	**Ar Rayn**	**8.09**	**246**		**Pn**	**21 53 17.1**		**+0.7**
DOK	**Doka**	**8.41**	**176**	P	**Pn**	**21 53 23.0**		**+2.2**
	SNR=22							
WHFO	**Wadi Hawf**	**9.09**	**179**	P	**Pn**	**21 53 31.9**		**+1.7**
	SNR=23							
WHFO				S	**Sn**	**21 55 11.0**		**-1.9**
	SNR=8.7							
SHAO	**Shalim**	**9.19**	**168**	P	**Pn**	**21 53 33.4**		**+1.9**
DMTO	**DMTO**	**9.38**	**172**	P	**Pn**	**21 53 36.1**		**+2.0**
	SNR=9.8							
RBK	**Rabkut**	**9.52**	**176**	P	**Pn**	**21 53 37.8**		**+1.7**
ABTO	**Aybut**	**9.65**	**181**	P	**Pn**	**21 53 38.8**		**+0.9**
	SNR=13							
KBZ	**Khabaz**	**18.75**	**335**	P	**Pn**	**21 55 39.6**		**+1.4**
	0.1nm,0.3s,baz=170,slow=7.1,SNR=3.8							
	2.4nm,1.0s							
KBZ				AML	AML			
BTK	**Batken**	**19.33**	**43**	P	**Pn**	**21 55 45.0**		**-0.5**
BRTR	**Keskin Array B**	**20.83**	**312**	P	Pn	21 56 02.1		-1.1
	1.3nm,0.8s,baz=138,slow=11,SNR=6.9							
	1.3nm,0.8s							
BRTR	**Keskin Array B**	**20.83**	**312**	P	**P**	**21 56 00.3**		**-0.6**
KKAR	**Karatay Array**	**21.13**	**36**	P	**P**	**21 56 04.4**		**+0.4**
ARSB	**Arslanbob**	**21.41**	**43**	P	**P**	**21 56 06.8**		**-0.3**
ARSB				IAmb	IAmb	21 56 12.6		
	comp=Z,9.0nm,1.2s							
AB31	**Akbulak array**	**22.72**	**11**	P	**P**	**21 56 20.6**		**-0.3**
AB31				IAmb	IAmb	21 56 27.7		
	comp=Z,1.6nm,0.7s							
ABKAR	**Akbulak array**	**22.72**	**11**	P	**P**	**21 56 21.1**		**+0.3**
AAK	**Ala-Archa**	**23.09**	**42**	P	**P**	**21 56 26.8**		**+1.8**
	comp=Z,0.3nm,0.3s,baz=214,slow=13,SNR=1.6							
	comp=Z,0.3nm,0.3s							
AAK	**Ala-Archa**	**23.09**	**42**	P	**P**	**21 56 24.1**		**-0.9**
AAK				IAmb	IAmb	21 56 37.0		
	comp=Z,5.2nm,1.5s							
MKAR	**Makanchi Array**	**30.01**	**41**	P	**P**	**21 57 28.2**		**+0.3**
	comp=Z,0.4nm,0.4s,baz=230,slow=8.8,SNR=10							
	comp=Z,0.4nm,0.4s							
MKAR	**Makanchi Array**	**30.01**	**41**	P	**P**	**21 57 28.1**		**+0.2**
AKASG	**Malin Array Be**	**30.02**	**328**	P	**P**	**21 57 27.1**		**-0.7**
	comp=Z,0.4nm,0.4s,baz=139,slow=8.4,SNR=6.2							
	comp=Z,0.4nm,0.4s							
ZALV	**Zalesovo Beam**	**35.37**	**32**	P	**P**	**21 58 14.8**		**+0.2**
	comp=Z,0.5nm,0.3s,baz=244,slow=8.0,SNR=2.3							
	comp=Z,0.5nm,0.3s							
ZALV	**Zalesovo Beam**	**35.37**	**32**	P	**P**	**21 58 15.0**		**+0.5**
WTTA	**Wattenberg**	**38.45**	**313**	*i* P	**P**	**21 58 40.3**		**-0.8**
	comp=Z,0.5nm,0.2s							
WATA	**Walderalm**	**38.51**	**313**	*e*P	**P**	**21 58 40.8**		**-0.7**
	comp=Z,0.9nm,0.3s							
SQTA	**Sankt Quirin**	**38.71**	**313**	*i* P	**P**	**21 58 42.4**		**-0.9**
	comp=Z,2.6nm,0.3s							
MOTA	**Moosalm**	**38.82**	**313**	*e*P	**P**	**21 58 42.7**		**-1.4**
	comp=Z,0.8nm,0.2s							
FETA	**Feichten**	**38.97**	**312**	*i* P	**P**	**21 58 44.8**		**-0.7**
	comp=Z,0.8nm,0.3s							
FINES	**FINESS Array B**	**39.02**	**339**	P	**P**	**21 58 44.6**		**-0.9**
	comp=Z,1.7nm,0.4s,baz=140,slow=7.3,SNR=22							
	comp=Z,1.7nm,0.4s							
FINES	**FINESS Array B**	**39.02**	**339**	P	**P**	**21 58 44.9**		**-0.6**
DAVA	**Damuels**	**39.60**	**312**	*i* P	**P**	**21 58 49.6**		**-1.2**
	comp=Z,5.0nm,0.4s							
HFS	**Hars**		**42.76**	**332**	P	**P**	**21 59 15.1**	**-1.2**
	comp=Z,0.5nm,0.3s,baz=113,slow=11,SNR=6.1							
	comp=Z,0.5nm,0.3s							
NOA	**NORSAR Array B**	**44.27**	**332**	LR	LR	22 19 35.9		
	comp=Z,24nm,19.6s,baz=0.0,slow=38							
EKA	**Eskdalemuir Ar**	**49.39**	**321**	P	**P**	**22 00 07.5**		**-1.2**
	comp=Z,0.5nm,0.4s,baz=105,slow=7.9,SNR=11							
	comp=Z,0.5nm,0.4s							
TORD	**Torodi Ar. Bea**	**50.30**	**265**	P	**P**	**22 00 14.8**		**-1.3**
	comp=Z,0.7nm,0.7s,baz=76,slow=7.1,SNR=9.2							
	comp=Z,0.7nm,0.7s							
TORD	**Torodi Ar. Bea**	**50.30**	**265**	P	**P**	**22 00 16.7**		**+0.6**
TORD				IAmb	IAmb	22 00 47.5		
	comp=Z,6.2nm,0.8s							
DBIC	**Dimbokro**	**58.92**	**261**	P	**P**	**22 01 17.0**		**-1.8**
	comp=Z,2.8nm,0.8s,baz=51,slow=5.9,SNR=3.8							
	comp=Z,2.8nm,0.8s							
DBIC	**Dimbokro**	**58.92**	**261**	P	**P**	**22 01 18.9**		**+0.2**

*IDC **08** 21:53:23.0±1.4,54°.10N×135°.12E,h0km,mb3.6/3, mbtmp3.6/6,ML3.8/3,Error ellipse: s-maj=27.0km s-min=12.7km az=102.0*
*SKHL **08** 21:53:23.3±0.6,54°.00N×135°.30E,h14km±1km,mb4.7/5*

ISC 08 21:53:23.6±0.8,53°.98N±0°.05×135°.26E±0°.03,h10km,n16, σ2s24/24,mb3.5/3,Southeastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
EKMR	**Ekimchan**	**1.65**	**238**	*e*Pg	**Pb**	**21 53 53.7**		**-0.3**
EKMR				AMB	AMB	21 53 55.0		
	720nm,0.3s							
EKMR				*e*Sg	**Sb**	**21 54 15.9**		**+1.0**
EKMR				A	A	21 54 18.1		
	2μm,0.4s							
EKMR				A	A	21 54 18.1		
	1μm,0.4s							
GRNR	**Gornyy**	**3.29**	**167**	*e*Pn	**Pn**	**21 54 15.4**		**+0.3**
GRNR				*e*Pg	**Pb**	**21 54 23.7**		**+1.7**
GRNR				*e*Sg	**Sg**	**21 55 07.4**		**-1.8**
NKL	**Nikolayevsk**	**3.34**	**102**	*e*Pn	**Pn**	**21 54 16.0**		**+0.3**
NKL				*e*Pg	**Pb**	**21 54 23.4**		**+0.6**
NKL				AMB	AMB	21 54 26.2		
	30nm,0.3s							
NKL				*e*rx	rx	21 54 52.2		
NKL				*e*Sg	**Sg**	**21 55 07.7**		**-3.0**
NKL				A	A	21 55 10.9		
	660nm,0.6s							
NKL				A	A	21 55 10.9		
	550nm,0.6s							
BMKR	**Bomnak**	**3.83**	**284**	*e*Pg	**Pb**	**21 54 31.8**		**+0.7**
BMKR				AMB	AMB	21 54 35.0		
	80nm,0.4s							
BMKR				*e*Sg	**Sb**	**21 55 22.0**		**+4.5**
BMKR				A	A	21 55 24.8		
	530nm,0.5s							
BMKR				A	A	21 55 24.8		
	690nm,0.5s							
OCTB	**Oktyabr'skiy**	**4.07**	**259**	*e*P	**Pn**	**21 54 26.1**		**+0.3**
OCTB				*e*Pg	**Pb**	**21 54 37.2**		**+2.0**
OCTB				AMB	AMB	21 54 38.7		
	80nm,0.4s							
OCTB				*e*Sg	**Sg**	**21 55 30.5**		**-3.5**
OCTB				A	A	21 55 35.6		
	170nm,0.6s							
OCTB				A	A	21 55 35.6		
	430nm,0.6s							
ZEA	**Zeya**	**4.75**	**270**	*e*Pg	**Pb**	**21 54 48.6**		**+1.8**
ZEA				AMB	AMB	21 54 53.5		
	50nm,0.4s							
ZEA				*e*Sg	**Sg**	**21 55 50.8**		**-5.0**
ZEA				A	A	21 55 51.5		
	280nm,0.8s							
KLR	**Kul'dur**	**5.23**	**206**	Pn	**Pn**	**21 54 42.4**		**+0.6**
	1.5nm,0.3s,baz=19,slow=16,SNR=20							
KLR				Lg	Lg	21 56 06.5		
	14nm,0.3s,baz=106,slow=11,SNR=14							
	5.0nm,0.4s							
KLR				AML	AML			
KLR	**Kul'dur**	**5.23**	**206**	*e*Sg	**Sg**	**21 56 09.0**		**-2.4**
KHBR	**Khabarovsk**	**5.51**	**181**	*e*Pn	**Pn**	**21 54 46.7**		**+1.1**
KHBR				*e*Sg	**Sg**	**21 56 17.3**		**-3.1**
KHBR				A	A	21 56 20.3		
	210nm,0.4s							
YAK	**Yakutsk**	**8.60**	**342**	Pn	**Pn**	**21 55 25.8**		**-2.1**
	2.2nm,0.3s,baz=180,slow=16,SNR=1.7							
YAK				Lg	Lg	21 57 40.6		
	4.1nm,0.3s,baz=187,slow=20,SNR=16							
	7.2nm,0.4s							
YAK				AML	AML			
USRK	**Ussuriysk Ar.**	**10.02**	**194**	Lg	Lg	21 58 36.4		
	0.4nm,0.3s,baz=10.0,slow=26,SNR=4.5							
HILR	**Hailar Array B**	**10.58**	**252**	Lg	Lg	21 58 58.9		
	baz=50,slow=36							
SONM	**Songino Array**	**19.12**	**263**	P	**Pn**	**21 57 47.3**		**-0.2**
	baz=58,slow=9.6,SNR=6.5							
SONM				Lg	Lg	22 03 27.6		
	0.1nm,0.3s,baz=68,slow=27,SNR=5.5							
	0.9nm,0.8s							
MKAR	**Makanchi Array**	**33.83**	**280**	P	**P**	**22 00 06.7**		**+1.0**
	0.4nm,0.6s,baz=59,slow=7.2,SNR=4.1							
	0.4nm,0.6s							
KURBB	**Kurchatov Arra**	**34.06**	**288**	P	**P**	**22 00 07.8**		**+0.2**
	0.6nm,0.7s,baz=69,slow=9.1,SNR=4.2							
	0.6nm,0.7s							
ILAR	**Eielson Array**	**38.53**	**42**	P	**P**	**22 00 46.4**		**+0.7**
	0.5nm,0.6s,baz=279,slow=7.5,SNR=6.3							
	0.5nm,0.6s							

*TEH **08** 21:53:46.8,39°.61N×52°.41E,h10km,ML3.5,Presumed earthquake*

ISC 08 21:53:50.5±1.9,39°.7N±0°.1×52°.4E±0°.1,h35km,n11, σ0s97/12,Caspian Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
MZPU	**Pul - Mazandar**	**3.29**	**192**	Pn	**Pn**	**21 54 39.6**		**-0.2**
IPRN	**Peran**	**3.42**	**181**	Pn	**Pn**	**21 54 41.8**		**+0.3**
MRVT	**Maraveh tapeh**	**3.49**	**124**	Pn	**Pn**	**21 54 42.8**		**+0.4**
GRMI	**Germi**	**3.63**	**258**	Pn	**Pn**	**21 54 44.6**		**+0.2**
IGZV	**Ghazvin**	**3.71**	**209**	Pn	**Pn**	**21 54 45.6**		**0.0**
IFIR	**Firoozkooh**	**4.02**	**176**	Pn	**Pn**	**21 54 50.4**		**+0.5**
ZNJK	**Zanjan**	**4.20**	**226**	Pn	**Pn**	**21 54 52.2**		**-0.2**
IHRS	**Herís**	**4.41**	**254**	Pn	**Pn**	**21 54 56.0**		**+0.7**
SHRO	**Shahrood**	**4.63**	**141**	Pn	**Pn**	**21 54 58.7**		**+0.6**
IHSH	**Hashtrud**	**4.69**	**242**	Pn	**Pn**	**21 54 59.2**		**+0.1**
CHRG	**Chargali**	**6.28**	**298**	P	**Pn**	**21 55 22.8**		**+2.1**
CHRG				S	**Sn**	**21 56 29.6**		**-1.6**

*SNET **08** 22:15:43.5±3.6,11°.22N×85°.61W,h180km,ML3.7, Presumed earthquake*
*IDC **08** 22:15:45.2±0.6,11°.41N×85°.37W,h183km±21km,mb3.2/8, mbtmp3.7/9,MS3.2/1,Error ellipse: s-maj=50.9km s-min=22.2km az=23.0*
*UCR **08** 22:15:45.4±0.8,11°.32N×85°.70W,h180km±18km,MW4.1, Presumed earthquake*
*CATAC **08** 22:15:46.4,11°.1°×8°.6W±°,h181km±2km,M3.9/24, MLv3.9/24,confirmed*

ISC 08 22:15:45.3±0.7,11°.27N±0°.06×85°.62W±0°.06,h190km±5km, n97,σ0s97/116,mb3.5/8,Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
CARN	**Rivas**	**0.12**	**131**	P	**Pn**	**22 16 10.6**		**+0.3**
CARN	**Rivas**	**0.12**	**131**	*e*P	**Pn**	**22 16 10.6**		**+0.3**
LCRUZ	**La Cruz**	**0.19**	**184**	*e*P	**Pn**	**22 16 10.1**		**-0.3**
OMEN	**Al SSO del Vol**	**0.24**	**358**	P	**Pn**	**22 16 10.8**		**+0.3**
CONN	**Concepcion**	**0.29**	**359**	P	**Pn**	**22 16 10.7**		**+0.1**
LAPC	**Finca la Perla**	**0.53**	**160**	*e*P	**Pn**	**22 16 10.4**		**-1.1**
VRLE	**La Escondida,**	**0.54**	**153**	*e*P	**Pn**	**22 16 11.7**		**+0.1**
GPS2	**Hotel Rincn d**	**0.58**	**153**	*e*P	**Pn**	**22 16 11.7**		**0.0**
NADN	**Granada**	**0.63**	**320**	P	**Pn**	**22 16 11.7**		**-0.1**
NADN	**Granada**	**0.63**	**320**	*e*P	**Pn**	**22 16 11.6**		**-0.1**
CLARA	**Aguas Claras**	**0.65**	**138**	*e*P	**Pn**	**22 16 12.3**		**+0.4**
ERIA	**Liberia**	**0.66**	**164**	*e*P	**Pn**	**22 16 11.9**		**0.0**
MESS	**Mesas**	**0.67**	**142**	*e*P	**Pn**	**22 16 12.5**		**+0.4**
VMLR	**Armenia, Volca**	**0.67**	**132**	*e*P	**Pn**	**22 16 12.3**		**+0.2**
ALIBA	**Liberia Airpor**	**0.68**	**174**	*e*P	**Pn**	**22 16 11.4**		**-0.6**
UPAL	**Upala**	**0.70**	**122**	P	**Pn**	**22 16 12.6**		**+0.4**
COLC	**Colonia**	**0.72**	**146**	*e*P	**Pn**	**22 16 12.7**		**+0.4**
CUI	**Cuipilapa**	**0.75**	**144**	*e*P	**Pn**	**22 16 13.2**		**+0.7**
BAGA	**Bagaces**	**0.82**	**155**	*e*P	**Pn**	**22 16 13.1**		**+0.2**
ACON	**Acoyapa**	**0.82**	**32**	P	**Pn**	**22 16 12.9**		**+0.1**
ACON				S	**Sn**	**22 16 33.4**		**-0.8**
NANN	**Nandasmo**	**0.83**	**324**	P	**Pn**	**22 16 14.1**		**+1.2**
TENO	**El Achiote**	**0.84**	**132**	*e*P	**Pn**	**22 16 13.6**		**+0.5**
MASN	**Masaya**	**0.88**	**324**	P	**Pn**	**22 16 13.9**		**+0.6**
MASN				S	**Sn**	**22 16 36.7**		**+1.7**
TIMP	**Tierras Morena**	**0.90**	**139**	*e*P	**Pn**	**22 16 13.8**		**+0.4**
LCHIL	**Los Chiles**	**0.92**	**105**	*e*P	**Pn**	**22 16 13.7**		**+0.3**
MAS3	**Al N del Volca**	**0.93**	**324**	P	**Pn**	**22 16 14.3**		**+0.8**
QUEB	**Quebradon, Cot**	**0.96**	**132**	*e*P	**Pn**	**22 16 14.2**		**+0.5**
COTE	**Lago Cote**	**0.97**	**135**	*e*P	**Pn**	**22 16 14.6**		**+0.6**
CNAS	**Canas**	**0.98**	**148**	*e*P	**Pn**	**22 16 14.2**		**+0.3**
SACU	**Santa Cruz**	**1.00**	**178**	*e*P	**Pn**	**22 16 14.3**		**+0.3**
MGAN	**Managua**	**1.07**	**325**	P	**Pn**	**22 16 14.9**		**+0.4**
MGAN				S	**Sn**	**22 16 37.7**		**+0.5**
TISN	**Laguna Tiscapa**	**1.08**	**324**	P	**Pn**	**22 16 13.8**		**-0.8**
CHIK	**Chiripa**	**1.08**	**140**	*e*P	**Pn**	**22 16 15.3**		**+0.6**
ABCN	**Banco Central**	**1.08**	**321**	P	**Pn**	**22 16 14.9**		**+0.3**
TABAC	**Tabacon**	**1.13**	**132**	*e*P	**Pn**	**22 16 15.9**		**+0.8**
NICO	**Nicoya**	**1.14**	**172**	*e*P	**Pn**	**22 16 15.6**		**+0.5**
APQ2	**Apoyeque**	**1.15**	**323**	P	**Pn**	**22 16 15.6**		**+0.5**
APQ2				S	**Sn**	**22 16 39.4**		**+1.1**
JTS	**Las Juntas de**	**1.17**	**146**	P	**Pn**	**22 16 15.8**		**+0.4**
	356nm,0.3s,baz=330,slow=15,SNR=362							
JTS				S	**Sn**	**22 16 37.2**		**-1.5**
	1μm,0.5s,baz=28,slow=3.4,SNR=6.5							
JTS	**Las Juntas de**	**1.17**	**146**	*e*P	**Pn**	**22 16 15.7**		**+0.4**
BOAB	**BOACO BROADBAN**	**1.17**	**358**	P	**Pn**	**22 16 15.6**		**+0.3**
BOAB				S	**Sn**	**22 16 38.3**		**-0.4**
JUNT	**Juntas**	**1.18**	**147**	*e*P	**Pn**	**22 16 15.7**		**+0.4**
CEDE	**Laguna Cedeo**	**1.19**	**131**	*e*P	**Pn**	**22 16 16.5**		**+1.0**
ARE1	**Arenal 1**	**1.19**

ASAR	**Alice Springs**	**140.47**	**246**	PKhKP	PKPpre	22 34 46.7		
	0.1nm,0.4s,baz=106,slow=1.8,SNR=1.5							
ASAR				PKP	**PKPdf**	**22 34 53.9**	**+1.1**	
	0.2nm,0.4s,baz=106,slow=1.8,SNR=1.5							
WRA	**Warramunga Arr**	**140.65**	**252**	PKhKP	PKPpre	22 34 47.6		
	0.3nm,0.6s,baz=92,slow=3.2,SNR=1.9							
WRA				PKP	**PKPdf**	**22 34 54.2**	**+1.1**	
	0.5nm,0.6s,baz=86,slow=2.5,SNR=8.6							

AFAD 08 22:34:06.6, 37.69N × 26.03E, h15km ± 1km, ML1.5,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZEYE	**Izmir, Urla-Ze**	**0.66**	**34**	P	Pg	22 34 19.7	+0.1
ZEYE				S	Sb	22 34 29.3	+0.4
ZEYE				IAML		22 34 30.0	
	comp=E,23nm,0.2s						
ZEYE				IAML		22 34 32.0	
	comp=N,29nm,0.3s						
DGB	**zmir**	**0.77**	**62**	P	Pg	22 34 21.2	-0.3
DGB				S	Sb	22 34 32.6	+0.7
DGB				IAML		22 34 33.0	
	comp=N,38nm,0.4s						
DGB				IAML		22 34 34.0	
	comp=E,46nm,0.7s						
BEYE	**izmir**	**0.89**	**53**	P	Pn	22 34 24.8	+0.2
BEYE				S	Sg	22 34 36.0	+0.4
BEYE				IAML		22 34 38.0	
	comp=E,11nm,0.5s						
BEYE				IAML		22 34 43.0	
	comp=N,8.8nm,0.5s						

ISK 08 22:34:49.2, 37.92N × 27.23E, h5km, ML1.5/8, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.22**	**178**	Pg	Pg	22 34 54.3	+0.9
GCAM				Sg	Sg	22 34 57.3	+1.0
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.29**	**303**	Pg	Pg	22 34 55.9	+1.0
GMLD				Sg	Sb	22 35 00.6	-1.5
GMLD				AML	AML		
BLCB	**Balcova**	**0.49**	**343**	Pg	Pg	22 34 59.2	+0.6
MLSB	**Milas**	**0.76**	**145**	Pg	Pb	22 35 04.5	-0.4
MLSB				Sg	Sb	22 35 15.3	-0.2
NAZL	**Nazilli-Aydin**	**0.84**	**86**	Pg	Pb	22 35 05.9	-0.5
BODT	**Bodrum**	**0.86**	**175**	Pg	Pg	22 35 06.0	+0.4
CHOS	**Chios island**	**1.03**	**297**	Pg	Pb	22 35 09.7	+0.1
CHOS				Sg	Sn	22 35 24.9	-0.4
DKL	**Dikili**	**1.18**	**348**	Pn	Pn	22 35 12.2	-0.1

*IDC **08** 22:40:56.5±1.0, 0.01N × 126.48E, h0km, mb3.7/5,*
mbtmp3.7/7, ML3.3/2, MS3.2/2, Error ellipse: s-maj=32.0km
s-min=17.2km az=53.0
*DJA **08** 22:40:59.8±0.3, 0.3S × 12.7E±, h10km, M3.6/6, MLv3.6/6*
ISC 08 22:40:58.9±0.7, 0.09S±0.06 × 126.62E±0.05, h10km, n15,
σ2s 43/16, mb3.9/5, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.13**	**41**	P	**Pb**	**22 41 20.5**	**-0.1**
TNTI				S	**Sg**	**22 41 33.8**	**-1.7**
TNTI				AML	AML		
SANI	**Sanana**	**2.05**	**198**	P	**Pn**	**22 41 35.2**	**+1.7**
SANI				S	**Sn**	**22 41 59.1**	**0.0**
SANI				AML	AML		
MNI	**Manado**	**2.34**	**310**	P	**Sn**	**22 42 09.1**	**+2.7**
KMSI	**Cibinong**	**2.72**	**284**	P	**Sn**	**22 42 19.5**	**+3.8**
GTOI	**Gorontalo**	**3.68**	**281**	P	**Pb**	**22 42 00.9**	**-3.2**
GTOI				S	**Sn**	**22 42 44.2**	**+4.8**
LUWI	**Luwuk**	**3.96**	**256**	P	**Pg**	**22 42 15.4**	**+0.5**
SIJI	**Sorong**	**4.71**	**100**	Pn	**Pn**	**22 42 12.2**	**+2.1**
	1.5nm,0.3s,baz=222,slow=22,SNR=8.4						
	3.0nm,0.3s						
SIJI				AML	AML		
FITZ	**Fitzroy Crossi**	**17.92**	**183**	P	**Pn**	**22 45 09.1**	**+0.7**
	0.1nm,0.3s,baz=9.3,slow=8.9,SNR=2.1						
	2.0nm,1.0s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**21.13**	**159**	P	**P**	**22 45 43.9**	**-0.2**
	0.9nm,0.5s,baz=339,slow=10,SNR=8.2						
	0.9nm,0.5s						
ASAR	**Alice Springs**	**24.48**	**164**	P	**P**	**22 46 18.9**	**+0.4**
	2.5nm,0.7s,baz=341,slow=9.1,SNR=22						
	2.5nm,0.7s						
KSRS	**Korea Array**	**37.38**	**2**	LR	LR	23 04 58.8	
	comp=Z,29nm,19.7s,baz=145,slow=39						
SONM	**Songino Array**	**50.87**	**343**	P	**P**	**22 49 59.5**	**-0.7**
	0.3nm,0.5s,baz=148,slow=8.5,SNR=2.3						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**60.64**	**327**	P	**P**	**22 51 08.2**	**-2.0**
	0.5nm,0.3s,baz=120,slow=7.2,SNR=14						
	0.5nm,0.3s						
MA2	**Magadan**	**62.41**	**14**	LR	LR	23 19 16.6	
	comp=Z,24nm,19.8s,baz=56,slow=37						
KURBB	**Kurchatov Arra**	**64.89**	**328**	P	**P**	**22 51 35.9**	**-2.6**
	0.3nm,0.4s,baz=129,slow=5.5,SNR=5.0						
	0.3nm,0.4s						

*NEIC **08** 22:57:44.7±0.6, 19.51N±0.08 × 65.61W±0.08, h10km ± 2km,*
ML2.5/29, Md3.5/9(RSPR), Error ellipse: s-maj=13.7km
s-min=11.7km az=44.0
*RSPR **08** 22:57:47.4, 19.59N × 65.56W, h31km ± 27km, MD3.5/9*
ISC 08 22:57:44.0±3.6, 19.5N±0.1 × 65.6W±0.1, h10km ± 16km, n35,
σ0s 54/42, 2C-10D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCPR	**Guaynabo City**	**1.30**	**200**	Pn	**Pn**	**22 58 08.2**	**0.0**
GCPR					**Sg**	**22 58 26.4**	**+0.6**
HUMP	**Col San Antoni**	**1.40**	**189**		**Pb**	**22 58 09.9**	**-0.3**
HUMP					**Sb**	**22 58 28.3**	**0.0**
HUMP				IAML		22 58 28.8	
	51nm,0.2s						
HUMP				IAML		22 58 31.5	
	75nm,0.2s						
HUMP	**Col San Antoni**	**1.40**	**189**	⇓*iP*	**Pb**	**22 58 09.9**	**-0.3**
ECPR	**Experimental S**	**1.41**	**211**		**Pn**	**22 58 09.3**	**-0.3**
ECPR				IAML		22 58 28.9	
	146nm,0.2s						
ECPR				IAML		22 58 30.3	
	154nm,0.2s						
ECPR	**Experimental S**	**1.41**	**211**		**Sb**	**22 58 28.3**	**0.0**
ECPR	**Experimental S**	**1.41**	**211**	⇓*iP*	**Pn**	**22 58 09.6**	**-0.1**
SJG	**San Juan**	**1.51**	**200**	Pn	**Pn**	**22 58 10.7**	**-0.4**
SJG				IAML		22 58 36.4	
	54nm,0.4s						
SJG				IAML		22 58 38.9	
	57nm,0.4s						
SJG	**San Juan**	**1.51**	**200**	⇓*iP*	**Pn**	**22 58 11.5**	**+0.5**
PDPR	**Patillas Dam,**	**1.56**	**195**		**Pb**	**22 58 12.4**	**-0.5**
PDPR	**Patillas Dam,**	**1.56**	**195**		**Sn**	**22 58 31.9**	**-0.2**
PDPR	**Patillas Dam,**	**1.56**	**195**	⇑*iP*	**Pb**	**22 58 12.6**	**-0.3**
AOPR	**Arecibo Observ**	**1.60**	**223**		**Pn**	**22 58 12.4**	**0.0**
AOPR	**Arecibo Observ**	**1.60**	**223**		**Sn**	**22 58 33.1**	**-0.1**
AOPR	**Arecibo Observ**	**1.60**	**223**	⇓*iP*	**Pb**	**22 58 13.2**	**-0.5**
IGPR	**InterUniversit**	**1.63**	**197**		**Pn**	**22 58 13.4**	**+0.7**
IGPR					**Sn**	**22 58 33.7**	**-0.1**
IGPR	**InterUniversit**	**1.63**	**197**	⇓*iP*	**Pn**	**22 58 13.4**	**+0.7**
CELP	**Cerrillos**	**1.72**	**212**		**Pn**	**22 58 14.2**	**+0.2**
CELP	**Cerrillos**	**1.72**	**212**		**Sn**	**22 58 35.7**	**-0.3**
CELP	**Cerrillos**	**1.72**	**212**	⇓*iP*	**Pn**	**22 58 14.8**	**+0.8**
OBIP	**Obispado Ponce**	**1.76**	**213**		**Pb**	**22 58 15.9**	**-0.5**
OBIP					**Sn**	**22 58 36.9**	**-0.1**
OBIP	**Obispado Ponce**	**1.76**	**213**	⇑*eP*	**Pb**	**22 58 15.9**	**-0.5**
OBIP				*eS*	**Sn**	**22 58 36.9**	**-0.1**
PRSN	**Puerto Rico Se**	**1.96**	**228**		**Sn**	**22 58 42.1**	**+0.2**
PRSN	**Puerto Rico Se**	**1.96**	**228**	Pn	**Pn**	**22 58 17.5**	**+0.3**
PRSN				IAML		22 58 47.3	
	81nm,0.2s						
PRSN	**Puerto Rico Se**	**1.96**	**228**	⇓*iP*	**Pn**	**22 58 17.5**	**+0.3**
GBPR	**Guanica, Bosqu**	**1.96**	**218**		**Pb**	**22 58 18.7**	**-1.1**
GBPR					**Sn**	**22 58 42.2**	**+0.1**
GBPR	**Guanica, Bosqu**	**1.96**	**218**	⇓*iP*	**Pb**	**22 58 18.7**	**-1.1**
GBPR				*eS*	**Sn**	**22 58 42.2**	**+0.1**
MLPR	**Magueyes Islan**	**2.07**	**221**		**Pn**	**22 58 19.3**	**+0.5**
MLPR				IAML		22 59 21.7	
	31nm,2.5s						
MLPR				IAML		22 59 37.1	
	35nm,2.0s						
MLPR	**Magueyes Islan**	**2.07**	**221**		**Sn**	**22 58 44.4**	**-0.2**
MLPR	**Magueyes Islan**	**2.07**	**221**	⇓*iP*	**Pn**	**22 58 19.7**	**+0.9**
CRPR	**Cabo Rojo, PR**	**2.08**	**223**		**Pn**	**22 58 19.6**	**+0.7**
CRPR				IAML		22 58 58.3	
	34nm,2.6s						
CRPR				IAML		22 59 05.8	
	33nm,2.5s						
CRPR	**Cabo Rojo, PR**	**2.08**	**223**		**Sn**	**22 58 45.9**	**+1.0**
CRPR	**Cabo Rojo, PR**	**2.08**	**223**	⇓*iP*	**Pn**	**22 58 20.1**	**+1.1**
IDE	**Isla Desecheo**	**2.10**	**237**		**Pn**	**22 58 19.7**	**+0.5**
IDE	**Isla Desecheo**	**2.10**	**237**	⇑*eP*	**Pn**	**22 58 19.7**	**+0.5**
PCDR	**Punta Cana, DR**	**2.81**	**249**	Pn	**Pn**	**22 58 29.5**	**+0.5**

*IDC **08** 23:05:37.6±2.5, 2.78S × 100.87E, h0km, mb3.8/8,*
mbtmp3.9/8, MS4.0/1, Error ellipse: s-maj=109.8km
s-min=20.2km az=55.0
*DJA **08** 23:06:01.0±0.6, 2.2S±7°×10°2E±°, h164km ± 4km, M4.2/13,*
mB6.4/2, mb5.8/2, MLv3.4/13, Mw(mB)6.1/2
ISC 08 23:06:00.1±0.8, 1.82S±0.10 × 102.3E±0.1, h150km, n15,
σ1s 20/12, mb3.9/7, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRJI	**Kerinci**	**0.92**	**253**	P	**Pn**	**23 06 24.1**	**-0.2**
KRJI				S	**Sn**	**23 06 43.6**	**+0.9**
MASI	**Maura Aman, Be**	**1.31**	**185**	P	**Pn**	**23 06 27.1**	**-0.7**
MASI				S	**Sn**	**23 06 50.3**	**+1.2**
MASI				AML	AML		
MDSI	**Maura Dua**	**3.22**	**145**	P	**Pn**	**23 06 50.2**	**0.0**
MDSI				AML	AML		
CMAR	**Chiang Mai Arr**	**20.43**	**351**	P	**P**	**23 10 26.4**	**+0.7**
	0.7nm,0.3s,baz=184,slow=9.7,SNR=6.0						
	0.7nm,0.3s						
BATI	**Baumata**	**22.76**	**112**	LR	LR	23 21 08.8	
	comp=Z,318nm,18.6s,baz=234,slow=39						
H08S2	**Diego Garcia H**	**30.29**	**258**	T	T	23 41 01.1	
	baz=74						
H08S3	**Diego Garcia H**	**30.30**	**258**	T	T	23 40 50.9	
	baz=74,SNR=6.8						
H08S1	**Diego Carcia H**	**30.31**	**258**	T	T	23 41 01.7	
	baz=74						
WRA	**Warramunga Arr**	**36.08**	**122**	P	**P**	**23 12 48.0**	**+0.3**
	0.8nm,1.0s,baz=274,slow=8.0,SNR=2.4						
	0.8nm,1.0s						
ASAR	**Alice Springs**	**37.49**	**128**	P	**P**	**23 12 58.6**	**-0.9**
	0.3nm,0.4s,baz=297,slow=8.4,SNR=6.5						
	0.3nm,0.4s						
SONM	**Songino Array**	**49.58**	**4**	P	**P**	**23 14 37.7**	**+1.7**
	1.3nm,0.5s,baz=182,slow=10,SNR=11						
	1.3nm,0.5s						
MKAR	**Makanchi Array**	**51.53**	**342**	P	**P**	**23 14 49.3**	**-1.2**
	0.8nm,0.3s,baz=158,slow=9.2,SNR=18						
	0.8nm,0.3s						
KURBB	**Kurchatov Arra**	**56.08**	**342**	P	**P**	**23 15 21.8**	**-1.6**
	0.3nm,0.3s,baz=162,slow=6.2,SNR=5.2						
	0.3nm,0.3s						
ZALV	**Zalesovo Beam**	**57.46**	**348**	P	**P**	**23 15 31.8**	**-1.3**
	1.0nm,0.3s,baz=160,slow=6.8,SNR=5.5						
	1.0nm,0.3s						
BVAR	**Borovoye Array**	**60.85**	**339**	P	P	23 15 54.0	-2.5
	0.7nm,0.4s,baz=148,slow=9.5,SNR=3.5						
	0.7nm,0.4s						

*IDC **08** 23:07:49.1±1.1, 33.45N × 137.61E, h344km ± 10km,*
mb3.2/12, mbtmp3.8/17, Error ellipse: s-maj=22.9km
s-min=13.8km az=80.0
*JMA **08** 23:07:49.1±0.3, 33.7N±1.1° × 13.8E±°, h352km ± 3km, MV3.5/39,*
FAR S OFF SHIZUOKA PREF
ISC 08 23:07:50.3±0.9, 33.50N±0.10 × 137.5E±0.1, h352km, n27,
σ0s 82/29, mb3.4/12, Near south coast of eastern
Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TTO2	**TONANKAI O.B.S**	**0.47**	**300**	P	**Pn**	**23 08 34.6**	**+0.3**
TTO2				eS	S	**23 09 11.3**	**+1.7**
TTO1	**TONANKAI O.B.S**	**0.62**	**281**	P	**Pn**	**23 08 34.8**	**+0.1**
TTO1				eS	S	**23 09 11.3**	**+1.1**
JKN2	**Miekihoku**	**1.27**	**306**	P	**Pn**	**23 08 36.9**	**-0.5**
JTNC	**Tanabenakahech**	**1.62**	**282**	P	**Pn**	**23 08 38.7**	**-0.7**
JWY	**Kouya**	**1.75**	**295**	P	**Pn**	**23 08 39.9**	**-0.3**
JAO	**Obara**	**1.77**	**353**	P	**Pn**	**23 08 40.2**	**0.0**
JNY	**Yasuok**	**1.88**	**9**	P	**Pn**	**23 08 41.0**	**+0.1**
JEG	**Eigenji**	**1.88**	**331**	P	**Pn**	**23 08 41.0**	**+0.1**
JOD2	**Odawara 2**	**2.19**	**36**	P	**Pn**	**23 08 43.0**	**-0.1**
MJAR	**Matsushiro Arr**	**3.09**	**10**	P	**Pn**	**23 08 50.2**	**-0.3**
	6.3nm,0.7s,baz=191,slow=9.6,SNR=14						
MJAR				S	**S**	**23 09 36.9**	**-2.1**
	10nm,0.9s,baz=189,slow=17,SNR=10						
JNU	**Nakatsue**	**5.57**	**268**	P	**Pn**	**23 09 15.4**	**-0.9**
	4.1nm,0.4s,baz=118,slow=2.7,SNR=4.2						
JCJ	**Chichijima**	**7.55**	**146**	P	Pn	23 09 31.7	-7.6
	56nm,0.8s,baz=279,slow=23,SNR=2.0						
JCJ				S	S	23 10 54.9	-13
	51nm,0.4s,baz=289,slow=22,SNR=14						
KSRS	**Korea Array**	**8.76**	**299**	P	**Pn**	**23 09 53.8**	**+0.4**
	1.4nm,0.5s,baz=117,slow=10,SNR=5.4						
USRK	**Ussuriysk Ar.**	**11.52**	**340**	P	**P**	**23 10 26.9**	**+0.6**
	2.1nm,0.6s,baz=167,slow=14,SNR=2.9						
KLR	**Kul'dur**	**16.29**	**346**	P	**P**	**23 11 20.3**	**+1.7**
	2.1nm,0.5s,baz=174,slow=10,SNR=6.3						
SONM	**Songino Array**	**27.39**	**311**	P	**P**	**23 13 05.0**	**+0.3**
	1.0nm,0.6s,baz=125,slow=9.7,SNR=9.5						
	1.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**37.54**	**256**	P	**P**	**23 14 32.2**	**+0.1**
	0.6nm,0.3s,baz=48,slow=8.5,SNR=1.2						
	0.6nm,0.3s						
ZALV	**Zalesovo Beam**	**42.06**	**315**	P	**P**	**23 15 08.1**	**-0.4**
	0.6nm,0.3s,baz=88,slow=8.1,SNR=3.9						
	0.6nm,0.3s						
MKAR	**Makanchi Array**	**43.40**	**305**	P	**P**	**23 15 19.5**	**+0.2**
	0.8nm,0.5s,baz=87,slow=11,SNR=12						
	0.8nm,0.5s						
KURBB	**Kurchatov Arra**	**45.75**	**310**	P	**P**	**23 15 36.9**	**-0.7**
	1.4nm,0.4s,baz=89,slow=6.8,SNR=15						
	1.4nm,0.4s						
BVAR	**Borovoye Array**	**50.66**	**314**	P	**P**	**23 16 14.9**	**+0.2**
	0.6nm,0.5s,baz=110,slow=8.8,SNR=4.0						
	0.6nm,0.5s						
WRA	**Warramunga Arr**	**53.23**	**184**	P	**P**	**23 16 32.5**	**-1.3**
	0.4nm,0.3s,baz=0.6,slow=7.5,SNR=9.1						
	0.4nm,0.3s						
ASAR	**Alice Springs**	**56.95**	**184**	P	**P**	**23 17 00.1**	**-0.1**
	0.2nm,0.3s,baz=14,slow=12,SNR=1.8						
	0.2nm,0.3s						
FINES	**FINESS Array B**	**70.42**	**332**	P	**P**	**23 18 27.0**	**+0.3**
	1.3nm,0.4s,baz=60,slow=5.6,SNR=20						
	1.3nm,0.4s						
AKASG	**Malin Array Be**	**75.09**	**321**	P	**P**	**23 18 54.3**	**+0.1**
	0.3nm,0.4s,baz=51,slow=5.6,SNR=2.2						
	0.3nm,0.4s						
HFS	**Hagfors**	**75.95**	**335**	P	**P**	**23 18 57.9**	**-0.9**
	0.7nm,0.5s,baz=52,slow=9.6,SNR=4.2						
	0.7nm,0.5s						
NOA	**NORSAR Array B**	**76.16**	**336**	P	**P**	**23 19 00.5**	**+0.4**
	0.4nm,0.5s,baz=47,slow=5.6,SNR=3.2						
	0.4nm,0.5s						

*IDC **08** 23:19:43.5±1.8, 40.79N × 122.71E, h0km, mb4.1/1,*
mbtmp3.6/3, ML3.1/2, Error ellipse: s-maj=24.0km
s-min=15.9km az=43.0
*KEA **08** 23:19:43.5, 40.65N × 122.71E, h18km, ML3.9/5*
ISC 08 23:19:44.9±1.6, 40.62N±0.09 × 122.84E±0.10, h13km, n8,
σ1s 77/12, Northeastern China

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SUJ	**Sinuiju**	**1.36**	**112**	Sg	**Sg**	**23 20 30.3**	**+1.4**
SUJ				AML	AML		
	comp=N,4μm,0.2s						
SUJ				AML	AML		
	comp=E,3μm,0.5s						
SUJ				AML	AML		
	comp=Z,1μm,0.5s						
PYS	**Pyongsong**	**2.69**	**120**	Pg	**Pg**	**23 20 35.0**	**-1.4**
PYS				Sg	**Sg**	**23 21 11.5**	**+0.1**
PYS				AML	AML		
	comp=N,1μm,0.7s						
PYS				AML	AML		
	comp=E,729nm,0.5s						
PYS				AML	AML		
	comp=Z,525nm,0.6s						
PYAG	**Pyongyang**	**2.74**	**124**	Sg	**Sg**	**23 21 13.3**	**+0.4**
PYAG				AML	AML		
	comp=N,269nm,0.4s						
PYAG				AML	AML		
	comp=E,346nm,0.4s						
PYAG				AML	AML		
	comp=Z,242nm,0.7s						
SRW	**Sariwon**	**3.09**	**132**	Pg	**Pg**	**23 20 43.2**	**-0.9**
SRW				Sg	**Sg**	**23 21 24.6**	**+0.5**
SRW				AML	AML		
	comp=N,565nm,0.3s						
SRW				AML	AML		
	comp=E,1μm,1.1s						
SRW				AML	AML		
	comp=Z,429nm,0.3s						
HHU	**Hamhung**	**3.65**	**99**	Pg	**Pg**	**23 20 53.1**	**-1.7**
HHU				Sg	**Sg**	**23 21 41.4**	**-0.8**
HHU				AML	AML		
	comp=N,227nm,0.8s						
HHU				AML	AML		
	comp=E,119nm,0.6s						
HHU				AML	AML		
	comp=Z,84nm,0.5s						
KSRS	**Korea Array**	**5.06**	**127**	Pn	**Pn**	**23 21 03.0**	**+2.5**
	comp=Z,0.5nm,0.3s,baz=312,slow=14,SNR=2.9						
KSRS				Pg	**Pg**	**23 21 18.9**	**-3.0**
	comp=Z,1.2nm,0.3s,baz=307,slow=18,SNR=7.2						
KSRS				Lg	Lg	23 22 26.9	
	comp=Z,7.4nm,0.3s,baz=306,slow=29,SNR=11						
	comp=Z,1.1nm,0.3s						
KSRS				AML	AML		
USRK	**Ussuriysk Ar.**	**7.65**	**59**	Pn	**Pn**	**23 21 38.0**	**+2.0**
	comp=Z,0.4nm,0.3s,baz=246,slow=12,SNR=1.6						
USRK				Lg	Lg	23 23 42.5	
	comp=Z,1.2nm,0.3s,baz=247,slow=27,SNR=5.7						
	comp=Z,1.0nm,0.4s						
USRK				AML	AML		
FINES	**FINESS Array B**	**58.29**	**326**	P	**P**	**23 29 38.2**	**-0.7**
	comp=Z,2.5nm,1.0s,baz=65,slow=5.0,SNR=5.4						
	comp=Z,2.5nm,1.0s						

*FUNV **08** 23:20:26.9, 7.13N × 71.71W, h5km, MW3.3, Presumed*
earthquake
*RSNC **08** 23:20:29.1±0.0, 7.1N±6° × 7.2W±1°, h30km ± 9km, M2.5,*
ML2.1
ISC 08 23:20:23.7±1.5, 6.89N±0.04 × 71.51W±0.03, h5km ± 12km,
n19, σ1s 35/29, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TAMC	**Tame, Arauca**	**0.53**	**211**	P	**Pn**	**23 20 38.3**	**+0.3**
TAMC				S	**Sn**	**23 20 45.7**	**-1.7**
BARC	**Barichara**	**1.68**	**260**	P	**Pg**	**23 20 56.4**	**+0.3**
BARC				S	**Sb**	**23 21 16.7**	**-0.2**
RUSC	**La Rusia**	**1.85**	**238**	P	**Pb**	**23 20 58.3**	**0.0**
RUSC				S	**Sb**	**23 21 22.3**	**+0.4**
RUSC	**La Rusia**	**1.85**	**238**	*eP*	**Pg**	**23 20 58.6**	**-0.6**
RUSC				*eS*	**Sb**	**23 21 22.4**	**+0.4**
BRJC	**Barrancabermej**	**2.21**	**272**	P	**Pb**	**23 21 03.7**	**-0.6**
BRJC				S	**Sg**	**23 21 33.6**	**-1.4**
OCAC	**Ocana**	**2.23**	**307**	P	**Pb**	**23 21 03.9**	**-0.8**
OCAC				S	**Sg**	**23 21 35.0**	**-0.6**
PTGC	**Puerto Gaitan,**	**2.75**	**193**	P	**Pg**	**23 21 17.7**	**+1.3**
PTBC	**PUERTO BERRIO,**	**2.94**	**263**	P	**Pn**	**23 21 11.5**	**+0.3**
NORC	**Norcasia**	**3.59**	**249**	P	**Pn**	**23 21 20.9**	**+0.8**
TEPV	**Terepaima**	**3.82**	**37**	*eP*	**Pn**	**23 21 23.4**	**+0.1**
TEPV				*eS*	**Sn**	**23 22 07.7**	**-1.5**
HELC	**Santa Helena**	**4.05**	**260**	P	**Pn**	**23 21 27.5**	**+0.8**
GUY2C	**Guyana, Caldas**	**4.17**	**247**	P	**Pn**	**23 21 30.8**	**+2.3**
MAPV	**Macapo**	**4.20**	**46**	*eP*	**Pn**	**23 21 30.3**	**+1.7**
MAPV				*eS*	**Sn**	**23 22 17.6**	**-0.5**
PRAC	**Prado**	**4.61**	**227**	P	**Pn**	**23 21 36.3**	**+2.2**
SJCC	**San Jacinto, C**	**4.70**	**310**	P	**Pn**	**23 21 37.5**	**+2.2**
URIC	**Uribia, Colomb**	**4.80**	**354**	P	**Pn**	**23 21 38.0**	**+1.3**
BENV	**Beln**	**4.93**	**52**	*eP*	**Pn**	**23 21 39.8**	**+1.2**
BENV				*eS*	**Sn**	**23 22 35.0**	**-1.0**
CACV	**CAICARA DEL OR**	**4.98**	**82**	*eP*	**Pb**	**23 21 50.1**	**-1.4**
CACV				*eS*	**Sb**	**23 22 51.5**	**-0.2**
MERV	**Las Mercedes**	**5.67**	**65**	*eP*	**Pn**	**23 21 51.8**	**+3.1**

*ISU **08** 23:27:38, 40.14N × 70.67E, h14km*
*KRNET **08** 23:27:39.8±0.1, 40.08N × 70.79E, h21km, mb3.2*
*NNC **08** 23:27:42.0±4.2, 40.25N × 70.63E, h0km, mb3.3, mpv3.1,*
Error ellipse: s-maj=34.0km s-min=17.0km az=9.0
*SOME **08** 23:27:43.0, 40.25N × 70.90E, h15km*
ISC 08 23:27:40.8±1.1, 40.05N±0.05 × 70.80E±0.03, h14km ± 7km,
n39, σ2s 18/69, 21C-13D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BTK	**Batken**	**0.02**	**59**	⇑*iP*	**Pg**	**23 27 43.4**	**0.0**
FRG	**Fergana**	**0.82**	**66**	P	**Pn**	**23 27 57.8**	**-0.1**
FRG				S	**Sn**	**23 28 10.1**	**+0.2**
DRK	**Karamyk**	**0.96**	**126**	⇑*iP*	**Pb**	**23 27 58.2**	**-1.1**
DRK				⇑*iS*	**Sg**	**23 28 11.5**	**-0.4**
TSTA	**Tashata**	**1.39**	**67**	P	**Pg**	**23 28 07.4**	**-0.1**
TSTA				S	**Sg**	**23 28 27.4**	**+1.8**
TRKS	**Terek-Say**	**1.50**	**10**	⇑*iP*	**Pn**	**23 28 05.7**	**-1.7**
TRKS				⇑*iS*	**Sn**	**23 28 24.6**	**-2.3**
OHH	**Osh**	**1.59**	**72**	⇑*iP*	**Pn**	**23 28 08.5**	**-0.1**
OHH				⇑*iS*	**Sb**	**23 28 29.8**	**-0.2**
CHMG	**Chimgan**	**1.61**	**339**	P	**Pn**	**23 28 09.2**	**+0.3**
CHMG				S	**Sn**	**23 28 29.7**	**+0.1**
TAS	**Tashkent**	**1.71**	**319**	P	**Pb**	**23 28 12.4**	**+0.4**
TAS				S	**Sb**	**23 28 33.9**	**+0.5**
CHRV	**Charvak**	**1.72**	**338**	P	**Pn**	**23 28 10.5**	**+0.2**
CHRV				S	**Sn**	**23 28 32.1**	**+0.1**
NZBK	**

CHMS				⇓*iS*		**Sn**	**23 29 31.8**	**-1.0**
NRN	**Naryn**	**4.19**	**69**	⇓*iP*		**Pn**	**23 28 44.5**	**0.0**
NRN				⇓*iS*		**Sn**	**23 29 31.9**	**-1.4**
USP	**Ospenovka**	**4.25**	**40**	⇑*iP*		**Pn**	**23 28 45.4**	**+0.4**
USP				⇑*iS*		**Sn**	**23 29 33.2**	**-1.2**
ULHL	**Ulahol**	**4.66**	**60**	⇑*iP*		**Pn**	**23 28 51.3**	**+0.4**
ULHL				⇑*iS*		**Sn**	**23 29 43.6**	**-1.2**
KST	**Kastek** 0.9nm,0.6s	**4.90**	**51**	Pg		**Pg**	**23 29 10.7**	**-3.8**
KST				Lg	Lg		23 30 13.3	
	8.7nm,0.5s							
KST	**Kastek** 0.9nm,0.6s	**4.90**	**51**	*eP*		**Pg**	**23 29 10.8**	**-3.8**
KST				*eS*		**Sg**	**23 30 13.3**	**-4.7**
	8.7nm,0.5s							
DGS	**Degeres** 1.8nm,0.6s	**4.91**	**48**	Pg		**Pb**	**23 29 10.5**	**+4.0**
DGS				Lg	Lg		23 30 13.6	
	5.6nm,0.6s							
DGS	**Degeres** 1.8nm,0.6s	**4.91**	**48**	*eP*		**Pb**	**23 29 10.5**	**+4.0**
DGS				*eS*		**Sg**	**23 30 13.6**	**-4.6**
	5.6nm,0.6s							
KRBS	**Karabastau** 1.0nm,0.3s	**5.15**	**43**	Pg		**Pb**	**23 29 14.6**	**+3.9**
KRBS				Lg	Lg		23 30 20.2	
	8.2nm,0.5s							
KRBS	**Karabastau** 1.0nm,0.3s	**5.15**	**43**	*eP*		**Pb**	**23 29 14.6**	**+3.9**
KRBS				*eS*		**Sg**	**23 30 20.2**	**-5.9**
	8.2nm,0.5s							
KTBS	**Karatobe** 0.1nm,0.1s	**5.72**	**48**	Pg		**Pb**	**23 29 23.7**	**+3.4**
KTBS				Lg	Lg		23 30 35.6	
	4.3nm,0.7s							
KTBS	**Karatobe** 0.1nm,0.1s	**5.72**	**48**	*eP*		**Pb**	**23 29 23.7**	**+3.4**
KTBS				*eS*		**Sb**	**23 30 35.6**	**+7.0**
	4.3nm,0.7s							

*SOME **08** 23:38:47.9, 39°.57N × 75°.72E, h10km*
*NNC **08** 23:38:52.1±1.4, 39°.75N × 75°.71E, h0km, mb3.9, mpv3.6, Error ellipse: s-maj=10.4km s-min=7.8km az=157.0*
*KRNET **08** 23:38:58.4±0.1, 39°.80N × 75°.68E, h35km, mb3.7*

ISC 08 23:38:58.8±1.8, **39.74N**±0°.07 × **75.65E**±0°.04, **h30**km±15km, **n55**, σ2**s16**/77, **27C-18D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**1.68**	**280**	⇑*eP*	**Pn**	**23 39 27.2**	**+0.9**
SFK				⇑*iS*	**Sn**	**23 39 48.0**	**+1.0**
NRN	**Naryn**	**1.72**	**9**	⇑*iP*	**Pn**	**23 39 26.4**	**-0.6**
NRN				⇑*iS*	**Sn**	**23 39 46.9**	**-1.2**
SALK	**Salom-Alik**	**1.81**	**310**	⇓*eP*	**Pn**	**23 39 28.4**	**+0.3**
SALK				⇑*iS*	**Sn**	**23 39 50.5**	**+0.3**
OHH	**Osh**	**2.34**	**291**	⇓*iP*	**Pn**	**23 39 35.8**	**+0.5**
OHH				⇓*iS*	**Sn**	**23 40 03.3**	**+0.3**
ULHL	**Ulahol** SNR=14	**2.55**	**10**	P	**Pb**	**23 39 42.8**	**-1.2**
ULHL	**Ulahol**	**2.55**	**10**	⇑*iP*	**Pn**	**23 39 38.2**	**-0.1**
ULHL				⇑*iS*	**Sn**	**23 40 07.2**	**-1.2**
ARSB	**Arslanbob**	**2.58**	**309**	⇓*eP*	**Pn**	**23 39 39.2**	**+0.5**
ARSB				⇓*eS*	**Sn**	**23 40 09.0**	**-0.1**
UCH	**Uchtor** SNR=39	**2.63**	**341**	P	**Pn**	**23 39 42.0**	**+2.3**
UCH	**Uchtor**	**2.63**	**341**	⇓*iP*	**Pn**	**23 39 39.9**	**+0.2**
UCH				⇓*iS*	**Sn**	**23 40 09.9**	**-1.0**
KDJ	**Kajisay**	**2.66**	**25**	⇓*eP*	**Pn**	**23 39 39.7**	**-0.1**
KDJ				⇓*eS*	**Sn**	**23 40 09.8**	**-1.3**
KBK	**Karagaybulak** SNR=31	**2.97**	**350**	P	**Pn**	**23 39 47.0**	**+3.0**
KBK	**Karagaybulak**	**2.97**	**350**	⇑*iP*	**Pn**	**23 39 44.2**	**+0.2**
KBK				⇑*iS*	**Sn**	**23 40 17.4**	**-1.3**
DRK	**Karamyk**	**2.99**	**266**	⇑*eP*	**Pn**	**23 39 45.4**	**+1.0**
DRK				⇑*iS*	**Sn**	**23 40 19.7**	**+0.3**
AAK	**Ala-Archa** SNR=18	**3.03**	**344**	P	**Pn**	**23 39 47.8**	**+3.0**
AAK	**Ala-Archa** 12nm,0.6s	**3.03**	**344**	⇑Pn	**Pn**	**23 39 43.0**	**-1.8**
AAK				⇑Lg	Lg		23 40 29.0	
	59nm,0.8s							
AAK	**Ala-Archa**	**3.03**	**344**	⇓*eP*	**Pn**	**23 39 45.0**	**+0.1**
AAK				⇓*iS*	**Sn**	**23 40 19.0**	**-1.2**
FRU1	**Bishkek**	**3.17**	**346**	⇑*eP*	**Pn**	**23 39 47.2**	**+0.5**
FRU1				⇑*iS*	**Sn**	**23 40 22.7**	**-0.8**
TKM2	**Tokmak 2** SNR=15	**3.18**	**359**	P	**Pn**	**23 39 50.3**	**+3.2**
TKM2	**Tokmak 2**	**3.18**	**359**	⇑*iP*	**Pn**	**23 39 47.1**	**+0.1**
TKM2				⇑*iS*	**Sn**	**23 40 22.6**	**-1.5**
EKS2	**Erkin-Say** SNR=29	**3.25**	**335**	P	**Pn**	**23 39 50.7**	**+2.9**
EKS2	**Erkin-Say**	**3.25**	**335**	⇓*eP*	**Pn**	**23 39 48.1**	**+0.3**
EKS2				⇓*iS*	**Sn**	**23 40 24.4**	**-1.1**
KST	**Kastek** 5.1nm,0.4s	**3.31**	**4**	Pg	**Pn**	**23 39 52.1**	**+3.3**
KST				Lg	Lg		23 40 38.1	
	237nm,0.5s							
KST	**Kastek** 5.1nm,0.4s	**3.31**	**4**	*eP*	**Pn**	**23 39 52.1**	**+3.3**
KST				*eS*	**Sb**	**23 40 38.1**	**+1.2**
	237nm,0.5s							
CHMS	**Chumysh** SNR=11	**3.33**	**349**	P	**Pn**	**23 39 52.0**	**+3.1**
CHMS	**Chumysh**	**3.33**	**349**	⇓*iP*	**Pn**	**23 39 48.9**	**0.0**
CHMS				⇓*iS*	**Sn**	**23 40 25.8**	**-1.6**
ANVS	**Anan'yevo**	**3.40**	**26**	⇑*eP*	**Pn**	**23 39 50.0**	**0.0**
ANVS				⇑*iS*	**Sn**	**23 40 27.6**	**-1.8**
TNSS	**Tian-Shan** 10.0nm,0.5s	**3.44**	**16**	Pg	**Pn**	**23 39 54.3**	**+3.5**
TNSS				Lg	Lg		23 40 42.1	
	21nm,0.6s							
TNSS	**Tian-Shan** 10.0nm,0.5s	**3.44**	**16**	*eP*	**Pn**	**23 39 54.3**	**+3.5**
TNSS				*eS*	**Sb**	**23 40 42.1**	**+1.3**
	21nm,0.6s							
PRZ	**Przheval'sk**	**3.44**	**36**	⇑*eP*	**Pn**	**23 39 50.7**	**+0.1**
PRZ				⇑*iS*	**Sn**	**23 40 28.9**	**-1.5**
DGS	**Degeres** 17nm,0.4s	**3.50**	**1**	Pg	**Pn**	**23 39 54.9**	**+3.5**
DGS				Lg	Lg		23 40 43.2	
	57nm,0.3s							
DGS	**Degeres** 17nm,0.4s	**3.50**	**1**	*eP*	**Pn**	**23 39 54.9**	**+3.5**
DGS				*eS*	**Sb**	**23 40 43.2**	**+0.8**
	57nm,0.3s							
MRKS	**Merke** 5.1nm,0.2s	**3.52**	**329**	Pg	**Pn**	**23 39 55.1**	**+3.5**
MRKS				Lg	Lg		23 40 43.4	
	37nm,0.3s							
MRKS	**Merke** 5.1nm,0.2s	**3.52**	**329**	*eP*	**Pn**	**23 39 55.1**	**+3.5**
MRKS				*eS*	**Sb**	**23 40 43.4**	**+0.6**
	37nm,0.3s							
MDOK	**Medeo** 18nm,0.6s	**3.58**	**17**	Pg	**Pn**	**23 39 56.1**	**+3.7**
MDOK				Lg	Lg		23 40 45.2	
	155nm,0.8s							
MDOK	**Medeo** 18nm,0.6s	**3.58**	**17**	*eP*	**Pn**	**23 39 56.1**	**+3.7**
MDOK				*eS*	**Sb**	**23 40 45.2**	**+0.6**
	155nm,0.8s							
AAA	**Alma-Ata** 18nm,0.1s	**3.60**	**15**	Pg	Pn	23 39 57.7	+5.1
AAA				Lg	Lg		23 40 48.1	
	3.4nm,0.1s							
AAA	**Alma-Ata** 18nm,0.1s	**3.60**	**15**	*eP*	Pn	23 39 57.7	+5.1
AAA				*eS*	**Sb**	**23 40 48.1**	**+3.1**
	3.4nm,0.1s							
KNDC	**Almaty** 21nm,0.3s	**3.62**	**15**	⇑Pg	**Pn**	**23 39 57.2**	**+4.4**
KNDC				⇓Lg	Lg		23 40 48.1	
	250nm,0.7s							
USP	**Ospenovka** SNR=15	**3.63**	**347**	P	**Pn**	**23 39 55.9**	**+2.9**
USP	**Ospenovka**	**3.63**	**347**	⇑*eP*	**Pn**	**23 39 53.2**	**+0.1**
USP				⇑*iS*	**Sn**	**23 40 33.2**	**-1.7**
MNAS	**Manas**	**3.64**	**320**	⇓*eP*	**Pn**	**23 39 53.7**	**+0.5**
MNAS				⇓*iS*	**Sn**	**23 40 34.0**	**-1.1**
TRKS	**Terek-Say**	**3.87**	**299**	⇑*iP*	**Pn**	**23 39 56.6**	**+0.1**
TRKS				⇑*iS*	**Sn**	**23 40 39.0**	**-2.0**
SATY	**Saty** 6.4nm,0.6s	**3.91**	**31**	Pg	Pn	23 40 02.7	+5.7
SATY				Lg	Lg		23 40 56.6	
	34nm,0.4s							
SATY	**Saty** 6.4nm,0.6s	**3.91**	**31**	*eP*	Pn	23 40 02.7	+5.7
SATY				*eS*	**Sb**	**23 40 56.6**	**+2.5**
	34nm,0.4s							
KRBS	**Karabastau** 2.0nm,0.4s	**3.96**	**0**	Pg	Pn	23 40 03.2	+5.7
KRBS				Lg	Lg		23 40 57.3	
	63nm,0.7s							
KRBS	**Karabastau** 2.0nm,0.4s	**3.96**	**0**	*eP*	Pn	23 40 03.2	+5.7
KRBS				*eS*	**Sb**	**23 40 57.3**	**+2.0**
	63nm,0.7s							
KTBS	**Karatobe** 0.1nm,0.1s	**4.05**	**11**	Pg	Pn	23 40 04.8	+6.0
KTBS				Lg	Lg		23 40 59.8	
	87nm,0.6s							
KTBS	**Karatobe** 0.1nm,0.1s	**4.05**	**11**	*eP*	Pn	23 40 04.8	+6.0
KTBS				*eS*	**Sb**	**23 40 59.8**	**+1.9**
	87nm,0.6s							
KUU	**Kurty** 5.0nm,0.1s	**4.19**	**7**	Pg	Pn	23 40 06.1	+5.4
KUU				Lg	Lg		23 41 02.1	
	49nm,0.8s							
KUU	**Kurty** 5.0nm,0.1s	**4.19**	**7**	*eP*	Pn	23 40 06.1	+5.4
KUU				*eS*	**Sb**	**23 41 02.1**	**+0.2**
	49nm,0.8s							
UZB	**Uzynbulak** 2.5nm,0.2s	**4.25**	**36**	Pg	**Pb**	**23 40 09.2**	**-3.6**
UZB				Lg	Lg		23 41 07.3	
	14nm,0.3s							
UZB	**Uzynbulak** 2.5nm,0.2s	**4.25**	**36**	*eP*	**Pb**	**23 40 09.2**	**-3.6**
UZB				*eS*	**Sb**	**23 41 07.3**	**+3.6**
	14nm,0.3s							
KPKS	**Kokpek** 2.6nm,0.0s	**4.37**	**30**	*eP*	**Pb**	**23 40 11.4**	**-3.5**
KPKS				*eS*	**Sb**	**23 41 11.6**	**+4.5**
	24nm,0.6s							
SHLS	**Shalkode** 4.6nm,0.5s	**4.46**	**39**	Pg	**Pb**	**23 40 16.0**	**-0.4**
SHLS				Lg	Lg		23 41 19.8	
	27nm,0.6s							
KK31	**Karatay Array** 0.9nm,0.3s,baz=127,slow=13,SNR=11	**5.12**	**313**	Pn	**Pn**	**23 40 13.3**	**-0.2**
KK31				Pg		23 40 25.1	
	1.6nm,0.4s,baz=127,slow=18,SNR=9.8							
KK31				⇓Lg	Lg	23 41 35.6	
	7.8nm,0.6s,baz=127,slow=28,SNR=5.1							

IDC 08 23:56:13.9±1.4, **37°.03S** × **78°.21E, h0km, mb3.9**/5, **mbtmp3.9**/5, **MS3.8**/19, **Error ellipse: s-maj=42.8km s-min=34.0km az=77.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04N2	**CROZET ISLANDS** baz=75,slow=75,SNR=2011	**21.67**	**237**	T	T	00 23 38.9	
H04N1	**CROZET ISLANDS** baz=75,slow=75,SNR=1407	**21.69**	**237**	T	T	00 23 39.0	
H04N3	**CROZET ISLANDS** baz=75,slow=75,SNR=1958	**21.69**	**237**	T	T	00 23 36.4	
H04S1	**CROZET ISLANDS** baz=72,slow=76,SNR=14	**21.79**	**235**	T	T	00 23 43.8	
H04S3	**CROZET ISLANDS** baz=72,slow=76,SNR=10	**21.80**	**235**	T	T	00 23 50.1	
H04S2	**CROZET ISLANDS** baz=72,slow=76,SNR=9.0	**21.81**	**235**	T	T	00 23 44.8	
H01W2	**Cape Leeuwin H** baz=256,slow=75,SNR=482	**29.05**	**97**	T	T	00 32 31.3	
H01W3	**Cape Leeuwin H** baz=256,slow=75,SNR=473	**29.06**	**97**	T	T	00 32 31.7	
H01W1	**Cape Leeuwin H** baz=256,slow=75,SNR=442	**29.07**	**97**	T	T	00 32 32.6	
H08S2	**Diego Garcia H** baz=171,slow=76,SNR=211	**29.71**	**349**	T	T	00 33 19.3	
H08S1	**Diego Garcia H** baz=171,slow=76,SNR=101	**29.71**	**348**	T	T	00 33 19.4	
H08S3	**Diego Garcia H** baz=171,slow=76,SNR=666	**29.73**	**348**	T	T	00 33 20.7	
MAW	**Mawson** comp=Z,110nm,18.6s,baz=70,slow=33	**31.83**	**191**	LR	LR	00 13 40.6	
NWAO	**Narrogin (SRO)** comp=Z,187nm,21.4s,baz=229,slow=32	**32.08**	**94**	LR	LR	00 13 04.7	
PALK	**Pallekele** comp=Z,138nm,19.6s,baz=130,slow=31	**44.13**	**4**	LR	LR	00 18 45.4	
BOSA	**Boshof** comp=Z,48nm,18.0s,baz=135,slow=32	**44.80**	**265**	LR	LR	00 20 02.4	
FITZ	**Fitzroy Crossi** comp=Z,75nm,20.0s,baz=336,slow=32	**45.57**	**79**	LR	LR	00 20 49.2	
LBTB	**Lobatse** comp=Z,132nm,19.3s,baz=115,slow=32	**46.13**	**270**	LR	LR	00 20 30.5	
SUR	**Sutherland** comp=Z,102nm,20.5s,baz=136,slow=30	**46.81**	**258**	LR	LR	00 19 47.5	
ASAR	**Alice Springs** 1.3nm,1.0s,baz=258,slow=6.1,SNR=6.3	**49.24**	**91**	P	P	00 05 04.3	0.0
ASAR	comp=Z,129nm,19.0s,baz=283,slow=33 1.3nm,1.0s			LR	LR	00 23 34.7	
KAPI	**Kappang** comp=Z,111nm,19.8s,baz=222,slow=34	**49.55**	**60**	LR	LR	00 24 09.7	
WRA	**Warramunga Arr** 2.1nm,1.0s,baz=239,slow=7.4,SNR=6.0 2.1nm,1.0s	**51.47**	**87**	P	P	00 05 21.1	-0.2
STKA	**Stephens Creek** comp=Z,108nm,20.6s,baz=221,slow=31	**51.67**	**104**	LR	LR	00 23 04.0	
VNDA	**Vanda** comp=Z,58nm,18.6s,baz=292,slow=34	**52.80**	**164**	LR	LR	00 25 47.5	
QSPA	**South Pole Qui** 0.7nm,0.3s,baz=264,slow=4.0,SNR=4.7	**53.12**	**180**	P	P	00 05 32.9	-0.2
QSPA	comp=Z,204nm,20.0s,baz=284,slow=34 0.7nm,0.3s			LR	LR	00 26 05.9	
TSUM	**Tsumeb** comp=Z,140nm,20.9s,baz=146,slow=32	**55.46**	**271**	LR	LR	00 25 55.5	
CTA	**Charters Tower** comp=Z,126nm,18.2s,baz=219,slow=34	**60.92**	**94**	LR	LR	00 31 08.1	
AAK	**Ala-Archa** comp=Z,82nm,19.8s,baz=167,slow=34	**79.36**	**357**	LR	LR	00 40 31.0	
MKAR	**Makanchi Array** 0.8nm,0.8s,baz=188,slow=7.0,SNR=7.9	**83.53**	**3**	P	P	00 08 43.0	-0.3
MKAR	comp=Z,46nm,18.5s,baz=178,slow=35 0.8nm,0.8s			LR	LR	00 44 26.7	
MSVF	**Nonsavu** comp=Z,68nm,18.4s,baz=152,slow=32	**87.07**	**110**	LR	LR	00 42 00.0	
KURBB	**Kurchatov Arra** 0.7nm,0.8s,baz=194,slow=4.5,SNR=4.8 0.7nm,0.8s	**87.28**	**0**	P	P	00 09 02.3	+0.5
DBIC	**Dimbokro** comp=Z,42nm,19.2s,baz=148,slow=33	**88.47**	**279**	LR	LR	00 45 25.4	
ZALV	**Zalesovo Beam** comp=Z,28nm,19.6s,baz=88,slow=34	**90.79**	**4**	LR	LR	00 48 12.9	

*GEN **08** 23:56:41.9, 45°.97N × 7°.51E, h2km±1km, Ml3.3*
*ROM **08** 23:56:42.2±0.1, 45°.973N±0°.009 × 7°.502E±0°.008, h10km±1km, ML3.2/94, Error ellipse: s-maj=0.9km s-min=0.4km az=343.0*
*IDC **08** 23:56:43.6±1.0, 46°.10N × 7°.35E, h0km, mb3.6/3, mbtmp3.5/8, ML3.6/5, MS3.7/2, Error ellipse: s-maj=16.6km s-min=10.5km az=149.0*
*ZUR **08** 23:56:43.0, 45°.97N × 7°.51E, h2km±1km, Error ellipse: s-maj=3293.6km s-min=520.1km az=329.0*
*LDG **08** 23:56:43.6±0.1, 45°.96N × 7°.55E, h2km, Md3.7/2, Ml3.7/40, Error ellipse: s-maj=1.5km s-min=1.2km az=110.0*
*GFZ **08** 23:56:43.8±0.2, 46°.N±2'× °.±°, h1km, M3.5/19, ML3.4/19, Error ellipse: s-maj=6.0km s-min=3.9km az=115.6, confirmed*
*BGR **08** 23:56:46.5±0.3, 46°.11N × 7°.37E, h5km, ML3.5/27, Error ellipse: s-maj=5.6km s-min=4.4km az=131.0*
*PRU **08** 23:56:47.1, 46°.05N × 7°.48E, h22km*

ISC 08 23:56:43.4±0.8, **45°.97N**±0°.01 × **7°.49E**±0°.01, **h8**km±5km, **n297**, σ1**s64**/487, **31C-59D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DIX	**Grande Dixence**	**0.12**	**331**	⇓Pg	**Pg**	**23 56 45.5**	**-0.8**
DIX				Sg	**Sg**	**23 56 47.5**	**-0.8**
DIX	**Grande Dixence**	**0.12**	**331**	S	**Sg**	**23 56 47.2**	**-1.1**
DIX	**Grande Dixence**	**0.12**	**331**	P	**Pg**	**23 56 45.5**	**-0.8**
DIX				S	**Sg**	**23 56 47.2**	**-1.1**
DIX				AML	AML		
	comp=E,96400μm,1.0s						
DIX				AML	AML		
DIX				AML	AML		
	comp=E,96400μm,1.0s						
DIX				AML	AML		
DIX				AML	AML		
	comp=E,70190μm,0.6s						
DIX				AML	AML		
	comp=N,95210μm,0.3s						
DIX				AML	AML		
	comp=E,70190μm,1.4s						
MH36	**Zermatt, Posit**	**0.12**	**87**	⇓Pg	**Pg**	**23 56 45.6**	**-0.7**
MH36				Sg	**Sg**	**23 56 47.7**	**-0.8**
MH44	**Zermatt, Posit**	**0.12**	**87**	⇓Pg	**Pg**	**23 56 45.7**	**-0.7**
MH44				Sg	**Sg**	**23 56 47.7**	**-0.8**
SZEK	**Zermatt, Kirch**	**0.18**	**76**	⇓Pg	**Pg**	**23 56 46.5**	**-0.7**
SZEK				Sg	**Sg**	**23 56 49.4**	**-0.4**
SHER	**Hrmence, R**	**0.22**	**342**	⇑Pg	**Pg**	**23 56 47.5**	**-0.4**
SHER				Sg	**Sg**	**23 56 50.8**	**-0.2**
VANNI	**Vissoie, Val d**	**0.25**	**17**	⇓Pg	**Pg**	**23 56 47.9**	**-0.4**
VANNI				Sg	**Sg**	**23 56 51.1**	**-0.6**
VANNI	**Vissoie, Val d**	**0.25**	**17**	S	**Sg**	**23 56 51.3**	**-0.5**
MFERR	**Prayon, Val Fe**	**0.27**	**265**	⇑Pg	**Pg**	**23 56 48.5**	**-0.2**
MFERR				Sg	**Sg**	**23 56 52.3**	**-0.1**
SIOO	**Sion-Ophtalmol**	**0.27**	**344**	⇓Pg	**Pg**	**23 56 48.6**	**-0.1**
SIOO	**Sion-Ophtalmol**	**0.27**	**344**	Pg	**Pg**	**23 56 48.6**	**-0.1**
REMY	**Saint-Rhmy-en**	**0.27**	**240**	⇑Pg	**Pg**	**23 56 48.5**	**-0.4**
REMY	**Saint-Rhmy-en**	**0.27**	**240**	S	**Sg**	**23 56 52.4**	**-0.2**
REMY	**Saint-Rhmy-en**	**0.27**	**240**	⇑P	**Pg**	**23 56 48.5**	**-0.4**
REMY				S	**Sg**	**23 56 52.3**	**-0.2**
REMY				AML	AML		
	comp=E,9715μm,0.7s						
REMY				AML	AML		
	comp=N,10950μm,0.5s						
REMY				AML	AML		
	comp=N,10941μm,0.5s						
REMY				AML	AML		
	comp=E,8511μm,0.6s						
SIOM	**Sion-Mayennets**	**0.27**	**340**	⇓Pg	**Pg**	**23 56 48.6**	**-0.2**
SIOM	**Sion-Mayennets**	**0.27**	**340**	Pg	**Pg**	**23 56 48.5**	**-0.2**
SIOM				Sg	**Sg**	**23 56 52.3**	**-0.1**
SIOV	**Sion-Valere**	**0.28**	**341**	⇓Pg	**Pg**	**23 56 48.6**	**-0.3**
SIOV	**Sion-Valere**	**0.28**	**341**	⇑Pg	**Pg**	**23 56 48.5**	**-0.3**
SIOV				Sg	**Sg**	**23 56 52.2**	**-0.4**
VET03	**Vtroz, Le Bot**	**0.28**	**328**	⇓Pg	**Pg**	**23 56 48.9**	**0.0**
VET03				Sg	**Sg**	**23 56 53.3**	**+0.6**
SATI	**Passo dei Sala**	**0.28**	**111**	⇓Pg	**Pg**	**23 56 48.4**	**-0.7**
SATI				Sg	**Sg**	**23 56 52.3**	**-0.6**
SATI	**Passo dei Sala**	**0.28**	**111**	S	**Sg**	**23 56 52.3**	**-0.6**
SATI	**Passo dei Sala**	**0.28**	**111**	⇓P	**Pg**	**23 56 48.3**	**-0.7**
SATI				S	**Sg**	**23 56 52.2**	**-0.6**
SATI				AML	AML		
	comp=E,7165μm,0.6s						
SATI				AML	AML		
	comp=N,10550μm,0.5s						
SATI				AML	AML		
	comp=E,7069μm,0.4s						
SATI				AML	AML		
	comp=N,8987μm,0.5s						
SATI				AML	AML		
	comp=N,8987μm,1.5s						
LEO01	**Saint Lonard,**	**0.28**	**351**	Pg	**Pg**	**23 56 48.8**	**-0.2**
LEO01	**Saint Lonard,**	**0.28**	**351**	⇑Pg	**Pg**	**23 56 48.7**	**-0.2**
SARC	**Ardon Commune,**	**0.29**	**325**	⇓Pg	**Pg**	**23 56 48.9**	**-0.2**
SARC				Sg	**Sg**	**23 56 52.9**	**0.0**
VET02	**Vtroz, Route**	**0.29**	**328**	⇓Pg	**Pg**	**23 56 49.0**	**-0.1**
VET01	**Vtroz, Route**	**0.29**	**328**	⇑Pg	**Pg**	**23 56 48.9**	**-0.3**
VET01				Sg	**Sg**	**23 56 52.9**	**-0.2**
SIE01	**Sierre, Farmho**	**0.30**	**1**	⇑Pg	**Pg**	**23 56 48.9**	**-0.3**
SIE01				Sg	**Sg**	**23 56 53.1**	**-0.1**
SNIB	**St. Niklaus Ba**	**0.30**	**47**	⇓Pg	**Pg**	**23 56 48.7**	**-0.6**
SNIB				Sg	**Sg**	**23 56 52.9**	**-0.3**
SNIB	**St. Niklaus Ba**	**0.30**	**47**	⇓Pg	**Pg**	**23 56 48.7**	**-0.6**
SNIB				Sg	**Sg**	**23 56 52.9**	**-0.3**
MNT1	**Montagnon**	**0.30**	**316**	⇓Pg	**Pg**	**23 56 49.2**	**-0.2**
MNT1				Sg	**Sg**	**23 56 53.5**	**+0.1**
FULLY	**Reservoir Maze**	**0.31**	**306**	⇓Pg	**Pg**	**23 56 49.2**	**-0.2**
FULLY				Sg	**Sg**	**23 56 53.4**	**-0.1**
SMAO	**Martigny, Rue**	**0.32**	**293**	⇓Pg	**Pg**	**23 56 49.6**	**0.0**
SMAO				Sg	**Sg**	**23 56 54.3**	**+0.5**
SAYF2	**Ayent-Fortunoz**	**0.32**	**351**	⇑Pg	**Pg**	**23 56 49.4**	**-0.3**
RAW4	**Former Reservo**	**0.32**	**317**	⇓Pg	**Pg**	**23 56 49.6**	**-0.2**
SIEB	**Ecole de Borzu**	**0.32**	**5**	⇑Pg	**Pg**	**23 56 49.4**	**-0.4**
MMK	**Mattmark**	**0.34**	**77**	⇓Pg	**Pg**	**23 56 49.2**	**-0.9**
MMK	**Mattmark**	**0.34**	**77**	⇓P	**Pg**	**23 56 49.2**	**-0.9**
MMK				S	**Sg**	**23 56 53.7**	**-0.8**
MMK				AML	AML		
	comp=E,560μm,0.5s						
MMK				AML	AML		
	comp=E,560μm,0.5s						
MMK				AML	AML		
	comp=N,532μm,0.5s						
MMK				AML	AML		
	comp=E,560μm,0.5s						
MMK				AML	AML		
	comp=N,505μm,0.4s						
MMK				AML	AML		
	comp=E,560μm,1.5s						
MMK				AML	AML		
	comp=E,560μm,1.5s						
EMBD	**Embd, Matterta**	**0.34**	**44**	⇓Pg	**Pg**	**23 56 49.4**	**-0.6**
EMBD				Sg	**Sg**	**23 56 53.7**	**-0.9**
EMBD	**Embd, Matterta**	**0.34**	**44**	S	**Sg**	**23 56 53.6**	**-0.9**
AGA01	**Agarn, Footbal**	**0.35**	**21**	⇓Pg	**Pg**	**23 56 49.8**	**-0.4**
RAW2	**Sanetsch, VS**	**0.36**	**340**	⇑Pg	**Pg**	**23 56 50.2**	**-0.3**
MRGE	**Morge**	**0.36**	**236**	⇑Pg	**Pg**	**23 56 50.1**	**-0.5**
MRGE	**Morge**	**0.36**	**236**	S	**Sg**	**23 56 55.0**	**-0.4**
MRGE	**Morge**	**0.36**	**236**	⇑P	**Pg**	**23 56 50.1**	**-0.5**
MRGE				S	**Sg**	**23 56 55.0**	**-0.4**
MRGE				AML	AML		
	comp=E,5505μm,0.4s						
MRGE				AML	AML		
	comp=N,5090μm,0.6s						
MRGE				AML	AML		
	comp=N,5090μm,1.4s						
MRGE				AML	AML		
	comp=N,4941μm,0.5s						
MRGE				AML	AML		
	comp=E,5501μm,0.4s						
MRGE				AML	AML		
	comp=N,4941μm,1.5s						
STSW2	**Zeuzier, Staus**	**0.37**	**354**	Pg	**Pg**	**23 56 50.3**	**-0.4**
CIRO	**Champorcher**	**0.38**	**172**	⇑Pg	**Pg**	**23 56 50.2**	**-0.6**
CIRO				Sg	**Sg**	**23 56 55.4**	**-0.4**
CIRO	**Champorcher**	**0.38**	**172**	S	**Sg**	**23 56 55.3**	**-0.4**
CIRO	**Champorcher**	**0.38**	**172**	⇑P	**Pg**	**23 56 50.2**	**-0.6**
CIRO				S	**Sg**	**23 56 55.2**	**-0.6**
CIRO				AML	AML		
	comp=N,3265μm,0.2s						
CIRO				AML	AML		

BLANC AML AML
comp=N,6763µm,0.6s
BLANC AML AML
comp=N,6763µm,1.4s
SENIN Lac Senin/Sane 0.41 341 ⇓Pg **Pg 23 56 51.1 -0.4**
SENIN Lac Senin/Sane 0.41 341 S **Sg 23 56 56.6 -0.4**
LKBD2 Leukerbad 2 0.41 15 ⇓Pg **Pg 23 56 51.1 -0.4**
CI19 Les Bois 0.41 266 ⇑Pg **Pg 23 56 51.3 -0.1**
CI19 Sg **Sg 23 56 57.0 0.0**
SVIO Visp Obere Sta 0.42 40 ⇓Pg **Pg 23 56 50.9 -0.6**
SVIO Sg **Sg 23 56 56.2 -0.7**
SVIT Visp-Terbiners 0.42 41 ⇓Pg **Pg 23 56 50.9 -0.6**
SVIT Sg **Sg 23 56 56.5 -0.5**
SVIL Visp Littennar 0.42 41 ⇓Pg **Pg 23 56 51.0 -0.5**
BIBA Brigerbad 0.45 43 ⇓Pg **Pg 23 56 51.4 -0.7**
BIBA Sg **Sg 23 56 57.3 -0.7**
RAW1 Lenk, BE 0.45 355 ⇓Pg **Pg 23 56 51.7 -0.4**
SIMPL Simplonpass 0.45 54 ⇓Pg **Pg 23 56 51.3 -0.9**
SIMPL Simplonpass 0.45 54 S **Sg 23 56 57.9 -0.3**
ILLEZ Chalet Vouargn 0.46 303 ⇓Pg **Pg 23 56 52.2 -0.1**
ILLEZ Sg **Sg 23 56 58.4 +0.1**
LAUCH Lauchernalp 0.48 24 ⇓Pg **Pg 23 56 52.3 -0.5**
LAUCH Lauchernalp 0.48 24 S **Sg 23 56 58.3 -0.8**
SBRS Brig, Spital 0.48 45 ⇓Pg **Pg 23 56 52.1 -0.6**
SNTZ Naters, Zentru 0.49 44 ⇓Pg **Pg 23 56 52.2 -0.8**
TRAV Traversella 0.49 159 ⇑Pg **Pg 23 56 52.4 -0.6**
TRAV Sg **Sg 23 56 59.0 -0.4**
TRAV Traversella 0.49 159 P **Pg 23 56 52.4 -0.6**
TRAV S **Sg 23 56 58.9 -0.6**
TRAV Traversella 0.49 159 ⇑P **Pg 23 56 52.4 -0.6**
TRAV S **Sg 23 56 58.8 -0.6**
TRAV AML AML
comp=E,12250µm,0.2s
TRAV AML AML
comp=N,9065µm,0.5s
TRAV AML AML
comp=E,12227µm,0.2s
TRAV AML AML
comp=N,8994µm,0.3s
SAIG Aigle Rue de l 0.50 313 Pg **Pg 23 56 52.9 -0.1**
CI18 Le Prarion, La 0.51 262 ⇑Pg **Pg 23 56 53.2 -0.1**
CI18 Sg **Sg 23 56 59.9 0.0**
OGSI Sixt 0.52 280 ⇑Pg **Pg 23 56 53.4 -0.1**
OGSI Sg **Sg 23 57 00.4 +0.1**
AIGLE Aigle 0.53 315 ⇓Pg **Pg 23 56 53.3 -0.2**
SCOD Chcteau-dO 0.56 333 ⇓Pg **Pg 23 56 53.9 -0.2**
LSD Lago del Serru 0.57 206 ⇑Pg **Pg 23 56 53.9 -0.6**
LSD Sg **Sg 23 57 01.6 -0.4**
LSD Lago del Serru 0.57 206 S **Sg 23 57 00.9 -1.1**
LSD Lago del Serru 0.57 206 ⇑P **Pg 23 56 53.8 -0.6**
LSD S **Sg 23 57 01.5 -0.5**
LSD AML AML
comp=N,2615µm,0.8s
LSD AML AML
comp=E,2510µm,0.5s
LSD AML AML
comp=E,2509µm,0.5s
LSD AML AML
comp=N,2170µm,0.2s
SZWD2 Zweisimmen Kir 0.58 352 ⇓Pg **Pg 23 56 54.4 -0.3**
SFRS Frutigen, Schu 0.62 11 ⇑Pg **Pg 23 56 55.1 -0.3**
FIESA Fiescheralp 0.63 43 ⇓Pg **Pg 23 56 54.9 -0.7**
FIESA Fiescheralp 0.63 43 S **Sg 23 57 03.1 -0.7**
RSL Roselend 0.67 245 ⇑Pg **Pg 23 56 55.9 -0.4**
JAUN Jaun, Euschels 0.68 348 ⇓Pg **Pg 23 56 56.2 -0.2**
WIMIS Wimmis 0.70 7 Pg **Pg 23 56 56.4 -0.4**
LPL La Plagne 0.70 230 *e*Pg **Pg 23 56 56.0 -0.9**
LPL *e*Sg **Sg 23 57 06.2 +0.1**
comp=N,179nm,0.2s
LPG La Plagne 0.70 228 *e*Pg **Pg 23 56 56.0 -1.0**
LPG *e*Sg **Sg 23 57 05.8 -0.4**
comp=N,204nm,0.2s
SBUL Bulle cole, 0.72 335 ⇓Pg **Pg 23 56 57.4 +0.1**
VRB Verbania 0.74 93 P **Pg 23 56 57.1 -0.6**
SINS Interlaken, Sc 0.76 20 Pg **Pg 23 56 57.6 -0.3**
BTNF Ladstafel, Nuf 0.79 50 ⇓Pg **Pg 23 56 57.4 -1.2**
SCAS2 Camedo, Parato 0.80 77 Pg **Pg 23 56 57.6 -1.2**
GRIMS Grimsel Gerste 0.83 43 ⇓Pg **Pg 23 56 58.5 -0.9**
GRIMS Sg **Sg 23 57 09.5 -0.8**
RSP Reno Superiore 0.84 191 ⇑Pg **Pg 23 56 58.7 -0.8**
RSP Reno Superiore 0.84 191 ⇑P **Pg 23 56 58.7 -0.8**
RSP S **Sg 23 57 10.4 0.0**
RSP AML AML
comp=N,2715µm,0.5s
RSP AML AML
comp=N,2820µm,0.5s
RSP AML AML
comp=E,3105µm,0.6s
RSP AML AML
comp=N,2720µm,0.5s
RSP AML AML
comp=E,3205µm,0.6s
RSP AML AML
comp=E,3043µm,0.4s
RSP AML AML
comp=N,2820µm,0.5s
RSP AML AML
comp=E,2941µm,0.4s
RSP AML AML
comp=N,2717µm,0.5s
SMOE Moudon cole, 0.85 326 Pn **Pg 23 56 59.7 +0.1**
SFRU Fribourg, Univ 0.85 344 Pn **Pg 23 57 00.1 +0.4**
STAF Tafers 0.85 347 Pn **Pg 23 56 60.0 +0.2**
GSF03 Obergoms, Fort 0.87 46 ⇓Pg **Pg 23 56 59.1 -1.0**
GSF03 Sg **Sg 23 57 11.1 -0.3**
RA43 Rhonegletscher 0.87 45 ⇓Pg **Pg 23 56 59.1 -1.0**
RA43 Sg **Sg 23 57 11.3 -0.2**
RA41 Rhonegletscher 0.88 45 ⇓Pg **Pg 23 56 59.4 -0.9**
RA41 Sg **Sg 23 57 11.4 -0.3**
TORNY Torny/Romont 0.88 335 ⇓Pn **Pg 23 57 00.6 +0.3**
VARE Varese 0.90 96 ⇓Pg **Pg 23 56 59.6 -1.0**
VARE Sg **Sg 23 57 11.4 -0.8**
VARE Varese 0.90 96 ⇓P **Pg 23 56 59.6 -1.0**
VARE S **Sg 23 57 11.5 -0.8**
VARE AML AML
comp=E,1425µm,0.5s
VARE AML AML
comp=N,1725µm,0.5s
VARE AML AML
comp=N,1715µm,0.3s
VARE AML AML
comp=E,1424µm,0.4s
HASLI Hasliberg/Brie 0.91 30 ⇓Pn **Pg 23 57 00.1 -0.7**
FUSIO Fusio 0.94 59 P **Pg 23 57 00.4 -1.0**
FUSIO S **Sg 23 57 13.1 -0.7**
FUSIO Fusio 0.94 59 P **Pg 23 57 00.5 -1.0**
FUSIO AML AML
comp=E,712µm,0.3s
FUSIO AML AML
comp=N,636µm,0.4s
FUSIO AML AML
comp=E,712µm,0.3s
FUSIO AML AML
comp=N,636µm,0.4s
MONC Moncucco Torin 0.95 161 P **Pb 23 57 02.6 +0.6**
MONC S **Sn 23 57 16.9 +0.1**
MONC Moncucco Torin 0.95 161 AML AML
comp=E,4265µm,0.4s
MONC AML AML
comp=N,3160µm,0.5s
MONC AML AML
comp=N,3162µm,0.5s
MONC AML AML
comp=E,4268µm,0.4s
OGMO Fort Saint-Gob 0.95 217 P **Pg 23 57 00.5 -1.2**
OGMO S **Sg 23 57 12.7 -1.3**
SALEV Sal¨ve 0.98 276 ⇓Pn **Pg 23 57 02.1 0.0**
GIMEL St. Georges / 1.02 304 ⇓P **Pg 23 57 03.5 +0.5**
GIMEL AML AML
comp=E,1390µm,1.0s
GIMEL AML AML
comp=N,1485µm,0.9s
GIMEL AML AML
comp=E,1271µm,0.3s
GIMEL AML AML
comp=E,1390µm,1.0s
GIMEL AML AML
comp=N,1341µm,0.3s
GIMEL AML AML
comp=N,1485µm,1.1s
GIMEL St. Georges / 1.02 304 P **Pb 23 57 03.7 +0.4**
GIMEL AML AML
MUGIO Muggio 1.08 92 S **Sg 23 57 17.2 -0.9**
MUGIO Muggio 1.08 92 ⇓P **Pg 23 57 03.0 -1.1**
MUGIO AML AML
comp=E,826µm,0.4s
MUGIO AML AML
comp=N,982µm,0.4s
MUGIO AML AML
comp=E,826µm,0.4s
MUGIO AML AML
comp=N,980µm,0.4s
MUGIO AML AML
comp=N,980µm,1.6s
BNI Bardonecchia 1.08 212 P **Pg 23 57 03.1 -1.1**
BNI S **Sg 23 57 18.4 +0.1**
BNI Bardonecchia 1.08 212 P **Pg 23 57 03.3 -0.8**
BNI AML AML
comp=N,488µm,0.4s
BNI AML AML
comp=E,334µm,0.5s
BNI AML AML
comp=N,488µm,0.4s
BNI AML AML
comp=E,330µm,0.5s
BNI AML AML
comp=E,330µm,0.5s
BNI AML AML
comp=N,488µm,0.4s
BNI AML AML
comp=E,334µm,0.5s
BNI AML AML
comp=N,488µm,0.4s
BNI AML AML
comp=N,488µm,1.6s
BNI AML AML
comp=N,488µm,1.6s
BNI Bardonecchia 1.08 212 P **Pg 23 57 03.4 -0.8**
BNI AML AML
BNALP Bannalp 1.10 35 ⇓P **Pg 23 57 03.6 -0.9**
BNALP AML AML
comp=E,1275µm,0.5s
BNALP AML AML
comp=N,1023µm,0.7s
BNALP AML AML
comp=N,1023µm,0.8s
BNALP AML AML
comp=E,1275µm,0.5s
BNALP AML AML
comp=N,946µm,0.4s
BNALP AML AML
comp=E,1275µm,1.5s
BNALP Bannalp 1.10 35 P **Pg 23 57 03.9 -0.7**
BNALP AML AML
BHB Bricherasio 1.14 188 P **Pg 23 57 04.0 -1.3**
BHB S **Sg 23 57 19.1 -1.0**
RRL Rocca Remolon 1.16 205 P **Pg 23 57 04.5 -1.2**
RRL S **Sg 23 57 21.0 +0.2**
RRL Rocca Remolon 1.16 205 ⇑P **Pg 23 57 04.5 -1.2**
RRL AML AML
comp=E,932µm,0.5s
RRL AML AML
comp=N,880µm,0.7s
RRL AML AML
comp=N,880µm,0.7s
RRL AML AML
comp=E,932µm,0.5s
CABF La Chapelle 1.16 304 *e*Pg **Pg 23 57 05.8 +0.1**
CABF *e*Sg **Sn 23 57 23.2 +1.1**
comp=E,536nm,0.5s
CABF AML AML
ROTM Rocchetta Tana 1.28 151 P **Pn 23 57 08.8 +1.4**
ROTM S **Sn 23 57 28.1 +3.4**
ROTM Rocchetta Tana 1.28 151 AML AML
comp=E,2542µm,0.5s
ROTM AML AML
comp=E,2540µm,0.5s
ROTM AML AML
comp=N,3925µm,0.5s
ROTM AML AML
comp=N,3924µm,0.5s
MBDF Montbardon 1.35 202 *e*Pg **Pg 23 57 07.9 -1.3**
MBDF *e*Sg **Sg 23 57 25.5 -1.2**
comp=N,342nm,0.3s
MBDF AML AML
BALST Balsthal 1.37 6 *e*Pn **Pn 23 57 09.4 +0.5**
BALST *e*Sg **Sb 23 57 28.2 +1.2**
TUE Stuetta 1.38 68 P **Pn 23 57 08.4 -0.7**
TUE S **Sg 23 57 27.8 0.0**
TUE Stuetta 1.38 68 P **Pn 23 57 08.4 -0.7**
TUE AML AML
BOURR Bourrignon 1.43 353 P **Pn 23 57 10.8 +1.1**
BOURR AML AML
VDL Val di Lei 1.45 69 P **Pn 23 57 09.2 -0.9**
VDL S **Sg 23 57 30.0 0.0**
SARZ Sarezzano 1.49 137 P **Pg 23 57 12.5 +0.6**
SARZ S **Sg 23 57 34.6 +3.3**
SARZ Sarezzano 1.49 137 AML AML
comp=N,6655µm,1.4s
SARZ AML AML
comp=E,4830µm,0.5s
SARZ AML AML
comp=N,6480µm,1.4s
SARZ AML AML
comp=E,4955µm,0.5s
SARZ AML AML
comp=E,4828µm,0.5s
SARZ AML AML
comp=N,5934µm,0.4s
SARZ AML AML
comp=N,6090µm,0.4s
SARZ AML AML
comp=E,4955µm,0.5s
PZZ Stroppo 1.49 190 P **Pn 23 57 09.1 -1.4**
PZZ S **Sb 23 57 30.4 -0.1**
ORIF Oris-en-Rattie 1.55 228 *e*Pg **Pn 23 57 11.7 +0.4**
ORIF *e*Sg **Sn 23 57 32.8 +1.1**
comp=E,303nm,0.6s
ORIF AML AML
ORIF Oris-en-Rattie 1.55 228 P **Pn 23 57 12.2 +0.9**
ORIF AML AML
SULZ Cheisacher 1.61 15 *e*Pn **Pn 23 57 13.1 +1.0**
SULZ *e*Pg **Pg 23 57 14.9 +0.7**
SULZ *e*Sg **Sg 23 57 36.1 +1.0**
OGAG Argentiere 1.66 204 P Pn 23 57 08.7 -4.2
OGAG S **Sn 23 57 28.5 -5.9**
PLONS Plons/SG 1.69 50 *e*Pn **Pn 23 57 14.4 +1.1**
PLONS *e*Pg **Pg 23 57 17.2 +1.4**
PLONS *e*Sg **Sg 23 57 39.9 +2.2**
STV Sant Anna di V 1.73 184 AML AML
comp=E,202µm,0.4s
STV AML AML
comp=N,176µm,0.5s
STV AML AML
comp=N,176µm,0.5s
STV AML AML
comp=E,203µm,0.4s
STV AML AML
comp=N,176µm,1.6s
WILA Wila 1.74 34 *e*Pn **Pn 23 57 15.2 +1.3**
WILA *e*Sg **Sg 23 57 41.1 +1.8**
ENR Entracque 1.75 182 AML AML
comp=N,336µm,0.4s
ENR AML AML
comp=E,426µm,0.8s
ENR AML AML
comp=E,427µm,0.8s
ISO Isola 1.82 190 P **Pn 23 57 14.3 -0.7**
ISO AML AML
RNCA Ronca, Sant'Ol 1.82 145 AML AML
comp=N,252µm,0.5s
RNCA AML AML
comp=E,268µm,0.4s
RNCA AML AML
comp=N,253µm,1.4s
RNCA AML AML
comp=E,269µm,0.4s
DAVOX Davos/Dischmat 1.84 63 Pn **Pn 23 57 16.7 +1.3**
comp=E,16nm,0.3s,baz=263,slow=9.3,SNR=87
DAVOX Pg **Pg 23 57 19.8 +1.2**
comp=E,31nm,0.3s,baz=273,slow=13,SNR=66
DAVOX Lg Lg 23 57 46.1
comp=E,70nm,0.3s,baz=350,slow=20,SNR=20
DAVOX LR LR 23 57 46.2
comp=E,38nm,19.0s,baz=273,slow=33
HINF Hinteralfeld 1.90 347 *e*Pn **Pn 23 57 16.4 +0.4**
HINF *e*Pg **Pb 23 57 19.3 +1.1**
HINF *e*Sg **Sb 23 57 43.7 +1.7**
comp=E,79nm,0.3s
HINF AML AML
SLE Schleitheim 1.92 21 *e*Pn **Pn 23 57 16.7 +0.3**
SLE *e*Pg **Pg 23 57 19.8 -0.3**
SLE *e*Sg **Sg 23 57 44.8 -0.2**
SLE Schleitheim 1.92 21 P **Pn 23 57 16.9 +0.6**
SLE AML AML
FUORN Ofenpass-Fuorn 2.03 70 P **Pn 23 57 19.9 +1.9**
FUORN AML AML
DAVA Damuels 2.10 51 *e*Pn **Pb 23 57 21.5 -0.3**
DAVA *e*Sg **Sg 23 57 53.2 +2.2**
DAVA Damuels 2.10 51 *e*Pn **Pb 23 57 21.3 -0.5**
comp=E,63nm,0.4s,SNR=76
DAVA Damuels 2.10 51 P **Pb 23 57 21.9 0.0**
DAVA AML AML
SBF Sospel 2.11 181 *e*Pn **Pn 23 57 18.4 -0.6**
SBF *e*Pg **Pg 23 57 23.4 -0.4**
SBF *e*Sg **Sb 23 57 48.8 +0.5**
comp=E,280nm,0.3s
SBF AML AML
ESCA l'Escarene 2.15 182 P **Pn 23 57 19.1 -0.3**
ESCA AML AML
HAU Haudompre 2.18 339 *e*P **Pn 23 57 20.6 +0.7**
HAU *e*Pg **Pg 23 57 24.7 -0.4**
HAU *e*Sg **Sg 23 57 52.6 -0.7**
comp=E,94nm,0.2s
HAU AML AML
SSB Saint Sauveur 2.18 253 P **Pn 23 57 21.4 +1.4**
SSB AML AML
MON Monaco 2.24 181 P **Pn 23 57 22.1 +1.4**
MON AML AML
ECH Echery 2.25 354 P **Pn 23 57 20.4 -0.5**
ECH AML AML
CALF Calern 2.26 191 P **Pn 23 57 21.7 +0.7**
CALF AML AML
VIVF Saint-Julien-l 2.28 242 *e*P **Pn 23 57 22.3 +1.0**
VIVF *e*Sg **Sb 23 57 55.2 +2.1**
comp=E,96nm,0.3s
VIVF AML AML
OBER Oberstdorf 2.40 52 *e*Pn **Pn 23 57 25.6 +2.5**
OBER *e*Sg **Sg 23 58 01.9 +1.4**
SMRF Simiane la Rot 2.42 215 *e*P **Pn 23 57 24.7 +1.5**
SMRF *e*Pg **Pb 23 57 28.5 +1.4**
SMRF *e*Sg **Sb 23 57 58.8 +1.8**
comp=E,75nm,0.4s
SMRF AML AML
BFO Black Forest 2.42 13 *e*Pn **Pn 23 57 23.3 0.0**
BFO *e*Pg **Pg 23 57 29.4 -0.4**
BFO *e*Sg **Sg 23 57 60.0 -1.3**
CDF Champ du Feu 2.44 357 *e*Pn **Pn 23 57 23.4 -0.2**
CDF *e*Pg **Pg 23 57 29.6 -0.6**
CDF *e*Sg **Sg 23 58 01.6 -0.2**
comp=E,48nm,0.4s
CDF AML AML
FETA Feichten 2.47 64 *e*Pn **Pb 23 57 27.1 -0.9**
comp=E,20nm,0.5s,SNR=41
UBR Ueberruh 2.48 46 *e*Pn **Pn 23 57 26.0 +2.0**
UBR *e*Sg **Sg 23 58 03.1 +0.2**
UBR Ueberruh 2.48 46 P **Pn 23 57 26.4 +2.3**
UBR AML AML
SMF Signal de Mont 2.62 286 *e*P **Pn 23 57 27.2 +1.3**
SMF *e*Pg **Pg 23 57 33.0 -0.5**
SMF *e*Sn **Sn 23 57 56.8 -1.1**
SMF *e*Sg **Sg 23 58 06.4 -1.0**
comp=E,60nm,0.2s
SMF AML AML
RETA Reutte 2.71 55 *e*Pn **Pn 23 57 29.8 +2.5**
RETA *e*Sg **Sg 23 58 12.2 +1.8**
RETA Reutte 2.71 55 *e*Pn **Pn 23 57 29.8 +2.5**
comp=E,10nm,0.5s,SNR=11
LMR La Mourre 2.73 195 *e*P **Pn 23 57 29.4 +1.9**
LMR *e*Pg **Pb 23 57 33.3 +0.9**
LMR *e*Sg **Sb 23 58 07.3 +1.3**
comp=E,68nm,0.4s
LMR AML AML
VLC Villacollemand 2.74 130 P **Pn 23 57 29.4 +1.8**
VLC AML AML
SFTF Sexfontaines 2.79 324 *e*Pn **Pn 23 57 29.6 +1.3**
SFTF *e*Sg **Sb 23 58 10.3 +2.5**
comp=E,183nm,0.5s
SFTF AML AML
ZUGS Zugspitze, Sch 2.80 58 *e*Pn **Pn 23 57 31.7 +3.0**
LOR Lormes 2.82 299 *e*P **Pn 23 57 30.3 +1.6**
LOR *e*Pg **Pg 23 57 36.9 -0.5**
LOR *e*Sg **Sg 23 58 12.6 -1.3**
comp=E,97nm,0.3s
LOR AML AML
LOR Lormes 2.82 299 P **Pn 23 57 30.3 +1.6**
LOR AML AML
MOTA Moosalm 2.84 60 *e*Pn **Pn 23 57 32.0 +2.9**
MOTA Moosalm 2.84 60 *e*Pn **Pn 23 57 32.0 +2.9**
comp=E,7.8nm,0.3s,SNR=35
PAGF Fort de Pagny 2.85 336 *e*P **Pn 23 57 30.6 +1.5**
PAGF *e*Sg **Sg 23 58 15.0 +0.2**
comp=E,104nm,0.6s
PAGF AML AML
SQTA Sankt Quirin 2.85 63 *e*Pn **Pn 23 57 32.5 +3.3**
SQTA Sankt Quirin 2.85 63 *e*Pn **Pn 23 57 32.2 +3.0**
comp=E,12nm,0.2s,SNR=35
PART Garmisch-Parte 2.92 57 *e*Pn **Pn 23 57 33.2 +3.1**
PART *e*Sg **Sg 23 58 17.5 +0.5**
SSF Saint Saulge 2.96 293 *e*P **Pn 23 57 32.2 +1.6**
SSF *e*Pg **Pg 23 57 39.1 -0.9**
SSF *e*Sg **Sg 23 58 17.1 -1.3**
comp=E,223nm,0.6s
SSF AML AML
AVF Avril sur Loir 2.98 287 *e*P **Pn 23 57 32.1 +1.2**
AVF *e*Pg **Pg 23 57 39.6 -0.8**
AVF *e*Sn **Sn 23 58 04.9 -1.9**
AVF *e*Sg **Sg 23 58 18.2 -0.8**
comp=E,113nm,0.5s
AVF AML AML
CGRP Cima Grappa 3.01 90 P **Pn 23 57 33.0 +1.6**
CGRP AML AML
MEZF Maizieres J'vi 3.03 328 *e*Pn **Pn 23 57 31.6 +0.1**
MEZF *e*Pg **Pg 23 57 41.0 -0.3**
MEZF *e*Sg **Sg 23 58 21.1 +0.6**
comp=E,130nm,0.5s
MEZF AML AML
STU Stuttgart 3.03 22 *e*Pn **Pn 23 57 31.2 -0.4**
STU Stuttgart 3.03 22 P **Pn 23 57 31.3 -0.3**
STU AML AML
SAVF Savonnieres en 3.10 329 *e*P **Pn 23 57 34.1 +1.6**
SAVF *e*Pg **Pg 23 57 42.3 -0.3**
SAVF *e*Sg **Sg 23 58 21.4 -1.3**
comp=E,23nm,0.2s
SAVF AML AML
WTTA Wattenberg 3.13 64 *e*Pn **Pn 23 57 36.3 +3.1**
WTTA Wattenberg 3.13 64 *i* Pn **Pn 23 57 36.3 +3.1**
comp=E,19nm,0.5s,SNR=22
LASF Ste Croix 3.20 235 *e*P **Pn 23 57 35.8 +1.9**
LASF *e*Sn **Sn 23 58 11.4 -0.9**
LASF *e*Sg **Sg 23 58 24.1 -2.0**
comp=E,73nm,0.6s
LASF AML AML
BE1 Monatshausen 3.21 51 *e*Pn **Pn 23 57 36.3 +2.2**
BGF Bois d'Agland 3.27 282 *e*P **Pn 23 57 36.3 +1.3**
BGF *e*Pg **Pg 23 57 46.3 +0.2**
BGF *e*Sn **Sn 23 58 13.0 -1.1**
BGF *e*Sg **Sg 23 58 27.4 -1.1**
comp=E,168nm,0.4s
BGF AML AML
FUR Furstenfeldbru 3.39 48 *e*Pn **Pn 23 57 38.3 +1.7**
FUR Furstenfeldbru 3.39 48 P **Pn 23 57 38.1 +1.6**
FUR AML AML
NORI Noerdlinger Ri 3.48 37 *e*Pn **Pn 23 57 39.6 +1.9**
NORI *e*Pg **Pg 23 57 49.4 -0.6**
NORI *e*Sg **Sg 23 58 34.7 -0.2**
ABTA Abfaltersbach 3.56 76 *i* Pn **Pn 23 57 42.0 +3.0**
comp=E,2.3nm,0.4s,SNR=8.5
HYF Humbligny 3.59 293 *e*P **Pn 23 57 40.8 +1.6**
HYF *e*Sn **Sn 23 58 21.3 -0.5**
HYF *e*Sg **Sg 23 58 38.3 -0.2**
comp=E,682nm,0.5s
HYF AML AML
PGF Pioggiola 3.59 162 *e*Pn **Pn 23 57 38.0 -1.4**
PGF *e*Sn **Sn 23 58 18.2 -3.8**
comp=E,8.6nm,0.2s
PGF AML AML
PGF Pioggiola 3.59 162 P **Pn 23 57 40.2 +0.8**
TCF Toulx Ste Croi 3.69 277 *e*Pn **Pn 23 57 40.6 0.0**
TCF *e*Pg **Pg 23 57 52.5 -1.5**

TCF					*e*Sn	**Sn**	23 58 22.9	-1.4
TCF					*e*Sg	**Sg**	23 58 39.5	-2.2
	comp=E,122nm,0.5s							
TCF					AML	AML		
WLF	**Walferdange**	**3.80**	**347**		*e*Pn	**Pn**	23 57 44.0	+1.8
WLF	**Walferdange**	**3.80**	**347**		P	**Pn**	23 57 43.7	+1.5
WLF					AML	AML		
LESA	**Schwarzleotal**	**3.85**	**66**	*i*	Pn	**Pn**	23 57 46.1	+3.2
	comp=E,3.5nm,0.3s,SNR=12							
CAF	**Calviac**	**3.96**	**257**		*e*P	**Pn**	23 57 45.9	+1.5
CAF					*e*Pg	**Pg**	23 57 57.6	-1.6
CAF					*e*Sg	**Sg**	23 58 48.3	-2.2
	comp=E,34nm,0.3s							
CAF					AML	AML		
RJOB	**Jochberg**	**4.04**	**62**		*e*Pn	**Pn**	23 57 48.2	+2.7
KBA	**Koelnbreinsper**	**4.19**	**73**		*e*Pn	**Pn**	23 57 50.8	+3.2
KBA	**Koelnbreinsper**	**4.19**	**73**	*i*	Pn	**Pn**	23 57 50.6	+2.9
	comp=E,1.9nm,0.3s,SNR=10							
RJF	**Les Rejaudoux**	**4.25**	**263**		*e*P	**Pn**	23 57 49.1	+0.8
RJF					*e*Pg	**Pg**	23 58 02.5	-2.1
RJF					*e*Sg	**Sg**	23 58 58.2	-1.4
	comp=E,30nm,0.3s							
RJF					AML	AML		
TNS	**Taunus Mts**	**4.30**	**8**		*e*Pn	**Pn**	23 57 49.0	-0.1
MYKA	**Terra Mystica**	**4.31**	**79**	*i*	Pn	**Pn**	23 57 52.3	+3.1
	comp=E,5.0nm,0.5s,SNR=5.5							
GRF	**Grafenberg Arr**	**4.49**	**33**		*e*Pn	**Pn**	23 57 51.8	+0.2
GRF					*e*Pg	**Pg**	23 58 08.3	-0.9
GRF					*e*Sg	**Sg**	23 59 05.8	-1.6
GIVF	**Givet**	**4.50**	**338**		*e*P	**Pn**	23 57 53.2	+1.4
GIVF					*e*Sg	**Sg**	23 59 05.4	-2.4
	comp=E,42nm,0.6s							
GIVF					AML	AML		
MTLF	**Montolieu**	**4.59**	**237**		*e*P	**Pn**	23 57 54.6	+1.5
MTLF					*e*Sg	**Sg**	23 59 06.0	-4.8
	comp=E,22nm,0.5s							
MTLF					AML	AML		
BAIF	**Baives**	**4.64**	**333**		*e*P	**Pn**	23 57 55.5	+1.8
BAIF					*e*Sg	**Sg**	23 59 11.8	-0.6
	comp=E,29nm,0.7s							
BAIF					AML	AML		
WET	**Wettzell**	**4.83**	**47**		*e*Pn	**Pn**	23 57 57.1	+0.8
WET					*e*Sn	**Sn**	23 58 50.0	-2.5
WET					*e*Sg	**Sg**	23 59 19.7	+1.3
LFF	**La Frestale**	**4.86**	**260**		*e*P	**Pn**	23 57 58.1	+1.4
LFF					*e*Pg	**Pg**	23 58 15.5	-1.0
LFF					*e*Sg	**Sg**	23 59 16.4	-3.0
	comp=E,77nm,0.7s							
LFF					AML	AML		
OBKA	**Obir**	**4.92**	**81**	*i*	Pn	**Pn**	23 58 00.6	+2.9
	comp=E,1.6nm,0.3s,SNR=8.8							
RIY	**Rijeka**	**4.94**	**95**		*e*Pn	**Pn**	23 57 58.0	+0.2
RIY					Sn	**Sn**	23 58 52.6	-2.6
ROTZ	**Rotzenmuhle**	**4.95**	**38**		*e*Pn	**Pn**	23 57 57.0	-0.9
ROTZ					*e*Pg	**Pg**	23 58 16.3	-1.8
ROTZ					*e*Sn	**Sn**	23 58 53.4	-1.9
ROTZ					*e*Sg	**Sg**	23 59 20.0	-2.0
MOA	**Molln**	**5.01**	**66**	*i*	Pn	**Pn**	23 58 01.0	+2.2
	comp=E,1.2nm,0.2s,SNR=6.8							
SESA	**Seetaler Alpe,**	**5.01**	**74**	*i*	Pn	**Pn**	23 58 01.8	+2.8
	comp=E,4.4nm,0.3s,SNR=18							
GEC2	**GERESS Array S**	**5.10**	**53**		*e*Pn	**Pn**	23 58 01.6	+1.5
GEC2					*e*Sn	**Sn**	23 58 57.8	-1.3
GERES	**GERESS Array B**	**5.10**	**53**		Pn	**Pn**	23 58 00.7	+0.6
	comp=E,0.3nm,0.3s,baz=238,slow=14,SNR=53							
GERES					Sn	**Sn**	23 58 59.1	-0.1
	comp=E,0.5nm,0.3s,baz=246,slow=23,SNR=8.4							
GERES					LR	LR	23 59 23.2	
	comp=E,33nm,20.9s,baz=163,slow=31							
	comp=E,2.7nm,0.3s							
GERES					AML	AML		
KHC	**Kasperske Hory**	**5.19**	**50**		*e*PN	**Pn**	23 58 02.0	+0.7
KHC					*e*SN	**Sn**	23 58 59.0	-2.3
KHC					*e*SG	**Sg**	23 59 29.0	-0.9
	comp=E,15nm,0.7s							
KHC					AML	AML		
SOKA	**Soboth**	**5.27**	**80**	*i*	Pn	**Pn**	23 58 04.4	+2.0
	comp=E,1.7nm,0.3s							
RABC	**Rab**	**5.28**	**101**		*e*Pn	**Pn**	23 58 03.0	+0.5
RABC					Sn	**Sn**	23 59 00.7	-2.7
MFF	**Saint Martin d**	**5.33**	**280**		*e*P	**Pn**	23 58 04.9	+1.7
MFF					*e*Sn	**Sn**	23 59 02.7	-2.1
MFF					*e*Sg	**Sg**	23 59 31.9	-2.6
	comp=E,64nm,0.8s							
MFF					AML	AML		
NVLJ	**Novalja**	**5.40**	**103**		*e*Pn	**Pn**	23 58 04.2	+0.1
NVLJ					Sn	**Sn**	23 59 02.7	-3.6
NKC	**Novy Kostel**	**5.40**	**36**		*e*PN	**Pn**	23 58 05.5	+1.3
NKC					*e*SG	**Sg**	23 59 37.2	+0.5
	comp=E,12nm,0.7s							
NKC					AML	AML		
MOX	**Moxa**	**5.42**	**29**		*e*Pg	**Pg**	23 58 26.3	-0.9
MOX					*e*Sg	**Sg**	23 59 36.7	-0.6
CKRC	**Cesky Krumlov**	**5.43**	**56**		*e*PN	**Pn**	23 58 06.2	+1.6
CKRC					*e*SN	**Sn**	23 59 05.1	-2.2
OZLJ	**Ozalj**	**5.59**	**91**		*e*Pn	**Pn**	23 58 08.4	+1.7
OZLJ					Sn	**Sn**	23 59 07.6	-3.4
ARSA	**Arzberg**	**5.68**	**74**	*i*	Pn	**Pn**	23 58 09.9	+1.9
	comp=E,5.5nm,0.3s,SNR=12							
ZVC	**Zvikov**	**5.70**	**50**		*e*PN	**Pn**	23 58 09.6	+1.4
ZVC					*e*SN	**Sn**	23 59 11.6	-2.1
DUGI	**Dugi Otok**	**5.72**	**108**	*i*	Pn	**Pn**	23 58 08.9	+0.3
DUGI					Sn	**Sn**	23 59 09.3	-5.0
LDF	**La Druitiere**	**5.81**	**300**		*e*Pn	**Pn**	23 58 09.1	-0.6
LDF					*e*Sn	**Sn**	23 59 14.1	-2.3
LDF					*e*Sg	**Sg**	23 59 46.3	-3.3
	comp=E,20nm,0.5s							
LDF					AML	AML		
PLIT	**Plitvice**	**5.83**	**98**	*i*	Pn	**Pn**	23 58 10.1	+0.1
PLIT					Sn	**Sn**	23 59 13.0	-4.0
EPF	**Esparros**	**5.90**	**243**		*e*P	**Pn**	23 58 13.6	+2.5
EPF					*e*Sg	**Sg**	23 59 49.7	-3.0
	comp=E,18nm,0.6s							
EPF					AML	AML		
UDBI	**Udbina**	**6.02**	**101**		*e*Pn	**Pn**	23 58 14.0	+1.4
UDBI					Sn	**Sn**	23 59 18.2	-3.5
CONA	**Conrad Observa**	**6.05**	**68**	*i*	Pn	**Pn**	23 58 14.6	+1.4
	comp=E,3.1nm,0.3s,SNR=6.5							
FLN	**La Foliniere**	**6.09**	**300**		*e*Pn	**Pn**	23 58 14.0	+0.4
FLN					*e*Pg	**Pg**	23 58 38.6	-1.4
FLN					*e*Sn	**Sn**	23 59 20.2	-3.3
FLN					*e*Sg	**Sg**	23 59 55.9	-2.9
	comp=E,40nm,0.6s							
FLN					AML	AML		
HSKC	**Hora Svate Kat**	**6.10**	**38**		*e*PN	**Pn**	23 58 14.8	+1.1
HSKC					*e*SN	**Sn**	23 59 20.9	-2.7
GRR	**Gorron**	**6.18**	**296**		*e*Pn	**Pn**	23 58 14.9	0.0
GRR					*e*Sn	**Sn**	23 59 22.8	-2.9
GRR					*e*Sg	**Sg**	23 59 58.0	-3.7
	comp=E,33nm,0.6s							
GRR					AML	AML		
MORI	**Morici**	**6.20**	**107**		*e*Pn	**Pn**	23 58 16.0	+0.9
MORI					Sn	**Sn**	23 59 22.4	-3.8
PRU	**Pruhonice**	**6.21**	**47**		*e*PN	**Pn**	23 58 16.0	+0.8
PRU					*e*SN	**Sn**	23 59 24.4	-1.8
WINA	**Alland / Wiene**	**6.24**	**67**	*i*	Pn	**Pn**	23 58 17.0	+1.3
	comp=E,2.4nm,0.2s,SNR=6.4							
RONA	**Rosalia, Austr**	**6.28**	**71**	*i*	Pn	**Pn**	23 58 17.7	+1.4
	comp=E,1.6nm,0.2s,SNR=11							
TREC	**Trest**	**6.34**	**56**		*e*PN	**Pn**	23 58 18.9	+1.8
TREC					*e*SN	**Sn**	23 59 27.1	-2.5
CLL	**Collm**	**6.46**	**32**		*e*Pg	**Pg**	23 58 44.0	-3.1
CLL					*e*Sg	**Sg**	00 00 08.0	-2.8
	comp=E,111nm,0.6s							
MOSL	**Moslavina**	**6.49**	**90**	*i*	Pn	**Pn**	23 58 19.7	+0.6
MOSL					Sn	**Sn**	23 59 30.0	-3.2
ETSF	**Etsaut**	**6.53**	**245**		*e*P	**Pn**	23 58 23.3	+3.5
ETSF					*e*Sg	**Sg**	00 00 09.9	-3.1
	comp=E,4.9nm,0.3s							
ETSF					AML	AML		
ETSF					AML	AML		
PVCC	**Panska Ves**	**6.56**	**43**		*e*PN	**Pn**	23 58 21.8	+1.7
PVCC					*e*SN	**Sn**	23 59 31.6	-3.4
PVCC					*e*SG	**Sg**	00 00 13.1	-0.8
	comp=E,13nm,0.6s							
KIJV	**Kijevo**	**6.62**	**104**		*e*Pn	**Pn**	23 58 20.9	0.0
KIJV					Sn	**Sn**	23 59 32.0	-4.5
KRUC	**Moravsky**	**6.77**	**60**		*e*PN	**Pn**	23 58 22.8	-0.2
KRUC					*e*SN	**Sn**	23 59 36.7	-3.5
SJPF	**Ste Jean**	**6.85**	**248**		*e*P	**Pn**	23 58 26.6	+2.5
SJPF					*e*Sg	**Sg**	00 00 20.0	-3.3
	comp=E,17nm,0.7s							
SJPF					AML	AML		
SJPF					AML	AML		
HVAR	**Hvar**	**6.98**	**110**		*e*Pn	**Pn**	23 58 25.8	0.0
HVAR					Sn	**Sn**	23 59 40.6	-4.7
VRAC	**Vranov**	**6.99**	**58**		Pn	**Pn**	23 58 26.7	+0.7
	comp=E,0.8nm,0.3s,baz=264,slow=15,SNR=5.6							
VRAC					Sn	**Sn**	23 59 43.5	-2.2
	comp=E,1.6nm,0.3s,baz=117,slow=9.2,SNR=6.8							
	comp=E,1.5nm,0.5s							
VRAC					AML	AML		
VRAC	**Vranov**	**6.99**	**58**	*e*	PN	**Pn**	23 58 27.4	+1.4
VRAC					*e*SN	**Sn**	23 59 42.2	-3.5
MODS	**Modra-Piesok**	**7.09**	**67**	*e*	PN	**Pn**	23 58 28.8	+1.5
MODS					*e*SN	**Sn**	23 59 45.4	-2.6
SGMF	**Saint Gilles**	**7.23**	**292**		*e*Pn	**Pn**	23 58 29.3	+0.1
SGMF					*e*Sn	**Sn**	23 59 47.6	-3.8
	comp=E,52nm,0.5s							
SGMF					AML	AML		
UPC	**Upice**	**7.27**	**48**	*e*	PN	**Pn**	23 58 31.3	+1.5
UPC					*e*SN	**Sn**	23 59 48.7	-3.8
RICI	**Ricice**	**7.30**	**106**	*e*	Pn	**Pn**	23 58 31.7	+1.5
RICI					Sn	**Sn**	23 59 49.2	-4.0
MAKA	**Makarska**	**7.31**	**108**	*e*	Pn	**Pn**	23 58 31.0	+0.7
MAKA					Sn	**Sn**	23 59 49.4	-3.9
CHVC	**Chvalec**	**7.34**	**48**	*e*	PN	**Pn**	23 58 31.8	+1.0
DPC	**Dobruska-Polom**	**7.35**	**50**	*e*	PN	**Pn**	23 58 32.2	+1.3
DPC					*e*SN	**Sn**	23 59 50.4	-4.1
OSTC	**Ostas**	**7.41**	**49**	*e*	PN	**Pn**	23 58 32.7	+1.0
OSTC					*e*SN	**Sn**	23 59 52.0	-3.9
KRLC	**Kraliky**	**7.46**	**53**	*e*	PN	**Pn**	23 58 32.6	+0.2
KRLC					*e*SN	**Sn**	23 59 53.8	-3.3
LSTV	**Lastovo**	**7.46**	**112**	*i*	Pn	**Pn**	23 58 33.0	+0.6
LSTV					Sn	**Sn**	23 59 52.6	-4.4
QUIF	**Quistinic**	**7.55**	**289**	*e*	Pn	**Pn**	23 58 33.7	+0.1
QUIF					*e*Sn	**Sn**	23 59 54.1	-5.2
	comp=E,53nm,0.6s							
QUIF					AML	AML		
ROSF	**Rostrenen**	**7.71**	**292**	*e*	PN	**Pn**	23 58 36.2	+0.4
ROSF					*e*Sn	**Sn**	23 59 57.6	-5.7
	comp=E,20nm,0.4s							
ROSF					AML	AML		
MORC	**Moravsky Berou**	**7.75**	**57**	*e*	PN	**Pn**	23 58 36.6	+0.1
STON	**Ston**	**7.94**	**109**	*e*	PN	**Pn**	23 58 40.1	+1.2
STON					Sn	**Sn**	00 00 04.9	-3.9
STEB	**Steborice**	**7.96**	**56**	*e*	PN	**Pn**	23 58 40.0	+0.8
STEB					*e*SN	**Sn**	00 00 04.7	-4.6
VYHS	**Vyhne**	**8.12**	**68**	*e*	PN	**Pn**	23 58 41.5	0.0
DBRK	**Dubrovnik**	**8.32**	**110**	*e*	Pn	**Pn**	23 58 46.0	+1.8
DBRK					Sn	**Sn**	00 00 13.8	-4.6
KEST	**Kesra**	**10.33**	**172**		Pn	**Pn**	23 59 16.4	+4.6
	comp=Z,0.2nm,0.3s,baz=6.4,slow=5.3,SNR=5.2							
	comp=Z,1.4nm,0.7s							
KEST					AML	AML		
ESDC	**Sonseca Array**	**10.50**	**237**		Pn	**Pn**	23 59 15.4	+1.3
	comp=Z,0.2nm,0.3s,baz=48,slow=14,SNR=11							
	comp=Z,0.6nm,0.5s							
ESDC					AML	AML		
EKA	**Eskdalemuir Ar**	**11.54**	**328**		Pn	**Pn**	23 59 26.6	-1.6
	baz=139,slow=14							
EKA					Sn	Sn	00 01 29.0	-8.2
	baz=144,slow=25							
	comp=Z,0.5nm,0.4s							
KBZ	**Khabaz**	**25.08**	**82**		P	**P**	00 02 10.8	+2.7
	comp=Z,1.3nm,0.7s,baz=306,slow=9.3,SNR=4.6							
	comp=Z,1.3nm,0.7s							
TORD	**Torodi Ar. Bea**	**33.09**	**190**		P	**P**	00 03 20.4	+0.8
	comp=Z,0.5nm,0.7s,baz=358,slow=9.7,SNR=2.3							
	comp=Z,0.5nm,0.7s							
MKAR	**Makanchi Array**	**49.73**	**60**		P	**P**	00 05 38.0	+2.1
	comp=Z,0.9nm,0.9s,baz=282,slow=7.2,SNR=1.8							
	comp=Z,0.9nm,0.9s							
KLR	**Kul'dur**	**73.51**	**34**		LR	LR	00 45 00.9	
	comp=Z,66nm,18.2s,baz=193,slow=39							
CPUP	**Villa Florida**	**92.86**	**234**		LR	LR	00 50 06.6	
	comp=Z,25nm,18.1s,baz=310,slow=34							

***DJA 09** 00:18:06.9±0.4,12°S±5°×12°2E±°,h64km±17km,M3.6/11,*
mb3.8/3,MLv3.5/11,South of Timor

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BASI	**Baing, Sumba**	**2.12**	**317**	P	Pn	00 18 40.1	0.0
BASI				S	Sn	00 19 05.6	+0.2
BASI				AML	AML		
BATI	**Baumata**	**2.24**	**46**	P	Pn	00 18 41.8	+0.1
BATI				S	Sn	00 19 09.4	+1.1
BATI				AML	AML		
SOEI	**Soe**	**2.98**	**47**	P	Pn	00 18 52.1	+0.2
SOEI				S	Sn	00 19 26.5	-0.1
SOEI				AML	AML		
EDFI	**Ende, Flores**	**3.04**	**353**	P	Pn	00 18 51.6	-1.1
EDFI				AML	AML		
MMRI	**Maumere**	**3.14**	**4**	P	Pn	00 18 53.9	-0.1
MMRI				AML	AML		
DBNI	**Kabupaten Domp**	**4.91**	**311**	P	Pn	00 19 19.5	+1.2
DBNI				S	Sn	00 20 13.0	-0.9
DBNI				AML	AML		
PLAI	**Plampang**	**5.12**	**305**	P	Pn	00 19 22.3	+1.1
	18nm,1.3s						
TWSI	**Taliwang, Sumb**	**5.91**	**300**	P	Pn	00 19 31.7	-0.2
	10nm,1.1s						

*SKHL **09** 00:19:16.4±0.6,44°.80N×149°.30E,h56km±4km,mb4.8/3*
*NIED **09** 00:19:16.3,44°.78N×149°.14E,h30km,MW3.8,Moment*
Tensor Solution. s2 Moment tensor: Scale 10¹⁴Nm;
Mrr=4.11; Mθθ-1.01; Mϕϕ-3.10; Mrθ-1.09; Mθϕ-2.55;
Mϕr-3.03; Fault plane solution: M₀5.51000×10¹⁴ NP1:
ϕs45.00000°,δ28.00000°,λ108.00000°. NP2:
ϕs205.00000°,δ63.00000°,λ81.00000°.
*JMA **09** 00:19:16.3±0.8,45°N±3°×14°9E±°,h30km,MV3.8/16,SE*
OFF ETOROFU

ISC 09 00:19:16.7±4.3,44°.79N±0°.09×149°.3E±0°.2,h35km,n13,
σ1§11/19,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**1.11**	**294**	*e*P	**Pn**	**00 19 34.6**	**-1.1**
KUR				AMB	AMB	00 19 35.4	
	200nm,0.2s						
KUR				*i* S	**Sn**	**00 19 48.4**	**-1.4**
KUR				A	A	00 19 50.5	
	3μm,0.4s						
KUR				A	A	00 19 50.5	
	1μm,0.4s						
SHO	**Shikotan**	**2.00**	**243**	*e*P	Pn	00 20 06.4	+18
SHO				AMB	AMB	00 20 08.6	
	30nm,0.2s						
SHO				*e*S	Sn	00 20 29.4	+18
SHO				A	A	00 20 36.0	
	230nm,0.3s						
SHO				A	A	00 20 36.0	
	360nm,0.3s						
YUK	**Yuzh-Kuril'sk**	**2.58**	**254**	*e*P	**Pn**	**00 19 55.5**	**-0.4**
YUK				AMB	AMB	00 19 56.2	
	180nm,0.5s						
YUK				*e*S	**Sn**	**00 20 24.6**	**-1.4**
YUK				A	A	00 20 29.4	
	380nm,0.5s						
YUK				A	A	00 20 29.4	
	590nm,0.5s						
NEM2	**Nemuro 2**	**2.93**	**242**	P	**Pn**	**00 20 00.5**	**-0.3**
NEM2				*e*S	**Sn**	**00 20 34.4**	**-0.4**
NMR	**Nemuro--Hokkai**	**2.94**	**242**	*e*P	**Pn**	**00 20 00.6**	**-0.3**
NMR				*i* S	**Sn**	**00 20 33.5**	**-1.4**
JNK	**Nakash**	**3.51**	**252**	*e*P	**Pn**	**00 20 09.7**	**+0.9**
JNK				S	**Sn**	**00 20 49.5**	**+0.5**
AKK	**Akkeshi**	**3.68**	**243**	*e*P	**Pn**	**00 20 10.9**	**-0.1**
JAK	**Akkeshi**	**3.78**	**243**	P	**Pn**	**00 20 12.1**	**-0.4**
JTKR	**Abashiri--Toko**	**3.95**	**260**	P	**Pn**	**00 20 15.5**	**+0.7**
JAR	**Ashorobuto**	**4.26**	**251**	P	**Pn**	**00 20 20.2**	**+1.2**
JAR				S	**Sn**	**00 21 09.8**	**+2.4**
JOB	**Onbets**	**4.38**	**246**	P	**Pn**	**00 20 21.4**	**+0.7**
JOB				S	**Sn**	**00 21 10.2**	**-0.2**
JCH	**Churui**	**4.82**	**245**	P	**Pn**	**00 20 26.6**	**-0.2**
YSS	**Yuzhno-Sakhali**	**5.06**	**298**	*e*P	**Pn**	**00 20 31.5**	**+1.5**

*IDC **09** 00:33:33.9±1.2,7°.16S×125°.72E,h528km±17km,mb2.9/2,*
mbtmp4.0/8,Error ellipse: s-maj=30.9km s-min=17.6km
az=71.0
*NEIC **09** 00:33:33.6±1.4,7°.0S±0°.1×125°.9E±0°.1,h517km±13km,*
mb4.2/8,Error ellipse: s-maj=19.6km s-min=18.5km
az=92.0.
*DJA **09** 00:33:36.4±0.8,7°.5S±7°×12°6E±°,h464km±9km,M3.9/10,*
mB4.5/1,mb4.2/4,MLv3.8/10,Mw(mB)3.7/1

ISC 09 00:33:33.0±0.7,7°.08S±0°.07×125°.94E±0°.08,h488km,n30,
σ1§88/37,mb4.0/3,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEI	**Soe**	**3.13**	**212**	P	**P**	**00 34 46.8**	**+2.6**
SOEI				S	**S**	**00 35 45.6**	**+3.8**
SOEI	**Soe**	**3.13**	**212**	P	**P**	**00 34 45.9**	**+1.8**
SOEI				S	**S**	**00 35 45.2**	**+3.3**
SOEI				AML	AML		
BATI	**Baumata**	**3.84**	**216**	P	**P**	**00 34 52.1**	**+2.8**
	42nm,0.4s,baz=281,slow=5.1,SNR=4.5						
BATI				S	**S**	**00 35 54.0**	**+2.6**
	65nm,0.6s,baz=270,slow=20,SNR=6.1						
BATI	**Baumata**	**3.84**	**216**	P	**P**	**00 34 50.9**	**+1.5**
BATI				S	**S**	**00 35 54.1**	**+2.6**
BATI				AML	AML		
NLAI	**Namlea**	**3.98**	**17**	P	**P**	**00 34 51.3**	**+0.7**
NLAI				S	**S**	**00 35 56.1**	**+2.5**
NLAI				AML	AML		
EDFI	**Ende, Flores**	**4.52**	**248**	P	**P**	**00 34 55.0**	**-0.2**
EDFI				AML	AML		
BSSI	**Bau Bau, Buton**	**5.49**	**279**	P	**P**	**00 35 05.8**	**+1.8**
	0.2nm57nm,0.8s						
BSSI				AML	AML		
BASI	**Baing, Sumba**	**6.15**	**239**	P	**P**	**00 35 10.6**	**+0.3**
KAPI	**Kappang**	**6.49**	**288**	P	**P**	**00 35 14.9**	**+1.2**
	5.4nm,0.3s,baz=153,slow=7.1,SNR=5.6						
KAPI	**Kappang**	**6.49**	**288**	P	**P**	**00 35 14.6**	**+0.9**
FAKI	**Fak Fak**	**7.52**	**57**	P	**P**	**00 35 25.0**	**+0.8**
FAKI				S	**S**	**00 36 54.3**	**-1.1**
MTN	**Manton Dam**	**7.68**	**139**	P	**P**	**00 35 27.7**	**+1.9**
SIJI	**Sorong**	**8.14**	**41**	P	**P**	**00 35 33.3**	**+2.6**
	17nm,0.3s,baz=227,slow=2.9,SNR=8.1						
KNRA	**Kununurra**	**8.98**	**162**	P	**P**	**00 35 40.9**	**+1.4**
FITZ	**Fitzroy Crossi**	**10.96**	**181**	P	**P**	**00 36 01.1**	**+0.6**
	0.4nm,0.4s,baz=6.2,slow=16,SNR=1.2						
FITZ				S	**S**	**00 37 59.9**	**-2.0**
	1.8nm,0.8s,baz=187,slow=12,SNR=6.0						
FITZ	**Fitzroy Crossi**	**10.96**	**181**	P	**P**	**00 36 00.8**	**+0.3**
WB0	**Warramunga Arr**	**15.05**	**148**	P	**P**	**00 36 45.1**	**+1.1**
WB0				IAmb	IAmb	00 36 48.0	
	comp=Z,5.2nm,1.1s						
WRAB	**Tennant Creek**	**15.16**	**148**	P	**P**	**00 36 45.0**	**-0.2**
WRAB				IAmb	IAmb	00 36 45.8	
	comp=Z,7.1nm,0.7s						
WRA	**Warramunga Arr**	**15.16**	**148**	P	**P**	**00 36 46.9**	**+1.7**
	comp=Z,4.1nm,0.6s,baz=335,slow=8.9,SNR=35						
WRA	**Warramunga Arr**	**15.16**	**148**	P	**P**	**00 36 45.4**	**+0.1**
WR8	**Warramunga Arr**	**15.26**	**148**	P	**P**	**00 36 45.9**	**-0.3**
BBJI	**Bungbulang**	**18.15**	**268**	P	**P**	**00 37 12.5**	**-3.1**
AS31	**Alice Springs**	**18.18**	**156**	P	**P**	**00 37 15.5**	**-0.3**
ASAR	**Alice Springs**	**18.18**	**156**	P	**P**	**00 37 15.1**	**-0.7**
	comp=Z,1.0nm,0.4s,baz=341,slow=14,SNR=13						
ASAR	**Alice Springs**	**18.18**	**156**	P	**P**	**00 37 15.5**	**-0.2**
BBOO	**Buckleboo**	**27.28**	**161**	P	**P**	**00 38 36.2**	**-1.0**
BBOO				IAmb	IAmb	00 38 48.1	
	comp=Z,5.7nm,1.1s						
STKA	**Stephens Creek**	**28.67**	**151**	P	**P**	**00 38 48.8**	**-0.8**
	comp=Z,1.2nm,0.4s,baz=322,slow=10,SNR=4.5						
	comp=Z,1.2nm,0.4s						
STKA	**Stephens Creek**	**28.67**	**151**	P	**P**	**00 38 48.5**	**-1.1**
STKA				IAmb	IAmb	00 38 49.6	
	comp=Z,8.4nm,0.7s						
MKAR	**Makanchi Array**	**66.14**	**329**	P	**P**	**00 43 29.1**	**-2.2**
	comp=Z,0.5nm,0.7s,baz=113,slow=10.0,SNR=1.8						
	comp=Z,0.5nm,0.7s						
MKAR	**Makanchi Array**	**66.14**	**329**	P	**P**	**00 43 28.6**	**-2.8**

*AFAD **09** 00:37:20.8,37°.86N×27°.13E,h7km±3km,ML2.3*
*ISK **09** 00:37:20.9,37°.86N×27°.12E,h7km,ML2.6/16*
*THE **09** 00:37:21.3,37°.8N±0°.9×27°.7E±°,h9km±2km,M2.5/8,*
MLh2.5/8

ISC 09 00:37:21.1±0.8,37°.85N±0°.02×27°.13E±0°.02,h13km±6km,
n29,σ0§39/44,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.13**	**86**	Pg	**Pg**	**00 37 24.3**	**-0.1**
KUSD				Sg	**Sg**	**00 37 26.5**	**-0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.17**	**151**	P	**Pg**	**00 37 24.9**	**-0.1**
GCAM				S	**Sg**	**00 37 27.6**	**-0.2**
GCAM				IAML		00 37 29.0	
	comp=N,1μm,0.2s						
GCAM				IAML		00 37 29.0	
	comp=E,1μm,0.2s						
GCAM	**G?zelc

PRK Paraskevi 1.55 335 P **Pn** **00 37 48.4 +0.1**

*JMA **09** 00:39:55.4±0.1,38°.2N±0°.2×141°.6E±0°.4,h68km,MD3.9/37, MV4.0/37,KINKAZAN REGION*
JMA Felt I J1 at KINKAZAN REGION .
*NEIC **09** 00:39:57.2±0.9,38°.24N±0°.08×141°.6E±0°.2,h84km±9km, mb4.3/7,Error ellipse: s-maj=20.1km s-min=10.0km az=107.0*
*IDC **09** 00:39:58.4±2.8,38°.18N×141°.47E,h99km±25km,mb3.6/9, mbtmp3.8/13,MS3.5/3,Error ellipse: s-maj=23.8km s-min=16.8km az=81.0*
ISC 09 00:39:55.5±0.8,**38°.21N**±0°.05×**141°.62E**±0°.07,**h67**km±6km, **n50**,σ1s**05**/54,**mb4.0**/14,**8D**,**Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JIKH	**Ishinomakikobu**	**0.16**	**309**	P		**Pn**		**00 40 05.5**	**-0.1**
JIKH					*e*S	**Sn**		**00 40 12.8**	**0.0**
JIO	**Ouri**	**0.33**	**318**	P		**Pn**		**00 40 06.4**	**0.0**
JIO					*e*S	**Sn**		**00 40 14.2**	**-0.3**
JMM	**Marumori**	**0.74**	**243**	P		**Pn**		**00 40 09.9**	**-0.7**
JMM					*e*S	**Sn**		**00 40 20.8**	**-1.0**
JMST	**Minamisoumatoc**	**0.76**	**230**	A		A		00 40 10.5	
	comp=N,12nm,0.3s,comp=E,10.0nm,0.3s								
JOU	**Okura**	**0.77**	**282**	P		**Pn**		**00 40 10.6**	**-0.5**
JOU				A		A		00 40 10.6	
	comp=N,11nm,0.5s,comp=E,16nm,0.3s								
JOU					*e*S	**Sn**		**00 40 21.7**	**-0.8**
JMK	**Ichinoseki**	**0.81**	**337**	⇓P	*e*	**Pn**		**00 40 11.3**	**-0.1**
JMK				⇓	*e*S	**Sn**		**00 40 22.6**	**-0.5**
JFK	**Kawauchi**	**1.03**	**215**	P		**Pn**		**00 40 13.9**	**-0.3**
JFK					*e*S	**Sn**		**00 40 27.6**	**-0.6**
JOTO	**OTAMA OYAMA**	**1.21**	**238**	P		**Pn**		**00 40 16.3**	**-0.3**
JOTO					*e*S	**Sn**		**00 40 31.9**	**-0.4**
JYK	**Kaneyama**	**1.22**	**306**	⇓P		**Pn**		**00 40 16.1**	**-0.5**
JYK				⇓	*e*S	**Sn**		**00 40 32.5**	**+0.1**
JYS	**Shirataka**	**1.23**	**271**	⇓P		**Pn**		**00 40 16.5**	**-0.3**
JYS				⇓	*e*S	**Sn**		**00 40 32.7**	**0.0**
JOM	**Ohasama**	**1.29**	**349**	P		**Pn**		**00 40 17.4**	**-0.1**
JRG	**Rokugo**	**1.42**	**327**	⇓P		**Pn**		**00 40 19.4**	**+0.2**
JRG				⇓	*e*S	**Sn**		**00 40 37.6**	**+0.6**
JYA	**Atsumi**	**1.55**	**285**	P		**Pn**		**00 40 20.6**	**-0.4**
JYA					*e*S	**Sn**		**00 40 40.1**	**-0.1**
JYT	**Yasato**	**2.28**	**210**	Pn		**Pn**		**00 40 32.9**	**+2.0**
JTM	**Tenmabayashi**	**2.61**	**351**	Pn		**Pn**		**00 40 36.5**	**+1.2**
MJAR	**Matsushiro Arr**	**3.19**	**240**	P		**Pn**		**00 40 44.8**	**+1.6**
	comp=E,4.6nm,0.3s,baz=36,slow=14,SNR=16								
MAJO	**Matsushiro**	**3.19**	**240**			**Pn**		**00 40 44.8**	**+1.5**
MJB9	**Matsu-Tunnel**	**3.19**	**240**			**Pn**		**00 40 45.0**	**+1.8**
JGF	**Kuroka**	**4.30**	**234**			**Pn**		**00 41 01.1**	**+2.7**
USRK	**Ussuriysk Ar.**	**9.40**	**313**	P		**Pn**		**00 42 08.9**	**+0.8**
	comp=E,2.4nm,0.3s,baz=119,slow=14,SNR=9.1								
USRK				LR		LR		00 45 37.9	
	comp=E,63nm,19.0s,baz=204,slow=36								
KSRS	**Korea Array**	**10.87**	**270**	P		**Pn**		**00 42 31.0**	**+2.9**
	comp=E,1.0nm,0.5s,baz=80,slow=14,SNR=2.4								
KLR	**Kul'dur**	**13.11**	**330**	P		**Pn**		**00 43 01.2**	**+2.5**
	comp=E,1.0nm,0.7s,baz=126,slow=18,SNR=2.0								
SONM	**Songino Array**	**27.29**	**302**	P		**P**		**00 45 32.7**	**-1.1**
	comp=E,0.5nm,0.4s,baz=90,slow=8.2,SNR=3.7								
	comp=E,0.5nm,0.4s								
H11N2	**WAKE ISLAND Hy**	**28.63**	**123**	T		T		01 16 00.6	
	baz=316,slow=75,SNR=439								
H11N1	**WAKE ISLAND Hy**	**28.63**	**123**	T		T		01 16 01.6	
	baz=316,slow=75,SNR=346								
H11N3	**WAKE ISLAND Hy**	**28.64**	**123**	T		T		01 16 02.4	
	baz=316,slow=75,SNR=477								
H11S1	**WAKE ISLAND Hy**	**29.38**	**125**	T		T		01 17 01.4	
	baz=317,slow=76,SNR=109								
H11S3	**WAKE ISLAND Hy**	**29.38**	**125**	T		T		01 16 57.9	
	baz=317,slow=76,SNR=164								
H11S2	**WAKE ISLAND Hy**	**29.39**	**125**	T		T		01 16 59.0	
	baz=317,slow=76,SNR=124								
ZALV	**Zalesovo Beam**	**41.26**	**311**	P		**P**		**00 47 33.0**	**-0.8**
	comp=E,1.4nm,0.4s,baz=80,slow=7.3,SNR=7.9								
	comp=E,1.4nm,0.4s								
ZALV	**Zalesovo Beam**	**41.26**	**311**	P		**P**		**00 47 33.1**	**-0.7**
MKAR	**Makanchi Array**	**43.65**	**301**	P		**P**		**00 47 51.6**	**-1.8**
	comp=E,1.8nm,0.6s,baz=83,slow=13,SNR=10								
MKAR				LR		LR		01 06 05.4	
	comp=E,36nm,18.1s,baz=184,slow=36								
	comp=E,1.8nm,0.6s								
MKAR	**Makanchi Array**	**43.65**	**301**	P		**P**		**00 47 52.0**	**-1.4**
KURK	**Kurchatov**	**45.35**	**307**	P		**P**		**00 48 05.9**	**-0.9**
KURK				IAmb		IAmb		00 48 06.8	
	comp=Z,4.2nm,0.6s								
KURBB	**Kurchatov Arra**	**45.42**	**307**	P		**P**		**00 48 06.7**	**-0.7**
	comp=Z,3.5nm,0.4s,baz=82,slow=8.5,SNR=9.2								
	comp=Z,3.5nm,0.4s								
ILAR	**Eielson Array**	**48.41**	**33**	P		**P**		**00 48 30.2**	**-0.4**
	comp=Z,0.4nm,0.7s,baz=271,slow=6.1,SNR=5.1								
	comp=Z,0.4nm,0.7s								
ILAR	**Eielson Array**	**48.41**	**33**	P		**P**		**00 48 29.9**	**-0.6**
SCM	**Sheep Creek Mo**	**48.42**	**37**	P		**P**		**00 48 31.5**	**+0.8**
D25K	**Kavik River**	**48.53**	**27**	P		**P**		**00 48 31.2**	**-0.2**
D25K				IAmb		IAmb		00 48 32.8	
	comp=Z,2.0nm,0.8s								
WB0	**Warramunga Arr**	**58.07**	**188**	P		**P**		**00 49 41.2**	**-0.6**
WB0				IAmb		IAmb		00 49 41.4	
	comp=Z,1.9nm,0.7s								
WR8	**Warramunga Arr**	**58.24**	**188**	P		**P**		**00 49 42.0**	**-1.0**
WR8				IAmb		IAmb		00 49 52.0	
	comp=Z,3.5nm,1.1s								
WRA	**Warramunga Arr**	**58.25**	**188**	P		**P**		**00 49 41.8**	**-1.3**
	comp=Z,0.8nm,0.5s,baz=4.9,slow=7.0,SNR=11								
WRA				LR		LR		01 13 30.7	
	comp=Z,226nm,21.4s,baz=284,slow=35								
	comp=Z,0.8nm,0.5s								
WRA	**Warramunga Arr**	**58.25**	**188**	P		**P**		**00 49 42.1**	**-1.0**
MOBC	**Moresby Island**	**58.57**	**45**	P		**P**		**00 49 44.4**	**-0.8**
AS31	**Alice Springs**	**61.97**	**188**	P		**P**		**00 50 08.5**	**0.0**
AS31				IAmb		IAmb		00 50 18.1	
	comp=Z,1.1nm,1.1s								
ASAR	**Alice Springs**	**61.97**	**188**	P		**P**		**00 50 07.8**	**-0.7**
	comp=Z,0.5nm,0.6s,baz=8.5,slow=7.6,SNR=5.7								
	comp=Z,0.5nm,0.6s								
ASAR	**Alice Springs**	**61.97**	**188**	P		**P**		**00 50 08.1**	**-0.4**
PDAR	**Pinedale Array**	**76.72**	**46**	P		**P**		**00 51 40.1**	**+0.3**
	comp=Z,0.4nm,0.6s,baz=267,slow=1.0,SNR=5.6								
	comp=Z,0.4nm,0.6s								
PDAR	**Pinedale Array**	**76.72**	**46**	P		**P**		**00 51 39.8**	**-0.1**
TXAR	**Lajitas Array**	**89.27**	**52**	P		**P**		**00 52 44.4**	**-0.2**
	comp=Z,0.4nm,0.6s,baz=300,slow=3.3,SNR=6.2								
	comp=Z,0.4nm,0.6s								

*MDD **09** 00:46:19.3±0.1,38°.00N×1°.87W,h0km±1km,mb_Lg3.9/93, Error ellipse: s-maj=0.9km s-min=0.7km az=133.0*
*SFS **09** 00:46:19.3,38°.05N×1°.84W,h0km,mb4.4/6,ML4.3/24, ML4.3/24,MLv4.2/24*
*IDC **09** 00:46:19.6±1.4,37°.99N×1°.94W,h0km,mb3.3/1, mbtmp3.4/5,ML3.1/4,MS2.4/3,Error ellipse: s-maj=21.2km s-min=13.3km az=37.0*
*IGIL **09** 00:46:19.8,37°.98N×1°.86W,h4km,ML2.4*
*CNRM **09** 00:46:19.9,37°.73N×1°.74W,h83km,ML3.5*
*INMG **09** 00:46:20.2±1.7,37°.95N×1°.83W,h13km±2km,ML3.9,Error ellipse: s-maj=1.3km s-min=1.3km az=29.0, #DIST_RANGE: REGIONAL #IPMA_REGION: NW Lorca (ESP)*
ISC 09 00:46:18.5±0.8,**38°.01N**±0°.01×**1°.90W**±0°.01,**h14**km±6km, **n165**,σ1s**84**/398,**8C-2D**,**Spain**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
EXBUL	**Bullas, Murcia**	**0.19**	**79**	⇑Pg		**Pg**		**00 46 22.6**	**-0.4**
EXBUL				Sg		**Sg**		**00 46 25.5**	**-0.5**
EZAR	**Zarzadilla de**	**0.21**	**130**	⇑Pg		**Pg**		**00 46 22.8**	**-0.6**
EZAR				Sg		**Sg**		**00 46 25.2**	**-1.4**
EZAR				IVmb_Lg				00 46 27.8	
ELOR	**Lorca, Murcia**	**0.39**	**162**	⇓Pg		**Pg**		**00 46 25.9**	**-0.6**
ELOR				Sg		**Sg**		**00 46 31.2**	**-0.6**
ELOR				IVmb_Lg				00 46 37.6	
TLOR	**Lorca, Murcia**	**0.39**	**155**	Pg		**Pg**		**00 46 26.1**	**-0.3**
TLOR				Sg		**Sg**		**00 46 32.2**	**+0.4**
TLOR	**Lorca, Murcia**	**0.39**	**155**	⇓Pg		**Pg**		**00 46 26.2**	**-0.3**
TLOR				Sg		**Sg**		**00 46 31.6**	**-0.2**
EXAHM	**Alhama Murcia,**	**0.40**	**115**	Pg		**Pg**		**00 46 26.0**	**-0.6**
EXAHM				Sg		**Sg**		**00 46 31.3**	**-0.9**
EMUR	**La Murta**	**0.55**	**108**	⇑Pg		**Pg**		**00 46 28.4**	**-0.9**
EMUR				Sg		**Sg**		**00 46 35.9**	**-0.7**
EMUR				IVmb_Lg				00 46 40.9	
EXMAZ	**Mazarron**	**0.63**	**131**	Pg		**Pg**		**00 46 30.4**	**-0.4**
EXMAZ				Sg		**Sg**		**00 46 38.0**	**-1.1**
ETOB	**Tobarra**	**0.69**	**23**	Pg		**Pb**		**00 46 32.4**	**0.0**
ETOB				Sg		**Sb**		**00 46 41.6**	**-0.2**
ETOB	**Tobarra**	**0.69**	**23**	Pg		**Pg**		**00 46 32.2**	**+0.1**
ETOB				Sg		**Sb**		**00 46 42.0**	**+0.2**
ETOB				IVmb_Lg				00 46 50.6	
EXTPC	**Torre Pacheco**	**0.79**	**110**	Pg		**Pg**		**00 46 33.4**	**-0.4**
EXTPC				Sg		**Sg**		**00 46 43.5**	**-0.8**
CART	**Cartagena**	**0.83**	**121**	Pg		**Pg**		**00 46 34.1**	**-0.5**
CART				Sg		**Sg**		**00 46 44.6**	**-0.8**
CART	**Cartagena**	**0.83**	**121**	P		**Pg**		**00 46 34.2**	**-0.4**
CART				S		**Sb**		**00 46 46.5**	**+0.8**
EXPDH	**Pilar de la Ho**	**0.90**	**99**	Pg		**Pb**		**00 46 35.3**	**-0.5**
EXPDH				Sg		**Sg**		**00 46 46.9**	**-0.7**
ETRV	**Los Montesinos**	**0.90**	**89**	Pg		**Pb**		**00 46 35.6**	**-0.2**
ETRV				Sg		**Sg**		**00 46 47.2**	**-0.4**
ETRV				IVmb_Lg				00 46 54.9	
EQES	**Quesada**	**0.95**	**258**	⇑Pg		**Pn**		**00 46 38.4**	**+0.8**
EQES				Sg		**Sg**		**00 46 50.4**	**+0.9**
EQES				IVmb_Lg				00 47 03.8	
ENIJ	**Nijar**	**1.07**	**193**	Pg		**Pb**		**00 46 39.0**	**+0.3**
ENIJ				Sg		**Sn**		**00 46 54.7**	**+1.0**
ENIJ	**Nijar**	**1.07**	**193**	Pg		**Pb**		**00 46 38.7**	**-0.1**
ENIJ				Sg		**Sb**		**00 46 52.5**	**-0.1**
ENIJ				IVmb_Lg				00 46 58.6	
E0802	**Ubeda,Jaen**	**1.17**	**271**	⇑Pg		**Pg**		**00 46 42.1**	**+1.0**
E0802				Sg		**Sg**		**00 46 58.0**	**+1.7**
AFON	**Font Roja**	**1.25**	**58**	Pg		**Pg**		**00 46 42.8**	**+0.1**
AFON				Sg		**Sg**		**00 46 59.4**	**+0.5**
AFON				IVmb_Lg				00 47 03.6	
EBER	**Berja**	**1.36**	**216**	Pn		**Pg**		**00 46 44.8**	**-0.1**
EBER				Sn		**Sg**		**00 47 06.0**	**+3.4**
EBER	**Berja**	**1.36**	**216**	Pg		**Pb**		**00 46 44.0**	**+0.1**
EBER				Sg		**Sg**		**00 47 02.5**	**-0.1**
EBER				IVmb_Lg				00 47 16.2	
EVIV	**Cofrentes, Val**	**1.39**	**26**	Pn		**Pb**		**00 46 44.1**	**-0.3**
EVIV				Sg		**Sg**		**00 47 04.2**	**+0.7**
EVIV				IVmb_Lg				00 47 08.7	
EXEJI	**El Ejido**	**1.43**	**211**	Pg		**Pb**		**00 46 45.0**	**0.0**
EXEJI				Sg		**Sg**		**00 47 05.2**	**+0.5**
EQTA	**Presa de Quent**	**1.47**	**237**	Pn		**Pg**		**00 46 47.6**	**+0.9**
EQTA				Sn		**Sg**		**00 47 08.4**	**+2.6**
EQUE	**Quentar**	**1.47**	**237**	Pg		**Pg**		**00 46 47.6**	**+0.8**
EQUE				Sg		**Sg**		**00 47 06.9**	**+1.1**
EQUE				IVmb_Lg				00 47 11.1	
EBEN2	**Beniarda presa**	**1.50**	**63**	Pn		**Pb**		**00 46 45.7**	**-0.4**
EBEN2				Sn		**Sb**		**00 47 05.5**	**+0.5**
EBEN2				IVmb_Lg				00 47 09.1	
EXCAG	**Granada**	**1.58**	**239**	Pg		**Pg**		**00 46 48.9**	**-0.1**
EXCAB				Sg		**Sg**		**00 47 09.9**	**+0.3**
EXGRA	**Granada**	**1.58**	**239**	Pn		**Pb**		**00 46 47.2**	**-0.5**
EXGRA				Pg		**Pg**		**00 46 50.2**	**+1.2**
EXGRA				Sn		**Sb**		**00 47 08.0**	**+0.4**
EXGRA				Sg		**Sg**		**00 47 12.2**	**+2.6**
ECHE	**Chera**	**1.74**	**24**	Pn		**Pn**		**00 46 49.0**	**+0.7**
ECHE				Sn		**Sb**		**00 47 11.5**	**-0.4**
ECHE	**Chera**	**1.74**	**24**	Pn		**Pn**		**00 46 48.8**	**+0.4**
ECHE				Pg		**Pg**		**00 46 51.8**	**-0.1**
ECHE				Sn		**Sn**		**00 47 11.0**	**+0.7**
ECHE				Sg		**Sg**		**00 47 15.0**	**+0.5**
ECHE				IVmb_Lg				00 47 18.6	
ELGU	**Los Guajares,**	**1.79**	**231**	Pn		**Pg**		**00 46 52.8**	**-0.1**
ELGU	**Los Guajares,**	**1.79**	**231**	Pg		**Pg**		**00 46 52.3**	**-0.6**
ELGU				Sg		**Sg**		**00 47 16.8**	**+0.6**
ELGU				IVmb_Lg				00 47 24.8	
EXAGR	**Agron**	**1.83**	**238**	Pn		**Pn**		**00 46 50.4**	**+0.8**
EXAGR				Pg		**Pg**		**00 46 53.2**	**-0.4**
EXAGR				Sn		**Sn**		**00 47 13.6**	**+1.0**
EXAGR				Sg		**Sg**		**00 47 19.5**	**+2.2**
EGOR	**Sierra Gorda,**	**1.98**	**244**	Pn		**Pb**		**00 46 54.8**	**+0.4**
EGOR				Sn		**Sg**		**00 47 20.7**	**-1.4**
EGOR	**Sierra Gorda,**	**1.98**	**244**	Pg		**Pb**		**00 46 54.7**	**+0.4**
EGOR				Sn		**Sn**		**00 47 16.8**	**+0.5**
EGOR				Sg		**Sg**		**00 47 23.7**	**+1.6**
EGOR				IVmb_Lg				00 47 39.4	
ESBB	**Sonseca Array**	**2.31**	**316**	Pn		**Pn**		**00 46 57.7**	**+1.4**
ESBB				Pg		**Pg**		**00 47 01.9**	**-1.0**
ESBB				Sg		**Sg**		**00 47 32.2**	**-0.7**
ESDC	**Sonseca Array**	**2.31**	**316**	Pn		**Pn**		**00 46 57.1**	**+0.8**
	1.6nm,0.3s,baz=140,slow=12,SNR=96								
ESDC				Pg		**Pg**		**00 47 03.4**	**+0.5**
	22nm,0.3s,baz=137,slow=16,SNR=62								
ESDC				Lg		Lg		00 47 32.7	
	126nm,0.3s,baz=136,slow=30,SNR=42								
ESDC				LR		LR		00 47 53.6	
	comp=Z,48nm,20.1s,baz=204,slow=41 6.0nm,0.4s								
ESDC				AML		AML			
ESDC	**Sonseca Array**	**2.31**	**316**	Pn		**Pn**		**00 46 57.3**	**+1.1**
ESDC				Pg		**Pg**		**00 47 02.2**	**-0.8**
ESDC				Sn		**Sb**		**00 47 26.7**	**-1.9**
ESDC				Sg		**Sg**		**00 47 32.3**	**-0.7**
ESDC				IVmb_Lg				00 47 35.2	
EMAL	**Malaga-Limoner**	**2.37**	**239**	Pn		**Pb**		**00 47 00.5**	**-0.6**
PAB	**San Pablo**	**2.45**	**309**	Pn		**Pn**		**00 46 59.1**	**+0.9**
PAB				Pn		**Pb**		**00 46 59.5**	**-3.0**
PAB				Pg		**Pg**		**00 47 04.3**	**-1.3**
PAB				Pg		Pg		00 47 04.8	-0.7
PAB				Sn		**Sn**		**00 47 28.7**	**+0.7**
PAB				Sn		**Sb**		**00 47 29.3**	**-3.3**
PAB				Sg		**Sg**		**00 47 36.9**	**-0.5**
PAB				Sg		Sg		00 47 38.3	+0.9
PAB				IVmb_Lg				00 47 42.5	
E0901	**Celadas (Terue**	**2.54**	**13**	Pn		**Pn**		**00 47 00.3**	**+0.9**
E0901				Pg		**Pg**		**00 47 06.6**	**-0.6**
E0901				Sn		**Sn**		**00 47 31.1**	**+1.0**
E0901				Sg		**Sg**		**00 47 42.3**	**+2.2**
E0901				IVmb_Lg				00 47 49.6	
EMOS	**Mosqueruela**	**2.60**	**25**	Pn		**Pn**		**00 47 00.9**	**+0.6**
EMOS				Pg		**Pg**		**00 47 08.0**	**-0.3**
EMOS				Sn		**Sn**		**00 47 32.8**	**+1.1**
EMOS				Sg		**Sg**		**00 47 44.2**	**+2.2**
EMOS				IVmb_Lg				00 47 55.2	
YEBES	**Yebes (Guadala**	**2.67**	**340**	Pn		**Pn**		**00 47 03.3**	**+2.0**
YEBES				Pg		**Pg**		**00 47 08.9**	**-0.9**
YEBES				Sn		**Sn**		**00 47 36.2**	**+2.7**
YEBES				Sg		**Sg**		**00 47 45.2**	**+0.7**
YEBES				IVmb_Lg				00 47 54.0	
EMIJ	**Mijas**	**2.71**	**239**	Pn		**Pb**		**00 47 04.7**	**-2.2**
EMIJ	**Mijas**	**2.71**	**239**	Pn		**Pn**		**00 47 02.6**	**+0.9**
EMIJ				Pn		**Pb**		**00 47 02.7**	**-4.1**
EMIJ				Pg		**Pg**		**00 47 08.4**	**-2.1**
EMIJ				Pg		Pg		00 47 09.4	-1.2
EMIJ				Sn		**Sn**		**00 47 35.0**	**+0.7**
EMIJ				Sn		**Sb**		**00 47 35.6**	**-4.4**
EMIJ				Sg		**Sg**		**00 47 44.7**	**-1.0**
EMIJ				Sg		Sg		00 47 45.3	-0.3
EMIJ				IVmb_Lg				00 48 06.3	
EIBI	**Ibiza**	**2.74**	**67**	Pn		**Pn**		**00 47 01.2**	**-0.8**
EIBI				Sn		**Sn**		**00 47 33.4**	**-1.5**
EIBI	**Ibiza**	**2.74**	**67**	Pn		**Pn**		**00 47 01.2**	**-0.8**
EIBI				Pg		**Pb**		**00 47 08.5**	**+1.2**
EIBI				Sn		**Sn**		**00 47 34.7**	**-0.2**
EIBI				IVmb_Lg				00 47 41.1	
EIBI				Sg		**Sg**		**00 47 44.7**	**-1.8**
ECOL	**Islas Columbre**	**2.76**	**46**	Pn		**Pn**		**00 47 02.8**	**+0.6**
ECOL				Sn		**Sn**		**00 47 35.0**	**-0.4**
ECOL				Sg		**Sg**		**00 47 50.1**	**+3.0**
EXMAD	**Madrid**	**2.77**	**330**	Pg		**Pg**		**00 47 10.9**	**-0.7**
EXMAD				Sn		**Sn**		**00 47 38.6**	**+2.8**
EXMAD				Sg		**Sg**		**00 47 47.8**	**+0.3**
EXCBR	**El Cabril**	**2.78**	**272**	Pn		**Pn**		**00 47 03.8**	**+1.2**
EXCBR				Pg		**Pg**		**00 47 10.5**	**-1.3**
EXCBR				Sn		**Sn**		**00 47 38.1**	**+2.2**
EXCBR				Sg		**Sg**		**00 47 47.4**	**-0.3**
ECAB	**El Cabril**	**2.78**	**272**	Pn		**Pn**		**00 47 03.8**	**+1.1**
ECAB				Sn		**Sn**		**00 47 38.1**	**+2.0**
ECAB	**El Cabril**	**2.78**	**272**	⇑Pn		**Pn**		**00 47 03.7**	**+1.0**
ECAB				Sn		**Sn**		**00 47 37.0**	**+1.0**
ECAB				Sg		**Sg**		**00 47 49.2**	**+1.3**
ECAB				IVmb_Lg				00 47 52.8	
ETOR	**Torete**	**2.81**	**358**	Pn		**Pn**		**00 47 04.6**	**+1.6**
ETOR				Pg		**Pg**		**00 47 11.9**	**-0.4**
ETOR				Sn		**Sn**		**00 47 38.4**	**+1.6**
ETOR				Sg		**Sg**		**00 47 50.0**	**+1.2**
ETOR				IVmb_Lg				00 47 55.5	
WMELI	**Melilla**	**2.82**	**198**	Pn		**Pn**		**00 47 05.9**	**+2.7**
EMLI	**Melilla**	**2.84**	**198**	Pn		**Pn**		**00 47 04.7**	**+1.4**
EMEL	**Melilla**	**2.84**	**198**	Pn		**Pn**		**00 47 03.8**	**+0.4**
EMEL				Pn		Pb		00 47 03.9	-5.0
EMEL				Sn		**Sn**		**00 47 37.3**	**-0.1**
EMEL				Sn		**Sn**		**00 47 37.3**	**-0.1**
EMEL				IVmb_Lg				00 47 54.1	
GUD	**Guadarrama**	**3.16**	**327**	Pn		**Pn**		**00 47 09.7**	**+1.7**
GUD				Pg		**Pg**		**00 47 18.5**	**-0.5**
GUD				Sn		**Sn**		**00 47 44.4**	**-1.1**
GUD				Sg		**Sg**		**00 47 59.3**	**-0.7**
GUD				IVmb_Lg				00 48 03.2	
CIBOR	**Castaar de Ib**	**3.20**	**302**	⇑Pn		**Pn**		**00 47 09.4**	**+1.0**
CIBOR				Pg		**Pb**		**00 47 16.6**	**+1.5**
CIBOR				Sn		**Sn**		**00 47 46.8**	**+0.5**
CIBOR				Sg		**Sg**		**00 48 00.6**	**-0.6**
PALE	**Palemas**	**3.24**	**211**	P		**Pn**		**00 47 06.9**	**-2.1**
PALE				S		**Sn**		**00 47 42.7**	**-4.6**
EXJIF	**Jimena de la F**	**3.25**	**242**	Pg		**Pg**		**00 47 19.2**	**-1.6**
EXJIF				Sg		**Sg**		**00 48 02.8**	**0.0**
ESPR	**Espera**	**3.35**	**251**	Pn		**Pn**		**00 47 12.7**	**+2.2**
ESPR				Sn		**Sn**		**00 47 52.2**	**+2.2**
ESPR	**Espera**	**3.35**	**251**	Pn		**Pn**		**00 47 11.8**	**+1.3**
ESPR				Pg		**Pg**		**00 47 21.2**	**-1.6**
ESPR				Sn		**Sn**		**00 47 50.9**	**+0.8**
ESPR				Sg		**Sg**		**00 48 09.6**	**+3.4**
ESPR				IVmb_Lg				00 48 22.0	
ERTA	**Horta de San J**	**3.41**	**30**	Pn		**Pn**		**00 47 12.5**	**+1.2**
ERTA				Sn		**Sn**		**00 47 52.3**	**+0.8**
ERTA				Sg		**Sg**		**00 48 07.9**	**-0.2**
ERTA				IVmb_Lg				00 48 18.5	
ECEU	**Ceuta**	**3.50**	**234**	Pn		**Pn**		**00 47 14.9**	**+2.5**
ECEU	**Ceuta**	**3.50**	**234**	Pn		**Pn**		**00 47 13.7**	**+1.2**
ECEU				Pg		**Pb**		**00 47 21.9**	**+1.0**
ECEU				Sn		**Sn**		**00 47 54.8**	**+1.2**
SMIR	**Smir Dam**	**3.63**	**231**	P		**Pn**		**00 47 12.9**	**-1.5**
SMIR				S		**Sn**		**00 47 54.9**	**-2.1**
JBK	**JBK**	**3.71**	**189**	P		**Pn**		**00 47 13.9**	**-1.7**
JBK				S		**Sn**		**00 47 52.7**	**-6.5**
EMIN	**Mina Concepcio**	**3.79**	**268**	Pn		**Pn**		**00 47 17.4**	**+0.9**
EMIN				Sn		**Sn**		**00 48 01.6**	**+0.8**
EMIN	**Mina Concepcio**	**3.79**	**268**	Pn		**Pn**		**00 47 17.3**	**+0.9**
EMIN				Sn		**Sn**		**00 48 01.8**	**+1.1**
EMIN				Sg		**Sg**		**00 48 17.1**	**-3.0**
AKLM	**AKL**	**3.84**	**205**	P		**Pn**		**00 47 15.9**	**-1.4**
AKLM				S		**Sn**		**00 47 56.5**	**-5.7**
EPLA	**Plasencia**	**3.85**	**303**	Pn		**Pn**		**00 47 18.2**	**+0.8**
EPLA				Sn		**Sn**		**00 48 03.0**	**+0.6**
EPLA				Sg		**Sg**		**00 48 20.2**	**-1.9**
EPLA				IVmb_Lg				00 48 26.2	
ESAC	**San Caprasio**	**3.87**	**16**	Pn		**Pn**		**00 47 19.0**	**+1.5**
ESAC				Sn		**Sn**		**00 48 03.3**	**+0.5**
ESAC				Sg		**Sg**		**00 48 22.1**	**-0.6**
ESAC				IVmb_Lg				00 48 34.4	
EPOB	**Poblet**	**4.05**	**34**	Pn		**Pn**		**00 47 20.8**	**+0.7**
EPOB				Sn		**Sn**		**00 48 07.2**	**-0.2**
EPOB				Sg		**Sg**		**00 48

PBDV				IAML			00 49 12.2
PCVE	**Castro Verde**	**4.88**	**267**	Pn		**Pn**	**00 47 32.1 +0.6**
PCVE				Sn		**Sn**	**00 48 27.6 -0.1**
PCVE	**Castro Verde**	**4.88**	**267**	*e*Pn		**Pn**	**00 47 32.5 +1.1**
PCVE				*e*Sn		**Sn**	**00 48 27.6 -0.1**
PCVE				*e*Sg		**Sg**	**00 48 55.2 0.0**
PCVE				IAML			00 49 05.9
PCVE				IAML			00 49 08.8
PCVE				IAML			00 49 10.7
EORO	**Oroz-Betelu**	**4.90**	**5**	Pn		**Pn**	**00 47 34.1 +2.3**
EORO				Pg		**Pg**	**00 47 50.4 -1.9**
EORO				Sn		**Sn**	**00 48 31.1 +2.8**
EORO				Sg		**Sg**	**00 48 57.2 +1.6**
EORO				IVmb_Lg			00 49 10.6
ECHI	**Chisagues Biel**	**4.91**	**18**	Pn		**Pn**	**00 47 33.4 +1.3**
ECHI				IVmb_Lg			00 49 08.0
LCRM	**LCR**	**4.94**	**210**	P		**Pn**	**00 47 30.5 -2.0**
LCRM				S		**Sn**	**00 48 26.3 -3.2**
MTE	**Manteigas**	**4.99**	**300**	*e*Pn		**Pn**	**00 47 34.9 +1.8**
MTE				*e*Sn		**Sn**	**00 48 29.8 -0.8**
MTE				*e*Sg		**Sg**	**00 48 55.0 -3.7**
MTE				IAML			00 49 13.6
MTE				IAML			00 49 13.8
MTE				IAML			00 49 14.3
MESJ	**Messejana**	**5.00**	**270**	*e*P		**Pn**	**00 47 33.9 +0.7**
MESJ				*e*S		**Sn**	**00 48 27.9 -2.9**
MESJ				IAML			00 48 37.5
	comp=N,5.3nm,0.5s						
MESJ	**Messejana**	**5.00**	**270**	*e*Pn		**Pn**	**00 47 34.4 +1.2**
MESJ				*e*Sn		**Sn**	**00 48 30.4 -0.4**
MESJ				*e*Sg		**Sg**	**00 48 58.6 -0.5**
PMTG	**Montargil**	**5.07**	**284**	*e*Pn		**Pn**	**00 47 34.0 -0.1**
PMTG				*e*Sn		**Sn**	**00 48 31.9 -0.5**
PMTG				*e*Sg		**Sg**	**00 48 59.7 -1.7**
PMTG				IAML			00 49 09.9
PMTG				IAML			00 49 12.1
PMTG				IAML			00 49 13.9
PSARD	**Sardoal**	**5.14**	**290**	*e*Pn		**Pn**	**00 47 36.3 +1.1**
PSARD				*e*Sn		**Sn**	**00 48 34.6 +0.3**
PSARD				*e*Sg		**Sg**	**00 49 00.6 -3.0**
PSARD				IAML			00 49 08.0
PSARD				IAML			00 49 09.9
PSARD				IAML			00 49 10.1
PLOUS	**Minas do Lousa**	**5.15**	**272**	*e*Pn		**Pn**	**00 47 36.5 +1.3**
PLOUS				*e*Sn		**Sn**	**00 48 35.1 +0.7**
PLOUS				*e*Sg		**Sg**	**00 49 01.7 -2.2**
PLOUS				IAML			00 49 08.4
PLOUS				IAML			00 49 14.4
PLOUS				IAML			00 49 16.0
MAHO	**Mahon**	**5.16**	**67**	Pn		**Pn**	**00 47 36.5 +1.2**
EALK	**Alkurruntz**	**5.21**	**3**	Pn		**Pn**	**00 47 38.0 +1.9**
EALK				Sn		**Sn**	**00 48 34.7 -1.4**
EALK				Sg		**Sg**	**00 49 04.9 -0.9**
EALK				IVmb_Lg			00 49 30.0
PBRG	**Braganca**	**5.31**	**317**	*e*Pn		**Pn**	**00 47 38.7 +1.2**
PBRG				*e*Sn		**Sn**	**00 48 35.8 -2.7**
PBRG				*e*Sg		**Sg**	**00 49 04.3 -4.8**
PBRG				IAML			00 49 10.4
PBRG				IAML			00 49 12.8
PBRG				IAML			00 49 14.3
LLIS	**Llivia - Polie**	**5.34**	**32**	Pn		**Pn**	**00 47 39.4 +1.4**
ELAN	**Lanestosa**	**5.34**	**348**	Pn		**Pn**	**00 47 39.6 +1.7**
ELAN				Sn		**Sn**	**00 48 38.9 -0.4**
ELAN				Sg		**Sg**	**00 49 11.4 +1.3**
ELAN				IVmb_Lg			00 49 34.7
CGIS	**Girona - Santa**	**5.37**	**41**	Pn		**Pn**	**00 47 38.8 +0.7**
CGIS				Sn		**Sn**	**00 48 38.0 -1.8**
PVIS	**Viseu**	**5.38**	**302**	*e*Pn		**Pn**	**00 47 39.1 +0.8**
PVIS				*e*Sn		**Sn**	**00 48 38.4 -1.6**
PVIS				*e*Sg		**Sg**	**00 49 07.7 -3.3**
ECAL	**Calabor**	**5.41**	**318**	Pn		**Pn**	**00 47 40.1 +1.3**
ECAL				Sn		**Sn**	**00 48 39.1 -1.7**
ECAL	**Calabor**	**5.41**	**318**	Pn		**Pn**	**00 47 40.2 +1.5**
ECAL				Sn		**Sn**	**00 48 39.7 -1.1**
ECAL				Sg		**Sg**	**00 49 10.6 -1.4**
ECAL				IVmb_Lg			00 49 18.2
MORF	**Marmelete**	**5.41**	**265**	*e*P		**Pn**	**00 47 39.3 +0.6**
MORF	**Marmelete**	**5.41**	**265**	*e*Pn		**Pn**	**00 47 39.5 +0.8**
MORF				*e*Sn		**Sn**	**00 48 40.7 -0.1**
MORF				*e*Sg		**Sg**	**00 49 10.0 -2.1**
MORF				IAML			00 49 20.7
MORF				IAML			00 49 21.2
MORF				IAML			00 49 21.9
PTEO	**Sao Teotonio**	**5.43**	**267**	*e*Pn		**Pn**	**00 47 40.2 +1.2**
PTEO				*e*Sn		**Sn**	**00 48 41.5 +0.2**
PTEO				IAML			00 49 20.7
PTEO				IAML			00 49 23.2
PTEO				IAML			00 49 23.9
PVRL	**Vila Real**	**5.55**	**308**	*e*Sn		**Sn**	**00 48 42.8 -1.5**
PVRL				*e*Sg		**Sg**	**00 49 12.4 -4.2**
PVRL				IAML			00 49 26.2
PVRL				IAML			00 49 30.4
PVRL				IAML			00 49 31.3
PFVI	**Vila Bisbo**	**5.57**	**263**	Pn		**Pn**	**00 47 41.1 +0.1**
PFVI				Sn		**Sn**	**00 48 43.5 -1.4**
PFVI	**Vila Bisbo**	**5.57**	**263**	P		**Pn**	**00 47 42.0 +1.0**
PFVI				S		**Sn**	**00 48 46.6 +1.8**
PFVI	**Vila Bisbo**	**5.57**	**263**	*e*Pn		**Pn**	**00 47 42.0 +1.0**
PFVI				*e*Sn		**Sn**	**00 48 44.8 0.0**
PFVI				*e*Sg		**Sg**	**00 49 17.7 +0.3**
PFVI				IAML			00 49 34.8
PFVI				IAML			00 49 34.9
PFVI				IAML			00 49 34.9
PSBE	**So Bento**	**5.60**	**288**	*e*Pn		**Pn**	**00 47 42.7 +1.4**
PSBE				*e*Sn		**Sn**	**00 48 46.0 +0.5**
PSBE				*e*Sg		**Sg**	**00 49 14.9 -3.3**
PSBE				IAML			00 49 28.3
PSBE				IAML			00 49 30.7
PSBE				IAML			00 49 32.0
ALT04	**Santillana del**	**5.62**	**343**	Pn		**Pn**	**00 47 43.5 +2.0**
ALT04				Sn		**Sn**	**00 48 43.2 -2.7**
ALT04				Sg		**Sg**	**00 49 19.3 +0.5**
ALT03	**Santillana del**	**5.62**	**343**	Pn		**Pn**	**00 47 43.6 +2.0**
ALT03				Sn		**Sn**	**00 48 43.8 -2.1**
ALT03				Sg		**Sg**	**00 49 17.6 -1.2**
ALT01	**Santillana del**	**5.62**	**343**	Pn		**Pn**	**00 47 43.6 +2.0**
ALT01				Pg		**Pb**	**00 48 00.4 +4.1**
ALT01				Sn		**Sn**	**00 48 43.6 -2.3**
ALT01				Sg		**Sg**	**00 49 17.8 -1.1**
ALT02	**Santillana del**	**5.62**	**343**	Pn		**Pn**	**00 47 43.6 +2.0**
ALT02				Sn		**Sn**	**00 48 43.5 -2.4**
ALT02				Sg		**Sg**	**00 49 18.0 -0.9**
MDT	**Midelt**	**5.64**	**204**	LR		LR	00 50 23.2
	comp=N,34nm,19.9s,baz=58,slow=43						
MDT	**Midelt**	**5.64**	**204**	P		**Pn**	**00 47 44.4 +2.3**
MDT				S		**Sn**	**00 48 41.5 -5.1**
MD31	**MD31**	**5.64**	**205**	P		**Pn**	**00 47 38.6 -3.5**
MD31				S		**Sn**	**00 48 40.2 -6.4**
POLO	**Lamas de Olo**	**5.65**	**308**	*e*Pn		**Pn**	**00 47 43.1 +0.9**
POLO				*e*Sn		**Sn**	**00 48 45.6 -1.3**
POLO				*e*Sg		**Sg**	**00 49 16.2 -3.8**
POLO				IAML			00 49 25.7
POLO				IAML			00 49 25.9
POLO				IAML			00 49 26.6
LIS	**Lisbon**	**5.74**	**279**	*e*Sg		**Sg**	**00 49 25.9 +3.0**
LIS				IAML			00 49 33.5
LIS				IAML			00 49 35.4
LIS				IAML			00 49 38.7
EJON	**La Jonquera**	**5.75**	**38**	Pn		**Pn**	**00 47 44.6 +1.1**
EJON	**La Jonquera**	**5.75**	**38**	Pn		**Pn**	**00 47 44.3 +0.9**
EJON				Sn		**Sn**	**00 48 47.5 -1.6**
EJON				Sg		**Sg**	**00 49 20.7 -2.3**
EJON				IVmb_Lg			00 49 50.7
EARI	**Arriondas**	**5.85**	**336**	Pn		**Pn**	**00 47 46.5 +1.6**
EARI				Sn		**Sn**	**00 48 47.1 -4.7**
EARI				Sg		**Sg**	**00 49 23.7 -2.6**
EARI				IVmb_Lg			00 49 39.7
PMAFR	**Mafra**	**5.87**	**282**	Pn		**Pn**	**00 47 45.5 +0.4**
PMAFR				Sn		**Sn**	**00 48 50.7 -1.5**
PMAFR	**Mafra**	**5.87**	**282**	*e*Pn		**Pn**	**00 47 46.7 +1.6**
PMAFR				*e*Sn		**Sn**	**00 48 50.5 -1.7**
PMAFR				*e*Sg		**Sg**	**00 49 26.4 -0.5**
PMAFR				IAML			00 49 30.9
PMAFR				IAML			00 49 34.3
PMAFR				IAML			00 49 34.8
ZHG	**ZHG**	**5.97**	**222**	P		**Pn**	**00 47 45.4 -1.1**
ZHG				S		**Sn**	**00 48 54.8 0.0**
PCAB	**Cabril**	**5.99**	**310**	*e*Sn		**Sn**	**00 48 52.7 -2.4**
PCAB				*e*Sg		**Sg**	**00 49 29.2 -1.6**
PCAB				IAML			00 49 37.3
PCAB				IAML			00 49 43.7
PCAB				IAML			00 49 47.8
PTO	**Porto**	**6.05**	**303**	*e*Pn		**Pn**	**00 47 49.4 +1.9**
PTO				*e*Sn		**Sn**	**00 48 53.6 -2.9**
PTO				*e*Sg		**Sg**	**00 49 29.6 -3.1**
PTO				IAML			00 49 38.9
PTO				IAML			00 49 39.3
PTO				IAML			00 49 39.9
ELOB	**Lobios**	**6.10**	**311**	Pn		**Pn**	**00 47 49.4 +1.0**
ELOB				Sn		**Sn**	**00 48 54.6 -3.4**
ELOB				Sg		**Sg**	**00 49 32.3 -2.1**
ELOB				IVmb_Lg			00 49 40.2
PGAV	**Gavieira, Arco**	**6.29**	**311**	*e*Pn		**Pn**	**00 47 52.0 +1.1**
PGAV				*e*Sn		**Sn**	**00 49 01.0 -1.6**
PGAV				*e*Sg		**Sg**	**00 49 34.8 -5.5**
PGAV				IAML			00 49 48.3
PGAV				IAML			00 49 51.2
PGAV				IAML			00 50 02.8
AVE	**Averroes**	**6.50**	**225**	Pn		**Pn**	**00 47 56.2 +2.4**
EPON	**Pontenova**	**6.64**	**325**	Pn		**Pn**	**00 47 57.4 +1.7**
EPON				Sg		**Sg**	**00 49 49.4 -2.2**
EPON				IVmb_Lg			00 49 59.5
EAGO	**Agolada(Pontev**	**6.72**	**317**	Pn		**Pn**	**00 47 58.5 +1.6**
EAGO				Sn		**Sn**	**00 49 09.4 -3.8**
EAGO				Sg		**Sg**	**00 49 49.9 -4.4**
EAGO				IVmb_Lg			00 50 02.2
EMAZ	**Mazaricos**	**7.31**	**315**	Sn		**Sn**	**00 49 24.5 -3.0**
EMAZ				Sg		**Sg**	**00 50 09.5 -3.4**
EMAZ				IVmb_Lg			00 50 19.9
VSL	**Villasalto**	**8.93**	**77**	Pn		**Pn**	**00 48 28.2 +1.0**
VSL				Sn		**Sn**	**00 50 01.5 -6.0**
KEST	**Kesra**	**9.29**	**101**	Pn		**Pn**	**00 48 36.4 +4.3**
	comp=N,0.4nm,0.3s,baz=270,slow=6.6,SNR=12						
	comp=N,2.1nm,0.6s						
KEST				AML		AML	
WTTA	**Wattenberg**	**13.57**	**43**	*i* P		**P**	**00 49 37.0 -2.7**
	comp=N,3.1nm,0.8s						
WATA	**Walderalm**	**13.59**	**42**	*i* P		**P**	**00 49 37.5 -2.4**
	comp=N,5.2nm,1.2s						
ABTA	**Abfaltersbach**	**13.75**	**46**	*e*P		**P**	**00 49 38.6 -3.0**
	comp=N,3.9nm,1.3s						
LESA	**Schwarzleotal**	**14.23**	**44**	*i* P		**P**	**00 49 45.6 -1.4**
	comp=N,1.6nm,0.6s						
OBKA	**Obir**	**14.82**	**50**	*e*P		**P**	**00 49 56.3 +2.7**
	comp=N,5.1nm,0.9s						
SESA	**Seetaler Alpe,**	**15.14**	**48**	*i* pP		**P**	**00 49 59.5 +2.3**
	comp=N,3.3nm,1.2s						
SOKA	**Soboth**	**15.20**	**50**	*i* P		**P**	**00 50 02.4 +4.7**
	comp=N,3.6nm,1.1s						
GERES	**GERESS Array B**	**15.64**	**41**	Pn		**P**	**00 50 00.8 -1.9**
	baz=229,slow=10,SNR=10						
	comp=N,0.7nm,0.7s						
EKA	**Eskdalemuir Ar**	**17.35**	**358**	P		**P**	**00 50 21.8 +0.5**
	baz=178,slow=12						
	comp=N,0.4nm,0.5s						
NOA	**NORSAR Array B**	**24.48**	**15**	LR		LR	01 01 22.9
	comp=N,20nm,18.7s,baz=105,slow=37						
TORD	**Torodi Ar. Bea**	**24.97**	**172**	P		**P**	**00 51 44.2 +2.6**
	comp=N,0.6nm,0.8s,baz=356,slow=10,SNR=2.9						
	comp=N,0.6nm,0.8s						

*IDC **09** 01:09:27.7±1.6,3.2°N×126.6°E,h0km,mb3.7/6, mbtmp3.8/6,MS3.5/2,Error ellipse: s-maj=122.2km s-min=18.2km az=70.0*

ISC 09 01:09:35.7±1.5,3.1°N±0.2°×126.6°E±0.7,h63km,n9,σ1§80/8, mb3.6/6,Talaud Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**3.15**	**343**	*e*P	**Pn**	**01 10 20.7**	**-2.2**
DDMP				*e*S	**Sn**	**01 11 02.5**	**+3.1**
FITZ	**Fitzroy Crossi**	**21.05**	**183**	P	**P**	**01 14 14.9**	**+0.2**
	1.7nm,0.9s,baz=360,slow=8.6,SNR=2.4						
	1.7nm,0.9s						
WRA	**Warramunga Arr**	**24.09**	**162**	P	**P**	**01 14 46.1**	**+0.5**
	0.6nm,0.5s,baz=342,slow=10,SNR=9.6						
	0.6nm,0.5s						
ASAR	**Alice Springs**	**27.50**	**165**	P	**P**	**01 15 17.5**	**+1.1**
	0.3nm,0.4s,baz=342,slow=12,SNR=4.9						
	0.3nm,0.4s						
MSVF	**Nonsavu**	**54.74**	**114**	LR	LR	01 40 44.5	
	comp=Z,33nm,19.8s,baz=126,slow=34						
MKAR	**Makanchi Array**	**58.03**	**326**	P	**P**	**01 19 22.1**	**-0.1**
	0.4nm,0.4s,baz=118,slow=7.1,SNR=9.8						
	0.4nm,0.4s						
KURBB	**Kurchatov Arra**	**62.23**	**328**	P	**P**	**01 19 50.6**	**-0.2**
	1.5nm,0.7s,baz=125,slow=6.2,SNR=16						
	1.5nm,0.7s						
BVAR	**Borovoye Array**	**67.81**	**327**	P	**P**	**01 20 26.7**	**-0.4**
	1.4nm,0.5s,baz=116,slow=8.2,SNR=8.1						
	1.4nm,0.5s						
MAW	**Mawson**	**83.10**	**200**	LR	LR	01 59 54.9	
	comp=Z,36nm,18.4s,baz=80,slow=36						

*IDC **09** 01:12:05.4±1.9, 15.78°S×69.16°W,h182km±22km,mb3.4/3, mbtmp3.9/5,Error ellipse: s-maj=147.6km s-min=22.7km az=16.0*

ISC 09 01:12:05.5±1.1,15.2°S±0.2°×69.0W±0.1,h150km,n6, σ1§61/7,Central Bolivia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	**1.37**	**145**	P	**Pn**	**01 12 33.9**	**-0.6**
	266nm,0.3s,baz=292,slow=3.3,SNR=2758						
LPAZ				S	**Sn**	**01 12 58.1**	**+1.6**
	baz=92,slow=14						
SIV	**San Ignacio**	**7.63**	**97**	P	**Pn**	**01 13 55.8**	**+1.7**
	1.0nm,0.3s,baz=281,slow=12,SNR=7.1						
NNA	**Nana**	**8.30**	**291**	P	**Pn**	**01 14 04.0**	**+1.1**
	2.9nm,0.3s,baz=139,slow=9.3,SNR=1.4						
BDFB	**Brasilia**	**20.19**	**94**	P	**P**	**01 16 27.6**	**-1.1**
	1.6nm,0.5s,baz=268,slow=10,SNR=4.8						
	1.6nm,0.5s						
DBIC	**Dumbokro**	**67.10**	**76**	P	**P**	**01 22 42.7**	**-0.7**
	2.6nm,0.8s,baz=253,slow=4.3,SNR=1.5						
	2.6nm,0.8s						
TORD	**Torodi Ar. Bea**	**75.34**	**72**	P	**P**	**01 23 31.7**	**-1.2**
	0.3nm,0.4s,baz=245,slow=3.6,SNR=4.7						
	0.3nm,0.4s						

NDI 09 01:16:31.1±7.7,22.40N×79.73E,h17km±46km,ML3.5, MW3.4,Presumed earthquake,Southern India

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NGP	**Nagpur**	**1.37**	**207**	*i* P	Pn	01 16 53.7	-1.8
NGP				*i* S	Sn	01 17 10.9	-2.4
NGP				IAML		01 17 15.8	
	comp=N,1μm,0.4s						
JHNI	**Jhansi**	**3.21**	**342**	*i* P	Pn	01 17 18.2	-2.6
RAGD	**RAYAGADA**	**4.69**	**131**	*i* P	Pn	01 17 40.6	-0.5
RAGD				*i* S	Sn	01 18 34.7	-0.5
RAGD				IAML		01 18 58.3	
	comp=N,47nm,1.0s						
KUDL	**Kundal**	**6.43**	**334**	*i* P	Pn	01 18 06.7	+1.7
KUDL				*i* S	Sn	01 19 08.9	-9.2
KAD	**Karad**	**7.27**	**227**	*i* P	Pn	01 18 15.5	-1.2
KLP	**Kalpa**	**9.20**	**352**	*i* S	Sn	01 20 21.7	-4.9

MEX 09 01:29:13.4±0.3,15.91N×97.12W,h13km±1km,MD3.3, Presumed earthquake,Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PEIG	**Puerto Escondi**	**0.09**	**345**	*i* P	Pg	01 29 15.6	-0.8
PEIG				*e*S	Sg	01 29 17.5	-0.9
YOIG	**Yosondua**	**1.03**	**337**	*e*P	Pb	01 29 30.0	-3.3
YOIG				*e*S	Sg	01 29 42.8	-4.0
YOIG	**Yosondua**	**1.03**	**337**	*e*P	Pb	01 29 30.0	-3.3
YOIG				*e*S	Sg	01 29 42.5	-4.2
PNIG	**Pinotepa**	**1.08**	**297**	*e*P	Pb	01 29 30.6	-3.3
PNIG				*e*S	Sb	01 29 43.7	-4.3
TXIG	**Tlaxiaco**	**1.47**	**335**	*e*P	Pn	01 29 37.0	-2.9
TXIG				*e*S	Sn	01 29 54.3	-5.0

MEX 09 01:29:21.3±0.5,17.04N×100.00W,h24km±6km,MD3.1, Presumed earthquake,Guerrero

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.25**	**272**	*i* P	Pb	01 29 26.1	-1.4
CAIG				*e*S	Sb	01 29 30.7	-1.0
DAIG	**Los Arroyos**	**0.34**	**93**	*e*P	Pb	01 29 27.7	-1.1
DAIG				*e*S	Sb	01 29 32.3	-1.6
CRIG	**Cruz Grande**	**0.89**	**110**	*e*P	Pb	01 29 35.4	-2.7
CRIG				*e*S	Sb	01 29 46.3	-3.2
CRIG	**Cruz Grande**	**0.89**	**110**	*e*P	Pb	01 29 35.0	-3.1
CRIG				*e*S	Sb	01 29 46.7	-2.8
MEIG	**Mezcala**	**0.95**	**23**	*e*P	Pn	01 29 39.9	+0.5
MEIG				*e*S	Sn	01 29 53.7	+1.4
ARIG	**Puente Sto Nin**	**1.28**	**345**	*e*P	Pn	01 29 44.2	+0.4
ARIG				*e*S	Sb	01 30 02.6	+1.9

*IDC **09** 01:41:26.9±1.5,10.02°S×118.74°E,h0km,mb3.7/3, mbtmp3.7/7,ML3.7/4,Error ellipse: s-maj=26.4km s-min=16.4km az=49.0*

*DJA **09** 01:41:32.6±0.3,10°S±2°×11°9E±°,h10km,M4.1/18, mb4.2/1,MLv4.0/18*

ISC 09 01:41:32.3±0.9,10.02S±0.07×118.81E±0.04,h33km,n24, σ1§36/33,mb3.9/3,South of Sumbawa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	**1.51**	**77**	P	**Pn**	**01 41 57.9**	**+0.9**
WSI				S	**Sn**	**01 42 17.5**	**+1.9**
WSI				AML	AML		
PLAI	**Plampang**	**1.56**	**319**	P	**Pn**	**01 41 58.0**	**+0.2**
PLAI				S	**Sb**	**01 42 19.4**	**-0.7**
PLAI				AML	AML		
DBNI	**Kabupaten Domp**	**1.58**	**342**	P	**Pn**	**01 41 58.7**	**+0.6**
BASI	**Baing, Sumba**	**1.75**	**97**	P	**Pb**	**01 42 03.4**	**-0.5**
BASI				S	**Sb**	**01 42 25.1**	**-0.5**
BASI				AML	AML		
TWSI	**Taliwang, Sumb**	**2.29**	**304**	P	**Pn**	**01 42 08.1**	**+0.3**
TWSI				S	**Sb**	**01 42 39.1**	**-1.7**
TWSI				AML	AML		
EDFI	**Ende, Flores**	**3.11**	**66**	P	**Pn**	**01 42 20.4**	**+1.2**
EDFI				S	**Sn**	**01 42 57.2**	**+1.9**
KHKI	**Kahang-Kahang**	**3.56**	**297**	P	**Pn**	**01 42 27.7**	**+2.4**
KHKI				AML	AML		
IGBI	**Denpasar**	**3.81**	**288**	P	**Pn**	**01 42 31.2**	**+2.6**
SRBI	**Singaraja**	**4.04**	**298**	P	**Pn**	**01 42 34.7**	**+2.9**
SRBI				AML	AML		
BSSI	**Bau Bau, Buton**	**4.20**	**24**	P	**Pn**	**01 42 34.6**	**+0.5**
BSSI				S	**Sn**	**01 43 22.7**	**+0.7**
BSSI				AML	AML		
BATI	**Baumata**	**4.79**	**93**	Pn	**Pn**	**01 42 42.0**	**-0.1**
	12nm,0.3s,baz=150,slow=5.8,SNR=2.5						
BATI				Sn	**Sn**	**01 43 36.8**	**+0.3**
	8.5nm,0.3s,baz=310,slow=20,SNR=2.0						
	21nm,0.3s						
BATI				AML	AML		
BATI	**Baumata**	**4.79**	**93**	P	**Pn**	**01 42 43.2**	**+1.0**
BATI				AML	AML		
MKS	**Makassar**	**4.82**	**8**	P	**Pn**	**01 42 43.2**	**+0.6**
MKS				AML	AML		
BKSI	**Bulukumba**	**4.85**	**16**	P	**Pn**	**01 42 43.8**	**+0.8**
BKSI				S	**Sn**	**01 43 38.8**	**+0.8**
BKSI				AML	AML		
JAGI	**Jajag, Banyuwa**	**4.85**	**288**	P	**Pn**	**01 42 45.1**	**+2.1**
JAGI				AML	AML		
KAPI	**Kappang**	**5.06**	**11**	Pn	**Pn**	**01 42 47.0**	**+1.0**
	3.7nm,0.3s,baz=198,slow=9.2,SNR=8.9						
KAPI				Sn	**Sn**	**01 43 44.4**	**+1.1**
	3.9nm,0.3s,baz=83,slow=21,SNR=7.2						
	11nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**5.06**	**11**	P	**Pn**	**01 42 46.2**	**+0.3**
KAPI				S	**Sn**	**01 43 44.2**	**+0.9**
KAPI				AML	AML		
SOEI	**Soe**	**5.39**	**88**	P	**Pn**	**01 42 52.5**	**+2.0**
SOEI				AML	AML		
WRA	**Warramunga Arr**	**17.94**	**125**	P	**Pn**	**01 45 39.0**	**-0.5**
	0.1nm,0.3s,baz=300,slow=13,SNR=4.5						
	0.2nm,0.4s						
WRA				AML	AML		
DAV	**Davao City (W)**	**18.27**	**22**	P	Pn	01 45 53.2	+10
ASAR	**Alice Springs**	**19.80**	**135**	P	**P**	**01 45 58.8**	**-1.3**
	0.2nm,0.3s,baz=320,slow=12,SNR=15						
	1.8nm,0.9s						
ASAR				AML	AML		
SONM	**Songino Array**	**58.64**	**350**	P	**P**	**01 51 24.9**	**-1.5**
	0.4nm,0.4s,baz=166,slow=9.1,SNR=4.8						
	0.4nm,0.4s						
KURBB	**Kurchatov Arra**	**69.79**	**334**	P	**P**	**01 52 40.4**	**+1.1**
	0.3nm,0.5s,baz=141,slow=6.1,SNR=2.9						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**69.92**	**339**	P	**P**	**01 52 39.4**	**-0.6**
	0.5nm,0.4s,baz=147,slow=8.6,SNR=2.3						
	0.5nm,0.4s						

*KRNET **09** 02:01:59.1±0.1,40.16N×71.65E,h17km,mb2.6*
*ISU **09** 02:01:59,40.18N×71.62E,h16km*

ISC 09 02:01:58.9±1.3,40.11N±0.04×71.58E±0.04,h7km±10km, n16,σ1§09/30,18C-10D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FRG	**Fergana**	**0.30**	**31**	P	**Pg**	**02 02 05.1**	**+0.2**
FRG				S	**Sg**	**02 02 09.1**	**+0.2**
BTK	**Batken**	**0.59**	**265**	⇑*i* P	**Pb**	**02 02 11.6**	**0.0**
BTK				⇑*i* S	**Sb**	**02 02 20.7**	**+0.5**
DRK	**Karamyk**	**0.65**	**165**	⇑*i* P	**Pg**	**02 02 12.3**	**+0.8**
DRK				⇑*i* S	**Sb**	**02 02 21.7**	**-0.6**
TSTA	**Tashata**	**0.83**	**56**	P	**Pg**	**02 02 13.8**	**-1.0**
TSTA				S	**Sg**	**02 02 24.8**	**-0.8**
OHH	**Osh**	**1.01**	**66**	⇓*e*P	**Pg**	**02 02 16.9**	**-1.3**
OHH				⇓*e*S	**Sg**	**02 02 29.7**	**-1.6**
TRKS	**Terek-Say**	**1.46**	**347**	⇑*i* P	**Pn**	**02 02 24.3**	**-1.5**
TRKS				⇑*i* S	**Sn**	**02 02 42.5**	**-2.8**
SFK	**Sufi-Kurgan**	**1.48**	**93**	⇑*i* P	**Pn**	**02 02 25.5**	**-0.7**
SFK				⇑*i* S	**Sn**	**02

KUA	**Kurravaara**	**0.80**	**351**	P		**Pg**	**02 02 33.8**	**-0.3**
KUA				S		**Sg**	**02 02 44.4**	**-0.2**
KUA	**Kurravaara**	**0.80**	**351**	*i* P		**Pg**	**02 02 33.8**	**-0.3**
KUA				*i* S		**Sg**	**02 02 44.4**	**-0.2**
SALU	**Saltoluokta**	**0.86**	**286**	P		**Pg**	**02 02 35.5**	**+0.2**
SALU	**Saltoluokta**	**0.86**	**286**	*eP*		**Pg**	**02 02 35.4**	**+0.2**
SALU				*eS*		**Sg**	**02 02 47.5**	**+1.1**
SALU	**Saltoluokta**	**0.86**	**286**	*i* P		**Pg**	**02 02 35.5**	**+0.2**
ERTU	**Ertsjaerv**	**0.86**	**135**	P		**Pg**	**02 02 35.5**	**+0.2**
ERTU				S		**Sg**	**02 02 47.1**	**+0.7**
ERTU	**Ertsjaerv**	**0.86**	**135**	*eP*		**Pg**	**02 02 35.5**	**+0.2**
ERTU				*eS*		**Sg**	**02 02 47.1**	**+0.7**
NIKU	**Nikkaluokta**	**0.94**	**319**	P		**Pg**	**02 02 36.5**	**-0.3**
NIKU				S		**Sg**	**02 02 49.3**	**+0.3**
NIKU	**Nikkaluokta**	**0.94**	**319**	*eP*		**Pg**	**02 02 36.5**	**-0.3**
NIKU				*eS*		**Sg**	**02 02 49.3**	**+0.3**
PAJU	**Pajala**	**0.97**	**97**	P		**Pg**	**02 02 37.3**	**-0.1**
	baz=283							
PAJU				S		**Sg**	**02 02 50.6**	**+0.6**
PAJU	**Pajala**	**0.97**	**97**	*eP*		**Pg**	**02 02 37.3**	**-0.1**
PAJU				*eS*		**Sg**	**02 02 50.6**	**+0.6**
HARU	**Harads**	**1.01**	**173**	P		**Pg**	**02 02 38.2**	**+0.1**
HARU	**Harads**	**1.01**	**173**	*eP*		**Pg**	**02 02 38.2**	**+0.1**
LANU	**Lannavaara**	**1.02**	**29**	P		**Pg**	**02 02 37.8**	**-0.6**
LANU	**Lannavaara**	**1.02**	**29**	*eP*		**Pg**	**02 02 37.9**	**-0.6**
LANU				*eS*		**Sg**	**02 02 51.3**	**-0.4**
KOVU	**Salmi**	**1.08**	**350**	P		**Pg**	**02 02 38.8**	**-0.7**
KOVU	**Salmi**	**1.08**	**350**	*eP*		**Pg**	**02 02 38.8**	**-0.7**
KLF	**Kolari**	**1.29**	**85**	*eP*		**Pg**	**02 02 42.9**	**-0.6**
KLF				*eS*		**Sg**	**02 03 00.1**	**-0.1**
HEF	**Hetta**	**1.69**	**41**	*eP*		**Pn**	**02 02 49.5**	**-0.1**
HEF				*eS*		**Sn**	**02 03 11.2**	**-0.7**
HEF				*e*			02 03 12.1	
HEF	**Hetta**	**1.69**	**41**	*eP*		**Pn**	**02 02 49.4**	**-0.2**
HEF				*eS*		**Sn**	**02 03 10.9**	**-1.0**
HEF				MSG			02 03 15.3	
	comp=Z,10nm,0.1s							
SJUU	**Sjulsmark**	**1.71**	**167**	P		**Pb**	**02 02 50.5**	**-0.5**
SJUU	**Sjulsmark**	**1.71**	**167**	*eP*		**Pb**	**02 02 50.5**	**-0.5**
TOF	**Tornio**	**1.82**	**125**	*eP*		**Pb**	**02 02 52.3**	**-0.6**
TOF				*eS*		**Sb**	**02 03 16.5**	**+0.1**
TOF				MSG			02 03 19.3	
	comp=Z,9.7nm,0.1s							
KTK1	**Kautokeino**	**2.09**	**26**	Pn		**Pn**	**02 02 56.5**	**+1.4**
KTK1				Sg		**Sb**	**02 03 23.5**	**-0.6**
KTK1	**Kautokeino**	**2.09**	**26**	*eP*		**Pb**	**02 02 56.6**	**-1.0**
KTK1				*eS*		**Sb**	**02 03 24.0**	**-0.1**
KTK1				IAML			02 03 24.8	
	comp=Z,24nm,0.3s							
KTK1	**Kautokeino**	**2.09**	**26**	*eP*		**Pb**	**02 02 56.6**	**-1.0**
KTK1				*eS*		**Sb**	**02 03 24.0**	**-0.1**
KTK1				IAML			02 03 24.8	
	comp=Z,24nm,0.3s							
FAUS	**Fauske**	**2.10**	**278**	Pn		**Pn**	**02 02 57.1**	**-0.5**
FAUS				Sg		**Sg**	**02 03 26.2**	**+0.2**
FAUS	**Fauske**	**2.10**	**278**	Pn		**Pb**	**02 02 57.1**	**-0.5**
FAUS				Sg		**Sg**	**02 03 26.2**	**+0.2**
FAUS	**Fauske**	**2.10**	**278**	*e*Pn		**Pb**	**02 02 57.1**	**-0.5**
FAUS				*e*Sg		**Sg**	**02 03 26.2**	**+0.2**
RNF	**Rovaniemi**	**2.19**	**102**	*eP*		**Pn**	**02 02 57.6**	**+1.2**
RNF				*e*SG		**Sb**	**02 03 27.2**	**+0.5**
RNF				MSG			02 03 30.4	
	comp=Z,5.6nm,0.1s							
STEI	**Steigen**	**2.22**	**293**	Pn		**Pn**	**02 02 57.5**	**+0.8**
STEI	**Steigen**	**2.22**	**293**	Pn		**Pn**	**02 02 57.5**	**+0.8**
STEI	**Steigen**	**2.22**	**293**	*eP*		**Pn**	**02 02 57.5**	**+0.8**
SGF	**Sodankyl**	**2.29**	**80**	*e*PB		**Pn**	**02 02 59.5**	**+1.6**
SGF				*e*SG		**Sb**	**02 03 30.4**	**+0.5**
SGF				MSG			02 03 33.0	
	comp=Z,4.9nm,0.1s							
JETT	**Jettan, Norway**	**2.41**	**358**	Pn		**Pn**	**02 03 00.7**	**+1.3**
JETT				Sg		**Sb**	**02 03 33.9**	**+0.8**
JETT	**Jettan, Norway**	**2.41**	**358**	Pn		**Pn**	**02 03 00.7**	**+1.3**
JETT				Sg		**Sb**	**02 03 33.9**	**+0.8**
JETT	**Jettan, Norway**	**2.41**	**358**	*eP*		**Pn**	**02 03 00.7**	**+1.3**
JETT				*e*SG		**Sb**	**02 03 33.9**	**+0.8**
TRO	**Tromso**	**2.56**	**346**	Pn		**Pn**	**02 03 02.9**	**+1.4**
TRO				Sb		**Sn**	**02 03 35.1**	**+1.8**
TRO	**Tromso**	**2.56**	**346**	Pn		**Pn**	**02 03 02.9**	**+1.4**
TRO				Sb		**Sn**	**02 03 35.1**	**+1.8**
TRO	**Tromso**	**2.56**	**346**	*e*PB		**Pb**	**02 03 04.7**	**-0.8**
TRO				*e*SB		**Sb**	**02 03 36.2**	**-1.3**
RANF	**Ranua**	**2.71**	**112**	*eP*		**Pn**	**02 03 04.3**	**+0.8**
RANF				*e*SG		**Sb**	**02 03 42.5**	**+0.7**
ARA0	**ARCESS Array S**	**2.98**	**35**	Pn		**Pn**	**02 03 08.1**	**+0.8**
	baz=209,slow=16							
ARA0				Sb		**Sn**	**02 03 45.3**	**+1.6**
	baz=212,slow=28							
ARA0	**ARCESS Array S**	**2.98**	**35**	Pn		**Pn**	**02 03 08.1**	**+0.8**
ARA0				Sb		**Sn**	**02 03 45.3**	**+1.6**
ARA0	**ARCESS Array S**	**2.98**	**35**	*eP*		**Pn**	**02 03 08.1**	**+0.8**
ARA0				*eS*		**Sn**	**02 03 45.3**	**+1.6**
ARCES	**ARCESS Array B**	**2.98**	**35**	Pn		**Pn**	**02 03 08.0**	**+0.6**
	comp=Z,0.3nm,0.3s,baz=218,slow=14,SNR=27							
ARCES				Sn		**Sn**	**02 03 44.2**	**+0.5**
	comp=Z,1.1nm,0.3s,baz=215,slow=23,SNR=16							
	comp=Z,0.9nm,0.3s							
ARCES				AML	AML			
KEV	**Kevo**	**3.50**	**39**	Pn		**Pn**	**02 03 14.8**	**+0.5**
KEV	**Kevo**	**3.50**	**39**	Pn		**Pn**	**02 03 14.8**	**+0.5**
KEV	**Kevo**	**3.50**	**39**	*eP*		**Pn**	**02 03 14.8**	**+0.5**
VAF	**Ylistaro**	**4.23**	**167**	*eP*		**Pn**	**02 03 26.1**	**+1.7**
VAF				*eS*		**Sn**	**02 04 13.8**	**-0.5**
FIA0	**FINESS Array S**	**6.21**	**155**	Pn		**Pn**	**02 03 52.2**	**+0.7**
	baz=348,slow=14							
FIA0				Sn		**Sn**	**02 05 00.8**	**-2.3**
	baz=348,slow=14							
FIA0	**FINESS Array S**	**6.21**	**155**	Pn		**Pn**	**02 03 52.2**	**+0.7**
FIA0				Sn		**Sn**	**02 05 00.8**	**-2.3**
FIA0	**FINESS Array S**	**6.21**	**155**	*eP*		**Pn**	**02 03 52.2**	**+0.7**
FIA0				*eS*		**Sn**	**02 05 00.8**	**-2.3**
FINES	**FINESS Array B**	**6.21**	**155**	Pn		**Pn**	**02 03 53.1**	**+1.6**
	comp=Z,0.2nm,0.3s,baz=346,slow=17,SNR=7.7							
FINES				Sn		**Sn**	**02 05 01.8**	**-1.2**
	comp=Z,0.4nm,0.3s,baz=344,slow=21,SNR=7.8							
FINES				Lg	Lg		02 05 33.8	
	comp=Z,0.9nm,0.3s,baz=343,slow=27,SNR=9.1							
	comp=Z,1.6nm,0.7s							
FINES				AML	AML			
NOA	**NORSAR Array B**	**7.40**	**218**	Pn		**Pn**	**02 04 09.5**	**+1.6**
	baz=31,slow=12,SNR=4.9							
NOA				Sn		**Sn**	**02 05 29.6**	**-2.9**
	baz=340,slow=20,SNR=1.2							
NOA				Lg	Lg		02 06 11.4	
	baz=33,slow=16,SNR=3.9							
	comp=Z,0.5nm,0.9s							
NRA0	**NORESS Array S**	**7.59**	**216**	Pn		**Pn**	**02 04 11.7**	**+1.2**
	baz=25,slow=16							
NRA0	**NORESS Array S**	**7.59**	**216**	Pn		**Pn**	**02 04 11.7**	**+1.2**
NRA0	**NORESS Array S**	**7.59**	**216**	*eP*		**Pn**	**02 04 11.7**	**+1.2**
HFS	**Hagfors**	**7.70**	**207**	Pn		**Pn**	**02 04 11.5**	**-0.5**
	comp=Z,0.1nm,0.3s,baz=25,slow=12,SNR=4.0							
HFS				Sn		**Sn**	**02 05 35.8**	**-4.0**
	comp=Z,0.3nm,0.3s,baz=31,slow=24,SNR=7.0							
	comp=Z,0.4nm,0.3s							
HFS				AML	AML			
HFS	**Hagfors**	**7.70**	**207**	Pn		**Pn**	**02 04 12.4**	**+0.4**
	baz=26,slow=12							
HFS	**Hagfors**	**7.70**	**207**	Pn		**Pn**	**02 04 12.4**	**+0.4**
HFS	**Hagfors**	**7.70**	**207**	*eP*		**Pn**	**02 04 12.4**	**+0.4**

*THE **09** 02:07:20.8, 37.8°N±1.0×27.0°E±0.9, h4km±1km, M2.8/8, MLh2.8/8*
*ISK **09** 02:07:20.0, 37.82N×27.01E, h5km, ML3.1/14*
ISC 09 02:07:20.8±0.9, 37.81N±0.02×27.02E±0.03, h10km±8km, n28, σ0.43/36, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**235**	P		**P**	**Pg**	**02 07 24.4**	**-0.2**
SMG				S		**S**	**Sg**	**02 07 27.7**	**+0.3**
SMG				AML	AML				
GCAM	**G?zelcaml?**	**0.20**	**124**	Pg		**Pg**	**Pg**	**02 07 24.8**	**-0.2**
GCAM				Sg		**Sg**	**Sg**	**02 07 28.4**	**+0.5**
GCAM				AML	AML				
KUSD	**Kusadasi-Aydin**	**0.21**	**77**	Pg		**Pg**	**Pg**	**02 07 24.9**	**-0.4**
KUSD				Sg		**Sg**	**Sg**	**02 07 28.3**	**0.0**
KUSD				AML	AML				
GMLD	**Gumuldur**	**0.28**	**342**	Pg		**Pg**	**Pg**	**02 07 25.9**	**-0.5**
GMLD				Sg		**Sg**	**Sg**	**02 07 30.3**	**+0.1**
GMLD				AML	AML				
BLCB	**Balcova**	**0.57**	**1**	P		**Pg**	**Pg**	**02 07 31.7**	**-0.2**
BLCB				S		**Sg**	**Sg**	**02 07 39.5**	**0.0**
BLCB	**Balcova**	**0.57**	**1**	Pg		**Pg**	**Pg**	**02 07 31.4**	**-0.5**
BLCB				AML	AML				
AYDB	**Zeytinkoy-Aydi**	**0.70**	**79**	Pg		**Pg**	**Pg**	**02 07 34.1**	**-0.2**
AYDB				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.72**	**163**	Pg		**Pg**	**Pg**	**02 07 34.6**	**0.0**
CESE	**eme**	**0.77**	**312**	Pg		**Pg**	**Pg**	**02 07 34.9**	**-0.8**
BODT	**Bodrum**	**0.78**	**163**	P		**Pg**	**Pg**	**02 07 35.4**	**-0.5**
BODT				S		**Sb**	**Sb**	**02 07 47.0**	**-0.1**
BODT				AML	AML				
BODT	**Bodrum**	**0.78**	**163**	Pg		**Pg**	**Pg**	**02 07 35.8**	**-0.1**
BODT				AML	AML				
MLSB	**Milas**	**0.79**	**131**	Pg		**Pg**	**Pg**	**02 07 36.0**	**0.0**
MLSB				AML	AML				
BODA	**Bodrum-Mula**	**0.84**	**157**	Pg		**Pg**	**Pg**	**02 07 35.9**	**-1.1**
KRBN	**Karaburun**	**0.86**	**335**	Pg		**Pg**	**Pg**	**02 07 37.1**	**-0.3**
KRBN				AML	AML				
FOCM	**Foa**	**0.93**	**346**	Pg		**Pg**	**Pg**	**02 07 37.9**	**-0.8**
CHOS	**Chios island**	**0.95**	**307**	P		**Pb**	**Pb**	**02 07 39.5**	**+0.1**
CHOS				S		**Sb**	**Sb**	**02 07 52.6**	**+0.4**
CHOS				AML	AML				
CHOS	**Chios island**	**0.95**	**307**	Pg		**Pg**	**Pg**	**02 07 38.6**	**-0.6**
CHOS				AML	AML				
NAZL	**Nazilli-Aydin**	**1.01**	**81**	Pg		**Pg**	**Pg**	**02 07 40.2**	**-0.1**
NAZL				AML	AML				
GOMA	**Golmarmara-Man**	**1.14**	**38**	Pn		**Pg**	**Pg**	**02 07 42.6**	**0.0**
GOMA				AML	AML				
YER	**Yerkesik**	**1.21**	**124**	P		**Pn**	**Pn**	**02 07 43.5**	**-0.3**
YER				S		**Sb**	**Sb**	**02 07 58.9**	**-0.5**
DKL	**Dikili**	**1.26**	**356**	Pn		**Pn**	**Pn**	**02 07 44.0**	**-0.4**
DKL				AML	AML				
SOMA	**Soma-Manisa**	**1.40**	**16**	Pn		**Pb**	**Pb**	**02 07 47.1**	**+0.1**
SOMA				AML	AML				
GORD	**Gordes-Manisa**	**1.42**	**39**	Pn		**Pg**	**Pg**	**02 07 47.9**	**-0.2**
GORD				AML	AML				
PRK	**Paraskevi**	**1.55**	**338**	P		**Pn**	**Pn**	**02 07 48.9**	**+0.5**
PRK				AML	AML				
ARG	**Arkhangelos**	**1.82**	**151**	P		**Pn**	**Pn**	**02 07 52.3**	**+0.2**
DION	**Dionisos Attik**	**2.46**	**277**	P		**Pn**	**Pn**	**02 08 01.3**	**+0.4**
GADA	**Gvkgeada**	**2.53**	**340**	P		**Pn**	**Pn**	**02 08 02.3**	**+0.5**
SMTH	**Samothraki Isl**	**2.90**	**337**	P		**Pn**	**Pn**	**02 08 07.4**	**+0.5**

*THE **09** 02:08:48.4, 42°N±5°×2°4E±°, h2km±7km, M2.6/7, MLh2.6/7*
*BEO **09** 02:08:48.2±0.3, 42.41N×23.90E, h9km±2km, ML2.6/15*
SOF 09 02:08:47.8, 42.35N±0.01×23.88E±0.01, h13km±1km, MD2.8/13, 14C-21D, Bulgaria

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PGB	**Panagyurishte**	**0.27**	**53**	P		**Pb**		02 08 54.0	-0.5
PGB				S		Sg		02 08 57.5	+0.2
PLNA	**Plana**	**0.36**	**290**	P		**Pb**		02 08 55.7	-0.5
PLNA				S		Sg		02 09 00.9	+0.8
SOF	**Sofia**	**0.50**	**311**	P		**Pb**		02 08 58.1	-0.4
SOF				S		Sg		02 09 04.9	+0.6
VTS	**Vitosha**	**0.55**	**299**	P		**Pg**		02 08 58.7	+0.1
VTS				AML	AML				
VTS	**Vitosha**	**0.55**	**299**	P		Pg		02 08 58.6	0.0
VTS				S		Sg		02 09 05.5	-0.4
VTS	**Vitosha**	**0.55**	**299**	*e*Pg		Pg		02 08 58.2	-0.4
VTS				*e*Sg		Sg		02 09 05.2	-0.7
BLSH	**Balsha**	**0.67**	**319**	P		Pg		02 09 01.1	+0.2
BLSH				S		Sb		02 09 10.5	-0.2
PLD	**Plovdiv**	**0.67**	**108**	P		Pg		02 09 01.0	+0.1
PLD				S		Sg		02 09 09.7	-0.1
PLD	**Plovdiv**	**0.67**	**108**	*e*Pg		Pg		02 09 00.9	0.0
PLD				*e*Sg		Sg		02 09 09.0	-0.8
KKB	**Krupnik**	**0.76**	**228**	P		Pb		02 09 03.2	+0.3
KKB				AML	AML				
KKB	**Krupnik**	**0.76**	**228**	P		Pb		02 09 03.2	+0.3
KKB				S		Sb		02 09 13.5	+0.4
MMB	**Musomishta**	**0.81**	**187**	P		Pn		02 09 04.5	-0.5
MMB				AML	AML				
MMB	**Musomishta**	**0.81**	**187**	P		Pb		02 09 04.3	+0.5
MMB				S		Sb		02 09 14.9	+0.2
RZN	**Rozhen**	**0.92**	**136**	P		Pb		02 09 06.1	+0.4
RZN				AML	AML				
RZN	**Rozhen**	**0.92**	**136**	P		Pb		02 09 06.0	+0.3
RZN				S		Sn		02 09 18.8	-0.9
PEHC	**Pehcevo**	**0.93**	**232**	*i* Pn		Pb		02 09 06.1	+0.3
NVR	**Nevrokopi**	**1.00**	**181**	P		Pn		02 09 08.2	+0.6
NVR				AML	AML				
MPEP	**Malo Peshtene**	**1.01**	**354**	P		Pg		02 09 07.4	+0.1
TRAN	**Tran**	**1.03**	**298**	P		Pn		02 09 07.9	-0.1
BOSS	**Bosilegrad**	**1.05**	**278**	*e*Pg		Pb		02 09 07.9	+0.1
BOSS				*e*Sg		Sb		02 09 21.5	0.0
PLVB	**Pleven**	**1.17**	**27**	↑P		Pg		02 09 10.6	+0.3
PLVB				↑S		Sn		02 09 26.4	+0.8
PVL	**Pavlikeni**	**1.22**	**51**	P		Pg		02 09 12.0	+0.7
DIM	**Dimitrovgrad**	**1.30**	**103**	S		Sg		02 09 31.1	+1.5
ZAPS	**Zavoj**	**1.30**	**315**	*e*Pg		Pb		02 09 12.1	0.0
ZAPS				*e*Sg		Sg		02 09 30.2	+0.5
KDZ	**Kurdzhali**	**1.30**	**123**	P		Pg		02 09 13.1	+0.3
KDZ				S		Sg		02 09 31.7	+1.9
KDZ	**Kurdzhali**	**1.30**	**123**	P		Pg		02 09 12.6	-0.3
KDZ				S		Sg		02 09 31.0	+1.3
VALD	**Valchedram**	**1.38**	**346**	P		Pb		02 09 13.4	0.0
VAY	**Valandovo**	**1.42**	**224**	*i* Pn		Pg		02 09 15.8	+0.7
KAVA	**Kavala**	**1.44**	**161**	P		Pg		02 09 15.5	+0.1
KAVA				AML	AML				
BLKB	**Belogradchik**	**1.55**	**325**	*e*Pg		Pb		02 09 15.8	-0.6
BLKB				*e*Sg		Sb		02 09 35.5	-0.4
BLKB	**Belogradchik**	**1.55**	**325**	↓↓P		Pn		02 09 15.7	+0.6
BLKB				↓↓S		Sn		02 09 35.3	+0.2
SOH	**Sokhos**	**1.58**	**195**	P		Pb		02 09 17.5	+0.6
BARS	**Barje**	**1.60**	**288**	*e*Pg		Pb		02 09 17.0	-0.1
BARS				*e*Sg		Sg		02 09 38.5	-0.7
VLAD	**Vladila**	**1.69**	**13**	↓↓P		Pg		02 09 19.9	-0.3
VLAD				↓↓S		Sb		02 09 40.9	+1.0
ZIMR		**1.70**	**39**	↑P		Pg		02 09 20.3	-0.1
ZIMR				↓↓S		Sg		02 09 41.6	-0.8
BAIL	**Bailesti**	**1.71**	**347**	↓↓S		Sn		02 09 38.6	-0.4
ZAGS	**Zajecar**	**1.90**	**321**	*e*Pn		Pn		02 09 20.1	+0.3
ZAGS				*e*Sn		Sb		02 09 44.7	-1.1
PLG	**Polygyros**	**2.00**	**190**	P		Pb		02 09 23.6	-0.6
COPA	**Copaceanca**	**2.03**	**28**	↑S		Sb		02 09 49.7	0.0
COPA	**Copaceanca**	**2.03**	**28**	↑P		Pb		02 09 24.7	+0.2
BOVS	**Bovan**	**2.05**	**309**	*e*Pn		Pb		02 09 23.4	-1.4
BOVS				*e*Sn		Sn		02 09 46.1	-1.2
BOVS	**Bovan**	**2.05**	**309**	↓↓S		Sn		02 09 48.1	+0.8
BOVS	**Bovan**	**2.05**	**309**	↓↓P		Pb		02 09 23.9	-1.0
BORS2	**Bor- Borsko je**	**2.21**	**322**	*e*Pn		Pb		02 09 26.3	-1.3
BORS2				*e*Sn		Sn		02 09 49.9	-1.4
SELS	**Selova**	**2.21**	**294**	*e*Pn		Pn		02 09 25.3	+1.1
SELS				*e*Sn		Sn		02 09 52.5	+1.1
LOZB	**Loznitsa**	**2.24**	**62**	↓↓P		Pg		02 09 29.8	-0.9
LOZB				↓↓S		Sb		02 09 57.5	+1.8
RAZG	**Razgrad**	**2.28**	**57**	↑S		Sg		02 09 59.3	-1.7
HUMR	**Humele**	**2.32**	**20**	↑S		Sn		02 09 54.8	+0.9
SRE	**Strehaia**	**2.36**	**348**	↓↓P		Pn		02 09 27.3	+1.1
SRE				↓↓S		Sn		02 09 56.3	+1.2
GOCS	**Kraljevo Serbi**	**2.52**	**300**	*e*Pn		Pn		02 09 29.4	+0.9
GOCS				*e*Sn		Sn		02 10 00.6	+1.5
KUBS	**Kucevo**	**2.61**	**323**	*e*Pn		Pn		02 09 29.2	-0.5
KUBS				*e*Sn		Sn		02 10 00.3	-1.0
HERR	**Herculane**	**2.74**	**338**	↓↓P		Pn		02 09 31.5	0.0
HERR				↓↓S		Sn		02 10 02.7	-1.8
GRUS	**Gruza**	**2.78**	**305**	*e*Pn		Sn		02 09 32.8	+0.8
GRUS				*e*Sn		Sn		02 10 05.9	+0.5
MDVR	**Moldovita**	**2.90**	**328**	↓↓P		Pn		02 09 33.9	+0.2
MDVR				↓↓S		Sn		02 10 08.3	0.0
IVAS	**Ivanjica**	**3.00**	**295**	*e*Pn		Pn		02 09 35.7	+0.6
IVAS				*e*Sn		Sn		02 10 11.7	+0.8
LOT	**Lotru**	**3.10**	**359**	↓↓P		Pn		02 09 37.0	+0.6
LOT				↓↓S		Sn		02 10 13.0	-0.4
GZR	**Gura Zlata**	**3.14**	**346**	↑P		Pn		02 09 37.4	+0.4
GZR				↑S		Sn		02 10 14.8	+0.4
VOIR		**3.20**	**15**	↓↓P		Pn		02 09 40.2	+2.4
VOIR				↓↓S		Sn		02 10 15.4	-0.4
VRSS	**Vrsac**	**3.33**	**327**	*e*Pn		Pn		02 09 39.5	-0.1
VRSS				*e*Sn		Sn		02 10 17.8	-1.2
DIVS	**Divibare**	**3.34**	**303**	*e*Pn		Pn		02 09 40.3	+0.6
DIVS				*e*Sn		Sn		02 10 18.5	-0.8
ICOR	**Ion Corvin**	**3.36**	**57**	↑P		Pb		02 09 45.1	-2.2
MLR	**Muntele Rosu**	**3.47**	**25**	↓↓P		Pn		02 09 43.5	+1.9
SURR	**Surduc**	**3.63**	**340**	↓↓P		Pn		02 09 44.5	+0.9
SURR				↓↓S		Sn		02 10 25.8	-0.5
VRI	**Vrincioaia**	**4.07**	**29**	↓↓S		Sn		02 10 40.0	+2.8
VRI	**Vrincioaia**	**4.07**	**29**	↑↑P		Pn		02 09 53.4	+3.7

*CATAC **09** 02:13:40.7±0.6, 11°N±2°×8°7W±°, h22km±4km, M3.5/24, MLv3.5/24, Error ellipse: s-maj=5.3km s-min=2.7km az=33.9, confirmed*
*UCR **09** 02:13:44.2±1.2, 11°54N×87°10W, h0km±18km, MW3.8, Presumed earthquake*
ISC 09 02:13:42.4±1.8, 11.48N±0.05×87.42W±0.05, h23km±16km, n46, σ1.911/62, 1C, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
COPN	**Copaltepe**	**1.07**	**49**	P		**Pn**		**02 14 00.5**	**-1.5**
COPN	**Copaltepe**	**1.07**	**49**	↑*i*P		**Pn**		**02 14 00.5**	**-1.5**
LEVN	**Ruinas Leon Vi**	**1.21**	**41**	P		**Pb**		**02 14 04.6**	**0.0**
LEVN				S		**Sb**		**02 14 21.1**	**+1.3**
AMTN	**Mateare**	**1.23**	**52**	P		**Pn**		**02 14 03.8**	**-0.3**
QUEN	**Al S del Volca**	**1.24**	**27**	P		**Pn**		**02 14 03.9**	**-0.4**
QUEN				S		**Sb**		**02 14 22.4**	**+1.7**
PKGN	**Cerro Pekin**	**1.26**	**20**	P		**Pn**		**02 14 04.1**	**-0.5**
CRIN	**San Cristobal**	**1.27**	**17**	P		**Pn**		**02 14 04.4**	**-0.3**
PLRN	**Geotermica Pol**	**1.27**	**30**	P		**Pn**		**02 14 03.9**	**-0.8**
PLRN				S		**Sb**		**02 14 22.7**	**+1.1**
APQ2	**Apoyeque**	**1.29**	**56**	P		**Pb**		**02 14 05.0**	**-1.0**
APYN	**Apoyeque**	**1.29**	**54**	P		**Pn**		**02 14 04.1**	**-1.0**
APYN				S		**Sb**		**02 14 23.5**	**+1.4**
TISN	**Laguna Tiscapa**	**1.31**	**60**	P		**Pn**		**02 14 03.7**	**-1.5**
MOM2	**El Cardon**	**1.32**	**44**	P		**Pn**		**02 14 05.2**	**-0.2**
MOM2				S		**Sb**		**02 14 24.7**	**+1.6**
MGAN	**Managua**	**1.33**	**60**	P		**Pn**		**02 14 05.3**	**-0.2**
MGAN				S		**Sb**		**02 14 24.5**	**+1.3**
MAS3	**Al N del Volca**	**1.34**	**66**	P		**Pn**		**02 14 05.0**	**-0.7**
MAS3				S		**Sb**		**02 14 24.3**	**+0.8**
MASN	**Masaya**	**1.34**	**68**	S		**Sb**		**02 14 23.8**	**+0.1**
MOM3	**MOM3**	**1.35**	**41**	P		**Pn**		**02 14 05.2**	**-0.7**
MOM3				S		**Sb**		**02 14 25.0**	**+1.0**
NANN	**Nandasmo**	**1.35**	**70**	P		**Pb**		**02 14 06.5**	**-0.6**
NANN				S		**Sb**		**02 14 24.2**	**+0.2**
WILN	**Americas 2**	**1.39**	**61**	P		**Pn**		**02 14 05.8**	**-0.5**
WILN				S		**Sb**		**02 14 25.2**	**+0.3**
NADN	**Granada**	**1.39**	**79**	P		**Pn**		**02 14 05.3**	**-1.0**
NADN				S		**Sb**		**02 14 24.9**	**-0.1**
CSGN	**Cosiguina Volc**	**1.49**	**355**	P		**Pn**		**02 14 07.2**	**-0.7**
CSGN				S		**Sb**		**02 14 27.8**	**-0.3**
MORN	**Al O del Volca**	**1.74**	**88**	P		**Pn**		**02 14 10.3**	**-1.0**
OMEN	**Al SSO del Vol**	**1.76**	**89**	S		**Sb**		**02 14 34.3**	**-1.5**
CONN	**Concepcion**	**1.76**	**87**	P		**

*AFAD **09** 02:40:15.9, 37˚.89N×26˚.75E, h7$^{km}_{\pm 1}$, ML2.1*
*ISK **09** 02:40:15.9, 37˚.85N×26˚.73E, h5^{km}, ML2.4/14*
*THE **09** 02:40:16.1, 37˚.9N±1˚.0×26˚.7E±1˚.0, h14$^{km}_{\pm 3}$, M2.5/5, MLh2.5/5*

ISC 09 02:40:16.3±1.0, **37˚.88N**±0˚.03×**26˚.74E**±0˚.03, **h12**$^{km}_{\pm 8}$, **n23**, σ0**958**/34, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.19**	**156**	P	**Pg**	**02 40 20.6**	**+0.1**
SMG				S	**Sg**	**02 40 23.5**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**34**	P	**Pg**	**02 40 20.4**	**-0.3**
DGB				IAML		02 40 23.0	
	comp=N,424nm,0.3s						
DGB				S	**Sg**	**02 40 23.2**	**-0.5**
DGB				IAML		02 40 24.0	
	comp=E,396nm,0.3s						
GMLD	**Gumuldur**	**0.24**	**36**	Pg	**Pg**	**02 40 21.3**	**0.0**
GMLD				Sg	**Sg**	**02 40 25.7**	**+1.0**
GMLD				AML	AML		
BEYE	**izmir**	**0.37**	**24**	P	**Pg**	**02 40 23.1**	**-0.7**
BEYE				S	**Sg**	**02 40 28.0**	**-0.9**
BEYE				IAML		02 40 29.0	
	comp=N,247nm,0.2s						
BEYE				IAML		02 40 29.0	
	comp=E,226nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.40**	**333**	P	**Pg**	**02 40 23.8**	**-0.5**
ZEYE				IAML		02 40 36.0	
	comp=N,298nm,0.4s						
GCAM	**G?zelcaml?**	**0.43**	**115**	P	**Pg**	**02 40 24.5**	**-0.3**
GCAM				S	**Sg**	**02 40 30.9**	**+0.2**
GCAM				IAML		02 40 31.0	
	comp=E,165nm,0.1s						
GCAM				IAML		02 40 34.0	
	comp=N,261nm,0.2s						
GCAM	**G?zelcaml?**	**0.43**	**115**	Pg	**Pg**	**02 40 24.6**	**-0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.44**	**93**	Pg	**Pb**	**02 40 25.8**	**-0.2**
KUSD				Sg	**Sb**	**02 40 31.5**	**-1.0**
KUSD				AML	AML		
BLCB	**Balcova**	**0.56**	**26**	P	**Pg**	**02 40 26.9**	**-0.3**
BLCB				S	**Sg**	**02 40 35.0**	**+0.4**
BLCB	**Balcova**	**0.56**	**26**	Pg	**Pg**	**02 40 26.9**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.66**	**59**	P	**Pg**	**02 40 28.4**	**-0.7**
DUVT				S	**Sg**	**02 40 37.3**	**-0.3**
KRBN	**Karaburun**	**0.72**	**349**	Pg	**Pb**	**02 40 31.4**	**+0.5**
CHOS	**Chios island**	**0.74**	**313**	P	**Pg**	**02 40 29.7**	**-0.9**
CHOS				S	**Sb**	**02 40 41.1**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.74**	**313**	Pg	**Pb**	**02 40 31.2**	**+0.1**
CHOS				Sg	**Sb**	**02 40 41.5**	**+0.3**
CHOS				AML	AML		
FOCM	**Foa**	**0.83**	**360**	Pg	**Pn**	**02 40 33.4**	**-0.4**
FOCM				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.92**	**86**	Pg	**Pb**	**02 40 34.1**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.94**	**151**	P	**Pg**	**02 40 34.0**	**-0.5**
BODT				S	**Sb**	**02 40 46.8**	**-0.2**
BODT	**Bodrum**	**0.94**	**151**	Pg	**Pg**	**02 40 33.9**	**-0.5**
BODT				AML	AML		
MLSB	**Milas**	**1.01**	**125**	Pg	**Pg**	**02 40 35.2**	**-0.7**
MLSB				AML	AML		
DKL	**Dikili**	**1.19**	**6**	Pn	**Pn**	**02 40 39.9**	**+1.1**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.23**	**86**	Pn	**Pn**	**02 40 40.6**	**+1.2**
NAZL				AML	AML		
AKS	**Akhisar**	**1.30**	**40**	Pn	**Pg**	**02 40 41.8**	**+0.4**
AKS				AML	AML		
GORD	**Gordes-Manisa**	**1.52**	**47**	Pn	**Pg**	**02 40 45.1**	**-0.5**
GORD				AML	AML		

*JMA **09** 02:42:56.4±0.2, 28˚.7N±0˚.8×12˚.8E±1˚, h165$^{km}_{\pm 2}$, MV3.8/37, NW OFF AMAMI-OSHIMA IS*
*IDC **09** 02:42:57.4±2.2, 28˚.79N×128˚.20E, h188$^{km}_{\pm 20}$, mb3.4/13, mbtmp3.9/16, Error ellipse: s-maj=20.9km s-min=14.5km az=69.0*

ISC 09 02:42:55.6±0.6, **28˚.70N**±0˚.05×**128˚.26E**±0˚.08, **h173**$^{km}_{\pm 7}$, **n36**, σ0**983**/53, **mb3.5**/13, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAMN	**Amaminishikomi**	**0.92**	**119**	*i* P	**Pn**	**02 43 22.1**	**+0.1**
JAMN				*e*S	**Sn**	**02 43 41.9**	**-0.4**
JTAJ	**Takarajima**	**0.94**	**61**	P	**Pn**	**02 43 22.5**	**+0.3**
JTAJ				*e*S	**Sn**	**02 43 42.2**	**-0.4**
JTK	**Tokunoshima**	**1.09**	**146**	*i* P	**Pn**	**02 43 23.9**	**+0.5**
JTK				S	**Sn**	**02 43 44.6**	**-0.1**
JAM	**Amami Oshima**	**1.22**	**103**	*i* P	**Pn**	**02 43 24.4**	**+0.1**
JAM				*e*S	**Sn**	**02 43 45.2**	**-1.3**
JOKE	**Okinoerabujima**	**1.36**	**168**	*i* P	**Pn**	**02 43 26.3**	**+0.6**
JOKE				*e*S	**Sn**	**02 43 48.8**	**-0.1**
JZK	**Kikaishima**	**1.55**	**104**	P	**Pn**	**02 43 29.0**	**+1.5**
JZK				*e*S	**Sn**	**02 43 52.7**	**+0.6**
JYRO	**Yoronjima**	**1.67**	**174**	*i* P	**Pn**	**02 43 29.3**	**+0.6**
JYRO				*e*S	**Sn**	**02 43 53.3**	**-1.0**
JIH	**Iheya**	**1.67**	**189**	*i* P	**Pn**	**02 43 29.6**	**+0.8**
JIH				*e*S	**Sn**	**02 43 54.0**	**-0.4**
JOW	**Kunigami**	**1.85**	**180**	*i* P	**Pn**	**02 43 31.2**	**+0.5**
JOW				S	**Sn**	**02 43 57.0**	**-0.8**
JNTH	**Nagotoyohara**	**2.18**	**186**	P	**Pn**	**02 43 35.0**	**+0.8**
JNTH				S	**Sn**	**02 44 03.1**	**-1.0**
JAGN	**Aguni-jima**	**2.28**	**204**	P	**Pn**	**02 43 36.3**	**+0.8**
JAGN				*e*S	**Sn**	**02 44 06.0**	**-0.2**
JKC	**Kuchinoerabu**	**2.44**	**43**	*e*P	**Pn**	**02 43 37.5**	**+0.4**
JKC				*e*S	**Sn**	**02 44 09.4**	**-0.1**
JYAK	**Yakushimahirau**	**2.49**	**51**	*e*P	**Pn**	**02 43 37.2**	**-0.6**
JJT3	**Tamagusuku3**	**2.58**	**190**	*e*P	**Pn**	**02 43 39.9**	**+1.0**
JJT3				S	**Sn**	**02 44 12.6**	**+0.2**
JKE	**Kume jima 2**	**2.70**	**209**	*e*P	**Pn**	**02 43 41.1**	**+0.8**
JKE				*e*S	**Sn**	**02 44 15.7**	**+0.7**
JMTN	**Minamitane**	**2.86**	**53**	P	**Pn**	**02 43 42.4**	**+0.2**
JTN	**Tanegashima 3**	**3.07**	**50**	P	**Pn**	**02 43 44.7**	**-0.1**
JSJ	**Shimokoshiki**	**3.23**	**23**	*e*P	**Pn**	**02 43 47.8**	**+1.1**
JTSR	**Tashiro 2**	**3.38**	**43**	*i* P	**Pn**	**02 43 48.6**	**0.0**
JSU	**Suzuyama**	**3.39**	**34**	P	**Pn**	**02 43 49.5**	**+0.7**
JNU	**Nakatsue**	**4.95**	**26**	P	**Pn**	**02 44 10.3**	**+1.5**
	50nm,0.5s,baz=256,slow=4.9,SNR=38						
JNU				S	**Sn**	**02 45 07.5**	**+1.2**
	5.4nm,0.4s,baz=199,slow=23,SNR=1.6						
KSRS	**Korea Array**	**8.74**	**358**	P	**Pn**	**02 44 58.6**	**0.0**
	3.2nm,0.8s,baz=177,slow=13,SNR=6.6						
USRK	**Ussuriysk Ar.**	**15.76**	**10**	P	**P**	**02 46 29.5**	**+0.9**
	1.4nm,0.6s,baz=145,slow=39,SNR=1.2						
SONM	**Songino Array**	**25.54**	**324**	P	**P**	**02 48 09.0**	**+0.7**
	1.6nm,0.3s,baz=135,slow=12,SNR=14						
	1.6nm,0.3s						
MKAR	**Makanchi Array**	**39.95**	**310**	P	**P**	**02 50 12.5**	**-0.5**
	1.0nm,0.9s,baz=96,slow=11,SNR=4.6						
	1.0nm,0.9s						
ZALV	**Zalesovo Beam**	**40.33**	**321**	P	**P**	**02 50 14.1**	**-1.9**
	0.4nm,0.3s,baz=95,slow=8.8,SNR=2.2						
	0.4nm,0.3s						
KURBB	**Kurchatov Arra**	**43.12**	**315**	P	**P**	**02 50 37.6**	**-1.0**
	0.9nm,0.4s,baz=100,slow=9.0,SNR=5.6						
	0.9nm,0.4s						
WRA	**Warramunga Arr**	**48.71**	**172**	P	**P**	**02 51 23.9**	**+1.3**
	0.4nm,0.4s,baz=353,slow=7.8,SNR=3.6						
WRA				pP	**pP**	**02 52 01.4**	**+0.3**
	0.5nm,0.7s,baz=354,slow=8.0,SNR=3.2						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**52.34**	**173**	P	**P**	**02 51 51.0**	**+1.1**
	0.3nm,0.5s,baz=5.7,slow=10,SNR=4.2						
ASAR				pP	**pP**	**02 52 29.4**	**+0.6**
	0.4nm,0.7s,baz=8.6,slow=9.2,SNR=4.0						
	0.3nm,0.5s						
STKA	**Stephens Creek**	**61.56**	**167**	P	**P**	**02 52 54.3**	**-0.1**
	1.1nm,0.4s,baz=323,slow=9.4,SNR=3.3						
	1.1nm,0.4s						
ILAR	**Eielson Array**	**62.27**	**29**	P	**P**	**02 52 58.1**	**-0.7**
	0.5nm,0.6s,baz=286,slow=9.5,SNR=13						
	0.5nm,0.6s						
FINES	**FINESS Array B**	**70.74**	**330**	P	**P**	**02 53 50.9**	**-1.7**
	2.6nm,1.0s,baz=15,slow=7.9,SNR=4.1						
	2.6nm,1.0s						
BRTR	**Keskin Array B**	**75.55**	**307**	P	**P**	**02 54 21.6**	**+0.1**
	0.5nm,0.8s,baz=101,slow=6.2,SNR=2.7						
	0.5nm,0.8s						
YKA	**Yellowknife Ar**	**76.29**	**25**	P	**P**	**02 54 25.4**	**+0.4**
	2.1nm,0.8s,baz=306,slow=5.7,SNR=4.5						
	2.1nm,0.8s						
EKA	**Eskdalemuir Ar**	**86.56**	**335**	P	**P**	**02 55 18.0**	**-1.1**
	0.4nm,0.6s,baz=352,slow=5.5,SNR=1.7						
	0.4nm,0.6s						
PDAR	**Pinedale Array**	**91.23**	**39**	P	**P**	**02 55 42.4**	**+0.8**
	0.6nm,0.7s,baz=186,slow=0.4,SNR=6.5						
	0.6nm,0.7s						

*IDC **09** 02:49:28.8±4.9, 20˚.66S×69˚.91W, h0^{km}, mb4.0/3, mbtmp4.1/4, ML3.9/1, Error ellipse: s-maj=103.6km s-min=35.0km az=83.0*
*SJA **09** 02:49:51.5±0.8, 19˚.47S×69˚.13W, h125$^{km}_{\pm 3}$, ML3.3, MW3.5*
*GUC **09** 02:49:52.8±0.9, 19˚.42S×69˚.04W, h115$^{km}_{\pm 3}$, ML3.4, Presumed earthquake*
*VAO **09** 02:49:57.9±1.5, 19˚.16S×68˚.41W, h137$^{km}_{\pm 9}$, mb4.0, Presumed earthquake*

ISC 09 02:49:51.0±0.8, **19˚.46S**±0˚.03×**69˚.03W**±0˚.06, **h120**$^{km}_{\pm 6}$, **n48**, σ1**955**/77, **6C-1D**, **Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GO01	**Chusmiza**	**0.26**	**216**	*e*P	**Pn**	**02 50 09.4**	**+0.8**
GO01				*e*S	**Sn**	**02 50 16.0**	**-5.6**
GO01				IAML		02 50 23.1	
	comp=Z,670nm,0.5s						
GO01	**Chusmiza**	**0.26**	**216**	↑*i* P	**Pn**	**02 50 09.3**	**+0.8**
GO01				*i* S	**Sn**	**02 50 22.4**	**+0.7**
PB11	**IPOC Station P**	**0.66**	**243**	*e*P	**Pn**	**02 50 10.9**	**+0.6**
PB11				*e*S	**Sn**	**02 50 26.3**	**+1.5**
PB11				IAML		02 50 27.2	
	comp=Z,715nm,0.2s						
PB11	**IPOC Station P**	**0.66**	**243**	↑*i* P	**Pn**	**02 50 11.1**	**+0.8**
PB11				*i* S	**Sn**	**02 50 25.5**	**+0.7**
PB11				IAML		02 50 27.8	
	comp=N,2μm,0.1s						
PB08	**IPOC Station P**	**0.69**	**190**	*e*P	**Pn**	**02 50 12.2**	**+1.4**
PB08				*e*S	**Sn**	**02 50 27.4**	**+1.7**
PB08				IAML		02 50 30.4	
	comp=Z,713nm,0.3s						
PB08	**IPOC Station P**	**0.69**	**190**	↑*i* P	**Pn**	**02 50 12.2**	**+1.4**
PB08				*i* S	**Sn**	**02 50 27.1**	**+1.4**
PB08				IAML		02 50 28.3	
	comp=E,2μm,0.2s						
PSGCX	**Pisagua**	**1.04**	**262**	*e*P	**Pn**	**02 50 13.9**	**+0.4**
PSGCX				*e*S	**Sn**	**02 50 33.5**	**+2.9**
PSGCX				IAML		02 50 35.8	
	comp=Z,234nm,0.4s						
PSGCX	**Pisagua**	**1.04**	**262**	↑*i* P	**Pn**	**02 50 13.8**	**+0.3**
PSGCX				*i* S	**Sn**	**02 50 30.6**	**0.0**
PB16	**IPOC Station P**	**1.21**	**338**	*e*P	**Pn**	**02 50 17.3**	**+1.4**
PB16				*e*S	**Sn**	**02 50 36.5**	**+1.9**
PB16				IAML		02 50 37.8	
	comp=Z,427nm,0.5s						
PB16	**IPOC Station P**	**1.21**	**338**	↓*i* P	**Pn**	**02 50 17.1**	**+1.2**
PB16				*i* S	**Sn**	**02 50 35.4**	**+0.8**
PB16				IAML		02 50 36.8	
	comp=N,542nm,0.3s						
TA02	**Huaiquique**	**1.31**	**232**	*e*P	**Pn**	**02 50 17.3**	**+1.0**
TA02				IAML		02 50 38.2	
	comp=Z,496nm,0.1s						
TA02	**Huaiquique**	**1.31**	**232**	*e*P	**Pn**	**02 50 17.1**	**+0.7**
TA02				*i* S	**Sn**	**02 50 35.9**	**+0.3**
PB12	**IPOC Station P**	**1.49**	**304**	*e*P	**Pn**	**02 50 18.7**	**+0.2**
PB12				*e*S	**Sn**	**02 50 39.1**	**-0.1**
PB12				IAML		02 50 39.8	
	comp=Z,231nm,0.2s						
PB12	**IPOC Station P**	**1.49**	**304**	↑*i* P	**Pn**	**02 50 18.6**	**+0.2**
PB12				*i* S	**Sn**	**02 50 38.3**	**-1.0**
PB12				IAML		02 50 39.5	
	comp=E,472nm,0.6s						
TA01	**Diego Aracena**	**1.54**	**224**	*e*P	**Pn**	**02 50 19.7**	**+0.8**
TA01				*e*S	**Sn**	**02 50 40.9**	**+0.7**
TA01				IAML		02 50 41.2	
	comp=Z,185nm,0.3s						
TA01	**Diego Aracena**	**1.54**	**224**	↑*i* P	**Pn**	**02 50 19.7**	**+0.8**
TA01				*i* S	**Sn**	**02 50 40.2**	**0.0**
TA01				IAML		02 50 41.2	
	comp=E,537nm,0.3s						
AP01	**Chacalluta**	**1.65**	**311**	*e*P	**Pn**	**02 50 21.0**	**+0.8**
AP01				*e*S	**Sn**	**02 50 42.9**	**+0.5**
AP01				IAML		02 50 46.3	
	comp=Z,498nm,0.1s						
AP01	**Chacalluta**	**1.65**	**311**	*e*P	**Pn**	**02 50 20.8**	**+0.6**
AP01				*e*S	**Sn**	**02 50 41.9**	**-0.5**
AP01				IAML		02 50 44.9	
	comp=E,842nm,0.3s						
PB18	**Visviri**	**1.91**	**347**	*e*P	**Pn**	**02 50 27.2**	**+3.3**
PB18				*e*S	**Sn**	**02 50 50.2**	**+1.2**
PB02	**IPOC Station P**	**2.02**	**204**	*e*P	**Pn**	**02 50 26.2**	**+1.3**
PB02				*e*S	**Sn**	**02 50 51.4**	**+0.6**
PB02				IAML		02 51 01.3	
	comp=Z,446nm,0.2s						
PB02	**IPOC Station P**	**2.02**	**204**	*e*P	**Pn**	**02 50 26.1**	**+1.3**
PB02				*i* S	**Sn**	**02 50 50.6**	**-0.1**
PB09	**IPOC Station P**	**2.33**	**185**	*e*P	**Pn**	**02 50 30.7**	**+1.9**
PB09				*e*S	**Sn**	**02 51 00.7**	**+2.8**
PB09				IAML		02 51 04.1	
	comp=Z,136nm,0.9s						
PB09	**IPOC Station P**	**2.33**	**185**	*i* P	**Pn**	**02 50 30.8**	**+1.9**
PB09				*e*S	**Sn**	**02 50 60.0**	**+2.1**
PB09				IAML		02 51 05.3	
	comp=E,189nm,0.3s						
PB07	**IPOC Station P**	**2.39**	**199**	*e*P	**Pn**	**02 50 31.0**	**+1.4**
PB07				*e*S	**Sn**	**02 51 00.1**	**+0.9**
PB07				IAML		02 51 08.4	
	comp=Z,158nm,0.4s						
PB07	**IPOC Station P**	**2.39**	**199**	*e*P	**Pn**	**02 50 30.8**	**+1.2**
PB07				*e*S	**Sn**	**02 50 59.4**	**+0.1**
PB07				IAML		02 51 02.5	
	comp=E,238nm,0.2s						
PB03	**IPOC Station P**	**2.66**	**195**	*e*P	**Pn**	**02 50 35.0**	**+1.9**
PB03				*e*S	**Sn**	**02 51 05.4**	**0.0**
PB03				IAML		02 51 08.8	
	comp=Z,120nm,0.2s						
PB03	**IPOC Station P**	**2.66**	**195**	*e*P	**Pn**	**02 50 34.7**	**+1.6**
PB03				*e*S	**Sn**	**02 51 05.4**	**0.0**
PB03				IAML		02 51 11.5	
	comp=N,101nm,0.2s						
PB06	**IPOC Station P**	**3.27**	**189**	*e*P	**Pn**	**02 50 42.9**	**+1.9**
PB06				*e*S	**Sn**	**02 51 19.3**	**-0.3**
PB06				IAML		02 51 30.4	
	comp=Z,71nm,0.3s						
PB06	**IPOC Station P**	**3.27**	**189**	*e*P	**Pn**	**02 50 42.7**	**+1.6**
PB06				*e*S	**Sn**	**02 51 18.4**	**-1.2**
PB06				IAML		02 51 18.9	
	comp=E,98nm,0.4s						
LPAZ	**La Paz**	**3.27**	**15**	Pn	**Pn**	**02 50 43.9**	**+2.4**
	comp=E,3.5nm,0.3s,baz=196,slow=6.5,SNR=106						
	comp=E,15nm,0.6s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**3.27**	**15**	*e*P	**Pn**	**02 50 43.9**	**+2.4**
LPAZ	**La Paz**	**3.27**	**15**	*e*P	**Pn**	**02 50 43.1**	**+1.6**
PB05	**IPOC Station P**	**3.55**	**198**	*e*P	**Pn**	**02 50 45.8**	**+1.1**
PB05				*e*S	Sn	02 51 16.8	-9.4
PB05				IAML		02 51 39.3	
	comp=Z,34nm,0.6s						
PB10	**IPOC Station P**	**4.27**	**199**	*e*P	**Pn**	**02 50 55.0**	**+0.7**
PB10				*e*S	**Sn**	**02 51 39.9**	**-3.4**
PB10				IAML		02 52 06.3	
	comp=Z,23nm,1.9s						
BBSD	**Serra de San D**	**8.31**	**76**	*e*P	**Pn**	**02 51 46.8**	**-2.0**
PTLB	**Pontes e Lacer**	**10.25**	**69**	*e*P	**Pn**	**02 52 12.2**	**-2.8**
VILB	**Vilhena**	**10.67**	**54**	*e*P	**Pn**	**02 52 19.6**	**-1.1**
ITAB	**Concordia**	**17.33**	**120**	*e*P	**P**	**02 53 47.0**	**+1.9**
NPGB	**Novo Progresso**	**18.13**	**49**	*e*P	**P**	**02 53 52.8**	**-1.3**
SNDB	**Serra Nova Dou**	**18.62**	**69**	*e*P	**P**	**02 53 57.8**	**-1.5**
BB19B	**Bebedouro**	**19.30**	**98**	*e*P	**P**	**02 54 06.6**	**-0.2**
IPMB	**Ipameri, GO**	**19.77**	**89**	*e*P	**P**	**02 54 11.6**	**-0.3**
ITTB	**Itaituba**	**19.83**	**43**	*e*P	**P**	**02 54 11.1**	**-1.4**
BDFB	**Brasilia**	**20.39**	**83**	P	**P**	**02 54 18.4**	**-0.3**
	comp=Z,0.8nm,0.3s,baz=240,slow=11,SNR=3.4						
	comp=Z,0.8nm,0.3s						
PMNB	**Patos De Minas**	**21.38**	**91**	*e*P	**P**	**02 54 27.8**	**-1.5**
CMC01	**Camacan, BA**	**28.44**	**86**	*e*P	**P**	**02 55 35.0**	**+0.3**
DBIC	**Dimbokro**	**68.28**	**74**	P	**P**	**03 00 39.4**	**-0.1**
	comp=Z,3.5nm,0.6s,baz=256,slow=6.0,SNR=7.3						
	comp=Z,3.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**76.79**	**71**	P	**P**	**03 01 29.3**	**-0.7**
	comp=Z,0.7nm,0.5s,baz=254,slow=4.9,SNR=12						
	comp=Z,0.7nm,0.5s						

*IDC **09** 03:18:09.4±1.5, 14˚.97N×104˚.81W, h0^{km}, mb3.6/5, mbtmp3.7/9, ML3.3/4, MS3.7/38, Error ellipse: s-maj=38.8km s-min=17.9km az=54.0*
*NEIC **09** 03:18:20.7±1.9, 15˚.7N±0˚.1×103˚.6W±0˚.1, h10$^{km}_{\pm 2}$, mb4.5/80, Md4.2/15(MEX), Error ellipse: s-maj=20.9km s-min=14.5km az=223.0*
*MEX **09** 03:18:25.9±0.4, 16˚.08N×103˚.44W, h10^{km}, MD4.3, Presumed earthquake*

ISC 09 03:18:19.9±1.2, **15˚.80N**±0˚.10×**103˚.68W**±0˚.09, **h10**^{km}, **n143**, σ2**911**/99, **mb4.5**/25, **MS3.7**/34, **Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMIG	**Aquila**	**2.50**	**7**	*e*P	**Pn**	**03 18 59.4**	**-1.3**
MMIG				*e*S	**Sn**	**03 19 25.4**	**-5.8**
ZIIG	**Zihuatanejo**	**2.78**	**49**		**Pn**	**03 19 05.9**	**+1.4**
ZIIG	**Zihuatanejo**	**2.78**	**49**	*e*P	**Pn**	**03 19 05.9**	**+1.4**
CAIG	**El Cayaco**	**3.50**	**69**		**Pn**	**03 19 13.4**	**-1.0**
CAIG	**El Cayaco**	**3.50**	**69**	*e*P	**Pn**	**03 19 13.4**	**-1.0**
CAIG				*e*S	**Sn**	**03 19 50.4**	**-5.6**
CEGR	**Campo Tres**	**3.58**	**357**	*e*P	**Pn**	**03 19 14.5**	**-1.2**
CEGR				*e*S	**Sn**	**03 19 52.3**	**-5.9**
INCO	**Volcan de Coli**	**3.71**	**1**	*e*P	**Pn**	**03 19 17.9**	**+0.2**
INCO				*e*S	**Sn**	**03 20 02.5**	**+0.8**
ARIG	**Puente Sto Nin**	**4.03**	**52**	*e*P	**Pn**	**03 19 24.3**	**+2.5**
MEIG	**Mezcala**	**4.42**	**61**	*e*P	**Pn**	**03 19 30.0**	**+2.8**
CRIG	**Cruz Grande**	**4.46**	**77**		**Pn**	**03 19 27.8**	**+0.1**
CRIG	**Cruz Grande**	**4.46**	**77**	*e*P	**Pn**	**03 19 27.8**	**+0.1**
MOIG	**Morelia**	**4.53**	**31**		**Pn**	**03 19 29.8**	**+1.0**
MOIG	**Morelia**	**4.53**	**31**	*e*P	**Pn**	**03 19 32.1**	**+3.2**
ESTA	**Talpa de Allen**	**4.71**	**346**	*e*P	**Pn**	**03 19 30.0**	**-1.2**
PLIG	**Platanillo**	**4.75**	**57**	*e*P	**Pn**	**03 19 34.9**	**+3.1**
TLIG	**Tlapa**	**5.20**	**70**	Pn	**Pn**	**03 19 39.4**	**+1.4**
TLIG	**Tlapa**	**5.20**	**70**	*e*P	**Pn**	**03 19 40.7**	**+2.7**
YAIG	**Yautepec**	**5.36**	**55**	*e*P	**Pn**	**03 19 42.9**	**+2.8**
UNM	**Universidad Na**	**5.54**	**50**	Pn	**Pn**	**03 19 44.9**	**+2.0**
FTIG	**Fresnillo de T**	**5.71**	**68**	*e*P	**Pn**	**03 19 46.5**	**+1.5**
PPCL	**Tochimilco**	**5.74**	**57**	*e*P	**Pn**	**03 19 48.3**	**+2.8**
PBXN	**Popocatepetl**	**5.76**	**56**	*e*P	**Pn**	**03 19 47.0**	**+1.0**
PPPT	**Popocatepetl**	**5.77**	**56**	*i* P	**Pn**	**03 19 48.5**	**+2.4**
PPCU	**Popocatapetl**	**5.78**	**56**	*e*P	**Pn**	**03 19 47.3**	**+1.0**
PBPN	**Popocatepetl**	**5.80**	**55**	*e*P	**Pn**	**03 19 47.1**	**+0.5**
PPM	**Popocatepetl**	**5.81**	**55**	*e*P	**Pn**	**03 19 49.7**	**+3.0**
TXIG	**Tlaxiaco**	**5.85**	**75**	*e*P	**Pn**	**03 19 46.9**	**-0.2**
HLIG	**Huajuapan de L**	**5.98**	**69**	*e*P	**Pn**	**03 19 50.0**	**+1.3**
YOIG	**Yosondua**	**5.98**	**79**	*e*P	**Pn**	**03 19 49.2**	**+0.4**
DEIG	**Demacu**	**6.29**	**44**	*e*P	**Pn**	**03 19 56.0**	**+2.9**
RPIG	**Rio Verde**	**6.99**	**29**	*e*P	**Pn**	**03 20 06.9**	**+4.3**
ZAIG	**Zacatecas**	**7.01**	**8**	Pn	**Pn**	**03 20 05.8**	**+2.7**
ZAIG	**Zacatecas**	**7.01**	**8**	*e*P	**Pn**	**03 20 06.2**	**+3.1**
CXUV	**Coxquihui**	**7.25**	**52**	*e*P	**Pn**	**03 20 07.8**	**+1.9**
H06S1	**SOCORRO T**	**7.54**	**294**	T	T	03 27 16.7	
	SNR=12						
CTUV	**Llano Grande**	**7.57**	**41**	*e*P	**Pn**	**03 20 07.9**	**-2.5**
GTIG	**Gomez Farias**	**8.39**	**30**	*e*P	**Pn**	**03 20 25.8**	**+4.1**
CMIG	**Matias Romero**	**8.53**	**80**	Pn	Pn	03 20 32.6	+9.0
	0.2nm,0.3s,baz=279,slow=16,SNR=2.1						
CMIG				LR	LR	03 23 39.0	
	comp=Z,306nm,19.1s,baz=262,slow=34						
	1.7nm,0.8s						
CMIG				AML	AML		
HPIG		**11.24**	**351**	Pn	**Pn**	**03 21 02.6**	**+1.8**
APG	**El Apazote**	**12.77**	**92**	LR	LR	03 25 48.2	
	comp=Z,15nm,18.5s,baz=261,slow=33						
833A	**Chaparral WMA,**	**13.08**	**17**	Pn	**Pn**	**03 21 27.8**	**+1.9**
TX31	**Lajitas Ar. Si**	**13.47**	**0**	Pn	**Pn**	**03 21 33.8**	**+2.4**
TXAR	**Lajitas Array**	**13.47**	**0**	Pn	**Pn**	**03 21 34.3**	**+3.0**
	baz=184,slow=12,SNR=18						
TXAR				LR	LR	03 26 54.2	
	comp=Z,476nm,18.3s,baz=176,slow=37						
	2.8nm,1.1s						
SAND	**Sanderson**	**14.16**	**6**	Pn	**Pn**	**03 21 41.6**	**+0.8**
HNDO	**Hondo**	**14.26**	**16**	Pn	**Pn**	**03 21 42.7**	**+0.8**
ALPN	**Alpine**	**14.51**	**0**	Pn	**Pn**	**03 21 47.2**	**+1.6**
VHRN	**Van Horn**	**14.97**	**356**	P	**P**	**03 21 57.9**	**+0.5**
JCT	**Junction City**	**15.

	comp=Z,20nm,1.1s							
ISCO	**Idaho Springs**	**23.98**	**356**	P	**P**	**03 23 37.9**	**+3.0**
PBMO	**Poplar Bluff**	**23.99**	**27**	P	**P**	**03 23 35.6**	**+0.9**
PBMO				IAmb	IAmb	03 23 37.4	
	comp=Z,18nm,1.1s						
R40A	**Maddies Statio**	**24.56**	**22**	IAmb	IAmb	03 23 42.5	
	comp=Z,16nm,1.2s						
FPAL	**Fort Paine**	**24.74**	**38**	P	**P**	**03 23 43.7**	**+2.0**
OGNE	**Ogallala**	**25.10**	**3**	P	**P**	**03 23 48.6**	**+3.7**
OGNE				IAmb	IAmb	03 23 57.3	
	comp=Z,22nm,1.4s						
BGNE	**Belgrade**	**25.97**	**10**	P	**P**	**03 23 53.5**	**+0.8**
NVAR	**Mina Array Bea**	**25.97**	**333**	P	**P**	**03 23 47.1**	**-5.9**
	comp=Z,0.8nm,1.1s,baz=134,slow=6.4,SNR=4.4						
NVAR				LR	LR	03 32 14.9	
	comp=Z,103nm,20.1s,baz=88,slow=32						
	comp=Z,0.8nm,1.1s						
TKL	**Tuckaleechee C**	**26.60**	**38**	LR	LR	03 35 27.2	
	comp=Z,79nm,19.7s,baz=212,slow=37						
HVU	**Hansel Valley**	**27.06**	**345**	P	**P**	**03 24 04.6**	**+1.9**
PDAR	**Pinedale Array**	**27.35**	**351**	P	**P**	**03 24 01.6**	**-3.8**
	comp=Z,0.3nm,0.8s,baz=150,slow=6.2,SNR=3.5						
PDAR				LR	LR	03 36 20.3	
	comp=Z,111nm,20.1s,baz=163,slow=39						
	comp=Z,0.3nm,0.8s						
HDIL	**Hopedale**	**27.66**	**24**	P	**P**	**03 24 07.3**	**-0.7**
ROSC	**El Rosal**	**30.82**	**108**	LR	LR	03 34 40.9	
	comp=Z,81nm,18.3s,baz=270,slow=31						
M50A	**Fremont**	**31.13**	**31**	P	**P**	**03 24 38.7**	**0.0**
RUSC	**La Rusia**	**31.57**	**105**	P	**P**	**03 24 43.4**	**-0.2**
K50A	**Casco**	**32.37**	**30**	P	**P**	**03 24 49.1**	**-0.6**
ATAH	**Atahualpa**	**33.85**	**130**	LR	LR	03 35 40.2	
	comp=Z,182nm,21.1s,baz=307,slow=31						
NEW	**Newport**	**34.22**	**344**	LR	LR	03 37 56.2	
	comp=Z,68nm,18.8s,baz=158,slow=34						
ULM	**Lac du Bonnet**	**34.94**	**9**	LR	LR	03 39 05.7	
	comp=Z,148nm,20.2s,baz=170,slow=35						
SADO	**Sadowa**	**35.54**	**31**	LR	LR	03 41 14.8	
	comp=Z,121nm,19.1s,baz=253,slow=38						
ODNJ	**Ogdensburg**	**35.59**	**39**	P	**P**	**03 25 17.3**	**-0.4**
ODNJ				IAmb	IAmb	03 25 19.0	
	comp=Z,8.2nm,0.8s						
SJG	**San Juan**	**35.93**	**81**	LR	LR	03 42 19.5	
	comp=Z,22nm,18.1s,baz=293,slow=39						
CFNY	**Clifton-Fine,**	**37.25**	**35**	P	**P**	**03 25 32.3**	**+0.5**
CFNY				IAmb	IAmb	03 25 33.0	
	comp=Z,13nm,1.2s						
M63A	**Gales Ferry**	**37.36**	**41**	P	**P**	**03 25 32.5**	**-0.2**
M63A				IAmb	IAmb	03 25 34.8	
	comp=Z,14nm,1.1s						
NNA	**Nana**	**38.30**	**135**	LR	LR	03 38 03.8	
	comp=Z,85nm,19.9s,baz=316,slow=31						
I62A	**Tamworth**	**39.19**	**38**	P	**P**	**03 25 49.2**	**+1.1**
I62A				IAmb	IAmb	03 26 15.5	
	comp=Z,13nm,1.3s						
G62A	**West of Eustis**	**40.44**	**37**	P	**P**	**03 25 59.5**	**+1.0**
G62A				IAmb	IAmb	03 26 36.4	
	comp=Z,11nm,1.4s						
LMQ	**La Malbaie**	**41.95**	**34**	P	**P**	**03 26 09.6**	**-1.3**
LMQ				IAmb	IAmb	03 26 11.8	
	comp=Z,12nm,1.1s						
RPN	**Rapa Nui**	**43.02**	**187**	LR	LR	03 39 23.8	
	comp=Z,104nm,21.8s,baz=1.0,slow=30						
TAOE	**Nuku Hiva Isla**	**43.64**	**238**	*e*LR	LR	03 37 31.5	
	comp=Z,161nm,25.4s						
DLBC	**Dease Lake**	**46.86**	**341**	LR	LR	03 45 19.8	
	comp=Z,57nm,19.9s,baz=269,slow=34						
LPAZ	**La Paz**	**47.40**	**131**	P	P	03 26 49.5	-6.1
	comp=Z,1.6nm,1.1s,baz=290,slow=4.1,SNR=4.0						
LPAZ				LR	LR	03 44 20.8	
	comp=Z,126nm,19.9s,baz=304,slow=33						
	comp=Z,1.6nm,1.1s						
SCHQ	**Schefferville**	**48.21**	**28**	LR	LR	03 48 23.5	
	comp=Z,110nm,18.1s,baz=221,slow=37						
FRB	**Frobisher Bay**	**53.67**	**19**	LR	LR	03 49 14.1	
	comp=Z,108nm,18.3s,baz=216,slow=34						
PPT	**Papeete**	**56.09**	**236**	LR	LR	03 46 30.1	
	comp=Z,41nm,18.4s,baz=78,slow=31						
PPT2	**Papeete2**	**56.10**	**236**	*e*LR	LR	03 43 25.2	
	comp=Z,142nm,29.5s						
PPT2				*e*LR	LR	03 43 32.5	
	comp=Z,82nm,22.2s						
IL31		**56.97**	**340**	P	**P**	**03 28 06.5**	**+1.2**
IL31				IAmb	IAmb	03 28 29.1	
	comp=Z,6.5nm,1.5s						
ILAR	**Eielson Array**	**56.97**	**340**	P	P	03 27 58.8	-6.5
	comp=Z,0.9nm,0.9s,baz=152,slow=5.4,SNR=5.5						
	comp=Z,0.9nm,0.9s						
ILAR	**Eielson Array**	**56.97**	**340**	P	**P**	**03 28 06.0**	**+0.7**
SKT	**Skwentna**	**57.08**	**335**	P	**P**	**03 28 08.3**	**+2.1**
SKT				IAmb	IAmb	03 28 28.3	
	comp=Z,6.5nm,1.3s						
RES	**Resolute Bay**	**59.09**	**3**	LR	LR	03 55 02.6	
	comp=Z,152nm,18.6s,baz=144,slow=37						
CPUP	**Villa Florida**	**61.51**	**132**	P	P	03 28 29.8	-7.5
	comp=Z,2.2nm,1.1s,baz=355,slow=8.4,SNR=3.5						
CPUP				LR	LR	03 54 18.0	
	comp=Z,38nm,19.1s,baz=258,slow=35						
	comp=Z,2.2nm,1.1s						
SFJD	**Kangerlussuaq**	**61.56**	**21**	LR	LR	03 56 29.6	
	comp=Z,138nm,18.0s,baz=182,slow=37						
PLCA	**Paso Flores**	**64.10**	**153**	LR	LR	03 50 38.4	
	comp=Z,67nm,21.0s,baz=279,slow=30						
BORG	**Borgarnes**	**72.58**	**26**	LR	LR	04 03 49.0	
	comp=Z,34nm,19.1s,baz=305,slow=37						
AFI	**Afiamalu**	**73.53**	**250**	LR	LR	03 52 16.6	
	comp=Z,20nm,21.8s,baz=234,slow=28						
SPITS	**Spitsbergen Ar**	**80.48**	**10**	LR	LR	04 09 04.9	
	comp=Z,56nm,18.8s,baz=270,slow=38						
EKA	**Eskdalemuir Ar**	**83.02**	**34**	LR	LR	04 07 43.0	
	comp=Z,29nm,19.5s,baz=284,slow=35						
H11S1	**WAKE ISLAND Hy**	**84.76**	**288**	T	T	05 03 32.0	
	baz=77,slow=75,SNR=7.0						
H11S2	**WAKE ISLAND Hy**	**84.76**	**288**	T	T	05 03 27.4	
	baz=77,slow=75,SNR=5.9						
H11S3	**WAKE ISLAND Hy**	**84.77**	**288**	T	T	05 03 32.3	
	baz=77,slow=75,SNR=7.7						
TIXI	**Tiksi**	**85.92**	**345**	LR	LR	04 12 57.3	
	comp=Z,61nm,18.2s,baz=12,slow=38						
ARCES	**ARCESS Array B**	**87.75**	**16**	LR	LR	04 12 34.2	
	comp=Z,56nm,18.8s,baz=340,slow=37						
NOA	**NORSAR Array B**	**87.76**	**26**	LR	LR	04 11 14.0	
	comp=Z,28nm,19.0s,baz=285,slow=36						
HFS	**Hagfors**	**89.27**	**26**	LR	LR	04 12 19.5	
	comp=Z,35nm,18.3s,baz=300,slow=36						
URZ	**Urewera**	**91.43**	**231**	LR	LR	04 01 49.9	
	comp=Z,48nm,20.0s,baz=284,slow=29						
FINES	**FINESS Array B**	**93.36**	**22**	LR	LR	04 12 52.9	
	comp=Z,77nm,18.7s,baz=302,slow=35						
DAVOX	**Davos/Dischmat**	**93.89**	**39**	LR	LR	04 14 55.7	
	comp=Z,52nm,19.4s,baz=268,slow=36						
NRIK	**Noril'sk**	**94.72**	**356**	LR	LR	04 17 34.0	
	comp=Z,47nm,18.6s,baz=13,slow=37						
GERES	**GERESS Array B**	**95.13**	**36**	LR	LR	04 16 10.2	
	comp=Z,38nm,18.5s,baz=26,slow=36						

*NNC **09** 03:18:49.2±4.3,36°.56N×70°.85E,h111^{km}±74^{km},mb3.5, mpv4.2,Error ellipse: s-maj=35.1km s-min=28.0km az=44.0*

ISC 09 03:18:48.4±3.4,36°.5N±0°.2×70°.9E±0°.1,h100^{km},n9, σ1º25/13,5C-3D,Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UCH	**Uchtor**	**6.36**	**25**	P	**Pn**	**03 20 19.7**	**-0.2**
	SNR=11						
EKS2	**Erkin-Say**	**6.53**	**19**	P	**Pn**	**03 20 22.4**	**+0.4**
	SNR=27						
KK31	**Karatay Array**	**6.57**	**358**	⇓P	**Pn**	**03 20 23.3**	**+0.8**
	25nm,0.5s,baz=177,slow=12,SNR=221						
KK31				⇑S	**Sn**	**03 21 37.5**	**+1.7**
	3.4nm,0.5s,baz=185,slow=24,SNR=7.1						
AAK	**Ala-Archa**	**6.72**	**24**	P	**Pn**	**03 20 23.9**	**-0.6**
	SNR=6.5						
AAK	**Ala-Archa**	**6.72**	**24**	⇑P	**Pn**	**03 20 24.3**	**-0.2**
	3.5nm,0.5s						
AAK				⇓S	**Sn**	**03 21 39.9**	**+0.3**
	1.8nm,0.6s						
USP	**Ospenovka**	**7.29**	**22**	P	**Pn**	**03 20 32.3**	**+0.1**
	SNR=7.8						
TKM2	**Tokmak 2**	**7.36**	**28**	P	**Pn**	**03 20 32.9**	**-0.4**
	SNR=5.6						
AB31	**Akbulak array**	**15.00**	**331**	⇑P	**Pn**	**03 22 15.1**	**+0.1**
	2.3nm,0.7s,baz=132,slow=12,SNR=50						
AB31				⇑S	**Sn**	**03 24 57.1**	**-3.2**
	0.9nm,0.6s,baz=156,slow=23,SNR=5.8						
AKTO	**Aktyubinsk**	**16.69**	**330**	⇑P	**Pn**	**03 22 36.9**	**+0.8**
	2.7nm,1.0s						
AKTO				⇓S	**Sn**	**03 25 41.6**	**+0.4**
	2.2nm,1.1s						

*NEIC **09** 03:24:10.9±1.3,5°.7N±0°.1×125°.6E±0°.2,h132^{km}±9^{km}, mb4.0/15,Error ellipse: s-maj=23.3km s-min=14.1km az=73.0*
*IDC **09** 03:24:12.4±0.9,5°.80N×125°.60E,h154^{km}±8^{km},mb3.5/10, mbtmp3.9/10,MS3.5/2,Error ellipse: s-maj=47.4km s-min=12.4km az=78.0*
*MAN **09** 03:24:12.0,5°.67N×125°.79E,h122^{km},MS3.4*
*DJA **09** 03:24:19.3±0.6,5°.N±5°×12°.6E±°,h149^{km}±13^{km},M4.5/13, mB5.2/6,mb4.4/7,MLv4.6/13,Mw(mB)4.5/6,MwMwp4.4/1, Mwp4.8/1*

ISC 09 03:24:10.5±0.7,5°.57N±0°.04×125°.77E±0°.07,h139^{km}±6^{km}, n55,σ1º90/66,mb4.0/20,Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**0.53**	**354**	*e*P	**Pn**	**03 24 30.8**	**+0.1**
DDMP				*e*S	**Sn**	**03 24 46.2**	**0.0**
GSPH	**General Santos**	**0.96**	**302**	*i* P	**Pn**	**03 24 33.9**	**-0.1**
GSPH				*i* S	**Sn**	**03 24 49.7**	**-2.2**
DAV	**Davao City (W)**	**1.50**	**353**	P	**Pn**	**03 24 41.0**	**+1.7**
	665nm,0.4s,baz=250,slow=5.9,SNR=4.1						
DAV				S	**Sn**	**03 25 00.9**	**-0.3**
	493nm,0.3s,baz=331,slow=23,SNR=6.0						
DMPH	**Davao City--Mi**	**1.52**	**350**	*e*P	**Pn**	**03 24 41.4**	**+1.8**
DMPH				*i* S	**Sn**	**03 25 01.8**	**0.0**
KCP	**Kidapawan**	**1.58**	**335**	*e*P	Pn	03 24 24.7	-16
CTBH	**Cotabato--PC H**	**2.23**	**317**	*i* P	**Pn**	**03 24 50.8**	**+3.0**
CDOP	**Cateel, Davao**	**2.30**	**17**	*i* P	**Pn**	**03 24 49.2**	**+0.7**
CDOP				*i* S	**Sn**	**03 25 17.3**	**-0.6**
BUKP	**Musuan**	**2.40**	**343**	*e*P	**Pn**	**03 24 50.0**	**+0.1**
BUKP				*e*S	**Sn**	**03 25 22.0**	**+1.8**
BIPH	**Bislig**	**2.66**	**13**	*e*P	**Pn**	**03 24 54.6**	**+1.4**
BIPH				*e*S	**Sn**	**03 25 25.4**	**-0.6**
CGP	**Cagayan de Oro**	**3.06**	**340**	*e*P	**Pn**	**03 24 59.8**	**+1.6**
CGP				*e*S	**Sn**	**03 25 37.0**	**+2.0**
TSSP	**Tandag City**	**3.48**	**7**	*e*P	**Pn**	**03 25 04.4**	**+0.8**
TSSP				*e*S	**Sn**	**03 25 41.5**	**-3.2**
MNI	**Manado**	**4.20**	**193**	P	**Pn**	**03 25 14.5**	**+1.3**
MNI				AML	AML		
GAMI	**Galela, Maluku**	**4.22**	**151**	P	**Pn**	**03 25 14.3**	**+0.9**
GAMI				S	**Sn**	**03 26 00.1**	**-2.2**
GAMI				AML	AML		
TNTI	**Ternate**	**5.03**	**161**		**Pn**	**03 25 25.6**	**+1.4**
TNTI	**Ternate**	**5.03**	**161**	P	**Pn**	**03 25 25.8**	**+1.7**
TNTI				AML	AML		
KMSI	**Cibinong**	**5.28**	**200**	P	**Pn**	**03 25 29.6**	**+2.2**
KMSI				S	**Sn**	**03 26 24.4**	**-3.0**
KMSI				AML	AML		
PLP	**Palo**	**5.61**	**352**	*e*P	**Pn**	**03 25 32.2**	**+0.3**
GTOI	**Gorontalo**	**5.62**	**209**	P	**Pn**	**03 25 34.4**	**+2.3**
	0.2nm36nm,0.6s						
GTOI				S	**Sn**	**03 26 33.7**	**-2.1**
	0.2nm36nm,0.6s						
GTOI				AML	AML		
TOLI2	**Tolitoli**	**6.67**	**229**	Pn	**Pn**	**03 25 45.7**	**-0.4**
SANI	**Sanana**	**7.57**	**178**	P	**Pn**	**03 25 57.0**	**-1.3**
	3µm71nm,0.7s						
SANI				S	**Sn**	**03 27 17.1**	**-5.7**
	3µm71nm,0.7s						
APSI	**Ampana**	**7.64**	**213**	P	**Pn**	**03 26 02.4**	**+3.2**
	0.3nm17nm,0.4s						
APSI				AML	AML		
NLAI	**Namlea**	**8.85**	**171**	P	**Pn**	**03 26 16.6**	**+1.2**
TPUB	**Ta-pu**	**18.31**	**345**	P	**P**	**03 28 12.6**	**-1.5**
FITZ	**Fitzroy Crossi**	**23.52**	**180**	P	**P**	**03 29 10.2**	**+2.1**
	2.4nm,0.3s,baz=3.8,slow=7.8,SNR=25						
	2.4nm,0.3s						
FITZ	**Fitzroy Crossi**	**23.52**	**180**	P	**P**	**03 29 10.4**	**+2.3**
WB0	**Warramunga Arr**	**26.57**	**162**	P	**P**	**03 29 38.4**	**+2.6**
WB0				IAmb	IAmb	03 30 15.7	
	comp=Z,4.2nm,1.1s						
WRA	**Warramunga Arr**	**26.72**	**162**	P	**P**	**03 29 39.8**	**+2.7**
	comp=Z,0.1nm,0.3s,baz=340,slow=9.2,SNR=5.0						
	comp=Z,0.1nm,0.3s						
WRA	**Warramunga Arr**	**26.72**	**162**	P	**P**	**03 29 39.8**	**+2.7**
WR8	**Warramunga Arr**	**26.78**	**162**	P	**P**	**03 29 41.9**	**+4.2**
WR8				IAmb	IAmb	03 30 11.9	
	comp=Z,3.1nm,0.9s						
ASAR	**Alice Springs**	**30.12**	**165**	P	**P**	**03 30 10.5**	**+3.1**
	comp=Z,0.2nm,0.4s,baz=343,slow=7.0,SNR=6.1						
	comp=Z,0.2nm,0.4s						
KSRS	**Korea Array**	**31.80**	**3**	P	**P**	**03 30 20.6**	**-1.3**
	comp=Z,1.9nm,0.6s,baz=187,slow=10,SNR=6.8						
	comp=Z,1.9nm,0.6s						
FORT	**Forrest**	**36.21**	**177**	P	**P**	**03 31 00.6**	**+0.6**
NWAO	**Narrogin (SRO)**	**39.13**	**191**	P	**P**	**03 31 25.7**	**+1.1**
BBOO	**Buckleboo**	**39.40**	**166**	P	**P**	**03 31 28.7**	**+1.9**
BBOO				IAmb	IAmb	03 32 06.7	
	comp=Z,3.4nm,1.0s						
STKA	**Stephens Creek**	**40.18**	**159**	P	**P**	**03 31 36.0**	**+2.7**
	comp=Z,1.0nm,0.4s,baz=325,slow=16,SNR=1.9						
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**55.51**	**325**	P	**P**	**03 33 30.1**	**-1.1**
	comp=Z,0.6nm,0.5s,baz=112,slow=7.3,SNR=4.2						
	comp=Z,0.6nm,0.5s						
KURBB	**Kurchatov Arra**	**59.68**	**327**	P	**P**	**03 33 58.0**	**-2.3**
	comp=Z,0.4nm,0.3s,baz=117,slow=7.1,SNR=4.4						
KURBB				LR	LR	04 00 02.8	
	comp=Z,56nm,19.5s,baz=166,slow=36						
	comp=Z,0.4nm,0.3s						
KKAR	**Karatay Array**	**61.24**	**317**	P	**P**	**03 34 10.1**	**-0.9**
AB31	**Akbulak array**	**70.13**	**321**	P	**P**	**03 35 06.4**	**-1.5**
ABKAR	**Akbulak array**	**70.13**	**321**	P	**P**	**03 35 06.4**	**-1.5**
C18K	**Utukok River**	**78.69**	**21**	P	**P**	**03 35 57.4**	**+0.3**
C18K				IAmb	IAmb	03 36 41.4	
	comp=Z,4.8nm,1.0s						
D19K	**Kuna River**	**79.76**	**21**	P	**P**	**03 36 03.6**	**+0.7**
D19K				IAmb	IAmb	03 36 43.6	
	comp=Z,4.0nm,1.1s						
IMAR	**Indian Mountai**	**81.06**	**24**	P	**P**	**03 36 11.0**	**+1.1**
E21K	**Killik River**	**81.27**	**22**	P	**P**	**03 36 11.8**	**+0.8**
E21K				IAmb	IAmb	03 36 32.0	
	comp=Z,1.9nm,1.1s						
I23K	**Minto, Yukon-K**	**82.82**	**25**	P	**P**	**03 36 19.7**	**+0.7**
I23K				IAmb	IAmb	03 36 30.8	
	comp=Z,3.6nm,1.2s						
D24K	**Happy Valley**	**83.19**	**21**	P	**P**	**03 36 22.3**	**+1.4**
D24K				IAmb	IAmb	03 36 44.0	
	comp=Z,2.9nm,1.2s						
ILAR	**Eielson Array**	**83.86**	**26**	P	**P**	**03 36 23.6**	**-0.9**
	comp=Z,0.3nm,0.6s,baz=248,slow=5.8,SNR=6.6						
	comp=Z,0.3nm,0.6s						
D25K	**Kavik River**	**84.07**	**21**	P	**P**	**03 36 26.0**	**+0.6**
D25K				IAmb	IAmb	03 37 01.6	
	comp=Z,2.7nm,1.2s						
BMAR	**Burnt Mountain**	**84.76**	**23**	P	**P**	**03 36 30.1**	**+1.2**
BCAR	**Beaver Creek A**	**86.19**	**27**	P	**P**	**03 36 36.8**	**+0.7**
G29M	**Pine Creek**	**87.35**	**23**	P	**P**	**03 36 42.1**	**+0.5**
BRTR	**Keskin Array B**	**88.12**	**310**	LR	LR	04 21 56.7	
	comp=Z,17nm,19.9s,baz=298,slow=39						
ARCES	**ARCESS Array B**	**88.40**	**340**	P	**P**	**03 36 45.8**	**-0.8**
	comp=Z,4.0nm,1.1s,baz=73,slow=5.4,SNR=3.9						
	comp=Z,4.0nm,1.1s						
SPITS	**Spitsbergen Ar**	**88.50**	**349**	P	**P**	**03 36 45.9**	**-1.0**
	comp=Z,17nm,1.2s,baz=75,slow=13,SNR=1.7						
FINES	**FINESS Array B**	**89.77**	**332**	P	**P**	**03 36 51.3**	**-1.7**
	comp=Z,1.7nm,0.8s,baz=90,slow=5.7,SNR=6.2						
	comp=Z,1.7nm,0.8s						

*IDC **09** 03:33:42.2±0.6,0°.53S×122°.22E,h0^{km},mb4.0/12, mbtmp4.0/15,ML4.1/3,MS3.5/7,Error ellipse: s-maj=19.8km s-min=12.7km az=77.0*
*DJA **09** 03:33:45.3±0.1,1°.S±1°×12°.2E±°,h10^{km},M4.6/43, mB5.1/10,mb4.9/12,MLv4.6/43,Mw(mB)4.4/10*
*NEIC **09** 03:33:46.7±1.0,0°.61S±0°.07×122°.18E±0°.07,h24^{km}±5^{km}, mb4.0/11,Error ellipse: s-maj=12.3km s-min=7.9km az=45.0*

ISC 09 03:33:44.4±0.5,0°.55S±0°.04×122°.11E±0°.04,h10^{km},n60, σ1º02/61,mb4.1/16,MS3.4/4,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APSI	**Ampana**	**0.58**	**232**	P	**Pg**	**03 33 56.8**	**+1.1**
APSI				AML	AML		
LUWI	**Luwuk**	**0.82**	**126**	Pn	**Pb**	**03 34 01.1**	**+0.4**
LUWI				S	**Sb**	**03 34 12.6**	**+0.7**
LUWI				AML	AML		
GTOI	**Gorontalo**	**1.48**	**37**	P	**Pn**	**03 34 10.8**	**-0.3**
GTOI				S	**Sb**	**03 34 31.8**	**+0.8**
GTOI				AML	AML		
TOLI2	**Tolitoli**	**2.12**	**321**	Pn	**Pn**	**03 34 21.2**	**+1.3**
KMSI	**Cibinong**	**2.18**	**59**	P	**Pn**	**03 34 21.9**	**+1.2**
KMSI				AML	AML		
PCI	**Palu**	**2.30**	**261**	P	**Pn**	**03 34 23.9**	**+1.5**
PCI				S	**Sb**	**03 34 54.2**	**-0.4**
PCI				AML	AML		
MPSI	**Mapaga**	**2.38**	**292**	P	**Pn**	**03 34 23.7**	**+0.2**
MNI	**Manado**	**3.37**	**54**	P	**Pn**	**03 34 38.2**	**+1.0**
MNI				AML	AML		
TTSI	**Tana Toraja**	**3.37**	**223**	P	**Pn**	**03 34 38.5**	**+1.3**
TTSI				AML	AML		
KDI	**Kendari**	**3.42**	**171**	P	**Pn**	**03 34 39.0**	**+1.2**
KDI				AML	AML		
KKSI	**Kolaka, Sulawe**	**3.63**	**187**	P	**Pn**	**03 34 41.5**	**+0.9**
KKSI				S	**Sn**	**03 35 24.0**	**+0.5**
KKSI				AML	AML		
MMSI	**Mamuju**	**3.84**	**236**	P	**Pn**	**03 34 45.1**	**+1.5**
MMSI				AML	AML		
SPSI	**Sidrap Palu**	**4.12**	**215**	P	**Pn**	**03 34 48.5**	**+1.1**
SPSI				AML	AML		
SANI	**Sanana**	**4.15**	**111**	P	**Pn**	**03 34 47.3**	**-0.6**
SANI				AML	AML		
PMSI	**Majene**	**4.33**	**227**	P	**Pn**	**03 34 51.1**	**+0.7**
PMSI				AML	AML		
BBSI	**Bau Bau**	**4.92**	**175**	P	**Pn**	**03 34 58.8**	**+0.3**
BBSI				S	**Sn**	**03 35 56.3**	**+0.7**
BBSI				AML	AML		
KAPI	**Kappang**	**5.02**	**208**	Pn	**Pn**	**03 35 00.9**	**+1.0**
	8.8nm,0.3s,baz=24,slow=8.0,SNR=58						
KAPI				LR	LR	03 37 20.2	
	comp=Z,516nm,20.5s,baz=34,slow=43						
	78nm,0.6s						
KAPI				AML	AML		
KAPI	**Kappang**	**5.02**	**208**	Pn	**Pn**	**03 35 00.1**	**+0.3**
KAPI	**Kappang**	**5.02**	**208**	P	**Pn**	**03 34 59.8**	**0.0**
	443nm73nm,0.8s						
BKSI	**Bulukumba**	**5.14**	**203**	P	**Pn**	**03 35 01.9**	**+0.5**
NLAI	**Namlea**	**5.66**	**118**	P	**Pn**	**03 35 09.2**	**+0.6**
	4µm142nm,0.8s						
NLAI				S	**Sn**	**03 36 14.2**	**+0.6**
	4µm142nm,0.8s						
BSSI	**Bau Bau, Buton**	**5.79**	**196**	P	**Pn**	**03 35 11.1**	**+0.7**
	0.3nm972nm51nm,0.6s						
BSSI				AML	AML		
MSAI	**Masohi**	**7.36**	**112**	P	**Pn**	**03 35 33.3**	**+1.3**
	12µm69nm,0.6s						
EDFI	**Ende, Flores**	**8.16**	**183**	P	**Pn**	**03 35 43.2**	**+0.2**
DAV	**Davao City (W)**	**8.32**	**25**	LR	LR	03 39 13.6	
	comp=Z,268nm,19.4s,baz=160,slow=40						
SIJI	**Sorong**	**9.16**	**92**	Pn	**Pn**	**03 35 57.0**	**+0.2**
	11nm,0.3s,baz=253,slow=8.4,SNR=9.9						
	22nm,0.3s						
SIJI				AML	AML		
SIJI	**Sorong**	**9.16**	**92**	P	**Pn**	**03 36 00.3**	**+3.6**
BATI	**Baumata**	**9.72**	**171**	LR	LR	03 40 03.4	
	comp=Z,389nm,18.1s,baz=20,slow=39						
FAKI	**Fak Fak**	**10.40**	**103**	Pn	**Pn**	**03 36 12.8**	**-0.9**
MTN	**Manton Dam**	**15.14**	**144**		**P**	**03 37 23.0**	**-0.7**
MTN				IAmb	IAmb	03 37 34.8	
	comp=Z,4.4nm,1.2s						
FITZ	**Fitzroy Crossi**	**17.78**	**169**	P	**Pn**	**03 37 52.5**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=357,slow=11,SNR=2.3						
	comp=Z,1.7nm,1.1s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.78**	**169**		**Pn**	**03 37 52.3**	**+0.1**
WB0	**Warramunga Arr**	**22.57**	**149**	P	**P**	**03 38 43.9**	**-1.2**
WB0				IAmb	IAmb	03 38 46.2	
	comp=Z,6.8nm,0.6s						
WRAB	**Tennant Creek**	**22.69**	**149**	P	**P**	**03 38 46.4**	**+0.1**
WRAB				IAmb	IAmb	03 38 58.6	
	comp=Z,7.9nm,1.0s						
WRA	**Warramunga Arr**	**22.69**	**149**	P	**P**	**03 38 45.6**	**-0.7**
	comp=Z,3.4nm,0.6s,baz=331,slow=9.9,SNR=28						
	comp=Z,3.4nm,0.6s						
WRA	**Warramunga Arr**	**22.69**	**149**	P	**P**	**03 38 45.0**	**-1.3**
WR8	**Warramunga Arr**	**22.78**	**149**	P	**P**	**03 38 45.8**	**-1.5**
WR8				IAmb	IAmb	03 38 59.4	
	comp=Z,10nm,0.9s						
AS31	**Alice Springs**	**25.67**	**154**	P	**P**	**03 39 14.6**	**-0.1**
AS31				IAmb	IAmb	03 39 30.2	
	comp=Z,1.4nm,0.5s						
ASAR	**Alice Springs**	**25.67**	**154**	P	**P**	**03 39 14.5**	**-0.2**
	comp=Z,0.9nm,0.6s,baz=346,slow=15,SNR=15						
	comp=Z,0.9nm,0.6s						
CMAR	**Chiang Mai Arr**	**29.59**	**311**	P	**P**	**03 39 51.1**	**+1.2**
	comp=Z,0.9nm,0.

n109, σ0.94/126, mb4.0/30, 3C, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NMR	**Nemuro--Hokkai**	**0.08**	**114**	⇑*i* P	N	**03 51 00.3**	**+0.1**
NMR				*i* S	**Sn**	**03 51 07.5**	**-0.5**
NMR	**Nemuro--Hokkai**	**0.08**	**114**	*i* P	**Pn**	**03 51 00.3**	**+0.1**
NMR				*i* S	**Sn**	**03 51 07.8**	**-0.2**
NEM2	**Nemuro 2**	**0.09**	**114**	P	**Pn**	**03 51 00.4**	**+0.1**
NEM2				A	A	03 51 00.4	
	comp=N,30nm,0.8s,comp=E,26nm,0.2s						
NEM2				S	**Sn**	**03 51 07.2**	**-0.8**
JKHN	**Kushirohamanak**	**0.47**	**228**	P	**Pn**	**03 51 02.7**	**+0.2**
JKHN				*e*S	**Sn**	**03 51 11.9**	**+0.1**
JNSB	**Nemuroshibetsu**	**0.59**	**310**	P	**Pn**	**03 51 03.7**	**+0.1**
JNSB				S	**Sn**	**03 51 13.7**	**-0.2**
JRA	**Rausu**	**0.65**	**326**	P	**Pn**	**03 51 04.5**	**+0.2**
JRA				A	A	03 51 04.5	
	comp=N,11nm,0.3s,comp=E,13nm,0.4s						
JRA				S	**Sn**	**03 51 15.2**	**+0.2**
YUK	**Yuzh-Kuril'sk**	**0.66**	**15**	*c i* PN	**Pn**	**03 51 04.4**	**+0.1**
YUK				*i* S	**Sn**	**03 51 15.0**	**-0.1**
YUK				pmax	pmax		
	comp=Z,23μm,0.3s						
YUK				pmax	pmax		
	comp=E,4μm,0.1s						
YUK				pmax	pmax		
	comp=N,2μm,0.2s						
YUK				smax	smax		
	comp=N,10μm,0.2s						
YUK				smax	smax		
	comp=E,32μm,0.3s						
YUK	**Yuzh-Kuril'sk**	**0.66**	**15**	*i* P	**Pn**	**03 51 04.4**	**+0.1**
YUK				AMB	AMB	03 51 04.8	
	comp=E,18μm,0.4s						
YUK				*i* S	**Sn**	**03 51 15.0**	**-0.1**
YUK				A	A	03 51 16.0	
	comp=E,15μm,0.4s						
YUK				A	A	03 51 16.0	
	comp=E,32μm,0.4s						
JNK	**Nakash**	**0.69**	**286**	P	**Pn**	**03 51 04.4**	**-0.3**
JNK				A	A	03 51 04.4	
	comp=N,10.0nm,0.3s,comp=E,10.0nm,0.7s						
JNK				S	**Sn**	**03 51 14.8**	**-1.0**
AKK	**Akkeshi**	**0.69**	**237**	*i* P	**Pn**	**03 51 04.7**	**0.0**
AKK				*e*S	**Sn**	**03 51 15.7**	**-0.1**
RUSJ	**Misakicho**	**0.76**	**338**	⇑*i* PN	**Pn**	**03 51 05.9**	**+0.5**
RUSJ				*i* S	**Sn**	**03 51 17.8**	**+0.7**
JAK	**Akkeshi**	**0.80**	**240**	P	**Pn**	**03 51 05.8**	**0.0**
JAK				A	A	03 51 05.8	
	comp=N,5.0nm,1.0s,comp=E,6.0nm,1.6s						
JAK				S	**Sn**	**03 51 17.7**	**-0.1**
SHO	**Shikotan**	**0.99**	**61**	*e*P	Pn	03 51 27.7	+20
SHO				AMB	AMB	03 51 28.3	
	comp=E,2μm,0.2s						
SHO				*e*S	Sn	03 51 40.9	+19
SHO				A	A	03 51 41.5	
	comp=E,8μm,0.2s						
SHO				A	A	03 51 41.5	
	comp=E,9μm,0.2s						
JAR	**Ashorobuto**	**1.36**	**266**	P	**Pn**	**03 51 13.6**	**+0.7**
JAR				*e*S	**Sn**	**03 51 30.1**	**-0.3**
JTKR	**Abashiri--Toko**	**1.38**	**295**	P	**Pn**	**03 51 13.7**	**+0.7**
JTKR				S	**Sn**	**03 51 30.0**	**-0.7**
JOB	**Onbets**	**1.41**	**250**	P	**Pn**	**03 51 14.2**	**+0.7**
JOB				S	**Sn**	**03 51 31.7**	**+0.3**
ERM	**Erimo**	**2.29**	**234**	PN	**Pn**	**03 51 27.2**	**+1.9**
ERM	**Erimo**	**2.29**	**234**	Pn	**Pn**	**03 51 27.2**	**+1.9**
JKA	**Kamikawa-asahi**	**2.31**	**289**		**Pn**	**03 51 26.6**	**+1.1**
JKA	**Kamikawa-asahi**	**2.31**	**289**	*e*P	**Pn**	**03 51 26.6**	**+1.1**
ASAJ	**Asahikawa**	**2.31**	**289**	P	**Pn**	**03 51 26.6**	**+1.0**
	comp=E,98nm,0.4s,baz=104,slow=10,SNR=75						
ASAJ				S	**Sn**	**03 51 52.5**	**-0.6**
	comp=E,65nm,0.4s,baz=93,slow=33,SNR=6.9						
JNBK	**Urakawa-nobuka**	**2.40**	**243**	A	A	03 51 27.9	
	comp=N,3.0nm,3.4s,comp=E,4.0nm,1.1s						
KUR	**Kuril'sk**	**2.44**	**40**	*e*PN	**Pn**	**03 51 28.3**	**+1.1**
KUR				*i* S	**Sn**	**03 51 58.1**	**+2.2**
KUR				pmax	pmax		
	comp=Z,185nm,0.4s						
KUR				smax	smax		
	comp=N,1μm,0.3s						
KUR				smax	smax		
	comp=E,726nm,0.3s						
KUR	**Kuril'sk**	**2.44**	**40**	*e*P	**Pn**	**03 51 26.6**	**-0.6**
KUR				AMB	AMB	03 51 31.7	
	comp=E,210nm,0.2s						
KUR				*i* S	**Sn**	**03 51 53.3**	**-2.6**
KUR				A	A	03 52 05.9	
	comp=E,930nm,0.2s						
KUR				A	A	03 52 05.9	
	comp=E,970nm,0.2s						
YSS	**Yuzhno-Sakhali**	**4.09**	**331**	*e*PN	**Pn**	**03 51 51.0**	**+1.3**
YSS				*e*S	**Sn**	**03 52 34.7**	**-1.7**
YSS				pmax	pmax		
	comp=Z,30nm,1.1s						
YSS				smax	smax		
	comp=N,60nm,0.9s						
YSS				smax	smax		
	comp=E,70nm,1.0s						
YSS	**Yuzhno-Sakhali**	**4.09**	**331**	*e*P	**Pn**	**03 51 51.4**	**+1.7**
YSS				AMB	AMB	03 52 00.9	
	comp=E,20nm,0.5s						
YSS				*e*S	**Sn**	**03 52 36.3**	**-0.1**
JTM	**Tenmabayashi**	**4.28**	**234**	Pn	**Pn**	**03 51 52.8**	**+0.4**
MJB9	**Matsu-Tunnel**	**8.91**	**222**	Pn	**Pn**	**03 52 53.0**	**-2.5**
MAJO	**Matsushiro**	**8.91**	**222**	PN	**Pn**	**03 52 53.7**	**-1.9**
MAJO	**Matsushiro**	**8.91**	**222**	Pn	**Pn**	**03 52 53.7**	**-1.9**
MJAR	**Matsushiro Arr**	**8.91**	**222**	P	**Pn**	**03 52 55.5**	**0.0**
	comp=E,5.3nm,0.6s,baz=28,slow=14,SNR=15						
MJAR	**Matsushiro Arr**	**8.91**	**222**	Pn	**Pn**	**03 52 55.3**	**-0.2**
USRK	**Ussuriysk Ar.**	**9.90**	**279**	P	**Pn**	**03 53 10.6**	**+1.6**
	comp=E,2.6nm,0.7s,baz=147,slow=39,SNR=2.5						
JGF	**Kuroka**	**10.07**	**222**	Pn	**Pn**	**03 53 11.1**	**-0.4**
KLR	**Kul'dur**	**11.23**	**306**	P	**Pn**	**03 53 27.8**	**+0.7**
	comp=E,3.0nm,0.8s,baz=112,slow=17,SNR=5.8						
PEA0B	**Petropavlovsk-**	**12.59**	**35**	PN	**Pn**	**03 53 46.6**	**+1.0**
PEA0B	**Petropavlovsk-**	**12.59**	**35**	Pn	**Pn**	**03 53 46.6**	**+1.0**
PETK	**Petropavlovsk-**	**12.59**	**35**	P	**Pn**	**03 53 46.6**	**+0.9**
	comp=E,0.9nm,0.5s,baz=192,slow=10.0,SNR=5.9						
PETK				LR	LR	03 59 02.7	
	comp=E,39nm,18.7s,baz=147,slow=39						
PETK	**Petropavlovsk-**	**12.59**	**35**	Pn	**Pn**	**03 53 45.7**	**+0.1**
PET	**Petropavlovsk**	**12.94**	**37**	*e*P	**Pn**	**03 53 46.6**	**-3.8**
SONM	**Songino Array**	**27.59**	**293**	P	**P**	**03 56 31.0**	**+1.0**
	comp=E,1.4nm,0.6s,baz=98,slow=9.5,SNR=6.9						
SONM				pP	**pP**	**03 56 47.7**	**+0.5**
	comp=E,1.3nm,0.5s,baz=100,slow=9.4,SNR=4.0						
	comp=E,1.4nm,0.6s						
SONM	**Songino Array**	**27.59**	**293**	P	**P**	**03 56 29.9**	**0.0**
SONM				pmax	pmax		
	comp=Z,2.0nm,1.1s						
SONM	**Songino Array**	**27.59**	**293**	P	**P**	**03 56 29.9**	**0.0**
H11N2	**WAKE ISLAND Hy**	**29.59**	**136**	T	T	04 27 44.1	
	baz=328,slow=75,SNR=2807						
H11N1	**WAKE ISLAND Hy**	**29.60**	**136**	T	T	04 27 49.9	
	baz=328,slow=75,SNR=1628						
H11N3	**WAKE ISLAND Hy**	**29.60**	**136**	T	T	04 27 53.4	
	baz=328,slow=75,SNR=1923						
H11S1	**WAKE ISLAND Hy**	**30.52**	**138**	T	T	04 29 01.4	
	baz=330,slow=76,SNR=3916						
H11S3	**WAKE ISLAND Hy**	**30.53**	**138**	T	T	04 28 58.4	
	baz=330,slow=76,SNR=2195						
H11S2	**WAKE ISLAND Hy**	**30.54**	**138**	T	T	04 28 56.1	
	baz=330,slow=76,SNR=1971						
C18K	**Utukok River**	**37.15**	**29**	P	**P**	**03 57 53.0**	**+0.1**
G18K	**Tagagawik**	**37.54**	**34**	P	**P**	**03 57 56.8**	**+0.6**
G18K				IAmb	IAmb	03 58 28.2	
	comp=Z,5.3nm,1.2s						
IMAR	**Indian Mountai**	**39.55**	**34**	P	**P**	**03 58 13.4**	**+0.4**
ZALV	**Zalesovo Beam**	**40.33**	**307**	P	**P**	**03 58 21.0**	**+1.4**
	comp=Z,0.6nm,0.4s,baz=95,slow=10,SNR=2.1						
	comp=Z,0.6nm,0.4s						
ZALV	**Zalesovo Beam**	**40.33**	**307**	P	**P**	**03 58 21.0**	**+1.4**
G23K	**Bananza Creek**	**41.09**	**33**	P	**P**	**03 58 27.1**	**+1.3**
TOLK	**Toolik Lake Re**	**41.34**	**30**	P	**P**	**03 58 28.5**	**+0.7**
TOLK				IAmb	IAmb	03 59 03.6	
	comp=Z,12nm,1.5s						
F24K	**Squaw Lake**	**41.94**	**32**	P	**P**	**03 58 34.0**	**+1.3**
F24K				IAmb	IAmb	03 58 35.5	
	comp=Z,4.8nm,1.4s						
IL31		**42.42**	**36**	P	**P**	**03 58 36.9**	**+0.3**
ILAR	**Eielson Array**	**42.42**	**36**	P	**P**	**03 58 37.5**	**+0.9**
	comp=Z,0.5nm,1.0s,baz=258,slow=5.4,SNR=6.3						
	comp=Z,0.5nm,1.0s						
ILAR	**Eielson Array**	**42.42**	**36**	P	**P**	**03 58 37.0**	**+0.4**
D25K	**Kavik River**	**42.52**	**29**	P	**P**	**03 58 37.2**	**-0.2**
D25K				IAmb	IAmb	03 59 18.2	
	comp=Z,6.0nm,1.4s						
PRP	**Porcupine Dome**	**42.95**	**35**	P	**P**	**03 58 41.8**	**+0.8**
C27K	**Jago River**	**43.46**	**29**	P	**P**	**03 58 44.8**	**-0.2**
C27K				IAmb	IAmb	03 59 00.4	
	comp=Z,2.1nm,1.1s						
MKAR	**Makanchi Array**	**43.77**	**297**	P	**P**	**03 58 47.8**	**+0.1**
	comp=Z,0.7nm,0.5s,baz=72,slow=8.8,SNR=4.4						
	comp=Z,0.7nm,0.5s						
MKAR	**Makanchi Array**	**43.77**	**297**	P	**P**	**03 58 46.6**	**-1.2**
K27K	**Chicken**	**44.58**	**37**	P	**P**	**03 58 55.4**	**+1.5**
KURK	**Kurchatov**	**44.81**	**304**	P	**P**	**03 58 55.8**	**-0.2**
KURK				pmax	pmax		
	comp=Z,5.0nm,1.3s						
KURK	**Kurchatov**	**44.81**	**304**	P	**P**	**03 58 55.8**	**-0.2**
KURK				IAmb	IAmb	03 59 14.0	
	comp=Z,5.2nm,1.3s						
KURK	**Kurchatov**	**44.81**	**304**	*e*P	**P**	**03 58 55.8**	**-0.2**
BCAR	**Beaver Creek A**	**44.85**	**38**	P	**P**	**03 58 57.6**	**+1.4**
KURBB	**Kurchatov Arra**	**44.89**	**304**	P	**P**	**03 58 56.5**	**-0.1**
	comp=Z,0.7nm,0.5s,baz=72,slow=8.7,SNR=4.6						
	comp=Z,0.7nm,0.5s						
I28M	**Miner Creek**	**45.27**	**35**	P	**P**	**03 59 00.3**	**+0.8**
I28M				IAmb	IAmb	03 59 25.7	
	comp=Z,7.6nm,1.4s						
I30M	**Mount Dempster**	**46.78**	**34**	P	**P**	**03 59 12.2**	**+0.7**
INK	**Inuvik**	**47.26**	**30**	P	**P**	**03 59 15.3**	**+0.4**
INK				pmax	pmax		
	comp=Z,2.0nm,1.3s						
INK	**Inuvik**	**47.26**	**30**	P	**P**	**03 59 15.3**	**+0.4**
H31M	**Peel River**	**47.48**	**33**	P	**P**	**03 59 17.8**	**+1.0**
H31M				IAmb	IAmb	03 59 47.2	
	comp=Z,11nm,1.4s						
EVN	**Everest**	**49.22**	**272**	P	**P**	**03 59 31.2**	**-0.2**
EVN				IAmb	IAmb	03 59 34.7	
	comp=Z,1.8nm,0.6s						
KKAR	**Karatay Array**	**52.90**	**297**	P	**P**	**03 59 57.3**	**-0.7**
KKAR	**Karatay Array**	**52.90**	**297**	P	**P**	**03 59 57.3**	**-0.7**
RES	**Resolute Bay**	**55.62**	**16**	P	**P**	**04 00 16.9**	**-0.3**
RES				pmax	pmax		
	comp=Z,17nm,1.5s						
RES	**Resolute Bay**	**55.62**	**16**	P	**P**	**04 00 16.9**	**-0.3**
AB31	**Akbulak array**	**56.42**	**308**	P	**P**	**04 00 22.7**	**-0.7**
AB31				IAmb	IAmb	04 01 00.7	
	comp=Z,2.2nm,1.3s						
ABKAR	**Akbulak array**	**56.42**	**308**	P	**P**	**04 00 22.4**	**-0.9**
WB0	**Warramunga Arr**	**63.70**	**192**	P	**P**	**04 01 12.7**	**-0.6**
WB0				IAmb	IAmb	04 01 31.8	
	comp=Z,6.0nm,1.4s						
WRA	**Warramunga Arr**	**63.88**	**192**	P	**P**	**04 01 14.0**	**-0.5**
	comp=Z,0.6nm,0.8s,baz=11,slow=6.3,SNR=3.8						
	comp=Z,0.6nm,0.8s						
WRA	**Warramunga Arr**	**63.88**	**192**	P	**P**	**04 01 14.0**	**-0.5**
WRA	**Warramunga Arr**	**63.88**	**192**	P	**P**	**04 01 14.0**	**-0.5**
FIA1	**FINESS Array S**	**64.68**	**332**	P	**P**	**04 01 19.1**	**-0.2**
FINES	**FINESS Array B**	**64.68**	**332**	P	**P**	**04 01 18.1**	**-1.3**
	comp=Z,3.8nm,0.7s,baz=40,slow=6.3,SNR=12						
FINES				pP	**pP**	**04 01 37.3**	**-1.1**
	comp=Z,2.0nm,0.8s,baz=54,slow=7.8,SNR=1.8						
	comp=Z,3.8nm,0.7s						
FINES	**FINESS Array B**	**64.68**	**332**	P	**P**	**04 01 18.4**	**-0.9**
ASAR	**Alice Springs**	**67.60**	**192**	P	**P**	**04 01 39.4**	**+0.9**
	comp=Z,0.7nm,0.7s,baz=4.9,slow=5.0,SNR=6.7						
	comp=Z,0.7nm,0.7s						
NVAR	**Mina Array Bea**	**68.69**	**57**	P	**P**	**04 01 46.4**	**+0.8**
	comp=Z,0.6nm,0.7s,baz=292,slow=6.9,SNR=5.0						
	comp=Z,0.6nm,0.7s						
KBZ	**Khabaz**	**69.20**	**311**	P	**P**	**04 01 49.0**	**+0.7**
	comp=Z,1.2nm,0.7s,baz=244,slow=6.6,SNR=3.8						
KBZ				pP	**pP**	**04 02 08.0**	**+0.4**
	comp=Z,1.6nm,0.8s,baz=27,slow=11,SNR=3.0						
	comp=Z,1.2nm,0.7s						
NC405	**NORSAR Array S**	**69.33**	**338**	P	**P**	**04 01 47.8**	**-1.0**
NC303	**NORSAR Array S**	**69.33**	**338**	P	**P**	**04 01 48.1**	**-0.7**
NB2	**NORSAR Subarra**	**69.52**	**338**	P	**P**	**04 01 49.0**	**-1.1**
	comp=Z,0.5nm,0.5s,baz=30,slow=6.2						
NOA	**NORSAR Array B**	**69.52**	**338**	P	**P**	**04 01 49.1**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=33,slow=6.4,SNR=12						
	comp=Z,0.3nm,0.4s						
HFS	**Hagfors**	**69.58**	**337**	P	**P**	**04 01 49.7**	**-0.7**
	comp=Z,1.4nm,0.4s,baz=46,slow=6.4,SNR=11						
	comp=Z,1.4nm,0.4s						
PDAR	**Pinedale Array**	**70.97**	**49**	P	**P**	**04 02 00.1**	**+0.6**
	comp=Z,0.3nm,0.5s,baz=259,slow=3.4,SNR=5.2						
PDAR				pP	**PcP**	**04 02 19.2**	**-0.3**
	comp=Z,0.7nm,0.7s,baz=244,slow=0.9,SNR=5.1						
	comp=Z,0.3nm,0.5s						
PDAR	**Pinedale Array**	**70.97**	**49**	P	**P**	**04 01 59.5**	**0.0**
AKASG	**Malin Array Be**	**71.20**	**323**	P	**P**	**04 01 59.7**	**-0.7**
	comp=Z,0.7nm,0.4s,baz=41,slow=6.2,SNR=9.1						
	comp=Z,0.7nm,0.4s						
BUR08	**Bucovina Ar. S**	**75.24**	**323**	P	**P**	**04 02 23.8**	**-0.6**
BUR08				IAmb	IAmb	04 02 30.6	
	comp=Z,3.0nm,1.3s						
BURAR	**Bucovina Array**	**75.26**	**323**	P	**P**	**04 02 24.6**	**+0.1**
BURAR	**Bucovina Array**	**75.26**	**323**	P	**P**	**04 02 24.6**	**+0.1**
BRTR	**Keskin Array B**	**76.98**	**313**	P	**P**	**04 02 36.1**	**+1.7**
	comp=Z,0.3nm,0.6s,baz=45,slow=6.7,SNR=1.9						
	comp=Z,0.3nm,0.6s						
CLL	**Collm**	**77.11**	**332**	*e*P	**P**	**04 02 34.0**	**-0.8**
EKA	**Eskdalemuir Ar**	**78.13**	**342**	P	**P**	**04 02 40.7**	**+0.3**
	comp=Z,0.6nm,0.5s,baz=18,slow=5.1,SNR=6.4						
	comp=Z,0.6nm,0.5s						
TXAR	**Lajitas Array**	**83.76**	**55**	P	**P**	**04 03 11.0**	**+0.1**
	comp=Z,0.6nm,0.7s,baz=295,slow=3.2,SNR=9.4						
TXAR				pP	**pP**	**04 03 31.1**	**+0.3**
	comp=Z,0.5nm,0.8s,baz=286,slow=3.1,SNR=3.8						
	comp=Z,0.6nm,0.7s						
TXAR	**Lajitas Array**	**83.76**	**55**	P	**P**	**04 03 11.5**	**+0.6**

*SOME **09** 03:52:08.7, 41.20N×81.72E, h5km*
*NNC **09** 03:52:09.9±2.8, 41.03N×81.43E, h0km, mb3.8, mpv3.4,*
Error ellipse: s-maj=19.7km s-min=14.2km az=176.0
ISC 09 03:52:08.9±3.5, 40.9N±0.2×81.7E±0.1, h17km, n9,
σ1.55/14, 2C-2D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHLS	**Shalkode**	**2.83**	**325**	Pg	**Pn**	**03 52 53.7**	**+0.3**
	5.6nm,0.2s						
SHLS				Lg	Lg	03 53 26.4	
	24nm,0.4s						
UZB	**Uzynbulak**	**3.02**	**320**	Pg	**Pb**	**03 53 00.6**	**-1.7**
	3.1nm,0.2s						
UZB				Lg	Lg	03 53 38.1	
	4.9nm,0.3s						
UZB	**Uzynbulak**	**3.02**	**320**	*e*P	**Pb**	**03 53 00.6**	**-1.7**
	3.1nm,0.2s						
UZB				*e*S	**Sb**	**03 53 38.0**	**-0.8**
	4.9nm,0.3s						
SATY	**Saty**	**3.28**	**313**	Pg	**Pb**	**03 53 06.4**	**-0.2**
	2.4nm,0.2s						
SATY				Lg	Lg	03 53 47.7	
	7.9nm,0.2s						
SATY	**Saty**	**3.28**	**313**	*e*P	**Pb**	**03 53 06.4**	**-0.2**
	2.4nm,0.2s						
SATY				*e*S	**Sb**	**03 53 47.7**	**+1.4**
	7.9nm,0.2s						
DJR	**Jarkent**	**3.74**	**339**	Pg	**Pb**	**03 53 12.7**	**-1.9**
	3.3nm,0.3s						
DJR				Lg	Lg	03 53 58.5	
	5.8nm,0.4s						
DJR	**Jarkent**	**3.74**	**339**	*e*P	**Pb**	**03 53 12.7**	**-1.9**
	3.3nm,0.3s						
DJR				*e*S	**Sb**	**03 53 58.5**	**-1.2**
	5.8nm,0.4s						
MK31	**Makanchi Array**	**5.96**	**4**	⇑Pn	**Pn**	**03 53 36.3**	**0.0**
	1.7nm,0.8s,baz=167,slow=16,SNR=6.2						
MK31				⇓Sn	**Sn**	**03 54 46.1**	**+2.0**
	1.9nm,0.6s,baz=166,slow=27,SNR=4.0						
MAKZ	**Makanchi**	**5.96**	**2**	⇓Pn	**Pn**	**03 53 36.9**	**+0.6**
	6.9nm,1.1s						
MAKZ				⇑Sn	**Sn**	**03 54 46.5**	**+2.4**
	2.2nm,0.8s						

*AEIC **09** 04:13:21.2±1.4, 61.45N±0.01×147.12W±0.03, h15km±3km,*
Error ellipse: s-maj=2.5km s-min=1.8km az=50.0
NEIC 09 04:13:20.6±1.1, 61.45N±0.03×147.13W±0.05,
h25km±12km, ML3.7/204, ML3.5(AEIC), Error ellipse:
s-maj=3.7km s-min=3.2km az=200.0, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SCM	**Sheep Creek Mo**	**0.40**	**346**		Pb	04 13 29.2	0.0
SCM					Sg	Sb	04 13 35.7	+0.7
SCM					IAML		04 13 36.1	
	comp=N,6μm,0.2s							
M23K	**Glacier View**	**0.45**	**321**			Pb	04 13 29.9	-0.1
M23K						Sb	04 13 36.7	+0.3
VMT	**TAPS TI Valdez**	**0.52**	**135**			Pb	04 13 30.8	-0.3
VMT						Sb	04 13 38.5	+0.3
GLI	**Glacier Island**	**0.57**	**178**			Pb	04 13 31.8	-0.2
GLI					Sg	Sb	04 13 40.2	+0.5
GLI					IAML		04 13 41.9	
	comp=N,4μm,0.5s							
GLI					IAML		04 13 43.2	
	comp=E,3μm,0.3s							
KLU	**Klutina**	**0.58**	**85**			Pb	04 13 31.8	-0.4
KLU					Sg	Sb	04 13 40.0	-0.1
KLU					IAML		04 13 41.3	
	comp=E,4μm,0.2s							
KNK	**Knik Glacier**	**0.64**	**267**			Pb	04 13 32.8	-0.4
KNK					Sg	Sb	04 13 41.7	0.0
SML	**Sawmill**	**0.68**	**303**			Pb	04 13 32.8	-1.0
SML	**Sawmill**	**0.68**	**303**			Sb	04 13 42.5	-0.4
SML	**Sawmill**	**0.68**	**303**		IAML		04 13 43.0	
	comp=E,5μm,0.5s							
SML					IAML		04 13 43.3	
	comp=N,4μm,0.6s							
DIV	**Divide**	**0.73**	**115**			Pb	04 13 33.7	-1.0
DIV					IAML		04 13 43.7	
	comp=E,2μm,0.4s							
DIV					IAML		04 13 45.9	
	comp=N,2μm,0.5s							
FID	**Port Fidalgo**	**0.77**	**155**	Pn	Pb		04 13 34.7	-0.6
PWL	**Port Wells**	**0.83**	**225**	Pn	Pb		04 13 35.4	-0.9
PWL					IAML		04 13 48.3	
	comp=N,2μm,0.6s							
PWL					IAML		04 13 52.8	
	comp=E,2μm,0.3s							
GHO	**Glory Hole Cre**	**0.92**	**292**	Pn	Pb		04 13 36.8	-1.1
GHO					IAML		04 13 50.1	
	comp=E,1μm,0.4s							
PS12	**TAPS Pump St12**	**0.95**	**87**		Pn		04 13 37.0	-1.4
PMR	**Palmer**	**0.97**	**279**	Pn	Pn		04 13 37.5	-1.0
PMR					IAML		04 13 51.5	
	comp=E,2μm,0.5s							
PS11	**TAPS Pump St11**	**1.01**	**50**		Pn		04 13 38.9	-0.2
HIN	**Hinchinbrook I**	**1.10**	**164**	Pn	Pn		04 13 40.1	-0.2
EYAK	**Cordova Ski Ar**	**1.12**	**143**	Pn	Pn		04 13 40.3	-0.4
EYAK					IAML		04 13 58.9	
	comp=N,2μm,0.5s							
EYAK					IAML		04 13 58.9	
	comp=E,2μm,0.7s							
RC01	**Rabbit Creek A**	**1.31**	**255**	Pn	Pn		04 13 43.1	-0.1
BMRM	**Bremner River**	**1.31**	**110**	Pn	Pn		04 13 42.5	-0.8
BMRM					IAML		04 14 03.2	
	comp=E,1μm,0.4s							
BMRM					IAML		04 14 03.6	
	comp=N,2μm,0.4s							
HARP	**HAARP**	**1.33**	**43**	Pn	Pn		04 13 43.4	-0.2
HARP					IAML		04 14 01.9	
	comp=N,2μm,0.5s							
WACK	**Wrangell Chich**	**1.44**	**67**		Pn		04 13 45.2	0.0
P23K	**Montague Islan**	**1.46**	**185**	Pn	Pn		04 13 45.5	+0.2
M22K	**Willow**	**1.46**	**283**	Pn	Pn		04 13 44.9	-0.4
FIS	**Fire Island**	**1.52**	**260**	Pn	Pn		04 13 47.0	+1.0
GLB	**Gilahina Butte**	**1.59**	**89**	Pn	Pn		04 13 46.8	-0.3
GLB					IAML		04 14 09.5	
	comp=E,701nm,0.4s							
GLB					IAML		04 14 10.5	
	comp=N,1μm,0.4s							
O22K	**Cooper Landing**	**1.59**	**234**	Pn	Pn		04 13 47.3	+0.2
DHY	**Denali Highway**	**1.64**	**356**	Pn	Pn		04 13 47.8	-0.1
PAX	**Paxson**	**1.71**	**26**	Pn	Pn		04 13 48.6	-0.2
PAX					IAML		04 14 14.1	
	comp=E,523nm,0.4s							
SUA	**Susitna One**	**1.74**	**272**		Pn		04 13 49.4	+0.2
SUA	**Susitna One**	**1.74**	**272**	IAML			04 14 13.6	
	comp=N,772nm,0.7s							
SUA					IAML		04 14 14.6	
	comp=E,723nm,0.7s							
SEW	**Seward**	**1.77**	**221**	Pn	Pn		04 13 49.2	-0.2
SEW					IAML		04 14 14.2	
	comp=E,548nm,0.3s							
SEW					IAML		04 14 14.2	
	comp=N,1μm,0.4s							
CUT	**Chulitna**	**1.77**	**304**	Pn	Pn		04 13 49.7	+0.2
SLKM	**Skilak Lake**	**1.78**	**239**	Pn	Pn		04 13 49.4	-0.3
SLKM					IAML		04 14 14.5	
	comp=E,954nm,0.5s							
SLKM					IAML		04 14 14.7	
	comp=N,951nm,0.5s							
VRDI	**Verde Repeater**	**1.79**	**95**	Pn	Pn		04 13 49.8	-0.2
VRDI					IAML		04 14 17.2	
	comp=N,544nm,0.4s							
MCARA	**McCarthy VSAT**	**1.98**	**90**	Pn	Pn		04 13 52.6	+0.3
CRQM	**Cirque**	**2.06**	**108**	Pn	Pn		04 13 54.0	+0.3

	comp=E,286nm,0.9s						
PPLA	**Purkeypile**	**2.78**	**304**	Pn	Pn	04 14 03.8	+0.2
PPLA				IAML		04 14 52.0	
	comp=N,247nm,0.8s						
PPLA				IAML		04 14 53.0	
	comp=E,208nm,0.9s						
CNPM	**China Poot**	**2.80**	**228**	Pn	Pn	04 14 04.1	+0.4
CNPM				IAML		04 14 48.0	
	comp=N,203nm,0.4s						
HOM	**Homer**	**2.86**	**233**	Pn	Pn	04 14 05.2	+0.7
RDJH	**Redoubt Jeurge**	**2.89**	**255**		Pn	04 14 04.9	-0.2
SCRK	**Sand Creek**	**2.92**	**28**	Pn	Pn	04 14 05.5	0.0
BWN	**Browne**	**2.94**	**340**	Pn	Pn	04 14 05.7	+0.2
RED	**Redoubt Volcan**	**2.94**	**252**	Pn	Pn	04 14 05.3	-0.4
RED				IAML		04 14 51.0	
	comp=N,151nm,0.5s						
RED				IAML		04 14 53.9	
	comp=E,191nm,0.5s						
L27K	**Beaver Creek,**	**2.96**	**55**		Pn	04 14 07.0	+1.1
HDA	**Harding Lake**	**2.97**	**2**	Pn	Pn	04 14 06.2	+0.2
O20K	**Slope Mountain**	**3.02**	**245**		Pn	04 14 07.1	+0.3
O20K					Pb	04 14 07.3	-6.4
CAST	**Castle Rocks**	**3.04**	**313**	Pn	Pn	04 14 06.8	-0.1
CAST				IAML		04 14 58.5	
	comp=E,237nm,0.5s						
LOGN	**Logan Glacier**	**3.04**	**99**	Pn	Pn	04 14 07.0	-0.1
LOGN				IAML		04 14 53.3	
	comp=E,189nm,0.7s						
LOGN				IAML		04 14 58.8	
	comp=N,194nm,0.8s						
WRH	**Wood River Hil**	**3.07**	**352**	Pn	Pn	04 14 07.3	0.0
WRH				IAML		04 14 57.6	
	comp=E,170nm,0.6s						
PS08	**TAPS Pump Stn8**	**3.11**	**2**		Pn	04 14 08.4	+0.5
PS08					Pb	04 14 08.6	-6.5
BPAW	**Bear Paw Mtn.**	**3.20**	**328**	Pn	Pn	04 14 09.2	0.0
BPAW				IAML		04 15 01.9	
	comp=N,191nm,0.8s						
BPAW				IAML		04 15 02.2	
	comp=E,146nm,1.0s						
CCB	**Clear Creek Bu**	**3.23**	**355**	Pn	Pn	04 14 09.6	+0.1
CCB				IAML		04 14 53.2	
	comp=E,189nm,0.5s						
J25K	**Salcha River,**	**3.28**	**13**	Pn	Pn	04 14 10.5	+0.2
J25K				IAML		04 14 59.0	
	comp=E,124nm,0.5s						
J25K				IAML		04 15 07.2	
	comp=N,126nm,0.5s						
NEA2	**Nenana**	**3.28**	**345**	Pn	Pn	04 14 10.1	-0.2
NEA2				IAML		04 14 53.4	
	comp=E,131nm,0.6s						
NEA2				IAML		04 15 04.8	
	comp=N,118nm,1.0s						
IL31		**3.34**	**2**	Pn	Pn	04 14 11.7	+0.7
L20K	**Farewell, AK**	**3.35**	**291**		Pn	04 14 11.0	-0.3
L20K	**Farewell, AK**	**3.35**	**291**	IAML		04 15 10.0	
	comp=N,153nm,0.8s						
L20K				IAML		04 15 12.7	
	comp=E,123nm,0.8s						
CHUM	**Lake Minchumin**	**3.42**	**318**		Pn	04 14 12.5	+0.4
O28M	**Mount Upton**	**3.44**	**98**	Pn	Pn	04 14 13.4	+0.7
O28M				IAML		04 15 04.7	
	comp=N,144nm,0.5s						
O28M				IAML		04 15 06.9	
	comp=E,100nm,0.7s						
COLA	**College**	**3.46**	**355**	Pn	Pn	04 14 13.0	+0.4
P19K	**Oil Pt**	**3.51**	**242**		Pn	04 14 13.4	0.0
N19K	**Bonanza Creek**	**3.62**	**263**		Pn	04 14 14.7	-0.4
PCA	**Pinnacle**	**3.63**	**109**	Pn	Pn	04 14 15.1	-0.1
POKR	**Poker Plat Res**	**3.69**	**358**	Pn	Pn	04 14 16.0	+0.2
POKR				IAML		04 15 14.4	
	comp=N,96nm,0.7s						
POKR				IAML		04 15 19.0	
	comp=E,135nm,1.0s						
O19K	**Port Alsworth**	**3.74**	**254**	Pn	Pn	04 14 15.7	-0.8
O19K				IAML		04 15 13.7	
	comp=N,209nm,0.4s						
K20K	**Telida**	**3.75**	**304**		Pn	04 14 16.5	-0.3
K20K	**Telida**	**3.75**	**304**	IAML		04 15 21.6	
	comp=E,95nm,0.8s						
I23K	**Minto, Yukon-K**	**3.85**	**346**	Pn	Pn	04 14 18.1	+0.1
I23K				IAML		04 15 18.6	
	comp=E,122nm,0.8s						
I23K				IAML		04 15 19.6	
	comp=N,123nm,0.8s						
PS07	**TAPS Pump Stn7**	**3.91**	**353**		Pn	04 14 19.8	+0.8
MLY	**Manley**	**3.95**	**337**	Pn	Pn	04 14 19.1	-0.4
MLY				IAML		04 15 10.8	
	comp=E,76nm,0.5s						
MLY				IAML		04 15 10.8	
	comp=N,95nm,0.7s						
BCPM	**Bancas Point**	**3.98**	**109**		Pn	04 14 19.3	-0.5
BCPM	**Bancas Point**	**3.98**	**109**	IAML		04 15 20.0	
	comp=N,72nm,1.5s						
Q19K	**Cape Douglas,**	**4.12**	**235**	Pn	Pn	04 14 22.2	+0.4
M18K	**Stony River**	**4.17**	**274**		Pn	04 14 21.8	-0.7
M29M	**Somme Creek**	**4.21**	**72**		Pn	04 14 24.0	+0.8
M29M	**Somme Creek**	**4.21**	**72**	IAML		04 15 20.0	
	comp=E,61nm,0.6s						
J20K	**Nowinta River**	**4.23**	**313**	Pn	Pn	04 14 22.8	-0.4
J20K				IAML		04 15 32.1	
	comp=E,88nm,0.8s						
J20K				IAML		04 15 33.2	
	comp=N,110nm,0.9s						
YUK6	**Outpost Mounta**	**4.27**	**93**		Pn	04 14 24.3	+0.2
N18K	**Kilae Creek**	**4.33**	**264**		Pn	04 14 23.5	-1.2
O29M	**Mount Kennedy**	**4.34**	**102**		Pn	04 14 24.8	-0.1
O29M	**Mount Kennedy**	**4.34**	**102**	IAML		04 15 32.9	
	comp=N,85nm,0.5s						
O29M				IAML		04 15 34.6	
	comp=E,90nm,0.5s						
I21K	**Tanana**	**4.34**	**332**	Pn	Pn	04 14 24.8	+0.1
I21K				IAML		04 15 42.0	
	comp=N,53nm,0.8s						
I21K				IAML		04 15 46.4	
	comp=E,51nm,0.9s						
H24K	**Noodor Dome**	**4.42**	**356**	IAML		04 15 36.8	
	comp=N,53nm,0.9s						
H24K				IAML		04 15 39.3	
	comp=E,61nm,1.5s						
L29M	**L29M**	**4.52**	**64**	IAML		04 15 48.6	
	comp=N,47nm,0.9s						
L29M				IAML		04 15 56.2	
	comp=E,49nm,1.1s						
H23K	**Yukon River**	**4.52**	**347**		Pn	04 14 27.7	+0.3
H23K	**Yukon River**	**4.52**	**347**	IAML		04 15 57.2	
	comp=E,44nm,1.4s						
L18K	**Granite Mounta**	**4.60**	**284**	IAML		04 15 50.3	
	comp=N,46nm,0.7s						
KDAK	**Kodiak Island**	**4.60**	**219**	Pn	Pn	04 14 27.6	-0.8
KDAK				IAML		04 15 19.9	
	comp=N,56nm,1.4s						
J19K	**Poorman**	**4.67**	**307**	Pn	Pn	04 14 29.4	0.0
H22K	**Ishtalitna Cre**	**4.85**	**339**		Pn	04 14 31.9	+0.1
J18K	**Innoko River**	**4.89**	**299**		Pn	04 14 32.2	-0.1
H21K	**Melozitna Rive**	**4.93**	**331**		Pn	04 14 32.8	-0.1
KAWH	**Katmai**	**4.93**	**235**		Pn	04 14 32.6	-0.4
M17K	**Holitna River**	**4.95**	**274**	Pn	Pn	04 14 32.7	-0.5
M17K				IAML		04 15 58.5	
	comp=N,86nm,0.7s						
P29M	**Windy Craggy**	**4.98**	**107**		Pn	04 14 33.9	+0.2
P29M	**Windy Craggy**	**4.98**	**107**	IAML		04 15 48.8	
	comp=N,50nm,0.8s						
P29M				IAML		04 15 52.3	
	comp=E,51nm,0.5s						
N17K	**Nushagak Hills**	**4.98**	**264**		Pn	04 14 32.9	-0.8
N17K	**Nushagak Hills**	**4.98**	**264**	IAML		04 16 01.1	
	comp=N,42nm,1.3s						
M30M	**Minto, Yukon**	**5.00**	**72**	Pn	Pn	04 14 33.0	-0.9
K29M	**Barlow Dome**	**5.04**	**57**	Pn	Pn	04 14 32.3	-2.2
P17K	**Kvichak River**	**5.15**	**248**	Pn	Pn	04 14 35.5	-0.4
I28M	**Miner Creek**	**5.15**	**36**	IAML		04 16 13.1	
	comp=N,30nm,0.8s						
O17K	**Koliganek Bris**	**5.19**	**256**		Pn	04 14 36.0	-0.4
G24K	**Hadweenzic Riv**	**5.28**	**359**	IAML		04 16 11.2	
	comp=N,54nm,1.3s						
G24K				IAML		04 16 15.1	
	comp=E,34nm,1.3s						
L17K	**Donlin**	**5.34**	**282**		Pn	04 14 37.9	-0.7
O30N	**Mendenhall**	**5.40**	**92**	Pn	Pn	04 14 40.2	+0.8
K17K	**Iditarod**	**5.40**	**288**	Pn	Pn	04 14 38.4	-1.0
IMAR	**Indian Mountai**	**5.42**	**330**	Pn	Pn	04 14 39.6	0.0
IM01	**Indian Mountai**	**5.42**	**330**		Pn	04 14 39.6	0.0
G23K	**Bananza Creek**	**5.43**	**348**		Pn	04 14 40.4	+0.5
N31M	**Braeburn, Yuko**	**5.44**	**85**	Pn	Pn	04 14 41.5	+1.5
Q17K	**Contact Creek**	**5.45**	**238**		Pn	04 14 39.3	-0.8
GCSA	**Galena City Sc**	**5.53**	**311**		Pn	04 14 41.0	-0.1
O16K	**Kokwok River B**	**5.72**	**256**		Pn	04 14 43.1	-0.7
M16K	**Timber Creek**	**5.73**	**271**		Pn	04 14 43.3	-0.6
G21K	**Allakaket**	**5.81**	**334**		Pn	04 14 44.8	-0.2
H19K	**Roundabout Mou**	**5.84**	**318**		Pn	04 14 44.6	-0.8
J17K	**VABM Dome**	**5.88**	**295**		Pn	04 14 45.3	-0.7
L16K	**Owhat River**	**5.90**	**278**		Pn	04 14 45.4	-0.8
WHY	**Whitehorse**	**6.00**	**92**	Pn	Pn	04 14 46.0	-1.8
M31M	**Drury Creek, Y**	**6.08**	**77**	Pn	Pn	04 14 49.7	+0.9
BMAR	**Burnt Mountain**	**6.11**	**9**	Pn	Pn	04 14 50.2	+1.1
H18K	**Honhosa River**	**6.28**	**311**		Pn	04 14 51.2	-0.2
F21K	**Alatna River**	**6.42**	**337**	Pn	Pn	04 14 52.2	-1.1
J16K	**Anvik River**	**6.53**	**292**		Pn	04 14 54.0	-0.9
O15K	**Unsgalikthiuk R**	**6.71**	**256**		Pn	04 14 57.0	-0.2
I17K	**Unalakleet**	**6.71**	**297**	Pn	Pn	04 14 56.7	-0.6
EPYK	**Eagle Plains**	**6.74**	**38**	Pn	Pn	04 14 57.5	-0.2
F20K	**Avaraart Lake**	**6.75**	**330**	Pn	Pn	04 14 57.9	+0.1
H17K	**Granite Mounta**	**6.75**	**307**		Pn	04 14 58.1	+0.1
G18K	**Tagagawik**	**6.79**	**316**		Pn	04 14 58.7	+0.2
K15K	**Wolf Creek Mou**	**6.86**	**283**		Pn	04 14 58.6	-0.8
F28M	**Old Crow**	**6.93**	**24**	Pn	Pn	04 15 02.4	+2.0
F19K	**Shaleruckik Mo**	**7.12**	**324**		Pn	04 15 02.5	-0.4
G17K	**Kiwalik Mounta**	**7.29**	**310**		Pn	04 15 05.8	+0.6
O14K	**Tigyukauivet M**	**7.35**	**259**		Pn	04 15 06.4	+0.3
SIT	**Sitka**	**7.48**	**121**	Pn	Pn	04 15 07.1	-0.8
G31M	**Satah River**	**7.84**	**40**	Pn	Pn	04 15 12.0	-0.8
E18K	**Tukpahlearik C**	**8.34**	**322**		Pn	04 15 21.1	+1.4
C21K	**Knifeblade Rid**	**8.37**	**341**		Pn	04 15 20.9	+0.8
D19K	**Kuna River**	**8.45**	**331**		Pn	04 15 21.4	+0.1
E17K	**Hotham Inlet**	**8.52**	**318**		Pn	04 15 22.6	+0.6
S34M	**Telegraph Cree**	**8.83**	**107**	Pn	Pn	04 15 26.2	-0.2
ANM	**Nome**	**8.86**	**299**	Pn	Pn	04 15 26.9	+0.1
INK	**Inuvik**	**8.97**	**34**	Pn	Pn	04 15 29.5	+1.3
DLBC	**Dease Lake**	**9.09**	**102**		Pn	04 15 30.5	+0.4
RDOG	**Red Dog Mine**	**9.43**	**321**	Pn	Pn	04 15 35.9	+1.3
CRAG	**Craig**	**9.46**	**123**	Pn	Pn	04 15 36.0	+1.0
TNA	**Tin City**	**10.14**	**303**	Pn	Pn	04 15 45.7	+1.5
C36M	**Paulatuk**	**12.36**	**40**	Pn	Pn	04 16 13.9	-0.7

DJA 09 04:16:25.1±0.3, 2°S±1°×11°9E±°, h10km, M3.6/20, MLv3.6/20, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMSI	**Mamuju**	**0.43**	**212**	P	Pg	04 16 33.1	-0.5
MMSI				Sg	Sg	04 16 40.2	+0.8
MMSI				AML	AML		
TTSI	**Tana Toraja**	**0.99**	**137**	P	Pg	04 16 43.5	-0.7
TTSI				AML	AML		
PMSI	**Majene**	**1.19**	**191**	P	Pg	04 16 48.3	+0.2
PMSI				S	Sb	04 17 03.3	-0.1
PMSI				AML	AML		
PCI	**Palu**	**1.57**	**26**	P	Pn	04 16 53.4	+0.4
PCI				S	Sb	04 17 14.0	-0.2
PCI				AML	AML		
SPSI	**Sidrap Palu**	**1.75**	**159**	P	Pn	04 16 55.1	-0.4
SPSI				AML	AML		
KAPI	**Kappang**	**2.75**	**167**	P	Pn	04 17 09.6	+0.4
APSI	**Ampana**	**2.87**	**61**	P	Pn	04 17 10.8	-0.2
APSI				AML	AML		
BKSI	**Bulukumba**	**3.14**	**162**	P	Pn	04 17 14.6	-0.1
GRJI	**Gresik**	**8.05**	**235**	P	Pn	04 18 25.8	+3.5

*ISK **09** 04:20:34.6, 37°.85N×26°.75E, h10km, ML3.9/17*
*ATH **09** 04:20:34.5, 37°.85N×26°.75E, h14km±1km, ML3.3/12, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **09** 04:20:35.1, 37°.9N±0°.8×26°.8E±0°.8, h10km±1km, M3.1/18, MLh3.1/18*
*AFAD **09** 04:20:35.0, 37°.88N×26°.78E, h7km±3km, MW3.6*

ISC 09 04:20:35.0±0.8, 37.86N±0.02×26.76E±0.02, h12km±6km, n86, σ0.49/114, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAM2	**Drakei, Karlov**	**0.15**	**229**	P	**Pg**	**04 20 38.3**	**-0.4**
SAM2				S	**Sg**	**04 20 41.4**	**+0.1**
SAM2				AML	AML		
SMG	**Samos**	**0.16**	**158**	P	**Pg**	**04 20 38.8**	**0.0**
SMG				S	**Sg**	**04 20 41.9**	**+0.4**
SMG	**Samos**	**0.16**	**158**	P	**Pg**	**04 20 38.5**	**-0.3**
SMG				S	**Sg**	**04 20 42.1**	**+0.6**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**27**	P	**Pg**	**04 20 39.5**	**-0.1**
DGB				S	**Sg**	**04 20 42.1**	**-0.8**
DGB				IAML		04 20 44.0	
	comp=N,4μm,0.5s						
DGB				IAML		04 20 44.0	
	comp=E,6μm,0.3s						
GMLD	**Gumuldur**	**0.25**	**30**	Pg	**Pg**	**04 20 39.8**	**-0.5**
GMLD				Sg	**Sg**	**04 20 44.0**	**+0.2**
GMLD				AML	AML		
BEYE	**izmir**	**0.39**	**20**	P	**Pg**	**04 20 42.7**	**-0.1**
BEYE				S	**Sg**	**04 20 47.5**	**-0.6**
BEYE				IAML		04 20 52.0	
	comp=E,3μm,0.3s						
BEYE				IAML		04 20 53.0	
	comp=N,4μm,0.6s						
GCAM	**G?zelcaml?**	**0.41**	**113**	P	**Pg**	**04 20 43.1**	**0.0**
GCAM				S	**Sg**	**04 20 49.0**	**+0.4**
GCAM				IAML		04 20 50.0	
	comp=N,4μm,0.4s						
GCAM				IAML		04 20 50.0	
	comp=E,4μm,0.4s						
GCAM	**G?zelcaml?**	**0.41**	**113**	Pg	**Pg**	**04 20 43.0**	**-0.1**
GCAM				Sg	**Sb**	**04 20 49.6**	**-0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.42**	**90**	Pg	**Pg**	**04 20 43.0**	**-0.3**
KUSD				Sg	**Sg**	**04 20 49.6**	**+0.7**
KUSD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.43**	**332**	P	**Pg**	**04 20 43.2**	**-0.3**
ZEYE				S	**Sg**	**04 20 49.3**	**+0.1**
ZEYE				IAML		04 20 51.0	
	comp=E,6μm,0.2s						
ZEYE				IAML		04 20 52.0	
	comp=N,6μm,0.3s						
DDIM	**Aydin, Didim**	**0.56**	**136**	P	**Pg**	**04 20 46.0**	**+0.1**
DDIM				S	**Sb**	**04 20 54.1**	**-0.5**
DDIM				IAML		04 20 58.0	
	comp=N,4μm,0.4s						
DDIM				IAML		04 20 59.0	
	comp=E,3μm,0.6s						
BLCB	**Balcova**	**0.57**	**23**	P	**Pg**	**04 20 46.0**	**-0.2**
BLCB				S	**Sg**	**04 20 54.2**	**+0.4**
BLCB	**Balcova**	**0.57**	**23**	Pg	**Pg**	**04 20 45.9**	**-0.2**
CESE	**eme**	**0.59**	**322**	Pg	**Pg**	**04 20 46.9**	**+0.3**
CESE				AML	AML		
DUVT	**Torbali**	**0.65**	**56**	P	**Pg**	**04 20 47.6**	**-0.1**
DUVT				S	**Sg**	**04 20 55.6**	**-0.7**
DUVT				IAML		04 21 00.0	
	comp=E,4μm,0.5s						
KRBN	**Karaburun**	**0.75**	**348**	Pg	**Pg**	**04 20 49.3**	**-0.3**
KRBN				Sg	**Sb**	**04 21 00.9**	**+0.7**
KRBN				AML	AML		
CHOS	**Chios island**	**0.76**	**314**	P	**Pg**	**04 20 49.3**	**-0.6**
CHOS				S	**Sb**	**04 21 01.3**	**+0.6**
CHOS	**Chios island**	**0.76**	**314**	Pg	**Pg**	**04 20 49.9**	**0.0**
CHOS				Sg	**Sb**	**04 21 00.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.76**	**314**	P	**Pg**	**04 20 49.2**	**-0.6**
CHOS				S	**Sb**	**04 21 00.7**	**0.0**
BAGT	**Foa**	**0.80**	**5**	P	**Pb**	**04 20 50.7**	**-0.1**
BAGT				S	**Sb**	**04 21 02.8**	**+1.3**
BAGT				IAML		04 21 04.0	
	comp=N,4μm,0.9s						
BAGT				IAML		04 21 04.0	
	comp=E,8μm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.84**	**150**	Pg	**Pg**	**04 20 50.9**	**-0.4**
YKAV				AML	AML		
KARB	**zmir-Karabur**	**0.85**	**341**	P	**Pg**	**04 20 50.8**	**-0.7**
KARB				S	**Sb**	**04 21 03.2**	**+0.2**
KARB				IAML		04 21 05.0	
	comp=N,4μm,0.8s						
KARB				IAML		04 21 05.0	
	comp=E,3μm,0.6s						
FOCM	**Foa**	**0.85**	**359**	Pg	**Pg**	**04 20 51.4**	**-0.1**
FOCM				AML	AML		
EAG2	**Marmaro, Chios**	**0.85**	**323**	P	**Pg**	**04 20 51.1**	**-0.4**
EAG2				S	**Sb**	**04 21 03.3**	**+0.1**
AYDB	**Zeytinkoy-Aydi**	**0.90**	**84**	Pg	**Pb**	**04 20 52.8**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.91**	**102**	P	**Pb**	**04 20 52.8**	**0.0**
AYDN				S	**Sb**	**04 21 04.8**	**-0.1**
AYDN				IAML		04 21 09.0	
	comp=E,817nm,0.3s						
AYDN				IAML		04 21 12.0	
	comp=N,890nm,0.4s						
BODT	**Bodrum**	**0.91**	**151**	P	**Pg**	**04 20 51.9**	**-0.7**
BODT				S	**Sb**	**04 21 05.7**	**+0.9**
BODT	**Bodrum**	**0.91**	**151**	Pg	**Pg**	**04 20 52.4**	**-0.2**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.92**	**169**	P	**Pg**	**04 20 52.2**	**-0.6**
BDRM	**Kayabasi**	**0.96**	**145**	P	**Pg**	**04 20 53.5**	**-0.1**
BDRM				S	**Sg**	**04 21 05.9**	**-0.3**
BDRM				IAML		04 21 10.0	
	comp=N,2μm,0.8s						
BDRM				IAML		04 21 10.0	
	comp=E,2μm,0.5s						
BODA	**Bodrum-Mula**	**0.98**	**147**	Pg	**Pg**	**04 20 53.9**	**-0.1**
IZMR	**zmir-demi**	**0.98**	**73**	P	**Pg**	**04 20 53.8**	**-0.2**
IZMR				S	**Sg**	**04 21 05.1**	**-1.7**
IZMR				IAML		04 21 09.0	
	comp=N,684nm,0.4s						
IZMR				IAML		04 21 10.0	
	comp=E,1μm,0.7s						
MLSB	**Milas**	**0.99**	**125**	Pg	**Pg**	**04 20 53.9**	**-0.1**
MLSB				AML	AML		
CAMT	**Merkez**	**0.99**	**26**	P	**Pb**	**04 20 54.3**	**+0.2**
CAMT				S	**Sb**	**04 21 07.5**	**+0.5**
CAMT				IAML		04 21 12.0	
	comp=E,6μm,0.8s						
CAMT				IAML		04 21 13.0	
	comp=N,7μm,0.5s						
ZEDA	**zmir-Bergama**	**1.13**	**13**	P	**Pb**	**04 20 56.5**	**-0.1**
ZEDA				S	**Sb**	**04 21 11.8**	**+0.6**
ZEDA				IAML		04 21 15.0	
	comp=N,2μm,0.4s						
ZEDA				IAML		04 21 16.0	
	comp=E,1μm,0.7s						
DKL	**Dikili**	**1.21**	**5**	Pn	**Pb**	**04 20 58.1**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.21**	**5**	P	**Pn**	**04 20 57.4**	**-0.5**
NAZL	**Nazilli-Aydin**	**1.22**	**85**	Pn	**Pg**	**04 20 58.5**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.24**	**47**	Pn	**Pn**	**04 20 58.3**	**+0.1**
GOMA				AML	AML		
TNSA	**Tinos**	**1.31**	**256**	P	**Pn**	**04 20 58.2**	**-0.8**
TNSA				AML	AML		
AKS	**Akhisar**	**1.31**	**39**	Pn	**Pn**	**04 20 59.3**	**+0.1**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.35**	**194**	P	**Pn**	**04 21 00.1**	**+0.5**
ASTA				AML	AML		
YER	**Yerkesik**	**1.41**	**120**	P	**Pn**	**04 21 00.6**	**0.0**
YER				S	**Sn**	**04 21 18.6**	**-0.5**
SOMA	**Soma-Manisa**	**1.43**	**25**	Pn	**Pb**	**04 21 01.5**	**-0.1**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.44**	**345**	P	**Pn**	**04 21 00.4**	**-0.5**
PRK				S	**Sn**	**04 21 19.4**	**-0.2**
PRK	**Paraskevi**	**1.44**	**345**	P	**Pn**	**04 21 00.3**	**-0.6**
GORD	**Gordes-Manisa**	**1.53**	**46**	Pn	**Pb**	**04 21 03.1**	**-0.2**
GORD				AML	AML		
THERA	**Ancient Thera,**	**1.81**	**215**	P	**Pn**	**04 21 04.7**	**-1.3**
SAP3	**Santorini-Thir**	**1.82**	**219**	P	**Pn**	**04 21 06.5**	**+0.4**
KARY	**Karystos**	**1.84**	**276**	P	**Pn**	**04 21 06.2**	**-0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.84**	**276**	P	**Pn**	**04 21 05.2**	**-1.3**
ARG	**Arkhangelos**	**1.97**	**146**	S	**Sn**	**04 21 33.7**	**+0.8**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.97**	**146**	P	**Pn**	**04 21 08.2**	**-0.1**
ARG				AML	AML		
KYMI	**Kymi, Euboea I**	**2.23**	**291**	P	**Pn**	**04 21 11.8**	**0.0**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.23**	**291**	P	**Pn**	**04 21 11.2**	**-0.5**
DION	**Dionisos Attik**	**2.24**	**276**	P	**Pn**	**04 21 12.0**	**+0.1**
DION				AML	AML		
DION	**Dionisos Attik**	**2.24**	**276**	P	**Pn**	**04 21 11.4**	**-0.6**
DION				AML	AML		
PTL	**Penteli**	**2.29**	**276**	P	**Pn**	**04 21 12.8**	**+0.1**
PTL				AML	AML		
PTL	**Penteli**	**2.29**	**276**	P	**Pn**	**04 21 12.2**	**-0.5**
KARP	**Karpathos**	**2.33**	**172**	P	**Pn**	**04 21 13.2**	**0.0**
KARP				AML	AML		
VLY	**Voula,Athens**	**2.35**	**271**	P	**Pn**	**04 21 13.6**	**+0.2**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.35**	**271**	P	**Pn**	**04 21 13.1**	**-0.3**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.35**	**273**	P	**Pn**	**04 21 13.6**	**+0.1**
ATHU	**Athens Univers**	**2.35**	**273**	P	**Pn**	**04 21 13.1**	**-0.5**
LIA	**Limnos Island**	**2.38**	**329**	P	**Pn**	**04 21 13.9**	**+0.1**
LIA				AML	AML		
LIA	**Limnos Island**	**2.38**	**329**	P	**Pn**	**04 21 13.6**	**-0.2**
LIA				AML	AML		
ATH	**Athens Observa**	**2.41**	**274**	P	**Pn**	**04 21 14.6**	**+0.4**
ATH				AML	AML		
GADA	**Gvkgeada**	**2.42**	**344**	P	**Pn**	**04 21 14.6**	**+0.2**
GADA				AML	AML		
NPS	**Neapolis**	**2.75**	**200**	P	**Pn**	**04 21 18.1**	**-0.8**
NPS				AML	AML		
SMTH	**Samothraki Isl**	**2.78**	**340**	P	**Pn**	**04 21 19.1**	**-0.2**
SMTH				AML	AML		
VIL2	**Platees**	**2.78**	**278**	P	**Pn**	**04 21 18.5**	**-0.8**
VIL2				AML	AML		
MET3	**Ano Fanari,Met**	**2.81**	**265**	P	**Pn**	**04 21 19.3**	**-0.5**
IDI	**Anoyia**	**2.98**	**211**	P	**Pn**	**04 21 22.3**	**+0.2**
IDI				AML	AML		
LTK	**Loutraki**	**3.00**	**274**	P	**Pn**	**04 21 22.6**	**+0.2**
LTK				AML	AML		
ALN	**Alexandroupoli**	**3.08**	**350**	P	**Pn**	**04 21 23.7**	**+0.2**
ALN				AML	AML		
NEO	**Neokhori**	**3.12**	**299**	P	**Pn**	**04 21 24.6**	**+0.5**
THAS	**Thassos island**	**3.17**	**331**	P	**

SODR	**Sosua Marina B**	**1.51**	**305**	⇑*e*Pg	Pn	04 24 30.7	+5.1	
SODR				⇑*e*Sg	**Sn**	**04 24 49.2**	**-0.4**	
SODR				IAML		04 25 03.0		
	comp=N,1μm,0.7s							
MADR	**Mao Valverde**	**1.87**	**292**	⇓*e*Pg	**Pn**	**04 24 32.4**	**+3.0**	
MADR				⇑*e*Sg	**Sn**	**04 24 55.2**	**-1.0**	
MADR				IAML		04 25 00.8		
	comp=N,2μm,0.3s							
LUDR	**Luperon**	**1.89**	**302**	⇑*e*Pg	**Pn**	**04 24 33.0**	**+3.4**	
LUDR				*e*Sg	**Sn**	**04 24 54.5**	**-2.1**	
PODR	**Polo**	**2.04**	**250**	⇑*e*Pg	**Pn**	**04 24 34.1**	**+2.5**	
PODR				⇑*e*Sg	**Sn**	**04 24 59.5**	**-0.6**	
PODR				IAML		04 25 02.3		
	comp=N,457nm,0.5s							
NEDR	**Neiba UASD**	**2.08**	**259**	⇑*e*Pg	**Pn**	**04 24 35.0**	**+3.2**	
NEDR				⇑*e*Sg	**Sn**	**04 25 00.8**	**+0.3**	
NEDR				IAML		04 25 02.1		
	comp=N,96nm,0.3s							
JIDR	**Jimani**	**2.49**	**261**	⇑*e*Pg	**Pn**	**04 24 40.3**	**+3.9**	
JIDR				⇑*e*Sg	**Sn**	**04 25 07.8**	**-1.0**	
JIDR				IAML		04 25 10.7		
	comp=N,110nm,1.1s							
QMBU	**Quimbuelo**	**5.39**	**285**	*e*P	**Pn**	**04 25 15.5**	**+1.9**	
QMBU				*e*S	**Sn**	**04 26 12.2**	**-3.2**	
QMBU				IAML		04 26 15.0		
	comp=E,37nm,0.3s							
QMBU				IAML		04 26 15.4		
	comp=N,13nm,0.1s							
NMDO	**Nuevo Mundo**	**5.64**	**288**	*e*P	**Pn**	**04 25 19.2**	**+2.4**	
NMDO				*e*S	**Sn**	**04 26 18.9**	**-2.3**	
NMDO				IAML		04 26 20.4		
	comp=N,9.1nm,0.3s							
NMDO				IAML		04 26 20.6		
	comp=E,8.9nm,0.3s							
MOAC	**Moa**	**5.65**	**289**	*e*P	**Pn**	**04 25 17.7**	**+0.8**	
MOAC				*e*S	**Sn**	**04 26 18.3**	**-3.1**	
MOAC				IAML		04 26 20.9		
	comp=E,19nm,0.2s							
MOAC				IAML		04 26 22.1		
	comp=N,17nm,0.1s							
SABCS	**La Quijada**	**5.89**	**285**	*e*P	**Pn**	**04 25 20.0**	**-0.1**	
SABCS				*e*S	**Sn**	**04 26 23.3**	**-3.9**	
PINC	**Pinares de May**	**6.36**	**286**	*e*P	Pn	04 25 21.7	-4.5	
PINC				*e*S	**Sn**	**04 26 35.6**	**-2.5**	
MARVS	**Santiago de Cu**	**6.36**	**281**	*e*P	**Pn**	**04 25 28.2**	**+1.9**	
MARVS				*e*S	**Sn**	**04 26 37.0**	**-1.3**	
HLGC	**Holguin**	**6.70**	**288**	*e*P	**Pn**	**04 25 34.8**	**+4.0**	
HLGC				*e*S	**Sn**	**04 26 47.2**	**+0.7**	
CHIV	**Chivirico**	**6.84**	**280**	*e*P	**Pn**	**04 25 34.5**	**+1.9**	
CHIV				*e*S	**Sn**	**04 26 44.6**	**-5.0**	
LMGC	**Las Mercedes**	**7.40**	**280**	*e*P	**Pn**	**04 25 41.3**	**+1.3**	
LMGC				*e*S	**Sn**	**04 27 00.3**	**-2.8**	
CCCC	**Cccc**	**8.32**	**287**	*e*P	**Pn**	**04 25 49.5**	**-2.7**	
CCCC				*e*S	Sn	04 27 14.2	-11	

*KOLA **09** 04:29:00.3, 67.67N×33.73E, h0km, ML1.5, Error ellipse: s-maj=2.4km s-min=1.5km az=150.0, Khibiny, mines Kirovsk, Yukspor*

HEL 09 04:29:00.3±0.1, 67.71N×33.64E, h0km, ML1.2, Suspected explosion, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APA	**Apatity**	**0.17**	**213**	P	Pg	04 29 02.8	-0.7
APA0	**Apatity Array**	**0.27**	**248**	P	Pg	04 29 05.5	+0.1
APA0				S	Sg	04 29 09.3	+0.5
LVZ	**Lovozero**	**0.43**	**63**	P	Pg	04 29 07.9	-0.6
LVZ				S	Sg	04 29 13.8	-0.3
LVZ	**Lovozero**	**0.43**	**63**	PG	Pg	04 29 08.0	-0.5
LVZ				SG	Sg	04 29 13.8	-0.2
KVDA	**Kovda**	**1.06**	**197**	P	Pg	04 29 18.6	-2.0
KVDA				S	Sg	04 29 32.5	-1.9
VRF	**Varrio**	**1.54**	**273**	PG	Pn	04 29 27.8	-1.1
VRF				MSG		04 29 46.4	
	comp=Z,1.7nm,0.2s						
VRF				SN	Sn	04 29 49.4	-0.2
RAJF	**Raja-Jooseppi**	**2.14**	**294**	SG	Sb	04 30 06.3	-0.7
OLKF	**Oulanka, Finla**	**2.17**	**232**	PG	Pb	04 29 39.6	-0.8
OLKF				MSG		04 30 04.6	
	comp=Z,1.1nm,0.2s						
OLKF				SG	Sb	04 30 08.6	+0.8
KU6	**Riekki**	**2.25**	**223**	PG	Pb	04 29 40.3	-1.4
	baz=40						
KU6				MSG		04 30 06.9	
	comp=Z,0.6nm,0.2s						
VADS	**Vadso**	**2.88**	**329**	S	Sn	04 30 22.8	+0.3
RNF	**Rovaniemi**	**3.17**	**253**	PN	Pn	04 29 52.0	+0.6
KEV	**Kevo**	**3.17**	**313**	PB	Pn	04 29 52.9	+1.5
KEV				SN	Sn	04 30 31.1	+1.3
ARA0	**ARCESS Array S**	**3.50**	**305**	PN	Pn	04 29 56.6	+0.8
ARCES	**ARCESS Array B**	**3.50**	**305**	P	Pn	04 29 56.3	+0.5
ARCES				S	Sn	04 30 37.5	-0.4
TOF	**Tornio**	**4.02**	**250**	PB	Pb	04 30 07.5	-4.3
TOF				SN	Sn	04 30 47.1	-3.6
KTK1	**Kautokeino**	**4.07**	**294**	SN	Sn	04 30 49.6	-2.4

IDC 09 04:42:54.2±7.5, 5.91S×146.33E, h129km±78km, mb2.8/2, mbtmp3.4/4, MS2.9/1, Error ellipse: s-maj=80.0km s-min=34.7km az=138.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.57**	**167**	P	Pn	04 43 48.6	+0.3
	21nm,0.3s,baz=6.3,slow=9.2,SNR=8.4						
PMG				S	Sn	04 44 30.6	+0.4
	60nm,0.4s,baz=165,slow=18,SNR=17						
CTA	**Charters Tower**	**14.10**	**180**	LR	LR	04 51 43.3	
	comp=Z,48nm,18.1s,baz=26,slow=38						
WRA	**Warramunga Arr**	**18.18**	**219**	P	P	04 46 55.4	-1.7
	0.4nm,0.5s,baz=44,slow=11,SNR=4.9						
ASAR	**Alice Springs**	**21.33**	**213**	P	P	04 47 32.4	+1.3
	0.2nm,0.5s,baz=40,slow=9.0,SNR=2.5						
	0.2nm,0.5s						
ILAR	**Eielson Array**	**85.66**	**23**	P	P	04 55 18.1	-0.1
	0.3nm,0.6s,baz=259,slow=5.3,SNR=5.2						
	0.3nm,0.6s						

TRN 09 04:55:34.7, 9.96N×60.45W, h67km, MD3.6, South-east of Trinidad., Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TRN	**Trinidad (W)**	**1.16**	**306**	*e*P	Pn	04 55 54.5	-0.6
TRN				*e*S	Sn	04 56 10.1	-0.2
PSKH	**Kent House, Po**	**1.28**	**304**	*e*P	Pn	04 55 56.3	-0.3
PSKH				*e*S	Sn	04 56 12.4	-0.7
DMDM	**Guralp CMG5TDE**	**1.31**	**304**	*e*P	Pn	04 55 56.9	-0.2
DMDM				*e*S	Sn	04 56 12.8	-1.1
GRGR	**Grenville**	**2.46**	**331**	*e*P	Pn	04 56 11.8	-0.9
GRGR				*e*S	Sn	04 56 40.1	-1.5
GRW	**Mount Saint Ca**	**2.49**	**332**	*e*P	Pn	04 56 12.6	-0.5
GRW				*e*S	Sn	04 56 42.0	-0.4
SVB	**Belmont**	**3.39**	**347**	*e*P	Pn	04 56 25.7	+0.5
SVB				*e*S	Sn	04 57 01.6	-2.6

*IDC **09** 04:56:37.9±1.2, 8.26N×82.99W, h0km, mb3.9/6, mbtmp3.9/10, ML3.7/4, MS3.1/1, Error ellipse: s-maj=37.1km s-min=17.6km az=34.0*

*UCR **09** 04:56:38.8±0.6, 8.31N×83.06W, h9km±2km, MW4.4, Presumed earthquake*

*UPA **09** 04:56:39.2±1.4, 8.36N×83.03W, h4km±2km, MW4.1, Fault plane solution: NP1:θs183.10000°, δ57.10000°, λ-174.40000°., Presumed earthquake*

*CATAC **09** 04:56:39.7±0.5, 8°N±4°×8°W±°, h4km±1km, M4.5/20, mb5.0/3, MLv4.2/20, Error ellipse: s-maj=7.6km s-min=3.5km az=5.8, confirmed*

*NEIC **09** 04:56:41.0±2.0, 8.41N±0.05×83.05W±0.04, h8km±5km, mb4.6/20, Error ellipse: s-maj=8.1km s-min=5.8km az=189.0*

*RSNC **09** 04:56:41.2±0.4, 8°N±2°×8°3W±°, h27km±2km, M3.9, mb3.9, ML3.1*

ISC 09 04:56:40.1±0.8, 8.34N±0.02×83.02W±0.02, h11km±5km, n203, σ1s18/255, mb4.5/11, 9C-25D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PTPM	**Petroterminale**	**0.19**	**132**	⇑*i*P	**Pg**	**04 56 44.2**	**0.0**
PTPM				*i* S	**Sg**	**04 56 49.8**	**+2.8**
PTPA	**Petro Terminal**	**0.20**	**132**	*e*P	**Pg**	**04 56 44.1**	**-0.2**
CDITO	**Canoas**	**0.28**	**32**	P	**Pg**	**04 56 45.4**	**-0.4**
CDITO				S	**Sg**	**04 56 50.5**	**+0.9**
CDITO	**Canoas**	**0.28**	**32**	⇓*i*P	**Pg**	**04 56 45.4**	**-0.4**
CDITO				*i* S	**Sg**	**04 56 49.7**	**+0.1**
LIMO3	**Limones**	**0.28**	**146**	⇑*i*P	**Pg**	**04 56 45.5**	**-0.3**
LIMO3				*i* S	**Sb**	**04 56 51.9**	**+0.1**
FITO	**Golfito**	**0.32**	**336**	*e*P	**Pg**	**04 56 45.1**	**-1.4**
FITO				*e*S	**Sg**	**04 56 50.3**	**-0.4**
FITO	**Golfito**	**0.32**	**336**	⇓*i*P	**Pg**	**04 56 45.1**	**-1.4**
FITO				*e*S	**Sg**	**04 56 50.4**	**-0.4**
PIRO	**Carate, Puerto**	**0.32**	**282**	P	**Pg**	**04 56 45.2**	**-1.3**
PIRO				S	**Sg**	**04 56 51.0**	**+0.2**
PIRO	**Carate, Puerto**	**0.32**	**282**	Pg	**Pg**	**04 56 45.2**	**-1.3**
PIRO				Sg	**Sg**	**04 56 49.5**	**-1.2**
PIRO	**Carate, Puerto**	**0.32**	**282**	*e*P	**Pg**	**04 56 45.1**	**-1.3**
PIRO	**Carate, Puerto**	**0.32**	**282**	⇑*i*P	**Pg**	**04 56 45.2**	**-1.3**
NELY	**Ciudad Neily**	**0.32**	**14**	*e*P	**Pg**	**04 56 46.0**	**-0.5**
NELY				*e*S	**Sb**	**04 56 52.4**	**-0.6**
NELY	**Ciudad Neily**	**0.32**	**14**	⇓*i*P	**Pg**	**04 56 46.1**	**-0.5**
NELY				*e*S	**Sg**	**04 56 51.0**	**+0.2**
JIME	**Puerto Jimenez**	**0.36**	**304**	*e*P	**Pg**	**04 56 46.0**	**-1.3**
VITO	**San Vito**	**0.48**	**6**	*e*P	**Pg**	**04 56 49.2**	**-0.3**
VITO				*e*S	**Sb**	**04 56 58.2**	**+0.4**
VITO	**San Vito**	**0.48**	**6**	⇓*i*P	**Pg**	**04 56 49.3**	**-0.3**
VITO				*e*S	**Sb**	**04 56 58.3**	**+0.4**
MLIR3	**Monte Lirio, C**	**0.49**	**23**	⇓*i*P	**Pg**	**04 56 49.7**	**-0.1**
MLIR3				*i* S	**Sb**	**04 56 58.4**	**+0.2**
BAGA3	**Bagala, Chiriq**	**0.51**	**75**	⇓*i*P	**Pg**	**04 56 49.9**	**-0.1**
BAGA3				*i* S	**Sb**	**04 56 58.6**	**+0.2**
SCLRA	**Santa Clara, W**	**0.55**	**26**	*e*P	**Pg**	**04 56 50.2**	**-0.2**
SCLR3	**Santa Clara, W**	**0.55**	**26**	⇓*i*P	**Pg**	**04 56 50.7**	**-0.5**
BRU2	**Volcan**	**0.56**	**36**	P	**Pg**	**04 56 50.6**	**-0.5**
BRU2	**Volcan**	**0.56**	**36**		**Pg**	**04 56 50.5**	**-0.6**
BRU2	**Volcan**	**0.56**	**36**	*e*P	**Pg**	**04 56 50.6**	**-0.5**
BRU2	**Volcan**	**0.56**	**36**	⇓*i*P	**Pg**	**04 56 50.7**	**-0.4**
BRU2				*i* S	**Sg**	**04 56 59.5**	**+1.0**
CLLRA	**Cordillera,**	**0.57**	**45**	*e*P	**Pg**	**04 56 50.9**	**-0.4**
CLLRA	**Cordillera,**	**0.57**	**45**	⇓*i*P	**Pg**	**04 56 51.0**	**-0.4**
DVD	**David**	**0.57**	**80**	⇓*e*P	**Pg**	**04 56 50.6**	**-0.7**
DVD				*i* S	**Sb**	**04 57 00.2**	**-0.1**
CTCR	**Cotoan**	**0.61**	**25**	⇓*i*P	**Pg**	**04 56 51.3**	**-0.8**
PTAR3	**Potrerillos Ar**	**0.63**	**56**	⇓*e*P	**Pg**	**04 56 51.8**	**-0.5**
PTAR3				*i* S	**Sg**	**04 57 01.2**	**+0.6**
LOMA3	**Las Lomas, Chi**	**0.63**	**81**	⇓*i*P	**Pg**	**04 56 51.4**	**-0.9**
EDP2	**Potrero Grande**	**0.69**	**347**	*e*P	**Pg**	**04 56 52.5**	**-1.0**
BQTLY	**Boquete Panama**	**0.70**	**53**	*e*P	**Pg**	**04 56 52.6**	**-0.9**
BQTLY	**Boquete Panama**	**0.70**	**53**	⇓*i*P	**Pg**	**04 56 52.7**	**-0.9**
BQTLY				*e*S	**Sb**	**04 57 05.1**	**+1.1**
BGUAL	**Bijagual, Pana**	**0.70**	**76**	*e*P	**Pg**	**04 56 52.7**	**-0.9**
BGUAL	**Bijagual, Pana**	**0.70**	**76**	⇓*i*P	**Pg**	**04 56 52.8**	**-0.9**
BGUAL				*e*S	**Sn**	**04 57 07.8**	**+0.9**
BQSF3	**Alto Boquete,**	**0.71**	**55**	⇓*i*P	**Pg**	**04 56 52.8**	**-1.0**
BQSF3				*i* S	**Sb**	**04 57 04.9**	**+0.6**
FIMO	**Fila Mora**	**0.73**	**333**	*e*P	**Pg**	**04 56 52.6**	**-1.6**
LNBQ3	**Los Naranjos,**	**0.73**	**52**	⇓*i*P	**Pg**	**04 56 53.0**	**-1.3**
LNBQ3				*e*S	**Sb**	**04 57 05.2**	**+0.2**
PANP	**Palmar Norte**	**0.76**	**325**	*e*P	**Pg**	**04 56 52.7**	**-2.0**
PANP				*e*S	**Sg**	**04 57 03.8**	**-0.8**
PSOM3	**Paja de Sombre**	**0.78**	**63**	⇓*i*P	**Pg**	**04 56 53.7**	**-1.4**
PSOM3				*i* S	**Sg**	**04 57 04.3**	**-0.9**
BURE	**Buenos Aires**	**0.89**	**339**	*e*P	**Pg**	**04 56 55.4**	**-1.8**
OCHAL	**Ojochal**	**0.98**	**321**	S	**Sb**	**04 57 12.5**	**+0.6**
EDPE	**Pejibaye, P**	**0.98**	**327**	*e*P	**Pg**	**04 56 56.6**	**-2.4**
RBALA	**Bur**	**1.02**	**58**	*e*P	**Pg**	**04 56 57.8**	**-1.8**
RBALA	**Bur**	**1.02**	**58**	⇓*i*P	**Pg**	**04 56 57.9**	**-1.8**
RBALA				*e*S	**Sg**	**04 57 12.0**	**-0.9**
CHGR2	**Aguacate**	**1.05**	**55**	⇑*i*P	**Pg**	**04 56 58.4**	**-2.0**
CHGR2				*e*S	**Sg**	**04 57 13.8**	**-0.3**
REME3	**Remedios, Chir**	**1.18**	**95**	⇑*e*P	**Pb**	**04 57 00.3**	**-2.2**
REME3				*e*S	**Sn**	**04 57 19.0**	**+0.3**
ZEDO	**Perez Zeledon**	**1.21**	**327**	*e*P	**Pb**	**04 57 01.6**	**-1.3**
CNI2	**El Empalme, Bo**	**1.21**	**27**	⇓*i*P	**Pn**	**04 57 01.0**	**-2.0**
CNI2				*e*S	**Sb**	**04 57 16.9**	**-1.8**
PDCAN	**Manzana , Fuen**	**1.31**	**92**	*e*P	**Pn**	**04 57 02.1**	**-2.3**
PDCAN	**Manzana , Fuen**	**1.31**	**92**	*e*P	**Pn**	**04 57 01.9**	**-2.5**
PDCAN				*e*S	**Sb**	**04 57 21.4**	**-0.3**
RGM0	**Gandoca**	**1.31**	**18**	P	**Pn**	**04 57 04.5**	**+0.1**
RGM0	**Gandoca**	**1.31**	**18**		**Pn**	**04 57 03.7**	**-0.6**
RGM0	**Gandoca**	**1.31**	**18**	*e*P	**Pn**	**04 57 04.2**	**-0.2**
RGM0	**Gandoca**	**1.31**	**18**	⇓*i*P	**Pn**	**04 57 04.3**	**0.0**
RGM0				*i* S	**Sg**	**04 57 22.7**	**+0.3**
BUS1	**Rivas**	**1.41**	**329**	*e*P	**Pn**	**04 57 04.0**	**-2.1**
LAES	**El Progreso Va**	**1.42**	**359**	*e*P	**Pn**	**04 57 04.6**	**-0.2**
QUEP	**Quepos**	**1.57**	**314**	S	**Sb**	**04 57 29.7**	**+0.7**
QUEP	**Quepos**	**1.57**	**314**	*e*P	**Pn**	**04 57 06.3**	**-1.5**
VERH	**Veragua Rainfo**	**1.59**	**354**	*e*P	**Pn**	**04 57 07.0**	**-1.2**
RAZU	**San Marcos de**	**1.65**	**323**	*e*P	**Pn**	**04 57 08.2**	**-0.9**
PITB	**Pirrs, San**	**1.65**	**323**	*e*P	**Pn**	**04 57 08.3**	**-0.8**
LCR2	**La Lucha 2**	**1.70**	**325**	P	**Pn**	**04 57 08.9**	**-1.0**
LCR2				S	**Sb**	**04 57 33.7**	**+0.7**
LCR2	**La Lucha 2**	**1.70**	**325**	Pn	**Pn**	**04 57 08.0**	**-1.9**
LCR2	**La Lucha 2**	**1.70**	**325**	*e*P	**Pn**	**04 57 08.5**	**-1.4**
LCR2	**La Lucha 2**	**1.70**	**325**	⇑*e*P	**Pn**	**04 57 09.1**	**-0.8**
REPA	**Paraso**	**1.70**	**331**	*e*P	**Pn**	**04 57 08.4**	**-1.5**
VINA	**Juan Vinas**	**1.71**	**335**	*e*P	**Pn**	**04 57 08.9**	**-1.0**
PCAYA	**Pacayas**	**1.75**	**334**	*e*P	**Pn**	**04 57 09.6**	**-1.0**
TAAN	**Batan**	**1.77**	**350**	*e*P	**Pn**	**04 57 10.4**	**-0.2**
VTCV	**VTCV, Calle Va**	**1.78**	**337**	*e*P	**Pn**	**04 57 10.4**	**-0.6**
RAFA	**San Farael, Vo**	**1.79**	**334**	Pn	**Pn**	**04 57 08.9**	**-2.4**
RAFA	**San Farael, Vo**	**1.79**	**334**	*e*P	**Pn**	**04 57 10.2**	**-1.0**
RESJ	**San Isidro (Tu**	**1.79**	**340**	*e*P	**Pn**	**04 57 10.1**	**-0.6**
CVTV	**Tajo**	**1.81**	**337**	*e*P	**Pn**	**04 57 10.6**	**-0.8**
VTR0	**Volcan Turrial**	**1.82**	**337**	*e*P	**Pn**	**04 57 10.9**	**-0.8**
VICA	**Volcano Irazu**	**1.83**	**334**	*e*P	**Pn**	**04 57 10.4**	**-1.5**
GMAL	**Guarumal, Vera**	**1.86**	**108**	P	**Pn**	**04 57 09.5**	**-2.4**
GMAL				S	**Sn**	**04 57 35.1**	**-0.4**
GMAL	**Guarumal, Vera**	**1.86**	**108**	*e*P	**Pn**	**04 57 10.0**	**-2.0**
GMAL				*i* S	**Sb**	**04 57 37.1**	**-0.3**
RSUS3	**Rio de Jesus,**	**1.88**	**101**	⇓*e*P	**Pn**	**04 57 11.2**	**-0.9**
RSUS3				*e*S	**Sn**	**04 57 36.5**	**+0.7**
LUJA	**Lujan**	**1.89**	**327**	*e*P	**Pn**	**04 57 12.4**	**0.0**
SJS	**Escuela Geolog**	**1.89**	**327**	*e*P	**Pn**	**04 57 11.7**	**-0.7**
CORON	**Coronado**	**1.89**	**329**	*e*P	**Pn**	**04 57 12.6**	**0.0**
SAFE3	**Santa Fe, Vera**	**1.93**	**84**	*e*P	**Pn**	**04 57 12.4**	**-0.5**
SAFE3				*i* S	**Sn**	**04 57 36.2**	**-1.0**
CVTG	**V. Turrialba,**	**1.95**	**338**	*e*P	**Pn**	**04 57 12.9**	**-0.3**
DOMI	**Santo Domingo**	**1.95**	**327**	*e*P	**Pn**	**04 57 12.8**	**-0.4**
EGUB	**Earth Gu¡pi**	**1.95**	**343**	Pn	**Pn**	**04 57 12.0**	**-0.5**
EGUB	**Earth Gu¡pi**	**1.95**	**343**	*e*P	**Pn**	**04 57 12.8**	**-0.2**
PURI	**Puriscal**	**1.97**	**320**	*e*P	**Pn**	**04 57 12.8**	**-0.7**
HDC	**Heredia**	**1.98**	**327**	P	**Pn**	**04 57 13.6**	**-0.1**
HDC				S	**Sb**	**04 57 40.9**	**+0.1**
HDC	**Heredia**	**1.98**	**327**	Pn	**Pn**	**04 57 13.4**	**-0.2**
HDC	**Heredia**	**1.98**	**327**	*e*P	**Pn**	**04 57 13.4**	**-0.2**
BELE	**Belen**	**2.00**	**325**	*e*P	**Pn**	**04 57 13.6**	**-0.2**
PILE	**Guapiles**	**2.02**	**338**	*e*P	**Pn**	**04 57 14.3**	**+0.2**
STIA3	**Santiago, Vera**	**2.04**	**96**	⇓*e*P	**Pn**	**04 57 14.0**	**-0.4**
STIA3				*i* S	**Sb**	**04 57 41.4**	**-1.3**
UELA	**Alajuela**	**2.04**	**325**	*e*P	**Pn**	**04 57 12.4**	**-2.1**
VBV1	**V. Barva**	**2.06**	**329**	*e*P	**Pn**	**04 57 14.0**	**-1.0**
TCS1	**Tacares**	**2.11**	**323**	P	**Pn**	**04 57 15.8**	**+0.3**
MARI3	**Mariato, Verag**	**2.13**	**109**	⇑*i*P	**Pn**	**04 57 15.4**	**-0.1**
CARI	**Cariari**	**2.13**	**341**	*e*P	**Pn**	**04 57 15.8**	**+0.1**
SRA1	**San Ramn**	**2.26**	**321**	*e*P	**Pn**	**04 57 16.7**	**-0.7**
ARTO	**Ro Cuarto**	**2.32**	**330**	*e*P	**Pn**	**04 57 18.7**	**+0.5**
TRT2	**Tortugero**	**2.32**	**342**	P	**Pn**	**04 57 18.3**	**+0.1**
TRT2	**Tortugero**	**2.32**	**342**	*e*P	**Pn**	**04 57 17.4**	**-0.7**
TRT2	**Tortugero**	**2.32**	**342**	⇑*e*P	**Pn**	**04 57 18.1**	**-0.1**
CHIT3	**Chitre**	**2.61**	**98**	*e*P	**Pn**	**04 57 22.7**	**+0.5**
CHIT3				*i* S	**Sn**	**04 57 55.5**	**+1.6**
PNME	**Penonome**	**2.67**	**87**	P	**Pn**	**04 57 22.8**	**-0.3**
PNME				S	**Sn**	**04 57 55.4**	**-0.1**
PNME	**Penonome**	**2.67**	**87**	*e*P	**Pn**	**04 57 21.6**	**-1.4**
TOSI3	**Tonosi**	**2.72**	**110**	*e*P	**Pn**	**04 57 25.5**	**+1.8**
TOSI3				*i* S	**Sn**	**04 57 58.3**	**+1.7**
JTS	**Las Juntas de**	**2.72**	**316**	Pn	**Pn**	**04 57 23.7**	**-0.1**
	74nm,0.3s,baz=232,slow=7.1,SNR=173						
JTS				Sn	**Sn**	**04 57 55.9**	**-0.8**
	23nm,0.3s,baz=318,slow=21,SNR=5.7						
	161nm,0.3s						
JTS				AML	AML		
JTS	**Las Juntas de**	**2.72**	**316**	P	**Pn**	**04 57 24.6**	**+0.8**
JTS				S	**Sn**	**04 57 57.8**	**+1.1**
JTS	**Las Juntas de**	**2.72**	**316**	Pn	**Pn**	**04 57 24.1**	**+0.3**
JTS	**Las Juntas de**	**2.72**	**316**	P	**Pn**	**04 57 24.3**	**+0.5**
JTS				S	**Sn**	**04 57 55.9**	**-0.8**
COVE	**Coope Vega, Sa**	**2.73**	**330**	P	**Pn**	**04 57 24.6**	**+0.7**
AZU	**Azuero**	**2.77**	**101**	P	**Pn**	**04 57 24.9**	**+0.5**
AZU				S	**Sn**	**04 57 55.9**	**-2.1**
AZU	**Azuero**	**2.77**	**101**	*i* P	**Pn**	**04 57 25.0**	**+0.5**
AZU				*i* S	**Sb**	**04 58 01.5**	**-2.3**
CMARA	**Lajas Hojancha**	**2.90**	**305**	*e*P	**Pn**	**04 57 25.3**	**-1.0**
CMARA	**Lajas Hojancha**	**2.90**	**305**	⇓*i*P	**Pn**	**04 57 25.8**	**-0.5**
PCRI3	**Pocri, Los San**	**2.95**	**103**	⇑*i*P	**Pn**	**04 57 28.9**	**+2.0**
PEDA3	**Pedasi**	**3.08**	**105**	*e*P	**Pn**	**04 57 31.5**	**+2.9**
UPAL	**Upala**	**3.21**	**323**	P	**Pn**	**04 57 31.2**	**+0.7**
BCIP	**Isla Barro Col**	**3.25**	**75**	P	**Pn**	**04 57 31.6**	**+0.5**
BCIP	**Isla Barro Col**	**3.25**	**75**	P	**Pn**	**04 57 31.1**	**0.0**
BCIP				S	**Sn**	**04 58 12.8**	**+2.9**
BCIP	**Isla Barro Col**	**3.25**	**75**	⇓*e*P	**Pn**	**04 57 31.5**	**+0.4**
BCIP				*e*S	**Sn**	**04 58 10.2**	**+0.4**
ALIBA	**Liberia Airpor**	**3.35**	**312**	*e*P	**Pn**	**04 57 33.3**	**+0.9**
GAMB1	**Gamboa**	**3.37**	**76**	*i* P	**Pn**	**04 57 33.2**	**+0.5**
GAMB1				*e*S	**Sn**	**04 58 14.2**	**+1.6**
FRIJ	**El Hiral**	**3.38**	**75**	*e*P	**Pn**	**04 57 32.9**	**+0.2**
FRIJ				*e*S	**Sn**	**04 58 13.5**	**+0.6**
ARRA3	**Arraijan, Pana**	**3.39**	**79**	*e*P	**Pn**	**04 57 33.0**	**+0.1**
LAPC	**Finca la Perla**	**3.39**	**316**	*e*P	**Pn**	**04 57 32.7**	**-0.3**
FLAM	**Flamenco Islan**	**3.49**	**80**	*e*P	**Pn**	**04 57 33.7**	**-0.7**
UPA	**Univ. de Panam**	**3.51**	**79**	P	**Pb**	**04 57 39.2**	**-3.0**
UPA				S	**Sn**	**04 58 18.2**	**+2.1**
UPA	**Univ. de Panam**	**3.51**	**79**	*e*P	**Pn**	**04 57 33.5**	**-1.0**
BLUN	**Bluefields**	**3.72**	**349**	P	**Pn**	**04 57 37.4**	**-0.1**
BLUN	**Bluefields**	**3.72**	**349**	P	**Pn**	**04 57 37.0**	**-0.5**
BLUN				S	**Sn**	**04 58 21.7**	**+0.3**
CARN	**Rivas**	**3.75**	**319**	P	**Pn**	**04 57 39.0**	**+1.1**
CARN	**Rivas**	**3.75**	**319**	Pn	**Pn**	**04 57 38.6**	**+0.7**
CHPO	**Chepo, Panama**	**3.95**	**78**	*e*P	**Pn**	**04 57 41.6**	**+0.9**
OMEN	**Al SSO del Vol**	**4.07**	**321**	P	**Pn**	**04 57 43.4**	**+1.1**
CONN	**Concepcion**	**4.11**	**322**	P	**Pn**	**04 57 44.0**	**+1.2**
ACON	**Acoyapa**	**4.18**	**330**	P	**Pn**	**04 57 45.7**	**+1.8**
ACON				S	**Sn**	**04 58 35.5**	**+2.7**
BOAB	**BOACO BROADBAN**	**4.84**	**328**	P	**Pn**	**04 57 53.8**	**+0.8**
BOAB	**BOACO BROADBAN**	**4.84**	**328**	Pn	**Pn**	**04 57 53.6**	**+0.6**
MGAN	**Managua**	**4.94**	**320**	Pn	**Pn**	**04 57 55.1**	**+0.8**
MGAN	**Managua**	**4.94**	**320**	P	**Pn**	**04 57 55.0**	**+0.7**
	75nm,1.1s						
MGAN				S	**Sn**	**04 58 54.0**	**+2.5**
	75nm,1.1s						
MGAN				AML	A

ISC 09 05:08:24.0±2.7, 79°.83N±0°.07×21°.17E±0°.05, h16km±18km, n14, σ1°39/31, 1C, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SPA0	**Spitsbergen Ar**	**1.90**	**211**	Pn	**Pn**	**05 08 55.2**	**-0.4**
	baz=21,slow=16						
SPA0				Pg	**Pb**	**05 08 58.2**	**-0.1**
	baz=28,slow=16						
SPA0				Sn	**Sn**	**05 09 18.8**	**-0.5**
	baz=34,slow=28						
SPA0				Sg	**Sb**	**05 09 23.9**	**+2.1**
	baz=33,slow=28						
SPA0	**Spitsbergen Ar**	**1.90**	**211**	*i*P	**Pn**	**05 08 54.9**	**-0.8**
SPA0				*i* S	**Sn**	**05 09 18.6**	**-0.7**
SPA0	**Spitsbergen Ar**	**1.90**	**211**	Pn	**Pn**	**05 08 55.2**	**-0.4**
SPA0				Pg	**Pb**	**05 08 58.2**	**-0.1**
SPA0				Sn	**Sn**	**05 09 18.8**	**-0.5**
SPA0				Sg	**Sb**	**05 09 23.9**	**+2.1**
KBS	**Kingsbay**	**1.94**	**246**	Pn	**Pn**	**05 08 55.7**	**-0.5**
KBS				Sn	**Sn**	**05 09 21.2**	**+1.1**
KBS	**Kingsbay**	**1.94**	**246**	Pn	**Pn**	**05 08 55.7**	**-0.5**
KBS				Sn	**Sn**	**05 09 21.2**	**+1.1**
BRBB	**Barentsburg B**	**2.20**	**221**	Pn	**Pn**	**05 08 58.7**	**-1.1**
BRBB				Sn	**Sn**	**05 09 24.5**	**-2.1**
BRBB	**Barentsburg B**	**2.20**	**221**	*e*P	**Pn**	**05 08 58.6**	**-1.2**
BRBB				*e*S	**Sn**	**05 09 24.5**	**-2.1**
BRBA	**Barentsburg A**	**2.23**	**220**	Pn	**Pn**	**05 08 59.2**	**-1.0**
BRBA				Sn	**Sn**	**05 09 25.4**	**-1.9**
BRBA	**Barentsburg A**	**2.23**	**220**	*e*P	**Pn**	**05 08 58.9**	**-1.2**
BRBA				*e*S	**Sn**	**05 09 25.4**	**-1.9**
BRBA				*e*Sg	**Sb**	**05 09 33.5**	**+2.4**
BRBA				IAML		05 09 39.9	
	comp=Z,38nm,0.4s						
HOPEN	**Hopen**	**3.44**	**165**	*e*S	**Sn**	**05 09 57.6**	**+0.7**
HOPEN	**Hopen**	**3.44**	**165**	*e*Pg	**Pb**	**05 09 26.1**	**+1.8**
HOPEN				*e*S	**Sn**	**05 09 56.1**	**-0.8**
HOPEN				*e*Sg	**Sg**	**05 10 12.6**	**-1.5**
HOPEN				IAML		05 10 22.0	
	comp=Z,18nm,0.9s						
OMEGA	**Omega**	**4.56**	**65**	P	**Pn**	**05 09 32.5**	**+0.4**
OMEGA				*e*S	**Sn**	**05 10 22.5**	**-2.1**
	comp=Z,41nm,2.0s						
OMEGA				AML	AML		
ARA0	**ARCESS Array S**	**10.42**	**172**	Pn	**Pn**	**05 10 52.1**	**-0.2**
	baz=357,slow=14						
ARA0				Sn	Sn	05 12 41.6	-6.9
	baz=3.0,slow=22						
ARA0	**ARCESS Array S**	**10.42**	**172**	Pn	**Pn**	**05 10 52.1**	**-0.2**
ARA0				Sn	Sn	05 12 41.6	-6.9

*NEIC **09** 05:23:01.7±2.7, 3°.56S±0°.07×131°.35E±0°.08, h10km±1km, mb4.5/21, Error ellipse: s-maj=15.2km s-min=9.7km az=298.0*
*IDC **09** 05:23:02.2±0.6, 3°.51S×131°.41E, h0km, mb4.2/13, mbtmp4.3/19, ML4.2/5, MS3.9/32, Error ellipse: s-maj=19.7km s-min=10.6km az=86.0*
*GFZ **09** 05:23:05.7±1.3, 3°.5S×13°.1E±°, h18km±10km, M4.7/11, mb4.6/11, Error ellipse: s-maj=6.9km s-min=5.9km az=167.7, confirmed*

ISC 09 05:23:04.7±0.4, 3°.66S±0°.04×131°.29E±0°.06, h24km, n102, σ2°36/78, mb4.5/29, MS3.9/29, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**1.21**	**53**		**Pn**	**05 23 24.2**	**-1.8**
FAKI	**Fak Fak**	**1.21**	**53**	P	**Pn**	**05 23 25.4**	**-0.6**
BNDI	**Bandanaira**	**1.63**	**238**	P	**Pb**	**05 23 35.7**	**+1.6**
MSAI	**Masohi**	**2.38**	**277**	P	**Pn**	**05 23 44.8**	**+2.6**
KMPI	**Kaimana, Papua**	**2.41**	**90**	P	**Pn**	**05 23 43.8**	**+1.2**
SIJI	**Sorong**	**2.77**	**359**	Pn	**Pn**	**05 23 44.6**	**-3.0**
	8.9nm,0.3s,baz=48,slow=4.0,SNR=27						
SIJI				Sn	**Sn**	**05 24 16.7**	**-3.6**
	34nm,0.3s,baz=140,slow=23,SNR=10						
SIJI				LR	LR	05 25 25.6	
	comp=Z,3µm,20.3s,baz=250,slow=55 33nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.77**	**359**	P	**Pn**	**05 23 45.9**	**-1.7**
MWPI	**Manokwari, Pap**	**3.86**	**45**	P	**Pn**	**05 24 03.3**	**+0.7**
SANI	**Sanana**	**5.53**	**287**	P	**Pn**	**05 24 24.6**	**-0.9**
	comp=Z,50nm,0.8s						
MTN	**Manton Dam**	**9.13**	**181**	Pn	**Pn**	**05 25 15.2**	**+0.2**
SOEI	**Soe**	**9.24**	**229**	Pn	**Pn**	**05 25 16.6**	**0.0**
SOEI	**Soe**	**9.24**	**229**	P	Pn	05 25 23.2	+6.6
	comp=Z,285nm,1.2s						
JAY	**Jayapura**	**9.47**	**83**	LR	LR	05 30 19.1	
	comp=Z,375nm,20.6s,baz=11,slow=47						
BATI	**Baumata**	**9.98**	**229**	Pn	Pn	05 25 31.9	+5.2
	comp=Z,6.3nm,0.3s,baz=256,slow=5.5,SNR=5.9						
BATI				LR	LR	05 29 52.2	
	comp=Z,1µm,21.6s,baz=52,slow=40 comp=Z,136nm,0.9s						
BATI				AML	AML		
KAPI	**Kappang**	**11.58**	**263**	Pn	Pn	05 25 54.5	+5.8
	comp=Z,1.1nm,0.3s,baz=75,slow=16,SNR=3.7 comp=Z,4.7nm,0.4s						
KAPI				AML	AML		
KNRA	**Kununurra**	**12.20**	**192**	Pn	**Pn**	**05 25 55.2**	**-1.9**
PLAI	**Plampang**	**14.38**	**248**	P	**Pn**	**05 26 27.9**	**+1.1**
	comp=Z,44nm,1.0s						
FITZ	**Fitzroy Crossi**	**15.38**	**201**	Pn	**Pn**	**05 26 37.1**	**-3.2**
	comp=Z,1.4nm,0.3s,baz=33,slow=12,SNR=32						
FITZ				Sn	**Sn**	**05 29 22.0**	**-8.1**
	comp=Z,1.2nm,0.3s,baz=189,slow=14,SNR=5.1						
FITZ				LR	LR	05 34 17.5	
	comp=Z,477nm,19.5s,baz=22,slow=43 comp=Z,3.8nm,0.3s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.38**	**201**	Pn	**Pn**	**05 26 36.6**	**-3.7**
WB0	**Warramunga Arr**	**16.30**	**170**	Pn	**Pn**	**05 26 49.2**	**-3.0**
WB0				IAmb	IAmb	05 26 58.1	
	comp=Z,40nm,1.1s						
WRAB	**Tennant Creek**	**16.45**	**170**	Pn	**Pn**	**05 26 51.4**	**-2.7**
WRAB				IAmb	IAmb	05 27 03.7	
	comp=Z,38nm,1.1s						
WRAB	**Tennant Creek**	**16.45**	**170**	P	**Pn**	**05 26 55.2**	**+1.1**
	comp=Z,32nm,0.9s						
WRA	**Warramunga Arr**	**16.46**	**170**	Pn	**Pn**	**05 26 50.8**	**-3.5**
	comp=Z,0.9nm,0.3s,baz=351,slow=13,SNR=20						
WRA				Sn	**Sn**	**05 29 47.9**	**-8.4**
	comp=Z,1.8nm,0.3s,baz=0.5,slow=24,SNR=8.2 comp=Z,3.5nm,0.8s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.46**	**170**	Pn	**Pn**	**05 26 50.7**	**-3.5**
WR8	**Warramunga Arr**	**16.50**	**169**	Pn	**Pn**	**05 26 52.5**	**-2.2**
WR8				IAmb	IAmb	05 27 00.5	
	comp=Z,42nm,1.1s						
PMG	**Port Moresby**	**16.76**	**111**	Pn	**Pn**	**05 26 57.6**	**-0.5**
	comp=Z,25nm,0.8s,baz=325,slow=12,SNR=3.6						
QIS	**Mount Isa**	**18.65**	**155**	P	**Pn**	**05 27 23.3**	**+1.9**
	comp=Z,36nm,0.9s						
MTSU	**Mount Surprise**	**19.23**	**139**	P	**Pn**	**05 27 30.7**	**+2.3**
	comp=Z,17nm,0.7s						
AS31	**Alice Springs**	**20.05**	**173**		**Pn**	**05 27 37.6**	**-0.6**
ASAR	**Alice Springs**	**20.05**	**173**	P	**Pn**	**05 27 38.8**	**+0.6**
	comp=Z,41nm,1.0s,baz=344,slow=8.7,SNR=72						
ASAR				S	**S**	**05 31 18.7**	**-2.1**
	comp=Z,6.1nm,0.9s,baz=360,slow=28,SNR=6.2 comp=Z,41nm,1.0s						
ASAR	**Alice Springs**	**20.05**	**173**	P	**P**	**05 27 36.6**	**+0.3**
KRVT	**Keravat (AS076**	**20.70**	**92**	LR	LR	05 37 44.7	
	comp=Z,429nm,18.2s,baz=297,slow=43						
MBWA	**Marble Bar**	**20.71**	**212**	P	**P**	**05 27 43.9**	**+0.4**
GUMO	**Guam**	**21.80**	**38**	LR	LR	05 36 36.9	
	comp=Z,360nm,18.6s,baz=172,slow=38						
CTA	**Charters Tower**	**21.90**	**139**	LR	LR	05 37 55.2	
	comp=Z,757nm,20.4s,baz=338,slow=41						
CTAO	**Charters Tower**	**21.90**	**139**	P	**P**	**05 27 54.5**	**-1.8**
CTAO				IAmb	IAmb	05 28 00.2	
	comp=Z,15nm,0.8s						
CTAO	**Charters Tower**	**21.90**	**139**	P	**P**	**05 27 58.3**	**+2.0**
	comp=Z,25nm,1.4s						
SCJI	**Gunung Srandil**	**22.37**	**259**	P	**P**	**05 28 04.5**	**+3.1**
	comp=Z,55nm,0.6s						
BBJI	**Bungbulang**	**23.83**	**260**	P	**P**	**05 28 13.9**	**-2.3**
MEEK	**Meekatharra**	**25.88**	**207**	P	**P**	**05 28 38.3**	**+3.5**
	comp=Z,14nm,2.3s						
QLP	**Quilpie**	**25.95**	**153**	P	**P**	**05 28 39.4**	**+4.0**
	comp=Z,32nm,1.4s						
FORT	**Forrest**	**27.15**	**186**		**P**	**05 28 46.3**	**+0.1**
FORT				IAmb	IAmb	05 28 52.0	
	comp=Z,9.4nm,0.8s						
BBOO	**Buckleboo**	**29.34**	**172**	P	**P**	**05 29 03.9**	**-1.9**
BBOO				IAmb	IAmb	05 29 12.1	
	comp=Z,6.2nm,1.0s						
STKA	**Stephens Creek**	**29.70**	**162**	P	**P**	**05 29 09.8**	**+0.9**
	comp=Z,7.2nm,0.7s,baz=340,slow=7.1,SNR=19						
STKA				LR	LR	05 43 36.4	
	comp=Z,339nm,19.7s,baz=347,slow=41 comp=Z,7.2nm,0.7s						
STKA	**Stephens Creek**	**29.70**	**162**	P	**P**	**05 29 11.8**	**+2.9**
	comp=Z,60nm,0.9s						
CMSA	**Cobar Meteorol**	**30.87**	**156**	P	**P**	**05 29 22.3**	**+3.0**
	comp=Z,12nm,1.2s						
JCJ	**Chichijima**	**32.33**	**18**	LR	LR	05 41 06.1	
	comp=Z,306nm,18.5s,baz=205,slow=34						
CAN	**Canberra**	**35.52**	**155**	P	**P**	**05 30 03.3**	**+3.4**
	comp=Z,15nm,1.1s						
TOO	**Toolangi**	**36.18**	**161**	P	**P**	**05 30 04.2**	**-1.3**
TOO				IAmb	IAmb	05 30 16.7	
	comp=Z,7.2nm,1.1s						
CM31	**Chiang Mai Arr**	**38.71**	**306**	P	**P**	**05 30 25.1**	**-2.0**
CMAR	**Chiang Mai Arr**	**38.71**	**306**	P	**P**	**05 30 28.4**	**+1.2**
	comp=Z,0.5nm,0.3s,baz=125,slow=6.8,SNR=6.7 comp=Z,0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**38.71**	**306**	P	**P**	**05 30 25.1**	**-2.0**
MJAR	**Matsushiro Arr**	**40.51**	**9**	LR	LR	05 45 17.2	
	comp=Z,216nm,18.9s,baz=191,slow=33						
KSRS	**Korea Array**	**41.02**	**356**	LR	LR	05 47 37.0	
	comp=Z,186nm,20.2s,baz=175,slow=36						
HHC	**Hu-ho-hao-te**	**47.83**	**340**	*e*P	**P**	**05 31 40.7**	**+0.1**
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
HHC				pmax	pmax		
	comp=Z,82nm,5.3s						
ASAJ	**Asahikawa**	**48.63**	**11**	LR	LR	05 53 04.3	
	comp=Z,130nm,18.4s,baz=254,slow=37						
PALK	**Pallekele**	**51.64**	**282**	LR	LR	05 56 23.3	
	comp=Z,138nm,19.9s,baz=91,slow=39						
LBZ	**Lake Benmore**	**53.05**	**146**	P	**P**	**05 32 17.5**	**-2.5**
EVN	**Everest**	**53.10**	**309**	P	**P**	**05 32 18.6**	**-2.7**
EVN				IAmb	IAmb	05 32 44.1	
	comp=Z,5.5nm,0.9s						
EVN	**Everest**	**53.10**	**309**	P	**P**	**05 32 22.1**	**+0.8**
	comp=Z,7.4nm,1.0s						
RPZ	**Rata Peaks**	**53.14**	**145**	LR	LR	05 55 24.1	
	comp=Z,58nm,21.2s,baz=272,slow=36						
HIA	**Hailar**	**53.66**	**351**	P	**P**	**05 32 24.5**	**+0.2**
	comp=Z,3µm,0.5s						
SONM	**Songino Array**	**55.73**	**340**	P	**P**	**05 32 40.4**	**+0.9**
	comp=Z,0.4nm,0.3s,baz=152,slow=6.7,SNR=4.4						
SONM				LR	LR	05 57 44.0	
	comp=Z,87nm,20.7s,baz=140,slow=37 comp=Z,0.4nm,0.3s						
AFI	**Afiamalu**	**57.05**	**104**	LR	LR	05 57 25.5	
	comp=Z,72nm,18.3s,baz=287,slow=36						
PETK	**Petropavlovsk-**	**60.77**	**18**	P	**P**	**05 33 15.1**	**+0.6**
	comp=Z,6.1nm,1.1s,baz=251,slow=9.2,SNR=5.1						
PETK				LR	LR	05 56 11.7	
	comp=Z,81nm,21.4s,baz=209,slow=33 comp=Z,6.1nm,1.1s						
WMQ	**Urumqi**	**61.35**	**325**	*e*P	**P**	**05 33 18.5**	**-0.2**
WMQ				pmax	pmax		
	comp=Z,11nm,1.1s						
WMQ				LR	LR		
	comp=Z,110nm,24.2s						
YAK	**Yakutsk**	**65.52**	**359**	LR	LR	06 02 06.2	
	comp=Z,84nm,20.3s,baz=188,slow=36						
MKAR	**Makanchi Array**	**66.18**	**325**	P	**P**	**05 33 52.3**	**+1.8**
	comp=Z,1.6nm,0.7s,baz=116,slow=5.6,SNR=5.8 comp=Z,1.6nm,0.7s						
MKAR	**Makanchi Array**	**66.18**	**325**	P	**P**	**05 33 48.7**	**-1.7**
KSH2	**Kashi**	**66.59**	**316**	P	**P**	**05 33 54.3**	**+0.9**
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.8s						
SHEM	**Shemya Is, Ala**	**66.74**	**27**	LR	LR	05 57 44.9	
	comp=Z,69nm,20.6s,baz=290,slow=31						
SEY	**Seymchan**	**68.31**	**10**	LR	LR	06 02 59.4	
	comp=Z,94nm,21.1s,baz=151,slow=35						
AAK	**Ala-Archa**	**68.87**	**319**	LR	LR	06 08 20.1	
	comp=Z,18nm,19.5s,baz=118,slow=40						
RAR	**Rarotonga**	**69.06**	**111**	LR	LR	06 04 49.3	
	comp=Z,30nm,19.7s,baz=254,slow=36						
ZAA0	**Zalesovo Array**	**69.19**	**333**	P	**P**	**05 34 07.7**	**-1.5**
ZAA0				IAmb	IAmb	05 34 10.8	
	comp=Z,6.7nm,1.4s						
ZALV	**Zalesovo Beam**	**69.19**	**333**	P	**P**	**05 34 10.1**	**+0.8**
	comp=Z,1.3nm,0.6s,baz=112,slow=7.6,SNR=4.9						
ZALV				LR	LR	06 07 18.9	
	comp=Z,63nm,19.0s,baz=72,slow=38 comp=Z,1.3nm,0.6s						
ZALV	**Zalesovo Beam**	**69.19**	**333**		**P**	**05 34 07.6**	**-1.7**
ARSB	**Arslanbob**	**69.32**	**317**	P	**P**	**05 34 09.7**	**-0.8**
KURBB	**Kurchatov Arra**	**70.38**	**327**	P	**P**	**05 34 17.3**	**+0.7**
	comp=Z,2.2nm,0.6s,baz=126,slow=5.6,SNR=20 comp=Z,2.2nm,0.6s						
KURK	**Kurchatov**	**70.38**	**328**	P	**P**	**05 34 16.7**	**+0.1**
KURK	**Kurchatov**	**70.38**	**328**	P	**P**	**05 34 18.6**	**+2.1**
	comp=Z,7.2nm,0.9s						
VNDA	**Vanda**	**75.59**	**173**	P	**P**	**05 34 49.4**	**+2.3**
	comp=Z,1.4nm,0.8s,baz=336,slow=6.2,SNR=9.0						
VNDA				LR	LR	06 09 46.4	
	comp=Z,156nm,18.2s,baz=341,slow=37 comp=Z,1.4nm,0.8s						
VNDA	**Vanda**	**75.59**	**173**	P	**P**	**05 34 47.1**	**0.0**
VNDA				IAmb	IAmb	05 35 26.6	
	comp=Z,4.8nm,1.2s						
BVAR	**Borovoye Array**	**75.95**	**327**	P	**P**	**05 34 51.0**	**+1.5**
	comp=Z,2.5nm,0.8s,baz=99,slow=4.7,SNR=5.9 comp=Z,2.5nm,0.8s						
PPT	**Papeete**	**78.55**	**107**	LR	LR	06 09 14.2	
	comp=Z,53nm,19.3s,baz=294,slow=35						
PPT2	**Papeete2**	**78.55**	**107**	*e*LR	LR	05 59 23.1	
	comp=Z,100nm,23.5s						
PPT2				*e*LR	LR	05 59 27.1	
	comp=Z,108nm,26.5s						
NRIK	**Noril'sk**	**78.66**	**346**	P	**P**	**05 35 04.8**	**+0.5**
	comp=Z,1.5nm,0.5s,baz=187,slow=6.7,SNR=3.6 comp=Z,1.5nm,0.5s						
AB31	**Akbulak array**	**80.72**	**321**	P	**P**	**05 35 15.5**	**-0.5**
AB31				IAmb	IAmb	05 35 29.2	
	comp=Z,4.2nm,1.3s						
ABKAR	**Akbulak array**	**80.72**	**321**	P	**P**	**05 35 15.7**	**-0.2**
KDAK	**Kdak Island**	**85.72**	**31**	LR	LR	06 08 00.7	
	comp=Z,133nm,20.7s,baz=245,slow=32						
QSPA	**South Pole Qui**	**86.30**	**180**	P	**P**	**05 35 45.5**	**+1.1**
	comp=Z,1.8nm,0.9s,baz=306,slow=2.8,SNR=6.9 comp=Z,1.8nm,0.9s						
QSPA	**South Pole Qui**	**86.30**	**180**	P	**P**	**05 35 43.8**	**-0.6**
TAOE	**Nuku Hiva Isla**	**88.03**	**99**	*e*LR	LR	06 03 44.8	
	comp=Z,70nm,21.9s						
ILAR	**Eielson Array**	**89.79**	**25**	P	**P**	**05 36 01.6**	**+0.7**
	comp=Z,0.2nm,0.6s,baz=266,slow=3.8,SNR=4.4						
ILAR				LR	LR	06 13 06.9	
	comp=Z,36nm,19.0s,baz=262,slow=34 comp=Z,0.2nm,0.6s						
ASF	**Jabal al Asfar**	**95.65**	**302**	LR	LR	06 26 07.5	
	comp=Z,30nm,19.8s,baz=116,slow=40						
MMAI	**Mount Meron Ar**	**96.91**	**303**	LR	LR	06 29 23.2	
	comp=Z,40nm,18.1s,baz=102,slow=41						
EIL	**Elat**	**97.30**	**299**	LR	LR	06 25 50.9	
	comp=Z,60nm,20.1s,baz=96,slow=39						
SPITS	**Spitsbergen Ar**	**98.55**	**349**	LR	LR	06 23 31.0	
	comp=Z,82nm,21.4s,baz=60,slow=37						
SNAA	**Sanae**	**99.19**	**193**	LR	LR	06 21 14.4	
	comp=Z,101nm,21.9s,baz=193,slow=35						
TORD	**Torodi Ar. Bea**	**129.34**	**284**	PKP	**PKPdf**	**05 42 12.9**	**+0.7**
	comp=Z,1.2nm,1.0s,baz=229,slow=3.3,SNR=4.0						
CPUP	**Villa Florida**	**149.04**	**165**	PKPbc	**PKPbc**	**05 42 52.8**	**+1.2**
	comp=Z,1.8nm,0.9s,baz=55,slow=6.4,SNR=4.5						
LPAZ	**La Paz**	**152.41**	**136**	PKPbc	**PKiKP**	**05 43 04.0**	**+3.1**
	comp=Z,1.0nm,0.8s,baz=260,slow=0.9,SNR=4.2						

*AFAD **09** 05:54:30.8, 37°.86N×26°.85E, h7km±1km, ML2.5*
*ISK **09** 05:54:30.6, 37°.87N×26°.88E, h14km, ML2.5/20*

ISC 09 05:54:31.1±0.9, 37°.87N×26°.87E±0°.03, h13km±7km, n38, σ0°71/55, 2C, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.18**	**4**	P	**Pg**	**05 54 35.0**	**-0.2**
DGB				S	**Sg**	**05 54 38.1**	**0.0**
DGB				IAML		05 54 39.0	
	comp=E,700nm,0.2s						
GMLD	**Gumuldur**	**0.21**	**11**	Pg	**Pg**	**05 54 35.6**	**-0.1**
GMLD				Sg	**Sg**	**05 54 39.6**	**+0.8**
KUSD	**Kusadasi-Aydin**	**0.33**	**92**	Pg	**Pg**	**05 54 37.6**	**-0.3**
KUSD				Sg	**Sg**	**05 54 42.9**	**+0.5**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**120**	P	**Pg**	**05 54 37.8**	**-0.2**
GCAM				S	**Sb**	**05 54 43.4**	**-0.7**
GCAM				IAML		05 54 44.0	
	comp=N,411nm,0.2s						
GCAM				IAML		05 54 44.0	
	comp=E,339nm,0.2s						
GCAM	**G?zelcaml?**	**0.34**	**120**	Pg	**Pg**	**05 54 37.7**	**-0.2**
GCAM				Sg	**Sg**	**05 54 42.8**	**+0.3**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**8**	P	**Pg**	**05 54 38.1**	**-0.2**
BEYE				S	**Sg**	**05 54 43.5**	**+0.3**
BEYE				IAML		05 54 44.0	
	comp=E,345nm,0.3s						
BEYE				IAML		05 54 45.0	
	comp=N,412nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**322**	P	**Pg**	**05 54 40.0**	**-0.3**
ZEYE				S	**Sg**	**05 54 46.9**	**+0.3**
ZEYE				IAML		05 54 50.0	
	comp=N,655nm,0.3s						
ZEYE				IAML		05 54 50.0	
	comp=E,420nm,0.3s						
BLCB	**Balcova**	**0.53**	**15**	Pg	**Pg**	**05 54 41.3**	**-0.2**
BLCB				Sg	**Sb**	**05 54 49.2**	**-0.6**
DUVT	**Torbali**	**0.58**	**53**	P	**Pg**	**05 54 42.1**	**-0.2**
DUVT				S	**Sg**	**05 54 49.9**	**-0.1**
DUVT				IAML		05 54 54.0	
	comp=E,570nm,0.5s						
CESE	**eme**	**0.64**	**316**	Pg	**Pg**	**05 54 43.4**	**-0.2**
CESE				AML	AML		
KRBN	**Karaburun**	**0.76**	**341**	Pg	**Pg**	**05 54 45.4**	**-0.5**
KRBN				Sg	**Sb**	**05 54 57.1**	**+0.6**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.81**	**84**	Pg	**Pb**	**05 54 46.9**	**-0.2**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.81**	**156**	Pg	**Pb**	**05 54 46.7**	**-0.4**
YKAV				AML	AML		
CHOS	**Chios island**	**0.82**	**309**	Pg	**Pb**	**05 54 47.6**	**+0.4**
CHOS				AML	AML		
FOCM	**Foa**	**0.85**	**353**	Pg	**Pg**	**05 54 46.8**	**-0.7**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.87**	**336**	P	**Pg**	**05 54 46.9**	**-1.0**
KARB				S	**Sb**	**05 55 00.3**	**+0.8**
KARB				IAML		05 55 01.0	
	comp=N,202nm,0.4s						
KARB				IAML		05 55 03.0	
	comp=E,340nm,0.5s						
BODT	**Bodrum**	**0.88**	**156**	Pg	**Pg**	**05 54 47.8**	**-0.3**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.90**	**73**	P	**Pg**	**05 54 47.6**	**-0.8**
IZMR				S	**Sg**	**05 54 58.9**	**-1.3**
IZMR				IAML		05 55 03.0	
	comp=E,90nm,0.4s						
MLSB	**Milas**	**0.92**	**128**	Pg	**Pg**	**05 54 48.4**	**-0.5**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.93**	**150**	P	**Pb**	**05 54 48.9**	**-0.1**
BDRM				S	**Sb**	**05 55 01.0**	**-0.2**
BDRM				IAML		05 55 03.0	
	comp=E,203nm,0.6s						
BDRM				IAML		05 55 05.0	
	comp=N,149nm,0.8s						
BDRM	**Kayabasi**	**0.93**	**150**	⇑P	**Pg**	**05 54 48.1**	**-0.8**
CAMT	**Merkez**	**0.94**	**22**	P	**Pb**	**05 54 49.3**	**0.0**
CAMT				S	**Sn**	**05 55 03.1**	**-0.2**
CAMT				IAML		05 55 05.0	
	comp=N,320nm,0.3s						
CAMT				IAML		05 55 05.0	
	comp=E,434nm,0.3s						
ZEDA	**zmir-Bergama**	**1.11**	**9**	P	**Pb**	**05 54 52.0**	**-0.1**
ZEDA				S	**Sn**	**05 55 07.6**	**+0.2**
ZEDA				IAML		05 55 09.0	
	comp=N,130nm,0.5s						
ZEDA				IAML		05 55 10.0	
	comp=E,172nm,0.8s						
NAZL	**Nazilli-Aydin**	**1.13**	**85**	Pn	**Pb**	**05 54 52.0**	**-0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.18**	**44**	Pn	**Pb**	**05 54 53.1**	**-0.1**
DKL	**Dikili**	**1.20**	**1**	Pn	**Pn**	**05 54 53.2**	**-0.3**
DKL				AML	AML		
AKS	**Akhisar**	**1.25**	**36**	Pn	**Pn**	**05 54 54.1**	**-0.2**
KTTT	**Salihli**	**1.26**	**49**	P	**Pg**	**05 54 55.2**	**-0.2**
KTTT				S	**Sg**	**05 55 11.5**	**-0.4**
KTTT				IAML		05 55 13.0	
	comp=N,79nm,0.7s						
DAT	**Datca**	**1.27**	**153**	Pn	**Pb**	**05 54 54.9**	**-0.1**
DAT				AML	AML		
APE	**Apeiranthos**	**1.33**	**233**	Pn	**Pn**	**05 54 55.4**	**0.0**
APE				AML	AML		
YER	**Yerkesik**	**1.34**	**123**	Pn	**Pb**	**05 54 55.8**	**-0.4**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**22**	Pn	**Pn**	**05 54 56.1**	**0.0**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.46**	**44**	Pn	**Pn**	**05 54 56.9**	**-0.3**
GORD				AML	AML		
TURN	**Turunc**	**1.55**	**134**	Pn	**Pn**	**05 54 58.7**	**+0.4**
TURN				AML	AML		
STEP	**BALIKESIR_Sava**	**1.65**	**24**	P	**Pb**	**05 55 01.4**	**+0.1**
STEP				S	**Sg**	**05 55 24.5**	**+0.5**
STEP				IAML		05 55 34.0	
	comp=N,88nm,0.5s						
STEP				IAML		05 55 38.0	
	comp=E,82nm,0.7s						
TAVA	**DENIZLI_Tavas**	**1.67**	**103**	⇑P	**Pg**	**05 55 07.1**	**+3.9**

THE					AML	AML			
THE	**Thessaloniki**	**1.24**	**302**		P	**Pb**	**05 55 19.8**	**-0.2**
THE					AML	AML			
SRS	**Serrai**	**1.28**	**334**		P	**Pn**	**05 55 19.9**	**-0.4**
SRS					AML	AML			
SRS	**Serrai**	**1.28**	**334**		P	**Pn**	**05 55 19.6**	**-0.7**
SRS					AML	AML			
KYMI	**Kymi, Euboea I**	**1.35**	**188**		P	**Pn**	**05 55 21.3**	**+0.1**
KYMI					AML	AML			
KYMI	**Kymi, Euboea I**	**1.35**	**188**		P	**Pn**	**05 55 21.0**	**-0.2**
KYMI					S	**Sn**	**05 55 39.0**	**-0.1**
KYMI					AML	AML			
NVR	**Nevrokopi**	**1.42**	**345**		P	**Pn**	**05 55 22.0**	**-0.3**
NVR					AML	AML			
NVR	**Nevrokopi**	**1.42**	**345**		P	**Pn**	**05 55 21.9**	**-0.3**
NVR					AML	AML			
ALEX	**Alexandroupoli**	**1.48**	**53**		P	**Pn**	**05 55 22.9**	**-0.1**
CAVK	**Edirne/Enez-Ca**	**1.57**	**62**	⇑	P	**Pn**	**05 55 24.2**	**0.0**
ENEZ	**Enez**	**1.58**	**61**		P	**Pn**	**05 55 24.5**	**+0.1**
ENEZ					AML	AML			
ALN	**Alexandroupoli**	**1.59**	**54**		P	**Pn**	**05 55 24.4**	**-0.1**
ALN					AML	AML			
ALN	**Alexandroupoli**	**1.59**	**54**		P	**Pn**	**05 55 24.1**	**-0.5**
ALN					AML	AML			
KNT	**Kendrikon**	**1.62**	**318**		P	**Pn**	**05 55 25.1**	**+0.2**
KNT					AML	AML			
MMB	**Musomishta**	**1.64**	**344**		P	**Pn**	**05 55 25.4**	**+0.2**
MMB					AML	AML			
MMB	**Musomishta**	**1.64**	**344**		P	**Pn**	**05 55 25.3**	**+0.1**
ATAL	**Atalanti**	**1.64**	**219**		P	**Pn**	**05 55 25.2**	**0.0**
ATAL	**Atalanti**	**1.64**	**219**		P	**Pn**	**05 55 25.1**	**-0.1**
TYRN	**Tyrnavos**	**1.65**	**262**		P	**Pn**	**05 55 25.5**	**+0.2**
TYRN					AML	AML			
RZN	**Rozhen**	**1.75**	**10**		P	**Pn**	**05 55 27.3**	**+0.4**
RZN					AML	AML			
RZN	**Rozhen**	**1.75**	**10**		P	**Pn**	**05 55 27.0**	**+0.1**
AXAR	**Agios Charalam**	**1.78**	**228**		P	**Pn**	**05 55 27.6**	**+0.5**
AXAR					AML	AML			
GRG	**Griva**	**1.78**	**304**		P	**Pn**	**05 55 27.4**	**+0.2**
KDZ	**Kurdzhali**	**1.82**	**24**		P	**Pn**	**05 55 28.1**	**+0.4**
KDZ					AML	AML			
KDZ	**Kurdzhali**	**1.82**	**24**		P	**Pn**	**05 55 27.7**	**0.0**
AGG	**Agios Georgios**	**1.82**	**239**		P	**Pn**	**05 55 28.0**	**+0.2**
AGG					AML	AML			
AGG	**Agios Georgios**	**1.82**	**239**		P	**Pn**	**05 55 28.0**	**+0.2**
AGG					AML	AML			
THL	**Klokotos Trika**	**1.84**	**258**		P	**Pn**	**05 55 28.2**	**+0.2**
STFN	**Stefani**	**1.90**	**199**		P	**Pn**	**05 55 29.0**	**+0.2**
STFN					AML	AML			
STFN	**Stefani**	**1.90**	**199**		P	**Pn**	**05 55 28.7**	**-0.1**
STFN					AML	AML			
VAY	**Valandovo**	**1.91**	**316**	*i* Pn		**Pg**	**05 55 33.0**	**-0.2**
DION	**Dionisos Attik**	**1.92**	**190**		P	**Pn**	**05 55 29.7**	**+0.7**
DION					AML	AML			
DION	**Dionisos Attik**	**1.92**	**190**		P	**Pn**	**05 55 29.3**	**+0.2**
DION					AML	AML			
KARY	**Karystos**	**1.94**	**178**		P	**Pn**	**05 55 29.6**	**+0.3**
KARY					AML	AML			
VIL2	**Platees**	**1.95**	**206**		P	**Pn**	**05 55 29.9**	**+0.4**
VIL2					AML	AML			
KKB	**Krupnik**	**2.08**	**334**		P	**Pn**	**05 55 32.1**	**+0.8**
PEHC	**Pehcevo**	**2.11**	**329**	*i* Pn		**Pn**	**05 55 32.5**	**+0.7**
VLY	**Voula,Athens**	**2.16**	**192**		P	**Pn**	**05 55 32.9**	**+0.6**
VLY					AML	AML			
VLY	**Voula,Athens**	**2.16**	**192**		P	**Pn**	**05 55 32.6**	**+0.2**
VLY					AML	AML			
PLD	**Plovdiv**	**2.19**	**8**		P	**Pn**	**05 55 33.1**	**+0.2**
LTK	**Loutraki**	**2.22**	**209**		P	**Pn**	**05 55 33.7**	**+0.4**
LTK					AML	AML			
EVR	**Evrytania**	**2.23**	**243**		P	**Pn**	**05 55 34.5**	**+1.1**
KPRO	**Kipourio**	**2.29**	**271**		P	**Pn**	**05 55 35.2**	**+1.0**
KPRO					AML	AML			
KALE	**Kalithea**	**2.33**	**228**		P	**Pn**	**05 55 35.7**	**+0.9**
ANX	**Ano Chora**	**2.33**	**235**		P	**Pn**	**05 55 35.4**	**+0.6**
ANX					AML	AML			
SERG	**Sergoula**	**2.36**	**230**		P	**Pn**	**05 55 35.9**	**+0.7**
SERG					AML	AML			
MG00	**Magoula, Dorid**	**2.43**	**231**		P	**Pn**	**05 55 36.9**	**+0.9**
MG00					AML	AML			
PENT	**Pentalofos**	**2.47**	**276**		P	**Pn**	**05 55 37.6**	**+0.9**
MET2	**Kameni Chora,**	**2.49**	**199**		P	**Pn**	**05 55 36.6**	**-0.2**
MET2					AML	AML			
EPID	**Epidavros**	**2.54**	**203**		P	**Pn**	**05 55 38.1**	**+0.5**
MET3	**Ano Fanari,Met**	**2.55**	**200**		P	**Pn**	**05 55 37.9**	**+0.2**
NEST	**Nestorio**	**2.56**	**281**		P	**Pn**	**05 55 39.6**	**+1.6**
PVO	**Paravola**	**2.57**	**239**		P	**Pn**	**05 55 40.1**	**+2.1**
AGRP	**Agrapidokambos**	**2.57**	**233**		P	**Pn**	**05 55 39.1**	**+1.0**
AGRP					AML	AML			
KLV	**Kalavryta, Ach**	**2.58**	**222**		P	**Pn**	**05 55 38.4**	**+0.3**
PLNA	**Plana**	**2.60**	**345**		P	**Pn**	**05 55 39.6**	**+1.1**
VTS	**Vitosha**	**2.77**	**343**		P	**Pn**	**05 55 41.7**	**+0.8**
BLSH	**Balsha**	**2.99**	**345**		P	**Pn**	**05 55 45.2**	**+1.3**
ELND	**Elena**	**3.17**	**21**	⇑	P	**Pn**	**05 55 46.4**	**+0.1**
MPEP	**Malo Peshtene**	**3.41**	**353**		P	**Pn**	**05 55 50.0**	**+0.4**
PLVB	**Pleven**	**3.42**	**3**	⇓	P	**Pn**	**05 55 51.7**	**+2.1**
BLKB	**Belogradchik**	**3.85**	**342**	⇑	P	**Pn**	**05 55 56.5**	**+0.8**
BOVS	**Bovan**	**4.16**	**333**	⇓	P	**Pn**	**05 56 00.8**	**+0.9**
HERR	**Herculane**	**5.11**	**344**	⇑	P	**Pn**	**05 56 12.3**	**-0.6**
MDVR	**Moldovita**	**5.19**	**339**	⇑	P	**Pn**	**05 56 13.6**	**-0.4**
ARR	**Arges**	**5.40**	**2**	⇑	P	**Pn**	**05 56 17.6**	**+0.7**
VOIR		**5.49**	**5**	⇓	P	**Pn**	**05 56 19.4**	**+1.2**
GZR	**Gura Zlata**	**5.54**	**348**	⇓	P	**Pn**	**05 56 19.1**	**+0.3**
MLR	**Muntele Rosu**	**5.64**	**12**	⇑	P	**Pn**	**05 56 17.8**	**-2.5**
VRI	**Vrincioaia**	**6.14**	**16**	⇓	P	**Pn**	**05 56 27.9**	**+0.8**
MARR	**Marisel-Cluj**	**6.76**	**353**	⇓	P	**Pn**	**05 56 34.1**	**-1.5**
DRGR		**6.92**	**351**	⇑	P	**Pn**	**05 56 39.7**	**+1.9**
BURAR	**Bucovina Array**	**7.67**	**4**	⇑	P	**Pn**	**05 56 46.7**	**-1.4**

*IDC **09** 05:57:46.9±3.3, 7.°32S×156.°03E, h113km±32km, mb3.8/9, mbtmp4.2/10, MS3.9/4, Error ellipse: s-maj=24.8km s-min=22.2km az=131.0*

ISC 09 05:57:45.6±0.8, 7.°3S±0.°2×156.°0E±0.°1, h100km, n20, σ0°83/12, mb3.9/9, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**4.48**	**119**	P	**Pn**	**05 58 50.5**	**-0.7**
	56nm,0.4s,baz=326,slow=4.3,SNR=3.6						
HNR				S	**Sn**	**05 59 43.5**	**+1.2**
	346nm,0.8s,baz=283,slow=21,SNR=4.4						
HNR				LR	LR	06 00 22.3	
	comp=Z,212nm,18.8s,baz=3.0,slow=35						
WRA	**Warramunga Arr**	**24.49**	**237**	P	**P**	**06 02 55.2**	**-0.5**
	1.1nm,0.7s,baz=63,slow=9.7,SNR=7.8						
	1.1nm,0.7s						
ASAR	**Alice Springs**	**26.75**	**230**	P	**P**	**06 03 16.4**	**+0.2**
	0.3nm,0.7s,baz=61,slow=8.1,SNR=2.8						
	0.3nm,0.7s						
H11S3	**WAKE ISLAND Hy**	**27.68**	**22**	T	T	06 31 42.2	
	baz=202,slow=75,SNR=30						
H11S2	**WAKE ISLAND Hy**	**27.68**	**22**	T	T	06 31 46.0	
	baz=202,slow=75,SNR=27						
H11S1	**WAKE ISLAND Hy**	**27.69**	**22**	T	T	06 31 43.5	
	baz=202,slow=75,SNR=17						
H11N1	**WAKE ISLAND Hy**	**28.87**	**22**	T	T	06 33 16.5	
	baz=202						
H11N3	**WAKE ISLAND Hy**	**28.88**	**22**	T	T	06 33 14.6	
	baz=202,SNR=4.7						
H11N2	**WAKE ISLAND Hy**	**28.89**	**22**	T	T	06 33 19.1	
	baz=202						
KAPI	**Kappang**	**36.09**	**271**	LR	LR	06 21 31.6	
	comp=Z,512nm,19.0s,baz=77,slow=39						
SONM	**Songino Array**	**70.08**	**327**	P	**P**	**06 08 48.0**	**+0.9**
	1.3nm,0.6s,baz=132,slow=6.4,SNR=7.5						
	1.3nm,0.6s						
PALK	**Pallekele**	**76.45**	**279**	LR	LR	06 47 23.7	
	comp=Z,104nm,18.5s,baz=87,slow=39						
QSPA	**South Pole Qui**	**82.73**	**180**	P	**P**	**06 09 57.8**	**-0.4**
	0.9nm,0.5s,baz=199,slow=0.9,SNR=11						
	0.9nm,0.5s						
ILAR	**Eielson Array**	**83.25**	**21**	P	**P**	**06 09 59.5**	**-1.2**
	0.2nm,0.4s,baz=260,slow=6.4,SNR=5.8						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**84.25**	**318**	P	**P**	**06 10 07.0**	**+0.8**
	4.7nm,0.7s,baz=106,slow=5.4,SNR=23						
	4.7nm,0.7s						
ZALV	**Zalesovo Beam**	**84.94**	**326**	P	**P**	**06 10 09.8**	**+0.4**
	2.7nm,0.4s,baz=114,slow=5.8,SNR=10						
	2.7nm,0.4s						
KURBB	**Kurchatov Arra**	**87.67**	**322**	P	**P**	**06 10 22.8**	**-0.2**
	1.7nm,0.2s,baz=97,slow=3.8,SNR=4.1						
	1.7nm,0.2s						
BVAR	**Borovoye Array**	**93.09**	**323**	P	**P**	**06 10 48.2**	**0.0**
	1.0nm,0.6s,baz=75,slow=7.8,SNR=4.0						
	1.0nm,0.6s						
ELK	**Elko**	**93.75**	**50**	LR	LR	06 44 19.6	
	comp=Z,116nm,21.4s,baz=14,slow=30						
BDFB	**Brasilia**	**147.10**	**134**	PKPbc	**PKPdf**	**06 17 16.8**	**+0.8**
	2.8nm,0.8s,baz=243,slow=2.8,SNR=3.7						

*AEIC **09** 06:09:37.1±1.4, 51.°9N±0.°1×178.°3E±0.°1, h118km±3km, Error ellipse: s-maj=16.2km s-min=9.1km az=172.0*
*NEIC **09** 06:09:37.0±1.3, 51.°79N±0.°09×178.°29E±0.°08, h122km±4km, mb4.0/16, ML3.6/10, ML3.4(AEIC), Error ellipse: s-maj=12.9km s-min=7.2km az=188.0*
*IDC **09** 06:09:39.0±4.6, 52.°32N×178.°11E, h144km±68km, mb2.9/4, mbtmp3.6/6, Error ellipse: s-maj=85.5km s-min=38.2km az=140.0*

ISC 09 06:09:36.9±0.8, 51.°8N±0.°1×178.°29E±0.°05, h124km±6km, n48, σ0°78/48, mb3.4/7, Rat Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSNW	**Little Sitkin**	**0.20**	**44**		**Pn**	**06 09 53.8**	**-0.2**
LSNW					**Sn**	**06 10 06.2**	**-0.7**
LSSE	**Little Sitkin**	**0.21**	**58**		**Pn**	**06 09 54.1**	**+0.1**
LSPA	**Little Sitkin**	**0.22**	**53**		**Pn**	**06 09 54.0**	**0.0**
LSPA					**Sn**	**06 10 07.3**	**+0.4**
AMKA	**Amchitka**	**0.78**	**125**		**Pn**	**06 09 57.5**	**+0.3**
AMKA					**Sn**	**06 10 12.1**	**-0.4**
CESW	**Semis' Southwe**	**0.80**	**84**		**Pn**	**06 09 57.0**	**-0.3**
CESW					**Sn**	**06 10 11.4**	**-1.4**
CERB	**Semis' Cerberu**	**0.84**	**82**		**Pn**	**06 09 58.0**	**+0.3**
CERB					**Sn**	**06 10 14.7**	**+1.3**
CEPE	**Semis' Perret**	**0.86**	**80**		**Pn**	**06 09 57.7**	**-0.1**
SHEM	**Shemya Is, Ala**	**2.73**	**291**	P	**Pn**	**06 10 19.7**	**+0.1**
	19nm,0.3s,baz=79,slow=10,SNR=9.6						
SHEM				S	**Sn**	**06 10 51.2**	**-1.3**
	77nm,0.3s,baz=319,slow=0.8,SNR=5.6						
SHEM	**Shemya Is, Ala**	**2.73**	**291**		**Pn**	**06 10 20.0**	**+0.3**
SMY	**Shemya**	**2.73**	**291**		**Pn**	**06 10 19.6**	**-0.1**
SMY				IAML		06 10 49.5	
	comp=N,143nm,1.4s						
SMY				IAML		06 12 19.2	
	comp=E,241nm,1.4s						
ADK	**Adak**	**3.12**	**87**	Pn	**Pn**	**06 10 24.1**	**-0.7**
ADK				IAML		06 11 19.1	
	comp=E,126nm,1.2s						
ADK				IAML		06 11 20.0	
	comp=E,95nm,1.3s						
ATKA	**Atka Island**	**4.66**	**82**	Pn	**Pn**	**06 10 45.1**	**-0.1**
ATKA				IAML		06 13 02.2	
	comp=N,72nm,1.4s						
ATKA				IAML		06 13 07.6	
	comp=E,67nm,1.3s						
UNV	**Unalaska Valle**	**9.43**	**72**	Pn	**Pn**	**06 11 49.7**	**+0.3**
M16K	**Timber Creek**	**15.52**	**45**	Pn	**Pn**	**06 13 08.9**	**+0.3**
M16K				IAmb	IAmb	06 13 27.8	
	comp=Z,17nm,1.5s						
N17K	**Nushagak Hills**	**16.11**	**48**		**P**	**06 13 16.6**	**-0.3**
K17K	**Iditarod**	**16.60**	**40**		**P**	**06 13 23.1**	**+0.8**
K17K				IAmb	IAmb	06 13 56.4	
	comp=Z,17nm,1.3s						
J17K	**VABM Dome**	**16.66**	**37**		**P**	**06 13 23.8**	**+0.8**
J17K				IAmb	IAmb	06 13 54.3	
	comp=Z,8.6nm,1.1s						
L18K	**Granite Mounta**	**17.02**	**43**	P	**Pn**	**06 13 27.7**	**+0.7**
KDAK	**Kodiak Island**	**17.73**	**59**	P	**P**	**06 13 33.5**	**-1.2**
	comp=Z,4.1nm,0.3s,baz=287,slow=11,SNR=1.8						
KDAK	**Kodiak Island**	**17.73**	**59**	P	**P**	**06 13 33.5**	**-1.2**
K20K	**Telida**	**18.60**	**41**	P	**P**	**06 13 44.6**	**+0.4**
K20K				IAmb	IAmb	06 14 23.7	
	comp=Z,9.4nm,1.3s						
J20K	**Nowinta River**	**18.94**	**39**	P	**P**	**06 13 48.1**	**+0.2**
J20K				IAmb	IAmb	06 13 50.0	
	comp=Z,5.0nm,0.6s						
IMAR	**Indian Mountai**	**19.99**	**34**	P	**P**	**06 13 59.7**	**+0.5**
BPAW	**Bear Paw Mtn.**	**20.16**	**41**	P	**P**	**06 14 01.6**	**+0.5**
G23K	**Bananza Creek**	**21.65**	**34**	P	**P**	**06 14 17.4**	**+0.3**
G23K				IAmb	IAmb	06 14 19.2	
	comp=Z,5.5nm,0.9s						
IL31		**22.06**	**41**	P	**P**	**06 14 20.1**	**-1.2**
ILAR	**Eielson Array**	**22.06**	**41**	P	**P**	**06 14 18.9**	**-2.4**
	comp=Z,0.6nm,0.5s,baz=249,slow=10,SNR=20						
	comp=Z,0.6nm,0.5s						
ILAR	**Eielson Array**	**22.06**	**41**	P	**P**	**06 14 20.5**	**-0.8**
E23K	**Chandalar**	**22.45**	**32**	P	**P**	**06 14 25.6**	**+0.2**
BCAR	**Beaver Creek A**	**23.82**	**46**	P	**P**	**06 14 38.9**	**+0.7**
D27M	**Malcolm River**	**25.82**	**32**		**P**	**06 14 57.3**	**+1.1**
D27M				IAmb	IAmb	06 14 58.0	
	comp=Z,4.0nm,0.6s						
A36M	**Sachs Harbour**	**31.59**	**30**	P	**P**	**06 15 48.3**	**+1.1**
H11N2	**WAKE ISLAND Hy**	**33.25**	**200**	T	T	06 51 32.4	
	baz=11,slow=76,SNR=10						
H11N3	**WAKE ISLAND Hy**	**33.26**	**200**	T	T	06 51 35.7	
	baz=11,slow=76,SNR=8.1						
H11N1	**WAKE ISLAND Hy**	**33.27**	**200**	T	T	06 51 35.0	
	baz=11,slow=76,SNR=8.0						
H11S1	**WAKE ISLAND Hy**	**34.48**	**200**	T	T	06 53 15.9	
	baz=10.0						
H11S2	**WAKE ISLAND Hy**	**34.49**	**200**	T	T	06 53 16.6	
	baz=10.0						
H11S3	**WAKE ISLAND Hy**	**34.49**	**200**	T	T	06 53 15.5	
	baz=10.0						
KSAR	**Wonju Array Be**	**37.86**	**268**	P	**P**	**06 16 42.0**	**+0.6**
NVAR	**Mina Array Bea**	**45.29**	**81**	P	**P**	**06 17 43.0**	**+0.7**
	comp=Z,0.4nm,0.6s,baz=292,slow=7.3,SNR=4.2						
	comp=Z,0.4nm,0.6s						
PD31	**Pinedale Array**	**47.89**	**71**	P	**P**	**06 18 01.9**	**-0.6**
PDAR	**Pinedale Array**	**47.89**	**71**	P	**P**	**06 18 01.3**	**-1.2**
	comp=Z,0.2nm,0.5s,baz=344,slow=4.3,SNR=4.5						
	comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**47.89**	**71**	P	**P**	**06 18 01.8**	**-0.7**
TX31	**Lajitas Ar. Si**	**60.37**	**79**	P	**P**	**06 19 33.0**	**0.0**
TX31				IAmb	IAmb	06 20 15.7	
	comp=Z,2.0nm,1.4s						
TXAR	**Lajitas Array**	**60.37**	**79**	P	**P**	**06 19 32.9**	**0.0**
	comp=Z,0.2nm,0.5s,baz=313,slow=5.4,SNR=6.2						
	comp=Z,0.2nm,0.5s						
BINY	**Binghamton**	**66.44**	**51**	P	**P**	**06 20 12.2**	**-0.4**
ABKAR	**Akbulak array**	**66.47**	**321**	P	**P**	**06 20 12.5**	**-0.1**
QSPA	**South Pole Qui**	**141.58**	**180**	PKP	**PKPdf**	**06 28 51.7**	**-0.3**
	comp=Z,1.2nm,1.0s,baz=32,slow=2.8,SNR=2.3						

*IDC **09** 06:11:22.3±0.5, 3.°49S×131.°36E, h0km, mb4.2/15, mbtmp4.3/21, ML4.2/5, MS3.8/21, Error ellipse: s-maj=18.0km s-min=10.2km az=82.0*
*NEIC **09** 06:11:23.5±2.4, 3.°49S±0.°07×131.°28E±0.°09, h10km±1km, mb4.5/16, Error ellipse: s-maj=18.7km s-min=4.7km az=309.0*
*DJA **09** 06:11:25.8±0.4, 3.°S±2.°×13.°1E±.°, h12km±3km, M4.5/22, mb4.6/17, mB4.8/5, MLv4.6/22, Mw(mB)4.0/5*
*GFZ **09** 06:11:27.3±0.3, 3.°S±2.°×13.°1E±.°, h47km±3km, M4.5/25, mb4.7/25, Error ellipse: s-maj=5.3km s-min=4.7km az=12.3, confirmed*

ISC 09 06:11:25.3±0.3, 3.°47S±0.°04×131.°33E±0.°04, h24km, n141, σ1°91/128, mb4.5/37, MS3.8/19, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAKI	**Fak Fak**	**1.07**	**59**	P	**Pb**	**06 11 45.9**	**+0.8**
FAKI	**Fak Fak**	**1.07**	**59**	Pn	**Pb**	**06 11 46.0**	**+1.0**
FAKI	**Fak Fak**	**1.07**	**59**	P	**Pb**	**06 11 45.8**	**+0.7**
FAKI	**Fak Fak**	**1.07**	**59**	P	**Pn**	**06 11 44.8**	**+0.1**
BNDI	**Bandanaira**	**1.77**	**234**	P	**Pb**	**06 11 56.2**	**-0.8**
BNDI	**Bandanaira**	**1.77**	**234**	P	**Pn**	**06 11 55.7**	**+1.3**
BNDI				S	**Sb**	**06 12 23.0**	**+4.2**
BNDI				AML	AML		
BNDI	**Bandanaira**	**1.77**	**234**	P	**Pn**	**06 11 55.6**	**+1.2**
KMPI	**Kaimana, Papua**	**2.38**	**95**	P	**Pn**	**06 12 03.4**	**+0.6**
KMPI				AML	AML		
KMPI	**Kaimana, Papua**	**2.38**	**95**	P	**Pn**	**06 12 04.9**	**+2.2**
MSAI	**Masohi**	**2.40**	**273**	P	**Pn**	**06 12 05.9**	**+2.8**
MSAI				AML	AML		
MSAI	**Masohi**	**2.40**	**273**	P	**Pn**	**06 12 04.8**	**+1.8**
SIJI	**Sorong**	**2.58**	**359**	Pn	**Pn**	**06 12 06.2**	**+0.6**
	22nm,0.3s,baz=183,slow=19,SNR=41						
SIJI				Sn	**Sn**	**06 12 36.8**	**+0.5**
	54nm,0.3s,baz=198,slow=20,SNR=9.6						
SIJI				LR	LR	06 13 20.1	
	comp=Z,1μm,20.2s,baz=252,slow=45						
	51nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.58**	**359**	P	**Pn**	**06 12 06.3**	**+0.7**
SIJI	**Sorong**	**2.58**	**359**	P	**Pn**	**06 12 05.8**	**+0.2**
AAI	**Ambon**	**3.14**	**266**	P	**Pn**	**06 12 13.8**	**+0.6**
MWPI	**Manokwari, Pap**	**3.70**	**47**	P	**Pn**	**06 12 22.0**	**+1.0**
MWPI				AML	AML		
MWPI	**Manokwari, Pap**	**3.70**	**47**	P	**Pn**	**06 12 23.0**	**+2.0**
NLAI	**Namlea**	**4.23**	**273**	P	**Pn**	**06 12 32.2**	**+3.9**
NLAI				AML	AML		
SAUI	**Saumlaki**	**4.49**	**180**	Pn	**Pn**	**06 12 32.2**	**+0.4**
SAUI	**Saumlaki**	**4.49**	**180**	P	**Pn**	**06 12 33.6**	**+1.8**
SAUI				AML	AML		
SAUI	**Saumlaki**	**4.49**	**180**	P	**Pn**	**06 12 32.4**	**+0.6**
BAKI	**Biak**	**5.28**	**65**	P	**Pn**	**06 12 44.0**	**+1.3**
BAKI				S	**Sn**	**06 13 44.8**	**+1.9**
BAKI				AML	AML		
SANI	**Sanana**	**5.52**	**285**	P	**Pn**	**06 12 46.2**	**+0.2**
SANI	**Sanana**	**5.52**	**285**	P	**Pn**	**06 12 46.6**	**+0.6**
	0.2nm658nm48nm,1.0s						
SANI				AML	AML		
SANI	**Sanana**	**5.52**	**285**	P	**Pn**	**06 12 47.0**	**+1.0**
	comp=Z,49nm,1.0s						
DRS	**Darwin Rock St**	**8.92**	**183**	P	**Pn**	**06 13 33.2**	**+0.5**
GTOI	**Gorontalo**	**9.26**	**296**	P	Pn	06 13 42.9	+5.5
	comp=Z,29nm,1.1s						
MTN	**Manton Dam**	**9.32**	**181**	Pn	**Pn**	**06 13 37.2**	**-0.9**
SOEI	**Soe**	**9.39**	**228**	P	**Pn**	**06 13 40.9**	**+1.6**
SOEI	**Soe**	**9.39**	**228**		**Pn**	**06 13 42.0**	**+2.7**
SOEI	**Soe**	**9.39**	**228**	P	**Pn**	**06 13 43.1**	**+3.8**
SOEI	**Soe**	**9.39**	**228**	P	**Pn**	**06 13 40.3**	**+1.0**
	comp=Z,176nm,1.1s						
JAY	**Jayapura**	**9.41**	**84**	Pn	**Pn**	**06 13 39.7**	**+0.2**
	comp=Z,0.6nm,0.3s,baz=273,slow=23,SNR=0.8						
	comp=Z,4.4nm,0.6s						
JAY				AML	AML		
BATI	**Baumata**	**10.14**	**228**	Pn	**Pn**	**06 13 52.0**	**+2.6**
	comp=Z,6.6nm,0.3s,baz=1.1,slow=3.2,SNR=5.7						
BATI				LR	LR	06 18 24.3	
	comp=Z,883nm,20.5s,baz=36,slow=42						
	comp=Z,62nm,0.5s						
BATI				AML	AML		
BATI	**Baumata**	**10.14**	**228**	P	**Pn**	**06 13 53.8**	**+4.4**
BATI	**Baumata**	**10.14**	**228**	P	**Pn**	**06 13 50.8**	**+1.4**
	comp=Z,118nm,1.0s						
EDFI	**Ende, Flores**	**10.93**	**241**	P	**Pn**	**06 14 04.3**	**+4.0**
	comp=Z,540nmcomp=Z,22nm,1.0s						
EDFI	**Ende, Flores**	**10.93**	**241**	P	**Pn**	**06 14 01.3**	**+1.0**
	comp=Z,22nm,1.0s						
BKSI	**Bulukumba**	**11.33**	**260**	P	**Pn**	**06 14 08.8**	**+3.1**
	comp=Z,16nm,1.2s						
BKSI	**Bulukumba**	**11.33**	**260**	P	**Pn**	**06 14 05.6**	**-0.1**
	comp=Z,16nm,1.2s						
KNRA	**Kununurra**	**12.39**	**192**		**Pn**	**06 14 16.9**	**-3.4**
DBNI	**Kabupaten Domp**	**13.88**	**248**	P	**Pn**	**06 14 40.4**	**-0.2**
	comp=Z,8.6nm,0.9s						
PLAI	**Plampang**	**14.49**	**248**	P	**Pn**	**06 14 49.2**	**+0.2**
	comp=Z,36nm,1.0s						
FITZ	**Fitzroy Crossi**	**15.57**	**201**	Pn	**Pn**	**06 14 58.0**	**-5.4**
	comp=Z,2.3nm,0.3s,baz=35,slow=11,SNR=22						
FITZ				Sn	Sn	06 17 42.5	-13
	comp=Z,1.0nm,0.3s,baz=218,slow=22,SNR=2.5						
FITZ				LR	LR	06 22 38.8	
	comp=Z,409nm,19.3s,baz=19,slow=44						
	comp=Z,8.4nm,0.3s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.57**	**201**	Pn	**Pn**	**06 14 57.7**	**-5.7**
WRAB	**Tennant Creek**	**16.63**	**170**	P	**P**	**06 15 19.3**	**+0.1**
WRAB	**Tennant Creek**	**16.63**	**170**	P	**Pn**	**06 15 15.4**	**-1.5**
	comp=Z,24nm,0.8s						
WRA	**Warramunga Arr**	**16.64**	**170**	Pn	**Pn**	**06 15 10.9**	**-6.1**
	comp=Z,0.7nm,0.3s,baz=344,slow=14,SNR=24						
WRA				Sn	Sn	06 18 06.8	-14
	comp=Z,2.0nm,0.3s,baz=355,slow=23,SNR=8.2						
	comp=Z,1.5nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.64**	**170**	Pn	**Pn**	**06 15 11.2**	**-5.9**
WR8	**Warramunga Arr**	**16.68**	**170**	Pn	**Pn**	**06 15 12.9**	**-4.6**
PMG	**Port Moresby**	**16.79**	**111**	Pn	**Pn**	**06 15 18.1**	**-1.0**
	comp=Z,5.2nm,0.4s,baz=238,slow=22,SNR=1.6

	comp=Z,134nm,19.2s,baz=184,slow=33						
KSRS	**Korea Array**	**40.84 356**	LR	LR	06 35 58.3		
	comp=Z,137nm,20.1s,baz=165,slow=36						
NFK	**Norfolk Island**	**43.06 130**	P	**P**	**06 19 22.5**	**-1.0**	
	comp=Z,121nm,1.2s						
BJI2	**Beijing**	**45.46 344**	P	**P**	**06 19 43.3**	**+0.8**	
BJI2			pP	**pP**	**06 19 47.7**	**-1.8**	
BJI2			sP	**sP**	**06 19 49.9**	**-2.4**	
BJI2			pmax	pmax			
	comp=Z,7.0nm,0.7s						
BJI2			pmax	pmax			
	comp=Z,85nm,4.3s						
LZH	**Lanzhou**	**47.00 329**	*e*P	**P**	**06 19 58.6**	**+3.7**	
LZH			sP	pP	06 20 03.8	+1.8	
LZH			pmax	pmax			
	comp=Z,13nm,1.2s						
HHC	**Hu-ho-hao-te**	**47.66 340**	*e*P	**P**	**06 20 02.0**	**+2.1**	
HHC			pmax	pmax			
	comp=Z,18nm,0.6s						
HHC			pmax	pmax			
	comp=Z,110nm,4.4s						
ASAJ	**Asahikawa**	**48.44 11**	LR	LR	06 41 15.2		
	comp=Z,78nm,18.6s,baz=234,slow=37						
EVN	**Everest**	**53.01 309**	P	**P**	**06 20 40.8**	**-0.5**	
EVN			IAmb	IAmb	06 21 04.0		
	comp=Z,5.1nm,0.8s						
RPZ	**Rata Peaks**	**53.27 145**	LR	LR	06 43 44.9		
	comp=Z,50nm,20.2s,baz=254,slow=36						
SONM	**Songino Array**	**55.57 340**	P	**P**	**06 20 59.8**	**+0.9**	
	comp=Z,0.9nm,0.8s,baz=145,slow=5.3,SNR=2.9						
	comp=Z,0.9nm,0.8s						
PETK	**Petropavlovsk-**	**60.58 18**	P	**P**	**06 21 35.2**	**+1.5**	
	comp=Z,3.3nm,0.9s,baz=234,slow=5.0,SNR=4.1						
	comp=Z,3.3nm,0.9s						
PETK	**Petropavlovsk-**	**60.58 18**	P	**P**	**06 21 34.5**	**+0.8**	
WMQ	**Urumqi**	**61.22 325**	*e*P	**P**	**06 21 40.4**	**+2.0**	
WMQ			pmax	pmax			
	comp=Z,14nm,0.9s						
WMQ			LR	LR			
	comp=Z,58nm,19.5s						
CASY	**Casey**	**64.38 189**	P	**P**	**06 21 58.8**	**-0.1**	
MKAR	**Makanchi Array**	**66.05 325**	P	**P**	**06 22 11.4**	**+1.2**	
	comp=Z,1.3nm,0.6s,baz=117,slow=7.6,SNR=6.9						
	comp=Z,1.3nm,0.6s						
SEY	**Seymchan**	**68.11 10**	P	**P**	**06 22 24.4**	**+1.5**	
	comp=Z,3.1nm,0.9s,baz=197,slow=19,SNR=2.3						
	comp=Z,3.1nm,0.9s						
ZAA0	**Zalesovo Array**	**69.05 333**	P	**P**	**06 22 29.5**	**+0.6**	
ZAA0			IAmb	IAmb	06 22 34.1		
	comp=Z,2.5nm,0.9s						
ZALV	**Zalesovo Beam**	**69.05 333**	P	**P**	**06 22 29.5**	**+0.6**	
	comp=Z,1.3nm,0.4s,baz=108,slow=7.6,SNR=7.0						
	comp=Z,1.3nm,0.4s						
ZALV	**Zalesovo Beam**	**69.05 333**	P	**P**	**06 22 29.7**	**+0.8**	
RAR	**Rarotonga**	**69.09 111**	LR	LR	06 52 21.9		
	comp=Z,36nm,18.1s,baz=286,slow=36						
KURBB	**Kurchatov Arra**	**70.24 327**	P	**P**	**06 22 37.6**	**+1.3**	
	comp=Z,3.8nm,0.7s,baz=125,slow=5.6,SNR=28						
	comp=Z,3.8nm,0.7s						
KURK	**Kurchatov**	**70.24 327**	P	**P**	**06 22 37.6**	**+1.3**	
KK31	**Karatay Array**	**71.61 318**	P	**P**	**06 22 45.2**	**+0.4**	
KKAR	**Karatay Array**	**71.61 318**	P	**P**	**06 22 45.7**	**+0.8**	
TIXI	**Tiksi**	**75.00 359**	LR	LR	06 56 44.1		
	comp=Z,77nm,19.6s,baz=195,slow=36						
VNDA	**Vanda**	**75.78 173**	P	**P**	**06 23 09.6**	**+0.9**	
	comp=Z,1.0nm,0.7s,baz=349,slow=5.6,SNR=6.6						
VNDA			LR	LR	06 57 49.0		
	comp=Z,90nm,18.5s,baz=338,slow=37						
	comp=Z,1.0nm,0.7s						
VNDA	**Vanda**	**75.78 173**	IAmb	IAmb	06 23 26.6		
	comp=Z,2.5nm,0.8s						
BVAR	**Borovoye Array**	**75.82 327**	P	**P**	**06 23 10.8**	**+1.5**	
	comp=Z,1.9nm,0.7s,baz=116,slow=6.9,SNR=4.7						
	comp=Z,1.9nm,0.7s						
NRIK	**Noril'sk**	**78.48 345**	P	**P**	**06 23 24.5**	**+0.5**	
	comp=Z,3.7nm,0.5s,baz=144,slow=6.0,SNR=4.8						
NRIK			LR	LR	07 00 30.7		
	comp=Z,111nm,19.1s,baz=142,slow=38						
	comp=Z,3.7nm,0.5s						
PPT2	**Papeete2**	**78.57 107**	*e*LR	LR	06 47 45.7		
	comp=Z,92nm,25.0s						
AB31	**Akbulak array**	**80.60 321**	P	**P**	**06 23 33.8**	**-2.1**	
AB31			IAmb	IAmb	06 24 11.6		
	comp=Z,4.8nm,1.5s						
ABKAR	**Akbulak array**	**80.60 321**	P	**P**	**06 23 33.8**	**-2.1**	
KDAK	**Kodiak Island**	**85.53 31**	LR	LR	06 57 20.2		
	comp=Z,80nm,20.9s,baz=229,slow=32						
QSPA	**South Pole Qui**	**86.49 180**	P	**P**	**06 24 05.8**	**-0.2**	
	comp=Z,1.1nm,0.8s,baz=266,slow=1.3,SNR=7.7						
	comp=Z,1.1nm,0.8s						
QSPA	**South Pole Qui**	**86.49 180**	P	**P**	**06 24 05.4**	**-0.6**	
QSPA			IAmb	IAmb	06 24 30.1		
	comp=Z,4.3nm,1.1s						
TAOE	**Nuku Hiva Isla**	**88.02 99**	*e*LR	LR	06 52 07.7		
	comp=Z,40nm,21.5s						
GNI	**Garni**	**89.60 310**	LR	LR	07 12 27.2		
	comp=Z,25nm,18.1s,baz=102,slow=41						
ILAR	**Eielson Array**	**89.61 25**	P	**P**	**06 24 19.9**	**-0.8**	
	comp=Z,0.4nm,0.7s,baz=256,slow=5.4,SNR=6.4						
	comp=Z,0.4nm,0.7s						
ILAR	**Eielson Array**	**89.61 25**	P	**P**	**06 24 20.3**	**-0.4**	
BMAR	**Burnt Mountain**	**90.90 23**	P	**P**	**06 24 27.2**	**+0.5**	
BCAR	**Beaver Creek A**	**91.65 27**	P	**P**	**06 24 29.8**	**-0.5**	
EIL	**Elat**	**97.25 299**	LR	LR	07 17 55.6		
	comp=Z,45nm,18.0s,baz=91,slow=41						
DLBC	**Dease Lake**	**97.47 32**	LR	LR	07 03 46.5		
	comp=Z,49nm,19.8s,baz=254,slow=32						
BELA	**Belgrano 2**	**98.39 183**	P	**P**	**06 25 00.7**	**-0.1**	
ARCES	**ARCESS Array B**	**98.74 340**	LR	LR	07 18 09.4		
	comp=Z,33nm,18.2s,baz=85,slow=41						
BBB	**Bella Bella**	**99.20 38**	LR	LR	07 02 42.5		
	comp=Z,60nm,19.8s,baz=260,slow=31						
TORD	**Torodi Ar. Bea**	**129.34 284**	PKP	**PKPdf**	**06 30 33.2**	**+0.4**	
	comp=Z,0.4nm,0.7s,baz=101,slow=1.5,SNR=1.7						
CPUP	**Villa Florida**	**149.22 165**	PKPbc	**PKiKP**	**06 31 13.8**	**-0.1**	
	comp=Z,0.8nm,0.6s,baz=178,slow=17,SNR=3.8						
LPAZ	**La Paz**	**152.51 136**	PKPbc	**PKiKP**	**06 31 23.2**	**+1.5**	
	comp=Z,1.5nm,0.9s,baz=11,slow=3.2,SNR=5.5						

*IDC **09** 06:34:27.5±1.4, 39.98N×24.24E, h0km, mb3.6/4, mbtmp3.6/5, ML3.3/1, MS2.9/1, Error ellipse: s-maj=35.1km s-min=24.6km az=164.0*
*SOF **09** 06:34:28.5, 39.97N±0.02×24.33E±0.02, h20km±3km, MD3.7/6*
*AFAD **09** 06:34:28.4, 40.07N×24.44E, h7km±5km, ML3.4*
*ISK **09** 06:34:28.6, 40.08N×24.43E, h10km, ML3.6/16*
*ATH **09** 06:34:29.3, 40.01N×24.30E, h17km±1km, ML3.4/42, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **09** 06:34:29.4, 40°N±1.2×2.4E±1.9, h9km±3km, M3.2/33, MLh3.2/33*

ISC 09 06:34:28.8±1.1, **40.00N**±0.02×**24.32E**±0.02, **h10**km±8km, **n178**, σ0**80**/203, **mb3.6**/3, **14C-12D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
OUR	**Ouranopolis**	**0.42**	**323**	P	P	**Pb**	**06 34 37.8**	**-0.6**
OUR				AML	AML	AML		
OUR	**Ouranopolis**	**0.42**	**323**	Pg	Pg	**Pb**	**06 34 37.7**	**-0.6**
OUR				Sg	**Sb**	**Sb**	**06 34 43.7**	**-1.1**
OUR				AML	AML	AML		
OUR	**Ouranopolis**	**0.42**	**323**	P	P	**Pb**	**06 34 37.5**	**-0.9**
OUR				S	**Sg**	**Sg**	**06 34 43.2**	**+0.4**
OUR				AML	AML	AML		
PAIG	**Paliouri**	**0.50**	**262**	P	P	**Pg**	**06 34 38.8**	**+0.3**
PAIG				AML	AML	AML		
LMN1	**MIRINA LIMNOU**	**0.58**	**102**	P	P	**Pb**	**06 34 41.4**	**+0.4**
LMN1				S	**Sb**	**Sb**	**06 34 49.3**	**0.0**
LMN1				AML	AML	AML		
LIA	**Limnos Island**	**0.67**	**98**	P	P	**Pb**	**06 34 42.8**	**+0.2**
LIA				S	**Sb**	**Sb**	**06 34 52.2**	**+0.3**
LIA				AML	AML	AML		
THAS	**Thassos island**	**0.68**	**27**	P	P	**Pb**	**06 34 42.4**	**-0.4**
THAS				S	**Sb**	**Sb**	**06 34 52.5**	**+0.2**
EFSA	**Agios Efstrati**	**0.69**	**131**	P	P	**Pb**	**06 34 43.2**	**+0.3**
EFSA				S	**Sb**	**Sb**	**06 34 52.8**	**+0.4**
EFSA				AML	AML	AML		
THS1	**Thassos, Thass**	**0.77**	**15**	P	P	**Pb**	**06 34 43.8**	**-0.4**
PLG	**Polygyros**	**0.77**	**300**	P	P	**Pg**	**06 34 43.7**	**+0.1**
PLG				AML	AML	AML		
PLG	**Polygyros**	**0.77**	**300**	P	P	**Pg**	**06 34 43.4**	**-0.2**
KAVA	**Kavala**	**1.01**	**8**	P	P	**Pb**	**06 34 48.1**	**-0.2**
KAVA				S	**Sb**	**Sb**	**06 35 01.2**	**-0.5**
KAVA				AML	AML	AML		
SMTH	**Samothraki Isl**	**1.04**	**63**	P	P	**Pb**	**06 34 48.6**	**-0.3**
SMTH				AML	AML	AML		
SMTH	**Samothraki Isl**	**1.04**	**63**	P	P	**Pg**	**06 34 48.3**	**-0.5**
SMTH				S	**Sb**	**Sb**	**06 35 02.0**	**-0.6**
SMTH				AML	AML	AML		
NEO	**Neokhori**	**1.09**	**231**	P	P	**Pb**	**06 34 49.3**	**-0.5**
NEO	**Neokhori**	**1.09**	**231**	P	P	**Pb**	**06 34 49.2**	**-0.5**
NEO				S	**Sg**	**Sg**	**06 35 02.9**	**-1.0**
NEO				AML	AML	AML		
SOH	**Sokhos**	**1.10**	**318**	P	P	**Pn**	**06 34 50.2**	**-0.1**
SOH				AML	AML	AML		
SOH	**Sokhos**	**1.10**	**318**	P	P	**Pn**	**06 34 49.9**	**-0.4**
SOH				S	**Sg**	**Sb**	**06 35 04.0**	**-0.4**
SOH				AML	AML	AML		
SKY	**Skiros Island**	**1.13**	**171**	P	P	**Pn**	**06 34 50.7**	**0.0**
SKY				AML	AML	AML		
SKY	**Skiros Island**	**1.13**	**171**	P	P	**Pb**	**06 34 50.4**	**0.0**
SKY				S	**Sg**	**Sg**	**06 35 05.5**	**+0.2**
THE	**Thessaloniki**	**1.21**	**302**	P	P	**Pb**	**06 34 51.7**	**-0.1**
THE				AML	AML	AML		
THE	**Thessaloniki**	**1.21**	**302**	P	P	**Pb**	**06 34 51.6**	**-0.2**
THE				AML	AML	AML		
GADA	**Gvkgeada**	**1.23**	**80**	P	P	**Pb**	**06 34 51.8**	**-0.2**
GADA				AML	AML	AML		
GADA	**Gvkgeada**	**1.23**	**80**	Pn	**Pn**	**Pn**	**06 34 50.7**	**-1.3**
GADA				Sn	**Sb**	**Sb**	**06 35 07.1**	**-0.8**
GADA				AML	AML	AML		
GOAD	**anakkale-G¶**	**1.23**	**82**	P	P	**Pn**	**06 34 51.5**	**-0.5**
GOAD				S	**Sn**	**Sn**	**06 35 08.7**	**0.0**
GOAD				IAML			06 35 12.0	
	comp=N,1μm,0.6s							
GOAD				IAML			06 35 12.0	
	comp=E,1μm,0.7s							
SRS	**Serrai**	**1.25**	**334**	P	P	**Pn**	**06 34 51.8**	**-0.5**
SRS				AML	AML	AML		
SRS	**Serrai**	**1.25**	**334**	P	P	**Pn**	**06 34 51.6**	**-0.7**
SRS				AML	AML	AML		
BOZC	**Bozcaada**	**1.34**	**96**	P	P	**Pn**	**06 34 53.2**	**-0.4**
BOZC				S	**Sb**	**Sb**	**06 35 10.6**	**-0.6**
BOZC	**Bozcaada**	**1.34**	**96**	Pn	**Pn**	**Pn**	**06 34 52.9**	**-0.7**
BOZC				Sn	**Sb**	**Sb**	**06 35 10.7**	**-0.6**
BOZC				AML	AML	AML		
KYMI	**Kymi, Euboea I**	**1.37**	**187**	P	P	**Pn**	**06 34 53.4**	**-0.6**
KYMI				AML	AML	AML		
KYMI	**Kymi, Euboea I**	**1.37**	**187**	P	P	**Pn**	**06 34 53.1**	**-0.9**
KYMI				AML	AML	AML		
NVR	**Nevrokopi**	**1.40**	**346**	P	P	**Pn**	**06 34 54.2**	**-0.1**
NVR				AML	AML	AML		
NVR	**Nevrokopi**	**1.40**	**346**	P	P	**Pn**	**06 34 54.0**	**-0.4**
NVR				AML	AML	AML		
ECEA	**Canakkale, Ece**	**1.43**	**88**	P	P	**Pn**	**06 34 54.5**	**-0.2**
ECEA				S	**Sb**	**Sb**	**06 35 13.2**	**-0.4**
ECEA				IAML			06 35 18.0	
	comp=N,650nm,0.5s							
ALEX	**Alexandroupoli**	**1.48**	**54**	P	P	**Pn**	**06 34 55.3**	**-0.2**
KOCA	**Canakkale, Ayv**	**1.49**	**109**	P	P	**Pb**	**06 34 56.3**	**-0.2**
KOCA				S	**Sn**	**Sn**	**06 35 14.6**	**-0.4**
KOCA				IAML			06 35 19.0	
	comp=N,697nm,0.7s							
KOCA				IAML			06 35 21.0	
	comp=E,505nm,0.4s							
EZN	**Ezine**	**1.55**	**96**	P	P	**Pn**	**06 34 56.4**	**0.0**
EZN				AML	AML	AML		
EZN	**Ezine**	**1.55**	**96**	⇓P	P	**Pn**	**06 34 56.1**	**-0.3**
EZN	**Ezine**	**1.55**	**96**	Pn	**Pn**	**Pn**	**06 34 56.2**	**-0.3**
EZN				Sn	**Sn**	**Sn**	**06 35 15.9**	**-0.7**
EZN				AML	AML	AML		
CAVK	**Edirne/Enez-Ca**	**1.57**	**63**	P	P	**Pn**	**06 34 56.0**	**-0.7**
CAVK				S	**Sg**	**Sg**	**06 35 20.8**	**+1.4**
CAVK				IAML			06 35 23.0	
	comp=N,518nm,0.6s							
CAVK				IAML			06 35 25.0	
	comp=E,549nm,0.6s							
CAVK	**Edirne/Enez-Ca**	**1.57**	**63**	⇓P	P	**Pn**	**06 34 56.9**	**+0.2**
CAVK				⇓S	**Sg**	**Sg**	**06 35 20.9**	**+1.4**
ENEZ	**Enez**	**1.58**	**62**	P	P	**Pn**	**06 34 56.7**	**-0.1**
ENEZ				AML	AML	AML		
ENEZ	**Enez**	**1.58**	**62**	Pn	**Pn**	**Pn**	**06 34 55.9**	**-1.0**
ENEZ				AML	AML	AML		
CNKL	**anakkale-Mer**	**1.59**	**87**	P	P	**Pn**	**06 34 56.7**	**-0.3**
CNKL				S	**Sb**	**Sb**	**06 35 17.5**	**-0.8**
KNT	**Kendrikon**	**1.59**	**318**	P	P	**Pb**	**06 34 57.5**	**-0.8**
KNT				AML	AML	AML		
EZNE	**Ezine-Canakkal**	**1.59**	**98**	Pn	**Pn**	**Pn**	**06 34 56.4**	**-0.6**
EZNE				Sn	**Sn**	**Sn**	**06 35 16.9**	**-0.7**
ALN	**Alexandroupoli**	**1.59**	**55**	P	P	**Pn**	**06 34 56.6**	**-0.4**
ALN				AML	AML	AML		
ALN	**Alexandroupoli**	**1.59**	**55**	Pn	**Pn**	**Pn**	**06 34 56.0**	**-1.0**
ALN	**Alexandroupoli**	**1.59**	**55**	P	**Pn**	**Pn**	**06 34 56.1**	**-0.9**
ALN				AML	AML	AML		
MMB	**Musomishta**	**1.61**	**345**	P	P	**Pn**	**06 34 57.5**	**+0.2**
MMB				AML	AML	AML		
MMB	**Musomishta**	**1.61**	**345**	P	P	**Pn**	**06 34 57.3**	**0.0**
TYRN	**Tyrnavos**	**1.63**	**261**	P	P	**Pn**	**06 34 57.8**	**+0.3**
TYRN				AML	AML	AML		
TYRN	**Tyrnavos**	**1.63**	**261**	P	P	**Pn**	**06 34 57.6**	**+0.1**
TYRN				S	**Sn**	**Sn**	**06 35 17.3**	**-1.3**
TYRN				AML	AML	AML		
ATAL	**Atalanti**	**1.65**	**218**	P	P	**Pn**	**06 34 57.3**	**-0.5**
ATAL				AML	AML	AML		
ATAL	**Atalanti**	**1.65**	**218**	P	P	**Pn**	**06 34 57.0**	**-0.8**
COMU	**Canakkale**	**1.66**	**86**	Pn	**Pn**	**Pn**	**06 34 57.3**	**-0.6**
COMU				AML	AML	AML		
PRK	**Paraskevi**	**1.68**	**116**	P	P	**Pn**	**06 34 58.7**	**+0.4**
GELI	**Tayfur-Gelibol**	**1.70**	**76**	Pn	**Pn**	**Pn**	**06 34 57.3**	**-1.1**
RZN	**Rozhen**	**1.72**	**10**	P	**Pn**	**Pn**	**06 34 59.3**	**+0.2**
RZN				AML	AML	AML		
RZN	**Rozhen**	**1.72**	**10**	P	P	**Pn**	**06 34 59.0**	**0.0**
BAYC	**CANAKKALE_Bayr**	**1.73**	**98**	P	P	**Pn**	**06 34 59.1**	**+0.2**
BAYC				S	**Sn**	**Sn**	**06 35 20.5**	**-0.6**
GRG	**Griva**	**1.75**	**304**	P	P	**Pn**	**06 34 59.5**	**+0.3**
AXAR	**Agios Charalam**	**1.78**	**227**	P	P	**Pn**	**06 34 59.5**	**-0.1**
AXAR				AML	AML	AML		
KDZ	**Kurdzhali**	**1.81**	**25**	P	P	**Pn**	**06 34 59.8**	**-0.1**
KDZ				AML	AML	AML		
KDZ	**Kurdzhali**	**1.81**	**25**	Pn	**Pn**	**Pn**	**06 34 59.3**	**-0.7**
KDZ				AML	AML	AML		
ERIK	**Erikli-Kesan**	**1.81**	**67**	Pn	**Pn**	**Pn**	**06 34 59.4**	**-0.5**
ERIK				AML	AML	AML		
AGG	**Agios Georgios**	**1.82**	**238**	P	P	**Pn**	**06 35 00.3**	**+0.1**
AGG				AML	AML	AML		
AGG	**Agios Georgios**	**1.82**	**238**	P	P	**Pn**	**06 34 59.9**	**-0.3**
AGG				AML	AML	AML		
THL	**Klokotos Trika**	**1.83**	**257**	P	P	**Pn**	**06 35 00.2**	**0.0**
THL				AML	AML	AML		
THL	**Klokotos Trika**	**1.83**	**257**	P	P	**Pn**	**06 34 59.9**	**-0.4**
VAY	**Valandovo**	**1.88**	**315**	*i* Pn	**Pg**	**Pg**	**06 35 04.2**	**-0.6**
GOKT	**Kean, EDRN**	**1.88**	**69**	P	P	**Pn**	**06 35 00.4**	**-0.6**
GOKT				S	**Sg**	**Sg**	**06 35 29.4**	**+0.1**
GOKT				IAML			06 35 34.0	
	comp=N,478nm,0.6s							
LPK	**Lapseki**	**1.91**	**78**	Pn	**Pn**	**Pn**	**06 35 00.4**	**-0.9**
LPK				AML	AML	AML		
STFN	**Stefani**	**1.92**	**199**	P	P	**Pn**	**06 35 01.2**	**-0.3**
STFN				AML	AML	AML		
DION	**Dionisos Attik**	**1.94**	**189**	P	P	**Pn**	**06 35 01.7**	**-0.1**
DION				AML	AML	AML		
DION	**Dionisos Attik**	**1.94**	**189**	P	P	**Pn**	**06 35 01.3**	**-0.5**
DION				AML	AML	AML		
LAPS	**Lapseki, ANA**	**1.95**	**82**	P	P	**Pn**	**06 35 02.0**	**+0.1**
LAPS				S	**Sb**	**Sb**	**06 35 28.8**	**+0.1**
VIL2	**Platees**	**1.96**	**205**	P	P	**Pn**	**06 35 02.0**	**-0.1**
VIL2				AML	AML	AML		
KARY	**Karystos**	**1.96**	**177**	P	P	**Pn**	**06 35 01.8**	**-0.3**
KARY				AML	AML	AML		
KARY	**Karystos**	**1.96**	**177**	P	P	**Pn**	**06 35 01.4**	**-0.8**
KZN	**Kozani**	**1.98**	**280**	P	P	**Pn**	**06 35 03.3**	**+0.9**
PTL	**Penteli**	**1.98**	**190**	P	P	**Pn**	**06 35 02.4**	**+0.1**
PTL				AML	AML	AML		
PTL	**Penteli**	**1.98**	**190**	P	P	**Pn**	**06 35 03.0**	**+0.7**
PTL				AML	AML	AML		
VILL	**Villia**	**1.99**	**204**	P	P	**Pn**	**06 35 02.3**	**-0.2**
VILL				AML	AML	AML		
KKB	**Krupnik**	**2.05**	**334**	S	**Sn**	**Sn**	**06 35 29.7**	**+0.7**
KKB	**Krupnik**	**2.05**	**334**	P	P	**Pn**	**06 35 04.1**	**+0.7**
ATHU	**Athens Univers**	**2.07**	**192**	P	P	**Pn**	**06 35 03.0**	**-0.6**
ATHU				AML	AML	AML		
PEHC	**Pehcevo**	**2.08**	**329**	*i* Pn	P	**Pn**	**06 35 04.5**	**+0.7**
UKOP	**Uzunkopru-Edir**	**2.09**	**57**	Pn	**Pn**	**Pn**	**06 35 02.8**	**-1.1**
UKOP				AML	AML	AML		
CANM	**Can-anakkale**	**2.10**	**89**	Pn	**Pn**	**Pn**	**06 35 03.3**	**-0.7**
CANM				AML	AML	AML		
CHOS	**Chios island**	**2.10**	**139**	Pn	**Pn**	**Pn**	**06 35 04.9**	**+0.9**
CHOS				AML	AML	AML		
CHOS	**Chios island**	**2.10**	**139**	P	**Pn**	**Pn**	**06 35 04.2**	**+0.1**
CHOS				AML	AML	AML		
YAYO	**Edremit-Balk**	**2.15**	**99**	Pn	**Pn**	**Pn**	**06 35 04.9**	**+0.2**
YAYO				AML	AML	AML		
PLD	**Plovdiv**	**2.17**	**8**	Pn	**Pn**	**Pn**	**06 35 03.7**	**-1.3**
VLY	**Voula,Athens**	**2.18**	**191**	P	**Pn**	**Pn**	**06 35 05.5**	**+0.4**
VLY				AML	AML	AML		
VLY	**Voula,Athens**	**2.18**	**191**	P	P	**Pn**	**06 35 04.5**	**-0.6**
BIGA	**Biga-Canakkale**	**2.19**	**82**	Pn	**Pn**	**Pn**	**06 35 04.3**	**-0.9**
DKL	**Dikili**	**2.20**	**114**	P	P	**Pn**	**06 35 06.3**	**+0.9**
EVR	**Evrytania**	**2.22**	**242**	P	P	**Pn**	**06 35 06.1**	**+0.3**
EVR				AML	AML	AML		
EVR	**Evrytania**	**2.22**	**242**	P	P	**Pn**	**06 35 05.4**	**-0.4**
LTK	**Loutraki**	**2.24**	**209**	P	P	**Pn**	**06 35 05.7**	**-0.1**
LTK				AML	AML	AML		
LTK	**Loutraki**	**2.24**	**209**	P	P	**Pn**	**06 35 05.5**	**-0.4**
LTK				AML	AML	AML		
YENI	**Yenice-Canakka**	**2.25**	**91**	Pn	**Pn**	**Pn**	**06 35 06.0**	**0.0**
LOUT	**Loutraki**	**2.26**	**208**	P	P	**Pn**	**06 35 05.7**	**-0.6**
LOUT				AML	AML	AML		
KPRO	**Kipourio**	**2.27**	**270**	P	P	**Pn**	**06 35 06.9**	**+0.5**
KPRO				AML	AML	AML		
KRBG	**Karabiga-Canak**	**2.31**	**79**	Pn	**Pn**	**Pn**	**06 35 06.6**	**-0.3**
KRBG				AML	AML	AML		
ANX	**Ano Chora**	**2.33**	**234**	P	P	**Pn**	**06 35 07.6**	**+0.3**
ANX				AML	AML	AML		
ANX	**Ano Chora**	**2.33**	**234**	P	P	**Pn**	**06 35 07.3**	**+0.1**
ANX				AML	AML	AML		
KALE	**Kalithea**	**2.33**	**227**	P	P	**Pn**	**06 35 07.7**	**+0.5**
KALE				AML	AML	AML		
KALE	**Kalithea**	**2.33**	**227**	P	P	**Pn**	**06 35 07.2**	**0.0**
KALE				AML	AML	AML		
SERG	**Sergoula**	**2.37**	**229**	P	P	**Pn**	**06 35 08.2**	**+0.5**
SERG				AML	AML	AML		
SERG	**Sergoula**	**2.37**	**229**	P	P	**Pn**	**06 35 07.6**	**-0.1**
SERG				AML	AML	AML		
ACOR	**Acrocorinthos**	**2.39**	**209**	P	P	**Pn**	**06 35 07.8**	**-0.2**
ACOR				AML	AML	AML		
GAZK	**Gazikoy-TEKIRD**	**2.42**	**71**	Pn	**Pn**	**Pn**	**06 35 08.2**	**-0.1**
GAZK				AML	AML	AML		
MG00	**Magoula, Dorid**	**2.43**	**230**	P	P	**Pn**	**06 35 08.5**	**0.0**
MG00				AML	AML	AML		
TETR	**Tetrakomo, Epi**	**2.44**	**255**	P	P	**Pn**	**06 35 08.2**	**-0.6**
TETR				AML	AML	AML		
EFP	**Efpalio**	**2.44**	**231**	P	P	**Pn**	**06 35 09.1**	**+0.4**
EFP				AML	AML	AML		
PENT	**Pentalofos**	**2.45**	**276**	P	P	**Pn**	**06 35 09.3**	**+0.4**
MET4	**Agioi Theodoro**	**2.48**	**197**	P	P	**Pn**	**06 35 09.3**	**+0.1**
MET5	**Makryloggos,Me**	**2.49**	**198**	P	P	**Pn**	**06 35 09.5**	**+0.2**
MET2	**Kameni Chora,**	**2.50**	**198**	P	P	**Pn**	**06 35 08.3**	**-1.3**
MET2				AML	AML	AML		
NEST	**Nestorio**	**2.54**	**280**	P	P	**Pn**	**06 35 11.2**	**+1.1**
EPID	**Epidavros**	**2.56**	**202**	P	P	**Pn**	**06 35 10.0**	**-0.3**
MET3	**Ano Fanari,Met**	**2.56**	**200**	P	P	**Pn**	**06 35 09.7**	**-0.7**
PLNA	**Plana**	**2.57**	**345**	P	P	**Pn**	**06 35 11.5**	**+1.0**
PVO	**Paravola**	**2.57**	**238**	P	P	**Pn**	**06 35 11.1**	**+0.7**
GUR	**Goura**	**2.57**	**217**	P	P	**Pn**	**06 35 10.1**	**-0.5**
GUR				AML	AML	AML		
AGRP	**Agrapidokambos**	**2.58**	**232**	P	P	**Pn**	**06 35 11.0**	**+0.5**
AGRP				AML	AML	AML		
KLV	**Kalavryta, Ach**	**2.58**	**222**	P	P	**Pn**	**06 35 10.8**	**+0.1**
KLV	**Kalavryta, Ach**	**2.58**	**222**	P	P	**Pn**	**06 35 10.4**	**-0.2**
EDRB	**Edirne**	**2.60**	**44**	Pn	P	**Pn**	**06 35 09.9**	**-1.0**
EDRB				AML	AML	AML		
VTS	**Vitosha**	**2.74**	**343**	P	P	**Pn**	**06 35 13.7**	**+0.7**
PDO	**Prodromos**	**2.81**	**241**	P	P	**Pn**	**06 35 15.1**	**+1.4**
PDO				AML	AML	AML		
OHR	**Ohrid**	**2.90**	**294**	*i* Pn	P	**Pg**	**06 35 23.1**	**-1.3**
BAND	**Balkesir-Ban**	**2.92**	**82**	⇑P	P	**Pn**	**06 35 14.2**	**-1.1**
TSLK	**Tsoukalades, L**	**3.07**	**249**	P	P	**Pn**	**06 35 19.0**	**+1.6**
TS

SPBC	San Pablo de B	1.51	218	P	Pn	07 10 45.4	+0.7
SPBC				S	Sn	07 11 07.8	+0.1
NORC	Norcasia	2.14	234	P	Pn	07 10 52.4	+0.6
NORC				S	Sn	07 11 19.6	-0.7
CHIC	Chingaza	2.28	195	P	Pn	07 10 54.3	+0.5
CHIC				S	Sn	07 11 23.9	0.0
ROSC	El Rosal	2.31	211	P	Pn	07 10 56.2	+2.0
	168nm,0.4s,baz=90,slow=20,SNR=97						
ROSC				S	Sn	07 11 26.6	+2.0
	284nm,0.4s,baz=122,slow=21,SNR=7.1						
ROSC	El Rosal	2.31	211	P	Pn	07 10 56.0	+1.8
ROSC				S	Sn	07 11 27.0	+2.5
CVER	Cruz Verde, Cu	2.49	202	P	Pn	07 10 57.8	+1.4
CVER				S	Sn	07 11 29.0	+0.5
UREC	San Jos de Ur	2.54	291	P	Pn	07 10 56.3	-0.2
UREC				S	Sn	07 11 28.0	-0.8
GUY2C	Guyana, Caldas	2.74	234	P	Pn	07 11 00.5	+1.1
GUY2C				S	Sn	07 11 35.1	+1.2
VILC	Villavicencio,	2.77	192	P	Pn	07 10 59.6	+0.1
VILC				S	Sn	07 11 34.0	-0.2
PTGC	Puerto Gaitan,	2.81	159	P	Pn	07 10 59.5	-0.4
PTGC				S	Sn	07 11 33.1	-1.8
NIZA	Niza - Manizal	2.92	233	P	Pn	07 11 02.8	+1.3
NIZA				S	Sn	07 11 36.8	-0.9
CMAN1	Manizales, Cal	2.96	234	P	Pn	07 10 59.8	-2.2
CMAN1				S	Sn	07 11 38.1	-0.4
CBOC	Ciudad Bolivar	3.02	251	P	Pn	07 11 04.0	+1.4
CBOC				S	Sn	07 11 41.4	+1.7
ARGC	Ariguani, Magd	3.19	340	P	Pn	07 11 06.2	+1.6
ARGC				S	Sn	07 11 47.8	+4.5
ARMEC	Armenia, Quind	3.39	228	P	Pn	07 11 08.4	+1.0
PRAC	Prado	3.57	209	P	Pn	07 11 10.0	+0.5
PRAC				S	Sn	07 11 51.1	-1.0
APAC	Apartado, Choc	3.57	287	P	Pn	07 11 10.1	+0.6
APAC				S	Sn	07 11 52.9	+0.8
ORTC	Ortega, Tolima	3.59	216	P	Pn	07 11 10.5	+0.6
ORTC				S	Sn	07 11 53.2	+0.5
SJCC	San Jacinto, C	3.64	326	P	Pn	07 11 10.1	-0.4
SJCC				S	Sn	07 11 52.2	-1.6
SJCC	San Jacinto, C	3.64	326	eP	Pn	07 11 10.6	+0.1
SJCC				eS	Sn	07 11 50.8	-3.0
LCBC	Los crdobas,	3.77	302	P	Pn	07 11 13.0	+0.9
LCBC				S	Sn	07 11 59.0	+2.3
URMC	La Uribe, Meta	3.78	199	P	Pn	07 11 13.1	+0.7
URMC				S	Sn	07 11 56.3	-0.9
CRJC	Cerrejon, Guaj	4.16	3	P	Pn	07 11 16.9	-0.3
CRJC				S	Sn	07 12 03.6	-2.2
YOTC	Yotoco, Valle	4.28	228	P	Pn	07 11 19.1	+0.3
YOTC				S	Sn	07 12 10.3	+1.6
GUVC	San Jose del G	4.30	173	P	Pn	07 11 18.5	-0.6
GUVC				S	Sn	07 12 09.1	-0.1
SMRC	Santa Marta, M	4.42	346	P	Pn	07 11 21.4	+0.8
SMRC				S	Sn	07 12 10.7	-1.3
MACC	Macarena, Meta	4.72	189	P	Pn	07 11 23.2	-1.4
BETC	Betania	4.73	209	P	Pn	07 11 21.8	-3.0
BETC				S	Sn	07 12 15.2	-4.2
URIC	Uribia, Colomb	4.96	13	P	Pn	07 11 26.6	-1.0
	16nm,0.7s						
URIC	Uribia, Colomb	4.96	13	eP	Pn	07 11 27.1	-0.5
URIC				eS	Sn	07 12 19.7	-4.8
TEPV	Terepaima	4.98	51⇑	eP	Pn	07 11 28.3	+0.3
JAMC	Jamundi, Valle	5.04	224	P	Pn	07 11 29.7	+0.7
JAMC				S	Sn	07 12 28.1	+1.2
UPD2	Meteti	5.12	290	P	Pn	07 11 27.8	-2.0
	13nm,0.8s						
UPD2				AML	AML		
MAPV	Macapo	5.50	57	eP	Pn	07 11 34.8	-0.1
POPC	Popayan, Colom	5.54	220	P	Pn	07 11 36.1	+0.4
	5.6nm,0.5s						
POPC				S	Sn	07 12 40.2	+1.3
	5.6nm,0.5s						
POPC				AML	AML		
BENV	Beln	6.29	60	eP	Pn	07 11 44.6	-0.8
BBAC	Balboa, Cauca	6.30	221	P	Pn	07 11 46.3	+0.5
BBAC				S	Sn	07 12 55.8	-1.3
TURV	Turiamo	6.34	55	eP	Pn	07 11 45.7	-0.3
CRUC	La Cruz	6.48	216	P	Pn	07 11 51.7	+3.5
CRUC				S	Sn	07 13 00.9	-0.5
CACV	CAICARA DEL OR	6.58	83	eP	Pn	07 11 56.0	+6.7
PTLC	Puerto Leguiza	6.83	194	P	Pn	07 11 52.4	-0.2
PTLC				S	Sn	07 13 08.6	-0.9
BCIP	Isla Barro Col	7.03	290	P	Pn	07 11 54.6	-0.5
BCIP				S	Sn	07 13 12.3	-1.7
TXAR	Lajitas Array	36.43	312	P	P	07 17 05.6	+0.7
	0.2nm,0.5s,baz=107,slow=9.9,SNR=2.8						
	0.2nm,0.5s						
PDAR	Pinedale Array	48.05	324	P	P	07 18 39.0	+0.1
	0.2nm,0.4s,baz=138,slow=9.1,SNR=2.7						
	0.2nm,0.4s						
YKA	Yellowknife Ar	63.23	340	P	P	07 20 26.3	-0.2
	1.3nm,0.8s,baz=134,slow=6.2,SNR=1.2						
	1.3nm,0.8s						
ASAR	Alice Springs	149.11	234	PKPbc	PKPbc	07 29 44.6	-1.2
	0.7nm,0.7s,baz=112,slow=3.3,SNR=9.5						
WRA	Warramunga Arr	150.34	241	PKPbc	PKPbc	07 29 47.8	-1.1
	0.3nm,0.4s,baz=112,slow=2.4,SNR=9.8						

IDC ***09*** *07:20:08.1±0.6,37°.51S×51°.10E,h0km,mb4.2/15, mbtmp4.1/16,ML3.9/1,MS3.4/8,Error ellipse: s-maj=20.2km s-min=17.0km az=65.0*

NEIC ***09*** *07:20:09.7±1.7,37°.48S±0°.08×51°.1E±0°.1,h10km±1km, mb4.6/23,Error ellipse: s-maj=17.1km s-min=13.1km az=266.0*

ISC 09 07:20:10.2±0.4,37°.47S±0°.07×51°.0E±0°.1,h16km,n63, σ0s73/49,mb4.4/22,MS3.5/8,South Indian Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04N1	CROZET ISLANDS	8.70	177	T	T	07 31 06.0	
	baz=358,slow=74,SNR=2655						
H04N2	CROZET ISLANDS	8.71	176	T	T	07 30 58.5	
	baz=358,slow=74,SNR=805						
H04N3	CROZET ISLANDS	8.72	177	T	T	07 30 57.9	
	baz=358,slow=74,SNR=443						
CRZF	Crozet Islands	8.97	176	Pn	Pn	07 22 18.2	-0.9
VOI	Vohitsoka	15.94	346	Pn	Pn	07 23 53.3	-0.7
RER	Riviere de l'E	16.76	15	Pn	Pn	07 24 03.7	-0.7
OPO	Ambohidratompo	19.13	349	P	P	07 24 31.7	-1.1
	baz=106,slow=23,SNR=1.7						
	3.3nm,0.9s						
BOSA	Boshof	23.29	285	P	P	07 25 16.8	-0.7
	3.7nm,0.9s,baz=55,slow=17,SNR=4.2						
BOSA				LR	LR	07 33 04.7	
	comp=Z,25nm,18.8s,baz=108,slow=33						
	3.7nm,0.9s						
BOSA	Boshof	23.29	285	P	P	07 25 16.6	-0.8
BOSA				IAmb	IAmb	07 25 24.2	
	comp=Z,15nm,1.2s						
LBTB	Lobatse	24.96	293	LR	LR	07 33 36.5	
	comp=Z,33nm,20.8s,baz=134,slow=32						
LBTB	Lobatse	24.96	293	P	P	07 25 33.1	0.0
LBTB				IAmb	IAmb	07 25 58.1	
	comp=Z,19nm,1.4s						
SUR	Sutherland	25.24	273	P	P	07 25 35.5	-0.1
LPHEP	Lephephe	25.77	296	P	P	07 25 40.2	-0.2
LPHEP				IAmb	IAmb	07 25 59.3	
	comp=Z,23nm,1.2s						
KDWAN	Kaudwane	26.62	294	P	P	07 25 47.9	-0.3
KDWAN				IAmb	IAmb	07 26 25.2	
	comp=Z,21nm,1.3s						
MAW	Mawson	30.91	171	P	P	07 26 26.1	+0.4
	comp=Z,1.0nm,0.4s,baz=30,slow=17,SNR=3.6						
MAW				LR	LR	07 36 01.2	
	comp=Z,117nm,20.3s,baz=48,slow=31						
	comp=Z,1.0nm,0.4s						
MAW	Mawson	30.91	171	P	P	07 26 26.3	+0.5
H08S1	Diego Garcia H	35.49	39	T	T	08 04 38.9	
	baz=215						
H08S2	Diego Garcia H	35.51	39	T	T	08 04 38.6	
	baz=215						
H08S3	Diego Garcia H	35.52	39	T	T	08 04 34.4	
	baz=215						
LODK	Lodwar	43.22	337	P	P	07 28 10.5	-0.3
SNAA	Sanae	43.69	202	P	P	07 28 14.8	+0.7
	comp=Z,1.2nm,0.4s,baz=77,slow=6.9,SNR=8.5						
SNAA				LR	LR	07 42 06.4	
	comp=Z,47nm,19.7s,baz=14,slow=30						
	comp=Z,1.2nm,0.4s						
SNAA	Sanae	43.69	202	P	P	07 28 14.3	+0.3
SNAA				IAmb	IAmb	07 28 21.2	
	comp=Z,9.8nm,1.0s						
H01W2	Cape Leeuwin H	50.14	107	T	T	08 22 48.4	
	baz=248,slow=75,SNR=41						
H01W3	Cape Leeuwin H	50.15	107	T	T	08 22 48.9	
	baz=248,slow=75,SNR=46						
H01W1	Cape Leeuwin H	50.16	107	T	T	08 22 49.7	
	baz=248,slow=75,SNR=45						
QSPA	South Pole Qui	52.72	180	P	P	07 29 23.5	-0.4
	comp=Z,1.8nm,0.9s,baz=278,slow=5.5,SNR=4.6						
QSPA				LR	LR	07 49 13.5	
	comp=Z,190nm,21.9s,baz=308,slow=33						
	comp=Z,1.8nm,0.9s						
QSPA	South Pole Qui	52.72	180	P	P	07 29 24.1	+0.2
QSPA				IAmb	IAmb	07 29 30.3	
	comp=Z,13nm,1.1s						
BELA	Belgrano 2	52.78	195	P	P	07 29 24.5	+0.5
BELA				IAmb	IAmb	07 29 30.8	
	comp=Z,3.5nm,1.0s						
VNDA	Vanda	58.01	166	P	P	07 30 00.7	-1.0
	comp=Z,0.8nm,1.0s,baz=234,slow=6.4,SNR=4.6						
	comp=Z,0.8nm,1.0s						
VNDA	Vanda	58.01	166	P	P	07 30 01.1	-0.6
DBIC	Dimbokro	68.08	298	P	P	07 31 11.4	+2.0
	comp=Z,3.0nm,0.7s,baz=139,slow=3.8,SNR=4.6						
	comp=Z,3.0nm,0.7s						
DBIC	Dimbokro	68.08	298	P	P	07 31 08.3	-1.1
TORD	Torodi Ar. Bea	68.41	307	P	P	07 31 12.9	+1.6
	comp=Z,1.4nm,0.9s,baz=151,slow=6.8,SNR=5.8						
	comp=Z,1.4nm,0.9s						
TORD	Torodi Ar. Bea	68.41	307	P	P	07 31 11.2	-0.2
TORD				IAmb	IAmb	07 31 22.0	
	comp=Z,3.1nm,0.6s						
EIL	Elat	68.47	345	LR	LR	07 56 53.5	
	comp=Z,54nm,21.3s,baz=150,slow=32						
ASAR	Alice Springs	70.58	105	P	P	07 31 25.1	+0.2
	comp=Z,0.9nm,0.7s,baz=235,slow=5.7,SNR=13						
	comp=Z,0.9nm,0.7s						
CMAR	Chng Mai Arr	71.60	48	P	P	07 31 31.1	+0.2
	comp=Z,1.1nm,0.3s,baz=226,slow=6.5,SNR=9.8						
	comp=Z,1.1nm,0.3s						
CMAR	Chiang Mai Arr	71.60	48	P	P	07 31 30.6	-0.3
STKA	Stephens Creek	71.83	116	P	P	07 31 33.2	+0.8
	comp=Z,2.7nm,1.0s,baz=235,slow=9.6,SNR=3.6						
	comp=Z,2.7nm,1.0s						
STKA	Stephens Creek	71.83	116	P	P	07 31 31.3	-1.0
WRA	Warramunga Arr	72.98	102	P	P	07 31 39.3	-0.1
	comp=Z,2.5nm,1.0s,baz=229,slow=4.9,SNR=11						
	comp=Z,2.5nm,1.0s						
WRA	Warramunga Arr	72.98	102		P	07 31 40.4	+1.0
WRAB	Tennant Creek	72.99	102	P	P	07 31 38.5	-1.0
WRAB				IAmb	IAmb	07 31 52.6	
	comp=Z,11nm,1.4s						
WB0	Warramunga Arr	73.12	102	P	P	07 31 40.3	+0.1
WB0				IAmb	IAmb	07 31 41.8	
	comp=Z,6.1nm,1.1s						
BRTR	Keskin Array B	78.47	346	LR	LR	08 07 29.3	
	comp=Z,17nm,18.0s,baz=150,slow=36						
VAE	Valguarnera	81.90	331	LR	LR	08 10 03.5	
	comp=Z,31nm,18.4s,baz=163,slow=36						
PLCA	Paso Flores	85.58	220	P	P	07 32 47.6	-0.3
	comp=Z,2.3nm,1.1s,baz=169,slow=5.1,SNR=3.6						
	comp=Z,2.3nm,1.1s						
AQDB	Aquidauana	90.24	244		P	07 33 09.9	-0.6
KURBB	Kurchatov Arra	91.00	17	P	P	07 33 13.5	+0.5
	comp=Z,1.0nm,0.2s,baz=212,slow=5.5,SNR=5.7						
	comp=Z,1.0nm,0.2s						
KURK	Kurchatov	91.11	17	P	P	07 33 13.7	+0.2
KURK				IAmb	IAmb	07 33 15.3	
	comp=Z,6.8nm,1.4s						
BVAR	Borovoye Array	91.68	12	P	P	07 33 17.3	+1.2
	comp=Z,0.7nm,0.4s,baz=196,slow=4.2,SNR=3.5						
	comp=Z,0.7nm,0.4s						
ZALV	Zalesovo Beam	95.61	19	P	P	07 33 34.4	+0.2
	comp=Z,0.6nm,0.4s,baz=209,slow=2.7,SNR=4.0						
	comp=Z,0.6nm,0.4s						
ZALV	Zalesovo Beam	95.61	19	P	P	07 33 34.2	0.0
AC01	Pan de Azucar	96.29	230	P	P	07 33 38.1	-0.1
RGN	Rugen	97.22	339	P	Pdif	07 33 41.5	0.0
S51A	Beattyville	144.30	284	PKPdf	PKPdf	07 39 45.6	+0.2
D19K	Kuna River	145.01	18	PKPbc	PKPdf	07 39 46.4	+0.8
D20K	Etivluk River	145.22	17	PKPbc	PKPdf	07 39 46.3	+0.3
A36M	Sachs Harbour	145.36	358	PKPbc	PKPab	07 39 47.7	+1.6
F17K	Baldwin Pennin	145.59	22	PKPdf	PKPab	07 39 47.4	+0.2
E19K	Redstone River	146.01	19	PKPdf	PKPab	07 39 48.7	-0.1
E21K	Killik River	146.03	16	PKPdf	PKPab	07 39 48.4	-0.5
ILAR	Eielson Array	150.66	16	PKPbc	PKiKP	07 40 01.1	-0.1
	comp=Z,2.3nm,0.8s,baz=317,slow=3.0,SNR=23						

IDC 09 07:37:34.4±7.3,18°.71S×176°.44W,h270km±111km, mb3.0/4,mbtmp3.8/5,MS3.8/1,Error ellipse: s-maj=95.5km s-min=35.4km az=13.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	6.55	44	P	Pn	07 39 11.7	+1.8
	8.5nm,0.3s,baz=190,slow=12,SNR=6.0						
AFI				S	S	07 40 25.2	-1.5
	16nm,0.8s,baz=126,slow=19,SNR=5.3						
PMG	Port Moresby	36.44	280	LR	LR	07 56 55.4	
	comp=Z,162nm,21.2s,baz=238,slow=32						
STKA	Stephens Creek	39.90	242	P	P	07 44 41.6	-0.9
	0.5nm,0.3s,baz=110,slow=12,SNR=4.3						
	0.5nm,0.3s						
WRA	Warramunga Arr	46.33	260	P	P	07 45 33.9	-0.2
	0.3nm,0.6s,baz=97,slow=7.9,SNR=5.6						
	0.3nm,0.6s						
ASAR	Alice Springs	46.38	255	P	P	07 45 34.6	+0.2
	1.3nm,0.7s,baz=94,slow=7.7,SNR=26						
	1.3nm,0.7s						
QSPA	South Pole Qui	71.34	180	P	P	07 48 24.9	+0.1
	0.7nm,0.9s,baz=75,slow=1.0,SNR=1.7						
	0.7nm,0.9s						

IDC ***09*** *07:42:41.8±0.5,52°.22S×160°.56E,h0km,mb4.5/12, mbtmp4.5/14,ML3.6/2,MS3.8/16,Error ellipse: s-maj=19.2km s-min=13.5km az=94.0*

NEIC ***09*** *07:42:43.7±1.2,52°.37S±0°.08×160°.6E±0°.1,h10km±1km, mb4.7/21,Error ellipse: s-maj=18.7km s-min=7.2km az=47.0*

ISC 09 07:42:43.3±1.2,52°.26S±0°.07×160°.80E±0°.09,h12km±7km, n103,σ0s84/89,mb4.6/22,MS3.9/14,Macquarie Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCQ	Macquarie Isla	2.50	205	Pn	Pn	07 43 20.8	-2.9
PYZ	Puysegur Point	7.21	35	Pn	Pn	07 44 27.2	-1.2
WHZ	Wether Hill Ro	7.91	39		Pn	07 44 37.3	-0.8
DCZ	Deep Cove	7.99	34	Pn	Pn	07 44 38.5	-0.5
MLZ	Mavora Lakes	8.42	38		Pn	07 44 45.2	+0.2
WKZ	Wanaka	9.22	39	Pn	Pn	07 44 56.0	+0.1
ODZ	Otahua Downs	9.72	46	Pn	Pn	07 45 01.6	-1.2
RPZ	Rata Peaks	10.96	43	Pn	Pn	07 45 18.9	-1.0
	0.3nm,0.3s,baz=177,slow=3.4,SNR=5.2						
RPZ				Sn	Sn	07 47 14.6	-7.7
	baz=163,slow=11,SNR=1.8						
RPZ				LR	LR	07 49 26.8	
	comp=Z,87nm,21.0s,baz=274,slow=37						
	1.1nm,0.5s						
RPZ				AML	AML		
LTZ	Lake Taylor	12.23	44	Pn	Pn	07 45 36.1	-1.2
TAU	Tasmania Unive	13.03	311		Pn	07 45 48.1	+0.1
URZ	Urewera	18.05	46	P	Pn	07 46 53.6	-0.1
	0.2nm,0.3s,baz=166,slow=19,SNR=1.6						
URZ				LR	LR	07 53 56.1	
	comp=Z,350nm,18.2s,baz=220,slow=37						
	8.8nm,0.8s						
URZ				AML	AML		
TOO	Toolangi	18.19	318		Pn	07 46 54.4	-1.2
STKA	Stephens Creek	24.72	318	P	P	07 48 04.0	-0.3
	14nm,1.0s,baz=148,slow=9.9,SNR=24						
	14nm,1.0s						
STKA	Stephens Creek	24.72	318	P	P	07 48 04.8	+0.6
VNDA	Vanda	25.37	179	P	P	07 48 11.3	+1.6
	2.8nm,0.8s,baz=347,slow=8.5,SNR=22						
VNDA				PcP	PcP	07 51 42.0	+0.4
	0.3nm,0.4s,baz=354,slow=4.3,SNR=3.7						
VNDA				LR	LR	07 56 06.1	
	comp=Z,212nm,20.7s,baz=331,slow=32						
	2.8nm,0.8s						
VNDA	Vanda	25.37	179	P	P	07 48 09.1	-0.6
VNDA					PcP	07 51 42.5	+0.9
BBOO	Buckleboo	26.43	308	P	P	07 48 19.9	+0.2
BBOO				IAmb	IAmb	07 48 21.3	
	comp=Z,25nm,1.2s						
RAO	Raoul Island	27.88	43	LR	LR	07 58 03.9	
	comp=Z,182nm,19.2s,baz=128,slow=33						
INKA	Innaminka	28.72	321	P	P	07 48 41.7	+1.5
FORT	Forrest	32.15	299	P	P	07 49 11.3	+0.7
FORT				IAmb	IAmb	07 49 12.8	
	comp=Z,4.3nm,0.7s						
ASAR	Alice Springs	35.17	314	P	P	07 49 36.8	-0.2
	comp=Z,9.9nm,0.8s,baz=147,slow=8.2,SNR=135						
ASAR				PcP	PcP	07 52 07.1	-0.9
	comp=Z,2.6nm,0.8s,baz=143,slow=2.8,SNR=15						
ASAR				LR	LR	08 03 35.8	
	comp=Z,381nm,18.0s,baz=178,slow=36						
	comp=Z,9.9nm,0.8s						
ASAR	Alice Springs	35.17	314		P	07 49 37.2	+0.3
ASAR					PcP	07 52 07.0	-1.1
AS31	Alice Springs	35.17	314		P	07 49 37.4	+0.5
MSVF	Nonsavu	37.04	28	LR	LR	08 02 09.3	
	comp=Z,81nm,20.4s,baz=75,slow=32						
SANVU	Saraoutou	37.08	10	P	P	07 49 53.0	-0.2
H01W1	Cape Leeuwin H	37.24	279	T	T	08 29 09.2	
	baz=132,slow=75,SNR=1015						
H01W2	Cape Leeuwin H	37.25	279	T	T	08 29 11.1	
	baz=132,slow=75,SNR=1266						
H01W3	Cape Leeuwin H	37.26	279	T	T	08 29 10.6	
	baz=132,slow=75,SNR=939						
QSPA	South Pole Qui	37.86	180	P	P	07 50 01.4	+1.8
	comp=Z,4.7nm,1.0s,baz=21,slow=5.5,SNR=12						
QSPA				PcP	PcP	07 52 15.6	0.0
	comp=Z,1.8nm,0.6s,baz=1.2,slow=0.5,SNR=12						
QSPA				LR	LR	08 03 38.3	
	comp=Z,142nm,19.5s,baz=23,slow=33						
	comp=Z,4.7nm,1.0s						
QSPA	South Pole Qui	37.86	180	P	P	07 49 59.5	-0.2
QSPA				IAmb	IAmb	07 50 12.1	
	comp=Z,12nm,1.2s						
QSPA					PcP	07 52 15.0	-0.5
WR8	Warramunga Arr	38.19	318		P	07 50 02.3	-0.4
WRA	Warramunga Arr	38.27	317	P	P	07 50 02.6	-0.7
	comp=Z,14nm,0.8s,baz=150,slow=8.5,SNR=61						
WRA				PcP	PcP	07 52 16.6	-0.8
	comp=Z,2.3nm,0.8s,baz=162,slow=2.6,SNR=12						
	comp=Z,14nm,0.8s						
WRAB	Tennant Creek	38.27	317	P	P	07 50 02.9	-0.5
WRAB				IAmb	IAmb	07 50 03.9	
	comp=Z,22nm,1.0s						
WB0	Warramunga Arr	38.40	318		P	07 50 03.9	-0.5
WB0				IAmb	IAmb	07 50 04.8	
	comp=Z,19nm,1.0s						
MORW	Morawa	40.24	287	P	P	07 50 19.1	-0.7
MORW				IAmb	IAmb	07 50 29.4	
	comp=Z,22nm,1.1s						
HNR	Honiara	42.71	359	LR	LR	08 05 18.8	
	comp=Z,119nm,20.5s,baz=294,slow=32						
FITZ	Fitzroy Crossi	43.82	308	P	P	07 50 48.8	-0.2
	comp=Z,9.5nm,0.8s,baz=164,slow=10.0,SNR=15						
FITZ				PcP	PcP	07 52 35.0	-0.4
	comp=Z,5.6nm,0.8s,baz=104,slow=4.2,SNR=6.6						
FITZ				LR	LR	08 08 47.4	
	comp=Z,135nm,18.0s,baz=353,slow=36						
	comp=Z,9.5nm,0.8s						
FITZ	Fitzroy Crossi	43.82	308		P	07 50 49.3	+0.2
FITZ					PcP	07 52 35.5	+0.1
MBWA	Marble Bar	44.31	299	P	P	07 50 53.3	+0.4
MBWA				IAmb	IAmb	07 50 53.8	
	comp=Z,15nm,0.8s						
KNRA	Kununurra	44.46	313		P	07 50 54.7	+0.6
KNRA				IAmb	IAmb	07 50 55.3	
	comp=Z,7.0nm,0.9s						
MAW	Mawson	45.88	212	P	P	07 51 05.4	+0.5
	comp=Z,2.3nm,0.7s,baz=138,slow=8.2,SNR=3.9						
	comp=Z,2.3nm,0.7s						
MTN	Manton Dam	45.96	318		P	07 51 05.8	-0.3
MTN				IAmb	IAmb	07 51 06.6	
	comp=Z,5.2nm,0.7s						
TBI	Tubuai	47.47	72	eLR	LR	08 04 39.5	
	comp=Z,480nm,23.2s						
BELA	Belgrano 2	49.78	176	P	P	07 51 36.1	+1.0
BELA				IAmb	IAmb	07 51 54.4	
	comp=Z,7.0nm,1.4s						
BATI	Baumata	51.59	311	LR	LR	08 14 18.9	
	comp=Z,633nm,18.6s,baz=254,slow=37						
PPT2	Papeete2	51.92	67	eLR	LR	08 06 42.3	
	comp=Z,100nm,26.0s						
PPT	Papeete	51.94	67	LR	LR	08 11 26.3	
	comp=Z,27nm,18.8s,baz=218,slow=33						
SNAA	Sanae	55.83	186	P	P	07 52 19.6	-0.2
	comp=Z,1.7nm,0.5s,baz=183,slow=9.3,SNR=3.1						
SNAA				LR	LR	08 14 38.1	
	comp=Z,100nm,20.5s,baz=192,slow=34						
	comp=Z,1.7nm,0.5s						
SNAA	Sanae	55.83	186	P	P	07 52 20.1	+0.3
SNAA				IAmb	IAmb	07 52 21.6	
	comp=Z,8.6nm,1.4s						
KAPI	Kappang	57.97	310	LR	LR	08 18 01.4	
	comp=Z,123nm,18.1s,baz=177,slow=37						
H04S2	CROZET ISLANDS	64.08	226	T	T	09 03 37.6	
	baz=139,slow=75,SNR=10						
H04S1	CROZET ISLANDS	64.09	226	T	T	09 03 36.6	
	baz=139,slow=75,SNR=12						
H04S3	CROZET ISLANDS	64.10	226	T	T	09 03 34.9	
	baz=139,slow=75,SNR=9.6						
RPN	Rapa Nui	68.96	107	LR	LR	08 17 19.4	
	comp=Z,55nm,19.4s,baz=310,slow=30						
PLCA	Paso Flores	77.23	143	LR	LR	08 20 56.1	
	comp=Z,83nm,18.9s,baz=200,slow=30						
H03S2	Juan Fernandez	79.67	133	T	T	09 23 03.7	
	baz=210,slow=74,SNR=128						
H03S1	Juan Fernandez	79.68	133	T	T	09 23 05.0	
	baz=210,slow=74,SNR=111						
H03S3	Juan Fernandez	79.69	133	T	T	09 23 04.3	
	baz=210,slow=74,SNR=129						
H03N2	Juan Fernandez	80.00	133	T	T	09 23 32.5	

G62A	**West of Eustis**	**146.04**	**81**	PKPdf	**PKPdf**	**08 02 21.4**	**+0.1**
PKME	**Peaks-Kenny Pk**	**146.82**	**82**	PKPdf	**PKPdf**	**08 02 22.1**	**-0.5**
AKASG	**Malin Array Be**	**150.24**	**287**	PKPbc	**PKPbc**	**08 02 32.7**	**-0.5**
	comp=Z,8.4nm,0.7s,baz=84,slow=2.4,SNR=30						
AKASG				PKPab	**sPKPbc**	**08 02 38.4**	**+0.8**
	comp=Z,3.6nm,0.6s,baz=88,slow=3.0,SNR=9.1						
SPITS	**Spitsbergen Ar**	**151.04**	**346**	PKPbc	**PKPbc**	**08 02 34.5**	**+0.1**
	comp=Z,10nm,0.7s,baz=72,slow=8.2,SNR=7.9						
ARCES	**ARCESS Array B**	**153.13**	**327**	PKPbc	**PKPbc**	**08 02 38.7**	**-0.6**
	comp=Z,3.7nm,0.8s,baz=98,slow=2.7,SNR=7.8						
ARCES				PKPab	**PKPab**	**08 02 50.4**	**-0.6**
	comp=Z,2.8nm,0.6s,baz=72,slow=4.0,SNR=8.9						
KEST	**Kesra**	**153.88**	**242**	PKPab	**PKPab**	**08 02 56.4**	**+1.2**
	comp=Z,6.1nm,0.9s,baz=244,slow=4.8,SNR=5.0						
KEST	**Kesra**	**153.88**	**242**		**PKPab**	**08 02 57.6**	**+2.4**
FINES	**FINESS Array B**	**154.10**	**309**	PKPbc	**PKPbc**	**08 02 41.1**	**-0.4**
	comp=Z,2.5nm,0.7s,baz=153,slow=0.4,SNR=2.5						
FINES				PKPab	**PKPab**	**08 02 54.5**	**-0.9**
	comp=Z,4.6nm,0.7s,baz=68,slow=6.8,SNR=4.0						
JAVC	**Velka Javorina**	**156.50**	**276**	*e*PKP	**PKPab**	**08 03 06.4**	**+0.3**
MORC	**Moravsky Berou**	**156.91**	**279**	*e*PKP	**PKPab**	**08 03 07.3**	**-0.5**
VRAC	**Vranov**	**157.32**	**277**	*e*PKP	**PKPab**	**08 03 09.7**	**+0.2**
KRUC	**Moravsky**	**157.35**	**276**	*e*PKP	**PKPab**	**08 03 09.6**	**-0.1**
GERES	**GERESS Array B**	**158.92**	**274**	PKPab	**PKPab**	**08 03 16.3**	**-0.3**
	comp=Z,0.7nm,0.7s,baz=140,slow=4.4,SNR=5.9						
CLL	**Collm**	**160.14**	**280**	*i* PKPab	**PKPab**	**08 03 21.3**	**-0.4**
	comp=Z,5.0nm,0.9s						
HFS	**Hagfors**	**160.25**	**306**	PKPab	**PKPab**	**08 03 21.4**	**-0.6**
	comp=Z,2.5nm,0.8s,baz=72,slow=6.4,SNR=4.3						
NOA	**NORSAR Array B**	**161.27**	**310**	PKPab	**PKPab**	**08 03 25.6**	**-0.8**
	comp=Z,0.9nm,0.7s,baz=70,slow=4.5,SNR=3.7						

*KRNET **09** 07:42:43.8±0.1, 42°.42N×80°.87E, mb3.1*
*NNC **09** 07:42:46.3±1.4, 41°.89N×80°.61E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=9.6km s-min=6.4km az=162.0*
*SOME **09** 07:42:46.5, 41°.87N×80°.57E, h15km*

ISC 09 07:42:49.5±2.0, 42°.03N±0°.08×80°.53E±0°.07, h10km, n26, σ1°39/43, 11C-1D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**1.37**	**325**	P		**Pn**	**07 43 12.7**	**-2.2**
	59nm,0.1s							
SHLS				S		**Sn**	**07 43 31.8**	**-1.4**
	191nm,0.2s							
UZB	**Uzynbulak**	**1.58**	**315**	P		**Pb**	**07 43 18.0**	**-0.8**
	31nm,0.2s							
UZB				S		**Sg**	**07 43 41.2**	**+1.0**
	104nm,0.5s							
UZB	**Uzynbulak**	**1.58**	**315**	*e*P		**Pb**	**07 43 18.1**	**-0.8**
	31nm,0.2s							
UZB				*e*S		**Sg**	**07 43 41.2**	**+1.0**
	104nm,0.5s							
PRZ	**Przheval'sk**	**1.65**	**287**	↑*e*P		**Pn**	**07 43 17.9**	**-0.8**
PRZ				↑*e*S		**Sg**	**07 43 43.0**	**+0.5**
SATY	**Saty**	**1.88**	**304**	Pg		**Pg**	**07 43 24.5**	**-1.0**
	20nm,0.4s							
SATY				Lg		Lg	07 43 52.0	
	28nm,0.2s							
SATY	**Saty**	**1.88**	**304**	*e*P		**Pb**	**07 43 22.6**	**-1.4**
	8.1nm,0.1s							
SATY				*e*S		**Sb**	**07 43 48.5**	**+0.9**
	28nm,0.2s							
KPKS	**Kokpek**	**1.98**	**317**	Pg		**Pb**	**07 43 25.3**	**-0.4**
	11nm,0.3s							
KPKS				Lg		Lg	07 43 53.5	
	16nm,0.4s							
KPKS	**Kokpek**	**1.98**	**317**	*e*P		**Pb**	**07 43 25.1**	**-0.6**
	0.3nm,0.2s							
KPKS				*e*S		**Sg**	**07 43 52.9**	**-0.1**
	79nm,0.3s							
ANVS	**Anan'yevo**	**2.25**	**290**	↑*e*P		**Pn**	**07 43 26.7**	**-0.3**
ANVS				↑*e*S		**Sb**	**07 43 57.8**	**-0.5**
KURS	**Kuram**	**2.27**	**311**	Pg		**Pb**	**07 43 30.8**	**+0.2**
KURS				Lg		Lg	07 44 02.5	
KURS	**Kuram**	**2.27**	**311**	*e*P		**Pb**	**07 43 29.6**	**-1.0**
	7.5nm,0.4s							
KURS				*e*S		**Sb**	**07 44 00.3**	**+1.6**
	10nm,0.4s							
DJR	**Jarkent**	**2.36**	**347**	Pg		**Pb**	**07 43 31.9**	**-0.4**
	3.2nm,0.3s							
DJR				Lg		Lg	07 44 04.7	
	14nm,0.4s							
DJR	**Jarkent**	**2.36**	**347**	*e*P		**Pb**	**07 43 31.9**	**-0.4**
	3.2nm,0.3s							
DJR				*e*S		**Sg**	**07 44 04.7**	**-0.7**
	14nm,0.4s							
KDJ	**Kajisay**	**2.50**	**273**	↑*e*P		**Pn**	**07 43 31.1**	**+0.7**
KDJ				↑*e*S		**Sb**	**07 44 06.6**	**+1.2**
MDOK	**Medeo**	**2.81**	**295**	Pg		**Pb**	**07 43 39.4**	**-0.5**
	7.1nm,0.3s							
MDOK				Lg		Lg	07 44 17.4	
	23nm,0.5s							
MDOK	**Medeo**	**2.81**	**295**	*e*P		**Pb**	**07 43 39.4**	**-0.5**
	7.1nm,0.3s							
MDOK				*e*S		**Sg**	**07 44 17.4**	**-2.3**
	23nm,0.5s							
TNSS	**Tian-Shan**	**2.83**	**292**	Pg		**Pb**	**07 43 40.8**	**+0.3**
	1.7nm,0.3s							
TNSS				Lg		Lg	07 44 20.1	
	3.9nm,0.4s							
TNSS	**Tian-Shan**	**2.83**	**292**	*e*P		**Pb**	**07 43 40.8**	**+0.3**
	1.7nm,0.3s							
TNSS				*e*S		**Sg**	**07 44 20.1**	**-0.5**
	3.9nm,0.4s							
ARXS	**Arharly**	**2.94**	**319**	Pg		**Pb**	**07 43 42.5**	**+0.4**
	7.5nm,0.5s							
ARXS				Lg		Lg	07 44 22.7	
	24nm,0.5s							
ARXS	**Arharly**	**2.94**	**319**	*e*P		**Pb**	**07 43 42.5**	**+0.4**
	7.5nm,0.5s							
ARXS				*e*S		**Sg**	**07 44 22.7**	**-1.4**
	24nm,0.5s							
KTBS	**Karatobe**	**3.29**	**302**	Pg		**Pb**	**07 43 47.8**	**-0.2**
	0.1nm,0.1s							
KTBS				Lg		Lg	07 44 31.7	
	10nm,0.3s							
KTBS	**Karatobe**	**3.29**	**302**	*e*P		**Pb**	**07 43 47.8**	**-0.2**
	0.1nm,0.1s							
KTBS				*e*S		**Sb**	**07 44 31.7**	**+3.6**
	10nm,0.3s							
KST	**Kastek**	**3.52**	**288**	Pg		**Pb**	**07 43 51.3**	**-0.8**
	1.3nm,0.4s							
KST				Lg		Lg	07 44 37.7	
	18nm,0.6s							
KST	**Kastek**	**3.52**	**288**	*e*P		**Pb**	**07 43 51.3**	**-0.8**
	1.3nm,0.4s							
KST				*e*S		**Sb**	**07 44 37.7**	**+2.7**
	18nm,0.6s							
MAKZ	**Makanchi**	**4.89**	**12**	↑Pn		**Pn**	**07 44 01.6**	**-1.4**
	1.8nm,0.6s							
MAKZ				↑Sn		**Sn**	**07 45 03.8**	**+4.1**
	1.8nm,0.5s							
MAKZ				↑Lg		Lg	07 45 24.0	
	2.9nm,0.7s							
MK31	**Makanchi Array**	**4.92**	**14**	↑Pn		**Pn**	**07 44 02.3**	**-1.3**
	1.3nm,0.7s,baz=200,slow=14,SNR=27							
MK31				↑Sn		**Sn**	**07 45 02.8**	**+2.2**
	0.7nm,0.4s,baz=189,slow=24,SNR=4.7							
MK31				↓↓Lg		Lg	07 45 25.1	
	3.0nm,0.8s,baz=198,slow=29,SNR=3.6							

*IDC **09** 07:50:21.6±1.3, 0°.42N×121°.98E, h0km, mb3.5/4, mbtmp3.6/5, ML3.9/1, Error ellipse: s-maj=123.5km s-min=21.3km az=67.0*
*DJA **09** 07:50:42.2±0.8, 0°.N±5°×12°.2E±°, h202km±6km, M3.5/9, MLv3.5/9*

ISC 09 07:50:42.6±1.0, 0°.2N±0°.1×122°.0E±0°.1, h202km, n9, σ0°72/11, mb3.3/4, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GTOI	**Gorontalo**	**1.09**	**69**	P		**Pn**	**07 51 11.7**	**-1.5**
GTOI				S		**S**	**07 51 35.8**	**-0.8**
GTOI				AML		AML		
APSI	**Ampana**	**1.19**	**197**	P		**Pn**	**07 51 13.4**	**-0.6**
APSI				AML		AML		
LUWI	**Luwuk**	**1.49**	**149**	P		**Pn**	**07 51 16.1**	**-0.3**
LUWI				AML		AML		
KMSI	**Cibinong**	**2.01**	**80**	P		**Pn**	**07 51 21.4**	**0.0**
KMSI				S		**S**	**07 51 51.5**	**+0.6**
KMSI				AML		AML		
FITZ	**Fitzroy Crossi**	**18.57**	**169**	P		**P**	**07 54 44.2**	**-0.4**
	0.3nm,0.3s,baz=355,slow=9.1,SNR=7.7							
	1.7nm,0.6s							
FITZ				AML		AML		
WRA	**Warramunga Arr**	**23.42**	**150**	P		**P**	**07 55 33.8**	**+0.1**
	0.5nm,0.5s,baz=324,slow=10,SNR=5.5							
	0.5nm,0.5s							
ASAR	**Alice Springs**	**26.43**	**155**	P		**P**	**07 56 01.2**	**+0.3**
	0.3nm,0.9s,baz=343,slow=15,SNR=4.1							
	0.3nm,0.9s							
SONM	**Songino Array**	**49.31**	**346**	P		**P**	**07 59 11.7**	**+0.5**
	0.4nm,0.3s,baz=158,slow=9.0,SNR=1.8							
	0.4nm,0.3s							
MKAR	**Makanchi Array**	**57.89**	**329**	P		**P**	**08 00 13.9**	**+0.4**
	0.4nm,0.3s,baz=119,slow=7.6,SNR=4.2							
	0.4nm,0.3s							

*NEIC **09** 07:57:41.1±0.9, 55°.01N±0°.02×157°.95W±0°.05, h27km±7km, mb3.8/12, ML3.5/32, ML3.4(AEIC), Error ellipse: s-maj=4.9km s-min=2.8km az=62.0*
*AEIC **09** 07:57:42.1±0.9, 55°.00N±0°.05×157°.89W±0°.07, h31km±6km, Error ellipse: s-maj=8.0km s-min=5.0km az=145.0*

ISC 09 07:57:39.3±1.5, 55°.04N±0°.06×157°.91W±0°.04, h12km±10km, n86, σ0°68/93, Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CHNA	**Chernabura Isl**	**0.99**	**259**	P		**Pg**	**07 57 58.2**	**-0.1**
CHNA	**Chernabura Isl**	**0.99**	**259**	S		**Sb**	**07 58 11.9**	**+0.7**
CNBA	**Chernabura Isl**	**0.99**	**258**			**Pb**	**07 57 58.8**	**+0.5**
CNBA				Sn		**Sg**	**07 58 11.2**	**-0.1**
VNSG	**Veniaminof 6**	**1.28**	**329**			**Pn**	**07 58 03.2**	**+0.3**
VNKR	**Veniaminof 5**	**1.30**	**321**			**Pn**	**07 58 03.5**	**+0.3**
VNKR						**Sb**	**07 58 20.0**	**-0.2**
CHGN	**Chignik**	**1.30**	**348**			**Pn**	**07 58 03.3**	**+0.2**
CHGN						**Sb**	**07 58 20.3**	**+0.1**
CHGN				IAML			07 58 23.1	
	comp=E,1μm,0.3s							
VNWF	**Veniaminof 8**	**1.46**	**321**			**Pn**	**07 58 06.3**	**+0.9**
VNSS	**Veniaminof 8**	**1.48**	**324**			**Pb**	**07 58 06.9**	**+0.2**
VNSS						**Pn**	**07 58 07.2**	**+1.3**
SDPT	**Sand Point**	**1.50**	**283**	P		**Pn**	**07 58 05.9**	**-0.1**
SDPT	**Sand Point**	**1.50**	**283**	S		**Sn**	**07 58 25.7**	**+0.3**
SDPT	**Sand Point**	**1.50**	**283**			**Pn**	**07 58 05.8**	**-0.1**
SDPT				Sn		**Sn**	**07 58 25.1**	**-0.3**
SDPT				IAML			07 58 34.0	
	comp=E,533nm,1.0s							
SDPT				IAML			07 58 35.5	
	comp=N,429nm,0.7s							
CHIR	**Chirikof Islan**	**1.52**	**58**	P		**Pb**	**07 58 07.5**	**+0.1**
CHIR	**Chirikof Islan**	**1.52**	**58**			**Pb**	**07 58 07.2**	**-0.2**
CHIR				IAML			07 58 38.2	
	comp=E,454nm,0.8s							
CHIR				IAML			07 58 39.3	
	comp=N,417nm,0.5s							
VNFG	**Fog Glacier, M**	**1.56**	**324**			**Pn**	**07 58 07.8**	**+0.9**
VNFG	**Fog Glacier, M**	**1.56**	**324**			**Pb**	**07 58 08.2**	**+0.1**
BPBCA	**Veniaminof**	**1.59**	**349**			**Pn**	**07 58 07.7**	**+0.5**
BPBCA						**Pb**	**07 58 08.0**	**-0.5**
PS1A	**Pavlof South-1**	**2.23**	**282**			**Pn**	**07 58 16.1**	**+0.2**
PVV	**Pavlof Volcano**	**2.25**	**280**			**Pn**	**07 58 16.2**	**0.0**
DOL	**Dolgoi Island**	**2.27**	**274**			**Pn**	**07 58 16.8**	**+0.2**
DOL						**Sn**	**07 58 45.1**	**+0.6**
DOL						**Sb**	**07 58 46.6**	**-1.6**
PS4A	**Pavlof South-4**	**2.28**	**279**			**Pn**	**07 58 16.9**	**+0.2**
PN7A	**Pavlof North-7**	**2.37**	**281**			**Pn**	**07 58 18.6**	**+0.6**
S12K	**Black Hills**	**2.46**	**287**	Pn		**Pn**	**07 58 19.6**	**+0.4**
S12K	**Black Hills**	**2.46**	**287**			**Sn**	**07 58 50.8**	**+1.7**
S12K	**Black Hills**	**2.46**	**287**	IAML			07 58 54.0	
	comp=E,413nm,0.5s							
S12K				IAML			07 58 54.9	
	comp=N,404nm,0.5s							
DTNA	**Dutton South F**	**2.50**	**274**			**Pn**	**07 58 19.9**	**+0.2**
DT1	**Dutton Round H**	**2.51**	**273**			**Pn**	**07 58 20.0**	**+0.1**
DT1						**Sn**	**07 58 50.0**	**-0.3**
SII	**Sitkinak Islan**	**2.60**	**53**			**Pn**	**07 58 22.1**	**+1.0**
R17L	**Mt. Peulik Vol**	**2.74**	**18**			**Pn**	**07 58 24.4**	**+1.4**
PLK1	**Peulik 1**	**2.87**	**14**			**Pn**	**07 58 25.8**	**+1.1**
PLK5	**Peulik 5**	**3.02**	**11**			**Pn**	**07 58 27.8**	**+1.0**
OHAK	**Old Harbor**	**3.39**	**48**	P		**Pn**	**07 58 32.2**	**+0.3**
OHAK	**Old Harbor**	**3.39**	**48**			**Pn**	**07 58 32.4**	**+0.5**
Q17K	**Contact Creek**	**3.42**	**18**			**Pn**	**07 58 33.2**	**+0.7**
ANCK	**Angle Creek**	**3.44**	**22**			**Pn**	**07 58 33.1**	**+0.5**
ACHA	**Angle Creek He**	**3.49**	**23**			**Pn**	**07 58 34.9**	**+1.5**
KAWH	**Katmai**	**3.77**	**26**			**Pn**	**07 58 37.8**	**+0.6**
Q18K	**Katmai Hardscr**	**3.96**	**23**			**Pn**	**07 58 40.5**	**+0.7**
WESP	**Westdahl Peak**	**3.98**	**265**			**Pn**	**07 58 40.9**	**+0.8**
P16K	**Nushagak River**	**4.01**	**359**	Pn		**Pn**	**07 58 41.4**	**+1.0**
P16K				IAML			07 59 38.5	
	comp=E,84nm,0.8s							
P17K	**Kvichak River**	**4.25**	**10**	Pn		**Pn**	**07 58 44.1**	**+0.5**
O15K	**Ungalikthiuk R**	**4.28**	**347**			**Pn**	**07 58 44.0**	**-0.2**
O15K				IAML			07 59 37.9	
	comp=N,45nm,1.1s							
O15K				IAML			07 59 39.8	
	comp=E,42nm,0.6s							
O16K	**Kokwok River B**	**4.57**	**359**			**Pn**	**07 58 48.6**	**+0.4**
O14K	**Tigyukauivet M**	**4.61**	**338**			**Pn**	**07 58 49.2**	**+0.6**
O14K				IAML			08 00 14.9	
	comp=N,34nm,0.9s							
O14K				IAML			08 00 17.5	
	comp=E,25nm,1.1s							
AKUT	**Akutan**	**4.66**	**262**	Pn		**Pn**	**07 58 49.5**	**+0.2**
AKUT				IAML			08 00 12.0	
	comp=E,51nm,1.2s							
AKUT				IAML			08 01 44.4	
	comp=N,35nm,1.1s							
UNV	**Unalaska Valle**	**5.16**	**260**	P		**Pn**	**07 58 57.1**	**+1.0**
UNV	**Unalaska Valle**	**5.16**	**260**	Pn		**Pn**	**07 58 57.1**	**+1.0**
N15K	**Kwethluk River**	**5.28**	**348**			**Pn**	**07 58 58.7**	**+0.9**
N15K	**Kwethluk River**	**5.28**	**348**	IAML			08 00 27.4	
	comp=N,24nm,0.7s							
N15K				IAML			08 00 36.6	
	comp=E,39nm,1.0s							
N14K	**Kuskokwak Cree**	**5.31**	**339**			**Pn**	**07 58 58.5**	**+0.3**
N14K				IAML			08 00 06.3	
	comp=N,36nm,1.2s							
N14K				IAML			08 00 10.0	
	comp=E,38nm,1.1s							
N16K	**Nishlik Lake**	**5.47**	**356**			**Pn**	**07 59 01.7**	**+1.2**
N18K	**Kilae Creek**	**5.76**	**10**			**Pn**	**07 59 05.1**	**+0.6**
M15K	**Kasigluk River**	**5.86**	**347**			**Pn**	**07 59 06.6**	**+0.7**
M16K	**Timber Creek**	**6.03**	**355**			**Pn**	**07 59 08.7**	**+0.6**
BRSE	**Bradley Lake S**	**6.10**	**36**			**Pn**	**07 59 09.4**	**+0.2**
M14K	**Bethel**	**6.12**	**341**			**Pn**	**07 59 10.0**	**+0.6**
M13K	**Dall Lake**	**6.13**	**334**			**Pn**	**07 59 10.3**	**+0.9**
SEW	**Seward**	**6.82**	**38**			**Pn**	**07 59 18.2**	**-0.7**
SLKM	**Skilak Lake**	**6.85**	**34**			**Pn**	**07 59 19.2**	**-0.2**
L15K	**Ungalak Mounta**	**6.92**	**346**			**Pn**	**07 59 20.3**	**-0.1**
L17K	**Donlin**	**7.12**	**359**			**Pn**	**07 59 23.1**	**0.0**
K17K	**Iditarod**	**7.71**	**359**			**Pn**	**07 59 31.6**	**+0.4**
PWL	**Port Wells**	**7.74**	**37**			**Pn**	**07 59 30.9**	**-0.7**
K13K	**Kusilvak Mount**	**7.76**	**336**			**Pn**	**07 59 32.7**	**+0.8**
HIN	**Hinchinbrook I**	**8.13**	**44**			**Pn**	**07 59 37.0**	**+0.1**
J16K	**Anvik River**	**8.39**	**352**			**Pn**	**07 59 41.0**	**+0.6**
EYAK	**Cordova Ski Ar**	**8.52**	**45**	P		**Pn**	**07 59 42.7**	**+0.4**
SCM	**Sheep Creek Mo**	**8.78**	**35**			**Pn**	**07 59 46.1**	**+0.1**
PNL	**Peninsula**	**11.01**	**58**	P		**Pn**	**08 00 18.0**	**+1.6**
COLA	**College**	**11.06**	**23**	P		**Pn**	**08 00 17.4**	**+0.4**
G29M	**Pine Creek**	**15.22**	**31**	Pn		**Pn**	**08 01 13.9**	**+0.2**
G29M				IAmb		IAmb	08 01 22.4	
	comp=Z,3.1nm,0.7s							
EPYK	**Eagle Plains**	**15.28**	**34**	Pn		**Pn**	**08 01 14.1**	**-0.4**
EPYK				IAmb		IAmb	08 01 33.1	
	comp=Z,4.4nm,0.9s							
H31M	**Peel River**	**15.75**	**37**	Pn		**Pn**	**08 01 21.4**	**+0.8**
H31M				IAmb		IAmb	08 01 27.3	
	comp=Z,4.4nm,0.8s							
F30M	**Barrier River**	**16.34**	**31**	Pn		**Pn**	**08 01 28.0**	**-0.1**
G31M	**Satah River**	**16.39**	**34**	Pn		**Pn**	**08 01 29.3**	**+0.5**
INK	**Inuvik**	**17.45**	**31**			**Pn**	**08 01 42.2**	**+0.2**
C36M	**Paulatuk**	**20.91**	**34**	P		**P**	**08 02 22.0**	**+0.9**
C36M				IAmb		IAmb	08 02 37.2	
	comp=Z,6.3nm,1.0s							
A36M	**Sachs Harbour**	**21.89**	**27**	P		**P**	**08 02 31.4**	**-0.2**
A36M				IAmb		IAmb	08 02 47.0	
	comp=Z,2.4nm,0.8s							
YKAW1	**Yellowknife Wh**	**23.32**	**54**	P		**P**	**08 02 47.5**	**+0.8**
PEA0B	**Petropavlovsk-**	**25.79**	**284**	P		**P**	**08 03 08.8**	**-1.0**
PETK	**Petropavlovsk-**	**25.79**	**284**	P		**P**	**08 03 09.3**	**-0.4**
BLKN	**Baker Lake**	**31.34**	**48**	P		**P**	**08 03 59.4**	**+0.4**
NV11	**Mina Array Sit**	**31.38**	**105**	P		**P**	**08 03 58.8**	**-1.1**
YHH	**Holmes Hill**	**31.42**	**89**	P		**P**	**08 03 59.9**	**-0.5**
AB31	**Akbulak array**	**71.34**	**335**	P		**P**	**08 08 58.7**	**+0.3**
AB31				IAmb		IAmb	08 09 10.5	
	comp=Z,0.8nm,0.8s							
ABKAR	**Akbulak array**	**71.34**	**335**	P		**P**	**08 08 58.1**	**-0.2**
KKAR	**Karatay Array**	**73.92**	**325**	P		**P**	**08 09 13.4**	**-0.4**

*OSPL **09** 08:25:14.9±0.8, 18°.20N×71°.05W, h0km±87km, ML1.8, Presumed earthquake*
*SDD **09** 08:25:16.1±1.8, 18°.13N×71°.14W, h8km±17km, MD2.7, ML2.3, MW2.3, Presumed earthquake*

ISC 09 08:25:15.6±1.0, 18°.16N±0°.04×71°.13W±0°.04, h9km±9km, n10, σ0°44/19, 11C-2D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.15**	**274**	↑*e*Pg		**Pg**	**08 25 18.9**	**-0.1**
PODR				↑*e*Sg		**Sg**	**08 25 21.2**	**-0.1**
PODR				IAML			08 25 22.8	
	comp=N,1μm,0.1s							
PODR	**Polo**	**0.15**	**274**	*i* P		**Pg**	**08 25 18.8**	**-0.1**
PODR				*e*S		**Sg**	**08 25 21.4**	**+0.1**
LOVI	**El Cajuil, Ovi**	**0.42**	**213**	*i* P		**Pg**	**08 25 23.6**	**-0.3**
LOVI				*e*S		**Sg**	**08 25 30.1**	**+0.6**
LOVI				IAML			08 25 34.5	
	comp=Z,84nm,0.5s							
NEDR	**Neiba UASD**	**0.43**	**319**	↑*e*Pg		**Pg**	**08 25 23.7**	**-0.3**
NEDR				↑*e*Sg		**Sg**	**08 25 30.7**	**+1.1**
LOBH	**Bahia de las A**	**0.57**	**239**	*i* P		**Pg**	**08 25 26.9**	**+0.2**
LOBH				*e*S		**Sb**	**08 25 35.6**	**-0.4**
LOBH				IAML			08 25 36.9	
	comp=Z,50nm,3.3s							
BANI	**BANI**	**0.77**	**72**	↑*e*Pg		**Pg**	**08 25 30.5**	**+0.1**
BANI				↓↓*e*Pg		**Pb**	**08 25 31.2**	**0.0**
BANI				IAML			08 25 50.9	
	comp=N,57nm,0.3s							
JIDR	**Jimani**	**0.77**	**296**	↑*e*Pg		**Pg**	**08 25 30.7**	**+0.3**
JIDR				↑*e*Sg		**Sg**	**08 25 40.5**	**+0.1**
ABDR	**Alto Bandera**	**0.81**	**36**	↓↓*e*Pg		**Pb**	**08 25 32.0**	**0.0**
ABDR				IAML			08 25 44.1	
	comp=N,79nm,3.5s							
MADR	**Mao Valverde**	**1.40**	**1**	↑*e*Pg		**Pn**	**08 25 40.8**	**-0.6**
MADR				↑*e*Sg		**Sg**	**08 26 01.0**	**+0.2**
MADR				IAML			08 26 27.2	
	comp=N,84nm,3.1s							
HATOM	**Hato Mayor del**	**1.77**	**69**	↑*e*Pg		**Pn**	**08 25 47.0**	**+0.5**
HATOM				↑*e*Sg		**Sg**	**08 26 12.1**	**-0.4**
HATOM				IAML			08 26 15.7	
	comp=N,24nm,1.6s							

*TAP **09** 08:27:37.2, 23°.09N×120°.51E, h10km, ML3.6, B*

ISC 09 08:27:38.1±0.8, 23°.10N±0°.01×120°.53E±0°.01, h13km±4km, n135, σ1°08/228, 10C-6D, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SGST	**Jiashian**	**0.06**	**108**	↓↓*e*P		**Pg**	**08 27 39.2**	**-1.6**
SGST				*e*S		**Sg**	**08 27 41.3**	**-1.2**
CHN1	**Nanshi**	**0.09**	**2**	↑*i*P		**Pg**	**08 27 40.6**	**-0.4**
CHN1				*i* S		**Sg**	**08 27 43.3**	**+0.2**
SNST	**Tainan City**	**0.12**	**348**	↑*i*P		**Pg**	**08 27 41.5**	**-1.0**
SNST				*i* S		**Sg**	**08 27 44.4**	**+0.6**
CHN3	**Shinhua**	**0.15**	**261**	↓↓*i*P		**Pb**	**08 27 41.8**	**-0.9**
CHN3				S		**Sg**	**08 27 45.9**	**+1.5**
SLGT	**Liugui**	**0.15**	**133**	↓↓*i*P		**Pb**	**08 27 41.8**	**-1.0**
SLGT				S		**Sg**	**08 27 46.0**	**+1.5**
WTP	**Ta-pu**	**0.17**	**29**	↑*i*P		**Pb**	**08 27 42.3**	**-0.8**
WTP				S		**Sg**	**08 27 46.5**	**+1.6**
TWK	**Hsinying**	**0.17**	**348**	↑*i*P		**Pb**	**08 27 42.1**	**-1.0**
TWK				S		**Sg**	**08 27 46.1**	**+1.1**
SHHT	**Tainan City**	**0.18**	**245**	↑*i*P		**Pb**	**08 27 42.5**	**-0.8**
SHHT				*i* S		**Sg**	**08 27 47.2**	**+2.1**
SCST	**Cishan**	**0.21**	**188**	P		**Pb**	**08 27 42.9**	**-0.9**
SCST				S		**Sg**	**08 27 47.9**	**+1.9**
SSHA	**Shanhua**	**0.22**	**280**	*e*P		**Pb**	**08 27 43.7**	**-0.3**
SSHA				*e*S		**Sg**	**08 27 49.3**	**+3.0**
STYT	**Tauyuan**	**0.22**	**73**	↑*i*P		**Pb**	**08 27 43.5**	**-0.6**
STYT				*i* S		**Sg**	**08 27 47.7**	**+1.3**
TPUB	**Ta-pu**	**0.22**	**26**	P

YULB				S	**Sb**	**08 28 03.7**	**0.0**		
EYUL	**Yuli**	**0.77**	**71**	*i* P	**Pb**	**08 27 53.4**	**0.0**		
EYUL				*e*S	**Sb**	**08 28 04.8**	**+1.0**		
EAST	**Anshuo**	**0.77**	**157**	P	**Pb**	**08 27 53.2**	**-0.2**		
EAST				*e*S	**Sn**	**08 28 04.9**	**-1.3**		
CHKT	**Chengkung**	**0.77**	**90**	P	**Pn**	**08 27 54.2**	**-0.5**		
CHKT				S	**Sn**	**08 28 06.8**	**+0.6**		
WNT	**Mingjian**	**0.79**	**11**	*i* P	**Pn**	**08 27 54.0**	**-1.0**		
WNT				*i* S	**Sn**	**08 28 06.1**	**-0.5**		
SSLB	**Suanglung**	**0.79**	**30**	P	**Pb**	**08 27 53.3**	**-0.4**		
SSLB	**Suanglung**	**0.79**	**30**	S	**Sn**	**08 28 05.5**	**-1.2**		
SSLB	**Suanglung**	**0.79**	**30**	*e*P	**Pb**	**08 27 53.4**	**-0.4**		
SSLB				*e*S	**Sb**	**08 28 05.2**	**+0.9**		
RLNB	**Erlin**	**0.80**	**349**	*e*P	**Pg**	**08 27 53.1**	**-0.6**		
RLNB				*e*S	**Sn**	**08 28 06.0**	**-0.9**		
CHKH	**Chenggong**	**0.81**	**83**	*e*P	**Pb**	**08 27 53.6**	**-0.4**		
WDGT	**Dungji**	**0.81**	**282**	P	**Pb**	**08 27 53.0**	**-1.1**		
WDGT				*e*S	**Sb**	**08 28 04.7**	**-0.3**		
TAW	**Tawu**	**0.81**	**155**	*e*P	**Pb**	**08 27 53.8**	**-0.3**		
WNT1	**Nantou City**	**0.82**	**10**	*e*P	**Pb**	**08 27 54.0**	**-0.1**		
TAWH	**Dawu Township**	**0.83**	**156**	P	**Pb**	**08 27 53.9**	**-0.4**		
EHY	**Hungye**	**0.84**	**61**	*e*P	**Pn**	**08 27 54.9**	**-0.7**		
EHY				*e*S	**Sn**	**08 28 07.5**	**-0.3**		
EHYH	**Wanrong**	**0.85**	**62**	P	**Pb**	**08 27 54.7**	**-0.1**		
EHYH				S	**Sb**	**08 28 06.5**	**+0.5**		
SMLT	**Sun Moon Lake**	**0.85**	**24**	P	**Pb**	**08 27 54.9**	**0.0**		
SMLT				S	**Sn**	**08 28 08.0**	**-0.3**		
TYC	**Yuchr**	**0.86**	**21**	P	**Pb**	**08 27 54.9**	**0.0**		
TYC				S	**Sn**	**08 28 08.4**	**+0.1**		
ECBN	**Changbin**	**0.88**	**76**	*e*P	**Pn**	**08 27 56.5**	**+0.4**		
ECBN				*e*S	**Sn**	**08 28 10.8**	**+2.1**		
HGSD	**Ruisui**	**0.91**	**64**	*e*P	**Pn**	**08 27 56.7**	**0.0**		
SLIU	**Shizi**	**0.91**	**164**	P	**Pn**	**08 27 55.8**	**-0.9**		
SLIU				S	**Sn**	**08 28 10.5**	**+0.9**		
WWF	**Wufeng**	**0.95**	**10**	*e*P	**Pb**	**08 27 56.4**	**-0.1**		
WWF				S	**Sn**	**08 28 11.0**	**+0.4**		
LDUT	**Ludao**	**0.97**	**116**	*e*P	**Pn**	**08 27 57.0**	**-0.4**		
LDUT				S	**Sn**	**08 28 11.9**	**+0.9**		
PHUB	**P'eng-hu**	**0.97**	**295**	P	**Pg**	**08 27 55.1**	**-1.7**		
PHUB				S	**Sg**	**08 28 08.4**	**-1.1**		
WCHH	**Zhanghua**	**0.98**	**2**	*e*P	**Pn**	**08 27 57.6**	**+0.1**		
WCHH				S	**Sn**	**08 28 11.3**	**+0.2**		
WARBT	**Fenglin Townsh**	**1.00**	**52**	P	**Pn**	**08 27 57.3**	**-0.6**		
WARBT				*e*S	**Sn**	**08 28 12.0**	**+0.2**		
PNG	**Penghu**	**1.01**	**298**	*e*P	**Pg**	**08 27 55.9**	**-1.7**		
PNG				*e*S	**Sb**	**08 28 10.1**	**-0.5**		
VCHM	**Qimei**	**1.01**	**276**	P	**Pg**	**08 27 56.0**	**-1.7**		
WCS	**Beigang Elemen**	**1.02**	**20**	P	**Pn**	**08 27 57.5**	**-0.5**		
WCS				S	**Sn**	**08 28 12.9**	**+0.7**		
OWD	**Renai**	**1.04**	**35**	P	**Pb**	**08 27 57.8**	**-0.2**		
OWD				S	**Sn**	**08 28 13.6**	**+0.6**		
WUSB	**Renai**	**1.04**	**31**	P	**Pb**	**08 27 57.9**	**-0.2**		
WUSB				*e*S	**Sn**	**08 28 13.6**	**+0.6**		
TCU	**Taichung**	**1.05**	**8**	*e*P	**Pg**	**08 27 57.9**	**-0.5**		
TCU				*e*S	**Sn**	**08 28 13.3**	**+0.2**		
ESL	**Shilin**	**1.10**	**49**	*e*P	**Pn**	**08 27 59.4**	**+0.2**		
ESL				S	**Sn**	**08 28 15.6**	**+1.4**		
HEN	**Hengchun**	**1.11**	**170**	P	**Pn**	**08 27 59.5**	**+0.2**		
HEN				*e*S	**Sn**	**08 28 18.7**	**+4.3**		
SMST	**Manzhou Townsh**	**1.11**	**165**	*e*P	**Pn**	**08 27 59.6**	**+0.3**		
SMST				S	**Sn**	**08 28 16.1**	**+1.6**		
SHUL	**Shoufeng**	**1.17**	**54**	P	**Pg**	**08 28 01.4**	**+0.6**		
TWKBT	**Hengchun**	**1.18**	**167**	*e*P	**Pg**	**08 28 00.4**	**-0.5**		
WHP	**Taichung City**	**1.23**	**18**	P	**Pg**	**08 28 01.4**	**-0.5**		
WHP				*e*S	**Sn**	**08 28 19.5**	**+1.7**		
ETM	**Tongmen**	**1.24**	**46**	*e*P	**Pb**	**08 28 01.1**	**-0.3**		
ETM				*e*S	**Sn**	**08 28 21.1**	**+3.4**		
WHF	**Hehuan Shan**	**1.24**	**33**	*e*P	**Pn**	**08 28 01.1**	**-0.5**		
WHF				*e*S	**Sn**	**08 28 21.6**	**+3.2**		
WDJ	**Dajia District**	**1.25**	**5**	*e*P	**Pg**	**08 28 01.8**	**-0.4**		
WDJ				*e*S	**Sn**	**08 28 19.9**	**+2.0**		
TWQ1	**Liyutan**	**1.26**	**10**	P	**Pg**	**08 28 01.8**	**-0.7**		
TWQ1				S	**Sg**	**08 28 20.0**	**+1.1**		
TDCB	**Techi**	**1.29**	**27**	*e*P	**Pb**	**08 28 01.9**	**-0.3**		
TDCB				*e*S	**Sg**	**08 28 21.2**	**+1.5**		
TWT	**Tachien**	**1.29**	**27**	*e*P	**Pg**	**08 28 02.6**	**-0.5**		
TWT				S	**Sg**	**08 28 20.3**	**+0.3**		
FUSS	**Fushou**	**1.32**	**30**	*e*P	**Pg**	**08 28 03.1**	**-0.4**		
FUSS				S	**Sg**	**08 28 22.1**	**+1.4**		
HWA	**Hwalien**	**1.32**	**48**	*e*P	**Pg**	**08 28 03.0**	**-0.5**		
TWD	**Chiawan**	**1.39**	**45**	P	**Pg**	**08 28 04.3**	**-0.5**		
TWD				*e*S	**Sg**	**08 28 24.5**	**+1.7**		
ETLH	**Xiulin Townshi**	**1.41**	**38**	*e*P	**Pg**	**08 28 04.4**	**-0.8**		
ETLH				S	**Sg**	**08 28 25.9**	**+2.3**		
NACB	**Ninganchiao**	**1.45**	**42**	P	**Pb**	**08 28 04.7**	**-0.3**		
NACB	**Ninganchiao**	**1.45**	**42**	*e*P	**Pb**	**08 28 04.8**	**-0.3**		
NACB				*e*S	**Sg**	**08 28 25.5**	**+0.6**		
LYUB	**Lan-yu**	**1.47**	**138**	*e*P	**Pn**	**08 28 02.8**	**-1.4**		
NNSB	**Datong**	**1.54**	**31**	P	**Pg**	**08 28 06.7**	**-1.0**		
NNSB				*e*S	**Sg**	**08 28 29.1**	**+1.3**		
NNS	**Nan Shan**	**1.54**	**30**	*e*P	**Pg**	**08 28 07.1**	**-0.7**		
NNS				*e*S	**Sg**	**08 28 30.3**	**+2.4**		
LIOB	**Emei**	**1.60**	**16**	*e*P	**Pb**	**08 28 06.8**	**-0.8**		
LIOB				*e*S	**Sg**	**08 28 29.6**	**-0.3**		
NFF	**Wufeng Townshi**	**1.62**	**19**	*e*P	**Pb**	**08 28 07.2**	**-0.7**		
NFF				S	**Sg**	**08 28 29.3**	**-1.1**		
LATG	**Datong**	**1.70**	**32**	*e*P	**Pb**	**08 28 08.5**	**-0.8**		
LATG				S	**Sg**	**08 28 33.5**	**+0.6**		
NSK	**Sanguang**	**1.75**	**26**	*e*P	**Pg**	**08 28 10.6**	**-1.1**		
YHNB	**Yeheng**	**1.75**	**26**	P	**Pb**	**08 28 09.9**	**-0.1**		
YHNB	**Yeheng**	**1.75**	**26**	*e*P	**Pb**	**08 28 10.0**	**-0.1**		
YHNB				*e*S	**Sg**	**08 28 34.2**	**-0.2**		
NDY	**Datong Townshi**	**1.75**	**31**	*e*P	**Pb**	**08 28 10.3**	**+0.2**		
EWUT	**Wuta**	**1.76**	**40**	*e*P	**Pb**	**08 28 09.9**	**-0.4**		
KSHI	**Guanxi Townshi**	**1.77**	**19**	*e*P	**Pb**	**08 28 10.3**	**-0.2**		
KSHI				*e*S	**Sg**	**08 28 34.7**	**-0.5**		
ENTT	**Nioudou**	**1.81**	**32**	*e*P	**Pg**	**08 28 11.7**	**-1.1**		
ENTT				*e*S	**Sb**	**08 28 33.9**	**+0.4**		
NDS	**Dongshan**	**1.88**	**35**	*e*P	**Pb**	**08 28 12.6**	**+0.3**		
NWLT	**Wulai**	**1.90**	**28**	*e*P	**Pb**	**08 28 12.1**	**-0.5**		
FUSB	**Fushanzhiwuyua**	**1.92**	**30**	*e*P	**Pb**	**08 28 12.6**	**-0.4**		
TWE	**Neicheng**	**1.92**	**33**	*e*P	**Pb**	**08 28 13.3**	**+0.3**		
TWC	**Suao**	**1.93**	**39**	*e*P	**Pg**	**08 28 14.2**	**-1.0**		
EOS3	**EOS3**	**2.02**	**54**	*e*P	**Pb**	**08 28 12.9**	**-1.7**		
VWUC	**VWUC**	**2.12**	**333**	*e*P	**Pb**	**08 28 15.6**	**-0.9**		
TIPB	**Shuangxi**	**2.21**	**32**	*e*P	**Pb**	**08 28 17.4**	**-0.6**		
YM01	**YM01**	**2.25**	**25**	*e*P	**Pb**	**08 28 16.8**	**-1.8**		
PTMZ	**Houxiangcun**	**2.32**	**327**	*e*P	**Pb**	**08 28 18.4**	**-1.4**		
KNM	**Kinmen**	**2.32**	**305**	*e*P	**Pb**	**08 28 19.7**	**-0.2**		
SXH	**Grass Mountain**	**2.34**	**32**	*e*P	**Pb**	**08 28 20.1**	**+0.2**		
KNMB	**Chin-men Tao**	**2.38**	**305**	*e*P	**Pb**	**08 28 18.4**	**-2.4**		
AXDP	**Jialang**	**2.94**	**308**	*e*P	**Pn**	**08 28 26.4**	**+1.8**		
MHZQ	**Yeshan**	**3.28**	**336**	*e*P	**Pn**	**08 28 29.1**	**-0.1**		

*ISK **09** 08:30:20.4,37°.87N×26°.93E,h9km,ML2.3/24*
*THE **09** 08:30:21.3,38°N±1°×27°.0E±0°.7,h8km±2km,M2.5/7, MLh2.5/7*
*AFAD **09** 08:30:21.0,37°.86N×26°.93E,h7km±2km,ML2.3*

ISC 09 08:30:21.3±0.8,**37°.87N**±0°.02×**26°.94E**±0°.02,**h12**km±6km, **n48**,σ0s**54**/74,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SMG	**Samos**	**0.18**	**207**	P		**Pg**	**08 30 25.1**	**-0.2**
SMG				S		**Sg**	**08 30 28.7**	**+0.6**
SMG				AML		AML		
DGB	**zmir**	**0.19**	**346**	P		**Pg**	**08 30 25.3**	**-0.1**
DGB				S		**Sg**	**08 30 27.8**	**-0.5**
DGB				IAML			08 30 29.0	
	comp=E,440nm,0.2s							
GMLD	**Gumuldur**	**0.21**	**355**	Pg		**Pg**	**08 30 25.3**	**-0.5**
GMLD				Sg		**Sg**	**08 30 28.8**	**0.0**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**92**	Pg		**Pg**	**08 30 26.6**	**-0.4**
KUSD				Sg		**Sg**	**08 30 30.6**	**-0.2**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.29**	**126**	P		**Pg**	**08 30 27.3**	**+0.1**
GCAM				S		**Sg**	**08 30 31.5**	**+0.4**
GCAM				IAML			08 30 32.0	
	comp=N,2μm,0.2s							
GCAM				IAML			08 30 32.0	
	comp=E,800nm,0.2s							
GCAM	**G?zelcaml?**	**0.29**	**126**	Pg		**Pg**	**08 30 26.9**	**-0.3**
GCAM				Sg		**Sg**	**08 30 31.7**	**+0.6**
GCAM				AML		AML		
BEYE	**izmir**	**0.36**	**358**	P		**Pg**	**08 30 28.4**	**-0.1**
BEYE				S		**Sg**	**08 30 33.3**	**0.0**
BEYE				IAML			08 30 34.0	
	comp=E,336nm,0.2s							
BEYE				IAML			08 30 39.0	
	comp=N,389nm,0.3s							
DDIM	**Aydin, Didim**	**0.48**	**150**	P		**Pg**	**08 30 30.5**	**-0.2**
DDIM				S		**Sg**	**08 30 37.6**	**+0.6**
DDIM				IAML			08 30 39.0	
	comp=N,425nm,0.4s							
DDIM				IAML			08 30 42.0	
	comp=E,295nm,0.4s							
ZEYE	**Izmir, Urla-Ze**	**0.50**	**317**	P		**Pg**	**08 30 30.8**	**-0.3**
ZEYE				S		**Sb**	**08 30 38.6**	**-0.8**
ZEYE				IAML			08 30 39.0	
	comp=N,684nm,0.2s							
ZEYE				IAML			08 30 39.0	
	comp=E,214nm,0.2s							
BLCB	**Balcova**	**0.52**	**9**	P		**Pg**	**08 30 31.5**	**-0.1**
BLCB				S		**Sg**	**08 30 38.4**	**0.0**
BLCB	**Balcova**	**0.52**	**9**	Pg		**Pg**	**08 30 31.4**	**-0.1**
BLCB				Sg		**Sg**	**08 30 38.8**	**+0.4**
BLCB				AML		AML		
DUVT	**Torbali**	**0.53**	**49**	P		**Pg**	**08 30 31.5**	**-0.2**
DUVT				S		**Sg**	**08 30 38.1**	**-0.7**
DUVT				IAML			08 30 40.0	
	comp=E,289nm,0.1s							
CESE	**eme**	**0.68**	**312**	Pg		**Pg**	**08 30 33.9**	**-0.7**
CESE				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.76**	**84**	Pg		**Pg**	**08 30 35.4**	**-0.6**
AYDB				AML		AML		
KRBN	**Karaburun**	**0.78**	**337**	Pg		**Pg**	**08 30 35.9**	**-0.6**
KRBN				AML		AML		
BAGT	**Foa**	**0.79**	**355**	P		**Pb**	**08 30 36.8**	**-0.1**
BAGT				S		**Sb**	**08 30 47.8**	**+0.3**
BAGT				IAML			08 30 51.0	
	comp=N,162nm,0.9s							
BAGT				IAML			08 30 51.0	
	comp=E,160nm,1.1s							
YKAV	**Yalikavak-Bodr**	**0.79**	**160**	Pg		**Pg**	**08 30 36.0**	**-0.6**
IZMR	**zmir-demi**	**0.84**	**71**	P		**Pb**	**08 30 38.3**	**+0.4**
IZMR				S		**Sg**	**08 30 47.1**	**-1.5**
FOCM	**Foa**	**0.86**	**349**	Pg		**Pg**	**08 30 37.4**	**-0.5**
FOCM				AML		AML		
BODT	**Bodrum**	**0.86**	**160**	P		**Pg**	**08 30 37.5**	**-0.4**
BODT				S		**Sb**	**08 30 49.9**	**+0.3**
BODT				AML		AML		
BODT	**Bodrum**	**0.86**	**160**	Pg		**Pg**	**08 30 37.3**	**-0.6**
BODT				AML		AML		
CHOS	**Chios island**	**0.87**	**307**	P		**Pb**	**08 30 38.2**	**-0.1**
CHOS				S		**Sb**	**08 30 51.2**	**+1.2**
CHOS				AML		AML		
CHOS	**Chios island**	**0.87**	**307**	Pg		**Pg**	**08 30 37.5**	**-0.6**
CHOS				AML		AML		
MLSB	**Milas**	**0.88**	**131**	Pg		**Pg**	**08 30 37.9**	**-0.4**
MLSB				AML		AML		
KARB	**zmir-Karabur**	**0.89**	**332**	P		**Pb**	**08 30 38.7**	**0.0**
KARB				S		**Sb**	**08 30 50.4**	**-0.2**
KARB				IAML			08 30 53.0	
	comp=N,147nm,0.3s							
KARB				IAML			08 30 54.0	
	comp=E,100nm,0.9s							
BDRM	**Kayabasi**	**0.90**	**153**	P		**Pg**	**08 30 38.1**	**-0.5**
BDRM				S		**Sg**	**08 30 50.4**	**0.0**
BDRM				IAML			08 30 55.0	
	comp=N,88nm,0.4s							
BDRM				IAML			08 30 55.0	
	comp=E,68nm,0.3s							
CAMT	**Merkez**	**0.92**	**18**	P		**Pg**	**08 30 38.9**	**-0.2**
CAMT				S		**Sb**	**08 30 52.9**	**+1.4**
CAMT				IAML			08 30 54.0	
	comp=N,255nm,0.4s							
CAMT				IAML			08 30 56.0	
	comp=E,250nm,0.5s							
NAZL	**Nazilli-Aydin**	**1.07**	**85**	Pn		**Pg**	**08 30 41.5**	**-0.5**
NAZL				AML		AML		
ZEDA	**zmir-Bergama**	**1.10**	**6**	P		**Pg**	**08 30 42.2**	**-0.2**
ZEDA				S		**Sb**	**08 30 57.5**	**+0.9**
ZEDA				IAML			08 30 59.0	
	comp=N,92nm,0.3s							
ZEDA				IAML			08 31 01.0	
	comp=E,102nm,0.5s							
ESEN	**Aydn-Nazilli**	**1.12**	**93**	P		**Pg**	**08 30 42.7**	**-0.1**
ESEN				S		**Sb**	**08 30 57.6**	**+0.5**
GOMA	**Golmarmara-Man**	**1.14**	**42**	Pn		**Pg**	**08 30 42.7**	**-0.5**
GOMA				AML		AML		
KIRA	**zmir-Kiraz**	**1.20**	**74**	P		**Pn**	**08 30 44.7**	**+0.7**
KIRA				S		**Sg**	**08 30 58.6**	**-1.4**
KIRA				IAML			08 31 02.0	
	comp=N,41nm,0.6s							
DKL	**Dikili**	**1.20**	**359**	Pn		**Pb**	**08 30 43.6**	**-0.4**
DKL				AML		AML		
AKHS	**Akhisar**	**1.22**	**34**	P		**Pb**	**08 30 44.3**	**-0.1**
AKHS				S		**Sn**	**08 31 01.7**	**+1.0**
AKHS				IAML			08 31 03.0	
	comp=N,69nm,0.4s							
AKS	**Akhisar**	**1.22**	**34**	Pn		**Pb**	**08 30 44.1**	**-0.2**
AKS				AML		AML		
KTTT	**Salihli**	**1.22**	**48**	P		**Pb**	**08 30 44.0**	**-0.3**
KTTT				S		**Sg**	**08 31 00.1**	**-0.5**
KTTT				IAML			08 31 02.0	
	comp=N,74nm,0.4s							
DAT	**Datca**	**1.25**	**156**	Pn		**Pn**	**08 30 44.5**	**-0.2**
DAT				AML		AML		
MULA	**Mugla, Merkez-**	**1.26**	**119**	P		**Pn**	**08 30 44.7**	**-0.1**
MULA				S		**Sn**	**08 31 02.0**	**+0.3**
MULA				IAML			08 31 07.0	
	comp=E,48nm,0.7s							
YER	**Yerkesik**	**1.30**	**124**	P		**Pn**	**08 30 45.3**	**0.0**
YER	**Yerkesik**	**1.30**	**124**	Pn		**Pn**	**08 30 45.0**	**-0.3**
YER				AML		AML		
SOMA	**Soma-Manisa**	**1.36**	**20**	Pn		**Pn**	**08 30 46.4**	**+0.2**
APE	**Apeiranthos**	**1.38**	**235**	P		**Pn**	**08 30 46.1**	**-0.3**
APE	**Apeiranthos**	**1.38**	**235**	Pn		**Pn**	**08 30 46.2**	**-0.2**
APE				AML		AML		
MANT	**Manisa**	**1.42**	**64**	P		**Pg**	**08 30 48.2**	**-0.3**
MANT				S		**Sb**	**08 31 04.9**	**-1.1**
MANT				IAML			08 31 09.0	
	comp=N,42nm,0.3s							
MANT				IAML			08 31 09.0	
	comp=E,31nm,0.3s							
GORD	**Gordes-Manisa**	**1.42**	**43**	Pn		**Pn**	**08 30 47.2**	**+0.2**
GORD				AML		AML		
TURN	**Turunc**	**1.51**	**136**	Pn		**Pn**	**08 30 48.1**	**0.0**
TURN				AML		AML		
YAYO	**Edremit-Balk**	**1.74**	**3**	Pn		**Pn**	**08 30 51.7**	**+0.3**
YAYO				AML		AML		
BALB	**Balikesir**	**1.91**	**22**	Pn		**Pn**	**08 30 54.2**	**+0.5**
BALB				AML		AML		

*IDC **09** 08:47:27.0±0.9,3°.28S×130°.98E,h0km,mb3.8/6, mbtmp3.9/10,ML3.6/3,MS3.1/5,Error ellipse: s-maj=37.5km s-min=13.1km az=88.0*

ISC 09 08:47:29.6±0.8,**3°.41S**±0°.07×**131°.0E**±0°.2,**h30**km,**n12**, σ2s**55**/12,**mb3.8**/5,**MS3.2**/3,**Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SIJI	**Sorong**	**2.53**	**6**	Pn		**Pn**	**08 48 08.1**	**-0.6**
	8.8nm,0.3s,baz=176,slow=22,SNR=14							
SIJI				Sn		**Sn**	**08 48 36.6**	**-2.0**
	16nm,0.3s,baz=73,slow=23,SNR=8.0							
SIJI				LR		LR	08 49 11.7	
	comp=Z,145nm,21.1s,baz=86,slow=44 24nm,0.3s							
SIJI				AML		AML		
FITZ	**Fitzroy Crossi**	**15.52**	**199**	Pn		**Pn**	**08 51 04.7**	**-1.8**
	0.5nm,0.3s,baz=17,slow=11,SNR=14							
FITZ				Sn		Sn	08 53 49.1	-8.4
	0.2nm,0.3s,baz=176,slow=15,SNR=1.5							
FITZ				LR		LR	08 58 18.2	
	comp=Z,69nm,18.1s,baz=0.0,slow=42 0.8nm,0.3s							
FITZ				AML		AML		
WRA	**Warramunga Arr**	**16.76**	**169**	Pn		**Pn**	**08 51 18.4**	**-3.9**
	0.2nm,0.3s,baz=353,slow=13,SNR=16							
WRA				Sn		Sn	08 54 17.2	-11
	0.3nm,0.3s,baz=318,slow=27,SNR=5.2 0.3nm,0.5s							
WRA				AML		AML		
PMG	**Port Moresby**	**17.12**	**111**	P		**P**	**08 51 29.7**	**+1.3**
	16nm,0.9s,baz=249,slow=13,SNR=3.3							
ASAR	**Alice Springs**	**20.34**	**172**	P		**P**	**08 52 06.0**	**+2.4**
	2.1nm,0.4s,baz=352,slow=11,SNR=52							
ASAR				S		**S**	**08 55 46.3**	**-4.0**
	1.1nm,1.1s,baz=343,slow=16,SNR=5.1							
	2.1nm,0.4s							
GUMO	**Guam**	**21.78**	**39**	LR		LR	09 02 11.7	
	comp=Z,24nm,18.1s,baz=258,slow=41							
STKA	**Stephens Creek**	**30.02**	**162**	P		**P**	**08 53 38.3**	**+2.3**
	0.5nm,0.4s,baz=274,slow=14,SNR=1.4 0.5nm,0.4s							
KSRS	**Korea Array**	**40.75**	**356**	P		**P**	**08 55 07.4**	**-0.5**
	0.7nm,0.6s,baz=169,slow=8.3,SNR=2.2							
KSRS				LR		LR	09 13 09.4	
	comp=Z,29nm,18.9s,baz=220,slow=38 0.7nm,0.6s							
MKAR	**Makanchi Array**	**65.81**	**326**	P		**P**	**08 58 12.5**	**+0.3**
	0.5nm,0.6s,baz=105,slow=7.9,SNR=4.1 0.5nm,0.6s							
ZALV	**Zalesovo Beam**	**68.84**	**333**	P		**P**	**08 58 32.6**	**+1.5**
	0.4nm,0.3s,baz=112,slow=6.7,SNR=1.6 0.4nm,0.3s							
KURBB	**Kurchatov Arra**	**70.01**	**327**	P		**P**	**08 58 40.6**	**+2.2**
	1.0nm,0.7s,baz=128,slow=5.9,SNR=4.1 1.0nm,0.7s							
NRIK	**Noril'sk**	**78.34**	**346**	LR		LR	09 37 20.0	
	comp=Z,27nm,19.9s,baz=237,slow=38							

*JMA **09** 08:54:13.5±0.2,42°.0N±0°.5×142°.4E±0°.8,h74km±1km, MV3.4/40,S OFF URAKAWA*
*IDC **09** 08:54:15.8±2.1,42°.25N×141°.64E,h94km±23km,mb3.2/4, mbtmp3.5/6,Error ellipse: s-maj=77.1km s-min=15.7km az=122.0*

ISC 09 08:54:13.9±0.9,**41°.97N**±0°.04×**142°.32E**±0°.04,**h69**km±7km, **n32**,σ0s**88**/42,**mb3.4**/4,**4D**,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
JNBK	**Urakawa-nobuka**	**0.45**	**46**	*i* P		**Pn**	**08 54 25.6**	**-0.5**
JNBK				S		**Sn**	**08 54 35.1**	**0.0**
JSHD	**Hidakashinhida**	**0.46**	**14**	*i* P		**Pn**	**08 54 26.3**	**+0.1**
JSHD				S		**Sn**	**08 54 36.1**	**+0.9**
JEM	**Erimo**	**0.63**	**85**	*i* P		**Pn**	**08 54 28.1**	**+0.2**
JEM				*e*S		**Sn**	**08 54 38.5**	**+0.3**
JIAM	**Iburiatsuma**	**0.72**	**336**	*i* P		**Pn**	**08 54 29.8**	**+0.9**
JIAM				S		**Sn**	**08 54 42.4**	**+2.3**
JBT2	**Biratori 2**	**0.81**	**2**	*i* P		**Pn**	**08 54 29.9**	**-0.2**
JBT2				S		**Sn**	**08 54 42.4**	**+0.4**
JKB	**Kayabe**	**0.96**	**266**	||*i* P		**Pn**	**08 54 31.9**	**0.0**
JKB				||S		**Sn**	**08 54 45.5**	**+0.3**
JCH	**Churui**	**1.01**	**50**	*i* P		**Pn**	**08 54 32.5**	**+0.1**
JCH				S		**Sn**	**08 54 47.1**	**+0.9**
JNB	**Noboribetsu**	**1.08**	**298**	||*i* P		**Pn**	**08 54 32.9**	**-0.3**
JNB				||S		**Sn**	**08 54 47.0**	**-0.7**
JEW	**Eniwo**	**1.08**	**324**	P		**Pn**	**08 54 33.7**	**+0.3**
JEW				S		**Sn**	**08 54 48.3**	**+0.3**
JOT	**Ohata**	**1.12**	**239**	P		**Pn**	**08 54 34.0**	**+0.2**
JOT				S		**Sn**	**08 54 49.0**	**+0.4**
JFR	**Furan**	**1.21**	**9**	P		**Pn**	**08 54 34.8**	**-0.3**
JFR				*e*S		**Sn**	**08 54 50.9**	**0.0**
JYM2	**Yakumo 2**	**1.46**	**277**	P		**Pn**	**08 54 38.6**	**+0.4**
JOB	**Onbets**	**1.46**	**50**	*i* P		**Pn**	**08 54 38.9**	**+0.7**
JOB				*e*S		**Sn**	**08 54 57.4**	**+0.8**
JISS	**Ishikarishitsu**	**1.47**	**333**	*e*P		**Pn**	**08 54 38.7**	**+0.4**
JISS				S		**Sn**	**08 54 57.9**	**+1.1**
JSR	**Shiriuchi**	**1.49**	**254**	P		**Pn**	**08 54 39.1**	**+0.5**
JSR				*e*S		**Sn**	**08 54 58.2**	**+0.9**
JTM	**Tenmabayashi**	**1.51**	**219**	P		**Pn**	**08 54 39.6**	**+0.7**
JTM				S		**Sn**	**08 54 58.4**	**+0.6**
JAB	**Ashibetsu**	**1.54**	**357**	P		**Pn**	**08 54 40.0**	**+0.7**
JANG	**Nango**	**1.70**	**201**	*i* P		**Pn**	**08 54 41.9**	**+0.4**
JAR	**Ashorobuto**	**1.71**	**38**	P		**Pn**	**08 54 41.6**	**0.0**
ASAJ	**Asahikawa**	**2.16**	**5**	P		**Pn**	**08 54 48.8**	**+1.2**
	31nm,0.3s,baz=210,slow=11,SNR=114							
ASAJ				S		**Sn**	**08 55 12.9**	**-0.5**
	22nm,0.3s,baz=204,slow=19,SNR=5.0							
MJAR	**Matsushiro Arr**	**6.29**	**212**	P		**Pn**	**08 55 45.4**	**+1.4**
	1.7nm,0.5s,baz=27,slow=

WESN	**West Dahl Nort**	**2.86**	**274**			**Pn**		**08 55 03.5**	**+0.6**
WESP	**Westdahl Peak**	**2.94**	**273**			**Pn**		**08 55 04.5**	**+0.4**
WECS	**Westdahl Cape**	**2.98**	**274**	Pn		**Pn**		**08 55 04.9**	**+0.4**
WECS				IAML				08 55 58.1	
	comp=E,186nm,1.1s								
WECS				IAML				08 56 16.0	
	comp=N,266nm,0.8s								
WECS	**Westdahl Cape**	**2.98**	**274**			**Sn**		**08 55 38.4**	**-1.2**
R16K	**Pilot Point**	**3.34**	**20**			**Pn**		**08 55 10.8**	**+1.4**
AKUT	**Akutan**	**3.58**	**267**	Pn		**Pn**		**08 55 12.2**	**-0.6**
AKUT				IAML				08 55 55.0	
	comp=E,99nm,0.5s								
AKBBA	**Akutan Broad B**	**3.68**	**267**			**Pn**		**08 55 15.0**	**+0.8**
R17L	**Mt. Peulik Vol**	**3.69**	**29**			**Pn**		**08 55 16.4**	**+2.1**
ZRO	**Akutan Zero**	**3.71**	**267**			**Pn**		**08 55 15.3**	**+0.7**
LVA	**Lava Point**	**3.73**	**268**	Pn		**Pn**		**08 55 13.5**	**-1.4**
LVA				IAML				08 56 03.1	
	comp=N,165nm,0.8s								
LVA				IAML				08 56 03.7	
	comp=E,88nm,1.2s								
PLK1	**Peulik 1**	**3.77**	**26**			**Pn**		**08 55 17.0**	**+1.6**
SII	**Sitkinak Islan**	**3.77**	**54**	Pn		**Pn**		**08 55 16.3**	**+0.9**
SII				IAML				08 56 43.7	
	comp=E,166nm,1.2s								
PLK5	**Peulik 5**	**3.88**	**23**			**Pn**		**08 55 18.4**	**+1.5**
UNV	**Unalaska Valle**	**4.06**	**264**	P		**Pn**		**08 55 19.4**	**+0.1**
UNV	**Unalaska Valle**	**4.06**	**264**	S		**Sn**		**08 56 05.1**	**-1.0**
UNV	**Unalaska Valle**	**4.06**	**264**	Pn		**Pn**		**08 55 19.1**	**-0.3**
KJL	**Kejulik**	**4.27**	**31**			**Pn**		**08 55 23.8**	**+1.4**
MGOD	**Makushin Gods**	**4.28**	**264**			**Pn**		**08 55 22.8**	**+0.3**
Q17K	**Contact Creek**	**4.36**	**27**			**Pn**		**08 55 24.7**	**+1.1**
ANCK	**Angle Creek**	**4.42**	**30**			**Pn**		**08 55 25.8**	**+1.5**
ACHA	**Angle Creek He**	**4.48**	**31**			**Pn**		**08 55 26.6**	**+1.4**
OHAK	**Old Harbor**	**4.55**	**50**	P		**Pn**		**08 55 25.7**	**-0.3**
OHAK	**Old Harbor**	**4.55**	**50**			**Pn**		**08 55 26.4**	**+0.4**
P16K	**Nushagak River**	**4.68**	**11**	Pn		**Pn**		**08 55 29.0**	**+1.2**
O15K	**Ungalikthiuk R**	**4.74**	**359**	Pn		**Pn**		**08 55 29.1**	**+0.5**
O15K				IAML				08 57 02.6	
	comp=E,44nm,1.0s								
O15K				IAML				08 57 06.9	
	comp=N,37nm,0.9s								
KAWH	**Katmai**	**4.78**	**33**			**Pn**		**08 55 30.1**	**+0.8**
O14K	**Tigyukauivet M**	**4.89**	**350**	Pn		**Pn**		**08 55 31.9**	**+1.2**
O14K				IAML				08 56 39.9	
	comp=N,76nm,1.0s								
O14K				IAML				08 57 14.8	
	comp=E,48nm,1.0s								
KDAK	**Kodiak Island**	**5.18**	**47**	Pn		**Pn**		**08 55 35.0**	**+0.2**
	comp=E,3.0nm,0.3s,baz=202,slow=5.5,SNR=19								
KDAK				Sn		**Sn**		**08 56 30.0**	**-3.8**
	comp=E,1.7nm,0.3s,baz=30,slow=19,SNR=5.8								
	comp=E,7.7nm,0.3s								
KDAK				AML	AML				
KDAK	**Kodiak Island**	**5.18**	**47**	Pn		**Pn**		**08 55 35.4**	**+0.6**
O16K	**Kokwok River B**	**5.23**	**9**	Pn		**Pn**		**08 55 37.1**	**+1.8**
O16K				IAML				08 57 19.9	
	comp=E,31nm,0.8s								
O16K				IAML				08 57 24.1	
	comp=N,27nm,0.8s								
O17K	**Koliganek Bris**	**5.52**	**14**			**Pn**		**08 55 40.4**	**+1.1**
Q19K	**Cape Douglas,**	**5.58**	**34**	Pn		**Pn**		**08 55 41.9**	**+1.7**
N14K	**Kuskokwak Cree**	**5.59**	**350**	Pn		**Pn**		**08 55 41.9**	**+1.6**
N15K	**Kwethluk River**	**5.74**	**358**	Pn		**Pn**		**08 55 44.7**	**+2.3**
N16K	**Nishlik Lake**	**6.06**	**4**			**Pn**		**08 55 48.4**	**+1.6**
N17K	**Nushagak Hills**	**6.24**	**11**	Pn		**Pn**		**08 55 51.0**	**+1.7**
M13K	**Dall Lake**	**6.29**	**343**	Pn		**Pn**		**08 55 51.5**	**+1.5**
CNPM	**China Poot**	**6.86**	**39**			**Pn**		**08 55 58.2**	**+0.4**
L14K	**Kuka Creek**	**7.09**	**348**			**Pn**		**08 56 01.7**	**+0.8**
SLKM	**Skilak Lake**	**7.92**	**36**			**Pn**		**08 56 12.2**	**-0.1**
PWL	**Port Wells**	**8.83**	**39**			**Pn**		**08 56 23.8**	**-1.1**
PMR	**Palmer**	**9.07**	**34**	P		**Pn**		**08 56 29.4**	**+1.3**
HIN	**Hinchinbrook I**	**9.26**	**45**			**Pn**		**08 56 30.4**	**-0.3**
GHO	**Glory Hole Cre**	**9.27**	**33**			**Pn**		**08 56 30.7**	**-0.2**
SCM	**Sheep Creek Mo**	**9.85**	**36**			**Pn**		**08 56 38.7**	**-0.1**
ILAR	**Eielson Array**	**12.17**	**27**	Pn		**Pn**		**08 57 08.2**	**-2.2**
	comp=N,0.1nm,0.3s,baz=215,slow=13,SNR=8.3								
ILAR				Sn		**Sn**		**08 59 17.2**	**-8.1**
	baz=189,slow=28,SNR=1.1								
	comp=N,0.4nm,0.5s								
ILAR				AML	AML				
PNL	**Peninsula**	**12.19**	**56**	P		**Pn**		**08 57 12.0**	**+1.3**
P32M	**Atlin**	**14.99**	**59**	Pn		**Pn**		**08 57 49.0**	**+0.2**
TOLK	**Toolik Lake Re**	**14.99**	**14**	Pn		**Pn**		**08 57 49.5**	**+0.6**
TOLK				IAmb	IAmb			08 57 58.1	
	comp=Z,3.0nm,1.0s								
D23K	**Nanushuk River**	**15.14**	**12**	Pn		**Pn**		**08 57 51.3**	**+0.4**
J30M	**Hart River**	**15.49**	**40**	Pn		**Pn**		**08 57 56.4**	**+0.9**
P33M	**Teslin, Yukon**	**15.54**	**57**	Pn		**Pn**		**08 57 56.2**	**0.0**
P33M				IAmb	IAmb			08 58 04.4	
	comp=Z,6.2nm,0.8s								
WRAK	**Wrangell Islan**	**15.60**	**72**	Pn		**Pn**		**08 57 58.2**	**+1.4**
Q32M	**Nakina River**	**15.65**	**62**	Pn		**Pn**		**08 57 58.7**	**+0.9**
H29M	**Whitestone**	**15.71**	**33**	Pn		**Pn**		**08 57 58.5**	**+0.2**
H29M				IAmb	IAmb			08 58 14.9	
	comp=Z,4.2nm,0.8s								
I30M	**Mount Dempster**	**15.80**	**38**	Pn		**Pn**		**08 58 00.5**	**+0.9**
I30M				IAmb	IAmb			08 58 16.3	
	comp=Z,7.5nm,0.7s								
D25K	**Kavik River**	**16.11**	**17**	Pn		**Pn**		**08 58 03.7**	**+0.2**
S34M	**Telegraph Cree**	**16.20**	**66**	Pn		**Pn**		**08 58 04.9**	**+0.3**
G29M	**Pine Creek**	**16.25**	**31**	Pn		**Pn**		**08 58 05.9**	**+0.7**
G29M				IAmb	IAmb			08 58 19.6	
	comp=Z,6.2nm,1.1s								
EPYK	**Eagle Plains**	**16.33**	**34**	Pn		**Pn**		**08 58 07.1**	**+0.9**
EPYK				IAmb	IAmb			08 58 13.0	
	comp=Z,13nm,0.8s								
R33M	**Jennings River**	**16.36**	**61**	Pn		**Pn**		**08 58 07.7**	**+1.0**
DLBC	**Dease Lake**	**16.79**	**64**	Pn		**Pn**		**08 58 13.0**	**+0.9**
	comp=Z,0.3nm,0.3s,baz=205,slow=17,SNR=7.9								
	comp=Z,1.0nm,0.4s								
DLBC				AML	AML				
G30M	**tAoh Zraii Nji**	**16.85**	**33**	Pn		**Pn**		**08 58 14.0**	**+1.2**
G30M				IAmb	IAmb			08 58 19.8	
	comp=Z,8.3nm,1.1s								
C27K	**Jago River**	**16.86**	**19**	Pn		**Pn**		**08 58 13.9**	**+1.0**
F30M	**Barrier River**	**17.37**	**31**	Pn		**Pn**		**08 58 19.5**	**+0.2**
F30M				IAmb	IAmb			08 58 26.6	
	comp=Z,6.7nm,1.1s								
G31M	**Satah River**	**17.45**	**34**	Pn		**Pn**		**08 58 20.4**	**+0.1**
G31M				IAmb	IAmb			08 58 24.5	
	comp=Z,4.6nm,1.1s								
INK	**Inuvik**	**18.47**	**31**	P		**Pn**		**08 58 33.0**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=225,slow=14,SNR=12								
INK				S		**Sn**		**09 01 58.8**	**+0.6**
	comp=Z,0.6nm,0.8s,baz=159,slow=26,SNR=1.6								
	comp=Z,1.3nm,0.5s								
INK				AML	AML				
INK	**Inuvik**	**18.47**	**31**	P		**P**		**08 58 32.5**	**-0.1**
C36M	**Paulatuk**	**21.96**	**34**	P		**P**		**08 59 10.9**	**+0.5**
C36M				IAmb	IAmb			08 59 22.9	
	comp=Z,9.2nm,1.1s								
A36M	**Sachs Harbour**	**22.88**	**27**	P		**P**		**08 59 20.1**	**0.0**
A36M				IAmb	IAmb			08 59 32.3	
	comp=Z,3.1nm,1.1s								
YKA	**Yellowknife Ar**	**24.43**	**53**	P		**P**		**08 59 36.1**	**+0.8**
	comp=Z,1.9nm,1.0s,baz=288,slow=11,SNR=2.5								
	comp=Z,1.9nm,1.0s								
YKA	**Yellowknife Ar**	**24.43**	**53**	P		**P**		**08 59 35.8**	**+0.5**
PEA0B	**Petropavlovsk-**	**24.94**	**285**	P		**P**		**08 59 39.0**	**-1.0**
PETK	**Petropavlovsk-**	**24.94**	**285**	P		**P**		**08 59 38.4**	**-1.6**
	comp=Z,1.2nm,0.4s,baz=84,slow=11,SNR=5.2								
	comp=Z,1.2nm,0.4s								
PETK	**Petropavlovsk-**	**24.94**	**285**	P		**P**		**08 59 40.3**	**+0.3**
SEY	**Seymchan**	**25.73**	**309**	P		**P**		**08 59 45.0**	**-2.0**
	comp=Z,3.5nm,1.0s,baz=209,slow=19,SNR=2.7								
	comp=Z,3.5nm,1.0s								
NVAR	**Mina Array Bea**	**32.15**	**103**	P		**P**		**09 00 46.2**	**+1.6**
	comp=Z,0.2nm,0.7s,baz=306,slow=16,SNR=1.0								
	comp=Z,0.2nm,0.7s								
NVAR	**Mina Array Bea**	**32.15**	**103**	P		**P**		**09 00 44.7**	**+0.1**
LHV	**Little Huntoon**	**32.16**	**103**	P		**P**		**09 00 44.4**	**0.0**
PDAR	**Pinedale Array**	**34.42**	**89**	P		**P**		**09 01 05.4**	**+1.0**
	comp=Z,0.1nm,0.6s,baz=307,slow=12,SNR=1.5								
	comp=Z,0.1nm,0.6s								
PDAR	**Pinedale Array**	**34.42**	**89**	P		**P**		**09 01 04.3**	**-0.1**
H11N2	**WAKE ISLAND Hy**	**42.98**	**230**	T		T		09 48 16.7	
	baz=28,slow=76,SNR=45								
H11N3	**WAKE ISLAND Hy**	**42.99**	**230**	T		T		09 48 23.2	
	baz=28,slow=76,SNR=39								
H11N1	**WAKE ISLAND Hy**	**43.00**	**230**	T		T		09 48 25.0	
	baz=28,slow=76,SNR=45								
H11S1	**WAKE ISLAND Hy**	**44.15**	**229**	T		T		09 49 43.8	
	baz=28,slow=76,SNR=48								
H11S2	**WAKE ISLAND Hy**	**44.16**	**229**	T		T		09 49 47.1	
	baz=28,slow=76,SNR=49								
H11S3	**WAKE ISLAND Hy**	**44.16**	**229**	T		T		09 49 55.6	
	baz=28,slow=76,SNR=31								
U49A	**Red Boiling Sp**	**52.31**	**78**	P		**P**		**09 03 29.3**	**+1.0**
SONM	**Songino Array**	**55.04**	**305**	P		**P**		**09 03 48.6**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=50,slow=9.6,SNR=1.9								
	comp=Z,0.4nm,0.5s								
SONM	**Songino Array**	**55.04**	**305**	P		**P**		**09 03 48.2**	**-0.2**
SONM				IAmb	IAmb			09 03 48.6	
	comp=Z,0.9nm,1.0s								
ARCES	**ARCESS Array B**	**56.26**	**358**	P		**P**		**09 03 57.0**	**+0.3**
	comp=Z,2.9nm,0.9s,baz=3.5,slow=2.4,SNR=1.8								
	comp=Z,2.9nm,0.9s								
ARCES	**ARCESS Array B**	**56.26**	**358**	P		**P**		**09 03 58.0**	**+1.3**
ARCES				IAmb	IAmb			09 04 17.1	
	comp=Z,0.8nm,0.7s								
FIA1	**FINESS Array S**	**64.36**	**357**	P		**P**		**09 04 52.6**	**+0.6**
FINES	**FINESS Array B**	**64.36**	**357**	P		**P**		**09 04 51.7**	**-0.3**
	comp=Z,1.9nm,0.5s,baz=0.7,slow=6.2,SNR=9.6								
	comp=Z,1.9nm,0.5s								
FINES	**FINESS Array B**	**64.36**	**357**	P		**P**		**09 04 52.6**	**+0.5**
KURK	**Kurchatov**	**64.43**	**323**	P		**P**		**09 04 52.3**	**-0.5**
KURBB	**Kurchatov Arra**	**64.54**	**323**	P		**P**		**09 04 53.5**	**0.0**
	comp=Z,0.7nm,0.7s,baz=349,slow=7.9,SNR=2.0								
	comp=Z,0.7nm,0.7s								
NC405	**NORSAR Array S**	**64.58**	**5**	P		**P**		**09 04 54.6**	**+1.1**
NOA	**NORSAR Array B**	**64.62**	**5**	P		**P**		**09 04 54.3**	**+0.4**
	comp=Z,0.4nm,0.6s,baz=318,slow=4.7,SNR=2.0								
	comp=Z,0.4nm,0.6s								
BVAR	**Borovoye Array**	**65.13**	**329**	P		**P**		**09 04 57.3**	**+0.1**
	comp=Z,1.2nm,0.6s,baz=34,slow=8.7,SNR=3.3								
	comp=Z,1.2nm,0.6s								
ARTI	**Arti**	**65.23**	**338**	P		**P**		**09 04 57.7**	**-0.1**
	comp=Z,3.4nm,0.4s,baz=19,slow=2.1,SNR=5.0								
	comp=Z,3.4nm,0.4s								
ARTI	**Arti**	**65.23**	**338**	P		**P**		**09 04 58.1**	**+0.2**
HFS	**Hagfors**	**65.64**	**4**	P		**P**		**09 05 00.7**	**+0.2**
	comp=Z,0.9nm,0.6s,baz=338,slow=6.2,SNR=1.8								
	comp=Z,0.9nm,0.6s								
MKAR	**Makanchi Array**	**66.34**	**319**	P		**P**		**09 05 03.8**	**-1.4**
	comp=Z,0.7nm,0.6s,baz=40,slow=7.0,SNR=5.4								
	comp=Z,0.7nm,0.6s								
MKAR	**Makanchi Array**	**66.34**	**319**	P		**P**		**09 05 05.2**	**-0.1**
MAKZ	**Makanchi**	**66.45**	**319**	P		**P**		**09 05 05.9**	**0.0**
AB31	**Akbulak array**	**71.42**	**334**	P		**P**		**09 05 37.4**	**+0.7**
AB31				IAmb	IAmb			09 05 37.5	
	comp=Z,1.4nm,0.7s								
ABKAR	**Akbulak array**	**71.42**	**334**	P		**P**		**09 05 37.5**	**+0.8**
KKAR	**Karatay Array**	**73.81**	**324**	P		**P**		**09 05 50.6**	**-0.4**
AKASG	**Malin Array Be**	**74.95**	**354**	P		**P**		**09 05 57.7**	**+0.2**
	comp=Z,0.3nm,0.4s,baz=7.8,slow=7.5,SNR=1.5								
	comp=Z,0.3nm,0.4s								
QSPA	**South Pole Qui**	**144.23**	**180**	PKP		**PKPab**		**09 13 49.4**	**+0.2**
	comp=Z,0.3nm,0.6s,baz=324,slow=7.3,SNR=1.4								
QSPA	**South Pole Qui**	**144.23**	**180**			PKPbc		09 13 49.5	0.0
FOMA	**Nahampoana Res**	**144.54**	**315**	PKPdf		**PKPab**		**09 13 50.6**	**-0.8**
HOPE	**Hope Point**	**147.68**	**113**	PKPdf		**PKPdf**		**09 13 58.0**	**+0.7**

IDC 09 08:59:33.1±11.0, 1°.58N×126°.71E, h135km±101km, mb3.1/5, mbtmp3.5/5, Error ellipse: s-maj=177.2km s-min=23.2km az=64.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**22.66**	**161**	P	P	09 04 22.2	-1.0
	0.8nm,0.6s,baz=340,slow=10.0,SNR=8.5						
	0.8nm,0.6s						
ASAR	**Alice Springs**	**26.05**	**165**	P	P	09 04 55.1	+1.1
	0.3nm,0.6s,baz=351,slow=8.0,SNR=4.9						
ASAR				PcP	PcP	09 08 19.1	+0.5
	0.3nm,0.4s,baz=359,slow=2.1,SNR=8.4						
	0.3nm,0.6s						
STKA	**Stephens Creek**	**36.15**	**158**	P	P	09 06 21.5	-1.0
	0.7nm,0.4s,baz=342,slow=9.6,SNR=2.9						
	0.7nm,0.4s						
MKAR	**Makanchi Array**	**59.31**	**326**	P	P	09 09 20.1	-0.7
	0.2nm,0.4s,baz=109,slow=7.7,SNR=2.5						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**63.53**	**328**	P	P	09 09 49.7	+0.6
	0.3nm,0.6s,baz=126,slow=7.3,SNR=1.9						
	0.3nm,0.6s						

*DJA **09** 09:30:34.0±2.9, 5°.S±13°.×9°.1E±2°.1, h10km, M5.2/21, mb5.1/21, mB5.8/8, Mw(mB)5.3/8, MwMwp5.2/1, Mwp5.4/1*
*IDC **09** 09:30:38.8±1.0, 4°.57S×92°.37E, h0km, mb3.9/9, mbtmp4.0/10, ML4.7/1, MS3.5/4, Error ellipse: s-maj=39.7km s-min=19.9km az=60.0*
*NEIC **09** 09:30:40.7±1.4, 4°.60S±0°.06×91°.9E±0°.1, h10km±1km, mb4.3/10, Error ellipse: s-maj=22.4km s-min=3.4km az=241.0*
*GFZ **09** 09:30:42.4±0.8, 4°.S±9°.×9°.2E±°, h10km, M4.5/8, mb4.5/8, Error ellipse: s-maj=19.8km s-min=7.6km az=16.4, confirmed*

ISC 09 09:30:40.5±0.8, 4°.6S±0°.1×91°.9E±0°.1, h10km, n56, σ1s31/45, mb4.3/14, MS3.5/3, South Indian Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**7.82**	**55**	P	**Pn**	**09 32 35.5**	**+1.1**
	140nm,0.9s						
PBSI	**Pulau Batu**	**7.82**	**55**	P	**Pn**	**09 32 35.6**	**+1.2**
	comp=Z,129nm,0.9s						
GSI	**Gunungsitoli**	**8.17**	**44**		**Pn**	**09 32 39.1**	**-0.1**
GSI	**Gunungsitoli**	**8.17**	**44**	P	**Pn**	**09 32 39.2**	**0.0**
	comp=Z,3µmcomp=Z,49nm,0.5s						
GSI	**Gunungsitoli**	**8.17**	**44**	P	**Pn**	**09 32 39.4**	**+0.2**
	comp=Z,47nm,0.5s						
SNSI	**Sinabang, Aceh**	**8.25**	**33**	P	**Pn**	**09 32 38.7**	**-1.6**
	comp=Z,106nm,0.6s						
SNSI	**Sinabang, Aceh**	**8.25**	**33**	P	**Pn**	**09 32 38.5**	**-1.8**
	comp=Z,59nm,0.6s						
PDSI	**Padang**	**9.32**	**67**	P	**Pn**	**09 32 56.2**	**+1.2**
	comp=Z,7µmcomp=Z,2µmcomp=Z,81nm,0.5s						
PDSI	**Padang**	**9.32**	**67**	P	**Pn**	**09 32 56.3**	**+1.2**
	comp=Z,73nm,0.5s						
MNSI	**Mandailing Nat**	**9.37**	**55**	P	**Pn**	**09 32 59.1**	**+3.4**
MNSI	**Mandailing Nat**	**9.37**	**55**	P	**Pn**	**09 32 58.1**	**+2.4**
	comp=Z,39nm,0.6s						
TPTI		**9.43**	**34**	P	**Pn**	**09 32 55.4**	**-1.1**
TPTI		**9.43**	**34**	P	**Pn**	**09 32 55.0**	**-1.5**
	comp=Z,256nm,0.9s						
PPI	**Padang Panjang**	**9.45**	**64**	P	**Pn**	**09 32 57.5**	**+0.7**
	comp=Z,33nm,0.9s						
KCSI	**Kotacane, Aceh**	**9.98**	**36**	P	**Pn**	**09 33 03.6**	**-0.5**
KCSI	**Kotacane, Aceh**	**9.98**	**36**	P	**Pn**	**09 33 04.4**	**+0.3**
	comp=Z,12nm,1.3s						
SDSI	**Sungai Dareh**	**10.21**	**69**	P	**Pn**	**09 33 09.4**	**+2.2**
	comp=Z,43nm,0.9s						
MASI	**Maura Aman, Be**	**10.44**	**82**	P	**Pn**	**09 33 10.0**	**-0.4**
	comp=Z,43nm,1.6s						
LHSI	**Lahat**	**11.64**	**87**	P	**Pn**	**09 33 28.4**	**+1.6**
LHSI	**Lahat**	**11.64**	**87**	P	**Pn**	**09 33 29.0**	**+2.2**
	comp=Z,35nm,0.7s						
MDSI	**Maura Dua**	**12.26**	**90**	P	**Pn**	**09 33 36.3**	**+0.9**
	comp=Z,8.0nm,0.6s						
PALK	**Pallekele**	**16.22**	**317**	Pn	**Pn**	**09 34 29.7**	**+0.9**
	comp=Z,2.5nm,0.3s,baz=131,slow=11,SNR=11						
PALK				Sn	Sn	09 37 15.3	-14
	comp=Z,2.0nm,0.3s,baz=197,slow=17,SNR=6.0						
PALK				LR	LR	09 39 50.9	
	comp=Z,122nm,19.9s,baz=100,slow=33						
	comp=Z,8.2nm,0.3s						
PALK				AML	AML		
PALK	**Pallekele**	**16.22**	**317**	Pn	**Pn**	**09 34 29.7**	**+0.9**
PALK				IAmb	IAmb	09 34 49.3	
	comp=Z,27nm,1.2s						
PALK	**Pallekele**	**16.22**	**317**	P	**Pn**	**09 34 29.3**	**+0.6**
	comp=Z,19nm,0.7s						
MALK	**Mahakanadarawa**	**17.15**	**319**	P	**Pn**	**09 34 40.0**	**-0.4**
	comp=Z,21nm,1.9s						
H08S2	**Diego Garcia H**	**19.51**	**260**	T	T	09 55 21.1	
	baz=81,slow=74,SNR=2.5						
H08S3	**Diego Garcia H**	**19.52**	**260**	T	T	09 55 20.6	
	baz=81,slow=74,SNR=5.2						
H08S1	**Diego Carcia H**	**19.53**	**260**	T	T	09 55 23.8	
	baz=81						
CMAR	**Chiang Mai Arr**	**23.94**	**17**	P	**P**	**09 35 53.4**	**-1.6**
	comp=Z,1.0nm,0.3s,baz=198,slow=12,SNR=4.6						
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**23.94**	**17**	P	**P**	**09 35 54.6**	**-0.4**
CHTO	**Chiang Mai**	**24.27**	**16**	P	**P**	**09 35 57.4**	**-0.7**
WRA	**Warramunga Arr**	**44.05**	**114**	P	**P**	**09 38 45.6**	**-3.3**
	comp=Z,0.5nm,1.0s,baz=284,slow=8.9,SNR=2.4						
	comp=Z,0.5nm,1.0s						
WB0	**Warramunga Arr**	**44.05**	**114**	P	**P**	**09 38 49.2**	**+0.2**
WB0				IAmb	IAmb	09 39 17.2	
	comp=Z,9.6nm,1.4s						
WRAB	**Tennant Creek**	**44.05**	**114**	P	**P**	**09 38 48.6**	**-0.4**
WRAB				IAmb	IAmb	09 39 18.7	
	comp=Z,6.5nm,1.4s						
WR8	**Warramunga Arr**	**44.20**	**114**	P	**P**	**09 38 49.7**	**-0.5**
WR8				IAmb	IAmb	09 39 01.1	
	comp=Z,8.1nm,1.4s						
ASAR	**Alice Springs**	**44.71**	**119**	P	P	09 38 49.6	-4.6
	comp=Z,0.2nm,0.9s,baz=290,slow=8.4,SNR=1.3						
ASAR				PcP	**PcP**	**09 40 36.1**	**-0.6**
	comp=Z,0.4nm,0.7s,baz=280,slow=2.7,SNR=4.9						
	comp=Z,0.2nm,0.9s						
DRK	**Karamyk**	**47.60**	**339**	P	**P**	**09 39 18.5**	**+1.5**
	comp=Z,20nm,0.7s						
JAY	**Jayapura**	**48.77**	**89**	LR	LR	10 02 44.6	
	comp=Z,39nm,18.6s,baz=354,slow=40						
AAK	**Ala-Archa**	**49.58**	**343**	LR	LR	10 00 56.1	
	comp=Z,48nm,18.4s,baz=162,slow=37						
KKAR	**Karatay Array**	**51.26**	**340**	P	**P**	**09 39 44.1**	**-0.4**
MKAR	**Makanchi Array**	**51.86**	**352**	P	**P**	**09 39 48.0**	**-0.9**
	comp=Z,1.1nm,0.7s,baz=159,slow=8.7,SNR=6.0						
	comp=Z,1.1nm,0.7s						
XLT	**XiLinHaoTe**	**52.96**	**22**	*eP*	P	09 40 02.0	+4.7
XLT				sP	pwP	09 40 09.0	+3.5
XLT				pmax	pmax		
	comp=Z,9.0nm,0.8s						
SONM	**Songino Array**	**53.74**	**12**	P	**P**	**09 40 02.9**	**-0.1**
	comp=Z,2.6nm,0.7s,baz=190,slow=10.0,SNR=10.0						
	comp=Z,2.6nm,0.7s						
SONM	**Songino Array**	**53.74**	**12**	P	**P**	**09 40 02.7**	**-0.3**
SONM				IAmb	IAmb	09 40 04.3	
	comp=Z,1.9nm,0.8s						
H04S1	**CROZET ISLANDS**	**54.39**	**213**	T	T	10 39 38.0	
	baz=54						
H04S3	**CROZET ISLANDS**	**54.40**	**213**	T	T	10 39 35.3	
	baz=54						
H04S2	**CROZET ISLANDS**	**54.41**	**213**	T	T	10 39 38.5	
	baz=54						
ZALV	**Zalesovo Beam**	**58.62**	**355**	P	**P**	**09 40 36.7**	**-0.8**
	comp=Z,2.6nm,0.6s,baz=179,slow=7.5,SNR=8.0						
	comp=Z,2.6nm,0.6s						
AB31	**Akbulak array**	**60.38**	**337**	P	**P**	**09 40 50.0**	**+0.1**
ABKAR	**Akbulak array**	**60.38**	**337**	P	**P**	**09 40 49.9**	**0.0**
BRTR	**Keskin Array B**	**69.26**	**315**	P	**P**	**09 41 50.4**	**+2.2**
	comp=Z,0.5nm,0.6s,baz=128,slow=6.1,SNR=2.7						
	comp=Z,0.5nm,0.6s						
SUR	**Sutherland**	**71.58**	**238**	LR	LR	10 08 08.7	
	comp=Z,31nm,18.5s,baz=130,slow=31						
QSPA	**South Pole Qui**	**85.40**	**180**	P	**P**	**09 43 17.9**	**-0.2**
	comp=Z,1.6nm,0.9s,baz=298,slow=2.2,SNR=4.3						
	comp=Z,1.6nm,0.9s						
QSPA	**South Pole Qui**	**85.40**	**180**	IAmb	IAmb	09 43 56.1	
	comp=Z,4.8nm,1.5s						
ARCES	**ARCESS Array B**	**86.21**	**341**	P	**P**	**09 43 21.6**	**-0.2**
	comp=Z,3.9nm,0.9s,baz=105,slow=4.5,SNR=6.1						
	comp=Z,3.9nm,0.9s						
TXAR	**Lajitas Array**	**151.

0.7nm,0.6s
WRA **Warramunga Arr** **58.01 98** P **P** **10 17 08.8 -0.2**
1.3nm,1.0s,baz=256,slow=6.7,SNR=6.5
1.3nm,1.0s
MKAR **Makanchi Array** **72.92 8** P **P** **10 18 43.0 -1.8**
0.9nm,0.8s,baz=187,slow=7.3,SNR=5.6
0.9nm,0.8s
KURBB **Kurchatov Arra** **76.34 5** P **P** **10 19 04.9 +0.4**
0.8nm,0.7s,baz=194,slow=6.0,SNR=5.9
0.8nm,0.7s
SONM **Songino Array** **79.82 23** P **P** **10 19 25.1 +1.0**
0.5nm,0.5s,baz=201,slow=1.2,SNR=2.7
0.5nm,0.5s

TRN 09 10:11:06.5,15°.68N×60°.31W,h38km,MD3.5,North-east of Dominica.,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DSDZ	**La Diserade, G**	**0.96**	**311**	*e*P	Pn	10 11 24.8	+1.3
DSDZ				*e*S	Sn	10 11 37.3	+1.5
DWS	**Wesley**	**0.97**	**264**	*e*P	Pn	10 11 25.6	+2.0
DWS				*e*S	Sn	10 11 38.3	+2.3
MAGL	**Barre de l'ile**	**0.97**	**286**	*e*P	Pn	10 11 25.1	+1.5
MAGL				*e*S	Sn	10 11 38.5	+2.4
DSLB	**Salisbury**	**1.09**	**258**	*e*P	Pn	10 11 27.3	+2.1
DSLB				*e*S	Sn	10 11 41.7	+2.5
SVN	**Savane Anatole**	**1.17**	**225**	*e*P	Pn	10 11 28.5	+2.1
SVN				*e*S	Sn	10 11 44.4	+3.3
DHSZ	**Broadband at M**	**1.52**	**293**	*e*P	Pn	10 11 33.6	+2.5
DHSZ				*e*S	Sn	10 11 52.6	+3.1
SLBI	**Saint Lucia, B**	**1.77**	**201**	*e*P	Pn	10 11 36.2	+1.7
SLBI				*e*S	Sn	10 11 56.6	+0.9

*NOU **09** 10:12:40.1, 19°.41S×169°.14E, h0km, MLv4.5/13, Vanuatu Islands*
*IDC **09** 10:12:41.7±1.9, 19°.33S×169°.08E, h159km±17km, mb3.4/9, mbtmp3.8/11, Error ellipse: s-maj=22.8km s-min=16.2km az=147.0*
*NEIC **09** 10:12:41.3±1.2, 19°.28S±0°.07×169°.12E±0°.10, h149km±6km, mb4.2/15, Error ellipse: s-maj=13.3km s-min=10.0km az=107.0*
ISC 09 10:12:41.0±0.5, 19°.29S±0°.04×169°.12E±0°.08, h150km, n56, σ0s83/56, mb3.9/15, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	**1.63**	**336**	P	**Pn**	**10 13 11.4**	**-0.5**
RTV	**Rentapao**	**1.63**	**336**	S	**Sn**	**10 13 35.0**	**-0.7**
DVP	**Devils Point**	**1.79**	**330**	P	**Pn**	**10 13 13.8**	**+0.1**
DVP	**Devils Point**	**1.79**	**330**	S	**Sn**	**10 13 38.6**	**-0.2**
MARNC	**Mare, Loyalty**	**2.40**	**205**	P	**Pn**	**10 13 19.7**	**-1.2**
MARNC	**Mare, Loyalty**	**2.40**	**205**	S	**Sn**	**10 13 49.0**	**-2.7**
MARNC	**Mare, Loyalty**	**2.40**	**205**		**Pn**	**10 13 20.0**	**-0.8**
YATNC	**Mamie plateau,**	**3.45**	**217**	P	**Pn**	**10 13 32.8**	**-1.3**
PINNC	**Pines Island,**	**3.65**	**205**	P	**Pn**	**10 13 36.7**	**0.0**
PINNC	**Pines Island,**	**3.65**	**205**		**Pn**	**10 13 37.0**	**+0.3**
PINNC					**Sn**	**10 14 19.8**	**-0.2**
DZM	**Mont Dzumac**	**3.73**	**222**	P	**Pn**	**10 13 38.1**	**+0.3**
	13nm,0.3s,baz=36,slow=19,SNR=83						
DZM				S	**Sn**	**10 14 22.3**	**+0.4**
	baz=285,slow=20						
OUENC	**Ouen Island, N**	**3.77**	**214**	Pn	**Pn**	**10 13 39.2**	**+1.0**
OUENC					**Sn**	**10 14 22.0**	**-0.6**
NOUC	**Port Laguerre**	**3.84**	**223**	P	**Pn**	**10 13 39.3**	**+0.2**
ONTNC	**Ouen Toro**	**3.90**	**219**	P	**Pn**	**10 13 40.1**	**+0.2**
ONTNC	**Ouen Toro**	**3.90**	**219**	Pn	**Pn**	**10 13 40.7**	**+0.8**
ONTNC					**Sn**	**10 14 26.1**	**+0.4**
SANVU	**Saraoutou**	**4.24**	**334**	Pn	**Pn**	**10 13 43.3**	**-1.1**
KOUNC	**Koumac, New Ca**	**4.71**	**254**	P	**Pn**	**10 13 51.5**	**+0.9**
KOUNC	**Koumac, New Ca**	**4.71**	**254**	Pn	**Pn**	**10 13 51.6**	**+1.1**
MSVF	**Nonsavu**	**8.62**	**81**	P	**Pn**	**10 14 44.4**	**+1.7**
	10.0nm,0.9s,baz=284,slow=7.4,SNR=4.6						
WB0	**Warramunga Arr**	**32.70**	**263**	P	**P**	**10 18 58.9**	**-0.5**
WRAB	**Tennant Creek**	**32.72**	**263**	P	**P**	**10 18 58.9**	**-0.7**
WRAB				IAmb	IAmb	10 19 35.3	
	comp=Z,7.4nm,1.4s						
WRA	**Warramunga Arr**	**32.73**	**263**	P	**P**	**10 18 58.7**	**-1.0**
	comp=Z,0.2nm,0.5s,baz=88,slow=5.6,SNR=11						
WRA				PcP	**PcP**	**10 21 40.7**	**-1.1**
	comp=Z,0.3nm,0.6s,baz=99,slow=2.8,SNR=5.2						
	comp=Z,0.2nm,0.5s						
WRA	**Warramunga Arr**	**32.73**	**263**	IAmb	IAmb	10 19 00.4	
	comp=Z,0.2nm,1.4s						
AS31	**Alice Springs**	**33.00**	**256**	P	**P**	**10 19 01.6**	**-0.4**
ASAR	**Alice Springs**	**33.00**	**256**	P	**P**	**10 19 01.9**	**-0.1**
	comp=Z,0.4nm,0.3s,baz=80,slow=8.8,SNR=25						
	comp=Z,0.4nm,0.3s						
KNRA	**Kununurra**	**38.60**	**269**	P	**P**	**10 19 49.3**	**-0.4**
KNRA				IAmb	IAmb	10 19 51.4	
	comp=Z,5.1nm,1.3s						
FITZ	**Fitzroy Crossi**	**41.12**	**264**	P	**P**	**10 20 10.8**	**+0.3**
MBWA	**Marble Bar**	**46.23**	**259**	P	**P**	**10 20 51.5**	**+0.2**
MBWA				IAmb	IAmb	10 20 52.4	
	comp=Z,6.0nm,0.9s						
VNDA	**Vanda**	**58.37**	**182**	P	**P**	**10 22 19.7**	**-0.3**
	comp=Z,0.3nm,0.6s,baz=8.1,slow=4.3,SNR=2.1						
	comp=Z,0.3nm,0.6s						
VNDA	**Vanda**	**58.37**	**182**	IAmb	IAmb	10 22 41.6	
	comp=Z,3.1nm,1.4s						
SBA	**Scott Base**	**58.61**	**181**	P	**P**	**10 22 22.7**	**+1.1**
SBA				IAmb	IAmb	10 22 42.1	
	comp=Z,5.6nm,1.3s						
QSPA	**South Pole Qui**	**70.76**	**180**	P	**P**	**10 23 40.5**	**-0.2**
	comp=Z,1.9nm,0.7s,baz=333,slow=1.1,SNR=9.5						
	comp=Z,1.9nm,0.7s						
QSPA	**South Pole Qui**	**70.76**	**180**	IAmb	IAmb	10 23 43.5	
	comp=Z,2.9nm,1.0s						
PETK	**Petropavlovsk-**	**72.77**	**353**	P	**P**	**10 23 53.0**	**+0.4**
	comp=Z,1.7nm,0.7s,baz=160,slow=5.4,SNR=5.2						
	comp=Z,1.7nm,0.7s						
CMAR	**Chiang Mai Arr**	**78.42**	**294**	P	**P**	**10 24 26.4**	**+0.9**
	comp=Z,0.7nm,0.6s,baz=104,slow=5.6,SNR=1.8						
	comp=Z,0.7nm,0.6s						
BELA	**Belgrano 2**	**82.05**	**175**	P	**P**	**10 24 43.2**	**-0.8**
BELA				IAmb	IAmb	10 24 43.6	
	comp=Z,1.9nm,0.6s						
J16K	**Anvik River**	**85.66**	**13**	P	**P**	**10 25 02.9**	**+0.7**
L19K	**White Mountain**	**86.08**	**16**	P	**P**	**10 25 05.3**	**+0.8**
L19K				IAmb	IAmb	10 25 06.2	
	comp=Z,6.8nm,1.2s						
SONM	**Songino Array**	**87.19**	**323**	P	**P**	**10 25 10.1**	**-0.2**
	comp=Z,0.8nm,0.7s,baz=134,slow=4.2,SNR=2.5						
	comp=Z,0.8nm,0.7s						
SONM	**Songino Array**	**87.19**	**323**	IAmb	IAmb	10 25 11.6	
	comp=Z,3.0nm,1.4s						
CAST	**Castle Rocks**	**87.83**	**16**	P	**P**	**10 25 12.8**	**-0.1**
NVAR	**Mina Array Bea**	**88.92**	**49**	P	**P**	**10 25 19.1**	**+0.3**
	comp=Z,0.5nm,0.8s,baz=261,slow=5.5,SNR=3.9						
	comp=Z,0.5nm,0.8s						
ILAR	**Eielson Array**	**90.32**	**17**	P	**P**	**10 25 22.6**	**-1.9**
	comp=Z,0.2nm,0.5s,baz=231,slow=5.8,SNR=4.6						
	comp=Z,0.2nm,0.5s						
ARCES	**ARCESS Array B**	**125.09**	**345**	PKP	**PKPdf**	**10 31 21.9**	**-0.9**
	comp=Z,4.0nm,0.8s,baz=64,slow=2.1,SNR=8.4						
GERES	**GERESS Array B**	**144.48**	**332**	PKP	**PKPab**	**10 31 58.3**	**0.0**
	comp=Z,1.8nm,0.6s,baz=34,slow=2.5,SNR=12						
MOA	**Molln**	**144.95**	**330**	*e*PKP	PKPbc	10 32 00.0	+0.2
	comp=Z,5.4nm,0.5s						
SESA	**Seetaler Alpe,**	**145.33**	**329**	*i* PKP	**PKPdf**	**10 32 00.9**	**-0.3**
	comp=Z,4.1nm,1.0s						
SOKA	**Soboth**	**145.40**	**328**	*i* PKiKP	**PKPbc**	**10 32 01.7**	**+0.3**
	comp=Z,2.3nm,0.6s						
OBKA	**Obir**	**145.76**	**328**	*e*PKiKP	**PKPbc**	**10 32 02.8**	**+0.3**
	comp=Z,2.8nm,0.6s						
LESA	**Schwarzleotal**	**146.00**	**331**	*i* PKP	**PKPdf**	**10 32 02.7**	**+0.5**
	comp=Z,2.3nm,0.4s						
ABTA	**Abfaltersbach**	**146.57**	**330**	*i* PKP	**PKPdf**	**10 32 03.9**	**+0.7**
	comp=Z,2.6nm,0.5s						
WTTA	**Wattenberg**	**146.59**	**332**	*i* PKP	**PKPbc**	**10 32 04.7**	**-0.4**
	comp=Z,3.7nm,0.8s						
MOTA	**Moosalm**	**146.76**	**332**	*i* PKP	**PKPdf**	**10 32 04.8**	**+1.3**
	comp=Z,2.5nm,0.5s						
SQTA	**Sankt Quirin**	**146.81**	**332**	*i* PKP	**PKPbc**	**10 32 05.2**	**-0.4**
	comp=Z,3.2nm,0.4s						
FETA	**Feichten**	**147.17**	**332**	*i* PKP	**PKPbc**	**10 32 06.1**	**-0.6**
	comp=Z,3.3nm,0.6s						
DAVA	**Damuels**	**147.33**	**333**	*i* PKiKP	**PKPbc**	**10 32 06.8**	**-0.3**
	comp=Z,1.2nm,0.4s						

*JSN **09** 10:17:46.2±0.9, 18°.25N×76°.61W, h0km±7km, MD2.2, Confirmed Earthquake*

*SSNC **09** 10:17:48.7±1.1, 18°.43N×76°.60W, h7km±10km, MD2.9, ML1.6, Presumed earthquake*
ISC 09 10:17:43.1±1.4, 18°.38N±0°.06×76°.51W±0°.09, h7km±13km, n9, σ0s40/17, 2C-3D, Jamaica region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GWJ	**Greenwich**	**0.37**	**214**	⇑*i*P	**Pg**	**10 17 50.7**	**+0.4**
STH	**Stony Hill**	**0.41**	**223**	⇓*i*P	**Pg**	**10 17 51.6**	**+0.5**
STH				⇓*i*P	**Pg**	**10 17 51.6**	**+0.5**
STH				*i* S	**Sg**	**10 17 55.8**	**-0.8**
HOJ	**Hope**	**0.44**	**211**	⇓*i*P	**Pg**	**10 17 51.5**	**0.0**
PCJ	**Portland Cotta**	**0.89**	**224**	*i* P	**Pb**	**10 18 00.6**	**-0.1**
CVJ	**Coleyville**	**0.98**	**261**	⇑*i*P	**Pb**	**10 18 02.6**	**+0.1**
CVJ				*i* S	**Sg**	**10 18 14.7**	**-0.1**
CHIV	**Chivirico**	**1.59**	**3**	*e*P	**Pg**	**10 18 13.5**	**-0.1**
CHIV				*e*S	**Sn**	**10 18 32.1**	**-0.3**
CHIV				IAML		10 18 34.8	
	comp=N,2.7nm,0.1s						
CHIV				IAML		10 18 34.9	
	comp=E,1.6nm,0.1s						
MARVS	**Santiago de Cu**	**1.71**	**20**	*e*P	**Pg**	**10 18 16.3**	**+0.4**
MARVS				*e*S	**Sb**	**10 18 36.9**	**+0.3**
LMGC	**Las Mercedes**	**1.74**	**345**	*e*P	**Pb**	**10 18 15.3**	**0.0**
LMGC				*e*S	**Sn**	**10 18 35.7**	**-0.4**
LMGC				IAML		10 18 38.3	
	comp=E,13nm,0.1s						
LMGC				IAML		10 18 38.3	
	comp=N,34nm,0.1s						
PINC	**Pinares de May**	**2.20**	**18**	*e*P	**Pb**	**10 18 22.9**	**-0.3**
PINC				*e*S	**Sn**	**10 18 47.9**	**+0.3**
PINC				*e*Sg	**Sb**	**10 18 51.1**	**+0.4**

*SOME **09** 10:21:55.6, 44°.72N×82°.30E, h35km*
*NNC **09** 10:21:57.6±1.3, 44°.65N×82°.04E, h0km, mb3.5, mpv3.2, Error ellipse: s-maj=14.9km s-min=4.5km az=122.0, Suspected Mining explosion.*
ISC 09 10:21:54.3±1.6, 44°.67N±0°.06×82°.21E±0°.08, h0km, n16, σ0s60/26, 5C-1D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DJR	**Jarkent**	**1.77**	**260**	P	**Pg**	**10 22 27.9**	**-0.2**
	6.5nm,0.2s						
DJR				S	**Sg**	**10 22 51.9**	**+0.9**
	6.9nm,0.3s						
DJR	**Jarkent**	**1.77**	**260**	*e*P	**Pg**	**10 22 27.9**	**-0.2**
	6.5nm,0.2s						
DJR				*e*S	**Sg**	**10 22 51.9**	**+0.9**
	6.9nm,0.3s						
KAPS	**Kapalarasan**	**2.12**	**288**	Pg	**Pb**	**10 22 33.1**	**-0.4**
	7.0nm,0.1s						
KAPS				Lg	Lg	10 22 60.0	
	32nm,0.2s						
KAPS	**Kapalarasan**	**2.12**	**288**	*e*P	**Pb**	**10 22 33.1**	**-0.4**
	7.0nm,0.1s						
KAPS				*e*S	**Sb**	**10 22 60.0**	**-0.4**
	32nm,0.2s						
MK31	**Makanchi Array**	**2.12**	**1**	⇑Pn	**Pg**	**10 22 35.2**	**+0.2**
	3.5nm,0.3s,baz=186,slow=16,SNR=428						
MK31				⇑Sn	**Sg**	**10 23 03.2**	**+0.6**
	0.8nm,0.1s,baz=183,slow=25,SNR=10						
MAKZ	**Makanchi**	**2.14**	**356**	⇑Pn	**Pg**	**10 22 35.3**	**-0.1**
	4.1nm,0.3s						
MAKZ				⇑Sn	**Sg**	**10 23 03.3**	**+0.1**
	8.5nm,0.3s						
PDGK	**Podgornoye**	**2.38**	**237**	⇓Pn	**Pb**	**10 22 37.1**	**-0.9**
	2.9nm,0.3s						
PDGK				⇑Sn	**Sb**	**10 23 07.1**	**-0.8**
	5.4nm,0.7s						
SHLS	**Shalkode**	**2.50**	**234**	Pg	**Pn**	**10 22 36.7**	**+0.4**
	14nm,0.1s						
SHLS				Lg	Lg	10 23 06.2	
	17nm,0.3s						
UZB	**Uzynbulak**	**2.76**	**238**	Pg	**Pb**	**10 22 44.3**	**-0.3**
	6.0nm,0.2s						
UZB				Lg	Lg	10 23 19.5	
	3.8nm,0.2s						
UZB	**Uzynbulak**	**2.76**	**238**	*e*P	**Pb**	**10 22 44.3**	**-0.3**
	6.0nm,0.2s						
UZB				*e*S	**Sb**	**10 23 19.5**	**+0.5**
	3.8nm,0.2s						
KPKS	**Kokpek**	**2.81**	**246**	Pg	**Pb**	**10 22 44.6**	**-0.8**
	0.2nm,0.2s						
KPKS				Lg	Lg	10 23 19.9	
	10nm,0.3s						
KPKS	**Kokpek**	**2.81**	**246**	*e*P	**Pb**	**10 22 45.3**	**-0.2**
	0.3nm,0.1s						
KPKS				*e*S	**Sb**	**10 23 20.7**	**+0.3**
	18nm,0.2s						
ARXS	**Arharly**	**3.17**	**263**	Pg	**Pb**	**10 22 50.1**	**-1.4**
	3.3nm,0.3s						
ARXS				Lg	Lg	10 23 29.8	
	12nm,0.4s						
ARXS	**Arharly**	**3.17**	**263**	*e*P	**Pb**	**10 22 51.1**	**-0.5**
	2.9nm,0.4s						
ARXS				*e*S	**Sb**	**10 23 30.9**	**+0.1**
	12nm,0.3s						
SATY	**Saty**	**3.19**	**241**	Pg	**Pb**	**10 22 51.4**	**-0.5**
	2.6nm,0.1s						
SATY				Lg	Lg	10 23 31.4	
	5.4nm,0.1s						
SATY	**Saty**	**3.19**	**241**	*e*P	**Pb**	**10 22 51.4**	**-0.5**
	2.6nm,0.1s						
SATY				*e*S	**Sb**	**10 23 31.4**	**+0.1**
	5.4nm,0.1s						

*MEX **09** 10:25:57.2±0.5, 14°.84N×93°.85W, h10km, MD4.0, Presumed earthquake*
*GCG **09** 10:25:58.8±1.5, 14°.89N×93°.66W, h35km±999km, MD4.2, Presumed earthquake*
ISC 09 10:25:45.7±1.6, 14°.54N±0°.06×94°.07W±0°.03, h13km±12km, n23, σ2s15/41, Off coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCIG		**1.42**	**35**	*e*P	**Pg**	**10 26 13.8**	**+0.7**
PCIG				*e*S	**Sn**	**10 26 26.9**	**-2.9**
THIG		**1.79**	**78**	*e*S	**Sb**	**10 26 40.1**	**-0.5**
PATR	**El Naranjo**	**1.87**	**72**	*e*P	**Pg**	**10 26 21.8**	**+0.2**
PATR				*e*S	**Sn**	**10 26 41.6**	**+0.4**
PAVE	**Pavencul**	**1.94**	**70**	*e*P	**Pg**	**10 26 23.3**	**+0.2**
PAVE				*e*S	**Sn**	**10 26 43.7**	**+0.6**
CHUJ	**Union Juarez**	**1.98**	**74**	*e*P	**Pg**	**10 26 23.7**	**0.0**
CHUJ				*e*S	**Sn**	**10 26 45.1**	**+1.2**
HUIG	**Huatulco**	**2.32**	**302**	*e*S	**Sn**	**10 26 52.8**	**+0.8**
HUIG	**Huatulco**	**2.32**	**302**	*e*P	**Pg**	**10 26 29.5**	**-0.6**
HUIG				*e*S	**Sn**	**10 26 52.7**	**+0.8**
HUIG	**Huatulco**	**2.32**	**302**	*e*P	**Pg**	**10 26 29.4**	**-0.8**
TGIG		**2.41**	**22**	*i* P	**Pb**	**10 26 28.9**	**-0.1**
TGIG				*i* S	**Sn**	**10 26 53.6**	**-0.7**
TGIG		**2.41**	**22**	*e*P	**Pb**	**10 26 28.9**	**-0.1**
TGIG				*e*S	**Sn**	**10 26 53.8**	**-0.5**
CCIG	**Comitan**	**2.55**	**47**	*i* P	**Pb**	**10 26 32.2**	**+0.8**
CCIG	**Comitan**	**2.55**	**47**	*e*P	**Pb**	**10 26 32.2**	**+0.8**
CCIG				*e*S	**Sn**	**10 26 57.3**	**-0.5**
STG8	**El Palmar, Qui**	**2.64**	**92**	*i* P	**Pb**	**10 26 30.8**	**-2.2**
STG8				*i* S	**Sn**	**10 26 55.9**	**-4.3**
CMIG	**Matias Romero**	**2.66**	**343**	*e*P	**Pb**	**10 26 32.3**	**-0.8**
CMIG				*e*S	**Sn**	**10 26 59.3**	**-1.0**
UXUV	**UXUV**	**2.77**	**359**	*e*P	**Pb**	**10 26 34.7**	**-0.3**
UXUV				*e*S	**Sn**	**10 27 04.4**	**+1.4**
PEIG	**Puerto Escondi**	**3.31**	**296**	*e*P	**Pb**	**10 26 44.0**	**-0.3**
PEIG				*e*S	**Sn**	**10 27 17.0**	**+0.7**
FG16	**Alotenango, Sa**	**3.46**	**94**	*i* P	**Pn**	**10 26 41.3**	**+1.8**
NEUV	**Arroyo Zacate**	**3.57**	**332**	*e*P	**Pb**	**10 26 45.2**	**-3.6**
NEUV				*e*P	Pn	10 26 45.5	+4.7
NEUV				*e*S	**Sn**	**10 27 20.1**	**-2.7**
NEUV				*e*S	Sb	10 27 21.5	-10
VHO	**Vista Hermosa**	**3.59**	**315**	*e*P	**Pb**	**10 26 47.1**	**-2.2**
VHO				*e*S	**Sn**	**10 27 24.3**	**+0.5**
YOIG	**Yosondua**	**4.06**	**305**	*e*P	**Pb**	**10 26 55.6**	**-1.8**
YOIG				*e*S	**Sn**	**10 27 39.1**	**+3.7**
TOIG	**Toxpalan**	**4.56**	**321**	*e*P	**Pb**	**10 27 02.6**	**-3.0**
TOIG				*e*S	**Sn**	**10 27 48.5**	**+1.0**
SCIG	**Sabancuy**	**5.20**	**32**	*e*P	**Pn**	**10 27 06.7**	**+3.5**
SCIG				*e*S	**Sn**	**10 27 56.5**	**-6.6**
JAUV	**Jalcomulco**	**5.47**	**332**	*e*P	**Pn**	**10 27 09.2**	**+2.2**
JAUV				*e*S	**Sn**	**10 28 06.4**	**-3.4**

MEX 09 10:26:01.9±0.4, 16°.29N×98°.19W, h15km±1km, MD3.2,

Presumed earthquake, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.12**	**32**	*e*P	Pg	10 26 04.7	-0.8
PNIG				*e*S	Sg	10 26 07.1	-0.6
YOIG	**Yosondua**	**0.84**	**48**	*e*P	Pg	10 26 15.3	-2.9
YOIG				*e*S	Sg	10 26 25.9	-3.4
CRIG	**Cruz Grande**	**1.00**	**296**	*e*P	Pb	10 26 19.2	-1.8
CRIG				*e*S	Sb	10 26 31.5	-2.6
TXIG	**Tlaxiaco**	**1.04**	**23**	*e*P	Pb	10 26 18.9	-2.9
TXIG				*e*S	Sb	10 26 31.2	-4.2
PEIG	**Puerto Escondi**	**1.05**	**106**	*e*P	Pb	10 26 18.5	-3.2
PEIG				*e*S	Sb	10 26 31.4	-3.8
HLIG	**Huajuapan de L**	**1.57**	**14**	*e*P	Pn	10 26 28.5	-1.0
HLIG				*e*S	Sn	10 26 46.5	-3.3
FTIG	**Fresnillo de T**	**1.61**	**2**	*e*P	Pn	10 26 28.7	-1.2
FTIG				*e*S	Sn	10 26 47.7	-2.8

*THE **09** 10:40:29.0, 36°.N±35°.×2°.9E±2°.2, h6km±20km, MLh2.3/1*
*ISK **09** 10:40:29.6, 36°.41N×28°.75E, h7km, ML2.5/14*
*AFAD **09** 10:40:30.1, 36°.42N×28°.71E, h7km±3km, ML2.1*
ISC 09 10:40:30.0±1.1, 36°.42N±0°.03×28°.75E±0°.02, h10km±9km, n31, σ0s57/51, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FETY	**Fethiye**	**0.34**	**51**	P	**Pb**	**10 40 38.1**	**-0.2**
FETY				S	**Sb**	**10 40 43.5**	**-0.4**
FETY	**Fethiye**	**0.34**	**51**	Pg	**Pg**	**10 40 36.7**	**-0.2**
FETY				Sg	**Sb**	**10 40 43.1**	**-0.8**
FETY				AML	AML		
IZZE	**Mula-Seydike**	**0.38**	**87**	P	**Pg**	**10 40 37.6**	**-0.1**
IZZE				S	**Sb**	**10 40 44.8**	**-0.2**
IZZE				IAML		10 40 49.0	
	comp=N,524nm,0.5s						
IZZE				IAML		10 40 51.0	
	comp=E,321nm,0.4s						
DALY	**Dalyan (Mula)**	**0.41**	**349**	P	**Pg**	**10 40 37.4**	**-0.7**
DALY				S	**Sg**	**10 40 44.2**	**+0.8**
DALY				IAML		10 40 46.0	
	comp=E,142nm,0.2s						
DALY				IAML		10 40 47.0	
	comp=N,143nm,0.2s						
DALY	**Dalyan (Mula)**	**0.41**	**349**	Pg	**Pg**	**10 40 37.7**	**-0.3**
DALY				Sg	**Sb**	**10 40 44.5**	**-1.1**
DALY				AML	AML		
SABU	**Mula-Dalaman**	**0.44**	**23**	P	**Pg**	**10 40 39.0**	**+0.3**
SABU				S	**Sb**	**10 40 45.9**	**-0.7**
SABU				IAML		10 40 46.0	
	comp=N,378nm,0.2s						
SABU				IAML		10 40 46.0	
	comp=E,271nm,0.1s						
TURN	**Turunc**	**0.54**	**311**	P	**Pg**	**10 40 40.0**	**-0.5**
TURN				S	**Sg**	**10 40 48.2**	**+0.5**
TURN				IAML		10 40 49.0	
	comp=N,145nm,0.2s						
TURN				IAML		10 40 54.0	
	comp=E,86nm,0.2s						
TURN	**Turunc**	**0.54**	**311**	Pg	**Pg**	**10 40 40.7**	**+0.2**
TURN				Sg	**Sb**	**10 40 48.5**	**-1.0**
TURN				AML	AML		
ARG	**Arkhangelos**	**0.54**	**248**	P	**Pg**	**10 40 40.2**	**-0.4**
ARG				S	**Sb**	**10 40 49.6**	**+0.1**
ARG	**Arkhangelos**	**0.54**	**248**	Pg	**Pg**	**10 40 40.4**	**-0.2**
ARG				Sg	**Sb**	**10 40 49.3**	**-0.2**
ARG				AML	AML		
CAME	**Cameli-Denizli**	**0.69**	**40**	Pg	**Pg**	**10 40 43.3**	**-0.1**
CAME				Sg	**Sb**	**10 40 53.7**	**-0.2**
CAME				AML	AML		
AKAS	**Kas**	**0.71**	**105**	P	**Pb**	**10 40 44.8**	**+0.2**
AKAS				S	**Sn**	**10 40 59.0**	**+1.5**
AKAS				IAML		10 41 03.0	
	comp=E,94nm,0.4s						
AKAS				IAML		10 41 04.0	
	comp=N,154nm,0.7s						
AKAS	**Kas**	**0.71**	**105**	Pg	**Pg**	**10 40 43.5**	**-0.4**
AKAS				Sg	**Sb**	**10 40 54.2**	**-0.4**
AKAS				AML	AML		
KNIK	**Mula-Seydike**	**0.79**	**57**	P	**Pb**	**10 40 45.4**	**-0.5**
KNIK				S	**Sn**	**10 40 59.1**	**-0.2**
KNIK				IAML		10 41 00.0	
	comp=N,75nm,1.1s						
KNIK				IAML		10 41 04.0	
	comp=E,36nm,0.7s						
YER	**Yerkesik**	**0.81**	**332**	P	**Pb**	**10 40 45.9**	**-0.4**
YER				S	**Sb**	**10 40 57.7**	**+0.5**
YER	**Yerkesik**	**0.81**	**332**	Pg	**Pb**	**10 40 45.8**	**-0.4**
YER				AML	AML		
MULA	**Mugla, Merkez-**	**0.90**	**338**	P	**Pb**	**10 40 47.9**	**0.0**
MULA				IAML		10 41 10.0	
	comp=N,25nm,0.8s						
MULA				IAML		10 41 12.0	
	comp=E,35nm,0.5s						
ELL	**Elmali**	**0.99**	**70**	Pg	**Pg**	**10 40 48.8**	**-0.3**
ELL				AML	AML		
DAT	**Datca**	**0.99**	**289**	Pg	**Pb**	**10 40 49.5**	**+0.1**
DAT				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.05**	**7**	P	**Pg**	**10 40 49.8**	**-0.5**
TAVA				IAML		10 41 09.0	
	comp=N,48nm,0.5s						
TAVA				IAML		10 41 10.0	
	comp=E,39nm,0.4s						
YAZI	**Mula-Dat§a-**	**1.08**	**284**	P	**Pg**	**10 40 49.9**	**-0.8**
YAZI				S	**Sn**	**10 41 05.7**	**-0.5**
YAZI				IAML		10 41 07.0	
	comp=N,48nm,0.6s						
YAZI				IAML		10 41 09.0	
	comp=E,39nm,0.4s						
APMY	**Acipayam-Deniz**	**1.14**	**23**	P

JMN	**Monobe**	**23.48**	**339**	P	**P**	**11 15 25.7**	**-0.2**
JMN				IAmb	IAmb	11 15 41.9	
	comp=Z,64nm,1.5s						
SSLB	**Suanglung**	**24.58**	**302**	P	**P**	**11 15 35.5**	**-0.8**
SSLB				IAmb	IAmb	11 15 41.5	
	comp=Z,38nm,1.3s						
WB0	**Warramunga Arr**	**32.78**	**196**	P	**P**	**11 16 49.8**	**+0.5**
WB0				IAmb	IAmb	11 16 51.0	
	comp=Z,6.0nm,1.1s						
WRAB	**Tennant Creek**	**32.95**	**196**	P	**P**	**11 16 51.6**	**+0.7**
WRA	**Warramunga Arr**	**32.97**	**196**	P	**P**	**11 16 50.4**	**-0.6**
	comp=Z,0.6nm,0.6s,baz=19,slow=9.7,SNR=11						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	**32.97**	**196**	P	**P**	**11 16 50.6**	**-0.4**
SANVU	**Saraoutou**	**35.81**	**139**	P	**P**	**11 17 15.2**	**-0.4**
AS31	**Alice Springs**	**36.63**	**195**	P	**P**	**11 17 23.5**	**+0.9**
ASAR	**Alice Springs**	**36.63**	**195**	P	**P**	**11 17 23.2**	**+0.5**
	comp=Z,0.1nm,0.6s,baz=16,slow=12,SNR=5.2						
	comp=Z,0.1nm,0.6s						
BBJI	**Bungbulang**	**40.66**	**243**	P	**P**	**11 17 55.9**	**-0.8**
BBJI				IAmb	IAmb	11 18 20.7	
	comp=Z,33nm,1.3s						
BBOO	**Buckleboo**	**45.07**	**189**	P	**P**	**11 18 33.1**	**+1.1**
BBOO				IAmb	IAmb	11 18 36.7	
	comp=Z,13nm,1.3s						
MKAR	**Makanchi Array**	**61.88**	**317**	LR	LR	11 50 44.2	
	comp=Z,23nm,18.3s,baz=156,slow=39						
ZALV	**Zalesovo Beam**	**62.30**	**325**	P	**P**	**11 20 38.5**	**+0.5**
	comp=Z,0.5nm,0.3s,baz=114,slow=6.8,SNR=1.9						
	comp=Z,0.5nm,0.3s						
ZALV	**Zalesovo Beam**	**62.30**	**325**	P	**P**	**11 20 37.7**	**-0.3**
KURK	**Kurchatov**	**65.11**	**321**	P	**P**	**11 20 57.0**	**+0.5**
KURK				IAmb	IAmb	11 20 58.5	
	comp=Z,2.8nm,0.9s						
KURBB	**Kurchatov Arra**	**65.14**	**320**	P	**P**	**11 20 57.5**	**+0.7**
	comp=Z,1.2nm,0.2s,baz=105,slow=6.8,SNR=6.0						
	comp=Z,1.2nm,0.2s						
O18K	**Koktuh Hills**	**65.44**	**29**	P	**P**	**11 20 57.9**	**-0.7**
N19K	**Bonanza Creek**	**66.10**	**28**	P	**P**	**11 21 02.3**	**-0.6**
D19K	**Kuna River**	**67.62**	**20**	P	**P**	**11 21 12.2**	**-0.2**
D20K	**Étiviluk River**	**68.21**	**20**	P	**P**	**11 21 15.9**	**-0.2**
D20K				IAmb	IAmb	11 21 39.6	
	comp=Z,12nm,1.4s						
BVAR	**Borovoye Array**	**70.51**	**322**	P	**P**	**11 21 30.9**	**+0.3**
	comp=Z,0.7nm,0.5s,baz=112,slow=6.7,SNR=3.7						
	comp=Z,0.7nm,0.5s						
IL31		**70.57**	**25**	P	**P**	**11 21 30.2**	**-0.4**
ILAR	**Eielson Array**	**70.57**	**25**	P	**P**	**11 21 30.6**	**-0.1**
	comp=Z,0.7nm,0.9s,baz=255,slow=4.6,SNR=4.9						
	comp=Z,0.7nm,0.9s						
ILAR	**Eielson Array**	**70.57**	**25**	P	**P**	**11 21 30.1**	**-0.6**
TOLK	**Toolik Lake Re**	**70.58**	**21**	P	**P**	**11 21 31.3**	**+0.5**
TOLK				IAmb	IAmb	11 21 54.8	
	comp=Z,7.5nm,1.4s						
BMAR	**Burnt Mountain**	**72.09**	**23**	P	**P**	**11 21 39.9**	**0.0**
A36M	**Sachs Harbour**	**79.09**	**18**	P	**P**	**11 22 20.9**	**+1.1**

SCB 09 11:13:31.4±1.2, 18°56S×66°12W, h20km±6km, ML1.5/1, Error ellipse: s-maj=5.8km s-min=4.3km az=2.0, Central Bolivia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOET	**ToroToro**	**0.53**	**33**	Pg	Pb	11 13 41.0	-1.3
SOET				Sg	Sb	11 13 50.5	+0.9
SOET				IAML		11 13 51.7	
	29nm,0.2s						
SOET	**ToroToro**	**0.53**	**33**	Pg	Pb	11 13 41.1	-1.2
SOET				Sg	Sb	11 13 49.1	-0.5
SOET				IAML		11 13 52.3	
	35nm,0.5s						
SOEO	**Opoqueri**	**1.68**	**270**	Pg	Pb	11 14 03.2	+1.3
BBOJ	**La Paz, Jacaqu**	**2.53**	**308**	Pn	Pb	11 14 17.0	+0.5
BBOJ	**La Paz, Jacaqu**	**2.53**	**308**	Pg	Pb	11 14 16.8	+0.3
SOEJ	**Jacaque**	**2.53**	**308**	Pn	Pb	11 14 16.8	+0.4
MOCB	**Mochara**	**2.71**	**171**	Pn	Pb	11 14 19.9	+0.4
MOCB	**Mochara**	**2.71**	**171**	Pn	Pb	11 14 21.1	+1.6
MOCB				Sn	Sb	11 15 00.1	+7.5
MOCB				IAML		11 15 11.1	
	19nm,4.2s						
LPAZ	**La Paz**	**2.97**	**319**	Pn	Pb	11 14 23.4	-0.6
LPAZ	**La Paz**	**2.97**	**319**	Pn	Pb	11 14 23.2	-0.8
BBOD	**La Paz, Gloria**	**3.04**	**309**	Pn	Pb	11 14 24.0	-1.2
BBOB	**La Paz, Bander**	**3.08**	**321**	Pn	Pb	11 14 25.2	-0.7
BBOB	**La Paz, Bander**	**3.08**	**321**	Pn	Pb	11 14 24.6	-1.3

*NNC **09** 11:15:00.9±0.4, 42°.94N×77°.62E, h2km±2km, mb2.4, mpv2.7, Error ellipse: s-maj=4.1km s-min=1.4km az=177.0*
*KRNET **09** 11:15:01.0±0.1, 42°.90N×77°.62E, h14km, mb2.8*
*SOME **09** 11:15:01.3, 42°.92N×77°.58E, h10km*
ISC 09 11:15:00.8±0.9, 42°.90N±0°.02×77°.62E±0°.02, h10km±7km, n38, σ0°47/73, 14C-10D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANVS	**Anan'yevo**	**0.12**	**162**	⇑*i*P	**Pg**	**11 15 04.0**	**+0.1**
ANVS				⇑*i*S	**Sg**	**11 15 05.5**	**-0.6**
MDOK	**Medeo**	**0.49**	**302**	Pg	**Pg**	**11 15 10.6**	**+0.2**
	8.4nm,0.1s						
MDOK				Lg	Lg	11 15 17.3	
	8.0nm,0.1s						
MDOK	**Medeo**	**0.49**	**302**	*e*P	**Pg**	**11 15 10.6**	**+0.2**
	8.4nm,0.1s						
MDOK				*e*S	**Sg**	**11 15 17.3**	**+0.4**
	8.0nm,0.1s						
TNSS	**Tian-Shan**	**0.51**	**286**	P	**Pg**	**11 15 10.9**	**+0.2**
	1.1nm,0.1s						
TNSS				S	**Sg**	**11 15 18.0**	**+0.4**
	4.6nm,0.1s						
TNSS	**Tian-Shan**	**0.51**	**286**	*e*P	**Pg**	**11 15 10.9**	**+0.2**
	1.1nm,0.1s						
TNSS				*e*S	**Sg**	**11 15 18.0**	**+0.4**
	4.6nm,0.1s						
SATY	**Saty**	**0.60**	**75**	P	**Pg**	**11 15 12.8**	**+0.3**
	11nm,0.1s						
SATY				S	**Sg**	**11 15 21.1**	**+0.7**
	30nm,0.1s						
SATY	**Saty**	**0.60**	**75**	*e*P	**Pg**	**11 15 12.8**	**+0.3**
	11nm,0.1s						
SATY				*e*S	**Sg**	**11 15 21.1**	**+0.7**
	30nm,0.1s						
KURS	**Kuram**	**0.71**	**34**	P	**Pg**	**11 15 14.4**	**-0.1**
	1.8nm,0.2s						
KURS				S	**Sg**	**11 15 24.1**	**+0.2**
	9.7nm,0.3s						
KURS	**Kuram**	**0.71**	**34**	*e*P	**Pg**	**11 15 14.4**	**-0.1**
	1.8nm,0.2s						
KURS				*e*S	**Sg**	**11 15 24.1**	**+0.2**
	9.7nm,0.3s						
PRZ	**Przheval'sk**	**0.71**	**126**	⇑*e*P	**Pg**	**11 15 14.5**	**-0.1**
PRZ				⇑*e*S	**Sg**	**11 15 24.2**	**+0.3**
KDJ	**Kajisay**	**0.84**	**203**	⇑*i*P	**Pg**	**11 15 16.7**	**-0.2**
KDJ				⇑*e*S	**Sg**	**11 15 28.0**	**+0.2**
KPKS	**Kokpek**	**0.96**	**54**	P	**Pg**	**11 15 19.2**	**-0.1**
	0.2nm,0.1s						
KPKS				S	**Sb**	**11 15 32.0**	**-0.4**
	7.9nm,0.1s						
KPKS	**Kokpek**	**0.96**	**54**	*e*P	**Pg**	**11 15 19.2**	**-0.1**
	0.2nm,0.1s						
KPKS				*e*S	**Sb**	**11 15 32.0**	**-0.4**
	7.9nm,0.1s						
KTBS	**Karatobe**	**1.06**	**320**	P	**Pg**	**11 15 20.3**	**-0.9**
	0.5nm,0.0s						
KTBS				S	**Sg**	**11 15 33.9**	**-1.0**
	6.7nm,0.2s						
KTBS	**Karatobe**	**1.06**	**320**	*e*P	**Pg**	**11 15 20.2**	**-0.9**
	0.5nm,0.0s						
KTBS				*e*S	**Sg**	**11 15 33.9**	**-1.0**
	6.7nm,0.2s						
UZB	**Uzynbulak**	**1.06**	**76**	P	**Pg**	**11 15 20.9**	**-0.2**
	2.6nm,0.1s						
UZB				S	**Sb**	**11 15 35.2**	**-0.1**
	9.0nm,0.1s						
UZB	**Uzynbulak**	**1.06**	**76**	*e*P	**Pg**	**11 15 20.9**	**-0.2**
UZB				*e*S	**Sb**	**11 15 35.2**	**-0.1**
UZB	**Uzynbulak**	**1.06**	**76**	*e*P	**Pg**	**11 15 20.9**	**-0.2**
	2.6nm,0.1s						
UZB				*e*S	**Sb**	**11 15 35.2**	**-0.1**
	9.0nm,0.1s						
TARG	**Taragay, Kyrgy**	**1.18**	**173**	⇓*i*P	**Pb**	**11 15 22.8**	**-0.7**
TARG				⇓*i*S	**Sg**	**11 15 38.8**	**0.0**
ULHL	**Ulahol**	**1.21**	**238**	⇑*i*P	**Pb**	**11 15 23.8**	**0.0**
ULHL				⇑*i*S	**Sb**	**11 15 39.8**	**+0.2**
KST	**Kastek**	**1.22**	**277**	P	**Pn**	**11 15 24.2**	**+0.2**
	1.4nm,0.2s						
KST				S	**Sn**	**11 15 40.7**	**+0.1**
	3.9nm,0.2s						
KST	**Kastek**	**1.22**	**277**	*e*P	**Pn**	**11 15 24.2**	**+0.2**
	1.4nm,0.2s						
KST				*e*S	**Sn**	**11 15 40.7**	**+0.1**
	3.9nm,0.2s						
ARXS	**Arharly**	**1.32**	**7**	P	**Pn**	**11 15 25.4**	**+0.1**
	1.5nm,0.1s						
ARXS				S	**Sb**	**11 15 42.7**	**0.0**
	5.6nm,0.1s						
ARXS	**Arharly**	**1.32**	**7**	*e*P	**Pn**	**11 15 25.4**	**+0.1**
	1.5nm,0.1s						
ARXS				*e*S	**Sb**	**11 15 42.7**	**0.0**
	5.6nm,0.1s						
DGS	**Degeres**	**1.39**	**285**	P	**Pb**	**11 15 26.9**	**0.0**
	2.0nm,0.1s						
DGS				S	**Sg**	**11 15 45.5**	**-0.1**
	4.0nm,0.2s						
DGS	**Degeres**	**1.39**	**285**	*e*P	**Pb**	**11 15 26.9**	**0.0**
	2.0nm,0.1s						
DGS				*e*S	**Sg**	**11 15 45.5**	**-0.1**
	4.0nm,0.2s						
PDGK	**Podgornoye**	**1.44**	**72**	⇓P	**Pb**	**11 15 27.5**	**-0.2**
	0.8nm,0.6s						
PDGK				⇓S	**Sn**	**11 15 46.0**	**0.0**
	2.7nm,0.5s						
TKM2	**Tokmak 2**	**1.48**	**271**	⇑*i*P	**Pg**	**11 15 29.2**	**0.0**
TKM2				⇑*i*S	**Sg**	**11 15 49.2**	**+0.7**
KRBS	**Karabastau**	**1.62**	**300**	P	**Pb**	**11 15 31.3**	**+0.4**
	1.6nm,0.1s						
KRBS				S	**Sg**	**11 15 52.8**	**-0.2**
	9.5nm,0.1s						
KRBS	**Karabastau**	**1.62**	**300**	*e*P	**Pb**	**11 15 31.3**	**+0.4**
KRBS				*e*S	**Sg**	**11 15 52.9**	**-0.2**
KRBS	**Karabastau**	**1.62**	**300**	*e*P	**Pb**	**11 15 31.3**	**+0.4**
	1.6nm,0.1s						
KRBS				*e*S	**Sg**	**11 15 52.8**	**-0.2**
	9.5nm,0.1s						
KBK	**Karagaybulak**	**1.98**	**264**	⇓*i*P	**Pb**	**11 15 37.3**	**+0.3**
KBK				⇓*i*S	**Sb**	**11 16 03.2**	**+1.5**
DJR	**Jarkent**	**2.13**	**47**	Pg	**Pb**	**11 15 40.1**	**+0.6**
	1.8nm,0.2s						
DJR				Lg	Lg	11 16 08.1	
	4.8nm,0.2s						
DJR	**Jarkent**	**2.13**	**47**	*e*P	**Pb**	**11 15 40.1**	**+0.6**
	1.8nm,0.2s						
DJR				*e*S	**Sg**	**11 16 08.1**	**-1.1**
	4.8nm,0.2s						
USP	**Ospenovka**	**2.31**	**280**	⇓*i*P	**Pb**	**11 15 42.0**	**-0.5**
USP				⇓*i*S	**Sb**	**11 16 11.4**	**+0.2**
AAK	**Ala-Archa**	**2.31**	**265**	⇑Pg	**Pb**	**11 15 43.1**	**+0.4**
	1.9nm,0.8s						
AAK				⇑Lg	Lg	11 16 14.1	
	1.1nm,0.5s						
AAK	**Ala-Archa**	**2.31**	**265**	⇓*i*P	**Pb**	**11 15 41.9**	**-0.7**
AAK				⇓*i*S	**Sb**	**11 16 11.3**	**0.0**
UCH	**Uchtor**	**2.39**	**255**	⇑*i*P	**Pb**	**11 15 43.1**	**-1.0**
UCH				⇑*i*S	**Sb**	**11 16 13.1**	**-0.7**

*ISK **09** 11:27:06.9, 37°.90N×27°.02E, h10km, ML2.5/22*
*AFAD **09** 11:27:07.1, 37°.87N×26°.98E, h7km±2km, ML2.3*
*THE **09** 11:27:07.3, 37°.9N±0°.9×27°.0E±1°.0, h10km±2km, M2.5/7, MLh2.5/7*
ISC 09 11:27:07.2±0.8, 37°.87N±0°.02×26°.98E±0°.02, h13km±6km, n43, σ0°58/64, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**336**	P	**Pg**	**11 27 11.4**	**-0.1**
DGB				S	**Sg**	**11 27 13.9**	**-0.6**
DGB				IAML		11 27 14.0	
	comp=E,898nm,0.1s						
DGB				IAML		11 27 15.0	
	comp=N,522nm,0.1s						
SMG	**Samos**	**0.20**	**215**	P	**Pg**	**11 27 11.3**	**-0.3**
SMG				S	**Sg**	**11 27 14.8**	**+0.1**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.21**	**346**	Pg	**Pg**	**11 27 11.9**	**+0.1**
GMLD				Sg	**Sg**	**11 27 15.3**	**+0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**93**	Pg	**Pg**	**11 27 12.1**	**-0.3**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**131**	P	**Pg**	**11 27 12.8**	**0.0**
GCAM				S	**Sg**	**11 27 16.9**	**+0.4**
GCAM				IAML		11 27 17.0	
	comp=E,513nm,0.2s						
GCAM				IAML		11 27 18.0	
	comp=N,613nm,0.1s						
GCAM	**G?zelcaml?**	**0.26**	**131**	Pg	**Pg**	**11 27 12.7**	**0.0**
GCAM				Sg	**Sg**	**11 27 16.8**	**+0.4**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**353**	P	**Pg**	**11 27 14.5**	**0.0**
BEYE				S	**Sg**	**11 27 19.9**	**+0.7**
BEYE				IAML		11 27 20.0	
	comp=N,335nm,0.4s						
BEYE				IAML		11 27 20.0	
	comp=E,302nm,0.2s						
DUVT	**Torbali**	**0.51**	**47**	P	**Pg**	**11 27 17.3**	**+0.1**
DUVT				S	**Sg**	**11 27 23.9**	**-0.1**
DUVT				IAML		11 27 25.0	
	comp=E,198nm,0.3s						
BLCB	**Balcova**	**0.51**	**5**	P	**Pg**	**11 27 17.5**	**+0.2**
BLCB				S	**Sb**	**11 27 24.9**	**-0.7**
BLCB	**Balcova**	**0.51**	**5**	Pg	**Pg**	**11 27 17.1**	**-0.2**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**314**	P	**Pg**	**11 27 17.1**	**-0.5**
ZEYE				IAML		11 27 25.0	
	comp=N,563nm,0.2s						
ZEYE				S	**Sg**	**11 27 25.1**	**+0.6**
ZEYE				IAML		11 27 28.0	
	comp=E,510nm,0.2s						
DIDI	**Didim-Aydin**	**0.54**	**157**	Pg	**Pb**	**11 27 18.2**	**-0.3**
DIDI				AML	AML		
CESE	**eme**	**0.70**	**310**	Pg	**Pb**	**11 27 21.1**	**-0.3**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**84**	Pg	**Pb**	**11 27 21.6**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.74**	**106**	P	**Pg**	**11 27 21.6**	**0.0**
AYDN				S	**Sg**	**11 27 31.0**	**-0.4**
AYDN				IAML		11 27 35.0	
	comp=N,94nm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.79**	**162**	Pg	**Pb**	**11 27 22.9**	**+0.1**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**335**	Pg	**Pg**	**11 27 22.5**	**-0.1**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.81**	**71**	P	**Pg**	**11 27 22.9**	**-0.1**
IZMR				S	**Sg**	**11 27 33.0**	**-0.6**
BODT	**Bodrum**	**0.85**	**162**	P	**Pg**	**11 27 22.9**	**-0.9**
BODT				S	**Sb**	**11 27 35.1**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**162**	Pg	**Pb**	**11 27 23.9**	**0.0**
BODT				AML	AML		
MLSB	**Milas**	**0.86**	**132**	Pg	**Pg**	**11 27 23.8**	**0.0**
MLSB				AML	AML		
FOCM	**Foa**	**0.86**	**347**	Pg	**Pg**	**11 27 23.4**	**-0.5**
FOCM				AML	AML		
BDRM	**Kayabasi**	**0.89**	**155**	P	**Pg**	**11 27 23.1**	**-1.3**
BDRM				S	**Sb**	**11 27 37.4**	**+1.1**
CHOS	**Chios island**	**0.89**	**305**	P	**Pg**	**11 27 24.2**	**-0.3**
CHOS				S	**Sb**	**11 27 37.4**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	Pg	**Pb**	**11 27 24.8**	**+0.1**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**331**	P	**Pg**	**11 27 23.5**	**-1.3**
KARB				S	**Sb**	**11 27 37.7**	**+0.8**
KARB				IAML		11 27 41.0	
	comp=E,97nm,0.5s						
CAMT	**Merkez**	**0.91**	**16**	P	**Pn**	**11 27 25.6**	**-0.3**
CAMT				S	**Sn**	**11 27 38.9**	**0.0**
NAZL	**Nazilli-Aydin**	**1.04**	**85**	Pg	**Pg**	**11 27 26.6**	**-0.7**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.08**	**94**	P	**Pn**	**11 27 28.4**	**+0.2**
ESEN				S	**Sb**	**11 27 42.8**	**+0.8**
ZEDA	**zmir-Bergama**	**1.09**	**4**	P	**Pb**	**11 27 28.3**	**+0.2**
ZEDA				S	**Sn**	**11 27 43.5**	**+0.1**
ZEDA				IAML		11 27 49.0	
	comp=N,59nm,0.6s						
GOMA	**Golmarmara-Man**	**1.11**	**41**	Pg	**Pb**	**11 27 27.6**	**-0.8**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.17**	**74**	P	**Pn**	**11 27 30.3**	**+0.9**
KIRA				S	**Sb**	**11 27 44.5**	**+0.1**
KTTT	**Salihli**	**1.19**	**47**	P	**Pg**	**11 27 31.1**	**+0.8**
KTTT				S	**Sg**	**11 27 45.8**	**0.0**
DKL	**Dikili**	**1.20**	**357**	Pn	**Pb**	**11 27 29.6**	**-0.2**
DKL				AML	AML		
AKHS	**Akhisar**	**1.20**	**33**	P	**Pb**	**11 27 27.6**	**-2.3**
AKHS				S	**Sn**	**11 27 46.3**	**+0.4**
AKS	**Akhisar**	**1.20**	**33**	Pn	**Pb**	**11 27 29.1**	**-0.8**
DAT	**Datca**	**1.24**	**157**	Pn	**Pg**	**11 27 30.9**	**-0.2**
DAT				AML	AML		
YER	**Yerkesik**	**1.27**	**125**	P	**Pn**	**11 27 30.8**	**0.0**
YER	**Yerkesik**	**1.27**	**125**	Pn	**Pb**	**11 27 31.2**	**+0.1**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.40**	**42**	Pn	**Pn**	**11 27 32.5**	**-0.1**
GORD				AML	AML		
PRK	**Paraskevi**	**1.48**	**338**	P	**Pn**	**11 27 33.6**	**0.0**
TURN	**Turunc**	**1.49**	**137**	Pn	**Pb**	**11 27 34.4**	**-0.4**
YAYO	**Edremit-Balk**	**1.74**	**2**	Pn	**Pn**	**11 27 37.6**	**+0.4**
YAYO				AML	AML		

IDC 09 11:28:56.6±2.0, 5°.73S×153°.50E, h0km, mb3.5/4, mbtmp3.5/5, ML3.3/1, MS2.3/1, Error ellipse: s-maj=43.4km s-min=20.3km az=67.0, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**2.04**	**314**	Pn	Pn	11 29 31.0	-1.3
	9.6nm,0.3s,baz=162,slow=19,SNR=1.3						
KRVT				Sn	Sn	11 29 55.6	-2.9
	94nm,0.3s,baz=112,slow=19,SNR=10						
KRVT				LR	LR	11 30 18.0	
	comp=Z,67nm,18.3s,baz=0.5,slow=40						
	35nm,0.3s						
KRVT				AML	AML		
WRA	**Warramunga Arr**	**23.38**	**231**	P		11 34 07.7	+0.5
	0.4nm,0.5s,baz=57,slow=10,SNR=8.9						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**25.96**	**225**	P	P	11 34 31.7	+0.5
	0.3nm,0.6s,baz=57,slow=9.3,SNR=8.9						
	0.3nm,0.6s						
SONM	**Songino Array**	**67.48**	**328**	P	P	11 39 56.1	+1.5
	0.2nm,0.3s,baz=134,slow=6.2,SNR=2.0						
	0.2nm,0.3s						
QSPA	**South Pole Qui**	**84.24**	**180**	P	P	11 41 28.6	-1.4
	1.0nm,0.8s,baz=16,slow=0.7,SNR=5.7						
	1.0nm,0.8s						

*IDC **09** 11:44:27.4±1.7, 62°.44S×164°.70E, h0km, mb3.7/3, mbtmp3.8/5, ML3.9/2, MS4.0/31, Error ellipse: s-maj=67.9km s-min=20.4km az=80.0*
*NEIC **09** 11:44:28.1±1.5, 62°.55S±0°.08×164°.9E±0°.5, h10km±1km, mb4.2/13, Error ellipse: s-maj=39.3km s-min=4.3km az=72.0*
*GCMT **09** 11:44:32.1±0.3, 62°.40S±0°.01×165°.62E±0°.04, h19km±1km, MW4.9/96, Moment Tensor Solution. s21,c22; s96,c132; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}=0.33±.18; $M_{\theta\theta}$=3.06±.14; $M_{\phi\phi}$=-2.74±.12; $M_{r\theta}$=0.62±.26; $M_{\theta\phi}$=-0.83±.11; $M_{\phi r}$=0.11±.29; Best double couple: M_0=3.07400×10^{16} NP1:ϕ_s143.00000°, δ80.00000°, λ4.00000°. NP2: ϕ_s53.00000°, δ86.00000°, λ170.00000°. Principal axes: T 3.2770, Plg10.0000°, Azm8.0000°; N -0.4120, Plg79.0000°, Azm213.0000°; P -2.8720, Plg4.0000°, Azm98.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 09 11:44:27.8±0.7, 62°.53S±0°.08×164°.9E±0°.2, h10km, n61, σ0°68/21, mb3.9/7, MS4.0/29, Balleny Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCQ	**Macquarie Isla**	**8.63**	**336**	Pn	**Pn**	**11 46 33.1**	**+0.7**
VNDA	**Vanda**	**15.10**	**183**	Pn	**Pn**	**11 47 59.5**	**-1.2**
	1.1nm,0.3s,baz=7.0,slow=16,SNR=90						
VNDA				LR	LR	11 52 58.5	
	comp=Z,1μm,18.1s,baz=9.0,slow=34						
	2.6nm,0.3s						
VNDA				AML	AML		
VNDA	**Vanda**	**15.10**	**183**		**Pn**	**11 48 01.1**	**+0.4**
VNDA				IAmb	IAmb	11 48 06.0	
	comp=Z,11nm,1.2s						
SBA	**Scott Base**	**15.41**	**179**		**Pn**	**11 48 05.7**	**+0.8**
SBA				IAmb	IAmb	11 48 08.0	
	comp=Z,24nm,1.4s						
RPZ	**Rata Peaks**	**19.19**	**14**	P	**Pn**	**11 48 52.2**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=208,slow=8.9,SNR=2.1						
RPZ				LR	LR	11 55 05.8	
	comp=Z,224nm,20.4s,baz=207,slow=33						
	comp=Z,1.8nm,0.9s						
RPZ				AML	AML		
URZ	**Urewera**	**25.42**	**23**	LR	LR	11 59 39.6	
	comp=Z,633nm,18.0s,baz=188,slow=36						
QSPA	**South Pole Qui**	**27.56**	**180**	P	**P**	**11 50 15.1**	**+0.6**
	comp=Z,0.9nm,0.7s,baz=329,slow=1.4,SNR=7.7						
QSPA				LR	LR	11 59 34.0	
	comp=Z,368nm,20.9s,baz=27,slow=33						
	comp=Z,0.9nm,0.7s						
QSPA	**South Pole Qui**	**27.56**	**180**	P	**P**	**11 50 15.2**	**+0.6**
QSPA				IAmb	IAmb	11 50 25.9	
	comp=Z,6.0nm,1.2s						
TOO	**Toolangi**	**27.69**	**325**	P	**P**	**11 50 15.1**	**-0.7**
TOO				IAmb	IAmb	11 50 24.1	
	comp=Z,3.0nm,1.2s						
STKA	**Stephens Creek**	**34.11**	**323**	LR	LR	12 02 53.5	
	comp=Z,241nm,18.9s,baz=163,slow=33						
RAO	**Raoul Island**	**35.12**	**27**	LR	LR	12 03 17.5	
	comp=Z,136nm,21.4s,baz=126,slow=32						
INKA	**Innaminka**	**38.25**	**324**	P	**P**	**11 51 47.8**	**+0.1**
INKA				IAmb	IAmb	11 51 51.0	
	comp=Z,1.2nm,0.8s						
MAW	**Mawson**	**38.62**	**217**	LR	LR	12 07 57.3	
	comp=Z,549nm,18.4s,baz=100,slow=36						
BELA	**Belgrano 2**	**39.33**	**174**	P	**P**	**11 51 55.4**	**-0.9**
PINNC	**Pines Island,**	**39.93**	**4**	P	**P**	**11 52 01.2**	**-0.6**
DZM	**Mont Dzumac**	**40.44**	**2**	LR	LR	12 05 21.6	
	comp=Z,184nm,

PPT	**Papeete**	**54.85**	**56**	LR	LR	12 11 20.7
	comp=Z,82nm,19.4s,baz=179,slow=29					
DRS	**Darwin Rock St**	**55.59**	**319**	P	**P**	**11 54 03.6 +0.3**
JAY	**Jayapura**	**62.53**	**333**	LR	LR	12 18 42.7
	comp=Z,103nm,21.9s,baz=151,slow=33					
RPN	**Rapa Nui**	**64.39**	**100**	LR	LR	12 15 10.0
	comp=Z,164nm,18.5s,baz=222,slow=29					
KAPI	**Kappang**	**66.25**	**310**	LR	LR	12 23 23.2
	comp=Z,105nm,19.1s,baz=172,slow=35					
TAOE	**Nuku Hiva Isla**	**66.50**	**62**	*e*LR	LR	12 14 30.8
	comp=Z,86nm,25.2s					
SMRI	**Semarang**	**67.94**	**299**	P	**P**	**11 55 26.9 +0.3**
GO06	**Curarrehue**	**68.67**	**136**	P	**P**	**11 55 31.6 +0.6**
GO06				IAmb	IAmb	11 55 49.5
	comp=Z,6.0nm,1.3s					
LEM	**Lembang**	**69.30**	**297**	LR	LR	12 23 39.7
	comp=Z,198nm,18.3s,baz=2.5,slow=34					
H03S2	**Juan Fernandez**	**71.29**	**128**	T	T	13 14 01.7
	baz=204,slow=74,SNR=42					
H03S1	**Juan Fernandez**	**71.29**	**128**	T	T	13 14 03.0
	baz=204,slow=74,SNR=37					
H03S3	**Juan Fernandez**	**71.31**	**128**	T	T	13 14 02.5
	baz=204,slow=74,SNR=38					
DAV	**Davao City (W)**	**75.65**	**320**	LR	LR	12 28 34.5
	comp=Z,49nm,18.9s,baz=128,slow=35					
SUR	**Sutherland**	**81.12**	**210**	LR	LR	12 31 18.2
	comp=Z,110nm,19.2s,baz=178,slow=35					
BOSA	**Boshof**	**83.61**	**215**	LR	LR	12 31 31.3
	comp=Z,94nm,19.9s,baz=196,slow=34					
PB10	**IPOC Station P**	**83.68**	**130**	P	**P**	**11 56 56.6 +0.1**
H08S2	**Diego Garcia H**	**84.39**	**264**	T	T	13 31 03.7
	baz=152,slow=76,SNR=20					
H08S1	**Diego Carcia H**	**84.40**	**264**	T	T	13 30 56.8
	baz=152,slow=76,SNR=17					
H08S3	**Diego Garcia H**	**84.41**	**264**	T	T	13 31 05.2
	baz=152,slow=76,SNR=39					
CPUP	**Villa Florida**	**85.26**	**143**	LR	LR	12 31 36.0
	comp=Z,50nm,19.5s,baz=208,slow=33					
LBTB	**Lobatse**	**86.93**	**216**	LR	LR	12 31 45.8
	comp=Z,115nm,21.7s,baz=158,slow=33					
LPAZ	**La Paz**	**91.20**	**130**	LR	LR	12 29 31.9
	comp=Z,29nm,18.9s,baz=162,slow=30					
PALK	**Pallekele**	**93.72**	**278**	LR	LR	12 33 15.1
	comp=Z,78nm,18.8s,baz=96,slow=31					
TSUM	**Tsumeb**	**94.55**	**211**	LR	LR	12 37 33.5
	comp=Z,170nm,22.0s,baz=156,slow=34					
ATAH	**Atahualpa**	**95.60**	**117**	LR	LR	12 31 12.7
	comp=Z,53nm,20.0s,baz=205,slow=29					

*IDC **09** 11:49:19.5±2.0,27˚.16N×53˚.57E,h0km,mb3.8/8, mbtmp3.8/8,Error ellipse: s-maj=47.1km s-min=27.2km az=148.0*
*DSN **09** 11:49:21.9±1.4,27˚.32N×53˚.61E,h10km,ML3.3/13,Error ellipse: s-maj=16.4km s-min=3.8km az=172.0*
*NEIC **09** 11:49:21.8±1.6,27˚.32N±0˚.07×53˚.58E±0˚.04,h10km±1km, mb4.7/16,Error ellipse: s-maj=13.1km s-min=3.3km az=159.0*
*TEH **09** 11:49:22.5,27˚.11N×53˚.59E,h14km±34km,ML3.6, Presumed earthquake*
*OMAN **09** 11:49:25.7±0.1,26˚.96N×53˚.65E,h10km,mb3.5/7, ml3.4/16,Error ellipse: s-maj=1.8km s-min=1.0km az=7.0*

ISC 09 11:49:20.5±1.5,27˚.11N±0˚.04×53˚.59E±0˚.04,h7km±10km, n83,σ2^{s}25/104,mb4.6/13,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LMD1	**Lamerd**	**0.44**	**301**	Pg	**Pb**	**11 49 31.6**	**+0.9**
KHL1	**Khalili_Fars**	**0.59**	**334**	Pg	**Pg**	**11 49 33.2**	**+1.3**
JHRM	**Jahrom**	**1.39**	**359**	Pg	**Pb**	**11 49 48.3**	**+1.4**
JRN	**Qarnain Island**	**2.26**	**197**	P	**Pb**	**11 50 01.3**	**-0.4**
GENO	**Geno**	**2.31**	**82**	Pn	**Pn**	**11 50 01.7**	**+2.4**
DSBU	**Dashti - Bushe**	**2.41**	**302**	Pn	**Pb**	**11 50 03.5**	**-0.8**
SHME	**Shamm**	**2.52**	**114**	*e*P	**Pn**	**11 50 03.3**	**+1.5**
	SNR=6.1						
SHME				S	**Sn**	**11 50 36.2**	**+3.5**
SHME	**Shamm**	**2.52**	**114**	P	**Pn**	**11 50 04.1**	**+2.3**
	SNR=6.1						
IBND	**Bandar-abas**	**2.65**	**82**	Pn	**Pn**	**11 50 06.7**	**+3.1**
NAZ	**Nazwa, Dubai**	**2.82**	**138**	*e*P	**Pb**	**11 50 09.9**	**-1.3**
	SNR=6.6						
NAZ	**Nazwa, Dubai**	**2.82**	**138**	P	**Pb**	**11 50 10.1**	**-1.1**
	SNR=6.6						
NAZ				S	**Sb**	**11 50 44.5**	**-1.4**
AJN	**Ajban**	**2.83**	**153**	P	**Pb**	**11 50 10.5**	**-0.9**
AJN				S	**Sn**	**11 50 42.6**	**+2.1**
MASF	**Masafi**	**2.88**	**126**	P	**Pn**	**11 50 10.7**	**+3.7**
	SNR=7.2						
MASF				S	**Sn**	**11 50 44.1**	**+2.2**
MSFE	**Esma-Masafi**	**2.89**	**127**	*i* P	**Pn**	**11 50 10.3**	**+3.3**
	SNR=7.1						
ASUD	**Al Ashush, Dub**	**2.93**	**147**	P	**Pb**	**11 50 11.5**	**-1.5**
ASUD	**Al Ashush, Dub**	**2.93**	**147**	P	**Pb**	**11 50 11.6**	**-1.5**
ASUD				S	**Sb**	**11 50 47.3**	**-1.7**
MDH	**Madha**	**3.03**	**126**	*i* P	**Pn**	**11 50 11.7**	**+2.8**
	SNR=9.1						
MDH	**Madha**	**3.03**	**126**	P	**Pn**	**11 50 12.1**	**+3.2**
	SNR=9.1						
MDH				S	**Sn**	**11 50 47.8**	**+2.4**
UOSS	**Minazif**	**3.19**	**132**	*i* P	**Pn**	**11 50 13.8**	**+2.7**
	SNR=6.6						
UOSS	**Minazif**	**3.19**	**132**	P	**Pn**	**11 50 14.3**	**+3.2**
UOSS				S	**Sn**	**11 50 51.5**	**+2.1**
UOSS	**Minazif**	**3.19**	**132**		**Pn**	**11 50 13.9**	**+2.8**
HATD	**Hatta, Dubai**	**3.23**	**134**	P	**Pn**	**11 50 14.8**	**+3.2**
HATD	**Hatta, Dubai**	**3.23**	**134**	P	**Pn**	**11 50 15.2**	**+3.6**
HATD				S	**Sn**	**11 50 52.6**	**+2.4**
ASHO	**Ashiyiah**	**3.28**	**137**	*i* P	**Pn**	**11 50 16.0**	**+3.6**
	SNR=39						
ASHO	**Ashiyiah**	**3.28**	**137**	P	**Pn**	**11 50 16.2**	**+3.8**
	SNR=39						
ASHO				S	**Sn**	**11 50 54.4**	**+2.7**
ALNE	**Al Ain**	**3.61**	**147**	P	**Pn**	**11 50 20.7**	**+3.8**
ALNE				S	**Sn**	**11 51 03.1**	**+3.3**
SOHO	**SOHO**	**3.98**	**137**	*i* P	**Pn**	**11 50 25.0**	**+3.0**
	SNR=17						
SOHO	**SOHO**	**3.98**	**137**	P	**Pn**	**11 50 25.2**	**+3.3**
	SNR=17						
SOHO				S	**Sn**	**11 51 11.6**	**+2.8**
JASK	**Jask - Hormozg**	**4.03**	**107**	P	**Pn**	**11 50 23.9**	**+1.3**
JASK				S	**Sn**	**11 51 12.3**	**+2.3**
JASK	**Jask - Hormozg**	**4.03**	**107**	Pn	**Pn**	**11 50 25.5**	**+2.9**
MZR	**Muzera**	**4.09**	**181**	P	**Pn**	**11 50 26.3**	**+2.8**
KHGB	**Koh Gabri**	**4.12**	**37**	Pn	**Pn**	**11 50 26.9**	**+2.8**
IMEH	**Mehriz**	**4.36**	**12**	Pn	**Pn**	**11 50 30.5**	**+3.1**
CHMN	**Cheshme madani**	**4.43**	**51**	Pn	**Pn**	**11 50 31.8**	**+3.4**
ARQ	**Araqi**	**4.60**	**144**	P	**Pn**	**11 50 34.0**	**+3.5**
	SNR=18						
ARQ				S	**Sn**	**11 51 24.9**	**+0.7**
UMZA	**Um Al Zommool**	**4.60**	**162**	P	**Pn**	**11 50 34.1**	**+3.6**
UMZA				S	**Sn**	**11 51 25.9**	**+1.7**
TAFT	**Taft - Yazd**	**4.62**	**6**	Pn	**Pn**	**11 50 34.4**	**+3.3**
KBAM	**BAM**	**4.74**	**64**	Pn	**Pn**	**11 50 35.8**	**+3.2**
IBAF	**Bafgh**	**4.79**	**21**	Pn	**Pn**	**11 50 35.4**	**+2.2**
HOQ	**Hoqain**	**4.86**	**135**	P	**Pn**	**11 50 37.3**	**+3.2**
HOQ				S	**Sn**	**11 51 31.1**	**+0.4**
BSY	**Bisya**	**5.44**	**142**	P	**Pn**	**11 50 45.0**	**+2.9**
	SNR=15						
BSY				S	**Sn**	**11 51 46.4**	**+1.4**
SMDO	**Samad**	**5.71**	**134**	P	**Pn**	**11 50 48.0**	**+2.2**
SMDO				S	**Sn**	**11 51 52.3**	**+0.7**
WSAR	**Wadi Sarin**	**5.97**	**129**	P	**Pn**	**11 50 51.3**	**+1.9**
	SNR=7.5						
WSAR				S	**Sn**	**11 51 57.2**	**-0.9**
JMDO	**Jabal Madar**	**6.25**	**138**	P	**Pn**	**11 50 55.6**	**+2.4**
JMDO				S	**Sn**	**11 52 04.8**	**-0.1**
WBK	**Wadi Bani Khal**	**6.63**	**131**	P	**Pn**	**11 51 00.4**	**+2.0**
	SNR=11						
WBK				S	**Sn**	**11 52 14.4**	**+0.2**
MHTO	**MHTO**	**7.29**	**146**	P	**Pn**	**11 51 10.5**	**+3.1**
	SNR=39						
SRVN	**Saravan**	**7.84**	**86**	Pn	**Pn**	**11 51 18.2**	**+3.0**
DQM	**DQM**	**8.01**	**152**	P	**Pn**	**11 51 19.7**	**+2.3**
RAYN	**Ar Rayn**	**8.14**	**246**		**Pn**	**11 51 19.6**	**+0.4**
DOK	**Doka**	**8.47**	**177**	P	**Pn**	**11 51 25.2**	**+1.6**
	SNR=17						
WHFO	**Wadi Hawf**	**9.15**	**179**	P	**Pn**	**11 51 34.4**	**+1.3**
	SNR=46						
ABTO	**Aybut**	**9.71**	**182**	P	**Pn**	**11 51 42.1**	**+1.3**
HRA	**Herat**	**10.39**	**44**	Pn	**Pn**	**11 51 47.2**	**-2.9**
BR131	**Keskin Array S**	**20.82**	**312**	P	**P**	**11 54 02.0**	**-0.7**
BRTR	**Keskin Array B**	**20.82**	**312**	P	**P**	**11 54 03.4**	**+0.7**
	0.7nm,0.5s,baz=127,slow=11,SNR=4.3						
BRTR	**Keskin Array B**	**20.82**	**312**	P	**P**	**11 54 01.5**	**-1.2**
KKAR	**Karatay Array**	**21.06**	**36**	P	**P**	**11 54 03.3**	**-1.8**
ARSB	**Arslanbob**	**21.34**	**43**	P	**P**	**11 54 06.5**	**-1.8**
AB31	**Akbulak array**	**22.65**	**11**	P	**P**	**11 54 19.8**	**-2.3**
ABKAR	**Akbulak array**	**22.65**	**11**	P	**P**	**11 54 19.7**	**-2.4**
ARG	**Arkhangelos**	**23.45**	**299**	P	**P**	**11 54 29.7**	**-0.7**
KARP	**Karpathos**	**24.04**	**297**	P	**P**	**11 54 33.8**	**-2.5**
KDJ	**Kajisay**	**24.41**	**46**	P	**P**	**11 54 37.6**	**-2.3**
KDJ				IAmb	IAmb	11 54 40.2	
	comp=Z,31nm,1.5s						
HYB	**Hyderabad**	**24.99**	**108**	*e*P	**P**	**11 54 46.3**	**+1.3**
HYB				*e*S	**S**	**11 59 11.6**	**+2.3**
ITM	**Ithomi**	**28.51**	**299**	P	**P**	**11 55 14.8**	**-1.8**
ITM				IAmb	IAmb	11 55 23.5	
	comp=Z,22nm,1.3s						
MLR	**Muntele Rosu**	**28.65**	**317**	P	**P**	**11 55 16.8**	**-1.0**
MLR				IAmb	IAmb	11 55 19.0	
	comp=Z,5.0nm,0.5s						
MKAR	**Makanchi Array**	**29.94**	**41**	P	**P**	**11 55 29.7**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=229,slow=9.6,SNR=4.9						
	comp=Z,0.2nm,0.3s						
MKAR	**Makanchi Array**	**29.94**	**41**	P	**P**	**11 55 27.0**	**-2.2**
AKASG	**Malin Array Be**	**29.98**	**328**	P	**P**	**11 55 28.6**	**-0.9**
	comp=Z,0.5nm,0.3s,baz=114,slow=6.9,SNR=4.1						
	comp=Z,0.5nm,0.3s						
FIA1	**FINESS Array S**	**38.98**	**339**	P	**P**	**11 56 45.9**	**-1.2**
FINES	**FINESS Array B**	**38.98**	**339**	P	**P**	**11 56 46.4**	**-0.7**
	comp=Z,2.3nm,0.9s,baz=140,slow=9.2,SNR=4.9						
	comp=Z,2.3nm,0.9s						
FINES	**FINESS Array B**	**38.98**	**339**	P	**P**	**11 56 46.3**	**-0.8**
NC405	**NORSAR Array S**	**44.07**	**332**	P	**P**	**11 57 28.0**	**-0.8**
NC405				IAmb	IAmb	11 57 49.7	
	comp=Z,24nm,1.4s						
EKA	**Eskdalemuir Ar**	**49.37**	**321**	P	**P**	**11 58 09.9**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=103,slow=7.7,SNR=6.0						
	comp=Z,0.5nm,0.4s						
TORD	**Torodi Ar. Bea**	**50.34**	**265**	P	**P**	**11 58 18.0**	**-0.4**
	comp=Z,0.6nm,0.5s,baz=58,slow=8.6,SNR=6.6						
	comp=Z,0.6nm,0.5s						
LBTB	**Lobatse**	**58.43**	**210**	P	**P**	**11 59 18.8**	**+1.6**
LBTB				IAmb	IAmb	11 59 45.9	
	comp=Z,8.7nm,1.4s						
DBIC	**Dimbokro**	**58.96**	**261**	P	**P**	**11 59 21.5**	**+0.5**
	comp=Z,3.1nm,0.6s,baz=78,slow=4.9,SNR=4.2						
	comp=Z,3.1nm,0.6s						
DBIC	**Dimbokro**	**58.96**	**261**	P	**P**	**11 59 21.7**	**+0.7**
BOSA	**Boshof**	**61.72**	**208**	P	**P**	**11 59 41.9**	**+2.2**
ILAR	**Eielson Array**	**87.04**	**9**	P	**P**	**12 02 05.8**	**-0.6**
	comp=Z,0.2nm,0.6s,baz=334,slow=5.3,SNR=3.0						
	comp=Z,0.2nm,0.6s						
ILAR	**Eielson Array**	**87.04**	**9**	P	**P**	**12 02 06.5**	**+0.1**
K20K	**Telida**	**87.21**	**12**	P	**P**	**12 02 08.1**	**+0.8**
K20K				IAmb	IAmb	12 02 16.6	
	comp=Z,7.5nm,1.4s						
I30M	**Mount Dempster**	**87.64**	**4**	P	**P**	**12 02 09.6**	**+0.1**
I30M				IAmb	IAmb	12 02 35.3	
	comp=Z,2.5nm,1.2s						

*IDC **09** 11:52:44.7±2.2,7˚.47S×129˚.65E,h131km±25km,mb3.2/2, mbtmp4.0/7,Error ellipse: s-maj=35.4km s-min=19.1km az=88.0*

ISC 09 11:52:42.5±0.8,7˚.44S±0˚.06×129˚.55E±0˚.09,h79km,n12, σ2^{s}25/16,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BATI	**Baumata**	**6.44**	**244**	P	**Pn**	**11 54 17.3**	**+2.5**
	25nm,0.3s,baz=104,slow=4.2,SNR=2.5						
BATI				S	**Sn**	**11 55 25.9**	**-1.0**
	32nm,0.3s,baz=89,slow=21,SNR=6.3						
SIJI	**Sorong**	**6.75**	**15**	P	**Pn**	**11 54 21.1**	**+2.1**
	5.9nm,0.5s,baz=209,slow=19,SNR=8.6						
SIJI				S	**Sn**	**11 55 32.7**	**-1.8**
	7.7nm,0.2s,baz=258,slow=23,SNR=10.0						
FITZ	**Fitzroy Crossi**	**11.26**	**199**	P	**Pn**	**11 55 20.9**	**+0.4**
	3.9nm,0.4s,baz=28,slow=11,SNR=51						
FITZ				S	Sn	11 57 17.1	-7.5
	4.8nm,0.3s,baz=72,slow=13,SNR=5.6						
FITZ	**Fitzroy Crossi**	**11.26**	**199**	P	**Pn**	**11 55 21.4**	**+0.8**
WRAB	**Tennant Creek**	**13.26**	**160**	P	**Pn**	**11 55 48.7**	**+1.0**
WRA	**Warramunga Arr**	**13.27**	**160**	P	**Pn**	**11 55 47.4**	**-0.4**
	6.5nm,0.5s,baz=342,slow=12,SNR=74						
WRA				S	**Sn**	**11 58 09.4**	**-4.1**
	2.3nm,0.5s,baz=334,slow=24,SNR=6.4						
QIS	**Mount Isa**	**16.27**	**144**	P	**P**	**11 56 30.5**	**+2.5**
ASAR	**Alice Springs**	**16.67**	**166**	P	**Pn**	**11 56 31.9**	**+0.6**
	1.1nm,0.4s,baz=338,slow=10,SNR=73						
ASAR				S	**Sn**	**11 59 34.1**	**-1.8**
	1.0nm,0.8s,baz=354,slow=26,SNR=5.1						
AS01	**Alice Springs**	**16.68**	**166**	P	**Pn**	**11 56 30.9**	**-0.5**
CMSA	**Cobar Meteorol**	**28.32**	**150**	P	**Pn**	**11 58 30.8**	**+1.9**
MKAR	**Makanchi Array**	**68.35**	**327**	P	**P**	**12 03 32.4**	**-3.2**
	0.2nm,0.3s,baz=120,slow=9.8,SNR=5.2						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**72.65**	**329**	P	**P**	**12 03 58.9**	**-2.8**
	0.3nm,0.5s,baz=126,slow=5.3,SNR=1.9						
	0.3nm,0.5s						

*IDC **09** 12:11:33.8±1.6,21˚.16S×68˚.25W,h0km,mb3.9/2, mbtmp3.9/3,ML3.8/1,Error ellipse: s-maj=80.1km s-min=23.5km az=90.0*
*SJA **09** 12:11:43.9±0.6,20˚.79S×68˚.92W,h111km±4km,ML3.8, MW3.8*
*GUC **09** 12:11:45.7±0.7,20˚.80S×68˚.89W,h101km±3km,ML3.9, Presumed earthquake*

ISC 09 12:11:45.2±0.9,20˚.83S±0˚.03×68˚.87W±0˚.06,h96km±7km, n38,σ1^{s}91/65,10C-3D,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB08	**IPOC Station P**	**0.73**	**339**	*e*P	**Pn**	**12 12 03.4**	**+0.4**
PB08				*e*S	**Sn**	**12 12 17.4**	**+1.2**
PB08				IAML		12 12 17.5	
	comp=Z,1μm,0.4s						
PB08	**IPOC Station P**	**0.73**	**339**	↓*i*P	**Pn**	**12 12 03.4**	**+0.4**
PB08				*e*S	**Sn**	**12 12 17.1**	**+0.8**
PB08				IAML		12 12 18.4	
	comp=E,5μm,0.2s						
PB09	**IPOC Station P**	**1.02**	**200**	*e*P	**Pn**	**12 12 06.8**	**+1.0**
PB09				*e*S	**Sn**	**12 12 17.0**	**-4.2**
PB09				IAML		12 12 24.3	
	comp=Z,1μm,0.7s						
PB09	**IPOC Station P**	**1.02**	**200**	↑*e*P	**Pn**	**12 12 06.8**	**+1.0**
PB09				*e*S	**Sn**	**12 12 23.2**	**+2.1**
PB02	**IPOC Station P**	**1.07**	**243**	*e*P	**Pn**	**12 12 06.5**	**+0.2**
PB02				*e*S	**Sn**	**12 12 23.7**	**+1.6**
PB02	**IPOC Station P**	**1.07**	**243**	↑*e*P	**Pn**	**12 12 06.5**	**+0.2**
PB02				*e*S	**Sn**	**12 12 22.8**	**+0.7**
GO01	**Chusmiza**	**1.19**	**345**	*e*P	**Pn**	**12 12 08.2**	**+0.2**
GO01				*e*S	**Sn**	**12 12 27.1**	**+2.0**
GO01				IAML		12 12 28.6	
	comp=Z,783nm,0.1s						
GO01	**Chusmiza**	**1.19**	**345**	↓*e*P	**Pn**	**12 12 08.1**	**+0.1**
GO01				*e*S	**Sn**	**12 12 25.7**	**+0.5**
GO01				IAML		12 12 30.3	
	comp=E,4μm,0.1s						
TA01	**Diego Aracena**	**1.25**	**282**	*e*P	**Pn**	**12 12 07.8**	**-0.4**
TA01				*e*S	**Sn**	**12 12 26.1**	**+0.5**
TA01				IAML		12 12 30.3	
	comp=Z,937nm,0.5s						
TA01	**Diego Aracena**	**1.25**	**282**	↑*i*P	**Pn**	**12 12 07.7**	**-0.5**
TA01				*e*S	**Sn**	**12 12 25.2**	**-0.4**
TA01				IAML		12 12 27.6	
	comp=E,2μm,0.4s						
PB11	**IPOC Station P**	**1.29**	**325**	*e*P	**Pn**	**12 12 08.7**	**-0.3**
PB11				*e*S	**Sn**	**12 12 27.5**	**+0.8**
PB11				IAML		12 12 30.9	
	comp=Z,974nm,0.2s						
PB11	**IPOC Station P**	**1.29**	**325**	↓*i*P	**Pn**	**12 12 08.5**	**-0.4**
PB11				*e*S	**Sn**	**12 12 26.6**	**-0.2**
PB11				IAML		12 12 29.6	
	comp=N,3μm,0.2s						
PB07	**IPOC Station P**	**1.30**	**226**	*e*P	**Pn**	**12 12 09.4**	**+0.3**
PB07				IAML		12 12 28.9	
	comp=Z,2μm,0.4s						
PB07	**IPOC Station P**	**1.30**	**226**	↑*e*P	**Pn**	**12 12 09.3**	**+0.3**
PB07				*e*S	**Sn**	**12 12 27.9**	**+1.0**
TA02	**Huaiquique**	**1.30**	**295**	*e*P	**Pn**	**12 12 08.8**	**0.0**
TA02				*e*S	**Sn**	**12 12 30.9**	**+4.2**
TA02				IAML		12 12 32.5	
	comp=Z,2μm,0.1s						
TA02	**Huaiquique**	**1.30**	**295**	↑*e*P	**Pn**	**12 12 08.6**	**-0.2**
TA02				*e*S	**Sn**	**12 12 26.1**	**-0.6**
PB03	**IPOC Station P**	**1.46**	**214**	*e*P	**Pn**	**12 12 11.6**	**+0.6**
PB03				IAML		12 12 33.6	
	comp=Z,1μm,0.2s						
PB03	**IPOC Station P**	**1.46**	**214**	↑*e*P	**Pn**	**12 12 11.3**	**+0.3**
PB03				*e*S	**Sn**	**12 12 31.2**	**+0.7**
PB03				IAML		12 12 35.0	
	comp=E,1μm,0.6s						
PSGCX	**Pisagua**	**1.70**	**316**	*e*P	**Pn**	**12 12 13.3**	**-0.5**
PSGCX				*e*S	**Sn**	**12 12 35.4**	**-0.2**
PSGCX				IAML		12 12 40.0	
	comp=Z,970nm,0.3s						
PSGCX	**Pisagua**	**1.70**	**316**	↑*e*P	**Pn**	**12 12 13.2**	**-0.7**
PSGCX				*e*S	**Sn**	**12 12 34.3**	**-1.3**
PB06	**IPOC Station P**	**1.98**	**199**	*e*P	**Pn**	**12 12 18.2**	**+0.7**
PB06				*e*S	**Sn**	**12 12 39.8**	**-2.2**
PB06				IAML		12 12 50.6	
	comp=Z,567nm,1.0s						
PB06	**IPOC Station P**	**1.98**	**199**	↑*e*P	**Pn**	**12 12 17.9**	**+0.4**
PB06				*e*S	**Sn**	**12 12 43.4**	**+1.3**
PB06				IAML		12 12 49.2	
	comp=N,600nm,0.2s						
AF01	**San Pedro de A**	**2.21**	**163**	*e*P	**Pn**	**12 12 19.6**	**-1.1**
AF01				*e*S	**Sn**	**12 12 50.8**	**+3.1**
AF01				IAML		12 13 16.6	
	comp=Z,339nm,0.8s						
AF01	**San Pedro de A**	**2.21**	**163**	*e*S	**Sn**	**12 12 49.5**	**+1.8**
AF01				IAML		12 13 15.2	
	comp=N,1μm,0.9s						
PX02	**IPOC Station P**	**2.24**	**326**	*e*P	**Pn**	**12 12 20.8**	**-0.1**
PX02				*e*S	**Sn**	**12 12 47.5**	**-0.6**
PX02				IAML		12 12 54.2	
	comp=N,432nm,0.4s						
PB05	**IPOC Station P**	**2.36**	**211**	*e*P	**Pn**	**12 12 22.7**	**+0.2**
PB05				*e*S	**Sn**	**12 12 57.8**	**+6.8**
PB05				IAML		12 13 03.8	
	comp=Z,387nm,0.6s						
PB05	**IPOC Station P**	**2.36**	**211**	↑*e*P	**Pn**	**12 12 23.0**	**+0.5**
PB05				*e*S	**Sn**	**12 12 51.2**	**+0.2**
PB05				IAML		12 13 01.0	
	comp=E,658nm,0.4s						
PB16	**IPOC Station P**	**2.55**	**346**	*e*P	**Pn**	**12 12 26.9**	**+1.4**
PB16				*e*S	Sn	12 12 45.9	-10
PB16				IAML		12 13 06.3	
	comp=Z,147nm,0.4s						
PB16	**IPOC Station P**	**2.55**	**346**	↑*e*P	**Pn**	**12 12 26.3**	**+0.8**
AP01	**Chacalluta**	**2.81**	**330**	*e*P	**Pn**	**12 12 31.4**	**+3.1**
AP01				*e*S	**Sn**	**12 13 09.3**	**+7.8**
AP01				IAML		12 13 10.8	
	comp=Z,518nm,0.9s						
AP01	**Chacalluta**	**2.81**	**330**	*e*S	**Sn**	**12 13 01.5**	**0.0**
AP01				IAML		12 13 13.4	
	comp=N,1μm,0.3s						
PB10	**IPOC Station P**	**3.09**	**210**	*e*P	**Pn**	**12 12 32.5**	**+0.4**
PB10				*e*S	**Sn**	**12 13 12.2**	**+4.0**
PB10				IAML		12 13 21.1	
	comp=Z,184nm,0.9s						
PB10	**IPOC Station P**	**3.09**	**210**	*i* P	**Pn**	**12 12 32.1**	**0.0**
PB10				*e*S	**Sn**	**12 13 08.8**	**+0.5**
PB10				IAML		12 13 23.1	
	comp=E,211nm,0.5s						
PB14	**IPOC Station P**	**4.03**	**200**	*e*P	**Pn**	**12 12 45.7**	**+0.6**
PB14				*e*S	Sn	12 13 42.8	+11
PB14				IAML		12 13 46.5	
	comp=Z,125nm,0.4s						
LPAZ	**La Paz**	**4.57**	**9**	Pn	**Pn**	**12 12 53.8**	**+1.1**
	comp=Z,2.5nm,0.3s,baz=179,slow=6.7,SNR=44						
	comp=Z,5.8nm,0.3s						
LPAZ				AML	AML		
QSPA	**South Pole Qui**	**69.36**	**180**	P	**P**	**12 22 42.2**	**-0.2**
	comp=Z,1.6nm,1.0s,baz=81,slow=1.3,SNR=5.1						
	comp=Z,1.6nm,1.0s						
TORD	**Torodi Ar. Bea**	**77.10**	**70**	P	**P**	**12 23 26.4**	**-2.3**
	comp=Z,0.4nm,0.4s,baz=259,slow=4.8,SNR=3.9						
	comp=Z,0.4nm,0.4s						
MKAR	**Makanchi Array**	**145.07**	**35**	PKPbc	**PKPbc**	**12 31 10.3**	**-0.8**
	comp=Z,1.2nm,0.7s,baz=311,slow=2.9,SNR=8.1						

*BEO **09** 12:17:30.9±0.4,43˚.31N×17˚.95E,h9km±3km,ML2.2/9*
*PDG **09** 12:17:31.0±0.3,43˚.26N×17˚.98E,h5km±1km,ML2.5/13, Error ellipse: s-maj=0.4km s-min=0.6km az=0.0*

ISC 09 12:17:30.6±1.1,43˚.29N±0˚.02×17˚.97E±0˚.02,h4km±10km, n38,σ0^{s}97/75,6C-5D,Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STON	**Ston**	**0.47**	**206**	*i* Pg	**Pg**	**12 17 39.5**	**-0.1**
STON				Sg	**Sg**	**12 17 46.6**	**+1.0**
STON	**Ston**	**0.47**	**206**	*e*Pg	**Pg**	**12 17

BARS *e*Sn **Sn** **12 18 50.8 -1.0**

*JSO **09** 12:26:05.9±1.2,30°N×3°×3°5E±1°1,h5km, M1.9/7, MLv1.9/7*

GII 09 12:25:49.9±0.0,29°793N×0°002×36°311E±0°001,h0km, confirmed,Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HRFI	**Mount Harif**	**1.13**	**283**	P	Pb	12 26 12.6	+0.2
HRFI				AML	AML		
HRFI	**Mount Harif**	**1.13**	**283**	P	Pg	12 26 11.3	-0.3
HRFI				S	Sb	12 26 27.9	+0.3
EIL	**Elat**	**1.19**	**264**	P	Pb	12 26 13.5	+0.2
EIL				AML	AML		
EIL	**Elat**	**1.19**	**264**	P	Pg	12 26 12.3	-0.4
EIL				S	Sb	12 26 29.9	+0.6
PRNI	**Paran**	**1.26**	**297**	P	Pg	12 26 14.0	-0.1
PRNI				AML	AML		
IDAN	**Idan**	**1.37**	**319**	P	Pg	12 26 15.3	-0.9
IDAN				S	Sb	12 26 34.7	+0.2
GHAJ	**Ghor Haditha**	**1.64**	**337**	P	Sn	12 26 41.2	-0.5
GHAJ	**Ghor Haditha**	**1.64**	**337**	P	Pn	12 26 18.9	-1.1
GHAJ				S	Sn	12 26 41.3	-0.4
MSBI	**Mazada**	**1.72**	**332**	P	Pn	12 26 20.6	-0.5
MSBI				S	Sn	12 26 43.2	-0.6

*IDC **09** 12:40:24.9±1.6,54°.54N×159°.89W,h0km, mb3.7/4, mbtmp3.5/7,ML3.3/3,MS3.6/2,Error ellipse: s-maj=33.2km s-min=17.1km az=151.0*

*NEIC **09** 12:40:26.8±1.5,54°.22N±0°.05×159°.90W±0°.07,h18km±6km, mb3.5/11,ML3.4/28,ML3.2(AEIC),Error ellipse: s-maj=8.3km s-min=5.1km az=154.0*

*AEIC **09** 12:40:28.5±1.9,54°.29N±0°.04×159°.94W±0°.07,h16km±5km, Error ellipse: s-maj=5.7km s-min=5.5km az=162.0*

ISC 09 12:40:26.6±1.8,54°29N±0°06×159°84W±0°04, h16km±10km,n106,σ1°07/113,mb3.7/6,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.55**	**15**		**Pn**	**12 40 39.9**	**+0.1**
CNBA					**Sn**	**12 40 48.9**	**+0.3**
CNBA	comp=E,2µm,0.5s			IAML		12 40 49.3	
CNBA	comp=N,3µm,0.5s			IAML		12 40 49.4	
CHNA	**Chernabura Isl**	**0.56**	**15**	P	**Pn**	**12 40 39.6**	**-0.3**
CHNA	**Chernabura Isl**	**0.56**	**15**	S	**Sn**	**12 40 48.9**	**0.0**
SDPT	**Sand Point**	**1.12**	**341**	P	**Pg**	**12 40 48.1**	**-0.2**
SDPT	**Sand Point**	**1.12**	**341**	S	**Sg**	**12 41 03.6**	**+0.6**
SDPT	**Sand Point**	**1.12**	**341**		**Pg**	**12 40 48.4**	**+0.1**
SDPT					**Sg**	**12 41 03.9**	**+1.0**
SDPT	comp=N,766nm,0.7s			IAML		12 41 11.5	
DOL	**Dolgoi Island**	**1.46**	**307**		**Pb**	**12 40 52.7**	**-0.6**
DOL					**Sb**	**12 41 11.1**	**-0.5**
PS4A	**Pavlof South-4**	**1.58**	**313**		**Pb**	**12 40 55.0**	**-0.4**
PS4A					**Pg**	**12 40 55.3**	**-1.6**
PS4A					**Sb**	**12 41 14.9**	**-0.1**
HAG	**Hague Volcano**	**1.58**	**312**		**Pb**	**12 40 55.1**	**-0.3**
PS1A	**Pavlof South-1**	**1.58**	**317**		**Pb**	**12 40 55.0**	**-0.5**
PS1A					**Sb**	**12 41 15.5**	**+0.4**
DT1	**Dutton Round H**	**1.64**	**301**		**Pn**	**12 40 55.1**	**+0.4**
DT1					**Sn**	**12 41 15.2**	**-0.2**
DTNA	**Dutton South F**	**1.64**	**303**		**Pb**	**12 40 55.6**	**-0.9**
DTNA					**Sb**	**12 41 16.4**	**-0.6**
PN7A	**Pavlof North-7**	**1.69**	**313**		**Pb**	**12 40 57.1**	**-0.2**
PN7A					**Sb**	**12 41 18.4**	**-0.1**
VNKR	**Veniaminof 5**	**1.77**	**9**		**Pb**	**12 40 58.2**	**-0.4**
VNWF	**Veniaminof 8**	**1.87**	**5**		**Pb**	**12 41 00.1**	**-0.4**
S12K	**Black Hills**	**1.91**	**319**	Pn	**Pn**	**12 40 58.3**	**-0.2**
S12K					**Sb**	**12 41 24.0**	**-0.6**
S12K	comp=N,401nm,0.7s			IAML		12 41 37.9	
VNSS	**Veniaminof 8**	**1.95**	**6**		**Pb**	**12 41 01.3**	**-0.5**
VNFG	**Fog Glacier, M**	**2.01**	**5**	Pn	**Pn**	**12 41 01.2**	**+1.3**
CHGN	**Chignik**	**2.17**	**21**	Pn	**Pn**	**12 41 03.0**	**+0.9**
CHGN				Sn	**Sn**	**12 41 30.5**	**+1.8**
CHGN	comp=N,195nm,0.7s			IAML		12 41 46.0	
ISLZ	**Isanotski Laza**	**2.30**	**283**		**Pn**	**12 41 05.0**	**+1.1**
SSLS	**Shishaldin Sou**	**2.46**	**282**		**Pn**	**12 41 07.9**	**+1.7**
WESP	**Westdahl Peak**	**2.86**	**276**		**Pn**	**12 41 13.2**	**+1.5**
CHIR	**Chirikof Islan**	**2.87**	**56**	Pn	**Pn**	**12 41 11.4**	**-0.3**
CHIR	comp=N,118nm,1.5s			IAML		12 41 48.7	
CHIR	comp=E,194nm,1.5s			IAML		12 42 20.7	
WECS	**Westdahl Cape**	**2.90**	**277**	Pn	**Pn**	**12 41 10.2**	**-1.8**
WECS				Sn	**Sn**	**12 41 44.9**	**-1.7**
WECS	comp=N,194nm,1.1s			IAML		12 41 45.6	
WECS	comp=E,120nm,1.5s			IAML		12 43 02.8	
AKUT	**Akutan**	**3.49**	**270**	Pn	**Pn**	**12 41 19.1**	**-1.0**
AKUT	comp=E,61nm,1.5s			IAML		12 41 57.9	
AKUT	comp=N,76nm,1.5s			IAML		12 42 04.2	
AKBBA	**Akutan Broad B**	**3.58**	**269**		**Pn**	**12 41 22.9**	**+1.5**
AKMO	**Akutan Morgan**	**3.63**	**269**		**Pn**	**12 41 22.9**	**+0.8**
AKMO					**Sn**	**12 42 04.3**	**-0.2**
LVA	**Lava Point**	**3.64**	**270**	Pn	**Pn**	**12 41 22.4**	**+0.1**
R17L	**Mt. Peulik Vol**	**3.88**	**29**		**Pn**	**12 41 27.7**	**+2.2**
SII	**Sitkinak Islan**	**3.94**	**52**	Pn	**Pn**	**12 41 27.2**	**+0.8**
UNV	**Unalaska Valle**	**3.95**	**266**	P	**Pn**	**12 41 27.2**	**+0.7**
UNV	**Unalaska Valle**	**3.95**	**266**	S	**Sn**	**12 42 12.7**	**+0.2**
UNV	**Unalaska Valle**	**3.95**	**266**	Pn	**Pn**	**12 41 27.8**	**+1.3**
PLK1	**Peulik 1**	**3.96**	**26**		**Pn**	**12 41 28.6**	**+2.0**
PLK5	**Peulik 5**	**4.07**	**23**		**Pn**	**12 41 29.4**	**+1.3**
MSW	**Makushin Switc**	**4.11**	**268**		**Pn**	**12 41 29.5**	**+0.9**
MGOD	**Makushin Gods**	**4.18**	**266**		**Pn**	**12 41 30.9**	**+1.3**
CAHL	**Cahill**	**4.54**	**32**		**Pn**	**12 41 35.9**	**+1.2**
Q17K	**Contact Creek**	**4.55**	**27**		**Pn**	**12 41 36.1**	**+1.2**
ANCK	**Angle Creek**	**4.61**	**30**		**Pn**	**12 41 37.0**	**+1.5**
ACHA	**Angle Creek He**	**4.67**	**31**	Pn	**Pn**	**12 41 37.9**	**+1.5**
P16K	**Nushagak River**	**4.86**	**11**	Pn	**Pn**	**12 41 41.0**	**+2.0**
O15K	**Ungalikthiuk R**	**4.90**	**0**	Pn	**Pn**	**12 41 40.6**	**+1.1**
O15K	comp=E,24nm,1.5s			IAML		12 43 25.9	
KAWH	**Katmai**	**4.97**	**32**		**Pn**	**12 41 41.4**	**+0.9**
O14K	**Tigyukauivet M**	**5.04**	**352**	Pn	**Pn**	**12 41 42.3**	**+0.9**
O14K	comp=E,21nm,1.0s			IAML		12 43 22.6	
O14K	comp=N,21nm,1.5s			IAML		12 44 06.1	
KDAK	**Kodiak Island**	**5.37**	**46**	Pn	**Pn**	**12 41 45.7**	**-0.2**
KDAK	comp=N,0.5nm,0.3s,baz=190,slow=3.1,SNR=9.9 comp=N,0.4nm,0.3s,baz=278,slow=7.1,SNR=1.8 comp=N,3.2nm,0.4s			Sn	**Sn**	**12 42 42.8**	**-4.5**
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.37**	**46**		**Pn**	**12 41 46.6**	**+0.8**
O16K	**Kokwok River B**	**5.40**	**9**	Pn	**Pn**	**12 41 46.0**	**-0.4**
N14K	**Kuskokwak Cree**	**5.74**	**351**	Pn	**Pn**	**12 41 52.6**	**+1.6**
Q19K	**Cape Douglas,**	**5.77**	**34**	Pn	**Pn**	**12 41 52.4**	**+0.9**
N15K	**Kwethluk River**	**5.90**	**359**	Pn	**Pn**	**12 41 54.1**	**+0.9**
N17K	**Nushagak Hills**	**6.42**	**12**	Pn	**Pn**	**12 42 00.7**	**+0.3**
M16K	**Timber Creek**	**6.77**	**4**	Pn	**Pn**	**12 42 06.6**	**+1.4**
K15K	**Wolf Creek Mou**	**8.08**	**354**	Pn	**Pn**	**12 42 22.7**	**-0.4**
L18K	**Granite Mounta**	**8.12**	**10**	Pn	**Pn**	**12 42 23.4**	**-0.3**
M20K	**Styx River**	**8.40**	**22**	Pn	**Pn**	**12 42 26.9**	**-0.6**
K17K	**Iditarod**	**8.49**	**5**	Pn	**Pn**	**12 42 28.4**	**-0.4**
KNK	**Knik Glacier**	**9.36**	**36**	Pn	**Pn**	**12 42 41.1**	**+0.4**
HIN	**Hinchinbrook I**	**9.45**	**44**	Pn	**Pn**	**12 42 42.4**	**+0.5**
I17K	**Unalakleet**	**9.64**	**358**	Pn	**Pn**	**12 42 43.5**	**-0.9**
EYAK	**Cordova Ski Ar**	**9.84**	**45**	P	**Pn**	**12 42 48.0**	**+0.8**
EYAK	**Cordova Ski Ar**	**9.84**	**45**	Pn	**Pn**	**12 42 47.0**	**-0.2**
KLU	**Klutina**	**10.32**	**40**	Pn	**Pn**	**12 42 54.0**	**+0.1**
YAH	**Yahtse**	**11.49**	**51**	Pn	**Pn**	**12 43 09.2**	**-0.8**
GRNC	**Granite Creek**	**11.64**	**49**	Pn	**Pn**	**12 43 12.0**	**-0.1**
LOGN	**Logan Glacier**	**12.02**	**49**	Pn	**Pn**	**12 43 15.3**	**-1.9**
PCA	**Pinnacle**	**12.08**	**53**	Pn	**Pn**	**12 43 16.3**	**-1.7**
COLA	**College**	**12.20**	**25**	P	**Pn**	**12 43 21.5**	**+2.1**
PNL	**Peninsula**	**12.36**	**56**	P	**Pn**	**12 43 23.5**	**+1.8**
ILAR	**Eielson Array**	**12.36**	**27**	Pn	**Pn**	**12 43 19.8**	**-1.9**
ILAR	comp=N,0.1nm,0.3s,baz=214,slow=12,SNR=5.1 comp=N,0.1nm,0.3s,baz=188,slow=18,SNR=4.0			Sn	**Sn**	**12 45 36.2**	**-2.8**
ILAR	comp=N,0.3nm,0.8s			AML	AML		
DOT	**Dot Lake**	**12.38**	**34**	Pn	**Pn**	**12 43 21.4**	**-0.6**
F20K	**Avaraart Lake**	**12.96**	**7**	Pn	**Pn**	**12 43 30.3**	**+0.5**
M29M	**Somme Creek**	**13.81**	**45**	Pn	**Pn**	**12 43 41.7**	**+0.1**
G24K	**Hadweenzic Riv**	**13.82**	**21**	Pn	**Pn**	**12 43 42.1**	**+0.6**
O30N	**Mendenhall**	**14.26**	**53**	Pn	**Pn**	**12 43 47.5**	**-0.1**
D22K	**Ayikyak River**	**15.01**	**10**	Pn	**Pn**	**12 43 58.0**	**+0.2**
D22K	comp=Z,2.4nm,1.0s			IAmb	IAmb	12 44 04.1	
TOLK	**Toolik Lake Re**	**15.18**	**14**	Pn	**Pn**	**12 44 00.0**	**0.0**
D23K	**Nanushuk River**	**15.33**	**13**	Pn	**Pn**	**12 44 01.5**	**-0.5**
F26K	**Sheenjek River**	**15.37**	**23**	Pn	**Pn**	**12 44 03.4**	**+0.8**
I30M	**Mount Dempster**	**15.99**	**38**	Pn	**Pn**	**12 44 10.8**	**+0.1**
I30M	comp=Z,5.4nm,0.9s			IAmb	IAmb	12 44 28.2	
D25K	**Kavik River**	**16.30**	**17**	Pn	**Pn**	**12 44 14.8**	**+0.3**
G29M	**Pine Creek**	**16.44**	**31**	Pn	**Pn**	**12 44 17.1**	**+0.7**
G29M	comp=Z,1.9nm,0.8s			IAmb	IAmb	12 44 35.4	
C26K	**Camden Bay**	**17.07**	**18**	P	**P**	**12 44 25.9**	**0.0**
F30M	**Barrier River**	**17.56**	**31**	P	**P**	**12 44 31.4**	**0.0**
F30M	comp=Z,4.0nm,0.9s			IAmb	IAmb	12 44 37.4	
INK	**Inuvik**	**18.66**	**31**	P	**P**	**12 44 42.9**	**-0.6**
INK	comp=Z,0.2nm,0.3s,baz=212,slow=9.8,SNR=5.0 comp=Z,0.7nm,0.4s			AML	AML		
INK	**Inuvik**	**18.66**	**31**	P	**P**	**12 44 43.8**	**+0.4**
INK	comp=Z,1.1nm,0.7s			IAmb	IAmb	12 44 45.6	
C36M	**Paulatuk**	**22.15**	**33**	P	**P**	**12 45 22.5**	**+1.2**
C36M	comp=Z,2.3nm,0.7s			IAmb	IAmb	12 45 32.9	
A36M	**Sachs Harbour**	**23.07**	**27**	P	**P**	**12 45 30.6**	**-0.3**
PEA0B	**Petropavlovsk-**	**24.89**	**285**	P	**P**	**12 45 47.9**	**-0.5**
PETK	**Petropavlovsk-**	**24.89**	**285**	P	**P**	**12 45 49.2**	**+0.9**
	comp=Z,1.2nm,0.8s,baz=72,slow=9.5,SNR=11 comp=Z,1.2nm,0.8s						
PETK	**Petropavlovsk-**	**24.89**	**285**	P	**P**	**12 45 47.9**	**-0.5**
H11N2	**WAKE ISLAND Hy**	**42.81**	**229**	T	T	13 34 24.3	
	baz=28,slow=76,SNR=40						
H11N3	**WAKE ISLAND Hy**	**42.81**	**229**	T	T	13 34 27.9	
	baz=28,slow=76,SNR=36						
H11N1	**WAKE ISLAND Hy**	**42.82**	**229**	T	T	13 34 23.0	
	baz=28,slow=76,SNR=28						
H11S1	**WAKE ISLAND Hy**	**43.97**	**229**	T	T	13 35 40.5	
	baz=28,slow=76,SNR=24						
H11S2	**WAKE ISLAND Hy**	**43.98**	**229**	T	T	13 35 45.2	
	baz=28,slow=76,SNR=17						
H11S3	**WAKE ISLAND Hy**	**43.98**	**229**	T	T	13 35 42.5	
	baz=28,slow=76,SNR=13						
TXAR	**Lajitas Array**	**47.17**	**98**	P	**P**	**12 48 59.2**	**+0.9**
	comp=Z,0.3nm,0.7s,baz=309,slow=2.2,SNR=4.3 comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**47.17**	**98**	P	**P**	**12 48 58.9**	**+0.6**
TLY	**Talaya**	**53.66**	**310**	LR	LR	13 15 59.5	
	comp=Z,55nm,19.8s,baz=158,slow=40						
BORG	**Borgarnes**	**57.08**	**20**	LR	LR	13 17 24.7	
	comp=Z,50nm,20.0s,baz=87,slow=39						
FINES	**FINESS Array B**	**64.52**	**357**	P	**P**	**12 51 02.9**	**+0.9**
	comp=Z,4.2nm,1.1s,baz=357,slow=7.9,SNR=3.4 comp=Z,4.2nm,1.1s						
MKAR	**Makanchi Array**	**66.40**	**318**	P	**P**	**12 51 14.2**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=39,slow=7.6,SNR=3.6 comp=Z,0.4nm,0.7s						
MKAR	**Makanchi Array**	**66.40**	**318**	P	**P**	**12 51 14.4**	**-0.1**
AB31	**Akbulak array**	**71.53**	**334**	P	**P**	**12 51 46.6**	**+0.3**
AB31	comp=Z,0.6nm,0.9s			IAmb	IAmb	12 51 58.0	
ABKAR	**Akbulak array**	**71.53**	**334**	P	**P**	**12 51 46.2**	**0.0**

*IDC **09** 12:56:23.5±1.6,6°.25N×126°.69E,h100km±13km, mb3.7/11, mbtmp4.1/13,MS3.5/1,Error ellipse: s-maj=40.1km s-min=10.7km az=64.0*

*DJA **09** 12:56:24.0±0.4,6°N±3°×12°7E±°,h10km,M4.6/17, mb4.9/17,mB5.1/6,MLv4.7/12,Mw(mB)4.4/6,MwMwp4.5/1, Mwp4.9/1*

*MAN **09** 12:56:24.0,6°.33N×126°.74E,h83km,MS3.8*

*NEIC **09** 12:56:24.3±1.0,6°.32N±0°.08×126°.83E±0°.06,h102km±7km, mb4.4/28,Error ellipse: s-maj=13.2km s-min=6.0km az=209.0*

ISC 09 12:56:23.3±0.8,6°31N±0°04×126°80E±0°06,h98km±7km, n85,σ1°31/107,mb4.3/23,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**1.10**	**259**	*eP*	**Pn**	**12 56 43.5**	**-1.2**
DDMP				*eS*	**Sn**	**12 56 59.0**	**-1.9**
DAV	**Davao City (W)**	**1.43**	**302**	P	**Pn**	**12 56 48.6**	**+0.1**
DAV	1µm,0.3s,baz=210,slow=2.9,SNR=15 4µm,0.6s,baz=96,slow=18,SNR=9.9			S	**Sn**	**12 57 06.6**	**-1.1**
DAV	comp=Z,602nm,21.2s,baz=170,slow=46			LR	LR	12 57 26.0	
DAV	**Davao City (W)**	**1.43**	**302**		**Pn**	**12 56 49.4**	**+0.8**
DAV				Sn	**Sn**	**12 57 09.9**	**+2.2**
DAV	**Davao City (W)**	**1.43**	**302**	P	**Pn**	**12 56 49.6**	**+1.0**
DAV				S	**Sn**	**12 57 08.3**	**+0.6**
DAV				AML	AML		
DAV	**Davao City (W)**	**1.43**	**302**	P	**Pn**	**12 56 45.0**	**-3.6**
DMPH	**Davao City--Mi**	**1.49**	**301**	*eP*	**Pn**	**12 56 49.9**	**+0.5**
DMPH				*i* S	**Sn**	**12 57 07.8**	**-1.4**
CDOP	**Cateel, Davao**	**1.51**	**346**	*i* P	**Pn**	**12 56 49.5**	**-0.1**
CDOP				*eS*	**Sn**	**12 57 08.1**	**-1.4**
KCP	**Kidapawan**	**1.83**	**292**	*i* P	**Pn**	**12 56 53.5**	**-0.2**
KCP				*i* S	**Sn**	**12 57 17.3**	**+0.3**
GSPH	**General Santos**	**1.85**	**263**	*i* P	**Pn**	**12 56 51.2**	**-2.8**
GSPH				*i* S	**Sn**	**12 57 13.1**	**-4.4**
BIPH	**Bislig**	**1.91**	**347**	*i* P	**Pn**	**12 56 54.7**	**0.0**
BIPH				*eS*	**Sn**	**12 57 17.9**	**-0.7**
BUKP	**Musuan**	**2.32**	**312**	*i* P	**Pn**	**12 57 00.9**	**+0.8**
BUKP				*i* S	**Sn**	**12 57 26.6**	**-1.7**
CTBH	**Cotabato--PC H**	**2.69**	**290**	*i* P	**Pn**	**12 57 06.0**	**+1.1**
CTBH				*i* S	**Sn**	**12 57 42.6**	**+5.7**
TSSP	**Tandag City**	**2.78**	**348**	*eP*	**Pn**	**12 57 06.4**	**+0.3**
TSSP				*eS*	**Sn**	**12 57 37.2**	**-1.8**
CGP	**Cagayan de Oro**	**2.98**	**316**	*eP*	**Pn**	**12 57 09.9**	**+1.1**
CGP				*i* S	**Sn**	**12 57 45.4**	**+1.6**
PAGZ	**Pagadian**	**3.72**	**294**	*i* P	**Pn**	**12 57 19.2**	**+0.5**
LSIP	**Lazi, Siquijor**	**4.21**	**312**	*i* P	**Pn**	**12 57 25.6**	**+0.3**
LSIP				*i* S	**Sn**	**12 58 13.1**	**-0.4**
TBP	**Tagbilaran**	**4.44**	**319**	*eP*	**Pn**	**12 57 29.0**	**+0.5**
TBP				*eS*	**Sn**	**12 58 17.9**	**-1.2**
GAMI	**Galela, Maluku**	**4.55**	**167**	P	**Pn**	**12 57 31.6**	**+1.6**
GAMI				S	**Sn**	**12 58 23.1**	**+1.3**
GAMI				AML	AML		
SNPH	**Sibulan**	**4.64**	**311**	*eP*	**Pn**	**12 57 32.9**	**+1.7**
SNPH				*eS*	**Sn**	**12 58 24.5**	**+0.5**
LLP	**Lapu-Lapu**	**4.87**	**325**	*eP*	**Pn**	**12 57 37.8**	**+3.5**
LLP				*eS*	**Sn**	**12 58 26.4**	**-3.1**
PLP	**Palo**	**5.15**	**340**	*eP*	**Pn**	**12 57 40.6**	**+2.5**
MNI	**Manado**	**5.21**	**202**	P	**Pn**	**12 57 37.7**	**-1.3**
MNI				AML	AML		
TNTI	**Ternate**	**5.53**	**174**		**Pn**	**12 57 43.9**	**+0.6**
TNTI	**Ternate**	**5.53**	**174**	P	**Pn**	**12 57 43.8**	**+0.6**
	0.3nm982nm113nm,1.1s						
TNTI				AML	AML		
KMSI	**Cibinong**	**6.35**	**206**	P	**Pn**	**12 57 54.8**	**+0.4**
	0.8nm127nm,1.0s						
KMSI				AML	AML		
GTOI	**Gorontalo**	**6.79**	**214**	P	**Pn**	**12 58 00.0**	**-0.3**
	0.3nm878nm84nm,0.5s						
GTOI				AML	AML		
TOLI2	**Tolitoli**	**7.92**	**230**		**Pn**	**12 58 14.0**	**-1.7**
LUWI	**Luwuk**	**8.34**	**209**	Pn	**Pn**	**12 58 22.6**	**+1.2**
LUWI	**Luwuk**	**8.34**	**209**	P	**Pn**	**12 58 23.7**	**+2.3**
	72nm,0.9s						
SANI	**Sanana**	**8.34**	**186**	P	**Pn**	**12 58 19.8**	**-1.7**
	35nm,0.8s						
SIJI	**Sorong**	**8.41**	**148**	P	**Pn**	**12 58 22.4**	**-0.1**
	4.6nm,0.5s,baz=348,slow=20,SNR=1.3						
SIJI	**Sorong**	**8.41**	**148**	P	**Pn**	**12 58 25.3**	**+2.8**
APSI	**Ampana**	**8.82**	**216**	P	Pn	12 58 34.6	+6.5
NLAI	**Namlea**	**9.49**	**178**	P	**Pn**	**12 58 36.3**	**-0.9**
TTSI	**Tana Toraja**	**11.62**	**217**	P	**Pn**	**12 59 06.6**	**+0.6**
	17nm,0.7s						
MMRI	**Maumere**	**15.53**	**197**	Pn	**Pn**	**12 59 56.2**	**-0.7**
MMRI				IAmb	IAmb	12 59 57.9	
	comp=Z,43nm,1.2s						
BATI	**Baumata**	**16.70**	**191**	P	**Pn**	**13 00 11.7**	**+0.2**
	comp=Z,37nm,0.5s,baz=359,slow=4.1,SNR=5.3						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MTN	**Manton Dam**	**19.51**	**167**	P	**P**	**13 00 42.7**	**-0.3**
KNRA	**Kununurra**	**21.93**	**175**	P	**P**	**13 01 09.2**	**+0.3**
KNRA	comp=Z,9.0nm,0.7s			IAmb	IAmb	13 01 10.8	
FITZ	**Fitzroy Crossi**	**24.28**	**183**	P	**P**	**13 01 31.7**	**+0.2**
JSU	**Suzuyama**	**25.30**	**7**	P	**P**	**13 01 40.9**	**+0.1**
WB0	**Warramunga Arr**	**26.97**	**164**	P	**P**	**13 01 55.7**	**-0.2**
WRA	**Warramunga Arr**	**27.12**	**164**	P	**P**	**13 01 56.9**	**-0.4**
WRA	comp=Z,1.0nm,0.8s,baz=345,slow=10,SNR=12			ScP	**ScP**	**13 08 46.0**	**-1.5**
	comp=Z,0.3nm,0.8s,baz=340,slow=2.8,SNR=2.9 comp=Z,1.0nm,0.8s						
WRA	**Warramunga Arr**	**27.12**	**164**	P	**P**	**13 01 56.3**	**-1.0**
MBWA	**Marble Bar**	**28.17**	**194**	P	**P**	**13 02 07.2**	**+0.6**
MBWA	comp=Z,21nm,1.2s			IAmb	IAmb	13 02 24.8	
CMAR	**Chiang Mai Arr**	**29.71**	**297**	PcP	**PcP**	**13 05 22.3**	**-0.1**
	comp=Z,0.2nm,0.3s,baz=160,slow=0.8,SNR=4.4						
CMAR	**Chiang Mai Arr**	**29.71**	**297**	P	**P**	**13 02 20.4**	**+0.1**
AS31	**Alice Springs**	**30.59**	**167**	P	**P**	**13 02 28.1**	**0.0**
ASAR	**Alice Springs**	**30.59**	**167**	P	**P**	**13 02 27.8**	**-0.3**
ASAR	comp=Z,0.8nm,0.5s,baz=343,slow=7.0,SNR=37			PcP	**PcP**	**13 05 24.5**	**-0.1**
ASAR	comp=Z,0.6nm,0.7s,baz=350,slow=3.3,SNR=5.3			ScP	**ScP**	**13 08 57.6**	**-0.8**
	comp=Z,0.5nm,1.0s,baz=338,slow=2.7,SNR=2.5 comp=Z,0.8nm,0.5s						
ASAR	**Alice Springs**	**30.59**	**167**	P	**P**	**13 02 27.3**	**-0.8**
ASAR					**PcP**	**13 05 23.8**	**-0.8**
GIRL	**Giralia**	**31.29**	**203**	P	**P**	**13 02 33.7**	**-0.5**
MORW	**Morawa**	**36.67**	**196**	P	**P**	**13 03 20.8**	**+0.1**
FORT	**Forrest**	**36.90**	**178**	P	**P**	**13 03 22.3**	**-0.3**
FORT	comp=Z,8.2nm,1.1s			IAmb	IAmb	13 03 33.6	
BBOO	**Buckleboo**	**39.89**	**168**	P	**P**	**13 03 47.8**	**+0.1**
BBOO	comp=Z,6.6nm,0.7s			IAmb	IAmb	13 03 48.6	
NWAO	**Narrogin (SRO)**	**40.07**	**193**	P	**P**	**13 03 49.4**	**+0.3**
STKA	**Stephens Creek**	**40.51**	**160**	P	**P**	**13 03 52.7**	**-0.1**
	comp=Z,4.1nm,0.9s,baz=346,slow=7.1,SNR=7.0 comp=Z,4.1nm,0.9s						
STKA	**Stephens Creek**	**40.51**	**160**	P	**P**	**13 03 52.6**	**-0.2**
SONM	**Songino Array**	**44.90**	**341**	P	**P**	**13 04 28.8**	**+0.6**
	comp=Z,0.5nm,0.4s,baz=157,slow=9.2,SNR=5.4 comp=Z,0.5nm,0.4s						
SONM	**Songino Array**	**44.90**	**341**	P	**P**	**13 04 27.5**	**-0.7**
SONM				IAmb	IAmb	13 04 31.2	
MKAR	**Makanchi Array**	**55.50**	**324**	P	**P**	**13 05 48.1**	**0.0**
	comp=Z,1.2nm,0.7s,baz=108,slow=4.0,SNR=4.6 comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**55.50**	**324**	P	**P**	**13 05 48.4**	**+0.2**
MKAR					**PcP**	**13 06 47.1**	**+0.1**
ZAA0	**Zalesovo Array**	**58.34**	**332**	P	**P**	**13 06 08.4**	**+0.4**
ZAA0	comp=Z,3.2nm,1.1s			IAmb	IAmb	13 06 12.9	
ZALV	**Zalesovo Beam**	**58.34**	**332**	P	**P**	**13 06 07.3**	**-0.8**
	comp=Z,0.4nm,0.3s,baz=92,slow=7.2,SNR=1.7 comp=Z,0.4nm,0.3s						
ZALV	**Zalesovo Beam**	**58.34**	**332**	P	**P**	**13 06 08.3**	**+0.3**
KURK	**Kurchatov**	**59.62**	**327**	P	**P**	**13 06 17.1**	**+0.1**
KURK	comp=Z,3.2nm,0.8s			IAmb	IAmb	13 06 18.2	
KURBB	**Kurchatov Arra**	**59.63**	**327**	P	**P**	**13 06 17.2**	**+0.3**
	comp=Z,1.8nm,0.7s,baz=128,slow=6.0,SNR=19 comp=Z,1.8nm,0.7s						
KKAR	**Karatay Array**	**61.42**	**316**	P	**P**	**13 06 29.5**	**+0.1**
BVAR	**Borovoye Array**	**65.22**	**326**	P	**P**	**13 06 53.7**	**-0.5**
	comp=Z,2.4nm,0.8s,baz=124,slow=7.4,SNR=7.6 comp=Z,2.4nm,0.8s						
BORK	**Borovoye**	**65.26**	**326**	P	**P**	**13 06 55.1**	**+0.6**
BORK	comp=Z,3.0nm,0.8s			IAmb	IAmb	13 06 55.6	
NRIK	**Noril'sk**	**67.96**	**346**	LR	LR	13 37 29.4	
	comp=Z,32nm,20.5s,baz=324,slow=36						
AB31	**Akbulak array**	**70.22**	**320**	P	**P**	**13 07 25.9**	**+0.2**
ABKAR	**Akbulak array**	**70.22**	**320**	P	**P**	**13 07 26.0**	**+0.3**
RAYN	**Ar Rayn**	**79.55**	**293**	P	**P**	**13 08 19.5**	**-0.6**
RAYN	comp=Z,4.2nm,1.1s			IAmb	IAmb	13 08 20.9	
PPLA	**Purkeypile**	**80.32**	**27**	P	**P**	**13 08 22.8**	**-0.7**
STLK	**Strandline Lak**	**80.37**	**29

*IDC **09** 13:10:36.7±4.6, 11°.60S×166°.30E, h68^{km}×33^{km}, mb3.7/7, mbtmp4.0/9, ML4.3/2, MS3.4/2, Error ellipse: s-maj=45.0km s-min=19.7km az=52.0*
*NEIC **09** 13:10:37.2±1.3, 11°.55S±0°.09×166°.31E±0°.09, h66^{km}±4^{km}, mb4.5/19, Error ellipse: s-maj=15.1km s-min=11.4km az=223.0*
*NOU **09** 13:10:38.5, 11°.82S×166°.00E, h36^{km}, ML4.8/11, Santa Cruz Islands*
ISC 09 13:10:35.9±0.6, 11°.55S±0°.09×166°.27E±0°.07, h59^{km}, n46, σ0^{s}.97/42, mb4.2/14, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**3.97**	**167**	P	**Pn**		**Pn**	**13 11 35.3**	**+1.0**
SANVU	**Saraoutou**	**3.97**	**167**		**Pn**		**Pn**	**13 11 34.6**	**+0.2**
HURO	**Huro Makira**	**4.42**	**284**	P	**Pn**		**Pn**	**13 11 40.5**	**0.0**
HURO	**Huro Makira**	**4.42**	**284**	S	**Sn**		**Sn**	**13 12 28.9**	**-1.9**
NGOA	**Tingoa Renbel**	**6.09**	**269**	P	**Pn**		**Pn**	**13 12 02.6**	**-0.7**
NGOA	**Tingoa Renbel**	**6.09**	**269**	S	**Sn**		**Sn**	**13 13 08.8**	**-2.8**
HNR	**Honiara**	**6.57**	**288**	P	**Pn**		**Pn**	**13 12 10.9**	**+1.0**
	14nm,0.3s,baz=165,slow=17,SNR=9.7								
HNR				S	**Sn**		**Sn**	**13 13 25.4**	**+1.9**
	28nm,0.8s,baz=17,slow=19,SNR=1.2								
	39nm,0.4s								
HNR				AML	AML				
HNR	**Honiara**	**6.57**	**288**	P	**Pn**		**Pn**	**13 12 11.4**	**+1.5**
HNR	**Honiara**	**6.57**	**288**		**Pn**		**Pn**	**13 12 11.1**	**+1.2**
SAVO	**Savo Central**	**6.79**	**290**	P	**Pn**		**Pn**	**13 12 14.7**	**+1.7**
TATA	**Tatamba Isabel**	**7.11**	**296**	P	**Pn**		**Pn**	**13 12 18.6**	**+1.3**
DZM	**Mont Dzumac**	**10.46**	**179**	P	**Pn**		**Pn**	**13 13 04.0**	**+0.7**
	1.0nm,0.3s,baz=356,slow=21,SNR=6.5								
	6.9nm,1.0s								
DZM				AML	AML				
FUTU	**Fugatoga**	**15.46**	**102**	P	**P**		**P**	**13 14 14.0**	**+0.2**
FUTU				IAmb	IAmb			13 14 30.8	
	comp=Z,97nm,1.2s								
CTA	**Charters Tower**	**21.03**	**244**	LR	LR			13 22 24.6	
	comp=Z,46nm,18.1s,baz=226,slow=34								
ARMA	**Armidale**	**23.18**	**214**	P			**P**	**13 15 38.1**	**+0.5**
ARMA				IAmb	IAmb			13 16 15.2	
	comp=Z,11nm,1.2s								
NIUE	**Niue**	**24.12**	**111**	P	**P**		**P**	**13 15 46.3**	**-0.1**
CAN	**Canberra**	**28.38**	**211**	P	**P**		**P**	**13 16 25.4**	**+0.7**
CAN				IAmb	IAmb			13 17 05.3	
	comp=Z,19nm,1.4s								
RTZ	**Ruatahuna**	**28.59**	**162**	P	**P**		**P**	**13 16 27.3**	**+0.7**
INKA	**Innaminka**	**28.84**	**232**	P	**P**		**P**	**13 16 29.8**	**+0.9**
H11S2	**WAKE ISLAND Hy**	**29.86**	**1**	T	T			13 48 16.3	
	baz=180								
H11S3	**WAKE ISLAND Hy**	**29.86**	**1**	T	T			13 48 09.1	
	baz=180								
H11S1	**WAKE ISLAND Hy**	**29.87**	**1**	T	T			13 48 19.5	
	baz=180								
STKA	**Stephens Creek**	**30.44**	**225**	P	**P**		**P**	**13 16 43.9**	**+1.0**
	comp=Z,1.3nm,0.6s,baz=37,slow=13,SNR=3.4								
	comp=Z,1.3nm,0.6s								
STKA	**Stephens Creek**	**30.44**	**225**	IAmb	IAmb			13 17 11.8	
	comp=Z,24nm,1.2s								
TUWZ	**Tuamarina**	**30.51**	**169**	P	**P**		**P**	**13 16 43.5**	**+0.1**
THZ	**Tophouse**	**30.65**	**170**	P	**P**		**P**	**13 16 45.4**	**+0.7**
THZ				IAmb	IAmb			13 16 58.3	
	comp=Z,3.0nm,0.7s								
WRAB	**Tennant Creek**	**31.79**	**251**	P	**P**		**P**	**13 16 54.9**	**-0.1**
WRAB				IAmb	IAmb			13 17 19.0	
	comp=Z,7.6nm,1.4s								
WRA	**Warramunga Arr**	**31.80**	**251**	P	**P**		**P**	**13 16 55.0**	**-0.1**
	comp=Z,1.0nm,0.9s,baz=84,slow=9.6,SNR=5.3								
	comp=Z,1.0nm,0.9s								
WRA	**Warramunga Arr**	**31.80**	**251**	P	**P**		**P**	**13 16 54.5**	**-0.6**
TOO	**Toolangi**	**31.91**	**212**	P	**P**		**P**	**13 16 55.5**	**-0.5**
TOO				IAmb	IAmb			13 17 04.7	
	comp=Z,3.5nm,1.2s								
RPZ	**Rata Peaks**	**32.31**	**174**	P	**P**		**P**	**13 16 59.3**	**0.0**
AS31	**Alice Springs**	**33.03**	**244**	P	**P**		**P**	**13 17 05.4**	**-0.5**
ASAR	**Alice Springs**	**33.03**	**244**	P	**P**		**P**	**13 17 05.5**	**-0.4**
	comp=Z,1.0nm,0.7s,baz=69,slow=9.8,SNR=18								
ASAR				PcP	**PcP**			**13 19 47.5**	**-1.1**
	comp=Z,0.3nm,0.9s,baz=66,slow=2.7,SNR=4.5								
	comp=Z,1.0nm,0.7s								
DCZ	**Deep Cove**	**33.80**	**179**	P	**P**		**P**	**13 17 11.7**	**-0.5**
DCZ				IAmb	IAmb			13 17 20.3	
	comp=Z,40nm,1.5s								
FITZ	**Fitzroy Crossi**	**39.75**	**256**	LR	LR			13 32 20.6	
	comp=Z,105nm,18.3s,baz=298,slow=33								
FITZ	**Fitzroy Crossi**	**39.75**	**256**	P	**P**		**P**	**13 18 03.6**	**+0.4**
MLOA	**Mauna Loa Obse**	**48.65**	**51**	P	**P**		**P**	**13 19 14.3**	**-0.5**
VNDA	**Vanda**	**66.00**	**181**	P	**P**		**P**	**13 21 15.5**	**-0.1**
	comp=Z,0.4nm,0.7s,baz=0.9,slow=4.7,SNR=5.3								
	comp=Z,0.4nm,0.7s								
VNDA	**Vanda**	**66.00**	**181**	P	**P**		**P**	**13 21 15.6**	**-0.1**
VNDA				IAmb	IAmb			13 21 18.0	
	comp=Z,3.6nm,1.4s								
CMAR	**Chiang Mai Arr**	**72.79**	**294**	P	**P**		**P**	**13 21 59.5**	**+0.8**
	comp=Z,1.2nm,0.8s,baz=122,slow=4.7,SNR=7.8								
	comp=Z,1.2nm,0.8s								
CMAR	**Chiang Mai Arr**	**72.79**	**294**	P	**P**		**P**	**13 21 57.9**	**-0.8**
SII	**Sitkinak Islan**	**75.36**	**21**	P	**P**		**P**	**13 22 11.9**	**-0.9**
QSPA	**South Pole Qui**	**78.45**	**180**	P	**P**		**P**	**13 22 29.5**	**-0.9**
	comp=Z,1.1nm,0.8s,baz=170,slow=1.2,SNR=7.5								
	comp=Z,1.1nm,0.8s								
QSPA	**South Pole Qui**	**78.45**	**180**	P	**P**		**P**	**13 22 29.5**	**-0.9**
QSPA				IAmb	IAmb			13 23 02.7	
	comp=Z,6.8nm,1.5s								
H21K	**Melozitna Rive**	**82.77**	**16**	P	**P**		**P**	**13 22 53.6**	**+0.4**
H21K				IAmb	IAmb			13 22 54.8	
	comp=Z,7.2nm,0.8s								
MKAR	**Makanchi Array**	**94.24**	**317**	P	**P**		**P**	**13 23 48.7**	**0.0**
	comp=Z,1.1nm,0.8s,baz=97,slow=6.2,SNR=7.4								
	comp=Z,1.1nm,0.8s								

*JSO **09** 13:26:28.6±1.3, 30°.N±6°.×3°.5E±°, h67^{km}±15^{km}, M2.3/7, MLv2.3/7*
GII 09 13:26:20.6±0.0, 29°.753N±0°.002×36°.245E±0°.001, h0^{km}, confirmed, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
HSNJ	**Maan**	**0.70**	**316**	P	Pn			13 26 42.4	+4.6
HSNJ				AML	AML				
AQBJ	**Aqaba**	**1.04**	**269**	P	Pn			13 26 42.2	-0.2
AQBJ				AML	AML				
HRFI	**Mount Harif**	**1.09**	**285**	P	Pb			13 26 42.4	+0.1
HRFI				AML	AML				
HRFI	**Mount Harif**	**1.09**	**285**	P	Pb			13 26 42.0	-0.2
HRFI				S	Sn			13 26 58.3	-0.5
EIL	**Elat**	**1.13**	**266**	P	Pn			13 26 43.5	-0.1
EIL				AML	AML				
EIL	**Elat**	**1.13**	**266**	P	Pb			13 26 43.0	+0.1
EIL				S	Sb			13 26 59.0	+0.8
PRNI	**Paran**	**1.23**	**299**	P	Pg			13 26 43.8	-0.3
PRNI				AML	AML				
IDAN	**Idan**	**1.37**	**322**	P	Pb			13 26 47.1	+0.1
IDAN				S	Sn			13 27 06.0	+0.3
RMNI	**Mount Ramon**	**1.54**	**304**	P	Pn			13 26 49.4	+0.1
RMNI				S	Sn			13 27 10.5	+0.5
GHAJ	**Ghor Haditha**	**1.65**	**339**	P	Pn			13 26 50.4	-0.4
GHAJ	**Ghor Haditha**	**1.65**	**339**	P	Pn			13 26 50.3	-0.5
GHAJ				S	Sb			13 27 13.0	-0.2
MSBI	**Mazada**	**1.73**	**334**	P	Pn			13 26 51.9	0.0
MSBI				S	Sn			13 27 15.0	+0.3
KZIT	**Kziot**	**1.97**	**306**	P	Pn			13 26 54.8	-0.4
KZIT				S	Sn			13 27 21.0	+0.4

*IDC **09** 13:30:49.1±0.8, 62°.12S×57°.68W, h0^{km}, mb3.9/7, mbtmp3.9/8, ML3.9/1, MS3.4/11, Error ellipse: s-maj=26.8km s-min=18.1km az=94.0*
*NEIC **09** 13:30:52.8±1.3, 62°.37S±0°.05×58°.1W±0°.1, h16^{km}±3^{km}, mb4.3/15, Error ellipse: s-maj=8.5km s-min=5.5km az=130.0*
ISC 09 13:30:51.5±0.5, 62°.30S±0°.06×58°.12W±0°.08, h10^{km}, n47, σ1^{s}.27/34, mb4.1/11, MS3.5/10, 4C, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.22**	**155**	P	Pn		**Pn**	**13 31 13.5**	**-1.0**
ESPZ					Sn		**Sb**	**13 31 30.6**	**+0.2**
PMSA	**Palmer Station**	**3.63**	**224**	P	Pn		**Pn**	**13 31 47.4**	**-0.3**
	7.9nm,0.3s,baz=48,slow=8.5,SNR=10.0								
PMSA					Sn		**Sb**	**13 32 38.6**	**-1.2**
	18nm,0.3s,baz=322,slow=9.4,SNR=3.6								
PMSA				LR	LR			13 33 09.2	
	comp=Z,259nm,19.7s,baz=18,slow=36								
	24nm,0.4s								
PMSA				AML	AML				
PMSA	**Palmer Station**	**3.63**	**224**		**Pn**			**13 31 47.1**	**-0.6**
SMAI	**San Martin Ant**	**6.96**	**209**	Pn	**Pn**			**13 32 33.9**	**+0.6**
EFI	**East Falkland**	**10.65**	**0**	Pn	**Pn**			**13 33 24.4**	**+0.5**
GO08	**Villa O'Higgin**	**16.05**	**323**	Pn	**Pn**			**13 34 38.2**	**+1.2**
GO08				IAmb	IAmb			13 34 58.8	
	comp=Z,24nm,1.3s								
BELA	**Belgrano 2**	**17.31**	**164**	Pn	**Pn**			**13 34 51.9**	**-0.9**
BELA				IAmb	IAmb			13 35 35.0	
	comp=Z,8.5nm,1.0s								
VNA3	**Neumayer Olymp**	**20.47**	**136**	⇑P	Pn			13 35 32.5	+1.4
	comp=Z,9.1nm,0.7s								
LL02	**Futaleuf**	**20.78**	**331**	P	**P**			**13 35 33.2**	**+0.8**
LL02				IAmb	IAmb			13 35 39.0	
	comp=Z,14nm,1.1s								
VNA2	**Neumayer--Watz**	**21.22**	**135**	⇑P	**P**			**13 35 40.2**	**+3.3**
	comp=Z,7.1nm,0.5s								
SNAA	**Sanae**	**22.65**	**138**	⇑P	**P**			**13 35 54.5**	**+2.2**
	comp=Z,160nm,0.8s								
SNAA	**Sanae**	**22.65**	**138**	P	**P**			**13 35 52.0**	**-0.4**
	comp=Z,6.1nm,0.8s,baz=258,slow=9.6,SNR=12								
SNAA				LR	LR			13 43 28.3	
	comp=Z,84nm,19.5s,baz=154,slow=34								
	comp=Z,6.1nm,0.8s								
SNAA	**Sanae**	**22.65**	**138**	P	**P**			**13 35 52.3**	**0.0**
SNAA				IAmb	IAmb			13 35 57.1	
	comp=Z,16nm,1.1s								
PLCA	**Paso Flores**	**22.86**	**335**	P	**P**			**13 35 53.2**	**-1.6**
	comp=Z,3.4nm,1.0s,baz=154,slow=8.3,SNR=8.3								
	comp=Z,3.4nm,1.0s								
PLCA	**Paso Flores**	**22.86**	**335**				**P**	**13 35 54.7**	**-0.1**
PLCA				IAmb	IAmb			13 36 00.2	
	comp=Z,6.5nm,1.0s								
LR05	**Currie**	**23.64**	**333**				**P**	**13 36 03.6**	**+1.0**
LR05				IAmb	IAmb			13 36 07.2	
	comp=Z,17nm,0.8s								
GO06	**Curarrehue**	**24.15**	**334**	P	**P**			**13 36 07.9**	**+0.2**
GO06				IAmb	IAmb			13 36 12.3	
	comp=Z,17nm,0.9s								
TROLL	**Troll, Antarti**	**24.29**	**139**	⇑P	**P**			**13 36 10.9**	**+2.3**
	comp=Z,232nm,0.9s								
QSPA	**South Pole Qui**	**27.93**	**180**	P	**P**			**13 36 42.2**	**+0.6**
	comp=Z,2.6nm,1.0s,baz=167,slow=2.8,SNR=8.6								
QSPA				LR	LR			13 48 12.2	
	comp=Z,59nm,19.6s,baz=234,slow=37								
	comp=Z,2.6nm,1.0s								
QSPA	**South Pole Qui**	**27.93**	**180**				**P**	**13 36 43.1**	**+1.5**
QSPA				IAmb	IAmb			13 37 04.9	
	comp=Z,3.9nm,0.9s								
CO02	**Combarbal**	**32.21**	**339**	P	**P**			**13 37 19.9**	**+0.3**
AC05	**El Transito**	**34.41**	**341**	P	**P**			**13 37 39.7**	**+0.8**
AC05				IAmb	IAmb			13 38 17.3	
	comp=Z,6.0nm,0.8s								
CPUP	**Villa Florida**	**35.97**	**1**	P	**P**			**13 37 49.9**	**-2.3**
	comp=Z,0.3nm,0.3s,baz=190,slow=15,SNR=3.0								
	comp=Z,0.3nm,0.3s								
VNDA	**Vanda**	**38.28**	**193**	P	**P**			**13 38 12.2**	**+0.9**
	comp=Z,0.5nm,1.0s,baz=210,slow=8.1,SNR=2.0								
	comp=Z,0.5nm,1.0s								
MAW	**Mawson**	**43.58**	**152**	P	**P**			**13 38 54.4**	**-0.5**
	comp=Z,1.6nm,0.8s,baz=189,slow=9.0,SNR=2.5								
MAW				LR	LR			13 55 44.9	
	comp=Z,84nm,20.7s,baz=271,slow=34								
	comp=Z,1.6nm,0.8s								
PB12	**IPOC Station P**	**44.47**	**343**	P	**P**			**13 39 03.1**	**+0.4**
LPAZ	**La Paz**	**46.50**	**347**	LR	LR			13 58 24.1	
	comp=Z,41nm,20.4s,baz=164,slow=36								
RPN	**Rapa Nui**	**48.56**	**292**	LR	LR			13 54 46.3	
	comp=Z,25nm,18.6s,baz=175,slow=30								
SUR	**Sutherland**	**56.83**	**97**	LR	LR			13 59 52.5	
	comp=Z,72nm,19.3s,baz=172,slow=31								
H10S3	**ASCENSION HYDR**	**61.85**	**50**	T	T			14 48 24.3	
	baz=18,slow=74,SNR=92								
H10S2	**ASCENSION HYDR**	**61.85**	**50**	T	T			14 48 22.0	
	baz=202,slow=74,SNR=81								
BOSA	**Boshof**	**62.05**	**99**	LR	LR			14 02 05.5	
	comp=Z,41nm,20.1s,baz=196,slow=30								
H10N3	**ASCENSION HYDR**	**62.93**	**50**	T	T			14 49 43.9	
	baz=202,slow=75,SNR=120								
H10N1	**ASCENSION HYDR**	**62.94**	**50**	T	T			14 49 44.1	
	baz=202,slow=75,SNR=139								
H10N2	**ASCENSION HYDR**	**62.95**	**50**	T	T			14 49 45.2	
	baz=202,slow=75,SNR=118								
MDP	**Montagnes des**	**67.34**	**6**	LR	LR			14 13 05.8	
	comp=Z,28nm,18.4s,baz=174,slow=38								
JTS	**Las Juntas de**	**75.32**	**333**	LR	LR			14 11 35.1	
	comp=Z,22nm,18.9s,baz=23,slow=32								
SANVU	**Saraoutou**	**94.75**	**223**	P	**P**			**13 44 12.8**	**-0.2**
WRA	**Warramunga Arr**	**97.44**	**192**	P	**P**			**13 44 25.1**	**-0.2**
	comp=Z,0.4nm,0.8s,baz=171,slow=4.0,SNR=1.5								
	comp=Z,0.4nm,0.8s								
WRA	**Warramunga Arr**	**97.44**	**192**	IAmb	IAmb			13 44 25.4	
	comp=Z,0.1nm,1.2s								
TKL	**Tuckaleechee C**	**99.79**	**339**	LR	LR			14 32 53.0	
	comp=Z,26nm,19.2s,baz=46,slow=37								
ILAR	**Eielson Array**	**142.61**	**315**	PKP			**PKPdf**	**13 50 23.3**	**+0.3**
	comp=Z,0.6nm,1.1s,baz=185,slow=1.1,SNR=4.2								
ARCES	**ARCESS Array B**	**144.03**	**37**	PKP			PKPab	13 50 22.1	-0.8
	comp=Z,5.0nm,0.8s,baz=262,slow=0.9,SNR=4.1								
BVAR	**Borovoye Array**	**151.68**	**85**	PKPbc			**PKPbc**	**13 50 44.0**	**-0.7**
	comp=Z,2.0nm,0.8s,baz=197,slow=4.5,SNR=5.5								
MKAR	**Makanchi Array**	**152.85**	**106**	PKPbc			**PKPbc**	**13 50 45.6**	**-2.0**
	comp=Z,0.9nm,0.8s,baz=204,slow=3.4,SNR=4.6								
KURBB	**Kurchatov Arra**	**153.89**	**96**	PKPbc			**PKPbc**	**13 50 48.2**	**-1.5**
	comp=Z,0.4nm,0.6s,baz=224,slow=3.5,SNR=2.4								
KURK	**Kurchatov**	**154.00**	**96**				**PKPbc**	**13 50 48.2**	**-1.7**

*SJA **09** 13:48:51.7±0.7, 22°.59S×69°.05W, h101^{km}±3^{km}, ML3.2, MW3.5*
*GUC **09** 13:48:52.4±0.9, 22°.57S×69°.03W, h104^{km}±4^{km}, ML3.3, Presumed earthquake*
ISC 09 13:48:52.6±1.3, 22°.56S±0°.03×69°.05W±0°.04, h102^{km}±8^{km}, n31, σ1^{s}.34/51, 1C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
PB06	**IPOC Station P**	**0.50**	**253**	*e*P	**Pn**			**13 49 08.7**	**-0.1**
PB06				*e*S	**Sn**			**13 49 21.3**	**+0.3**
PB06				IAML				13 49 21.6	
	comp=Z,1μm,0.1s								
PB06	**IPOC Station P**	**0.50**	**253**	*e*P	**Pn**			**13 49 08.3**	**-0.5**
PB06				*e*S	**Sn**			**13 49 20.6**	**-0.4**
PB06				IAML				13 49 21.7	
	comp=N,2μm,0.1s								
PB09	**IPOC Station P**	**0.78**	**347**	*e*P	**Pn**			**13 49 11.2**	**+0.1**
PB09				*e*S	**Sn**			**13 49 25.6**	**+0.6**
PB09				IAML				13 49 26.5	
	comp=Z,1μm,0.2s								
PB09	**IPOC Station P**	**0.78**	**347**	⇓*i*P			**Pn**	**13 49 11.4**	**+0.3**
PB09				*e*S			**Sn**	**13 49 25.1**	**+0.1**
PB09				IAML				13 49 27.2	
	comp=E,893nm,0.1s								
PB03	**IPOC Station P**	**0.82**	**308**	*e*P	**Pn**			**13 49 11.7**	**+0.2**
PB03				*e*S	**Sn**			**13 49 26.1**	**+0.3**
PB03	**IPOC Station P**	**0.82**	**308**	*i* P	**Pn**			**13 49 11.6**	**0.0**
PB03				*e*S	**Sn**			**13 49 25.9**	**+0.1**
AF01	**San Pedro de A**	**0.90**	**116**	*e*P	**Pn**			**13 49 12.4**	**0.0**
AF01				*e*S	**Sn**			**13 49 26.8**	**-0.5**
AF01				IAML				13 49 36.0	
	comp=Z,1μm,0.2s								
AF01	**San Pedro de A**	**0.90**	**116**	*e*P	**Pn**			**13 49 11.8**	**-0.6**
AF01				*e*S	**Sn**			**13 49 26.3**	**-1.0**
AF01				IAML				13 49 39.9	
	comp=E,2μm,0.3s								
PB05	**IPOC Station P**	**1.10**	**254**	*e*P	**Pn**			**13 49 14.4**	**-0.1**
PB05				*e*S	**Sn**			**13 49 32.2**	**+1.2**
PB05				IAML				13 49 32.7	
	comp=Z,456nm,0.3s								
PB05	**IPOC Station P**	**1.10**	**254**	*i* P	**Pn**			**13 49 14.4**	**-0.1**
PB05				*e*S	**Sn**			**13 49 30.8**	**-0.1**
PB05				IAML				13 49 34.5	
	comp=E,955nm,0.2s								
PB07	**IPOC Station P**	**1.13**	**317**	*e*P	**Pn**			**13 49 15.2**	**+0.4**
PB07				*e*S	**Sn**			**13 49 32.5**	**+1.0**
PB07	**IPOC Station P**	**1.13**	**317**	*i* P	**Pn**			**13 49 15.2**	**+0.4**
PB07				*e*S	**Sn**			**13 49 31.9**	**+0.3**
PB07				IAML				13 49 32.9	
	comp=N,2μm,0.3s								
PB02	**IPOC Station P**	**1.46**	**327**	*e*P	**Pn**			**13 49 19.3**	**+0.7**
PB02				*e*S	**Sn**			**13 49 39.1**	**+0.9**
PB02	**IPOC Station P**	**1.46**	**327**	⇑*i*P	**Pn**			**13 49 19.0**	**+0.4**
PB02				*e*S	**Sn**			**13 49 38.7**	**+0.4**
PB02				IAML				13 49 42.7	
	comp=E,1μm,0.1s								
PB10	**IPOC Station P**	**1.68**	**235**	*e*P	**Pn**			**13 49 21.1**	**-0.1**
PB10				*e*S	**Sn**			**13 49 42.9**	**-0.1**
PB10				IAML				13 49 50.3	
	comp=Z,136nm,0.3s								
PB10	**IPOC Station P**	**1.68**	**235**	*e*P	**Pn**			**13 49 20.8**	**-0.4**
PB10				*e*S	**Sn**			**13 49 42.3**	**-0.7**
PB10				IAML				13 49 49.8	
	comp=E,169nm,0.4s								
TA01	**Diego Aracena**	**2.24**	**332**	*e*P	**Pn**			**13 49 28.8**	**+0.4**
TA01				IAML				13 50 05.6	
	comp=Z,70nm,0.4s								
TA01	**Diego Aracena**	**2.24**	**332**	*e*P	**Pn**			**13 49 27.4**	**-1.0**
TA01				IAML				13 50 01.2	
	comp=E,227nm,0.3s								
PB08	**IPOC Station P**	**2.40**	**358**	*e*P	**Pn**			**13 49 32.5**	**+1.6**
PB08				IAML				13 50 07.7	
	comp=Z,47nm,0.2s								
PB08	**IPOC Station P**	**2.40**	**358**	*e*P	**Pn**			**13 49 31.6**	**+0.7**
PB08				IAML				13 50 07.2	
	comp=E,70nm,0.2s								
PB14	**IPOC Station P**	**2.41**	**211**	*e*P	**Pn**			**13 49 30.8**	**-0.1**
PB14				*e*S	**Sn**			**13 49 56.8**	**-3.3**
PB14				IAML				13 50 08.2	
	comp=Z,85nm,0.4s								
PB14	**IPOC Station P**	**2.41**	**211**	*i* P	**Pn**			**13 49 30.9**	**+0.1**
PB14				*i* S	**Sn**			**13 49 58.6**	**-1.5**
PB14				IAML				13 50 06.4	
	comp=E,51nm,0.4s								
TA02	**Huaiquique**	**2.49**	**336**	*e*S	**Sn**			**13 49 57.7**	**-3.8**
TA02				IAML				13 50 34.0	
	comp=Z,243nm,0.1s								
PB11	**IPOC Station P**	**2.84**	**348**	*e*P	**Pn**			**13 49 37.4**	**+1.0**
PB11				IAML				13 50 35.6	
	comp=Z,54nm,0.6s								
PB11	**IPOC Station P**	**2.84**	**348**	*e*P	**Pn**			**13 49 36.1**	**-0.3**
PB11				IAML				13 50 36.3	
	comp=N,127nm,0.4s								
GO01	**Chusmiza**	**2.88**	**357**	*e*P	**Pn**			**13 49 35.4**	**-1.9**
GO01				*e*S	**Sn**			**13 50 07.5**	**-4.0**
GO01				IAML				13 50 11.1	
	comp=Z,39nm,0.2s								
SALTA		**2.99**	**124**	*e*P	Pn			13 49 57.2	+18
SALTA				*e*S	**Sn**			**13 50 14.8**	**+0.5**
PSGCX	**Pisagua**	**3.11**	**341**	*e*P	**Pn**			**13 49 40.1**	**+0.1**
PSGCX				*e*S	Sn			13 50 06.0	-11
PSGCX				IAML				13 50 32.1	
	comp=Z,47nm,0.5s								
PB12	**IPOC Station P**	**4.10**	**343**	*e*P	**Pn**			**13 49 54.3**	**+1.0**
PB12				*e*S	Sn			13 50 59.8	+19
PB12				IAML				13 51 03.5	
	comp=Z,28nm,0.5s								
PB16	**IPOC Station P**	**4.22**	**354**	*e*P	**Pn**			**13 49 58.4**	**+3.1**
PB16				IAML				13 51 09.1	
	comp=Z,14nm,0.7s								
AC02	**Maricunga**	**4.26**	**181**	*e*P	**Pn**			**13 49 56.1**	**+0.3**
AC02				*e*S	**Sn**			**13 50 48.4**	**+3.6**
AC02				IAML				13 51 25.7	
	comp=Z,15nm,1.2s								

*VIE **09** 14:15:04.5±0.3, 50°.17N×18°.40E, h0^{km}, mb2.3/5, ml2.9/5, ml2.8/5, Error ellipse: s-maj=2.8km s-min=2.3km az=164.0 39 km NNE of Ostrava Suspected Mining induced.*
*IDC **09** 14:15:05.4±2.1, 50°.20N×18°.35E, h0^{km}, mbtmp3.7/2, ML2.9/2, Error ellipse: s-maj=38.2km s-min=13.0km az=134.0*
*IPEC **09** 14:15:05.4±0.1, 50°.09N×18°.44E, h1^{km}, ML2.7/6, Error ellipse: s-maj=1.6km s-min=0.7km az=165.0*
*PRU **09** 14:15:08.6, 50.05N×18.22E, h0^{km}*
ISC 09 14:15:04.0±0.7, 50°.15N±0°.03×18°.47E±0°.02, h0^{km}, n36, σ0^{s}.82/58, Poland

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	**0.38**	**214**	*e*PG	**Pg**			**14 15 12.0**	**+0.9**
OKC				*e*SG	**Sg**			**14 15 16.5**	**+0.5**
	comp=Z,196nm,0.5s								
OKC				AML	AML				
STEB	**Steborice**	**0.50**	**245**	*e*PG	**Pb**			**14 15 14.9**	**-0.7**
STEB				*e*SG	**Sg**			**14 15 20.3**	**+0.4**
	comp=Z,633nm,0.3s								
STEB				AML	AML				
MORC

0.8nm,0.2s
ZVC Zvikov 2.86 257 *e*PG **Pb 14 15 57.2 +1.3**
CKRC Cesky Krumlov 3.02 245 *e*SG **Sb 14 16 36.1 +0.1**
comp=Z,17nm,0.4s
CKRC AML AML
KHC Kasperske Hory 3.34 254 *e*PN **Pn 14 15 57.0 -0.4**
KHC *e*PG **Pb 14 16 05.9 +1.9**
KHC *e*SG **Sg 14 16 49.1 -2.1**
comp=Z,19nm,0.7s
KHC AML AML
GERES GERESS Array B 3.37 249 Pn **Pn 14 15 59.4 +1.4**
baz=63,slow=16,SNR=2.0
GERES Pg **Pb 14 16 05.9 +1.3**
0.1nm,0.3s,baz=65,slow=17,SNR=12
GERES Lg Lg 14 16 48.6
0.7nm,0.3s,baz=65,slow=25,SNR=20
MOA Molln 3.60 232 *i* Sn **Sn 14 16 45.1 +0.9**
2.7nm,0.3s
CLL Collm 3.66 291 *i* Sg **Sg 14 17 01.6 +0.1**
comp=Z,16nm,0.6s
NKC Novy Kostel 3.87 274 *e*SG **Sg 14 17 07.7 -0.5**
DAVOX Davos/Dischmat 6.63 243 Lg Lg 14 18 33.1
comp=Z,0.5nm,0.3s,baz=84,slow=22,SNR=5.1
FINES FINESS Array B 12.09 18 Pn **Pn 14 17 56.0 -1.3**
comp=Z,0.2nm,0.3s,baz=204,slow=11,SNR=7.1
comp=Z,1.2nm,0.7s
FINES AML AML
ARCES ARCESS Array B 19.74 7 P **P 14 19 34.0 -0.9**
comp=Z,0.1nm,0.3s,baz=184,slow=12,SNR=2.5
comp=Z,3.3nm,0.9s
ARCES AML AML

*AFAD **09** 14:16:25.8,39°.69N×23°.07E,h4km±4km,MW4.0*
*IDC **09** 14:16:35.8±0.9,39°.67N×23°.62E,h0km,mb3.4/7,*
mbtmp3.6/11,ML3.4/3,MS2.9/7,Error ellipse:
s-maj=16.6km s-min=11.7km az=112.0
*SOF **09** 14:16:36.3,39°.72N±0°.02×23°.84E±0°.01,h18km±1km,*
MD4.0/10
*ISK **09** 14:16:36.6,39°.75N×23°.63E,h27km,ML3.9/21*
*THE **09** 14:16:37.6,39°.8N±0°.6×23°.8E±0°.9,h14km±1km,M3.5/32,*
MLh3.5/32
*ATH **09** 14:16:38.2,39°.74N×23°.80E,h24km±1km,ML3.8/60,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
ISC 09 14:16:37.2±0.9, 39.74N±0°.01×23.78E±0°.01, h13km±7km,
n221,σ0s85/275, mb3.3/6, MS3.3/3, 10C-10D, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PAIG	**Paliouri**	**0.20**	**338**	P	**Pg**	**14 16 42.2**	**+0.5**
PAIG				S	**Sg**	**14 16 45.5**	**+0.7**
PAIG				AML	AML		
AOS	**Alonnisos**	**0.57**	**172**	P	**Pb**	**14 16 49.3**	**+0.1**
AOS				S	**Sb**	**14 16 57.9**	**+0.7**
XOR	**Xorichti**	**0.59**	**231**	P	**Pb**	**14 16 49.1**	**-0.3**
XOR				S	**Sb**	**14 16 57.9**	**+0.2**
XOR	**Xorichti**	**0.59**	**231**	P	**Pb**	**14 16 49.4**	**0.0**
XOR				S	**Sb**	**14 16 58.4**	**+0.7**
AOS2	**Alonissos-2**	**0.59**	**175**	P	**Pb**	**14 16 49.6**	**+0.1**
AOS2				S	**Sb**	**14 16 58.0**	**+0.3**
NEO	**Neokhori**	**0.61**	**225**	P	**Pb**	**14 16 49.5**	**-0.3**
NEO				S	**Sb**	**14 16 58.3**	**0.0**
NEO	**Neokhori**	**0.61**	**225**	P	**Pb**	**14 16 49.9**	**+0.1**
NEO				S	**Sb**	**14 16 58.9**	**+0.6**
OUR	**Ouranopolis**	**0.62**	**14**	P	**Pb**	**14 16 49.5**	**-0.4**
OUR				S	**Sb**	**14 16 58.1**	**-0.4**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.62**	**14**	Pg	**Pb**	**14 16 49.5**	**-0.4**
OUR				Sg	**Sn**	**14 17 00.0**	**-1.5**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.62**	**14**	P	**Pb**	**14 16 49.9**	**0.0**
OUR				S	**Sb**	**14 16 58.6**	**+0.1**
OUR				AML	AML		
PLG	**Polygyros**	**0.69**	**338**	P	**Pb**	**14 16 49.9**	**-1.2**
PLG				S	**Sb**	**14 16 59.4**	**-1.2**
PLG				AML	AML		
VOL2	**Volos**	**0.74**	**240**	P	**Pb**	**14 16 52.1**	**+0.1**
VOL2				S	**Sb**	**14 17 02.8**	**+0.7**
EFSA	**Agios Efstrati**	**0.95**	**102**	P	**Pn**	**14 16 56.0**	**-0.3**
EFSA				S	**Sb**	**14 17 08.2**	**0.0**
EFSA				AML	AML		
LMN1	**MIRINA LIMNOU**	**0.99**	**82**	P	**Pn**	**14 16 56.5**	**-0.4**
LMN1				S	**Sn**	**14 17 10.0**	**-0.8**
SKY	**Skiros Island**	**1.04**	**145**	P	**Pn**	**14 16 57.2**	**-0.4**
SKY				S	**Sn**	**14 17 12.1**	**0.0**
SKY	**Skiros Island**	**1.04**	**145**	P	**Pn**	**14 16 57.7**	**0.0**
SKY				S	**Sb**	**14 17 10.8**	**0.0**
GINA	**Giannouli**	**1.08**	**267**	P	**Pg**	**14 16 57.1**	**-0.8**
GINA				AML	AML		
LIA	**Limnos Island**	**1.09**	**81**	P	**Pn**	**14 16 57.6**	**-0.7**
LIA				S	**Sn**	**14 17 12.9**	**-0.3**
LIA				AML	AML		
LIA	**Limnos Island**	**1.09**	**81**	P	**Pn**	**14 16 57.8**	**-0.5**
LIA				S	**Sn**	**14 17 12.8**	**-0.4**
LIA				AML	AML		
THE	**Thessaloniki**	**1.09**	**325**	P	**Pg**	**14 16 57.1**	**-1.1**
THE				S	**Sb**	**14 17 12.7**	**+0.6**
THE				AML	AML		
THE	**Thessaloniki**	**1.09**	**325**	P	**Pb**	**14 16 57.4**	**-0.6**
THE				S	**Sb**	**14 17 11.9**	**-0.2**
THAS	**Thassos island**	**1.13**	**39**	P	**Pb**	**14 16 57.8**	**-0.8**
THAS				S	**Sn**	**14 17 13.4**	**-0.7**
THAS				AML	AML		
THAS	**Thassos island**	**1.13**	**39**	P	**Pb**	**14 16 57.6**	**-1.0**
THAS				S	**Sb**	**14 17 12.8**	**-0.4**
THAS				AML	AML		
KYMI	**Kymi, Euboea I**	**1.13**	**167**	P	**Pb**	**14 16 58.0**	**-0.6**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.13**	**167**	P	**Pb**	**14 16 58.3**	**-0.4**
KYMI				S	**Sb**	**14 17 13.0**	**-0.3**
KYMI				AML	AML		
SOH	**Sokhos**	**1.13**	**343**	P	**Pb**	**14 16 58.1**	**-0.6**
SOH				S	**Sn**	**14 17 14.3**	**0.0**
SOH				AML	AML		
SOH	**Sokhos**	**1.13**	**343**	P	**Pb**	**14 16 58.1**	**-0.6**
SOH				S	**Sb**	**14 17 13.8**	**+0.4**
SOH				AML	AML		
THS1	**Thassos, Thass**	**1.17**	**31**	P	**Pn**	**14 16 58.6**	**-0.7**
THS1				S	**Sb**	**14 17 13.9**	**-0.5**
THS1				AML	AML		
TYRN	**Tyrnavos**	**1.20**	**269**	P	**Pg**	**14 16 59.0**	**-1.2**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.20**	**269**	P	**Pg**	**14 16 59.1**	**-1.2**
TYRN				S	**Sg**	**14 17 15.3**	**-0.5**
ATAL	**Atalanti**	**1.20**	**210**	P	**Pg**	**14 16 59.1**	**-1.2**
ATAL	**Atalanti**	**1.20**	**210**	P	**Pg**	**14 16 59.2**	**-1.1**
AXAR	**Agios Charalam**	**1.30**	**222**	P	**Pn**	**14 17 01.3**	**+0.1**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**1.30**	**222**	P	**Pn**	**14 17 01.3**	**+0.1**
AXAR				S	**Sb**	**14 17 19.0**	**+0.7**
AGG	**Agios Georgios**	**1.33**	**238**	P	**Pn**	**14 17 01.0**	**-0.6**
AGG				AML	AML		
AGG	**Agios Georgios**	**1.33**	**238**	P	**Pn**	**14 17 01.1**	**-0.6**
AGG				S	**Sg**	**14 17 18.9**	**-1.3**
SOFA	**Sofades**	**1.36**	**253**	P	**Pn**	**14 17 02.2**	**+0.2**
SOFA				AML	AML		
THL	**Klokotos Trika**	**1.38**	**263**	P	**Pn**	**14 17 01.3**	**-0.9**
THL				AML	AML		
THL	**Klokotos Trika**	**1.38**	**263**	P	**Pn**	**14 17 01.3**	**-0.9**
KAVA	**Kavala**	**1.38**	**24**	P	**Pn**	**14 17 01.2**	**-1.0**
KAVA				AML	AML		
KAVA	**Kavala**	**1.38**	**24**	P	**Pn**	**14 17 01.5**	**-0.7**
KAVA				AML	AML		
SRS	**Serrai**	**1.39**	**354**	P	**Pn**	**14 17 02.0**	**-0.4**
SRS				AML	AML		
SRS	**Serrai**	**1.39**	**354**	P	**Pg**	**14 17 02.4**	**-1.5**
DRA2	**DRAMA**	**1.45**	**11**	P	**Pg**	**14 17 04.2**	**-0.9**
DRA2				AML	AML		
SMTH	**Samothraki Isl**	**1.53**	**61**	P	**Pn**	**14 17 03.5**	**-0.9**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.53**	**61**	P	**Pn**	**14 17 03.4**	**-0.9**
SMTH				S	**Sn**	**14 17 22.4**	**-1.6**
STFN	**Stefani**	**1.57**	**187**	P	**Pn**	**14 17 05.0**	**+0.1**
STFN				AML	AML		
KNT	**Kendrikon**	**1.57**	**335**	P	**Pn**	**14 17 05.1**	**+0.2**
KNT				S	**Sn**	**14 17 25.1**	**-0.2**
KNT				AML	AML		
VIL2	**Platees**	**1.57**	**195**	P	**Pn**	**14 17 05.0**	**+0.1**
VIL2				AML	AML		
DLFA	**Delphi**	**1.61**	**219**	P	**Pn**	**14 17 04.8**	**-0.6**
DLFA				AML	AML		
GRG	**Griva**	**1.61**	**320**	P	**Pn**	**14 17 05.2**	**-0.2**
GRG				AML	AML		
GRG	**Griva**	**1.61**	**320**	P	**Pn**	**14 17 05.5**	**+0.1**
GRG				S	**Sn**	**14 17 26.4**	**+0.2**
GRG				AML	AML		
NVR	**Nevrokopi**	**1.61**	**2**	P	**Pn**	**14 17 05.3**	**-0.2**
NVR				AML	AML		
NVR	**Nevrokopi**	**1.61**	**2**	P	**Pn**	**14 17 05.5**	**0.0**
NVR				AML	AML		
VILL	**Villia**	**1.61**	**193**	P	**Pn**	**14 17 05.1**	**-0.4**
VILL				AML	AML		
KZN	**Kozani**	**1.65**	**291**	P	**Pn**	**14 17 05.6**	**-0.4**
KZN				AML	AML		
KZN	**Kozani**	**1.65**	**291**	P	**Pn**	**14 17 05.9**	**-0.1**
KZN				AML	AML		
DION	**Dionisos Attik**	**1.66**	**176**	P	**Pn**	**14 17 05.9**	**-0.2**
DION				AML	AML		
DION	**Dionisos Attik**	**1.66**	**176**	P	**Pn**	**14 17 06.1**	**0.0**
DION				S	**Sn**	**14 17 26.4**	**-0.9**
DION				AML	AML		
PTL	**Penteli**	**1.69**	**178**	P	**Pn**	**14 17 06.2**	**-0.3**
PTL				AML	AML		
PTL	**Penteli**	**1.69**	**178**	P	**Pn**	**14 17 06.4**	**-0.1**
PTL				AML	AML		
GADA	**Gvkgeada**	**1.69**	**74**	Pn	**Pn**	**14 17 06.1**	**-0.4**
GADA				Sn	**Sb**	**14 17 28.2**	**-1.2**
GADA				AML	AML		
GOAD	**anakkale-G¶**	**1.69**	**75**	P	**Pn**	**14 17 06.0**	**-0.5**
GOAD				S	**Sg**	**14 17 30.6**	**-1.0**
ELFA	**Athens-Elefsin**	**1.70**	**186**	P	**Pn**	**14 17 06.3**	**-0.3**
ELFA				AML	AML		
ATHP	**Athens-Neo Psi**	**1.73**	**180**	P	**Pn**	**14 17 07.0**	**-0.1**
ATHP				AML	AML		
EVR	**Evrytania**	**1.74**	**242**	P	**Pn**	**14 17 07.0**	**-0.2**
EVR				AML	AML		
EVR	**Evrytania**	**1.74**	**242**	P	**Pn**	**14 17 07.0**	**-0.2**
EVR				S	**Sn**	**14 17 28.7**	**-0.6**
EVR				AML	AML		
BOZC	**Bozcaada**	**1.75**	**86**	P	**Pn**	**14 17 07.4**	**0.0**
BOZC				S	**Sg**	**14 17 34.2**	**+0.5**
BOZC	**Bozcaada**	**1.75**	**86**	Pn	**Pb**	**14 17 07.8**	**-1.5**
BOZC				AML	AML		
ATH5	**Athens Parliam**	**1.76**	**181**	P	**Pn**	**14 17 06.5**	**-0.9**
ATH5				AML	AML		
NOAC	**Athens-Thissio**	**1.76**	**182**	P	**Pn**	**14 17 07.3**	**-0.2**
NOAC				S	**Sn**	**14 17 29.0**	**-0.8**
NOAC				AML	AML		
ATH	**Athens Observa**	**1.76**	**182**	P	**Pn**	**14 17 07.4**	**-0.1**
ATH				AML	AML		
ATH	**Athens Observa**	**1.76**	**182**	P	**Pn**	**14 17 07.4**	**-0.1**
ATH				S	**Sn**	**14 17 28.6**	**-1.2**
ATH				AML	AML		
ATHU	**Athens Univers**	**1.77**	**180**	P	**Pn**	**14 17 07.3**	**-0.3**
ATHU				AML	AML		
ATHU	**Athens Univers**	**1.77**	**180**	P	**Pn**	**14 17 07.3**	**-0.3**
ATHU				S	**Sn**	**14 17 28.9**	**-1.0**
KARY	**Karystos**	**1.78**	**163**	P	**Pn**	**14 17 07.5**	**-0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.78**	**163**	P	**Pn**	**14 17 07.6**	**-0.1**
KARY				S	**Sn**	**14 17 28.5**	**-1.7**
KARY				AML	AML		
MMB	**Musomishta**	**1.81**	**359**	*e*P	**Pb**	**14 17 08.6**	**-1.7**
LTK	**Loutraki**	**1.83**	**201**	P	**Pn**	**14 17 07.8**	**-0.6**
LTK				AML	AML		
LTK	**Loutraki**	**1.83**	**201**	P	**Pn**	**14 17 08.1**	**-0.3**
LTK				AML	AML		
VAY	**Valandovo**	**1.83**	**330**	*i* Pn	**Pb**	**14 17 09.3**	**-1.3**
KOCA	**Canakkale, Ayv**	**1.84**	**97**	P	Pn	14 16 51.9	-17
ANX	**Ano Chora**	**1.84**	**232**	P	**Pn**	**14 17 08.5**	**-0.2**
ANX				AML	AML		
ANX	**Ano Chora**	**1.84**	**232**	P	**Pn**	**14 17 09.0**	**+0.3**
ANX				S	**Sn**	**14 17 31.6**	**-0.3**
ANX				AML	AML		
KALE	**Kalithea**	**1.85**	**224**	P	**Pn**	**14 17 08.9**	**0.0**
KALE				S	**Sn**	**14 17 31.8**	**-0.4**
KALE				AML	AML		
LOUT	**Loutraki**	**1.86**	**200**	P	**Pn**	**14 17 08.3**	**-0.5**
LOUT				AML	AML		
ECEA	**Canakkale, Ece**	**1.87**	**80**	P	**Pg**	**14 17 12.2**	**-0.9**
ECEA				S	**Sg**	**14 17 39.1**	**+1.8**
KPRO	**Kipourio**	**1.87**	**277**	P	**Pn**	**14 17 09.2**	**+0.1**
KPRO				S	**Sn**	**14 17 31.9**	**-0.8**
KPRO				AML	AML		
VLY	**Voula,Athens**	**1.88**	**180**	P	**Pn**	**14 17 08.7**	**-0.5**
VLY				AML	AML		
VLY	**Voula,Athens**	**1.88**	**180**	P	**Pn**	**14 17 09.1**	**0.0**
VLY				AML	AML		
SERG	**Sergoula**	**1.88**	**226**	P	**Pn**	**14 17 09.2**	**0.0**
SERG				AML	AML		
SERG	**Sergoula**	**1.88**	**226**	P	**Pn**	**14 17 09.5**	**+0.3**
SERG				S	**Sn**	**14 17 31.8**	**-1.1**
SERG				AML	AML		
THAL	**Thalero**	**1.91**	**208**	P	**Pn**	**14 17 09.7**	**+0.2**
THAL				AML	AML		
MG00	**Magoula, Dorid**	**1.94**	**228**	P	**Pn**	**14 17 10.2**	**+0.2**
MG00				S	**Sn**	**14 17 33.2**	**-1.1**
MG00				AML	AML		
EFP	**Efpalio**	**1.96**	**229**	P	**Pn**	**14 17 10.1**	**-0.1**
EFP				AML	AML		
EFP	**Efpalio**	**1.96**	**229**	P	**Pn**	**14 17 10.5**	**+0.2**
EFP				S	**Sn**	**14 17 32.9**	**-1.8**
EFP				AML	AML		
EZN	**Ezine**	**1.96**	**87**	P	**Pg**	**14 17 14.5**	**-0.3**
EZN				S	**Sg**	**14 17 41.0**	**+0.6**
EZN	**Ezine**	**1.96**	**87**	Pn	**Pb**	**14 17 10.9**	**-1.9**
EZN				AML	AML		
ALEX	**Alexandroupoli**	**1.97**	**55**	P	**Pn**	**14 17 10.3**	**0.0**
ALEX				AML	AML		
ACOR	**Acrocorinthos**	**1.98**	**201**	P	**Pn**	**14 17 10.3**	**-0.1**
ACOR				AML	AML		
TETR	**Tetrakomo, Epi**	**1.98**	**259**	P	**Pn**	**14 17 10.1**	**-0.4**
TETR	**Tetrakomo, Epi**	**1.98**	**259**	P	**Pn**	**14 17 10.6**	**0.0**
TETR				AML	AML		
TEME	**Temeni, Aigial**	**1.98**	**221**	P	**Pn**	**14 17 11.2**	**+0.6**
AGEO	**AgiosGiorgios,**	**1.99**	**223**	P	**Pn**	**14 17 10.8**	**+0.2**
PRK	**Paraskevi**	**1.99**	**103**	P	**Pn**	**14 17 10.4**	**-0.2**
PRK				AML	AML		
EZNE	**Ezine-Canakkal**	**1.99**	**89**	Pn	**Pn**	**14 17 10.9**	**+0.3**
VVK	**Vomvokou**	**2.02**	**230**	P	**Pn**	**14 17 11.6**	**+0.6**
VVK				AML	AML		
LVRA	**Laurium**	**2.03**	**174**	P	**Pn**	**14 17 11.2**	**-0.1**
LVRA				AML	AML		
LAKA	**Lakka**	**2.05**	**224**	P	**Pn**	**14 17 11.7**	**+0.2**
LAKA				S	**Sn**	**14 17 36.7**	**-0.3**
CAVK	**Edirne/Enez-Ca**	**2.06**	**62**	P	**Pn**	**14 17 09.6**	**-2.0**
CAVK				S	**Sg**	**14 17 45.5**	**+2.0**
CAVK	**Edirne/Enez-Ca**	**2.06**	**62**	⇑P	**Pn**	**14 17 11.8**	**+0.2**
ENEZ	**Enez**	**2.07**	**60**	Pn	**Pn**	**14 17 11.8**	**+0.1**
ENEZ				AML	AML		
PVO	**Paravola**	**2.08**	**238**	P	**Pn**	**14 17 12.6**	**+0.8**
PENT	**Pentalofos**	**2.08**	**284**	P	**Pn**	**14 17 11.8**	**-0.2**
ALN	**Alexandroupoli**	**2.08**	**55**	P	**Pn**	**14 17 11.7**	**-0.2**
ALN				S	**Sg**	**14 17 45.5**	**+1.3**
ALN	**Alexandroupoli**	**2.08**	**55**	Pn	**Pn**	**14 17 11.9**	**0.0**
ALN				Sn	**Sn**	**14 17 37.7**	**0.0**
ALN				AML	AML		
ALN	**Alexandroupoli**	**2.08**	**55**	P	**Pn**	**14 17 11.5**	**-0.4**
ALN				AML	AML		
PRMD	**Pramanda**	**2.08**	**265**	P	**Pn**	**14 17 12.3**	**+0.3**
PRMD				AML	AML		
RZN	**Rozhen**	**2.09**	**20**	P	**Pn**	**14 17 12.2**	**+0.1**
AGRP	**Agrapidokambos**	**2.09**	**231**	P	**Pn**	**14 17 12.5**	**+0.5**
AGRP				S	**Sn**	**14 17 37.8**	**-0.1**
AGRP				AML	AML		
COMU	**Canakkale**	**2.10**	**79**	Pn	**Pn**	**14 17 12.7**	**+0.5**
COMU				AML	AML		
KLV	**Kalavryta, Ach**	**2.12**	**217**	P	**Pn**	**14 17 12.8**	**+0.4**
GUR	**Goura**	**2.12**	**212**	P	**Pn**	**14 17 12.5**	**-0.1**
GUR				AML	AML		
BAYC	**CANAKKALE_Bayr**	**2.13**	**89**	P	**Pn**	**14 17 12.7**	**+0.1**
BAYC				S	**Sg**	**14 17 46.9**	**+1.1**
MET4	**Agioi Theodoro**	**2.13**	**188**	P	**Pn**	**14 17 12.2**	**-0.4**
MET4				AML	AML		
MET5	**Makryloggos,Me**	**2.14**	**189**	P	**Pn**	**14 17 12.4**	**-0.3**
PEHC	**Pehcevo**	**2.15**	**342**	*i* Pn	**Pb**	**14 17 15.9**	**-0.1**
AMPL	**Ampelaki**	**2.15**	**249**	P	**Pn**	**14 17 13.3**	**+0.4**
AMPL				S	**Sn**	**14 17 38.6**	**-0.8**
MET2	**Kameni Chora,**	**2.15**	**190**	P	**Pn**	**14 17 12.4**	**-0.4**
MET2				AML	AML		
KKB	**Krupnik**	**2.16**	**347**	P	**Pn**	**14 17 13.7**	**+0.7**
MET6	**Megalochori,Me**	**2.17**	**189**	P	**Pn**	**14 17 12.8**	**-0.3**
GELI	**Tayfur-Gelibol**	**2.17**	**71**	Pn	**Pn**	**14 17 12.8**	**-0.3**
GELI				AML	AML		
MET1	**Methana Town,**	**2.18**	**188**	P	**Pn**	**14 17 13.1**	**-0.1**
EPID	**Epidavros**	**2.18**	**194**	P	**Pn**	**14 17 13.0**	**-0.3**
EPID				AML	AML		
MET3	**Ano Fanari,Met**	**2.20**	**192**	P	**Pn**	**14 17 13.0**	**-0.6**
MET3				S	**Sn**	**14 17 40.6**	**-0.1**
NEST	**Nestorio**	**2.20**	**289**	P	**Pn**	**14 17 14.1**	**+0.5**
CHOS	**Chios island**	**2.23**	**127**	Pn	**Pn**	**14 17 14.4**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**2.23**	**127**	P	**Pn**	**14 17 14.8**	**+0.9**
CHOS				AML	AML		
KDZ	**Kurdzhali**	**2.23**	**32**	P	**Pn**	**14 17 13.8**	**-0.2**
KDZ	**Kurdzhali**	**2.23**	**32**	Pn	**Pn**	**14 17 13.7**	**-0.2**
KDZ				AML	AML		
PLEV	**Plevrona-Mesol**	**2.27**	**235**	P	**Pn**	**14 17 14.8**	**+0.3**
PLEV				AML	AML		
AYVA	**Ayvalik**	**2.29**	**100**	P	**Pn**	**14 17 14.9**	**+0.1**
AYVA				S	**Sg**	**14 17 52.3**	**+1.4**
ERIK	**Erikli-Kesan**	**2.29**	**65**	Pn	**Pn**	**14 17 14.9**	**+0.2**
ERIK				AML	AML		
PDO	**Prodromos**	**2.32**	**241**	P	**Pn**	**14 17 15.2**	**0.0**
PDO				AML	AML		
LPK	**Lapseki**	**2.37**	**74**	Pn	**Pn**	**14 17 15.9**	**0.0**
LPK				AML	AML		
DRO	**Drossia**	**2.41**	**223**	P	**Pn**	**14 17 17.0**	**+0.6**
DRO				AML	AML		
AXS	**Araxos**	**2.43**	**231**	P	**Pn**	**14 17 18.3**	**+1.7**
TNSA	**Tinos**	**2.45**	**153**	P	**Pn**	**14 17 16.9**	**0.0**
TNSA				AML	AML		
RLS	**Riolos of Patr**	**2.46**	**228**	P	**Pn**	**14 17 17.7**	**+0.6**
RLS				AML	AML		
KESN	**Edirne-Kesan**	**2.47**	**63**	P	**Pn**	**14 17 17.2**	**-0.4**
KESN				S	**Sg**	**14 17 55.8**	**-0.8**
DKL	**Dikili**	**2.51**	**104**	Pn	**Pn**	**14 17 18.1**	**+0.3**
DKL	**Dikili**	**2.51**	**104**	P	**Pn**	**14 17 18.1**	**+0.3**
PLD	**Plovdiv**	**2.52**	**17**	Pn	**Pn**	**14 17 16.3**	**-1.6**
CANM	**Can-anakkale**	**2.53**	**83**	Pn	**Pn**	**14 17 18.8**	**+0.7**
YAYO	**Edremit-Balk**	**2.54**	**92**	Pn	**Pn**	**14 17 18.8**	**+0.6**
YAYO				AML	AML		
UKOP	**Uzunkopru-Edir**	**2.58**	**57**	Pn	**Pn**	**14 17 19.6**	**+0.8**
TSLK	**Tsoukalades, L**	**2.59**	**250**	P	**Pn**	**14 17 20.1**	**+1.2**
LKD2	**Lefkada island**	**2.60**	**250**	P	**Pn**	**14 17 20.9**	**+1.8**
NYDR	**Nydri-Lefkada**	**2.60**	**248**	P	**Pn**	**14 17 19.7**	**+0.7**
BIGA	**Biga-Canakkale**	**2.64**	**77**	Pn	**Pn**	**14 17 20.3**	**+0.7**
OHR	**Ohrid**	**2.66**	**302**	*i* Pn	**Pn**	**14 17 21.1**	**+1.2**
IGT	**Igoumenitsa**	**2.67**	**267**	P	**Pn**	**14 17 21.1**	**+1.1**
YENI	**Yenice-Canakka**	**2.67**	**85**	Pn	**Pn**	**14 17 20.3**	**+0.3**
DIM	**Dimitrovgrad**	**2.68**	**30**	P	**Pn**	**14 17 20.3**	**+0.2**
DRAG	**Dragano-Lefkad**	**2.70**	**248**	P	**Pn**	**14 17 21.5**	**+1.0**
AMT	**Artemida-Makis**	**2.73**	**217**	P	**Pn**	**14 17 21.5**	**+0.6**
PLNA	**Plana**	**2.75**	**355**	P	**Pn**	**14 17 22.2**	**+1.0**
RKY	**Sarkoy-Tekirda**	**2.77**	**69**	Pn	**Pn**	**14 17 22.1**	**+0.7**
RKY				AML	AML		
KRBG	**Karabiga-Canak**	**2.78**	**75**	Pn	**Pn**	**14 17 22.4**	**+1.0**
KRBG				AML	AML		
PGB	**Panagyurishte**	**2.79**	**6**	*e*P	**Pn**	**14 17 22.4**	**+0.7**
GAZK	**Gazikoy-TEKIRD**	**2.90**	**68**	Pn	**Pn**	**14 17 24.2**	**+1.1**
GAZK				AML	AML		
VTS	**Vitosha**	**2.91**	**352**	P	**Pn**	**14 17 24.1**	**+0.7**
VLS	**Valsamata**	**2.94**	**239**	P	**Pn**	**14 17 24.6**	**+0.9**
ITM	**Ithomi**	**2.94**	**210**	P	**Pn**	**14 17 25.0**	**+1.3**
PSDA	**Pessada-Kefalo**	**2.97**	**238**	P	**Pn**	**14 17 25.1**	**+0.9**
KEK	**Kerkira**	**3.07**	**271**	P	**Pn**	**14 17 25.1**	**-0.4**
EDRB	**Edirne**	**3.08**	**46**	Pn	**Pn**	**14 17 26.1**	**+0.5**
EDRB				AML	AML		
MHLO	**Agia Marina, M**	**3.08**	**171**	P	**Pn**	**14 17 25.7**	**0.0**
VLI	**Veliai**	**3.09**	**193**	P	**Pn**	**14 17 25.9**	**+0.2**
SMG	**Samos**	**3.13**	**129**	P	**Pn**	**14 17 26.9**	**+0.6**
BLSH	**Balsha**	**3.14**	**353**	*e*P	**Pn**	**14 17 27.0**	**+0.5**
BALB	**Balikesir**	**3.16**	**90**	Pn	**Pn**	**14 17 27.4**	**+0.6**
BALB				AML	AML		
EDC	**Edincik**	**3.19**	**78**	Pn	**Pn**	**14 17 28.4**	**+1.2**
EDC				AML	AML		
SUSR	**Susurluk-Balik**	**3.32**	**85**	Pn	**Pn**	**14 17 29.6**	**+0.7**
SUSR				AML	AML		
KCTX	**Karacabey (Bur**	**3.55**	**80**	Pn	**Pn**	**14 17 33.6**	**+1.4**
KCTX				AML	AML		
ELND	**Elena**	**3.56**	**26**	⇑P	**Pn**	**14 17 32.4**	**+0.2**
MPEP	**Malo Peshtene**	**3.62**	**360**	P	**Pn**	**14 17 34.1**	**+1.1**
PLVB	**Pleven**	**3.70**	**10**	⇑P	**Pn**	**14 17 35.5**	**+1.3**
BLKB	**Belogradchik**	**3.97**	**348**	⇓P	**Pn**	**14 17 38.6**	**+0.7**
BOVS	**Bovan**	**4.19**	**339**	⇓P	**Pn**	**14 17 41.2**	**+0.3**
PDG	**Podgorica**	**4.35**	**310**	⇓P	**Pn**	**14 17 44.8**	**+1.7**
IDI	**Anoyia**	**4.53**	**168**	Pn	**Pn**	**14 17 46.3**	**+0.7**
	34nm,0.6s,baz=347,slow=12,SNR=29						
TIP	**Timpagrande**	**5.46**	**266**	⇓P	**Pn**	**14 17 58.9**	**+0.5**
ARR	**Arges**	**5.66**	**6**	⇑P	**Pn**	**14 18 01.7**	**+0.6**
VOIR		**5.77**	**9**	⇓P	**Pn**	**14 18 03.7**	**+1.0**
MLR	**Muntele Rosu**	**5.97**	**15**	Pn	**Pn**	**14 18 08.1**	**+2.7**
	2.3nm,0.3s,baz=207,slow=10,SNR=8.0						
MLR				Sn	**Sn**	**14 19 15.6**	**+2.0**
	1.5nm,0.3s,baz=172,slow=6.0,SNR=1.5						
MLR				Lg	Lg	14 19 50.9	
	0.6nm,0.3s,baz=101,slow=19,SNR=3.2						
MLR				LR	LR	14 20 51.8	
	comp=

SGST				S	Sg	14 29 35.4	-1.3	
CHN1	**Nanshi**	0.08	8	⇑*i*P	Pb	14 29 34.5	-0.5	
CHN1				*i* S	Sg	14 29 37.2	+0.2	
SNST	**Tainan City**	0.12	352	⇑*i*P	Pb	14 29 35.2	-0.8	
SNST				eS	Sg	14 29 38.6	+1.0	
CHN3	**Shinhua**	0.14	260	⇓*i*P	Pb	14 29 35.6	-0.7	
CHN3				*i* S	Sg	14 29 39.9	+1.8	
SLGT	**Liugui**	0.16	132	⇓*i*P	Pb	14 29 35.7	-1.0	
SLGT				eS	Sg	14 29 39.4	+0.8	
TWK	**Hsinying**	0.17	351	⇑*i*P	Pb	14 29 36.0	-0.8	
TWK				eS	Sg	14 29 40.4	+1.5	
WTP	**Ta-pu**	0.17	32	⇑*i*P	Pb	14 29 36.1	-0.8	
WTP				*i* S	Sg	14 29 40.6	+1.7	
SSHA	**Shanhua**	0.21	279	⇓*i*P	Pb	14 29 37.4	-0.2	
SSHA				eS	Sg	14 29 43.6	+3.7	
SCST	**Cishan**	0.21	185	⇑*i*P	Pb	14 29 36.6	-1.0	
SCST				*i* S	Sg	14 29 41.4	+1.4	
TPUB	**Ta-pu**	0.23	28	P	Pg	14 29 36.3	-0.6	
TPUB	**Ta-pu**	0.23	28	P	Pg	14 29 36.7	-0.2	
TPUB	**Ta-pu**	0.23	28	⇑*i*P	Pb	14 29 37.0	-0.7	
TPUB				eS	Sg	14 29 41.8	+1.5	
CHN4	**Tsaushan**	0.26	16	⇑*i*P	Pb	14 29 37.7	-0.6	
CHN4				eS	Sb	14 29 43.1	+0.4	
TAI1	**Yung-k'ang**	0.27	257	eP	Pb	14 29 38.2	-0.3	
TAI1				eS	Sb	14 29 44.6	+1.6	
TWM1	**Shoushan**	0.29	197	⇑*i*P	Pb	14 29 39.0	+0.1	
SCLT	**Jiali**	0.30	284	⇓*i*P	Pb	14 29 38.9	-0.3	
SCLT				eS	Sb	14 29 45.9	+1.9	
ICHU	**Yijhu**	0.34	320	eP	Pb	14 29 39.4	-0.3	
ICHU				eS	Sb	14 29 46.1	+1.2	
WCKO	**Fanlu**	0.35	14	⇑*i*P	Pb	14 29 39.3	-0.6	
WCKO				S	Sb	14 29 46.3	+0.8	
SSD	**Sandimen**	0.37	163	⇓*i*P	Pb	14 29 39.5	-0.7	
SSD				*i* S	Sb	14 29 45.3	-0.5	
CHN8	**Yiju**	0.37	311	eP	Pb	14 29 39.9	-0.3	
CHN8				*i* S	Sb	14 29 47.4	+1.4	
SGLT	**Jiouru**	0.38	184	eP	Pb	14 29 40.5	+0.2	
SNJT	**Kaohsiung City**	0.38	206	eP	Pb	14 29 40.9	+0.4	
TSCK	**Chigu Township**	0.40	277	eP	Pb	14 29 39.8	-0.9	
CHY	**Chiayi**	0.40	348	⇑*i*P	Pb	14 29 40.6	-0.2	
CHY				eS	Sb	14 29 48.0	+1.1	
TSMG	**Majia**	0.41	163	⇓*i*P	Pb	14 29 40.1	-0.8	
TSMG				*i* S	Sb	14 29 46.8	-0.2	
CHN2	**Minshiung**	0.43	355	⇑*i*P	Pb	14 29 41.5	+0.2	
CHN2				*i* S	Sb	14 29 49.3	+1.7	
ELDTW	**Lidau**	0.47	79	⇑*i*P	Pb	14 29 41.8	-0.3	
ELDTW				eS	Sb	14 29 49.4	+0.6	
ALS	**Alishan**	0.49	33	⇑*i*P	Pb	14 29 41.9	-0.6	
WSL	**Shuilin Townsh**	0.50	328	eP	Pb	14 29 42.3	-0.1	
WSL				eS	Sb	14 29 51.3	+1.8	
MASBT	**Mashibuluo**	0.50	167	⇓*i*P	Pb	14 29 41.8	-0.6	
MASBT				S	Sb	14 29 49.4	-0.2	
WSSB	**Gushan**	0.51	207	eP	Pn	14 29 43.5	-1.4	
CHN5	**Tsauling**	0.52	17	⇑*i*P	Pb	14 29 42.4	-0.4	
CHN5				*i* S	Sb	14 29 51.5	+1.3	
YUS	**Yu-Shan**	0.56	46	eP	Pb	14 29 43.5	-0.3	
TWG	**Pinlang**	0.58	118	⇓eP	Pb	14 29 43.7	-0.1	
TWG				eS	Sn	14 29 53.1	-2.0	
WGK	**Gukeng**	0.58	4	eP	Pb	14 29 44.2	+0.3	
WGK				eS	Sn	14 29 54.4	-0.7	
WDLH	**Douliu**	0.59	2	⇑P	Pb	14 29 44.1	+0.2	
WDLH				S	Sn	14 29 54.0	-1.1	
TWGBT	**Beinan**	0.59	118	P	Pb	14 29 43.4	-0.6	
TWGBT	**Beinan**	0.59	118	S	Sb	14 29 52.9	+0.7	
TWGBT	**Beinan**	0.59	118	P	Pb	14 29 43.5	-0.6	
TWGBT	**Beinan**	0.59	118	P	Pb	14 29 43.7	-0.4	
TWGBT				eS	Sb	14 29 53.2	+1.0	
WTK	**Tuku**	0.60	349	eP	Pb	14 29 44.3	+0.2	
WTK				S	Sn	14 29 54.7	-0.7	
LONT	**Longtian**	0.60	109	⇓*i*P	Pb	14 29 44.1	-0.1	
LONT				*i* S	Sn	14 29 53.6	-1.9	
WSF	**Szhu**	0.60	333	P	Pb	14 29 44.0	-0.2	
WSF				*i* S	Sb	14 29 53.9	+1.4	
WDL	**Douliou City**	0.61	2	eP	Pn	14 29 45.1	-1.0	
SSPT	**Xinbi**	0.62	176	eP	Pn	14 29 45.0	-1.2	
SSPT				eS	Sn	14 29 54.7	-1.2	
EHD	**Haiduan**	0.64	86	⇓*i*P	Pb	14 29 44.8	0.0	
EHD				eS	Sb	14 29 54.6	+1.0	
ECL	**Taimali**	0.64	141	⇓*i*P	Pb	14 29 44.3	-0.6	
ECL				*i* S	Sb	14 29 53.9	+0.1	
ECS	**Chishang**	0.65	90	eP	Pb	14 29 45.3	+0.3	
ECS				eS	Sn	14 29 55.2	-1.5	
WHYT	**Xinyi Township**	0.67	28	P	Pb	14 29 45.1	-0.3	
WHYT				S	Sn	14 29 56.3	-1.0	
TTN	**Taitung**	0.68	121	eP	Pn	14 29 46.0	-0.1	
TTN				eS	Sn	14 29 58.2	+0.9	
FULB	**Fuli**	0.72	82	⇑*i*P	Pn	14 29 47.0	-0.7	
FULB				eS	Sn	14 29 58.5	-0.1	
SCZT	**Fangliau**	0.73	172	eP	Pb	14 29 46.2	-0.3	
SCZT				eS	Sn	14 29 59.3	+0.6	
EDH	**Donghe**	0.74	100	eP	Pn	14 29 47.1	-0.8	
EDH				S	Sn	14 29 58.7	-0.1	
WJS	**Zhushan**	0.74	15	⇑P	Pb	14 29 46.8	+0.1	
WJS				S	Sn	14 29 58.6	-0.5	
WLCH	**Liuqiu**	0.76	190	eP	Pn	14 29 48.6	+0.5	
WLCH				eS	Sn	14 30 03.3	+4.0	
TWF1	**Yuli**	0.76	71	⇑*i*P	Pb	14 29 47.0	+0.1	
TWF1				*i* S	Sb	14 29 57.8	+0.6	
TWP	**Hsiaoliuchiu**	0.77	191	eP	Pn	14 29 48.9	+0.6	
TWP				eS	Sn	14 30 02.5	+3.0	
YULB	**Yu-li**	0.78	68	P	Pb	14 29 47.0	-0.2	
YULB	**Yu-li**	0.78	68	P	Pb	14 29 46.8	-0.4	
YULB	**Yu-li**	0.78	68	S	Sb	14 29 57.8	+0.2	
YULB	**Yu-li**	0.78	68	⇑*i*P	Pb	14 29 47.0	-0.2	
YULB				S	Sb	14 29 57.9	+0.4	
EAST	**Anshuo**	0.78	157	eP	Pb	14 29 46.9	-0.3	
EAST				eS	Sn	14 29 59.7	-0.2	
EYUL	**Yuli**	0.78	71	⇑*i*P	Pb	14 29 47.2	0.0	
EYUL				S	Sn	14 29 58.8	-1.1	
CHKT	**Chengkung**	0.78	90	eP	Pn	14 29 47.9	-0.6	
CHKT				eS	Sn	14 30 00.9	+1.0	
WNT	**Mingjian**	0.79	11	⇑*i*P	Pb	14 29 47.7	+0.3	
WNT				S	Sn	14 29 59.6	-0.5	
WTCT	**Ta-ch'eng**	0.79	344	eP	Pb	14 29 47.5	+0.1	
WTCT				eS	Sn	14 29 59.3	-0.9	
SSLB	**Suanglung**	0.79	30	S	Sb	14 29 59.2	+1.1	
SSLB	**Suanglung**	0.79	30	P	Pb	14 29 47.1	-0.4	
SSLB	**Suanglung**	0.79	30	S	Sn	14 29 59.8	-0.5	
SSLB	**Suanglung**	0.79	30	⇑*i*P	Pb	14 29 47.1	-0.4	
SSLB				*i* S	Sn	14 29 59.6	-0.4	
RLNB	**Erlin**	0.80	350	P	Pb	14 29 47.7	+0.1	
RLNB				S	Sn	14 29 59.9	-0.5	
WDGT	**Dungji**	0.80	282	eP	Pg	14 29 45.9	-1.6	
WDGT				S	Sb	14 29 58.8	+0.5	
CHKH	**Chenggong**	0.81	83	eP	Pn	14 29 48.1	-0.8	
EHY	**Hungye**	0.84	61	eP	Pb	14 29 48.2	-0.1	
SMLT	**Sun Moon Lake**	0.85	24	⇑*i*P	Pb	14 29 48.7	+0.1	
SMLT				eS	Sn	14 30 02.2	+0.2	
EHYH	**Wanrong**	0.86	63	⇑*i*P	Pb	14 29 48.5	0.0	
EHYH				S	Sb	14 30 00.5	+0.6	
TYC	**Yuchr**	0.86	21	⇑*i*P	Pb	14 29 48.8	+0.2	
TYC				eS	Sn	14 30 02.2	+0.4	
ECBN	**Changbin**	0.89	76	eP	Pn	14 29 50.3	+0.4	
ECBN				eS	Sn	14 30 05.4	+2.8	
SLIU	**Shizi**	0.92	163	eP	Pn	14 29 49.4	-1.0	
SLIU				eS	Sn	14 30 04.0	+0.6	
HGSD	**Ruisui**	0.92	65	P	Pn	14 29 50.4	0.0	
HGSD				eS	Sn	14 30 04.8	+1.4	
PHUB	**P'eng-hu**	0.96	296	eP	Pg	14 29 48.7	-1.8	
WCH1	**Changhua City**	0.97	2	eP	Pb	14 29 50.1	-0.4	
WCH1				S	Sn	14 30 05.3	+0.8	
WCHH	**Zhanghua**	0.97	2	eP	Pb	14 29 50.2	-0.4	
WCHH				eS	Sn	14 30 04.9	+0.2	
LDUT	**Ludao**	0.98	116	eP	Pn	14 29 50.5	-0.7	
PNG	**Penghu**	1.00	298	eP	Pg	14 29 49.7	-1.5	
PNG				eS	Sb	14 30 04.2	+0.3	
VCHM	**Qimei**	1.01	276	*i* P	Pg	14 29 49.8	-1.5	
VCHM				eS	Sn	14 30 05.2	-0.3	
WARBT	**Fenglin Townsh**	1.01	52	⇑*i*P	Pn	14 29 51.1	-0.5	
WARBT				*i* S	Sn	14 30 05.6	0.0	
WCS	**Beigang Elemen**	1.02	21	eP	Pb	14 29 51.2	-0.1	
WCS				eS	Sn	14 30 06.1	+0.2	
OWD	**Renai**	1.04	35	⇑*i*P	Pb	14 29 51.7	-0.1	
OWD				*i* S	Sn	14 30 07.6	+0.9	
WUSB	**Renai**	1.04	32	⇑*i*P	Pb	14 29 51.6	-0.2	
WUSB				eS	Sn	14 30 08.3	+1.6	
TCU	**Taichung**	1.05	8	eP	Pb	14 29 51.5	-0.4	
TCU				eS	Sn	14 30 06.9	+0.2	
ESL	**Shilin**	1.10	50	*i* P	Pn	14 29 52.9	0.0	
ESL				eS	Sn	14 30 09.4	+1.5	
HEN	**Hengchun**	1.11	169	eP	Pn	14 29 53.0	+0.1	
SMST	**Manzhou Townsh**	1.12	165	eP	Pn	14 29 53.7	+0.6	
SMST				eS	Sn	14 30 09.6	+1.4	
SHUL	**Shoufeng**	1.18	54	eP	Pg	14 29 54.9	+0.2	
SHUL				eS	Sn	14 30 13.9	+4.1	
TWKBT	**Hengchun**	1.19	167	eP	Pg	14 29 53.9	-0.9	
WHP	**Taichung City**	1.24	19	P	Pg	14 29 55.2	-0.5	
WHP				eS	Sn	14 30 14.0	+2.6	
ETM	**Tongmen**	1.24	46	eP	Pg	14 29 55.4	-0.4	
WDJ	**Dajia District**	1.25	5	*i* P	Pg	14 29 55.5	-0.4	
WDJ				S	Sg	14 30 13.4	+1.2	
WHF	**Hehuan Shan**	1.25	33	⇑eP	Pg	14 29 55.6	-0.4	
TSEEB	**Hengchuen, Pin**	1.25	163	eP	Pg	14 29 57.0	+1.1	
TEYL	**Yanliau Villag**	1.25	52	eP	Pg	14 29 56.8	+0.7	
TWQ1	**Liyutan**	1.26	11	⇑*i*P	Pg	14 29 55.6	-0.7	
TWQ1				S	Sg	14 30 14.1	+1.3	
TDCB	**Techi**	1.29	27	*i* P	Pg	14 29 56.2	-0.6	
TDCB				S	Sg	14 30 15.0	+1.4	
TWT	**Tachien**	1.30	28	P	Pg	14 29 56.2	-0.7	
TWT				eS	Sg	14 30 13.9	+0.1	
FUSS	**Fushou**	1.32	30	P	Pg	14 29 57.0	-0.4	
FUSS				eS	Sg	14 30 15.6	+1.0	
HWA	**Hwalien**	1.33	49	eP	Pg	14 29 57.6	+0.1	
HWA				eS	Sg	14 30 17.5	+2.8	
TWD	**Chiawan**	1.39	45	*i* P	Pg	14 29 57.9	-0.7	
TWD				eS	Sg	14 30 18.6	+1.9	
ETLH	**Xiulin Townshi**	1.41	39	eP	Pg	14 29 58.2	-1.0	
NMLH	**Miaoli**	1.45	10	P	Pb	14 29 58.7	0.0	
NACB	**Ninganchiao**	1.46	43	P	Pg	14 29 58.9	-1.0	
NACB	**Ninganchiao**	1.46	43	S	Sg	14 30 19.6	+0.7	
NACB	**Ninganchiao**	1.46	43	P	Pg	14 29 58.3	-0.5	
ETL	**Fush Village**	1.46	44	eP	Pg	14 29 59.1	-0.9	
LYUB	**Lan-yu**	1.47	138	eP	Pn	14 29 56.5	-1.5	
LYUB				eS	Sn	14 30 16.1	-1.0	
NNSB	**Datong**	1.54	31	eP	Pb	14 29 59.6	-0.7	
NNSB				eS	Sg	14 30 24.1	+2.5	
NNS	**Nan Shan**	1.55	30	eP	Pb	14 29 60.0	-0.5	
NSTT	**Nanjuang**	1.59	16	P	Pb	14 30 00.2	-0.8	
NSTT				eS	Sb	14 30 21.7	+0.7	
LIOB	**Emei**	1.60	16	P	Pn	14 30 00.2	+0.3	
LIOB				eS	Sb	14 30 22.3	+0.8	
NFF	**Wufeng Townshi**	1.62	20	eP	Pb	14 30 00.8	-0.9	
NFF				S	Sg	14 30 23.1	-1.0	
EAHA	**Aohua**	1.66	42	eP	Pb	14 30 01.6	-0.6	
EAHA				eS	Sg	14 30 26.0	+0.6	
LATG	**Datong**	1.70	33	*i* P	Pb	14 30 02.3	-0.7	
LATG				*i* S	Sg	14 30 27.7	+0.9	
ENA	**Nanau**	1.73	40	eP	Pb	14 30 02.8	-0.7	
NSK	**Sanguang**	1.75	26	eP	Pb	14 30 02.9	-0.9	
NSK				eS	Sg	14 30 28.2	+0.9	
YHNB	**Yeheng**	1.75	27	S	Sg	14 30 27.7	-0.6	
YHNB	**Yeheng**	1.75	27	P	Pn	14 30 02.5	+0.6	
YHNB	**Yeheng**	1.75	27	S	Sg	14 30 26.8	-1.5	
YHNB	**Yeheng**	1.75	27	P	Pn	14 30 02.2	+0.3	
YHNB				eS	Sg	14 30 27.1	-1.2	
NDT	**Datong Townshi**	1.75	31	eP	Pb	14 30 03.2	-0.6	
NDT				eS	Sg	14 30 29.1	+0.7	
EWUT	**Wuta**	1.77	41	P	Pb	14 30 03.6	-0.5	
KSHI	**Guanxi Townshi**	1.77	20	eP	Pn	14 30 02.7	+0.6	
KSHI				eS	Sg	14 30 28.3	-0.7	
ENTT	**Nioudou**	1.81	32	eP	Pb	14 30 04.5	-0.3	
NDS	**Dongshan**	1.88	36	eP	Pb	14 30 05.7	-0.3	
NDS				eS	Sg	14 30 31.9	-0.6	
NWLT	**Wulai**	1.90	28	eP	Pn	14 30 04.4	+0.6	
FUSB	**Fushanzhiwuyua**	1.92	30	eP	Pn	14 30 05.3	-1.4	
FUSB				eS	Sg	14 30 32.1	-1.6	
TWE	**Neicheng**	1.93	33	eP	Pb	14 30 06.9	-0.9	
TWC	**Suao**	1.94	39	eP	Pb	14 30 06.3	-0.6	
EOS4	**EOS4**	1.94	58	eP	Pb	14 30 05.5	-1.3	
EOS4				eS	Sb	14 30 31.3	+0.6	
EOS3	**EOS3**	2.03	54	eP	Pb	14 30 07.5	-1.0	
TATO	**Taipei**	2.07	25	P	Pn	14 30 07.3	+1.1	
TATO	**Taipei**	2.07	25	S	Sb	14 30 35.4	+0.7	
NTC	**Toucheng**	2.12	34	eS	Sg	14 30 38.4	-1.7	
VWUC	**VWUC**	2.12	333	eP	Pb	14 30 08.6	-1.5	
VWUC				eS	Sb	14 30 36.6	+0.4	
TIPB	**Shuangxi**	2.21	32	eP	Pb	14 30 10.0	-1.7	
YM01	**YM01**	2.25	25	eP	Pn	14 30 09.6	+0.8	
ZUZH	**Zhuzihu**	2.26	24	eP	Pn	14 30 09.2	+0.4	
ANP	**Anpu**	2.27	24	eP	Pn	14 30 09.4	+0.4	
PTMZ	**Houxiangcun**	2.31	327	eP	Pn	14 30 09.3	-0.3	
SXI1	**Grass Mountain**	2.34	32	eP	Pb	14 30 14.2	+0.3	
KNMB	**Chin-men Tao**	2.38	305	eP	Pn	14 30 08.7	-1.7	
AXDP	**Jialang**	2.94	308	eP	Pn	14 30 17.1	-1.0	
MATB	**Ma-tsu**	3.08	350	eP	Pn	14 30 19.7	-0.5	
MATB				eS	Sn	14 30 56.0	-0.8	
MHZQ	**Yeshan**	3.28	336	eP	Pn	14 30 22.0	-0.8	
LYJJ	**Jianjiangzhen**	3.50	349	eP	Pn	14 30 25.4	-0.5	

TAP 09 14:30:20.2,23°.08N×120°.53E,h9km,ML3.7,3C-4D,B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SGST	**Jiashian**	0.05	90	⇓*i*P	Pg	14 30 22.1	0.0
SGST				*i* S	Sg	14 30 24.3	+0.8
CHN1	**Nanshi**	0.10	0	⇑*i*P	Pg	14 30 23.6	+0.8
CHN1				*i* S	Sg	14 30 26.4	+1.7
SLGT	**Liugui**	0.14	129	⇓*i*P	Pg	14 30 24.7	+1.4
SLGT				S	Sg	14 30 28.7	+3.2
SNST	**Tainan City**	0.14	348	⇓P	Pg	14 30 24.2	+0.9
SNST				eS	Sg	14 30 27.8	+2.3
CHN3	**Shinhua**	0.15	268	⇓P	Pg	14 30 24.8	+1.3
CHN3				*i* S	Sg	14 30 28.9	+3.2
SHHT	**Tainan City**	0.18	250	P	Pg	14 30 25.4	+1.5
SHHT				eS	Sg	14 30 30.0	+3.6
WTP	**Ta-pu**	0.18	26	⇑P	Pg	14 30 25.3	+1.2
WTP				eS	Sg	14 30 29.1	+2.3
TWK	**Hsinying**	0.19	349	P	Pg	14 30 25.2	+1.0
TWK				eS	Sg	14 30 29.9	+3.0
SCST	**Cishan**	0.20	189	eP	Pg	14 30 26.0	+1.7
SCST				eS	Sg	14 30 30.4	+3.3
SSHA	**Shanhua**	0.23	284	eP	Pg	14 30 26.7	+1.8
SSHA				eS	Sg	14 30 32.6	+4.6
TPUB	**Ta-pu**	0.24	23	⇑*i*P	Pg	14 30 26.0	+1.0
TPUB				eS	Sg	14 30 31.6	+3.3
CHN4	**Tsaushan**	0.27	13	P	Pb	14 30 26.8	-0.5
TWM1	**Shoushan**	0.28	201	eP	Pb	14 30 28.1	+0.8
TAI1	**Yung-k'ang**	0.28	261	eP	Pb	14 30 28.0	+0.6
SCLT	**Jiali**	0.32	287	eP	Pb	14 30 28.3	+0.2
SSD	**Sandimen**	0.35	164	P	Pb	14 30 28.5	0.0
SSD				S	Sb	14 30 34.6	+0.5
ICHU	**Yijhu**	0.36	321	eP	Pb	14 30 29.1	+0.4
ICHU				S	Sb	14 30 36.1	+1.6
WCKO	**Fanlu**	0.36	11	eP	Pb	14 30 28.7	-0.1
WCKO				S	Sb	14 30 35.1	+0.6
TSMG	**Majia**	0.39	164	eP	Pb	14 30 28.9	-0.3
TSMG				S	Sb	14 30 35.8	+0.5
CHN8	**Yiju**	0.39	312	eP	Pb	14 30 29.6	+0.3
CHN8				eS	Sb	14 30 37.1	+1.8
CHY	**Chiayi**	0.42	347	eP	Pb	14 30 29.6	-0.2
CHY				eS	Sb	14 30 37.2	+0.8
CHN2	**Minshiung**	0.45	354	eP	Pb	14 30 30.6	+0.3
CHN2				eS	Sb	14 30 38.4	+1.3
ELDTW	**Lidau**	0.46	77	eP	Pb	14 30 30.8	+0.2
ELDTW				eS	Sb	14 30 38.2	+0.6
MASBT	**Mashibuluo**	0.48	168	P	Pb	14 30 31.0	+0.3
MASBT				S	Sb	14 30 38.7	+0.8
ALS	**Alishan**	0.50	31	P	Pb	14 30 31.0	-0.2
WSSB	**Gushan**	0.50	209	eP	Pn	14 30 32.8	-0.7
WSL	**Shuilin Townsh**	0.52	328	eP	Pb	14 30 31.9	+0.5
WSL				eS	Sb	14 30 39.6	+0.6
CHN5	**Tsauling**	0.53	15	eP	Pb	14 30 31.5	-0.2
CHN5				eS	Sb	14 30 39.6	+1.1
YUS	**Yu-Shan**	0.56	44	eP	Pb	14 30 32.9	+0.4
TWG	**Pinlang**	0.56	117	eP	Pb	14 30 32.9	+0.7
TWG				eS	Sb	14 30 41.9	+1.6
TWGBT	**Beinan**	0.57	117	eP	Pb	14 30 32.9	+0.6
TWGBT				eS	Sb	14 30 41.8	+1.3
LONT	**Longtian**	0.58	107	eP	Pb	14 30 33.2	+0.8
LONT				S	Sb	14 30 42.5	+1.7
SSPT	**Xinbi**	0.60	176	eP	Pn	14 30 34.0	-0.7
WGK	**Gukeng**	0.60	3	eP	Pb	14 30 33.2	+0.3
WGK				eS	Sn	14 30 43.6	-1.1
WDLH	**Douliu**	0.60	1	eP	Pb	14 30 33.2	+0.3
WDLH				eS	Sb	14 30 43.0	+1.5
WTK	**Tuku**	0.62	348	eP	Pb	14 30 33.5	+0.4
WTK				eS	Sb	14 30 43.3	+1.4
WSF	**Szhu**	0.62	333	eP	Pb	14 30 33.2	+0.1
WSF				eS	Sb	14 30 43.1	+1.2
ECL	**Taimali**	0.62	141	eP	Pb	14 30 33.1	0.0
ECL				S	Sn	14 30 44.1	-1.1
EHD	**Haiduan**	0.63	84	eP	Pb	14 30 34.0	+0.7
EHD				S	Sb	14 30 43.5	+1.3
ECS	**Chishang**	0.64	89	eP	Pn	14 30 34.5	-0.8
ECS				eS	Sn	14 30 45.1	-0.5
WHYT	**Xinyi Township**	0.68	26	eP	Pb	14 30 34.2	0.0
WHYT				S	Sb	14 30 45.1	+1.3
SCZT	**Fangliau**	0.71	173	eP	Pn	14 30 36.7	+0.4
SCZT				eS	Sn	14 30 48.9	+1.5
FULB	**Fuli**	0.71	81	P	Pn	14 30 35.9	-0.5
FULB				eS	Sn	14 30 47.8	+0.3
EDH	**Donghe**	0.72	99	eS	Sn	14 30 48.1	+0.4
WLCH	**Liuqiu**	0.74	191	eP	Pn	14 30 37.3	+0.6
WLCH				eS	Sn	14 30 51.1	+3.0
EAST	**Anshuo**	0.76	157	eP	Pb	14 30 36.1	+0.6
TWF1	**Yuli**	0.76	69	eP	Pb	14 30 35.8	+0.3
TWF1				eS	Sb	14 30 46.3	+0.4
WJS	**Zhushan**	0.76	14	P	Pb	14 30 35.8	+0.2
WJS				S	Sn	14 30 47.7	-0.9
CHKT	**Chengkung**	0.77	89	eP	Pn	14 30 37.8	+0.6
CHKT				eS	Sn	14 30 50.0	+1.1
YULB	**Yu-li**	0.77	66	eP	Pb	14 30 36.0	+0.3
YULB				eS	Sb	14 30 47.0	+0.6
EYUL	**Yuli**	0.77	70	eP	Pb	14 30 36.5	+0.7
EYUL				eS	Sb	14 30 47.2	+0.8
SSLB	**Suanglung**	0.80	29	eP	Pb	14 30 36.1	-0.2
SSLB				S	Sn	14 30 49.3	-0.5
WNT	**Mingjian**	0.81	10	*i* P	Pn	14 30 37.2	-0.5
WNT				*i* S	Sn	14 30 49.2	-0.5
WTCT	**Ta-ch'eng**	0.81	344	eS	Sb	14 30 48.5	+1.1
RLNB	**Erlin**	0.82	349	eS	Sn	14 30 49.4	-0.7
EHY	**Hungye**	0.84	60	eP	Pn	14 30 37.8	-0.4
EHYH	**Wanrong**	0.86	61	eP	Pb	14 30 37.5	+0.4
EHYH				eS	Sb	14 30 49.6	+0.8
SMLT	**Sun Moon Lake**	0.87	23	eP	Pn	14 30 38.2	-0.4
SMLT				eS	Sn	14 30 51.6	+0.1
TYC	**Yuchr**	0.87	20	eP	Pb	14 30 37.8	+0.3
TYC				*i* S	Sn	14 30 51.4	0.0
ECBN	**Changbin**	0.88	74	eP	Pn	14 30 39.6	+0.9
SLIU	**Shizi**	0.90	164	eP	Pn	14 30 38.5	-0.4
SLIU				eS	Sn

ILAR	**Eielson Array**	**60.04**	**28**	P		**P**	**14 47 36.9**	**+0.2**
	comp=Z,0.5nm,0.7s,baz=254,slow=5.5,SNR=8.6							
	comp=Z,0.5nm,0.7s							
D25K	**Kavik River**	**60.92**	**22**	P		**P**	**14 47 43.9**	**+1.1**
BVAR	**Borovoye Array**	**61.19**	**319**	P		**P**	**14 47 45.6**	**+0.8**
	comp=Z,1.0nm,0.4s,baz=95,slow=7.4,SNR=5.1							
	comp=Z,1.0nm,0.4s							
H27K	**Steamboat Moun**	**62.40**	**26**	P		**P**	**14 47 53.8**	**+1.0**
H27K				IAmb		IAmb	14 48 01.6	
	comp=Z,6.8nm,1.4s							
AB31	**Akbulak array**	**68.16**	**315**	P		**P**	**14 48 31.0**	**+0.7**
AB31				IAmb		IAmb	14 48 39.0	
	comp=Z,1.4nm,1.1s							
ABKAR	**Akbulak array**	**68.16**	**315**	P		**P**	**14 48 31.0**	**+0.7**
FINES	**FINESS Array B**	**81.34**	**334**	P		**P**	**14 49 46.2**	**-0.1**
	comp=Z,2.2nm,1.0s,baz=107,slow=6.6,SNR=4.3							
	comp=Z,2.2nm,1.0s							
FINES	**FINESS Array B**	**81.34**	**334**	P		**P**	**14 49 47.1**	**+0.8**
NVAR	**Mina Array Bea**	**81.65**	**52**	P		**P**	**14 49 49.9**	**+1.1**
	comp=Z,0.2nm,0.5s,baz=307,slow=5.4,SNR=2.4							
	comp=Z,0.2nm,0.5s							
PDAR	**Pinedale Array**	**85.72**	**45**	P		**P**	**14 50 10.4**	**+0.9**
	comp=Z,0.1nm,0.4s,baz=271,slow=6.8,SNR=2.8							
	comp=Z,0.1nm,0.4s							
PDAR	**Pinedale Array**	**85.72**	**45**	P		**P**	**14 50 09.6**	**0.0**

*IDC **09** 14:43:50.5±3.5, 12°.95N×90°.66W, h0km, mb3.2/2, mbtmp3.3/3, ML3.3/1, MS2.5/1, Error ellipse: s-maj=70.9km s-min=48.2km az=111.0*
*SNET **09** 14:44:01.9±1.2, 13°.64N×90°.72W, h61km, ML3.9, Presumed earthquake*
*CATAC **09** 14:44:02.3±0.7, 14°.4±4°×9°.1W±°, h16km±4km, M4.1/19, MLv4.1/19, Error ellipse: s-maj=8.5km s-min=4.1km az=24.0, confirmed*
*GCG **09** 14:44:02.6±2.2, 13°.80N×90°.73W, h49km±17km, MD4.3, ML4.3, Presumed earthquake*

ISC 09 14:44:03.2±1.1, 13°.69N±0°.06×90°.72W±0°.04, h57km±9km, n51, σ1°20/68, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ESSJ	**San Jos, E**	**0.25**	**121**	*i*	P		**Pn**	**14 44 11.6**	**-1.0**
FG8	**Yepocapa, Chim**	**0.59**	**15**	*i*	P		**Pn**	**14 44 16.2**	**+0.2**
FG8				*i*	S		**Sn**	**14 44 26.9**	**+1.5**
FG8					IAML			14 44 32.7	
	comp=N,5μm,0.3s								
FG16	**Alotenango, Sa**	**0.61**	**19**	*i*	P		**Pn**	**14 44 16.3**	**-0.2**
FG16				*i*	S		**Sn**	**14 44 26.1**	**0.0**
FAME	**Alcaldia de Sa**	**0.70**	**77**		P		**Pn**	**14 44 15.7**	**-1.6**
GCG4	**OSOP**	**0.91**	**11**	*i*	P		**Pn**	**14 44 19.3**	**-0.8**
NUBE	**Las Nubes**	**0.94**	**77**		P		**Pn**	**14 44 19.3**	**-1.1**
NUBE					S		**Sn**	**14 44 33.0**	**-0.2**
NUBE	**Las Nubes**	**0.94**	**77**	*i*	P		**Pn**	**14 44 19.2**	**-1.2**
NUBE				*i*	S		**Sn**	**14 44 31.7**	**-1.5**
NUBE	**Las Nubes**	**0.94**	**77**	*eP*			**Pn**	**14 44 19.4**	**-1.1**
NUBE				*eS*			**Sn**	**14 44 33.2**	**0.0**
LOAL	**Lomas de Alarc**	**0.96**	**71**		P		**Pn**	**14 44 20.1**	**-0.6**
LOAL	**Lomas de Alarc**	**0.96**	**71**	*eP*			**Pn**	**14 44 20.1**	**-0.6**
LOAL				*eS*			**Sn**	**14 44 34.3**	**+0.7**
SLOZ	**Alcaldia de Sa**	**0.97**	**70**		P		**Pn**	**14 44 20.1**	**-0.6**
SLOZ	**Alcaldia de Sa**	**0.97**	**70**	*eP*			**Pn**	**14 44 20.0**	**-0.7**
STG8	**El Palmar, Qui**	**0.97**	**321**	*i*	P		**Pn**	**14 44 23.6**	**+2.6**
STG8				*i*	S		**Sn**	**14 44 38.7**	**+4.6**
STG8					IAML			14 44 45.8	
	comp=N,9μm,0.2s								
RTR	**El Retiro**	**1.06**	**79**	*eP*			**Pn**	**14 44 21.7**	**-0.4**
CEVE	**Cerro Verde**	**1.07**	**83**		P		**Pn**	**14 44 21.5**	**-0.8**
CEVE					S		**Sn**	**14 44 36.9**	**+0.4**
SBLS	**San Blas**	**1.07**	**82**	*eP*			**Pn**	**14 44 21.4**	**-0.9**
RBDL	**Robledal**	**1.09**	**67**	*eP*			**Pn**	**14 44 22.0**	**-0.5**
RBDL				*eS*			**Sn**	**14 44 38.1**	**+1.4**
SNJE	**San Jose**	**1.10**	**81**	*eP*			**Pn**	**14 44 21.8**	**-0.8**
UNIC	**Universidad Ca**	**1.17**	**76**		P		**Pn**	**14 44 22.8**	**-0.7**
UNIC					S		**Sn**	**14 44 39.7**	**+1.1**
JUAM	**Asuncion Mita**	**1.18**	**57**	*i*	P		**Pn**	**14 44 22.1**	**-1.4**
CEDA	**San Andres**	**1.29**	**85**		P		**Pn**	**14 44 24.6**	**-0.5**
APG	**El Apazote**	**1.33**	**11**		Pn		**Pn**	**14 44 25.0**	**-0.8**
	comp=N,9.3nm,0.3s,baz=184,slow=13,SNR=244								
APG					Sn		**Sn**	**14 44 44.2**	**+1.6**
	comp=N,8.9nm,0.3s,baz=202,slow=13,SNR=19								
	comp=N,18nm,0.3s								
APG					AML		AML		
APG	**El Apazote**	**1.33**	**11**	*i*	P		**Pn**	**14 44 24.9**	**-0.8**
APG				*i*	S		**Sn**	**14 44 43.9**	**+1.3**
PMON	**Piamonte**	**1.36**	**89**		P		**Pn**	**14 44 25.6**	**-0.5**
PMON	**Piamonte**	**1.36**	**89**	*eP*			**Pn**	**14 44 25.6**	**-0.5**
PMON				*eS*			**Sn**	**14 44 43.4**	**+0.1**
BOQS	**Boqueron**	**1.40**	**88**	*eP*			**Pn**	**14 44 25.1**	**-1.5**
QUEO	**Labor Ovalle**	**1.41**	**327**	*i*	S		**Sn**	**14 44 44.3**	**-0.2**
QUEO					IAML			14 44 55.5	
	comp=E,4μm,0.7s								
UEES	**Universidad Ev**	**1.44**	**89**		P		**Pn**	**14 44 26.8**	**-0.3**
PANCS	**Alcalda de**	**1.50**	**93**		P		**Pn**	**14 44 28.0**	**+0.1**
LOMA	**Loma Larga**	**1.50**	**92**		P		**Pn**	**14 44 27.9**	**-0.1**
LOMA					S		**Sn**	**14 44 47.1**	**+0.4**
LFRS	**El Faro**	**1.61**	**92**	*eP*			**Pn**	**14 44 28.8**	**-0.7**
QUIS	**Sacapulas**	**1.63**	**347**	*i*	P		**Pn**	**14 44 29.0**	**-0.7**
QUIS				*i*	S		**Sn**	**14 44 50.8**	**+1.0**
TECO	**Alcaldia de Te**	**1.89**	**94**		P		**Pn**	**14 44 33.0**	**-0.1**
THIG		**1.93**	**309**	*i*	P		**Pn**	**14 44 31.9**	**-1.7**
THIG				*i*	S		**Sn**	**14 44 53.0**	**-3.8**
SARH	**Santa Rosa de**	**2.19**	**60**		P		**Pn**	**14 44 37.6**	**+0.4**
SARH	**Santa Rosa de**	**2.19**	**60**	*i*	P		**Pn**	**14 44 36.7**	**-0.5**
PACA	**Pacayal**	**2.34**	**95**		P		**Pn**	**14 44 40.2**	**+0.8**
PACA	**Pacayal**	**2.34**	**95**	*eP*			**Pn**	**14 44 39.7**	**+0.3**
RANC	**El Ranchito**	**2.38**	**96**		P		**Pn**	**14 44 40.3**	**+0.4**
CNCH	**Conchagua**	**2.84**	**98**	*eP*			**Pn**	**14 44 45.8**	**-0.4**
CCIG	**Comitan**	**2.92**	**332**	*i*	P		**Pn**	**14 44 47.4**	**+0.1**
CSGN	**Cosiguina Volc**	**3.16**	**103**		P		**Pn**	**14 44 51.4**	**+0.9**
CSGN					S		**Sn**	**14 45 28.3**	**+1.3**
TGUH	**Tegucigalpa,Un**	**3.37**	**83**		P		**Pn**	**14 44 53.8**	**+0.4**
CRIN	**San Cristobal**	**3.71**	**105**		P		**Pn**	**14 44 59.7**	**+1.7**
QUIN	**Al S del Volca**	**3.92**	**106**		P		**Pn**	**14 45 01.5**	**+0.5**
LIMN	**Finca el Limon**	**4.28**	**98**		P		**Pn**	**14 45 06.7**	**+0.7**
MOM2	**El Cardon**	**4.31**	**106**		P		**Pn**	**14 45 06.8**	**+0.5**
MOM2					S		**Sn**	**14 45 57.0**	**+1.7**
CMIG	**Matias Romero**	**5.25**	**311**		LR		LR	14 47 16.2	
	comp=E,41nm,19.7s,baz=68,slow=36								
TXAR	**Lajitas Array**	**19.66**	**324**		P		**P**	**14 48 27.5**	**0.0**
	comp=E,0.3nm,0.6s,baz=140,slow=11,SNR=3.8								
	comp=E,0.3nm,0.6s								
NVAR	**Mina Array Bea**	**34.70**	**320**		P		**P**	**14 50 47.9**	**0.0**
	comp=E,0.9nm,0.7s,baz=125,slow=9.3,SNR=6.2								
	comp=E,0.9nm,0.7s								
CMAR	**Chiang Mai Arr**	**146.67**	**343**		PKPbc		**PKPdf**	**15 03 36.3**	**-1.5**
	comp=E,0.6nm,0.4s,baz=6.6,slow=3.9,SNR=4.8								

*IDC **09** 15:16:43.3±3.6, 18°.41S×178°.45W, h460km±28km, mb2.9/6, mbtmp3.7/7, Error ellipse: s-maj=106.8km s-min=20.6km az=151.0*

ISC 09 15:16:42.0±1.5, 18°.6S±0°.5×178°.3W±0°.2, h450km, n7, σ0.87/9, mb3.1/6, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.55**	**283**		P		**P**	**15 17 54.2**	**+0.8**
	2.4nm,0.5s,baz=108,slow=16,SNR=2.4								
WRA	**Warramunga Arr**	**44.60**	**260**		P		**P**	**15 24 12.2**	**-0.8**
	0.3nm,0.6s,baz=96,slow=7.8,SNR=7.1								
WRA					PcP		**PcP**	**15 25 46.5**	**-0.2**
	0.3nm,0.7s,baz=103,slow=5.0,SNR=1.6								
	0.3nm,0.6s								
ASAR	**Alice Springs**	**44.70**	**255**		P		**P**	**15 24 13.6**	**-0.2**
	2.7nm,0.5s,baz=90,slow=8.5,SNR=132								
ASAR					PcP		**PcP**	**15 25 46.6**	**-0.4**
	0.2nm,0.7s,baz=95,slow=3.5,SNR=1.3								
	2.7nm,0.5s								
FITZ	**Fitzroy Crossi**	**53.00**	**261**		P		**P**	**15 25 16.1**	**+0.3**
	1.2nm,0.7s,baz=90,slow=4.9,SNR=5.5								
	1.2nm,0.7s								
TXAR	**Lajitas Array**	**86.28**	**58**		P		**P**	**15 28 36.8**	**+1.4**
	0.3nm,0.7s,baz=226,slow=6.2,SNR=4.3								
	0.3nm,0.7s								
ILAR	**Eielson Array**	**86.51**	**13**		P		**P**	**15 28 35.0**	**-0.6**
	0.1nm,0.4s,baz=207,slow=4.3,SNR=5.6								
	0.1nm,0.4s								
PDAR	**Pinedale Array**	**87.77**	**43**		P		**P**	**15 28 41.5**	**-0.9**
	0.2nm,0.6s,baz=228,slow=3.2,SNR=3.7								
	0.2nm,0.6s								

*DJA **09** 15:22:55.2±0.2, 1°.N±2°×12°.5E±°, h10km, M4.7/26, mB5.1/9, mb5.2/8, MLv4.7/26, Mw(mB)4.4/9*
*NEIC **09** 15:22:57.2±1.6, 0°.92N±0°.08×125°.24E±0°.06, h41km±7km, mb4.5/22, Error ellipse: s-maj=11.4km s-min=8.1km az=165.0*
*GFZ **09** 15:22:58.9±0.4, 1°.N±6°×12°.5E±°, h55km±4km, M4.5/8, mb4.5/8, Error ellipse: s-maj=12.8km s-min=6.5km az=176.0, confirmed*
*IDC **09** 15:22:59.3±1.8, 0°.86N×125°.27E, h70km±15km, mb4.0/11, mbtmp4.3/15, MS3.3/7, Error ellipse: s-maj=20.5km s-min=10.8km az=86.0*

ISC 09 15:22:56.4±0.4, 0°.88N±0°.04×125°.30E±0°.05, h35km, n86, σ1°91/88, mb4.4/25, MS3.3/3, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
MNI	**Manado**	**0.72**	**320**		P		**Pn**	**15 23 07.6**	**-2.5**
MNI					S		**Sn**	**15 23 16.1**	**-3.9**
MNI					AML		AML		
KMSI	**Cibinong**	**1.36**	**257**		P		**Pn**	**15 23 18.3**	**-0.5**
KMSI	**Cibinong**	**1.36**	**257**		P		**Pn**	**15 23 18.5**	**-0.3**
TNTI	**Ternate**	**2.07**	**93**				**Pn**	**15 23 30.0**	**+1.4**
TNTI					Sn		**Sn**	**15 23 53.1**	**-0.1**
TNTI	**Ternate**	**2.07**	**93**		P		**Pn**	**15 23 31.0**	**+2.4**
TNTI	**Ternate**	**2.07**	**93**		P		**Pn**	**15 23 31.9**	**+3.3**
GTOI	**Gorontalo**	**2.30**	**264**		P		**Pn**	**15 23 33.3**	**+1.4**
GTOI					AML		AML		
GAMI	**Galela, Maluku**	**2.66**	**69**		P		**Pn**	**15 23 39.4**	**+2.6**
GAMI					AML		AML		
GAMI	**Galela, Maluku**	**2.66**	**69**		P		**Pn**	**15 23 40.0**	**+3.2**
SANI	**Sanana**	**2.99**	**167**		P		**Pn**	**15 23 41.7**	**+0.3**
SANI	**Sanana**	**2.99**	**167**		P		**Pn**	**15 23 41.9**	**+0.5**
LUWI	**Luwuk**	**3.17**	**233**				**Pn**	**15 23 44.3**	**+0.5**
LUWI	**Luwuk**	**3.17**	**233**		P		**Pn**	**15 23 44.6**	**+0.8**
LUWI					AML		AML		
LUWI	**Luwuk**	**3.17**	**233**		P		**Pn**	**15 23 46.4**	**+2.6**
APSI	**Ampana**	**4.07**	**244**		P		**Pn**	**15 23 58.8**	**+2.7**
APSI					AML		AML		
NLAI	**Namlea**	**4.47**	**156**		P		**Pn**	**15 24 03.5**	**+1.8**
NLAI					AML		AML		
TOLI2	**Tolitoli**	**4.53**	**273**				**Pn**	**15 24 01.7**	**-0.7**
TOLI2	**Tolitoli**	**4.53**	**273**		P		**Pn**	**15 24 06.5**	**+4.1**
DDMP	**Don Marcelino,**	**5.20**	**5**	*eP*			**Pn**	**15 24 12.5**	**+0.8**
DDMP				*eS*			**Sn**	**15 25 06.7**	**-3.9**
KDI	**Kendari**	**5.51**	**209**		P		**Pn**	**15 24 17.5**	**+1.6**
KDI					AML		AML		
PCI	**Palu**	**5.75**	**252**		P		Pn	15 24 32.2	+13
KCP	**Kidapawan**	**6.09**	**358**	*eP*			**Pn**	**15 24 26.9**	**+2.9**
KCP				*eS*			**Sn**	**15 25 37.3**	**+4.8**
DAV	**Davao City (W)**	**6.15**	**3**		LR		LR	15 27 06.7	
	comp=Z,619nm,20.1s,baz=170,slow=40								
SIJI	**Sorong**	**6.21**	**106**		P		**Pn**	**15 24 28.1**	**+2.5**
	5.2nm,0.5s,baz=286,slow=16,SNR=5.9								
SIJI					LR		LR	15 27 27.8	
	comp=Z,80nm,21.2s,baz=290,slow=43								
CTBH	**Cotabato--PC H**	**6.38**	**351**	*i*	P		**Pn**	**15 24 31.2**	**+3.2**
TTSI	**Tana Toraja**	**6.73**	**235**		P		**Pn**	**15 24 34.9**	**+2.2**
	0.8nm2μm208nm,0.6s								
TTSI					AML		AML		
TTSI	**Tana Toraja**	**6.73**	**235**		P		**Pn**	**15 24 34.8**	**+2.0**
	comp=Z,98nm,0.7s								
BIPH	**Bislig**	**7.33**	**8**	*eP*			**Pn**	**15 24 43.9**	**+3.0**
BIPH				*eS*			Sn	15 25 53.5	-10
KAPI	**Kappang**	**8.07**	**223**		P		**Pn**	**15 24 53.3**	**+2.2**
	comp=Z,16nm,0.3s,baz=46,slow=8.2,SNR=15								
KAPI					S		**Sn**	**15 26 20.9**	**-0.3**
	comp=Z,9.9nm,0.4s,baz=343,slow=21,SNR=6.3								
KAPI					LR		LR	15 28 44.7	
	comp=Z,118nm,19.4s,baz=32,slow=43								
KAPI	**Kappang**	**8.07**	**223**				**Pn**	**15 24 53.0**	**+1.9**
KAPI	**Kappang**	**8.07**	**223**		P		**Pn**	**15 24 54.3**	**+3.2**
	comp=Z,43nm,0.8s								
BATI	**Baumata**	**11.14**	**188**		LR		LR	15 30 01.6	
	comp=Z,378nm,19.7s,baz=240,slow=38								
MTN	**Manton Dam**	**14.81**	**157**				**Pn**	**15 26 24.3**	**+0.8**
JAY	**Jayapura**	**15.77**	**102**		P		**P**	**15 26 38.6**	**-0.9**
	comp=Z,6.5nm,0.7s,baz=283,slow=13,SNR=4.1								
KNRA	**Kununurra**	**16.81**	**168**		Pn		**Pn**	**15 26 49.7**	**+0.5**
FITZ	**Fitzroy Crossi**	**18.87**	**179**		P		**P**	**15 27 13.4**	**-0.3**
	comp=Z,6.3nm,0.7s,baz=5.9,slow=9.0,SNR=19								
FITZ	**Fitzroy Crossi**	**18.87**	**179**				**P**	**15 27 13.8**	**0.0**
FITZ	**Fitzroy Crossi**	**18.87**	**179**		P		**Pn**	**15 27 14.6**	**+0.1**
	comp=Z,2.8nm,0.8s								
WB0	**Warramunga Arr**	**22.38**	**157**		P		**P**	**15 27 51.4**	**-0.4**
WB0					IAmb		IAmb	15 27 52.5	
	comp=Z,15nm,0.6s								
WRAB	**Tennant Creek**	**22.51**	**157**		P		**P**	**15 27 52.9**	**-0.3**
WRAB					IAmb		IAmb	15 27 54.4	
	comp=Z,14nm,1.1s								
WRAB	**Tennant Creek**	**22.51**	**157**		P		**P**	**15 27 53.6**	**+0.4**
	comp=Z,14nm,1.1s								
WRA	**Warramunga Arr**	**22.52**	**157**		P		**P**	**15 27 52.7**	**-0.6**
	comp=Z,7.1nm,0.4s,baz=340,slow=11,SNR=81								
WRA					PcP		**PcP**	**15 31 46.1**	**-0.5**
	comp=Z,0.2nm,0.5s,baz=310,slow=3.0,SNR=1.6								
WRA					S		**S**	**15 31 55.0**	**-3.2**
	comp=Z,1.0nm,0.9s,baz=328,slow=17,SNR=4.4								
	comp=Z,7.1nm,0.4s								
WRA	**Warramunga Arr**	**22.52**	**157**		P		**P**	**15 27 51.7**	**-1.6**
MBWA	**Marble Bar**	**22.57**	**194**		P		**P**	**15 27 53.2**	**-0.6**
MBWA					IAmb		IAmb	15 28 21.2	
	comp=Z,13nm,1.0s								
MBWA	**Marble Bar**	**22.57**	**194**		P		**P**	**15 27 52.9**	**-0.9**
	comp=Z,13nm,1.1s								
WR8	**Warramunga Arr**	**22.59**	**157**		P		**P**	**15 27 53.4**	**-0.7**
WR8					IAmb		IAmb	15 27 55.3	
	comp=Z,13nm,0.9s								
QIS	**Mount Isa**	**25.50**	**147**		P		**P**	**15 28 23.3**	**+1.6**
	comp=Z,17nm,1.0s								
AS31	**Alice Springs**	**25.80**	**162**		P		**P**	**15 28 24.8**	**+0.5**
AS31					IAmb		IAmb	15 28 31.4	
	comp=Z,3.6nm,0.6s								
ASAR	**Alice Springs**	**25.80**	**162**		P		**P**	**15 28 25.0**	**+0.6**
	comp=Z,10nm,0.6s,baz=339,slow=7.1,SNR=148								
ASAR					PcP		**PcP**	**15 31 53.4**	**-0.2**
	comp=Z,0.9nm,0.5s,baz=355,slow=2.5,SNR=6.2								
ASAR					S		**S**	**15 32 46.5**	**-5.1**
	comp=Z,1.1nm,1.0s,baz=345,slow=19,SNR=5.3								
ASAR					ScP		**ScP**	**15 35 27.2**	**-3.5**
	comp=Z,0.1nm,0.5s,baz=344,slow=2.4,SNR=1.2								
	comp=Z,10nm,0.6s								
MEEK	**Meekatharra**	**28.11**	**193**		P		**P**	**15 28 43.4**	**-1.7**
	comp=Z,14nm,1.3s								
JSU	**Suzuyama**	**30.84**	**9**		P		**P**	**15 29 11.0**	**+1.7**
NJ2	**Nanjing**	**31.59**	**350**	*eP*			**P**	**15 29 18.1**	**+2.2**
NJ2					pmax		pmax		
	comp=Z,9.0nm,0.5s								
FORT	**Forrest**	**31.60**	**175**		P		**P**	**15 29 16.0**	**+0.1**
FORT					IAmb		IAmb	15 29 17.9	
	comp=Z,8.6nm,0.7s								
INKA	**Innaminka**	**32.10**	**154**		P		**P**	**15 29 20.6**	**+0.3**
BBOO	**Buckleboo**	**35.02**	**164**		P		**P**	**15 29 46.2**	**+0.4**
BBOO					IAmb		IAmb	15 30 26.6	
	comp=Z,23nm,1.4s								
STKA	**Stephens Creek**	**36.06**	**156**		P		**P**	**15 29 55.1**	**+0.5**
	comp=Z,6.8nm,0.5s,baz=340,slow=7.7,SNR=23								
	comp=Z,6.8nm,0.5s								
STKA	**Stephens Creek**	**36.06**	**156**		P		**P**	**15 29 55.5**	**+0.8**
STKA	**Stephens Creek**	**36.06**	**156**		P		**P**	**15 29 55.7**	**+1.0**
	comp=Z,42nm,0.8s								
KSRS	**Korea Array**	**36.47**	**4**		P		**P**	**15 29 57.0**	**-1.1**
	comp=Z,1.0nm,0.8s,baz=179,slow=9.5,SNR=2.8								
KSRS					LR		LR	15 44 04.4	
	comp=Z,31nm,21.9s,baz=185,slow=35								
	comp=Z,1.0nm,0.8s								
MJAR	**Matsushiro Arr**	**37.44**	**17**		P		**P**	**15 30 04.4**	**-2.0**
	comp=Z,2.4nm,0.8s,baz=196,slow=8.7,SNR=4.0								
	comp=Z,2.4nm,0.8s								
MJAR	**Matsushiro Arr**	**37.44**	**17**		IAmb		IAmb	15 30 11.7	
	comp=Z,8.6nm,1.4s								
HHC	**Hu-ho-hao-te**	**41.69**	**344**	*eP*			**P**	**15 30 45.4**	**+3.5**
HHC					pmax		pmax		
	comp=Z,7.0nm,0.6s								
HHC					pmax		pmax		
	comp=Z,160nm,4.4s								
CAN	**Canberra**	**42.28**	**151**		P		**P**	**15 30 48.6**	**+1.9**
CAN					IAmb		IAmb	15 31 31.0	
	comp=Z,21nm,1.5s								
CAN	**Canberra**	**42.28**	**151**		P		**P**	**15 30 48.3**	**+1.6**
	comp=Z,12nm,2.1s								
KLR	**Kul'dur**	**48.48**	**6**		P		**P**	**15 31 33.9**	**-1.6**
	comp=Z,1.0nm,0.5s,baz=198,slow=5.3,SNR=4.8								
	comp=Z,1.0nm,0.5s								
SONM	**Songino Array**	**49.56**	**343**		LR		LR	15 54 42.2	
	comp=Z,44nm,18.4s,baz=216,slow=38								
TLY	**Talaya**	**53.80**	**343**		LR		LR	15 57 41.2	
	comp=Z,25nm,19.4s,baz=190,slow=39								
PEA0B	**Petropavlovsk-**	**58.59**	**22**		P		**P**	**15 32 50.1**	**+0.5**
PETK	**Petropavlovsk-**	**58.59**	**22**		P		**P**	**15 32 49.7**	**+0.1**
	comp=Z,1.6nm,0.7s,baz=222,slow=7.0,SNR=1.8								
	comp=Z,1.6nm,0.7s								
PETK	**Petropavlovsk-**	**58.59**	**22**		P		**P**	**15 32 49.9**	**+0.2**
PDGK	**Podgornoye**	**58.73**	**322**		P		**P**	**15 32 51.6**	**+0.6**
RTZ	**Ruatahuna**	**61.56**	**136**		P		**P**	**15 33 10.8**	**+0.4**
KURBB	**Kurchatov Arra**	**63.38**	**329**		P		**P**	**15 33 19.9**	**-2.3**
	comp=Z,0.5nm,0.3s,baz=134,slow=6.6,SNR=1.0								
	comp=Z,0.5nm,0.3s								
KURK	**Kurchatov**	**63.39**	**329**		P		**P**	**15 33 19.9**	**-2.4**
KURK	**Kurchatov**	**63.39**	**329**		IAmb		IAmb	15 33 41.7	
	comp=Z,2.4nm,0.9s								
CASY	**Casey**	**67.84**	**186**		P		**P**	**15 33 50.8**	**+0.1**
CASY					IAmb		IAmb	15 33 59.8	
	comp=Z,8.9nm,1.2s								
MAW	**Mawson**	**80.61**	**200**		P		**P**	**15 35 04.8**	**-0.3**
	comp=Z,1.6nm,0.5s,baz=86,slow=4.2,SNR=4.5								
	comp=Z,1.6nm,0.5s								
MAW	**Mawson**	**80.61**	**200**		P		**P**	**15 35 05.1**	**0.0**
MAW	**Mawson**	**80.61**	**200**		P		**P**	**15 35 04.2**	**-0.8**
	comp=Z,2.2nm,2.5s								
VNDA	**Vanda**	**80.81**	**172**		P		**P**	**15 35 05.2**	**-0.8**
	comp=Z,0.9nm,0.6s,baz=314,slow=5.1,SNR=7.0								
	comp=Z,0.9nm,0.6s								
VNDA	**Vanda**	**80.81**	**172**		P		**P**	**15 35 06.2**	**+0.2**
VNDA	**Vanda**	**80.81**	**172**		P		**P**	**15 35 06.2**	**+0.2**
KTH	**Kantishna Hill**	**86.43**	**26**		P		**P**	**15 35 35.4**	**+0.2**
BMAR	**Burnt Mountain**	**89.23**	**23**		P		**P**	**15 35 48.5**	**0.0**
QSPA	**South Pole Qui**	**90.81**	**180**		P		**P**	**15 35 54.9**	**-1.0**
	comp=Z,1.0nm,0.7s,baz=283,slow=1.1,SNR=9.2								
	comp=Z,1.0nm,0.7s								
QSPA	**South Pole Qui**	**90.81**	**180**		IAmb		IAmb	15 36 16.9	
	comp=Z,4.0nm,1.5s								

IDC 09 15:27:28.8±5.4, 18°.85S×178°.01W, h598km±28km, mb2.8/4, mbtmp3.7/5, Error ellipse: s-maj=123.1km s-min=79.3km az=143.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.91**	**286**		P		P	15 28 53.5	-0.1
	5.0nm,0.4s,baz=265,slow=23,SNR=17								
STKA	**Stephens Creek**	**38.52**	**242**		P		P	15 34 01.5	-0.1
	1.0nm,0.6s,baz=79,slow=8.5,SNR=2.0								
	1.0nm,0.6s								
WRA	**Warramunga Arr**	**44.85**	**260**		P		P	15 34 51.0	-0.4
	0.3nm,0.3s,baz=98,slow=7.5,SNR=12								
	0.3nm,0.3s								
ASAR	**Alice Springs**	**44.91**	**255**		P		P	15 34 51.8	-0.1
	0.6nm,0.4s,baz=86,slow=8.3,SNR=24								
ASAR					PcP		PcP	15 36 19.8	-0.5
	0.2nm,0.6s,baz=96,slow=3.6,SNR=1.9								
	0.6nm,0.4s								
FITZ	**Fitzroy Crossi**	**53.26**

TWG				*i*	S		Sn	16 22 07.5	-1.1
WGK	**Gukeng**	0.58	4	*i*	P		Pb	16 21 58.1	+0.4
WGK				*i*	P		Sn	16 22 08.1	-0.7
WDLH	**Douliu**	0.59	2	*i*	P		Pb	16 21 57.8	+0.1
WDLH				*i*	S		Sb	16 22 07.4	+1.6
TWGBT	**Beinan**	0.59	119		P		Pb	16 21 57.3	-0.4
TWGBT	**Beinan**	0.59	119	*i*	P		Pb	16 21 57.3	-0.4
TWGBT				*i*	S		Sn	16 22 07.3	-1.5
LONT	**Longtian**	0.59	109	*i*	P		Pb	16 21 57.9	+0.1
LONT				*i*	S		Sb	16 22 07.3	+1.3
WTK	**Tuku**	0.60	348	*i*	P		Pb	16 21 58.1	+0.2
WTK				*i*	S		Sn	16 22 08.1	-1.0
WSF	**Szhu**	0.60	333	*i*	P		Pb	16 21 57.6	-0.3
WSF				*i*	S		Sb	16 22 07.7	+1.4
WDL	**Douliou City**	0.61	2	*i*	P		Pb	16 21 58.6	+0.4
WDL				*i*	S		Sn	16 22 09.5	0.0
SSPT	**Xinbi**	0.62	176	*i*	P		Pn	16 21 58.4	-1.6
SSPT					S		Sn	16 22 09.6	+0.1
EHD	**Haiduan**	0.63	86⇑	*i*	P		Pb	16 21 58.5	0.0
EHD				*i*	S		Sb	16 22 08.6	+1.4
ECL	**Taimali**	0.64	141	*i*	P		Pb	16 21 58.0	-0.6
ECL				*i*	S		Sn	16 22 09.0	-1.1
ECS	**Chishang**	0.64	90	*i*	P		Pb	16 21 59.0	+0.3
ECS					S		Sn	16 22 10.1	-0.1
WHYT	**Xinyi Township**	0.67	27	*i*	P		Pb	16 21 58.9	-0.2
WHYT				*i*	S		Sb	16 22 09.7	+1.5
TTN	**Taitung**	0.67	121	*i*	P		Pn	16 22 00.2	-0.5
TTN				*eS*			Sn	16 22 10.9	+0.1
FULB	**Fuli**	0.72	82	*i*	P		Pn	16 22 00.8	-0.6
FULB				*i*	S		Sn	16 22 12.2	+0.1
SCZT	**Fangliau**	0.73	173	*i*	P		Pb	16 21 59.8	-0.4
SCZT				*i*	S		Sn	16 22 11.7	-0.6
EDH	**Donghe**	0.73	100	*i*	P		Pn	16 22 00.6	-0.9
EDH				*i*	S		Sn	16 22 12.7	+0.3
WJS	**Zhushan**	0.74	15	*i*	P		Pb	16 22 00.7	+0.3
WJS				*i*	S		Sn	16 22 12.5	-0.2
TWF1	**Yuli**	0.76	71	*i*	P		Pb	16 22 00.7	+0.1
TWF1				*i*	S		Sb	16 22 11.6	+0.8
WLCH	**Liuqiu**	0.76	190	*i*	P		Pn	16 22 01.9	+0.1
WLCH				*eS*			Sn	16 22 15.6	+2.6
TWP	**Hsiaoliuchiu**	0.77	191	*i*	P		Pn	16 22 02.8	+0.8
TWP					S		Sn	16 22 16.2	+3.1
YULB	**Yu-li**	0.77	68		P		Pb	16 22 00.6	-0.3
YULB	**Yu-li**	0.77	68	*i*	P		Pb	16 22 00.7	-0.2
YULB					S		Sb	16 22 11.4	+0.3
EYUL	**Yuli**	0.77	71	*i*	P		Pb	16 22 01.1	+0.1
EYUL				*i*	S		Sn	16 22 12.7	-0.8
EAST	**Anshuo**	0.78	157	*i*	P		Pb	16 22 00.6	-0.3
EAST				*i*	S		Sn	16 22 13.2	-0.4
CHKT	**Chengkung**	0.78	90	*i*	P		Pn	16 22 01.9	-0.3
CHKT				*i*	S		Sn	16 22 14.7	+1.2
WNT	**Mingjian**	0.79	11	*i*	P		Pb	16 22 01.4	+0.2
WNT				*i*	S		Sn	16 22 13.5	-0.3
SSLB	**Suanglung**	0.79	30		P		Pb	16 22 00.8	-0.5
SSLB	**Suanglung**	0.79	30	*i*	P		Pb	16 22 01.1	-0.1
SSLB				*i*	S		Sb	16 22 12.9	+1.2
WTCT	**Ta-ch'eng**	0.79	344	*i*	P		Pb	16 22 00.9	-0.3
WTCT					S		Sb	16 22 12.5	+0.8
RLNB	**Erlin**	0.80	349	*i*	P		Pb	16 22 01.2	-0.2
RLNB				*i*	S		Sn	16 22 13.5	-0.5
WDGT	**Dungji**	0.81	281	*i*	P		Pb	16 22 00.7	-0.8
WDGT				*i*	S		Sb	16 22 12.5	+0.3
CHKH	**Chenggong**	0.81	83	*i*	P		Pg	16 22 00.6	-1.0
CHKH				*eS*			Sn	16 22 14.2	-0.1
WNT1	**Nantou City**	0.82	10	*i*	P		Pb	16 22 01.8	+0.1
WNT1				*i*	S		Sn	16 22 14.3	-0.2
TAW	**Tawu**	0.82	155		P		Pb	16 22 01.1	-0.6
TAW				*eS*			Sn	16 22 13.7	-0.7
TAWH	**Dawu Township**	0.83	156	*i*	P		Pb	16 22 01.5	-0.4
TAWH					S		Sn	16 22 15.6	+0.9
EHY	**Hungye**	0.84	61	*i*	P		Pn	16 22 02.4	-0.7
EHY				*i*	S		Sn	16 22 14.8	-0.2
EHYH	**Wanrong**	0.85	63	*i*	P		Pb	16 22 02.3	+0.1
EHYH					S		Sb	16 22 14.1	+0.5
SMLT	**Sun Moon Lake**	0.85	24	*i*	P		Pb	16 22 02.4	+0.1
SMLT				*i*	S		Sn	16 22 16.0	+0.4
TYC	**Yuchr**	0.86	21	*i*	P		Pb	16 22 02.4	0.0
TYC				*i*	S		Sn	16 22 15.8	+0.3
WYL	**Yuanlin Townsh**	0.86	4		P		Pb	16 22 02.2	-0.1
WYL				*i*	S		Sn	16 22 16.0	+0.5
ECBN	**Changbin**	0.88	76	*i*	P		Pn	16 22 04.3	+0.7
ECBN				*i*	S		Sn	16 22 19.1	+3.0
HGSD	**Ruisui**	0.92	65	*i*	P		Pn	16 22 04.6	+0.6
HGSD				*eS*			Sn	16 22 17.6	+0.7
SLIU	**Shizi**	0.92	164	*i*	P		Pb	16 22 03.2	-0.8
SLIU				*i*	S		Sn	16 22 18.0	+1.1
WWF	**Wufeng**	0.95	10	*i*	P		Pn	16 22 04.1	-0.5
WWF				*i*	S		Sn	16 22 18.4	+0.6
PHUB	**P'eng-hu**	0.96	295	*i*	P		Pg	16 22 02.6	-1.9
PHUB				*i*	S		Sg	16 22 15.8	-1.4
WCH1	**Changhua City**	0.97	1	*eP*			Pg	16 22 03.7	-0.9
WCH1				*i*	S		Sn	16 22 19.1	+0.9
LDUT	**Ludao**	0.97	116	*i*	P		Pn	16 22 04.2	-0.6
LDUT					S		Sn	16 22 20.2	+1.9
WCHH	**Zhanghua**	0.97	2	*i*	P		Pn	16 22 04.7	-0.2
WCHH				*i*	S		Sn	16 22 18.9	+0.5
PNG	**Penghu**	1.00	298	*i*	P		Pg	16 22 02.3	-2.9
PNG				*i*	S		Sb	16 22 17.3	-0.4
WARBT	**Fenglin Townsh**	1.00	52	*i*	P		Pn	16 22 05.2	-0.1
WARBT				*i*	S		Sn	16 22 20.2	+1.0
EGFH	**Guangfu**	1.01	56	*i*	P		Pn	16 22 05.1	-0.2
EGFH					S		Sn	16 22 20.0	+0.8
VCHM	**Qimei**	1.01	276	*i*	P		Pg	16 22 03.5	-1.9
VCHM					S		Sb	16 22 17.8	-0.3
WCS	**Beigang Elemen**	1.02	21	*i*	P		Pg	16 22 04.7	-0.9
WCS				*i*	S		Sn	16 22 19.9	+0.4
OWD	**Renai**	1.04	35	*i*	P		Pn	16 22 05.9	0.0
OWD				*i*	S		Sn	16 22 21.4	+1.1
WUSB	**Renai**	1.04	32	*i*	P		Pg	16 22 05.1	-0.9
WUSB				*i*	S		Sn	16 22 20.9	+0.6
TCU	**Taichung**	1.05	8	*i*	P		Pn	16 22 05.6	-0.3
TCU				*i*	S		Sn	16 22 21.3	+1.0
ESL	**Shilin**	1.10	50	*i*	P		Pn	16 22 06.8	+0.2
ESL				*i*	S		Sn	16 22 23.3	+1.8
HEN	**Hengchun**	1.11	170	*i*	P		Pn	16 22 07.1	+0.4
HEN				*eS*			Sn	16 22 22.8	+1.1
SMST	**Manzhou Townsh**	1.11	165	*i*	P		Pn	16 22 07.4	+0.7
SMST					S		Sn	16 22 23.6	+1.8
SHUL	**Shoufeng**	1.18	54	*i*	P		Pg	16 22 08.8	+0.3
SHUL				*i*	S		Sn	16 22 26.3	+3.2
TWKBT	**Hengchun**	1.19	167	*i*	P		Pg	16 22 08.0	-0.7
TWKBT				*eS*			Sn	16 22 23.9	+0.4
WHP	**Taichung City**	1.23	18	*i*	P		Pg	16 22 08.9	-0.8
WHP				*i*	S		Sn	16 22 27.0	+2.1
ETM	**Tongmen**	1.24	46	*i*	P		Pg	16 22 09.7	-0.1
ETM				*eS*			Sn	16 22 26.6	+1.6
WHF	**Hehuan Shan**	1.24	33	*i*	P		Pg	16 22 09.4	-0.5
WHF				*i*	S		Sn	16 22 27.8	+2.1
WDJ	**Dajia District**	1.25	5	*i*	P		Pg	16 22 09.1	-0.8
WDJ				*i*	S		Sn	16 22 27.4	+2.3
TWQ1	**Liyutan**	1.26	10	*i*	P		Pg	16 22 09.2	-1.0
TWQ1				*i*	S		Sg	16 22 27.4	+0.7
TDCB	**Techi**	1.29	27	*i*	P		Pg	16 22 09.9	-0.8
TDCB				*i*	S		Sg	16 22 28.3	+0.8
TWT	**Tachien**	1.29	27	*i*	P		Pg	16 22 10.0	-0.8
TWT				*i*	S		Sg	16 22 28.6	+0.8
FUSS	**Fushou**	1.32	30	*i*	P		Pg	16 22 10.7	-0.6
FUSS				*i*	S		Sg	16 22 30.2	+1.7
HWA	**Hwalien**	1.32	49	*eP*			Pg	16 22 11.1	-0.3
HWA				*i*	S		Sg	16 22 30.9	+2.3
TWD	**Chiawan**	1.39	45	*i*	P		Pg	16 22 11.6	-0.9
TWD					S		Sg	16 22 31.6	+1.0
ETLH	**Xiulin Townshi**	1.41	38	*i*	P		Pg	16 22 12.1	-0.9
ETLH				*i*	S		Sg	16 22 32.0	+0.6
NMLH	**Miaoli**	1.45	10	*i*	P		Pb	16 22 12.0	-0.5
NMLH				*i*	S		Sg	16 22 33.3	+0.6
NACB	**Ninganchiao**	1.45	42		P		Pg	16 22 12.7	-1.1
NACB	**Ninganchiao**	1.45	42	*i*	P		Pb	16 22 12.6	0.0
NACB				*i*	S		Sg	16 22 33.0	+0.2
ETL	**Fush Village**	1.46	44		P		Pg	16 22 13.2	-0.8
ETL				*i*	S		Sg	16 22 35.0	+2.0
LYUB	**Lan-yu**	1.47	138	*i*	P		Pn	16 22 10.3	-1.4
LYUB					S		Sb	16 22 30.6	-0.6
NNSB	**Datong**	1.54	31	*i*	P		Pb	16 22 13.6	-0.5
NNSB				*i*	S		Sg	16 22 35.7	+0.2
NNS	**Nan Shan**	1.54	30	*i*	P		Pb	16 22 14.0	-0.1
NNS				*i*	S		Sg	16 22 37.1	+1.4
NSTT	**Nanjuang**	1.59	16	*i*	P		Pb	16 22 13.8	-1.0
NSTT				*i*	S		Sg	16 22 36.3	-0.7
LIOB	**Emei**	1.60	16	*i*	P		Pb	16 22 14.3	-0.8
LIOB				*i*	S		Sg	16 22 36.9	-0.7
NFF	**Wufeng Townshi**	1.62	20	*i*	P		Pn	16 22 14.2	+0.4
NFF				*i*	S		Sg	16 22 37.2	-0.8
EAHA	**Aohua**	1.66	42	*eP*			Pg	16 22 16.7	-1.0
EAHA					S		Sg	16 22 39.9	+0.7
LATG	**Datong**	1.70	33	*i*	P		Pb	16 22 16.3	-0.5
LATG				*i*	S		Sg	16 22 40.0	-0.6
ENA	**Nanau**	1.73	40	*i*	P		Pb	16 22 16.6	-0.7
ENA					S		Sg	16 22 41.1	-0.5
NSK	**Sanguang**	1.75	26	*i*	P		Pb	16 22 16.6	-1.0
NSK				*i*	S		Sg	16 22 41.2	-0.9
YHNB	**Yeheng**	1.75	26		P		Pb	16 22 16.8	-0.8
YHNB	**Yeheng**	1.75	26		S		Sb	16 22 40.3	+1.0
YHNB	**Yeheng**	1.75	26	*i*	P		Pn	16 22 16.1	+0.5
YHNB				*eS*			Sg	16 22 40.5	-1.6
NDT	**Datong Townshi**	1.75	31	*i*	P		Pb	16 22 17.3	-0.2
NDT				*eS*			Sg	16 22 40.7	-1.5
EWUT	**Wuta**	1.77	40	*i*	P		Pb	16 22 17.6	-0.3
EWUT				*i*	S		Sg	16 22 42.2	-0.5
KSHI	**Guanxi Townshi**	1.77	20	*eP*			Pn	16 22 15.3	-0.6
KSHI					S		Sb	16 22 40.9	+0.8
ENTT	**Nioudou**	1.81	32	*i*	P		Pb	16 22 18.5	-0.1
ENTT				*i*	S		Sg	16 22 44.5	+0.4
NDS	**Dongshan**	1.88	35	*i*	P		Pb	16 22 20.0	+0.2
NDS				*i*	S		Sg	16 22 45.7	-0.6
NWLT	**Wulai**	1.90	28	*i*	P		Pb	16 22 18.8	-1.3
NWLT					S		Sb	16 22 44.1	+0.6
FUSB	**Fushanzhiwuyua**	1.92	30	*i*	P		Pb	16 22 19.6	-0.9
FUSB					S		Sg	16 22 46.3	-1.4
TWE	**Neicheng**	1.92	33	*i*	P		Pb	16 22 19.6	-1.0
TWE					S		Sb	16 22 44.8	+0.4
TWC	**Suao**	1.93	39	*i*	P		Pb	16 22 20.9	+0.2
TWC					S		Sb	16 22 46.0	+1.4
EOS4	**EOS4**	1.94	58		P		Pb	16 22 20.2	-0.3
EOS4				*i*	S		Sb	16 22 44.6	+0.2
NHDH	**Xindian Distri**	2.07	26	*eP*			Pb	16 22 23.5	+0.5
NHDH				*eS*			Sb	16 22 49.7	+1.2
TWA	**Mucha**	2.11	27		P		Pb	16 22 23.1	-0.6
TWA					S		Sb	16 22 49.5	-0.2
VWUC	**VWUC**	2.12	333	*i*	P		Pn	16 22 20.1	-0.5
VWUC					S		Sn	16 22 47.8	+1.1
TIPB	**Shuangxi**	2.21	32	*i*	P		Pb	16 22 23.7	-1.8
TIPB					S		Sb	16 22 52.0	-0.7
YM01	**YM01**	2.25	25	*eP*			Pn	16 22 23.0	+0.5
YM01				*eS*			Sb	16 22 52.8	-1.0
ZUZH	**Zhuzihu**	2.25	24		P		Pn	16 22 20.8	-1.7
ZUZH					S		Sn	16 22 51.9	+1.8
ANP	**Anpu**	2.27	24	*i*	P		Pn	16 22 22.9	+0.1
ANP				*eS*			Sb	16 22 52.9	-1.5
PTMZ	**Houxiangcun**	2.32	327	*i*	P		Pn	16 22 22.9	-0.5
PTMZ				*eS*			Sn	16 22 50.3	-1.2
KNM	**Kinmen**	2.32	305	*eP*			Pb	16 22 26.8	-0.5
KNM					S		Sb	16 22 57.1	+1.4
SXI1	**Grass Mountain**	2.34	32	*i*	P		Pb	16 22 26.7	-1.0
SXI1				*eS*			Sb	16 22 55.9	-0.5
KNMB	**Chin-men Tao**	2.38	305	*i*	P		Pn	16 22 23.2	-1.0
KNMB					S		Sn	16 22 55.0	+1.9
DSXP	**Dongshan**	2.91	283		P		Pn	16 22 33.0	+1.5
DSXP				*eS*			Sn	16 23 08.7	+2.6
AXDP	**Jialang**	2.94	308		P		Pn	16 22 30.6	-1.3
AXDP				*eS*			Sn	16 23 09.0	+2.1
MHZQ	**Yeshan**	3.28	336	*i*	P		Pn	16 22 35.4	-1.2
MHZQ				*eS*			Sn	16 23 17.1	+1.8
LYJJ	**Jianjiangzhen**	3.50	349	*i*	P		Pn	16 22 39.0	-0.6
LYJJ				*eS*			Sn	16 23 21.2	+0.4

*MOS **09** 16:45:30.5±1.0, 3˚.67S×153˚.34E, h207km, mb5.1/40, Error ellipse: s-maj=7.9km s-min=5.3km az=117.3*

*BJI **09** 16:45:31.2, 3˚.48S×153˚.69E, h223km, mB5.1/40, mb5.1/81*

*IDC **09** 16:45:33.0±0.5, 3˚.78S×153˚.37E, h223km±3km, mb4.7/31, mbtmp5.3/36, Error ellipse: s-maj=7.8km s-min=6.0km az=118.0*

*NEIC **09** 16:45:32.9, 3˚.79S×153˚.35E, h214km*

*GFZ **09** 16:45:33.9, 3˚.65S×153˚.40E, h227km, Mw5.5/141, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr0.59; Mθθ0.25; Mθφ-0.84; Mrθ-0.40; Mφφ-0.24; Mφr1.96; Fault plane solution: Mo2.15048×10¹⁷ NP1: ϕs221.45528°, δ14.39346°, λ141.24566°. NP2: ϕs349.32083°, δ81.04804°, λ78.68273°. Principal axes: T 2.0831, Plg52.6498°, Azm246.0988°; N 0.1289, Plg11.1776°, Azm351.1046°; P -2.2120, Plg35.0913°, Azm89.0848°;*

*NEIC **09** 16:45:33.3±1.6, 3˚.79S×153˚.07×153˚.35E±0˚.07, h217km±1km, mb5.2/323, Mwb5.6/34, Mww5.4/20 Error ellipse: s-maj=11.5km s-min=11.3km az=136.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr0.37; Mθθ0.41; Mθφ-0.78; Mrθ-0.98; Mφφ-0.69; Mφr2.74; Fault plane solution: Mo3.07000×10¹⁷ NP1: ϕs342.27000°, δ86.79000°, λ72.73000°. NP2: ϕs242.05000°, δ17.56000°, λ169.30000°. Principal axes: T 3.1191, Plg46.0000°, Azm235.0000°; N -0.1107, Plg17.0000°, Azm343.0000°; P -3.0084, Plg39.0000°, Azm88.0000°;*

*NEIC **09** 16:45:33, 3˚.79S×153˚.34E, h215km*

*NEIC **09** 16:45:33.4, 3˚.59S×153˚.44E, h210km, Moment Tensor Solution. Duration: 2s7 Moment tensor: Scale 10¹⁷Nm; Mrr0.04; Mθθ0.80; Mθφ-0.84; Mrθ-0.85; Mφφ0.01; Mφr1.32; Fault plane solution: Mo1.77000×10¹⁷ NP1: ϕs228.72000°, δ26.72000°, λ176.31000°. NP2: ϕs322.02000°, δ88.34000°, λ63.33000°. Principal axes: T 1.6210, Plg41.0000°, Azm207.0000°; N 0.2668, Plg27.0000°, Azm323.0000°; P -1.8878, Plg38.0000°, Azm76.0000°;*

*GFZ **09** 16:45:34.6, 3˚.76S×153˚.33E, h228km, MW5.5, Moment Tensor Solution. s39 Moment tensor: Scale 10¹⁷Nm; Mrr0.14; Mθθ0.64; Mθφ-0.78; Mrθ-0.50; Mφφ-0.40; Mφr2.06; Fault plane solution: NP1: ϕs343.00000°, δ86.00000°, λ71.00000°. NP2: ϕs242.00000°, δ18.00000°, λ168.00000°. Principal axes: T 2.0800, Plg45.0000°, Azm234.0000°; N 0.3500, Plg18.0000°, Azm344.0000°; P -2.4300, Plg38.0000°, Azm89.0000°;*

*GFZ **09** 16:45:34.2±0.2, 4˚S±3˚×15˚3E±˚, h235km, M5.4/41, mb5.6/41*

*GCMT **09** 16:45:35.3±0.1, 3˚.73S±0˚.01×153˚.34E±0˚.01, h219km, MW5.6/159, Moment Tensor Solution. s142, c254; s159, c306; Duration: 1s5 Moment tensor: Scale 10¹⁷ Nm; Mrr0.01±.03; Mθθ0.84±.03; Mθφ-0.85±.03; Mrθ-0.49±.02; Mφφ-0.73±.03; Mφr2.68±.02; Best double couple: Mo2.92000×10¹⁷ NP1: ϕs251.00000°, δ21.00000°, λ175.00000°. NP2: ϕs345.00000°, δ88.00000°, λ69.00000°. Principal axes: T 2.6900, Plg43.0000°, Azm235.0000°; N 0.4580, Plg21.0000°, Azm346.0000°; P -3.1490, Plg40.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **09** 16:45:36.5±0.5, 4˚S±3˚×15˚3E±˚, h257km±5km, M5.4/197, mB5.9/161, mb5.6/197, Mw(mB)5.5/161, MwMwp5.3/38, Mwp5.5/38*

ISC 09 16:45:32.8±0.2, 3˚.76S±0˚.03×153˚.42E±0˚.03, h225km±1km, h226km; pP-P, n937, σ1s21/954, mb5.2/345, 40C-18D, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RABL	**Rabaul**	1.32	251		Pn	16 46 06.5	-1.0
KRVT	**Keravat (AS076**	1.49	248	P	Pn	16 46 08.1	-0.7
	50μm,0.7s,baz=328,slow=0.7,SNR=1314						
KRVT				S	S	16 46 36.3	-0.4
	12μm,0.5s,baz=360,slow=23,SNR=13						
MANU	**Manus Island**	6.28	286	Pn	Pn	16 47 03.5	-0.6
PMG	**Port Moresby**	8.37	228	P	Pn	16 47 31.6	+0.6
	629nm,0.8s,baz=48,slow=4.8,SNR=68						
PMG				S	S	16 49 04.9	-0.9
	326nm,0.7s,baz=133,slow=7.4,SNR=4.7						
PMG	**Port Moresby**	8.37	228	P	Pn	16 47 30.9	-0.1
PMG						16 49 04.9	
PMG	**Port Moresby**	8.37	228		Pn	16 47 30.9	-0.1
PMG	**Port Moresby**	8.37	228	P	Pn	16 47 32.2	+1.2
	8μm6μm693nm,0.7s						
PMG	**Port Moresby**	8.37	228	P	Pn	16 47 32.7	+1.8
	comp=Z,709nm,0.7s						
HNR	**Honiara**	8.59	131	P	Pn	16 47 34.8	+1.1
	comp=Z,406nm,1.0s,baz=311,slow=12,SNR=14						
HNR	**Honiara**	8.59	131	⇓P	Pn	16 47 34.3	+0.5
	comp=Z,470nm,1.3s						
JAY	**Jayapura**	12.75	275	P	Pn	16 48 27.0	+0.4
	comp=Z,550nm,1.1s,baz=93,slow=4.0,SNR=68						
JAY				S	S	16 50 48.9	+1.0
	comp=Z,55nm,0.9s,baz=296,slow=23,SNR=5.0						
JAY	**Jayapura**	12.75	275	P	Pn	16 48 26.4	-0.2
	comp=Z,373nm,1.2s						
GENI	**Genyem**	13.28	275	P	Pn	16 48 33.3	+0.2
	comp=Z,6μmcomp=Z,8μmcomp=Z,601nm,1.3s						
GENI	**Genyem**	13.28	275	P	Pn	16 48 33.7	+0.6
	comp=Z,600nm,1.3s						
COEN	**Coen**	14.31	224	P	P	16 48 48.7	+2.0
	comp=Z,965nm,1.0s						
COEN	**Coen**	14.31	224	P	P	16 48 48.9	+2.3
	comp=Z,965nm,1.0s						
SMPI	**Sarmi**	14.79	276	P	P	16 48 52.7	+0.7
	comp=Z,6μmcomp=Z,20μmcomp=Z,2μm,1.3s						
MTSU	**Mount Surprise**	16.84	211	P	Pn	16 49 17.0	+0.9
	comp=Z,764nm,0.9s						
MTSU	**Mount Surprise**	16.84	211	P	Pn	16 49 16.8	+0.6
	comp=Z,764nm,0.9s						
MTSU	**Mount Surprise**	16.84	211	P	Pn	16 49 16.7	+0.6
	comp=Z,764nm,0.9s						
MTSU	**Mount Surprise**	16.84	211	P	Pn	16 49 17.0	+0.9
	comp=Z,764nm,0.9s						
BAKI	**Biak**	17.48	278	P	P	16 49 22.0	+0.5
	comp=Z,6μmcomp=Z,6μmcomp=Z,391nm,1.5s						
CTA	**Charters Tower**	17.67	203	P	Pn	16 49 25.9	+0.1
	comp=Z,324nm,1.1s,comp=Z,0.0nm						
CTA	**Charters Tower**	17.67	203	P	Pn	16 49 25.7	-0.2
	comp=Z,324nm,1.1s						
CTA	**Charters Tower**	17.67	203	P	Pn	16 49 25.6	-0.2
	comp=Z,324nm,1.1s						
CTA	**Charters Tower**	17.67	203	P	Pn	16 49 24.9	-1.0
	comp=Z,519nm,0.8s,baz=19,slow=12,SNR=244						
CTA				ScP	ScP	16 57 04.6	-0.1
	comp=Z,19nm,1.0s,baz=28,slow=8.5,SNR=3.8						
CTAO	**Charters Tower**	17.67	203	P	Pn	16 49 25.7	-0.2
CTAO	**Charters Tower**	17.67	203		Pn	16 49 25.7	-0.2
CTAO	**Charters Tower**	17.67	203	P	Pn	16 49 25.9	+0.1
	comp=Z,822nm,1.1s						
SANVU	**Saraoutou**	17.86	131		P	16 49 26.6	+1.0
SANVU	**Saraoutou**	17.86	131	P	P	16 49 26.6	+1.0
SANVU	**Saraoutou**	17.86	131	⇓P	P	16 49 26.0	+0.3
	comp=Z,256nm,0.9s						
GUMO	**Guam**	19.21	334	P	P	16 49 40.9	+0.8
	comp=Z,305nm,0.8s,baz=179,slow=9.0,SNR=13						
GUMO	**Guam**	19.21	334	P	P	16 49 41.0	+0.8
GUMO	**Guam**	19.21	334		P	16 49 41.0	+0.8
GUMO	**Guam**	19.21	334	P	P	16 49 41.4	+1.3
	comp=Z,575nm,1.1s						
MWPI	**Manokwari, Pap**	19.56	278	P	Pn	16 49 46.2	-2.0
DPSS	**Saipan**	20.33	338	P	P	16 49 53.0	+0.8
FAKI	**Fak Fak**	21.15	272		P	16 50 00.2	-0.7
FAKI	**Fak Fak**	21.15	272	P	P	16 50 00.0	-0.9
	comp=Z,7μmcomp=Z,15μmcomp=Z,966nm,1.2s						
FAKI	**Fak Fak**	21.15	272	P	P	16 50 00.5	-0.4
	comp=Z,956nm,1.2s						
QIS	**Mount Isa**	21.44	218	P	P	16 50 03.9	+0.2
	comp=Z,502nm,1.3s,comp=Z,0.0nm						
QIS	**Mount Isa**	21.44	218	P	P	16 50 03.6	-0.1
	comp=Z,502nm,1.3s,comp=Z,0.0nm						
QIS	**Mount Isa**	21.44	218	P	P	16 50 03.6	-0.1
	comp=Z,502nm,1.3s,comp=Z,0.0nm						
QIS				S	S	16 53 47.0	+0.4
QIS	**Mount Isa**	21.44	218	P	P	16 50 03.9	+0.2
	comp=Z,502nm,1.3s						
EIDS	**Eidsvold**	21.61	186

TNTI	**Ternate**	**26.42 279**	P	**P**		**16 50 49.1**	**-0.1**
TNTI	**Ternate**	**26.42 279**	P	**P**		**16 50 49.5**	**+0.3**
	comp=Z,90nm,1.6s						
ARMA	**Armidale**	**26.57 183**	P	**P**		**16 50 52.4**	**+2.0**
	comp=Z,185nm,0.8s						
ARMA	**Armidale**	**26.57 183**	P	**P**		**16 50 52.5**	**+2.0**
	comp=Z,185nm,0.8s						
ARMA	**Armidale**	**26.57 183**	P	**P**		**16 50 52.1**	**+1.7**
	comp=Z,185nm,0.8s						
ARMA	**Armidale**	**26.57 183**	P	**P**		**16 50 51.5**	**+1.0**
ARMA	**Armidale**	**26.57 183**	P	**P**		**16 50 52.4**	**+2.0**
	comp=Z,185nm,0.8s						
INKA	**Innaminka**	**26.74 206**	P	**P**		**16 50 51.7**	**-0.1**
KNRA	**Kununurra**	**26.99 242**	P	**P**		**16 50 53.7**	**-0.5**
	comp=Z,189nm,0.8s						
KNRA	**Kununurra**	**26.99 242**	P	**P**		**16 50 54.6**	**+0.4**
	comp=Z,189nm,0.8s						
KNRA	**Kununurra**	**26.99 242**	P	**P**		**16 50 53.6**	**-0.5**
	comp=Z,189nm,0.8s						
KNRA	**Kununurra**	**26.99 242**	P	**P**		**16 50 53.6**	**-0.6**
AS17	**Alice Springs**	**27.27 222**	P	**P**		**16 50 56.7**	**0.0**
	comp=Z,284nm,0.8s						
AS17	**Alice Springs**	**27.27 222**	P	**P**		**16 50 57.4**	**+0.7**
	comp=Z,284nm,0.8s						
AS17	**Alice Springs**	**27.27 222**	P	**P**		**16 50 56.4**	**-0.3**
	comp=Z,284nm,0.8s						
AS15	**Alice Springs**	**27.30 222**	P	**P**		**16 50 57.0**	**+0.1**
	comp=Z,288nm,0.8s						
AS15	**Alice Springs**	**27.30 222**	P	**P**		**16 50 57.6**	**+0.6**
	comp=Z,288nm,0.8s						
AS09	**Alice Springs**	**27.33 222**	P	**P**		**16 50 57.1**	**0.0**
	comp=Z,320nm,0.7s						
AS09	**Alice Springs**	**27.33 222**	P	**P**		**16 50 57.7**	**+0.5**
	comp=Z,320nm,0.7s						
AS31	**Alice Springs**	**27.33 222**	P	**P**		**16 50 57.1**	**-0.1**
	comp=Z,75nm,0.8s						
AS31	**Alice Springs**	**27.33 222**	P	**P**		**16 50 57.7**	**+0.5**
	comp=Z,75nm,0.8s						
AS31	**Alice Springs**	**27.33 222**	P	**P**		**16 50 57.0**	**-0.3**
	comp=Z,75nm,0.8s						
AS31	**Alice Springs**	**27.33 222**	P	**P**		**16 50 56.9**	**-0.3**
AS31			IAmb	IAmb		16 50 58.6	
	comp=Z,65nm,0.9s						
ASAR	**Alice Springs**	**27.33 222**	P	**P**		**16 50 57.0**	**-0.3**
	comp=Z,159nm,0.7s,baz=50,slow=8.0,SNR=2568						
ASAR			S	**S**		**16 55 19.1**	**-1.1**
	comp=Z,23nm,0.8s,baz=60,slow=15,SNR=6.1						
ASAR			ScP	**ScP**		**16 57 30.6**	**+0.9**
	comp=Z,27nm,0.9s,baz=54,slow=3.1,SNR=15						
ASAR			ScS	**ScS**		**17 01 23.2**	**+1.4**
	comp=Z,1.2nm,0.9s,baz=42,slow=7.6,SNR=2.4						
	comp=Z,159nm,0.7s						
SANI	**Sanana**	**27.44 273**	P	**P**		**16 50 57.4**	**-0.9**
	comp=Z,3µmcomp=Z,3µmcomp=Z,244nm,1.3s						
SANI	**Sanana**	**27.44 273**	P	**P**		**16 50 57.8**	**-0.5**
	comp=Z,245nm,1.3s						
MSVF	**Nonsavu**	**27.85 122**	P	**P**		**16 51 02.6**	**+0.7**
MSVF			pmax	pmax			
	comp=Z,112nm,1.7s						
MSVF	**Nonsavu**	**27.85 122**	P	**P**		**16 51 02.6**	**+0.7**
MSVF			IAmb	IAmb		16 51 03.7	
	comp=Z,112nm,1.6s						
MSVF	**Nonsavu**	**27.85 122**	P	**P**		**16 51 02.3**	**+0.4**
	comp=Z,37nm,1.0s						
CMSA	**Cobar Meteorol**	**28.58 194**	P	**P**		**16 51 08.7**	**+0.6**
	comp=Z,357nm,0.8s						
CMSA	**Cobar Meteorol**	**28.58 194**	P	**P**		**16 51 09.3**	**+1.2**
	comp=Z,357nm,0.8s						
CMSA	**Cobar Meteorol**	**28.58 194**	P	**P**		**16 51 08.6**	**+0.6**
	comp=Z,357nm,0.8s						
CMSA	**Cobar Meteorol**	**28.58 194**	P	**P**		**16 51 08.7**	**+0.6**
	comp=Z,357nm,0.8s						
MNI	**Manado**	**29.02 280**	P	**P**		**16 51 12.2**	**-0.1**
	comp=Z,4µmcomp=Z,345nm,1.3s						
CDOP	**Cateel, Davao**	**29.26 293**	*i* P	**P**		**16 51 13.7**	**-0.6**
MGCD	**Mangrove Creek**	**29.38 184**	P	**P**		**16 51 17.1**	**+1.9**
	comp=Z,118nm,0.8s						
MGCD	**Mangrove Creek**	**29.38 184**	P	**P**		**16 51 17.0**	**+1.9**
	comp=Z,118nm,0.8s						
MGCD	**Mangrove Creek**	**29.38 184**	P	**P**		**16 51 16.8**	**+1.6**
	comp=Z,118nm,0.8s						
MGCD	**Mangrove Creek**	**29.38 184**	P	**P**		**16 51 17.0**	**+1.9**
	comp=Z,118nm,0.8s						
BIPH	**Bislig**	**29.48 294**	*eP*	**P**		**16 51 15.7**	**-0.5**
SOEI	**Soe**	**29.54 257**	P	**P**		**16 51 17.0**	**0.0**
	comp=Z,2µmcomp=Z,243nm,0.9s						
KMSI	**Cibinong**	**29.73 278**	P	**P**		**16 51 18.7**	**+0.2**
FUTU	**Fugatoga**	**29.96 112**	P	**P**		**16 51 21.3**	**+0.8**
FUTU	**Fugatoga**	**29.96 112**	P	**P**		**16 51 22.1**	**+1.6**
	comp=Z,166nm,1.4s						
RIV	**Riverview**	**30.00 184**	P	**P**		**16 51 22.5**	**+1.9**
	comp=Z,249nm,0.9s						
RIV	**Riverview**	**30.00 184**	P	**P**		**16 51 22.5**	**+1.9**
	comp=Z,249nm,0.9s						
RIV	**Riverview**	**30.00 184**	P	**P**		**16 51 22.3**	**+1.8**
	comp=Z,249nm,0.9s						
RIV	**Riverview**	**30.00 184**	P	**P**		**16 51 22.4**	**+1.9**
	comp=Z,249nm,0.9s						
STKA	**Stephens Creek**	**30.10 200**	P	**P**		**16 51 21.6**	**+0.1**
	comp=Z,602nm,1.0s						
STKA	**Stephens Creek**	**30.10 200**	P	**P**		**16 51 21.7**	**+0.1**
	comp=Z,602nm,1.0s						
STKA	**Stephens Creek**	**30.10 200**	P	**P**		**16 51 21.4**	**-0.1**
	comp=Z,602nm,1.0s						
STKA	**Stephens Creek**	**30.10 200**	P	**P**		**16 51 21.4**	**-0.1**
	comp=Z,74nm,0.8s,baz=5.4,slow=8.4,SNR=152						
STKA			ScP	**ScP**		**16 57 40.1**	**+1.8**
	comp=Z,29nm,1.1s,baz=28,slow=3.7,SNR=7.5						
	comp=Z,74nm,0.8s						
STKA	**Stephens Creek**	**30.10 200**	P	**P**		**16 51 21.7**	**+0.1**
STKA	**Stephens Creek**	**30.10 200**	P	**P**		**16 51 21.6**	**0.0**
	comp=Z,602nm,1.0s						
BATI	**Baumata**	**30.20 256**	P	**P**		**16 51 22.8**	**0.0**
	comp=Z,258nm,0.8s,baz=79,slow=8.9,SNR=36						
BATI			S	**S**		**16 56 07.0**	**+1.5**
	comp=Z,14nm,0.5s,baz=220,slow=23,SNR=2.5						
BATI			ScP	**ScP**		**16 57 40.6**	**+1.6**
	comp=Z,47nm,0.9s,baz=48,slow=4.4,SNR=3.7						
	comp=Z,258nm,0.8s						
BATI	**Baumata**	**30.20 256**	P	**P**		**16 51 23.2**	**+0.5**
GTOI	**Gorontalo**	**30.70 278**	P	**P**		**16 51 28.0**	**+1.0**
FITZ	**Fitzroy Crossi**	**30.70 240**	P	**P**		**16 51 26.1**	**-0.9**
	comp=Z,170nm,1.3s						
FITZ	**Fitzroy Crossi**	**30.70 240**	P	**P**		**16 51 26.4**	**-0.6**
	comp=Z,170nm,1.3s						
FITZ	**Fitzroy Crossi**	**30.70 240**	P	**P**		**16 51 25.8**	**-1.1**
	comp=Z,170nm,1.3s						
FITZ	**Fitzroy Crossi**	**30.70 240**	P	**P**		**16 51 26.1**	**-0.9**
	comp=Z,298nm,0.5s,baz=59,slow=7.3,SNR=556						
FITZ			S	**S**		**16 56 11.0**	**-2.1**
	comp=Z,39nm,1.0s,baz=188,slow=21,SNR=6.5						
FITZ			ScP	**ScP**		**16 57 41.0**	**+0.4**
	comp=Z,49nm,0.8s,baz=66,slow=2.8,SNR=4.7						
FITZ	**Fitzroy Crossi**	**30.70 240**	P	**P**		**16 51 26.4**	**-0.6**
FITZ	**Fitzroy Crossi**	**30.70 240**	P	**P**		**16 51 26.1**	**-0.9**
	comp=Z,170nm,1.3s						
KDI	**Kendari**	**30.73 269**	P	**P**		**16 51 27.2**	**-0.1**
LUWI	**Luwuk**	**30.73 274**	P	**P**		**16 51 27.5**	**+0.2**
LUWI	**Luwuk**	**30.73 274**	P	**P**		**16 51 27.8**	**+0.5**
	comp=Z,695nm,1.2s						
YNG	**Young**	**30.75 188**	P	**P**		**16 51 27.3**	**+0.1**
	comp=Z,1.4nm,0.9s						
BBSI	**Bau Bau**	**30.79 266**	P	**P**		**16 51 29.3**	**+1.4**
	comp=Z,3µmcomp=Z,377nm,1.2s						
MMRI	**Maumere**	**31.36 260**	P	**P**		**16 51 31.4**	**-1.5**
MMRI	**Maumere**	**31.36 260**	P	**P**		**16 51 31.7**	**-1.2**
	comp=Z,4µmcomp=Z,340nm,0.7s						
MMRI	**Maumere**	**31.36 260**	P	**P**		**16 51 30.5**	**-2.4**
	comp=Z,343nm,0.7s						
CNB	**Canberra Magne**	**31.63 186**	P	**P**		**16 51 36.9**	**+1.9**
	comp=Z,84nm,1.1s						
CNB	**Canberra Magne**	**31.63 186**	P	**P**		**16 51 36.7**	**+1.7**
	comp=Z,84nm,1.1s						
CNB	**Canberra Magne**	**31.63 186**	P	**P**		**16 51 36.0**	**+1.0**
	comp=Z,83nm,1.1s						
CAN	**Canberra**	**31.67 187**	P	**P**		**16 51 37.2**	**+1.8**
	comp=Z,93nm,0.9s						
CAN	**Canberra**	**31.67 187**	P	**P**		**16 51 36.5**	**+1.2**
	comp=Z,92nm,0.9s						
CAN	**Canberra**	**31.67 187**	P	**P**		**16 51 36.4**	**+1.0**
	comp=Z,92nm,0.9s						
CAN	**Canberra**	**31.67 187**	P	**P**		**16 51 35.8**	**+0.5**
CAN			pmax	pmax			
	comp=Z,52nm,0.7s						
CAN	**Canberra**	**31.67 187**	P	**P**		**16 51 35.8**	**+0.5**
CAN			IAmb	IAmb		16 51 38.5	
	comp=Z,52nm,0.7s						
CAN	**Canberra**	**31.67 187**	P	**P**		**16 51 36.5**	**+1.2**
CAN			pP	**pP**		**16 52 21.2**	**+1.4**
CAN			ScP	**ScP**		**16 57 46.2**	**+2.7**
KKSI	**Kolaka, Sulawe**	**31.69 268**	P	**P**		**16 51 37.0**	**+1.3**
	comp=Z,2µmcomp=Z,4µmcomp=Z,264nm,1.3s						
APSI	**Ampana**	**31.86 274**	P	**P**		**16 51 37.4**	**+0.2**
	comp=Z,5µmcomp=Z,463nm,1.3s						
EDFI	**Ende, Flores**	**31.91 260**	P	**P**		**16 51 35.8**	**-2.0**
PLP	**Palo**	**31.94 298**	*eP*	**P**		**16 51 36.8**	**-1.2**
WRKA	**Warakurna**	**32.12 226**	P	**P**		**16 51 38.7**	**-0.7**
	comp=Z,209nm,1.2s						
WRKA	**Warakurna**	**32.12 226**	P	**P**		**16 51 38.6**	**-0.7**
	comp=Z,209nm,1.2s						
WRKA	**Warakurna**	**32.12 226**	P	**P**		**16 51 38.4**	**-0.9**
	comp=Z,209nm,1.2s						
TBP	**Tagbilaran**	**32.34 295**	*eP*	**P**		**16 51 39.0**	**-2.4**
HTT	**Hallett**	**32.48 203**	P	**P**		**16 51 42.9**	**+0.5**
	comp=Z,162nm,1.0s						
HTT	**Hallett**	**32.48 203**	P	**P**		**16 51 42.6**	**+0.2**
	comp=Z,162nm,1.0s						
LLP	**Lapu-Lapu**	**32.49 296**	*eP*	**P**		**16 51 41.4**	**-1.2**
BSSI	**Bau Bau, Buton**	**32.88 265**	P	**P**		**16 51 46.3**	**+0.2**
	comp=Z,3µmcomp=Z,4µmcomp=Z,417nm,1.5s						
TOLI2	**Tolitoli**	**32.97 278**	IAmb	IAmb		16 51 48.6	
	comp=Z,40nm,0.8s						
TOLI2	**Tolitoli**	**32.97 278**	P	**P**		**16 51 45.5**	**-1.4**
	comp=Z,68nm,0.9s						
BBOO	**Buckleboo**	**33.16 207**	P	**P**		**16 51 48.1**	**-0.2**
	comp=Z,233nm,1.3s						
BBOO	**Buckleboo**	**33.16 207**	P	**P**		**16 51 47.9**	**-0.3**
	comp=Z,233nm,1.3s						
BBOO	**Buckleboo**	**33.16 207**	P	**P**		**16 51 47.8**	**-0.5**
	comp=Z,233nm,1.3s						
BBOO	**Buckleboo**	**33.16 207**	P	**P**		**16 51 47.7**	**-0.5**
BBOO	**Buckleboo**	**33.16 207**	P	**P**		**16 51 48.0**	**-0.3**
	comp=Z,233nm,1.3s						
BKSI	**Bulukumba**	**33.22 266**	P	**P**		**16 51 48.5**	**-0.6**
	comp=Z,157nm,0.8s						
MILA	**Mila**	**33.37 186**	P	**P**		**16 51 52.2**	**+2.1**
	comp=Z,13nm,1.3s						
MILA	**Mila**	**33.37 186**	P	**P**		**16 51 51.8**	**+1.7**
	comp=Z,13nm,1.3s						
MILA	**Mila**	**33.37 186**	P	**P**		**16 51 51.5**	**+1.5**
	comp=Z,13nm,1.3s						
WSI	**Waingapu**	**33.39 258**	P	**P**		**16 51 49.4**	**-1.1**
TTSI	**Tana Toraja**	**33.54 270**	P	**P**		**16 51 52.2**	**+0.4**
	comp=Z,3µmcomp=Z,3µmcomp=Z,112nm,1.0s						
KAPI	**Kappang**	**33.59 267**	*c i* P	**P**		**16 51 51.8**	**-0.4**
KAPI			pmax	pmax			
	comp=Z,79nm,0.5s						
KAPI	**Kappang**	**33.59 267**	P	**P**		**16 51 51.7**	**-0.4**
KAPI	**Kappang**	**33.59 267**	P	**P**		**16 51 51.8**	**-0.4**
	comp=Z,167nm,0.8s						
KAPI	**Kappang**	**33.59 267**	P	**P**		**16 51 52.0**	**-0.2**
	comp=Z,321nm,0.8s						
LBFI	**Labuhan Bajo,**	**33.65 260**	P	**P**		**16 51 51.4**	**-1.4**
PCI	**Palu**	**33.67 274**	P	**P**		**16 51 53.5**	**+0.6**
GUIM	**Jordan**	**33.85 295**	*i* P	**P**		**16 51 54.6**	**+0.1**
MKS	**Makassar**	**33.87 266**	P	**P**		**16 51 56.2**	**+1.6**
	comp=Z,4µmcomp=Z,245nm,1.2s						
TOO	**Toolangi**	**34.43 191**	P	**P**		**16 51 59.9**	**+0.8**
	comp=Z,17nm,0.8s						
MMSI	**Mamuju**	**34.47 271**	P	**P**		**16 51 59.8**	**0.0**
	comp=Z,2µmcomp=Z,179nm,0.9s						
ARPS	**Mount Arapiles**	**34.54 197**	P	**P**		**16 52 01.1**	**+1.0**
	comp=Z,78nm,1.2s						
ARPS	**Mount Arapiles**	**34.54 197**	P	**P**		**16 52 00.8**	**+0.8**
	comp=Z,78nm,1.2s						
ARPS	**Mount Arapiles**	**34.54 197**	P	**P**		**16 52 00.7**	**+0.6**
	comp=Z,78nm,1.2s						
DBNI	**Kabupaten Domp**	**35.21 261**	P	**P**		**16 52 03.7**	**-2.4**
	comp=Z,82nm,0.7s						
PLAI	**Plampang**	**35.77 260**	P	**P**		**16 52 08.3**	**-2.6**
	comp=Z,2µmcomp=Z,314nm,0.8s						
PLAI	**Plampang**	**35.77 260**	P	**P**		**16 52 08.2**	**-2.6**
	comp=Z,308nm,0.8s						
MGBR	**Mount Gambier**	**35.80 198**	IAmb	IAmb		16 52 13.6	
	comp=Z,68nm,0.8s						
FORT	**Forrest**	**35.98 219**	P	**P**		**16 52 12.4**	**0.0**
	comp=Z,545nm,0.8s						
FORT	**Forrest**	**35.98 219**	P	**P**		**16 52 12.3**	**-0.1**
	comp=Z,545nm,0.8s						
FORT	**Forrest**	**35.98 219**	P	**P**		**16 52 12.1**	**-0.3**
	comp=Z,545nm,0.8s						
FORT	**Forrest**	**35.98 219**	P	**P**		**16 52 12.3**	**-0.1**
OUZ	**Omahuta**	**36.46 152**	P	**P**		**16 52 17.2**	**+0.8**
OUZ			PcP	**PcP**		**16 54 37.4**	**+2.1**
TWSI	**Taliwang, Sumb**	**36.64 260**	P	**P**		**16 52 16.7**	**-1.5**
	comp=Z,2µmcomp=Z,269nm,0.8s						
MBWA	**Marble Bar**	**37.02 239**	P	**P**		**16 52 20.3**	**-1.1**
	comp=Z,248nm,1.7s						
MBWA	**Marble Bar**	**37.02 239**	P	**P**		**16 52 20.1**	**-1.3**
	comp=Z,248nm,1.7s						
MBWA	**Marble Bar**	**37.02 239**	P	**P**		**16 52 20.1**	**-1.3**
	comp=Z,248nm,1.7s						
MBWA	**Marble Bar**	**37.02 239**	P	**P**		**16 52 20.7**	**-0.7**
MBWA	**Marble Bar**	**37.02 239**	P	**P**		**16 52 20.3**	**-1.1**
	comp=Z,248nm,1.7s						
MBWA	**Marble Bar**	**37.02 239**	P	**P**		**16 52 20.4**	**-1.1**
MBWA			ScP	**ScP**		**16 58 03.2**	**+0.3**
PPR	**Puerto Princes**	**37.08 292**	*eP*	**P**		**16 52 22.7**	**+0.8**
WCZ	**Waipu Caves**	**37.40 151**	P	**P**		**16 52 25.7**	**+1.4**
WCZ			PcP	**PcP**		**16 54 39.4**	**+1.3**
KHKI	**Kahang-Kahang**	**37.86 261**	P	**P**		**16 52 28.0**	**-0.5**
	comp=Z,2µmcomp=Z,213nm,1.1s						
DNP	**Denpasar**	**38.28 261**	P	**P**		**16 52 30.6**	**-1.4**
	comp=Z,527nm,1.1s						
IGBI	**Denpasar**	**38.35 261**	P	**P**		**16 52 31.8**	**-0.8**
KKM	**Kota Kinabalu**	**38.40 285**	P	**P**		**16 52 32.8**	**-0.3**
NIUE	**Niue**	**38.90 116**	P	**P**		**16 52 38.3**	**+1.3**
NIUE			PcP	**PcP**		**16 54 43.3**	**+0.1**
MOO	**Moorlands**	**38.92 187**	P	**P**		**16 52 39.4**	**+2.6**
	comp=Z,103nm,1.6s						
MOO	**Moorlands**	**38.92 187**	P	**P**		**16 52 39.2**	**+2.4**
	comp=Z,102nm,1.6s						
MOO	**Moorlands**	**38.92 187**	P	**P**		**16 52 38.5**	**+1.7**
MOO	**Moorlands**	**38.92 187**	P	**P**		**16 52 39.3**	**+2.4**
	comp=Z,103nm,1.6s						
JOW	**Kunigami**	**38.93 323**	P	**P**		**16 52 38.2**	**+1.1**
	comp=Z,132nm,0.5s,baz=122,slow=11,SNR=34						
	comp=Z,132nm,0.5s						
JOW	**Kunigami**	**38.93 323**	P	**P**		**16 52 38.2**	**+1.1**
JOW	**Kunigami**	**38.93 323**	P	**P**		**16 52 38.6**	**+1.4**
	comp=Z,426nm,1.2s						
JAGI	**Jajag, Banyuwa**	**39.30 261**	P	**P**		**16 52 37.9**	**-2.6**
	comp=Z,2µmcomp=Z,173nm,1.0s						
JAGI	**Jajag, Banyuwa**	**39.30 261**	P	**P**		**16 52 37.5**	**-3.0**
	comp=Z,175nm,0.9s						
TAU	**Tasmania Unive**	**39.36 187**	P	**P**		**16 52 41.9**	**+1.4**
TAU			pmax	pmax			
	comp=Z,50nm,0.8s						
TAU	**Tasmania Unive**	**39.36 187**	P	**P**		**16 52 41.9**	**+1.4**
TAU			IAmb	IAmb		16 52 45.7	
	comp=Z,50nm,0.8s						
TAU	**Tasmania Unive**	**39.36 187**	P	**P**		**16 52 42.2**	**+1.7**
	comp=Z,75nm,1.6s						
HIZ	**Hauiti**	**39.73 153**	P	**P**		**16 52 45.2**	**+1.6**
HIZ			PcP	**PcP**		**16 54 46.3**	**+0.9**
BLJI	**Banyuglugur**	**39.80 262**	P	**P**		**16 52 42.8**	**-1.8**
	comp=Z,2µmcomp=Z,159nm,0.8s						
MARZ	**Manawahe**	**40.16 151**	P	**P**		**16 52 48.0**	**+0.9**
VRZ	**Vera Road**	**40.19 154**	P	**P**		**16 52 46.7**	**-0.8**
MEEK	**Meekatharra**	**40.32 232**	P	**P**		**16 52 48.3**	**-0.4**
	comp=Z,567nm,1.0s						
MEEK	**Meekatharra**	**40.32 232**	P	**P**		**16 52 48.1**	**-0.6**
	comp=Z,567nm,1.0s						
MEEK	**Meekatharra**	**40.32 232**	P	**P**		**16 52 48.0**	**-0.8**
	comp=Z,567nm,1.0s						
MEEK	**Meekatharra**	**40.32 232**	P	**P**		**16 52 48.3**	**-0.4**
	comp=Z,567nm,1.0s						
KMBL	**Kambalda**	**40.43 224**	P	**P**		**16 52 49.0**	**-0.5**
	comp=Z,321nm,0.7s						
KMBL	**Kambalda**	**40.43 224**	P	**P**		**16 52 49.0**	**-0.5**
	comp=Z,321nm,0.7s						
KMBL	**Kambalda**	**40.43 224**	P	**P**		**16 52 48.8**	**-0.7**
	comp=Z,321nm,0.7s						
HAZ	**Te Kaha**	**40.52 150**	P	**P**		**16 52 50.4**	**+0.3**
WTVZ	**West Tongariro**	**40.56 153**	P	**P**		**16 52 52.1**	**+1.5**
URZ	**Urewera**	**40.58 151**	P	**P**		**16 52 50.8**	**+0.2**
COVZ	**Chateau Observ**	**40.60 153**	P	**P**		**16 52 52.0**	**+1.1**
NGZ	**Ngauruhoe**	**40.61 153**	P	**P**		**16 52 52.3**	**+1.3**
ETVZ	**East Tongariro**	**40.63 153**	P	**P**		**16 52 53.1**	**+2.0**
OTVZ	**Oturere**	**40.63 153**	P	**P**		**16 52 51.8**	**+0.6**
RUGZ	**Raukumara Rang**	**40.63 150**	P	**P**		**16 52 51.1**	**-0.1**
SNVZ	**South Ngauruho**	**40.64 153**	P	**P**		**16 52 52.7**	**+1.4**
FWVZ	**Far West T-bar**	**40.65 153**	P	**P**		**16 52 52.7**	**+1.2**
TRVZ	**Turoa**	**40.69 153**	P	**P**		**16 52 53.0**	**+1.2**
TUVZ	**Tukino**	**40.71 153**	P	**P**		**16 52 53.9**	**+2.0**
QRZ	**Quartz Range**	**40.72 158**	P	**P**		**16 52 52.8**	**+1.1**
WNVZ	**Wahianoa**	**40.73 153**	P	**P**		**16 52 54.0**	**+2.0**
PKGZ	**Pakihiroa**	**40.76 150**	P	**P**		**16 52 53.0**	**+0.9**
YOJ	**Yonaguni jima**	**40.76 315**	P	**P**		**16 52 52.6**	**+0.4**
YOJ			pmax	pmax			
	comp=Z,448nm,1.1s						
YOJ	**Yonaguni jima**	**40.76 315**	P	**P**		**16 52 52.6**	**+0.4**
RTZ	**Ruatahuna**	**40.80 151**	IAmb	IAmb		16 52 54.8	
	comp=Z,51nm,0.8s						
RTZ	**Ruatahuna**	**40.80 151**	P	**P**		**16 52 52.8**	**+0.3**
MWZ	**Matawai**	**40.84 151**	P	**P**		**16 52 53.6**	**+0.8**
MOVZ	**Moawhango**	**40.87 153**	P	**P**		**16 52 54.1**	**+1.0**
WMGZ	**Waiomatatini S**	**40.89 149**	P	**P**		**16 52 53.5**	**+0.4**
RAGZ	**Rawiri**	**40.92 151**	P	**P**		**16 52 54.5**	**+1.0**
MTHZ	**Maungataniwha**	**40.92 152**	P	**P**		**16 52 54.0**	**+0.6**
TWGZ	**Tauwhareparae**	**40.95 150**	P	**P**		**16 52 54.4**	**+0.8**
PUZ	**Puketiti**	**41.00 150**	P	**P**		**16 52 53.9**	**-0.2**
BKZ	**Black Stump Fm**	**41.01 152**	P	**P**		**16 52 54.4**	**+0.2**
BHHZ	**Black Hill Sta**	**41.07 153**	P	**P**		**16 52 55.0**	**+0.3**
RAHZ	**Arahi**	**41.09 152**	P	**P**		**16 52 55.7**	**+0.9**
NMHZ	**Naumai**	**41.10 152**	P	**P**		**16 52 56.1**	**+1.1**
KWHZ	**Kaweka Forest**	**41.18 153**	P	**P**		**16 52 56.2**	**+0.6**
RIGZ	**Rimuhau**	**41.25 151**	P	**P**		**16 52 56.5**	**+0.4**
DSZ	**Denniston Nort**	**41.26 159**	P	**P**		**16 52 57.1**	**+0.9**
DSZ			PcP	**PcP**		**16 54 50.3**	**-0.1**
CNGZ	**Carnagh Statio**	**41.30 150**	P	**P**		**16 52 56.8**	**+0.4**
ARHZ	**Aropaoanui**	**41.32 152**	P	**P**		**16 52 57.3**	**+0.7**
JSU	**Suzuyama**	**41.33 330**	P	**P**		**16 52 56.6**	**-0.2**
JSU			IAmb	IAmb		16 52 58.2	
	comp=Z,133nm,1.3s						
JSU	**Suzuyama**	**41.33 330**	P	**P**		**16 52 57.5**	**+0.7**
	comp=Z,82nm,1.4s						
MCHZ	**McNeill Hill**	**41.33 152**	P	**P**		**16 52 57.4**	**+0.7**
KRHZ	**Kereru**	**41.34 153**	P	**P**		**16 52 56.6**	**-0.1**
YULB	**Yu-li**	**41.34 312**	IAmb	IAmb		16 52 59.2	
	comp=Z,84nm,0.8s						
YULB	**Yu-li**	**41.34 312**	P	**P**		**16 52 57.2**	**+0.2**
	comp=Z,145nm,1.1s						
NNZ	**Nelson**	**41.38 157**	P	**P**		**16 52 57.4**	**+0.3**
KNZ	**Kokohu**	**41.45 151**	P	**P**		**16 52 58.1**	**+0.4**
PNHZ	**Pukenui**	**41.48 153**	P	**P**		**16 52 58.0**	**0.0**
TSZ	**Takapari Road**	**41.49 154**	P	**P**		**16 52 58.2**	**+0.2**
NACB	**Ninganchiao**	**41.59 313**	P	**P**		**16 52 59.8**	**+0.7**
	comp=Z,265nm,1.0s						
PWJI	**Pagerwojo**	**41.59 262**	P	**P**		**16 52 57.6**	**-1.6**
	comp=Z,3µmcomp=Z,305nm,0.8s						
JMN	**Monobe**	**41.60 335**	IAmb	IAmb		16 53 00.5	
	comp=Z,64nm,1.1s						
JMN	**Monobe**	**41.60 335**	P	**P**		**16 52 58.5**	**-0.5**
	comp=Z,66nm,1.2s						
SJI	**Sawahan**	**41.61 263**	P	**P**		**16 52 59.2**	**-0.3**
	comp=Z,6µmcomp=Z,272nm,0.7s						
SNJI	**Sawahan-Nganju**	**41.62 263**	P	**P**		**16 52 59.5**	**-0.2**
	comp=Z,2µmcomp=Z,179nm,1.4s						
MHGZ	**Mahia Peninsul**	**41.67 151**	P	**P**		**16 52 59.6**	**+0.2**
THZ	**Tophouse**	**41.67 158**	P	**P**		**16 52 59.2**	**-0.3**
THZ			IAmb	IAmb		16 53 00.2	
	comp=Z,65nm,0.8s						
THZ	**Tophouse**	**41.67 158**	P	**P**		**16 52 59.0**	**-0.5**
KAHZ	**Kahuranaki**	**41.69 153**	P	**P**		**16 52 60.0**	**+0.3**
WPHZ	**Waipukurau**	**41.71 153**	P	**P**		**16 52 59.8**	**0.0**
TCW	**Tory Channel**	**41.73 156**	P	**P**		**16 53 00.5**	**+0.6**
TPUB	**Ta-pu**	**41.78 312**	P	**P**		**16 53 00.3**	**-0.3**
	comp=Z,141nm,1.0s						
TUWZ	**Tuamarina**	**41.79 157**	P	**P**		**16 53 00.8**	**+0.4**
MRZ	**Mangatainoka R**	**41.82 155**	P	**P**		**16 52 59.9**	**-0.7**
MRZ			IAmb	IAmb		16 53 39.4	
	comp=Z,158nm,1.6s						
MRZ	**Mangatainoka R**	**41.82 155**	P	**P**		**16 53 00.0**	**-0.6**
SSLB	**Suanglung**	**41.83 312**	P	**P**		**16 53 01.1**	**+0.1**
SSLB			IAmb	IAmb		16 53 02.2	
	comp=Z,98nm,1.0s						
SSLB	**Suanglung**	**41.83 312**	P	**P**		**16 53 01.2**	**+0.1**
	comp=Z,101nm,0.9s

ODZ	**Otahua Downs**	**43.81**	**162**	P	**P**	**16 53 16.1**	**-0.5**
ODZ				PcP	**PcP**	**16 54 59.1**	**+0.3**
WHZ	**Wether Hill Ro**	**43.84**	**165**	P	**P**	**16 53 16.8**	**0.0**
CTJI	**Waduk Cacaban**	**44.14**	**264**	P	**P**	**16 53 19.4**	**-0.3**
	comp=Z,160nm,1.6s						
SCJI	**Gunung Srandil**	**44.18**	**263**	P	**P**	**16 53 20.1**	**+0.1**
	comp=Z,3µmcomp=Z,217nm,1.1s						
QZH2	**Quanzhou**	**44.24**	**312**	P	**P**	**16 53 20.6**	**+0.3**
QZH2				pmax	pmax		
	comp=Z,170nm,1.2s						
TUZ	**Tuapeka**	**44.35**	**164**	P	**P**	**16 53 20.8**	**+0.1**
KPJI	**Karang Pucung**	**44.40**	**263**	P	**P**	**16 53 21.2**	**-0.5**
	comp=Z,4µmcomp=Z,255nm,0.7s						
NWAO	**Narrogin (SRO)**	**44.55**	**225**	P	**P**	**16 53 22.1**	**-0.5**
	comp=Z,161nm,1.6s						
NWAO	**Narrogin (SRO)**	**44.55**	**225**	P	**P**	**16 53 22.0**	**-0.6**
	comp=Z,161nm,1.6s						
NWAO	**Narrogin (SRO)**	**44.55**	**225**	P	**P**	**16 53 20.9**	**-1.8**
NWAO				pmax	pmax		
	comp=Z,497nm,1.8s						
NWAO	**Narrogin (SRO)**	**44.55**	**225**	P	**P**	**16 53 20.9**	**-1.8**
NWAO	**Narrogin (SRO)**	**44.55**	**225**	P	**P**	**16 53 21.7**	**-1.0**
NWAO				ScP	**ScP**	**16 58 33.6**	**+1.2**
CMJI	**Cimerak**	**44.90**	**263**	P	**P**	**16 53 24.3**	**-1.3**
RKGY	**Rocky Gully**	**45.66**	**223**	P	**P**	**16 53 31.9**	**+0.7**
	comp=Z,169nm,0.8s						
RKGY	**Rocky Gully**	**45.66**	**223**	P	**P**	**16 53 31.4**	**+0.1**
	comp=Z,170nm,0.8s						
BBJI	**Bungbulang**	**45.68**	**263**	P	**P**	**16 53 30.4**	**-1.5**
BBJI	**Bungbulang**	**45.68**	**263**	P	**P**	**16 53 30.3**	**-1.5**
	comp=Z,3µmcomp=Z,405nm,0.7s						
BBJI	**Bungbulang**	**45.68**	**263**	P	**P**	**16 53 30.4**	**-1.5**
	comp=Z,402nm,0.8s						
LEM	**Lembang**	**45.69**	**264**	P	**P**	**16 53 31.2**	**-0.8**
	comp=Z,73nm,0.7s,baz=89,slow=7.9,SNR=19						
	comp=Z,73nm,0.7s						
TPI	**Tanjungpandan**	**45.70**	**270**	P	**P**	**16 53 32.2**	**+0.3**
	comp=Z,4µmcomp=Z,312nm,1.3s						
CNJI	**Cibinong**	**46.19**	**264**	P	**P**	**16 53 34.3**	**-1.4**
CBJI	**Citeko**	**46.45**	**265**	P	**P**	**16 53 36.3**	**-1.4**
	comp=Z,171nm,0.5s						
TJN	**Taejon**	**46.76**	**331***c*	*i*P	**P**	**16 53 39.6**	**-0.1**
KSRS	**Korea Array**	**47.36**	**332**	P	**P**	**16 53 44.7**	**+0.3**
	comp=Z,31nm,0.8s,baz=150,slow=9.2,SNR=67						
KSRS				PcP	**PcP**	**16 55 12.3**	**+1.0**
	comp=Z,2.3nm,0.7s,baz=160,slow=4.0,SNR=2.0						
KSRS				ScP	**ScP**	**16 58 45.0**	**+1.1**
	comp=Z,5.3nm,1.1s,baz=148,slow=5.2,SNR=5.5						
	comp=Z,31nm,0.8s						
KSAR	**Wonju Array Be**	**47.37**	**332**	P	**P**	**16 53 44.6**	**+0.2**
KSAR	**Wonju Array Be**	**47.37**	**332**	P	**P**	**16 53 44.6**	**+0.2**
CGJI	**Cibinong**	**47.60**	**265**	P	**P**	**16 53 44.4**	**-2.2**
INCN	**Inchon**	**47.99**	**331**	P	**P**	**16 53 49.8**	**+0.5**
INCN				pmax	pmax		
	comp=Z,321nm,1.1s						
INCN	**Inchon**	**47.99**	**331**	P	**P**	**16 53 49.8**	**+0.5**
NJ2	**Nanjing**	**48.44**	**320**	⇓P	**P**	**16 53 54.3**	**+1.6**
NJ2				S	**S**	**17 00 37.1**	**+1.0**
NJ2				sS	**sS**	**17 02 03.9**	**+3.4**
NJ2				pmax	pmax		
	comp=Z,26nm,0.9s						
QIZ	**Qiongzhong**	**48.48**	**299**	P	**P**	**16 53 54.5**	**+1.2**
QIZ				sP	**sP**	**16 55 07.7**	**+1.2**
QIZ				S	**S**	**17 00 39.8**	**+2.6**
QIZ				sS	**sS**	**17 02 01.1**	**-0.5**
QIZ				pmax	pmax		
	comp=Z,39nm,0.7s						
RAR	**Rarotonga**	**48.65**	**115**	P	**P**	**16 53 55.7**	**+1.2**
RAR				pmax	pmax		
	comp=Z,181nm,1.5s						
RAR	**Rarotonga**	**48.65**	**115**	P	**P**	**16 53 55.7**	**+1.2**
RAR				IAmb	IAmb	16 54 00.8	
	comp=Z,181nm,1.4s						
KASI	**Kota Agung**	**48.78**	**266**	P	**P**	**16 53 53.2**	**-2.5**
	comp=Z,2µmcomp=Z,173nm,0.9s						
HJU	**Haeju**	**48.88**	**331**	P	**P**	**16 53 56.2**	**+0.3**
HJU				S	**S**	**17 00 41.6**	**-0.4**
HJU				AmB			
	comp=Z,247nm,1.3s						
DSRI	**Dabo**	**48.91**	**273**	P	**P**	**16 53 56.6**	**0.0**
	comp=Z,3µmcomp=Z,192nm,1.6s						
TPRI	**Tanjung Pinang**	**49.08**	**274**	P	**P**	**16 53 58.1**	**+0.1**
	comp=Z,3µmcomp=Z,211nm,1.4s						
MDSI	**Maura Dua**	**49.11**	**267**	P	**P**	**16 53 56.4**	**-1.8**
	comp=Z,2µmcomp=Z,167nm,1.4s						
XMAS	**Kiritimati**	**49.45**	**84**	P	**P**	**16 54 02.0**	**+1.3**
XMAS	**Kiritimati**	**49.45**	**84**	P	**P**	**16 54 02.6**	**+1.9**
HHU	**Hamhung**	**49.55**	**334**	P	**P**	**16 54 01.5**	**+0.5**
HHU				S	**S**	**17 00 51.4**	**+0.1**
HHU				AmB			
	comp=Z,145nm,1.0s						
PYAG	**Pyongyang**	**49.66**	**332**	P	**P**	**16 54 02.3**	**+0.5**
PYAG				pP	**pwP**	**16 54 55.7**	**+3.3**
PYAG				S	**S**	**17 00 53.2**	**+0.4**
PYAG				AmB			
	comp=Z,239nm,1.2s						
LHSI	**Lahat**	**49.78**	**268**	P	**P**	**16 54 02.3**	**-0.9**
	comp=Z,2µmcomp=Z,106nm,1.2s						
BTDF	**Bukit Timah Da**	**49.88**	**275**	P	**P**	**16 54 04.0**	**0.0**
	comp=Z,116nm,1.3s						
CNSH	**ChangSha**	**50.25**	**312**	P	**P**	**16 54 08.1**	**+1.6**
MNAI	**Manna**	**50.33**	**267**	P	**P**	**16 54 05.3**	**-2.1**
	comp=Z,302nm,0.7s						
WHN	**Wuhan**	**50.54**	**315**	⇑P	**P**	**16 54 09.6**	**+1.0**
WHN				pP	**pP**	**16 54 55.3**	**-1.9**
WHN				pmax	pmax		
	comp=Z,150nm,1.1s						
VLA	**Vladivostok**	**50.55**	**340**	*i* P	**P**	**16 54 09.5**	**+1.0**
VLA				pmax	pmax		
	comp=Z,49nm,1.2s						
KSI	**Kapahiang**	**50.71**	**268**	P	**P**	**16 54 09.0**	**-1.3**
	comp=Z,5µmcomp=Z,84nm,0.8s						
MASI	**Maura Aman, Be**	**51.08**	**269**	P	**P**	**16 54 11.7**	**-1.3**
	comp=Z,4µmcomp=Z,378nm,0.7s						
SUJ	**Sinuiju**	**51.09**	**332**	P	**P**	**16 54 12.2**	**-0.3**
YSS	**Yuzhno-Sakhali**	**51.36**	**351**	*e*P	**P**	**16 54 19.1**	**+4.7**
YSS				*e*S	**S**	**17 01 18.6**	**+2.5**
YSS				*e**SS	**sS**	**17 02 43.5**	**+2.2**
YSS				*e*SS	**SS**	**17 04 49.1**	**-6.1**
YSS				pmax	pmax		
	comp=Z,20nm,1.1s						
YSS				pmax	pmax		
	comp=Z,200nm,2.8s						
YSS				smax	smax		
	comp=N,300nm,3.9s						
YSS				smax	smax		
	comp=E,200nm,3.2s						
YSS	**Yuzhno-Sakhali**	**51.36**	**351**	P	**P**	**16 54 14.8**	**+0.3**
YSS				pP	**pP**	**16 55 03.0**	**+0.1**
USA0B	**Ussuriysk Arra**	**51.47**	**340***c*	*i*P	**P**	**16 54 15.6**	**+0.3**
USRK	**Ussuriysk Ar.**	**51.47**	**340**	P	**P**	**16 54 15.4**	**+0.1**
	comp=E,23nm,0.8s,baz=168,slow=7.9,SNR=46						
USRK				PcP	**PcP**	**16 55 27.1**	**+0.8**
	comp=E,7.4nm,0.8s,baz=169,slow=5.0,SNR=4.2						
USRK				ScP	**ScP**	**16 59 02.1**	**+0.8**
	comp=E,7.1nm,1.2s,baz=176,slow=6.5,SNR=4.0						
	comp=E,23nm,0.8s						
DL2	**Dalian**	**51.60**	**328**	P	P	16 54 08.3	-8.1
DL2				pP	pP	16 55 00.4	-4.9
DL2				PcP	**PcP**	**16 55 25.6**	**-1.3**
DL2				S	S	17 01 05.2	-14
DL2				pmax	pmax		
	comp=Z,40nm,1.8s						
DL2				pmax	pmax		
	comp=Z,210nm,6.7s						
KRJI	**Kerinci**	**51.91**	**270**	P	**P**	**16 54 18.6**	**-0.6**
	comp=Z,5µmcomp=Z,469nm,1.0s						
TIA	**Tai'an**	**52.25**	**323**	P	**P**	**16 54 21.0**	**-0.2**
TIA				S	**S**	**17 01 26.8**	**-1.8**
TIA				sS	**sS**	**17 02 48.9**	**-5.3**
TIA				ScS	**ScS**	**17 03 48.7**	**+0.9**
TIA				pmax	pmax		
	comp=Z,72nm,1.0s						
TIA				L	L		
	comp=Z,290nm,14.0s						
TIA				L	L		
	comp=Z,330nm,8.5s						
TIA				L	L		
	comp=Z,360nm,11.0s						
BKNI	**Bangkinang**	**52.50**	**273**	P	**P**	**16 54 23.6**	**+0.2**
	comp=Z,4µmcomp=Z,233nm,1.4s						
MDJ	**Mudanjiang**	**52.67**	**339**	P	**P**	**16 54 24.5**	**+0.4**
MDJ				pmax	pmax		
	comp=Z,47nm,1.8s						
MDJ	**Mudanjiang**	**52.67**	**339**	P	**P**	**16 54 24.2**	**+0.1**
MDJ				pP	**pP**	**16 55 13.6**	**+0.5**
MDJ				ScP	**ScP**	**16 59 07.9**	**+1.4**
IPM	**Ipoh**	**52.98**	**278**	P	**P**	**16 54 26.4**	**-0.6**
	comp=Z,3µmcomp=Z,214nm,1.4s						
PPI	**Padang Panjang**	**53.08**	**272**	P	**P**	**16 54 26.3**	**-1.3**
	comp=Z,2µmcomp=Z,170nm,1.3s						
KULM	**Kulim**	**53.47**	**279**	P	**P**	**16 54 30.0**	**-0.6**
KULM	**Kulim**	**53.47**	**279**	P	**P**	**16 54 29.9**	**-0.6**
	comp=Z,2µmcomp=Z,235nm,0.9s						
CN2	**Changchun**	**53.61**	**335**	⇑P	**P**	**16 54 31.0**	**0.0**
CN2				pP	pP	16 55 20.8	+0.6
CN2				sP	sP	16 55 45.9	+1.0
CN2				S	**S**	**17 01 48.5**	**+1.8**
CN2				pmax	pmax		
	comp=Z,30nm,1.1s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,200nm,22.0s						
CN2				L	L		
	comp=Z,200nm,22.0s						
CN2				L	L		
	comp=Z,100nm,23.0s						
KIP	**Kipapa**	**53.73**	**60***ce*	P	**P**	**16 54 32.4**	**+0.2**
KIP				pmax	pmax		
	comp=Z,267nm,1.3s						
KIP	**Kipapa**	**53.73**	**60**	P	**P**	**16 54 34.0**	**+1.8**
ENH	**Enshi**	**53.91**	**312**	P	**P**	**16 54 33.7**	**+0.2**
ENH				pP	**pP**	**16 55 22.8**	**+0.1**
ENH				PcP	**PcP**	**16 55 37.0**	**+1.1**
ENH				ScP	**ScP**	**16 59 12.3**	**0.0**
LYN	**LuoYang**	**54.17**	**318**	P	**P**	**16 54 35.1**	**-0.1**
LYN				pP	pwP	16 55 27.4	+0.4
LYN				ScP	**ScP**	**16 59 13.6**	**+0.3**
LYN				pmax	pmax		
	comp=Z,46nm,1.2s						
GYA	**Guiyang**	**54.26**	**306**	⇑P	**P**	**16 54 37.5**	**+1.3**
GYA				pmax	pmax		
	comp=Z,68nm,1.1s						
BNX	**BinXian**	**54.44**	**338**	⇑P	**P**	**16 54 36.8**	**-0.1**
BNX				pP	**pP**	**16 55 25.1**	**-1.1**
BNX				PcP	**PcP**	**16 55 36.4**	**-1.1**
BNX				sP	**sP**	**16 55 49.0**	**-1.7**
BNX				S	**S**	**17 01 55.6**	**-2.1**
BNX				sS	**sS**	**17 03 21.5**	**-2.8**
BNX				pmax	pmax		
	comp=Z,87nm,1.0s						
HNS	**HongShan**	**54.49**	**322**	⇑P	**P**	**16 54 37.8**	**+0.3**
HNS				pP	**pwP**	**16 55 32.8**	**+3.8**
HNS				ScP	**ScP**	**16 59 15.5**	**+0.8**
HNS				S	**S**	**17 01 55.2**	**-3.5**
HNS				sS	**sS**	**17 03 24.4**	**-0.9**
HNS				pmax	pmax		
	comp=Z,96nm,1.4s						
KHLH	**Kahului Airpor**	**54.92**	**61**	P	**P**	**16 54 42.9**	**+2.1**
KHLU	**Kahalu`u**	**54.95**	**63**	P	**P**	**16 54 42.5**	**+1.3**
TSI	**Tuntungan**	**55.29**	**277**	P	**P**	**16 54 43.7**	**+0.1**
	comp=Z,86nm,1.2s						
POHA	**Pohakuloa**	**55.32**	**63**	P	**P**	**16 54 45.7**	**+1.7**
POHA				pP	**pP**	**16 55 35.3**	**+1.3**
BJI2	**Beijing**	**55.37**	**326**	P	**P**	**16 54 43.8**	**+0.1**
BJI2				PP	**PP**	**16 56 52.1**	**+2.0**
BJI2				ScP	**ScP**	**16 59 19.1**	**+0.6**
BJI2				S	**S**	**17 02 06.9**	**-3.3**
BJI2				sS	**sS**	**17 03 33.8**	**-3.0**
BJI2				pmax	pmax		
	comp=Z,19nm,1.4s						
BJI2				pmax	pmax		
	comp=Z,200nm,6.1s						
BJI2				L	L		
	comp=Z,240nm,18.3s						
BJI2				L	L		
	comp=Z,240nm,17.6s						
BJI2				L	L		
	comp=Z,300nm,22.7s						
KLR	**Kul'dur**	**56.03**	**343***ce*	P	**P**	**16 54 48.4**	**+0.2**
KLR				pmax	pmax		
	comp=Z,78nm,1.7s						
GSI	**Gunungsitoli**	**56.03**	**274**	P	**P**	**16 54 47.5**	**-1.4**
	comp=Z,276nm,1.3s						
KCSI	**Kotacane, Aceh**	**56.08**	**277**	P	**P**	**16 54 47.2**	**-2.0**
TIY	**Taiyuan**	**56.10**	**321**	P	**P**	**16 54 49.6**	**+0.6**
TIY				sP	**sP**	**16 56 04.6**	**+1.2**
TIY				sS	**sS**	**17 03 46.9**	**-0.2**
TIY				SS	**SS**	**17 06 09.9**	**-0.4**
TIY				pmax	pmax		
	comp=Z,30nm,0.8s						
XAN	**Xi'an**	**56.30**	**316**	⇑P	**P**	**16 54 49.9**	**-0.6**
XAN				pP	pP	16 55 41.7	+1.4
XAN				S	**S**	**17 02 20.0**	**-2.9**
XAN				pmax	pmax		
	comp=Z,59nm,1.0s						
XAN				pmax	pmax		
	comp=Z,360nm,4.7s						
XAN				L	L		
	comp=Z,330nm,4.8s						
XAN				L	L		
	comp=Z,280nm,6.2s						
XAN				L	L		
	comp=Z,270nm,8.2s						
TPTI		**56.63**	**276**	P	**P**	**16 54 51.4**	**-1.7**
	comp=Z,96nm,1.2s						
PET	**Petropavlovsk**	**56.74**	**4**	*e*P	**P**	**16 54 53.7**	**+0.6**
PET				*e**SP	**sP**	**16 56 06.8**	**+0.2**
PET				*e*S	**S**	**17 02 29.5**	**+1.7**
PET				pmax	pmax		
	comp=Z,25nm,0.7s						
PET				MLR	MLR		
	comp=Z,100nm,15.0s						
PET				MLR	MLR		
	comp=Z,300nm,14.0s						
PEA0B	**Petropavlovsk-**	**56.77**	**3**	P	**P**	**16 54 54.5**	**+1.2**
PEA0B				pmax	pmax		
	comp=Z,121nm,1.4s						
PEA0B	**Petropavlovsk-**	**56.77**	**3**	P	**P**	**16 54 54.5**	**+1.2**
PETK	**Petropavlovsk-**	**56.77**	**3**	P	**P**	**16 54 54.0**	**+0.7**
	comp=Z,18nm,0.8s,baz=156,slow=5.6,SNR=62						
PETK				PcP	**pwP**	**16 55 47.1**	**-0.3**
	comp=Z,18nm,1.0s,baz=129,slow=4.0,SNR=6.3						
	comp=Z,18nm,0.8s						
PETK	**Petropavlovsk-**	**56.77**	**3**	P	**P**	**16 54 54.4**	**+1.0**
PETK					**pwP**	**16 55 47.7**	**+0.2**
KMI2	**Kunming**	**56.93**	**303**	⇑P	**P**	**16 54 56.7**	**+1.4**
KMI2				pP	pP	16 55 44.1	-1.0
KMI2				ScP	**ScP**	**16 59 27.2**	**+1.2**
KMI2				S	**S**	**17 02 32.1**	**+0.3**
KMI2				pmax	pmax		
	comp=Z,48nm,1.4s						
KMI2				L	L		
	comp=Z,340nm,18.3s						
SNSI	**Sinabang, Aceh**	**57.38**	**275**	P	**P**	**16 54 57.1**	**-1.3**
	comp=Z,167nm,1.3s						
PPT	**Papeete**	**57.46**	**108**	P	**P**	**16 55 00.7**	**+1.8**
	comp=Z,15nm,0.5s,baz=277,slow=6.6,SNR=4.0						
	comp=Z,15nm,0.5s						
PPT2	**Papeete2**	**57.46**	**108**	*e*P	**P**	**16 55 00.6**	**+1.6**
	comp=Z,138nm,27.8s						
PPT2				*e*S	**S**	**17 02 35.7**	**-3.0**
	comp=Z,478nm,27.2s						
PPT2				*es*S	**sS**	**17 04 02.8**	**-3.1**
	comp=Z,188nm,24.2s						
PPT2				*e*LQ	LQ	17 09 40.2	
	comp=Z,637nm,24.8s						
PPT2				*e*LR	LR	17 12 14.1	
	comp=Z,249nm,26.8s						
MLSI	**Meulaboh, Aceh**	**57.52**	**277**	P	**P**	**16 54 57.7**	**-1.6**
	comp=Z,3µmcomp=Z,333nm,0.9s						
CMAR	**Chiang Mai Arr**	**58.00**	**294**	P	**P**	**16 55 03.7**	**+1.1**
	comp=Z,42nm,0.8s,baz=112,slow=5.2,SNR=239						
CMAR				PcP	**pP**	**16 55 52.5**	**-0.2**
	comp=Z,17nm,0.9s,baz=104,slow=6.3,SNR=9.0						
CMAR				ScP	**ScP**	**16 59 31.0**	**+0.4**
	comp=Z,6.2nm,1.2s,baz=87,slow=2.0,SNR=4.5						
CMAR				PKP2bc	P'P'bc	17 24 43.5	-12
	comp=Z,0.2nm,0.3s,baz=308,slow=2.6,SNR=4.4						
	comp=Z,42nm,0.8s						
CMAR	**Chiang Mai Arr**	**58.00**	**294**	*i* P	**P**	**16 55 03.7**	**+1.1**
CMAR				pmax	pmax		
	comp=Z,44nm,0.8s						
CMAR	**Chiang Mai Arr**	**58.00**	**294**	P	**P**	**16 55 03.2**	**+0.6**
CMAR	**Chiang Mai Arr**	**58.00**	**294**		**ScP**	**16 59 30.1**	**-0.5**
XLT	**XiLinHaoTe**	**58.09**	**329**	*e*P	**P**	**16 55 03.0**	**+0.1**
XLT				PcP	**PcP**	**16 55 48.4**	**-3.6**
XLT				pP	pwP	16 55 56.7	+1.6
XLT				sP	sP	16 56 17.1	-0.3
XLT				S	**S**	**17 02 44.1**	**-1.9**
XLT				sS	sS	17 04 13.8	-0.1
XLT				ScS	**ScS**	**17 04 29.8**	**+0.1**
XLT				pmax	pmax		
	comp=Z,86nm,1.0s						
XLT				pmax	pmax		
	comp=Z,290nm,3.6s						
CHTO	**Chiang Mai**	**58.10**	**295**	P	**P**	**16 55 03.6**	**+0.3**
CHTO				pmax	pmax		
	comp=Z,126nm,1.6s						
CHTO	**Chiang Mai**	**58.10**	**295**	P	**P**	**16 55 03.6**	**+0.3**
CHTO	**Chiang Mai**	**58.10**	**295**	P	**P**	**16 55 04.0**	**+0.7**
CHTO	**Chiang Mai**	**58.10**	**295**	P	**P**	**16 55 03.9**	**+0.5**
CHTO				pP	**PcP**	**16 55 52.2**	**-0.3**
HEH	**HeiHe**	**58.28**	**341**	*e*P	**P**	**16 55 03.6**	**-0.3**
HEH				pmax	pmax		
	comp=Z,28nm,0.7s						
PZH	**PanZhiHua**	**58.29**	**304**	P	**P**	**16 55 05.1**	**+0.5**
PZH				pmax	pmax		
	comp=Z,20nm,1.4s						
TBI	**Tubuai**	**58.43**	**115**	*e*P	**P**	**16 55 01.9**	**-3.6**
	comp=Z,744nm,32.8s						
TBI				*e*S	**S**	**17 02 48.8**	**-2.1**
	comp=Z,1µm,31.2s						
TBI				*es*S	**sS**	**17 04 17.3**	**-1.3**
	comp=Z,2µm,28.2s						
TBI				*e*LQ	LQ	17 09 53.3	
	comp=Z,5µm,27.5s						
TBI				*e*LR	LR	17 12 31.4	
	comp=Z,2µm,31.2s						
CD2	**Chengdu**	**58.54**	**310**	P	**P**	**16 55 06.8**	**+0.6**
CD2				S	**S**	**17 02 51.7**	**-0.4**
CD2				sS	sS	17 04 17.2	-2.8
CD2				pmax	pmax		
	comp=Z,120nm,0.5s						
HHC	**Hu-ho-hao-te**	**58.57**	**324**	*e*P	**P**	**16 55 07.2**	**+0.9**
HHC				pP	pP	16 55 59.4	+2.9
HHC				sP	sP	16 56 20.1	-0.9
HHC				S	**S**	**17 02 49.3**	**-3.0**
HHC				sS	sS	17 04 19.5	-0.1
HHC				pmax	pmax		
	comp=Z,24nm,0.9s						
HHC				pmax	pmax		
	comp=Z,73nm,4.7s						
BSI	**Banda Aceh**	**58.77**	**279**	P	**P**	**16 55 05.9**	**-2.1**
	comp=Z,87nm,1.1s						
PMOR	**Pomariorio Ree**	**58.81**	**105**	*e*P	**P**	**16 55 10.4**	**+2.2**
	comp=Z,246nm,1.4s						
BTO2	**Baotou**	**59.52**	**323**	*e*P	**P**	**16 55 12.8**	**0.0**
BTO2				pP	**pP**	**16 56 02.6**	**-0.5**
BTO2				S	**S**	**17 03 02.6**	**-1.9**
BTO2				sS	**sS**	**17 04 30.7**	**-1.8**
BTO2				pmax	pmax		
	comp=Z,59nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,540nm,5.2s						
BTO2				L	L		
	comp=Z,390nm,15.5s						
BTO2				L	L		
	comp=Z,500nm,16.1s						
TNCH	**TengChong**	**60.45**	**301**	P	**P**	**16 55 20.5**	**+1.0**
TNCH				S	**S**	**17 03 20.1**	**+3.0**
TNCH				sS	sS	17 04 44.2	-1.6
TNCH				pmax	pmax		
	comp=Z,130nm,0.9s						
TNCH				pmax	pmax		
	comp=Z,570nm,2.6s						
HILR	**Hailar Array B**	**60.56**	**336**	P	**P**	**16 55 20.4**	**+0.8**
	comp=Z,2.8nm,0.5s,baz=138,slow=9.4,SNR=6.4						
	comp=Z,2.8nm,0.5s						
LZH	**Lanzhou**	**60.92**	**315**	P	**P**	**16 55 23.5**	**+1.1**
LZH				pP	pP	16 56 15.7	+2.6
LZH				sP	sP	16 56 36.3	-1.6
LZH				S	**S**	**17 03 23.3**	**+0.6**
LZH				sS	sS	17 04 48.2	-2.3
LZH				pmax	pmax		
	comp=Z,100nm,1.8s						
LZH				pmax	pmax		
	comp=Z,580nm,4.2s						
LZH				L	L		
	comp=Z,330nm,14.6s						
LZH				L	L		
	comp=Z,310nm,16.5s						
LZH				L	L		
	comp=Z,280nm,15.6s						
LZDM	**Lanzhou Array**	**60.96**	**315**	P	**P**	**16 55 24.1**	**+1.2**
	comp=Z,51nm,0.9s,baz=111,slow=8.1,SNR=37						
	comp=Z,51nm,0.9s						
ZEA	**Zeya**	**61.33**	**343**	*e*P	**P**	**16 55 25.1**	**+0.5**
ZEA				*e*		16 56 05.8	
ZEA				pmax	pmax		
	comp=N,10.0nm,0.7s						
ZEA				pmax	pmax		
	comp=Z,30nm,1.1s						
DRV	**Dumont d'Urvil**	**63.49**	**186**	P	**P**	**16 55 39.2**	**+0.6**
DRV				pP	**pP**	**16 56 29.5**	**+0.7**
CIT	**Chita**	**65.03**	**334**	*e*P	**P**	**16 55 49.1**	**+0.1**
CIT				*e*		16 56 33.2	
CIT				*e*		16 59 53.1	
CIT				pmax	pmax		
	comp=Z,120nm,2.8s						
GTA2	**Gaotai**	**65.39**	**317**	P	**P**	**16 55 52.6**	**+0.9**
GTA2				pP	pP	16 56 44.6	+1.3
GTA2				S	**S**	**17 04 19.4**	**+1.6**
GTA2				ScS	**SKSac**	**17 05 24.6**	**-0.4**
GTA2				pmax	pmax		
	comp=Z,64nm,1.3s						
ULN	**Ulaanbaatar**	**65.44**	**328***ce*	P	**P**	**16 55 52.5**	**+0.6**
ULN				pmax	pmax		
	comp=Z,42nm,1.0s						
ULN	**Ulaanbaatar**	**65.44**	**328**	P	**P**	**16 55 52.5**	**+0.6**
ULN				IAmb	IAmb	16 55 54.0	
	comp=Z,39nm,1.1s						
ULN	**Ulaanbaatar**	**65.44**	**328**	P	**P**	**16 55 52.7**	**+0.8**
	comp=Z,151nm,1.1s						
ULN	**Ulaanbaatar**	**65.44**	**328**	P	**P**	**16 55 52.7**	**+0.8**
ULN				PcP	**PcP**	**16 56 22.7**	**+0.8**
ULN				pP	**pwP**	**16 56 44.4**	**-1.1**
SONM	**Songino Array**	**65.78**	**327**	P	**P**	**16 55 54.6**	**+0.6**
	comp=Z,12nm,0.8s,baz=140,slow=5.3,SNR=63						
SONM				ScS	SKiKP	17 05 24.7	-12
	comp=Z,0.4nm,0.6s,baz=147,slow=8.8,SNR=3.6						
SONM				PKP2bc		17 24 23.7	
	comp=Z,0.4nm,0.6s,baz=70,slow=1.7,SNR=4.0						
	comp=Z,12nm,0.8s						
SONM	**Songino Array**	**65.78**	**327**	P	**P**	**16 55 54.2**	**+0.2**
TAOE	**Nuku Hiva Isla**	**66.16**	**98**	*e*P	**P**	**16 55 58.0**	**+1.0**
	comp=Z,128nm,24.6s						
TAOE				*e*S	**S**	**17 04 21.8**	**-6.1**
	comp=Z,173nm,30.3s						
TAOE				*e*LR	LR	17 16 12.8	
	comp=Z,164nm,23.7s						
SEY	**Seymchan**	**66.51**	**359**	*i* P	**P**	**16 55 59.8**	**+1.7**
SEY				pmax	pmax		
	comp=Z,16nm,1.

LSA pmax pmax
comp=Z,59nm,1.0s
ZAK Zakamensk 68.93 328 *e*P **P 16 56 13.3 -0.3**
ZAK *e* 16 57 05.1
ZAK pmax pmax
comp=Z,40nm,1.3s
CASY Casey 69.19 197 P **P 16 56 14.9 +0.2**
TLY Talaya 69.49 330*ce*P **P 16 56 17.6 +0.7**
TLY pmax pmax
comp=Z,12nm,1.3s
IRK Irkutsk 69.51 330 *e*P **P 16 56 13.5 -3.5**
IRK pmax pmax
comp=Z,43nm,1.6s
MOY Mondy 70.85 328 *e*P **P 16 56 26.1 +0.8**
MOY pmax pmax
comp=Z,65nm,2.3s
CHGN Chignik 71.52 26 IAmb IAmb 16 56 33.2
comp=Z,79nm,1.4s
KNGR Kungurtug, Tuv 72.16 326 *i* P **P 16 56 33.5 +0.4**
KNGR pmax pmax
comp=Z,37nm,1.1s
BILL Bilibino 72.20 5*ce*P **P 16 56 33.9 +1.0**
BILL pmax pmax
comp=Z,28nm,1.3s
BILL Bilibino 72.20 5 P **P 16 56 33.6 +0.8**
BILL IAmb IAmb 16 57 30.5
comp=Z,31nm,1.0s
BILL Bilibino 72.20 5 P **P 16 56 33.7 +0.8**
BILL PcP **PcP 16 56 51.1 +1.4**
O15K Ungalikthiuk R 72.77 23 IAmb IAmb 16 56 41.8
comp=Z,58nm,1.4s
N15K Kwethluk River 73.31 22 IAmb IAmb 16 56 45.2
comp=Z,46nm,1.2s
CCD Concordia, Ant 73.37 188 P **P 16 56 40.9 +0.7**
CCD PcP **PcP 16 56 54.6 -0.6**
PALK Pallekele 73.38 279 P **P 16 56 41.3 +0.3**
PALK pmax pmax
comp=Z,292nm,1.7s
PALK Pallekele 73.38 279 P **P 16 56 41.3 +0.3**
PALK Pallekele 73.38 279 P **P 16 56 41.8 +0.8**
PALK Pallekele 73.38 279 P **P 16 56 41.7 +0.8**
PALK pP **pP 16 57 34.8 +0.9**
VNDA Vanda 73.84 178 P **P 16 56 43.2 +0.8**
comp=Z,18nm,0.5s,baz=332,slow=6.5,SNR=130
comp=Z,18nm,0.5s
VNDA Vanda 73.84 178 P **P 16 56 43.2 +0.8**
VNDA pmax pmax
comp=Z,60nm,1.1s
VNDA Vanda 73.84 178 P **P 16 56 43.2 +0.8**
VNDA IAmb IAmb 16 56 44.7
comp=Z,60nm,1.1s
VNDA Vanda 73.84 178 P **P 16 56 43.2 +0.8**
VNDA pP **pP 16 57 35.2 +1.2**
VNDA sP **sP 16 57 58.8 +1.4**
M16K Timber Creek 74.30 22 IAmb IAmb 16 56 51.1
comp=Z,52nm,1.2s
SBA Scott Base 74.38 177 P **P 16 56 46.6 +1.1**
SBA pmax pmax
comp=Z,46nm,1.1s
SBA Scott Base 74.38 177 P **P 16 56 46.5 +1.1**
SBA IAmb IAmb 16 56 49.0
comp=Z,46nm,1.1s
J16K Anvik River 75.20 20 IAmb IAmb 16 56 53.6
comp=Z,98nm,1.6s
WMQ Urumqi 75.40 317 *e*P **P 16 56 53.3 +1.3**
WMQ pP pwP 16 57 48.3 +1.4
WMQ S S **17 06 12.8 -0.4**
WMQ sS sS 17 07 46.6 +1.8
WMQ pmax pmax
comp=Z,43nm,1.3s
WMQ pmax pmax
comp=Z,230nm,3.6s
ILSW Iliamna Southw 75.96 25 IAmb IAmb 16 56 55.9
comp=Z,70nm,1.3s
G16K Koyuk River 76.10 18 IAmb IAmb 16 56 58.1
comp=Z,78nm,1.6s
RED Redoubt Volcan 76.36 24 IAmb IAmb 16 57 00.0
comp=Z,44nm,1.3s
J18K Innoko River 76.66 21 IAmb IAmb 16 57 00.9
comp=Z,65nm,1.6s
HYB Hyderabad 76.74 289 *e*P **P 16 56 59.6 -0.5**
HYB *e*S **S 17 06 29.2 +0.5**
TIXI Tiksi 76.95 352*ce*P **P 16 57 00.2 +0.2**
TIXI pmax pmax
comp=Z,8.0nm,1.3s
TIXI Tiksi 76.95 352 P **P 16 57 00.2 +0.2**
SLKM Skilak Lake 77.47 25 IAmb IAmb 16 57 06.3
comp=Z,99nm,1.5s
RC01 Rabbit Creek A 77.98 25 IAmb IAmb 16 57 07.4
comp=Z,65nm,1.3s
PPLA Purkeypile 77.98 22 IAmb IAmb 16 58 09.8
comp=Z,73nm,1.6s
M22K Willow 78.17 24 IAmb IAmb 16 57 12.5
comp=Z,68nm,1.1s
I20K Naaghedeneel 78.25 20 IAmb IAmb 16 57 10.1
comp=Z,101nm,1.4s
ZSN Zaisan 78.47 320 *e*P **P 16 57 09.4 +0.4**
ZSN Zaisan 78.47 320 *e*P **P 16 57 09.5 +0.4**
PMR Palmer 78.49 24 IAmb IAmb 16 57 10.2
comp=Z,112nm,1.8s
KNK Knik Glacier 78.67 25 IAmb IAmb 16 57 11.2
comp=Z,61nm,1.3s
KTH Kantishna Hill 78.82 22 IAmb IAmb 16 57 11.5
comp=Z,85nm,1.7s
TRF Thorofare Moun 79.01 22 IAmb IAmb 16 57 19.4
comp=Z,85nm,1.9s
F20K Avaraart Lake 79.21 18 IAmb IAmb 16 57 15.4
comp=Z,46nm,1.5s
H21K Melozitna Rive 79.33 20 IAmb IAmb 16 57 15.8
comp=Z,54nm,1.7s
D19K Kuna River 79.43 16 IAmb IAmb 16 57 19.4
comp=Z,51nm,1.4s
G21K Allakaket 79.59 19 IAmb IAmb 16 57 16.9
comp=Z,74nm,1.8s
MCK McKinley 79.67 22 IAmb IAmb 16 57 19.4
comp=Z,81nm,1.2s
DIV Divide 79.67 26 IAmb IAmb 16 59 00.3
comp=Z,76nm,1.7s
MLY Manley 79.69 21 IAmb IAmb 16 57 16.9
comp=Z,125nm,1.8s
KLU Klutina 79.78 25 IAmb IAmb 16 57 18.1
comp=Z,63nm,1.3s
H22K Ishtalitna Cre 79.95 20 IAmb IAmb 16 58 18.0
comp=Z,59nm,1.8s
MK31 Makanchi Array 79.95 319*ce*P **P 16 57 16.8 -0.2**
MKAR Makanchi Array 79.95 319 P **P 16 57 17.3 +0.3**
comp=Z,12nm,0.8s,baz=98,slow=7.5,SNR=64
MKAR S **S 17 07 04.0 +2.2**
comp=Z,3.1nm,1.2s,baz=52,slow=14,SNR=3.8
MKAR PKKPbc **PKKPbc 17 16 01.0 -1.9**
comp=Z,0.5nm,0.7s,baz=309,slow=1.6,SNR=4.1
comp=Z,12nm,0.8s
MKAR Makanchi Array 79.95 319 *i* P **P 16 57 17.2 +0.2**
MKAR pmax pmax
comp=Z,5.0nm,0.4s
MKAR Makanchi Array 79.95 319 P **P 16 57 16.7 -0.3**
D20K Etivluk River 79.99 16 IAmb IAmb 16 57 22.5
comp=Z,43nm,1.4s
NEA2 Nenana 80.07 22 P **P 16 57 17.0 -0.3**
NEA2 IAmb IAmb 16 57 18.0
comp=Z,114nm,1.8s
BMRM Bremner River 80.10 26 IAmb IAmb 16 57 20.3
comp=Z,101nm,1.4s
MAKZ Makanchi 80.16 319 P **P 16 57 18.4 +0.2**
MAKZ pmax pmax
comp=Z,86nm,1.4s
MAKZ Makanchi 80.16 319 P **P 16 57 18.4 +0.2**
MAKZ IAmb IAmb 16 57 19.8
comp=Z,86nm,1.4s
MAKZ Makanchi 80.16 319 P **P 16 57 18.2 0.0**
MAKZ pP **pP 16 58 11.7 +0.4**
WRH Wood River Hil 80.37 22 IAmb IAmb 16 57 23.6
comp=Z,82nm,1.6s
H23K Yukon River 80.55 21 IAmb IAmb 16 57 22.0
comp=Z,87nm,1.7s
CCB Clear Creek Bu 80.56 22 IAmb IAmb 16 57 20.6
comp=Z,62nm,1.6s
ZALV Zalesovo Beam 80.63 326 P **P 16 57 19.6 -0.8**
comp=Z,9.7nm,0.5s,baz=109,slow=6.1,SNR=30
ZALV S **S 17 07 08.0 -0.5**
comp=Z,0.7nm,0.3s,baz=88,slow=9.0,SNR=5.3
ZALV PKKPbc **PKKPbc 17 15 59.3 -2.4**
comp=Z,1.2nm,0.5s,baz=258,slow=1.4,SNR=4.2
comp=Z,9.7nm,0.5s
ZALV Zalesovo Beam 80.63 326 P **P 16 57 19.4 -1.0**
GLB Gilahina Butte 80.66 26 IAmb IAmb 16 57 22.5
comp=Z,84nm,1.5s
COLA College 80.66 22 *i* P **P 16 57 20.5 +0.2**
COLA pmax pmax
comp=Z,35nm,1.1s
COLA College 80.66 22 P **P 16 57 20.1 -0.2**
COLA IAmb IAmb 16 57 25.0
comp=Z,35nm,0.8s
VRDI Verde Repeater 80.72 26 IAmb IAmb 16 57 22.9
comp=Z,93nm,1.5s
HDA Harding Lake 80.77 22 IAmb IAmb 16 57 22.0
comp=Z,68nm,1.8s
POKR Poker Plat Res 80.94 22 IAmb IAmb 16 57 22.4
comp=Z,66nm,1.7s
SHLS Shalkode 80.94 315*c i*P **P 16 57 21.2 -1.3**
SHLS pmax pmax
comp=Z,43nm,1.6s
SHLS Shalkode 80.94 315⇑ *i*P **P 16 57 21.3 -1.3**
comp=Z,42nm,1.6s
PDGK Podgornoye 80.96 315 P **P 16 57 23.0 +0.4**
ILAR Eielson Array 80.97 22 P **P 16 57 21.0 -1.0**
comp=Z,8.0nm,0.8s,baz=241,slow=5.6,SNR=64
ILAR PKKPbc **PKKPbc 17 15 57.8 -3.7**
comp=Z,0.6nm,0.8s,baz=217,slow=1.3,SNR=6.7
comp=Z,8.0nm,0.8s
ILAR Eielson Array 80.97 22 P **P 16 57 21.2 -0.8**
ILAR Eielson Array 80.97 22 P **P 16 57 21.2 -0.8**
MCARA McCarthy VSAT 80.97 26 IAmb IAmb 16 57 24.2
comp=Z,51nm,1.3s
D22K Ayikyak River 81.23 17 IAmb IAmb 16 58 25.5
comp=Z,44nm,1.2s
UZB Uzynbulak 81.25 315*c i*P **P 16 57 24.5 +0.3**
UZB pmax pmax
comp=Z,32nm,1.4s
UZB Uzynbulak 81.25 315⇑ *i*P **P 16 57 24.5 +0.3**
comp=Z,32nm,1.4s
PRZ Przheval'sk 81.54 314 IAmb IAmb 16 57 28.5
comp=Z,78nm,1.2s
KPKS Kokpek 81.56 315 *e*P **P 16 57 26.1 +0.4**
KPKS Kokpek 81.56 315 *e*P **P 16 57 26.1 +0.4**
SATY Saty 81.67 314*c i*P **P 16 57 26.6 +0.3**
SATY pmax pmax
comp=Z,31nm,1.7s
SATY Saty 81.67 314⇑ *i*P **P 16 57 26.7 +0.3**
comp=Z,31nm,1.7s
E23K Chandalar 81.71 19 IAmb IAmb 16 57 28.4
comp=Z,48nm,1.4s
G24K Hadweenzic Riv 81.72 20 IAmb IAmb 16 57 28.1
comp=Z,65nm,1.8s
D23K Nanushuk River 81.88 18 IAmb IAmb 16 57 29.6
comp=Z,108nm,1.6s
O28M Mount Upton 81.98 27 IAmb IAmb 16 57 37.4
comp=Z,47nm,1.4s
TOLK Toolik Lake Re 82.04 18 IAmb IAmb 16 57 29.7
comp=Z,51nm,1.6s
TDK Taldyqorghan 82.11 316 *e*P **P 16 57 28.9 +0.5**
TDK pmax pmax
comp=Z,35nm,1.2s
TDK Taldyqorghan 82.11 316 *e*P **P 16 57 29.0 +0.5**
comp=Z,35nm,1.2s
BCAR Beaver Creek A 82.21 25 P **P 16 57 29.3 +0.7**
FYU Fort Yukon 82.43 21 IAmb IAmb 16 57 31.6
comp=Z,78nm,1.7s
D24K Happy Valley 82.54 18 IAmb IAmb 16 57 32.8
comp=Z,66nm,1.6s
MDOK Medeo 82.66 314 *e*P **P 16 57 31.8 +0.3**
MDOK Medeo 82.66 314 *e*P **P 16 57 31.9 +0.4**
TNSS Tian-Shan 82.71 314 *e*P **P 16 57 32.1 0.0**
TNSS Tian-Shan 82.71 314 *e*P **P 16 57 32.1 0.0**
AAA Alma-Ata 82.77 314 *e*P **P 16 57 32.3 +0.4**
AAA pmax pmax
comp=Z,32nm,1.1s
AAA Alma-Ata 82.77 314 *e*P **P 16 57 32.3 +0.4**
comp=Z,32nm,1.1s
KSH2 Kashi 82.97 310 P **P 16 57 34.3 +1.1**
KSH2 pP pwP 16 58 28.9 -0.6
KSH2 S **SKSac 17 07 34.5 +0.9**
KSH2 sS sS 17 09 10.3 +2.9
KSH2 pmax pmax
comp=Z,41nm,1.4s
KSH2 pmax pmax
comp=Z,420nm,5.2s
BMAR Burnt Mountain 83.06 20 P **P 16 57 34.0 +1.1**
NRN Naryn 83.08 312 IAmb IAmb 16 57 36.1
comp=Z,77nm,1.8s
G26K Porcupine Rive 83.12 21 IAmb IAmb 16 57 35.8
comp=Z,94nm,1.4s
HYT Haines Junctio 83.23 27 IAmb IAmb 16 57 36.5
comp=Z,39nm,1.1s
BOOM Boomskoye usch 83.32 313 IAmb IAmb 16 57 37.3
comp=Z,103nm,1.6s
I27K Kandik River 83.33 22 IAmb IAmb 16 57 36.6
comp=Z,42nm,1.4s
KURK Kurchatov 83.33 322*ce*P **P 16 57 34.3 -0.2**
KURK pmax pmax
comp=Z,70nm,1.3s
KURK Kurchatov 83.33 322 P **P 16 57 34.0 -0.6**
KURK IAmb IAmb 16 57 35.5
comp=Z,74nm,1.3s
KURBB Kurchatov Arra 83.36 322 P **P 16 57 34.4 -0.3**
comp=Z,8.3nm,0.7s,baz=101,slow=4.4,SNR=63
KURBB S **SKSac 17 07 30.5 -4.8**
comp=Z,0.9nm,1.1s,baz=305,slow=26,SNR=5.0
KURBB PKKPbc **PKKPbc 17 15 52.9 -2.4**
comp=Z,0.7nm,0.5s,baz=295,slow=2.9,SNR=6.6
KURBB PKPPKP **P'P'df 17 23 57.8 -1.5**
comp=Z,0.4nm,0.2s,baz=293,slow=2.0,SNR=4.3
comp=Z,8.3nm,0.7s
KURBB Kurchatov Arra 83.36 322 P **P 16 57 34.6 -0.1**
DAWY Dawson 83.59 24 IAmb IAmb 16 57 42.3
comp=Z,66nm,1.6s
H27K Steamboat Moun 83.62 22 IAmb IAmb 16 57 38.3
comp=Z,49nm,1.5s
TKM2 Tokmak 2 83.66 314 P **P 16 57 37.1 +0.5**
SNR=35
L29M L29M 83.76 25 IAmb IAmb 16 57 39.1
comp=Z,45nm,1.4s
NIL Nilore 83.90 304 P **P 16 57 38.0 +0.1**
NIL pmax pmax
comp=Z,277nm,1.5s
NIL Nilore 83.90 304 P **P 16 57 38.0 +0.1**
KBK Karagaybulak 84.08 313 P **P 16 57 39.3 +0.5**
SNR=33
C26K Camden Bay 84.12 18 IAmb IAmb 16 57 41.2
comp=Z,68nm,1.2s
J29N Klondike Camp 84.21 24 IAmb IAmb 16 57 42.5
comp=Z,60nm,1.4s
N31M Braeburn, Yuko 84.24 27 IAmb IAmb 16 57 41.8
comp=Z,82nm,1.4s
CHMS Chumysh 84.28 314 P **P 16 57 40.0 +0.4**
SNR=35
UCH Uchtor 84.31 313 P **P 16 57 41.5 +1.2**
SNR=50
AAK Ala-Archa 84.40 313 P **P 16 57 40.5 +0.2**
SNR=40
AAK Ala-Archa 84.40 313 P **P 16 57 40.7 +0.3**
AAK pmax pmax
comp=Z,34nm,0.9s
AAK Ala-Archa 84.40 313 P **P 16 57 40.6 +0.3**
AAK IAmb IAmb 16 57 42.2
comp=Z,34nm,0.8s
I29M Ogilvie Camp, 84.50 23 IAmb IAmb 16 57 42.2
comp=Z,41nm,1.5s
USP Ospenovka 84.51 314 P **P 16 57 41.3 +0.6**
SNR=57
H29M Whitestone 84.80 22 IAmb IAmb 16 57 53.4
comp=Z,52nm,1.7s
EKS2 Erkin-Say 84.93 313 P **P 16 57 43.8 +0.9**
SNR=47
J30M Hart River 85.02 24 IAmb IAmb 16 57 49.3
comp=Z,32nm,1.2s
G29M Pine Creek 85.18 22 IAmb IAmb 16 57 45.8
comp=Z,68nm,1.4s
NRIK Noril'sk 85.18 341 P **P 16 57 43.3 -0.1**
comp=Z,5.7nm,0.4s,baz=104,slow=4.5,SNR=8.7
comp=Z,5.7nm,0.4s
NRIK Noril'sk 85.18 341 *i* P **P 16 57 43.6 +0.2**
NRIK pmax pmax
comp=Z,8.0nm,0.9s
NRIK Noril'sk 85.18 341 IAmb IAmb 16 58 42.5
comp=Z,28nm,1.0s
S34M Telegraph Cree 85.48 31 IAmb IAmb 16 57 48.0
comp=Z,45nm,1.4s
R33M Jennings River 85.93 30 IAmb IAmb 16 57 50.3
comp=Z,67nm,1.6s
DLBC Dease Lake 86.18 31 P **P 16 57 49.7 +1.0**
comp=Z,31nm,1.3s,baz=253,slow=4.9,SNR=8.0
comp=Z,31nm,1.3s
QSPA South Pole Qui 86.20 180 P **P 16 57 49.0 +0.3**
comp=Z,78nm,0.8s,baz=8.1,slow=3.0,SNR=349
QSPA S **SKSac 17 07 50.3 -2.7**
comp=Z,1.3nm,0.9s,baz=309,slow=23,SNR=6.7
QSPA PKKPbc **PKKPbc 17 15 46.2 -3.7**
comp=Z,1.1nm,0.5s,baz=263,slow=0.8,SNR=14
comp=Z,78nm,0.8s
QSPA South Pole Qui 86.20 180 P **P 16 57 49.2 +0.5**
QSPA South Pole Qui 86.20 180 P **P 16 57 49.0 +0.3**
H31M Peel River 86.21 23 IAmb IAmb 16 57 50.6
comp=Z,74nm,1.6s
F30M Barrier River 86.24 21 IAmb IAmb 16 57 50.5
comp=Z,53nm,1.1s
G31M Satah River 86.58 22 IAmb IAmb 16 57 51.9
comp=Z,58nm,1.4s
BTK Batken 86.73 310 IAmb IAmb 16 57 53.7
comp=Z,69nm,1.3s
DZA Taraz 86.74 313 *e*P **P 16 57 52.0 +0.3**
DZA Taraz 86.74 313 *e*P **P 16 57 52.0 +0.3**
MAW Mawson 86.76 203 P **P 16 57 51.9 +0.6**
comp=Z,3.5nm,1.1s
MAW Mawson 86.76 203 P **P 16 57 51.1 -0.1**
comp=Z,11nm,0.6s,baz=109,slow=4.7,SNR=26
comp=Z,11nm,0.6s
MAW Mawson 86.76 203 P **P 16 57 51.6 +0.4**
MAW pmax pmax
comp=Z,7.0nm,1.4s
MAW Mawson 86.76 203 P **P 16 57 51.6 +0.4**
F31M Tsiigehtchic 86.93 22 IAmb IAmb 16 57 53.5
comp=Z,44nm,1.4s
KHMM Horse Mountain 87.03 49 P **P 16 57 54.3 +1.0**
KHMM IAmb IAmb 16 57 56.5
comp=Z,56nm,1.3s
KK31 Karatay Array 87.36 313 *i* P **P 16 57 54.8 +0.1**
KK31 Karatay Array 87.36 313 IAmb IAmb 16 57 55.8
comp=Z,44nm,1.4s
KKAR Karatay Array 87.36 313 P **P 16 57 54.4 -0.3**
KKAR Karatay Array 87.36 313 P **P 16 57 54.4 -0.3**
KBL Kabul 87.48 305 P **P 16 57 54.8 -0.9**
KBL pmax pmax
comp=Z,58nm,1.8s
KBL Kabul 87.48 305 P **P 16 57 54.8 -0.9**
KBL IAmb IAmb 16 57 56.2
comp=Z,58nm,1.8s
IUG Iuzhnay 87.59 312*c i*P **P 16 57 56.1 +0.2**
IUG Iuzhnay 87.59 312⇑ *i*P **P 16 57 56.2 +0.2**
O02D Mt. Diablo Mer 87.66 50 P **P 16 57 57.4 +1.2**
BRLS Boroldaу 87.85 313 *e*P **P 16 57 57.1 +0.1**
BRLS Boroldaу 87.85 313 *e*P **P 16 57 57.1 +0.1**
YBH Yreka Blue Hor 87.91 48 P **P 16 57 58.3 +1.0**
comp=Z,6.7nm,1.0s,baz=258,slow=2.3,SNR=8.8
comp=Z,6.7nm,1.0s
CHM Chimkent 87.93 312 *e*P **P 16 57 57.6 +0.3**
CHM Chimkent 87.93 312 *e*P **P 16 57 57.7 +0.3**
H04D Lebanon 88.22 45 IAmb IAmb 16 58 01.1
comp=Z,38nm,1.1s
L04D Klamath Falls 88.26 48 IAmb IAmb 16 58 04.1
comp=Z,27nm,1.2s
I04A Tendick Farm, 88.37 46 IAmb IAmb 16 58 14.4
comp=Z,85nm,2.0s
O03E Paynes Creek 88.42 50 IAmb IAmb 16 58 10.6
comp=Z,26nm,1.1s
J04A Umpqua Nationa 88.52 47 IAmb IAmb 16 58 02.2
comp=Z,37nm,1.0s
BVAR Borovoye Array 88.78 323 P **P 16 58 00.2 -0.9**
comp=Z,38nm,1.0s,baz=108,slow=4.8,SNR=113
BVAR S **SKSac 17 08 04.2 -4.6**
comp=Z,2.9nm,1.0s,baz=98,slow=6.3,SNR=8.9
comp=Z,38nm,1.0s
JRO Jston Ridge Ob 88.79 44 IAmb IAmb 16 58 03.4
comp=Z,35nm,1.3s
BORK Borovoye 88.82 323*c i*P **P 16 58 00.5 -0.8**
BORK pmax pmax
comp=Z,48nm,1.1s
BORK Borovoye 88.82 323 P **P 16 58 00.1 -1.2**
BORK IAmb IAmb 16 58 01.5
comp=Z,51nm,1.1s
WIFE Three Sisters- 88.82 46 IAmb IAmb 16 58 03.6
comp=Z,28nm,1.0s
HOOD Mount Hood Mea 89.08 45 IAmb IAmb 16 58 04.4
comp=Z,43nm,1.4s
I05D Terrebonne, OR 89.19 46 IAmb IAmb 16 58 05.0
comp=Z,39nm,1.2s
K05A Summer Lake 89.35 47 IAmb IAmb 16 58 06.4
comp=Z,48nm,1.2s
PINE Pine Mountain 89.43 46 IAmb IAmb 16 58 07.1
comp=Z,38nm,1.2s
MOD Modoc Plateau 89.71 48 IAmb IAmb 16 58 07.6
comp=Z,27nm,1.2s
F07A Phinney Hill Vi 90.34 44 IAmb IAmb 16 58 11.0
comp=Z,22nm,1.2s
HAWA Hanford 90.66 44 IAmb IAmb 16 58 12.4
comp=Z,22nm,1.2s
WAH2 Wahluke Slope 90.66 43 IAmb IAmb 16 58 12.2
comp=Z,22nm,1.3s
EPH Ephrata 90.69 43 IAmb IAmb 16 58 11.5
comp=Z,20nm,1.2s
C36M Paulatuk 90.84 21 IAmb IAmb 17 01 36.4
comp=Z,41nm,1.8s
A36M Sachs Harbour 90.86 18 IAmb IAmb 16 58 11.7
comp=Z,30nm,1.5s
MWC Mount Wilson 90.87 56 IAmb IAmb 16 58 13.5
comp=Z,36nm,1.1s
NVAR Mina Array Bea 90.96 52 P **P 16 58 12.4 +0.5**
comp=Z,7.0nm,0.9s,baz=260,slow=6.2,SNR=34
comp=Z,7.0nm,0.9s
NVAR Mina Array Bea 90.96 52 P **P 16 58 12.6 +0.7**
G08A Pilot Rock 90.97 45 IAmb IAmb 16 58 13.8
comp=Z,22nm,1.1s
E08A Dider Farm, El 90.99 44 IAmb IAmb 16 58 13.9
comp=Z,25nm,1.3s
WVOR Wild Horse Val 90.99 48 IAmb IAmb 16 58 13.6
comp=Z,22nm,1.1s
YPT Yellepit 91.02 44 IAmb IAmb 16 58 14.2
comp=Z,31nm,1.1s
J08A Circle Bar Ran 91.17 47 IAmb IAmb 16 58 14.3
comp=Z,21nm,1.1s
LRMC Laurel Mtn Rad 91.26 55 IAmb IAmb 16 58 15.4
comp=Z,16nm,1.0s
C09A Chrisman Ranch 91.62 42 IAmb IAmb 16 58 16.2
comp=Z,26nm,1.6s
E09A Wood Farm, Sta 91.62 44 IAmb IAmb 16 58 16.7
comp=Z,30nm,1.1s
MZP Montezuma Peak 91.64 53 IAmb IAmb 16 58 16.9
comp=Z,18nm,1.1s
BMN Battle Mountai 91.92 50 IAmb IAmb 16 58 18.8
comp=Z,40nm,2.0s
FURC Furnace Creek, 91.98 54 IAmb IAmb 16 58 18.4
comp=Z,22nm,1.0s
BMO Blue Mountains 92.11 45 IAmb IAmb 16 58 18.3
comp=Z,24nm,1.1s
PFO Pinyon Flats O 92.16 57 P **P 16 58 17.9 +0.5**
comp=Z,8.3nm,1.0s,baz=270,slow=4.7,SNR=5.1
comp=Z,8.3nm,1.0s
PFO Pinyon Flats O 92.16 57 P **P 16 58 17.9 +0.5**
PFO pmax pmax
comp=Z,15nm,1.3s
PFO Pinyon Flats O 92.16 57 IAmb IAmb 16 58 19.0
comp=Z,15nm,1.2s
F10A Beach Ranch, E 92.22 44 IAmb IAmb 16 58 18.6
comp=Z,35nm,1.3s
NEW Newport 92.42 42 IAmb IAmb 16 58 19.4
comp=Z,21nm,1.4s
TPNV Topopah Spring 92.50 53 IAmb IAmb 16 58 20.8
comp=Z,15nm,1.1s
BELC Belle Mtn. Jos 92.56 56 IAmb IAmb 16 58 21.3
comp=Z,18nm,1.1s
BC3 Big Chuckawall 93.00 57 IAmb IAmb 16 58 23.8
comp=Z,16nm,1.1s
MFID Camas Ranch 93.10 47 IAmb IAmb 16 58 23.2
comp=Z,19nm,1.3s
IRM Iron Mountain 93.28 56 IAmb IAmb 16 58 24.8
comp=Z,27nm,1.3s
SHPR Sheep Range 93.36 54 P **P 16 58 23.8 +0.9**
ELK Elko 93.45 50 P **P 16 58 23.2 -0.1**
comp=Z,2.5nm,0.9s,baz=270,slow=4.0,SNR=7.5
comp=Z,2.5nm,0.9s
PRN Pahroc Range 93.47 53 IAmb IAmb 16 58 25.6
comp=Z,13nm,1.0s
YKA Yellowknife Ar 94.22 28 P **P 16 58 26.0 0.0**
comp=Z,3.9nm,0.8s,baz=272,slow=5.1,SNR=8.3
comp=Z,3.9nm,0.8s
YKA Yellowknife Ar 94.22 28 *i* P **P 16 58 26.7 +0.7**
YKA pmax pmax
comp=Z,4.0nm,0.9s
SVE Sverdlovsk 94.64 327 *e*P **P 16 58 27.2 -0.9**
SVE *e*S **SKSac 17 08 40.0 -1.5**

SVE					pmax	pmax			
	comp=Z,15nm,1.2s								
SYO	**Syowa Base**	**94.85**	**199**	⇑	*e*P	**P**	**16 58 28.2**	**-0.6**	
SYO	**Syowa Base**	**94.85**	**199**	⇓	*e*P	**P**	**16 58 31.9**	**+3.1**	
AB31	**Akbulak array**	**95.09**	**319**		*i* P	**P**	**16 58 28.6**	**-1.7**	
AB31	**Akbulak array**	**95.09**	**319**		IAmb	IAmb	16 58 30.2		
	comp=Z,16nm,1.2s								
ABKAR	**Akbulak array**	**95.09**	**319**		P	**P**	**16 58 28.7**	**-1.6**	
GBMT	**Granite Butte,**	**95.54**	**43**		IAmb	IAmb	16 58 33.9		
	comp=Z,10nm,1.2s								
TCRU	**Three Creeks R**	**95.56**	**52**		IAmb	IAmb	16 58 44.4		
	comp=Z,6.6nm,0.5s								
PKCU	**Pink Cliffs**	**95.66**	**53**		IAmb	IAmb	16 58 37.7		
	comp=Z,16nm,1.1s								
ARTI	**Arti**	**95.90**	**326**	*c*	*i*P	**P**	**16 58 32.2**	**-1.6**	
ARTI							17 02 26.6		
ARTI					S	**SKSac**	**17 08 46.5**	**-1.7**	
ARTI					pmax	pmax			
	comp=Z,7.0nm,1.3s								
ARTI	**Arti**	**95.90**	**326**		P	**P**	**16 58 32.2**	**-1.6**	
ARTI					IAmb	IAmb	16 58 33.0		
	comp=Z,21nm,1.2s								
AKTO	**Aktyubinsk**	**96.32**	**320**		P	**P**	**16 58 34.4**	**-1.5**	
TMUT	**Trail Mountain**	**96.52**	**51**		IAmb	IAmb	16 58 39.8		
	comp=Z,11nm,1.2s								
YMR	**Madison River**	**96.62**	**46**		IAmb	IAmb	17 02 35.1		
	comp=Z,15nm,1.7s								
HMU	**Henry Mountain**	**96.90**	**52**		IAmb	IAmb	16 58 40.8		
	comp=Z,15nm,1.2s								
P18A	**Preston Nutter**	**97.26**	**51**		IAmb	IAmb	16 59 39.9		
	comp=Z,12nm,1.4s								
PDAR	**Pinedale Array**	**97.69**	**48**		P	**P**	**16 58 42.0**	**-0.6**	
	comp=Z,1.7nm,0.3s,baz=251,slow=2.7,SNR=17								
	comp=Z,1.7nm,0.3s								
RDMU	**Red Mountain**	**97.76**	**50**		IAmb	IAmb	16 58 44.6		
	comp=Z,9.8nm,0.9s								
RLMT	**Red Lodge**	**97.81**	**45**		IAmb	IAmb	17 02 08.1		
	comp=Z,22nm,1.8s								
ELIB	**Princess Elisa**	**97.96**	**194**		*d*P	Pdif	16 58 43.2	+0.2	
	comp=Z,7.9nm,0.9s								
PV22	**Blue Mesa, Par**	**98.43**	**52**		IAmb	IAmb	16 58 47.8		
	comp=Z,16nm,1.2s								
PV07	**Paradox Valley**	**98.54**	**52**		IAmb	IAmb	16 58 47.7		
	comp=Z,11nm,1.0s								
MVCO	**Mesa Verde**	**98.70**	**53**		IAmb	IAmb	16 58 48.8		
	comp=Z,14nm,1.4s								
TROLL	**Troll, Antarti**	**102.07**	**189**		⇑Pdiff	**Pdif**	**16 59 01.7**	**+0.3**	
	comp=Z,252nm,0.8s								
BELG	**Belogornoye**	**102.58**	**323**		*i* P	**Pdif**	**16 59 02.5**	**-1.2**	
BELG					pmax	pmax			
	comp=Z,3.0nm,1.0s								
TXAR	**Lajitas Array**	**103.09**	**61**		PKiKP	**PKiKP**	**17 03 25.4**	**-0.1**	
	comp=Z,1.0nm,0.8s,baz=268,slow=5.6,SNR=3.9								
SNAA	**Sanae**	**103.14**	**188**		PKiKP	**PKiKP**	**17 03 22.8**	**-1.6**	
	comp=Z,2.1nm,0.6s,baz=196,slow=3.2,SNR=4.1								
APA	**Apatity**	**104.57**	**340**		*e*P	**Pdif**	**16 59 20.1**	**+7.8**	
APA					pmax	pmax			
	comp=Z,11nm,1.2s								
APA					MLR	MLR			
	comp=Z,613nm,5.1s								
KLMR	**Klimovskoe**	**104.75**	**332**		*e*P	**Pdif**	**16 59 10.2**	**-3.0**	
KLMR					*e*		17 03 33.2		
KLMR					pmax	pmax			
	comp=Z,18nm,1.5s								
ARCES	**ARCESS Array B**	**106.06**	**343**		PKiKP	**PKiKP**	**17 03 29.6**	**0.0**	
	comp=Z,4.4nm,0.8s,baz=11,slow=2.5,SNR=6.6								
ARCES					PKKPbc	**PKKPbc**	**17 14 51.0**	**-4.4**	
	comp=Z,4.4nm,1.0s,baz=35,slow=4.4,SNR=5.2								
FINES	**FINESS Array B**	**110.36**	**336**		Pdiff	**Pdif**	**16 59 36.7**	**-1.5**	
	comp=Z,0.8nm,0.5s,baz=96,slow=3.8,SNR=4.2								
FINES					PKiKP	**PKiKP**	**17 03 37.8**	**0.0**	
	comp=Z,2.2nm,0.8s,baz=90,slow=1.9,SNR=4.8								
FINES					PKKPbc	**PKKPbc**	**17 14 38.6**	**-3.0**	
	comp=Z,1.7nm,0.6s,baz=294,slow=1.9,SNR=7.3								
MNK	**Minsk**	**113.02**	**329**		*i* P	**Pdif**	**16 59 50.2**	**+0.1**	
MNK					*i*		17 04 36.5		
MNK					*i* PPP	PPP	17 06 59.8		
MNK					*i*		17 10 33.8		
MNK					*i* SS	SS	17 20 04.4	+3.4	
MNK					*i* SSS	SSS	17 24 19.4		
MNK					pmax	pmax			
	comp=Z,6.0nm,0.9s								
MNK					pmax	pmax			
	comp=N,21nm,0.9s								
MNK					pmax	pmax			
	comp=E,18nm,0.7s								
MNK	**Minsk**	**113.02**	**329**		*i* P	**Pdif**	**16 59 50.3**	**+0.1**	
	comp=E,18nm,0.7s								
MNK					*i* P	**Pdif**	**16 59 50.3**	**+0.1**	
	comp=N,21nm,0.9s								
MNK					*i* P	**Pdif**	**16 59 50.3**	**+0.1**	
	comp=Z,6.0nm,0.9s,baz=62								
MNK					*i* pP	**pPdif**	**17 00 44.1**	**-0.6**	
MNK					*i* PP	**PP**	**17 04 36.6**	**+1.2**	
MNK					*i* PPP	PPP	17 06 59.9		
MNK					*i* SKS	**SKSdf**	**17 10 33.9**	**+0.3**	
MNK					*i* SS	**SS**	**17 20 04.4**	**+3.4**	
MNK					*i* SSS	SSS	17 24 19.5		
MNK					*i* LR	LR	17 49 23.5		
NACGM	**Naroch**	**113.39**	**330**		*e*PKiKP	**PKiKP**	**17 03 44.6**	**+0.8**	
	comp=Z,7.0nm,1.0s,baz=61								
AKASG	**Malin Array Be**	**114.01**	**325**		PKP	PKPdf	17 03 44.8	-0.3	
	comp=Z,1.7nm,0.4s,baz=58,slow=2.3,SNR=9.1								
AKASG					PP	**PP**	**17 04 39.9**	**-2.5**	
	comp=Z,1.7nm,0.9s,baz=58,slow=6.3,SNR=8.0								
AKASG					SKP	**SKPdf**	**17 06 59.0**	**-0.2**	
	comp=Z,0.5nm,0.4s,baz=59,slow=2.3,SNR=5.6								
AKASG					PKKPbc	**PKKPbc**	**17 14 25.9**	**-3.2**	
	comp=Z,0.2nm,0.2s,baz=262,slow=3.5,SNR=5.4								
BRTR	**Keskin Array B**	**115.06**	**312**		PKP	**PKiKP**	**17 03 47.1**	**-0.6**	
	comp=Z,1.6nm,0.7s,baz=74,slow=2.1,SNR=7.3								
BRTR					PP	**PP**	**17 04 44.5**	**-6.0**	
	comp=Z,1.0nm,1.0s,baz=48,slow=1.8,SNR=3.7								
BRTR					SKP	**SKPdf**	**17 07 02.1**	**+0.3**	
	comp=Z,3.5nm,1.0s,baz=145,slow=3.0,SNR=8.8								
BRTR					PKKPbc	**PKKPbc**	**17 14 23.8**	**-1.5**	
	comp=Z,0.4nm,0.5s,baz=256,slow=5.0,SNR=3.7								
HFS	**Hagfors**	**115.94**	**339**		PKP	**PKPdf**	**17 03 47.7**	**-0.8**	
	comp=Z,1.2nm,0.6s,baz=29,slow=2.9,SNR=2.4								
NB2	**NORSAR Subarra**	**116.14**	**341**		PKPdf	**PKPdf**	**17 03 48.4**	**-0.6**	
	comp=Z,1.5nm,0.6s,baz=42,slow=1.9								
NB2					SKPa		17 07 03.7		
	comp=Z,1.2nm,0.8s,baz=61,slow=2.8								
NOA	**NORSAR Array B**	**116.14**	**341**		PKP	**PKPdf**	**17 03 48.6**	**-0.4**	
	comp=Z,1.5nm,0.6s,baz=46,slow=2.0,SNR=11								
NOA					SKP	**SKPdf**	**17 07 03.2**	**+0.2**	
	comp=Z,2.4nm,0.9s,baz=47,slow=2.1,SNR=5.9								
NOA					PKKPbc	**PKKPbc**	**17 14 21.6**	**-0.6**	
	comp=Z,0.4nm,0.7s,baz=222,slow=5.9,SNR=3.8								
GIUM	**Giurgiulesti**	**116.81**	**320**	⇓	P	**PKiKP**	**17 03 51.0**	**+0.3**	
BIZ	**Bicaz**	**117.51**	**322**	⇓	P	**PKiKP**	**17 03 53.1**	**+1.1**	
BURAR	**Bucovina Array**	**117.74**	**323**		PKIKP	**PKiKP**	**17 03 53.1**	**+0.5**	
BURAR	**Bucovina Array**	**117.74**	**323**			**PKiKP**	**17 03 53.3**	**+0.7**	
BURAR	**Bucovina Array**	**117.74**	**323**	⇓	P	**PKiKP**	**17 03 53.1**	**+0.5**	
KOLS	**Kolonicke sedl**	**118.81**	**325**		*e*PKIKP	**PKiKP**	**17 03 55.9**	**+1.4**	
KOLS	**Kolonicke sedl**	**118.81**	**325**		*e*PKP	**PKiKP**	**17 03 55.9**	**+1.4**	
TAVA	**DENIZLI_Tavas**	**119.29**	**311**	⇑	P	**PKPdf**	**17 03 55.8**	**0.0**	
ELND	**Elena**	**119.39**	**318**	⇓	P	**PKiKP**	**17 03 56.5**	**+0.7**	
MARR	**Marisel-Cluj**	**119.44**	**323**	⇑	P	**PKiKP**	**17 03 55.9**	**0.0**	
SCHQ	**Schefferville**	**119.58**	**25**		PKP	**PKPdf**	**17 03 55.7**	**-0.1**	
	comp=Z,3.9nm,0.9s,baz=324,slow=1.9,SNR=4.3								
PLCA	**Paso Flores**	**120.23**	**142**		PKP	**PKiKP**	**17 03 57.7**	**0.0**	
	comp=Z,5.3nm,0.5s,baz=230,slow=2.4,SNR=30								
PLCA					SKP	**SKPdf**	**17 07 13.0**	**+1.4**	
	comp=Z,1.2nm,0.7s,baz=276,slow=2.3,SNR=5.1								
PLCA					PKKPbc	**PKKPbc**	**17 14 06.2**	**-0.8**	
	comp=Z,1.5nm,0.8s,baz=61,slow=1.8,SNR=3.7								
PLCA	**Paso Flores**	**120.23**	**142**		*e*P	**PKPdf**	**17 03 56.0**	**-1.6**	
LANS	**Liptovska Anna**	**120.25**	**327**		*e*PKIKP	**PKiKP**	**17 03 59.2**	**+1.8**	
LANS	**Liptovska Anna**	**120.25**	**327**		*e*PKP	**PKiKP**	**17 03 59.2**	**+1.8**	
GZR	**Gura Zlata**	**120.27**	**322**		PKIKP	**PKiKP**	**17 03 58.3**	**+0.8**	
GZR	**Gura Zlata**	**120.27**	**322**	⇓	P	**PKiKP**	**17 03 58.4**	**+0.8**	
EZN	**Ezine**	**120.33**	**315**		PKIKP	**PKiKP**	**17 03 57.7**	**0.0**	
EZN	**Ezine**	**120.33**	**315**	⇓	P	**PKiKP**	**17 03 57.7**	**0.0**	
SURR	**Surduc**	**120.50**	**322**	⇓	P	**PKPdf**	**17 03 57.7**	**0.0**	
STEB	**Steborice**	**120.71**	**328**		*e*PKPDF	**PKiKP**	**17 03 59.5**	**+1.3**	
BOSA	**Boshof**	**120.74**	**234**		PKP	**PKiKP**	**17 03 59.2**	**+0.1**	
	comp=Z,5.4nm,0.7s,baz=113,slow=2.2,SNR=10								
HERR	**Herculane**	**120.74**	**321**	⇑	P	**PKPdf**	**17 03 58.0**	**-0.3**	
BZS	**Buzias**	**120.88**	**322**		PKIKP	**PKPdf**	**17 03 58.5**	**0.0**	
BZS	**Buzias**	**120.88**	**322**	⇑	P	**PKPdf**	**17 03 58.5**	**0.0**	
MORC	**Moravsky Berou**	**120.92**	**328**		*e*PKP	**PKiKP**	**17 03 59.7**	**+1.0**	
MORC					*e*		17 07 13.3		
VYHS	**Vyhne**	**120.96**	**326**		*e*PKIKP	**PKiKP**	**17 04 00.3**	**+1.6**	
VYHS	**Vyhne**	**120.96**	**326**		*e*PKP	**PKiKP**	**17 04 00.3**	**+1.6**	
SSPA	**Standing Stone**	**121.13**	**44**			**PKiKP**	**17 03 59.3**	**0.0**	
OSTC	**Ostas**	**121.14**	**330**		*e*PKIKP	**PKiKP**	**17 03 59.9**	**+0.9**	
OSTC	**Ostas**	**121.14**	**330**		*e*PKPDF	**PKiKP**	**17 03 59.9**	**+0.9**	
BLKB	**Belogradchik**	**121.18**	**320**	⇑	P	**PKiKP**	**17 03 59.8**	**+0.4**	
CHVC	**Chvalec**	**121.20**	**330**		*e*PKIKP	**PKiKP**	**17 04 00.6**	**+1.4**	
CHVC	**Chvalec**	**121.20**	**330**		*e*PKPDF	**PKiKP**	**17 04 00.6**	**+1.4**	
MDVR	**Moldovita**	**121.23**	**322**	⇑	P	**PKiKP**	**17 03 59.6**	**+0.2**	
JAVC	**Velka Javorina**	**121.39**	**327**		*e*PKP	**PKiKP**	**17 04 01.1**	**+1.5**	
JAVC					*e*		17 07 15.3		
SRO	**Srobarova**	**121.64**	**326**		*e*PKIKP	**PKiKP**	**17 04 01.3**	**+1.3**	
SRO	**Srobarova**	**121.64**	**326**		*e*PKP	**PKiKP**	**17 04 01.3**	**+1.3**	
VRAC	**Vranov**	**121.70**	**328**		*e*PKP	**PKiKP**	**17 04 01.9**	**+1.7**	
VRAC					*e*		17 07 14.9		
BOVS	**Bovan**	**121.79**	**320**	⇑	P	**PKPdf**	**17 04 00.1**	**-0.2**	
MODS	**Modra-Piesok**	**121.89**	**327**		*e*PKIKP	**PKiKP**	**17 04 02.1**	**+1.5**	
MODS	**Modra-Piesok**	**121.89**	**327**		*e*PKP	**PKiKP**	**17 04 02.1**	**+1.5**	
KRUC	**Moravsky**	**121.95**	**328**		*e*PKP	**PKiKP**	**17 04 01.2**	**+0.5**	
KRUC					*e*		17 07 15.1		
PVCC	**Panska Ves**	**121.98**	**330**		*e*PKIKP	**PKiKP**	**17 04 02.5**	**+1.8**	
PVCC	**Panska Ves**	**121.98**	**330**		*e*PKPDF	**PKiKP**	**17 04 02.5**	**+1.8**	
J59A	**Piesco**	**122.11**	**40**			**PKPdf**	**17 04 01.0**	**0.0**	
CLL	**Collm**	**122.23**	**332**		*i* PKIKP	**PKiKP**	**17 04 01.2**	**+0.1**	
CLL					pmax	pmax			
	comp=Z,10.0nm,1.0s								
CLL	**Collm**	**122.23**	**332**		*e*PKPdf	**PKiKP**	**17 04 01.3**	**+0.1**	
	baz=48,slow=2.1								
CLL	**Collm**	**122.23**	**332**		*i* PKPdf	**PKiKP**	**17 04 01.2**	**+0.1**	
	comp=Z,10.0nm,1.0s								
CLL					*i* SKPdf	**SKiKP**	**17 07 15.7**	**+0.2**	
	comp=Z,9.0nm,1.1s								
MORH	**Mrgy, Hungar**	**122.33**	**324**	⇑	P	**PKiKP**	**17 04 01.7**	**+0.3**	
FLTG	**Flechtingen**	**122.35**	**334**		*e*PKPdf	**PKiKP**	**17 04 01.9**	**+0.6**	
	baz=48,slow=2.1								
FLET	**Fletcher**	**122.44**	**38**			**PKiKP**	**17 04 02.1**	**+0.3**	
HSKC	**Hora Svate Kat**	**122.49**	**331**		*e*PKPDF	**PKiKP**	**17 04 02.1**	**+0.4**	
MBAR	**Mbarara**	**122.55**	**267**		PKP	**PKiKP**	**17 04 03.1**	**0.0**	
	comp=Z,2.9nm,0.3s,baz=94,slow=2.1,SNR=7.7								
WINA	**Inland ;Wiene**	**122.69**	**327**		*i* PKP	**PKiKP**	**17 04 02.6**	**+0.5**	
	comp=Z,5.1nm,0.7s								
ABNA	**Allensteig Bun**	**122.69**	**328**		*e*PKiKP	**PKiKP**	**17 04 02.9**	**+0.7**	
	comp=Z,3.6nm,0.9s								
RONA	**Rosalia, Austr**	**122.81**	**327**		*i* PKP	**PKiKP**	**17 04 02.9**	**+0.5**	
	comp=Z,4.5nm,0.7s								
ZVC	**Zvikov**	**122.86**	**330**		*e*PKPDF	**PKiKP**	**17 04 03.5**	**+1.1**	
NEUB	**Neuenburg**	**122.87**	**332**		*e*PKPdf	**PKiKP**	**17 04 03.7**	**+1.3**	
	baz=48,slow=2.1								
CONA	**Conrad Observa**	**122.91**	**327**		*i* PKP	**PKiKP**	**17 04 03.0**	**+0.3**	
	comp=Z,3.5nm,0.6s								
CLZ	**Clausthal**	**123.08**	**334**		*e*PKPdf	**PKiKP**	**17 04 03.9**	**+1.0**	
	baz=48,slow=2.1								
TANN	**Tannenbergstha**	**123.08**	**331**		*e*PKPdf	**PKiKP**	**17 04 03.6**	**+0.7**	
	baz=48,slow=2.1								
CKRC	**Cesky Krumlov**	**123.19**	**329**		*e*PKIKP	**PKiKP**	**17 04 03.4**	**+0.3**	
CKRC	**Cesky Krumlov**	**123.19**	**329**		*e*PKPDF	**PKiKP**	**17 04 03.4**	**+0.3**	
MOX	**Moxa**	**123.33**	**332**		*e*PKPdf	**PKiKP**	**17 04 04.5**	**+1.2**	
	baz=48,slow=2.1								
KHC	**Kasperske Hory**	**123.37**	**330**		*e*PKIKP	**PKiKP**	**17 04 04.2**	**+0.7**	
KHC	**Kasperske Hory**	**123.37**	**330**		*e*PKPDF	**PKiKP**	**17 04 04.2**	**+0.7**	
GEC2	**GERESS Array S**	**123.48**	**329**		*e*PKPdf	**PKiKP**	**17 04 04.7**	**+0.9**	
	baz=48,slow=2.1								
GERES	**GERESS Array B**	**123.48**	**329**		PKP	**PKPdf**	**17 04 03.5**	**0.0**	
	comp=Z,4.6nm,0.6s,baz=68,slow=1.1,SNR=45								
GERES					SKP	**SKPdf**	**17 07 18.4**	**+0.9**	
	comp=Z,2.5nm,0.8s,baz=14,slow=0.6,SNR=11								
GERES					PKKPbc	**PKKPab**	**17 13 53.4**	**-0.2**	
	comp=Z,1.0nm,0.6s,baz=218,slow=3.0,SNR=12								
ARSA	**Arzberg**	**123.50**	**327**		*i* PKiKP	**PKiKP**	**17 04 04.4**	**+0.6**	
	comp=Z,2.1nm,0.9s								
WET	**Wettzell**	**123.71**	**330**		*e*PKPdf	**PKiKP**	**17 04 05.1**	**+0.9**	
	baz=48,slow=2.1								
MOA	**Molln**	**123.81**	**328**		*i* PKP	**PKiKP**	**17 04 05.0**	**+0.5**	
	comp=Z,1.4nm,0.5s								
SESA	**Seetaler Alpe,**	**124.11**	**327**		*i* PKiKP	**PKiKP**	**17 04 05.7**	**+0.4**	
	comp=Z,5.3nm,0.6s,SNR=6.3								
SOKA	**Soboth**	**124.11**	**326**		*i* PKP	**PKiKP**	**17 04 05.5**	**+0.4**	
	comp=Z,4.5nm,0.8s,SNR=4.1								
BIOA	**Bad Ischl, Aus**	**124.25**	**328**		*e*PKP	**PKiKP**	**17 04 05.6**	**+0.3**	
	comp=Z,3.5nm,1.0s								
KASTN	**Kahler Asten**	**124.39**	**334**		*e*PKPdf	**PKiKP**	**17 04 06.2**	**+0.7**	
	baz=48,slow=2.1								
BUG	**Bochum--Univer**	**124.71**	**335**		*e*PKPdf	**PKiKP**	**17 04 07.2**	**+1.2**	
	baz=48,slow=2.1								
KBA	**Koelnbreinsper**	**124.78**	**328**		*i* PKP	**PKiKP**	**17 04 06.6**	**0.0**	
	comp=Z,3.1nm,0.7s								
BATG	**Bathurst New B**	**124.90**	**32**			**PKiKP**	**17 04 06.4**	**-0.1**	
MYKA	**Terra Mystica**	**124.90**	**327**		*i* PKP	**PKiKP**	**17 04 06.7**	**0.0**	
	comp=Z,3.0nm,0.7s								
LESA	**Schwarzleotal**	**124.92**	**328**		*i* PKP	**PKPdf**	**17 04 06.4**	**0.0**	
	comp=Z,6.1nm,0.8s,SNR=7.1								
EKA	**Eskdalemuir Ar**	**125.21**	**344**		PKP	**PKPdf**	**17 04 06.5**	**-0.1**	
	comp=Z,2.3nm,0.6s,baz=17,slow=3.0,SNR=13								
EKA					PKKPbc	**PKKPab**	**17 13 45.4**	**-0.5**	
	comp=Z,1.9nm,0.9s,baz=217,slow=4.3,SNR=4.3								
G65A	**Princeton**	**125.36**	**35**		PKPdf	**PKiKP**	**17 04 07.3**	**-0.2**	
ABTA	**Abfaltersbach**	**125.44**	**328**		*i* PKP	**PKPdf**	**17 04 07.2**	**-0.1**	
	comp=Z,9.4nm,0.8s								
WATA	**Walderalm**	**125.55**	**329**		*i* PKP	**PKiKP**	**17 04 08.3**	**+0.2**	
	comp=Z,7.4nm,0.7s								
WTTA	**Wattenberg**	**125.56**	**329**		*i* PKiKP	**PKiKP**	**17 04 08.5**	**+0.4**	
	comp=Z,7.5nm,0.5s								
STU	**Stuttgart**	**125.76**	**332**		*e*PKPdf	**PKiKP**	**17 04 09.7**	**+1.4**	
	baz=48,slow=2.1								
MOTA	**Moosalm**	**125.78**	**329**		*i* PKP	**PKPdf**	**17 04 08.2**	**+0.1**	
	comp=Z,6.4nm,0.7s								
SQTA	**Sankt Quirin**	**125.81**	**329**		*i* PKP	**PKiKP**	**17 04 08.6**	**+0.1**	
	comp=Z,8.3nm,0.8s								
MEM	**Membach**	**125.86**	**335**		*d*PKPdf	**PKiKP**	**17 04 08.3**	**0.0**	
RETA	**Reutte**	**125.86**	**329**		*i* PKP	**PKiKP**	**17 04 08.7**	**+0.2**	
	comp=Z,3.5nm,0.7s								
UBR	**Ueberruh**	**126.06**	**330**		*e*PKPdf	**PKiKP**	**17 04 09.6**	**+0.7**	
	baz=48,slow=2.1								
FETA	**Feichten**	**126.19**	**329**		*i* PKP	**PKiKP**	**17 04 09.6**	**+0.2**	
	comp=Z,7.1nm,0.8s,SNR=7.8								
BCLA	**Clavier**	**126.30**	**335**		*d*PKP	**PKiKP**	**17 04 10.0**	**+0.8**	
DAVA	**Damuels**	**126.44**	**330**		*i* PKP	**PKiKP**	**17 04 09.9**	**+0.1**	
	comp=Z,9.2nm,0.9s								
BFO	**Black Forest**	**126.48**	**332**		*i* PKIKP	**PKiKP**	**17 04 11.3**	**+1.6**	
BFO	**Black Forest**	**126.48**	**332**		*e*PKPdf	**PKiKP**	**17 04 10.3**	**+0.6**	
	baz=48,slow=2.1								
WLF	**Walferdange**	**126.50**	**334**		*d*PKP	**PKiKP**	**17 04 10.1**	**+0.5**	
WLF	**Walferdange**	**126.50**	**334**		*e*PKPdf	**PKiKP**	**17 04 10.9**	**+1.3**	
	baz=48,slow=2.1								
RCHB	**Rochefort**	**126.53**	**335**		*d*PKP	**PKiKP**	**17 04 10.3**	**+0.7**	
BMRD	**Maredsous**	**126.61**	**335**		*d*PKP	**PKiKP**	**17 04 10.7**	**+0.8**	
DOU	**Dourbes**	**126.84**	**335**		*d*PKP	**PKiKP**	**17 04 11.9**	**+1.6**	
TIP	**Timpagrande**	**127.23**	**318**			**PKiKP**	**17 04 11.3**	**-0.2**	
TSUM	**Tsumeb**	**130.93**	**241**		PKP	**PKiKP**	**17 04 19.4**	**-0.2**	
	comp=Z,5.0nm,0.8s,baz=114,slow=4.4,SNR=4.8								
TSUM					SKPbc	**SKPab**	**17 07 22.8**	**+0.5**	
	comp=Z,25nm,0.9s,baz=109,slow=5.9,SNR=14								
KEST	**Kesra**	**134.05**	**318**		PKP	**PKPdf**	**17 04 24.4**	**+0.4**	
	comp=Z,1.7nm,0.4s,baz=50,slow=2.4,SNR=4.8								
KEST					SKPbc	**SKPbc**	**17 07 32.5**	**+0.4**	
	comp=Z,25nm,1.0s,baz=2.6,slow=2.5,SNR=16								
LPAZ	**La Paz**	**134.35**	**117**		PKP	**PKiKP**	**17 04 26.5**	**-0.7**	
	comp=Z,3.5nm,0.5s,baz=246,slow=1.7,SNR=11								
LPAZ					SKPbc	**SKPab**	**17 07 36.0**	**-1.7**	
	comp=Z,4.6nm,0.9s,baz=290,slow=2.9,SNR=5.9								
LPAZ	**La Paz**	**134.35**	**117**			**PKPdf**	**17 04 23.9**	**-1.9**	
LPAZ	**La Paz**	**134.35**	**117**		*e*P	**PKPdf**	**17 04 23.4**	**-2.3**	
PSAL	**Palomas, Salto**	**134.45**	**142**		*e*P	**PKPdf**	**17 04 24.6**	**-0.2**	
CAEH	**'Ain El Ouahch**	**135.02**	**321**		P	**SKPbc**	**17 07 38.5**	**+3.4**	
CKFL	**Kef-Lekhel**	**135.34**	**321**		P	**SKPbc**	**17 07 36.3**	**0.0**	
CASM	**Ain Smara**	**135.57**	**321**		P	**SKPbc**	**17 07 37.5**	**+0.6**	
DFRA	**Djebel Bou Aff**	**135.78**	**322**		P	**SKPbc**	**17 07 38.7**	**+1.1**	
ITQB	**Itaqui**	**136.03**	**141**		*e*P	**PKPdf**	**17 04 27.8**	**0.0**	
CPSB	**Cacapava Do Su**	**137.42**	**145**		*e*P	**PKPdf**	**17 04 30.8**	**+0.4**	
CPUP	**Villa Florida**	**137.81**	**137**		PKP	**PKPdf**	**17 04 31.5**	**+0.3**	
	comp=Z,4.1nm,0.6s,baz=241,slow=1.5,SNR=11								
CPUP					SKPbc	**SKPbc**	**17 07 44.5**	**+0.7**	
	comp=Z,18nm,1.1s,baz=239,slow=3.3,SNR=13								
PBRG	**Braganca**	**138.16**	**338**		*e*tx	tx	17 07 45.8		
PGAV	**Gavieira, Arco**	**138.58**	**339**		*e*tx	tx	17 07 45.6		
ESDC	**Sonseca Array**	**138.79**	**333**		PKP	**PKPdf**	**17 04 32.3**	**-0.4**	
	comp=Z,0.7nm,0.8s,baz=35,slow=2.3,SNR=4.7								
ESDC					SKPbc	**SKPbc**	**17 07 46.6**	**+0.3**	
	comp=Z,8.4nm,1.2s,baz=14,slow=3.2,SNR=14								
ESDC					SKKPbc	**SKKPbc**	**17 16 29.9**	**+2.0**	
	comp=Z,1.6nm,0.6s,baz=230,slow=4.3,SNR=13								
POLO	**Lamas de Olo**	**138.92**	**338**		*e*tx	tx	17 07 48.3		
PVIS	**Viseu**	**139.53**	**338**		*e*tx	tx	17 07 49.5		
MTE	**Manteigas**	**139.68**	**337**		*e*tx	tx	17 07 50.1		
PCBR	**Castelo Branco**	**140.13**	**337**		*e*tx	tx	17 07 51.0		
PMRV	**Marv??o**	**140.45**	**336**		*e*PKPdf	**PKPdf**	**17 04 35.2**	**-0.4**	
PMRV					*e*tx	tx	17 07 52.1		
PSARD	**Sardoal**	**140.60**	**337**		*e*tx	tx	17 07 52.5		
PMTG	**Montargil**	**141.09**	**337**		*e*PKPdf	**PKiKP**	**17 04 40.9**	**+1.3**	
PMTG					*e*tx	tx	17 07 53.1		
PBAR	**Barrancos**	**141.37**	**335**		*e*tx	tx	17 07 54.5		
PMAFR	**Mafra**	**141.59**	**338**		*e*tx	tx	17 07 47.8		
PBEJ	**Beja**	**141.84**	**336**		*e*tx	tx	17 07 55.6		
PLOUS	**Minas do Lousa**	**142.06**	**336**		*e*PKPdf	**PKiKP**	**17 04 40.1**	**-1.4**	
PL

EBAD				S	**Sn**	16 56 57.1	-1.9
EBAD				IVmb_Lg		16 57 00.6	
EVO	**Evora**	**3.50**	**338**	Pn	**Pn**	**16 56 20.2**	**+1.4**
EVO				Sn	**Sn**	**16 56 59.1**	**+0.1**
EVO	**Evora**	**3.50**	**338**	*eP*	**Pn**	**16 56 20.5**	**+1.7**
EVO				*eS*	**Sn**	**16 56 59.2**	**+0.2**
EVO				IAML		16 56 59.8	
EVO				IAML		16 57 00.1	
EVO				IAML		16 57 00.1	
EQES	**Quesada**	**3.63**	**45**	P	**Pn**	**16 56 21.8**	**+1.0**
EQES				S	**Sn**	**16 57 00.0**	**-2.4**
EQES				IVmb_Lg		16 57 04.0	
PESTR	**Estremoz**	**3.70**	**345**	Sn	**Sn**	**16 57 02.8**	**-1.3**
PESTR	**Estremoz**	**3.70**	**345**	*eS*	**Sn**	**16 57 03.2**	**-0.9**
PMTG	**Montargil**	**4.06**	**339**	*eP*	**Pn**	**16 56 28.0**	**+1.5**
PMTG				*eS*	**Sn**	**16 57 11.9**	**-0.8**
PMTG				IAML		16 57 14.5	
PMTG				IAML		16 57 15.0	
PMTG				IAML		16 57 15.2	
PMRV	**Marv??o**	**4.21**	**349**	*eP*	**Pn**	**16 56 30.1**	**+1.4**
PMRV				*eS*	**Sn**	**16 57 15.8**	**-0.8**
PMRV				IAML		16 57 16.2	
PMRV				IAML		16 57 16.4	
PMRV				IAML		16 57 17.3	
OUK	**Oukaimeden**	**4.28**	**198**	P	**Pn**	**16 56 29.1**	**-0.8**
OUK				S	**Sn**	**16 57 16.6**	**-2.1**
OUZM	**OUZ**	**4.39**	**185**	P	**Pn**	**16 56 32.3**	**+1.0**
OUZM				S	**Sn**	**16 57 21.2**	**0.0**
TIO	**Tiouine**	**4.43**	**190**	Pn	**Pn**	**16 56 32.6**	**+0.8**
TIO				Sn	**Sn**	**16 57 19.5**	**-2.6**
TIO	**Tiouine**	**4.43**	**190**	P	**Pn**	**16 56 31.2**	**-0.5**
TIO				S	**Sn**	**16 57 20.6**	**-1.6**
PAB	**San Pablo**	**4.53**	**20**	S	**Sn**	**16 57 20.9**	**-3.6**
PAB				IVmb_Lg		16 57 24.9	
PSARD	**Sardoal**	**4.53**	**342**	*eP*	**Pn**	**16 56 35.0**	**+1.9**
PSARD				*eS*	**Sn**	**16 57 22.9**	**-1.7**
PSARD				IAML		16 57 24.9	
PSARD				IAML		16 57 25.6	
PSARD				IAML		16 57 26.6	
PCBR	**Castelo Branco**	**4.62**	**349**	*eS*	**Sn**	**16 57 25.5**	**-1.3**
PCBR				IAML		16 57 25.6	
PCBR				IAML		16 57 26.2	
PCBR				IAML		16 57 27.4	
EPLA	**Plasencia**	**4.76**	**2**	P	**Pn**	**16 56 37.9**	**+1.6**
EPLA				S	**Sn**	**16 57 26.1**	**-4.2**
EPLA				IVmb_Lg		16 57 29.8	
TTIG	**Tnine Tigouga,**	**5.06**	**201**	P	**Pn**	**16 56 39.0**	**-1.4**
TTIG				S	**Sn**	**16 57 35.3**	**-2.3**
ETOB	**Tobarra**	**5.09**	**48**	S	**Sn**	**16 57 34.9**	**-3.4**
ETOB				IVmb_Lg		16 57 37.1	

IDC 09 17:16:15.5±8.5, 21°29N×144°96E, h0km, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=341.9km s-min=24.7km az=78.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H11N1	**WAKE ISLAND Hy 20.60**	**90**		T	T	17 42 46.9	
	baz=277,slow=75,SNR=9.6						
H11N2	**WAKE ISLAND Hy 20.61**	**90**		T	T	17 42 50.7	
	baz=277,slow=75,SNR=9.2						
H11S3	**WAKE ISLAND Hy 20.62**	**94**		T	T	17 42 41.4	
	baz=280,slow=75,SNR=6.5						
H11N3	**WAKE ISLAND Hy 20.62**	**90**		T	T	17 42 53.6	
	baz=277,slow=75,SNR=7.5						
H11S1	**WAKE ISLAND Hy 20.63**	**94**		T	T	17 42 45.5	
	baz=280,slow=75,SNR=8.3						
H11S2	**WAKE ISLAND Hy 20.64**	**94**		T	T	17 42 42.7	
	baz=280,slow=75,SNR=11						
WRA	**Warramunga Arr**	**42.28**	**195**	P	P	17 24 09.8	-1.1
	0.4nm,0.7s,baz=17,slow=9.0,SNR=4.8						
	0.4nm,0.7s						
ASAR	**Alice Springs**	**45.97**	**194**	P	P	17 24 41.4	+0.8
	0.4nm,0.7s,baz=16,slow=8.7,SNR=6.4						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	**56.19**	**313**	P	P	17 25 57.2	-0.1
	0.3nm,0.5s,baz=88,slow=8.6,SNR=4.1						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**58.95**	**317**	P	P	17 26 16.4	-0.2
	1.0nm,0.2s,baz=96,slow=7.8,SNR=4.8						
	1.0nm,0.2s						
BVAR	**Borovoye Array**	**64.05**	**320**	P	P	17 26 51.3	+0.1
	0.7nm,0.5s,baz=94,slow=4.7,SNR=4.1						
	0.7nm,0.5s						

IDC 09 17:19:14.4±7.2, 21°21N×144°54E, h0km, mb3.8/5, mbtmp3.8/5, Error ellipse: s-maj=289.5km s-min=23.4km az=77.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H11N1	**WAKE ISLAND Hy 21.00**	**90**		T	T	17 46 00.6	
	baz=277,slow=75,SNR=5.5						
H11N2	**WAKE ISLAND Hy 21.00**	**90**		T	T	17 45 56.8	
	baz=277,slow=75,SNR=5.2						
H11S3	**WAKE ISLAND Hy 21.01**	**94**		T	T	17 45 39.4	
	baz=280,slow=75,SNR=6.2						
H11N3	**WAKE ISLAND Hy 21.01**	**90**		T	T	17 45 59.3	
	baz=277,slow=75,SNR=5.6						
H11S1	**WAKE ISLAND Hy 21.02**	**93**		T	T	17 46 01.8	
	baz=280,slow=75,SNR=5.7						
H11S2	**WAKE ISLAND Hy 21.02**	**94**		T	T	17 45 52.4	
	baz=280,slow=75,SNR=5.7						
WRA	**Warramunga Arr**	**42.10**	**194**	P	P	17 27 07.1	-1.3
	0.6nm,0.8s,baz=16,slow=9.2,SNR=6.3						
	0.6nm,0.8s						
ASAR	**Alice Springs**	**45.79**	**194**	P	P	17 27 39.0	+0.9
	0.7nm,0.6s,baz=20,slow=9.3,SNR=15						
	0.7nm,0.6s						
MKAR	**Makanchi Array**	**55.95**	**313**	P	P	17 28 54.4	-0.1
	0.4nm,0.6s,baz=95,slow=9.1,SNR=4.4						
	0.4nm,0.6s						
KURBB	**Kurchatov Arra**	**58.74**	**317**	P	P	17 29 14.2	+0.1
	1.7nm,0.2s,baz=95,slow=8.1,SNR=7.1						
	1.7nm,0.2s						
BVAR	**Borovoye Array**	**63.86**	**320**	P	P	17 29 48.5	-0.3
	0.6nm,0.4s,baz=94,slow=5.8,SNR=3.0						
	0.6nm,0.4s						

IDC 09 17:31:31.9±1.4, 21°16N×144°51E, h0km, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=53.2km s-min=22.7km az=86.0

ISC 09 17:31:37.0±1.3, 21°1N±0°2×144°6E±0°3, h35km, n12, σ0§70/6, mb3.7/6, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H11N1	**WAKE ISLAND Hy 20.98**	**90**		T	T	17 58 04.6	
	baz=277,slow=75,SNR=13						
H11N2	**WAKE ISLAND Hy 20.98**	**90**		T	T	17 58 03.9	
	baz=277,slow=75,SNR=7.9						
H11S3	**WAKE ISLAND Hy 20.99**	**93**		T	T	17 57 57.1	
	baz=280,slow=75,SNR=11						
H11S1	**WAKE ISLAND Hy 21.00**	**93**		T	T	17 57 57.6	
	baz=280,slow=75,SNR=13						
H11N3	**WAKE ISLAND Hy 21.00**	**90**		T	T	17 58 05.0	
	baz=277,slow=75,SNR=5.8						
H11S2	**WAKE ISLAND Hy 21.00**	**93**		T	T	17 57 59.2	
	baz=280,slow=75,SNR=12						
WRA	**Warramunga Arr**	**42.02**	**194**	P	**P**	**17 39 24.5**	**-0.8**
	0.7nm,0.7s,baz=14,slow=8.8,SNR=4.8						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**45.71**	**194**	P	**P**	**17 39 55.6**	**+0.8**
	0.7nm,0.6s,baz=19,slow=8.7,SNR=14						
	0.7nm,0.6s						
MKAR	**Makanchi Array**	**56.02**	**313**	P	**P**	**17 41 12.3**	**0.0**
	0.4nm,0.7s,baz=97,slow=9.0,SNR=3.0						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**58.81**	**317**	P	**P**	**17 41 31.3**	**-0.5**
	0.6nm,0.2s,baz=94,slow=7.9,SNR=7.8						
	0.6nm,0.2s						
ILAR	**Eielson Array**	**61.97**	**27**	P	**P**	**17 41 53.2**	**0.0**
	0.4nm,0.8s,baz=262,slow=6.4,SNR=2.6						
	0.4nm,0.8s						
BVAR	**Borovoye Array**	**63.93**	**320**	P	**P**	**17 42 06.6**	**+0.1**
	0.6nm,0.6s,baz=83,slow=6.9,SNR=3.4						
	0.6nm,0.6s						

NEIC 09 17:52:07.3±1.9, 22°20N±0°07×143°4E±0°1, h112km±6km, mb4.4/33, Error ellipse: s-maj=19.4km s-min=9.8km az=94.0

IDC 09 17:52:07.3±2.3, 22°21N×143°46E, h120km±20km, mb3.6/17, mbtmp4.0/20, Error ellipse: s-maj=22.1km s-min=12.1km az=83.0

JMA 09 17:52:14.1±0.2, 23°N±2°×14°4E±°, h177km, MV4.7/32, IOTO ISLANDS REGION

ISC 09 17:52:09.9±0.5, 22°27N±0°06×143°6E±0°1, h150km, n78, σ1§60/77, mb4.1/32, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**4.52**	**344**	P	**Pn**	**17 53 18.9**	**+1.9**
JHH2				*eS*	**Sn**	**17 54 09.1**	**-0.2**
CBIJ	**Chichi jima**	**4.97**	**346**	P	**Pn**	**17 53 24.4**	**+1.5**
CBIJ				*eS*	**Sn**	**17 54 18.7**	**-1.1**
JCJ	**Chichijima**	**4.97**	**346**	P	**Pn**	**17 53 21.2**	**-1.6**
	40nm,0.3s,baz=152,slow=21,SNR=23						
JCJ				S	**Sn**	**17 54 15.9**	**-3.8**
	168nm,0.4s,baz=252,slow=22,SNR=14						
JCJ	**Chichijima**	**4.97**	**346**		**Pn**	**17 53 21.5**	**-1.3**
BSO3	**Boso 3**	**12.77**	**349**	*eP*	**Pn**	**17 55 06.1**	**+0.3**
BSO3				*eS*	**Sn**	**17 57 22.4**	**-4.5**
JOD2	**Odawara 2**	**13.53**	**344**	*eP*	**Pn**	**17 55 15.5**	**-0.3**
JKN2	**Miekihoku**	**13.54**	**333**	*eP*	**P**	**17 55 17.7**	**-2.1**
INU	**Inuyama**	**14.23**	**338**	P	**P**	**17 55 25.9**	**-1.6**
JRY	**Ryogami san**	**14.29**	**345**	*eP*	**P**	**17 55 25.3**	**-2.8**
JGF	**Kuroka**	**14.35**	**339**		**Pn**	**17 55 25.2**	**-1.0**
JHO	**Hitachi**	**14.53**	**350**	*eP*	**P**	**17 55 29.2**	**-1.6**
JAG	**Ashikaga**	**14.55**	**347**	*eP*	**Pn**	**17 55 28.0**	**-0.7**
JGN	**Niukaw**	**14.93**	**340**	*eP*	**P**	**17 55 34.1**	**-1.2**
MJAR	**Matsushiro Arr**	**14.96**	**343**	P	**Pn**	**17 55 32.8**	**-1.0**
	2.5nm,0.8s,baz=167,slow=9.2,SNR=10						
MJAR	**Matsushiro Arr**	**14.96**	**343**		**Pn**	**17 55 32.4**	**-1.4**
MAJO	**Matsushiro**	**14.96**	**343**	Pn	**Pn**	**17 55 32.7**	**-1.2**
MAT	**Matsushiro**	**14.96**	**343**	*eP*	**P**	**17 55 35.1**	**-0.6**
MJB9	**Matsu-Tunnel**	**14.97**	**343**	Pn	**Pn**	**17 55 32.7**	**-1.2**
JNU	**Nakatsue**	**15.58**	**317**	P	**P**	**17 55 41.5**	**-1.0**
	4.0nm,0.9s,baz=64,slow=1.6,SNR=5.3						
JMM	**Marumori**	**15.73**	**352**	*eP*	**P**	**17 55 43.8**	**-0.2**
JTM	**Tenmabayashi**	**18.58**	**354**		**Pn**	**17 56 17.0**	**-0.4**
KSRS	**Korea Array**	**20.28**	**322**	P	Pn	17 56 34.9	-2.5
	2.3nm,0.6s,baz=146,slow=8.5,SNR=19						
	2.3nm,0.6s						
KSAR	**Wonju Array Be**	**20.29**	**322**	P	**P**	**17 56 32.1**	**-1.8**
SSLB	**Suanglung**	**20.86**	**279**	P	Pn	17 56 42.9	-1.7
SSLB				IAmb	IAmb	17 56 45.7	
	comp=Z,27nm,1.0s						
TPUB	**Ta-pu**	**21.17**	**277**	P	**P**	**17 56 45.6**	**+2.1**
USRK	**Ussuriysk Ar.**	**23.87**	**339**	P	**P**	**17 57 11.6**	**+2.2**
	comp=Z,1.6nm,0.7s,baz=144,slow=9.4,SNR=4.0						
	comp=Z,1.6nm,0.7s						
USRK	**Ussuriysk Ar.**	**23.87**	**339**	P	**P**	**17 57 10.0**	**+0.5**
MTN	**Manton Dam**	**36.97**	**200**	P	**P**	**17 59 03.8**	**-1.0**
MTN				IAmb	IAmb	17 59 45.2	
	comp=Z,6.6nm,1.4s						
SONM	**Songino Array**	**39.13**	**320**	P	**P**	**17 59 23.8**	**+1.0**
	comp=Z,0.4nm,0.4s,baz=131,slow=8.8,SNR=5.0						
	comp=Z,0.4nm,0.4s						
KNRA	**Kununurra**	**40.41**	**202**	P	**P**	**17 59 32.7**	**-0.8**
KNRA				IAmb	IAmb	17 59 43.9	
	comp=Z,7.6nm,1.4s						
YAK	**Yakutsk**	**40.87**	**350**	P	**P**	**17 59 38.5**	**+1.8**
CTAO	**Charters Tower**	**42.18**	**176**	P	**P**	**17 59 47.2**	**-0.8**
CTAO				IAmb	IAmb	18 00 21.5	
	comp=Z,21nm,1.4s						
WB0	**Warramunga Arr**	**42.73**	**193**	P	**P**	**17 59 51.5**	**-0.9**
WB0				IAmb	IAmb	18 00 31.7	
	comp=Z,11nm,1.5s						
WR8	**Warramunga Arr**	**42.89**	**193**	P	**P**	**17 59 52.4**	**-1.3**
WR8				IAmb	IAmb	17 59 54.1	
	comp=Z,7.3nm,1.4s						
WRAB	**Tennant Creek**	**42.90**	**193**	P	**P**	**17 59 52.9**	**-0.8**
WRAB				IAmb	IAmb	17 59 54.3	
	comp=Z,6.5nm,1.2s						
WRA	**Warramunga Arr**	**42.91**	**193**	P	**P**	**17 59 53.1**	**-0.8**
	comp=Z,0.7nm,0.3s,baz=17,slow=9.2,SNR=28						
WRA				PcP	**PcP**	**18 01 42.1**	**+0.2**
	comp=Z,1.5nm,0.7s,baz=3.9,slow=3.7,SNR=11						
	comp=Z,0.7nm,0.3s						
FITZ	**Fitzroy Crossi**	**43.79**	**205**	P	**P**	**17 59 59.5**	**-1.4**
KULM	**Kulim**	**44.76**	**254**	P	**P**	**18 00 08.2**	**-0.6**
KULM				IAmb	IAmb	18 00 42.8	
	comp=Z,14nm,1.5s						
AS31	**Alice Springs**	**46.62**	**192**	P	**P**	**18 00 22.4**	**-0.7**
ASAR	**Alice Springs**	**46.62**	**192**	P	**P**	**18 00 22.3**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=10,slow=6.8,SNR=15						
ASAR				PcP	**PcP**	**18 01 55.0**	**+0.3**
	comp=Z,0.7nm,0.7s,baz=20,slow=4.0,SNR=6.5						
	comp=Z,0.3nm,0.4s						
GSI	**Gunungsitoli**	**49.31**	**251**	P	**P**	**18 00 44.4**	**+0.2**
GSI				IAmb	IAmb	18 00 47.0	
	comp=Z,9.3nm,0.8s						
STKA	**Stephens Creek**	**53.87**	**182**	P	**P**	**18 01 18.0**	**+0.5**
	comp=Z,1.4nm,0.7s,baz=356,slow=9.3,SNR=2.9						
	comp=Z,1.4nm,0.7s						
MKAR	**Makanchi Array**	**54.58**	**312**	P	**P**	**18 01 23.2**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=90,slow=8.9,SNR=8.4						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**54.58**	**312**	P	**P**	**18 01 22.9**	**+0.3**
MAKZ	**Makanchi**	**54.79**	**312**	P	**P**	**18 01 24.4**	**+0.2**
KURK	**Kurchatov**	**57.30**	**317**	P	**P**	**18 01 42.3**	**+0.4**
KURK				IAmb	IAmb	18 01 42.8	
	comp=Z,1.4nm,0.6s						
KURBB	**Kurchatov Arra**	**57.35**	**317**	P	**P**	**18 01 42.6**	**+0.4**
	comp=Z,1.9nm,0.5s,baz=95,slow=7.7,SNR=15						
	comp=Z,1.9nm,0.5s						
D20K	**Etivluk River**	**58.61**	**22**	P	**P**	**18 01 53.5**	**+2.7**
BOOM	**Boomskoye usch**	**59.04**	**307**	P	**P**	**18 01 56.2**	**+1.8**
D22K	**Ayikyak River**	**60.02**	**22**	P	P	18 02 03.9	+3.4
D22K				IAmb	IAmb	18 02 13.0	
	comp=Z,8.2nm,1.2s						
TOLK	**Toolik Lake Re**	**61.06**	**23**	P	P	18 02 10.9	+3.4
TOLK				IAmb	IAmb	18 02 40.9	
	comp=Z,4.5nm,1.2s						
ILAR	**Eielson Array**	**61.37**	**27**	P	**P**	**18 02 10.8**	**+1.2**
	comp=Z,0.3nm,0.6s,baz=264,slow=6.2,SNR=4.2						
	comp=Z,0.3nm,0.6s						
D25K	**Kavik River**	**62.33**	**22**	P	P	18 02 19.3	+3.3
D25K				IAmb	IAmb	18 02 25.0	
	comp=Z,2.8nm,1.2s						
BVAR	**Borovoye Array**	**62.47**	**319**	P	**P**	**18 02 17.6**	**+0.5**
	comp=Z,2.6nm,0.5s,baz=96,slow=8.7,SNR=8.9						
	comp=Z,2.6nm,0.5s						
BORK	**Borovoye**	**62.51**	**319**	P	**P**	**18 02 18.9**	**+1.5**
BORK				IAmb	IAmb	18 02 19.0	
	comp=Z,3.3nm,0.6s						
BMAR	**Burnt Mountain**	**62.68**	**24**	P	P	**18 02 21.0**	**+2.7**
F26K	**Sheenjek River**	**62.88**	**24**	P	P	18 02 23.9	+4.2
C26K	**Camden Bay**	**62.93**	**22**	P	P	18 02 23.7	+3.8
C26K				IAmb	IAmb	18 03 04.3	
	comp=Z,3.4nm,1.1s						
KK31	**Karatay Array**	**62.98**	**308**	P	**P**	**18 02 20.9**	**+0.2**
KKAR	**Karatay Array**	**62.98**	**308**	P	**P**	**18 02 21.6**	**+0.9**
F30M	**Barrier River**	**66.06**	**24**	P	**P**	**18 02 42.0**	**+1.7**
F30M				IAmb	IAmb	18 03 12.1	
	comp=Z,7.8nm,1.4s						
G31M	**Satah River**	**66.67**	**25**	P	**P**	**18 02 46.5**	**+2.4**
G31M				IAmb	IAmb	18 03 06.7	
	comp=Z,8.3nm,1.5s						
YKA	**Yellowknife Ar**	**75.78**	**28**	P	**P**	**18 03 41.0**	**+2.0**
	comp=Z,1.5nm,0.8s,baz=291,slow=5.9,SNR=1.8						
	comp=Z,1.5nm,0.8s						
ARCES	**ARCESS Array B**	**78.49**	**342**	P	**P**	**18 03 54.5**	**+0.5**
	comp=Z,1.8nm,0.7s,baz=64,slow=8.2,SNR=6.4						
	comp=Z,1.8nm,0.7s						
ARCES	**ARCESS Array B**	**78.49**	**342**	P	**P**	**18 03 55.0**	**+1.1**
KBZ	**Khabaz**	**82.23**	**314**	P	**P**	**18 04 14.8**	**+0.4**
	comp=Z,1.9nm,0.7s,baz=68,slow=5.6,SNR=6.1						
	comp=Z,1.9nm,0.7s						
NVAR	**Mina Array Bea**	**82.51**	**52**	P	**P**	**18 04 18.1**	**+1.8**
	comp=Z,0.9nm,0.8s,baz=281,slow=4.3,SNR=5.0						
	comp=Z,0.9nm,0.8s						
NVAR	**Mina Array Bea**	**82.51**	**52**	P	**P**	**18 04 17.6**	**+1.3**
FIA1	**FINESS Array S**	**82.82**	**335**	P	**P**	**18 04 17.0**	**-0.1**
FINES	**FINESS Array B**	**82.82**	**335**	P	**P**	**18 04 16.7**	**-0.4**
	comp=Z,0.9nm,0.3s,baz=62,slow=4.4,SNR=15						
	comp=Z,0.9nm,0.3s						
FINES	**FINESS Array B**	**82.82**	**335**	P	**P**	**18 04 16.9**	**-0.2**
PDAR	**Pinedale Array**	**86.74**	**45**	P	**P**	**18 04 38.1**	**+0.6**
	comp=Z,0.1nm,0.5s,baz=315,slow=9.7,SNR=2.3						
	comp=Z,0.1nm,0.5s						
HFS	**Hagfors**	**88.34**	**337**	P	**P**	**18 04 43.4**	**-1.0**
	comp=Z,0.6nm,0.4s,baz=64,slow=4.4,SNR=4.8						
	comp=Z,0.6nm,0.4s						
PLCA	**Paso Flores**	**145.86**	**131**	PKPbc	**PKiKP**	**18 11 33.3**	**-1.9**
	comp=Z,2.1nm,0.5s,baz=250,slow=3.0,SNR=15						
PLCA	**Paso Flores**	**145.86**	**131**	PKPdf	**PKiKP**	**18 11 33.2**	**-2.0**
EFI	**East Falkland**	**146.20**	**156**	PKPdf	**PKiKP**	**18 11 32.7**	**-2.7**
LPAZ	**La Paz**	**149.53**	**84**	PKPbc	**PKPab**	**18 11 44.5**	**-4.1**
	comp=Z,1.5nm,0.7s,baz=255,slow=2.7,SNR=7.3						
LPAZ	**La Paz**	**149.53**	**84**		**PKPab**	**18 11 45.1**	**-3.4**

IDC 09 17:55:26.7±0.9, 21°16N×144°59E, h87km±5km, mb3.4/9, mbtmp3.8/9, MS3.5/2, Error ellipse: s-maj=32.6km s-min=15.1km az=84.0

ISC 09 17:55:27.3±1.0, 21°2N±0°1×144°6E±0°3, h100km, n18, σ1§43/17, mb3.8/10, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H11N1	**WAKE ISLAND Hy 20.96**	**90**		T	T	18 22 03.2	
	baz=277,slow=75,SNR=34						
H11N2	**WAKE ISLAND Hy 20.96**	**90**		T	T	18 22 02.3	
	baz=277,slow=75,SNR=20						
H11S3	**WAKE ISLAND Hy 20.97**	**93**		T	T	18 22 02.3	
	baz=280,slow=75,SNR=16						
H11S1	**WAKE ISLAND Hy 20.98**	**93**		T	T	18 22 06.0	
	baz=280,slow=75,SNR=19						
H11N3	**WAKE ISLAND Hy 20.98**	**90**		T	T	18 22 05.0	
	baz=277,slow=75,SNR=24						
H11S2	**WAKE ISLAND Hy 20.99**	**93**		T	T	18 22 03.7	
	baz=280,slow=75,SNR=20						
SONM	**Songino Array**	**40.59**	**320**	P	**P**	**18 02 58.2**	**+1.0**
	0.3nm,0.5s,baz=111,slow=8.2,SNR=2.0						
	0.3nm,0.5s						
WRA	**Warramunga Arr**	**42.05**	**194**	P	**P**	**18 03 09.1**	**-0.1**
	0.6nm,0.6s,baz=13,slow=8.8,SNR=3.3						
WRA				pP	**pP**	**18 03 31.7**	**+0.2**
	0.8nm,0.7s,baz=15,slow=8.5,SNR=3.1						
	0.6nm,0.6s						
TLY	**Talaya**	**43.97**	**324**	LR	LR	18 20 33.3	
	comp=Z,56nm,20.4s,baz=305,slow=34						
ASAR	**Alice Springs**	**45.74**	**194**	P	**P**	**18 03 38.6**	**-0.1**
	0.2nm,0.7s,baz=16,slow=8.9,SNR=9.5						
ASAR				pP	**pP**	**18 04 01.8**	**+0.2**
	0.6nm,0.7s,baz=18,slow=8.8,SNR=4.0						
	0.2nm,0.7s						
ZALV	**Zalesovo Beam**	**55.44**	**322**	P	**P**	**18 04 51.7**	**+0.4**
	0.8nm,0.4s,baz=122,slow=5.2,SNR=1.8						
ZALV				pP	**pP**	**18 05 13.0**	**-1.9**
	0.8nm,0.3s,baz=98,slow=7.4,SNR=1.9						
	0.8nm,0.4s						
MKAR	**Makanchi Array**	**56.02**	**313**	P	**P**	**18 04 56.6**	**+1.0**
	0.8nm,0.7s,baz=91,slow=8.0,SNR=5.9						
MKAR				pP	**pP**	**18 05 18.4**	**-0.9**
	0.6nm,0.6s,baz=93,slow=9.0,SNR=5.4						
	0.8nm,0.7s						
KDAK	**Kodiak Island**	**57.92**	**34**	LR	LR	18 31 24.6	
	comp=Z,38nm,18.2s,baz=44,slow=37						
KURBB	**Kurchatov Arra**	**58.81**	**317**	P	**P**	**18 05 15.8**	**+0.7**
	1.2nm,0.5s,baz=94,slow=7.9,SNR=12						
KURBB				pP	**pP**	**18 05 37.7**	**-1.2**
	2.2nm,0.6s,baz=95,slow=7.8,SNR=4.2						
	1.2nm,0.5s						
ILAR	**Eielson Array**	**61.94**	**27**	P	**P**	**18 05 37.6**	**+1.4**
	0.6nm,0.9s,baz=266,slow=6.8,SNR=3.8						
ILAR				pP	**pP**	**18 05 58.5**	**-1.5**
	0.6nm,0.8s,baz=256,slow=5.5,SNR=5.1						
	0.6nm,0.9s						
BVAR	**Borovoye Array**	**63.93**	**320**	P	**P**	**18 05 51.0**	**+1.4**
	1.3nm,0.5s,baz=84,slow=5.2,SNR=4.5						
BVAR				pP	**pP**	**18 06 12.4**	**-1.4**
	1.1nm,0.5s,baz=99,slow=9.2,SNR=3.4						
	1.3nm,0.5s						
NVAR	**Mina Array Bea**	**82.47**	**52**	pP	pP	18 08 01.0	-3.3
	1.1nm,0.8s,baz=280,slow=3.7,SNR=5.1						
FINES	**FINESS Array B**	**84.23**	**335**	P	**P**	**18 07 48.4**	**+0.9**
	1.3nm,0.7s,baz=61,slow=9.6,SNR=4.7						
FINES				pP	**pP**	**18 08 09.6**	**-3.3**
	1.9nm,0.7s,baz=68,slow=5.1,SNR=2.6						
	1.3nm,0.7s						

ISK 09 17:56:18.8, 38°44N×44°50E, h5km, ML2.2/5
AFAD 09 17:56:18.1, 38°44N×44°65E, h6km±1km, ML2.2
TEH 09 17:56:19.1, 38°45N×44°35E, h10km±46km, ML2.6, Presumed earthquake
AZER 09 17:56:20.3, 38°36N×44°50E, h5km, ml2.4

ISC 09 17:56:20.9±1.0, 38°37N±0°03×44°51E±0°02, h15km±9km, n25, σ1§52/42, Turkey-Iran border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OZAP	**Van, Ozalp-Mer**	**0.50**	**305**	P	**Pg**	**17 56 29.3**	**-1.6**
OZAP				S	**Sg**	**17 56 37.6**	**0.0**
OZAP				IAML		17 56 38.0	
	comp=N,294nm,0.5s						
OZAP				IAML		17 56 40.0	
	comp=E,227nm,0.9s						
ISHB	**Shabestar**	**0.87**	**96**	Pg	**Pn**	**17 56 38.6**	**-0.2**
CLDR	**Caldiran**	**0.90**	**329**	Pg	**Pb**	**17 56 35.9**	**-2.4**
C

ASAR	**Alice Springs**	**31.68**	**251**	P		**P**	**18 18 15.4**	**-0.5**
	0.4nm,0.8s,baz=82,slow=9.2,SNR=4.6							
	0.4nm,0.8s							
QSPA	**South Pole Qui**	**74.15**	**180**	P		**P**	**18 23 30.3**	**+2.0**
	1.5nm,1.1s,baz=35,slow=4.2,SNR=3.2							
	1.5nm,1.1s							
ILAR	**Eielson Array**	**87.82**	**18**	P		**P**	**18 24 39.7**	**-1.0**
	0.3nm,0.8s,baz=207,slow=4.5,SNR=4.7							
	0.3nm,0.8s							
MKAR	**Makanchi Array**	**97.60**	**316**	P		**P**	**18 25 25.4**	**-0.9**
	0.1nm,0.4s,baz=108,slow=3.8,SNR=2.5							
	0.1nm,0.4s							

*SOME **09** 18:24:03.6,39.°07N×76.°00E,h0km*
*KRNET **09** 18:24:07.7±0.1,39.°10N×76.°13E,mb3.6*
*NNC **09** 18:24:09.7±1.7,39.°23N×76.°04E,h0km,mb3.6,mpv3.2,*
Error ellipse: s-maj=12.9km s-min=7.9km az=162.0

ISC 09 18:24:10.9±1.7,39.°22N±0.°08×76.°02E±0.°04,h10km,n46,
σ2s32/81,32C-15D,Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**2.10**	**293**	⇑	*iP*	**Pb**	**18 24 48.1**	**-1.2**
SFK				⇑	*iS*	**Sg**	**18 25 17.6**	**-0.9**
NRN	**Naryn**	**2.22**	**360**	⇑	*iP*	**Pn**	**18 24 49.3**	**+1.3**
NRN				⇑	*iS*	**Sb**	**18 25 19.8**	**+0.9**
SALK	**Salom-Alik**	**2.37**	**315**	⇑	*iP*	**Pb**	**18 24 52.0**	**-1.8**
SALK				⇑	*iS*	**Sb**	**18 25 24.3**	**+1.1**
OHH	**Osh**	**2.81**	**299**	⇑	*eP*	**Pn**	**18 24 57.9**	**+1.9**
OHH				⇑	*eS*	**Sb**	**18 25 34.5**	**-1.3**
TARG	**Taragay, Kyrgy**	**2.86**	**28**	⇓	*iP*	**Pn**	**18 24 57.8**	**+0.9**
TARG				⇓	*eS*	**Sn**	**18 25 34.3**	**+2.8**
ULHL	**Ulahol**	**3.03**	**3**	⇓	*eP*	**Pn**	**18 25 00.7**	**+1.6**
ULHL				⇓	*iS*	**Sb**	**18 25 39.5**	**-2.7**
KDJ	**Kajisay**	**3.04**	**16**	⇑	*iP*	**Pn**	**18 25 00.5**	**+1.2**
KDJ				⇑	*eS*	**Sn**	**18 25 39.1**	**+3.3**
UCH	**Uchtor**	**3.22**	**340**	⇓	*eP*	**Pn**	**18 25 03.9**	**+2.0**
UCH				⇓	*eS*	**Sb**	**18 25 44.9**	**-3.0**
BOOM	**Boomskoye usch**	**3.27**	**359**	⇑	*eP*	**Pn**	**18 25 04.2**	**+1.8**
BOOM				⇑	*eS*	**Sn**	**18 25 45.4**	**+3.9**
KBK	**Karagaybulak**	**3.53**	**347**	⇑	*eP*	**Pn**	**18 25 07.9**	**+1.9**
KBK				⇑	*eS*	**Sn**	**18 25 52.0**	**+4.1**
AAK	**Ala-Archa**	**3.61**	**342**	⇑	Pn	**Pn**	**18 25 09.0**	**+1.9**
	0.5nm,0.4s							
AAK				⇑	Pg	**Pb**	**18 25 15.9**	**+1.0**
	6.8nm,0.7s							
AAK				⇑	Lg	Lg	18 26 03.0	
	12nm,1.0s							
AAK	**Ala-Archa**	**3.61**	**342**	⇑	*eP*	**Pn**	**18 25 09.1**	**+2.1**
AAK				⇑	*eS*	**Sn**	**18 25 54.0**	**+4.2**
TKM2	**Tokmak 2**	**3.72**	**355**	⇑	*eP*	**Pn**	**18 25 10.4**	**+1.9**
TKM2				⇑	*eS*	**Sn**	**18 25 56.2**	**+3.7**
PRZ	**Przheval'sk**	**3.73**	**28**	⇑	*eP*	**Pn**	**18 25 09.9**	**+1.2**
PRZ				⇑	*eS*	**Sn**	**18 25 55.4**	**+2.6**
FRU1	**Bishkek**	**3.74**	**344**	⇑	*eP*	**Pn**	**18 25 11.2**	**+2.4**
FRU1				⇑	*iS*	**Sn**	**18 25 57.5**	**+4.6**
ANVS	**Anan'yevo**	**3.78**	**19**	⇓	*eP*	**Pn**	**18 25 10.7**	**+1.4**
ANVS				⇓	*eS*	**Sn**	**18 25 56.7**	**+2.8**
KST	**Kastek**	**3.83**	**359**		Pg	**Pb**	**18 25 17.8**	**-0.7**
	2.2nm,0.3s							
KST					Lg	Lg	18 26 11.4	
	7.8nm,0.4s							
KST	**Kastek**	**3.83**	**359**		*eP*	**Pb**	**18 25 17.8**	**-0.7**
	2.2nm,0.3s							
KST					*eS*	**Sg**	**18 26 11.4**	**-2.3**
	7.8nm,0.4s							
EKS2	**Erkin-Say**	**3.84**	**334**	⇓	*iP*	**Pn**	**18 25 12.4**	**+2.2**
EKS2				⇓	*eS*	**Sn**	**18 25 59.5**	**+4.1**
TNSS	**Tian-Shan**	**3.88**	**10**		Pg	**Pb**	**18 25 19.2**	**-0.5**
	1.8nm,0.5s							
TNSS					Lg	Lg	18 26 13.9	
	4.3nm,1.3s							
TNSS	**Tian-Shan**	**3.88**	**10**		*eP*	**Pb**	**18 25 19.2**	**-0.5**
	1.8nm,0.5s							
TNSS					*eS*	**Sg**	**18 26 13.9**	**-1.7**
	4.3nm,1.3s							
CHMS	**Chumysh**	**3.90**	**346**	⇑	*eP*	**Pn**	**18 25 13.0**	**+2.1**
CHMS				⇑	*eS*	**Sn**	**18 26 00.5**	**+3.7**
MDOK	**Medeo**	**4.02**	**11**		Pg	**Pb**	**18 25 21.2**	**-0.7**
	4.6nm,0.4s							
MDOK					Lg	Lg	18 26 17.3	
	17nm,0.7s							
MDOK	**Medeo**	**4.02**	**11**		*eP*	**Pb**	**18 25 21.2**	**-0.7**
	4.6nm,0.4s							
MDOK					*eS*	**Sg**	**18 26 17.3**	**-2.7**
	17nm,0.7s							
DGS	**Degeres**	**4.03**	**357**		Pg	**Pb**	**18 25 21.6**	**-0.4**
	3.0nm,0.4s							
DGS					Lg	Lg	18 26 17.6	
	5.4nm,0.4s							
DGS	**Degeres**	**4.03**	**357**		*eP*	**Pb**	**18 25 21.6**	**-0.4**
	3.0nm,0.4s							
DGS					*eS*	**Sg**	**18 26 17.6**	**-2.6**
	5.4nm,0.4s							
MRKS	**Merke**	**4.11**	**330**		Pg	**Pb**	**18 25 23.7**	**+0.3**
	7.3nm,0.5s							
MRKS					Lg	Lg	18 26 21.6	
	4.0nm,0.4s							
MRKS	**Merke**	**4.11**	**330**		*eP*	**Pb**	**18 25 23.7**	**+0.3**
	7.3nm,0.5s							
MRKS					*eS*	**Sg**	**18 26 21.6**	**-1.3**
	4.0nm,0.4s							
USP	**Ospenovka**	**4.21**	**345**	⇓	*eP*	**Pn**	**18 25 17.2**	**+2.1**
USP				⇓	*eS*	**Sn**	**18 26 08.1**	**+3.7**
MNAS	**Manas**	**4.22**	**322**	⇑	*eP*	**Pn**	**18 25 17.6**	**+2.2**
MNAS				⇑	*eS*	**Sn**	**18 26 08.7**	**+3.9**
SATY	**Saty**	**4.24**	**24**		Pg	**Pb**	**18 25 25.6**	**-0.1**
	4.9nm,0.3s							
SATY					Lg	Lg	18 26 24.6	
	7.0nm,0.5s							
SATY	**Saty**	**4.24**	**24**		*eP*	**Pb**	**18 25 25.6**	**-0.1**
	4.9nm,0.3s							
SATY					*eS*	**Sg**	**18 26 24.6**	**-2.4**
	7.0nm,0.5s							
KRBS	**Karabastau**	**4.49**	**357**		Pg	**Pb**	**18 25 31.5**	**+1.8**
	3.7nm,0.5s							
KRBS					Lg	Lg	18 26 34.8	
	15nm,0.7s							
KRBS	**Karabastau**	**4.49**	**357**		*eP*	**Pb**	**18 25 30.1**	**+0.3**
	2.3nm,0.3s							
KRBS					*eS*	**Sg**	**18 26 32.1**	**-2.8**
	8.3nm,0.2s							
KTBS	**Karatobe**	**4.52**	**6**		Pg	**Pb**	**18 25 30.8**	**+0.4**
	0.1nm,0.1s							
KTBS					Lg	Lg	18 26 33.7	
	4.7nm,0.6s							
KTBS	**Karatobe**	**4.52**	**6**		*eP*	**Pb**	**18 25 30.8**	**+0.4**
	0.1nm,0.1s							
KTBS					*eS*	**Sg**	**18 26 33.7**	**-2.3**
	4.7nm,0.6s							
UZB	**Uzynbulak**	**4.53**	**29**		Pg	**Pb**	**18 25 31.4**	**+0.7**
	1.9nm,0.2s							
UZB					Lg	Lg	18 26 34.6	
	3.5nm,0.5s							
UZB	**Uzynbulak**	**4.53**	**29**		*eP*	**Pb**	**18 25 31.4**	**+0.7**
	1.9nm,0.2s							
UZB					*eS*	**Sg**	**18 26 34.6**	**-1.8**
	3.5nm,0.5s							
KURS	**Kuram**	**4.56**	**20**		Pg	**Pb**	**18 25 32.5**	**+1.4**
	3.1nm,0.6s							
KURS					Lg	Lg	18 26 36.4	
	5.2nm,1.0s							
KURS	**Kuram**	**4.56**	**20**		*eP*	**Pb**	**18 25 32.5**	**+1.4**
	3.1nm,0.6s							
KURS					*eS*	**Sg**	**18 26 36.4**	**-1.0**
	5.2nm,1.0s							
KPKS	**Kokpek**	**4.70**	**24**		Pg	**Pb**	**18 25 34.0**	**+0.6**
	0.3nm,0.1s							
KPKS					Lg	Lg	18 26 39.1	
	8.4nm,0.3s							
KPKS	**Kokpek**	**4.70**	**24**		*eP*	**Pb**	**18 25 34.0**	**+0.6**
	0.3nm,0.1s							
KPKS					*eS*	**Sg**	**18 26 39.0**	**-2.6**
	8.4nm,0.3s							
PDGK	**Podgornoye**	**4.87**	**31**	⇓	Pg	**Pg**	**18 25 40.6**	**-3.5**
	3.1nm,0.6s							
PDGK				⇑	Lg	Lg	18 26 42.1	
	14nm,0.9s							
IUG	**Iuzhnay**	**5.42**	**305**		*eP*	**Pb**	**18 25 45.3**	**-0.3**
	6.4nm,0.4s							
IUG					*eS*	**Sg**	**18 26 58.1**	**-6.6**
	15nm,0.5s							
KK31	**Karatay Array**	**5.69**	**315**	⇑	Pn	**Pn**	**18 25 35.7**	**+0.2**
	0.5nm,0.3s,baz=119,slow=13,SNR=20							
KK31				⇓	Pg	**Pb**	**18 25 54.1**	**+3.8**
	0.7nm,0.4s,baz=133,slow=16,SNR=3.9							
KK31				⇑	Sn	**Sn**	**18 26 41.7**	**+0.9**
	0.8nm,0.4s							
KK31				⇓	Lg	Lg	18 27 10.2	
	0.5nm,0.3s,baz=115,slow=34							
DJR	**Jarkent**	**5.84**	**28**		*eP*	**Pb**	**18 25 55.0**	**+2.2**
	0.4nm,0.1s							
DJR					*eS*	**Sg**	**18 27 14.6**	**-3.7**
	1.2nm,0.2s							

IDC 09 18:43:25.8±1.5,21.°22N×144.°46E,h0km,mb3.3/4,
mbtmp3.3/4,MS2.8/1,Error ellipse: s-maj=64.5km
s-min=28.6km az=97.0,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
JNU	**Nakatsue**	**16.91**	**317**		LR	LR	18 52 16.0	
	comp=Z,37nm,21.6s,baz=208,slow=31							
H11N1	**WAKE ISLAND Hy**	**21.07**	**90**		T	T	19 09 55.3	
	baz=277,slow=75,SNR=12							
H11N2	**WAKE ISLAND Hy**	**21.08**	**90**		T	T	19 09 55.4	
	baz=277,slow=75,SNR=13							
H11S3	**WAKE ISLAND Hy**	**21.08**	**93**		T	T	19 09 54.2	
	baz=280,slow=75,SNR=8.9							
H11N3	**WAKE ISLAND Hy**	**21.09**	**90**		T	T	19 09 58.7	
	baz=277,slow=75,SNR=9.8							
H11S1	**WAKE ISLAND Hy**	**21.09**	**93**		T	T	19 09 55.0	
	baz=280,slow=75,SNR=13							
H11S2	**WAKE ISLAND Hy**	**21.10**	**93**		T	T	19 09 55.6	
	baz=280,slow=75,SNR=10							
WRA	**Warramunga Arr**	**42.09**	**194**		P	P	18 51 18.2	-1.5
	0.2nm,0.5s,baz=14,slow=7.8,SNR=1.8							
	0.2nm,0.5s							
ASAR	**Alice Springs**	**45.78**	**194**		P	P	18 51 50.4	+0.9
	0.5nm,1.0s,baz=18,slow=9.2,SNR=4.5							
	0.5nm,1.0s							
MKAR	**Makanchi Array**	**55.89**	**313**		P	P	18 53 05.8	+0.3
	0.3nm,0.6s,baz=92,slow=7.4,SNR=2.4							
	0.3nm,0.6s							
ILAR	**Eielson Array**	**61.92**	**27**		P	P	18 53 46.7	-0.3
	0.5nm,0.9s,baz=260,slow=5.2,SNR=2.4							
	0.5nm,0.9s							

IDC 09 18:44:59.0±10.0,21.°01N×143.°77E,h0km,mb3.4/3,
mbtmp3.4/3,Error ellipse: s-maj=409.0km
s-min=34.2km az=75.0,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
H11S3	**WAKE ISLAND Hy**	**21.71**	**93**		T	T	19 11 23.2	
	baz=280							
H11N1	**WAKE ISLAND Hy**	**21.71**	**89**		T	T	19 11 25.9	
	baz=277,slow=75,SNR=6.1							
H11N2	**WAKE ISLAND Hy**	**21.71**	**89**		T	T	19 11 26.1	
	baz=277,slow=75,SNR=5.7							
H11S1	**WAKE ISLAND Hy**	**21.72**	**93**		T	T	19 11 24.6	
	baz=280							
H11S2	**WAKE ISLAND Hy**	**21.73**	**93**		T	T	19 11 25.1	
	baz=280							
H11N3	**WAKE ISLAND Hy**	**21.73**	**89**		T	T	19 11 24.6	
	baz=277,slow=75,SNR=4.0							
WRA	**Warramunga Arr**	**41.74**	**193**		P	P	18 52 48.8	-1.2
	0.3nm,0.8s,baz=15,slow=8.6,SNR=4.7							
	0.3nm,0.8s							
ASAR	**Alice Springs**	**45.44**	**193**		P	P	18 53 20.6	+0.8
	0.4nm,0.6s,baz=20,slow=8.7,SNR=6.9							
	0.4nm,0.6s							
MKAR	**Makanchi Array**	**55.57**	**313**		P	P	18 54 36.2	-0.1
	0.4nm,0.7s,baz=92,slow=7.4,SNR=3.4							
	0.4nm,0.7s							

*ISK **09** 18:56:19.5,37.°79N×26.°85E,h5km,ML2.5/27*
*AFAD **09** 18:56:20.7,37.°80N×26.°90E,h7km±2km,ML2.3*
*ATH **09** 18:56:20.1,37.°75N×26.°87E,h9km,ML2.7/5,Latitude*
uncertainty: 1 km; Longitude uncertainty: 0 km
*THE **09** 18:56:20.6,37.°8N±0.°7×26.°9E±0.°6,h4km±1km,M2.7/8,*
MLh2.7/8

ISC 09 18:56:20.6±0.8,37.°78N±0.°02×26.°86E±0.°02,h8km±6km,
n62,σ0s54/87,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
SMG	**Samos**	**0.07**	**192**		P	**Pg**	**18 56 22.3**	**-0.2**
SMG					S	**Sg**	**18 56 23.9**	**-0.1**
SMG	**Samos**	**0.07**	**192**		P	**Pg**	**18 56 22.3**	**-0.2**
SMG					S	**Sg**	**18 56 24.2**	**+0.2**
SMG					AML	AML		
SAM2	**Drakei, Karlov**	**0.20**	**264**		P	**Pg**	**18 56 24.5**	**0.0**
SAM2					S	**Sg**	**18 56 27.6**	**+0.4**
DGB	**zmir**	**0.27**	**5**		P	**Pg**	**18 56 25.7**	**-0.3**
DGB					S	**Sg**	**18 56 30.2**	**+0.5**
DGB					IAML		18 56 34.0	
	comp=E,274nm,0.2s							
DGB					IAML		18 56 36.0	
	comp=N,268nm,0.2s							
GMLD	**Gumuldur**	**0.30**	**9**		Pg	**Pg**	**18 56 26.4**	**-0.1**
GMLD					Sg	**Sg**	**18 56 31.4**	**+0.9**
GMLD					AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**105**		P	**Pg**	**18 56 26.8**	**+0.1**
GCAM					IAML		18 56 34.0	
	comp=N,570nm,0.2s							
GCAM					IAML		18 56 34.0	
	comp=E,322nm,0.5s							
GCAM	**G?zelcaml?**	**0.31**	**105**		Pg	**Pg**	**18 56 26.8**	**+0.1**
GCAM					Sg	**Sb**	**18 56 32.5**	**-1.1**
GCAM					AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**77**		Pg	**Pg**	**18 56 27.4**	**-0.1**
KUSD					Sg	**Sg**	**18 56 33.0**	**+0.9**
KUSD					AML	AML		
DDIM	**Aydin, Didim**	**0.45**	**136**		P	**Pg**	**18 56 29.6**	**+0.4**
DDIM					IAML		18 56 36.0	
	comp=E,292nm,0.5s							
DDIM					S	**Sb**	**18 56 36.3**	**-1.2**
DDIM					IAML		18 56 37.0	
	comp=N,264nm,0.3s							
BEYE	**izmir**	**0.45**	**7**		P	**Pg**	**18 56 29.0**	**-0.3**
BEYE					S	**Sb**	**18 56 36.4**	**-1.3**
BEYE					IAML		18 56 39.0	
	comp=N,256nm,0.3s							
BEYE					IAML		18 56 39.0	
	comp=E,224nm,0.4s							
DIDI	**Didim-Aydin**	**0.51**	**143**		Pg	**Pg**	**18 56 30.5**	**+0.1**
DIDI					Sg	**Sb**	**18 56 38.5**	**-0.7**
DIDI					AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**329**		P	**Pg**	**18 56 30.9**	**0.0**
ZEYE					S	**Sb**	**18 56 39.4**	**-0.7**
ZEYE					IAML		18 56 43.0	
	comp=N,401nm,0.7s							
ZEYE					IAML		18 56 44.0	
	comp=E,244nm,0.4s							
BLCB	**Balcova**	**0.62**	**14**		P	**Pg**	**18 56 32.3**	**-0.3**
BLCB					S	**Sg**	**18 56 41.2**	**+0.4**
BLCB					AML	AML		
BLCB	**Balcova**	**0.62**	**14**		Pg	**Pg**	**18 56 32.3**	**-0.3**
BLCB					Sg	**Sb**	**18 56 41.9**	**-0.7**
BLCB					AML	AML		
DUVT	**Torbali**	**0.64**	**47**		P	**Pg**	**18 56 32.6**	**-0.4**
DUVT					IAML		18 56 46.0	
	comp=E,387nm,0.5s							
YKAV	**Yalikavak-Bodr**	**0.74**	**153**		Pg	**Pg**	**18 56 34.9**	**+0.2**
YKAV					AML	AML		
BODT	**Bodrum**	**0.80**	**153**		P	**Pg**	**18 56 35.7**	**-0.4**
BODT					S	**Sb**	**18 56 47.5**	**-0.4**
BODT					AML	AML		
BODT	**Bodrum**	**0.80**	**153**		Pg	**Pg**	**18 56 35.5**	**-0.5**
BODT					AML	AML		
AYDN	**Tasoluk**	**0.82**	**98**		P	**Pg**	**18 56 35.9**	**-0.5**
AYDN					IAML		18 56 50.0	
	comp=N,158nm,0.3s							
AYDN					S	**Sn**	**18 56 50.6**	**-0.3**
AYDN					IAML		18 56 52.0	
	comp=E,157nm,0.6s							
KLNA	**Kalymnos**	**0.83**	**173**		P	**Pg**	**18 56 36.2**	**-0.3**
KLNA					AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**78**		Pg	**Pg**	**18 56 36.6**	**-0.1**
AYDB					AML	AML		
KRBN	**Karaburun**	**0.85**	**344**		Pg	**Pg**	**18 56 36.5**	**-0.4**
KRBN					AML	AML		
BAGT	**Foa**	**0.87**	**360**		P	**Pn**	**18 56 39.0**	**-0.2**
BAGT					S	**Sn**	**18 56 51.0**	**-1.1**
BODA	**Bodrum-Mula**	**0.87**	**148**		Pg	**Pg**	**18 56 37.6**	**+0.2**
CHOS	**Chios island**	**0.88**	**314**		P	**Pg**	**18 56 37.7**	**+0.3**
CHOS					S	**Sb**	**18 56 50.3**	**+0.3**
CHOS					AML	AML		
CHOS	**Chios island**	**0.88**	**314**		Pg	**Pg**	**18 56 37.5**	**+0.1**
CHOS					AML	AML		
CHOS	**Chios island**	**0.88**	**314**		P	**Pb**	**18 56 38.4**	**+0.3**
CHOS					S	**Sb**	**18 56 50.0**	**0.0**
CHOS					AML	AML		
MLSB	**Milas**	**0.88**	**123**		Pg	**Pg**	**18 56 37.6**	**+0.2**
MLSB					AML	AML		
FOCM	**Foa**	**0.94**	**354**		Pg	**Pg**	**18 56 38.2**	**-0.4**
FOCM					AML	AML		
IZMR	**zmir-demi**	**0.94**	**67**		P	**Pg**	**18 56 37.7**	**-0.9**
IZMR					S	**Sn**	**18 56 53.2**	**-0.5**
IZMR					IAML		18 56 57.0	
	comp=N,60nm,1.0s							
IZMR					IAML		18 56 57.0	
	comp=E,74nm,0.7s							
KARB	**zmir-Karabur**	**0.95**	**339**		P	**Pb**	**18 56 39.3**	**0.0**
KARB					S	**Sn**	**18 56 54.0**	**0.0**
KARB					IAML		18 56 54.0	
	comp=N,353nm,0.7s							
KARB					IAML		18 56 56.0	
	comp=E,389nm,0.5s							
EAG2	**Marmaro, Chios**	**0.96**	**323**		P	**Pb**	**18 56 39.9**	**+0.4**
EAG2					S	**Sb**	**18 56 52.7**	**+0.2**
CAMT	**Merkez**	**1.03**	**20**		P	**Pg**	**18 56 40.3**	**-0.1**
CAMT					S	**Sn**	**18 56 56.8**	**+0.8**
CAMT					IAML		18 57 01.0	
	comp=E,238nm,0.4s							
CAMT					IAML		18 57 03.0	
	comp=N,224nm,0.4s							
NAZL	**Nazilli-Aydin**	**1.15**	**80**		Pn	**Pg**	**18 56 42.1**	**-0.6**
NAZL					AML	AML		
DAT	**Datca**	**1.20**	**151**		P	**Pg**	**18 56 42.9**	**-0.7**
DAT					S	**Sb**	**18 56 59.6**	**+0.3**
DAT					AML	AML		
DAT	**Datca**	**1.20**	**151**		Pn	**Pg**	**18 56 43.2**	**-0.4**
DAT					AML	AML		
ZEDA	**zmir-Bergama**	**1.20**	**8**		P	**Pg**	**18 56 43.3**	**-0.3**
ZEDA					S	**Sn**	**18 57 00.9**	**+0.8**
ZEDA					IAML		18 57 03.0	
	comp=N,76nm,0.5s							
ZEDA					IAML		18 57 04.0	
	comp=E,78nm,0.4s							
GOMA	**Golmarmara-Man**	**1.25**	**42**		Pn	**Pg**	**18 56 44.3**	**-0.2**
APE	**Apeiranthos**	**1.27**	**236**		P	**Pn**	**18 56 44.5**	**-0.3**
APE					S	**Sn**	**18 57 02.7**	**+0.7**
APE					AML	AML		
APE	**Apeiranthos**	**1.27**	**236**		P	**Pn**	**18 56 44.6**	**-0.1**
DKL	**Dikili**	**1.29**	**2**		Pn	**Pg**	**18 56 45.3**	**0.0**
DKL					AML	AML		
DKL	**Dikili**	**1.29**	**2**		P	**Pn**	**18 56 44.9**	**-0.1**
YER	**Yerkesik**	**1.31**	**119**		P	**Pn**	**18 56 44.9**	**-0.4**
YER	**Yerkesik**	**1.31**	**119**		Pn	**Pg**	**18 56 45.6**	**0.0**
YER					AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**21**		Pn	**Pb**	**18 56 47.9**	**-0.4**
SOMA					AML	AML		
TURN	**Turunc**	**1.49**	**132**		Pn	**Pb**	**18 56 48.5**	**-0.1**
TURN					AML	AML		
GORD	**Gordes-Manisa**	**1.53**	**42**		Pn	**Pb**	**18 56 48.8**	**-0.5**
GORD					AML	AML		
PRK	**Paraskevi**	**1.53**	**343**		P	**Pn**	**18 56 48.2**	**-0.1**
DALY	**Dalyan (Mula)**	**1.73**	**123**		Pn	**Pn**	**18 56 51.6**	**+0.7**
DALY					AML	AML		
YAYO	**Edremit-Balk**	**1.84**	**5**		Pn	**Pn**	**18 56 53.2**	**+0.8**
YAYO					AML	AML		
KARY	**Karystos**	**1.93**	**278**		P	**Pn**	**18 56 53.5**	**-0.2**
APMY	**Acipayam-Deniz**	**1.97**	**98**		Pn	**Pn**	**18 56 55.0**	**+0.7**
BALB	**Balikesir**	**2.02**	**23**		Pn	**Pn**	**18 56 56.0**	**+1.0**
BALB					AML	AML		
FETY	**Fethiye**	**2.11**	**122**		Pn	**Pn**	**18 56 57.6**	**+1.3**
FETY					AML	AML		
SIMA	**Simav-Kutahya**	**2.12**	**51**		Pn	**Pn**	**18 56 57.5**	**+1.1**
SIMA					AML	AML		
CAME	**Cameli-Denizli**	**2.12**	**112**		Pn	**Pn**	**18 56 57.3**	**+0.8**
DION	**Dionisos Attik**	**2.33**	**278**		P	**Pn**	**18 56 58.8**	**-0.5**
DION					AML	AML		
DION	**Dionisos Attik**	**2.33**	**278**		P	**Pn**	**18 56 58.9**	**-0.3**
PTL	**Penteli**	**2.38**	**277**		P	**Pn**	**18 56 59.7**	**-0.3**
VLY	**Voula,Athens**	**2.42**	**273**		P	**Pn**	**18 57 00.1**	**-0.5**
VLY	**Voula,Athens**	**2.42**	**273**		P	**Pn**	**18 57 00.1**	**-0.5**
ATHU	**Athens Univers**	**2.44**	**275**		P	**Pn**	**18 57 00.3**	**-0.4**

*IDC **09** 19:08:39.9±1.7,22.°62S×65.°99W,h244km±24km,mb3.6/1,*
mbtmp4.0/5,Error ellipse: s-maj=39.9km s-min=16.2km
az=99.0
*SJA **09** 19:08:40.7±0.8,22.°59S×66.°11W,h266km±6km,ML4.0,*
MW3.7
*NEIC **09** 19:08:41.9±1.7,22.°64S±0.°07×66.°4W±0.°1,h284km±5km,*
mb4.0/7,Error ellipse: s-maj=14.7km s-min=10.4km
az=93.0

ISC 09 19:08:39.1±0.7,22.°63S±0.°05×66.°19W±0.°05,h251km,n54,
σ2s74/75,mb4.0/3,Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
YJA	**Yavi**	**0.78**	**54**		*eP*	**Pn**	**19 09 18.0**	**+4.3**
YJA					*eS*	**S**	**19 09 43.6**	**+2.8**
SALTA		**1.59**	**185**		*eP*	**Pn**	**19 09 23.2**	**+4.4**
AF01	**San Pedro de A**	**1.86**	**260**		Pn	**Pn**	**19 09 25.2**	**+4.4**
PB09	**IPOC Station P**	**2.94**	**286**		*eP*	**Pn**	**19 09 35.5**	**+4.2**
PB09					*eS*	**S**	**19 10 16.5**	**+4.0**
PB09	**IPOC Station P**	**2.94**	**286**			**Pn**	**19 09 34.9**	**+3.6**
PB09					Sn	**S**	**19 10 14.6**	**+2.1**
PB06	**IPOC Station P**	**3.12**	**268**		*eP*	**Pn**	**19 09 37.3**	**+4.2**
PB06					*eS*	**S**	**19 10 19.8

PB16 eS S 19 11 00.8 -2.0
PB16 IAML 19 11 12.0
comp=Z,30nm,0.5s
PB16 IPOC Station P 5.28 323 Pn 19 10 02.3 +3.2
PB16 Sn S 19 11 05.3 +2.6
AC01 Pan de Azucar 5.33 228 *e*P Pn 19 10 01.1 +2.2
AC01 Pan de Azucar 5.33 228 Pn Pn 19 10 01.2 +2.2
AC01 Sn S 19 11 00.6 -2.1
PB12 IPOC Station P 5.56 315 Pn Pn 19 10 04.2 +2.1
PB12 Sn S 19 11 04.5 -3.7
PB18 Visviri 5.89 328 Pn 19 10 09.4 +2.9
LPAZ La Paz 6.57 344 P Pn 19 10 17.6 +2.5
comp=Z,11nm,0.6s,baz=162,slow=13,SNR=32
LPAZ S S 19 11 31.9 +0.1
comp=Z,3.0nm,0.7s,baz=7.5,slow=15,SNR=4.0
LPAZ La Paz 6.57 344 Pn 19 10 17.2 +2.2
SIV San Ignacio 8.19 37 P Pn 19 10 35.3 +0.4
comp=Z,3.1nm,0.4s,baz=226,slow=13,SNR=17
CFA Coronel Fontan 9.12 191 P Pn 19 10 46.5 0.0
comp=Z,1.2nm,0.3s,baz=9.5,slow=11,SNR=16
CFA S S 19 12 23.0 -6.7
comp=Z,2.5nm,0.3s,baz=145,slow=20,SNR=10
MT01 Popeta 12.04 201 P Pn 19 11 24.9 +1.7
BO01 Tunca 12.48 199 Pn 19 11 28.8 +0.3
BO02 Sierra Bellavi 12.77 197 Pn 19 11 33.0 +0.9
BI02 San Fabin de 14.66 196 P P 19 11 54.2 -0.9
GO06 Curarrehue 17.49 194 P P 19 12 25.9 -0.2
GO06 IAmb IAmb 19 12 33.0
comp=Z,6.8nm,1.0s
PLCA Paso Flores 18.42 191 P Pn 19 12 38.5 -1.0
comp=Z,2.2nm,0.8s,baz=22,slow=12,SNR=5.9
PLCA Paso Flores 18.42 191 P P 19 12 37.2 +1.1
PLCA IAmb IAmb 19 12 40.1
comp=Z,6.8nm,1.2s
BDFB Brasilia 18.52 71 P P 19 12 37.9 +0.3
SMTB Santa Maria do 22.50 55 P P 19 13 17.9 +0.1
SMTB IAmb IAmb 19 13 19.4
comp=Z,8.8nm,1.0s
OTAV Otavalo 25.68 331 P P 19 13 45.1 -1.9
OTAV IAmb IAmb 19 13 47.4
comp=Z,5.0nm,1.2s
ROSC El Rosal 28.44 343 P P 19 14 09.0 -2.5
TORD Torodi Ar. Bea 75.39 69 P P 19 19 55.7 0.0
comp=Z,0.9nm,0.4s,baz=261,slow=5.1,SNR=12
comp=Z,0.9nm,0.4s
TORD Torodi Ar. Bea 75.39 69 IAmb IAmb 19 20 27.6
comp=Z,4.2nm,1.4s
MKAR Makanchi Array 145.00 39 PKP **PKiKP 19 27 48.4 -1.9**
comp=Z,1.1nm,0.7s,baz=326,slow=1.0,SNR=11
WMQ Urumqi 149.82 39 *e*PKPbc **PKPdf 19 27 52.2 -2.3**
WMQ pPKP pPKPbc 19 29 04.7 +0.3
HHC Hu-ho-hao-te 161.74 5 *e*P **PKPdf 19 28 08.2 -2.1**

*NOU **09** 19:19:49.3, 11˚.02S×166˚.68E, h133km, mb4.7/34, Santa Cruz Islands*
*NEIC **09** 19:19:51.2±1.8, 11˚.24S±0˚.05×166˚.4E±0˚.1, h126km±7km, mb4.5/24, Error ellipse: s-maj=18.3km s-min=5.8km az=72.0*
*IDC **09** 19:19:51.2±2.5, 11˚.38S×166˚.52E, h137km±20km, mb3.7/9, mbtmp4.2/12, MS2.6/2, Error ellipse: s-maj=20.9km s-min=18.1km az=82.0*

ISC 09 19:19:53.1±0.6, 11˚.37S±0˚.07×166˚.42E±0˚.07, h150km, n80, σ1s27/81, mb4.3/16, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
							h m s	ISC
SANVU	**Saraoutou**	**4.12**	**169**	P		**Pn**	**19 20 54.0**	**-1.0**
SANVU	**Saraoutou**	**4.12**	**169**			**Pn**	**19 20 53.9**	**-1.1**
HURO	**Huro Makira**	**4.53**	**281**	P		**Pn**	**19 20 57.5**	**-2.8**
NGOA	**Tingoa Renbel**	**6.24**	**268**	P		**Pn**	**19 21 21.8**	**-1.2**
HNR	**Honiara**	**6.65**	**286**	P		**Pn**	**19 21 28.1**	**-0.5**
	55nm,0.7s,baz=282,slow=5.3,SNR=6.2							
HNR				S		**Sn**	**19 22 44.8**	**+1.4**
	47nm,0.7s,baz=118,slow=18,SNR=1.7							
HNR				LR		LR	19 24 09.7	
	comp=Z,24nm,19.9s,baz=172,slow=38							
HNR	**Honiara**	**6.65**	**286**	P		**Pn**	**19 21 28.0**	**-0.6**
HNR	**Honiara**	**6.65**	**286**			**Pn**	**19 21 26.7**	**-1.9**
SAVO	**Savo Central**	**6.87**	**288**	P		**Pn**	**19 21 30.7**	**-0.8**
TATA	**Tatamba Isabel**	**7.16**	**294**	P		**Pn**	**19 21 32.9**	**-2.5**
KOUNC	**Koumac, New Ca**	**9.35**	**192**	P		**Pn**	**19 22 06.5**	**+2.0**
KOUNC	**Koumac, New Ca**	**9.35**	**192**	Pn		**Pn**	**19 22 00.7**	**-3.9**
MARNC	**Mare, Loyalty**	**10.17**	**171**	Pn		**Pn**	**19 22 13.7**	**-1.6**
YATNC	**Mamie plateau,**	**10.63**	**178**	P		**Pn**	**19 22 21.2**	**-0.3**
DZM	**Mont Dzumac**	**10.64**	**180**	P		**Pn**	**19 22 21.0**	**-0.7**
	7.5nm,0.3s,baz=303,slow=21,SNR=21							
DZM				S		**Sn**	**19 24 16.9**	**-2.5**
	baz=287,slow=20							
NOUC	**Port Laguerre**	**10.67**	**181**	P		**Pn**	**19 22 23.7**	**+1.7**
ONTNC	**Ouen Toro**	**10.87**	**180**	P		**Pn**	**19 22 26.1**	**+1.4**
ONTNC	**Ouen Toro**	**10.87**	**180**	Pn		**Pn**	**19 22 25.1**	**+0.5**
OUENC	**Ouen Island, N**	**10.99**	**178**	P		**Pn**	**19 22 28.1**	**+1.9**
OUENC	**Ouen Island, N**	**10.99**	**178**	Pn		**Pn**	**19 22 26.2**	**0.0**
PINNC	**Pines Island,**	**11.22**	**175**	Pn		**Pn**	**19 22 29.5**	**+0.3**
MSVF	**Nonsavu**	**12.91**	**121**	P		**Pn**	**19 22 52.4**	**+1.1**
	18nm,1.0s,baz=309,slow=11,SNR=6.1							
RABL	**Rabaul**	**15.82**	**296**			**Pn**	**19 23 27.3**	**-0.5**
RABL				IAmb		IAmb	19 23 54.0	
	comp=Z,20nm,0.6s							
PMG	**Port Moresby**	**19.05**	**274**	P		**P**	**19 24 04.3**	**+0.4**
	comp=Z,9.5nm,0.7s,baz=227,slow=18,SNR=2.1							
PMG	**Port Moresby**	**19.05**	**274**	IAmb		IAmb	19 24 12.6	
	comp=Z,18nm,0.8s							
RK1H	**Rockhampton Ha**	**19.31**	**230**	P		**Pn**	**19 24 08.5**	**-0.8**
EIDS	**Eidsvold**	**20.11**	**224**	P		Pn	19 24 17.5	-1.3
EIDS	**Eidsvold**	**20.11**	**224**	P		**P**	**19 24 16.4**	**+1.1**
EIDS				IAmb		IAmb	19 24 18.1	
	comp=Z,18nm,0.8s							
CTA	**Charters Tower**	**21.24**	**243**	P		**P**	**19 24 27.3**	**-0.2**
	comp=Z,5.2nm,0.5s,baz=71,slow=12,SNR=7.8							
	comp=Z,5.2nm,0.5s							
CTA	**Charters Tower**	**21.24**	**243**	P		**P**	**19 24 29.1**	**+1.6**
CTAO	**Charters Tower**	**21.24**	**243**	P		**P**	**19 24 29.0**	**+1.6**
CTAO	**Charters Tower**	**21.24**	**243**	P		**P**	**19 24 26.9**	**-0.6**
ARMA	**Armidale**	**23.40**	**214**	P		**P**	**19 24 51.3**	**+2.6**
ARMA	**Armidale**	**23.40**	**214**	P		**P**	**19 24 50.2**	**+1.5**
ARMA				IAmb		IAmb	19 25 18.9	
	comp=Z,18nm,1.4s							
INKA	**Innaminka**	**29.06**	**232**	P		**P**	**19 25 40.6**	**+1.1**
INKA				IAmb		IAmb	19 25 41.5	
	comp=Z,7.8nm,0.7s							
STKA	**Stephens Creek**	**30.66**	**224**	P		**P**	**19 25 54.0**	**+0.4**
	comp=Z,3.3nm,0.7s,baz=53,slow=7.7,SNR=6.8							
	comp=Z,3.3nm,0.7s							
STKA	**Stephens Creek**	**30.66**	**224**	P		**P**	**19 25 53.6**	**0.0**
STKA				IAmb		IAmb	19 25 55.3	
	comp=Z,18nm,0.9s							
WR8	**Warramunga Arr**	**31.85**	**250**	P		**P**	**19 26 03.7**	**-0.5**
WR8				IAmb		IAmb	19 26 04.4	
	comp=Z,6.0nm,0.8s							
WB0	**Warramunga Arr**	**31.91**	**251**			**P**	**19 26 04.2**	**-0.5**
WRAB	**Tennant Creek**	**31.98**	**251**	P		**P**	**19 26 05.8**	**+0.5**
WRAB	**Tennant Creek**	**31.98**	**251**	P		**P**	**19 26 05.0**	**-0.3**
WRAB				IAmb		IAmb	19 26 05.9	
	comp=Z,9.1nm,1.0s							
WRA	**Warramunga Arr**	**32.00**	**251**	P		**P**	**19 26 04.7**	**-0.8**
	comp=Z,5.7nm,0.7s,baz=83,slow=8.9,SNR=48							
WRA				PcP		**PcP**	**19 28 51.7**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=79,slow=3.0,SNR=2.4							
	comp=Z,5.7nm,0.7s							
WRA	**Warramunga Arr**	**32.00**	**251**	P		**P**	**19 26 04.4**	**-1.1**
GUMO	**Guam**	**32.74**	**319**	LR		LR	19 40 22.3	
	comp=Z,16nm,18.3s,baz=234,slow=38							
AS01	**Alice Springs**	**33.20**	**244**	P		**P**	**19 26 15.8**	**-0.1**
AS31	**Alice Springs**	**33.24**	**244**	P		**P**	**19 26 15.3**	**-1.0**
ASAR	**Alice Springs**	**33.24**	**244**	P		**P**	**19 26 15.5**	**-0.7**
	comp=Z,3.7nm,0.9s,baz=67,slow=10,SNR=31							
ASAR				PcP		**PcP**	**19 28 55.8**	**+0.4**
	comp=Z,0.5nm,0.6s,baz=64,slow=2.4,SNR=6.0							
ASAR				ScP		**ScP**	**19 32 27.9**	**+2.0**
	comp=Z,0.3nm,0.7s,baz=83,slow=3.3,SNR=6.4							
	comp=Z,3.7nm,0.9s							
HTT	**Hallett**	**33.40**	**225**	P		**P**	**19 26 19.3**	**+1.7**
MTN	**Manton Dam**	**34.52**	**264**	P		**P**	**19 26 27.3**	**-0.1**
BBOO	**Buckleboo**	**35.09**	**228**	P		**P**	**19 26 33.2**	**+1.1**
BBOO	**Buckleboo**	**35.09**	**228**	P		**P**	**19 26 32.7**	**+0.6**
KNRA	**Kununurra**	**36.83**	**259**	P		**P**	**19 26 47.0**	**0.0**
KNRA				IAmb		IAmb	19 26 48.2	
	comp=Z,4.7nm,0.8s							
FITZ	**Fitzroy Crossi**	**39.94**	**255**	P		**P**	**19 27 13.5**	**+0.5**
FITZ	**Fitzroy Crossi**	**39.94**	**255**	P		**P**	**19 27 12.9**	**-0.1**
FORT	**Forrest**	**40.40**	**236**	P		**P**	**19 27 17.4**	**+0.7**
FORT				IAmb		IAmb	19 27 18.1	
	comp=Z,11nm,0.7s							
MBWA	**Marble Bar**	**45.72**	**252**	P		**P**	**19 28 00.5**	**+0.9**
MBWA	**Marble Bar**	**45.72**	**252**	P		**P**	**19 28 00.3**	**+0.8**
MBWA				IAmb		IAmb	19 28 24.6	
	comp=Z,18nm,1.2s							
MEEK	**Meekatharra**	**47.40**	**244**	P		**P**	**19 28 13.3**	**+0.7**
BLDU	**Ballidu**	**49.76**	**239**	P		**P**	**19 28 31.6**	**+1.0**
NWAO	**Narrogin (SRO)**	**49.83**	**236**	P		**P**	**19 28 31.9**	**+0.8**
NWAO	**Narrogin (SRO)**	**49.83**	**236**	P		**P**	**19 28 31.4**	**+0.3**
NWAO	**Narrogin (SRO)**	**49.83**	**236**	P		**P**	**19 28 30.7**	**-0.4**
MORW	**Morawa**	**50.05**	**242**	P		**P**	**19 28 33.0**	**+0.2**
MORW	**Morawa**	**50.05**	**242**	P		**P**	**19 28 33.8**	**+1.0**
JAGI	**Jajag, Banyuwa**	**51.52**	**268**	P		**P**	**19 28 43.3**	**-0.7**
JAGI	**Jajag, Banyuwa**	**51.52**	**268**	P		**P**	**19 28 42.6**	**-1.4**
JWT	**Wachi**	**54.91**	**329**	P		**P**	**19 29 11.2**	**+2.8**
MNAI	**Manna**	**63.15**	**271**	P		**P**	**19 30 05.6**	**0.0**
COCO	**West Island**	**67.94**	**261**	P		**P**	**19 30 35.8**	**-0.5**
CMAR	**Chiang Mai Arr**	**72.85**	**293**	P		**P**	**19 31 06.7**	**+0.6**
	comp=Z,1.8nm,0.8s,baz=117,slow=4.3,SNR=16							
	comp=Z,1.8nm,0.8s							
CMAR	**Chiang Mai Arr**	**72.85**	**293**	P		**P**	**19 31 04.6**	**-1.5**
SONM	**Songino Array**	**79.32**	**324**	P		**P**	**19 31 42.3**	**+0.1**
	comp=Z,0.2nm,0.4s,baz=132,slow=6.0,SNR=2.1							
	comp=Z,0.2nm,0.4s							
SONM	**Songino Array**	**79.32**	**324**	IAmb		IAmb	19 31 43.2	
	comp=Z,1.7nm,1.4s							
ILAR	**Eielson Array**	**83.61**	**18**	P		**P**	**19 32 02.8**	**-1.5**
	comp=Z,0.9nm,1.0s,baz=213,slow=4.5,SNR=4.3							
	comp=Z,0.9nm,1.0s							
NVAR	**Mina Array Bea**	**85.73**	**50**	P		**P**	**19 32 16.4**	**+0.6**
	comp=Z,0.2nm,0.4s,baz=252,slow=3.9,SNR=2.6							
	comp=Z,0.2nm,0.4s							
MKAR	**Makanchi Array**	**94.21**	**317**	P		**P**	**19 32 54.8**	**-0.4**
	comp=Z,0.9nm,0.6s,baz=88,slow=6.9,SNR=9.7							
	comp=Z,0.9nm,0.6s							
MKAR	**Makanchi Array**	**94.21**	**317**	P		**P**	**19 32 54.1**	**-1.1**
ARCES	**ARCESS Array B**	**116.82**	**346**	PKP		**PKPdf**	**19 38 17.6**	**-1.7**
	comp=Z,1.9nm,0.8s,baz=48,slow=1.8,SNR=4.3							
ARCES	**ARCESS Array B**	**116.82**	**346**			**PKPdf**	**19 38 16.9**	**-2.4**
FINES	**FINESS Array B**	**122.32**	**339**	PKP		**PKPdf**	**19 38 28.8**	**-1.2**
	comp=Z,3.5nm,1.1s,baz=29,slow=4.4,SNR=4.1							
FINES	**FINESS Array B**	**122.32**	**339**			**PKiKP**	**19 38 29.9**	**-0.2**

*IDC **09** 19:26:50.2±3.6, 18˚.84S×174˚.27W, h0km, mb4.1/4, mbtmp4.1/4, Error ellipse: s-maj=167.1km s-min=31.3km az=144.0*
*NEIC **09** 19:26:56.0±1.6, 18˚.0S±0˚.2×174˚.9W±0˚.1, h10km±1km, mb4.6/12, Error ellipse: s-maj=34.6km s-min=19.4km az=185.0*

ISC 09 19:27:05.9±0.7, 18˚.9S±0˚.3×174˚.40W±0˚.08, h133km, n18, σ1s14/20, mb4.3/10, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
							h m s	ISC
NIUE	**Niue**	**4.23**	**93**			**Pn**	**19 28 09.5**	**+0.7**
NIUE					Sn	**Sn**	**19 28 56.0**	**-1.6**
CTA	**Charters Tower**	**37.05**	**262**	P		**P**	**19 34 03.8**	**+0.4**
	6.1nm,0.8s,baz=77,slow=13,SNR=5.5							
	6.1nm,0.8s							
WRAB	**Tennant Creek**	**48.19**	**260**	P		**P**	**19 35 32.5**	**-0.8**
WRAB				IAmb		IAmb	19 35 33.3	
	comp=Z,6.5nm,1.2s							
ASAR	**Alice Springs**	**48.20**	**255**	P		**P**	**19 35 33.9**	**+0.6**
	comp=Z,2.0nm,0.6s,baz=91,slow=8.1,SNR=39							
ASAR				PcP		**PcP**	**19 37 00.2**	**+1.6**
	comp=Z,0.3nm,0.6s,baz=100,slow=3.4,SNR=4.1							
	comp=Z,2.0nm,0.6s							
WRA	**Warramunga Arr**	**48.20**	**260**	P		**P**	**19 35 33.5**	**+0.1**
	comp=Z,1.5nm,0.7s,baz=95,slow=8.0,SNR=28							
	comp=Z,1.5nm,0.7s							
MTN	**Manton Dam**	**52.58**	**268**	P		**P**	**19 36 06.2**	**-0.1**
KNRA	**Kununurra**	**54.18**	**264**	P		**P**	**19 36 18.9**	**+0.9**
KNRA				IAmb		IAmb	19 36 27.1	
	comp=Z,6.7nm,1.4s							
FAKI	**Fak Fak**	**54.51**	**280**	P		**P**	**19 36 19.7**	**-0.7**
FITZ	**Fitzroy Crossi**	**56.62**	**260**	P		**P**	**19 36 35.1**	**-0.3**
SOEI	**Soe**	**59.88**	**270**	P		**P**	**19 36 56.7**	**-1.6**
MJAR	**Matsushiro Arr**	**71.03**	**321**	P		**P**	**19 38 07.7**	**-1.7**
MJAR				IAmb		IAmb	19 38 14.5	
	comp=Z,7.7nm,1.4s							
ILAR	**Eielson Array**	**86.06**	**11**	P		**P**	**19 39 31.9**	**+0.8**
	comp=Z,0.4nm,0.5s,baz=229,slow=6.3,SNR=14							
	comp=Z,0.4nm,0.5s							
J25K	**Salcha River,**	**86.21**	**12**	P		**P**	**19 39 33.2**	**+1.3**
J25K				IAmb		IAmb	19 39 49.6	
	comp=Z,5.7nm,1.4s							
H22K	**Ishtalitna Cre**	**86.33**	**9**	P		**P**	**19 39 33.4**	**+0.9**
H22K				IAmb		IAmb	19 39 50.3	
	comp=Z,4.2nm,1.3s							
F19K	**Shaleruckik Mo**	**86.39**	**7**	P		**P**	**19 39 34.0**	**+1.3**
F19K				IAmb		IAmb	19 39 58.4	
	comp=Z,5.9nm,1.2s							
G21K	**Allakaket**	**86.61**	**8**	P		**P**	**19 39 35.5**	**+1.7**
CLL	**Collm**	**147.15**	**351**	*e*PKPbc		**PKiKP**	**19 46 36.0**	**+0.5**
BRTR	**Keskin Array B**	**148.16**	**317**	PKPbc		**PKiKP**	**19 46 37.7**	**-0.5**
	comp=Z,0.6nm,0.6s,baz=60,slow=3.8,SNR=2.8							

IDC 09 19:58:02.3±9.1, 16˚.82S×176˚.42W, h0km, mb3.5/3, mbtmp3.5/3, Error ellipse: s-maj=406.7km s-min=38.3km az=141.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
							h m s	ISC
WRA	**Warramunga Arr**	**46.71**	**258**	P		P	20 06 32.7	-0.8
	0.3nm,0.8s,baz=95,slow=7.5,SNR=2.4							
	0.3nm,0.8s							
ASAR	**Alice Springs**	**46.92**	**253**	P		P	20 06 35.4	+0.3
	0.6nm,0.5s,baz=86,slow=8.2,SNR=10							
	0.6nm,0.5s							
ILAR	**Eielson Array**	**84.42**	**12**	P		P	20 10 36.2	0.0
	0.3nm,0.8s,baz=222,slow=4.9,SNR=5.3							
	0.3nm,0.8s							

*NEIC **09** 19:59:27.7±1.4, 32˚.21N±0˚.07×141˚.9E±0˚.1, h10km±1km, mb4.1/6, Error ellipse: s-maj=18.9km s-min=4.7km az=51.0*
*IDC **09** 19:59:27.8±0.9, 32˚.28N×141˚.59E, h0km, mb3.9/10, mbtmp3.9/14, ML3.7/4, MS3.2/7, Error ellipse: s-maj=33.3km s-min=10.5km az=75.0*
*NIED **09** 19:59:31.4, 32˚.44N×141˚.82E, h75km, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}1.42; $M_{\theta\theta}$-0.06; $M_{\phi\phi}$-1.36; $M_{r\theta}$1.04; $M_{r\phi}$0.04; $M_{\theta\phi}$0.47; Fault plane solution: $M_0$1.73000×10^{15} NP1: ϕ_s159.00000°, δ40.00000°, λ49.00000°. NP2:ϕ_s28.00000°, δ61.00000°, λ118.00000°.*
*JMA **09** 19:59:31.4±0.3, 32˚.1˚N±1˚.1×142˚.2E±1˚, h75km, MV3.7/26, E OFF HACHIJOJIMA ISLAND*

ISC 09 19:59:32.3±0.9, 32˚.39N±0˚.08×141˚.8E±0˚.1, h39km, n47, σ1s34/43, mb4.0/13, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
							h m s	ISC
JAOM	**Aogashimamukai**	**1.73**	**273**	*e*P		**Pn**	**20 00 00.5**	**+0.7**
JHCJ	**Hachijojimakas**	**1.82**	**292**	*e*P		**Pn**	**20 00 01.0**	**0.0**
JHJ2	**Mitsune**	**1.82**	**294**	Pn		**Pn**	**20 00 00.9**	**-0.1**
JHJ2	**Mitsune**	**1.82**	**294**	*e*P		**Pn**	**20 00 00.9**	**-0.1**
BSO1	**Boso 1**	**2.36**	**343**	*e*P		**Pn**	**20 00 07.9**	**-0.1**
BSO1				*e*S		**Sn**	**20 00 36.5**	**+1.1**
JMYK	**Miyake Tsubota**	**2.52**	**312**	*e*S		**Sn**	**20 00 40.1**	**0.0**
BSO3	**Boso 3**	**2.63**	**336**	*e*P		**Pn**	**20 00 12.0**	**0.0**
JIM2	**Oshima 3**	**3.05**	**320**	*e*P		**Pn**	**20 00 16.9**	**-1.1**
JIZS	**Izushimoda**	**3.37**	**314**	*e*P		**Pn**	**20 00 22.2**	**-0.1**
JOD2	**Odawara 2**	**3.65**	**322**	*e*P		**Pn**	**20 00 25.7**	**-0.5**
JGF	**Kuroka**	**4.89**	**312**	Pn		**Pn**	**20 00 44.9**	**+1.6**
INU	**Inuyama**	**4.96**	**308**	Pn		**Pn**	**20 00 44.3**	**+0.2**
MJAR	**Matsushiro Arr**	**5.09**	**325**	Pn		**Pn**	**20 00 45.8**	**-0.3**
	0.3nm,0.3s,baz=100,slow=20,SNR=17							
MJAR				Sn		**Sn**	**20 01 38.4**	**-5.2**
	0.3nm,0.3s,baz=58,slow=9.0,SNR=5.0							
MJAR				LR		LR	20 02 51.9	
	comp=Z,210nm,18.8s,baz=178,slow=40							
	1.6nm,0.3s							
MJAR				AML		AML		
MJAR	**Matsushiro Arr**	**5.09**	**325**			**Pn**	**20 00 45.5**	**-0.5**
MAJO	**Matsushiro**	**5.10**	**325**			**Pn**	**20 00 46.6**	**+0.5**
MJB9	**Matsu-Tunnel**	**5.10**	**325**	Pn		**Pn**	**20 00 47.5**	**+1.4**
JCJ	**Chichijima**	**5.29**	**176**	Pn		Pn	20 00 43.5	-5.2
	11nm,0.3s,baz=271,slow=22,SNR=13							
JCJ				Sn		Sn	20 01 39.0	-9.4
	18nm,0.3s,baz=277,slow=22,SNR=6.6							
	23nm,0.3s							
JCJ				AML		AML		
JTM	**Tenmabayashi**	**8.40**	**356**	Pn		**Pn**	**20 01 29.5**	**-1.9**
JNU	**Nakatsue**	**9.23**	**277**	LR		LR	20 05 29.9	
	comp=Z,104nm,18.4s,baz=134,slow=40							
ERM	**Erimo**	**9.67**	**6**	Pn		**Pn**	**20 01 48.4**	**-0.3**
JKA	**Kamikawa-asahi**	**11.72**	**3**			**Pn**	**20 02 15.3**	**-1.5**
ASAJ	**Asahikawa**	**11.72**	**3**	Pn		**Pn**	**20 02 14.9**	**-2.0**
	1.1nm,0.3s,baz=175,slow=19,SNR=6.9							
	11nm,0.9s							
ASAJ				AML		AML		
KSRS	**Korea Array**	**12.46**	**298**	LR		LR	20 07 14.0	
	comp=Z,106nm,20.1s,baz=115,slow=38							
USRK	**Ussuriysk Ar.**	**14.07**	**330**	LR		LR	20 08 12.0	
	comp=Z,86nm,18.7s,baz=186,slow=37							
KLR	**Kul'dur**	**18.43**	**339**	P		**Pn**	**20 03 46.2**	**+1.6**
	0.2nm,0.3s,baz=329,slow=2.1,SNR=4.1							
KLR				LR		LR	20 10 25.6	
	comp=Z,53nm,18.9s,baz=194,slow=36							
	1.2nm,0.7s							
KLR				AML		AML		
SONM	**Songino Array**	**30.85**	**310**	P		**P**	**20 05 46.1**	**+1.4**
	1.8nm,0.9s,baz=122,slow=8.5,SNR=11							
	1.8nm,0.9s							
SONM	**Songino Array**	**30.85**	**310**	P		**P**	**20 05 45.6**	**+0.9**
SONM						IAmb	IAmb	20 05 50.9
	comp=Z,2.2nm,1.3s							
TLY	**Talaya**	**33.76**	**316**	LR		LR	20 19 31.8	
	comp=Z,30nm,19.1s,baz=143,slow=36							
ZAA0	**Zalesovo Array**	**45.37**	**316**	P		**P**	**20 07 45.0**	**-1.6**
ZAA0						IAmb	IAmb	20 08 03.8
	comp=Z,2.1nm,0.9s							
ZALV	**Zalesovo Beam**	**45.37**	**316**	P		**P**	**20 07 47.4**	**+0.9**
	comp=Z,0.6nm,0.4s,baz=141,slow=5.7,SNR=4.0							
	comp=Z,0.6nm,0.4s							
ZALV	**Zalesovo Beam**	**45.37**	**316**	P		**P**	**20 07 46.6**	**0.0**
MKAR	**Makanchi Array**	**46.98**	**306**	P		**P**	**20 08 00.2**	**+0.8**
	comp=Z,0.9nm,0.4s,baz=87,slow=9.8,SNR=17							
	comp=Z,0.9nm,0.4s							
MKAR	**Makanchi Array**	**46.98**	**306**			**P**	**20 07 58.1**	**-1.2**
IPM	**Ipoh**	**47.15**	**243**	P		**P**	**20 07 59.7**	**-1.3**
MAKZ	**Makanchi**	**47.19**	**306**			**P**	**20 08 01.4**	**+0.3**
MAKZ						IAmb	IAmb	20 08 13.9
	comp=Z,2.3nm,1.1s							
NRIK	**Noril'sk**	**47.63**	**337**	LR		LR	20 27 48.0	
	comp=Z,42nm,20.5s,baz=9.0,slow=36							
KURK	**Kurchatov**	**49.14**	**311**	P		**P**	**20 08 16.9**	**+0.9**
KURK						IAmb	IAmb	20 08 25.5
	comp=Z,2.6nm,0.8s							
KURBB	**Kurchatov Arra**	**49.20**	**311**	P		**P**	**20 08 16.9**	**+0.4**
	comp=Z,3.2nm,0.2s,baz=87,slow=7.6,SNR=4.5							
	comp=Z,3.2nm,0.2s							
PDGK	**Podgornoye**	**49.35**	**302**	P		**P**	**20 08 17.4**	**-0.5**
WRA	**Warramunga Arr**	**52.52**	**189**	P		**P**	**20 08 40.7**	**-1.0**
	comp=Z,1.0nm,0.4s,baz=4.9,slow=7.5,SNR=40							
	comp=Z,1.0nm,0.4s							
WRA	**Warramunga Arr**	**52.52**	**189**	P		**P**	**20 08 39.9**	**-1.8**
ILAR	**Eielson Array**	**53.28**	**30**	P		**P**	**20 08 48.5**	**+1.7**
	comp=Z,2.0nm,0.7s,baz=279,slow=7.1,SNR=1.7							
	comp=Z,2.0nm,0.7s							
BVAR	**Borovoye Array**	**54.00**	**315**	P		**P**	**20 08 53.0**	**+0.7**
	comp=Z,0.9nm,0.3s,baz=106,slow=9.0,SNR=7.6							
	comp=Z,0.9nm,0.3s							
ASAR	**Alice Springs**	**56.25**	**189**	P		**P**	**20 09 08.5**	**-0.3**
	comp=Z,2.0nm,0.4s,baz=7.3,slow=7.7,SNR=5.8							
	comp=Z,2.0nm,0.4s							
ASAR	**Alice Springs**	**56.25**	**189**	P		**P**	**20 09 06.8**	**-2.0**
KBZ	**Khabaz**	**74.20**	**312**	P		**P**	**20 11 06.0**	**+1.1**
	comp=Z,2.0nm,1.0s,baz=99,slow=3.3,SNR=4.4							
	comp=Z,2.0nm,1.0s							
AKASG	**Malin Array Be**	**78.18**	**323**	P		**P**	**20 11 28.0**	**+0.6**
	comp=Z,0.3nm,0.4s,baz=52,slow=5.7,SNR=1.9							
	comp=Z,0.3nm,0.4s							

**IDC 09 20:02:24.2±7.6, 30˚.62S×179˚.16W, h0km, mb3.8/2, mbtmp3.8/2, Error ellipse: s-maj=311.0km

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**5.41**	**352**	P	**Pn**	**20 21 37.5**	**-0.5**
	48nm,0.3s,baz=264,slow=12,SNR=18						
JCJ				S	**S**	**20 22 42.5**	**-1.6**
	35nm,0.3s,baz=285,slow=20,SNR=3.7						
MJAR	**Matsushiro Arr**	**15.36**	**345**	P	**P**	**20 23 37.3**	**+0.6**
	0.5nm,0.3s,baz=167,slow=11,SNR=4.4						
MJAR	**Matsushiro Arr**	**15.36**	**345**	P	**P**	**20 23 37.1**	**+0.3**
MJAR				IAmb	IAmb	20 24 00.6	
	comp=Z,5.1nm,1.2s						
MAJO	**Matsushiro**	**15.36**	**345**	P	**P**	**20 23 35.4**	**-1.3**
MAJO				IAmb	IAmb	20 24 04.1	
	comp=Z,25nm,1.5s						
KSRS	**Korea Array**	**20.43**	**323**	P	**P**	**20 24 32.2**	**+1.3**
	comp=Z,1.2nm,0.7s,baz=148,slow=8.6,SNR=5.0						
	comp=Z,1.2nm,0.7s						
H11N1	**WAKE ISLAND Hy**	**22.37**	**91**	T	T	20 49 40.2	
	baz=277,slow=75,SNR=8.9						
H11N2	**WAKE ISLAND Hy**	**22.38**	**91**	T	T	20 49 42.4	
	baz=277,slow=75,SNR=9.6						
H11N3	**WAKE ISLAND Hy**	**22.39**	**91**	T	T	20 49 43.5	
	baz=277,slow=75,SNR=5.7						
H11S3	**WAKE ISLAND Hy**	**22.41**	**94**	T	T	20 49 38.3	
	baz=280,slow=75,SNR=7.6						
H11S1	**WAKE ISLAND Hy**	**22.42**	**94**	T	T	20 49 39.1	
	baz=280,slow=75,SNR=10						
H11S2	**WAKE ISLAND Hy**	**22.43**	**94**	T	T	20 49 39.8	
	baz=280,slow=75,SNR=8.7						
KLR	**Kul'dur**	**28.89**	**345**	P	**P**	**20 25 48.4**	**+1.2**
	comp=Z,3.1nm,0.5s,baz=182,slow=6.7,SNR=6.0						
	comp=Z,3.1nm,0.5s						
WRA	**Warramunga Arr**	**42.28**	**192**	P	**P**	**20 27 39.7**	**-1.0**
	comp=Z,0.5nm,0.3s,baz=16,slow=9.6,SNR=26						
	comp=Z,0.5nm,0.3s						
TIXI	**Tiksi**	**50.61**	**354**	P	**P**	**20 28 44.6**	**+0.3**
	comp=Z,2.8nm,0.2s,baz=198,slow=10,SNR=5.6						
	comp=Z,2.8nm,0.2s						
TIXI	**Tiksi**	**50.61**	**354**	P	**P**	**20 28 44.5**	**+0.2**
TIXI				IAmb	IAmb	20 29 06.3	
	comp=Z,6.2nm,1.4s						
ZALV	**Zalesovo Beam**	**54.12**	**322**	P	**P**	**20 29 10.5**	**+0.3**
	comp=Z,0.6nm,0.5s,baz=102,slow=6.1,SNR=2.3						
ZALV				PcP	**PcP**	**20 30 10.2**	**-0.5**
	comp=Z,0.7nm,0.4s,baz=124,slow=2.8,SNR=2.3						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**54.60**	**313**	P	**P**	**20 29 14.2**	**+0.3**
	comp=Z,0.3nm,0.6s,baz=82,slow=8.8,SNR=4.8						
MKAR				PcP	**PcP**	**20 30 12.9**	**+0.1**
	comp=Z,0.4nm,0.6s,baz=73,slow=4.8,SNR=3.5						
	comp=Z,0.3nm,0.6s						
MKAR	**Makanchi Array**	**54.60**	**313**	P	**P**	**20 29 13.9**	**0.0**
MAKZ	**Makanchi**	**54.81**	**313**	P	**P**	**20 29 13.9**	**-1.4**
CHGN	**Chignik**	**54.82**	**36**	P	**P**	**20 29 14.0**	**-1.2**
O15K	**Ungalikthiuk R**	**54.87**	**32**	P	**P**	**20 29 17.4**	**+1.9**
O15K				IAmb	IAmb	20 29 35.2	
	comp=Z,34nm,1.4s						
KURK	**Kurchatov**	**57.38**	**317**	P	**P**	**20 29 33.8**	**+0.6**
KURK	**Kurchatov**	**57.38**	**317**	IAmb	IAmb	20 29 34.3	
	comp=Z,1.9nm,0.8s						
KURBB	**Kurchatov Arra**	**57.43**	**317**	P	**P**	**20 29 33.8**	**+0.2**
	comp=Z,1.4nm,0.4s,baz=93,slow=7.5,SNR=18						
	comp=Z,1.4nm,0.4s						
ILAR	**Eielson Array**	**62.07**	**27**	P	**P**	**20 30 04.5**	**-0.3**
	comp=Z,1.1nm,0.7s,baz=257,slow=5.2,SNR=14						
	comp=Z,1.1nm,0.7s						
ILAR	**Eielson Array**	**62.07**	**27**	P	**P**	**20 30 04.3**	**-0.5**
BVAR	**Borovoye Array**	**62.58**	**319**	P	**P**	**20 30 08.9**	**+0.5**
	comp=Z,3.3nm,0.3s,baz=96,slow=7.5,SNR=33						
	comp=Z,3.3nm,0.3s						
YKA	**Yellowknife Ar**	**76.48**	**28**	P	**P**	**20 31 33.1**	**+0.4**
	comp=Z,1.2nm,0.5s,baz=294,slow=6.1,SNR=6.4						
	comp=Z,1.2nm,0.5s						
ARCES	**ARCESS Array B**	**78.86**	**341**	P	**P**	**20 31 46.5**	**+0.9**
	comp=Z,4.3nm,0.7s,baz=74,slow=8.9,SNR=9.7						
	comp=Z,4.3nm,0.7s						
ARCES	**ARCESS Array B**	**78.86**	**341**	P	**P**	**20 31 45.9**	**+0.2**
KBZ	**Khabaz**	**82.27**	**314**	P	**P**	**20 32 04.0**	**-0.1**
	comp=Z,1.1nm,0.8s,baz=84,slow=9.2,SNR=2.7						
	comp=Z,1.1nm,0.8s						
FINES	**FINESS Array B**	**83.11**	**334**	P	**P**	**20 32 07.5**	**-0.5**
	comp=Z,2.4nm,0.6s,baz=70,slow=4.4,SNR=21						
	comp=Z,2.4nm,0.6s						
NVAR	**Mina Array Bea**	**83.21**	**51**	P	**P**	**20 32 09.2**	**-0.2**
	comp=Z,0.8nm,0.7s,baz=277,slow=5.2,SNR=6.1						
	comp=Z,0.8nm,0.7s						
NVAR	**Mina Array Bea**	**83.21**	**51**	P	**P**	**20 32 08.9**	**-0.4**
HFS	**Hagfors**	**88.66**	**337**	P	**P**	**20 32 33.9**	**-1.2**
	comp=Z,1.1nm,0.7s,baz=70,slow=5.2,SNR=4.6						
	comp=Z,1.1nm,0.7s						
LPAZ	**La Paz**	**150.05**	**85**	PKPbc	**PKPbc**	**20 39 33.3**	**+0.7**
	comp=Z,0.4nm,0.5s,baz=236,slow=3.6,SNR=4.6						

*SNET **09** 20:23:45.5±1.0, 12.74N×88.84W, h45km, ML3.4, Presumed earthquake*
*CATAC **09** 20:23:45.1±0.6, 13.3N×88.9W, h26km±4km, M3.4/24, MLv3.4/24, Error ellipse: s-maj=6.8km s-min=2.9km az=26.2, confirmed*
ISC 09 20:23:44.4±1.4, 12.71N±0.06×88.85W±0.04, h22km±6km, n58, σ0.41/81, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALJI	**Alcalda de J**	**0.67**	**24**	P	**Pn**	**20 24 07.7**	**-0.9**
ALJI	**Alcalda de J**	**0.67**	**24**	P	**Pn**	**20 23 58.2**	**-0.5**
ALJI				S	**Sn**	**20 24 07.8**	**-0.7**
JUCU	**Jucuar¡n**	**0.80**	**47**	*eP*	**Pb**	**20 24 00.1**	**+0.4**
JUCU				*eS*	**Sn**	**20 24 11.8**	**+0.1**
TECO	**Alcaldia de Te**	**0.83**	**4**	P	**Pb**	**20 24 00.4**	**+0.2**
TECO	**Alcaldia de Te**	**0.83**	**4**	P	**Pb**	**20 24 00.4**	**+0.2**
TECA	**Tecapa**	**0.85**	**23**	*eP*	**Pb**	**20 24 01.0**	**+0.3**
RANC	**El Ranchito**	**0.91**	**37**	P	**Pn**	**20 24 01.9**	**-0.2**
RANC	**El Ranchito**	**0.91**	**37**	P	**Pn**	**20 24 01.8**	**-0.2**
RANC				S	**Sn**	**20 24 14.5**	**0.0**
RANC	**El Ranchito**	**0.91**	**37**	*eP*	**Pb**	**20 24 01.8**	**+0.2**
INTP	**Intipuca**	**0.92**	**58**	*eP*	**Pb**	**20 24 01.4**	**-0.2**
INTP				*eS*	**Sn**	**20 24 14.4**	**-0.1**
PACA	**Pacayal**	**0.92**	**34**	P	**Pb**	**20 24 01.9**	**+0.2**
PACA	**Pacayal**	**0.92**	**34**	P	**Pb**	**20 24 01.9**	**+0.2**
PACA				S	**Sn**	**20 24 14.4**	**-0.3**
PACA	**Pacayal**	**0.92**	**34**	*eP*	**Pb**	**20 24 01.9**	**+0.2**
PACA				*eS*	**Sn**	**20 24 15.9**	**+1.2**
LFRS	**El Faro**	**0.94**	**347**	*eP*	**Pb**	**20 24 02.1**	**0.0**
LOMA	**Loma Larga**	**0.98**	**341**	P	**Pn**	**20 24 03.0**	**-0.1**
LOMA	**Loma Larga**	**0.98**	**341**	P	**Pb**	**20 24 02.9**	**0.0**
LOMA				S	**Sb**	**20 24 15.0**	**-0.5**
LOMA	**Loma Larga**	**0.98**	**341**	*eP*	**Pb**	**20 24 02.9**	**0.0**
LOMA				*eS*	**Sb**	**20 24 15.4**	**-0.1**
SCLA	**Alcaldia de Sa**	**1.00**	**7**	P	**Pn**	**20 24 03.3**	**+0.1**
SCLA				S	**Sn**	**20 24 17.2**	**+0.5**
UEES	**Universidad Ev**	**1.07**	**339**	P	**Pb**	**20 24 04.5**	**+0.1**
PMON	**Piamonte**	**1.10**	**336**	P	**Pn**	**20 24 04.6**	**-0.1**
PMON	**Piamonte**	**1.10**	**336**	P	**Pn**	**20 24 04.5**	**-0.1**
PMON				S	**Sb**	**20 24 18.3**	**-0.4**
BOQS	**Boqueron**	**1.11**	**338**	*eP*	**Pn**	**20 24 04.5**	**-0.4**
PIC2	**El Picacho**	**1.11**	**339**	*eP*	**Pn**	**20 24 04.8**	**-0.1**
LCND	**La Caada**	**1.11**	**57**	P	**Pn**	**20 24 04.7**	**0.0**
LCND	**La Caada**	**1.11**	**57**	P	**Pn**	**20 24 04.6**	**0.0**
CNCH	**Conchagua**	**1.14**	**60**	P	**Pn**	**20 24 04.7**	**-0.5**
CNCH	**Conchagua**	**1.14**	**60**	*eP*	**Pn**	**20 24 05.0**	**-0.2**
P5NO	**Presa 5 de nov**	**1.28**	**4**	P	**Pn**	**20 24 06.9**	**-0.1**
P5NO				S	**Sb**	**20 24 24.0**	**+0.3**
CSGN	**Cosiguina Volc**	**1.28**	**78**	P	**Pn**	**20 24 06.8**	**-0.3**
CSGN				S	**Sn**	**20 24 23.7**	**0.0**
POTN	**Potosi Cosigui**	**1.34**	**77**	P	**Pn**	**20 24 07.6**	**-0.2**
POTN	**Potosi Cosigui**	**1.34**	**77**	P	**Pn**	**20 24 07.6**	**-0.2**
POTN				S	**Sn**	**20 24 24.5**	**-0.5**
CEVE	**Cerro Verde**	**1.35**	**326**	P	**Pb**	**20 24 09.1**	**0.0**
CEVE	**Cerro Verde**	**1.35**	**326**	P	**Pb**	**20 24 09.1**	**0.0**
CEVE				S	**Sn**	**20 24 25.2**	**-0.4**
CEVE	**Cerro Verde**	**1.35**	**326**	*eP*	**Pn**	**20 24 08.5**	**+0.3**
CEVE				*eS*	**Sb**	**20 24 27.0**	**+1.0**
SBLS	**San Blas**	**1.36**	**326**	*eP*	**Pn**	**20 24 08.6**	**+0.3**
SNJE	**San Jose**	**1.37**	**328**	*eP*	**Pn**	**20 24 08.7**	**+0.2**
RTR	**El Retiro**	**1.42**	**327**	*eP*	**Pn**	**20 24 08.9**	**-0.1**
UNIC	**Universidad Ca**	**1.44**	**332**	P	**Pn**	**20 24 09.5**	**+0.2**
NUBE	**Las Nubes**	**1.50**	**323**	P	**Pn**	**20 24 09.8**	**-0.4**
NUBE	**Las Nubes**	**1.50**	**323**	P	**Pn**	**20 24 10.1**	**-0.1**
NUBE	**Las Nubes**	**1.50**	**323**	*eP*	**Pn**	**20 24 09.7**	**-0.4**
NUBE				*eS*	**Sn**	**20 24 28.0**	**-1.1**
FAME	**Alcaldia de Sa**	**1.60**	**315**	P	**Pn**	**20 24 12.0**	**+0.5**
RBDL	**Robledal**	**1.62**	**330**	*eP*	**Pn**	**20 24 12.1**	**+0.2**
CRIN	**San Cristobal**	**1.75**	**90**	P	**Pn**	**20 24 14.1**	**+0.5**
CRIN	**San Cristobal**	**1.75**	**90**	P	**Pn**	**20 24 14.2**	**+0.6**
CRIN				S	**Sb**	**20 24 36.5**	**-1.0**
PKGN	**Cerro Pekin**	**1.83**	**91**	P	**Pn**	**20 24 14.5**	**0.0**
PKGN				S	**Sn**	**20 24 36.6**	**-0.3**
QUEN	**Al S del Volca**	**1.95**	**93**	P	**Pn**	**20 24 16.5**	**+0.2**
QUEN	**Al S del Volca**	**1.95**	**93**	P	**Pn**	**20 24 16.2**	**-0.1**
QUEN				S	**Sn**	**20 24 39.7**	**-0.4**
TEL3	**Telica 3**	**1.96**	**94**	P	**Pn**	**20 24 16.5**	**+0.1**
PACN	**Al O del Volca**	**2.02**	**96**	P	**Pn**	**20 24 17.3**	**+0.1**
PACN				S	**Sn**	**20 24 41.8**	**0.0**
TGUH	**Tegucigalpa,Un**	**2.04**	**49**	P	**Pn**	**20 24 17.5**	**0.0**
SARH	**Santa Rosa de**	**2.06**	**2**	P	**Pn**	**20 24 18.5**	**+0.7**
MOM3	**MOM3**	**2.28**	**95**	P	**Pn**	**20 24 20.9**	**+0.1**
MOM3	**MOM3**	**2.28**	**95**	P	**Pn**	**20 24 20.9**	**+0.1**
MOM3				S	**Sn**	**20 24 49.1**	**+0.8**
LIMN	**Finca el Limon**	**2.44**	**81**	P	**Pn**	**20 24 23.0**	**-0.2**
LIMN	**Finca el Limon**	**2.44**	**81**	P	**Pn**	**20 24 22.9**	**-0.2**
LIMN				S	**Sn**	**20 24 52.9**	**+0.4**
BOAB	**BOACO BROADBAN**	**3.12**	**94**	P	**Pn**	**20 24 32.0**	**-0.3**
BOAB	**BOACO BROADBAN**	**3.12**	**94**	P	**Pn**	**20 24 32.1**	**-0.1**
BOAB				S	**Sn**	**20 25 09.5**	**+0.6**

*IDC **09** 20:25:58.5±0.8, 55.89N×161.67E, h0km, mb4.0/16, mbtmp3.9/17, ML2.8/1, MS2.6/1, Error ellipse: s-maj=20.4km s-min=13.0km az=138.0*
*KRSC **09** 20:26:03.6±0.4, 55.55N×162.09E, h70km±10km, Ml4.3*
*MOS **09** 20:26:04.6±0.6, 55.61N×162.00E, h72km, mb4.1/6, Error ellipse: s-maj=8.5km s-min=4.2km az=77.7*
*NEIC **09** 20:26:07.1±1.1, 55.7N±0.1×161.7E±0.2, h79km±10km, mb4.1/34, Error ellipse: s-maj=24.1km s-min=13.4km az=143.0*
ISC 09 20:26:05.4±0.8, 55.56N±0.03×161.99E±0.04, h63km±7km, n170, σ1.9/196, mb4.1/35, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBTR	**Krutoberegovo**	**0.80**	**35**	PN	**Pn**	**20 26 21.1**	**+0.1**
KBTR				S	**Sn**	**20 26 33.9**	**+1.4**
KBTR	**Krutoberegovo**	**0.80**	**35**	*eP*	**Pn**	**20 26 21.1**	**+0.1**
KBTR				*eS*	**Sn**	**20 26 34.0**	**+1.4**
ZLN	**Zelenaya**	**0.81**	**305**	PN	**Pn**	**20 26 21.8**	**+0.5**
ZLN	**Zelenaya**	**0.81**	**305**	*eP*	**Pn**	**20 26 21.8**	**+0.5**
BZGR	**Bezymyannyi-Gr**	**0.83**	**298**	PN	**Pn**	**20 26 21.6**	**+0.2**
BZGR	**Bezymyannyi-Gr**	**0.83**	**298**	*eP*	**Pn**	**20 26 21.6**	**+0.2**
BZP	**Bezymyannyi-Pe**	**0.89**	**294**	PN	**Pn**	**20 26 22.0**	**-0.4**
BZP	**Bezymyannyi-Pe**	**0.89**	**294**	*eP*	**Pn**	**20 26 22.0**	**-0.4**
CIRR	**Tsirk**	**0.90**	**309**	PN	**Pn**	**20 26 22.4**	**0.0**
CIRR	**Tsirk**	**0.90**	**309**	*eP*	**Pn**	**20 26 22.4**	**0.0**
BZMR	**Bezymyannaya**	**0.93**	**294**	PN	**Pn**	**20 26 22.7**	**-0.1**
BZMR	**Bezymyannaya**	**0.93**	**294**	*eP*	**Pn**	**20 26 22.7**	**-0.1**
BZWR	**Bezymyannyi-We**	**0.94**	**296**	PN	**Pn**	**20 26 23.1**	**+0.2**
BZWR	**Bezymyannyi-We**	**0.94**	**296**	*eP*	**Pn**	**20 26 23.2**	**+0.2**
TUMD	**Tumrok D**	**0.98**	**249**	PN	**Pn**	**20 26 22.9**	**-0.4**
TUMD				S	**Sn**	**20 26 36.6**	**+0.1**
TUMD	**Tumrok D**	**0.98**	**249**	*eP*	**Pn**	**20 26 23.0**	**-0.4**
TUMD				*eS*	**Sn**	**20 26 36.6**	**+0.1**
KIRR	**Kirishev**	**1.01**	**294**	PN	**Pn**	**20 26 24.1**	**+0.3**
KIRR				S	**Sn**	**20 26 38.4**	**+0.9**
KIRR	**Kirishev**	**1.01**	**294**	*eP*	**Pn**	**20 26 24.2**	**+0.3**
KIRR				*eS*	**Sn**	**20 26 38.4**	**+0.9**
KMNR	**Kamenistaya**	**1.01**	**282**	PN	**Pn**	**20 26 24.2**	**+0.4**
KMNR				S	**Sn**	**20 26 38.1**	**+0.6**
KMNR	**Kamenistaya**	**1.01**	**282**	*eP*	**Pn**	**20 26 24.2**	**+0.4**
KMNR				*eS*	**Sn**	**20 26 38.2**	**+0.6**
MKZ	**Mys Kozlova**	**1.02**	**189**	PN	**Pn**	**20 26 23.2**	**-0.5**
MKZ				S	**Sn**	**20 26 36.6**	**-0.7**
MKZ	**Mys Kozlova**	**1.02**	**189**	*eP*	**Pn**	**20 26 23.3**	**-0.5**
MKZ				*eS*	**Sn**	**20 26 36.7**	**-0.7**
SMKR	**Semkarok**	**1.06**	**344**	PN	**Pn**	**20 26 24.9**	**+0.4**
SMKR	**Semkarok**	**1.06**	**344**	*i* P	**Pn**	**20 26 24.9**	**+0.4**
KLY	**Klyuchi**	**1.07**	**316**	PN	**Pn**	**20 26 23.3**	**-1.0**
KLY				S	**Sn**	**20 26 38.9**	**+0.4**
KLY	**Klyuchi**	**1.07**	**316**	*i* P	**Pn**	**20 26 23.4**	**-1.0**
KLY				*eS*	**Sn**	**20 26 38.9**	**+0.4**
KZV	**Kizimen**	**1.07**	**246**	PN	**Pn**	**20 26 24.3**	**-0.3**
KZV	**Kizimen**	**1.07**	**246**	*eP*	**Pn**	**20 26 24.4**	**-0.3**
KPT	**Kopyto**	**1.08**	**293**	PN	**Pn**	**20 26 24.8**	**+0.2**
KPT				S	**Sn**	**20 26 40.6**	**+1.6**
KPT	**Kopyto**	**1.08**	**293**	*eP*	**Pn**	**20 26 24.9**	**+0.2**
KPT				*eS*	**Sn**	**20 26 40.7**	**+1.6**
TUMR	**Tumrok**	**1.09**	**256**	PN	**Pn**	**20 26 25.3**	**+0.5**
TUMR				S	**Sn**	**20 26 40.8**	**+1.6**
TUMR	**Tumrok**	**1.09**	**256**	*eP*	**Pn**	**20 26 25.4**	**+0.5**
TUMR				*eS*	**Sn**	**20 26 40.9**	**+1.6**
BDR	**Baidarnaya**	**1.10**	**337**	PN	**Pn**	**20 26 25.4**	**+0.5**
BDR				S	**Sn**	**20 26 42.0**	**+2.5**
BDR	**Baidarnaya**	**1.10**	**337**	*eP*	**Pn**	**20 26 25.5**	**+0.5**
BDR				*eS*	**Sn**	**20 26 42.0**	**+2.5**
SRKR	**Sorokina**	**1.19**	**337**	PN	**Pn**	**20 26 26.7**	**+0.6**
SRKR	**Sorokina**	**1.19**	**337**	*eP*	**Pn**	**20 26 26.8**	**+0.6**
KOZ	**Kozyrevsk**	**1.30**	**293**	PN	**Pn**	**20 26 28.1**	**+0.7**
KOZ	**Kozyrevsk**	**1.30**	**293**	*eP*	**Pn**	**20 26 28.1**	**+0.7**
SRDR	**Sredinnyy**	**1.49**	**302**	PN	**Pn**	**20 26 30.1**	**+0.1**
SRDR	**Sredinnyy**	**1.49**	**302**	*eP*	**Pn**	**20 26 30.2**	**+0.1**
ESO	**Esso**	**1.90**	**282**	PN	**Pn**	**20 26 35.3**	**-0.1**
ESO	**Esso**	**1.90**	**282**	*eP*	**Pn**	**20 26 35.4**	**-0.1**
KII	**Karymskiy**	**2.12**	**225**	PN	**Pn**	**20 26 39.1**	**+0.5**
KII	**Karymskiy**	**2.12**	**225**	*eP*	**Pn**	**20 26 39.2**	**+0.5**
BKI	**Bering**	**2.30**	**97**	PN	Pn	20 26 40.5	-0.4
BKI				S	Sn	20 27 06.5	-1.5
BKI	**Bering**	**2.30**	**97**	*eP*	Pn	20 26 40.5	-0.4
BKI				*eS*	Sn	20 27 06.6	-1.5
SPN	**Mys Shipunski**	**2.72**	**206**	PN	**Pn**	**20 26 47.1**	**+0.4**
SPN				S	**Sn**	**20 27 18.9**	**+0.5**
SPN	**Mys Shipunski**	**2.72**	**206**	*eP*	**Pn**	**20 26 47.2**	**+0.4**
SPN				*eS*	**Sn**	**20 27 19.0**	**+0.5**
NLC	**Nalytchevo**	**2.85**	**214**	PN	**Pn**	**20 26 49.3**	**+0.9**
NLC				S	**Sn**	**20 27 22.7**	**+1.2**
NLC	**Nalytchevo**	**2.85**	**214**	*eP*	**Pn**	**20 26 49.4**	**+0.9**
NLC				*eS*	**Sn**	**20 27 22.7**	**+1.2**
TIGL	**Tigil**	**2.87**	**322**	PN	**Pn**	**20 26 48.7**	**0.0**
TIGL	**Tigil**	**2.87**	**322**	*eP*	**Pn**	**20 26 48.7**	**0.0**
SDLR	**Sedlovina**	**2.92**	**220**	PN	**Pn**	**20 26 50.2**	**+0.7**
SDLR	**Sedlovina**	**2.92**	**220**	*eP*	**Pn**	**20 26 50.3**	**+0.7**
KRX	**Arik**	**2.94**	**223**	PN	**Pn**	**20 26 51.3**	**+1.5**
KRX	**Arik**	**2.94**	**223**	*eP*	**Pn**	**20 26 51.4**	**+1.5**
KRER	**Koryakskii**	**2.95**	**221**	PN	**Pn**	**20 26 51.3**	**+1.3**
KRER	**Koryakskii**	**2.95**	**221**	*eP*	**Pn**	**20 26 51.3**	**+1.3**
SMAR	**Somma**	**2.96**	**220**	PN	**Pn**	**20 26 51.4**	**+1.2**
SMAR	**Somma**	**2.96**	**220**	*eP*	**Pn**	**20 26 51.4**	**+1.2**
AVH	**Avacha**	**2.98**	**221**	PN	**Pn**	**20 26 52.3**	**+2.0**
AVH	**Avacha**	**2.98**	**221**	*eP*	**Pn**	**20 26 52.3**	**+2.0**
UGLR	**Uglovaya**	**3.00**	**219**	PN	**Pn**	**20 26 52.1**	**+1.6**
UGLR	**Uglovaya**	**3.00**	**219**	*eP*	**Pn**	**20 26 52.1**	**+1.6**
KOK	**Koryaka**	**3.00**	**222**	PN	**Pn**	**20 26 52.0**	**+1.4**
KOK	**Koryaka**	**3.00**	**222**	*eP*	**Pn**	**20 26 52.0**	**+1.4**
GNL	**Ganaly**	**3.01**	**233**	PN	**Pn**	**20 26 51.9**	**+1.3**
GNL	**Ganaly**	**3.01**	**233**	*eP*	**Pn**	**20 26 52.0**	**+1.3**
DALK	**Dalny**	**3.17**	**218**	PN	**Pn**	**20 26 53.9**	**+1.2**
DALK	**Dalny**	**3.17**	**218**	*eP*	**Pn**	**20 26 53.9**	**+1.2**
INSR	**Institute**	**3.19**	**220**	*eS*	**Sn**	**20 27 32.9**	**+3.0**
PET	**Petropavlovsk**	**3.21**	**219**	*eP*	**Pn**	**20 26 54.7**	**+1.4**
PET				*eS*	**Sn**	**20 27 31.0**	**+0.7**
PET				pmax	pmax		
	comp=Z,64nm,0.3s						
PET				smax	smax		
	comp=E,311nm,0.7s						
PET				smax	smax		
	comp=N,305nm,0.6s						
PET	**Petropavlovsk**	**3.21**	**219**		**Pn**	**20 26 54.5**	**+1.1**
PET				Sn	**Sn**	**20 27 29.8**	**-0.5**
PET	**Petropavlovsk**	**3.21**	**219**	*eP*	**Pn**	**20 26 54.4**	**+1.1**
PET				*eS*	**Sn**	**20 27 31.9**	**+1.6**
PEA0B	**Petropavlovsk-**	**3.52**	**227**	PN	**Pn**	**20 26 59.4**	**+1.9**
PEA0B				S	**Sn**	**20 27 41.1**	**+3.3**
PEA0B	**Petropavlovsk-**	**3.52**	**227**		**Pn**	**20 26 59.1**	**+1.6**
PETPK	**Petropavlovsk-**	**3.52**	**227**	Pn	**Pn**	**20 26 58.7**	**+1.2**
	comp=N,4.4nm,0.3s,baz=59,slow=17,SNR=84						
PETPK				Sn	**Sn**	**20 27 41.6**	**+3.7**
	comp=N,3.6nm,0.3s,baz=77,slow=20,SNR=4.4						
PETK				LR	LR	20 28 39.4	
	comp=N,77nm,18.8s,baz=53,slow=44						
	comp=N,7.7nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**3.52**	**227**		**Pn**	**20 26 58.9**	**+1.4**
KRMR	**Karymshinskiy**	**3.55**	**221**	PN	**Pn**	**20 26 59.4**	**+1.4**
KRMR				S	**Sn**	**20 27 40.4**	**+1.7**
KRMR	**Karymshinskiy**	**3.55**	**221**	*eP*	**Pn**	**20 26 59.5**	**+1.4**
KRMR				*eS*	**Sn**	**20 27 40.5**	**+1.7**
PALN	**Palana**	**3.70**	**344**	PN	**Pn**	**20 27 00.7**	**+0.7**
PALN	**Palana**	**3.70**	**344**	*eP*	**Pn**	**20 27 00.8**	**+0.7**
OSSR	**Ossora**	**3.74**	**8**	PN	**Pn**	**20 27 00.7**	**+0.2**
OSSR	**Ossora**	**3.74**	**8**	*eP*	**Pn**	**20 27 00.8**	**+0.2**
RUS	**Russkaya**	**3.75**	**215**	PN	**Pn**	**20 27 01.3**	**+0.7**
RUS	**Russkaya**	**3.75**	**215**	*eP*	**Pn**	**20 27 01.3**	**+0.7**
GRL	**Gorelyy**	**3.80**	**219**	PN	**Pn**	**20 27 03.5**	**+2.1**
GRL	**Gorelyy**	**3.80**	**219**	*eP*	**Pn**	**20 27 03.6**	**+2.1**
MTVR	**Mutnovka**	**3.81**	**218**	PN	**Pn**	**20 27 03.4**	**+1.7**
MTVR	**Mutnovka**	**3.81**	**218**	*eP*	**Pn**	**20 27 03.5**	**+1.7**
APC	**Apacha**	**3.88**	**229**	PN	**Pn**	**20 27 04.5**	**+2.1**
APC	**Apacha**	**3.88**	**229**	*eP*	**Pn**	**20 27 04.5**	**+2.1**
ASAK	**Asacha**	**4.00**	**219**	PN	**Pn**	**20 27 06.4**	**+2.2**
ASAK	**Asacha**	**4.00**	**219**	*eP*	**Pn**	**20 27 06.4**	**+2.2**
KDTR	**Khodutka, Kamc**	**4.42**	**213**	PN	**Pn**	**20 27 10.1**	**+0.3**
KDTR	**Khodutka, Kamc**	**4.42**	**213**	*eP*	**Pn**	**20 27 10.2**	**+0.3**
TILK	**Tilichiki**	**5.37**	**23**	PN	**Pn**	**20 27 23.6**	**+0.8**
TILK				S	**Sn**	**20 28 24.3**	**+1.1**
TILK	**Tilichiki**	**5.37**	**23**	*eP*	**Pn**	**20 27 23.6**	**+0.8**
TILK				*eS*	**Sn**	**20 28 24.4**	**+1.1**
BILL	**Bilibino**	**12.68**	**7**	*i* PN	**Pn**	**20 28 59.8**	**-2.8**
BILL				pmax	pmax		
	comp=Z,1.0nm,0.3s						
YAK	**Yakutsk**	**17.80**	**304**	*i* P	**P**	**20 30 07.5**	**-0.9**
YAK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
H17K	**Granite Mounta**	**20.77**	**48**	P	**P**	**20 30 41.3**	**+0.6**
H17K				IAmb	IAmb	20 31 10.3	
	comp=Z,14nm,1.3s						
TIXI	**Tiksi**	**21.36**	**332**	P	**P**	**20 30 47.5**	**+0.5**
	comp=Z,2.1nm,0.4s,baz=125,slow=11,SNR=11						
TIXI	**Tiksi**	**21.36**	**332**	P	**P**	**20 30 48.3**	**+1.3**
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.1s						
TIXI	**Tiksi**	**21.36**	**332**	P	**P**	**20 30 48.3**	**+1.3**
TIXI				IAmb	IAmb	20 30 49.7	
	comp=Z,7.4nm,1.1s						
G18K	**Tagagawik**	**21.45**	**45**	P	**P**	**20 30 49.8**	**+1.8**
G18K				IAmb	IAmb	20 31 01.8	
	comp=Z,12nm,1.4s					

comp=Z,2.0nm,0.5s
KBZ Khabaz 68.49 317 *i* P **P 20 37 01.5 +1.0**
KBZ pmax pmax
comp=Z,1.0nm,1.0s
TXAR Lajitas Array 68.68 69 P **P 20 37 03.2 +1.1**
comp=Z,0.5nm,0.5s,baz=285,slow=3.9,SNR=4.4
comp=Z,0.5nm,0.5s
TXAR Lajitas Array 68.68 69 P **P 20 37 03.1 +1.0**
EKA Eskdalemuir Ar 68.80 351 P **P 20 37 01.8 -0.5**
comp=Z,0.6nm,0.4s,baz=18,slow=5.2,SNR=12
comp=Z,0.6nm,0.4s
CLL Collm 70.43 340 *i* P **P 20 37 10.8 -1.5**
GERES GERESS Array B 72.63 339 P **P 20 37 25.2 -0.6**
comp=Z,0.6nm,0.6s,baz=23,slow=7.2,SNR=5.6
comp=Z,0.6nm,0.6s
GERES GERESS Array B 72.63 339 *e*P **P 20 37 26.4 +0.6**
GERES GERESS Array B 72.63 339 P **P 20 37 24.8 -1.0**
BFO Black Forest 74.15 342 *i* P **P 20 37 33.9 -0.7**

TRN 09 20:28:10.0, 17°.10N×61°.92W, h16km, MD3.7, Near West coast of Antigua., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ANWB	**Willy Bob**	**0.58**	**13**	*e*P	Pg	20 28 17.5	-4.0
ANWB				*e*S	Sg	20 28 27.2	-1.9
DHSZ	**Broadband at M**	**0.84**	**170**	*e*P	Pb	20 28 22.2	-3.9
DHSZ				*e*S	Sb	20 28 36.5	-0.7
DSDZ	**La Diserade, G**	**1.13**	**134**	*e*P	Pn	20 28 26.2	-5.0
DSDZ				*e*S	Sb	20 28 43.4	-2.3
DSLB	**Salisbury**	**1.72**	**164**	*e*P	Pn	20 28 34.5	-4.8
DSLB				*e*S	Sn	20 28 57.7	-3.3

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*IDC **09** 20:30:19.8±7.5, 18°.67S×168°.95E, h128km±50km, mb3.6/4, mbtmp4.1/5, Error ellipse: s-maj=62.7km s-min=28.6km az=40.0*
*NEIC **09** 20:30:21.2±1.9, 18°.91S±0°.06×169°.2E±0°.1, h138km±3km, mb4.2/7, Error ellipse: s-maj=18.2km s-min=8.8km az=87.0*
*NOU **09** 20:30:23.3, 18°.95S×168°.90E, h139km, MLv4.4/21, Vanuatu Islands*

ISC 09 20:30:22.3±0.8, 18°.94S±0°.04×169°.0E±0°.1, h147km, n45, σ1§04/45, mb4.1/6, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	**1.28**	**333**	P	**Pn**	**20 30 50.3**	**+0.9**
DVP	**Devils Point**	**1.45**	**326**	P	**Pn**	**20 30 52.5**	**+1.4**
DVP	**Devils Point**	**1.45**	**326**	P	**Sn**	**20 31 14.1**	**+0.9**
MARNC	**Mare, Loyalty**	**2.70**	**200**	P	**Pn**	**20 31 05.2**	**-0.5**
MARNC	**Mare, Loyalty**	**2.70**	**200**	S	**Sn**	**20 31 37.3**	**-1.9**
MARNC	**Mare, Loyalty**	**2.70**	**200**		**Pn**	**20 31 05.0**	**-0.7**
MARNC				Sn	**Sn**	**20 31 38.1**	**-1.1**
YATNC	**Mamie plateau,**	**3.69**	**213**	P	**Pn**	**20 31 17.5**	**-1.0**
YATNC	**Mamie plateau,**	**3.69**	**213**	S	**Sn**	**20 31 59.9**	**-2.2**
SANVU	**Saraoutou**	**3.89**	**333**	P	**Pn**	**20 31 21.0**	**-0.1**
SANVU	**Saraoutou**	**3.89**	**333**	S	**Sn**	**20 32 05.2**	**-1.5**
SANVU	**Saraoutou**	**3.89**	**333**		**Pn**	**20 31 20.8**	**-0.3**
SANVU					**Sn**	**20 32 03.9**	**-2.8**
PINNC	**Pines Island,**	**3.94**	**202**	P	**Pn**	**20 31 22.1**	**+0.4**
PINNC	**Pines Island,**	**3.94**	**202**	S	**Sn**	**20 32 08.4**	**+0.5**
PINNC	**Pines Island,**	**3.94**	**202**		**Pn**	**20 31 21.9**	**+0.2**
PINNC					**Sn**	**20 32 07.2**	**-0.7**
DZM	**Mont Dzumac**	**3.95**	**217**	P	**Pn**	**20 31 22.5**	**+0.6**
	74nm,0.3s,baz=60,slow=20,SNR=272						
DZM				S	**Sn**	**20 32 08.5**	**+0.3**
	61nm,0.4s,baz=342,slow=21,SNR=6.1						
OUENC	**Ouen Island, N**	**4.02**	**210**	P	**Pn**	**20 31 23.3**	**+0.6**
OUENC	**Ouen Island, N**	**4.02**	**210**	S	**Sn**	**20 32 10.5**	**+0.7**
OUENC	**Ouen Island, N**	**4.02**	**210**		**Pn**	**20 31 22.5**	**-0.3**
NOUC	**Port Laguerre**	**4.05**	**219**	P	**Pn**	**20 31 23.8**	**+0.6**
ONTNC	**Ouen Toro**	**4.13**	**215**	P	**Pn**	**20 31 24.6**	**+0.5**
ONTNC	**Ouen Toro**	**4.13**	**215**		**Pn**	**20 31 23.7**	**-0.4**
KOUNC	**Koumac, New Ca**	**4.75**	**250**	P	**Pn**	**20 31 32.3**	**0.0**
KOUNC	**Koumac, New Ca**	**4.75**	**250**	Pn	**Pn**	**20 31 33.8**	**+1.4**
EIDS	**Eidsvold**	**17.81**	**246**	Pn	**Pn**	**20 34 22.3**	**+1.3**
EIDS				IAmb	IAmb	20 34 31.9	
	comp=Z,18nm,1.4s						
LTZ	**Lake Taylor**	**23.92**	**174**	P	**P**	**20 35 23.2**	**+0.5**
LTZ				IAmb	IAmb	20 35 28.9	
	comp=Z,5.9nm,0.9s						
WRA	**Warramunga Arr**	**32.70**	**262**	P	**P**	**20 36 39.4**	**-1.6**
	comp=Z,0.1nm,0.4s,baz=88,slow=8.2,SNR=1.9						
	comp=Z,0.1nm,0.4s						
AS31	**Alice Springs**	**33.01**	**256**	P	**P**	**20 36 43.3**	**-0.4**
AS31				IAmb	IAmb	20 36 46.1	
	comp=Z,1.9nm,0.3s						
ASAR	**Alice Springs**	**33.01**	**256**	P	**P**	**20 36 43.3**	**-0.4**
	comp=Z,1.8nm,0.4s,baz=83,slow=8.5,SNR=16						
	comp=Z,1.8nm,0.4s						
ASAR	**Alice Springs**	**33.01**	**256**	P	**P**	**20 36 43.0**	**-0.8**
VNDA	**Vanda**	**58.72**	**182**	P	**P**	**20 40 06.2**	**+2.1**
	comp=Z,1.1nm,0.5s,baz=352,slow=13,SNR=12						
	comp=Z,1.1nm,0.5s						
VNDA	**Vanda**	**58.72**	**182**	P	**P**	**20 40 05.0**	**+1.0**
VNDA				IAmb	IAmb	20 40 08.4	
	comp=Z,3.3nm,1.3s						
CASY	**Casey**	**60.32**	**203**	P	**P**	**20 40 14.3**	**-0.9**
QSPA	**South Pole Qui**	**71.11**	**180**	P	**P**	**20 41 24.7**	**+0.2**
	comp=Z,2.9nm,0.8s,baz=12,slow=2.6,SNR=8.9						
	comp=Z,2.9nm,0.8s						
QSPA	**South Pole Qui**	**71.11**	**180**	P	**P**	**20 41 24.9**	**+0.4**
QSPA				IAmb	IAmb	20 41 25.9	
	comp=Z,3.7nm,1.0s						
GERES	**GERESS Array B**	**144.14**	**332**	PKP	PKPbc	20 49 39.2	+0.1
	comp=Z,0.4nm,0.5s,baz=29,slow=2.4,SNR=6.1						
GERES	**GERESS Array B**	**144.14**	**332**		**PKPab**	**20 49 39.0**	**+0.3**
ARSA	**Arzberg**	**144.42**	**329**	*i* pPKiKP	PKPbc	20 49 40.0	0.0
	comp=Z,1.3nm,0.6s						
MOA	**Molln**	**144.61**	**330**	*i* pPKiKP	PKPbc	20 49 41.0	+0.5
	comp=Z,1.9nm,0.5s						
SESA	**Seetaler Alpe,**	**144.99**	**329**	*e*pPKiKP	PKPbc	20 49 41.8	-0.1
	comp=Z,3.3nm,0.7s						
SOKA	**Soboth**	**145.06**	**328**	*e*pPKiKP	**PKPbc**	**20 49 42.0**	**0.0**
	comp=Z,2.0nm,0.5s						
LESA	**Schwarzleotal**	**145.65**	**331**	*i* pPKiKP	**PKPbc**	**20 49 43.8**	**0.0**
	comp=Z,1.5nm,0.5s						
MYKA	**Terra Mystica**	**145.78**	**329**	*i* pPKiKP	**PKPdf**	**20 49 41.9**	**-1.6**
	comp=Z,1.1nm,0.4s						
ABTA	**Abfaltersbach**	**146.23**	**330**	*i* pPKiKP	**PKPdf**	**20 49 44.2**	**-0.1**
	comp=Z,1.2nm,0.5s						
SQTA	**Sankt Quirin**	**146.46**	**332**	*i* pPKiKP	**PKPbc**	**20 49 46.4**	**+0.1**
	comp=Z,1.7nm,0.5s						
FETA	**Feichten**	**146.83**	**332**	*i* pPKiKP	**PKPbc**	**20 49 47.5**	**+0.1**
	comp=Z,1.8nm,0.6s						

AUST 09 20:31:00.0±1.0, 20°S±9°×11°6E±°, h20km, mb4.1/8, ML3.6/6, Error ellipse: s-maj=22.1km s-min=7.3km az=145.9, confirmed, Western Australia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GIRL	**Giralia**	**3.14**	**217**	P	Pn	20 31 48.3	0.0
GIRL				S	Sn	20 32 25.2	0.0
GIRL				AML	AML		
MBWA	**Marble Bar**	**3.37**	**108**	P	Pn	20 31 52.4	+0.8
MBWA				AML	AML		
MBWA	**Marble Bar**	**3.37**	**108**	P	Pn	20 31 52.2	+0.7
MBWA				AML	AML		
MBWA	**Marble Bar**	**3.37**	**108**	P	Pn	20 31 51.7	+0.1
MBWA				AML	AML		
MBWA	**Marble Bar**	**3.37**	**108**	P	Pn	20 31 52.6	+1.0
MBWA				S	Sn	20 32 30.4	-0.7
MBWA				AML	AML		
CVQOZ	**Cooralya Stati**	**4.74**	**205**	P	Pn	20 32 11.0	+0.6
CVQOZ				AML	AML		
CVQOZ	**Cooralya Stati**	**4.74**	**205**	P	Pn	20 32 10.8	+0.3
CVQOZ				AML	AML		
CVQOZ	**Cooralya Stati**	**4.74**	**205**	S	Sn	20 33 02.5	-2.3
CAAN	**Eighty Mile Be**	**4.99**	**81**	P	Pn	20 32 15.2	+1.4
CAAN	**Eighty Mile Be**	**4.99**	**81**	P	Pn	20 32 15.1	+1.2
CAAN	**Eighty Mile Be**	**4.99**	**81**	P	Pn	20 32 14.6	+0.8
CAAN				S	Sn	20 33 08.7	-2.4
CAAN				AML	AML		
AUBRM	**Broome Senior**	**6.02**	**70**	P	Pn	20 32 25.6	-2.4
	comp=Z,183nm,1.4s,comp=Z,0.4nm						
AUBRM				AML	AML		
AUBRM	**Broome Senior**	**6.02**	**70**	P	Pn	20 32 26.2	-1.9
	comp=Z,184nm,1.4s,comp=Z,0.4nm						
AUBRM				AML	AML		
MEEK	**Meekatharra**	**6.80**	**162**	P	Pn	20 32 38.3	-0.4
	comp=Z,21nm,1.4s,comp=Z,0.1nm						
MEEK				AML	AML		
MEEK	**Meekatharra**	**6.80**	**162**	P	Pn	20 32 38.9	+0.1
	comp=Z,21nm,1.4s,comp=Z,0.1nm						
MEEK				AML	AML		
MEEK	**Meekatharra**	**6.80**	**162**	P	Pn	20 32 38.6	-0.2
	comp=Z,21nm,1.4s,comp=Z,0.1nm						
MEEK				AML	AML		
MEEK	**Meekatharra**	**6.80**	**162**	P	Pn	20 32 38.7	-0.1
	comp=Z,21nm,1.4s,comp=Z,0.1nm						
MEEK				S	Sn	20 33 52.9	-2.7
MEEK				AML	AML		
MORW	**Morawa**	**8.88**	**181**	P	Pn	20 33 08.4	+1.1
	comp=Z,23nm,2.5s,comp=Z,0.1nm						
MORW				AML	AML		
MORW	**Morawa**	**8.88**	**181**	P	Pn	20 33 08.3	+1.0
	comp=Z,23nm,2.5s,comp=Z,0.1nm						
MORW				AML	AML		
MORW	**Morawa**	**8.88**	**181**	P	Pn	20 33 08.0	+0.7
	comp=Z,23nm,2.5s,comp=Z,0.1nm						
MORW				AML	AML		
MORW	**Morawa**	**8.88**	**181**	P	Pn	20 33 07.6	+0.3
	comp=Z,23nm,2.5s,comp=Z,0.1nm						
MORW				S	Sn	20 34 39.9	-7.0
MORW				AML	AML		
FITZ	**Fitzroy Crossi**	**9.07**	**79**	P	Pn	20 33 08.1	-1.7
FITZ	**Fitzroy Crossi**	**9.07**	**79**	P	Pn	20 33 07.6	-2.2
FITZ				S	Sn	20 34 43.1	-8.3
BCON	**Beacon, Wester**	**10.23**	**173**	P	Pn	20 33 25.3	-0.5
	comp=Z,65nm,2.9s,comp=Z,0.1nm						
BCON				AML	AML		
BLDU	**Ballidu**	**10.43**	**178**	P	Pn	20 33 29.3	+0.9
	comp=Z,38nm,1.9s,comp=Z,0.1nm						
BLDU				AML	AML		
BLDU	**Ballidu**	**10.43**	**178**	P	Pn	20 33 27.2	-1.3
BLDU				AML	AML		
BLDU	**Ballidu**	**10.43**	**178**	P	Pn	20 33 26.9	-1.6
BLDU				AML	AML		
BLDU	**Ballidu**	**10.43**	**178**	P	Pn	20 33 28.0	-0.5
	comp=Z,39nm,1.9s,comp=Z,0.1nm						
BLDU				AML	AML		
WATNG	**Wattoning, WA**	**10.68**	**171**	P	Pn	20 33 33.2	+1.3
	comp=Z,52nm,1.8s,comp=Z,0.1nm						
WATNG				AML	AML		
WATNG	**Wattoning, WA**	**10.68**	**171**	P	Pn	20 33 31.3	-0.6
	comp=Z,50nm,1.8s,comp=Z,0.1nm						
WATNG				AML	AML		
WATNG	**Wattoning, WA**	**10.68**	**171**	P	Pn	20 33 30.8	-1.1
	comp=Z,51nm,1.8s,comp=Z,0.1nm						
WATNG				AML	AML		
WATNG	**Wattoning, WA**	**10.68**	**171**	P	Pn	20 33 31.2	-0.7
	comp=Z,50nm,1.8s,comp=Z,0.1nm						
WATNG				S	Sn	20 35 22.7	-8.2
WATNG				AML	AML		
KORDA	**Koorda, Wester**	**10.74**	**174**	P	Pn	20 33 32.3	-0.4
	comp=Z,43nm,2.2s,comp=Z,0.2nm						
KORDA				AML	AML		
KORDA	**Koorda, Wester**	**10.74**	**174**	P	Pn	20 33 33.4	+0.6
	comp=Z,43nm,2.2s,comp=Z,0.2nm						
KORDA				AML	AML		
KORDA	**Koorda, Wester**	**10.74**	**174**	P	Pn	20 33 32.2	-0.6
	comp=Z,43nm,2.2s,comp=Z,0.2nm						
KORDA				AML	AML		
KANBL	**Kanowna Belle,**	**11.45**	**156**	P	Pn	20 33 41.4	-1.1
	comp=Z,34nm,2.7s						
KANBL	**Kanowna Belle,**	**11.45**	**156**	P	Pn	20 33 42.1	-0.4
	comp=Z,34nm,2.7s						
KLBR	**Kellerberrin**	**11.47**	**174**	P	Pn	20 33 42.7	0.0
	comp=Z,43nm,1.4s						
KLBR	**Kellerberrin**	**11.47**	**174**	P	Pn	20 33 42.5	-0.3
	comp=Z,43nm,1.4s						
KLBR	**Kellerberrin**	**11.47**	**174**	P	Pn	20 33 42.2	-0.5
	comp=Z,43nm,1.4s						
WRKA	**Warakurna**	**12.11**	**116**	P	Pn	20 33 50.2	-1.3
	comp=Z,8.1nm,2.4s						
WRKA	**Warakurna**	**12.11**	**116**	P	Pn	20 33 49.9	-1.5
	comp=Z,8.1nm,2.4s						
WRKA	**Warakurna**	**12.11**	**116**	P	Pn	20 33 50.5	-1.0
	comp=Z,8.2nm,2.4s						
WRKA	**Warakurna**	**12.11**	**116**	P	Pn	20 33 50.2	-1.2
	comp=Z,8.2nm,2.4s						
KMBL	**Kambalda**	**12.25**	**157**	P	Pn	20 33 52.0	-1.4
	comp=Z,14nm,2.8s						
KMBL	**Kambalda**	**12.25**	**157**	P	Pn	20 33 51.8	-1.6
	comp=Z,13nm,2.8s						
KMBL	**Kambalda**	**12.25**	**157**	P	Pn	20 33 51.5	-1.9
	comp=Z,13nm,2.8s						
KMBL	**Kambalda**	**12.25**	**157**	P	Pn	20 33 51.6	-1.8
	comp=Z,13nm,2.8s						
KNRA	**Kununurra**	**12.67**	**71**	P	Pn	20 33 59.2	0.0
	comp=Z,2.8nm,2.0s						
KNRA	**Kununurra**	**12.67**	**71**	P	Pn	20 33 57.4	-1.8
	comp=Z,2.8nm,2.0s						
KNRA	**Kununurra**	**12.67**	**71**	P	Pn	20 33 57.1	-2.1
	comp=Z,2.8nm,2.0s						
KNRA	**Kununurra**	**12.67**	**71**	P	Pn	20 33 56.2	-3.0
NWAO	**Narrogin (SRO)**	**12.76**	**176**	P	Pn	20 33 57.6	-2.6
NWAO	**Narrogin (SRO)**	**12.76**	**176**	P	Pn	20 33 59.5	-0.8
	comp=Z,97nm,2.5s						
DNDOZ	**Balladonia**	**14.01**	**153**	P	Pn	20 34 13.7	-3.7
FORT	**Forrest**	**14.98**	**137**	P	Pn	20 34 27.8	-2.9
FORT	**Forrest**	**14.98**	**137**	P	Pn	20 34 26.4	-4.3
FORT	**Forrest**	**14.98**	**137**	P	Pn	20 34 26.9	-3.8
AS31	**Alice Springs**	**16.71**	**105**	P	Pn	20 34 51.7	-1.4
	comp=Z,1.5nm,1.8s						
WRAB	**Tennant Creek**	**16.97**	**92**	P	Pn	20 34 52.5	-3.9
	comp=Z,4.7nm,1.2s						

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*SOF **09** 20:30:55.2, 37°.66N±0°.04×27°.18E±0°.04, h10km±1km, MD4.5/2*
*GII **09** 20:30:57.5±0.0, 37°.722N±0°.002×26°.868E±0°.001, h0km, Mws4.3, confirmed*
*IDC **09** 20:30:58.5±0.5, 37°.80N×26°.93E, h0km, mb4.1/16, mbtmp4.0/26, ML3.2/4, MS3.3/24, Error ellipse: s-maj=9.2km s-min=8.8km az=179.0*
*ISK **09** 20:30:59.5, 37°.89N×27°.00E, h12km, ML4.1/14*
*AFAD **09** 20:30:59.9, 37°.87N×26°.97E, h7km±1km, MW4.2*
*MED_RC **09** 20:30:59.0, 37°.87N×27°.00E, h10km, Mw4.2, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.50±.26; $M_{\theta\theta}$2.33±.18; $M_{\phi\phi}$0.00±.14; $M_{r\theta}$0.76±.41; $M_{\theta\phi}$-0.63±.07; $M_{\phi r}$-0.15±.45; Fault plane solution: M_o2.62000×10^{15} NP1:φs106.00000°, δ36.00000°, λ-88.00000°. NP2:φs284.00000°, δ54.00000°, λ-92.00000°. Principal axes: T 2.6200, Plg9.0000°, Azm15.0000°; N -0.0100, Plg1.0000°, Azm285.0000°; P -2.6200, Plg81.0000°, Azm187.0000°;*
*ATH **09** 20:31:00.0, 37°.84N×26°.99E, h13km, ML4.0/63, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*NEIC **09** 20:31:00.8±1.9, 37°.88N±0°.04×26°.97E±0°.06, h10km±1km, mb4.3/17, Error ellipse: s-maj=8.2km s-min=7.0km az=309.0*
*THE **09** 20:31:00.0, 37°.9N±0°.8×2°.7E±°, h11km±1km, M3.7/34, MLh3.7/34*
*GFZ **09** 20:31:01.4±0.1, 38°N±2°×2°7E±°, h10km, M4.3/27, mb4.3/27, Mw4.4/16, Error ellipse: s-maj=4.7km s-min=3.2km az=46.0, confirmed*
*CFUSG **09** 20:31:06.3, 38°.00N×27°.50E, h10km, Mb2.9/4, MD3.5/3, MSH3.2/5*

ISC 09 20:31:00.4±0.6, 37°.87N±0°.01×27°.00E±0°.02, h11km±4km, n443, σ1§47/541, mb4.2/24, MS3.2/15, 28C-24D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.20**	**332**	P	**Pg**	**20 31 04.1**	**-0.6**
DGB				S	**Sg**	**20 31 07.2**	**-0.5**
SMG	**Samos**	**0.21**	**219**	P	**Pg**	**20 31 04.3**	**-0.5**
SMG				S	**Sg**	**20 31 07.7**	**-0.2**
SMG	**Samos**	**0.21**	**219**	P	**Pg**	**20 31 04.3**	**-0.5**
SMG				S	**Sg**	**20 31 07.8**	**0.0**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.22**	**342**	Pg	**Pg**	**20 31 04.4**	**-0.5**
GMLD				Sg	**Sg**	**20 31 07.6**	**-0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**93**	Pg	**Pg**	**20 31 04.9**	**-0.2**
KUSD				Sg	**Sg**	**20 31 08.5**	**+0.2**
KRL1	**Karlovasi Samo**	**0.25**	**252**	P	**Pg**	**20 31 04.8**	**-0.7**
KRL1				S	**Sg**	**20 31 08.3**	**-0.6**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**133**	P	**Pg**	**20 31 05.6**	**+0.1**
GCAM				S	**Sg**	**20 31 09.8**	**+0.8**
GCAM	**G?zelcaml?**	**0.25**	**133**	Pg	**Pg**	**20 31 05.4**	**-0.1**
GCAM				Sg	**Sg**	**20 31 09.5**	**+0.5**
SAM2	**Drakei, Karlov**	**0.33**	**250**	P	**Pg**	**20 31 06.3**	**-0.7**
SAM2				S	**Sg**	**20 31 11.3**	**-0.1**
SAM2				AML	AML		
BEYE	**izmir**	**0.36**	**351**	P	**Pg**	**20 31 07.1**	**-0.5**
BEYE				S	**Sg**	**20 31 12.3**	**-0.1**
DDIM	**Aydin, Didim**	**0.46**	**155**	P	**Pg**	**20 31 09.3**	**0.0**
DDIM				S	**Sb**	**20 31 16.2**	**-0.9**
DUVT	**Torbali**	**0.50**	**45**	P	**Pg**	**20 31 09.7**	**-0.4**
DUVT				S	**Sg**	**20 31 16.5**	**-0.1**
BLCB	**Balcova**	**0.51**	**3**	P	**Pg**	**20 31 09.9**	**-0.5**
BLCB				S	**Sg**	**20 31 17.6**	**+0.4**
BLCB	**Balcova**	**0.51**	**3**	Pg	**Pg**	**20 31 09.9**	**-0.5**
BLCB				Sg	**Sg**	**20 31 17.4**	**+0.2**
DIDI	**Didim-Aydin**	**0.53**	**159**	Pg	**Pg**	**20 31 10.7**	**0.0**
DIDI				Sg	**Sb**	**20 31 18.7**	**-0.5**
ZEYE	**Izmir, Urla-Ze**	**0.54**	**313**	P	**Pg**	**20 31 10.5**	**-0.4**
ZEYE				S	**Sg**	**20 31 17.9**	**-0.1**
AYDB	**Zeytinkoy-Aydi**	**0.71**	**84**	Pg	**Pg**	**20 31 13.5**	**-0.6**
AYDB				Sg	**Sb**	**20 31 23.9**	**-0.6**
CESE	**eme**	**0.72**	**310**	Pg	**Pg**	**20 31 13.8**	**-0.5**
CESE				AML	AML		
AYDN	**Tasoluk**	**0.73**	**107**	P	**Pg**	**20 31 14.3**	**-0.1**
AYDN	**Tasoluk**	**0.73**	**107**	P	**Pg**	**20 31 14.3**	**-0.1**
YKAV	**Yalikavak-Bodr**	**0.78**	**163**	Pg	**Pg**	**20 31 15.0**	**-0.4**
BAGT	**Foa**	**0.79**	**351**	P	**Pg**	**20 31 15.2**	**-0.4**
BAGT				S	**Sb**	**20 31 26.6**	**-0.3**
IZMR	**zmir-demi**	**0.80**	**70**	P	**Pg**	**20 31 15.1**	**-0.7**
IZMR				S	**Sg**	**20 31 25.3**	**-0.8**
KRBN	**Karaburun**	**0.80**	**334**	Pg	**Pg**	**20 31 15.3**	**-0.6**
KRBN				AML	AML		
MLSB	**Milas**	**0.84**	**133**	Pg	**Pg**	**20 31 16.3**	**-0.3**
BODT	**Bodrum**	**0.84**	**163**	P	**Pg**	**20 31 16.0**	**-0.6**
BODT				S	**Sb**	**20 31 28.5**	**+0.2**
BODT	**Bodrum**	**0.84**	**163**	Pg	**Pb**	**20 31 16.7**	**-0.3**
FOCM	**Foa**	**0.87**	**346**	Pg	**Pg**	**20 31 16.1**	**-1.0**
BDRM	**Kayabasi**	**0.88**	**156**	P	**Pg**	**20 31 16.6**	**-0.7**
BDRM				S	**Sb**	**20 31 29.3**	**0.0**
BODA	**Bodrum-Mula**	**0.90**	**158**	Pg	**Pb**	**20 31 17.7**	**-0.3**
CHOS	**Chios island**	**0.91**	**305**	P	**Pg**	**20 31 17.4**	**-0.4**
CHOS				S	**Sb**	**20 31 30.4**	**+0.2**
CHOS	**Chios island**	**0.91**	**305**	P	**Pb**	**20 31 17.7**	**-0.4**
CHOS	**Chios island**	**0.91**	**305**	P	**Pb**	**20 31 17.9**	**-0.3**
CHOS				S	**Sb**	**20 31 30.5**	**+0.2**
CAMT	**Merkez**	**0.91**	**15**	P	**Pg**	**20 31 17.4**	**-0.4**
CAMT				S	**Sn**	**20 31 31.8**	**-0.4**
KLNA	**Kalymnos**	**0.91**	**181**	P	**Pg**	**20 31 17.1**	**-0.9**
KLNA				S	**Sb**	**20 31 29.8**	**-0.5**
KLNA				AML	AML		
KARB	**zmir-Karabur**	**0.92**	**330**	P	**Pg**	**20 31 16.9**	**-1.2**
KARB				S	**Sb**	**20 31 30.1**	**-0.4**
EAG2	**Marmaro, Chios**	**0.97**	**314**	P	**Pn**	**20 31 19.5**	**-0.4**
EAG2				S	**Sb**	**20 31 32.0**	**0.0**
NAZL	**Nazilli-Aydin**	**1.02**	**84**	Pg	**Pg**	**20 31 19.4**	**-0.7**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.09**	**3**	P	**Pb**	**20 31 20.7**	**-0.6**
ZEDA				S	**Sn**	**20 31 36.5**	**-0.3**
GOMA	**Golmarmara-Man**	**1.10**	**41**	Pn	**Pb**	**20 31 20.5**	**-0.9**
GOMA				AML	AML		
KTTT	**Salihli**	**1.18**	**46**	P	**Pb**	**20 31 22.6**	**-0.3**
KTTT				S	**Sb**	**20 31 37.5**	**-0.7**
AKHS	**Akhisar**	**1.19**	**32**	P	**Pb**	**20 31 22.2**	**-0.7**
AKHS				S	**Sn**	**20 31 41.1**	**+2.0**
AKS	**Akhisar**	**1.19**	**32**	Pn	**Pb**	**20 31 22.1**	**-0.8**
AKS				AML	AML		
DKL	**Dikili**	**1.20**	**356**	P	**Pb**	**20 31 22.6**	**-0.5**
DKL				S	**Sn**	**20 31 39.5**	**+0.2**
DATC	**Datca-Mugla**	**1.23**	**154**	Pn	**Pn**	**20 31 22.8**	**-0.6**
DATC				AML	AML		
DAT	**Datca**	**1.23**	**158**	P	**Pn**	**20 31 22.6**	**-0.9**
DAT				S	**Sg**	**20 31 39.7**	**-0.3**
DAT				AML	AML		
DAT	**Datca**	**1.23**	**158**	Pn	**Pn**	**20 31 23.2**	**-0.4**
DAT				AML	AML		
YER	**Yerkesik**	**1.26**	**125**	P	**Pn**	**20 31 23.6**	**-0.3**
YER				S	**Sb**	**20 31 40.1**	**-0.2**
YER				AML	AML		
YER	**Yerkesik**	**1.26**	**125**	Pn	**Pb**	**20 31 23.8**	**-0.3**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.35**	**18**	Pn	**Pn**	**20 31 24.7**	**-0.4**
SOMA				AML	AML		
MANT	**Manisa**	**1.37**	**63**		**Pn**	**20 31 25.0**	**-0.6**
GORD	**Gordes-Manisa**	**1.39**	**41**	Pn	**Pn**	**20 31 25.3**	**-0.4**
GORD				AML	AML		
APE	**Apeiranthos**	**1.42**	**236**	P	**Pn**	**20 31 24.5**	**-1.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.42**	**236**	⇓P	**Pn**	**20 31 24.6**	**-1.4**
APE				⇓S	**Sn**	**20 31 41.1**	**-3.6**
APE	**Apeiranthos**	**1.42**	**236**	P	**Pg**	**20 31 26.6**	**-1.0**
APE	**Apeiranthos**	**1.42**	**236**	P	**Pn**	**20 31 24.7**	**-1.4**
APE				S	**Sb**	**20 31 44.4**	**-0.6**
APE				AML	AML		
ASTA	**Astypalaia**	**1.42**	**202**	P	**Pn**	**20 31 26.0**	**-0.1**
ASTA				S	**Sn**	**20 31 43.5**	**-1.2**
ASTA				AML	AML		
TURN	**Turunc**	**1.48**	**137**	Pn	**Pn**	**20 31 26

EZN Ezine 2.02 345 P Pn 20 31 33.8 -0.5
KARY Karystos 2.03 275 P Pn 20 31 33.2 -1.3
KARY AML AML
KARY Karystos 2.03 275 P Pn 20 31 33.5 -1.1
KARY S Sn 20 31 58.7 -1.2
SKY Skiros Island 2.17 298 P Pn 20 31 36.1 -0.3
SKY S Sn 20 32 03.0 -0.3
SKY AML AML
EFSA Agios Efstrati 2.29 317 P Pn 20 31 37.7 -0.3
EFSA S Sn 20 32 05.8 -0.5
EFSA AML AML
KARP Karpathos 2.32 177 P Pn 20 31 37.3 -1.2
KARP AML AML
KARP Karpathos 2.32 177 Pn 20 31 37.7 -0.8
KARP Karpathos 2.32 177 P Pn 20 31 39.3 +0.8
KARP Karpathos 2.32 177 P Pn 20 31 37.7 -0.8
KARP S Sn 20 32 05.0 -2.1
KARP AML AML
LVRA Laurium 2.34 267 P Pn 20 31 37.7 -1.0
LVRA S Sn 20 32 07.3 -0.1
LVRA AML AML
MILOS Milos 2.34 242 P Pn 20 31 37.9 -0.8
MILOS S Sn 20 32 07.2 -0.2
MHLO Agia Marina, M 2.39 241 P Pn 20 31 38.7 -0.7
MHLO S Sn 20 32 07.8 -0.8
KYMI Kymi, Euboea I 2.41 289 P Pn 20 31 38.6 -1.0
KYMI S Sn 20 32 08.7 -0.4
DION Dionisos Attik 2.43 276 P Pn 20 31 39.1 -0.9
DION AML AML
DION Dionisos Attik 2.43 276 P Pn 20 31 39.4 -0.7
DION S Sn 20 32 09.6 -0.2
DION AML AML
KSS1 Kassos Island 2.45 182 P Pn 20 31 39.6 -0.6
KSS1 S Sn 20 32 09.3 -0.8
GADA Gvkgeada 2.47 340 P Pn 20 31 39.8 -0.7
GADA AML AML
LIA Limnos Island 2.47 326 P Pn 20 31 39.8 -0.7
LIA AML AML
LIA Limnos Island 2.47 326 P Pn 20 31 39.8 -0.7
LIA S Sn 20 32 10.9 +0.2
LIA AML AML
PTL Penteli 2.49 275 P Pn 20 31 39.7 -1.1
PTL AML AML
PTL Penteli 2.49 275 P Pn 20 31 40.1 -0.7
PTL S Sn 20 32 09.2 -1.9
LMN1 MIRINA LIMNOU 2.51 323 P Pn 20 31 40.4 -0.7
LMN1 S Sn 20 32 10.6 -1.0
LMN1 AML AML
VLY Voula,Athens 2.54 271 P Pn 20 31 40.2 -1.3
VLY AML AML
VLY Voula,Athens 2.54 271 P Pn 20 31 40.6 -0.9
VLY S Sn 20 32 10.5 -1.8
VLY AML AML
ATHU Athens Univers 2.55 273 P Pn 20 31 40.5 -1.1
ATHU AML AML
ATHU Athens Univers 2.55 273 P Pn 20 31 40.7 -0.8
ATHU S Sn 20 32 10.7 -1.9
ATHP Athens-Neo Psi 2.56 274 P Pn 20 31 40.9 -0.8
ATHP AML AML
ELL Elmali 2.57 115 Pn 20 31 43.4 +1.3
ELL Elmali 2.57 115 P Pn 20 31 42.8 +0.7
ELL AML AML
ATH5 Athens Parliam 2.58 273 P Pn 20 31 40.5 -1.6
ATH5 AML AML
NOAC Athens-Thissio 2.60 273 P Pn 20 31 41.7 -0.6
NOAC AML AML
ATH Athens Observa 2.60 273 P Pn 20 31 41.8 -0.5
ATH AML AML
BAND Balkesir-Ban 2.62 19 ⇑P Pb 20 31 45.8 -1.6
AKAS Kas 2.65 127 Pn 20 31 44.7 +1.6
AKAS Kas 2.65 127 P Pn 20 31 45.2 +2.1
STFN Stefani 2.75 277 P Pn 20 31 43.8 -0.6
STFN AML AML
STFN Stefani 2.75 277 P Pn 20 31 44.0 -0.3
STFN AML AML
SIT2 Siteia 2.76 195 P Pn 20 31 43.6 -0.8
SIT2 AML AML
AOS Alonnisos 2.77 299 P Pn 20 31 44.0 -0.6
AOS AML AML
AOS2 Alonissos-2 2.79 298 P Pn 20 31 44.6 -0.3
AOS2 AML AML
ISP Isparta 2.79 90 Pn 20 31 45.6 +0.6
ISP Isparta 2.79 90 P Pn 20 31 45.8 +0.8
ZKR Zakros 2.82 193 P Pn 20 31 44.8 -0.5
ZKR Zakros 2.82 193 P Pn 20 31 47.2 +1.8
ZKR Zakros 2.82 193 P Pn 20 31 44.6 -0.8
ZKR AML AML
NPS Neapolis 2.83 204 P Pn 20 31 44.4 -1.1
NPS AML AML
NPS Neapolis 2.83 204 P Pn 20 31 44.3 -1.2
NPS S Sn 20 32 18.4 -1.2
NPS AML AML
SMTH Samothraki Isl 2.84 337 P Pn 20 31 44.8 -0.7
SMTH AML AML
SMTH Samothraki Isl 2.84 337 P Pn 20 31 44.9 -0.7
SMTH AML AML
MET4 Agioi Theodoro 2.87 266 P Pn 20 31 45.1 -0.9
MET4 S Sn 20 32 20.1 -0.3
AGNA Agios Nikolaos 2.87 202 P Pn 20 31 45.1 -0.8
AGNA S Sn 20 32 19.4 -1.1
AGNA AML AML
MET1 Methana Town, 2.88 265 P Pn 20 31 45.4 -0.7
MET1 S Sn 20 32 20.4 -0.4
MET1 AML AML
CAVK Edirne/Enez-Ca 2.89 347 ⇑P Pn 20 31 47.0 +0.8
MET5 Makryloggos,Me 2.90 266 P Pn 20 31 45.8 -0.6
MET5 S Sn 20 32 21.3 0.0
MET5 AML AML
MET6 Megalochori,Me 2.90 266 P Pn 20 31 45.5 -0.9
MET6 S Sn 20 32 21.3 -0.1
MET6 AML AML
MET2 Kameni Chora, 2.92 266 P Pn 20 31 46.2 -0.5
MET2 S Sn 20 32 22.1 +0.3
MET2 AML AML
VILL Villia 2.93 277 P Pn 20 31 46.3 -0.6
VILL AML AML
ENEZ Enez 2.94 347 P Pn 20 31 46.7 -0.2
VIL2 Platees 2.97 278 P Pn 20 31 46.2 -1.1
VIL2 S Sn 20 32 22.5 -0.5
VIL2 AML AML
IACM Heraklion 3.00 212 P Pn 20 31 46.4 -1.4
IACM S Sn 20 32 22.8 -0.8
MET3 Ano Fanari,Met 3.01 266 P Pn 20 31 47.0 -0.9
MET3 S Sn 20 32 23.7 -0.3
MET3 AML AML
IDI Anoyia 3.09 214 Pn Pn 20 31 48.1 -1.0
20nm,0.5s,baz=48,slow=10,SNR=16
IDI Sn Sn 20 32 23.7 -2.3
17nm,0.3s,baz=275,slow=17,SNR=5.6
IDI Lg Lg 20 32 37.2
47nm,0.3s,baz=310,slow=21,SNR=7.7
IDI LR LR 20 33 10.7
comp=Z,522nm,21.9s,baz=56,slow=44
IDI Anoyia 3.09 214 P Pn 20 31 48.7 -0.4
IDI AML AML
IDI Anoyia 3.09 214 Pn 20 31 49.0 -0.1
IDI Anoyia 3.09 214 P Pn 20 31 48.0 -1.0
IDI S Sn 20 32 25.1 -0.9
IDI AML AML
EPID Epidavros 3.09 266 P Pn 20 31 48.5 -0.5
ALN Alexandroupoli 3.11 347 P Pn 20 31 48.6 -0.7
ALN AML AML
ALN Alexandroupoli 3.11 347 Pn 20 31 48.8 -0.5
ALN Alexandroupoli 3.11 347 P Pn 20 31 49.3 0.0
LOUT Loutraki 3.19 273 P Pn 20 31 50.1 -0.3
LOUT AML AML
LTK Loutraki 3.19 274 P Pn 20 31 49.8 -0.7
LTK AML AML
LTK Loutraki 3.19 274 P Pn 20 31 50.0 -0.5
LTK AML AML
ATAL Atalanti 3.24 286 P Pn 20 31 50.7 -0.4
ATAL S Sn 20 32 27.7 -1.9
ACOR Acrocorinthos 3.27 272 P Pn 20 31 50.8 -0.8
ACOR AML AML
NEO Neokhori 3.29 297 P Pn 20 31 51.3 -0.5
NEO AML AML
NEO Neokhori 3.29 297 P Pn 20 31 51.5 -0.3
NEO S Sn 20 32 30.2 -0.7
NEO AML AML
PAIG Paliouri 3.31 309 P Pn 20 31 51.4 -0.6

XOR Xorichti 3.34 298 P Pn 20 31 51.8 -0.7
XOR AML AML
XOR Xorichti 3.34 298 P Pn 20 31 51.8 -0.7
SIVA Sivas 3.35 212 P Pn 20 31 51.5 -1.2
SIVA S Sn 20 32 31.5 -0.9
SIVA AML AML
OUR Ouranopolis 3.40 317 P Pn 20 31 52.7 -0.6
OUR AML AML
IMMV Iera Moni Meta 3.42 226 P Pn 20 31 53.0 -0.5
IMMV S Sn 20 32 33.4 -0.6
IMMV AML AML
THAL Thalero 3.43 274 P Pn 20 31 53.4 -0.3
THAL AML AML
THAL Thalero 3.43 274 P Pn 20 31 53.4 -0.3
THAL AML AML
VLI Veliai 3.44 252 P Pn 20 31 52.6 -1.2
VLI AML AML
VLI Veliai 3.44 252 P Pn 20 31 53.1 -0.8
VLI S Sn 20 32 33.1 -1.5
VLI AML AML
AXAR Agios Charalam 3.53 286 P Pn 20 31 54.7 -0.5
AXAR AML AML
AXAR Agios Charalam 3.53 286 P Pn 20 31 55.3 +0.1
AXAR S Sn 20 32 36.4 -0.5
AXAR AML AML
KAVA Kavala 3.67 329 P Pn 20 31 56.2 -0.7
KAVA AML AML
GUR Goura 3.69 272 P Pn 20 31 57.0 -0.3
GUR AML AML
GUR Goura 3.69 272 P Pn 20 31 56.9 -0.4
GUR AML AML
CTYL Yalikoy Yolu 3.73 15 ⇑P Pn 20 32 00.6 +2.7
PHSR Pinarhisar 3.78 6 ⇓P Pn 20 32 01.1 +2.6
GVD Gavdhos 3.83 219 P Pn 20 32 01.1 +1.8
KLV Kalavryta, Ach 3.84 274 P Pn 20 31 59.1 -0.3
KLV AML AML
KLV Kalavryta, Ach 3.84 274 P Pn 20 31 59.3 -0.1
AGG Agios Georgios 3.84 289 P Pn 20 31 58.9 -0.5
AGG AML AML
AGG Agios Georgios 3.84 289 P Pn 20 32 00.1 +0.7
GVDS Gavdos 3.85 219 P Pn 20 31 58.7 -0.7
GVDS AML AML
KALE Kalithea 3.87 279 P Pn 20 31 58.8 -1.0
KALE AML AML
KDZ Kurdzhali 3.97 342 P Pn 20 32 00.8 -0.3
KDZ AML AML
KDZ Kurdzhali 3.97 342 *i* P Pn 20 32 01.0 -0.1
KDZ *i* S Sg 20 33 05.0 -2.7
LAKA Lakka 3.98 277 P Pn 20 32 01.2 -0.2
LAKA Lakka 3.98 277 P Pn 20 32 01.3 0.0
EFP Efpalio 4.06 279 P Pn 20 32 02.1 -0.2
EFP Efpalio 4.06 279 P Pn 20 32 02.0 -0.2
EFP AML AML
ANX Ano Chora 4.07 282 P Pn 20 32 02.2 -0.4
ANX AML AML
SOH Sokhos 4.08 317 P Pn 20 32 03.4 +0.6
ITM Ithomi 4.09 262 Pn 20 32 03.4 +0.6
ITM Ithomi 4.09 262 P Pn 20 32 03.8 +0.9
THE Thessaloniki 4.17 313 P Pn 20 32 04.5 +0.5
SRS Serrai 4.18 322 P Pn 20 32 04.5 +0.5
DRO Drossia 4.19 273 P Pn 20 32 03.4 -0.7
DRO AML AML
RZN Rozhen 4.20 336 *i* P Pn 20 32 04.6 +0.2
EVR Evrytania 4.21 286 P Pn 20 32 04.0 -0.6
THL Klokotos Trika 4.25 295 P Pn 20 32 04.4 -0.6
DIM Dimitrovgrad 4.31 346 *i* P Pn 20 32 06.0 +0.2
PVO Paravola 4.38 281 P Pn 20 32 06.3 -0.4
RLS Riolos of Patr 4.38 274 P Pn 20 32 06.5 -0.2
MMB Musomishta 4.45 327 *i* P Pn 20 32 08.0 +0.3
AXS Araxos 4.45 276 P Pn 20 32 06.6 -1.2
KNT Kendrikon 4.57 317 P Pn 20 32 10.3 +1.0
PLD Plovdiv 4.61 339 *i* P Pn 20 32 10.0 +0.1
JMB Yambol 4.63 356 *i* P Pn 20 32 10.0 -0.2
PDO Prodromos 4.64 281 P Pn 20 32 09.7 -0.7
AMPL Ampelaki 4.67 285 P Pn 20 32 09.7 -1.1
GRG Griva 4.71 312 P Pn 20 32 11.8 +0.4
TETR Tetrakomo, Epi 4.72 290 P Pn 20 32 10.8 -0.7
KKUL Konya-Kulu 4.82 73 P Pn 20 32 15.0 +2.1
PRMD Pramanda 4.91 292 P Pn 20 32 13.3 -0.8
KKB Krupnik 4.96 324 *i* P Pn 20 32 14.7 -0.1
VLS Valsamata 5.07 275 P Pn 20 32 15.7 -0.6
PENT Pentalofos 5.12 299 P Pn 20 32 16.4 -0.6
ELND Elena 5.12 351 ⇑P Pn 20 32 18.7 +1.7
AKMS Akamas 5.16 122 P Pn 20 32 16.9 -0.5
ALFC Alefka 5.26 119 P Pn 20 32 18.4 -0.5
NATA Nata 5.45 123 P Pn 20 32 21.3 -0.3
NATA AML AML
LOZB Loznitsa 5.50 357 ⇓P Pn 20 32 24.4 +2.2
BR131 Keskin Array S 5.50 68 Pn 20 32 23.5 +1.2
BRTR Keskin Array B 5.50 68 Pn Pn 20 32 23.8 +1.4
1.5nm,0.3s,baz=247,slow=14,SNR=33
BRTR Sn Sn 20 33 24.0 -1.7
0.4nm,0.3s,baz=244,slow=20,SNR=2.9
BRTR LR LR 20 34 58.1
comp=Z,250nm,18.2s,baz=252,slow=43
5.4nm,0.4s
BRTR AML AML
BRTR Keskin Array B 5.50 68 Pn 20 32 23.5 +1.2
KBN Korca 5.55 302 P Pn 20 32 25.7 +2.8
comp=Z,62nm,0.9s
KIRS Kirsehir-Merke 5.57 75 ⇓P Pn 20 32 28.1 +4.9
RAZG Razgrad 5.70 356 ⇑P Pn 20 32 27.0 +2.1
PLVB Pleven 5.80 343 ⇑P Pn 20 32 26.7 +0.4
ASGA Asgata 5.91 120 P Pn 20 32 26.8 -1.0
ASGA AML AML
KEK Kerkira 5.92 290 Pn Pn 20 32 27.6 -0.3
KEK Kerkira 5.92 290 P Pn 20 32 27.9 0.0
MVOU Mavrovouni 6.06 116 P Pn 20 32 29.0 -0.8
ICOR Ion Corvin 6.27 5 ⇓P Pn 20 32 34.3 +1.6
PHP Peshkopia 6.33 309 P Pn 20 32 35.5 +2.0
comp=Z,111nm,0.7s
BLKB Belogradchik 6.62 332 ⇑P Pn 20 32 38.0 +0.5
TIRR Tirgusor 6.67 9 ⇓P Pn 20 32 41.1 +2.9
TLBR Topalu 6.71 6 ⇑P Pn 20 32 41.2 +2.4
HUMR Humele 6.82 348 ⇓P Pn 20 32 40.9 +0.6
HUMR Humele 6.82 348 P Pn 20 32 40.5 +0.2
comp=Z,95nm,0.8s
HARR Harsova 6.85 6 ⇓P Pn 20 32 43.4 +2.8
BNN Bunyan 7.02 79 Pn 20 32 44.0 +0.9
BOVS Bovan 7.02 327 ⇑P Pn 20 32 43.9 +0.8
CFR Carcaliu 7.35 6 ⇓P Pn 20 32 49.6 +2.1
DRME Dracevica, Mon 7.38 308 *e*Pn Pn 20 32 49.4 +1.4
TLCR 7.43 10 ⇓P Pn 20 32 51.9 +3.2
PDG Podgorica 7.48 310 Pn 20 32 48.8 -0.5
PDG Podgorica 7.48 310 *e*Pn Pn 20 32 51.3 +2.0
PDG Podgorica 7.48 310 P Pn 20 32 52.8 +3.5
comp=Z,15nm,1.1s
MTUR Matau 7.49 349 ⇑P Pn 20 32 51.4 +1.9
SJES Sjenica 7.59 317 *e*Pn Pn 20 32 52.5 +1.6
MLR Muntele Rosu 7.65 354 Pn Pn 20 32 52.8 +0.9
comp=Z,5.8nm,0.6s,baz=194,slow=9.8
MLR Sn Sn 20 34 18.2 -0.4
baz=274,slow=19
MLR LR LR 20 36 20.6
comp=Z,316nm,19.4s,baz=184,slow=42
MLR Muntele Rosu 7.65 354 Pn 20 32 53.5 +1.7
MLR Muntele Rosu 7.65 354 ⇓P Pn 20 32 53.8 +2.0
MLR Muntele Rosu 7.65 354 P Pn 20 32 55.0 +3.1
comp=Z,27nm,0.9s
ARR Arges 7.70 347 ⇑P Pn 20 32 53.7 +1.3
ARR Arges 7.70 347 P Pn 20 32 53.7 +1.3
comp=Z,16nm,1.3s
VOIR 7.70 350 ⇑P Pn 20 32 54.1 +1.7
VOIR 7.70 350 P Pn 20 32 51.9 -0.5
comp=Z,15nm,1.0s
LOT Lotru 7.95 343 P Pn 20 32 55.3 -0.5
comp=Z,16nm,0.8s
MDVR Moldovita 7.97 332 ⇓P Pn 20 32 56.0 -0.1
PLOR Plostina 7.98 358 ⇓P Pn 20 32 58.4 +2.2
COVR Voineasa-Covas 7.99 356 ⇑P Pn 20 32 58.6 +2.3
VRI Vrincioaia 7.99 359 ⇓P Pn 20 32 59.0 +2.6
VRI Vrincioaia 7.99 359 P Pn 20 32 58.0 +1.6
comp=Z,23nm,0.7s
VLDR Vladesti 8.01 5 ⇓P Pn 20 32 58.4 +1.9
VARL Varlezi 8.05 4 ⇑P Pn 20 32 59.1 +2.0
TIP Timpagrande 8.14 282 Pn 20 32 58.9 +0.5
TIP Timpagrande 8.14 282 P Pn 20 32 59.5 +1.0
comp=Z,35nm,0.9s
UPM Unac-Piva 8.14 313 *e*Pn Pn 20 33 00.8 +2.2
GZR Gura Zlata 8.15 339 ⇑P Pn 20 32 58.5 -0.1
DOPR Dopca 8.18 352 ⇑P Pn 20 33 01.3 +2.4

BRY Bratogost 8.18 311 *e*Pn Pn 20 33 00.9 +1.8
TREB Trebinje 8.19 309 *e*Pn Pn 20 32 57.5 -1.6
HNTI Hanita 8.20 123 P Pn 20 32 56.7 -2.6
HNTI S Sn 20 34 29.2 -2.6
TURR Turia 8.21 355 ⇑P Pn 20 33 01.6 +2.2
OZUR 8.27 354 ⇑P Pn 20 33 01.5 +1.4
BBLS Lazi&#263i 8.30 319 *e*Pn Pn 20 33 02.0 +1.3
BBLS Lazi&#263i 8.30 319 P Pn 20 33 03.6 +2.9
comp=Z,9.6nm,0.8s
SEV Sevastopol' 8.35 35 *e*P Pn 20 33 02.3 +1.1
SEV pmax pmax 20 33 18.1
comp=Z,3.0nm,0.5s
SEV *ex* x 20 34 32.4
SEV smax smax 20 34 41.3
comp=N,4.0nm,0.5s
SEV smax smax 20 34 41.3
comp=E,3.0nm,0.5s
OFRI `Ofer 8.37 126 P Pn 20 32 58.7 -2.9
OFRI S Sn 20 34 33.8 -2.3
KIRY Kiryat Shemona 8.39 121 P Pn 20 32 58.9 -2.9
KIRY S Sn 20 34 33.5 -3.0
MMA0B Mount Meron ar 8.39 123 P Pn 20 32 59.7 -2.3
MMA0B S Sn 20 34 34.8 -1.9
MMAI Mount Meron Ar 8.39 123 Pn Pn 20 33 01.3 -0.6
comp=E,4.1nm,0.3s,baz=321,slow=13,SNR=10
MMAI Sn Sn 20 34 32.0 -4.8
comp=E,7.8nm,0.3s,baz=332,slow=30,SNR=8.7
BLGI Bet Lehem HaGe 8.43 125 P Pn 20 32 59.7 -2.7
BLGI S Sn 20 34 34.5 -3.0
GEM Giv'at Ha'Em 8.45 121 P Pn 20 32 59.9 -2.7
GEM S Sn 20 34 35.6 -2.5
ONER Baraj Valea Uz 8.47 357 ⇓P Pn 20 33 04.9 +2.0
NATI Neve Ativ 8.47 120 P Pn 20 33 00.5 -2.5
NATI S Sn 20 34 36.8 -1.7
MDB Medias 8.49 348 ⇑P Pn 20 33 04.8 +1.6
YAL Yalta 8.53 37 *e*P Pn 20 33 03.3 -0.4
YAL pmax pmax 20 33 16.3
comp=Z,2.0nm,0.3s
YAL *e*S Sn 20 34 34.2 -5.6
YAL smax smax 20 34 37.6
comp=N,11nm,0.6s
YAL smax smax 20 34 37.6
comp=E,6.0nm,0.4s
DEV Deva 8.57 340 P Pn 20 33 05.1 +0.8
comp=Z,21nm,0.8s
KNHM Kefar Nahum 8.59 123 P Pn 20 33 01.5 -3.1
KNHM S Sn 20 34 38.9 -2.6
TESR Tescani 8.64 358 P Pn 20 33 08.5 +3.3
comp=Z,23nm,0.8s
RMOT Ramot 8.67 123 P Pn 20 33 02.5 -3.1
RMOT S Sn 20 34 41.1 -2.2
SURR Surduc 8.68 337 ⇓P Pn 20 33 05.9 +0.2
KSHT Keshet 8.69 122 P Pn 20 33 03.0 -3.0
KSHT S Sn 20 34 41.6 -2.3
BZS Buzias 8.72 334 ⇑P Pn 20 33 06.0 -0.3
BZS Buzias 8.72 334 P Pn 20 33 06.4 0.0
comp=Z,111nm,0.8s
TEKS Tekeris 8.73 322 *e*Pn Pn 20 33 06.2 -0.3
MMLI Mount Malkishu 8.77 126 P Pn 20 33 04.2 -2.8
MMLI S Sn 20 34 43.4 -2.5
CEL Celeste 8.77 276 Pn Pn 20 33 06.9 -0.2
ALU Alushta 8.79 37 *e*S Sn 20 34 42.7 -3.6
ALU smax smax 20 34 43.1
comp=N,7.0nm,0.3s
ALU smax smax 20 34 43.1
comp=E,6.0nm,0.4s
ROII Roi 8.93 126 P Pn 20 33 06.5 -2.8
ROII S Sn 20 34 47.5 -2.4
CUC Castrocucco 8.97 287 Pn 20 33 11.2 +1.3
CUC Castrocucco 8.97 287 P Pn 20 33 11.6 +1.7
comp=Z,14nm,0.8s
MARCO Tramutola 9.04 289 P Pn 20 33 12.2 +1.5
comp=Z,29nm,0.8s
FRGS Fruska Gora 9.06 326 *e*Pn Pn 20 33 11.2 +0.2
AMAZ Amatzia 9.08 132 P Pn 20 33 08.5 -2.7
AMAZ S Sn 20 34 50.2 -3.2
GIRR Girov 9.09 358 ⇑P Pn 20 33 13.1 +1.8
BIZ Bicaz 9.09 356 ⇑P Pn 20 33 13.2 +1.9
YITV Yitav 9.09 128 P Pn 20 33 08.8 -2.7
YITV S Sn 20 34 51.2 -2.6
KEMA Kemaliye 9.11 78 P Pn 20 33 13.0 +1.2
comp=Z,18nm,0.9s
CJR Cluj-Napoca 9.19 345 ⇑P Pn 20 33 13.5 +0.7
SUDU Sudak 9.23 38 *e*P Pn 20 33 15.4 +2.1
SUDU pmax pmax 20 33 34.9
comp=Z,80nm,0.8s
SUDU *e*S Sn 20 34 54.9 -2.2
SUDU smax smax 20 34 57.5
comp=N,21nm,0.4s
SUDU smax smax 20 34 57.5
comp=E,18nm,0.6s
KZIT Kziot 9.25 137 P Pn 20 33 12.7 -0.9
comp=Z,76nm,0.8s
KZIT Kziot 9.25 137 P Pn 20 33 10.6 -3.1
KZIT S Sn 20 34 54.3 -3.4
MARR Marisel-Cluj 9.26 343 ⇓P Pn 20 33 14.7 +0.9
MZS Mizpe Shalem 9.34 130 P Pn 20 33 11.6 -3.3
MZS S Sn 20 34 56.7 -3.2
DRGR 9.46 342 ⇑P Pn 20 33 17.4 +0.9
MSBI Mazada 9.50 131 P Pn 20 33 13.6 -3.4
MSBI S Sn 20 35 00.6 -3.1
GHAJ Ghor Haditha 9.63 130 P Pn 20 33 15.9 -2.9
GHAJ S Sn 20 35 03.9 -3.0
RMNI Mount Ramon 9.69 136 P Pn 20 33 16.4 -3.3
RMNI S Sn 20 35 04.9 -3.7
BURAR Bucovina Array 9.83 353 Pn 20 33 23.6 +2.0
BURAR Bucovina Array 9.83 353 ⇓P Pn 20 33 23.6 +2.0
BUR08 Bucovina Ar. S 9.86 353 Pn 20 33 23.2 +1.2
ASF Jabal al Asfar 9.87 122 Pn Pn 20 33 22.0 -0.7
comp=Z,0.1nm,0.3s,baz=120,slow=20,SNR=3.2
ASF Sn Sn 20 35 10.7 -3.2
comp=Z,0.4nm,0.3s,baz=310,slow=17,SNR=1.7
comp=Z,1.5nm,0.4s
ASF AML AML
VAE Valguarnera 9.99 272 Pn Pn 20 33 23.2 -0.7
comp=Z,6.0nm,0.9s,baz=117,slow=11,SNR=2.4
RAFF Raffo Rosso 10.06 270 Pn Pn 20 33 24.5 -0.2
BLY Banja Luka 10.08 316 Pn 20 33 26.7 +1.7
BLY Banja Luka 10.08 316 ⇑P Pn 20 33 24.4 -0.6
BLY Banja Luka 10.08 316 *e*Pn Pn 20 33 23.8 -1.2
BLY Banja Luka 10.08 316 P Pn 20 33 27.6 +2.6
comp=Z,13nm,1.3s
PAOL Paolisi 10.12 292 Pn 20 33 26.2 +0.6
HRFI Mount Harif 10.27 137 P Pn 20 33 28.9 +1.3
comp=Z,13nm,0.6s
HRFI Mount Harif 10.27 137 P Pn 20 33 24.2 -3.5
HRFI S Sn 20 35 19.3 -3.5
SORM Soroca 10.31 5 ⇓P Pn 20 33 30.2 +2.2
MORH Mrgy, Hungar 10.39 326 ⇑P Pn 20 33 28.9 -0.4
MORH Mrgy, Hungar 10.39 326 *e*Pn Pn 20 33 27.8 -1.4
MORH Mrgy, Hungar 10.39 326 P Pn 20 33 29.8 +0.6
comp=Z,5.4nm,0.6s
EIL Elat 10.52 139 Pn Pn 20 33 28.8 -2.2
comp=Z,4.9nm,0.6s,baz=344,slow=4.5,SNR=9.7
EIL Sn Sn 20 35 18.7 -10
comp=Z,5.6nm,0.3s,baz=270,slow=20,SNR=11
EIL Elat 10.52 139 P Pn 20 33 29.8 -1.2
comp=Z,9.2nm,0.7s
EIL Elat 10.52 139 P Pn 20 33 27.5 -3.5
EIL S Sn 20 35 24.4 -4.4
PSZ Piszkesteto 11.31 335 Pn 20 33 42.8 +1.0
PSZ Piszkesteto 11.31 335 ⇓P Pn 20 33 42.5 +0.7
PSZ Piszkesteto 11.31 335 P Pn 20 33 44.8 +3.0
comp=Z,7.6nm,1.4s
KOLS Kolonicke sedl 11.58 344 *e*PN Pn 20 33 48.6 +3.2
MPLH Magyarpolny 11.61 326 P Pn 20 33 48.0 +2.1
comp=Z,7.1nm,0.8s
NRCA Norcia 11.69 299 Pn Pn 20 33 47.6 +0.5
FDMO Fiordimonte 11.79 300 Pn Pn 20 33 46.8 -1.5
VYHS Vyhne 12.17 333 *e*PN Pn 20 33 57.3 +3.8
RONA Rosalia, Austr 12.57 325 *i* Pn Pn 20 33 58.3 -0.8
comp=Z,3.5nm,1.3s
ARSA Arzberg 12.61 322 *e*Pn Pn 20 34 00.9 +1.2
comp=Z,1.7nm,0.6s
OBKA Obir 12.63 317 *e*Pn Pn 20 34 02.9 +3.0
comp=Z,2.2nm,0.6s
MODS Modra-Piesok 12.66 329 *e*PN Pn 20 34 04.8 +4.5
CONA Conrad Observa 12.94 325 *e*Pn Pn 20 34 03.6 -0.5
comp=Z,5.6nm,1.6s
SESA Seetaler Alpe, 13.00 319 *e*Pn Pn 20 34 06.3 +1.2
comp=Z,2.8nm,1.1s
MYKA Terra Mystica 13.20 316 *e*Pn Pn 20 34 08.9 +1.2
comp=Z,1.5nm,0.6s

KVAR Kislovodsk Arr 13.33 58 LR LR 20 39 52.9
comp=Z,52nm,20.8s,baz=84,slow=40
OZAP Van, Ozalp-Mer 13.38 81 ⇑P **P** **20 34 15.4 -4.5**
KBZ Khabaz 13.38 59 Pn **Pn** **20 34 13.2 +3.2**
baz=260,slow=12,SNR=1.8
KBZ LR LR 20 40 45.8
comp=Z,84nm,21.9s,baz=246,slow=44
comp=Z,0.5nm,0.8s
KBA Koelnbreinsper 13.63 317 *e*Pn **Pn** **20 34 13.5 -0.2**
comp=Z,2.5nm,0.6s
ABNA Allensteig Bun 13.68 326 *e*Pn **Pn** **20 34 13.8 -0.3**
comp=Z,1.8nm,1.0s
VRAC Vranov 13.68 330 Pn **Pn** **20 34 16.1 +1.9**
comp=Z,1.1nm,0.3s,baz=172,slow=14,SNR=0.8
VRAC LR LR 20 39 22.5
comp=Z,86nm,19.7s,baz=136,slow=37
ABTA Abfaltersbach 13.90 314 *e*P **P** **20 34 21.5 -4.0**
comp=Z,1.9nm,0.7s
GNI Garni 13.98 75 Pn **Pn** **20 34 22.0 +3.5**
comp=Z,0.2nm,0.3s,baz=234,slow=19,SNR=3.5
GNI LR LR 20 40 24.6
comp=Z,119nm,18.0s,baz=285,slow=40
comp=Z,2.0nm,0.5s
GNI AML AML
CTI Castel Tesino 14.03 310 **Pn** **20 34 17.5 -1.5**
TREC Trest 14.12 328 *e*P **P** **20 34 30.6 +2.7**
LESA Schwarzleotal 14.20 317 *e*Pn **Pn** **20 34 23.9 +2.6**
comp=Z,1.4nm,0.6s
CKRC Cesky Krumlov 14.30 324 *e*P **P** **20 34 31.5 +1.7**
KEST Kesra 14.31 267 Pn **Pn** **20 34 25.8 +2.9**
comp=Z,0.1nm,0.3s,baz=9.5,slow=6.1,SNR=7.4
KEST Kesra 14.31 267 **P** **20 34 32.2 +2.1**
PGF Pioggiola 14.52 294 P **Pn** **20 34 26.7 +0.8**
comp=Z,5.3nm,1.3s
GERES GERESS Array B 14.60 323 Pn **P** **20 34 33.4 +0.1**
baz=130,slow=12,SNR=28
GERES LR LR 20 40 59.8
comp=Z,68nm,19.7s,baz=36,slow=41
GERES GERESS Array B 14.60 323 P **P** **20 34 34.8 +1.5**
DPC Dobruska-Polom 14.62 332 AMS AMS 20 40 20.0
comp=Z,200nm,14.7s
WTTA Wattenberg 14.68 315 *i* Pn **Pn** **20 34 29.2 +1.1**
comp=Z,6.9nm,1.1s
WATA Walderalm 14.76 315 *e*Pn **Pn** **20 34 30.2 +1.1**
comp=Z,8.0nm,1.1s
ZVC Zvikov 14.79 325 *e*P **P** **20 34 36.1 +0.7**
KHC Kasperske Hory 14.86 324 **P** **20 34 36.8 +0.7**
KHC Kasperske Hory 14.86 324 *e*P **P** **20 34 37.3 +1.2**
KHC AMS AMS 20 40 40.0
comp=Z,200nm,13.6s
SQTA Sankt Quirin 14.90 314 *e*Pn **P** **20 34 33.9 -2.8**
comp=Z,3.4nm,0.6s
MOTA Moosalm 15.03 314 *e*Pn **P** **20 34 35.7 -2.4**
comp=Z,7.7nm,1.3s
FETA Feichten 15.07 312 *e*P **P** **20 34 39.0 +0.4**
comp=Z,11nm,1.3s
FUORN Ofenpass-Fuorn 15.14 311 Pn **Pn** **20 34 33.5 -0.8**
WET Wettzell 15.20 322 P **P** **20 34 37.2 -2.7**
comp=Z,13nm,1.0s
RETA Reutte 15.30 314 *i* P **P** **20 34 40.9 -0.2**
comp=Z,3.9nm,1.0s
DAVOX Davos/Dischmat 15.45 311 Pn **Pn** **20 34 39.7 +1.4**
comp=Z,0.1nm,0.3s,baz=170,slow=18,SNR=2.6
DAVOX LR LR 20 41 22.8
comp=Z,98nm,18.1s,baz=96,slow=40
DAVA Damuels 15.71 312 *e*Pn **Pn** **20 34 40.1 -1.5**
comp=Z,5.6nm,1.6s
GRB3 Grafenberg Arr 15.86 321 P **Pn** **20 34 45.0 +1.5**
comp=Z,10.0nm,1.1s
CLL Collm 16.69 328 *ep*P **P** **20 34 57.0 +0.7**
CLL *es*P **sP** **20 35 00.0 -0.9**
CLL *es*PP 20 35 08.0
CLL L L 20 39 00.0
CLL AMS AMS 20 40 00.0
comp=N,100nm,23.3s
CLL AMS AMS 20 40 00.0
comp=E,100nm,18.2s
CLL AMS AMS 20 44 00.0
comp=Z,100nm,15.8s
SLE Schleitheim 16.76 312 P **P** **20 34 58.7 +1.5**
comp=Z,7.2nm,1.1s
MOX Moxa 16.82 324 P **P** **20 34 57.3 -0.6**
comp=Z,7.0nm,1.4s
WLF Walferdange 19.05 315 *d*P **Pn** **20 35 24.5 +1.3**
BMRD Maredsous 20.14 315 *d*P Pn 20 35 37.4 +1.2
comp=Z,2.7nm,1.0s
BELG Belogornoye 20.45 38 P **P** **20 35 38.0 +0.4**
comp=Z,19nm,0.8s,baz=285,slow=9.5,SNR=5.6
comp=Z,19nm,0.8s
ATE Arette 21.66 293 P **P** **20 35 51.7 +0.9**
comp=Z,5.9nm,1.8s
MFF Saint Martin d 21.83 302 P **P** **20 35 55.4 +2.9**
comp=Z,3.6nm,1.2s
FINES FINESS Array B 23.60 359 P **P** **20 36 11.3 +0.4**
comp=Z,14nm,1.3s,baz=183,slow=11,SNR=1.9
FINES LR LR 20 45 54.8
comp=Z,78nm,19.0s,baz=186,slow=38
comp=Z,14nm,1.3s
HFS Hagfors 23.84 343 P **P** **20 36 12.8 -0.4**
comp=Z,1.7nm,0.5s,baz=170,slow=8.8,SNR=4.3
HFS LR LR 20 45 56.1
comp=Z,36nm,21.5s,baz=129,slow=38
comp=Z,1.7nm,0.5s
ESDC Sonseca Array 24.15 284 P **P** **20 36 15.8 -0.7**
comp=Z,0.8nm,0.7s,baz=79,slow=9.1,SNR=11
comp=Z,0.8nm,0.7s
ESDC Sonseca Array 24.15 284 IAmb IAmb 20 36 44.4
comp=Z,11nm,1.4s
NOA NORSAR Array B 25.22 342 P **P** **20 36 26.3 +0.4**
comp=Z,1.3nm,0.8s,baz=146,slow=9.6,SNR=6.2
NOA LR LR 20 47 50.3
comp=Z,72nm,19.5s,baz=145,slow=40
comp=Z,1.3nm,0.8s
KIRV Kirov 25.32 28 LR LR 20 46 51.8
comp=Z,50nm,21.4s,baz=245,slow=38
AKTO Aktyubinsk 25.35 50 LR LR 20 49 54.7
comp=Z,46nm,18.3s,baz=322,slow=45
EKA Eskdalemuir Ar 26.79 320 P **P** **20 36 41.0 +0.9**
comp=Z,1.1nm,0.7s,baz=116,slow=12,SNR=4.5
comp=Z,1.1nm,0.7s
ARTI Arti 27.90 38 LR LR 20 48 03.9
comp=Z,33nm,18.6s,baz=30,slow=37
ARCES ARCESS Array B 31.73 359 LR LR 20 51 01.7
comp=Z,38nm,20.1s,baz=204,slow=38
TORD Torodi Ar. Bea 33.38 229 P **P** **20 37 38.2 -0.6**
comp=Z,2.0nm,0.5s,baz=35,slow=8.8,SNR=12
comp=Z,2.0nm,0.5s
TORD Torodi Ar. Bea 33.38 229 IAmb IAmb 20 37 42.3
comp=Z,2.2nm,0.8s
AAK Ala-Archa 36.18 67 LR LR 20 54 25.4
comp=Z,66nm,18.1s,baz=210,slow=39
NIL Nilore 37.47 82 P **P** **20 38 14.2 +0.3**
NIL IAmb IAmb 20 38 19.0
comp=Z,8.7nm,0.8s
NIL Nilore 37.47 82 P **P** **20 38 15.5 +1.6**
comp=Z,13nm,0.9s
NRN Naryn 37.49 69 P **P** **20 38 14.2 -0.1**
KSH2 Kashi 37.66 73 P **P** **20 38 17.4 +1.8**
KSH2 pmax pmax
comp=Z,3.0nm,0.9s
KURBB Kurchatov Arra 38.29 54 P **P** **20 38 21.4 +0.8**
comp=Z,0.9nm,0.5s,baz=275,slow=8.7,SNR=8.2
comp=Z,0.9nm,0.5s
KURK Kurchatov 38.35 53 P **P** **20 38 21.4 +0.3**
MBAR Mbarara 38.44 174 P **P** **20 38 23.4 +1.1**
MBAR IAmb IAmb 20 38 27.0
comp=Z,9.2nm,1.4s
MBAR Mbarara 38.44 174 P **P** **20 38 24.6 +2.3**
comp=Z,4.4nm,1.2s
MKAR Makanchi Array 41.08 59 P **P** **20 38 44.6 +0.7**
comp=Z,1.0nm,0.5s,baz=267,slow=8.8,SNR=14
MKAR LR LR 20 57 39.8
comp=Z,30nm,18.3s,baz=212,slow=39
comp=Z,1.0nm,0.5s
ZALV Zalesovo Beam 42.08 48 P **P** **20 38 52.4 +0.5**
comp=Z,1.0nm,0.6s,baz=254,slow=10,SNR=4.0
comp=Z,1.0nm,0.6s
NRIK Noril'sk 44.80 26 LR LR 20 58 42.2
comp=Z,32nm,18.1s,baz=322,slow=37
EVN Everest 50.43 83 P **P** **20 39 59.2 +0.5**
EVN IAmb IAmb 20 40 02.6
comp=Z,4.5nm,1.0s
TLY Talaya 53.69 49 LR LR 21 07 33.3
comp=Z,31nm,18.2s,baz=315,slow=41
SONM Songino Array 56.64 52 P **P** **20 40 43.7 +0.2**
comp=Z,0.4nm,0.7s,baz=286,slow=5.8,SNR=2.8
comp=Z,0.4nm,0.7s
SONM Songino Array 56.64 52 IAmb IAmb 20 40 49.2
comp=Z,3.1nm,1.5s
TSUM Tsumeb 57.46 191 LR LR 21 07 09.5
comp=Z,44nm,18.1s,baz=328,slow=38
MORE Moreh 58.11 83 P **P** **20 40 55.2 +1.3**
MORE IAmb IAmb 20 40 59.9
comp=Z,4.9nm,0.7s
TIXI Tiksi 58.11 21 LR LR 21 08 54.8
comp=Z,21nm,19.7s,baz=14,slow=39
SCHQ Schefferville 62.10 319 P **P** **20 41 20.3 -0.6**
comp=Z,2.3nm,0.5s,baz=58,slow=7.4,SNR=5.1
comp=Z,2.3nm,0.5s
HHC Hu-ho-hao-te 62.92 58 *e*P **P** **20 41 27.8 +1.0**
HHC pmax pmax
comp=Z,13nm,0.6s
HHC pmax pmax
comp=Z,120nm,6.0s
CMAR Chiang Mai Arr 64.83 86 P **P** **20 41 39.7 +0.1**
comp=Z,0.5nm,0.2s,baz=298,slow=8.2,SNR=6.0
comp=Z,0.5nm,0.2s
CMAR Chiang Mai Arr 64.83 86 P **P** **20 41 40.3 +0.7**
MA2 Magadan 72.40 26 LR LR 21 19 26.1
comp=Z,31nm,19.9s,baz=172,slow=40
E29M Blow River 73.45 354 P **P** **20 42 32.6 +0.3**
E29M IAmb IAmb 20 42 37.4
comp=Z,4.8nm,1.1s
KSAR Wonju Array Be 75.45 54 P **P** **20 42 44.7 +0.3**
KSRS Korea Array 75.47 54 P **P** **20 42 44.8 +0.3**
comp=Z,3.2nm,0.7s,baz=305,slow=5.5,SNR=8.8
KSRS LR LR 21 20 20.1
comp=Z,18nm,19.3s,baz=210,slow=39
comp=Z,3.2nm,0.7s
ULM Lac du Bonnet 78.88 327 P **P** **20 43 02.4 -1.0**
comp=Z,3.4nm,0.7s,baz=64,slow=8.9,SNR=3.4
comp=Z,3.4nm,0.7s
BDFB Brasilia 88.09 249 P **P** **20 43 51.0 -0.3**
comp=Z,1.8nm,0.5s,baz=162,slow=16,SNR=3.3
comp=Z,1.8nm,0.5s

WEL 09 20:40:03.8±1.2, 33°S±12′×18°0W±1′4, h240km±21km, M3.7/3, mB4.3/2, ML4.0/6, MLv3.7/3, Mw(mB)3.4/2, Error ellipse: s-maj=19.6km s-min=14.5km az=116.5, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**4.48**	**199**	P	Pn	20 41 13.2	+0.3
WMGZ	**Waiomatatini S**	**4.70**	**197**	P	Pn	20 41 16.8	+1.3
WMGZ				S	S	20 42 11.6	-0.8
WMGZ				AML	AML		
GRZ	**Great Barrier**	**4.81**	**231**	S	S	20 42 14.9	-0.2
HAZ	**Te Kaha**	**4.81**	**203**	P	Pn	20 41 16.0	-0.9
HAZ				S	S	20 42 16.5	+1.4
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**4.83**	**199**	P	Pn	20 41 18.5	+1.4
PKGZ				S	S	20 42 14.9	-0.6
PKGZ				AML	AML		
PUZ	**Puketiti**	**4.97**	**197**	P	Pn	20 41 19.7	+0.8
PUZ				S	S	20 42 16.7	-2.0
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.04**	**202**	P	Pn	20 41 17.2	-2.6
RUGZ				S	S	20 42 21.5	+1.2
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.15**	**199**	P	Pn	20 41 20.6	-0.5
TWGZ				S	S	20 42 23.0	+0.5
CNGZ	**Carnagh Statio**	**5.38**	**196**	P	Pn	20 41 22.9	-1.0
CNGZ				AML	AML		
MWZ	**Matawai**	**5.42**	**202**	P	Pn	20 41 25.9	+1.4
MWZ				S	S	20 42 30.7	+1.9
MWZ				AML	AML		
URZ	**Urewera**	**5.50**	**205**	P	Pn	20 41 25.0	-0.3
URZ				S	S	20 42 31.3	+0.9
URZ				AML	AML		
RAGZ	**Rawiri**	**5.61**	**202**	P	Pn	20 41 27.9	+1.1
RAGZ				AML	AML		
MUGZ	**Murupara**	**5.81**	**207**	P	Pn	20 41 30.0	+0.6
MUGZ				AML	AML		
MUGZ				AML	AML		
BKZ	**Black Stump Fm**	**6.52**	**206**	P	Pn	20 41 39.5	+1.2
PWZ	**Pawanui**	**7.19**	**200**	P	Pn	20 41 45.4	-1.2
BFZ	**Birch Farm**	**7.97**	**202**	P	Pn	20 41 56.8	+0.3
MRZ	**Mangatainoka R**	**8.17**	**205**	P	Pn	20 41 58.9	-0.3
MRZ				S	S	20 43 32.9	+1.0
KHZ	**Kahutara**	**10.46**	**208**	P	Pn	20 42 26.6	-1.5

*IDC **09** 20:40:26.6±1.2, 12°.59N×48°.69E, h0km, mb3.6/7, mbtmp3.6/7, ML2.3/1, MS3.4/4, Error ellipse: s-maj=36.7km s-min=19.4km az=167.0*

ISC 09 20:40:28.0±1.1, 12°.6N±0°.2×48°.7E±0°.1, h10km, n11, σ0°.38/8, mb3.5/6, MS3.3/4, Eastern Gulf of Aden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ATD	**Arta Tunnel**	**5.78**	**260**	Pn	**Pn**	**20 41 53.6**	**-0.3**
ATD	0.1nm,0.3s,baz=59,slow=12,SNR=3.8			AML	AML		
EIL	**Elat**	**21.25**	**325**	LR	LR	20 53 19.7	
	comp=Z,63nm,18.7s,baz=157,slow=36						
GNI	**Garni**	**27.69**	**354**	LR	LR	20 58 53.5	
	comp=Z,51nm,19.1s,baz=198,slow=40						
BRTR	**Keskin Array B**	**30.13**	**337**	P	**P**	**20 46 38.5**	**+0.3**
	0.4nm,0.7s,baz=148,slow=4.4,SNR=2.3						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	**44.30**	**33**	P	**P**	**20 48 38.0**	**-0.2**
	0.4nm,0.7s,baz=224,slow=8.4,SNR=4.1						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**45.09**	**27**	P	**P**	**20 48 43.7**	**-0.6**
	0.1nm,0.4s,baz=226,slow=8.3,SNR=4.8						
	0.1nm,0.4s						
TORD	**Torodi Ar. Bea**	**45.74**	**276**	P	**P**	**20 48 50.3**	**+0.4**
	0.4nm,0.7s,baz=96,slow=6.6,SNR=1.9						
	0.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**48.68**	**76**	P	**P**	**20 49 13.0**	**+0.1**
	1.5nm,0.8s,baz=274,slow=8.4,SNR=11						
	1.5nm,0.8s						
SONM	**Songino Array**	**59.27**	**42**	P	**P**	**20 50 30.1**	**0.0**
	0.4nm,0.6s,baz=224,slow=5.8,SNR=2.4						
SONM				LR	LR	21 17 38.7	
	comp=Z,30nm,18.3s,baz=358,slow=38						
	0.4nm,0.6s						
BORG	**Borgarnes**	**70.20**	**335**	LR	LR	21 26 41.5	
	comp=Z,37nm,21.5s,baz=349,slow=40						
WRA	**Warramunga Arr**	**90.24**	**110**	P	**P**	**20 53 29.7**	**+0.1**
	0.9nm,0.9s,baz=294,slow=4.1,SNR=5.9						
	0.9nm,0.9s						

*AFAD **09** 20:48:08.5, 37°.88N×27°.00E, h7km±1km, ML2.5*
*ISK **09** 20:48:08.0, 37°.88N×26°.96E, h7km, ML2.5/22*
*THE **09** 20:48:08.5, 37°.9N±0°.9×27°.0E±0°.8, h9km±2km, M2.8/10, MLh2.8/10*

ISC 09 20:48:08.7±0.8, 37°.88N±0°.02×26°.98E±0°.03, h13km±6km, n41, σ0°.45/59, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**336**	P	**Pg**	**20 48 12.7**	**-0.2**
DGB				S	**Sg**	**20 48 15.7**	**-0.2**
DGB				IAML		20 48 16.0	
	comp=N,679nm,0.2s						
DGB				IAML		20 48 16.0	
	comp=E,954nm,0.3s						
SMG	**Samos**	**0.20**	**214**	P	**Pg**	**20 48 13.0**	**-0.2**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.21**	**345**	Pg	**Pg**	**20 48 13.0**	**-0.2**
GMLD				Sg	**Sg**	**20 48 16.2**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**94**	Pg	**Pg**	**20 48 13.7**	**-0.1**
KUSD				Sg	**Sg**	**20 48 17.2**	**-0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**131**	P	**Pg**	**20 48 14.1**	**-0.1**
GCAM				IAML		20 48 18.0	
	comp=N,2μm,0.2s						
GCAM				IAML		20 48 18.0	
	comp=E,1μm,0.2s						
GCAM				S	**Sg**	**20 48 18.3**	**+0.3**
GCAM	**G?zelcaml?**	**0.27**	**131**	Pg	**Pg**	**20 48 14.1**	**-0.1**
GCAM				Sg	**Sg**	**20 48 17.9**	**-0.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**353**	P	**Pg**	**20 48 15.7**	**-0.1**
BEYE				S	**Sg**	**20 48 20.8**	**+0.1**
BEYE				IAML		20 48 21.0	
	comp=N,517nm,0.3s						
BEYE				IAML		20 48 21.0	
	comp=E,743nm,0.3s						
DDIM	**Aydin, Didim**	**0.47**	**154**	P	**Pg**	**20 48 17.9**	**0.0**
DDIM				S	**Sg**	**20 48 24.7**	**+0.6**
DDIM				IAML		20 48 25.0	
	comp=N,318nm,0.4s						
DDIM				IAML		20 48 25.0	
	comp=E,389nm,0.4s						
DUVT	**Torbali**	**0.50**	**47**	P	**Pg**	**20 48 18.3**	**-0.3**
DUVT				S	**Sg**	**20 48 25.2**	**-0.2**
DUVT				IAML		20 48 26.0	
	comp=E,256nm,0.2s						
BLCB	**Balcova**	**0.51**	**5**	P	**Pg**	**20 48 18.1**	**-0.6**
BLCB				S	**Sg**	**20 48 25.4**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**5**	Pg	**Pg**	**20 48 18.7**	**0.0**
BLCB				Sg	**Sg**	**20 48 25.7**	**+0.2**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.52**	**314**	P	**Pg**	**20 48 19.1**	**+0.1**
ZEYE				S	**Sb**	**20 48 26.9**	**-0.3**
ZEYE				IAML		20 48 27.0	
	comp=N,1μm,0.2s						
ZEYE				IAML		20 48 30.0	
	comp=E,445nm,0.2s						
DIDI	**Didim-Aydin**	**0.54**	**158**	Pg	**Pg**	**20 48 18.9**	**-0.4**
DIDI				AML	AML		
CESE	**eme**	**0.70**	**310**	Pg	**Pg**	**20 48 21.7**	**-0.7**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**84**	Pg	**Pb**	**20 48 22.9**	**-0.4**
AYDB				AML	AML		
BAGT	**Foa**	**0.78**	**353**	P	**Pg**	**20 48 23.9**	**0.0**
BAGT				S	**Sb**	**20 48 35.1**	**+0.3**
BAGT				IAML		20 48 38.0	
	comp=N,381nm,0.9s						
BAGT				IAML		20 48 38.0	
	comp=E,473nm,0.7s						
YKAV	**Yalikavak-Bodr**	**0.79**	**162**	Pg	**Pg**	**20 48 23.9**	**0.0**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**335**	Pg	**Pg**	**20 48 23.4**	**-0.6**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.81**	**71**	P	**Pg**	**20 48 23.6**	**-0.8**
IZMR				S	**Sg**	**20 48 33.8**	**-1.2**
IZMR				IAML		20 48 36.0	
	comp=N,84nm,0.5s						
IZMR				IAML		20 48 43.0	
	comp=E,136nm,0.6s						
BODT	**Bodrum**	**0.85**	**162**	P	**Pg**	**20 48 24.4**	**-0.8**
BODT				S	**Sb**	**20 48 36.9**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**162**	Pg	**Pg**	**20 48 24.8**	**-0.4**
BODT				AML	AML		
FOCM	**Foa**	**0.86**	**347**	Pg	**Pb**	**20 48 25.4**	**-0.1**
FOCM				AML	AML		
MLSB	**Milas**	**0.86**	**132**	Pg	**Pb**	**20 48 25.6**	**+0.1**
MLSB				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	P	**Pb**	**20 48 26.2**	**+0.1**
CHOS				S	**Sb**	**20 48 39.0**	**+1.0**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**330**	P	**Pb**	**20 48 26.6**	**+0.4**
KARB				S	**Sb**	**20 48 38.8**	**+0.5**
KARB				IAML		20 48 41.0	
	comp=N,294nm,0.3s						
KARB				IAML		20 48 41.0	
	comp=E,302nm,0.9s						
CAMT	**Merkez**	**0.91**	**17**	P	**Pg**	**20 48 26.0**	**-0.3**
CAMT				S	**Sn**	**20 48 40.0**	**-0.2**
CAMT				IAML		20 48 41.0	
	comp=N,478nm,0.6s						
CAMT				IAML		20 48 46.0	
	comp=E,302nm,0.3s						
BODA	**Bodrum-Mula**	**0.91**	**157**	Pg	**Pg**	**20 48 25.9**	**-0.4**
NAZL	**Nazilli-Aydin**	**1.04**	**85**	Pg	**Pb**	**20 48 28.7**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.11**	**41**	Pn	**Pn**	**20 48 30.4**	**+0.4**
GOMA				AML	AML		
AKS	**Akhisar**	**1.20**	**33**	Pn	**Pn**	**20 48 31.5**	**+0.3**
AKS				AML	AML		
DAT	**Datca**	**1.24**	**157**	S	**Sg**	**20 48 48.0**	**-0.7**
DAT				AML	AML		
DAT	**Datca**	**1.24**	**157**	Pn	**Pg**	**20 48 32.1**	**-0.5**
DAT				AML	AML		
YER	**Yerkesik**	**1.27**	**125**	P	**Pn**	**20 48 31.9**	**-0.3**
YER				S	**Sb**	**20 48 49.2**	**+0.3**
YER	**Yerkesik**	**1.27**	**125**	Pn	**Pg**	**20 48 32.9**	**-0.3**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.35**	**19**	Pn	**Pb**	**20 48 34.1**	**+0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.40**	**42**	Pn	**Pb**	**20 48 34.8**	**+0.1**
GORD				AML	AML		
APE	**Apeiranthos**	**1.41**	**236**	P	**Pn**	**20 48 33.6**	**-0.5**
APE				AML	AML		
PRK	**Paraskevi**	**1.48**	**338**	P	**Pn**	**20 48 34.7**	**-0.3**
TURN	**Turunc**	**1.49**	**137**	Pn	**Pn**	**20 48 35.9**	**+0.7**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.70**	**128**	Pn	**Pn**	**20 48 38.9**	**+0.8**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.89**	**102**	Pn	**Pn**	**20 48 41.6**	**+0.9**

NNC 09 20:48:24.8±4.6, 38°.65N×70°.93E, h0km, mb3.8, mpv3.7, 4C-2D, Error ellipse: s-maj=33.5km s-min=28.0km az=167.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IUG	**luzhnay**	**3.56**	**349**	Pg	Pb	20 49 30.7	+2.0
	17nm,0.2s						
IUG				Lg	Lg	20 50 16.2	
	78nm,0.2s						
MRKS	**Merke**	**4.44**	**22**	Pg	Pg	20 49 48.0	-1.9
	3.0nm,0.2s						
MRKS				Lg	Lg	20 50 46.0	
	7.4nm,0.1s						
BRLS	**Borolday**	**4.45**	**350**	Pg	Pb	20 49 43.0	-0.9
	1.9nm,0.2s						
BRLS				Lg	Lg	20 50 37.4	
	9.8nm,0.3s						
KK31	**Karatay Array**	**4.46**	**356**	⇑Pg	Pb	20 49 43.6	-0.3
	1.8nm,0.3s,baz=183,slow=13,SNR=37						
KK31				⇓Lg	Lg	20 50 49.9	
	5.1nm,0.4s,baz=182,slow=31,SNR=5.1						
AAK	**Ala-Archa**	**4.81**	**33**	⇑Pg	Pb	20 49 50.2	+0.1
	6.8nm,0.7s						
AAK				⇑Lg	Lg	20 50 59.5	
	3.9nm,0.7s						
AB31	**Akbulak array**	**13.21**	**327**	⇑P	Pn	20 51 36.3	+2.8
	0.7nm,0.5s,baz=156,slow=13,SNR=24						
AKTO	**Aktyubinsk**	**14.92**	**326**	⇓P	Pn	20 51 54.6	-2.3
	0.8nm,0.6s						

*SOME **09** 20:54:12.9, 40°.17N×74°.87E, h10km*
*KRNET **09** 20:54:14.0±0.1, 40°.25N×74°.76E, h16km, mb3.4*
*NNC **09** 20:54:15.8±0.9, 40°.29N×74°.86E, h0km, mb3.8, mpv3.4, Error ellipse: s-maj=7.2km s-min=3.4km az=167.0*

ISC 09 20:54:14.0±1.0, 40°.22N±0°.04×74°.80E±0°.03, h10km, n54, σ1§88/88, 17C-33D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALK	**Salom-Alik**	**1.00**	**312**	⇑*i*P	**Pg**	**20 54 32.1**	**-1.2**
SALK				⇑*i*S	**Sg**	**20 54 45.0**	**-1.4**
SFK	**Sufi-Kurgan**	**1.02**	**259**	⇑*i*P	**Pg**	**20 54 32.7**	**-0.9**
SFK				⇑*i*S	**Sg**	**20 54 46.3**	**-0.5**
NRN	**Naryn**	**1.52**	**36**	⇑*e*P	**Pn**	**20 54 41.5**	**0.0**
NRN				⇑*e*S	**Sn**	**20 55 01.5**	**0.0**
OHH	**Osh**	**1.57**	**282**	⇓*i*P	**Pn**	**20 54 42.1**	**+0.1**
OHH				⇓*i*S	**Sn**	**20 55 02.9**	**+0.4**
ARSB	**Arslanbob**	**1.77**	**309**	⇓*e*P	**Pb**	**20 54 46.0**	**-0.7**
ARSB				⇓*e*S	**Sb**	**20 55 09.1**	**+0.1**
UCH	**Uchtor**	**2.02**	**354**	P	**Pg**	**20 54 53.3**	**+0.5**
	SNR=55						
UCH	**Uchtor**	**2.02**	**354**	⇓*i*P	**Pb**	**20 54 50.2**	**-0.9**
UCH				⇓*i*S	**Sb**	**20 55 16.5**	**0.0**
ULHL	**Ulahol**	**2.30**	**28**	P	**Pg**	**20 54 57.7**	**-0.4**
	SNR=9.0						
ULHL	**Ulahol**	**2.30**	**28**	⇓*i*P	**Pb**	**20 54 54.1**	**-1.6**
ULHL				⇓*i*S	**Sb**	**20 55 23.3**	**-1.0**
DRK	**Karamyk**	**2.43**	**253**	⇓*e*P	**Pn**	**20 54 55.4**	**+1.4**
DRK				⇓*e*S	**Sn**	**20 55 26.0**	**+2.1**
BOOM	**Boomskoye usch**	**2.43**	**20**	⇑*e*P	**Pn**	**20 54 55.8**	**+1.9**
BOOM				⇑*i*S	**Sb**	**20 55 26.3**	**-1.6**
AAK	**Ala-Archa**	**2.43**	**355**	P	**Pg**	**20 55 00.3**	**-0.3**
	SNR=15						

AAK	**Ala-Archa**	**2.43**	**355**	⇓Pg		**Pg**	**20 54 59.2**	**-1.4**
	5.3nm,0.5s								
AAK				⇑Lg		Lg	20 55 31.8		
	26nm,0.8s								
AAK	**Ala-Archa**	**2.43**	**355**	⇓*eP*		**Pn**	**20 54 55.6**	**+1.7**
AAK				⇓*iS*		**Sb**	**20 55 25.9**	**-2.1**
KBK	**Karagaybulak**	**2.44**	**3**	P		**Pg**	**20 55 00.1**	**-0.6**
	SNR=18								
KBK	**Karagaybulak**	**2.44**	**3**	⇓*eP*		**Pn**	**20 54 55.9**	**+1.8**
KBK				⇓*iS*		**Sb**	**20 55 26.2**	**-2.1**
EKS2	**Erkin-Say**	**2.56**	**343**	P		**Pg**	**20 55 02.1**	**-1.0**
	SNR=13								
EKS2	**Erkin-Say**	**2.56**	**343**	⇓*iP*		**Pn**	**20 54 57.4**	**+1.7**
EKS2				⇓*iS*		**Sn**	**20 55 28.9**	**+1.9**
FRU1	**Bishkek**	**2.59**	**357**	⇓*iP*		**Pn**	**20 54 58.2**	**+2.1**
FRU1				⇓*iS*		**Sb**	**20 55 30.4**	**-2.2**
KDJ	**Kajisay**	**2.62**	**42**	⇓*eP*		**Pb**	**20 54 59.0**	**-2.2**
KDJ				⇓*eS*		**Sb**	**20 55 31.7**	**-1.8**
TARG	**Taragay, Kyrgy**	**2.73**	**55**	⇓*eP*		**Pn**	**20 55 00.5**	**+2.2**
TARG				⇓*eS*		**Sb**	**20 55 34.5**	**-2.3**
TKM2	**Tokmak 2**	**2.77**	**12**	P		**Pb**	**20 55 03.8**	**+0.2**
	SNR=31								
TKM2	**Tokmak 2**	**2.77**	**12**	⇓*iP*		**Pn**	**20 55 00.5**	**+1.9**
TKM2				⇓*iS*		**Sn**	**20 55 34.5**	**+2.3**
CHMS	**Chumysh**	**2.78**	**359**	P		**Pb**	**20 55 04.8**	**+1.0**
	SNR=11								
CHMS	**Chumysh**	**2.78**	**359**	⇓*iP*		**Pn**	**20 55 00.2**	**+1.6**
CHMS				⇓*iS*		**Sn**	**20 55 34.2**	**+2.0**
MRKS	**Merke**	**2.79**	**335**	Pg		**Pb**	**20 55 05.0**	**+1.0**
	15nm,0.3s								
MRKS				Lg		Lg	20 55 42.4		
	26nm,0.3s								
MRKS	**Merke**	**2.79**	**335**	*eP*		**Pb**	**20 55 05.0**	**+1.0**
	15nm,0.3s								
MRKS				*eS*		**Sg**	**20 55 42.5**	**-1.2**
	26nm,0.3s								
MNAS	**Manas**	**2.85**	**323**	⇑*eP*		**Pn**	**20 55 01.4**	**+1.7**
MNAS				⇑*eS*		**Sn**	**20 55 36.0**	**+1.8**
KST	**Kastek**	**2.96**	**17**	Pg		**Pb**	**20 55 08.1**	**+1.2**
	2.9nm,0.3s								
KST				Lg		Lg	20 55 48.2		
	76nm,0.4s								
KST	**Kastek**	**2.96**	**17**	*eP*		**Pb**	**20 55 08.1**	**+1.2**
	2.9nm,0.3s								
KST				*eS*		**Sg**	**20 55 48.2**	**-0.7**
	76nm,0.4s								
USP	**Ospenovka**	**3.06**	**356**	P		**Pb**	**20 55 08.7**	**+0.1**
	SNR=10								
USP	**Ospenovka**	**3.06**	**356**	⇑*iP*		**Pn**	**20 55 04.1**	**+1.7**
USP				⇑*iS*		**Sn**	**20 55 40.7**	**+1.6**
TRKS	**Terek-Say**	**3.07**	**296**	⇑*iP*		**Pn**	**20 55 03.9**	**+1.2**
TRKS				⇑*eS*		**Sn**	**20 55 40.2**	**+0.6**
DGS	**Degeres**	**3.11**	**13**	Pg		**Pb**	**20 55 10.6**	**+1.2**
	22nm,0.4s								
DGS				Lg		Lg	20 55 52.5		
	51nm,0.4s								
DGS	**Degeres**	**3.11**	**13**	*eP*		**Pb**	**20 55 10.6**	**+1.2**
	22nm,0.4s								
DGS				*eS*		**Sg**	**20 55 52.5**	**-1.3**
	51nm,0.4s								
TNSS	**Tian-Shan**	**3.24**	**29**	Pg		**Pb**	**20 55 13.7**	**+1.8**
	3.4nm,0.6s								
TNSS				Lg		Lg	20 55 57.6		
	9.6nm,0.7s								
TNSS	**Tian-Shan**	**3.24**	**29**	*eP*		**Pb**	**20 55 13.7**	**+1.8**
	3.4nm,0.6s								
TNSS				*eS*		**Sg**	**20 55 57.6**	**-0.6**
	9.6nm,0.7s								
ANVS	**Anan'yevo**	**3.35**	**39**	⇓*iP*		**Pn**	**20 55 08.9**	**+2.4**
ANVS				⇓*iS*		**Sn**	**20 55 48.9**	**+2.5**
MDOK	**Medeo**	**3.39**	**29**	Pg		**Pb**	**20 55 15.9**	**+1.7**
	14nm,0.5s								
MDOK				Lg		Lg	20 56 01.2		
	42nm,0.7s								
MDOK	**Medeo**	**3.39**	**29**	*eP*		**Pb**	**20 55 15.9**	**+1.7**
	14nm,0.5s								
MDOK				*eS*		**Sg**	**20 56 01.2**	**-1.7**
	42nm,0.7s								
KRBS	**Karabastau**	**3.54**	**10**	Pg		**Pb**	**20 55 18.1**	**+1.4**
	2.3nm,0.3s								
KRBS				Lg		Lg	20 56 05.0		
	37nm,0.6s								
KRBS	**Karabastau**	**3.54**	**10**	*eP*		**Pb**	**20 55 18.1**	**+1.4**
	2.3nm,0.3s								
KRBS				*eS*		**Sg**	**20 56 05.0**	**-2.6**
	37nm,0.6s								
KTBS	**Karatobe**	**3.76**	**21**	Pg		**Pb**	**20 55 22.3**	**+1.8**
	0.1nm,0.0s								
KTBS				Lg		Lg	20 56 12.3		
	20nm,0.3s								
KTBS	**Karatobe**	**3.76**	**21**	*eP*		**Pb**	**20 55 22.3**	**+1.8**
	0.1nm,0.0s								
KTBS				*eS*		**Sg**	**20 56 12.3**	**-2.6**
	20nm,0.3s								
SATY	**Saty**	**3.92**	**42**	Pg		**Pb**	**20 55 25.3**	**+2.0**
	4.2nm,0.6s								
SATY				Lg		Lg	20 56 17.5		
	14nm,0.5s								
SATY	**Saty**	**3.92**	**42**	*eP*		**Pb**	**20 55 25.3**	**+2.0**
	4.2nm,0.6s								
SATY				*eS*		**Sg**	**20 56 17.5**	**-2.3**
	14nm,0.5s								
IUG	**Iuzhnay**	**4.08**	**300**	Pg		**Pg**	**20 55 29.7**	**-2.6**
	37nm,0.7s								
IUG				Lg		Lg	20 56 25.0		
	58nm,0.4s								
IUG	**Iuzhnay**	**4.08**	**300**	*eP*		**Pg**	**20 55 29.7**	**-2.6**
	37nm,0.7s								
IUG				*eS*		**Sg**	**20 56 25.0**	**-0.2**
	58nm,0.4s								
KK31	**Karatay Array**	**4.32**	**313**	⇓Pn		**Pn**	**20 55 23.6**	**+3.8**
	0.6nm,0.3s,baz=135,slow=12,SNR=18								
KK31				⇓Pg		**Pg**	**20 55 33.5**	**-3.2**
	3.2nm,0.5s,baz=135,slow=17,SNR=8.8								
KK31				⇑Sn		**Sn**	**20 56 15.2**	**+5.0**
	1.4nm,0.3s								
KK31				⇑Lg		Lg	20 56 31.8		
	2.3nm,0.3s,baz=125,slow=28,SNR=3.7								
ARXS	**Arharly**	**4.58**	**28**	Pg		**Pb**	**20 55 36.9**	**+2.4**
	6.0nm,0.4s								
ARXS				Lg		Lg	20 56 37.0		
	13nm,0.5s								
ARXS	**Arharly**	**4.58**	**28**	*eP*		**Pb**	**20 55 36.9**	**+2.4**
	6.0nm,0.4s								
ARXS				*eS*		**Sg**	**20 56 37.0**	**-4.1**
	13nm,0.5s								
BRLS	**Borolday**	**4.67**	**309**	Pg		**Pg**	**20 55 39.9**	**-3.4**
	7.0nm,0.5s								
BRLS				Lg		Lg	20 56 42.8		
	9.3nm,0.3s								
BRLS	**Borolday**	**4.67**	**309**	*eP*		**Pg**	**20 55 39.9**	**-3.4**
	7.0nm,0.5s								
BRLS				*eS*		**Sg**	**20 56 42.8**	**-1.0**
	9.3nm,0.3s								
PDGK	**Podgornoye**	**4.69**	**47**	⇓Pg		**Pg**	**20 55 41.7**	**-2.0**
	7.2nm,0.7s								
PDGK				⇓Lg		Lg	20 56 40.7		
	15nm,0.9s								

IDC 09 21:01:35.0±2.7,28°11N×142°67E,h0km,mb3.5/4, mbtmp3.5/4,Error ellipse: s-maj=73.1km s-min=19.1km az=89.0,Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time			Res
				Op		ISC	h	m	s	ISC
JCJ	**Chichijima**	**1.09**	**203**	Pn		Pg	21 01	55.7		-0.3
	7.2nm,0.3s,baz=278,slow=21,SNR=6.2									
JCJ				Sn		Sb	21 02	11.4		-0.3
	14nm,0.3s,baz=304,slow=22,SNR=8.4									
SONM	**Songino Array**	**34.29**	**315**	P		P	21 08	23.6		+0.5
	0.2nm,0.6s,baz=113,slow=3.7,SNR=2.7									
	0.2nm,0.6s									
WRA	**Warramunga Arr**	**48.44**	**190**	P		P	21 10	19.0		-0.3
	0.6nm,0.5s,baz=12,slow=8.3,SNR=8.7									
	0.6nm,0.5s									
MKAR	**Makanchi Array**	**50.17**	**309**	P		P	21 10	32.0		-0.4
	0.2nm,0.4s,baz=84,slow=8.4,SNR=2.9									
	0.2nm,0.4s									
BVAR	**Borovoye Array**	**57.59**	**317**	P		P	21 11	26.2		-0.4
	0.5nm,0.6s,baz=104,slow=6.1,SNR=1.6									
	0.5nm,0.6s									

*IDC **09** 21:07:11.2±1.0,60°54N×154°89W,h0km,mb3.9/5, mbtmp3.9/8,ML3.9/3,MS3.4/1,Error ellipse: s-maj=22.2km s-min=18.6km az=74.0*

*NEIC **09** 21:07:20.7±1.0,60°33N±0°02×152°81W±0°06, h133km±4km,ML3.3/172,ML3.2(AEIC),Error ellipse: s-maj=5.4km s-min=1.5km az=57.0*

*AEIC **09** 21:07:22.1±0.9,60°35N±0°04×152°76W±0°06, h128km±3km,Error ellipse: s-maj=5.4km s-min=4.5km az=172.0*

ISC 09 21:07:21.0±0.8,60°34N±0°03×152°75W±0°03, h135km±5km,n226,σ1^{09}/06/243,mb3.9/5,Southern Alaska

Code	Station Name	Δ°	AZ°	Phase	ID		Time			Res
				Op		ISC	h	m	s	ISC
RED	**Redoubt Volcan**	**0.08**	**352**	Pn		**Pn**	**21 07**	**38.4**		**-1.0**
RED				Sn		**Sn**	**21 07**	**52.3**		**-1.0**
RDSO	**Redoubt South**	**0.12**	**2**			**Pn**	**21 07**	**38.9**		**-0.6**
RDSO						**Sn**	**21 07**	**52.1**		**-1.5**
NCT	**North Crescent**	**0.24**	**338**			**Pn**	**21 07**	**39.1**		**-0.7**
NCT						**Sn**	**21 07**	**52.6**		**-1.3**
RDJH	**Redoubt Jeurge**	**0.26**	**354**			**Pn**	**21 07**	**39.2**		**-0.6**
RDJH						**Sn**	**21 07**	**52.9**		**-1.2**
DFR	**Drift River**	**0.26**	**7**			**Pn**	**21 07**	**39.1**		**-0.6**
DFR						**Sn**	**21 07**	**52.5**		**-1.5**
O20K	**Slope Mountain**	**0.26**	**166**			**Pn**	**21 07**	**39.7**		**-0.1**
O20K						**Sn**	**21 07**	**53.5**		**-0.4**
RDT	**Redoubt**	**0.29**	**35**			**Pn**	**21 07**	**39.3**		**-0.5**
RDT						**Sn**	**21 07**	**52.7**		**-1.4**
IVE	**Iliamna Volcan**	**0.35**	**203**			**Pn**	**21 07**	**39.8**		**-0.3**
IVE						**Sn**	**21 07**	**53.8**		**-0.7**
ILSW	**Iliamna Southw**	**0.41**	**209**	Pn		**Pn**	**21 07**	**39.4**		**-1.0**
ILSW				Sn		**Sn**	**21 07**	**53.0**		**-2.0**
ILSW				IAML			21 07	55.8		
	comp=N,271nm,0.6s									
ILSW				IAML			21 07	58.2		
	comp=E,225nm,0.4s									
ILS	**Iliamna Low So**	**0.41**	**203**			**Sn**	**21 07**	**54.2**		**-0.7**
P19K	**Oil Pt**	**0.73**	**200**			**Sn**	**21 07**	**58.0**		**-0.2**
O19K	**Port Alsworth**	**0.80**	**260**	Pn		**Pn**	**21 07**	**41.9**		**-0.7**
O19K				Sn		**Sn**	**21 07**	**57.5**		**-1.4**
O19K				IAML			21 07	58.5		
	comp=N,259nm,0.5s									
O19K				IAML			21 08	06.8		
	comp=E,191nm,0.5s									
HOM	**Homer**	**0.88**	**140**	Pn		**Pn**	**21 07**	**43.1**		**-0.2**
HOM				Sn		**Sn**	**21 07**	**59.8**		**-0.4**
CKL	**Chakachamna La**	**0.89**	**13**			**Pn**	**21 07**	**43.2**		**-0.3**
CAPN	**Captain Cook N**	**0.90**	**61**	Pn		**Pn**	**21 07**	**44.3**		**+0.8**
CAPN				Sn		**Sn**	**21 08**	**02.1**		**+1.6**
SPCR	**Spurr Chakacha**	**0.91**	**17**			**Sn**	**21 07**	**59.8**		**-1.0**
SPU	**Mount Spurr**	**0.92**	**22**	Pn		**Pn**	**21 07**	**42.9**		**-0.7**
SPU				Sn		**Sn**	**21 08**	**00.1**		**-0.8**
SPU				IAML			21 08	00.4		
	comp=E,280nm,0.8s									
SPU				IAML			21 08	05.7		
	comp=N,232nm,0.3s									
SPBG	**Spurr Blockage**	**0.94**	**11**			**Sn**	**21 08**	**01.3**		**-0.1**
N19K	**Bonanza Creek**	**0.98**	**300**	Pn		**Pn**	**21 07**	**43.6**		**-0.6**
N19K				Sn		**Sn**	**21 07**	**59.8**		**-2.2**
N19K				IAML			21 08	00.6		
	comp=E,200nm,0.4s									
N19K				IAML			21 08	00.9		
	comp=N,239nm,0.7s									
AU22	**Augustine Moun**	**1.02**	**198**			**Pn**	**21 07**	**44.5**		**0.0**
AU22						**Sn**	**21 08**	**01.6**		**-0.7**
AUJK	**Augustine Jueg**	**1.04**	**199**			**Sn**	**21 08**	**02.4**		**-0.4**
AUI	**Augustine Isla**	**1.06**	**199**			**Pn**	**21 07**	**44.8**		**-0.1**
BRLK	**Bradley Lake**	**1.10**	**121**	Pn		**Pn**	**21 07**	**44.8**		**-0.5**
BRLK				Sn		**Sn**	**21 08**	**02.9**		**-0.9**
BRLK				IAML			21 08	04.6		
	comp=N,764nm,0.2s									
BRLK				IAML			21 08	06.7		
	comp=E,632nm,0.3s									
CNPM	**China Poot**	**1.11**	**136**	Pn		**Pn**	**21 07**	**45.6**		**+0.1**
CNPM				Sn		**Sn**	**21 08**	**03.4**		**-0.6**
BRSE	**Bradley Lake S**	**1.17**	**120**			**Sn**	**21 08**	**04.4**		**-0.6**
STLK	**Strandline Lak**	**1.25**	**21**	Pn		**Pn**	**21 07**	**46.3**		**-0.6**
STLK				Sn		**Sn**	**21 08**	**04.7**		**-1.9**
STLK				IAML			21 08	07.6		
	comp=E,150nm,0.5s									
STLK				IAML			21 08	11.5		
	comp=N,124nm,0.3s									
SLKM	**Skilak Lake**	**1.27**	**81**	Pn		**Pn**	**21 07**	**46.0**		**-0.9**
SLKM				Sn		**Sn**	**21 08**	**04.8**		**-2.0**
FIS	**Fire Island**	**1.48**	**56**	Pn		**Pn**	**21 07**	**49.9**		**+0.7**
FIS				Sn		**Sn**	**21 08**	**11.4**		**+0.6**
Q19K	**Cape Douglas,**	**1.48**	**198**	Pn		**Pn**	**21 07**	**48.9**		**-0.4**
Q19K				Sn		**Sn**	**21 08**	**09.3**		**-1.6**
Q19K				IAML			21 08	20.2		
	comp=N,251nm,0.9s									
Q19K				IAML			21 08	21.6		
	comp=E,272nm,1.2s									
SUA	**Susitna One**	**1.50**	**40**	Pn		**Pn**	**21 07**	**49.4**		**-0.1**
SUA				Sn		**Sn**	**21 08**	**11.2**		**-0.1**
O22K	**Cooper Landing**	**1.51**	**83**	Pn		**Pn**	**21 07**	**49.4**		**-0.1**
O22K				Sn		**Sn**	**21 08**	**10.6**		**-0.6**
M20K	**Styx River**	**1.56**	**353**			**Pn**	**21 07**	**50.4**		**+0.2**
P18K	**Big Mountain,**	**1.57**	**234**			**Pn**	**21 07**	**49.7**		**-0.6**
P18K						**Sn**	**21 08**	**10.9**		**-1.7**
N18K	**Kilae Creek**	**1.59**	**284**	Pn		**Pn**	**21 07**	**49.6**		**-0.8**
N18K				Sn		**Sn**	**21 08**	**10.7**		**-2.3**
N18K				IAML			21 08	11.5		
	comp=N,93nm,0.7s									
SEW	**Seward**	**1.66**	**97**	Pn		**Pn**	**21 07**	**50.8**		**-0.4**
SEW				Sn		**Sn**	**21 08**	**12.4**		**-1.9**
SEW				IAML			21 08	13.9		
	comp=N,157nm,0.5s									
SEW				IAML			21 08	17.5		
	comp=E,211nm,0.3s									
RC01	**Rabbit Creek A**	**1.66**	**62**	Pn		**Pn**	**21 07**	**50.7**		**-0.6**
RC01				Sn		**Sn**	**21 08**	**13.0**		**-1.4**
SKT	**Skwentna**	**1.75**	**19**	Pn		**Pn**	**21 07**	**51.9**		**-0.4**
SKT				Sn		**Sn**	**21 08**	**15.0**		**-1.3**
SKT				IAML			21 08	17.2		
	comp=E,154nm,0.3s									
SKT				IAML			21 08	17.2		
	comp=N,186nm,0.4s									
M18K	**Stony River**	**1.90**	**309**			**Pn**	**21 07**	**53.4**		**-0.5**
M18K						**Sn**	**21 08**	**17.4**		**-1.8**
M22K	**Willow**	**1.91**	**41**	Pn		**Pn**	**21 07**	**54.2**		**+0.1**
M22K	**Willow**	**1.91**	**41**			**Sn**	**21 08**	**19.3**		**-0.2**
M22K	**Willow**	**1.91**	**41**	IAML			21 08	20.9		
	comp=E,980nm,0.6s									
M22K				IAML			21 08	25.7		
	comp=N,916nm,0.5s									
L19K	**White Mountain**	**2.11**	**332**	Pn		**Pn**	**21 07**	**56.3**		**-0.3**
L19K				IAML			21 08	26.2		
	comp=N,52nm,0.9s									
PMR	**Palmer**	**2.17**	**53**	P		**Pn**	**21 07**	**56.0**		**-1.2**
PMR	**Palmer**	**2.17**	**53**	Pn		**Pn**	**21 07**	**56.4**		**-0.8**
PMR				IAML			21 08	24.1		
	comp=E,200nm,0.2s									
PMR				IAML			21 08	24.8		
	comp=N,294nm,0.2s									
PMR	**Palmer**	**2.17**	**53**			**Sn**	**21 08**	**22.9**		**-2.1**
P17K	**Kvichak River**	**2.19**	**240**	Pn		**Pn**	**21 07**	**56.7**		**-0.8**
P17K				IAML			21 08	30.2		
	comp=N,75nm,1.0s									
P17K				IAML			21 08	46.1		
	comp=E,101nm,1.0s									
N17K	**Nushagak Hills**	**2.21**	**277**	Pn		**Pn**	**21 07**	**57.2**		**-0.5**
N17K				IAML			21 08	25.7		
	comp=E,54nm,1.0s									
L20K	**Farewell, AK**	**2.22**	**346**	Pn		**Pn**	**21 07**	**58.0**		**+0.1**
PWL	**Port Wells**	**2.24**	**75**	Pn		**Pn**	**21 07**	**58.6**		**+0.5**
PWL	**Port Wells**	**2.24**	**75**			**Sn**	**21 08**	**25.1**		**-1.6**
GHO	**Glory Hole Cre**	**2.35**	**51**	Pn		**Pn**	**21 07**	**58.3**		**-1.3**
GHO	**Glory Hole Cre**	**2.35**	**51**			**Sn**	**21 08**	**27.3**		**-2.0**
GHO	**Glory Hole Cre**	**2.35**	**51**	IAML			21 08	28.4		
	comp=E,530nm,0.6s									
GHO				IAML			21 08	28.6		
	comp=N,434nm,0.7s									
KNK	**Knik Glacier**	**2.36**	**61**	Pn		**Pn**	**21 08**	**00.0**		**+0.4**
KNK				IAML			21 08	28.5		
	comp=N,339nm,0.4s									
KNK	**Knik Glacier**	**2.36**	**61**			**Sn**	**21 08**	**27.8**		**-1.5**
CUT	**Chulitna**	**2.40**	**29**	Pn		**Pn**	**21 07**	**60.0**		**0.0**
ACHA	**Angle Creek He**	**2.51**	**213**	Pn		**Pn**	**21 08**	**01.1**		**-0.4**
M17K	**Holitna River**	**2.53**	**297**	Pn		**Pn**	**21 08**	**00.7**		**-1.0**
M17K				IAML			21 08	48.6		
	comp=N,38nm,0.8s									
KDAK	**Kodiak Island**	**2.56**	**178**	Pn		**Pn**	**21 08**	**00.9**		**-1.3**
	comp=N,9.7nm,0.3s,baz=18,slow=20,SNR=233									
KDAK				Sn		**Sn**	**21 08**	**31.3**		**-2.5**
	comp=N,23nm,0.3s,baz=32,slow=2.1,SNR=23									
	comp=N,52nm,0.3s									
KDAK				AML		AML				
KDAK	**Kodiak Island**	**2.56**	**178**	Pn		**Pn**	**21 08**	**00.9**		**-1.3**
KDAK				IAML			21 08	32.4		
	comp=N,143nm,0.3s									
KDAK				IAML			21 08	32.9		
	comp=N,189nm,0.2s									
KDAK	**Kodiak Island**	**2.56**	**178**			**Sn**	**21 08**	**31.5**		**-2.3**
ANCK	**Angle Creek**	**2.57**	**215**			**Pn**	**21 08**	**02.4**		**+0.1**
PPLA	**Purkeypile**	**2.58**	**6**	Pn		**Pn**	**21 08**	**02.4**		**-0.2**
SML	**Sawmill**	**2.60**	**54**	Pn		**Pn**	**21 08**	**01.4**		**-1.3**
SML				IAML			21 08	34.3		
	comp=E,219nm,0.5s									
SML	**Sawmill**	**2.60**	**54**			**Sn**	**21 08**	**32.8**		**-2.1**
Q17K	**Contact Creek**	**2.63**	**219**			**Pn**	**21 08**	**03.0**		**-0.1**
CAHL	**Cahill**	**2.64**	**211**			**Pn**	**21 08**	**03.2**		**0.0**
L18K	**Granite Mounta**	**2.68**	**317**	Pn		**Pn**	**21 08**	**03.0**		**-0.6**
L18K				IAML			21 08	50.8		
	comp=N,41nm,1.1s									
P23K	**Montague Islan**	**2.69**	**95**	Pn		**Pn**	**21 08**	**03.7**		**-0.1**
P23K				IAML			21 08	38.9		
	comp=N,246nm,0.9s									
P23K				IAML			21 08	39.9		
	comp=E,172nm,0.3s									
KJL	**Kejulik**	**2.71**	**214**			**Pn**	**21 08**	**04.4**		**+0.3**
O16K	**Kokwok River B**	**2.79**	**257**	Pn		**Pn**	**21 08**	**05.0**		**0.0**
GLI	**Glacier Island**	**2.84**	**76**	Pn		**Pn**	**21 08**	**05.8**		**+0.1**
GLI				IAML			21 08	38.9		
	comp=N,151nm,0.6s									
GLI				IAML			21 08	47.7		
	comp=E,192nm,0.6s									
P16K	**Nushagak River**	**2.96**	**246**	Pn		**Pn**	**21 08**	**07.7**		**+0.5**
P16K				IAML			21 09	10.7		
	comp=N,43nm,1.1s									
P16K				IAML			21 10	01.8		
	comp=E,34nm,1.2s									
N16K	**Nishlik Lake**	**2.99**	**275**			**Pn**	**21 08**	**07.5**		**-0.1**
SCM	**Sheep Creek Mo**	**3.03**	**58**	Pn		**Pn**	**21 08**	**07.5**		**-0.7**
K20K	**Telida**	**3.10**	**349**	Pn		**Pn**	**21 08**	**08.7**		**-0.3**
HIN	**Hinchinbrook I**	**3.10**	**86**	Pn		**Pn**	**21 08**	**09.0**		**-0.1**
HIN				IAML			21 08	47.1		
	comp=N,107nm,0.3s									
HIN				IAML			21 08	48.4		
	comp=E,118nm,0.7s									
CAST	**Castle Rocks**	**3.11**	**6**	Pn		**Pn**	**21 08**	**08.7**		**-0.4**
FID	**Port Fidalgo**	**3.13**	**80**	Pn		**Pn**	**21 08**	**09.0**		**-0.4**
FID				IAML			21 08	45.4		
	comp=N,157nm,0.4s									
FID				IAML			21 08	47.3		
	comp=E,145nm,0.4s									
M16K	**Timber Creek**	**3.13**	**285**	Pn		**Pn**	**21 08**	**08.9**		**-0.5**
OHAK	**Old Harbor**	**3.14**	**185**	P		**Pn**	**21 08**	**07.8**		**-1.7**
OHAK	**Old Harbor**	**3.14**	**185**	Pn		**Pn**	**21 08**	**07.7**		**-1.8**
OHAK				IAML			21 08	44.8		
	comp=N,68nm,0.6s									
OHAK				IAML			21 08	45.1		
	comp=E,53nm,0.2s									
L17K	**Donlin**	**3.23**	**306**			**Pn**	**21 08**	**10.2**		**-0.5**
R17L	**Mt. Peulik Vol**	**3.29**	**216**			**Pn**	**21 08**	**11.6**		**0.0**
TRF	**Thorofare Moun**	**3.33**	**19**	Pn		**Pn**	**21 08**	**11.9**		**-0.3**
TRF				IAML			21 08	53.7		
	comp=N,72nm,0.6s									
TRF				IAML			21 08	54.3		
	comp=E,57nm,0.7s									
KTH	**Kantishna Hill**	**3.34**	**14**	Pn		**Pn**	**21 08**	**11.3**		**-0.9**
KTH				IAML			21 08	53.1		
	comp=N,32nm,0.9s									
KTH				IAML			21 08	54.5		
	comp=E,29nm,0.6s									
MID	**Middleton Isla**	**3.36**	**103**	Pn		**Pn**	**21 08**	**12.8**		**+0.5**
MID				IAML			21 10	19.2		
	comp=N,155nm,1.2s									
PLBL	**Peulik Blue Cr**	**3.38**	**220**			**Pn**	**21 08**	**13.0**		**+0.4**
EYAK	**Cordova Ski Ar**	**3.48**	**83**	P		**Pn**	**21 08**	**13.9**		**0.0**
EYAK	**Cordova Ski Ar**	**3.48**	**83**	Pn		**Pn**	**21 08**	**13.8**		**-0.1**
EYAK				IAML			21 08	55.7		
	comp=E,41nm,0.3s									
EYAK				IAML			21 08	58.2		
	comp=N,38nm,0.9s									
DIV	**Divide**	**3.52**	**74**			**Pn**	**21 08**	**13.4**		**-1.1**
DIV	**Divide**	**3.52**	**74**	IAML			21 08	59.8		
	comp=E,110nm,0.4s									
**L16K

comp=N,46nm,1.2s
CHIR IAML 21 09 46.9
comp=E,49nm,1.2s
K24K Donnelly Dome 4.78 40 Pn Pn 21 08 32.2 +1.1
MLY Manley 4.80 10 Pn Pn 21 08 31.7 +0.3
I21K Tanana 4.88 4 Pn 21 08 31.5 -0.9
HDA Harding Lake 4.90 31 Pn Pn 21 08 32.1 -0.5
TGL Tana Glacier 4.92 81 Pn 21 08 33.1 0.0
TGL Tana Glacier 4.92 81 IAML 21 09 30.5
comp=N,50nm,0.5s
L14K Kuka Creek 4.96 286 Pn 21 08 34.2 +0.7
L14K Kuka Creek 4.96 286 IAML 21 11 08.6
comp=N,15nm,1.1s
L14K IAML 21 11 48.4
comp=E,17nm,1.2s
CHGN Chignik 5.03 219 Pn 21 08 33.7 -0.7
CHGN Chignik 5.03 219 IAML 21 09 31.5
comp=E,48nm,0.1s
CHGN IAML 21 09 32.1
comp=N,33nm,0.1s
PS08 TAPS Pump Stn8 5.04 31 Pn 21 08 34.2 -0.3
I23K Minto, Yukon-K 5.07 16 Pn **Pn 21 08 34.9 0.0**
I23K IAML 21 10 06.1
comp=E,5.7nm,1.2s
I23K IAML 21 10 07.9
comp=N,8.4nm,1.0s
COLA College 5.08 24 P Pn 21 08 34.7 -0.4
COLA College 5.08 24 Pn **Pn 21 08 34.4 -0.7**
COLA IAML 21 09 39.3
comp=N,46nm,0.4s
PTPK Patty Peak 5.12 76 Pn 21 08 36.0 +0.3
KIAG Kiagna River 5.15 79 Pn 21 08 35.3 -0.9
BALM Baldy 5.16 78 Pn 21 08 36.9 +0.5
IL31 5.21 29 Pn **Pn 21 08 36.3 -0.4**
ILAR Eielson Array 5.21 29 Pn **Pn 21 08 36.2 -0.6**
comp=N,10nm,0.3s,baz=220,slow=14,SNR=396
ILAR Sn **Sn 21 09 31.2 -4.7**
comp=N,0.3nm,0.3s,baz=211,slow=19,SNR=4.3
comp=N,26nm,0.4s
ILAR AML AML
ILAR Eielson Array 5.21 29 Pn **Pn 21 08 36.0 -0.8**
H20K Anotleneega Mo 5.27 350 Pn 21 08 37.5 -0.1
H21K Melozitna Rive 5.34 360 Pn 21 08 37.8 -0.8
POKR Poker Plat Res 5.38 25 Pn **Pn 21 08 38.9 -0.3**
GRNC Granite Creek 5.44 81 Pn 21 08 40.6 +0.4
H19K Roundabout Mou 5.48 344 Pn 21 08 40.1 -0.2
H18K Honhosa River 5.48 334 Pn 21 08 40.4 -0.1
J25K Salcha River, 5.49 35 Pn 21 08 40.4 -0.2
SCRK Sand Creek 5.50 45 Pn **Pn 21 08 39.7 -1.0**
BARN Barnard Glacie 5.50 78 Pn 21 08 40.7 -0.2
VNKR Veniaminof 5 5.56 222 Pn 21 08 41.5 -0.1
H22K Ishtalitna Cre 5.61 6 Pn **Pn 21 08 41.6 -0.7**
IMAR Indian Mountai 5.69 356 Pn **Pn 21 08 42.3 -0.9**
PS06 TAPS Pump Stn6 5.71 13 Pn 21 08 43.7 +0.2
CHX Chaix Hills 5.81 88 Pn 21 08 46.0 +1.0
LOGN Logan Glacier 5.81 80 Pn **Pn 21 08 45.4 +0.3**
BC01 Beaver Creek A 5.87 58 Pn 21 08 45.6 -0.1
H24K Noodor Dome 5.95 20 Pn **Pn 21 08 46.3 -0.4**
YUK2 White River 5.96 71 Pn 21 08 47.9 +0.8
SAMH Samovar Hills 5.97 87 Pn 21 08 48.1 +1.0
YUK3 Moose Creek 6.14 77 Pn 21 08 50.3 +0.8
O28M Mount Upton 6.21 81 Pn 21 08 51.5 +1.0
G21K Allakaket 6.21 357 Pn **Pn 21 08 49.7 -0.5**
K27K Chicken 6.22 49 Pn 21 08 50.3 0.0
PCA Pinnacle 6.23 87 Pn 21 08 51.2 +0.6
G23K Bananza Creek 6.51 10 Pn **Pn 21 08 54.3 0.0**
I26K Coal Creek Min 6.64 37 Pn 21 08 55.3 -0.7
H25L Birch Creek 6.72 25 Pn 21 08 56.3 -0.7
PNL Peninsula 6.73 90 P **Pn 21 08 57.9 +0.6**
PNL Peninsula 6.73 90 Pn 21 08 57.0 -0.3
G24K Hadweenzic Riv 6.81 18 Pn **Pn 21 08 57.4 -0.9**
F20K Avaraart Lake 6.87 350 Pn 21 09 00.1 +1.1
F19K Shaleruckik Mo 6.89 343 Pn 21 08 59.7 +0.4
F21K Alatna River 6.92 358 Pn **Pn 21 08 59.4 -0.4**
FYU Fort Yukon 7.10 25 Pn **Pn 21 09 01.2 -0.9**
F22K John River 7.21 2 Pn 21 09 04.3 +0.7
DT1 Dutton Round H 7.31 228 Pn 21 09 05.1 0.0
I27K Kandik River 7.32 39 Pn **Pn 21 09 03.0 -1.3**
E19K Redstone River 7.42 346 Pn 21 09 06.9 +0.5
F24K Squaw Lake 7.52 14 Pn **Pn 21 09 07.5 -0.3**
G26K Porcupine Rive 7.74 27 Pn **Pn 21 09 08.7 -2.0**
H27K Steamboat Moun 7.77 36 Pn 21 09 10.1 -1.1
I28M Miner Creek 7.77 43 Pn 21 09 10.6 -0.7
E23K Chandalar 7.87 9 Pn 21 09 12.6 +0.1
F25K Christian Rive 7.92 20 Pn **Pn 21 09 11.5 -1.7**
BM03 Burnt Mountain 7.96 23 Pn 21 09 12.1 -1.6
BMAR Burnt Mountain 7.97 23 Pn **Pn 21 09 11.4 -2.5**
BM01 Burnt Mountain 8.00 23 Pn 21 09 12.5 -1.7
G27K Doyon Strip 8.15 33 Pn 21 09 14.9 -1.4
F26K Sheenjek River 8.29 23 Pn 21 09 16.3 -1.8
TOLK Toolik Lake Re 8.45 8 Pn 21 09 21.2 +0.9
D22K Ayikyak River 8.58 0 Pn **Pn 21 09 22.8 +0.8**
D23K Nanushuk River 8.71 5 Pn **Pn 21 09 24.1 +0.4**
WESP Westdahl Peak 8.71 233 Pn 21 09 24.7 +0.8
H29M Whitestone 8.75 41 Pn 21 09 23.6 -0.6
D24K Happy Valley 9.01 9 Pn **Pn 21 09 27.8 +0.1**
G29M Pine Creek 9.28 38 Pn **Pn 21 09 29.6 -1.7**
D25K Kavik River 9.41 14 Pn 21 09 32.9 -0.3
C24K Franklin Bluff 9.57 9 Pn **Pn 21 09 34.6 -0.7**
C23K Itkillik River 9.58 4 Pn 21 09 35.6 +0.3
JIS Juneau Island 9.61 94 P **Pn 21 09 39.1 +3.3**
S32K Killisnoo 9.82 99 Pn **Pn 21 09 41.7 +3.1**
UNV Unalaska Valle 9.90 235 P **Pn 21 09 39.4 -0.4**
H31M Peel River 9.96 49 Pn **Pn 21 09 40.7 +0.2**
E29M Blow River 10.29 32 Pn 21 09 44.2 -0.7
Q32M Nakina River 10.45 89 Pn **Pn 21 09 48.0 +0.8**
U33K Whale Pass 11.16 104 Pn Pn 21 09 57.1 +0.6
S34M Telegraph Cree 11.36 93 Pn Pn 21 10 01.6 +2.5
INK Inuvik 11.49 38 Pn **Pn 21 10 02.4 +1.6**
comp=N,0.3nm,0.3s,baz=248,slow=7.6,SNR=3.4
comp=N,1.5nm,0.6s
INK AML AML
CRAG Craig 11.50 106 P **Pn 21 10 05.2 +4.2**
ULM Lac du Bonnet 32.90 82 LR LR 21 30 02.1
comp=N,55nm,18.4s,baz=25,slow=40
SONM Songino Array 54.69 306 P **P 21 16 36.5 +0.7**
comp=N,0.5nm,0.3s,baz=43,slow=5.2,SNR=6.6
comp=N,0.5nm,0.3s
ZALV Zalesovo Beam 57.18 324 P **P 21 16 54.0 +0.9**
comp=N,1.1nm,0.4s,baz=44,slow=6.6,SNR=3.7
comp=N,1.1nm,0.4s
BVAR Borovoye Array 61.83 332 P **P 21 17 25.6 +0.5**
comp=N,0.9nm,0.5s,baz=26,slow=7.4,SNR=5.7
comp=N,0.9nm,0.5s
KURBB Kurchatov Arra 61.93 326 P **P 21 17 26.2 +0.4**
comp=N,0.5nm,0.4s,baz=26,slow=6.4,SNR=2.8
comp=N,0.5nm,0.4s
MKAR Makanchi Array 64.25 321 P **P 21 17 41.3 +0.1**
comp=N,0.2nm,0.5s,baz=34,slow=5.6,SNR=3.8
comp=N,0.2nm,0.5s

*IDC **09** 21:20:12.1±0.7,55.°88N×165.°70E, h0km, mb3.9/16, mbtmp3.9/18, ML4.4/1, MS3.3/8, Error ellipse: s-maj=19.6km s-min=12.4km az=154.0*
*KRSC **09** 21:20:12.7±1.4,55.°57N×165.°76E, h34km±14km, Ml4.3 MOS **09** 21:20:15.7±1.4,55.°66N×165.°70E, h49km, mb4.6/7, Error ellipse: s-maj=9.6km s-min=6.1km az=138.4*
*NEIC **09** 21:20:16.9±1.4,55.°8N±0.°1×165.°7E±0.°2, h35km±6km, mb4.3/29, Error ellipse: s-maj=17.0km s-min=13.2km az=138.0*

ISC 09 21:20:14.3±0.5,55.°68N±0.°05×165.°75E±0.°05,h19km,n128, σ1s17/127,mb4.2/32,MS3.3/8,Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	**Bering**	**0.49**	**165**	PN	**Pg**	**21 20 21.9**	**-2.3**
BKI	**Bering**	**0.49**	**165**	*eP*	**Pg**	**21 20 21.9**	**-2.3**
BKI				*eS*	**Sg**	**21 20 28.6**	**-2.3**
KBTR	**Krutoberegovo**	**1.73**	**289**	PN	**Pn**	**21 20 41.4**	**-1.9**
KBTR				S	**Sb**	**21 21 06.4**	**-0.4**
KBTR	**Krutoberegovo**	**1.73**	**289**	*eP*	**Pn**	**21 20 41.5**	**-1.9**
KBTR				*eS*	**Sb**	**21 21 06.4**	**-0.4**
SMKR	**Semkarok**	**2.56**	**292**	PN	**Pn**	**21 20 54.8**	**0.0**
SMKR	**Semkarok**	**2.56**	**292**	*eP*	**Pn**	**21 20 54.8**	**0.0**
BDR	**Baidarnaya**	**2.69**	**291**	PN	**Pn**	**21 20 56.7**	**+0.1**
BDR	**Baidarnaya**	**2.69**	**291**	*eP*	**Pn**	**21 20 56.8**	**+0.1**
KLY	**Klyuchi**	**2.93**	**285**	PN	**Pn**	**21 20 58.7**	**-1.1**
KLY	**Klyuchi**	**2.93**	**285**	*eP*	**Pn**	**21 20 58.8**	**-1.1**
TUMD	**Tumrok D**	**3.08**	**263**	PN	**Pn**	**21 21 02.9**	**+1.0**
TUMD	**Tumrok D**	**3.08**	**263**	*eP*	**Pn**	**21 21 03.0**	**+1.0**
KMNR	**Kamenistaya**	**3.12**	**274**	PN	**Pn**	**21 21 04.0**	**+1.5**
KMNR	**Kamenistaya**	**3.12**	**274**	*eP*	**Pn**	**21 21 04.1**	**+1.5**
KZV	**Kizimen**	**3.16**	**262**	PN	**Pn**	**21 21 03.7**	**+0.6**
KZV	**Kizimen**	**3.16**	**262**	*eP*	**Pn**	**21 21 03.7**	**+0.6**
TUMR	**Tumrok**	**3.21**	**265**	PN	**Pn**	**21 21 05.6**	**+1.8**
TUMR	**Tumrok**	**3.21**	**265**	*eP*	**Pn**	**21 21 05.7**	**+1.8**
SRDR	**Sredinnyy**	**3.45**	**283**	PN	**Pn**	**21 21 08.1**	**+1.1**
SRDR	**Sredinnyy**	**3.45**	**283**	*eP*	**Pn**	**21 21 08.1**	**+1.1**
ESO	**Esso**	**3.99**	**276**	PN	**Pn**	**21 21 16.6**	**+2.3**
ESO	**Esso**	**3.99**	**276**	*eP*	**Pn**	**21 21 16.7**	**+2.3**
SPN	**Mys Shipunski**	**4.23**	**235**	PN	**Pn**	**21 21 18.8**	**+1.2**
SPN				S	**Sn**	**21 22 05.6**	**-0.8**
SPN	**Mys Shipunski**	**4.23**	**235**	*eP*	**Pn**	**21 21 18.9**	**+1.2**
SPN				*eS*	**Sn**	**21 22 05.7**	**-0.8**
NLC	**Nalytchevo**	**4.50**	**239**	PN	**Pn**	**21 21 22.6**	**+1.2**
NLC				S	**Sn**	**21 22 13.0**	**-0.2**
NLC	**Nalytchevo**	**4.50**	**239**	*eP*	**Pn**	**21 21 22.6**	**+1.2**
NLC				*eS*	**Sn**	**21 22 13.0**	**-0.2**
SDLR	**Sedlovina**	**4.67**	**242**	PN	**Pn**	**21 21 24.6**	**+0.8**
SDLR	**Sedlovina**	**4.67**	**242**	*eP*	**Pn**	**21 21 24.7**	**+0.8**
SMAR	**Somma**	**4.72**	**242**	PN	**Pn**	**21 21 25.4**	**+0.9**
SMAR	**Somma**	**4.72**	**242**	*eP*	**Pn**	**21 21 25.5**	**+0.9**
KRER	**Koryakskii**	**4.72**	**243**	PN	**Pn**	**21 21 25.9**	**+1.3**
KRER	**Koryakskii**	**4.72**	**243**	*eP*	**Pn**	**21 21 25.9**	**+1.3**
UGLR	**Uglovaya**	**4.74**	**241**	PN	**Pn**	**21 21 26.9**	**+2.2**
UGLR	**Uglovaya**	**4.74**	**241**	*eP*	**Pn**	**21 21 26.9**	**+2.2**
KRX	**Arik**	**4.74**	**244**	PN	**Pn**	**21 21 26.3**	**+1.5**
KRX	**Arik**	**4.74**	**244**	*eP*	**Pn**	**21 21 26.3**	**+1.5**
AVH	**Avacha**	**4.75**	**242**	PN	**Pn**	**21 21 26.4**	**+1.5**
AVH	**Avacha**	**4.75**	**242**	*eP*	**Pn**	**21 21 26.5**	**+1.5**
KOK	**Koryaka**	**4.79**	**243**	PN	**Pn**	**21 21 26.9**	**+1.5**
KOK	**Koryaka**	**4.79**	**243**	*eP*	**Pn**	**21 21 26.9**	**+1.5**
DALK	**Dalny**	**4.88**	**240**	PN	**Pn**	**21 21 26.4**	**-0.1**
DALK	**Dalny**	**4.88**	**240**	*eP*	**Pn**	**21 21 26.4**	**-0.1**
PET	**Petropavlovsk**	**4.93**	**240**	*ePN*	**Pn**	**21 21 28.1**	**+0.9**
PET				*eS*	**Sn**	**21 22 24.1**	**+0.5**
PET				pmax	pmax		
	comp=Z,28nm,1.1s						
PET				smax	smax		
	comp=N,222nm,0.7s						
PET				smax	smax		
	comp=E,143nm,0.6s						
PET				MLR	MLR		
	comp=Z,100nm,13.0s						
PET	**Petropavlovsk**	**4.93**	**240**	Pn	**Pn**	**21 21 27.6**	**+0.4**
PET	**Petropavlovsk**	**4.93**	**240**	*eP*	**Pn**	**21 21 26.6**	**-0.6**
PET				*eS*	**Sn**	**21 22 24.2**	**+0.5**
GNL	**Ganaly**	**4.95**	**250**	PN	**Pn**	**21 21 28.8**	**+1.2**
GNL	**Ganaly**	**4.95**	**250**	*eP*	**Pn**	**21 21 28.9**	**+1.2**
KRMR	**Karymshinskiy**	**5.30**	**241**	PN	**Pn**	**21 21 34.1**	**+1.8**
KRMR	**Karymshinskiy**	**5.30**	**241**	*eP*	**Pn**	**21 21 34.2**	**+1.8**
RUS	**Russkaya**	**5.36**	**236**	PN	**Pn**	**21 21 33.4**	**+0.3**
RUS	**Russkaya**	**5.36**	**236**	*eP*	**Pn**	**21 21 33.5**	**+0.3**
PEA0B	**Petropavlovsk-**	**5.36**	**245**	PN	**Pn**	**21 21 34.7**	**+1.5**
PEA0B	**Petropavlovsk-**	**5.36**	**245**	Pn	**Pn**	**21 21 34.7**	**+1.5**
PETK	**Petropavlovsk-**	**5.36**	**245**	Pn	**Pn**	**21 21 34.8**	**+1.6**
	comp=Z,3.6nm,0.3s,baz=65,slow=16,SNR=25						
PETK				Sn	**Sn**	**21 22 34.0**	**-0.4**
	comp=Z,1.8nm,0.3s,baz=86,slow=18,SNR=6.8						
MTVR	**Mutnovka**	**5.48**	**237**	PN	**Pn**	**21 21 36.2**	**+1.2**
MTVR	**Mutnovka**	**5.48**	**237**	*eP*	**Pn**	**21 21 36.2**	**+1.2**
GRL	**Gorelyy**	**5.49**	**238**	PN	**Pn**	**21 21 37.1**	**+2.0**
GRL	**Gorelyy**	**5.49**	**238**	*eP*	**Pn**	**21 21 37.2**	**+2.0**
ASAK	**Asacha**	**5.68**	**238**	PN	**Pn**	**21 21 38.7**	**+1.0**
ASAK	**Asacha**	**5.68**	**238**	*eP*	**Pn**	**21 21 38.7**	**+1.0**
VNFG	**Fog Glacier, M**	**19.30**	**74**	P	**P**	**21 24 36.8**	**-1.2**
YAK	**Yakutsk**	**19.50**	**304**	P	**P**	**21 24 38.7**	**-1.2**
	comp=Z,0.8nm,0.3s,baz=45,slow=1.5,SNR=7.1						
	comp=Z,15nm,0.8s						
YAK				AML	AML		
M17K	**Holitna River**	**19.84**	**58**	P	**Pn**	**21 24 47.3**	**+2.0**
M17K				IAmb	IAmb	21 24 55.0	
	comp=Z,31nm,1.4s						
ERM	**Erimo**	**20.07**	**237**	P	Pn	21 24 49.7	+1.6
ERM				pmax	pmax		
	comp=Z,148nm,1.5s						
ERM	**Erimo**	**20.07**	**237**	P	Pn	21 24 49.7	+1.5
E19K	**Redstone River**	**20.81**	**41**	P	Pn	21 24 55.5	-1.1
L19K	**White Mountain**	**21.07**	**56**	P	**P**	**21 24 57.0**	**0.0**
L19K				IAmb	IAmb	21 25 03.0	
	comp=Z,25nm,1.4s						
N19K	**Bonanza Creek**	**21.29**	**60**	P	**P**	**21 25 01.4**	**+2.0**
N19K				IAmb	IAmb	21 25 10.2	
	comp=Z,20nm,1.3s						
J20K	**Nowinta River**	**21.47**	**50**	P	**P**	**21 25 03.4**	**+2.2**
KLR	**Kul'dur**	**21.54**	**267**	LR	LR	21 34 05.2	
	comp=Z,85nm,20.5s,baz=82,slow=39						
CAST	**Castle Rocks**	**22.35**	**53**	P	**P**	**21 25 12.7**	**+1.9**
STLK	**Strandline Lak**	**22.53**	**58**	P	**P**	**21 25 13.4**	**+0.7**
TRF	**Thorofare Moun**	**23.16**	**52**	P	**P**	**21 25 19.1**	**-0.3**
TRF				IAmb	IAmb	21 25 32.2	
	comp=Z,18nm,1.4s						
KNK	**Knik Glacier**	**24.15**	**57**	P	**P**	**21 25 27.8**	**-1.0**
KNK				IAmb	IAmb	21 25 36.1	
	comp=Z,22nm,1.2s						
SML	**Sawmill**	**24.16**	**56**	P	**P**	**21 25 28.9**	**0.0**
SML				pmax	pmax		
	comp=Z,47nm,1.4s						
SML	**Sawmill**	**24.16**	**56**	P	**P**	**21 25 28.9**	**0.0**
F24K	**Squaw Lake**	**24.35**	**42**	P	**P**	**21 25 30.5**	**-0.1**
G24K	**Hadweenzic Riv**	**24.44**	**44**	P	**P**	**21 25 33.1**	**+1.8**
G24K				IAmb	IAmb	21 25 52.6	
	comp=Z,16nm,1.5s						
ILAR	**Eielson Array**	**24.63**	**49**	P	**P**	**21 25 33.0**	**-0.1**
	comp=Z,3.4nm,1.2s,baz=256,slow=8.7,SNR=9.7						
	comp=Z,3.4nm,1.2s						
SCM	**Sheep Creek Mo**	**24.63**	**56**	P	**P**	**21 25 33.0**	**-0.3**
SCM				pmax	pmax		
	comp=Z,39nm,1.2s						
SCM	**Sheep Creek Mo**	**24.63**	**56**	P	**P**	**21 25 33.0**	**-0.3**
D25K	**Kavik River**	**25.13**	**38**	P	**P**	**21 25 36.8**	**-0.9**
BMAR	**Burnt Mountain**	**25.61**	**43**	P	**P**	**21 25 44.3**	**+2.2**
C26K	**Camden Bay**	**25.73**	**37**	P	**P**	**21 25 43.2**	**+0.2**
C26K				IAmb	IAmb	21 26 12.6	
	comp=Z,12nm,1.2s						
MJAR	**Matsushiro Arr**	**26.74**	**236**	P	**P**	**21 25 53.9**	**+1.4**
	comp=Z,2.4nm,0.9s,baz=72,slow=33,SNR=4.4						
	comp=Z,2.4nm,0.9s						
BCAR	**Beaver Creek A**	**27.02**	**53**	P	**P**	**21 25 54.7**	**-0.1**
D27M	**Malcolm River**	**27.04**	**39**	P	**P**	**21 25 54.9**	**-0.1**
M29M	**Somme Creek**	**28.64**	**53**	P	**P**	**21 26 09.3**	**0.0**
M29M				IAmb	IAmb	21 26 18.8	
	comp=Z,9.5nm,1.4s						
L29M	**L29M**	**28.65**	**52**	P	**P**	**21 26 09.3**	**-0.1**
L29M				IAmb	IAmb	21 26 18.3	
	comp=Z,5.2nm,0.9s						
KSRS	**Korea Array**	**31.23**	**250**	LR	LR	21 38 40.3	
	comp=Z,35nm,19.6s,baz=60,slow=35						
NRIK	**Noril'sk**	**35.75**	**324**	LR	LR	21 42 44.8	
	comp=Z,69nm,18.9s,baz=34,slow=38						
H11N2	**WAKE ISLAND Hy**	**35.90**	**178**	T	T	22 04 41.5	
	baz=359,slow=76,SNR=255						
H11N3	**WAKE ISLAND Hy**	**35.91**	**178**	T	T	22 04 39.8	
	baz=359,slow=76,SNR=187						
H11N1	**WAKE ISLAND Hy**	**35.92**	**178**	T	T	22 04 51.7	
	baz=359,slow=76,SNR=201						
SONM	**Songino Array**	**36.53**	**283**	P	**P**	**21 27 18.9**	**+0.5**
	comp=Z,1.1nm,0.8s,baz=61,slow=9.4,SNR=7.7						
	comp=Z,1.1nm,0.8s						
SONM	**Songino Array**	**36.53**	**283**	P	**P**	**21 27 18.0**	**-0.4**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SONM	**Songino Array**	**36.53**	**283**	P	**P**	**21 27 18.0**	**-0.4**
SONM				IAmb	IAmb	21 27 26.4	
	comp=Z,2.6nm,0.8s						
KURK	**Kurchatov**	**49.14**	**303**	P	**P**	**21 29 00.3**	**0.0**
KURK				pmax	pmax		
	comp=Z,18nm,1.3s						
KURK	**Kurchatov**	**49.14**	**303**	P	**P**	**21 29 00.3**	**0.0**
KURBB	**Kurchatov Arra**	**49.25**	**303**	P	**P**	**21 29 00.5**	**-0.6**
	comp=Z,3.4nm,0.9s,baz=53,slow=7.8,SNR=22						
	comp=Z,3.4nm,0.9s						
MKAR	**Makanchi Array**	**49.98**	**297**	P	**P**	**21 29 06.6**	**-0.2**
	comp=Z,0.9nm,0.7s,baz=50,slow=7.4,SNR=10						
MKAR				LR	LR	21 50 30.4	
	comp=Z,46nm,20.2s,baz=44,slow=36						
	comp=Z,0.9nm,0.7s						
MAKZ	**Makanchi**	**50.12**	**297**	P	**P**	**21 29 06.9**	**-1.0**
MAKZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MAKZ	**Makanchi**	**50.12**	**297**	P	**P**	**21 29 06.9**	**-1.0**
MAKZ				IAmb	IAmb	21 29 13.9	
	comp=Z,3.3nm,0.8s						
WAKR	**Walker**	**51.14**	**76**	P	**P**	**21 29 16.8**	**+0.9**
WAKR				IAmb	IAmb	21 29 38.0	
	comp=Z,8.0nm,1.5s						
BVAR	**Borovoye Array**	**51.33**	**310**	P	**P**	**21 29 16.9**	**0.0**
	comp=Z,2.3nm,0.8s,baz=54,slow=6.5,SNR=12						
	comp=Z,2.3nm,0.8s						
BORK	**Borovoye**	**51.35**	**310**	P	**P**	**21 29 17.0**	**0.0**
BORK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BORK	**Borovoye**	**51.35**	**310**	P	**P**	**21 29 17.0**	**0.0**
BORK				IAmb	IAmb	21 29 23.8	
	comp=Z,4.0nm,0.9s						
NVAR	**Mina Array Bea**	**51.82**	**76**	P	**P**	**21 29 21.2**	**+0.2**
	comp=Z,0.6nm,0.7s,baz=317,slow=6.9,SNR=3.7						
	comp=Z,0.6nm,0.7s						
PDAR	**Pinedale Array**	**53.41**	**66**	P	**P**	**21 29 33.2**	**+0.5**
	comp=Z,0.5nm,0.4s,baz=333,slow=4.0,SNR=4.6						
	comp=Z,0.5nm,0.4s						
FRB	**Frobisher Bay**	**53.76**	**27**	LR	LR	21 55 12.4	
	comp=Z,46nm,19.5s,baz=88,slow=39						
HMU	**Henry Mountain**	**56.28**	**71**	P	**P**	**21 29 54.5**	**+0.9**
AAK	**Ala-Archa**	**56.84**	**298**	P	**P**	**21 29 57.4**	**0.0**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
AAK	**Ala-Archa**	**56.84**	**298**	P	**P**	**21 29 57.4**	**0.0**
AAK				IAmb	IAmb	21 30 04.7	
	comp=Z,1.9nm,0.8s						
PV22	**Blue Mesa, Par**	**56.88**	**69**	P	**P**	**21 29 57.6**	**-0.2**
AB31	**Akbulak array**	**58.57**	**312**	P	**P**	**21 30 08.7**	**-0.6**
AB31				IAmb	IAmb	21 30 15.5	
	comp=Z,1.2nm,0.6s						
ABKAR	**Akbulak array**	**58.57**	**312**	P	**P**	**21 30 08.7**	**-0.6**
FINES	**FINESS Array B**	**58.99**	**339**	P	**P**	**21 30 11.5**	**-0.4**
	comp=Z,2.0nm,0.8s,baz=12,slow=10,SNR=5.8						
	comp=Z,2.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**61.90**	**262**	P	**P**	**21 30 32.9**	**+0.5**
	comp=Z,0.3nm,0.3s,baz=22,slow=6.7,SNR=8.2						
	comp=Z,0.3nm,0.3s						
NOA	**NORSAR Array B**	**61.90**	**346**	P	**P**	**21 30 31.7**	**-0.2**
	comp=Z,0.5nm,0.9s,baz=16,slow=6.5,SNR=3.2						
NOA				LR	LR	22 00 27.0	
	comp=Z,9.9nm,18.0s,baz=80,slow=39						
	comp=Z,0.5nm,0.9s						
HFS	**Hagfors**	**62.42**	**345**	P	**P**	**21 30 34.6**	**-0.8**
	comp=Z,1.8nm,1.0s,baz=14,slow=6.4,SNR=1.6						
HFS				LR	LR	21 59 24.0	
	comp=Z,30nm,19.2s,baz=293,slow=38						
	comp=Z,1.8nm,1.0s						
TXAR	**Lajitas Array**	**66.63**	**72**	P	**P**	**21 31 04.1**	**+0.6**
	comp=Z,0.7nm,0.5s,baz=306,slow=4.7,SNR=7.0						
	comp=Z,0.7nm,0.5s						
TXAR	**Lajitas Array**	**66.63**	**72**	P	**P**	**21 31 03.7**	**+0.2**
AKASG	**Malin Array Be**	**68.00**	**332**	P	**P**	**21 31 10.8**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=31,slow=6.3,SNR=2.4						
	comp=Z,0.6nm,0.5s						
WRA	**Warramunga Arr**	**79.90**	**210**	P	**P**	**21 32 23.5**	**+1.9**
	comp=Z,0.6nm,0.7s,baz=26,slow=5.5,SNR=5.4						
	comp=Z,0.6nm,0.7s						
ASAR	**Alice Springs**	**83.56**	**209**	P	**P**	**21 32 42.6**	**+1.8**
	comp=Z,1.2nm,0.7s,baz=16,slow=5.8,SNR=11						
	comp=Z,1.2nm,0.7s						
ASAR	**Alice Springs**	**83.56**	**209**	P	**P**	**21 32 40.8**	**0.0**
RPZ	**Rata Peaks**	**99.12**	**176**	LR	LR	22 11 42.9	
	comp=Z,6.0nm,19.9s,baz=242,slow=31						
QSPA	**South Pole Qui**	**145.43**	**180**	PKPbc	**PKPab**	**21 39 50.7**	**+1.0**
	comp=Z,2.0nm,0.9s,baz=353,slow=2.3,SNR=7.3						

*IDC **09** 21:21:44.9±1.5,55.°81N×165.°86E, h0km, mb3.8/7, mbtmp3.8/8, ML3.1/1, MS3.5/5, Error ellipse: s-maj=30.6km s-min=25.6km az=133.0*
*KRSC **09** 21:21:45.7±2.0,55.°54N×165.°51E, h7km±33km, Ml4.4*

ISC 09 21:21:47.4±1.1,55.°67N±0.°08×165.°89E±0.°10,h20km,n27, σ1s34/22,mb3.9/7,MS3.5/5,Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	**Bering**	**0.47**	**174**	*eP*	**Pb**	**21 21 55.0**	**-1.9**
BKI				*eS*	**Sb**	**21 22 02.4**	**-0.9**
KBTR	**Krutoberegovo**	**1.81**	**289**	*eP*	**Pn**	**21 22 15.1**	**-2.3**
KMNR	**Kamenistaya**	**3.20**	**274**	*eP*	**Pn**	**21 22 37.0**	**+0.4**
SPN	**Mys Shipunski**	**4.29**	**236**	*eS*	**Sn**	**21 23 39.2**	**-1.6**
NLC	**Nalytchevo**	**4.57**	**239**	*eS*	**Sn**	**21 23 46.6**	**-1.0**
KOK	**Koryaka**	**4.85**	**244**	*eP*	**Pn**	**21 23 00.1**	**+0.8**
PET	**Petropavlovsk**	**4.99**	**241**	*eS*	**Sn**	**21 23 56.8**	**-1.2**
KRMR	**Karymshinskiy**	**5.36**	**241**	*eS*	**Sn**	**21 24 08.5**	**+1.3**
PETK	**Petropavlovsk-**	**5.43**	**245**	Pn	**Pn**	**21 23 08.3**	**+1.2**
	2.7nm,0.3s,baz=62,slow=15,SNR=5.1						
PETK				Sn	**Sn**	**21 24 06.9**	**-2.0**
	1.2nm,0.3s,baz=65,slow=18,SNR=3.8						
	5.1nm,0.4s						
PETK				AML	AML		
MTVR	**Mutnovka**	**5.54**	**238**	*eS*	**Sn**	**21 24 10.8**	**-1.1**
GRL	**Gorelyy**	**5.55**	**239**	*eS*	**Sn**	**21 24 13

TUMD			*e*S	Sn	21 28 48.1	+5.3
KZV	**Kizimen**	**3.31 264**	*e*P	Pn	21 28 10.1	+3.5
SRDR	**Sredinnyy**	**3.63 284**	*e*S	Sn	21 28 57.9	+5.4
KII	**Karymskiy**	**4.11 251**	*e*S	Sn	21 29 08.4	+4.1
ESO	**Esso**	**4.16 278**	*e*P	Pn	21 28 21.9	+3.8
SPN	**Mys Shipunski**	**4.30 237**	*e*P	Pn	21 28 23.2	+3.1
SPN			*e*S	Sn	21 29 11.9	+3.0
NLC	**Nalytchevo**	**4.59 241**	*e*S	Sn	21 29 19.9	+3.9
SDLR	**Sedlovina**	**4.76 244**	*e*P	Pn	21 28 30.8	+4.2
SMAR	**Somma**	**4.81 244**	*e*P	Pn	21 28 31.4	+4.1
KRER	**Koryakskii**	**4.82 245**	*e*P	Pn	21 28 31.8	+4.4
KRX	**Arik**	**4.84 246**	*e*P	Pn	21 28 32.2	+4.6
AVH	**Avacha**	**4.85 245**	*e*P	Pn	21 28 32.0	+4.4
KOK	**Koryaka**	**4.88 245**	*e*P	Pn	21 28 32.2	+4.1
DALK	**Dalny**	**4.96 242**	*e*P	Pn	21 28 32.2	+3.1
DALK			*e*S	Sn	21 29 27.8	+2.6
PET	**Petropavlovsk**	**5.02 242**	*e*P	Pn	21 28 34.3	+4.4
PET			*e*S	Sn	21 29 30.6	+4.1
GNL	**Ganaly**	**5.06 252**	*e*P	Pn	21 28 34.8	+4.2
KRMR	**Karymshinskiy**	**5.39 243**	*e*P	Pn	21 28 39.8	+4.8
KRMR			*e*S	Sn	21 29 40.3	+4.7
RUS	**Russkaya**	**5.43 238**	*e*P	Pn	21 28 38.9	+3.2
MTVR	**Mutnovka**	**5.56 239**	*e*P	Pn	21 28 41.5	+3.9
MTVR			*e*S	Sn	21 29 43.0	+2.8
GRL	**Gorelyy**	**5.58 240**	*e*P	Pn	21 28 42.7	+5.0
ASAK	**Asacha**	**5.76 240**	*e*P	Pn	21 28 44.6	+4.4

NEIC ***09*** *21:34:31.0±1.1, 18°.0S±0°.2×178°.30W±0°.08, h592km±10km, mb4.4/18, Error ellipse: s-maj=29.6km s-min=9.7km az=169.0*

IDC ***09*** *21:34:32.4±1.3, 17°.99S×178°.47W, h601km±11km, mb3.3/9, mbtmp4.2/10, Error ellipse: s-maj=22.4km s-min=18.9km az=113.0*

ISC 09 21:34:30.1±0.7, 18°.0S±0°.2×178°.3W±0°.1, h579km, n89, σ0=89/89, mb4.2/19, 10C-8D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.49**	**274**	P	**P**	**21 35 53.1**	**+2.5**
	86nm,0.7s,baz=112,slow=3.7,SNR=71						
MSVF				S	**S**	**21 37 00.5**	**+4.3**
	5.8nm,0.8s,baz=122,slow=23,SNR=6.6						
MSVF	**Nonsavu**	**3.49**	**274**	P	**P**	**21 35 52.7**	**+2.1**
FUTU	**Fugatoga**	**3.68**	**3**	P	**P**	**21 35 53.0**	**+1.1**
EIDS	**Eidsvold**	**29.34**	**250**	P	**P**	**21 39 46.6**	**-0.7**
EIDS				IAmb	IAmb	21 39 50.2	
	comp=Z,23nm,1.4s						
ARMA	**Armidale**	**29.98**	**240**	P	**P**	**21 39 52.0**	**-0.9**
ARMA				IAmb	IAmb	21 39 56.1	
	comp=Z,12nm,1.2s						
CTAO	**Charters Tower**	**33.54**	**261**	P	**P**	**21 40 22.3**	**-0.9**
STKA	**Stephens Creek**	**38.68**	**241**	P	**P**	**21 41 05.8**	**+0.5**
	comp=Z,6.0nm,0.8s,baz=70,slow=6.6,SNR=7.0 comp=Z,6.0nm,0.8s						
STKA	**Stephens Creek**	**38.68**	**241**	P	**P**	**21 41 05.5**	**+0.2**
INKA	**Innaminka**	**38.81**	**248**	P	**P**	**21 41 06.8**	**+0.4**
BBOO	**Buckleboo**	**43.45**	**241**	P	**P**	**21 41 42.8**	**-0.3**
BBOO				IAmb	IAmb	21 42 22.1	
	comp=Z,33nm,1.4s						
WR8	**Warramunga Arr**	**44.57**	**260**	P	**P**	**21 41 50.8**	**-1.0**
WR8				IAmb	IAmb	21 41 53.0	
	comp=Z,10nm,1.2s						
WB0	**Warramunga Arr**	**44.69**	**260**	P	**P**	**21 41 51.9**	**-0.9**
WB0				IAmb	IAmb	21 41 52.6	
	comp=Z,7.5nm,0.6s						
WRAB	**Tennant Creek**	**44.71**	**260**	P	**P**	**21 41 52.1**	**-0.8**
WRAB				IAmb	IAmb	21 41 52.8	
	comp=Z,6.8nm,0.7s						
WRA	**Warramunga Arr**	**44.72**	**260**	P	**P**	**21 41 52.0**	**-1.0**
	comp=Z,4.0nm,0.5s,baz=96,slow=7.2,SNR=71						
WRA				PcP	**PcP**	**21 43 22.1**	**-0.5**
	comp=Z,0.9nm,0.4s,baz=94,slow=3.2,SNR=6.1 comp=Z,4.0nm,0.5s						
WRA	**Warramunga Arr**	**44.72**	**260**	P	**P**	**21 41 52.0**	**-1.0**
AS31	**Alice Springs**	**44.87**	**254**	P	**P**	**21 41 53.7**	**-0.4**
AS31				IAmb	IAmb	21 41 54.8	
	comp=Z,7.2nm,0.6s						
ASAR	**Alice Springs**	**44.87**	**254**	P	**P**	**21 41 53.8**	**-0.3**
	comp=Z,25nm,0.6s,baz=88,slow=8.5,SNR=291						
ASAR				PcP	**PcP**	**21 43 22.8**	**-0.4**
	comp=Z,1.8nm,0.5s,baz=102,slow=3.7,SNR=8.5 comp=Z,25nm,0.6s						
FORT	**Forrest**	**50.06**	**245**	P	**P**	**21 42 31.5**	**-1.3**
FORT				IAmb	IAmb	21 42 49.4	
	comp=Z,18nm,1.2s						
KNRA	**Kununurra**	**50.59**	**264**	P	**P**	**21 42 36.3**	**-0.4**
KNRA				IAmb	IAmb	21 42 36.9	
	comp=Z,4.7nm,0.8s						
FITZ	**Fitzroy Crossi**	**53.12**	**261**	P	**P**	**21 42 54.5**	**-0.4**
MBWA	**Marble Bar**	**58.16**	**256**	P	**P**	**21 43 28.6**	**-1.1**
MBWA				IAmb	IAmb	21 44 10.3	
	comp=Z,36nm,1.5s						
VNDA	**Vanda**	**60.36**	**185**	P	**P**	**21 43 43.9**	**+0.5**
	comp=Z,0.3nm,0.5s,baz=13,slow=6.8,SNR=2.1 comp=Z,0.3nm,0.5s						
MJAR	**Matsushiro Arr**	**68.05**	**323**	P	**P**	**21 44 31.7**	**-1.0**
	comp=Z,2.0nm,0.6s,baz=138,slow=6.2,SNR=6.0 comp=Z,2.0nm,0.6s						
UGM	**Wanagama**	**69.75**	**268**	P	**P**	**21 44 42.5**	**-0.9**
QSPA	**South Pole Qui**	**72.05**	**180**	P	**P**	**21 44 56.6**	**+0.5**
	comp=Z,2.8nm,0.8s,baz=66,slow=1.6,SNR=8.1 comp=Z,2.8nm,0.8s						
QSPA	**South Pole Qui**	**72.05**	**180**	P	**P**	**21 44 56.2**	**+0.2**
SSLB	**Suanglung**	**72.38**	**303**	P	**P**	**21 44 56.9**	**-1.7**
TXAR	**Lajitas Array**	**85.96**	**58**	P	**P**	**21 46 11.8**	**+1.7**
	comp=Z,0.4nm,0.7s,baz=252,slow=4.2,SNR=2.8 comp=Z,0.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**89.02**	**290**	P	**P**	**21 46 25.8**	**+1.2**
	comp=Z,1.2nm,0.8s,baz=111,slow=2.9,SNR=9.3 comp=Z,1.2nm,0.8s						
SONM	**Songino Array**	**93.70**	**319**	P	**P**	**21 46 46.4**	**+0.8**
	comp=Z,0.2nm,0.5s,baz=140,slow=6.5,SNR=2.2 comp=Z,0.2nm,0.5s						
MKAR	**Makanchi Array**	**109.28**	**314**	PKiKP	**PKiKP**	**21 51 53.7**	**-1.3**
	comp=Z,0.4nm,0.5s,baz=141,slow=0.6,SNR=8.5						
MKAR	**Makanchi Array**	**109.28**	**314**		**PKiKP**	**21 51 53.4**	**-1.7**
KURBB	**Kurchatov Arra**	**112.03**	**318**	PKiKP	**PKiKP**	**21 51 58.6**	**-1.4**
	comp=Z,0.6nm,0.2s,baz=70,slow=2.0,SNR=4.6						
BVAR	**Borovoye Array**	**116.99**	**321**	PKP	**PKPdf**	**21 52 08.6**	**-0.9**
	comp=Z,1.4nm,0.4s,baz=97,slow=1.3,SNR=13						
MNTR	**Muntenesti**	**144.30**	**329**	⇓P	PKPbc	21 53 00.5	-0.2
VLDR	**Vladesti**	**144.66**	**328**	⇓P	**PKPab**	**21 53 02.7**	**+0.1**
TLCR		**144.71**	**326**	⇑P	PKPbc	21 53 02.1	+0.1
BUR08	**Bucovina Ar. S**	**144.74**	**332**		PKPbc	21 53 02.2	0.0
BURAR	**Bucovina Array**	**144.75**	**332**	⇑P	**PKPab**	**21 53 02.9**	**-0.1**
BIZ	**Bicaz**	**144.85**	**331**	⇓P	**PKPab**	**21 53 03.0**	**-0.3**
BRTR	**Keskin Array B**	**144.93**	**315**	PKP	**PKPdf**	**21 53 02.1**	**-0.2**
	comp=Z,2.1nm,0.6s,baz=116,slow=3.6,SNR=11						
BRTR	**Keskin Array B**	**144.93**	**315**	PKPdf	**PKPdf**	**21 53 02.5**	**+0.2**
TPGR	**Topolog**	**145.14**	**326**	⇓P	**PKPbc**	**21 53 03.6**	**+0.3**
ONER	**Baraj Valea Uz**	**145.15**	**330**	⇑P	**PKPab**	**21 53 04.0**	**-0.5**
OSTC	**Ostas**	**145.51**	**344**	*e*PKP	**PKPbc**	**21 53 05.0**	**+0.7**
CLL	**Collm**	**145.58**	**347**	PKPdf	**PKPdf**	**21 53 03.7**	**+0.8**
CLL	**Collm**	**145.58**	**347**	*i* PKPbc	**PKPbc**	**21 53 04.1**	**-0.3**
	comp=Z,9.0nm,0.9s						
COVR	**Voineasa-Covas**	**145.59**	**329**	⇓P	**PKPbc**	**21 53 04.3**	**-0.3**
STEB	**Steborice**	**145.63**	**342**	*e*PKP	**PKPbc**	**21 53 04.5**	**-0.1**
DPC	**Dobruska-Polom**	**145.67**	**343**	*e*PKP	**PKPbc**	**21 53 05.0**	**+0.2**
MORC	**Moravsky Berou**	**145.84**	**342**	*e*PKP	**PKPab**	**21 53 07.3**	**+0.2**
MORC				*e*		21 53 10.0	
DOPR	**Dopca**	**145.90**	**330**	⇑P	**PKPbc**	**21 53 06.2**	**+0.7**
CJR	**Cluj-Napoca**	**146.15**	**333**	⇑P	**PKPbc**	**21 53 06.6**	**+0.4**
MMAI	**Mount Meron Ar**	**146.29**	**303**	PKPbc	**PKPdf**	**21 53 05.7**	**+1.0**
	comp=Z,3.0nm,0.6s,baz=56,slow=6.7,SNR=9.0						
MARR	**Marisel-Cluj**	**146.39**	**333**	⇑P	**PKPbc**	**21 53 06.8**	**-0.2**
PRU	**Pruhonice**	**146.47**	**345**	*e*PKP	**PKPbc**	**21 53 06.7**	**-0.2**
DRGR		**146.47**	**334**	⇓P	**PKPbc**	**21 53 07.1**	**-0.1**
VRAC	**Vranov**	**146.54**	**342**	*e*PKP	**PKPbc**	**21 53 08.0**	**+0.9**
JAVC	**Velka Javorina**	**146.61**	**341**	*e*PKP	**PKiKP**	**21 53 08.6**	**-0.9**
ARR	**Arges**	**146.70**	**330**	⇑P	**PKPbc**	**21 53 08.4**	**+0.6**
KRUC	**Moravsky**	**146.81**	**342**	*e*PKP	**PKPbc**	**21 53 07.9**	**0.0**
KRUC				*e*		21 53 11.0	
ZVC	**Zvikov**	**147.06**	**345**	*e*PKP	**PKPbc**	**21 53 08.9**	**+0.4**
ZVC				*ex*	x	21 53 12.3	
ABNA	**Allensteig Bun**	**147.44**	**343**	*i* PKP	**PKPbc**	**21 53 10.0**	**+0.4**
	comp=Z,8nm,0.6s						
KHC	**Kasperske Hory**	**147.50**	**345**	*e*PKP	**PKPbc**	**21 53 09.6**	**-0.1**
SURR	**Surduc**	**147.54**	**333**	⇑P	**PKPbc**	**21 53 09.3**	**-0.5**
CKRC	**Cesky Krumlov**	**147.61**	**344**	*e*PKP	**PKPbc**	**21 53 09.9**	**-0.1**
GERES	**GERESS Array B**	**147.74**	**345**	PKPbc	**PKPbc**	**21 53 10.2**	**-0.2**
	comp=Z,1.7nm,0.5s,baz=19,slow=2.8,SNR=24						
GERES	**GERESS Array B**	**147.74**	**345**		**PKPbc**	**21 53 09.8**	**-0.6**

WINA	**Alland / Wiene**	**147.77**	**342**	*i* PKP	**PKPbc**	**21 53 11.0**	**+0.6**
	comp=Z,1.7nm,0.7s						
BZS	**Buzias**	**147.87**	**333**	⇑P	**PKPbc**	**21 53 10.5**	**-0.2**
CONA	**Conrad Observa**	**147.99**	**342**	*i* PKP	**PKPbc**	**21 53 11.5**	**+0.5**
	comp=Z,2.2nm,0.7s						
RONA	**Rosalia, Austr**	**148.06**	**341**	*i* PKP	**PKPbc**	**21 53 11.6**	**+0.4**
	comp=Z,2.5nm,0.7s						
HERR	**Herculane**	**148.09**	**332**	⇓P	**PKPbc**	**21 53 11.0**	**-0.3**
MOA	**Molln**	**148.51**	**344**	*i* PKP	**PKiKP**	**21 53 13.3**	**-0.1**
	comp=Z,2.6nm,1.1s						
BLKB	**Belogradchik**	**148.93**	**330**	⇑P	**PKPbc**	**21 53 13.2**	**-0.3**
SESA	**Seetaler Alpe,**	**149.10**	**343**	*i* PKP	**PKPbc**	**21 53 13.6**	**-0.4**
	comp=Z,4.6nm,0.9s						
LESA	**Schwarzleotal**	**149.31**	**345**	*i* PKP	**PKPbc**	**21 53 14.1**	**-0.2**
	comp=Z,1.4nm,0.5s						
BOVS	**Bovan**	**149.38**	**331**	⇓P	**PKPbc**	**21 53 13.9**	**-0.6**
KBA	**Koelnbreinsper**	**149.46**	**344**	*i* PKP	**PKPbc**	**21 53 14.4**	**-0.4**
	comp=Z,2.9nm,0.6s						
WATA	**Walderalm**	**149.65**	**347**	*i* PKP	**PKPbc**	**21 53 14.8**	**-0.4**
	comp=Z,1.9nm,0.5s						
RETA	**Reutte**	**149.67**	**348**	*i* PKP	**PKPbc**	**21 53 14.9**	**-0.3**
	comp=Z,1.3nm,0.6s						
WTTA	**Wattenberg**	**149.70**	**347**	*i* PKP	**PKPbc**	**21 53 15.3**	**-0.1**
	comp=Z,5.7nm,0.6s						
MOTA	**Moosalm**	**149.74**	**347**	*i* PKP	**PKPbc**	**21 53 15.1**	**-0.3**
	comp=Z,3.9nm,0.8s						
MYKA	**Terra Mystica**	**149.80**	**344**	*i* PKP	**PKPbc**	**21 53 14.5**	**-1.0**
	comp=Z,4.6nm,0.9s						
SQTA	**Sankt Quirin**	**149.83**	**347**	*i* PKP	**PKPbc**	**21 53 15.4**	**-0.2**
	comp=Z,4.5nm,0.8s						
ABTA	**Abfaltersbach**	**149.98**	**345**	*i* PKP	**PKPbc**	**21 53 15.2**	**-0.7**
	comp=Z,6.5nm,0.8s						
DAVA	**Damuels**	**150.03**	**349**	*i* PKP	**PKiKP**	**21 53 16.9**	**+0.2**
	comp=Z,6.1nm,1.2s						
FETA	**Feichten**	**150.12**	**348**	*i* PKP	**PKPbc**	**21 53 16.4**	**+0.1**
	comp=Z,3.9nm,1.2s						
FUORN	**Ofenpass-Fuorn**	**150.60**	**348**	PKPbc	**PKPbc**	**21 53 17.3**	**-0.3**

IDC ***09*** *21:46:44.8±2.7, 6°.06S×148°.61E, h87km±21km, mb3.4/3, mbtmp3.8/5, Error ellipse: s-maj=58.7km s-min=17.4km az=120.0*

ISC 09 21:46:42.4±1.3, 5°.8S±0°.2×148°.4E±0°.4, h65km, n6, σ0=89/8, mb3.7/3, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.75**	**199**	P	**Pn**	**21 47 38.8**	**+0.9**
	49nm,0.3s,baz=29,slow=11,SNR=24						
PMG				S	**Sn**	**21 48 20.6**	**-0.2**
	134nm,0.7s,baz=21,slow=18,SNR=11						
WRA	**Warramunga Arr**	**19.57**	**223**	P	**Pn**	**21 51 06.9**	**-0.3**
	1.0nm,0.4s,baz=50,slow=11,SNR=16						
ASAR	**Alice Springs**	**22.55**	**217**	P	**P**	**21 51 38.0**	**+0.7**
	0.8nm,0.5s,baz=52,slow=9.5,SNR=12						
ASAR				S	**S**	**21 55 39.1**	**-1.2**
	0.6nm,0.5s,baz=35,slow=23,SNR=5.1 0.8nm,0.5s						
QSPA	**South Pole Qui**	**84.13**	**180**	P	**P**	**21 59 05.3**	**-1.0**
	0.9nm,0.8s,baz=353,slow=1.9,SNR=3.2 0.9nm,0.8s						
ILAR	**Eielson Array**	**84.79**	**23**	P	**P**	**21 59 09.5**	**+0.1**
	0.4nm,0.6s,baz=250,slow=4.2,SNR=4.9 0.4nm,0.6s						
TORD	**Torodi Ar. Bea**	**146.39**	**285**	PKPbc	**PKPdf**	**22 06 16.2**	**+0.5**
	0.2nm,0.6s,baz=51,slow=4.1,SNR=1.3						

IDC ***09*** *22:01:33.8±1.0, 54°.25N×160°.07W, h0km, mb4.0/18, mbtmp4.0/22, ML3.9/4, MS3.4/1, Error ellipse: s-maj=23.9km s-min=13.4km az=174.0*

NEIC ***09*** *22:01:36.6±1.7, 54°.21N±0°.04×160°.03W±0°.05, h21km±6km, mb4.1/26, ML3.7/32, ML3.6(AEIC), Error ellipse: s-maj=6.4km s-min=4.2km az=198.0*

AEIC ***09*** *22:01:37.6±1.7, 54°.14N±0°.06×159°.98W±0°.08, h20km±4km, Error ellipse: s-maj=9.2km s-min=5.9km az=151.0*

ISC 09 22:01:35.3±1.8, 54°.15N±0°.06×160°.01W±0°.03, h14km±11km, n175, σ0=99/179, mb4.2/23, Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.72**	**20**		**Pb**	**22 01 49.4**	**-0.1**
CNBA					**Sn**	**22 02 00.6**	**-1.2**
CNBA				IAML		22 02 03.6	
	comp=E,4μm,0.3s						
CNBA				IAML		22 02 03.8	
	comp=N,2μm,0.4s						
CHNA	**Chernabura Isl**	**0.73**	**19**	P	**Pg**	**22 01 50.0**	**+0.6**
SDPT	**Sand Point**	**1.23**	**347**	P	**Pb**	**22 01 58.0**	**-0.3**
SDPT	**Sand Point**	**1.23**	**347**		**Pn**	**22 01 57.9**	**-0.2**
SDPT				IAML		22 02 28.0	
	comp=N,1μm,1.2s						
SDPT				IAML		22 02 29.7	
	comp=E,1μm,1.0s						
SDPT	**Sand Point**	**1.23**	**347**		**Sb**	**22 02 12.6**	**-1.5**
DOL	**Dolgoi Island**	**1.47**	**314**		**Pn**	**22 02 01.1**	**-0.3**
DOL					**Sn**	**22 02 19.1**	**-1.3**
DOL					**Sb**	**22 02 20.3**	**-0.7**
PVV	**Pavlof Volcano**	**1.61**	**321**		**Pn**	**22 02 03.1**	**-0.1**
PVV					**Pb**	**22 02 03.5**	**-1.2**
PS4A	**Pavlof South-4**	**1.61**	**319**		**Pn**	**22 02 03.5**	**+0.3**
PS4A					**Pb**	**22 02 03.8**	**-0.9**
PS4A					**Sn**	**22 02 23.2**	**-0.6**
PS4A					**Sb**	**22 02 23.6**	**-1.3**
PS1A	**Pavlof South-1**	**1.62**	**322**		**Pn**	**22 02 03.5**	**+0.1**
DT1	**Dutton Round H**	**1.64**	**307**		**Pn**	**22 02 03.7**	**+0.1**
DT1					**Sb**	**22 02 24.6**	**-1.1**
DTNA	**Dutton South F**	**1.65**	**308**		**Pn**	**22 02 03.7**	**-0.1**
DTNA					**Sb**	**22 02 24.9**	**-1.0**
PN7A	**Pavlof North-7**	**1.73**	**319**		**Pn**	**22 02 05.3**	**+0.4**
PN7A					**Pb**	**22 02 05.6**	**-1.2**
VNKR	**Veniaminof 5**	**1.92**	**11**		**Pn**	**22 02 08.2**	**+0.6**
S12K	**Black Hills**	**1.96**	**324**	Pn	**Pn**	**22 02 08.8**	**+0.7**
S12K				IAML		22 02 45.4	
	comp=N,995nm,0.5s						
S12K	**Black Hills**	**1.96**	**324**		**Sb**	**22 02 34.0**	**-0.9**
VNWF	**Veniaminof 8**	**2.02**	**7**		**Pn**	**22 02 09.8**	**+0.8**
VNSS	**Veniaminof 8**	**2.11**	**8**		**Pn**	**22 02 10.9**	**+0.7**
ISLZ	**Isanotski Laza**	**2.24**	**286**		**Pn**	**22 02 11.8**	**-0.1**
ISLZ					**Sn**	**22 02 39.7**	**+0.3**
CHGN	**Chignik**	**2.34**	**22**	Pn	**Pn**	**22 02 12.3**	**-1.0**
CHGN	**Chignik**	**2.34**	**22**		**Sn**	**22 02 41.6**	**-0.3**
CHGN	**Chignik**	**2.34**	**22**	IAML		22 02 54.6	
	comp=N,340nm,0.6s						
CHGN				IAML		22 03 03.2	
	comp=E,490nm,0.9s						
SSLS	**Shishaldin Sou**	**2.40**	**285**		**Pn**	**22 02 14.7**	**+0.5**
BPBCA	**Veniaminof**	**2.60**	**19**		**Pn**	**22 02 17.1**	**+0.2**
WESN	**West Dahl Nort**	**2.71**	**281**		**Pn**	**22 02 19.6**	**+1.1**
WESP	**Westdahl Peak**	**2.78**	**279**		**Pn**	**22 02 20.2**	**+0.8**
WECS	**Westdahl Cape**	**2.82**	**280**	Pn	**Pn**	**22 02 20.0**	**+0.1**
WECS				IAML		22 03 02.1	
	comp=E,270nm,1.4s						
WECS				IAML		22 03 05.3	
	comp=N,447nm,1.4s						
ANPB	**Aniakchak Plen**	**2.84**	**20**		**Pn**	**22 02 20.6**	**+0.5**
CHIR	**Chirikof Islan**	**3.03**	**55**	P	**Pn**	**22 02 21.5**	**-1.3**
CHIR	**Chirikof Islan**	**3.03**	**55**	Pn	**Pn**	**22 02 20.9**	**-1.9**
CHIR				IAML		22 03 31.2	
	comp=E,301nm,1.3s						
CHIR				IAML		22 03 31.9	
	comp=N,287nm,1.4s						
AKUT	**Akutan**	**3.39**	**272**	Pn	**Pn**	**22 02 28.5**	**+0.8**
AKUT				IAML		22 03 34.2	
	comp=E,114nm,1.0s						
ZRO	**Akutan Zero**	**3.51**	**271**		**Pn**	**22 02 30.0**	**+0.6**
ZRO					**Sn**	**22 03 10.4**	**-0.3**
R16K	**Pilot Point**	**3.69**	**21**	Pn	**Pn**	**22 02 30.6**	**-1.2**
UNV	**Unalaska Valle**	**3.85**	**268**	P	**Pn**	**22 02 34.4**	**+0.4**
UNV	**Unalaska Valle**	**3.85**	**268**	Pn	**Pn**	**22 02 33.7**	**-0.2**
UNV	**Unalaska Valle**	**3.85**	**268**		**Sn**	**22 03 16.7**	**-2.2**
MSW	**Makushin Switc**	**4.00**	**269**		**Pn**	**22 02 36.3**	**+0.2**
R17L	**Mt. Peulik Vol**	**4.05**	**29**		**Pn**	**22 02 37.4**	**+0.6**
MGOD	**Makushin Gods**	**4.07**	**268**		**Pn**	**22 02 37.0**	**-0.1**
MGOD					**Sn**	**22 03 22.4**	**-2.1**
SII	**Sitkinak Islan**	**4.11**	**52**	P	**Pn**	**22 02 36.5**	**-1.1**
SII	**Sitkinak Islan**	**4.11**	**52**	Pn	**Pn**	**22 02 36.5**	**-1.1**
SII				IAML		22 04 14.4	
	comp=N,160nm,1.2s						
KJL	**Kejulik**	**4.63**	**31**		**Pn**	**22 02 45.0**	**+0.2**
CAHL	**Cahill**	**4.72**	**32**		**Pn**	**22 02 46.0**	**0.0**
Q17K	**Contact Creek**	**4.72**	**27**		**Pn**	**22 02 45.8**	**-0.3**

ANCK	**Angle Creek**	**4.78**	**30**		**Pn**	**22 02 47.2**	**+0.4**
ACHA	**Angle Creek He**	**4.84**	**31**	Pn	**Pn**	**22 02 47.7**	**0.0**
OHAK	**Old Harbor**	**4.89**	**48**	P	**Pn**	**22 02 47.0**	**-1.3**
OHAK	**Old Harbor**	**4.89**	**48**	Pn	**Pn**	**22 02 47.0**	**-1.3**
P16K	**Nushagak River**	**5.02**	**12**	Pn	**Pn**	**22 02 50.3**	**+0.3**
O15K	**Ungaliktiuk R**	**5.04**	**1**	Pn	**Pn**	**22 02 49.3**	**-1.1**
O15K				IAML		22 04 33.6	
	comp=E,39nm,1.5s						
KAWH	**Katmai**	**5.14**	**32**		**Pn**	**22 02 51.6**	**-0.2**
O14K	**Tigyukauivet M**	**5.17**	**353**	Pn	**Pn**	**22 02 52.4**	**+0.4**
O14K				IAML		22 04 49.5	
	comp=N,43nm,1.1s						
O14K				IAML		22 04 58.6	
	comp=E,38nm,1.3s						
KARR	**Katmai Rainbow**	**5.26**	**32**		**Pn**	**22 02 53.2**	**-0.2**
Q18K	**Katmai Hardscr**	**5.30**	**30**		**Pn**	**22 02 53.8**	**-0.1**
KAHG	**Katmai Hook Gl**	**5.31**	**33**		**Pn**	**22 02 54.1**	**-0.1**
P17K	**Kvichak River**	**5.43**	**20**	Pn	**Pn**	**22 02 56.4**	**+0.7**
KDAK	**Kodiak Island**	**5.54**	**46**	Pn	**Pn**	**22 02 55.7**	**-1.4**
	comp=E,1.9nm,0.3s,baz=215,slow=6.2,SNR=23						
KDAK				Sn	**Sn**	**22 03 56.4**	**-4.1**
	comp=E,0.1nm,0.3s,baz=308,slow=23,SNR=1.2 comp=E,13nm,0.7s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.54**	**46**	Pn	**Pn**	**22 02 55.9**	**-1.3**
O16K	**Kokwok River B**	**5.56**	**10**	Pn	**Pn**	**22 02 57.9**	**+0.4**
O17K	**Koliganek Bris**	**5.86**	**15**		**Pn**	**22 03 01.7**	**+0.1**
N14K	**Kuskokwak Cree**	**5.86**	**352**	Pn	**Pn**	**22 03 04.5**	**+2.8**
P18K	**Big Mountain,**	**5.88**	**25**		**Pn**	**22 03 02.2**	**+0.4**
Q19K	**Cape Douglas,**	**5.94**	**34**	Pn	**Pn**	**22 03 02.9**	**+0.1**
N15K	**Kwethluk River**	**6.04**	**360**	Pn	**Pn**	**22 03 04.0**	**0.0**
N16K	**Nishlik Lake**	**6.38**	**6**		**Pn**	**22 03 09.6**	**+0.9**
N18K	**Kilae Creek**	**6.92**	**17**	Pn	**Pn**	**22 03 16.8**	**+0.7**
M16K	**Timber Creek**	**6.92**	**4**	Pn	**Pn**	**22 03 16.2**	**+0.1**
ILSW	**Iliamna Southw**	**6.94**	**30**	Pn	**Pn**	**22 03 16.4**	**-0.2**
ILW	**Iliamna West**	**7.01**	**29**		**Pn**	**22 03 17.6**	**+0.1**
CNPM	**China Poot**	**7.22**	**38**	Pn	**Pn**	**22 03 18.6**	**-1.7**
N19K	**Bonanza Creek**	**7.31**	**22**	Pn	**Pn**	**22 03 21.9**	**+0.2**
M17K	**Holitna River**	**7.40**	**10**		**Pn**	**22 03 23.1**	**+0.3**
RDWB	**Redoubt West**	**7.44**	**28**		**Pn**	**22 03 23.4**	**0.0**
BRLK	**Bradley Lake**	**7.52**	**38**	Pn	**Pn**	**22 03 21.9**	**-2.4**
BRSE	**Bradley Lake S**	**7.55**	**38**		**Pn**	**22 03 23.4**	**-1.4**
M18K	**Stony River**	**7.69**	**15**		**Pn**	**22 03 27.0**	**+0.3**
SPBG	**Spurr Blockage**	**8.21**	**27**		**Pn**	**22 03 33.7**	**-0.2**
SEW	**Seward**	**8.28**	**40**	Pn	**Pn**	**22 03 34.3**	**-0.4**
SLKM	**Skilak Lake**	**8.28**	**36**	Pn	**Pn**	**22 03 35.2**	**+0.4**
L18K	**Granite Mounta**	**8.28**	**11**	Pn	**Pn**	**22 03 35.0**	**+0.2**
L19K	**White Mountain**	**8.50**	**17**	Pn	**Pn**	**22 03 38.5**	**+0.7**
K17K	**Iditarod**	**8.64**	**5**	Pn	**Pn**	**22 03 39.1**	**-0.6**
RC01	**Rabbit Creek A**	**8.87**	**34**	Pn	**Pn**	**22 03 42.5**	**

TXAR Lajitas Array 47.25 98 P **P** 22 10 08.8 +0.9
comp=Z,0.7nm,0.8s,baz=285,slow=4.8,SNR=3.5
comp=Z,0.7nm,0.8s
SCHQ Schefferville 50.15 49 P **P** 22 10 29.6 -0.2
comp=Z,4.1nm,0.9s,baz=270,slow=9.1,SNR=1.4
comp=Z,4.1nm,0.9s
SCHQ Schefferville 50.15 49 P **P** 22 10 28.1 -1.8
SONM Songino Array 55.06 305 P **P** 22 11 06.7 +0.4
comp=Z,1.2nm,0.7s,baz=61,slow=6.2,SNR=9.1
comp=Z,1.2nm,0.7s
SONM Songino Array 55.06 305 P **P** 22 11 06.2 -0.2
SONM IAmb IAmb 22 11 08.3
comp=Z,1.4nm,0.9s
GTA2 Gaotai 64.45 302 *eP* **P** 22 12 11.1 0.0
GTA2 pmax pmax
comp=Z,4.0nm,1.2s
KURK Kurchatov 64.56 323 P **P** 22 12 10.9 -0.5
KURK IAmb IAmb 22 12 12.4
comp=Z,1.4nm,0.7s
FINES FINESS Array B 64.65 357 P **P** 22 12 11.7 -0.2
comp=Z,3.0nm,0.8s,baz=5.7,slow=7.7,SNR=6.4
comp=Z,3.0nm,0.8s
FINES FINESS Array B 64.65 357 P **P** 22 12 11.2 -0.6
KURBB Kurchatov Arra 64.67 323 P **P** 22 12 12.4 +0.2
comp=Z,0.6nm,0.6s,baz=51,slow=7.3,SNR=1.7
NB2 NORSAR Subarra 64.95 5 P **P** 22 12 14.4 +0.5
comp=Z,0.6nm,0.6s,baz=356,slow=6.5
NOA NORSAR Array B 64.95 5 P **P** 22 12 13.6 -0.3
comp=Z,1.1nm,0.7s,baz=356,slow=6.6,SNR=4.4
comp=Z,1.1nm,0.7s
BVAR Borovoye Array 65.30 329 P **P** 22 12 16.3 0.0
comp=Z,3.2nm,0.7s,baz=38,slow=7.2,SNR=19
comp=Z,3.2nm,0.7s
HFS Hagfors 65.96 3 P **P** 22 12 20.5 +0.1
comp=Z,1.9nm,0.6s,baz=290,slow=4.4,SNR=6.4
comp=Z,1.9nm,0.6s
MKAR Makanchi Array 66.44 318 P **P** 22 12 23.4 -0.4
comp=Z,0.7nm,0.4s,baz=43,slow=6.4,SNR=16
comp=Z,0.7nm,0.4s
MKAR Makanchi Array 66.44 318 P **P** 22 12 22.8 -1.0
EKA Eskdalemuir Ar 69.23 14 P **P** 22 12 41.7 +0.6
comp=Z,1.2nm,0.6s,baz=328,slow=4.7,SNR=8.8
comp=Z,1.2nm,0.6s
AKASG Malin Array Be 75.24 354 P **P** 22 13 16.9 -0.2
comp=Z,1.9nm,0.6s,baz=8.1,slow=6.0,SNR=7.3
comp=Z,1.9nm,0.6s
KSH2 Kashi 75.53 319 P **P** 22 13 20.3 +1.1
KSH2 pmax pmax
comp=Z,3.0nm,1.3s
GERES GERESS Array B 77.24 4 P **P** 22 13 29.3 +0.7
comp=Z,0.7nm,0.7s,baz=4.6,slow=6.7,SNR=7.9
comp=Z,0.7nm,0.7s
GERES GERESS Array B 77.24 4 P **P** 22 13 28.6 -0.1
CMAR Chiang Mai Arr 81.52 290 P **P** 22 13 53.4 +1.1
comp=Z,1.5nm,0.3s,baz=13,slow=4.7,SNR=4.2
comp=Z,1.5nm,0.3s
ESDC Sonseca Array 84.30 18 P **P** 22 14 07.0 +0.5
comp=Z,0.6nm,0.8s,baz=341,slow=6.2,SNR=6.3
comp=Z,0.6nm,0.8s
ESDC Sonseca Array 84.30 18 P **P** 22 14 06.7 +0.2
BRTR Keskin Array B 85.76 349 P **P** 22 14 14.7 +0.8
comp=Z,1.0nm,0.7s,baz=35,slow=2.6,SNR=6.4
comp=Z,1.0nm,0.7s
BRTR Keskin Array B 85.76 349 P **P** 22 14 14.0 +0.1
QSPA South Pole Qui 143.92 180 PKhKP PKPpre 22 21 05.1
comp=Z,1.1nm,0.6s,baz=108,slow=1.0,SNR=8.0
QSPA South Pole Qui 143.92 180 PKPab 22 21 05.0 -0.9

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*KRNET **09** 22:04:50.0±0.1, 42.66N×73.43E, h19km, mb2.2*
*NNC **09** 22:04:50.9±0.5, 42.66N×73.49E, h0km, mb2.7, mpv2.7, Error ellipse: s-maj=11.7km s-min=2.1km az=7.0*
*SOME **09** 22:04:50.1, 42.65N×73.47E, h10km*
*KNET **09** 22:04:51.3±0.6, 42.64N×73.56E, h18km±2km, ml1.4, Error ellipse: s-maj=4.2km s-min=2.6km az=87.0*
ISC 09 22:04:49.6±0.9, **42.61N**±0.03×**73.47E**±0.02, **h15**km±7km, **n35**, σ0**975**/67, **19C-26D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MRKS	**Merke**	**0.22**	**306**	P		**Pg**	**22 04 54.5**	**-0.2**
MRKS	57nm,0.1s			S		**Sg**	**22 04 57.5**	**-0.7**
	154nm,0.1s							
MRKS	**Merke**	**0.22**	**306**	*eP*		**Pg**	**22 04 54.5**	**-0.2**
MRKS	57nm,0.1s			*eS*		**Sg**	**22 04 57.5**	**-0.7**
	154nm,0.1s							
EKS2	**Erkin-Say**	**0.23**	**78**	⇑P		**Pb**	**22 04 55.7**	**+0.1**
EKS2	4.3nm,0.1s,SNR=13			⇑S		**Sg**	**22 04 59.2**	**+0.6**
	22nm,0.1s							
EKS2	**Erkin-Say**	**0.23**	**78**	⇓*eP*		**Pb**	**22 04 55.5**	**-0.1**
EKS2				⇓*eS*		**Sb**	**22 04 59.3**	**-0.3**
MNAS	**Manas**	**0.72**	**260**	⇑*eP*		**Pg**	**22 05 03.4**	**-0.4**
MNAS				⇑*eS*		**Sg**	**22 05 13.0**	**-0.3**
AAK	**Ala-Archa**	**0.76**	**88**	P		**Pn**	**22 05 05.4**	**-0.5**
AAK	2.7nm,0.1s,SNR=16			⇓S		**Sn**	**22 05 16.2**	**-0.9**
	11nm,0.2s							
AAK	**Ala-Archa**	**0.76**	**88**	⇑P		**Pn**	**22 05 05.4**	**-0.5**
AAK	0.4nm,0.5s			⇑S		**Sb**	**22 05 15.7**	**+0.9**
	1.2nm,0.5s							
AAK	**Ala-Archa**	**0.76**	**88**	⇓*eP*		**Pb**	**22 05 04.9**	**+0.3**
AAK				⇓*eS*		**Sb**	**22 05 15.7**	**+0.9**
UCH	**Uchtor**	**0.87**	**116**	⇓P		**Pn**	**22 05 07.4**	**-0.3**
UCH	1.6nm,0.2s,SNR=10			⇓S		**Sn**	**22 05 19.4**	**-0.8**
	7.8nm,0.2s							
UCH	**Uchtor**	**0.87**	**116**	⇓*eP*		**Pn**	**22 05 07.2**	**-0.4**
UCH				⇓*eS*		**Sn**	**22 05 19.6**	**-0.6**
FRU1	**Bishkek**	**0.88**	**77**	⇑*eP*		**Pg**	**22 05 06.8**	**+0.1**
FRU1				⇑*eS*		**Sg**	**22 05 19.0**	**+0.7**
USP	**Ospenovka**	**1.00**	**49**	⇓P		**Pb**	**22 05 08.6**	**-0.1**
USP	2.0nm,0.1s,SNR=34			⇑S		**Sb**	**22 05 22.3**	**+0.7**
	3.6nm,0.1s							
USP	**Ospenovka**	**1.00**	**49**	⇓*eP*		**Pb**	**22 05 08.6**	**-0.1**
USP				⇓*eS*		**Sb**	**22 05 22.2**	**+0.6**
CHMS	**Chumysh**	**1.02**	**67**	⇓P		**Pg**	**22 05 09.5**	**+0.2**
CHMS	1.6nm,0.1s,SNR=5.9			⇑S		**Sg**	**22 05 23.1**	**+0.5**
	3.8nm,0.1s							
CHMS	**Chumysh**	**1.02**	**67**	⇓*eP*		**Pn**	**22 05 09.2**	**-0.2**
CHMS				⇓*eS*		**Sg**	**22 05 23.2**	**+0.5**
KBK	**Karagaybulak**	**1.09**	**87**	⇓*eP*		**Pg**	**22 05 10.8**	**0.0**
KBK				⇓*eS*		**Sn**	**22 05 26.0**	**+0.6**
ARSB	**Arslanbob**	**1.34**	**196**	⇑*eP*		**Pg**	**22 05 15.6**	**+0.2**
ARSB				⇑*eS*		**Sg**	**22 05 33.7**	**+0.8**
TKM2	**Tokmak 2**	**1.60**	**78**	⇓P		**Pg**	**22 05 19.8**	**-0.6**
TKM2	2.2nm,0.1s			⇑S		**Sg**	**22 05 41.2**	**0.0**
	8.6nm,0.1s							
TKM2	**Tokmak 2**	**1.60**	**78**	⇑*eP*		**Pb**	**22 05 19.6**	**+0.7**
TKM2				⇑*eS*		**Sg**	**22 05 41.1**	**0.0**
SALK	**Salom-Alik**	**1.75**	**171**	⇑*eP*		**Pg**	**22 05 22.7**	**-0.5**
SALK				⇑*eS*		**Sg**	**22 05 46.3**	**+0.3**
DGS	**Degeres**	**1.81**	**69**	P		**Pb**	**22 05 23.4**	**+1.0**
DGS	2.3nm,0.3s			S		**Sg**	**22 05 47.3**	**-0.5**
	4.8nm,0.3s							
DGS	**Degeres**	**1.81**	**69**	*eP*		**Pb**	**22 05 23.4**	**+1.0**
DGS	2.3nm,0.3s			*eS*		**Sg**	**22 05 47.3**	**-0.5**
	4.8nm,0.3s							
BOOM	**Boomskoye usch**	**1.83**	**93**	⇓*eP*		**Pg**	**22 05 23.8**	**-1.0**
BOOM				⇓*eS*		**Sg**	**22 05 48.2**	**-0.4**
KST	**Kastek**	**1.89**	**76**	P		**Pg**	**22 05 25.4**	**-0.4**
KST	1.7nm,0.2s			S		**Sg**	**22 05 50.7**	**+0.4**
	10.0nm,0.3s							
KST	**Kastek**	**1.89**	**76**	*eP*		**Pg**	**22 05 25.4**	**-0.4**
KST	1.7nm,0.2s			*eS*		**Sg**	**22 05 50.7**	**+0.4**
	10.0nm,0.3s							
KRBS	**Karabastau**	**1.94**	**55**	Pg		**Pb**	**22 05 25.5**	**+0.8**
KRBS	3.6nm,0.2s			Lg		Lg	22 05 51.1	
	0.9nm,0.1s							
KRBS	**Karabastau**	**1.94**	**55**	*eP*		**Pb**	**22 05 25.5**	**+0.8**
KRBS	3.6nm,0.2s			*eS*		**Sg**	**22 05 51.1**	**-1.1**
	0.9nm,0.1s							
TRKS	**Terek-Say**	**2.04**	**239**	⇓*eP*		**Pb**	**22 05 26.4**	**-0.1**
TRKS				⇓*eS*		**Sb**	**22 05 52.8**	**+1.1**
ULHL	**Ulahol**	**2.09**	**99**	⇑*eP*		**Pb**	**22 05 27.3**	**0.0**
ULHL				⇑*eS*		**Sb**	**22 05 54.4**	**+1.3**
NRN	**Naryn**	**2.23**	**121**	⇓*eP*		**Pb**	**22 05 29.2**	**-0.5**
NRN				⇓*eS*		**Sb**	**22 05 57.7**	**+0.5**
KK31	**Karatay Array**	**2.23**	**284**	⇓Pn		**Pb**	**22 05 30.9**	**+1.4**
KK31	0.3nm,0.3s,baz=100,slow=15,SNR=3.1			⇓Sn		**Sb**	**22 05 58.5**	**+1.6**
	4.0nm,0.6s,baz=104,slow=32,SNR=18							
IUG	**luzhnay**	**2.59**	**261**	Pg		**Pg**	**22 05 38.2**	**-1.1**
IUG	2.5nm,0.2s			Lg		Lg	22 06 12.4	
	23nm,0.5s							
IUG	**luzhnay**	**2.59**	**261**	*eP*		**Pg**	**22 05 38.1**	**-1.1**
IUG	2.5nm,0.2s			*eS*		**Sg**	**22 06 12.4**	**-0.4**
	23nm,0.5s							
KTBS	**Karatobe**	**2.60**	**64**	Pg		**Pb**	**22 05 37.0**	**+1.2**
KTBS	0.1nm,0.1s			Lg		Lg	22 06 10.7	
	3.9nm,0.3s							
KTBS	**Karatobe**	**2.60**	**64**	*eP*		**Pb**	**22 05 37.0**	**+1.2**
KTBS	0.1nm,0.1s			*eS*		**Sg**	**22 06 10.7**	**-2.3**
	3.9nm,0.3s							

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*ISK **09** 22:18:46.4, 37.88N×26.98E, h5km, ML2.5/13*
*AFAD **09** 22:18:47.0, 37.88N×27.01E, h7km±1km, ML2.0*
ISC 09 22:18:47.0±1.0, **37.87N**±0.03×**26.99E**±0.04, **h12**km±8km, **n19**, σ0**934**/29, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
DGB	**zmir**	**0.20**	**336**	P		**Pg**	**22 18 51.2**	**-0.1**
DGB				S		**Sg**	**22 18 54.0**	**-0.3**
DGB				IAML			22 18 54.0	
	comp=N,161nm,0.2s							
DGB				IAML			22 18 54.0	
	comp=E,320nm,0.4s							
GMLD	**Gumuldur**	**0.21**	**345**	Pg		**Pg**	**22 18 51.4**	**-0.2**
GMLD				Sg		**Sg**	**22 18 54.7**	**0.0**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**93**	Pg		**Pg**	**22 18 51.6**	**-0.4**
KUSD				Sg		**Sg**	**22 18 55.4**	**0.0**
KUSD				AML		AML		
GCAM	**G?zelcaml?**	**0.26**	**131**	P		**Pg**	**22 18 52.4**	**0.0**
GCAM				IAML			22 18 56.0	
	comp=N,973nm,0.2s							
GCAM				IAML			22 18 56.0	
	comp=E,655nm,0.2s							
GCAM				S		**Sg**	**22 18 56.5**	**+0.4**
GCAM	**G?zelcaml?**	**0.26**	**131**	Pg		**Pg**	**22 18 52.2**	**-0.2**
GCAM				Sg		**Sg**	**22 18 56.4**	**+0.4**
GCAM				AML		AML		
BEYE	**izmir**	**0.36**	**352**	P		**Pg**	**22 18 54.2**	**0.0**
BEYE				IAML			22 18 59.0	
	comp=N,134nm,0.4s							
BEYE				IAML			22 18 59.0	
	comp=E,196nm,0.2s							
BEYE				S		**Sg**	**22 18 59.4**	**+0.4**
DUVT	**Torbali**	**0.50**	**46**	P		**Pg**	**22 18 56.7**	**-0.2**
DUVT				S		**Sg**	**22 19 03.5**	**-0.1**
DUVT				IAML			22 19 04.0	
	comp=E,118nm,0.1s							
BLCB	**Balcova**	**0.51**	**5**	Pg		**Pg**	**22 18 56.9**	**-0.2**
BLCB				Sg		**Sg**	**22 19 04.3**	**+0.4**
BLCB				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**314**	P		**Pg**	**22 18 57.6**	**+0.3**
ZEYE				S		**Sb**	**22 19 05.5**	**-0.4**
ZEYE				IAML			22 19 06.0	
	comp=N,135nm,0.5s							
ZEYE				IAML			22 19 09.0	
	comp=E,122nm,0.2s							
CESE	**eme**	**0.71**	**310**	Pg		**Pg**	**22 19 00.5**	**-0.3**
CESE				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**84**	Pg		**Pg**	**22 19 00.9**	**-0.1**
AYDB				AML		AML		
BAGT	**Foa**	**0.79**	**352**	P		**Pb**	**22 19 02.6**	**0.0**
BAGT				S		**Sb**	**22 19 13.6**	**+0.2**
BAGT				IAML			22 19 16.0	
	comp=E,142nm,0.4s							
BAGT				IAML			22 19 17.0	
	comp=N,104nm,1.0s							
KRBN	**Karaburun**	**0.80**	**335**	Pg		**Pg**	**22 19 01.5**	**-0.9**
KRBN				AML		AML		
BODT	**Bodrum**	**0.85**	**162**	Pg		**Pg**	**22 19 02.9**	**-0.5**
BODT				AML		AML		
MLSB	**Milas**	**0.85**	**132**	Pg		**Pb**	**22 19 03.7**	**0.0**
MLSB				AML		AML		
FOCM	**Foa**	**0.86**	**347**	Pg		**Pg**	**22 19 03.5**	**-0.2**
FOCM				AML		AML		
CHOS	**Chios island**	**0.90**	**305**	Pg		**Pg**	**22 19 04.1**	**-0.2**
CHOS				AML		AML		
NAZL	**Nazilli-Aydin**	**1.04**	**85**	Pg		**Pg**	**22 19 06.5**	**-0.5**
NAZL				AML		AML		
DKL	**Dikili**	**1.20**	**357**	Pn		**Pn**	**22 19 09.9**	**+0.3**
DKL				AML		AML		

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*NIED **09** 22:48:46.6, 31.43N×128.66E, h11km, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^15^Nm; Mrr=0.88; Mθθ=0.04; Mφφ=0.92; Mrθ=0.55; Mθφ=2.02; Mφr=0.83; Fault plane solution: M0=2.41000×10^15^ NP1:φs=78.00000°, δ=62.00000°, λ=-22.00000°. NP2:φs=179.00000°, δ=71.00000°, λ=150.00000°.*
*JMA **09** 22:48:46.6±0.2, 31.4N±0.6×128.7E±0.7, h11km±1km, MD4.2/36, MV4.5/36, SW OFF KYUSHU*
*IDC **09** 22:48:47.8±0.7, 31.51N×128.70E, h0km, mb3.9/15, mbtmp4.0/21, ML3.3/6, MS3.4/15, Error ellipse: s-maj=14.1km s-min=10.9km az=117.0*
*NEIC **09** 22:48:49.2±1.1, 31.43N±0.03×128.70E±0.08, h10km±2km, mb4.6/8, Error ellipse: s-maj=12.0km s-min=4.8km az=286.0*
ISC 09 22:48:48.5±0.5, **31.52N**±0.04×**128.90E**±0.05, **h10**km, **n57**, σ1§**15**/48, **mb4.1**/18, **MS3.5**/10, **Northwest of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.71**	**77**	*i* P		**Pn**	**22 49 04.2**	**-0.4**
JFU	**Fukue jima 2**	**1.14**	**353**	*i* P		**Pn**	**22 49 09.4**	**-1.2**
JFU				A		A	22 49 09.4	
	comp=N,6.0nm,0.6s,comp=E,14nm,1.2s							
JFU				*eS*		**Sn**	**22 49 26.4**	**+0.1**
JSU	**Suzuyama**	**1.32**	**90**	Pn		**Pg**	**22 49 14.1**	**+0.1**
JZO	**Okuchi**	**1.57**	**66**	A		A	22 49 18.1	
	comp=N,5.0nm,3.3s,comp=E,4.0nm,2.1s							
JYAK	**Yakushimahirau**	**1.88**	**132**	P		**Pn**	**22 49 19.9**	**-0.9**
JTZ	**Takazaki**	**1.90**	**78**	P		**Pb**	**22 49 22.4**	**-0.9**
JIU3	**Izumi3**	**1.92**	**57**	*eP*		**Pb**	**22 49 22.8**	**-0.8**
JTN	**Tanegashima 3**	**1.98**	**115**	P		**Pn**	**22 49 22.4**	**+0.3**
JMTN	**Minamitane**	**2.05**	**123**	P		**Pb**	**22 49 23.8**	**-2.0**
JNKG	**Nichinankitago**	**2.11**	**85**	A		A	22 49 25.8	
	comp=N,4.0nm,3.3s,comp=E,3.0nm,1.1s							
JNU	**Nakatsue**	**2.31**	**46**	Pn		**Pb**	**22 49 29.6**	**-0.8**
	comp=E,38nm,0.3s,baz=267,slow=5.5,SNR=104							
JNU				Pg		**Pg**	**22 49 33.2**	**+0.3**
	comp=E,38nm,0.3s,baz=256,slow=8.8,SNR=89							
JNU				Sn		**Sg**	**22 50 03.5**	**+0.5**
	comp=E,42nm,0.3s,baz=349,slow=18,SNR=4.5							
	comp=E,159nm,0.7s							
JNU				AML		AML		
JTU	**Tsushima**	**3.03**	**8**	Pn		**Pb**	**22 49 42.3**	**-0.3**
JOW	**Kunigami**	**4.70**	**187**	Pn		**Pn**	**22 50 01.6**	**+2.1**
	comp=E,0.7nm,0.3s,baz=314,slow=12,SNR=1.3							
	comp=E,16nm,0.7s							
JOW				AML		AML		
JMN	**Monobe**	**4.74**	**61**	Pn		**Pb**	**22 50 07.7**	**-4.0**
TJN	**Taejon**	**5.01**	**346**	Pn		**Pn**	**22 50 03.0**	**-0.8**
KSRS	**Korea Array**	**5.98**	**352**	Pn		**Pn**	**22 50 18.2**	**+1.1**
	comp=E,1.9nm,0.3s,baz=175,slow=14,SNR=15							
KSRS				Lg		Lg	22 51 54.4	
	comp=E,2.0nm,0.3s,baz=184,slow=18,SNR=5.4							
KSRS				LR		LR	22 52 26.7	
	comp=E,120nm,19.0s,baz=200,slow=37							
	comp=E,5.9nm,0.7s							
KSRS				AML		AML		
KS19	**Wonju Array Si**	**6.03**	**352**	Pn		**Pn**	**22 50 15.4**	**-2.5**
MJAR	**Matsushiro Arr**	**9.20**	**55**	Pn		Pn	22 51 08.6	+7.2
	baz=231,slow=13,SNR=1.6							
MJAR				LR		LR	22 54 43.2	
	comp=E,182nm,20.9s,baz=225,slow=38							
	comp=E,0.8nm,0.5s							
JCJ	**Chichijima**	**12.40**	**107**	LR		LR	22 56 07.1	
	comp=E,90nm,20.4s,baz=285,slow=35							
USRK	**Ussuriysk Ar.**	**12.89**	**10**	LR		LR	22 56 17.8	
	comp=E,65nm,19.6s,baz=185,slow=35							
ASAJ	**Asahikawa**	**16.56**	**37**	Pn		**P**	**22 52 43.4**	**+0.1**
	comp=E,0.3nm,0.3s,baz=229,slow=9.3,SNR=5.0							
ASAJ				LR		LR	22 58 36.5	
	comp=E,150nm,19.6s,baz=190,slow=35							
	comp=E,14nm,0.8s							
ASAJ				AML		AML		
JKA	**Kamikawa-asahi**	**16.56**	**37**	Pn		**P**	**22 52 43.5**	**+0.1**
JKA				IAmb		IAmb	22 52 45.2	
	comp=Z,31nm,1.0s							
KLR	**Kul'dur**	**17.82**	**6**	P		**P**	**22 52 58.4**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=193,slow=4.4,SNR=3.5							
	comp=Z,1.4nm,0.7s							
KLR				AML		AML		
LZDM	**Lanzhou Array**	**21.41**	**289**	P		**P**	**22 53 36.9**	**+0.1**
	comp=Z,0.9nm,0.3s,baz=104,slow=12,SNR=4.5							
LZDM				LR		LR	23 01 56.0	
	comp=Z,186nm,18.7s,baz=250,slow=37							
	comp=Z,0.9nm,0.3s							
SONM	**Songino Array**	**23.65**	**320**	P		**P**	**22 54 00.1**	**-0.1**
	comp=Z,1.3nm,0.8s,baz=143,slow=12,SNR=10							
SONM				LR		LR	23 04 08.9	
	comp=Z,215nm,19.6s,baz=146,slow=39							
	comp=Z,1.3nm,0.8s							
SONM	**Songino Array**	**23.65**	**320**	P		**P**	**22 54 00.6**	**+0.4**
TLY	**Talaya**	**27.38**	**325**	LR		LR	23 05 03.1	
	comp=Z,70nm,18.2s,baz=124,slow=36							
PETK	**Petropavlovsk-**	**29.97**	**36**	LR		LR	23 06 10.4	
	comp=Z,62nm,20.4s,baz=215,slow=35							
CMAR	**Chiang Mai Arr**	**30.00**	**251**	P		**P**	**22 54 56.9**	**-0.6**
	comp=Z,1.1nm,0.3s,baz=55,slow=8.5,SNR=4.1							
	comp=Z,1.1nm,0.3s							
YAK	**Yakutsk**	**30.53**	**1**	LR		LR	23 06 29.0	
	comp=Z,43nm,18.9s,baz=174,slow=35							
ZALV	**Zalesovo Beam**	**38.54**	**319**	LR		LR	23 13 20.4	
	comp=Z,98nm,18.9s,baz=40,slow=38							
MKAR	**Makanchi Array**	**38.64**	**307**	P		**P**	**22 56 11.6**	**-0.5**
	comp=Z,0.6nm,0.7s,baz=106,slow=8.9,SNR=5.0							
	comp=Z,0.6nm,0.7s							
MKAR	**Makanchi Array**	**38.64**	**307**	P		**P**	**22 56 09.5**	**-2.6**
KURBB	**Kurchatov Arra**	**41.59**	**312**	P		**P**	**22 56 35.5**	**-0.9**
KURBB	comp=Z,1.0nm,0.8s,baz=97,slow=8.9,SNR=5.2			LR		LR	23 15 26.3	
	comp=Z,210nm,18.0s,baz=162,slow=38							
	comp=Z,1.0nm,0.8s							
NRIK	**Noril'sk**	**44.45**	**340**	LR		LR	23 16 51.6	
	comp=Z,53nm,19.8s,baz=121,slow=38							
BVAR	**Borovoye Array**	**46.84**	**315**	P		**P**	**22 57 18.0**	**-0.5**
	comp=Z,1.4nm,0.7s,baz=89,slow=9.1,SNR=6.4							
	comp=Z,1.4nm,0.7s							
KK31	**Karatay Array**	**47.00**	**301**	P		**P**	**22 57 19.7**	**-0.2**
KK31				IAmb		IAmb	22 57 24.5	
	comp=Z,7.0nm,0.9s							
KKAR	**Karatay Array**	**47.00**	**301**	P		**P**	**22 57 19.4**	**-0.5**
WRA	**Warramunga Arr**	**51.43**	**173**	P		**P**	**22 57 54.5**	**+0.6**
	comp=Z,0.4nm,0.4s,baz=353,slow=7.6,SNR=3.8							
	comp=Z,0.4nm,0.4s							
AB31	**Akbulak array**	**53.57**	**311**	P		**P**	**22 58 09.0**	**-0.5**
AB31				IAmb		IAmb	22 58 13.5	
	comp=Z,4.8nm,0.8s							
ABKAR	**Akbulak array**	**53.57**	**311**	P		**P**	**22 58 09.2**	**-0.4**
ARTI	**Arti**	**53.79**	**319**	P		**P**	**22 58 10.7**	**-0.3**
	comp=Z,3.0nm,0.7s,baz=61,slow=10,SNR=4.3							
	comp=Z,3.0nm,0.7s							
AKTO	**Aktyubinsk**	**54.64**	**312**	P		**P**	**22 58 18.9**	**+1.5**
	comp=Z,2.4nm,0.8s,baz=76,slow=8.3,SNR=5.3							
	comp=Z,2.4nm,0.8s							
ASAR	**Alice Springs**	**55.08**	**174**	P		**P**	**22 58 21.2**	**+0.5**
	comp=Z,2.4nm,1.2s,baz=355,slow=7.1,SNR=4.8							
	comp=Z,2.4nm,1.2s							
D22K	**Ayikyak River**	**56.84**	**25**	P		**P**	**22 58 34.7**	**+1.8**
D22K				IAmb		IAmb	22 59 18.9	
	comp=Z,13nm,1.4s							
RED	**Redoubt Volcan**	**57.49**	**35**	P		**P**	**22 58 39.0**	**+1.3**
ILAR	**Eielson Array**	**59.54**	**30**	LR		LR	23 25 00.8	
	comp=Z,23nm,18.6s,baz=278,slow=36							
A36M	**Sachs Harbour**	**65.05**	**19**	P		**P**	**22 59 29.8**	**+1.3**
KBZ	**Khabaz**	**66.33**	**308**	P		**P**	**22 59 37.5**	**+0.2**
	comp=Z,3.8nm,0.9s,baz=217,slow=5.3,SNR=8.6							
	comp=Z,3.8nm,0.9s							
FINES	**FINESS Array B**	**68.59**	**330**	P		**P**	**22 59 50.8**	**-0.5**
	comp=Z,2.0nm,0.8s,baz=79,slow=4.1,SNR=5.6							
	comp=Z,2.0nm,0.8s							
FINES	**FINESS Array B**	**68.59**	**330**	P		**P**	**22 59 51.0**	**-0.3**
AKASG	**Malin Array Be**	**71.93**	**319**	P		**P**	**23 00 12.6**	**+0.6**
	comp=Z,0.9nm,0.5s,baz=56,slow=6.7,SNR=5.0							
	comp=Z,0.9nm,0.5s							
BRTR	**Keskin Array B**	**74.29**	**307**	P		**P**	**23 00 26.1**	**-0.3**
	comp=Z,1.4nm,0.9s,baz=93,slow=5.2,SNR=6.7							
	comp=Z,1.4nm,0.9s							
BRTR	**Keskin Array B**	**74.29**	**307**	P		**P**	**23 00 25.9**	**-0.5**
NOA	**NORSAR Array B**	**74.85**	**333**	P		**P**	**23 00 29.7**	**+0.6**
	comp=Z,0.7nm,0.7s,baz=49,slow=5.8,SNR=4.4							
	comp=Z,0.7nm,0.7s							
BURAR	**Bucovina Array**	**75.74**	**317**	P		**P**	**23 00 34.5**	**+0.1**
ESDC	**Sonseca Array**	**96.75**	**325**	LR		LR	23 50 38.7	
	comp=Z,42nm,19.6s,baz=62,slow=38							

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*DJA **09** 23:12:33.5±2.0, 12.5S×119.11E±, h10km, M4.2/11, mb4.4/3, MLv4.1/11*
*IDC **09** 23:12:36.2±2.6, 11.91S×118.02E, h0km, mb3.3/1, mbtmp3.4/3, ML3.2/2, Error ellipse: s-maj=143.0km s-min=28.4km az=45.0*
ISC 09 23:12:36.2±1.5, **11.6S**±0.1×**118.26E**±0.08, **h26**km, **n13**, σ0**96**/12, **South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
PLAI	**Plampang**	**2.76**	**350**	P		**Pn**	**23 13 18.1**	**-0.7**
DBNI	**Kabupaten Domp**	**3.04**	**1**	P		**Pn**	**23 13 22

SMG					S	Sg	23 16 12.5	+0.4	
SMG					AML	AML			
SMG	**Samos**	**0.24**	**136**		P	Pg	**23 16 09.0**	**+0.3**	
SMG					S	Sg	**23 16 12.3**	**+0.2**	
SMG					AML	AML			
DGB	**zmir**	**0.26**	**49**		P	Pg	**23 16 08.5**	**-0.7**	
DGB					IAML		23 16 12.0		
	comp=N,317nm,0.3s								
DGB					IAML		23 16 12.0		
	comp=E,403nm,0.3s								
DGB					S	Sg	**23 16 12.4**	**-0.4**	
GMLD	**Gumuldur**	**0.30**	**49**		Pg	Pg	**23 16 08.9**	**-0.9**	
GMLD					Sg	Sg	**23 16 13.8**	**-0.1**	
GMLD					AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.37**	**345**		P	Pg	**23 16 10.7**	**-0.4**	
ZEYE					S	Sg	**23 16 16.8**	**+0.6**	
ZEYE					IAML		23 16 23.0		
	comp=N,470nm,0.4s								
ZEYE					IAML		23 16 23.0		
	comp=E,242nm,0.3s								
BEYE	**izmir**	**0.42**	**34**		P	Pg	**23 16 11.5**	**-0.5**	
BEYE					IAML		23 16 17.0		
	comp=N,206nm,0.2s								
BEYE					S	Sg	**23 16 17.4**	**-0.2**	
BEYE					IAML		23 16 18.0		
	comp=E,174nm,0.3s								
GCAM	**G?zelcaml?**	**0.51**	**110**		P	Pg	**23 16 13.6**	**0.0**	
GCAM					S	Sb	**23 16 22.0**	**+0.2**	
GCAM					IAML		23 16 22.0		
	comp=N,468nm,0.3s								
GCAM	**G?zelcaml?**	**0.51**	**110**		Pg	Pg	**23 16 12.9**	**-0.8**	
GCAM					Sg	Sg	**23 16 21.3**	**+0.8**	
GCAM					AML	AML			
KUSD	**Kusadasi-Aydin**	**0.52**	**92**		Pg	Pg	**23 16 13.4**	**-0.5**	
KUSD					AML	AML			
BLCB	**Balcova**	**0.60**	**33**		P	Pg	**23 16 14.9**	**-0.5**	
BLCB					S	Sg	**23 16 23.3**	**-0.1**	
BLCB					AML	AML			
BLCB	**Balcova**	**0.60**	**33**		Pg	Pg	**23 16 14.9**	**-0.5**	
BLCB					Sg	Sg	**23 16 23.3**	**-0.1**	
BLCB					AML	AML			
CHOS	**Chios island**	**0.68**	**318**		P	Pg	**23 16 16.7**	**-0.2**	
CHOS					S	Sg	**23 16 26.3**	**+0.4**	
CHOS					AML	AML			
CHOS	**Chios island**	**0.68**	**318**		Pg	Pg	**23 16 16.7**	**-0.2**	
CHOS					Sg	Sb	**23 16 26.9**	**+0.1**	
CHOS					AML	AML			
CHOS	**Chios island**	**0.68**	**318**		P	Pg	**23 16 17.0**	**+0.2**	
CHOS					S	Sg	**23 16 26.2**	**+0.4**	
CHOS					AML	AML			
KRBN	**Karaburun**	**0.71**	**355**		Pg	Pg	**23 16 17.5**	**0.0**	
KRBN					AML	AML			
DUVT	**Torbali**	**0.73**	**62**		P	Pg	**23 16 17.6**	**-0.2**	
DUVT					S	Sg	**23 16 27.1**	**-0.4**	
DUVT					IAML		23 16 31.0		
	comp=E,170nm,0.7s								
EAG2	**Marmaro, Chios**	**0.78**	**328**		P	Pb	**23 16 19.1**	**+0.1**	
EAG2					S	Sg	**23 16 29.1**	**+0.1**	
BAGT	**Foa**	**0.79**	**13**		P	Pb	**23 16 19.6**	**+0.3**	
BAGT					S	Sb	**23 16 30.9**	**+0.9**	
BAGT					IAML		23 16 33.0		
	comp=N,214nm,0.6s								
BAGT					IAML		23 16 39.0		
	comp=E,171nm,0.8s								
FOCM	**Foa**	**0.84**	**5**		Pg	Pg	**23 16 19.9**	**+0.1**	
FOCM					AML	AML			
YKAV	**Yalikavak-Bodr**	**0.91**	**145**		Pg	Pb	**23 16 21.8**	**+0.4**	
YKAV					AML	AML			
KLNA	**Kalymnos**	**0.96**	**163**		P	Pg	**23 16 22.2**	**+0.1**	
KLNA					S	Sg	**23 16 34.1**	**-0.6**	
KLNA					AML	AML			
BODT	**Bodrum**	**0.98**	**146**		P	Pg	**23 16 22.7**	**+0.1**	
BODT					S	Sn	**23 16 36.9**	**0.0**	
BODT					AML	AML			
BODT	**Bodrum**	**0.98**	**146**		Pg	Pb	**23 16 22.9**	**+0.4**	
BODT					AML	AML			
AYDB	**Zeytinkoy-Aydi**	**1.00**	**86**		Pg	Pg	**23 16 22.2**	**-0.8**	
AYDB					AML	AML			
BODA	**Bodrum-Mula**	**1.06**	**143**		Pg	Pg	**23 16 24.1**	**+0.1**	
MLSB	**Milas**	**1.08**	**122**		Pg	Pb	**23 16 24.1**	**-0.2**	
MLSB					AML	AML			
APE	**Apeiranthos**	**1.19**	**228**		P	Pn	**23 16 25.2**	**-0.9**	
APE					S	Sn	**23 16 42.8**	**+0.6**	
APE					AML	AML			
APE	**Apeiranthos**	**1.19**	**228**		P	Pn	**23 16 25.1**	**-1.0**	
APE					S	Sb	**23 16 40.2**	**-1.3**	
APE					AML	AML			
DKL	**Dikili**	**1.21**	**10**		Pn	Pb	**23 16 26.6**	**+0.2**	
DKL					AML	AML			
GOMA	**Golmarmara-Man**	**1.31**	**50**		Pn	Pn	**23 16 27.8**	**+0.2**	
GOMA					AML	AML			
NAZL	**Nazilli-Aydin**	**1.32**	**86**		Pn	Pb	**23 16 28.3**	**0.0**	
NAZL					AML	AML			
DAT	**Datca**	**1.38**	**146**		P	Pn	**23 16 28.5**	**-0.2**	
PRK	**Paraskevi**	**1.39**	**349**		P	Pn	**23 16 28.5**	**-0.3**	
PRK					S	Sn	**23 16 47.4**	**+0.3**	
PRK					AML	AML			
PRK	**Paraskevi**	**1.39**	**349**		P	Pn	**23 16 29.1**	**+0.3**	
PRK					S	Sn	**23 16 47.2**	**+0.1**	
YER	**Yerkesik**	**1.51**	**119**		P	Pn	**23 16 30.5**	**0.0**	
GORD	**Gordes-Manisa**	**1.59**	**49**		Pn	Pn	**23 16 32.2**	**+0.6**	
GORD					AML	AML			
DION	**Dionisos Attik**	**2.14**	**276**		P	Pn	**23 16 38.7**	**-0.4**	

PDG ***09*** *23:18:00.0,35˚.45N×45˚.22E,h10km,mb4.8/5*
BJI ***09*** *23:18:18.1,34˚.88N×44˚.46E,h10km,mB5.1/9,mb4.7/41, Ms4.3/14,Ms7 4.0/13*
ISN ***09*** *23:18:20.1±4.0,35˚.54N×45˚.03E,h25km,ML4.4, Presumed earthquake*
TEH ***09*** *23:18:23.3,35˚.59N×45˚.06E,h6km±56km,ML4.6, Presumed earthquake*
ISK ***09*** *23:18:23.7,35˚.57N×45˚.25E,h5km,ML4.8/19*
MOS ***09*** *23:18:23.5±1.4,35˚.42N×45˚.15E,h10km,mb4.8/46,Error ellipse: s-maj=5.0km s-min=2.9km az=114.1*
IDC ***09*** *23:18:23.9±0.5,35˚.47N×45˚.08E,h0km,mb4.4/31, mbtmp4.4/42,ML3.7/10,MS4.0/47,Error ellipse: s-maj=9.9km s-min=6.8km az=146.0*
THR ***09*** *23:18:25.6±0.0,35˚.61N×45˚.02E,h10km±4km,ML4.8, Presumed earthquake*
DSN ***09*** *23:18:25.4±0.5,35˚.31N×45˚.18E,h10km,mb5.2/1,Error ellipse: s-maj=14.5km s-min=3.8km az=66.0*
NEIC ***09*** *23:18:25.2±1.7,35˚.47N±0˚.05×45˚.11E±0˚.05,h10km±1km, mb4.9/99,Error ellipse: s-maj=8.5km s-min=6.8km az=152.0*
GFZ ***09*** *23:18:26.6±0.3,36˚N±2˚×4˚5E±˚,h10km,M4.6/52, mb4.7/52*
GCMT ***09*** *23:18:27.2±0.3,35˚.49N±0˚.03×45˚.01E±0˚.03,h19km±1km, MW4.8/85,Moment Tensor Solution. s16,c18; s85,c117; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr=1.74±.12; Mθθ=-1.10±.08; Mϕϕ=-0.63±.07; Mrθ=0.54±.15; Mrϕ=0.84±.04; Mθϕ=-0.25±.16; Best double couple: M0=1.83900×10^16^ NP1:ϕs=311.00000°,δ36.00000°,λ97.00000°. NP2: ϕs=123.00000°,δ54.00000°,λ85.00000°. Principal axes: T 1.8440, Plg80.0000°, Azm13.0000°; N -0.0050, Plg4.0000°, Azm126.0000°; P -1.8340, Plg9.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NAO ***09*** *23:18:47.2,37˚.58N×43˚.98E,h33km,MB4.6*

ISC 09 23:18:24.9±0.6,35˚.45N±0˚.03×45˚.16E±0˚.03,h7km±3km, n788,σ1ϕ71/794,mb4.8/169,MS4.0/48,74C-39D,Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SLY	**Sulaymaniyah**	**0.32**	**61**			Pg	Pg	**23 18 31.6**	**+0.4**
SRSL	**SARDASHT**	**0.79**	**16**	*e*Pg		Pg	Pg	**23 18 38.4**	**-1.8**
SRSL				IAML				23 18 57.6	
	comp=Z,15μm,1.0s								
IDHR	**Dehrash**	**1.25**	**126**	Pg		Pn	Pn	**23 18 51.3**	**+2.3**
IDHR				Sg		Sn	Sn	**23 19 12.2**	**+6.0**
MAHB	**Mahabad**	**1.39**	**18**	Pg		Pn	Pn	**23 18 49.1**	**-1.7**
SNJK	**Sanadaj _Korde**	**1.57**	**90**	Pg		Pg	Pg	**23 18 54.9**	**-0.1**
IGHG	**Ghaleghazi**	**1.61**	**134**	Pg		Pg	Pg	**23 18 57.8**	**+2.0**
SNGE	**Sanandaj**	**1.82**	**101**	*e*Pn		Pg	Pg	**23 19 00.5**	**+0.6**
SNGE				IAML				23 19 38.8	
	comp=Z,4μm,1.0s								
KCHF	**Cheshme Sefid,**	**1.94**	**127**	Pn		Pg	Pg	**23 19 02.7**	**+0.6**
ILBA	**Ilam Banvizeh**	**2.01**	**154**	*e*Pn		Pg	Pg	**23 19 04.5**	**+1.0**
ILBA				IAML				23 19 43.0	
	comp=Z,3μm,1.0s								
ILBA	**Ilam Banvizeh**	**2.01**	**154**	Pn		Pg	Pg	**23 19 03.2**	**-0.3**
SNQR	**Sonqor, Kerman**	**2.10**	**106**	Pn		Pb	Pb	**23 19 03.8**	**+0.2**
CUKT	**Cukurca**	**2.19**	**326**	Pn		Pn	Pn	**23 19 00.5**	**-1.3**
CUKT	**Cukurca**	**2.19**	**326**	Pn		Pn	Pn	**23 19 01.8**	**0.0**
CUKT				Sn		Sn	Sn	**23 19 29.7**	**+0.5**
CUKT				AML		AML	AML		
YOVA	**Hakkari_Yksek**	**2.25**	**342**	Pn		Pn	Pn	**23 19 02.2**	**-0.5**
IAZR	**Azarshahr**	**2.32**	**16**	Pn		Pn	Pn	**23 19 04.7**	**+0.9**
HAKT	**HAKKARI**	**2.41**	**331**	Pn		Pn	Pn	**23 19 04.4**	**-0.5**
HAKT	**HAKKARI**	**2.41**	**331**	P		Pn	Pn	**23 19 04.4**	**-0.5**
IBDR	**Badra**	**2.42**	**165**	*e*Pg		Pn	Pn	**23 19 02.0**	**-2.8**
	baz=343								
IBDR					*e*Sg		Sb	**23 19 40.0**	**+1.3**
IBDR					AML	AML	AML	23 20 00.1	
	comp=N,3μm,0.7s								
IBDR					AML	AML		23 20 04.2	
	comp=E,3μm,0.7s								
IHSH	**Hashtrud**	**2.51**	**42**	Pn		Pn	Pn	**23 19 08.1**	**+1.6**
IALM	**Almaboloq**	**2.53**	**103**	Pn		Pb	Pb	**23 19 10.2**	**-0.7**
ISHB	**Shabestar**	**2.85**	**7**	Pn		Pn	Pn	**23 19 11.1**	**+0.1**
SIRN	**Sirnak**	**3.01**	**314**	Pn		Pn	Pn	**23 19 12.3**	**-0.8**
ZNJK	**Zanjan**	**3.10**	**66**	*e*Pn		Pn	Pn	**23 19 17.5**	**+3.0**
ZNJK				IAML				23 20 34.1	
	comp=Z,240nm,1.0s								
ZNJK	**Zanjan**	**3.10**	**66**	Pn		Pn	Pn	**23 19 16.6**	**+2.1**
IHRS	**Heris**	**3.24**	**27**	Pn		Pn	Pn	**23 19 17.1**	**+0.8**
GEVA	**Gevas**	**3.32**	**330**	Pn		Pn	Pn	**23 19 17.3**	**-0.1**
OZAP	**Van, Ozalp-Mer**	**3.34**	**344**	⇑P		Pn	Pn	**23 19 19.8**	**+2.1**
AKDM	**Akdamar-Van**	**3.37**	**329**	Pn		Pn	Pn	**23 19 18.5**	**+0.5**
AKDM				Sn		Sn	Sn	**23 19 58.0**	**-0.3**
AKDM				AML		AML	AML		
QABG	**Abgarm-Qazvin**	**3.61**	**85**	Pn		Pn	Pn	**23 19 24.1**	**+2.6**
CLDR	**Caldiran**	**3.82**	**345**	Pn		Pn	Pn	**23 19 24.4**	**+0.1**
CLDR				AML		AML	AML		
GURO	**Guroymak-BITLI**	**3.98**	**322**	Pn		Pn	Pn	**23 19 25.9**	**-0.6**
GURO	**Guroymak-BITLI**	**3.98**	**322**	Pn		Pn	Pn	**23 19 27.7**	**+1.2**
GURO				AML		AML	AML		
GRMI	**Germi**	**4.00**	**32**	*e*Pn		Pn	Pn	**23 19 28.4**	**+1.7**
GRMI				IAML				23 20 46.2	
	comp=Z,610nm,1.0s								
GRMI	**Germi**	**4.00**	**32**	Pn		Pn	Pn	**23 19 27.9**	**+1.1**
ASAO	**Ashtian**	**4.09**	**101**	*e*Pn		Pb	Pb	**23 19 33.5**	**-3.9**
ASAO				IAML				23 21 02.4	
	comp=Z,520nm,1.0s								
GIDE	**GILAN DEYLAMAN**	**4.11**	**68**	*e*Pn		Pn	Pn	**23 19 31.1**	**+2.8**
GIDE				IAML				23 20 58.4	
	comp=Z,1μm,1.0s								
GIDE	**GILAN DEYLAMAN**	**4.11**	**68**	Pn		Pn	Pn	**23 19 30.5**	**+2.1**
SVAN	**Silvan-Diyarba**	**4.17**	**311**	Pn		Pn	Pn	**23 19 30.9**	**+1.9**
SVAN				AML		AML	AML		
IGZV	**Ghazvin**	**4.21**	**76**	Pn		Pn	Pn	**23 19 32.4**	**+2.7**
MLAZ	**Malazgirt-MUS**	**4.23**	**331**	Pn		Pn	Pn	**23 19 30.9**	**+0.9**
MLAZ				AML		AML	AML		
KHMZ	**Khomeyn**	**4.31**	**112**	*i* P		Pn	Pn	**23 19 35.6**	**+4.6**
KHMZ				IAML				23 21 09.1	
	comp=Z,460nm,1.0s								
LKRN	**Lenkeran, Azer**	**4.36**	**41**	P		Pn	Pn	**23 19 34.2**	**+2.8**
GTMR	**Gotvand**	**4.43**	**131**	*e*Pn		Pn	Pn	**23 19 36.5**	**+4.0**
GTMR				IAML				23 21 20.8	
	comp=Z,500nm,1.0s								
AGRB	**Hanur-Agry**	**4.47**	**338**	Pn		Pn	Pn	**23 19 33.8**	**+0.6**
AGRB				AML		AML	AML		
TASB	**TASBURUN-IGDIR**	**4.59**	**351**	Pn		Pn	Pn	**23 19 35.1**	**+0.4**
TASB				AML		AML	AML		
GNI	**Garni**	**4.71**	**356**	Pn		Pn	Pn	**23 19 38.5**	**+2.1**
	comp=Z,4.5nm,0.3s,baz=306,slow=8.7,SNR=12								
GNI					Pg		Pb	**23 19 49.5**	**+1.7**
	comp=Z,5.4nm,0.3s,baz=243,slow=9.0,SNR=20								
GNI					Lg	Lg		23 20 57.5	
	baz=217,slow=20								
GNI					LR	LR		23 21 44.5	
	comp=Z,2μm,19.8s,baz=167,slow=43 comp=Z,23nm,0.8s								
GNI					AML	AML			
GNI	**Garni**	**4.71**	**356**	P		Pn	Pn	**23 19 37.7**	**+1.3**
GNI	**Garni**	**4.71**	**356**	P		Pn	Pn	**23 19 40.2**	**+3.8**
GNI	**Garni**	**4.71**	**356**	Pn		Pn	Pn	**23 19 37.5**	**+1.1**
GNI	**Garni**	**4.71**	**356**	Pn		Pn	Pn	**23 19 38.1**	**+1.7**
GNI				AML		AML	AML		
GNI	**Garni**	**4.71**	**356**	P		Pn	Pn	**23 19 38.6**	**+2.1**
GNI	**Garni**	**4.71**	**356**	P		Pn	Pn	**23 19 36.8**	**+0.4**
GNI				AML		AML	AML		
VRTB	**Varto-Mus**	**4.74**	**323**	Pn		Pn	Pn	**23 19 37.9**	**+1.0**
VRTB				AML		AML	AML		
DYBB	**Diyarbakir**	**4.75**	**303**	Pn		Pn	Pn	**23 19 38.9**	**+2.0**
DYBB				AML		AML	AML		
CHTH	**Charan**	**4.88**	**83**	*e*Pn		Pn	Pn	**23 19 41.9**	**+3.0**
CHTH				IAML				23 21 31.0	
	comp=Z,94nm,1.0s								
BNGB	**Bingl**	**5.03**	**316**	Pn		Pn	Pn	**23 19 42.5**	**+1.7**
BNGB				AML		AML	AML		
KARO	**Karliova-Bingo**	**5.06**	**321**	Pn		Pn	Pn	**23 19 42.9**	**+1.6**
KARO				AML		AML	AML		
GHVR	**GHOM**	**5.13**	**99**	*e*Pn		Pn	Pn	**23 19 45.8**	**+3.6**
GHVR				IAML				23 21 26.0	
	comp=Z,650nm,1.0s								
DIGO	**Kars**	**5.16**	**345**	P		Pn	Pn	**23 19 45.0**	**+2.3**
	comp=Z,630nm,1.4s								
KOPR	**Koprukoy-ERZUR**	**5.24**	**331**	Pn		Pn	Pn	**23 19 45.0**	**+1.2**
KOPR				AML		AML	AML		
HOMI	**Horasan**	**5.26**	**332**	⇓P		Pn	Pn	**23 19 47.6**	**+3.4**
YEDI	**Yedisu-Bingol**	**5.42**	**319**	Pn		Pn	Pn	**23 19 47.9**	**+1.7**
YEDI				AML		AML	AML		
KARS	**Kars**	**5.43**	**343**	P		Pn	Pn	**23 19 48.0**	**+1.7**
KARS	**Kars**	**5.43**	**343**	Pn		Pn	Pn	**23 19 47.3**	**+1.0**
SVRC	**Sivrice-ELAZID**	**5.53**	**304**	Pn		Pn	Pn	**23 19 47.4**	**-0.3**
SVRC				AML		AML	AML		
DAMV	**Damavand**	**5.55**	**86**	*e*Pn		Pn	Pn	**23 19 51.4**	**+3.2**
DAMV				IAML				23 22 00.0	
	comp=Z,190nm,1.0s								
SENK	**Senkaya-Erzuru**	**5.57**	**337**	Pn		Pn	Pn	**23 19 49.6**	**+1.3**
KOPT	**Kop Dagi**	**5.87**	**322**	Pn		Pn	Pn	**23 19 53.0**	**+0.5**
ERZN	**Erzincan**	**5.98**	**315**	Pn		Pn	Pn	**23 19 56.1**	**+2.2**
ERZN				AML		AML	AML		
TRLG	**Trialeti**	**6.14**	**353**	P		Pn	Pn	**23 19 58.7**	**+2.6**
TBLG	**Delisi**	**6.28**	**357**	Pn		Pn	Pn	**23 19 59.2**	**+1.2**
TBLG				AML		AML	AML		
BAYT	**Aydıntepe-Bayb**	**6.33**	**323**	Pn		Pn	Pn	**23 20 00.9**	**+2.1**
BAYT				AML		AML	AML		
EPOS	**Posof**	**6.34**	**343**	P		Pn	Pn	**23 20 01.9**	**+3.0**
	comp=Z,64nm,1.6s								
KEMA	**Kemaliye**	**6.54**	**308**	P		Pn	Pn	**23 20 01.7**	**+0.2**
	comp=Z,235nm,0.9s								
ARPR	**Arapgir-MALATY**	**6.55**	**306**	Pn		Pn	Pn	**23 20 01.4**	**-0.4**
ARPR	**Arapgir-MALATY**	**6.55**	**306**	P		Pn	Pn	**23 20 02.7**	**+1.0**
	comp=Z,188nm,1.0s								
ARPR	**Arapgir-MALATY**	**6.55**	**306**	Pn		Pn	Pn	**23 20 04.5**	**+2.8**
ILIC	**ilic-Erzincan**	**6.59**	**309**	Pn		Pn	Pn	**23 20 04.9**	**+2.6**
KELT	**Kelkit**	**6.62**	**317**	P		Pn	Pn	**23 20 07.2**	**+4.4**
	comp=Z,319nm,1.4s								
GAZ	**Gaziantep**	**6.65**	**287**	Pn		Pn	Pn	**23 20 02.0**	**-1.0**
GAZ	**Gaziantep**	**6.65**	**287**	Pn		Pn	Pn	**23 20 06.5**	**+3.5**
BATM	**Batumi**	**6.72**	**337**	P		Pn	Pn	**23 20 07.2**	**+3.3**
BATM	**Batumi**	**6.72**	**337**	⇑P		Pn	Pn	**23 20 07.2**	**+3.3**
DARE	**Darende-Malaty**	**6.89**	**299**	Pn		Pn	Pn	**23 20 09.3**	**+2.9**
KTUT	**Trabzon**	**6.97**	**324**	⇓P		Pn	Pn	**23 20 10.5**	**+3.1**
TAHT	**Tahtakopru-Hat**	**7.34**	**280**	Pn		Pn	Pn	**23 20 16.1**	**+3.6**
ANDN	**Andirin**	**7.41**	**289**	P		Pn	Pn	**23 20 12.6**	**-1.0**
	comp=Z,227nm,0.8s								
SARI	**SarD1z-Kayseri**	**7.60**	**295**	Pn		Pn	Pn	**23 20 18.7**	**+2.5**
ASF	**Jabal al Asfar**	**7.65**	**247**	Pn		Pn	Pn	**23 20 16.6**	**+0.3**
	comp=Z,2.8nm,0.3s,baz=48,slow=11,SNR=43								
ASF					Pg		Pg	23 20 44.1	-6.6
	comp=Z,4.4nm,0.3s,baz=52,slow=11,SNR=8.0								
ASF					Lg	Lg		23 22 24.4	
	comp=Z,12nm,0.3s,baz=81,slow=22,SNR=12								
ASF					LR	LR		23 23 54.2	
	comp=Z,2μm,18.6s,baz=51,slow=44 comp=Z,49nm,0.9s								
ASF					AML	AML			
ASF	**Jabal al Asfar**	**7.65**	**247**	P		Pn	Pn	**23 20 16.9**	**+0.6**
ASF					AML	AML			
MAK	**Makhachkala**	**7.72**	**13**	*c* *i*P		Pn	Pn	**23 20 16.1**	**-1.5**
MAK					*e*S	Sn	Sn	**23 21 44.9**	**-0.4**
MAK					pmax	pmax			
	comp=Z,90nm,1.1s								
MAK					MLR	MLR			
	comp=Z,2μm,18.0s								
CEYT	**Ceyhan**	**7.77**	**284**	Pn		Pn	Pn	**23 20 21.9**	**+3.6**
KOZT	**Kozan**	**7.79**	**288**	Pn		Pn	Pn	**23 20 21.3**	**+2.6**
SVSK	**Karacayir**	**7.86**	**307**	Pn		Pn	Pn	**23 20 22.3**	**+2.7**
RSDY	**Resadiye-TOKAT**	**7.92**	**311**	Pn		Pn	Pn	**23 20 22.7**	**+2.3**
NEUR	**Neytrino**	**8.03**	**347**	*i* P		Pn	Pn	**23 20 24.2**	**+2.1**
NCK	**Nalchik**	**8.13**	**352**	*i* P		Pn	Pn	**23 20 25.8**	**+2.5**
GEM	**Giv'at Ha'Em**	**8.17**	**257**	P		Pn		23 20 29.7	+5.9
GEM	**Giv'at Ha'Em**	**8.17**	**257**	P		Pg		23 21 22.2	+21
BNN	**Bunyan**	**8.18**	**297**	Pn		Pn	Pn	**23 20 24.3**	**+0.2**
BNN	**Bunyan**	**8.18**	**297**	Pn		Pn	Pn	**23 20 26.7**	**+2.6**
HSUJ	**Al Zarqa**	**8.18**	**248**	P		Pg	Pg	**23 21 04.1**	**+2.6**
HSUJ				AML		AML	AML		
TOKA	**Tokat**	**8.41**	**308**	Pn		Pn	Pn	**23 20 31.1**	**+3.9**
MMAI	**Mount Meron Ar**	**8.44**	**256**	Pn		Pn	Pn	**23 20 29.2**	**+1.6**
	comp=Z,2.9nm,0.3s,baz=68,slow=19,SNR=19								
MMAI					Sn		Sn	**23 22 02.7**	**-0.5**
	baz=62,slow=16								
MMAI					Lg	Lg		23 22 50.2	
	comp=Z,10nm,0.3s,baz=15,slow=26,SNR=6.0								
MMAI					LR	LR		23 24 19.2	
	comp=Z,741nm,18.9s,baz=66,slow=42 comp=Z,10nm,0.6s								
MMAI					AML	AML			
KBZ	**Khabaz**	**8.45**	**349**	Pn		Pn	Pn	**23 20 31.8**	**+4.1**
	comp=Z,0.2nm,0.3s,baz=174,slow=7.4,SNR=22								
KBZ					LR	LR		23 24 12.9	
	comp=Z,2μm,18.1s,baz=154,slow=42 comp=Z,19nm,0.9s								
KBZ					AML	AML			
CMRD	**Camardi-Nigde**	**8.48**	**288**	Pn		Pn	Pn	**23 20 30.9**	**+2.7**
SHA1	**Shidzhatmaz**	**8.50**	**348**	*i* P		Pn	Pn	**23 20 31.4**	**+2.8**
QRNJ	**Al-Qirein**	**8.55**	**251**	P		Pn	Pn	**23 20 32.6**	**+3.5**
QRNJ				AML		AML	AML		
SWQJ	**Karak**	**8.58**	**245**	P		Pg	Pg	**23 21 14.4**	**+3.1**
SWQJ				AML		AML	AML		
MMLI	**Mount Malkishu**	**8.63**	**252**	P		Pn	Pn	**23 20 34.6**	**+4.3**
	comp=Z,50nm,0.7s								
KVAR	**Kislovodsk Arr**	**8.71**	**348**	Pn		Pn	Pn	**23 20 34.1**	**+2.8**
	baz=74,slow=20								
KVAR					LR	LR		23 23 49.3	
	comp=Z,2μm,19.7s,baz=68,slow=38 comp=Z,15nm,1.1s								
KIV	**Kislovodsk SNR=28**	**8.71**	**348**	*i* P		Pn	Pn	**23 20 35.2**	**+3.9**
KIV	**Kislovodsk**	**8.71**	**348**	P		Pn	Pn	**23 20 35.6**	**+4.3**
KIV				S		Sn	Sn	23 22 19.9	+10
KIV	**Kislovodsk**	**8.71**	**348**	*e*P		Pn	Pn	**23 20 31.1**	**-0.2**
KIV				pmax		pmax			
	comp=Z,47nm,1.0s								
KIV				MLR		MLR			
	comp=Z,578nm,12.0s								
KIV	**Kislovodsk**	**8.71**	**348**	Pn		Pn	Pn	**23 20 34.3**	**+3.1**
KIV	**Kislovodsk**	**8.71**	**348**	⇑P		Pn	Pn	**23 20 34.4**	**+3.1**
KIV	**Kislovodsk**	**8.71**	**348**	P		Pn	Pn	**23 20 35.5**	**+4.2**
	comp=Z,81nm,1.3s								
KIV	**Kislovodsk**	**8.71**	**348**	Pn		Pn	Pn	**23 20 32.1**	**+0.8**
UJAP	**Al Uja**	**8.80**	**249**	P		Pg	Pg	**23 21 15.3**	**+1.9**
UJAP				AML		AML	AML		
UJAP	**Al Uja**	**8.80**	**249**	P		Pn	Pn	**23 20 36.6**	**+4.2**
	comp=Z,42nm,0.8s								
SHRO	**Shahrood**	**8.84**	**83**	*e*Pn		Pn	Pn	23 20 38.2	+5.0
VSLR	**Vesyoloye**	**8.93**	**335**	*i* P		Pn	Pn	**23 20 35.0**	**+0.7**
SALP	**Salfit**	**8.96**	**251**	P		Pg	Pg	**23 21 18.5**	**+2.1**
SALP				AML		AML	AML		
GHAJ	**Ghor Haditha**	**9.02**	**245**	Pn		Pn	Pn	**23 20 36.7**	**+1.1**
GHAJ	**Ghor Haditha**	**9.02**	**245**	P		Pn	Pn	**23 20 38.1**	**+2.5**
GHAJ				AML		AML	AML		
GHAJ	**Ghor Haditha**	**9.02**	**245**	P		Pn	Pn	**23 20 37.7**	**+2.1**
	comp=Z,48nm,0.8s								
MRVT	**Maraveh tapeh**	**9.07**	**73**	*e*Pn		Pn	Pn	**23 20 39.1**	**+2.9**
LISJ	**El Lisan**	**9.12**	**245**	P		Pn		23 21 22.5	+46
LISJ				AML		AML	AML		
SOC	**Sochi**	**9.15**	**334**	*e*P		Pn	Pn	**23 20 37.2**	**0.0**
SOC				*e*				23 22 22.3	
SOC				pmax		pmax			
	comp=Z,8.0nm,1.0s								
SOC				MLR		MLR			
	comp

BSRN **Basiran** 12.14 103 *e*Pn Pn 23 21 21.8 +3.5
JRN **Qarnain Island** 12.40 146 P Pn 23 21 22.5 +0.7
JRN S Sn 23 23 37.8 -2.3
ELL **Elmali** 12.41 280 P Pn 23 21 25.4 +3.4
ELL **Elmali** 12.41 280 Pn Pn 23 21 25.4 +3.4
SIM **Simferopol'** 12.69 322 *e*P Pn 23 21 24.0 -1.7
SIM *e*S Sn 23 23 44.2 -3.0
SIM pmax pmax
comp=Z,33nm,0.6s
SIM smax smax
comp=N,20nm,1.2s
SIM MLR MLR
comp=Z,143nm,15.2s
TAVA **DENIZLI_Tavas** 13.24 284 ⇑P Pn 23 21 35.5 +2.2
SHME **Shamm** 13.29 132 *i* P Pn 23 21 33.0 -1.0
SNR=12
SHME **Shamm** 13.29 132 P Pn 23 21 33.2 -0.8
SHME S Sn 23 24 01.0 -1.1
UMQ **Umm Al-Quwin** 13.40 135 P Pn 23 21 36.4 +0.9
YLV **Yalova** 13.45 297 Pn Pn 23 21 39.0 +2.8
comp=Z,40nm,1.2s
BANOM **Banah** 13.48 132 P Pn 23 21 35.7 -0.9
BANOM **Banah** 13.48 132 P Pn 23 21 36.2 -0.4
BANOM S Sn 23 24 04.2 -2.5
AJN **Ajban** 13.78 139 P Pn 23 21 40.9 +0.3
AJN S Sn 23 24 11.6 -2.4
MASF **Masafi** 13.81 134 P Pn 23 21 40.4 -0.7
SNR=15
NAZ **Nazwa, Dubai** 13.81 136 *i* P Pn 23 21 40.8 -0.4
SNR=24
NAZ **Nazwa, Dubai** 13.81 136 P Pn 23 21 40.9 -0.2
SNR=18
NAZ S Sn 23 24 11.6 -3.2
MSFE **Esma-Masafi** 13.81 134 *i* P Pn 23 21 40.3 -0.9
SNR=23
MZWR **Madinat Zayed** 13.89 145 P Pn 23 21 42.1 0.0
MZWR S Sn 23 24 14.6 -2.0
ASUD **Al Ashush, Dub** 13.91 138 P Pn 23 21 41.3 -1.2
ASUD **Al Ashush, Dub** 13.91 138 P Pn 23 21 42.3 -0.2
ASUD S Sn 23 24 14.4 -2.9
MDH **Madha** 13.94 133 *i* P Pn 23 21 41.3 -1.6
SNR=23
MDH **Madha** 13.94 133 P Pn 23 21 41.9 -1.0
SNR=15
MDH S Sn 23 24 12.8 -5.1
FAQ **Al Faqa, Dubai** 13.96 137 P Pn 23 21 44.6 +1.5
SNR=10
FAQ S Sn 23 24 14.3 -4.1
HRA **Herat** 14.06 89 Pn Pn 23 21 47.2 +2.5
UOSS **Minazif** 14.16 135 *i* P Pn 23 21 44.8 -1.0
SNR=7.5
UOSS **Minazif** 14.16 135 P Pn 23 21 46.1 +0.2
UOSS **Minazif** 14.16 135 Pn Pn 23 21 44.5 -1.4
UOSS **Minazif** 14.16 135 P Pn 23 21 45.8 0.0
comp=Z,65nm,0.6s
HATD **Hatta, Dubai** 14.21 135 *i* P Pn 23 21 46.1 -0.4
SNR=24
HATD **Hatta, Dubai** 14.21 135 P Pn 23 21 47.0 +0.5
SNR=18
HATD S Sn 23 24 19.5 -4.9
ASHO **Ashiyiah** 14.27 136 *i* P Pn 23 21 45.9 -1.6
SNR=36
ASHO **Ashiyiah** 14.27 136 P Pn 23 21 46.6 -0.9
SNR=23
ASHO S Sn 23 24 21.1 -5.0
MZR **Muzera** 14.36 147 *i* P Pn 23 21 47.7 -1.0
SNR=58
MZR **Muzera** 14.36 147 P Pn 23 21 48.2 -0.4
SNR=19
MZR S Sn 23 24 25.4 -2.9
JASK **Jask - Hormozg** 14.50 128 P Pn 23 21 50.2 -0.4
BALY **Balya** 14.55 292 P Pn 23 21 53.6 +2.4
comp=Z,74nm,1.5s
ALNE **Al Ain** 14.60 138 *i* P Pn 23 21 50.1 -1.8
SNR=41
ALNE **Al Ain** 14.60 138 P Pn 23 21 51.0 -0.9
SNR=14
ALNE S Sn 23 24 29.7 -4.3
KARP **Karpathos** 14.67 276 Pn Pn 23 21 52.5 -0.3
SOHO **SOHO** 14.97 136 *i* P Pn 23 21 55.3 -1.6
SNR=16
SOHO **SOHO** 14.97 136 P Pn 23 21 56.8 -0.2
SNR=10.0
UMZA **Um Al Zommool** 15.39 143 S Sn 23 24 50.1 -3.2
MFTR **Murfatlar** 15.52 309 ⇑P Pn 23 22 05.9 +1.9
JURR **Jurilovca** 15.53 312 ⇑P P 23 22 06.8 -1.8
ARQ **Araqi** 15.59 138 P Pn 23 22 04.4 -0.8
SNR=11
ARQ S Sn 23 24 55.3 -2.9
HOQ **Hogain** 15.85 135 P Pn 23 22 08.4 0.0
SNR=9.2
HOQ S Sn 23 25 01.9 -2.5
TPGR **Topolog** 15.85 311 ⇓P Pn 23 22 09.9 +1.4
ICOR **Ion Corvin** 15.88 308 ⇑P P 23 22 11.3 -1.3
VRH **Novokhopyorsk** 15.94 352 *e*P Pn 23 22 07.6 -1.9
VRH pmax pmax
comp=Z,36nm,0.6s
PURM **Purcari** 15.96 319 ⇑P P 23 22 12.7 -0.7
PURM **Purcari** 15.96 319 P P 23 22 12.7 -0.7
comp=Z,52nm,0.9s
VORD **Divnogorie** 16.08 347 *e*P Pn 23 22 11.9 +0.6
VORD pmax pmax
comp=Z,30nm,0.9s
CFR **Carcaliu** 16.19 312 P P 23 22 14.6 -1.3
CFR **Carcaliu** 16.19 312 ⇑P P 23 22 14.7 -1.3
VSR **Storozhevoye** 16.34 347 *e*P Pn 23 22 15.2 +0.5
VSR pmax pmax
comp=Z,52nm,0.8s
BIDO **Bidbid** 16.37 133 P Pn 23 22 15.2 0.0
SNR=5.4
BIDO S Sn 23 25 11.0 -6.1
BSY **Bisya** 16.44 137 P Pn 23 22 14.3 -1.8
SNR=12
BSY S Sn 23 25 16.0 -2.8
SCHLR **Schela** 16.53 313 ⇓P P 23 22 19.2 -0.4
IDI **Anoyia** 16.54 275 Pn Pn 23 22 16.0 -1.4
comp=Z,2.0nm,0.3s,baz=71,slow=13,SNR=14
comp=Z,2.6nm,0.3s
IDI AML AML
IDI **Anoyia** 16.54 275 P 23 22 19.0 -1.0
VLDR **Vladesti** 16.58 314 ⇓P P 23 22 19.0 -1.3
SMDO **Samad** 16.68 134 P Pn 23 22 17.7 -1.5
SNR=11
SMDO S Sn 23 25 19.6 -5.1
ELND **Elena** 16.69 302 ⇑P P 23 22 21.5 -0.1
VARL **Varlezi** 16.74 314 ⇓P P 23 22 21.4 -0.7
VORR **Voronezh** 16.77 347 *e*P Pn 23 22 18.7 -1.4
VORR pmax pmax
comp=Z,107nm,1.3s
KIS **Kishinev** 16.82 318 P P 23 22 22.3 -0.7
WSAR **Wadi Sarin** 16.89 132 P Pn 23 22 20.9 -0.9
SNR=9.0
WSAR S Sn 23 25 23.1 -6.5
BELG **Belogornoye** 17.03 5 Pn Pn 23 22 20.8 -2.6
comp=Z,1.8nm,0.3s,baz=193,slow=19,SNR=9.0
BELG LR LR 23 30 44.5
comp=Z,600nm,20.6s,baz=179,slow=44
BELG **Belogornoye** 17.03 5 *i* P Pn 23 22 23.9 +0.5
BELG pmax pmax
comp=Z,17nm,0.9s
NGCH **Negor - Chabah** 17.04 122 P Pn 23 22 23.5 -0.1
GHRR 17.09 314 ⇓P P 23 22 26.4 +0.5
GHRR 17.09 314 P P 23 22 25.9 0.0
ODBI **Odobesti** 17.14 312 ⇑P P 23 22 27.2 +0.7
ISR **Istrita** 17.14 310 P P 23 22 26.1 -0.5
ISR **Istrita** 17.14 310 ⇑P P 23 22 26.2 -0.5
ISR **Istrita** 17.14 310 P Pn 23 22 25.7 +0.8
comp=Z,73nm,1.6s
JMDO **Jabal Madar** 17.25 136 P Pn 23 22 24.9 -1.4
SNR=8.5
JMDO S Sn 23 25 35.3 -3.0
SAHR **Sahastru** 17.35 312 ⇑P P 23 22 29.7 +0.8
VRI **Vrincioaia** 17.39 312 P P 23 22 30.4 +1.1
VRI **Vrincioaia** 17.39 312 ⇓P P 23 22 30.4 +1.1
VRI **Vrincioaia** 17.39 312 P P 23 22 29.4 +0.1
comp=Z,23nm,1.4s
VRI **Vrincioaia** 17.39 312 P P 23 22 30.7 +1.4
comp=Z,23nm,1.4s
MNTR **Muntenesti** 17.40 316 ⇓P P 23 22 29.4 0.0
PLOR **Plostina** 17.43 312 P P 23 22 30.8 +1.0
PLOR **Plostina** 17.43 312 ⇑P P 23 22 30.8 +1.0
NEHR **Nehoiu** 17.44 311 ⇓P P 23 22 30.9 +1.0
PDRR **Padureni** 17.46 316 ⇑P P 23 22 30.2 +0.2
DMBR **Dumbraveni** 17.51 316 ⇓P P 23 22 30.3 -0.3

AB31 **Akbulak array** 17.55 34 Pn 23 22 29.4 -0.5
ABKAR **Akbulak array** 17.55 34 Pn Pn 23 22 29.2 -0.7
WBK **Wadi Bani Khal** 17.57 133 P Pn 23 22 30.5 +0.2
AKTO **Aktyubinsk** 17.65 28 P Pn 23 22 30.7 -0.4
comp=Z,0.8nm,0.3s,baz=213,slow=8.4,SNR=17
comp=Z,13nm,0.8s
AKTO AML AML
MLR **Muntele Rosu** 17.69 310 P P 23 22 32.6 -0.1
comp=Z,26nm,1.3s,baz=8.1,slow=7.8
MLR **Muntele Rosu** 17.69 310 P P 23 22 34.1 +1.4
MLR **Muntele Rosu** 17.69 310 P 23 22 32.9 +0.1
MLR **Muntele Rosu** 17.69 310 ⇓P P 23 22 34.2 +1.4
MLR **Muntele Rosu** 17.69 310 P P 23 22 33.9 +1.2
comp=Z,32nm,1.5s
MLR **Muntele Rosu** 17.69 310 P P 23 22 35.0 +2.2
comp=Z,32nm,1.5s
COVR **Voineasa-Covas** 17.70 312 ⇑P P 23 22 34.3 +1.6
LPSR **Galich'ya Gora** 17.71 347 *e*P Pn 23 22 30.1 -1.7
LPSR pmax pmax
comp=Z,159nm,1.0s
PLVB **Pleven** 17.71 303 ⇓P P 23 22 34.1 +1.3
TESR **Tescani** 17.77 314 ⇓P P 23 22 33.5 0.0
TESR **Tescani** 17.77 314 P Pn 23 22 32.8 +0.1
comp=Z,1µmcomp=Z,53nm,1.9s
TESR **Tescani** 17.77 314 P P 23 22 34.5 +1.0
comp=Z,53nm,1.9s
ONER **Baraj Valea Uz** 17.83 313 ⇑P P 23 22 35.1 +1.0
SRS **Serrai** 17.84 295 P P 23 22 35.8 +1.6
comp=Z,38nm,1.1s
HUMR **Humele** 17.89 307 ⇓P P 23 22 36.1 +1.3
HUMR **Humele** 17.89 307 P P 23 22 36.4 +1.6
comp=Z,53nm,1.0s
TURR **Turia** 17.92 312 ⇑P P 23 22 36.5 +1.3
SOH **Sokhos** 17.96 294 P P 23 22 36.7 +1.1
SOH **Sokhos** 17.96 294 P P 23 22 36.7 +1.1
comp=Z,43nm,1.0s
OZUR 18.08 312 ⇑P P 23 22 38.2 +1.3
GIRR **Girov** 18.10 315 ⇓P P 23 22 38.0 +1.0
BOSR **Bodos** 18.14 312 ⇑P P 23 22 39.0 +1.4
JLN **Jalan Bani Buh** 18.18 133 P Pn 23 22 37.8 0.0
SNR=5.6
THE **Thessaloniki** 18.22 293 P P 23 22 39.7 +1.3
THE **Thessaloniki** 18.22 293 P P 23 22 39.7 +1.3
comp=Z,33nm,1.2s
VOIR 18.23 309 P P 23 22 39.2 +0.6
VOIR 18.23 309 ⇑P P 23 22 39.3 +0.6
VOIR 18.23 309 P P 23 22 39.4 +0.8
comp=Z,760nmcomp=Z,50nm,1.1s
VOIR 18.23 309 P P 23 22 39.7 +1.1
comp=Z,51nm,1.8s
DOPR **Dopca** 18.26 311 ⇓P P 23 22 40.0 +1.1
MHTO **MHTO** 18.27 139 P Pn 23 22 37.5 -1.4
SNR=12
BIZ **Bicaz** 18.32 315 ⇑P P 23 22 40.4 +0.9
KNT **Kendrikon** 18.36 295 P P 23 22 43.0 +3.0
comp=Z,16nm,1.4s
ARR **Arges** 18.46 309 ⇓P P 23 22 42.5 +1.3
ARR **Arges** 18.46 309 P Pn 23 22 42.8 +1.5
comp=Z,28nm,0.9s
PRAR **RASCA** 18.48 316 ⇑P Pn 23 22 41.5 +0.2
PEHC **Pehcevo** 18.48 297 *i* P Pn 23 22 46.0 +4.5
AGG **Agios Georgios** 18.52 288 P Pn 23 22 42.8 +0.9
AGG **Agios Georgios** 18.52 288 P Pn 23 22 42.8 +0.9
comp=Z,42nm,1.1s
DOK **Doka** 18.55 152 P P 23 22 40.5 -1.8
SNR=8.6
VAY **Valadovo** 18.63 295 *i* P Pn 23 22 46.1 +2.8
GRG **Griva** 18.69 294 P Pn 23 22 48.8 +4.7
comp=Z,45nm,1.5s
ITM **Ithomi** 18.80 282 P P 23 22 44.1 -0.8
ITM **Ithomi** 18.80 282 P Pn 23 22 47.0 +1.7
comp=Z,50nm,0.7s
DQM **DQM** 18.92 142 P P 23 22 46.4 +0.1
MDB **Medias** 18.96 311 P Pn 23 22 47.4 +0.2
MDB **Medias** 18.96 311 ⇑P Pn 23 22 47.5 +0.2
AK07 **Malin Array Si** 19.02 327 P P 23 22 45.4 -1.7
AK09 **Malin Array Si** 19.03 328 P P 23 22 45.5 -1.7
AK10 **Malin Array Si** 19.03 328 P P 23 22 45.4 -1.9
KMPD **K-Podol'skiy** 19.04 319 P P 23 22 45.9 -1.4
LOT **Lotru** 19.05 308 ⇑P Pn 23 22 49.1 +0.7
LOT **Lotru** 19.05 308 P Pn 23 22 48.5 +0.1
comp=Z,43nm,1.0s
WHFO **Wadi Hawf** 19.06 154 P P 23 22 47.6 -0.3
SNR=21
SRE **Strehaia** 19.11 305 P Pn 23 22 49.8 +0.7
SRE **Strehaia** 19.11 305 ⇑P Pn 23 22 49.8 +0.7
AK01 **Malin Array Si** 19.11 328 P P 23 22 46.4 -1.8
AKASG **Malin Array Be** 19.12 328 P P 23 22 47.0 -1.2
comp=Z,1.9nm,0.3s,baz=137,slow=12,SNR=43
comp=Z,20nm,1.1s
AKASG AML AML
AKASG **Malin Array Be** 19.12 328 P P 23 22 47.0 -1.2
AKBB **Malin Array Si** 19.12 328 *e*P P 23 22 46.7 -1.5
AKBB pmax pmax
comp=Z,30nm,1.1s
AKBB **Malin Array Si** 19.12 328 P P 23 22 46.7 -1.5
KIEV **Kiev** 19.12 328 P P 23 22 46.7 -1.5
KIEV pmax pmax
comp=Z,48nm,1.3s
KIEV **Kiev** 19.12 328 P P 23 22 46.7 -1.5
KIEV **Kiev** 19.12 328 P P 23 22 46.7 -1.5
comp=Z,3µmcomp=Z,80nm,0.9s
KIEV **Kiev** 19.12 328 P P 23 22 47.0 -1.3
comp=Z,20nm,0.9s
AK13 **Malin Array Si** 19.12 327 P P 23 22 47.0 -1.3
AK11 **Malin Array Si** 19.12 328 P P 23 22 47.0 -1.3
BLKB **Belogradchik** 19.13 302 ⇓P Pn 23 22 49.8 +0.5
BURAR **Bucovina Array** 19.19 315 P P 23 22 49.6 +0.4
BURAR **Bucovina Array** 19.19 315 P P 23 22 47.9 -1.2
BURAR **Bucovina Array** 19.19 315 ⇓P P 23 22 49.6 +0.4
BUR08 **Bucovina Ar. S** 19.21 315 P P 23 22 48.9 -0.6
LUBAR **Lubar, Ukraine** 19.24 324 P P 23 22 48.1 -1.5
ABTO **Aybut** 19.42 156 P P 23 22 51.6 -0.3
SNR=5.9
ARCR **ARCALIA** 19.42 313 ⇑P Pn 23 22 53.1 +0.3
RMGR **Halanga-Turnu** 19.46 305 ⇑P Pn 23 22 52.8 -0.3
MI29 **MI29, Kamyanyy** 19.54 325 P P 23 22 52.5 -0.3
comp=Z,15µmcomp=Z,177nm,1.0s
KBL **Kabul** 19.58 86 P P 23 22 54.0 +0.3
KBL pmax pmax
comp=Z,10.0nm,0.9s
KBL **Kabul** 19.58 86 P P 23 22 54.0 +0.3
KBL **Kabul** 19.58 86 P Pn 23 22 56.9 +1.9
comp=Z,14nm,0.9s
RBK **Rabkut** 19.60 153 P Pn 23 22 54.3 -0.8
SNR=7.3
GZR **Gura Zlata** 19.67 307 P P 23 22 54.5 +0.1
GZR **Gura Zlata** 19.67 307 ⇑P P 23 22 54.5 +0.1
SHAO **Shalim** 19.69 149 P Pn 23 22 55.7 -0.4
SNR=12
DMTO **DMTO** 19.69 151 P P 23 22 54.8 +0.2
SNR=19
CJR **Cluj-Napoca** 19.70 311 P Pn 23 22 56.1 -0.1
CJR **Cluj-Napoca** 19.70 311 ⇓P Pn 23 22 56.1 -0.1
HERR **Herculane** 19.72 305 ⇑P Pn 23 22 56.4 +0.1
DEV **Deva** 19.78 309 P P 23 22 56.1 +0.6
DEV **Deva** 19.78 309 ⇑P P 23 22 56.2 +0.6
DEV **Deva** 19.78 309 P P 23 22 55.9 +0.4
comp=Z,35nm,1.3s
BOVS **Bovan** 19.80 301 ⇓P Pn 23 22 57.1 -0.3
LKD2 **Lefkada island** 19.81 287 P Pn 23 22 58.4 +0.9
comp=Z,50nm,0.9s
KBN **Korca** 19.86 292 P Pn 23 22 57.9 -0.1
KBN **Korca** 19.86 292 P Pn 23 22 58.0 -0.1
comp=Z,92nm,1.2s
OHR **Ohrid** 19.91 294 *i* P P 23 22 57.9 +0.7
MARR **Marisel-Cluj** 19.98 311 ⇓P P 23 22 58.4 +0.6
MDVR **Moldovita** 20.15 305 ⇓P Pn 23 23 00.7 -0.8
BMR **Baia Mare** 20.22 314 P P 23 23 01.2 +0.9
BMR **Baia Mare** 20.22 314 ⇓P P 23 23 01.3 +0.9
BMR **Baia Mare** 20.22 314 P Pn 23 23 01.4 -0.8
comp=Z,124nm,1.4s
PHP **Peshkopia** 20.27 295 P Pn 23 23 02.3 -0.7
PHP pmax pmax
comp=Z,61nm,0.9s
PHP **Peshkopia** 20.27 295 P Pn 23 23 02.3 -0.7
comp=Z,61nm,0.9s
DRGR 20.28 311 P P 23 23 01.6 +0.5
DRGR 20.28 311 ⇑P P 23 23 01.6 +0.5
DRGR 20.28 311 P P 23 23 01.3 +0.2
comp=Z,58nm,1.0s
MESR **Meseseni** 20.30 312 ⇓P Pn 23 23 02.4 -0.8
SRN **Sarande** 20.38 290 P Pn 23 23 05.5 +1.4
comp=Z,71nm,0.9s

BZS **Buzias** 20.51 307 P P 23 23 03.2 -0.2
BZS **Buzias** 20.51 307 ⇑P P 23 23 03.3 -0.2
BZS **Buzias** 20.51 307 P P 23 23 02.8 -0.7
comp=Z,17nm,1.0s
KEK **Kerkira** 20.52 290 P P 23 23 01.0 -2.7
KEK IAmb IAmb 23 23 09.3
comp=Z,79nm,1.1s
KEK **Kerkira** 20.52 290 P P 23 23 04.0 +0.4
comp=Z,64nm,0.9s
OBN **Obninsk** 20.54 346 P P 23 23 02.5 -1.1
comp=Z,34nm,0.5s,baz=159,slow=10.0,SNR=23
comp=Z,34nm,0.5s
OBN **Obninsk** 20.54 346 *c* *i* P P 23 23 02.0 -1.7
OBN *i* 23 23 08.2
OBN *i* PPP PPP 23 23 27.2
OBN *i* S Sn 23 26 58.4 +0.9
OBN pmax pmax
comp=Z,81nm,1.0s
OBN MLR MLR
comp=Z,492nm,15.0s
OBN **Obninsk** 20.54 346 P P 23 23 01.9 -1.7
OBN **Obninsk** 20.54 346 P P 23 23 02.4 -1.3
comp=Z,1µmcomp=Z,111nm,1.5s
OBN **Obninsk** 20.54 346 P P 23 23 02.6 -1.1
comp=Z,111nm,1.5s
BANR **Banloc** 20.74 306 ⇑P Pn 23 23 07.2 -1.1
PVY **Plav** 20.79 298 ⇑ *i* P P 23 23 06.6 -0.1
VLO **Vlora** 20.82 292 P Pn 23 23 10.0 +0.7
VLO pmax pmax
comp=Z,101nm,0.9s
VLO **Vlora** 20.82 292 P Pn 23 23 10.0 +0.7
comp=Z,101nm,0.9s
IVA **Berane** 20.90 298 ⇑ *i* P P 23 23 08.6 +0.8
SJES **Sjenica** 20.93 299 P P 23 23 08.2 0.0
MOS **Moscow** 20.94 348 *e*P P 23 27 00.4 -1.0
MOS *e*S S 23 27 00.4 -1.0
MOS pmax pmax
comp=Z,300nm,1.6s
MOS pmax pmax
comp=Z,186nm,1.5s
MOS pmax pmax
comp=N,200nm,1.7s
MOS pmax pmax
comp=N,129nm,1.4s
MOS smax smax
comp=E,1µm,4.0s
MOS smax smax
comp=N,700nm,4.0s
MOS MLR MLR
comp=Z,800nm,15.0s
RNPP5 **Staryi Chortor** 21.00 325 P P 23 23 07.5 -1.2
TRPA **Tarpa** 21.00 314 P P 23 23 08.8 0.0
comp=Z,88nm,1.0s
KK31 **Karatay Array** 21.01 61 P P 23 23 08.7 -0.2
KK31 pmax pmax
comp=Z,27nm,1.0s
KK31 **Karatay Array** 21.01 61 P P 23 23 08.7 -0.2
KKAR **Karatay Array** 21.01 61 P P 23 23 08.6 -0.3
KKAR **Karatay Array** 21.01 61 P P 23 23 08.6 -0.3
LTVH **Ltavrtes, Hu** 21.04 312 ⇑P P 23 23 10.6 +1.4
LTVH **Ltavrtes, Hu** 21.04 312 P P 23 23 10.0 +0.8
comp=Z,98nm,1.3s
RNPP2 **Kostyukhnivka** 21.07 325 P P 23 23 09.2 -0.2
RNPP8 **Varash** 21.09 325 P P 23 23 08.6 -1.1
RNPP9 **Vapachiv** 21.12 325 P P 23 23 08.9 -1.1
KOME **Kolasin** 21.17 298 ⇑ *i* P P 23 23 11.0 +0.3
TRKS **Terek-Say** 21.18 66 P P 23 23 12.3 +1.3
TRKS pmax pmax
comp=Z,15nm,0.9s
ULC **Ulcinj** 21.20 296 ⇑ *i* P P 23 23 12.5 +1.5
PDG **Podgorica** 21.27 297 P P 23 23 09.8 -1.9
PDG IAmb IAmb 23 23 23.0
comp=Z,61nm,1.7s
PDG **Podgorica** 21.27 297 ⇑P P 23 23 12.6 +0.9
PDG **Podgorica** 21.27 297 *e*P P 23 23 13.2 +1.5
PDG **Podgorica** 21.27 297 P P 23 23 13.9 +2.1
comp=Z,24nm,1.0s
PDG **Podgorica** 21.27 297 ⇑ *i* P P 23 23 13.2 +1.5
DRME **Dracevica, Mon** 21.28 296 *e*P P 23 23 13.5 +1.6
DRME **Dracevica, Mon** 21.28 296 ⇑ *i* P P 23 23 13.0 +1.1
AMBH **Ambrzfalva** 21.36 308 ⇓P P 23 23 13.8 +1.2
AMBH **Ambrzfalva** 21.36 308 P P 23 23 13.7 +1.1
comp=Z,101nm,1.3s
PLE **Pljevlja** 21.36 299 ⇑ *i* P P 23 23 12.7 -0.1
UZHM **Uzhgorod** 21.39 315 P P 23 23 12.7 -0.2
BBLS **Lazi&#263i** 21.47 301 ⇑ *i* P P 23 23 13.3 -0.7
DRK **Karamyk** 21.49 71 P P 23 23 15.1 +0.6
DRK pmax pmax
comp=Z,13nm,0.6s
DRK **Karamyk** 21.49 71 P 23 23 15.1 +0.6
BUM **Krajici-Budva** 21.51 296 ⇑ *i* P P 23 23 15.5 +1.1
CEME **Cevo** 21.54 297 ⇑ *i* P P 23 23 14.8 +0.1
FRGS **Fruska Gora** 21.55 304 ⇑ *i* P P 23 23 14.1 -0.7
KOLS **Kolonicke sedl** 21.55 316 *e*P P 23 23 15.4 +0.7
KOLS pmax pmax
comp=Z,133nm,1.1s
KOLS **Kolonicke sedl** 21.55 316 *e*P P 23 23 15.4 +0.7
KOLS **Kolonicke sedl** 21.55 316 P P 23 23 15.7 +0.9
comp=Z,83nm,0.9s
NKME **Niksic** 21.55 298 ⇑ *i* P P 23 23 15.3 +0.5
TEKS **Tekeris** 21.57 303 ⇑ *i* P P 23 23 14.3 -0.6
KWP **Kalwaria Pacla** 21.67 318 *e*P P 23 23 15.3 -0.7
KWP **Kalwaria Pacla** 21.67 318 P P 23 23 15.5 -0.5
comp=Z,89nm,1.0s
UPM **Unac-Piva** 21.68 299 *e*P P 23 23 16.7 +0.4
UPM **Unac-Piva** 21.68 299 ⇑ *i* P P 23 23 15.8 -0.5
HCY **Herceg Novi** 21.83 297 *e*P P 23 23 17.1 -0.7
HCY **Herceg Novi** 21.83 297 ⇑ *i* P P 23 23 18.4 +0.6
ABAH **Abaujker** 21.85 313 P P 23 23 17.8 -0.1
comp=Z,48nm,1.2s
BRY **Bratogost** 21.88 298 ⇑ *i* P P 23 23 18.6 +0.2
BRY **Bratogost** 21.88 298 ⇑ *i* P P 23 23 18.8 +0.4
KLINJ **Klinje** 21.90 299 *e*P P 23 23 18.9 +0.3
TREB **Trebinje** 21.98 297 *e*P P 23 23 19.5 +0.1
BSZH **Besenyszg** 22.02 310 ⇓P P 23 23 20.0 +0.3
BSZH **Besenyszg** 22.02 310 P P 23 23 19.1 -0.6
comp=Z,51nm,1.6s
KECS **Kecovo** 22.38 313 *e*P P 23 23 24.8 +1.2
KECS pmax pmax
comp=Z,43nm,1.3s
KECS **Kecovo** 22.38 313 *e*P P 23 23 24.8 +1.2
PSZ **Piszkesteto** 22.50 311 P P 23 23 23.4 -1.5
PSZ pmax pmax
comp=Z,49nm,1.2s
PSZ **Piszkesteto** 22.50 311 P 23 23 23.4 -1.5
PSZ IAmb IAmb 23 23 29.1
comp=Z,49nm,1.2s
PSZ **Piszkesteto** 22.50 311 *e*P P 23 23 24.7 -0.2
PSZ **Piszkesteto** 22.50 311 ⇑P P 23 23 24.7 -0.2
PSZ **Piszkesteto** 22.50 311 P P 23 23 24.6 -0.3
comp=Z,35nm,1.6s
MNK **Minsk** 22.52 333 *i* P P 23 23 22.9 -2.1
MNK *i* PPP PPP 23 23 54.7
MNK *i* S S 23 27 30.5 -1.6
MNK *i* SSS SSS 23 28 13.6
MNK pmax pmax
comp=E,64nm,1.3s
MNK pmax pmax
comp=N,97nm,1.4s
MNK pmax pmax
comp=Z,63nm,0.9s
MNK MLR MLR
comp=E,779nm,19.0s
MNK MLR MLR
comp=N,518nm,19.0s
MNK MLR MLR
comp=Z,254nm,15.0s
MNK **Minsk** 22.52 333 *i* P P 23 23 22.9 -2.1
comp=E,64nm,1.3s
MNK *i* P P 23 23 22.9 -2.1
comp=N,97nm,1.4s
MNK *i* P P 23 23 22.9 -2.1
comp=Z,63nm,0.9s,baz=140
MNK *i* PP PnPn 23 23 46.3 -1.9
MNK *i* PPP PPP 23 23 54.7
MNK *i* S S 23 27 30.6 -1.6
MNK *i* SS SnSn 23 28 00.3 -0.4
MNK *i* SSS SSS 23 28 13.6
MNK *i* LR LR 23 30 58.3
MNK *i* LRM MLR 23 31 57.2
comp=E,779nm,19.4s
MNK *i* LRM MLR 23 31 59.1
comp=N,518nm,18.5s
MNK *i* LRM MLR 23 33 24.3

comp=Z,254nm,15.3s
ARSB Arslanbob 22.53 67 P P 23 23 24.9 -0.5
ARSB pmax pmax
comp=Z,54nm,1.2s
ARSB Arslanbob 22.53 67 P P 23 23 24.9 -0.5
ARSB lAmb lAmb 23 23 41.6
comp=Z,54nm,1.2s
MORH Mrgy, Hungar 22.66 306 ⇑P P 23 23 26.6 0.0
MORH Mrgy, Hungar 22.66 306 ⇑*i*P P 23 23 25.5 -1.1
MORH Mrgy, Hungar 22.66 306 ⇑P P 23 23 25.8 -0.8
comp=Z,315nmcomp=Z,22nm,1.1s
MORH pP sP 23 23 41.3 +11
comp=Z,315nmcomp=Z,22nm,1.1s
MORH Mrgy, Hungar 22.66 306 P P 23 23 26.0 -0.6
comp=Z,19nm,0.9s
ARTI Arti 22.80 19 LR LR 23 34 37.2
comp=Z,372nm,18.1s,baz=212,slow=43
ARTI Arti 22.80 19*d i*P P 23 23 27.9 0.0
ARTI 23 23 49.5
ARTI S S 23 27 36.5 -0.6
ARTI pmax pmax
comp=Z,74nm,1.5s
ARTI MLR MLR
comp=Z,418nm,15.0s
ARTI Arti 22.80 19 P P 23 23 26.6 -1.3
ARTI lAmb lAmb 23 23 32.6
comp=Z,50nm,1.1s
TIP Timpagrande 22.85 288 lAmb lAmb 23 23 33.2
comp=Z,28nm,1.2s
TIP Timpagrande 22.85 288 ⇑P P 23 23 29.1 +0.4
TIP Timpagrande 22.85 288 P P 23 23 27.6 -1.2
comp=Z,20nm,1.2s
TIP pP sP 23 23 41.6 +9.4
comp=Z,20nm,1.2s
TIP Timpagrande 22.85 288 P P 23 23 28.3 -0.5
comp=Z,25nm,1.1s
BUD Budapest 22.86 310 P P 23 23 28.3 -0.4
comp=Z,21nm,0.8s
NIE Niedzica 22.92 315 *e*P P 23 23 29.1 -0.3
NIE Niedzica 22.92 315 P P 23 23 29.0 -0.3
comp=Z,17nm,1.3s
MATE Matera 22.95 292 P P 23 23 29.2 -0.4
comp=Z,42nm,1.1s
NIL Nilore 23.18 86 P P 23 23 31.2 -0.9
NIL pmax pmax
comp=Z,14nm,1.1s
NIL Nilore 23.18 86 P P 23 23 31.2 -0.9
NIL Nilore 23.18 86 P P 23 23 33.4 +1.2
comp=Z,14nm,1.0s
BLY Banja Luka 23.23 302 lAmb lAmb 23 23 36.0
comp=Z,34nm,0.9s
BLY Banja Luka 23.23 302 ⇓P P 23 23 32.2 -0.4
BLY Banja Luka 23.23 302 ⇑*i*P P 23 23 31.4 -1.2
BLY Banja Luka 23.23 302 P P 23 23 31.8 -0.8
comp=Z,42nm,0.9s
NACGM Naroch 23.24 333 *e*P P 23 23 31.1 -1.4
comp=E,104nm,1.3s
LANS Liptovska Anna 23.28 314 *e*P P 23 23 33.6 +0.5
LANS pmax pmax
comp=Z,16nm,1.3s
LANS Liptovska Anna 23.28 314 *e*P P 23 23 33.6 +0.5
KIRV Kirov 23.32 6 P P 23 23 32.1 -1.2
comp=Z,26nm,0.7s,baz=192,slow=10.0,SNR=17
KIRV LR LR 23 34 07.6
comp=Z,432nm,21.2s,baz=191,slow=40
comp=Z,26nm,0.7s
VYHS Vyhne 23.38 312 *e*P P 23 23 35.1 +1.1
VYHS pmax pmax
comp=Z,20nm,1.2s
VYHS Vyhne 23.38 312 *e*P P 23 23 35.1 +1.1
VYHS Vyhne 23.38 312 P P 23 23 35.4 +1.4
comp=Z,4.7nm,1.1s
SRO Srobarova 23.43 310 *e*P P 23 23 35.8 +1.3
SRO pmax pmax
comp=Z,18nm,1.1s
SRO Srobarova 23.43 310 *e*P P 23 23 35.8 +1.3
SRO Srobarova 23.43 310 P P 23 23 36.0 +1.4
comp=Z,21nm,1.0s
ACER Acerenza 23.54 292 P P 23 23 34.8 -0.9
ACER lAmb lAmb 23 23 41.6
comp=Z,29nm,0.9s
CEL Celeste 23.54 286 lAmb lAmb 23 23 40.4
comp=Z,50nm,1.0s
CEL Celeste 23.54 286 P P 23 23 36.2 +0.3
comp=Z,53nm,0.9s
OJC Ojcow 23.59 317 *e*P P 23 23 34.8 -1.3
OJC Ojcow 23.59 317 P P 23 23 35.1 -1.0
OJC P pP 23 23 36.9 -1.6
OJC pmax pmax
comp=Z,40nm,1.2s
OJC Ojcow 23.59 317 P P 23 23 34.6 -1.5
comp=Z,699nmcomp=Z,40nm,1.2s
OJC pP sP 23 23 49.4 +10
comp=Z,699nmcomp=Z,40nm,1.2s
OJC Ojcow 23.59 317 P P 23 23 35.1 -1.0
comp=Z,40nm,1.2s
CUC Castrocucco 23.60 290 lAmb lAmb 23 23 41.3
comp=Z,29nm,1.1s
CUC Castrocucco 23.60 290 P P 23 23 35.8 -0.5
comp=Z,26nm,1.0s
MPLH Magyarpolny 23.70 308 P P 23 23 36.7 -0.4
comp=Z,97nm,1.2s
MPLH Magyarpolny 23.70 308 P P 23 23 37.0 -0.1
comp=Z,38nm,1.2s
AAK Ala-Archa 23.81 64 LR LR 23 35 31.9
comp=Z,287nm,19.8s,baz=298,slow=43
AAK Ala-Archa 23.81 64*ce*P P 23 23 40.0 +1.5
AAK pmax pmax
comp=Z,15nm,2.5s
AAK Ala-Archa 23.81 64 P P 23 23 38.9 +0.5
SVE Sverdlovsk 23.81 21 *e*P P 23 23 38.2 +0.1
SVE *e*S S 23 27 52.6 -1.3
SVE pmax pmax
comp=Z,41nm,1.3s
BEL Belsk 23.90 321 *e*P P 23 23 39.3 +0.3
ATD Arta Tunnel 23.90 186 P P 23 23 40.0 +0.6
comp=Z,0.6nm,1.0s,baz=342,slow=5.8,SNR=3.9
ATD LR LR 23 33 51.8
comp=Z,20nm,18.6s,baz=345,slow=39
ATD Arta Tunnel 23.90 186 lAmb lAmb 23 23 51.0
comp=Z,20nm,1.1s
R9F13 Warsaw-Wawer 23.94 322 *e*P P 23 23 39.5 +0.1
BEHE Becsehely 23.97 306 P P 23 23 38.4 -1.4
BEHE lAmb lAmb 23 23 41.1
comp=Z,34nm,1.4s
BEHE Becsehely 23.97 306 ⇑*i*P P 23 23 38.9 -0.9
BEHE Becsehely 23.97 306 P P 23 23 40.5 +0.6
comp=Z,14nm,1.0s
ISAL Salakas 23.99 333 *e*P P 23 23 39.6 -0.3
SUW Suwalki 24.08 327 *e*P P 23 23 39.4 -1.3
SUW Suwalki 24.08 327 P P 23 23 38.9 -1.8
SUW Suwalki 24.08 327 P P 23 23 38.9 -1.8
SUW Suwalki 24.08 327 *e*P P 23 23 40.6 -0.1
JAVC Velka Javorina 24.23 312 *e*P P 23 23 42.8 +0.5
MODS Modra-Piesok 24.29 311 *e*P P 23 23 42.7 -0.1
MODS pmax pmax
comp=Z,104nm,1.3s
MODS Modra-Piesok 24.29 311 *e*P P 23 23 42.7 -0.1
MODS Modra-Piesok 24.29 311 P P 23 23 43.2 +0.4
comp=Z,60nm,1.6s
KOGS Kog 24.31 306 *i* P P 23 23 42.8 -0.2
ZST Bratislava 24.33 310 *e*P P 23 23 43.4 +0.3
ZST pmax pmax
comp=Z,21nm,1.4s
ZST Bratislava 24.33 310 *e*P P 23 23 43.4 +0.3
ZST Bratislava 24.33 310 P P 23 23 43.6 +0.5
comp=Z,1µm,1.1s
KSH2 Kashi 24.41 72 P P 23 23 46.2 +2.1
KSH2 pP sP 23 23 51.8 +4.1
KSH2 S S 23 28 08.4 +4.2
KSH2 pmax pmax
comp=Z,20nm,1.1s
KSH2 pmax pmax
comp=Z,260nm,4.9s
KSH2 L L
comp=Z,530nm,18.5s
KSH2 L L
comp=Z,300nm,14.8s
KSH2 L L
comp=Z,290nm,11.7s
SOP Sopron 24.50 309 P P 23 23 44.5 -0.1
comp=Z,54nm,1.2s
PAOL Paolisi 24.59 292 P 23 23 44.2 -1.4
PAOL lAmb lAmb 23 23 47.0
comp=Z,31nm,1.4s
STEB Steborice 24.62 314 *e*P P 23 23 45.9 +0.2
STEB *e*pP sP 23 23 49.1 -0.1
RONA Rosalia, Austr 24.67 309 *e*P P 23 23 45.9 -0.3
comp=Z,58nm,1.9s,SNR=30
CRES Cresnjevec Ost 24.68 304 *i* P P 23 23 46.8 +0.5
MORC Moravsky Berou 24.69 314 P P 23 23 46.7 +0.3
MORC Moravsky Berou 24.69 314 lAmb lAmb 23 23 50.2
comp=Z,49nm,1.2s
MORC Moravsky Berou 24.69 314 *e*P P 23 23 45.4 -1.0
MORC Moravsky Berou 24.69 314 ⇑P P 23 23 46.7 +0.3
VAE Valguarnera 24.76 284 P P 23 23 47.0 -0.2
comp=Z,6.5nm,0.9s,baz=58,slow=8.5,SNR=9.8
comp=Z,6.5nm,0.9s
PABE Paberze 24.78 331 P P 23 23 45.8 -1.3
PABE Paberze 24.78 331 *e*P P 23 23 46.6 -0.4
NRN Naryn 24.80 67 P P 23 23 48.8 +1.0
NRN pmax pmax
comp=Z,13nm,0.8s
NRN Naryn 24.80 67 P 23 23 48.8 +1.0
NRN lAmb lAmb 23 23 54.1
comp=Z,13nm,0.8s
BOOM Boomskoye usch 24.85 64 P P 23 23 48.3 +0.2
BOOM pmax pmax
comp=Z,10.0nm,1.0s
BOOM Boomskoye usch 24.85 64 P 23 23 48.3 +0.2
WINA Alland / Wiene 24.95 309 *e*P P 23 23 48.2 -0.5
comp=Z,51nm,1.1s,SNR=18
BORK Borovoye 24.98 37 P P 23 23 49.3 +0.4
BORK pmax pmax
comp=Z,21nm,1.0s
BORK Borovoye 24.98 37 P P 23 23 49.3 +0.4
BORK lAmb lAmb 23 23 53.7
comp=Z,21nm,0.9s
BVAR Borovoye Array 25.00 38 P P 23 23 49.9 +0.8
comp=Z,8.3nm,0.7s,baz=243,slow=6.5,SNR=26
comp=Z,8.3nm,0.7s
CONA Conrad Observa 25.02 309 *e*P P 23 23 48.4 -1.1
comp=Z,38nm,1.0s,SNR=43
ARSA Arzberg 25.02 307 P 23 23 48.7 -0.8
ARSA Arzberg 25.02 307 *i* P P 23 23 49.2 -0.2
comp=Z,26nm,1.4s,SNR=11
VRAC Vranov 25.06 312 P P 23 23 49.3 -0.4
comp=Z,23nm,0.9s,baz=108,slow=9.1,SNR=24
comp=Z,23nm,0.9s
VRAC Vranov 25.06 312 P P 23 23 50.0 +0.3
VRAC Vranov 25.06 312 *e*P P 23 23 49.2 -0.5
VRAC Vranov 25.06 312 ⇓P P 23 23 50.0 +0.3
KRUC Moravsky 25.09 312 *e*P P 23 23 49.2 -0.7
PERS Pernice 25.12 306 *e*P P 23 23 49.8 -0.5
INTR Introdacqua 25.16 295 P 23 23 51.0 +0.3
INTR lAmb lAmb 23 24 16.6
comp=Z,48nm,1.3s
SOKA Soboth 25.18 306 *i* P P 23 23 50.6 -0.4
comp=Z,18nm,1.1s,SNR=16
SOKA *i* PcP PcP 23 27 24.8 +0.2
comp=Z,5.9nm,1.3s
OBKA Obir 25.46 305 *e*pP P 23 23 54.7 +1.2
comp=Z,40nm,1.3s,SNR=13
ABNA Allensteig Bun 25.54 310 *e*P P 23 23 53.7 -0.4
comp=Z,58nm,1.6s
ABNA *i* PcP PcP 23 27 25.0 -0.3
comp=Z,1.8nm,0.6s
AQU L'Aquila 25.56 295 P P 23 23 53.6 -0.7
AQU pmax pmax
comp=Z,43nm,1.1s
AQU L'Aquila 25.56 295 P P 23 23 53.6 -0.7
AQU L'Aquila 25.56 295 ⇑*i*P P 23 23 53.9 -0.5
AQU L'Aquila 25.56 295 P P 23 23 54.1 -0.3
SESA Seetaler Alpe, 25.61 306 *i* P P 23 23 54.8 -0.2
comp=Z,49nm,1.3s,SNR=37
DPC Dobruska-Polom 25.64 314 *e*P P 23 23 54.7 -0.3
DPC Dobruska-Polom 25.64 314 *e*P P 23 23 54.7 -0.3
KLMR Klimovskoe 25.68 354 *e*P P 23 23 53.3 -1.9
KLMR pmax pmax
comp=Z,85nm,0.9s
KLMR MLR MLR
comp=Z,362nm,10.0s
OSTC Ostas 25.79 315 *e*P P 23 23 56.5 +0.2
OSTC Ostas 25.79 315 *e*P P 23 23 56.5 +0.2
NRCA Norcia 25.82 296 P P 23 23 55.2 -1.5
NRCA lAmb lAmb 23 24 12.8
comp=Z,18nm,1.0s
FDMO Fiordimonte 25.86 297 P P 23 23 55.9 -1.1
FDMO lAmb lAmb 23 24 02.9
comp=Z,24nm,1.0s
KSP Ksiaz 25.86 315 *e*P P 23 23 56.5 -0.4
UPC Upice 25.89 315 *e*P P 23 23 55.9 -1.3
UPC Upice 25.89 315 *e*P P 23 23 55.9 -1.3
PBUR Paburge 25.97 330 *e*P P 23 23 57.4 -0.4
SABO M.te Sabotino 25.98 304 P 23 23 56.9 -1.2
SABO lAmb lAmb 23 24 04.2
comp=Z,27nm,0.9s
MOA Molln 26.02 308 *i* P P 23 23 58.0 -0.4
comp=Z,57nm,1.6s,SNR=29
MOA *i* PcP PcP 23 27 25.1 -1.3
comp=Z,5.7nm,1.5s
VSU Vasula 26.06 338*ce*P P 23 23 57.9 -0.7
VSU pmax pmax
comp=Z,148nm,1.7s
VSU Vasula 26.06 338 *e*P P 23 23 58.3 -0.3
MYKA Terra Mystica 26.10 305 epP P 23 24 00.8 +1.5
comp=Z,12nm,1.1s
PRED Cave del Predi 26.11 305 P 23 23 58.8 -0.6
CESX Cesi 26.19 296 lAmb lAmb 23 24 06.1
comp=Z,16nm,0.9s
CKRC Cesky Krumlov 26.29 310 *e*P P 23 24 00.1 -0.8
CKRC Cesky Krumlov 26.29 310 *e*P P 23 24 00.1 -0.8
MURB Monte Urbino 26.29 297 P P 23 24 00.2 -0.8
MURB lAmb lAmb 23 24 05.9
comp=Z,30nm,0.9s
BIOA Bad Ischl, Aus 26.38 307 *i* P P 23 24 01.1 -0.6
comp=Z,17nm,1.0s,SNR=10
BIOA *i* PcP PcP 23 27 25.8 -1.5
comp=Z,1.7nm,0.7s
BIOA *i* S S 23 28 45.2 +10
comp=Z,6.7nm,1.5s
KBA Koelnbreinsper 26.41 306 *e*P P 23 24 01.7 -0.5
comp=Z,21nm,0.9s,SNR=15
GKP Gorka Klasztor 26.50 321 *e*P P 23 24 02.0 -0.7
ZVC Zvikov 26.57 311 *e*P P 23 24 03.0 -0.4
GEC2 GERESS Array S 26.68 310 lAmb lAmb 23 24 11.7
comp=Z,20nm,1.1s
GERES GERESS Array B 26.68 310 P P 23 24 03.3 -1.2
comp=Z,4.7nm,0.9s,baz=133,slow=5.9,SNR=14
GERES PcP PcP 23 27 27.3 -0.7
comp=Z,1.1nm,0.7s,baz=122,slow=1.7,SNR=5.0
comp=Z,4.7nm,0.9s
GERES GERESS Array B 26.68 310 P P 23 24 01.4 -3.0
PVCC Panska Ves 26.74 314 AMS AMS 23 38 20.0
comp=Z,20nm,14.4s
KHC Kasperske Hory 26.85 310 P P 23 24 04.5 -1.4
KHC pmax pmax
comp=Z,12nm,1.0s
KHC Kasperske Hory 26.85 310 P P 23 24 04.5 -1.4
KHC Kasperske Hory 26.85 310 *e*P P 23 24 05.5 -0.4
KHC *e*pP pP 23 24 08.5 +0.1
ABTA Abfaltersbach 26.88 305 *i* P P 23 24 05.7 -0.6
comp=Z,12nm,1.2s,SNR=8.8
ABTA *i* PcP PcP 23 27 27.1 -1.4
comp=Z,3.1nm,0.9s
ABTA *e*S S 23 28 42.6 -0.6
comp=Z,4.9nm,1.5s
LESA Schwarzleotal 26.93 306 *e*P P 23 24 05.8 -1.0
comp=Z,9.4nm,1.1s,SNR=6.3
LESA *i* PcP PcP 23 27 27.5 -1.1
comp=Z,1.8nm,0.5s
LESA S S 23 28 44.1 +0.1
comp=Z,4.3nm,1.1s
SLIT Slitere, Latvi 26.95 333 *e*P P 23 24 08.0 +1.3
ARBE Arbavere 27.08 338 *e*P P 23 24 07.2 -0.6
TEOL Teolo 27.19 302 P P 23 24 07.7 -1.3
TEOL lAmb lAmb 23 24 15.0
comp=Z,37nm,1.0s
MTSE Matsula 27.20 335 *e*P P 23 24 10.2 +1.2
CTI Castel Tesino 27.32 303 lAmb lAmb 23 24 17.5
comp=Z,42nm,1.3s
CASP Castiglione de 27.46 296 P P 23 24 10.3 -1.2
ZCCA Zocca 27.53 299 P P 23 24 11.9 -0.2
WTTA Wattenberg 27.58 306 *i* P P 23 24 11.6 -1.2
comp=Z,22nm,1.3s,SNR=10.0
WTTA *i* PcP PcP 23 27 29.2 -1.1
comp=Z,6.5nm,0.9s
WTTA *i* S S 23 28 50.7 -3.7
comp=Z,6.4nm,1.2s
WATA Walderalm 27.64 306 *i* P P 23 24 11.7 -1.5
comp=Z,21nm,1.3s,SNR=10
WATA *i* S S 23 28 52.7 -2.5
comp=Z,6.9nm,1.6s
SQTA Sankt Quirin 27.86 305 *i* P P 23 24 13.9 -1.3
comp=Z,13nm,1.0s
SQTA *i* S S 23 28 55.9 -2.8
comp=Z,6.3nm,1.1s
CLL Collm 27.95 315 *i* P P 23 24 15.3 -0.5
CLL pmax pmax
comp=Z,24nm,1.3s
CLL Collm 27.95 315 lAmb lAmb 23 24 20.5
comp=Z,23nm,1.2s
CLL Collm 27.95 315 *i* P P 23 24 15.3 -0.5
comp=Z,24nm,1.3s
CLL LH 23 33 00.0
CLL LV 23 35 00.0
CLL AMS AMS 23 36 00.0
comp=N,200nm,20.1s
CLL AMS AMS 23 36 00.0
comp=E,100nm,22.7s
CLL AMS AMS 23 38 00.0
comp=Z,200nm,15.2s
MOTA Moosalm 27.95 306 *i* P P 23 24 14.4 -1.7
comp=Z,21nm,1.3s,SNR=9.6
MOTA *i* PcP PcP 23 27 27.7 -3.5
comp=Z,3.3nm,0.9s
MOTA *i* S S 23 28 57.1 -3.2
comp=Z,4.6nm,1.0s
SALO Salr 28.02 302 lAmb lAmb 23 24 53.2
comp=Z,24nm,0.9s
FETA Feichten 28.14 305 *e*P P 23 24 16.5 -1.1
comp=Z,16nm,1.4s,SNR=8.9
FETA *i* PcP PcP 23 27 29.3 -2.3
comp=Z,5.8nm,1.2s
FETA *i* S S 23 29 00.5 -2.6
comp=Z,3.2nm,1.0s
RETA Reutte 28.21 306 *i* P P 23 24 17.3 -0.9
comp=Z,4.5nm,0.7s
RETA *i* S S 23 29 00.6 -3.6
comp=Z,2.2nm,0.7s
KURBB Kurchatov Arra 28.43 47 P P 23 24 21.2 +1.3
comp=Z,2.4nm,0.8s,baz=257,slow=9.2,SNR=14
KURBB PcP PcP 23 27 32.0 0.0
comp=Z,2.0nm,0.9s,baz=256,slow=3.1,SNR=5.1
KURBB ScP ScP 23 31 15.8 +2.4
comp=Z,1.9nm,1.0s,baz=255,slow=4.2,SNR=6.3
KURBB LR LR 23 38 07.2
comp=Z,139nm,20.7s,baz=146,slow=42
comp=Z,2.4nm,0.8s
GRA1 Grafenberg Arr 28.48 311 P P 23 24 19.4 -1.1
GRA1 lAmb lAmb 23 24 24.8
comp=Z,34nm,1.4s
GRF Grafenberg Arr 28.48 311 P P 23 24 19.4 -1.1
GRF pmax pmax
comp=Z,34nm,1.4s
GRFO Grafenberg 28.48 311 P P 23 24 20.4 -0.1
GRFO Grafenberg 28.48 311 P P 23 24 20.4 -0.1
KURK Kurchatov 28.51 47*ce*P P 23 24 22.6 +1.9
KURK pmax pmax
comp=Z,11nm,1.7s
KURK Kurchatov 28.51 47 PcP 23 27 32.0 -0.2
KURK ScP 23 31 15.8 +2.1
KURK Kurchatov 28.51 47 P P 23 24 20.0 -0.7
MSSA Maissana 28.57 299 P P 23 24 19.9 -1.5
VSL Villasalto 28.57 289 P 23 24 20.6 -0.7
VSL lAmb lAmb 23 24 26.2
comp=Z,22nm,0.9s
BSD Bornholm Skovb 28.62 323 *i* P P 23 24 20.1 -1.5
BSD lAmb lAmb 23 24 25.5
comp=Z,30nm,1.0s
DAVOX Davos/Dischmat 28.66 304 P P 23 24 21.7 -0.7
comp=Z,2.6nm,0.7s,baz=337,slow=10.0,SNR=7.1
comp=Z,2.6nm,0.7s
FIA1 FINESS Array S 28.70 341 P 23 24 21.5 -0.8
FINES FINESS Array B 28.70 341 P P 23 24 21.2 -1.1
comp=Z,1.5nm,0.3s,baz=146,slow=10,SNR=21
FINES LR LR 23 36 06.2
comp=Z,213nm,20.2s,baz=139,slow=37
comp=Z,1.5nm,0.3s
FINES FINESS Array B 28.70 341 P P 23 24 20.2 -2.1
DAVA Damuels 28.76 305 *i* P P 23 24 21.7 -1.5
comp=Z,8.3nm,0.5s,SNR=10.0
JOF Joensuu 28.82 347 *e*P P 23 24 22.3 -1.0
BLEU Blekinge 28.83 325 *i* P P 23 24 22.5 -1.0
TUE Stuetta 28.97 303 P 23 24 24.5 -0.6
TUE lAmb lAmb 23 24 42.5
comp=Z,34nm,1.7s
KEST Kesra 29.03 281 P P 23 24 25.6 0.0
comp=Z,13nm,0.8s,baz=22,slow=1.7,SNR=12
comp=Z,13nm,0.8s
KEST Kesra 29.03 281 P P 23 24 28.4 +2.8
KEST Kesra 29.03 281 P 23 24 24.0 -1.6
KEST lAmb lAmb 23 24 31.6
comp=Z,23nm,1.0s
LUNU Lund 29.61 323 *i* P P 23 24 30.1 -0.3
KEF Keuruu 29.63 341 *e*P P 23 24 29.7 -0.8
RAF Rauma 29.64 337 *e*P P 23 24 29.9 -0.7
SUF Sumiainen 29.76 342 *e*P P 23 24 30.8 -0.9
DEL Delary 29.83 325 *i* P P 23 24 31.8 -0.6
MK31 Makanchi Array 29.91 56*ce*P P 23 24 34.9 +1.6
MKAR Makanchi Array 29.91 56 P P 23 24 34.6 +1.2
comp=Z,2.5nm,0.8s,baz=260,slow=6.6,SNR=13
MKAR LR LR 23 39 18.7
comp=Z,263nm,18.7s,baz=256,slow=42
comp=Z,2.5nm,0.8s
MKAR Makanchi Array 29.91 56*ce*P P 23 24 34.5 +1.2
MKAR pmax pmax
comp=Z,4.0nm,1.0s
MKAR Makanchi Array 29.91 56 P P 23 24 32.9 -0.5
BFO Black Forest 29.99 307 *i* P P 23 24 34.7 +0.8
UPP Uppsala 30.25 332 *e*P P 23 24 37.1 +1.1
SENIN Lac Senin/Sane 30.35 303 lAmb lAmb 23 24 43.4
comp=Z,6.9nm,0.6s
FABU Falkenberg 30.65 325 *i* P P 23 24 38.7 -0.9
BNI Bardonecchia 30.65 300 P P 23 24 39.4 -0.5
VAF Ylistaro 30.94 340 *e*P P 23 24 41.4 -0.6
ONAU Onsala 31.23 325 *i* P P 23 24 44.0 -0.6
WLF Walferdange 31.66 309 P P 23 24 48.8 +0.1
WLF pmax pmax
comp=Z,19nm,0.9s
WLF Walferdange 31.66 309 lAmb lAmb 23 24 52.8
comp=Z,22nm,1.1s
WLF Walferdange 31.66 309 *d*P P 23 24 47.8 -0.9
comp=Z,12nm,1.0s
TJOU Tjoern 31.68 326 *i* P P 23 24 47.3 -1.4
HFS Hagfors 31.96 330 P P 23 24 50.3 -0.9
comp=Z,11nm,0.7s,baz=132,slow=8.4,SNR=18
HFS LR LR 23 39 10.6
comp=Z,219nm,18.7s,baz=124,slow=39
comp=Z,11nm,0.7s
MUD Monsted U'grnd 32.11 322 *i* P P 23 24 52.9 +0.4
MUD lAmb lAmb 23 24 53.6
comp=Z,66nm,1.4s
SSB Saint Sauveur 32.17 300 P P 23 24 50.7 -2.5
SSB pmax pmax
comp=Z,23nm,1.4s
SSB Saint Sauveur 32.17 300 P P 23 24 50.7 -2.5
SSB lAmb lAmb 23 24 52.9
comp=Z,23nm,1.4s
RCHB Rochefort 32.35 310 *d*P P 23 24 53.8 -0.8
comp=Z,4.6nm,1.3s
BCLA Clavier 32.36 310 *d*P P 23 24 54.9 +0.2
comp=Z,4.1nm,1.0s
BMRD Maredsous 32.67 310 *d*P P 23 24 56.2 -1.2
comp=Z,5.1nm,1.3s
BMRD *d*PP PnPn 23 26 02.1 -3.1
BMRD *d*PcP PcP 23 27 42.7 -0.5
DOU Dourbes 32.74 309 *d*P P 23 24 56.2 -1.8
ZALV Zalesovo Beam 33.15 44 P P 23 25 02.5 +0.9
comp=Z,1.6nm,0.8s,baz=270,slow=10,SNR=5.4
ZALV LR LR 23 41 03.4
comp=Z,378nm,18.8s,baz=310,slow=41
comp=Z,1.6nm,0.8s
ZALV Zalesovo Beam 33.15 44 P P 23 25 00.6 -1.0
NORES NORESS Array B 33.18 330 P P 23 25 03.3 +1.5
NB2 NORSAR Subarra 33.48 330 P P 23 25 02.7 -1.8
comp=Z,9.4nm,1.0s,baz=124,slow=9.3
NOA NORSAR Array B 33.48 330 P P 23 25 02.9 -1.6
comp=Z,2.2nm,0.7s,baz=124,slow=8.7,SNR=9.9
NOA LR LR 23 39 59.1
comp=Z,232nm,18.5s,baz=115,slow=39
comp=Z,2.2nm,0.7s
WMQ Urumqi 33.50 62 *e*P P 23 25 07.6 +2.7
WMQ L L
comp=Z,200nm,15.1s
WMQ L L
comp=Z,260nm,19.5s

WMQ L L
comp=Z,140nm,18.3s
CEST Esterri de Car 34.54 295 P **P** **23 25 11.7 -2.3**
CEST IAmb IAmb 23 25 17.7
comp=Z,15nm,1.2s
LANU Lannavaara 35.19 345 *e*P **P** **23 25 18.3 -0.8**
ARCES ARCESS Array B 35.81 348 P **P** **23 25 23.7 -0.8**
comp=Z,7.4nm,0.9s,baz=151,slow=5.5,SNR=18
ARCES LR LR 23 40 58.8
comp=Z,301nm,18.4s,baz=144,slow=38
comp=Z,7.4nm,0.9s
ARCES ARCESS Array B 35.81 348 P **P** **23 25 23.9 -0.6**
ARCES pmax pmax
comp=Z,66nm,1.7s
ARCES ARCESS Array B 35.81 348 P **P** **23 25 23.9 -0.6**
EVN Everest 36.01 90 P **P** **23 25 27.9 +0.4**
EVN IAmb IAmb 23 25 33.7
comp=Z,12nm,0.5s
TAM Tamanrasset 36.62 261 P **P** **23 25 33.6 +1.5**
TAM pmax pmax
comp=Z,10.0nm,1.0s
TAM Tamanrasset 36.62 261 P **P** **23 25 33.6 +1.5**
EDMD Edmundbyers 37.59 316 *e*P **P** **23 25 39.4 -0.4**
EDMD IAmb IAmb 23 25 42.7
comp=Z,6.9nm,0.6s
KESW Keswick, Cumbr 38.20 315 *e*P **P** **23 25 44.7 -0.3**
KESW IAmb IAmb 23 25 46.0
comp=Z,8.1nm,0.6s
MBAR Mbarara 38.31 204 LR LR 23 40 52.4
comp=Z,178nm,21.0s,baz=6.5,slow=35
DRUM Mains of Drumt 38.33 319 *e*P **P** **23 25 44.5 -1.5**
DRUM IAmb IAmb 23 25 46.5
comp=Z,23nm,0.7s
EKA Eskdalemuir Ar 38.37 317 P **P** **23 25 45.4 -1.0**
comp=Z,6.7nm,0.5s,baz=108,slow=8.4,SNR=29
comp=Z,6.7nm,0.5s
EKB Eskdalemuir 38.38 317 P **P** **23 25 45.0 -1.5**
EKB IAmb IAmb 23 25 50.7
comp=Z,26nm,1.1s
ESK Eskdalemuir 38.39 317 P **P** **23 25 45.6 -0.9**
ESK pmax pmax
comp=Z,39nm,1.4s
ESK Eskdalemuir 38.39 317 P **P** **23 25 45.6 -0.9**
ESK IAmb IAmb 23 25 50.8
comp=Z,39nm,1.4s
ESK Eskdalemuir 38.39 317 *e*P **P** **23 25 45.1 -1.4**
ESK IAmb IAmb 23 25 48.7
comp=Z,7.4nm,0.6s
EDI Edinburgh 38.49 317 *e*P **P** **23 25 46.7 -0.7**
EDI IAmb IAmb 23 25 48.5
comp=Z,12nm,0.7s
ESBB Sonseca Array 38.78 291 IAmb IAmb 23 25 55.0
comp=Z,55nm,1.9s
ESDC Sonseca Array 38.78 291 P **P** **23 25 49.1 -1.1**
comp=Z,6.3nm,0.9s,baz=177,slow=12,SNR=9.0
comp=Z,6.3nm,0.9s
ESDC Sonseca Array 38.78 291 P **P** **23 25 48.2 -1.9**
MCD Coleburn Disti 38.89 320 *e*P **P** **23 25 49.7 -1.0**
MCD IAmb IAmb 23 25 50.8
comp=Z,17nm,0.7s
INVG Invergeldie, C 39.06 318 *e*P **P** **23 25 51.0 -1.2**
INVG IAmb IAmb 23 25 55.8
comp=Z,18nm,0.9s
PAB San Pablo 39.10 291 P **P** **23 25 51.9 -0.9**
PAB pmax pmax
comp=Z,18nm,1.4s
PAB San Pablo 39.10 291 P **P** **23 25 51.9 -0.9**
EAB Aberfoyle 39.18 318 *e*P **P** **23 25 52.6 -0.6**
EAB IAmb IAmb 23 25 57.6
comp=Z,11nm,0.5s
GOMU GeErMu 39.91 74 P **P** **23 26 01.6 +1.6**
GOMU pP sP 23 26 04.8 +1.2
GOMU sP pP 23 26 08.9 +6.4
GOMU pmax pmax
comp=Z,11nm,0.8s
DSB Dublin 39.94 313 P **P** **23 25 58.2 -1.3**
DSB IAmb IAmb 23 26 23.8
comp=Z,45nm,1.4s
CLGH Cloghs, Cushen 39.99 316 *e*P **P** **23 25 59.7 -0.3**
CLGH IAmb IAmb 23 26 02.9
comp=Z,12nm,0.7s
LINV Loch Inver, As 40.03 321 *e*P **P** **23 25 59.2 -1.0**
LINV IAmb IAmb 23 26 02.0
comp=Z,12nm,0.6s
KNGR Kungurtug, Tuv 40.29 51 *i*P **P** **23 26 04.4 +1.7**
KNGR pmax pmax
comp=Z,18nm,1.0s
NRIK Noril'sk 41.08 21 P **P** **23 26 09.3 +0.5**
comp=Z,8.2nm,0.9s,baz=215,slow=7.0,SNR=7.1
NRIK LR LR 23 47 09.2
comp=Z,220nm,18.7s,baz=232,slow=42
comp=Z,8.2nm,0.9s
NRIK Noril'sk 41.08 21 *i*P **P** **23 26 08.5 -0.2**
NRIK pmax pmax
comp=Z,10.0nm,1.0s
NRIK Noril'sk 41.08 21 P **P** **23 26 08.8 +0.1**
NRIK **pP** **23 26 09.5 -1.8**
NRIK IAmb IAmb 23 26 17.9
comp=Z,18nm,1.2s
SHL Shillong 41.12 91 P **P** **23 26 09.8 -0.1**
SHL Shillong 41.12 91 P **P** **23 26 09.8 -0.1**
PVRL Vila Real 41.34 295 *e*P **P** **23 26 08.4 -2.9**
MTE Manteigas 41.36 293 *e*P **P** **23 26 11.0 -0.6**
MTE IAmb IAmb 23 26 20.6
comp=Z,43nm,1.8s
PCBR Castelo Branco 41.42 292 *e*P **P** **23 26 11.6 -0.3**
PCBR IAmb IAmb 23 26 19.2
comp=Z,38nm,1.7s
PBAR Barrancos 41.43 290 *e*P **P** **23 26 11.7 -0.3**
PBAR IAmb IAmb 23 26 15.6
comp=Z,22nm,1.4s
PMRV Marv??o 41.43 292 *e*P **P** **23 26 11.5 -0.6**
PMRV IAmb IAmb 23 26 11.9
comp=Z,23nm,1.5s
PCAB Cabril 41.49 295 *e*P **P** **23 26 14.7 +2.1**
PVIS Viseu 41.57 294 *e*P **P** **23 26 13.1 -0.2**
PGAV Gavieira, Arco 41.63 296 *e*P **P** **23 26 15.7 +1.9**
PESTR Estremoz 41.70 291 P **P** **23 26 12.4 -1.9**
PESTR Estremoz 41.70 291 *e*P **P** **23 26 13.9 -0.4**
PESTR IAmb IAmb 23 26 21.3
comp=Z,25nm,1.7s
PBEJ Beja 42.10 290 *e*P **P** **23 26 18.1 +0.6**
PBEJ IAmb IAmb 23 26 24.9
comp=Z,34nm,1.5s
PMTG Montargil 42.14 291 *e*P **P** **23 26 17.8 -0.1**
PMTG IAmb IAmb 23 26 21.2
comp=Z,27nm,1.4s
GTA2 Gaotai 42.97 68 *e*P **P** **23 26 25.4 +0.6**
GTA2 pmax pmax
comp=Z,5.0nm,1.6s
PALK Pallekele 42.97 122 LR LR 23 44 33.4
comp=Z,78nm,18.6s,baz=346,slow=36
ZAK Zakamensk 43.98 52 *e*P **P** **23 26 33.3 +0.6**
ZAK pmax pmax
comp=Z,7.0nm,1.7s
TLY Talaya 44.15 50 LR LR 23 47 34.0
comp=Z,212nm,18.3s,baz=270,slow=40
SPB2 Spitsbergen Ar 44.55 352 P **P** **23 26 36.2 -0.7**
SPITS Spitsbergen Ar 44.56 352 P **P** **23 26 36.8 -0.1**
comp=Z,3.0nm,0.4s,baz=134,slow=9.6,SNR=10
comp=Z,3.0nm,0.4s
TORD Torodi Ar. Bea 44.95 252 P **P** **23 26 40.4 -0.4**
comp=Z,2.5nm,1.1s,baz=39,slow=9.7,SNR=5.6
comp=Z,2.5nm,1.1s
SONM Songino Array 46.26 55 P **P** **23 26 51.7 +0.8**
comp=Z,0.9nm,0.5s,baz=269,slow=7.4,SNR=8.2
SONM LR LR 23 49 22.3
comp=Z,219nm,19.1s,baz=264,slow=40
comp=Z,0.9nm,0.5s
SONM Songino Array 46.26 55 P **P** **23 26 51.3 +0.4**
SONM pmax pmax
comp=Z,9.0nm,1.5s
SONM Songino Array 46.26 55 P **P** **23 26 51.3 +0.4**
ULN Ulaanbaatar 46.69 55 *ce*P **P** **23 26 55.7 +1.3**
ULN pmax pmax
comp=Z,32nm,1.7s
ULN Ulaanbaatar 46.69 55 P **P** **23 26 54.2 -0.1**
LZDM Lanzhou Array 46.90 71 P **P** **23 26 57.7 +1.4**
comp=Z,1.1nm,0.3s,baz=34,slow=5.6,SNR=3.6
comp=Z,1.1nm,0.3s
LZH Lanzhou 46.97 71 *e*P **P** **23 26 58.5 +1.8**
LZH pP sP 23 27 04.3 +4.0
LZH pmax pmax
comp=Z,24nm,1.3s
BORG Borgarnes 48.60 328 LR LR 23 49 44.2
comp=Z,126nm,18.2s,baz=117,slow=39

CD2 Chengdu 48.64 78 P **P** **23 27 11.3 +1.7**
CD2 pmax pmax
comp=Z,20nm,0.9s
DAG Danmarks Havn 49.85 344 P **P** **23 27 18.4 +0.3**
DAG pmax pmax
comp=Z,12nm,2.0s
CHTO Chiang Mai 50.06 95 P **P** **23 27 20.6 +0.1**
CHTO pmax pmax
comp=Z,34nm,2.0s
CHTO Chiang Mai 50.06 95 P **P** **23 27 20.6 +0.1**
CHTO IAmb IAmb 23 28 52.9
comp=Z,34nm,1.9s
KMI2 Kunming 50.16 85 P **P** **23 27 21.3 -0.2**
KMI2 pmax pmax
comp=Z,10.0nm,1.7s
CMAR Chiang Mai Arr 50.24 95 P **P** **23 27 22.2 +0.4**
comp=Z,3.0nm,0.5s,baz=294,slow=8.5,SNR=18
CMAR LR LR 23 53 52.6
comp=Z,97nm,18.1s,baz=300,slow=42
comp=Z,3.0nm,0.5s
CMAR Chiang Mai Arr 50.24 95 *i*P **P** **23 27 22.1 +0.2**
CMAR pmax pmax
comp=Z,3.0nm,0.5s
CMAR Chiang Mai Arr 50.24 95 P **P** **23 27 19.2 -2.7**
HHC Hu-ho-hao-te 51.38 63 *e*P **P** **23 27 31.5 +1.2**
HHC pmax pmax
comp=Z,5.0nm,0.6s
HHC pmax pmax
comp=Z,120nm,4.7s
XAN Xi'an 51.58 72 ⇑P **P** **23 27 31.7 -0.1**
XAN pP sP 23 27 37.2 +1.7
XAN pmax pmax
comp=Z,13nm,1.2s
OPO Ambohidratompo 53.76 178 LR LR 23 52 33.8
comp=Z,132nm,18.1s,baz=94,slow=38
DBIC Dimbokro 54.00 250 P **P** **23 27 49.6 -0.3**
comp=Z,3.0nm,0.6s,baz=51,slow=7.5,SNR=7.9
DBIC LR LR 23 53 24.7
comp=Z,132nm,19.2s,baz=41,slow=39
comp=Z,3.0nm,0.6s
DBIC Dimbokro 54.00 250 P **P** **23 27 49.5 -0.4**
DBIC pmax pmax
comp=Z,16nm,1.4s
DBIC Dimbokro 54.00 250 P **P** **23 27 49.5 -0.4**
DBIC IAmb IAmb 23 28 34.1
comp=Z,16nm,1.4s
HILR Hailar Array B 54.59 50 P **P** **23 27 54.6 +0.9**
comp=Z,1.0nm,0.3s,baz=251,slow=4.5,SNR=3.7
comp=Z,1.0nm,0.3s
HIA Hailar 54.66 51 *i*P **P** **23 27 54.7 +0.4**
HIA pmax pmax
comp=Z,10.0nm,1.0s
TIXI Tiksi 54.83 23 *ce*P **P** **23 27 55.1 0.0**
TIXI pmax pmax
comp=Z,11nm,1.7s
TIXI Tiksi 54.83 23 P **P** **23 27 54.0 -1.1**
TIXI IAmb IAmb 23 28 05.9
comp=Z,9.9nm,1.1s
YAK Yakutsk 56.91 34 LR LR 23 55 56.4
comp=Z,84nm,19.2s,baz=266,slow=40
YAK Yakutsk 56.91 34 *i*P **P** **23 28 10.1 -0.1**
YAK pmax pmax
comp=Z,6.0nm,0.9s
NJ2 Nanjing 60.03 70 *e*P **P** **23 28 30.7 -1.7**
NJ2 pmax pmax
comp=Z,8.0nm,0.5s
CN2 Changchun 60.13 55 P **P** **23 28 32.9 -0.1**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
TSUM Tsumeb 60.32 210 LR LR 23 55 58.3
comp=Z,84nm,18.2s,baz=63,slow=37
BNX BinXian 60.70 53 ⇓P **P** **23 28 39.6 +2.8**
BNX pmax pmax
comp=Z,9.0nm,0.7s
KLR Kul'dur 62.10 48 P **P** **23 28 46.1 -0.1**
comp=Z,1.2nm,0.4s,baz=297,slow=8.9,SNR=4.4
KLR LR LR 23 58 14.5
comp=Z,114nm,19.6s,baz=294,slow=38
comp=Z,1.2nm,0.4s
KLR Kul'dur 62.10 48 *ce*P **P** **23 28 45.9 -0.4**
KLR pmax pmax
comp=Z,11nm,1.3s
LBTB Lobatse 62.92 200 LR LR 23 57 40.7
comp=Z,244nm,18.2s,baz=24,slow=38
USRK Ussuriysk Ar. 64.30 53 P **P** **23 29 01.3 +0.4**
comp=Z,7.0nm,0.7s,baz=264,slow=5.6,SNR=8.5
USRK LR LR 00 00 21.5
comp=Z,210nm,18.4s,baz=313,slow=39
comp=Z,7.0nm,0.7s
KSAR Wonju Array Be 64.42 61 P **P** **23 29 00.1 -1.7**
KSAR Wonju Array Be 64.42 61 P **P** **23 29 00.1 -1.7**
KSRS Korea Array 64.44 61 P **P** **23 29 01.4 -0.4**
comp=Z,2.6nm,0.7s,baz=267,slow=6.5,SNR=6.1
KSRS LR LR 00 01 06.6
comp=Z,90nm,18.5s,baz=255,slow=40
comp=Z,2.6nm,0.7s
BOSA Boshof 66.43 199 P **P** **23 29 15.7 +0.9**
comp=Z,1.7nm,0.6s,baz=16,slow=6.6,SNR=6.6
BOSA LR LR 23 59 34.2
comp=Z,155nm,18.6s,baz=26,slow=37
comp=Z,1.7nm,0.6s
BOSA Boshof 66.43 199 P **P** **23 29 15.7 +0.9**
BOSA pmax pmax
comp=Z,33nm,1.5s
BILL Bilibino 67.89 20 *i*P **P** **23 29 26.1 +2.5**
BILL pmax pmax
comp=Z,4.0nm,1.0s
ILON Igloolik, Nuna 68.54 342 P **P** **23 29 26.7 -0.9**
JNU Nakatsue 68.58 64 LR LR 00 03 57.0
comp=Z,58nm,19.5s,baz=251,slow=40
ASAJ Asahikawa 71.07 49 LR LR 00 03 04.5
comp=Z,64nm,19.0s,baz=96,slow=38
SUR Sutherland 71.24 202 LR LR 00 02 43.7
comp=Z,201nm,19.6s,baz=4.5,slow=37
MJAR Matsushiro Arr 72.10 58 LR LR 00 05 06.9
comp=Z,112nm,20.5s,baz=336,slow=39
PETK Petropavlovsk- 74.22 35 LR LR 00 06 48.1
comp=Z,100nm,19.0s,baz=302,slow=39
E19K Redstone River 76.02 9 IAmb IAmb 23 30 18.1
comp=Z,6.6nm,0.8s
E29M Blow River 76.45 1 IAmb IAmb 23 30 25.1
comp=Z,17nm,1.4s
INK Inuvik 76.56 359 LR LR 00 09 06.8
comp=Z,53nm,19.7s,baz=42,slow=40
E27K Coleen River 76.56 3 P **P** **23 30 15.4 0.0**
E27K IAmb IAmb 23 30 21.4
comp=Z,19nm,1.8s
BMAR Burnt Mountain 77.17 4 P **P** **23 30 17.7 -1.3**
G21K Allakaket 77.35 8 P **P** **23 30 20.2 +0.3**
G26K Porcupine Rive 77.69 4 **P** **23 30 21.1 -0.7**
G26K IAmb IAmb 23 30 27.3
comp=Z,13nm,1.4s
IMAR Indian Mountai 77.84 8 P **P** **23 30 21.7 -0.9**
DAV Davao City (W) 78.14 90 LR LR 00 09 04.4
comp=Z,95nm,18.7s,baz=339,slow=39
H22K Ishtalitna Cre 78.17 7 P **P** **23 30 24.7 +0.2**
MLY Manley 79.08 7 P **P** **23 30 29.0 -0.6**
I30M Mount Dempster 79.65 1 IAmb IAmb 23 30 43.5
comp=Z,7.9nm,1.1s
ILAR Eielson Array 79.66 5 P **P** **23 30 32.2 -0.5**
comp=Z,0.7nm,0.9s,baz=319,slow=4.0,SNR=5.3
ILAR LR LR 00 10 19.7
comp=Z,55nm,18.3s,baz=280,slow=39
comp=Z,0.7nm,0.9s
JCJ Chichijima 80.06 64 LR LR 00 09 51.4
comp=Z,50nm,18.7s,baz=36,slow=38
J30M Hart River 80.30 1 P **P** **23 30 36.2 -0.1**
CAST Castle Rocks 80.51 8 P **P** **23 30 36.8 -0.6**
CAST IAmb IAmb 23 31 04.1
comp=Z,30nm,1.8s
SCRK Sand Creek 80.64 4 P **P** **23 30 36.7 -1.4**
SCRK IAmb IAmb 23 30 38.8
comp=Z,26nm,1.7s
PPLA Purkeypile 81.01 8 P **P** **23 30 39.9 -0.2**
YKA Yellowknife Ar 81.04 351 P **P** **23 30 40.5 +0.4**
comp=Z,3.2nm,0.9s,baz=15,slow=4.8,SNR=4.2
comp=Z,3.2nm,0.9s
SHEM Shemya Is, Ala 81.59 29 LR LR 00 10 48.6
comp=Z,58nm,18.9s,baz=218,slow=38
KDAK Kodiak Island 85.93 9 LR LR 00 14 34.3
comp=Z,78nm,19.6s,baz=354,slow=39
ULM Lac du Bonnet 87.99 336 LR LR 00 13 54.0
comp=Z,35nm,18.4s,baz=12,slow=38
PDAR Pinedale Array 98.80 341 LR LR 00 19 01.8
comp=Z,81nm,18.7s,baz=14,slow=37
QSPA South Pole Qui 125.28 180 PKP **PKPdf** **23 37 24.9 -0.5**
comp=Z,2.2nm,0.6s,baz=275,slow=1.8,SNR=14
QSPA South Pole Qui 125.28 180 **PKPdf** **23 37 25.4 0.0**
VNDA Vanda 130.04 165 PKP **PKPdf** **23 37 33.2 -0.9**
comp=Z,0.4nm,0.7s,baz=199,slow=3.5,SNR=2.4

*THE **09** 23:33:12.0, 37.86N±1.0×26.9E±0.5, h11km±1km, M2.4/8, MLh2.4/8*
*ISK **09** 23:33:12.2, 37.86N×26.94E, h5km, ML2.5/17*
*AFAD **09** 23:33:12.1, 37.86N×26.93E, h7km±1km, ML2.3*
ISC 09 23:33:12.4±0.8, 37.84N±0.02×26.92E±0.03, h12km±7km, n28, σ0.52/43, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**205**	P	**Pg**	**23 33 15.4**	**-0.6**
SMG				S	**Sg**	**23 33 18.2**	**-0.2**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**353**	P	**Pg**	**23 33 16.4**	**-0.5**
DGB				S	**Sg**	**23 33 19.7**	**-0.3**
DGB				IAML		23 33 20.0	
	comp=E,339nm,0.1s						
GMLD	**Gumuldur**	**0.23**	**0**	Pg	**Pg**	**23 33 17.0**	**-0.3**
GMLD				Sg	**Sg**	**23 33 20.7**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**120**	P	**Pg**	**23 33 18.0**	**-0.3**
GCAM				IAML	**S**	**23 33 23.0**	**+0.7**
	comp=N,906nm,0.4s						
GCAM				IAML	**S**	**23 33 23.0**	**+0.7**
	comp=E,552nm,0.3s						
GCAM				S	**S**	**23 33 23.0**	**+0.7**
GCAM	**G?zelcaml?**	**0.29**	**120**	Pg	**Pg**	**23 33 18.1**	**-0.3**
GCAM				Sg	**Sg**	**23 33 22.6**	**+0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**87**	Pg	**Pg**	**23 33 17.9**	**-0.5**
KUSD				Sg	**Sg**	**23 33 22.3**	**-0.2**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**1**	P	**Pg**	**23 33 19.6**	**-0.4**
BEYE				S	**Sg**	**23 33 24.5**	**-0.7**
BEYE				IAML		23 33 25.0	
	comp=N,227nm,0.4s						
BEYE				IAML		23 33 25.0	
	comp=E,337nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**321**	P	**Pg**	**23 33 22.0**	**-0.4**
ZEYE				IAML		23 33 29.0	
	comp=N,577nm,0.2s						
ZEYE				S	**Sb**	**23 33 29.7**	**-1.0**
ZEYE				IAML		23 33 30.0	
	comp=E,297nm,0.2s						
BLCB	**Balcova**	**0.55**	**10**	P	**Pg**	**23 33 22.8**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**10**	Pg	**Pg**	**23 33 22.8**	**-0.4**
BLCB				Sg	**Sg**	**23 33 30.5**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**48**	P	**Pg**	**23 33 22.9**	**-0.5**
DUVT				S	**Sg**	**23 33 30.6**	**-0.3**
DUVT				IAML		23 33 35.0	
	comp=E,261nm,0.4s						
CESE	**eme**	**0.69**	**315**	Pg	**Pb**	**23 33 26.3**	**0.0**
CESE				Sg	**Sb**	**23 33 36.3**	**+0.5**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**158**	Pg	**Pg**	**23 33 27.4**	**0.0**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.78**	**82**	Pg	**Pb**	**23 33 27.6**	**-0.4**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.80**	**339**	Pg	**Pb**	**23 33 27.8**	**-0.5**
KRBN				AML	AML		
BAGT	**Foa**	**0.81**	**357**	P	**Pb**	**23 33 28.9**	**+0.4**
BAGT				S	**Sb**	**23 33 39.6**	**+0.2**
BODT	**Bodrum**	**0.84**	**158**	P	**Pg**	**23 33 27.8**	**-0.9**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**158**	Pg	**Pg**	**23 33 28.4**	**-0.3**
BODT				AML	AML		
CHOS	**Chios island**	**0.87**	**309**	P	**Pg**	**23 33 29.1**	**0.0**
CHOS				S	**Sb**	**23 33 41.4**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**309**	Pg	**Pb**	**23 33 29.3**	**-0.2**
CHOS				AML	AML		
MLSB	**Milas**	**0.88**	**128**	Pg	**Pb**	**23 33 29.8**	**+0.2**
MLSB				AML	AML		
FOCM	**Foa**	**0.88**	**351**	Pg	**Pb**	**23 33 29.6**	**0.0**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.10**	**83**	Pg	**Pb**	**23 33 33.1**	**-0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**42**	Pn	**Pn**	**23 33 34.9**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.23**	**360**	Pn	**Pn**	**23 33 35.9**	**+0.5**
DKL				AML	AML		
DAT	**Datca**	**1.23**	**154**	P	**Pg**	**23 33 34.6**	**-1.5**
SOMA	**Soma-Manisa**	**1.40**	**20**	Pn	**Pg**	**23 33 38.5**	**-0.8**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**43**	Pn	**Pg**	**23 33 39.8**	**-0.5**
GORD				AML	AML		

*SNET **09** 23:39:47.7±2.6, 14.25N×90.17W, h206km, ML3.0, Presumed earthquake*
*IDC **09** 23:39:49.8±1.1, 14.42N×89.78W, h199km±6km, mb3.4/6, mbtmp3.9/8, Error ellipse: s-maj=38.1km s-min=12.7km az=42.0*
*GCG **09** 23:39:50.5±0.8, 14.24N×90.00W, h186km±7km, MD4.4, Presumed earthquake*
ISC 09 23:39:49.3±0.8, 14.26N±0.09×90.00W±0.07, h208km±6km, n32, σ1.81/40, mb3.7/6, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JUAM	**Asuncion Mita**	**0.30**	**75**	*i*P	**Pn**	**23 40 16.2**	**-0.6**
SLOZ	**Alcaldia de Sa**	**0.32**	**138**	*e*P	**Pn**	**23 40 15.9**	**-1.0**
RBDL	**Robledal**	**0.34**	**116**	*e*P	**Pn**	**23 40 16.3**	**-0.8**
PCG5	**San Vicente Pa**	**0.37**	**263**	*i*P	**Pn**	**23 40 17.3**	**+0.1**
NUBE	**Las Nubes**	**0.42**	**149**	*i*P	**Pn**	**23 40 16.2**	**-1.1**
NUBE	**Las Nubes**	**0.42**	**149**	*e*P	**Pn**	**23 40 16.3**	**-1.0**
FG16	**Alotenango, Sa**	**0.49**	**272**	*i*P	**Pn**	**23 40 18.9**	**+1.3**
RTR	**El Retiro**	**0.50**	**136**	*e*P	**Pn**	**23 40 17.0**	**-0.6**
FG8	**Yepocapa, Chim**	**0.54**	**270**	*i*P	**Pn**	**23 40 18.9**	**+1.3**
SNJE	**San Jose**	**0.55**	**135**	*e*P	**Pn**	**23 40 17.2**	**-0.6**
SBLS	**San Blas**	**0.56**	**139**	*e*P	**Pn**	**23 40 17.2**	**-0.7**
CEVE	**Cerro Verde**	**0.56**	**140**	*e*P	**Pn**	**23 40 17.4**	**-0.6**
ZAFR2	**Estanzuela, Za**	**0.71**	**63**	*i*P	**Pn**	**23 40 18.4**	**+0.2**
ZAFR2				*i*S	**Sn**	**23 40 39.8**	**-0.8**
PMON	**Piamonte**	**0.86**	**129**	*e*P	**Pn**	**23 40 18.4**	**-0.8**
APG	**El Apazote**	**0.86**	**329**	P	**Pn**	**23 40 19.4**	**0.0**
	6.5nm,0.3s,baz=152,slow=9.9,SNR=104						
APG				S	**Sn**	**23 40 42.0**	**-0.7**
	12nm,0.8s,baz=86,slow=16,SNR=13						
APG	**El Apazote**	**0.86**	**329**	*i*P	**Pn**	**23 40 19.4**	**0.0**
APG				*i*S	**Sn**	**23 40 41.9**	**-0.8**
LALI	**Alcalda de L**	**1.01**	**139**	*i*P	**Pn**	**23 40 19.0**	**-1.0**
LALI	**Alcalda de L**	**1.01**	**139**	*e*P	**Pn**	**23 40 18.9**	**-1.0**
LALI				*e*S	**Sn**	**23 40 42.6**	**-1.1**
SARH	**Santa Rosa de**	**1.31**	**67**	*i*P	**Pn**	**23 40 22.0**	**-0.2**
SARH				*i*S	**Sn**	**23 40 45.6**	**-2.1**
STG8	**El Palmar, Qui**	**1.32**	**278**	*i*P	**Pn**	**23 40 24.8**	**+2.3**
TECA	**Tecapa**	**1.64**	**117**	*e*P	**Pn**	**23 40 23.6**	**-1.6**
PACA	**Pacayal**	**1.81**	**116**	*e*P	**Pn**	**23 40 26.5**	**-0.2**
PACA				*e*S	**Sn**	**23 41 01.8**	**+6.1**
RANC	**El Ranchito**	**1.86**	**116**	*e*P	**Pn**	**23 40 27.4**	**+0.3**
CMIG	**Matias Romero**	**5.48**	**302**	P	**Pn**	**23 41 12.1**	**+2.0**
	1.2nm,0.5s,baz=131,slow=11,SNR=1.6						
CMIG				S	**Sn**	**23 42 07.7**	**-6.2**
	8.9nm,0.6s,baz=241,slow=19,SNR=14						
JTS	**Las Juntas de**	**6.32**	**128**	P	**Pn**	**23 41 21.3**	**+0.4**
	11nm,0.3s,baz=324,slow=10,SNR=14						
JTS				S	**Sn**	**23 42 31.9**	**-1.6**
	33nm,0.4s,baz=303,slow=24,SNR=21						
TXAR	**Lajitas Array**	**19.62**	**322**	P	**P**	**23 44 04.5**	**+2.3**
	1.6nm,0.6s,baz=146,slow=11,SNR=23						
TKL	**Tuckaleechee C**	**22.03**	**14**	P	**P**	**23 44 27.4**	**+0.2**
	7.5nm,1.0s,baz=178,slow=12,SNR=5.7						
	7.5nm,1.0s						
PDAR	**Pinedale Array**	**33.03**	**333**	P	**P**	**23 46 06.5**	**+1.2**
	0.4nm,0.7s,baz=138,slow=8.3,SNR=4.2						
	0.4nm,0.7s						
ULM	**Lac du Bonnet**	**36.21**	**354**	P	**P**	**23 46 31.4**	**-0.8**
	2.6nm,0.6s,baz=166,slow=8.3,SNR=4.2						
	2.6nm,0.6s						
SCHQ	**Schefferville**	**44.33**	**19**	P	**P**	**23 47 38.0**	**-0.7**
	3.6nm,0.8s,baz=215,slow=8.2,SNR=9.5						
	3.6nm,0.8s						
YKA	**Yellowknife Ar**	**51.24**	**346**	P	**P**	**23 48 31.7**	**+0.2**
	1.5nm,0.9s,baz=138,slow=7.0,SNR=4.6						
	1.5nm,0.9s						

ILAR	**Eielson Array**	**63.37**	**336**	P	**P**	**23**	**49**	**56.6 +0.3**
	0.4nm,0.8s,baz=104,slow=7.0,SNR=2.6							
	0.4nm,0.8s							

IDC 09 23:41:11.7±10.0, 16°69S×171°76W, h0km, mb3.7/3, mbtmp3.7/3, MS2.5/1, Error ellipse: s-maj=456.3km s-min=38.4km az=139.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAR	**Rarotonga**	**12.20**	**114**	LR	LR	23 47 46.4	
	comp=Z,24nm,20.8s,baz=284,slow=32						
WRA	**Warramunga Arr**	**51.10**	**258**	P	P	23 50 15.7	-0.9
	0.7nm,0.7s,baz=95,slow=7.4,SNR=3.7						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**51.23**	**253**	P	P	23 50 18.0	+0.5
	1.2nm,0.8s,baz=90,slow=8.3,SNR=9.5						
	1.2nm,0.8s						
ILAR	**Eielson Array**	**83.41**	**10**	P	P	23 53 40.5	0.0
	0.5nm,0.7s,baz=210,slow=5.3,SNR=5.8						
	0.5nm,0.7s						

*ISK **09** 23:42:02.9, 37°.88N×26°.99E, h5km, ML2.9/18*
*THE **09** 23:42:03.3, 37°.9N±0°.8×27°.0E±0°.7, h10km±1km, M2.8/10, MLh2.8/10*
*AFAD **09** 23:42:03.2, 37°.87N×26°.98E, h7km±1km, ML2.7*

ISC 09 23:42:03.3±0.9, 37°87N±0°.02×26°99E±0°.02, h13km±7km, n33, σ0°43/48, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.20**	**216**	P	**Pg**	**23 42 07.5**	**-0.2**
SMG				S	**Sg**	**23 42 11.2**	**+0.4**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**336**	P	**Pg**	**23 42 07.4**	**-0.3**
DGB				IAML		23 42 10.0	
	comp=E,2μm,0.2s						
DGB				S	**Sg**	**23 42 10.3**	**-0.5**
DGB				IAML		23 42 11.0	
	comp=N,880nm,0.1s						
GMLD	**Gumuldur**	**0.21**	**345**	Pg	**Pg**	**23 42 07.8**	**-0.2**
GMLD				Sg	**Sg**	**23 42 10.9**	**-0.3**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**92**	Pg	**Pg**	**23 42 08.0**	**-0.4**
KUSD				Sg	**Sg**	**23 42 12.0**	**+0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**130**	P	**Pg**	**23 42 09.0**	**+0.2**
GCAM				IAML		23 42 13.0	
	comp=E,2μm,0.2s						
GCAM				S	**Sg**	**23 42 13.1**	**+0.7**
GCAM				IAML		23 42 14.0	
	comp=N,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.26**	**130**	Pg	**Pg**	**23 42 08.8**	**0.0**
GCAM				Sg	**Sg**	**23 42 13.0**	**+0.6**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**353**	P	**Pg**	**23 42 10.5**	**-0.1**
BEYE				S	**Sg**	**23 42 15.6**	**+0.1**
BEYE				IAML		23 42 16.0	
	comp=N,1μm,0.3s						
BEYE				IAML		23 42 16.0	
	comp=E,739nm,0.3s						
DUVT	**Torbali**	**0.51**	**46**	P	**Pg**	**23 42 13.0**	**-0.3**
DUVT				S	**Sg**	**23 42 19.8**	**-0.2**
DUVT				IAML		23 42 20.0	
	comp=E,340nm,0.1s						
BLCB	**Balcova**	**0.52**	**5**	P	**Pg**	**23 42 13.1**	**-0.4**
BLCB				S	**Sg**	**23 42 20.5**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**5**	Pg	**Pg**	**23 42 13.3**	**-0.2**
BLCB				Sg	**Sg**	**23 42 20.5**	**+0.1**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**314**	P	**Pg**	**23 42 13.5**	**-0.2**
ZEYE				IAML		23 42 21.0	
	comp=N,964nm,0.2s						
ZEYE				IAML		23 42 21.0	
	comp=E,663nm,0.2s						
ZEYE				S	**Sg**	**23 42 21.3**	**+0.5**
CESE	**eme**	**0.71**	**311**	Pg	**Pg**	**23 42 17.2**	**+0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**84**	Pg	**Pg**	**23 42 17.4**	**+0.1**
AYDB				Sg	**Sb**	**23 42 27.6**	**0.0**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**162**	Pg	**Pg**	**23 42 18.1**	**-0.3**
YKAV				AML	AML		
BAGT	**Foa**	**0.79**	**352**	P	**Pg**	**23 42 18.6**	**-0.1**
BAGT				S	**Sb**	**23 42 29.8**	**+0.2**
BAGT				IAML		23 42 30.0	
	comp=E,523nm,0.3s						
BAGT				IAML		23 42 33.0	
	comp=N,314nm,0.7s						
KRBN	**Karaburun**	**0.80**	**335**	Pg	**Pb**	**23 42 19.0**	**-0.1**
KRBN				AML	AML		
BODT	**Bodrum**	**0.85**	**162**	P	**Pg**	**23 42 19.2**	**-0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**162**	Pg	**Pg**	**23 42 19.5**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.85**	**132**	Pg	**Pg**	**23 42 19.9**	**+0.1**
MLSB				AML	AML		
FOCM	**Foa**	**0.87**	**347**	Pg	**Pg**	**23 42 19.8**	**-0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**0.90**	**305**	P	**Pb**	**23 42 20.8**	**0.0**
CHOS				S	**Sb**	**23 42 33.5**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**305**	Pg	**Pg**	**23 42 20.5**	**-0.2**
CHOS				Sg	**Sb**	**23 42 33.4**	**+0.7**
CHOS				AML	AML		
BODA	**Bodrum-Mula**	**0.91**	**157**	Pg	**Pg**	**23 42 20.9**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.04**	**84**	Pg	**Pg**	**23 42 23.2**	**-0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.11**	**41**	Pn	**Pb**	**23 42 24.6**	**+0.2**
GOMA				AML	AML		
AKS	**Akhisar**	**1.20**	**33**	Pn	**Pg**	**23 42 25.5**	**-0.9**
AKS				AML	AML		
DKL	**Dikili**	**1.20**	**357**	Pn	**Pn**	**23 42 26.5**	**+0.7**
DKL				AML	AML		
DAT	**Datca**	**1.23**	**157**	P	**Pg**	**23 42 25.7**	**-1.3**
DAT				AML	AML		
YER	**Yerkesik**	**1.27**	**125**	P	**Pn**	**23 42 26.4**	**-0.3**
SOMA	**Soma-Manisa**	**1.36**	**18**	Pn	**Pg**	**23 42 29.5**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.40**	**42**	Pn	**Pg**	**23 42 29.8**	**-0.4**
GORD				AML	AML		
APE	**Apeiranthos**	**1.41**	**236**	P	**Pn**	**23 42 28.0**	**-0.7**
APE				AML	AML		
PRK	**Paraskevi**	**1.48**	**338**	P	**Pn**	**23 42 29.4**	**-0.3**

*IDC **09** 23:45:02.8±2.7, 35°.06S×178°.90E, h0km, mb3.7/2, mbtmp3.7/3, ML3.6/1, Error ellipse: s-maj=61.4km s-min=28.3km az=92.0*
*WEL **09** 23:45:14.5±1.0, 36°S±7°×17°9E±°, h132km±17km, M3.4/12, ML3.4/12, MLv3.4/12, Error ellipse: s-maj=11.2km s-min=8.7km az=60.4*
*NOU **09** 23:45:15.8, 36°.06S×178°.84E, h97km, mb4.5/8, Off E. Coast of N. Island, N.Z.*

ISC 09 23:45:14.7±1.9, 36°0S±0°.1×179°0E±0°.1, h120km±14km, n36, σ0°92/55, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**1.60**	**199**	P	**Pn**	**23 45 42.9**	**-0.4**
MXZ	**Matakaoa Point**	**1.60**	**199**	S	**Sn**	**23 46 02.9**	**-2.3**
MXZ	**Matakaoa Point**	**1.60**	**199**	P	**Pn**	**23 45 42.7**	**-0.7**
MXZ				S	**Sn**	**23 46 03.1**	**-2.0**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.83**	**193**	P	**Pn**	**23 45 46.6**	**+0.6**
WMGZ				S	**Sn**	**23 46 10.7**	**+0.8**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.95**	**201**	P	**Pn**	**23 45 48.0**	**+0.4**
PKGZ				S	**Sn**	**23 46 13.5**	**+0.8**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**1.95**	**208**	P	**Pn**	**23 45 47.9**	**+0.4**
HAZ				S	**Sn**	**23 46 13.8**	**+1.2**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**2.10**	**195**	P	**Pn**	**23 45 49.5**	**+0.1**
PUZ				S	**Sn**	**23 46 15.6**	**-0.5**
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**2.17**	**208**	P	**Pn**	**23 45 50.5**	**+0.1**
RUGZ				S	**Sn**	**23 46 18.8**	**+1.0**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**2.27**	**200**	P	**Pn**	**23 45 52.1**	**+0.5**
TWGZ				S	**Sn**	**23 46 22.1**	**+2.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
MYRZ	**Mayor Island**	**2.51**	**240**	P	**Pn**	**23 45 54.4**	**-0.1**
MYRZ				S	**Sn**	**23 46 27.7**	**+2.5**
MYRZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.51**	**193**	P	**Pn**	**23 45 54.8**	**+0.2**
CNGZ				S	**Sn**	**23 46 25.3**	**+0.1**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**2.55**	**200**	P	**Pn**	**23 45 54.9**	**-0.2**
TKGZ				S	**Sn**	**23 46 27.1**	**+0.9**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**2.56**	**206**	P	**Pn**	**23 45 55.3**	**+0.1**
MWZ				S	**Sn**	**23 46 25.6**	**-0.8**
MWZ				AML	AML		
URZ	**Urewera**	**2.66**	**213**	Pn	**Pn**	**23 45 56.7**	**+0.2**
	5.2nm,0.3s,baz=31,slow=13,SNR=18						
URZ				Sn	**Sn**	**23 46 28.5**	**-0.1**
	13nm,0.3s,baz=137,slow=21,SNR=17						
	11nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**2.66**	**213**	P	**Pn**	**23 45 56.7**	**+0.2**
URZ	**Urewera**	**2.66**	**213**	S	**Sn**	**23 46 28.0**	**-0.7**
URZ	**Urewera**	**2.66**	**213**	P	**Pn**	**23 45 55.9**	**-0.6**
URZ				S	**Sn**	**23 46 29.2**	**+0.6**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**2.74**	**206**	P	**Pn**	**23 45 57.7**	**+0.1**
RAGZ				S	**Sn**	**23 46 31.6**	**+0.9**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**2.82**	**199**	P	**Pn**	**23 45 58.4**	**-0.3**
RIGZ				S	**Sn**	**23 46 31.9**	**-0.7**
RIGZ				AML	AML		
MUGZ	**Murupara**	**2.99**	**215**	P	**Pn**	**23 46 00.8**	**0.0**
MUGZ				S	**Sn**	**23 46 35.5**	**-0.9**
MUGZ				AML	AML		
MUGZ				AML	AML		
PRGZ	**Paritu Road**	**3.00**	**196**	P	**Pn**	**23 46 00.9**	**-0.1**
PRGZ				S	**Sn**	**23 46 35.1**	**-1.6**
KNZ	**Kokohu**	**3.14**	**198**	P	**Pn**	**23 46 02.0**	**-0.8**
WIAZ	**Waiheke Island**	**3.17**	**255**	P	**Pn**	**23 46 03.3**	**+0.2**
WIAZ				AML	AML		
WIAZ				AML	AML		
MHGZ	**Mahia Peninsul**	**3.21**	**195**	P	**Pn**	**23 46 03.6**	**-0.2**
MHGZ				S	**Sn**	**23 46 41.6**	**-0.1**
MKAZ	**Moumakai**	**3.23**	**250**	P	**Pn**	**23 46 03.5**	**-0.5**
MTHZ	**Maungataniwha**	**3.27**	**210**	P	**Pn**	**23 46 04.7**	**+0.2**
MTHZ				S	**Sn**	**23 46 41.4**	**-1.7**
BKZ	**Black Stump Fm**	**3.68**	**211**	P	**Pn**	**23 46 09.2**	**-0.8**
BKZ	**Black Stump Fm**	**3.68**	**211**	S	**Sn**	**23 46 51.4**	**-1.4**
BKZ	**Black Stump Fm**	**3.68**	**211**	P	**Pn**	**23 46 08.9**	**-1.1**
WCZ	**Waipu Caves**	**3.74**	**270**	P	**Pn**	**23 46 09.9**	**-0.8**
OUZ	**Omahuta**	**4.44**	**279**	P	**Pn**	**23 46 19.3**	**-0.7**
OUZ	**Omahuta**	**4.44**	**279**	P	**Pn**	**23 46 19.3**	**-0.7**
BFZ	**Birch Farm**	**5.10**	**204**	P	**Pn**	**23 46 28.7**	**-0.2**
ASAR	**Alice Springs**	**40.64**	**275**	P	**P**	**23 52 43.6**	**+0.6**
	0.4nm,0.5s,baz=119,slow=8.0,SNR=4.6						
	0.4nm,0.5s						
WRA	**Warramunga Arr**	**42.15**	**280**	P	**P**	**23 52 55.4**	**0.0**
	0.6nm,0.4s,baz=122,slow=7.2,SNR=7.6						
	0.6nm,0.4s						
FINES	**FINESS Array B**	**149.35**	**335**	PKPbc	**PKiKP**	**00 04 50.0**	**+0.4**
	2.0nm,1.0s,baz=62,slow=3.8,SNR=5.6						

*IDC **09** 23:58:28.9±1.2, 73°.86N×8°.92E, h0km, mb3.8/8, mbtmp3.8/13, ML2.8/4, MS3.3/29, Error ellipse: s-maj=23.1km s-min=12.0km az=80.0*
*NAO **09** 23:58:29.2±0.7, 73°.88N×9°.24E, h10km, ML3.8*
*BER **09** 23:58:29.2±3.3, 73°.87N×8°.69E, h10km, Mw4.2, ML3.8(NAO), Confirmed Earthquake*
*NEIC **09** 23:58:30.5±2.1, 73°.9N±0°.1×9°.3E±0°.5, h10km±2km, mb4.2/8, Error ellipse: s-maj=24.5km s-min=14.8km az=244.0*
*FCIAR **09** 23:58:30.0, 73°.83N×9°.63E, h10km, station SPA0 has station magnitude of 3.82*
*KOLA **09** 23:58:40.4, 73°.35N×11°.71E, h0km, ML2.0, Norwegian sea*

ISC 09 23:58:28.3±0.7, 73°84N±0°.05×9°30E±0°.07, h10km, n106, σ2°37/94, mb3.9/11, MS3.3/25, Greenland Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BJO1	**Bjornoya**	**2.74**	**71**	Pn	**Pn**	**23 59 12.3**	**+0.1**
BJO1	**Bjornoya**	**2.74**	**71**	*eP*	**Pn**	**23 59 12.7**	**+0.5**
BJO1	**Bjornoya**	**2.74**	**71**	*eP*	**Pn**	**23 59 13.1**	**+0.9**
BJO1				IAML		23 59 47.5	
	comp=Z,38nm,0.6s						
BEAR	**Bear Island, N**	**2.74**	**71**	Pn	**Pn**	**23 59 11.8**	**-0.4**
	baz=263,slow=18						
BRBA	**Barentsburg A**	**4.41**	**13**	Pn	**Pn**	**23 59 34.7**	**-0.4**
BRBA	**Barentsburg A**	**4.41**	**13**	*eP*	**Pn**	**23 59 34.7**	**-0.4**
BRBB	**Barentsburg B**	**4.44**	**13**	Pn	**Pn**	**23 59 35.1**	**-0.4**
BRBB	**Barentsburg B**	**4.44**	**13**	*eP*	**Pn**	**23 59 35.1**	**-0.4**
SPB2	**Spitsbergen Ar**	**4.68**	**18**		**Pn**	**23 59 39.1**	**+0.3**
SPA0	**Spitsbergen Ar**	**4.68**	**18**	Pn	**Pn**	**23 59 38.9**	**0.0**
	baz=195,slow=14						
SPA0	**Spitsbergen Ar**	**4.68**	**18**	*eP*	**Pn**	**23 59 38.7**	**-0.2**
SPA0				*eS*	**Sn**	**00 00 32.0**	**-1.2**
SPA0	**Spitsbergen Ar**	**4.68**	**18**	Pn	**Pn**	**23 59 38.9**	**0.0**
SPITS	**Spitsbergen Ar**	**4.68**	**18**	Pn	**Pn**	**23 59 38.9**	**0.0**
	comp=Z,12nm,0.3s,baz=192,slow=14,SNR=158						
SPITS				Sn	**Sn**	**00 00 30.5**	**-2.7**
	baz=193,slow=24						
HOPEN	**Hopen**	**4.83**	**49**	Pn	**Pn**	**23 59 40.7**	**-0.2**
HOPEN				Sn	**Sn**	**00 00 33.8**	**-3.0**
HOPEN	**Hopen**	**4.83**	**49**	*eP*	**Pn**	**23 59 39.9**	**-1.0**
HOPEN				*eS*	**Sn**	**00 00 31.9**	**-4.9**
HOPEN	**Hopen**	**4.83**	**49**	*eP*	**Pn**	**23 59 40.6**	**-0.3**
HOPEN				*eS*	**Sn**	**00 00 29.4**	**-7.4**
HOPEN				IAML		00 00 42.3	
	comp=Z,20nm,0.7s						
KBS	**Kingsbay**	**5.15**	**6**	Pn	**Pn**	**23 59 44.3**	**-1.1**
TRO	**Tromso**	**5.19**	**140**	Pn	**Pn**	**23 59 46.7**	**+0.8**
TRO	**Tromso**	**5.19**	**140**	*eP*	**Pn**	**23 59 46.7**	**+0.8**
TRO				*eS*	**Sn**	**00 00 40.9**	**-4.8**
TRO				IAML		00 00 48.1	
	comp=Z,8.7nm,0.5s						
HAMF	**Hammerfest**	**5.44**	**119**	Pn	**Pn**	**23 59 49.5**	**+0.2**
HAMF	**Hammerfest**	**5.44**	**119**	*eP*	**Pn**	**23 59 49.6**	**+0.3**
HAMF				IAML		00 00 47.0	
	comp=Z,9.2nm,0.8s						
JETT	**Jettan, Norway**	**5.54**	**135**	Pn	**Pn**	**23 59 52.3**	**+1.6**
JETT	**Jettan, Norway**	**5.54**	**135**	Pn	**Pn**	**23 59 52.3**	**+1.6**
LOF	**Lofoten**	**5.90**	**164**	Pn	**Pn**	**23 59 56.0**	**+0.4**
LOF				Sn	**Sn**	**00 00 57.3**	**-5.8**
LOF	**Lofoten**	**5.90**	**164**	*eP*	**Pn**	**23 59 55.6**	**0.0**
LOF				IAML		00 00 58.3	
	comp=Z,10nm,0.5s						
JNE	**Jan Mayen East**	**6.04**	**250**	*eP*	**Pn**	**23 59 54.9**	**-2.5**
JNW	**Jan Mayen West**	**6.05**	**251**	*eP*	**Pn**	**23 59 55.1**	**-2.5**
JMIC	**Jan Mayen**	**6.09**	**251**	*eP*	**Pn**	**23 59 55.6**	**-2.6**
STEI	**Steigen**	**6.25**	**159**	*eP*	**Pn**	**00 00 00.6**	**+0.3**
STEI				*eS*	Sn	00 01 04.8	-6.9
STEI				IAML		00 01 12.2	
	comp=Z,1.9nm,0.4s						
KTK1	**Kautokeino**	**6.56**	**131**	*eP*	**Pn**	**00 00 07.1**	**+2.4**
KTK1				*eS*	**Sn**	**00 01 13.2**	**-6.3**
KTK1				IAML		00 01 26.7	
	comp=Z,2.5nm,0.6s						
ARA0	**ARCESS Array S**	**6.67**	**122**	Pn	**Pn**	**00 00 07.4**	**+1.3**
	baz=317,slow=12						
ARA0	**ARCESS Array S**	**6.67**	**122**	Pn	**Pn**	**00 00 07.4**	**+1.3**
ARA0				*eS*	Sn	00 01 11.2	-11
ARA0				IAML		00 01 28.2	
	comp=Z,3.3nm,0.8s						
ARCES	**ARCESS Array B**	**6.67**	**122**	Pn	**Pn**	**00 00 07.3**	**+1.2**
	comp=Z,1.1nm,0.3s,baz=321,slow=12,SNR=43						
ARCES				Sn	**Sn**	**00 01 19.7**	**-2.3**
	comp=Z,0.5nm,0.3s,baz=319,slow=20,SNR=1.9						
ARCES				LR	LR	00 03 03.6	
	comp=Z,164nm,21.0s,baz=0.5,slow=41						
	comp=Z,3.5nm,0.3s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**6.67**	**122**		**Pn**	**00 00 08.3**	**+2.1**
ARCES	**ARCESS Array B**	**6.67**	**122**	P	**Pn**	**00 00 07.4**	**+1.3**
ARCES				S	Sn	00 01 11.1	-11
FAUS	**Fauske**	**6.78**	**160**	Pn	**Pn**	**00 00 08.4**	**+0.7**
FAUS	**Fauske**	**6.78**	**160**	*eP*	**Pn**	**00 00 08.0**	**+0.3**
FAUS				*eS*	Sn	00 01 18.0	-6.8
FAUS				IAML		00 01 24.0	
	comp=Z,3.2nm,0.3s						
FAUS	**Fauske**	**6.78**	**160**	P	**Pn**	**00 00 08.5**	**+0.8**
FAUS				S	**Sn**	**00 01 18.8**	**-6.0**
KEV	**Kevo**	**6.87**	**118**	Pn	**Pn**	**00 00 11.2**	**+2.3**
HEF	**Hetta**	**7.15**	**132**	*eP*	**Pn**	**00 00 14.3**	**+1.6**
HEF				*eS*	Sn	00 01 24.4	-9.4
SALU	**Saltoluokta**	**7.16**	**150**	*eP*	**Pn**	**00 00 13.8**	**+0.9**
SALU				*eS*	**Sn**	**00 01 28.8**	**-5.4**
VADS	**Vadso**	**7.22**	**111**	*eP*	**Pn**	**00 00 13.8**	**+0.1**
VADS				*eS*	Sn	00 01 23.7	-12
VADS				IAML		00 01 36.1	
	comp=Z,10.0nm,0.9s						
VADS	**Vadso**	**7.22**	**111**	P	**Pn**	**00 00 13.6**	**-0.1**
VADS				S	Sn	00 01 24.1	-12
VAGH	**Vaagaholmen**	**7.27**	**167**	Pn	**Pn**	**00 00 14.5**	**+0.2**
VAGH				Sn	Sn	00 01 26.8	-10
VAGH	**Vaagaholmen**	**7.27**	**167**	*eP*	**Pn**	**00 00 14.1**	**-0.3**
VAGH				*eS*	Sn	00 01 26.7	-10
VAGH				IAML		00 01 38.4	
	comp=Z,2.8nm,0.7s						
KONS	**Konsvik**	**7.49**	**168**	*eP*	**Pn**	**00 00 17.5**	**+0.2**
KONS				*eS*	Sn	00 01 32.9	-9.3
KONS				IAML		00 01 37.5	
	comp=Z,3.4nm,0.3s						
RAUS	**Rausandaksla**	**7.61**	**165**	*eP*	**Pn**	**00 00 20.4**	**+1.4**
RAUS				*eS*	Sn	00 01 37.2	-7.9
RAUS				IAML		00 01 40.0	
	comp=Z,4.2nm,0.3s						
DAG	**Danmarks Havn**	**7.63**	**306**	*eP*	**Pn**	**00 00 16.5**	**-2.7**
DAG				*eS*	Sn	00 01 31.7	-14
STOK	**Stokkvaagen**	**7.65**	**169**	Pn	**Pn**	**00 00 19.6**	**0.0**
STOK				Sn	Sn	00 01 37.2	-8.8
STOK	**Stokkvaagen**	**7.65**	**169**	*eP*	**Pn**	**00 00 19.5**	**0.0**
STOK				*eS*	Sn	00 01 36.8	-9.3
STOK				IAML		00 01 40.2	
	comp=Z,4.3nm,0.4s						
LEIR	**Leirfjorden**	**7.87**	**169**	Pn	**Pn**	**00 00 23.6**	**+1.0**
LEIR				Sn	Sn	00 01 43.0	-8.6
LEIR	**Leirfjorden**	**7.87**	**169**	*eP*	**Pn**	**00 00 23.9**	**+1.3**
LEIR				*eS*	Sn	00 01 42.1	-10
LEIR				IAML		00 01 51.5	
	comp=Z,2.7nm,0.4s						
DBG	**Daneborg**	**8.08**	**287**	*eP*	Pn	00 00 19.1	-6.4
DBG				*eS*	Sn	00 01 40.0	-17
NSS	**Namsos**	**9.40**	**173**	*eP*	**Pn**	**00 00 45.0**	**+1.5**
NOR	**Nord**	**9.40**	**337**	P	**Pn**	**00 00 41.1**	**-2.4**
NOR	**Nord**	**9.40**	**337**	*eP*	**Pn**	**00 00 39.5**	**-4.1**
NOR				*eS*	Sn	00 02 04.2	-25
SCO	**Scoresbysund**	**10.07**	**266**	*i* P	Pn	00 00 48.6	-4.0
SCO				*i* S	Sn	00 02 32.9	-13
KVDA	**Kovda**	**10.62**	**120**	P	**Pn**	**00 01 00.3**	**+0.1**
KVDA				S	Sn	00 02 42.9	-16
OMEGA	**Omega**	**10.64**	**33**	*eP*	**Pn**	**00 00 59.0**	**-1.5**
NOA	**NORSAR Array B**	**12.88**	**176**	Pn	**Pn**	**00 01 31.4**	**+0.3**
	baz=353,slow=12,SNR=2.4						
NOA				LR	LR	00 05 59.9	
	comp=Z,35nm,18.8s,baz=355,slow=35						
	comp=Z,0.8nm,1.0s						
NRA0	**NORESS Array S**	**13.19**	**175**	P	**Pn**	**00 01 33.0**	**-2.3**
	baz=357,slow=14						
NRA0	**NORESS Array S**	**13.19**	**175**	P	**Pn**	**00 01 33.0**	**-2.3**
HFS	**Hagfors**	**13.87**	**171**	Pn	**Pn**	**00 01 45.6**	**+1.0**
	comp=Z,0.1nm,0.3s,baz=28,slow=16,SNR=2.0						
	comp=Z,1.7nm,0.9s						
HFS				AML	AML		
FIA0	**FINESS Array S**	**13.89**	**145**	Pn	**Pn**	**00 01 44.8**	**-0.1**
	baz=350,slow=14						
FIA0	**FINESS Array S**	**13.89**	**145**	Pn	**Pn**	**00 01 44.8**	**-0.1**
FINES	**FINESS Array B**	**13.89**	**145**	Pn	**Pn**	**00 01 44.7**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=7.4,slow=6.0,SNR=8.8						
FINES				LR	LR	00 06 37.6	
	comp=Z,64nm,20.3s,baz=338,slow=35						
	comp=Z,2.2nm,0.7s						
FINES				AML	AML		
BORG	**Borgarnes**	**13.94**	**245**	LR	LR	00 05 31.7	
	comp=Z,146nm,18.7s,baz=342,slow=30						
LSH	**Leshukonskoye**	**15.35**	**107**	P	**P**	**00 02 12.5**	**+3.1**
	comp=Z,15nm,0.8s						
KLMR	**Klimovskoe**	**17.14**	**123**	P	**Pn**	**00 02 23.9**	**-3.6**
	comp=Z,17nm,1.4s						
PABE	**Paberze**	**19.33**	**154**	P	**P**	**00 02 55.1**	**+1.9**
PABE				IAmb	IAmb	00 02 57.1	
	comp=Z,11nm,0.8s						
SFJD	**Kangerlussuaq**	**20.30**	**281**	LR	LR	00 09 40.0	
	comp=Z,169nm,19.3s,baz=46,slow=33						
KIRV	**Kirov**	**21.57**	**113**	P	**P**	**00 03 20.6**	**+3.1**
	comp=Z,9.0nm,0.6s,baz=333,slow=16,SNR=5.2						
KIRV				LR	LR	00 12 13.2	
	comp=Z,78nm,18.3s,baz=341,slow=38						
	comp=Z,9.0nm,0.6s						
OBN	**Obninsk**	**21.76**	**135**	LR	LR	00 12 45.4	
	comp=Z,55nm,20.5s,baz=160,slow=39						
NRIK	**Noril'sk**	**23.40**	**61**	LR	LR	00 15 47.9	
	comp=Z,40nm,18.1s,baz=321,slow=44						
AKASG	**Malin Array Be**	**24.73**	**149**	LR	LR	00 13 17.5	
	comp=Z,64nm,19.8s,baz=6.0,slow=36						
VRAC	**Vranov**	**24.82**	**169**	LR	LR	00 12 33.3	
	comp=Z,34nm,18.5s,baz=335,slow=34						
GERES	**GERESS Array B**	**25.16**	**173**	P	**P**	**00 03 55.6**	**+2.2**
	comp=Z,0.2nm,0.5s,baz=352,slow=8.1,SNR=3.9						
	comp=Z,0.2nm,0.5s						
ARTI	**Arti**	**25.86**	**106**	P	**P**	**00 04 02.5**	**+3.0**
	comp=Z,2.1nm,0.7s,baz=326,slow=

ULM	**Lac du Bonnet**	**46.45**	**301**	LR	LR	00 25 51.2			
	comp=Z,54nm,19.1s,baz=10.0,slow=35								
KLR	**Kul'dur**	**51.21**	**45**	LR	LR	00 31 22.0			
	comp=Z,30nm,18.5s,baz=318,slow=38								
NEW	**Newport**	**52.91**	**318**	LR	LR	00 29 17.1			
	comp=Z,43nm,18.6s,baz=45,slow=35								
TKL	**Tuckaleechee C**	**56.98**	**284**	LR	LR	00 30 42.5			
	comp=Z,57nm,19.4s,baz=20,slow=34								
KSRS	**Korea Array**	**61.67**	**53**	LR	LR	00 39 40.3			
	comp=Z,20nm,18.0s,baz=225,slow=40								
SJG	**San Juan**	**68.68**	**261**	LR	LR	00 35 56.8			
	comp=Z,12nm,20.5s,baz=348,slow=33								
CMIG	**Matias Romero**	**77.60**	**288**	LR	LR	00 48 07.3			
	comp=Z,33nm,19.2s,baz=34,slow=38								

IDC 10 00:16:27.9±12.0, 7.80S×158.19E, h0km, mb4.5/5, mbtmp4.4/5, Error ellipse: s-maj=713.1km s-min=275.1km az=74.0, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H11S3	**WAKE ISLAND Hy**	**27.44**	**18**	T	T	00 50 48.2	
	baz=202,slow=75,SNR=20						
H11S2	**WAKE ISLAND Hy**	**27.44**	**18**	T	T	00 50 48.9	
	baz=202,slow=75,SNR=17						
H11S1	**WAKE ISLAND Hy**	**27.45**	**18**	T	T	00 50 46.9	
	baz=202,slow=75,SNR=9.6						
SONM	**Songino Array**	**71.74**	**326**	P	P	00 27 52.1	0.0
	0.4nm,0.4s,baz=142,slow=7.3,SNR=4.9						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	**86.10**	**318**	P	P	00 29 11.0	+0.1
	1.9nm,0.7s,baz=103,slow=5.8,SNR=12						
	1.9nm,0.7s						
ZALV	**Zalesovo Beam**	**86.62**	**325**	P	P	00 29 13.2	0.0
	1.2nm,0.4s,baz=112,slow=5.9,SNR=4.5						
	1.2nm,0.4s						
KURBB	**Kurchatov Arra**	**89.46**	**321**	P	P	00 29 26.6	-0.2
	4.6nm,0.2s,baz=106,slow=5.1,SNR=5.1						
	4.6nm,0.2s						
BVAR	**Borovoye Array**	**94.84**	**323**	P	P	00 29 51.5	-0.2
	0.4nm,0.4s,baz=108,slow=4.7,SNR=3.2						
	0.4nm,0.4s						

*DJA **10** 00:17:05.8±0.5, 6.S±4.×12.8E±.°, h396km±9km, M4.5/12, mB5.1/6, mb4.5/7, MLv4.6/12, Mw(mB)4.5/6*
*NEIC **10** 00:17:05.8±1.6, 5.94S±0.05×128.09E±0.08, h391km±8km, mb4.2/21, Error ellipse: s-maj=13.2km s-min=3.7km az=119.0*
*IDC **10** 00:17:06.2±1.4, 5.96S×128.11E, h402km±16km, mb3.5/13, mbtmp4.4/19, Error ellipse: s-maj=21.2km s-min=8.8km az=79.0*

ISC 10 00:17:05.8±0.4, 5.96S±0.05×128.11E±0.06, h400km, n68, σ1§10/70, mb4.0/21, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**2.29**	**51**	P	**Pn**	**00 18 05.1**	**+1.4**
MSAI	**Masohi**	**2.72**	**18**	P	**Pn**	**00 18 05.1**	**-1.8**
MSAI				AML	AML		
NLAI	**Namlea**	**2.88**	**340**	P	**Pn**	**00 18 08.4**	**+0.2**
NLAI				AML	AML		
SAUI	**Saumlaki**	**3.75**	**123**	Pn	**Pn**	**00 18 14.5**	**-1.1**
FAKI	**Fak Fak**	**5.12**	**54**	P	**Pn**	**00 18 28.9**	**-0.2**
FAKI	**Fak Fak**	**5.12**	**54**		**Pn**	**00 18 28.9**	**-0.2**
FAKI	**Fak Fak**	**5.12**	**54**	P	**Pn**	**00 18 28.7**	**-0.4**
FAKI				AML	AML		
SOEI	**Soe**	**5.36**	**225**	P	**Pn**	**00 18 31.9**	**+0.2**
SOEI	**Soe**	**5.36**	**225**		**Pn**	**00 18 31.8**	**+0.1**
SOEI	**Soe**	**5.36**	**225**	P	**Pn**	**00 18 31.8**	**+0.1**
	0.6nm1μm109nm,0.6s						
SOEI				AML	AML		
SIJI	**Sorong**	**5.96**	**32**	P	**Pn**	**00 18 38.0**	**-0.1**
	91nm,0.5s,baz=192,slow=8.3,SNR=39						
SIJI				S	**S**	**00 19 49.1**	**-4.1**
	20nm,0.3s,baz=82,slow=23,SNR=4.6						
SIJI	**Sorong**	**5.96**	**32**	P	**Pn**	**00 18 37.7**	**-0.4**
	0.7nm6μm120nm,0.5s						
SIJI				AML	AML		
BATI	**Baumata**	**6.09**	**226**	P	**Pn**	**00 18 40.0**	**+0.4**
	63nm,0.5s,baz=146,slow=2.4,SNR=7.1						
BATI				S	**S**	**00 19 53.2**	**-2.7**
	163nm,0.6s,baz=41,slow=3.2,SNR=12						
BATI	**Baumata**	**6.09**	**226**	P	Pn	00 18 44.2	+4.7
MTN	**Manton Dam**	**7.46**	**157**		**P**	**00 18 55.5**	**+0.2**
GTOI	**Gorontalo**	**8.30**	**322**	P	**P**	**00 19 06.7**	**+2.1**
	43nm,0.5s						
KNRA	**Kununurra**	**9.68**	**176**	P	**Pn**	**00 19 20.7**	**+0.6**
TOLI2	**Tolitoli**	**10.14**	**314**	P	**P**	**00 19 24.7**	**-0.4**
PLAI	**Plampang**	**10.63**	**254**	P	**P**	**00 19 28.8**	**-1.7**
FITZ	**Fitzroy Crossi**	**12.30**	**191**	P	**P**	**00 19 49.2**	**+0.3**
	2.3nm,0.3s,baz=21,slow=7.3,SNR=38						
JAY	**Jayapura**	**13.02**	**75**	P	**P**	**00 19 57.4**	**+0.5**
	1.8nm,0.4s,baz=268,slow=4.5,SNR=5.0						
JAGI	**Jajag, Banyuwa**	**14.07**	**259**	P	**P**	**00 20 07.2**	**-1.1**
JAGI	**Jajag, Banyuwa**	**14.07**	**259**	P	**P**	**00 20 07.3**	**-1.0**
WB0	**Warramunga Arr**	**15.02**	**157**	P	**P**	**00 20 19.6**	**+0.9**
WRAB	**Tennant Creek**	**15.16**	**157**	P	**P**	**00 20 20.7**	**+0.6**
WRAB	**Tennant Creek**	**15.16**	**157**	P	**P**	**00 20 20.9**	**+0.8**
WRA	**Warramunga Arr**	**15.16**	**157**	P	**P**	**00 20 20.7**	**+0.6**
	8.0nm,0.3s,baz=335,slow=11,SNR=106						
WRA				S	**S**	**00 22 57.2**	**-3.7**
	2.7nm,0.6s,baz=338,slow=20,SNR=8.1						
WRA	**Warramunga Arr**	**15.16**	**157**	P	**P**	**00 20 19.5**	**-0.6**
WR8	**Warramunga Arr**	**15.23**	**157**	P	**P**	**00 20 21.7**	**+0.8**
MBWA	**Marble Bar**	**17.15**	**207**	P	**P**	**00 20 41.1**	**-0.3**
MBWA				IAmb	IAmb	00 20 44.0	
	comp=Z,8.6nm,0.7s						
QIS	**Mount Isa**	**18.30**	**144**	P	**P**	**00 20 54.5**	**+0.8**
AS31	**Alice Springs**	**18.46**	**163**	P	**P**	**00 20 56.1**	**+0.7**
AS31				IAmb	IAmb	00 20 56.5	
	comp=Z,4.5nm,0.4s						
ASAR	**Alice Springs**	**18.47**	**163**	P	**P**	**00 20 55.9**	**+0.5**
	comp=Z,5.6nm,0.3s,baz=339,slow=10,SNR=55						
ASAR				S	**S**	**00 24 05.0**	**+0.3**
	comp=Z,4.7nm,0.5s,baz=349,slow=22,SNR=17						
AS01	**Alice Springs**	**18.48**	**163**	P	**P**	**00 20 56.0**	**+0.5**
BBJI	**Bungbulang**	**20.37**	**265**	P	**P**	**00 21 12.6**	**-1.3**
BBJI	**Bungbulang**	**20.37**	**265**	P	**P**	**00 21 13.0**	**-0.9**
BBJI				IAmb	IAmb	00 21 13.4	
	comp=Z,16nm,0.9s						
MEEK	**Meekatharra**	**22.47**	**203**	P	**P**	**00 21 32.8**	**0.0**
FORT	**Forrest**	**24.69**	**180**	P	**P**	**00 21 52.5**	**-0.2**
FORT				IAmb	IAmb	00 22 11.9	
	comp=Z,9.8nm,0.9s						
MORW	**Morawa**	**25.66**	**205**	P	**P**	**00 22 01.4**	**+0.1**
MORW				IAmb	IAmb	00 22 05.7	
	comp=Z,5.2nm,0.8s						
KRJI	**Kerinci**	**26.85**	**277**	P	**P**	**00 22 15.2**	**+2.9**
BBOO	**Buckleboo**	**27.72**	**165**	P	**P**	**00 22 19.9**	**+0.4**
BBOO				IAmb	IAmb	00 22 34.5	
	comp=Z,17nm,1.1s						
NWAO	**Narrogin (SRO)**	**28.68**	**199**	P	**P**	**00 22 28.4**	**+0.4**
NWAO				IAmb	IAmb	00 22 34.9	
	comp=Z,26nm,1.1s						
STKA	**Stephens Creek**	**28.70**	**156**	P	**P**	**00 22 29.1**	**+0.9**
	comp=Z,1.0nm,0.3s,baz=354,slow=8.3,SNR=3.2						
	comp=Z,1.0nm,0.3s						
KSRS	**Korea Array**	**43.19**	**360**	P	**P**	**00 24 30.1**	**+0.8**
	comp=Z,2.9nm,0.6s,baz=180,slow=10,SNR=8.8						
	comp=Z,2.9nm,0.6s						
MJAR	**Matsushiro Arr**	**43.33**	**12**	P	**P**	**00 24 28.9**	**-1.5**
	comp=Z,2.6nm,0.6s,baz=190,slow=9.9,SNR=5.7						
	comp=Z,2.6nm,0.6s						
USA0B	**Ussuriysk Arra**	**50.05**	**4**	P	**P**	**00 25 21.8**	**+0.2**
USA0B				IAmb	IAmb	00 25 22.0	
	comp=Z,5.5nm,0.8s						
USRK	**Ussuriysk Ar.**	**50.05**	**4**	P	**P**	**00 25 21.3**	**-0.3**
	comp=Z,3.5nm,0.6s,baz=190,slow=8.9,SNR=5.0						
	comp=Z,3.5nm,0.6s						
USRK	**Ussuriysk Ar.**	**50.05**	**4**	P	**P**	**00 25 21.9**	**+0.2**
EVN	**Everest**	**52.19**	**312**	P	**P**	**00 25 38.2**	**-0.3**
KLR	**Kul'dur**	**55.05**	**3**	P	**P**	**00 25 57.8**	**0.0**
	comp=Z,0.7nm,0.5s,baz=166,slow=8.3,SNR=1.7						
	comp=Z,0.7nm,0.5s						
ULN	**Ulaanbaatar**	**56.72**	**343**	P	**P**	**00 26 10.1**	**+0.4**
SONM	**Songino Array**	**56.88**	**343**	P	**P**	**00 26 11.7**	**+0.9**
	comp=Z,1.8nm,0.6s,baz=166,slow=7.7,SNR=13						
	comp=Z,1.8nm,0.6s						
SONM	**Songino Array**	**56.88**	**343**	P	**P**	**00 26 12.0**	**+1.2**
PEA0B	**Petropavlovsk-**	**63.95**	**19**	P	**P**	**00 26 58.8**	**+1.0**
PETK	**Petropavlovsk-**	**63.95**	**19**	P	**P**	**00 26 58.4**	**+0.7**
	comp=Z,3.7nm,0.6s,baz=193,slow=3.0,SNR=9.2						
	comp=Z,3.7nm,0.6s						
JOHN	**Johnston Islan**	**65.63**	**69**	P	**P**	**00 27 09.1**	**0.0**
PDGK	**Podgornoye**	**65.84**	**323**	P	**P**	**00 27 10.2**	**+0.1**
KSH2	**Kashi**	**66.08**	**318**	P	**P**	**00 27 12.1**	**+0.3**
KSH2				pP	PcP	00 27 36.1	-2.6
MKAR	**Makanchi Array**	**66.34**	**327**	P	**P**	**00 27 13.3**	**+0.2**
	comp=Z,2.7nm,0.4s,baz=115,slow=8.8,SNR=53						
	comp=Z,2.7nm,0.4s						
MAKZ	**Makanchi**	**66.52**	**327**	P	**P**	**00 27 14.2**	**0.0**
MAKZ				IAmb	IAmb	00 27 14.8	
	comp=Z,2.1nm,0.5s						
KDJ	**Kajisay**	**66.58**	**321**	P	**P**	**00 27 14.8**	**-0.1**
KDJ				IAmb	IAmb	00 27 20.5	
	comp=Z,5.5nm,0.9s						
ZALV	**Zalesovo Beam**	**69.83**	**334**	P	**P**	**00 27 33.9**	**-0.4**
	comp=Z,2.1nm,0.5s,baz=121,slow=5.4,SNR=11						
	comp=Z,2.1nm,0.5s						
KURBB	**Kurchatov Arra**	**70.65**	**329**	P	**P**	**00 27 39.5**	**+0.2**
	comp=Z,2.9nm,0.4s,baz=131,slow=5.0,SNR=17						
	comp=Z,2.9nm,0.4s						
KURK	**Kurchatov**	**70.66**	**329**	P	**P**	**00 27 39.6**	**+0.3**
KURK				IAmb	IAmb	00 27 40.1	
	comp=Z,4.7nm,0.9s						
SEY	**Seymchan**	**71.15**	**11**	P	**P**	**00 27 42.7**	**+0.7**
	comp=Z,3.5nm,0.6s,baz=213,slow=7.7,SNR=6.5						
	comp=Z,3.5nm,0.6s						
VNDA	**Vanda**	**73.70**	**173**	P	**P**	**00 27 57.1**	**+0.4**
	comp=Z,0.2nm,0.4s,baz=322,slow=6.0,SNR=1.5						
	comp=Z,0.2nm,0.4s						
BVAR	**Borovoye Array**	**76.19**	**328**	P	**P**	**00 28 11.2**	**-0.1**
	comp=Z,0.6nm,0.4s,baz=86,slow=5.7,SNR=5.9						
	comp=Z,0.6nm,0.4s						
DEOK	**Depew**	**129.46**	**48**		PKPpre	00 35 17.2	

*HEL **10** 00:23:17.8±0.2, 67.82N×20.15E, h0km, ML1.7, Suspected explosion*
*UPP **10** 00:23:17.8±0.0, 67.85N×20.21E, h0km, ML2.5, Suspected explosion*
*IDC **10** 00:23:19.0±2.0, 67.92N×20.09E, h0km, mbtmp3.1/3, ML2.0/3, Error ellipse: s-maj=25.5km s-min=13.8km az=103.0*

ISC 10 00:23:18.1±0.8, 67.85N±0.02×20.24E±0.02, h0km, n39, σ0§94/61, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.12**	**18**	P	**Pg**	**00 23 20.2**	**0.0**
KUA				S	**Sg**	**00 23 22.2**	**+0.5**
RATU	**Laukkuluspa**	**0.25**	**265**	P	**Pg**	**00 23 22.4**	**-0.4**
RATU				S	**Sg**	**00 23 26.1**	**+0.1**
KOVU	**Salmi**	**0.38**	**355**	P	**Pg**	**00 23 25.1**	**-0.2**
KOVU				S	**Sg**	**00 23 30.3**	**+0.1**
NIKU	**Nikkaluokta**	**0.46**	**273**	P	**Pg**	**00 23 26.3**	**-0.5**
NIKU				S	**Sg**	**00 23 32.7**	**0.0**
LANU	**Lannavaara**	**0.69**	**72**	P	**Pg**	**00 23 31.1**	**-0.2**
LANU				S	**Sg**	**00 23 40.7**	**+0.4**
LANU	**Lannavaara**	**0.69**	**72**	*eP*	**Pg**	**00 23 31.3**	**0.0**
LANU	**Lannavaara**	**0.69**	**72**	PG	**Pg**	**00 23 30.8**	**-0.5**
LANU				SG	**Sg**	**00 23 40.6**	**+0.4**
MASU	**Masugnsbyn**	**0.78**	**119**	P	**Pg**	**00 23 32.7**	**-0.2**
SALU	**Saltoluokta**	**0.81**	**236**	P	**Pg**	**00 23 33.0**	**-0.7**
SALU	**Saltoluokta**	**0.81**	**236**	*eP*	**Pg**	**00 23 33.1**	**-0.5**
PAJU	**Pajala**	**1.38**	**125**	P	**Pg**	**00 23 43.4**	**-1.1**
PAJU	**Pajala**	**1.38**	**125**	PG	**Pg**	**00 23 43.1**	**-1.4**
	baz=304						
PAJU				SG	**Sg**	**00 24 02.4**	**0.0**
HEF	**Hetta**	**1.40**	**65**	*eP*	**Pn**	**00 23 43.8**	**-1.0**
HEF	**Hetta**	**1.40**	**65**	PG	**Pn**	**00 23 43.6**	**-1.2**
	baz=252						
HEF				MSG		00 24 01.1	
	comp=Z,9.8nm,0.2s						
HEF				SN	**Sn**	**00 24 05.6**	**+1.6**
ERTU	**Ertsjaerv**	**1.50**	**149**	P	**Pn**	**00 23 45.4**	**-0.8**
ERTU	**Ertsjaerv**	**1.50**	**149**	PN	**Pn**	**00 23 45.2**	**-1.0**
ERTU				SN	**Sn**	**00 24 06.8**	**+0.3**
KLF	**Kolari**	**1.56**	**112**	PG	**Pn**	**00 23 46.4**	**-0.6**
KLF				MSG		00 24 05.0	
	comp=Z,5.2nm,0.2s						
KLF				SN	**Sg**	**00 24 08.1**	**+0.1**
KTK1	**Kautokeino**	**1.61**	**42**	PG	**Pn**	**00 23 47.5**	**-0.3**
KTK1				SN	**Sn**	**00 24 09.2**	**0.0**
HARU	**Harads**	**1.71**	**170**	P	**Pn**	**00 23 49.0**	**-0.1**
TRO	**Tromso**	**1.86**	**346**	PG	**Pn**	**00 23 51.7**	**+0.6**
TRO				SG	**Sn**	**00 24 16.0**	**+0.7**
TOF	**Tornio**	**2.39**	**136**	PG	**Pn**	**00 23 59.8**	**+1.3**
TOF				MSG		00 24 28.8	
	comp=Z,1.8nm,0.2s						
TOF				SG	**Sb**	**00 24 32.5**	**+0.6**
SJUU	**Sjulsmark**	**2.41**	**166**	*eP*	**Pn**	**00 23 59.8**	**+1.1**
ARA0	**ARCESS Array S**	**2.56**	**46**	PB	**Pn**	**00 24 02.0**	**+1.2**
ARA0				SB	**Sb**	**00 24 35.2**	**-1.7**
ARCES	**ARCESS Array B**	**2.56**	**46**	Pn	**Pn**	**00 24 01.2**	**+0.4**
	comp=Z,0.6nm,0.3s,baz=231,slow=14,SNR=22						
ARCES				Sn	**Sn**	**00 24 33.3**	**+0.6**
	comp=Z,1.3nm,0.3s,baz=230,slow=24,SNR=14						
	comp=Z,1.2nm,0.3s						
ARCES				AML	AML		
RNF	**Rovaniemi**	**2.57**	**116**	PB	**Pn**	**00 24 02.4**	**+1.5**
RNF				SG	**Sb**	**00 24 36.4**	**-0.5**
RAJF	**Raja-Jooseppi**	**3.08**	**74**	PN	**Pn**	**00 24 07.7**	**-0.2**
	baz=257						
RAJF				SG	**Sb**	**00 24 52.0**	**+0.2**
KEV	**Kevo**	**3.12**	**49**	PB	**Pb**	**00 24 11.9**	**-2.3**
KEV				SB	**Sn**	**00 24 47.4**	**+1.2**
RANF	**Ranua**	**3.17**	**122**	PN	**Pn**	**00 24 10.2**	**+1.1**
RANF				SG	**Sb**	**00 24 56.1**	**+1.9**
BURU	**Burvik**	**3.31**	**171**	PB	**Pn**	**00 24 12.5**	**+1.5**
VRF	**Varrio**	**3.56**	**87**	PG	**Pb**	**00 24 21.8**	**+0.1**
VRF				SN	**Sn**	**00 24 58.4**	**+1.3**
OUL	**Oulu**	**3.58**	**138**	PG	**Pb**	**00 24 22.2**	**0.0**
	baz=319						
OUL				SG	**Sg**	**00 25 10.9**	**-2.0**
OBF8	**Ulkokalla**	**3.76**	**158**	SN	**Sn**	**00 25 02.0**	**-0.1**
OLKF	**Oulanka, Finla**	**3.90**	**109**	PN	**Pn**	**00 24 20.6**	**+1.5**
OUF	**Merijarvi**	**3.94**	**150**	PG	**Pb**	**00 24 28.5**	**+0.2**
KU6	**Riekki**	**4.21**	**111**	PN	**Pn**	**00 24 24.4**	**+1.0**
KU1	**Kurvinen**	**4.35**	**117**	PN	**Pn**	**00 24 26.8**	**+1.5**
	baz=310						
VAF	**Ylistaro**	**4.93**	**167**	*eP*	**Pn**	**00 24 34.2**	**+1.0**
FINES	**FINESS Array B**	**6.89**	**156**	Pn	**Pn**	**00 25 00.8**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=348,slow=13,SNR=2.6						
FINES				Sn	**Sn**	**00 26 18.9**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=344,slow=25,SNR=1.3						
FINES				Lg	Lg	00 26 51.5	
	comp=Z,0.2nm,0.3s,baz=341,slow=29,SNR=5.8						
	comp=Z,6.2nm,1.2s						
FINES				AML	AML		
NOA	**NORSAR Array B**	**7.86**	**214**	Pn	**Pn**	**00 25 13.3**	**-0.2**
	baz=21,slow=11,SNR=1.3						
	comp=Z,1.0nm,1.1s						

*GFZ **10** 00:52:29.9, 6.21S×104.09E, h41km, Mw4.8/76, Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr0.44; Mθθ-1.16; Mφφ0.72; Mrθ1.37; Mθφ0.26; Mφr-1.20; Fault plane solution: M0 2.09740×10^16 NP1: φs131.48900°, δ82.51393°, λ115.32679°. NP2: φs236.88055°, δ26.33980°, λ17.07586°. Principal axes: T 1.9797, Plg46.5371°, Azm67.5759°; N 0.2183, Plg25.0959°, Azm307.9606°; P -2.1980, Plg32.7905°, Azm200.3998°;*
*BJI **10** 00:52:30.0, 6.20S×104.20E, h30km, mB5.3/22, mb5.4/69, Ms4.7/45, Ms7 4.5/48*
*MOS **10** 00:52:31.5±0.9, 6.01S×104.26E, h35km, mb5.4/73, Error ellipse: s-maj=8.2km s-min=4.2km az=115.9*
*NEIC **10** 00:52:32.9±2.5, 6.27S±0.06×104.06E±0.05, h34km±3km, mb5.4/121, Mww4.9/11, Error ellipse: s-maj=9.9km s-min=6.8km az=211.0*
*IDC **10** 00:52:32.8±1.7, 6.12S×104.19E, h33km±11km, mb4.9/39, mbtmp5.1/40, ML5.6/2, MS4.0/54, Error ellipse: s-maj=12.4km s-min=8.2km az=49.0*
*DJA **10** 00:52:34.3±0.2, 6.S±2.×10.4E±.°, h49km±2km, M5.4/102, mB5.8/72, mb5.7/102, MLv5.7/67, Mw(mB)5.3/72, MwMwp4.8/4, Mwp5.2/4*
*GCMT **10** 00:52:34.9±0.2, 6.50S±0.02×104.14E±0.02, h39km±1km, MW5.0/88, Moment Tensor Solution. s53,c71; s88,c111; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.95±.14; Mθθ-3.20±.09; Mφφ1.25±.11; Mrθ1.04±.09; Mθφ1.00±.08; Mφr-1.82±.11; Best double couple: M0 3.62200×10^16 NP1:φ249.00000°, δ43.00000°, λ33.00000°. NP2: φ134.00000°, δ68.00000°, λ128.00000°. Principal axes: T 3.4580, Plg51.0000°, Azm88.0000°; N 0.3280, Plg35.0000°, Azm297.0000°; P -3.7850, Plg15.0000°, Azm197.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*GFZ **10** 00:52:34.6±0.1, 6.S±3.×10.4E±.°, h44km, M5.3/93, mb5.4/93*

ISC 10 00:52:33.3±0.3, 6.25S±0.03×104.08E±0.03, h42km±2km, h42km:pP-P, n928, σ1§49/949, mb5.3/270, MS4.2/75, 68C-20D, Sunda Strait

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KASI	**Kota Agung**	**0.83**	**30**	P	**Pn**	**00 52 49.5**	**+1.0**
KASI				S	**Sn**	**00 53 01.3**	**+1.7**
KASI				Sg		00 53 03.4	
KASI				AML	AML		
LWLI	**Liwa**	**1.22**	**359**	P	**Pn**	**00 52 55.7**	**+1.7**
LWLI				AML	AML		
BLSI	**Bandar Lampung**	**1.45**	**53**	P	**Pn**	**00 52 58.8**	**+1.8**
BLSI				S	**Sn**	**00 53 19.9**	**+5.0**
BLSI				AML	AML		
KLI	**Kotabumi**	**1.58**	**29**	P	**Pn**	**00 53 01.3**	**+2.5**
KLI				AML	AML		
CGJI	**Cibinong**	**1.64**	**103**	P	**Pn**	**00 53 01.4**	**+1.7**
CGJI				S	**Sn**	**00 53 22.6**	**+3.0**
MDSI	**Maura Dua**	**1.75**	**3**	P	**Pn**	**00 53 03.3**	**+2.1**
SBJI	**Serang**	**2.04**	**87**	P	**Pn**	**00 53 07.3**	**+2.2**
SBJI				AML	AML		
MNAI	**Manna**	**2.18**	**329**	P	**Pn**	**00 53 09.5**	**+2.4**
MNAI	**Manna**	**2.18**	**329**		**Pn**	**00 53 08.9**	**+1.8**
MNAI	**Manna**	**2.18**	**329**	P	**Pn**	**00 53 08.9**	**+1.8**
MNAI				AML	AML		
MNAI	**Manna**	**2.18**	**329**	P	**Pn**	**00 53 08.1**	**+1.0**
LHSI	**Lahat**	**2.47**	**347**	P	**Pn**	**00 53 13.3**	**+2.3**
LHSI				AML	AML		
TNG	**Tangerang**	**2.55**	**88**	P	**Pn**	**00 53 14.5**	**+2.3**
TNG				P	**Pn**	**00 53 14.0**	**+1.8**
TNG				AML	AML		
SKJI	**Sukabumi**	**2.57**	**107**	P	**Pn**	**00 53 14.0**	**+1.6**
SKJI				AML	AML		
CBJI	**Citeko**	**2.76**	**94**	P	**Pn**	**00 53 19.0**	**+4.0**
CBJI				AML	AML		
KSI	**Kapahiang**	**2.97**	**330**	P	**Pn**	**00 53 19.8**	**+1.7**
UBSI	**University, Be**	**3.06**	**324**	P	**Pn**	**00 53 20.7**	**+1.5**
UBSI				AML	AML		
CNJI	**Cibinong**	**3.21**	**109**	P	**Pn**	**00 53 21.5**	**+0.3**
CNJI				AML	AML		
PMBI	**Palembang**	**3.37**	**12**	P	**Pn**	**00 53 26.1**	**+2.7**
PMBI	**Palembang**	**3.37**	**12**	Pn	**Pn**	**00 53 26.2**	**+2.8**
PMBI	**Palembang**	**3.37**	**12**	P	**Pn**	**00 53 25.5**	**+2.1**
PMBI				AML	AML		
LEM	**Lembang**	**3.56**	**100**	Pn	**Pn**	**00 53 29.4**	**+3.2**
	312nm,0.3s,baz=203,slow=16,SNR=93						
LEM				Sn	**Sn**	**00 54 07.2**	**0.0**
	126nm,0.3s,baz=250,slow=16,SNR=4.4						
LEM	**Lembang**	**3.56**	**100**	P	**Pn**	**00 53 29.1**	**+2.9**
LEM				AML	AML		
MASI	**Maura Aman, Be**	**3.59**	**329**	P	**Pn**	**00 53 28.7**	**+2.2**
BBJI	**Bungbulang**	**3.74**	**109**	P	**Pn**	**00 53 29.6**	**+1.0**
BBJI	**Bungbulang**	**3.74**	**109**	Pn	**Pn**	**00 53 28.9**	**+0.2**
BBJI	**Bungbulang**	**3.74**	**109**	P	**Pn**	**00 53 28.6**	**0.0**
BBJI				AML	AML		
BBJI	**Bungbulang**	**3.74**	**109**	P	**Pn**	**00 53 29.2**	**+0.6**
JCJI	**Jatiwangi**	**4.17**	**94**	P	**Pn**	**00 53 36.5**	**+2.1**
JCJI				AML	AML		
CMJI	**Cimerak**	**4.59**	**110**	P	**Pn**	**00 53 41.3**	**+1.0**
CMJI				AML	AML		
JMBI	**JAMBI**	**4.60**	**355**	P	**Pn**	**00 53 44.4**	**+4.0**
KRJI	**Kerinci**	**4.88**	**328**	P	**Pn**	**00 53 47.1**	**+2.7**
KPJI	**Karang Pucung**	**4.93**	**103**	P	**Pn**	**00 53 48.3**	**+3.4**
KPJI				AML	AML		
TPI	**Tanjungpandan**	**4.97**	**46**	P	**Pn**	**00 53 47.6**	**+2.2**
	3μm4μm273nm,0.5s						
SCJI	**Gunung Srandil**	**5.25**	**106**	P	**Pn**	**00 53 52.5**	**+3.3**
	3μm295nm,0.6s						
DSRI	**Dabo**	**5.75**	**5**	P	**Pn**	**00 53 58.8**	**+2.6**
	3μm7μm355nm,0.7s						
YOGI	**Yogyakarta**	**6.36**	**105**	P	**Pn**	**00 54 06.2**	**+1.6**
	3.6nm12μm1μm,0.9s						
YOGI				AML	AML		
SMRI	**Semarang**	**6.37**	**98**	P	**Pn**	**00 54 05.3**	**+0.7**
SMRI	**Semarang**	**6.37**	**98**	Pn	**Pn**	**00 54 06.6**	**+2.0**
SMRI	**Semarang**	**6.37**	**98**	P	**Pn**	**00 54 06.3**	**+1.7**
	2.3nm7μm519nm,0.6s						
SMRI				AML	AML		
UGM	**Wanagama**	**6.60**	**105**		**Pn**	**00 54 10.0**	**+2.1**
PPI	**Padang Panjang**	**6.83**	**327**	P	**Pn**	**00 54 12.0**	**+1.1**
	2.6nm316nm,1.0s						
PPI				AML	AML		
WOJI	**Wonogiri, Jawa**	**6.97**	**104**	P	**Pn**	**00 54 15.5**	**+2.6**
	1.6nm6μm448nm,0.8s						
WOJI		

KULM Kulim 11.96 343 P Pn 00 55 23.3 +2.0
KULM Kulim 11.96 343 Pn Pn 00 55 23.3 +2.0
KULM Kulim 11.96 343 P Pn 00 55 28.7 +7.4
KULM Kulim 11.96 343 P Pn 00 55 20.0 -1.4
comp=Z,32nm,1.1s
TWSI Taliwang, Sumb 12.93 102 P Pn 00 55 32.8 -1.8
MLSI Meulaboh, Aceh 12.96 324 P Pn 00 55 38.8 +3.9
BKB Balikpapan 13.71 69 P Pn 00 55 47.4 +2.2
PLAI Plampang 13.82 102 P Pn 00 55 43.9 -2.8
PLAI Plampang 13.82 102 P Pn 00 55 44.2 -2.5
comp=Z,377nm,0.7s
DBNI Kabupaten Domp 14.29 100 P Pn 00 55 50.1 -3.0
BSI Banda Aceh 14.59 323 P P 00 56 02.5 -0.4
PMSI Majene 15.03 80 P P 00 56 08.3 +0.6
MMSI Mamuju 15.20 77 P P 00 56 08.6 -1.0
comp=Z,2µmcomp=Z,273nm,0.8s
MKS Makassar 15.35 87 P P 00 56 11.2 0.0
comp=Z,145nm,1.2s
KAPI Kappang 15.64 86 Pn Pn 00 56 11.1 +0.1
comp=Z,3.5nm,0.3s,baz=312,slow=6.2,SNR=9.5
KAPI LR LR 01 02 57.3
comp=Z,997nm,18.6s,baz=242,slow=40
comp=Z,34nm,0.6s
KAPI AML AML
KAPI Kappang 15.64 86 P Pn 00 56 10.1 -0.8
KAPI Kappang 15.64 86 P Pn 00 56 10.1 -0.8
KAPI Kappang 15.64 86 P Pn 00 56 10.1 -0.8
KAPI Kappang 15.64 86 *i* P Pn 00 56 10.7 -0.2
KAPI Kappang 15.64 86 Pn Pn 00 56 11.3 +0.3
KAPI Kappang 15.64 86 P P 00 56 13.8 -0.7
KAPI Kappang 15.64 86 P Pn 00 56 09.1 -1.8
comp=Z,92nm,0.8s
BKSI Bulukumba 15.98 88 P Pn 00 56 16.0 +0.7
comp=Z,4µmcomp=Z,484nm,0.9s
TTSI Tana Toraja 16.00 79 P P 00 56 18.4 -0.1
comp=Z,249nm,0.8s
BSSI Bau Bau, Buton 16.31 91 P Pn 00 56 20.6 +1.1
comp=Z,2µmcomp=Z,140nm,0.5s
WSI Waingapu 16.41 103 P Pn 00 56 16.9 -3.9
PCI Palu 16.59 72 P P 00 56 26.2 +1.1
comp=Z,354nm,1.0s
KKM Kota Kinabalu 17.20 45 Pn 00 56 31.2 +0.5
EDFI Ende, Flores 17.63 99 P Pn 00 56 31.2 -4.9
MMRI Maumere 18.16 99 P P 00 56 42.1 -0.3
MMRI Maumere 18.16 99 P P 00 56 41.8 -0.6
MMRI Maumere 18.16 99 P Pn 00 56 42.8 +0.3
MMRI Maumere 18.16 99 P P 00 56 42.2 -0.3
comp=Z,1µm,0.7s
TOLI2 Tolitoli 18.20 67 P Pn 00 56 43.7 +0.7
TOLI2 Tolitoli 18.20 67 P Pn 00 56 43.7 +0.7
TOLI2 IAmb IAmb 00 56 46.8
comp=Z,239nm,0.6s
APSI Ampana 18.31 74 P Pn 00 56 45.8 +1.5
comp=Z,3µmcomp=Z,460nm,1.0s
BBSI Bau Bau 18.41 89 P Pn 00 56 48.0 +2.5
comp=Z,3µmcomp=Z,219nm,0.8s
KDI Kendari 18.60 84 P Pn 00 56 48.1 +0.2
GIRL Giralia 19.02 150 P Pn 00 56 53.0 +0.2
comp=Z,56nm,1.1s
LUWI Luwuk 19.35 75 P Pn 00 56 56.7 -0.1
LUWI Luwuk 19.35 75 P P 00 56 56.2 +0.7
LUWI IAmb IAmb 00 57 07.7
comp=Z,334nm,0.8s
LUWI Luwuk 19.35 75 P Pn 00 56 56.8 -0.1
comp=Z,6µmcomp=Z,568nm,0.8s
LUWI Luwuk 19.35 75 P P 00 56 53.0 -2.5
comp=Z,571nm,0.9s
BATI Baumata 19.77 103 P P 00 56 59.9 -0.2
comp=Z,103nm,0.3s,baz=296,slow=4.5,SNR=73
BATI S S 01 00 36.0 -4.9
comp=Z,167nm,0.5s,baz=299,slow=13,SNR=3.9
BATI AML AML
BATI Baumata 19.77 103 P P 00 56 59.4 -0.7
GTOI Gorontalo 20.09 71 P P 00 57 04.1 +0.5
comp=Z,2µmcomp=Z,280nm,1.0s
SOEI Soe 20.29 101 P P 00 57 05.0 -0.8
SOEI Soe 20.29 101 P P 00 57 05.2 -0.6
SOEI Soe 20.29 101 P P 00 57 05.2 -0.6
SOEI Soe 20.29 101 P P 00 57 05.7 -0.2
comp=Z,2µm,0.9s
MBWA Marble Bar 21.20 136 P P 00 57 15.9 +0.4
comp=Z,47nm,0.9s
MBWA Marble Bar 21.20 136 P P 00 57 16.2 +0.7
comp=Z,47nm,0.9s
MBWA Marble Bar 21.20 136 P P 00 57 15.9 +0.4
comp=Z,47nm,0.9s
MBWA Marble Bar 21.20 136 P P 00 57 16.2 +0.7
MBWA Marble Bar 21.20 136 P P 00 57 13.3 -2.2
MBWA Marble Bar 21.20 136 P P 00 57 13.5 -2.0
MBWA Marble Bar 21.20 136 P P 00 57 13.5 -2.0
MBWA Marble Bar 21.20 136 P P 00 57 16.2 +0.7
comp=Z,47nm,0.9s
PPR Puerto Princes 21.59 43 *e*P P 00 57 14.9 -4.9
SANI Sanana 22.24 80 P P 00 57 26.8 +0.1
SANI Sanana 22.24 80 P P 00 57 27.0 +0.3
SANI Sanana 22.24 80 P P 00 57 26.7 -0.1
comp=Z,63nm,0.8s
NLAI Namlea 23.13 84 P P 00 57 34.9 -1.2
comp=Z,106nm,1.0s
FITZ Fitzroy Crossi 24.11 121 P P 00 57 44.6 -0.7
FITZ Fitzroy Crossi 24.11 121 LR LR 01 08 09.8
comp=Z,318nm,21.8s,baz=309,slow=39
FITZ Fitzroy Crossi 24.11 121 P P 00 57 44.4 -0.9
FITZ Fitzroy Crossi 24.11 121 P P 00 57 45.3 0.0
comp=Z,11nm,0.7s
TNTI Ternate 24.27 74 P P 00 57 46.9 +0.1
TNTI Ternate 24.27 74 P P 00 57 46.6 -0.2
TNTI IAmb IAmb 00 57 53.7
comp=Z,201nm,1.0s
TNTI Ternate 24.27 74 P P 00 57 47.3 +0.5
comp=Z,2µmcomp=Z,207nm,1.0s
TNTI Ternate 24.27 74 P P 00 57 45.4 -1.5
comp=Z,210nm,1.1s
MEEK Meekatharra 24.56 147 P P 00 57 52.0 +2.6
comp=Z,22nm,1.5s
KCP Kidapawan 24.75 58 *e*P P 00 57 53.7 +2.4
GAMI Galela, Maluku 24.99 72 P P 00 57 54.5 +1.0
comp=Z,4µmcomp=Z,441nm,0.7s
CM31 Chiang Mai Arr 25.07 348 P P 00 57 53.8 -0.2
SNR=9.7
CM31 Chiang Mai Arr 25.07 348 P P 00 57 55.2 +1.2
SNR=9.7
CM31 Chiang Mai Arr 25.07 348 P P 00 57 52.1 -1.9
CMAR Chiang Mai Arr 25.07 348 P P 00 57 52.8 -1.2
comp=Z,12nm,0.8s,baz=182,slow=8.8,SNR=42
CMAR PcP PcP 01 01 29.1 +1.1
comp=Z,2.1nm,0.5s,baz=194,slow=3.4,SNR=5.3
CMAR ScP ScP 01 05 05.0 +1.0
comp=Z,1.0nm,0.3s,baz=210,slow=3.1,SNR=11
CMAR LR LR 01 08 54.3
comp=Z,422nm,19.3s,baz=185,slow=39
comp=Z,12nm,0.8s
CMAR Chiang Mai Arr 25.07 348 *ce*P P 00 57 52.2 -1.8
CMAR pmax pmax
comp=Z,16nm,0.8s
CMAR Chiang Mai Arr 25.07 348 P P 00 57 52.4 -1.6
CMAR PcP 01 01 29.0 +0.9
DAV Davao City (W) 25.20 59 LR LR 01 07 37.2
comp=Z,456nm,21.1s,baz=244,slow=36
TBP Tagbilaran 25.28 51 *e*P P 00 57 55.8 -0.2
CHTO Chiang Mai 25.41 349 P P 00 57 55.6 -1.5
CHTO Chiang Mai 25.41 349 P P 00 57 55.7 -1.4
CHTO Chiang Mai 25.41 349 P P 00 57 56.9 -0.3
CHTO Chiang Mai 25.41 349 P P 00 57 56.3 -0.9
CHTO pmax pmax
comp=Z,28nm,0.7s
CHTO Chiang Mai 25.41 349 P P 00 57 56.3 -0.9
CHTO Chiang Mai 25.41 349 P P 00 57 56.2 -0.9
CHTO Chiang Mai 25.41 349 P P 00 57 55.6 -1.5
comp=Z,42nm,0.8s
QIZ Qiongzhong 25.75 13 P P 00 58 02.8 +2.6
QIZ S S 01 02 30.5 +3.9
QIZ L L
comp=Z,1µm,17.1s
QIZ L L
comp=Z,770nm,10.5s
QIZ L L
comp=Z,2µm,17.1s
KNRA Kununurra 25.95 113 P P 00 58 01.0 -1.1
comp=Z,160nm,0.7s
KNRA Kununurra 25.95 113 P P 00 58 00.7 -1.3
comp=Z,160nm,0.7s
KNRA Kununurra 25.95 113 P P 00 58 00.9 -1.1
comp=Z,160nm,0.7s
KNRA Kununurra 25.95 113 P P 00 58 00.9 -1.2

LQP Lukban 26.63 40 *e*P P 00 58 08.7 +0.3
PALK Pallekele 26.91 300 LR LR 01 07 39.0
comp=Z,262nm,21.1s,baz=122,slow=34
NPW Naypyitaw 27.02 343 P P 00 58 11.2 -0.5
comp=Z,38nm,0.8s
SAUI Saumlaki 27.06 95 P P 00 58 09.8 -2.4
DRS Darwin Rock St 27.15 105 P P 00 58 12.7 -0.2
SLVN Son La 27.41 360 P P 00 58 15.2 0.0
MTN Manton Dam 27.45 106 P P 00 58 14.4 -1.3
comp=Z,91nm,0.5s
MTN Manton Dam 27.45 106 P P 00 58 14.1 -1.6
comp=Z,91nm,0.5s
MTN Manton Dam 27.45 106 P P 00 58 14.8 -0.9
comp=Z,91nm,0.5s
MTN Manton Dam 27.45 106 P P 00 58 13.9 -1.7
SIJI Sorong 27.64 80 P P 00 58 17.2 -0.1
comp=Z,56nm,0.8s,baz=295,slow=9.3,SNR=12
SIJI LR LR 01 10 07.6
comp=Z,156nm,22.0s,baz=68,slow=38
comp=Z,56nm,0.8s
SIJI Sorong 27.64 80 P P 00 58 16.5 -0.9
comp=Z,730nmcomp=Z,85nm,1.0s
FAKI Fak Fak 28.27 85 P P 00 58 23.8 +0.8
FAKI Fak Fak 28.27 85 P P 00 58 20.7 -2.2
FAKI IAmb IAmb 00 58 24.8
comp=Z,48nm,0.9s
FAKI Fak Fak 28.27 85 P P 00 58 24.0 +1.0
comp=Z,46nm,0.8s
FAKI Fak Fak 28.27 85 P P 00 58 21.3 -1.6
comp=Z,47nm,0.8s
KDU Kakadu 28.71 105 P P 00 58 25.1 -1.7
comp=Z,75nm,0.6s
KDU Kakadu 28.71 105 P P 00 58 25.6 -1.2
comp=Z,75nm,0.6s
KDU Kakadu 28.71 105 P P 00 58 25.5 -1.3
comp=Z,75nm,0.6s
NWAO Narrogin (SRO) 29.23 157 LR LR 01 08 58.4
comp=Z,733nm,21.2s,baz=298,slow=34
WRKA Warakurna 29.78 131 P P 00 58 36.6 +0.3
comp=Z,12nm,2.1s
WRKA Warakurna 29.78 131 P P 00 58 36.3 0.0
comp=Z,12nm,2.1s
WRKA Warakurna 29.78 131 P P 00 58 37.1 +0.8
comp=Z,12nm,2.1s
H01W3 Cape Leeuwin H 29.97 163 T T 01 30 44.5
baz=343,slow=76,SNR=179
H01W1 Cape Leeuwin H 29.98 163 T T 01 30 47.8
baz=343,slow=76,SNR=189
H01W2 Cape Leeuwin H 29.98 163 T T 01 30 45.6
baz=343,slow=76,SNR=228
KMBL Kambalda 30.04 149 P P 00 58 38.7 +0.2
comp=Z,17nm,2.0s
BRDH Bariadhala 31.22 337 LR LR 01 14 11.7
comp=Z,528nm,19.2s,baz=155,slow=42
KMI2 Kunming 31.23 358 P P 00 58 51.3 +2.0
KMI2 pP pwP 00 59 03.5 +0.6
KMI2 sP sP 00 59 07.2 +2.5
KMI2 PcP PcP 01 01 46.1 +2.7
KMI2 pmax pmax
comp=Z,20nm,0.6s
KMI2 L L
comp=Z,2µm,15.7s
KMI2 L L
comp=Z,440nm,20.3s
KMI2 L L
comp=Z,2µm,16.2s
H08S2 Diego Garcia H 31.38 266 T T 01 32 30.5
baz=87,slow=76
H08S3 Diego Garcia H 31.39 266 T T 01 32 31.6
baz=87
H08S1 Diego Carcia H 31.40 266 T T 01 32 31.9
baz=87,slow=76
WB0 Warramunga Arr 32.37 117 P P 00 58 58.4 -0.8
WB0 IAmb IAmb 00 58 60.0
comp=Z,44nm,0.8s
WRA Warramunga Arr 32.38 118 P P 00 58 59.4 +0.1
comp=Z,43nm,0.7s,baz=285,slow=12,SNR=114
WRA PcP PcP 01 01 46.4 0.0
comp=Z,9.1nm,0.7s,baz=291,slow=2.9,SNR=5.2
comp=Z,43nm,0.7s
WRA Warramunga Arr 32.38 118 P P 00 58 58.3 -1.0
WRAB Tennant Creek 32.39 118 P P 00 58 58.7 -0.6
WRAB Tennant Creek 32.39 118 *i* P P 00 58 59.3 -0.1
WRAB pmax pmax
comp=Z,64nm,0.6s
WRAB Tennant Creek 32.39 118 P P 00 58 59.2 -0.1
WRAB IAmb IAmb 00 59 00.3
comp=Z,66nm,0.8s
WRAB Tennant Creek 32.39 118 P P 00 58 59.6 +0.2
comp=Z,110nm,0.8s
WRAB Tennant Creek 32.39 118 P P 00 58 59.3 -0.1
WRAB pP pP 00 59 10.0 0.0
WRAB sP sP 00 59 14.3 -0.5
WRAB PcP PcP 01 01 45.9 -0.5
WR8 Warramunga Arr 32.53 118 P P 00 59 00.4 -0.2
TWG Pinlang 33.33 29 P P 00 59 09.2 +1.7
TWG IAmb IAmb 00 59 23.2
comp=Z,157nm,1.7s
AS13 Alice Springs 33.48 124 P P 00 59 09.8 +0.9
comp=Z,71nm,0.8s
AS15 Alice Springs 33.49 124 P P 00 59 09.8 +0.8
comp=Z,72nm,0.8s
AS15 Alice Springs 33.49 124 P P 00 59 09.5 +0.6
comp=Z,72nm,0.8s
ASAR Alice Springs 33.49 124 P P 00 59 09.3 +0.3
comp=Z,39nm,0.6s,baz=300,slow=8.0,SNR=272
ASAR PcP PcP 01 01 50.0 +0.5
comp=Z,8.6nm,0.7s,baz=320,slow=2.2,SNR=8.9
ASAR S S 01 04 28.0 -0.2
comp=Z,2.9nm,0.9s,baz=292,slow=16,SNR=5.7
ASAR LR LR 01 14 14.0
comp=Z,348nm,20.3s,baz=290,slow=39
comp=Z,39nm,0.6s
ASAR Alice Springs 33.49 124 P P 00 59 09.1 +0.1
ASAR PcP 01 01 49.9 +0.4
AS31 Alice Springs 33.49 124 P P 00 59 09.6 +0.6
comp=Z,18nm,0.4s
AS31 Alice Springs 33.49 124 P P 00 59 09.3 +0.3
comp=Z,18nm,0.4s
AS31 Alice Springs 33.49 124 P P 00 59 09.2 +0.1
TPUB Ta-pu 33.52 28 P P 00 59 10.5 +1.4
AS01 Alice Springs 33.53 124 P P 00 59 09.8 +0.5
comp=Z,59nm,0.8s
AS01 Alice Springs 33.53 124 P P 00 59 09.3 0.0
AS09 Alice Springs 33.54 124 P P 00 59 10.2 +0.8
comp=Z,59nm,0.9s
AS09 Alice Springs 33.54 124 P P 00 59 09.4 0.0
comp=Z,59nm,0.9s
AS17 Alice Springs 33.56 124 P P 00 59 10.4 +0.8
comp=Z,60nm,0.8s
AS17 Alice Springs 33.56 124 P P 00 59 09.6 0.0
comp=Z,60nm,0.8s
SHL Shillong 33.77 340 P P 00 59 09.3 -2.2
YULB Yu-li 33.92 29 P P 00 59 13.4 +0.8
SSLB Suanglung 34.09 28 P P 00 59 13.8 -0.4
SSLB IAmb IAmb 00 59 19.9
comp=Z,42nm,1.1s
NACB Ninganchiao 34.73 29 P P 00 59 19.5 -0.1
NACB IAmb IAmb 00 59 21.5
comp=Z,30nm,0.7s
YHNB Yeheng 35.04 28 P P 00 59 21.9 -0.5
GENI Genyem 36.15 86 P P 00 59 32.0 -0.1
GENI Genyem 36.15 86 P P 00 59 31.9 -0.1
comp=Z,98nm,0.5s
ENH Enshi 36.68 8 P P 00 59 35.8 -0.5
ENH Enshi 36.68 8 IAmb IAmb 00 59 37.9
comp=Z,37nm,0.8s
ENH Enshi 36.68 8 P P 00 59 35.1 -1.2
comp=Z,52nm,0.7s
JAY Jayapura 36.69 86 P P 00 59 34.0 -2.7
comp=Z,32nm,0.6s,baz=249,slow=15,SNR=14
JAY LR LR 01 17 14.9
comp=Z,120nm,20.5s,slow=40
comp=Z,32nm,0.6s
JAY Jayapura 36.69 86 P P 00 59 34.4 -2.3
CD2 Chengdu 36.95 360 P P 00 59 37.3 -1.3
CD2 pmax pmax
comp=Z,30nm,0.7s
CD2 L L
comp=Z,780nm,17.8s
CD2 L L
comp=Z,1µm,14.0s
CD2 L L
comp=Z,720nm,9.5s
QIS Mount Isa 37.26 116 P P 00 59 41.2 -0.2
comp=Z,54nm,0.6s
QIS Mount Isa 37.26 116 P P 00 59 40.9 -0.5
comp=Z,54nm,0.6s
QIS Mount Isa 37.26 116 P P 00 59 41.6 +0.3
comp=Z,54nm,0.6s
QIS Mount Isa 37.26 116 P P 00 59 41.2 -0.2
QIS Mount Isa 37.26 116 P P 00 59 41.7 +0.3
comp=Z,54nm,0.6s
LSA Lhasa 37.84 341 P P 00 59 52.3 +5.7
LSA Lhasa 37.84 341 P P 00 59 46.8 +0.2
comp=Z,19nm,0.7s
LSA Lhasa 37.84 341 P P 00 59 46.7 0.0
LSA pP pP 00 59 57.2 -0.3
EVN Everest 37.87 335 P P 00 59 46.8 -0.3
EVN Everest 37.87 335 P P 00 59 47.4 +0.2
comp=Z,27nm,0.7s
WHN Wuhan 37.88 15 ⇑P P 00 59 48.2 +1.8
WHN sP sP 01 00 03.4 +1.4
WHN pmax pmax
comp=Z,82nm,0.9s
BBOO Buckleboo 39.78 136 P P 01 00 01.4 -1.0
comp=Z,44nm,1.9s
BBOO Buckleboo 39.78 136 P P 01 00 01.1 -1.3
comp=Z,45nm,1.9s
BBOO Buckleboo 39.78 136 P P 01 00 01.8 -0.7
comp=Z,44nm,1.9s
BBOO Buckleboo 39.78 136 P P 01 00 02.8 +0.4
BBOO Buckleboo 39.78 136 P P 01 00 02.5 0.0
BBOO IAmb IAmb 01 00 19.5
comp=Z,51nm,1.1s
XAN Xi'an 40.33 6 ⇓P P 01 00 05.7 -1.2
XAN S S 01 06 01.8 -10
XAN pmax pmax
comp=Z,41nm,0.6s
XAN pmax pmax
comp=Z,340nm,7.2s
XAN L L
comp=Z,320nm,14.4s
XAN L L
comp=Z,550nm,17.3s
XAN L L
comp=Z,720nm,15.4s
XAN Xi'an 40.33 6 P P 01 00 05.5 -1.4
JOW Kunigami 40.38 34 LR LR 01 16 08.1
comp=Z,226nm,20.9s,baz=20,slow=35
NJ2 Nanjing 40.61 19 *e*P P 01 00 11.1 +2.0
NJ2 pmax pmax
comp=Z,18nm,0.6s
INKA Innaminka 40.81 126 P P 01 00 12.2 +1.2
INKA IAmb IAmb 01 00 13.2
comp=Z,34nm,0.7s
MTSU Mount Surprise 40.96 110 P P 01 00 13.1 +0.7
comp=Z,48nm,0.7s
MTSU Mount Surprise 40.96 110 P P 01 00 12.8 +0.4
comp=Z,48nm,0.7s
MTSU Mount Surprise 40.96 110 P P 01 00 12.3 -0.1
MTSU Mount Surprise 40.96 110 P P 01 00 12.9 +0.5
comp=Z,48nm,0.7s
PTPS Port Pirie 41.34 135 P P 01 00 16.3 +1.1
LYN LuoYang 41.34 10 P P 01 00 15.1 -0.1
LYN pmax pmax
comp=Z,37nm,0.9s
LYN L L
comp=Z,650nm,18.5s
LYN L L
comp=Z,700nm,19.4s
LYN L L
comp=Z,690nm,17.5s
LZDM Lanzhou Array 41.98 360 P P 01 00 19.5 -1.3
comp=Z,10nm,0.5s,baz=180,slow=8.7,SNR=13
comp=Z,10nm,0.5s
LZH Lanzhou 42.11 360 *e*P P 01 00 21.4 -0.2
LZH pP pP 01 00 33.0 +0.4
LZH pmax pmax
comp=Z,30nm,1.2s
LZH pmax pmax
comp=Z,170nm,5.1s
LZH L L
comp=Z,560nm,14.4s
LZH L L
comp=Z,460nm,13.7s
LZH L L
comp=Z,630nm,14.4s
HTT Hallett 42.13 135 P P 01 00 23.1 +1.2
comp=Z,20nm,1.1s
HTT Hallett 42.13 135 P P 01 00 22.5 +0.7
comp=Z,20nm,1.1s
HTT Hallett 42.13 135 P P 01 00 22.8 +1.0
HTT Hallett 42.13 135 P P 01 00 21.8 0.0
PMG Port Moresby 42.77 97 P P 01 00 27.2 -0.1
comp=Z,182nm,0.8s,baz=262,slow=2.3,SNR=35
PMG LR LR 01 19 59.9
comp=Z,128nm,21.4s,baz=324,slow=39
comp=Z,182nm,0.8s
PMG Port Moresby 42.77 97 P P 01 00 26.6 -0.6
PMG Port Moresby 42.77 97 P P 01 00 27.1 -0.1
PMG pmax pmax
comp=Z,159nm,0.7s
PMG Port Moresby 42.77 97 P P 01 00 27.1 -0.1
PMG Port Moresby 42.77 97 P P 01 00 26.9 -0.3
comp=Z,2µmcomp=Z,233nm,0.8s
PMG Port Moresby 42.77 97 P P 01 00 27.3 +0.1
comp=Z,238nm,0.8s
GOMU GeErMu 43.11 349 P P 01 00 33.1 +3.1
GOMU pP pP 01 00 37.3 -3.7
GOMU sP pwP 01 00 40.6 -3.2
GOMU S S 01 06 58.6 +4.9
GOMU pmax pmax
comp=Z,7.0nm,0.6s
GOMU L L
comp=Z,170nm,8.9s
GOMU L L
comp=Z,120nm,8.2s
GOMU L L
comp=Z,190nm,8.2s
CTA Charters Tower 43.16 113 P P 01 00 30.7 +0.4
comp=Z,21nm,0.9s,baz=278,slow=7.2,SNR=11
CTA LR LR 01 20 00.9
comp=Z,187nm,20.1s,baz=237,slow=38
comp=Z,21nm,0.9s
CTAO Charters Tower 43.16 113 P P 01 00 30.9 +0.6
CTAO Charters Tower 43.16 113 P P 01 00 30.8 +0.5
CTAO pmax pmax
comp=Z,39nm,0.9s
CTAO Charters Tower 43.16 113 P P 01 00 30.8 +0.5
CTAO IAmb IAmb 01 00 40.7
comp=Z,39nm,0.8s
CTAO Charters Tower 43.16 113 P P 01 00 30.9 +0.5
comp=Z,51nm,0.8s
CTAO Charters Tower 43.16 113 P P 01 00 30.4 +0.1
QLP Quilpie 43.23 123 P P 01 00 32.2 +1.4
comp=Z,105nm,0.8s
QLP Quilpie 43.23 123 P P 01 00 31.9 +1.1
comp=Z,105nm,0.8s
QLP Quilpie 43.23 123 P P 01 00 31.7 +0.9
QLP Quilpie 43.23 123 P P 01 00 32.3 +1.4
comp=Z,105nm,0.8s
STKA Stephens Creek 43.31 131 P P 01 00 31.9 +0.6
comp=Z,629nm,0.9s
STKA Stephens Creek 43.31 131 P P 01 00 31.4 0.0
comp=Z,629nm,0.9s
STKA Stephens Creek 43.31 131 P P 01 00 32.2 +0.9
comp=Z,103nm,0.8s,baz=301,slow=7.6,SNR=118
STKA LR LR 01 19 22.3
comp=Z,352nm,20.4s,baz=312,slow=37
comp=Z,103nm,0.8s
STKA Stephens Creek 43.31 131 P P 01 00 31.7 +0.4
STKA Stephens Creek 43.31 131 P P 01 00 31.6 +0.3
STKA Stephens Creek 43.31 131 P P 01 00 31.6 +0.3
STKA Stephens Creek 43.31 131 P P 01 00 32.4 +1.1
comp=Z,628nm,0.9s
TIA Tai'an 43.97 15 P P 01 00 36.0 -0.5
TIA pmax pmax
comp=Z,28nm,0.8s
TIA L L
comp=Z,400nm,14.2s
TIA L L
comp=Z,220nm,11.3s
TIA L L
comp=Z,720nm,16.7s
HNS HongShan 44.54 12 ⇑P P 01 00 41.0 0.0
HNS pmax pmax
comp=Z,48nm,0.7s
HNS L L
comp=Z,210nm,16.7s
HNS L L
comp=Z,210nm,16.7s
HNS L L
comp=Z,420nm,15.9s

JSU **Suzuyama** 45.21 32 P **P** **01 00 46.2 -0.3**
JSU Suzuyama 45.21 32 P **P** **01 00 45.3 -1.2**
JSU IAmb IAmb 01 00 46.9
comp=Z,70nm,0.7s
JSU Suzuyama 45.21 32 P **P** **01 00 46.5 0.0**
comp=Z,93nm,0.8s
GTA2 Gaotai 45.68 355 *e*P **P** **01 00 49.7 -0.5**
GTA2 pP pP 01 01 01.5 +0.2
GTA2 PcP **PcP** **01 02 26.7 -1.1**
GTA2 pmax pmax
comp=Z,10.0nm,0.6s
GTA2 L L
comp=Z,380nm,19.4s
GTA2 L L
comp=Z,360nm,18.4s
GTA2 L L
comp=Z,630nm,17.8s
ARPS Mount Arapiles 45.93 137 P **P** **01 00 53.3 +1.1**
comp=Z,5.0nm,0.8s
ARPS Mount Arapiles 45.93 137 P **P** **01 00 53.0 +0.9**
comp=Z,5.0nm,0.8s
CMSA Cobar Meteorol 46.30 128 P **P** **01 00 56.4 +1.3**
comp=Z,104nm,1.0s
CMSA Cobar Meteorol 46.30 128 P **P** **01 00 55.8 +0.8**
comp=Z,104nm,1.0s
CMSA Cobar Meteorol 46.30 128 P **P** **01 00 55.9 +0.8**
CMSA Cobar Meteorol 46.30 128 P **P** **01 00 56.4 +1.3**
comp=Z,104nm,1.0s
JNU Nakatsue 46.69 31 PcP **PcP** **01 02 31.1 -0.2**
comp=Z,10nm,0.6s,baz=332,slow=4.0,SNR=2.4
JNU LR LR 01 19 18.3
comp=Z,62nm,21.2s,baz=212,slow=34
BTO2 Baotou 47.06 6 *e*P **P** **01 01 01.2 +0.2**
BTO2 S **S** **01 07 50.5 +0.3**
BTO2 pmax pmax
comp=Z,31nm,0.6s
BTO2 pmax pmax
comp=Z,250nm,4.2s
BTO2 L L
comp=Z,1μm,16.9s
BTO2 L L
comp=Z,690nm,15.8s
BTO2 L L
comp=Z,2μm,14.0s
AULRC Lightning Ridg 47.33 125 P **P** **01 01 04.1 +0.9**
BJT Baijiatuau 47.37 13 P **P** **01 01 02.7 -0.6**
BJT Baijiatuau 47.37 13 P **P** **01 01 03.7 +0.5**
comp=Z,87nm,0.8s
HHC Hu-ho-hao-te 47.37 8⇑*i*P **P** **01 01 03.9 +0.5**
HHC pmax pmax
comp=Z,41nm,0.6s
HHC pmax pmax
comp=Z,180nm,4.0s
HHC L L
comp=Z,330nm,21.0s
HHC L L
comp=Z,160nm,15.1s
HHC L L
comp=Z,370nm,20.2s
BJI2 Beijing 47.37 13 P **P** **01 01 03.0 -0.3**
BJI2 pP **pP** **01 01 13.3 -1.2**
BJI2 sP **pwP** **01 01 16.4 -0.5**
BJI2 PcP **PcP** **01 02 34.4 +0.9**
BJI2 S **S** **01 07 54.6 +0.3**
BJI2 pmax pmax
comp=Z,69nm,0.8s
BJI2 L L
comp=Z,440nm,14.3s
BJI2 L L
comp=Z,180nm,14.2s
BJI2 L L
comp=Z,490nm,14.7s
DL2 Dalian 47.78 19 P **P** **01 01 08.7 +2.2**
DL2 S **S** **01 07 59.1 -1.1**
DL2 pmax pmax
comp=Z,50nm,0.7s
DL2 pmax pmax
comp=Z,200nm,4.9s
DL2 L L
comp=Z,320nm,18.5s
DL2 L L
comp=Z,440nm,18.9s
DL2 L L
comp=Z,540nm,23.7s
EIDS Eidsvold 48.74 118 P **P** **01 01 15.5 +1.3**
comp=Z,24nm,1.1s
EIDS Eidsvold 48.74 118 P **P** **01 01 14.9 +0.7**
comp=Z,24nm,1.1s
EIDS Eidsvold 48.74 118 P **P** **01 01 15.5 +1.3**
EIDS Eidsvold 48.74 118 P **P** **01 01 14.4 +0.2**
EIDS IAmb IAmb 01 01 16.3
comp=Z,69nm,1.6s
EIDS Eidsvold 48.74 118 P **P** **01 01 15.5 +1.3**
comp=Z,24nm,1.1s
JMN Monobe 48.76 33 P **P** **01 01 13.8 -0.4**
JMN Monobe 48.76 33 P **P** **01 01 13.3 -0.9**
JMN Monobe 48.76 33 P **P** **01 01 14.2 +0.1**
comp=Z,154nm,0.9s
KSAR Wonju Array Be 48.81 25 **P** **01 01 14.5 0.0**
KSAR **P** **01 01 14.6 +0.1**
KSRS Korea Array 48.84 25 P **P** **01 01 14.8 +0.2**
comp=Z,49nm,0.6s,baz=221,slow=7.6,SNR=132
KSRS LR LR 01 21 35.3
comp=Z,94nm,21.9s,baz=215,slow=36
comp=Z,49nm,0.6s
AUDCS Dubbo College 48.87 128 P **P** **01 01 15.9 +0.8**
NIL Nilore 49.27 326 P **P** **01 01 17.9 -0.2**
NIL Nilore 49.27 326 P **P** **01 01 17.5 -0.6**
NIL pmax pmax
comp=Z,64nm,0.9s
NIL Nilore 49.27 326 P **P** **01 01 17.5 -0.6**
NIL IAmb IAmb 01 01 35.7
comp=Z,64nm,0.9s
NIL Nilore 49.27 326 P **P** **01 01 17.9 -0.2**
comp=Z,89nm,0.8s
JCJ Chichijima 49.58 46 LR LR 01 24 37.8
comp=Z,34nm,19.3s,baz=254,slow=39
AUMTS Mt Stromlo 50.37 131 P **P** **01 01 28.0 +1.5**
CAN Canberra 50.37 131 P **P** **01 01 26.4 -0.2**
comp=Z,46nm,1.2s
CAN Canberra 50.37 131 P **P** **01 01 27.7 +1.2**
CAN Canberra 50.37 131 P **P** **01 01 27.8 +1.2**
CAN pmax pmax
comp=Z,26nm,0.8s
CAN Canberra 50.37 131 P **P** **01 01 27.8 +1.2**
CAN IAmb IAmb 01 01 29.8
comp=Z,26nm,0.8s
CAN Canberra 50.37 131 P **P** **01 01 28.5 +2.0**
comp=Z,46nm,1.2s
CAN Canberra 50.37 131 P **P** **01 01 27.8 +1.3**
CAN pP **pP** **01 01 39.0 +1.4**
ARMA Armidale 50.65 124 P **P** **01 01 31.5 +2.7**
ARMA Armidale 50.65 124 P **P** **01 01 26.1 -2.7**
comp=Z,14nm,1.0s
XLT XiLinHaoTe 51.08 11 *e*P **P** **01 01 31.7 0.0**
XLT pP pP 01 01 43.3 +0.3
XLT sP sP 01 01 47.3 -0.3
XLT pmax pmax
comp=Z,81nm,0.7s
XLT pmax pmax
comp=Z,98nm,5.9s
XLT L L
comp=Z,28nm,19.1s
XLT L L
comp=Z,230nm,20.5s
XLT L L
comp=Z,370nm,16.1s
INU Inuyama 51.70 34 P **P** **01 01 35.2 -1.2**
INU Inuyama 51.70 34 IAmb IAmb 01 01 38.1
comp=Z,23nm,0.9s
WMQ Urumqi 51.99 345 *e*P **P** **01 01 39.4 +0.9**
WMQ pP pP 01 01 50.7 +1.0
WMQ sP sP 01 01 55.5 +1.2
WMQ pmax pmax
comp=Z,31nm,1.1s
WMQ pmax pmax
comp=Z,110nm,3.7s
WMQ L L
comp=Z,130nm,22.3s
JLN Jalan Bani Buh 52.05 304 P **P** **01 01 40.3 +1.1**
JGF Kuroka 52.07 35 IAmb IAmb 01 01 42.6
comp=Z,116nm,1.8s
KSH2 Kashi 52.31 332 P **P** **01 01 40.5 -0.6**
KSH2 S **S** **01 09 02.0 -1.8**
KSH2 pmax pmax
comp=Z,43nm,0.7s
KSH2 pmax pmax
comp=Z,190nm,4.7s
KBL Kabul 52.34 323 P **P** **01 01 41.7 +0.2**
SNR=5.3
KBL Kabul 52.34 323 P **P** **01 01 40.4 -1.1**
KBL pmax pmax
comp=Z,18nm,0.8s
KBL Kabul 52.34 323 P **P** **01 01 40.4 -1.1**
KBL Kabul 52.34 323 P **P** **01 01 41.2 -0.2**
comp=Z,30nm,1.1s
WUS Wushi 52.43 336 IAmb IAmb 01 01 43.0
comp=Z,45nm,0.7s
WUS Wushi 52.43 336 P **P** **01 01 42.2 +0.3**
comp=Z,63nm,0.8s
WUS Wushi 52.43 336 P **P** **01 01 41.9 0.0**
WBK Wadi Bani Khal 52.63 305 P **P** **01 01 45.1 +1.5**
MHTO MHTO 52.73 302 P **P** **01 01 46.0 +1.6**
WSAR Wadi Sarin 53.20 305 P **P** **01 01 49.3 +1.5**
MAJO Matsushiro 53.23 34 P **P** **01 01 45.8 -1.9**
MAJO Matsushiro 53.23 34 P **P** **01 01 45.4 -2.3**
MAJO Matsushiro 53.23 34 P **P** **01 01 44.8 -2.9**
comp=Z,33nm,1.0s
MJAR Matsushiro Arr 53.23 34 P **P** **01 01 46.1 -1.6**
comp=Z,48nm,1.1s,baz=211,slow=7.2,SNR=38
MJAR PcP **PcP** **01 02 55.8 +0.5**
comp=Z,6.0nm,0.7s,baz=167,slow=5.5,SNR=4.9
MJAR LR LR 01 26 15.6
comp=Z,67nm,19.5s,baz=219,slow=38
comp=Z,48nm,1.1s
MJAR Matsushiro Arr 53.23 34 P **P** **01 01 45.5 -2.2**
MJAR 01 02 55.3
MJAR pmax pmax
comp=Z,15nm,1.0s
MJAR Matsushiro Arr 53.23 34 P **P** **01 01 45.5 -2.2**
MJAR **PcP** **01 02 55.3 +0.1**
JMDO Jabal Madar 53.23 304 P **P** **01 01 49.5 +1.5**
ASAI AK-SAY(Kyrgyzs 53.32 334 P **P** **01 01 49.2 +0.5**
comp=Z,19nm,0.7s
CN2 Changchun 53.43 19 P **P** **01 01 48.3 -0.7**
CN2 sP sP 01 02 05.0 0.0
CN2 pmax pmax
comp=Z,100nm,2.0s
CN2 L L
comp=Z,200nm,18.0s
CN2 L L
comp=Z,200nm,18.0s
CN2 L L
comp=Z,200nm,19.0s
TARG Taragay, Kyrgy 53.45 336 P **P** **01 01 50.0 +0.2**
TARG pmax pmax
comp=Z,14nm,0.8s
TARG Taragay, Kyrgy 53.45 336 P **P** **01 01 50.0 +0.2**
TARG Taragay, Kyrgy 53.45 336 P **P** **01 01 50.6 +0.9**
comp=Z,21nm,1.1s
SHAO Shalim 53.55 298 P **P** **01 01 51.4 +1.0**
SMDO Samad 53.59 305 P **P** **01 01 51.8 +1.1**
BIDO Bidbid 53.74 305 P **P** **01 01 53.1 +1.4**
PRZ Przheval'sk 53.84 337 IAmb IAmb 01 02 06.1
comp=Z,26nm,0.9s
PRZ Przheval'sk 53.84 337 P **P** **01 01 53.5 +1.2**
comp=Z,38nm,1.0s
SONM Songino Array 53.89 2 P **P** **01 01 52.8 +0.3**
comp=Z,31nm,0.7s,baz=174,slow=9.6,SNR=164
SONM PcP **PcP** **01 02 58.1 +0.4**
comp=Z,8.5nm,0.7s,baz=191,slow=4.6,SNR=5.4
SONM ScP **ScP** **01 06 55.7 +3.2**
comp=Z,1.8nm,0.7s,baz=163,slow=4.9,SNR=4.1
SONM LR LR 01 27 53.9
comp=Z,315nm,18.3s,baz=182,slow=40
comp=Z,31nm,0.7s
SONM Songino Array 53.89 2 P **P** **01 01 52.3 -0.2**
SONM IAmb IAmb 01 01 53.9
comp=Z,39nm,0.8s
ULN Ulaanbaatar 53.94 2 P **P** **01 01 53.7 +0.8**
ULN Ulaanbaatar 53.94 2 P **P** **01 01 53.9 +1.0**
ULN Ulaanbaatar 53.94 2 *ce*P **P** **01 01 52.8 -0.1**
ULN pmax pmax
comp=Z,27nm,0.8s
ULN Ulaanbaatar 53.94 2 P **P** **01 01 52.0 -0.9**
ULN IAmb IAmb 01 01 54.2
comp=Z,24nm,0.8s
ULN Ulaanbaatar 53.94 2 P **P** **01 01 53.0 +0.1**
comp=Z,130nm,1.0s
ULN Ulaanbaatar 53.94 2 P **P** **01 01 53.1 +0.2**
comp=Z,33nm,1.0s
ULN Ulaanbaatar 53.94 2 P **P** **01 01 52.8 -0.1**
ULN pP **pP** **01 02 04.0 -0.4**
ULN PcP **PcP** **01 02 57.9 0.0**
NRN Naryn 53.97 334 P **P** **01 01 52.9 -0.5**
NRN pmax pmax
comp=Z,26nm,0.9s
NRN Naryn 53.97 334 **P** **01 01 52.9 -0.5**
NRN IAmb IAmb 01 01 54.2
comp=Z,26nm,0.9s
SHLS Shalkode 54.01 338 *e*P **P** **01 01 52.5 -1.0**
SHLS pmax pmax
comp=Z,15nm,0.8s
SHLS Shalkode 54.01 338 *e*P **P** **01 01 52.5 -1.0**
comp=Z,15nm,0.8s
KDJ Kajisay 54.04 335 P **P** **01 01 53.6 -0.2**
KDJ pmax pmax
comp=Z,50nm,0.7s
KDJ Kajisay 54.04 335 P **P** **01 01 53.6 -0.2**
KDJ IAmb IAmb 01 01 55.2
comp=Z,50nm,0.7s
KDJ Kajisay 54.04 335 P **P** **01 01 54.4 +0.6**
comp=Z,78nm,0.8s
PDGK Podgornoye 54.15 338 P **P** **01 01 54.1 -0.3**
PDGK Podgornoye 54.15 338 **P** **01 01 54.1 -0.3**
BSY Bisya 54.15 304 P **P** **01 01 56.6 +1.9**
SNR=7.5
UZB Uzynbulak 54.16 338*c* *i*P **P** **01 01 54.7 +0.1**
UZB pmax pmax
comp=Z,16nm,0.8s
UZB Uzynbulak 54.16 338⇑*i*P **P** **01 01 54.7 +0.1**
comp=Z,16nm,0.8s
SATY Saty 54.33 337*c* *i*P **P** **01 01 55.9 +0.1**
SATY pmax pmax
comp=Z,7.0nm,0.5s
SATY Saty 54.33 337⇑*i*P **P** **01 01 55.9 +0.1**
comp=Z,6.8nm,0.5s
DRK Karamyk 54.41 329 P **P** **01 01 57.1 +0.5**
DRK pmax pmax
comp=Z,51nm,0.7s
DRK Karamyk 54.41 329 **P** **01 01 57.1 +0.5**
DRK IAmb IAmb 01 02 12.1
comp=Z,51nm,0.7s
DRK Karamyk 54.41 329 P **P** **01 01 57.0 +0.3**
comp=Z,71nm,0.6s
HOQ Hoqain 54.43 305 P **P** **01 01 58.9 +2.1**
SNR=5.3
ULHL Ulahol 54.53 335 P **P** **01 01 57.6 +0.2**
SNR=9.9
KPKS Kokpek 54.57 337 *e*P **P** **01 01 57.5 +0.1**
KPKS Kokpek 54.57 337 *e*P **P** **01 01 57.6 +0.1**
RBK Rabkut 54.62 296 P **P** **01 01 59.3 +1.1**
SNR=5.4
OHH Osh 54.72 331 P **P** **01 01 57.5 -1.1**
comp=Z,60nm,0.8s
BOOM Boomskoye usch 54.85 335 P **P** **01 01 58.8 -0.9**
BOOM pmax pmax
comp=Z,17nm,0.7s
BOOM Boomskoye usch 54.85 335 **P** **01 01 58.8 -0.9**
BOOM IAmb IAmb 01 02 00.5
comp=Z,17nm,0.7s
BOOM Boomskoye usch 54.85 335 P **P** **01 01 59.7 0.0**
comp=Z,24nm,1.1s
TNSS Tian-Shan 54.89 336 *e*P **P** **01 01 59.9 -0.3**
TNSS Tian-Shan 54.89 336 *e*P **P** **01 01 60.0 -0.3**
MDOK Medeo 54.95 336 *e*P **P** **01 02 00.4 +0.1**
MDOK Medeo 54.95 336 *e*P **P** **01 02 00.4 +0.1**
ARQ Araqi 54.97 304 P **P** **01 02 02.2 +1.6**
SNR=5.5
AAA Alma-Ata 55.05 336 *e*P **P** **01 02 01.1 +0.2**
AAA pmax pmax
comp=Z,13nm,0.6s
AAA Alma-Ata 55.05 336 *e*P **P** **01 02 01.1 +0.2**
comp=Z,13nm,0.6s
DOK Doka 55.09 298 P **P** **01 02 02.8 +1.2**
SNR=6.3
WHFO Wadi Hawf 55.15 297 P **P** **01 02 03.1 +1.0**
SNR=5.7
VLA Vladivostok 55.23 25 *i*P **P** **01 02 02.6 +0.5**
VLA pmax pmax
comp=Z,61nm,0.9s
ARSB Arslanbob 55.25 332 IAmb IAmb 01 02 04.1
comp=Z,52nm,0.8s
UCH Uchtor 55.26 334 P **P** **01 02 03.0 0.0**
SNR=25
SAVO Savo Central 55.26 97 P **P** **01 02 01.7 -1.3**
TATA Tatamba Isabel 55.27 96 P **P** **01 02 01.1 -1.9**
SOHO SOHO 55.31 305 P **P** **01 02 04.2 +1.1**
SOHO SOHO 55.31 305 P **P** **01 02 04.1 +1.0**
SNR=5.9
BTK Batken 55.34 329 P **P** **01 02 03.2 +0.1**
BTK pmax pmax
comp=Z,34nm,0.9s
BTK Batken 55.34 329 **P** **01 02 03.2 +0.1**
BTK IAmb IAmb 01 02 20.5
comp=Z,34nm,0.9s
BTK Batken 55.34 329 P **P** **01 02 03.4 +0.3**
comp=Z,50nm,0.9s
TKM2 Tokmak 2 55.35 335 P **P** **01 02 03.4 +0.1**
SNR=21
ABTO Aybut 55.37 296 P **P** **01 02 05.0 +1.3**
SNR=7.5
HNR Honiara 55.39 97 P **P** **01 02 03.1 -0.7**
comp=Z,239nm,0.7s,baz=290,slow=3.7,SNR=3.9
HNR Honiara 55.39 97 P **P** **01 02 02.5 -1.3**
HNR Honiara 55.39 97 P **P** **01 02 02.5 -1.3**
KBK Karagaybulak 55.42 334 P **P** **01 02 04.2 +0.5**
SNR=42
MDJ Mudanjiang 55.59 22 P **P** **01 02 04.1 -0.6**
MDJ Mudanjiang 55.59 22 P **P** **01 02 04.2 -0.5**
MDJ pmax pmax
comp=Z,38nm,0.9s
MDJ Mudanjiang 55.59 22 P **P** **01 02 03.4 -1.3**
MDJ IAmb IAmb 01 02 07.7
comp=Z,26nm,0.8s
MDJ Mudanjiang 55.59 22 P **P** **01 02 04.4 -0.3**
comp=Z,40nm,0.8s
AAK Ala-Archa 55.60 334 P **P** **01 02 05.2 +0.2**
comp=Z,10.0nm,0.8s,baz=158,slow=6.1,SNR=31
AAK LR LR 01 30 35.4
comp=Z,100nm,18.7s,baz=152,slow=41
comp=Z,10.0nm,0.8s
AAK Ala-Archa 55.60 334 P **P** **01 02 05.2 +0.2**
SNR=15
AAK Ala-Archa 55.60 334 *i*P **P** **01 02 04.8 -0.2**
SNR=19
AAK Ala-Archa 55.60 334 P **P** **01 02 05.7 +0.7**
AAK Ala-Archa 55.60 334 *ce*P **P** **01 02 05.0 0.0**
AAK pmax pmax
comp=Z,8.0nm,0.9s
AAK Ala-Archa 55.60 334 P **P** **01 02 04.6 -0.4**
AAK Ala-Archa 55.60 334 P **P** **01 02 05.3 +0.2**
comp=Z,17nm,0.9s
AAK Ala-Archa 55.60 334 P **P** **01 02 05.3 +0.2**
FRU1 Bishkek 55.68 334 P **P** **01 02 05.5 0.0**
FRU1 pmax pmax
comp=Z,34nm,0.7s
FRU1 Bishkek 55.68 334 P **P** **01 02 05.5 0.0**
FRU1 IAmb IAmb 01 02 06.6
comp=Z,34nm,0.7s
CHMS Chumysh 55.78 334 P **P** **01 02 06.2 +0.1**
SNR=8.4
BNX BinXian 55.79 20 ⇑P **P** **01 02 05.8 -0.3**
BNX pmax pmax
comp=Z,220nm,0.8s
UMZA Um Al Zommool 55.83 303 P **P** **01 02 07.8 +1.0**
ALNE Al Ain 55.92 304 *i*P **P** **01 02 09.4 +1.9**
SNR=5.9
ALNE Al Ain 55.92 304 P **P** **01 02 09.2 +1.7**
EKS2 Erkin-Say 55.94 333 P **P** **01 02 07.8 +0.3**
SNR=78
ASHO Ashiyiah 55.95 305 P **P** **01 02 09.3 +1.5**
UOSS Minazif 55.95 306 P **P** **01 02 09.1 +1.4**
UOSS Minazif 55.95 306 P **P** **01 02 09.3 +1.6**
UOSS Minazif 55.95 306 P **P** **01 02 08.0 +0.3**
UOSS Minazif 55.95 306 P **P** **01 02 08.7 +1.1**
comp=Z,20nm,0.8s
HATD Hatta, Dubai 55.95 305 *i*P **P** **01 02 09.5 +1.8**
SNR=6.1
HATD Hatta, Dubai 55.95 305 P **P** **01 02 09.1 +1.4**
SNR=5.2
MDH Madha 56.03 306 P **P** **01 02 09.5 +1.3**
MDH Madha 56.03 306 P **P** **01 02 09.2 +0.9**
ZSN Zaisan 56.10 344*c* *i*P **P** **01 02 08.7 +0.4**
ZSN pmax pmax
comp=Z,19nm,0.7s
ZSN Zaisan 56.10 344⇑*i*P **P** **01 02 08.8 +0.4**
comp=Z,19nm,0.7s
USP Ospenovka 56.10 334 P **P** **01 02 08.3 -0.2**
SNR=5.6
USA0B Ussuriysk Arra 56.17 24*c* *i*P **P** **01 02 08.3 -0.5**
USRK Ussuriysk Ar. 56.17 24 P **P** **01 02 08.6 -0.3**
comp=Z,95nm,0.7s,baz=213,slow=6.5,SNR=112
comp=Z,95nm,0.7s
USRK Ussuriysk Ar. 56.17 24 **P** **01 02 08.3 -0.5**
MSFE Esma-Masafi 56.17 306 *i*P **P** **01 02 11.2 +1.9**
SNR=5.1
MASF Masafi 56.18 306 P **P** **01 02 11.1 +1.7**
MK31 Makanchi Array 56.24 342 *ce*P **P** **01 02 09.0 -0.4**
MKAR Makanchi Array 56.24 342 P **P** **01 02 08.9 -0.5**
comp=Z,40nm,0.7s,baz=147,slow=8.2,SNR=299
MKAR S **S** **01 09 51.9 -4.3**
comp=Z,1.0nm,0.7s,baz=150,slow=15,SNR=5.0
MKAR LR LR 01 30 18.3
comp=Z,156nm,20.0s,baz=160,slow=40
comp=Z,40nm,0.7s
MKAR Makanchi Array 56.24 342 *ce*P **P** **01 02 08.8 -0.6**
MKAR pmax pmax
comp=Z,40nm,0.7s
BANOM Banah 56.32 307 P **P** **01 02 11.9 +1.5**
MAKZ Makanchi 56.35 342 P **P** **01 02 09.1 -1.0**
MAKZ pmax pmax
comp=Z,13nm,0.9s
MAKZ Makanchi 56.35 342 P **P** **01 02 09.1 -1.0**
MAKZ Makanchi 56.35 342 P **P** **01 02 09.6 -0.5**
comp=Z,16nm,0.9s
MAKZ Makanchi 56.35 342 P **P** **01 02 09.2 -0.9**
MAKZ sP **sP** **01 02 26.2 +0.2**
FAQ Al Faqa, Dubai 56.35 305 *i*P **P** **01 02 12.6 +2.0**
SNR=7.8
FAQ Al Faqa, Dubai 56.35 305 P **P** **01 02 12.4 +1.9**
ZAK Zakamensk 56.40 359 *e*P **P** **01 02 10.0 -0.5**
ZAK pmax pmax
comp=Z,16nm,1.0s
NAZ Nazwa, Dubai 56.41 305 P **P** **01 02 12.7 +1.7**
HRA Herat 56.51 319 P **P** **01 02 10.8 -1.0**
ASUD Al Ashush, Dub 56.51 305 P **P** **01 02 13.6 +1.9**
ASUD Al Ashush, Dub 56.51 305 P **P** **01 02 13.4 +1.7**
KNGR Kungurtug, Tuv 56.91 355 *i*P **P** **01 02 14.8 +0.7**
KNGR pmax pmax
comp=Z,18nm,0.9s
HIA Hailar 56.95 12 P **P** **01 02 13.4 -1.0**
HIA Hailar 56.95 12 *i*P **P** **01 02 13.0 -1.4**
HIA pmax pmax
comp=Z,34nm,1.0s
HIA Hailar 56.95 12 IAmb IAmb 01 02 14.4
comp=Z,33nm,0.7s
HIA Hailar 56.95 12 P **P** **01 02 13.8 -0.6**
comp=Z,46nm,1.0s
HILR Hailar Array B 57.23 12 P **P** **01 02 16.2 -0.1**
comp=Z,41nm,0.4s,baz=188,slow=9.7,SNR=47
comp=Z,41nm,0.4s
IUG luzhnay 57.30 330 *e*P **P** **01 02 17.0 -0.1**
IUG pmax pmax
comp=Z,19nm,1.0s
IUG luzhnay 57.30 330 *e*P **P** **01 02 17.0 -0.1**
comp=Z,19nm,1.0s
MZWR Madinat Zayed 57.34 303 P **P** **01 02 19.0 +1.5**
MZR Muzera 57.36 302 *i*P **P** **01 02 19.5 +1.7**
SNR=6.7
MZR Muzera 57.36 302 P **P** **01 02 19.6 +1.9**
SNR=9.2
TLY Talaya 57.70 360 LR LR 01 29 40.9
comp=Z,238nm,18.7s,baz=166,slow=39
TLY Talaya 57.70 360 P **P** **01 02 19.8 +0.2**
TLY pmax pmax
comp=Z,20nm,0.7s
TLY Talaya 57.70 360 P **P** **01 02 19.8 +0.2**
TLY IAmb IAmb 01 02 21.2
comp=Z,20nm,0.7s
TLY Talaya 57.70 360 P **P** **01 02 20.6 +1.0**
comp=Z,33nm,0.9s
MOY Mondy 57.74 358 *e*P **P** **01 02 20.1 +0.1**
KKAR Karatay Array 57.79 331 P **P** **01 02 19.2 -1.2**
KKAR Karatay Array 57.79 331 P **P** **01 02 19.2 -1.2**
JTM Tenmabayashi 57.82 33 P **P** **01 02 19.4 -1.2**
HEH HeiHe 59.79 17 *e*P **P** **01 02 33.8 -0.3**
HEH pmax pmax

comp=Z,130nm,0.9s
ERM Erimo 59.80 33 P **P** **01 02 33.5 -0.8**
ERM pmax pmax
comp=Z,72nm,1.1s
ERM Erimo 59.80 33 P **P** **01 02 33.5 -0.8**
H04N2 CROZET ISLANDS 59.97 219 T T 02 08 48.3
baz=64,slow=75,SNR=2747
H04N1 CROZET ISLANDS 59.98 219 T T 02 08 42.5
baz=64,slow=75,SNR=1827
H04N3 CROZET ISLANDS 59.99 219 T T 02 08 41.0
baz=64,slow=75,SNR=2139
CASY Casey 60.10 177 P **P** **01 02 37.8 +1.8**
comp=Z,12nm,1.5s
CASY pP **sP** **01 02 51.1 -0.9**
H04S1 CROZET ISLANDS 60.19 219 T T 02 08 54.5
baz=62,slow=76,SNR=130
H04S3 CROZET ISLANDS 60.20 219 T T 02 08 54.0
baz=62,slow=76,SNR=618
H04S2 CROZET ISLANDS 60.20 219 T T 02 08 50.1
baz=62,slow=76,SNR=41
KLR Kul'dur 60.29 21 P **P** **01 02 37.0 -0.6**
comp=Z,51nm,0.5s,baz=220,slow=12,SNR=3.7
KLR LR LR 01 30 06.4
comp=Z,165nm,18.6s,baz=236,slow=38
comp=Z,51nm,0.5s
KLR Kul'dur 60.29 21 *ce*P **P** **01 02 37.2 -0.4**
KLR pmax pmax
comp=Z,55nm,0.9s
KURBB Kurchatov Arra 60.79 342 P **P** **01 02 40.6 -0.4**
comp=Z,22nm,0.9s,baz=157,slow=6.4,SNR=65
KURBB S **S** **01 10 51.1 -4.1**
comp=Z,1.3nm,0.9s,baz=161,slow=12,SNR=4.5
comp=Z,22nm,0.9s
KURK Kurchatov 60.84 342 *ce*P **P** **01 02 40.9 -0.4**
KURK pmax pmax
comp=Z,34nm,0.9s
KURK Kurchatov 60.84 342 P **P** **01 02 40.7 -0.5**
KURK IAmb IAmb 01 02 42.9
comp=Z,25nm,0.8s
KURK Kurchatov 60.84 342 P **P** **01 02 41.1 -0.2**
comp=Z,35nm,0.9s
KURK Kurchatov 60.84 342 P **P** **01 02 40.8 -0.5**
KURK sP **sP** **01 02 57.0 -0.2**
ASAJ Asahikawa 60.97 31 P **P** **01 02 41.3 -1.0**
comp=Z,21nm,0.7s,baz=257,slow=12,SNR=10
ASAJ LR LR 01 32 01.8
comp=Z,20nm,18.7s,baz=258,slow=39
comp=Z,21nm,0.7s
ASAJ Asahikawa 60.97 31 P **P** **01 02 41.1 -1.2**
ASAJ pmax pmax
comp=Z,107nm,1.5s
JKA Kamikawa-asahi 60.97 31 P **P** **01 02 41.1 -1.2**
ZAA0 Zalesovo Array 62.12 347 P **P** **01 02 48.7 -1.2**
ZALV Zalesovo Beam 62.12 347 P **P** **01 02 49.1 -0.8**
comp=Z,43nm,0.6s,baz=149,slow=4.5,SNR=198
ZALV S **S** **01 11 07.2 -4.8**
comp=Z,1.9nm,0.8s,baz=146,slow=10,SNR=7.7
ZALV LR LR 01 32 41.6
comp=Z,254nm,18.5s,baz=98,slow=39
comp=Z,43nm,0.6s
ZALV Zalesovo Beam 62.12 347 P **P** **01 02 48.9 -1.0**
SANVU Saraoutou 62.48 104 P **P** **01 02 53.3 +0.3**
SANVU Saraoutou 62.48 104 P **P** **01 02 52.9 -0.2**
SANVU Saraoutou 62.48 104 P **P** **01 02 53.6 +0.6**
comp=Z,87nm,0.8s
YATNC Mamie plateau, 62.50 112 P **P** **01 02 54.2 +1.1**
ZEA Zeya 62.87 15 *eP* **P** **01 02 54.9 0.0**
ZEA pmax pmax
comp=E,20nm,0.5s
ZEA pmax pmax
comp=N,20nm,0.6s
ZEA pmax pmax
comp=Z,60nm,0.8s
ZEA MLR MLR
comp=Z,200nm,15.0s
YSS Yuzhno-Sakhali 63.07 29 P **P** **01 02 55.8 -0.5**
YSS Yuzhno-Sakhali 63.07 29 *eP* **P** **01 02 55.8 -0.5**
YSS e*PP **pP** **01 03 07.4 -0.4**
YSS *eS* **S** **01 11 20.9 -3.2**
YSS pmax pmax
comp=Z,50nm,1.0s
YSS Yuzhno-Sakhali 63.07 29 P **P** **01 02 55.6 -0.7**
YSS IAmb IAmb 01 03 08.1
comp=Z,44nm,0.9s
YSS Yuzhno-Sakhali 63.07 29 P **P** **01 02 55.9 -0.5**
comp=Z,58nm,0.9s
YSS pP **pP** **01 03 07.2 -0.6**
GRNR Gornyy 63.27 22⇑ *i*P **P** **01 02 57.2 -0.4**
GRNR pmax pmax
comp=Z,40nm,0.9s
RAYN Ar Rayn 64.35 300 *i* P **P** **01 03 06.4 +1.0**
SNR=6.9
RAYN Ar Rayn 64.35 300 P **P** **01 03 06.4 +1.0**
RAYN Ar Rayn 64.35 300 P **P** **01 03 06.0 +0.6**
RAYN pmax pmax
comp=Z,21nm,0.8s
RAYN Ar Rayn 64.35 300 P **P** **01 03 06.0 +0.6**
RAYN IAmb IAmb 01 03 20.9
comp=Z,21nm,0.8s
RAYN Ar Rayn 64.35 300 P **P** **01 03 06.4 +1.0**
comp=Z,37nm,0.9s
RAYN pP **pP** **01 03 17.0 +0.1**
RAYN Ar Rayn 64.35 300 P **P** **01 03 06.2 +0.9**
RAYN pP **pP** **01 03 17.6 +0.8**
RAYN PcP **PcP** **01 03 40.1 +0.5**
BVAR Borovoye Array 65.58 338 P **P** **01 03 12.2 -0.5**
comp=Z,18nm,0.6s,baz=143,slow=8.8,SNR=105
BVAR S S 01 11 40.8 -14
comp=Z,1.0nm,0.7s,baz=116,slow=6.6,SNR=3.6
comp=Z,18nm,0.6s
BORK Borovoye 65.62 338 *c i*P **P** **01 03 12.2 -0.7**
BORK pmax pmax
comp=Z,13nm,0.8s
BORK Borovoye 65.62 338 P **P** **01 03 12.1 -0.8**
BORK IAmb IAmb 01 03 16.1
comp=Z,15nm,0.6s
KIBK Kibwezi 65.93 270 P **P** **01 03 16.8 +1.0**
KIBK Kibwezi 65.93 270 P **P** **01 03 16.7 +0.8**
KIBK Kibwezi 65.93 270 P **P** **01 03 17.6 +1.8**
comp=Z,13nm,0.9s
KMBO Kilima Mbogo 66.85 271 LR LR 01 27 40.6
comp=Z,146nm,21.4s,baz=106,slow=32
MAW Mawson 67.27 196 P **P** **01 03 24.4 +1.2**
comp=Z,4.0nm,0.6s,baz=49,slow=4.7,SNR=10
MAW LR LR 01 28 08.9
comp=Z,313nm,19.5s,baz=64,slow=32
comp=Z,4.0nm,0.6s
MAW Mawson 67.27 196 P **P** **01 03 24.4 +1.2**
MAW pmax pmax
comp=Z,2.0nm,1.0s
MAW Mawson 67.27 196 P **P** **01 03 24.6 +1.3**
comp=Z,3.9nm,1.0s
ABKAR Akbulak array 67.31 330 P **P** **01 03 23.5 -0.2**
LKRN Lenkeran, Azer 67.95 316 P **P** **01 03 31.9 +3.8**
RPZ Rata Peaks 69.12 134 LR LR 01 34 35.6
comp=Z,69nm,18.8s,baz=270,slow=36
TARA Tarawa 69.13 86 P **P** **01 03 36.4 +0.4**
TARA Tarawa 69.13 86 P **P** **01 03 36.8 +0.9**
comp=Z,118nm,1.0s
LODK Lodwar 69.28 276 P **P** **01 03 38.1 +1.1**
LODK Lodwar 69.28 276 P **P** **01 03 37.0 0.0**
LODK Lodwar 69.28 276 P **P** **01 03 39.8 +2.8**
comp=Z,5.5nm,1.2s
QRZ Quartz Range 69.66 131 P **P** **01 03 39.3 +0.5**
QRZ Quartz Range 69.66 131 P **P** **01 03 39.1 +0.3**
MRNZ Matariki Terra 69.93 132 P **P** **01 03 40.7 +0.3**
MNGR Mingechevir, A 70.07 317 P **P** **01 03 44.7 +3.5**
THZ Tophouse 70.10 132 P **P** **01 03 41.9 +0.4**
SEKA Sheki 70.19 318 P **P** **01 03 45.3 +3.3**
NAX Nakhchivan 70.44 315 P **P** **01 03 47.2 +3.6**
GANJ Ganja 70.53 317 P **P** **01 03 47.8 +3.8**
MAK Makhachkala 70.82 320 *d i*P **P** **01 03 45.6 -0.1**
MAK *e* 01 06 23.9
MAK *e*PPP PPP 01 07 58.9
MAK *eS* **S** **01 12 59.5 +1.7**
MAK *e*SS **SS** **01 17 30.8 -0.2**
MAK pmax pmax
comp=Z,126nm,1.1s
YAK Yakutsk 70.89 12 LR LR 01 39 54.5
comp=Z,116nm,18.0s,baz=206,slow=40
YAK Yakutsk 70.89 12 *eP* **P** **01 03 44.8 -0.9**
YAK *e* 01 04 05.0
YAK *e* 01 06 21.4
YAK *eS* **S** **01 12 58.4 +0.5**
YAK *e* 01 13 43.7
YAK *e*SS **SS** **01 17 27.3 -4.0**
YAK pmax pmax
comp=Z,89nm,0.9s
YAK pmax pmax
comp=N,18nm,1.2s
YAK pmax pmax
comp=E,9.0nm,1.1s
YAK pmax pmax
comp=Z,291nm,4.0s
YAK pmax pmax
comp=N,272nm,3.6s
YAK pmax pmax
comp=E,246nm,4.2s
YAK smax smax
comp=N,147nm,3.0s
YAK smax smax
comp=E,126nm,3.2s
YAK Yakutsk 70.89 12 P **P** **01 03 44.8 -0.9**
YAK Yakutsk 70.89 12 P **P** **01 03 44.6 -1.2**
comp=Z,161nm,0.8s
YAK Yakutsk 70.89 12 P **P** **01 03 44.5 -1.2**
YAK pP **pP** **01 03 56.3 -1.1**
HAKT HAKKARI 71.04 313 P **P** **01 03 48.3 +0.8**
comp=Z,63nm,0.9s
OZAP Van, Ozalp-Mer 71.29 314⇑ P **P** **01 03 49.9 +0.9**
GNI Garni 71.39 316 LR LR 01 37 27.3
comp=Z,30nm,20.8s,baz=100,slow=38
GNI Garni 71.39 316 P **P** **01 03 50.8 +1.3**
GNI Garni 71.39 316 P **P** **01 03 51.0 +1.5**
GNI Garni 71.39 316 *ce*P **P** **01 03 50.0 +0.5**
GNI pmax pmax
comp=Z,7.0nm,0.9s
GNI Garni 71.39 316 P **P** **01 03 50.8 +1.3**
comp=Z,21nm,1.0s
GEVA Gevas 71.81 314 IAmb IAmb 01 04 10.4
comp=Z,27nm,1.0s
SVE Sverdlovsk 72.15 337 *d i*P **P** **01 03 53.9 +0.5**
SVE *eS* **S** **01 13 12.1 -0.5**
SVE pmax pmax
comp=Z,40nm,1.0s
BFZ Birch Farm 72.44 131 P **P** **01 03 56.0 +0.4**
DIGO Kars 72.45 316 P **P** **01 03 56.8 +0.8**
comp=Z,43nm,0.9s
BKZ Black Stump Fm 72.45 129 P **P** **01 03 56.7 +0.9**
GURO Guroymak-BITLI 72.65 313 P **P** **01 03 58.0 +1.0**
GURO IAmb IAmb 01 04 13.8
comp=Z,26nm,0.9s
ARTI Arti 72.76 335 *c i*P **P** **01 03 57.1 0.0**
ARTI 01 04 14.3
ARTI 01 06 34.0
ARTI S **S** **01 13 19.0 -0.7**
ARTI SS **SS** **01 17 55.1 -5.2**
ARTI pmax pmax
comp=Z,64nm,0.8s
ARTI Arti 72.76 335 P **P** **01 03 56.6 -0.5**
ARTI Arti 72.76 335 P **P** **01 03 57.0 0.0**
ARTI pP **pP** **01 04 08.8 0.0**
ARTI PcP **PcP** **01 04 14.5 +0.4**
URZ Urewera 72.84 128 P **P** **01 03 58.6 +0.7**
comp=Z,2.8nm,0.5s,baz=169,slow=5.2,SNR=1.2
URZ LR LR 01 38 37.9
comp=Z,257nm,18.5s,baz=286,slow=38
comp=Z,2.8nm,0.5s
MSVF Nonsavu 72.88 107 P **P** **01 03 59.2 +0.5**
comp=Z,10nm,0.7s,baz=281,slow=8.7,SNR=7.1
comp=Z,10nm,0.7s
MSVF Nonsavu 72.88 107 P **P** **01 04 00.2 +1.5**
MSVF Nonsavu 72.88 107 P **P** **01 03 59.0 +0.3**
MSVF pmax pmax
comp=Z,25nm,1.0s
MSVF Nonsavu 72.88 107 P **P** **01 03 59.0 +0.3**
MSVF IAmb IAmb 01 04 00.2
comp=Z,25nm,1.0s
HOMI Horasan 73.33 315⇑ P **P** **01 04 01.9 +0.8**
EPOS Posof 73.34 317 P **P** **01 04 02.6 +1.5**
comp=Z,23nm,1.1s
MBAR Mbarara 73.38 271 LR LR 01 31 20.0
comp=Z,132nm,20.6s,baz=80,slow=32
MBAR Mbarara 73.38 271 *i* P **P** **01 04 03.0 +1.1**
MBAR pmax pmax
comp=Z,4.0nm,1.0s
MBAR Mbarara 73.38 271 P **P** **01 04 03.8 +1.9**
comp=Z,12nm,1.2s
NCK Nalchik 73.61 319 *i* P **P** **01 04 03.0 +0.6**
NCK pmax pmax
comp=Z,11nm,0.8s
NEUR Neytrino 74.09 318 *i* P **P** **01 04 05.9 +0.4**
NEUR pmax pmax
comp=Z,2.0nm,0.5s
KBZ Khabaz 74.16 319 P **P** **01 04 06.1 +0.5**
comp=Z,6.0nm,0.7s,baz=122,slow=6.7,SNR=16
comp=Z,6.0nm,0.7s
KBZ Khabaz 74.16 319 *ce*P **P** **01 04 06.6 +1.0**
KBZ pmax pmax
comp=Z,11nm,1.1s
KOPT Kop Dagi 74.31 314 IAmb IAmb 01 04 32.4
comp=Z,19nm,0.7s
SHA1 Shidzhatmaz 74.32 319 *ce*P **P** **01 04 08.3 +1.4**
ASF Jabal al Asfar 74.36 306 LR LR 01 36 23.6
comp=Z,86nm,21.0s,baz=93,slow=35
ASF Jabal al Asfar 74.36 306 P **P** **01 04 09.5 +2.4**
ASF AML AML
PEA0B Petropavlovsk- 74.38 30 P **P** **01 04 05.8 -0.9**
PEA0B pmax pmax
comp=Z,119nm,1.6s
PEA0B Petropavlovsk- 74.38 30 P **P** **01 04 05.8 -0.9**
PEA0B IAmb IAmb 01 05 57.4
comp=Z,119nm,1.6s
PETK Petropavlovsk- 74.38 30 P **P** **01 04 05.9 -0.8**
comp=Z,17nm,0.8s,baz=224,slow=4.1,SNR=16
PETK LR LR 01 37 43.0
comp=Z,38nm,19.3s,baz=250,slow=36
comp=Z,17nm,0.8s
PETK Petropavlovsk- 74.38 30 P **P** **01 04 05.5 -1.2**
KIV Kislovodsk 74.40 319 P **P** **01 04 07.5 +0.4**
KIV Kislovodsk 74.40 319 P **P** **01 04 08.1 +1.0**
KIV Kislovodsk 74.40 319 *eP* **P** **01 04 07.7 +0.6**
KIV pmax pmax
comp=Z,10.0nm,1.1s
KIV MLR MLR
comp=Z,42nm,18.0s
KIV Kislovodsk 74.40 319 P **P** **01 04 08.3 +1.2**
KIV IAmb IAmb 01 04 27.8
comp=Z,19nm,0.7s
KIV Kislovodsk 74.40 319 P **P** **01 04 07.8 +0.6**
comp=Z,17nm,0.8s
KIV Kislovodsk 74.40 319 P **P** **01 04 08.1 +1.0**
comp=Z,22nm,0.8s
DGTI Dogotuki 74.53 105 P **P** **01 04 09.1 +0.7**
HSNJ Maan 74.78 304 P P 01 04 26.2 +17
comp=Z,138nm,0.8s
PET Petropavlovsk 74.81 31 P **P** **01 04 07.7 -1.4**
PET Petropavlovsk 74.81 31 *ce*P **P** **01 04 08.5 -0.6**
PET pmax pmax
comp=Z,45nm,0.8s
PET Petropavlovsk 74.81 31 P **P** **01 04 08.3 -0.8**
PET Petropavlovsk 74.81 31 P **P** **01 04 07.4 -1.7**
comp=Z,93nm,0.8s
PET Petropavlovsk 74.81 31 P **P** **01 04 07.8 -1.4**
comp=Z,99nm,0.8s
PET Petropavlovsk 74.81 31 P **P** **01 04 08.3 -0.8**
PET pP **pP** **01 04 19.9 -0.9**
AQBJ Aqaba 75.16 303 P **P** **01 04 14.4 +2.7**
AQBJ AML AML
AQBJ Aqaba 75.16 303 P **P** **01 04 14.4 +2.7**
comp=Z,1µmcomp=Z,105nm,0.9s
AQBJ P **sP** **01 04 27.8 -0.1**
comp=Z,1µmcomp=Z,105nm,0.9s
GHAJ Ghor Haditha 75.18 305 IAmb IAmb 01 04 28.1
comp=Z,49nm,0.8s
GHAJ Ghor Haditha 75.18 305 P **P** **01 04 14.2 +2.4**
GHAJ AML AML
GHAJ Ghor Haditha 75.18 305 P **P** **01 04 14.2 +2.4**
comp=Z,67nm,0.8s
GHAJ P **sP** **01 04 27.6 -0.4**
comp=Z,67nm,0.8s
GHAJ Ghor Haditha 75.18 305 P **P** **01 04 12.9 +1.1**
comp=Z,67nm,0.8s
EIL Elat 75.23 303 LR LR 01 35 16.1
comp=Z,101nm,21.4s,baz=104,slow=34
EIL Elat 75.23 303 P **P** **01 04 13.9 +1.8**
comp=Z,441nmcomp=Z,42nm,0.8s
EIL P **sP** **01 04 27.8 -0.5**
comp=Z,441nmcomp=Z,42nm,0.8s
EIL Elat 75.23 303 P **P** **01 04 13.6 +1.5**
comp=Z,42nm,0.8s
LISJ El Lisan 75.23 304 P P 01 04 28.7 +17
comp=Z,33nm,1.1s
KELT Kelkit 75.24 314 P **P** **01 04 12.6 +0.3**
comp=Z,80nm,1.5s
HRFI Mount Harif 75.26 303 P **P** **01 04 14.7 +2.4**
comp=Z,553nmcomp=Z,52nm,0.9s
HRFI P **pwP** **01 04 27.4 +0.5**
comp=Z,553nmcomp=Z,52nm,0.9s
HRFI Mount Harif 75.26 303 P **P** **01 04 12.4 +0.1**
comp=Z,52nm,0.9s
PRNI Paran 75.37 303 P **P** **01 04 16.0 +3.0**
PRNI AML AML
BELG Belogornoye 75.45 328 *i* P **P** **01 04 13.1 +0.3**
BELG pmax pmax
comp=Z,5.0nm,0.9s
UJAP Al Uja 75.45 305 P **P** **01 04 13.1 -0.2**
comp=Z,39nm,0.8s
KEMA Kemaliye 75.48 313 P **P** **01 04 14.8 +1.3**
comp=Z,175nm,0.9s
ARPR Arapgir-MALATY 75.53 313 IAmb IAmb 01 04 31.5
comp=Z,38nm,1.0s
ARPR Arapgir-MALATY 75.53 313 P **P** **01 04 15.5 +1.7**
comp=Z,42nm,1.1s
MMLI Mount Malkishu 75.63 306 P **P** **01 04 15.8 +1.4**
comp=Z,36nm,1.7s
GAZ Gaziantep 75.71 311 IAmb IAmb 01 04 32.4
comp=Z,32nm,0.9s
MMAI Mount Meron Ar 75.81 306 P **P** **01 04 17.0 +1.5**
comp=Z,6.0nm,0.8s,baz=57,slow=9.1,SNR=7.3
MMAI LR LR 01 37 21.6
comp=Z,83nm,21.4s,baz=90,slow=36
comp=Z,6.0nm,0.8s
LABN Labinsk 75.96 319 *eP* **P** **01 04 16.3 +0.3**
LABN e*PP **pP** **01 04 27.2 -0.5**
LABN *e* 01 07 06.5
LABN pmax pmax
comp=Z,8.0nm,0.7s
KZIT Kziot 76.03 304 P **P** **01 04 18.9 +2.2**
KZIT Kziot 76.03 304 P **P** **01 04 17.2 +0.5**
comp=Z,66nm,0.9s
SOC Sochi 76.22 318 *eP* P 01 04 09.9 -7.5
SOC *e* 01 07 07.5
SOC *e*PPP PPP 01 08 54.3
SOC *e*SS SS 01 18 48.4 -4.9
SOC *e*SSS SSS 01 22 15.2
SOC pmax pmax
comp=Z,35nm,1.0s
SOC MLR MLR
comp=Z,43nm,11.0s
NRIK Noril'sk 76.28 354 P **P** **01 04 16.4 -0.8**
comp=Z,6.0nm,0.3s,baz=148,slow=4.6,SNR=13
NRIK LR LR 01 40 43.0
comp=Z,292nm,21.7s,baz=178,slow=38
comp=Z,6.0nm,0.3s
NRIK Noril'sk 76.28 354 *c i*P **P** **01 04 16.3 -0.9**
NRIK pmax pmax
comp=Z,12nm,1.0s
NRIK Noril'sk 76.28 354 P **P** **01 04 16.5 -0.8**
ANDN Andirin 76.49 311 P **P** **01 04 20.9 +1.6**
comp=Z,166nm,0.9s
ERBR Yeremizino-Bor 76.55 320 *eP* **P** **01 04 19.2 -0.1**
ERBR e*PP **pP** **01 04 31.2 +0.1**
ERBR pmax pmax
comp=Z,11nm,0.9s
CY604 RAF Akrotiri, 76.91 307 P **P** **01 04 23.7 +2.5**
CY604 IAmb IAmb 01 04 37.7
comp=Z,65nm,0.9s
LBTB Lobatse 76.97 246 LR LR 01 31 56.0
comp=Z,169nm,21.1s,baz=90,slow=31
BOSA Boshof 77.24 242 P **P** **01 04 24.6 +0.8**
comp=Z,2.0nm,0.5s,baz=97,slow=3.7,SNR=11
BOSA LR LR 01 33 23.0
comp=Z,161nm,18.6s,baz=66,slow=32
comp=Z,2.0nm,0.5s
VNDA Vanda 77.24 169 LR LR 01 34 58.2
comp=Z,148nm,18.1s,baz=330,slow=33
VNDA Vanda 77.24 169 P **P** **01 04 22.1 -0.6**
VNDA pmax pmax
comp=Z,6.0nm,1.0s
VNDA Vanda 77.24 169 P **P** **01 04 22.1 -0.6**
VNDA Vanda 77.24 169 P **P** **01 04 23.7 +1.1**
comp=Z,6.2nm,1.0s
BNN Bunyan 77.27 312 P **P** **01 04 23.6 -0.1**
KIRV Kirov 77.93 334 LR LR 01 42 00.1
comp=Z,70nm,19.4s,baz=46,slow=38
KIRV Kirov 77.93 334 *ce*P **P** **01 04 27.4 +0.7**
SEY Seymchan 78.09 20 LR LR 01 40 46.8
comp=Z,115nm,18.3s,baz=181,slow=37
SEY Seymchan 78.09 20 *ce*P **P** **01 04 27.6 +0.1**
SEY pmax pmax
comp=Z,21nm,1.7s
VRH Novokhopyorsk 78.11 325 *eP* **P** **01 04 27.4 -0.4**
VRH pmax pmax
comp=Z,20nm,0.7s
ANN Anapa 78.19 318 *eP* **P** **01 04 31.6 +3.1**
ANN pmax pmax
comp=Z,24nm,0.9s
KIRS Kirsehir-Merke 78.79 312⇑ P **P** **01 04 32.4 +0.4**
BR104 Keskin Array S 79.17 312 P **P** **01 04 33.8 -0.4**
comp=Z,158nmcomp=Z,23nm,1.0s
BR131 Keskin Array S 79.17 312 P **P** **01 04 34.5 +0.3**
SNR=10
BR131 Keskin Array S 79.17 312 *d i*P **P** **01 04 34.3 +0.1**
BR131 Keskin Array S 79.17 312 IAmb IAmb 01 04 50.7
comp=Z,27nm,0.9s
BRTR Keskin Array B 79.17 312 P **P** **01 04 34.3 +0.1**
comp=Z,11nm,0.8s,baz=133,slow=6.9,SNR=66
BRTR LR LR 01 41 36.2
comp=Z,59nm,19.8s,baz=106,slow=37
comp=Z,11nm,0.8s
BRTR Keskin Array B 79.17 312 P **P** **01 04 34.1 -0.1**
BR105 Keskin Array S 79.19 312 P **P** **01 04 34.3 0.0**
comp=Z,197nmcomp=Z,29nm,0.9s
BR106 Keskin Array S 79.19 312 P **P** **01 04 34.3 0.0**
comp=Z,183nmcomp=Z,26nm,0.9s
VORD Divnogorie 79.40 324 *eP* **P** **01 04 34.3 -0.6**
VORD pmax pmax
comp=Z,10.0nm,1.1s
TIXI Tiksi 79.43 8 LR LR 01 43 28.1
comp=Z,136nm,19.9s,baz=201,slow=38
TIXI Tiksi 79.43 8 *ce*P **P** **01 04 33.3 -1.5**
TIXI pmax pmax
comp=Z,13nm,0.7s
TIXI Tiksi 79.43 8 P **P** **01 04 33.2 -1.5**
TIXI Tiksi 79.43 8 P **P** **01 04 33.3 -1.5**
comp=Z,22nm,0.8s
TIXI Tiksi 79.43 8 P **P** **01 04 33.1 -1.7**
TIXI pP **pP** **01 04 44.8 -1.8**
ILGA Ilgaz 79.52 314 P **P** **01 04 36.6 +0.4**
ILGA IAmb IAmb 01 04 53.3
comp=Z,36nm,1.2s
KKUL Konya-Kulu 79.54 312 P **P** **01 04 37.0 +0.8**
comp=Z,40nm,1.2s
VSR Storozhevoye 79.57 325 *eP* **P** **01 04 35.6 -0.3**
VSR pmax pmax
comp=Z,20nm,0.9s
VORR Voronezh 79.73 325 *eP* **P** **01 04 36.2 -0.6**
VORR pmax pmax
comp=Z,20nm,0.5s
KEPZ Antalya-Kepez 79.90 309⇓ P **P** **01 04 38.8 +0.7**
LPSR Galich'ya Gora 80.26 326 *eP* **P** **01 04 39.7 +0.1**
LPSR pmax pmax
comp=Z,20nm,0.8s
SIM Simferopol' 80.46 317 *eP* **P** **01 04 40.8 -0.1**
SIM *e* 01 04 49.0
SIM *eS* **S** **01 14 41.0 -3.3**
SIM pmax pmax
comp=Z,33nm,0.8s
SIM MLR MLR
comp=Z,100nm,18.8s
SUR Sutherland 81.02 238 LR LR 01 35 49.1
comp=Z,186nm,19.1s,baz=132,slow=32
ELL Elmali 81.18 309 P **P** **01 04 45.2 +0.1**
ELL pmax pmax
comp=Z,19nm,0.9s
ELL Elmali 81.18 309 P **P** **01 04 45.2 +0.1**
MDUB Mudurnu 81.18 312 **P** **01 04 45.0 0.0**
MDUB IAmb IAmb 01 05 01.9
comp=Z,66nm,0.9s
ELIB Princess Elisa 81.22 198 *dP* **P** **01 04 46.5 +1.8**
comp=Z,7.7nm,0.9s
SAHE Sakarya_HENDEK 81.54 313⇑ P **P** **01 04 47.7 +0.9**
MOS Moscow 82.22 328 *eP* **P** **01 04 50.1 +0.2**
MOS *e* 01 05 04.7
MOS *e* 01 07 57.0
MOS *e*PPP PPP 01 09 48.9

MOS eSS SS 01 20 26.2 +3.4
MOS eSSS SSS 01 23 53.4
MOS pmax pmax
comp=Z,33nm,0.7s
OBN Obninsk 82.53 328 ⇓*i*P **P 01 04 52.5 +1.0**
OBN *i* 01 05 05.1
OBN *e* 01 08 00.9
OBN MLR MLR
comp=Z,91nm,17.0s
OBN Obninsk 82.53 328 P **P 01 04 51.8 +0.3**
OBN IAmb IAmb 01 05 07.0
comp=Z,70nm,1.1s
OBN Obninsk 82.53 328 P **P 01 04 52.0 +0.4**
comp=Z,46nm,1.5s
YLV Yalova 82.55 312 P **P 01 04 52.8 +0.7**
comp=Z,65nm,0.8s
AYDN Tasoluk 82.97 309 P **P 01 04 54.9 +0.6**
comp=Z,129nm,1.0s
KARP Karpathos 83.06 307 P **P 01 04 54.9 +0.1**
KARP Karpathos 83.06 307 P **P 01 04 55.9 +1.1**
comp=Z,170nm,0.9s
SHEM Shemya Is, Ala 83.06 35 LR LR 01 40 36.9
comp=Z,28nm,21.9s,baz=205,slow=35
KLMR Klimovskoe 83.41 334 *e*P **P 01 04 54.7 -1.3**
KLMR *e**PP **pP 01 05 06.1 -1.8**
KLMR pmax pmax
comp=Z,26nm,1.1s
QSPA South Pole Qui 83.74 180 P **P 01 04 58.2 +0.4**
comp=Z,2.5nm,0.9s,baz=276,slow=3.0,SNR=6.9
QSPA LR LR 01 37 38.4
comp=Z,212nm,20.9s,baz=338,slow=32
comp=Z,2.5nm,0.9s
PURM Purcari 83.77 318 ⇑P **P 01 04 58.7 +0.6**
PURM Purcari 83.77 318 P **P 01 04 59.0 +0.9**
comp=Z,62nm,1.1s
CFR Carcaliu 84.59 316 P **P 01 05 02.7 +0.4**
CFR Carcaliu 84.59 316 ⇓P **P 01 05 02.8 +0.4**
TSUM Tsumeb 84.68 251 LR LR 01 37 56.3
comp=Z,257nm,21.1s,baz=142,slow=32
NVL N'lazarevskaya 84.89 199 *e*P **P 01 05 00.9 -2.5**
NVL *e*S **SKSac 01 15 23.0 -1.2**
NVL pmax pmax
comp=Z,5.0nm,0.9s
SORM Soroca 85.19 319 P **P 01 05 05.8 +0.5**
SORM Soroca 85.19 319 ⇓P **P 01 05 05.8 +0.5**
SORM Soroca 85.19 319 P **P 01 05 05.5 +0.2**
comp=Z,32nm,1.5s
LOZB Loznitsa 85.23 314 ⇑P **P 01 05 06.6 +0.9**
AK09 Malin Array Si 85.25 322 P **P 01 05 05.6 0.0**
GHRR 85.30 317 ⇓P **P 01 05 07.8 +1.9**
GHRR 85.30 317 P **P 01 05 08.2 +2.3**
comp=Z,101nm,1.0s
AKASG Malin Array Be 85.31 322 P **P 01 05 06.0 +0.1**
comp=Z,7.7nm,0.8s,baz=86,slow=5.0,SNR=14
comp=Z,7.7nm,0.8s
AKASG Malin Array Be 85.31 322*ce*P **P 01 05 06.0 +0.1**
AKASG pmax pmax
comp=Z,10.0nm,0.8s
AKBB Malin Array Si 85.31 322*ce*P **P 01 05 06.3 +0.4**
AKBB pmax pmax
comp=Z,10.0nm,0.8s
AKBB Malin Array Si 85.31 322 P **P 01 05 05.4 -0.5**
KIEV Kiev 85.32 322 P **P 01 05 06.0 +0.1**
KIEV Kiev 85.32 322 P **P 01 05 05.0 -0.9**
KIEV pmax pmax
comp=Z,10.0nm,0.7s
KIEV Kiev 85.32 322 P **P 01 05 05.0 -0.9**
KIEV IAmb IAmb 01 05 09.8
comp=Z,10nm,0.7s
KIEV Kiev 85.32 322 P **P 01 05 05.5 -0.4**
comp=Z,60nm,0.8s
KIEV Kiev 85.32 322 P **P 01 05 06.1 +0.1**
comp=Z,15nm,0.8s
KIEV Kiev 85.32 322 P **P 01 05 05.7 -0.2**
KIEV PcP **PcP 01 05 08.9 0.0**
KIEV pP **pP 01 05 17.7 -0.1**
MNTR Muntenesti 85.39 318 ⇑P **P 01 05 07.6 +1.2**
DMBR Dumbraveni 85.51 318 ⇓P **P 01 05 08.3 +1.3**
ELND Elena 85.65 314 ⇑P **P 01 05 08.7 +0.9**
VRI Vrincioaia 85.71 317 P **P 01 05 09.5 +1.5**
VRI Vrincioaia 85.71 317 ⇑P **P 01 05 09.6 +1.5**
VRI Vrincioaia 85.71 317 P **P 01 05 09.8 +1.8**
comp=Z,60nm,1.4s
BILL Bilibino 85.74 19*ce*P **P 01 05 07.3 -0.3**
BILL pmax pmax
comp=Z,15nm,0.8s
BILL Bilibino 85.74 19 P **P 01 05 06.4 -1.2**
BILL IAmb IAmb 01 05 07.8
comp=Z,18nm,0.7s
PLOR Plostina 85.76 317 P **P 01 05 08.9 +0.6**
PLOR Plostina 85.76 317 ⇓P **P 01 05 09.0 +0.6**
BILI Bilibino, Chuk 85.81 20 P **P 01 05 07.4 -0.6**
comp=Z,29nm,0.8s
NEHR Nehoiu 85.91 316 ⇑P **P 01 05 10.7 +1.7**
TESR Tescani 85.92 317 ⇑P **P 01 05 10.5 +1.5**
TESR Tescani 85.92 317 P **P 01 05 09.9 +0.9**
comp=Z,849nmcomp=Z,66nm,1.5s
TESR Tescani 85.92 317 P **P 01 05 10.5 +1.5**
comp=Z,67nm,1.6s
LUBAR Lubar, Ukraine 86.02 321 P **P 01 05 09.4 0.0**
ONER Baraj Valea Uz 86.05 317 ⇑P **P 01 05 11.3 +1.6**
COVR Voineasa-Covas 86.06 317 ⇓P **P 01 05 11.0 +1.2**
MI29 MI29, Kamyanyy 86.08 321 P **P 01 05 09.0 -0.7**
comp=Z,112nm,1.0s
GIRR Girov 86.12 318 ⇑P **P 01 05 11.3 +1.3**
MLR Muntele Rosu 86.16 316 P **P 01 05 11.3 +0.9**
MLR pmax pmax
comp=Z,76nm,1.2s
MLR Muntele Rosu 86.16 316 **P 01 05 11.3 +0.9**
MLR Muntele Rosu 86.16 316 ⇑P **P 01 05 11.7 +1.3**
MLR Muntele Rosu 86.16 316 P **P 01 05 11.6 +1.2**
comp=Z,55nm,1.2s
MLR Muntele Rosu 86.16 316 P **P 01 05 12.0 +1.6**
comp=Z,54nm,1.3s
TURR Turia 86.24 317 ⇑P **P 01 05 11.8 +1.1**
PRAR RASCA 86.39 318 ⇑P **P 01 05 12.3 +1.0**
KMPD K-Podol'skiy 86.52 319 P **P 01 05 11.6 -0.3**
HUMR Humele 86.62 315 P **P 01 05 13.7 +1.2**
comp=Z,48nm,1.1s
PLVB Pleven 86.64 314 ⇑P **P 01 05 14.0 +1.3**
DOPR Dopca 86.65 317 ⇑P **P 01 05 13.6 +0.9**
VOIR 86.77 316 P **P 01 05 13.7 +0.4**
comp=Z,9.2nm,1.0s
ARR Arges 87.04 316 ⇑P **P 01 05 15.4 +0.8**
ARR Arges 87.04 316 P **P 01 05 15.5 +0.8**
comp=Z,15nm,1.4s
MNK Minsk 87.10 325 *i* P **P 01 05 15.2 +0.6**
MNK *i* 01 08 39.4
MNK *i* PPP PPP 01 10 34.3
MNK *i* S **SKSac 01 15 38.7 +0.2**
MNK *i* PS **PS 01 17 10.5 +13**
MNK pmax pmax
comp=N,12nm,0.9s
MNK pmax pmax
comp=Z,18nm,0.7s
MNK pmax pmax
comp=E,7.0nm,0.8s
MNK MLR MLR
comp=E,82nm,15.0s
MNK MLR MLR
comp=N,99nm,16.0s
MNK Minsk 87.10 325 *i* P **P 01 05 15.2 +0.6**
comp=E,7.0nm,0.8s
MNK *i* P **P 01 05 15.2 +0.6**
comp=N,12nm,0.9s
MNK *i* P **P 01 05 15.2 +0.6**
comp=Z,18nm,0.7s,baz=105
MNK *i* PcP **PcP 01 05 17.6 +0.9**
MNK *i* PP **PP 01 08 39.4 +0.8**
MNK *i* PPP PPP 01 10 34.3
MNK *i* SKS **SKSac 01 15 29.7 -8.8**
MNK *i* S **SKSac 01 15 38.8 +0.2**
MNK *i* PS **PS 01 17 10.6 +13**
MNK *i* SS SS 01 21 57.8 +23
MNK *i* SSS SSS 01 24 57.6
MNK *i* LQ LQ 01 38 19.8
BURAR Bucovina Array 87.12 318 P **P 01 05 16.7 +1.7**
BURAR Bucovina Array 87.12 318 P **P 01 05 16.8 +1.7**
BURAR IAmb IAmb 01 05 32.5
comp=Z,28nm,0.8s
BURAR Bucovina Array 87.12 318 ⇑P **P 01 05 16.7 +1.7**
BUR08 Bucovina Ar. S 87.13 318 **P 01 05 15.7 +0.6**
BUR08 IAmb IAmb 01 05 32.3
comp=Z,31nm,0.8s

RNPP5 Staryi Chortor 87.49 322 P **P 01 05 16.9 +0.4**
RNPP9 Sopachiv 87.53 322 P **P 01 05 16.8 +0.1**
RNPP8 Varash 87.53 322 P **P 01 05 16.6 -0.1**
ARCR ARCALIA 87.58 318 ⇓P **P 01 05 19.1 +2.0**
LOT Lotru 87.65 316 ⇓P **P 01 05 19.1 +1.4**
LOT Lotru 87.65 316 P **P 01 05 19.0 +1.3**
comp=Z,19nm,0.9s
TROLL Troll, Antarti 87.66 198 ⇑pP pP 01 05 36.8 +7.6
comp=Z,183nm,0.7s
GRG Griva 87.80 311 P **P 01 05 18.7 +0.3**
comp=Z,36nm,1.2s
CJR Cluj-Napoca 88.01 317 P **P 01 05 21.1 +1.9**
CJR Cluj-Napoca 88.01 317 ⇑P **P 01 05 21.2 +1.9**
BLKB Belogradchik 88.08 314 ⇑P **P 01 05 20.6 +1.0**
BMR Baia Mare 88.27 318 P **P 01 05 22.0 +1.7**
BMR Baia Mare 88.27 318 ⇑P **P 01 05 22.1 +1.7**
BMR Baia Mare 88.27 318 P **P 01 05 22.2 +1.8**
comp=Z,59nm,1.0s
GZR Gura Zlata 88.33 316 P **P 01 05 22.7 +1.9**
GZR Gura Zlata 88.33 316 ⇓P **P 01 05 22.8 +1.9**
DEV Deva 88.33 316 P **P 01 05 22.6 +1.9**
DEV Deva 88.33 316 ⇑P **P 01 05 22.7 +1.9**
DEV Deva 88.33 316 P **P 01 05 22.8 +2.1**
comp=Z,93nm,1.0s
MARR Marisel-Cluj 88.33 317 ⇑P **P 01 05 22.5 +1.7**
APA Apatity 88.49 339 *e*P **P 01 05 18.7 -2.2**
APA pmax pmax
comp=Z,19nm,1.1s
HERR Herculane 88.49 315 ⇓P **P 01 05 22.7 +1.2**
DRGR 88.63 317 P **P 01 05 23.4 +1.2**
DRGR 88.63 317 ⇓P **P 01 05 23.5 +1.2**
DRGR 88.63 317 P **P 01 05 23.7 +1.5**
comp=Z,18nm,1.2s
VSU Vasula 88.71 329*ce*P **P 01 05 22.2 0.0**
VSU pmax pmax
comp=Z,73nm,2.5s
BOVS Bovan 88.77 314 ⇑P **P 01 05 23.6 +0.7**
SURR Surduc 88.84 316 ⇑P **P 01 05 24.5 +1.4**
MDVR Moldovita 88.96 315 ⇑P **P 01 05 25.0 +1.3**
TRPA Tarpa 88.99 318 P **P 01 05 25.0 +1.3**
comp=Z,16nm,1.5s
BZS Buzias 89.17 316 P **P 01 05 25.7 +1.1**
BZS Buzias 89.17 316 ⇑P **P 01 05 25.8 +1.1**
BZS Buzias 89.17 316 P **P 01 05 25.9 +1.3**
comp=Z,29nm,1.0s
LTVH Ltavrtes, Hu 89.28 318 P **P 01 05 26.4 +1.3**
comp=Z,33nm,1.6s
KOLS Kolonicke sedl 89.30 319 *e*P **P 01 05 27.0 +1.8**
KOLS pmax pmax
comp=Z,35nm,0.9s
KOLS Kolonicke sedl 89.30 319 *e*P **P 01 05 27.0 +1.8**
KOLS Kolonicke sedl 89.30 319 P **P 01 05 27.4 +2.2**
comp=Z,48nm,0.9s
ARBE Arbavere 89.32 330 P **P 01 05 25.9 +0.9**
comp=Z,139nm,0.9s
SNAA Sanae 89.37 198 ⇑pP pP 01 05 44.7 +7.5
comp=Z,156nm,0.7s
SNAA Sanae 89.37 198 P **P 01 05 26.7 +1.5**
comp=Z,2.4nm,0.6s,baz=289,slow=7.2,SNR=4.0
SNAA LR LR 01 40 26.2
comp=Z,151nm,19.8s,baz=13,slow=32
comp=Z,2.4nm,0.6s
SNAA Sanae 89.37 198*ce*P **P 01 05 26.6 +1.4**
SNAA pmax pmax
comp=Z,4.0nm,1.0s
SNAA Sanae 89.37 198 P **P 01 05 27.8 +2.6**
comp=Z,12nm,1.0s
PHP Peshkopia 89.38 312 P **P 01 05 26.4 +0.6**
comp=Z,14nm,1.0s
PHP pP **pwP 01 05 40.0 -0.7**
SRN Sarande 89.44 310 P **P 01 05 27.1 +1.1**
comp=Z,28nm,1.0s
SRN pP **pwP 01 05 39.8 -1.1**
PABE Paberze 89.53 326 P **P 01 05 26.6 +0.6**
PABE IAmb IAmb 01 05 30.7
comp=Z,18nm,0.8s
PABE Paberze 89.53 326 P **P 01 05 26.9 +0.9**
comp=Z,25nm,0.8s
SUW Suwalki 89.68 324 *e*P **P 01 05 27.1 +0.3**
SUW Suwalki 89.68 324 P **P 01 05 26.6 -0.2**
SUW Suwalki 89.68 324 P **P 01 05 26.6 -0.2**
FINES FINESS Array B 89.74 332 P **P 01 05 27.4 +0.4**
comp=Z,5.7nm,0.7s,baz=112,slow=6.2,SNR=32
comp=Z,5.7nm,0.7s
FINES FINESS Array B 89.74 332 P **P 01 05 27.2 +0.2**
ABAH Abaujker 89.87 319 P **P 01 05 28.3 +0.4**
comp=Z,12nm,1.7s
AMBH Ambrzfalva 89.90 317 P **P 01 05 29.7 +1.6**
comp=Z,44nm,1.0s
PDG Podgorica 90.36 312 IAmb IAmb 01 05 45.7
comp=Z,23nm,1.0s
PDG Podgorica 90.36 312 ⇓P **P 01 05 30.4 +0.2**
PDG Podgorica 90.36 312 P **P 01 05 31.3 +1.0**
comp=Z,25nm,1.5s
PSZ Piszkesteto 90.70 318 P **P 01 05 32.3 +0.5**
comp=Z,14nm,1.1s
VNA2 Neumayer--Watz 91.01 198 ⇑pP pP 01 05 52.1 +7.3
comp=Z,10nm,0.8s,baz=93,slow=4.9
OJC Ojcow 91.10 320 P **P 01 05 32.7 -0.9**
OJC Ojcow 91.10 320 P **P 01 05 32.7 -0.9**
OJC Ojcow 91.10 320 P **P 01 05 34.5 +0.9**
comp=Z,7.4nm,1.3s
MORH Mrgy, Hungar 91.31 316 ⇓P **P 01 05 35.4 +0.8**
MORH Mrgy, Hungar 91.31 316 P **P 01 05 34.9 +0.3**
comp=Z,6.9nm,1.2s
MORH Mrgy, Hungar 91.31 316 P **P 01 05 35.6 +1.0**
comp=Z,6.2nm,1.6s
MORH P **P 01 05 35.7 +1.0**
MORH pP **pwP 01 05 48.7 -0.8**
VYHS Vyhne 91.48 318 *e*P **P 01 05 39.2 +3.8**
VYHS *e* 01 05 50.1
VYHS Vyhne 91.48 318 *e*P **P 01 05 39.2 +3.8**
VYHS *e* 01 05 50.1
VNA3 Neumayer Olymp 91.56 197 ⇑pP pP 01 05 54.2 +6.8
comp=Z,3.0nm,0.8s
SRO Srobarova 91.74 318 *e*P **P 01 05 38.4 +1.8**
SRO pmax pmax
comp=Z,7.0nm,0.8s
SRO Srobarova 91.74 318 *e*P **P 01 05 38.4 +1.8**
ARCES ARCESS Array B 91.83 340 P **P 01 05 35.8 -0.8**
comp=Z,3.8nm,0.6s,baz=91,slow=3.3,SNR=13
comp=Z,3.8nm,0.6s
MPLH Magyarpolny 92.19 317 P **P 01 05 39.7 +1.0**
JAVC Velka Javorina 92.30 319 *e*P **P 01 05 40.8 +1.6**
STEB Steborice 92.36 320 *e*P **P 01 05 37.3 -2.1**
MORC Moravsky Berou 92.49 320 *e*P **P 01 05 40.6 +0.5**
MORC *e*pP **pP 01 05 52.3 +0.2**
VRAC Vranov 93.05 319 LR LR 01 53 57.6
comp=Z,20nm,18.1s,baz=84,slow=40
VRAC Vranov 93.05 319 *e*P **P 01 05 43.4 +0.8**
VRAC *e*pP **pP 01 05 54.1 -0.5**
RONA Rosalia, Austr 93.08 317 *e*pP pP 01 05 54.9 +0.1
comp=Z,3.9nm,1.1s
KRUC Moravsky 93.15 319 *e*P **P 01 05 42.6 -0.5**
KRUC *e*pP **pP 01 05 54.8 -0.3**
DPC Dobruska-Polom 93.33 320 P **P 01 05 45.5 +1.6**
comp=Z,5.4nm,1.3s
DPC pP **pwP 01 05 58.3 -0.6**
OSTC Ostas 93.42 320 *e*P **P 01 05 44.9 +0.6**
OSTC Ostas 93.42 320 *e*P **P 01 05 44.9 +0.6**
RAR Rarotonga 93.46 112 LR LR 01 46 36.7
comp=Z,39nm,21.4s,baz=225,slow=35
CHVC Chvalec 93.52 320 *e*P **P 01 05 44.1 -0.7**
CHVC Chvalec 93.52 320 *e*P **P 01 05 44.1 -0.7**
ARSA Arzberg 93.56 317 *i* PcP **PcP 01 05 45.8 +0.3**
comp=Z,4.0nm,0.8s
ARSA *e*sP **sP 01 06 01.3 -0.1**
comp=Z,8.4nm,1.1s
ABNA Allensteig Bun 93.75 318 *i* P **P 01 05 46.0 +0.1**
comp=Z,3.3nm,1.2s
ABNA *e*sP **sP 01 06 02.0 -0.3**
comp=Z,5.2nm,1.1s
SOKA Soboth 93.84 316 *i* PcP **PcP 01 05 47.4 +0.5**
comp=Z,4.1nm,1.0s
SOKA *e*sP **pwP 01 06 01.7 +0.4**
comp=Z,6.6nm,1.0s
OBKA Obir 94.16 316 *i* pP pP 01 05 58.9 -1.0
comp=Z,5.6nm,1.4s
SESA Seetaler Alpe, 94.20 317 *e*sP sP 01 06 03.0 -1.6
comp=Z,7.1nm,1.6s
MOA Molln 94.46 318 *i* P **P 01 05 48.8 -0.4**
comp=Z,3.0nm,1.3s
PVCC Panska Ves 94.46 320 P **P 01 05 49.9 +0.8**
comp=Z,9.9nm,1.1s
ACOM Acomizza, Ital 94.88 316 P **P 01 05 52.1 +0.8**

comp=Z,14nm,1.0s
GEC2 GERESS Array S 94.91 318 **P 01 05 51.5 +0.2**
GEC2 IAmb IAmb 01 06 08.7
comp=Z,13nm,1.5s
GEC2 GERESS Array S 94.91 318 P **P 01 05 50.7 -0.6**
comp=Z,5.7nm,1.2s
GERES GERESS Array B 94.91 318 P **P 01 05 51.8 +0.6**
comp=Z,1.0nm,0.7s,baz=92,slow=4.0,SNR=11
GERES PP **PP 01 09 40.6 -0.1**
comp=Z,0.2nm,0.3s,baz=89,slow=8.6,SNR=2.1
comp=Z,1.0nm,0.7s
GERES GERESS Array B 94.91 318 P **P 01 05 51.2 -0.1**
KHC Kasperske Hory 95.00 319 *e*P **P 01 05 52.1 +0.4**
KHC pmax pmax
comp=Z,1.0nm,0.6s
KHC Kasperske Hory 95.00 319 *e*P **P 01 05 52.1 +0.4**
comp=Z,0.7nm,0.6s
KBA Koelnbreinsper 95.03 317 *e*PcP **PcP 01 05 52.5 +0.3**
comp=Z,2.9nm,1.0s
CLL Collm 95.50 321 *i* P **P 01 05 54.9 +1.1**
CLL pmax pmax
comp=Z,3.0nm,1.1s
CLL Collm 95.50 321 *i* P **P 01 05 54.9 +1.1**
comp=Z,3.0nm,1.1s
CLL L L 01 39 00.0
CLL AMS AMS 01 52 00.0
LESA Schwarzleotal 95.50 317 *e*sP sP 01 06 09.5 -1.0
comp=Z,5.8nm,1.3s
HFS Hagfors 95.56 330 P **P 01 05 53.8 0.0**
comp=Z,1.8nm,0.7s,baz=99,slow=9.6,SNR=4.0
HFS LR LR 01 54 41.0
comp=Z,47nm,18.3s,baz=69,slow=39
comp=Z,1.8nm,0.7s
SPITS Spitsbergen Ar 95.60 348 P **P 01 05 52.8 -0.9**
comp=Z,8.8nm,0.7s,baz=106,slow=9.1,SNR=10
SPITS LR LR 01 55 06.9
comp=Z,177nm,21.1s,baz=82,slow=39
comp=Z,8.8nm,0.7s
TANN Tannenbergstha 95.80 320 P **P 01 05 55.0 -0.3**
comp=Z,9.1nm,1.5s
WTTA Wattenberg 96.20 317 *i* sP sP 01 06 12.8 -0.9
comp=Z,5.4nm,1.3s
WATA Walderalm 96.25 317 *i* sP sP 01 06 12.8 -1.1
comp=Z,2.7nm,0.7s
SQTA Sankt Quirin 96.49 317 *i* P **P 01 05 56.9 -1.7**
comp=Z,3.3nm,1.5s
SQTA *i* sP **pwP 01 06 14.1 +0.6**
comp=Z,5.8nm,1.7s
MOTA Moosalm 96.57 317 *i* sP sP 01 06 14.6 -0.8
comp=Z,7.4nm,1.2s
FETA Feichten 96.81 317 *e*pP pP 01 06 11.6 -0.5
comp=Z,5.2nm,1.5s
NOA NORSAR Array B 96.81 331 P **P 01 05 59.4 -0.2**
comp=Z,0.9nm,0.9s,baz=91,slow=4.5,SNR=3.3
NOA LR LR 01 54 03.8
comp=Z,47nm,20.4s,baz=90,slow=38
comp=Z,0.9nm,0.9s
DAVA Damuels 97.40 317 *i* sP sP 01 06 18.7 -0.5
comp=Z,2.8nm,0.6s
TBI Tubuai 102.49 115 *e*LR LR 01 39 58.8
comp=Z,930nm,36.8s
PPT2 Papeete2 103.55 110 *e*LR LR 01 40 27.2
comp=Z,155nm,25.0s
PPT2 *e*LR LR 01 40 33.7
comp=Z,177nm,24.8s
ILAR Eielson Array 103.69 25 PP PP 01 10 37.7 -9.1
comp=Z,0.6nm,0.8s,baz=290,slow=8.3,SNR=5.6
INK Inuvik 107.36 19 PKiKP **PKiKP 01 10 54.9 +0.1**
comp=Z,1.4nm,0.8s,baz=277,slow=2.4,SNR=2.6
ESDC Sonseca Array 107.84 310 PP **PP 01 11 19.9 +1.4**
comp=Z,0.3nm,0.8s,baz=112,slow=6.3,SNR=2.4
ESDC PKKPbc **PKKPbc 01 22 11.1 0.0**
comp=Z,0.5nm,0.8s,baz=272,slow=3.7,SNR=4.4
TAOE Nuku Hiva Isla 114.24 103 *e*LR LR 01 45 26.3
comp=Z,79nm,23.2s
YKA Yellowknife Ar 117.13 19 PKP **PKPdf 01 11 13.1 -0.5**
comp=Z,2.6nm,0.8s,baz=326,slow=1.6,SNR=6.0
NVAR Mina Array Bea 130.06 44 PKhKP PKPpre 01 11 29.8
comp=Z,0.3nm,0.6s,baz=217,slow=7.2,SNR=3.6
NVAR PKP **PKiKP 01 11 40.5 +0.3**
comp=Z,1.3nm,0.6s,baz=273,slow=2.7,SNR=7.4
NVAR SKPbc **SKPbc 01 14 59.3 +0.3**
comp=Z,1.7nm,0.8s,baz=248,slow=4.6,SNR=7.0
SCHQ Schefferville 131.00 353 PKP **PKiKP 01 11 41.2 -0.1**
comp=Z,1.4nm,0.5s,baz=238,slow=2.6,SNR=5.1
SCHQ SKPbc **SKPbc 01 15 00.6 -1.0**
comp=Z,5.0nm,0.8s,baz=18,slow=6.4,SNR=4.3
PDAR Pinedale Array 133.05 34 PKhKP PKPpre 01 11 38.1
comp=Z,1.1nm,0.5s,baz=139,slow=2.3,SNR=12
PDAR PKP **PKPdf 01 11 45.5 +0.5**
comp=Z,1.1nm,0.5s,baz=264,slow=1.4,SNR=13
PDAR SKPbc **SKPbc 01 15 09.2 -0.3**
comp=Z,1.5nm,0.9s,baz=270,slow=1.5,SNR=8.4
ULM Lac du Bonnet 133.06 17 PKP **PKPdf 01 11 44.0 -0.5**
comp=Z,7.6nm,0.8s,baz=344,slow=4.0,SNR=7.9
ULM Lac du Bonnet 133.06 17 PKiKP **PKPdf 01 11 44.8 +0.4**
ULM Lac du Bonnet 133.06 17 **PKPdf 01 11 44.8 +0.4**
ANMO Albuquerque 139.91 40*c i*PKiKP **PKiKP 01 11 59.9 -0.4**
ANMO pmax pmax
comp=Z,3.0nm,1.0s
CFA Coronel Fontan 141.65 191 PKP **PKPdf 01 12 00.2 -0.7**
comp=Z,0.9nm,0.5s,baz=208,slow=8.2,SNR=2.7
CPUP Villa Florida 142.93 208 PKP **PKPdf 01 12 02.4 -0.9**
comp=Z,0.7nm,0.7s,baz=124,slow=3.6,SNR=3.1
BDFB Brasilia 144.83 232 PKP **PKPdf 01 12 07.0 0.0**
comp=Z,4.6nm,0.5s,baz=122,slow=3.7,SNR=9.1
BDFB Brasilia 144.83 232 PKiKP **PKPdf 01 12 07.3 +0.3**
BDFB Brasilia 144.83 232 **PKPdf 01 12 07.2 +0.3**
TXAR Lajitas Array 145.18 45 PKPbc **PKPdf 01 12 07.7 +0.5**
comp=Z,71nm,0.8s,baz=285,slow=1.4,SNR=661
SLM Saint Louis 145.25 20 PKiKP **PKPbc 01 12 05.9 -0.7**
SLM Saint Louis 145.25 20 PKPbc **PKPbc 01 12 05.9 -0.7**
P46A Rosedale 145.25 15 PKPbc **PKPbc 01 12 06.6 0.0**
PAMR Moraine State 145.25 6 PKPbc **PKPbc 01 12 06.0 -0.5**
SIV San Ignacio 153.46 213 PKPbc **PKiKP 01 12 28.5 0.0**
comp=Z,1.5nm,0.9s,baz=91,slow=1.5,SNR=4.6
SIV PKPab **pPKPbc 01 12 41.5 +0.8**
comp=Z,0.9nm,0.4s,baz=207,slow=4.5,SNR=5.8
LPAZ La Paz 156.32 199 PKP **PKPdf 01 12 26.8 +1.5**
comp=Z,0.8nm,0.8s,baz=93,slow=3.1,SNR=4.5
LPAZ PKPab **PKPab 01 12 55.6 +2.3**
comp=Z,1.0nm,0.7s,baz=210,slow=2.8,SNR=3.9
LPAZ La Paz 156.32 199 **PKPdf 01 12 21.9 -3.4**

AFAD ***10*** *00:55:22.2,37.˚86N×26.˚96E,h7km±1km,ML2.5*
ATH ***10*** *00:55:22.5,37.˚85N×26.˚97E,h9km±1km,ML2.5/7,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
THE ***10*** *00:55:22.6,38˚N±1˚×2˚7E±˚,h6km±2km,M2.6/7,MLh2.6/7*
ISK ***10*** *00:55:22.1,37.˚87N×26.˚98E,h7km,ML2.7/18*

ISC 10 00:55:22.6±0.8,37.˚87N±0.˚02×26.˚97E±0.˚02,h10km±7km, n40,σ0°37/68,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.19**	**213**	P	**Pg**	**Pg**	**00 55 26.2**	**-0.5**
SMG				S	**Sg**	**Sg**	**00 55 29.8**	**+0.4**
SMG				AML	AML	AML		
SMG	**Samos**	**0.19**	**213**	P	**Pg**	**Pg**	**00 55 26.3**	**-0.4**
SMG				S	**Sg**	**Sg**	**00 55 29.7**	**+0.3**
SMG				AML	AML	AML		
DGB	**zmir**	**0.20**	**339**	P	**Pg**	**Pg**	**00 55 26.5**	**-0.2**
DGB				IAML			00 55 29.0	
	comp=E,963nm,0.2s							
DGB				S	**Sg**	**Sg**	**00 55 29.3**	**-0.2**
DGB				IAML			00 55 30.0	
	comp=N,595nm,0.1s							
GMLD	**Gumuldur**	**0.21**	**348**	Pg	**Pg**	**Pg**	**00 55 26.8**	**-0.2**
GMLD				Sg	**Sg**	**Sg**	**00 55 30.5**	**+0.5**
GMLD				AML	AML	AML		
KRL1	**Karlovasi Samo**	**0.22**	**251**	P	**Pg**	**Pg**	**00 55 26.8**	**-0.3**
KRL1				S	**Sg**	**Sg**	**00 55 30.6**	**+0.3**
KRL1				AML	AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**92**	Pg	**Pg**	**Pg**	**00 55 27.1**	**-0.7**
KUSD				Sg	**Sg**	**Sg**	**00 55 31.4**	**+0.2**
KUSD				AML	AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**129**	P	**Pg**	**Pg**	**00 55 28.0**	**0.0**
GCAM				IAML			00 55 32.0	
	comp=N,1μm,0.5s							
GCAM				IAML			00 55 32.0	
	comp=E,874nm,0.2s							
GCAM				S	**Sg**	**Sg**	**00 55 32.2**	**+0.6**
GCAM	**G?zelcaml?**	**0.27**	**129**	Pg	**Pg**	**Pg**	**00 55 28.0**	**0.0**
GCAM				Sg	**Sg**	**Sg**	**00 55 32.3**	**+0.6**
GCAM				AML	AML	AML		
SAM2	**Drakei, Karlov**	**0.30**	**249**	P	**Pg**	**Pg**	**00 55 28.7**	**-0.1**

SAM2				S	Sg	00 55 32.6	-0.3	
SAM2				AML	AML			
BEYE	**izmir**	**0.36**	**355**	P	Pg	**00 55 29.5**	**-0.2**	
BEYE				IAML		00 55 35.0		
	comp=N,614nm,0.2s							
BEYE				IAML		00 55 35.0		
	comp=E,418nm,0.2s							
BEYE				S	Sg	**00 55 35.1**	**+0.6**	
DUVT	**Torbali**	**0.52**	**47**	P	Pg	**00 55 32.3**	**-0.4**	
DUVT				S	Sg	**00 55 39.0**	**-0.6**	
DUVT				IAML		00 55 40.0		
	comp=E,314nm,0.1s							
BLCB	**Balcova**	**0.52**	**6**	P	Pg	**00 55 32.3**	**-0.5**	
BLCB				S	Sg	**00 55 39.3**	**-0.3**	
BLCB				AML	AML			
BLCB	**Balcova**	**0.52**	**6**	Pg	Pg	**00 55 32.1**	**-0.6**	
BLCB				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.52**	**315**	P	Pg	**00 55 32.5**	**-0.3**	
ZEYE				IAML		00 55 40.0		
	comp=N,525nm,0.5s							
ZEYE				S	Sg	**00 55 40.4**	**+0.7**	
ZEYE				IAML		00 55 41.0		
	comp=E,242nm,0.2s							
CESE	**eme**	**0.70**	**311**	Pg	Pg	**00 55 36.1**	**-0.1**	
CESE				Sg	Sb	**00 55 46.4**	**-0.3**	
CESE				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.73**	**84**	Pg	Pg	**00 55 36.7**	**-0.1**	
AYDB				Sg	Sg	**00 55 46.9**	**+0.5**	
AYDB				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.78**	**162**	Pg	Pg	**00 55 37.3**	**-0.4**	
YKAV				Sg	Sb	**00 55 48.8**	**-0.2**	
YKAV				AML	AML			
BAGT	**Foa**	**0.79**	**353**	P	Pg	**00 55 38.1**	**+0.2**	
BAGT				S	Sb	**00 55 49.2**	**-0.1**	
BAGT				IAML		00 55 50.0		
	comp=N,115nm,0.5s							
BAGT				IAML		00 55 51.0		
	comp=E,277nm,0.6s							
KRBN	**Karaburun**	**0.79**	**336**	Pg	Pg	**00 55 37.7**	**-0.3**	
KRBN				AML	AML			
BODT	**Bodrum**	**0.85**	**161**	Pg	Pg	**00 55 38.5**	**-0.5**	
BODT				AML	AML			
MLSB	**Milas**	**0.86**	**132**	Pg	Pg	**00 55 39.1**	**-0.1**	
MLSB				AML	AML			
FOCM	**Foa**	**0.86**	**348**	Pg	Pg	**00 55 39.0**	**-0.3**	
FOCM				AML	AML			
CHOS	**Chios island**	**0.89**	**306**	P	Pb	**00 55 40.1**	**-0.1**	
CHOS				S	Sb	**00 55 52.5**	**+0.3**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.89**	**306**	Pg	Pg	**00 55 39.6**	**-0.1**	
CHOS				Sg	Sb	**00 55 52.6**	**+0.4**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.89**	**306**	P	Pb	**00 55 40.2**	**-0.1**	
CHOS				S	Sb	**00 55 52.1**	**0.0**	
CHOS				AML	AML			
BODA	**Bodrum-Mula**	**0.91**	**156**	Pg	Pg	**00 55 39.9**	**-0.2**	
KLNA	**Kalymnos**	**0.91**	**180**	P	Pg	**00 55 39.4**	**-0.8**	
KLNA				S	Sg	**00 55 51.7**	**-0.2**	
KLNA				AML	AML			
EAG2	**Marmaro, Chios**	**0.96**	**315**	P	Pn	**00 55 41.9**	**-0.2**	
EAG2				S	Sb	**00 55 53.9**	**-0.1**	
NAZL	**Nazilli-Aydin**	**1.05**	**84**	Pg	Pg	**00 55 42.3**	**-0.5**	
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.12**	**41**	Pn	Pb	**00 55 44.1**	**0.0**	
GOMA				AML	AML			
DKL	**Dikili**	**1.20**	**358**	Pn	Pg	**00 55 45.3**	**-0.4**	
DKL				AML	AML			
DKL	**Dikili**	**1.20**	**358**	P	Pg	**00 55 44.9**	**-0.8**	
DKL				S	Sn	**00 56 01.9**	**0.0**	
AKS	**Akhisar**	**1.21**	**33**	Pn	Pb	**00 55 45.6**	**0.0**	
AKS				AML	AML			
YER	**Yerkesik**	**1.28**	**125**	P	Pn	**00 55 46.7**	**+0.1**	
YER				S	Sb	**00 56 03.7**	**+0.4**	
SOMA	**Soma-Manisa**	**1.36**	**19**	Pn	Pb	**00 55 48.2**	**0.0**	
SOMA				AML	AML			
APE	**Apeiranthos**	**1.40**	**236**	P	Pn	**00 55 48.1**	**-0.2**	
APE				S	Sb	**00 56 06.9**	**+0.2**	
APE	**Apeiranthos**	**1.40**	**236**	P	Pn	**00 55 48.2**	**0.0**	
APE				S	Sn	**00 56 07.2**	**+0.4**	
GORD	**Gordes-Manisa**	**1.41**	**42**	Pn	Pn	**00 55 48.6**	**+0.2**	
GORD				AML	AML			
PRK	**Paraskevi**	**1.48**	**339**	P	Pn	**00 55 49.6**	**+0.2**	
PRK				S	Sb	**00 56 09.3**	**+0.3**	
PRK	**Paraskevi**	**1.48**	**339**	P	Pg	**00 55 50.6**	**-0.4**	
PRK				S	Sb	**00 56 09.4**	**+0.3**	

*SJA **10** 01:00:10.1±0.7, 19°15S×67°79W, h271km±7km, ML4.2, MW3.9*
*SCB **10** 01:00:10.9±1.7, 19°22S×67°47W, h227km±19km, MB4.6, ML4.4/2, Error ellipse: s-maj=6.9km s-min=3.7km az=1.0*
*NEIC **10** 01:00:11.6±1.8, 19°22S±0°07×67°6W±0°1, h234km±11km, mb4.3/12, Error ellipse: s-maj=14.0km s-min=10.3km az=92.0*
*VAO **10** 01:00:11.4±0.4, 19°20S×67°34W, h213km, mb4.0, Presumed earthquake*
*IDC **10** 01:00:12.1±1.2, 19°15S×67°67W, h214km±37km, mb3.5/1, mbtmp4.0/5, MS2.3/1, Error ellipse: s-maj=36.6km s-min=23.5km az=132.0*

ISC 10 01:00:10.3±0.6, **19°20S**±0°04×**67°48W**±0°06, **h229**km±8km, **n116**, σ**1s53**/136, **mb4.2**/4, **Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEO	**Opoqueri**	**0.75**	**329**	P	**Pn**	**01 00 43.1**	**+0.6**
GO01	**Chusmiza**	**1.69**	**254**	*eP*	**Pn**	**01 00 50.1**	**+1.4**
GO01				*eS*	**S**	**01 01 22.1**	**+3.4**
GO01	**Chusmiza**	**1.69**	**254**		**Pn**	**01 00 49.2**	**+0.4**
GO01	**Chusmiza**	**1.69**	**254**	P	**Pn**	**01 00 49.6**	**+0.8**
PB08	**IPOC Station P**	**1.83**	**239**	*eP*	**Pn**	**01 00 51.5**	**+1.5**
PB08				*eS*	**S**	**01 01 22.9**	**+2.0**
PB08	**IPOC Station P**	**1.83**	**239**		**Pn**	**01 00 50.4**	**+0.4**
PB08	**IPOC Station P**	**1.83**	**239**	P	**Pn**	**01 00 50.7**	**+0.7**
SOET	**ToroToro**	**1.91**	**56**	P	**Pn**	**01 00 51.1**	**+0.4**
PB16	**IPOC Station P**	**2.11**	**294**	*eP*	**Pn**	**01 00 54.0**	**+1.2**
PB16	**IPOC Station P**	**2.11**	**294**		**Pn**	**01 00 53.8**	**+0.9**
PB16	**IPOC Station P**	**2.11**	**294**	P	**Pn**	**01 00 53.7**	**+0.9**
PB11	**IPOC Station P**	**2.13**	**255**	*eP*	**Pn**	**01 00 53.3**	**+0.8**
PB11				*eS*	**S**	**01 01 25.3**	**-0.1**
PB11				IAML		01 01 27.4	
	comp=Z,518nm,0.1s						
PB11	**IPOC Station P**	**2.13**	**255**		**Pn**	**01 00 53.0**	**+0.5**
PB11	**IPOC Station P**	**2.13**	**255**	P	**Pn**	**01 00 53.2**	**+0.7**
PB11				S	**S**	**01 01 24.7**	**-0.8**
PB11				IAML		01 01 25.4	
	comp=Z,1μm,0.4s						
BBOJ	**La Paz, Jacaqu**	**2.32**	**343**	P	**Pn**	**01 00 56.5**	**+1.6**
SOEJ	**Jacaque**	**2.32**	**343**	P	**Pn**	**01 00 56.8**	**+1.9**
PB18	**Visviri**	**2.49**	**310**		**Pn**	**01 00 58.7**	**+2.1**
PSGCX	**Pisagua**	**2.53**	**261**	*eP*	**Pn**	**01 00 56.6**	**0.0**
PSGCX				*eS*	**S**	**01 01 30.9**	**-1.8**
PSGCX				IAML		01 01 31.0	
	comp=Z,459nm,0.2s						
PSGCX	**Pisagua**	**2.53**	**261**		**Pn**	**01 00 56.2**	**-0.4**
MOCB	**Mochara**	**2.67**	**140**	P	**Pn**	**01 00 59.9**	**+1.5**
TA02	**Huaiquique**	**2.72**	**247**	*eP*	**Pn**	**01 00 59.0**	**+0.6**
TA02				*eS*	**S**	**01 01 34.3**	**-1.8**
TA02				IAML		01 01 36.3	
	comp=Z,872nm,0.1s						
PB12	**IPOC Station P**	**2.76**	**282**	*eP*	**Pn**	**01 00 58.8**	**-0.3**
PB12				*eS*	**S**	**01 01 35.0**	**-2.1**
PB12				IAML		01 01 36.5	
	comp=Z,994nm,0.4s						
PB12	**IPOC Station P**	**2.76**	**282**		**Pn**	**01 00 58.7**	**-0.4**
BBOD	**La Paz, Gloria**	**2.77**	**337**	P	**Pn**	**01 01 01.2**	**+1.6**
AP01	**Chacalluta**	**2.84**	**287**	*eP*	**Pn**	**01 01 00.1**	**+0.4**
AP01				*eS*	**S**	**01 01 37.6**	**-0.8**
AP01				IAML		01 01 38.7	
	comp=Z,479nm,0.6s						
AP01	**Chacalluta**	**2.84**	**287**		**Pn**	**01 00 59.6**	**-0.2**
TA01	**Diego Aracena**	**2.88**	**242**	*eP*	**Pn**	**01 01 00.8**	**+0.6**
TA01				*eS*	S	01 01 27.4	-12
TA01				IAML		01 01 46.0	
	comp=Z,200nm,0.5s						
TA01	**Diego Aracena**	**2.88**	**242**		**Pn**	**01 01 00.5**	**+0.3**
LPAZ	**La Paz**	**2.97**	**348**	P	**Pn**	**01 01 02.9**	**+0.9**
	comp=Z,32nm,0.3s,baz=173,slow=8.1,SNR=412						
LPAZ				S	**S**	**01 01 40.8**	**-1.4**
	comp=Z,165nm,0.6s,baz=46,slow=18,SNR=13						
LPAZ				LR	LR	01 02 09.0	
	comp=Z,60nm,21.9s,baz=286,slow=41						
LPAZ	**La Paz**	**2.97**	**348**	*eP*	**Pn**	**01 01 03.0**	**+1.1**
LPAZ				*eS*	**S**	**01 01 37.6**	**-4.6**
LPAZ	**La Paz**	**2.97**	**348**		**Pn**	**01 01 02.7**	**+0.8**
LPAZ	**La Paz**	**2.97**	**348**	P	**Pn**	**01 01 02.8**	**+0.9**
LPAZ	**La Paz**	**2.97**	**348**	*eP*	**Pn**	**01 01 02.1**	**+0.1**
LPAZ				*eS*	**S**	**01 01 40.1**	**-2.1**
PB09	**IPOC Station P**	**3.06**	**212**	*eP*	**Pn**	**01 01 04.1**	**+1.6**
PB09				*eS*	**S**	**01 01 44.8**	**+1.4**
PB09	**IPOC Station P**	**3.06**	**212**		**Pn**	**01 01 03.5**	**+1.0**
PB09	**IPOC Station P**	**3.06**	**212**	P	**Pn**	**01 01 04.1**	**+1.6**
PB02	**IPOC Station P**	**3.10**	**227**	*eP*	**Pn**	**01 01 03.4**	**+0.6**
PB02				*eS*	**S**	**01 01 42.9**	**-1.0**
PB02	**IPOC Station P**	**3.10**	**227**		**Pn**	**01 01 03.4**	**+0.6**
PB02	**IPOC Station P**	**3.10**	**227**	P	**Pn**	**01 01 03.8**	**+1.0**
PB02				S	**S**	**01 01 42.8**	**-1.1**
PB02				IAML		01 01 48.2	
	comp=Z,675nm,0.3s						
BBOB	**La Paz, Bander**	**3.11**	**348**	P	**Pn**	**01 01 04.4**	**+1.0**
PB07	**IPOC Station P**	**3.38**	**222**	*eP*	**Pn**	**01 01 06.8**	**+0.8**
PB07				*eS*	**S**	**01 01 48.9**	**-1.0**
PB07	**IPOC Station P**	**3.38**	**222**		**Pn**	**01 01 06.5**	**+0.5**
YJA	**Yavi**	**3.48**	**148**	P	**Pn**	**01 01 09.0**	**+1.5**
PB03	**IPOC Station P**	**3.54**	**217**	*eP*	**Pn**	**01 01 08.9**	**+0.9**
PB03				*eS*	**S**	**01 01 52.5**	**-0.8**
PB03	**IPOC Station P**	**3.54**	**217**		**Pn**	**01 01 08.7**	**+0.8**
AF01	**San Pedro de A**	**3.79**	**190**		**Pn**	**01 01 13.0**	**+2.0**
PB06	**IPOC Station P**	**4.00**	**209**	*eP*	**Pn**	**01 01 09.6**	**-3.7**
PB06				*eP*		01 01 14.6	
PB06				*eS*	**S**	**01 02 01.9**	**-1.2**
PB06	**IPOC Station P**	**4.00**	**209**		**Pn**	**01 01 14.0**	**+0.7**
PB06	**IPOC Station P**	**4.00**	**209**	P	**Pn**	**01 01 14.6**	**+1.2**
PB05	**IPOC Station P**	**4.43**	**215**	*eP*	**Pn**	**01 01 19.3**	**+0.6**
PB05				*eS*	**S**	**01 02 09.6**	**-3.0**
PB05	**IPOC Station P**	**4.43**	**215**		**Pn**	**01 01 19.4**	**+0.8**
SALTA		**5.11**	**168**	*eP*	**Pn**	**01 01 30.8**	**+3.5**
PB10	**IPOC Station P**	**5.16**	**213**	*eP*	**Pn**	**01 01 27.6**	**+0.1**
PB10				*eS*	**S**	**01 02 23.7**	**-5.0**
PB10	**IPOC Station P**	**5.16**	**213**		**Pn**	**01 01 27.1**	**-0.3**
PB14	**IPOC Station P**	**6.04**	**206**		**Pn**	**01 01 38.9**	**0.0**
BBSD	**Serra de San D**	**6.83**	**74**	P	**Pn**	**01 01 48.6**	**-0.1**
BBSD	**Serra de San D**	**6.83**	**74**	*eP*	**Pn**	**01 01 46.8**	**-1.9**
SIV	**San Ignacio**	**6.89**	**63**	P	**Pn**	**01 01 48.5**	**-1.0**
AC01	**Pan de Azucar**	**7.49**	**202**		**Pn**	**01 01 56.3**	**-0.7**
AC02	**Maricunga**	**7.75**	**191**		**Pn**	**01 02 00.5**	**-0.3**
AC06	**Mina Casimiro**	**8.54**	**198**		**Pn**	**01 02 09.2**	**-1.3**
GO03	**Copiapo**	**8.73**	**196**		**Pn**	**01 02 12.0**	**-0.9**
PTLB	**Pontes e Lacer**	**8.80**	**66**		**Pn**	**01 02 12.9**	**-0.9**
PTLB	**Pontes e Lacer**	**8.80**	**66**	*eP*	**Pn**	**01 02 13.2**	**-0.6**
COIM	**Forte Coimbra**	**9.16**	**96**	*eP*	**Pn**	**01 02 16.6**	**-1.9**
VILB	**Vilhena**	**9.35**	**49**		**Pn**	**01 02 20.4**	**-0.7**
VILB	**Vilhena**	**9.35**	**49**	*eP*	**Pn**	**01 02 20.7**	**-0.4**
AC04	**Llanos de Chal**	**9.55**	**200**	Pn	**Pn**	**01 02 20.8**	**-2.6**
MURT	**Porto Murtinho**	**9.57**	**106**	*eP*	**Pn**	**01 02 22.9**	**-0.7**
AC05	**El Transito**	**9.92**	**194**		**Pn**	**01 02 27.3**	**-1.0**
BDQN	**Bodoquena, MS**	**10.17**	**99**	*eP*	**Pn**	**01 02 30.5**	**-1.0**
LCO	**Las Campanas**	**10.20**	**196**	Pn	**Pn**	**01 02 30.5**	**-1.4**
CO01	**Juntas del Tor**	**10.99**	**192**	Pn	**Pn**	**01 02 42.0**	**+0.1**
AQDB	**Aquidauana**	**11.16**	**98**	*eP*	**Pn**	**01 02 44.9**	**+1.0**
NNA	**Nana**	**11.52**	**307**	Pn	**Pn**	**01 02 48.1**	**-0.5**
SALV	**Santo Antonio**	**11.71**	**76**	*eP*	**Pn**	**01 02 51.8**	**+0.9**
CPUP	**Villa Florida**	**11.74**	**129**	P	**P**	**01 02 55.5**	**+0.2**
	comp=Z,3.5nm,0.4s,baz=309,slow=14,SNR=22						
CPUP	**Villa Florida**	**11.74**	**129**	Pn	**Pn**	**01 02 52.4**	**+1.3**
CPUP	**Villa Florida**	**11.74**	**129**	*eP*	**Pn**	**01 02 49.7**	**-1.5**
CO03	**El Pedregal**	**11.94**	**193**	Pn	**Pn**	**01 02 52.4**	**-1.4**
SJPY	**San Joaquin**	**12.01**	**121**	*eP*	**P**	**01 02 56.3**	**-2.0**
PP1B	**Ponte de Pedra**	**12.06**	**84**	*eP*	**Pn**	**01 02 56.3**	**+1.0**
CFA	**Coronel Fontan**	**12.37**	**183**	P	**P**	**01 03 01.6**	**-0.6**
	comp=Z,1.7nm,0.4s,baz=4.7,slow=13,SNR=4.8						
CFA				S	**S**	**01 05 08.9**	**-7.1**
	comp=Z,3.2nm,0.3s,baz=122,slow=22,SNR=10.0						
PDRB	**Porto dos Gac**	**12.81**	**55**	*eP*	**Pn**	**01 03 03.8**	**-0.9**
VA03	**San Esteban**	**13.78**	**191**		**P**	**01 03 17.8**	**-0.1**
CLDB	**Colider**	**13.99**	**55**	*eP*	**P**	**01 03 19.8**	**-0.6**
ITQB	**Itaqui**	**14.35**	**139**	*eP*	**Pn**	**01 03 23.3**	**-0.2**
MT03	**Universidad Ad**	**14.49**	**190**		**P**	**01 03 26.6**	**+0.8**
MT13	**San Alfonso**	**14.70**	**189**		**P**	**01 03 29.2**	**+1.0**
PSAL	**Palomas, Salto**	**14.81**	**145**	*eP*	**Pn**	**01 03 30.2**	**+1.2**
BO01	**Tunca**	**15.46**	**191**	P	**Pn**	**01 03 37.5**	**+0.6**
BO02	**Sierra Bellavi**	**15.80**	**190**	P	**Pn**	**01 03 42.1**	**+1.1**
LDASE	**Londrina, Braz**	**15.80**	**108**	*eP*	**P**	**01 03 39.6**	**-0.8**
ITAB	**Concordia**	**16.20**	**122**	P	**Pn**	**01 03 46.2**	**+0.4**
ITAB	**Concordia**	**16.20**	**122**	*eP*	**P**	**01 03 44.1**	**-0.6**
CPSB	**Cacapava Do Su**	**16.92**	**134**	P	**Pn**	**01 03 54.1**	**0.0**
CPSB				IAmb	IAmb	01 03 55.8	
	comp=Z,9.4nm,0.8s						
CPSB	**Cacapava Do Su**	**16.92**	**134**	*eP*	**Pn**	**01 03 53.9**	**-0.3**
SNDB	**Serra Nova Dou**	**17.16**	**68**	*eP*	**Pn**	**01 03 56.2**	**-1.0**
BB19B	**Bebedouro**	**17.89**	**99**	*eP*	**Pn**	**01 04 04.2**	**-1.6**
CNLB	**Canela**	**18.18**	**127**	*eP*	**P**	**01 04 06.8**	**+0.6**
IPMB	**Ipameri, GO**	**18.30**	**89**	*eP*	**Pn**	**01 04 09.7**	**-0.9**
ITTB	**Itaituba**	**18.68**	**39**	*eP*	**Pn**	**01 04 12.8**	**-2.2**
BDFB	**Brasilia**	**18.90**	**82**	P	**Pn**	**01 04 18.9**	**+1.1**
	comp=Z,2.0nm,0.6s,baz=273,slow=10,SNR=4.3						
BDFB	**Brasilia**	**18.90**	**82**	P	**Pn**	**01 04 17.1**	**-0.7**
VAO	**Valinhos**	**19.50**	**105**	P	**P**	**01 04 21.4**	**+0.8**
VAO				IAmb	IAmb	01 04 39.1	
	comp=Z,22nm,1.4s						
CANS	**Sao Roque de M**	**19.88**	**97**	*eP*	**P**	**01 04 25.8**	**+1.2**
PMNB	**Patos De Minas**	**19.92**	**92**	*eP*	**P**	**01 04 26.6**	**+1.5**
GO06	**Curarrehue**	**20.60**	**189**	P	**P**	**01 04 32.8**	**+0.6**
GO06				IAmb	IAmb	01 04 37.8	
	comp=Z,6.2nm,0.8s						
PLCA	**Paso Flores**	**21.62**	**186**	P	**P**	**01 04 45.7**	**+3.3**
	comp=Z,3.5nm,0.6s,baz=1.4,slow=11,SNR=9.1						
	comp=Z,3.5nm,0.6s						
PLCA	**Paso Flores**	**21.62**	**186**	P	**P**	**01 04 44.1**	**+1.7**
PLCA				IAmb	IAmb	01 04 46.6	
	comp=Z,4.2nm,0.8s						
SMTB	**Santa Maria do**	**21.84**	**65**	P	**P**	**01 04 46.3**	**+1.6**
SMTB				IAmb	IAmb	01 04 56.4	
	comp=Z,9.3nm,1.2s						
BOAV	**Boa Vista**	**22.53**	**18**	P	**P**	**01 04 51.5**	**+0.4**
BOAV	**Boa Vista**	**22.53**	**18**	*eP*	**P**	**01 04 52.2**	**+1.1**
DIAM	**Diamantina, MG**	**22.56**	**92**	*eP*	**P**	**01 04 53.6**	**+2.1**
RUSC	**La Rusia**	**25.54**	**347**	P	**P**	**01 05 19.4**	**+0.5**
RUSC				IAmb	IAmb	01 05 26.0	
	comp=Z,5.3nm,0.8s						
DBIC	**Dimbokro**	**66.80**	**74**	P	**P**	**01 10 39.1**	**+1.2**
DBIC				IAmb	IAmb	01 10 39.6	
	comp=Z,10nm,1.2s						

*SNET **10** 01:09:44.4±6.4, 15°81N×90°08W, h49km±999km, ML3.2, Presumed earthquake*
*GCG **10** 01:09:44.2±2.1, 15°57N×89°99W, h6km±27km, MD3.6, Presumed earthquake*

ISC 10 01:09:41.3±3.5, **15°7N**±0°1×**90°01W**±0°05, **h4**km±24km, **n11**, σ**0s60**/15, **Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APG	**El Apazote**	**0.79**	**214**	*i* P	**Pb**	**01 09 57.1**	**-0.6**
APG				*i* S	**Sg**	**01 10 05.6**	**-1.0**
QUIS	**Sacapulas**	**1.11**	**251**	*i* P	**Pn**	**01 10 04.1**	**+0.4**
ZAFR2	**Estanzuela, Za**	**1.25**	**149**	*i* P	Pg	01 09 55.4	-10
SARH	**Santa Rosa de**	**1.49**	**126**	*i* P	**Pn**	**01 10 08.9**	**0.0**
SARH				*i* S	**Sg**	**01 10 29.3**	**0.0**
RBDL	**Robledal**	**1.57**	**169**	*eP*	**Pg**	**01 10 11.6**	**+0.2**
RBDL				*eS*	**Sg**	**01 10 32.7**	**+0.9**
NUBE	**Las Nubes**	**1.76**	**173**	*i* P	**Pg**	**01 10 14.7**	**-0.4**
NUBE	**Las Nubes**	**1.76**	**173**	*eP*	**Pb**	**01 10 14.6**	**+0.3**
NUBE				*eS*	**Sg**	**01 10 38.5**	**+0.6**
STGB	**El Palmar, Qui**	**1.77**	**227**	*i* P	**Pg**	**01 10 15.8**	**+0.5**
RTR	**El Retiro**	**1.79**	**169**	*eP*	**Pg**	**01 10 15.2**	**-0.4**
SNJE	**San Jose**	**1.82**	**168**	*eP*	**Pg**	**01 10 16.2**	**-0.1**
SNJE				*eS*	**Sg**	**01 10 40.3**	**+0.4**
CEVE	**Cerro Verde**	**1.86**	**168**	*eP*	**Pb**	**01 10 15.4**	**-0.6**

*NEIC **10** 01:22:21.7±1.9, 81°59N±0°08×4°4W±0°6, h10km±1km, mb4.2/18, Error ellipse: s-maj=18.9km s-min=6.0km az=50.0*
*IDC **10** 01:22:22.4±1.0, 81°61N×4°34W, h0km, mb3.6/13, mbtmp3.7/15, ML4.4/3, MS3.6/25, Error ellipse: s-maj=19.9km s-min=15.9km az=58.0*
*DNK **10** 01:22:22.2±2.7, 81°63N×3°67W, h26km±23km, ML2.7, Presumed earthquake*
*FCIAR **10** 01:22:23.0, 81°51N×4°32W, h10km, station OMEGA has station magnitude of 3.80*
*BER **10** 01:22:23.7±4.4, 81°70N×4°07W, h29km±46km, Mw4.3, ML3.7(NAO), Confirmed Earthquake*

ISC 10 01:22:21.2±0.5, **81°47N**±0°05×**4°67W**±0°04, **h10**km, **n97**, σ**2s53**/93, **mb3.9**/20, **MS3.6**/22, **North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NOR	**Nord**	**1.78**	**280**	Pn	**Pn**	**01 22 52.7**	**+0.7**
NOR	**Nord**	**1.78**	**280**	*eP*	**Pn**	**01 22 52.1**	**+0.1**
NOR				*eS*	**Sn**	**01 23 13.1**	**-1.6**
NOR	**Nord**	**1.78**	**280**	*i* P	**Pn**	**01 22 52.2**	**+0.2**
NOR				*i* S	**Sn**	**01 23 13.9**	**-0.7**
NOR				IAML		01 23 21.6	
	comp=Z,92nm,0.7s						
NOR	**Nord**	**1.78**	**280**	*i* P	**Pn**	**01 22 52.2**	**+0.2**
NOR				*i* S	**Sn**	**01 23 13.9**	**-0.7**
NOR				IAML		01 23 21.6	
	comp=Z,92nm,0.7s						
KBS	**Kingsbay**	**3.81**	**124**	Pn	**Pn**	**01 23 18.8**	**-0.9**
KBS				Sn	**Sn**	**01 23 58.7**	**-5.8**
KBS	**Kingsbay**	**3.81**	**124**	*i* P	**Pn**	**01 23 18.7**	**-1.1**
KBS				*i* S	**Sn**	**01 23 59.2**	**-5.3**
KBS	**Kingsbay**	**3.81**	**124**	*i* P	**Pn**	**01 23 18.7**	**-1.1**
KBS				*i* S	**Sn**	**01 23 59.2**	**-5.3**
BRBB	**Barentsburg B**	**4.75**	**126**	Pn	**Pn**	**01 23 33.3**	**+0.7**
BRBB				Sn	**Sn**	**01 24 25.4**	**-2.2**
BRBA	**Barentsburg A**	**4.78**	**126**	Pn	**Pn**	**01 23 33.7**	**+0.6**
SPA0	**Spitsbergen Ar**	**4.95**	**121**	Pn	**Pn**	**01 23 34.4**	**-1.0**
	baz=328,slow=9.3						
SPA0	**Spitsbergen Ar**	**4.95**	**121**	*eP*	**Pn**	**01 23 34.2**	**-1.3**
SPA0				*eS*	**Sn**	**01 24 26.5**	**-6.1**
SPA0	**Spitsbergen Ar**	**4.95**	**121**	Pn	**Pn**	**01 23 34.4**	**-1.0**
SPITS	**Spitsbergen Ar**	**4.95**	**121**	Pn	**Pn**	**01 23 34.5**	**-0.9**
	baz=345,slow=9.5						
	comp=Z,44nm,0.4s						
SPB2	**Spitsbergen Ar**	**4.95**	**121**		**Pn**	**01 23 34.5**	**-1.0**
DAG	**Danmarks Havn**	**5.39**	**216**	*i* P	**Pn**	**01 23 42.8**	**+1.3**
DAG				*i* S	**Sn**	**01 24 41.2**	**-2.4**
DAG				IAML		01 24 46.4	
	comp=Z,32nm,0.6s						
DAG	**Danmarks Havn**	**5.39**	**216**	*i* P	**Pn**	**01 23 42.8**	**+1.3**
DAG				*i* S	**Sn**	**01 24 41.2**	**-2.4**
DAG				IAML		01 24 46.4	
	comp=Z,32nm,0.6s						
HOPEN	**Hopen**	**7.43**	**116**	Pn	**Pn**	**01 24 08.2**	**-1.3**
HOPEN				Sn	Sn	01 25 26.2	-7.4
HOPEN	**Hopen**	**7.43**	**116**	*eP*	**Pn**	**01 24 07.7**	**-1.8**
HOPEN				*eS*	Sn	01 25 25.9	-7.7
HOPEN	**Hopen**	**7.43**	**116**	*eP*	**Pn**	**01 24 08.0**	**-1.5**
HOPEN				*eS*	Sn	01 25 25.9	-7.7
HOPEN				IAML		01 25 33.8	
	comp=Z,14nm,0.8s						
DBG	**Daneborg**	**7.86**	**212**	Pn	**Pn**	**01 24 16.0**	**+0.6**
DBG				Sn	**Sn**	**01 25 39.1**	**-5.1**
DBG	**Daneborg**	**7.86**	**212**	*i* P	**Pn**	**01 24 16.0**	**+0.6**
DBG				*i* S	**Sn**	**01 25 39.7**	**-4.5**
DBG				IAML		01 25 46.1	
	comp=Z,24nm,0.4s						
DBG	**Daneborg**	**7.86**	**212**	*i* P	**Pn**	**01 24 16.0**	**+0.6**
DBG				*i* S	**Sn**	**01 25 39.7**	**-4.5**
DBG				IAML		01 25 46.1	
	comp=Z,24nm,0.4s						
OMEGA	**Omega**	**7.88**	**69**	*eP*	**Pn**	**01 24 12.7**	**-3.0**
OMEGA				*eS*	Sn	01 25 33.2	-12
	comp=Z,90nm,2.1s						
OMEGA				AML	AML		
NEEM	**North Greenlan**	**9.12**	**269**	*i* P	**Pn**	**01 24 30.3**	**-2.6**
NEEM				*i* S	**Sn**	**01 26 08.0**	**-7.5**
NEEM				IAML		01 26 28.0	
	comp=Z,14nm,0.6s						
NEEM	**North Greenlan**	**9.12**	**269**	*i* P	**Pn**	**01 24 30.3**	**-2.6**
NEEM				*i* S	**Sn**	**01 26 08.0**	**-7.5**
NEEM				IAML		01 26 28.0

	comp=Z,0.3nm,0.6s							
ILAR	**Eielson Array**	**32.56**	**331**	P		**P**	**01 28 51.4**	**-0.5**
AKASG	**Malin Array Be**	**32.66**	**139**	P		**P**	**01 28 56.2**	**+3.3**
	comp=Z,0.3nm,0.4s,baz=348,slow=8.8,SNR=4.5							
AKASG				LR		LR	01 41 41.0	
	comp=Z,65nm,20.9s,baz=64,slow=35							
	comp=Z,0.3nm,0.4s							
GERES	**GERESS Array B**	**33.29**	**158**	P		**P**	**01 29 02.5**	**+3.9**
	comp=Z,1.1nm,0.7s,baz=0.0,slow=7.2,SNR=9.8							
	comp=Z,1.1nm,0.7s							
GERES	**GERESS Array B**	**33.29**	**158**	P		**P**	**01 29 01.0**	**+2.4**
BVAR	**Borovoye Array**	**35.78**	**93**	P		**P**	**01 29 22.4**	**+2.5**
	comp=Z,0.5nm,0.8s,baz=327,slow=7.8,SNR=5.5							
	comp=Z,0.5nm,0.8s							
AKTO	**Aktyubinsk**	**36.49**	**107**	LR		LR	01 47 22.1	
	comp=Z,117nm,19.2s,baz=342,slow=41							
ZALV	**Zalesovo Beam**	**37.03**	**79**	LR		LR	01 46 26.2	
	comp=Z,65nm,19.9s,baz=353,slow=39							
DLBC	**Dease Lake**	**37.29**	**315**	LR		LR	01 47 53.8	
	comp=Z,45nm,18.5s,baz=239,slow=41							
KURK	**Kurchatov**	**39.25**	**86**	P		**P**	**01 29 50.1**	**+0.9**
KURK				IAmb		IAmb	01 30 00.0	
	comp=Z,5.5nm,1.1s							
KURBB	**Kurchatov Arra**	**39.33**	**86**	P		**P**	**01 29 52.0**	**+2.0**
	comp=Z,2.0nm,0.9s,baz=341,slow=8.0,SNR=14							
KURBB				LR		LR	01 49 44.5	
	comp=Z,104nm,19.2s,baz=207,slow=42							
	comp=Z,2.0nm,0.9s							
ULM	**Lac du Bonnet**	**40.88**	**281**	LR		LR	01 47 17.6	
	comp=Z,157nm,18.6s,baz=352,slow=37							
BBB	**Bella Bella**	**43.24**	**311**	LR		LR	01 47 51.2	
	comp=Z,17nm,18.8s,baz=48,slow=35							
MKAR	**Makanchi Array**	**43.62**	**84**	P		**P**	**01 30 27.3**	**+2.0**
	comp=Z,0.9nm,0.9s,baz=359,slow=6.4,SNR=4.2							
MKAR				LR		LR	01 52 24.4	
	comp=Z,71nm,18.2s,baz=344,slow=41							
	comp=Z,0.9nm,0.9s							
MKAR	**Makanchi Array**	**43.62**	**84**	P		**P**	**01 30 26.1**	**+0.9**
SADO	**Sadowa**	**43.74**	**263**	LR		LR	01 49 02.8	
	comp=Z,83nm,18.4s,baz=34,slow=36							
BRTR	**Keskin Array B**	**43.97**	**136**	P		**P**	**01 30 31.8**	**+3.6**
	comp=Z,1.3nm,0.9s,baz=352,slow=6.7,SNR=4.3							
	comp=Z,1.3nm,0.9s							
BRTR	**Keskin Array B**	**43.97**	**136**	P		**P**	**01 30 28.4**	**+0.2**
GNI	**Garni**	**44.81**	**124**	LR		LR	01 50 34.4	
	comp=Z,42nm,18.3s,baz=8.5,slow=38							
NEW	**Newport**	**45.77**	**300**	LR		LR	01 49 53.0	
	comp=Z,168nm,20.1s,baz=6.5,slow=36							
SONM	**Songino Array**	**46.01**	**61**	P		**P**	**01 30 46.1**	**+1.7**
	comp=Z,0.5nm,0.5s,baz=343,slow=4.5,SNR=2.8							
	comp=Z,0.5nm,0.5s							
SONM	**Songino Array**	**46.01**	**61**	P		**P**	**01 30 43.4**	**-1.0**
SONM				IAmb		IAmb	01 30 54.8	
	comp=Z,3.4nm,1.3s							
AAK	**Ala-Archa**	**46.52**	**93**	LR		LR	01 54 06.7	
	comp=Z,96nm,18.1s,baz=352,slow=41							
PDGK	**Podgornoye**	**46.59**	**88**			**P**	**01 30 50.0**	**+1.1**
BOOM	**Boomskoye usch**	**46.88**	**91**			**P**	**01 30 53.7**	**+2.3**
YBH	**Yreka Blue Hor**	**52.90**	**304**	LR		LR	01 53 57.1	
	comp=Z,94nm,21.7s,baz=346,slow=36							
TKL	**Tuckaleechee C**	**53.36**	**265**	LR		LR	01 54 24.9	
	comp=Z,47nm,18.2s,baz=8.5,slow=36							
TXAR	**Lajitas Array**	**62.51**	**284**	P		**P**	**01 32 47.1**	**+2.5**
	comp=Z,0.4nm,0.8s,baz=29,slow=5.0,SNR=4.6							
	comp=Z,0.4nm,0.8s							
TXAR	**Lajitas Array**	**62.51**	**284**	P		**P**	**01 32 45.2**	**+0.6**
LPIG	**La Paz**	**68.61**	**289**	LR		LR	02 02 46.9	
	comp=Z,53nm,18.3s,baz=322,slow=35							
JCJ	**Chichijima**	**70.33**	**31**	LR		LR	02 06 08.1	
	comp=Z,194nm,19.1s,baz=122,slow=37							

*NOU **10** 01:28:08.4,36.°97S×178.°16E,h226km,MLv4.2/7, Off E. Coast of N. Island, N.Z.*
*IDC **10** 01:28:12.6±2.9,36.°70S×177.°80E,h136km±21km,mb4.1/5, mbtmp4.5/5, Error ellipse: s-maj=41.6km s-min=20.9km az=50.0*
*NEIC **10** 01:28:15.2±1.5,36.°9S±0.°1×177.°68E±0.°10,h148km±5km, mb4.3/13, Error ellipse: s-maj=14.8km s-min=11.0km az=197.0*
*WEL **10** 01:28:17.3±0.7,37.°S±4.°×17.°8E±.°,h141km±6km,M3.8/31, MLv3.8/31,Error ellipse: s-maj=6.3km s-min=4.7km az=36.6*

ISC 10 01:28:16.3±0.7,37.°05S±0.°05×177.°61E±0.°05,h165km±5km, n177,σ1°55/187,mb4.2/11,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
WIZ	**White Island**	**0.58**	**215**	P	**Pn**		**01 28 38.8**	**-0.9**
WIZ				S	**Sn**		**01 28 55.8**	**-2.0**
WIZ				AML	AML			
HAZ	**Te Kaha**	**0.72**	**169**	P	**Pn**		**01 28 39.5**	**-1.0**
HAZ				S	**Sn**		**01 28 56.8**	**-2.3**
HAZ				AML	AML			
MXZ	**Matakaoa Point**	**0.76**	**133**	P	**Pn**		**01 28 39.5**	**-1.2**
MXZ	**Matakaoa Point**	**0.76**	**133**	Pn	**Pn**		**01 28 38.9**	**-1.9**
MXZ	**Matakaoa Point**	**0.76**	**133**	P	**Pn**		**01 28 40.1**	**-0.6**
MXZ				S	**Sn**		**01 28 58.2**	**-1.4**
MXZ				AML	AML			
PKGZ	**Pakihiroa**	**0.90**	**155**	P	**Pn**		**01 28 41.6**	**-0.1**
PKGZ				S	**Sn**		**01 29 01.0**	**-0.4**
PKGZ				AML	AML			
RUGZ	**Raukumara Rang**	**0.92**	**176**	P	**Pn**		**01 28 40.6**	**-1.4**
RUGZ				S	**Sn**		**01 28 59.0**	**-2.9**
RUGZ				AML	AML			
WHRZ	**Whale Island**	**0.95**	**212**	P	**Pn**		**01 28 43.2**	**+1.0**
WHRZ				S	**Sn**		**01 29 00.4**	**-1.7**
WMGZ	**Waiomatatini S**	**1.01**	**140**	P	**Pn**		**01 28 42.1**	**-0.4**
WMGZ				S	**Sn**		**01 29 01.9**	**-0.8**
WMGZ				AML	AML			
MYRZ	**Mayor Island**	**1.11**	**257**	P	**Pn**		**01 28 42.8**	**-0.7**
MYRZ				AML	AML			
PUZ	**Puketiti**	**1.15**	**153**	P	**Pn**		**01 28 43.4**	**-0.3**
PUZ				S	**Sn**		**01 29 03.6**	**-1.4**
PUZ				AML	AML			
OPRZ	**Ohinepanea**	**1.16**	**226**	P	**Pn**		**01 28 43.2**	**-0.6**
OPRZ				S	**Sn**		**01 29 02.7**	**-2.2**
OPRZ				AML	AML			
TWGZ	**Tauwhareparae**	**1.17**	**165**	P	**Pn**		**01 28 44.2**	**+0.3**
TWGZ				S	**Sn**		**01 29 05.4**	**+0.1**
TWGZ				AML	AML			
MARZ	**Manawahe**	**1.20**	**218**	P	**Pn**		**01 28 43.9**	**-0.3**
MARZ				AML	AML			
EDRZ	**Edgecumbe**	**1.26**	**213**	P	**Pn**		**01 28 44.7**	**-0.1**
EDRZ				AML	AML			
TGRZ	**Tauranga**	**1.27**	**237**	P	**Pn**		**01 28 44.3**	**-0.5**
TGRZ				AML	AML			
URZ	**Urewera**	**1.27**	**198**	P	**Pn**		**01 28 44.2**	**-0.6**
	386nm,0.5s,baz=258,slow=3.9,SNR=1038							
URZ				S	**Sn**		**01 29 05.6**	**-1.2**
	382nm,0.4s,baz=212,slow=2.0,SNR=19							
URZ	**Urewera**	**1.27**	**198**	P	**Pn**		**01 28 44.1**	**-0.6**
URZ	**Urewera**	**1.27**	**198**	P	**Pn**		**01 28 44.2**	**-0.6**
URZ				S	**Sn**		**01 29 05.2**	**-1.6**
URZ				AML	AML			
MWZ	**Matawai**	**1.29**	**183**	P	**Pn**		**01 28 44.8**	**-0.2**
MWZ				S	**Sn**		**01 29 06.1**	**-1.1**
MWZ				AML	AML			
TKGZ	**Te Karaka**	**1.41**	**172**	P	**Pn**		**01 28 46.0**	**0.0**
TKGZ				S	**Sn**		**01 29 08.8**	**-0.2**
TKGZ				AML	AML			
KARZ	**Kaharoa**	**1.46**	**228**	P	**Pn**		**01 28 46.7**	**+0.1**
KARZ				AML	AML			
RAGZ	**Rawiri**	**1.46**	**186**	P	**Pn**		**01 28 46.9**	**+0.3**
RAGZ				S	**Sn**		**01 29 10.6**	**+0.5**
RAGZ				AML	AML			
TARZ	**Mount Tarawera**	**1.48**	**216**	P	**Pn**		**01 28 47.6**	**+0.7**
TARZ				AML	AML			
CNGZ	**Carnagh Statio**	**1.51**	**162**	P	**Pn**		**01 28 47.6**	**+0.5**
CNGZ				S	**Sn**		**01 29 11.3**	**+0.4**
CNGZ				AML	AML			
NGRZ	**Ngongotaha**	**1.54**	**226**	P	**Pn**		**01 28 47.9**	**+0.4**
NGRZ				AML	AML			
KMRZ	**Kaimai**	**1.55**	**238**	P	**Pn**		**01 28 47.5**	**0.0**
KMRZ				S	**Sn**		**01 29 10.9**	**-0.7**
KMRZ				AML	AML			
RRRZ	**Republican Roa**	**1.56**	**213**	P	**Pn**		**01 28 48.8**	**+1.2**
HLRZ	**Highlands Stat**	**1.56**	**219**	P	**Pn**		**01 28 45.6**	**-2.1**
MUGZ	**Murupara**	**1.58**	**205**	P	**Pn**		**01 28 47.5**	**-0.2**
MUGZ				S	**Sn**		**01 29 10.8**	**-1.3**
MUGZ				AML	AML			
RTZ	**Ruatahuna**	**1.64**	**197**		**Pn**		**01 28 47.6**	**-0.9**
RTZ	**Ruatahuna**	**1.64**	**197**	P	**Pn**		**01 28 48.0**	**-0.6**
RTZ				S	**Sn**		**01 29 11.5**	**-2.0**
RTZ				AML	AML			
RIGZ	**Rimuhau**	**1.66**	**176**	P	**Pn**		**01 28 48.7**	**0.0**
RIGZ				S	**Sn**		**01 29 13.2**	**-0.6**
RIGZ				AML	AML			
PRRZ	**Plateau Road**	**1.74**	**213**	P	**Pn**		**01 28 49.6**	**+0.1**
PRRZ				AML	AML			
TOZ	**Tahuroa Road**	**1.81**	**247**		**Pn**		**01 28 50.3**	**+0.1**
TOZ	**Tahuroa Road**	**1.81**	**247**	P	**Pn**		**01 28 50.3**	**+0.1**
TOZ				S	**Sn**		**01 29 16.4**	**0.0**
TOZ				AML	AML			
ALRZ	**Allen Road**	**1.81**	**213**	P	**Pn**		**01 28 50.5**	**+0.2**
ALRZ				AML	AML			
PRGZ	**Paritu Road**	**1.89**	**173**	P	**Pn**		**01 28 50.9**	**-0.2**
PRGZ				AML	AML			
GRZ	**Great Barrier**	**1.90**	**294**	P	**Pn**		**01 28 49.9**	**-1.3**
GRZ				AML	AML			
MTHZ	**Maungataniwha**	**1.90**	**198**	P	**Pn**		**01 28 50.8**	**-0.5**
MTHZ				S	**Sn**		**01 29 17.7**	**-0.7**
MTHZ				AML	AML			
RAHZ	**Arahi**	**1.91**	**192**	P	**Pn**		**01 28 51.5**	**+0.2**
RAHZ				S	**Sn**		**01 29 18.7**	**+0.1**
RAHZ				AML	AML			
MKAZ	**Moumakai**	**1.96**	**268**	P	**Pn**		**01 28 51.6**	**-0.2**
MKAZ				AML	AML			
KNZ	**Kokohu**	**1.97**	**178**	P	**Pn**		**01 28 51.8**	**-0.2**
KNZ				AML	AML			
WIAZ	**Waiheke Island**	**2.00**	**276**	P	**Pn**		**01 28 51.8**	**-0.5**
WIAZ				AML	AML			
KUTZ	**Kaahu Road**	**2.02**	**224**	P	**Pn**		**01 28 53.3**	**+0.7**
KUTZ				AML	AML			
WHHZ	**Waihua**	**2.05**	**188**	P	**Pn**		**01 28 53.0**	**+0.1**
TLZ	**Tolley Road**	**2.08**	**231**	P	**Pn**		**01 28 53.8**	**+0.5**
MHGZ	**Mahia Peninsul**	**2.12**	**174**	P	**Pn**		**01 28 53.7**	**+0.1**
NMHZ	**Naumai**	**2.14**	**197**	P	**Pn**		**01 28 54.3**	**+0.3**
ETAZ	**East Tamaki Re**	**2.15**	**272**	P	**Pn**		**01 28 52.6**	**-1.4**
MBAZ	**Motutapu North**	**2.19**	**276**	P	**Pn**		**01 28 54.2**	**-0.3**
ARHZ	**Aropaoanui**	**2.27**	**192**	P	**Pn**		**01 28 55.3**	**-0.1**
ABAZ	**Army Bay**	**2.27**	**280**	P	**Pn**		**01 28 55.1**	**-0.3**
ABAZ				AML	AML			
BKZ	**Black Stump Fm**	**2.29**	**202**	P	**Pn**		**01 28 55.2**	**-0.5**
BKZ	**Black Stump Fm**	**2.29**	**202**	P	**Pn**		**01 28 55.2**	**-0.5**
EPAZ	**Eden Park BICE**	**2.30**	**273**	P	**Pn**		**01 28 56.1**	**+0.4**
HBAZ	**Herne Bay Bore**	**2.31**	**274**	P	**Pn**		**01 28 56.2**	**+0.3**
AWAZ	**Awhitu Peninsu**	**2.37**	**269**	P	**Pn**		**01 28 56.9**	**+0.3**
RITZ	**Rihia Road**	**2.37**	**215**	P	**Pn**		**01 28 57.1**	**+0.5**
WTAZ	**Waiatarua**	**2.43**	**272**	P	**Pn**		**01 28 57.7**	**+0.3**
WTAZ				AML	AML			
MCHZ	**McNeill Hill**	**2.50**	**196**	P	**Pn**		**01 28 58.7**	**+0.6**
KWHZ	**Kaweka Forest**	**2.55**	**201**	P	**Pn**		**01 28 58.2**	**-0.6**
NTVZ	**North Tongarir**	**2.55**	**216**	P	**Pn**		**01 28 59.2**	**+0.2**
TMVZ	**Te Maari**	**2.56**	**215**	P	**Pn**		**01 28 59.1**	**+0.2**
KRVZ	**Karewarewa**	**2.57**	**217**	P	**Pn**		**01 28 57.1**	**-2.0**
ETVZ	**East Tongariro**	**2.57**	**215**	P	**Pn**		**01 28 59.0**	**0.0**
WTVZ	**West Tongariro**	**2.61**	**217**	P	**Pn**		**01 29 00.5**	**+0.9**
OTVZ	**Oturere**	**2.61**	**215**	P	**Pn**		**01 28 59.6**	**0.0**
HIZ	**Hauiti**	**2.63**	**235**	P	**Pn**		**01 29 00.7**	**+1.0**
HIZ	**Hauiti**	**2.63**	**235**		**Pn**		**01 29 00.4**	**+0.7**
HIZ	**Hauiti**	**2.63**	**235**	P	**Pn**		**01 29 01.0**	**+1.3**
SNVZ	**South Ngauruho**	**2.64**	**215**	P	**Pn**		**01 28 59.4**	**-0.6**
CKHZ	**Cape Kidnapper**	**2.64**	**189**	P	**Pn**		**01 28 59.3**	**-0.5**
TWVZ	**Taurewa**	**2.65**	**220**	P	**Pn**		**01 29 00.3**	**+0.2**
NGZ	**Ngauruhoe**	**2.65**	**216**	P	**Pn**		**01 29 00.3**	**+0.2**
FWVZ	**Far West T-bar**	**2.74**	**216**	P	**Pn**		**01 29 01.1**	**-0.2**
WHVZ	**Whangaehu Hut**	**2.74**	**215**	P	**Pn**		**01 29 01.1**	**-0.2**
MAVZ	**Mataranga**	**2.74**	**215**	P	**Pn**		**01 29 02.6**	**+1.2**
KRHZ	**Kereru**	**2.77**	**200**	P	**Pn**		**01 29 00.2**	**-1.2**
MOVZ	**Moawhango**	**2.77**	**211**	P	**Pn**		**01 29 00.3**	**-1.2**
TRVZ	**Turoa**	**2.77**	**215**	P	**Pn**		**01 29 01.5**	**-0.2**
WNVZ	**Wahianoa**	**2.77**	**214**	P	**Pn**		**01 29 01.1**	**-0.5**
KAHZ	**Kahuranaki**	**2.80**	**192**	P	**Pn**		**01 29 01.2**	**-0.7**
WCZ	**Waipu Caves**	**2.85**	**292**	P	**Pn**		**01 29 01.3**	**-1.1**
WCZ				AML	AML			
PKVZ	**Pokaka**	**2.86**	**218**	P	**Pn**		**01 29 02.5**	**-0.1**
PXZ	**Pawanui**	**3.04**	**191**	P	**Pn**		**01 29 03.4**	**-1.2**
VRZ	**Vera Road**	**3.06**	**226**	P	**Pn**		**01 29 08.0**	**+3.0**
PNHZ	**Pukenui**	**3.07**	**201**	P	**Pn**		**01 29 03.7**	**-1.5**
WPHZ	**Waipukurau**	**3.15**	**196**	P	**Pn**		**01 29 05.3**	**-0.9**
TSZ	**Takapari Road**	**3.27**	**203**	P	**Pn**		**01 29 05.9**	**-1.8**
PRHZ	**Porangahau**	**3.31**	**193**	P	**Pn**		**01 29 06.6**	**-1.5**
WAZ	**Wanganui**	**3.40**	**216**	P	**Pn**		**01 29 08.9**	**-0.4**
DVHZ	**Dannevirke**	**3.44**	**199**	P	**Pn**		**01 29 07.7**	**-2.1**
ANWZ	**Angora Road**	**3.52**	**194**	P	**Pn**		**01 29 09.5**	**-1.3**
PKE	**Pukeiti**	**3.57**	**232**	P	**Pn**		**01 29 13.6**	**+2.2**
POWZ	**Post Office Ro**	**3.64**	**203**	P	**Pn**		**01 29 10.8**	**-1.5**
OUZ	**Omahuta**	**3.72**	**298**	P	**Pn**		**01 29 12.3**	**-1.1**
BFZ	**Birch Farm**	**3.78**	**196**	Pn	**Pn**		**01 29 12.5**	**-1.6**
BFZ	**Birch Farm**	**3.78**	**196**	P	**Pn**		**01 29 12.0**	**-2.1**
MRZ	**Mangatainoka R**	**3.94**	**203**	Pn	**Pn**		**01 29 13.4**	**-2.8**
MRZ	**Mangatainoka R**	**3.94**	**203**	P	**Pn**		**01 29 13.7**	**-2.5**
TIWZ	**Tintock**	**3.96**	**199**	P	**Pn**		**01 29 14.3**	**-2.2**
CPWZ	**Castlepoint**	**4.01**	**195**	P	**Pn**		**01 29 15.9**	**-1.2**
HOWZ	**Holdsworth Sta**	**4.18**	**202**	P	**Pn**		**01 29 16.3**	**-2.9**
OGWZ	**Otaki Gorge**	**4.22**	**206**	P	**Pn**		**01 29 17.5**	**-2.3**
TMWZ	**Te Maipa**	**4.27**	**198**	P	**Pn**		**01 29 18.0**	**-2.4**
KIW	**Kapiti Island**	**4.35**	**208**	P	**Pn**		**01 29 18.8**	**-2.7**
MTW	**Mount Morrison**	**4.42**	**201**	P	**Pn**		**01 29 19.2**	**-3.2**
CAW	**Cannon Point**	**4.51**	**205**	P	**Pn**		**01 29 20.5**	**-3.0**
TRWZ	**Traveller**	**4.59**	**198**	P	**Pn**		**01 29 21.9**	**-2.8**
PAWZ	**Paruwai Farm**	**4.65**	**201**	P	**Pn**		**01 29 22.0**	**-3.4**
DUWZ	**D'Urville Isla**	**4.72**	**216**	P	**Pn**		**01 29 23.5**	**-2.8**
MSWZ	**Moikau Station**	**4.73**	**202**	P	**Pn**		**01 29 23.3**	**-3.1**
PLWZ	**Palliser**	**4.87**	**201**	P	**Pn**		**01 29 24.8**	**-3.5**
TCW	**Tory Channel**	**4.90**	**211**	P	**Pn**		**01 29 25.3**	**-3.3**
TUWZ	**Tuamarina**	**5.22**	**212**	P	**Pn**		**01 29 29.8**	**-3.0**
NNZ	**Nelson**	**5.31**	**217**	P	**Pn**		**01 29 31.2**	**-2.7**
TKNZ	**Takaka Hill**	**5.38**	**221**	P	**Pn**		**01 29 31.9**	**-3.0**
QRZ	**Quartz Range**	**5.47**	**225**	P	**Pn**		**01 29 32.6**	**-3.5**
QRZ	**Quartz Range**	**5.47**	**225**	P	**Pn**		**01 29 32.6**	**-3.5**
BSWZ	**Blackbirch Sta**	**5.49**	**211**	P	**Pn**		**01 29 32.9**	**-3.4**
MRNZ	**Matariki Terra**	**5.75**	**219**	P	**Pn**		**01 29 36.4**	**-3.4**
THZ	**Tophouse**	**5.95**	**216**	P	**Pn**		**01 29 39.5**	**-3.0**
KHZ	**Kahutara**	**6.21**	**209**	P	**Pn**		**01 29 42.0**	**-3.9**
KHZ	**Kahutara**	**6.21**	**209**	P	Pn		01 29 42.0	-3.9
DSZ	**Denniston Nort**	**6.50**	**222**	P	Pn		01 29 45.5	-4.2
GVZ	**Greta Valley S**	**6.88**	**209**	P	Pn		01 29 50.6	-4.1
LTZ	**Lake Taylor**	**7.04**	**214**	P	Pn		01 29 52.4	-4.5
INZ	**Inchbonnie**	**7.39**	**218**	P	**Pn**		**01 29 58.7**	**-2.8**
OKCZ	**Okains Bay**	**7.52**	**206**	P	Pn		01 29 59.1	-4.2
OXZ	**Oxford**	**7.58**	**212**	P	Pn		01 29 59.3	-4.8
MQZ	**McQueen's Vall**	**7.65**	**208**	P	Pn		01 29 59.5	-5.5
AKCZ	**Akaroa Harbour**	**7.70**	**206**	P	Pn		01 30 01.2	-4.4
MHCZ	**Mount Hutt**	**7.95**	**214**	P	Pn		01 30 04.8	-4.2
WACZ	**Wakanui South**	**8.17**	**211**	P	Pn		01 30 06.6	-5.2
ARCZ	**Arundel**	**8.45**	**213**	P	Pn		01 30 11.5	-4.1
FOZ	**Fox Glacier**	**8.79**	**220**	P	**Pn**		**01 30 16.6**	**-3.5**
TMZ	**Timaru**	**8.88**	**212**	P	Pn		01 30 16.8	-4.4
ODZ	**Otahua Downs**	**9.56**	**211**	P	Pn		01 30 25.9	-4.3
ODZ	**Otahua Downs**	**9.56**	**211**	P	Pn		01 30 26.0	-4.2
JCZ	**Jackson Bay**	**9.71**	**221**	P	Pn		01 30 27.7	-4.6
STKA	**Stephens Creek**	**30.02**	**269**	P	**P**		**01 34 11.1**	**+1.5**
CTAO	**Charters Tower**	**32.11**	**293**	P	**P**		**01 34 28.7**	**+0.6**
AS31	**Alice Springs**	**39.66**	**277**	P	**P**		**01 35 32.9**	**+0.5**
AS31				IAmb	IAmb		01 35 33.2	
	comp=Z,2.2nm,0.5s							
ASAR	**Alice Springs**	**39.66**	**277**	P	**P**		**01 35 32.5**	**+0.1**
	comp=Z,4.0nm,0.5s,baz=121,slow=8.1,SNR=45							
	comp=Z,4.0nm,0.5s							
WR8	**Warramunga Arr**	**41.15**	**282**	P	**P**		**01 35 44.4**	**-0.2**
WR8				IAmb	IAmb		01 35 46.1	
	comp=Z,22nm,1.4s							
FORT	**Forrest**	**41.22**	**264**	P	**P**		**01 35 45.0**	**0.0**
FORT				IAmb	IAmb		01 36 08.5	
	comp=Z,12nm,1.1s							
WRAB	**Tennant Creek**	**41.28**	**282**	P	**P**		**01 35 45.4**	**-0.2**
WRAB				IAmb	IAmb		01 35 46.7	
	comp=Z,4.8nm,0.8s							
WRA	**Warramunga Arr**	**41.28**	**282**	P	**P**		**01 35 45.2**	**-0.4**
	comp=Z,3.3nm,0.6s,baz=122,slow=7.6,SNR=30							
WRA				PcP	**PcP**		**01 37 40.7**	**-0.5**
	comp=Z,0.5nm,0.5s,baz=108,slow=2.9,SNR=2.8							
	comp=Z,3.3nm,0.6s							
WRA	**Warramunga Arr**	**41.28**	**282**	P	**P**		**01 35 45.5**	**-0.1**
WRA					**PcP**		**01 37 40.5**	**-0.7**
WB0	**Warramunga Arr**	**41.34**	**282**	P	**P**		**01 35 45.7**	**-0.4**
WB0				IAmb	IAmb		01 35 46.2	
	comp=Z,5.2nm,0.7s							
FITZ	**Fitzroy Crossi**	**49.15**	**278**	P	**P**		**01 36 47.5**	**-0.1**
QSPA	**South Pole Qui**	**53.08**	**180**	P	**P**		**01 37 19.5**	**+3.1**
	comp=Z,2.9nm,0.7s,baz=41,slow=2.7,SNR=10							
	comp=Z,2.9nm,0.7s							
QSPA	**South Pole Qui**	**53.08**	**180**	P	**P**		**01 37 20.0**	**+3.6**
QSPA				IAmb	IAmb		01 37 23.7	
	comp=Z,5.9nm,1.0s							
BELA	**Belgrano 2**	**63.69**	**173**	P	**P**		**01 38 31.1**	**+1.5**
BELA				IAmb	IAmb		01 38 35.3	
	comp=Z,5.8nm,1.2s							
PMSA	**Palmer Station**	**67.72**	**156**	P	**P**		**01 38 57.8**	**+2.4**
SNAA	**Sanae**	**71.58**	**180**	P	**P**		**01 39 21.8**	**+2.7**
KSRS	**Korea Array**	**87.21**	**323**	P	**P**		**01 40 44.3**	**+0.6**
	comp=Z,0.8nm,0.4s,baz=151,slow=4.8,SNR=3.2							
	comp=Z,0.8nm,0.4s							
CMAR	**Chiang Mai Arr**	**92.26**	**291**	P	**P**		**01 41 07.8**	**-0.1**
	comp=Z,2.2nm,0.3s,baz=153,slow=2.3,SNR=4.0							
	comp=Z,2.2nm,0.3s							
KURK	**Kurchatov**	**122.85**	**312**			**PKPdf**	**01 46 50.3**	**-1.8**
KURBB	**Kurchatov Arra**	**122.88**	**312**	PKP		**PKPdf**	**01 46 50.2**	**-2.0**
	comp=Z,0.7nm,0.6s,baz=115,slow=1.8,SNR=7.6							
BVAR	**Borovoye Array**	**128.40**	**313**	PKP		**PKPdf**	**01 47 01.5**	**-1.3**
	comp=Z,0.6nm,0.6s,baz=27,slow=3.5,SNR=2.7							
ARCES	**ARCESS Array B**	**144.12**	**344**	PKP		**PKPab**	**01 47 28.4**	**-0.9**
	comp=Z,3.1nm,0.7s,baz=8.5,slow=2.5,SNR=8.2							
GURO	**Guroymak-BITLI**	**145.12**	**286**	PKPbc		**PKPab**	**01 47 34.1**	**-0.2**
ARPR	**Arapgir-MALATY**	**148.06**	**286**			**PKPbc**	**01 47 41.1**	**-1.4**
MMAI	**Mount Meron Ar**	**148.93**	**274**	PKPbc		**PKPbc**	**01 47 44.9**	**+0.1**
	comp=Z,33nm,1.3s,baz=50,slow=11,SNR=5.9							
DBIC	**Dimbokro**	**149.68**	**175**	PKPbc		**PKPbc**	**01 47 46.9**	**-0.2**
	comp=Z,6.6nm,0.8s,baz=188,slow=2.5,SNR=7.4							
DBIC	**Dimbokro**	**149.68**	**175**	PKPbc		**PKiKP**	**01 47 47.5**	**-0.5**
FIA1	**FINESS Array S**	**149.77**	**333**	PKPbc		**PKPbc**	**01 47 44.1**	**-1.7**
FINES	**FINESS Array B**	**149.77**	**333**	PKPbc		**PKPbc**	**01 47 44.2**	**-1.6**
	comp=Z,3.0nm,0.5s,baz=37,slow=4.1,SNR=33							
FINES	**FINESS Array B**	**149.77**	**333**			**PKPbc**	**01 47 44.1**	**-1.7**
BRTR	**Keskin Array B**	**151.75**	**287**	PKPbc		**PKPbc**	**01 47 50.0**	**-1.4**
	comp=Z,1.2nm,0.7s,baz=161,slow=2.9,SNR=7.4							
BRTR	**Keskin Array B**	**151.75**	**287**	PKPdf		**PKPdf**	**01 47 44.3**	**-0.6**
AKASG	**Malin Array Be**	**153.66**	**311**	PKPbc		**PKPbc**	**01 47 53.9**	**-1.1**
	comp=Z,0.3nm,0.3s,baz=67,slow=2.0,SNR=1.8							
ARG	**Arkhangelos**	**155.54**	**277**	PKPdf		**PKPdf**	**01 47 48.8**	**-1.4**
TORD	**Torodi

50nm,0.2s
GUMO AML AML
GUMO Guam 4.66 72 P Pn 01 53 00.9 -0.3
SMPI Sarmi 14.15 187 P P 01 55 21.8 +3.5
JAY Jayapura 14.59 178 Pn **Pn 01 55 17.4 +0.1**
7.5nm,0.3s,baz=31,slow=8.7,SNR=33
JAY Sn **Sn 01 57 53.9 -4.0**
0.9nm,0.3s,baz=54,slow=19,SNR=1.6
JAY Jayapura 14.59 178 P Pn 01 55 18.5 +1.2
3µm48nm,0.8s
GENI Genyem 14.66 181 P Pn 01 55 21.4 +3.1
2µm245nm,1.1s
GENI Genyem 14.66 181 P Pn 01 55 17.6 -0.7
comp=Z,249nm,1.0s
DAV Davao City (W) 15.39 252 LR LR 02 00 36.6
comp=Z,229nm,21.6s,baz=76,slow=34
SIJI Sorong 15.76 215 Pn **Pn 01 55 33.0 +0.2**
comp=Z,1.7nm,0.3s,baz=15,slow=14,SNR=4.3
SIJI LR LR 02 00 24.7
comp=Z,678nm,19.4s,baz=51,slow=33
SIJI Sorong 15.76 215 P P 01 55 40.6 +4.4
FAKI Fak Fak 17.00 209 Pn 01 55 48.9 +0.5
FAKI Fak Fak 17.00 209 P P 01 55 51.7 +1.8
comp=Z,2µmcomp=Z,129nm,1.2s
FAKI Fak Fak 17.00 209 P Pn 01 55 48.6 +0.2
comp=Z,131nm,1.3s
KMPI Kaimana, Papua 17.04 203 P P 01 55 59.3 +8.9
JOW Kunigami 18.47 324 LR LR 02 01 45.1
comp=Z,626nm,19.4s,baz=219,slow=32
PATS Pohnpei 18.51 105 P P 01 56 07.7 +1.0
comp=Z,101nm,1.0s
MSAI Masohi 19.12 217 P Pn 01 56 15.2 +0.8
SANI Sanana 20.05 226 P Pn 01 56 25.5 0.0
SANI Sanana 20.05 226 P P 01 56 24.2 +0.7
comp=Z,30nm,1.4s
KRVT Keravat (AS076 20.08 144 LR LR 02 02 47.8
comp=Z,980nm,20.4s,baz=314,slow=33
NLAI Namlea 20.17 221 P Pn 01 56 29.5 +2.6
comp=Z,1µmcomp=Z,82nm,1.4s
GTOI Gorontalo 20.64 238 P Pn 01 56 32.6 +0.2
comp=Z,77nm,1.1s
TWG Pinlang 21.17 303 P P 01 56 38.2 +2.6
comp=Z,116nm,1.2s
YULB Yu-li 21.25 304 P P 01 56 36.7 +0.2
comp=Z,73nm,1.8s
JSU Suzuyama 21.30 336 P P 01 56 35.9 -0.9
comp=Z,82nm,1.0s
SSLB Suanglung 21.72 305 P P 01 56 41.6 +0.1
SSLB IAmb IAmb 01 57 01.5
comp=Z,94nm,1.1s
SSLB Suanglung 21.72 305 P P 01 56 41.1 -0.4
comp=Z,112nm,1.2s
TPUB Ta-pu 21.75 303 P P 01 56 40.1 -1.8
TPUB IAmb IAmb 01 56 52.9
comp=Z,137nm,1.0s
TPUB Ta-pu 21.75 303 P P 01 56 43.4 +1.6
comp=Z,166nm,1.2s
LUWI Luwuk 21.81 234 P 01 56 41.2 -1.3
LUWI Luwuk 21.81 234 P P 01 56 43.6 +1.1
LUWI Luwuk 21.81 234 P P 01 56 43.5 +1.0
comp=Z,245nm,0.9s
JMN Monobe 22.26 346 P 01 56 46.9 -0.3
JMN IAmb IAmb 01 56 58.6
comp=Z,96nm,1.2s
JMN Monobe 22.26 346 P P 01 56 48.6 +1.5
comp=Z,72nm,1.3s
TOLI2 Tolitoli 22.27 242 P 01 56 45.8 -1.7
TOLI2 IAmb IAmb 01 56 57.0
comp=Z,57nm,0.9s
TOLI2 Tolitoli 22.27 242 P P 01 56 46.5 -0.9
comp=Z,70nm,1.0s
PMG Port Moresby 22.48 162 *i* P **P 01 56 48.8 -0.8**
PMG pmax pmax
comp=Z,23nm,1.0s
JNU Nakatsue 22.59 339 LR LR 02 03 09.3
comp=Z,383nm,21.5s,baz=129,slow=30
APSI Ampana 22.64 236 P P 01 56 51.7 +0.3
KDI Kendari 23.79 229 P P 01 57 05.0 +2.2
comp=Z,15nm,0.6s
MJAR Matsushiro Arr 24.35 356 P P 01 57 05.4 -2.4
comp=Z,2.8nm,0.5s,baz=177,slow=11,SNR=7.4
comp=Z,2.8nm,0.5s
MJAR Matsushiro Arr 24.35 356 P P 01 57 08.1 +0.3
MJAR pmax pmax
comp=Z,5.0nm,1.0s
MJAR Matsushiro Arr 24.35 356 P P 01 57 08.1 +0.3
BBSI Bau Bau 24.88 226 P P 01 57 27.5 +15
TTSI Tana Toraja 25.37 235 P P 01 57 22.0 +4.8
comp=Z,91nm,1.3s
KDU Kakadu 25.89 198 P P 01 57 24.2 +2.4
comp=Z,20nm,1.0s
KDU Kakadu 25.89 198 P P 01 57 24.5 +2.6
comp=Z,20nm,1.0s
MTN Manton Dam 26.46 200 P P 01 57 27.2 +0.1
comp=Z,12nm,1.6s
MTN Manton Dam 26.46 200 P P 01 57 28.3 +1.2
comp=Z,12nm,1.6s
MTN Manton Dam 26.46 200 P 01 57 27.4 +0.3
KAPI Kappang 26.64 231 LR LR 02 07 07.4
comp=Z,122nm,20.2s,baz=46,slow=35
SOEI Soe 26.99 217 P P 01 57 40.4 +8.4
SOEI Soe 26.99 217 P P 01 57 32.9 +0.9
comp=Z,104nm,1.0s
KSRS Korea Array 27.53 338 P P 01 57 36.0 -0.5
KSRS LR LR 02 06 50.9
comp=Z,364nm,21.3s,baz=155,slow=33
comp=Z,2.2nm,0.8s
KSRS Korea Array 27.53 338 P P 01 57 36.0 -0.5
KSAR Wonju Array Be 27.53 338 P P 01 57 36.0 -0.5
KSAR Wonju Array Be 27.53 338 P 01 57 36.0 -0.5
BATI Baumata 27.71 217 LR LR 02 08 02.0
comp=Z,430nm,18.8s,baz=50,slow=35
BATI Baumata 27.71 217 P P 01 57 48.1 +10
EDFI Ende, Flores 27.83 223 P P 01 57 52.7 +13
NJ2 Nanjing 27.96 318 *eP* **P 01 57 40.8 +0.4**
NJ2 pmax pmax
comp=Z,12nm,0.5s
HNR Honiara 28.99 137 LR LR 02 08 43.5
comp=Z,192nm,20.6s,baz=46,slow=35
KNRA Kununurra 29.93 203 P P 01 57 59.1 +1.1
comp=Z,12nm,1.3s
KNRA Kununurra 29.93 203 P P 01 57 56.3 -1.7
comp=Z,12nm,1.3s
KNRA Kununurra 29.93 203 P 01 57 58.9 +0.8
WHN Wuhan 30.20 311 P P 01 58 03.2 +2.9
MTSU Mount Surprise 30.36 172 P P 01 58 01.3 -0.5
comp=Z,6.0nm,1.1s
DL2 Dalian 31.39 331 P P 01 58 13.0 +2.3
DL2 S S 02 03 20.7 +5.1
DL2 pmax pmax
comp=Z,21nm,1.1s
DL2 pmax pmax
comp=Z,190nm,4.8s
DL2 L L
comp=Z,480nm,22.7s
DL2 L L
comp=Z,510nm,19.0s
DL2 L L
comp=Z,670nm,19.9s
ASAJ Asahikawa 31.90 3 LR LR 02 11 01.7
comp=Z,102nm,19.5s,baz=164,slow=36
WB0 Warramunga Arr 32.26 191 P P 01 58 16.4 -2.1
WB0 IAmb IAmb 01 58 41.6
comp=Z,36nm,1.5s
WB9 Warramunga Arr 32.28 191 P P 01 58 16.8 -2.0
WB8 Warramunga Arr 32.31 191 P P 01 58 16.9 -2.1
WR8 Warramunga Arr 32.42 190 P P 01 58 18.1 -1.9
WRAB Tennant Creek 32.43 191 *i* P **P 01 58 20.5 +0.5**
WRAB pmax pmax
comp=Z,3.0nm,0.6s
WRAB Tennant Creek 32.43 191 P P 01 58 18.4 -1.6
comp=Z,16nm,1.3s
WRA Warramunga Arr 32.44 191 P P 01 58 18.0 -2.1
comp=Z,4.2nm,1.0s,baz=4.8,slow=9.6,SNR=12
comp=Z,4.2nm,1.0s
WRA Warramunga Arr 32.44 191 *i* P **P 01 58 17.5 -2.6**
WRA pmax pmax
comp=Z,4.0nm,1.0s
WRA Warramunga Arr 32.44 191 P P 01 58 16.2 -3.9
QIS Mount Isa 32.52 181 P P 01 58 21.0 +0.1
comp=Z,14nm,1.5s
QIS Mount Isa 32.52 181 P P 01 58 20.2 -0.7
comp=Z,14nm,1.5s
QIS Mount Isa 32.52 181 P P 01 58 19.6 -1.2
comp=Z,13nm,1.5s

CTA Charters Tower 32.57 170 P P 01 58 21.6 +0.3
comp=Z,13nm,0.9s
CTA Charters Tower 32.57 170 P P 01 58 21.3 0.0
comp=Z,13nm,0.9s
CTAO Charters Tower 32.57 170 P P 01 58 21.0 -0.3
CTAO pmax pmax
comp=Z,23nm,0.9s
CTAO Charters Tower 32.57 170 P P 01 58 21.0 -0.3
CTAO IAmb IAmb 01 58 22.0
comp=Z,22nm,0.8s
USRK Ussuriysk Ar. 32.72 349 P P 01 58 21.8 -0.5
comp=Z,4.4nm,0.7s,baz=154,slow=6.6,SNR=6.5
USRK LR LR 02 09 15.7
comp=Z,102nm,20.3s,baz=167,slow=32
comp=Z,4.4nm,0.7s
FITZ Fitzroy Crossi 33.38 206 P P 01 58 34.4 +6.0
FITZ Fitzroy Crossi 33.38 206 P P 01 58 33.6 +5.3
comp=Z,2.2nm,1.3s
FITZ Fitzroy Crossi 33.38 206 P 01 58 29.7 +1.4
FITZ Fitzroy Crossi 33.38 206 P P 01 58 27.3 -1.0
comp=Z,2.2nm,1.3s
HNS HongShan 34.02 322 ⇓P **P 01 58 34.0 +0.2**
HNS S S 02 04 05.6 +9.0
HNS pmax pmax
comp=Z,14nm,0.7s
HNS L L
comp=Z,390nm,15.9s
HNS L L
comp=Z,490nm,14.1s
HNS L L
comp=Z,560nm,16.7s
CN2 Changchun 34.04 341 P P 01 58 38.0 +4.2
CN2 pmax pmax
comp=Z,10.0nm,0.6s
BJI2 Beijing 34.99 327 P P 01 58 42.6 +0.5
BJI2 sP **pP 01 58 56.4 +4.6**
BJI2 S **S 02 04 11.5 +0.1**
BJI2 pmax pmax
comp=Z,6.0nm,0.8s
BJI2 L L
comp=Z,290nm,21.0s
BJI2 L L
comp=Z,210nm,20.7s
BJI2 L L
comp=Z,290nm,23.0s
BJT Baijiatuau 34.99 327 P P 01 58 42.9 +0.8
comp=Z,15nm,1.1s
BNX BinXian 35.23 344 ⇑P **P 01 58 44.3 +0.2**
BNX pmax pmax
comp=Z,21nm,0.8s
AS16 Alice Springs 36.12 190 P P 01 58 52.0 -0.1
comp=Z,8.0nm,1.1s
AS15 Alice Springs 36.12 190 P P 01 58 50.7 -1.3
comp=Z,12nm,1.1s
AS06 Alice Springs 36.13 190 P P 01 58 54.7 +2.6
comp=Z,7.4nm,1.1s
AS17 Alice Springs 36.14 190 P P 01 58 53.5 +1.3
comp=Z,8.9nm,0.9s
AS17 Alice Springs 36.14 190 P P 01 58 52.9 +0.7
comp=Z,8.9nm,0.9s
AS31 Alice Springs 36.16 190 P 01 58 54.3 +2.0
ASAR Alice Springs 36.16 190 P P 01 58 51.3 -1.0
comp=Z,0.9nm,0.6s,baz=19,slow=12,SNR=12
ASAR PP **PnPn 02 00 11.2 -3.4**
comp=Z,4.0nm,1.0s,baz=13,slow=10,SNR=4.2
ASAR PcP **PcP 02 01 17.1 -0.4**
comp=Z,1.6nm,0.9s,baz=17,slow=3.4,SNR=1.9
ASAR LR LR 02 13 55.8
comp=Z,326nm,18.7s,baz=340,slow=37
comp=Z,0.9nm,0.6s
ASAR Alice Springs 36.16 190 P P 01 58 51.7 -0.6
LEM Lembang 37.59 242 LR LR 02 15 33.5
comp=Z,157nm,20.7s,baz=148,slow=38
KLR Kul'dur 37.63 351 LR LR 02 12 32.6
comp=Z,85nm,21.9s,baz=178,slow=33
KLR Kul'dur 37.63 351 *ceP* **P 01 59 05.2 +0.6**
KLR pmax pmax
comp=Z,60nm,1.3s
XLT XiLinHaoTe 37.89 331 *eP* **P 01 59 07.4 +0.5**
XLT S **S 02 04 57.5 +1.6**
XLT pmax pmax
comp=Z,10.0nm,0.9s
XLT pmax pmax
comp=Z,86nm,7.6s
XLT L L
comp=Z,270nm,14.8s
XLT L L
comp=Z,270nm,16.8s
HHC Hu-ho-hao-te 38.12 324 *eP* **P 01 59 10.2 +1.2**
HHC pmax pmax
comp=Z,5.0nm,0.6s
HHC pmax pmax
comp=Z,62nm,4.5s
HHC L L
comp=Z,250nm,13.5s
HHC L L
comp=Z,170nm,13.5s
HHC L L
comp=Z,190nm,17.7s
CD2 Chengdu 38.55 305 P P 01 59 14.9 +2.2
CD2 pmax pmax
comp=Z,30nm,0.5s
CD2 L L
comp=Z,660nm,9.5s
CD2 L L
comp=Z,960nm,14.0s
CD2 L L
comp=Z,390nm,11.4s
QLP Quilpie 38.70 174 P P 01 59 12.8 -1.0
comp=Z,36nm,1.0s
QLP Quilpie 38.70 174 P P 01 59 12.2 -1.5
comp=Z,35nm,1.0s
QLP Quilpie 38.70 174 P P 01 59 12.8 -1.0
comp=Z,36nm,1.0s
WRKA Warakurna 38.79 198 P P 01 59 16.2 +1.7
comp=Z,4.0nm,1.4s
WRKA Wakurna 38.79 198 P P 01 59 15.7 +1.1
comp=Z,7.5nm,1.4s
BTO2 Baotou 39.05 322 *eP* **P 01 59 16.1 -0.7**
BTO2 pP **pP 01 59 25.8 -0.7**
BTO2 S **S 02 05 13.6 +0.1**
BTO2 pmax pmax
comp=Z,15nm,0.6s
BTO2 pmax pmax
comp=Z,360nm,5.2s
BTO2 L L
comp=Z,610nm,15.3s
BTO2 L L
comp=Z,380nm,9.2s
BTO2 L L
comp=Z,450nm,14.7s
HEH HeiHe 39.44 347 *eP* **P 01 59 20.2 +0.5**
HEH pmax pmax
comp=Z,55nm,0.7s
HEH L L
comp=Z,280nm,17.2s
HEH L L
comp=Z,620nm,17.6s
HEH L L
comp=Z,290nm,19.4s
CMAR Chiang Mai Arr 40.33 284 P **P 01 59 28.8 +1.2**
comp=Z,2.1nm,0.4s,baz=89,slow=7.0,SNR=14
CMAR LR LR 02 14 01.9
comp=Z,239nm,21.7s,baz=90,slow=33
comp=Z,2.1nm,0.4s
CMAR Chiang Mai Arr 40.33 284 *i* P **P 01 59 29.1 +1.5**
CMAR pmax pmax
comp=Z,2.0nm,0.4s
CMAR Chiang Mai Arr 40.33 284 P 01 59 27.6 +0.1
LZDM Lanzhou Array 40.62 312 LR LR 02 15 31.6
comp=Z,376nm,20.7s,baz=110,slow=35
HILR Hailar Array B 40.97 340 P **P 01 59 31.9 -0.6**
comp=Z,1.2nm,0.3s,baz=165,slow=12,SNR=1.7
comp=Z,1.2nm,0.3s
PSI Prapat 42.03 261 P P 01 59 49.0 +7.3
RPSI Rantau Prapat 42.06 260 P **P 01 59 41.8 0.0**
comp=Z,17nm,0.9s
DZM Mont Dzumac 42.59 143 LR LR 02 15 09.2
comp=Z,494nm,19.6s,baz=314,slow=33
ZEA Zeya 42.76 349 *eP* **P 01 59 47.6 +0.7**
ZEA pmax pmax
comp=Z,20nm,1.0s
KCSI Kotacane, Aceh 42.96 262 P P 01 59 56.4 +7.2
PETK Petropavlovsk- 43.15 15 P **P 01 59 50.5 +0.3**
comp=Z,4.8nm,0.9s,baz=169,slow=3.0,SNR=4.9
comp=Z,4.8nm,0.9s
PETK Petropavlovsk- 43.15 15 P P 01 59 51.6 +1.5

PETK Petropavlovsk- 43.15 15 P P 01 59 51.6 +1.5
CMSA Cobar Meteorol 43.75 173 P P 01 59 54.8 -0.4
comp=Z,36nm,1.0s
CMSA Cobar Meteorol 43.75 173 P P 01 59 54.2 -1.0
comp=Z,36nm,1.0s
CMSA Cobar Meteorol 43.75 173 P P 01 59 54.8 -0.4
comp=Z,36nm,1.0s
STKA Stephens Creek 43.80 178 P P 01 59 54.8 -0.9
comp=Z,96nm,0.8s
STKA Stephens Creek 43.80 178 P P 01 59 54.2 -1.4
comp=Z,96nm,0.8s
STKA Stephens Creek 43.80 178 P P 01 59 54.6 -1.1
comp=Z,14nm,0.9s,baz=342,slow=7.9,SNR=13
STKA LR LR 02 18 43.6
comp=Z,187nm,19.3s,baz=14,slow=37
comp=Z,14nm,0.9s
STKA Stephens Creek 43.80 178 P P 01 59 54.5 -1.1
STKA pmax pmax
comp=Z,72nm,0.8s
STKA Stephens Creek 43.80 178 P 01 59 54.5 -1.1
STKA Stephens Creek 43.80 178 P P 01 59 54.7 -0.9
comp=Z,96nm,0.8s
FORT Forrest 44.29 195 P P 02 00 02.6 +3.0
comp=Z,31nm,0.9s
FORT Forrest 44.29 195 P P 02 00 02.0 +2.5
comp=Z,31nm,0.9s
FORT Forrest 44.29 195 P 01 59 59.3 -0.2
FORT IAmb IAmb 02 00 13.6
comp=Z,45nm,1.2s
GTA2 Gaotai 44.97 315 *eP* **P 02 00 05.9 +0.8**
GTA2 S **S 02 06 39.9 -1.2**
GTA2 SS **ScS 02 09 55.7 -3.9**
GTA2 pmax pmax
comp=Z,7.0nm,0.8s
GTA2 L L
comp=Z,310nm,15.9s
GTA2 L L
comp=Z,180nm,16.5s
GTA2 L L
comp=Z,260nm,17.8s
ULN Ulaanbaatar 45.15 329 *ceP* **P 02 00 07.1 +0.7**
ULN pmax pmax
comp=Z,8.0nm,1.0s
ULN Ulaanbaatar 45.15 329 P 02 00 06.7 +0.3
ULN Ulaanbaatar 45.15 329 P P 02 00 06.7 +0.3
comp=Z,49nm,1.1s
ULN Ulaanbaatar 45.15 329 P P 02 00 05.6 -0.9
comp=Z,13nm,1.1s
HTT Hallett 45.36 182 P P 02 00 09.9 +1.9
comp=Z,7.5nm,0.9s
HTT Hallett 45.36 182 P P 02 00 09.3 +1.3
comp=Z,7.5nm,0.9s
SONM Songino Array 45.47 328 P P 02 00 08.9 -0.1
comp=Z,3.0nm,0.9s,baz=150,slow=9.1,SNR=10
SONM PcP **PcP 02 01 47.3 -0.2**
comp=Z,2.3nm,0.7s,baz=146,slow=4.6,SNR=4.3
SONM LR LR 02 19 39.2
comp=Z,269nm,18.9s,baz=130,slow=37
comp=Z,3.0nm,0.9s
SONM Songino Array 45.47 328 P P 02 00 09.4 +0.5
SONM 02 01 47.2
SONM pmax pmax
comp=Z,35nm,2.0s
SONM Songino Array 45.47 328 P 02 00 09.4 +0.5
SONM IAmb IAmb 02 00 19.5
comp=Z,35nm,2.0s
SONM **PcP 02 01 47.2 -0.3**
GOMU GeErMu 47.36 308 P P 02 00 24.8 +0.5
GOMU S **S 02 07 09.2 -6.7**
GOMU pmax pmax
comp=Z,2.0nm,0.5s
GOMU L L
comp=Z,210nm,12.8s
GOMU L L
comp=Z,160nm,12.4s
GOMU L L
comp=Z,260nm,12.8s
BRDH Bariadhala 47.42 290 LR LR 02 20 05.6
comp=Z,217nm,19.7s,baz=139,slow=36
MSVF Nonsavu 47.64 128 LR LR 02 18 09.2
comp=Z,291nm,19.1s,baz=346,slow=33
MSVF Nonsavu 47.64 128 *i* P **P 02 00 27.1 +0.8**
MSVF pmax pmax
comp=Z,25nm,1.0s
MSVF Nonsavu 47.64 128 P 02 00 26.4 +0.2
MSVF Nonsavu 47.64 128 P P 02 00 25.1 -1.2
comp=Z,51nm,0.8s
KLBR Kellerberrin 48.59 206 P P 02 00 34.7 +1.4
comp=Z,84nm,0.8s
KLBR Kellerberrin 48.59 206 P P 02 00 34.1 +0.8
comp=Z,84nm,0.8s
ZAK Zakamensk 48.66 329 *eP* **P 02 00 34.3 +0.5**
ZAK pmax pmax
comp=Z,14nm,1.6s
SHEM Shemya Is, Ala 48.66 27 LR LR 02 18 39.8
comp=Z,169nm,21.2s,baz=284,slow=33
ARPS Mount Arapiles 48.69 178 P P 02 00 33.2 -0.7
comp=Z,6.6nm,1.4s
ARPS Mount Arapiles 48.69 178 P P 02 00 32.7 -1.3
comp=Z,6.6nm,1.4s
TLY Talaya 49.30 331 LR LR 02 21 31.4
comp=Z,170nm,20.5s,baz=122,slow=36
TOO Toolangi 49.71 175 P P 02 00 42.5 +0.7
comp=Z,8.1nm,1.2s
TOO Toolangi 49.71 175 P P 02 00 41.9 +0.2
comp=Z,8.1nm,1.2s
TOO Toolangi 49.71 175 P P 02 00 42.2 +0.4
TOO pmax pmax
comp=Z,12nm,1.3s
TOO Toolangi 49.71 175 P 02 00 42.2 +0.4
NWAO Narrogin (SRO) 49.96 206 LR LR 02 22 37.2
comp=Z,82nm,18.2s,baz=358,slow=37
YAK Yakutsk 50.38 354 *ceP* **P 02 00 47.0 +0.5**
YAK pmax pmax
comp=Z,80nm,0.6s
YAK Yakutsk 50.38 354 P 02 00 46.7 +0.2
YAK Yakutsk 50.38 354 P P 02 00 46.9 +0.4
comp=Z,136nm,0.8s
YAK pP **pP 02 00 55.1 -1.5**
MOY Mondy 50.59 329 *eP* **P 02 00 49.4 +0.9**
MOY pmax pmax
comp=Z,32nm,1.3s
SEY Seymchan 51.42 7 *eP* **P 02 00 54.4 +0.1**
SEY pmax pmax
comp=Z,29nm,1.2s
KNGR Kungurtug, Tuv 51.80 327 *i* P **P 02 00 56.8 -0.7**
KNGR pmax pmax
comp=Z,8.0nm,0.9s
EVN Everest 52.26 296 P 02 01 01.0 -1.0
EVN Everest 52.26 296 P P 02 01 01.4 -0.5
comp=Z,9.1nm,1.7s
EVN pP **pP 02 01 10.3 -2.0**
WMQ Urumqi 54.97 315 *eP* P 02 01 25.9 +5.0
WMQ pP pP 02 01 31.1 +0.1
WMQ sP pwP 02 01 37.4 +1.0
WMQ pmax pmax
comp=Z,19nm,0.7s
WMQ L L
comp=Z,220nm,22.3s
WMQ L L
comp=Z,210nm,23.7s
WMQ L L
comp=Z,200nm,20.9s
RAO Raoul Island 57.61 136 LR LR 02 25 19.4
comp=Z,164nm,18.8s,baz=146,slow=35
BILL Bilibino 58.35 11 *ceP* **P 02 01 45.2 +0.8**
BILL pmax pmax
comp=Z,49nm,1.7s
BILI Bilibino, Chuk 58.40 11 P P 02 01 45.0 +0.2
comp=Z,33nm,1.2s
BILI pP **pP 02 01 54.4 -0.6**
PALK Pallekele 58.87 271 LR LR 02 24 17.1
comp=Z,53nm,21.1s,baz=67,slow=33
MK31 Makanchi Array 59.48 317 *ceP* **P 02 01 53.3 +0.6**
MKAR Makanchi Array 59.48 317 P **P 02 01 53.1 +0.4**
comp=Z,4.3nm,0.9s,baz=94,slow=8.6,SNR=21
MKAR LR LR 02 27 48.9
comp=Z,134nm,20.6s,baz=84,slow=36
comp=Z,4.3nm,0.9s
MKAR Makanchi Array 59.48 317 *i* P **P 02 01 53.5 +0.8**
MKAR pmax pmax
comp=Z,4.0nm,0.9s
MKAR Makanchi Array 59.48 317 P 02 01 52.8 +0.1
MAKZ Makanchi 59.69 317 P **P 02 01 54.0 -0.1**
MAKZ pmax pmax
comp=Z,22nm,1.4s

MAKZ	**Makanchi**	**59.69**	**317**			**P**	**02 01 54.0**	**-0.1**
MAKZ					IAmb	IAmb	02 02 04.2	
	comp=Z,22nm,1.4s							
MAKZ	**Makanchi**	**59.69**	**317**	P		**P**	**02 01 55.0**	**+0.8**
	comp=Z,12nm,1.5s							
MAKZ					pP	**pP**	**02 02 03.2**	**-1.1**
TIXI	**Tiksi**	**59.86**	**356**	*ce*	P	**P**	**02 01 54.7**	**-0.1**
TIXI					pmax	pmax		
	comp=Z,10.0nm,1.0s							
TIXI	**Tiksi**	**59.86**	**356**			**P**	**02 01 54.4**	**-0.4**
TIXI					IAmb	IAmb	02 02 06.5	
	comp=Z,12nm,0.9s							
TIXI	**Tiksi**	**59.86**	**356**	P		**P**	**02 01 54.6**	**-0.2**
	comp=Z,18nm,0.9s							
TIXI					pP	**pP**	**02 02 05.4**	**+0.3**
ZAA0	**Zalesovo Array**	**60.25**	**326**			**P**	**02 01 57.4**	**-0.3**
ZALV	**Zalesovo Beam**	**60.25**	**326**	P		**P**	**02 01 57.6**	**-0.1**
	comp=Z,4.0nm,0.7s,baz=110,slow=6.9,SNR=13							
ZALV					PcP	**PcP**	**02 02 42.2**	**-0.6**
	comp=Z,3.9nm,0.7s,baz=111,slow=4.2,SNR=4.3							
ZALV					LR	LR	02 29 16.5	
	comp=Z,175nm,18.5s,baz=54,slow=37							
	comp=Z,4.0nm,0.7s							
ZALV	**Zalesovo Beam**	**60.25**	**326**			**P**	**02 01 57.0**	**-0.8**
ZALV						**PcP**	**02 02 41.5**	**-1.4**
PDGK	**Podgornoye**	**60.60**	**313**	P		**P**	**02 02 00.7**	**+0.1**
PDGK	**Podgornoye**	**60.60**	**313**			**P**	**02 02 00.7**	**+0.1**
URZ	**Urewera**	**60.83**	**147**	LR		LR	02 26 26.8	
	comp=Z,107nm,19.5s,baz=308,slow=34							
PRZ	**Przheval'sk**	**61.23**	**312**	P		**P**	**02 02 05.6**	**+0.7**
	comp=Z,22nm,1.1s							
RPZ	**Rata Peaks**	**62.27**	**155**	LR		LR	02 25 29.0	
	comp=Z,48nm,22.0s,baz=218,slow=32							
ASAI	**AK-SAY(Kyrgyzs**	**62.37**	**310**	P		**P**	**02 02 14.1**	**+1.3**
	comp=Z,8.0nm,1.0s							
NRN	**Naryn**	**62.83**	**310**	P		**P**	**02 02 16.5**	**+0.6**
NRN					pmax	pmax		
	comp=Z,7.0nm,1.2s							
NRN	**Naryn**	**62.83**	**310**			**P**	**02 02 16.5**	**+0.6**
KURK	**Kurchatov**	**62.85**	**321**	*ce*	P	**P**	**02 02 15.9**	**+0.5**
KURK					pmax	pmax		
	comp=Z,30nm,1.0s							
KURK	**Kurchatov**	**62.85**	**321**			**P**	**02 02 15.8**	**+0.5**
KURK	**Kurchatov**	**62.85**	**321**	P		**P**	**02 02 15.9**	**+0.5**
	comp=Z,36nm,0.9s							
KSH2	**Kashi**	**62.88**	**308**	P		**P**	**02 02 17.2**	**+1.2**
KSH2					pP	pP	02 02 25.5	-0.8
KSH2					pmax	pmax		
	comp=Z,6.0nm,1.5s							
KURBB	**Kurchatov Arra**	**62.88**	**321**	P		**P**	**02 02 15.9**	**+0.3**
	comp=Z,12nm,0.7s,baz=104,slow=6.9,SNR=79							
KURBB					LR	LR	02 32 03.1	
	comp=Z,140nm,18.0s,baz=170,slow=38							
	comp=Z,12nm,0.7s							
BOOM	**Boomskoye usch**	**63.03**	**312**	P		**P**	**02 02 17.5**	**+0.6**
	comp=Z,5.3nm,0.9s							
AAK	**Ala-Archa**	**64.10**	**312**	LR		LR	02 32 07.6	
	comp=Z,102nm,19.0s,baz=98,slow=38							
AAK	**Ala-Archa**	**64.10**	**312**	*i*	P	**P**	**02 02 23.5**	**-0.5**
AAK					pmax	pmax		
	comp=Z,2.0nm,1.0s							
NIL	**Nilore**	**64.33**	**302**	P		**P**	**02 02 25.0**	**-0.5**
NIL					pmax	pmax		
	comp=Z,18nm,0.9s							
NIL	**Nilore**	**64.33**	**302**			**P**	**02 02 25.0**	**-0.5**
NIL					IAmb	IAmb	02 02 38.1	
	comp=Z,18nm,0.8s							
NIL	**Nilore**	**64.33**	**302**	P		**P**	**02 02 26.5**	**+1.0**
	comp=Z,26nm,1.3s							
NIL					pP	**pP**	**02 02 34.1**	**-1.8**
OHH	**Osh**	**65.15**	**309**	P		**P**	**02 02 30.4**	**-0.4**
	comp=Z,15nm,0.9s							
NRIK	**Noril'sk**	**66.07**	**342**	P		**P**	**02 02 36.3**	**+0.3**
	comp=Z,11nm,0.7s,baz=120,slow=7.6,SNR=14							
NRIK					LR	LR	02 32 54.3	
	comp=Z,109nm,18.4s,baz=124,slow=37							
	comp=Z,11nm,0.7s							
NRIK	**Noril'sk**	**66.07**	**342**	*eP*		**P**	**02 02 34.8**	**-1.2**
NRIK					pmax	pmax		
	comp=Z,16nm,1.0s							
NRIK	**Noril'sk**	**66.07**	**342**			**P**	**02 02 36.1**	**0.0**
NRIK					IAmb	IAmb	02 02 37.4	
	comp=Z,21nm,1.1s							
M17K	**Holitna River**	**66.26**	**28**			**P**	**02 02 37.5**	**+0.1**
M17K					IAmb	IAmb	02 02 39.4	
	comp=Z,22nm,0.8s							
BTK	**Batken**	**66.61**	**308**	P		**P**	**02 02 40.5**	**+0.2**
	comp=Z,9.5nm,1.0s							
RDOG	**Red Dog Mine**	**66.71**	**20**			**P**	**02 02 40.4**	**+0.2**
N18K	**Kilae Creek**	**66.75**	**29**			**P**	**02 02 40.0**	**-0.6**
N18K					IAmb	IAmb	02 02 41.8	
	comp=Z,16nm,1.0s							
KKAR	**Karatay Array**	**67.06**	**312**	P		**P**	**02 02 42.3**	**-0.7**
KKAR	**Karatay Array**	**67.06**	**312**			**P**	**02 02 42.3**	**-0.7**
N19K	**Bonanza Creek**	**67.45**	**29**			**P**	**02 02 45.6**	**+0.4**
RAR	**Rarotonga**	**67.53**	**119**	LR		LR	02 25 57.8	
	comp=Z,109nm,20.4s,baz=287,slow=30							
KDAK	**Kodiak Island**	**67.63**	**32**	LR		LR	02 28 47.5	
	comp=Z,58nm,21.9s,baz=237,slow=33							
BVAR	**Borovoye Array**	**68.32**	**322**	P		**P**	**02 02 51.0**	**+0.3**
	comp=Z,12nm,0.7s,baz=104,slow=7.3,SNR=66							
	comp=Z,12nm,0.7s							
BVAR	**Borovoye Array**	**68.32**	**322**	P		**P**	**02 02 51.0**	**+0.3**
BORK	**Borovoye**	**68.36**	**322**	*d*	*i*P	**P**	**02 02 51.4**	**+0.5**
BORK					pmax	pmax		
	comp=Z,15nm,0.9s							
BORK	**Borovoye**	**68.36**	**322**			**P**	**02 02 51.2**	**+0.3**
BORK					IAmb	IAmb	02 02 52.2	
	comp=Z,17nm,0.8s							
D20K	**Etivluk River**	**69.11**	**20**			**P**	**02 02 55.7**	**+0.4**
TRF	**Thorofare Moun**	**70.02**	**27**			**P**	**02 03 01.1**	**-0.1**
TRF					IAmb	IAmb	02 03 01.7	
	comp=Z,20nm,0.8s							
H22K	**Ishtalitna Cre**	**70.16**	**24**			**P**	**02 03 02.9**	**+1.0**
H22K					IAmb	IAmb	02 03 03.5	
	comp=Z,13nm,0.8s							
MLY	**Manley**	**70.20**	**25**			**P**	**02 03 03.1**	**+0.9**
D22K	**Ayikyak River**	**70.51**	**21**			**P**	**02 03 05.2**	**+1.3**
SML	**Sawmill**	**70.56**	**28**			**P**	**02 03 04.4**	**0.0**
SML					IAmb	IAmb	02 03 05.2	
	comp=Z,25nm,0.8s							
RND	**Reindeer**	**70.64**	**27**	P		**P**	**02 03 04.4**	**-0.5**
RND					pmax	pmax		
	comp=Z,18nm,0.9s							
RND	**Reindeer**	**70.64**	**27**			**P**	**02 03 04.4**	**-0.5**
RND					IAmb	IAmb	02 03 05.8	
	comp=Z,18nm,0.9s							
MCK	**McKinley**	**70.67**	**26**	P		**P**	**02 03 04.8**	**-0.2**
MCK					pmax	pmax		
	comp=Z,20nm,0.9s							
MCK	**McKinley**	**70.67**	**26**			**P**	**02 03 04.8**	**-0.2**
MCK					IAmb	IAmb	02 03 05.7	
	comp=Z,20nm,0.9s							
G23K	**Bananza Creek**	**70.90**	**23**			**P**	**02 03 07.2**	**+0.8**
COLA	**College**	**71.37**	**25**	*i*	P	**P**	**02 03 09.1**	**0.0**
COLA					pmax	pmax		
	comp=Z,6.0nm,0.8s							
COLA	**College**	**71.37**	**25**	P		**P**	**02 03 09.2**	**0.0**
	comp=Z,21nm,0.7s							
IL31		**71.75**	**26**			**P**	**02 03 10.9**	**-0.6**
IL31					IAmb	IAmb	02 03 11.4	
	comp=Z,18nm,0.6s							
ILAR	**Eielson Array**	**71.75**	**26**	P		**P**	**02 03 10.6**	**-0.9**
	comp=Z,15nm,0.6s,baz=248,slow=6.0,SNR=205							
ILAR					LR	LR	02 36 28.0	
	comp=Z,51nm,18.5s,baz=260,slow=37							
	comp=Z,15nm,0.6s							
G24K	**Hadweenzic Riv**	**71.88**	**23**			**P**	**02 03 13.1**	**+0.9**
G24K					IAmb	IAmb	02 03 14.4	
	comp=Z,35nm,1.1s							
HARP	**HAARP**	**72.14**	**28**			**P**	**02 03 14.2**	**+0.4**
GLB	**Gilahina Butte**	**72.64**	**29**			**P**	**02 03 17.4**	**+0.5**
GLB					IAmb	IAmb	02 03 18.2	
	comp=Z,19nm,1.0s							
D25K	**Kavik River**	**72.81**	**21**			**P**	**02 03 18.6**	**+0.8**
SCRK	**Sand Creek**	**72.88**	**27**			**P**	**02 03 18.5**	**+0.1**
SCRK					IAmb	IAmb	02 03 19.3	
	comp=Z,27nm,1.4s							
BMAR	**Burnt Mountain**	**73.13**	**23**			**P**	**02 03 20.8**	**+1.1**
G26K	**Porcupine Rive**	**73.37**	**23**			**P**	**02 03 22.0**	**+1.0**
G26K					IAmb	IAmb	02 03 25.0	
	comp=Z,19nm,1.1s							
C26K	**Camden Bay**	**73.43**	**20**			**P**	**02 03 22.5**	**+1.1**
BCAR	**Beaver Creek A**	**73.75**	**28**			**P**	**02 03 24.1**	**+0.7**
SVE	**Sverdlovsk**	**74.27**	**326**	*eP*		**P**	**02 03 27.2**	**+0.7**
SVE					pmax	pmax		
	comp=Z,18nm,1.2s							
AB31	**Akbulak array**	**74.62**	**318**			**P**	**02 03 28.7**	**0.0**
ABKAR	**Akbulak array**	**74.62**	**318**			**P**	**02 03 28.8**	**+0.1**
PPT	**Papeete**	**75.25**	**112**	LR		LR	02 29 06.7	
	comp=Z,102nm,21.3s,baz=292,slow=30							
J29N	**Klondike Camp**	**75.43**	**26**			**P**	**02 03 34.1**	**+0.9**
J29N					IAmb	IAmb	02 03 34.9	
	comp=Z,15nm,0.7s							
I29M	**Ogilvie Camp,**	**75.43**	**25**			**P**	**02 03 33.2**	**+0.1**
ARTI	**Arti**	**75.51**	**325**	LR		LR	02 38 36.8	
	comp=Z,313nm,19.5s,baz=72,slow=37							
ARTI	**Arti**	**75.51**	**325**	*c*	*i*P	**P**	**02 03 31.3**	**-2.4**
ARTI							02 03 44.4	
ARTI					S	**S**	**02 13 10.5**	**-0.8**
ARTI					pmax	pmax		
	comp=Z,14nm,1.0s							
ARTI	**Arti**	**75.51**	**325**			**P**	**02 03 33.4**	**-0.3**
HYT	**Haines Junctio**	**75.66**	**30**			**P**	**02 03 35.0**	**+0.4**
HYT					IAmb	IAmb	02 03 36.7	
	comp=Z,20nm,0.8s							
E29M	**Blow River**	**75.75**	**22**			**P**	**02 03 35.0**	**+0.2**
AKTO	**Aktyubinsk**	**75.84**	**319**	LR		LR	02 40 28.3	
	comp=Z,86nm,18.1s,baz=38,slow=38							
M30M	**Minto, Yukon**	**76.02**	**28**			**P**	**02 03 37.0**	**+0.5**
M30M					IAmb	IAmb	02 03 38.5	
	comp=Z,11nm,0.8s							
I30M	**Mount Dempster**	**76.24**	**26**			**P**	**02 03 37.8**	**0.0**
I30M					IAmb	IAmb	02 03 40.2	
	comp=Z,24nm,1.3s							
J30M	**Hart River**	**76.25**	**26**			**P**	**02 03 37.9**	**0.0**
J30M					IAmb	IAmb	02 03 39.5	
	comp=Z,11nm,0.7s							
G30M	**tAoh Zraii Nji**	**76.33**	**24**			**P**	**02 03 37.9**	**-0.3**
N31M	**Braeburn, Yuko**	**76.50**	**29**			**P**	**02 03 40.5**	**+1.2**
N31M					IAmb	IAmb	02 03 41.9	
	comp=Z,23nm,0.9s							
F30M	**Barrier River**	**76.51**	**23**			**P**	**02 03 39.9**	**+0.6**
WHY	**Whitehorse**	**76.95**	**30**			**P**	**02 03 42.8**	**+0.8**
H31M	**Peel River**	**77.09**	**25**			**P**	**02 03 43.5**	**+1.0**
H31M					IAmb	IAmb	02 03 44.3	
	comp=Z,26nm,0.9s							
F31M	**Tsiigehtchic**	**77.30**	**23**			**P**	**02 03 43.8**	**+0.2**
F31M					IAmb	IAmb	02 04 01.6	
	comp=Z,20nm,1.4s							
INK	**Inuvik**	**77.37**	**22**	P		**P**	**02 03 44.0**	**0.0**
INK					pmax	pmax		
	comp=Z,20nm,1.1s							
INK	**Inuvik**	**77.37**	**22**			**P**	**02 03 44.0**	**0.0**
INK					IAmb	IAmb	02 03 45.0	
	comp=Z,20nm,1.1s							
INK	**Inuvik**	**77.37**	**22**	P		**P**	**02 03 43.0**	**-0.9**
	comp=Z,19nm,1.2s							
DLBC	**Dease Lake**	**79.56**	**32**	LR		LR	02 34 56.0	
	comp=Z,68nm,20.2s,baz=279,slow=32							
UOSS	**Minazif**	**79.70**	**293**	P		**P**	**02 03 56.6**	**-1.2**
	comp=Z,11nm,1.2s							
UOSS					pP	**PcP**	**02 04 07.0**	**+1.5**
KIRV	**Kirov**	**80.20**	**328**	LR		LR	02 42 17.5	
	comp=Z,283nm,18.8s,baz=79,slow=38							
KIRV	**Kirov**	**80.20**	**328**	*ce*	P	**P**	**02 04 00.6**	**+0.9**
BBB	**Bella Bella**	**81.46**	**38**	LR		LR	02 34 02.4	
	comp=Z,103nm,20.9s,baz=253,slow=31							
BELG	**Belogornoye**	**82.11**	**322**	*i*	P	**P**	**02 04 10.0**	**0.0**
BELG					pmax	pmax		
	comp=Z,5.0nm,1.2s							
LKRN	**Lenkeran, Azer**	**83.70**	**308**	P		**P**	**02 04 18.7**	**+0.2**
MAK	**Makhachkala**	**83.87**	**312**	*d*	*i*P	**P**	**02 04 19.7**	**+0.4**
MAK					*e*		02 07 33.4	
MAK					*e*	PPP	02 09 24.6	
MAK					*e*		02 14 39.7	
MAK					*e*	SS	02 20 06.3	-1.6
MAK					*e*	SSS	02 23 39.2	
MAK					pmax	pmax		
	comp=Z,92nm,0.8s							
MAK					MLR	MLR		
	comp=Z,187nm,21.0s							
SEKA	**Sheki**	**84.42**	**311**	P		**P**	**02 04 21.9**	**-0.4**
MNGR	**Mingechevir, A**	**84.59**	**310**	P		**P**	**02 04 23.0**	**0.0**
KLMR	**Klimovskoe**	**84.68**	**331**	*eP*		**P**	**02 04 24.5**	**+1.5**
KLMR					pmax	pmax		
	comp=Z,25nm,1.5s							
KLMR					MLR	MLR		
	comp=Z,507nm,20.0s							
GANJ	**Ganja**	**85.19**	**310**	P		**P**	**02 04 26.1**	**0.0**
NOR	**Nord**	**85.72**	**357**	P		**P**	**02 04 28.4**	**+0.5**
	comp=Z,14nm,1.4s							
NOR					pP	**pP**	**02 04 37.6**	**-1.0**
VRH	**Novokhopyorsk**	**85.94**	**321**	*eP*		**P**	**02 04 27.8**	**-1.8**
VRH					pmax	pmax		
	comp=Z,10.0nm,0.7s							
NAX	**Nakhchivan**	**86.12**	**309**	P		**P**	**02 04 30.8**	**0.0**
YKA	**Yellowknife Ar**	**86.14**	**27**	P		**P**	**02 04 30.4**	**+0.1**
	comp=Z,7.1nm,0.7s,baz=294,slow=4.7,SNR=12							
YKA					LR	LR	02 42 55.0	
	comp=Z,124nm,20.2s,baz=273,slow=36							
	comp=Z,7.1nm,0.7s							
YKA	**Yellowknife Ar**	**86.14**	**27**	*i*	P	**P**	**02 04 30.3**	**0.0**
YKA					pmax	pmax		
	comp=Z,7.0nm,0.7s							
YKA	**Yellowknife Ar**	**86.14**	**27**	P		**P**	**02 04 30.8**	**+0.5**
JRO	**Jston Ridge Ob**	**86.40**	**44**			**P**	**02 04 33.1**	**+1.0**
JRO					IAmb	IAmb	02 04 33.6	
	comp=Z,15nm,0.7s							
GNI	**Garni**	**86.47**	**310**	LR		LR	02 47 50.3	
	comp=Z,91nm,18.7s,baz=70,slow=39							
GNI	**Garni**	**86.47**	**310**	*ce*	P	**P**	**02 04 33.2**	**+0.6**
GNI					pmax	pmax		
	comp=Z,11nm,1.3s							
GNI	**Garni**	**86.47**	**310**			**P**	**02 04 33.1**	**+0.4**
GNI					IAmb	IAmb	02 04 45.1	
	comp=Z,24nm,1.4s							
GNI	**Garni**	**86.47**	**310**	P		P	02 04 39.6	+7.0
	comp=Z,13nm,1.4s							
GNI	**Garni**	**86.47**	**310**	P		**P**	**02 04 31.0**	**-1.7**
	comp=Z,13nm,1.4s							
KBZ	**Khabaz**	**86.99**	**314**	P		**P**	**02 04 34.1**	**-0.7**
	comp=Z,2.4nm,1.0s,baz=212,slow=3.2,SNR=4.4							
KBZ					LR	LR	02 46 55.2	
	comp=Z,105nm,19.8s,baz=64,slow=38							
	comp=Z,2.4nm,1.0s							
KBZ	**Khabaz**	**86.99**	**314**	*ce*	P	**P**	**02 04 36.2**	**+1.4**
KBZ					pmax	pmax		
	comp=Z,2.0nm,1.0s							
ARCES	**ARCESS Array B**	**87.04**	**341**	P		**P**	**02 04 33.5**	**-1.1**
	comp=Z,8.9nm,0.9s,baz=74,slow=6.4,SNR=13							
ARCES					LR	LR	02 45 33.0	
	comp=Z,76nm,22.0s,baz=56,slow=37							
	comp=Z,8.9nm,0.9s							
ARCES	**ARCESS Array B**	**87.04**	**341**	P		**P**	**02 04 34.0**	**-0.6**
ARCES					pmax	pmax		
	comp=Z,148nm,1.9s							
ARCES	**ARCESS Array B**	**87.04**	**341**	P		**P**	**02 04 34.0**	**-0.6**
MOS	**Moscow**	**87.07**	**326**	*eP*		**P**	**02 04 34.4**	**-0.6**
MOS					*e*		02 04 44.4	
MOS					pmax	pmax		
	comp=Z,28nm,1.0s							
KIV	**Kislovodsk**	**87.08**	**314**	*eP*		**P**	**02 04 33.1**	**-2.3**
KIV					pmax	pmax		
	comp=Z,4.0nm,1.0s							
KIV					MLR	MLR		
	comp=Z,72nm,20.0s							
YBH	**Yreka Blue Hor**	**87.13**	**48**	LR		LR	02 38 31.7	
	comp=Z,68nm,19.4s,baz=295,slow=32							
WIFE	**Three Sisters-**	**87.21**	**46**			**P**	**02 04 36.4**	**+0.2**
WIFE					IAmb	IAmb	02 04 57.6	
	comp=Z,12nm,1.0s							
LPSR	**Galich'ya Gora**	**87.25**	**323**	*eP*		**P**	**02 04 34.6**	**-1.3**
LPSR					pmax	pmax		
	comp=Z,23nm,0.8s							
VORR	**Voronezh**	**87.34**	**322**	*eP*		**P**	**02 04 34.8**	**-1.6**
VORR					pmax	pmax		
	comp=Z,17nm,0.4s							
VORD	**Divnogorie**	**87.49**	**322**	*eP*		**P**	**02 04 33.7**	**-3.4**
VORD					pmax	pmax		
	comp=Z,8.0nm,1.1s							
VSR	**Storozhevoye**	**87.49**	**322**	*eP*		**P**	**02 04 35.3**	**-1.8**
VSR					pmax	pmax		
	comp=Z,14nm,1.2s							
EPOS	**Posof**	**87.64**	**312**	P		**P**	**02 04 38.0**	**-0.3**
	comp=Z,11nm,1.5s							
OBN	**Obninsk**	**87.84**	**326**	LR		LR	02 45 20.0	
	comp=Z,237nm,21.3s,baz=22,slow=37							
OBN	**Obninsk**	**87.84**	**326**	⇑	*i*P	**P**	**02 04 38.0**	**-0.7**
OBN					*i*		02 04 47.9	
OBN					*e*		02 08 04.2	
OBN					pmax	pmax		
	comp=Z,50nm,1.7s							
OBN					MLR	MLR		
	comp=Z,237nm,19.0s							
HAKT	**HAKKARI**	**87.85**	**308**	P		**P**	**02 04 39.3**	**-0.1**
	comp=Z,24nm,1.1s							
PINE	**Pine Mountain**	**87.89**	**46**			**P**	**02 04 39.7**	**+0.2**
PINE					IAmb	IAmb	02 05 01.1	
	comp=Z,20nm,1.3s							
ERBR	**Yeremizino-Bor**	**88.15**	**316**	*eP*		**P**	**02 04 39.0**	**-1.4**
ERBR				*e*	*P	**pP**	**02 04 49.4**	**-1.7**
ERBR					pmax	pmax		
	comp=Z,20nm,1.1s							
K05A	**Summer Lake**	**88.20**	**47**			**P**	**02 04 41.6**	**+0.6**
K05A					IAmb	IAmb	02 05 11.9	
	comp=Z,26nm,1.4s							
GURO	**Guroymak-BITLI**	**88.89**	**309**			**P**	**02 04 43.6**	**-0.7**
NEW	**Newport**	**89.22**	**41**	LR		LR	02 38 55.5	
	comp=Z,129nm,19.8s,baz=304,slow=32							
BEKR	**Beckworth**	**89.33**	**49**			**P**	**02 04 46.2**	**-0.1**
RAYN	**Ar Rayn**	**89.56**	**294**	P		**P**	**02 04 46.5**	**-1.1**
RAYN					pmax	pmax		
	comp=Z,9.0nm,1.2s							
RAYN	**Ar Rayn**	**89.56**	**294**			**P**	**02 04 46.5**	**-1.1**
RAYN	**Ar Rayn**	**89.56**	**294**	P		**P**	**02 04 47.3**	**-0.3**
	comp=Z,8.0nm,1.8s							
FIA1	**FINESS Array S**	**90.54**	**334**			**P**	**02 04 50.0**	**-1.2**
FINES	**FINESS Array B**	**90.54**	**334**	P		**P**	**02 04 50.2**	**-1.0**
	comp=Z,19nm,0.6s,baz=72,slow=5.5,SNR=132							
FINES					LR	LR	02 47 32.0	
	comp=Z,135nm,20.6s,baz=66,slow=37							
FINES	**FINESS Array B**	**90.54**	**334**			**P**	**02 04 49.9**	**-1.3**
KELT	**Kelkit**	**90.54**	**311**	P		**P**	**02 04 52.1**	**+0.1**
	comp=Z,25nm,1.3s							
NVAR	**Mina Array Bea**	**91.25**	**50**	P		**P**	**02 04 54.9**	**-0.5**
	comp=Z,1.2nm,0.8s,baz=268,slow=5.3,SNR=7.8							
NVAR					LR	LR	02 37 37.8	
	comp=Z,37nm,21.2s,baz=276,slow=30							
	comp=Z,1.2nm,0.8s							
VSU	**Vasula**	**91.58**	**331**	*ce*	P	**P**	**02 04 55.0**	**-1.1**
VSU					pmax	pmax		
	comp=Z,22nm,1.7s							
MNK	**Minsk**	**92.73**	**327**	*i*	P	**P**	**02 05 00.5**	**-1.0**
MNK				*i*			02 08 42.8	
MNK				*i*	PPP	PPP	02 10 42.8	
MNK				*i*	S	**SKSac**	**02 15 31.2**	**-1.0**
MNK				*i*	PS	PnS	02 17 48.3	+27
MNK					pmax	pmax		
	comp=Z,10.0nm,0.9s							
MNK					pmax	pmax		
	comp=E,11nm,0.7s							
MNK					pmax	pmax		
	comp=N,10.0nm,0.9s							
MNK					MLR	MLR		
	comp=N,156nm,18.0s							
MNK					MLR	MLR		
	comp=E,135nm,18.0s							
MNK	**Minsk**	**92.73**	**327**	*i*	P	**P**	**02 05 00.5**	**-1.0**
	comp=E,11nm,0.7s							
MNK				*i*	P	**P**	**02 05 00.5**	**-1.0**
	comp=N,10.0nm,0.9s							
MNK				*i*	P	**P**	**02 05 00.5**	**-1.0**
	comp=Z,10.0nm,0.9s,baz=65							
MNK				*i*	PP	**PP**	**02 08 42.9**	**-0.5**
MNK				*i*	PPP	PPP	02 10 42.9	
MNK				*i*	SKS	SKiKP	02 13 46.0	+25
MNK				*i*	S	**SKSac**	**02 15 31.3**	**-1.0**
MNK				*i*	SP	SPn	02 17 36.1	+20
MNK				*i*	PS	PnS	02 17 48.4	+27
MNK				*i*	SS	SS	02 22 03.8	-12
MNK				*i*	SSS	SSS	02 26 58.8	
MNK				*i*	LRM	MLR	02 49 13.3	
	comp=N,156nm,18.0s							
MNK				*i*	LRM	MLR	02 49 22.6	
	comp=E,135nm,18.0s							
AKASG	**Malin Array Be**	**93.57**	**324**	P		**P**	**02 05 03.8**	**-1.7**
	comp=E,0.6nm,0.6s,baz=48,slow=5.7,SNR=5.2							
AKASG					LR	LR	02 48 05.2	
	comp=E,143nm,21.7s,baz=54,slow=36							
	comp=E,0.6nm,0.6s							
AKASG	**Malin Array Be**	**93.57**	**324**	*i*	P	**P**	**02 05 03.0**	**-2.5**
AKASG					pmax	pmax		
	comp=Z,1.0nm,0.6s							
PFO	**Pinyon Flats O**	**94.09**	**55**	LR		LR	02 40 53.0	
	comp=Z,72nm,21.5s,baz=274,slow=31							
ASF	**Jabal al Asfar**	**94.68**	**304**	LR		LR	02 53 18.3	
	comp=Z,50nm,19.6s,baz=98,slow=39							
BRTR	**Keskin Array B**	**94.78**	**312**	P		**P**	**02 05 10.3**	**-1.2**
	comp=Z,0.7nm,0.8s,baz=44,slow=2.4,SNR=3.7							
BRTR					LR	LR	02 51 05.0	
	comp=Z,37nm,20.8s,baz=17,slow=38							
	comp=Z,0.7nm,0.8s							
BRTR	**Keskin Array B**	**94.78**	**312**	P		**P**	**02 05 10.1**	**-1.4**
MMAI	**Mount Meron Ar**	**95.62**	**305**	LR		LR	02 52 28.6	
	comp=Z,74nm,21.2s,baz=36,slow=38							
PDAR	**Pinedale Array**	**96.09**	**44**	LR		LR	02 44 12.8	
	comp=Z,57nm,18.9s,baz=302,slow=33							
HFS	**Hagfors**	**96.36**	**336**	LR		LR	02 53 35.6	
	comp=Z,160nm,18.2s,baz=51,slow=38							
MAW	**Mawson**	**96.43**	**202**	LR		LR	02 41 55.5	
	comp=Z,45nm,21.4s,baz=86,slow=31							
**NO

SDDR			⇓*e*Sg	**Sn**	**01 59 32.3**	**-0.4**
SDDR			IAML		01 59 36.6	
	comp=N,43nm,0.2s					
SDDR	**Presa de Saban**	**1.07 311**	*i* P	**Pn**	**01 59 18.4**	**+0.1**
SDDR			*e*S	**Sb**	**01 59 31.8**	**-0.2**
SDDR			IAML		01 59 36.8	
	comp=Z,16nm,0.7s					
SC01	**Santiago de lo**	**1.18 346**	⇑*e*Pg	**Pg**	**01 59 20.7**	**-0.5**
SC01			⇓*e*Sg	**Sg**	**01 59 37.9**	**+1.2**
SC01			IAML		02 00 20.0	
	comp=N,56nm,2.2s					
SC01	**Santiago de lo**	**1.18 346**	*i* P	**Pb**	**01 59 20.1**	**0.0**
SC01			IAML		01 59 44.7	
	comp=Z,34nm,2.4s					
LOBH	**Bahia de las A**	**1.22 251**	*i* P	**Pg**	**01 59 21.5**	**-0.3**
LOBH			*e*S	**Sg**	**01 59 37.8**	**0.0**
LOBH			IAML		01 59 39.9	
	comp=Z,30nm,1.5s					
JIDR	**Jimani**	**1.36 279**	⇑*e*Pg	**Pb**	**01 59 23.3**	**+0.2**
JIDR			IAML		02 00 14.9	
	comp=N,42nm,3.0s					
HIDR	**Higuey Centro**	**1.66 79**	⇑*e*Pg	**Pb**	**01 59 28.2**	**0.0**
HIDR			⇓*e*Sg	**Sb**	**01 59 48.2**	**-0.6**
HIDR			IAML		01 59 54.6	
	comp=N,28nm,0.3s					

*ATH **10** 02:25:12.1,38˙96N×27˙19E,h12km±1km,ML3.7/16,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km
*ISK **10** 02:25:12.7,39˙01N×27˙16E,h8km,ML4.0/21*
*AFAD **10** 02:25:12.9,39˙00N×27˙15E,h6km±1km,MW3.6*
*THE **10** 02:25:13.6,39˚N±2˚×2˚7E±˚,h11km±3km,M3.6/16,*
MLh3.6/16
*CFUSG **10** 02:25:14.3,39˚20N×27˚40E,h10km,Mb3.0/4,MD3.5/2,*
MSH3.1/4
*SOF **10** 02:25:14.4,39˚18N±0˙05×27˙07E±0˙06,h10km±1km,*
MD3.9/4

ISC 10 02:25:12.8±0.8,**39˚00N**±0˙02×**27˚16E**±0˙02,**h15**km±5km,
n122,σ1§05/159,22C-19D,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
ZEDA	**zmir-Bergama**	**0.08**	**241**	P		**Pg**	**02 25 15.2**	**-0.6**
ZEDA				S		**Sg**	**02 25 16.8**	**-0.9**
ZEDA				IAML			02 25 17.0	
	comp=E,8μm,0.3s							
DKL	**Dikili**	**0.21**	**289**	Pg		**Pg**	**02 25 17.4**	**-0.2**
DKL				Sg		**Sg**	**02 25 20.8**	**0.0**
DKL				AML		AML		
DKL	**Dikili**	**0.21**	**289**	P		**Pg**	**02 25 17.7**	**+0.1**
DKL				S		**Sg**	**02 25 20.8**	**0.0**
CAMT	**Merkez**	**0.28**	**155**	P		**Pg**	**02 25 19.2**	**+0.5**
CAMT				S		**Sg**	**02 25 23.6**	**+0.9**
CAMT				IAML			02 25 25.0	
	comp=N,1μm,0.4s							
CAMT				IAML			02 25 26.0	
	comp=E,2μm,0.5s							
SOMA	**Soma-Manisa**	**0.33**	**62**	Pg		**Pg**	**02 25 19.8**	**+0.3**
SOMA				Sg		**Sg**	**02 25 24.9**	**+0.8**
SOMA				AML		AML		
BAGT	**Foa**	**0.42**	**215**	P		**Pg**	**02 25 21.3**	**0.0**
BAGT				S		**Sg**	**02 25 27.8**	**+0.8**
BAGT				IAML			02 25 28.0	
	comp=N,4μm,0.3s							
BAGT				IAML			02 25 29.0	
	comp=E,4μm,0.4s							
FOCM	**Foa**	**0.44**	**229**	Pg		**Pg**	**02 25 21.3**	**-0.3**
FOCM				Sg		**Sg**	**02 25 27.6**	**0.0**
FOCM				AML		AML		
AYVA	**Ayvalik**	**0.48**	**310**	P		**Pg**	**02 25 22.6**	**+0.4**
AYVA				S		**Sb**	**02 25 29.5**	**-0.3**
AYVA				IAML			02 25 31.0	
	comp=N,7μm,0.5s							
AYVA				IAML			02 25 31.0	
	comp=E,5μm,0.3s							
BUHA	**Balikesir, Bur**	**0.50**	**352**	P		**Pg**	**02 25 22.8**	**0.0**
BUHA				S		**Sg**	**02 25 30.1**	**+0.6**
BUHA				IAML			02 25 35.0	
	comp=N,3μm,0.5s							
BUHA				IAML			02 25 35.0	
	comp=E,4μm,0.7s							
AKS	**Akhisar**	**0.52**	**104**	Pg		**Pg**	**02 25 23.3**	**+0.2**
AKS				Sg		**Sg**	**02 25 31.2**	**+1.1**
AKS				AML		AML		
AKHS	**Akhisar**	**0.52**	**104**	P		**Pg**	**02 25 23.6**	**+0.4**
AKHS				IAML			02 25 37.0	
	comp=N,2μm,0.4s							
YAYO	**Edremit-Balk**	**0.61**	**353**	Pg		**Pg**	**02 25 24.8**	**0.0**
YAYO				Sg		**Sg**	**02 25 33.4**	**+0.5**
YAYO				AML		AML		
BLCB	**Balcova**	**0.62**	**189**	P		**Pg**	**02 25 24.6**	**-0.4**
BLCB				S		**Sg**	**02 25 32.6**	**-0.6**
BLCB				AML		AML		
BLCB	**Balcova**	**0.62**	**189**	Pg		**Pg**	**02 25 24.9**	**-0.1**
BLCB				Sg		**Sb**	**02 25 34.5**	**+0.5**
BLCB				AML		AML		
KRBN	**Karaburun**	**0.63**	**229**	Pg		**Pg**	**02 25 25.4**	**+0.3**
KRBN				Sg		**Sb**	**02 25 34.8**	**+0.7**
KRBN				AML		AML		
GOMA	**Golmarmara-Man**	**0.66**	**116**	Pg		**Pg**	**02 25 26.2**	**+0.5**
GOMA				Sg		**Sb**	**02 25 35.5**	**+0.5**
GOMA				AML		AML		
KARB	**zmir-Karabur**	**0.68**	**240**	P		**Pg**	**02 25 25.7**	**-0.3**
KARB				IAML			02 25 39.0	
	comp=N,2μm,0.7s							
KARB				IAML			02 25 40.0	
	comp=E,2μm,0.3s							
PRK	**Paraskevi**	**0.73**	**290**	P		**Pb**	**02 25 27.6**	**+0.3**
PRK				S		**Sn**	**02 25 38.8**	**-0.8**
PRK				AML		AML		
PRK	**Paraskevi**	**0.73**	**290**	P		**Pg**	**02 25 27.1**	**0.0**
PRK				S		**Sg**	**02 25 37.1**	**+0.3**
PRK				AML		AML		
GORD	**Gordes-Manisa**	**0.80**	**96**	Pg		**Pg**	**02 25 28.9**	**+0.6**
GORD				AML		AML		
BALB	**Balikesir**	**0.84**	**41**	Pg		**Pg**	**02 25 28.9**	**-0.3**
BALB				AML		AML		
BALB	**Balikesir**	**0.84**	**41**	P		**Pg**	**02 25 28.9**	**-0.3**
BALB				S		**Sb**	**02 25 41.1**	**+0.7**
YENI	**Yenice-Canakka**	**0.93**	**4**	Pg		**Pb**	**02 25 30.7**	**0.0**
EAG2	**Marmaro, Chios**	**0.94**	**241**	P		**Pb**	**02 25 30.4**	**-0.4**
EAG2				S		**Sb**	**02 25 42.8**	**-0.4**
GMLD	**Gumuldur**	**0.94**	**192**	Pg		**Pg**	**02 25 31.8**	**+0.7**
GMLD				AML		AML		
CESE	**eme**	**0.95**	**225**	Pg		**Pb**	**02 25 31.2**	**+0.2**
CESE				AML		AML		
EZNE	**Ezine-Canakkal**	**0.97**	**321**	Pg		**Pb**	**02 25 31.8**	**+0.4**
CANM	**Can-anakkale**	**1.01**	**355**	Pg		**Pg**	**02 25 32.5**	**+0.2**
CANM				AML		AML		
EZN	**Ezine**	**1.05**	**322**	P		**Pb**	**02 25 32.7**	**+0.1**
EZN				S		**Sn**	**02 25 47.3**	**0.0**
EZN				AML		AML		
EZN	**Ezine**	**1.05**	**322**	⇑P		**Pb**	**02 25 32.7**	**+0.1**
EZN	**Ezine**	**1.05**	**322**	P		**Pb**	**02 25 32.3**	**-0.3**
EZN	**Ezine**	**1.05**	**322**	Pg		**Pn**	**02 25 33.2**	**+0.2**
EZN				AML		AML		
CHOS	**Chios island**	**1.06**	**235**	P		**Pb**	**02 25 32.9**	**-0.1**
CHOS				S		**Sn**	**02 25 48.8**	**+1.0**
CHOS				AML		AML		
CHOS	**Chios island**	**1.06**	**235**	Pg		**Pb**	**02 25 33.5**	**+0.5**
CHOS				AML		AML		
CHOS	**Chios island**	**1.06**	**235**	P		**Pb**	**02 25 32.6**	**-0.4**
CHOS				S		**Sb**	**02 25 47.3**	**+0.6**
GONE	**Gonen-Balikesi**	**1.12**	**21**	Pn		**Pg**	**02 25 34.8**	**+0.4**
GONE				AML		AML		
KUSD	**Kusadasi-Aydin**	**1.15**	**175**	Pn		**Pn**	**02 25 34.9**	**+0.6**
KUSD				AML		AML		
SUSR	**Susurluk-Balik**	**1.19**	**36**	Pn		**Pg**	**02 25 35.9**	**+0.1**
SUSR				AML		AML		
BOZC	**Bozcaada**	**1.20**	**315**	Pn		**Pg**	**02 25 36.2**	**+0.3**
BOZC				AML		AML		
COMU	**Canakkale**	**1.22**	**334**	Pn		**Pg**	**02 25 36.7**	**+0.5**
COMU				AML		AML		
KRL1	**Karlovasi Samo**	**1.26**	**197**	P		**Pn**	**02 25 36.0**	**+0.1**
KRL1				S		**Sb**	**02 25 51.2**	**-1.0**
KRL1				AML		AML		
BIGA	**Biga-Canakkale**	**1.28**	**360**	Pn		**Pn**	**02 25 36.4**	**+0.3**
SAM2	**Drakei, Karlov**	**1.32**	**199**	P		**Pn**	**02 25 36.4**	**-0.3**
SAM2				S		**Sb**	**02 25 53.3**	**-0.6**
SAM2				AML		AML		
SMG	**Samos**	**1.32**	**191**	P		**Pn**	**02 25 36.1**	**-0.7**
SMG				S		**Sg**	**02 25 55.6**	**+0.3**
SMG				AML		AML		
SMG	**Samos**	**1.32**	**191**	P		**Pn**	**02 25 36.0**	**-0.7**
SMG				S		**Sb**	**02 25 52.5**	**-1.5**
SMG				AML		AML		
LPK	**Lapseki**	**1.40**	**347**	Pn		**Pn**	**02 25 38.4**	**+0.5**
LPK				AML		AML		
BAND	**Balkesir-Ban**	**1.53**	**28**	⇑P		**Pn**	**02 25 40.1**	**+0.5**
GADA	**Gvkgeada**	**1.54**	**321**	P		**Pn**	**02 25 40.5**	**+0.8**
GADA				S		**Sb**	**02 26 00.4**	**+0.1**
GADA				AML		AML		
LIA	**Limnos Island**	**1.77**	**301**	P		**Pn**	**02 25 43.4**	**+0.5**
LIA				S		**Sn**	**02 26 06.3**	**+1.1**
LIA				AML		AML		
CAVK	**Edirne/Enez-Ca**	**1.85**	**336**	⇑P		**Pb**	**02 25 45.8**	**-0.6**
ENEZ	**Enez**	**1.90**	**336**	P		**Pn**	**02 25 45.8**	**+1.1**
ENEZ				S		**Sb**	**02 26 10.8**	**+0.1**
ENEZ				AML		AML		
SMTH	**Samothraki Isl**	**1.93**	**320**	P		**Pn**	**02 25 46.2**	**+1.0**
SMTH				S		**Sb**	**02 26 11.1**	**-0.6**
SMTH				AML		AML		
SMTH	**Samothraki Isl**	**1.93**	**320**	P		**Pn**	**02 25 45.8**	**+0.6**
SMTH				AML		AML		
BODT	**Bodrum**	**1.94**	**177**	P		**Pn**	**02 25 45.6**	**+0.3**
BODT				AML		AML		
KLNA	**Kalymnos**	**2.05**	**184**	P		**Pn**	**02 25 46.7**	**0.0**
KLNA				AML		AML		
TAVA	**DENIZLI_Tavas**	**2.06**	**138**	⇑P		**Pn**	**02 25 48.0**	**+0.9**
YER	**Yerkesik**	**2.06**	**154**	P		**Pn**	**02 25 47.7**	**+0.7**
YER				AML		AML		
ALN	**Alexandroupoli**	**2.08**	**336**	P		**Pb**	**02 25 49.6**	**-0.6**
ALN				S		**Sb**	**02 26 15.1**	**-0.8**
ALN	**Alexandroupoli**	**2.08**	**336**	P		**Pn**	**02 25 47.8**	**+0.6**
ALN				AML		AML		
ALEX	**Alexandroupoli**	**2.09**	**333**	P		**Pn**	**02 25 47.9**	**+0.6**
ALEX				AML		AML		
APE	**Apeiranthos**	**2.32**	**214**	P		**Pn**	**02 25 49.6**	**-0.9**
APE				S		**Sn**	**02 26 17.5**	**-1.4**
APE				AML		AML		
APE	**Apeiranthos**	**2.32**	**214**	⇓P		**Pn**	**02 25 50.8**	**+0.3**
APE	**Apeiranthos**	**2.32**	**214**	P		**Pn**	**02 25 49.8**	**-0.7**
APE				AML		AML		
KARY	**Karystos**	**2.35**	**246**	P		**Pn**	**02 25 50.2**	**-0.7**
KYMI	**Kymi, Euboea I**	**2.42**	**262**	P		**Pn**	**02 25 51.5**	**-0.4**
KYMI				S		**Sb**	**02 26 27.4**	**+1.7**
KYMI				AML		AML		
KYMI	**Kymi, Euboea I**	**2.42**	**262**	P		**Pn**	**02 25 52.6**	**+0.7**
THAS	**Thassos island**	**2.47**	**311**	P		**Pn**	**02 25 52.6**	**0.0**
THAS				S		**Sb**	**02 26 27.4**	**+0.3**
THAS				AML		AML		
THAS	**Thassos island**	**2.47**	**311**	P		**Pn**	**02 25 52.8**	**+0.2**
THAS				AML		AML		
CTYL	**Yalikoy Yolu**	**2.62**	**19**	⇓P		**Pn**	**02 25 54.8**	**+0.3**
DION	**Dionisos Attik**	**2.69**	**251**	P		**Pn**	**02 25 55.4**	**-0.3**
DION				AML		AML		
DION	**Dionisos Attik**	**2.69**	**251**	P		**Pn**	**02 25 55.5**	**-0.1**
DION				AML		AML		
OUR	**Ouranopolis**	**2.79**	**299**	P		**Pn**	**02 25 57.3**	**+0.3**
OUR	**Ouranopolis**	**2.79**	**299**	P		**Pn**	**02 25 57.7**	**+0.7**
OUR				AML		AML		
PAIG	**Paliouri**	**2.85**	**290**	P		**Pn**	**02 25 58.5**	**+0.8**
SILT	**Sile**	**2.87**	**41**	⇑P		**Pn**	**02 25 58.6**	**+0.5**
ARG	**Arkhangelos**	**2.89**	**164**	P		**Pn**	**02 25 59.4**	**+1.1**
KDZ	**Kurdzhali**	**2.97**	**333**	*i* P		**Pn**	**02 26 00.2**	**+0.7**
KDZ				*i* Sg		**Sg**	**02 26 46.1**	**-2.1**
RZN	**Rozhen**	**3.26**	**326**	*i* P		**Pn**	**02 26 04.9**	**+1.3**
RZN				*i* Sg		**Sg**	**02 26 58.0**	**+0.4**
DIM	**Dimitrovgrad**	**3.27**	**339**	*i* P		**Pn**	**02 26 05.1**	**+1.6**
SAHE	**Sakarya_HENDEK**	**3.39**	**56**	⇓P		**Pn**	**02 26 05.9**	**+0.7**
JMB	**Yambol**	**3.52**	**352**	*i* P		**Pn**	**02 26 08.2**	**+1.3**
ELND	**Elena**	**4.04**	**346**	⇑P		**Pn**	**02 26 15.1**	**+1.0**
KEPZ	**Antalya-Kepez**	**4.09**	**119**	⇓P		**Pn**	**02 26 16.6**	**+1.7**
VAY	**Valandovo**	**4.21**	**305**	*i* Pn		**Pn**	**02 26 19.4**	**+2.9**
NEF	**NEVSHA**	**4.26**	**1**	*i* P		Pn	02 26 22.3	+5.2
PEHC	**Pehcevo**	**4.28**	**312**	*i* Pn		**Pn**	**02 26 20.7**	**+3.3**
SZH	**Strazhitsa**	**4.35**	**349**	*i* P		**Pn**	**02 26 19.8**	**+1.4**
LOZB	**Loznitsa**	**4.38**	**355**	⇓P		**Pn**	**02 26 19.7**	**+0.8**
RAZG	**Razgrad**	**4.59**	**354**	⇓P		**Pn**	**02 26 22.4**	**+0.8**
ICOR	**Ion Corvin**	**5.13**	**5**	⇓P		**Pn**	**02 26 30.6**	**+1.5**
KIRS	**Kirsehir-Merke**	**5.26**	**86**	⇓P		**Pn**	**02 26 33.2**	**+2.2**
BLKB	**Belogradchik**	**5.72**	**325**	⇑P		**Pn**	**02 26 38.5**	**+1.3**
BOVS	**Bovan**	**6.19**	**320**	⇑P		**Pn**	**02 26 45.4**	**+1.8**
CFR	**Carcaliu**	**6.21**	**6**	⇑P		**Pn**	**02 26 44.7**	**+0.7**
TLCR		**6.30**	**11**	⇑P		**Pn**	**02 26 46.1**	**+1.0**
MLR	**Muntele Rosu**	**6.55**	**352**	⇑P		**Pn**	**02 26 50.5**	**+1.9**
VOIR		**6.62**	**347**	⇓P		**Pn**	**02 26 50.5**	**+0.9**
ARR	**Arges**	**6.63**	**344**	⇓P		**Pn**	**02 26 50.8**	**+1.0**
PLOR	**Plostina**	**6.85**	**357**	⇑P		**Pn**	**02 26 54.6**	**+1.8**
HERR	**Herculane**	**6.86**	**330**	⇓P		**Pn**	**02 26 53.2**	**+0.5**
VRI	**Vrincioaia**	**6.87**	**357**	⇓P		**Pn**	**02 26 55.1**	**+2.1**
COVR	**Voineasa-Covas**	**6.88**	**354**	⇑P		**Pn**	**02 26 55.5**	**+2.4**
VARL	**Varlezi**	**6.91**	**4**	⇑P		**Pn**	**02 26 55.0**	**+1.4**
LOT	**Lotru**	**6.91**	**340**	⇑P		**Pn**	**02 26 55.2**	**+1.5**
MDVR	**Moldovita**	**7.06**	**327**	⇓P		**Pn**	**02 26 56.1**	**+0.5**
DOPR	**Dopca**	**7.08**	**350**	⇑P		**Pn**	**02 26 58.1**	**+2.2**
TURR	**Turia**	**7.10**	**354**	⇑P		**Pn**	**02 26 58.1**	**+2.0**
OZUR		**7.16**	**352**	⇓P		**Pn**	**02 26 58.8**	**+1.7**
ONER	**Baraj Valea Uz**	**7.35**	**356**	⇑P		**Pn**	**02 27 01.2**	**+1.6**
SEV	**Sevastopol'**	**7.37**	**39**	*e*P		**Pn**	**02 27 00.6**	**+0.8**
SEV				pmax	pmax		02 27 04.2	
	comp=Z,3.0nm,0.3s							
SEV				*e*S		**Sn**	**02 28 20.7**	**-2.4**
SEV				smax	smax		02 28 21.5	
	comp=N,4.0nm,0.3s							
SEV				smax	smax		02 28 21.5	
	comp=E,5.0nm,0.3s							
MDB	**Medias**	**7.42**	**345**	⇓P		**Pn**	**02 27 03.0**	**+2.4**
TARU	**Tarkhankut**	**7.51**	**30**	*e*S		**Sn**	**02 28 23.6**	**-3.1**
TARU				smax	smax		02 28 27.2	
	comp=N,13nm,0.4s							
TARU				smax	smax		02 28 27.2	
	comp=E,10.0nm,0.5s							
TESR	**Tescani**	**7.51**	**357**	⇑P		**Pn**	**02 27 02.9**	**+1.0**
YAL	**Yalta**	**7.57**	**41**	*e*P		**Pn**	**02 27 02.6**	**0.0**
YAL				pmax	pmax		02 27 14.7	
	comp=Z,6.0nm,0.4s							
YAL				*e*S		**Sn**	**02 28 25.8**	**-2.3**
YAL				smax	smax		02 28 26.3	
	comp=N,6.0nm,0.5s							
YAL				smax	smax		02 28 26.3	
	comp=E,6.0nm,0.3s							
SURR	**Surduc**	**7.71**	**333**	⇑P		**Pn**	**02 27 05.4**	**+0.9**
DMBR	**Dumbraveni**	**7.76**	**1**	⇓P		**Pn**	**02 27 06.4**	**+1.2**
PDRR	**Padureni**	**7.78**	**1**	⇓P		**Pn**	**02 27 07.1**	**+1.7**
BZS	**Buzias**	**7.78**	**330**	⇑P		**Pn**	**02 27 05.8**	**+0.4**
ALU	**Alushta**	**7.83**	**41**	*e*P		**Pn**	**02 27 07.5**	**+1.3**
ALU				pmax	pmax		02 27 10.6	
	comp=Z,12nm,0.4s							
BIZ	**Bicaz**	**7.97**	**355**	⇓P		**Pn**	**02 27 09.4**	**+1.3**
BURAR	**Bucovina Array**	**8.72**	**351**	⇓P		**Pn**	**02 27 21.0**	**+2.5**
SORM	**Soroca**	**9.17**	**5**	⇑P		**Pn**	**02 27 24.2**	**-0.3**

*ISK **10** 02:29:56.2,37˙92N×27˙09E,h5km,ML2.6/8*
*THE **10** 02:29:56.6,37˙9N±0˙6×2˚7E±˚,h9km±2km,M2.4/7,*
MLh2.4/7
*AFAD **10** 02:29:56.5,37˙91N×27˙08E,h7km±1km,ML2.3*

ISC 10 02:29:55.9±0.9,**37˚92N**±0˙02×**27˚06E**±0˙04,**h16**km±8km,
n21,σ0§63/40,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
KUSD	**Kusadasi-Aydin**	**0.19**	**109**	Pg		**Pg**	**02 30 00.1**	**-0.3**
KUSD				Sg		**Sg**	**02 30 03.1**	**-0.3**
KUSD				AML		AML		
DGB	**zmir**	**0.19**	**313**	P		**Pb**	**02 30 01.3**	**+0.2**
DGB				S		**Sb**	**02 30 04.0**	**-0.6**
DGB				IAML			02 30 05.0	
	comp=N,574nm,0.3s							
DGB				IAML			02 30 05.0	
	comp=E,345nm,0.2s							
GMLD	**Gumuldur**	**0.19**	**323**	Pg		**Pb**	**02 30 01.3**	**+0.2**
GMLD				Sg		**Sb**	**02 30 04.6**	**0.0**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.26**	**148**	P		**Pg**	**02 30 01.7**	**+0.2**
GCAM				IAML			02 30 05.0	
	comp=E,1μm,0.5s							
GCAM				S		**Sg**	**02 30 05.6**	**+0.3**
GCAM				IAML			02 30 06.0	
	comp=N,2μm,0.2s							
GCAM	**G?zelcaml?**	**0.26**	**148**	Pg		**Pg**	**02 30 01.7**	**+0.2**
GCAM				Sg		**Sg**	**02 30 05.6**	**+0.3**
GCAM				AML		AML		
SMG	**Samos**	**0.28**	**220**	P		**Pb**	**02 30 02.4**	**-0.2**
SMG				S		**Sb**	**02 30 07.1**	**+0.1**
SMG				AML		AML		
BEYE	**izmir**	**0.32**	**341**	P		**Pb**	**02 30 03.5**	**+0.1**
BEYE				IAML			02 30 08.0	
	comp=N,306nm,0.2s							
BEYE				S		**Sb**	**02 30 08.1**	**-0.3**
BEYE				IAML			02 30 10.0	
	comp=E,227nm,0.3s							
DUVT	**Torbali**	**0.43**	**46**	P		**Pg**	**02 30 04.9**	**+0.4**
DUVT				S		**Sg**	**02 30 10.1**	**-0.2**
DUVT				IAML			02 30 12.0	
	comp=E,345nm,0.4s							
BLCB	**Balcova**	**0.46**	**358**	P		**Pb**	**02 30 05.6**	**-0.1**
BLCB				S		**Sb**	**02 30 12.2**	**-0.2**
BLCB	**Balcova**	**0.46**	**358**	Pg		**Pb**	**02 30 05.7**	**-0.1**
BLCB				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**306**	P		**Pb**	**02 30 07.6**	**+0.5**
ZEYE				S		**Sn**	**02 30 15.8**	**-2.1**
ZEYE				IAML			02 30 16.0	
	comp=N,575nm,0.5s							
ZEYE				IAML			02 30 20.0	
	comp=E,363nm,0.2s							
CESE	**eme**	**0.73**	**304**	Pg		**Pn**	**02 30 11.3**	**-0.3**
CESE				Sg		**Sn**	**02 30 22.0**	**-0.4**
CESE				AML		AML		
BAGT	**Foa**	**0.75**	**347**	P		**Pn**	**02 30 11.6**	**-0.3**
BAGT				S		**Sn**	**02 30 22.2**	**-0.8**
BAGT				IAML			02 30 23.0	
	comp=E,91nm,0.7s							
BAGT				IAML			02 30 24.0	
	comp=N,151nm,0.6s							
KRBN	**Karaburun**	**0.78**	**329**	Pg		**Pn**	**02 30 11.9**	**-0.4**
KRBN				Sg		**Sn**	**02 30 23.4**	**-0.4**
KRBN				AML		AML		
FOCM	**Foa**	**0.83**	**342**	Pg		**Pn**	**02 30 12.8**	**-0.2**
FOCM				AML		AML		
BODT	**Bodrum**	**0.88**	**167**	P		**Pn**	**02 30 13.4**	**-0.3**
BODT				S		**Sn**	**02 30 26.8**	**+0.6**
BODT				AML		AML		
CHOS	**Chios island**	**0.92**	**301**	P		**Pn**	**02 30 14.5**	**+0.2**
CHOS				S		**Sn**	**02 30 28.5**	**+1.2**
CHOS				AML		AML		
CHOS	**Chios island**	**0.92**	**301**	Pg		**Pn**	**02 30 14.5**	**+0.2**
CHOS				Sg		**Sn**	**02 30 28.3**	**+1.0**
CHOS				AML		AML		
YER	**Yerkesik**	**1.25**	**129**	P		**Pn**	**02 30 19.2**	**+0.4**
YER				S		**Sg**	**02 30 37.3**	**+1.0**
YER				AML		AML		
PRK	**Paraskevi**	**1.46**	**335**	P		**Pb**	**02 30 22.6**	**-0.1**
PRK				S		**Sg**	**02 30 44.5**	**+1.5**
APE	**Apeiranthos**	**1.49**	**236**	P		**Pb**	**02 30 22.6**	**-0.6**
APE				S		**Sn**	**02 30 40.5**	**-0.7**

*AZER **10** 03:09:14.7,39˙46N×44˙02E,h9km,ml2.3*
*ISK **10** 03:09:14.6,39˙47N×44˙08E,h12km,ML2.5/8*
*AFAD **10** 03:09:15.2,39˙51N×43˙94E,h7km±2km,ML2.2*

ISC 10 03:09:15.1±1.1,**39˚48N**±0˙02×**43˚99E**±0˙02,**h7**km±10km,
n29,σ1§24/46,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
DYDN	**Diyadin**	**0.24**	**286**	P		**Pg**	**03 09 19.8**	**-0.2**
DYDN				IAML			03 09 27.0	
	comp=N,1μm,0.3s							
DYDN				IAML			03 09 30.0	
	comp=E,731nm,0.4s							
CLDR	**Caldiran**	**0.34**	**190**	P		**Pb**	**03 09 22.6**	**-0.9**
CLDR				S		**Sb**	**03 09 29.0**	**-0.3**
CLDR				IAML			03 09 36.0	
	comp=E,626nm,0.4s							
CLDR				IAML			03 09 37.0	
	comp=N,493nm,0.4s							
CLDR	**Caldiran**	**0.34**	**190**	Pg		**Pg**	**03 09 22.0**	**+0.2**
CLDR				Sg		**Sb**	**03 09 27.6**	**-1.7**
CLDR				AML		AML		
IGDI	**IGDIR**	**0.40**	**10**	P		**Pg**	**03 09 22.6**	**-0.3**
IGDI				S		**Sg**	**03 09 28.6**	**+0.5**
IGDI				IAML			03 09 29.0	
	comp=E,528nm,0.4s							
IGDI				IAML			03 09 32.0	
	comp=N,386nm,0.4s							
TASB	**TASBURUN-IGDIR**	**0.54**	**20**	Pg		**Pg**	**03 09 25.2**	**-0.4**
TASB				Sg		**Sb**	**03 09 33.4**	**-1.6**
TASB				AML		AML		
VMUR	**Van-Muradiye**	**0.59**	**214**	P		**Pb**	**03 09 27.0**	**-0.8**
VMUR				IAML			03 09 44.0	
	comp=E,125nm,1.0s							
VMUR				IAML			03 09 45.0	
	comp=N,113nm,0.5s							
KOTA	**Agri, Merkez-K**	**0.69**	**298**	P		**Pg**	**03 09 27.7**	**-0.7**
KOTA				S		**Sb**	**03 09 39.0**	**-0.3**
KOTA				IAML			03 09 42.0	
	comp=N,62nm,0.5s							
KOTA				IAML			03 09 43.0	
	comp=E,62nm,0.4s							
AGRB	**Hanur-Agry**	**0.78**	**278**	Pg		**Pg**	**03 09 29.5**	**-0.6**
AGRB				Sg		**Sn**	**03 09 43.6**	**-1.1**
AGRB				AML		AML		
OZAP	**Van, Ozalp-Mer**	**0.81**

GANJ	**Ganja**	**2.14**	**56**	Pn	**Pg**	**03 09 55.2**	**-0.9**
GANJ				Sn	**Sg**	**03 10 23.5**	**-0.2**
YRD	**Yardimli**	**3.35**	**98**	Pn	**Pg**	**03 10 16.3**	**-3.0**
YRD				Sg	**Sg**	**03 11 04.6**	**+1.9**

*IDC **10** 03:35:26.2±0.8, 13°.38N× 120°.54E, h0km, mb4.1/12, mbtmp4.2/12, MS3.4/10, Error ellipse: s-maj=54.5km s-min=16.2km az=64.0*
*MAN **10** 03:35:28.0, 13°.20N× 120°.07E, h6km, MS3.4*
*NEIC **10** 03:35:32.2±0.6, 13°.3N±0°.1× 120°.44E±0°.08, h35km±2km, mb4.5/11, Error ellipse: s-maj=17.8km s-min=12.8km az=174.0*

ISC 10 03:35:35.0±0.6, **13°.26N**±0°.07× **120°.38E**±0°.09, **h70**km, **n46,** σ1.1**19**/45, **mb4.3**/18, **Mindoro**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PGP	**Puerto Galera**	**0.61**	**67**	*eP*	**Pn**	**03 35 44.3**	**-4.6**
PGP				*eS*	**Sn**	**03 35 57.5**	**-1.7**
TGY	**Tagaytay City**	**1.00**	**33**	*eP*	**Pn**	**03 35 52.3**	**-1.2**
TGY				*eS*	**Sn**	**03 36 10.0**	**+2.7**
LQP	**Lukban**	**1.41**	**53**	*eP*	**Pn**	**03 35 57.9**	**-1.1**
LQP				*eS*	**Sn**	**03 36 19.1**	**+2.1**
IBAJ	**Ibajay, Aklan**	**2.26**	**129**	*eP*	**Pn**	**03 36 09.6**	**-0.6**
JAP	**San Jose, Anti**	**2.93**	**148**	*eP*	**Pn**	**03 36 17.4**	**-1.8**
PPR	**Puerto Princes**	**3.82**	**205**	*eP*	Pn	03 36 25.9	-5.5
DAV	**Davao City (W)**	**8.00**	**140**	LR	LR	03 41 07.0	
	comp=Z,134nm,18.6s,baz=336,slow=43						
KKM	**Kota Kinabalu**	**8.26**	**210**	Pn	**Pn**	**03 37 30.2**	**-2.0**
CMAR	**Chiang Mai Arr**	**21.25**	**287**	P	**P**	**03 40 15.6**	**+0.1**
	1.3nm,0.4s,baz=94,slow=9.5,SNR=9.7 1.3nm,0.4s						
CMAR	**Chiang Mai Arr**	**21.25**	**287**	P	**P**	**03 40 15.2**	**-0.4**
JCJ	**Chichijima**	**24.61**	**53**	LR	LR	03 49 32.0	
	comp=Z,68nm,21.0s,baz=60,slow=35						
KSRS	**Korea Array**	**25.02**	**14**	LR	LR	03 52 46.1	
	comp=Z,49nm,18.0s,baz=200,slow=42						
WB0	**Warramunga Arr**	**35.60**	**157**	P	**P**	**03 42 26.0**	**-0.1**
WB0				IAmb	IAmb	03 43 06.8	
	comp=Z,11nm,1.4s						
WRAB	**Tennant Creek**	**35.73**	**157**	P	**P**	**03 42 27.4**	**+0.2**
WRAB				IAmb	IAmb	03 43 02.4	
	comp=Z,6.5nm,0.8s						
WRA	**Warramunga Arr**	**35.74**	**157**	P	**P**	**03 42 27.3**	**+0.1**
	comp=Z,3.4nm,0.7s,baz=333,slow=9.7,SNR=30 comp=Z,3.4nm,0.7s						
WRA	**Warramunga Arr**	**35.74**	**157**	P	**P**	**03 42 27.1**	**-0.2**
WR8	**Warramunga Arr**	**35.81**	**157**	P	**P**	**03 42 27.9**	**0.0**
WR8				IAmb	IAmb	03 42 58.1	
	comp=Z,19nm,1.5s						
SONM	**Songino Array**	**36.39**	**344**	P	**P**	**03 42 33.0**	**+0.3**
	comp=Z,3.2nm,0.6s,baz=166,slow=11,SNR=17						
SONM				LR	LR	03 59 07.2	
	comp=Z,61nm,19.1s,baz=149,slow=39 comp=Z,3.2nm,0.6s						
SONM	**Songino Array**	**36.39**	**344**	P	**P**	**03 42 33.3**	**+0.6**
SONM				IAmb	IAmb	03 42 33.8	
	comp=Z,2.5nm,0.7s						
KLR	**Kul'dur**	**37.07**	**12**	LR	LR	03 58 22.3	
	comp=Z,51nm,18.1s,baz=208,slow=37						
AS31	**Alice Springs**	**39.01**	**160**	P	**P**	**03 42 55.9**	**+1.0**
ASAR	**Alice Springs**	**39.01**	**160**	P	**P**	**03 42 55.7**	**+0.8**
	comp=Z,4.4nm,0.7s,baz=339,slow=6.8,SNR=36 comp=Z,4.4nm,0.7s						
ASAR	**Alice Springs**	**39.01**	**160**	P	**P**	**03 42 56.0**	**+1.0**
TLY	**Talaya**	**40.63**	**344**	LR	LR	04 01 44.4	
	comp=Z,38nm,18.5s,baz=174,slow=39						
NWAO	**Narrogin (SRO)**	**46.02**	**184**	P	**P**	**03 43 52.0**	**+0.4**
PDGK	**Podgornoye**	**46.13**	**319**		**P**	**03 43 53.4**	**+0.8**
MKAR	**Makanchi Array**	**46.20**	**324**	P	**P**	**03 43 53.8**	**+0.9**
	comp=Z,1.8nm,0.8s,baz=129,slow=9.6,SNR=9.7						
MKAR				PcP	**PcP**	**03 45 28.6**	**+1.0**
	comp=Z,1.4nm,0.8s,baz=108,slow=4.0,SNR=6.5 comp=Z,1.8nm,0.8s						
MKAR	**Makanchi Array**	**46.20**	**324**	P	**P**	**03 43 53.2**	**+0.2**
MKAR					**PcP**	**03 45 28.8**	**+1.1**
MAKZ	**Makanchi**	**46.39**	**324**	P	**P**	**03 43 55.5**	**+1.1**
MAKZ				IAmb	IAmb	03 43 55.6	
	comp=Z,1.9nm,0.8s						
ZALV	**Zalesovo Beam**	**49.30**	**333**	P	**P**	**03 44 17.6**	**+0.8**
	comp=Z,0.5nm,0.3s,baz=106,slow=11,SNR=1.6						
ZALV				LR	LR	04 06 04.8	
	comp=Z,39nm,19.3s,baz=46,slow=37 comp=Z,0.5nm,0.3s						
ZALV	**Zalesovo Beam**	**49.30**	**333**	P	**P**	**03 44 16.6**	**-0.1**
KURBB	**Kurchatov Arra**	**50.38**	**327**	P	**P**	**03 44 25.2**	**+0.2**
	comp=Z,2.1nm,0.7s,baz=130,slow=7.3,SNR=16						
KURBB				PcP	**PcP**	**03 45 43.3**	**+0.7**
	comp=Z,0.3nm,0.4s,baz=138,slow=2.4,SNR=1.6 comp=Z,2.1nm,0.7s						
KURK	**Kurchatov**	**50.38**	**327**		**P**	**03 44 25.2**	**+0.2**
KURK				IAmb	IAmb	03 44 26.5	
	comp=Z,7.1nm,0.7s						
KURK					**PcP**	**03 45 43.1**	**+0.5**
BVAR	**Borovoye Array**	**55.96**	**326**	P	**P**	**03 45 05.9**	**-0.1**
	comp=Z,1.1nm,0.6s,baz=121,slow=11,SNR=4.9 comp=Z,1.1nm,0.6s						
AB31	**Akbulak array**	**60.86**	**319**	P	**P**	**03 45 40.3**	**+0.2**
AB31				IAmb	IAmb	03 45 41.4	
	comp=Z,1.8nm,0.8s						
ABKAR	**Akbulak array**	**60.86**	**319**	P	**P**	**03 45 40.6**	**+0.5**
AKTO	**Aktyubinsk**	**62.35**	**320**	LR	LR	04 14 16.7	
	comp=Z,39nm,18.8s,baz=94,slow=37						
ARCES	**ARCESS Array B**	**79.38**	**339**	P	**P**	**03 47 33.0**	**-0.1**
	comp=Z,6.4nm,1.0s,baz=78,slow=5.8,SNR=6.8 comp=Z,6.4nm,1.0s						
ARCES	**ARCESS Array B**	**79.38**	**339**	P	**P**	**03 47 34.0**	**+0.9**
FINES	**FINESS Array B**	**80.52**	**331**	P	**P**	**03 47 39.4**	**+0.1**
	comp=Z,2.8nm,1.1s,baz=57,slow=5.1,SNR=3.8 comp=Z,2.8nm,1.1s						
FINES	**FINESS Array B**	**80.52**	**331**	P	**P**	**03 47 39.7**	**+0.4**
NB2	**NORSAR Subarra**	**87.51**	**333**	P	**P**	**03 48 14.4**	**-0.5**
	comp=Z,2.5nm,0.8s,baz=70,slow=4.4						
NB2	**NORSAR Subarra**	**87.51**	**333**	P	**P**	**03 48 14.0**	**-1.0**
NB2				AMP		03 48 14.0	
NOA	**NORSAR Array B**	**87.51**	**333**	P	**P**	**03 48 13.9**	**-1.0**
	comp=Z,1.5nm,0.8s,baz=69,slow=4.5,SNR=6.1						
NOA				LR	LR	04 31 13.6	
	comp=Z,20nm,18.5s,baz=310,slow=38 comp=Z,1.5nm,0.8s						
GERES	**GERESS Array B**	**90.77**	**321**	P	**P**	**03 48 30.4**	**-0.2**
	comp=Z,0.1nm,0.2s,baz=57,slow=7.2,SNR=1.3 comp=Z,0.1nm,0.2s						
BBB	**Bella Bella**	**92.31**	**35**	LR	LR	04 28 41.7	
	comp=Z,40nm,18.1s,baz=23,slow=35						

*BGR **10** 03:35:25.4, 19°.09S× 177°.24W, h33km*
*NEIC **10** 03:36:16.1±1.5, 18°.5S±0°.1× 177°.9W±0°.1, h448km±6km, mb4.4/36, Error ellipse: s-maj=17.3km s-min=14.0km az=173.0*
*IDC **10** 03:36:17.5±1.1, 18°.43S× 178°.10W, h464km±10km, mb3.7/18, mbtmp4.5/20, Error ellipse: s-maj=13.2km s-min=10.8km az=151.0*
*GFZ **10** 03:36:18.2±0.4, 18°.5S±6°× 17°.8W±°, h474km, M4.6/15, mb4.6/15, confirmed*

ISC 10 03:36:15.9±0.4, **18°.47S**±0°.08× **177°.94W**±0°.06, **h450**km, **n219,** σ0.**979**/219, **mb4.4**/50, **17C-19D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**3.88**	**280**	P	**P**	**03 37 32.6**	**+2.5**
	217nm,0.9s,baz=120,slow=7.1,SNR=113						
MSVF				S	**S**	**03 38 30.6**	**+0.1**
	21nm,0.6s,baz=184,slow=16,SNR=1.0						
MSVF	**Nonsavu**	**3.88**	**280**		**P**	**03 37 32.3**	**+2.1**
MSVF					**S**	**03 38 30.0**	**-0.5**
MSVF	**Nonsavu**	**3.88**	**280**	P	**P**	**03 37 33.6**	**+3.5**
FUTU	**Fugatoga**	**4.14**	**358**	P	**P**	**03 37 33.6**	**+1.2**
FUTU	**Fugatoga**	**4.14**	**358**	P	**P**	**03 37 34.5**	**+2.1**
NIUE	**Niue**	**7.62**	**96**	P	**P**	**03 38 06.5**	**-0.8**
MARNC	**Mare, Loyalty**	**13.52**	**255**	P	**P**	**03 39 11.1**	**-0.1**
SANVU	**Saraoutou**	**14.52**	**280**	P	**P**	**03 39 22.3**	**+0.3**
DZM	**Mont Dzumac**	**15.08**	**254**	P	**P**	**03 39 28.0**	**-0.1**
	7.0nm,0.8s,baz=68,slow=21,SNR=5.7						
KOUNC	**Koumac, New Ca**	**16.88**	**260**	P	**P**	**03 39 47.2**	**+0.2**
RAR	**Rarotonga**	**17.31**	**102**	P	**P**	**03 39 51.4**	**-0.1**
	41nm,1.1s,baz=222,slow=9.2,SNR=6.1						
RAR	**Rarotonga**	**17.31**	**102**	P	**P**	**03 39 50.9**	**-0.7**
PPT	**Papeete**	**26.98**	**93**	P	**P**	**03 41 20.2**	**+0.2**
	27nm,0.8s,baz=248,slow=20,SNR=4.5 27nm,0.8s						
EIDS	**Eidsvold**	**29.50**	**251**	P	**P**	**03 41 42.7**	**+0.6**
EIDS				IAmb	IAmb	03 42 23.2	
	comp=Z,10nm,1.2s						
ARMA	**Armidale**	**30.05**	**241**	P	**P**	**03 41 47.3**	**+0.4**
ARMA				IAmb	IAmb	03 41 48.4	
	comp=Z,6.5nm,0.6s						
ARMA	**Armidale**	**30.05**	**241**	P	**P**	**03 41 47.4**	**+0.5**
	comp=Z,10nm,1.0s						
CAN	**Canberra**	**33.72**	**233**	P	**P**	**03 42 18.7**	**+0.4**
CAN				IAmb	IAmb	03 42 45.8	
	comp=Z,24nm,1.5s						
CTAO	**Charters Tower**	**33.79**	**261**	P	**P**	**03 42 19.1**	**0.0**
CTAO				IAmb	IAmb	03 42 20.6	
	comp=Z,8.7nm,0.9s						
CTAO	**Charters Tower**	**33.79**	**261**	P	**P**	**03 42 18.5**	**-0.6**
	comp=Z,7.1nm,0.8s						
CMSA	**Cobar Meteorol**	**35.26**	**241**	P	**P**	**03 42 31.0**	**-0.3**
	comp=Z,12nm,0.9s						
QLP	**Quilpie**	**35.75**	**250**	P	**P**	**03 42 34.7**	**-0.8**
	comp=Z,27nm,0.6s						
TOO	**Toolangi**	**37.16**	**232**	P	**P**	**03 42 47.5**	**+0.4**
STKA	**Stephens Creek**	**38.75**	**242**	P	**P**	**03 43 00.3**	**+0.1**
	comp=Z,6.3nm,0.5s,baz=89,slow=8.8,SNR=18 comp=Z,6.3nm,0.5s						
STKA	**Stephens Creek**	**38.75**	**242**	P	**P**	**03 43 00.3**	**+0.1**
STKA	**Stephens Creek**	**38.75**	**242**	P	**P**	**03 43 00.3**	**+0.1**
	comp=Z,50nm,1.0s						
INKA	**Innaminka**	**38.95**	**249**	P	**P**	**03 43 02.2**	**+0.4**
BBOO	**Buckleboo**	**43.52**	**242**	P	**P**	**03 43 38.0**	**-0.3**
	comp=Z,20nm,2.0s						
WRA	**Warramunga Arr**	**44.97**	**260**	P	**P**	**03 43 48.6**	**-1.2**
	comp=Z,3.3nm,0.5s,baz=97,slow=6.5,SNR=37						
WRA				PcP	**PcP**	**03 45 20.7**	**-1.2**
	comp=Z,2.4nm,1.2s,baz=95,slow=2.9,SNR=5.2 comp=Z,3.3nm,0.5s						
WRA	**Warramunga Arr**	**44.97**	**260**		**P**	**03 43 48.4**	**-1.4**
WRA					**PcP**	**03 45 21.8**	**-0.2**
AS31	**Alice Springs**	**45.07**	**255**		**P**	**03 43 50.1**	**-0.4**
AS31				IAmb	IAmb	03 43 50.7	
	comp=Z,9.8nm,0.6s						
ASAR	**Alice Springs**	**45.07**	**255**	P	**P**	**03 43 50.1**	**-0.5**
	comp=Z,29nm,0.5s,baz=90,slow=8.4,SNR=250						
ASAR				PcP	**PcP**	**03 45 21.8**	**-0.5**
	comp=Z,1.7nm,0.6s,baz=98,slow=3.9,SNR=3.9						
ASAR				S	**S**	**03 49 51.5**	**-4.4**
	comp=Z,1.4nm,0.9s,baz=92,slow=16,SNR=10.0 comp=Z,29nm,0.5s						
MTN	**Manton Dam**	**49.23**	**269**		**P**	**03 44 21.0**	**-1.1**
KNRA	**Kununurra**	**50.87**	**265**		**P**	**03 44 33.9**	**-0.4**
FAKI	**Fak Fak**	**51.12**	**281**	P	**P**	**03 44 35.3**	**-0.8**
	comp=Z,23nm,1.0s						
SIJI	**Sorong**	**52.79**	**283**	P	**P**	**03 44 47.8**	**-0.5**
	comp=Z,41nm,0.8s,baz=83,slow=7.1,SNR=17 comp=Z,41nm,0.8s						
FITZ	**Fitzroy Crossi**	**53.37**	**261**	P	**P**	**03 44 52.0**	**-0.4**
	comp=Z,2.4nm,2.0s						
NLAI	**Namlea**	**55.82**	**279**	P	**P**	**03 45 09.5**	**-0.2**
	comp=Z,13nm,0.7s						
SOEI	**Soe**	**56.52**	**270**	P	**P**	**03 45 14.9**	**+0.2**
SOEI	**Soe**	**56.52**	**270**	P	**P**	**03 45 16.1**	**+1.4**
	comp=Z,51nm,0.9s						
SANI	**Sanana**	**57.27**	**280**	P	**P**	**03 45 17.7**	**-2.1**
	comp=Z,26nm,0.8s						
EDFI	**Ende, Flores**	**59.24**	**271**	P	**P**	**03 45 32.1**	**-1.2**
	comp=Z,15nm,0.8s						
VNDA	**Vanda**	**59.93**	**185**	P	**P**	**03 45 38.1**	**+1.4**
	comp=Z,1.2nm,0.7s,baz=0.7,slow=5.0,SNR=9.9 comp=Z,1.2nm,0.7s						
VNDA	**Vanda**	**59.93**	**185**	P	**P**	**03 45 37.0**	**+0.3**
VNDA	**Vanda**	**59.93**	**185**	P	**P**	**03 45 38.3**	**+1.6**
PLAI	**Plampang**	**62.93**	**269**	P	**P**	**03 45 57.0**	**-0.6**
	comp=Z,30nm,1.0s						
TOLI2	**Tolitoli**	**63.26**	**281**		**P**	**03 45 59.9**	**+0.2**
TOLI2				IAmb	IAmb	03 46 08.7	
	comp=Z,7.2nm,0.9s						
MJAR	**Matsushiro Arr**	**68.62**	**323**	P	**P**	**03 46 31.5**	**-1.3**
	comp=Z,7.5nm,0.8s,baz=158,slow=5.9,SNR=9.8 comp=Z,7.5nm,0.8s						
MJAR	**Matsushiro Arr**	**68.62**	**323**	P	**P**	**03 46 32.8**	**-0.1**
MJAR				IAmb	IAmb	03 46 33.7	
	comp=Z,4.3nm,0.7s						
MAJO	**Matsushiro**	**68.62**	**323**	P	**P**	**03 46 33.0**	**+0.2**
	comp=Z,17nm,0.8s						
QSPA	**South Pole Qui**	**71.59**	**180**	P	**P**	**03 46 51.0**	**+0.7**
	comp=Z,6.8nm,0.7s,baz=14,slow=1.2,SNR=22 comp=Z,6.8nm,0.7s						
QSPA	**South Pole Qui**	**71.59**	**180**	P	**P**	**03 46 50.5**	**+0.2**
QSPA				IAmb	IAmb	03 46 52.0	
	comp=Z,7.4nm,0.8s						
QSPA	**South Pole Qui**	**71.59**	**180**	P	**P**	**03 46 51.7**	**+1.4**
	comp=Z,12nm,0.9s						
PETK	**Petropavlovsk-**	**74.33**	**345**	P	**P**	**03 47 06.0**	**0.0**
	comp=Z,7.3nm,0.7s,baz=102,slow=6.2,SNR=6.3 comp=Z,7.3nm,0.7s						
KSRS	**Korea Array**	**75.41**	**318**	P	**P**	**03 47 13.3**	**+0.8**
	comp=Z,1.4nm,0.5s,baz=138,slow=6.8,SNR=5.7 comp=Z,1.4nm,0.5s						
USRK	**Ussuriysk Ar.**	**77.33**	**326**	P	**P**	**03 47 24.3**	**+1.4**
	comp=Z,2.2nm,0.6s,baz=125,slow=2.2,SNR=4.1 comp=Z,2.2nm,0.6s						
USRK	**Ussuriysk Ar.**	**77.33**	**326**	P	**P**	**03 47 23.9**	**+1.0**
MDJ	**Mudanjiang**	**78.90**	**325**	P	**P**	**03 47 31.4**	**0.0**
MDJ				IAmb	IAmb	03 47 33.9	
	comp=Z,10nm,0.8s						
NVAR	**Mina Array Bea**	**79.52**	**44**	P	**P**	**03 47 35.8**	**+0.6**
	comp=Z,0.4nm,0.6s,baz=218,slow=9.0,SNR=3.6 comp=Z,0.4nm,0.6s						
NVAR	**Mina Array Bea**	**79.52**	**44**	P	**P**	**03 47 34.4**	**-0.8**
O19K	**Port Alsworth**	**80.70**	**12**	P	**P**	**03 47 39.7**	**-0.8**
BELA	**Belgrano 2**	**81.55**	**173**	P	**P**	**03 47 44.5**	**-0.4**
BELA				IAmb	IAmb	03 47 45.5	
	comp=Z,7.0nm,1.1s						
SUA	**Susitna One**	**82.58**	**13**	P	**P**	**03 47 49.7**	**-0.7**
SUA				IAmb	IAmb	03 47 51.7	
	comp=Z,7.9nm,0.6s						
GHO	**Glory Hole Cre**	**83.25**	**13**		**P**	**03 47 53.1**	**-0.5**
MAW	**Mawson**	**83.48**	**200**	P	**P**	**03 47 55.3**	**+0.5**
	comp=Z,2.0nm,0.7s,baz=200,slow=2.1,SNR=6.2 comp=Z,2.0nm,0.7s						
MAW	**Mawson**	**83.48**	**200**	P	**P**	**03 47 54.8**	**-0.1**
K20K	**Telida**	**83.67**	**11**	P	**P**	**03 47 55.5**	**-0.2**
K20K				IAmb	IAmb	03 47 57.2	
	comp=Z,7.3nm,0.7s						
LYN	**LuoYang**	**84.52**	**309**	P	**P**	**03 48 01.5**	**+0.9**
LYN				pmax	pmax		
	comp=Z,21nm,0.8s						
RND	**Reindeer**	**84.72**	**13**		**P**	**03 48 00.4**	**-0.5**
K24K	**Donnelly Dome**	**85.73**	**14**	P	**P**	**03 48 05.2**	**-0.7**
WRH	**Wood River Hil**	**85.82**	**12**	P	**P**	**03 48 05.6**	**-0.6**
WRH				IAmb	IAmb	03 48 07.7	
	comp=Z,18nm,1.3s						
TXAR	**Lajitas Array**	**85.92**	**57**	P	**P**	**03 48 08.5**	**+0.8**
	comp=Z,1.0nm,0.8s,baz=220,slow=5.9,SNR=9.2 comp=Z,1.0nm,0.8s						
TXAR	**Lajitas Array**	**85.92**	**57**	P	**P**	**03 48 07.8**	**+0.1**
HDA	**Harding Lake**	**86.00**	**13**	P	**P**	**03 48 05.8**	**-1.3**
HDA				IAmb	IAmb	03 48 08.4	
	comp=Z,6.5nm,0.9s						
CCB	**Clear Creek Bu**	**86.03**	**13**		**P**	**03 48 06.1**	**-1.1**
CCB				IAmb	IAmb	03 48 07.8	
	comp=Z,8.8nm,1.1s						
COLA	**College**	**86.22**	**12**	P	**P**	**03 48 07.7**	**-0.3**
	comp=Z,12nm,1.1s						
IL31		**86.33**	**13**		**P**	**03 48 07.1**	**-1.5**
ILAR	**Eielson Array**	**86.33**	**13**	P	**P**	**03 48 07.6**	**-1.1**
	comp=Z,3.1nm,0.7s,baz=217,slow=5.0,SNR=31 comp=Z,3.1nm,0.7s						
ILAR	**Eielson Array**	**86.33**	**13**	P	**P**	**03 48 08.4**	**-0.2**
J25K	**Salcha River,**	**86.52**	**13**	P	**P**	**03 48 08.6**	**-1.1**
J25K				IAmb	IAmb	03 48 12.1	
	comp=Z,9.1nm,1.5s						
PDAR	**Pinedale Array**	**87.45**	**43**	P	**P**	**03 48 14.9**	**+0.1**
	comp=Z,0.1nm,0.5s,baz=160,slow=1.1,SNR=2.0 comp=Z,0.1nm,0.5s						
PDAR	**Pinedale Array**	**87.45**	**43**	P	**P**	**03 48 14.5**	**-0.3**
ELIB	**Princess Elisa**	**88.66**	**187**	*d*P	**P**	**03 48 19.8**	**0.0**
	comp=Z,4.1nm,0.7s						
G26K	**Porcupine Rive**	**88.86**	**13**		**P**	**03 48 20.0**	**-0.4**
G26K				IAmb	IAmb	03 48 22.9	
	comp=Z,7.1nm,1.0s						
CMAR	**Chiang Mai Arr**	**89.49**	**290**	P	**P**	**03 48 25.2**	**+0.7**
	comp=Z,1.0nm,0.3s,baz=114,slow=2.8,SNR=7.2 comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**89.49**	**290**	P	**P**	**03 48 24.5**	**0.0**
TROLL	**Troll, Antarti**	**89.75**	**180**	⇑P	**P**	**03 48 25.1**	**+0.2**
	comp=Z,133nm,0.7s						
SNAA	**Sanae**	**90.03**	**178**	⇑P	**P**	**03 48 26.0**	**-0.1**
	comp=Z,39nm,0.6s						
VNA3	**Neumayer Olymp**	**90.15**	**176**	⇑P	**P**	**03 48 26.2**	**-0.5**
	comp=Z,10nm,0.7s						
VNA3	**Neumayer Olymp**	**90.15**	**176**	P	**P**	**03 48 26.6**	**0.0**
	comp=Z,14nm,0.7s						
VNA2	**Neumayer--Watz**	**90.60**	**177**	⇑P	**P**	**03 48 29.0**	**+0.3**
	comp=Z,6.4nm,0.6s,baz=187,slow=4.5						
G30M	**tAoh Zraii Nji**	**90.63**	**15**		**P**	**03 48 28.1**	**-0.6**
G30M				IAmb	IAmb	03 48 30.4	
	comp=Z,9.6nm,0.9s						
F31M	**Tsiigehtchic**	**91.60**	**16**		**P**	**03 48 32.5**	**-0.6**
INK	**Inuvik**	**92.31**	**15**	P	**P**	**03 48 35.4**	**-0.9**
SONM	**Songino Array**	**94.26**	**319**	P	**P**	**03 48 46.5**	**+0.5**
	comp=Z,0.8nm,0.8s,baz=137,slow=6.2,SNR=4.5 comp=Z,0.8nm,0.8s						
SONM	**Songino Array**	**94.26**	**319**	P	**P**	**03 48 46.0**	**0.0**
MKAR	**Makanchi Array**	**109.84**	**314**	PKiKP	**PKiKP**	**03 53 53.9**	**-1.1**
	comp=Z,0.5nm,0.5s,baz=193,slow=1.5,SNR=5.8						
KURBB	**Kurchatov Arra**	**112.59**	**318**	PKiKP	**PKiKP**	**03 53 58.8**	**-1.2**
	comp=Z,0.4nm,0.2s,baz=92,slow=1.6,SNR=5.3						
BVAR	**Borovoye Array**	**117.56**	**321**	PKP	**PKPdf**	**03 54 08.3**	**-1.2**
	comp=Z,0.8nm,0.4s,baz=121,slow=2.3,SNR=4.0						
ARCES	**ARCESS Array B**	**126.94**	**350**	PKP	**PKPdf**	**03 54 26.2**	**-0.8**
	comp=Z,6.5nm,0.8s,baz=354,slow=1.2,SNR=9.3						
ARCES	**ARCESS Array B**	**126.94**	**350**		**PKPdf**	**03 54 26.7**	**-0.3**
FINES	**FINESS Array B**	**133.85**	**344**	PKP	**PKPdf**	**03 54 39.8**	**-0.5**
	comp=Z,1.6nm,0.8s,baz=29,slow=3.2,SNR=3.5						
FINES	**FINESS Array B**	**133.85**	**344**		**PKPdf**	**03 54 40.2**	**-0.1**
NB2	**NORSAR Subarra**	**136.98**	**353**	PKP	**PKPdf**	**03 54 47.3**	**+1.0**
	comp=Z,0.7nm,0.6s,baz=15,slow=2.5						
NOA	**NORSAR Array B**	**136.98**	**353**	PKP	**PKPdf**	**03 54 47.0**	**+0.7**
	comp=Z,1.0nm,0.7s,baz=19,slow=2.5,SNR=5.2						
HFS	**Hagfors**	**137.55**	**351**	PKhKP	PKPpre	03 54 38.0	
	comp=Z,0.5nm,0.5s,baz=69,slow=8.1,SNR=6.1						
AKASG	**Malin Array Be**	**141.26**	**332**	PKhKP	PKPpre	03 54 47.9	
	comp=Z,1.1nm,0.5s,baz=47,slow=3.9,SNR=6.5						
EKA	**Eskdalemuir Ar**	**142.99**	**5**	PKhKP	PKPpre	03 54 53.7	
	comp=Z,0.4nm,0.4s,baz=330,slow=2.5,SNR=7.5						
SORM	**Soroca**	**143.50**	**330**	⇑P	PKPab	03 54 55.3	**-1.0**
SORM	**Soroca**	**143.50**	**330**	PKP	PKPab	03 54 56.0	-0.3
BSEG	**Bad Segeberg**	**144.03**	**352**	*e*PKPbc	PKPbc	03 54 58.1	+0.1
	baz=16,slow=2.7						
KWP	**Kalwaria Pacla**	**144.76**	**337**	*e*PKP	**PKPdf**	**03 55 00.5**	**0.0**
NGRR	**Negresti**	**144.85**	**329**	⇑P	**PKPab**	**03 55 01.8**	**+0.3**
MNTR	**Muntenesti**	**144.86**	**329**	⇑P	**PKPdf**	**03 55 00.1**	**-0.7**
PDRR	**Padureni**	**144.89**	**329**	⇑P	**PKPdf**	**03 55 00.9**	**+0.1**
VLDR	**Vladesti**	**145.22**	**327**	⇓P	**PKPbc**	**03 55 02.4**	**+0.3**
OJC	**Ojcow**	**145.29**	**340**	*e*PKP	**PKPbc**	**03 55 02.2**	**0.0**
OJC	**Ojcow**	**145.29**	**340**	PKPbc	**PKPdf**	**03 55 01.9**	**+0.5**
BUR08	**Bucovina Ar. S**	**145.30**	**332**	PKPbc	**PKPdf**	**03 55 01.7**	**+0.1**
BURAR	**Bucovina Array**	**145.31**	**332**	⇑P	**PKPbc**	**03 55 02.9**	**+0.4**
GHRR		**145.41**	**328**	⇓P	**PKPab**	**03 55 04.1**	**+0.5**
BIZ	**Bicaz**	**145.41**	**331**	⇓P	**PKPbc**	**03 55 03.3**	**+0.6**
FLTG	**Flechtingen**	**145.45**	**350**	*e*PKPbc	**PKPbc**	**03 55 02.4**	**-0.2**
	baz=16,slow=2.7						
BRTR	**Keskin Array B**	**145.49**	**315**	PKPbc	**PKPdf**	**03 55 03.0**	**+0.7**
	comp=Z,3.1nm,0.5s,baz=123,slow=3.1,SNR=24						
BRTR	**Keskin Array B**	**145.49**	**315**	PKPdf	**PKPdf**	**03 55 01.8**	**-0.4**
KOLS	**Kolonicke sedl**	**145.49**	**336**	*e*PKP	**PKPbc**	**03 55 03.4**	**+0.5**
ONER	**Baraj Valea Uz**	**145.71**	**330**	⇑P	**PKPbc**	**03 55 04.3**	**+0.7**
KSP	**Ksiaz**	**145.77**	**344**	*e*PKP	**PKPbc**	**03 55 04.0**	**+0.4**
NIE	**Niedzica**	**145.81**	**339**	*e*PKP	**PKPbc**	**03 55 04.5**	**+0.7**
OSTC	**Ostas**	**146.05**	**344**	*e*PKP	**PKPbc**	**03 55 04.9**	**+0.5**
CLZ	**Clausthal**	**146.06**	**351**	*e*P

MOTA	**Moosalm**	**150.26**	**348**	*i* PKP		**PKPbc**	**03 55 15.1**	**-0.4**
	comp=Z,8.2nm,0.8s,SNR=7.3							
MYKA	**Terra Mystica**	**150.34**	**344**	*e*PKP		**PKPbc**	**03 55 14.5**	**-1.1**
	comp=Z,11nm,0.7s,SNR=5.4							
SQTA	**Sankt Quirin**	**150.36**	**347**	*e*PKP		**PKPbc**	**03 55 15.5**	**-0.1**
	comp=Z,14nm,0.7s,SNR=10							
ABTA	**Abfaltersbach**	**150.51**	**345**	*e*PKP		**PKPbc**	**03 55 14.8**	**-1.1**
	comp=Z,18nm,0.6s,SNR=22							
DAVA	**Damuels**	**150.55**	**349**	*e*PKP		**PKPbc**	**03 55 16.1**	**0.0**
	comp=Z,11nm,1.2s							
LJU	**Ljubljana**	**150.63**	**342**	*i* PKPbc		**PKPbc**	**03 55 15.8**	**-0.3**
FETA	**Feichten**	**150.65**	**348**	*e*PKP		**PKPbc**	**03 55 16.0**	**-0.3**
	comp=Z,7.2nm,0.7s							
CRNS	**Crni Vrh**	**150.67**	**343**	*i* PKPbc		**PKPbc**	**03 55 15.5**	**-0.8**
VISS	**Visnje**	**150.75**	**342**	*e*PKPbc		**PKPbc**	**03 55 16.1**	**-0.4**
BOJS	**Bojanci**	**150.89**	**341**	*i* PKPbc		**PKPbc**	**03 55 16.8**	**0.0**
BLY	**Banja Luka**	**150.90**	**338**	⇓P		**PKiKP**	**03 55 17.5**	**+0.3**
STAL	**STALIGIAL**	**150.92**	**345**			**PKPbc**	**03 55 16.1**	**-0.7**
FUORN	**Ofenpass-Fuorn**	**151.12**	**348**			**PKPbc**	**03 55 16.5**	**-1.1**
CTI	**Castel Tesino**	**151.37**	**346**			**PKPbc**	**03 55 17.3**	**-0.7**
TUE	**Stuetta**	**151.43**	**349**			**PKPbc**	**03 55 17.4**	**-0.8**
BNI	**Bardonecchia**	**153.22**	**353**			**PKPbc**	**03 55 22.0**	**-0.1**
ESDC	**Sonseca Array**	**158.24**	**13**	PKPab		**PKPab**	**03 55 56.8**	**-0.8**
	comp=Z,0.9nm,0.8s,baz=338,slow=3.8,SNR=9.2							
ESDC	**Sonseca Array**	**158.24**	**13**			**PKPab**	**03 55 56.6**	**-1.0**

NEIC ***10*** *03:45:34.5±1.3,9.74N±0.09×126.0E±0.2,h60km±2km, mb4.5/19, Error ellipse: s-maj=25.8km s-min=14.5km az=262.0*

IDC ***10*** *03:45:35.5±2.4,9.72N×125.97E,h74km±23km, mb3.9/16, mbtmp4.2/18, MS3.2/1, Error ellipse: s-maj=25.3km s-min=12.0km az=68.0*

MAN ***10*** *03:45:36.0,9.70N×126.04E,h42km, MS4.1*

MAN INTENSITY II - SOCORRO AND SANTA MONICA SURIGAO DEL NORTE; . INTENSITY I - SURIGAO CITY; GENERAL LUNA AND BURGOS SURIGAO DEL NORTE.

ISC 10 03:45:35.0±0.8, 9.73N±0.04×126.09E±0.06, h70km±7km, n69, σ1°51/77, mb4.4/27, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**0.59**	**275**	*i* P	**Pn**	**03 45 49.2**	**+0.4**
SCPH				*i* S	**Sn**	**03 45 52.3**	**-6.5**
TSSP	**Tandag City**	**0.69**	**171**	*e*P	**Pn**	**03 45 50.5**	**+0.7**
TSSP				*e*S	**Sn**	**03 46 02.5**	**+1.8**
BIPH	**Bislig**	**1.56**	**170**	*e*P	**Pn**	**03 46 01.5**	**+0.8**
BIPH				*e*S	**Sn**	**03 46 21.7**	**+1.5**
PLP	**Palo**	**1.80**	**323**	*e*P	**Pn**	**03 46 05.6**	**+1.7**
PLP				*e*S	**Sn**	**03 46 26.9**	**+1.0**
CGP	**Cagayan de Oro**	**1.87**	**228**	*e*P	**Pn**	**03 46 05.8**	**+0.9**
CGP				*i* S	**Sn**	**03 46 27.9**	**+0.3**
LLP	**Lapu-Lapu**	**2.17**	**286**	*e*P	**Pn**	**03 46 10.5**	**+1.6**
LLP				*e*S	**Sn**	**03 46 36.8**	**+1.9**
TBP	**Tagbilaran**	**2.19**	**269**	*i* P	**Pn**	**03 46 10.7**	**+1.4**
TBP				*i* S	**Sn**	**03 46 36.8**	**+1.4**
DAV	**Davao City (W)**	**2.69**	**191**	P	**Pn**	**03 46 15.0**	**-1.0**
	342nm,0.4s,baz=220,slow=7.9,SNR=1.9						
DAV				S	**Sn**	**03 46 48.4**	**+0.9**
	288nm,0.3s,baz=296,slow=22,SNR=4.1						
DAV	**Davao City (W)**	**2.69**	**191**		**Pn**	**03 46 14.6**	**-1.4**
DAV					**Sn**	**03 46 46.5**	**-1.0**
DMPH	**Davao City--Mi**	**2.69**	**192**	*e*P	**Pn**	**03 46 17.4**	**+1.4**
DMPH				*i* S	**Sn**	**03 46 52.0**	**+4.5**
SNPH	**Sibulan**	**2.84**	**263**	*i* P	**Pn**	**03 46 19.4**	**+1.4**
SNPH				*e*S	**Sn**	**03 46 51.1**	**-0.1**
DCPH	**Dipolog City**	**2.93**	**247**	*i* P	**Pn**	**03 46 20.5**	**+1.2**
DCPH				*i* S	**Sn**	**03 46 54.7**	**+1.3**
CTBH	**Cotabato--PC H**	**3.08**	**216**	*i* P	**Pn**	**03 46 23.9**	**+2.5**
DDMP	**Don Marcelino,**	**3.62**	**186**	*e*P	**Pn**	**03 46 30.3**	**+1.6**
DDMP				*e*S	**Sn**	**03 47 07.3**	**-2.9**
JAP	**San Jose, Anti**	**4.20**	**284**	*e*P	Pn	03 46 40.8	+4.2
LQP	**Lukban**	**6.23**	**315**	*e*P	Pn	03 47 08.6	+4.1
JAY	**Jayapura**	**18.97**	**129**	P	**P**	**03 49 52.5**	**+1.6**
	14nm,0.6s,baz=301,slow=12,SNR=4.7						
MTN	**Manton Dam**	**22.98**	**167**	P	**P**	**03 50 33.7**	**-0.1**
MTN				IAmb	IAmb	03 50 37.2	
	comp=Z,7.0nm,0.4s						
FITZ	**Fitzroy Crossi**	**27.65**	**181**	LR	LR	04 05 05.3	
	comp=Z,40nm,18.3s,baz=138,slow=42						
CMAR	**Chiang Mai Arr**	**27.69**	**291**	P	**P**	**03 51 17.4**	**+0.7**
	comp=Z,1.6nm,0.6s,baz=99,slow=9.6,SNR=7.3						
	comp=Z,1.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**27.69**	**291**	P	**P**	**03 51 16.1**	**-0.6**
WRA	**Warramunga Arr**	**30.58**	**165**	P	**P**	**03 51 41.6**	**-0.7**
	comp=Z,1.7nm,0.6s,baz=342,slow=9.3,SNR=19						
WRA				PcP	**PcP**	**03 54 39.8**	**+0.2**
	comp=Z,0.4nm,0.7s,baz=334,slow=3.1,SNR=1.9						
	comp=Z,1.7nm,0.6s						
WRA	**Warramunga Arr**	**30.58**	**165**	P	**P**	**03 51 40.8**	**-1.5**
AS31	**Alice Springs**	**34.06**	**167**	P	**P**	**03 52 12.8**	**+0.1**
ASAR	**Alice Springs**	**34.06**	**167**	P	**P**	**03 52 13.0**	**+0.2**
	comp=Z,2.1nm,0.3s,baz=352,slow=7.0,SNR=40						
ASAR				PcP	**PcP**	**03 54 49.0**	**-0.1**
	comp=Z,0.7nm,0.6s,baz=341,slow=2.8,SNR=4.4						
ASAR				S	**S**	**03 57 29.3**	**-4.2**
	comp=Z,1.2nm,1.1s,baz=352,slow=18,SNR=4.1						
	comp=Z,2.1nm,0.3s						
ASAR	**Alice Springs**	**34.06**	**167**	P	**P**	**03 52 13.0**	**+0.2**
ASAR					**PcP**	**03 54 49.6**	**+0.5**
USRK	**Ussuriysk Ar.**	**34.72**	**7**	P	**P**	**03 52 18.9**	**+0.7**
	comp=Z,2.6nm,0.7s,baz=198,slow=9.1,SNR=4.6						
	comp=Z,2.6nm,0.7s						
USRK	**Ussuriysk Ar.**	**34.72**	**7**	P	**P**	**03 52 18.5**	**+0.3**
H11S3	**WAKE ISLAND Hy**	**40.25**	**73**	T	T	04 36 11.1	
	baz=262,slow=75,SNR=47						
H11S1	**WAKE ISLAND Hy**	**40.26**	**73**	T	T	04 36 07.3	
	baz=262,slow=75,SNR=25						
H11S2	**WAKE ISLAND Hy**	**40.27**	**73**	T	T	04 36 09.9	
	baz=262,slow=75,SNR=44						
H11N1	**WAKE ISLAND Hy**	**40.60**	**71**	T	T	04 36 41.9	
	baz=264,slow=74,SNR=53						
H11N2	**WAKE ISLAND Hy**	**40.61**	**71**	T	T	04 36 39.5	
	baz=264,slow=74,SNR=46						
H11N3	**WAKE ISLAND Hy**	**40.62**	**71**	T	T	04 36 32.7	
	baz=264,slow=74,SNR=55						
EVN	**Everest**	**41.12**	**302**		**P**	**03 53 12.6**	**-0.5**
SONM	**Songino Array**	**41.46**	**340**	P	**P**	**03 53 14.3**	**-0.7**
	comp=Z,0.4nm,0.4s,baz=149,slow=9.6,SNR=2.1						
	comp=Z,0.4nm,0.4s						
SONM	**Songino Array**	**41.46**	**340**	P	**P**	**03 53 14.1**	**-1.0**
STKA	**Stephens Creek**	**43.95**	**161**	P	**P**	**03 53 35.3**	**+0.1**
	comp=Z,2.7nm,0.4s,baz=337,slow=8.5,SNR=8.0						
	comp=Z,2.7nm,0.4s						
STKA	**Stephens Creek**	**43.95**	**161**	P	**P**	**03 53 35.8**	**+0.6**
PETK	**Petropavlovsk-**	**50.20**	**24**	P	**P**	**03 54 25.3**	**+1.7**
	comp=Z,3.6nm,0.7s,baz=301,slow=3.5,SNR=5.5						
	comp=Z,3.6nm,0.7s						
PETK	**Petropavlovsk-**	**50.20**	**24**	P	**P**	**03 54 23.3**	**-0.3**
MKAR	**Makanchi Array**	**52.35**	**323**	P	**P**	**03 54 39.5**	**-0.3**
	comp=Z,2.5nm,0.6s,baz=122,slow=8.2,SNR=19						
	comp=Z,2.5nm,0.6s						
MKAR	**Makanchi Array**	**52.35**	**323**	P	**P**	**03 54 39.3**	**-0.5**
ZALV	**Zalesovo Beam**	**55.01**	**332**	P	**P**	**03 54 57.6**	**-1.5**
	comp=Z,1.0nm,0.3s,baz=127,slow=6.9,SNR=3.6						
	comp=Z,1.0nm,0.3s						
ZALV	**Zalesovo Beam**	**55.01**	**332**	P	**P**	**03 54 58.1**	**-1.0**
KURK	**Kurchatov**	**56.41**	**326**	P	**P**	**03 55 08.8**	**-0.4**
KURK				IAmb	IAmb	03 55 10.4	
	comp=Z,3.0nm,0.9s						
KURBB	**Kurchatov Arra**	**56.41**	**326**	P	**P**	**03 55 08.6**	**-0.6**
	comp=Z,2.3nm,0.6s,baz=125,slow=6.9,SNR=17						
	comp=Z,2.3nm,0.6s						
BVAR	**Borovoye Array**	**62.01**	**326**	P	**P**	**03 55 47.9**	**0.0**
	comp=Z,2.4nm,0.7s,baz=128,slow=9.7,SNR=6.5						
	comp=Z,2.4nm,0.7s						
AB31	**Akbulak array**	**67.17**	**319**	P	**P**	**03 56 21.0**	**-0.5**
AB31				IAmb	IAmb	03 56 21.5	
	comp=Z,2.5nm,0.6s						
ILAR	**Eielson Array**	**80.00**	**26**	P	**P**	**03 57 36.4**	**-0.1**
	comp=Z,0.3nm,0.6s,baz=241,slow=4.5,SNR=8.7						
	comp=Z,0.3nm,0.6s						
ILAR	**Eielson Array**	**80.00**	**26**	P	**P**	**03 57 37.1**	**+0.6**
D27M	**Malcolm River**	**82.02**	**21**	P	**P**	**03 57 48.7**	**+1.5**
D27M				IAmb	IAmb	03 57 54.1	
	comp=Z,4.0nm,1.3s						
I27K	**Kandik River**	**82.17**	**25**	P	**P**	**03 57 49.9**	**+1.9**
I27K				IAmb	IAmb	03 58 09.7	
	comp=Z,4.6nm,1.0s						
BARN	**Barnard Glacie**	**82.66**	**29**	P	**P**	**03 57 51.5**	**+0.7**
BARN				IAmb	IAmb	03 58 27.5	
	comp=Z,9.8nm,1.1s						
I28M	**Miner Creek**	**82.88**	**25**	P	**P**	**03 57 52.9**	**+1.1**
I28M				IAmb	IAmb	03 58 12.7	
	comp=Z,3.3nm,1.2s						
LOGN	**Logan Glacier**	**83.00**	**30**	P	**P**	**03 57 54.3**	**+1.7**
LOGN				IAmb	IAmb	03 58 32.2	
	comp=Z,23nm,1.4s						
O28M	**Mount Upton**	**83.41**	**30**	P	**P**	**03 57 54.1**	**-0.8**
H29M	**Whitestone**	**83.41**	**24**	P	**P**	**03 57 55.1**	**+0.7**
H29M				IAmb	IAmb	03 58 25.4	
	comp=Z,5.5nm,1.4s						
G29M	**Pine Creek**	**83.43**	**23**	P	**P**	**03 57 54.4**	**-0.1**
ARCES	**ARCESS Array B**	**84.64**	**340**	P	**P**	**03 58 00.5**	**-0.1**
	comp=Z,3.5nm,0.9s,baz=88,slow=5.7,SNR=6.0						
	comp=Z,3.5nm,0.9s						
ARCES	**ARCESS Array B**	**84.64**	**340**	P	**P**	**03 58 00.9**	**+0.3**
M30M	**Minto, Yukon**	**84.71**	**27**	P	**P**	**03 58 02.4**	**+1.3**
M30M				IAmb	IAmb	03 58 04.4	
	comp=Z,6.2nm,1.2s						
H31M	**Peel River**	**85.10**	**24**	P	**P**	**03 58 03.6**	**+0.5**
H31M				IAmb	IAmb	03 58 16.3	
	comp=Z,7.7nm,1.4s						
BRTR	**Keskin Array B**	**85.73**	**309**	P	**P**	**03 58 05.8**	**-1.1**
	comp=Z,0.6nm,0.7s,baz=67,slow=4.8,SNR=3.5						
	comp=Z,0.6nm,0.7s						
BRTR	**Keskin Array B**	**85.73**	**309**	P	**P**	**03 58 06.2**	**-0.7**
FIA1	**FINESS Array S**	**86.28**	**332**	P	**P**	**03 58 08.5**	**-0.3**
FINES	**FINESS Array B**	**86.28**	**332**	P	**P**	**03 58 08.4**	**-0.5**
	comp=Z,1.8nm,0.6s,baz=66,slow=4.3,SNR=15						
	comp=Z,1.8nm,0.6s						
HFS	**Hagfors**	**92.44**	**332**	P	**P**	**03 58 36.4**	**-1.5**
	comp=Z,0.6nm,0.6s,baz=80,slow=7.9,SNR=1.6						
	comp=Z,0.6nm,0.6s						
PLCA	**Paso Flores**	**145.78**	**157**	PKPbc	**PKPab**	**04 05 07.7**	**+0.7**
	comp=Z,1.7nm,0.7s,baz=240,slow=3.5,SNR=7.7						

NEIC ***10*** *03:45:40.5±1.5,19.8S±0.2×177.43W±0.08,h405km±11km, mb4.0/15, Error ellipse: s-maj=26.1km s-min=10.3km az=192.0*

IDC ***10*** *03:45:42.7±2.2,19.74S×177.71W,h415km±22km, mb3.4/5, mbtmp4.2/7, Error ellipse: s-maj=32.1km s-min=24.5km az=14.0*

ISC 10 03:45:40.5±1.1, 19.7S±0.1×177.6W±0.1, h400km, n29, σ1°20/29, mb3.8/12, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.60**	**295**	P	**Pn**	**03 46 59.9**	**+1.2**
	9.0nm,0.5s,baz=122,slow=15,SNR=14						
MSVF	**Nonsavu**	**4.60**	**295**		**Pn**	**03 46 59.7**	**+1.0**
RAO	**Raoul Island**	**9.50**	**182**	P	**Pn**	**03 47 55.3**	**+2.6**
	448nm,0.4s,baz=166,slow=18,SNR=3.1						
RAO	**Raoul Island**	**9.50**	**182**	P	**Pn**	**03 47 53.7**	**+1.0**
PINNC	**Pines Island,**	**14.28**	**256**	P	**P**	**03 48 44.3**	**-0.9**
DZM	**Mont Dzumac**	**15.13**	**258**	P	**P**	**03 48 54.8**	**+0.2**
	2.6nm,0.6s,baz=270,slow=21,SNR=1.1						
TOZ	**Tahuroa Road**	**18.94**	**197**	P	**P**	**03 49 33.5**	**-1.3**
TOZ				IAmb	IAmb	03 49 38.4	
	comp=Z,37nm,1.4s						
MSWZ	**Moikau Station**	**22.48**	**194**	P	**P**	**03 50 05.3**	**-2.1**
CAN	**Canberra**	**33.29**	**235**	P	**P**	**03 51 42.1**	**-0.7**
CAN				IAmb	IAmb	03 51 43.5	
	comp=Z,14nm,1.3s						
TAU	**Tasmania Unive**	**37.47**	**224**	P	**P**	**03 52 17.3**	**-0.4**
TAU				IAmb	IAmb	03 52 19.1	
	comp=Z,17nm,1.1s						
STKA	**Stephens Creek**	**38.50**	**243**	P	**P**	**03 52 26.2**	**-0.3**
	comp=Z,1.7nm,0.4s,baz=84,slow=11,SNR=7.8						
	comp=Z,1.7nm,0.4s						
STKA	**Stephens Creek**	**38.50**	**243**	P	**P**	**03 52 26.6**	**+0.2**
INKA	**Innaminka**	**38.85**	**250**	P	**P**	**03 52 31.5**	**+2.2**
INKA				IAmb	IAmb	03 52 35.2	
	comp=Z,12nm,0.5s						
BBOO	**Buckleboo**	**43.27**	**243**	P	**P**	**03 53 03.5**	**-1.2**
WR8	**Warramunga Arr**	**44.97**	**261**	P	**P**	**03 53 17.9**	**-0.4**
WR8				IAmb	IAmb	03 53 18.3	
	comp=Z,5.3nm,1.0s						
WB0	**Warramunga Arr**	**45.10**	**261**	P	**P**	**03 53 18.4**	**-0.9**
WB0				IAmb	IAmb	03 53 19.7	
	comp=Z,3.1nm,0.6s						
AS31	**Alice Springs**	**45.10**	**256**	P	**P**	**03 53 19.5**	**+0.2**
AS31				IAmb	IAmb	03 53 20.3	
	comp=Z,2.8nm,0.8s						
ASAR	**Alice Springs**	**45.10**	**256**	P	**P**	**03 53 19.2**	**-0.1**
	comp=Z,8.3nm,0.7s,baz=89,slow=8.2,SNR=54						
	comp=Z,8.3nm,0.7s						
ASAR	**Alice Springs**	**45.10**	**256**	P	**P**	**03 53 18.5**	**-0.8**
WRAB	**Tennant Creek**	**45.11**	**261**	P	**P**	**03 53 17.7**	**-1.7**
WRAB				IAmb	IAmb	03 53 21.7	
	comp=Z,5.6nm,1.2s						
WRA	**Warramunga Arr**	**45.12**	**261**	P	**P**	**03 53 19.1**	**-0.3**
	comp=Z,1.3nm,0.3s,baz=97,slow=7.4,SNR=15						
	comp=Z,1.3nm,0.3s						
WRA	**Warramunga Arr**	**45.12**	**261**	P	**P**	**03 53 19.1**	**-0.3**
KNRA	**Kununurra**	**51.13**	**265**	P	**P**	**03 54 04.6**	**-0.2**
FITZ	**Fitzroy Crossi**	**53.54**	**262**	P	**P**	**03 54 22.6**	**+0.2**
QSPA	**South Pole Qui**	**70.35**	**180**	P	**P**	**03 56 12.1**	**0.0**
	comp=Z,0.8nm,0.3s,baz=46,slow=2.7,SNR=5.0						
	comp=Z,0.8nm,0.3s						
QSPA	**South Pole Qui**	**70.35**	**180**	P	**P**	**03 56 12.7**	**+0.6**
QSPA				IAmb	IAmb	03 56 15.3	
	comp=Z,4.3nm,1.4s						
TXAR	**Lajitas Array**	**86.29**	**57**	P	**P**	**03 57 40.6**	**+1.7**
	comp=Z,0.3nm,0.8s,baz=238,slow=7.2,SNR=3.4						
	comp=Z,0.3nm,0.8s						
TXAR	**Lajitas Array**	**86.29**	**57**	P	**P**	**03 57 36.9**	**-2.0**
TPB07	**Mentone**	**87.23**	**55**	P	**P**	**03 57 42.2**	**-1.1**

ROM 10 03:53:14.6±0.1, 43.167N±0.003×13.096E±0.005, h17km, ML0.5/4, 3C-2D, Error ellipse: s-maj=0.4km s-min=0.1km az=261.0, Central Italy

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CSP1	**Cessapalombo**	**0.11**	**133**	⇑P	Pg	03 53 18.5	+0.1
CSP1				S	Sg	03 53 21.3	+0.4
FDMO	**Fiordimonte**	**0.13**	**183**	⇑P	Pg	03 53 18.6	+0.1
FDMO				S	Sb	03 53 21.5	+0.2
SNTG	**Esanatoglia**	**0.14**	**308**	P	Pb	03 53 18.9	0.0
SNTG				S	Sb	03 53 22.0	+0.2
SNTG				AML	AML		
	comp=E,12μm,1.6s						
SNTG				AML	AML		
	comp=N,14μm,1.3s						
SNTG				AML	AML		
	comp=E,12μm,0.4s						
EL6	**Elcito**	**0.16**	**2**	P	Pb	03 53 19.4	+0.1
EL6				S	Sb	03 53 22.5	+0.1
CESI	**CESI - Serrava**	**0.21**	**221**	⇓P	Pb	03 53 19.9	-0.2
CESI				S	Sb	03 53 23.9	+0.2
CESI				AML	AML		
	comp=N,42μm,0.2s						
CESI				AML	AML		
	comp=N,42μm,1.8s						
CESI				AML	AML		
	comp=E,19μm,1.0s						
MMO1	**Montemonaco**	**0.32**	**148**	⇓P	Pg	03 53 21.5	+0.1
MMO1				S	Sb	03 53 26.8	0.0
NRCA	**Norcia**	**0.33**	**178**	⇑P	Pg	03 53 21.7	0.0

IDC ***10*** *04:28:26.1±0.7,6.98S×133.23E, h0km, mb4.0/7, mbtmp4.0/12, ML3.9/5, MS3.3/4, Error ellipse: s-maj=21.5km s-min=10.5km az=88.0*

NEIC ***10*** *04:28:26.6±1.4,7.14S±0.04×133.54E±0.08, h10km±1km, mb4.4/8, Error ellipse: s-maj=13.3km s-min=4.7km az=70.0*

DJA ***10*** *04:28:33.2±1.0,7.5S±3°×13°3E±°, h11km±8km, M4.4/11, mB4.8/3, mb4.4/4, MLv4.4/11, Mw(mB)4.1/3*

ISC 10 04:28:29.6±0.6, 7.20S±0.05×133.40E±0.10, h35km, n46, σ2°61/48, mb4.1/12, Aru Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**2.22**	**249**	Pn	**Pn**	**04 29 04.5**	**+0.6**
SAUI	**Saumlaki**	**2.22**	**249**	P	**Pn**	**04 29 08.0**	**+4.0**
SAUI				AML	AML		
KMPI	**Kaimana, Papua**	**3.53**	**5**	P	**Pn**	**04 29 22.9**	**+1.0**
KMPI				S	**Sn**	**04 30 01.6**	**-0.8**
KMPI				AML	AML		
BNDI	**Bandanaira**	**4.37**	**307**	P	**Pn**	**04 29 33.2**	**-0.4**
FAKI	**Fak Fak**	**4.40**	**345**		**Pn**	**04 29 33.4**	**-0.6**
FAKI	**Fak Fak**	**4.40**	**345**	P	**Pn**	**04 29 33.3**	**-0.7**
FAKI				AML	AML		
MTN	**Manton Dam**	**6.04**	**201**		**Pn**	**04 29 59.0**	**+2.5**
SIJI	**Sorong**	**6.64**	**341**	Pn	Pn	04 29 59.6	-5.1
	2.1nm,0.3s,baz=109,slow=5.0,SNR=3.9						
SIJI				Sn	**Sn**	**04 31 11.4**	**-7.8**
	5.6nm,0.3s,baz=282,slow=23,SNR=9.2						
	4.5nm,0.4s						
SIJI				AML	AML		
SIJI	**Sorong**	**6.64**	**341**	P	**Pn**	**04 30 02.5**	**-2.2**
	0.3nm1μm11nm,0.7s						
SIJI				AML	AML		
JAY	**Jayapura**	**8.64**	**58**	P	**Pn**	**04 30 32.0**	**-0.3**
	0.4nm,0.3s,baz=293,slow=18,SNR=1.8						
JAY				LR	LR	04 34 37.5	
	comp=Z,136nm,18.4s,baz=16,slow=43						
	6.6nm,0.8s						
JAY				AML	AML		
SOEI	**Soe**	**9.38**	**254**		**Pn**	**04 30 42.6**	**+0.1**
KNRA	**Kununurra**	**9.57**	**208**		**Pn**	**04 30 46.2**	**+1.2**
WB0	**Warramunga Arr**	**12.53**	**176**		**Pn**	**04 31 24.9**	**-0.6**
WRAB	**Tennant Creek**	**12.69**	**176**	Pn	**Pn**	**04 31 27.4**	**-0.3**
WRA	**Warramunga Arr**	**12.70**	**176**	Pn	**Pn**	**04 31 27.1**	**-0.8**
	0.8nm,0.3s,baz=354,slow=13,SNR=21						
WRA				Sn	**Sn**	**04 33 41.0**	**-7.2**
	2.8nm,0.3s,baz=358,slow=23,SNR=10						
WRA				Lg	Lg	04 35 07.5	
	1.2nm,0.3s,baz=352,slow=28,SNR=4.6						
	1.3nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**12.70**	**176**		**Pn**	**04 31 25.2**	**-2.7**
WR8	**Warramunga Arr**	**12.73**	**175**		**Pn**	**04 31 28.0**	**-0.3**
FITZ	**Fitzroy Crossi**	**13.21**	**214**	Pn	**Pn**	**04 31 32.8**	**-2.0**
	0.9nm,0.3s,baz=28,slow=11,SNR=22						
FITZ				Sn	Sn	04 33 48.9	-12
	4.9nm,0.3s,baz=220,slow=17,SNR=11						
FITZ				Lg	Lg	04 35 23.6	
	baz=83,slow=12						
FITZ				LR	LR	04 37 19.8	
	comp=Z,143nm,19.1s,baz=6.0,slow=40						
	1.3nm,0.4s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**13.21**	**214**		**Pn**	**04 31 34.0**	**-0.8**
KAPI	**Kappang**	**13.74**	**278**	LR	LR	04 36 58.4	
	comp=Z,96nm,18.9s,baz=116,slow=38						
AS31	**Alice Springs**	**16.38**	**178**	Pn	**Pn**	**04 32 16.6**	**-0.5**
ASAR	**Alice Springs**	**16.38**	**178**	Pn	**Pn**	**04 32 16.7**	**-0.3**
	0.5nm,0.3s,baz=1.1,slow=10,SNR=29						
ASAR				Sn	**Sn**	**04 35 08.7**	**-9.2**
	1.1nm,0.3s,baz=1.3,slow=28,SNR=6.9						
ASAR				Lg	Lg	04 37 02.3	
	baz=3.9,slow=30						
	3.8nm,0.8s						
ASAR				AML	AML		
CTA	**Charters Tower**	**17.88**	**137**	LR	LR	04 40 07.1	
	comp=Z,139nm,19.7s,baz=46,slow=39						
MBWA	**Marble Bar**	**19.16**	**222**		**Pn**	**04 32 53.7**	**+2.4**
MBWA				IAmb	IAmb	04 33 24.2	
	comp=Z,30nm,1.5s						
FORT	**Forrest**	**23.99**	**191**	P	**P**	**04 33 41.4**	**+0.4**
FORT				IAmb	IAmb	04 34 00.8	
	comp=Z,16nm,1.2s						
BBOO	**Buckleboo**	**25.61**	**175**	P	**P**	**04 33 55.5**	**-0.3**
STKA	**Stephens Creek**	**25.72**	**164**	P	**P**	**04 33 58.0**	**+1.3**
	comp=Z,3.1nm,0.6s,baz=323,slow=11,SNR=4.8						
STKA	**Stephens Creek**	**25.72**	**164**	P	**P**	**04 33 56.8**	**0.0**
CMAR	**Chiang Mai Arr**	**42.49**	**307**	P	**P**	**04 36 20.1**	**-1.7**
	comp=Z,0.9nm,0.4s,baz=146,slow=6.5,SNR=5.0						
	comp=Z,0.9nm,0.4s						
CMAR	**Chiang Mai Arr**	**42.49**	**307**	P	**P**	**04 36 21.6**	**-0.2**
HHC	**Hu-ho-hao-te**	**51.86**	**339**	*e*P	**P**	**04 37 38.4**	**+3.8**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,74nm,5.0s						
HHC				LR	LR		
	comp=N,210nm,16.0s						
HHC				LR	LR		
	comp=E,210nm,17.7s						
HHC				LR	LR		
	comp=Z,91nm,16.0s						
WMQ	**Urumqi**	**65.44**	**325**	*e*P	**P**	**04 39 12.2**	**+3.1**
WMQ				PcP	**PcP**	**04 39 42.8**	**+2.0**
WMQ				pmax	pmax		
	comp=Z,18nm,0.7s						
WMQ				LR	LR		
	comp=N,370nm,22.3s						
WMQ				LR	LR		
	comp=E,230nm,24.1s						
WMQ				LR	LR		
	comp=Z,290

comp=Z,217nm,18.2s,baz=350,slow=32
14nm,0.6s

JAY AML AML
JAY Jayapura 14.69 179 P Pn 04 45 14.8 -1.1
GENI Genyem 14.77 181 P Pn 04 45 17.4 +0.6
JCJ Chichijima 14.85 6 P Pn 04 45 18.7 +0.8
3.8nm,0.3s,baz=329,slow=21,SNR=2.1
50nm,0.7s

JCJ AML AML
JCJ Chichijima 14.85 6 Pn 04 45 19.2 +1.3
DAV Davao City (W) 15.45 252 P **Pn 04 45 28.3 +2.4**
374nm,0.4s,baz=84,slow=10,SNR=2.4

DAV LR LR 04 49 37.9
comp=Z,509nm,21.3s,baz=81,slow=30

DAV Davao City (W) 15.45 252 P Pn 04 45 24.4 -1.4
SIJI Sorong 15.87 215 P Pn 04 45 32.9 +1.6
1.1nm,0.3s,baz=8.5,slow=12,SNR=11

SIJI LR LR 04 50 22.0
comp=Z,680nm,19.0s,baz=24,slow=32
18nm,1.0s

SIJI AML AML
SIJI Sorong 15.87 215 P P 04 45 36.0 +1.2
FAKI Fak Fak 17.10 209 Pn **Pn 04 45 44.5 -2.5**
FAKI IAmb IAmb 04 45 55.2
comp=Z,68nm,1.0s

FAKI Fak Fak 17.10 209 P Pn 04 45 49.0 +2.0
comp=Z,2µmcomp=Z,123nm,1.3s

KMPI Kaimana, Papua 17.15 203 P P 04 45 55.4 +6.4
JOW Kunigami 18.40 324 P P 04 46 04.3 +1.5
comp=Z,1.8nm,0.3s,baz=113,slow=18,SNR=2.1

JOW LR LR 04 51 32.6
comp=Z,752nm,22.0s,baz=192,slow=31
comp=Z,19nm,0.7s

JOW AML AML
JOW Kunigami 18.40 324 P Pn 04 46 01.1 -1.9
MSAI Masohi 19.22 217 P P 04 46 13.2 +1.3
BNDI Bandanaira 19.65 213 P Pn 04 46 22.1 +4.0
BNDI Bandanaira 19.65 213 P P 04 46 14.1 -2.5
KRVT Keravat (AS076 20.15 144 LR LR 04 52 44.8
comp=Z,984nm,20.4s,baz=340,slow=33

SANI Sanana 20.15 226 P P 04 46 23.8 +1.8
SANI Sanana 20.15 226 P P 04 46 22.5 +0.5
comp=Z,36nm,1.8s

NLAI Namlea 20.27 221 P Pn 04 46 26.8 +1.4
comp=Z,1µmcomp=Z,77nm,1.5s

GTOI Gorontalo 20.72 237 P P 04 46 28.8 +0.6
comp=Z,810nmcomp=Z,68nm,1.2s

TWG Pinlang 21.14 302 P 04 46 34.8
comp=Z,96nm,1.0s

SSLB Suanglung 21.68 305 P P 04 46 41.4 +2.9
comp=Z,87nm,1.1s

TPUB Ta-pu 21.72 303 P P 04 46 41.4 +2.5
LUWI Luwuk 21.90 234 P P 04 46 40.3 -0.6
LUWI Luwuk 21.90 234 P P 04 46 40.2 -0.6
comp=Z,251nm,0.8s

TOLI2 Tolitoli 22.35 242 P 04 46 43.3 -2.5
TOLI2 IAmb IAmb 04 46 53.1
comp=Z,63nm,1.0s

TOLI2 Tolitoli 22.35 242 P P 04 46 45.4 -0.4
comp=Z,66nm,1.0s

JNU Nakatsue 22.50 339 P P 04 46 49.9 +2.7
comp=Z,11nm,1.0s,baz=171,slow=16,SNR=4.1

JNU LR LR 04 54 07.6
comp=Z,289nm,22.0s,baz=136,slow=33
comp=Z,11nm,1.0s

APSI Ampana 22.72 236 P P 04 46 59.8 +10
KDI Kendari 23.89 229 P P 04 47 02.5 +1.2
comp=Z,2µmcomp=Z,63nm,1.5s

TTSI Tana Toraja 25.45 235 P P 04 47 17.1 +1.5
comp=Z,2µmcomp=Z,104nm,1.3s

MTN Manton Dam 26.57 200 P 04 47 24.0 -1.7
KAPI Kappang 26.73 231 LR LR 04 56 33.9
comp=Z,156nm,21.2s,baz=43,slow=33

SOEI Soe 27.09 217 P P 04 47 29.6 -1.0
SOEI Soe 27.09 217 P P 04 47 34.7 +4.1
SOEI Soe 27.09 217 P P 04 47 31.3 +0.7
comp=Z,150nm,1.1s

KSRS Korea Array 27.44 338 P P 04 47 34.0 +0.7
comp=Z,0.9nm,0.4s,baz=155,slow=9.3,SNR=5.3

KSRS LR LR 04 56 48.3
comp=Z,370nm,21.5s,baz=150,slow=33
comp=Z,0.9nm,0.4s

BATI Baumata 27.81 217 LR LR 04 59 22.4
comp=Z,289nm,18.6s,baz=60,slow=38

BATI Baumata 27.81 217 P P 04 47 48.3 +11
NJ2 Nanjing 27.90 318 *e*P **P 04 47 36.9 -0.6**
NJ2 pmax pmax
comp=Z,11nm,0.5s

EDFI Ende, Flores 27.93 222 P P 04 47 41.5 +3.4
HNR Honiara 29.05 137 LR LR 04 58 00.1
comp=Z,210nm,21.4s,baz=42,slow=34

KNRA Kununurra 30.04 203 P P 04 47 55.2 -1.5
QIZ Qiongzhong 30.10 287 P P 04 47 57.7 +0.4
QIZ S S **04 52 55.1 +0.5**
QIZ L L
comp=Z,600nm,12.0s

QIZ L L
comp=Z,920nm,12.7s

QIZ L L
comp=Z,1µm,18.4s

DL2 Dalian 31.31 331 P P 04 48 10.2 +2.5
DL2 S S **04 53 14.2 +1.1**
DL2 pmax pmax
comp=Z,19nm,0.9s

DL2 pmax pmax
comp=Z,130nm,4.9s

DL2 L L
comp=Z,320nm,18.9s

DL2 L L
comp=Z,630nm,16.6s

DL2 L L
comp=Z,710nm,20.8s

WR8 Warramunga Arr 32.54 190 P P 04 48 16.5 -2.1
WRA Warramunga Arr 32.55 191 P P 04 48 16.9 -1.9
comp=Z,3.4nm,1.1s,baz=5.1,slow=9.7,SNR=9.5

WRA PcP **PcP 04 51 05.3 +0.1**
comp=Z,1.5nm,1.0s,baz=6.1,slow=3.0,SNR=4.6
comp=Z,3.4nm,1.1s

WRA Warramunga Arr 32.55 191 P P 04 48 15.8 -2.9
WRA **PcP 04 51 03.9 -1.3**
USRK Ussuriysk Ar. 32.62 349 P P 04 48 18.2 -0.9
comp=Z,1.3nm,0.6s,baz=195,slow=9.0,SNR=1.8

USRK LR LR 04 59 24.8
comp=Z,135nm,19.8s,baz=161,slow=32
comp=Z,1.3nm,0.6s

USRK Ussuriysk Ar. 32.62 349 P P 04 48 18.9 -0.2
QIS Mount Isa 32.63 181 P P 04 48 20.0 +0.6
comp=Z,12nm,1.6s

CTAO Charters Tower 32.67 170 P P 04 48 19.8 -0.1
CTAO Charters Tower 32.67 170 P P 04 48 20.4 +0.6
comp=Z,31nm,1.0s

CTAO pP **pP 04 48 25.9 -0.4**
FITZ Fitzroy Crossi 33.48 206 LR LR 05 01 35.7
comp=Z,79nm,21.8s,baz=8.0,slow=35

HNS HongShan 33.96 322 ⇓P **P 04 48 31.0 +0.1**
HNS pP **sP 04 48 38.7 -1.6**
HNS pmax pmax
comp=Z,14nm,0.7s

HNS L L
comp=Z,310nm,15.5s

HNS L L
comp=Z,500nm,14.7s

HNS L L
comp=Z,450nm,15.7s

TARA Tarawa 34.06 106 P P 04 48 32.2 +0.1
comp=Z,31nm,0.8s

PWJI Pagerwojo 34.81 236 P P 04 48 36.8 -1.7
comp=Z,26nm,1.2s

BJI2 Beijing 34.91 327 P P 04 48 39.6 +0.5
BJI2 sP **pwP 04 48 53.4 +2.7**
BJI2 S S **04 54 07.5 -1.5**
BJI2 pmax pmax
comp=Z,4.0nm,1.1s

BJI2 pmax pmax
comp=Z,100nm,5.3s

BJI2 L L
comp=Z,210nm,17.9s

BJI2 L L
comp=Z,160nm,13.4s

BJI2 L L
comp=Z,300nm,18.3s

BNX BinXian 35.13 344 ⇑P **P 04 48 41.2 +0.3**
BNX pmax pmax
comp=Z,9.0nm,1.7s

ASAR Alice Springs 36.27 190 P P 04 48 49.8 -1.1
comp=Z,0.3nm,0.5s,baz=19,slow=12,SNR=8.7

ASAR PcP **PcP 04 51 16.6 +0.8**
comp=Z,1.3nm,0.8s,baz=356,slow=2.4,SNR=5.1

ASAR LR LR 05 03 53.2
comp=Z,363nm,18.7s,baz=12,slow=36
comp=Z,0.3nm,0.5s

KLR Kul'dur 37.53 351 P P 04 49 01.3 -0.1
comp=Z,6.7nm,0.8s,baz=153,slow=6.0,SNR=12

KLR LR LR 05 03 22.0
comp=Z,83nm,19.2s,baz=174,slow=34
comp=Z,6.7nm,0.8s

XLT XiLinHaoTe 37.81 331 *e*P **P 04 49 04.4 +0.5**
XLT SS SS 04 57 23.4 -17
XLT pmax pmax
comp=Z,9.0nm,0.9s

XLT pmax pmax
comp=Z,62nm,3.8s

XLT L L
comp=Z,27nm,17.9s

XLT L L
comp=Z,240nm,16.6s

XLT L L
comp=Z,290nm,17.6s

HHC Hu-ho-hao-te 38.05 324 *e*P **P 04 49 09.2 +3.1**
HHC S **S 04 55 01.9 +4.7**
HHC pmax pmax
comp=Z,5.0nm,0.6s

HHC pmax pmax
comp=Z,78nm,4.5s

HHC L L
comp=Z,210nm,13.5s

HHC L L
comp=Z,170nm,13.5s

HHC L L
comp=Z,310nm,17.7s

CD2 Chengdu 38.51 305 P P 04 49 10.5 +0.5
CD2 pmax pmax
comp=Z,10.0nm,0.3s

CD2 L L
comp=Z,710nm,10.2s

CD2 L L
comp=Z,630nm,13.3s

CD2 L L
comp=Z,390nm,13.3s

QLP Quilpie 38.80 174 P P 04 49 09.6 -2.7
comp=Z,39nm,1.3s

HEH HeiHe 39.34 347 *e*P **P 04 49 17.0 +0.5**
HEH pmax pmax
comp=Z,15nm,1.1s

INKA Innaminka 39.77 179 P P 04 49 19.1 -1.3
CMAR Chiang Mai Arr 40.33 284 P P 04 49 25.4 +0.1
comp=Z,1.0nm,0.3s,baz=95,slow=9.2,SNR=4.3

CMAR PcP **PcP 04 51 29.4 +0.8**
comp=Z,1.1nm,0.3s,baz=99,slow=2.9,SNR=2.2

CMAR LR LR 05 03 58.9
comp=Z,248nm,21.6s,baz=100,slow=33
comp=Z,1.0nm,0.3s

CMAR Chiang Mai Arr 40.33 284 P P 04 49 23.6 -1.7
LZH Lanzhou 40.52 312 *e*P **P 04 49 29.1 +2.3**
LZH pP pwP 04 49 37.5 -0.7
LZH pmax pmax
comp=Z,16nm,1.2s

LZH L L
comp=Z,290nm,16.9s

LZH L L
comp=Z,500nm,17.5s

LZH L L
comp=Z,590nm,18.3s

LZDM Lanzhou Array 40.57 312 LR LR 05 05 18.5
comp=Z,414nm,21.4s,baz=70,slow=35

RPSI Rantau Prapat 42.10 260 P P 04 49 39.4 -0.4
RPSI IAmb IAmb 04 49 46.3
comp=Z,19nm,1.1s

RPSI Rantau Prapat 42.10 260 P P 04 49 39.2 -0.7
comp=Z,18nm,1.0s

RPSI pP **pP 04 49 45.2 -1.4**
DZM Mont Dzumac 42.66 143 LR LR 05 05 58.1
comp=Z,362nm,20.5s,baz=190,slow=34

KCSI Kotacane, Aceh 43.01 262 P P 04 49 47.0 -0.3
comp=Z,15nm,1.0s

CMSA Cobar Meteorol 43.86 173 P P 04 49 53.6 -0.1
comp=Z,27nm,1.1s

CMSA pP **pP 04 49 59.5 -0.9**
STKA Stephens Creek 43.91 178 P P 04 49 52.9 -1.3
comp=Z,8.4nm,0.9s,baz=344,slow=7.8,SNR=8.7

STKA LR LR 05 08 40.8
comp=Z,226nm,19.6s,baz=16,slow=37
comp=Z,8.4nm,0.9s

STKA Stephens Creek 43.91 178 P P 04 49 53.3 -0.9
STKA Stephens Creek 43.91 178 P P 04 49 53.2 -1.0
comp=Z,84nm,1.2s

STKA pP **pP 04 49 59.8 -1.1**
GTA2 Gaotai 44.92 315 *e*P **P 04 50 02.9 +0.5**
GTA2 PP **PcP 04 51 43.8 +0.1**
GTA2 S **S 04 56 38.8 -0.3**
GTA2 pmax pmax
comp=Z,4.0nm,1.0s

GTA2 L L
comp=Z,270nm,15.6s

GTA2 L L
comp=Z,190nm,17.5s

GTA2 L L
comp=Z,300nm,19.0s

ULN Ulaanbaatar 45.07 329 P P 04 50 02.6 -0.9
ULN Ulaanbaatar 45.07 329 P P 04 50 09.8 +6.3
ULN Ulaanbaatar 45.07 329 P P 04 50 04.8 +1.3
comp=Z,8.3nm,0.8s

SONM Songino Array 45.39 328 P P 04 50 06.0 -0.1
comp=Z,0.7nm,0.5s,baz=148,slow=8.9,SNR=5.9

SONM PcP **PcP 04 51 46.3 +1.2**
comp=Z,0.9nm,0.3s,baz=134,slow=4.2,SNR=2.2

SONM LR LR 05 09 46.1
comp=Z,268nm,19.0s,baz=136,slow=37
comp=Z,0.7nm,0.5s

SONM Songino Array 45.39 328 P **P 04 50 04.9 -1.1**
SONM **PcP 04 51 44.0 -1.1**
GOMU GeErMu 47.32 308 P **P 04 50 22.1 +0.4**
GOMU S **S 04 57 08.4 -5.7**
GOMU pmax pmax
comp=Z,3.0nm,0.4s

GOMU L L
comp=Z,190nm,15.5s

GOMU L L
comp=Z,190nm,15.6s

GOMU L L
comp=Z,250nm,14.9s

BRDH Bariadhala 47.41 290 LR LR 05 12 26.1
comp=Z,256nm,18.1s,baz=137,slow=39

MSVF Nonsavu 47.69 128 LR LR 05 07 56.1
comp=Z,280nm,19.8s,baz=335,slow=33

SHEM Shemya Is, Ala 48.56 27 LR LR 05 08 36.2
comp=Z,173nm,21.2s,baz=124,slow=33

TLY Talaya 49.22 331 LR LR 05 12 44.5
comp=Z,194nm,18.1s,baz=124,slow=38

TOO Toolangi 49.81 175 P P 04 50 39.4 -0.9
NWAO Narrogin (SRO) 50.07 206 LR LR 05 12 30.9
comp=Z,119nm,18.8s,baz=14,slow=37

YAK Yakutsk 50.28 353 LR LR 05 10 48.8
comp=Z,89nm,18.7s,baz=160,slow=34

YAK Yakutsk 50.28 353 P P 04 50 43.5 +0.1
YAK Yakutsk 50.28 353 P P 04 50 44.1 +0.6
comp=Z,79nm,0.8s

YAK pP **sP 04 50 52.4 -1.0**
WMQ Urumqi 54.91 315 *e*P **P 04 51 19.8 +1.6**
WMQ pP sP 04 51 27.8 0.0
WMQ sP pwP 04 51 34.3 +4.3
WMQ pmax pmax
comp=Z,11nm,0.7s

WMQ L L
comp=Z,370nm,24.2s

WMQ L L
comp=Z,250nm,24.5s

WMQ L L
comp=Z,230nm,23.9s

RAO Raoul Island 57.67 136 LR LR 05 14 26.1
comp=Z,146nm,18.9s,baz=29,slow=34

MKAR Makanchi Array 59.42 317 P **P 04 51 50.8 +0.7**
comp=Z,2.2nm,0.9s,baz=89,slow=10,SNR=6.7

MKAR LR LR 05 17 45.7
comp=Z,149nm,20.6s,baz=92,slow=36
comp=Z,2.2nm,0.9s

MKAR Makanchi Array 59.42 317 P 04 51 49.2 -0.8
MAKZ Makanchi 59.63 317 P **P 04 51 51.0 -0.5**
MAKZ IAmb IAmb 04 52 00.9
comp=Z,11nm,1.1s

MAKZ Makanchi 59.63 317 P **P 04 51 52.6 +1.1**
comp=Z,10.0nm,1.7s

TIXI Tiksi 59.76 356 LR LR 05 15 28.3
comp=Z,105nm,21.6s,baz=189,slow=34

TIXI Tiksi 59.76 356 P **P 04 51 51.8 0.0**
comp=Z,8.4nm,2.8s

ZALV Zalesovo Beam 60.18 326 P **P 04 51 54.4 -0.6**
comp=Z,1.6nm,0.6s,baz=134,slow=8.2,SNR=7.5

ZALV LR LR 05 19 05.0
comp=Z,181nm,18.7s,baz=76,slow=37
comp=Z,1.6nm,0.6s

ZALV Zalesovo Beam 60.18 326 P 04 51 54.3 -0.8
PDGK Podgornoye 60.55 313 P 04 51 57.9 -0.1
URZ Urewera 60.91 147 LR LR 05 15 09.2
comp=Z,106nm,20.4s,baz=314,slow=33

ASAI AK-SAY(Kyrgyzs 62.32 310 P **P 04 52 11.2 +0.9**
comp=Z,6.1nm,1.0s

ASAI pP **pP 04 52 18.3 +1.1**
RPZ Rata Peaks 62.35 155 LR LR 05 15 37.2
comp=Z,38nm,21.9s,baz=254,slow=32

KURK Kurchatov 62.79 321 P 04 52 11.9 -0.8
KURK Kurchatov 62.79 321 P **P 04 52 12.8 +0.1**
comp=Z,30nm,0.9s

KURBB Kurchatov Arra 62.82 321 P **P 04 52 12.8 -0.1**
comp=Z,5.8nm,0.6s,baz=105,slow=7.0,SNR=27
comp=Z,5.8nm,0.6s

AAK Ala-Archa 64.05 312 LR LR 05 22 22.7
comp=Z,104nm,18.9s,baz=99,slow=38

ARSB Arslanbob 65.03 310 P **P 04 52 26.2 -1.7**
ARSB IAmb IAmb 04 52 42.8
comp=Z,9.2nm,1.0s

NRIK Noril'sk 65.97 342 P **P 04 52 33.2 0.0**
comp=Z,2.1nm,0.5s,baz=113,slow=6.2,SNR=4.1

NRIK LR LR 05 22 60.0
comp=Z,117nm,18.3s,baz=123,slow=37
comp=Z,2.1nm,0.5s

NRIK Noril'sk 65.97 342 P 04 52 32.0 -1.3
NRIK IAmb IAmb 04 52 45.6
comp=Z,14nm,1.1s

KKAR Karatay Array 67.01 312 P P 04 52 39.2 -1.2
G18K Tagagawik 67.22 23 P P 04 52 41.2 -0.1
G18K IAmb IAmb 04 52 42.2
comp=Z,11nm,0.9s

KDAK Kodiak Island 67.52 32 LR LR 05 22 27.6
comp=Z,34nm,18.4s,baz=241,slow=36

RAR Rarotonga 67.56 119 LR LR 05 16 17.5
comp=Z,122nm,21.7s,baz=288,slow=31

G19K Purcell Mounta 67.91 23 P P 04 52 45.7 +0.1
H19K Roundabout Mou 67.94 24 P P 04 52 46.5 +0.7
BVAR Borovoye Array 68.25 322 P P 04 52 47.9 -0.2
comp=Z,6.1nm,0.7s,baz=92,slow=5.8,SNR=16
comp=Z,6.1nm,0.7s

BORK Borovoye 68.29 322 P 04 52 48.6 +0.4
BORK IAmb IAmb 04 52 57.2
comp=Z,8.1nm,0.7s

E19K Redstone River 68.33 22 P P 04 52 49.0 +0.8
J20K Nowinta River 68.45 25 P P 04 52 49.9 +0.9
J20K IAmb IAmb 04 52 50.4
comp=Z,5.3nm,0.7s

D20K Etivluk River 69.00 20 P P 04 52 53.5 +1.0
CAST Castle Rocks 69.12 26 P 04 52 53.3 0.0
CAST IAmb IAmb 04 53 02.8
comp=Z,9.2nm,0.9s

G21K Allakaket 69.40 23 P P 04 52 55.5 +0.6
G21K IAmb IAmb 04 53 06.2
comp=Z,11nm,1.1s

I21K Tanana 69.62 25 P P 04 52 56.8 +0.4
I21K IAmb IAmb 04 53 07.5
comp=Z,14nm,1.0s

BPAW Bear Paw Mtn. 69.76 26 P P 04 52 56.9 -0.4
BPAW IAmb IAmb 04 53 07.3
comp=Z,11nm,1.0s

TRF Thorofare Moun 69.91 27 P 04 52 57.8 -0.6
TRF IAmb IAmb 04 53 12.0
comp=Z,8.5nm,1.0s

H22K Ishtalitna Cre 70.05 24 P P 04 52 59.6 +0.6
MLY Manley 70.09 25 P 04 52 59.1 -0.2
MLY IAmb IAmb 04 53 09.6
comp=Z,8.1nm,0.8s

D22K Ayikyak River 70.40 21 P 04 53 02.1 +1.0
D22K IAmb IAmb 04 53 12.4
comp=Z,13nm,0.8s

I23K Minto, Yukon-K 70.69 25 P P 04 53 03.5 +0.7
I23K IAmb IAmb 04 53 03.9
comp=Z,12nm,1.1s

H23K Yukon River 70.77 24 P P 04 53 04.1 +0.7
H23K IAmb IAmb 04 53 13.9
comp=Z,7.2nm,0.8s

HDA Harding Lake 71.55 26 P P 04 53 07.8 -0.3
HDA IAmb IAmb 04 53 18.2
comp=Z,8.7nm,1.0s

ILAR Eielson Array 71.64 26 P **P 04 53 07.0 -1.6**
comp=Z,3.4nm,0.6s,baz=247,slow=6.1,SNR=74
comp=Z,3.4nm,0.6s

E24K Your Creek 71.69 22 P P 04 53 09.4 +0.5
E24K IAmb IAmb 04 53 22.7
comp=Z,10nm,1.1s

G24K Hadweenzic Riv 71.78 23 P 04 53 10.0 +0.5
G24K IAmb IAmb 04 53 15.2
comp=Z,20nm,1.2s

F24K Squaw Lake 71.79 23 P 04 53 10.1 +0.6
F24K IAmb IAmb 04 53 11.1
comp=Z,12nm,1.1s

D24K Happy Valley 71.82 21 P P 04 53 10.2 +0.6
PAX Paxson 71.97 28 P P 04 53 10.4 -0.4
PAX IAmb IAmb 04 53 25.1
comp=Z,9.6nm,1.0s

C24K Franklin Bluff 71.99 20 P P 04 53 11.2 +0.6
C24K IAmb IAmb 04 53 11.9
comp=Z,16nm,1.0s

F25K Christian Rive 72.65 23 P P 04 53 15.5 +0.8
F25K IAmb IAmb 04 53 25.7
comp=Z,8.8nm,0.8s

DOT Dot Lake 72.69 27 P P 04 53 14.9 -0.1
DOT IAmb IAmb 04 53 24.5
comp=Z,10nm,0.9s

C26K Camden Bay 73.32 20 P 04 53 19.1 +0.6
BCAR Beaver Creek A 73.65 28 P P 04 53 19.6 -1.1
C27K Jago River 73.68 21 P P 04 53 21.3 +0.6
AB31 Akbulak array 74.56 318 P P 04 53 25.5 -0.6
ABKAR Akbulak array 74.56 318 P P 04 53 24.9 -1.3
DAWY Dawson 74.79 27 P P 04 53 27.6 +0.3
DAWY IAmb IAmb 04 53 37.7
comp=Z,14nm,1.0s

F28M Old Crow 74.84 23 P 04 53 27.2 -0.4
F28M IAmb IAmb 04 53 38.2
comp=Z,12nm,0.8s

E28M Babbage River 75.05 22 P 04 53 28.6 -0.1
E28M IAmb IAmb 04 53 30.2
comp=Z,11nm,1.0s

PPT Papeete 75.26 112 LR LR 05 20 32.2
comp=Z,83nm,19.1s,baz=302,slow=31

L29M L29M 75.31 28 P 04 53 30.8 +0.5
L29M IAmb IAmb 04 53 41.2
comp=Z,10nm,0.8s

I29M Ogilvie Camp, 75.32 25 P 04 53 31.2 +0.8
I29M IAmb IAmb 04 53 40.5
comp=Z,11nm,1.0s

ARTI Arti 75.44 325 LR LR 05 28 33.9
comp=Z,323nm,19.6s,baz=77,slow=37

K29M Barlow Dome 75.61 27 P P 04 53 32.5 +0.4
K29M IAmb IAmb 04 53 42.3
comp=Z,10nm,0.8s

E29M Blow River 75.64 22 P P 04 53 32.9 +0.9
AKTO Aktyubinsk 75.78 319 LR LR 05 28 58.1
comp=Z,124nm,19.1s,baz=42,slow=37

EPYK Eagle Plains 76.01 24 P P 04 53 34.7 +0.4
EPYK IAmb IAmb 04 53 46.9
comp=Z,11nm,1.1s

I30M Mount Dempster 76.13 26 P P 04 53 35.4 +0.3
J30M Hart River 76.14 26 P 04 53 35.7 +0.5
G30M tAoh Zrail Nji 76.22 24 P P 04 53 35.6 +0.1
F30M Barrier River 76.40 23 P 04 53 36.0 -0.4
H31M Peel River 76.98 25 P 04 53 40.3 +0.6
H31M IAmb IAmb 04 53 49.9
comp=Z,8.4nm,0.9s

DLBC Dease Lake 79.46 32 LR LR 05 24 29.2
comp=Z,76nm,20.7s,baz=192,slow=32

WTLY Watson Lake, Y 79.89 31 P P 04 53 57.0 +1.0
KIRV Kirov 80.12 328 LR LR 05 32 14.6
comp=Z,319nm,18.6s,baz=86,slow=38

BBB Bella Bella 81.36 39 LR LR 05 26 29.9
comp=Z,121nm,18.8s,baz=248,slow=33

YKA Yellowknife Ar 86.03 27 P P 04 54 27.1 -0.5
comp=Z,1.7nm,0.6s,baz=294,slow=5.0,SNR=5.2

YKA LR LR 05 32 30.9
comp=Z,144nm,20.5s,baz=295,slow=35
comp=Z,1.7nm,0.6s

YKA Yellowknife Ar 86.03 27 P P 04 54 26.7 -0.9

GNI	**Garni**	**86.42**	**310**	LR	LR	05 37 56.7		
	comp=Z,95nm,18.6s,baz=78,slow=39							
KBZ	**Khabaz**	**86.93**	**314**	LR	LR	05 36 52.7		
	comp=Z,120nm,19.6s,baz=66,slow=38							
ARCES	**ARCESS Array B**	**86.95**	**341**	P	**P**	**04 54 31.0**	**-1.0**	
	comp=Z,3.5nm,0.8s,baz=54,slow=6.2,SNR=8.5							
ARCES				LR	LR	05 39 17.3		
	comp=Z,62nm,18.6s,baz=58,slow=40							
	comp=Z,3.5nm,0.8s							
ARCES	**ARCESS Array B**	**86.95**	**341**	P	**P**	**04 54 31.6**	**-0.4**	
YBH	**Yreka Blue Hor**	**87.04**	**48**	LR	LR	05 25 04.1		
	comp=Z,91nm,21.2s,baz=290,slow=30							
OBN	**Obninsk**	**87.76**	**326**	LR	LR	05 35 37.1		
	comp=Z,258nm,20.3s,baz=24,slow=37							
HAKT	**HAKKARI**	**87.81**	**308**	P	**P**	**04 54 35.5**	**-1.6**	
	comp=Z,13nm,1.8s							
NEW	**Newport**	**89.12**	**41**	LR	LR	05 28 41.8		
	comp=Z,158nm,19.1s,baz=290,slow=32							
BEKR	**Beckworth**	**89.23**	**49**		**P**	**04 54 43.3**	**-0.5**	
RAYN	**Ar Rayn**	**89.54**	**294**	P	**P**	**04 54 44.1**	**-1.3**	
	comp=Z,4.9nm,2.4s							
FINES	**FINESS Array B**	**90.45**	**334**	P	**P**	**04 54 46.8**	**-1.9**	
	comp=Z,6.6nm,0.6s,baz=68,slow=5.7,SNR=32							
FINES				LR	LR	05 38 33.2		
	comp=Z,137nm,20.3s,baz=66,slow=38							
	comp=Z,6.6nm,0.6s							
VNDA	**Vanda**	**90.47**	**175**	LR	LR	05 33 47.8		
	comp=Z,58nm,20.4s,baz=347,slow=34							
NVAR	**Mina Array Bea**	**91.17**	**50**	P	**P**	**04 54 50.6**	**-2.3**	
	comp=Z,0.5nm,0.7s,baz=252,slow=3.8,SNR=3.7							
NVAR				LR	LR	05 30 04.0		
	comp=Z,50nm,19.0s,baz=340,slow=32							
	comp=Z,0.5nm,0.7s							
ELK	**Elko**	**92.72**	**47**	LR	LR	05 29 25.3		
	comp=Z,123nm,21.2s,baz=284,slow=31							
AKASG	**Malin Array Be**	**93.50**	**324**	LR	LR	05 38 02.5		
	comp=Z,148nm,21.7s,baz=50,slow=36							
PFO	**Pinyon Flats O**	**94.00**	**55**	LR	LR	05 30 38.1		
	comp=Z,69nm,21.8s,baz=274,slow=31							
ASF	**Jabal al Asfar**	**94.64**	**304**	LR	LR	05 42 01.5		
	comp=Z,39nm,20.0s,baz=88,slow=38							
BRTR	**Keskin Array B**	**94.72**	**312**	LR	LR	05 42 05.8		
	comp=Z,40nm,20.4s,baz=78,slow=38							
MMAI	**Mount Meron Ar**	**95.58**	**305**	LR	LR	05 42 25.5		
	comp=Z,78nm,21.3s,baz=52,slow=38							
PDAR	**Pinedale Array**	**95.99**	**44**	LR	LR	05 33 48.7		
	comp=Z,70nm,19.3s,baz=300,slow=32							
HFS	**Hagfors**	**96.27**	**336**	LR	LR	05 43 23.3		
	comp=Z,191nm,18.6s,baz=52,slow=38							
NOA	**NORSAR Array B**	**96.65**	**338**	LR	LR	05 42 42.3		
	comp=Z,74nm,19.9s,baz=70,slow=38							
EIL	**Elat**	**97.00**	**302**	LR	LR	05 41 31.9		
	comp=Z,60nm,21.6s,baz=72,slow=37							
MLR	**Muntele Rosu**	**97.70**	**320**	LR	LR	05 41 46.8		
	comp=Z,103nm,22.0s,baz=88,slow=37							
KOLS	**Kolonicke sedl**	**98.32**	**324**	*e*PDIFF	Pdif	04 55 30.4	+5.3	
VYHS	**Vyhne**	**100.50**	**325**	*e*PDIFF	**Pdif**	**04 55 37.4**	**+2.6**	
CLL	**Collm**	**102.00**	**329**	LH		05 29 00.0		
CLL				LV		05 31 00.0		
CLL				AMS	AMS	05 47 00.0		
	comp=N,100nm,17.2s							
CLL				AMS	AMS	05 47 00.0		
	comp=E,100nm,16.8s							
CLL				AMS	AMS	05 47 00.0		
	comp=Z,200nm,17.0s							
LPAZ	**La Paz**	**152.12**	**102**	PKPbc	**PKPbc**	**05 01 43.4**	**-1.1**	
	comp=Z,1.9nm,0.8s,baz=317,slow=2.7,SNR=12							
LPAZ	**La Paz**	**152.12**	**102**	PKPdf	**PKPdf**	**05 01 34.8**	**-3.0**	

*IDC **10** 04:45:37.3±2.8,22.°90N×94.°56E,h88km±29km,mb3.5/5, mbtmp3.8/7,MS3.2/1,Error ellipse: s-maj=31.8km s-min=14.5km az=42.0*
*NEIC **10** 04:45:39.7±1.1,22.°79N±0.°05×94.°45E±0.°06,h104km±3km, mb4.5/13,Error ellipse: s-maj=7.7km s-min=7.4km az=213.0*

ISC 10 04:45:38.5±0.6,22.°74N±0.°05×94.°42E±0.°06,h100km,n35, σ1♀33/37,mb4.3/12,Myanmar

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
MORE	**Moreh**	**1.49**	**356**			**Pn**	**04 46 05.0**	**+0.3**
MORE				Sn		**Sn**	**04 46 23.9**	**-0.7**
AZL	**Aizawl**	**1.88**	**302**	*i* S		**Sn**	**04 46 32.1**	**-1.3**
BRDH	**Bariadhala**	**2.57**	**269**	P		**Pn**	**04 46 19.4**	**+0.9**
	145nm,0.3s,baz=75,slow=10,SNR=4.6							
BRDH				S		**Sn**	**04 46 51.2**	**+2.0**
	249nm,0.3s,baz=246,slow=22,SNR=33							
KOHI	**KOHIMA**	**2.98**	**355**	*i* S		**Sn**	**04 47 00.6**	**+1.3**
KOHI				IAML			04 47 03.4	
	comp=N,256nm,0.4s							
AGT	**Agartala**	**3.14**	**292**	*i* S		**Sn**	**04 46 57.9**	**-4.9**
MOKO	**MOKOCHONG**	**3.57**	**1**	*i* S		**Sn**	**04 47 13.6**	**+0.3**
MOKO				IAML			04 47 34.2	
	comp=N,111nm,0.8s							
TEZP	**TEZPUR**	**4.13**	**339**	*i* S		**Sn**	**04 47 28.4**	**+1.7**
ZIRO	**ZIRO**	**4.79**	**354**	*i* S		**Sn**	**04 47 42.7**	**-0.4**
CMAR	**Chiang Mai Arr**	**6.00**	**134**	P		**Pn**	**04 47 03.7**	**-1.2**
	comp=N,0.9nm,0.3s,baz=308,slow=14,SNR=2.2							
CMAR	**Chiang Mai Arr**	**6.00**	**134**			**Pn**	**04 47 06.2**	**+1.3**
EVN	**Everest**	**8.62**	**309**			**Pn**	**04 47 40.1**	**-0.9**
HYB	**Hyderabad**	**15.82**	**253**	*e*P		**P**	**04 49 18.4**	**+1.0**
HYB				*e*S		**S**	**04 52 20.1**	**+1.5**
AAK	**Ala-Archa**	**25.86**	**325**	LR		LR	05 01 47.0	
	comp=N,56nm,19.9s,baz=117,slow=38							
MKAR	**Makanchi Array**	**25.92**	**341**	P		**P**	**04 51 01.7**	**+0.4**
	comp=N,1.1nm,0.6s,baz=149,slow=9.0,SNR=10							
	comp=N,1.1nm,0.6s							
MKAR	**Makanchi Array**	**25.92**	**341**	P		**P**	**04 51 02.6**	**+1.4**
MAKZ	**Makanchi**	**26.03**	**340**	P		**P**	**04 51 02.1**	**-0.1**
KURBB	**Kurchatov Arra**	**30.48**	**340**	P		**P**	**04 51 38.8**	**-2.9**
	comp=N,0.3nm,0.4s,baz=146,slow=9.4,SNR=4.7							
	comp=N,0.3nm,0.4s							
KURK	**Kurchatov**	**30.53**	**340**	P		**P**	**04 51 42.0**	**-0.1**
KURK				IAmb		IAmb	04 52 21.6	
	comp=Z,14nm,0.7s							
BBJI	**Bungbulang**	**32.69**	**155**	P		**P**	**04 52 02.3**	**+0.7**
AB31	**Akbulak array**	**37.91**	**323**	P		**P**	**04 52 46.5**	**+0.6**
AB31				IAmb		IAmb	04 53 28.9	
	comp=Z,3.2nm,0.7s							
ABKAR	**Akbulak array**	**37.91**	**323**	P		**P**	**04 52 47.0**	**+1.1**
ARTI	**Arti**	**42.73**	**331**	P		**P**	**04 53 26.1**	**+0.6**
ARTI				IAmb		IAmb	04 53 34.9	
	comp=Z,6.3nm,0.8s							
WRA	**Warramunga Arr**	**57.60**	**134**	P		**P**	**04 55 18.2**	**-0.1**
	comp=Z,0.6nm,0.4s,baz=321,slow=7.4,SNR=15							
	comp=Z,0.6nm,0.4s							
WRA	**Warramunga Arr**	**57.60**	**134**	P		**P**	**04 55 17.9**	**-0.4**
WB2	**Warramunga Arr**	**57.61**	**134**	P		**P**	**04 55 18.6**	**+0.3**
WB2				IAmb		IAmb	04 55 33.5	
	comp=Z,6.0nm,1.2s							
WR8	**Warramunga Arr**	**57.72**	**134**	P		**P**	**04 55 19.5**	**+0.4**
WR8				IAmb		IAmb	04 55 32.9	
	comp=Z,5.8nm,1.1s							
BURAR	**Bucovina Array**	**59.69**	**313**	P		**P**	**04 55 32.6**	**+0.1**
ASAR	**Alice Springs**	**60.01**	**138**	P		**P**	**04 55 35.5**	**+0.7**
	comp=Z,0.8nm,0.4s,baz=320,slow=6.9,SNR=12							
	comp=Z,0.8nm,0.4s							
ASAR	**Alice Springs**	**60.01**	**138**	P		**P**	**04 55 35.4**	**+0.5**
FORT	**Forrest**	**62.24**	**147**	P		**P**	**04 55 48.2**	**-1.6**
AGG	**Agios Georgios**	**62.48**	**303**	P		**P**	**04 55 50.7**	**-0.8**
AGG				IAmb		IAmb	04 55 51.5	
	comp=Z,1.4nm,0.6s							
VOI	**Vohitsoka**	**64.20**	**230**	P		**P**	**04 56 03.5**	**+0.4**
NC405	**NORSAR Array S**	**66.87**	**328**	P		**P**	**04 56 18.7**	**-0.8**
NC405				IAmb		IAmb	04 57 01.1	
	comp=Z,10nm,1.4s							
GERES	**GERESS Array B**	**67.24**	**315**	P		**P**	**04 56 22.5**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=136,slow=34,SNR=2.4							
	comp=Z,0.4nm,0.6s							
GERES	**GERESS Array B**	**67.24**	**315**	P		**P**	**04 56 22.6**	**+0.4**

*CATAC **10** 05:00:31.8±1.0,13.°N±5.°×9.°0W±.°,h2km±4km,M3.1/13, MLv3.1/13,Error ellipse: s-maj=12.3km s-min=4.1km az=25.7,confirmed*
*GCG **10** 05:00:35.0±0.6,13.°35N×90.°19W,h0km±20km,MD3.8, Presumed earthquake*

ISC 10 05:00:27.1±2.5,12.°89N±0.°09×90.°17W±0.°08,h11km±10km, n23,σ0♀96/38,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
FAME	**Alcaldia de Sa**	**0.96**	**9**	P		**Pn**	**05 00 47.7**	**+1.1**
FAME				S		**Sb**	**05 00 58.0**	**-0.6**
CEVE	**Cerro Verde**	**1.07**	**30**	P		**Pn**	**05 00 49.5**	**+1.1**
CEVE				S		**Sb**	**05 01 02.0**	**-0.1**
NUBE	**Las Nubes**	**1.08**	**21**	P		**Pn**	**05 00 49.4**	**+1.0**
NUBE				S		**Sb**	**05 01 01.3**	**-0.7**
NUBE	**Las Nubes**	**1.08**	**21**	*i* P		**Pn**	**05 00 49.3**	**+1.0**
NUBE				*i* S		**Sg**	**05 01 00.7**	**-1.2**
LOAL	**Lomas de Alarc**	**1.17**	**19**	P		**Pn**	**05 00 51.7**	**+2.2**
LOAL				S		**Sn**	**05 01 04.6**	**-0.8**
PMON	**Piamonte**	**1.17**	**46**	P		**Pg**	**05 00 51.1**	**+1.5**
PMON				S		**Sg**	**05 01 04.4**	**-0.4**
CEDA	**San Andres**	**1.18**	**40**	P		**Pg**	**05 00 51.0**	**+1.1**
CEDA				S		**Sg**	**05 01 04.6**	**-0.7**
SLOZ	**Alcaldia de Sa**	**1.19**	**19**	P		**Pg**	**05 00 51.4**	**+1.4**
PANCS	**Alcalda de**	**1.21**	**53**	S		**Sb**	**05 01 04.4**	**-1.3**
UEES	**Universidad Ev**	**1.23**	**48**	P		**Pg**	**05 00 51.7**	**+1.0**
UEES				S		**Sb**	**05 01 05.8**	**-0.4**
SEMO	**Seminario San**	**1.23**	**49**	S		**Sb**	**05 01 05.8**	**-0.5**
LOMA	**Loma Larga**	**1.23**	**52**	P		**Pg**	**05 00 51.2**	**+0.5**
LOMA				S		**Sb**	**05 01 05.7**	**-0.8**
UNIC	**Universidad Ca**	**1.24**	**29**	P		**Pg**	**05 00 51.9**	**+0.9**
UNIC				S		**Sb**	**05 01 05.8**	**-1.0**
TECO	**Alcaldia de Te**	**1.50**	**64**	P		**Pg**	**05 00 55.6**	**-0.4**
TECO				S		**Sn**	**05 01 12.5**	**-1.2**
ALJI	**Alcalda de J**	**1.62**	**74**	S		**Sn**	**05 01 16.6**	**0.0**
SCLA	**Alcaldia de Sa**	**1.62**	**60**	S		**Sb**	**05 01 17.7**	**0.0**
ESQI	**Esquipulas**	**1.85**	**26**	P		**Pg**	**05 01 02.2**	**-0.4**
ESQI				S		**Sb**	**05 01 24.1**	**-0.1**
PACA	**Pacayal**	**1.89**	**72**	P		**Pg**	**05 01 02.6**	**-0.8**
PACA				S		**Sn**	**05 01 24.4**	**+0.9**
RANC	**El Ranchito**	**1.91**	**73**	P		**Pb**	**05 01 02.3**	**+0.1**
RANC				S		**Sb**	**05 01 26.0**	**-0.2**
APG	**El Apazote**	**2.12**	**352**	*i* P		**Pg**	**05 01 06.3**	**-1.5**
LCND	**La Caada**	**2.26**	**79**	P		**Pb**	**05 01 07.6**	**-0.4**
CNCH	**Conchagua**	**2.31**	**80**	P		**Pb**	**05 01 08.9**	**0.0**
CNCH				S		**Sb**	**05 01 36.1**	**-1.5**
SARH	**Santa Rosa de**	**2.32**	**36**	P		**Pb**	**05 01 09.2**	**0.0**

*IDC **10** 05:06:34.2±1.0,54.°50N×160.°01W,h0km,mb3.8/14, mbtmp3.8/17,ML3.6/3,Error ellipse: s-maj=25.1km s-min=15.9km az=178.0*
*NEIC **10** 05:06:37.4±1.9,54.°42N±0.°04×159.°88W±0.°05,h24km±5km, mb4.0/34,ML3.7/33,ML3.4(AEIC),Error ellipse: s-maj=6.3km s-min=4.1km az=192.0*
*AEIC **10** 05:06:38.9±1.9,54.°39N±0.°03×159.°83W±0.°05,h15km±4km, Error ellipse: s-maj=5.0km s-min=3.3km az=131.0*

ISC 10 05:06:34.3±2.0,54.°38N±0.°06×159.°78W±0.°03,h5km±12km, n118,σ1♀04/128,mb4.0/19,South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.46**	**14**			**Pn**	**05 06 47.7**	**+0.1**
CNBA						**Sb**	**05 06 55.2**	**+3.2**
SDPT	**Sand Point**	**1.05**	**338**	Pn		**Pn**	**05 06 56.4**	**+0.6**
SDPT						**Sb**	**05 07 08.9**	**-0.2**
DOL	**Dolgoi Island**	**1.43**	**304**			**Pn**	**05 07 01.6**	**+0.7**
DOL						**Sn**	**05 07 19.3**	**-0.9**
PVV	**Pavlof Volcano**	**1.53**	**312**			**Pb**	**05 07 03.5**	**+0.4**
PS1A	**Pavlof South-1**	**1.54**	**314**			**Pb**	**05 07 03.8**	**+0.4**
PS1A						**Sn**	**05 07 21.7**	**-1.1**
PS4A	**Pavlof South-4**	**1.54**	**310**			**Pn**	**05 07 03.6**	**+1.1**
PS4A						**Sn**	**05 07 23.1**	**+0.2**
HAG	**Hague Volcano**	**1.55**	**308**			**Pb**	**05 07 03.8**	**+0.4**
DT1	**Dutton Round H**	**1.62**	**298**			**Pn**	**05 07 04.3**	**+0.8**
DT1						**Sn**	**05 07 24.4**	**-0.5**
DTNA	**Dutton South F**	**1.63**	**299**			**Pn**	**05 07 04.7**	**+1.1**
DTNA						**Sn**	**05 07 24.4**	**-0.5**
DTNA						**Sb**	**05 07 24.6**	**-1.0**
PN7A	**Pavlof North-7**	**1.66**	**311**			**Pn**	**05 07 05.0**	**+0.8**
VNKR	**Veniaminof 5**	**1.68**	**8**			**Pb**	**05 07 06.4**	**+0.8**
VNWF	**Veniaminof 8**	**1.78**	**4**			**Pb**	**05 07 08.0**	**+0.4**
VNSS	**Veniaminof 8**	**1.86**	**6**			**Pb**	**05 07 08.8**	**-0.2**
VNSS						**Pg**	**05 07 09.4**	**-0.6**
S12K	**Black Hills**	**1.87**	**316**	Pn		**Pn**	**05 07 07.2**	**+0.3**
S12K				IAML			05 07 44.3	
	comp=N,937nm,0.7s							
VNFG	**Fog Glacier, M**	**1.92**	**4**	Pn		**Pn**	**05 07 07.7**	**0.0**
CHGN	**Chignik**	**2.08**	**22**			**Pn**	**05 07 10.4**	**+0.5**
CHGN						**Sn**	**05 07 35.5**	**-0.6**
CHGN				IAML			05 07 46.0	
	comp=N,466nm,0.6s							
CHGN				IAML			05 07 49.5	
	comp=E,715nm,0.8s							
ISLZ	**Isanotski Laza**	**2.31**	**280**			**Pn**	**05 07 14.7**	**+1.6**
ISLZ						**Pb**	**05 07 15.0**	**-1.5**
ISLZ						**Sn**	**05 07 41.6**	**-0.3**
SSLS	**Shishaldin Sou**	**2.48**	**280**			**Pn**	**05 07 16.6**	**+1.2**
SSLS						**Pb**	**05 07 17.7**	**-1.6**
SSLS						**Sb**	**05 07 48.6**	**-1.6**
CHIR	**Chirikof Islan**	**2.80**	**57**	Pn		**Pn**	**05 07 20.0**	**+0.4**
CHIR				IAML			05 08 19.5	
	comp=N,231nm,0.9s							
CHIR				IAML			05 08 22.3	
	comp=E,200nm,1.1s							
WESN	**West Dahl Nort**	**2.81**	**276**			**Pn**	**05 07 21.9**	**+2.1**
WESN						**Sn**	**05 07 55.4**	**+1.3**
WECS	**Westdahl Cape**	**2.92**	**275**	Pn		**Pn**	**05 07 22.3**	**+0.9**
WECS				IAML			05 08 16.6	
	comp=N,294nm,1.3s							
WECS				IAML			05 08 52.0	
	comp=E,200nm,2.0s							
R16K	**Pilot Point**	**3.43**	**20**	Pn		**Pn**	**05 07 27.9**	**-0.4**
AKUT	**Akutan**	**3.52**	**268**	Pn		**Pn**	**05 07 29.8**	**+0.2**
AKUT				IAML			05 08 15.8	
	comp=N,126nm,3.6s							
AKUT				IAML			05 08 51.7	
	comp=E,129nm,2.5s							
SII	**Sitkinak Islan**	**3.87**	**53**	Pn		**Pn**	**05 07 34.9**	**+0.5**
SII				IAML			05 08 22.3	
	comp=E,137nm,1.0s							
SII				IAML			05 09 06.6	
	comp=N,153nm,0.9s							
UNV	**Unalaska Valle**	**3.99**	**265**	Pn		**Pn**	**05 07 35.7**	**-0.3**
ACHA	**Angle Creek He**	**4.58**	**31**	Pn		**Pn**	**05 07 42.8**	**-1.4**
OHAK	**Old Harbor**	**4.64**	**49**	Pn		**Pn**	**05 07 45.1**	**+0.1**
O15K	**Ungalikthiuk R**	**4.81**	**360**	Pn		**Pn**	**05 07 47.7**	**+0.4**
O15K				IAML			05 09 25.7	
	comp=E,43nm,1.2s							
O15K				IAML			05 09 32.0	
	comp=N,39nm,1.2s							
O14K	**Tigyukauivet M**	**4.96**	**351**	Pn		**Pn**	**05 07 49.1**	**-0.2**
O14K				IAML			05 09 50.5	
	comp=N,68nm,2.4s							
O14K				IAML			05 09 57.4	
	comp=E,50nm,2.2s							
P17K	**Kvichak River**	**5.17**	**19**	Pn		**Pn**	**05 07 52.2**	**0.0**
KDAK	**Kodiak Island**	**5.28**	**47**	Pn		**Pn**	**05 07 53.8**	**0.0**
	comp=E,2.5nm,0.3s,baz=210,slow=3.6,SNR=23							
KDAK				Sn		**Sn**	**05 08 48.1**	**-6.8**
	comp=E,5.0nm,0.3s,baz=31,slow=19,SNR=15							
	comp=E,4.4nm,0.3s							
KDAK				AML		AML		
KDAK	**Kodiak Island**	**5.28**	**47**	Pn		**Pn**	**05 07 54.0**	**+0.2**
KDAK				IAML			05 11 05.4	
	comp=E,53nm,3.2s							
O16K	**Kokwok River B**	**5.31**	**9**	Pn		**Pn**	**05 07 54.9**	**+0.7**
O16K				IAML			05 09 08.5	
	comp=E,28nm,3.4s							
N14K	**Kuskokwak Cree**	**5.66**	**350**	Pn		**Pn**	**05 07 58.8**	**-0.1**
Q19K	**Cape Douglas,**	**5.68**	**34**	Pn		**Pn**	**05 07 59.6**	**+0.3**
N15K	**Kwethluk River**	**5.81**	**358**	Pn		**Pn**	**05 08 01.3**	**+0.2**
N17K	**Nushagak Hills**	**6.33**	**12**	Pn		**Pn**	**05 08 08.2**	**+0.1**
M13K	**Dall Lake**	**6.35**	**344**	Pn		**Pn**	**05 08 08.8**	**+0.4**
O19K	**Port Alsworth**	**6.54**	**25**	Pn		**Pn**	**05 08 11.9**	**+0.8**
N18K	**Kilae Creek**	**6.66**	**17**	Pn		**Pn**	**05 08 13.2**	**+0.5**
ILSW	**Iliamna Southw**	**6.68**	**30**	Pn		**Pn**	**05 08 13.2**	**+0.2**
CNPM	**China Poot**	**6.96**	**39**	Pn		**Pn**	**05 08 17.2**	**+0.3**
RED	**Redoubt Volcan**	**7.14**	**29**	Pn		**Pn**	**05 08 19.6**	**+0.2**
SUA	**Susitna One**	**8.57**	**30**			**Pn**	**05 08 38.5**	**-0.6**
RC01	**Rabbit Creek A**	**8.61**	**35**	Pn		**Pn**	**05 08 38.1**	**-1.2**
L20K	**Farewell, AK**	**8.69**	**18**	Pn		**Pn**	**05 08 40.6**	**0.0**
HIN	**Hinchinbrook I**	**9.36**	**45**	Pn		**Pn**	**05 08 49.1**	**-0.6**
GHO	**Glory Hole Cre**	**9.37**	**33**	Pn		**Pn**	**05 08 48.7**	**-1.2**
FID	**Port Fidalgo**	**9.57**	**43**	Pn		**Pn**	**05 08 51.3**	**-1.4**
SCM	**Sheep Creek Mo**	**9.95**	**36**	Pn		**Pn**	**05 08 58.9**	**+1.0**
ILAR	**Eielson Array**	**12.27**	**27**	Pn		**Pn**	**05 09 27.4**	**-2.1**
	comp=E,0.1nm,0.3s,baz=215,slow=13,SNR=7.5							
ILAR				Sn		Sn	05 11 35.3	-11
	comp=E,0.1nm,0.3s,baz=236,slow=7.9,SNR=4.0							
	comp=E,0.4nm,0.5s							
ILAR				AML		AML		

H27K	**Steamboat Moun**	**14.85**	**30**	Pn		**Pn**	**05 10 05.0**	**+0.3**
P32M	**Atlin**	**15.08**	**59**	Pn		**Pn**	**05 10 07.7**	**-0.1**
TOLK	**Toolik Lake Re**	**15.08**	**14**	Pn		**Pn**	**05 10 06.6**	**-1.2**
TOLK				IAmb		IAmb	05 10 40.8	
	comp=Z,8.9nm,1.2s							
G27K	**Doyon Strip**	**15.23**	**28**	Pn		**Pn**	**05 10 09.7**	**0.0**
D23K	**Nanushuk River**	**15.23**	**13**	Pn		**Pn**	**05 10 09.5**	**-0.3**
D23K				IAmb		IAmb	05 10 35.3	
	comp=Z,13nm,1.4s							
J30M	**Hart River**	**15.59**	**40**	Pn		**Pn**	**05 10 13.8**	**-0.7**
J30M				IAmb		IAmb	05 10 33.1	
	comp=Z,5.7nm,0.6s							
D24K	**Happy Valley**	**15.66**	**15**	Pn		**Pn**	**05 10 15.6**	**+0.2**
D24K				IAmb		IAmb	05 10 29.2	
	comp=Z,6.8nm,0.9s							
WRAK	**Wrangell Islan**	**15.68**	**71**	Pn		**Pn**	**05 10 16.1**	**+0.5**
H29M	**Whitestone**	**15.81**	**33**	Pn		**Pn**	**05 10 17.0**	**-0.3**
I30M	**Mount Dempster**	**15.90**	**38**	Pn		**Pn**	**05 10 17.9**	**-0.8**
I30M				IAmb		IAmb	05 10 35.0	
	comp=Z,9.8nm,0.8s							
D25K	**Kavik River**	**16.21**	**17**	Pn		**Pn**	**05 10 23.1**	**+0.6**
G29M	**Pine Creek**	**16.35**	**31**	Pn		**Pn**	**05 10 24.9**	**+0.6**
G29M				IAmb		IAmb	05 10 52.0	
	comp=Z,10nm,1.2s							
EPYK	**Eagle Plains**	**16.43**	**34**	Pn		**Pn**	**05 10 25.9**	**+0.5**
EPYK				IAmb		IAmb	05 10 32.4	
	comp=Z,16nm,0.7s							
H31M	**Peel River**	**16.93**	**37**	Pn		**Pn**	**05 10 31.4**	**-0.2**
H31M				IAmb		IAmb	05 10 45.8	
	comp=Z,24nm,1.3s							
G30M	**tAoh Zrail Nji**	**16.95**	**33**	Pn		**Pn**	**05 10 31.6**	**-0.3**
C26K	**Camden Bay**	**16.98**	**18**	Pn		**Pn**	**05 10 32.1**	**-0.1**
C26K				IAmb		IAmb	05 11 07.6	
	comp=Z,13nm,1.5s							
E29M	**Blow River**	**17.37**	**28**	Pn		**Pn**	**05 10 36.5**	**-0.6**
F30M	**Barrier River**	**17.47**	**31**			**Pn**	**05 10 38.7**	**+0.4**
F31M	**Tsiigehtchic**	**18.01**	**33**			**Pn**	**05 10 44.8**	**-0.2**
INK	**Inuvik**	**18.57**	**31**	P		**P**	**05 10 51.7**	**0.0**
	comp=Z,0.3nm,0.3s,baz=196,slow=10,SNR=6.3							
	comp=Z,1.4nm,0.6s							
INK				AML		AML		
INK	**Inuvik**	**18.57**	**31**	P		**P**	**05 10 50.9**	**-0.8**
C36M	**Paulatuk**	**22.06**	**33**	P		**P**	**05 11 29.5**	**-0.1**
C36M				IAmb		IAmb	05 11 42.2	
	comp=Z,8.7nm,1.1s							
YKA	**Yellowknife Ar**	**24.53**	**52**	P		**P**	**05 11 54.5**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=269,slow=6.5,SNR=4.6							
	comp=Z,0.4nm,0.5s							
YKA	**Yellowknife Ar**	**24.53**	**52**	P		**P**	**05 11 54.3**	**-0.1**
PETK	**Petropavlovsk-**	**24.90**	**285**	P		**P**	**05 11 58.6**	**+0.7**
	comp=Z,2.1nm,0.6s,baz=12,slow=12,SNR=2.2							
	comp=Z,2.1nm,0.6s							
PETK	**Petropavlovsk-**	**24.90**	**285**	P		**P**	**05 11 57.1**	**-0.8**
NVAR	**Mina Array Bea**	**32.19**	**102**	P		**P**	**05 13 05.7**	**+2.4**
	comp=Z,0.7nm,0.7s,baz=282,slow=7.4,SNR=3.7							
	comp=Z,0.7nm,0.7s							
NVAR	**Mina Array Bea**	**32.19**	**102**	P		**P**	**05 13 02.7**	**-0.6**
PD31	**Pinedale Array**	**34.48**	**89**	P		**P**	**05 13 23.9**	**+0.7**
PD31				IAmb		IAmb	05 13 49.5	
	comp=Z,1.6nm,1.1s							
PDAR	**Pinedale Array**	**34.48**	**89**	P		**P**	**05 13 24.4**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=333,slow=4.7,SNR=5.9							
	comp=Z,0.4nm,0.6s							
PDAR	**Pinedale Array**	**34.48**	**89**	P		**P**	**05 13 23.5**	**+0.3**
ILON	**Igloolik, Nuna**	**36.72**	**35**	P		**P**	**05 13 42.2**	**+0.5**
O20A	**White River Ci**	**36.90**	**91**	P		**

ZEYE				S	Sg	05 08 29.1	+0.8	
ZEYE				IAML		05 08 30.0		
	comp=N,371nm,0.3s							
ZEYE				IAML		05 08 31.0		
	comp=E,253nm,0.4s							
BEYE	**izmir**	**0.38**	**32**	P	**Pg**	**05 08 23.5**	**-0.2**	
BEYE				IAML		05 08 29.0		
	comp=N,179nm,0.7s							
BEYE				IAML		05 08 29.0		
	comp=E,147nm,0.5s							
BEYE				S	**Sg**	**05 08 29.2**	**+0.2**	
GCAM	**G?zelcaml?**	**0.49**	**114**	P	**Pg**	**05 08 25.8**	**+0.1**	
GCAM				S	**Sb**	**05 08 33.4**	**-0.1**	
GCAM				IAML		05 08 36.0		
	comp=N,196nm,0.3s							
GCAM				IAML		05 08 37.0		
	comp=E,117nm,0.3s							
GCAM	**G?zelcaml?**	**0.49**	**114**	Pg	**Pg**	**05 08 25.5**	**-0.1**	
GCAM				Sg	**Sg**	**05 08 32.6**	**+0.4**	
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.49**	**95**	Pg	**Pg**	**05 08 25.3**	**-0.4**	
KUSD				Sg	**Sg**	**05 08 32.1**	**-0.1**	
KUSD				AML	AML			
BLCB	**Balcova**	**0.56**	**31**	P	**Pg**	**05 08 27.2**	**+0.1**	
BLCB				S	**Sg**	**05 08 35.1**	**+0.5**	
BLCB	**Balcova**	**0.56**	**31**	Pg	**Pg**	**05 08 26.4**	**-0.7**	
BLCB				Sg	**Sg**	**05 08 34.5**	**-0.1**	
BLCB				AML	AML			
DDIM	**Aydin, Didim**	**0.63**	**134**	P	**Pg**	**05 08 28.2**	**-0.1**	
DDIM				S	**Sb**	**05 08 38.2**	**+0.5**	
DDIM				IAML		05 08 41.0		
	comp=N,284nm,0.5s							
DDIM				IAML		05 08 41.0		
	comp=E,325nm,0.8s							
CHOS	**Chios island**	**0.69**	**315**	P	**Pg**	**05 08 29.3**	**-0.1**	
CHOS				S	**Sb**	**05 08 39.4**	**+0.1**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.69**	**315**	Pg	**Pg**	**05 08 29.0**	**-0.4**	
CHOS				Sg	**Sb**	**05 08 39.1**	**-0.2**	
CHOS				AML	AML			
DUVT	**Torbali**	**0.69**	**62**	P	**Pg**	**05 08 29.5**	**+0.1**	
DUVT				S	**Sg**	**05 08 38.5**	**-0.1**	
DUVT				IAML		05 08 43.0		
	comp=E,97nm,0.6s							
KRBN	**Karaburun**	**0.70**	**352**	Pg	**Pg**	**05 08 29.2**	**-0.4**	
KRBN				Sg	**Sb**	**05 08 39.3**	**-0.2**	
BAGT	**Foa**	**0.77**	**11**	P	**Pn**	**05 08 33.0**	**+0.5**	
BAGT				S	**Sb**	**05 08 42.2**	**+0.7**	
KARB	**zmir-Karabur**	**0.79**	**345**	P	**Pb**	**05 08 31.6**	**0.0**	
KARB				S	**Sb**	**05 08 42.4**	**+0.3**	
KARB				IAML		05 08 45.0		
	comp=E,111nm,0.8s							
KARB				IAML		05 08 51.0		
	comp=N,67nm,0.5s							
FOCM	**Foa**	**0.81**	**3**	Pg	**Pg**	**05 08 31.2**	**-0.5**	
FOCM				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.97**	**87**	Pg	**Pg**	**05 08 34.1**	**-0.6**	
AYDB				AML	AML			
BODT	**Bodrum**	**0.98**	**149**	P	**Pg**	**05 08 34.8**	**-0.2**	
BODT				S	**Sb**	**05 08 48.3**	**+0.6**	
BODT				AML	AML			
CAMT	**Merkez**	**0.98**	**31**	P	**Pn**	**05 08 35.6**	**+0.1**	
CAMT				S	**Sn**	**05 08 49.8**	**+0.5**	
IZMR	**zmir-demi**	**1.04**	**77**	P	**Pb**	**05 08 35.6**	**-0.2**	
IZMR				S	**Sb**	**05 08 49.1**	**-0.2**	
IZMR				IAML		05 08 52.0		
	comp=N,31nm,0.4s							
IZMR				IAML		05 08 53.0		
	comp=E,33nm,0.8s							
DKL	**Dikili**	**1.18**	**9**	Pn	**Pn**	**05 08 38.5**	**+0.3**	
APE	**Apeiranthos**	**1.23**	**228**	P	**Pn**	**05 08 37.5**	**-1.4**	
APE				S	**Sn**	**05 08 56.0**	**+0.6**	
YER	**Yerkesik**	**1.49**	**120**	P	**Pn**	**05 08 43.0**	**+0.4**	
YER				S	**Sn**	**05 09 01.0**	**-1.0**	

*AZER **10** 05:25:31.1,39°.42N×44°.53E,h2km,ml3.0*
*AFAD **10** 05:25:31.1,39°.47N×44°.54E,h7km±2km,ML2.7*
*TIF **10** 05:25:32.6,39°.47N×44°.40E,h10km±2km*
*ISK **10** 05:25:32.3,39°.42N×44°.42E,h6km,ML2.8/8*
*TEH **10** 05:25:35.5,39°.27N×44°.53E,h10km±224km,ML2.9,*
Presumed earthquake

ISC 10 05:25:32.6±1.1,39°.44N±0°.02×44°.49E±0°.02,h7km±10km, n37,σ1°34/62,Iran-Armenia-Azerbaijan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HYR	**Heyderabad**	**0.40**	**44**	P	**Pb**	**05 25 41.4**	**-0.7**
HYR				S	**Sb**	**05 25 48.3**	**-0.1**
CLDR	**Caldiran**	**0.53**	**237**	Pg	**Pg**	**05 25 42.0**	**-0.9**
CLDR				Sg	**Sg**	**05 25 49.1**	**-0.8**
CLDR				AML	AML		
IGDI	**IGDIR**	**0.54**	**324**	P	**Pg**	**05 25 42.1**	**-0.9**
IGDI				S	**Sg**	**05 25 49.6**	**-0.4**
IGDI				IAML		05 25 50.0	
	comp=N,860nm,0.3s						
IGDI				IAML		05 25 50.0	
	comp=E,995nm,0.2s						
TASB	**TASBURUN-IGDIR**	**0.58**	**341**	Pg	**Pg**	**05 25 43.6**	**-0.3**
TASB				Sg	**Sg**	**05 25 52.1**	**+0.6**
TASB				AML	AML		
DYDN	**Diyadin**	**0.63**	**280**	P	**Pg**	**05 25 44.0**	**-0.7**
DYDN				S	**Sg**	**05 25 54.0**	**+1.0**
DYDN				IAML		05 26 02.0	
	comp=N,383nm,0.7s						
DYDN				IAML		05 26 06.0	
	comp=E,346nm,1.2s						
GNI	**Garni**	**0.74**	**15**	Pg	**Pb**	**05 25 47.3**	**-0.7**
GNI				Sg	**Sb**	**05 25 59.5**	**+1.1**
NAX	**Nakhchivan**	**0.82**	**108**	P	**Pb**	**05 25 48.9**	**-0.4**
NAX				S	**Sn**	**05 26 01.5**	**-1.7**
SBZ	**Shahbuz**	**0.82**	**92**	P	**Pn**	**05 25 49.4**	**-1.4**
OZAP	**Van, Ozalp-Mer**	**0.86**	**207**	P	**Pg**	**05 25 48.6**	**-0.6**
OZAP				IAML		05 26 02.0	
	comp=E,166nm,0.5s						
OZAP				S	**Sb**	**05 26 02.2**	**+0.2**
KOTA	**Agri, Merkez-K**	**1.06**	**291**	P	**Pg**	**05 25 51.3**	**-1.7**
KOTA				S	**Sb**	**05 26 08.3**	**+0.7**
AGRB	**Hanur-Agry**	**1.17**	**277**	Pn	**Pg**	**05 25 54.5**	**-0.5**
AGRB				Sn	**Sg**	**05 26 10.2**	**0.0**
AGRB				AML	AML		
IMRD	**Marand**	**1.19**	**127**	Pg	**Pg**	**05 25 54.6**	**-0.8**
TVAN	**Van**	**1.24**	**223**	P	**Pg**	**05 25 56.2**	**-0.2**
TVAN				S	**Sn**	**05 26 15.4**	**+1.7**
TVAN				IAML		05 26 18.0	
	comp=E,138nm,0.5s						
TVAN				IAML		05 26 27.0	
	comp=N,155nm,0.7s						
ORD	**Ordubad**	**1.27**	**113**	P	**Pn**	**05 25 56.3**	**-0.7**
DORK	**Agr/Tutak/Do**	**1.32**	**268**	P	**Pn**	**05 25 57.2**	**-0.5**
DORK				S	**Sb**	**05 26 14.1**	**-1.2**
DORK				IAML		05 26 23.0	
	comp=N,126nm,0.9s						
DORK				IAML		05 26 28.0	
	comp=E,154nm,0.8s						
EAK	**Akyaka**	**1.42**	**332**	P	**Pn**	**05 25 59.0**	**-0.1**
EAK				S	**Sg**	**05 26 19.2**	**+0.9**
EAK				IAML		05 26 26.0	
	comp=E,179nm,1.5s						
EAK				IAML		05 26 28.0	
	comp=N,162nm,1.1s						
ISHB	**Shabestar**	**1.45**	**142**	Pg	**Pg**	**05 25 59.8**	**-0.6**
ISHB				Sg	**Sg**	**05 26 20.4**	**+1.3**
EATA	**Eleskirt**	**1.60**	**286**	P	**Pn**	**05 26 01.5**	**-0.2**
EATA				S	**Sg**	**05 26 24.6**	**+0.5**
EATA				IAML		05 26 26.0	
	comp=N,82nm,0.9s						
EATA				IAML		05 26 26.0	
	comp=E,75nm,0.7s						
GDB	**GEDABAY**	**1.61**	**37**	Pn	**Pb**	**05 26 02.7**	**-0.2**
GDB				Sn	**Sg**	**05 26 25.2**	**+0.8**
KARS	**Kars**	**1.61**	**318**	Pn	**Pn**	**05 26 01.4**	**-0.3**
KARS				AML	AML		
AKDM	**Akdamar-Van**	**1.61**	**227**	Pn	**Pn**	**05 26 01.2**	**-0.6**
AKDM				Sn	**Sn**	**05 26 22.7**	**-0.3**
AKDM				AML	AML		
QZX	**Qazax, Azerbai**	**1.76**	**22**	Pn	**Pb**	**05 26 04.7**	**-0.5**
QZX				Sn	**Sg**	**05 26 29.3**	**+0.2**
GANJ	**Ganja**	**1.85**	**49**	Pn	**Pg**	**05 26 10.2**	**+2.0**
GANJ				Sn	**Sg**	**05 26 32.9**	**+0.6**
EKAR	**Karacoban**	**1.89**	**265**	P	**Pb**	**05 26 07.4**	**-0.2**
EKAR				S	**Sg**	**05 26 39.0**	**+5.7**
EKAR				IAML		05 26 40.0	
	comp=N,103nm,0.8s						
EKAR				IAML		05 26 45.0	
	comp=E,131nm,0.5s						
SENK	**Senkaya-Erzuru**	**1.99**	**305**	Pn	**Pn**	**05 26 07.4**	**+0.4**
SENK				AML	AML		
HOMI	**Horasan**	**2.08**	**288**	P	**Pb**	**05 26 10.7**	**-0.3**
HOMI				S	**Sg**	**05 26 42.7**	**+3.1**
HOMI				IAML		05 26 50.0	
	comp=N,65nm,1.0s						
HOMI				IAML		05 26 51.0	
	comp=E,68nm,0.9s						
IAZR	**Azarshahr**	**2.11**	**146**	Pn	**Pb**	**05 26 11.4**	**0.0**
KOPR	**Koprukoy-ERZUR**	**2.11**	**286**	Pn	**Pn**	**05 26 08.4**	**-0.1**
TRLG	**Trialeti**	**2.12**	**352**	P	**Pb**	**05 26 10.7**	**-0.9**
TRLG				S	**Sb**	**05 26 39.0**	**+0.8**
AGDM	**Agdam**	**2.13**	**71**	Pn	**Pg**	**05 26 14.8**	**+1.4**
IHRS	**Heris**	**2.28**	**118**	Pn	**Pb**	**05 26 13.8**	**-0.5**
CUKT	**Cukurca**	**2.29**	**198**	Pn	**Pn**	**05 26 11.4**	**+0.4**
CUKT				AML	AML		
VSHL	**Vashlovani**	**2.31**	**39**	P	**Pg**	**05 26 17.0**	**0.0**
VSHL				S	**Sg**	**05 26 51.5**	**+4.6**
DDFL	**Dedoflistskaro**	**2.36**	**31**	P	**Pg**	**05 26 16.4**	**-1.5**
GRMI	**Germi**	**2.72**	**102**	Pn	**Pb**	**05 26 21.9**	**+0.1**
CHRG	**Chargali**	**2.91**	**6**	P	**Pb**	**05 26 23.2**	**-1.8**
CHRG				S	**Sg**	**05 27 05.8**	**-0.3**
YRD	**Yardimli**	**2.96**	**99**	Pn	**Pb**	**05 26 25.9**	**0.0**
YRD				Sn	**Sg**	**05 27 06.7**	**-1.0**

*NEIC **10** 05:25:44.1±1.5,17°.88N±0°.03×67°.16W±0°.03,h10km±1km, ML3.0/35,Md3.2/9(RSPR),Error ellipse: s-maj=6.1km s-min=3.1km az=47.0*
*RSPR **10** 05:25:45.2,17°.94N×67°.12W,h6km,MD3.2/9*
*OSPL **10** 05:25:45.1±0.8,17°.91N×67°.13W,h0km±28km,ML3.4, Presumed earthquake*

ISC 10 05:25:44.2±1.5,17°.89N±0°.06×67°.13W±0°.04,h11km±6km, n33,σ0°63/51,6C-5D,Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLPR	**Magueyes Islan**	**0.11**	**47**		**Pg**	**05 25 47.3**	**+0.2**
MLPR					**Sg**	**05 25 49.1**	**-0.2**
MLPR	**Magueyes Islan**	**0.11**	**47**	*eP*	**Pg**	**05 25 47.4**	**+0.2**
CRPR	**Cabo Rojo, PR**	**0.12**	**11**		**Pg**	**05 25 47.2**	**-0.1**
CRPR					**Sg**	**05 25 48.6**	**-0.7**
CRPR				IAML		05 25 49.2	
	15μm,0.2s						
CRPR	**Cabo Rojo, PR**	**0.12**	**11**	*iP*	**Pg**	**05 25 47.3**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.12**	**11**	*i P*	**Pg**	**05 25 47.2**	**-0.1**
CRPR				*eS*	**Sg**	**05 25 47.9**	**-1.5**
GBPR	**Guanica, Bosqu**	**0.26**	**71**		**Pg**	**05 25 50.3**	**+0.8**
GBPR					**Sg**	**05 25 54.4**	**+1.3**
GBPR	**Guanica, Bosqu**	**0.26**	**71**	*iP*	**Pg**	**05 25 50.3**	**+0.8**
GBPR				*eS*	**Sg**	**05 25 54.4**	**+1.3**
PRSN	**Puerto Rico Se**	**0.32**	**358**		**Pg**	**05 25 51.0**	**+0.3**
PRSN					**Sg**	**05 25 56.0**	**+0.8**
PRSN	**Puerto Rico Se**	**0.32**	**358**	*iP*	**Pg**	**05 25 51.1**	**+0.3**
OBIP	**Obispado Ponce**	**0.52**	**73**		**Pg**	**05 25 53.9**	**-0.5**
OBIP	**Obispado Ponce**	**0.52**	**73**	*i P*	**Pg**	**05 25 53.7**	**-0.7**
OBIP				*eS*	**Sg**	**05 26 01.4**	**0.0**
OBIP				IAML		05 26 01.8	
	comp=Z,1μm,0.2s						
CELP	**Cerrillos**	**0.56**	**71**		**Pg**	**05 25 55.4**	**+0.2**
CELP					**Sg**	**05 26 03.8**	**+1.3**
CELP	**Cerrillos**	**0.56**	**71**	*eP*	**Pg**	**05 25 55.5**	**+0.4**
AGPR	**Aguadilla, PR**	**0.57**	**2**		**Pg**	**05 25 55.3**	**-0.2**
AGPR					**Sg**	**05 26 03.0**	**-0.1**
AGPR				IAML		05 26 08.0	
	comp=Z,409nm,0.4s						
AGPR	**Aguadilla, PR**	**0.57**	**2**	*iP*	**Pg**	**05 25 55.4**	**-0.1**
AGPR	**Aguadilla, PR**	**0.57**	**2**	*i P*	**Pg**	**05 25 55.3**	**-0.2**
AGPR				*eS*	**Sg**	**05 26 02.2**	**-0.8**
AOPR	**Arecibo Observ**	**0.58**	**38**		**Pg**	**05 25 55.4**	**-0.1**
AOPR					**Sg**	**05 26 02.9**	**-0.4**
AOPR				IAML		05 26 04.0	
	comp=Z,1μm,0.2s						
AOPR	**Arecibo Observ**	**0.58**	**38**	*eP*	**Pg**	**05 25 55.5**	**-0.1**
IDE	**Isla Desecheo**	**0.59**	**327**		**Pg**	**05 25 55.8**	**+0.1**
IDE	**Isla Desecheo**	**0.59**	**327**	*eP*	**Pg**	**05 25 55.8**	**+0.1**
IDE				*eS*	**Sg**	**05 26 04.2**	**+0.6**
EMPR	**Esperanza - Ma**	**0.82**	**44**		**Pg**	**05 26 00.1**	**0.0**
EMPR					**Sg**	**05 26 11.4**	**+0.7**
EMPR	**Esperanza - Ma**	**0.82**	**44**	*eP*	**Pg**	**05 26 00.1**	**0.0**
EMPR				*eS*	**Sg**	**05 26 11.4**	**+0.7**
ECPR	**Experimental S**	**0.85**	**60**		**Pg**	**05 25 59.9**	**-0.7**
ECPR					**Sg**	**05 26 11.5**	**-0.2**
ECPR				IAML		05 26 15.8	
	comp=Z,830nm,0.2s						
ECPR				IAML		05 26 16.7	
	comp=Z,716nm,0.2s						
ECPR	**Experimental S**	**0.85**	**60**	*eP*	**Pg**	**05 26 00.1**	**-0.5**
SJG	**San Juan**	**0.96**	**77**		**Pg**	**05 26 01.9**	**-0.9**
SJG				IAML		05 26 18.9	
	comp=Z,185nm,0.6s						
SJG	**San Juan**	**0.96**	**77**	*i P*	**Pg**	**05 26 02.0**	**-0.7**
SJG				*eS*	**Sg**	**05 26 15.1**	**-0.2**
SJG				IAML		05 26 16.6	
	comp=Z,2μm,0.2s						
IGPR	**InterUniversit**	**0.98**	**86**		**Pg**	**05 26 02.9**	**-0.2**
IGPR					**Sg**	**05 26 15.6**	**-0.3**
IGPR	**InterUniversit**	**0.98**	**86**	*eP*	**Pg**	**05 26 02.9**	**-0.2**
PDPR	**Patillas Dam,**	**1.06**	**83**		**Pg**	**05 26 04.0**	**-0.7**
PDPR					**Sg**	**05 26 19.1**	**+0.5**
PDPR				IAML		05 26 22.4	
	comp=Z,155nm,0.5s						
PDPR	**Patillas Dam,**	**1.06**	**83**	*eP*	**Pg**	**05 26 04.1**	**-0.7**
GCPR	**Guaynabo City**	**1.08**	**67**		**Pg**	**05 26 04.2**	**-0.9**
GCPR				IAML		05 26 23.1	
	comp=Z,161nm,0.6s						
HUMP	**Col San Antoni**	**1.25**	**78**		**Pg**	**05 26 07.2**	**-1.0**
HUMP				IAML		05 26 28.0	
	comp=Z,135nm,0.3s						
HUMP				IAML		05 26 31.2	
	comp=Z,158nm,0.2s						
PCDR	**Punta Cana, DR**	**1.34**	**298**	*i P*	**Pn**	**05 26 09.0**	**+0.1**

IDC 10 05:29:00.2±8.4,36°.91S×103°.54W,h0km,mb3.6/4, mbtmp3.6/4,Error ellipse: s-maj=312.3km s-min=36.3km az=44.0,Southeast of Easter Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLCA	**Paso Flores**	**25.90**	**109**	P	P	05 34 34.0	0.0
	0.8nm,0.8s,baz=288,slow=11,SNR=3.1 0.8nm,0.8s						
TXAR	**Lajitas Array**	**65.89**	**360**	P	P	05 39 48.0	+0.2
	0.6nm,0.9s,baz=184,slow=9.5,SNR=4.9 0.6nm,0.9s						
NVAR	**Mina Array Bea**	**76.19**	**348**	P	P	05 40 50.3	-0.1
	0.5nm,0.8s,baz=170,slow=4.9,SNR=3.7 0.5nm,0.8s						
PDAR	**Pinedale Array**	**79.48**	**356**	P	P	05 41 08.6	0.0
	0.8nm,0.9s,baz=149,slow=6.9,SNR=5.9 0.8nm,0.9s						

*NEIC **10** 05:30:01.0±1.5,17°.83N±0°.01×67°.17W±0°.01,h10km±1km, ML2.7/37,Md3.1/17(RSPR),Error ellipse: s-maj=3.1km s-min=2.5km az=339.0*
*RSPR **10** 05:30:02.8,17°.93N×67°.13W,h6km,MD3.1/17*
*OSPL **10** 05:30:02.7±0.8,17°.90N×67°.13W,h0km±32km,ML3.0, Presumed earthquake*

ISC 10 05:30:01.7±1.5,17°.88N±0°.07×67°.14W±0°.04,h10km±7km, n37,σ0°64/58,2C-6D,Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLPR	**Magueyes Islan**	**0.13**	**44**		**Pg**	**05 30 05.0**	**+0.3**
MLPR					**Sg**	**05 30 06.8**	**-0.1**
MLPR	**Magueyes Islan**	**0.13**	**44**	*iP*	**Pg**	**05 30 05.0**	**+0.3**
CRPR	**Cabo Rojo, PR**	**0.13**	**12**		**Pg**	**05 30 04.9**	**+0.1**
CRPR					**Sg**	**05 30 06.3**	**-0.7**
CRPR				IAML		05 30 06.6	
	4μm,0.2s						
CRPR	**Cabo Rojo, PR**	**0.13**	**12**	*iP*	**Pg**	**05 30 05.0**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.13**	**12**	*i P*	**Pg**	**05 30 04.9**	**+0.1**
CRPR				*eS*	**Sg**	**05 30 05.6**	**-1.5**
GBPR	**Guanica, Bosqu**	**0.27**	**68**		**Pg**	**05 30 08.0**	**+0.8**
GBPR					**Sg**	**05 30 12.1**	**+1.3**
GBPR	**Guanica, Bosqu**	**0.27**	**68**	*iP*	**Pg**	**05 30 08.0**	**+0.8**
GBPR				*eS*	**Sg**	**05 30 12.1**	**+1.3**
PRSN	**Puerto Rico Se**	**0.34**	**359**		**Pg**	**05 30 08.8**	**+0.2**
PRSN					**Sg**	**05 30 13.7**	**+0.6**
PRSN	**Puerto Rico Se**	**0.34**	**359**	*iP*	**Pg**	**05 30 08.9**	**+0.3**
OBIP	**Obispado Ponce**	**0.53**	**72**		**Pg**	**05 30 11.5**	**-0.7**
OBIP					**Sg**	**05 30 19.4**	**+0.2**
OBIP	**Obispado Ponce**	**0.53**	**72**	*iP*	**Pg**	**05 30 11.8**	**-0.4**
OBIP				*eS*	**Sg**	**05 30 19.7**	**+0.5**
OBIP	**Obispado Ponce**	**0.53**	**72**	*i P*	**Pg**	**05 30 11.5**	**-0.7**
OBIP				IAML		05 30 19.5	
	comp=Z,472nm,0.1s						
CELP	**Cerrillos**	**0.57**	**69**		**Pg**	**05 30 13.1**	**+0.3**
CELP					**Sg**	**05 30 21.2**	**+0.9**
CELP	**Cerrillos**	**0.57**	**69**	*iP*	**Pg**	**05 30 13.1**	**+0.3**
AGPR	**Aguadilla, PR**	**0.59**	**3**		**Pg**	**05 30 13.1**	**-0.2**
AGPR					**Sg**	**05 30 20.6**	**-0.4**
AGPR				IAML		05 30 28.9	
	comp=Z,220nm,1.4s						
AGPR	**Aguadilla, PR**	**0.59**	**3**	*iP*	**Pg**	**05 30 13.0**	**-0.2**
AGPR	**Aguadilla, PR**	**0.59**	**3**	*i P*	**Pg**	**05 30 13.0**	**-0.2**
AGPR				*eS*	**Sg**	**05 30 20.6**	**-0.4**
AOPR	**Arecibo Observ**	**0.60**	**38**		**Pg**	**05 30 13.2**	**-0.1**
AOPR					**Sg**	**05 30 20.8**	**-0.4**
AOPR				IAML		05 30 20.9	
	comp=Z,522nm,0.3s						
AOPR				IAML		05 30 21.1	
	comp=Z,1μm,0.4s						
AOPR	**Arecibo Observ**	**0.60**	**38**	*iP*	**Pg**	**05 30 13.2**	**-0.1**
IDE	**Isla Desecheo**	**0.60**	**328**		**Pg**	**05 30 13.4**	**0.0**
IDE					**Sg**	**05 30 22.2**	**+0.8**
IDE	**Isla Desecheo**	**0.60**	**328**	*iP*	**Pg**	**05 30 13.4**	**0.0**
IDE				*eS*	**Sg**	**05 30 22.2**	**+0.8**
EMPR	**Esperanza - Ma**	**0.83**	**44**		**Pg**	**05 30 17.8**	**-0.1**
EMPR					**Sg**	**05 30 29.1**	**+0.4**
EMPR	**Esperanza - Ma**	**0.83**	**44**	*iP*	**Pg**	**05 30 17.8**	**-0.1**
EMPR				*eS*	**Sg**	**05 30 29.1**	**+0.4**
ECPR	**Experimental S**	**0.86**	**59**		**Pg**	**05 30 17.9**	**-0.4**
ECPR					**Sg**	**05 30 29.6**	**+0.1**
ECPR				IAML		05 30 32.8	
	comp=Z,278nm,0.2s						
ECPR				IAML		05 30 33.5	
	comp=Z,283nm,0.2s						
ECPR	**Experimental S**	**0.86**	**59**	*iP*	**Pg**	**05 30 17.9**	**-0.4**
SJG	**San Juan**	**0.97**	**76**	*eP*	**Pg**	**05 30 19.6**	**-0.8**
SJG	**San Juan**	**0.97**	**76**	*i P*	**Pg**	**05 30 19.7**	**-0.7**
SJG				*eS*	**Sg**	**05 30 32.9**	**-0.2**
SJG				IAML		05 30 34.3	
	comp=Z,844nm,0.2s						
IGPR	**InterUniversit**	**0.99**	**85**		**Pg**	**05 30 20.7**	**0.0**
IGPR					**Sg**	**05 30 33.8**	**+0.2**
IGPR	**InterUniversit**	**0.99**	**85**	*iP*	**Pg**	**05 30 20.7**	**0.0**
PDPR	**Patillas Dam,**	**1.07**	**82**		**Pg**	**05 30 21.9**	**-0.5**
PDPR					**Sg**	**05 30 35.5**	**-0.8**
PDPR	**Patillas Dam,**	**1.07**	**82**	*eP*	**Pg**	**05 30 22.6**	**+0.3**
GCPR	**Guaynabo City**	**1.09**	**67**		**Pg**	**05 30 21.5**	**-1.3**
HUMP	**Col San Antoni**	**1.26**	**78**		**Pg**	**05 30 25.2**	**-0.7**
HUMP				Sn	**Sn**	**05 30 43.9**	**+1.6**
HUMP				IAML		05 30 45.6	
	comp=Z,57nm,0.2s						
HUMP				IAML		05 30 45.8	
	comp=Z,62nm,0.3s						
HUMP	**Col San Antoni**	**1.26**	**78**	*eP*	**Pg**	**05 30 24.8**	**-1.1**
PCDR	**Punta Cana, DR**	**1.34**	**298**	Pn	**Pn**	**05 30 25.5**	**-1.0**
PCDR				IAML		05 30 36.8	
	comp=N,236nm,2.5s						
PCDR				IAML		05 31 06.5	
	comp=E,138nm,2.7s						
PCDR	**Punta Cana, DR**	**1.34**	**298**	*i P*	**Pn**	**05 30 26.6**	**0.0**
SMRT	**St. Maarten**	**3.87**	**87**	Pn	**Pn**	**05 31 00.8**	**-0.6**

*GCG **10** 05:38:47.8±1.7,17°.14N×91°.56W,h21km±12km,MD4.5, Presumed earthquake*
*MEX **10** 05:38:48.6±1.5,17°.19N×91°.48W,h5km,MD4.2, Presumed earthquake*

ISC 10 05:38:46.4±1.9,17°.21N±0°.03×91°.54W±0°.03,h14km±13km, n22,σ1°43/42,Mexico-Guatemala border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CCIG	**Comitan**	**1.08**	**212**	*i P*	**Pb**	**05 39 05.9**	**-1.1**
CCIG				*i S*	**Sg**	**05 39 22.1**	**+0.6**
CCIG	**Comitan**	**1.08**	**212**	*eP*	**Pb**	**05 39 05.9**	**-1.1**
CCIG				*eS*	**Sg**	**05 39 22.3**	**+0.8**
TGIG		**1.57**	**254**	*i P*	**Pn**	**05 39 14.7**	**+0.7**
TGIG				*i S*	**Sn**	**05 39 33.8**	**-0.3**
TGIG		**1.57**	**254**	*eP*	**Pn**	**05 39 14.6**	**+0.7**
TGIG				*eS*	**Sn**	**05 39 34.7**	**+0.6**
PETF	**Flores**	**1.63**	**100**	*i P*	**Pn**	**05 39 15.4**	**+0.7**
PETF				*i S*	**Sb**	**05 39 36.7**	**+0.1**
PETF	**Flores**	**1.63**	**100**	*eP*	**Pn**	**05 39 15.2**	**+0.6**
PETF				*eS*	**Sb**	**05 39 37.0**	**+0.4**
SCIG	**Sabancuy**	**1.78**	**11**	*eP*	**Pn**	**05 39 17.7**	**+1.0**
SCIG				*eS*	**Sn**	**05 39 39.8**	**+0.6**
HUEH	**Huehuetenango**	**1.88**	**179**	*i P*	**Pn**	**05 39 19.0**	**+0.7**
HUEH				*i S*	**Sb**	**05 39 43.6**	**-0.5**
HUEH	**Huehuetenango**	**1.88**	**179**	*eP*	**Pn**	**05 39 19.1**	**+0.8**
HUEH				*eS*	**Sb**	**05 39 43.8**	**-0.2**
AVCB	**Coban**	**2.04**	**148**	*i S*	**Sn**	**05 39 46.7**	**+0.9**
PAVE	**Pavencul**	**2.09**	**197**	*eP*	**Pn**	**05 39 21.2**	**-0.1**
PAVE				*eS*	**Sn**	**05 39 47.8**	**+0.6**
CHUJ	**Union Juarez**	**2.17**	**195**	*eP*	**Pn**	**05 39 22.5**	**+0.2**
CHUJ				*eS*	**Sn**	**05 39 50.6**	**+1.5**
PATR	**El Naranjo**	**2.18**	**198**	*eP*	**Pn**	**05 39 22.7**	**+0.2**
PATR				*eS*	**Sn**	**05 39 49.7**	**+0.3**
PCIG		**

WRA	**Warramunga Arr**	**32.34**	**191**	P	**P**	**06 02 09.7**	**-2.0**
USRK	**Ussuriysk Ar.**	**32.82**	**349**	P	**P**	**06 02 15.4**	**-0.2**
FITZ	**Fitzroy Crossi**	**33.29**	**206**	P	**P**	**06 02 20.6**	**+0.6**
CMAR	**Chiang Mai Arr**	**40.36**	**284**	P	**P**	**06 03 21.0**	**+0.7**
	comp=Z,1.7nm,0.3s,baz=88,slow=7.5,SNR=7.9						
CMAR				LR	LR	06 17 54.2	
	comp=Z,31nm,21.3s,baz=115,slow=33						
	comp=Z,1.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**40.36**	**284**	P	**P**	**06 03 18.8**	**-1.4**
STKA	**Stephens Creek**	**43.71**	**178**	P	**P**	**06 03 47.7**	**+0.4**
	comp=Z,1.2nm,0.3s,baz=4.1,slow=14,SNR=3.0						
	comp=Z,1.2nm,0.3s						
STKA	**Stephens Creek**	**43.71**	**178**	P	**P**	**06 03 48.0**	**+0.7**
STKA				IAmb	IAmb	06 03 55.6	
	comp=Z,28nm,0.9s						
SONM	**Songino Array**	**45.55**	**328**	P	**P**	**06 04 02.8**	**+0.8**
	comp=Z,0.5nm,0.6s,baz=150,slow=12,SNR=1.7						
SONM				PcP	**PcP**	**06 05 40.6**	**+0.3**
	comp=Z,0.6nm,0.4s,baz=194,slow=5.4,SNR=2.5						
SONM				LR	LR	06 24 00.3	
	comp=Z,40nm,18.3s,baz=158,slow=37						
	comp=Z,0.5nm,0.6s						
SONM	**Songino Array**	**45.55**	**328**	P	**P**	**06 04 02.2**	**+0.2**
SONM					**PcP**	**06 05 41.1**	**+0.7**
MORW	**Morawa**	**47.14**	**209**	P	**P**	**06 04 15.3**	**+0.7**
TLY	**Talaya**	**49.39**	**331**	LR	LR	06 26 48.4	
	comp=Z,39nm,18.1s,baz=117,slow=38						
EVN	**Everest**	**52.30**	**296**	P	**P**	**06 04 55.2**	**+0.4**
MKAR	**Makanchi Array**	**59.56**	**317**	P	**P**	**06 05 46.1**	**+0.4**
	comp=Z,1.2nm,0.9s,baz=112,slow=9.6,SNR=6.5						
	comp=Z,1.2nm,0.9s						
MKAR	**Makanchi Array**	**59.56**	**317**	P	**P**	**06 05 46.3**	**+0.6**
ZAA0	**Zalesovo Array**	**60.33**	**326**	P	**P**	**06 05 49.9**	**-0.9**
ZAA0				PcP	**PcP**	**06 06 35.2**	**-0.6**
ZALV	**Zalesovo Beam**	**60.33**	**326**	P	**P**	**06 05 50.4**	**-0.4**
	comp=Z,1.0nm,0.5s,baz=113,slow=9.8,SNR=3.9						
ZALV				LR	LR	06 33 21.2	
	comp=Z,21nm,19.0s,baz=32,slow=38						
	comp=Z,1.0nm,0.5s						
ZALV	**Zalesovo Beam**	**60.33**	**326**	P	**P**	**06 05 50.9**	**0.0**
ZALV				PcP	**PcP**	**06 06 35.5**	**-0.2**
KURK	**Kurchatov**	**62.93**	**321**		**P**	**06 06 09.2**	**+0.8**
KURK				IAmb	IAmb	06 06 09.6	
	comp=Z,5.4nm,0.7s						
KURBB	**Kurchatov Arra**	**62.96**	**321**	P	**P**	**06 06 09.1**	**+0.4**
	comp=Z,3.0nm,0.6s,baz=104,slow=6.8,SNR=22						
KURBB				LR	LR	06 34 25.1	
	comp=Z,35nm,19.9s,baz=181,slow=37						
	comp=Z,3.0nm,0.6s						
J16K	**Anvik River**	**65.64**	**25**	P	**P**	**06 06 27.0**	**+1.0**
M17K	**Holitna River**	**66.34**	**28**	P	**P**	**06 06 31.6**	**+1.1**
KKAR	**Karatay Array**	**67.13**	**312**	P	**P**	**06 06 35.9**	**-0.1**
J18K	**Innoko River**	**67.34**	**26**	P	**P**	**06 06 37.4**	**+0.5**
N19K	**Bonanza Creek**	**67.53**	**29**	P	**P**	**06 06 39.4**	**+1.2**
N19K				IAmb	IAmb	06 06 39.8	
	comp=Z,4.9nm,0.7s						
KDAK	**Kodiak Island**	**67.71**	**32**	P	**P**	**06 06 39.2**	**-0.1**
H19K	**Roundabout Mou**	**68.14**	**24**	P	**P**	**06 06 43.3**	**+1.5**
H19K				IAmb	IAmb	06 06 45.0	
	comp=Z,19nm,1.4s						
BVAR	**Borovoye Array**	**68.40**	**322**	P	**P**	**06 06 43.6**	**-0.1**
	comp=Z,3.8nm,0.7s,baz=101,slow=7.7,SNR=9.9						
	comp=Z,3.8nm,0.7s						
K20K	**Telida**	**68.44**	**26**	P	**P**	**06 06 45.2**	**+1.4**
K20K				IAmb	IAmb	06 06 45.8	
	comp=Z,6.5nm,1.1s						
J20K	**Nowinta River**	**68.65**	**25**	P	**P**	**06 06 46.4**	**+1.4**
D20K	**Etivluk River**	**69.20**	**20**	P	**P**	**06 06 49.8**	**+1.4**
IMAR	**Indian Mountai**	**69.34**	**24**	P	**P**	**06 06 50.0**	**+0.7**
I21K	**Tanana**	**69.82**	**25**	P	**P**	**06 06 53.7**	**+1.5**
I21K				IAmb	IAmb	06 06 54.9	
	comp=Z,10nm,1.2s						
SML	**Sawmill**	**70.65**	**28**	P	**P**	**06 06 57.8**	**+0.3**
SCM	**Sheep Creek Mo**	**71.12**	**29**	P	**P**	**06 07 00.8**	**+0.4**
TOLK	**Toolik Lake Re**	**71.63**	**21**	P	**P**	**06 07 04.8**	**+1.6**
TOLK				IAmb	IAmb	06 07 05.5	
	comp=Z,8.8nm,0.9s						
EYAK	**Cordova Ski Ar**	**71.68**	**30**	P	**P**	**06 07 04.3**	**+0.7**
HDA	**Harding Lake**	**71.75**	**26**	P	**P**	**06 07 04.0**	**0.0**
IL31		**71.84**	**26**		**P**	**06 07 04.1**	**-0.4**
IL31				IAmb	IAmb	06 07 04.5	
	comp=Z,4.2nm,0.7s						
ILAR	**Eielson Array**	**71.84**	**26**	P	**P**	**06 07 03.8**	**-0.8**
	comp=Z,2.9nm,0.6s,baz=248,slow=6.0,SNR=46						
	comp=Z,2.9nm,0.6s						
SCRK	**Sand Creek**	**72.96**	**27**	P	**P**	**06 07 12.0**	**+0.6**
SCRK				IAmb	IAmb	06 07 13.8	
	comp=Z,5.5nm,1.2s						
F26K	**Sheenjek River**	**73.43**	**23**	IAmb	IAmb	06 07 16.7	
	comp=Z,23nm,1.5s						
C26K	**Camden Bay**	**73.52**	**20**	IAmb	IAmb	06 07 17.2	
	comp=Z,14nm,1.1s						
E27K	**Coleen River**	**74.45**	**22**	IAmb	IAmb	06 07 35.7	
	comp=Z,7.8nm,1.2s						
AB31	**Akbulak array**	**74.69**	**318**		**P**	**06 07 22.3**	**+0.6**
I28M	**Miner Creek**	**74.84**	**25**	IAmb	IAmb	06 07 24.1	
	comp=Z,9.7nm,1.1s						
DAWY	**Dawson**	**74.98**	**27**	P	**P**	**06 07 24.5**	**+1.3**
F28M	**Old Crow**	**75.04**	**23**	IAmb	IAmb	06 07 25.6	
	comp=Z,6.5nm,0.8s						
PPT	**Papeete**	**75.21**	**112**	LR	LR	06 34 56.3	
	comp=Z,32nm,21.7s,baz=308,slow=31						
E28M	**Babbage River**	**75.25**	**22**	IAmb	IAmb	06 07 27.0	
	comp=Z,11nm,1.1s						
I29M	**Ogilvie Camp.**	**75.52**	**25**	IAmb	IAmb	06 07 27.9	
	comp=Z,8.4nm,1.1s						
ARTI	**Arti**	**75.59**	**325**	LR	LR	06 42 30.0	
	comp=Z,39nm,19.3s,baz=152,slow=37						
G29M	**Pine Creek**	**75.71**	**24**	IAmb	IAmb	06 07 29.6	
	comp=Z,11nm,0.9s						
K29M	**Barlow Dome**	**75.80**	**27**	IAmb	IAmb	06 07 29.7	
	comp=Z,6.3nm,0.8s						
I30M	**Mount Dempster**	**76.33**	**26**	IAmb	IAmb	06 07 33.8	
	comp=Z,5.8nm,0.9s						
G30M	**tAoh Zraii Nji**	**76.42**	**24**	IAmb	IAmb	06 07 32.8	
	comp=Z,10nm,0.9s						
F30M	**Barrier River**	**76.60**	**23**	IAmb	IAmb	06 07 45.0	
	comp=Z,12nm,1.3s						
FINES	**FINESS Array B**	**90.63**	**334**	P	**P**	**06 08 43.3**	**-0.9**
	comp=Z,3.4nm,0.6s,baz=67,slow=5.3,SNR=17						
	comp=Z,3.4nm,0.6s						
FINES	**FINESS Array B**	**90.63**	**334**	P	**P**	**06 08 43.5**	**-0.7**
NVAR	**Mina Array Bea**	**91.32**	**50**	P	**P**	**06 08 48.3**	**0.0**
	comp=Z,0.4nm,0.5s,baz=293,slow=6.9,SNR=3.8						
	comp=Z,0.4nm,0.5s						
MT05	**Renca**	**144.56**	**132**	PKPdf	**PKPdf**	**06 15 18.8**	**-0.3**
MT03	**Universidad Ad**	**144.68**	**132**	PKPdf	**PKPab**	**06 15 17.7**	**-0.3**
LPAZ	**La Paz**	**152.11**	**102**	PKPbc	**PKiKP**	**06 15 39.5**	**+0.1**
	comp=Z,1.8nm,0.7s,baz=317,slow=3.1,SNR=11						

*THE **10** 06:10:13.0,37˚N±6˚×2˚7E±˚, h12km±19km, M2.5/7, MLh2.5/7*
*ISK **10** 06:10:12.6,36˚85N×27˚36E, h10km, ML2.7/13*
*AFAD **10** 06:10:12.8,36˚83N×27˚41E, h7km±2km, ML2.4*

ISC 10 06:10:13.3±0.9,36˚85N±0˚03×27˚38E±0˚03,h11km±6km, n27,σ0°84/44, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BODA	**Bodrum-Mula**	**0.19**	**12**	Pg	**Pg**	**06 10 17.1**	**-0.2**
BODA				Sg	**Sg**	**06 10 20.4**	**+0.2**
DAT	**Datca**	**0.20**	**127**	Pg	**Pg**	**06 10 17.7**	**+0.1**
DAT				Sg	**Sg**	**06 10 20.7**	**+0.1**
DAT				AML	AML		
BODT	**Bodrum**	**0.22**	**345**	P	**Pg**	**06 10 17.9**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.22**	**345**	Pg	**Pg**	**06 10 17.7**	**-0.2**
BODT				Sg	**Sg**	**06 10 21.3**	**+0.2**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.22**	**13**	P	**Pg**	**06 10 17.8**	**-0.2**
BDRM				IAML		06 10 21.0	
	comp=N,1µm,0.3s						
BDRM				IAML		06 10 21.0	
	comp=E,796nm,0.6s						
BDRM				S	**Sg**	**06 10 21.3**	**+0.2**
DATC	**Datca-Mugla**	**0.24**	**112**	Pg	**Pg**	**06 10 18.4**	**+0.1**
DATC				Sg	**Sg**	**06 10 22.6**	**+0.9**
DATC				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.28**	**344**	Pg	**Pg**	**06 10 18.5**	**-0.6**
YKAV				Sg	**Sg**	**06 10 22.9**	**-0.1**
YKAV				AML	AML		
MLSB	**Milas**	**0.55**	**35**	Pg	**Pg**	**06 10 24.1**	**+0.2**
MLSB				Sg	**Sg**	**06 10 31.9**	**+0.7**
MLSB				AML	AML		
DDIM	**Aydin, Didim**	**0.62**	**350**	P	**Pg**	**06 10 25.1**	**-0.1**
DDIM				S	**Sb**	**06 10 34.9**	**+0.2**
DDIM				IAML		06 10 38.0	
	comp=N,265nm,0.3s						
DDIM				IAML		06 10 38.0	
	comp=E,200nm,0.3s						
TURN	**Turunc**	**0.70**	**96**	Pg	**Pg**	**06 10 26.7**	**-0.1**
TURN				Sg	**Sb**	**06 10 37.4**	**+0.4**
TURN				AML	AML		
YER	**Yerkesik**	**0.78**	**68**	P	**Pb**	**06 10 28.8**	**0.0**
YER				AML	AML		
YER	**Yerkesik**	**0.78**	**68**	Pg	**Pg**	**06 10 28.3**	**0.0**
YER				Sg	**Sb**	**06 10 40.0**	**+0.6**
YER				AML	AML		
GCAM	**G?zelcaml?**	**0.86**	**352**	P	**Pb**	**06 10 30.6**	**+0.4**
GCAM				S	**Sb**	**06 10 42.3**	**+0.6**
GCAM				IAML		06 10 47.0	
	comp=N,123nm,0.4s						
GCAM				IAML		06 10 48.0	
	comp=E,96nm,0.2s						
GCAM	**G?zelcaml?**	**0.86**	**352**	Pg	**Pg**	**06 10 29.5**	**-0.3**
GCAM				AML	AML		
ARG	**Arkhangelos**	**0.87**	**136**	P	**Pb**	**06 10 29.8**	**-0.6**
ARG				S	**Sb**	**06 10 42.7**	**+0.6**
ARG				AML	AML		
AYDN	**Tasoluk**	**0.90**	**26**	P	**Pg**	**06 10 30.3**	**-0.4**
AYDN				S	**Sb**	**06 10 43.1**	**+0.1**
AYDN				IAML		06 10 46.0	
	comp=E,148nm,0.2s						
AYDN				IAML		06 10 49.0	
	comp=N,157nm,0.5s						
SMG	**Samos**	**0.96**	**333**	P	**Pg**	**06 10 30.6**	**-1.2**
SMG				S	**Sn**	**06 10 46.9**	**+0.5**
SMG				AML	AML		
DALY	**Dalyan (Mula)**	**1.02**	**91**	Pg	**Pb**	**06 10 33.0**	**0.0**
DALY				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.17**	**20**	Pn	**Pb**	**06 10 35.5**	**0.0**
AYDB				AML	AML		
DAGE	**izmir**	**1.19**	**14**	P	**Pn**	**06 10 35.0**	**-0.9**
DAGE				S	**Sb**	**06 10 51.1**	**-0.2**
DAGE				IAML		06 10 58.0	
	comp=N,54nm,0.3s						
DAGE				IAML		06 10 58.0	
	comp=E,80nm,0.4s						
KARP	**Karpathos**	**1.31**	**188**	P	**Pn**	**06 10 35.8**	**-1.8**
KARP				AML	AML		
IZMR	**zmir-demi**	**1.36**	**19**	P	**Pn**	**06 10 37.7**	**-0.5**
IZMR				S	**Sg**	**06 11 00.3**	**+3.1**
IZMR				IAML		06 11 01.0	
	comp=N,39nm,0.7s						
IZMR				IAML		06 11 05.0	
	comp=E,43nm,0.7s						
APE	**Apeiranthos**	**1.50**	**279**	P	**Pn**	**06 10 39.2**	**-0.9**
APE				S	**Sn**	**06 10 58.1**	**-1.6**
APE	**Apeiranthos**	**1.50**	**279**	Pn	**Pn**	**06 10 40.0**	**-0.1**
APE				AML	AML		
THERA	**Ancient Thera,**	**1.61**	**253**	P	**Pg**	**06 10 46.3**	**+2.2**
CHOS	**Chios island**	**1.86**	**326**	Pn	**Pn**	**06 10 44.6**	**-0.5**
GORD	**Gordes-Manisa**	**2.15**	**17**	Pn	**Pn**	**06 10 49.4**	**+0.3**

*IDC **10** 06:11:47.1±0.9, 12˚60N×140˚56E, h0km, mb4.0/10, mbtmp4.0/10, MS3.2/3, Error ellipse: s-maj=31.8km s-min=22.5km az=83.0*
*NEIC **10** 06:11:48.3±1.6, 12˚63N±0˚09×140˚6E±0˚1, h10km±1km, mb4.8/21, Error ellipse: s-maj=19.5km s-min=14.4km az=120.0*

ISC 10 06:11:51.2±0.6,12˚59N±0˚08×140˚6E±0˚1,h35km,n43, σ1°24/40,mb4.4/21,MS2.9/3,Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**4.28**	**76**	Pn	**Pn**	**06 12 52.6**	**-1.2**
JCJ	**Chichijima**	**14.50**	**6**	Pn	**Pn**	**06 15 11.6**	**-2.4**
JMZ	**Minamidaito 2**	**15.84**	**327**	Pn	**Pn**	**06 15 30.1**	**-1.5**
FAKI	**Fak Fak**	**17.50**	**209**	Pn	**Pn**	**06 15 51.9**	**-0.7**
LUWI	**Luwuk**	**22.28**	**234**	P	**P**	**06 16 45.5**	**-0.1**
LUWI				IAmb	IAmb	06 17 06.2	
	comp=Z,44nm,0.9s						
SAUI	**Saumlaki**	**22.43**	**205**	P	**P**	**06 16 46.4**	**-0.7**
JGF	**Kuroka**	**23.09**	**353**	P	**P**	**06 16 53.0**	**-0.9**
JGF				IAmb	IAmb	06 16 54.4	
	comp=Z,27nm,1.4s						
KSRS	**Korea Array**	**27.23**	**338**	LR	LR	06 27 00.5	
	comp=Z,30nm,20.9s,baz=135,slow=34						
JTM	**Tenmabayashi**	**28.09**	**1**	P	**P**	**06 17 39.0**	**-0.6**
HNR	**Honiara**	**29.13**	**138**	LR	LR	06 29 04.7	
	comp=Z,30nm,18.2s,baz=55,slow=36						
WB0	**Warramunga Arr**	**32.73**	**191**	P	**P**	**06 18 19.8**	**-1.0**
WB0				IAmb	IAmb	06 18 32.2	
	comp=Z,5.8nm,1.1s						
WRA	**Warramunga Arr**	**32.91**	**191**	P	**P**	**06 18 23.9**	**+1.6**
	comp=Z,0.4nm,0.6s,baz=9.8,slow=8.9,SNR=2.0						
	comp=Z,0.4nm,0.6s						
WRA	**Warramunga Arr**	**32.91**	**191**	P	**P**	**06 18 20.3**	**-2.1**
FITZ	**Fitzroy Crossi**	**33.88**	**206**	P	**P**	**06 18 30.6**	**-0.2**
AS31	**Alice Springs**	**36.63**	**190**	P	**P**	**06 18 54.1**	**-0.3**
ASAR	**Alice Springs**	**36.63**	**190**	P	**P**	**06 18 55.9**	**+1.4**
	comp=Z,0.3nm,0.7s,baz=18,slow=8.5,SNR=1.6						
	comp=Z,0.3nm,0.7s						
ASAR	**Alice Springs**	**36.63**	**190**	P	**P**	**06 18 54.2**	**-0.2**
CMAR	**Chiang Mai Arr**	**40.48**	**284**	P	**P**	**06 19 26.7**	**-0.3**
	comp=Z,1.0nm,0.3s,baz=82,slow=8.2,SNR=1.6						
	comp=Z,1.0nm,0.3s						
MORW	**Morawa**	**47.73**	**209**	P	**P**	**06 20 24.2**	**-0.6**
MKAR	**Makanchi Array**	**59.35**	**317**	P	**P**	**06 21 51.3**	**+1.4**
	comp=Z,0.7nm,0.8s,baz=97,slow=6.0,SNR=3.5						
	comp=Z,0.7nm,0.8s						
MKAR	**Makanchi Array**	**59.35**	**317**	P	**P**	**06 21 50.0**	**+0.1**
ZALV	**Zalesovo Beam**	**60.05**	**326**	P	**P**	**06 21 55.5**	**+1.0**
	comp=Z,0.7nm,0.4s,baz=108,slow=9.3,SNR=1.8						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**60.05**	**326**	P	**P**	**06 21 54.5**	**0.0**
KURK	**Kurchatov**	**62.69**	**321**	P	**P**	**06 22 13.8**	**+1.4**
KURK				IAmb	IAmb	06 22 14.7	
	comp=Z,3.5nm,0.7s						
KURBB	**Kurchatov Arra**	**62.72**	**321**	P	**P**	**06 22 14.3**	**+1.7**
	comp=Z,1.9nm,0.6s,baz=104,slow=7.0,SNR=9.5						
	comp=Z,1.9nm,0.6s						
CHGN	**Chignik**	**63.66**	**33**	P	**P**	**06 22 19.1**	**+0.3**
J16K	**Anvik River**	**65.05**	**25**	P	**P**	**06 22 28.2**	**+0.4**
J16K				IAmb	IAmb	06 22 31.4	
	comp=Z,16nm,0.8s						
BVAR	**Borovoye Array**	**68.14**	**322**	P	**P**	**06 22 49.4**	**+1.7**
	comp=Z,1.6nm,0.5s,baz=103,slow=6.2,SNR=4.9						
	comp=Z,1.6nm,0.5s						
BRLK	**Bradley Lake**	**68.42**	**30**	P	**P**	**06 22 50.6**	**+1.3**
BRLK				IAmb	IAmb	06 23 19.2	
	comp=Z,28nm,1.3s						
EYAK	**Cordova Ski Ar**	**71.09**	**30**	P	**P**	**06 23 07.5**	**+1.8**
EYAK				IAmb	IAmb	06 23 19.1	
	comp=Z,27nm,1.3s						
ILAR	**Eielson Array**	**71.25**	**26**	P	**P**	**06 23 08.6**	**+1.9**
	comp=Z,1.9nm,0.6s,baz=263,slow=7.1,SNR=36						
	comp=Z,1.9nm,0.6s						
ILAR	**Eielson Array**	**71.25**	**26**	P	**P**	**06 23 08.0**	**+1.4**
SCRK	**Sand Creek**	**72.37**	**27**	P	**P**	**06 23 14.8**	**+1.2**
SCRK				IAmb	IAmb	06 23 18.8	
	comp=Z,4.7nm,1.5s						
F26K	**Sheenjek River**	**72.84**	**23**	P	**P**	**06 23 18.0**	**+1.8**
F26K				IAmb	IAmb	06 23 22.9	
	comp=Z,4.2nm,1.1s						
I26K	**Coal Creek Min**	**72.90**	**25**	P	**P**	**06 23 17.8**	**+1.4**
I26K				IAmb	IAmb	06 23 19.1	
	comp=Z,5.2nm,1.2s						
BARN	**Barnard Glacie**	**73.14**	**30**	P	**P**	**06 23 19.0**	**+0.8**
BARN				IAmb	IAmb	06 23 36.8	
	comp=Z,25nm,1.5s						
AB31	**Akbulak array**	**74.48**	**318**	P	**P**	**06 23 26.9**	**+0.8**
ABKAR	**Akbulak array**	**74.48**	**318**	P	**P**	**06 23 27.2**	**+1.1**
PPT	**Papeete**	**75.16**	**112**	LR	LR	06 49 37.2	
	comp=Z,33nm,19.9s,baz=306,slow=30						
YKA	**Yellowknife Ar**	**85.64**	**27**	P	**P**	**06 24 28.0**	**+2.0**
	comp=Z,1.2nm,0.6s,baz=290,slow=5.2,SNR=2.8						
	comp=Z,1.2nm,0.6s						
FINES	**FINESS Array B**	**90.27**	**334**	P	**P**	**06 24 48.2**	**0.0**
	comp=Z,2.6nm,0.6s,baz=65,slow=4.7,SNR=15						
	comp=Z,2.6nm,0.6s						
FINES	**FINESS Array B**	**90.27**	**334**	P	**P**	**06 24 48.7**	**+0.6**
LPAZ	**La Paz**	**151.95**	**101**	PKPbc	**PKPbc**	**06 31 44.7**	**+0.4**
	comp=Z,1.2nm,0.6s,baz=253,slow=3.1,SNR=7.6						

*NEIC **10** 06:14:33.8±1.4, 27˚52S±0˚04×70˚81W±0˚07, h48km±6km, mb4.2/3,ML3.7(GUC), Error ellipse: s-maj=10.0km s-min=4.2km az=113.0*
*SJA **10** 06:14:34.2±0.7, 27˚55S×70˚67W, h51km±4km, ML3.7, MW3.8*
*GUC **10** 06:14:34.1±0.9, 27˚58S×70˚61W, h52km±3km, ML3.8, Presumed earthquake*

ISC 10 06:14:34.0±0.9,27˚52S±0˚03×70˚74W±0˚04,h42km±8km, n86,σ1°81/115,mb4.2/3,5C-2D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AC06	**Mina Casimiro**	**0.38**	**65**		**Pn**	**06 14 44.8**	**+1.3**
AC06				Sn	**Sn**	**06 14 51.8**	**+1.7**
AC06	**Mina Casimiro**	**0.38**	**65**	*eP*	**Pn**	**06 14 44.7**	**+1.3**
AC06				*i* S	**Sn**	**06 14 51.7**	**+1.7**
AC06				IAML		06 14 53.1	
	comp=E,5µm,0.2s						
GO03	**Copiapo**	**0.46**	**99**	*eP*	**Pn**	**06 14 45.2**	**+0.8**
GO03				*eS*	**Sn**	**06 14 52.5**	**+0.8**
GO03				IAML		06 14 53.4	
	comp=Z,3µm,0.3s						
GO03	**Copiapo**	**0.46**	**99**		**Pn**	**06 14 45.1**	**+0.8**
GO03				Sn	**Sn**	**06 14 52.4**	**+0.7**
GO03	**Copiapo**	**0.46**	**99**	*iP*	**Pn**	**06 14 44.9**	**+0.5**
GO03				*eS*	**Sn**	**06 14 52.1**	**+0.4**
AC04	**Llanos de Chal**	**0.74**	**203**	*eP*	**Pn**	**06 14 49.6**	**+1.6**
AC04				*eS*	**Sn**	**06 15 00.9**	**+2.7**
AC04				IAML		06 15 04.3	
	comp=Z,4µm,0.5s						
AC04	**Llanos de Chal**	**0.74**	**203**		**Pn**	**06 14 49.9**	**+1.7**
AC04	**Llanos de Chal**	**0.74**	**203**	*iP*	**Pn**	**06 14 49.8**	**+1.7**
AC04				*eS*	**Sn**	**06 15 01.1**	**+2.8**
AC04				IAML		06 15 03.6	
	comp=E,10µm,0.1s						
AC05	**El Transito**	**1.37**	**163**	*eP*	**Pn**	**06 14 57.9**	**+1.1**
AC05				*eS*	**Sn**	**06 15 15.6**	**+1.6**
AC05				IAML		06 15 18.7	
	comp=Z,1µm,0.6s						
AC05	**El Transito**	**1.37**	**163**		**Pn**	**06 14 58.0**	**+1.1**
AC05				Sn	**Sn**	**06 15 15.2**	**+1.3**
AC05	**El Transito**	**1.37**	**163**	*iP*	**Pn**	**06 14 57.9**	**+1.1**
AC05				*eS*	**Sn**	**06 15 15.2**	**+1.3**
AC01	**Pan de Azucar**	**1.38**	**5**	*eP*	**Pn**	**06 14 58.5**	**+1.8**
AC01				*eS*	**Sn**	**06 15 18.9**	**+5.1**
AC01				IAML		06 15 21.6	
	comp=Z,835nm,0.2s						
AC01	**Pan de Azucar**	**1.38**	**5**		**Pn**	**06 14 58.6**	**+1.8**
AC01	**Pan de Azucar**	**1.38**	**5**	*iP*	**Pn**	**06 14 58.5**	**+1.8**
AC01				*eS*	**Sn**	**06 15 18.3**	**+4.5**
AC01				IAML		06 15 20.9	
	comp=N,2µm,0.3s						
LCO	**Las Campanas**	**1.48**	**179**	*eP*	**Pn**	**06 14 59.3**	**+0.8**
LCO				*eS*	**Sn**	**06 15 18.0**	**+1.2**
LCO				IAML		06 15 21.2	
	comp=Z,2µm,0.2s						
LCO	**Las Campanas**	**1.48**	**179**	Pn	**Pn**	**06 14 59.4**	**+0.9**
LCO	**Las Campanas**	**1.48**	**179**	*eP*	**Pn**	**06 14 58.4**	**-0.1**
LCO				*eS*	**Sn**	**06 15 17.5**	**+0.6**
AC02	**Maricunga**	**1.59**	**65**	*eP*	**Pn**	**06 15 01.6**	**+1.4**
AC02				*eS*	**Sn**	**06 15 21.8**	**+2.0**
AC02				IAML		06 15 23.1	
	comp=Z,730nm,0.2s						
AC02	**Maricunga**	**1.59**	**65**		**Pn**	**06 15 01.8**	**+1.6**
AC02				Sn	**Sn**	**06 15 21.5**	**+1.7**
AC02	**Maricunga**	**1.59**	**65**	*iP*	**Pn**	**06 15 01.8**	**+1.6**
AC02				*eS*	**Sn**	**06 15 21.6**	**+1.7**
AC02				IAML		06 15 23.7	
	comp=E,2µm,0.1s						
CO05	**La Serena**	**2.43**	**190**		**Pn**	**06 15 10.7**	**-0.5**
CO05	**La Serena**	**2.43**	**190**	*eP*	**Pn**	**06 15 11.7**	**+0.5**
CO05				*eS*	**Sn**	**06 15 41.9**	**+2.2**
CO05				IAML		06 15 53.6	
	comp=N,2µm,0.4s						
CO01	**Juntas del Tor**	**2.51**	**167**	*eP*	**Pn**	**06 15 14.2**	**+1.6**
CO01				*eS*	Sn	**06 15 30.8**	**-11**
CO01				IAML		06 15 51.4	
	comp=Z,240nm,0.2s						
CO01	**Juntas del Tor**	**2.51**	**167**		**Pn**	**06 15 13.7**	**+1.1**
CO01	**Juntas del Tor**	**2.51**	**167**	*eP*	**Pn**	**06 15 14.2**	**+1.6**
CO01				*eS*	**Sn**	**06 15 44.7**	**+2.6**
CO01				IAML		06 15 54.8	
	comp=N,304nm,0.2s						
GO04	**Tololo Observa**	**2.64**	**181**	*eP*	**Pn**	**06 15 15.6**	**+1.2**
GO04				IAML		06 15 57.9	
	comp=Z,647nm,0.3s						
GO04	**Tololo Observa**	**2.64**	**181**		**Pn**	**06 15 15.2**	**+0.9**
GO04	**Tololo Observa**	**2.64**	**181**	*eP*	**Pn**	**06 15 15.5**	**+1.2**
GO04				*eS*	**Sn**	**06 15 47.0**	**+1.7**
AROD	**Rodeo**	**2.86**	**157**	*eP*	**Pn**	**06 15 20.4**	**+2.9**
AROD				*eS*	Sn	**06 16 07.4**	**+17**
TINO

PB07	**IPOC Station P**	**5.82**	**8**	Pn	**Pn**	**06 15 57.4**	**-0.7**
MT05	**Renca**	**5.85**	**180**	Pn	**Pn**	**06 15 57.5**	**-0.8**
PB09	**IPOC Station P**	**5.86**	**14**	Pn	**Pn**	**06 15 58.3**	**-0.3**
MT16	**CCHEN**	**5.89**	**178**	Pn	**Pn**	**06 15 58.4**	**-0.5**
MT08	**Bocatoma Ro**	**5.94**	**174**	Pn	**Pn**	**06 15 57.8**	**-1.8**
MT03	**Universidad Ad**	**5.96**	**178**	Pn	**Pn**	**06 15 59.3**	**-0.5**
MT13	**San Alfonso**	**6.21**	**176**		**Pn**	**06 16 02.6**	**-0.7**
MT09	**Talagante**	**6.24**	**182**		**Pn**	**06 16 02.7**	**-0.9**
MT01	**Popeta**	**6.34**	**184**		**Pn**	**06 16 04.5**	**-0.4**
BO04	**La Punta**	**6.45**	**179**	Pn	**Pn**	**06 16 05.9**	**-0.6**
BO01	**Tunca**	**6.85**	**182**		**Pn**	**06 16 11.8**	**-0.2**
TA01	**Diego Aracena**	**6.94**	**4**	Pn	**Pn**	**06 16 12.3**	**-1.0**
BO02	**Sierra Bellavi**	**7.25**	**180**		**Pn**	**06 16 16.1**	**-1.3**
PB08	**IPOC Station P**	**7.49**	**12**	Pn	**Pn**	**06 16 20.1**	**-1.1**
GO05	**Hualane**	**7.53**	**187**	Pn	**Pn**	**06 16 20.4**	**-0.9**
GO01	**Chusmiza**	**7.95**	**11**	Pn	**Pn**	**06 16 26.6**	**-0.8**
LPAZ	**La Paz**	**11.44**	**13**	Pn	**Pn**	**06 17 14.5**	**-0.9**
CCIG	**Comitan**	**48.23**	**332**	P	**P**	**06 23 10.0**	**-1.0**
CCIG				IAmb	IAmb	06 23 13.2	
	comp=Z,4.2nm,1.1s						
SNAA	**Sanae**	**57.20**	**160**	P	**P**	**06 24 16.0**	**-0.5**
SNAA				IAmb	IAmb	06 24 16.4	
	comp=Z,1.4nm,0.6s						
ZAIG	**Zacatecas**	**58.69**	**325**	P	**P**	**06 24 27.0**	**-0.8**
ZAIG				IAmb	IAmb	06 24 27.7	
	comp=Z,2.1nm,1.0s						
QSPA	**South Pole Qui**	**62.69**	**180**	P	**P**	**06 24 53.9**	**-0.5**
WMQ	**Urumqi**	**156.21**	**41**	PKPab	**PKPab**	**06 34 53.7**	**+1.8**
WMQ	**Urumqi**	**156.21**	**41**	*e*PKP	**PKPdf**	**06 34 23.0**	**-1.0**
WMQ	**Urumqi**	**156.21**	**41**	sPKP		06 34 43.0	
HHC	**Hu-ho-hao-te**	**166.57**	**352**	*e*P	**PKPdf**	**06 34 35.1**	**+0.1**

WEL 10 06:15:53.4±1.2, 34°S±14′×17°9W±1′4, h136km±74km, M4.2/12, mB4.7/5, ML4.1/10, MLv4.4/12, Mw(mB)3.9/5, Error ellipse: s-maj=18.8km s-min=17.1km az=143.3, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**4.49**	**211**	P	Pn	06 16 57.6	-2.0
MXZ				S	Sn	06 17 51.5	+0.3
WMGZ	**Waiomatatini S**	**4.66**	**208**	P	Pn	06 17 02.5	+0.5
WMGZ				S	Sn	06 17 58.0	+2.6
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**4.84**	**210**	P	Pn	06 17 03.4	-1.0
PKGZ				S	Sn	06 17 59.3	-0.3
PKGZ				AML	AML		
HAZ	**Te Kaha**	**4.88**	**213**	P	Pn	06 17 04.9	+0.1
HAZ				S	Sn	06 18 03.6	+3.1
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**4.94**	**208**	P	Pn	06 17 05.2	-0.5
PUZ				S	Sn	06 18 01.6	-0.5
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.10**	**213**	P	Pn	06 17 07.6	-0.3
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.14**	**209**	P	Pn	06 17 08.7	+0.2
TWGZ				S	Sn	06 18 08.5	+1.5
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.32**	**206**	P	Pn	06 17 11.1	+0.3
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**5.42**	**209**	P	Pn	06 17 11.8	-0.2
TKGZ				S	Sn	06 18 12.7	-0.8
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**5.47**	**212**	P	Pn	06 17 12.6	-0.2
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**5.60**	**215**	P	Pn	06 17 13.1	-1.3
URZ				S	Sn	06 18 15.7	-2.0
RIGZ	**Rimuhau**	**5.69**	**208**	P	Pn	06 17 15.7	0.0
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**5.83**	**206**	P	Pn	06 17 16.2	-1.4
MUGZ	**Murupara**	**5.93**	**216**	P	Pn	06 17 14.7	-4.3
MUGZ				S	Sn	06 18 26.0	+0.2
MBAZ	**Motutapu North**	**5.97**	**238**	P	Pn	06 17 22.4	+3.0
MBAZ				AML	AML		
MBAZ				AML	AML		
WCZ	**Waipu Caves**	**6.03**	**247**	P	Pn	06 17 19.4	-0.9
TOZ	**Tahuroa Road**	**6.10**	**227**	P	Pn	06 17 23.8	+2.6
TOZ				AML	AML		
TOZ				AML	AML		
RAHZ	**Arahi**	**6.14**	**211**	P	Pn	06 17 22.8	+1.0
RAHZ				AML	AML		
MTHZ	**Maungataniwha**	**6.20**	**213**	P	Pn	06 17 23.5	+0.9
MTHZ				S	Sn	06 18 32.6	+0.3
MTHZ				AML	AML		
MTHZ				AML	AML		
OUZ	**Omahuta**	**6.43**	**254**	P	Pn	06 17 23.5	-2.1
OUZ				AML	AML		

ISK 10 06:35:12.0, 36°60N×27°59E, h83km±1km, ML1.9/10, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAT	**Datca**	**0.13**	**356**	Pg	Pn	06 35 24.5	+0.4
DAT				Sg	Sn	06 35 33.8	+0.7
DAT				AML	AML		
TURN	**Turunc**	**0.56**	**72**	Pg	Pn	06 35 26.9	+0.4
TURN				Sg	Sn	06 35 38.2	+0.9
TURN				AML	AML		
ARG	**Arkhangelos**	**0.58**	**131**	Pg	Pn	06 35 27.1	+0.3
ARG				Sg	Sn	06 35 38.7	+1.0
ARG				AML	AML		
MLSB	**Milas**	**0.71**	**12**	Pg	Pn	06 35 28.7	+0.6
MLSB				Sg	Sn	06 35 40.6	+0.6
MLSB				AML	AML		
YER	**Yerkesik**	**0.77**	**46**	Pg	Pn	06 35 29.6	+0.9
YER				Sg	Sn	06 35 41.9	+0.7
YER				AML	AML		
DALY	**Dalyan (Mula)**	**0.88**	**76**	Pg	Pn	06 35 31.1	+1.2
DALY				Sg	Sn	06 35 44.4	+1.2
DALY				AML	AML		
FETY	**Fethiye**	**1.20**	**88**	Pn	Pn	06 35 34.6	+0.9
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.42**	**76**	Pn	Pn	06 35 37.7	+1.2
CAME				AML	AML		
APMY	**Acipayam-Deniz**	**1.62**	**57**	Pn	Pn	06 35 40.3	+1.2
AKAS	**Kas**	**1.67**	**102**	Pn	Pn	06 35 40.9	+1.2
AKAS				AML	AML		

AFAD 10 06:35:55.6, 38°29N×26°27E, h7km±6km, ML1.1, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZEYE	**Izmir, Urla-Ze**	**0.19**	**105**	P	Pg	06 35 59.4	0.0
ZEYE				S	Sg	06 36 03.8	+1.8
ZEYE				IAML		06 36 04.0	
	comp=N,53nm,0.2s						
ZEYE				IAML		06 36 04.0	
	comp=E,61nm,0.6s						
BEYE	**izmir**	**0.52**	**97**	P	Pb	06 36 06.8	-0.2
BEYE				S	Sb	06 36 13.9	-0.9
BEYE				IAML		06 36 18.0	
	comp=E,9.3nm,0.2s						
BEYE				IAML		06 36 25.0	
	comp=N,12nm,1.9s						
DGB	**zmir**	**0.54**	**116**	P	Pg	06 36 05.7	-0.3
DGB				S	Sg	06 36 12.8	-0.2
DGB				IAML		06 36 29.0	
	comp=N,17nm,1.8s						
DGB				IAML		06 36 31.0	
	comp=E,18nm,2.0s						

*BJI **10** 06:49:54.7, 56°32N×114°41E, h5km, mB4.7/4, mb4.3/13, Ms4.4/13, Ms7.4 2/13*
*NEIC **10** 06:49:56.9±1.9, 55°98N±0°07×113°9E±0°1, h10km±1km, mb4.5/52, Error ellipse: s-maj=12.5km s-min=11.3km az=57.0*
*IDC **10** 06:49:56.3±0.6, 55°94N×113°95E, h0km, mb3.8/15, mbtmp4.0/23, ML4.2/7, MS3.6/35, Error ellipse: s-maj=11.2km s-min=8.7km az=150.0*
*MOS **10** 06:49:56.1±1.6, 56°04N×114°02E, h15km, mb4.6/19, MS3.9/5, Error ellipse: s-maj=7.4km s-min=5.6km az=70.9*
MOS Felt (III) at Severomuysk; (II) at Taksimo.
*BYKL **10** 06:49:58.1±0.1, 56°06N×113°89E, h9km±2km, FELT I=III MSK at Severomuisk; II at Taksimo.*

ISC 10 06:49:55.3±0.8, 55°93N×107°02×113°85E±0°02, h3km±5km, n215, n2≥29/268, mb4.4/43, MS3.6/34, 13C-9D, East of Lake Baykal

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SVKR	**Severomuysk**	**0.25**	**320**	⇑*i*Pg	**Pg**	**06 50 01.7**	**+1.6**
SVKR				Pmax		06 50 02.1	
	24μm,0.2s						
SVKR				*e*Sg	**Sg**	**06 50 05.3**	**+1.9**
SVKR				Smax		06 50 05.5	
	187μm,0.2s						
SVKR	**Severomuysk**	**0.25**	**320**	⇑*i*PG	**Pg**	**06 50 01.7**	**+1.6**
SVKR				*e*		06 50 04.9	
SVKR				pmax	pmax		
	comp=Z,25μm,0.2s						
SVKR				smax	smax		
	comp=N,207μm,0.5s						
UKT	**Uakit**	**0.46**	**196**	⇑*i*Pg	**Pn**	**06 50 08.2**	**-0.6**
UKT				Pmax		06 50 08.7	
	comp=N,2μm,0.3s						
UKT				*e*Sg	**Sb**	**06 50 16.2**	**+3.0**
UKT				Smax		06 50 17.0	
	comp=N,15μm,1.0s						
UKT	**Uakit**	**0.46**	**196**	⇑*i*PG	**Pn**	**06 50 08.2**	**-0.6**
UKT				*e*		06 50 15.9	
UKT				pmax	pmax		
	comp=Z,1μm,0.2s						
UKT				smax	smax		
	comp=N,11μm,0.6s						
NLYR	**Nelyaty**	**1.18**	**61**	⇓*i*Pg	**Pg**	**06 50 17.7**	**-0.2**
NLYR	comp=N,205nm,1.2s			⇓*i*Pg	**Pg**	**06 50 17.7**	**-0.2**
NLYR	comp=N,239nm,1.2s			⇓*i*Pg	**Pg**	**06 50 17.7**	**-0.2**
	comp=N,1μm,1.2s						
NLYR				*e*Pb	**Pn**	**06 50 20.2**	**+1.5**
NLYR				max		06 50 20.7	
	comp=N,2μm,0.3s						
NLYR				*e*Sg	**Sg**	**06 50 33.1**	**-0.1**
NLYR				*e*Sb	**Sn**	**06 50 37.3**	**+2.1**
NLYR				max		06 50 41.0	
	comp=N,9μm,0.5s						
NLYR	**Nelyaty**	**1.18**	**61**	⇓*i*PG	**Pb**	**06 50 17.6**	**-0.7**
NLYR				*e*		06 50 32.3	
NLYR				pmax	pmax		
	comp=Z,2μm,0.2s						
NLYR				smax	smax		
	comp=E,9μm,0.9s						
YOAB	**Uoyan, Buryati**	**1.21**	**281**	⇓*i*Pg	**Pg**	**06 50 20.2**	**+1.7**
YOAB				Pmax		06 50 20.3	
	comp=E,1μm,0.2s						
YOAB				*e*Sg	**Sn**	**06 50 36.9**	**+0.9**
YOAB				*e*Sb	**Sg**	**06 50 40.6**	**+6.4**
YOAB				max		06 50 46.1	
	comp=E,8μm,0.4s						
YOAB	**Uoyan, Buryati**	**1.21**	**281**	*e*PG	**Pg**	**06 50 20.1**	**+1.6**
YOAB				*e*		06 50 36.2	
YOAB				pmax	pmax		
	comp=Z,985nm,0.2s						
YOAB				smax	smax		
	comp=E,8μm,0.4s						
KMO	**Kumora**	**1.49**	**270**	*e*Pg	**Pg**	**06 50 25.3**	**+1.5**
KMO				*e*Pb	**Pb**	**06 50 26.7**	**+3.1**
KMO				max		06 50 26.8	
	comp=E,4μm,0.4s						
KMO				*e*Sg	**Sg**	**06 50 45.2**	**+2.1**
KMO				*e*		06 50 48.6	
KMO				max		06 50 48.9	
	comp=E,14μm,1.1s						
KMO	**Kumora**	**1.49**	**270**	⇓*i*PN	**Pg**	**06 50 25.1**	**+1.3**
KMO				*e*		06 50 44.9	
KMO				pmax	pmax		
	comp=Z,4μm,0.4s						
KMO				smax	smax		
	comp=N,14μm,1.0s						
YLYR	**Ulyunkhan**	**1.86**	**237**	*e*Pn	**Pg**	**06 50 32.3**	**+1.4**
YLYR				⇓*i*Pg	**Pb**	**06 50 32.9**	**+3.1**
YLYR				Pmax		06 50 35.9	
	comp=N,1μm,0.3s						
YLYR				*e*Sg	**Sg**	**06 50 59.0**	**+4.1**
YLYR				Smax		06 51 01.7	
	comp=N,6μm,0.3s						
YLYR	**Ulyunkhan**	**1.86**	**237**	⇑*i*PN	**Pg**	**06 50 32.3**	**+1.4**
YLYR				*e*		06 50 58.7	
YLYR				pmax	pmax		
	comp=Z,1μm,0.3s						
YLYR				smax	smax		
	comp=E,6μm,0.3s						
BOD	**Bodaibo**	**1.90**	**3**	⇑*i*Pg	**Pb**	**06 50 29.3**	**-1.2**
BOD				Pmax		06 50 30.4	
	comp=E,3μm,0.8s						
BOD				*e*Sg	**Sb**	**06 50 52.9**	**-1.7**
BOD				Smax		06 51 02.7	
	comp=E,3μm,0.4s						
NIZB	**Nizh Angarsk**	**2.43**	**268**	*e*Pn	**Pb**	**06 50 39.4**	**-0.2**
NIZB				*e*Pg	**Pg**	**06 50 42.4**	**+0.6**
NIZB				Pmax		06 50 46.6	
	comp=E,2μm,1.6s						
NIZB				*e*Sn	**Sb**	**06 51 08.8**	**-1.1**
NIZB				*e*Sg	**Sg**	**06 51 15.1**	**+1.8**
NIZB				Smax		06 51 17.4	
	comp=E,3μm,1.1s						
NIZB	**Nizh Angarsk**	**2.43**	**268**	*e*PN	**Pb**	**06 50 39.4**	**-0.2**
NIZB				*e*		06 50 42.3	
NIZB				*e*		06 51 13.0	
NIZB				pmax	pmax		
	comp=Z,433nm,0.6s						
NIZB				smax	smax		
	comp=E,2μm,0.5s						
CRS	**Chara**	**2.64**	**67**	*e*Pn	**Pb**	**06 50 40.7**	**-2.5**
CRS				*e*Pg	**Pg**	**06 50 44.9**	**-1.0**
CRS				Pmax		06 50 45.8	
	comp=E,4μm,1.1s						
CRS				*e*Sg	**Sg**	**06 51 18.4**	**-1.7**
CRS				Smax		06 51 28.3	
	comp=E,5μm,1.7s						
CRS	**Chara**	**2.64**	**67**	*e*PN	**Pb**	**06 50 40.7**	**-2.5**
CRS				*e*		06 50 44.8	
CRS				*e*		06 51 18.4	
CRS				pmax	pmax		
	comp=Z,2μm,0.7s						
CRS				smax	smax		
	comp=E,3μm,0.7s						
SYVR	**Suvo**	**3.18**	**226**	*e*Pn	**Pb**	**06 50 50.4**	**-2.0**
SYVR				*e*Pg	**Pg**	**06 50 57.4**	**+1.2**
SYVR				Pmax		06 51 03.8	
	comp=E,399nm,1.2s						
SYVR				*e*Sg	**Sg**	**06 51 40.0**	**+2.6**
SYVR				*e*		06 51 48.3	
SYVR				max		06 51 51.2	
	comp=E,5μm,1.7s						
SYVR	**Suvo**	**3.18**	**226**	*e*PN	**Pb**	**06 50 50.2**	**-2.2**
SYVR				*e*		06 50 56.3	
SYVR				*e*		06 51 39.6	
SYVR				pmax	pmax		
	comp=Z,327nm,1.2s						
SYVR				smax	smax		
	comp=N,5μm,1.4s						
KHNR	**Khani**	**3.55**	**71**	*e*Pn	**Pn**	**06 50 53.7**	**+2.5**
KHNR				*e*Pg	**Pg**	**06 51 01.1**	**-2.1**
KHNR				*e*Sg	**Sg**	**06 51 47.3**	**-1.8**
VTMR	**Vitim**	**3.59**	**349**	*e*Pn	**Pn**	**06 50 52.5**	**+0.8**
VTMR				*e*Pg	**Pb**	**06 50 59.7**	**+0.4**
VTMR				*e*Sg	**Sb**	**06 51 44.3**	**+1.1**
TUP	**Tupik**	**3.81**	**111**	⇑*i*Pn	**Pn**	**06 50 57.8**	**+3.0**
TUP				*e*Pg	**Pg**	**06 51 06.5**	**-1.7**
TUP				Pmax		06 51 12.2	
	comp=N,382nm,0.8s						
TUP				*e*Sn	**Sn**	**06 51 41.9**	**+1.8**
TUP				*e*Sg	**Sg**	**06 51 57.0**	**-0.5**
TUP				*e*SgSg	**SbSb**	**06 52 01.5**	**+6.8**
TUP				max		06 52 02.6	
	comp=N,4μm,1.1s						
TUP	**Tupik**	**3.81**	**111**	⇓*i*PN	**Pn**	**06 50 57.1**	**+2.3**
TUP				*e*		06 51 06.8	
TUP				*e*S	**Sn**	**06 51 41.5**	**+1.4**
TUP				*e*		06 51 56.5	
TUP				pmax	pmax		
	comp=Z,383nm,0.8s						
TUP				smax	smax		
	comp=E,4μm,0.9s						
CIT	**Chita**	**3.92**	**183**	*e*Pn	**Pn**	**06 50 59.4**	**+3.1**
CIT				*e*Pg	**Pg**	**06 51 10.0**	**-0.3**
CIT				Pmax		06 51 12.0	
	comp=E,507nm,0.5s						
CIT				*e*Sg	**Sg**	**06 52 02.6**	**+1.6**
CIT				Smax		06 52 05.7	
	comp=E,3μm,1.4s						
CIT	**Chita**	**3.92**	**183**	*e*PN	**Pn**	**06 50 59.3**	**+3.0**
CIT				*e*		06 51 10.1	
CIT				*e*S	**Sn**	**06 51 46.3**	**+3.6**
CIT				*e*		06 52 02.3	
CIT				pmax	pmax		
	comp=Z,507nm,1.3s						
CIT				smax	smax		
	comp=N,2μm,1.3s						
MXMB	**Maximikha**	**3.99**	**230**	*e*Pn	Pb	06 51 01.6	-4.6
MXMB				*e*Pg	**Pg**	**06 51 12.3**	**+0.6**
MXMB				*e*Sn	**Sn**	**06 51 47.7**	**+3.2**
MXMB				*e*Sg	**Sg**	**06 52 06.0**	**+2.6**
MXMB				*e*		06 52 23.0	
OGRR	**Ongureny**	**4.28**	**240**	*e*Pn	**Pn**	**06 51 05.2**	**+4.0**
OGRR				*e*Pg	**Pg**	**06 51 16.2**	**-1.0**
OGRR				Pmax		06 51 18.3	
	comp=N,318nm,1.0s						
OGRR				*e*Sg	**Sg**	**06 52 12.5**	**-0.2**
OGRR				*e*		06 52 17.1	
OGRR				max		06 52 19.6	
	comp=N,1μm,1.1s						
OGRR	**Ongureny**	**4.28**	**240**	*e*PN	**Pn**	**06 51 05.1**	**+3.9**
OGRR				*e*		06 51 16.3	
OGRR				*e*		06 52 11.3	
OGRR				pmax	pmax		
	comp=Z,347nm,2.3s						
OGRR				smax	smax		
	comp=N,1μm,2.1s						
GORB	**Goryachinsk**	**4.38**	**230**	*e*Pn	**Pn**	**06 51 06.8**	**+4.2**
GORB				*e*Pg	**Pg**	**06 51 18.7**	**-0.5**
GORB				*e*Sg	**Sg**	**06 52 17.0**	**+1.1**
YKLR	**Yuktali**	**4.40**	**78**	*e*Pn	**Pn**	**06 51 04.6**	**+1.7**
YKLR				*e*Pg	**Pb**	**06 51 15.9**	**+2.7**
YKLR				*e*Sg	**Sg**	**06 52 13.0**	**-3.6**
UZR	**Uzur**	**4.41**	**236**	*e*Pn	**Pn**	**06 51 07.3**	**+4.4**
UZR				*e*Pg	**Pg**	**06 51 18.4**	**-1.2**
UZR				Pmax		06 51 22.1	
	comp=N,149nm,1.1s						
UZR				*e*Sg	**Sg**	**06 52 16.1**	**-0.5**
UZR				Smax		06 52 23.8	
	comp=N,1μm,1.5s						
KELR	**Kotokel**	**4.63**	**229**	*e*Pn	**Pn**	**06 51 10.3**	**+4.3**
KELR				*e*Pg	**Pg**	**06 51 23.5**	**-0.4**
KELR				*e*Sn	**Sn**	**06 52 03.2**	**+2.9**
KELR				*e*Sg	**Sg**	**06 52 25.0**	**+1.1**
TRG	**Tyrgan**	**5.41**	**237**	*e*Pn	Pn	06 51 21.3	+4.5
TRG				*e*Pg	**Pg**	**06 51 36.4**	**-2.5**
TRG				Pmax		06 51 44.6	
	comp=N,93nm,1.2s						
TRG				*e*Sg	**Sg**	**06 52 48.2**	**-0.8**
TRG				Smax		06 52 50.5	
	comp=N,564nm,1.4s						
TRG	**Tyrgan**	**5.41**	**237**	*e*PN	**Pn**	**06 51 20.1**	**+3.3**
TRG				*e*		06 51 36.4	
TRG				*e*S	**Sn**	**06 52 22.4**	**+2.8**
TRG				*e*		06 52 47.2	
TRG				pmax	pmax		
	comp=Z,93nm,0.9s						
TRG				smax	smax		
	comp=N,535nm,0.6s						
UUDB	**Ulan-Yde**	**5.47**	**225**	*e*Pn	**Pn**	**06 51 21.5**	**+4.0**
UUDB				*e*Pg	**Pg**	**06 51 38.2**	**-1.7**
UUDB				Pmax		06 51 47.7	
	comp=N,156nm,1.0s						
UUDB				*e*Sg	**Sg**	**06 52 50.9**	**+0.2**
UUDB				Smax		06 52 55.7	
	comp=N,4μm,2.1s						
FFNB	**Fofonovo**	**5.71**	**230**	*e*Pn	**Pn**	**06 51 24.7**	**+3.9**
FFNB				*e*Pg	**Pg**	**06 51 43.1**	**-1.4**
FFNB				*e*Sg	**Sg**	**06 52 58.8**	**+0.4**
KAB	**Kabansk**	**5.75**	**231**	*e*Pg	**Pg**	**06 51 43.1**	**-2.3**
KAB				Pmax		06 51 47.1	
	comp=N,211nm,0.3s						
KAB				*e*Sg	**Sg**	**06 52 58.9**	**-0.9**
KAB				Smax		06 53 42.3	
	comp=N,3μm,1.6s						
STDB	**Stepnoy Dvoret**	**5.79**	**233**	*e*Sg	**Sg**	**06 52 59.8**	**-1.4**
HRMR	**Khuramsha**	**5.94**	**226**	*e*Pn	Pn	06 51 28.5	+4.5
HRMR				*e*Pg	**Pg**	**06 51 47.6**	**-1.3**
HRMR				Pmax		06 51 48.9	
	comp=N,164nm,1.0s						
HRMR				*e*Sg	**Sg**	**06 53 06.2**	**+0.5**
HRMR				Smax		06 53 17.2	
	comp=N,1μm,0.7s						
CLNS	**Chul'man**	**6.20**	**77**	*e*Pn	**Pn**	**06 51 29.9**	**+2.3**
CLNS				*e*Pg	Pg	06 51 48.6	-5.4
CLNS				*e*Sg	**Sg**	**06 53 09.1**	**-5.2**
KPC	**Khapcheranga**	**6.30**	**189**	*e*Pn	**Pn**	**06 51 32.0**	**+3.1**
KPC				*e*Pg	**Pg**	**06 51 54.3**	**-1.5**
KPC				Pmax		06 51 57.3	
	comp=N,81nm,0.7s						
KPC				*e*Sn	**Sn**	**06 52 44.8**	**+3.4**
KPC				*e*Sg	**Sg**	**06 53 17.7**	**+0.4**
KPC				Smax		06 53 27.3	
	comp=N,1μm,1.8s						
KPC	**Khapcheranga**	**6.30**	**189**	*e*PN	**Pn**	**06 51 32.1**	**+3.1**
KPC				*e*		06 51 52.5	
KPC				*e*		06 53 15.9	
KPC				pmax	pmax		
	comp=Z,80nm,0.6s						
KPC				smax	smax		
	comp=E,1μm,1.8s						
BGT	**Bolshoye Golou**	**6.32**	**236**	*e*	**Pb**	**06 51 44.5**	**-1.2**
BGT				*e*Pg	**Pg**	**06 51 53.2**	**-3.0**
BGT				Pmax		06 51 58.7	
	comp=E,68nm,2.1s						
BGT				*e*Sg	**Sg**	**06 53 16.8**	**-1.1**
BGT				Smax		06 53 28.4	
	comp=E,457nm,1.1s						
LSTR	**Listvyanka**	**6.70**	**236**	*e*Pn	**Pn**	**06 51 38.0**	**+3.6**
LSTR				*e*Pg	**Pg**	**06 52 00.5**	**-3.0**
LSTR				Pmax		06 52 02.2	
	comp=E,49nm,2.2s						
LSTR				*e*Sg	**Sg**	**06 53 28.5**	**-1.7**
LSTR				Smax		06 53 36.2	
	comp=E,731nm,1.7s						
IRK	**Irkutsk**	**6.73**	**241**	*e*Pg	**Pg**	**06 52 01.3**	**-2.8**
IRK				Pmax		06 52 04.0	
	comp=E,101nm,0.1s						
IRK				*e*Sg	**Sg**	**06 53 29.6**	**-1.7**
IRK				Smax		06 53 34.0	
	comp=E,1μm,1.3s						
IRK	**Irkutsk**	**6.73**	**241**	*e*PG	Pg	06 51 59.4	-4.7
IRK				*e*		06 53 26.8	
IRK				pmax	pmax		
	comp=Z,117nm,0.1s						
IRK				smax	smax		
	comp=N,1μm,1.0s						
IVK	**Ivanovka**	**6.94**	**237**	*e*Pn	Pn	06 51 43.2	+5.5
IVK				*e*Pg	Pg	06 52 04.1	-4.0
IVK				Pmax		06 52 05.8	
	comp=N,56nm,0.9s						
IVK				*e*Sg	**Sg**	**06 53 35.2**	**-2.8**
IVK				Smax		06 53 43.4	
	comp=N,920nm,1.7s						
HILR	**Hailar Array B**	**7.32**	**148**	Pn	**Pn**	**06 51 44.0**	**+1.1**
	baz=330,slow=12						
HILR				Sn	**Sn**	**06 53 08.1**	**+1.7**
	baz=335,slow=13						
HILR				Lg	Lg	06 53 46.5	
	baz=333,slow=24 comp=N,7.2nm,0.3s						
TLY	**Talaya**	**7.39**	**239**	Pn	**Pn**	**06 51 46.1**	**+2.2**
	comp=N,0.3nm,0.3s,baz=49,slow=9.3,SNR=1.7						
TLY				Pg	Pg	06 52 10.8	-5.9
	comp=N,1.5nm,0.3s,baz=10.0,slow=5.6,SNR=9.0						
TLY				Lg	Lg	06 53 46.4	
	comp=N,7.9nm,0.3s,baz=112,slow=19,SNR=12						
TLY				LR	LR	06 54 36.1	
	comp=N,598nm,19.9s,baz=40,slow=38 comp=N,1.2nm,0.3s						
TLY				AML	AML		

TLY Talaya 7.39 239 *e*Pn Pn **06 51 47.1 +3.2**
TLY *e*Pg Pg 06 52 11.7 -4.9
TLY Pmax 06 52 17.6
comp=N,53nm,1.6s
TLY *e*Sn **Sn** **06 53 09.3 +1.2**
TLY *e*Sg **Sg** **06 53 48.6 -3.6**
TLY Smax 06 54 03.8
comp=N,425nm,1.5s
TLY Talaya 7.39 239 Pn **06 51 43.3 -0.5**
HIA Hailar 7.57 149 *e*Pn Pn 06 51 51.0 +4.6
HIA *e*Pg Pg 06 52 15.4 -4.8
HIA Pmax 06 52 19.7
comp=N,58nm,1.4s
HIA *e*Sn **Sn** **06 53 14.4 +1.7**
HIA *e*Sg **Sg** **06 53 54.6 -3.6**
HIA Smax 06 54 14.2
comp=N,4µm,3.2s
HIA Hailar 7.57 149 PN **Pn** **06 51 46.2 -0.2**
HIA Hailar 7.57 149 Pn **Pn** **06 51 46.2 -0.2**
ARS Arshan 7.85 244 *e*Pn **Pn** **06 51 53.3 +3.1**
ARS *e* 06 52 03.6
ARS *e*Pg Pg 06 52 20.6 -4.8
ARS Pmax 06 52 24.0
comp=N,53nm,0.5s
ARS *e*Sg **Sg** **06 54 03.0 -3.9**
ARS Smax 06 54 11.6
comp=N,1µm,1.1s
ZEA Zeya 8.04 100 *e*PN **Pn** **06 51 55.6 +2.8**
ZEA *e* 06 54 09.6
ZEA pmax pmax
comp=E,20nm,0.5s
ZEA pmax pmax
comp=Z,20nm,0.6s
ZEA MLR MLR
comp=E,1µm,5.0s
ZEA MLR MLR
comp=Z,1µm,6.0s
ZAK Zakamensk 8.43 233 *e*Pn Pn 06 52 03.5 +5.2
ZAK max 06 52 08.5
comp=Z,35nm,1.2s
ZAK *e*Sg **Sg** **06 54 21.5 -4.2**
ZAK Smax 06 54 57.6
comp=Z,230nm,1.8s
ZAK Zakamensk 8.43 233 *e*PN Pn 06 52 05.0 +6.7
ZAK *e* 06 52 32.8
ZAK *e* 06 54 20.0
ZAK pmax pmax
comp=Z,21nm,0.8s
ZAK smax smax
comp=N,230nm,1.5s
MOY Mondy 8.72 246 *e*Pn Pn 06 52 07.1 +4.9
MOY *e* 06 52 18.2
MOY max 06 52 20.5
comp=N,68nm,1.6s
MOY *e* 06 54 00.6
MOY *e*Sg **Sg** **06 54 29.6 -5.4**
MOY Smax 06 54 34.6
comp=N,740nm,1.4s
MOY Mondy 8.72 246 *e*PN Pn 06 52 07.2 +5.0
MOY *e* 06 52 37.1
MOY *e* 06 54 28.4
MOY pmax pmax
comp=Z,42nm,0.9s
MOY smax smax
comp=N,741nm,1.4s
ORL Orlik 8.89 253 *e*Pn **Pn** **06 52 09.0 +4.4**
ORL *e* 06 52 18.1
ORL *e*Pg Pg 06 52 38.8 -6.6
ORL Pmax 06 52 57.6
comp=N,48nm,1.3s
ORL *e*Sn **Sn** **06 53 46.1 +0.8**
ORL *e* 06 54 08.2
ORL *e*Sg **Sg** **06 54 34.9 -5.6**
ORL Smax 06 54 41.5
comp=N,363nm,1.4s
ULN Ulaanbaatar 9.10 210 *e*Pn **Pn** **06 52 11.6 +4.2**
ULN *e*Pg 06 52 44.8
ULN *e*Sn Sn 06 54 21.4 +31
ULN *e*Sg 06 54 44.6
ULN Ulaanbaatar 9.10 210 *i* P Pn 06 52 15.1 +7.7
ULN Ulaanbaatar 9.10 210 Pn **Pn** **06 52 07.5 +0.1**
SONM Songino Array 9.32 213 Pn **Pn** **06 52 13.1 +2.7**
comp=N,0.8nm,0.3s,baz=26,slow=14,SNR=9.4
SONM Lg Lg 06 54 47.1
comp=N,1.9nm,0.3s,baz=36,slow=27,SNR=5.2
SONM LR LR 06 56 02.3
comp=N,241nm,21.9s,baz=36,slow=39
comp=N,1.2nm,0.3s
SONM AML AML
SONM Songino Array 9.32 213 Pn **Pn** **06 52 11.1 +0.7**
HEH HeiHe 9.93 119 *e*P **Pn** **06 52 20.5 +1.8**
HEH S **Sn** **06 54 12.5 +1.9**
HEH SMN
comp=N,690nm,1.0s
HEH SME
comp=N,770nm,1.1s
YAK Yakutsk 10.19 47 Pn **Pn** **06 52 23.0 +0.8**
comp=N,8.1nm,0.3s,baz=242,slow=0.9,SNR=1.4
YAK Sn **Sn** **06 54 14.1 -2.7**
comp=N,6.3nm,0.3s,baz=256,slow=4.2,SNR=1.5
YAK Lg Lg 06 55 06.2
comp=N,8.0nm,0.3s,baz=270,slow=20,SNR=13
comp=N,24nm,0.4s
YAK AML AML
KNGR Kungurtug, Tuv 11.13 248 *i* P Pn 06 52 40.7 +5.5
KLR Kul'dur 12.76 114 Pn **Pn** **06 53 00.1 +2.6**
comp=N,0.6nm,0.3s,baz=307,slow=15,SNR=7.8
KLR Lg Lg 06 56 30.8
comp=N,0.8nm,0.3s,baz=306,slow=19,SNR=4.8
comp=N,1.7nm,0.4s
KLR AML AML
KLR Kul'dur 12.76 114 *ce*P Pn 06 53 01.7 +4.3
KLR pmax pmax
comp=Z,5.0nm,1.3s
MDJ Mudanjiang 15.10 132 Pn **Pn** **06 53 29.6 +0.3**
BTO2 Baotou 15.42 191 *e*P **P** **06 53 38.6 +0.2**
BTO2 S **S** **06 56 33.2 -8.1**
BTO2 pmax pmax
comp=Z,9.0nm,0.5s
BTO2 pmax pmax
comp=Z,330nm,4.1s
BTO2 L L
comp=Z,780nm,5.0s
BTO2 L L
comp=Z,2µm,5.6s
BTO2 L L
comp=Z,1µm,8.1s
USA0B Ussuriysk Arra 16.47 128 *i* P **P** **06 53 54.0 +4.1**
USA0B Ussuriysk Arra 16.47 128 Pn **Pn** **06 53 45.1 -1.9**
USRK Ussuriysk Ar. 16.47 128 Lg Lg 06 58 29.4
comp=Z,0.2nm,0.3s,baz=332,slow=28,SNR=10
USRK LR LR 06 59 27.5
comp=Z,116nm,19.7s,baz=325,slow=35
USRK Ussuriysk Ar. 16.47 128 P **Pn** **06 53 45.4 -1.7**
USRK Ussuriysk Ar. 16.47 128 Pn **Pn** **06 53 45.4 -1.7**
ZAA0 Zalesovo Array 16.74 275 **P** **06 53 51.2 -1.6**
ZALV Zalesovo Beam 16.74 275 Pn **P** **06 53 52.4 -0.4**
comp=Z,1.6nm,0.6s,baz=67,slow=11,SNR=7.2
ZALV Lg Lg 06 58 40.9
comp=Z,0.1nm,0.3s,baz=86,slow=22,SNR=4.4
ZALV LR LR 07 00 39.1
comp=Z,213nm,19.1s,baz=4.0,slow=38
ZALV Zalesovo Beam 16.74 275 *i* P **P** **06 53 53.7 +0.9**
ZALV pmax pmax
comp=Z,4.0nm,0.7s
ZALV Zalesovo Beam 16.74 275 **P** **06 53 51.3 -1.5**
TIXI Tiksi 17.02 16 Pn **Pn** **06 53 50.0 -3.9**
comp=Z,1.5nm,0.3s,baz=211,slow=11,SNR=13
TIXI Sn Sn 06 56 47.8 -15
comp=Z,1.0nm,0.3s,baz=243,slow=11,SNR=11
TIXI Lg Lg 06 58 46.7
comp=Z,0.5nm,0.3s,baz=159,slow=14,SNR=3.4
TIXI LR LR 07 00 38.6
comp=Z,179nm,18.7s,baz=198,slow=38
comp=Z,13nm,0.7s
TIXI AML AML
TIXI Tiksi 17.02 16 P **Pn** **06 53 49.9 -3.9**
TIXI pmax pmax
comp=Z,15nm,1.0s
TIXI Tiksi 17.02 16 **Pn** **06 53 49.9 -3.9**
DL2 Dalian 17.80 160 P P 06 54 12.6 +8.0
DL2 S **S** **06 57 34.1 +4.4**
DL2 pmax pmax
comp=Z,29nm,0.9s
DL2 pmax pmax
comp=Z,240nm,4.1s
DL2 L L
comp=Z,350nm,19.4s
DL2 L L
comp=Z,720nm,20.4s
DL2 L L
comp=Z,530nm,17.1s
NRIK Noril'sk 17.85 329 Pn **Pn** **06 54 03.1 -1.1**
comp=Z,1.0nm,0.3s,baz=122,slow=12,SNR=8.1
NRIK Sn Sn 06 57 10.5 -13
comp=Z,0.4nm,0.3s,baz=135,slow=13,SNR=11
NRIK Lg Lg 06 59 11.1
comp=Z,0.6nm,0.3s,baz=139,slow=11,SNR=2.5
NRIK LR LR 07 01 32.6
comp=Z,152nm,18.5s,baz=134,slow=39
comp=Z,5.9nm,0.6s
NRIK AML AML
NRIK Noril'sk 17.85 329 **Pn** **06 54 03.3 -1.0**
YSS Yuzhno-Sakhali 20.00 105 P **P** **06 54 27.8 -0.8**
YSS Yuzhno-Sakhali 20.00 105 P **P** **06 54 27.8 -0.8**
YSS IAmb IAmb 06 54 32.8
comp=Z,48nm,1.4s
SEY Seymchan 20.54 54 P **P** **06 54 33.9 -0.5**
comp=Z,1.0nm,0.4s,baz=280,slow=13,SNR=8.4
SEY Lg Lg 07 00 36.5
comp=Z,0.3nm,0.3s,baz=233,slow=18,SNR=6.0
comp=Z,1.0nm,0.4s
SEY Seymchan 20.54 54 *ce*P **P** **06 54 32.1 -2.3**
SEY pmax pmax
comp=Z,34nm,2.5s
KSRS Korea Array 20.77 147 P **P** **06 54 37.4 +0.3**
comp=Z,0.5nm,0.3s,baz=352,slow=7.4,SNR=2.0
KSRS LR LR 07 03 30.5
comp=Z,150nm,18.8s,baz=345,slow=39
comp=Z,0.5nm,0.3s
KURK Kurchatov 21.52 271 *ce*P **P** **06 54 49.1 +4.1**
KURK pmax pmax
comp=Z,21nm,1.3s
KURK Kurchatov 21.52 271 **P** **06 54 45.8 +0.8**
KURK IAmb IAmb 06 54 51.6
comp=Z,16nm,0.9s
MK31 Makanchi Array 21.55 258 P **P** **06 54 46.5 +1.0**
MK31 pmax pmax
comp=Z,17nm,1.2s
MK31 Makanchi Array 21.55 258 P **P** **06 54 46.5 +1.0**
MK31 IAmb IAmb 06 54 52.2
comp=Z,17nm,1.2s
MKAR Makanchi Array 21.55 258 P **P** **06 54 48.9 +3.5**
comp=Z,6.5nm,0.7s,baz=54,slow=9.1,SNR=23
MKAR LR LR 07 03 28.3
comp=Z,357nm,20.8s,baz=37,slow=38
comp=Z,6.5nm,0.7s
MKAR Makanchi Array 21.55 258 *ce*P **P** **06 54 49.0 +3.5**
MKAR pmax pmax
comp=Z,6.0nm,0.7s
MKAR Makanchi Array 21.55 258 **P** **06 54 46.2 +0.7**
KURBB Kurchatov Arra 21.61 271 P **P** **06 54 49.4 +3.3**
comp=Z,6.6nm,0.6s,baz=62,slow=12,SNR=31
comp=Z,6.6nm,0.6s
MAKZ Makanchi 21.71 259 P **P** **06 54 48.4 +1.2**
MAKZ pmax pmax
comp=Z,24nm,1.5s
MAKZ Makanchi 21.71 259 **P** **06 54 48.4 +1.2**
MAKZ IAmb IAmb 06 54 54.6
comp=Z,24nm,1.4s
JTM Tenmabayashi 23.38 119 P **P** **06 55 04.2 -0.5**
BVAR Borovoye Array 25.11 282 P **P** **06 55 23.9 +3.0**
comp=Z,5.4nm,0.7s,baz=67,slow=11,SNR=13
comp=Z,5.4nm,0.7s
BORK Borovoye 25.14 282 *i* P **P** **06 55 23.4 +2.3**
BORK pmax pmax
comp=Z,19nm,1.9s
BORK Borovoye 25.14 282 P **P** **06 55 20.9 -0.2**
BORK IAmb IAmb 06 55 26.8
comp=Z,7.9nm,0.9s
PEA0B Petropavlovsk- 25.29 78 P **P** **06 55 21.1 -1.4**
PEA0B pmax pmax
comp=Z,63nm,1.4s
PEA0B Petropavlovsk- 25.29 78 P **P** **06 55 21.1 -1.4**
PETK Petropavlovsk- 25.29 78 P **P** **06 55 24.6 +2.1**
comp=Z,2.3nm,0.4s,baz=302,slow=8.3,SNR=2.9
PETK LR LR 07 05 56.4
comp=Z,132nm,18.3s,baz=304,slow=38
comp=Z,2.3nm,0.4s
PETK Petropavlovsk- 25.29 78 P **P** **06 55 21.0 -1.5**
MAJO Matsushiro 25.45 129 P **P** **06 55 22.9 -1.2**
MAJO pmax pmax
comp=Z,9.0nm,0.9s
MAJO Matsushiro 25.45 129 P **P** **06 55 22.9 -1.2**
MAJO IAmb IAmb 06 55 34.6
comp=Z,9.3nm,0.9s
MJAR Matsushiro Arr 25.45 129 P **P** **06 55 23.5 -0.6**
MJAR pmax pmax
comp=Z,8.0nm,1.4s
MJAR Matsushiro Arr 25.45 129 P **P** **06 55 23.5 -0.6**
TARG Taragay, Kyrgy 27.28 254 P **P** **06 55 41.8 +0.7**
TARG pmax pmax
comp=Z,10.0nm,1.4s
TARG Taragay, Kyrgy 27.28 254 P **P** **06 55 41.8 +0.7**
TARG IAmb IAmb 06 56 05.8
comp=Z,9.7nm,1.4s
KDJ Kajisay 27.35 255 P **P** **06 55 42.5 +1.1**
KDJ pmax pmax
comp=Z,7.0nm,1.1s
KDJ Kajisay 27.35 255 P **P** **06 55 42.5 +1.1**
KDJ IAmb IAmb 06 55 48.5
comp=Z,6.8nm,1.1s
BOOM Boomskoye usch 27.78 257 P **P** **06 55 46.7 +1.4**
BOOM pmax pmax
comp=Z,7.0nm,0.4s
BOOM Boomskoye usch 27.78 257 P **P** **06 55 46.7 +1.4**
BOOM IAmb IAmb 06 55 50.4
comp=Z,7.0nm,0.4s
AAK Ala-Archa 28.48 259 LR LR 07 07 59.5
comp=Z,152nm,20.9s,baz=58,slow=38
AAK Ala-Archa 28.48 259 *i* P **P** **06 55 54.2 +2.7**
AAK pmax pmax
comp=Z,10.0nm,1.7s
JHJ2 Mitsune 29.06 131 P **P** **06 55 55.2 -1.3**
ARTI Arti 30.18 294 LR LR 07 08 05.0
comp=Z,65nm,20.2s,baz=62,slow=36
ARTI Arti 30.18 294 P **P** **06 56 05.9 -0.4**
ARTI pmax pmax
comp=Z,9.0nm,1.3s
ARTI Arti 30.18 294 P **P** **06 56 05.9 -0.4**
ARTI IAmb IAmb 06 56 09.9
comp=Z,8.8nm,1.3s
KK31 Karatay Array 30.39 264 P **P** **06 56 09.4 +1.1**
KK31 pmax pmax
comp=Z,4.0nm,1.0s
KK31 Karatay Array 30.39 264 P **P** **06 56 09.4 +1.1**
KKAR Karatay Array 30.39 264 P **P** **06 56 09.1 +0.8**
KKAR Karatay Array 30.39 264 P **P** **06 56 09.1 +0.8**
LSA Lhasa 30.77 221 P **P** **06 56 13.5 +1.3**
LSA pmax pmax
comp=Z,6.0nm,0.4s
LSA Lhasa 30.77 221 P **P** **06 56 13.5 +1.3**
LSA IAmb IAmb 06 56 40.8
comp=Z,6.0nm,0.4s
KNMB Chin-men Tao 31.61 172 P **P** **06 56 19.8 +0.8**
AB31 Akbulak array 32.68 281 P **P** **06 56 28.8 +0.4**
ABKAR Akbulak array 32.68 281 P **P** **06 56 28.8 +0.4**
AKTO Aktyubinsk 33.11 284 LR LR 07 11 06.7
comp=Z,90nm,18.1s,baz=66,slow=38
ARCES ARCESS Array B 38.79 326 LR LR 07 17 18.5
comp=Z,51nm,18.0s,baz=79,slow=42
CMAR Chiang Mai Arr 39.07 203 LR LR 07 13 12.7
comp=Z,57nm,20.7s,baz=340,slow=36
FINES FINESS Array B 42.66 315 P **P** **06 57 55.0 +2.6**
comp=Z,2.5nm,0.7s,baz=61,slow=11,SNR=6.8
comp=Z,2.5nm,0.7s
FINES FINESS Array B 42.66 315 P **P** **06 57 54.8 +2.4**
F24K Squaw Lake 42.95 34 P **P** **06 57 57.1 +2.2**
M17K Holitna River 43.06 45 P **P** **06 57 56.8 +1.1**
M17K IAmb IAmb 06 58 09.9
comp=Z,29nm,1.4s
MAK Makhachkala 43.36 282 *d* *i* P **P** **06 57 54.1 -4.3**
MAK *e* 06 59 36.0
MAK *e*PPP PPP 07 00 12.1
MAK *e*S **S** **07 04 19.5 -7.0**
MAK *e*SS **SS** **07 07 36.0 -3.6**
MAK MLR MLR
comp=Z,239nm,15.0s
LVA Lava Point 43.50 57 P **P** **06 57 60.0 +0.5**
L19K White Mountain 43.62 43 P **P** **06 58 01.2 +1.0**
L19K IAmb IAmb 06 58 17.5
comp=Z,7.7nm,0.6s
E28M Babbage River 44.78 30 P **P** **06 58 09.9 +0.4**
KIV Kislovodsk 45.33 286 *e*P **P** **06 58 14.9 +0.6**
KIV pmax pmax
comp=Z,9.0nm,1.1s
KIV MLR MLR
comp=Z,75nm,16.0s
KBZ Khabaz 45.37 286 LR LR 07 18 19.3
comp=Z,75nm,18.6s,baz=26,slow=38
SHA1 Shidzhatmaz 45.49 286 *ce*P **P** **06 58 17.1 +1.4**
ACHA Angle Creek He 45.82 48 P **P** **06 58 17.1 -0.8**
ACHA IAmb IAmb 06 58 37.6
comp=Z,6.8nm,1.2s
MNK Minsk 46.01 306 *i* P **P** **06 58 19.1 -0.3**
MNK *i* 06 59 56.1
MNK *i* 07 00 06.6
MNK *i* PPP PPP 07 00 46.7
MNK *i* S **S** **07 05 03.9 -0.9**
MNK *i* SS **SS** **07 08 23.0 -6.0**
MNK *i* SSS SSS 07 09 19.5
MNK pmax pmax
comp=N,11nm,0.7s
MNK pmax pmax
comp=E,10.0nm,0.7s
MNK pmax pmax
comp=Z,8.0nm,0.7s
MNK MLR MLR
comp=E,55nm,13.0s
MNK MLR MLR
comp=Z,57nm,13.0s
MNK MLR MLR
comp=N,42nm,12.0s
MNK Minsk 46.01 306 *i* P **P** **06 58 19.1 -0.3**
comp=E,10.0nm,0.7s
MNK *i* P **P** **06 58 19.1 -0.3**
comp=N,11nm,0.7s
MNK *i* P **P** **06 58 19.1 -0.3**
comp=Z,8.0nm,0.7s,baz=50
MNK *i* PcP **PcP** **06 59 56.2 +0.4**
MNK *i* PP **PP** **07 00 06.6 -0.2**
MNK *i* PPP PPP 07 00 46.8
MNK *i* S **S** **07 05 03.9 -0.9**
MNK *i* SS **SS** **07 08 23.1 -6.0**
MNK *i* SSS SSS 07 09 19.5
MNK *i* LQ LQ 07 13 40.8
MNK *i* LRM MLR 07 19 42.5
comp=E,55nm,13.3s
MNK *i* LRM MLR 07 19 51.7
comp=Z,57nm,13.5s
MNK *i* LRM MLR 07 19 59.3
comp=N,42nm,11.9s
INK Inuvik 46.62 28 LR LR 07 21 55.2
comp=N,42nm,18.1s,baz=13,slow=41
GNI Garni 46.79 281 LR LR 07 22 50.7
comp=N,27nm,18.4s,baz=116,slow=42
SOC Sochi 47.18 288 *e*P **P** **06 58 32.2 +3.5**
SOC *e*S **S** **07 05 19.0 -2.8**
SOC *e*SS **SS** **07 08 46.3 -2.1**
SOC pmax pmax
comp=Z,16nm,0.6s
SOC MLR MLR
comp=Z,101nm,15.0s
KDAK Kodiak Island 47.22 47 LR LR 07 19 52.4
comp=Z,108nm,18.8s,baz=316,slow=38
AKASG Malin Array Be 47.82 301 P **P** **06 58 34.6 +1.0**
comp=Z,0.2nm,0.3s,baz=45,slow=8.1,SNR=6.3
comp=Z,0.2nm,0.3s
H31M Peel River 48.17 31 P **P** **06 58 37.5 +1.3**
H31M IAmb IAmb 06 58 38.8
comp=Z,6.0nm,1.2s
H31M PcP **PcP** **07 00 03.9 +0.5**
C36M Paulatuk 48.18 24 P **P** **06 58 37.3 +1.2**
HFS Hagfors 48.25 319 LR LR 07 18 59.9
comp=Z,59nm,18.1s,baz=62,slow=36
RES Resolute Bay 48.26 10 LR LR 07 20 05.8
comp=Z,40nm,18.9s,baz=58,slow=38
RES Resolute Bay 48.26 10 P **P** **06 58 37.9 +1.2**
RES pmax pmax
comp=Z,6.0nm,1.5s
RES Resolute Bay 48.26 10 P **P** **06 58 37.9 +1.2**
RES IAmb IAmb 06 58 51.0
comp=Z,6.2nm,1.4s
NC405 NORSAR Array S 48.31 321 P **P** **06 58 38.9 +1.6**
NOA NORSAR Array B 48.54 321 P **P** **06 58 40.7 +1.6**
comp=Z,0.4nm,0.7s,baz=51,slow=8.1,SNR=1.4
NOA LR LR 07 20 31.5
comp=Z,42nm,21.1s,baz=35,slow=38
comp=Z,0.4nm,0.7s
NAO01 NORSAR Array S 48.79 321 P **P** **06 58 42.7 +1.8**
NAO01 IAmb IAmb 06 58 44.4
comp=Z,11nm,1.1s
M30M Minto, Yukon 49.74 35 P **P** **06 58 48.9 +0.6**
N30M Aishikik Lake 50.45 36 P **P** **06 58 54.3 +0.6**
N30M IAmb IAmb 06 59 23.0
comp=Z,11nm,1.2s
HYT Haines Junctio 50.77 37 P **P** **06 58 57.0 +0.8**
MLR Muntele Rosu 52.99 298 LR LR 07 22 56.0
comp=Z,77nm,19.2s,baz=359,slow=37
BRTR Keskin Array B 53.13 288 LR LR 07 27 21.9
comp=Z,34nm,18.2s,baz=42,slow=42
VRAC Vranov 54.66 307 LR LR 07 24 28.4
comp=Z,38nm,18.9s,baz=33,slow=38
CLL Collm 54.76 311 P **P** **06 59 26.0 +0.4**
CLL pmax pmax
comp=Z,9.0nm,1.5s
CLL Collm 54.76 311 P **P** **06 59 26.0 +0.4**
CLL IAmb IAmb 06 59 30.0
comp=Z,9.0nm,1.5s
CLL Collm 54.76 311 LH 07 17 00.0
CLL AMS AMS 07 20 00.0
comp=N,100nm,24.9s
CLL AMS AMS 07 20 00.0
comp=E,100nm,21.8s
CLL AMS AMS 07 22 00.0
comp=Z,100nm,18.9s
BORG Borgarnes 54.87 338 LR LR 07 24 05.5
comp=Z,44nm,19.6s,baz=357,slow=37
KHC Kasperske Hory 56.13 309 *ce*P **P** **06 59 35.8 +0.2**
KHC pmax pmax
comp=Z,6.0nm,2.5s
SFJD Kangerlussuaq 56.84 353 LR LR 07 22 30.7
comp=Z,55nm,21.1s,baz=173,slow=34
ASF Jabal al Asfar 56.92 280 LR LR 07 26 59.8
comp=Z,27nm,18.5s,baz=29,slow=39
MMAI Mount Meron Ar 57.12 281 LR LR 07 25 26.9
comp=Z,50nm,18.2s,baz=40,slow=37
DAVOX Davos/Dischmat 59.53 309 LR LR 07 28 04.3
comp=Z,48nm,18.8s,baz=32,slow=38
KARP Karpathos 59.67 289 P **P** **07 00 01.7 +1.1**
EIL Elat 59.91 279 LR LR 07 27 31.2
comp=Z,52nm,18.5s,baz=285,slow=38
FRB Frobisher Bay 60.64 1 LR LR 07 24 53.9
comp=Z,40nm,18.1s,baz=28,slow=35
GNW Green Mountain 66.50 38 P **P** **07 00 46.4 +0.7**
WISH Wishkah 66.55 39 P **P** **07 00 46.9 +0.8**
NEW Newport 67.78 34 LR LR 07 33 47.2
comp=Z,88nm,19.3s,baz=334,slow=39
PLID Pearl Lake 70.95 35 P **P** **07 01 14.2 +0.3**
PLID IAmb IAmb 07 01 23.7
comp=Z,2.5nm,0.9s
ESDC Sonseca Array 71.16 314 P **P** **07 01 15.9 +0.9**
comp=Z,1.7nm,0.9s,baz=29,slow=6.4,SNR=12
comp=Z,1.7nm,0.9s
ULM Lac du Bonnet 71.34 20 LR LR 07 34 30.4
comp=Z,52nm,19.4s,baz=8.0,slow=38
DGAR Diego Garcia 71.77 224 P **P** **07 01 20.4 +1.6**
DGAR Diego Garcia 71.77 224 P **P** **07 01 20.4 +1.6**
BOZ Bozeman (W) 71.85 32 P **P** **07 01 18.9 -0.3**
BOZ pmax pmax
comp=Z,2.0nm,0.9s
BOZ Bozeman (W) 71.85 32 P **P** **07 01 18.9 -0.3**
PDAR Pinedale Array 75.04 32 P **P** **07 01 38.6 +0.5**
comp=Z,0.3nm,0.7s,baz=310,slow=4.1,SNR=2.0
comp=Z,0.3nm,0.7s
PDAR Pinedale Array 75.04 32 P **P** **07 01 38.0 -0.1**
NVAR Mina Array Bea 76.09 40 P **P** **07 01 45.1 +0.9**
comp=Z,0.4nm,0.8s,baz=329,slow=7.0,SNR=1.6
NVAR LR LR 07 37 20.6
comp=Z,59nm,18.8s,baz=275,slow=37
comp=Z,0.4nm,0.8s
NVAR Mina Array Bea 76.09 40 P **P** **07 01 44.4 +0.2**
ECSD EROS Data Cent 77.42 22 P **P** **07 01 52.2 +0.9**
ECSD IAmb IAmb 07 01 56.6
comp=Z,6.7nm,1.4s
WRA Warramunga Arr 77.54 160 P **P** **07 01 54.0 +1.9**
comp=Z,1.0nm,0.9s,baz=346,slow=5.9,SNR=5.9

	comp=Z,1.0nm,0.9s							
WRA	**Warramunga Arr**	**77.54**	**160**	*i* P		P	07 01 56.2	+4.1
WRA				pmax		pmax		
	comp=Z,1.0nm,0.9s							
WRA	**Warramunga Arr**	**77.54**	**160**	P		**P**	**07 01 51.2**	**-0.9**
WB2	**Warramunga Arr**	**77.54**	**160**	P		**P**	**07 01 52.4**	**+0.3**
WB2				IAmb		IAmb	07 02 16.3	
	comp=Z,3.1nm,1.2s							
WR8	**Warramunga Arr**	**77.58**	**160**	P		**P**	**07 01 53.3**	**+1.0**
WR8				IAmb		IAmb	07 02 07.1	
	comp=Z,2.8nm,0.9s							
ASAR	**Alice Springs**	**81.09**	**161**	P		**P**	**07 02 13.8**	**+2.4**
	comp=Z,0.3nm,0.7s,baz=2.3,slow=5.4,SNR=4.7							
	comp=Z,0.3nm,0.7s							
ASAR	**Alice Springs**	**81.09**	**161**	P		**P**	**07 02 12.1**	**+0.7**
TKL	**Tuckaleechee C**	**87.54**	**14**	LR		LR	07 43 29.5	
	comp=Z,35nm,18.4s,baz=12,slow=37							
TXAR	**Lajitas Array**	**89.25**	**32**	P		**P**	**07 02 54.5**	**+2.0**
	comp=Z,0.2nm,0.7s,baz=330,slow=8.0,SNR=2.4							
	comp=Z,0.2nm,0.7s							
TXAR	**Lajitas Array**	**89.25**	**32**	P		**P**	**07 02 53.2**	**+0.6**
QSPA	**South Pole Qui**	**145.69**	**180**	PKPbc		**PKPab**	**07 09 33.2**	**-1.0**
	comp=Z,2.5nm,1.1s,baz=312,slow=3.2,SNR=3.5							
QSPA	**South Pole Qui**	**145.69**	**180**			**PKPab**	**07 09 33.8**	**-0.4**
PB09	**IPOC Station P**	**145.84**	**5**	PKPdf		**PKPdf**	**07 09 32.0**	**-3.2**
PB06	**IPOC Station P**	**146.72**	**6**	PKPdf		**PKPdf**	**07 09 35.5**	**-1.2**
AF01	**San Pedro de A**	**147.03**	**3**	PKPdf		**PKPdf**	**07 09 35.7**	**-1.8**

CATAC ***10*** *06:59:07.4±1.0, 14°N±5°×9°1W±°, h16km±12km, M3.8/8, MLv3.8/8, Error ellipse: s-maj=13.7km s-min=5.7km az=44.4, confirmed*
GCG ***10*** *06:59:09.1±1.4, 13°.82N×91°.26W, h38km±31km, MD4.3, ML4.0, Presumed earthquake*
SNET ***10*** *06:59:09.0±2.2, 13°.76N×91°.24W, h30km, ML3.8, Presumed earthquake*

ISC 10 06:59:07.3±2.1, 13°.65N±0°.10×91°.26W±0°.07, h22km±13km, n34, σ1ᵗ53/46, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESSJ	**San Jos, E**	**0.75**	**97**	*i* P	**Pn**	**06 59 19.1**	**-3.4**
STG8	**El Palmar, Qui**	**0.80**	**354**	*i* P	**Pn**	**06 59 26.2**	**+2.8**
STG8				*i* S	**Sn**	**06 59 39.3**	**+4.5**
STG8				IAML		06 59 42.6	
	comp=N,4μm,0.2s						
FG8	**Yepocapa, Chim**	**0.91**	**48**	*i* P	**Pn**	**06 59 22.5**	**-2.3**
FG16	**Alotenango, Sa**	**0.96**	**50**	*i* P	**Pn**	**06 59 23.6**	**-2.0**
RTAL	**Retalhuleu**	**0.96**	**334**	P	**Pn**	**06 59 24.2**	**-1.3**
RTAL				S	**Sn**	**06 59 36.4**	**-2.1**
PCG5	**San Vicente Pa**	**1.03**	**57**	*i* P	**Pn**	**06 59 24.6**	**-1.9**
PCG5				*i* S	**Sn**	**06 59 35.8**	**-4.5**
PCG5				IAML		06 59 38.0	
	comp=E,7μm,0.2s						
FAME	**Alcaldia de Sa**	**1.23**	**81**	P	**Pn**	**06 59 28.9**	**-0.3**
QUEO	**Labor Ovalle**	**1.24**	**349**	*i* P	**Pn**	**06 59 28.7**	**-0.8**
NUBE	**Las Nubes**	**1.46**	**80**	P	**Pn**	**06 59 33.0**	**+0.5**
NUBE	**Las Nubes**	**1.46**	**80**	*i* P	**Pn**	**06 59 32.6**	**+0.1**
NUBE	**Las Nubes**	**1.46**	**80**	*e*P	**Pn**	**06 59 32.8**	**+0.3**
NUBE				*e*S	**Sn**	**06 59 50.9**	**-0.1**
LOAL	**Lomas de Alarc**	**1.48**	**76**	P	**Pn**	**06 59 33.5**	**+0.8**
LOAL				S	**Sn**	**06 59 52.1**	**+0.7**
SLOZ	**Alcaldia de Sa**	**1.48**	**75**	P	**Pn**	**06 59 33.2**	**+0.5**
SLOZ	**Alcaldia de Sa**	**1.48**	**75**	*e*P	**Pn**	**06 59 33.2**	**+0.5**
APG	**El Apazote**	**1.55**	**30**	*i* P	**Pn**	**06 59 33.7**	**-0.1**
THIG		**1.58**	**322**	*i* P	**Pn**	**06 59 33.1**	**-0.9**
RTR	**El Retiro**	**1.59**	**81**	*e*P	**Pn**	**06 59 35.3**	**+1.0**
RBDL	**Robledal**	**1.60**	**73**	*e*P	**Pn**	**06 59 35.3**	**+0.9**
RBDL				*e*S	**Sb**	**06 59 55.9**	**-0.1**
CEVE	**Cerro Verde**	**1.60**	**84**	P	**Pn**	**06 59 34.9**	**+0.4**
CEVE	**Cerro Verde**	**1.60**	**84**	*e*P	**Pn**	**06 59 35.2**	**+0.7**
CEVE				*e*S	**Sn**	**06 59 55.6**	**+1.0**
SBLS	**San Blas**	**1.60**	**83**	*e*P	**Pn**	**06 59 35.2**	**+0.7**
SNJE	**San Jose**	**1.62**	**82**	*e*P	**Pn**	**06 59 35.5**	**+0.7**
JUAM	**Asuncion Mita**	**1.66**	**66**	*i* P	**Pn**	**06 59 35.3**	**+0.2**
JUAM				*i* S	**Sn**	**06 59 54.9**	**-0.8**
HUEH	**Huehuetenango**	**1.67**	**352**	*i* P	**Pn**	**06 59 35.2**	**-0.2**
UNIC	**Universidad Ca**	**1.70**	**79**	P	**Pn**	**06 59 36.2**	**+0.6**
UNIC				S	**Sn**	**06 59 57.9**	**+1.2**
PMON	**Piamonte**	**1.90**	**88**	P	**Pn**	**06 59 39.2**	**+0.8**
PMON				S	**Sn**	**07 00 03.1**	**+1.4**
PMON	**Piamonte**	**1.90**	**88**	*e*P	**Pn**	**06 59 39.5**	**+1.1**
PMON				*e*S	**Sn**	**07 00 03.0**	**+1.3**
LALI	**Alcalda de L**	**1.90**	**95**	*i* P	**Pn**	**06 59 38.1**	**-0.2**
PIC2	**El Picacho**	**1.95**	**87**	*e*P	**Pn**	**06 59 40.6**	**+1.3**
LOMA	**Loma Larga**	**2.03**	**90**	*e*P	**Pn**	**06 59 41.4**	**+1.1**
ESQI	**Esquipulas**	**2.07**	**64**	*e*P	**Pn**	**06 59 41.0**	**+0.2**
ESQI				*e*S	**Sb**	**07 00 09.9**	**+0.3**
ZAFR2	**Estanzuela, Za**	**2.07**	**63**	*i* P	**Pn**	**06 59 40.9**	**+0.2**
SARH	**Santa Rosa de**	**2.67**	**65**	*i* P	**Pn**	**06 59 49.4**	**+0.4**
CCIG	**Comitan**	**2.75**	**342**	*i* P	**Pn**	**06 59 49.7**	**-0.5**

IDC 10 07:31:14.0±1.9, 5°.37S×151°.75E, h0km, mb3.7/4, mbtmp3.8/4, MS2.9/4, Error ellipse: s-maj=81.9km s-min=26.4km az=119.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.09**	**15**	LR	LR	07 32 10.5	
	comp=Z,227nm,18.1s,baz=196,slow=52						
PMG	**Port Moresby**	**6.07**	**228**	LR	LR	07 34 49.5	
	comp=Z,90nm,21.1s,baz=183,slow=36						
GUMO	**Guam**	**20.03**	**340**	LR	LR	07 43 11.2	
	comp=Z,26nm,18.5s,baz=126,slow=36						
DZM	**Mont Dzumac**	**21.86**	**141**	LR	LR	07 43 05.5	
	comp=Z,59nm,18.1s,baz=1.5,slow=32						
WRA	**Warramunga Arr**	**22.29**	**228**	P	P	07 36 13.0	-0.1
	1.9nm,0.8s,baz=53,slow=11,SNR=15						
	1.9nm,0.8s						
ASAR	**Alice Springs**	**25.03**	**222**	P	P	07 36 40.0	-0.1
	3.8nm,0.7s,baz=50,slow=9.0,SNR=46						
	3.8nm,0.7s						
RPZ	**Rata Peaks**	**41.81**	**159**	LR	LR	07 54 02.8	
	comp=Z,9.9nm,21.4s,baz=224,slow=33						
SONM	**Songino Array**	**66.25**	**328**	P	P	07 42 05.4	+1.3
	0.5nm,0.5s,baz=142,slow=8.2,SNR=3.0						
	0.5nm,0.5s						
ILAR	**Eielson Array**	**83.08**	**22**	P	P	07 43 40.4	-0.9
	0.3nm,0.8s,baz=259,slow=5.3,SNR=4.3						
	0.3nm,0.8s						
TORD	**Torodi Ar. Bea**	**149.48**	**287**	PKPbc	PKPbc	07 51 05.8	-0.6
	1.0nm,0.3s,baz=74,slow=2.2,SNR=6.9						

IDC ***10*** *07:35:34.6±1.2, 36°.60N×141°.30E, h0km, mb3.5/5, mbtmp3.4/6, ML2.2/1, Error ellipse: s-maj=26.9km s-min=18.5km az=4.0*
NIED ***10*** *07:35:34.4, 37°.13N×141°.26E, h18km, MW3.4, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr-1.27; Mθθ 0.63; Mϕϕ 0.64; Mrθ 0.04; Mϕθ 0.92; Mrϕ 0.12; Fault plane solution: M₀1.42000×10¹⁴ NP1:φs48.00000°, δ43.00000°, λ-85.00000°. NP2:φs222.00000°, δ47.00000°, λ-94.00000°.*
JMA ***10*** *07:35:34.4±0.1, 37°.1N±0°.2×141°.3E±0°.3, h18km±1km, MV3.7/40, E OFF FUKUSHIMA PREF*
JMA Felt I J1 at E OFF FUKUSHIMA PREF .

ISC 10 07:35:33.6±2.6, 37°.10N±0°.05×141°.3E±0°.1, h10km±13km, n19, σ1ᵗ62/17, mb3.5/5, 2D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ONAJ	**Iwakimizuishiy**	**0.40**	**270**	*e*P	**Pg**	**07 35 42.1**	**+0.6**
ONAJ				*e*S	**Sg**	**07 35 47.5**	**+0.6**
JFK	**Kawauchi**	**0.43**	**308**	*e*P	**Pg**	**07 35 42.3**	**+0.2**
JFK				*e*S	**Sg**	**07 35 47.7**	**-0.1**
JFFD	**Fukushimafurud**	**0.59**	**269**	*i* P	**Pg**	**07 35 45.4**	**+0.3**
JFFD				*e*S	**Sg**	**07 35 52.9**	**0.0**
JHO	**Hitachi**	**0.76**	**230**	*i* P	**Pb**	**07 35 47.9**	**-1.1**
JHO				*e*S	**Sb**	**07 35 58.0**	**-1.4**
JMM	**Marumori**	**0.86**	**332**	*i* P	**Pb**	**07 35 49.5**	**-1.2**
JMM				S	**Sb**	**07 36 00.6**	**-1.7**
JOTO	**OTAMA OYAMA**	**0.90**	**301**	*i* P	**Pb**	**07 35 50.7**	**-0.6**
JOTO				*e*S	**Sb**	**07 36 02.1**	**-1.2**
JSB	**Shiboa**	**1.11**	**264**	P	**Pn**	**07 35 54.8**	**-0.5**
MJAR	**Matsushiro Arr**	**2.54**	**258**	Pn	**Pn**	**07 36 15.1**	**+0.2**
	0.5nm,0.3s,baz=84,slow=16,SNR=14						
MJAR				Lg	Lg	07 36 53.4	
	1.1nm,0.3s,baz=90,slow=30,SNR=2.6						
	3.8nm,0.4s						
MJAR				AML	AML		
SONM	**Songino Array**	**27.67**	**304**	P	P	**07 41 26.5**	**+4.7**
	0.3nm,0.4s,baz=131,slow=6.5,SNR=3.5						
	0.3nm,0.4s						
H11N2	**WAKE ISLAND Hy**	**28.26**	**121**	T	T	08 11 03.0	
	baz=314,slow=75,SNR=105						
H11N1	**WAKE ISLAND Hy**	**28.27**	**121**	T	T	08 11 03.7	
	baz=314,slow=75,SNR=157						
H11N3	**WAKE ISLAND Hy**	**28.28**	**121**	T	T	08 11 04.4	
	baz=314,slow=75,SNR=107						
H11S1	**WAKE ISLAND Hy**	**28.97**	**123**	T	T	08 11 54.9	
	baz=315,slow=76,SNR=65						
H11S3	**WAKE ISLAND Hy**	**28.97**	**123**	T	T	08 11 53.4	
	baz=315,slow=76,SNR=41						
H11S2	**WAKE ISLAND Hy**	**28.99**	**123**	T	T	08 11 56.2	
	baz=315,slow=76,SNR=46						
MKAR	**Makanchi Array**	**44.01**	**302**	P	P	07 43 46.0	+4.8
	0.2nm,0.5s,baz=93,slow=7.6,SNR=2.6						
	0.2nm,0.5s						
ILAR	**Eielson Array**	**49.49**	**32**	P	P	07 44 29.9	+6.1
	0.4nm,0.7s,baz=267,slow=6.5,SNR=4.9						
	0.4nm,0.7s						
WRA	**Warramunga Arr**	**57.11**	**188**	P	**P**	**07 45 19.1**	**-1.2**
	0.4nm,0.5s,baz=6.4,slow=7.3,SNR=7.1						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**60.84**	**188**	P	**P**	**07 45 45.9**	**-0.3**
	0.4nm,1.0s,baz=12,slow=6.2,SNR=2.0						
	0.4nm,1.0s						

IDC ***10*** *07:40:03.7±1.8, 31°.84N×138°.30E, h380km±23km, mb3.3/3, mbtmp3.9/6, Error ellipse: s-maj=60.3km s-min=29.0km az=57.0*
JMA ***10*** *07:40:07.7±0.3, 32°.N±3°×13°8E±°, h364km, MV3.9/25, FAR S OFF TOKAI DISTRICT*

ISC 10 07:40:04.7±1.0, 31°.92N±0°.08×138°.2E±0°.1, h380km, n14, σ1ᵗ31/17, mb3.6/3, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	**1.42**	**67**	P	**Pn**	**07 40 57.1**	**+1.7**
JHJ2	**Mitsune**	**1.80**	**48**	P	**Pn**	**07 40 59.6**	**+2.1**
JKN2	**Miekihoku**	**2.83**	**325**	*e*P	**Pn**	**07 41 05.4**	**+0.5**
JOD2	**Odawara 2**	**3.42**	**12**	*e*S	**S**	**07 42 01.4**	**-1.4**
JNY	**Yasuok**	**3.44**	**355**	P	**Pn**	**07 41 11.6**	**+1.3**
BSO3	**Boso 3**	**3.46**	**33**	P	**Pn**	**07 41 11.2**	**+1.2**
BSO3				S	**S**	**07 42 02.5**	**-0.4**
BSO1	**Boso 1**	**3.58**	**40**	P	**Pn**	**07 41 11.6**	**+0.8**
BSO1				S	**S**	**07 42 03.1**	**-1.3**
MJAR	**Matsushiro Arr**	**4.61**	**360**	P	**Pn**	**07 41 21.1**	**-0.5**
	2.8nm,0.5s,baz=176,slow=10.0,SNR=7.2						
CBIJ	**Chichi jima**	**5.92**	**143**	P	**Pn**	**07 41 36.9**	**+1.1**
CBIJ				S	**S**	**07 42 48.9**	**-0.9**
JCJ	**Chichijima**	**5.92**	**143**	P	**Pn**	**07 41 33.5**	**-2.3**
	50nm,0.7s,baz=299,slow=19,SNR=1.7						
KSRS	**Korea Array**	**10.11**	**306**	P	**P**	**07 42 24.8**	**+0.8**
	1.1nm,0.5s,baz=102,slow=11,SNR=2.1						
MKAR	**Makanchi Array**	**44.79**	**306**	P	**P**	**07 47 41.8**	**-0.5**
	0.6nm,0.6s,baz=89,slow=8.4,SNR=6.0						
	0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**47.23**	**311**	P	**P**	**07 48 00.0**	**-0.9**
	1.7nm,0.2s,baz=91,slow=4.9,SNR=2.5						
	1.7nm,0.2s						
FINES	**FINESS Array B**	**72.09**	**332**	P	**P**	**07 50 48.4**	**+0.1**
	0.6nm,0.4s,baz=64,slow=5.8,SNR=5.4						
	0.6nm,0.4s						

ISK 10 08:06:08.5, 37°.87N×27°.06E, h16km±1km, ML1.2/4, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.18**	**92**	Pg	Pb	08 06 13.2	-0.2
KUSD				Sg	Sb	08 06 16.6	-0.1
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.21**	**141**	Pg	Pb	08 06 13.9	-0.1
GCAM				Sg	Sb	08 06 17.6	-0.1
GCAM				AML	AML		
BLCB	**Balcova**	**0.52**	**358**	Pg	Pb	08 06 19.4	+0.2
BLCB				Sg	Sb	08 06 27.0	+0.5
BODT	**Bodrum**	**0.83**	**166**	Pg	Pg	08 06 24.9	+0.3
BODT				Sg	Sn	08 06 36.9	-0.5

AFAD 10 08:07:02.8, 37°.93N×26°.35E, h7km±1km, ML1.3, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZEYE	**Izmir, Urla-Ze**	**0.33**	**22**	P	Pg	08 07 09.4	+0.1
ZEYE				S	Sg	08 07 14.8	+1.1
ZEYE				IAML		08 07 15.0	
	comp=E,58nm,0.2s						
ZEYE				IAML		08 07 19.0	
	comp=N,43nm,0.6s						
DGB	**zmir**	**0.44**	**74**	P	Pg	08 07 11.6	+0.2
DGB				IAML		08 07 18.0	
	comp=N,28nm,0.2s						
DGB				S	Sg	08 07 18.1	+0.9
DGB				IAML		08 07 19.0	
	comp=E,22nm,0.7s						
BEYE	**izmir**	**0.55**	**57**	P	Pb	08 07 14.2	-0.5
BEYE				S	Sg	08 07 21.1	+0.6
BEYE				IAML		08 07 31.0	
	comp=N,18nm,0.6s						
BEYE				IAML		08 07 32.0	
	comp=E,22nm,0.9s						

IDC ***10*** *08:22:59.3±2.1, 61°.23S×153°.33E, h0km, mb4.0/5, mbtmp4.0/6, ML3.5/1, MS4.2/35, Error ellipse: s-maj=92.1km s-min=20.4km az=82.0*
NEIC ***10*** *08:23:00.1±0.8, 61°.21S±0°.03×153°.6E±0°.3, h10km±1km, mb4.3/15, Error ellipse: s-maj=25.8km s-min=5.2km az=270.0*
GCMT ***10*** *08:23:03.1±0.2, 61°.15S±0°.01×154°.26E±0°.03, h12km, MW5.0/115, Moment Tensor Solution. s36,c39; s115,c165; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-0.44±.10; Mθθ 2.76±.08; Mϕϕ-2.32±.09; Mrθ-1.37±.25; Mθϕ-2.29±.08; Mrϕ 0.67±.28; Best double couple: M₀3.67500×10¹⁶ NP1:φs244.00000°, δ75.00000°, λ169.00000°. NP2:φs337.00000°, δ79.00000°, λ15.00000°. Principal axes: T 4.1430, Plg18.0000°, Azm201.0000°; N -0.9390, Plg71.0000°, Azm11.0000°; P -3.2070, Plg3.0000°, Azm110.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 10 08:22:59.7±0.6, 61°.22S±0°.07×153°.6E±0°.1, h10km, n64, σ1ᵗ09/25, mb4.1/9, MS4.2/34, Balleny Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCQ	**Macquarie Isla**	**7.32**	**25**	Pn	**Pn**	**08 24 46.2**	**-0.3**
VNDA	**Vanda**	**16.60**	**174**	Pn	**Pn**	**08 26 48.3**	**-3.7**
	0.2nm,0.3s,baz=344,slow=14,SNR=18						
VNDA				LR	LR	08 32 40.8	
	comp=Z,1μm,18.5s,baz=353,slow=35						
	1.3nm,0.7s						
VNDA				AML	AML		
SBA	**Scott Base**	**17.24**	**171**	Pn	**Pn**	**08 27 00.4**	**+0.3**
WHZ	**Wether Hill Ro**	**17.50**	**35**		**Pn**	**08 27 03.7**	**+0.2**
WHZ				IAmb	IAmb	08 27 24.0	
	comp=Z,24nm,1.3s						
TAU	**Tasmania Unive**	**18.72**	**346**	P	**P**	**08 27 17.6**	**-0.5**
TAU				IAmb	IAmb	08 27 25.9	
	comp=Z,34nm,1.4s						
RPZ	**Rata Peaks**	**20.39**	**39**	LR	LR	08 33 46.2	
	comp=Z,348nm,21.3s,baz=194,slow=32						
AMCZ	**Amberley**	**21.37**	**41**	P	**P**	**08 27 47.2**	**+0.3**
TUWZ	**Tuamarina**	**23.36**	**41**	P	**P**	**08 28 08.8**	**+0.8**
URZ	**Urewera**	**27.26**	**43**	LR	LR	08 39 54.8	
	comp=Z,828nm,18.0s,baz=206,slow=37						
QSPA	**South Pole Qui**	**28.87**	**180**	P	**P**	**08 28 59.1**	**+1.0**
	comp=Z,2.3nm,1.1s,baz=5.6,slow=12,SNR=2.5						
QSPA				LR	LR	08 40 44.6	
	comp=Z,477nm,20.8s,baz=16,slow=37						
	comp=Z,2.3nm,1.1s						
QSPA	**South Pole Qui**	**28.87**	**180**	P	**P**	**08 28 57.1**	**-1.0**
QSPA				IAmb	IAmb	08 29 24.4	
	comp=Z,4.2nm,1.1s						
STKA	**Stephens Creek**	**30.39**	**340**	P	**P**	**08 29 12.4**	**+0.7**
	comp=Z,2.3nm,0.7s,baz=171,slow=7.2,SNR=3.2						
STKA				LR	LR	08 40 12.1	
	comp=Z,415nm,18.8s,baz=162,slow=34						
STKA	**Stephens Creek**	**30.39**	**340**	P	**P**	**08 29 10.0**	**-1.6**
BBOO	**Buckleboo**	**30.62**	**330**	P	**P**	**08 29 12.5**	**-1.2**
FORT	**Forrest**	**34.77**	**319**	P	**P**	**08 29 50.0**	**0.0**
MAW	**Mawson**	**36.30**	**220**	P	**P**	**08 30 03.1**	**+0.4**
	comp=Z,2.4nm,0.8s,baz=148,slow=15,SNR=1.8						
MAW				LR	LR	08 45 03.4	
	comp=Z,756nm,19.5s,baz=104,slow=37						
	comp=Z,2.4nm,0.8s						
H01W1	**Cape Leeuwin H**	**36.34**	**298**	T	T	09 08 51.6	
	baz=148,slow=75,SNR=405						
H01W2	**Cape Leeuwin H**	**36.34**	**298**	T	T	09 08 51.9	
	baz=148,slow=75,SNR=397						
H01W3	**Cape Leeuwin H**	**36.35**	**298**	T	T	09 08 52.8	
	baz=148,slow=75,SNR=372						
NWAO	**Narrogin (SRO)**	**36.76**	**304**	LR	LR	08 41 51.3	
	comp=Z,643nm,19.1s,baz=153,slow=31						
RAO	**Raoul Island**	**37.15**	**44**	LR	LR	08 43 45.9	
	comp=Z,647nm,19.6s,baz=208,slow=34						
ASAR	**Alice Springs**	**39.91**	**331**	P	**P**	**08 30 34.6**	**+1.0**
	comp=Z,1.8nm,1.0s,baz=171,slow=7.9,SNR=9.1						
ASAR				LR	LR	08 45 10.8	
	comp=Z,273nm,19.5s,baz=150,slow=33						
	comp=Z,1.8nm,1.0s						
ASAR	**Alice Springs**	**39.91**	**331**	P	**P**	**08 30 33.2**	**-0.4**
AS31	**Alice Springs**	**39.91**	**331**	P	**P**	**08 30 33.3**	**-0.3**
DZM	**Mont Dzumac**	**40.13**	**19**	LR	LR	08 43 50.3	
	comp=Z,512nm,19.0s,baz=214,slow=31						
BELA	**Belgrano 2**	**41.05**	**177**	P	**P**	**08 30 43.5**	**+0.9**
BELA				IAmb	IAmb	08 31 05.2	
	comp=Z,5.8nm,1.4s						
CTA	**Charters Tower**	**41.42**	**350**	LR	LR	08 45 41.4	
	comp=Z,400nm,19.3s,baz=186,slow=33						
WRA	**Warramunga Arr**	**43.41**	**333**	P	**P**	**08 31 02.6**	**+0.3**
	comp=Z,1.4nm,1.0s,baz=167,slow=7.7,SNR=5.3						
	comp=Z,1.4nm,1.0s						
WRA	**Warramunga Arr**	**43.41**	**333**	P	**P**	**08 31 03.5**	**+1.2**
WB0	**Warramunga Arr**	**43.56**	**333**	P	**P**	**08 31 03.4**	**-0.1**
WB0				IAmb	IAmb	08 31 27.0	
	comp=Z,10nm,1.4s						
SNAA	**Sanae**	**46.38**	**190**	LR	LR	08 51 28.9	
	comp=Z,857nm,19.4s,baz=192,slow=37						
SNAA	**Sanae**	**46.38**	**190**	P	**P**	**08 31 26.1**	**+0.5**
SNAA				IAmb	IAmb	08 31 36.7	
	comp=Z,7.4nm,1.4s						
MSVF	**Nonsavu**	**46.78**	**33**	LR	LR	08 46 41.6	
	comp=Z,336nm,21.9s,baz=193,slow=30						
FITZ	**Fitzroy Crossi**	**47.41**	**323**	LR	LR	08 50 41.0	
	comp=Z,239nm,18.0s,baz=169,slow=35						
FITZ	**Fitzroy Crossi**	**47.41**	**323**	P	**P**	**08 31 34.0**	**0.0**
FITZ				IAmb	IAmb	08 31 59.5	
	comp=Z,2.2nm,1.3s						
NIUE	**Niue**	**49.28**	**48**	P	**P**	**08 31 48.4**	**0.0**
PMSA	**Palmer Station**	**51.21**	**160**	LR	LR	08 50 27.0	
	comp=Z,141nm,20.2s,baz=214,slow=32						
HNR	**Honiara**	**51.90**	**8**	LR	LR	08 51 08.1	
	comp=Z,538nm,18.1s,baz=257,slow=32						
PMG	**Port Moresby**	**51.93**	**352**	LR	LR	08 51 37.8	
	comp=Z,417nm,18.4s,baz=145,slow=33						
CRZF	**Crozet Islands**	**55.67**	**235**	P	**P**	**08 32 35.9**	**+0.4**
PPT	**Papeete**	**59.00**	**69**	LR	LR	08 56 10.1	
	comp=Z,62nm,18.3s,baz=211,slow=34						
JAY	**Jayapura**	**59.37**	**345**	LR	LR	08 57 59.7	
	comp=Z,263nm,18.9s,baz=117,slow=35						
KAPI	**Kappang**	**61.55**	**321**	LR	LR	08 57 35.3	
	comp=Z,246nm,20.7s,baz=164,slow=34						
LEM	**Lembang**	**64.07**	**307**	LR	LR	08 56 54.6	
	comp=Z,170nm,21.3s,baz=224,slow=32						
RPN	**Rapa Nui**	**69.89**	**110**	LR	LR	08 57 49.2	
	comp=Z,92nm,19.5s,baz=223,slow=30						
PLCA	**Paso Flores**	**72.25**	**146**	LR	LR	08 58 48.4	
	comp=Z,114nm,21.9s,baz=202,slow=30						
GUMO	**Guam**	**74.88**	**351**	LR	LR	09 06 29.1	
	comp=Z,41nm,18.6s,baz=128,slow=35						
H03S2	**Juan Fernandez**	**76.12**	**137**	T	T	09 58 48.2	
	baz=202,slow=74,SNR=11						
H03S1	**Juan Fernandez**	**76.12**	**137**	T	T	09 58 49.5	
	baz=202,slow=74,SNR=10						
H03S3	**Juan Fernandez**	**76.13**	**137**	T	T	09 58 49.1	
	baz=202,slow=74,SNR=9.4						
H08S2	**Diego Garcia H**	**79.05**	**274**	T	T	10 02 27.7	
	baz=150,slow=76,SNR=50						
H08S1	**Diego Carcia H**	**79.06**	**274**	T	T	10 02 28.0	
	baz=150,slow=76,SNR=35						
H08S3	**Diego Garcia H**	**79.07**	**274**	T	T	10 02 27.9	
	baz=150,slow=76,SNR=54						
SUR	**Sutherland**	**79.15**	**219**	LR	LR	09 07 23.9	
	comp=Z,114nm,21.6s,baz=170,slow=34						
BOSA	**Boshof**	**81.20**	**224**	LR	LR	09 09 41.0	
	comp=Z,70nm,19.2s,baz=164,slow=34						
LBTB	**Lobatse**	**84.39**	**226**	LR	LR	09 09 25.9	
	comp=Z,113nm,20.7s,baz=112,slow=33						
PALK	**Pallekele**	**88.21**	**288**	LR	LR	09 08 57.3	
	comp=Z,116nm,19.7s,baz=150,slow=31						
JCJ	**Chichijima**	**88.49**	**350**	LR	LR	09 14 48.4	
	comp=Z,48nm,19.0s,baz=104,slow=35						
CPUP	**Villa Florida**	**89.23**	**153**	LR	LR	09 12 22.7	
	comp=Z,92nm,18.9s,baz=206,slow=33						
CMAR	**Chiang Mai Arr**	**90.55**	**309**	L

comp=Z,42nm,1.4s
N18K Kilae Creek 18.60 53 P **Pn** **08 35 05.1 +1.1**
SII Sitkinak Islan 19.18 66 P **P** **08 35 10.2 +0.2**
N19K Bonanza Creek 19.31 53 P **Pn** **08 35 13.3 +0.7**
Q19K Cape Douglas, 19.50 58 P **Pn** **08 35 15.2 +0.4**
OHAK Old Harbor 19.65 63 P **P** **08 35 15.8 +0.6**
OHAK IAmb IAmb 08 35 29.2
comp=Z,26nm,1.3s
ILSW Iliamna Southw 19.85 55 P **P** **08 35 19.0 +1.6**
ILSW IAmb IAmb 08 35 25.1
comp=Z,12nm,0.9s
KDAK Kodiak Island 20.02 62 P **P** **08 35 18.7 -0.5**
comp=Z,0.5nm,0.3s,baz=255,slow=8.6,SNR=13
KDAK LR LR 08 42 43.9
comp=Z,130nm,18.9s,baz=253,slow=36
comp=Z,5.5nm,0.8s
KDAK AML AML
KDAK Kodiak Island 20.02 62 P **P** **08 35 19.0 -0.2**
RED Redoubt Volcan 20.08 54 P **P** **08 35 21.3 +1.3**
RED IAmb IAmb 08 35 25.2
comp=Z,8.9nm,0.8s
K20K Telida 20.09 45 P Pn 08 35 22.7 +1.0
K20K IAmb IAmb 08 35 48.9
comp=Z,21nm,1.5s
J20K Nowinta River 20.30 43 **P** **08 35 24.2 +1.9**
J20K IAmb IAmb 08 35 28.5
comp=Z,13nm,0.9s
SPU Mount Spurr 20.54 52 IAmb IAmb 08 35 28.5
comp=Z,16nm,0.9s
E19K Redstone River 20.54 33 P **P** **08 35 26.6 +1.8**
E19K IAmb IAmb 08 35 30.6
comp=Z,7.5nm,0.8s
STLK Strandline Lak 20.69 51 IAmb IAmb 08 35 30.5
comp=Z,7.5nm,0.8s
CNPM China Poot 20.77 57 P **P** **08 35 28.9 +1.5**
PPLA Purkeypile 20.80 47 P **P** **08 35 27.7 -0.1**
PPLA IAmb IAmb 08 35 38.6
comp=Z,23nm,1.3s
D19K Kuna River 20.83 30 P **P** **08 35 29.6 +1.6**
D19K IAmb IAmb 08 35 30.5
comp=Z,13nm,0.9s
SKT Skwentna 20.91 50 P **P** **08 35 29.5 +0.6**
SKT IAmb IAmb 08 35 35.6
comp=Z,9.4nm,1.0s
BRLK Bradley Lake 20.96 56 P **P** **08 35 30.0 +0.5**
CAST Castle Rocks 20.96 46 **P** **08 35 31.2 +1.8**
IMAR Indian Mountai 21.11 38 P **P** **08 35 32.5 +1.5**
SUA Susitna One 21.20 52 P **P** **08 35 33.6 +1.5**
SUA IAmb IAmb 08 35 35.1
comp=Z,12nm,0.8s
SLKM Skilak Lake 21.35 54 P **P** **08 35 33.8 +0.2**
SLKM IAmb IAmb 08 35 37.8
comp=Z,19nm,1.2s
BPAW Bear Paw Mtn. 21.61 44 P **P** **08 35 37.7 +1.3**
RC01 Rabbit Creek A 21.64 53 P **P** **08 35 37.8 +1.1**
RC01 IAmb IAmb 08 35 43.7
comp=Z,17nm,1.1s
F21K Alatna River 21.71 35 **P** **08 35 38.5 +1.1**
F21K IAmb IAmb 08 35 44.3
comp=Z,8.8nm,0.8s
TRF Thorofare Moun 21.76 46 P **P** **08 35 39.4 +1.3**
ASAJ Asahikawa 21.89 259 LR LR 08 45 48.0
comp=Z,36nm,18.2s,baz=74,slow=41
PMR Palmer 21.98 51 P **P** **08 35 41.1 +0.8**
PMR IAmb IAmb 08 35 43.1
comp=Z,16nm,1.5s
KNK Knik Glacier 22.29 52 IAmb IAmb 08 35 49.2
comp=Z,12nm,0.8s
SCM Sheep Creek Mo 22.86 51 P **P** **08 35 50.2 +0.4**
H24K Noodor Dome 23.34 41 **P** **08 35 56.0 +1.3**
H24K IAmb IAmb 08 36 03.2
comp=Z,5.4nm,0.8s
POKR Poker Flat Res 23.34 43 IAmb IAmb 08 35 57.2
comp=Z,8.8nm,0.8s
ILAR Eielson Array 23.49 44 P **P** **08 35 55.6 -0.5**
comp=Z,2.7nm,0.7s,baz=264,slow=8.8,SNR=20
ILAR LR LR 08 44 37.6
comp=Z,63nm,18.5s,baz=261,slow=36
comp=Z,2.7nm,0.7s
PAX Paxson 23.84 48 IAmb IAmb 08 36 06.2
comp=Z,5.2nm,0.8s
DOT Dot Lake 24.54 47 IAmb IAmb 08 36 09.4
comp=Z,3.9nm,0.8s
SCRK Sand Creek 24.61 46 IAmb IAmb 08 36 07.7
comp=Z,7.5nm,1.1s
YAK Yakutsk 24.72 309 LR LR 08 46 29.6
comp=Z,36nm,18.1s,baz=66,slow=38
G26K Porcupine Rive 25.21 39 IAmb IAmb 08 36 17.7
comp=Z,6.8nm,1.1s
C26K Camden Bay 25.66 32 **P** **08 36 16.9 +0.9**
C26K IAmb IAmb 08 36 19.9
comp=Z,9.7nm,0.9s
LOGN Logan Glacier 25.89 54 P **P** **08 36 20.0 +1.5**
G27K Doyon Strip 26.00 40 P **P** **08 36 20.0 +0.7**
G27K IAmb IAmb 08 36 41.6
comp=Z,9.1nm,1.5s
KLR Kul'dur 26.02 279 LR LR 08 46 49.1
comp=Z,36nm,19.5s,baz=62,slow=37
I28M Miner Creek 26.50 43 P **P** **08 36 24.3 +0.4**
DAWY Dawson 26.64 46 P **P** **08 36 26.6 +1.6**
M29M Somme Creek 27.04 50 P **P** **08 36 29.5 +0.7**
M29M IAmb IAmb 08 36 50.9
comp=Z,6.4nm,1.5s
H29M Whitestone 27.22 42 P **P** **08 36 31.0 +0.8**
HYT Haines Junctio 27.60 53 P **P** **08 36 34.6 +0.8**
USRK Ussuriysk Ar. 28.25 269 LR LR 08 48 46.5
comp=Z,43nm,18.5s,baz=11,slow=38
H11N2 WAKE ISLAND Hy 33.32 191 T T 09 12 30.8
baz=6.9,slow=76,SNR=237
H11N3 WAKE ISLAND Hy 33.34 191 T T 09 12 31.7
baz=6.9,slow=76,SNR=346
H11N1 WAKE ISLAND Hy 33.34 191 T T 09 12 32.1
baz=6.9,slow=76,SNR=317
H11S1 WAKE ISLAND Hy 34.55 191 T T 09 14 04.3
baz=6.8,slow=76,SNR=322
H11S3 WAKE ISLAND Hy 34.57 191 T T 09 14 05.0
baz=6.8,slow=76,SNR=317
H11S2 WAKE ISLAND Hy 34.57 191 T T 09 14 04.3
baz=6.8,slow=76,SNR=152
KSRS Korea Array 34.75 262 P **P** **08 37 38.2 +1.5**
comp=Z,0.6nm,0.6s,baz=54,slow=9.2,SNR=2.1
KSRS LR LR 08 52 01.0
comp=Z,14nm,19.8s,baz=225,slow=37
comp=Z,0.6nm,0.6s
JNU Nakatsue 35.96 254 LR LR 08 51 56.8
comp=Z,27nm,20.6s,baz=320,slow=35
YKA Yellowknife Ar 37.88 46 P **P** **08 38 03.0 -0.2**
comp=Z,2.1nm,0.8s,baz=285,slow=8.5,SNR=2.8
comp=Z,2.1nm,0.8s
TLY Talaya 41.06 297 LR LR 08 55 59.8
comp=Z,44nm,18.1s,baz=41,slow=37
SONM Songino Array 41.53 291 P **P** **08 38 34.8 +0.8**
comp=Z,1.4nm,0.7s,baz=65,slow=10,SNR=6.7
comp=Z,1.4nm,0.7s
SONM Songino Array 41.53 291 IAmb IAmb 08 38 36.4
comp=Z,1.1nm,0.7s
YBH Yreka Blue Hor 43.54 78 LR LR 08 53 58.3
comp=Z,25nm,19.1s,baz=349,slow=32
NVAR Mina Array Bea 48.24 79 P **P** **08 39 27.3 -0.4**
comp=Z,0.1nm,0.4s,baz=314,slow=9.9,SNR=2.6
comp=Z,0.1nm,0.4s
ZALV Zalesovo Beam 49.37 309 P **P** **08 39 35.1 -0.7**
comp=Z,0.6nm,0.4s,baz=46,slow=6.2,SNR=2.1
comp=Z,0.6nm,0.4s
PDAR Pinedale Array 50.54 69 P **P** **08 39 43.7 -1.4**
comp=Z,0.5nm,0.5s,baz=314,slow=6.5,SNR=11
comp=Z,0.5nm,0.5s
ULM Lac du Bonnet 52.98 54 LR LR 09 02 44.3
comp=Z,22nm,18.6s,baz=9.0,slow=36
KURK Kurchatov 54.36 309 P **P** **08 40 12.9 -0.2**
KURBB Kurchatov Arra 54.47 309 P **P** **08 40 13.0 -0.8**
comp=Z,2.5nm,0.6s,baz=50,slow=6.8,SNR=20
comp=Z,2.5nm,0.6s
MKAR Makanchi Array 55.18 303 P **P** **08 40 18.2 -1.0**
comp=Z,0.5nm,0.4s,baz=46,slow=6.7,SNR=8.7
comp=Z,0.5nm,0.4s
BVAR Borovoye Array 56.50 315 P **P** **08 40 27.1 -1.3**
comp=Z,1.5nm,0.5s,baz=46,slow=8.3,SNR=4.7
comp=Z,1.5nm,0.5s
FINES FINESS Array B 63.16 343 P **P** **08 41 13.0 -1.1**
comp=Z,0.7nm,0.6s,baz=35,slow=5.1,SNR=3.5
comp=Z,0.7nm,0.6s
TXAR Lajitas Array 63.27 76 P **P** **08 41 14.8 -0.6**
comp=Z,0.4nm,0.3s,baz=319,slow=6.5,SNR=11
comp=Z,0.4nm,0.3s
AKTO Aktyubinsk 63.53 320 P **P** **08 41 15.7 -1.0**
comp=Z,1.2nm,0.5s,baz=54,slow=7.2,SNR=3.9
comp=Z,1.2nm,0.5s
AKASG Malin Array Be 72.50 337 P **P** **08 42 12.3 -0.8**
comp=Z,0.4nm,0.3s,baz=27,slow=6.7,SNR=2.7
comp=Z,0.4nm,0.3s
WRA Warramunga Arr 79.84 217 P **P** **08 42 54.5 -0.6**
comp=Z,1.0nm,0.8s,baz=22,slow=5.3,SNR=6.9
comp=Z,1.0nm,0.8s
WRA Warramunga Arr 79.84 217 IAmb IAmb 08 42 59.9
comp=Z,0.2nm,1.1s
BRTR Keskin Array B 81.42 330 P **P** **08 43 03.8 +0.1**
comp=Z,0.8nm,0.8s,baz=46,slow=6.2,SNR=2.6
comp=Z,0.8nm,0.8s
ASAR Alice Springs 83.42 216 P **P** **08 43 15.2 +1.2**
comp=Z,0.5nm,0.8s,baz=19,slow=5.9,SNR=5.0
comp=Z,0.5nm,0.8s

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*IDC **10** 09:19:26.7±0.6, 12°.845×45°.39E, h0km, mb4.1/14, mbtmp4.1/15, ML5.3/2, MS3.6/18, Error ellipse: s-maj=20.8km s-min=11.6km az=72.0*
*GFZ **10** 09:19:26.3±0.3, 13°.5S±4°×4°.6E±°, h10km, M4.9/11, mb4.9/11, mB5.2/3, Mw(mB)4.6/3, confirmed*
*NEIC **10** 09:19:27.2±1.9, 12°.78S±0°.08×45°.6E±0°.1, h10km±1km, mb4.6/17, Error ellipse: s-maj=18.3km s-min=13.0km az=274.0*
*TAN **10** 09:19:29.2, 13°.19S×45°.41E, h28km, ML4.6, Fault plane solution: NP1:φ=301.50000°, δ56.70000°,*
ISC 10 09:19:27.1±0.5, 12°.87S±0°.06×45°.57E±0°.08, h10km, n90, σ1s76/78, mb4.3/23, MS3.7/16, 3C-1D, Northwest of Madagascar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OPO	**Ambohidratompo**	**5.88**	**165**	Pn	**Pn**	**09 20 55.5**	**+1.1**
	37nm,0.3s,baz=338,slow=14,SNR=2800						
OPO				Sn	**Sn**	**09 21 56.6**	**-5.3**
	32nm,0.3s,baz=274,slow=19,SNR=16						
OPO				LR	LR	09 23 16.6	
	comp=Z,559nm,21.8s,baz=84,slow=39						
OPO				AML	AML		
OPO	**Ambohidratompo**	**5.88**	**165**	P	**Pn**	**09 20 55.7**	**+1.3**
OPO				S	**Sn**	**09 21 57.4**	**-4.5**
FIRM	**Firavahana**	**5.93**	**168**	P	**Pn**	**09 20 56.6**	**+1.4**
ATG	**Ambohiby**	**6.00**	**174**	P	**Pn**	**09 20 57.9**	**+1.8**
ABPO	**Ambohimpanom**	**6.31**	**166**		**Pn**	**09 21 01.3**	**+0.9**
ABPO	**Ambohimpanom**	**6.31**	**166**	P	**Pn**	**09 21 01.4**	**+0.9**
ABPO				S	**Sn**	**09 22 10.8**	**-2.0**
ABPO	**Ambohimpanom**	**6.31**	**166**	P	**Pn**	**09 21 01.4**	**+0.9**
	comp=Z,8μmcomp=Z,607nm,0.7s						
MDSM	**Mandiavato**	**6.33**	**167**	P	**Pn**	**09 21 02.8**	**+2.0**
AVY	**Angavokely**	**6.37**	**161**	P	**Pn**	**09 21 01.9**	**+0.6**
DGRM	**Ambatolahisoa**	**6.40**	**173**	P	**Pn**	**09 21 02.9**	**+1.3**
ABM	**Ambohimiarambe**	**7.08**	**166**	P	**Pn**	**09 21 12.1**	**+1.0**
VOI	**Vohitsoka**	**9.06**	**173**		**Pn**	**09 21 38.1**	**0.0**
VOI	**Vohitsoka**	**9.06**	**173**	P	**Pn**	**09 21 39.0**	**+0.9**
	comp=Z,38nm,0.9s						
FOMA	**Nahampoana Res**	**12.11**	**174**	Pn	**Pn**	**09 22 20.0**	**+0.3**
FOMA	**Nahampoana Res**	**12.11**	**174**	P	**Pn**	**09 22 20.2**	**+0.5**
	comp=Z,28nm,1.2s						
MSEY	**Mahe Island**	**12.73**	**51**		**Pn**	**09 22 25.6**	**-2.8**
MSEY	**Mahe Island**	**12.73**	**51**	P	**Pn**	**09 22 26.6**	**-1.8**
	comp=Z,68nm,1.0s						
RER	**Riviere de l'E**	**12.74**	**132**		**Pn**	**09 22 27.6**	**-0.9**
RER	**Riviere de l'E**	**12.74**	**132**	P	**Pn**	**09 22 27.1**	**-1.5**
	comp=Z,253nm,0.7s						
KIBK	**Kibwezi**	**12.85**	**324**		**Pn**	**09 22 26.9**	**-3.1**
KIBK	**Kibwezi**	**12.85**	**324**	P	**Pn**	**09 22 27.7**	**-2.3**
	comp=Z,513nmcomp=Z,28nm,0.4s						
KMBO	**Kilima Mbogo**	**14.29**	**324**	Pn	Pn	09 22 43.1	-6.7
	baz=134,slow=18						
KMBO				Sn	Sn	09 25 14.4	-14
	baz=97,slow=17						
MBAR	**Mbarara**	**19.10**	**309**	P	**Pn**	**09 23 50.1**	**-1.1**
	comp=Z,2.0nm,0.3s,baz=134,slow=13,SNR=9.2						
MBAR				S	Sn	09 27 09.4	-16
	comp=Z,3.3nm,0.2s,baz=140,slow=7.9,SNR=1.6						
MBAR				LR	LR	09 31 11.4	
	comp=Z,110nm,19.0s,baz=142,slow=37						
	comp=Z,4.0nm,0.3s						
MBAR				AML	AML		
MBAR	**Mbarara**	**19.10**	**309**	P	**P**	**09 23 49.4**	**-0.9**
MBAR				IAmb	IAmb	09 23 58.1	
	comp=Z,10nm,0.8s						
MBAR	**Mbarara**	**19.10**	**309**	P	**Pn**	**09 23 50.7**	**-0.5**
	comp=Z,403nmcomp=Z,20nm,0.9s						
LODK	**Lodwar**	**19.10**	**327**		**Pn**	**09 23 49.4**	**-1.7**
LODK	**Lodwar**	**19.10**	**327**	P	**P**	**09 23 47.8**	**-2.5**
	comp=Z,9.3nm,1.1s						
POGA	**Pongola**	**19.39**	**220**		**P**	**09 23 53.0**	**-0.2**
POGA				IAmb	IAmb	09 23 58.6	
	comp=Z,39nm,0.8s						
POGA	**Pongola**	**19.39**	**220**	P	**P**	**09 23 53.8**	**+0.6**
	comp=Z,150nm,1.0s						
KSANE	**Kasane**	**20.28**	**253**	P	**P**	**09 24 03.4**	**+0.2**
KSANE				IAmb	IAmb	09 24 12.2	
	comp=Z,29nm,1.0s						
LBTB	**Lobatse**	**22.39**	**234**	LR	LR	09 33 28.5	
	comp=Z,277nm,18.4s,baz=64,slow=38						
LBTB	**Lobatse**	**22.39**	**234**	P	**P**	**09 24 25.5**	**-0.3**
LBTB	**Lobatse**	**22.39**	**234**	P	**P**	**09 24 26.8**	**+1.0**
	comp=Z,55nm,1.1s						
KDWAN	**Kaudwane**	**22.42**	**239**		**P**	**09 24 25.1**	**-1.2**
BOSA	**Boshof**	**24.56**	**227**	P	**P**	**09 24 47.3**	**0.0**
	comp=Z,12nm,0.6s,baz=57,slow=9.7,SNR=31						
BOSA				LR	LR	09 35 05.0	
	comp=Z,93nm,18.5s,baz=32,slow=38						
	comp=Z,12nm,0.6s						
BOSA	**Boshof**	**24.56**	**227**	P	**P**	**09 24 47.4**	**0.0**
BOSA				IAmb	IAmb	09 24 51.4	
	comp=Z,16nm,0.8s						
BOSA	**Boshof**	**24.56**	**227**	P	**P**	**09 24 47.6**	**+0.2**
	comp=Z,30nm,1.3s						
GRTLG	**Ghanzi**	**24.73**	**247**	P	**P**	**09 24 49.8**	**+0.7**
PHPEN	**Phepeng**	**24.80**	**236**	P	**P**	**09 24 47.4**	**-2.1**
PHPEN				IAmb	IAmb	09 24 52.0	
	comp=Z,21nm,0.7s						
LKGWB	**Lokgwabe**	**25.61**	**241**		**P**	**09 24 51.4**	**-5.6**
KOOLE	**Kule**	**26.12**	**244**		**P**	**09 25 01.6**	**0.0**
TSUM	**Tsumeb**	**27.60**	**253**	LR	LR	09 36 12.3	
	comp=Z,217nm,18.0s,baz=149,slow=37						
WIN	**Windhoek**	**28.74**	**246**	P	**P**	**09 25 24.4**	**-0.7**
	comp=Z,27nm,1.8s						
SUR	**Sutherland**	**29.86**	**225**	LR	LR	09 36 45.9	
	comp=Z,72nm,20.4s,baz=119,slow=35						
SUR	**Sutherland**	**29.86**	**225**	P	**P**	**09 25 34.3**	**-0.8**
PALK	**Pallekele**	**40.24**	**62**	LR	LR	09 40 24.7	
	comp=Z,81nm,19.0s,baz=288,slow=31						
EIL	**Elat**	**43.52**	**347**	LR	LR	09 46 03.6	
	comp=Z,36nm,18.4s,baz=210,slow=37						
ASF	**Jabal al Asfar**	**45.56**	**350**	LR	LR	09 47 31.1	
	comp=Z,32nm,18.1s,baz=155,slow=37						
GNI	**Garni**	**52.76**	**359**	LR	LR	09 52 22.8	
	comp=Z,48nm,19.3s,baz=164,slow=38						
BRTR	**Keskin Array B**	**53.49**	**349**	LR	LR	09 52 03.6	
	comp=Z,42nm,18.4s,baz=164,slow=37						
MAW	**Mawson**	**55.86**	**172**	LR	LR	09 50 46.2	
	comp=Z,94nm,18.1s,baz=297,slow=34						
BRDH	**Bariadhala**	**57.31**	**52**	LR	LR	09 54 36.7	
	comp=Z,186nm,18.1s,baz=204,slow=37						
CMAR	**Chiang Mai Arr**	**61.14**	**60**	P	**P**	**09 29 45.4**	**+3.2**
	comp=Z,1.8nm,0.7s,baz=254,slow=6.7,SNR=5.0						
CMAR				LR	LR	09 53 53.1	
	comp=Z,59nm,18.1s,baz=255,slow=34						
	comp=Z,1.8nm,0.7s						
AB31	**Akbulak array**	**63.15**	**11**	P	**P**	**09 29 54.7**	**-0.3**
AB31				IAmb	IAmb	09 30 03.0	
	comp=Z,7.8nm,0.8s						
ABKAR	**Akbulak array**	**63.15**	**11**	P	**P**	**09 29 54.9**	**-0.1**
TROLL	**Troll, Antarti**	**64.41**	**194**	⇑P	**P**	**09 30 06.5**	**+3.2**
	comp=Z,363nm,0.8s						
SNAA	**Sanae**	**65.49**	**195**	LR	LR	09 52 20.9	
	comp=Z,57nm,20.2s,baz=12,slow=30						
VNA1	**Neumayer--Stat**	**66.39**	**197**	⇑P	**P**	**09 30 19.0**	**+3.1**
	comp=Z,8.3nm,1.2s						
VNA3	**Neumayer Olymp**	**67.09**	**197**	⇑P	**P**	**09 30 22.8**	**+2.4**
	comp=Z,6.4nm,0.8s						
VNA3	**Neumayer Olymp**	**67.09**	**197**	P	**P**	**09 30 20.1**	**-0.3**
	comp=Z,11nm,0.9s						
GERES	**GERESS Array B**	**67.61**	**338**	P	**P**	**09 30 24.1**	**0.0**
	comp=Z,0.7nm,0.6s,baz=147,slow=5.6,SNR=5.8						
	comp=Z,0.7nm,0.6s						
GERES	**GERESS Array B**	**67.61**	**338**	P	**P**	**09 30 23.6**	**-0.5**
MKAR	**Makanchi Array**	**67.90**	**26**	P	**P**	**09 30 26.4**	**+0.6**
	comp=Z,1.2nm,0.9s,baz=211,slow=8.2,SNR=7.0						
	comp=Z,1.2nm,0.9s						
MKAR	**Makanchi Array**	**67.90**	**26**	P	**P**	**09 30 25.5**	**-0.4**
BVAR	**Borovoye Array**	**69.01**	**16**	P	**P**	**09 30 34.4**	**+1.9**
	comp=Z,0.6nm,0.4s,baz=213,slow=5.0,SNR=5.2						
	comp=Z,0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**69.48**	**22**	P	**P**	**09 30 38.5**	**+2.9**
	comp=Z,0.3nm,0.4s,baz=220,slow=6.9,SNR=4.1						
	comp=Z,0.3nm,0.4s						
KURK	**Kurchatov**	**69.59**	**22**	P	**P**	**09 30 36.4**	**+0.2**
KURK				IAmb	IAmb	09 30 53.8	
	comp=Z,1.4nm,0.7s						
ESDC	**Sonseca Array**	**69.66**	**321**	P	**P**	**09 30 38.2**	**+1.2**
	comp=Z,0.7nm,0.8s,baz=112,slow=3.3,SNR=4.9						
	comp=Z,0.7nm,0.8s						
ESDC	**Sonseca Array**	**69.66**	**321**	P	**P**	**09 30 37.0**	**0.0**
ESDC				IAmb	IAmb	09 30 39.8	
	comp=Z,7.9nm,1.3s						
KIRV	**Kirov**	**71.27**	**2**	LR	LR	10 04 45.5	
	comp=Z,69nm,19.5s,baz=112,slow=38						
BMRD	**Maredsous**	**72.33**	**334**	*d*P	**P**	**09 30 52.5**	**-0.4**
ZALV	**Zalesovo Beam**	**74.46**	**23**	P	**P**	**09 31 07.5**	**+2.1**
	comp=Z,0.8nm,0.5s,baz=224,slow=6.0,SNR=5.0						
	comp=Z,0.8nm,0.5s						
ZALV	**Zalesovo Beam**	**74.46**	**23**	P	**P**	**09 31 04.5**	**-0.9**
FINES	**FINESS Array B**	**75.67**	**350**	P	**P**	**09 31 12.5**	**+0.4**
	comp=Z,1.6nm,0.7s,baz=174,slow=5.3,SNR=3.6						
	comp=Z,1.6nm,0.7s						
FINES	**FINESS Array B**	**75.67**	**350**	P	**P**	**09 31 10.0**	**-2.2**
HFS	**Hagfors**	**77.13**	**344**	P	**P**	**09 31 21.4**	**+1.0**
	comp=Z,0.8nm,0.5s,baz=158,slow=12,SNR=2.3						
	comp=Z,0.8nm,0.5s						
QSPA	**South Pole Qui**	**77.22**	**180**	P	**P**	**09 31 23.1**	**+1.8**
	comp=Z,2.0nm,0.8s,baz=255,slow=6.5,SNR=9.0						
	comp=Z,2.0nm,0.8s						
QSPA	**South Pole Qui**	**77.22**	**180**	P	**P**	**09 31 20.4**	**-0.9**
QSPA				IAmb	IAmb	09 31 31.2	
	comp=Z,4.0nm,1.1s						
HHC	**Hu-ho-hao-te**	**80.98**	**45**	*e*P	**P**	**09 31 42.0**	**-0.2**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,180nm,5.1s						
SONM	**Songino Array**	**80.98**	**37**	P	**P**	**09 31 45.2**	**+3.1**
	comp=Z,0.3nm,0.4s,baz=269,slow=4.2,SNR=2.0						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**80.98**	**37**	P	**P**	**09 31 42.0**	**-0.1**
NJ2	**Nanjing**	**83.03**	**55**	*e*P	**P**	**09 31 54.3**	**+1.3**
NJ2				pmax	pmax		
	comp=Z,11nm,0.6s						
ASAR	**Alice Springs**	**83.43**	**113**	P	**P**	**09 31 56.2**	**+0.8**
	comp=Z,1.9nm,0.6s,baz=265,slow=4.9,SNR=35						
	comp=Z,1.9nm,0.6s						
ASAR	**Alice Springs**	**83.43**	**113**	P	**P**	**09 31 55.0**	**-0.4**
WRA	**Warramunga Arr**	**84.56**	**109**	P	**P**	**09 32 02.0**	**+0.8**
	comp=Z,1.8nm,0.8s,baz=260,slow=3.3,SNR=11						
	comp=Z,1.8nm,0.8s						
WRA	**Warramunga Arr**	**84.56**	**109**	P	**P**	**09 32 01.7**	**+0.5**
KSRS	**Korea Array**	**91.76**	**52**	LR	LR	10 14 32.5	
	comp=Z,12nm,18.3s,baz=30,slow=36						
CPUP	**Villa Florida**	**95.61**	**242**	LR	LR	10 13 03.7	
	comp=Z,55nm,22.0s,baz=80,slow=34						
TXAR	**Lajitas Array**	**147.10**	**305**	PKPbc	**PKPbc**	**09 39 11.2**	**+0.1**
	comp=Z,0.4nm,0.7s,baz=51,slow=5.2,SNR=4.8						
NVAR	**Mina Array Bea**	**150.79**	**333**	PKPbc	**PKiKP**	**09 39 21.7**	**+0.6**
	comp=Z,0.3nm,0.7s,baz=25,slow=4.6,SNR=1.8						

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*IDC **10** 09:49:57.8±3.0, 33°.58N×140°.91E, h0km, mb3.4/2, mbtmp3.3/3, ML2.7/1, Error ellipse: s-maj=105.4km s-min=17.6km az=67.0*
*JMA **10** 09:49:59.8±0.1, 34°.1N±0°.6×141°.6E±0°.6, h16km±3km, MV3.2/19, FAR SE OFF BOSO PEN*
ISC 10 09:49:58.8±2.8, 33°.9N±0°.3×141°.5E±0°.5, h24km, n5, σ0s77/6, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BSO1	**Boso 1**	**0.87**	**328**	*e*P	**Pb**	**09 50 14.5**	**-0.4**
BSO3	**Boso 3**	**1.23**	**316**	*e*P	**Pn**	**09 50 20.7**	**+0.5**
MJAR	**Matsushiro Arr**	**3.78**	**315**	Pn	**Pn**	**09 50 56.5**	**+1.0**
	0.6nm,0.3s,baz=145,slow=10,SNR=44						
MJAR				Sn	**Sn**	**09 51 38.7**	**-0.6**
	0.1nm,0.3s,baz=143,slow=18,SNR=4.3						
	2.9nm,0.3s						
MJAR				AML	AML		
WRA	**Warramunga Arr**	**54.00**	**188**	P	**P**	**09 59 20.7**	**-0.4**
	0.5nm,0.8s,baz=3.4,slow=7.3,SNR=4.8						
	0.5nm,0.8s						
ASAR	**Alice Springs**	**57.73**	**188**	P	**P**	**09 59 47.7**	**0.0**
	0.3nm,0.8s,baz=1.7,slow=6.7,SNR=4.4						
	0.3nm,0.8s						

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*IDC **10** 09:51:11.2±1.3, 13°.76N×120°.43E, h0km, mb3.9/5, mbtmp3.9/5, MS3.3/2, Error ellipse: s-maj=69.0km s-min=21.0km az=58.0*
*MAN **10** 09:51:14.0, 13°.64N×119°.92E, h16km, MS3.5*
ISC 10 09:51:14.7±1.0, 13°.5N±0°.1×120°.02E±0°.07, h16km, n11, σ1s10/12, mb3.9/4, Mindoro

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PGP	**Puerto Galera**	**0.91**	**87**	*e*P	**Pn**	**09 51 33.5**	**+0.6**
PGP				*e*S	**Sn**	**09 51 46.1**	**+0.4**
TGY	**Tagaytay City**	**1.10**	**54**	*e*P	**Pb**	**09 51 35.7**	**+0.3**
TGY				*e*S	**Sn**	**09 51 51.3**	**+0.9**
LQP	**Lukban**	**1.61**	**66**	*e*P	**Pn**	**09 51 43.5**	**+0.8**
LQP				*e*S	**Sn**	**09 52 03.2**	**-0.2**
GQP	**Guinayangan**	**2.40**	**79**	*e*P	Pn	09 51 47.8	-5.6
GQP				*i* S	**Sg**	**09 52 31.1**	**-0.9**
CMAR	**Chiang Mai Arr**	**20.86**	**287**	P	**P**	**09 55 57.9**	**+1.8**
	1.3nm,0.3s,baz=96,slow=9.8,SNR=4.3						
	1.3nm,0.3s						
WRA	**Warramunga Arr**	**36.06**	**157**	P	**P**	**09 58 15.3**	**-0.4**
	1.3nm,0.6s,baz=336,slow=8.9,SNR=15						
	1.3nm,0.6s						
KLR	**Kul'dur**	**36.96**	**13**	LR	LR	10 15 18.0	
	comp=Z,40nm,18.6s,baz=208,slow=40						
ASAR	**Alice Springs**	**39.31**	**160**	P	**P**	**09 58 43.7**	**+0.4**
	0.9nm,0.5s,baz=342,slow=8.4,SNR=23						
	0.9nm,0.5s						
MKAR	**Makanchi Array**	**45.84**	**324**	P	**P**	**09 59 35.9**	**-0.2**
	0.1nm,0.4s,baz=110,slow=6.3,SNR=1.9						
	0.1nm,0.4s						
AAK	**Ala-Archa**	**48.77**	**316**	LR	LR	10 22 06.0	
	comp=Z,33nm,19.0s,baz=336,slow=38						
ARCES	**ARCESS Array B**	**79.07**	**339**	P	**P**	**10 03 15.9**	**-2.1**
	4.5nm,0.9s,baz=65,slow=6.1,SNR=4.6						
	4.5nm,0.9s						

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*UPA **10** 09:55:32.0±2.0, 7°.44N×79°.39W, h43km±117km, MW3.3, Presumed earthquake*
*RSNC **10** 09:55:56.5±0.0, 7°.N±3°×7°.3W±°, h148km±6km, M3.5, mB4.1, mb3.9, ML3.3, Mw(mB)3.2*
*FUNV **10** 09:55:58.2, 6°.92N×73°.06W, h148km, MW3.7, Presumed earthquake*
*IDC **10** 09:55:59.6±4.4, 6°.53N×73

ROSC	**El Rosal**	**2.36**	**212**	P		**Pn**	**09 56 37.4**	**+1.5**	
	77nm,0.3s,baz=41,slow=19,SNR=55								
ROSC				S		**Sn**	**09 57 04.3**	**-2.5**	
	488nm,0.4s,baz=100,slow=17,SNR=23								
ROSC	**El Rosal**	**2.36**	**212**	P		**Pn**	**09 56 37.6**	**+1.8**	
ROSC				S		**Sn**	**09 57 06.3**	**-0.5**	
CVER	**Cruz Verde, Cu**	**2.53**	**203**	P		**Pn**	**09 56 39.2**	**+1.3**	
CVER				S		**Sn**	**09 57 10.5**	**-0.1**	
UREC	**San Jos de Ur**	**2.61**	**290**	P		**Pn**	**09 56 37.5**	**-0.9**	
UREC				S		**Sn**	**09 57 08.8**	**-2.6**	
UREC	**San Jos de Ur**	**2.61**	**290**	*eP*		**Pn**	**09 56 38.0**	**-0.4**	
UREC				*eS*		**Sn**	**09 57 09.2**	**-2.2**	
PTGC	**Puerto Gaitan,**	**2.80**	**161**	P		**Pn**	**09 56 40.7**	**-0.1**	
PTGC				S		**Sn**	**09 57 13.2**	**-2.5**	
VILC	**Villavicencio,**	**2.80**	**193**	P		**Pn**	**09 56 41.5**	**+0.6**	
VILC				S		**Sn**	**09 57 14.8**	**-1.2**	
GUY2C	**Guyana, Caldas**	**2.81**	**235**	P		**Pn**	**09 56 41.8**	**+0.5**	
GUY2C				S		**Sn**	**09 57 19.0**	**+2.4**	
NIZA	**Niza - Manizal**	**2.99**	**233**	P		**Pn**	**09 56 43.2**	**-0.2**	
NIZA				S		**Sn**	**09 57 19.6**	**-0.8**	
ARGC	**Ariguani, Magd**	**3.20**	**339**	P		**Pn**	**09 56 48.2**	**+2.4**	
ARGC				S		**Sn**	**09 57 26.0**	**+1.2**	
PRAC	**Prado**	**3.61**	**210**	P		**Pn**	**09 56 51.1**	**0.0**	
PRAC				S		**Sn**	**09 57 33.3**	**-1.0**	
APAC	**Apartado, Choc**	**3.64**	**287**	P		**Pn**	**09 56 51.6**	**+0.2**	
APAC				S		**Sn**	**09 57 33.9**	**-0.8**	
ORTC	**Ortega, Tolima**	**3.65**	**217**	P		**Pn**	**09 56 52.0**	**+0.4**	
ORTC				S		**Sn**	**09 57 34.2**	**-0.9**	
SJCC	**San Jacinto, C**	**3.67**	**325**	P		**Pn**	**09 56 51.9**	**0.0**	
SJCC				S		**Sn**	**09 57 32.9**	**-2.8**	
SJCC	**San Jacinto, C**	**3.67**	**325**	*eP*		**Pn**	**09 56 52.1**	**+0.2**	
SJCC				*eS*		**Sn**	**09 57 32.7**	**-3.0**	
SJCC	**San Jacinto, C**	**3.67**	**325**	*iP*		**Pn**	**09 56 52.0**	**0.0**	
SJCC				*eS*		**Sn**	**09 57 35.4**	**-0.3**	
URMC	**La Uribe, Meta**	**3.82**	**200**	P		**Pn**	**09 56 54.3**	**+0.5**	
URMC				S		**Sn**	**09 57 37.6**	**-1.5**	
LCBC	**Los crdobas,**	**3.83**	**301**	P		**Pn**	**09 56 53.8**	**0.0**	
LCBC				S		**Sn**	**09 57 38.8**	**-0.3**	
CRJC	**Cerrejon, Guaj**	**4.14**	**2**	P		**Pn**	**09 56 58.0**	**0.0**	
CRJC				S		**Sn**	**09 57 45.9**	**-0.7**	
GUVC	**San Jose del G**	**4.31**	**174**	P		**Pn**	**09 57 00.0**	**-0.1**	
GUVC				S		**Sn**	**09 57 46.3**	**-4.1**	
YOTC	**Yotoco, Valle**	**4.34**	**229**	P		**Pn**	**09 57 00.3**	**-0.3**	
YOTC				S		**Sn**	**09 57 50.3**	**-1.0**	
SMRC	**Santa Marta, M**	**4.43**	**345**	P		**Pn**	**09 57 01.6**	**-0.1**	
SMRC				S		**Sn**	**09 57 51.1**	**-2.1**	
MACC	**Macarena, Meta**	**4.75**	**190**	P		**Pn**	**09 57 04.3**	**-1.6**	
MACC				S		**Sn**	**09 57 53.8**	**-6.9**	
BETC	**Betania**	**4.78**	**210**	P		**Pn**	**09 57 03.3**	**-3.0**	
BETC				S		**Sn**	**09 57 55.8**	**-5.7**	
TEPV	**Terepaima**	**4.92**	**51**	*eP*		**Pn**	**09 57 08.4**	**+0.3**	
TEPV				*eS*		**Sn**	**09 57 59.0**	**-5.7**	
URIC	**Uribia, Colomb**	**4.93**	**12**	P		**Pn**	**09 57 07.9**	**-0.3**	
URIC				S		**Sn**	**09 58 05.6**	**+0.7**	
URIC	**Uribia, Colomb**	**4.93**	**12**	*eP*		**Pn**	**09 57 08.1**	**-0.1**	
URIC				*eS*		**Sn**	**09 57 58.6**	**-6.3**	
JAMC	**Jamundi, Valle**	**5.10**	**225**	P		**Pn**	**09 57 13.3**	**+2.5**	
JAMC				S		**Sn**	**09 58 08.6**	**-0.8**	
UPD2	**Meteti**	**5.19**	**289**	P		**Pn**	**09 57 10.6**	**-1.0**	
	18nm,0.8s								
UPD2				S		**Sn**	**09 58 08.9**	**-2.1**	
	18nm,0.8s								
MAPV	**Macapo**	**5.43**	**57**	*eP*		**Pn**	**09 57 15.4**	**+0.5**	
MAPV				*eS*		**Sn**	**09 58 10.7**	**-6.2**	
POPC	**Popayan, Colom**	**5.60**	**220**	P		**Pn**	**09 57 17.8**	**+0.4**	
	8.2nm,0.6s								
POPC				S		**Sn**	**09 58 21.0**	**-0.3**	
	8.2nm,0.6s								
POPC				AML		AML			
BENV	**Beln**	**6.22**	**60**	*eP*		**Pn**	**09 57 25.7**	**+0.2**	
BENV				*eS*		**Sn**	**09 58 30.9**	**-4.9**	
TURV	**Turiamo**	**6.28**	**55**	*eP*		**Pn**	**09 57 26.7**	**+0.6**	
BBAC	**Balboa, Cauca**	**6.36**	**221**	P		**Pn**	**09 57 28.5**	**+1.0**	
BBAC				S		**Sn**	**09 58 35.0**	**-4.4**	
CACV	**CAICARA DEL OR**	**6.51**	**83**	*eP*		Pn	09 57 36.3	+7.1	
PAC1	**Pacto, Paraso**	**8.69**	**221**	P		**Pn**	**09 57 59.3**	**+0.9**	
PAC1				S		**Sn**	**09 59 33.4**	**-1.9**	
LPAZ	**La Paz**	**23.51**	**168**	P		**P**	**10 00 52.0**	**-0.2**	
	0.4nm,0.4s,baz=340,slow=7.8,SNR=1.5								
	0.4nm,0.4s								
TXAR	**Lajitas Array**	**36.48**	**312**	P		**P**	**10 02 46.9**	**+0.9**	
	0.4nm,0.6s,baz=122,slow=7.5,SNR=4.3								
	0.4nm,0.6s								
PDAR	**Pinedale Array**	**48.08**	**324**	P		**P**	**10 04 20.9**	**+1.2**	
	0.2nm,0.4s,baz=139,slow=8.1,SNR=3.6								
	0.2nm,0.4s								
YKA	**Yellowknife Ar**	**63.25**	**340**	P		**P**	**10 06 08.1**	**+0.9**	
	0.9nm,0.6s,baz=132,slow=6.4,SNR=1.6								
	0.9nm,0.6s								

NEIC ***10*** *10:04:42.8±1.0, 17°.98S±0°.10×174°.94W±0°.08, h261km±7km, mb4.6/151, Error ellipse: s-maj=14.4km s-min=10.7km az=191.0*

BJI ***10*** *10:04:43.8, 17°.50S×175°.01W, h262km, mB4.8/6, mb4.8/24*

IDC ***10*** *10:04:43.2±0.7, 17°.99S×175°.04W, h258km±6km, mb4.2/17, mbtmp4.8/20, Error ellipse: s-maj=13.3km s-min=10.2km az=129.0*

GFZ ***10*** *10:04:43.7±0.4, 18°.5S±6°×17°.5W±°, h268km±4km, M4.8/35, mb4.8/35, Error ellipse: s-maj=12.0km s-min=6.4km az=167.3, confirmed*

NOU ***10*** *10:04:44.3, 17°.88S×174°.99W, h278km, mb4.7/56, Tonga Islands*

ISC 10 10:04:43.1±0.3, 17°.97S±0°.05×175°.03W±0°.04, h261km, n407, σ1§31/375, mb4.7/139, 34C-20D, Tonga Islands

Code	Station Name	Δ°	Az°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
LKBA	**Tubou, Lakemba**	**3.62**	**265**	P		**Pn**	**10 05 46.0**	**+3.0**
FUTU	**Fugatoga**	**4.70**	**320**			**Pn**	**10 05 57.2**	**+1.5**
FUTU	**Fugatoga**	**4.70**	**320**	P		**Pn**	**10 05 57.1**	**+1.4**
FUTU				AML		AML		
FUTU	**Fugatoga**	**4.70**	**320**	P		**Pn**	**10 05 57.5**	**+1.8**
TAVE	**Taveuni**	**4.83**	**284**	P		**Pn**	**10 05 59.8**	**+2.6**
NIUE	**Niue**	**4.96**	**104**	P		**Pn**	**10 05 58.4**	**-0.4**
NIUE	**Niue**	**4.96**	**104**	S		**S**	**10 07 01.8**	**+2.6**
NIUE	**Niue**	**4.96**	**104**			**Pn**	**10 05 57.5**	**-1.3**
NIUE	**Niue**	**4.96**	**104**	P		**Pn**	**10 05 57.7**	**-1.1**
NIUE				T		T	10 10 00.3	
NIUE				AML		AML		
NIUE	**Niue**	**4.96**	**104**	P		**Pn**	**10 05 57.9**	**-0.9**
DGTI	**Dogotuki**	**5.28**	**288**	P		**Pn**	**10 06 04.6**	**+1.9**
MSVF	**Nonsavu**	**6.60**	**271**	P		**Pn**	**10 06 20.8**	**+1.8**
	176nm,0.9s,baz=115,slow=13,SNR=74							
MSVF	**Nonsavu**	**6.60**	**271**	P		**Pn**	**10 06 21.6**	**+2.6**
MSVF	**Nonsavu**	**6.60**	**271**			**Pn**	**10 06 21.3**	**+2.2**
MSVF	**Nonsavu**	**6.60**	**271**	P		**Pn**	**10 06 21.7**	**+2.6**
MSVF				AML		AML		
MSVF	**Nonsavu**	**6.60**	**271**	P		**Pn**	**10 06 22.1**	**+3.1**
	comp=Z,290nm,1.0s							
RAO	**Raoul Island**	**11.54**	**193**	P		**Pn**	**10 07 16.8**	**-3.9**
	comp=Z,435nm,0.4s,baz=314,slow=23,SNR=2.2							
RAO	**Raoul Island**	**11.54**	**193**	Pn		**Pn**	**10 07 17.5**	**-3.2**
RAR	**Rarotonga**	**14.73**	**105**	P		**Pn**	**10 07 59.2**	**-0.5**
	comp=Z,68nm,0.8s,baz=244,slow=5.9,SNR=13							
RAR	**Rarotonga**	**14.73**	**105**	P		**Pn**	**10 07 59.4**	**-0.3**
RAR	**Rarotonga**	**14.73**	**105**	P		**P**	**10 07 57.7**	**-1.7**
RAR	**Rarotonga**	**14.73**	**105**	P		**Pn**	**10 07 58.9**	**-0.8**
RAR	**Rarotonga**	**14.73**	**105**	P		**P**	**10 07 58.1**	**-1.3**
	comp=Z,142nm,0.9s							
MARNC	**Mare, Loyalty**	**16.33**	**255**	P		**P**	**10 08 16.8**	**-0.2**
MARNC	**Mare, Loyalty**	**16.33**	**255**	S		**S**	**10 11 15.9**	**+1.3**
PINNC	**Pines Island,**	**17.08**	**251**	P		**P**	**10 08 26.4**	**+1.3**
SANVU	**Saraoutou**	**17.21**	**276**	P		**P**	**10 08 27.5**	**+0.9**
SANVU	**Saraoutou**	**17.21**	**276**	P		**Pn**	**10 08 28.9**	**-0.1**
SANVU	**Saraoutou**	**17.21**	**276**	P		**Pn**	**10 08 29.1**	**+0.1**
	comp=Z,84nm,0.7s							
YATNC	**Mamie plateau,**	**17.47**	**254**	P		**P**	**10 08 29.8**	**+0.4**
DZM	**Mont Dzumac**	**17.88**	**254**	P		**P**	**10 08 33.6**	**-0.3**
	comp=Z,20nm,0.7s,baz=80,slow=17,SNR=15							
ONTNC	**Ouen Toro**	**17.92**	**253**	P		**P**	**10 08 33.8**	**-0.4**
NOUC	**Port Laguerre**	**18.02**	**254**	P		**P**	**10 08 36.7**	**+1.4**
OUZ	**Omahuta**	**19.94**	**208**	P		**P**	**10 08 57.1**	**+1.4**
OUZ	**Omahuta**	**19.94**	**208**	P		**Pn**	**10 08 59.0**	**-1.9**
WCZ	**Waipu Caves**	**20.23**	**206**	P		**P**	**10 09 00.4**	**+1.6**
HAZ	**Te Kaha**	**20.70**	**196**	P		**P**	**10 09 04.5**	**+0.8**
HAZ				S		**S**	**10 12 41.6**	**+3.1**
TWGZ	**Tauwhareparae**	**21.04**	**196**	P		**P**	**10 09 09.9**	**+2.6**
TWGZ				S		**S**	**10 12 46.6**	**+2.4**
MWZ	**Matawai**	**21.31**	**196**	P		**P**	**10 09 11.9**	**+2.1**
MWZ				S		**S**	**10 12 50.0**	**+1.4**
URZ	**Urewera**	**21.35**	**197**	P		**P**	**10 09 10.0**	**-0.1**
	comp=Z,11nm,0.3s,baz=84,slow=3.7,SNR=3.3							
URZ				S		**S**	**10 12 47.1**	**-2.0**
	comp=Z,15nm,0.7s,baz=72,slow=23,SNR=13							
	comp=Z,11nm,0.3s							
URZ	**Urewera**	**21.35**	**197**	P		**P**	**10 09 11.3**	**+1.1**
URZ	**Urewera**	**21.35**	**197**	P		**P**	**10 09 11.2**	**+1.1**
URZ				S		**S**	**10 12 49.3**	**+0.1**
TOZ	**Tahuroa Road**	**21.37**	**201**	P		**P**	**10 09 12.4**	**+2.1**
RAGZ	**Rawiri**	**21.49**	**196**	P		**P**	**10 09 13.6**	**+2.1**
RAGZ				S		**S**	**10 12 55.2**	**+3.6**
RIGZ	**Rimuhau**	**21.60**	**195**	P		**P**	**10 09 14.4**	**+1.8**
RIGZ				S		**S**	**10 12 58.4**	**+5.1**
MUGZ	**Murupara**	**21.65**	**198**	P		**P**	**10 09 14.5**	**+1.5**
RTZ	**Ruatahuna**	**21.72**	**197**	P		**P**	**10 09 16.5**	**+2.8**
MTHZ	**Maungataniwha**	**21.98**	**197**	P		**P**	**10 09 19.6**	**+3.5**
NMHZ	**Naumai**	**22.22**	**197**	P		**P**	**10 09 20.8**	**+2.5**
NMHZ				S		**S**	**10 13 10.3**	**+6.9**
HIZ	**Hauiti**	**22.30**	**201**	P		**P**	**10 09 21.0**	**+2.2**
HIZ	**Hauiti**	**22.30**	**201**	P		**P**	**10 09 21.9**	**+3.1**
BKZ	**Black Stump Fm**	**22.37**	**198**	P		**P**	**10 09 21.0**	**+1.4**
BKZ	**Black Stump Fm**	**22.37**	**198**	P		**P**	**10 09 20.5**	**+1.0**
BKZ				S		**S**	**10 13 09.4**	**+3.6**
TMVZ	**Te Maari**	**22.56**	**199**	P		**P**	**10 09 22.2**	**+0.8**
OTVZ	**Oturere**	**22.62**	**199**	P		**P**	**10 09 24.2**	**+2.2**
WNVZ	**Wahianoa**	**22.79**	**199**	P		**P**	**10 09 22.1**	**-1.5**
BHHZ	**Black Hill Sta**	**22.80**	**198**	P		**P**	**10 09 23.1**	**-0.3**
MOVZ	**Moawhango**	**22.82**	**199**	P		**P**	**10 09 26.1**	**+2.5**
KRHZ	**Kereru**	**22.85**	**197**	P		**P**	**10 09 25.7**	**+1.7**
KAHZ	**Kahuranaki**	**22.85**	**196**	P		**P**	**10 09 26.3**	**+2.4**
VRZ	**Vera Road**	**22.88**	**201**	P		**P**	**10 09 27.8**	**+3.7**
PXZ	**Pawanui**	**23.08**	**196**	P		**P**	**10 09 29.7**	**+3.8**
PNHZ	**Pukenui**	**23.15**	**197**	P		**P**	**10 09 28.3**	**+1.6**
PKE	**Pukeiti**	**23.21**	**202**	P		**P**	**10 09 31.6**	**+4.4**
TSZ	**Takapari Road**	**23.35**	**198**	P		**P**	**10 09 31.0**	**+2.5**
DVHZ	**Dannevirke**	**23.52**	**197**	P		**P**	**10 09 31.5**	**+1.5**
ANWZ	**Angora Road**	**23.58**	**196**	P		**P**	**10 09 32.4**	**+1.9**
BFZ	**Birch Farm**	**23.85**	**197**	P		**P**	**10 09 33.9**	**+0.9**
BFZ	**Birch Farm**	**23.85**	**197**	P		**P**	**10 09 35.8**	**+2.8**
MRZ	**Mangatainoka R**	**24.02**	**198**	P		**P**	**10 09 34.6**	**+0.1**
HOWZ	**Holdsworth Sta**	**24.26**	**198**	P		**P**	**10 09 38.3**	**+1.7**
SNZO	**South Karori**	**24.88**	**199**	P		**P**	**10 09 43.5**	**+1.3**
TCW	**Tory Channel**	**24.92**	**199**	P		**P**	**10 09 45.0**	**+2.4**
QRZ	**Quartz Range**	**25.17**	**203**	P		**P**	**10 09 45.8**	**+0.9**
QRZ	**Quartz Range**	**25.17**	**203**	P		**P**	**10 09 46.4**	**+1.5**
TKNZ	**Takaka Hill**	**25.20**	**202**	P		**P**	**10 09 46.1**	**+0.9**
NNZ	**Nelson**	**25.22**	**201**	P		**P**	**10 09 46.5**	**+1.3**
TUWZ	**Tuamarina**	**25.22**	**200**	P		**P**	**10 09 47.7**	**+2.4**
MRNZ	**Matariki Terra**	**25.59**	**202**	P		**P**	**10 09 49.8**	**+1.1**
THZ	**Tophouse**	**25.87**	**201**	P		**P**	**10 09 52.5**	**+1.3**
KHZ	**Kahutara**	**26.24**	**199**	P		**P**	**10 09 55.5**	**+1.1**
KHZ	**Kahutara**	**26.24**	**199**	P		**P**	**10 09 55.1**	**+0.7**
TATA	**Tatamba Isabel**	**26.26**	**288**	P		**P**	**10 09 54.7**	**-0.2**
GVZ	**Greta Valley S**	**26.90**	**200**	P		**P**	**10 10 01.1**	**+0.8**
LTZ	**Lake Taylor**	**26.99**	**201**	P		**P**	**10 10 00.9**	**-0.2**
OXZ	**Oxford**	**27.55**	**201**	P		**P**	**10 10 05.8**	**-0.3**
OXZ				AMb		AMb	10 10 08.2	
	comp=Z,15nm,0.6s							
EIDS	**Eidsvold**	**32.28**	**251**	P		**P**	**10 10 48.0**	**+0.1**
EIDS	**Eidsvold**	**32.28**	**251**			**P**	**10 10 47.0**	**-0.9**
EIDS				AMb		AMb	10 10 48.3	
	comp=Z,17nm,1.0s							
EIDS	**Eidsvold**	**32.28**	**251**	P		**P**	**10 10 47.4**	**-0.5**
	comp=Z,18nm,1.2s							
ARMA	**Armidale**	**32.72**	**241**	P		**P**	**10 10 52.4**	**+0.6**
ARMA	**Armidale**	**32.72**	**241**			**P**	**10 10 51.9**	**+0.2**
ARMA	**Armidale**	**32.72**	**241**	P		**P**	**10 10 52.7**	**+0.9**
	comp=Z,31nm,1.3s							
CTA	**Charters Tower**	**36.61**	**260**	P		**P**	**10 11 24.1**	**-0.9**
CTAO	**Charters Tower**	**36.61**	**260**	P		**P**	**10 11 24.1**	**-0.9**
CTAO	**Charters Tower**	**36.61**	**260**	P		**P**	**10 11 23.7**	**-1.4**
CTAO				AMb		AMb	10 11 25.0	
	comp=Z,15nm,0.8s							
CTAO	**Charters Tower**	**36.61**	**260**	P		**P**	**10 11 24.2**	**-0.8**
	comp=Z,26nm,1.2s							
PMG	**Port Moresby**	**37.65**	**278**	P		**P**	**10 11 33.8**	**+0.1**
PMG				AMb		AMb	10 11 35.4	
	comp=Z,33nm,0.8s							
CMSA	**Cobar Meteorol**	**37.94**	**242**	P		**P**	**10 11 35.9**	**-0.1**
CMSA	**Cobar Meteorol**	**37.94**	**242**	P		**P**	**10 11 35.9**	**-0.1**
	comp=Z,46nm,0.8s							
QLP	**Quilpie**	**38.53**	**250**	P		**P**	**10 11 40.3**	**-0.6**
QLP	**Quilpie**	**38.53**	**250**	P		**P**	**10 11 40.8**	**-0.2**
	comp=Z,141nm,0.9s							
MTSU	**Mount Surprise**	**38.60**	**263**	P		**P**	**10 11 40.5**	**-1.2**
	comp=Z,7.4nm,0.7s							
MANU	**Manus Island**	**40.15**	**289**	P		**P**	**10 11 53.7**	**-0.6**
STKA	**Stephens Creek**	**41.44**	**242**	P		**P**	**10 12 04.2**	**-0.4**
	comp=Z,24nm,0.9s,baz=86,slow=9.1,SNR=28							
	comp=Z,24nm,0.9s							
STKA	**Stephens Creek**	**41.44**	**242**			**P**	**10 12 04.3**	**-0.4**
STKA	**Stephens Creek**	**41.44**	**242**	P		**P**	**10 12 04.1**	**-0.6**
	comp=Z,155nm,0.9s							
QIS	**Mount Isa**	**42.81**	**259**	P		**P**	**10 12 14.9**	**-1.0**
QIS	**Mount Isa**	**42.81**	**259**	P		**P**	**10 12 14.8**	**-1.1**
	comp=Z,7.4nm,0.5s							
HTT	**Hallett**	**43.90**	**240**	P		**P**	**10 12 24.0**	**-0.5**
BBOO	**Buckleboo**	**46.20**	**242**	P		**P**	**10 12 41.5**	**-1.0**
BBOO	**Buckleboo**	**46.20**	**242**	P		**P**	**10 12 42.2**	**-0.3**
BBOO				AMb		AMb	10 12 43.0	
	comp=Z,39nm,0.7s							
BBOO	**Buckleboo**	**46.20**	**242**	P		**P**	**10 12 42.1**	**-0.4**
	comp=Z,56nm,0.8s							
WR8	**Warramunga Arr**	**47.63**	**259**	P		**P**	**10 12 52.7**	**-1.0**
WR8				AMb		AMb	10 12 53.6	
	comp=Z,31nm,1.1s							
WB0	**Warramunga Arr**	**47.76**	**259**			**P**	**10 12 53.5**	**-1.1**
WRAB	**Tennant Creek**	**47.78**	**259**	P		**P**	**10 12 53.2**	**-1.6**
WRAB	**Tennant Creek**	**47.78**	**259**	P		**P**	**10 12 53.6**	**-1.2**
WRAB				AMb		AMb	10 12 54.5	
	comp=Z,30nm,0.7s							
WRAB	**Tennant Creek**	**47.78**	**259**	P		**P**	**10 12 53.8**	**-1.0**
	comp=Z,55nm,1.1s							
WRA	**Warramunga Arr**	**47.79**	**259**	P		**P**	**10 12 54.1**	**-0.8**
	comp=Z,31nm,0.7s,baz=97,slow=7.0,SNR=249							
WRA				PcP		**PcP**	**10 14 19.8**	**+0.3**
	comp=Z,1.2nm,0.5s,baz=160,slow=15,SNR=3.7							
WRA				S		**S**	**10 19 25.9**	**-5.5**
	comp=Z,0.8nm,0.9s,baz=95,slow=14,SNR=3.7							
	comp=Z,31nm,0.7s							
WRA	**Warramunga Arr**	**47.79**	**259**	P		**P**	**10 12 53.4**	**-1.5**
AS01	**Alice Springs**	**47.83**	**254**	P		**P**	**10 12 54.5**	**-0.7**
AS31	**Alice Springs**	**47.87**	**254**			**P**	**10 12 55.2**	**-0.3**
ASAR	**Alice Springs**	**47.87**	**254**	P		**P**	**10 12 55.1**	**-0.4**
	comp=Z,160nm,0.6s,baz=89,slow=9.2,SNR=2051							
ASAR				PcP		**PcP**	**10 14 20.1**	**+0.3**
	comp=Z,4.7nm,0.5s,baz=99,slow=4.9,SNR=3.5							
ASAR				S		**S**	**10 19 28.8**	**-3.8**
	comp=Z,1.7nm,0.7s,baz=91,slow=15,SNR=11							
ASAR	**Alice Springs**	**47.87**	**254**			**P**	**10 12 55.5**	**-0.1**
SMPI	**Sarmi**	**48.07**	**284**	P		**P**	**10 12 57.2**	**+0.2**
	comp=Z,25nm,1.2s							
MTN	**Manton Dam**	**52.02**	**268**			**P**	**10 13 25.8**	**-0.8**
MTN				AMb		AMb	10 13 26.3	
	comp=Z,10nm,0.7s							
FORT	**Forrest**	**52.89**	**245**	P		**P**	**10 13 31.2**	**-1.6**
FORT				AMb		AMb	10 13 33.9	
	comp=Z,15nm,0.7s							
KNRA	**Kununurra**	**53.69**	**263**			**P**	**10 13 38.1**	**-0.6**
KNRA				AMb		AMb	10 13 39.0	
	comp=Z,12nm,0.8s							
FAKI	**Fak Fak**	**53.76**	**280**	P		**P**	**10 13 38.6**	**-0.7**
FAKI	**Fak Fak**	**53.76**	**280**	P		**P**	**10 13 38.5**	**-0.7**
FAKI				AMb		AMb	10 13 39.2	
	comp=Z,17nm,1.3s							
SIJI	**Sorong**	**55.39**	**282**	P		**P**	**10 13 50.8**	**-0.2**
	comp=Z,38nm,0.6s							
SIJI	**Sorong**	**55.39**	**282**	P		**P**	**10 13 51.2**	**+0.1**
	comp=Z,36nm,0.6s							
FITZ	**Fitzroy Crossi**	**56.19**	**260**	P		**P**	**10 13 56.3**	**-0.3**
FITZ	**Fitzroy Crossi**	**56.19**	**260**	P		**P**	**10 13 56.2**	**-0.3**
FITZ	**Fitzroy Crossi**	**56.19**	**260**	P		**P**	**10 13 56.4**	**-0.3**
	comp=Z,3.1nm,2.0s							
SOEI	**Soe**	**59.29**	**269**	P		**P**	**10 14 19.2**	**+0.9**
	comp=Z,67nm,0.9s							
SOEI	**Soe**	**59.29**	**269**	P		**P**	**10 14 19.5**	**+1.2**
	comp=Z,68nm,0.9s							
VNDA	**Vanda**	**60.68**	**186**	P		**P**	**10 14 26.4**	**-0.1**
	comp=Z,0.6nm,0.7s,baz=29,slow=5.1,SNR=4.3							
VNDA	**Vanda**	**60.68**	**186**	P		**P**	**10 14 28.9**	**+2.4**
MBWA	**Marble Bar**	**61.18**	**255**	P		**P**	**10 14 29.8**	**-1.0**
MBWA	**Marble Bar**	**61.18**	**255**	P		**P**	**10 14 30.0**	**-0.8**
MBWA				AMb		AMb	10 14 31.2	
	comp=Z,41nm,1.4s							
MBWA	**Marble Bar**	**61.18**	**255**	P		**P**	**10 14 30.1**	**-0.8**
	comp=Z,21nm,1.3s							
MEEK	**Meekatharra**	**61.42**	**249**	P		**P**	**10 14 31.0**	**-1.4**
MEEK	**Meekatharra**	**61.42**	**249**	P		**P**	**10 14 31.4**	**-1.1**
	comp=Z,21nm,0.7s							
KLBR	**Kellerberrin**	**61.68**	**243**	P		**P**	**10 14 33.3**	**-0.8**
EDFI	**Ende, Flores**	**62.01**	**270**	P		**P**	**10 14 35.9**	**-0.6**
	comp=Z,26nm,0.8s							
EDFI	**Ende, Flores**	**62.01**	**270**	P		**P**	**10 14 36.0**	**-0.6**
	comp=Z,25nm,0.8s							
BLDU	**Ballidu**	**62.66**	**244**	P		**P**	**10 14 39.6**	**-1.0**
BLDU	**Ballidu**	**62.66**	**244**	P		**P**	**10 14 39.9**	**-0.7**
	comp=Z,29nm,0.8s							
MORW	**Morawa**	**63.40**	**246**	P		**P**	**10 14 45.2**	**-0.2**
MORW	**Morawa**	**63.40**	**246**	P		**P**	**10 14 44.9**	**-0.6**
MORW				AMb		AMb	10 15 15.5	
	comp=Z,22nm,1.2s							
LBFI	**Labuhan Bajo,**	**63.80**	**269**	P		**P**	**10 14 47.3**	**-0.9**
LBFI	**Labuhan Bajo,**	**63.80**	**269**	P		**P**	**10 14 47.6**	**-0.6**
	comp=Z,60nm,0.6s							
DBNI	**Kabupaten Domp**	**65.29**	**269**	P		**P**	**10 14 57.3**	**-0.6**
	comp=Z,51nm,0.7s							
PLAI	**Plampang**	**65.71**	**268**	P		**P**	**10 15 00.5**	**0.0**
TOLI2	**Tolitoli**	**65.90**	**280**	P		**P**	**10 15 00.3**	**-1.4**
TOLI2				AMb		AMb	10 15 05.7	
	comp=Z,33nm,1.5s							
JHJ2	**Mitsune**	**66.64**	**320**	P		**P**	**10 15 06.2**	**+0.3**
JHJ2	**Mitsune**	**66.64**	**320**	P		**P**	**10 15 05.6**	**-0.3**
CASY	**Casey**	**67.44**	**205**			**P**	**10 15 10.8**	**+0.3**
CASY				AMb		AMb	10 15 12.6	
	comp=Z,8.3nm,1.2s							
JAGI	**Jajag, Banyuwa**	**69.26**	**268**	P		**P**	**10 15 21.5**	**-1.2**
JAGI	**Jajag, Banyuwa**	**69.26**	**268**	P		**P**	**10 15 21.6**	**-1.1**
	comp=Z,69nm,1.0s							
JGF	**Kuroka**	**69.81**	**320**	P		**P**	**10 15 25.7**	**+0.1**
JGF	**Kuroka**	**69.81**	**320**	P		**P**	**10 15 25.1**	**-0.5**
JGF				AMb		AMb	10 15 26.5	
	comp=Z,13nm,0.7s							
JGF	**Kuroka**	**69.81**	**320**	P		**P**	**10 15 25.8**	**+0.2**
	comp=Z,22nm,0.9s							
MJAR	**Matsushiro Arr**	**69.92**	**321**	P		**P**	**10 15 26.1**	**-0.1**
	comp=Z,11nm,0.8s,baz=159,slow=6.1

HLID	**Hailey**	82.59	40	P	P	10 16 38.0	+0.7
	comp=Z,8.2nm,2.4s						
PNL	**Peninsula**	82.62	17	P	P	10 16 36.8	-0.1
SRU	**San Rafael Swe**	82.75	45	IAmb	IAmb	10 16 40.0	
	comp=Z,6.0nm,0.7s						
GLB	**Gilahina Butte**	82.98	15	IAmb	IAmb	10 16 39.6	
	comp=Z,8.7nm,0.7s						
TCUT	**Toone Canyon**	83.18	43	IAmb	IAmb	10 16 42.2	
	comp=Z,12nm,0.8s						
PV05	**Paradox Valley**	83.22	47	IAmb	IAmb	10 16 43.0	
	comp=Z,8.0nm,0.8s						
TXAR	**Lajitas Array**	83.33	56	P	P	10 16 42.5	+1.1
	comp=Z,0.3nm,0.7s,baz=226,slow=6.8,SNR=4.2						
TXAR				pP	pP	10 17 43.5	+0.3
	comp=Z,0.4nm,0.8s,baz=207,slow=1.4,SNR=2.1						
TXAR	**Lajitas Array**	83.33	56	P	P	10 16 40.0	-1.4
HWUT	**Hardware Ranch**	83.33	42	P	P	10 16 41.3	+0.1
	comp=Z,5.7nm,1.8s						
PV10	**Paradox Valley**	83.40	46	IAmb	IAmb	10 16 43.1	
	comp=Z,7.8nm,0.8s						
TRF	**Thorofare Moun**	83.42	11	IAmb	IAmb	10 16 41.0	
	comp=Z,9.8nm,0.7s						
PV18	**Skein Mesa, Pa**	83.43	46	IAmb	IAmb	10 16 42.8	
	comp=Z,6.7nm,0.9s						
PV20	**West Nyswonger**	83.44	46	IAmb	IAmb	10 16 43.4	
	comp=Z,8.4nm,0.8s						
PV23	**Carpenter Ridg**	83.46	46	IAmb	IAmb	10 16 44.1	
	comp=Z,13nm,0.8s						
J20K	**Nowinta River**	83.46	9	IAmb	IAmb	10 16 42.0	
	comp=Z,9.3nm,0.8s						
PV04	**Paradox Valley**	83.50	46	IAmb	IAmb	10 16 43.9	
	comp=Z,7.2nm,0.8s						
PV21	**Cone Mtn., Par**	83.54	46	IAmb	IAmb	10 16 44.1	
	comp=Z,12nm,0.7s						
SDSI	**Sungai Dareh**	83.57	271	P	P	10 16 42.2	-0.6
	comp=Z,13nm,1.1s						
PV01	**Paradox Valley**	83.61	47	IAmb	IAmb	10 16 43.8	
	comp=Z,6.7nm,0.8s						
ALQ	**Albuquerque**	83.63	50	IAmb	IAmb	10 16 44.9	
	comp=Z,3.0nm,0.9s						
ANMO	**Albuquerque**	83.63	50	P	P	10 16 41.8	-1.1
ANMO	**Albuquerque**	83.63	50	P	P	10 16 44.0	+1.1
	comp=Z,4.1nm,1.1s						
TIA	**Tai'an**	83.69	311	P	P	10 16 43.9	+1.0
TIA				pmax	pmax		
	comp=Z,20nm,0.9s						
NEW	**Newport**	83.69	35	P	P	10 16 42.6	-0.1
S34M	**Telegraph Cree**	83.87	22	IAmb	IAmb	10 16 45.2	
	comp=Z,10nm,0.9s						
RDMU	**Red Mountain**	84.11	44	IAmb	IAmb	10 16 46.4	
	comp=Z,4.9nm,0.8s						
AHID	**Auburn Hatcher**	84.22	42	P	P	10 16 47.0	+1.3
	comp=Z,7.1nm,1.7s						
MENT	**Mentasta**	84.30	14	IAmb	IAmb	10 16 46.8	
	comp=Z,19nm,1.2s						
L26K	**Log Cabin Wild**	84.46	14	IAmb	IAmb	10 16 47.5	
	comp=Z,9.2nm,0.7s						
PDSI	**Padang**	84.50	271	P	P	10 16 47.0	-0.6
	comp=Z,9.2nm,0.6s						
NEA2	**Nenana**	84.69	11	IAmb	IAmb	10 16 47.9	
	comp=Z,7.7nm,0.7s						
RIDG	**Independent Ri**	84.75	13	IAmb	IAmb	10 16 51.3	
	comp=Z,16nm,1.1s						
LDM	**Libby Dam**	84.79	35	IAmb	IAmb	10 16 51.7	
	comp=Z,7.5nm,1.0s						
MLY	**Manley**	84.80	10		P	10 16 47.3	-0.6
MLY				IAmb	IAmb	10 16 48.1	
	comp=Z,12nm,0.9s						
BCAR	**Beaver Creek A**	84.86	15	P	P	10 16 48.2	0.0
MAW	**Mawson**	84.87	199	P	P	10 16 48.6	+0.3
	comp=Z,5.8nm,0.6s,baz=144,slow=9.8,SNR=15						
	comp=Z,5.8nm,0.6s						
MAW	**Mawson**	84.87	199	P	P	10 16 48.4	+0.2
MAW	**Mawson**	84.87	199	P	P	10 16 49.1	+0.8
	comp=Z,3.1nm,1.4s						
H03S2	**Juan Fernandez**	85.08	124	T	T	11 50 01.8	
	baz=249,slow=75,SNR=7.3						
H03S1	**Juan Fernandez**	85.09	124	T	T	11 49 58.4	
	baz=249,slow=75,SNR=8.1						
H03S3	**Juan Fernandez**	85.10	124	T	T	11 50 09.7	
	baz=249,slow=75,SNR=6.8						
I23K	**Minto, Yukon-K**	85.14	11	IAmb	IAmb	10 16 50.1	
	comp=Z,15nm,1.3s						
SCRK	**Sand Creek**	85.15	13		P	10 16 49.4	-0.3
SCRK				IAmb	IAmb	10 16 50.7	
	comp=Z,8.9nm,0.8s						
COLA	**College**	85.17	11	P	P	10 16 49.0	-0.5
COLA	**College**	85.17	11	P	P	10 16 49.4	-0.1
COLA	**College**	85.17	11	P	P	10 16 49.4	-0.1
	comp=Z,50nm,0.8s						
PDAR	**Pinedale Array**	85.20	42	P	P	10 16 50.7	+0.1
	comp=Z,1.0nm,0.9s,baz=214,slow=4.0,SNR=8.4						
PDAR				pP	pP	10 17 51.9	-0.5
	comp=Z,1.5nm,0.9s,baz=221,slow=4.1,SNR=4.3						
	comp=Z,1.0nm,0.9s						
PDAR	**Pinedale Array**	85.20	42	P	P	10 16 49.6	-1.0
IMAR	**Indian Mountai**	85.22	9	P	P	10 16 50.0	+0.1
YHL	**Hebgen Lake**	85.24	40	IAmb	IAmb	10 16 53.3	
	comp=Z,14nm,1.4s						
ILAR	**Eielson Array**	85.26	12	P	P	10 16 49.6	-0.4
	comp=Z,6.8nm,0.6s,baz=224,slow=6.0,SNR=137						
ILAR				pP	pP	10 17 52.5	+0.6
	comp=Z,1.9nm,1.0s,baz=213,slow=6.2,SNR=3.0						
	comp=Z,6.8nm,0.6s						
H22K	**Ishtalitna Cre**	85.50	10		P	10 16 51.4	+0.2
IPM	**Ipoh**	85.63	276	P	P	10 16 53.8	+0.7
	comp=Z,31nm,0.9s						
IPM	**Ipoh**	85.63	276	P	P	10 16 54.0	+0.9
	comp=Z,31nm,0.9s						
M30M	**Minto, Yukon**	85.73	17	IAmb	IAmb	10 16 53.7	
	comp=Z,8.8nm,0.8s						
HNS	**HongShan**	85.96	311	⇑P	P	10 16 55.5	+1.4
HNS				pmax	pmax		
	comp=Z,24nm,1.0s						
BJI2	**Beijing**	86.11	314	P	P	10 16 56.1	+1.3
BJI2				PP	PP	10 20 23.9	+4.4
BJI2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LYN	**LuoYang**	86.39	308	P	P	10 16 57.7	+1.4
LYN				pmax	pmax		
	comp=Z,48nm,0.9s						
K29M	**Barlow Dome**	86.57	16	IAmb	IAmb	10 16 58.3	
	comp=Z,11nm,0.9s						
BILI	**Bilibino, Chuk**	86.84	353	P	P	10 16 57.7	0.0
	comp=Z,18nm,1.1s						
RPSI	**Rantau Prapat**	87.07	274		P	10 16 59.8	-0.2
RPSI	**Rantau Prapat**	87.07	274	P	P	10 17 00.3	+0.3
	comp=Z,26nm,1.0s						
PSI	**Prapat**	87.10	274	P	P	10 17 00.2	-0.2
	comp=Z,26nm,1.0s						
J30M	**Hart River**	87.47	16	IAmb	IAmb	10 17 02.8	
	comp=Z,6.5nm,0.9s						
I29M	**Ogilvie Camp,**	87.62	15	IAmb	IAmb	10 17 02.1	
	comp=Z,8.0nm,1.1s						
E24K	**Your Creek**	87.96	10	IAmb	IAmb	10 17 04.8	
	comp=Z,4.3nm,0.8s						
I30M	**Mount Dempster**	87.98	15	IAmb	IAmb	10 17 04.1	
	comp=Z,6.5nm,0.7s						
D23K	**Nanushuk River**	88.44	9	IAmb	IAmb	10 17 10.9	
	comp=Z,12nm,1.1s						
HILR	**Hailar Array B**	88.45	324	P	P	10 17 05.7	-0.1
	comp=Z,5.3nm,0.7s,baz=121,slow=11,SNR=5.7						
	comp=Z,5.3nm,0.7s						
EDM	**Edmonton**	88.48	32	IAmb	IAmb	10 17 06.8	
	comp=Z,12nm,1.3s						
G30M	**tAoh Zraii Nji**	89.44	14	IAmb	IAmb	10 17 11.3	
	comp=Z,8.4nm,1.1s						
ELIB	**Princess Elisa**	89.44	186	*d*P	P	10 17 10.6	+0.3
	comp=Z,2.7nm,0.9s						
HHC	**Hu-ho-hao-te**	89.64	313	*e*P	P	10 17 13.0	+1.4
HHC				pmax	pmax		
	comp=Z,18nm,0.8s						
HHC				pmax	pmax		
	comp=Z,51nm,3.5s						
E28M	**Babbage River**	90.05	12	IAmb	IAmb	10 17 13.6	
	comp=Z,6.7nm,1.1s						
C26K	**Camden Bay**	90.19	10	IAmb	IAmb	10 17 16.6	
	comp=Z,6.3nm,0.8s						
TROLL	**Troll, Antarti**	90.23	179	⇑P	P	10 17 14.3	+0.3
	comp=Z,98nm,0.6s						
VNA3	**Neumayer Olymp**	90.44	175	⇑P	P	10 17 14.8	0.0
	comp=Z,2.6nm,0.7s						
VNA2	**Neumayer--Watz**	90.92	176	⇑P	P	10 17 18.2	+1.2
	comp=Z,3.4nm,0.6s,baz=181,slow=3.3						
INK	**Inuvik**	91.12	14	IAmb	IAmb	10 17 18.6	
	comp=Z,6.7nm,0.9s						
INK	**Inuvik**	91.12	14	P	P	10 17 17.8	+0.1
	comp=Z,7.8nm,1.0s						
CMAR	**Chiang Mai Arr**	91.95	289	P	P	10 17 24.1	+1.4
	comp=Z,4.1nm,0.7s,baz=104,slow=2.8,SNR=22						
	comp=Z,4.1nm,0.7s						
CHTO	**Chiang Mai**	92.06	289	P	P	10 17 24.4	+1.2
YKA	**Yellowknife Ar**	93.06	24	P	P	10 17 26.9	+0.2
	comp=Z,2.7nm,0.9s,baz=237,slow=4.6,SNR=3.3						
	comp=Z,2.7nm,0.9s						
LZDM	**Lanzhou Array**	93.56	307	P	P	10 17 30.7	+0.5
	comp=Z,0.8nm,0.3s,baz=174,slow=3.0,SNR=3.8						
	comp=Z,0.8nm,0.3s						
SONM	**Songino Array**	95.72	318	P	P	10 17 39.8	+0.3
	comp=Z,0.5nm,0.4s,baz=122,slow=7.4,SNR=2.4						
	comp=Z,0.5nm,0.4s						
ZALV	**Zalesovo Beam**	110.28	322	PKiKP	PKiKP	10 22 43.1	-0.6
	comp=Z,0.9nm,0.5s,baz=113,slow=2.3,SNR=4.6						
MKAR	**Makanchi Array**	111.49	314	PKiKP	PKiKP	10 22 45.6	-0.8
	comp=Z,1.3nm,0.5s,baz=104,slow=0.7,SNR=13						
KURBB	**Kurchatov Arra**	114.08	318	PKP	PKPdf	10 22 50.6	-0.5
	comp=Z,1.5nm,0.7s,baz=88,slow=1.8,SNR=10						
BVAR	**Borovoye Array**	118.92	321	PKP	PKPdf	10 23 00.1	-0.3
	comp=Z,4.3nm,0.5s,baz=302,slow=2.8,SNR=15						
ARCES	**ARCESS Array B**	126.91	351	PKP	PKPdf	10 23 14.4	-0.8
	comp=Z,1.4nm,0.3s,baz=26,slow=0.9,SNR=15						
FINES	**FINESS Array B**	134.07	346	PKhKP	PKPpre	10 23 21.9	
	comp=Z,1.2nm,0.5s,baz=54,slow=3.3,SNR=5.3						
FINES				PKP	PKPdf	10 23 29.0	0.0
	comp=Z,2.4nm,0.5s,baz=47,slow=2.9,SNR=10						
NOA	**NORSAR Array B**	136.75	356	PKP	PKPdf	10 23 34.0	-0.1
	comp=Z,1.0nm,0.8s,baz=15,slow=3.7,SNR=2.5						
HFS	**Hagfors**	137.42	354	PKhKP	PKPpre	10 23 30.3	
	comp=Z,0.8nm,0.4s,baz=51,slow=7.8,SNR=1.8						
HFS				PKP	PKiKP	10 23 36.1	-1.2
	comp=Z,1.6nm,0.6s,baz=180,slow=2.5,SNR=3.0						
AKASG	**Malin Array Be**	142.05	335	PKhKP	PKPpre	10 23 38.6	
	comp=Z,1.8nm,0.4s,baz=42,slow=4.4,SNR=13						
SORM	**Soroca**	144.38	333	⇑P	PKPab	10 23 46.8	-0.2
KMPD	**K-Podol'skiy**	144.84	335	PKP	PKPbc	10 23 47.7	-0.9
KWP	**Kalwaria Pacla**	145.33	340	*e*PKP	PKPab	10 23 50.4	-0.2
OJC	**Ojcow**	145.70	343	*e*PKP	PKPab	10 23 51.5	-0.5
VASR	**Vaslui**	145.76	332	⇓P	PKPbc	10 23 51.3	-0.3
MNTR	**Muntenesti**	145.79	332	⇓P	PKPab	10 23 52.4	-0.1
KOLS	**Kolonicke sedl**	146.08	339	*e*PKP	PKPab	10 23 53.4	-0.1
BURAR	**Bucovina Array**	146.10	335	⇑P	PKPab	10 23 54.3	+0.5
CLL	**Collm**	146.13	351	*i* PKPbc	PKPbc	10 23 52.8	+0.4
	comp=Z,32nm,0.7s						
VLDR	**Vladesti**	146.23	330	⇑P	PKPab	10 23 53.9	-0.2
OSTC	**Ostas**	146.27	347	⇑*e*PKP	PKPab	10 23 54.0	-0.2
BIZ	**Bicaz**	146.27	334	⇑P	PKPab	10 23 54.1	-0.2
NIE	**Niedzica**	146.27	342	*e*PKP	PKPab	10 23 54.0	-0.3
TLCR		146.35	329	⇑P	PKPbc	10 23 53.8	+0.5
UPC	**Upice**	146.36	347	⇑*e*PKP	PKPab	10 23 54.2	-0.3
TESR	**Tescani**	146.37	333	⇓P	PKPbc	10 23 53.8	+0.5
SCTR	**Scanteiesti**	146.39	330	⇑P	PKPab	10 23 54.6	-0.2
DPC	**Dobruska-Polom**	146.44	347	⇑*e*PKP	PKPab	10 23 54.4	-0.5
STEB	**Steborice**	146.49	345	⇑*e*PKP	PKPab	10 23 54.2	-0.9
CFR	**Carcaliu**	146.69	330	⇓P	PKPab	10 23 55.7	-0.3
MORC	**Moravsky Berou**	146.69	345	*e*PKP	PKPbc	10 23 54.6	+0.4
HSKC	**Hora Svate Kat**	146.74	350	⇑*e*PKP	PKPbc	10 23 54.7	+0.4
LANS	**Liptovska Anna**	146.76	343	*e*PKP	PKPab	10 23 56.0	-0.2
TPGR	**Topolog**	146.79	329	⇑P	PKPbc	10 23 55.4	+0.8
VRI	**Vrincioaia**	146.83	332	⇑P	PKPbc	10 23 54.9	+0.2
ARCR	**ARCALIA**	146.87	335	⇓P	PKPab	10 23 56.0	-0.7
PLOR	**Plostina**	146.88	332	⇑P	PKPab	10 23 54.4	-0.5
BOPT	**Opiter**	146.93	359	*d*PKP	PKPab	10 23 55.5	-1.2
TURR	**Turia**	147.00	333	⇑P	PKPab	10 23 56.9	-0.4
BRTR	**Keskin Array B**	147.07	317	PKPbc	PKPbc	10 23 55.9	+0.2
	comp=Z,9.3nm,0.7s,baz=135,slow=3.3,SNR=33						
OZUR		147.07	333	⇑P	PKPbc	10 23 55.3	0.0
COVR	**Voineasa-Covas**	147.08	332	⇑P	PKPbc	10 23 55.6	+0.3
PRU	**Pruhonice**	147.14	349	⇑*e*PKP	PKPbc	10 23 56.1	+0.7
HARR	**Harsova**	147.15	329	⇓P	PKPdf	10 23 53.5	+0.5
KIRS	**Kirsehir-Merke**	147.20	316	⇑P	PKPbc	10 23 56.4	+0.4
DOPR	**Dopca**	147.34	333	⇑P	PKiKP	10 23 57.5	-0.6
VRAC	**Vranov**	147.36	346	*e*PKP	PKPbc	10 23 56.2	+0.2
VRAC	**Vranov**	147.36	346	⇓P	PKiKP	10 23 56.9	-1.1
MEM	**Membach**	147.43	359	*d*PKP	PKPbc	10 23 56.5	+0.4
MLR	**Muntele Rosu**	147.47	332	⇑P	PKiKP	10 23 57.5	-1.0
JAVC	**Velka Javorina**	147.51	344	*e*PKP	PKiKP	10 23 57.9	-0.5
VYHS	**Vyhne**	147.53	343	*e*PKP	PKPbc	10 23 57.0	+0.5
BCLA	**Clavier**	147.62	360	*d*PKP	PKPab	10 23 59.6	+0.1
KRUC	**Moravsky**	147.63	346	*e*PKP	PKPbc	10 23 56.9	+0.2
MARR	**Marisel-Cluj**	147.69	336	⇑P	PKPbc	10 23 57.6	+0.5
PSZ	**Piszkesteto**	147.73	341	⇑P	PKiKP	10 23 58.2	-0.7
ZVC	**Zvikov**	147.74	349	⇑*e*PKP	PKPbc	10 23 57.4	+0.4
ZVC				*e*PKPAB	PKPab	10 24 00.8	+0.8
BMRD	**Maredsous**	147.74	0	*d*PKPdf	PKPdf	10 23 54.7	+0.9
DRGR		147.75	337	⇑P	PKPbc	10 23 57.4	+0.2
VOIR		147.91	333	⇑P	PKiKP	10 23 58.8	-0.5
DOU	**Dourbes**	147.95	0	*d*PKiKP	PKPbc	10 23 58.0	+0.5
MODS	**Modra-Piesok**	148.06	344	*e*PKP	PKiKP	10 23 58.9	-0.6
MODS				*e*		10 24 02.8	
ARR	**Arges**	148.14	333	⇑P	PKiKP	10 23 59.6	-0.2
KHC	**Kasperske Hory**	148.14	349	⇑*e*PKP	PKiKP	10 23 58.8	-0.9
KHC				*e*PKPAB	PKPab	10 24 02.9	+1.2
CKRC	**Cesky Krumlov**	148.31	348	⇑*e*PKP	PKiKP	10 23 59.2	-0.8
WLF	**Walferdange**	148.37	359	*d*PKP	PKiKP	10 23 59.6	-0.4
GERES	**GERESS Array B**	148.40	349	PKPbc	PKPbc	10 23 59.2	+0.4
	comp=Z,5.6nm,0.7s,baz=11,slow=2.0,SNR=31						
GERES	**GERESS Array B**	148.40	349		PKPbc	10 23 59.1	+0.2
WINA	**Alland / Wiene**	148.60	346	*i* PKiKP	PKiKP	10 24 00.1	-0.4
	comp=Z,6.9nm,0.7s						
CONA	**Conrad Observa**	148.82	346	*e*PKiKP	PKiKP	10 24 00.7	-0.4
	comp=Z,14nm,1.0s,SNR=10						
MMAI	**Mount Meron Ar**	148.85	305	PKPbc	PKiKP	10 24 01.7	0.0
	comp=Z,3.9nm,0.5s,baz=39,slow=12,SNR=10						
RONA	**Rosalia, Austr**	148.93	345	*e*PKiKP	PKiKP	10 24 00.8	-0.6
	comp=Z,14nm,1.1s,SNR=7.7						
BZS	**Buzias**	149.15	337	⇓P	PKPbc	10 24 00.8	+0.2
MOA	**Molln**	149.24	348	*e*PKiKP	PKPbc	10 24 01.2	+0.3
	comp=Z,5.4nm,0.9s						
HERR	**Herculane**	149.45	335	⇓P	PKiKP	10 24 01.8	-0.6
BIOA	**Bad Ischl, Aus**	149.52	348	*i* PKiKP	PKPbc	10 24 01.4	-0.2
	comp=Z,5.3nm,0.7s						
ARSA	**Arzberg**	149.54	346	*e*PKiKP	PKPbc	10 24 01.9	+0.3
	comp=Z,9.5nm,1.3s						
PLVB	**Pleven**	149.70	331	⇓P	PKiKP	10 24 02.4	-0.6
MDVR	**Moldovita**	149.81	336	⇑P	PKPbc	10 24 01.9	-0.5
SESA	**Seetaler Alpe,**	149.88	347	*e*PKiKP	PKPbc	10 24 02.4	-0.3
	comp=Z,8.8nm,0.5s,SNR=8.9						
KEPZ	**Antalya-Kepez**	149.93	314	⇑P	PKPbc	10 24 01.9	-1.1
LESA	**Schwarzleotal**	149.95	350	*e*PKiKP	PKPbc	10 24 02.7	0.0
	comp=Z,1.9nm,0.4s						
KBA	**Koelnbreinsper**	150.16	348	*i* PKiKP	PKiKP	10 24 02.8	-0.6
	comp=Z,5.6nm,0.5s,SNR=6.2						
RETA	**Reutte**	150.18	352	*i* PKiKP	PKiKP	10 24 03.4	-0.5
	comp=Z,6.9nm,0.6s,SNR=5.3						
SOKA	**Soboth**	150.19	346	*e*PKiKP	PKPbc	10 24 03.2	-0.1
	comp=Z,9.3nm,1.0s,SNR=4.5						
SOKA				*i* PKP	PKPab	10 24 09.9	-0.3
	comp=Z,14nm,1.1s						
WATA	**Walderalm**	150.21	351	*i* PKiKP	PKPbc	10 24 03.5	+0.1
	comp=Z,9.2nm,0.5s						
MOTA	**Moosalm**	150.27	352	*i* PKiKP	PKPbc	10 24 03.5	0.0
	comp=Z,16nm,1.1s,SNR=5.3						
WTTA	**Wattenberg**	150.28	351	*e*PKiKP	PKiKP	10 24 03.9	-0.4
	comp=Z,23nm,0.5s,SNR=13						
SQTA	**Sankt Quirin**	150.38	351	*e*PKiKP	PKiKP	10 24 04.0	-0.4
	comp=Z,5.6nm,0.6s						
OBKA	**Obir**	150.46	347	*e*PKP	PKPbc	10 24 02.9	-1.0
	comp=Z,6.0nm,0.7s						
DAVA	**Damuels**	150.48	353	*i* PKiKP	PKiKP	10 24 04.3	-0.4
	comp=Z,11nm,0.6s,SNR=6.3						
MYKA	**Terra Mystica**	150.53	348	*e*PKP	PKPbc	10 24 03.6	-0.5
	comp=Z,8.5nm,0.5s,SNR=6.8						
ABTA	**Abfaltersbach**	150.63	349	*e*PKiKP	PKPbc	10 24 04.0	-0.3
	comp=Z,18nm,0.6s,SNR=8.2						
FETA	**Feichten**	150.64	352	*e*PKiKP	PKiKP	10 24 04.8	-0.2
	comp=Z,18nm,0.9s,SNR=7.7						
BLY	**Banja Luka**	151.41	342	⇓P	PKiKP	10 24 07.0	+0.5
ESDC	**Sonseca Array**	157.02	18	PKP	PKPdf	10 24 08.1	+0.3
	comp=Z,0.3nm,0.5s,baz=318,slow=2.0,SNR=4.7						
ESDC				PKPab	PKPab	10 24 40.0	+0.6
	comp=Z,4.0nm,1.0s,baz=327,slow=3.6,SNR=17						
TORD	**Torodi Ar. Bea**	174.26	146	PKP	PKPdf	10 24 21.6	-0.7
	comp=Z,1.0nm,0.7s,baz=300,slow=1.0,SNR=5.1						
TORD				PKPab	PKPab	10 25 55.3	-0.5
	comp=Z,0.4nm,0.5s,baz=260,slow=4.2,SNR=1.3						

*SOME **10** 10:07:11.9, 43.˚32N×82.˚10E, h15km*
*NNC **10** 10:07:16.8±2.5, 43.˚19N×81.˚79E, h0km, mb3.5, mpv3.1, Error ellipse: s-maj=20.2km s-min=10.3km az=144.0, Suspected Mining explosion.*
ISC 10 10:07:10.6±3.2, 43.˚2N±0.˚1×82.˚2E±0.˚1, h0km, n14,

σ0$64/23, **1C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PDGK	**Podgornoye**	2.02	276	⇓Pn	Pb	10 07 48.1	0.0
	12nm,0.3s						
PDGK				⇑Sn	Sb	10 08 13.1	-0.7
	22nm,0.4s						
DJR	**Jarkent**	2.13	304	P	Pn	10 07 48.1	+0.7
	30nm,0.4s						
DJR				S	Sn	10 08 13.9	-0.7
	13nm,0.5s						
DJR	**Jarkent**	2.13	304	*e*P	Pn	10 07 48.1	+0.7
	30nm,0.4s						
DJR				*e*S	Sn	10 08 13.9	-0.7
	13nm,0.5s						
UZB	**Uzynbulak**	2.35	271	Pg	Pb	10 07 53.8	-0.2
	21nm,0.2s						
UZB				Lg	Lg	10 08 23.7	
	20nm,0.3s						
UZB	**Uzynbulak**	2.35	271	*e*P	Pb	10 07 53.8	-0.2
	21nm,0.2s						
UZB				*e*S	Sb	10 08 23.7	+0.1
	20nm,0.3s						
KPKS	**Kokpek**	2.61	278	Pg	Pb	10 07 57.4	-0.9
	0.4nm,0.2s						
KPKS				Lg	Lg	10 08 29.9	
	31nm,0.4s						
KPKS	**Kokpek**	2.61	278	*e*P	Pb	10 07 57.4	-0.9
	0.4nm,0.2s						
KPKS				*e*S	Sb	10 08 29.9	-1.1
	31nm,0.4s						
SATY	**Saty**	2.81	269	Pg	Pb	10 08 01.4	-0.3
	5.0nm,0.2s						
SATY				Lg	Lg	10 08 36.7	
	10nm,0.3s						
SATY	**Saty**	2.81	269	*e*P	Pb	10 08 01.4	-0.3
	5.0nm,0.2s						
SATY				*e*S	Sb	10 08 36.7	0.0
	10nm,0.3s						
KURS	**Kuram**	2.99	278	Pg	Pb	10 08 04.9	+0.2
	3.4nm,0.3s						
KURS				Lg	Lg	10 08 42.8	
	5.8nm,0.6s						
KURS	**Kuram**	2.99	278	*e*P	Pb	10 08 04.9	+0.2
	3.4nm,0.3s						
KURS				*e*S	Sb	10 08 42.8	+1.0
	5.8nm,0.6s						
ARXS	**Arharly**	3.37	290	Pg	Pb	10 08 11.4	+0.2
	1.2nm,0.3s						
ARXS				Lg	Lg	10 08 53.8	
	4.0nm,0.3s						
ARXS	**Arharly**	3.37	290	*e*P	Pb	10 08 11.4	+0.2
	1.2nm,0.3s						
ARXS				*e*S	Sb	10 08 53.8	+1.0
	4.0nm,0.3s						
MK31	**Makanchi Array**	3.64	1	⇓Pn	Pb	10 08 15.4	-0.4
	0.9nm,0.4s,baz=182,slow=15,SNR=21						
MK31				⇓Sn	Sb	10 09 00.4	0.0
	0.4nm,0.3s						

*NIED **10** 10:46:35.9, 31.˚48N×128.˚71E, h12km, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}=2.14; $M_{\theta\theta}$=0.42; $M_{\phi\phi}$=1.72; $M_{r\theta}$=0.29; $M_{r\phi}$=3.00; $M_{\theta\phi}$=-0.70; Fault plane solution: M_0=3.46000×10^{14} NP1: ϕ_s=253.00000°, δ_s=55.00000°, λ_s=-36.00000°. NP2:ϕ_s=6.00000°, δ_s=61.00000°, λ_s=-139

WNVZ	Wahianoa	16.13 192	P	P	10 57 04.6	-0.1
BHHZ	Black Hill Sta	16.20 191	P	P	10 57 03.6	-1.5
KRHZ	Kereru	16.30 190	P	P	10 57 04.8	-1.3
KAHZ	Kahuranaki	16.37 189	P	P	10 57 05.9	-0.9
PNHZ	Pukenui	16.59 190	P	P	10 57 07.4	-1.5
PXZ	Pawanui	16.60 188	P	P	10 57 07.7	-1.3
TSZ	Takapari Road	16.77 191	P	P	10 57 09.6	-1.0
DVHZ	Dannevirke	16.97 190	P	P	10 57 10.3	-2.2
BFZ	Birch Farm	17.33 190	P	P	10 57 13.7	-2.1
MRZ	Mangatainoka R	17.42 191	P	P	10 57 13.9	-2.7
CAW	Cannon Point	17.95 192	P	P	10 57 20.1	-1.3
RPZ	Rata Peaks	21.38 198	P	P	10 57 51.8	-0.8
	1.3nm,0.7s,baz=5.4,slow=7.0,SNR=6.9 1.3nm,0.7s					
CTA	Charters Tower	31.48 270	P	P	10 59 22.6	+0.9
	22nm,0.4s,baz=92,slow=10,SNR=70 22nm,0.4s					
PMG	Port Moresby	34.40 289	P	P	10 59 46.4	0.0
	16nm,0.8s,baz=262,slow=23,SNR=2.9 16nm,0.8s					
PMG	Port Moresby	34.40 289	P	P	10 59 45.9	-0.6
STKA	Stephens Creek	34.84 248	P	P	10 59 50.4	+0.4
	1.6nm,0.4s,baz=103,slow=12,SNR=6.1 1.6nm,0.4s					
STKA	Stephens Creek	34.84 248	P	P	10 59 50.4	+0.4
AS31	Alice Springs	42.09 260	P	P	11 00 48.9	-0.1
AS31			IAmb	IAmb	11 00 50.1	
	comp=Z,2.0nm,0.3s					
ASAR	Alice Springs	42.09 260	P	P	11 00 49.0	+0.1
	comp=Z,3.1nm,0.5s,baz=95,slow=7.2,SNR=63					
ASAR			ScP	ScP	11 05 34.0	+2.7
	comp=Z,1.3nm,0.7s,baz=112,slow=4.3,SNR=11					
ASAR			S	S	11 06 28.8	-1.3
	comp=Z,0.5nm,0.6s,baz=98,slow=15,SNR=5.6 comp=Z,3.1nm,0.5s					
ASAR	Alice Springs	42.09 260	P	P	11 00 48.8	-0.2
WB0	Warramunga Arr	42.43 266	P	P	11 00 51.3	-0.3
WB0			IAmb	IAmb	11 00 51.9	
	comp=Z,7.3nm,0.6s					
WRA	Warramunga Arr	42.44 266	P	P	11 00 51.2	-0.5
	comp=Z,5.0nm,0.5s,baz=92,slow=8.4,SNR=154					
WRA			ScP	ScP	11 05 35.4	+2.7
	comp=Z,0.8nm,0.9s,baz=106,slow=3.6,SNR=3.2					
WRA			S	S	11 06 30.9	-4.2
	comp=Z,1.2nm,0.9s,baz=96,slow=13,SNR=5.0 comp=Z,5.0nm,0.5s					
WRA	Warramunga Arr	42.44 266	P	P	11 00 47.7	-4.0
FORT	Forrest	46.43 249	P	P	11 01 21.9	-0.3
FORT			IAmb	IAmb	11 01 55.6	
	comp=Z,8.1nm,0.9s					
MTN	Manton Dam	47.44 274	P	P	11 01 29.7	-0.4
FAKI	Fak Fak	50.50 287	P	P	11 01 52.5	-0.3
FAKI			IAmb	IAmb	11 02 02.2	
	comp=Z,8.2nm,1.0s					
FITZ	Fitzroy Crossi	50.86 265	P	P	11 01 54.9	-0.5
SBA	Scott Base	54.68 183	P	P	11 02 24.5	+2.9
SBA			IAmb	IAmb	11 02 25.5	
	comp=Z,6.5nm,0.9s					
SBA			PcP	PcP	11 03 17.8	+1.6
VNDA	Vanda	54.68 185	P	P	11 02 23.3	+1.6
	comp=Z,1.2nm,0.8s,baz=345,slow=6.6,SNR=11					
VNDA			PcP	PcP	11 03 16.6	+0.3
	comp=Z,0.8nm,0.6s,baz=346,slow=7.3,SNR=5.7 comp=Z,1.2nm,0.8s					
VNDA	Vanda	54.68 185	P	P	11 02 23.5	+1.8
VNDA				PcP	11 03 17.4	+1.1
CASY	Casey	60.39 206	P	P	11 03 00.5	-0.2
CASY			IAmb	IAmb	11 03 01.0	
	comp=Z,3.5nm,0.6s					
QSPA	South Pole Qui	66.49 180	P	P	11 03 41.2	+1.3
	comp=Z,9.6nm,0.6s,baz=336,slow=0.4,SNR=100 comp=Z,9.6nm,0.6s					
QSPA	South Pole Qui	66.49 180	P	P	11 03 41.4	+1.4
BELA	Belgrano 2	76.74 173	P	P	11 04 39.2	-0.2
BELA			IAmb	IAmb	11 04 40.3	
	comp=Z,5.8nm,0.7s					
MAW	Mawson	78.04 200	P	P	11 04 47.6	+1.1
	comp=Z,4.3nm,0.7s,baz=131,slow=7.9,SNR=6.3 comp=Z,4.3nm,0.7s					
MAW	Mawson	78.04 200	P	P	11 04 47.8	+1.3
PETK	Petropavlovsk-	78.81 347	P	P	11 04 50.8	+0.1
	comp=Z,7.3nm,1.1s,baz=255,slow=19,SNR=2.4 comp=Z,7.3nm,1.1s					
PETK	Petropavlovsk-	78.81 347	P	P	11 04 51.5	+0.8
NVAR	Mina Array Bea	84.53 44	P	P	11 05 21.0	+0.4
	comp=Z,0.3nm,0.5s,baz=216,slow=7.3,SNR=3.7 comp=Z,0.3nm,0.5s					
NVAR	Mina Array Bea	84.53 44	P	P	11 05 18.8	-1.8
TROLL	Troll, Antarti	84.64 181	⇑P	P	11 05 20.4	-0.2
	comp=Z,332nm,0.4s					
SNAA	Sanae	84.97 179	⇑P	P	11 05 21.8	-0.3
	comp=Z,41nm,0.4s					
SNAA	Sanae	84.97 179	P	P	11 05 21.4	-0.7
	comp=Z,1.7nm,0.6s,baz=255,slow=19,SNR=3.7 comp=Z,1.7nm,0.6s					
VNA3	Neumayer Olymp	85.18 177	⇑P	P	11 05 22.5	-0.5
	comp=Z,1.8nm,0.4s					
VNA2	Neumayer--Watz	85.60 178	⇑P	P	11 05 24.6	-0.5
	comp=Z,7.2nm,0.6s,baz=178,slow=4.9					
U15A	North Rim	87.39 48	IAmb	IAmb	11 05 36.9	
	comp=Z,2.4nm,0.9s					
PLCA	Paso Flores	88.47 134	P	P	11 05 40.5	+1.3
	comp=Z,1.3nm,0.9s,baz=140,slow=1.3,SNR=2.7 comp=Z,1.3nm,0.9s					
MFID	Camas Ranch	88.92 41	IAmb	IAmb	11 05 42.7	
	comp=Z,4.2nm,1.1s					
TMUT	Trail Mountain	89.62 46	IAmb	IAmb	11 05 47.2	
	comp=Z,5.3nm,1.2s					
TXAR	Lajitas Array	90.26 58	P	P	11 05 49.0	+1.3
	comp=Z,0.9nm,0.7s,baz=212,slow=6.3,SNR=12 comp=Z,0.9nm,0.7s					
BSUT	Blindstream Ca	90.56 45	P	P	11 05 50.4	+1.2
BCAR	Beaver Creek A	91.49 16	P	P	11 05 53.1	+0.6
ILAR	Eielson Array	91.73 14	P	P	11 05 52.4	-1.1
PDAR	Pinedale Array	92.47 44	P	P	11 05 57.4	-0.4
	comp=Z,0.4nm,0.6s,baz=199,slow=2.0,SNR=5.3 comp=Z,0.4nm,0.6s					
PDAR	Pinedale Array	92.47 44	P	P	11 05 57.9	+0.1
MKAR	Makanchi Array	111.95 313	PKiKP	PKiKP	11 11 17.0	-1.0
	comp=Z,0.3nm,0.4s,baz=202,slow=0.8,SNR=4.4					
KURBB	Kurchatov Arra	115.03 316	PKP	PKPdf	11 11 22.6	-1.0
	comp=Z,0.6nm,0.5s,baz=111,slow=2.0,SNR=5.3					
BVAR	Borovoye Array	120.22 319	PKP	PKPdf	11 11 32.7	-0.8
	comp=Z,1.9nm,0.4s,baz=304,slow=0.5,SNR=3.7					
ARCES	ARCESS Array B	131.59 348	PKP	PKPdf	11 11 54.1	-0.7
	comp=Z,5.3nm,1.1s,baz=70,slow=1.4,SNR=6.0					
FINES	FINESS Array B	138.16 342	PKiKP	PKPpre	11 11 57.5	
	comp=Z,1.8nm,1.0s,baz=358,slow=4.6,SNR=4.4					
NB2	NORSAR Subarra	141.78 351	PKP	PKPpre	11 12 09.1	
	comp=Z,0.6nm,0.5s,baz=14,slow=3.1					
NOA	NORSAR Array B	141.78 351	PKhKP	PKPpre	11 12 09.3	
	comp=Z,1.1nm,0.7s,baz=16,slow=4.7,SNR=4.7					
HFS	Hagfors	142.25 349	PKhKP	PKPpre	11 12 10.6	
	comp=Z,4.4nm,0.4s,baz=64,slow=3.4,SNR=31					
AKASG	Malin Array Be	144.72 327	PKP	PKPdf	11 12 18.8	-0.5
	comp=Z,2.9nm,0.4s,baz=46,slow=3.8,SNR=18					
KIEV	Kiev	144.73 327		PKPdf	11 12 19.0	-0.3
BRTR	Keskin Array B	147.40 308	PKPbc	PKPbc	11 12 27.4	-0.3
	comp=Z,1.1nm,0.6s,baz=123,slow=4.6,SNR=4.7					
BRTR	Keskin Array B	147.40 308	PKPdf	PKPdf	11 12 25.0	+0.6
MMAI	Mount Meron Ar	147.58 295	PKPbc	PKiKP	11 12 29.4	-0.4
	comp=Z,4.3nm,0.5s,baz=37,slow=12,SNR=6.9					
EKA	Eskdalemuir Ar	148.21 3	PKPbc	PKPbc	11 12 28.4	-0.7
	comp=Z,0.7nm,0.3s,baz=337,slow=2.5,SNR=7.2					
KOLS	Kolonicke sedl	149.21 331	*e*PKP	PKiKP	11 12 32.9	+0.3
LANS	Liptovska Anna	150.24 334	*e*PKP	PKiKP	11 12 34.7	-0.1
CLL	Collm	150.56 343	*i* PKPbc	PKPbc	11 12 34.8	0.0
	comp=Z,8.0nm,0.7s					
GERES	GERESS Array B	152.57 340	PKPbc	PKPbc	11 12 38.9	-0.7
	comp=Z,0.4nm,0.4s,baz=333,slow=0.6,SNR=4.4					
GERES			PKPab	PKPab	11 12 50.9	-1.8
	comp=Z,0.2nm,0.3s,baz=20,slow=6.6,SNR=1.6					
TORD	Torodi Ar. Bea	169.49 189	PKPab	PKPab	11 14 07.5	+0.4
	comp=Z,0.7nm,0.7s,baz=215,slow=1.8,SNR=3.5					

IDC ***10*** *10:55:36.8±2.0, 44˚.20N×151˚.64E, h0km, mb3.4/3, mbtmp3.5/5, ML2.9/2, MS3.3/2, Error ellipse: s-maj=50.5km s-min=17.9km az=165.0*

MOS ***10*** *10:55:46.7±0.5, 45˚.17N×150˚.78E, h78km, mb4.5/1, Error ellipse: s-maj=35.8km s-min=16.5km az=149.1*

SKHL ***10*** *10:55:49.3±0.5, 45˚.10N×150˚.60E, h100km±4km, mb4.8/3, msha5.4/3*

JMA ***10*** *10:55:55.0±0.6, 45°N×3°×15°0E±°, h144km, MV3.4/16, KURILE ISLANDS REGION*

ISC 10 10:55:48.5±1.0, 45˚.00N±0˚.1×150˚.64E±0˚.08, h100km, n24, σ2°43/34, mb3.4/3, 2C, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	1.97	277	*e*PN	**Pn**	**10 56 20.5**	**-0.2**
KUR				*i* S	**Sn**	**10 56 42.0**	**-3.3**
KUR				pmax	pmax		
	comp=Z,327nm,0.3s						
KUR				pmax	pmax		
	comp=N,128nm,0.4s						
KUR				pmax	pmax		
	comp=E,111nm,0.3s						
KUR				smax	smax		
	comp=N,1μm,0.4s						
KUR				smax	smax		
	comp=E,948nm,0.4s						
KUR	**Kuril'sk**	1.97	277	*e*P	**Pn**	**10 56 20.3**	**-0.4**
KUR				AMB	AMB	10 56 21.7	
	comp=E,200nm,0.3s						
KUR				*i* S	**Sn**	**10 56 43.2**	**-2.1**
KUR				A	A	10 56 44.0	
	comp=E,2μm,0.5s						
KUR				A	A	10 56 44.0	
	comp=E,1μm,0.5s						
SHO	**Shikotan**	2.96	248	*e*P	Pn	10 56 54.6	+21
SHO				AMB	AMB	10 56 55.6	
	comp=E,40nm,0.2s						
SHO				*e*S	Sn	10 57 26.1	+18
SHO				A	A	10 57 28.1	
	comp=E,130nm,0.4s						
SHO				A	A	10 57 28.1	
	comp=E,150nm,0.4s						
YUK	**Yuzh-Kuril'sk**	3.56	256	*e*PN	**Pn**	**10 56 43.0**	**+1.3**
YUK				*i* S	**Sn**	**10 57 21.2**	**-1.6**
YUK				pmax	pmax		
	comp=Z,132nm,0.3s						
YUK				pmax	pmax		
	comp=N,50nm,0.2s						
YUK				pmax	pmax		
	comp=E,44nm,0.1s						
YUK				smax	smax		
	comp=N,284nm,0.3s						
YUK				smax	smax		
	comp=E,118nm,0.3s						
YUK	**Yuzh-Kuril'sk**	3.56	256	*e*P	**Pn**	**10 56 42.7**	**+1.0**
YUK				AMB	AMB	10 56 44.5	
	comp=E,140nm,0.5s						
YUK				*i* S	**Sn**	**10 57 23.1**	**+0.3**
YUK				A	A	10 57 25.6	
	comp=E,300nm,0.5s						
YUK				A	A	10 57 25.6	
	comp=E,200nm,0.5s						
NEM2	**Nemuro 2**	3.89	247	P	**Pn**	**10 56 47.4**	**+1.2**
NEM2				S	**Sn**	**10 57 28.3**	**-2.6**
NMR	**Nemuro--Hokkai**	3.90	247	⇑*i* PN	**Pn**	**10 56 47.4**	**+1.1**
NMR				*i* S	**Sn**	**10 57 27.9**	**-3.1**
NMR	**Nemuro--Hokkai**	3.90	247	*i* P	**Pn**	**10 56 47.4**	**+1.1**
NMR				*i* S	**Sn**	**10 57 29.1**	**-1.9**
RUSJ	**Misakicho**	3.96	259	⇑*i* PN	**Pn**	**10 56 48.3**	**+1.2**
RUSJ				*i* S	**Sn**	**10 57 34.0**	**+1.5**
JRA	**Rausu**	4.09	257	P	**Pn**	**10 56 50.2**	**+1.3**
JNK	**Nakash**	4.49	253	P	**Pn**	**10 56 55.8**	**+1.5**
JNK				*e*S	**Sn**	**10 57 43.8**	**-1.4**
AKK	**Akkeshi**	4.64	246	*e*P	**Pn**	**10 56 56.9**	**+0.7**
JAK	**Akkeshi**	4.74	247	*e*P	**Pn**	**10 56 58.6**	**+0.9**
JAK				*e*S	**Sn**	**10 57 47.6**	**-3.8**
JAR	**Ashorobuto**	5.23	253	*e*P	**Pn**	**10 57 06.0**	**+1.6**
JAR				*e*S	**Sn**	**10 58 01.9**	**-1.6**
JOB	**Onbets**	5.35	249	*e*P	**Pn**	**10 57 07.0**	**+1.1**
JCH	**Churui**	5.79	248	*e*P	**Pn**	**10 57 12.9**	**+1.0**
JCH				*e*S	**Sn**	**10 58 12.6**	**-4.3**
JKA	**Kamikawa-asahi**	5.81	264	*e*P	**Pn**	**10 57 13.2**	**+1.0**
ASAJ	**Asahikawa**	5.82	264	Pn	**Pn**	**10 57 13.2**	**+1.0**
	comp=E,0.2nm,0.3s,baz=195,slow=26,SNR=1.6						
ASAJ				Sn	**Sn**	**10 58 26.4**	**+8.8**
	comp=E,0.3nm,0.3s,baz=210,slow=20,SNR=1.7 comp=E,6.3nm,0.8s						
ASAJ				AML	AML		
PETK	**Petropavlovsk-**	9.32	27	Pn	**Pn**	**10 57 57.8**	**-2.1**
	comp=E,0.7nm,0.3s,baz=211,slow=11,SNR=18 comp=E,2.3nm,0.5s						
PETK				AML	AML		
ILAR	**Eielson Array**	38.97	37	P	**P**	**11 03 04.3**	**-0.2**
	comp=E,0.4nm,0.7s,baz=263,slow=8.3,SNR=5.7 comp=E,0.4nm,0.7s						
ZALV	**Zalesovo Beam**	42.24	307	LR	LR	11 23 19.2	
	comp=E,26nm,18.3s,baz=68,slow=38						
SFJD	**Kangerlussuaq**	67.14	9	LR	LR	11 39 06.6	
	comp=E,28nm,18.2s,baz=197,slow=38						
PDAR	**Pinedale Array**	67.17	52	P	**P**	**11 06 32.7**	**+0.8**
	comp=E,0.3nm,0.6s,baz=300,slow=6.6,SNR=4.2 comp=E,0.3nm,0.6s						
TXAR	**Lajitas Array**	79.86	59	P	**P**	**11 07 47.9**	**+1.6**
	comp=E,0.2nm,0.6s,baz=326,slow=7.2,SNR=1.9 comp=E,0.2nm,0.6s						

IDC ***10*** *11:02:40.2±1.3, 9˚.80N×69˚.48W, h0km, mb3.5/5, mbtmp3.7/6, ML3.3/1, MS3.0/2, Error ellipse: s-maj=32.7km s-min=20.1km az=95.0*

FUNV ***10*** *11:02:45.8, 9˚.91N×69˚.75W, h5km, MW4.1, Presumed earthquake*

RSNC ***10*** *11:02:47.9±0.4, 10˚N±2˚×7˚0W±˚, h111km±11km, M4.4, mB5.0, mb4.6, ML3.7, Mw(mB)4.3*

ISC 10 11:02:44.7±1.6, 9.86N±0.04×69.80W±0.03, h19km±5km, n55, σ1°83/88, mb3.6/5, Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TEPV	**Terepaima**	0.61	80	*e*P	**Pb**	**11 02 55.5**	**-1.2**
TEPV				*e*S	**Sb**	**11 03 03.0**	**-1.8**
MAPV	**Macapo**	1.32	91	*e*P	**Pn**	**11 03 08.6**	**+0.4**
MAPV				*e*S	**Sg**	**11 03 27.0**	**-0.6**
JACV	**Jacura**	1.55	38	*e*P	**Pb**	**11 03 13.2**	**+0.4**
JACV				*e*S	**Sb**	**11 03 33.4**	**+1.3**
BAUV	**El Baul**	1.96	118	*e*P	**Pb**	**11 03 18.9**	**-0.8**
BAUV				*e*S	**Sb**	**11 03 43.8**	**+0.1**
TURV	**Turiamo**	2.02	73	*e*P	**Pn**	**11 03 17.6**	**0.0**
TURV				*e*S	**Sb**	**11 03 44.5**	**-1.0**
BENV	**Beln**	2.17	87	*e*P	**Pn**	**11 03 21.3**	**+1.4**
BENV				*e*S	**Sn**	**11 03 47.1**	**+0.9**
TACV	**Tcata**	2.74	84	*e*P	**Pn**	**11 03 28.7**	**+0.9**
TACV				*e*S	**Sn**	**11 04 00.9**	**+0.5**
URIC	**Uribia, Colomb**	2.83	311	P	**Pn**	**11 03 27.7**	**-1.2**
URIC				S	**Sn**	**11 04 02.9**	**+0.5**
FUNV	**FUNVISIS**	3.00	78	*e*P	**Pn**	**11 03 33.2**	**+1.9**
FUNV				*e*S	**Sn**	**11 04 07.6**	**+0.7**
CAPV	**Capacho**	3.18	232	*e*P	**Pn**	**11 03 36.0**	**+2.1**
CAPV				*e*S	**Sn**	**11 04 14.4**	**+3.1**
CRJC	**Cerrejon, Guaj**	3.25	291	P	**Pn**	**11 03 34.8**	**+0.1**
CRJC				S	**Sn**	**11 04 11.5**	**-1.4**
MERV	**Las Mercedes**	3.50	100	*e*P	**Pn**	**11 03 39.4**	**+1.2**
MERV				*e*S	**Sn**	**11 04 20.0**	**+0.8**
OCAC	**Ocana**	3.83	245	P	**Pn**	**11 03 44.5**	**+1.7**
OCAC				S	**Sn**	**11 04 27.3**	**-0.1**
TAMC	**Tame, Arauca**	3.93	210	P	**Pn**	**11 03 45.6**	**+1.5**
TAMC				S	**Sn**	**11 04 33.1**	**+3.4**
CACV	**CAICARA DEL OR**	3.94	125	*e*P	**Pb**	**11 03 51.4**	**-2.3**
CACV				*e*S	**Sb**	**11 04 41.9**	**+0.9**
ARGC	**Ariguani, Magd**	4.38	270	P	**Pn**	**11 03 50.9**	**+0.6**
ARGC				S	**Sn**	**11 04 40.4**	**-0.4**
SMRC	**Santa Marta, M**	4.54	287	P	**Pn**	**11 03 53.1**	**+0.7**
BARC	**Barichara**	4.66	226	P	**Pn**	**11 03 57.4**	**+3.1**
BARC				S	**Sn**	**11 04 52.5**	**+4.4**
BRJC	**Barrancabermej**	4.84	234	P	**Pn**	**11 03 58.2**	**+1.6**
BRJC				S	**Sn**	**11 04 54.1**	**+1.9**
PCRV	**Puerto La Cruz**	5.09	86	*e*P	**Pn**	**11 04 01.6**	**+1.6**
PCRV				*e*S	**Sn**	**11 04 57.3**	**-1.1**
RUSC	**La Rusia**	5.11	220	P	**Pn**	**11 04 02.1**	**+1.4**
	2μm130nm,0.7s						
RUSC				S	**Sn**	**11 05 00.4**	**+1.0**
	2μm130nm,0.7s						
RUSC				AML	AML		
RUSC	**La Rusia**	5.11	220	*e*P	**Pn**	**11 04 02.7**	**+2.0**
SJCC	**San Jacinto, C**	5.30	271	P	**Pn**	**11 04 04.5**	**+1.5**
	2μm72nm,0.5s						
SJCC				S	**Sn**	**11 05 03.1**	**-0.5**
	2μm72nm,0.5s						
SJCC				AML	AML		
SJCC	**San Jacinto, C**	5.30	271	*e*P	**Pn**	**11 04 04.3**	**+1.3**
SPBC	**San Pablo de B**	5.95	226	P	**Pn**	**11 04 14.5**	**+2.6**
	2μm74nm,0.5s						
SPBC				S	**Sn**	**11 05 20.5**	**+0.9**
	2μm74nm,0.5s						
SPBC				AML	AML		
UREC	**San Jos de Ur**	6.04	250	P	**Pn**	**11 04 11.7**	**-1.4**
	1μm56nm,0.7s						
UREC				S	**Sn**	**11 05 19.6**	**-2.2**
	1μm56nm,0.7s						
UREC				AML	AML		
PTGC	**Puerto Gaitan,**	6.08	203	P	**Pn**	**11 04 13.6**	**0.0**
	2μm96nm,0.6s						
PTGC				S	**Sn**	**11 05 18.2**	**-4.5**
	2μm96nm,0.6s						
PTGC				AML	AML		
CHIC	**Chingaza**	6.50	217	P	**Pn**	**11 04 20.0**	**+0.3**
CHIC				S	**Sn**	**11 05 29.5**	**-4.0**
NORC	**Norcasia**	6.59	230	P	**Pn**	**11 04 20.6**	**-0.1**
	834nm45nm,0.6s						
NORC				S	**Sn**	**11 05 32.9**	**-2.5**
	834nm45nm,0.6s						
ROSC	**El Rosal**	6.71	222	Pn	**Pn**	**11 04 25.1**	**+2.5**
	11nm,0.3s,baz=47,slow=19,SNR=10						
ROSC				Sn	**Sn**	**11 05 43.8**	**+5.2**
	4.3nm,0.3s,baz=146,slow=23,SNR=1.2 36nm,0.4s						
ROSC				AML	AML		
ROSC	**El Rosal**	6.71	222	P	**Pn**	**11 04 25.5**	**+3.0**
	908nm50nm,0.6s						
ROSC				S	**Sn**	**11 05 37.9**	**-0.7**
	908nm50nm,0.6s						
MEDEC	**Medeln, Ant**	6.75	239	P	**Pn**	**11 04 22.5**	**-0.5**
MEDEC				S	**Sn**	**11 05 38.8**	**-0.6**
CVER	**Cruz Verde, Cu**	6.79	219	P	**Pn**	**11 04 25.9**	**+2.1**
CVER				S	**Sn**	**11 05 37.9**	**-2.9**
VILC	**Villavicencio,**	6.89	214	P	**Pn**	**11 04 26.8**	**+1.9**
VILC				S	**Sn**	**11 05 43.0**	**0.0**
APAC	**Apartado, Choc**	6.98	254	P	**Pn**	**11 04 28.1**	**+2.2**
	62nm,0.6s						
GUY2C	**Guyana, Caldas**	7.19	231	P	**Pn**	**11 04 30.6**	**+1.4**
	1μm119nm,0.6s						
GUY2C				S	**Sn**	**11 05 48.4**	**-2.2**
	1μm119nm,0.6s						
NIZA	**Niza - Manizal**	7.37	230	P	**Pn**	**11 04 31.9**	**+0.3**
GUVC	**San Jose del G**	7.79	201	P	**Pn**	**11 04 36.4**	**-0.7**
PRAC	**Prado**	7.92	220	P	**Pn**	**11 04 40.2**	**+1.2**
	778nm38nm,0.5s						
URMC	**La Uribe, Meta**	7.99	215	P	**Pn**	**11 04 40.7**	**+0.8**
	2μm56nm,0.5s						
ORTC	**Ortega, Tolima**	8.01	223	P	**Pn**	**11 04 41.2**	**+1.0**
	49nm,0.9s						
ORTC				S	**Sn**	**11 06 12.0**	**+1.7**
	49nm,0.9s						
MACC	**Macarena, Meta**	8.65	208	P	**Pn**	**11 04 48.1**	**-0.9**
	1μm55nm,0.5s						
MACC				S	**Sn**	**11 06 24.3**	**-1.9**
	1μm55nm,0.5s						
YOTC	**Yotoco, Valle**	8.73	229	P	**Pn**	**11 04 50.7**	**+0.5**
	14nm,1.0s						
SJG	**San Juan**	8.94	23	LR	LR	11 08 27.2	
	comp=Z,54nm,19.2s,baz=168,slow=39						
JAMC	**Jamundi, Valle**	9.50	226	P	**Pn**	**11 05 00.5**	**-0.2**
	10nm,0.6s						
BCIP	**Isla Barro Col**	9.93	267	P	**Pn**	**11 05 03.3**	**-3.1**
	10nm,0.7s						
POPC	**Popayan, Colom**	9.98	224	P	**Pn**	**11 05 08.0**	**+0.7**
	8.1nm,0.7s						
BBAC	**Balboa, Cauca**	10.74	224	P	**Pn**	**11 05 17.2**	**-0.6**
LPAZ	**La Paz**	26.03	176	P	**P**	**11 08 17.1**	**-0.4**
	2.2nm,1.2s,baz=304,slow=9.6,SNR=4.6						
LPAZ				LR	LR	11 19 20.2	
	comp=Z,60nm,21.2s,baz=208,slow=38 2.2nm,1.2s						
TXAR	**Lajitas Array**	37.12	306	P	**P**	**11 09 56.2**	**+1.8**
	0.3nm,0.9s,baz=119,slow=6.8,SNR=2.0 0.3nm,0.9s						
PDAR	**Pinedale Array**	47.71	320	P	**P**	**11 11 22.0**	**+1.5**
	0.5nm,0.9s,baz=102,slow=6.0,SNR=2.9 0.5nm,0.9s						
PLCA	**Paso Flores**	50.34	181	P	**P**	**11 11 39.0**	**-1.5**
	1.1nm,0.7s,baz=40,slow=7.9,SNR=3.8 1.1nm,0.7s						
NVAR	**Mina Array Bea**	51.83	312	P	**P**	**11 11 52.7**	**+0.8**
	0.3nm,0.7s,baz=106,slow=6.5,SNR=2.1 0.3nm,0.7s						
ASAR	**Alice Springs**	153.53	236	PKPbc	**PKPbc**	**11 22 40.2**	**-2.8**
	0.6nm,0.7s,baz=122,slow=3.4,SNR=5.5						
WRA	**Warramunga Arr**	154.65	244	PKPbc	**PKPbc**	**11 22 42.8**	**-2.6**
	0.2nm,0.5s,baz=104,slow=2.4,SNR=8.7						

FUNV ***10*** *11:10:31.9, 9˚.92N×69˚.75W, h5km, MW3.8, Presumed earthquake*

RSNC ***10*** *11:10:32.8±1.0, 10˚N±3˚×7˚0W±˚, h17km±14km, M4.2, mB5.0, mb4.4, ML3.3, Mw(mB)4.3*

ISC 10 11:10:30.5±1.4, 9.94N±0.05×69.80W±0.03, h10km±11km, n35, σ1°17/50, Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TEPV	**Terepaima**	0.60	88	*e*P	**Pg**	**11 10 41.6**	**-0.6**
TEPV				*e*S	**Sg**	**11 10 49.2**	**-0.8**
MAPV	**Macapo**	1.32	95	*e*P	**Pn**	**11 10 54.8**	**-0.4**
MAPV				*e*S	**Sg**	**11 11 13.2**	**-0.1**
JACV	**Jacura**	1.48	40	*e*P	**Pg**	**11 10 59.2**	**+0.1**
JACV				*e*S	**Sg**	**11 11 20.4**	**+2.0**
TURV	**Turiamo**	1.99	75	*e*P	**Pn**	**11 11 03.6**	**-

*AFAD **10** 11:12:08.4, 37.76N×26.53E, h7km±1km, ML1.7*
THE 10 11:12:09.0, 38.4°×27.2°E, h0km±3km, MLh2.2/3, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.26**	**98**	P	Pg	11 12 14.3	+0.2
SMG				S	Sg	11 12 18.7	+1.2
SMG				AML	AML		
DGB	**zmir**	**0.42**	**44**	P	Pg	11 12 16.3	-0.8
DGB	comp=N,65nm,0.8s			IAML		11 12 22.0	
DGB				S	Sg	11 12 22.3	-0.3
DGB	comp=E,79nm,0.2s			IAML		11 12 23.0	
ZEYE	**Izmir, Urla-Ze**	**0.49**	**360**	P	Pg	11 12 17.8	-0.6
ZEYE				S	Sg	11 12 24.9	+0.1
ZEYE	comp=N,191nm,0.2s			IAML		11 12 37.0	
ZEYE	comp=E,144nm,0.2s			IAML		11 12 37.0	
BEYE	**izmir**	**0.58**	**35**	P	Pg	11 12 19.5	-0.7
BEYE				S	Sg	11 12 27.2	-0.6
BEYE	comp=E,59nm,0.2s			IAML		11 12 40.0	
CHOS	**Chios island**	**0.73**	**331**	P	Pb	11 12 25.2	+0.5
CHOS				S	Sb	11 12 34.1	-1.1
BLCB	**Balcova**	**0.76**	**33**	P	Pb	11 12 24.5	-0.7
BLCB				S	Sb	11 12 36.1	0.0
PRK	**Paraskevi**	**1.51**	**353**	P	Pn	11 12 36.9	-0.4
PRK				S	Sn	11 12 58.8	+1.2

*ISU **10** 11:33:50, 40.49N×72.68E, h7km*
*KRNET **10** 11:33:53.0±0.1, 40.50N×72.63E, h18km, mb2.5*
ISC 10 11:33:50.6±1.4, 40.49N±0.05×72.68E±0.04, h6km±11km, n11, σ0.82/21, 8C-10D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSTA	**Tashata**	**0.18**	**301**	P	**Pg**	**11 33 54.2**	**0.0**
TSTA				S	**Sg**	**11 33 56.3**	**-0.4**
FRG	**Fergana**	**0.69**	**261**	S	**Sb**	**11 34 14.7**	**-0.2**
SFK	**Sufi-Kurgan**	**0.79**	**127**	⇓*i*P	**Pn**	**11 34 08.8**	**+0.3**
SFK				⇓*i*S	**Sn**	**11 34 20.2**	**-0.5**
ARSB	**Arslanbob**	**0.87**	**15**	⇓*e*P	**Pn**	**11 34 09.7**	**+0.2**
ARSB				⇓*e*S	**Sn**	**11 34 21.5**	**-1.1**
SALK	**Salom-Alik**	**0.96**	**65**	⇑*i*P	**Pn**	**11 34 11.1**	**+0.4**
SALK				⇑*i*S	**Sn**	**11 34 24.9**	**+0.2**
TRKS	**Terek-Say**	**1.56**	**312**	⇓*i*P	**Pb**	**11 34 20.2**	**+0.2**
TRKS				⇓*i*S	**Sb**	**11 34 39.9**	**-0.2**
MNAS	**Manas**	**2.00**	**356**	⇓*e*P	**Pb**	**11 34 28.7**	**+1.2**
MNAS				⇓*i*S	**Sg**	**11 34 55.1**	**+0.1**
UCH	**Uchtor**	**2.22**	**38**	⇑*e*P	**Pb**	**11 34 32.6**	**+1.2**
UCH				⇑*i*S	**Sg**	**11 35 01.6**	**-0.4**
EKS2	**Erkin-Say**	**2.33**	**20**	⇑*i*P	**Pb**	**11 34 33.6**	**+0.6**
EKS2				⇑*i*S	**Sb**	**11 35 03.2**	**+1.2**
AAK	**Ala-Archa**	**2.54**	**32**	⇓*i*P	**Pb**	**11 34 36.8**	**0.0**
AAK				⇓*i*S	**Sb**	**11 35 08.8**	**+0.4**
CHMS	**Chumysh**	**2.95**	**311**	⇑*e*P	**Pb**	**11 34 42.2**	**-1.4**
CHMS				⇑*e*S	**Sb**	**11 35 18.3**	**-1.6**

*MDD **10** 11:37:32.0±1.4, 36.95N×10.87W, h0km, mb_Lg2.6/8, Error ellipse: s-maj=10.7km s-min=8.8km az=58.0*
*IGIL **10** 11:37:32.9, 36.82N×11.01W, h28km, ML2.4*
*INMG **10** 11:37:33.6±1.1, 36.82N×11.02W, h36km, ML2.0, Error ellipse: s-maj=5.5km s-min=3.2km az=88.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
*CNRM **10** 11:37:35.7, 36.42N×10.20W, h0km, ML2.2*
ISC 10 11:37:25.2±2.2, 36.75N±0.05×11.12W±0.08, h12km±13km, n44, σ2.34/72, 1D, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.88**	**77**	Pn	**Pg**	**11 38 00.2**	**-1.1**
PFVI				Sn	**Sn**	**11 38 20.6**	**-0.2**
PFVI	**Vila Bisbo**	**1.88**	**77**	P	**Pb**	**11 37 59.5**	**+0.1**
PFVI				S	**Sn**	**11 38 19.6**	**-1.2**
PFVI	**Vila Bisbo**	**1.88**	**77**	*e*P	**Pg**	**11 38 00.3**	**-1.0**
PFVI				*e*S	**Sb**	**11 38 21.0**	**-1.9**
PFVI				IAML		11 38 22.1	
PFVI				IAML		11 38 22.2	
PFVI				IAML		11 38 22.3	
MORF	**Marmelete**	**2.05**	**74**	*e*P	**Pb**	**11 38 02.8**	**+0.3**
MORF				*e*S	**Sn**	**11 38 24.5**	**-0.6**
MORF	comp=E,25nm,0.1s			IAML		11 38 26.4	
MORF	**Marmelete**	**2.05**	**74**	*e*P	**Pb**	**11 38 03.0**	**+0.5**
MORF				*e*S	**Sn**	**11 38 25.0**	**-0.2**
MORF				IAML		11 38 26.4	
MORF				IAML		11 38 26.6	
MORF				IAML		11 38 26.7	
PTEO	**Sao Teotonio**	**2.08**	**67**	⇓*e*P	**Pb**	**11 38 02.9**	**+0.1**
PTEO				*e*S	**Sn**	**11 38 25.9**	**+0.3**
PTEO				IAML		11 38 27.0	
PTEO				IAML		11 38 27.1	
PTEO				IAML		11 38 32.2	
PLOUS	**Minas do Lousa**	**2.50**	**58**	*e*P	**Pn**	**11 38 08.3**	**+2.6**
PLOUS				*e*S	**Sn**	**11 38 35.7**	**-0.5**
PLOUS				IAML		11 38 37.7	
PLOUS				IAML		11 38 38.1	
PLOUS				IAML		11 38 39.2	
MESJ	**Messejana**	**2.56**	**64**	*e*P	**Pb**	**11 38 10.3**	**-0.8**
MESJ				*e*S	**Sn**	**11 38 37.5**	**-0.1**
PBDV	**Barranco-do-Ve**	**2.60**	**78**	Pn	**Pb**	**11 38 10.2**	**-1.6**
PBDV				Sn	**Sn**	**11 38 38.5**	**-0.1**
PBDV	**Barranco-do-Ve**	**2.60**	**78**	*e*S	**Sn**	**11 38 38.6**	**-0.1**
PBDV				IAML		11 38 42.0	
PBDV				IAML		11 38 42.7	
PBDV				IAML		11 38 43.8	
PCVE	**Castro Verde**	**2.62**	**69**	Pn	**Pn**	**11 38 10.4**	**+3.1**
PCVE				Sn	**Sn**	**11 38 38.6**	**-0.4**
PCVE	**Castro Verde**	**2.62**	**69**	*e*P	**Pn**	**11 38 10.4**	**+3.1**
PCVE				*e*S	**Sn**	**11 38 38.8**	**-0.2**
PCVE				IAML		11 38 39.6	
PCVE				IAML		11 38 40.1	
PCVE				IAML		11 38 42.2	
PMAFR	**Mafra**	**2.64**	**33**	Pn	**Pn**	**11 38 10.4**	**+2.7**
PMAFR				Sn	**Sn**	**11 38 38.2**	**-1.4**
PMAFR	**Mafra**	**2.64**	**33**	*e*P	**Pn**	**11 38 11.1**	**+3.4**
PMAFR				*e*S	**Sn**	**11 38 39.0**	**-0.7**
PMAFR				IAML		11 38 40.4	
PMAFR				IAML		11 38 45.1	
PVAQ	**Vaqueiros**	**2.80**	**75**	P	**Pn**	**11 38 11.8**	**+1.9**
PVAQ				S	**Sn**	**11 38 43.8**	**+0.3**
PVAQ	**Vaqueiros**	**2.80**	**75**	*e*P	**Pb**	**11 38 13.5**	**-1.7**
PVAQ				*e*S	**Sn**	**11 38 43.1**	**-0.4**
PVAQ				IAML		11 38 45.3	
PVAQ				IAML		11 38 45.5	
PVAQ				IAML		11 38 46.6	
EGRO	**El Granado**	**3.01**	**74**	Pn	**Pn**	**11 38 16.2**	**+3.5**
EGRO				Sn	**Sn**	**11 38 48.5**	**-0.2**
EGRO	**El Granado**	**3.01**	**74**	Pn	**Pn**	**11 38 15.9**	**+3.1**
EGRO				Sn	**Sn**	**11 38 48.5**	**-0.2**
EGRO				IVmb_Lg		11 38 49.4	
EVO	**Evora**	**3.04**	**53**	Sn	**Sn**	**11 38 48.5**	**-1.0**
EVO	**Evora**	**3.04**	**53**	*e*S	**Sn**	**11 38 49.8**	**+0.3**
EVO				IAML		11 38 51.3	
EVO				IAML		11 38 51.5	
EVO				IAML		11 38 53.8	
PMTG	**Montargil**	**3.26**	**44**	*e*P	**Pn**	**11 38 20.0**	**+3.8**
PMTG				*e*S	**Sn**	**11 38 54.3**	**-0.5**
PMTG				IAML		11 38 55.2	
PMTG				IAML		11 38 57.3	
PMTG				IAML		11 39 00.4	
PESTR	**Estremoz**	**3.51**	**52**	*e*S	**Sn**	**11 39 01.4**	**+0.4**
PESTR				IAML		11 39 03.1	
PESTR				IAML		11 39 03.4	
PESTR				IAML		11 39 04.7	
PBAR	**Barrancos**	**3.55**	**65**	Pn	**Pn**	**11 38 23.9**	**+3.8**
PBAR				Sn	**Sn**	**11 38 59.4**	**-2.5**
PBAR	**Barrancos**	**3.55**	**65**	*e*P	**Pn**	**11 38 23.5**	**+3.4**
PBAR				*e*S	**Sn**	**11 39 00.5**	**-1.5**
PBAR				IAML		11 39 04.3	
PBAR				IAML		11 39 05.9	
PBAR				IAML		11 39 12.1	
PSARD	**Sardoal**	**3.68**	**38**	*e*P	**Pn**	**11 38 25.2**	**+3.2**
PSARD				*e*S	**Sn**	**11 39 05.1**	**-0.2**
PSARD				IAML		11 39 05.7	
PSARD				IAML		11 39 06.5	
PSARD				IAML		11 39 07.2	
EMIN	**Mina Concepcio**	**3.69**	**73**	Pn	**Pn**	**11 38 25.4**	**+3.2**
EMIN	**Mina Concepcio**	**3.69**	**73**	Sn	**Sn**	**11 39 05.7**	**+0.2**
EMIN				IVmb_Lg		11 39 07.0	
EBAD	**Badajoz**	**3.83**	**57**	Pn	**Pn**	**11 38 27.5**	**+3.6**
EBAD				Sn	**Sn**	**11 39 07.6**	**-1.2**
EBAD				IVmb_Lg		11 39 10.7	
PMRV	**Marv??o**	**3.98**	**47**	*e*P	**Pn**	**11 38 29.5**	**+3.5**
PMRV				*e*S	**Sn**	**11 39 10.9**	**-1.8**
PMRV				IAML		11 39 12.2	
PMRV				IAML		11 39 12.4	
PMRV				IAML		11 39 13.7	
PVIS	**Viseu**	**4.70**	**31**	*e*S	**Sn**	**11 39 28.2**	**-2.2**
ECAB	**El Cabril**	**4.73**	**72**	Pn	**Pn**	**11 38 38.8**	**+2.5**
ECAB				Sn	**Sn**	**11 39 29.9**	**-1.2**
ECAB	**El Cabril**	**4.73**	**72**	Pn	**Pn**	**11 38 39.2**	**+2.8**
ECAB				Sn	**Sn**	**11 39 29.8**	**-1.4**
ECAB				IVmb_Lg		11 39 31.6	
ZHG	**ZHG**	**4.93**	**131**	P	**Pn**	**11 38 41.5**	**+2.2**
ZHG				S	**Sn**	**11 39 29.9**	**-6.3**
POLO	**Lamas de Olo**	**5.30**	**28**	*e*S	**Sn**	**11 39 42.4**	**-2.9**
EADA	**Adamuz**	**5.40**	**73**	Pn	**Pn**	**11 38 48.3**	**+2.8**
EADA				Sn	**Sn**	**11 39 45.7**	**-1.9**
EADA	**Adamuz**	**5.40**	**73**	Pn	**Pn**	**11 38 48.4**	**+2.8**
EADA				Sn	**Sn**	**11 39 46.1**	**-1.5**
EADA				IVmb_Lg		11 39 48.8	
ELOB	**Lobios**	**5.64**	**24**	Sn	**Sn**	**11 39 49.9**	**-3.7**
ELOB				IVmb_Lg		11 39 51.6	
PGAV	**Gavieira, Arco**	**5.66**	**22**	*e*S	**Sn**	**11 39 50.7**	**-3.5**
PGAV				IAML		11 39 52.0	
PGAV				IAML		11 39 52.2	
PGAV				IAML		11 39 58.4	
PAB	**San Pablo**	**6.03**	**60**	Sn	**Sn**	**11 40 01.8**	**-1.3**
PAB				IVmb_Lg		11 40 02.6	
OUK	**Oukaimeden**	**6.15**	**153**	P	**Pn**	**11 38 59.4**	**+3.2**
ECAL	**Calabor**	**6.20**	**32**	Sn	**Sn**	**11 40 03.6**	**-3.9**
MD31	**MD31**	**6.51**	**125**	P	**Pn**	**11 39 04.4**	**+3.5**
MDT	**Midelt**	**6.64**	**124**	P	**Pn**	**11 39 05.4**	**+2.7**
OUZM	**OUZ**	**6.86**	**147**	P	**Pn**	**11 39 09.3**	**+3.6**

HEL 10 11:38:51.5±0.7, 67.06N×20.72E, h0km, ML1.0, Explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ERTU	**Ertsjaerv**	**0.77**	**130**	PB	Pg	11 39 05.6	-0.6
LANU	**Lannavaara**	**1.11**	**26**	PG	Pg	11 39 12.0	-0.7
LANU	baz=311			SN	Sb	11 39 29.2	+0.7
KLF	**Kolari**	**1.28**	**81**	PG	Pg	11 39 14.1	-1.9
KLF	baz=262			MSG		11 39 30.1	
KLF	comp=Z,1.0nm,0.2s			SG	Sg	11 39 31.2	-1.3
TOF	**Tornio**	**1.74**	**123**	PN	Pn	11 39 23.2	+0.3
TOF				MSG		11 39 43.6	
TOF	comp=Z,1.1nm,0.2s			SN	Sg	11 39 47.9	+0.5
HEF	**Hetta**	**1.76**	**38**	SG	Sn	11 39 43.7	-2.6
HEF				MSG		11 39 43.9	
RNF	**Rovaniemi**	**2.14**	**100**	SG	Sb	11 39 58.4	+0.2
KTK1	**Kautokeino**	**2.18**	**25**	SN	Sn	11 39 55.1	-1.5
RANF	**Ranua**	**2.64**	**111**	SG	Sb	11 40 13.5	+0.9
ARJG	**ARCESS Array S**	**3.06**	**33**	SB	Sn	11 40 19.7	+1.4
UMAU	**Umeaa**	**3.19**	**180**	SN	Sn	11 40 19.0	-2.5
KEV	**Kevo**	**3.57**	**38**	SG	Sb	11 40 41.4	+2.2

NNC 10 11:41:37.1±4.6, 36.73N×71.02E, h120km±101km, mb2.9, mpv3.6,2C-3D, Error ellipse: s-maj=49.7km s-min=37.2km az=131.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.38**	**357**	⇓P	Pn	11 43 09.0	+0.4
KK31	5.1nm,0.3s,baz=181,slow=13,SNR=50			⇑S	Sn	11 44 20.3	+0.3
AAK	**Ala-Archa**	**6.48**	**23**	⇑P	Pn	11 43 09.6	-0.4
AAK	1.4nm,0.3s,baz=184,slow=22,SNR=4.8 0.9nm,0.4s			⇓S	Sn	11 44 23.2	+0.6
AB31	**Akbulak array**	**14.89**	**331**	⇓P	Pn	11 45 01.3	0.0
	2.7nm,0.6s 0.2nm,0.3s,baz=164,slow=11,SNR=11						

*DJA **10** 11:50:42.3±0.4, 5°S×13°0E±°, h269km±5km, M4.1/14, mb4.1/3, MLv4.2/14*
ISC 10 11:50:43.2±0.9, 5.27S±0.06×129.67E±0.07, h250km, n18, σ1.91/19, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**0.78**	**17**	P	**Pn**	**11 51 17.4**	**+0.3**
BNDI				S	**Sn**	**11 51 47.6**	**+3.7**
SAUI	**Saumlaki**	**3.14**	**149**	P	**Pn**	**11 51 39.0**	**+1.8**
SAUI				AML	AML		
NLAI	**Namlea**	**3.27**	**308**	P	**Pn**	**11 51 37.8**	**-0.8**
NLAI				AML	AML		
FAKI	**Fak Fak**	**3.47**	**48**	P	**Pn**	**11 51 41.2**	**+0.2**
FAKI	**Fak Fak**	**3.47**	**48**	S	**S**	**11 52 24.1**	**-2.6**
FAKI	**Fak Fak**	**3.47**	**48**	P	**Pn**	**11 51 41.1**	**+0.1**
FAKI				AML	AML		
SIJI	**Sorong**	**4.65**	**20**	P	**Pn**	**11 51 53.6**	**-1.2**
SIJI				AML	AML		
SANI	**Sanana**	**4.88**	**311**	P	**Pn**	**11 51 56.1**	**-1.4**
SANI	**Sanana**	**4.88**	**311**	P	**Pn**	**11 51 55.5**	**-2.0**
SANI				AML	AML		
DRS	**Darwin Rock St**	**7.22**	**170**	P	**Pn**	**11 52 27.3**	**+0.7**
DRS	**Darwin Rock St**	**7.22**	**170**	S	**S**	**11 53 46.3**	**-3.4**
TOLI2	**Tolitoli**	**10.91**	**305**	P	**P**	**11 53 17.1**	**-0.7**
TOLI2	**Tolitoli**	**10.91**	**305**	S	**S**	**11 55 18.6**	**+3.0**
WRAB	**Tennant Creek**	**15.27**	**163**	P	**Pn**	**11 54 07.2**	**+0.5**
WRAB	**Tennant Creek**	**15.27**	**163**	S	**S**	**11 56 56.4**	**+1.7**
WB31	**Warramunga Ar.**	**15.29**	**163**	P	**Pn**	**11 54 07.6**	**+0.6**
QIS	**Mount Isa**	**18.00**	**148**	P	**Pn**	**11 54 38.9**	**0.0**
AS01	**Alice Springs**	**18.75**	**168**	P	**Pn**	**11 54 46.7**	**-1.0**

IDC 10 12:18:52.7±3.3, 23.07N×12.43W, h0km, mbtmp3.5/1, ML3.2/1, Error ellipse: s-maj=194.8km s-min=68.6km az=40.0, Western Sahara

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	**16.65**	**124**	Pn	Pn	12 22 44.0	-3.6
	0.1nm,0.3s,baz=310,slow=12,SNR=2.2 0.7nm,0.6s						
TORD				AML	AML		
I48TN	**KESRA INFRASON**	**22.74**	**51**	I	I	14 38 00.0	
	baz=239,slow=314,SNR=4.5						
WRA	**Warramunga Arr**	**148.96**	**91**	PKPbc	PKPbc	12 38 42.4	-1.0
	0.7nm,1.1s,baz=300,slow=1.8,SNR=1.9						
ASAR	**Alice Springs**	**149.13**	**98**	PKPbc	PKPbc	12 38 43.5	-0.2
	0.1nm,0.4s,baz=291,slow=2.2,SNR=1.9						

IDC 10 12:35:43.2±1.4, 4.30S×139.56E, h0km, mb3.3/2, mbtmp3.4/5, ML3.1/3, Error ellipse: s-maj=55.6km s-min=16.5km az=119.0, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**2.11**	**33**	Pn	Pn	12 36 19.9	+0.1
	1.4nm,0.3s,baz=207,slow=11,SNR=6.2						
JAY				Sn	Sn	12 36 46.6	-0.1
	3.0nm,0.3s,baz=115,slow=19,SNR=8.9 6.0nm,0.5s						
JAY				AML	AML		
WRA	**Warramunga Arr**	**16.36**	**198**	Pn	Pn	12 39 33.3	-1.1
	0.1nm,0.3s,baz=19,slow=10,SNR=9.6 0.7nm,0.7s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**19.33**	**224**	P	P	12 40 10.3	0.0
	baz=34,slow=15,SNR=1.7 1.8nm,1.0s						
ASAR	**Alice Springs**	**20.02**	**195**	P	P	12 40 16.1	-1.6
	0.2nm,0.4s,baz=25,slow=9.8,SNR=9.7 0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**73.72**	**330**	P	P	12 47 19.4	+0.5
	0.4nm,0.4s,baz=140,slow=5.6,SNR=1.5						
	0.4nm,0.4s						

*IDC **10** 12:45:30.6±8.6, 21.06N×144.47E, h84km±78km, mb3.6/12, mbtmp3.9/12, MS3.0/5, Error ellipse: s-maj=30.3km s-min=18.7km az=80.0*
*NEIC **10** 12:45:32.7±1.1, 21.0N±0.1×144.7E±0.1, h113km±8km, mb4.2/11, Error ellipse: s-maj=19.3km s-min=13.1km az=129.0*
ISC 10 12:45:31.7±0.8, 21.0N±0.1×144.5E±0.2, h100km, n41, σ0.98/31, mb4.0/19, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**6.45**	**341**	Pn	**Pn**	**12 47 04.5**	**+0.3**
GUMO	**Guam**	**7.35**	**177**	LR	LR	12 49 38.4	
	comp=Z,51nm,19.2s,baz=80,slow=33						
H11S3	**WAKE ISLAND Hy 21.03**	**93**		T	T	13 11 47.0	
	baz=280,slow=75,SNR=44						
H11N1	**WAKE ISLAND Hy 21.04**	**89**		T	T	13 11 53.0	
	baz=277,slow=75,SNR=32						
H11N2	**WAKE ISLAND Hy 21.04**	**89**		T	T	13 11 46.3	
	baz=277,slow=75,SNR=30						
H11S1	**WAKE ISLAND Hy 21.04**	**93**		T	T	13 11 48.2	
	baz=280,slow=75,SNR=48						
H11S2	**WAKE ISLAND Hy 21.05**	**93**		T	T	13 11 50.8	
	baz=280,slow=75,SNR=44						
H11N3	**WAKE ISLAND Hy 21.05**	**89**		T	T	13 11 54.6	
	baz=277,slow=75,SNR=24						
KSRS	**Korea Array**	**21.83**	**322**	P	**P**	**12 50 16.1**	**+0.2**
	1.6nm,0.9s,baz=150,slow=8.4,SNR=7.0						
KSRS				LR	LR	12 57 31.8	
	comp=Z,20nm,19.7s,baz=110,slow=33 1.6nm,0.9s						
KSAR	**Wonju Array Be**	**21.84**	**322**	P	**P**	**12 50 16.4**	**+0.4**
KS19	**Wonju Array Si**	**21.90**	**322**	P	**P**	**12 50 16.8**	**+0.1**
KS19				IAmb	IAmb	12 50 40.2	
	comp=Z,11nm,1.4s						
WB0	**Warramunga Arr**	**41.68**	**194**	P	**P**	**12 53 11.9**	**+1.3**
WB0				IAmb	IAmb	12 53 29.3	
	comp=Z,6.1nm,1.2s						
WRAB	**Tennant Creek**	**41.85**	**194**	P	**P**	**12 53 11.8**	**-0.2**
WRAB				IAmb	IAmb	12 53 46.4	
	comp=Z,8.3nm,1.4s						
WRA	**Warramunga Arr**	**41.86**	**194**	P	**P**	**12 53 13.1**	**+1.0**
	comp=Z,1.0nm,0.7s,baz=15,slow=8.6,SNR=7.8 comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	**41.86**	**194**	P	**P**	**12 53 12.3**	**+0.2**
CMAR	**Chiang Mai Arr**	**42.85**	**275**	LR	LR	13 12 28.8	
	comp=Z,13nm,18.4s,baz=85,slow=38						
AS31	**Alice Springs**	**45.55**	**194**	P	**P**	**12 53 40.2**	**-1.4**
ASAR	**Alice Springs**	**45.55**	**194**	P	**P**	**12 53 42.5**	**+0.8**
	comp=Z,0.4nm,0.7s,baz=13,slow=9.7,SNR=4.7 comp=Z,0.4nm,0.7s						
ASAR	**Alice Springs**	**45.55**	**194**	P	**P**	**12 53 40.4**	**-1.2**
FORT	**Forrest**	**53.82**	**198**	P	**P**	**12 54 43.8**	**-0.5**
MK31	**Makanchi Array**	**56.09**	**313**	P	**P**	**12 54 58.9**	**-1.6**
MK31				IAmb	IAmb	12 55 01.1	
	comp=Z,0.8nm,0.8s						
MKAR	**Makanchi Array**	**56.09**	**313**	P	**P**	**12 55 00.8**	**+0.3**
	comp=Z,0.7nm,0.6s,baz=92,slow=9.3,SNR=6.3 comp=Z,0.7nm,0.6s						
MKAR	**Makanchi Array**	**56.09**	**313**	P	**P**	**12 54 59.3**	**-1.2**
KURK	**Kurchatov**	**58.84**	**317**	P	**P**	**12 55 19.4**	**-0.3**
KURK				IAmb	IAmb	12 55 20.2	
	comp=Z,2.2nm,0.7s						
KURBB	**Kurchatov Arra**	**58.89**	**317**	P	**P**	**12 55 19.7**	**-0.4**
	comp=Z,2.7nm,0.7s,baz=94,slow=7.6,SNR=33 comp=Z,2.7nm,0.7s						
IL31		**62.13**	**27**	P	**P**	**12 55 40.1**	**-1.7**
ILAR	**Eielson Array**	**62.13**	**27**	P	**P**	**12 55 41.2**	**-0.7**
	comp=Z,0.6nm,0.8s,baz=258,slow=4.8,SNR=5.6 comp=Z,0.6nm,0.8s						
ILAR	**Eielson Array**	**62.13**	**27**	P	**P**	**12 55 40.5**	**-1.4**
BVAR	**Borovoye Array**	**64.02**	**320**	P	**P**	**12 55 54.8**	**+0.2**
	comp=Z,1.8nm,0.6s,baz=260,slow=41,SNR=4.1 comp=Z,1.8nm,0.6s						
KKAR	**Karatay Array**	**64.46**	**309**	P	**P**	**12 55 58.0**	**+0.3**
ARTI	**Arti**	**70.67**	**324**	P	**P**	**12 56 35.3**	**-1.2**
ARTI				IAmb	IAmb	12 57 00.8	
	comp=Z,4.5nm,1.0s						
AB31	**Akbulak array**	**70.92**	**316**	P	**P**	**12 56 37.9**	**-0.2**
AB31				IAmb	IAmb	12 56 38.8	
	comp=Z,2.4nm,0.7s						
ABKAR	**Akbulak array**	**70.92**	**316**	P	**P**	**12 56 37.6**	**-0.4**
PPT	**Papeete**	**75.11**	**116**	LR	LR	13 21 21.6	
	comp=Z,19nm,21.4s,baz=110,slow=29						
NVAR	**Mina Array Bea**	**82.63**	**52**	P	**P**	**12 57 46.2**	**+1.7**
	comp=Z,1.2nm,0.9s,baz=261,slow=5.1,SNR=6.0 comp=Z,1.2nm,0.9s						
KBZ	**Khabaz**	**83.75**	**314**	P	**P**	**12 57 51.4**	**+1.6**
	comp=Z,2.6nm,0.9s,baz=186,slow=3.8,SNR=4.3 comp=Z,2.6nm,0.9s						
FINES	**FINESS Array B**	**84.36**	**335**	P	**P**	**12 57 51.2**	**-1.3**
	comp=Z,1.2nm,0.7s,baz=204,slow=3.0,SNR=1.8 comp=Z,1.2nm,0.7s						
FINES	**FINESS Array B**	**84.36**	**335**	P	**P**	**12 57 52.5**	**0.0**
PDAR	**Pinedale Array**	**87.04**	**45**	P	**P**	**12 58 07.1**	**+0.6**
	comp=Z,0.4nm,0.9s,baz=259,slow=4.1,SNR=2.5 comp=Z,0.4nm,0.9s						
ULM	**Lac du Bonnet**	**91.36**	**34**	LR	LR	13 37 31.4	
	comp=Z,17nm,21.4s,baz=7.0,slow=34						
MMAI	**Mount Meron Ar**	**93.66**	**307**	P	**P**	**12 58 37.8**	**+0.4**
	comp=Z,0.8nm,0.4s,baz=20,slow=4.6,SNR=2.1 comp=Z,0.8nm,0.4s						

*IDC **10** 12:49:15.5±4.3, 36.25N×71.45E, h128km±37km, mb3.5/12, mbtmp3.9/18, MS3.4/3, Error ellipse: s-maj=30.7km s-min=15.0km az=31.0*
*NNC **10** 12:49:18.8±4.2, 36.57N×70.68E, h94km±76km, mb3.5, mpv4.5, Error ellipse: s-maj=35.8km s-min=34.2km az=88.0*
ISC 10 12:49:19.6±1.2, 36.6N±0.1×71.16E±0.10, h150km, n32, σ2.04/29, mb3.8/12, 4C-1D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IUG	**luzhnay**	**5.62**	**351**	Pg	**Pn**	**12 50 39.6**	**-1.7**
	44nm,0.1s						
IUG				Lg	Lg	12 51 44.9	
	462nm,0.4s						
MRKS	**Merke**	**6.35**	**14**	Pg	**Pn**	**12 50 49.4**	**-1.7**
	8.1nm,0.6s						
MRKS				Lg	Lg	12 52 02.5	
	20nm,0.4s						
BRLS	**Borolday**	**6.51**	**351**	Pg	Pn	12 50 48.0	-5.2
	6.3nm,0.2s						
BRLS				Lg	Lg	12 51 59.8	
	46nm,0.6s						
**K

ARTI	**Arti**	**21.60**	**340**	P	**P**	**12 53 59.9**	**+2.5**
	3.1nm,0.9s,baz=161,slow=8.3,SNR=4.0							
	3.1nm,0.9s							
LZDM	**Lanzhou Array**	**26.18**	**82**	P	**P**	**12 54 35.8**	**-4.7**
	1.4nm,0.3s,baz=70,slow=43,SNR=1.9							
	1.4nm,0.3s							
SONM	**Songino Array**	**28.18**	**55**	LR	LR	13 08 35.7		
	comp=Z,32nm,21.4s,baz=354,slow=41							
BRTR	**Keskin Array B**	**29.53**	**288**	P	**P**	**12 55 10.4**	**+0.3**
	0.4nm,0.5s,baz=64,slow=11,SNR=2.0							
	0.4nm,0.5s							
CMAR	**Chiang Mai Arr**	**30.39**	**119**	P	P	12 55 12.8	-4.8	
	0.5nm,0.5s,baz=305,slow=8.9,SNR=4.7							
	0.5nm,0.5s							
AKASG	**Malin Array Be**	**32.99**	**309**	P	**P**	**12 55 41.3**	**+1.2**
	0.2nm,0.3s,baz=75,slow=6.7,SNR=1.8							
	0.2nm,0.3s							
NRIK	**Noril'sk**	**34.02**	**10**	P	**P**	**12 55 49.1**	**+0.4**
	1.6nm,0.5s,baz=214,slow=21,SNR=2.1							
	1.6nm,0.5s							
FINES	**FINESS Array B**	**37.48**	**326**	P	**P**	**12 56 19.9**	**+1.5**
	1.7nm,0.8s,baz=122,slow=9.8,SNR=6.5							
	1.7nm,0.8s							
ARCES	**ARCESS Array B**	**41.11**	**338**	P	**P**	**12 56 49.9**	**+1.5**
	6.1nm,1.0s,baz=101,slow=6.3,SNR=5.8							
	6.1nm,1.0s							
HFS	**Hagfors**	**43.08**	**322**	P	**P**	**12 57 05.9**	**+1.5**
	1.6nm,0.5s,baz=85,slow=9.1,SNR=4.7							
	1.6nm,0.5s							
NB2	**NORSAR Subarra**	**44.39**	**323**	P	**P**	**12 57 16.2**	**+1.3**
	comp=Z,0.7nm,0.5s,baz=96,slow=7.9							
NOA	**NORSAR Array B**	**44.39**	**323**	P	**P**	**12 57 15.8**	**+1.0**
	comp=Z,0.8nm,0.6s,baz=221,slow=20,SNR=4.2							
	comp=Z,0.8nm,0.6s							
SHEM	**Shemya Is, Ala**	**68.81**	**39**	LR	LR	13 30 57.7		
	comp=Z,62nm,19.7s,baz=326,slow=36							
LBTB	**Lobatse**	**74.83**	**222**	LR	LR	13 37 32.2		
	comp=Z,17nm,18.2s,baz=69,slow=39							
YKA	**Yellowknife Ar**	**81.15**	**3**	P	**P**	**13 01 17.9**	**-0.1**
	comp=Z,1.0nm,0.5s,baz=359,slow=5.3,SNR=4.7							
	comp=Z,1.0nm,0.5s							
WRA	**Warramunga Arr**	**81.93**	**122**	P	P	13 01 19.1	-3.6	
	comp=Z,0.3nm,0.8s,baz=313,slow=5.7,SNR=4.8							
	comp=Z,0.3nm,0.8s							

*IDC **10** 12:49:51.7±0.9,21.08N×144.57E,h0km,mb3.6/10, mbtmp3.7/10,Error ellipse: s-maj=32.4km s-min=20.8km az=86.0*

ISC 10 12:49:56.9±1.0,21.1N±0.2×144.5E±0.2,h35km,n16, σ0s75/10,mb3.7/10,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H11N1	**WAKE ISLAND Hy**	**21.00**	**90**	T	T	13 16 24.7	
	baz=276						
H11S3	**WAKE ISLAND Hy**	**21.01**	**93**	T	T	13 16 22.1	
	baz=282						
H11N2	**WAKE ISLAND Hy**	**21.01**	**90**	T	T	13 16 25.1	
	baz=276						
H11S1	**WAKE ISLAND Hy**	**21.02**	**93**	T	T	13 16 22.8	
	baz=282						
H11N3	**WAKE ISLAND Hy**	**21.02**	**90**	T	T	13 16 23.3	
	baz=276						
H11S2	**WAKE ISLAND Hy**	**21.02**	**93**	T	T	13 16 22.4	
	baz=282						
KSRS	**Korea Array**	**21.78**	**322**	P	**P**	**12 54 45.4**	**-0.3**
	0.5nm,0.4s,baz=146,slow=12,SNR=1.8						
	0.5nm,0.4s						
WRA	**Warramunga Arr**	**41.96**	**194**	P	**P**	**12 57 43.6**	**-1.0**
	0.6nm,0.8s,baz=16,slow=8.4,SNR=6.6						
	0.6nm,0.8s						
ASAR	**Alice Springs**	**45.65**	**194**	P	**P**	**12 58 15.0**	**+0.7**
	0.4nm,0.8s,baz=17,slow=10,SNR=8.7						
	0.4nm,0.8s						
MKAR	**Makanchi Array**	**56.05**	**313**	P	**P**	**12 59 32.5**	**+0.2**
	0.6nm,0.7s,baz=89,slow=9.2,SNR=4.7						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**58.84**	**317**	P	**P**	**12 59 52.0**	**+0.1**
	1.6nm,0.7s,baz=94,slow=7.8,SNR=13						
	1.6nm,0.7s						
ILAR	**Eielson Array**	**62.03**	**27**	P	**P**	**13 00 12.5**	**-1.0**
	0.6nm,0.9s,baz=260,slow=7.7,SNR=4.3						
	0.6nm,0.9s						
BVAR	**Borovoye Array**	**63.96**	**320**	P	**P**	**13 00 27.3**	**+0.7**
	1.1nm,0.5s,baz=90,slow=9.5,SNR=2.7						
	1.1nm,0.5s						
NVAR	**Mina Array Bea**	**82.55**	**52**	P	**P**	**13 02 17.6**	**+0.8**
	0.4nm,0.6s,baz=310,slow=5.2,SNR=3.1						
	0.4nm,0.6s						
FINES	**FINESS Array B**	**84.29**	**335**	P	**P**	**13 02 25.0**	**+0.1**
	1.3nm,0.8s,baz=185,slow=38,SNR=1.6						
	1.3nm,0.8s						
PDAR	**Pinedale Array**	**86.95**	**45**	P	**P**	**13 02 39.3**	**+0.4**
	0.1nm,0.6s,baz=294,slow=3.6,SNR=1.5						
	0.1nm,0.6s						

*GEN **10** 12:53:22.3,46.92N×9.13E,h6km±3km, MI3.9*
*ROM **10** 12:53:22.9±0.1,46.93N×9.119E±0.001,h11km, ML3.6/160,Error ellipse: s-maj=0.1km s-min=0.0km az=89.0*
*GFZ **10** 12:53:22.9±0.5,47.°N±4.°×±.°,h10km,M3.8/6,MLv3.8/6, Error ellipse: s-maj=9.2km s-min=7.8km az=29.1, confirmed*
*IDC **10** 12:53:23.3±1.3,46.97N×9.16E,h0km, mb3.4/1, mbtmp3.6/6,ML3.3/4,MS3.0/9,Error ellipse: s-maj=15.2km s-min=10.2km az=179.0*
*ZUR **10** 12:53:23.2,46.91N×9.12E,h1km,Error ellipse: s-maj=1257.2km s-min=463.0km az=358.0*
*LDG **10** 12:53:23.9±0.1,46.87N×9.15E,h2km,MI3.9/33,Error ellipse: s-maj=1.5km s-min=1.4km az=158.0*
*PRU **10** 12:53:23.6,46.96N×9.15E,h1km*
*BGR **10** 12:53:24.8±0.4,46.95N×9.11E,h2km±1km,ML3.8/15, Error ellipse: s-maj=6.7km s-min=2.2km az=9.0*
*BNS **10** 12:53:26.9±0.9,46.99N×9.03E,h10km,ML3.7*

ISC 10 12:53:22.9±0.7,46.92N±0.01×9.105E±0.009,h4km±4km, n330,σ1§46/537,MS3.2/4,65C-48D,Switzerland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ELM3	**Stegerstafel,**	**0.03**	**121**	⇓Pg	**Pg**	**12 53 23.9**	**-0.1**
ELM0	**Bergli, Elm, G**	**0.03**	**90**	⇑Pg	**Pg**	**12 53 24.1**	**+0.1**
ELM0				Sg	**Sg**	**12 53 24.6**	**-0.2**
ELM1	**Schwanderberg,**	**0.07**	**346**	⇓Pg	**Pg**	**12 53 25.2**	**+0.6**
ELM1				Sg	**Sg**	**12 53 26.5**	**+0.9**
SLTM2	**Linthal, Matt**	**0.07**	**277**	⇓Pg	**Pg**	**12 53 25.1**	**+0.6**
SLTM2				Sg	**Sg**	**12 53 26.5**	**+0.8**
PANIX	**Pigniu (Panix)**	**0.09**	**177**	⇑Pg	**Pg**	**12 53 25.0**	**+0.1**
PANIX				Sg	**Sg**	**12 53 26.2**	**0.0**
LLS	**Linth-Limmern**	**0.10**	**224**	⇑Pg	**Pg**	**12 53 25.2**	**+0.2**
LLS				Sg	**Sg**	**12 53 26.8**	**+0.4**
LLS	**Linth-Limmern**	**0.10**	**224**	⇑Pg	**Pg**	**12 53 25.2**	**+0.2**
LLS				Sg	**Sg**	**12 53 26.8**	**+0.4**
SGLK	**Glarus, Kanton**	**0.13**	**349**	⇑Pg	**Pg**	**12 53 26.5**	**+0.9**
SIZS	**Ilanz Schule G**	**0.16**	**154**	⇓Pg	**Pg**	**12 53 26.3**	**+0.3**
SIZS				Sg	**Sg**	**12 53 28.8**	**+0.6**
WGT	**W¤gital, SZ**	**0.22**	**326**	⇓Pg	**Pg**	**12 53 28.0**	**+0.7**
WGT				Sg	**Sg**	**12 53 31.7**	**+1.6**
PLONS	**Plons/SG**	**0.23**	**55**	⇑Pg	**Pg**	**12 53 27.7**	**+0.3**
PLONS				Sg	**Sg**	**12 53 31.1**	**+0.6**
PLONS	**Plons/SG**	**0.23**	**55**	*e*Pg	**Pg**	**12 53 27.8**	**+0.3**
PLONS				*e*Sg	**Sg**	**12 53 30.9**	**+0.4**
PLONS	**Plons/SG**	**0.23**	**55**	⇑P	**Pg**	**12 53 27.7**	**+0.3**
PLONS				S	**Sg**	**12 53 31.1**	**+0.6**
PLONS				AML	AML		
	comp=E,15250μm,0.3s						
PLONS				AML	AML		
	comp=N,24750μm,0.4s						
SWAS	**Walenstadt, Sp**	**0.25**	**34**	⇑Pg	**Pg**	**12 53 28.5**	**+0.8**
SWAS				Sg	**Sg**	**12 53 32.7**	**+1.7**
SMELS	**Mels Schulhaus**	**0.26**	**59**	⇑Pg	**Pg**	**12 53 28.2**	**+0.3**
SMELS				Sg	**Sg**	**12 53 32.1**	**+0.9**
SCUG	**Chur Gewerbesc**	**0.29**	**102**	Pg	**Pg**	**12 53 28.9**	**+0.3**
SCUG				Sg	**Sg**	**12 53 32.9**	**+0.4**
SALTS	**Altdorf, Kanto**	**0.32**	**264**	⇑Pg	**Pg**	**12 53 29.8**	**+0.7**
SALTS				Sg	**Sg**	**12 53 34.5**	**+1.1**
SBUB	**Buchserberg Ma**	**0.32**	**44**	⇑Pg	**Pg**	**12 53 29.6**	**+0.4**
SBUB				Sg	**Sg**	**12 53 34.4**	**+0.9**
SBUB	**Buchserberg Ma**	**0.32**	**44**	⇑Pg	**Pg**	**12 53 29.6**	**+0.4**
SBUB				Sg	**Sg**	**12 53 34.4**	**+0.9**
SCHK	**Churwalden Klo**	**0.32**	**113**	Pg	**Pg**	**12 53 29.4**	**+0.2**
SCHK				Sg	**Sg**	**12 53 33.9**	**+0.5**
SCHK	**Churwalden Klo**	**0.32**	**113**	Pg	**Pg**	**12 53 29.4**	**+0.2**
SCHK				Sg	**Sg**	**12 53 33.9**	**+0.5**
SEFS	**Erstfeld, Schu**	**0.33**	**253**	⇑Pg	**Pg**	**12 53 29.9**	**+0.7**
SEFS				Sg	**Sg**	**12 53 34.9**	**+1.4**
SWYZ	**Schwyz, Kanton**	**0.33**	**289**	⇓Pg	**Pg**	**12 53 30.0**	**+0.7**
SBUA2	**Buchs, Altendo**	**0.35**	**46**	⇑Pg	**Pg**	**12 53 30.1**	**+0.4**
SBUA2				Sg	**Sg**	**12 53 35.4**	**+1.2**
SBUH	**Buchs, Hochsch**	**0.36**	**44**	⇑Pg	**Pg**	**12 53 30.4**	**+0.5**
SBUH				Sg	**Sb**	**12 53 36.1**	**-1.8**
STRW	**Triesenberg, W**	**0.36**	**56**	⇑Pg	**Pg**	**12 53 30.3**	**+0.3**
STRW				Sg	**Sg**	**12 53 36.0**	**+1.2**
SVAM	**Vaz, Muldain**	**0.36**	**127**	⇓Pg	**Pg**	**12 53 30.4**	**+0.4**
SVAM				Sg	**Sg**	**12 53 35.5**	**+0.7**
SVAM	**Vaz, Muldain**	**0.36**	**127**	⇓Pg	**Pg**	**12 53 30.4**	**+0.4**
SVAM				Sg	**Sg**	**12 53 35.5**	**+0.7**
NALPS	**Val Nalps**	**0.40**	**218**	⇑Pg	**Pg**	**12 53 31.2**	**+0.4**
BRIZ2	**Brienz, Instab**	**0.41**	**125**	⇓Pg	**Pg**	**12 53 31.3**	**+0.5**
BRIZ1	**Brienz/Brinzau**	**0.42**	**126**	⇓Pg	**Pg**	**12 53 31.3**	**+0.3**
BRIZ1				Sg	**Sg**	**12 53 37.0**	**+0.6**
SMFL	**Mauren, Feuerw**	**0.42**	**46**	Pg	**Pg**	**12 53 31.8**	**+0.7**
SAPK	**Appenzell, Kan**	**0.46**	**26**	⇑Pg	**Pb**	**12 53 32.9**	**-0.8**
SAPK				Sg	**Sb**	**12 53 40.2**	**-0.7**
SGT04	**Schlatt-Haslen**	**0.46**	**21**	⇑Pg	**Pb**	**12 53 33.0**	**-0.7**
SGT04				Sg	**Sb**	**12 53 40.3**	**-0.7**
BNALP	**Bannalp**	**0.47**	**265**	⇓Pg	**Pg**	**12 53 32.4**	**+0.4**
BNALP				Sg	**Sg**	**12 53 39.1**	**+1.1**
BNALP	**Bannalp**	**0.47**	**265**	P	**Pg**	**12 53 32.7**	**+0.7**
BNALP				S	**Sg**	**12 53 39.1**	**+1.1**
BNALP				AML	AML		
	comp=N,7705μm,1.2s						
BNALP				AML	AML		
	comp=N,7705μm,0.8s						
BNALP				AML	AML		
	comp=E,4965μm,0.7s						
BNALP	**Bannalp**	**0.47**	**265**	P	**Pg**	**12 53 32.5**	**+0.6**
BNALP				AML	AML		
TUE	**Stuetta**	**0.47**	**159**	⇓Pg	**Pg**	**12 53 32.3**	**+0.2**
TUE				Sg	**Sg**	**12 53 38.2**	**0.0**
TUE	**Stuetta**	**0.47**	**159**	⇓P	**Pg**	**12 53 32.2**	**+0.2**
TUE				S	**Sg**	**12 53 38.3**	**0.0**
TUE				AML	AML		
	comp=E,9485μm,0.9s						
TUE				AML	AML		
	comp=N,6035μm,0.3s						
TUE				AML	AML		
	comp=N,5810μm,0.3s						
TUE				AML	AML		
	comp=E,9435μm,0.2s						
TUE				AML	AML		
	comp=E,9485μm,1.1s						
TUE	**Stuetta**	**0.47**	**159**	P	**Pg**	**12 53 32.3**	**+0.2**
TUE				AML	AML		
SENGL	**Engelberg, Klo**	**0.48**	**259**	⇑Pg	**Pg**	**12 53 32.8**	**+0.6**
SENGL				Sg	**Sg**	**12 53 39.6**	**+1.0**
VDL	**Val di Lei**	**0.49**	**151**	⇓Pg	**Pg**	**12 53 32.5**	**+0.1**
VDL				Sg	**Sg**	**12 53 38.9**	**+0.1**
VDL	**Val di Lei**	**0.49**	**151**	P	**Pg**	**12 53 32.6**	**+0.1**
VDL				S	**Sg**	**12 53 39.0**	**+0.1**
SDAK	**Davos, Kongres**	**0.51**	**103**	Sg	**Sg**	**12 53 40.0**	**+0.6**
SSTS	**Stans, Spital**	**0.51**	**275**	⇓Pg	**Pb**	**12 53 34.4**	**-0.2**
SSTS				Sg	**Sb**	**12 53 42.1**	**-0.2**
WILA	**Wila**	**0.52**	**345**	⇑Pg	**Pb**	**12 53 34.4**	**-0.2**
WILA				Sg	**Sb**	**12 53 42.2**	**-0.3**
WILA	**Wila**	**0.52**	**345**	*e*Pg	**Pb**	**12 53 34.8**	**+0.1**
WILA				*e*Sg	**Sb**	**12 53 41.8**	**-0.7**
BTAO	**Waffenplatz Be**	**0.52**	**223**	⇑Pg	**Pg**	**12 53 33.4**	**+0.4**
BTAO				Sg	**Sg**	**12 53 40.6**	**+0.8**
SBGN	**Bergn Schule**	**0.53**	**123**	⇓Pg	**Pg**	**12 53 33.1**	**+0.1**
SBGN				Sg	**Sg**	**12 53 40.8**	**+0.9**
SGT00	**Sennhlsen**	**0.53**	**15**	⇑Pg	**Pb**	**12 53 34.3**	**-0.5**
STGK	**St. Gallen Klo**	**0.54**	**20**	Pg	**Pb**	**12 53 34.8**	**-0.2**
STGK				Sg	**Sb**	**12 53 43.0**	**-0.2**
SWIK	**Wil, Kantonssc**	**0.55**	**355**	Pg	**Pb**	**12 53 34.9**	**-0.2**
SWIK				Sg	**Sb**	**12 53 43.2**	**-0.1**
DAVOX	**Davos/Dischmat**	**0.55**	**104**	⇓Pg	**Pg**	**12 53 33.5**	**+0.1**
DAVOX	**Davos/Dischmat**	**0.55**	**104**	Pg	**Pg**	**12 53 33.6**	**+0.1**
	comp=E,151nm,0.3s,baz=283,slow=18,SNR=644						
DAVOX				Lg	Lg	12 53 41.4	
	comp=E,307nm,0.3s,baz=338,slow=19,SNR=38						
DAVOX				LR	LR	12 54 03.0	
	comp=E,427nm,20.9s,baz=68,slow=75						
DAVOX	**Davos/Dischmat**	**0.55**	**104**	P	**Pg**	**12 53 33.6**	**+0.1**
DAVOX				S	**Sg**	**12 53 41.4**	**+0.7**
DAVOX	**Davos/Dischmat**	**0.55**	**104**	⇓P	**Pg**	**12 53 33.6**	**+0.1**
DAVOX				S	**Sg**	**12 53 41.3**	**+0.7**
DAVOX				AML	AML		
	comp=E,7835μm,1.3s						
DAVOX				AML	AML		
	comp=N,17350μm,0.4s						
DAVOX				AML	AML		
	comp=E,7835μm,0.7s						
FUSIO	**Fusio**	**0.55**	**214**	⇑Pg	**Pg**	**12 53 33.9**	**+0.4**
FUSIO	**Fusio**	**0.55**	**214**	P	**Pg**	**12 53 33.9**	**+0.4**
FUSIO				S	**Sg**	**12 53 41.1**	**+0.4**
FUSIO	**Fusio**	**0.55**	**214**	⇑P	**Pg**	**12 53 33.9**	**+0.4**
FUSIO				S	**Sg**	**12 53 41.1**	**+0.4**
FUSIO				AML	AML		
	comp=E,5075μm,0.7s						
FUSIO				AML	AML		
	comp=N,4525μm,1.1s						
FUSIO				AML	AML		
	comp=E,5075μm,0.7s						
FUSIO				AML	AML		
	comp=N,4525μm,0.9s						
SGT18	**Golfpark Waldk**	**0.56**	**10**	⇑Pg	**Pb**	**12 53 34.9**	**-0.4**
SGT18				Sg	**Sb**	**12 53 43.4**	**-0.3**
SLUB	**Luzern Bramber**	**0.56**	**285**	⇓Pg	**Pb**	**12 53 35.0**	**-0.4**
SKEK	**Kerns, Kirchge**	**0.57**	**269**	⇑Pg	**Pg**	**12 53 34.6**	**+0.7**
ZUR	**Degenried**	**0.58**	**322**	⇓Pg	**Pb**	**12 53 35.3**	**-0.4**
ZUR				Sg	**Sb**	**12 53 44.0**	**-0.2**
SGT05	**Eggersriet**	**0.58**	**24**	⇑Pg	**Pb**	**12 53 35.3**	**-0.3**
SGT05				Sg	**Sb**	**12 53 44.2**	**-0.1**
RA41	**Rhonegletscher**	**0.59**	**237**	⇑Pg	**Pg**	**12 53 34.6**	**+0.4**
RA41				Sg	**Sg**	**12 53 42.8**	**+0.9**
SARK	**Sarnen Kantons**	**0.59**	**268**	⇑Pg	**Pg**	**12 53 35.0**	**+0.7**
SARK				Sg	**Sg**	**12 53 43.3**	**+1.3**
EWZT2	**Wettswil, ZR**	**0.59**	**316**	⇓Pg	**Pb**	**12 53 35.7**	**-0.2**
GSF03	**Obergoms, Fort**	**0.60**	**236**	⇑Pg	**Pg**	**12 53 34.7**	**+0.3**
GSF03				Sg	**Sg**	**12 53 43.0**	**+0.8**
RA43	**Rhonegletscher**	**0.60**	**237**	⇑Pg	**Pg**	**12 53 34.7**	**+0.3**
RA43				Sg	**Sg**	**12 53 42.9**	**+0.8**
WEIN	**Weingarten**	**0.62**	**353**	⇑Pg	**Pb**	**12 53 36.2**	**-0.1**
GRIMS	**Grimsel Gerste**	**0.64**	**238**	⇑Pg	**Pg**	**12 53 35.5**	**+0.3**
GRIMS				Sg	**Sg**	**12 53 43.9**	**+0.5**
SARE	**Arbon, Evangel**	**0.64**	**20**	⇑Pg	**Pb**	**12 53 36.5**	**-0.2**
SWIS	**Winterthur Spi**	**0.64**	**337**	Sg	**Sb**	**12 53 46.1**	**0.0**
DAVA	**Damuels**	**0.65**	**55**	⇑Pg	**Pg**	**12 53 35.7**	**+0.3**
DAVA				Sg	**Sb**	**12 53 45.6**	**-0.7**
DAVA	**Damuels**	**0.65**	**55**	*e*Pg	**Pg**	**12 53 35.6**	**+0.3**
DAVA				*e*Sg	**Sb**	**12 53 44.9**	**-1.4**
DAVA	**Damuels**	**0.65**	**55**	*e*Pg	**Pg**	**12 53 35.6**	**+0.3**
	comp=N,159nm,0.4s,SNR=112						
DAVA				*e*Sg	**Sb**	**12 53 45.0**	**-1.3**
	comp=N,1μm,0.4s						
DAVA	**Damuels**	**0.65**	**55**	P	**Pg**	**12 53 35.7**	**+0.3**
DAVA				AML	AML		
HAMIK	**Hmikon, Dlik**	**0.66**	**300**	⇓Pg	**Pb**	**12 53 36.7**	**-0.3**
STIEG	**Stiegenhof Hun**	**0.66**	**332**	⇓Pg	**Pb**	**12 53 36.8**	**-0.2**
ROMAN	**Romanshorn, Fo**	**0.67**	**14**	⇑Pg	**Pb**	**12 53 36.8**	**-0.4**
ROMAN	**Romanshorn, Fo**	**0.67**	**14**	⇑Pg	**Pb**	**12 53 36.8**	**-0.4**
BTNF	**Ladstafel, Nuf**	**0.67**	**229**	⇑Pg	**Pg**	**12 53 36.1**	**+0.3**
BTNF				Sg	**Sg**	**12 53 44.9**	**+0.4**
PREO2	**Preonzo, Alpe**	**0.67**	**187**	⇑Pg	**Pg**	**12 53 36.0**	**+0.2**
PREO4	**Preonzo, Alpe**	**0.67**	**187**	⇑Pg	**Pg**	**12 53 36.0**	**+0.2**
HASLI	**Hasliberg/Brie**	**0.67**	**257**	⇑Pg	**Pg**	**12 53 36.1**	**+0.3**
FLACH	**Flaach**	**0.75**	**331**	⇓Pn	**Pb**	**12 53 38.6**	**0.0**
QEG00	**Eglisau, Reser**	**0.77**	**330**	⇓Pn	**Pb**	**12 53 38.9**	**+0.1**
STEIN	**Stein am Rhein**	**0.77**	**348**	Pn	**Pb**	**12 53 39.1**	**+0.2**
STEIN	**Stein am Rhein**	**0.77**	**348**	Pg	**Pb**	**12 53 39.2**	**+0.3**
STEIN				Sg	**Sb**	**12 53 50.5**	**+0.7**
QEG01	**Stadel, Weggab**	**0.77**	**326**	⇓Pn	**Pb**	**12 53 38.9**	**0.0**
A060B	**Romoos, Napf,**	**0.78**	**276**	⇓Pg	**Pb**	**12 53 38.9**	**-0.1**
SLOP	**Locarno, Pompi**	**0.78**	**196**	⇑Pg	**Pg**	**12 53 38.2**	**+0.3**
TRULL	**Truellikon**	**0.79**	**339**	Pn	**Pb**	**12 53 39.2**	**0.0**
BERNI	**Berninapass**	**0.81**	**128**	⇓Pg	**Pg**	**12 53 38.2**	**-0.2**
BERNI	**Berninapass**	**0.81**	**128**	P	**Pg**	**12 53 38.2**	**-0.2**
BERNI				S	**Sg**	**12 53 48.3**	**-0.6**
BERNI	**Berninapass**	**0.81**	**128**	⇓P	**Pg**	**12 53 38.2**	**-0.2**
BERNI				S	**Sg**	**12 53 49.1**	**+0.2**
BERNI				AML	AML		
	comp=N,1415μm,0.3s						
BERNI				AML	AML		
	comp=E,984μm,1.5s						
BERNI				AML	AML		
	comp=E,984μm,1.5s						
BERNI				AML	AML		
	comp=E,984μm,0.5s						
A037A	**Kartellspeiche**	**0.81**	**79**	Pn	**Pg**	**12 53 38.0**	**-0.4**
DAGMA	**Lutertal, Dagm**	**0.81**	**293**	⇓Pn	**Pb**	**12 53 39.5**	**-0.1**
QEG02	**Wil, Freihalte**	**0.81**	**331**	Pn	**Pb**	**12 53 39.8**	**+0.2**
BOBI	**Bbikon, Wasse**	**0.82**	**321**	⇓Pn	**Pb**	**12 53 39.8**	**+0.1**
TETT	**Tettnang**	**0.82**	**25**	⇑Pn	**Pb**	**12 53 39.8**	**0.0**
TETT	**Tettnang**	**0.82**	**25**	Pg	**Pb**	**12 53 39.8**	**0.0**
TETT				PmP		12 53 42.4	
TETT				Sg	**Sb**	**12 53 51.9**	**+0.7**
TETT				SmS		12 53 56.0	
FIESA	**Fiescheralp**	**0.84**	**235**	⇑Pn	**Pg**	**12 53 39.2**	**+0.2**
FIESA	**Fiescheralp**	**0.84**	**235**	P	**Pg**	**12 53 39.2**	**+0.2**
FIESA				S	**Sg**	**12 53 50.2**	**+0.4**
WALHA	**Wallhausen, DE**	**0.84**	**1**	⇑Pn	**Pb**	**12 53 40.1**	**+0.1**
WALHA	**Wallhausen, DE**	**0.84**	**1**	⇑Pg	**Pb**	**12 53 40.1**	**+0.1**
WALHA				Sg	**Sb**	**12 53 52.3**	**+0.7**
FUORN	**Ofenpass-Fuorn**	**0.85**	**110**	⇓Pn	**Pg**	**12 53 39.1**	**-0.1**
FUORN	**Ofenpass-Fuorn**	**0.85**	**110**	⇓P	**Pg**	**12 53 39.1**	**-0.1**
FUORN				AML	AML		
	comp=N,1010μm,0.4s						
FUORN				AML	AML		
	comp=E,897μm,1.1s						
FUORN				AML	AML		
	comp=N,1010μm,0.4s						
FUORN	**Ofenpass-Fuorn**	**0.85**	**110**	P	**Pg**	**12 53 39.2**	**-0.1**
FUORN				AML	AML		
EMMET	**Emmethof**	**0.91**	**305**	⇓Pn	**Pb**	**12 53 41.2**	**0.0**
SULZ	**Cheisacher**	**0.91**	**312**	⇓Pn	**Pb**	**12 53 41.5**	**+0.2**
SULZ	**Cheisacher**	**0.91**	**312**	*e*Pg	**Pb**	**12 53 41.5**	**+0.2**
SULZ				*e*Pn	**Pn**	**12 53 43.3**	**+0.8**
SULZ				*e*Sg	**Sb**	**12 53 54.1**	**+0.3**
A103D	**Ravensburg, Wa**	**0.94**	**19**	⇑Pn	**Pb**	**12 53 41.9**	**+0.2**
A103D	**Ravensburg, Wa**	**0.94**	**19**	⇑Pg	**Pb**	**12 53 41.9**	**+0.2**
A103D				SmS		12 53 58.1	
SLE	**Schleitheim**	**0.95**	**334**	⇓Pn	**Pb**	**12 53 41.9**	**+0.1**
SLE	**Schleitheim**	**0.95**	**334**	*e*Pg	**Pb**	**12 53 42.1**	**+0.2**
SLE				*e*Sn	**Sn**	**12 53 57.3**	**+0.3**
SLE	**Schleitheim**	**0.95**	**334**	P	**Pb**	**12 53 42.0**	**+0.1**
SLE				AML	AML		
A105A	**Obersdorf, Sch**	**0.95**	**58**	⇑Pn	**Pg**	**12 53 41.3**	**+0.2**
OBER	**Oberstdorf**	**0.95**	**58**	*e*Pg	**Pb**	**12 53 41.7**	**-0.3**
OBER				PmP		12 53 44.5	
SNTZ	**Naters, Zentru**	**0.97**	**233**	Pn	**Pg**	**12 53 41.6**	**+0.1**
BRMO	**Bormio**	**0.98**	**116**	⇓Pn	**Pg**	**12 53 41.1**	**-0.5**
BRMO	**Bormio**	**0.98**	**116**	P	**Pg**	**12 53 41.1**	**-0.5**
BRMO				S	**Sg**	**12 53 54.2**	**-0.2**
BRMO	**Bormio**	**0.98**	**116**	⇓P	**Pg**	**12 53 41.1**	**-0.5**
BRMO				S	**Sg**	**12 53 53.9**	**-0.4**
BRMO				AML	AML		
	comp=N,852μm,1.6s						
BRMO				AML	AML		
	comp=E,570μm,0.4s						
ROTHE	**Rothenfluh**	**0.98**	**305**	⇓Pn	**Pb**	**12 53 42.7**	**+0.2**
METMA	**Mettma DE**	**0.98**	**324**	⇓Pn	**Pb**	**12 53 42.6**	**0.0**
METMA	**Mettma DE**	**0.98**	**324**	⇓Pg	**Pb**	**12 53 42.5**	**0.0**
METMA				*e*Sg	**Sb**	**12 53 55.5**	**-0.4**
EMING	**Emmingen-Lipti**	**0.99**	**350**	⇓Pg	**Pn**	**12 53 43.1**	**-0.6**
EMING				*e*Sg	**Sb**	**12 53 56.7**	**+0.5**
MUGIO

SENIN	**Lac Senin/Sane**	**1.36**	**247**		P		**Pn**	**12 53 48.8**	**-0.1**
SENIN					S		**Sn**	**12 54 08.5**	**+1.0**
ZWI	**Zwiefalten, Ha**	**1.36**	**10**	⇑	Pn		**Pn**	**12 53 48.7**	**0.0**
ZWI					Pg		**Pg**	**12 53 50.3**	**+1.3**
ZWI					Sn		**Sn**	**12 54 07.0**	**-0.3**
BOURR	**Bourrignon**	**1.37**	**291**	⇓	Pn		**Pg**	**12 53 49.6**	**+0.6**
ZUGS	**Zugspitze, Sch**	**1.37**	**68**		ePg		**Pb**	**12 53 50.1**	**+0.8**
FBB	**Freiburg im Br**	**1.38**	**322**		Sn		**Sn**	**12 54 07.3**	**-0.3**
CAPR	**Capriolo**	**1.40**	**155**		P		**Pb**	**12 53 49.8**	**+0.2**
RONC	**Roncone**	**1.41**	**131**	⇓	P		**Pn**	**12 53 49.0**	**-0.5**
RONC					AML		AML			
	comp=E,3305µm,0.4s									
RONC					AML		AML			
	comp=N,2985µm,0.6s									
RONC					AML		AML			
	comp=E,3000µm,1.2s									
RONC					AML		AML			
	comp=N,3745µm,0.6s									
RONC					AML		AML			
	comp=E,3310µm,0.4s									
MOTA	**Moosalm**	**1.43**	**72**		ePn		**Pg**	**12 53 51.1**	**+0.7**
MOTA					ePg		**Pb**	**12 53 51.8**	**+1.6**
MOTA					eSg		**Sn**	**12 54 10.9**	**+1.8**
MOTA	**Moosalm**	**1.43**	**72**		ePg		**Pb**	**12 53 50.1**	**-0.1**
	comp=E,36nm,0.2s,SNR=88									
MOTA					eSg		**Sn**	**12 54 10.4**	**+1.3**
	comp=E,460nm,0.4s									
OZOL	**Ozolo**	**1.44**	**110**		P		**Pn**	**12 53 49.3**	**-0.5**
DIX	**Grande Dixence**	**1.44**	**235**		P		**Pn**	**12 53 49.9**	**-0.1**
DIX					AML		AML			
	comp=N,17000µm,0.4s									
DIX					AML		AML			
	comp=E,9485µm,1.5s									
DIX					AML		AML			
	comp=N,17000µm,1.6s									
BAG8	**Bagolino**	**1.44**	**139**		P		**Pn**	**12 53 49.8**	**-0.1**
SQTA	**Sankt Quirin**	**1.47**	**77**		ePn		**Pb**	**12 53 50.9**	**0.0**
SQTA					ePg		**Pg**	**12 53 52.7**	**+1.6**
SQTA					eSg		**Sg**	**12 54 11.9**	**+1.8**
SQTA	**Sankt Quirin**	**1.47**	**77**		ePg		**Pb**	**12 53 50.9**	**0.0**
	comp=N,352nm,0.2s,SNR=249									
SQTA					eSg		**Sg**	**12 54 12.0**	**+1.9**
	comp=N,2µm,0.5s									
PART	**Garmisch-Parte**	**1.49**	**66**		eSg		**Sg**	**12 54 12.8**	**+2.1**
BFO	**Black Forest**	**1.51**	**340**		ePn		**Pb**	**12 53 51.1**	**-0.4**
BFO					eSn		**Sn**	**12 54 09.7**	**-1.1**
A108A	**Ulm, Ringingen**	**1.52**	**19**	⇑	Pn		**Pn**	**12 53 50.7**	**-0.2**
A108A					Pg		**Pg**	**12 53 52.9**	**+1.0**
VOGT	**Vogtsburg - To**	**1.52**	**321**	⇓	Pn		**Pb**	**12 53 51.4**	**-0.2**
VOGT					Sn		**Sg**	**12 54 13.3**	**+1.6**
APPI	**Appiano**	**1.52**	**106**		P		**Pn**	**12 53 51.2**	**+0.2**
APPI					AML		AML			
	comp=E,2155µm,1.1s									
APPI					AML		AML			
	comp=N,2400µm,0.6s									
APPI					AML		AML			
	comp=E,2155µm,0.9s									
GAGG	**Gaggia**	**1.53**	**122**		P		**Pn**	**12 53 51.1**	**0.0**
GAGG					AML		AML			
	comp=N,1500µm,1.1s									
GAGG					AML		AML			
	comp=E,1225µm,0.8s									
GAGG					AML		AML			
	comp=N,1255µm,0.8s									
GAGG					AML		AML			
	comp=E,1560µm,1.1s									
GAGG					AML		AML			
	comp=E,1225µm,1.2s									
GAGG					AML		AML			
	comp=N,1255µm,1.2s									
ABSI	**Aberstueckl**	**1.53**	**96**		P		**Pn**	**12 53 51.3**	**+0.1**
A100A	**Rottenburg, We**	**1.54**	**356**	⇑	Pn		**Pn**	**12 53 51.2**	**0.0**
A100A					Sn		**Sn**	**12 54 10.7**	**-1.0**
BUCH	**Bad Urach**	**1.54**	**6**	⇑	Pn		**Pn**	**12 53 51.3**	**0.0**
BUCH					Sg		**Sg**	**12 54 14.6**	**+2.1**
MAGA	**Magasa**	**1.55**	**137**		P		**Pb**	**12 53 52.1**	**-0.1**
MAGA					AML		AML			
	comp=E,6725µm,1.1s									
MAGA					AML		AML			
	comp=N,3855µm,0.4s									
MAGA					AML		AML			
	comp=E,6725µm,0.9s									
ROSI	**Rosskopf**	**1.58**	**89**		P		**Pn**	**12 53 51.6**	**-0.3**
ROSI					AML		AML			
	comp=N,5010µm,1.3s									
ROSI					AML		AML			
	comp=E,4895µm,0.5s									
TUBL	**Tuebingen-Lenn**	**1.61**	**359**		Pn		**Pn**	**12 53 51.9**	**-0.1**
TUBL					Sn		**Sn**	**12 54 12.1**	**-1.1**
OPP	**Oppenau**	**1.70**	**339**	⇑	Pn		**Pn**	**12 53 53.9**	**+0.5**
OPP					Sn		**Sn**	**12 54 14.2**	**-1.3**
CHMF	**Charmoille**	**1.71**	**282**	⇓	Pn		**Pb**	**12 53 54.4**	**-0.5**
WATA	**Walderalm**	**1.74**	**75**		iPg		**Pg**	**12 53 56.7**	**+0.5**
	comp=E,29nm,0.2s									
WATA					eSg		**Sg**	**12 54 20.5**	**+1.8**
	comp=E,488nm,0.4s									
DEGG	**Deggingen-Nord**	**1.74**	**13**	⇑	Pn		**Pn**	**12 53 53.7**	**-0.3**
BE1	**Monatshausen**	**1.75**	**55**		eSg		**Sg**	**12 54 19.5**	**+0.4**
WTTA	**Wattenberg**	**1.77**	**78**		eSg		**Sg**	**12 54 20.9**	**+1.3**
WTTA	**Wattenberg**	**1.77**	**78**		ePg		**Pg**	**12 53 56.5**	**-0.2**
	comp=E,181nm,0.5s									
WTTA					eSg		**Sg**	**12 54 22.3**	**+2.7**
	comp=E,853nm,0.4s									
HINF	**Hinteralfeld**	**1.78**	**301**		ePn		**Pn**	**12 53 54.8**	**+0.4**
HINF					eSn		**Sn**	**12 54 16.5**	**-1.0**
	comp=E,499nm,0.5s									
HINF					AML		AML			
HDH	**Heidenheim-Cha**	**1.83**	**24**		Pn		**Pn**	**12 53 54.6**	**-0.5**
HDH					Pg		**Pg**	**12 53 58.3**	**+0.4**
ECH	**Echery**	**1.85**	**315**		Pn		**Pn**	**12 53 55.9**	**+0.5**
STU	**Stuttgart**	**1.86**	**2**		ePn		**Pn**	**12 53 55.2**	**-0.3**
STU					eSn		**Sn**	**12 54 17.7**	**-1.8**
GALG	**Neuhausen (Enz**	**1.88**	**353**		Pn		**Pn**	**12 53 55.9**	**0.0**
GALG					Sn		**Sn**	**12 54 18.5**	**-1.6**
GALG					Sg		**Sg**	**12 54 23.8**	**+0.3**
BABA	**Baden-Baden-Ne**	**1.91**	**342**		Pn		**Pn**	**12 53 56.6**	**+0.4**
WLS	**Welschbruch**	**1.91**	**322**		Pn		**Pn**	**12 53 56.8**	**+0.5**
FUR	**Furstenfeldbru**	**1.93**	**49**		ePg		**Pg**	**12 53 59.7**	**-0.2**
FUR					eSg		**Sg**	**12 54 24.5**	**-0.4**
CDF	**Champ du Feu**	**1.94**	**321**		ePn		**Pn**	**12 53 57.1**	**+0.4**
CDF					eSg		**Sb**	**12 54 24.2**	**+0.7**
	comp=E,427nm,0.4s									
CDF					AML		AML			
URBA	**Urbach, Forsts**	**1.95**	**9**		Pn		**Pn**	**12 53 56.2**	**-0.6**
SARZ	**Sarezzano**	**2.05**	**184**		AML		AML			
	comp=E,2635µm,0.5s									
SARZ					AML		AML			
	comp=N,2690µm,0.5s									
SARZ					AML		AML			
	comp=N,2690µm,1.5s									
SARZ					AML		AML			
	comp=N,2645µm,0.5s									
SARZ					AML		AML			
	comp=E,2730µm,0.5s									
NORI	**Noerdlinger Ri**	**2.08**	**29**		ePn		**Pn**	**12 53 57.8**	**-0.7**
CABF	**La Chapelle**	**2.10**	**263**		ePn		**Pn**	**12 53 59.8**	**+0.9**
CABF					eSg		**Sg**	**12 54 29.7**	**-0.5**
	comp=E,167nm,0.4s									
CABF					AML		AML			
BRET	**Bretten**	**2.12**	**353**	⇑	Pn		**Pn**	**12 53 59.3**	**+0.2**
BRET					Sn		**Sn**	**12 54 24.2**	**-1.6**
ROTM	**Rocchetta Tana**	**2.13**	**195**		AML		AML			
	comp=E,2835µm,0.7s									
ROTM					AML		AML			
	comp=N,3660µm,0.5s									
LPL	**La Plagne**	**2.16**	**231**		ePg		**Pb**	**12 54 02.9**	**+0.2**
LPL					eSg		**Sb**	**12 54 31.1**	**+1.2**
	comp=N,188nm,0.5s									
LPL					AML		AML			
LPG	**La Plagne**	**2.16**	**230**		ePg		**Pb**	**12 54 02.9**	**+0.1**
HAU	**Haudompre**	**2.17**	**301**		eSn		**Sn**	**12 54 26.1**	**-0.9**
	comp=N,243nm,0.3s									
HAU					AML		AML			
WOER	**Woert**	**2.24**	**20**	⇑	Pn		**Pn**	**12 53 59.9**	**-0.9**
WOER					Sn		**Sn**	**12 54 27.6**	**-1.4**
ABTA	**Abfaltersbach**	**2.35**	**93**		iPn		**Pb**	**12 54 05.6**	**-0.2**
	comp=N,26nm,0.4s									
ABTA					Sn		**Sb**	**12 54 36.1**	**+1.0**
	comp=N,304nm,0.9s									
PEB	**Petersbachel**	**2.35**	**337**	⇓	Pn		**Pn**	**12 54 02.8**	**+0.5**
PEB					Sn		**Sn**	**12 54 29.6**	**-2.0**
NDIM	**Novi di Modena**	**2.38**	**148**		AML		AML			
	comp=N,1038µm,0.6s									
NDIM					AML		AML			
	comp=E,1930µm,0.5s									
SIND	**Sindeldorf**	**2.46**	**8**		Pn		**Pn**	**12 54 02.8**	**-0.9**
LESA	**Schwarzleotal**	**2.49**	**77**		iPn		**Pb**	**12 54 06.4**	**-1.8**
	comp=E,28nm,0.5s									
LESA					eSn		**Sb**	**12 54 38.3**	**-1.0**
	comp=E,110nm,0.3s									
GRC1	**Grafenberg Arr**	**2.64**	**37**	⇑	Pn		**Pn**	**12 54 05.5**	**-0.7**
RJOB	**Jochberg**	**2.64**	**71**		ePn		**Pn**	**12 54 08.5**	**+2.1**
MBDF	**Montbardon**	**2.73**	**218**		ePg		**Pb**	**12 54 12.2**	**-0.2**
WBA	**Furth**	**2.75**	**356**		Pn		**Pn**	**12 54 07.4**	**-0.4**
WBA					Sn		**Sn**	**12 54 40.6**	**-0.7**
IMS	**Imsbach**	**2.80**	**344**		Pn		**Pn**	**12 54 09.1**	**+0.7**
IMS					Pg		**Pg**	**12 54 18.4**	**+1.9**
PAGF	**Fort de Pagny**	**2.81**	**307**		eSn		**Sn**	**12 54 41.6**	**-1.3**
PAGF					eSg		**Sg**	**12 54 53.1**	**0.0**
	comp=E,71nm,0.3s									
PAGF					AML		AML			
KBA	**Koelnbreinsper**	**2.91**	**85**		ePn		**Pb**	**12 54 13.0**	**-2.4**
KBA	**Koelnbreinsper**	**2.91**	**85**		ePn		**Pn**	**12 54 12.7**	**+2.6**
	comp=E,69nm,0.5s									
KBA					eSn		**Sn**	**12 54 47.5**	**+2.0**
	comp=E,111nm,0.5s									
GRB2	**Grafenberg Arr**	**2.92**	**35**		Pn		**Pn**	**12 54 09.2**	**-0.9**
MILB	**Miltenberg**	**2.92**	**2**		Pn		**Pn**	**12 54 09.3**	**-0.8**
DUP	**Duppenweiler**	**2.94**	**329**		Pn		**Pn**	**12 54 12.2**	**+1.8**
DUP					Sn		**Sn**	**12 54 44.7**	**-1.4**
ORIF	**Oris-en-Rattie**	**3.01**	**230**		ePg		**Pg**	**12 54 19.4**	**-1.2**
ORIF					eSg		**Sg**	**12 54 59.7**	**+0.2**
	comp=E,256nm,0.5s									
ORIF					AML		AML			
SFTF	**Sexfontaines**	**3.04**	**297**		eSn		**Sn**	**12 54 47.5**	**-1.1**
SFTF					eSg		**Sg**	**12 55 02.2**	**+1.7**
	comp=E,165nm,0.4s									
SFTF					AML		AML			
BODE	**Bodenheim**	**3.05**	**350**		Sg		**Sg**	**12 55 02.3**	**+1.6**
ROBS	**Robic**	**3.11**	**101**		ePn		**Pn**	**12 54 15.2**	**+2.4**
GRF	**Grafenberg Arr**	**3.12**	**26**		ePn		**Pn**	**12 54 11.3**	**-1.6**
GRF					Pg		**Pg**	**12 54 23.3**	**+0.7**
MYKA	**Terra Mystica**	**3.13**	**94**		iPn		**Pb**	**12 54 16.4**	**-2.7**
	comp=E,9.2nm,0.3s									
MYKA					iSn		**Sn**	**12 54 53.0**	**+2.1**
	comp=E,12nm,0.3s									
ABH	**Alteburg**	**3.14**	**341**		Pn		**Pn**	**12 54 14.1**	**+0.9**
ABH					Sn		**Sn**	**12 54 48.6**	**-2.5**
MEZF	**Maizieres J'vi**	**3.16**	**302**		eSn		**Sn**	**12 54 51.7**	**+0.1**
MEZF					eSg		**Sg**	**12 55 05.0**	**+0.5**
	comp=E,229nm,0.6s									
MEZF					AML		AML			
SAVF	**Savonnieres en**	**3.18**	**304**		eSn		**Sn**	**12 54 50.5**	**-1.4**
	comp=E,44nm,0.3s									
SAVF					AML		AML			
BIOA	**Bad Ischl, Aus**	**3.18**	**74**		iPn		**Pn**	**12 54 15.8**	**+2.1**
	comp=E,13nm,0.3s									
BIOA					ePg		**Pg**	**12 54 24.4**	**+0.5**
	comp=E,55nm,0.3s									
BIOA					eSg		**Sg**	**12 55 07.1**	**+2.0**
	comp=E,200nm,0.5s									
RIVT	**Riveris**	**3.20**	**332**		Pn		**Pn**	**12 54 15.6**	**+1.7**
RIVT					Sn		**Sn**	**12 54 50.7**	**-1.8**
WBG	**Bieber**	**3.26**	**3**		Pn		**Pn**	**12 54 14.2**	**-0.6**
WBG					Sn		**Sn**	**12 54 52.9**	**-1.2**
SEI	**Scarperia**	**3.27**	**150**		AML		AML			
	comp=N,646µm,0.5s									
SEI					AML		AML			
	comp=E,324µm,0.5s									
SEI					AML		AML			
	comp=N,646µm,1.5s									
MPPT	**Montemurlo**	**3.27**	**154**		AML		AML			
	comp=N,200µm,0.8s									
MPPT					AML		AML			
	comp=E,186µm,1.3s									
TNS	**Taunus Mts**	**3.34**	**353**		ePn		**Pn**	**12 54 16.2**	**+0.3**
TNS					eSn		**Sn**	**12 54 54.3**	**-1.7**
	comp=E,219nm,0.8s									
PII	**Pisa**	**3.35**	**162**		AML		AML			
	comp=N,388µm,1.6s									
PII					AML		AML			
	comp=E,366µm,0.3s									
PII					AML		AML			
	comp=N,388µm,0.4s									
WET	**Wettzell**	**3.37**	**47**		ePn		**Pn**	**12 54 16.2**	**-0.1**
WLF	**Walferdange**	**3.38**	**325**		ePn		**Pn**	**12 54 18.5**	**+2.1**
VOJS	**Vojsko**	**3.42**	**103**		iPn		**Pn**	**12 54 19.3**	**+2.2**
BGG	**Burgeitz**	**3.50**	**341**		ePn		**Pn**	**12 54 19.0**	**+1.0**
BGG					eSn		**Sn**	**12 54 57.4**	**-2.4**
	comp=N,96nm,0.5s									
LOR	**Lormes**	**3.60**	**278**		ePn		**Pn**	**12 54 20.6**	**+1.1**
LOR					eSg		**Sg**	**12 55 17.4**	**-1.1**
	comp=N,95nm,0.5s									
LOR					AML		AML			
OCHT	**Ochtendung**	**3.62**	**342**		Pn		**Pn**	**12 54 21.2**	**+1.5**
SMF	**Signal de Mont**	**3.63**	**268**		ePn		**Pn**	**12 54 21.3**	**+1.5**
SMF					eSg		**Sb**	**12 55 15.7**	**+3.8**
	comp=N,234nm,0.7s									
SMF					AML		AML			
KOE	**Koeppel**	**3.63**	**346**		eSn		**Sn**	**12 55 00.4**	**-2.7**
	comp=N,148nm,0.9s									
MOA	**Molln**	**3.63**	**73**		iPn		**Pn**	**12 54 21.4**	**+1.6**
	comp=N,3.9nm,0.2s									
MOA					ePg		**Pg**	**12 54 30.9**	**-1.6**
	comp=N,20nm,0.3s									
MOA					iSn		**Sn**	**12 55 04.8**	**+1.6**
	comp=N,24nm,0.3s									
MOA					eSg		**Sg**	**12 55 18.5**	**-1.0**
	comp=N,117nm,0.8s									
GERES	**GERESS Array B**	**3.65**	**56**		Pn		**Pn**	**12 54 20.6**	**+0.4**
	comp=N,0.6nm,0.3s,baz=241,slow=13,SNR=47									
GERES					Pg		**Pg**	**12 54 31.5**	**-1.3**
	comp=N,1.8nm,0.3s,baz=239,slow=17,SNR=21									
GERES					Sn		**Sn**	**12 55 03.5**	**-0.2**
	comp=N,1.3nm,0.3s,baz=242,slow=25,SNR=6.9									
GERES					Lg		Lg	12 55 19.4		
	comp=N,2.2nm,0.3s,baz=243,slow=28,SNR=7.6									
	comp=N,5.8nm,0.3s									
GERES					AML		AML			
SKDS	**Skadanscina**	**3.67**	**110**		ePn		**Pn**	**12 54 23.4**	**+2.9**
VIVF	**Saint-Julien-l**	**3.72**	**238**		ePn		**Pn**	**12 54 22.3**	**+1.2**
VIVF					ePg		**Pg**	**12 54 33.1**	**-1.0**
VIVF					eSg		**Sg**	**12 55 20.1**	**-2.2**
	comp=N,80nm,0.4s									
VIVF					AML		AML			
KHC	**Kasperske Hory**	**3.73**	**52**		ePN		**Pn**	**12 54 21.4**	**+0.1**
KHC					ePG		**Pb**	**12 54 30.3**	**+0.9**
KHC					eSN		**Sn**	**12 55 05.3**	**-0.4**
KHC					eSG		**Sg**	**12 55 18.7**	**-4.0**
	comp=N,122nm,0.4s									
KHC					AMS		AMS	12 55 50.0		
	comp=N,600nm,10.7s									
KHC					AML		AML			
SESA	**Seetaler Alpe,**	**3.74**	**85**		iPn		**Pn**	**12 54 23.8**	**+2.2**
	comp=N,20nm,0.3s									
SESA					iSn		**Sn**	**12 55 09.0**	**+2.9**
	comp=N,62nm,0.6s									
OBKA	**Obir**	**3.77**	**94**		iPn		**Pn**	**12 54 24.4**	**+2.5**
	comp=N,4.4nm,0.4s									
OBKA					iSn		**Sn**	**12 55 09.8**	**+3.1**
	comp=N,44nm,0.7s									
SSF	**Saint Saulge**	**3.83**	**274**		ePn		**Pn**	**12 54 23.8**	**+1.1**
SSF					eSg		**Sg**	**12 55 24.6**	**-1.4**
	comp=N,66nm,0.4s									
SSF					AML		AML			
SMRF	**Simiane la Rot**	**3.85**	**221**		ePg		**Pg**	**12 54 35.9**	**-0.7**
AVF	**Avril sur Loir**	**3.95**	**270**		ePn		**Pn**	**12 54 25.1**	**+0.9**
STB	**Steinbach**	**3.97**	**339**		ePn		**Pn**	**12 54 25.6**	**+1.0**
STB					eSn		**Sn**	**12 55 09.1**	**-2.5**
	comp=N,84nm,1.4s									
CKRC	**Cesky Krumlov**	**3.99**	**60**		ePN		**Pn**	**12 54 25.1**	**+0.3**
CKRC					eSN		**Sn**	**12 55 10.6**	**-1.4**
CKRC					eSG		**Sg**	**12 55 26.8**	**-4.1**
	comp=N,74nm,0.4s									
CKRC					AMS		AMS	12 56 00.0		
	comp=N,500nm,11.0s									
CKRC					AML		AML			
NKC	**Novy Kostel**	**3.99**	**33**		ePN		**Pn**	**12 54 22.9**	**-2.0**
LMR	**La Mourre**	**4.03**	**208**		ePn		**Pn**	**12 54 26.5**	**+1.2**
SOKA	**Soboth**	**4.08**	**91**		iPn		**Pn**	**12 54 28.6**	**+2.5**
	comp=N,9.2nm,0.4s									
SOKA					iSn		**Sn**	**12 55 16.5**	**+2.2**
	comp=N,6.1nm,0.4s									
KLL	**Kalltalsperre**	**4.17**	**335**		ePn		**Pn**	**12 54 28.1**	**+0.9**
KLL					eSn		**Sn**	**12 55 13.6**	**-2.7**
	comp=N,35nm,0.7s									
DREG	**Dreilaegerbach**	**4.20**	**334**		ePn		**Pn**	**12 54 28.8**	**+1.1**
DREG					eSn		**Sn**	**12 55 14.8**	**-2.4**
	comp=N,70nm,0.5s									
MEM	**Membach**	**4.22**	**332**		Pn		**Pn**	**12 54 29.6**	**+1.6**
MEM					Sn		**Sn**	**12 55 15.2**	**-2.5**
ZVC	**Zvikov**	**4.24**	**52**		ePN		**Pn**	**12 54 28.9**	**+0.7**
ZVC					ePG		**Pb**	**12 54 36.9**	**-1.1**
GIVF	**Givet**	**4.27**	**320**		eSn		**Sn**	**12 55 16.0**	**-3.0**
GIVF					eSg		**Sg**	**12 55 37.0**	**-3.1**
	comp=N,165nm,0.7s									
GIVF					AML		AML			
BGF	**Bois d'Agland**	**4.32**	**268**		ePn		**Pn**	**12 54 29.9**	**+0.6**
BGF					eSn		**Sn**	**12 55 17.8**	**-2.3**
BGF					eSg		**Sg**	**12 55 42.7**	**+1.2**
	comp=N,103nm,0.4s									
BGF					AML		AML			
PGF	**Pioggiola**	**4.37**	**181**		ePn		**Pn**	**12 54 31.8**	**+1.7**
PGF					eSn		**Sn**	**12 55 15.7**	**-5.8**
ARSA	**Arzberg**	**4.40**	**83**		ePn		**Pn**	**12 54 32.4**	**+1.9**
	comp=N,13nm,0.5s									
ARSA					iSn		**Sn**	**12 55 24.0**	**+2.0**
	comp=N,12nm,0.4s									
ARSA					eSg		**Sg**	**12 55 46.7**	**+2.6**
	comp=N,13nm,0.4s									
HYF	**Humbligny**	**4.43**	**277**		ePn		**Pn**	**12 54 32.3**	**+1.4**
HYF					eSn		**Sn**	**12 55 19.5**	**-3.4**
HYF					eSg		**Sg**	**12 55 43.1**	**-2.0**
	comp=N,287nm,0.4s									
HYF					AML		AML			
RABC	**Rab**	**4.52**	**117**		iPn		**Pn**	**12 54 34.9**	**+2.8**
RABC					Sn		**Sn**	**12 55 27.1**	**+2.1**
BAIF	**Baives**	**4.53**	**316**		eSn		**Sn**	**12 55 23.6**	**-1.6**
	comp=N,22nm,0.3s									
BAIF					AML		AML			
OZLJ	**Ozalj**	**4.60**	**104**		ePn		**Pn**	**12 54 36.6**	**+3.5**
OZLJ					Sn		**Sn**	**12 55 30.5**	**+3.5**
ABNA	**Allensteig Bun**	**4.61**	**65**		iPn		**Pn**	**12 54 34.3**	**+0.9**
	comp=N,3.7nm,0.1s									
ABNA					iSn		**Sn**	**12 55 26.1**	**-1.3**
	comp=N,22nm,0.1s									
LASF	**Ste Croix**	**4.66**	**234**		ePg		**Pg**	**12 54 49.2**	**-2.9**
LASF					eSg		**Sg**	**12 55 50.0**	**-2.4**
	comp=N,57nm,0.6s									
LASF					AML		AML			
LAUG	**Laupendahl**	**4.66**	**343**		ePn		**Pn**	**12 54 35.1**	**+1.1**
LAUG					eSn		**Sn**	**12 55 26.4**	**-2.1**
	comp=N,52nm,0.8s									
NVLJ	**Novalja**	**4.67**	**118**		ePn		**Pn**	**12 54 35.1**	**+1.0**
NVLJ					Sn		**Sn**	**12 55 30.5**	**+1.8**
HSKC	**Hora Svate Kat**	**4.67**	**36**		ePN		**Pn**	**12 54 32.6**	**-1.6**
HSKC					eSG		**Sg**	**12 55 51.8**	**-1.1**
	comp=N,58nm,0.5s									
HSKC					AMS		AMS	12 56 20.0		
	comp=N,700nm,8.4s									
HSKC					AML		AML			
CONA	**Conrad Observa**	**4.70**	**75**		iPn		**Pn**	**12 54 35.9**	**+1.3**
	comp=N,7.8nm,0.3s,SNR=15									
CONA					eSn		**Sn**	**12 55 29.3**	**-0.3**
	comp=N,14nm,0.4s									
CONA					eSg		**Sg**	**12 55 54.9**	**+1.2**
	comp=N,28nm,0.4s									
PRU	**Pruhonice**	**4.75**	**48**		eSG		**Sg**	**12 55 53.4**	**-1.9**
	comp=N,86nm,0.5s									
PRU					AMS		AMS	12 56 30.0		
	comp=N,500nm,9.6s									
PRU					AML		AML			
TCF	**Toulx Ste Croi**	**4.79**	**265**		ePn		**Pn**	**12 54 36.5**	**+0.6**
TCF					eSn		**Sn**	**12 55 25.9**	**-5.9**
TCF					eSg		**Sg**	**12 55 55.4**	**-1.4**
	comp=N,22nm,0.4s									
TCF					AML		AML			
WINA	**Alland / Wiene**	**4.87**	**73**		iPn		**Pn**	**12 54 38.3**	**+1.4**
	comp=N,2.2nm,0.1s,SNR=8.2									
WINA					iPg		**Pg**	**12 54 54.5**	**-1.7**
	comp=N,3.9nm,0.2s									
WINA					iSn		**Sn**	**12 55 32.7**	**-0.9**
	comp=N,27nm,0.4s									
WINA					eSg		**Sg**	**12 55 57.8**	**-1.5**
	comp=N,46nm,0.5s									
RONA	**Rosalia, Austr**	**4.96**	**78**		iPn		**Pn**	**12 54 39.4**	**+1.3**
	comp=N,14nm,0.4s,SNR=15									
RONA					iSn		**Sn**	**12 55 35.1**	**-0.7**
	comp=N,19nm,0.4s									
RONA					Sg		**Sg**	**12 56 02.3**	**+0.3**
	comp=N,25nm,0.4s									
PLIT	**Plitvice**	**4.99**	**112**		ePn		**Pn**	**12 54 40.6**	**+2.1**
CLL	**Collm**	**5.09**	**29**		iPn		**Pn**	**12 54 36.9**	**-2.9**
	comp=Z,11nm,0.5s									
CLL					ix		x	12 54 51.3		
CLL					ePg		**Pg**	**12 55 01.0**	**+0.7**
CLL					i (Sn)		**Sn**	**12 55 37.6**	**

ETSF				*e*Sg		**Sg**	**12 57 31.5**	**-6.4**
	comp=Z,45nm,1.1s							
ETSF				AML		AML		
SGMF	**Saint Gilles**	**8.00**	**284**	*e*Pn		**Pn**	**12 55 20.3**	**+0.5**
SGMF				*e*Sn		**Sn**	**12 56 46.8**	**-3.9**
	comp=Z,26nm,0.5s							
SGMF				AML		AML		
SJPF	**Ste Jean**	**8.24**	**246**	*e*Sg		**Sg**	**12 57 40.3**	**-7.2**
	comp=Z,8.2nm,0.8s							
SJPF				AML		AML		
QUIF	**Quistinic**	**8.38**	**281**	*e*Pn		**Pn**	**12 55 25.2**	**+0.1**
QUIF				*e*Sn		**Sn**	**12 56 54.4**	**-5.7**
	comp=Z,44nm,0.9s							
QUIF				AML		AML		
ROSF	**Rostrenen**	**8.48**	**284**	*e*Pn		**Pn**	**12 55 27.0**	**+0.5**
EKA	**Eskdalemuir Ar**	**11.40**	**322**	Pn		**Pn**	**12 56 06.5**	**0.0**
	comp=Z,2.4nm,0.4s,baz=136,slow=14,SNR=18							
EKA				Sn		**Sn**	**12 58 13.1**	**-1.1**
	baz=138,slow=24							
ESDC	**Sonseca Array**	**11.95**	**237**	Pn		**Pn**	**12 56 15.8**	**+1.8**
	comp=Z,0.1nm,0.3s,baz=50,slow=13,SNR=5.2							
	comp=Z,0.4nm,0.4s							
ESDC				AML		AML		
HFS	**Hagfors**	**13.52**	**10**	LR		LR	13 01 41.5	
	comp=Z,32nm,18.6s,baz=222,slow=37							
AKASG	**Malin Array Be**	**13.78**	**67**	LR		LR	13 02 13.7	
	comp=Z,52nm,18.3s,baz=180,slow=39							
NOA	**NORSAR Array B**	**14.21**	**4**	LR		LR	13 01 50.4	
	comp=Z,21nm,20.6s,baz=200,slow=36							
FINES	**FINESS Array B**	**17.53**	**28**	P		**Pn**	**12 57 26.1**	**-1.8**
	comp=Z,0.1nm,0.3s,baz=233,slow=6.3,SNR=5.0							
	comp=Z,2.2nm,0.9s							
FINES				AML		AML		
MDT	**Midelt**	**17.54**	**221**	LR		LR	13 03 51.3	
	comp=Z,47nm,18.9s,baz=14,slow=36							
KVAR	**Kislovodsk Arr**	**23.65**	**85**	LR		LR	13 09 02.9	
	comp=Z,110nm,20.9s,baz=275,slow=40							
ARTI	**Arti**	**31.37**	**54**	LR		LR	13 11 58.8	
	comp=Z,47nm,18.4s,baz=280,slow=36							
AKTO	**Aktyubinsk**	**32.02**	**65**	LR		LR	13 13 53.0	
	comp=Z,27nm,19.4s,baz=137,slow=38							
KURBB	**Kurchatov Arra**	**44.38**	**58**	P		**P**	**13 01 34.4**	**+0.3**
	comp=Z,0.4nm,0.7s,baz=283,slow=8.5,SNR=2.2							
	comp=Z,0.4nm,0.7s							
KSRS	**Korea Array**	**79.75**	**45**	LR		LR	13 45 00.3	
	comp=Z,23nm,18.3s,baz=195,slow=39							

*SJA **10** 13:08:46.2±0.7, 21.°46S×66.°69W, h226km±5km, ML3.7, MW3.5*
*NEIC **10** 13:08:46.0±1.1, 21.°47S±0.°08×66.°7W±0.°1, h223km±11km, mb4.0/4, Error ellipse: s-maj=19.0km s-min=10.9km az=93.0*
*SCB **10** 13:08:46.4±1.6, 21.°41S×66.°67W, h220km±19km, MB4.9, ML4.2/2, Error ellipse: s-maj=8.7km s-min=5.0km az=0.0*
*IDC **10** 13:08:48.4±8.9, 21.°11S×66.°42W, h238km±73km, mb3.8/1, mbtmp4.1/2, Error ellipse: s-maj=106.9km s-min=81.9km az=29.0*

ISC 10 13:08:45.3±0.8, **21.°44S**±0.°04×**66.°72W**±0.°05, **h231**km±8km, **n60**, σ1**§38**/79, **Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MOCB	**Mochara**	**1.03**	**80**	P	**Pn**	**13 09 19.0**	**0.0**
YJA	**Yavi**	**1.34**	**123**	*e*P	**Pn**	**13 09 22.4**	**+1.2**
YJA				*e*S	**S**	**13 09 48.5**	**-0.6**
YJA	**Yavi**	**1.34**	**123**	P	**Pn**	**13 09 21.6**	**+0.5**
AF01	**San Pedro de A**	**2.02**	**222**	Pn	**Pn**	**13 09 26.1**	**-0.6**
AF01				Sn	**S**	**13 09 57.1**	**-2.0**
PB09	**IPOC Station P**	**2.37**	**261**	*e*P	**Pn**	**13 09 31.9**	**+1.9**
PB09				*e*S	**S**	**13 10 02.4**	**-2.7**
PB09	**IPOC Station P**	**2.37**	**261**		**Pn**	**13 09 30.4**	**+0.4**
PB09	**IPOC Station P**	**2.37**	**261**	P	**Pn**	**13 09 31.8**	**+1.7**
PB08	**IPOC Station P**	**2.62**	**299**	*e*P	**Pn**	**13 09 34.3**	**+1.5**
PB08				*e*S	**S**	**13 10 11.6**	**+1.5**
PB08	**IPOC Station P**	**2.62**	**299**		**Pn**	**13 09 33.5**	**+0.6**
PB08	**IPOC Station P**	**2.62**	**299**	P	**Pn**	**13 09 34.4**	**+1.5**
SALTA		**2.79**	**173**	*e*P	**Pn**	**13 09 37.7**	**+2.9**
PB03	**IPOC Station P**	**2.88**	**257**	*e*P	**Pn**	**13 09 36.8**	**+1.3**
PB03				*e*S	**S**	**13 10 14.3**	**-0.5**
PB03				IAML		13 10 15.9	
	comp=Z,271nm,0.2s						
PB03	**IPOC Station P**	**2.88**	**257**		**Pn**	**13 09 36.2**	**+0.7**
GO01	**Chusmiza**	**2.91**	**307**	*e*P	**Pn**	**13 09 37.9**	**+1.7**
GO01				*e*S	**S**	**13 10 19.4**	**+3.4**
GO01				IAML		13 10 25.8	
	comp=Z,63nm,0.3s						
GO01	**Chusmiza**	**2.91**	**307**		**Pn**	**13 09 36.9**	**+0.7**
PB06	**IPOC Station P**	**2.93**	**244**	*e*P	**Pn**	**13 09 37.9**	**+1.9**
PB06				*e*S	**S**	**13 10 17.1**	**+1.3**
PB06				IAML		13 10 22.3	
	comp=Z,78nm,0.2s						
PB06	**IPOC Station P**	**2.93**	**244**		**Pn**	**13 09 36.8**	**+0.9**
PB06	**IPOC Station P**	**2.93**	**244**	P	**Pn**	**13 09 38.3**	**+2.3**
PB07	**IPOC Station P**	**2.96**	**264**	*e*P	**Pn**	**13 09 37.6**	**+1.3**
PB07				*e*S	**S**	**13 10 16.1**	**-0.2**
PB07				IAML		13 10 16.7	
	comp=Z,189nm,0.4s						
PB07	**IPOC Station P**	**2.96**	**264**		**Pn**	**13 09 36.9**	**+0.6**
PB02	**IPOC Station P**	**2.96**	**272**	*e*P	**Pn**	**13 09 37.6**	**+1.2**
PB02				*e*S	**S**	**13 10 15.7**	**-0.6**
PB02				IAML		13 10 16.1	
	comp=Z,580nm,0.4s						
PB02	**IPOC Station P**	**2.96**	**272**		**Pn**	**13 09 36.9**	**+0.6**
PB02	**IPOC Station P**	**2.96**	**272**	P	**Pn**	**13 09 37.5**	**+1.2**
PB02				S	**S**	**13 10 15.7**	**-0.6**
PB02				IAML		13 10 16.4	
	comp=Z,376nm,0.2s						
SOEO	**Opoqueri**	**3.06**	**339**	P	**Pn**	**13 09 39.3**	**+1.4**
PB11	**IPOC Station P**	**3.21**	**301**	*e*P	**Pn**	**13 09 40.1**	**+0.8**
PB11				*e*S	**S**	**13 10 21.2**	**-0.5**
PB11				IAML		13 10 23.3	
	comp=Z,178nm,0.2s						
PB11	**IPOC Station P**	**3.21**	**301**		**Pn**	**13 09 39.7**	**+0.5**
PB11	**IPOC Station P**	**3.21**	**301**	P	**Pn**	**13 09 39.9**	**+0.6**
PB11				S	**S**	**13 10 20.6**	**-1.0**
PB11				IAML		13 10 22.9	
	comp=Z,453nm,0.2s						
TA01	**Diego Aracena**	**3.35**	**284**	*e*P	**Pn**	**13 09 41.1**	**+0.5**
TA01				*e*S	**S**	**13 10 22.4**	**-1.6**
TA01				*e*S	S	13 10 22.9	-1.0
TA01				IAML		13 10 23.1	
	comp=Z,45nm,0.5s						
TA01	**Diego Aracena**	**3.35**	**284**		**Pn**	**13 09 40.6**	**0.0**
TA01					**S**	**13 10 23.2**	**-0.8**
SOET	**ToroToro**	**3.42**	**15**	P	**Pn**	**13 09 42.2**	**+0.4**
PB05	**IPOC Station P**	**3.52**	**246**	*e*P	**Pn**	**13 09 44.0**	**+1.3**
PB05				*e*S	**S**	**13 10 27.2**	**-0.7**
PB05				IAML		13 10 31.3	
	comp=Z,48nm,0.3s						
PB05	**IPOC Station P**	**3.52**	**246**		**Pn**	**13 09 43.3**	**+0.6**
PSGCX	**Pisagua**	**3.68**	**299**	*e*P	**Pn**	**13 09 44.6**	**0.0**
PSGCX				*e*S	**S**	**13 10 29.1**	**-2.1**
PSGCX				IAML		13 10 30.5	
	comp=Z,66nm,0.1s						
PSGCX	**Pisagua**	**3.68**	**299**		**Pn**	**13 09 44.1**	**-0.4**
PB16	**IPOC Station P**	**4.05**	**319**	*e*P	**Pn**	**13 09 51.6**	**+2.1**
PB16				*e*S	**S**	**13 10 36.9**	**-3.2**
PB16				IAML		13 10 49.3	
	comp=Z,25nm,0.3s						
PB10	**IPOC Station P**	**4.10**	**239**	*e*P	**Pn**	**13 09 50.6**	**+1.2**
PB10				*e*S	**S**	**13 10 38.9**	**-1.3**
PB10				IAML		13 10 41.3	
	comp=Z,57nm,0.4s						
PB10	**IPOC Station P**	**4.10**	**239**	Pn	**Pn**	**13 09 49.9**	**+0.4**
PB12	**IPOC Station P**	**4.40**	**309**	*e*P	**Pn**	**13 09 53.4**	**+0.1**
PB12				*e*S	**S**	**13 10 43.9**	**-3.2**
PB12				IAML		13 10 48.5	
	comp=Z,45nm,0.2s						
PB14	**IPOC Station P**	**4.64**	**226**	*e*P	**Pn**	**13 09 57.8**	**+1.4**
PB14				*e*S	**S**	**13 10 50.8**	**-1.8**
PB14				IAML		13 10 51.6	
	comp=Z,102nm,0.3s						
PB14	**IPOC Station P**	**4.64**	**226**		**Pn**	**13 09 56.8**	**+0.4**
BBOJ	**La Paz, Jacaqu**	**4.65**	**342**	P	**Pn**	**13 09 58.4**	**+1.6**
SOEJ	**Jacaque**	**4.65**	**342**	P	**Pn**	**13 09 58.5**	**+1.7**
FSA	**Cafayete**	**4.70**	**172**	*e*P	**Pn**	**13 09 59.7**	**+2.8**
BBOD	**La Paz, Gloria**	**5.10**	**339**	P	**Pn**	**13 10 03.8**	**+1.5**
LPAZ	**La Paz**	**5.30**	**345**	P	**Pn**	**13 10 05.2**	**+0.4**
	comp=Z,5.2nm,0.5s,baz=163,slow=11,SNR=20						
LPAZ				S	**S**	**13 11 06.8**	**-1.1**
	comp=Z,11nm,1.1s,baz=313,slow=16,SNR=8.0						
LPAZ	**La Paz**	**5.30**	**345**		**Pn**	**13 10 05.1**	**+0.2**
BBOB	**La Paz, Bander**	**5.44**	**346**	P	**Pn**	**13 10 07.7**	**+1.1**
AC02	**Maricunga**	**5.80**	**202**		**Pn**	**13 10 12.0**	**+1.0**
AC01	**Pan de Azucar**	**5.88**	**216**	Pn	**Pn**	**13 10 11.4**	**-0.1**
BBSD	**Serra de San D**	**7.16**	**55**	P	**Pn**	**13 10 26.8**	**-1.1**
SIV	**San Ignacio**	**7.62**	**46**	P	**Pn**	**13 10 33.3**	**-0.5**
AC05	**El Transito**	**8.04**	**203**	Pn	**Pn**	**13 10 39.1**	**0.0**
CO02	**Combarbal**	**10.45**	**201**	Pn	**Pn**	**13 11 09.9**	**0.0**
MT02	**Curacav**	**12.41**	**197**	Pn	**Pn**	**13 11 34.8**	**+0.4**
BDFB	**Brasilia**	**18.65**	**75**	P	**P**	**13 12 46.9**	**+0.5**
BDFB				IAmb	IAmb	13 13 02.9	
	comp=Z,9.7nm,1.4s						
LR05	**Currie**	**19.26**	**192**	P	**P**	**13 12 50.8**	**-1.8**
PLCA	**Paso Flores**	**19.51**	**189**	P	**P**	**13 12 55.2**	**-0.1**
PLCA				IAmb	IAmb	13 13 31.2	
	comp=Z,5.8nm,1.4s						
TORD	**Torodi Ar. Bea**	**75.42**	**69**	P	**P**	**13 20 04.5**	**+0.2**
	comp=Z,1.9nm,0.5s,baz=250,slow=5.2,SNR=5.0						
	comp=Z,1.9nm,0.5s						
TORD	**Torodi Ar. Bea**	**75.42**	**69**	IAmb	IAmb	13 20 05.2	
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**144.37**	**37**	PKP	PKPbc	13 27 54.9	+2.0
	comp=Z,0.5nm,0.5s,baz=330,slow=3.5,SNR=7.5						

*KOLA **10** 13:20:50.2, 64.°92N×30.°38E, h0km, ML1.5, Karelia*
HEL 10 13:20:48.9±0.1, **66.°13N**×**27.°96E, h0**km, **ML1.4, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KU2	**Taivalkoski**	**0.44**	**165**	PG	Pg	13 20 57.0	-0.2
	baz=341						
KU2				SG	Sg	13 21 00.6	-2.3
OLKF	**Oulanka, Finla**	**0.61**	**72**	PG	Pg	13 20 59.9	-0.7
OLKF				SG	Sg	13 21 07.4	-1.2
OLKF				MSG		13 21 08.4	
	comp=Z,5.6nm,0.2s						
KU6	**Riekki**	**0.80**	**97**	PG	Pg	13 21 03.2	-0.9
	baz=278						
KU6				SG	Sg	13 21 11.9	-2.4
KU6				MSG		13 21 13.5	
	comp=Z,3.0nm,0.2s						
KU1	**Kurvinen**	**0.87**	**130**	PG	Pg	13 21 04.9	-0.7
	baz=307						
KU1				SB	Sg	13 21 17.6	+0.8
RNF	**Rovaniemi**	**0.92**	**302**	PG	Pg	13 21 05.3	-1.1
RNF				SG	Sg	13 21 17.1	-1.2
OUL	**Oulu**	**1.36**	**220**	PG	Pg	13 21 13.4	-1.5
	baz=35						
OUL				SG	Sg	13 21 31.3	-1.2
TOF	**Tornio**	**1.48**	**270**	PG	Pn	13 21 15.3	-1.4
	baz=89						
TOF				MSG		13 21 33.2	
	comp=Z,1.9nm,0.2s						
TOF				SG	Sg	13 21 33.8	-2.6
VRF	**Varrio**	**1.75**	**21**	PG	Pn	13 21 20.5	+0.1
	baz=201						
VRF				MSG		13 21 41.0	
	comp=Z,2.5nm,0.2s						
VRF				SG	Sn	13 21 42.6	-0.8
OBF4	**Vikkela, Lumij**	**1.78**	**223**	PG	Pn	13 21 20.9	0.0
	baz=40						
OBF4				MSG		13 21 42.0	
	comp=Z,1.8nm,0.2s						
OBF4				SN	Sn	13 21 44.6	+0.4
KLF	**Kolari**	**1.94**	**307**	PB	Pn	13 21 23.0	-0.1
KLF				MSG		13 21 46.4	
	comp=Z,1.8nm,0.2s						
KLF				SB	Sn	13 21 47.6	-0.4
KVDA	**Kovda**	**2.05**	**72**	P	Pn	13 21 25.1	+0.5
KVDA				S	Sb	13 21 52.1	-0.9
RMF	**Romuvaara**	**2.10**	**156**	PG	Pn	13 21 25.8	+0.6
	baz=335						
RMF				MSG		13 21 51.1	
	comp=Z,2.5nm,0.2s						
OUF	**Merijarvi**	**2.23**	**219**	PB	Pn	13 21 27.7	+0.6
	baz=38						
OUF				MSG		13 21 55.0	
	comp=Z,1.5nm,0.2s						
OUF				SB	Sn	13 21 55.8	+0.5
RAJF	**Raja-Jooseppi**	**2.36**	**3**	PB	Pn	13 21 29.3	+0.5
RAJF				SN	Sn	13 21 58.4	+0.1
ERTU	**Ertsjaerv**	**2.37**	**283**	PN	Pn	13 21 28.9	0.0
ERTU				SN	Sn	13 21 58.2	-0.4
NIF	**Nilsia**	**2.76**	**181**	MSG		13 22 10.0	
	comp=Z,1.9nm,0.2s						
NIF				SG	Sb	13 22 12.6	-0.6
HEF	**Hetta**	**2.83**	**326**	PB	Pb	13 21 39.2	-1.0
HEF				MSG		13 22 12.1	
	comp=Z,0.9nm,0.2s						
HEF				SB	Sb	13 22 14.0	-1.4
LVZ	**Lovozero**	**3.17**	**53**	SG	Sb	13 22 25.4	+0.3
SUF	**Sumiainen**	**3.52**	**194**	SN	Sn	13 22 28.5	+1.6
ARA0	**ARCESS Array S**	**3.54**	**346**	SG	Sg	13 22 41.4	-1.1
KEV	**Kevo**	**3.66**	**355**	SB	Sb	13 22 38.4	-0.7
UMAU	**Umeaa**	**3.83**	**237**	PG	Pb	13 21 57.0	-0.2

*ISK **10** 13:38:58.1, 36.°05N×27.°62E, h10km, ML3.4/24*
*THE **10** 13:38:58.7, 36.°N±4.°×2.°8E±.°, h6km±6km, M3.2/9, MLh3.2/9*
*ATH **10** 13:38:58.7, 36.°05N×27.°62E, h12km±2km, ML3.5/21, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **10** 13:38:58.9, 36.°04N×27.°72E, h33km±2km, MW3.5 GII **10** 13:38:59.2±0.0, 35.°914N±0.°004×27.°803E±0.°001, h0km, Mws3.4, confirmed*

ISC 10 13:38:58.6±1.0, **36.°03N**±0.°02×**27.°64E**±0.°02, **h18**km±5km, **n112**, σ1**§02**/156, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ARG	**Arkhangelos**	**0.44**	**65**	P	**Pg**	**13 39 07.4**	**-0.2**
ARG				S	**Sg**	**13 39 14.0**	**+0.4**
ARG				AML	AML		
ARG	**Arkhangelos**	**0.44**	**65**	Pg	**Pg**	**13 39 07.4**	**-0.2**
ARG				Sg	**Sg**	**13 39 14.2**	**+0.6**
ARG				AML	AML		
ARG	**Arkhangelos**	**0.44**	**65**	P	**Pg**	**13 39 07.4**	**-0.2**
ARG				S	**Sg**	**13 39 13.7**	**+0.1**
ARG				AML	AML		
KARP	**Karpathos**	**0.62**	**219**	P	**Pg**	**13 39 10.5**	**-0.4**
KARP				S	**Sg**	**13 39 18.9**	**-0.3**
KARP				AML	AML		
KARP	**Karpathos**	**0.62**	**219**	Pg	**Pg**	**13 39 10.6**	**-0.3**
KARP				Sg	**Sg**	**13 39 19.7**	**+0.5**
KARP				AML	AML		
KARP	**Karpathos**	**0.62**	**219**	P	**Pg**	**13 39 10.6**	**-0.3**
KARP				S	**Sg**	**13 39 19.4**	**+0.2**
KARP				AML	AML		
RODB	**Rodos**	**0.63**	**48**	P	**Pg**	**13 39 10.1**	**-1.0**
RODB				S	**Sg**	**13 39 19.5**	**0.0**
RODB				AML	AML		
RDI1	**Rhodes Town Ha**	**0.63**	**48**	P	**Pg**	**13 39 10.8**	**-0.3**
RDI1				S	**Sb**	**13 39 20.2**	**+0.5**
RDI1				AML	AML		
YAZI	**Mula-Dat§a-**	**0.67**	**347**	P	**Pb**	**13 39 12.9**	**+1.1**
YAZI				S	**Sn**	**13 39 23.1**	**-0.2**
DAT	**Datca**	**0.70**	**356**	P	**Pb**	**13 39 12.4**	**0.0**
DAT				S	**Sb**	**13 39 22.8**	**+1.1**
DAT	**Datca**	**0.70**	**356**	Pg	**Pg**	**13 39 12.1**	**-0.4**
DAT				Sg	**Sb**	**13 39 22.0**	**+0.3**
DAT				AML	AML		
DATC	**Datca-Mugla**	**0.73**	**1**	Pg	**Pg**	**13 39 12.2**	**-0.8**
DATC				Sg	**Sb**	**13 39 22.7**	**+0.2**
DATC				AML	AML		
TURN	**Turunc**	**0.89**	**33**	P	**Pg**	**13 39 14.9**	**-1.0**
TURN				S	**Sg**	**13 39 27.4**	**-0.4**
TURN	**Turunc**	**0.89**	**33**	Pg	**Pg**	**13 39 15.0**	**-1.0**
TURN				Sg	**Sg**	**13 39 27.5**	**-0.3**
TURN				AML	AML		
BODA	**Bodrum-Mula**	**1.02**	**351**	Pg	**Pg**	**13 39 17.8**	**-0.6**
BODA				Sg	**Sn**	**13 39 32.4**	**+0.6**
BDRM	**Kayabasi**	**1.05**	**351**	P	**Pg**	**13 39 17.9**	**-1.1**
BDRM				S	**Sn**	**13 39 33.0**	**+0.4**
BODT	**Bodrum**	**1.06**	**346**	P	**Pg**	**13 39 18.3**	**-0.9**
BODT				S	**Sb**	**13 39 32.8**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**1.06**	**346**	Pg	**Pg**	**13 39 18.4**	**-0.9**
BODT				Sg	**Sb**	**13 39 32.8**	**+0.6**
BODT				AML	AML		
KLNA	**Kalymnos**	**1.07**	**330**	P	**Pg**	**13 39 18.2**	**-1.2**
KLNA				S	**Sb**	**13 39 32.6**	**+0.4**
YKAV	**Yalikavak-Bodr**	**1.13**	**345**	Pn	**Pb**	**13 39 18.9**	**-0.8**
YKAV				AML	AML		
DALY	**Dalyan (Mula)**	**1.14**	**46**	P	**Pb**	**13 39 19.7**	**-0.1**
DALY	**Dalyan (Mula)**	**1.14**	**46**	Pn	**Pb**	**13 39 19.6**	**-0.1**
DALY				AML	AML		
ASTA	**Astypalaia**	**1.16**	**297**	P	**Pb**	**13 39 19.4**	**-0.8**
ASTA				S	**Sb**	**13 39 33.5**	**-1.3**
YER	**Yerkesik**	**1.22**	**25**	P	**Pb**	**13 39 21.1**	**-0.1**
YER				S	**Sn**	**13 39 38.6**	**+1.6**
YER				AML	AML		
YER	**Yerkesik**	**1.22**	**25**	Pn	**Pn**	**13 39 21.8**	**+0.9**
YER				Sn	**Sn**	**13 39 38.8**	**+1.9**
YER				AML	AML		
MLSB	**Milas**	**1.27**	**5**	Pn	**Pn**	**13 39 22.1**	**+0.6**
MLSB				AML	AML		
FETY	**Fethiye**	**1.31**	**62**	Pn	**Pn**	**13 39 22.9**	**+0.8**
FETY				AML	AML		
MULA	**Mugla, Merkez-**	**1.34**	**24**	P	**Pg**	**13 39 24.3**	**-0.2**
MULA				S	**Sb**	**13 39 40.9**	**+0.7**
DIDI	**Didim-Aydin**	**1.38**	**347**	Pn	**Pn**	**13 39 23.8**	**+0.8**
DIDI				AML	AML		
DDIM	**Aydin, Didim**	**1.46**	**347**	P	**Pg**	**13 39 28.3**	**+1.5**
DDIM				S	**Sg**	**13 39 46.2**	**+0.3**
ZKR	**Zakros**	**1.48**	**232**	P	**Pn**	**13 39 25.7**	**+1.4**
ZKR	**Zakros**	**1.48**	**232**	Pn	**Pn**	**13 39 25.5**	**+1.2**
ZKR				AML	AML		
ZKR	**Zakros**	**1.48**	**232**	P	**Pn**	**13 39 25.6**	**+1.3**
ZKR				S	**Sb**	**13 39 45.3**	**+1.4**
ZKR				AML	AML		
SIT2	**Siteia**	**1.49**	**237**	P	**Pn**	**13 39 25.9**	**+1.4**
SIT2				S	**Sn**	**13 39 45.0**	**+1.4**
AKAS	**Kas**	**1.60**	**82**	Pn	**Pn**	**13 39 27.7**	**+1.5**
AKAS				AML	AML		
CAME	**Cameli-Denizli**	**1.62**	**55**	Pn	**Pn**	**13 39 27.8**	**+1.3**
CAME				AML	AML		
AYDN	**Tasoluk**	**1.64**	**7**	P	**Pn**	**13 39 27.1**	**+0.4**
AYDN				S	**Sb**	**13 39 49.7**	**+1.0**
GCAM	**G?zelcaml?**	**1.70**	**349**	Pn	**Pn**	**13 39 28.0**	**+0.6**
GCAM				AML	AML		
AGNA	**Agios Nikolaos**	**1.77**	**242**	P	**Pn**	**13 39 29.3**	**+0.8**
AGNA				S	**Sn**	**13 39 51.3**	**+0.7**
AGNA				AML	AML		
THERA	**Ancient Thera,**	**1.78**	**282**	P	**Pn**	**13 39 28.5**	**0.0**
THERA				S	**Sn**	**13 39 49.1**	**-1.7**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.78**	**282**	P	**Pn**	**13 39 28.3**	**-0.3**
THERA				AML	AML		
THR8	**Santorini-Mono**	**1.79**	**283**	P	**Pn**	**13 39 28.6**	**0.0**
THR8	**Santorini-Mono**	**1.79**	**283**	P	**Pn**	**13 39 28.6**	**0.0**
SMG	**Samos**	**1.79**	**339**	P	**Pn**	**13 39 28.1**	**-0.7**
SMG				AML	AML		
SMG	**Samos**	**1.79**	**339**	P	**Pn**	**13 39 28.6**	**-0.1**
SMG				AML	AML		
NPS	**Neapolis**	**1.82**	**246**	P	**Pn**	**13 39 29.3**	**+0.2**
NPS				S	**Sn**	**13 39 50.8**	**-0.9**
NPS				AML	AML		
NPS	**Neapolis**	**1.82**	**246**	P	**Pn**	**13 39 29.2**	**+0.1**
NPS				S	**Sn**	**13 39 51.2**	**-0.5**
NPS				AML	AML		
THR6	**Thira Island,**	**1.84**	**281**	P	**Pn**	**13 39 30.1**	**+0.8**
THR6	**Thira Island,**	**1.84**	**281**	P	**Pn**	**13 39 29.7**	**+0.3**
DEMR	**Demre-Antalya**	**1.85**	**83**	Pn	**Pn**	**13 39 30.7**	**+1.3**
DEMR				AML	AML		
KUSD	**Kusadasi-Aydin**	**1.85**	**351**	Pn	**Pn**	**13 39 30.2**	**+0.7**
KUSD				AML	AML		
THR3	**Thira Island,**	**1.85**	**282**	P	**Pn**	**13 39 29.8**	**+0.3**
THR3	**Thira Island,**	**1.85**	**282**	P	**Pn**	**13 39 29.7**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.85**	**282**	P	**Pn**	**13 39 29.7**	**+0.2**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.85**	**282**	P	**Pn**	**13 39 29.6**	**+0.2**
ESEN	**Aydn-Nazilli**	**1.85**	**18**	P	**Pn**	**13 39 31.0**	**+1.5**
ESEN				S	**Sb**	**13 39 56.1**	**+1.2**
CMBO	**Columbo, Santo**	**1.86**	**284**	P	**Pn**	**13 39 30.4**	**+0.8**
THR9	**Santorini-Faro**	**1.88**	**281**	P	**Pn**	**13 39 30.7**	**+0.9**
THR5	**Thira Island,**	**1.89**	**282**	P	**Pn**	**13 39 30.9**	**+0.8**
SAP3	**Santorini-Thir**	**1.90**	**283**	P	**Pn**	**13 39 30.9**	**+0.8**
SAM2	**Drakei, Karlov**	**1.91**	**335**	P	**Pn**	**13 39 29.8**	**-0.5**
AYDB	**Zeytinkoy-Aydi**	**1.92**	**6**	Pn	**Pn**	**13 39 31.5**	**+0.9**
AYDB				AML	AML		
APMY	**Acipayam-Deniz**	**1.96**	**42**	Pn	**Pn**	**13 39 32.5**	**+1.4**
APMY				AML	AML		
ELL	**Elmali**	**1.97**	**68**	Pn	**Pn**	**13 39 32.9**	**+1.7**
ELL				AML	AML		
ELL	**Elmali**	**1.97**	**68**	P	**Pn**	**13 39 32.7**	**+1.5**
ELL				S	**Sn**	**13 39 57.0**	**+1.5**
ELL				AML	AML		
DAGE	**izmir**	**1.97**	**3**	P	**Pb**	**13 39 34.4**	**+0.3**
DAGE				S	**Sg**	**13 40 01.8**	**-0.4**
NAZL	**Nazilli-Aydin**	**2.00**	**15**	Pn	**Pn**	**13 39 32.7**	**+1.1**
NAZL				AML	AML		
GMLD	**Gumuldur**	**2.12**	**344**	Pn	**Pn**	**13 39 34.7**	**+1.5**
GMLD				AML	AML		
IACM	**Heraklion**	**2.21**	**252**	P	**Pn**	**13 39 35.1**	**+0.7**
IDI	**Anoyia**	**2.36**	**253**	P	**Pn**	**13 39 36.7**	**+0.2**
IDI				S	**Sn**	**13 40 04.1**	**-0.9**
BLCB	**Balcova**	**2.40**	**349**	Pn	**Pn**	**13 39 37.1**	**+0.1**
BLCB				AML

mbtmp3.3/5, ML3.0/3, Error ellipse: s-maj=61.2km s-min=18.3km az=64.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**3.99**	**311**	Pn	Pn	13 54 43.3	+0.8
	1.0nm,0.3s,baz=301,slow=23,SNR=2.1						
SIJI				Sn	Sn	13 55 29.7	-0.3
	3.9nm,0.3s,baz=301,slow=22,SNR=7.2						
	3.6nm,0.4s						
SIJI				AML	AML		
WRA	**Warramunga Arr**	**16.32**	**180**	Pn	Pn	13 57 28.9	-1.8
	baz=3.6,slow=13,SNR=5.2						
	0.3nm,0.6s						
FITZ	**Fitzroy Crossi**	**16.77**	**210**	Pn	Pn	13 57 30.4	-6.1
	0.1nm,0.3s,baz=37,slow=14,SNR=6.3						
	1.0nm,0.7s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**20.03**	**181**	P	P	13 58 13.2	-1.5
	0.4nm,0.7s,baz=5.8,slow=12,SNR=9.7						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	**67.78**	**324**	P	P	14 04 40.6	+0.8
	0.3nm,0.6s,baz=108,slow=8.9,SNR=2.7						
	0.3nm,0.6s						

*NEIC **10** 14:01:43.8±2.0, 23.0°S±0.1°×179.7°W±0.2, h598km±11km, mb4.3/20, Error ellipse: s-maj=23.5km s-min=17.4km az=117.0*
*IDC **10** 14:01:44.9±2.2, 22.70°S×179.63°W, h620km±52km, mb2.9/5, mbtmp3.9/6, Error ellipse: s-maj=78.1km s-min=22.9km az=27.0*

ISC 10 14:01:43.6±0.6, 22.9°S±0.1°×179.8°W±0.1, h600km, n32, σ1s16/32, mb4.0/15, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.57**	**338**	P	P	**14 03 22.4**	**+1.1**
	2.9nm,0.3s,baz=137,slow=20,SNR=4.6						
MSVF	**Nonsavu**	**5.57**	**338**	P	P	**14 03 22.3**	**+0.9**
FUTU	**Fugatoga**	**8.73**	**11**	P	P	**14 03 49.7**	**-0.3**
NIUE	**Niue**	**9.96**	**69**	P	P	**14 04 03.4**	**+1.4**
SNZO	**South Karori**	**18.90**	**193**	P	P	**14 05 26.5**	**-0.6**
GVZ	**Greta Valley S**	**20.85**	**195**	P	P	**14 05 41.7**	**-3.1**
WHZ	**Wether Hill Ro**	**24.98**	**201**	P	P	**14 06 20.0**	**-1.4**
WHZ				IAmb	IAmb	14 06 28.8	
	comp=Z,38nm,1.5s						
ARMA	**Armidale**	**26.57**	**248**	P	P	**14 06 35.2**	**-0.6**
ARMA				IAmb	IAmb	14 06 45.6	
	comp=Z,13nm,1.4s						
EIDS	**Eidsvold**	**26.69**	**259**	P	P	**14 06 36.7**	**0.0**
EIDS				IAmb	IAmb	14 07 02.6	
	comp=Z,13nm,1.2s						
CTA	**Charters Tower**	**31.70**	**269**	P	P	**14 07 21.4**	**+1.4**
	comp=Z,1.9nm,0.3s,baz=96,slow=10,SNR=7.1						
	comp=Z,1.9nm,0.3s						
TOO	**Toolangi**	**33.16**	**236**	P	P	**14 07 31.9**	**-0.2**
TOO				IAmb	IAmb	14 08 14.3	
	comp=Z,4.7nm,1.4s						
PMG	**Port Moresby**	**34.40**	**288**	P	P	**14 07 41.7**	**-1.0**
STKA	**Stephens Creek**	**35.29**	**247**	P	P	**14 07 48.8**	**-1.1**
BBOO	**Buckleboo**	**40.02**	**246**	P	P	**14 08 27.9**	**-0.4**
BBOO				IAmb	IAmb	14 09 00.6	
	comp=Z,44nm,1.4s						
AS31	**Alice Springs**	**42.41**	**260**	P	P	**14 08 47.6**	**+0.3**
ASAR	**Alice Springs**	**42.41**	**260**	P	P	**14 08 48.3**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=97,slow=7.7,SNR=40						
	comp=Z,0.7nm,0.3s						
ASAR	**Alice Springs**	**42.41**	**260**	P	P	**14 08 47.7**	**+0.4**
WR8	**Warramunga Arr**	**42.55**	**265**	P	P	**14 08 49.1**	**+0.8**
WR8				IAmb	IAmb	14 09 25.8	
	comp=Z,5.8nm,1.2s						
WB0	**Warramunga Arr**	**42.69**	**265**	P	P	**14 08 50.2**	**+0.8**
WB0				IAmb	IAmb	14 08 50.9	
	comp=Z,3.0nm,0.7s						
WRAB	**Tennant Creek**	**42.69**	**265**	P	P	**14 08 50.1**	**+0.7**
WRAB				IAmb	IAmb	14 09 26.0	
	comp=Z,6.7nm,1.3s						
WRA	**Warramunga Arr**	**42.70**	**265**	P	P	**14 08 50.5**	**+1.0**
	comp=Z,1.4nm,0.6s,baz=103,slow=8.0,SNR=44						
	comp=Z,1.4nm,0.6s						
WRA	**Warramunga Arr**	**42.70**	**265**	P	P	**14 08 50.2**	**+0.7**
PWH	**Poliokeawe Pal**	**48.33**	**32**	P	P	**14 09 30.1**	**-2.0**
KNRA	**Kununurra**	**48.91**	**269**	P	P	**14 09 38.2**	**+1.7**
KNRA				IAmb	IAmb	14 10 15.8	
	comp=Z,4.7nm,1.2s						
VNDA	**Vanda**	**55.35**	**185**	P	P	**14 10 23.1**	**+1.6**
	comp=Z,0.3nm,0.7s,baz=8.9,slow=7.1,SNR=3.6						
	comp=Z,0.3nm,0.7s						
VNDA	**Vanda**	**55.35**	**185**	P	P	**14 10 22.1**	**+0.6**
MORW	**Morawa**	**57.41**	**249**	P	P	**14 10 36.3**	**-0.2**
MORW				IAmb	IAmb	14 11 01.0	
	comp=Z,35nm,1.4s						
CASY	**Casey**	**61.06**	**206**	P	P	**14 10 59.3**	**-0.7**
QSPA	**South Pole Qui**	**67.14**	**180**	P	P	**14 11 40.0**	**+1.3**
	comp=Z,1.3nm,0.6s,baz=35,slow=0.7,SNR=14						
	comp=Z,1.3nm,0.6s						
QSPA	**South Pole Qui**	**67.14**	**180**	P	P	**14 11 40.0**	**+1.3**
SIT	**Sitka**	**87.99**	**23**	P	P	**14 13 30.3**	**-0.1**
HFS	**Hagfors**	**141.65**	**349**	PKP	**PKPdf**	**14 20 06.6**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=72,slow=4.7,SNR=6.0						

*NEIC **10** 14:10:35.6±1.9, 15.83°S±0.08°×167.96°E±0.09, h142km±5km, mb4.5/32, Error ellipse: s-maj=12.0km s-min=11.3km az=79.0*
*IDC **10** 14:10:36.3±2.8, 15.88°S×167.89°E, h156km±23km, mb3.8/12, mbtmp4.3/14, MS2.8/1, Error ellipse: s-maj=27.5km s-min=14.6km az=81.0*
*NOU **10** 14:10:36.9, 15.86°S×167.72°E, h129km, MLv5.1/12, Vanuatu Islands*

ISC 10 14:10:35.7±0.6, 15.81°S±0.06°×167.92°E±0.09, h150km, n65, σ0s91/63, mb4.4/25, 3C-1D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.78**	**297**	P	**Pn**	**14 10 58.3**	**-0.5**
SANVU	**Saraoutou**	**0.78**	**297**	S	**Sn**	**14 11 13.9**	**-2.4**
SANVU	**Saraoutou**	**0.78**	**297**		**Pn**	**14 10 57.9**	**-0.8**
DVP	**Devils Point**	**1.92**	**172**	P	**Pn**	**14 11 09.7**	**-0.2**
DVP	**Devils Point**	**1.92**	**172**	P	**Sn**	**14 11 35.5**	**-0.8**
RTV	**Rentapao**	**2.03**	**166**	P	**Pn**	**14 11 10.7**	**-0.5**
RTV	**Rentapao**	**2.03**	**166**	P	**Sn**	**14 11 38.1**	**-0.4**
MARNC	**Mare, Loyalty**	**5.64**	**179**	Pn	**Pn**	**14 11 56.4**	**-1.3**
KOUNC	**Koumac, New Ca**	**5.84**	**216**		**Pn**	**14 12 00.5**	**+0.2**
DZM	**Mont Dzumac**	**6.38**	**192**	P	**Pn**	**14 12 07.7**	**+0.1**
	45nm,0.3s,baz=39,slow=9.1,SNR=247						
DZM				S	**Sn**	**14 13 18.0**	**-1.6**
	23nm,0.5s,baz=140,slow=21,SNR=5.6						
DZM				LR	LR	14 13 39.8	
	comp=Z,85nm,19.9s,baz=198,slow=29						
ONTNC	**Ouen Toro**	**6.61**	**192**		**Pn**	**14 12 10.8**	**+0.2**
OUENC	**Ouen Island, N**	**6.65**	**189**		**Pn**	**14 12 11.5**	**+0.4**
PINNC	**Pines Island,**	**6.78**	**184**		**Pn**	**14 12 13.1**	**+0.3**
HNR	**Honiara**	**10.04**	**308**	P	**Pn**	**14 12 59.0**	**+2.7**
	72nm,0.5s,baz=296,slow=3.9,SNR=7.7						
LHI	**Lord Howe Isla**	**17.60**	**206**	P	**Pn**	**14 14 31.1**	**-0.6**
LHI				IAmb	IAmb	14 15 14.9	
	comp=Z,31nm,1.0s						
EIDS	**Eidsvold**	**18.39**	**236**	P	**P**	**14 14 39.9**	**+0.6**
ARMA	**Armidale**	**20.84**	**223**	P	**P**	**14 15 06.9**	**+1.1**
ARMA				IAmb	IAmb	14 15 09.3	
	comp=Z,15nm,1.4s						
TOZ	**Tahuroa Road**	**22.84**	**164**	P	**P**	**14 15 26.6**	**+0.7**
TOZ				IAmb	IAmb	14 15 41.9	
	comp=Z,33nm,1.5s						
RTZ	**Ruatahuna**	**24.07**	**162**	P	**P**	**14 15 37.8**	**+0.5**
TUWZ	**Tuamarina**	**26.05**	**170**	P	**P**	**14 15 55.9**	**+0.8**
THZ	**Tophouse**	**26.22**	**172**	P	**P**	**14 15 57.2**	**+0.6**
LTZ	**Lake Taylor**	**27.14**	**173**	P	**P**	**14 16 05.6**	**+0.8**
LTZ				IAmb	IAmb	14 16 05.7	
	comp=Z,12nm,0.7s						
STKA	**Stephens Creek**	**28.80**	**232**	P	**P**	**14 16 19.8**	**+0.1**
	comp=Z,4.2nm,0.7s,baz=61,slow=9.0,SNR=7.0						
	comp=Z,4.2nm,0.7s						
STKA	**Stephens Creek**	**28.80**	**232**	P	**P**	**14 16 20.0**	**+0.3**
TOO	**Toolangi**	**29.38**	**218**	P	**P**	**14 16 25.4**	**+0.6**
WR8	**Warramunga Arr**	**32.04**	**258**	P	**P**	**14 16 47.1**	**-1.3**
WR8				IAmb	IAmb	14 17 04.1	
	comp=Z,9.6nm,1.4s						
WB0	**Warramunga Arr**	**32.13**	**258**	P	**P**	**14 16 47.8**	**-1.5**
WRAB	**Tennant Creek**	**32.18**	**258**	P	**P**	**14 16 48.7**	**-0.9**
WRAB				IAmb	IAmb	14 17 16.4	
	comp=Z,7.5nm,1.5s						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**32.19**	**258**	P	**P**	**14 16 48.1**	**-1.7**
	comp=Z,0.2nm,0.4s,baz=82,slow=7.9,SNR=6.6						
	comp=Z,0.2nm,0.4s						
WRA	**Warramunga Arr**	**32.19**	**258**	P	**P**	**14 16 47.9**	**-1.8**
AS31	**Alice Springs**	**32.89**	**251**		**P**	**14 16 54.9**	**-0.9**
ASAR	**Alice Springs**	**32.90**	**251**	P	**P**	**14 16 55.0**	**-0.9**
	comp=Z,1.4nm,0.4s,baz=78,slow=8.6,SNR=36						
	comp=Z,1.4nm,0.4s						
ASAR	**Alice Springs**	**32.90**	**251**	P	**P**	**14 16 55.2**	**-0.6**
BBOO	**Buckleboo**	**33.43**	**234**	P	**P**	**14 17 00.3**	**-0.1**
FAKI	**Fak Fak**	**37.37**	**286**	P	**P**	**14 17 33.6**	**-0.7**
FAKI				IAmb	IAmb	14 17 39.7	
	comp=Z,6.7nm,1.0s						
KNRA	**Kununurra**	**37.65**	**265**	P	**P**	**14 17 35.6**	**-1.0**
FORT	**Forrest**	**39.30**	**241**	P	**P**	**14 17 50.2**	**0.0**
FORT				IAmb	IAmb	14 17 51.8	
	comp=Z,20nm,1.3s						
FITZ	**Fitzroy Crossi**	**40.45**	**261**	P	**P**	**14 17 59.5**	**-0.3**
JGF	**Kuroka**	**58.76**	**331**	P	**P**	**14 20 18.4**	**+0.2**
JGF				IAmb	IAmb	14 20 49.8	
	comp=Z,13nm,1.2s						
MJAR	**Matsushiro Arr**	**59.15**	**332**	P	**P**	**14 20 19.3**	**-1.4**
	comp=Z,5.7nm,1.1s,baz=172,slow=8.4,SNR=6.6						
	comp=Z,5.7nm,1.1s						
MJAR	**Matsushiro Arr**	**59.15**	**332**	P	**P**	**14 20 20.5**	**-0.3**
MJAR				IAmb	IAmb	14 20 48.5	
	comp=Z,9.4nm,1.5s						
MAJO	**Matsushiro**	**59.15**	**332**	P	**P**	**14 20 20.5**	**-0.3**
MJB9	**Matsu-Tunnel**	**59.16**	**332**	P	**P**	**14 20 21.2**	**+0.4**
TPUB	**Ta-pu**	**60.41**	**309**	P	**P**	**14 20 29.4**	**-0.2**
SBA	**Scott Base**	**62.06**	**180**	P	**P**	**14 20 41.1**	**+1.3**
SBA				IAmb	IAmb	14 20 42.2	
	comp=Z,7.2nm,0.8s						
CASY	**Casey**	**62.77**	**203**	P	**P**	**14 20 44.5**	**-0.3**
CASY				IAmb	IAmb	14 21 00.5	
	comp=Z,4.1nm,1.2s						
KSRS	**Korea Array**	**64.98**	**326**	P	**P**	**14 20 59.8**	**+0.2**
	comp=Z,1.2nm,0.8s,baz=148,slow=7.4,SNR=5.9						
	comp=Z,1.2nm,0.8s						
USRK	**Ussuriysk Ar.**	**68.13**	**333**	P	**P**	**14 21 20.3**	**+0.9**
	comp=Z,4.2nm,0.7s,baz=120,slow=6.9,SNR=5.9						
	comp=Z,4.2nm,0.7s						
IPM	**Ipoh**	**69.17**	**281**	P	**P**	**14 21 26.1**	**-0.4**
IPM				IAmb	IAmb	14 21 46.1	
	comp=Z,9.2nm,1.3s						
QSPA	**South Pole Qui**	**74.22**	**180**	P	**P**	**14 21 56.3**	**+0.3**
	comp=Z,1.1nm,0.9s,baz=351,slow=1.3,SNR=54						
	comp=Z,1.1nm,0.9s						
QSPA	**South Pole Qui**	**74.22**	**180**	P	**P**	**14 21 56.0**	**0.0**
QSPA				IAmb	IAmb	14 21 57.2	
	comp=Z,9.8nm,0.8s						
CMAR	**Chiang Mai Arr**	**75.96**	**294**	P	**P**	**14 22 07.5**	**+0.8**
	comp=Z,0.4nm,0.3s,baz=133,slow=5.0,SNR=4.8						
	comp=Z,0.4nm,0.3s						
ULN	**Ulaanbaatar**	**83.38**	**324**		**P**	**14 22 46.8**	**+0.6**
ULN				IAmb	IAmb	14 22 47.8	
	comp=Z,5.2nm,0.8s						
SONM	**Songino Array**	**83.73**	**323**	P	**P**	**14 22 48.5**	**+0.5**
	comp=Z,2.2nm,1.0s,baz=142,slow=7.9,SNR=8.6						
	comp=Z,2.2nm,1.0s						
SONM	**Songino Array**	**83.73**	**323**	IAmb	IAmb	14 22 49.5	
	comp=Z,4.8nm,1.2s						
FORD	**Fort Ord Natur**	**84.27**	**50**	P	**P**	**14 22 50.8**	**0.0**
ILAR	**Eielson Array**	**87.36**	**18**	P	**P**	**14 23 04.3**	**-1.0**
	comp=Z,0.4nm,0.6s,baz=234,slow=4.7,SNR=5.0						
	comp=Z,0.4nm,0.6s						
ELIB	**Princess Elisa**	**89.27**	**190**	*d*P	**P**	**14 23 14.3**	**-0.3**
	comp=Z,2.0nm,1.1s						
TROLL	**Troll, Antarti**	**91.84**	**184**	⇑P	**P**	**14 23 26.2**	**-0.3**
	comp=Z,297nm,0.7s						
SNAA	**Sanae**	**92.51**	**183**	P	**P**	**14 23 28.3**	**-1.3**
	comp=Z,2.1nm,0.7s,baz=218,slow=3.9,SNR=4.3						
	comp=Z,2.1nm,0.7s						
SNAA	**Sanae**	**92.51**	**183**	IAmb	IAmb	14 23 29.7	
	comp=Z,3.3nm,0.9s						
VNA3	**Neumayer Olymp**	**93.15**	**181**	⇑P	**P**	**14 23 31.5**	**-1.0**
	comp=Z,4.0nm,0.6s						
VNA2	**Neumayer--Watz**	**93.42**	**182**	⇑P	**P**	**14 23 32.9**	**-0.8**
	comp=Z,4.3nm,0.4s,baz=178,slow=3.7						
MKAR	**Makanchi Array**	**98.42**	**316**	P	Pdif	14 23 57.9	+1.2
	comp=Z,0.3nm,0.7s,baz=94,slow=5.8,SNR=3.6						
	comp=Z,0.3nm,0.7s						
CLL	**Collm**	**139.29**	**336**	*i* PKPdf	**PKPdf**	**14 29 45.2**	**+0.3**

*CATAC **10** 14:14:28.4±0.4, 13°N±2°×9°0W±°, h22km±2km, M3.6/27, MLv3.6/27, Error ellipse: s-maj=5.1km s-min=3.3km az=40.7, confirmed*
*SNET **10** 14:14:29.0±0.7, 13.08N×89.59W, h33km±12km, ML3.5, Presumed earthquake*
*GCG **10** 14:14:30.0±0.8, 13.19N×89.64W, h32km±5km, MD4.1, Presumed earthquake*

ISC 10 14:14:29.4±1.4, 13.09N±0.05°×89.59W±0.04, h29km±11km, n65, σ0s62/95, 8C-2D, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LALI	**Alcalda de L**	**0.47**	**33**	P	**Pn**	**14 14 39.6**	**-0.6**
LALI				S	**Sn**	**14 14 47.1**	**-0.4**
LALI	**Alcalda de L**	**0.47**	**33**	*i* P	**Pn**	**14 14 39.6**	**-0.6**
LALI				*i* S	**Sb**	**14 14 46.1**	**0.0**
LALI	**Alcalda de L**	**0.47**	**33**	⇑*i*P	**Pn**	**14 14 39.6**	**-0.6**
LALI				*e*S	**Sn**	**14 14 47.0**	**-0.5**
PANCS	**Alcalda de**	**0.65**	**37**	P	**Pn**	**14 14 42.3**	**-0.4**
PANCS				S	**Sn**	**14 14 52.0**	**-0.1**
PANCS	**Alcalda de**	**0.65**	**37**	*e*P	**Pb**	**14 14 42.0**	**-0.3**
PMON	**Piamonte**	**0.67**	**23**	P	**Pb**	**14 14 42.7**	**0.0**
PMON				S	**Sn**	**14 14 53.3**	**+0.6**
PMON	**Piamonte**	**0.67**	**23**	*e*P	**Pn**	**14 14 42.5**	**-0.6**
LOMA	**Loma Larga**	**0.68**	**36**	P	**Pn**	**14 14 42.8**	**-0.4**
LOMA	**Loma Larga**	**0.68**	**36**	⇑*e*P	**Pn**	**14 14 42.8**	**-0.4**
LOMA				*e*S	**Sn**	**14 14 53.2**	**+0.3**
SEMO	**Seminario San**	**0.70**	**30**	P	**Pb**	**14 14 43.3**	**+0.1**
SEMO				S	**Sn**	**14 14 53.8**	**+0.4**
BOQS	**Boqueron**	**0.70**	**25**	⇑*e*P	**Pb**	**14 14 43.3**	**-0.1**
UEES	**Universidad Ev**	**0.70**	**28**	P	**Pn**	**14 14 43.2**	**-0.4**
UEES				S	**Sn**	**14 14 53.8**	**+0.4**
UEES	**Universidad Ev**	**0.70**	**28**	⇑*e*P	**Pn**	**14 14 43.1**	**-0.4**
UTEC	**Universidad Te**	**0.71**	**32**	P	**Pb**	**14 14 43.3**	**-0.1**
UTEC				S	**Sn**	**14 14 54.0**	**+0.5**
PIC2	**El Picacho**	**0.72**	**26**	*e*P	**Pb**	**14 14 43.7**	**0.0**
CEDA	**San Andres**	**0.73**	**15**	P	**Pb**	**14 14 43.6**	**-0.1**
CEDA				S	**Sn**	**14 14 54.6**	**+0.5**
CEDA	**San Andres**	**0.73**	**15**	⇑*e*P	**Pb**	**14 14 43.5**	**-0.2**
CEVE	**Cerro Verde**	**0.73**	**357**	P	**Pb**	**14 14 43.9**	**+0.1**
CEVE				S	**Sn**	**14 14 54.9**	**+0.6**
CEVE	**Cerro Verde**	**0.73**	**357**	⇑*e*P	**Pb**	**14 14 43.9**	**+0.1**
LFRS	**El Faro**	**0.73**	**44**	⇓*i*P	**Pb**	**14 14 43.6**	**-0.2**
LFRS				*e*S	**Sn**	**14 14 53.8**	**-0.4**
SBLS	**San Blas**	**0.74**	**357**	*e*P	**Pb**	**14 14 43.9**	**-0.1**
SNJE	**San Jose**	**0.77**	**358**	*e*P	**Pn**	**14 14 44.2**	**-0.4**
LFU	**La Fuente**	**0.80**	**35**	⇑*e*P	**Pb**	**14 14 44.6**	**-0.2**
RTR	**El Retiro**	**0.80**	**356**	*e*P	**Pb**	**14 14 44.8**	**-0.2**
NUBE	**Las Nubes**	**0.83**	**347**	P	**Pn**	**14 14 44.6**	**-0.7**
NUBE	**Las Nubes**	**0.83**	**347**	*i* P	**Pn**	**14 14 44.1**	**-1.2**
NUBE				*i* S	**Sn**	**14 14 55.5**	**-1.1**
NUBE	**Las Nubes**	**0.83**	**347**	⇓*e*P	**Pn**	**14 14 44.6**	**-0.7**
NUBE				*e*S	**Sn**	**14 14 56.1**	**-0.5**
FAME	**Alcaldia de Sa**	**0.85**	**331**	P	**Pn**	**14 14 44.8**	**-0.7**
FAME				S	**Sn**	**14 14 56.2**	**-0.9**
UNIC	**Universidad Ca**	**0.88**	**2**	P	**Pb**	**14 14 45.9**	**-0.4**
UNIC				S	**Sb**	**14 14 58.7**	**+0.9**
TECO	**Alcaldia de Te**	**0.90**	**60**	P	**Pn**	**14 14 45.3**	**-0.9**
TECO				S	**Sb**	**14 14 58.3**	**+0.1**
TECO	**Alcaldia de Te**	**0.90**	**60**	*e*P	**Pn**	**14 14 45.2**	**-0.9**
LOAL	**Lomas de Alarc**	**0.92**	**348**	P	**Pn**	**14 14 46.0**	**-0.4**
LOAL				S	**Sb**	**14 14 60.0**	**+1.2**
SLOZ	**Alcaldia de Sa**	**0.95**	**348**	*e*P	**Pn**	**14 14 46.4**	**-0.4**
ALJI	**Alcalda de J**	**1.01**	**77**	P	**Pn**	**14 14 47.3**	**-0.4**
ALJI				S	**Sb**	**14 15 01.3**	**-0.1**
ALJI	**Alcalda de J**	**1.01**	**77**	*e*P	**Pn**	**14 14 47.1**	**-0.6**
RBDL	**Robledal**	**1.02**	**354**	*e*P	**Pn**	**14 14 47.9**	**-0.1**
SCLA	**Alcaldia de Sa**	**1.03**	**54**	P	**Pn**	**14 14 48.0**	**+0.1**
SCLA				S	**Sb**	**14 15 02.8**	**+0.9**
TECA	**Tecapa**	**1.13**	**69**	*e*P	**Pn**	**14 14 48.7**	**-0.7**
P5NO	**Presa 5 de nov**	**1.20**	**42**	P	**Pn**	**14 14 50.0**	**-0.2**
P5NO				S	**Sb**	**14 15 07.0**	**+0.3**
PACA	**Pacayal**	**1.28**	**73**	P	**Pn**	**14 14 51.3**	**-0.2**
PACA				S	**Sb**	**14 15 09.0**	**-0.3**
PACA	**Pacayal**	**1.28**	**73**	*e*P	**Pn**	**14 14 51.4**	**-0.2**
RANC	**El Ranchito**	**1.31**	**75**	P	**Pn**	**14 14 51.7**	**-0.2**
RANC				S	**Sb**	**14 15 09.4**	**-0.6**
RANC	**El Ranchito**	**1.31**	**75**	*e*P	**Pn**	**14 14 51.7**	**-0.2**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JUCU	**Jucuarɲn**	**1.31**	**83**	*e*P	**Pn**	**14 14 51.4**	**-0.4**
ESQI	**Esquipulas**	**1.48**	**9**	P	**Pn**	**14 14 54.5**	**+0.3**
ESQI				S	**Sb**	**14 15 14.0**	**-0.8**
INTP	**Intipuca**	**1.49**	**86**	*e*P	**Pn**	**14 14 53.7**	**-0.6**
LCND	**La Caada**	**1.66**	**82**	P	**Pn**	**14 14 56.7**	**0.0**
LCND	**La Caada**	**1.66**	**82**	⇑*e*P	**Pn**	**14 14 56.9**	**+0.2**
CNCH	**Conchagua**	**1.71**	**84**	P	**Pn**	**14 14 57.1**	**-0.4**
CNCH				S	**Sn**	**14 15 19.2**	**+0.8**
CNCH	**Conchagua**	**1.71**	**84**	*e*P	**Pn**	**14 14 57.0**	**-0.5**
SARH	**Santa Rosa de**	**1.85**	**25**	P	**Pn**	**14 14 59.7**	**+0.4**
SARH				S	**Sn**	**14 15 23.1**	**+1.3**
SARH	**Santa Rosa de**	**1.85**	**25**	*i* P	**Pn**	**14 14 58.8**	**-0.5**
CSGN	**Cosiguina Volc**	**1.98**	**93**	P	**Pn**	**14 15 01.3**	**+0.3**
CSGN				S	**Sn**	**14 15 25.6**	**+0.8**
APG	**El Apazote**	**2.08**	**336**	*e*P	**Pn**	**14 15 04.2**	**+1.6**
STG8	**El Palmar, Qui**	**2.18**	**308**	*i* P	**Pb**	**14 15 08.2**	**-0.2**
TGUH	**Tegucigalpa,Un**	**2.44**	**67**	P	**Pn**	**14 15 07.3**	**-0.2**
CRIN	**San Cristobal**	**2.50**	**99**	S	**Sn**	**14 15 39.0**	**+1.1**
PKGN	**Cerro Pekin**	**2.58**	**99**	P	**Pn**	**14 15 08.3**	**-0.9**
PKGN				S	**Sn**	**14 15 38.9**	**-0.7**
QUEN	**Al S del Volca**	**2.71**	**100**	P	**Pn**	**14 15 10.8**	**-0.3**
QUEN				S	**Sn**	**14 15 42.0**	**-1.0**
PLRN	**Geotermica Pol**	**2.79**	**100**	P	**Pn**	**14 15 11.6**	**-0.6**
ILCN	**San Idelfonso**	**2.86**	**100**	P	**Pn**	**14 15 12.5**	**-0.5**
CNGA	**Al SSO del Vol**	**2.87**	**102**	S	**Sn**	**14 15 47.1**	**+0.1**
CNGN	**Cerro Negro**	**2.88**	**101**	P	**Pn**	**14 15 14.4**	**+1.0**
LEVN	**Ruinas Leon Vi**	**2.98**	**103**	S	**Sn**	**14 15 51.8**	**+2.4**
LIMN	**Finca el Limon**	**3.14**	**90**	P	**Pn**	**14 15 16.5**	**-0.5**
LIMN				S	**Sn**	**14 15 53.4**	**-0.1**

*CATAC **10** 14:19:47.8±0.8, 10°N±4°×8°7W±°, h5km±5km, M3.4/7, MLv3.4/7, Error ellipse: s-maj=9.7km s-min=6.8km az=30.9, confirmed*
*UCR **10** 14:19:51.2±1.1, 10.74N×86.55W, h22km±11km, MW4.0, Presumed earthquake*

ISC 10 14:19:54.0±2.0, 10.54N±0.07°×86.46W±0.09, h34km±3km, n29, σ1s38/33, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LCRUZ	**La Cruz**	**0.97**	**56**	*e*P	**Pn**	**14 20 09.8**	**-1.5**
LAPC	**Finca la Perla**	**1.03**	**77**	*e*P	**Pn**	**14 20 10.0**	**-2.1**
LAPC				*e*S	**Sb**	**14 20 25.3**	**-1.4**
NICO	**Nicoya**	**1.07**	**112**	*e*P	**Pb**	**14 20 17.1**	**+3.0**
VRLE	**La Escondida,**	**1.10**	**77**	*e*P	**Pn**	**14 20 11.6**	**-1.6**
GPS2	**Hotel Rincn d**	**1.11**	**79**	*e*P	**Pn**	**14 20 12.7**	**-0.4**
CARN	**Rivas**	**1.12**	**55**	P	**Pn**	**14 20 12.8**	**-0.5**
CARN				S	**Sn**	**14 20 30.4**	**+2.8**
CARN	**Rivas**	**1.12**	**55**	*e*P	**Pn**	**14 20 12.6**	**-0.7**
CARN				*e*S	**Sn**	**14 20 29.0**	**+1.5**
VORI	**VORI**	**1.13**	**76**	*e*P	**Pn**	**14 20 13.0**	**-0.5**
CMARA	**Lajas Hojancha**	**1.14**	**117**	S	**Sn**	**14 20 27.7**	**-0.5**
CMARA	**Lajas Hojancha**	**1.14**	**117**	*e*P	**Pb**	**14 20 16.3**	**+1.0**
BUAI	**Buenos Aires**	**1.16**	**73**	*e*P	**Pn**	**14 20 13.1**	**-0.7**
PEJA	**Penjamo Buenos**	**1.18**	**72**	*e*P	**Pb**	**14 20 14.3**	**-1.6**
MESS	**Mesas**	**1.26**	**81**	*e*P	**Pn**	**14 20 14.0**	**-1.2**
HORNC	**Hornillas**	**1.27**	**82**	*e*P	**Pn**	**14 20 15.0**	**-0.4**
MORN	**Al O del Volca**	**1.28**	**38**	P	**Pn**	**14 20 14.9**	**-0.6**
CLARA	**Aguas Claras**	**1.28**	**79**	*e*P	**Pn**	**14 20 15.2**	**-0.4**
NYURE	**Nandayure**	**1.30**	**114**	*e*P	**Pb**	**14 20 16.9**	**-1.1**

MOS ***10*** *14:37:37.0±1.2,38˚.75N×70˚.44E,h13km,mb5.4/55, MS4.6/27,Error ellipse: s-maj=3.9km s-min=3.0km az=72.7*

IDC ***10*** *14:37:39.5±2.1,38˚.85N×70˚.51E,h20km±13km,mb4.8/39, mbtmp5.0/46,ML4.8/7,MS4.4/68,Error ellipse: s-maj=10.7km s-min=7.5km az=4.0*

NEIC ***10*** *14:37:39.7±1.5,38˚.89N±0˚.06×70˚.51E±0˚.08,h19km±3km, mb5.4/307,Mww4.9/10,Error ellipse: s-maj=10.5km s-min=7.2km az=141.0*

GFZ ***10*** *14:37:41.0±0.1,39˚N±3˚×7˚1E±˚,h23km,M5.2/146, mb5.3/146,Mw4.7/79*

GCMT ***10*** *14:37:42.5±0.2,38˚.82N±0˚.01×70˚.44E±0˚.02,h24km, MW5.0/107,Moment Tensor Solution. s39,c47; s107,c174; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr0.16±.11; Mθθ-1.13±.07; Mϕϕ0.97±.07; Mrθ3.63±.09; Mθϕ0.70±.05; Mϕr0.49±.10; Best double couple: Mo3.83000×10¹⁶ NP1:ϕs337.00000°,δ16.00000°, λ168.00000°. NP2:ϕs79.00000°,δ87.00000°,λ74.00000°. Principal axes: T 3.4790, Plg46.0000°, Azm333.0000°; N 0.7060, Plg16.0000°, Azm80.0000°; P -4.1810, Plg40.0000°, Azm183.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

KRNET ***10*** *14:37:44.9±0.1,39˚.15N×70˚.82E,mb5.8*

NNC ***10*** *14:37:46.3±13.0,39˚.31N×70.54E,h16km±65km,mb6.0, mpv6.3,Error ellipse: s-maj=65.4km s-min=14.9km az=13.0*

ISC 10 14:37:39.5±0.3,38˚.89N±0˚.02×70˚.48E±0˚.02,h20km±1km, h20km:pP-P,n1194,σ1s70/1171,mb5.3/508,MS4.5/103, 75C-48D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		ISC	h m s ISC
DRK	**Karamyk**	**1.18**	**60**	⇓*eP*		**Pn**	**14 38 00.7 -0.6**
DRK				⇓*eS*		**Sb**	**14 38 12.3 -4.2**
DRK	**Karamyk**	**1.18**	**60**	PG		**Pn**	**14 38 01.7 +0.2**
DRK	**Karamyk**	**1.18**	**60**			**Pb**	**14 38 01.7 +0.2**
OHH	**Osh**	**2.41**	**47**	⇓*iP*		**Pb**	**14 38 20.5 -1.8**
OHH				⇓*iS*		**Sn**	**14 38 46.7 -0.3**
OHH	**Osh**	**2.41**	**47**	*i* PN		**Pb**	**14 38 21.0 -1.3**
OHH				*i* S		**Sb**	**14 38 53.3 +1.6**
SFK	**Sufi-Kurgan**	**2.59**	**63**	⇑*iP*		**Pb**	**14 38 23.5 -2.0**
SFK				⇑*iS*		**Sn**	**14 38 51.6 -0.1**
SFK	**Sufi-Kurgan**	**2.59**	**63**	*i* PN		**Pb**	**14 38 24.0 -1.5**
SFK				*i* S		**Sb**	**14 38 58.1 +1.0**
TRKS	**Terek-Say**	**2.68**	**11**	⇑*iP*		**Pb**	**14 38 24.5 -2.5**
TRKS				⇑*iS*		**Sn**	**14 38 53.7 -0.1**
TRKS	**Terek-Say**	**2.68**	**11**	*i* PN		**Pn**	**14 38 23.4 +1.6**
TRKS				*i* S		**Sb**	**14 38 57.3 -2.3**
ARSB	**Arslanbob**	**3.10**	**38**	⇓*iP*		**Pn**	**14 38 30.3 +2.9**
ARSB				⇓*iS*		**Sn**	**14 39 03.2 -0.8**
ARSB	**Arslanbob**	**3.10**	**38**	*i* PN		**Pn**	**14 38 30.3 +2.9**
ARSB				*i* S		**Sb**	**14 39 09.5 -1.9**
ARSB	**Arslanbob**	**3.10**	**38**			**Pn**	**14 38 28.9 +1.4**
SALK	**Salom-Alik**	**3.25**	**51**	⇓*iP*		**Pn**	**14 38 32.4 +2.8**
SALK				⇓*iS*		**Sn**	**14 39 06.5 -1.3**
SALK	**Salom-Alik**	**3.25**	**51**	*i* PN		**Pn**	**14 38 32.9 +3.3**
SALK				*i* S		**Sb**	**14 39 13.6 -2.3**
IUG	**Iuzhnay**	**3.27**	**354**	*e*PN		**Pb**	**14 38 34.3 -2.6**
IUG				*e*			14 38 39.5
IUG	**Iuzhnay**	**3.27**	**354**	*e*Pn		**Pb**	**14 38 34.4 -2.6**
IUG				*e*Pg		**Pg**	**14 38 39.6 -2.6**
IUG				*e*Lg		Lg	14 39 22.9
IUG	**Iuzhnay**	**3.27**	**354**	*e*P		**Pb**	**14 38 34.6 -2.4**
	6μm,0.4s						
IUG				*e*S		**Sg**	**14 39 25.4 +0.8**
	41μm,0.9s						
CHM	**Chimkent**	**3.49**	**349**	*e*PN		**Pb**	**14 38 37.4 -3.2**
CHM				*e*			14 38 44.0
CHM	**Chimkent**	**3.49**	**349**	*e*Pn		**Pb**	**14 38 37.4 -3.2**
CHM				*e*Pg		**Pg**	**14 38 44.0 -2.3**
CHM	**Chimkent**	**3.49**	**349**	*e*P		**Pb**	**14 38 37.6 -3.0**
	2μm,0.4s						
CHM				*e*S		**Sg**	**14 39 32.3 +0.7**
	29μm,0.8s						
MNAS	**Manas**	**3.91**	**23**	⇓*iP*		**Pn**	**14 38 42.1 +3.5**
MNAS				⇓*iS*		**Sn**	**14 39 23.4 -0.6**
MNAS	**Manas**	**3.91**	**23**	*i* PN		**Pn**	**14 38 41.5 +2.9**
MNAS				*i* S		**Sn**	**14 39 28.7 +4.7**
KSH2	**Kashi**	**3.97**	**85**	Pn		**Pn**	**14 38 41.6 +2.1**
KSH2				Sn		**Sn**	**14 39 30.4 +4.9**
KSH2				AML		AML	
	8μm,1.2s						
KSH2				AML		AML	
	5μm,0.9s						
DZA	**Taraz**	**4.05**	**9**	*e*PN		**Pn**	**14 38 44.8 +4.4**
DZA				*e*			14 38 53.4
DZA	**Taraz**	**4.05**	**9**	*e*Pn		**Pn**	**14 38 44.8 +4.4**
DZA				*e*Pg		**Pb**	**14 38 53.5 +3.3**
DZA				*e*Lg		Lg	14 39 46.6
DZA	**Taraz**	**4.05**	**9**	*e*P		**Pn**	**14 38 45.1 +4.7**
	10μm,0.5s						
DZA				*e*S		**Sg**	**14 39 48.0 -1.5**
	17μm,0.8s						
BRLS	**Borolday**	**4.16**	**353**	*e*PN		**Pn**	**14 38 41.6 -0.4**
BRLS	**Borolday**	**4.16**	**353**	*e*Pn		**Pn**	**14 38 41.6 -0.4**
BRLS				*e*Pg		**Pb**	**14 38 52.0 -0.1**
BRLS				*e*Lg		Lg	14 39 44.1
BRLS	**Borolday**	**4.16**	**353**	*e*P		**Pn**	**14 38 41.8 -0.2**
	628nm,0.5s						
BRLS				*e*S		**Sb**	**14 39 45.4 +3.4**
	6μm,0.5s						
KK31	**Karatay Array**	**4.21**	**0**	⇓Pn		**Pn**	**14 38 46.0 +3.4**
	956nm,0.4s,baz=182,slow=13,SNR=9760						
KK31				Lg		Lg	14 39 46.7
	14μm,0.7s,baz=176,slow=28,SNR=42						
KK31	**Karatay Array**	**4.21**	**0**	PN		**Pn**	**14 38 45.9 +3.3**
KK31							14 39 53.5
KK31	**Karatay Array**	**4.21**	**0**			**Pn**	**14 38 45.6 +3.0**
KKAR	**Karatay Array**	**4.21**	**0**	PN		**Pn**	**14 38 45.7 +3.1**
KKAR	**Karatay Array**	**4.21**	**0**			**Pn**	**14 38 45.6 +3.1**
MRKS	**Merke**	**4.38**	**28**	*e*P		**Pn**	**14 38 48.7 +3.7**
	2μm,0.6s						
MRKS				*e*S		**Sg**	**14 39 56.5 -3.6**
	4μm,0.7s						
KBL	**Kabul**	**4.49**	**195**	P		**Pn**	**14 38 50.5 +3.8**
	SNR=392						
KBL				S		**Sn**	**14 39 38.4 -0.1**
KBL	**Kabul**	**4.49**	**195**	PN		**Pn**	**14 38 48.2 +1.5**
KBL	**Kabul**	**4.49**	**195**			**Pn**	**14 38 48.2 +1.5**
EKS2	**Erkin-Say**	**4.52**	**33**	P		**Pn**	**14 38 50.0 +3.0**
	SNR=1409						
EKS2	**Erkin-Say**	**4.52**	**33**	⇑*iP*		**Pn**	**14 38 49.8 +2.8**
EKS2				⇑*iS*		**Sn**	**14 39 37.3 -1.8**
EKS2	**Erkin-Say**	**4.52**	**33**	*i* PN		**Pn**	**14 38 50.1 +3.1**
UCH	**Uchtor**	**4.53**	**41**	P		**Pn**	**14 38 50.4 +2.9**
	SNR=145						
UCH	**Uchtor**	**4.53**	**41**	⇑*iP*		**Pn**	**14 38 50.1 +2.6**
UCH				⇑*iS*		**Sn**	**14 39 37.8 -2.0**
UCH	**Uchtor**	**4.53**	**41**	*i* PN		**Pn**	**14 38 50.8 +3.3**
AAK	**Ala-Archa**	**4.83**	**38**	Pn		**Pn**	**14 38 54.6 +3.4**
	700nm,0.3s,baz=200,slow=5.8,SNR=517						
AAK				Sn		**Sn**	**14 39 53.8 +7.2**
	280nm,0.3s,baz=174,slow=16,SNR=5.4						
AAK				Lg		Lg	14 40 11.7
	224nm,0.3s,baz=72,slow=8.7,SNR=8.0						
AAK				LR		LR	14 41 10.9
	comp=Z,6μm,22.0s,baz=206,slow=44						
AAK	**Ala-Archa**	**4.83**	**38**	P		**Pn**	**14 38 55.5 +4.3**
	SNR=1409						
AAK	**Ala-Archa**	**4.83**	**38**	⇑Pn		**Pn**	**14 38 54.6 +3.4**
	8μm,0.5s						
AAK				⇑Lg		Lg	14 40 07.0
	7μm,0.8s						
AAK	**Ala-Archa**	**4.83**	**38**	P		**Pn**	**14 38 55.9 +4.7**
AAK				S		**Sb**	**14 39 54.4 -6.8**
AAK	**Ala-Archa**	**4.83**	**38**	⇑*iP*		**Pn**	**14 38 54.0 +2.8**
AAK				⇑*iS*		**Sn**	**14 39 44.6 -2.0**
AAK	**Ala-Archa**	**4.83**	**38**	PN		**Pn**	**14 38 55.5 +4.3**
AAK							14 39 56.8
AAK							14 40 11.7
NRN	**Naryn**	**4.93**	**57**	⇑*iP*		**Pn**	**14 38 55.6 +2.8**
NRN				⇑*iS*		**Sn**	**14 39 46.5 -3.0**
NRN	**Naryn**	**4.93**	**57**	*i* PN		**Pn**	**14 38 55.6 +2.8**
NRN				*i* S		**Sn**	**14 39 53.6 +4.1**
NRN	**Naryn**	**4.93**	**57**			**Pn**	**14 38 52.5 -0.4**
FRU1	**Bishkek**	**5.02**	**37**	⇓*iP*		**Pn**	**14 38 56.8 +3.0**
FRU1				⇓*iS*		**Sn**	**14 39 48.9 -2.4**
FRU1	**Bishkek**	**5.02**	**37**	*i* PN		**Pn**	**14 38 57.3 +3.5**
FRU1				*i* S		**Sn**	**14 39 56.0 +4.7**
FRU1	**Bishkek**	**5.02**	**37**			**Pn**	**14 38 54.7 +0.9**
KBK	**Karagaybulak**	**5.07**	**41**	P		**Pn**	**14 38 58.0 +3.5**
	SNR=924						
KBK	**Karagaybulak**	**5.07**	**41**	⇑*iP*		**Pn**	**14 38 57.3 +2.8**
KBK				⇑*iS*		**Sn**	**14 39 50.2 -2.3**
KBK	**Karagaybulak**	**5.07**	**41**	*i* PN		**Pn**	**14 38 57.9 +3.4**
KBK				*i* S		**Sn**	**14 39 56.9 +4.4**
CHMS	**Chumysh**	**5.22**	**37**	P		**Pn**	**14 39 00.4 +3.8**
	SNR=1215						
CHMS	**Chumysh**	**5.22**	**37**	⇑*iP*		**Pn**	**14 38 59.4 +2.8**
CHMS				⇑*iS*		**Sn**	**14 39 53.9 -2.4**
CHMS	**Chumysh**	**5.22**	**37**	*i* PN		**Pn**	**14 38 59.9 +3.3**
CHMS				*i* S		**Sn**	**14 40 00.5 +4.2**
USP	**Ospenovka**	**5.32**	**34**	P		**Pn**	**14 39 00.4 +2.5**
	SNR=112						
USP	**Ospenovka**	**5.32**	**34**	⇑*iP*		**Pn**	**14 39 00.1 +2.2**
USP				⇑*iS*		**Sn**	**14 39 56.3 -2.4**
USP	**Ospenovka**	**5.32**	**34**	*i* PN		**Pn**	**14 39 01.1 +3.2**
USP				*i* S		**Sn**	**14 40 02.6 +3.9**
BOOM	**Boomskoye usch**	**5.49**	**47**	⇑*iP*		**Pn**	**14 39 03.2 +2.8**
BOOM				⇑*iS*		**Sn**	**14 40 00.5 -2.5**
BOOM	**Boomskoye usch**	**5.49**	**47**	*i* PN		**Pn**	**14 39 03.7 +3.3**
BOOM				*i* S		**Sn**	**14 40 07.2 +4.2**
BOOM	**Boomskoye usch**	**5.49**	**47**			**Pn**	**14 39 02.7 +2.4**
ULHL	**Ulahol**	**5.52**	**51**	P		**Pn**	**14 39 03.4 +2.6**
	SNR=20						
ULHL	**Ulahol**	**5.52**	**51**	⇓*iP*		**Pn**	**14 39 02.9 +2.1**
ULHL				⇓*iS*		**Sn**	**14 40 01.2 -2.6**
ULHL	**Ulahol**	**5.52**	**51**	*i* PN		**Pn**	**14 39 04.1 +3.3**
ULHL				*i* S		**Sn**	**14 40 08.0 +4.2**
TKM2	**Tokmak 2**	**5.59**	**42**	P		**Pn**	**14 39 04.9 +3.1**
	SNR=43						
TKM2	**Tokmak 2**	**5.59**	**42**	⇑*iP*		**Pn**	**14 39 04.2 +2.5**
TKM2				⇑*iS*		**Sn**	**14 40 02.7 -2.8**
TKM2	**Tokmak 2**	**5.59**	**42**	*i* PN		**Pn**	**14 39 05.1 +3.4**
TKM2				*i* S		**Sn**	**14 40 09.5 +4.0**
NIL	**Nilore**	**5.69**	**156**	P		**Pn**	**14 39 06.2 +3.2**
NIL	**Nilore**	**5.69**	**156**	PN		**Pn**	**14 39 05.5 +2.5**
NIL	**Nilore**	**5.69**	**156**			**Pn**	**14 39 05.5 +2.5**
DGS	**Degeres**	**5.91**	**41**	P		**Pn**	**14 39 08.8 +2.8**
KDJ	**Kajisay**	**6.04**	**56**	PN		**Pn**	**14 39 10.0 +2.0**
KDJ	**Kajisay**	**6.04**	**56**			**Pn**	**14 39 10.0 +2.0**
MTBS	**Maitube**	**6.18**	**45**	Pg		**Pn**	**14 39 12.3 +2.5**
MTBS				Lg		Lg	14 40 53.3
KRBS	**Karabastau**	**6.19**	**38**	P		**Pn**	**14 39 12.6 +2.7**
TARG	**Taragay, Kyrgy**	**6.28**	**61**	PN		**Pn**	**14 39 11.7 +0.3**
TARG	**Taragay, Kyrgy**	**6.28**	**61**			**Pn**	**14 39 11.7 +0.3**
TNSS	**Tian-Shan**	**6.41**	**48**	P		**Pn**	**14 39 16.8 +3.6**
TNSS	**Tian-Shan**	**6.41**	**48**	*e*PN		**Pn**	**14 39 16.7 +3.5**
TNSS				*e*			14 39 35.1
TNSS	**Tian-Shan**	**6.41**	**48**	*e*Pn		**Pn**	**14 39 16.7 +3.5**
TNSS				*e*Pg		**Pb**	**14 39 35.2 +4.5**
AAA	**Alma-Ata**	**6.50**	**46**	P		Pn	14 39 19.1 +5.0
AAA	**Alma-Ata**	**6.50**	**46**	*e*PN		**Pn**	**14 39 18.7 +4.6**
AAA				*e*			14 39 37.2
AAA	**Alma-Ata**	**6.50**	**46**	*e*Pn		**Pn**	**14 39 18.7 +4.6**
AAA				*e*Pg		Pb	14 39 37.3 +5.3
KNDC	**Almaty**	**6.53**	**47**	⇑Pn		**Pn**	**14 39 18.2 +3.6**
	2μm,0.7s						
KNDC				⇑Lg		Lg	14 41 04.2
	5μm,0.9s						
KNDC	**Almaty**	**6.53**	**47**	PN		**Pn**	**14 39 18.2 +3.6**
KNDC				S		Sb	14 40 39.9 -10
MDOK	**Medeo**	**6.55**	**47**	*e*PN		**Pn**	**14 39 18.4 +3.6**
MDOK				*e*			14 39 38.2
MDOK	**Medeo**	**6.55**	**47**	*e*Pn		**Pn**	**14 39 18.4 +3.6**
MDOK				*e*Pg		Pb	14 39 38.2 +5.4
MDOK				*e*Lg		Lg	14 41 04.8
KOTS	**Kotyrbulak**	**6.63**	**47**	P		**Pn**	**14 39 19.8 +3.9**
KUU	**Kurty**	**6.66**	**40**	*e*PN		**Pn**	**14 39 18.3 +2.0**
KUU				*e*			14 39 40.8
KUU	**Kurty**	**6.66**	**40**	*e*Pn		**Pn**	**14 39 18.3 +2.0**
KUU				*e*Pg		Pb	14 39 40.8 +6.1
ANVS	**Anan'yevo**	**6.69**	**52**	⇑*eP*		**Pn**	**14 39 20.3 +3.4**
ANVS				⇑*iS*		**Sn**	**14 40 28.6 -4.1**
ANVS	**Anan'yevo**	**6.69**	**52**	*e*PN		**Pn**	**14 39 20.3 +3.4**
ANVS				*i* S		**Sn**	**14 40 35.9 +3.2**
BTLS	**Baital**	**6.70**	**22**	P		**Pn**	**14 39 19.3 +2.5**
PRZ	**Przheval'sk**	**7.01**	**57**	PN		**Pn**	**14 39 22.3 +1.1**
PRZ	**Przheval'sk**	**7.01**	**57**			**Pn**	**14 39 22.3 +1.1**
WUS	**Wushi**	**7.09**	**68**			**Pn**	**14 39 24.4 +2.2**
SATY	**Saty**	**7.30**	**53**	P		**Pn**	**14 39 27.6 +2.5**
SATY	**Saty**	**7.30**	**53**	*e*P		**Pn**	**14 39 27.9 +2.8**
SATY	**Saty**	**7.30**	**53**	*e*Pn		**Pn**	**14 39 28.0 +2.8**
SATY				*e*Pg		Pb	14 39 51.8 +6.2
SATY				*e*Lg		Lg	14 41 28.6
ARXS	**Arharly**	**7.66**	**44**	P		**Pn**	**14 39 31.8 +1.8**
KPKS	**Kokpek**	**7.69**	**51**	P		**Pn**	**14 39 33.7 +3.2**
KPKS	**Kokpek**	**7.69**	**51**	*e*P		**Pn**	**14 39 34.6 +4.1**
KPKS	**Kokpek**	**7.69**	**51**	*e*Pn		**Pn**	**14 39 34.6 +4.1**
UZB	**Uzynbulak**	**7.73**	**54**	P		**Pn**	**14 39 33.9 +2.8**
UZB	**Uzynbulak**	**7.73**	**54**	*e*P		**Pn**	**14 39 33.9 +2.8**
UZB	**Uzynbulak**	**7.73**	**54**	*e*Pn		**Pn**	**14 39 34.0 +2.8**
UZB				*e*Pg		Pb	14 40 00.1 +7.1
UZB				*e*Lg		Lg	14 41 42.6
BLB	**Baldybastay**	**7.94**	**47**	P		**Pn**	**14 39 37.0 +3.1**
HRA	**Herat**	**8.00**	**238**			**Pn**	**14 39 34.5 -0.4**
SHLS	**Shalkode**	**8.02**	**55**	P		Pn	14 39 41.6 +6.7
SHLS	**Shalkode**	**8.02**	**55**	*e*P		Pn	14 39 40.8 +5.8
SHLS	**Shalkode**	**8.02**	**55**	*e*Pn		Pn	14 39 40.8 +5.9
SHLS				*e*Pg		Pb	14 40 09.5 +12
PDGK	**Podgornoye**	**8.12**	**54**	P		**Pn**	**14 39 36.3 -0.1**
PDGK	**Podgornoye**	**8.12**	**54**			**Pn**	**14 39 36.3 -0.1**
TDK	**Taldyqorghan**	**8.49**	**41**	P		**Pn**	**14 39 45.4 +4.0**
TDK	**Taldyqorghan**	**8.49**	**41**	*e*P		**Pn**	**14 39 44.7 +3.3**
TDK	**Taldyqorghan**	**8.49**	**41**	*e*Pn		**Pn**	**14 39 44.8 +3.3**
TDK				*e*Pg		Pb	14 40 13.8 +8.0
KNOS	**Konyrlen**	**8.50**	**47**	P		Pn	14 39 51.5 +10
DJR	**Jarkent**	**8.84**	**49**	P		**Pn**	**14 39 48.3 +2.1**
KAPS	**Kapalarasan**	**9.18**	**43**	P		**Pn**	**14 39 54.3 +3.4**
MAKZ	**Makanchi**	**11.56**	**43**	⇓Pn		**Pn**	**14 40 25.2 +1.8**
	57nm,0.9s						
MAKZ				Lg		Lg	14 43 44.2
MAKZ	**Makanchi**	**11.56**	**43**	P		**Pn**	**14 40 26.5 +3.1**
MAKZ	**Makanchi**	**11.56**	**43**			**Pn**	**14 40 24.2 +0.8**
MK31	**Makanchi Array**	**11.72**	**44**	Pn		**Pn**	**14 40 25.7 +0.1**
	66nm,0.8s,baz=228,slow=12,SNR=16						
MK31	**Makanchi Array**	**11.72**	**44**	*i* P		**Pn**	**14 40 27.4 +1.8**
MKAR	**Makanchi Array**	**11.72**	**44**	Pn		**Pn**	**14 40 27.2 +1.7**
	3.9nm,0.3s,baz=227,slow=12,SNR=265						
MKAR				Lg		Lg	14 43 47.7
	3.7nm,0.3s,baz=240,slow=21,SNR=3.5						
MKAR				LR		LR	14 45 15.9
	comp=Z,3μm,19.4s,baz=226,slow=39						
	45nm,0.7s						
MKAR				AML		AML	
MKAR	**Makanchi Array**	**11.72**	**44**			**Pn**	**14 40 26.7 +1.1**
PTH	**Pithoragarh**	**12.28**	**136**	*i* P		**Pn**	**14 40 31.9 -1.5**
AB31	**Akbulak array**	**12.82**	**327**	Pn		**Pn**	**14 40 39.1 -1.5**
	227nm,0.5s,baz=148,slow=12,SNR=4106						
AB31	**Akbulak array**	**12.82**	**327**	*e*P		**Pn**	**14 40 39.1 -1.5**
AB31							14 43 02.5
AB31	**Akbulak array**	**12.82**	**327**			**Pn**	**14 40 39.3 -1.2**
ABKAR	**Akbulak array**	**12.82**	**327**			**Pn**	**14 40 39.1 -1.4**
AJM	**Ajmer**	**12.91**	**163**	*i* P		**Pn**	**14 40 39.0 -2.9**
KURBB	**Kurchatov Arra**	**13.04**	**23**	Pn		**Pn**	**14 40 42.6 -1.0**
	3.0nm,0.3s,baz=216,slow=13,SNR=173						
KURBB				Lg		Lg	14 44 28.6
	1.6nm,0.3s,baz=204,slow=30,SNR=5.7						
KURBB				LR		LR	14 46 25.2
	comp=Z,2μm,21.9s,baz=176,slow=40						
	34nm,0.6s						
KURBB				AML		AML	
KURBB	**Kurchatov Arra**	**13.04**	**23**	⇓Pn		**Pn**	**14 40 42.6 -1.0**
	85nm,0.6s						
KURBB				Lg		Lg	14 44 28.9
KURK	**Kurchatov**	**13.15**	**23**	P		**Pn**	**14 40 43.1 -1.9**
KURK	**Kurchatov**	**13.15**	**23**	*e*P		**Pn**	**14 40 43.9 -1.1**
KURK				pmax		pmax	
	comp=Z,89nm,1.7s						
KURK	**Kurchatov**	**13.15**	**23**			**Pn**	**14 40 42.8 -2.2**
ZSN	**Zaisan**	**13.53**	**46**	*e*P		**Pn**	**14 40 52.9 +2.7**
ZSN	**Zaisan**	**13.53**	**46**	*e*Pn		**Pn**	**14 40 53.0 +2.7**
WMQ	**Urumqi**	**13.83**	**64**	*e*P		**Pn**	**14 40 55.7 +1.2**
WMQ				pP		P	14 41 03.4 +0.6
WMQ				S		**Sn**	**14 43 34.0 +6.5**
WMQ				pmax		pmax	
	comp=Z,20nm,0.7s						
WMQ				pmax		pmax	
	comp=Z,140nm,3.8s						
WMQ				L		L	
	comp=Z,2μm,23.9s						
WMQ				L		L	
	comp=Z,2μm,19.1s						
WMQ				L		L	
	comp=Z,1μm,22.5s						
BVA0	**Borovoye Array**	**14.14**	**360**	Pn		**Pn**	**14 40 58.1 -0.4**
BVAR	**Borovoye Array**	**14.14**	**360**	Pn		**Pn**	**14 40 57.9 -0.6**
	comp=Z,1.4nm,0.3s,baz=178,slow=10,SNR=125						
BVAR				Lg		Lg	14 45 05.3
	comp=Z,0.7nm,0.3s,baz=165,slow=25,SNR=3.7						
	comp=Z,63nm,0.4s						
BVAR				AML		AML	
BORK	**Borovoye**	**14.16**	**360**	*i* P		**Pn**	**14 40 58.1 -0.7**
BORK	**Borovoye**	**14.16**	**360**			**Pn**	**14 40 58.0 -0.9**
AKTO	**Aktyubinsk**	**14.53**	**327**	Pn		**Pn**	**14 41 03.3 -0.7**
	comp=Z,19nm,0.3s,baz=141,slow=13,SNR=268						
AKTO				Sn		**Sn**	**14 43 42.8 -1.5**
	comp=Z,18nm,0.3s,baz=228,slow=14,SNR=4.8						
	comp=Z,261nm,0.8s						
AKTO				AML		AML	
AKTO	**Aktyubinsk**	**14.53**	**327**	⇑Pn		**Pn**	**14 41 03.4 -0.5**
	comp=Z,310nm,0.8s						
AKTO	**Aktyubinsk**	**14.53**	**327**	P		**Pn**	**14 41 03.4 -0.5**
AKTO							14 43 44.8
JHNI	**Jhansi**	**15.05**	**150**	*i* P		**Pn**	**14 41 06.1 -5.1**
GUNA	**GUNA**	**15.34**	**156**	*i* P		**Pn**	**14 41 10.0 -5.0**
NGCH	**Negor - Chabah**	**15.63**	**213**	*i* P		**Pn**	**14 41 16.1 -2.6**
ALBI	**Allahabad**	**16.58**	**141**	*i* P		**Pn**	**14 41 25.8 -5.0**
BHPL	**Bhopal**	**16.69**	**157**	*i* P		**Pn**	**14 41 28.9 -3.3**
JASK	**Jask - Hormozg**	**16.77**	**223**	P		**P**	**14 41 35.1 -0.3**
SHME	**Shamm**	**17.59**	**228**	P		**P**	**14 41 44.4 0.0**
SHME	**Shamm**	**17.59**	**228**	P		**Pn**	**14 41 43.0 -0.4**
	SNR=9.1						
SHME				S		**S**	**14 45 04.1 -2.1**
BANOM	**Banah**	**17.59**	**227**	P		**Pn**	**14 41 43.6 +0.1**
BANOM	**Banah**	**17.59**	**227**	P		**Pn**	**14 41 42.9 -0.7**
MAK	**Makhachkala**	**17.82**	**291**	*c* *i*P		**P**	**14 41 46.9 +0.1**
MAK				*e*S		**Sn**	**14 45 07.1 +2.9**
MAK				pmax		pmax	
	comp=Z,57nm,0.5s						
MAK				MLR		MLR	
	comp=Z,4μm,11.0s						
ZAA0	**Zalesovo Array**	**17.96**	**28**	P		**Pn**	**14 41 45.7 -2.2**
ZAA0	**Zalesovo Array**	**17.96**	**28**	Pn		**Pn**	**14 41 46.1 -1.8**
ZALV	**Zalesovo Beam**	**17.96**	**28**	P		**Pn**	**14 41 47.1 -0.8**
	comp=Z,9.7nm,0.3s,baz=226,slow=12,SNR=185						
ZALV				LR		LR	14 49 10.7
	comp=Z,3μm,19.8s,baz=208,slow=38						
	comp=Z,30nm,0.4s						
ZALV				AML		AML	
ZALV	**Zalesovo Beam**	**17.96**	**28**	P		**Pn**	**14 41 46.4 -1.5**
MDH	**Madha**	**18.08**	**226**	P		**Pn**	**14 41 47.1 -2.4**
MDH	**Madha**	**18.08**	**226**	P		**Pn**	**14 41 47.2 -2.4**
	SNR=5.7						
MASF	**Masafi**	**18.10**	**226**	P		**Pn**	**14 41 49.6 -0.2**
	SNR=8.5						
MASF				S		**S**	**14 45 14.1 -2.7**
MSFE	**Esma-Masafi**	**18.11**	**226**	P		**Pn**	**14 41 49.9 0.0**
UOSS	**Minazif**	**18.41**	**225**	P		**P**	**14 41 51.4 -2.2**
UOSS				S		**S**	**14 45 21.6 -1.4**
UOSS	**Minazif**	**18.41**	**225**	P		**P**	**14 41 50.5 -3.0**
UOSS	**Minazif**	**18.41**	**225**	pP		**P**	**14 41 53.0 -0.5**
	comp=Z,48nm,0.9s						
HATD	**Hatta, Dubai**	**18.54**	**225**	P		**Pn**	**14 41 56.0 +0.7**
HATD	**Hatta, Dubai**	**18.54**	**225**	P		**Pn**	**14 41 55.8 +0.5**
	SNR=7.3						
HATD				S		**Sn**	**14 45 23.6 +1.6**
BIDO	**Bidbid**	**18.58**	**218**	P		**P**	**14 41 53.8 -1.6**
WSAR	**Wadi Sarin**	**18.59**	**216**	LR		LR	14 51 06.5
	comp=Z,6

MZWR Madinat Zayed 20.65 228 P P 14 42 18.2 +0.2
MZWR S S 14 46 03.3 -4.6
NCK Nalchik 20.71 291 *i* P P 14 42 18.4 -0.1
NCK pmax pmax
comp=Z,194nm,0.8s
UMZA Um Al Zommool 20.76 223 P P 14 42 19.4 +0.2
UMZA S S 14 46 05.6 -4.6
BELG Belogornoye 20.80 318 P P 14 42 19.2 -0.2
comp=Z,698nm,0.9s,baz=335,slow=0.9,SNR=62
BELG LR LR 14 51 33.1
comp=Z,1μm,19.1s,baz=116,slow=40
BELG Belogornoye 20.80 318 *i* P P 14 42 18.8 -0.6
BELG pmax pmax
comp=Z,99nm,0.9s
MHTO MHTO 20.84 215 P P 14 42 21.0 +0.9
SNR=13
DIGO Kars 20.90 283 P Pn 14 42 22.6 -0.8
comp=Z,352nm,1.2s
HAKT HAKKARI 21.05 275 P P 14 42 24.2 +1.7
comp=Z,146nm,0.9s
GHWR Ruwais 21.09 230 P P 14 42 23.2 +0.5
SAKB Bahrain 21.14 238 P P 14 42 23.9 +0.7
SAKB S S 14 46 18.3 +0.8
KBD Kabd 21.18 250 P P 14 42 24.9 +1.3
KBD S S 14 46 16.7 -1.6
KBZ Khabaz 21.23 292 P P 14 42 23.5 -0.6
comp=Z,29nm,0.6s,baz=119,slow=6.2,SNR=86
KBZ LR LR 14 52 43.3
comp=Z,1μm,19.2s,baz=86,slow=42
comp=Z,29nm,0.6s
KBZ Khabaz 21.23 292 *ce*P P 14 42 24.4 +0.3
KBZ pmax pmax
comp=Z,77nm,0.9s
EPOS Posof 21.32 286 P P 14 42 27.0 +1.7
comp=Z,141nm,1.1s
NEUR Neytrino 21.35 291 *c i*P P 14 42 27.2 +1.6
NEUR pmax pmax
comp=Z,50nm,1.6s
KVAR Kislovodsk Arr 21.39 293 LR LR 14 53 10.3
comp=Z,1μm,18.3s,baz=274,slow=43
KIV Kislovodsk 21.39 293 P P 14 42 26.1 +0.2
KIV Kislovodsk 21.39 293 *e*P P 14 42 25.7 -0.3
KIV *e*S S 14 46 21.0 -1.6
KIV pmax pmax
comp=Z,96nm,0.9s
KIV MLR MLR
comp=Z,814nm,14.0s
KIV Kislovodsk 21.39 293 P P 14 42 25.4 -0.6
KIV Kislovodsk 21.39 293 ⇑P P 14 42 26.6 +0.6
KIV Kislovodsk 21.39 293 P P 14 42 26.0 0.0
comp=Z,2μmcomp=Z,186nm,0.7s
KIV Kislovodsk 21.39 293 P P 14 42 26.2 +0.2
comp=Z,238nm,0.7s
SHA1 Shidzhatmaz 21.40 292 *ce*P P 14 42 25.6 -0.6
GEVA Gevas 21.41 277 P P 14 42 27.4 +1.1
MZR Muzera 21.47 227 P P 14 42 26.0 -0.8
MZR Muzera 21.47 227 P P 14 42 26.3 -0.5
SNR=32
MZR S S 14 46 19.4 -4.8
SLWR Sila 21.73 233 P P 14 42 30.1 +0.4
KAD Karad 21.75 170 *i* P P 14 42 29.3 -0.5
KAD IAmb IAmb 14 42 44.0
comp=Z,162nm,1.4s
KAD *i* Rg Rg 14 50 51.0
DQM DQM 21.96 214 P P 14 42 31.7 -0.4
SNR=9.1
HOMI Horasan 22.05 282 ⇑P P 14 42 35.7 +2.5
BATM Batumi 22.09 286 P P 14 42 34.4 +1.0
BATM Batumi 22.09 286 ⇓P P 14 42 34.4 +1.0
KNGR Kungurtug, Tuv 22.36 50 *d* P P 14 42 36.1 -0.2
KNGR pmax pmax
comp=Z,252nm,0.9s
HYB Hyderabad 22.53 160 *e*P P 14 42 36.1 -2.2
HYB IVmB_BB 14 42 38.8
comp=Z,1μm,1.2s
HYB *e*S S 14 46 45.7 +1.2
HYB IVMs_BB IVMs_BB 14 51 22.9
comp=Z,1μm,8.5s
HYB Hyderabad 22.53 160 *i* P P 14 42 38.1 -0.1
GTA2 Gaotai 22.66 79 *e*P P 14 42 39.9 +0.2
GTA2 S S 14 46 44.6 -2.3
GTA2 pmax pmax
comp=Z,11nm,1.3s
GTA2 L L
comp=Z,590nm,13.3s
GTA2 L L
comp=Z,980nm,16.2s
GTA2 L L
comp=Z,1μm,13.7s
LABN Labinsk 22.85 294 *e*P P 14 42 41.8 +0.4
LABN *e**PP **pP** 14 42 48.8 +1.1
LABN *e*PPP PPP 14 43 15.0
LABN *e*S S 14 46 50.5 +0.7
LABN pmax pmax
comp=Z,164nm,0.8s
LABN MLR MLR
comp=Z,1μm,13.0s
ERBR Yeremizino-Bor 23.12 297 *e*P P 14 42 44.2 0.0
ERBR *e**PP **sP** 14 42 53.2 -0.6
ERBR *e* 14 43 10.2
ERBR *e*PPP PPP 14 43 19.7
ERBR *e*S S 14 46 54.1 -0.3
ERBR pmax pmax
comp=Z,112nm,1.1s
ERBR MLR MLR
comp=Z,967nm,15.0s
VSLR Vesyoloye 23.30 291 *i* P P 14 42 45.6 -0.4
VSLR pmax pmax
comp=Z,82nm,0.9s
SOC Sochi 23.53 291 *e*P P 14 42 48.2 -0.1
SOC *e*PPP PPP 14 43 22.1
SOC *e*S S 14 46 57.7 -3.4
SOC *e*S Sn 14 47 00.8 -21
SOC *e*SSS SSS 14 47 55.9
SOC pmax pmax
comp=Z,42nm,0.6s
SOC MLR MLR
comp=Z,910nm,16.0s
VRH Novokhopyorsk 23.59 311 *e*P P 14 42 51.9 +3.1
VRH pmax pmax
comp=Z,150nm,0.6s
VRH MLR MLR
comp=Z,1μm,12.0s
KOHI KOHIMA 23.82 116 *i* P P 14 42 51.8 +0.4
KOHI IAmb IAmb 14 43 03.3
comp=Z,208nm,1.0s
KIRV Kirov 23.92 332 P P 14 42 52.5 +0.6
comp=Z,94nm,0.6s,baz=98,slow=0.8,SNR=44
KIRV LR LR 14 53 03.6
comp=Z,3μm,19.1s,baz=138,slow=38
comp=Z,94nm,0.6s
KELT Kelkit 24.06 283 P P 14 42 56.2 +2.6
comp=Z,184nm,1.8s
BRDH Bariadhala 24.24 126 LR LR 14 54 56.2
comp=Z,2μm,20.5s,baz=332,slow=43
IMP Imphal 24.28 118 *i* P P 14 42 55.6 0.0
IMP IAmb IAmb 14 43 06.3
comp=Z,92nm,0.8s
SHAO Shalim 24.49 216 P P 14 42 58.3 +0.9
DOK Doka 24.69 220 P P 14 42 59.2 -0.1
SNR=8.3
KEMA Kemaliye 24.77 281 P P 14 43 01.8 +1.8
comp=Z,133nm,0.8s
MOY Mondy 24.78 49 *e*P P 14 43 00.8 +0.8
MOY pmax pmax
comp=Z,44nm,1.7s
MORE Moreh 24.91 119 P P 14 43 01.3 0.0
ARPR Arapgir-MALATY 24.92 281 P P 14 43 03.5 +2.0
comp=Z,88nm,1.4s
VORD Divnogorie 24.96 309 *e*P P 14 43 01.5 0.0
VORD pmax pmax
comp=Z,50nm,0.6s
DMTO DMTO 25.07 217 P P 14 43 02.4 -0.3
VSR Storozhevoye 25.11 310 *e*P P 14 43 02.9 0.0
VSR pmax pmax
comp=Z,80nm,0.6s
VSR MLR MLR
comp=Z,2μm,14.0s
ANN Anapa 25.20 294 *e*P P 14 43 03.9 +0.2
ANN *e* 14 43 40.7
ANN *e*S S 14 47 28.6 +0.7
ANN pmax pmax
comp=Z,192nm,0.8s
ANN MLR MLR
comp=Z,925nm,16.0s

VORR Voronezh 25.23 311 *e*P P 14 43 03.9 0.0
VORR pmax pmax
comp=Z,68nm,0.5s
WHFO Wadi Hawf 25.46 220 P P 14 43 06.5 +0.1
SNR=10
RBK Rabkut 25.61 218 P P 14 43 07.2 -0.5
SNR=7.0
LPSR Galich'ya Gora 25.69 313 *e*P P 14 43 08.4 +0.3
LPSR pmax pmax
comp=Z,150nm,0.8s
LPSR MLR MLR
comp=Z,2μm,17.0s
ZAK Zakamensk 25.80 53 *e*P P 14 43 09.7 +0.4
ZAK pmax pmax
comp=Z,49nm,1.0s
RAYN Ar Rayn 26.17 241 P P 14 43 13.7 +0.8
RAYN Ar Rayn 26.17 241 P P 14 43 13.1 +0.3
RAYN pmax pmax
comp=Z,49nm,1.1s
RAYN Ar Rayn 26.17 241 P 14 43 13.1 +0.3
RAYN Ar Rayn 26.17 241 P P 14 43 13.6 +0.8
comp=Z,44nm,0.9s
ABTO Aybut 26.18 220 P P 14 43 13.4 +0.5
SNR=17
TLY Talaya 26.36 50 P P 14 43 14.7 +0.5
TLY Talaya 26.36 50 *ce*P P 14 43 15.0 +0.8
TLY pmax pmax
comp=Z,18nm,0.9s
TLY Talaya 26.36 50 P 14 43 14.6 +0.5
TLY Talaya 26.36 50 P P 14 43 15.9 +1.7
comp=Z,38nm,0.9s
LZDM Lanzhou Array 26.46 86 P P 14 43 15.7 +0.1
comp=Z,3.5nm,0.5s,baz=292,slow=9.1,SNR=4.1
LZDM LR LR 14 55 46.8
comp=Z,558nm,18.5s,baz=95,slow=41
comp=Z,3.5nm,0.5s
ANDN Andirin 26.76 278 P P 14 43 20.7 +2.6
comp=Z,120nm,0.9s
SONM Songino Array 27.39 59 P P 14 43 23.2 -0.5
comp=Z,6.9nm,0.7s,baz=258,slow=8.7,SNR=29
SONM ScP ScP 14 50 20.7 -0.8
comp=Z,1.3nm,0.8s,baz=219,slow=2.7,SNR=3.7
SONM LR LR 14 55 21.7
comp=Z,2μm,18.0s,baz=261,slow=39
comp=Z,6.9nm,0.7s
SONM Songino Array 27.39 59 P 14 43 23.6 -0.1
SIM Simferopol' 27.56 295 *e*P P 14 43 25.8 +0.7
SIM *e* 14 44 13.0
SIM *e*S S 14 48 02.0 -3.3
SIM pmax pmax
comp=Z,172nm,1.0s
MOS Moscow 27.57 318 *e*P P 14 43 24.2 -0.8
MOS *e*PPP PPP 14 44 16.9
MOS *e* 14 48 04.2
MOS *e*SSS SSS 14 49 27.5
MOS pmax pmax
comp=Z,106nm,0.9s
MOS pmax pmax
comp=Z,200nm,1.1s
MOS MLR MLR
comp=Z,700nm,16.0s
ULN Ulaanbaatar 27.84 59 *ce*P P 14 43 28.4 +0.7
ULN pmax pmax
comp=Z,29nm,1.7s
ULN Ulaanbaatar 27.84 59 P 14 43 27.3 -0.4
ULN Ulaanbaatar 27.84 59 P P 14 43 27.7 0.0
comp=Z,113nm,1.4s
ULN Ulaanbaatar 27.84 59 P P 14 43 28.3 +0.7
comp=Z,29nm,1.4s
OBN Obninsk 27.89 317 P P 14 43 28.7 +0.9
comp=Z,87nm,0.7s,baz=57,slow=2.6,SNR=20
OBN LR LR 14 55 37.1
comp=Z,463nm,20.2s,baz=150,slow=39
comp=Z,87nm,0.7s
OBN Obninsk 27.89 317 *c i*P P 14 43 28.7 +0.9
OBN *e* 14 44 15.1
OBN *e*S S 14 48 11.5 +1.4
OBN pmax pmax
comp=Z,98nm,0.7s
OBN MLR MLR
comp=Z,645nm,15.0s
OBN Obninsk 27.89 317 P 14 43 28.2 +0.5
OBN Obninsk 27.89 317 P P 14 43 28.3 +0.5
comp=Z,1μmcomp=Z,149nm,0.8s
OBN Obninsk 27.89 317 P P 14 43 28.5 +0.7
comp=Z,151nm,0.8s
ILGA Ilgaz 28.13 286 IAmb IAmb 14 43 33.7
comp=Z,61nm,0.9s
KIRS Kirsehir-Merke 28.29 282 ⇑P P 14 43 34.0 +2.3
CD2 Chengdu 28.31 96 P P 14 43 33.3 +1.3
CD2 pmax pmax
comp=Z,40nm,1.0s
CD2 L L
comp=Z,1μm,10.2s
CD2 L L
comp=Z,1μm,12.1s
CD2 L L
comp=Z,1μm,12.7s
BR131 Keskin Array S 28.39 283 P P 14 43 34.4 +1.7
SNR=11
BR131 Keskin Array S 28.39 283 *c i*P P 14 43 34.1 +1.3
BRTR Keskin Array B 28.39 283 P P 14 43 34.0 +1.3
comp=Z,19nm,0.9s,baz=90,slow=7.4,SNR=63
BRTR ScP ScP 14 50 23.5 -1.3
comp=Z,0.6nm,0.8s,baz=126,slow=3.5,SNR=3.9
BRTR LR LR 14 56 29.8
comp=Z,222nm,20.7s,baz=104,slow=40
comp=Z,19nm,0.9s
BRTR Keskin Array B 28.39 283 P 14 43 32.8 +0.1
BR104 Keskin Array S 28.39 283 P P 14 43 34.2 +1.5
comp=Z,202nmcomp=Z,25nm,0.9s
BR106 Keskin Array S 28.41 284 P P 14 43 34.3 +1.5
comp=Z,210nmcomp=Z,30nm,0.9s
BR105 Keskin Array S 28.41 283 P P 14 43 34.4 +1.5
comp=Z,217nmcomp=Z,28nm,1.0s
MMAI Mount Meron Ar 28.87 269 LR LR 14 57 23.6
comp=Z,108nm,18.7s,baz=56,slow=41
KKUL Konya-Kulu 29.05 283 P P 14 43 41.0 +2.6
comp=Z,25nm,0.8s
KLMR Klimovskoe 29.21 329 *e*P P 14 43 38.7 -0.8
KLMR S S 14 48 31.6 +0.8
KLMR pmax pmax
comp=Z,36nm,0.8s
KLMR MLR MLR
comp=Z,2μm,14.0s
KOD Kodaikanal 29.21 166 *i* P P 14 43 40.0 -0.4
KOD IAmb IAmb 14 43 50.3
comp=Z,58nm,1.1s
NPW Naypyitaw 29.22 123 P P 14 43 39.2 -0.8
comp=Z,39nm,0.8s
MDUB Murmu 30.11 286 IAmb IAmb 14 43 50.8
comp=Z,49nm,0.7s
BTO2 Baotou 30.15 74 *e*P P 14 43 48.6 +0.3
BTO2 pP pP 14 43 53.4 -1.7
BTO2 PP PnPn 14 44 47.0 +1.4
BTO2 S S 14 48 47.2 +0.9
BTO2 pmax pmax
comp=Z,33nm,0.9s
BTO2 pmax pmax
comp=Z,340nm,4.6s
BTO2 L L
comp=Z,2μm,13.3s
BTO2 L L
comp=Z,850nm,9.6s
BTO2 L L
comp=Z,2μm,17.6s
KMI2 Kunming 30.42 107 P P 14 43 52.9 +2.0
KMI2 pP sP 14 44 03.0 +2.3
KMI2 pmax pmax
comp=Z,11nm,0.7s
KMI2 L L
comp=Z,460nm,12.8s
KMI2 L L
comp=Z,560nm,19.0s
KMI2 L L
comp=Z,610nm,18.5s
KEPZ Antalya-Kepez 30.59 279 ⇓P P 14 43 53.8 +1.8
EIL Elat 30.61 263 LR LR 14 58 57.6
comp=Z,544nm,18.1s,baz=74,slow=42
EIL Elat 30.61 263 P P 14 43 55.2 +3.0
comp=Z,9.6nm,0.9s
AK09 Malin Array Si 31.12 306 P P 14 43 56.9 +0.4
AK09 pP **pP** 14 44 00.7 -2.5
XAN Xi'an 31.13 87 P P 14 43 51.9 -5.0
XAN pP pP 14 44 01.2 -2.6
XAN S S 14 48 51.8 -10
XAN pmax pmax
comp=Z,8.0nm,0.7s
XAN pmax pmax
comp=Z,130nm,4.9s
XAN LR LR
comp=N,790nm,15.4s
XAN LR LR
comp=E,580nm,17.3s
XAN LR LR
comp=Z,880nm,14.2s
AK10 Malin Array Si 31.14 306 P P 14 43 57.2 +0.5
AK08 Malin Array Si 31.14 306 P P 14 43 57.2 +0.5
AK07 Malin Array Si 31.16 306 P P 14 43 57.4 +0.5
AKASG Malin Array Be 31.17 306 P P 14 43 57.5 +0.5
comp=Z,25nm,0.7s,baz=113,slow=8.2,SNR=88
AKASG LR LR 14 58 57.2
comp=Z,1μm,19.0s,baz=100,slow=41
comp=Z,25nm,0.7s
AKBB Malin Array Si 31.17 306 *ce*P P 14 43 57.2 +0.2
AKBB pmax pmax
comp=Z,59nm,0.9s
AKBB Malin Array Si 31.17 306 P P 14 43 57.2 +0.2
AK03 Malin Array Si 31.17 306 P P 14 43 57.4 +0.4
AK05 Malin Array Si 31.17 306 P P 14 43 57.4 +0.4
AK06 Malin Array Si 31.17 306 P P 14 43 57.4 +0.4
AK01 Malin Array Si 31.17 306 P P 14 43 57.4 +0.4
AK02 Malin Array Si 31.18 306 P P 14 43 57.4 +0.4
KIEV Kiev 31.18 306 P P 14 43 56.3 -0.7
KIEV pmax pmax
comp=Z,60nm,0.9s
KIEV Kiev 31.18 306 P 14 43 56.3 -0.7
KIEV IAmb IAmb 14 43 58.6
comp=Z,60nm,0.8s
KIEV Kiev 31.18 306 ⇑P P 14 43 57.2 +0.1
KIEV Kiev 31.18 306 P P 14 43 57.4 +0.4
comp=Z,3μmcomp=Z,268nm,0.7s
KIEV Kiev 31.18 306 P P 14 43 57.0 0.0
comp=Z,68nm,0.7s
AK11 Malin Array Si 31.20 306 P P 14 43 57.7 +0.4
AK12 Malin Array Si 31.21 306 P P 14 43 57.7 +0.4
AK04 Malin Array Si 31.21 306 P P 14 43 57.7 +0.4
AK15 Malin Array Si 31.23 306 P P 14 43 57.9 +0.4
AK14 Malin Array Si 31.23 306 P P 14 43 58.0 +0.5
AK23 Malin Array Si 31.24 306 P P 14 43 57.8 +0.2
AK16 Malin Array Si 31.24 306 P P 14 43 57.8 +0.2
AK13 Malin Array Si 31.26 306 P P 14 43 58.0 +0.2
AK18 Malin Array Si 31.27 306 P P 14 43 58.1 +0.2
AK22 Malin Array Si 31.27 306 P P 14 43 58.1 +0.2
AK17 Malin Array Si 31.27 306 P P 14 43 57.9 0.0
AK17 pP **pP** 14 44 01.5 -3.0
AK21 Malin Array Si 31.29 306 P P 14 43 58.0 0.0
AK19 Malin Array Si 31.30 306 P P 14 43 58.1 -0.1
AK20 Malin Array Si 31.31 306 P P 14 43 58.1 -0.1
TLCR 31.31 295 P P 14 44 00.2 +2.0
TLCR 31.31 295 ⇑P P 14 44 00.2 +2.0
HHC Hu-ho-hao-te 31.39 73 *e*P P 14 43 59.5 +0.3
HHC pmax pmax
comp=Z,4.0nm,0.6s
HHC pmax pmax
comp=Z,93nm,4.7s
HHC L L
comp=Z,400nm,12.1s
HHC L L
comp=Z,440nm,12.1s
HHC L L
comp=Z,670nm,14.4s
YLV Yalova 31.46 286 P P 14 44 00.0 +0.3
comp=Z,85nm,0.9s
SORM Soroca 31.57 301 P P 14 44 01.4 +0.9
SORM Soroca 31.57 301 ⇑P P 14 44 01.4 +0.9
TPGR Topolog 31.61 295 ⇓P P 14 44 02.5 +1.6
MFTR Murfatlar 31.66 293 ⇓P P 14 44 03.1 +1.7
CHTO Chiang Mai 31.76 121 P P 14 44 02.4 -0.1
CHTO Chiang Mai 31.76 121 P P 14 44 03.2 +0.8
CHTO Chiang Mai 31.76 121 P P 14 44 02.4 -0.1
CHTO pmax pmax
comp=Z,10.0nm,1.0s
CHTO Chiang Mai 31.76 121 P 14 44 02.4 -0.1
CHTO Chiang Mai 31.76 121 P P 14 44 02.1 -0.4
CHTO Chiang Mai 31.76 121 P P 14 44 02.5 +0.1
comp=Z,13nm,1.1s
CFR Carcaliu 31.79 295 P P 14 44 02.9 +0.5
CFR Carcaliu 31.79 295 ⇓P P 14 44 02.9 +0.5
SCTR Scanteiesti 31.86 296 ⇑P P 14 44 05.4 +2.3
NRIK Noril'sk 31.86 11 P P 14 44 03.0 +0.2
comp=Z,7.5nm,0.4s,baz=193,slow=5.0,SNR=14
NRIK LR LR 14 58 29.6
comp=Z,882nm,21.8s,baz=208,slow=39
comp=Z,7.5nm,0.4s
NRIK Noril'sk 31.86 11 *i* P P 14 44 03.0 +0.2
NRIK pmax pmax
comp=Z,52nm,1.0s
NRIK Noril'sk 31.86 11 P 14 44 03.4 +0.6
NRIK IAmb IAmb 14 44 12.2
comp=Z,47nm,1.0s
CMAR Chiang Mai Arr 32.01 121 P P 14 44 04.2 -0.5
comp=Z,5.4nm,0.9s,baz=314,slow=9.0,SNR=32
CMAR PcP PcP 14 46 55.5 +1.2
comp=Z,5.0nm,0.9s,baz=332,slow=4.6,SNR=4.3
CMAR ScP ScP 14 50 37.6 +0.9
comp=Z,2.1nm,1.0s,baz=308,slow=4.5,SNR=6.3
CMAR LR LR 14 59 11.8
comp=Z,544nm,21.6s,baz=300,slow=40
CMAR P3KPbc 15 15 38.6
comp=Z,0.7nm,0.6s,baz=154,slow=3.6,SNR=6.1
comp=Z,5.4nm,0.9s
CMAR Chiang Mai Arr 32.01 121 ScP 14 50 36.9 +0.2
MI29 MI29, Kamyanyy 32.02 305 P P 14 44 04.8 +0.4
comp=Z,366nm,1.0s
MI29 pP **pP** 14 44 07.2 -3.9
comp=Z,366nm,1.0s
LUBAR Lubar, Ukraine 32.04 304 P P 14 44 04.3 -0.3
CTYL Yalikoy Yolu 32.11 288 P P 14 44 06.3 +1.0
comp=Z,131nm,0.7s
PDRR Padureni 32.20 298 ⇑P P 14 44 07.1 +1.1
GHRR 32.25 297 ⇑P P 14 44 08.4 +1.8
DMBR Dumbraveni 32.26 298 ⇑P P 14 44 07.1 +0.4
MANT Manisa 32.52 283 IAmb IAmb 14 44 11.7
comp=Z,31nm,1.0s
MNK Minsk 32.54 313 *i* P P 14 44 10.0 +1.0
MNK *i* 14 45 18.6
MNK *i* PPP PPP 14 45 29.4
MNK *i* S S 14 49 23.7 +0.6
MNK *i* SS SnSn 14 51 21.8 +4.5
MNK *i* SSS SSS 14 51 38.0
MNK pmax pmax
comp=N,16nm,0.6s
MNK pmax pmax
comp=E,5.0nm,0.6s
MNK pmax pmax
comp=Z,23nm,0.6s
MNK MLR MLR
comp=N,1μm,12.0s
MNK MLR MLR
comp=Z,1μm,12.0s
MNK MLR MLR
comp=E,162nm,11.0s
MNK Minsk 32.54 313 *i* P P 14 44 10.1 +1.0
comp=E,5.0nm,0.6s
MNK *i* P P 14 44 10.1 +1.0
comp=N,16nm,0.6s
MNK *i* P P 14 44 10.1 +1.0
comp=Z,23nm,0.6s,baz=101
MNK *i* PP PnPn 14 45 18.6 +2.2
MNK *i* PPP PPP 14 45 29.4
MNK *i* S S 14 49 23.8 +0.6
MNK *i* SS SnSn 14 51 21.8 +4.5
MNK *i* SSS SSS 14 51 38.0
MNK *i* LQ LQ 14 54 38.1
MNK *i* LR LR 14 57 44.7
MNK *i* LRM MLR 15 00 11.2
comp=N,1μm,11.5s
MNK *i* LRM MLR 15 00 14.8
comp=Z,1μm,12.2s
GYA Guiyang 32.67 101 ⇓P P 14 44 16.2 +5.6
GYA pmax pmax
comp=Z,22nm,0.7s
VRI Vrincioaia 32.73 297 P P 14 44 13.5 +2.7
VRI Vrincioaia 32.73 297 ⇑P P 14 44 12.8 +2.0
VRI Vrincioaia 32.73 297 P P 14 44 13.3 +2.5
comp=Z,40nm,1.2s
DRBR Darabani 32.74 301 ⇑P P 14 44 11.7 +0.9
TESR Tescani 32.75 298 ⇓P P 14 44 12.0 +1.0
TESR Tescani 32.75 298 P P 14 44 12.3 +1.3
comp=Z,48nm,0.9s

TESR	Tescani	32.75	298		P		P	14 44 12.0	+1.0	
	comp=Z,49nm,0.9s									
SAHR	Sahastru	32.77	296	⇑	P		P	14 44 13.1	+1.9	
PLOR	Plostina	32.79	297		P		P	14 44 14.1	+2.8	
PLOR	Plostina	32.79	297	⇑	P		P	14 44 12.6	+1.2	
PALK	Pallekele	32.80	161		LR		LR	14 57 45.2		
	comp=Z,2μm,18.4s,baz=344,slow=37									
PALK	Pallekele	32.80	161		P		P	14 44 10.4	-1.3	
PALK	Pallekele	32.80	161		P		P	14 44 11.2	-0.5	
PALK					pmax		pmax			
	comp=Z,45nm,1.2s									
PALK	Pallekele	32.80	161				P	14 44 11.2	-0.5	
PALK					IAmb		IAmb	14 44 12.2		
	comp=Z,45nm,1.1s									
PALK	Pallekele	32.80	161		P		P	14 44 11.0	-0.7	
GIRR	Girov	32.84	299	⇑	P		P	14 44 12.8	+1.2	
KMPD	K-Podol'skiy	32.84	302		P		P	14 44 12.2	+0.5	
ISR	Istrita	32.92	295		P		P	14 44 13.7	+1.2	
	comp=Z,78nm,1.1s									
ONER	Baraj Valea Uz	32.94	298	⇓	P		P	14 44 13.7	+1.1	
ENH	Enshi	33.05	93		P		P	14 44 14.9	+1.2	
COVR	Voineasa-Covas	33.10	297	⇑	P		P	14 44 15.9	+1.8	
BIZ	Bicaz	33.11	299	⇓	P		P	14 44 15.8	+1.7	
NACGM	Naroch	33.25	313	*e*	P		P	14 44 16.2	+1.1	
MLR	Muntele Rosu	33.31	296		P		P	14 44 17.5	+1.5	
	comp=Z,24nm,0.8s,baz=91,slow=23,SNR=19									
MLR					LR		LR	15 00 49.0		
	comp=Z,639nm,21.4s,baz=179,slow=42									
	comp=Z,24nm,0.8s									
MLR	Muntele Rosu	33.31	296		P		P	14 44 19.0	+3.0	
MLR	Muntele Rosu	33.31	296	⇓	P		P	14 44 18.0	+2.0	
MLR	Muntele Rosu	33.31	296		P		P	14 44 17.7	+1.7	
	comp=Z,762nmcomp=Z,52nm,1.6s									
MLR	Muntele Rosu	33.31	296		P		P	14 44 19.0	+3.0	
	comp=Z,51nm,1.6s									
RNPP5	Staryi Chortor	33.32	307		P		P	14 44 16.5	+0.7	
RNPP2	Kostyukhnivka	33.32	307		P		P	14 44 16.8	+0.9	
RNPP9	Sopachiv	33.33	307		P		P	14 44 16.9	+1.0	
RNPP8	Varash	33.34	307		P		P	14 44 16.9	+0.9	
SLVN	Son La	33.55	112		P		P	14 44 19.7	+1.5	
PBA	Port Blair	33.59	138		P		P	14 44 19.6	+1.1	
JOF	Joensuu	33.60	329	*e*	P		P	14 44 18.8	+0.7	
ELND	Elena	33.65	291	⇑	P		P	14 44 19.9	+1.1	
DOPR	Dopca	33.66	297	⇑	P		P	14 44 20.2	+1.3	
BURAR	Bucovina Array	33.69	300		P		P	14 44 19.8	+0.6	
BURAR	Bucovina Array	33.69	300		P		P	14 44 19.5	+0.3	
BURAR	Bucovina Array	33.69	300	⇓	P		P	14 44 19.8	+0.6	
LYN	LuoYang	33.72	84		P		P	14 44 22.7	+3.2	
LYN					pmax		pmax			
	comp=Z,13nm,0.6s									
LYN					L		L			
	comp=Z,1μm,15.6s									
LYN					L		L			
	comp=Z,700nm,15.6s									
LYN					L		L			
	comp=Z,1μm,13.7s									
BOD	Bodaibo	33.80	41	*e*	P		P	14 44 20.3	+0.4	
BOD					pmax		pmax			
	comp=Z,2.0nm,0.5s									
EZN	Ezine	33.89	286		P		P	14 44 22.9	+2.0	
EZN	Ezine	33.89	286	⇑	P		P	14 44 23.0	+2.0	
VOIR		33.94	296		P		P	14 44 21.9	+0.5	
VOIR		33.94	296	⇑	P		P	14 44 22.0	+0.5	
VOIR		33.94	296		P		P	14 44 22.8	+1.4	
	comp=Z,19nm,1.3s									
VSU	Vasula	34.08	320	*ce*	P		P	14 44 22.2	-0.1	
VSU					pmax		pmax			
	comp=Z,83nm,1.0s									
VSU	Vasula	34.08	320	*e*	P		P	14 44 21.7	-0.6	
VSU	Vasula	34.08	320		P		P	14 44 22.1	-0.2	
	comp=Z,79nm,0.9s									
ARR	Arges	34.24	296	⇑	P		P	14 44 26.0	+2.0	
ARR	Arges	34.24	296		P		P	14 44 26.0	+2.0	
	comp=Z,20nm,1.3s									
ARCR	ARCALIA	34.30	299	⇓	P		P	14 44 26.1	+1.7	
KARP	Karpathos	34.42	278	*e*	P		P	14 44 26.3	+0.7	
HNS	HongShan	34.56	78	⇓	P		P	14 44 28.0	+1.2	
HNS					pP		pP	14 44 34.8	+1.2	
HNS					pmax		pmax			
	comp=Z,7.0nm,1.0s									
HNS					L		L			
	comp=Z,610nm,15.1s									
HNS					L		L			
	comp=Z,580nm,13.9s									
HNS					L		L			
	comp=Z,720nm,17.1s									
ARBE	Arbavere	34.72	321	*e*	P		P	14 44 28.5	+0.7	
ARBE	Arbavere	34.72	321		P		P	14 44 29.0	+1.2	
	comp=Z,304nm,1.0s									
ARBE					pP		sP	14 44 36.5	-1.3	
PABE	Paberze	34.94	314	*e*	P		P	14 44 30.2	+0.4	
PABE	Paberze	34.94	314		P		P	14 44 30.4	+0.7	
	comp=Z,137nm,0.9s									
BJT	Baijiatuau	35.00	73		P		P	14 44 31.4	+0.9	
	comp=Z,11nm,0.7s									
BJI2	Beijing	35.00	73		P		P	14 44 31.2	+0.6	
BJI2					pP		pP	14 44 38.6	+1.1	
BJI2					sP		sP	14 44 42.2	+1.8	
BJI2					pmax		pmax			
	comp=Z,9.0nm,0.8s									
BJI2					pmax		pmax			
	comp=Z,100nm,4.2s									
BJI2					L		L			
	comp=Z,500nm,16.1s									
BJI2					L		L			
	comp=Z,410nm,15.3s									
BJI2					L		L			
	comp=Z,820nm,17.0s									
LVZ	Lovozero	35.09	337	*e*	P		P	14 44 32.6	+1.5	
LVZ					pmax		pmax			
	comp=Z,38nm,1.0s									
MARR	Marisel-Cluj	35.17	298	⇓	P		P	14 44 34.3	+2.2	
SUW	Suwalki	35.20	311	*e*	P		P	14 44 34.5	+2.4	
APA	Apatity	35.28	336	*e*	P		P	14 44 34.4	+1.8	
APA					*e*			14 45 54.9		
APA					*e*			14 47 00.8		
APA					*e*S		S	14 50 04.9	-0.2	
APA					*e*SS		SnSn	14 52 18.7	-4.5	
APA					pmax		pmax			
	comp=Z,14nm,1.2s									
APA					MLR		MLR			
	comp=Z,6μm,17.8s									
FIA1	FINESS Array S	35.29	324		P		P	14 44 32.4	-0.3	
FINES	FINESS Array B	35.29	324		P		P	14 44 32.6	-0.1	
	comp=Z,52nm,0.6s,baz=113,slow=9.1,SNR=198									
FINES					PP		PnPn	14 45 49.7	-1.2	
	comp=Z,20nm,0.6s,baz=108,slow=12,SNR=3.9									
FINES					LR		LR	14 59 40.2		
	comp=Z,1μm,19.9s,baz=104,slow=37									
	comp=Z,52nm,0.6s									
KWP	Kalwaria Pacla	35.30	304		P		P	14 44 34.7	+1.6	
KWP	Kalwaria Pacla	35.30	304		P		P	14 44 34.3	+1.2	
	comp=Z,2μmcomp=Z,86nm,1.3s									
DRGR		35.44	299		P		P	14 44 36.0	+1.7	
DRGR		35.44	299	⇓	P		P	14 44 36.1	+1.7	
DRGR		35.44	299		P		P	14 44 36.4	+2.0	
	comp=Z,21nm,1.2s									
TRPA	Tarpa	35.47	301		P		P	14 44 36.4	+1.9	
	comp=Z,76nm,1.3s									
GZR	Gura Zlata	35.54	296		P		P	14 44 36.0	+0.9	
GZR	Gura Zlata	35.54	296	⇓	P		P	14 44 36.1	+0.9	
KOLS	Kolonicke sedl	35.61	302	*e*	P		P	14 44 37.4	+1.7	
KOLS					pmax		pmax			
	comp=Z,30nm,0.8s									
KOLS	Kolonicke sedl	35.61	302	*e*	P		P	14 44 37.4	+1.7	
KOLS	Kolonicke sedl	35.61	302		P		P	14 44 37.5	+1.8	
	comp=Z,23nm,0.7s									
UZHM	Uzhgorod	35.61	302		P		P	14 44 36.4	+0.8	
MTSE	Matsula	35.62	319	*e*	P		P	14 44 35.8	+0.1	
MTSE	Matsula	35.62	319		P		P	14 44 36.9	+1.3	
	comp=Z,305nm,0.7s									
SRS	Serrai	35.65	289		P		P	14 44 36.3	+0.1	
	comp=Z,25nm,1.1s									
SUF	Sumiainen	35.69	327	*e*	P		P	14 44 36.0	-0.2	
MEF	Metsahovi	35.71	322	*e*	P		P	14 44 37.2	+0.9	
BLKB	Belogradchik	35.85	293	⇑	P		P	14 44 38.6	+0.7	
SURR	Surduc	35.95	297	⇓	P		P	14 44 40.0	+1.4	
KEF	Keuruu	36.06	325	*e*	P		P	14 44 39.2	-0.1	
PBUR	Paburge	36.15	314	*e*	P		P	14 44 41.3	+1.1	
PBUR	Paburge	36.15	314		P		P	14 44 41.5	+1.3	
	comp=Z,224nm,0.8s									
KNT	Kendrikon	36.15	289		P		P	14 44 40.3	-0.1	
	comp=Z,19nm,1.0s									
SLIT	Slitere, Latvi	36.20	317	*e*	P		P	14 44 40.2	-0.4	
SLIT	Slitere, Latvi	36.20	317		P		P	14 44 41.0	+0.4	
	comp=Z,278nm,1.1s									
HILR	Hailar Array B	36.28	57		P		P	14 44 41.4	-0.1	
	comp=Z,2.0nm,0.5s,baz=277,slow=11,SNR=2.8									
	comp=Z,2.0nm,0.5s									
R9F13	Warsaw-Wawer	36.31	308	*e*	P		P	14 44 43.1	+1.5	
BZS	Buzias	36.32	297		P		P	14 44 43.0	+1.2	
BZS	Buzias	36.32	297	⇑	P		P	14 44 43.1	+1.2	
BZS	Buzias	36.32	297		P		P	14 44 44.1	+2.3	
	comp=Z,27nm,1.5s									
ABAH	Abaujker	36.32	301		P		P	14 44 44.1	+2.4	
	comp=Z,27nm,1.2s									
MDVR	Moldovita	36.36	295	⇑	P		P	14 44 42.9	+0.6	
BOVS	Bovan	36.55	293	⇓	P		P	14 44 45.2	+1.4	
OUL	Oulu	36.69	330		P		P	14 44 46.0	+1.3	
OUL					pmax		pmax			
	comp=Z,36nm,1.1s									
OUL	Oulu	36.69	330		P		P	14 44 45.8	+1.1	
	comp=Z,36nm,1.1s									
ATD	Arta Tunnel	36.70	230		LR		LR	15 02 36.6		
	comp=Z,25nm,20.4s,baz=42,slow=41									
WHN	Wuhan	36.72	89		P		P	14 44 47.5	+2.1	
WHN					sP		sP	14 44 53.9	-1.3	
WHN					pmax		pmax			
	comp=Z,120nm,0.9s									
TIA	Tai'an	36.77	79		P		P	14 44 46.6	+0.8	
TIA					pmax		pmax			
	comp=Z,11nm,1.0s									
TIA					L		L			
	comp=Z,400nm,17.7s									
TIA					L		L			
	comp=Z,290nm,16.7s									
TIA					L		L			
	comp=Z,790nm,17.2s									
NIE	Niedzica	36.88	303	*e*	P		P	14 44 48.6	+2.0	
NIE	Niedzica	36.88	303		P		P	14 44 48.3	+1.7	
	comp=Z,338nmcomp=Z,29nm,1.1s									
RAF	Rauma	37.17	323	*e*	P		P	14 44 48.0	-0.8	
OJC	Ojcow	37.17	305	*e*	P		P	14 44 50.1	+1.1	
OJC	Ojcow	37.17	305		P		P	14 44 49.9	+0.9	
	comp=Z,89nm,1.1s									
PSZ	Piszkesteto	37.25	301		P		P	14 44 51.6	+1.8	
PSZ					pmax		pmax			
	comp=Z,12nm,0.7s									
PSZ	Piszkesteto	37.25	301		P		P	14 44 51.0	+1.2	
	comp=Z,12nm,0.7s									
VAF	Ylistaro	37.30	326	*e*	P		P	14 44 49.9	0.0	
LANS	Liptovska Anna	37.44	303	*e*	P		P	14 44 53.7	+2.4	
LANS					pmax		pmax			
	comp=Z,7.0nm,1.0s									
LANS	Liptovska Anna	37.44	303	*e*	P		P	14 44 53.7	+2.4	
VYHS	Vyhne	37.91	302	*e*	P		P	14 44 56.8	+1.5	
VYHS					pmax		pmax			
	comp=Z,21nm,1.3s									
VYHS	Vyhne	37.91	302	*e*	P		P	14 44 56.8	+1.5	
VYHS	Vyhne	37.91	302		P		P	14 44 57.1	+1.8	
	comp=Z,4.8nm,1.4s									
VADS	Vadso	37.94	339	*e*	P		P	14 44 56.0	+0.8	
MORH	Mrgy, Hungar	38.30	298	⇑	P		P	14 45 00.4	+1.8	
MORH	Mrgy, Hungar	38.30	298		P		P	14 44 59.9	+1.4	
	comp=Z,350nmcomp=Z,11nm,1.1s									
MORH	Mrgy, Hungar	38.30	298		P		P	14 45 00.3	+1.8	
	comp=Z,12nm,1.0s									
SRO	Srobarova	38.32	301	*e*	P		P	14 45 01.4	+2.7	
SRO					pmax		pmax			
	comp=Z,35nm,1.3s									
SRO	Srobarova	38.32	301	*e*	P		P	14 45 01.4	+2.7	
LKD2	Lefkada island	38.41	286		P		P	14 45 01.7	+2.0	
	comp=Z,60nm,1.2s									
STEB	Steborice	38.49	304	*e*	P		P	14 45 01.4	+1.3	
SJUU	Sjulsmark	38.52	330	*e*	P		P	14 45 01.2	+1.0	
PDG	Podgorica	38.54	292		P		P	14 45 02.4	+1.7	
	comp=Z,30nm,0.8s									
SRN	Sarande	38.60	288		P		P	14 45 01.2	0.0	
	comp=Z,22nm,0.9s									
JAVC	Velka Javorina	38.64	303	*e*	P		P	14 45 03.9	+2.4	
JAVC	Velka Javorina	38.64	303		P		P	14 45 04.3	+2.7	
	comp=Z,32nm,1.3s									
MORC	Moravsky Berou	38.65	304		P		P	14 45 02.4	+0.9	
MORC	Moravsky Berou	38.65	304	*e*	P		P	14 45 02.6	+1.1	
MORC				*e*				14 45 10.2		
MORC				*e*	PP		PP	14 46 28.5	-1.5	
MORC	Moravsky Berou	38.65	304	⇑	P		P	14 45 02.5	+0.9	
MORC	Moravsky Berou	38.65	304		P		P	14 45 03.0	+1.5	
	comp=Z,25nm,1.1s									
GKP	Gorka Klasztor	38.70	310	*e*	P		P	14 45 03.0	+1.2	
GKP	Gorka Klasztor	38.70	310	*e*	P		P	14 45 03.3	+1.5	
ARA0	ARCESS Array S	38.78	337	*e*	P		P	14 45 02.2	-0.2	
ARA0					IAmb		IAmb	14 45 03.8		
	comp=Z,32nm,1.0s									
ARCES	ARCESS Array B	38.78	337		P		P	14 45 02.3	-0.2	
	comp=Z,10.0nm,0.4s,baz=114,slow=7.9,SNR=108									
ARCES					LR		LR	15 02 14.4		
	comp=Z,5μm,18.3s,baz=118,slow=38									
	comp=Z,10.0nm,0.4s									
ARCES	ARCESS Array B	38.78	337		P		P	14 45 02.2	-0.2	
ARCES					pmax		pmax			
	comp=Z,87nm,1.4s									
ARCES	ARCESS Array B	38.78	337		P		P	14 45 02.2	-0.2	
ARCES					IAmb		IAmb	14 45 27.3		
	comp=Z,87nm,1.4s									
SMOL	Smolenice	38.84	302	*e*	P		P	14 45 05.2	+2.1	
SMOL					pmax		pmax			
	comp=Z,3.0nm,0.8s									
MPLH	Magyarpolny	38.92	300		P		P	14 45 05.2	+1.4	
	comp=Z,41nm,1.5s									
MPLH	Magyarpolny	38.92	300		P		P	14 45 05.0	+1.2	
	comp=Z,10nm,1.0s									
MODS	Modra-Piesok	38.95	302	*e*	P		P	14 45 05.8	+1.7	
MODS					pmax		pmax			
	comp=Z,34nm,1.3s									
MODS	Modra-Piesok	38.95	302	*e*	P		P	14 45 05.8	+1.7	
MODS	Modra-Piesok	38.95	302		P		P	14 45 06.0	+1.9	
	comp=Z,24nm,1.2s									
UPP	Uppsala	38.96	320	*e*	P		P	14 45 04.8	+0.9	
KTK1	Kautokeino	39.27	335	*e*	P		P	14 45 06.1	-0.4	
KTK1					IAmb		IAmb	14 45 07.3		
	comp=Z,24nm,0.4s									
LANU	Lannavaara	39.30	334	*e*	P		P	14 45 07.1	+0.4	
VRAC	Vranov	39.30	303		P		P	14 45 07.7	+0.7	
	comp=Z,28nm,0.9s,baz=83,slow=8.5,SNR=28									
VRAC					LR		LR	15 04 09.8		
	comp=Z,481nm,18.5s,baz=90,slow=40									
	comp=Z,28nm,0.9s									
VRAC	Vranov	39.30	303		P		P	14 45 08.3	+1.3	
VRAC	Vranov	39.30	303	*e*	P		P	14 45 08.6	+1.6	
VRAC				*e*				14 45 16.3		
VRAC				*e*	PP		PP	14 46 35.0	-2.1	
VRAC	Vranov	39.30	303	⇓	P		P	14 45 08.4	+1.3	
VRAC	Vranov	39.30	303		P		P	14 45 08.9	+1.9	
	comp=Z,14nm,1.1s									
DL2	Dalian	39.37	73		P		P	14 45 11.8	+4.2	
DL2					S		S	14 51 13.0	+5.1	
DL2					pmax		pmax			
	comp=Z,23nm,0.9s									
DL2					pmax		pmax			
	comp=Z,260nm,4.3s									
DL2					L		L			
	comp=Z,470nm,22.7s									
DL2					L		L			
	comp=Z,610nm,20.8s									
DL2					L		L			
	comp=Z,1μm,20.8s									
DPC	Dobruska-Polom	39.39	305	*e*	P		P	14 45 09.6	+1.9	
DPC				*e*	*PP		pP	14 45 13.7	-0.7	
DPC					MLR		MLR			
	comp=Z,1μm,16.3s									
DPC	Dobruska-Polom	39.39	305	*e*	P		P	14 45 09.6	+1.9	
DPC				*e*	pP		pP	14 45 13.7	-0.7	
DPC				*e*	x		x	14 46 29.8		
DPC					AMS		AMS	15 03 20.0		
	comp=Z,1μm,16.3s									
DPC	Dobruska-Polom	39.39	305		P		P	14 45 09.3	+1.6	
	comp=Z,36nm,1.1s									
DPC	Dobruska-Polom	39.39	305		P		P	14 45 09.5	+1.9	
	comp=Z,36nm,1.1s									
OSTC	Ostas	39.44	305	*e*	P		P	14 45 10.1	+2.0	
OSTC					MLR		MLR			
	comp=Z,1μm,17.7s									
OSTC	Ostas	39.44	305	*e*	P		P	14 45 10.1	+2.0	
OSTC					AMS		AMS	15 03 30.0		
	comp=Z,1μm,17.7s									
KRUC	Moravsky	39.46	303	*e*	P		P	14 45 09.8	+1.5	
KRUC				*e*				14 45 18.3		
KRUC	Moravsky	39.46	303		P		P	14 45 10.2	+1.9	
	comp=Z,30nm,1.2s									
SOP	Sopron	39.51	301		P		P	14 45 10.9	+2.1	
	comp=Z,33nm,0.8s									
CHVC	Chvalec	39.54	305	*e*	P		P	14 45 09.8	+0.8	
CHVC	Chvalec	39.54	305	*e*	P		P	14 45 09.8	+0.8	
BLY	Banja Luka	39.55	296		P		P	14 45 11.3	+2.2	
	comp=Z,16nm,0.8s									
UPC	Upice	39.57	305	*e*	P		P	14 45 10.5	+1.3	
UPC					MLR		MLR			
	comp=Z,1μm,16.5s									
UPC	Upice	39.57	305	*e*	P		P	14 45 10.5	+1.3	
UPC					AMS		AMS	15 03 40.0		
	comp=Z,1μm,16.5s									
UPC	Upice	39.57	305		P		P	14 45 10.3	+1.1	
	comp=Z,58nm,1.0s									
BLEU	Blekinge	39.58	314	*i*	P		P	14 45 09.5	+0.3	
NJ2	Nanjing	39.61	85	*e*	P		P	14 45 10.1	+0.4	
NJ2					pmax		pmax			
	comp=Z,13nm,0.5s									
RONA	Rosalia, Austr	39.69	301	*i*	P		P	14 45 11.8	+1.5	
	comp=Z,22nm,1.1s,SNR=8.0									
RONA				*i*	PP		PP	14 46 39.4	-1.9	
	comp=Z,12nm,1.8s									
WINA	Alland / Wiene	39.78	302	*i*	P		P	14 45 12.6	+1.6	
	comp=Z,22nm,1.6s									
HAMF	Hammerfest	39.86	338	*e*	P		P	14 45 11.6	+0.3	
HAMF					IAmb		IAmb	14 45 12.8		
	comp=Z,44nm,0.4s									
CONA	Conrad Observa	39.95	301	*i*	P		P	14 45 14.0	+1.5	
	comp=Z,42nm,1.1s,SNR=23									
TREC	Trest	40.02	304		AMS		AMS	15 05 10.0		
	comp=Z,900nm,18.5s									
TREC	Trest	40.02	304		P		P	14 45 14.7	+1.6	
	comp=Z,25nm,1.3s									
BSD	Bornholm Skovb	40.06	313	*e*	P		P	14 45 13.3	+0.1	
BSD	Bornholm Skovb	40.06	313	*i*	P		P	14 45 12.8	-0.4	
BSD					IAmb		IAmb	14 45 13.8		
	comp=Z,37nm,0.8s									
BSI	Banda Aceh	40.13	140		P		P	14 45 11.4	-2.7	
	comp=Z,1μmcomp=Z,60nm,0.8s									
ABNA	Allensteig Bun	40.13	303	*i*	P		P	14 45 15.4	+1.5	
	comp=Z,13nm,0.9s									
ABNA				*i*	PP		PP	14 46 43.3	-2.9	
	comp=Z,9.1nm,0.9s									
ARSA	Arzberg	40.27	300	*i*	P		P	14 45 16.4	+1.4	
	comp=Z,15nm,1.0s									
ARSA				*e*	PP		PP	14 46 47.4	-0.2	
	comp=Z,3.4nm,0.7s									
ARSA	Arzberg	40.27	300		P		P	14 45 16.1	+1.0	
	comp=Z,14nm,1.6s									
GROS	Grobnik	40.41	299	*i*	P		P	14 45 17.4	+1.1	
JETT	Jettan, Norway	40.41	335	*e*	P		P	14 45 15.9	0.0	
JETT					IAmb		IAmb	14 45 17.3		
	comp=Z,32nm,0.6s									
DOBS	Dobrina	40.48	299	*i*	P		P	14 45 18.2	+1.4	
PVCC	Panska Ves	40.49	306		AMS		AMS	15 04 10.0		
	comp=Z,1μm,18.5s									
PVCC	Panska Ves	40.49	306		P		P	14 45 18.6	+1.9	
	comp=Z,39nm,1.0s									
LNIZ	Loecknitz	40.51	310		P		P	14 45 16.9	+0.1	
	comp=Z,116nm,0.9s									
LNIZ					pP		sP	14 45 25.5	-1.4	
PRU	Pruhonice	40.56	305	*e*	P		P	14 45 19.3	+1.9	
PRU					MLR		MLR			
	comp=Z,900nm,16.5s									
PRU	Pruhonice	40.56	305	*e*	P		P	14 45 19.3	+1.9	
PRU					AMS		AMS	15 04 20.0		
	comp=Z,900nm,16.5s									
PRU	Pruhonice	40.56	305		P		P	14 45 18.6	+1.1	
	comp=Z,34nm,1.1s									
PRU					pP		sP	14 45 26.7	-0.7	
DEL	Delary	40.67	315	*i*	P		P	14 45 19.0	+0.9	
SOKA	Soboth	40.69	300	*i*	P		P	14 45 20.1	+1.4	
	comp=Z,25nm,1.1s,SNR=9.3									
RICC	Richard	40.79	306	*e*	P		P	14 45 21.2	+2.0	
RICC					AMS		AMS	15 05 20.0		
	comp=Z,1μm,15.7s									
ZEA	Zeya	40.80	50	*e*	P		P	14 45 20.1	+0.8	
ZEA					pmax		pmax			
	comp=Z,10.0nm,1.1s									
ZEA					MLR		MLR			
	comp=E,300nm,15.0s									
ZEA					MLR		MLR			
	comp=Z,400nm,14.0s									
ZVC	Zvikov	40.85	304	*e*	P		P	14 45 21.3	+1.5	
ZVC					AMS		AMS	15 05 30.0		
	comp=Z,800nm,17.0s									
CKRC	Cesky Krumlov	40.85	303	*ex*	x			14 47 03.2		
CKRC					AMS		AMS	15 05 50.0		
	comp=Z,600nm,14.5s									
LUNU	Lund	40.90	313	*i*	P		P	14 45 21.3	+1.2	
CN2	Changchun	40.92	65		P		P	14 45 20.5	+0.1	
CN2					pmax		pmax			
	comp=Z,10.0nm,0.5s									
CN2					L		L			
	comp=Z,200nm,14.0s									
CN2					L		L			
	comp=Z,500nm,14.0s									
CN2					L		L			

CLL *i* sP **pP** **14 45 32.2 +1.2**
comp=Z,31nm,1.2s
CLL *i* x x 14 45 41.9
comp=Z,19nm,0.8s
CLL *e*(PP) **PP** **14 46 55.0 -4.8**
CLL *i* sPP 14 47 09.4
comp=Z,35nm,1.0s
CLL *e*PPP PPP 14 47 25.0
CLL *i* ScP **ScP** **14 51 09.7 -1.2**
comp=Z,26nm,1.7s
CLL *e*S **S** **14 51 38.0 0.0**
comp=N,100nm,19.3s
CLL *e*S **S** **14 51 38.0 0.0**
comp=E,100nm,21.3s
CLL *e*SS **SnSn** **14 54 48.0 -3.3**
CLL LR LR 14 58 00.0
BIOA **Bad Ischl, Aus** **41.46 301** *i* P **P** **14 45 25.9 +1.0**
comp=E,23nm,1.2s,SNR=6.1
FAUS **Fauske** **41.50 331** *e*P **P** **14 45 25.1 +0.2**
FAUS IAmb IAmb 14 45 26.7
comp=Z,24nm,0.7s
MOR8 **Moi Rana** **41.54 329** *e*P **P** **14 45 25.2 -0.1**
MOR8 IAmb IAmb 14 45 25.9
comp=Z,46nm,0.8s
MARCO **Tramutola** **41.59 290** P **P** **14 45 27.8 +1.7**
comp=Z,34nm,0.9s
MYKA **Terra Mystica** **41.64 300** *i* P **P** **14 45 27.8 +1.3**
comp=Z,14nm,0.8s,SNR=5.9
CADS **Cadrg** **41.65 299** *e*P **P** **14 45 27.4 +0.9**
STEI **Steigen** **41.66 332** *e*P **P** **14 45 26.7 +0.5**
CUC **Castrocucco** **41.67 289** P **P** **14 45 28.4 +1.7**
comp=Z,33nm,0.8s
DRE **Drenchia** **41.73 299** P **P** **14 45 28.4 +1.3**
comp=Z,48nm,0.7s
PRED **Cave del Predi** **41.73 299** P **P** **14 45 28.4 +1.2**
comp=Z,19nm,1.0s
WET **Wettzell** **41.74 304** P **P** **14 45 28.1 +1.0**
comp=Z,22nm,1.2s
ACOM **Acomizza, Ital** **41.75 300** P **P** **14 45 29.1 +1.7**
comp=Z,31nm,1.1s
ONAU **Onsala** **41.75 316** *i* P **P** **14 45 27.8 +0.7**
RAUS **Rausandaksla** **41.76 330** *e*P **P** **14 45 27.3 +0.3**
RAUS IAmb IAmb 14 45 28.4
comp=Z,73nm,1.2s
KBA **Koelnbreinsper** **41.76 300** *i* P **P** **14 45 28.7 +1.1**
comp=Z,20nm,1.2s,SNR=8.1
KBA **Koelnbreinsper** **41.76 300** P **P** **14 45 28.9 +1.4**
comp=Z,29nm,1.0s
SABO **M.te Sabotino** **41.80 299** IAmb IAmb 14 45 30.0
comp=Z,74nm,0.9s
TANN **Tannenbergstha** **41.84 306** P **P** **14 45 28.8 +0.9**
comp=Z,49nm,1.1s
NKC **Novy Kostel** **41.87 305** AMS AMS 15 06 00.0
comp=Z,1µm,16.2s
NKC **Novy Kostel** **41.87 305** P **P** **14 45 30.0 +1.8**
comp=Z,21nm,1.4s
BNX **BinXian** **41.88 62** ⇓P **P** **14 45 28.7 +0.4**
BNX pmax pmax
comp=Z,11nm,0.9s
TJOU **Tjoern** **41.91 317** *i* P **P** **14 45 28.7 +0.4**
NC405 **NORSAR Array S** **42.00 322** IAmb IAmb 14 45 30.8
comp=Z,106nm,1.2s
RJOB **Jochberg** **42.02 302** P **P** **14 45 30.2 +0.8**
comp=Z,74nm,0.8s
LEIR **Leirfjorden** **42.06 329** *e*P **P** **14 45 29.8 +0.3**
LEIR IAmb IAmb 14 45 30.8
comp=Z,25nm,0.8s
NC602 **NORSAR Array S** **42.06 321** *e*P **P** **14 45 29.1 -0.5**
NC602 IAmb IAmb 14 45 30.5
comp=Z,65nm,1.2s
VAGH **Vaagaholmen** **42.12 330** *e*P **P** **14 45 29.8 -0.1**
CEL **Celeste** **42.13 287** P **P** **14 45 31.5 +1.0**
comp=Z,24nm,0.8s
KONS **Konsvik** **42.13 330** *e*P **P** **14 45 30.6 +0.6**
KONS IAmb IAmb 14 45 31.3
comp=Z,14nm,0.8s
STOK **Stokkvaagen** **42.14 330** *e*P **P** **14 45 30.6 +0.5**
LESA **Schwarzleotal** **42.15 301** *i* P **P** **14 45 31.6 +1.0**
comp=Z,32nm,1.0s,SNR=16
LESA *e*P **PP** **14 47 13.1 +5.0**
comp=Z,16nm,1.3s
STRU **Stroemstad** **42.16 319** *e*P **P** **14 45 30.7 +0.3**
STRU **Stroemstad** **42.16 319** *i* P **P** **14 45 30.8 +0.4**
NEUB **Neuenburg** **42.18 307** P **P** **14 45 31.4 +0.8**
comp=Z,74nm,1.0s
NB201 **NORSAR Array S** **42.20 322** IAmb IAmb 14 45 32.1
comp=Z,130nm,1.4s
NB2 **NORSAR Subarra** **42.24 322** P **P** **14 45 30.4 -0.7**
comp=Z,40nm,0.6s,baz=93,slow=8.6
NB2 **NORSAR Subarra** **42.24 322** P **P** **14 45 30.0 -1.1**
NOA **NORSAR Array B** **42.24 322** P **P** **14 45 30.3 -0.8**
comp=Z,40nm,0.7s,baz=93,slow=8.1,SNR=132
NOA PP **PP** **14 47 10.3 +1.6**
comp=Z,17nm,0.8s,baz=98,slow=13,SNR=5.5
NOA LR LR 15 04 05.6
comp=Z,1µm,18.2s,baz=95,slow=38
comp=Z,40nm,0.7s
NSS **Namsos** **42.26 327** *e*P **P** **14 45 31.5 +0.3**
NSS IAmb IAmb 14 45 32.7
comp=Z,17nm,0.7s
GORT1 **Trebel** **42.28 310** P **P** **14 45 33.2 +1.8**
comp=Z,91nm,1.1s
YAK **Yakutsk** **42.28 37** LR LR 15 04 29.9
comp=Z,885nm,18.4s,baz=258,slow=38
YAK **Yakutsk** **42.28 37** *e*P **P** **14 45 30.6 -0.7**
YAK *e* 14 47 08.5
YAK *e* 14 47 25.1
YAK *e*S **S** **14 51 48.6 -2.2**
YAK *e*SS **SS** **14 54 59.3 +0.3**
YAK *e* 14 55 32.7
YAK pmax pmax
comp=Z,212nm,1.0s
YAK pmax pmax
comp=N,8.0nm,1.3s
YAK pmax pmax
comp=E,57nm,1.1s
YAK pmax pmax
comp=Z,182nm,2.9s
YAK pmax pmax
comp=E,80nm,3.0s
YAK pmax pmax
comp=N,119nm,2.9s
YAK smax smax
comp=E,172nm,3.3s
YAK smax smax
comp=N,105nm,3.3s
YAK MLR MLR
comp=Z,871nm,20.0s
YAK MLR MLR
comp=E,670nm,22.0s
YAK MLR MLR
comp=N,151nm,26.0s
YAK **Yakutsk** **42.28 37** P **P** **14 45 29.8 -1.6**
YAK **Yakutsk** **42.28 37** P **P** **14 45 31.1 -0.3**
comp=Z,252nm,0.8s
WIMM **Wimmelburg** **42.31 307** P **P** **14 45 32.3 +0.6**
comp=Z,287nm,0.9s
LOF **Lofoten** **42.33 332** *e*P **P** **14 45 32.0 +0.3**
MOX **Moxa** **42.35 306** P **P** **14 45 33.4 +1.4**
comp=Z,38nm,1.0s
ABTA **Abfaltersbach** **42.39 300** *i* P **P** **14 45 32.9 +0.4**
comp=Z,8.4nm,0.7s
FLTG **Flechtingen** **42.39 309** P **P** **14 45 32.7 +0.4**
comp=Z,115nm,0.9s
NAO01 **NORSAR Array S** **42.39 321** P **P** **14 45 31.5 -0.8**
NAO01 IAmb IAmb 14 45 33.8
comp=Z,46nm,0.8s
NAO01 **NORSAR Array S** **42.39 321** P **P** **14 45 32.3 +0.1**
comp=Z,39nm,0.8s
GRB3 **Grafenberg Arr** **42.41 304** P **P** **14 45 34.7 +2.1**
comp=Z,114nm,1.1s
OSL **Oslo** **42.43 320** *e*P **P** **14 45 32.9 +0.4**
NBO00 **NORSAR Array S** **42.45 321** P **P** **14 45 31.9 -0.8**
NBO00 IAmb IAmb 14 45 34.0
comp=Z,63nm,0.7s
NC204 **NORSAR Array S** **42.47 322** P **P** **14 45 32.1 -0.9**
NC204 IAmb IAmb 14 45 34.3
comp=Z,92nm,1.1s
GRB1 **Grafenberg Arr** **42.50 304** P **P** **14 45 35.5 +2.2**
comp=Z,115nm,1.0s
GRB2 **Grafenberg Arr** **42.51 304** P **P** **14 45 34.9 +1.5**
comp=Z,105nm,0.9s
GRB5 **Grafenberg Arr** **42.52 304** P **P** **14 45 35.0 +1.4**
comp=Z,89nm,0.9s
GRB4 **Grafenberg Arr** **42.55 304** P **P** **14 45 36.0 +2.2**
comp=Z,70nm,1.1s
GRC3 **Grafenberg Arr** **42.62 303** P **P** **14 45 35.4 +1.1**
comp=Z,43nm,0.9s
GRC4 **Grafenberg Arr** **42.63 304** P **P** **14 45 36.5 +2.1**
comp=Z,90nm,0.9s
GRC1 **Grafenberg Arr** **42.65 304** P **P** **14 45 36.4 +1.9**
comp=Z,71nm,0.9s
GRA3 **Grafenberg Arr** **42.66 305** P **P** **14 45 36.4 +1.8**
comp=Z,94nm,1.1s
GRA1 **Grafenberg Arr** **42.73 305** IAmb IAmb 14 45 38.5
comp=Z,67nm,1.0s
GRA1 **Grafenberg Arr** **42.73 305** P **P** **14 45 36.9 +1.7**
comp=Z,79nm,1.0s
ASSE **Asse, Remlinge** **42.75 308** P **P** **14 45 36.1 +0.8**
comp=Z,10nm,0.8s
GRC2 **Grafenberg Arr** **42.76 303** P **P** **14 45 37.1 +1.7**
comp=Z,54nm,0.9s
BSEG **Bad Segeberg** **42.79 311** P **P** **14 45 37.5 +1.9**
comp=Z,86nm,0.9s
BJO1 **Bjornoya** **42.87 342** *e*P **P** **14 45 36.7 +0.8**
BJO1 IAmb IAmb 14 45 37.1
comp=Z,49nm,0.7s
WTTA **Wattenberg** **42.88 301** *i* P **P** **14 45 37.2 +0.6**
comp=Z,32nm,0.9s,SNR=11
WTTA *i* PP **PP** **14 47 20.4 +4.4**
comp=Z,21nm,1.1s
WTTA **Wattenberg** **42.88 301** P **P** **14 45 36.7 0.0**
comp=Z,42nm,1.0s
WATA **Walderalm** **42.90 301** *i* P **P** **14 45 37.2 +0.5**
comp=Z,19nm,0.7s,SNR=7.1
WATA *e*PP **PP** **14 47 20.5 +4.3**
comp=Z,16nm,1.3s
CLZ **Clausthal** **42.97 308** P **P** **14 45 38.7 +1.5**
comp=Z,40nm,1.4s
KONO **Kongsberg** **42.99 319** *i* P **P** **14 45 36.9 -0.2**
KONO pmax pmax
comp=Z,44nm,0.9s
KONO **Kongsberg** **42.99 319** P **P** **14 45 36.8 -0.3**
KONO IAmb IAmb 14 45 38.5
comp=Z,52nm,0.8s
KONO **Kongsberg** **42.99 319** *e*P **P** **14 45 37.1 0.0**
KONO **Kongsberg** **42.99 319** P **P** **14 45 37.9 +0.8**
comp=Z,80nm,0.8s
CGRP **Cima Grappa** **43.05 299** P **P** **14 45 38.9 +0.9**
comp=Z,23nm,1.0s
KCSI **Kotacane, Aceh** **43.08 138** P **P** **14 45 35.4 -3.0**
MURB **Monte Urbino** **43.16 295** IAmb IAmb 14 45 42.4
comp=Z,62nm,1.1s
SQTA **Salto Quirin** **43.17 301** *i* P **P** **14 45 39.2 +0.3**
comp=Z,17nm,0.7s,SNR=6.9
SQTA *e*PP **PP** **14 47 21.5 +2.4**
comp=Z,17nm,0.9s
MOTA **Moosalm** **43.22 301** *i* P **P** **14 45 39.6 +0.2**
comp=Z,24nm,0.8s,SNR=13
MOTA *e*PP **PP** **14 47 21.1 +1.5**
comp=Z,12nm,1.0s
TEOL **Teolo** **43.25 298** IAmb IAmb 14 45 41.6
comp=Z,56nm,0.9s
GTTG **Gottingen** **43.26 308** P **P** **14 45 40.6 +1.1**
comp=Z,182nm,1.0s
MUD **Monsted U'grnd** **43.27 315** *i* P **P** **14 45 41.0 +1.6**
MUD IAmb IAmb 14 45 41.7
comp=Z,20nm,0.9s
DOMB **Dombas** **43.33 323** *e*P **P** **14 45 40.2 +0.3**
DOMB IAmb IAmb 14 45 41.1
comp=Z,37nm,0.8s
RETA **Reutte** **43.41 302** *i* P **P** **14 45 41.4 +0.6**
comp=Z,13nm,1.0s,SNR=5.5
VAE **Valguarnera** **43.50 286** LR LR 15 07 42.5
comp=Z,163nm,18.9s,baz=110,slow=41
FETA **Feichten** **43.53 301** *i* P **P** **14 45 42.2 +0.3**
comp=Z,20nm,1.1s,SNR=7.6
FETA *e*PcP **PcP** **14 47 28.5 -1.0**
comp=Z,20nm,1.0s
HOMB **Homborsund** **43.56 317** *e*P **P** **14 45 42.3 +0.6**
HOMB IAmb IAmb 14 45 43.2
comp=Z,42nm,0.9s
HOMB **Homborsund** **43.56 317** *i* P **P** **14 45 42.6 +0.9**
SKAR **Skarslia** **43.65 321** *e*P **P** **14 45 42.8 +0.3**
SKAR IAmb IAmb 14 45 44.6
comp=Z,17nm,0.8s
TIXI **Tiksi** **43.73 23** LR LR 15 05 15.4
comp=Z,1µm,19.8s,baz=324,slow=38
TIXI **Tiksi** **43.73 23** *c* *i*P **P** **14 45 43.1 +0.2**
TIXI pmax pmax
comp=Z,81nm,1.0s
TIXI **Tiksi** **43.73 23** P **P** **14 45 42.4 -0.5**
TIXI **Tiksi** **43.73 23** P **P** **14 45 42.6 -0.3**
comp=Z,200nm,0.9s
UBR **Uelderruh** **43.81 302** P **P** **14 45 44.6 +0.6**
comp=Z,69nm,1.0s
FUORN **Ofenpass-Fuorn** **43.93 300** P **P** **14 45 45.7 +0.5**
comp=Z,20nm,1.0s
ZCCA **Zocca** **43.97 297** IAmb IAmb 14 45 56.5
comp=Z,76nm,1.5s
SALO **Salr** **43.98 299** IAmb IAmb 14 45 47.6
comp=Z,34nm,0.8s
DAVA **Damuels** **44.04 301** *i* P **P** **14 45 46.7 +0.7**
comp=Z,51nm,0.6s,SNR=21
DAVA *e*PcP **PP** **14 47 29.1 +0.6**
comp=Z,11nm,0.8s
DAVA **Damuels** **44.04 301** P **P** **14 45 46.1 +0.1**
comp=Z,103nm,0.9s
MOL **Molde** **44.06 324** *e*P **P** **14 45 45.7 +0.1**
MOL IAmb IAmb 14 45 47.3
comp=Z,22nm,0.7s
IPM **Ipoh** **44.06 133** P **P** **14 45 45.0 -1.3**
IPM **Ipoh** **44.06 133** P **P** **14 45 45.3 -0.9**
IPM IAmb IAmb 14 45 46.2
comp=Z,27nm,0.7s
IPM **Ipoh** **44.06 133** P **P** **14 45 45.0 -1.3**
comp=Z,42nm,0.8s
IPM **Ipoh** **44.06 133** P **P** **14 45 45.4 -0.9**
comp=Z,42nm,0.8s
KLR **Kul'dur** **44.10 56** *c* *i*P **P** **14 45 46.2 0.0**
KLR pmax pmax
comp=Z,8.0nm,1.2s
DAVOX **Davos/Dischmat** **44.15 301** P **P** **14 45 46.8 -0.1**
comp=Z,36nm,0.5s,baz=88,slow=6.3,SNR=48
DAVOX LR LR 15 08 07.7
comp=Z,363nm,19.0s,baz=70,slow=41
comp=Z,36nm,0.5s
SNART **Snartemo** **44.24 318** *e*P **P** **14 45 47.5 +0.3**
SNART **Snartemo** **44.24 318** *i* P **P** **14 45 48.4 +1.2**
PSI **Prapat** **44.30 137** P **P** **14 45 46.4 -1.9**
PSI pmax pmax
comp=Z,15nm,1.1s
PSI **Prapat** **44.30 137** P **P** **14 45 46.4 -1.9**
comp=Z,13nm,0.8s
AKN **Aaknes** **44.30 323** *e*P **P** **14 45 48.2 +0.5**
AKN IAmb IAmb 14 45 49.2
comp=Z,23nm,0.8s
RPSI **Rantau Prapat** **44.39 137** P **P** **14 45 46.4 -2.4**
TNS **Taunus Mts** **44.41 306** P **P** **14 45 50.4 +1.6**
comp=Z,25nm,1.1s
VLC **Villacollemand** **44.43 297** P **P** **14 45 50.8 +1.9**
comp=Z,49nm,0.9s
KS19 **Wonju Array Si** **44.48 73** P **P** **14 45 49.3 -0.1**
ODD1 **Oddа** **44.49 320** *e*P **P** **14 45 49.6 +0.4**
IBBN **Ibbenburen** **44.51 309** P **P** **14 45 50.8 +1.4**
comp=Z,99nm,1.0s
KSAR **Wonju Array Be** **44.51 73** P **P** **14 45 48.8 -0.9**
KSAR **Wonju Array Be** **44.51 73** P **P** **14 45 48.8 -0.9**
KSRS **Korea Array** **44.53 73** P **P** **14 45 49.4 -0.4**
comp=Z,4.7nm,0.7s,baz=291,slow=6.0,SNR=24
KSRS ScP **ScP** **14 51 22.2 -1.6**
comp=Z,2.9nm,1.0s,baz=293,slow=4.1,SNR=5.9
comp=Z,4.7nm,0.7s
TUE **Stuetta** **44.58 300** P **P** **14 45 50.7 +0.4**
comp=Z,67nm,0.6s
TUE **Stuetta** **44.58 300** P **P** **14 45 50.7 +0.4**
comp=Z,17nm,0.6s
BLS5 **Blasjo** **44.59 319** *e*P **P** **14 45 50.3 +0.3**
BLS5 IAmb IAmb 14 45 52.2
comp=Z,74nm,1.2s
HYA **Hoyanger** **44.68 322** *e*P **P** **14 45 50.9 +0.2**
BFO **Black Forest** **44.85 303** P **P** **14 45 52.8 +0.5**
BFO pmax pmax
comp=Z,24nm,0.7s
BFO **Black Forest** **44.85 303** P **P** **14 45 52.8 +0.5**
BFO IAmb IAmb 14 45 54.1
comp=Z,24nm,0.7s
SLE **Schleitheim** **44.86 302** P **P** **14 45 52.5 +0.1**
comp=Z,13nm,0.6s
GSI **Gunungsitoli** **44.87 140** P **P** **14 45 52.9 +0.2**
GSI **Gunungsitoli** **44.87 140** P **P** **14 45 52.1 -0.6**
GSI **Gunungsitoli** **44.87 140** P **P** **14 45 52.5 -0.2**
comp=Z,80nm,0.7s
GSI **Gunungsitoli** **44.87 140** P **P** **14 45 53.0 +0.3**
comp=Z,80nm,0.7s
BUG **Bochum--Univer** **44.94 308** P **P** **14 45 54.3 +1.5**
comp=Z,45nm,1.1s
MSSA **Maissana** **44.99 297** IAmb IAmb 14 45 55.5
comp=Z,26nm,0.8s
SPB2 **Spitsbergen Ar** **45.07 346** IAmb IAmb 14 46 19.1
comp=Z,70nm,1.1s
SPA0 **Spitsbergen Ar** **45.08 346** *e*P **P** **14 45 54.7 +1.0**
SPITS **Spitsbergen Ar** **45.08 346** P **P** **14 45 53.6 0.0**
comp=Z,21nm,0.7s,baz=109,slow=15,SNR=11
SPITS LR LR 15 07 15.7
comp=Z,1µm,18.6s,baz=119,slow=39
comp=Z,21nm,0.7s
BNALP **Bannalp** **45.10 301** P **P** **14 45 54.1 -0.4**
comp=Z,67nm,1.0s
BER **Bergen** **45.12 321** *e*P **P** **14 45 54.9 +0.7**
BER IAmb IAmb 14 45 55.8
comp=Z,55nm,0.7s
WTSB **Winterswijk** **45.15 309** P **P** **14 45 55.5 +1.0**
comp=Z,81nm,1.0s
ASK **Askoy** **45.19 321** *e*P **P** **14 45 55.1 +0.5**
ASK IAmb IAmb 14 45 56.2
comp=Z,53nm,0.7s
KMY **Karmoy** **45.22 319** *e*P **P** **14 45 55.2 +0.2**
KMY IAmb IAmb 14 45 56.9
comp=Z,26nm,0.8s
FOO **Floro** **45.23 322** *e*P **P** **14 45 55.3 +0.3**
USRK **Ussuriysk Ar.** **45.40 63** P **P** **14 45 56.2 -0.4**
comp=Z,2.7nm,0.6s,baz=242,slow=11,SNR=5.6
USRK LR LR 15 06 48.1
comp=Z,1µm,18.7s,baz=279,slow=38
comp=Z,2.7nm,0.6s
VLA **Vladivostok** **45.62 64** *i* P **P** **14 45 57.5 -0.9**
VLA pmax pmax
comp=Z,26nm,0.9s
ECH **Echery** **45.64 303** P **P** **14 45 59.3 +0.8**
comp=Z,15nm,0.8s
BOURR **Bourrignon** **45.78 302** P **P** **14 46 00.4 +0.7**
comp=Z,53nm,0.9s
PGF **Pioggiola** **45.84 295** P **P** **14 46 00.6 +0.3**
comp=Z,39nm,0.9s
MEM **Membach** **45.88 307** *d*P **P** **14 46 01.3 +1.0**
comp=Z,24nm,1.0s
MEM **Membach** **45.88 307** P **P** **14 46 01.5 +1.2**
comp=Z,44nm,1.0s
HGN **Heimansgroeve** **45.89 307** P **P** **14 46 01.6 +1.2**
comp=Z,13nm,1.1s
WLF **Walferdange** **45.97 305** *d*P **P** **14 46 02.1 +0.9**
comp=Z,55nm,0.8s
WLF **Walferdange** **45.97 305** P **P** **14 46 02.4 +1.2**
comp=Z,86nm,0.8s
KBS **Kingsbay** **46.19 347** *i* P **P** **14 46 03.6 +1.1**
BMOL **Mol** **46.33 308** *d*P **P** **14 46 04.8 +1.0**
BCLA **Clavier** **46.35 307** *d*P **P** **14 46 05.4 +1.3**
comp=Z,11nm,0.9s
RCHB **Rochefort** **46.46 306** *d*P **P** **14 46 05.3 +0.4**
comp=Z,16nm,0.8s
RCHB **Rochefort** **46.46 306** P **P** **14 46 05.6 +0.7**
comp=Z,22nm,0.8s
MON **Monaco** **46.60 297** P **P** **14 46 07.7 +1.6**
comp=Z,42nm,1.2s
ESCA **l'Escarene** **46.61 297** P **P** **14 46 07.4 +1.2**
comp=Z,57nm,0.9s
GIMEL **St. Georges /** **46.63 301** P **P** **14 46 06.9 +0.4**
comp=Z,72nm,0.9s
BMRD **Maredsous** **46.71 307** *d*P **P** **14 46 07.2 +0.2**
comp=Z,20nm,1.1s
ISO **Isola** **46.73 298** P **P** **14 46 08.2 +1.0**
comp=Z,24nm,0.8s
BNI **Bardonecchia** **46.74 299** IAmb IAmb 14 46 09.9
comp=Z,40nm,1.1s
BNI **Bardonecchia** **46.74 299** P **P** **14 46 08.3 +0.9**
comp=Z,44nm,1.0s
GRNR **Gornyy** **46.76 53** ⇑ *i*P **P** **14 46 06.1 -1.2**
GRNR pmax pmax
comp=Z,10.0nm,0.7s
GRNR MLR MLR
comp=E,560nm,13.0s
GRNR MLR MLR
comp=N,140nm,10.0s
GRNR MLR MLR
comp=Z,580nm,10.0s
DOU **Dourbes** **46.87 306** *d*P **P** **14 46 09.5 +1.4**
comp=Z,13nm,1.1s
DOU *d*PcP **PcP** **14 47 41.2 +0.5**
CALF **Calern** **46.94 297** P **P** **14 46 10.4 +1.4**
comp=Z,43nm,0.9s
BSKQ **Steenkerk** **47.07 307** *d*P **P** **14 46 09.6 0.0**
comp=Z,27nm,0.8s
ORIF **Oris-en-Rattie** **47.32 299** P **P** **14 46 12.4 +0.5**
comp=Z,18nm,0.9s
LODK **Lodwar** **47.60 231** P **P** **14 46 16.6 +2.3**
SNR=5.9
LODK **Lodwar** **47.60 231** P **P** **14 46 14.2 -0.1**
LODK **Lodwar** **47.60 231** P **P** **14 46 17.1 +2.8**
comp=Z,13nm,1.1s
PPI **Padang Panjang** **47.82 138** P **P** **14 46 14.6 -1.3**
KEST **Kesra** **47.93 286** P **P** **14 46 17.1 +0.4**
comp=Z,17nm,0.7s,baz=148,slow=0.2,SNR=18
KEST LR LR 15 10 43.7
comp=Z,119nm,18.6s,baz=72,slow=41
comp=Z,17nm,0.7s
KEST **Kesra** **47.93 286** IAmb IAmb 14 46 19.3
comp=Z,21nm,0.8s
LOR **Lormes** **48.03 303** P **P** **14 46 17.4 +0.2**
comp=Z,31nm,0.9s
ARBF **Arbois** **48.12 298** P **P** **14 46 19.8 +1.9**
comp=Z,56nm,0.9s
SSB **Saint Sauveur** **48.13 300** IAmb IAmb 14 46 28.4
comp=Z,32nm,0.9s
SSB **Saint Sauveur** **48.13 300** P **P** **14 46 19.4 +1.3**
comp=Z,49nm,1.1s
LRW **Lerwick** **48.38 321** *e*P **P** **14 46 19.2 -0.4**
LRW IAmb IAmb 14 46 21.4
comp=Z,47nm,0.9s
WACR **West Acre** **48.71 311** *e*P **P** **14 46 22.9 +0.5**
WACR IAmb IAmb 14 46 25.3
comp=Z,137nm,0.9s
ELSH **Elham, Standar** **48.77 308** P **P** **14 46 24.2 +1.4**
comp=Z,51nm,0.9s
DRUM **Mains of Drumt** **49.59 316** *e*P **P** **14 46 29.0 -0.1**
DRUM IAmb IAmb 14 46 30.3
comp=Z,21nm,0.6s
EDMD **Edmundbyers** **49.74 314** *e*P **P** **14 46 29.6 -0.7**
EDMD IAmb IAmb 14 46 31.6
comp=Z,26nm,0.6s
EDMD **Edmundbyers** **49.74 314** P **P** **14 46 31.0 +0.7**
comp=Z,69nm,1.1s
CWF **Charnwood Fore** **49.85 311** P **P** **14 46 31.9 +0.8**
comp=Z,20nm,1.4s
MCD **Coleburn Disti** **49.87 317** *e*P **P** **14 46 30.6 -0.5**
MCD IAmb IAmb 14 46 32.6
comp=Z,61nm,0.6s
LBWR **Ladybower, Pea** **49.94 312** *e*P **P** **14 46 31.2 -0.5**
LBWR IAmb IAmb 14 46 33.1
comp=Z,16nm,0.8s
BIGH **Upper Bighouse** **50.03 319** *e*P **P** **14 46 32.3 0.0**
BIGH IAmb IAmb 14 46 34.1
comp=Z,29nm,0.8s
DSRI **Dabo** **50.13 133** P **P** **14 46 33.5 -0.1**
comp=Z,17nm,1.0s
EJON **La Jonquera** **50.16 297** P **P** **14 46 34.8 +1.2**
comp=Z,51nm,1.5s
KMBO **Kilima Mbogo** **50.17 226** P **P** **14 46 33.3 -0.9**
EDI **Edinburgh** **50.18 315** *e*P **P** **14 46 32.2 -1.3**
EDI IAmb IAmb 14 46 35.1
comp=Z,21nm,0.6s
JMIC **Jan Mayen** **50.24 335** LR LR 15 08 08.2
comp=Z,975nm,18.9s,baz=122,slow=36
EKA **Eskdalemuir Ar** **50.30 315** P **P** **14 46 34.1 -0.3**
comp=Z,15nm,0.6s,baz=89,slow=7.7,SNR=53
EKA LR LR 15 11 47.5
comp=Z,455nm,18.6s,baz=71,slow=41
comp=Z,15nm,0.6s
MTLF **Montolieu** **50.32 298** P **P** **14 46 35.5 +0.7**
comp=Z,50nm,0.7s
ESK **Eskdalemuir** **50.33 315** P **P** **14 46 34.3 -0.4**
ESK pmax pmax
comp=Z,55nm,1.5s
ESK **Eskdalemuir** **50.33 315** P **P** **14 46 34.3 -0.4**
ESK IAmb IAmb 14 46 43.3
comp=Z,55nm,1.4s
ESK **Eskdalemuir** **50.33 315** *e*P **P** **14 46 33.6 -1.0**
ESK IAmb IAmb 14 46 37.4
comp=Z,14nm,0.8s
ESK **Eskdalemuir** **50.33 315** P **P** **14 46 35.5 +0.9**
comp=Z,31nm,0.9s

ESK Eskdalemuir 50.33 315 P P 14 46 35.6 +0.9
comp=Z,31nm,0.9s
KESW Keswick, Cumbr 50.44 314 *e*P P 14 46 35.0 -0.5
KESW IAmb IAmb 14 46 37.2
comp=Z,27nm,0.7s
INVG Invergeldie, C 50.54 316 *e*P P 14 46 35.2 -1.0
INVG IAmb IAmb 14 46 37.7
comp=Z,15nm,1.0s
KIBK Kibwezi 50.75 224 P P 14 46 40.3 +2.0
SNR=16
KIBK Kibwezi 50.75 224 P P 14 46 39.5 +1.1
KIBK IAmb IAmb 14 46 41.9
comp=Z,51nm,0.9s
KIBK Kibwezi 50.75 224 P P 14 46 40.1 +1.7
comp=Z,70nm,1.0s
EAB Aberfoyle 50.75 316 *e*P P 14 46 37.0 -0.9
EAB IAmb IAmb 14 46 39.4
comp=Z,15nm,0.7s
HLM1 Long Mynd 50.84 311 *e*P P 14 46 38.0 -0.5
HLM1 IAmb IAmb 14 46 39.8
comp=Z,6.8nm,0.8s
MFF Saint Martin d 50.85 303 P P 14 46 39.4 +0.7
comp=Z,8.9nm,1.0s
PGBU Glenifferbraes 50.92 315 *e*P P 14 46 38.9 -0.2
PGBU IAmb IAmb 14 46 40.9
comp=Z,84nm,0.6s
NEWG New Galloway 50.95 314 *e*P P 14 46 38.9 -0.4
NEWG IAmb IAmb 14 46 40.9
comp=Z,26nm,0.7s
MASI Maura Aman, Be 51.06 137 P P 14 46 39.0 -1.7
KPL Plockton 51.19 317 *e*P P 14 46 40.3 -0.7
KPL IAmb IAmb 14 46 42.3
comp=Z,28nm,0.7s
NOR Nord 51.38 349 P P 14 46 43.3 +1.1
NOR Nord 51.38 349 *i*P P 14 46 42.7 +0.5
NOR IAmb IAmb 14 46 43.8
comp=Z,12nm,0.8s
YSS Yuzhno-Sakhali 51.81 56 P P 14 46 47.4 +1.5
YSS Yuzhno-Sakhali 51.81 56 *e*P P 14 46 45.8 -0.1
YSS *e*S S 14 54 03.0 -4.0
YSS pmax pmax
comp=Z,40nm,1.1s
YSS pmax pmax
comp=Z,300nm,7.5s
YSS MLR MLR
comp=Z,600nm,18.0s
YSS MLR MLR
comp=E,700nm,16.0s
YSS Yuzhno-Sakhali 51.81 56 P P 14 46 45.7 -0.1
YSS IAmb IAmb 14 46 55.2
comp=Z,63nm,1.2s
YSS Yuzhno-Sakhali 51.81 56 P P 14 46 46.4 +0.5
comp=Z,49nm,1.1s
DYA Yadsworthy 52.06 309 *e*P P 14 46 47.0 -0.7
DYA IAmb IAmb 14 46 50.6
comp=Z,7.6nm,0.7s
INU Inuyama 52.11 72 P P 14 46 48.1 -0.2
INU Inuyama 52.11 72 P P 14 46 48.0 -0.4
INU Inuyama 52.11 72 P P 14 46 48.4 +0.1
comp=Z,30nm,1.2s
ROSF Rostrenen 52.31 306 P P 14 46 50.5 +0.9
comp=Z,62nm,1.4s
DAG Danmarks Havn 52.32 343 P P 14 46 49.6 +0.3
comp=Z,96nm,0.9s
DAG Danmarks Havn 52.32 343 *i*P P 14 46 49.0 -0.3
DAG IAmb IAmb 14 46 50.9
comp=Z,52nm,0.7s
ATE Arette 52.41 299 P P 14 46 51.7 +1.3
comp=Z,18nm,1.3s
MAJO Matsushiro 52.49 70 P P 14 46 50.6 -0.6
MAJO Matsushiro 52.49 70 P P 14 46 50.6 -0.6
MAJO pmax pmax
comp=Z,17nm,0.9s
MAJO Matsushiro 52.49 70 P P 14 46 50.5 -0.7
MAJO Matsushiro 52.49 70 P P 14 46 50.5 -0.7
comp=Z,25nm,1.0s
MJAR Matsushiro Arr 52.49 70 P P 14 46 51.1 0.0
comp=Z,16nm,1.0s,baz=294,slow=9.0,SNR=22
MJAR LR LR 15 11 28.7
comp=Z,209nm,18.7s,baz=306,slow=39
comp=Z,16nm,1.0s
KKM Kota Kinabalu 52.62 116 P P 14 46 52.8 +0.4
KKM Kota Kinabalu 52.62 116 P P 14 46 52.6 +0.2
KKM Kota Kinabalu 52.62 116 P P 14 46 51.3 -1.1
comp=Z,975nmcomp=Z,87nm,1.1s
KKM Kota Kinabalu 52.62 116 P P 14 46 54.7 +2.3
comp=Z,86nm,1.1s
ASAJ Asahikawa 52.67 60 LR LR 15 10 42.6
comp=Z,348nm,18.3s,baz=264,slow=38
SEY Seymchan 52.68 35 LR LR 15 11 39.8
comp=Z,674nm,19.6s,baz=324,slow=39
SEY Seymchan 52.68 35 *i*P P 14 46 49.5 -2.6
SEY pmax pmax
comp=Z,10.0nm,0.9s
MA2 Magadan 52.75 39 LR LR 15 11 45.9
comp=Z,256nm,19.2s,baz=284,slow=39
MA2 Magadan 52.75 39 *i*P P 14 46 51.8 -0.9
MA2 pmax pmax
comp=Z,36nm,1.1s
DBG Daneborg 53.20 340 P P 14 46 57.0 +1.1
comp=Z,19nm,2.6s
DBG Daneborg 53.20 340 *i*P P 14 46 56.9 +1.1
DBG IAmb IAmb 14 46 57.5
comp=Z,16nm,0.9s
MBAR Mbarara 53.59 233 LR LR 15 12 45.6
comp=Z,516nm,18.6s,baz=38,slow=39
MBAR Mbarara 53.59 233 P P 14 47 01.2 +1.6
MBAR Mbarara 53.59 233 *i*P P 14 47 01.4 +1.7
MBAR pmax pmax
comp=Z,12nm,0.9s
MBAR Mbarara 53.59 233 P P 14 47 00.9 +1.2
comp=Z,24nm,0.9s
SCO Scoresbysund 54.70 336 *i*P P 14 47 07.9 +1.1
CART Cartagena 54.78 293 P P 14 47 09.3 +1.4
comp=Z,113nm,0.8s
ESBB Sonseca Array 56.00 296 IAmb IAmb 14 47 18.5
comp=Z,24nm,0.8s
ESDC Sonseca Array 56.00 296 P P 14 47 16.5 -0.3
comp=Z,28nm,0.9s,baz=58,slow=7.3,SNR=160
ESDC LR LR 15 16 13.2
comp=Z,242nm,18.5s,baz=50,slow=41
comp=Z,28nm,0.9s
ESDC Sonseca Array 56.00 296 P P 14 47 16.8 0.0
PAB San Pablo 56.33 296 P P 14 47 19.5 +0.4
PAB pmax pmax
comp=Z,18nm,0.9s
PAB San Pablo 56.33 296 P P 14 47 19.5 +0.4
PAB San Pablo 56.33 296 P P 14 47 19.7 +0.5
comp=Z,28nm,1.1s
BORG Borgarnes 56.34 329 LR LR 15 11 51.1
comp=Z,238nm,19.9s,baz=80,slow=36
BILL Bilibino 56.65 27 *i*P P 14 47 20.6 -0.3
BILL pmax pmax
comp=Z,20nm,1.1s
BILL Bilibino 56.65 27 P P 14 47 22.0 +1.1
BILL IAmb IAmb 14 47 30.3
comp=Z,31nm,1.0s
BILI Bilibino, Chuk 56.71 27 P P 14 47 21.9 +0.7
comp=Z,32nm,1.5s
TAM Tamanrasset 56.93 274 P P 14 47 25.4 +1.8
comp=Z,5.5nm,0.8s
ECAL Calabor 56.96 300 P P 14 47 24.9 +1.3
comp=Z,52nm,1.0s
PBRG Braganca 57.02 300 *e*P P 14 47 25.3 +1.3
PBRG *ep*P sP 14 47 32.6 -1.5
PBRG IAmb IAmb 14 47 42.8
comp=Z,27nm,1.6s
LEM Lembang 57.05 134 LR LR 15 14 19.1
comp=Z,113nm,18.6s,baz=334,slow=39
PKKI Palangkaraya 57.22 125 P P 14 47 26.6 +1.0
EMAL Malaga-Limoner 57.60 293 P P 14 47 28.1 0.0
comp=Z,11nm,1.0s
POLO Lamas de Olo 57.92 300 *e*P P 14 47 31.5 +1.1
POLO IAmb IAmb 14 48 07.1
comp=Z,13nm,1.4s
PCAB Cabril 57.93 300 *e*P P 14 47 31.8 +1.4
PCAB *ep*P pP 14 47 38.4 +1.2
PCAB IAmb IAmb 14 47 40.6
comp=Z,78nm,1.6s
PGAV Gavieira, Arco 57.99 300 *e*P P 14 47 32.2 +1.4
PGAV *ep*P pP 14 47 38.7 +1.0
PGAV IAmb IAmb 14 47 40.7
comp=Z,56nm,1.4s
MTE Manteigas 58.17 298 IAmb IAmb 14 47 42.6
comp=Z,30nm,1.1s
MTE Manteigas 58.17 298 *e*P P 14 47 33.6 +1.4
MTE IAmb IAmb 14 47 42.7
comp=Z,46nm,1.4s
MTE Manteigas 58.17 298 P P 14 47 33.5 +1.4
comp=Z,30nm,1.4s
PVIS Viseu 58.27 299 *e*P P 14 47 34.0 +1.2
PVIS *ep*P pP 14 47 40.8 +1.1
PCBR Castelo Branco 58.37 298 *e*P P 14 47 34.4 +1.0
PCBR *ep*P pP 14 47 41.8 +1.5
PCBR IAmb IAmb 14 47 44.4
comp=Z,23nm,1.5s
PMRV Marv??o 58.50 297 *e*P P 14 47 35.9 +1.5
PMRV IAmb IAmb 14 47 46.2
comp=Z,32nm,1.5s
PETK Petropavlovsk- 58.55 45 P P 14 47 33.5 -1.0
comp=Z,3.6nm,0.6s,baz=298,slow=4.4,SNR=15
PETK LR LR 15 14 08.5
comp=Z,356nm,19.0s,baz=294,slow=37
comp=Z,3.6nm,0.6s
NEEM North Greenlan 58.61 347 *i*P P 14 47 34.4 -0.6
NEEM IAmb IAmb 14 47 37.0
comp=Z,43nm,0.9s
DAV Davao City (W) 58.69 108 LR LR 15 16 38.9
comp=Z,201nm,18.5s,baz=334,slow=40
PBAR Barrancos 58.82 296 *e*P P 14 47 37.6 +1.1
PBAR *ep*P pP 14 47 44.8 +1.4
PBAR IAmb IAmb 14 47 46.2
comp=Z,44nm,1.2s
PSARD Sardoal 58.95 298 *e*P P 14 47 38.6 +1.1
PSARD IAmb IAmb 14 47 48.5
comp=Z,28nm,1.9s
PMTG Montargil 59.24 297 *e*P P 14 47 40.4 +1.0
PMTG IAmb IAmb 14 48 27.7
comp=Z,15nm,2.1s
EVO Evora 59.33 297 *e*P P 14 47 40.7 +0.6
EVO IAmb IAmb 14 47 51.1
comp=Z,24nm,1.5s
EVO Evora 59.33 297 P P 14 47 40.7 +0.6
comp=Z,6.4nm,1.5s
PBEJ Beja 59.46 296 *e*P P 14 47 42.3 +1.2
PBEJ *ep*P pP 14 47 49.5 +1.5
PBEJ IAmb IAmb 14 47 50.8
comp=Z,32nm,1.3s
MDT Midelt 59.58 289 LR LR 15 18 09.5
comp=Z,79nm,20.0s,baz=51,slow=41
IFR Ifrane 59.62 290 P P 14 47 44.2 +1.8
comp=Z,6.2nm,1.4s
PVAQ Vaqueiros 59.65 295 *e*P P 14 47 43.2 +0.9
PVAQ *ep*P pP 14 47 50.6 +1.5
PVAQ IAmb IAmb 14 47 52.0
comp=Z,45nm,1.2s
PVAQ Vaqueiros 59.65 295 P P 14 47 43.5 +1.2
comp=Z,34nm,1.1s
MD01 Midelt array s 59.66 289 P P 14 47 42.3 -0.4
PCVE Castro Verde 59.77 296 *e*P P 14 47 44.1 +0.9
PCVE *ep*P pP 14 47 50.5 +0.5
PCVE IAmb IAmb 14 48 03.7
comp=Z,36nm,1.7s
MESJ Messejana 59.80 296 *e*P P 14 47 44.1 +0.8
MESJ IAmb IAmb 14 47 45.9
comp=Z,13nm,1.6s
MESJ Messejana 59.80 296 *e*P P 14 47 44.7 +1.3
MESJ *ep*P pP 14 47 51.7 +1.5
PLOUS Minas do Lousa 59.85 296 *e*P P 14 47 45.2 +1.6
PLOUS IAmb IAmb 14 47 58.1
comp=Z,37nm,1.7s
PBDV Barranco-do-Ve 59.87 295 *e*P P 14 47 45.3 +1.4
PBDV *ep*P pP 14 47 52.2 +1.4
PBDV IAmb IAmb 14 47 58.7
comp=Z,56nm,1.8s
PCI Palu 60.10 119 P P 14 47 46.9 +1.2
comp=Z,56nm,1.3s
PTEO Sao Teotonio 60.29 296 *e*P P 14 47 47.9 +1.2
MMSI Mamuju 60.78 121 P P 14 47 51.0 +0.7
comp=Z,1µmcomp=Z,133nm,1.1s
GTOI Gorontalo 61.21 115 P P 14 47 52.2 -1.0
comp=Z,51nm,1.1s
APSI Ampana 61.35 117 P P 14 47 53.7 -0.5
comp=Z,103nm,1.2s
ABPO Ambohimpanom 61.59 205 P P 14 47 55.7 -0.1
ABPO pmax pmax
comp=Z,51nm,1.6s
ABPO Ambohimpanom 61.59 205 P P 14 47 55.7 -0.1
ABPO IAmb IAmb 14 47 57.6
comp=Z,51nm,1.6s
ABPO Ambohimpanom 61.59 205 P P 14 47 56.6 +0.8
comp=Z,26nm,1.2s
KULLO Kullorsuaq 61.65 346 P P 14 47 56.6 +1.2
comp=Z,67nm,1.0s
KULLO Kullorsuaq 61.65 346 *i*P P 14 47 56.2 +0.8
KULLO IAmb IAmb 14 47 56.7
comp=Z,63nm,1.0s
TTSI Tana Toraja 61.66 121 P P 14 47 56.6 +0.4
comp=Z,82nm,1.1s
TULEG Thule 62.01 350 P P 14 47 58.8 +1.0
comp=Z,54nm,1.1s
TULEG Thule 62.01 350 *i*P P 14 47 58.4 +0.6
TULEG IAmb IAmb 14 47 59.0
comp=Z,38nm,0.8s
ANGG Ammassalik, Gr 62.09 333 *i*P P 14 47 59.0 +0.6
ANGG IAmb IAmb 14 48 00.4
comp=Z,81nm,0.6s
TIO Tiouine 62.47 289 P P 14 48 02.6 +0.8
comp=Z,28nm,1.2s
UPNV Upernavik 62.72 344 *i*P P 14 48 03.7 +1.1
UPNV IAmb IAmb 14 48 04.1
comp=Z,37nm,0.5s
KHKI Kahang-Kahang 62.97 128 P P 14 48 03.9 -1.1
comp=Z,73nm,1.1s
KAPI Kappang 63.07 122 LR LR 15 18 46.7
comp=Z,206nm,20.6s,baz=290,slow=39
SAATT Saattut 63.07 342 *i*P P 14 48 05.1 +0.2
SAATT IAmb IAmb 14 48 06.4
comp=Z,28nm,0.8s
ILULI Ilulissat 64.01 340 P P 14 48 12.3 +1.2
comp=Z,114nm,0.7s
ILULI Ilulissat 64.01 340 *i*P P 14 48 11.9 +0.7
ILULI IAmb IAmb 14 48 12.8
comp=Z,65nm,0.6s
TNTI Ternate 64.24 112 P P 14 48 14.3 +0.9
TNTI Ternate 64.24 112 P P 14 48 13.1 -0.4
TNTI Ternate 64.24 112 P P 14 48 13.8 +0.4
comp=Z,744nmcomp=Z,77nm,1.0s
TNTI Ternate 64.24 112 P P 14 48 14.1 +0.7
comp=Z,77nm,1.0s
VOI Vohitsoka 64.42 204 P P 14 48 15.2 +0.7
VOI Vohitsoka 64.42 204 P P 14 48 13.8 -0.7
VOI Vohitsoka 64.42 204 P P 14 48 15.3 +0.8
comp=Z,45nm,1.1s
GDH Godhavn 64.62 341 *i*P P 14 48 15.9 +0.8
GDH IAmb IAmb 14 48 16.4
comp=Z,24nm,0.8s
SANI Sanana 65.20 115 P P 14 48 19.4 -0.3
SANI Sanana 65.20 115 P P 14 48 18.9 -0.8
comp=Z,669nmcomp=Z,33nm,1.2s
SANI Sanana 65.20 115 P P 14 48 19.5 -0.3
comp=Z,34nm,1.2s
SFJD Kangerlussuaq 65.38 338 LR LR 15 17 00.9
comp=Z,616nm,20.8s,baz=24,slow=36
SFJD Kangerlussuaq 65.38 338 P P 14 48 19.8 -0.3
SFJD pmax pmax
comp=Z,38nm,0.9s
SFJD Kangerlussuaq 65.38 338 P P 14 48 19.8 -0.3
SFJD Kangerlussuaq 65.38 338 *i*P P 14 48 21.0 +0.9
SFJD IAmb IAmb 14 48 21.4
comp=Z,35nm,0.8s
TORD Torodi Ar. Bea 65.39 267 P P 14 48 19.8 -1.2
comp=Z,8.9nm,0.8s,baz=45,slow=5.4,SNR=15
comp=Z,8.9nm,0.8s
TORD Torodi Ar. Bea 65.39 267 P P 14 48 19.9 -1.1
LBFI Labuhan Bajo, 65.75 125 P P 14 48 20.8 -2.4
RES Resolute Bay 66.29 356 LR LR 15 21 33.0
comp=Z,692nm,18.4s,baz=13,slow=40
RES Resolute Bay 66.29 356 P P 14 48 26.5 +0.6
comp=Z,11nm,2.0s
POIN Pond Inlet 66.57 350 IAmb IAmb 14 48 40.4
comp=Z,19nm,1.0s
NLAI Namlea 66.82 115 P P 14 48 30.1 0.0
comp=Z,47nm,0.9s
EDFI Ende, Flores 67.12 123 P P 14 48 29.8 -2.3
comp=Z,17nm,0.7s
D20K Etivluk River 67.16 17 IAmb IAmb 14 48 40.7
comp=Z,36nm,1.1s
SHEM Shemya Is, Ala 67.38 40 LR LR 15 19 01.9
comp=Z,200nm,20.1s,baz=322,slow=37
MMRI Maumere 67.39 123 P P 14 48 33.3 -0.4
NRS Narsarsuaq 67.57 332 *i*P P 14 48 34.8 +0.6
NRS IAmb IAmb 14 48 35.7
comp=Z,32nm,0.6s
SIJI Sorong 68.20 110 P P 14 48 38.8 -0.1
comp=Z,17nm,0.9s,baz=333,slow=3.8,SNR=4.7
comp=Z,17nm,0.9s
D23K Nanushuk River 68.22 15 IAmb IAmb 14 48 48.2
comp=Z,42nm,1.1s
C26K Camden Bay 68.47 12 IAmb IAmb 14 48 49.7
comp=Z,21nm,1.0s
IVI Ivigtut 68.53 333 *i*P P 14 48 41.6 +1.4
IVI IAmb IAmb 14 48 42.8
comp=Z,31nm,0.8s
D25K Kavik River 68.73 13 IAmb IAmb 14 48 51.1
comp=Z,44nm,1.2s
C27K Jago River 68.92 12 IAmb IAmb 14 48 52.5
comp=Z,22nm,0.9s
F21K Alatna River 69.07 17 IAmb IAmb 14 48 52.5
comp=Z,26nm,0.8s
G19K Purcell Mounta 69.08 19 IAmb IAmb 14 48 52.4
comp=Z,26nm,0.8s
E23K Chandalar 69.20 15 IAmb IAmb 14 48 57.8
comp=Z,25nm,0.8s
H17K Granite Mounta 69.28 21 IAmb IAmb 14 48 54.0
comp=Z,33nm,0.9s
E24K Your Creek 69.41 15 IAmb IAmb 14 48 47.4
comp=Z,17nm,0.7s
BATI Baumata 69.50 123 P P 14 48 46.2 -0.7
comp=Z,36nm,0.7s,baz=297,slow=4.2,SNR=4.1
BATI LR LR 15 22 36.6
comp=Z,264nm,19.8s,baz=280,slow=39
comp=Z,36nm,0.7s
SOEI Soe 69.56 122 P P 14 48 49.0 +1.6
SOEI Soe 69.56 122 P P 14 48 48.0 +0.6
comp=Z,112nm,1.0s
SOEI Soe 69.56 122 P P 14 48 47.3 -0.2
comp=Z,113nm,1.0s
G21K Allakaket 69.64 17 IAmb IAmb 14 48 55.5
comp=Z,24nm,0.9s
H19K Roundabout Mou 69.73 19 IAmb IAmb 14 48 56.2
comp=Z,22nm,0.8s
IMAR Indian Mountai 70.02 18 P P 14 48 48.5 -0.9
ILON Igloolik, Nuna 70.13 350 IAmb IAmb 14 48 58.6
comp=Z,54nm,1.5s
G23K Bananza Creek 70.26 16 IAmb IAmb 14 49 00.1
comp=Z,24nm,1.0s
FAKI Fak Fak 70.30 111 P P 14 48 53.0 +1.1
FAKI Fak Fak 70.30 111 P P 14 48 51.2 -0.7
FAKI IAmb IAmb 14 49 05.2
comp=Z,28nm,0.9s
FAKI Fak Fak 70.30 111 P P 14 48 51.6 -0.3
comp=Z,38nm,1.1s
FAKI Fak Fak 70.30 111 P P 14 48 51.5 -0.4
comp=Z,38nm,1.1s
F25K Christian Rive 70.38 14 IAmb IAmb 14 49 05.7
comp=Z,19nm,0.8s
E28M Babbage River 70.51 11 IAmb IAmb 14 49 02.1
comp=Z,20nm,0.9s
H21K Melozitna Rive 70.52 18 IAmb IAmb 14 49 01.4
comp=Z,28nm,1.2s
E27K Coleen River 70.56 12 IAmb IAmb 14 49 02.3
comp=Z,23nm,1.0s
J17K VABM Dome 70.71 21 IAmb IAmb 14 49 02.9
comp=Z,41nm,1.2s
BMAR Burnt Mountain 70.72 14 P P 14 48 54.1 +0.4
G24K Hadweenzie Riv 70.80 15 IAmb IAmb 14 49 03.7
comp=Z,27nm,0.8s
E29M Blow River 70.95 11 IAmb IAmb 14 49 04.7
comp=Z,24nm,0.8s
H23K Yukon River 71.11 16 IAmb IAmb 14 49 05.8
comp=Z,34nm,1.1s
J19K Poorman 71.17 20 IAmb IAmb 14 49 05.8
comp=Z,26nm,1.0s
J18K Innoko River 71.31 20 IAmb IAmb 14 49 06.5
comp=Z,30nm,0.9s
F28M Old Crow 71.36 12 IAmb IAmb 14 49 07.8
comp=Z,37nm,1.4s
J20K Nowinta River 71.41 19 IAmb IAmb 14 49 07.1
comp=Z,31nm,0.8s
H24K Noodor Dome 71.46 16 IAmb IAmb 14 49 07.7
comp=Z,17nm,0.8s
MLY Manley 71.52 17 IAmb IAmb 14 49 07.7
comp=Z,31nm,1.3s
INK Inuvik 71.61 9 LR LR 15 23 24.3
comp=Z,234nm,21.8s,baz=343,slow=38
INK Inuvik 71.61 9 IAmb IAmb 14 49 08.3
comp=Z,31nm,0.8s
I23K Minto, Yukon-K 71.73 17 IAmb IAmb 14 49 09.2
comp=Z,33nm,1.0s
G27K Doyon Strip 71.79 13 IAmb IAmb 14 49 10.0
comp=Z,21nm,1.0s
F30M Barrier River 71.97 10 IAmb IAmb 14 49 10.6
comp=Z,23nm,0.7s
K20K Telida 72.10 19 IAmb IAmb 14 49 11.4
comp=Z,28nm,0.9s
BPAW Bear Paw Mtn. 72.25 18 IAmb IAmb 14 49 11.6
comp=Z,34nm,1.2s
NEA2 Nenana 72.27 17 IAmb IAmb 14 49 11.9
comp=Z,38nm,0.9s
COLA College 72.30 16 P P 14 49 03.2 0.0
COLA College 72.30 16 P P 14 49 03.4 +0.2
COLA pmax pmax
comp=Z,55nm,0.8s
COLA College 72.30 16 P P 14 49 03.4 +0.2
COLA College 72.30 16 P P 14 49 03.7 +0.5
comp=Z,72nm,1.0s
L18K Granite Mounta 72.31 21 IAmb IAmb 14 49 12.7
comp=Z,34nm,1.0s
H27K Steamboat Moun 72.34 13 IAmb IAmb 14 49 13.2
comp=Z,28nm,0.9s
F31M Tsiigehtchic 72.41 10 IAmb IAmb 14 49 12.9
comp=Z,32nm,0.8s
G30M tAoh Zrail Nji 72.50 11 IAmb IAmb 14 49 14.1
comp=Z,58nm,1.2s
IL31 72.59 16 IAmb IAmb 14 49 13.3
comp=Z,21nm,0.9s
ILAR Eielson Array 72.59 16 P P 14 49 04.3 -0.6
comp=Z,9.6nm,0.9s,baz=324,slow=4.7,SNR=78
ILAR LR LR 15 26 40.7
comp=Z,269nm,18.4s,baz=278,slow=40
comp=Z,9.6nm,0.9s
ILAR Eielson Array 72.59 16 P P 14 49 04.1 -0.9
FRB Frobisher Bay 72.66 342 LR LR 15 21 50.9
comp=Z,261nm,19.6s,baz=42,slow=36
L19K White Mountain 72.85 20 IAmb IAmb 14 49 16.1
comp=Z,45nm,1.1s
L20K Farewell, AK 72.87 20 IAmb IAmb 14 49 16.0
comp=Z,32nm,0.9s
H29M Whitestone 72.88 12 IAmb IAmb 14 49 16.1
comp=Z,59nm,1.3s
PPLA Purkeypile 72.96 19 IAmb IAmb 14 49 17.1
comp=Z,43nm,1.2s
EPYK Eagle Plains 73.00 11 IAmb IAmb 14 49 16.2
comp=Z,48nm,1.5s
MCK McKinley 73.04 17 IAmb IAmb 14 49 18.8
comp=Z,40nm,1.6s
RND Reindeer 73.34 17 IAmb IAmb 14 49 30.9
comp=Z,30nm,1.2s
I29M Ogilvie Camp, 73.68 12 IAmb IAmb 14 49 20.2
comp=Z,25nm,0.9s
N18K Kilae Creek 73.78 22 IAmb IAmb 14 49 22.7
comp=Z,65nm,1.7s
H31M Peel River 73.87 10 IAmb IAmb 14 49 21.4
comp=Z,22nm,0.8s
SCRK Sand Creek 73.90 15 IAmb IAmb 14 49 21.9
comp=Z,28nm,0.9s
RIDG Independent Ri 73.93 16 IAmb IAmb 14 49 21.4
comp=Z,34nm,1.0s
DHY Denali Highway 73.97 17 IAmb IAmb 14 49 23.5
comp=Z,22nm,0.8s
N19K Bonanza Creek 74.08 21 IAmb IAmb 14 49 24.1
comp=Z,71nm,1.6s
I30M Mount Dempster 74.12 11 IAmb IAmb 14 49 23.1
comp=Z,26nm,0.8s
DBIC Dimbokro 74.43 266 P P 14 49 16.4 -0.1
comp=Z,5.4nm,0.8s,baz=38,slow=6.0,SNR=3.8
DBIC LR LR 15 25 44.4
comp=Z,128nm,19.4s,baz=42,slow=39
comp=Z,5.4nm,0.8s
DBIC Dimbokro 74.43 266 P P 14 49 16.5 -0.1
DBIC pmax pmax
comp=Z,28nm,1.5s
SMPI Sarmi 74.47 106 P P 14 49 18.4 +1.6
comp=Z,54nm,1.5s
PAX Paxson 74.48 16 IAmb IAmb 14 49 24.8
comp=Z,76nm,1.5s
SUA Susitna One 74.54 19 IAmb IAmb 14 49 25.8
comp=Z,48nm,1.3s
O19K Port Alsworth 74.63 21 IAmb IAmb 14 49 26.4

	comp=Z,66nm,1.4s							
PMR	**Palmer**	74.83	18	P	**P**	14 49 18.9	+0.8	
PMR	**Palmer**	74.83	18	IAmb	IAmb	14 49 26.6		
	comp=Z,32nm,0.9s							
MENT	**Mentasta**	74.88	15	P	**P**	14 49 20.5	+2.0	
RC01	**Rabbit Creek A**	75.11	19	IAmb	IAmb	14 49 28.2		
	comp=Z,36nm,0.8s							
L27K	**Beaver Creek,**	75.15	15	IAmb	IAmb	14 49 29.6		
	comp=Z,21nm,0.8s							
BCAR	**Beaver Creek A**	75.16	15	P	**P**	14 49 20.2	+0.1	
K29M	**Barlow Dome**	75.22	12	IAmb	IAmb	14 49 29.9		
	comp=Z,23nm,0.9s							
SLKM	**Skilak Lake**	75.49	19	IAmb	IAmb	14 49 30.1		
	comp=Z,51nm,1.0s							
PWL	**Port Wells**	75.66	18	IAmb	IAmb	14 49 31.6		
	comp=Z,33nm,0.8s							
KLU	**Klutina**	75.68	17	IAmb	IAmb	14 49 32.5		
	comp=Z,26nm,0.9s							
M27K	**Edge Creek, AK**	75.78	15	IAmb	IAmb	14 49 33.5		
	comp=Z,43nm,1.0s							
L29M	**L29M**	75.80	13	IAmb	IAmb	14 49 33.4		
	comp=Z,62nm,1.2s							
BRLK	**Bradley Lake**	75.94	20	IAmb	IAmb	14 49 32.5		
	comp=Z,29nm,0.9s							
GLI	**Glacier Island**	75.95	18	IAmb	IAmb	14 49 33.3		
	comp=Z,40nm,0.8s							
GENI	**Genyem**	75.96	105	P	**P**	14 49 27.1	+1.7	
GENI	**Genyem**	75.96	105	P	**P**	14 49 26.5	+1.1	
	comp=Z,75nm,1.0s							
SEW	**Seward**	76.03	19	IAmb	IAmb	14 49 33.6		
	comp=Z,27nm,1.0s							
DIV	**Divide**	76.04	17	IAmb	IAmb	14 49 34.2		
	comp=Z,30nm,0.7s							
LBTB	**Lobatse**	76.19	221	LR	LR	15 24 08.5		
	comp=Z,133nm,19.5s,baz=40,slow=37							
LBTB	**Lobatse**	76.19	221	P	**P**	14 49 26.5	+0.1	
LBTB	**Lobatse**	76.19	221	P	**P**	14 49 26.5	+0.1	
LBTB	**Lobatse**	76.19	221	P	**P**	14 49 28.1	+1.6	
	comp=Z,20nm,1.3s							
LBTB				pP	**pP**	14 49 34.9	+0.9	
FID	**Port Fidalgo**	76.21	18	IAmb	IAmb	14 49 34.8		
	comp=Z,31nm,0.7s							
JAY	**Jayapura**	76.32	105	LR	LR	15 24 50.0		
	comp=Z,78nm,20.6s,baz=274,slow=37							
MCARA	**McCarthy VSAT**	76.42	16	IAmb	IAmb	14 49 37.1		
	comp=Z,25nm,1.0s							
BMRM	**Bremner River**	76.45	17	IAmb	IAmb	14 49 38.2		
	comp=Z,27nm,1.0s							
VRDI	**Verde Repeater**	76.47	16	IAmb	IAmb	14 49 36.8		
	comp=Z,50nm,1.4s							
M30M	**Minto, Yukon**	76.52	13	IAmb	IAmb	14 49 38.2		
	comp=Z,74nm,1.9s							
EYAK	**Cordova Ski Ar**	76.56	17	P	**P**	14 49 30.2	+2.2	
EYAK	**Cordova Ski Ar**	76.56	17	IAmb	IAmb	14 49 37.5		
	comp=Z,33nm,1.0s							
BLKN	**Baker Lake**	76.58	354	IAmb	IAmb	14 49 29.3		
	comp=Z,35nm,0.7s							
FITZ	**Fitzroy Crossi**	76.65	127	P	**P**	14 49 29.5	+0.4	
	comp=Z,6.6nm,1.3s							
FITZ	**Fitzroy Crossi**	76.65	127	P	**P**	14 49 29.0	0.0	
	comp=Z,6.6nm,1.3s							
FITZ	**Fitzroy Crossi**	76.65	127	P	**P**	14 49 29.1	0.0	
	comp=Z,11nm,1.0s,baz=305,slow=3.4,SNR=11							
FITZ				LR	LR	15 26 25.1		
	comp=Z,132nm,21.1s,baz=344,slow=38							
	comp=Z,11nm,1.0s							
FITZ	**Fitzroy Crossi**	76.65	127	P	**P**	14 49 29.3	+0.2	
FITZ	**Fitzroy Crossi**	76.65	127	P	**P**	14 49 29.4	+0.4	
	comp=Z,6.6nm,1.3s							
FITZ				pP	**pP**	14 49 37.0	+0.4	
KNRA	**Kununurra**	76.86	123	P	**P**	14 49 28.6	-1.7	
	comp=Z,27nm,1.1s							
KNRA	**Kununurra**	76.86	123	P	**P**	14 49 30.1	-0.2	
	comp=Z,27nm,1.1s							
CRQM	**Cirque**	76.96	16	IAmb	IAmb	14 49 43.0		
	comp=Z,22nm,0.8s							
TGL	**Tana Glacier**	77.03	16	IAmb	IAmb	14 50 11.1		
	comp=Z,37nm,1.3s							
KDAK	**Kodiak Island**	77.14	22	P	**P**	14 49 30.9	-0.4	
KDAK				pmax	pmax			
	comp=Z,61nm,1.1s							
KDAK	**Kodiak Island**	77.14	22	P	**P**	14 49 30.9	-0.4	
KDAK	**Kodiak Island**	77.14	22	P	**P**	14 49 31.9	+0.6	
	comp=Z,73nm,1.4s							
KDAK				pP	**pP**	14 49 39.1	+0.3	
KDU	**Kakadu**	77.22	118	P	P	14 49 39.7	+7.3	
	comp=Z,8.8nm,1.3s							
M31M	**Drury Creek, Y**	77.27	12	IAmb	IAmb	14 49 41.4		
	comp=Z,35nm,0.8s							
GRNC	**Granite Creek**	77.28	16	IAmb	IAmb	14 49 42.3		
	comp=Z,69nm,1.4s							
LOGN	**Logan Glacier**	77.35	15	IAmb	IAmb	14 49 42.2		
	comp=Z,28nm,0.8s							
OHAK	**Old Harbor**	77.40	23	P	**P**	14 49 33.5	+0.7	
OHAK	**Old Harbor**	77.40	23	IAmb	IAmb	14 49 42.5		
	comp=Z,43nm,1.0s							
N30M	**Aishikik Lake**	77.51	13	IAmb	IAmb	14 49 43.2		
	comp=Z,26nm,1.1s							
N31M	**Braeburn, Yuko**	77.72	13	IAmb	IAmb	14 49 44.4		
	comp=Z,35nm,0.9s							
LKGWB	**Lokgwabe**	77.80	225	IAmb	IAmb	14 49 48.2		
	comp=Z,54nm,1.4s							
HYT	**Haines Junctio**	78.03	14	IAmb	IAmb	14 49 46.3		
	comp=Z,25nm,0.8s							
O30N	**Mendenhall**	78.33	13	IAmb	IAmb	14 49 47.3		
	comp=Z,19nm,0.7s							
WHY	**Whitehorse**	78.64	12	IAmb	IAmb	14 49 48.3		
	comp=Z,23nm,0.8s							
YKAW3	**Yellowknife Wh**	78.81	2	IAmb	IAmb	14 49 49.5		
	comp=Z,27nm,0.8s							
YKA	**Yellowknife Ar**	78.88	2	P	**P**	14 49 40.5	-0.4	
	comp=Z,13nm,0.5s,baz=353,slow=5.4,SNR=49							
	comp=Z,13nm,0.5s							
YKA	**Yellowknife Ar**	78.88	2	P	**P**	14 49 40.3	-0.7	
YKAW1	**Yellowknife Wh**	78.89	2	IAmb	IAmb	14 49 50.0		
	comp=Z,37nm,0.9s							
BOSA	**Boshof**	79.32	219	P	**P**	14 49 43.1	-0.7	
	comp=Z,7.4nm,1.0s,baz=38,slow=3.0,SNR=6.7							
BOSA				LR	LR	15 26 40.6		
	comp=Z,124nm,18.0s,baz=28,slow=37							
	comp=Z,7.4nm,1.0s							
P33M	**Teslin, Yukon**	79.41	12	IAmb	IAmb	14 49 52.9		
	comp=Z,31nm,0.9s							
SKAG	**Skagway**	79.70	13	P	**P**	14 49 47.2	+1.8	
SKAG	**Skagway**	79.70	13	IAmb	IAmb	14 49 55.3		
	comp=Z,46nm,1.4s							
SCHQ	**Schefferville**	79.74	337	P	**P**	14 49 45.0	-0.8	
	comp=Z,10nm,0.9s,baz=41,slow=5.3,SNR=6.4							
SCHQ				LR	LR	15 24 25.5		
	comp=Z,524nm,21.9s,baz=84,slow=35							
	comp=Z,10nm,0.9s							
Q32M	**Nakina River**	80.69	12	IAmb	IAmb	14 50 00.4		
	comp=Z,59nm,1.6s							
DLBC	**Dease Lake**	81.53	11	LR	LR	15 31 24.7		
	comp=Z,164nm,19.7s,baz=78,slow=40							
FCC	**Fort Churchill**	81.86	352	P	**P**	14 49 57.7	+0.7	
FCC				pmax	pmax			
	comp=Z,56nm,1.1s							
FCC	**Fort Churchill**	81.86	352	P	**P**	14 49 57.7	+0.7	
FCC				IAmb	IAmb	14 50 06.5		
	comp=Z,56nm,1.1s							
S34M	**Telegraph Cree**	81.87	11	IAmb	IAmb	14 50 07.2		
	comp=Z,28nm,0.8s							
T35M	**Bob Quinn**	82.90	11	IAmb	IAmb	14 50 12.8		
	comp=Z,27nm,1.1s							
WB0	**Warramunga Arr**	83.51	122	IAmb	IAmb	14 50 13.9		
	comp=Z,47nm,1.5s							
WRA	**Warramunga Arr**	83.60	122	P	**P**	14 50 05.8	-0.8	
	comp=Z,4.9nm,0.7s,baz=323,slow=4.9,SNR=53							
WRA				PKKPbc	**PKKPbc**	15 08 25.1	+1.5	
	comp=Z,0.4nm,0.6s,baz=134,slow=2.2,SNR=5.3							
	comp=Z,4.9nm,0.7s							
WRA	**Warramunga Arr**	83.60	122	P	**P**	14 50 05.3	-1.3	
WRA				pmax	pmax			
	comp=Z,4.0nm,1.8s							
WRA	**Warramunga Arr**	83.60	122	P	**P**	14 50 05.3	-1.3	
WRAB	**Tennant Creek**	83.60	122	P	**P**	14 50 06.5	-0.1	
WRAB	**Tennant Creek**	83.60	122	P	**P**	14 50 05.1	-1.5	
WRAB				pmax	pmax			
	comp=Z,15nm,0.8s							
WRAB	**Tennant Creek**	83.60	122	P	**P**	14 50 05.0	-1.5	
WRAB				IAmb	IAmb	14 50 16.2		
	comp=Z,15nm,0.8s							
WRAB	**Tennant Creek**	83.60	122	P	**P**	14 50 06.3	-0.3	
	comp=Z,21nm,1.0s							
NWAO	**Narrogin (SRO)**	83.61	142	LR	LR	15 27 17.1		
	comp=Z,69nm,20.7s,baz=270,slow=36							

WR8	**Warramunga Arr**	83.72	122	IAmb	IAmb	14 50 15.6		
	comp=Z,31nm,1.3s							
SUR	**Sutherland**	84.60	220	LR	LR	15 32 33.1		
	comp=Z,154nm,18.9s,baz=34,slow=39							
AS31	**Alice Springs**	85.96	125	P	**P**	14 50 18.1	-0.4	
	comp=Z,2.5nm,0.7s							
AS31	**Alice Springs**	85.96	125	P	**P**	14 50 17.9	-0.5	
ASAR	**Alice Springs**	85.96	125	P	**P**	14 50 17.9	-0.6	
	comp=Z,1.7nm,0.5s,baz=312,slow=4.5,SNR=28							
ASAR				PKKPbc	**PKKPbc**	15 08 18.4	+0.1	
	comp=Z,0.7nm,0.9s,baz=142,slow=3.3,SNR=5.2							
ASAR				LR	LR	15 32 11.6		
	comp=Z,84nm,21.0s,baz=300,slow=38							
	comp=Z,1.7nm,0.5s							
ASAR	**Alice Springs**	85.96	125	P	**P**	14 50 17.7	-0.7	
AS01	**Alice Springs**	85.98	125	P	**P**	14 50 19.1	+0.5	
AS09	**Alice Springs**	86.00	125	P	**P**	14 50 18.4	-0.2	
	comp=Z,10nm,0.8s							
AS17	**Alice Springs**	86.01	125	P	**P**	14 50 18.3	-0.4	
	comp=Z,10nm,0.8s							
FFC	**Flin Flon**	86.53	356	P	**P**	14 50 20.3	-0.6	
FFC				pmax	pmax			
	comp=Z,55nm,1.3s							
FFC	**Flin Flon**	86.53	356	P	**P**	14 50 20.2	-0.6	
FFC	**Flin Flon**	86.53	356	P	**P**	14 50 21.6	+0.8	
	comp=Z,49nm,1.4s							
QIS	**Mount Isa**	87.58	119	P	**P**	14 50 25.9	-0.5	
	comp=Z,21nm,0.9s							
QIS	**Mount Isa**	87.58	119	P	**P**	14 50 25.9	-0.5	
	comp=Z,21nm,0.9s							
QIS	**Mount Isa**	87.58	119	P	**P**	14 50 25.7	-0.7	
QIS	**Mount Isa**	87.58	119	P	**P**	14 50 25.8	-0.5	
	comp=Z,20nm,0.9s							
FORT	**Forrest**	87.61	133	P	**P**	14 50 26.4	+0.1	
	comp=Z,30nm,0.8s							
FORT	**Forrest**	87.61	133	P	**P**	14 50 26.3	0.0	
	comp=Z,30nm,0.8s							
FORT	**Forrest**	87.61	133	P	**P**	14 50 25.9	-0.4	
FORT				IAmb	IAmb	14 50 34.5		
	comp=Z,20nm,0.8s							
MTSU	**Mount Surprise**	89.25	114	P	**P**	14 50 35.2	+0.9	
	comp=Z,9.8nm,0.9s							
MTSU	**Mount Surprise**	89.25	114	P	**P**	14 50 35.4	+1.1	
	comp=Z,9.7nm,0.9s							
MTSU	**Mount Surprise**	89.25	114	P	**P**	14 50 34.8	+0.4	
MTSU	**Mount Surprise**	89.25	114	P	**P**	14 50 35.2	+0.9	
	comp=Z,9.7nm,0.9s							
LLLB	**Lillooet**	90.22	8	IAmb	IAmb	14 50 51.1		
	comp=Z,27nm,1.1s							
ULM	**Lac du Bonnet**	90.43	351	P	**P**	14 50 39.0	-0.5	
	comp=Z,3.4nm,0.5s,baz=36,slow=6.1,SNR=5.7							
ULM				LR	LR	15 33 28.2		
	comp=Z,350nm,20.9s,baz=10,slow=37							
	comp=Z,3.4nm,0.5s							
ULM	**Lac du Bonnet**	90.43	351	P	**P**	14 50 39.0	-0.5	
EPLO	**Experimental L**	90.72	350	IAmb	IAmb	14 50 49.6		
	comp=Z,32nm,1.2s							
CTA	**Charters Tower**	91.91	114	P	**P**	14 50 43.9	-2.8	
	comp=Z,9.4nm,1.1s							
CTA	**Charters Tower**	91.91	114	P	**P**	14 50 48.0	+1.3	
CTAO	**Charters Tower**	91.91	114	P	**P**	14 50 48.1	+1.3	
CTAO	**Charters Tower**	91.91	114	P	**P**	14 50 48.0	+1.3	
	comp=Z,24nm,1.1s							
SHUK	**Shuksan-Mt. Ba**	91.97	8	IAmb	IAmb	14 50 55.9		
	comp=Z,20nm,1.0s							
EYMN	**Ely**	92.06	348	P	**P**	14 50 48.6	+1.4	
	comp=Z,27nm,1.0s							
SADO	**Sadowa**	92.33	339	LR	LR	15 32 59.2		
	comp=Z,280nm,19.0s,baz=345,slow=36							
AGMN	**Agassiz Nation**	92.34	351	IAmb	IAmb	14 50 58.3		
	comp=Z,15nm,0.9s							
NEW	**Newport**	92.96	5	IAmb	IAmb	14 51 00.9		
	comp=Z,20nm,1.1s							
NEW	**Newport**	92.96	5	P	**P**	14 50 52.5	+1.2	
	comp=Z,19nm,1.0s							
NEW				pP	**pP**	14 50 59.3	+0.7	
GNW	**Green Mountain**	93.11	9	IAmb	IAmb	14 51 02.3		
	comp=Z,18nm,1.1s							
EGMT	**Eagleton**	93.46	0	IAmb	IAmb	14 51 03.1		
	comp=Z,20nm,1.1s							
D08A	**Wollman Farm,**	94.02	6	IAmb	IAmb	14 51 05.7		
	comp=Z,10nm,0.9s							
LON	**Longmire**	94.03	8	IAmb	IAmb	14 51 05.4		
	comp=Z,12nm,0.8s							
MXC	**Moxie City**	94.37	7	IAmb	IAmb	14 51 07.5		
	comp=Z,14nm,0.9s							
QLP	**Quilpie**	94.75	120	P	**P**	14 50 59.6	0.0	
BOZ	**Bozeman (W)**	95.87	1	IAmb	IAmb	14 51 14.5		
	comp=Z,11nm,0.9s							
DLMT	**Dillon**	96.08	2	IAmb	IAmb	14 51 16.2		
	comp=Z,14nm,1.0s							
PLID	**Pearl Lake**	96.20	5	IAmb	IAmb	14 51 16.9		
	comp=Z,27nm,2.0s							
RLMT	**Red Lodge**	96.37	360	IAmb	IAmb	14 51 18.6		
	comp=Z,12nm,1.1s							
STKA	**Stephens Creek**	96.53	126	LR	LR	15 42 44.8		
	comp=Z,135nm,19.3s,baz=345,slow=40							
ECSD	**EROS Data Cent**	96.93	351	IAmb	IAmb	14 51 25.5		
	comp=Z,15nm,1.2s							
BCYI	**Bear Canyon**	97.10	3	IAmb	IAmb	14 51 20.2		
	comp=Z,11nm,1.3s							
PDAR	**Pinedale Array**	98.72	0	P	Pdif	14 51 18.1	+0.2	
	comp=Z,0.3nm,0.7s,baz=8.9,slow=6.6,SNR=3.8							
	comp=Z,0.3nm,0.7s							
CMSA	**Cobar Meteorol**	98.94	123	P	Pdif	14 51 18.6	+0.1	
NVAR	**Mina Array Bea**	102.63	7	P	**Pdif**	14 51 35.4	0.0	
	comp=Z,0.7nm,0.8s,baz=340,slow=2.8,SNR=5.4							
NVAR				PKiKP	**PKiKP**	14 55 57.0	+0.7	
	comp=Z,0.5nm,0.5s,baz=28,slow=1.0,SNR=4.0							
NVAR				PKKPbc	**PKKPdf**	15 07 38.1	-1.8	
	comp=Z,0.4nm,0.7s,baz=186,slow=7.3,SNR=3.6							
NBPS	**Pedro II - PI**	109.76	281	*e*P	**Pdif**	14 52 07.0	-0.2	
TXAR	**Lajitas Array**	111.91	354	Pdiff	**Pdif**	14 52 15.1	-1.5	
	comp=Z,0.2nm,0.5s,baz=352,slow=2.5,SNR=3.9							
TXAR				PKiKP	**PKiKP**	14 56 13.3	-0.2	
	comp=Z,0.6nm,0.8s,baz=338,slow=1.3,SNR=4.6							
TXAR				PP	**PP**	14 56 52.0	-3.3	
	comp=Z,0.6nm,0.8s,baz=4.6,slow=5.7,SNR=3.8							
TROLL	**Troll, Antarti**	120.22	199	⇑pPKiKP	PKiKP	14 56 36.9	+8.7	
	comp=Z,402nm,1.0s							
VNA2	**Neumayer--Watz**	122.45	202	⇑pPKiKP	PKiKP	14 56 41.1	+8.7	
	comp=Z,3.7nm,0.7s,slow=3.2							
VNA3	**Neumayer Olymp**	123.26	202	⇑pPKiKP	PKiKP	14 56 42.5	+8.5	
	comp=Z,5.8nm,0.7s							
SALV	**San Antonio**	127.84	280	*e*P	**PKPdf**	14 56 43.5	-0.6	
VNDA	**Vanda**	127.91	164	PKP	**PKPdf**	14 56 42.7	+0.2	
	comp=Z,1.6nm,0.8s,baz=307,slow=5.8,SNR=4.2							
PP1B	**Ponte de Pedra**	128.22	278	*e*P	**PKPdf**	14 56 44.6	-0.2	
QSPA	**South Pole Qui**	128.68	180	PKP	**PKiKP**	14 56 44.9	-0.1	
	comp=Z,3.0nm,0.8s,baz=304,slow=1.2,SNR=9.5							
QSPA	**South Pole Qui**	128.68	180		**PKPdf**	14 56 43.8	-0.5	
AQDB	**Aquidauana**	130.49	276	*e*P	**PKPdf**	14 56 48.9	-0.2	
BDQN	**Bodoquena, MS**	131.29	276	*e*P	**PKPdf**	14 56 50.3	-0.3	
COIM	**Forte Coimbra**	131.79	278	*e*P	**PKPdf**	14 56 51.3	-0.2	
SIV	**San Ignacio**	131.99	284	PKP	**PKPdf**	14 56 52.2	+0.1	
	comp=Z,0.8nm,0.4s,baz=176,slow=7.4,SNR=4.0							
BBSD	**Serra de San D**	132.37	283	*e*P	**PKPdf**	14 56 52.1	-0.6	
SJPY	**San Joaquin**	133.22	271	*e*P	**PKPdf**	14 56 53.9	-0.2	
CPUP	**Villa Florida**	134.84	270	PKP	**PKPdf**	14 56 56.7	-0.4	
	comp=Z,1.8nm,0.6s,baz=147,slow=2.3,SNR=5.1							
CPUP	**Villa Florida**	134.84	270	PKIKP	**PKPdf**	14 56 57.3	+0.2	
CPUP	**Villa Florida**	134.84	270		**PKPdf**	14 56 57.3	+0.2	
LPAZ	**La Paz**	137.44	290	PKP	**PKPdf**	14 57 02.8	-0.2	
	comp=Z,1.1nm,0.7s,baz=130,slow=5.1,SNR=4.1							
LPAZ	**La Paz**	137.44	290		**PKPdf**	14 57 01.8	-1.2	
CFA	**Coronel Fontan**	145.74	269	PKPbc	**PKPdf**	14 57 16.6	-0.1	
	comp=Z,4.6nm,0.5s,baz=52,slow=3.9,SNR=16							
PLCA	**Paso Flores**	150.17	254	PKPbc	**PKPbc**	14 57 28.5	-0.4	
	comp=Z,8.9nm,0.9s,baz=99,slow=3.1,SNR=9.0							
PLCA	**Paso Flores**	150.17	254	*e*P	**PKPdf**	14 57 23.1	-0.6	

*IDC **10** 14:40:31.0±1.3,38.62N×70.45E,h0km,mb4.5/10, mbtmp4.6/11,ML5.0/1,Error ellipse: s-maj=33.9km s-min=21.0km az=6.0*

*NEIC **10** 14:40:37.4±1.2,38.93N±0.04×70.61E±0.07,h35km±1km, mb5.0/44,Error ellipse: s-maj=10.5km s-min=5.9km az=62.0*

*KRNET **10** 14:40:38.1±0.1,39.07N×70.57E,mb4.9*

ISC 10 14:40:37.5±0.6,39.06N±0.06×70.52E±0.05,h32km±3km, n78,σ1919/90,mb5.0/29,10C-4D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
BTK	**Batken**	1.02	13	Pn		**Pb**		14 40 58.2	+1.4
DRK	**Karamyk**	1.08	67	⇑*e*P		**Pb**		14 40 58.1	+0.2
DRK				⇑*e*S		**Sb**		14 41 12.6	+0.8
DRK	**Karamyk**	1.08	67	Pn		**Pb**		14 40 57.3	-0.5
OHH	**Osh**	2.28	49	⇑*e*P		**Pb**		14 41 18.1	+0.1
OHH				⇑*e*S		**Sb**		14 41 47.7	+1.9
SFK	**Sufi-Kurgan**	2.50	67	⇓*e*P		**Pb**		14 41 21.5	-0.3
SFK				⇓*e*S		**Sb**		14 41 53.3	+1.1
TRKS	**Terek-Say**	2.51	11	⇑*e*P		**Pb**		14 41 20.9	-1.1
TRKS				⇑*e*S		**Sb**		14 41 52.7	+0.1
ARSB	**Arslanbob**	2.94	39	⇓*e*P		**Pb**		14 41 27.7	-1.7
ARSB				⇓*e*S		**Sb**		14 42 04.1	-0.9
SALK	**Salom-Alik**	3.12	53	⇑*e*P		**Pb**		14 41 30.5	-1.9
SALK				⇑*e*S		**Sb**		14 42 08.4	-1.8
MNAS	**Manas**	3.74	23	⇑*e*P		**Pb**		14 41 39.4	-3.5
MNAS				⇑*e*S		**Sb**		14 42 23.5	-4.3
KBL	**Kabul**	4.66	195	Pn		**Pn**		14 41 45.8	-0.1
AAK	**Ala-Archa**	4.68	39	Pn		Pn		14 41 51.6	+5.7
	54nm,0.3s,baz=214,slow=23,SNR=1.2								
	231nm,0.5s								
AAK				AML		AML			
AAK	**Ala-Archa**	4.68	39			**Pn**		14 41 48.5	+2.5
PRZ	**Przheval'sk**	6.89	58	Pn		**Pn**		14 42 20.3	+3.9
KIV	**Kislovodsk**	21.36	292	P		**P**		14 45 22.2	+0.1
KIV				IAmb		IAmb		14 45 22.5	
	comp=Z,56nm,0.6s								
GEVA	**Gevas**	21.42	277	P		**P**		14 45 24.0	+1.2
RAYN	**Ar Rayn**	26.28	241	P		**P**		14 46 08.8	-1.3
BRTR	**Keskin Array B**	28.38	283	P		**P**		14 46 28.8	-0.1
AKASG	**Malin Array Be**	31.09	306	P		**P**		14 46 53.2	+0.7
	comp=Z,3.2nm,0.5s,baz=112,slow=8.0,SNR=4.0								
	comp=Z,3.2nm,0.5s								
XAN	**Xi'an**	31.10	87	P		**P**		14 46 52.1	-0.8
XAN				pP		**pP**		14 47 02.5	-0.6
FIA1	**FINESS Array S**	35.16	324	P		**P**		14 47 28.5	+0.6
FINES	**FINESS Array B**	35.16	324	P		**P**		14 47 28.7	+0.8
	comp=Z,5.9nm,0.4s,baz=118,slow=8.5,SNR=5.9								
	comp=Z,5.9nm,0.4s								
FINES	**FINESS Array B**	35.16	324	P		**P**		14 47 28.5	+0.6
ARCES	**ARCESS Array B**	38.64	337	P		**P**		14 47 58.2	+0.7
HFS	**Hagfors**	40.84	320	P		**P**		14 48 16.3	+0.5
	comp=Z,12nm,0.4s,baz=92,slow=12,SNR=9.2								
	comp=Z,12nm,0.4s								
CLL	**Collm**	41.32	307	*e*pP		pP		14 48 30.0	-0.2
NC405	**NORSAR Array S**	41.89	322	P		**P**		14 48 24.9	+0.4
NC405				IAmb		IAmb		14 48 30.8	
	comp=Z,20nm,1.0s								
NC602	**NORSAR Array S**	41.95	321	P		**P**		14 48 25.1	+0.2
NC602				IAmb		IAmb		14 48 56.1	
	comp=Z,55nm,1.6s								
NC303	**NORSAR Array S**	42.06	322	P		**P**		14 48 26.3	+0.5
NC303				IAmb		IAmb		14 48 26.9	
	comp=Z,21nm,0.8s								
NB201	**NORSAR Array S**	42.09	321	P		**P**		14 48 26.4	+0.3
NB201				IAmb		IAmb		14 49 15.9	
	comp=Z,25nm,1.1s								
NOA	**NORSAR Array B**	42.12	321	P		**P**		14 48 26.3	-0.1
	comp=Z,5.2nm,0.7s,baz=94,slow=8.0,SNR=1.8								
	comp=Z,5.2nm,0.7s								
YAK	**Yakutsk**	42.13	37	P		**P**		14 48 26.5	+0.1
YAK				pP		**pP**		14 48 37.5	+0.6
NC204	**NORSAR Array S**	42.36	322	P		**P**		14 48 28.5	+0.2
NC204				IAmb		IAmb		14 48 51.5	
	comp=Z,52nm,1.6s								
KONO	**Kongsberg**	42.88	319	P		**P**		14 48 32.8	+0.4
DAVOX	**Davos/Dischmat**	44.09	301	P		**P**		14 48 42.0	-0.6
	comp=Z,7.5nm,0.5s,baz=66,slow=6.2,S

σ1$55/21, **mb3.7**/8, **6C-5D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MK31	**Makanchi Array**	**4.91**	**308**	Pn	**Pn**	**14 58 48.8**	**-0.3**
	1.8nm,0.5s,baz=120,slow=15,SNR=77						
MK31				⇓Sn	**Sn**	**14 59 45.0**	**-0.3**
	2.8nm,0.5s,baz=121,slow=22						
MK31				⇑Lg	Lg	15 00 10.3	
	5.2nm,0.7s,baz=117,slow=25,SNR=4.3						
MKAR	**Makanchi Array**	**4.91**	**308**	Pn	**Pn**	**14 58 48.9**	**-0.2**
	1.6nm,0.3s,baz=121,slow=14,SNR=62						
MKAR				Pg	**Pb**	**14 59 01.9**	**+0.4**
	1.0nm,0.3s,baz=116,slow=16,SNR=8.2						
MKAR				Sn	**Sn**	**14 59 45.0**	**-0.3**
	1.3nm,0.3s,baz=112,slow=23,SNR=4.9						
MKAR				Lg	Lg	15 00 06.6	
	2.0nm,0.3s,baz=118,slow=29,SNR=5.9						
	5.9nm,0.6s						
MKAR				AML	AML		
PDGK	**Podgornoye**	**6.13**	**268**	⇑Pn	**Pn**	**14 59 05.1**	**-0.9**
	10nm,0.6s						
PDGK				⇑Sn	**Sn**	**15 00 16.6**	**+1.0**
	4.3nm,0.6s						
PDGK				⇓Lg	Lg	15 00 50.3	
	20nm,0.9s						
KURBB	**Kurchatov Arra**	**9.27**	**320**	Pn	**Pn**	**14 59 47.3**	**-1.5**
	0.4nm,0.3s,baz=134,slow=12,SNR=27						
KURBB				Lg	Lg	15 02 24.5	
	0.1nm,0.3s,baz=129,slow=28,SNR=5.4						
	1.6nm,0.4s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**9.27**	**320**	⇑Pn	**Pn**	**14 59 46.8**	**-2.0**
	2.6nm,0.5s						
KURBB				⇓Sn	**Sn**	**15 01 36.1**	**+3.6**
	11nm,0.8s						
KURBB				⇓Lg	Lg	15 02 33.5	
	37nm,1.2s						
KURK	**Kurchatov**	**9.29**	**321**	⇓Pn	**Pn**	**14 59 47.3**	**-1.8**
	0.4nm,0.6s						
KURK				⇑Sn	**Sn**	**15 01 36.1**	**+3.1**
	1.9nm,0.7s						
KURK				⇑Lg	Lg	15 02 31.4	
	7.8nm,1.0s						
ZALV	**Zalesovo Beam**	**10.27**	**350**	Pn	**Pn**	**15 00 01.2**	**-1.4**
	0.1nm,0.3s,baz=173,slow=13,SNR=1.8						
	0.3nm,0.3s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**14.75**	**314**	Pn	Pn	15 00 58.3	-5.4
	baz=94,slow=8.8,SNR=1.2						
	0.4nm,0.5s						
FINES	**FINESS Array B**	**39.65**	**318**	P	**P**	**15 05 05.4**	**-1.2**
	1.0nm,0.6s,baz=101,slow=11,SNR=6.3						
	1.0nm,0.6s						
BRTR	**Keskin Array B**	**40.05**	**283**	P	**P**	**15 05 10.7**	**+0.3**
	0.6nm,0.6s,baz=106,slow=10,SNR=4.2						
	0.6nm,0.6s						
HFS	**Hagfors**	**45.85**	**318**	P	**P**	**15 05 56.1**	**-0.8**
	1.0nm,0.7s,baz=81,slow=9.2,SNR=5.6						
	1.0nm,0.7s						
NOA	**NORSAR Array B**	**46.80**	**319**	P	**P**	**15 06 03.0**	**-1.4**
	0.6nm,0.7s,baz=73,slow=7.8,SNR=2.3						
	0.6nm,0.7s						
ILAR	**Eielson Array**	**63.55**	**23**	P	**P**	**15 08 05.5**	**+0.4**
	0.4nm,0.7s,baz=312,slow=6.0,SNR=5.7						
	0.4nm,0.7s						
ESDC	**Sonseca Array**	**65.09**	**302**	P	**P**	**15 08 14.9**	**-0.7**
	0.4nm,0.7s,baz=56,slow=7.9,SNR=4.7						
	0.4nm,0.7s						
WRA	**Warramunga Arr**	**76.44**	**135**	P	**P**	**15 09 25.8**	**+1.1**
	0.5nm,0.7s,baz=342,slow=5.9,SNR=2.9						
	0.5nm,0.7s						
ASAR	**Alice Springs**	**79.36**	**138**	P	**P**	**15 09 42.0**	**+1.1**
	0.3nm,0.5s,baz=328,slow=4.9,SNR=12						
	0.3nm,0.5s						

*NNC **10** 14:57:55.6±5.2, 37.61N×69.82E, h0km, mb3.7, mpv3.5,*
Error ellipse: s-maj=45.2km s-min=35.8km az=150.0
*KRNET **10** 14:58:11.4±0.1, 39.05N×70.49E, mb3.5*
ISC 10 14:58:13.5±2.0, **39.11N**±0.10×**70.62E**±0.07, **h10**km, **n21,**
σ2$05/28, **13C-12D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BTK	**Batken**	**0.96**	**9**	⇑*e*P	**Pg**	**14 58 30.9**	**-1.1**
BTK				⇑*e*S	**Sb**	**14 58 44.9**	**-0.3**
DRK	**Karamyk**	**0.99**	**67**	⇑*e*P	**Pg**	**14 58 31.9**	**-0.6**
DRK				⇑*e*S	**Sb**	**14 58 47.2**	**+1.1**
OHH	**Osh**	**2.19**	**49**	⇓*e*P	**Pb**	**14 58 51.6**	**-1.6**
OHH				⇓*e*S	**Sb**	**14 59 20.1**	**-0.3**
SFK	**Sufi-Kurgan**	**2.40**	**67**	⇑*e*P	**Pn**	**14 58 54.9**	**+1.8**
SFK				⇑*e*S	**Sb**	**14 59 25.6**	**-1.2**
TRKS	**Terek-Say**	**2.45**	**9**	⇑*e*P	**Pn**	**14 58 53.8**	**+0.1**
TRKS				⇑*e*S	**Sn**	**14 59 23.7**	**-0.2**
ARSB	**Arslanbob**	**2.86**	**38**	⇑*e*P	**Pn**	**14 59 01.0**	**+1.7**
ARSB				⇑*e*S	**Sn**	**14 59 36.1**	**+2.2**
SALK	**Salom-Alik**	**3.03**	**53**	⇓*e*P	**Pn**	**14 59 03.2**	**+1.5**
SALK				⇓*e*S	**Sn**	**14 59 40.6**	**+2.5**
MNAS	**Manas**	**3.67**	**22**	⇓*e*P	**Pn**	**14 59 11.9**	**+1.5**
MNAS				⇓*e*S	**Sn**	**14 59 55.0**	**+1.2**
KK31	**Karatay Array**	**3.99**	**359**	Pn	**Pn**	**14 59 17.9**	**+3.2**
	1.2nm,0.3s,baz=176,slow=13,SNR=22						
KK31				⇑Sn	**Sg**	**15 00 23.9**	**+2.1**
	21nm,0.4s,baz=174,slow=29,SNR=25						
EKS2	**Erkin-Say**	**4.28**	**33**	P	Pn	14 59 23.4	+4.6
	SNR=5.7						
UCH	**Uchtor**	**4.30**	**42**	P	Pn	14 59 24.0	+4.7
	SNR=17						
UCH	**Uchtor**	**4.30**	**42**	⇓*e*P	**Pn**	**14 59 21.2**	**+1.8**
UCH				⇓*e*S	**Sn**	**15 00 11.2**	**+1.4**
AAK	**Ala-Archa**	**4.59**	**39**	P	Pn	14 59 27.7	+4.6
	SNR=6.7						
AAK	**Ala-Archa**	**4.59**	**39**	⇑Pn	Pn	14 59 27.9	+4.8
	3.7nm,0.5s						
AAK				⇑Sn	**Sg**	**15 00 37.2**	**-3.7**
	4.7nm,0.6s						
AAK	**Ala-Archa**	**4.59**	**39**	⇓*e*P	**Pn**	**14 59 24.9**	**+1.8**
AAK				⇓*e*S	**Sn**	**15 00 17.6**	**+1.1**
NRN	**Naryn**	**4.72**	**59**	⇓*e*P	**Pn**	**14 59 26.6**	**+1.5**
NRN				⇓*e*S	**Sn**	**15 00 20.7**	**+0.6**
KBK	**Karagaybulak**	**4.83**	**41**	P	Pn	14 59 31.6	+5.2
	SNR=14						
CHMS	**Chumysh**	**4.99**	**37**	P	**Pn**	**14 59 32.7**	**+4.2**
	SNR=6.0						
USP	**Ospenovka**	**5.08**	**34**	P	**Pn**	**14 59 33.5**	**+3.7**
	SNR=20						
TKM2	**Tokmak 2**	**5.35**	**43**	P	Pn	14 59 38.2	+4.6
	SNR=14						
AB31	**Akbulak array**	**12.70**	**326**	P	**Pn**	**15 01 12.3**	**-1.8**
	0.2nm,0.3s,baz=163,slow=10,SNR=22						

*DNK **10** 15:00:03.7±0.3, 60.15N×21.69E, h0km, ML2.4(UPP),*
Suspected explosion
*UPP **10** 15:00:04.4±1.7, 60.20N×21.57E, h0km, ML2.5, Presumed*
earthquake
*HEL **10** 15:00:06.7±0.0, 60.08N×21.40E, h0km, ML2.0, Explosion*
*IDC **10** 15:00:08.8±2.1, 60.10N×21.44E, h0km, mbtmp2.8/4,*
ML1.9/4, Error ellipse: s-maj=30.2km s-min=11.0km
az=168.0
ISC 10 15:00:05.0±0.7, **60.09N**±0.03×**21.41E**±0.02, **h0**km, **n44,**
σ1$19/67, **Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAF	**Rauma**	**0.95**	**10**	*e*P	**Pb**	**15 00 24.0**	**-0.3**
RAF	**Rauma**	**0.95**	**10**	*e*P	**Pb**	**15 00 24.1**	**-0.3**
RAF				*e*S	**Sb**	**15 00 37.0**	**-0.4**
TVF	**Tvarminne**	**0.96**	**104**	*e*P	**Pb**	**15 00 23.7**	**-0.7**
TVF				*e*S	**Sb**	**15 00 36.6**	**-1.0**
EE06	**Soera, Palade,**	**1.34**	**146**	*e*P	**Pb**	**15 00 30.7**	**-0.2**
EE06				*e*S	**Sg**	**15 00 47.7**	**-0.3**
EE01	**Perakula, Nova**	**1.43**	**127**	*e*P	**Pb**	**15 00 32.3**	**-0.2**
EE01				*e*S	**Sb**	**15 00 50.7**	**-0.4**
GRAU	**Graesoe**	**1.45**	**281**	P	**Pn**	**15 00 32.1**	**-0.3**
GRAU				S	**Sn**	**15 00 53.0**	**+0.8**
GRAU	**Graesoe**	**1.45**	**281**	P	**Pn**	**15 00 32.1**	**-0.3**
GRAU				S	**Sn**	**15 00 53.0**	**+0.8**
GRAU	**Graesoe**	**1.45**	**281**	P	**Pn**	**15 00 32.1**	**-0.3**
GRAU				S	**Sn**	**15 00 53.0**	**+0.8**
NRTU	**Norrtaelje**	**1.46**	**255**	P	**Pg**	**15 00 32.7**	**-0.2**
NRTU	**Norrtaelje**	**1.46**	**255**	P	**Pg**	**15 00 32.7**	**-0.2**
NRTU	**Norrtaelje**	**1.46**	**255**	*e*P	**Pg**	**15 00 32.6**	**-0.3**
NRTU				*e*SN	**Sn**	**15 00 55.1**	**+2.7**
MEF	**Metsahovi**	**1.50**	**84**	*e*P	**Pg**	**15 00 34.0**	**+0.3**
MEF	**Metsahovi**	**1.50**	**84**	*e*P	**Pg**	**15 00 33.6**	**-0.1**
MEF				*e*S	**Sn**	**15 00 53.4**	**+0.2**
FORU	**Forsmark**	**1.64**	**282**	P	**Pb**	**15 00 35.9**	**-0.1**
FORU				S	**Sg**	**15 00 58.4**	**+0.8**
FORU	**Forsmark**	**1.64**	**282**	P	**Pn**	**15 00 35.4**	**+0.5**
FORU				S	**Sg**	**15 00 58.3**	**+0.8**
FORU	**Forsmark**	**1.64**	**282**	P	**Pn**	**15 00 35.4**	**+0.5**
FORU				S	**Sg**	**15 00 58.3**	**+0.8**
NUR	**Nurmijarvi**	**1.67**	**74**	*e*P	**Pb**	**15 00 36.5**	**0.0**
NUR				*e*S	**Sb**	**15 00 58.1**	**+0.1**
NUR				MSG		15 00 59.2	
	comp=Z,9.5nm,0.1s						
HEL5	**Espoo, Suvisaa**	**1.67**	**88**	*e*P	**Pb**	**15 00 36.5**	**0.0**
HEL5				*e*S	**Sb**	**15 00 57.9**	**-0.1**
HEL5				MSG		15 00 58.7	
	comp=Z,11nm,0.1s						
LAUT	**Lauttasaari He**	**1.73**	**86**	*e*P	**Pb**	**15 00 37.4**	**-0.1**
LAUT				*e*S	**Sb**	**15 00 59.8**	**+0.1**
LAUT				MSG		15 01 02.6	
	comp=Z,7.0nm,0.1s						
HEL1	**Helsinki**	**1.74**	**86**	*e*P	**Pb**	**15 00 37.6**	**-0.1**
HEL1				*e*S	**Sb**	**15 01 00.2**	**+0.1**
HEL1				MSG		15 01 03.7	
	comp=Z,7.0nm,0.1s						
FLYU	**Flymyra**	**1.77**	**273**	P	**Pn**	**15 00 37.4**	**+0.7**
FLYU	**Flymyra**	**1.77**	**273**	P	**Pn**	**15 00 37.5**	**+0.7**
FLYU	**Flymyra**	**1.77**	**273**	P	**Pn**	**15 00 37.5**	**+0.7**
KPF	**Kankaanpaa**	**1.78**	**10**	*e*P	**Pb**	**15 00 38.3**	**-0.1**
KPF				*e*S	**Sb**	**15 01 01.3**	**+0.1**
KPF				MSG		15 01 03.8	
	comp=Z,10nm,0.1s						
BOGU	**Bogesund**	**1.78**	**249**	P	**Pb**	**15 00 38.3**	**-0.1**
MTSE	**Matsula**	**1.85**	**137**	*e*P	**Pb**	**15 00 39.5**	**0.0**
MTSE	**Matsula**	**1.85**	**137**	*e*P	**Pb**	**15 00 39.4**	**-0.1**
MTSE				*e*S	**Sb**	**15 01 03.0**	**-0.2**
VUOS	**Vuosaari Helsi**	**1.87**	**85**	*e*PG	**Pg**	**15 00 40.4**	**-0.4**
VUOS				*e*S	**Sb**	**15 01 03.9**	**0.0**
VUOS				MSG		15 01 07.4	
	comp=Z,11nm,0.1s						
UPP	**Uppsala**	**1.92**	**265**	*e*P	**Pb**	**15 00 40.8**	**+0.1**
PVF	**Pernaja**	**2.26**	**76**	*e*PB	**Pb**	**15 00 46.3**	**-0.3**
PVF				*e*SB	**Sb**	**15 01 15.2**	**+0.1**
PVF				MSG		15 01 19.2	
	comp=Z,10nm,0.1s						
ARBE	**Arbavere**	**2.41**	**104**	*e*P	**Pb**	**15 00 48.3**	**-0.8**
ARBE	**Arbavere**	**2.41**	**104**	*e*PB	**Pb**	**15 00 48.5**	**-0.6**
ARBE				*e*SB	**Sb**	**15 01 19.2**	**0.0**
SLIT	**Slitere, Latvi**	**2.51**	**169**	*e*P	**Pb**	**15 00 49.2**	**-1.6**
FINES	**FINESS Array B**	**2.66**	**57**	Pn	**Pb**	**15 00 52.6**	**-0.9**
	comp=Z,0.8nm,0.3s,baz=245,slow=14,SNR=56						
FINES				Sn	**Sb**	**15 01 27.2**	**+0.6**
	comp=Z,2.0nm,0.3s,baz=245,slow=23,SNR=25						
	comp=Z,1.6nm,0.2s						
FINES				AML	AML		
KEF	**Keuruu**	**2.68**	**37**	*e*P	**Pb**	**15 00 53.0**	**-0.7**
VAF	**Ylistaro**	**3.02**	**11**	*e*P	**Pn**	**15 00 56.2**	**+2.3**
SUF	**Sumiainen**	**3.48**	**39**	*e*P	**Pn**	**15 01 03.0**	**+2.6**
HFS	**Hagfors**	**3.86**	**274**	Pn	**Pb**	**15 01 10.4**	**-3.5**
	comp=Z,0.2nm,0.3s,baz=85,slow=16,SNR=2.3						
HFS				Lg	Lg	15 02 06.2	
	comp=Z,0.8nm,0.3s,baz=71,slow=28,SNR=9.9						
	comp=Z,1.7nm,0.9s						
HFS				AML	AML		
NOA	**NORSAR Array B**	**5.12**	**285**	Pn	**Pn**	**15 01 25.0**	**+2.2**
	baz=101,slow=12,SNR=1.6						
NOA				Lg	Lg	15 02 47.4	
	baz=46,slow=9.5,SNR=4.7						
	comp=Z,0.1nm,0.4s						
STRU	**Stroemstad**	**5.31**	**263**	*e*P	**Pn**	**15 01 27.1**	**+1.8**
SJUU	**Sjulsmark**	**5.44**	**1**	*e*P	**Pn**	**15 01 28.8**	**+1.6**
JOF	**Joensuu**	**5.52**	**55**	*e*P	**Pn**	**15 01 31.1**	**+2.8**
LANU	**Lannavaara**	**7.99**	**2**	*e*P	**Pn**	**15 02 02.5**	**+0.3**
ARCES	**ARCESS Array B**	**9.64**	**9**	Pn	**Pn**	**15 02 24.3**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=190,slow=14,SNR=1.4						
ARCES				Sn	**Sn**	**15 04 08.6**	**-5.0**
	comp=Z,0.1nm,0.3s,baz=193,slow=24,SNR=2.2						
	comp=Z,1.4nm,0.8s						
ARCES				AML	AML		

*AEIC **10** 15:09:03.4±1.4, 54.80N×159.63W±0.06, h31km±4km,*
Error ellipse: s-maj=7.9km s-min=4.6km az=195.0
NEIC 10 15:09:03.7±0.7, **54.88N**±0.06×**159.62W**±0.05, **h26**km±5km,
ML2.6/8, **ML2.5**(AEIC), **Error ellipse: s-maj=9.3km**
s-min=4.2km az=186.0, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.06**	**162**	Pg	Pb	15 09 08.9	+0.7
CNBA				IAML		15 09 13.8	
	comp=E,957nm,0.2s						
CNBA				IAML		15 09 13.9	
	comp=N,1μm,0.1s						
SDPT	**Sand Point**	**0.68**	**314**		Pb	15 09 17.1	0.0
SDPT					Sn	15 09 27.5	+0.1
VNKR	**Veniaminof 5**	**1.16**	**7**		Pn	15 09 24.3	0.0
VNSG	**Veniaminof 6**	**1.29**	**14**		Pn	15 09 26.3	+0.2
DOL	**Dolgoi Island**	**1.32**	**283**		Pn	15 09 25.9	-0.5
DOL					Sn	15 09 43.1	-0.1
PS1A	**Pavlof South-1**	**1.33**	**295**		Pn	15 09 26.7	+0.1
PS1A					Sb	15 09 44.7	0.0
PVV	**Pavlof Volcano**	**1.34**	**293**		Pn	15 09 26.7	0.0
PS4A	**Pavlof South-4**	**1.37**	**291**		Pn	15 09 27.4	+0.3
PS4A					Sb	15 09 45.5	-0.1
HAG	**Hague Volcano**	**1.38**	**289**		Pn	15 09 27.6	+0.2
PN7A	**Pavlof North-7**	**1.47**	**293**		Pn	15 09 29.1	+0.4
DTNA	**Dutton South F**	**1.54**	**281**		Pn	15 09 29.2	-0.2
DTNA					Sn	15 09 49.4	+0.8
DT1	**Dutton Round H**	**1.55**	**280**		Pn	15 09 29.3	-0.3
DT1					Sn	15 09 49.3	+0.4
CHGN	**Chignik**	**1.58**	**25**		Pn	15 09 29.8	-0.3
CHGN				IAML		15 09 53.1	
	comp=E,93nm,0.1s						
CHGN				IAML		15 09 53.6	
	comp=N,58nm,0.5s						
S12K	**Black Hills**	**1.62**	**302**		Pn	15 09 30.4	-0.2
S12K	**Black Hills**	**1.62**	**302**		Sb	15 09 52.6	-0.4
WRGLY	**Wrigley**	**20.13**	**51**	P	P	15 13 33.8	-1.6

*JMA **10** 15:11:19.0±0.2, 23.96N×121.7E±0.7, h0km, MV3.5/13,*
TAIWAN REGION
*TAP **10** 15:11:20.1, 22.96N×121.37E, h38km, ML3.9, C*
ISC 10 15:11:20.0±0.9, **22.93N**±0.02×**121.45E**±0.02, **h30**km±6km,
n164, σ1$22/264, **6C-5D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EDH	**Donghe**	**0.14**	**287**	⇑P	**Pn**	**15 11 26.5**	**+0.4**
EDH				*i* S	**Sb**	**15 11 31.3**	**+1.8**
CHKT	**Chengkung**	**0.18**	**335**	⇓P	**Pn**	**15 11 26.8**	**0.0**
CHKT				*i* S	**Sb**	**15 11 31.6**	**+1.3**
LDUT	**Ludao**	**0.26**	**176**	*e*P	**Pn**	**15 11 28.1**	**+0.4**
LDUT				*e*S	**Sb**	**15 11 34.4**	**+2.7**
CHKH	**Chenggong**	**0.27**	**349**	⇑P	**Pn**	**15 11 27.5**	**-0.3**
CHKH				*i* S	**Sn**	**15 11 33.4**	**+0.5**
ECS	**Chishang**	**0.27**	**308**	*e*P	**Pn**	**15 11 27.6**	**-0.3**
ECS				S	**Sn**	**15 11 33.2**	**+0.2**
LONT	**Longtian**	**0.30**	**265**	*i*P	**Pn**	**15 11 27.5**	**+0.1**
LONT				S	**Sn**	**15 11 32.6**	**-1.0**
FULB	**Fuli**	**0.30**	**332**	*e*P	**Pn**	**15 11 27.8**	**+0.2**
FULB				*e*S	**Sn**	**15 11 33.6**	**-0.3**
EHD	**Haiduan**	**0.31**	**314**	*i*P	**Pb**	**15 11 27.2**	**-0.5**
EHD				S	**Sn**	**15 11 32.2**	**-1.9**
TWGBT	**Beinan**	**0.36**	**252**	P	**Pb**	**15 11 26.4**	**-1.9**
TWGBT	**Beinan**	**0.36**	**252**	P	**Pb**	**15 11 28.3**	**0.0**
TWGBT	**Beinan**	**0.36**	**252**	S	**Sb**	**15 11 33.5**	**-0.4**
TWGBT	**Beinan**	**0.36**	**252**	P	**Pb**	**15 11 27.9**	**-0.4**
TWGBT				*i* S	**Sb**	**15 11 33.6**	**-0.4**
TWG	**Pinlang**	**0.37**	**253**	⇑P	**Pb**	**15 11 28.0**	**-0.4**
TWG				S	**Sb**	**15 11 33.5**	**-0.7**
ECBN	**Changbin**	**0.38**	**0**	*e*P	**Pb**	**15 11 29.0**	**+0.4**
ECBN				*e*S	**Sb**	**15 11 35.8**	**+1.2**
EYUL	**Yuli**	**0.43**	**344**	*e*P	**Pb**	**15 11 28.9**	**-0.5**
EYUL				*e*S	**Sb**	**15 11 36.1**	**+0.3**
TWF1	**Yuli**	**0.44**	**341**	*i*P	**Pb**	**15 11 28.8**	**-0.8**
TWF1				S	**Sb**	**15 11 35.1**	**-1.0**
ELDTW	**Lidau**	**0.47**	**303**	⇓P	**Pb**	**15 11 29.1**	**-1.0**
ELDTW				*e*S	**Sb**	**15 11 35.1**	**-1.9**
YULB	**Yu-li**	**0.48**	**343**	P	**Pb**	**15 11 28.6**	**-1.6**
YULB	**Yu-li**	**0.48**	**343**	S	**Sb**	**15 11 35.1**	**-2.0**
YULB	**Yu-li**	**0.48**	**343**	P	**Pb**	**15 11 28.9**	**-1.3**
YULB	**Yu-li**	**0.48**	**343**	S	**Sb**	**15 11 34.8**	**-2.3**
YULB	**Yu-li**	**0.48**	**343**	⇑P	**Pb**	**15 11 29.1**	**-1.0**
YULB				S	**Sb**	**15 11 35.5**	**-1.6**
HGSD	**Ruisui**	**0.56**	**358**	*e*P	**Pn**	**15 11 31.1**	**-0.8**
HGSD				S	**Sb**	**15 11 40.7**	**+1.5**
ECL	**Taimali**	**0.57**	**234**	⇑P	**Pn**	**15 11 30.3**	**-1.7**
ECL				S	**Sb**	**15 11 37.6**	**-1.8**
EHYH	**Wanrong**	**0.57**	**350**	*i* P	**Pn**	**15 11 30.4**	**-1.6**
EHYH				S	**Sb**	**15 11 38.0**	**-1.5**
EHY	**Hungye**	**0.58**	**348**	*e*P	**Pn**	**15 11 30.6**	**-1.7**
EHY				*e*S	**Sb**	**15 11 38.7**	**-1.2**
STYH	**Taoyuan**	**0.67**	**291**	*i* P	**Pn**	**15 11 32.4**	**-1.0**
STYH				S	**Sn**	**15 11 41.2**	**-1.6**
YUS	**Yu-Shan**	**0.72**	**321**	⇓P	**Pn**	**15 11 33.5**	**-1.1**
YUS				S	**Sn**	**15 11 41.6**	**-3.2**
SLGT	**Liugui**	**0.74**	**275**	*e*P	**Pn**	**15 11 34.0**	**-0.4**
SLGT				*e*S	**Sn**	**15 11 43.0**	**-1.7**
TAW	**Tawu**	**0.77**	**222**	*e*P	**Pn**	**15 11 33.6**	**-1.1**
TAW				*e*S	**Sn**	**15 11 43.2**	**-2.0**
SSD	**Sandimen**	**0.78**	**256**	*e*P	**Pn**	**15 11 33.9**	**-1.0**
SSD				S	**Sn**	**15 11 42.6**	**-2.9**
EAST	**Anshuo**	**0.78**	**226**	P	**Pn**	**15 11 33.7**	**-1.2**
EAST				*e*S	**Sn**	**15 11 44.0**	**-1.7**
TEGC	**Jichi Village**	**0.78**	**6**	*e*P	**Pn**	**15 11 34.7**	**-0.2**
TEGC				*e*S	**Sn**	**15 11 45.5**	**0.0**
WARBT	**Fenglin Townsh**	**0.79**	**356**	*e*P	**Pn**	**15 11 33.1**	**-1.9**
WARBT				*e*S	**Sn**	**15 11 42.1**	**-3.7**
SGST	**Jiashian**	**0.81**	**281**	⇓P	**Pn**	**15 11 34.5**	**-0.9**
SGST				*i* S	**Sn**	**15 11 46.0**	**-0.4**
MASBT	**Mashibuluo**	**0.82**	**247**	*e*P	**Pn**	**15 11 34.7**	**-0.7**
ALS	**Alishan**	**0.83**	**314**	P	**Pn**	**15 11 35.6**	**-0.3**
ALS				*i* S	**Sn**	**15 11 46.4**	**-0.8**
WTP	**Ta-pu**	**0.83**	**292**	*i* P	**Pn**	**15 11 35.6**	**-0.1**
WTP				*i* S	**Sn**	**15 11 47.1**	**+0.1**
TPUB	**Ta-pu**	**0.84**	**296**	P	**Pn**	**15 11 35.2**	**-0.5**
TPUB	**Ta-pu**	**0.84**	**296**	S	**Sn**	**15 11 47.2**	**+0.1**
TPUB	**Ta-pu**	**0.84**	**296**	P	**Pn**	**15 11 35.3**	**-0.5**
TPUB	**Ta-pu**	**0.84**	**296**	S	**Sn**	**15 11 47.6**	**+0.5**
TPUB	**Ta-pu**	**0.84**	**296**	P	**Pn**	**15 11 35.8**	**+0.1**
TPUB				S	**Sn**	**15 11 47.3**	**+0.1**
SHUL	**Shoufeng**	**0.86**	**7**	P	**Pn**	**15 11 35.5**	**-0.5**
SHUL				*e*S	**Sn**	**15 11 46.8**	**-0.7**
ESL	**Shilin**	**0.88**	**359**	*i* P	**Pn**	**15 11 34.5**	**-1.8**
ESL				*e*S	**Sn**	**15 11 45.0**	**-3.1**
SCST	**Cishan**	**0.88**	**267**	*e*P	**Pn**	**15 11 36.8**	**+0.5**
CHN1	**Nanshi**	**0.89**	**287**	*i* P	**Pn**	**15 11 36.8**	**+0.4**
CHN4	**Tsaushan**	**0.89**	**298**	*i* P	**Pn**	**15 11 36.9**	**+0.4**
CHN4				S	**Sn**	**15 11 49.4**	**+1.0**
LAY	**Lan-yu**	**0.89**	**174**	*i* P	**Pn**	**15 11 36.0**	**-0.5**
LAY				*i* S	**Sn**	**15 11 48.3**	**-0.1**
SGLT	**Jiouru**	**0.91**	**257**	*e*P	**Pn**	**15 11 36.5**	**-0.2**
SGLT				*e*S	**Sb**	**15 11 50.8**	**+1.8**
SSPT	**Xinbi**	**0.93**	**242**	P	**Pn**	**15 11 37.4**	**+0.4**
SSPT				*e*S	**Sn**	**15 11 49.5**	**+0.3**
WCKO	**Fanlu**	**0.93**	**303**	*e*P	**Pn**	**15 11 37.4**	**+0.4**
WCKO				S	**Sn**	**15 11 49.8**	**+0.5**
SLIU	**Shizi**	**0.93**	**220**	*e*P	**Pn**	**15 11 36.3**	**-0.7**
SLIU				*e*S	**Sn**	**15 11 48.5**	**-0.8**
LYUB	**Lan-yu**	**0.93**	**172**	*e*P	**Pn**	**15 11 35.9**	**-1.2**
LYUB				*e*S	**Sn**	**15 11 48.0**	**-1.3**
WHYT	**Xinyi Township**	**0.94**	**324**	⇑P	**Pn**	**15 11 37.2**	**+0.1**
WHYT				S	**Sn**	**15 11 48.9**	**-0.7**
TEYL	**Yanliau Villag**	**0.94**	**8**	*e*P	**Pn**	**15 11 37.1**	**0.0**
TEYL				*e*S	**Sb**	**15 11 51.6**	**+1.6**
SCZT	**Fangliau**	**0.95**	**234**	P	**Pn**	**15 11 37.0**	**-0.2**
SCZT				*e*S	**Sn**	**15 11 50.0**	**+0.3**
TWK	**Hsinying**	**0.95**	**291**	*i* P	**Pn**	**15 11 37.1**	**+0.2**
TWK				*i* S	**Sn**	**15 11 51.0**	**+1.2**
TWM1	**Shoushan**	**0.95**	**264**	*e*P	**Pb**	**15 11 39.3**	**+1.3**
TWM1				*e*S	**Sb**	**15 11 53.8**	**+3.4**
SSLB	**Suanglung**	**0.97**	**332**	P	**Pn**	**15 11 36.5**	**-1.0**
SSLB	**Suanglung**	**0.

ENA	**Nanau**	**1.51**	**10**	*eP*	**Pn**	**15 11 44.3**	**-0.7**
EWUT	**Wuta**	**1.54**	**11**	*eP*	**Pn**	**15 11 44.8**	**-0.5**
TWQ1	**Liyutan**	**1.54**	**336**	*eP*	**Pn**	**15 11 46.6**	**+1.2**
TWQ1				*i* S	**Sn**	**15 12 06.6**	**+2.2**
EOS3	**EOS3**	**1.57**	**30**	*eP*	**Pn**	**15 11 46.1**	**+0.5**
EOS3				*eS*	**Sn**	**15 12 05.2**	**+0.4**
WDJ	**Dajia District**	**1.59**	**332**	*eP*	**Pn**	**15 11 47.9**	**+1.8**
WDJ				*i* S	**Sn**	**15 12 08.6**	**+2.8**
LATG	**Datong**	**1.60**	**2**	*eP*	**Pn**	**15 11 45.7**	**-0.6**
NDT	**Datong Townshi**	**1.67**	**2**	*eP*	**Pn**	**15 11 47.1**	**0.0**
ESAO	**Su ao**	**1.68**	**12**	*eP*	**Pn**	**15 11 47.6**	**+0.3**
WDGT	**Dungji**	**1.68**	**282**	*eP*	**Pn**	**15 11 48.0**	**+0.8**
ENTT	**Nioudou**	**1.71**	**4**	*eP*	**Pn**	**15 11 47.2**	**-0.5**
TWC	**Suao**	**1.71**	**12**	*eP*	**Pn**	**15 11 48.1**	**+0.4**
TWC				*i* S	**Sn**	**15 12 09.2**	**+0.6**
NDS	**Dongshan**	**1.71**	**8**	*eP*	**Pn**	**15 11 47.4**	**-0.4**
NFF	**Wufeng Townshi**	**1.72**	**350**	*i* P	**Pn**	**15 11 49.1**	**+1.2**
NFF				*eS*	**Sn**	**15 12 11.2**	**+2.3**
YHNB	**Yeheng**	**1.73**	**358**	P	**Pn**	**15 11 47.9**	**-0.2**
YHNB	**Yeheng**	**1.73**	**358**	P	**Pn**	**15 11 48.0**	**-0.2**
YHNB	**Yeheng**	**1.73**	**358**	S	**Sn**	**15 12 09.0**	**-0.2**
YHNB	**Yeheng**	**1.73**	**358**	P	**Pn**	**15 11 48.2**	**+0.1**
YHNB				S	**Sn**	**15 12 09.2**	**-0.1**
NSK	**Sanguang**	**1.74**	**357**	*eP*	**Pn**	**15 11 48.4**	**+0.2**
NSTT	**Nanjuang**	**1.74**	**346**	*i* P	**Pn**	**15 11 50.4**	**+2.2**
NSTT				*i* S	**Sn**	**15 12 12.1**	**+2.7**
LIOB	**Emei**	**1.75**	**347**	*eP*	**Pn**	**15 11 49.2**	**+0.9**
TWE	**Neicheng**	**1.79**	**6**	*eP*	**Pn**	**15 11 50.7**	**+1.8**
PHUB	**P'eng-hu**	**1.82**	**289**	*eP*	**Pn**	**15 11 48.8**	**-0.4**
PHUB				*i* S	**Sn**	**15 12 09.3**	**-2.0**
FUSB	**Fushanzhiwuyua**	**1.82**	**4**	*eP*	**Pn**	**15 11 49.2**	**-0.2**
NWLT	**Wulai**	**1.84**	**1**	*i* P	**Pn**	**15 11 49.6**	**0.0**
NWLT				*i* S	**Sn**	**15 12 10.6**	**-1.2**
KSHI	**Guanxi Townshi**	**1.85**	**352**	*eP*	**Pn**	**15 11 51.4**	**+1.7**
PNG	**Penghu**	**1.85**	**290**	*eP*	**Pn**	**15 11 49.3**	**-0.4**
PNG				*eS*	**Sn**	**15 12 09.6**	**-2.5**
VCHM	**Qimei**	**1.88**	**279**	*eS*	**Sn**	**15 12 11.6**	**-1.2**
HSN	**Hsinchu**	**1.91**	**347**	*eS*	**Sn**	**15 12 15.7**	**+2.1**
TATO	**Taipei**	**2.04**	**1**	P	**Pn**	**15 11 51.6**	**-0.6**
JYNG	**Yonagunijimaku**	**2.04**	**42**	*eS*	**Sn**	**15 12 17.1**	**+0.4**
TWA	**Mucha**	**2.04**	**3**	*eP*	**Pn**	**15 11 53.5**	**+1.2**
TIPB	**Shuangxi**	**2.06**	**10**	*eP*	**Pn**	**15 11 53.3**	**+0.8**
TIPB				*i* S	**Sn**	**15 12 18.2**	**+0.9**
YOJ	**Yonaguni jima**	**2.09**	**43**	*eP*	**Pn**	**15 11 54.4**	**+1.5**
YOJ				S	**Sn**	**15 12 19.0**	**+1.1**
YOJ	**Yonaguni jima**	**2.09**	**43**	*eP*	**Pn**	**15 11 54.0**	**+1.1**
YOJ				*eS*	**Sn**	**15 12 18.9**	**+0.9**
NHY	**Taipei**	**2.10**	**3**	*eP*	**Pn**	**15 11 54.5**	**+1.4**
TWB1	**Santiao Chiao**	**2.13**	**13**	*eP*	**Pn**	**15 11 54.3**	**+0.8**
TWS1	**Kuangyinshan**	**2.16**	**359**	*eP*	**Pn**	**15 11 54.8**	**+0.8**
SXI1	**Grass Mountain**	**2.19**	**10**	*eP*	**Pn**	**15 11 55.2**	**+0.9**
YM01	**YM01**	**2.21**	**3**	*eP*	**Pn**	**15 11 54.7**	**+0.1**
ZUZH	**Zhuzihu**	**2.22**	**2**	*eP*	**Pn**	**15 11 54.7**	**-0.2**
NTST	**Danshui**	**2.22**	**360**	*eS*	**Sn**	**15 12 23.0**	**+1.8**
ANP	**Anpu**	**2.25**	**2**	*eP*	**Pn**	**15 11 56.4**	**+1.2**
YM08	**YM08**	**2.25**	**3**	*eP*	**Pn**	**15 11 54.7**	**-0.5**
HATJ	**Hateruma jima**	**2.44**	**62**	S	**Sn**	**15 12 26.5**	**+0.1**
IRIF	**Iriomote-Funau**	**2.52**	**56**	P	**Pn**	**15 11 59.8**	**+1.0**
IRIF				S	**Sn**	**15 12 29.3**	**+0.9**
JKRS	**Kuro-shima**	**2.68**	**61**	*eP*	**Pn**	**15 12 02.0**	**+1.0**
JKRS				*eS*	**Sn**	**15 12 32.7**	**+0.1**
JIJ	**Ishigaki jima**	**2.85**	**59**	P	**Pn**	**15 12 03.9**	**+0.5**
JIJ				S	**Sn**	**15 12 36.6**	**-0.1**
JISG	**Ishigakijimahi**	**3.10**	**57**	P	**Pn**	**15 12 07.1**	**+0.3**
JISG				*eS*	**Sn**	**15 12 41.7**	**-1.1**
JTJ	**Tarama**	**3.43**	**60**	*eS*	**Sn**	**15 12 51.0**	**-0.1**
ZPLA	**Ao Xicun**	**3.54**	**287**	P	**Pn**	**15 12 12.6**	**-0.3**
ZPLA				*i* S	**Sn**	**15 12 51.6**	**-2.2**
DSXP	**Dongshan**	**3.78**	**283**	*i* P	**Pn**	**15 12 16.1**	**-0.1**
DSXP				*eS*	**Sn**	**15 12 58.3**	**-1.3**
JIRJ	**Irabujima**	**3.92**	**60**	*eS*	**Sn**	**15 13 02.1**	**-0.8**

*ISK **10** 15:14:48.8, 37.°84N×26.°81E, h9km, ML2.9/19*
*THE **10** 15:14:49.3, 37.°8N±0.°6×26.°8E±0.°6, h9km±1km, M3.1/4, MLh3.1/4*
*ATH **10** 15:14:49.0, 37.°77N×26.°81E, h13km, ML3.0/9, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

ISC 10 15:14:49.2±0.8, 37.°81N±0.°02×26.°81E±0.°02, h12km±5km, n43, σ0947/60, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.10**	**166**	P		**Pg**	**Pg**	**15 14 52.1**	**0.0**
SMG				S		**Sg**	**Sg**	**15 14 54.3**	**+0.1**
SMG				AML			AML		
SMG	**Samos**	**0.10**	**166**	P		**Pg**	**Pg**	**15 14 52.1**	**0.0**
SMG				S		**Sg**	**Sg**	**15 14 54.2**	**-0.1**
SMG				AML			AML		
SAM2	**Drakei, Karlov**	**0.16**	**251**	P		**Pg**	**Pg**	**15 14 52.9**	**-0.1**
SAM2				S		**Sg**	**Sg**	**15 14 55.7**	**+0.1**
SAM2				AML			AML		
GMLD	**Gumuldur**	**0.28**	**18**	Pg		**Pg**	**Pg**	**15 14 54.7**	**-0.3**
GMLD				Sg		**Sg**	**Sg**	**15 14 58.6**	**-0.2**
GMLD				AML			AML		
KUSD	**Kusadasi-Aydin**	**0.38**	**82**	Pg		**Pg**	**Pg**	**15 14 56.2**	**-0.7**
KUSD				Sg		**Sb**	**Sb**	**15 15 02.8**	**-1.0**
KUSD				AML			AML		
DIDI	**Didim-Aydin**	**0.55**	**141**	Pg		**Pg**	**Pg**	**15 14 59.5**	**-0.5**
DIDI				Sg		**Sb**	**Sb**	**15 15 09.2**	**+0.5**
DIDI				AML			AML		
BLCB	**Balcova**	**0.60**	**18**	P		**Pg**	**Pg**	**15 15 00.5**	**-0.4**
BLCB				S		**Sg**	**Sg**	**15 15 08.9**	**0.0**
BLCB	**Balcova**	**0.60**	**18**	Pg		**Pg**	**Pg**	**15 15 00.6**	**-0.4**
BLCB				Sg		**Sg**	**Sg**	**15 15 08.9**	**0.0**
BLCB				AML			AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**151**	Pg		**Pb**	**Pb**	**15 15 04.6**	**-0.1**
YKAV				AML			AML		
KRBN	**Karaburun**	**0.81**	**346**	Pg		**Pg**	**Pg**	**15 15 04.2**	**-0.6**
KRBN				AML			AML		
BODT	**Bodrum**	**0.85**	**152**	P		**Pg**	**Pg**	**15 15 05.3**	**-0.3**
BODT				S		**Sb**	**Sb**	**15 15 18.2**	**+1.0**
BODT				AML			AML		
BODT	**Bodrum**	**0.85**	**152**	Pg		**Pg**	**Pg**	**15 15 05.5**	**-0.1**
BODT				Sg		**Sn**	**Sn**	**15 15 19.2**	**-0.1**
BODT				AML			AML		
KLNA	**Kalymnos**	**0.86**	**171**	P		**Pg**	**Pg**	**15 15 05.4**	**-0.5**
KLNA				AML			AML		
AYDB	**Zeytinkoy-Aydi**	**0.87**	**81**	Pg		**Pg**	**Pg**	**15 15 05.5**	**-0.5**
AYDB				Sg		**Sb**	**Sb**	**15 15 17.9**	**0.0**
AYDB				AML			AML		
FOCM	**Foa**	**0.90**	**356**	Pg		**Pg**	**Pg**	**15 15 06.3**	**-0.3**
FOCM				AML			AML		
EAG2	**Marmaro, Chios**	**0.92**	**323**	P		**Pn**	**Pn**	**15 15 07.5**	**-0.4**
EAG2				S		**Sb**	**Sb**	**15 15 19.4**	**+0.3**
BODA	**Bodrum-Mula**	**0.92**	**147**	Pg		**Pb**	**Pb**	**15 15 07.4**	**+0.3**
MLSB	**Milas**	**0.93**	**123**	Pg		**Pb**	**Pb**	**15 15 07.2**	**0.0**
MLSB				AML			AML		
NAZL	**Nazilli-Aydin**	**1.19**	**82**	Pn		**Pn**	**Pn**	**15 15 12.0**	**+0.4**
NAZL				AML			AML		
DAT	**Datca**	**1.24**	**150**	Pn		**Pg**	**Pg**	**15 15 13.5**	**+0.4**
DAT				AML			AML		
GOMA	**Golmarmara-Man**	**1.25**	**44**	Pn		**Pb**	**Pb**	**15 15 12.6**	**-0.1**
GOMA				AML			AML		
APE	**Apeiranthos**	**1.26**	**234**	P		**Pn**	**Pn**	**15 15 11.8**	**-0.8**
APE				S		**Sb**	**Sb**	**15 15 29.5**	**+0.6**
APE				AML			AML		
APE	**Apeiranthos**	**1.26**	**234**	P		**Pn**	**Pn**	**15 15 11.8**	**-0.8**
APE				S		**Sb**	**Sb**	**15 15 28.9**	**0.0**
APE				AML			AML		
DKL	**Dikili**	**1.26**	**4**	P		**Pg**	**Pg**	**15 15 13.5**	**+0.1**
DKL				S		**Sn**	**Sn**	**15 15 30.1**	**+0.6**
ASTA	**Astypalaia**	**1.31**	**196**	P		**Pn**	**Pn**	**15 15 12.5**	**-0.8**
ASTA				AML			AML		
AKS	**Akhisar**	**1.33**	**36**	Pn		**Pn**	**Pn**	**15 15 13.5**	**-0.1**
AKS				AML			AML		
TNSA	**Tinos**	**1.33**	**259**	P		**Pn**	**Pn**	**15 15 12.9**	**-0.6**
YER	**Yerkesik**	**1.35**	**119**	P		**Pn**	**Pn**	**15 15 14.1**	**+0.1**
YER				S		**Sg**	**Sg**	**15 15 32.9**	**+0.1**
YER	**Yerkesik**	**1.35**	**119**	Pn		**Pb**	**Pb**	**15 15 14.5**	**0.0**
YER				AML			AML		
SOMA	**Soma-Manisa**	**1.46**	**23**	Pn		**Pb**	**Pb**	**15 15 15.8**	**-0.5**
SOMA				AML			AML		
PRK	**Paraskevi**	**1.49**	**344**	P		**Pg**	**Pg**	**15 15 17.7**	**-0.2**
PRK				S		**Sg**	**Sg**	**15 15 37.8**	**+0.5**
PRK	**Paraskevi**	**1.49**	**344**	P		**Pb**	**Pb**	**15 15 17.1**	**+0.3**
GORD	**Gordes-Manisa**	**1.54**	**44**	Pn		**Pn**	**Pn**	**15 15 16.9**	**+0.4**
GORD				AML			AML		
DALY	**Dalyan (Mula)**	**1.78**	**123**	Pn		**Pn**	**Pn**	**15 15 20.6**	**+0.9**
DALY				AML			AML		
THERA	**Ancient Thera,**	**1.79**	**217**	P		**Pn**	**Pn**	**15 15 19.4**	**-0.5**
THERA				AML			AML		
KARY	**Karystos**	**1.89**	**277**	P		**Pn**	**Pn**	**15 15 22.2**	**+1.0**
ARG	**Arkhangelos**	**1.91**	**146**	P		**Pn**	**Pn**	**15 15 20.9**	**-0.6**
ARG				AML			AML		
APMY	**Acipayam-Deniz**	**2.01**	**99**	Pn		**Pn**	**Pn**	**15 15 23.6**	**+0.6**
APMY				AML			AML		
KARP	**Karpathos**	**2.28**	**173**	P		**Pn**	**Pn**	**15 15 25.9**	**-0.7**
KARP				AML			AML		
DION	**Dionisos Attik**	**2.29**	**278**	P		**Pn**	**Pn**	**15 15 26.8**	**0.0**
PTL	**Penteli**	**2.34**	**277**	P		**Pn**	**Pn**	**15 15 27.4**	**0.0**
VLY	**Voula,Athens**	**2.38**	**272**	P		**Pn**	**Pn**	**15 15 28.2**	**+0.1**
ATHU	**Athens Univers**	**2.40**	**275**	P		**Pn**	**Pn**	**15 15 28.1**	**-0.1**

NNC 10 15:21:26.1±3.1, 43.°99N×87.°00E, h0km, mb3.5, mpv3.4, 7C-5D, Error ellipse: s-maj=26.5km s-min=13.4km az=127.0, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ZSN	**Zaisan**	**3.77**	**337**	Pg		Pb		15 22 35.5	+2.1
	6.0nm,0.1s								
ZSN				Lg		Lg		15 23 19.6	
	21nm,0.2s								
MK31	**Makanchi Array**	**4.34**	**312**	⇓Pn		Pn		15 22 31.5	-1.8
	0.7nm,0.3s,baz=128,slow=15,SNR=74								
MK31				⇑Pg		Pb		15 22 45.3	+2.1
	0.7nm,0.3s,baz=128,slow=15,SNR=5.0								
MK31				⇑Sn		Sn		15 23 26.6	+2.0
	0.5nm,0.2s,baz=133,slow=28,SNR=4.2								
MK31				⇑Lg		Lg		15 23 44.9	
	6.5nm,0.5s,baz=127,slow=30,SNR=6.0								
DJR	**Jarkent**	**5.20**	**276**	Pg		Pn		15 22 50.1	+4.9
	1.0nm,0.2s								
DJR				Lg		Lg		15 23 44.8	
	2.5nm,0.2s								
PDGK	**Podgornoye**	**5.49**	**266**	⇑Pn		Pn		15 22 49.6	+0.5
	0.8nm,0.3s								
PDGK				⇓Pg		Pb		15 23 06.3	+3.5
	3.6nm,0.7s								
PDGK				⇑Sn		Sn		15 23 54.2	+1.2
	7.6nm,0.7s								
PDGK				⇑Lg		Lg		15 24 20.2	
	9.2nm,0.5s								
KAPS	**Kapalarasan**	**5.60**	**286**	Pg		Pn		15 22 56.7	+6.0
	2.0nm,0.1s								
KAPS				Lg		Lg		15 23 56.1	
	15nm,0.2s								
KURBB	**Kurchatov Arra**	**8.77**	**322**	⇑Pn		Pn		15 23 36.9	+2.8
	2.0nm,0.6s								
KURBB				⇓Lg		Lg		15 26 07.0	
	14nm,0.6s								
KURK	**Kurchatov**	**8.80**	**323**	⇓Pn		Pn		15 23 36.2	+1.8
	0.2nm,0.3s								
KURK				⇓Lg		Lg		15 26 06.3	
	3.2nm,0.6s								

*IDC **10** 15:59:16.4±1.0, 46.°97N×154.°89E, h0km, mb4.1/18, mbtmp4.0/22, ML3.5/4, MS2.8/5, Error ellipse: s-maj=22.7km s-min=14.7km az=129.0*
*MOS **10** 15:59:17.1±1.7, 46.°99N×155.°05E, h22km, mb4.6/8, Error ellipse: s-maj=9.3km s-min=6.6km az=66.8*
*NEIC **10** 15:59:17.9±1.0, 47.°09N±0.°10×155.°0E±0.°1, h10km±1km, mb4.6/30, Error ellipse: s-maj=18.5km s-min=12.8km az=140.0*
*SKHL **10** 15:59:17.3±0.1, 47.°10N×155.°10E, h24km±3km, mb4.9/6*
*JMA **10** 15:59:23.5±0.9, 47.°N±7.°×15.°4E±.°, h0km, MV4.4/15, FAR FIELD*

ISC 10 15:59:18.7±0.6, 47.°12N±0.°07×154.°83E±0.°07, h18km, n111, σ1998/120, mb4.4/32, MS2.5/3, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**3.67**	**13**	*e*PN		**Pb**		**16 00 20.4**	**-2.5**
SKR				MLR		MLR			
	comp=Z,1μm,15.0s								
SKR	**Severo-Kuril's**	**3.67**	**13**	*e*P		**Pn**		**16 00 12.6**	**-1.8**
SKR				AMB		AMB		16 00 15.9	
	comp=Z,60nm,0.2s								
SKR				*e*S		**Sn**		**16 00 52.8**	**-4.3**
SKR				A		A		16 00 57.9	
	comp=Z,100nm,0.2s								
SKR				A		A		16 00 57.9	
	comp=Z,110nm,0.2s								
PAU	**Pauzhetka**	**4.54**	**16**	*e*P		**Pn**		**16 00 25.1**	**-1.3**
PAU				AMB		AMB		16 00 27.8	
	comp=Z,40nm,0.2s								
PAU				*e*S		**Sn**		**16 01 16.0**	**-2.7**
PAU				A		A		16 01 19.1	
	comp=Z,100nm,0.2s								
PAU				A		A		16 01 19.1	
	comp=Z,100nm,0.2s								
KUR	**Kuril'sk**	**5.19**	**251**	*e*PN		**Pn**		**16 00 37.8**	**+2.5**
KUR				pmax		pmax			
	comp=E,35nm,0.6s								
KUR				pmax		pmax			
	comp=Z,70nm,0.6s								
KUR				pmax		pmax			
	comp=N,26nm,0.5s								
KUR	**Kuril'sk**	**5.19**	**251**	*e*P		**Pn**		**16 00 37.6**	**+2.3**
KUR				AMB		AMB		16 00 40.6	
	comp=N,80nm,0.4s								
KUR				*e*S		**Sn**		**16 01 35.8**	**+1.1**
KUR				A		A		16 01 37.2	
	comp=N,150nm,0.3s								
KUR				A		A		16 01 37.2	
	comp=N,130nm,0.3s								
PEA0B	**Petropavlovsk-**	**6.27**	**16**	PN		**Pn**		**16 00 49.7**	**-0.5**
PEA0B	**Petropavlovsk-**	**6.27**	**16**	Pn		**Pn**		**16 00 49.7**	**-0.5**
PETK	**Petropavlovsk-**	**6.27**	**16**	Pn		**Pn**		**16 00 49.7**	**-0.5**
	comp=N,1.3nm,0.3s,baz=184,slow=12,SNR=43								
	comp=N,4.5nm,0.6s								
PETK				AML		AML			
PET	**Petropavlovsk**	**6.40**	**21**	PN		**Pn**		**16 00 49.6**	**-2.4**
PET	**Petropavlovsk**	**6.40**	**21**	Pn		**Pn**		**16 00 49.6**	**-2.4**
PET	**Petropavlovsk**	**6.40**	**21**	*e*P		**Pn**		**16 00 50.1**	**-1.9**
PET				AMB		AMB		16 00 53.0	
	comp=N,30nm,0.3s								
PET				*e*S		**Sn**		**16 01 59.2**	**-5.3**
SHO	**Shikotan**	**6.49**	**243**	*e*P		**Pb**		**16 01 11.9**	**+0.9**
SHO				AMB		AMB		16 01 14.1	
	comp=N,30nm,0.3s								
SHO				*e*S		**Sb**		**16 02 20.2**	**-8.0**
YUK	**Yuzh-Kuril'sk**	**7.01**	**247**	*e*PN		**Pn**		**16 01 01.6**	**+1.3**
YUK				pmax		pmax			
	comp=Z,70nm,0.2s								
YUK				pmax		pmax			
	comp=E,8.0nm,0.1s								
YUK	**Yuzh-Kuril'sk**	**7.01**	**247**	*e*P		**Pn**		**16 01 01.7**	**+1.4**
YUK				AMB		AMB		16 01 02.3	
	comp=E,80nm,0.6s								
YUK				*e*S		**Sn**		**16 02 21.4**	**+1.9**
RUSJ	**Misakicho**	**7.36**	**249**	*e*PN		**Pn**		**16 01 07.9**	**+2.7**
NEM2	**Nemuro 2**	**7.43**	**243**	*e*P		**Pn**		**16 01 05.1**	**-1.0**
NEM2				*e*S		**Sn**		**16 02 24.5**	**-5.3**
NMR	**Nemuro--Hokkai**	**7.44**	**243**	*e*PN		**Pn**		**16 01 05.1**	**-1.1**
NMR	**Nemuro--Hokkai**	**7.44**	**243**	*e*P		**Pn**		**16 01 05.1**	**-1.1**
JNK	**Nakash**	**7.95**	**247**	*e*P		**Pn**		**16 01 14.2**	**+1.0**
AKK	**Akkeshi**	**8.17**	**244**	*e*P		**Pn**		**16 01 16.9**	**+0.6**
YSS	**Yuzhno-Sakhali**	**8.25**	**273**	*e*P		**Pn**		**16 01 20.1**	**+2.7**
JAK	**Akkeshi**	**8.27**	**244**	P		**Pn**		**16 01 16.7**	**-0.9**
JAK				*e*S		**Sn**		**16 02 45.5**	**-5.0**
JTKR	**Abashiri--Toko**	**8.29**	**252**	*e*P		**Pn**		**16 01 19.7**	**+1.8**
JAR	**Ashorobuto**	**8.69**	**248**	*e*P		**Pn**		**16 01 24.9**	**+1.4**
JAR				*e*S		**Sn**		**16 02 58.5**	**-2.4**
TYV	**Tymovskoe**	**8.84**	**300**	*e*P		**Pn**		**16 01 28.6**	**+3.2**
JOB	**Onbets**	**8.85**	**246**	*e*P		**Pn**		**16 01 26.0**	**+0.4**
JOB				*e*S		**Sn**		**16 02 59.6**	**-5.3**
JKA	**Kamikawa-asahi**	**9.08**	**255**			**Pn**		**16 01 29.6**	**+0.9**
JKA	**Kamikawa-asahi**	**9.08**	**255**	*e*P		**Pn**		**16 01 29.7**	**+0.9**
ASAJ	**Asahikawa**	**9.08**	**255**	Pn		**Pn**		**16 01 29.6**	**+0.9**
	comp=E,0.7nm,0.3s,baz=315,slow=31,SNR=7.8								
	comp=E,5.0nm,0.7s								
ASAJ				AML		AML			
JCH	**Churui**	**9.30**	**245**	*e*P		**Pn**		**16 01 31.4**	**-0.4**
JCH				*e*S		**Sn**		**16 03 09.2**	**-6.7**
ERM	**Erimo**	**9.77**	**243**	PN		**Pn**		**16 01 38.8**	**+0.7**
ERM	**Erimo**	**9.77**	**243**	Pn		**Pn**		**16 01 38.8**	**+0.7**
MA2	**Magadan**	**12.71**	**351**	LR		LR		16 07 34.2	
	comp=E,40nm,18.9s,baz=178,slow=39								

KLR	**Kul'dur**	**15.53**	**286**	Pn		**Pn**		**16 02 59.5**	**+2.9**
	comp=E,0.4nm,0.3s,baz=82,slow=12,SNR=5.3								
KLR				LR		LR		16 08 32.7	
	comp=E,29nm,21.3s,baz=136,slow=36								
	comp=E,1.1nm,0.6s								
KLR				AML		AML			
KLR	**Kul'dur**	**15.53**	**286**	*e*P		**Pn**		**16 02 54.9**	**-1.7**
USA0B	**Ussuriysk Arra**	**16.22**	**268**	P		**Pn**		**16 03 07.1**	**+1.6**
USA0B				pmax		pmax			
	comp=Z,7.0nm,1.0s								
USA0B	**Ussuriysk Arra**	**16.22**	**268**	Pn		**Pn**		**16 03 07.1**	**+1.6**
USRK	**Ussuriysk Ar.**	**16.22**	**268**	Pn		**Pn**		**16 03 07.3**	**+1.8**
	comp=Z,0.4nm,0.3s,baz=66,slow=14,SNR=2.4								
	comp=Z,1.2nm,0.5s								
USRK				AML		AML			
USRK	**Ussuriysk Ar.**	**16.22**	**268**	P		**P**		**16 03 08.2**	**-0.3**
USRK	**Ussuriysk Ar.**	**16.22**	**268**	P		**P**		**16 03 08.2**	**-0.3**
MJAR	**Matsushiro Arr**	**16.25**	**235**	P		**Pn**		**16 03 06.1**	**+0.2**
MJAR				pmax		pmax			
	comp=Z,8.0nm,1.5s								
MJAR	**Matsushiro Arr**	**16.25**	**235**	Pn		**Pn**		**16 03 06.1**	**+0.2**
MAJO	**Matsushiro**	**16.25**	**235**	P		**Pn**		**16 03 06.4**	**+0.5**
MAJO				pmax		pmax			
	comp=Z,19nm,1.3s								
MAJO	**Matsushiro**	**16.25**	**235**	Pn		**Pn**		**16 03 06.4**	**+0.5**
MDJ	**Mudanjiang**	**17.73**	**271**			**P**		**16 03 25.5**	**+0.3**
ADK	**Adak**	**19.04**	**65**	P		**P**		**16 03 37.8**	**-1.7**
ADK				pmax		pmax			
	comp=Z,141nm,1.5s								
ADK	**Adak**	**19.04**	**65**	P		**P**		**16 03 37.8**	**-1.7**
ADK				IAmb		IAmb		16 03 40.8	
	comp=Z,141nm,1.4s								
YAK	**Yakutsk**	**20.66**	**325**	LR		LR		16 12 55.1	
	comp=Z,24nm,20.8s,baz=108,slow=39								
YAK	**Yakutsk**	**20.66**	**325**	P		**P**		**16 03 58.1**	**+0.9**
YAK				pmax		pmax			
	comp=Z,8.0nm,0.6s								
YAK	**Yakutsk**	**20.66**	**325**	P		**P**		**16 03 58.1**	**+0.9**
YAK				IAmb		IAmb		16 04 01.2	
	comp=Z,7.8nm,0.6s								
YAK	**Yakutsk**	**20.66**	**325**	*e*P		**P**		**16 03 58.1**	**+0.9**
KSRS	**Korea Array**	**22.03**	**254**	P		**P**		**16 04 13.9**	**+1.9**
	comp=Z,1.3nm,0.6s,baz=51,slow=11,SNR=6.5								
KSRS				LR		LR		16 12 33.3	
	comp=Z,16nm,19.2s,baz=0.0,slow=36								
	comp=Z,1.3nm,0.6s								
KSAR	**Wonju Array Be**	**22.06**	**254**	P		**P**		**16 04 13.5**	**+1.1**
KSAR	**Wonju Array Be**	**22.06**	**254**	P		**P**		**16 04 13.5**	**+1.1**
KSAR	**Wonju Array Be**	**22.06**	**254**	*e*P		**P**		**16 04 13.5**	**+1.1**
HILR	**Hailar Array B**	**23.32**	**289**	P		**P**		**16 04 25.0**	**-0.5**
	comp=Z,1.7nm,0.5s,baz=81,slow=9.0,SNR=5.2								
	comp=Z,1.7nm,0.5s								
TIXI	**Tiksi**	**27.46**	**342**	P		**P**		**16 05 02.9**	**-0.2**
TIXI				pmax		pmax			
	comp=Z,8.0nm,1.3s								
TIXI	**Tiksi**	**27.46**	**342**			**P**		**16 05 02.9**	**-0.2**
TIXI				IAmb		IAmb		16 05 03.6	
	comp=Z,7.9nm,1.2s								
TIXI	**Tiksi**	**27.46**	**342**	*e*P		**P**		**16 05 02.9**	**-0.2**
ANM	**Nome**	**27.69**	**36**	P		**P**		**16 05 05.6**	**+0.3**
ANM	**Nome**	**27.69**	**36**	P		**P**		**16 05 05.6**	**+0.3**
O22K	**Cooper Landing**	**34.27**	**46**	P		**P**		**16 06 02.6**	**-0.6**
SML	**Sawmill**	**34.89**	**44**	P		**P**		**16 06 08.5**	**-0.2**
SML				pmax		pmax			
	comp=Z,12nm,1.2s								
SML

comp=Z,0.5nm,0.6s
NIUE Niue 73.13 145 P P 16 10 47.5 -0.4
BURAR Bucovina Array 75.92 327 P P 16 11 04.0 0.0
BURAR pmax pmax
comp=Z,3.0nm,0.8s
BURAR Bucovina Array 75.92 327 P P 16 11 05.0 +0.9
BURAR IAmb IAmb 16 11 08.2
comp=Z,2.5nm,0.8s
EKA Eskdalemuir Ar 76.25 347 P P 16 11 08.1 +2.4
comp=Z,0.8nm,0.6s,baz=21,slow=6.1,SNR=4.3
comp=Z,0.8nm,0.6s
VRAC Vranov 77.36 333 P P 16 11 15.4 +3.4
comp=Z,2.8nm,0.6s,baz=38,slow=6.2,SNR=3.8
comp=Z,2.8nm,0.6s
GRFO Grafenberg 78.55 337 P P 16 11 19.8 +1.1
GRFO pmax pmax
comp=Z,20nm,1.1s
GRFO Grafenberg 78.55 337 P P 16 11 19.8 +1.1
GERES GERESS Array B 78.63 335 P P 16 11 22.4 +3.2
comp=Z,0.5nm,0.6s,baz=19,slow=4.5,SNR=5.5
comp=Z,0.5nm,0.6s

*IDC **10** 16:16:10.2±1.9, 10°.66N×86°.20W, h0km, mb3.9/5, mbtmp3.9/6, ML2.9/2, MS3.3/1, Error ellipse: s-maj=60.6km s-min=28.8km az=32.0*
*CATAC **10** 16:16:12.8±0.4, 10°.N±2°.×8°.7W±°, h8km±2km, M4.3/42, MLv4.3/42, Error ellipse: s-maj=5.6km s-min=3.2km az=23.3, confirmed*
*UCR **10** 16:16:13.4±0.8, 10°.56N×86°.53W, h6km±19km, MW4.8, Presumed earthquake*
*NEIC **10** 16:16:15.0±1.6, 10°.69N±0°.06×86°.42W±0°.08, h10km±1km, mb4.5/36, Error ellipse: s-maj=15.1km s-min=6.1km az=232.0*
ISC 10 16:16:14.6±1.5, 10°.62N±0°.04×86°.50W±0°.05, h16km±9km, n140, σ0s89/149, mb4.5/22, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ALIBA	**Liberia Airpor**	**0.94**	**92**	*eP*			**Pb**	**16 16 32.8**	**+0.3**
LCRUZ	**La Cruz**	**0.97**	**62**	*eP*			**Pb**	**16 16 32.9**	**-0.2**
ERIA	**Liberia**	**1.04**	**89**	*eP*			**Pb**	**16 16 34.4**	**+0.1**
ARIN	**Rivas**	**1.05**	**38**	P			**Pb**	**16 16 35.4**	**+0.6**
LAPC	**Finca la Perla**	**1.06**	**82**	*eP*			**Pb**	**16 16 33.1**	**-1.5**
CARN	**Rivas**	**1.11**	**59**	P			**Pn**	**16 16 35.8**	**+0.2**
CARN				S			**Sn**	**16 16 53.5**	**+2.9**
CARN	**Rivas**	**1.11**	**59**				**Pn**	**16 16 35.6**	**0.0**
CARN	**Rivas**	**1.11**	**59**	*eP*			**Pb**	**16 16 35.1**	**-0.4**
VRLE	**La Escondida,**	**1.13**	**81**	*eP*			**Pb**	**16 16 35.1**	**-0.7**
NICO	**Nicoya**	**1.14**	**115**	*eP*			**Pb**	**16 16 34.6**	**-1.5**
BUAI	**Buenos Aires**	**1.18**	**77**	*eP*			**Pb**	**16 16 36.5**	**-0.1**
PEJA	**Penjamo Buenos**	**1.20**	**77**	*eP*			**Pg**	**16 16 37.2**	**-0.5**
JAPN	**Al SSO del Vol**	**1.21**	**42**	P			**Pg**	**16 16 37.7**	**-0.2**
JAPN	**Al SSO del Vol**	**1.21**	**42**	*eP*			**Pg**	**16 16 37.4**	**-0.6**
CMARA	**Lajas Hojancha**	**1.22**	**119**	P			**Pn**	**16 16 35.8**	**-1.2**
CMARA	**Lajas Hojancha**	**1.22**	**119**	*eP*			**Pg**	**16 16 38.4**	**+0.4**
BAGA	**Bagaces**	**1.22**	**94**	*eP*			**Pn**	**16 16 37.0**	**-0.1**
MORN	**Al O del Volca**	**1.24**	**42**	P			**Pg**	**16 16 37.8**	**-0.9**
CONN	**Concepcion**	**1.27**	**42**	P			**Pn**	**16 16 37.7**	**-0.1**
COLC	**Colonia**	**1.27**	**88**	*eP*			**Pn**	**16 16 37.4**	**-0.5**
MESS	**Mesas**	**1.29**	**85**	*eP*			**Pn**	**16 16 37.6**	**-0.5**
HORNC	**Hornillas**	**1.30**	**86**	*eP*			**Pn**	**16 16 37.6**	**-0.7**
CLARA	**Aguas Claras**	**1.31**	**83**	*eP*			**Pn**	**16 16 38.4**	**+0.1**
CUI	**Cuipilapa**	**1.31**	**88**	*eP*			**Pn**	**16 16 38.3**	**-0.1**
NANN	**Nandasmo**	**1.36**	**16**	P			**Pg**	**16 16 40.4**	**-0.5**
SABN	**Sabanita**	**1.37**	**14**	P			**Pb**	**16 16 39.7**	**-0.2**
NYURE	**Nandayure**	**1.37**	**117**	*eP*			Pn	16 16 28.4	-11
VMAR	**Armenia, Volca**	**1.38**	**82**	*eP*			**Pn**	**16 16 39.0**	**-0.3**
MASN	**Masaya**	**1.40**	**14**	P			**Pb**	**16 16 40.4**	**-0.1**
MAS3	**Al N del Volca**	**1.43**	**13**	P			**Pn**	**16 16 40.3**	**+0.3**
TIMP	**Tierras Morena**	**1.46**	**91**	*eP*			**Pn**	**16 16 40.2**	**-0.2**
UPAL	**Upala**	**1.49**	**79**	P			**Pn**	**16 16 41.3**	**+0.6**
UPAL				S			**Sg**	**16 17 02.3**	**-0.3**
UPAL	**Upala**	**1.49**	**79**	*eP*			**Pb**	**16 16 41.6**	**-0.3**
TENO	**El Achiote**	**1.50**	**87**	*eP*			**Pn**	**16 16 40.0**	**-0.9**
TILA	**Tilaran**	**1.51**	**96**	*eP*			**Pn**	**16 16 40.7**	**-0.4**
MGAN	**Managua**	**1.54**	**9**	P			**Pb**	**16 16 42.1**	**-0.7**
MGAN	**Managua**	**1.54**	**9**				**Pn**	**16 16 41.6**	**+0.1**
AERN	**Aeroguerto Man**	**1.55**	**12**	P			**Pb**	**16 16 42.8**	**-0.2**
JUNT	**Juntas**	**1.55**	**102**	*eP*			**Pn**	**16 16 41.6**	**0.0**
JTS	**Las Juntas de**	**1.56**	**102**				**Pn**	**16 16 41.1**	**-0.6**
COTE	**Lago Cote**	**1.56**	**91**	*eP*			**Pn**	**16 16 42.0**	**+0.2**
WILN	**Americas 2**	**1.56**	**11**	P			**Pn**	**16 16 42.2**	**+0.5**
WILN				S			**Sg**	**16 17 05.7**	**+0.7**
CHIK	**Chiripa**	**1.57**	**96**	*eP*			**Pn**	**16 16 42.8**	**+0.8**
QUEB	**Quebradon, Cot**	**1.58**	**90**	*eP*			**Pn**	**16 16 42.8**	**+0.8**
APQ2	**Apoyeque**	**1.58**	**6**	P			**Pn**	**16 16 42.5**	**+0.5**
AMTN	**Mateare**	**1.61**	**2**	P			**Pb**	**16 16 43.2**	**-0.8**
APYN	**Apoyeque**	**1.61**	**5**	P			**Pb**	**16 16 43.7**	**-0.4**
TABAC	**Tabacon**	**1.71**	**94**	*eP*			**Pn**	**16 16 44.8**	**+0.9**
CASO	**Castillo**	**1.75**	**96**	*eP*			**Pn**	**16 16 44.8**	**+0.4**
ARE1	**Arenal 1**	**1.76**	**95**	*eP*			**Pn**	**16 16 45.5**	**+1.0**
VARE2	**V. Arenal**	**1.76**	**95**	*eP*			**Pn**	**16 16 44.6**	**0.0**
LEVN	**Ruinas Leon Vi**	**1.77**	**356**	P			**Pb**	**16 16 45.9**	**-0.9**
VACR	**Volcan Arenal**	**1.80**	**94**	*eP*			**Pn**	**16 16 45.6**	**+0.4**
LCHIL	**Los Chiles**	**1.80**	**77**	*eP*			**Pn**	**16 16 46.2**	**+1.1**
MOM2	**El Cardon**	**1.81**	**0**	P			**Pn**	**16 16 45.5**	**+0.3**
MOM2				S			**Sg**	**16 17 12.9**	**+0.1**
ACON	**Acoyapa**	**1.87**	**44**	P			**Pn**	**16 16 46.3**	**+0.3**
ACON				S			**Sg**	**16 17 15.4**	**+0.6**
CNGA	**Al SSO del Vol**	**1.87**	**354**	P			**Pn**	**16 16 46.4**	**+0.3**
CNGN	**Cerro Negro**	**1.88**	**354**	P			**Pn**	**16 16 46.5**	**+0.3**
MOM3	**MOM3**	**1.88**	**359**	P			**Pn**	**16 16 46.6**	**+0.4**
PACN	**Al O del Volca**	**1.89**	**351**	P			**Pn**	**16 16 47.3**	**+1.0**
ILCN	**San Idelfonso**	**1.96**	**354**	P			**Pn**	**16 16 47.4**	**+0.2**
PLRN	**Geotermica Pol**	**1.97**	**352**	P			**Pn**	**16 16 48.1**	**+0.7**
QUEN	**Al S del Volca**	**1.99**	**350**	P			**Pn**	**16 16 48.4**	**+0.7**
BOAB	**BOACO BROADBAN**	**.99**	**24**	P			**Pn**	**16 16 47.9**	**+0.2**
BOAB	**BOACO BROADBAN**	**.99**	**24**				**Pn**	**16 16 47.7**	**0.0**
PKGN	**Cerro Pekin**	**2.09**	**347**	P			**Pn**	**16 16 49.4**	**+0.4**
CRIN	**San Cristobal**	**2.14**	**345**	P			**Pn**	**16 16 50.4**	**+0.6**
CRIN				S			**Sb**	**16 17 18.1**	**-1.3**
CRIN	**San Cristobal**	**2.14**	**345**				**Pn**	**16 16 49.8**	**+0.1**
HDC	**Heredia**	**2.43**	**104**	Pn			**Pn**	**16 16 54.2**	**+0.4**
LIMN	**Finca el Limon**	**2.43**	**3**	P			**Pn**	**16 16 54.1**	**+0.3**
CSGN	**Cosiguina Volc**	**2.56**	**336**	P			**Pn**	**16 16 56.4**	**+0.8**
POTN	**Potosi Cosigui**	**2.56**	**337**	P			**Pn**	**16 16 56.2**	**+0.7**
CVIMO	**Finca Echandi**	**2.58**	**103**	*eP*			**Pg**	**16 17 07.1**	**+2.9**
LCR2	**La Lucha 2**	**2.60**	**109**	P			**Pn**	**16 16 57.1**	**+0.8**
LCR2				S			**Sn**	**16 17 28.2**	**+0.4**
LCR2	**La Lucha 2**	**2.60**	**109**				**Pn**	**16 16 56.9**	**+0.5**
RCFN	**Al S de San Ju**	**2.91**	**6**	P			**Pn**	**16 17 00.7**	**+0.3**
RCPN	**Sur Rio San Ju**	**2.92**	**8**	P			**Pn**	**16 17 02.2**	**+1.7**
CNCH	**Conchagua**	**2.95**	**334**	P			**Pn**	**16 17 01.9**	**+0.9**
CNCH				S			**Sn**	**16 17 37.8**	**+1.7**
RCVN	**Varillal2**	**2.96**	**6**	P			**Pn**	**16 17 02.1**	**+0.9**
LCND	**La Caada**	**3.00**	**333**	P			**Pn**	**16 17 02.3**	**+0.7**
LCND				S			**Sn**	**16 17 38.2**	**+0.9**
PACA	**Pacayal**	**3.35**	**328**	P			**Pn**	**16 17 08.3**	**+1.8**
PACA				S			**Sn**	**16 17 47.0**	**+1.0**
ALJI	**Alcalda de J**	**3.37**	**323**	S			**Sn**	**16 17 48.4**	**+2.1**
TGUH	**Tegucigalpa,Un**	**3.50**	**348**	P			**Pn**	**16 17 09.9**	**+1.3**
TGUH	**Tegucigalpa,Un**	**3.50**	**348**				**Pn**	**16 17 09.3**	**+0.8**
SIUN	**Universidad Ur**	**3.51**	**29**	P			**Pn**	**16 17 10.1**	**+1.5**
SIUN	**Universidad Ur**	**3.51**	**29**				**Pn**	**16 17 09.4**	**+0.8**
TECO	**Alcaldia de Te**	**3.66**	**323**	P			**Pn**	**16 17 11.2**	**+0.5**
PIRO	**Carate, Puerto**	**3.82**	**125**				**Pn**	**16 17 14.5**	**+1.7**
APG	**El Apazote**	**5.83**	**319**	Pn			**Pn**	**16 17 42.7**	**+2.1**
	0.1nm,0.3s,baz=201,slow=13,SNR=3.8								
APG				AML			AML		
CMIG	**Matias Romero**	**10.37**	**309**	Pn			**Pn**	**16 18 44.4**	**+1.5**
	0.4nm,0.3s,baz=123,slow=11,SNR=9.1								
	3.7nm,0.6s								
CMIG				AML			AML		
SJCC	**San Jacinto, C**	**11.16**	**93**	Pn			**Pn**	**16 18 54.6**	**+0.8**
URIC	**Uribia, Colomb**	**14.28**	**84**	P			**P**	**16 19 44.0**	**+0.5**
ATAH	**Atahualpa**	**19.40**	**155**	LR			LR	16 27 10.3	
	comp=Z,82nm,19.1s,baz=319,slow=34								
Y49A	**Blount Mountai**	**23.13**	**0**	P			**P**	**16 21 20.3**	**+0.1**
Y49A				IAmb			IAmb	16 21 20.6	
	comp=Z,11nm,0.6s								
BRDY	**Brady**	**23.61**	**332**				**P**	**16 21 24.9**	**-0.1**
OZNA	**Ozona**	**24.34**	**328**	P			**P**	**16 21 33.1**	**+1.1**
BG3	**Lake Jocassee**	**24.48**	**7**	P			**P**	**16 21 33.1**	**0.0**
BG3				IAmb			IAmb	16 21 33.7	
	comp=Z,12nm,0.7s								
W50A	**Signal Mountai**	**24.49**	**2**	P			**P**	**16 21 32.7**	**-0.6**
W50A				IAmb			IAmb	16 21 33.9	
	comp=Z,9.8nm,0.7s								
TXAR	**Lajitas Array**	**24.58**	**322**	P			**P**	**16 21 34.8**	**+0.6**
	comp=Z,1.9nm,0.6s,baz=136,slow=10,SNR=25								
TXAR				PcP			**PcP**	**16 25 11.7**	**-0.4**
	comp=Z,0.5nm,0.7s,baz=136,slow=4.5,SNR=4.4								
	comp=Z,1.9nm,0.6s								
TXAR	**Lajitas Array**	**24.58**	**322**				**P**	**16 21 34.6**	**+0.4**
TX31	**Lajitas Ar. Si**	**24.58**	**322**				**P**	**16 21 34.8**	**+0.6**
MIAR	**Mount Ida**	**24.68**	**346**	P			**P**	**16 21 35.1**	**+0.2**
WHAR	**Wooly Hollow**	**25.12**	**349**	P			**P**	**16 21 37.6**	**-1.3**
WHAR				IAmb			IAmb	16 21 44.5	
	comp=Z,10nm,0.9s								
MNHN	**Monahans**	**25.54**	**326**	P			**P**	**16 21 43.3**	**+0.5**
MNHN				IAmb			IAmb	16 21 51.6	
	comp=Z,6.0nm,0.8s								
V58A	**Windy Hill, Pi**	**25.94**	**14**	P			**P**	**16 21 45.6**	**-0.8**
T42A	**Van Buren**	**26.62**	**352**	P			**P**	**16 21 51.0**	**-1.5**
S51A	**Beattyville**	**27.03**	**5**	P			**P**	**16 21 55.4**	**-0.8**
S51A				IAmb			IAmb	16 22 06.7	
	comp=Z,8.1nm,0.9s								
BOAV	**Boa Vista**	**27.05**	**106**	P			**P**	**16 21 56.1**	**-0.5**
AMTX	**Amarillo**	**27.84**	**333**	P			**P**	**16 22 03.4**	**-0.2**
AMTX				IAmb			IAmb	16 22 23.0	
	comp=Z,14nm,1.5s								
Q51A	**Peebles**	**28.43**	**5**	P			**P**	**16 22 07.7**	**-1.0**
Q54A	**Coxs Mills**	**28.70**	**9**	P			**P**	**16 22 10.5**	**-0.6**
Q54A				IAmb			IAmb	16 22 11.0	
	comp=Z,7.8nm,0.7s								
P52A	**Corning**	**29.16**	**7**	P			**P**	**16 22 14.4**	**-0.7**
SSPA	**Standing Stone**	**30.85**	**13**	P			**P**	**16 22 29.6**	**-0.5**
SSPA				IAmb			IAmb	16 22 36.1	
	comp=Z,12nm,1.4s								
SDCO	**Great Sand Dun**	**31.95**	**331**	P			**P**	**16 22 40.6**	**+0.4**
PV03	**Paradox Valley**	**34.03**	**328**	P			**P**	**16 22 59.2**	**+0.8**
PV03				IAmb			IAmb	16 23 06.8	
	comp=Z,4.5nm,0.7s								
PV05	**Paradox Valley**	**34.03**	**327**	P			**P**	**16 22 58.7**	**+0.3**
PV05				IAmb			IAmb	16 23 06.5	
	comp=Z,5.2nm,0.9s								
PV18	**Skein Mesa, Pa**	**34.06**	**328**	P			**P**	**16 22 59.4**	**+0.9**
PV18				IAmb			IAmb	16 23 07.3	
	comp=Z,6.0nm,0.6s								
PV17	**East Wray Mesa**	**34.11**	**328**	P			**P**	**16 22 59.6**	**+0.6**
G62A	**West of Eustis**	**37.10**	**19**	P			**P**	**16 23 24.1**	**-0.2**
PDAR	**Pinedale Array**	**37.82**	**332**	P			**P**	**16 23 29.9**	**-0.8**
	comp=Z,0.7nm,0.7s,baz=126,slow=8.0,SNR=4.7								
	comp=Z,0.7nm,0.7s								
PDAR	**Pinedale Array**	**37.82**	**332**	P			**P**	**16 23 30.8**	**0.0**
E62A	**Clayton Lake**	**38.67**	**19**	P			**P**	**16 23 37.3**	**-0.3**
E62A				IAmb			IAmb	16 24 02.1	
	comp=Z,17nm,1.3s								
NVAR	**Mina Array Bea**	**39.69**	**320**	P			**P**	**16 23 46.2**	**-0.2**
	comp=Z,1.6nm,0.8s,baz=130,slow=7.9,SNR=8.1								
	comp=Z,1.6nm,0.8s								
BDFB	**Brasilia**	**46.18**	**124**	P			**P**	**16 24 39.9**	**+0.7**
BDFB				IAmb			IAmb	16 24 40.8	
	comp=Z,4.7nm,0.9s								
SCHQ	**Schefferville**	**46.77**	**16**	P			**P**	**16 24 39.9**	**-3.3**
	comp=Z,3.2nm,0.7s,baz=204,slow=18,SNR=3.7								
	comp=Z,3.2nm,0.7s								
SCHQ	**Schefferville**	**46.77**	**16**	P			**P**	**16 24 40.4**	**-2.8**
BLKN	**Baker Lake**	**54.03**	**355**	P			**P**	**16 25 38.2**	**+0.3**
BCAR	**Beaver Creek A**	**65.29**	**336**	P			**P**	**16 26 55.1**	**-0.6**
L27K	**Beaver Creek,**	**65.31**	**336**	P			**P**	**16 26 55.2**	**-0.6**
F28M	**Old Crow**	**66.81**	**340**	P			**P**	**16 27 05.0**	**-0.3**
I26K	**Coal Creek Min**	**66.85**	**338**	P			**P**	**16 27 04.8**	**-0.8**
I26K				IAmb			IAmb	16 27 25.9	
	comp=Z,5.3nm,1.5s								
J25K	**Salcha River,**	**67.40**	**336**	P			**P**	**16 27 09.2**	**+0.1**
J25K				IAmb			IAmb	16 27 12.5	
	comp=Z,7.5nm,1.5s								
ILAR	**Eielson Array**	**68.06**	**336**	P			**P**	**16 27 12.2**	**-1.1**
	comp=Z,0.5nm,0.8s,baz=124,slow=3.7,SNR=5.7								
	comp=Z,0.5nm,0.8s								
F26K	**Sheenjek River**	**68.28**	**340**	P			**P**	**16 27 14.6**	**-0.1**
F26K				IAmb			IAmb	16 27 31.2	
	comp=Z,3.5nm,1.4s								
BMAR	**Burnt Mountain**	**68.31**	**339**	P			**P**	**16 27 14.4**	**-0.4**
M20K	**Styx River**	**69.76**	**332**	P			**P**	**16 27 23.5**	**-0.5**
G21K	**Allakaket**	**71.24**	**337**	P			**P**	**16 27 32.5**	**-0.3**
ASAR	**Alice Springs**	**139.42**	**246**	PKP			**PKPdf**	**16 35 41.8**	**-0.4**
	comp=Z,0.6nm,1.0s,baz=86,slow=1.7,SNR=5.0								
WRA	**Warramunga Arr**	**139.62**	**252**	PKP			**PKPdf**	**16 35 42.0**	**-0.6**
	comp=Z,0.4nm,0.8s,baz=90,slow=2.7,SNR=6.7								
CMAR	**Chiang Mai Arr**	**150.61**	**349**	PKPbc			**PKPdf**	**16 36 02.8**	**+1.2**
	comp=Z,1.7nm,0.9s,baz=329,slow=4.1,SNR=9.1								

*IDC **10** 16:32:51.0±0.8, 22°.32N×107°.91W, h0km, mb3.8/7, mbtmp3.9/14, ML3.7/7, MS4.2/54, Error ellipse: s-maj=18.1km s-min=11.3km az=54.0*
*NEIC **10** 16:32:53.5±2.7, 22°.28N±0°.06×107°.79W±0°.09, h10km±1km, mb4.4/167, Md4.7/63(MEX), Error ellipse: s-maj=15.6km s-min=8.9km az=241.0*
*MEX **10** 16:32:54.4±0.5, 22°.34N×107°.76W, h10km, MD4.7, Presumed earthquake*
*GCMT **10** 16:32:55.5±0.2, 22°.41N±0°.01×107°.96W±0°.01, h20km±1km, MW5.0/118, Moment Tensor Solution. s35,c45; s118,c180; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr=0.60±.11; Mθθ=1.21±.09; Mϕϕ 1.81±.10; Mrθ=1.40±.20; Mθϕ=3.27±.09; Mϕr 0.51±.18; Best double couple: Mo3.89700×10^16 NP1:ϕs12.00000°, δ67.00000°, λ=3.00000°. NP2:ϕs103.00000°, δ87.00000°, λ=157.00000°. Principal axes: T 4.1990, Plg14.0000°, Azm236.0000°; N -0.6060, Plg67.0000°, Azm109.0000°; P -3.5950, Plg18.0000°, Azm330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 10 16:32:52.4±0.6, 22°.29N±0°.04×107°.92W±0°.06, h10km, n230, σ2s19/145, mb4.3/24, MS4.3/47, Off coast of central Mexico

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SSIG	**Sanalona**	**2.61**	**16**				**Pn**	**16 33 32.0**	**-2.7**
SSIG							**Sn**	**16 34 01.5**	**-5.0**
SSIG	**Sanalona**	**2.61**	**16**	*eP*			**Pn**	**16 33 32.0**	**-2.7**
SSIG				*eS*			**Sn**	**16 34 01.5**	**-5.0**
LPIG	**La Paz**	**2.84**	**310**	Pn			**Pn**	**16 33 34.5**	**-3.4**
	3.8nm,0.3s,baz=340,slow=3.8,SNR=4.2								
LPIG				Lg			Lg	16 34 20.7	
	14nm,0.3s,baz=127,slow=10,SNR=12								
	24nm,0.6s								
LPIG				AML			AML		
LPIG	**La Paz**	**2.84**	**310**				**Pn**	**16 33 38.5**	**+0.6**
LPIG							**Sn**	**16 34 09.1**	**-3.0**
LPIG	**La Paz**	**2.84**	**310**	*eP*			**Pn**	**16 33 38.5**	**+0.6**
LPIG				*eS*			**Sn**	**16 34 09.1**	**-3.0**
YELA	**Yelapa**	**2.92**	**128**				**Pn**	**16 33 36.2**	**-2.7**
YELA							**Sn**	**16 34 09.5**	**-4.6**
YELA	**Yelapa**	**2.92**	**128**	*eP*			**Pn**	**16 33 36.2**	**-2.7**
YELA				*eS*			**Sn**	**16 34 09.5**	**-4.6**
ESTA	**Talpa de Allen**	**3.43**	**123**				**Pn**	**16 33 44.7**	**-1.3**
ESTA							**Sn**	**16 34 25.7**	**-1.2**
ESTA	**Talpa de Allen**	**3.43**	**123**	*eP*			**Pn**	**16 33 44.7**	**-1.3**
ESTA				*eS*			**Sn**	**16 34 25.7**	**-1.2**
TSIG	**Topolobambo**	**3.45**	**343**				**Pn**	**16 33 47.7**	**+1.5**
TSIG	**Topolobambo**	**3.45**	**343**	*eP*			**Pn**	**16 33 47.7**	**+1.5**
PDIG	**Papasquiaro**	**3.58**	**40**				**Pn**	**16 33 46.9**	**-1.3**
PDIG							**Sn**	**16 34 27.1**	**-3.5**
PDIG	**Papasquiaro**	**3.58**	**40**	*eP*			**Pn**	**16 33 46.9**	**-1.3**
PDIG				*eS*			**Sn**	**16 34 27.1**	**-3.5**
CJM	**Chamela**	**3.87**	**135**	*eP*			**Pn**	**16 33 49.7**	**-2.2**
CJM				*eS*			**Sn**	**16 34 34.0**	**-3.4**
CIHU	**Emiliano Zapat**	**4.24**	**135**				**Pn**	**16 33 55.9**	**-1.1**
CIHU							**Sn**	**16 34 42.6**	**-4.0**
CIHU	**Emiliano Zapat**	**4.24**	**135**	*eP*			**Pn**	**16 33 55.9**	**-1.1**
CIHU				*eS*			**Sn**	**16 34 42.6**	**-4.0**
CSIG	**Choix**	**4.54**	**355**				**Pn**	**16 34 00.2**	**-0.9**
CSIG							**Sn**	**16 34 50.1**	**-3.9**
CSIG	**Choix**	**4.54**	**355**	*eP*			**Pn**	**16 34 00.2**	**-0.9**
CSIG				*eS*			**Sn**	**16 34 50.1**	**-3.9**
CEGR	**Campo Tres**	**4.77**	**127**				**Pn**	**16 34 02.9**	**-1.6**
CEGR							**Sn**	**16 34 58.5**	**-1.5**
CEGR	**Campo Tres**	**4.77**	**127**	*eP*			**Pn**	**16 34 02.9**	**-1.6**
CEGR				*eS*			**Sn**	**16 34 58.5**	**-1.5**
INCO	**Volcan de Coli**	**4.88**	**124**	*eP*			**Pn**	**16 34 05.5**	**-0.8**
INCO				*eS*			**Sn**	**16 35 01.6**	**-1.5**
ZAIG	**Zacatecas**	**4.97**	**84**				**Pn**	**16 34 05.8**	**-1.6**
ZAIG					Sn		**Sn**	**16 35 03.7**	**-1.3**
ZAIG	**Zacatecas**	**4.97**	**84**	*eP*			**Pn**	**16 34 03.2**	**-4.2**
ZAIG				*eS*			**Sn**	**16 35 01.8**	**-3.2**
HPIG		**5.05**	**23**				**Pn**	**16 34 07.7**	**-0.8**
HPIG		**5.05**	**23**	*eP*			**Pn**	**16 34 04.1**	**-4.4**
MMIG	**Aquila**	**5.85**	**132**				**Pn**	**16 34 17.6**	**-1.6**
MMIG							**Sn**	**16 35 21.8**	**-4.7**
MMIG	**Aquila**	**5.85**	**132**	*eP*			**Pn**	**16 34 17.6**	**-1.6**
MMIG				*eS*			**Sn**	**16 35 21.8**	**-4.7**
RPIG	**Rio Verde**	**7.37**	**92**				**Pn**	**16 34 42.9**	**+2.7**
RPIG	**Rio Verde**	**7.37**	**92**	*eP*			**Pn**	**16 34 42.9**	**+2.7**
ZIIG	**Zihuatanejo**	**7.65**	**126**				**Pn**	**16 34 41.0**	**-3.0**
ZIIG	**Zihuatanejo**	**7.65**	**126**	*eP*			**Pn**	**16 34 41.0**	**-3.0**
TX31	**Lajitas Ar. Si**	**7.99**	**28**				**Pn**	**16 34 47.6**	**-1.0**
TXAR	**Lajitas Array**	**7.99**	**28**	Pn			**Pn**	**16 34 48.3**	**-0.4**
	1.0nm,0.3s,baz=207,slow=14,SNR=71								
TXAR				Lg			Lg	16 36 58.3	
	0.3nm,0.3s,baz=216,slow=22,SNR=3.6								
TXAR				LR			LR	16 37 58.8	
	comp=Z,4μm,18.7s,baz=207,slow=39								
	10nm,0.6s								
TXAR				AML			AML		
TXAR	**Lajitas Array**	**7.99**	**28**				**Pn**	**16 34 48.0**	**-0.7**
CGIG		**8.04**	**360**				**Sn**	**16 34 49.0**	**-0.5**
CGIG		**8.04**	**360**	*eP*			**Pn**	**16 34 49.0**	**-0.5**
GTIG	**Gomez Farias**	**8.11**	**83**				**Sn**	**16 36 21.7**	**-0.5**
GTIG	**Gomez Farias**	**8.11**	**83**	*eP*			Pn	16 34 41.7	-8.7
GTIG				*eS*			**Sn**	**16 36 21.7**	**-0.5**
ARIG	**Puente Sto Nin**	**8.15**	**118**				**Pn**	**16 34 52.2**	**+1.4**
ARIG	**Puente Sto Nin**	**8.15**	**118**	*eP*			**Pn**	**16 34 52.2**	**+1.4**
LNIG	**Linares**	**8.17**	**70**				**Pn**	**16 34 48.2**	**-2.9**
LNIG							**Sn**	**16 36 21.7**	**-1.9**
LNIG	**Linares**	**8.17**	**70**	*eP*			**Pn**	**16 34 48.2**	**-2.9**
LNIG				*eS*			**Sn**	**16 36 21.7**	**-1.9**
PLIG	**Platanillo**	**8.79**	**115**				**Pn**	**16 35 02.3**	**+2.6**
PLIG	**Platanillo**	**8.79**	**115**	*eP*			**Pn**	**16 35 02.3**	**+2.6**
VHRN	**Van Horn**	**8.86**	**17**				**Pn**	**16 35 01.1**	**+0.5**
CAIG	**El Cayaco**	**8.89**	**125**				**Pn**	**16 35 02.2**	**+1.2**
CAIG	**El Cayaco**	**8.89**	**125**	*eP*			**Pn**	**16 35 02.2**	**+1.2**
ALPN	**Alpine**	**8.91**	**25**				Pn	16 34 55.4	-6.0
MEIG	**Mezcala**	**8.92**	**118**				**Pn**	**16 35 02.3**	**+0.7**
MEIG	**Mezcala**	**8.92**	**118**	*eP*			**Pn**	**16 35 02.3**	**+0.7**
SAND	**Sanderson**	**9.23**	**33**				**Pn**	**16 35 05.5**	**-0.2**
PPM	**Popocatepetl**	**9.27**	**109**	*eP*			Pn	16 34 58.3	-8.4
**T

comp=Z,23nm,1.2s
CROK Carrier 16.58 29 IAmb IAmb 16 36 50.8
comp=Z,36nm,0.8s
Q16A Castle Valley 16.80 351 IAmb IAmb 16 36 55.3
comp=Z,28nm,1.4s
SRU San Rafael Swe 16.91 353 IAmb IAmb 16 36 58.7
comp=Z,18nm,0.9s
PSUT Pine Spring 16.97 344 IAmb IAmb 16 36 57.7
comp=Z,19nm,1.0s
OK048 Pawnee Station 17.00 32 IAmb IAmb 16 36 55.8
comp=Z,39nm,1.0s
WLAR White Oak Lake 17.29 46 Pn **Pn 16 36 53.9 -0.1**
WLAR IAmb IAmb 16 36 58.6
comp=Z,74nm,1.4s
P18A Preston Nutter 17.39 354 IAmb IAmb 16 37 08.2
comp=Z,21nm,0.9s
MIAR Mount Ida 17.53 43 **P 16 36 59.1 +1.0**
T35A Sooner Cattle 17.60 32 IAmb IAmb 16 37 02.4
comp=Z,30nm,1.2s
HULI Fort Hunter Li 17.93 323 IAmb IAmb 16 37 12.3
comp=Z,72nm,1.4s
APG El Apazote 18.05 111 LR LR 16 44 03.0
comp=Z,120nm,19.9s,baz=264,slow=37
U38A Gravette 18.35 37 IAmb IAmb 16 37 09.5
comp=Z,27nm,0.8s
NVAR Mina Array Bea 18.39 333 P **P 16 37 08.4 +0.6**
comp=Z,0.2nm,0.3s,baz=165,slow=12,SNR=19
NVAR LR LR 16 44 14.2
comp=Z,561nm,19.3s,baz=158,slow=37
comp=Z,3.3nm,0.8s
NVAR AML AML
NVAR Mina Array Bea 18.39 333 P **P 16 37 09.7 +2.0**
HHAR Hobbs 18.49 38 IAmb IAmb 16 37 10.5
comp=Z,23nm,1.0s
ELK Elko 19.41 343 P **Pn 16 37 20.3 +0.2**
comp=Z,0.1nm,0.3s,baz=146,slow=11,SNR=13
ELK LR LR 16 44 46.6
comp=Z,916nm,18.2s,baz=168,slow=37
comp=Z,1.3nm,0.8s
ELK AML AML
HWUT Hardware Ranch 19.50 352 IAmb IAmb 16 37 28.3
comp=Z,24nm,1.1s
S39A Bolivar 19.84 36 IAmb IAmb 16 37 26.0
comp=Z,19nm,1.0s
LCAR Lake Charles 20.02 43 Pn 16 37 26.6 -0.6
LCAR IAmb IAmb 16 37 30.7
comp=Z,19nm,1.0s
PDAR Pinedale Array 20.46 357 P **P 16 37 31.1 +0.6**
comp=Z,1.2nm,0.8s,baz=163,slow=11,SNR=6.5
PDAR LR LR 16 45 24.0
comp=Z,495nm,19.3s,baz=174,slow=37
comp=Z,1.2nm,0.8s
PDAR Pinedale Array 20.46 357 P **P 16 37 31.3 +0.8**
BEKR Beckworth 20.47 332 **P 16 37 31.5 +1.1**
T42A Van Buren 20.67 41 IAmb IAmb 16 37 37.6
comp=Z,42nm,1.5s
BGNE Belgrade 20.76 21 **P 16 37 34.7 +1.3**
R40A Maddies Statio 20.85 37 IAmb IAmb 16 37 37.9
comp=Z,27nm,1.0s
P38A Dawn 21.18 32 IAmb IAmb 16 38 11.3
comp=Z,8.8nm,0.8s
SNOW Snow King Moun 21.24 354 IAmb IAmb 16 37 51.7
comp=Z,14nm,0.8s
LRAL Lakeview Retre 21.36 55 IAmb IAmb 16 37 44.6
comp=Z,16nm,1.1s
O03E Paynes Creek 21.46 330 IAmb IAmb 16 37 48.8
comp=Z,17nm,1.1s
P40A Paris 21.86 35 **P 16 37 46.3 +1.0**
X48A Hartselle 21.95 52 IAmb IAmb 16 37 54.6
comp=Z,20nm,0.9s
WVOR Wild Horse Val 21.99 338 IAmb IAmb 16 37 53.8
comp=Z,11nm,1.1s
RSSD Black Hills 22.00 7 **P 16 37 48.6 +1.6**
J08A Circle Bar Ran 22.77 340 IAmb IAmb 16 38 04.2
comp=Z,6.2nm,0.7s
YBH Yreka Blue Hor 23.02 331 LR LR 16 46 54.9
comp=Z,321nm,19.3s,baz=164,slow=37
FPAL Fort Paine 23.04 53 IAmb IAmb 16 38 01.5
comp=Z,13nm,0.9s
CLTN Cedars of Leba 23.26 49 IAmb IAmb 16 38 10.8
comp=Z,7.7nm,1.0s
BOZ Bozeman (W) 23.44 353 IAmb IAmb 16 38 13.0
comp=Z,9.8nm,0.9s
W50A Signal Mountai 23.56 52 P **P 16 38 04.0 +0.9**
BMO Blue Mountains 23.79 343 IAmb IAmb 16 38 13.5
comp=Z,11nm,1.4s
CPCT Cooper Cave 24.25 52 **P 16 38 10.2 +0.5**
T50A Nancy 24.76 49 P **P 16 38 15.0 +0.7**
GBMT Granite Butte, 24.78 353 IAmb IAmb 16 38 22.9
comp=Z,8.9nm,1.2s
TKL Tuckaleechee C 24.89 52 LR LR 16 48 51.2
comp=Z,500nm,19.5s,baz=244,slow=39
MSO Missoula 24.96 350 P **P 16 38 16.9 +0.8**
MSO IAmb IAmb 16 38 21.9
comp=Z,9.6nm,0.9s
JTS Las Juntas de 25.02 115 LR LR 16 48 05.8
comp=Z,375nm,21.8s,baz=312,slow=37
NEW Newport 26.94 346 LR LR 16 49 38.2
comp=Z,500nm,18.3s,baz=176,slow=37
ULM Lac du Bonnet 29.46 16 P **P 16 38 57.7 +1.3**
comp=Z,0.8nm,0.3s,baz=210,slow=5.8,SNR=3.9
ULM LR LR 16 51 02.6
comp=Z,593nm,18.5s,baz=199,slow=37
comp=Z,0.8nm,0.3s
ULM Lac du Bonnet 29.46 16 IAmb IAmb 16 39 03.3
comp=Z,4.2nm,0.9s
SADO Sadowa 32.55 40 LR LR 16 53 20.5
comp=Z,549nm,19.2s,baz=297,slow=38
BBB Bella Bella 33.66 337 LR LR 16 54 37.6
comp=Z,395nm,19.0s,baz=172,slow=39
ROSC El Rosal 36.84 113 LR LR 16 54 53.2
comp=Z,174nm,20.2s,baz=85,slow=36
DLBC Dease Lake 39.46 342 LR LR 16 57 56.2
comp=Z,422nm,18.1s,baz=128,slow=38
YKA Yellowknife Ar 40.44 355 LR LR 16 57 41.3
comp=Z,451nm,18.0s,baz=238,slow=37
SCHQ Schefferville 44.64 33 LR LR 17 00 18.7
comp=Z,1μm,18.5s,baz=264,slow=37
K29M Barlow Dome 45.97 342 IAmb IAmb 16 41 20.8
comp=Z,6.7nm,0.9s
INK Inuvik 48.65 348 LR LR 17 03 41.1
comp=Z,419nm,18.8s,baz=86,slow=38
FRB Frobisher Bay 48.99 22 LR LR 17 00 57.6
comp=Z,262nm,20.9s,baz=232,slow=34
RPN Rapa Nui 49.15 182 LR LR 16 57 24.6
comp=Z,95nm,19.3s,baz=217,slow=30
F28M Old Crow 49.50 345 P **P 16 41 43.7 +0.9**
ILAR Eielson Array 49.51 339 P **P 16 41 43.3 +0.4**
comp=Z,1.0nm,0.8s,baz=153,slow=6.5,SNR=13
comp=Z,1.0nm,0.8s
ILAR Eielson Array 49.51 339 P **P 16 41 43.5 +0.6**
E29M Blow River 49.65 346 IAmb IAmb 16 42 09.0
comp=Z,7.8nm,1.1s
TRF Thorofare Moun 49.88 337 P **P 16 41 47.1 +1.2**
G26K Porcupine Rive 50.04 342 IAmb IAmb 16 42 10.3
comp=Z,6.1nm,0.9s
E28M Babbage River 50.19 345 P **P 16 41 49.5 +1.5**
E28M IAmb IAmb 16 41 52.3
comp=Z,5.9nm,1.0s
E27K Coleen River 50.37 344 IAmb IAmb 16 41 54.1
comp=Z,6.8nm,1.0s
RES Resolute Bay 52.88 4 LR LR 17 04 10.1
comp=Z,247nm,18.4s,baz=180,slow=36
LPAZ La Paz 54.66 131 P **P 16 42 24.0 +1.4**
comp=Z,0.5nm,0.5s,baz=331,slow=10,SNR=2.3
comp=Z,0.5nm,0.5s
LPAZ La Paz 54.66 131 IAmb IAmb 16 43 02.5
comp=Z,4.5nm,1.4s
MDP Montagnes des 56.02 99 LR LR 17 09 27.1
comp=Z,81nm,20.0s,baz=297,slow=39
GO01 Chusmiza 56.31 135 P **P 16 42 34.1 -0.1**
PPT Papeete 56.85 229 LR LR 17 00 04.8
comp=Z,366nm,18.0s,baz=14,slow=29
SFJD Kangerlussuaq 57.08 23 LR LR 17 06 47.6
comp=Z,395nm,21.4s,baz=248,slow=36
SHEM Shemya Is, Ala 65.38 319 LR LR 17 07 56.6
comp=Z,44nm,20.3s,baz=78,slow=32
RAR Rarotonga 66.54 233 LR LR 17 04 15.9
comp=Z,257nm,20.9s,baz=78,slow=28
CPUP Villa Florida 68.82 132 P **P 16 43 56.6 -0.6**
comp=Z,1.2nm,0.5s,baz=208,slow=9.0,SNR=4.0
comp=Z,1.2nm,0.5s
CPUP Villa Florida 68.82 132 IAmb IAmb 16 44 00.7
comp=Z,6.3nm,1.2s
BDFB Brasilia 69.73 117 LR LR 17 16 05.5
comp=Z,101nm,20.1s,baz=311,slow=37
PLCA Paso Flores 71.69 151 P **P 16 44 14.4 -0.1**
comp=Z,2.1nm,0.8s,baz=306,slow=6.8,SNR=5.3
comp=Z,2.1nm,0.8s
JMIC Jan Mayen 72.14 20 LR LR 17 16 23.1
comp=Z,299nm,18.9s,baz=285,slow=36
SPITS Spitsbergen Ar 74.84 10 LR LR 17 19 09.2
comp=Z,290nm,19.1s,baz=302,slow=37
PETK Petropavlovsk- 75.03 322 LR LR 17 14 24.0
comp=Z,20nm,20.9s,baz=78,slow=33
TIXI Tiksi 78.64 344 LR LR 17 22 48.1
comp=Z,60nm,18.4s,baz=24,slow=38
EKA Eskdalemuir Ar 79.94 34 LR LR 17 17 47.2
comp=Z,110nm,18.3s,baz=350,slow=34
ARCES ARCESS Array B 82.58 15 LR LR 17 22 41.1
comp=Z,212nm,20.0s,baz=308,slow=36
MSVF Nonsavu 82.61 248 LR LR 17 16 08.9
comp=Z,117nm,19.0s,baz=60,slow=31
NOA NORSAR Array B 83.68 25 P **P 16 45 22.2 +0.9**
comp=Z,0.3nm,0.6s,baz=306,slow=5.3,SNR=3.5
NOA LR LR 17 23 01.6
comp=Z,254nm,19.0s,baz=305,slow=36
comp=Z,0.3nm,0.6s
YAK Yakutsk 84.34 336 LR LR 17 24 24.8
comp=Z,53nm,21.0s,baz=42,slow=37
RAO Raoul Island 84.64 236 LR LR 17 13 38.0
comp=Z,133nm,21.9s,baz=185,slow=29
HFS Hagfors 85.21 25 LR LR 17 24 17.2
comp=Z,287nm,18.3s,baz=302,slow=36
ESDC Sonseca Array 86.13 49 LR LR 17 21 50.6
comp=Z,158nm,20.8s,baz=293,slow=34
ASAJ Asahikawa 87.76 317 LR LR 17 24 34.2
comp=Z,37nm,18.4s,baz=76,slow=35
NRIK Noril'sk 87.95 355 LR LR 17 27 17.0
comp=Z,96nm,19.2s,baz=13,slow=37
FINES FINESS Array B 88.76 20 LR LR 17 26 00.8
comp=Z,210nm,18.3s,baz=318,slow=36
DAVOX Davos/Dischmat 91.31 37 LR LR 17 26 52.2
comp=Z,350nm,18.5s,baz=298,slow=36
GERES GERESS Array B 92.15 34 LR LR 17 26 10.5
comp=Z,174nm,20.4s,baz=1.0,slow=35
URZ Urewera 92.50 230 LR LR 17 18 08.6
comp=Z,237nm,21.2s,baz=82,slow=29
VRAC Vranov 93.34 33 LR LR 17 28 41.4
comp=Z,260nm,19.3s,baz=304,slow=36
MJAR Matsushiro Arr 94.49 312 LR LR 17 24 07.0
comp=Z,63nm,18.4s,baz=46,slow=33
HNR Honiara 95.48 262 LR LR 17 20 13.3
comp=Z,104nm,20.5s,baz=156,slow=30
OBN Obninsk 97.15 20 LR LR 17 32 33.3
comp=Z,142nm,18.6s,baz=90,slow=37
KIRV Kirov 97.26 12 LR LR 17 34 51.9
comp=Z,164nm,18.2s,baz=337,slow=38
AKASG Malin Array Be 98.08 26 LR LR 17 30 50.2
comp=Z,237nm,21.0s,baz=330,slow=36
VAE Valguarnera 99.53 43 LR LR 17 30 37.1
comp=Z,71nm,19.9s,baz=212,slow=35
WRA Warramunga Arr 122.24 260 PKP **PKPdf 16 51 47.6 -0.8**
comp=Z,0.2nm,0.5s,baz=75,slow=2.7,SNR=5.0
ASAR Alice Springs 123.47 256 PKP **PKPdf 16 51 50.2 -0.4**
comp=Z,0.5nm,0.8s,baz=82,slow=2.0,SNR=4.5

*IDC **10** 16:40:52.0±1.2, 13.49N×91.21W, h0km, mb4.0/2, mbtmp3.8/4, ML3.6/2, Error ellipse: s-maj=19.4km s-min=15.8km az=74.0*
*NEIC **10** 16:40:58.9±1.4, 13.66N±0.07×91.27W±0.07, h36km±7km, mb4.8/15, Error ellipse: s-maj=12.9km s-min=7.0km az=46.0*
*CATAC **10** 16:41:02.9, 14°N±1°×9°1W±°, h41km±6km, M4.6/30, mb5.4/1, mB7.1/1, MLv4.1/30, Mw(mB)7.0/1, confirmed*
*GCG **10** 16:41:02.7±1.6, 14.11N×91.25W, h62km±12km, MD4.4, ML4.5, Presumed earthquake*

ISC 10 16:40:55.5±1.4, 13.57N±0.05×91.38W±0.04, h17km±9km, n72, σ1.98/95, mb4.7/6, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ESSJ	**San Jos, E**	**0.86**	**91**	*i* P	**Pn**	**16 41 14.4**	**+1.7**
ESSJ				*i* S	**Sg**	**16 41 24.7**	**+1.2**
STG8	**El Palmar, Qui**	**0.87**	**2**	*i* P	**Pn**	**16 41 17.2**	**+4.0**
STG8				*i* S	**Sn**	**16 41 28.5**	**+2.8**
STG8				IAML		16 41 29.8	
	comp=N,10μm,0.1s						
RTAL	**Retalhuleu**	**0.99**	**342**	P	**Pg**	**16 41 15.7**	**+0.9**
RTAL				S	**Sb**	**16 41 26.2**	**-0.9**
RTAL	**Retalhuleu**	**0.99**	**342**		**Pg**	**16 41 15.5**	**+0.7**
FG8	**Yepocapa, Chim**	**1.05**	**49**	*i* P	**Pn**	**16 41 15.0**	**-0.5**
FG8				*i* S	**Sb**	**16 41 23.8**	**-4.9**
FG8				IAML		16 41 25.2	
	comp=N,14μm,0.4s						
FG16	**Alotenango, Sa**	**1.10**	**50**	*i* P	**Pn**	**16 41 15.8**	**-0.4**
PCG5	**San Vicente Pa**	**1.17**	**57**	*i* P	**Pn**	**16 41 17.1**	**-0.1**
PCG5				*i* S	**Sb**	**16 41 27.7**	**-4.5**
PCG5				IAML		16 41 29.5	
	comp=N,31μm,0.3s						
NUBE	**Las Nubes**	**1.59**	**78**	P	**Pg**	**16 41 27.1**	**+1.0**
NUBE				S	**Sn**	**16 41 45.1**	**+1.9**
NUBE	**Las Nubes**	**1.59**	**78**	*i* P	**Pg**	**16 41 27.1**	**+1.0**
NUBE				*i* S	**Sn**	**16 41 44.5**	**+1.2**
LOAL	**Lomas de Alarc**	**1.61**	**75**	P	**Pg**	**16 41 27.7**	**+1.1**
LOAL				S	**Sb**	**16 41 46.3**	**+1.4**
SLOZ	**Alcaldia de Sa**	**1.62**	**74**	P	**Pg**	**16 41 27.2**	**+0.6**
APG	**El Apazote**	**1.68**	**32**	Pg	**Pn**	**16 41 24.5**	**+0.3**
APG				Lg		16 41 43.3	
	comp=N,7.0nm,0.3s,baz=83,slow=17,SNR=14						
APG	**El Apazote**	**1.68**	**32**	*i* P	**Pn**	**16 41 24.5**	**+0.3**
CEVE	**Cerro Verde**	**1.73**	**81**	P	**Pg**	**16 41 29.8**	**+1.0**
CEVE				S	**Sb**	**16 41 50.6**	**+2.1**
HUEH	**Huehuetenango**	**1.74**	**356**		**Pn**	**16 41 25.3**	**+0.2**
UNIC	**Universidad Ca**	**1.83**	**77**	P	**Pg**	**16 41 30.0**	**-0.6**
UNIC				S	**Sb**	**16 41 51.9**	**+0.8**
LALI	**Alcalda de L**	**2.01**	**92**	P	**Pg**	**16 41 35.1**	**+1.0**
LALI				S	**Sb**	**16 41 57.9**	**+1.7**
PMON	**Piamonte**	**2.02**	**86**	P	**Pg**	**16 41 33.8**	**-0.4**
PMON				S	**Sb**	**16 41 58.1**	**+1.5**
UEES	**Universidad Ev**	**2.09**	**86**	P	**Pg**	**16 41 35.3**	**-0.3**
UEES				S	**Sb**	**16 41 59.8**	**+1.1**
UTEC	**Universidad Te**	**2.12**	**86**	P	**Pg**	**16 41 35.8**	**-0.5**
UTEC				S	**Sb**	**16 42 00.8**	**+1.1**
PANCS	**Alcalda de**	**2.14**	**89**	P	**Pg**	**16 41 36.9**	**+0.3**
PANCS				S	**Sb**	**16 42 00.8**	**+0.7**
LOMA	**Loma Larga**	**2.15**	**88**	P	**Pg**	**16 41 37.1**	**+0.3**
LOMA				S	**Sb**	**16 42 01.8**	**+1.3**
UDBS	**Universidad Do**	**2.17**	**86**	P	**Pg**	**16 41 37.5**	**+0.4**
UDBS				S	**Sb**	**16 42 02.0**	**+1.1**
ESQI	**Esquipulas**	**2.21**	**63**	P	**Pb**	**16 41 34.7**	**-0.3**
ESQI	**Esquipulas**	**2.21**	**63**		**Pn**	**16 41 31.2**	**-0.3**
TECO	**Alcaldia de Te**	**2.53**	**90**	P	**Pb**	**16 41 41.3**	**+0.8**
TECO				S	**Sb**	**16 42 11.4**	**0.0**
P5NO	**Presa 5 de nov**	**2.58**	**81**	P	**Pb**	**16 41 41.1**	**-0.3**
P5NO				S	**Sn**	**16 42 10.9**	**+3.4**
ALJI	**Alcalda de J**	**2.75**	**95**	P	**Pb**	**16 41 44.4**	**+0.3**
ALJI				S	**Sb**	**16 42 17.4**	**-0.1**
CCIG	**Comitan**	**2.79**	**345**	P	**Pn**	**16 41 40.9**	**+1.4**
CCIG	**Comitan**	**2.79**	**345**		**Pn**	**16 41 40.0**	**+0.4**
CCIG	**Comitan**	**2.79**	**345**	*i* P	**Pn**	**16 41 40.9**	**+1.4**
SARH	**Santa Rosa de**	**2.81**	**64**	P	**Pn**	**16 41 42.5**	**+2.8**
PACA	**Pacayal**	**2.98**	**92**	P	**Pb**	**16 41 48.6**	**+0.4**
PACA				S	**Sb**	**16 42 23.0**	**-1.3**
RANC	**El Ranchito**	**3.01**	**92**	P	**Pb**	**16 41 48.3**	**-0.5**
CNCH	**Conchagua**	**3.46**	**94**	P	**Pb**	**16 41 54.5**	**-2.0**
CNCH				S	**Sb**	**16 42 35.7**	**-2.7**
PETF	**Flores**	**3.63**	**24**	P	**Pn**	**16 41 50.6**	**-0.3**
PETF	**Flores**	**3.63**	**24**		**Pn**	**16 41 50.3**	**-0.6**
CSGN	**Cosiguina Volc**	**3.77**	**99**	P	**Pb**	**16 42 00.3**	**-1.4**
CSGN				S	**Sb**	**16 42 43.5**	**-3.6**
CRIN	**San Cristobal**	**4.31**	**101**	P	**Pb**	**16 42 09.1**	**-1.8**
CRIN	**San Cristobal**	**4.31**	**101**	Pn	**Pn**	**16 42 00.7**	**+0.3**
QUEN	**Al S del Volca**	**4.52**	**102**	P	**Pb**	**16 42 11.7**	**-2.7**
QUEN				S	**Sn**	**16 43 02.0**	**+6.6**
MOM3	**MOM3**	**4.86**	**102**	P	Pb	16 42 14.0	-6.1
MOM3				S	**Sn**	**16 43 11.3**	**+7.6**
CMIG	**Matias Romero**	**4.86**	**316**	Pn	**Pn**	**16 42 09.5**	**+1.6**
	comp=N,2.7nm,0.3s,baz=111,slow=10.0,SNR=16						
CMIG				Sn	**Sn**	**16 43 06.0**	**+2.2**
	comp=N,4.9nm,0.3s,baz=272,slow=22,SNR=9.9						
	comp=N,6.4nm,0.3s						
CMIG				AML	AML		
MOM2	**El Cardon**	**4.91**	**103**	P	Pb	16 42 16.0	-5.0
MOM2				S	**Sb**	**16 43 12.9**	**-6.8**
LIMN	**Finca el Limon**	**4.91**	**95**	P	Pb	16 42 15.3	-5.8
RCVN	**Varillal2**	**5.04**	**89**	P	Pn	16 42 16.1	+5.6
SCIG	**Sabancuy**	**5.37**	**2**	P	**Pn**	**16 42 13.5**	**-1.3**
TEIG	**Tepich**	**7.25**	**24**		**Pn**	**16 42 40.3**	**-0.4**
SOR	**Soroa**	**12.14**	**40**	Pn	**Pn**	**16 43 47.6**	**-0.1**
KVTX	**Kingsville**	**15.17**	**337**	P	**P**	**16 44 33.4**	**-0.6**
KVTX				IAmb	IAmb	16 44 33.9	
	comp=Z,38nm,0.6s						
SJCC	**San Jacinto, C**	**16.28**	**101**	Pn	**Pn**	**16 44 43.2**	**-0.3**
553A	**Crawfordville**	**17.74**	**20**	P	**P**	**16 45 02.6**	**+0.2**
BRDY	**Brady**	**18.97**	**340**	P	**Pn**	**16 45 15.7**	**-1.1**
TXAR	**Lajitas Array**	**19.38**	**326**	P	**Pn**	**16 45 22.4**	**+0.5**
	baz=149,slow=12,SNR=4.3						
	comp=Z,0.6nm,0.6s						
TXAR	**Lajitas Array**	**19.38**	**326**	Pn	**Pn**	**16 45 22.5**	**+0.7**
GOGA	**Godfrey**	**21.02**	**19**	P	**P**	**16 45 38.4**	**0.0**
X58A	**Rowland**	**23.57**	**26**	P	**P**	**16 46 05.9**	**+0.7**
R49A	**Shelbyville**	**25.23**	**12**	P	**P**	**16 46 19.9**	**-0.5**
R49A				IAmb	IAmb	16 46 36.1	
	comp=Z,33nm,1.7s						
CCX	**Cicese**	**29.46**	**312**	P	**P**	**16 46 59.6**	**+1.0**
CCX				IAmb	IAmb	16 47 54.3	
	comp=Z,20nm,1.0s						
NVAR	**Mina Array Bea**	**34.38**	**321**	P	**P**	**16 47 42.4**	**+0.4**
	comp=Z,0.9nm,0.7s,baz=146,slow=9.0,SNR=6.2						
	comp=Z,0.9nm,0.7s						
LPAZ	**La Paz**	**37.53**	**142**	P	**P**	**16 48 07.2**	**-2.3**
	comp=Z,1.4nm,0.3s,baz=333,slow=7.6,SNR=14						
	comp=Z,1.4nm,0.3s						
JTMT	**Jette**	**39.05**	**335**	P	**P**	**16 48 22.0**	**+0.5**
BCAR	**Beaver Creek A**	**60.67**	**336**	P	**P**	**16 51 03.9**	**-1.6**
CPK	**Cone Peak**	**61.30**	**285**	P	**P**	**16 51 10.5**	**-0.2**
F28M	**Old Crow**	**62.47**	**341**	P	**P**	**16 51 15.9**	**-1.6**
F28M				IAmb	IAmb	16 52 41.6	
	comp=Z,11nm,1.6s						
BMAR	**Burnt Mountain**	**63.90**	**340**	P	**P**	**16 51 24.7**	**-2.4**
F25K	**Christian Rive**	**64.33**	**340**	P	**P**	**16 51 29.5**	**-0.4**
F25K				IAmb	IAmb	16 53 10.1	
	comp=Z,26nm,2.0s						
F21K	**Alatna River**	**66.92**	**338**	P	**P**	**16 51 44.6**	**-2.0**
ESPZ	**Base Esperanza**	**81.20**	**165**	P	**P**	**16 53 10.7**	**+0.9**
SHEM	**Shemya Is, Ala**	**82.04**	**322**	P	**P**	**16 53 15.0**	**+0.3**
SMY	**Shemya**	**82.04**	**322**	P	**P**	**16 53 15.0**	**+0.3**
CMAR	**Chiang Mai Arr**	**146.58**	**342**	PKPbc	**PKPbc**	**17 00 34.9**	**-2.0**
	comp=Z,1.0nm,0.6s,baz=4.6,slow=2.4,SNR=9.3						

*DJA **10** 16:48:21.6±1.0, 5°N±6°×12°7E±°, h22km±12km, M4.5/11, mB5.0/1, mb4.5/7, MLv4.5/11, Mw(mB)4.3/1*
*MAN **10** 16:48:26.0, 5.13N×127.15E, h15km, MS3.9*
*IDC **10** 16:48:27.2±1.9, 5.15N×127.46E, h96km±16km, mb3.9/6, mbtmp4.2/8, MS4.0/4, Error ellipse: s-maj=68.6km s-min=9.4km az=58.0*
*NEIC **10** 16:48:27.0±1.1, 5.14N±0.07×127.5E±0.1, h85km±7km, mb4.5/24, Error ellipse: s-maj=16.6km s-min=8.2km az=63.0*

ISC 10 16:48:25.9±0.5, 5.06N±0.05×127.24E±0.07, h76km, n60, σ2.07/65, mb4.4/17, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**1.84**	**304**	*e*P	**Pn**	**16 48 55.3**	**-0.3**
DDMP				*e*S	**Sn**	**16 49 18.9**	**+0.7**
GSPH	**General Santos**	**2.50**	**294**	*i* P	**Pn**	**16 49 02.3**	**-2.3**
GSPH				*i* S	**Sn**	**16 49 30.8**	**-3.3**
DAV	**Davao City (W)**	**2.59**	**320**	P	**Pn**	**16 49 07.9**	**+2.2**
	162nm,0.4s,baz=284,slow=3.7,SNR=3.6						
DAV				S	**Sn**	**16 49 41.2**	**+5.0**
	158nm,0.3s,baz=245,slow=21,SNR=5.9						
DAV				LR	LR	16 50 10.2	
	comp=Z,92nm,21.5s,baz=182,slow=39						
DAV	**Davao City (W)**	**2.59**	**320**		**Pn**	**16 49 07.5**	**+1.8**
DAV	**Davao City (W)**	**2.59**	**320**	P	Pn	16 48 59.1	-6.6
DMPH	**Davao City--Mi**	**2.65**	**319**	*e*P	**Pn**	**16 49 08.0**	**+1.5**
DMPH				*i* S	**Sn**	**16 49 38.9**	**+1.4**
BIPH	**Bislig**	**3.22**	**344**	*e*P	**Pn**	**16 49 15.6**	**+1.4**
BIPH				*e*S	**Sn**	**16 49 48.8**	**-2.7**
GAMI	**Galela, Maluku**	**3.25**	**170**	P	**Pn**	**16 49 15.8**	**+1.1**
GAMI				S	**Sn**	**16 49 58.3**	**+6.0**
GAMI				AML	AML		
CTBH	**Cotabato--PC H**	**3.67**	**306**	*i* P	**Pn**	**16 49 23.0**	**+2.6**
TSSP	**Tandag City**	**4.09**	**345**	*e*P	**Pn**	**16 49 25.1**	**-1.0**
TSSP				*e*S	Sn	16 49 31.5	-41
CGP	**Cagayan de Oro**	**4.21**	**323**	*e*P	**Pn**	**16 49 29.6**	**+1.8**
CGP				*e*S	**Sn**	**16 50 20.4**	**+4.6**
TNTI	**Ternate**	**4.26**	**178**	P	**Pn**	**16 49 30.2**	**+1.7**
TNTI	**Ternate**	**4.26**	**178**	P	**Pn**	**16 49 31.0**	**+2.5**
TNTI				S	**Sn**	**16 50 22.6**	**+5.6**
TNTI				AML	AML		
MNI	**Manado**	**4.32**	**214**	P	**Pn**	**16 49 30.0**	**+0.7**
MNI				AML	AML		
GTOI	**Gorontalo**	**6.10**	**224**	P	**Pn**	**16 49 53.6**	**+0.1**
	0.1nm32nm,0.6s						
GTOI				AML	AML		
PLP	**Palo**	**6.46**	**340**	*e*P	**Pn**	**16 50 00.6**	**+2.1**
PLP				*e*S	**Sn**	**16 51 17.4**	**+6.6**
SIJI	**Sorong**	**7.13**	**146**	P	**Pn**	**16 50 08.0**	**+0.3**
	5.9nm,0.3s,baz=264,slow=24,SNR=18						
SIJI				S	**Sn**	**16 51 26.6**	**-0.7**
	2.8nm,0.3s,baz=210,slow=23,SNR=6.1						
SIJI	**Sorong**	**7.13**	**146**	P	**Pn**	**16 50 07.7**	**0.0**
SIJI				AML	AML		
LUWI	**Luwuk**	**7.53**	**216**		**Pn**	**16 50 16.1**	**+3.0**
LUWI	**Luwuk**	**7.53**	**216**	P	**Pn**	**16 50 14.4**	**+1.3**
LUWI				AML	AML		
TOLI2	**Tolitoli**	**7.55**	**239**	Pn	**Pn**	**16 50 12.8**	**-0.6**
NLAI	**Namlea**	**8.25**	**181**	P	**Pn**	**16 50 23.5**	**+0.6**
	33nm,0.7s						
MTN	**Manton Dam**	**18.20**	**168**	P	**Pn**	**16 52 32.9**	**-0.7**
JAGI	**Jajag, Banyuwa**	**18.74**	**224**	P	**Pn**	**16 52 40.9**	**+0.8**
JAGI				IAmb	IAmb	16 52 54.6	
	comp=Z,54nm,1.4s						
GUMO	**Guam**	**19.34**	**63**	P	**P**	**16 52 42.5**	**-2.9**
KNRA	**Kununurra**	**20.66**	**176**	P	**P**	**16 53 00.3**	**+0.6**
FITZ	**Fitzroy Crossi**	**23.07**	**184**	P	**P**	**16 53 24.8**	**-0.5**
WB0	**Warramunga Arr**	**25.66**	**164**		**P**	**16 53 48.9**	**+0.1**
WRAB	**Tennant Creek**	**25.80**	**164**	P	**P**	**16 53 49.9**	**-0.2**
WRAB				IAmb	IAmb	16 53 52.6	
	comp=Z,19nm,0.5s						
WRA	**Warramunga Arr**	**25.81**	**165**	P	**P**	**16 53 50.7**	**+0.5**
	comp=Z,12nm,0.6s,baz=342,slow=10,SNR=167						
	comp=Z,12nm,0.6s						
WRA	**Warramunga Arr**	**25.81**	**165**		**P**	**16 53 48.9**	**-1.3**
WR8	**Warramunga Arr**	**25.87**	**164**		**P**	**16 53 50.5**	**-0.3**
WR8				IAmb	IAmb	16 53 53.2	
	comp=Z,12nm,0.5s						
AS31	**Alice Springs**	**29.28**	**167**	P	**P**	**16 54 21.0**	**-0.2**
ASAR	**Alice Springs**	**29.29**	**167**	P	**P**	**16 54 21.1**	**-0.2**
	comp=Z,0.8nm,0.6s,baz=350,slow=6.8,SNR=34						
	comp=Z,0.8nm,0.6s						
FORT	**Forrest**	**35.65**	**179**	P	**P**	**16 55 16.8**	**0.0**
FORT				IAmb	IAmb	16 55 53.2	
	comp=Z,17nm,1.1s						
BBOO	**Buckleboo**	**38.59**	**168**	P	**P**	**16 55 41.6**	**0.0**
STKA	**Stephens Creek**	**39.20**	**161**	P	**P**	**16 55 45.8**	**-1.0**
	comp=Z,5.3nm,0.8s,baz=319,slow=6.9,SNR=5.4						
	comp=Z,5.3nm,0.8s						
STKA	**Stephens Creek**	**39.20**	**161**	P	**P**	**16 55 46.5**	**-0.3**
SHL	**Shillong**	**39.52**	**305**	P	**P**	**16 55 51.3**	**+1.6

comp=Z,1.5nm,0.5s
AB31 Akbulak array 71.45 320 P P 16 59 37.2 -1.1
ABKAR Akbulak array 71.45 320 P P 16 59 36.7 -1.6
CASY Casey 72.19 187 P P 16 59 42.4 +0.1
CASY IAmb IAmb 16 59 43.3
comp=Z,7.0nm,1.2s
AKTO Aktyubinsk 72.94 321 LR LR 17 34 34.1
comp=Z,192nm,20.3s,baz=346,slow=38
ARTI Arti 74.17 327 P P 16 59 53.0 -1.2
ARTI IAmb IAmb 17 00 22.4
comp=Z,5.3nm,1.2s
GNI Garni 81.03 310 LR LR 17 41 32.0
comp=Z,158nm,18.4s,baz=343,slow=39
ILAR Eielson Array 83.69 25 P P 17 00 45.1 -1.0
BMAR Burnt Mountain 84.66 23 P P 17 00 50.6 -0.5
ASF Jabal al Asfar 87.63 302 LR LR 17 44 02.9
comp=Z,39nm,21.3s,baz=325,slow=38
EIL Elat 89.51 300 LR LR 17 47 19.9
comp=Z,34nm,18.2s,baz=292,slow=39

*KRNET **10** 17:31:16.9±0.1,39.°05N×70.°86E,mb3.1*
*NNC **10** 17:31:17.2±7.8,38.°88N×70.°38E,h0km,mb3.4,mpv3.0,*
Error ellipse: s-maj=65.3km s-min=47.6km az=170.0
ISC 10 17:31:14.9±2.4,39.°03N±0.°10×70.°67E±0.°06,h14km±12km, n12,σ1§86/22,15C-7D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**0.98**	**63**	⇓*iP*	**Pb**	**17 31 33.1**	**-0.9**
DRK				⇓*iS*	**Sb**	**17 31 44.9**	**-2.1**
BTK	**Batken**	**1.03**	**6**	⇓*iP*	**Pg**	**17 31 35.6**	**+0.8**
BTK				⇓*iS*	**Sg**	**17 31 49.4**	**+1.1**
OHH	**Osh**	**2.21**	**47**	⇑*iP*	**Pn**	**17 31 52.9**	**+1.6**
OHH				⇑*iS*	**Sn**	**17 32 19.3**	**+0.8**
SFK	**Sufi-Kurgan**	**2.40**	**65**	⇑*iP*	**Pn**	**17 31 55.3**	**+1.2**
SFK				⇑*iS*	**Sn**	**17 32 23.7**	**+0.2**
TRKS	**Terek-Say**	**2.52**	**8**	⇓*eP*	**Pn**	**17 31 57.7**	**+2.0**
TRKS				⇓*eS*	**Sn**	**17 32 27.6**	**+1.3**
ARSB	**Arslanbob**	**2.89**	**37**	⇑*eP*	**Pn**	**17 32 03.2**	**+2.4**
ARSB				⇑*eS*	**Sn**	**17 32 36.0**	**+0.5**
SALK	**Salom-Alik**	**3.05**	**52**	⇑*eP*	**Pn**	**17 32 04.6**	**+1.7**
SALK				⇑*eS*	**Sn**	**17 32 39.6**	**+0.3**
MNAS	**Manas**	**3.72**	**21**	⇑*eP*	**Pn**	**17 32 14.9**	**+2.7**
MNAS				⇑*eS*	**Sn**	**17 32 57.4**	**+1.5**
KK31	**Karatay Array**	**4.07**	**358**	⇑Pn	**Pb**	**17 32 22.3**	**-4.1**
	1.4nm,0.3s,baz=185,slow=14,SNR=26						
KK31				⇑Sn	**Sb**	**17 33 14.9**	**-0.6**
	1.5nm,0.3s						
AAK	**Ala-Archa**	**4.62**	**38**	⇓Pn	**Pb**	**17 32 34.0**	**-1.9**
	1.3nm,0.6s						
AAK				⇑Sn	**Sb**	**17 33 29.2**	**-2.3**
	2.4nm,0.7s						
AB31	**Akbulak array**	**12.78**	**327**	⇑P	**Pn**	**17 34 16.0**	**-0.2**
	0.4nm,0.5s,baz=136,slow=9.6,SNR=17						
AKTO	**Aktyubinsk**	**14.49**	**326**	⇑P	**P**	**17 34 46.1**	**-0.1**
	0.3nm,0.5s						

*ISK **10** 17:33:50.6,37.°87N×26.°97E,h18km,ML2.1/18*
*AFAD **10** 17:33:51.3,37.°85N×26.°95E,h7km±3km,ML2.3*
*THE **10** 17:33:51.4,38.°N±1.°×27.°0E±0.°7,h13km±1km,M2.5/5,*
MLh2.5/5
ISC 10 17:33:51.2±0.8,37.°84N±0.°02×26.°95E±0.°03,h15km±6km, n40,σ0§43/55,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**214**	P	**Pg**	**17 33 55.2**	**-0.1**
SMG				S	**Sg**	**17 33 58.2**	**+0.2**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**345**	P	**Pg**	**17 33 56.4**	**+0.3**
DGB				S	**Sg**	**17 33 59.0**	**-0.4**
DGB				IAML		17 33 59.0	
	comp=N,637nm,0.2s						
DGB				IAML		17 33 59.0	
	comp=E,589nm,0.4s						
GMLD	**Gumuldur**	**0.23**	**353**	Pg	**Pg**	**17 33 56.6**	**+0.2**
GMLD				Sg	**Sg**	**17 34 00.0**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.27**	**123**	P	**Pg**	**17 33 57.1**	**+0.2**
GCAM				S	**Sg**	**17 34 00.5**	**-0.3**
KUSD	**Kusadasi-Aydin**	**0.27**	**86**	Pg	**Pg**	**17 33 56.4**	**-0.5**
KUSD				Sg	**Sg**	**17 34 00.8**	**-0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**357**	P	**Pg**	**17 33 59.1**	**+0.2**
BEYE				S	**Sg**	**17 34 04.0**	**-0.3**
BEYE				IAML		17 34 05.0	
	comp=N,218nm,0.2s						
BEYE				IAML		17 34 05.0	
	comp=E,253nm,0.4s						
DDIM	**Aydin, Didim**	**0.45**	**149**	P	**Pb**	**17 34 00.6**	**-0.2**
DIDI	**Didim-Aydin**	**0.52**	**154**	Pg	**Pg**	**17 34 01.7**	**+0.2**
DIDI				Sg	**Sb**	**17 34 09.8**	**+0.5**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**318**	P	**Pg**	**17 34 01.6**	**-0.1**
ZEYE				S	**Sg**	**17 34 08.5**	**-0.3**
ZEYE				IAML		17 34 11.0	
	comp=E,131nm,0.2s						
ZEYE				IAML		17 34 12.0	
	comp=N,236nm,0.3s						
DUVT	**Torbali**	**0.54**	**46**	P	**Pg**	**17 34 01.9**	**-0.1**
DUVT				S	**Sg**	**17 34 08.5**	**-0.7**
DUVT				IAML		17 34 12.0	
	comp=E,347nm,0.3s						
BLCB	**Balcova**	**0.55**	**8**	P	**Pg**	**17 34 01.9**	**0.0**
BLCB				S	**Sg**	**17 34 09.6**	**+0.3**
BLCB	**Balcova**	**0.55**	**8**	Pg	**Pg**	**17 34 01.6**	**-0.4**
BLCB				Sg	**Sg**	**17 34 09.2**	**-0.1**
BLCB				AML	AML		
DAGE	**izmir**	**0.65**	**76**	P	**Pg**	**17 34 04.1**	**+0.1**
AYDB	**Zeytinkoy-Aydi**	**0.75**	**82**	Pg	**Pb**	**17 34 06.2**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.76**	**104**	P	**Pb**	**17 34 06.3**	**+0.2**
YKAV	**Yalikavak-Bodr**	**0.77**	**160**	Pg	**Pb**	**17 34 06.5**	**+0.3**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.81**	**337**	Pg	**Pg**	**17 34 06.3**	**-0.7**
KRBN				AML	AML		
BAGT	**Foa**	**0.81**	**355**	P	**Pb**	**17 34 07.3**	**+0.3**
BODT	**Bodrum**	**0.83**	**160**	P	**Pg**	**17 34 06.9**	**-0.4**
BODT				S	**Sb**	**17 34 18.5**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**160**	Pg	**Pg**	**17 34 07.2**	**-0.1**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.84**	**69**	P	**Pg**	**17 34 07.4**	**-0.2**
MLSB	**Milas**	**0.85**	**130**	Pg	**Pb**	**17 34 08.4**	**+0.7**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.87**	**153**	P	**Pg**	**17 34 08.2**	**+0.1**
CHOS	**Chios island**	**0.89**	**308**	P	**Pb**	**17 34 08.8**	**+0.4**
CHOS				S	**Sb**	**17 34 21.0**	**+0.9**
KARB	**zmir-Karabur**	**0.92**	**333**	P	**Pg**	**17 34 08.8**	**-0.2**
CAMT	**Merkez**	**0.95**	**17**	P	**Pb**	**17 34 09.8**	**+0.5**
CAMT				S	**Sb**	**17 34 22.7**	**+1.0**
CAMT				IAML		17 34 25.0	
	comp=E,81nm,0.3s						
CAMT				IAML		17 34 26.0	
	comp=N,81nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.07**	**83**	Pg	**Pb**	**17 34 11.2**	**-0.2**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**5**	P	**Pg**	**17 34 13.4**	**+0.5**
GOMA	**Golmarmara-Man**	**1.15**	**41**	Pn	**Pb**	**17 34 12.1**	**-0.6**
GOMA				AML	AML		
DAT	**Datca**	**1.22**	**156**	Pn	**Pn**	**17 34 13.3**	**-0.5**
DAT				AML	AML		
KTTT	**Salihli**	**1.23**	**47**	P	**Pg**	**17 34 14.9**	**0.0**
AKHS	**Akhisar**	**1.23**	**33**	P	**Pg**	**17 34 14.9**	**-0.1**
YER	**Yerkesik**	**1.27**	**123**	P	**Pn**	**17 34 14.2**	**-0.3**
YER				S	**Sn**	**17 34 31.6**	**+0.3**
YER	**Yerkesik**	**1.27**	**123**	Pn	**Pn**	**17 34 14.1**	**-0.4**
YER				AML	AML		
APE	**Apeiranthos**	**1.37**	**236**	P	**Pn**	**17 34 14.7**	**-1.1**
SOMA	**Soma-Manisa**	**1.39**	**19**	Pn	**Pn**	**17 34 15.2**	**-0.8**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.43**	**42**	Pn	**Pn**	**17 34 16.2**	**-0.5**
GORD				AML	AML		
TURN	**Turunc**	**1.48**	**136**	Pn	**Pn**	**17 34 17.3**	**0.0**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.70**	**127**	Pn	**Pn**	**17 34 20.4**	**+0.1**
APMY	**Acipayam-Deniz**	**1.90**	**101**	Pn	**Pn**	**17 34 22.8**	**-0.4**

*CATAC **10** 17:51:14.8±0.8,10.°N±3.°×8.°6W±.°,h2km±5km,M3.5/12,*
MLv3.5/12,Error ellipse: s-maj=11.5km s-min=5.5km
az=62.2,confirmed
*UCR **10** 17:51:18.9±0.8,10.°65N×86.°30W,h17km±14km,MW3.9,*
Presumed earthquake
ISC 10 17:51:19.3±1.6,10.°64N±0.°05×86.°26W±0.°07,h14km±11km, n44,σ1§16/50,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALIBA	**Liberia Airpor**	**0.70**	**94**	*eP*	**Pb**	**17 51 33.9**	**+0.5**
LCRUZ	**La Cruz**	**0.76**	**55**	*eP*	**Pg**	**17 51 34.5**	**+0.4**
ERIA	**Liberia**	**0.81**	**90**	*eP*	**Pn**	**17 51 35.9**	**-0.4**
LAPC	**Finca la Perla**	**0.82**	**81**	*eP*	**Pg**	**17 51 34.2**	**-1.1**
VRLE	**La Escondida,**	**0.89**	**80**	*eP*	**Pg**	**17 51 36.5**	**-0.1**
BUAI	**Buenos Aires**	**0.94**	**75**	*eP*	**Pb**	**17 51 37.9**	**+0.5**
NICO	**Nicoya**	**0.95**	**122**	*eP*	**Pn**	**17 51 40.4**	**+2.3**
NICO				*eS*	**Sb**	**17 51 50.1**	**+0.2**
PEJA	**Penjamo Buenos**	**0.97**	**75**	*eP*	**Pg**	**17 51 37.9**	**-0.1**
CMARA	**Lajas Hojancha**	**1.03**	**127**	S	**Sg**	**17 51 51.5**	**-1.2**
CMARA	**Lajas Hojancha**	**1.03**	**127**	*eP*	**Pb**	**17 51 38.0**	**-1.0**
COLC	**Colonia**	**1.04**	**89**	*eP*	**Pb**	**17 51 38.8**	**-0.2**
JAPN	**Al SSO del Vol**	**1.05**	**33**	P	**Pb**	**17 51 38.9**	**-0.3**
JAPN	**Al SSO del Vol**	**1.05**	**33**	*eP*	**Pb**	**17 51 38.1**	**-1.1**
MESS	**Mesas**	**1.05**	**84**	*eP*	**Pb**	**17 51 37.6**	**-1.7**
HORNC	**Hornillas**	**1.07**	**86**	*eP*	**Pb**	**17 51 39.2**	**-0.4**
CLARA	**Aguas Claras**	**1.08**	**82**	*eP*	**Pb**	**17 51 39.5**	**-0.3**
CUI	**Cuipilapa**	**1.08**	**89**	*eP*	**Pb**	**17 51 39.3**	**-0.5**
MORN	**Al O del Volca**	**1.08**	**34**	P	**Pn**	**17 51 38.9**	**-1.2**
CONN	**Concepcion**	**1.11**	**34**	P	**Pn**	**17 51 38.3**	**-2.2**
NADN	**Granada**	**1.12**	**12**	P	**Pn**	**17 51 38.7**	**-1.9**
NADN				S	**Sn**	**17 51 57.0**	**+1.1**
VMAR	**Armenia, Volca**	**1.14**	**81**	*eP*	**Pn**	**17 51 40.6**	**-0.2**
TIMP	**Tierras Morena**	**1.22**	**93**	*eP*	**Pn**	**17 51 41.3**	**-0.7**
TENO	**El Achiote**	**1.26**	**87**	*eP*	**Pn**	**17 51 41.7**	**-0.9**
NANN	**Nandasmo**	**1.30**	**6**	P	**Pn**	**17 51 42.2**	**-0.9**
MASN	**Masaya**	**1.34**	**5**	P	**Pg**	**17 51 47.2**	**+2.0**
QUEB	**Quebradon, Cot**	**1.34**	**91**	*eP*	**Pn**	**17 51 43.4**	**-0.3**
MAS3	**Al N del Volca**	**1.38**	**3**	P	**Pg**	**17 51 47.7**	**+1.9**
TISN	**Laguna Tiscapa**	**1.49**	**360**	P	**Pb**	**17 51 46.0**	**-0.8**
MGAN	**Managua**	**1.50**	**1**	P	**Pg**	**17 51 47.8**	**-0.3**
WILN	**Americas 2**	**1.51**	**3**	P	**Pg**	**17 51 49.3**	**+0.9**
WILN				S	**Sg**	**17 52 10.1**	**+2.0**
ARE1	**Arenal 1**	**1.53**	**97**	*eP*	**Pb**	**17 51 46.7**	**-0.7**
VARE2	**V. Arenal**	**1.53**	**97**	*eP*	**Pn**	**17 51 46.2**	**0.0**
APG2	**Apoyeque**	**1.55**	**358**	P	**Pb**	**17 51 45.8**	**-0.6**
LEVN	**Ruinas Leon Vi**	**1.79**	**349**	P	**Pb**	**17 51 50.2**	**-1.6**
LEVN				S	**Sb**	**17 52 14.8**	**+0.8**
MOM2	**El Cardon**	**1.80**	**353**	P	**Pn**	**17 51 49.3**	**-0.6**
MOM2				S	**Sb**	**17 52 15.0**	**+0.5**
CNGA	**Al SSO del Vol**	**1.89**	**347**	P	**Pn**	**17 51 50.3**	**-0.9**
CNGA				S	**Sb**	**17 52 17.1**	**-0.1**
ILCN	**San Idelfonso**	**1.97**	**347**	P	**Pn**	**17 51 51.1**	**-1.2**
VBV1	**V. Barva**	**2.19**	**104**	*eP*	**Pb**	**17 51 58.9**	**0.0**
ACOS	**Acosta**	**2.23**	**112**	*eP*	**Pb**	**17 51 57.3**	**-2.2**
VICA	**Volcano Irazu**	**2.47**	**105**	*eP*	**Pb**	**17 52 01.1**	**-2.5**
CVTG	**V. Turrialba,**	**2.50**	**101**	*eP*	**Pn**	**17 51 59.7**	**+0.2**
CVTQ	**Turrialba Volc**	**2.53**	**104**	*eP*	**Pn**	**17 52 00.7**	**+0.3**
ABRB	**Las Abras (San**	**2.58**	**104**	*eP*	**Pn**	**17 52 01.7**	**+0.8**
VERH	**Veragua Rainfo**	**3.10**	**103**	*eP*	**Pn**	**17 52 09.4**	**+1.5**

*NOU **10** 17:53:13.6,30.°61S×178.°96W,h567km,mb4.0/8,*
Kermadec Islands, New Zealand
*IDC **10** 17:53:29.1±4.3,31.°45S×179.°31E,h470km±43km,mb3.2/5,*
mbtmp4.1/6,Error ellipse: s-maj=48.1km s-min=23.0km
az=34.0
*WEL **10** 17:53:32.2±0.9,32.°S±9.°×18.°0E±2.°2,h481km±14km,*
M4.5/5,mB4.2/2,ML4.5/2,MLv4.5/5,Mw(mB)3.3/2,Error
ellipse: s-maj=30.3km s-min=6.1km az=108.3
ISC 10 17:53:30.3±0.9,31.°90S±0.°09×179.°5E±0.°1,h500km,n30, σ2§18/43,mb3.6/5,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.43**	**41**	P	**P**	**17 54 43.2**	**-1.2**
GLKZ				S	**S**	**17 55 42.1**	**-2.5**
GLKZ				AML	AML		
MXZ	**Matakaoa Point**	**5.74**	**190**	P	**P**	**17 55 05.1**	**+1.1**
OUZ	**Omahuta**	**5.96**	**235**	P	**P**	**17 55 09.5**	**+3.4**
OUZ	**Omahuta**	**5.96**	**235**	P	**P**	**17 55 08.7**	**+2.6**
HAZ	**Te Kaha**	**6.01**	**193**	P	**P**	**17 55 09.4**	**+2.8**
HAZ				S	**S**	**17 56 24.0**	**-1.5**
PKGZ	**Pakihiroa**	**6.07**	**191**	P	**P**	**17 55 08.9**	**+1.7**
PKGZ				S	**S**	**17 56 25.6**	**-1.0**
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.24**	**194**	P	**P**	**17 55 10.2**	**+1.3**
RUGZ				S	**S**	**17 56 26.4**	**-3.3**
RUGZ				AML	AML		
MWZ	**Matawai**	**6.62**	**194**	P	**P**	**17 55 13.5**	**+0.8**
MWZ				S	**S**	**17 56 37.4**	**+0.8**
URZ	**Urewera**	**6.65**	**197**	P	**P**	**17 55 14.6**	**+1.8**
	11nm,0.5s,baz=262,slow=3.5,SNR=22						
URZ				S	**S**	**17 56 34.5**	**-2.3**
	9.7nm,0.4s,baz=193,slow=23,SNR=15						
URZ	**Urewera**	**6.65**	**197**	P	**P**	**17 55 14.1**	**+1.3**
URZ	**Urewera**	**6.65**	**197**	P	**P**	**17 55 14.5**	**+1.7**
URZ				S	**S**	**17 56 34.2**	**-2.6**
TKGZ	**Te Karaka**	**6.67**	**191**	P	**P**	**17 55 16.9**	**+3.9**
TKGZ				S	**S**	**17 56 36.1**	**-1.1**
RIGZ	**Rimuhau**	**6.94**	**192**	P	**P**	**17 55 18.1**	**+2.3**
RIGZ				S	**S**	**17 56 41.4**	**-0.9**
RIGZ				AML	AML		
RIGZ				AML	AML		
BKZ	**Black Stump Fm**	**7.66**	**198**	P	**P**	**17 55 24.6**	**+1.5**
BKZ	**Black Stump Fm**	**7.66**	**198**	P	**P**	**17 55 24.7**	**+1.5**
BKZ				S	**S**	**17 56 52.5**	**-3.2**
BKZ				AML	AML		
BFZ	**Birch Farm**	**9.15**	**196**	P	**P**	**17 55 40.2**	**+1.7**
BFZ				S	**S**	**17 57 22.6**	**-1.4**
MRZ	**Mangatainoka R**	**9.30**	**199**	P	**P**	**17 55 41.7**	**+1.5**
MRZ				S	**S**	**17 57 24.0**	**-3.0**
QRZ	**Quartz Range**	**10.54**	**210**	P	**P**	**17 55 55.1**	**+1.9**
QRZ	**Quartz Range**	**10.54**	**210**	P	**P**	**17 55 54.6**	**+1.3**
THZ	**Tophouse**	**11.18**	**206**	P	**P**	**17 56 00.9**	**+0.8**
THZ				S	**S**	**17 58 00.2**	**-3.2**
KHZ	**Kahutara**	**11.53**	**203**	P	**P**	**17 56 04.8**	**+1.2**
GVZ	**Greta Valley S**	**12.19**	**203**	S	**S**	**17 58 21.0**	**-1.9**
JCZ	**Jackson Bay**	**14.79**	**212**	P	**P**	**17 56 37.2**	**-1.1**
PYZ	**Puysegur Point**	**17.36**	**211**	P	**P**	**17 57 00.6**	**-4.0**
STKA	**Stephens Creek**	**32.10**	**260**	P	**P**	**17 59 16.8**	**+1.1**
	2.5nm,0.3s,baz=113,slow=7.7,SNR=11						
	2.5nm,0.3s						
ASAR	**Alice Springs**	**40.95**	**270**	P	**P**	**18 00 28.1**	**-0.9**
	1.3nm,0.7s,baz=109,slow=7.4,SNR=32						
	1.3nm,0.7s						
WRA	**Warramunga Arr**	**42.08**	**275**	P	**P**	**18 00 36.1**	**-1.9**
	2.4nm,0.4s,baz=112,slow=7.9,SNR=40						
	2.4nm,0.4s						
FITZ	**Fitzroy Crossi**	**50.27**	**272**	P	**P**	**18 01 39.5**	**-0.8**
	2.3nm,1.1s,baz=138,slow=7.7,SNR=5.7						
	2.3nm,1.1s						
QSPA	**South Pole Qui**	**58.21**	**180**	P	**P**	**18 02 39.6**	**+3.8**
	0.7nm,0.7s,baz=74,slow=3.0,SNR=5.2						
	0.7nm,0.7s						
FINES	**FINESS Array B**	**145.77**	**338**	PKPbc	**PKPdf**	**18 12 12.3**	**+1.5**
	2.1nm,0.4s,baz=42,slow=5.0,SNR=33						

*IDC **10** 18:04:23.8±6.4,36.°42N×71.°15E,h188km±52km,mb3.4/3,*
mbtmp3.7/8,Error ellipse: s-maj=60.2km s-min=29.7km
az=55.0
*NNC **10** 18:04:30.1±7.7,36.°97N×70.°57E,h163km±117km,mb2.8,*
mpv3.4,Error ellipse: s-maj=74.3km s-min=55.0km
az=22.0
ISC 10 18:04:24.2±1.0,36.°52N±0.°08×71.°0E±0.°1,h188km,n17, σ1§86/24,mb3.5/3,4C-2D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMU	**Jammu**	**4.88**	**139**	*i* S	**Sn**	**18 06 31.3**	**-2.5**
ALCI	**Alchi Leh**	**5.54**	**113**	*i* P	**Pn**	**18 05 47.0**	**+1.3**
ALCI				*i* S	**Sn**	**18 06 48.2**	**-1.6**
TSSA	**Tissa**	**5.60**	**129**	*i* P	**Pn**	**18 05 47.9**	**+1.5**
TSSA				*i* S	**Sn**	**18 06 49.8**	**-1.2**
DHRM	**DHARAMSHALA**	**6.10**	**133**	*i* P	**Pn**	**18 05 55.0**	**+2.2**
DHRM				*i* S	**Sn**	**18 07 02.5**	**-0.2**
KK31	**Karatay Array**	**6.59**	**357**	⇑P	**Pn**	**18 05 59.1**	**+0.1**
	1.8nm,0.3s,baz=189,slow=13,SNR=74						
KK31				⇑S	**Sn**	**18 07 08.4**	**-5.5**
	8.5nm,0.5s,baz=186,slow=16,SNR=12						
AAK	**Ala-Archa**	**6.68**	**23**	P	**Pn**	**18 06 01.9**	**+1.7**
	1.6nm,0.3s,baz=129,slow=3.2,SNR=11						
AAK				S	**Sn**	**18 07 15.2**	**-1.0**
	2.7nm,0.3s,baz=132,slow=19,SNR=9.6						
AAK	**Ala-Archa**	**6.68**	**23**	⇑P	**Pn**	**18 06 02.0**	**+1.7**
	1.6nm,0.8s						
AAK				⇑S	**Sn**	**18 07 15.6**	**-0.6**
	9.6nm,0.9s						
SMLA	**Simla**	**7.42**	**135**	*i* P	**Pn**	**18 06 11.4**	**+1.5**
SMLA				*i* S	**Sn**	**18 07 30.9**	**-2.7**
MKAR	**Makanchi Array**	**13.27**	**36**	P	**Pn**	**18 07 26.4**	**+1.0**
	0.1nm,0.3s,baz=207,slow=9.9,SNR=5.1						
AB31	**Akbulak array**	**15.07**	**331**	⇓P	**Pn**	**18 07 48.3**	**+0.6**
	1.3nm,0.5s,baz=140,slow=11,SNR=21						
BVAR	**Borovoye Array**	**16.51**	**359**	P	**P**	**18 08 04.8**	**+0.5**
	0.8nm,0.5s,baz=163,slow=12,SNR=6.0						
AKTO	**Aktyubinsk**	**16.77**	**330**	P	**P**	**18 08 07.5**	**+0.3**
	3.5nm,0.8s,baz=140,slow=9.7,SNR=5.7						
AKTO	**Aktyubinsk**	**16.77**	**330**	⇓P	**P**	**18 08 07.8**	**+0.6**
	1.9nm,0.7s						
ZALV	**Zalesovo Beam**	**19.90**	**24**	P	**P**	**18 08 42.0**	**+1.0**
	0.4nm,0.3s,baz=243,slow=7.1,SNR=2.8						
YKA	**Yellowknife Ar**	**81.23**	**3**	P	**P**	**18 16 19.2**	**+0.5**
	1.3nm,0.8s,baz=328,slow=6.6,SNR=1.1						
	1.3nm,0.8s						
WRA	**Warramunga Arr**	**81.99**	**122**	P	**P**	**18 16 21.7**	**-1.6**
	0.5nm,0.5s,baz=322,slow=4.9,SNR=7.4						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**84.25**	**125**	P	**P**	**18 16 33.9**	**-1.0**
	0.5nm,0.6s,baz=309,slow=4.8,SNR=16						
	0.5nm,0.6s						

*NNC **10** 18:18:03.5±8.0,37.°51N×69.°53E,h0km,mb3.5,mpv3.2,*
Error ellipse: s-maj=71.1km s-min=59.1km az=144.0
*KRNET **10** 18:18:24.7±0.1,39.°03N×70.°75E,mb2.9*
ISC 10 18:18:24.2±2.9,39.°0N±0.°1×70.°70E±0.°09,h2km±14km,n11, σ2§20/20,8C-13D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**0.96**	**62**	⇓*iP*	**Pg**	**18 18 42.4**	**-0.3**
DRK				⇓*iS*	**Sb**	**18 18 55.5**	**-1.6**
BTK	**Batken**	**1.02**	**5**	⇓*iP*	**Pg**	**18 18 44.2**	**+0.4**
BTK				⇓*iS*	**Sb**	**18 18 58.2**	**-0.4**
OHH	**Osh**	**2.19**	**47**	⇓*eP*	**Pb**	**18 19 03.3**	**-1.3**
OHH				⇓*eS*	**Sb**	**18 19 32.1**	**-0.1**
SFK	**Sufi-Kurgan**	**2.38**	**65**	⇓*iP*	**Pb**	**18 19 06.0**	**-1.9**
SFK				⇓*iS*	**Sb**	**18 19 36.8**	**-1.0**
TRKS	**Terek-Say**	**2.51**	**8**	⇓*iP*	**Pn**	**18 19 06.3**	**+0.1**
TRKS				⇓*iS*	**Sb**	**18 19 39.1**	**-2.4**
ARSB	**Arslanbob**	**2.88**	**37**	⇑*eP*	**Pn**	**18 19 12.6**	**+1.4**
ARSB				⇑*eS*	**Sb**	**18 19 48.3**	**-3.7**
SALK	**Salom-Alik**	**3.03**	**52**	⇑*eP*	**Pn**	**18 19 15.3**	**+2.0**
SALK				⇑*eS*	**Sb**	**18 19 52.2**	**-4.1**
MNAS	**Manas**	**3.71**	**21**	⇑*eP*	**Pn**	**18 19 24.3**	**+1.7**
MNAS				⇑*eS*	**Sn**	**18 20 08.9**	**+2.0**
KK31	**Karatay Array**	**4.06**	**358**	⇑P	**Pn**	**18 19 27.7**	**+0.3**
	1.8nm,0.3s,baz=173,slow=11,SNR=58						
KK31				⇑S	**Sg**	**18 20 34.8**	**0.0**
	13nm,0.5s,baz=185,slow=35,SNR=35						
AAK	**Ala-Archa**	**4.61**	**37**	⇓P	**Pn**	**18 19 38.3**	**+3.3**
	0.5nm,0.4s						
AAK				⇓S	**Sg**	**18 20 54.9**	**+2.7**
	2.4nm,0.7s						
AB31	**Akbulak array**	**12.79**	**326**	⇓P	Pn	**18 21 21.9**	**-5.0**
	0.2nm,0.4s,baz=158,slow=10,SNR=8.1						

IDC 10 18:29:45.1±676.0,56.°23N×1.°69E,h0km,Error ellipse: s-maj=248.0km s-min=194.6km az=97.0,North Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I26DE	**FREYUNG INFRAS**	**10.39**	**130**	I	I	19 30 40.0	
	baz=322,slow=313,SNR=1.4						
I37NO	**I37NO**	**14.96**	**24**	I	I	20 03 20.0	
	baz=219,slow=325,SNR=1.7						
I43RU	**DUBNA INFRASON**	**19.50**	**74**	I	I	20 34 00.0	
	baz=285,slow=324,SNR=1.9						

IDC 10 18:31:27.7±3.3,47.°62N×92.°61W,h0km,mb2.5/1, mbtmp2.8/3,ML0.8/1,Error ellipse: s-maj=37.4km s-min=17.6km az=81.0,Minnesota

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ULM	**Lac du Bonnet**	**3.40**	**322**	Pn	Pn	18 32 21.7	-0.2
	0.1nm,0.3s,baz=153,slow=9.0,SNR=1.3						
ULM				Pg	Pb	18 32 29.9	+1.2
	0.3nm,0.3s,baz=137,slow=13,SNR=3.1						
ULM				Sn	Sn

MORN	Al O del Volca	1.20	42	P		Pn	18 43 53.1	-0.1
CMARA	Lajas Hojancha	1.21	122	P		Pn	18 43 51.4	-2.0
CONN	Concepcion	1.22	42	P		Pn	18 43 52.5	-1.1
NANN	Nandasmo	1.32	15	P		Pn	18 43 55.8	+0.9
SABN	Sabanita	1.32	13	P		Pn	18 43 55.0	0.0
MASN	Masaya	1.36	13	P		Pn	18 43 55.2	-0.2
MAS3	Al N del Volca	1.39	12	P		Pn	18 43 55.4	-0.4
UPAL	Upala	1.45	80	P		Pn	18 43 56.7	+0.1
UPAL				S		Sn	18 44 17.6	+3.1
ABCN	Banco Central	1.46	6	P		Pn	18 43 57.0	+0.2
TISN	Laguna Tiscapa	1.49	8	P		Pn	18 43 56.9	-0.3
MGAN	Managua	1.50	8	P		Pn	18 43 57.1	-0.1
MGAN	Managua	1.50	8			Pn	18 43 56.5	-0.8
WILN	Americas 2	1.52	10	P		Pn	18 43 57.4	-0.1
JTS	Las Juntas de	1.54	104			Pn	18 43 56.3	-1.5
APQ2	Apoyeque	1.54	5	P		Pn	18 43 57.4	-0.4
APQ2	Apoyeque	1.54	5	P		Pn	18 43 57.7	-0.1
APQ2				S		Sn	18 44 19.7	+3.1
AMTN	Mateare	1.57	1	P		Pn	18 43 58.2	0.0
AMTN				S		Sn	18 44 19.7	+2.3
APYN	Apoyeque	1.57	4	P		Pn	18 43 58.5	+0.2
LEVN	Ruinas Leon Vi	1.74	355	P		Pn	18 44 00.5	-0.1
LEVN				S		Sn	18 44 22.0	+0.4
MOM2	El Cardon	1.77	359	P		Pn	18 44 00.7	-0.3
MOM2				S		Sn	18 44 29.0	+6.7
ACON	Acoyapa	1.82	44	P		Pn	18 44 01.3	-0.4
ACON				S		Sn	18 44 28.1	+4.5
CNGA	Al SSO del Vol	1.84	353	P		Pn	18 44 01.5	-0.5
MOM3	MOM3	1.84	358	P		Pn	18 44 01.6	-0.4
CNGN	Cerro Negro	1.84	353	P		Pn	18 44 01.7	-0.4
PACN	Al O del Volca	1.86	350	P		Pn	18 44 01.2	-1.1
PACN				S		Sn	18 44 26.1	+1.5
ILCN	San Idelfonso	1.92	353	P		Pn	18 44 02.6	-0.5
ILCN				S		Sn	18 44 29.0	+2.9
PLRN	Geotermica Pol	1.94	351	P		Pn	18 44 03.1	-0.2
PLRN				S		Sn	18 44 29.0	+2.6
TEL3	Telica 3	1.94	349	P		Pn	18 44 03.4	0.0
BOAB	BOACO BROADBAN	.95	24	P		Pn	18 44 02.9	-0.5
BOAB	BOACO BROADBAN	.95	24			Pn	18 44 02.5	-0.9
QUEN	Al S del Volca	1.96	349	P		Pn	18 44 03.4	-0.3
HERN	Volcan Telica	1.97	350			Pn	18 44 02.9	-1.0
COVE	Coope Vega, Sa	2.03	88	P		Pn	18 44 04.5	-0.1
PKGN	Cerro Pekin	2.06	346	P		Pn	18 44 04.3	-0.7
VPL2	V. Platanar	2.08	99	eP		Pn	18 44 10.1	+4.7
CRIN	San Cristobal	2.11	344	P		Pn	18 44 05.4	-0.3
CRIN	San Cristobal	2.11	344			Pn	18 44 04.1	-1.6
TRB2	Turrubares	2.12	110		P	Pn	18 44 05.6	-0.2
ITAL	Pital	2.17	95	eP		Pn	18 44 12.2	+5.7
TCS1	Tacares	2.22	106	P		Pn	18 44 06.7	-0.6
ARTO	Ro Cuarto	2.24	98	eP		Pn	18 44 10.9	+3.5
BELE	Belen	2.34	107	eP		Pn	18 44 10.5	+1.5
LIMN	Finca el Limon	2.39	2	P		Pn	18 44 09.4	-0.2
HDC	Heredia	2.41	106			Pn	18 44 08.7	-1.2
ACOS	Acosta	2.42	110	eP		Pn	18 44 10.9	+0.8
LUJA	Lujan	2.47	107	eP		Pn	18 44 12.3	+1.6
SJS	Escuela Geolog	2.48	107	eP		Pn	18 44 12.6	+1.7
ECI	Escuela Centro	2.48	107	eP		Pn	18 44 12.7	+1.8
SJS3	Mercedes San J	2.48	107	eP		Pn	18 44 12.8	+1.9
CSGN	Cosiguina Volc	2.54	335	P		Pn	18 44 11.3	-0.4
POTN	Potosi Cosigui	2.54	337	P		Pn	18 44 11.3	-0.2
LCR2	La Lucha 2	2.59	110	P		Pn	18 44 12.7	+0.2
LCR2	La Lucha 2	2.59	110			Pn	18 44 11.6	-0.9
LCR2	La Lucha 2	2.59	110	eP		Pn	18 44 12.7	+0.2
VICA	Volcano Irazu	2.67	104	eP		Pn	18 44 13.7	0.0
RAFA	San Farael, Vo	2.71	105			Pn	18 44 12.1	-2.0
CVTQ	Turrialba Volc	2.74	103	eP		Pn	18 44 15.4	+0.8
VTR0	Volcan Turrial	2.74	103	eP		Pn	18 44 15.3	+0.6
CVTR	Volcan Turrial	2.74	103	eP		Pn	18 44 15.5	+0.8
VTCV	VTCV, Calle Va	2.78	104	eP		Pn	18 44 17.4	+2.3
ABRB	Las Abras (San	2.78	103	eP		Pn	18 44 16.0	+0.9
EGUB	Earth Gujpi	2.87	99			Pn	18 44 13.6	-2.4
RCFN	Al S de San Ju	2.87	5	P		Pn	18 44 15.9	-0.3
RCPN	Sur Rio San Ju	2.87	7	P		Pn	18 44 17.1	+0.8
LCOCO	El Coco	2.92	101	eP		Pn	18 44 18.3	+1.5
RCVN	Varillal2	2.92	5	P		Pn	18 44 17.3	+0.3
CNCH	Conchagua	2.92	333	P		Pn	18 44 16.9	-0.1
OCON	Estacion meteo	2.96	360	P		Pn	18 44 17.9	+0.5
BLUN	Bluefields	2.96	63	P		Pn	18 44 17.6	+0.3
LCND	La Caada	2.98	332	P		Pn	18 44 17.6	0.0
RANC	El Ranchito	3.28	327	P		Pn	18 44 21.7	-0.2
RANC				S		Sn	18 45 01.5	+1.6
VERH	Veragua Rainfo	3.31	102	eP		Pn	18 44 22.3	+0.2
PACA	Pacayal	3.33	327	P		Pn	18 44 22.4	-0.1
PACA				S		Sn	18 45 02.2	+1.2
SIUN	Universidad Ur	3.46	28	P		Pn	18 44 24.7	+0.4
SIUN	Universidad Ur	3.46	28			Pn	18 44 23.2	-1.0
TGUH	Tegucigalpa,Un	3.47	347	P		Pn	18 44 25.2	+0.8
TGUH	Tegucigalpa,Un	3.47	347			Pn	18 44 23.0	-1.4
TECO	Alcaldia de Te	3.65	322	S		Sn	18 45 10.1	+1.4
SCLA	Alcaldia de Sa	3.75	324	P		Pn	18 44 27.4	-0.8
SCLA				S		Sn	18 45 10.1	-1.0
PIRO	Carate, Puerto	3.81	126	P		Pn	18 44 29.9	+0.9
PIRO				S		Sn	18 45 14.8	+2.1
PIRO	Carate, Puerto	3.81	126			Pn	18 44 29.6	+0.5
RGM0	Gandoca	3.95	105	Pn		Pn	18 44 30.6	-0.3
BRU2	Volcan	4.16	116			Pn	18 44 32.2	-1.8
BILN	Bilwi Airport	4.53	42	Pn		Pn	18 44 36.2	-2.6
ESQI	Esquipulas	4.79	324	Pn		Pn	18 44 42.3	-0.2
APG	El Apazote	5.82	318	Pn		Pn	18 44 55.7	-1.1
	0.1nm,0.3s,baz=103,slow=18,SNR=4.5							
APG				AML		AML		
HUEH	Huehuetenango	6.75	314	Pn		Pn	18 45 08.2	-1.3
CCIG	Comitan	7.85	316			Pn	18 45 24.9	+0.2
CMIG	Matias Romero	10.37	309	Pn		Pn	18 46 00.2	+1.1
	1.1nm,0.3s,baz=146,slow=10,SNR=10							
	6.9nm,0.6s							
CMIG				AML		AML		
SJCC	San Jacinto, C	11.13	93			Pn	18 46 07.2	-2.3
PAYG	Puerto Ayora	11.88	199	Pn		Pn	18 46 20.2	+0.5
TLIG	Tlapa	13.59	302	Pn		Pn	18 46 41.9	-1.2
RUSC	La Rusia	14.06	109	Pn		Pn	18 46 49.9	0.0
URIC	Uribia, Colomb	14.24	84	Pn		Pn	18 46 49.8	-2.0
HNVL	Huntsville, TX	21.68	339	P		P	18 48 19.9	+0.3
HNVL				IAmb		IAmb	18 48 30.2	
	comp=Z,21nm,0.6s							
SNAG	San Augustine	21.95	342	P		P	18 48 23.2	+0.7
SNAG				IAmb		IAmb	18 48 53.9	
	comp=Z,22nm,0.6s							
152A	Waverly Hall	21.96	4	P		P	18 48 21.8	-0.8
152A				IAmb		IAmb	18 48 26.3	
	comp=Z,25nm,0.9s							
154A	Montrose	22.07	8	P		P	18 48 22.9	-0.9
HNDO	Hondo	22.26	329	P		P	18 48 25.6	-0.4
LRAL	Lakeview Retre	22.28	359	P		P	18 48 25.4	-0.6
LRAL				IAmb		IAmb	18 48 29.9	
	comp=Z,37nm,1.5s							
NATX	Nacogdoches	22.33	341	P		P	18 48 26.1	-0.4
GOGA	Godfrey	22.81	6			P	18 48 31.6	-0.1
GOGA				IAmb		IAmb	18 48 34.6	
	comp=Z,29nm,1.3s							
Y49A	Blount Mountai	23.09	0	P		P	18 48 34.4	-0.1
Y49A				IAmb		IAmb	18 48 36.5	
	comp=Z,16nm,0.9s							
Y52A	Lilburn	23.20	5	P		P	18 48 35.0	-0.6
Y52A				IAmb		IAmb	18 48 37.0	
	comp=Z,16nm,0.6s							
Y45A	Yeager Farm, C	23.27	354	P		P	18 48 36.3	0.0
Y45A				IAmb		IAmb	18 48 38.1	
	comp=Z,24nm,0.9s							
JCT	Junction City	23.30	330	P		P	18 48 37.1	+0.4
WHTX	Lake Whitney,	23.54	336			P	18 48 38.9	+0.1
WHTX				IAmb		IAmb	18 48 40.4	
	comp=Z,17nm,0.7s							
BRDY	Brady	23.59	332			P	18 48 38.9	-0.5
CCAR	Cane Creek	23.66	349	P		P	18 48 39.9	0.0
TREL	Terrell	23.69	339	P		P	18 48 39.9	-0.4
X48A	Hartselle	23.69	359	P		P	18 48 39.6	-0.7
FPAL	Fort Paine	23.79	2	P		P	18 48 40.1	-1.0
X51A	Calhoun	23.84	3	P		P	18 48 40.4	-1.2
X51A				IAmb		IAmb	18 48 58.7	
	comp=Z,31nm,1.3s							
OXF	Oxford	23.90	354			P	18 48 41.7	-0.4
JSC	Jenkinsville	23.99	11	P		P	18 48 42.4	-0.6
PAULI	Pauline	24.43	9	P		P	18 48 46.3	-0.7
W52A	Murphy	24.43	5	P		P	18 48 47.0	-0.1
W52A				IAmb		IAmb	18 48 48.8	
	comp=Z,13nm,0.7s							
BG3	Lake Jocassee	24.44	7	P		P	18 48 47.0	-0.1
BG3				IAmb		IAmb	18 48 49.0	
	comp=Z,17nm,0.8s							
SWET	Sewanee	24.45	1	P		P	18 48 47.4	+0.1
SWET				IAmb		IAmb	18 48 50.1	
	comp=Z,19nm,1.0s							
W50A	Signal Mountai	24.45	2	P		P	18 48 47.1	-0.2
W50A				IAmb		IAmb	18 48 49.6	
	comp=Z,27nm,1.2s							
BIRD	Birdtown, Kers	24.50	12	P		P	18 48 47.4	-0.2
TXAR	Lajitas Array	24.57	322	P		P	18 48 49.7	+1.2
	comp=Z,3.4nm,0.7s,baz=136,slow=10.0,SNR=35							
TXAR				PcP		PcP	18 52 28.6	+2.9
	comp=Z,1.1nm,0.8s,baz=136,slow=2.0,SNR=6.5							
	comp=Z,3.4nm,0.7s							
TXAR	Lajitas Array	24.57	322	P		P	18 48 48.7	+0.3
TX31	Lajitas Ar. Si	24.57	322			P	18 48 48.4	-0.1
UALR	University of	24.60	348	P		P	18 48 48.1	-0.4
UALR				IAmb		IAmb	18 48 55.3	
	comp=Z,16nm,1.0s							
PLPT	Palo Pinto	24.60	335	P		P	18 48 48.9	+0.3
PLPT				IAmb		IAmb	18 49 32.5	
	comp=Z,15nm,1.2s							
MIAR	Mount Ida	24.65	346	P		P	18 48 48.4	-0.6
CPCT	Cooper Cave	24.74	4			P	18 48 49.3	-0.6
CPCT				IAmb		IAmb	18 48 53.1	
	comp=Z,14nm,0.9s							
KMSC	Kings Mountain	24.82	10	P		P	18 48 50.3	-0.2
KMSC				IAmb		IAmb	18 48 51.8	
	comp=Z,21nm,1.1s							
TKL	Tuckaleechee C	25.01	5	LR		LR	18 59 15.8	
	comp=Z,166nm,19.0s,baz=296,slow=39							
TKL	Tuckaleechee C	25.01	5	P		P	18 48 49.9	-2.4
TKL				IAmb		IAmb	18 48 55.9	
	comp=Z,12nm,0.9s							
WHAR	Wooly Hollow	25.09	349			P	18 48 51.8	-1.2
WHAR				IAmb		IAmb	18 48 54.0	
	comp=Z,21nm,1.2s							
WTFS	Witchita Falls	25.50	336	IAmb		IAmb	18 48 59.7	
	comp=Z,12nm,0.8s							
MNHN	Monahans	25.52	326			P	18 48 56.6	-0.5
MNHN				IAmb		IAmb	18 49 17.4	
	comp=Z,11nm,0.9s							
LCAR	Lake Charles	25.65	351			P	18 48 57.1	-1.0
APMT	Aspermont	25.81	333			P	18 48 59.4	-0.3
APMT				IAmb		IAmb	18 49 03.5	
	comp=Z,12nm,0.9s							
V58A	Windy Hill, Pi	25.90	14	P		P	18 48 59.9	-0.4
T47A	Sharon Grove	26.22	359	P		P	18 49 01.9	-1.4
T47A				IAmb		IAmb	18 49 11.1	
	comp=Z,14nm,1.0s							
POST	Post	26.24	330			P	18 49 03.3	-0.3
POST				IAmb		IAmb	18 49 17.7	
	comp=Z,14nm,1.2s							
LPIG	La Paz	26.33	304	LR		LR	19 00 16.3	
	comp=Z,82nm,20.3s,baz=53,slow=38							
VHRN	Van Horn	26.40	322	P		P	18 49 05.3	+0.2
WMOK	Wichita Mounta	26.47	337	IAmb		IAmb	18 49 09.8	
	comp=Z,16nm,0.9s							
T42A	Van Buren	26.59	352	P		P	18 49 05.3	-1.3
U38A	Gravette	26.65	346	IAmb		IAmb	18 49 14.4	
	comp=Z,14nm,1.2s							
S51A	Beattyville	26.99	5	P		P	18 49 09.8	-0.4
S51A				IAmb		IAmb	18 49 11.1	
	comp=Z,13nm,0.9s							
BOAV	Boa Vista	27.03	106	P		P	18 49 11.2	+0.4
WCI	Wyandotte Cave	27.45	0	P		P	18 49 13.2	-1.2
Q52A	Bidwell	28.43	7	P		P	18 49 21.6	-1.4
P38A	Dawn	29.52	349	IAmb		IAmb	18 49 39.5	
	comp=Z,10nm,0.7s							
O53A	New Philadelph	29.84	8			P	18 49 34.7	-0.8
SSPA	Standing Stone	30.81	13	P		P	18 49 43.7	-0.4
SSPA				IAmb		IAmb	18 49 51.6	
	comp=Z,14nm,1.2s							
L42A	Oliver, Polo	31.35	355	P		P	18 49 47.3	-1.5
LPAZ	La Paz	32.34	146	LR		LR	19 03 34.4	
	comp=Z,149nm,18.5s,baz=335,slow=37							
PB16	IPOC Station P	33.32	150	P		P	18 50 05.8	-1.2
PB16				IAmb		IAmb	18 50 26.2	
	comp=Z,13nm,1.5s							
PV13	Radium Mtn., P	33.93	328	IAmb		IAmb	18 50 22.6	
	comp=Z,6.5nm,0.8s							
PV03	Paradox Valley	34.02	328	IAmb		IAmb	18 50 15.9	
	comp=Z,6.3nm,0.8s							
PV05	Paradox Valley	34.02	327	P		P	18 50 12.2	-0.3
PV05				IAmb		IAmb	18 50 20.6	
	comp=Z,4.6nm,0.7s							
PV12	Saucer Basin,	34.04	328	IAmb		IAmb	18 50 23.3	
	comp=Z,7.7nm,0.8s							
PV18	Skein Mesa, Pa	34.04	328	IAmb		IAmb	18 50 16.1	
	comp=Z,8.8nm,0.8s							
PV11	David Mesa, Pa	34.06	328	IAmb		IAmb	18 50 23.1	
	comp=Z,8.1nm,0.7s							
PV10	Paradox Valley	34.21	328	IAmb		IAmb	18 50 27.9	
	comp=Z,6.8nm,0.7s							
SADO	Sadowa	34.57	9	LR		LR	19 05 36.8	
	comp=Z,237nm,18.0s,baz=166,slow=39							
HMU	Henry Mountain	34.81	325	P		P	18 50 20.0	+0.5
LONY	Lake Ozonia	35.36	15	P		P	18 50 22.4	-1.3
LONY				IAmb		IAmb	18 50 31.5	
	comp=Z,10nm,1.2s							
PFO	Pinyon Flats O	35.74	314	LR		LR	19 05 42.7	
	comp=Z,110nm,20.4s,baz=152,slow=37							
G62A	West of Eustis	37.06	19	P		P	18 50 37.1	-1.2
PDAR	Pinedale Array	37.80	332	P		P	18 50 45.5	+0.7
	comp=Z,0.8nm,0.7s,baz=130,slow=11,SNR=8.8							
	comp=Z,0.8nm,0.7s							
PDAR	Pinedale Array	37.80	332	P		P	18 50 43.5	-1.4
E62A	Clayton Lake	38.63	19	P		P	18 50 50.1	-1.4
E62A				IAmb		IAmb	18 51 02.8	
	comp=Z,15nm,1.2s							
LMN	Caledonia Moun	39.65	24	P		P	18 50 58.5	-1.6
LMN				IAmb		IAmb	18 51 01.2	
	comp=Z,17nm,1.3s							
NVAR	Mina Array Bea	39.68	320	P		P	18 51 02.9	+2.2
	comp=Z,2.7nm,0.8s,baz=140,slow=7.5,SNR=20							
NVAR				PcP		PcP	18 53 09.8	+3.0
	comp=Z,2.2nm,0.6s,baz=137,slow=4.6,SNR=15							
	comp=Z,2.7nm,0.8s							
KVN	Kaiserville	39.92	320			P	18 51 03.7	+1.1
BMN	Battle Mountai	40.23	323	P		P	18 51 05.8	+0.7
ULM	Lac du Bonnet	40.23	351	P		P	18 51 02.7	-2.1
	comp=Z,2.1nm,0.5s,baz=192,slow=9.5,SNR=3.2							
ULM				LR		LR	19 08 38.3	
	comp=Z,54nm,18.1s,baz=132,slow=38							
	comp=Z,2.1nm,0.5s							
ULM	Lac du Bonnet	40.23	351	P		P	18 51 03.4	-1.4
GO03	Copiapo	41.15	158	P		P	18 51 13.7	+1.0
RPN	Rapa Nui	43.62	210	LR		LR	19 04 56.2	
	comp=Z,89nm,21.4s,baz=258,slow=29							
YBH	Yreka Blue Hor	44.34	321	LR		LR	19 11 49.4	
	comp=Z,132nm,19.8s,baz=150,slow=38							
BDFB	Brasilia	46.18	124	P		P	18 51 55.7	+2.3
	comp=Z,3.7nm,0.4s,baz=296,slow=11,SNR=5.3							
	comp=Z,3.7nm,0.4s							
BDFB	Brasilia	46.18	124	P		P	18 51 53.3	-0.1
BDFB				IAmb		IAmb	18 51 56.2	
	comp=Z,6.8nm,0.9s							
CPUP	Villa Florida	46.41	143	LR		LR	19 12 49.2	
	comp=Z,41nm,19.8s,baz=302,slow=38							
SCHQ	Schefferville	46.72	15	P		P	18 51 55.1	-1.9
	comp=Z,5.0nm,0.8s,baz=190,slow=6.0,SNR=6.1							
SCHQ				LR		LR	19 11 21.9	
	comp=Z,124nm,18.9s,baz=166,slow=36							
	comp=Z,5.0nm,0.8s							
SCHQ	Schefferville	46.72	15	P		P	18 51 55.1	-1.9
PLCA	Paso Flores	53.21	165	P		P	18 52 52.2	+5.8
	comp=Z,1.3nm,0.8s,baz=317,slow=17,SNR=3.9							
PLCA				LR		LR	19 11 24.2	
	comp=Z,22nm,18.6s,baz=12,slow=31							
	comp=Z,1.3nm,0.8s							
BBB	Bella Bella	53.34	329	LR		LR	19 21 08.6	
	comp=Z,52nm,18.5s,baz=127,slow=43							
FRB	Frobisher Bay	54.51	10	LR		LR	19 16 15.6	
	comp=Z,180nm,19.7s,baz=154,slow=36							
YKA	Yellowknife Ar	55.59	345	LR		LR	19 20 29.0	
	comp=Z,55nm,19.7s,baz=260,slow=40							
DLBC	Dease Lake	57.93	335	LR		LR	19 22 18.4	
	comp=Z,78nm,18.6s,baz=72,slow=40							
SFJD	Kangerlussuaq	61.18	15	LR		LR	19 20 45.0	
	comp=Z,132nm,18.8s,baz=196,slow=37							
RES	Resolute Bay	64.18	358	LR		LR	19 23 22.5	
	comp=Z,49nm,18.0s,baz=27,slow=38							
ILAR	Eielson Array	68.04	336	P		P	18 54 27.3	+0.3
	comp=Z,1.0nm,0.8s,baz=136,slow=5.2,SNR=8.9							
ILAR				LR		LR	19 28 12.5	
	comp=Z,107nm,18.6s,baz=82,slow=40							
	comp=Z,1.0nm,0.8s							
RND	Reindeer	68.34	335			P	18 54 29.4	+0.4
PPT	Papeete	68.35	246	LR		LR	19 18 03.2	
	comp=Z,85nm,18.3s,baz=114,slow=30							
KDAK	Kodiak Island	68.39	328	LR		LR	19 26 46.5	
	comp=Z,61nm,18.9s,baz=141,slow=38							
BORG	Borgarnes	69.93	24	LR		LR	19 23 36.2	
	comp=Z,67nm,19.0s,baz=256,slow=35							
MDT	Midelt	77.51	59	LR		LR	19 25 29.3	
	comp=Z,70nm,20.3s,baz=266,slow=33							
EKA	Eskdalemuir Ar	77.51	36	LR		LR	19 26 39.8	
	comp=Z,38nm,19.1s,baz=0.5,slow=34							
ESDC	Sonseca Array	77.54	52	P		P	18 55 22.2	-1.7
	comp=Z,0.3nm,0.5s,baz=289,slow=6.7,SNR=4.6							
	comp=Z,0.3nm,0.5s							
NOA	NORSAR Array B	84.46	29	LR		LR	19 32 23.7	
	comp=Z,21nm,18.6s,baz=260,slow=35							
HFS	Hagfors	85.86	30	LR		LR	19 34 28.8	
	comp=Z,36nm,18.1s,baz=272,slow=36							
TIXI	Tiksi	94.57	349	LR		LR	19 42 08.5	
	comp=Z,30nm,20.6s,baz=19,slow=37							
NRIK	Noril'sk	100.09	2	LR		LR	19 43 40.7	
	comp=Z,38nm,20.3s,baz=356,slow=36							
KSRS	Korea Array	122.29	328	PKP		PKiKP	19 02 25.4	+2.2
	comp=Z,1.2nm,0.7s,baz=38,slow=0.7,SNR=7.1							
WMQ	Urumqi	125.52	5	PKP		PKPdf	19 02 29.6	+0.4
WMQ				sPKP			19 02 45.7	
HHC	Hu-ho-hao-te	126.11	343	eP		PKPdf	19 02 26.7	-3.7
NJ2	Nanjing	131.11	331	eP		PKiKP	19 02 42.8	+1.8
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.5s							
LZH	Lanzhou	132.50	349	eP		PKPdf	19 02 38.8	-4.0
LZH				pP		PKiKP	19 02 47.8	+3.9
LZH				pmax		pmax		
	comp=Z,19nm,1.3s							
ASAR	Alice Springs	139.46	246	PKP		PKPdf	19 02 57.5	+1.6
	comp=Z,0.5nm,0.6s,baz=96,slow=2.5,SNR=7.6							
WRA	Warramunga Arr	139.66	252	PKP		PKiKP	19 02 59.9	+1.2
	comp=Z,0.5nm,0.6s,baz=95,slow=2.2,SNR=8.6							
H01W1	Cape Leeuwin H	149.42	215	T		T	21 51 06.9	
	baz=143,slow=75,SNR=140							
H01W2	Cape Leeuwin H	149.42	215	T		T	21 51 07.3	
	baz=143,slow=75,SNR=129							
H01W3	Cape Leeuwin H	149.43	215	T		T	21 51 12.2	
	baz=143,slow=75,SNR=109							
CMAR	Chiang Mai Arr	150.58	350	PKPbc		PKPbc	19 03 20.7	+0.3
	comp=Z,2.3nm,0.9s,baz=326,slow=2.6,SNR=17							
CMAR	Chiang Mai Arr	150.58	350			PKiKP	19 03 21.7	+0.6

IDC 10 18:46:50.6±918.0, 56.85N×1.99E, h0km, Error ellipse: s-maj=410.0km s-min=130.1km az=123.0, North Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I26DE	FREYUNG INFRAS	10.69	134	I	I	19 46 39.7	
	baz=321,slow=317,SNR=1.1						
I43RU	DUBNA INFRASONI	9.17	76	I	I	20 46 50.0	
	baz=284,slow=325,SNR=1.7						
I48TN	KESRA INFRASON	21.63	164	I	I	21 01 50.8	
	baz=346,slow=322,SNR=1.6						

KRNET ***10*** *19:05:01.5±0.1, 39.04N×70.78E, mb3.1*

ISC 10 19:05:01.6±3.5, 39.1N±0.1×70.8E±0.1, h6km±11km, n10, σ0.850/18, 13C-5D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	Karamyk	0.91	63	↑iP	Pg	19 05 18.7	-0.5
DRK				↑iS	Sg	19 05 31.4	+0.4
BTK	Batken	0.99	3	↑iP	Pg	19 05 20.4	-0.2
BTK				↑iS	Sg	19 05 34.2	+0.7
OHH	Osh	2.14	46	↑iP	Pn	19 05 38.3	+0.4
OHH				↑iS	Sn	19 06 04.6	-0.2
SFK	Sufi-Kurgan	2.33	65	↑iP	Pn	19 05 40.8	+0.2
SFK				↑iS	Sn	19 06 09.8	+0.1
TRKS	Terek-Say	2.48	7	↑iP	Pn	19 05 42.3	-0.3
TRKS				↑iS	Sn	19 06 13.2	-0.1
ARSB	Arslanbob	2.83	36	↑eP	Pn	19 05 47.7	+0.3
ARSB				↑eS	Sn	19 06 21.5	-0.4
SALK	Salom-Alik	2.98	51

STKA	**Stephens Creek**	**28.82**	**230**	P	**P**	**19 44 47.7**	**+1.3**
	comp=Z,6.5nm,0.6s,baz=49,slow=8.2,SNR=15						
	comp=Z,6.5nm,0.6s						
STKA	**Stephens Creek**	**28.82**	**230**	P	**P**	**19 44 47.2**	**+0.8**
WB0	**Warramunga Arr**	**31.64**	**256**	P	**P**	**19 45 10.2**	**-1.3**
WRA	**Warramunga Arr**	**31.70**	**256**	P	**P**	**19 45 10.3**	**-1.8**
	comp=Z,0.4nm,0.7s,baz=86,slow=8.4,SNR=2.1						
	comp=Z,0.4nm,0.7s						
WRA	**Warramunga Arr**	**31.70**	**256**	IAmb	IAmb	19 45 18.6	
	comp=Z,0.3nm,1.5s						
ASAR	**Alice Springs**	**32.54**	**249**	P	**P**	**19 45 17.9**	**-1.5**
	comp=Z,1.1nm,0.6s,baz=77,slow=9.5,SNR=13						
	comp=Z,1.1nm,0.6s						
BBOO	**Buckleboo**	**33.41**	**232**	P	**P**	**19 45 26.5**	**-0.2**
KNRA	**Kununurra**	**37.04**	**264**	P	**P**	**19 45 57.4**	**-0.7**
KNRA				IAmb	IAmb	19 45 57.8	
	comp=Z,8.2nm,1.5s						
FORT	**Forrest**	**39.14**	**239**	P	**P**	**19 46 13.8**	**-1.8**
FITZ	**Fitzroy Crossi**	**39.90**	**260**	P	**P**	**19 46 20.7**	**-1.4**
	comp=Z,1.7nm,0.8s,baz=76,slow=4.2,SNR=2.3						
	comp=Z,1.7nm,0.8s						
FITZ	**Fitzroy Crossi**	**39.90**	**260**	P	**P**	**19 46 20.2**	**-1.9**
MORW	**Morawa**	**49.12**	**244**	P	**P**	**19 47 34.0**	**-1.3**
VNDA	**Vanda**	**62.69**	**181**	P	**P**	**19 49 10.2**	**-1.1**
	comp=Z,0.9nm,0.7s,baz=350,slow=6.9,SNR=9.6						
	comp=Z,0.9nm,0.7s						
VNDA	**Vanda**	**62.69**	**181**	P	**P**	**19 49 09.8**	**-1.4**
SBA	**Scott Base**	**62.96**	**180**	P	**P**	**19 49 12.6**	**-0.5**
SBA				IAmb	IAmb	19 49 14.0	
	comp=Z,3.2nm,0.8s						
CASY	**Casey**	**63.34**	**202**	P	**P**	**19 49 14.9**	**-0.9**
CASY				IAmb	IAmb	19 49 15.5	
	comp=Z,2.0nm,0.7s						
QSPA	**South Pole Qui**	**75.12**	**180**	P	**P**	**19 50 27.2**	**-1.4**
	comp=Z,2.0nm,0.6s,baz=17,slow=4.9,SNR=4.7						
	comp=Z,2.0nm,0.6s						
QSPA	**South Pole Qui**	**75.12**	**180**	P	**P**	**19 50 26.7**	**-2.0**
SONM	**Songino Array**	**82.59**	**324**	P	**P**	**19 51 09.8**	**+0.1**
	comp=Z,0.1nm,0.4s,baz=130,slow=5.8,SNR=1.6						
	comp=Z,0.1nm,0.4s						
MKAR	**Makanchi Array**	**97.28**	**316**	P	**P**	**19 52 18.6**	**-0.8**
	comp=Z,0.2nm,0.5s,baz=103,slow=5.0,SNR=2.5						
	comp=Z,0.2nm,0.5s						

*IDC **10** 19:40:23.0±1.9, 1°.01N×127°.05E, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=187.1km s-min=21.6km az=67.0*
*DJA **10** 19:40:30.6±0.4, 1°.N±2°×12°.7E±°, h26km±4km, M3.4/12, MLv3.4/12*
ISC 10 19:40:31.5±1.0, 0°.85N±0°.07×126°.93E±0°.05, h72km, n11, σ1§54/16, mb3.5/4, Northern Moluca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**0.44**	**100**	P	**Pn**	**19 40 42.2**	**-1.7**
TNTI				S	**Sn**	**19 40 51.8**	**-1.3**
TNTI				AML	AML		
GAMI	**Galela, Maluku**	**1.30**	**41**	P	**Pn**	**19 40 54.2**	**+0.2**
GAMI				S	**Sn**	**19 41 11.2**	**+0.4**
GAMI				AML	AML		
MNI	**Manado**	**2.17**	**286**	P	**Pn**	**19 41 03.4**	**-2.1**
MNI				S	**Sn**	**19 41 28.8**	**-2.7**
MNI				AML	AML		
KMSI	**Cibinong**	**2.96**	**265**	P	**Pn**	**19 41 15.8**	**-0.4**
KMSI				S	**Sn**	**19 41 49.4**	**-1.3**
SANI	**Sanana**	**3.03**	**198**	P	**Pn**	**19 41 15.8**	**-1.3**
SANI				AML	AML		
GTOI	**Gorontalo**	**3.93**	**267**	P	**Pn**	**19 41 31.1**	**+1.8**
GTOI				S	**Sn**	**19 42 16.5**	**+2.3**
GTOI				AML	AML		
NLAI	**Namlea**	**4.06**	**178**	P	**Pn**	**19 41 31.7**	**+0.5**
NLAI				AML	AML		
WRA	**Warramunga Arr**	**21.90**	**161**	P	**P**	**19 45 19.3**	**+0.5**
	0.7nm,0.6s,baz=340,slow=11,SNR=7.8						
	0.7nm,0.6s						
ASAR	**Alice Springs**	**25.29**	**165**	P	**P**	**19 45 52.5**	**+1.1**
	0.3nm,0.3s,baz=342,slow=8.0,SNR=8.1						
	0.3nm,0.3s						
MKAR	**Makanchi Array**	**60.03**	**326**	P	**P**	**19 50 31.3**	**+0.4**
	0.6nm,0.4s,baz=119,slow=8.5,SNR=5.2						
	0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**64.27**	**328**	P	**P**	**19 50 59.5**	**+0.4**
	0.4nm,0.4s,baz=125,slow=5.9,SNR=8.9						
	0.4nm,0.4s						

*NOU **10** 19:42:04.1, 18°.61S×177°.54W, h640km, mb4.3/13, Fiji Islands Region*
*IDC **10** 19:42:05.8±1.7, 18°.80S×177°.70W, h627km±20km, mb3.4/10, mbtmp4.4/13, Error ellipse: s-maj=20.0km s-min=18.1km az=150.0*
*NEIC **10** 19:42:05.4±1.0, 18°.8S±0°.1×177°.6W±0°.1, h621km±7km, mb4.3/42, Error ellipse: s-maj=17.6km s-min=13.4km az=51.0*
ISC 10 19:42:05.3±0.8, 18°.8S±0°.1×177°.68W±0°.09, h623km±10km, n76, σ0§69/81, mb4.3/29, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGTI	**Dogotuki**	**3.48**	**314**	P	**P**	**19 43 29.1**	**-0.2**
MSVF	**Nonsavu**	**4.18**	**284**	P	**P**	**19 43 34.5**	**+0.6**
	26nm,0.6s,baz=128,slow=13,SNR=23						
MSVF	**Nonsavu**	**4.18**	**284**	P	**P**	**19 43 34.6**	**+0.7**
MSVF	**Nonsavu**	**4.18**	**284**	P	**P**	**19 43 34.6**	**+0.7**
NIUE	**Niue**	**7.35**	**94**	P	**P**	**19 43 58.9**	**-0.6**
MARNC	**Mare, Loyalty**	**13.69**	**256**	P	**P**	**19 45 00.8**	**+0.3**
PINNC	**Pines Island,**	**14.43**	**252**	P	**P**	**19 45 07.5**	**+0.1**
SANVU	**Saraoutou**	**14.82**	**281**	P	**P**	**19 45 11.1**	**0.0**
DZM	**Mont Dzumac**	**15.24**	**255**	P	**P**	**19 45 15.9**	**+1.0**
	3.7nm,0.6s,baz=95,slow=21,SNR=2.0						
OUZ	**Omahuta**	**18.12**	**204**	P	**P**	**19 45 41.7**	**+0.8**
URZ	**Urewera**	**19.95**	**192**	P	**P**	**19 45 56.7**	**-0.6**
	4.9nm,0.4s,baz=285,slow=3.7,SNR=8.5						
URZ	**Urewera**	**19.95**	**192**	P	**P**	**19 45 57.1**	**-0.2**
BFZ	**Birch Farm**	**22.46**	**192**	P	**P**	**19 46 20.3**	**+0.5**
BFZ	**Birch Farm**	**22.46**	**192**	P	**P**	**19 46 19.2**	**-0.5**
MRZ	**Mangatainoka R**	**22.58**	**193**	P	**P**	**19 46 19.6**	**-1.2**
QRZ	**Quartz Range**	**23.54**	**199**	P	**P**	**19 46 29.9**	**+0.6**
QRZ	**Quartz Range**	**23.54**	**199**	P	**P**	**19 46 29.0**	**-0.4**
HNR	**Honiara**	**23.57**	**290**	P	**P**	**19 46 29.3**	**-0.8**
KHZ	**Kahutara**	**24.73**	**196**	P	**P**	**19 46 38.5**	**-1.3**
LTZ	**Lake Taylor**	**25.41**	**197**	P	**P**	**19 46 44.4**	**-1.5**
FOZ	**Fox Glacier**	**26.84**	**200**	P	**P**	**19 46 58.0**	**-0.3**
JCZ	**Jackson Bay**	**27.67**	**201**	P	**P**	**19 47 05.5**	**-0.2**
WHZ	**Wether Hill Ro**	**29.55**	**201**	P	**P**	**19 47 20.7**	**-1.1**
WHZ				IAmb	IAmb	19 47 36.6	
	comp=Z,16nm,1.3s						
EIDS	**Eidsvold**	**29.64**	**252**	P	**P**	**19 47 22.1**	**-0.7**
EIDS				IAmb	IAmb	19 47 42.5	
	comp=Z,14nm,1.4s						
ARMA	**Armidale**	**30.12**	**241**	P	**P**	**19 47 27.5**	**+0.4**
ARMA				IAmb	IAmb	19 47 55.3	
	comp=Z,16nm,1.4s						
CAN	**Canberra**	**33.75**	**234**	P	**P**	**19 47 57.9**	**+0.4**
CAN	**Canberra**	**33.75**	**234**	P	**P**	**19 47 58.2**	**+0.7**
CAN				IAmb	IAmb	19 47 59.2	
	comp=Z,6.5nm,0.7s						
CTAO	**Charters Tower**	**34.00**	**262**	P	**P**	**19 47 59.2**	**-0.6**
CTAO	**Charters Tower**	**34.00**	**262**	P	**P**	**19 47 59.8**	**0.0**
PMG	**Port Moresby**	**35.29**	**280**	P	**P**	**19 48 11.0**	**+0.5**
	comp=Z,21nm,0.8s,baz=131,slow=9.3,SNR=5.0						
	comp=Z,21nm,0.8s						
PMG	**Port Moresby**	**35.29**	**280**	P	**P**	**19 48 10.8**	**+0.2**
TOO	**Toolangi**	**37.18**	**232**	P	**P**	**19 48 26.6**	**+0.9**
STKA	**Stephens Creek**	**38.83**	**242**	P	**P**	**19 48 39.9**	**+0.7**
	comp=Z,2.5nm,0.3s,baz=74,slow=5.8,SNR=8.2						
	comp=Z,2.5nm,0.3s						
STKA	**Stephens Creek**	**38.83**	**242**	P	**P**	**19 48 39.8**	**+0.7**
INKA	**Innaminka**	**39.07**	**249**		**P**	**19 48 42.0**	**+0.9**
INKA				IAmb	IAmb	19 48 43.3	
	comp=Z,4.1nm,0.8s						
BBOO	**Buckleboo**	**43.60**	**242**	P	**P**	**19 49 16.8**	**+0.2**
JAY	**Jayapura**	**43.81**	**287**	P	**P**	**19 49 18.9**	**+0.4**
	comp=Z,14nm,0.5s,baz=124,slow=7.8,SNR=12						
	comp=Z,14nm,0.5s						
WR8	**Warramunga Arr**	**45.01**	**260**	P	**P**	**19 49 26.8**	**-0.8**
WR8				IAmb	IAmb	19 49 28.3	
	comp=Z,18nm,1.5s						
WRAB	**Tennant Creek**	**45.15**	**260**	P	**P**	**19 49 27.8**	**-0.9**
WRAB	**Tennant Creek**	**45.15**	**260**	P	**P**	**19 49 27.7**	**-0.9**
WRAB				IAmb	IAmb	19 49 28.9	
	comp=Z,9.0nm,0.9s						
WRAB				PcP	**PcP**	**19 50 55.3**	**-0.1**
WRA	**Warramunga Arr**	**45.16**	**260**	P	**P**	**19 49 28.3**	**-0.4**
	comp=Z,5.2nm,0.3s,baz=97,slow=6.8,SNR=101						
WRA				PcP	**PcP**	**19 50 55.1**	**-0.3**
	comp=Z,0.3nm,0.3s,baz=95,slow=3.8,SNR=2.3						
	comp=Z,5.2nm,0.3s						
WRA	**Warramunga Arr**	**45.16**	**260**		**P**	**19 49 27.9**	**-0.9**
WRA					**PcP**	**19 50 54.8**	**-0.6**
AS31	**Alice Springs**	**45.23**	**255**		**P**	**19 49 29.2**	**-0.1**
ASAR	**Alice Springs**	**45.23**	**255**	P	**P**	**19 49 29.2**	**0.0**
	comp=Z,7.9nm,0.5s,baz=87,slow=8.2,SNR=137						
ASAR				PcP	**PcP**	**19 50 55.4**	**-0.2**
	comp=Z,0.8nm,0.5s,baz=98,slow=3.1,SNR=5.4						
	comp=Z,7.9nm,0.5s						
ASAR	**Alice Springs**	**45.23**	**255**	P	**P**	**19 49 28.8**	**-0.4**
ASAR					**PcP**	**19 50 55.0**	**-0.6**
MTN	**Manton Dam**	**49.47**	**269**	P	**P**	**19 50 00.3**	**-0.6**
FORT	**Forrest**	**50.27**	**245**	P	**P**	**19 50 05.8**	**-0.7**
FORT				IAmb	IAmb	19 50 32.1	
	comp=Z,17nm,1.1s						
KNRA	**Kununurra**	**51.09**	**265**	P	**P**	**19 50 12.2**	**-0.4**
FAKI	**Fak Fak**	**51.42**	**282**	P	**P**	**19 50 13.6**	**-1.5**
FAKI	**Fak Fak**	**51.42**	**282**	P	**P**	**19 50 14.9**	**-0.1**
FAKI				IAmb	IAmb	19 50 34.9	
	comp=Z,14nm,1.3s						
FITZ	**Fitzroy Crossi**	**53.57**	**261**	P	**P**	**19 50 29.7**	**-0.5**
	comp=Z,1.8nm,0.3s,baz=102,slow=7.4,SNR=34						
	comp=Z,1.8nm,0.3s						
FITZ	**Fitzroy Crossi**	**53.57**	**261**	P	**P**	**19 50 30.1**	**-0.1**
SOEI	**Soe**	**56.77**	**270**	P	**P**	**19 50 53.6**	**+1.0**
SOEI				IAmb	IAmb	19 51 04.0	
	comp=Z,17nm,0.8s						
MBWA	**Marble Bar**	**58.54**	**256**	P	**P**	**19 51 04.0**	**-0.3**
MBWA				IAmb	IAmb	19 51 13.6	
	comp=Z,32nm,1.4s						
MORW	**Morawa**	**60.77**	**247**	P	**P**	**19 51 18.5**	**-0.4**
MORW				IAmb	IAmb	19 51 22.9	
	comp=Z,18nm,1.2s						
GIRL	**Giralia**	**63.31**	**254**	P	**P**	**19 51 35.3**	**-0.1**
TOLI2	**Tolitoli**	**63.56**	**281**	P	**P**	**19 51 38.1**	**+1.0**
TOLI2				IAmb	IAmb	19 51 41.2	
	comp=Z,6.0nm,0.8s						
JAGI	**Jajag, Banyuwa**	**66.71**	**269**	P	**P**	**19 51 55.3**	**-1.5**
KKM	**Kota Kinabalu**	**69.62**	**284**	P	**P**	**19 52 14.2**	**-0.2**
KKM				IAmb	IAmb	19 52 33.1	
	comp=Z,13nm,1.1s						
UGM	**Wanagama**	**70.31**	**268**	P	**P**	**19 52 17.8**	**-0.6**
QSPA	**South Pole Qui**	**71.29**	**180**	P	**P**	**19 52 24.4**	**+1.1**
	comp=Z,1.1nm,0.6s,baz=75,slow=2.0,SNR=2.9						
	comp=Z,1.1nm,0.6s						
BBJI	**Bungbulang**	**73.16**	**268**	P	**P**	**19 52 34.3**	**-0.7**
OHAK	**Old Harbor**	**78.40**	**13**	P	**P**	**19 53 02.9**	**+0.2**
NVAR	**Mina Array Bea**	**79.56**	**43**	P	**P**	**19 53 10.7**	**+1.1**
	comp=Z,0.5nm,0.6s,baz=244,slow=7.0,SNR=3.8						
	comp=Z,0.5nm,0.6s						
M16K	**Timber Creek**	**80.93**	**9**	P	**P**	**19 53 16.7**	**+0.9**
M16K				IAmb	IAmb	19 53 32.0	
	comp=Z,21nm,1.5s						
BELA	**Belgrano 2**	**81.23**	**173**	P	**P**	**19 53 17.5**	**+0.3**
K15K	**Wolf Creek Mou**	**81.80**	**8**	P	**P**	**19 53 21.0**	**+0.8**
L18K	**Granite Mounta**	**82.42**	**10**	P	**P**	**19 53 23.9**	**+0.6**
L18K				IAmb	IAmb	19 53 31.7	
	comp=Z,10nm,1.4s						
K20K	**Telida**	**83.92**	**10**	P	**P**	**19 53 31.1**	**+0.3**
K20K				IAmb	IAmb	19 53 37.6	
	comp=Z,6.8nm,1.4s						
TRF	**Thorofare Moun**	**84.70**	**12**	P	**P**	**19 53 34.5**	**-0.2**
TRF				IAmb	IAmb	19 53 48.3	
	comp=Z,4.8nm,1.2s						
O28M	**Mount Upton**	**84.82**	**17**	P	**P**	**19 53 36.0**	**+0.5**
O28M				IAmb	IAmb	19 54 00.7	
	comp=Z,22nm,1.5s						
CCB	**Clear Creek Bu**	**86.27**	**12**	P	**P**	**19 53 41.2**	**-0.8**
ILAR	**Eielson Array**	**86.57**	**13**	P	**P**	**19 53 42.5**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=203,slow=4.5,SNR=6.3						
	comp=Z,0.3nm,0.4s						
ILAR	**Eielson Array**	**86.57**	**13**	P	**P**	**19 53 43.7**	**+0.3**
PDAR	**Pinedale Array**	**87.50**	**43**	P	**P**	**19 53 48.9**	**+0.3**
	comp=Z,0.4nm,0.6s,baz=287,slow=6.8,SNR=2.0						
	comp=Z,0.4nm,0.6s						
PDAR	**Pinedale Array**	**87.50**	**43**	P	**P**	**19 53 48.4**	**-0.2**

*IDC **10** 19:42:52.5±1.8, 58°.92S×25°.86W, h0km, mb3.9/4, mbtmp4.0/5, ML4.8/1, Error ellipse: s-maj=55.4km s-min=29.4km az=52.0*
*NEIC **10** 19:42:57.7±1.4, 59°.1S±0°.3×25°.7W±0°.6, h34km±13km, mb4.6/14, Error ellipse: s-maj=57.9km s-min=6.4km az=48.0*
ISC 10 19:43:01.3±1.3, 59°.2S±0°.2×26°.0W±0°.2, h70km, n30, σ1§57/27, mb4.3/8, 6C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**7.56**	**306**	Pn	**Pn**	**19 44 46.2**	**-2.4**
VNA1	**Neumayer--Stat**	**13.66**	**155**	⇑P	**Pn**	**19 46 09.1**	**-2.4**
	comp=Z,12nm,0.2s						
VNA3	**Neumayer Olymp**	**13.83**	**158**	⇑P	**Pn**	**19 46 10.8**	**-2.9**
	comp=Z,28nm,0.2s						
VNA3				⇑S	Sn	19 48 32.0	-13
	comp=E,2.5nm,0.2s						
VNA2	**Neumayer--Watz**	**14.06**	**154**	⇑P	**Pn**	**19 46 14.4**	**-2.3**
	comp=Z,6.1nm,0.2s,baz=313,slow=14						
SNAA	**Sanae**	**15.64**	**152**	⇑P	**Pn**	**19 46 35.4**	**-1.7**
	comp=Z,132nm,0.2s						
SNAA	**Sanae**	**15.64**	**152**	Pn	**Pn**	**19 46 34.7**	**-2.3**
	comp=Z,3.8nm,0.3s,baz=313,slow=14,SNR=32						
	comp=Z,8.8nm,0.4s						
SNAA				AML	AML		
SNAA	**Sanae**	**15.64**	**152**		**Pn**	**19 46 35.1**	**-2.0**
SNAA				IAmb	IAmb	19 46 36.9	
	comp=Z,8.7nm,0.5s						
TROLL	**Troll, Antarti**	**17.18**	**150**	⇑P	**Pn**	**19 46 55.3**	**-1.1**
	comp=Z,206nm,0.5s						
BELA	**Belgrano 2**	**19.00**	**186**	P	**P**	**19 47 16.3**	**-0.5**
EFI	**East Falkland**	**19.52**	**279**	P	**P**	**19 47 21.8**	**-0.8**
EFI				IAmb	IAmb	19 47 31.9	
	comp=Z,79nm,1.5s						
QSPA	**South Pole Qui**	**31.06**	**180**	P	**P**	**19 49 13.4**	**+1.1**
	comp=Z,1.0nm,0.6s,baz=123,slow=1.6,SNR=8.9						
	comp=Z,1.0nm,0.6s						
QSPA	**South Pole Qui**	**31.06**	**180**	P	**P**	**19 49 12.8**	**+0.5**
QSPA				IAmb	IAmb	19 49 23.6	
	comp=Z,3.8nm,1.2s						
PLCA	**Paso Flores**	**33.27**	**284**	P	**P**	**19 49 32.2**	**+0.5**
	comp=Z,0.8nm,0.5s,baz=162,slow=18,SNR=4.1						
	comp=Z,0.8nm,0.5s						
PLCA	**Paso Flores**	**33.27**	**284**	P	**P**	**19 49 33.1**	**+1.4**
PLCA				IAmb	IAmb	19 49 42.4	
	comp=Z,2.9nm,1.4s						
MT02	**Curacav**	**39.44**	**291**	P	**P**	**19 50 25.2**	**+1.0**
MT02				IAmb	IAmb	19 50 27.4	
	comp=Z,28nm,1.2s						
CO04	**Los Peladeros**	**40.36**	**292**	P	**P**	**19 50 33.6**	**+1.4**
CO04				IAmb	IAmb	19 50 36.9	
	comp=Z,17nm,1.2s						
CO02	**Combarbal**	**41.06**	**293**	P	**P**	**19 50 38.9**	**+1.1**
AC05	**El Transito**	**42.71**	**295**	P	**P**	**19 50 52.2**	**+0.9**
AC05				IAmb	IAmb	19 51 11.9	
	comp=Z,14nm,1.1s						
VNDA	**Vanda**	**43.46**	**182**	P	**P**	**19 50 58.8**	**+2.1**
	comp=Z,0.8nm,0.6s,baz=186,slow=6.6,SNR=11						
	comp=Z,0.8nm,0.6s						
VNDA	**Vanda**	**43.46**	**182**	P	**P**	**19 50 57.9**	**+1.2**
H04S2	**CROZET ISLANDS**	**45.77**	**111**	T	T	20 41 39.9	
	baz=224,slow=76,SNR=10						
H04S3	**CROZET ISLANDS**	**45.78**	**110**	T	T	20 41 42.2	
	baz=224,slow=76,SNR=10.0						
H04S1	**CROZET ISLANDS**	**45.79**	**111**	T	T	20 41 42.4	
	baz=224,slow=76,SNR=8.4						
PB03	**IPOC Station P**	**48.31**	**301**	P	**P**	**19 51 35.5**	**-0.1**
PB07	**IPOC Station P**	**48.65**	**301**	P	**P**	**19 51 38.2**	**0.0**
PB07				IAmb	IAmb	19 52 02.9	
	comp=Z,10nm,1.3s						
LTZ	**Lake Taylor**	**77.28**	**194**	P	**P**	**19 54 49.4**	**+1.8**
QRZ	**Quartz Range**	**79.17**	**194**	P	**P**	**19 54 57.5**	**-0.6**
ASAR	**Alice Springs**	**95.81**	**162**	P	**P**	**19 56 20.2**	**+0.5**
	comp=Z,2.0nm,0.7s,baz=176,slow=2.8,SNR=2.2						
	comp=Z,2.0nm,0.7s						
ASAR	**Alice Springs**	**95.81**	**162**	P	**P**	**19 56 20.3**	**+0.6**
SONM	**Songino Array**	**150.16**	**91**	PKPbc	**PKPbc**	**20 02 43.9**	**+0.8**
	comp=Z,0.4nm,0.4s,baz=218,slow=3.8,SNR=3.9						

*KRNET **10** 19:43:50.2±0.1, 42°.00N×80°.70E, mb2.7*
*SOME **10** 19:43:53.9, 41°.90N×80°.50E, h15km*

*NNC **10** 19:43:53.3±2.9, 41°.83N×80°.51E, h16km±10km, mb3.3, mpv3.0, Error ellipse: s-maj=25.8km s-min=19.8km az=53.0*
ISC 10 19:43:52.5±2.7, 42°.03N±0°.08×80°.8E±0°.1, h15km±14km, n19, σ1§21/33, 5C-9D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**1.52**	**318**	P	**Pn**	**19 44 18.1**	**-1.2**
	7.4nm,0.2s						
SHLS				S	**Sn**	**19 44 35.7**	**-3.2**
	16nm,0.2s						
PDGK	**Podgornoye**	**1.64**	**323**	⇑P	**Pb**	**19 44 21.3**	**-1.3**
	1.2nm,0.5s						
PDGK				⇓S	**Sb**	**19 44 44.5**	**+1.4**
	14nm,0.5s						
UZB	**Uzynbulak**	**1.75**	**310**	P	**Pb**	**19 44 23.6**	**-0.8**
	2.4nm,0.2s						
UZB				S	**Sn**	**19 44 45.2**	**+0.6**
	4.5nm,0.2s						
UZB	**Uzynbulak**	**1.75**	**310**	*eP*	**Pb**	**19 44 23.6**	**-0.8**
	2.4nm,0.2s						
UZB				*eS*	**Sn**	**19 44 45.2**	**+0.6**
	4.5nm,0.2s						
PRZ	**Przheval'sk**	**1.86**	**285**	⇓*iP*	**Pn**	**19 44 23.4**	**-0.8**
PRZ				⇓*iS*	**Sn**	**19 44 47.7**	**+0.1**
SATY	**Saty**	**2.07**	**301**	Pg	**Pb**	**19 44 30.1**	**+0.2**
	2.0nm,0.1s						
SATY				Lg	Lg	19 44 56.1	
	5.9nm,0.1s						
SATY	**Saty**	**2.07**	**301**	*eP*	**Pb**	**19 44 30.1**	**+0.2**
	2.0nm,0.1s						
SATY				*eS*	**Sb**	**19 44 56.1**	**+0.5**
	5.9nm,0.1s						
KPKS	**Kokpek**	**2.14**	**313**	Pg	**Pg**	**19 44 32.0**	**-1.6**
	0.3nm,0.1s						
KPKS				Lg	Lg	19 44 59.2	
	8.4nm,0.1s						
KPKS	**Kokpek**	**2.14**	**313**	*eP*	**Pg**	**19 44 32.0**	**-1.6**
	0.3nm,0.1s						
KPKS				*eS*	**Sb**	**19 44 59.2**	**+1.7**
	8.4nm,0.1s						
TARG	**Taragay, Kyrgy**	**2.28**	**263**	⇓*iP*	**Pn**	**19 44 29.9**	**-0.2**
TARG				⇓*iS*	**Sn**	**19 44 59.0**	**+0.8**
DJR	**Jarkent**	**2.43**	**342**	Pg	**Pg**	**19 44 38.9**	**-0.1**
	1.7nm,0.2s						
DJR				Lg	Lg	19 45 11.4	
	6.5nm,0.3s						
DJR	**Jarkent**	**2.43**	**342**	*eP*	**Pg**	**19 44 38.9**	**-0.1**
	1.7nm,0.2s						
DJR				*eS*	**Sg**	**19 45 11.4**	**+0.9**
	6.5nm,0.3s						
ANVS	**Anan'yevo**	**2.46**	**289**	⇓*iP*	**Pn**	**19 44 32.5**	**+0.1**
ANVS				⇓*iS*	**Sn**	**19 45 03.6**	**+1.2**
KNOS	**Konyrlen**	**2.63**	**333**	Pg	**Pg**	**19 44 46.3**	**+3.4**
	2.3nm,0.2s						
KNOS				Lg	Lg	19 45 23.8	
	13nm,0.3s						
KDJ	**Kajisay**	**2.72**	**273**	⇓*iP*	**Pn**	**19 44 35.8**	**-0.2**
KDJ				⇓*iS*	**Sn**	**19 45 09.0**	**+0.2**
KOTS	**Kotyrbulak**	**3.00**	**295**	Pg	**Pb**	**19 44 45.1**	**-0.7**
	2.2nm,0.2s						
KOTS				Lg	Lg	19 45 21.8	
	5.3nm,0.7s						
KOTS	**Kotyrbulak**	**3.00**	**295**	*eP*	**Pb**	**19 44 45.1**	**-0.7**
	2.2nm,0.2s						
KOTS				*eS*	**Sb**	**19 45 21.8**	**-0.5**
	5.3nm,0.7s						
ULHL	**Ulahol**	**3.42**	**275**	⇑*iP*	**Pn**	**19 44 45.6**	**0.0**
ULHL				⇑*iS*	**Sn**	**19 45 26.1**	**0.0**
NRN	**Naryn**	**3.67**	**262**	⇑*eP*	**Pn**	**19 44 49.4**	**+0.3**
NRN				⇑*eS*	**Sn**	**19 45 32.3**	**0.0**

*IDC **10** 19:45:06.2±4.7, 52°.66N×172°.50W, h111km±42km, mb3.6/15, mbtmp4.1/18, MS3.9/2, Error ellipse: s-maj=23.4km s-min=12.8km az=2.0*
*AEIC **10** 19:45:09.5±3.7, 52°.27N±0°.09×172°.34W±0°.07, h140km±5km, Error ellipse: s-maj=13.1km s-min=5.7km az=173.0*
*NEIC **10** 19:45:09.2±1.9, 52°.63N±0°.10×172°.42W±0°.08, h138km±6km, mb4.3/122, ML4.4/20, ML4.1(AEIC), Error ellipse: s-maj=14.7km s-min=6.0km az=162.0*
ISC 10 19:45:08.6±0.7, 52°.49N±0°.10×172°.35W±0°.04, h138km±6km, n228, σ1§28/215, mb4.2/39, Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KOSE	**Korovin Southe**	**1.05**	**263**		**Pn**	**19 45 32.9**	**+0.2**
KOSE					**Sn**	**19 45 50.5**	**-0.6**
KOFP	**Korovin Flat P**	**1.09**	**259**		**Pn**	**19 45 33.5**	**+0.4**
KOFP					**Sn**	**19 45 52.6**	**+0.9**
KOKL	**Mount Kliuchef**	**1.15**	**262**		**Pn**	**19 45 34.1**	**+0.4**
KOKL					**Sn**	**19 45 53.4**	**+0.7**
ATKA	**Atka Island**	**1.17**	**256**	P	**Pn**	**19 45 33.9

CHGN Chignik 8.98 59 Pn Pn 19 47 13.2 -1.7
O14K Tigyukauivet M 9.20 38 Pn Pn 19 47 17.8 0.0
N14K Kuskokwak Cree 9.52 34 Pn Pn 19 47 19.8 -2.3
O15K Ungalikthiuk R 9.71 41 Pn Pn 19 47 23.3 -1.4
N15K Kwethluk River 10.26 37 Pn Pn 19 47 30.3 -1.7
L14K Kuka Creek 10.31 27 Pn Pn 19 47 31.3 -1.5
CHIR Chirikof Islan 10.36 65 Pn Pn 19 47 30.8 -2.5
P16K Nushagak River 10.39 45 Pn Pn 19 47 33.6 -0.2
O16K Kokwok River B 10.67 43 Pn Pn 19 47 37.8 +0.3
P17K Kvichak River 11.16 47 Pn 19 47 44.5 +0.5
M16K Timber Creek 11.25 35 Pn Pn 19 47 45.3 +0.1
K15K Wolf Creek Mou 11.41 26 Pn Pn 19 47 46.0 -1.2
N17K Nushagak Hills 11.59 40 Pn Pn 19 47 48.4 -1.2
OHAK Old Harbor 11.95 59 Pn 19 47 50.4 -3.9
M17K Holitna River 12.05 36 Pn Pn 19 47 55.8 +0.1
N18K Kilae Creek 12.20 41 Pn 19 47 58.0 +0.4
Q19K Cape Douglas, 12.33 51 Pn 19 47 57.6 -1.8
KDAK Kodiak Island 12.46 57 P Pn 19 47 57.4 -3.7
comp=N,16nm,0.3s,baz=253,slow=1.4,SNR=137
KDAK Kodiak Island 12.46 57 Pn 19 47 57.9 -3.2
J16K Anvik River 12.47 25 Pn Pn 19 48 01.2 +0.1
K17K Iditarod 12.68 31 Pn Pn 19 48 03.5 -0.3
N19K Bonanza Creek 12.85 43 Pn 19 48 07.6 +1.5
L18K Granite Mounta 12.86 35 Pn Pn 19 48 06.0 -0.1
J17K VABM Dome 12.97 27 Pn Pn 19 48 06.4 -1.2
ILSW Iliamna Southw 13.01 47 Pn Pn 19 48 06.5 -1.7
TNA Tin City 13.30 8 Pn Pn 19 48 10.2 -1.6
RED Redoubt Volcan 13.38 46 Pn Pn 19 48 12.4 -0.6
L19K White Mountain 13.49 37 Pn 19 48 12.9 -1.5
M19K Big River Lodg 13.50 39 P P 19 48 16.8 -1.9
CNPM China Poot 13.71 51 Pn Pn 19 48 15.0 -2.1
J18K Innoko River 13.72 31 Pn 19 48 16.4 -0.8
BRLK Bradley Lake 13.96 50 Pn 19 48 18.0 -2.3
M20K Styx River 13.98 40 P P 19 48 22.7 -1.5
H17K Granite Mounta 14.01 22 Pn Pn 19 48 20.3 -0.5
SPU Mount Spurr 14.05 44 Pn 19 48 19.3 -2.2
STLK Strandline Lak 14.30 43 Pn 19 48 24.6 0.0
J19K Poorman 14.44 31 Pn 19 48 26.6 +0.3
K20K Telida 14.52 34 P P 19 48 28.9 -1.2
SLKM Skilak Lake 14.56 48 Pn 19 48 26.4 -1.4
H18K Honhosa River 14.56 24 P 19 48 30.1 -0.4
SKT Skwentna 14.67 41 Pn 19 48 29.4 +0.2
SUA Susitna One 14.74 44 Pn Pn 19 48 28.2 -2.0
SEW Seward 14.76 50 Pn 19 48 27.0 -3.2
O22K Cooper Landing 14.77 48 P Pn 19 48 28.4 -2.1
PPLA Purkeypile 14.91 38 P P 19 48 33.4 -1.2
RC01 Rabbit Creek A 15.01 46 Pn 19 48 30.8 -2.7
J20K Nowinta River 15.04 32 Pn 19 48 33.4 -0.3
G18K Tagagawik 15.10 22 Pn Pn 19 48 34.1 -0.5
CAST Castle Rocks 15.26 36 Pn 19 48 36.0 -0.6
H19K Roundabout Mou 15.35 26 P 19 48 38.0 -1.2
CUT Chulitna 15.40 41 Pn Pn 19 48 35.8 -2.4
CUT IAmb IAmb 19 48 52.5
comp=Z,22nm,1.1s
PWL Port Wells 15.55 48 Pn 19 48 37.2 -2.9
PWL IAmb IAmb 19 48 46.0
comp=Z,17nm,0.9s
GHO Glory Hole Cre 15.66 44 Pn 19 48 39.5 -2.1
GHO IAmb IAmb 19 48 43.0
comp=Z,18nm,0.8s
G19K Purcell Mounta 15.68 23 Pn Pn 19 48 39.8 -1.9
G19K IAmb IAmb 19 48 55.3
comp=Z,20nm,1.4s
KNK Knik Glacier 15.71 46 P Pn 19 48 40.8 -1.3
SML Sawmill 15.93 45 Pn 19 48 43.8 -1.1
SML IAmb IAmb 19 48 45.4
comp=Z,11nm,0.5s
TRF Thorofare Moun 15.94 38 P 19 48 45.9 0.0
TRF IAmb IAmb 19 48 50.3
comp=Z,12nm,0.9s
BPAW Bear Paw Mtn. 16.06 35 P 19 48 47.2 +0.1
SCM Sheep Creek Mo 16.37 45 P Pn 19 48 48.7 -1.6
I21K Tanana 16.40 31 P P 19 48 51.5 +0.7
RND Reindeer 16.46 39 Pn 19 48 50.4 -1.0
RND IAmb IAmb 19 48 53.5
comp=Z,8.7nm,0.8s
H21K Melozitna Rive 16.47 29 P P 19 48 51.8 +0.1
MCK McKinley 16.60 38 Pn 19 48 52.3 -0.8
MCK IAmb IAmb 19 48 54.1
comp=Z,29nm,1.2s
EYAK Cordova Ski Ar 16.64 51 P Pn 19 48 52.1 -1.4
MLY Manley 16.71 33 P 19 48 55.2 +0.8
DIV Divide 16.82 49 P P 19 48 53.6 -1.9
DIV IAmb IAmb 19 49 03.8
comp=Z,27nm,1.5s
KLU Klutina 16.87 47 IAmb IAmb 19 48 58.2
comp=Z,13nm,0.6s
G21K Allakaket 16.89 26 P Pn 19 48 58.0 +1.5
DHY Denali Highway 16.89 41 P P 19 48 55.6 -0.8
DHY IAmb IAmb 19 48 59.6
comp=Z,7.4nm,0.7s
NEA2 Nenana 17.03 36 IAmb IAmb 19 48 59.3
comp=Z,13nm,1.1s
H22K Ishtalitna Cre 17.07 30 Pn 19 49 00.0 +1.4
I23K Minto, Yukon-K 17.25 34 P Pn 19 49 00.9 +0.2
BMRM Bremner River 17.30 50 P P 19 48 59.5 -1.3
BMRM IAmb IAmb 19 49 08.2
comp=Z,9.6nm,0.7s
WRH Wood River Hil 17.31 37 P P 19 48 59.4 -1.5
WRH IAmb IAmb 19 49 04.0
comp=Z,9.3nm,0.7s
H23K Yukon River 17.60 32 P Pn 19 49 05.0 0.0
H23K IAmb IAmb 19 49 10.3
comp=Z,20nm,1.4s
COLA College 17.62 36 P Pn 19 49 05.4 +0.2
PAX Paxson 17.63 43 P P 19 49 04.4 -0.1
POKR Poker Plat Res 17.90 35 P P 19 49 06.5 -0.8
POKR IAmb IAmb 19 49 10.2
comp=Z,11nm,0.7s
IL31 17.91 37 IAmb IAmb 19 49 08.8
comp=Z,15nm,0.7s
ILAR Eielson Array 17.91 37 P P 19 49 05.5 -1.9
comp=Z,12nm,0.5s,baz=230,slow=10,SNR=135
VRDI Verde Repeater 17.92 49 IAmb IAmb 19 49 21.1
comp=Z,22nm,1.4s
G23K Bananza Creek 18.02 29 P 19 49 08.1 -0.6
G23K IAmb IAmb 19 49 15.7
comp=Z,9.6nm,0.7s
PEA0B Petropavlovsk- 18.07 284 P P 19 49 09.6 +0.4
PETK Petropavlovsk- 18.07 284 P P 19 49 08.9 -0.3
comp=Z,1.4nm,0.4s,baz=80,slow=11,SNR=10.0
PETK Petropavlovsk- 18.07 284 P Pn 19 49 09.7 -0.9
TGL Tana Glacier 18.09 51 IAmb IAmb 19 49 16.9
comp=Z,23nm,1.3s
MCARA McCarthy VSAT 18.16 49 P P 19 49 09.3 -0.9
MCARA IAmb IAmb 19 49 18.9
comp=Z,15nm,0.8s
M26K Nabesna, AK 18.48 46 P P 19 49 12.3 -1.4
GRNC Granite Creek 18.59 52 IAmb IAmb 19 49 16.2
comp=Z,29nm,1.4s
PRP Porcupine Dome 18.79 36 P P 19 49 17.3 +0.1
PRP IAmb IAmb 19 49 23.2
comp=Z,9.2nm,0.8s
G24K Hadweenzic Riv 18.80 31 Pn 19 49 18.7 -0.5
G24K IAmb IAmb 19 49 20.5
comp=Z,13nm,0.7s
M27K Edge Creek, AK 18.96 47 IAmb IAmb 19 49 22.6
comp=Z,9.6nm,0.6s
F24K Squaw Lake 19.18 29 Pn 19 49 22.6 -1.0
F24K IAmb IAmb 19 49 37.9
comp=Z,21nm,1.5s
L27K Beaver Creek, 19.20 45 P P 19 49 20.8 -0.8
L27K IAmb IAmb 19 49 27.2
comp=Z,6.4nm,0.5s
BCAR Beaver Creek A 19.22 45 P 19 49 21.1 -0.7
O28M Mount Upton 19.35 52 IAmb IAmb 19 49 32.6
comp=Z,8.2nm,0.7s
E24K Your Creek 19.38 27 P Pn 19 49 24.4 -1.5
E24K IAmb IAmb 19 49 28.6
comp=Z,8.5nm,0.8s
K27K Chicken 19.44 42 P P 19 49 24.3 +0.2
K27K IAmb IAmb 19 49 26.5
comp=Z,9.4nm,1.0s
FYU Fort Yukon 19.45 33 P P 19 49 24.4 +0.2
FYU IAmb IAmb 19 49 55.1
comp=Z,21nm,1.2s
TOLK Toolik Lake Re 19.47 25 P 19 49 24.5 +0.1
TOLK IAmb IAmb 19 49 26.1
comp=Z,10nm,0.8s
I26K Coal Creek Min 19.56 38 P P 19 49 24.3 -1.0
PNL Peninsula 19.57 55 P P 19 49 25.6 0.0
F25K Christian Rive 19.91 30 P P 19 49 29.6 +0.5
BMAR Burnt Mountain 20.15 31 P 19 49 32.4 +0.7

F26K Sheenjek River 20.44 31 P P 19 49 35.5 +0.8
F26K IAmb IAmb 19 49 39.0
comp=Z,7.8nm,0.8s
M29M Somme Creek 20.52 48 IAmb IAmb 19 49 49.1
comp=Z,7.3nm,0.5s
DAWY Dawson 20.56 43 P P 19 49 35.5 -0.6
HYT Haines Junctio 20.66 52 P 19 49 36.0 -1.4
D25K Kavik River 20.78 26 P P 19 49 37.3 -1.1
G27K Doyon Strip 20.80 35 P P 19 49 36.9 -1.8
L29M L29M 20.83 46 P P 19 49 38.3 -0.7
L29M IAmb IAmb 19 49 42.5
comp=Z,8.1nm,0.7s
K29M Barlow Dome 21.29 44 IAmb IAmb 19 49 46.9
comp=Z,10nm,0.6s
I29M Ogilvie Camp, 21.44 40 IAmb IAmb 19 49 47.1
comp=Z,12nm,0.9s
E27K Coleen River 21.51 31 P 19 49 46.1 -0.2
E27K IAmb IAmb 19 50 17.6
comp=Z,7.2nm,0.8s
C26K Camden Bay 21.56 26 IAmb IAmb 19 50 17.8
comp=Z,11nm,0.7s
F28M Old Crow 21.80 34 P 19 49 48.4 -0.9
J30M Hart River 21.99 43 IAmb IAmb 19 49 53.3
comp=Z,21nm,1.4s
G29M Pine Creek 22.14 36 IAmb IAmb 19 49 54.6
comp=Z,7.8nm,0.9s
I30M Mount Dempster 22.16 41 P P 19 49 51.3 -1.8
I30M IAmb IAmb 19 50 08.2
comp=Z,11nm,0.8s
EPYK Eagle Plains 22.41 38 P P 19 49 54.1 -1.4
EPYK IAmb IAmb 19 50 29.9
comp=Z,11nm,0.8s
E29M Blow River 22.81 33 IAmb IAmb 19 50 01.0
comp=Z,14nm,0.8s
G30M tAoh Zraii Nji 22.82 37 P P 19 49 58.0 -1.4
G30M IAmb IAmb 19 50 36.9
comp=Z,11nm,1.2s
H31M Peel River 23.14 40 P 19 50 01.5 -0.9
H31M IAmb IAmb 19 50 03.3
comp=Z,9.9nm,0.9s
F30M Barrier River 23.21 35 IAmb IAmb 19 50 04.1
comp=Z,13nm,0.8s
F31M Tsiigehtchic 23.88 36 IAmb IAmb 19 50 10.1
comp=Z,13nm,0.8s
INK Inuvik 24.26 35 P 19 50 12.0 -0.4
INK IAmb IAmb 19 50 14.0
comp=Z,9.9nm,1.0s
YKA Yellowknife Ar 31.53 49 P P 19 51 17.1 -0.1
comp=Z,0.7nm,0.3s,baz=276,slow=9.2,SNR=13
comp=Z,0.7nm,0.3s
EDM Edmonton 34.75 65 P 19 51 46.3 +0.9
DCMP DeCamp, Califo 35.76 91 P P 19 51 55.6 +1.4
DCMP IAmb IAmb 19 52 05.6
comp=Z,7.0nm,1.2s
H11N2 WAKE ISLAND Hy 36.47 214 T T 20 30 31.3
baz=21,slow=75,SNR=12
H11N3 WAKE ISLAND Hy 36.48 214 T T 20 30 30.6
baz=21,slow=75,SNR=10
H11N1 WAKE ISLAND Hy 36.49 214 T T 20 30 34.1
baz=21,slow=75,SNR=10
H11S1 WAKE ISLAND Hy 37.67 214 T T 20 31 55.4
baz=20
H11S2 WAKE ISLAND Hy 37.69 214 T T 20 31 21.7
baz=20,slow=74
H11S3 WAKE ISLAND Hy 37.69 214 T T 20 31 44.6
baz=20,slow=74
MJAR Matsushiro Arr 37.88 265 P P 19 52 11.2 -0.9
comp=Z,1.0nm,0.7s,baz=45,slow=8.7,SNR=2.1
comp=Z,1.0nm,0.7s
MJAR Mashiro Arr 37.88 265 IAmb IAmb 19 52 14.6
comp=Z,6.4nm,1.4s
MAJO Matsushiro 37.88 265 P P 19 52 13.3 +1.2
PAHR Pah Rah Range 38.04 88 P P 19 52 14.7 +1.1
PAHR IAmb IAmb 19 52 48.2
comp=Z,3.3nm,0.7s
PNTR Pine Nut 38.28 89 P P 19 52 17.4 +1.7
PNTR IAmb IAmb 19 52 20.8
comp=Z,5.2nm,0.7s
WAKR Walker 38.75 90 P P 19 52 21.0 +1.4
BCYI Bear Canyon 38.98 78 P P 19 52 22.0 +0.5
MCMT McKenzie Canyo 39.03 77 P P 19 52 22.7 +0.8
NVAR Mina Array Bea 39.49 89 P P 19 52 27.4 +1.8
comp=Z,1.0nm,0.7s,baz=302,slow=7.8,SNR=5.9
comp=Z,1.0nm,0.7s
TPNV Topopah Spring 41.68 89 P P 19 52 45.0 +1.4
PRN Pahroc Range 42.12 87 P P 19 52 48.6 +1.4
PSUT Pine Spring 42.14 85 P P 19 52 48.6 +1.2
PSUT IAmb IAmb 19 53 21.1
comp=Z,6.5nm,1.5s
PD31 Pinedale Array 42.16 77 P 19 52 48.2 +0.6
PDAR Pinedale Array 42.16 77 P P 19 52 48.6 +1.0
comp=Z,0.8nm,0.5s,baz=314,slow=3.1,SNR=14
PDAR LR LR 20 07 34.1
comp=Z,120nm,18.1s,baz=56,slow=32
comp=Z,0.8nm,0.5s
GSC Goldstone, Bar 42.42 91 P P 19 52 49.7 +0.1
ULM Lac du Bonnet 45.69 61 P P 19 53 14.9 -0.5
comp=Z,2.9nm,0.5s,baz=298,slow=7.2,SNR=5.6
comp=Z,2.9nm,0.5s
ULM Lac du Bonnet 45.69 61 IAmb IAmb 19 53 45.8
comp=Z,6.6nm,1.3s
SONM Songino Array 49.66 299 P P 19 53 45.6 -0.5
comp=Z,0.3nm,0.7s,baz=70,slow=9.8,SNR=2.3
SONM PcP PcP 19 55 04.6 -0.7
comp=Z,0.3nm,0.6s,baz=57,slow=2.1,SNR=4.9
comp=Z,0.3nm,0.7s
SONM Songino Array 49.66 299 IAmb IAmb 19 53 48.6
comp=Z,0.8nm,1.0s
HHC Hu-ho-hao-te 51.17 289 eP P 19 53 57.0 -0.5
HHC pmax pmax
comp=Z,6.0nm,0.7s
HHC pmax pmax
comp=Z,78nm,4.5s
TX31 Lajitas Ar. Si 54.56 87 P P 19 54 22.8 +0.3
TX31 IAmb IAmb 19 54 57.2
comp=Z,5.8nm,1.4s
TXAR Lajitas Array 54.56 87 P P 19 54 23.5 +1.0
comp=Z,1.0nm,0.7s,baz=294,slow=4.4,SNR=9.9
comp=Z,1.0nm,0.7s
TXAR Lajitas Array 54.56 87 P P 19 54 23.3 +0.8
SSLB Suanglung 57.39 267 P P 19 54 42.2 -0.4
TPUB Ta-pu 57.95 267 P P 19 54 46.0 -0.5
KURK Kurchatov 61.05 317 P P 19 55 07.0 -0.4
KURBB Kurchatov Arra 61.16 317 P P 19 55 07.4 -0.7
comp=Z,0.9nm,0.6s,baz=45,slow=7.4,SNR=12
comp=Z,0.9nm,0.6s
WMQ Urumqi 62.00 306 eP P 19 55 15.7 +1.7
WMQ PP PP 19 57 38.4 +6.9
WMQ pmax pmax
comp=Z,19nm,0.7s
MK31 Makanchi Array 62.38 312 P P 19 55 15.2 -1.2
MKAR Makanchi Array 62.38 312 P P 19 55 14.9 -1.4
comp=Z,0.3nm,0.3s,baz=46,slow=6.2,SNR=6.4
comp=Z,0.3nm,0.3s
MKAR Makanchi Array 62.38 312 P P 19 55 15.1 -1.3
BVAR Borovoye Array 62.52 323 P P 19 55 17.0 -0.2
comp=Z,1.6nm,0.5s,baz=56,slow=7.3,SNR=6.1
comp=Z,1.6nm,0.5s
BORK Borovoye 62.53 323 P P 19 55 16.2 -1.1
BORK IAmb IAmb 19 55 33.9
comp=Z,2.4nm,0.8s
ARTI Arti 63.74 331 P P 19 55 24.0 -1.1
NOA NORSAR Array B 66.78 358 P P 19 55 43.6 -1.1
comp=Z,0.4nm,0.7s,baz=5.4,slow=6.7,SNR=2.3
comp=Z,0.4nm,0.7s
HFS Hagfors 67.62 357 P P 19 55 48.7 -1.3
comp=Z,3.2nm,1.0s,baz=34,slow=8.7,SNR=3.0
comp=Z,3.2nm,1.0s
TARG Taragay, Kyrgy 68.33 311 P P 19 55 55.4 +0.1
AB31 Akbulak array 69.35 326 P P 19 56 00.0 -0.8
ABKAR Akbulak array 69.35 326 P P 19 55 59.9 -0.9
KSH2 Kashi 71.42 311 P P 19 56 14.0 +0.2
CMAR Chiang Mai Arr 74.81 280 P P 19 56 34.1 +0.3
comp=Z,1.4nm,0.6s,baz=28,slow=6.4,SNR=9.9
comp=Z,1.4nm,0.6s
LUWI Luwuk 75.81 249 P P 19 56 38.8 -0.7
MTN Manton Dam 81.13 235 P P 19 57 08.6 0.0
MTN IAmb IAmb 19 57 33.0
comp=Z,8.2nm,1.4s
SOEI Soe 82.14 243 P P 19 57 14.1 0.0
KULM Kulim 84.01 271 P P 19 57 24.0 +0.3
IPM Ipoh 84.42 270 P P 19 57 25.6 -0.2
KNRA Kunungurra 84.73 236 P P 19 57 27.0 -0.1
KNRA IAmb IAmb 19 58 10.6
comp=Z,5.9nm,1.2s
WRA Warramunga Arr 85.68 229 P P 19 57 31.5 -0.3
comp=Z,1.3nm,0.7s,baz=32,slow=5.8,SNR=12
comp=Z,1.3nm,0.7s
WRA Warramunga Arr 85.68 229 IAmb IAmb 19 57 32.2
comp=Z,0.4nm,1.4s
ASAR Alice Springs 89.10 228 P P 19 57 48.7 +0.6
comp=Z,4.6nm,0.7s,baz=28,slow=4.8,SNR=52
comp=Z,4.6nm,0.7s
ASAR Alice Springs 89.10 228 P P 19 57 49.1 +0.9
RPN Rapa Nui 96.41 127 LR LR 20 33 44.0
comp=Z,64nm,18.8s,baz=205,slow=30
MAW Mawson 149.83 219 PKPbc PKPbc 20 04 41.5 +0.7
comp=Z,2.0nm,0.4s,baz=114,slow=3.8,SNR=5.1
BOSA Boshof 152.80 324 PKPbc PKPbc 20 04 48.9 -0.2
comp=Z,3.4nm,1.0s,baz=3.1,slow=5.2,SNR=1.0

UCR ***10*** *19:53:35.2±0.4, 10°55.N×86°.69W, h6km±211km, MW4.4, Presumed earthquake*
CATAC ***10*** *19:53:43.7±0.5, 11°N±2°×8°6W±°, h30km±4km, M3.3/28, MLv3.3/28, Error ellipse: s-maj=5.4km s-min=2.9km az=40.4, confirmed*

ISC 10 19:53:41.9±1.4, 10°.79N±0°.04×86°.41W±0°.05, h27km±13km, n47, σ0°87/67, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		ISC h m s	ISC
LCRUZ	La Cruz	0.82	69	eP	Pb	19 53 57.6	0.0
ALIBA	Liberia Airpor	0.87	103	eP	Pb	19 53 57.2	-1.2
CARN	Rivas	0.96	65	P	Pn	19 54 00.2	+0.7
CARN				S	Sb	19 54 13.3	+1.1
LAPC	Finca la Perla	0.96	91	eP	Pb	19 53 57.4	-2.5
GPS2	Hotel Rincn d	1.04	92	eP	Pn	19 53 59.8	-0.9
VORI	VORI	1.05	88	eP	Pn	19 54 00.1	-0.8
BUAI	Buenos Aires	1.06	85	eP	Pn	19 54 00.6	-0.4
MORN	Al O del Volca	1.06	45	P	Pb	19 54 02.2	+0.4
MORN				S	Sb	19 54 15.2	-0.1
CONN	Concepcion	1.09	45	P	Pn	19 54 01.5	+0.1
CONN				S	Sb	19 54 16.4	+0.3
BAGA	Bagaces	1.16	103	eP	Pn	19 53 59.4	-2.9
NANN	Nandasmo	1.18	14	P	Pb	19 54 04.5	+0.8
NANN				S	Sb	19 54 18.2	-0.4
SABN	Sabanita	1.19	12	P	Pb	19 54 03.4	-0.5
MESS	Mesas	1.20	92	eP	Pn	19 54 02.0	-0.9
CLARA	Aguas Claras	1.21	90	eP	Pn	19 54 02.5	-0.6
HORNC	Hornillas	1.21	93	eP	Pn	19 54 02.1	-1.1
CMARA	Lajas Hojancha	1.23	128	P	Pb	19 54 05.7	+1.0
CMARA				S	Sb	19 54 22.0	+1.8
VMAR	Armenia, Volca	1.27	89	eP	Pn	19 54 03.7	-0.3
TISN	Laguna Tiscapa	1.35	6	P	Pn	19 54 05.5	+0.4
MGAN	Managua	1.36	7	P	Pn	19 54 05.7	+0.6
TIMP	Tierras Morena	1.38	98	eP	Pn	19 54 04.2	-1.3
WILN	Americas 2	1.38	9	P	Pn	19 54 05.9	+0.5
WILN				S	Sn	19 54 22.6	-0.2
APQ2	Apoyeque	1.41	3	P	Pb	19 54 06.6	-0.9
APQ2				S	Sn	19 54 22.6	-0.7
TENO	El Achiote	1.41	93	eP	Pn	19 54 04.7	-1.2
APYN	Apoyeque	1.44	2	P	Pb	19 54 07.6	-0.6
APYN				S	Sn	19 54 24.5	+0.2
QUEB	Quebradon, Cot	1.50	96	eP	Pn	19 54 06.6	-0.4
LEVN	Ruinas Leon Vi	1.62	353	P	Pn	19 54 09.0	+0.3
LEVN				S	Sn	19 54 28.6	0.0
MOM2	El Cardon	1.64	358	P	Pn	19 54 09.2	+0.2
MOM2				S	Sn	19 54 28.3	-0.9
ACON	Acoyapa	1.69	46	P	Pn	19 54 10.2	+0.6
ACON				S	Sn	19 54 30.0	-0.4
VARE2	V. Arenal	1.69	101	eP	Pn	19 54 09.3	-0.5
MOM3	MOM3	1.72	357	P	Pn	19 54 10.0	-0.1
MOM3				S	Sn	19 54 31.2	+0.1
CNGA	Al SSO del Vol	1.72	351	P	Pn	19 54 09.7	-0.4
CNGA				S	Sn	19 54 30.2	-1.0
CNGN	Cerro Negro	1.73	351	P	Pn	19 54 10.2	0.0
CNGN				S	Sn	19 54 31.0	-0.3
ILCN	San Idelfonso	1.80	351	P	Pn	19 54 11.2	0.0
ILCN				S	Sn	19 54 32.5	-0.7
BOAB	BOACO BROADBAN	.81	24	P	Pn	19 54 12.1	+0.9
PLRN	Geotermica Pol	1.82	349	P	Pn	19 54 11.6	+0.1
TEL3	Telica 3	1.82	347	P	Pn	19 54 12.1	+0.6
QUEN	Al S del Volca	1.85	347	P	Pn	19 54 12.4	+0.5
QUEN				S	Sn	19 54 33.7	-0.6
TELN	Telica	1.85	347	P	Pn	19 54 12.8	+0.8
COVE	Coope Vega, Sa	1.98	92	P	Pn	19 54 15.2	+1.6
COVE				S	Sn	19 54 39.4	+1.9
CRIN	San Cristobal	2.00	342	P	Pn	19 54 14.1	+0.1
CRIN				S	Sn	19 54 37.8	-0.4
TRB2	Turrubares	2.12	114	P	Pb	19 54 19.6	-0.1
LIMN	Finca el Limon	2.26	1	P	Pn	19 54 17.7	0.0
LCR2	La Lucha 2	2.59	113	P	Pn	19 54 23.0	+0.8
CNCH	Conchagua	2.84	331	P	Pn	19 54 25.9	+0.3
CNCH				S	Sn	19 54 59.0	+0.1
LCND	La Caada	2.90	330	P	Pn	19 54 26.3	+0.1
RANC	El Ranchito	3.21	325	P	Pn	19 54 31.2	+0.5
PACA	Pacayal	3.26	325	P	Pn	19 54 30.6	-0.7
PACA				S	Sn	19 55 09.1	-0.2

IDC ***10*** *19:54:32.7±0.7, 29°.79N×139°.12E, h411km±8km, mb3.2/22, mbtmp4.1/29, Error ellipse: s-maj=11.7km s-min=9.4km az=78.0*
JMA ***10*** *19:54:33.3±0.1, 30°N±1°×13°9E±°, h439km, MV3.8/20, NEAR TORISHIMA IS*
NEIC ***10*** *19:54:34.5±2.2, 29°.81N±0°.08×139°.1E±0°.1, h424km±8km, mb4.1/60, Error ellipse: s-maj=14.4km s-min=11.5km az=96.0*

ISC 10 19:54:33.5±0.4, 29°.77N±0°.05×139°.12E±0°.06, h421km, n122, σ1°28/130, mb4.0/46, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		ISC h m s	ISC
JHJ2	Mitsune	3.38	10	P	P	19 55 43.3	+2.1
JHJ2				S	S	19 56 35.5	-0.8
JHJ2	Mitsune	3.38	10	eP	P	19 55 42.7	+1.5
JHJ2				eS	S	19 56 37.1	+0.7
CBIJ	Chichi jima	3.79	134	eP	P	19 55 45.8	+0.8
CBIJ				eS	S	19 56 42.1	-1.0
JCJ	Chichijima	3.79	134	P	P	19 55 43.1	-1.9
	41nm,0.3s,baz=1.7,slow=20,SNR=33						
JCJ				S	S	19 56 40.0	-3.2
	374nm,0.4s,baz=274,slow=22,SNR=22						
JCJ	Chichijima	3.79	134	P	P	19 55 44.9	-0.1
JCJ				S	S	19 56 42.4	-0.8
JHH2	Haha-jima-NKT2	4.13	139	eS	S	19 56 47.6	-1.1
TTO1	TONANKAI O.B.S	4.32	333	eP	P	19 55 52.1	+2.8
JTNC	Tanabenakahech	5.02	324	eP	P	19 55 59.0	+2.6
JIE	Ise	5.04	337	P	P	19 55 59.6	+3.0
JIE				eS	S	19 57 06.3	+1.7
BSO1	Boso 1	5.11	17	eS	S	19 57 04.4	-0.6
JOD2	Odawara 2	5.47	360	eP	P	19 56 02.0	+0.9
JOD2				eS	S	19 57 09.5	-3.2
INU	Inuyama	5.83	343		P	19 56 06.3	+1.5
JMN	Monobe	5.95	313		P	19 56 08.5	+2.4
JGF	Kuroka	6.00	346		P	19 56 07.8	+1.3
JTO	Tosashimizu	6.22	301	eP	P	19 56 11.7	+2.9
JRY	Ryogami san	6.23	358	P	P	19 56 09.4	+0.5
JRY				eS	S	19 57 24.1	-3.2
MJAR	Matsushiro Arr	6.79	354	P	P	19 56 14.6	-0.9
	2.8nm,0.4s,baz=170,slow=9.5,SNR=25						
MJAR				S	S	19 57 37.0	-1.5
	3.3nm,0.7s,baz=170,slow=16,SNR=4.6						
MAJO	Matsushiro	6.79	354	P	P	19 56 14.3	-1.2
MJB9	Matsu-Tunnel	6.80	354		P	19 56 15.9	+0.4
JHS	Saijyo	7.27	317	P	P	19 56 22.8	+2.1
JSU	Suzuyama	7.66	285	P	P	19 56 24.6	-0.5
JNU	Nakatsue	7.79	297	P	P	19 56 26.7	+0.2
	15nm,0.8s,baz=116,slow=3.3,SNR=10						
JSJ	Shimokoshiki	8.31	286	P	P	19 56 34.6	+2.5
JMK	Ichinoseki	9.32	10	eP	P	19 56 43.6	+0.6
JMK				eS	S	19 58 26.8	-3.1
JTU	Tsushima	9.50	302	P	P	19 56 46.5	+1.4
JOW	Kunigami	10.00	256	P	P	19 56 52.0	+1.3
	27nm,0.6s,baz=54,slow=7.2,SNR=5.5						
JOW	Kunigami	10.00	256	P	P	19 56 53.5	+2.8
JTM	Tenmabayashi	11.10	8	P	P	19 57 03.5	+0.8
KSRS	Korea Array	12.07	312	P	P	19 57 14.2	+0.9
	3.4nm,0.5s,baz=127,slow=11,SNR=15						
ERM	Erimo	12.64	14	P	P	19 57 21.4	+1.9
ASAJ	Asahikawa	14.58	10	P	P	19 57 41.5	+1.0
	12nm,0.7s,baz=176,slow=16,SNR=7.8						
JKA	Kamikawa-asahi	14.58	10	P	P	19 57 41.9	+1.3
USRK	Ussuriysk Ar.	15.47	340	P	P	19 57 50.5	+0.3
	8.8nm,0.6s,baz=163,slow=11,SNR=17						
USRK	Ussuriysk Ar.	15.47	340	P	P	19 57 49.8	-0.4

YHNB Yeheng 16.58 256 P P 19 58 01.1 -1.2
NACB Ninganchiao 16.58 255 P P 19 58 00.8 -1.5
MDJ Mudanjiang 16.63 336 P P 19 58 02.3 -0.2
MDJ IAmb IAmb 19 58 18.9
comp=Z,11nm,1.4s
YULB Yu-li 17.15 252 P P 19 58 07.3 -1.1
SSLB Suanglung 17.27 254 P P 19 58 09.3 -0.4
TPUB Ta-pu 17.75 253 P P 19 58 15.0 +0.3
KLR Kul'dur 20.23 346 P P 19 58 38.1 -0.3
comp=Z,3.0nm,0.6s,baz=160,slow=12,SNR=6.3
comp=Z,3.0nm,0.6s
ENH Enshi 25.63 279 P P 19 59 26.6 -0.8
PETK Petropavlovsk- 27.00 25 P P 19 59 40.0 +0.8
comp=Z,1.1nm,0.6s,baz=243,slow=4.4,SNR=5.1
comp=Z,1.1nm,0.6s
LZDM Lanzhou Array 30.27 291 P P 20 00 08.0 -0.5
comp=Z,1.7nm,0.4s,baz=99,slow=6.3,SNR=1.7
comp=Z,1.7nm,0.4s
ULN Ulaanbaatar 30.53 315 P P 20 00 10.1 -0.3
MA2 Magadan 30.83 12 P P 20 00 13.2 +0.6
comp=Z,6.7nm,0.6s,baz=188,slow=19,SNR=4.8
comp=Z,6.7nm,0.6s
MA2 Magadan 30.83 12 P P 20 00 12.7 +0.1
SONM Songino Array 30.92 315 P P 20 00 13.4 -0.3
comp=Z,0.3nm,0.5s,baz=122,slow=8.7,SNR=2.1
comp=Z,0.3nm,0.5s
SLVN Son La 32.76 263 P P 20 00 30.7 +0.8
SLVN IAmb IAmb 20 00 47.9
comp=Z,11nm,1.4s
FAKI Fak Fak 33.17 193 P P 20 00 34.2 +0.9
FAKI IAmb IAmb 20 00 37.3
comp=Z,7.8nm,0.9s
SEY Seymchan 34.26 11 P P 20 00 42.4 +0.4
comp=Z,3.4nm,0.8s,baz=199,slow=7.6,SNR=4.7
comp=Z,3.4nm,0.8s
LUWI Luwuk 34.39 210 P P 20 00 43.4 -0.2
LUWI IAmb IAmb 20 01 00.6
comp=Z,13nm,1.0s
CHTO Chiang Mai 38.04 263 P 20 01 14.2 +0.1
CM31 Chiang Mai Arr 38.19 262 P P 20 01 15.5 +0.2
CM31 IAmb IAmb 20 01 17.6
comp=Z,6.0nm,0.8s
CMAR Chiang Mai Arr 38.19 262 P P 20 01 15.6 +0.3
comp=Z,2.8nm,0.6s,baz=69,slow=5.0,SNR=26
comp=Z,2.8nm,0.6s
SOEI Soe 41.82 202 P P 20 01 45.4 +0.6
TIXI Tiksi 42.30 355 P P 20 01 46.8 -1.0
KULM Kulim 43.69 244 P P 20 01 60.0 +0.4
KULM IAmb IAmb 20 02 01.2
comp=Z,6.7nm,0.7s
HNR Honiara 43.84 150 P P 20 01 58.7 -1.9
IPM Ipoh 43.90 242 P P 20 02 00.3 -0.9
IPM IAmb IAmb 20 02 02.2
comp=Z,7.5nm,0.7s
EVN Everest 45.52 281 P P 20 02 14.6 +0.2
KNRA Kununurra 46.28 194 P P 20 02 20.2 +0.8
MKAR Makanchi Array 46.70 308 P P 20 02 21.6 -0.8
comp=Z,0.3nm,0.6s,baz=96,slow=12,SNR=2.9
MKAR PcP PcP 20 03 47.2 -0.8
comp=Z,0.4nm,0.5s,baz=67,slow=4.8,SNR=3.6
comp=Z,0.3nm,0.6s
MAKZ Makanchi 46.91 308 P P 20 02 23.5 -0.6
GSI Gunungsitoli 48.57 242 P 20 02 37.1 +0.2
PDGK Podgornoye 48.81 303 P P 20 02 38.2 -0.4
NRIK Noril'sk 49.18 338 P P 20 02 40.3 -0.4
comp=Z,4.2nm,0.7s,baz=90,slow=9.4,SNR=4.6
comp=Z,4.2nm,0.7s
NRIK Noril'sk 49.18 338 IAmb IAmb 20 02 41.3
comp=Z,4.2nm,0.8s
KURK Kurchatov 49.19 313 P P 20 02 40.8 -0.3
KURK Kurchatov 49.19 313 IAmb IAmb 20 02 47.8
comp=Z,1.3nm,1.0s
KURBB Kurchatov Arra 49.24 313 P P 20 02 40.8 -0.8
comp=Z,0.2nm,0.5s,baz=102,slow=7.2,SNR=5.1
comp=Z,0.2nm,0.5s
FITZ Fitzroy Crossi 49.34 197 P P 20 02 43.7 +1.2
WB0 Warramunga Arr 49.46 186 P P 20 02 44.7 +1.2
F15K North Star Dit 49.48 27 P P 20 02 44.3 +1.2
WR8 Warramunga Arr 49.64 186 P P 20 02 44.7 -0.1
WRA Warramunga Arr 49.64 186 P P 20 02 45.7 +0.9
comp=Z,0.2nm,0.4s,baz=0.5,slow=7.7,SNR=6.7
comp=Z,0.2nm,0.4s
K15K Wolf Creek Mou 49.91 32 P P 20 02 47.8 +1.5
M16K Timber Creek 50.89 34 P P 20 02 54.7 +1.1
M16K IAmb IAmb 20 02 58.7
comp=Z,8.8nm,1.2s
E19K Redstone River 52.80 26 P P 20 03 08.5 +1.2
E19K IAmb IAmb 20 03 09.1
comp=Z,7.3nm,0.6s
ASAR Alice Springs 53.37 186 P P 20 03 12.6 +0.6
comp=Z,0.2nm,0.7s,baz=24,slow=11,SNR=7.4
comp=Z,0.2nm,0.7s
ASAR Alice Springs 53.37 186 P P 20 03 13.0 +1.0
J20K Nowinta River 53.52 30 P P 20 03 14.2 +1.7
J20K IAmb IAmb 20 03 14.9
comp=Z,6.3nm,0.6s
J20K PcP PcP 20 04 14.2 +1.3
IMAR Indian Mountai 53.91 28 P P 20 03 16.5 +1.2
IMAR PcP PcP 20 04 15.6 +1.2
MBWA Marble Bar 53.97 203 P P 20 03 16.5 +0.2
MBWA IAmb IAmb 20 03 35.4
comp=Z,17nm,1.3s
BVAR Borovoye Array 54.25 316 P P 20 03 17.0 -0.9
comp=Z,0.6nm,0.5s,baz=92,slow=7.2,SNR=2.6
comp=Z,0.6nm,0.5s
KK31 Karatay Array 55.34 304 P P 20 03 25.0 -0.9
KKAR Karatay Array 55.34 304 P P 20 03 25.4 -0.5
RND Reindeer 55.81 31 P 20 03 29.1 +0.2
RND IAmb IAmb 20 03 29.9
comp=Z,4.7nm,0.8s
F24K Squaw Lake 56.37 26 IAmb IAmb 20 03 34.8
comp=Z,5.4nm,0.6s
ILAR Eielson Array 56.69 30 P P 20 03 34.3 -0.6
comp=Z,1.1nm,0.7s,baz=261,slow=5.9,SNR=13
comp=Z,1.1nm,0.7s
ILAR Eielson Array 56.69 30 P P 20 03 34.5 -0.4
E27K Coleen River 58.76 25 P P 20 03 50.1 +1.1
E27K IAmb IAmb 20 03 51.2
comp=Z,3.5nm,0.7s
BCAR Beaver Creek A 59.02 31 P 20 03 52.0 +1.1
BCAR PcP PcP 20 04 36.8 +2.2
G29M Pine Creek 60.22 27 P P 20 04 00.3 +1.4
G29M IAmb IAmb 20 04 01.2
comp=Z,6.0nm,0.8s
ARTI Arti 60.76 321 P P 20 04 01.6 -1.0
ARTI IAmb IAmb 20 04 02.2
comp=Z,4.4nm,0.6s
G30M tAoh Zraii Nji 60.92 27 P 20 04 04.0 +0.5
G30M IAmb IAmb 20 04 04.7
comp=Z,6.5nm,1.1s
I30M Mount Dempster 61.11 29 IAmb IAmb 20 04 07.1
comp=Z,2.9nm,0.6s
AB31 Akbulak array 61.30 313 P P 20 04 05.7 -0.6
ARCES ARCESS Array B 70.12 340 P P 20 05 01.5 0.0
comp=Z,2.4nm,0.6s,baz=71,slow=7.9,SNR=15
comp=Z,2.4nm,0.6s
ARCES ARCESS Array B 70.12 340 P P 20 05 01.2 -0.3
ARCES IAmb IAmb 20 05 13.4
comp=Z,6.2nm,1.1s
YKA Yellowknife Ar 71.07 28 P P 20 05 07.2 0.0
comp=Z,1.9nm,0.6s,baz=301,slow=6.1,SNR=4.5
comp=Z,1.9nm,0.6s
FIA1 FINESS Array S 74.35 333 P P 20 05 25.6 -0.6
FINES FINESS Array B 74.35 333 P P 20 05 25.4 -0.8
comp=Z,1.4nm,0.5s,baz=75,slow=5.0,SNR=17
comp=Z,1.4nm,0.5s
FINES FINESS Array B 74.35 333 P P 20 05 25.8 -0.5
KSXB Camp Six Broad 75.58 50 P P 20 05 35.7 +1.9
L04D Klamath Falls 76.44 49 P P 20 05 40.0 +1.4
L04D IAmb IAmb 20 05 43.9
comp=Z,9.1nm,1.2s
O02D Mt. Diablo Mer 77.07 51 P P 20 05 43.9 +1.9
BEKR Beckworth 78.86 50 P P 20 05 53.0 +1.1
BEKR IAmb IAmb 20 05 53.6
comp=Z,2.8nm,0.7s
HFS Hagfors 79.89 336 P P 20 05 55.8 -1.0
comp=Z,1.3nm,0.4s,baz=79,slow=3.2,SNR=12
comp=Z,1.3nm,0.4s
NC405 NORSAR Array S 79.89 337 P P 20 05 56.1 -0.7
NC405 IAmb IAmb 20 05 57.3
comp=Z,8.8nm,1.1s
NB201 NORSAR Array S 80.08 337 P P 20 05 57.1 -0.7
NB2 NORSAR Subarra 80.12 337 P P 20 05 57.2 -0.8
comp=Z,0.7nm,0.5s,baz=49,slow=4.6
NOA NORSAR Array B 80.12 337 P P 20 05 57.4 -0.6
comp=Z,1.8nm,0.8s,baz=49,slow=4.8,SNR=6.5
comp=Z,1.8nm,0.8s
WAKR Walker 80.16 51 P P 20 06 00.0 +1.2
WAKR IAmb IAmb 20 06 00.7
comp=Z,1.6nm,0.6s
NVAR Mina Array Bea 80.96 51 P P 20 06 04.0 +0.9
comp=Z,1.8nm,0.7s,baz=280,slow=5.3,SNR=13
comp=Z,1.8nm,0.7s
BUR08 Bucovina Ar. S 82.78 321 P P 20 06 12.0 -0.2
BUR08 IAmb IAmb 20 06 29.7
comp=Z,4.3nm,1.4s
BURAR Bucovina Array 82.79 321 P P 20 06 11.4 -0.7
TPNV Topopah Spring 83.12 51 IAmb IAmb 20 06 16.4
comp=Z,4.5nm,0.8s
GWY Greenwater Val 83.24 52 IAmb IAmb 20 06 16.6
comp=Z,3.9nm,0.9s
GERES GERESS Array B 87.82 327 P P 20 06 35.0 -1.6
comp=Z,0.3nm,0.5s,baz=78,slow=3.5,SNR=3.7
comp=Z,0.3nm,0.5s
EPLO Experimental L 88.03 31 P P 20 06 37.5 0.0
EPLO IAmb IAmb 20 06 42.0
comp=Z,4.4nm,1.3s
TXAR Lajitas Array 96.11 51 P P 20 07 16.3 +1.2
comp=Z,0.4nm,0.6s,baz=319,slow=3.7,SNR=5.0
comp=Z,0.4nm,0.6s

*IDC **10** 19:57:53.8±1.0, 32°.54N×138°.16E, h319km±15km, mb2.8/5, mbtmp3.8/11, Error ellipse: s-maj=30.7km s-min=11.5km az=66.0*
*JMA **10** 19:57:54.6±0.2, 33°.N±3°×13°.8E±°, h364km, MV3.3/27, FAR S OFF TOKAI DISTRICT*
ISC 10 19:57:56.1±1.0, 32°.83N±0°.09×138°.00E±0°.08, h350km, n24, σ1§41/28, mb3.0/5, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TTO3	**TONANKAI O.B.S**	**1.15**	**334**	*eP*	**Pn**	**19 58 44.0**	**+1.7**
TTO2	**TONANKAI O.B.S**	**1.22**	**318**	P	**Pn**	**19 58 43.8**	**+1.5**
TTO1	**TONANKAI O.B.S**	**1.29**	**308**	*eP*	**Pn**	**19 58 43.7**	**+1.0**
JHJ2	**Mitsune**	**1.55**	**79**	*eP*	**Pn**	**19 58 44.9**	**+0.4**
JHJ2				*eS*	**S**	**19 59 24.2**	**+0.8**
JIE	**Ise**	**1.90**	**326**	P	**Pn**	**19 58 47.6**	**+1.0**
JKN2	**Miekihoku**	**2.02**	**315**	P	**Pn**	**19 58 48.0**	**+0.6**
JTNC	**Tanabenakahech**	**2.23**	**297**	P	**Pn**	**19 58 49.2**	**+0.1**
JWV	**Kouya**	**2.44**	**305**	P	**Pn**	**19 58 51.6**	**+0.8**
JOD2	**Odawara 2**	**2.59**	**20**	*eP*	**Pn**	**19 58 53.0**	**+1.1**
BSO4	**Boso 4**	**2.90**	**41**	*eP*	**Pn**	**19 58 54.1**	**-0.3**
BSO4				*eS*	**S**	**19 59 42.7**	**+1.4**
JRY	**Ryogami san**	**3.27**	**13**	*eP*	**Pn**	**19 58 59.4**	**+1.6**
JRY				*eS*	**S**	**19 59 49.4**	**+1.8**
MJAR	**Matsushiro Arr**	**3.71**	**3**	P	**Pn**	**19 59 02.1**	**0.0**
	3.6nm,0.4s,baz=179,slow=10,SNR=9.4						
MJAR				S	**S**	**19 59 55.0**	**-0.4**
	2.0nm,0.7s,baz=318,slow=16,SNR=1.2						
JAG	**Ashikaga**	**3.78**	**18**	*eP*	**Pn**	**19 59 02.8**	**-0.1**
JAG				*eS*	**S**	**19 59 53.9**	**-2.8**
JHO	**Hitachi**	**4.33**	**29**	*eP*	**Pn**	**19 59 07.6**	**-0.8**
JHO				*eS*	**S**	**20 00 02.8**	**-4.0**
JNU	**Nakatsue**	**5.99**	**275**	P	**Pn**	**19 59 25.6**	**-1.3**
	5.3nm,0.8s,baz=90,slow=7.1,SNR=2.3						
JCJ	**Chichijima**	**6.77**	**146**	P	Pn	19 59 29.1	-6.8
	65nm,0.9s,baz=312,slow=21,SNR=1.2						
JCJ				S	S	20 00 44.0	-13
	101nm,0.9s,baz=311,slow=23,SNR=2.0						
KSRS	**Korea Array**	**9.45**	**302**	P	**P**	**20 00 08.4**	**-1.0**
	4.6nm,1.0s,baz=119,slow=12,SNR=9.2						
ASAJ	**Asahikawa**	**11.83**	**16**	P	**Pn**	**20 00 36.2**	**+0.5**
	14nm,1.0s,baz=194,slow=11,SNR=1.9						
USRK	**Ussuriysk Ar.**	**12.29**	**339**	P	**Pn**	**20 00 42.3**	**+1.3**
	3.1nm,0.5s,baz=150,slow=11,SNR=8.3						
SONM	**Songino Array**	**28.14**	**312**	P	P	20 03 21.2	+4.0
	1.0nm,0.6s,baz=121,slow=8.6,SNR=7.9						
	1.0nm,0.6s						
MKAR	**Makanchi Array**	**44.12**	**305**	P	**P**	**20 05 31.9**	**+1.0**
	0.2nm,0.4s,baz=94,slow=7.5,SNR=1.6						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**46.50**	**311**	P	**P**	**20 05 50.0**	**+0.7**
	0.1nm,0.4s,baz=91,slow=9.1,SNR=1.9						
	0.1nm,0.4s						
WRA	**Warramunga Arr**	**52.59**	**184**	P	**P**	**20 06 34.2**	**-1.0**
	0.3nm,0.3s,baz=0.6,slow=7.5,SNR=6.6						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**56.31**	**185**	P	**P**	**20 07 00.7**	**-0.9**
	0.5nm,0.8s,baz=358,slow=8.3,SNR=2.7						
	0.5nm,0.8s						

*ISK **10** 20:03:06.9, 37°.83N×26°.95E, h14km, ML2.2/20*
*THE **10** 20:03:08.1, 37°.8N±0°.8×27°.0E±0°.8, h8km±1km, M2.5/7, MLh2.5/7*
ISC 10 20:03:07.7±0.9, 37°.84N±0°.02×26°.97E±0°.03, h15km±7km, n27, σ0°.44/37, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**220**	P	**Pg**	**20 03 11.8**	**-0.2**
SMG				S	**Sg**	**20 03 14.7**	**0.0**
SMG					AML		
GMLD	**Gumuldur**	**0.24**	**349**	Pg	**Pg**	**20 03 13.0**	**-0.1**
GMLD				Sg	**Sg**	**20 03 16.5**	**-0.2**
GMLD					AML		
GCAM	**G?zelcaml?**	**0.25**	**124**	Pg	**Pb**	**20 03 13.3**	**-0.6**
GCAM				Sg	**Sg**	**20 03 17.6**	**+0.8**
GCAM					AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**85**	Pg	**Pg**	**20 03 12.9**	**-0.3**
KUSD				Sg	**Sg**	**20 03 16.8**	**-0.1**
KUSD					AML		
BLCB	**Balcova**	**0.55**	**6**	P	**Pg**	**20 03 18.4**	**-0.3**
BLCB				S	**Sb**	**20 03 26.4**	**-0.3**
BLCB	**Balcova**	**0.55**	**6**	Pg	**Pg**	**20 03 18.3**	**-0.3**
BLCB					AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**81**	Pg	**Pb**	**20 03 22.2**	**-0.1**
AYDB					AML		
YKAV	**Yalikavak-Bodr**	**0.75**	**161**	Pg	**Pg**	**20 03 21.7**	**-0.7**
YKAV					AML		
BODT	**Bodrum**	**0.82**	**161**	P	**Pg**	**20 03 23.5**	**-0.2**
BODT				S	**Sb**	**20 03 35.4**	**+0.9**
BODT					AML		
BODT	**Bodrum**	**0.82**	**161**	Pg	**Pg**	**20 03 23.1**	**-0.6**
BODT					AML		
KRBN	**Karaburun**	**0.82**	**336**	Pg	**Pb**	**20 03 23.7**	**0.0**
KRBN					AML		
MLSB	**Milas**	**0.84**	**130**	Pg	**Pb**	**20 03 23.9**	**-0.1**
MLSB					AML		
FOCM	**Foa**	**0.89**	**348**	Pg	**Pg**	**20 03 24.8**	**-0.3**
FOCM					AML		
CHOS	**Chios island**	**0.91**	**307**	P	**Pn**	**20 03 25.8**	**-0.2**
CHOS				S	**Sb**	**20 03 38.3**	**+1.2**
CHOS					AML		
NAZL	**Nazilli-Aydin**	**1.05**	**83**	Pg	**Pg**	**20 03 27.8**	**-0.3**
NAZL					AML		
GOMA	**Golmarmara-Man**	**1.14**	**40**	Pn	**Pn**	**20 03 29.4**	**+0.3**
GOMA					AML		
DAT	**Datca**	**1.21**	**156**	Pn	**Pn**	**20 03 29.8**	**-0.3**
DAT					AML		
AKS	**Akhisar**	**1.23**	**32**	Pn	**Pn**	**20 03 30.7**	**+0.3**
AKS					AML		
YER	**Yerkesik**	**1.26**	**124**	P	**Pb**	**20 03 31.4**	**+0.2**
YER				S	**Sb**	**20 03 47.3**	**+0.2**
YER	**Yerkesik**	**1.26**	**124**	Pn	**Pn**	**20 03 30.7**	**-0.1**
YER					AML		
APE	**Apeiranthos**	**1.38**	**237**	P	**Pb**	**20 03 33.5**	**+0.3**
APE				S	**Sg**	**20 03 51.9**	**-0.4**
APE					AML		
SOMA	**Soma-Manisa**	**1.39**	**18**	Pn	**Pn**	**20 03 32.7**	**+0.2**
SOMA					AML		
GORD	**Gordes-Manisa**	**1.43**	**41**	Pn	**Pn**	**20 03 33.5**	**+0.4**
GORD					AML		
TURN	**Turunc**	**1.47**	**136**	Pn	**Pn**	**20 03 33.4**	**-0.2**
TURN					AML		
PRK	**Paraskevi**	**1.51**	**339**	P	**Pb**	**20 03 35.2**	**-0.2**
PRK				S	**Sg**	**20 03 55.6**	**-0.8**
DALY	**Dalyan (Mula)**	**1.68**	**127**	Pn	**Pn**	**20 03 36.9**	**+0.3**
DALY					AML		
APMY	**Acipayam-Deniz**	**1.88**	**100**	Pn	**Pn**	**20 03 39.9**	**+0.5**

*IDC **10** 20:10:12.8±1.4, 11°.10N×85°.78W, h0km, mb3.9/7, mbtmp3.9/7, MS3.6/6, Error ellipse: s-maj=43.5km s-min=33.7km az=35.0*
*UCR **10** 20:10:12.2±0.5, 10°.55N×86°.67W, h12km±19km, MW4.9, Presumed earthquake*

*CATAC **10** 20:10:14.2±0.5, 11°.N±2°×8°.7W±°, h14km±3km, M4.3/31, MLv4.3/31, Error ellipse: s-maj=5.9km s-min=2.8km az=42.2, confirmed*
*NEIC **10** 20:10:17.6±1.4, 10°.78N±0°.06×86°.32W±0°.04, h26km±3km, mb4.5/48, Error ellipse: s-maj=9.7km s-min=5.2km az=196.0*
ISC 10 20:10:15.4±1.5, 10°.62N±0°.05×86°.52W±0°.05, h27km±10km, n142, σ1§52/153, mb4.5/27, MS3.6/6, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ALIBA	**Liberia Airpor**	**0.96**	**92**	*eP*	**Pb**	**20 10 33.4**	**+0.1**
LCRUZ	**La Cruz**	**0.98**	**62**	*eP*	**Pb**	**20 10 33.6**	**-0.2**
ERIA	**Liberia**	**1.06**	**89**	*eP*	**Pn**	**20 10 34.9**	**+0.4**
LAPC	**Finca la Perla**	**1.08**	**82**	*eP*	**Pn**	**20 10 33.6**	**-1.1**
CARN	**Rivas**	**1.13**	**60**	P	**Pb**	**20 10 36.1**	**-0.3**
CARN				S	**Sb**	**20 10 52.7**	**+2.1**
CARN	**Rivas**	**1.13**	**60**		**Pb**	**20 10 36.0**	**-0.3**
CARN				Sn	**Sn**	**20 10 44.4**	**-5.6**
CARN	**Rivas**	**1.13**	**60**	*eP*	**Pb**	**20 10 36.0**	**-0.3**
GPS3	**Bodega del ICE**	**1.14**	**83**	*eP*	**Pb**	**20 10 36.6**	**+0.1**
VRLE	**La Escondida,**	**1.15**	**81**	*eP*	**Pn**	**20 10 35.8**	**+0.1**
GPS2	**Hotel Rincn d**	**1.15**	**83**	*eP*	**Pn**	**20 10 36.0**	**+0.2**
NICO	**Nicoya**	**1.16**	**115**	*eP*	**Pn**	**20 10 34.8**	**-1.0**
VORI	**VORI**	**1.17**	**80**	*eP*	**Pn**	**20 10 36.3**	**+0.2**
BUAI	**Buenos Aires**	**1.19**	**78**	*eP*	**Pb**	**20 10 37.1**	**-0.3**
PEJA	**Penjamo Buenos**	**1.22**	**77**	*eP*	**Pb**	**20 10 37.5**	**-0.3**
NADN	**Granada**	**1.22**	**23**	P	**Pb**	**20 10 37.0**	**-0.9**
NADN				S	**Sb**	**20 10 55.5**	**+2.3**
NADN	**Granada**	**1.22**	**23**	*eP*	**Pb**	**20 10 36.9**	**-0.9**
CMARA	**Lajas Hojancha**	**1.23**	**119**	P	**Pn**	**20 10 36.2**	**-0.7**
CMARA				S	**Sn**	**20 10 51.6**	**-1.0**
CMARA	**Lajas Hojancha**	**1.23**	**119**	*eP*	**Pn**	**20 10 36.1**	**-0.8**
BAGA	**Bagaces**	**1.24**	**94**	*eP*	**Pn**	**20 10 37.4**	**+0.4**
MORN	**Al O del Volca**	**1.26**	**43**	P	**Pn**	**20 10 38.1**	**-0.4**
CONN	**Concepcion**	**1.28**	**43**	P	**Pn**	**20 10 37.6**	**0.0**
CONN				S	**Sb**	**20 10 57.2**	**+2.1**
COLC	**Colonia**	**1.29**	**88**	*eP*	**Pn**	**20 10 38.0**	**+0.3**
MESS	**Mesas**	**1.31**	**85**	*eP*	**Pn**	**20 10 38.2**	**+0.3**
HORNC	**Hornillas**	**1.32**	**86**	*eP*	**Pn**	**20 10 38.4**	**+0.2**
CLARA	**Aguas Claras**	**1.33**	**83**	*eP*	**Pn**	**20 10 38.6**	**+0.4**
CUI	**Cuipilapa**	**1.33**	**88**	*eP*	**Pn**	**20 10 38.6**	**+0.3**
NANN	**Nandasmo**	**1.37**	**16**	P	**Pb**	**20 10 40.7**	**+0.3**
VMAR	**Armenia, Volca**	**1.39**	**82**	*eP*	**Pn**	**20 10 39.8**	**+0.7**
MASN	**Masaya**	**1.41**	**15**	P	**Pn**	**20 10 39.6**	**+0.3**
MASN				S	**Sb**	**20 11 00.7**	**+2.1**
MAS3	**Al N del Volca**	**1.44**	**13**	P	**Pb**	**20 10 40.2**	**-1.3**
TIMP	**Tierras Morena**	**1.47**	**91**	*eP*	**Pn**	**20 10 40.5**	**+0.2**
UPAL	**Upala**	**1.50**	**79**	P	**Pn**	**20 10 41.6**	**+0.9**
UPAL				S	**Sb**	**20 11 02.4**	**+1.0**
UPAL	**Upala**	**1.50**	**79**	*eP*	**Pn**	**20 10 41.5**	**+0.9**
TENO	**El Achiote**	**1.52**	**87**	*eP*	**Pn**	**20 10 40.8**	**0.0**
TISN	**Laguna Tiscapa**	**1.53**	**9**	P	**Pn**	**20 10 41.6**	**+0.5**
MGAN	**Managua**	**1.54**	**10**	P	**Pb**	**20 10 42.4**	**-1.0**
MGAN	**Managua**	**1.54**	**10**		**Pb**	**20 10 41.9**	**-1.4**
JTS	**Las Juntas de**	**1.57**	**102**		**Pn**	**20 10 41.3**	**-0.3**
COTE	**Lago Cote**	**1.57**	**91**	*eP*	**Pn**	**20 10 42.2**	**+0.6**
QUEB	**Quebradon, Cot**	**1.59**	**90**	*eP*	**Pn**	**20 10 42.5**	**+0.6**
APYN	**Apoyeque**	**1.61**	**6**	P	**Pb**	**20 10 43.2**	**-1.4**
CASO	**Castillo**	**1.76**	**96**	*eP*	**Pn**	**20 10 45.1**	**+0.8**
LEVN	**Ruinas Leon Vi**	**1.77**	**357**	P	**Pb**	**20 10 45.5**	**-1.7**
ARE1	**Arenal 1**	**1.78**	**95**	*eP*	**Pn**	**20 10 45.8**	**+1.4**
VARE2	**V. Arenal**	**1.78**	**95**	*eP*	**Pn**	**20 10 45.4**	**+1.0**
MOM2	**El Cardon**	**1.81**	**1**	P	**Pn**	**20 10 45.8**	**+1.0**
LCHIL	**Los Chiles**	**1.82**	**77**	*eP*	**Pn**	**20 10 45.5**	**+0.6**
ACON	**Acoyapa**	**1.88**	**44**	P	**Pn**	**20 10 46.3**	**+0.6**
PACN	**Al O del Volca**	**1.89**	**352**	P	**Pn**	**20 10 46.0**	**+0.1**
ILCN	**San Idelfonso**	**1.95**	**355**	P	**Pn**	**20 10 47.6**	**+0.8**
BOAB	**BOACO BROADBAN**	**2.00**	**25**		**Pn**	**20 10 47.9**	**+0.4**
HERN	**Volcan Telica**	**2.00**	**351**		**Pn**	**20 10 48.1**	**+0.6**
CRIN	**San Cristobal**	**2.13**	**346**	P	**Pn**	**20 10 50.1**	**+0.7**
CRIN				S	**Sb**	**20 11 18.0**	**-1.5**
CRIN	**San Cristobal**	**2.13**	**346**		**Pn**	**20 10 49.9**	**+0.5**
LIMN	**Finca el Limon**	**2.43**	**3**	P	**Pn**	**20 10 54.4**	**+0.9**
HDC	**Heredia**	**2.44**	**104**	P	**Pn**	**20 10 56.3**	**+2.6**
HDC	**Heredia**	**2.44**	**104**		**Pn**	**20 10 55.4**	**+1.7**
CSGN	**Cosiguina Volc**	**2.55**	**337**	P	**Pn**	**20 10 56.1**	**+0.9**
CSGN				S	**Sb**	**20 11 27.9**	**-3.8**
POTN	**Potosi Cosigui**	**2.56**	**338**	P	**Pn**	**20 10 56.6**	**+1.6**
LCR2	**La Lucha 2**	**2.62**	**109**	P	**Pn**	**20 10 56.9**	**+0.7**
LCR2				S	**Sn**	**20 11 29.9**	**+2.7**
LCR2	**La Lucha 2**	**2.62**	**109**		**Pn**	**20 10 57.1**	**+0.9**
VICA	**Volcano Irazu**	**2.71**	**103**	*eP*	**Pn**	**20 10 58.8**	**+1.2**
TRT2	**Tortugero**	**2.74**	**91**	P	**Pn**	**20 10 59.2**	**+1.7**
CVTG	**V. Turrialba,**	**2.74**	**100**	*eP*	**Pb**	**20 11 01.1**	**-2.7**
RAFA	**San Farael, Vo**	**2.74**	**104**		**Pn**	**20 10 59.1**	**+1.2**
EGUB	**Earth Gujpi**	**2.91**	**98**		**Pn**	**20 11 00.9**	**+0.9**
RCFN	**Al S de San Ju**	**2.91**	**6**	P	**Pn**	**20 11 00.6**	**+0.5**
RCPN	**Sur Rio San Ju**	**2.92**	**8**	P	**Pn**	**20 11 02.2**	**+2.0**
CNCH	**Conchagua**	**2.94**	**334**	P	**Pn**	**20 11 01.8**	**+1.4**
CNCH				S	**Sn**	**20 11 37.3**	**+2.4**
RCVN	**Varillal2**	**2.96**	**6**	P	**Pn**	**20 11 02.3**	**+1.5**
RCVN				S	**Sn**	**20 11 38.1**	**+2.5**
LCND	**La Caada**	**2.99**	**333**	P	**Pn**	**20 11 02.3**	**+1.2**
OCON	**Estacion meteo**	**2.99**	**1**	P	**Pn**	**20 11 02.9**	**+1.7**
BLUN	**Bluefields**	**3.02**	**63**	P	**Pn**	**20 11 02.4**	**+0.9**
BLUN				S	**Sn**	**20 11 40.4**	**+3.5**
OCHAL	**Ojochal**	**3.21**	**118**	P	**Pn**	**20 11 05.6**	**+1.5**
OCHAL				S	**Sn**	**20 11 41.3**	**-0.2**
TGUH	**Tegucigalpa,Un**	**3.50**	**348**		**Pn**	**20 11 08.8**	**+0.7**
SIUN	**Universidad Ur**	**3.52**	**29**		**Pn**	**20 11 07.1**	**-1.3**
PIRO	**Carate, Puerto**	**3.83**	**125**		**Pn**	**20 11 14.3**	**+1.6**
TEIG	**Tepich**	**9.70**	**350**	Pn	**Pn**	**20 12 29.2**	**-4.0**
SJCC	**San Jacinto, C**	**11.18**	**93**	Pn	**Pn**	**20 12 50.0**	**-3.7**
152A	**Waverly Hall**	**22.01**	**4**	P	**P**	**20 15 07.7**	**+0.1**
152A				IAmb	IAmb	20 15 11.2	
	comp=Z,15nm,0.7s						
GOGA	**Godfrey**	**22.86**	**7**	P	**P**	**20 15 16.7**	**+0.1**
GOGA				IAmb	IAmb	20 15 50.8	
	comp=Z,15nm,1.2s						
Y49A	**Blount Mountai**	**23.13**	**0**	P	**P**	**20 15 19.5**	**0.0**
Y49A				IAmb	IAmb	20 15 21.8	
	comp=Z,12nm,0.7s						
Y52A	**Lilburn**	**23.25**	**5**	P	**P**	**20 15 20.5**	**-0.1**
Y52A				IAmb	IAmb	20 15 22.2	
	comp=Z,20nm,1.0s					

V58A					IAmb	IAmb	20 15 46.7			
	comp=Z,13nm,0.6s									
LPIG	**La Paz**	**26.31**	**304**		LR	LR	20 27 23.0			
	comp=Z,98nm,19.3s,baz=358,slow=39									
WMOK	**Wichita Mounta**	**26.49**	**337**		P	**P**	**20 15 52.5**	**+2.0**		
WMOK					IAmb	IAmb	20 15 54.7			
	comp=Z,7.5nm,0.8s									
T42A	**Van Buren**	**26.62**	**352**		P	**P**	**20 15 51.0**	**-0.6**		
S51A	**Beattyville**	**27.03**	**5**		P	**P**	**20 15 55.3**	**-0.1**		
S51A					IAmb	IAmb	20 15 59.5			
	comp=Z,14nm,1.1s									
BOAV	**Boa Vista**	**27.07**	**106**		P	**P**	**20 15 55.8**	**-0.1**		
CCM	**Cathedral Cave**	**27.65**	**352**		P	**P**	**20 15 60.0**	**-0.9**		
R55A	**Marlinton**	**28.14**	**11**		P	**P**	**20 16 04.8**	**-0.6**		
Q51A	**Peebles**	**28.43**	**5**		P	**P**	**20 16 07.5**	**-0.4**		
Q54A	**Coxs Mills**	**28.70**	**9**		P	**P**	**20 16 10.4**	**+0.2**		
Q54A					IAmb	IAmb	20 16 11.5			
	comp=Z,10nm,0.7s									
P53A	**Whipple**	**29.11**	**8**		P	**P**	**20 16 14.4**	**+0.5**		
P52A	**Corning**	**29.16**	**7**		P	**P**	**20 16 13.9**	**-0.4**		
O52A	**Adamsville**	**29.67**	**7**		P	**P**	**20 16 18.5**	**-0.3**		
O53A	**New Philadelph**	**29.88**	**8**		P	**P**	**20 16 20.6**	**-0.1**		
N49A	**Columbus Grove**	**30.25**	**4**		P	**P**	**20 16 23.1**	**-0.9**		
N53A	**Lisbon**	**30.48**	**9**		P	**P**	**20 16 25.6**	**-0.5**		
SSPA	**Standing Stone**	**30.86**	**13**		P	**P**	**20 16 29.2**	**-0.1**		
SSPA					IAmb	IAmb	20 16 30.3			
	comp=Z,6.3nm,0.7s									
L42A	**Oliver, Polo**	**31.38**	**355**		P	**P**	**20 16 32.6**	**-1.3**		
PV03	**Paradox Valley**	**34.02**	**328**		P	**P**	**20 16 59.1**	**+1.8**		
PV05	**Paradox Valley**	**34.02**	**327**		P	**P**	**20 16 59.0**	**+1.6**		
PV18	**Skein Mesa, Pa**	**34.05**	**328**		P	**P**	**20 16 59.0**	**+1.4**		
G62A	**West of Eustis**	**37.11**	**19**		P	**P**	**20 17 23.0**	**-0.6**		
PDAR	**Pinedale Array**	**37.81**	**332**		P	**P**	**20 17 30.5**	**+0.7**		
	comp=Z,0.7nm,0.7s,baz=125,slow=9.3,SNR=9.4									
PDAR					PcP	**PcP**	**20 19 48.7**	**+2.5**		
	comp=Z,0.3nm,0.5s,baz=190,slow=3.1,SNR=4.1									
	comp=Z,0.7nm,0.7s									
EPLO	**Experimental L**	**39.39**	**353**		P	**P**	**20 17 40.3**	**-2.4**		
EPLO					IAmb	IAmb	20 17 41.7			
	comp=Z,6.2nm,0.9s									
NVAR	**Mina Array Bea**	**39.68**	**320**		P	**P**	**20 17 48.9**	**+3.4**		
	comp=Z,1.2nm,0.7s,baz=138,slow=7.5,SNR=8.4									
NVAR					PcP	**PcP**	**20 19 55.8**	**+3.7**		
	comp=Z,2.0nm,0.7s,baz=109,slow=3.1,SNR=13									
	comp=Z,1.2nm,0.7s									
LMN	**Caledonia Moun**	**39.71**	**24**		P	**P**	**20 17 43.7**	**-1.7**		
LMN					IAmb	IAmb	20 18 20.7			
	comp=Z,21nm,1.4s									
ULM	**Lac du Bonnet**	**40.26**	**351**		LR	LR	20 34 35.5			
	comp=Z,116nm,18.4s,baz=189,slow=37									
BCYI	**Bear Canyon**	**40.80**	**330**		P	**P**	**20 17 56.0**	**+1.2**		
WVOR	**Wild Horse Val**	**42.31**	**324**		P	**P**	**20 18 08.3**	**+1.3**		
SCHQ	**Schefferville**	**46.77**	**16**		P	**P**	**20 18 40.1**	**-2.2**		
	comp=Z,3.9nm,0.7s,baz=225,slow=5.7,SNR=4.3									
	comp=Z,3.9nm,0.7s									
SCHQ	**Schefferville**	**46.77**	**16**		P	**P**	**20 18 39.9**	**-2.5**		
RES	**Resolute Bay**	**64.22**	**358**		LR	LR	20 48 47.5			
	comp=Z,31nm,18.3s,baz=314,slow=36									
ILAR	**Eielson Array**	**68.05**	**336**		P	**P**	**20 21 11.9**	**-0.3**		
	comp=Z,0.3nm,0.6s,baz=130,slow=3.6,SNR=7.2									
	comp=Z,0.3nm,0.6s									
ILAR	**Eielson Array**	**68.05**	**336**		P	**P**	**20 21 12.0**	**-0.3**		
ESDC	**Sonseca Array**	**77.60**	**52**		P	**P**	**20 22 06.1**	**-3.4**		
	comp=Z,0.4nm,0.8s,baz=300,slow=5.9,SNR=2.6									
	comp=Z,0.4nm,0.8s									
SPITS	**Spitsbergen Ar**	**82.30**	**12**		LR	LR	21 01 02.7			
	comp=Z,27nm,19.7s,baz=294,slow=37									
TIXI	**Tiksi**	**94.60**	**349**		LR	LR	21 10 03.1			
	comp=Z,23nm,18.1s,baz=14,slow=38									
NRIK	**Noril'sk**	**100.13**	**2**		LR	LR	21 12 01.5			
	comp=Z,36nm,18.2s,baz=360,slow=37									
KSRS	**Korea Array**	**122.30**	**328**		PKP	**PKPdf**	**20 29 08.2**	**-0.2**		
	comp=Z,1.1nm,0.6s,baz=15,slow=2.2,SNR=5.8									
ASAR	**Alice Springs**	**139.40**	**246**		PKP	**PKPdf**	**20 29 42.3**	**+1.2**		
	comp=Z,0.4nm,0.6s,baz=109,slow=1.7,SNR=7.4									
WRA	**Warramunga Arr**	**139.60**	**252**		PKP	**PKiKP**	**20 29 43.8**	**-0.1**		
	comp=Z,0.6nm,0.7s,baz=94,slow=2.4,SNR=7.2									
CMAR	**Chiang Mai Arr**	**150.61**	**349**		PKPbc	**PKPbc**	**20 30 05.5**	**-0.3**		
	comp=Z,1.3nm,0.8s,baz=337,slow=3.2,SNR=9.2									

*NEIC **10** 20:12:27.5±1.6, 15°.2N±0°.1×104°.4W±0°.1, h10km±2km, mb4.4/78, Error ellipse: s-maj=19.4km s-min=16.2km az=235.0*
*MEX **10** 20:12:34.3±0.5, 15°.33N×104°.07W, h10km, MD4.4, Presumed earthquake*

ISC 10 20:12:30.7±1.0, 15°.27N±0°.09×104°.34W±0°.08, h35km, n88, σ1°.54/90, mb4.3/13, Off coast of Michoacan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMIG	**Aquila**	**3.15**	**17**	***eP***	**Pn**	**20 13 18.8**	**+1.0**
MMIG				*eS*	**Sn**	20 13 54.9	**+0.8**
ZIIG	**Zihuatanejo**	**3.60**	**50**	***eP***	**Pn**	**20 13 24.9**	**+0.9**
ZIIG				*eS*	**Sn**	**20 14 03.6**	**-1.7**
CIHU	**Emiliano Zapat**	**3.99**	**355**	***eP***	**Pn**	**20 13 32.7**	**+3.4**
CIHU				*eS*	**Sn**	**20 14 10.6**	**-4.3**
CEGR	**Campo Tres**	**4.12**	**6**	***eP***	**Pn**	**20 13 34.6**	**+3.3**
CEGR				*eS*	Sn	20 14 27.2	+8.8
INCO	**Volcan de Coli**	**4.29**	**9**	***eP***	Pn	20 13 39.4	+5.6
INCO				*eS*	Sn	20 14 32.5	+10
CAIG	**El Cayaco**	**4.29**	**65**	***eP***	**Pn**	**20 13 34.1**	**+0.6**
DAIG	**Los Arroyos**	**4.83**	**68**	***eP***	**Pn**	**20 13 40.0**	**-0.9**
ARIG	**Puente Sto Nin**	**4.85**	**51**	***eP***	**Pn**	**20 13 44.6**	**+3.3**
ARIG				*eS*	**Sn**	**20 14 35.8**	**-0.5**
ESTA	**Talpa de Allen**	**5.12**	**355**	***eP***	**Pn**	**20 13 47.9**	**+2.9**
MEIG	**Mezcala**	**5.24**	**59**	***eP***	**Pn**	**20 13 46.0**	**-0.6**
YELA	**Yelapa**	**5.28**	**348**	***eP***	Pn	20 13 53.3	+6.1
MOIG	**Morelia**	**5.31**	**34**	Pn	**Pn**	**20 13 47.4**	**-0.3**
MOIG				Sn	**Sn**	**20 14 52.2**	**+4.4**
MOIG	**Morelia**	**5.31**	**34**	***eP***	**Pn**	**20 13 49.0**	**+1.2**
PLIG	**Platanillo**	**5.57**	**56**	***eP***	**Pn**	**20 13 50.6**	**-0.6**
TLIG	**Tlapa**	**5.99**	**67**	Pn	**Pn**	**20 13 57.0**	**+0.1**
ZAIG	**Zacatecas**	**7.64**	**12**		**Pn**	**20 14 18.7**	**-1.1**
HPIG		**11.67**	**354**		**Pn**	**20 15 12.2**	**-2.7**
TXAR	**Lajitas Array**	**14.01**	**2**		**Pn**	**20 15 42.8**	**-4.0**
TX31	**Lajitas Ar. Si**	**14.01**	**2**	Pn	**Pn**	**20 15 42.8**	**-4.0**
EF02	**Christine**	**14.47**	**21**	Pn	**Pn**	**20 15 52.9**	**-0.1**
SAND	**Sanderson**	**14.75**	**8**		**Pn**	**20 15 56.8**	**-0.1**
735A	**Kenedy**	**14.80**	**23**	Pn	**Pn**	**20 15 57.3**	**-0.2**
HNDO	**Hondo**	**14.93**	**17**		**Pn**	**20 16 00.1**	**+0.9**
HNDO				IAmb	IAmb	20 16 17.7	
	comp=Z,16nm,0.9s						
HSIG		**14.98**	**337**	Pn	**Pn**	**20 15 59.1**	**-0.8**
ALPN	**Alpine**	**15.04**	**2**		**Pn**	**20 16 01.0**	**+0.2**
VHRN	**Van Horn**	**15.45**	**358**		**Pn**	**20 16 05.8**	**-0.4**
VHRN				IAmb	IAmb	20 16 31.4	
	comp=Z,29nm,1.4s						
TPB05	**Hovey Rd**	**15.60**	**3**		**Pn**	**20 16 07.9**	**-0.1**
TPB05				IAmb	IAmb	20 16 21.9	
	comp=Z,26nm,1.2s						
JCT	**Junction City**	**15.70**	**15**	Pn	**Pn**	**20 16 08.8**	**-0.5**
OZNA	**Ozona**	**15.85**	**10**		**Pn**	**20 16 11.3**	**0.0**
OZNA				IAmb	IAmb	20 16 25.0	
	comp=Z,30nm,1.3s						
PECS	**Pecos**	**16.03**	**1**		**Pn**	**20 16 13.5**	**0.0**
TEIG	**Tepich**	**16.07**	**70**	Pn	**Pn**	**20 16 12.5**	**-1.5**
TEIG				IAmb	IAmb	20 16 49.0	
	comp=Z,61nm,1.4s						
TPB28		**16.32**	**360**		**Pn**	**20 16 15.7**	**-1.6**
TPB28				IAmb	IAmb	20 16 29.6	
	comp=Z,33nm,1.2s						
MNTX	**Cornudas Mount**	**16.38**	**357**		**P**	**20 16 19.6**	**-0.8**
MNTX				IAmb	IAmb	20 16 37.7	
	comp=Z,29nm,1.4s						
TMB01	**Midkiff**	**16.45**	**7**	P	**P**	**20 16 20.4**	**-1.0**
TPB11	**China Draw**	**16.59**	**1**	P	**P**	**20 16 21.9**	**-1.0**
435B	**Jarrell**	**16.63**	**21**	P	**P**	**20 16 21.9**	**-1.4**
435B				IAmb	IAmb	20 16 41.0	
	comp=Z,38nm,0.8s						
319A	**Douglas**	**16.65**	**345**	P	**P**	**20 16 22.2**	**-1.5**
319A				IAmb	IAmb	20 16 38.0	
	comp=Z,26nm,1.0s						
BRDY	**Brady**	**16.67**	**16**		**P**	**20 16 22.5**	**-1.2**
GDL2	**Guadalupe Moun**	**16.85**	**360**		**Pn**	**20 16 23.6**	**-0.4**
121A	**Cookes Peak, D**	**17.47**	**350**		**Pn**	**20 16 31.3**	**-0.5**
DUN6	**Lazy B Ranch**	**17.74**	**347**	P	**P**	**20 16 35.6**	**0.0**
ABTX	**Abilene, Hawle**	**17.79**	**13**		**P**	**20 16 36.3**	**+0.2**
ABTX				IAmb	IAmb	20 16 53.6	
	comp=Z,39nm,1.5s						
TUC	**Tucson**	**17.95**	**342**		**P**	**20 16 38.0**	**+0.1**
PLPT	**Palo Pinto**	**18.30**	**16**	P	**P**	**20 16 40.4**	**-1.2**
DKNS	**Dickens**	**18.57**	**9**	P	**Pn**	**20 16 44.8**	**-0.4**
CRNM	**Carthage**	**18.72**	**354**	P	**Pn**	**20 16 46.5**	**-0.6**
Y22A	**Socorro**	**18.73**	**353**	P	**Pn**	**20 16 46.2**	**-1.0**
Y22A				IAmb	IAmb	20 16 57.8	
	comp=Z,30nm,1.5s						
LENM	**Lemitar**	**18.96**	**353**	P	**Pn**	**20 16 49.1**	**-0.9**
113A	**Mohawk Valley,**	**19.41**	**335**		**P**	**20 16 51.6**	**-2.3**
113A				IAmb	IAmb	20 17 03.0	
	comp=Z,54nm,2.0s						
ALQ	**Albuquerque**	**19.68**	**355**		**P**	**20 16 56.3**	**-0.7**
ALQ				IAmb	IAmb	20 17 17.3	
	comp=Z,30nm,1.5s						
ALQ	**Albuquerque**	**19.68**	**355**		**P**	**20 16 56.8**	**-0.2**
ALQ				IAmb	IAmb	20 17 16.5	
	comp=Z,19nm,1.3s						
ANMO	**Albuquerque**	**19.68**	**355**		**Pn**	**20 16 57.4**	**-1.2**
TASM	**ASL Pad, Albuq**	**19.68**	**355**	P	**Pn**	**20 16 57.4**	**-1.3**
TASM				IAmb	IAmb	20 17 17.4	
	comp=Z,28nm,1.5s						
TASM	**ASL Pad, Albuq**	**19.68**	**355**	P	**Pn**	**20 16 57.3**	**-1.3**
TASM				IAmb	IAmb	20 17 17.4	
	comp=Z,27nm,1.5s						
X18A	**Snowflake**	**19.83**	**346**		**P**	**20 16 58.6**	**0.0**
X18A				IAmb	IAmb	20 17 22.7	
	comp=Z,30nm,1.4s						
WMOK	**Wichita Mounta**	**20.02**	**13**	P	**P**	**20 17 00.6**	**+0.2**
X16A	**Lo Mia Camp, P**	**20.11**	**343**	P	**P**	**20 17 00.6**	**-1.1**
X34A	**Smith Ranch, M**	**20.12**	**16**	P	**P**	**20 17 01.8**	**+0.2**
YUH	**Yuha Desert**	**20.25**	**331**	P	**P**	**20 17 01.7**	**-1.4**
YUH				IAmb	IAmb	20 17 13.3	
	comp=Z,26nm,1.5s						
BC3	**Big Chuckawall**	**20.88**	**333**	P	**P**	**20 17 10.5**	**+0.5**
W35A	**Tecumseh**	**20.90**	**17**		Pn	20 17 11.5	-1.2
BORC	**Borrego Spring**	**21.00**	**331**	P	**P**	**20 17 10.6**	**-0.5**
DPP	**Dos Picos Cty**	**21.03**	**329**	P	**P**	**20 17 10.1**	**-1.4**
RTBA	**Rita Blanca**	**21.13**	**4**		**P**	**20 17 13.2**	**+0.6**
RTBA				IAmb	IAmb	20 17 29.1	
	comp=Z,26nm,1.3s						
PFO	**Pinyon Flats O**	**21.30**	**331**		**P**	**20 17 13.5**	**-1.0**
PFO				IAmb	IAmb	20 17 21.9	
	comp=Z,19nm,1.4s						
X40A	**Basin Creek Fa**	**21.76**	**26**	P	**P**	**20 17 19.4**	**+0.2**
X40A				IAmb	IAmb	20 17 36.9	
	comp=Z,33nm,1.5s						
T25A	**Trinidad**	**21.78**	**360**	P	**P**	**20 17 20.2**	**+0.5**
T25A				IAmb	IAmb	20 17 37.9	
	comp=Z,15nm,1.2s						
BFSC	**Mount Baldy Ra**	**22.38**	**330**	P	**P**	**20 17 25.4**	**-0.7**
BFSC				IAmb	IAmb	20 17 52.3	
	comp=Z,15nm,1.5s						
WHAR	**Wooly Hollow**	**22.68**	**26**		**P**	**20 17 30.8**	**+1.7**
KNB	**Kanab**	**22.93**	**342**	P	**P**	**20 17 32.3**	**+0.4**
KNB				IAmb	IAmb	20 17 40.0	
	comp=Z,16nm,1.3s						
PV05	**Paradox Valley**	**23.10**	**350**	P	**P**	**20 17 36.2**	**+2.5**
SHPR	**Sheep Range**	**23.24**	**337**		**P**	**20 17 34.2**	**-0.9**
SHPR				IAmb	IAmb	20 17 50.5	
	comp=Z,17nm,1.5s						
PV07	**Paradox Valley**	**23.39**	**351**	P	**P**	**20 17 35.0**	**-1.5**
PV07				IAmb	IAmb	20 17 51.2	
	comp=Z,19nm,1.3s						
LRMC	**Laurel Mtn Rad**	**23.41**	**332**	P	**P**	**20 17 34.0**	**-2.7**
LRMC				IAmb	IAmb	20 17 47.8	
	comp=Z,13nm,1.5s						
PV22	**Blue Mesa, Par**	**23.50**	**351**		**P**	**20 17 38.1**	**+0.5**
PV21	**Cone Mtn., Par**	**23.56**	**351**	P	**P**	**20 17 38.0**	**-0.2**
PV21				IAmb	IAmb	20 17 44.6	
	comp=Z,19nm,1.2s						
GWY	**Greenwater Val**	**23.56**	**334**		**P**	**20 17 37.5**	**-0.6**
GWY				IAmb	IAmb	20 17 48.6	
	comp=Z,16nm,1.5s						
CLC	**China Lake**	**23.65**	**332**	P	**P**	**20 17 37.1**	**-1.8**
MPMC	**Manual Prospec**	**23.80**	**333**	P	**P**	**20 17 39.0**	**-1.6**
S11A	**Rachel**	**24.47**	**338**	P	**P**	**20 17 45.1**	**-1.5**
MZP	**Montezuma Peak**	**25.15**	**335**	P	**P**	**20 17 51.7**	**-1.2**
MZP				IAmb	IAmb	20 18 06.2	
	comp=Z,11nm,1.3s						
SJCC	**San Jacinto, C**	**28.94**	**97**	P	**P**	**20 18 28.1**	**+1.1**
RUSC	**La Rusia**	**32.06**	**104**		**P**	**20 18 55.4**	**+0.4**
LPAZ	**La Paz**	**47.55**	**130**		**P**	**20 21 04.6**	**+0.8**
PTLB	**Pontes e Lacer**	**54.09**	**122**		**P**	**20 21 52.2**	**-0.1**
INK	**Inuvik**	**56.20**	**347**		**P**	**20 22 08.5**	**+1.7**
G27K	**Doyon Strip**	**57.02**	**343**	P	**P**	**20 22 14.1**	**+1.4**
G27K				IAmb	IAmb	20 22 28.9	
	comp=Z,9.8nm,1.4s						
F28M	**Old Crow**	**57.14**	**345**		**P**	**20 22 15.0**	**+1.4**

*IDC **10** 20:12:37.8±1.3, 6°.25S×128°.48E, h290km±19km, mb2.6/1, mbtmp3.3/5, Error ellipse: s-maj=25.6km s-min=12.8km az=114.0*

ISC 10 20:12:38.2±0.9, 6°.24S±0°.07×128°.5E±0°.1, h322km, n6, σ1°.93/10, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**6.02**	**28**	P	**Pn**	**20 14 08.3**	**-0.1**
	10nm,0.9s,baz=122,slow=19,SNR=2.1						
SIJI				S	**S**	**20 15 18.6**	**-2.9**
	4.7nm,0.6s,baz=228,slow=23,SNR=7.0						
BATI	**Baumata**	**6.18**	**230**	P	**Pn**	**20 14 10.2**	**-0.2**
	26nm,0.3s,baz=96,slow=2.2,SNR=12						
BATI				S	**S**	**20 15 22.4**	**-2.4**
	20nm,0.7s,baz=339,slow=17,SNR=5.7						
FITZ	**Fitzroy Crossi**	**12.11**	**193**	P	**P**	**20 15 22.2**	**-0.1**
	1.1nm,0.9s,baz=7.2,slow=14,SNR=1.0						
FITZ				S	**S**	**20 17 36.0**	**-0.6**
	3.2nm,1.2s,baz=281,slow=22,SNR=1.2						
WRA	**Warramunga Arr**	**14.77**	**158**	P	**Pn**	**20 15 52.5**	**-0.8**
	0.2nm,0.3s,baz=332,slow=12,SNR=6.2						
WRA				S	**S**	**20 18 33.4**	**+1.0**
	0.2nm,0.8s,baz=343,slow=21,SNR=1.1						
ASAR	**Alice Springs**	**18.10**	**164**	P	**P**	**20 16 28.9**	**+1.0**
	0.2nm,0.3s,baz=346,slow=12,SNR=4.9						
MKAR	**Makanchi Array**	**66.76**	**327**	P	**P**	**20 22 58.6**	**+3.0**
	0.2nm,0.7s,baz=122,slow=7.4,SNR=1.8						
	0.2nm,0.7s						

*IDC **10** 20:24:40.0±0.8, 56°.45S×142°.09W, h0km, mb4.3/7, mbtmp4.3/7, MS3.6/9, Error ellipse: s-maj=29.9km s-min=22.6km az=28.0*
*NEIC **10** 20:24:42.0±1.6, 56°.6S±0°.1×142°.1W±0°.2, h10km±1km, mb4.6/16, Error ellipse: s-maj=26.0km s-min=18.5km az=156.0*

ISC 10 20:24:41.7±0.6, 56°.5S±0°.1×142°.2W±0°.1, h10km, n54, σ0°.77/41, mb4.5/15, MS3.7/9, 5, C, Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNDA	**Vanda**	**28.36**	**202**	LR	LR	20 38 49.7	
	comp=Z,49nm,20.1s,baz=88,slow=30						
VNDA	**Vanda**	**28.36**	**202**	P	**P**	**20 30 35.0**	**-0.4**
RPZ	**Rata Peaks**	**31.95**	**273**	LR	LR	20 42 10.8	
	comp=Z,27nm,18.3s,baz=98,slow=33						
URZ	**Urewera**	**32.43**	**287**	LR	LR	20 41 19.5	
	comp=Z,168nm,20.2s,baz=154,slow=31						
QSPA	**South Pole Qui**	**33.63**	**180**	P	**P**	**20 31 23.2**	**+1.1**
	5.0nm,1.0s,baz=70,slow=2.0,SNR=9.1						
	5.0nm,1.0s						
QSPA	**South Pole Qui**	**33.63**	**180**	P	**P**	**20 31 23.4**	**+1.3**
QSPA				IAmb	IAmb	20 31 24.9	
	comp=Z,11nm,1.1s						
RPN	**Rapa Nui**	**37.59**	**52**	P	**P**	**20 31 55.1**	**-1.1**
RAR	**Rarotonga**	**37.60**	**332**	LR	LR	20 42 39.9	
	comp=Z,103nm,21.1s,baz=74,slow=29						
BELA	**Belgrano 2**	**38.90**	**161**	P	**P**	**20 32 06.3**	**-0.5**
BELA				IAmb	IAmb	20 32 07.9	
	comp=Z,6.4nm,1.0s						
LL05	**Los Muermos**	**45.59**	**101**	P	**P**	**20 33 01.9**	**+0.2**
CASY	**Casey**	**46.00**	**212**	P	**P**	**20 33 04.7**	**+0.2**
CASY				IAmb	IAmb	20 33 07.8	
	comp=Z,13nm,1.2s						
PLCA	**Paso Flores**	**47.64**	**103**	LR	LR	20 48 21.4	
	comp=Z,94nm,18.5s,baz=232,slow=30						
H03S2	**Juan Fernandez**	**48.02**	**90**	T	T	21 25 05.9	
	baz=219,slow=74,SNR=17						
H03S1	**Juan Fernandez**	**48.03**	**90**	T	T	21 24 58.7	
	baz=219,slow=74,SNR=17						
H03S3	**Juan Fernandez**	**48.04**	**90**	T	T	21 25 01.3	
	baz=219,slow=74,SNR=17						
VNA3	**Neumayer Olymp**	**48.20**	**161**	⇑P	**P**	**20 33 20.8**	**-0.9**
	comp=Z,7.2nm,0.7s						
VNA2	**Neumayer--Watz**	**48.87**	**162**	⇑P	**P**	**20 33 26.4**	**-0.5**
	comp=Z,9.1nm,0.6s,baz=207,slow=7.5						
VNA1	**Neumayer--Stat**	**48.95**	**161**	⇑P	**P**	**20 33 27.0**	**-0.4**
	comp=Z,12nm,0.8s						
SNAA	**Sanae**	**48.96**	**164**	⇑P	**P**	**20 33 26.7**	**-0.8**
	comp=Z,86nm,0.5s						
SNAA	**Sanae**	**48.96**	**164**	P	**P**	**20 33 27.1**	**-0.5**
	comp=Z,3.3nm,0.5s,baz=226,slow=6.9,SNR=7.9						
	comp=Z,3.3nm,0.5s						
SNAA	**Sanae**	**48.96**	**164**	P	**P**	**20 33 26.8**	**-0.8**
SNAA				IAmb	IAmb	20 33 27.5	
	comp=Z,5.0nm,0.8s						
TROLL	**Troll, Antarti**	**49.41**	**166**	⇑P	**P**	**20 33 31.0**	**-0.1**
	comp=Z,168nm,0.6s						
MAW	**Mawson**	**54.79**	**191**	P	**P**	**20 34 11.6**	**+0.6**
	comp=Z,4.2nm,0.8s,baz=174,slow=8.9,SNR=7.3						
	comp=Z,4.2nm,0.8s						
MAW	**Mawson**	**54.79**	**191**	P	**P**	**20 34 11.2**	**+0.2**
STKA	**Stephens Creek**	**56.65**	**262**	P	**P**	**20 34 25.2**	**+0.4**
	comp=Z,3.3nm,0.8s,baz=147,slow=7.7,SNR=4.4						
	comp=Z,3.3nm,0.8s						
STKA	**Stephens Creek**	**56.65**	**262**	P	**P**	**20 34 24.6**	**-0.3**
AC06	**Mina Casimiro**	**57.71**	**92**	P	**P**	**20 34 31.9**	**-0.5**
CTA	**Charters Tower**	**63.32**	**274**	LR	LR	20 58 49.9	
	comp=Z,34nm,19.2s,baz=25,slow=32						
AS31	**Alice Springs**	**67.28**	**261**	P	**P**	**20 35 35.9**	**-0.6**
AS31				IAmb	IAmb	20 35 39.1	
	comp=Z,4.4nm,1.5s						
ASAR	**Alice Springs**	**67.28**	**261**	P	**P**	**20 35 36.9**	**+0.4**
	comp=Z,3.3nm,0.8s,baz=140,slow=6.5,SNR=46						
	comp=Z,3.3nm,0.8s						
ASAR	**Alice Springs**	**67.28**	**261**	P	**P**	**20 35 35.4**	**-1.1**
LPAZ	**La Paz**	**67.78**	**86**	P	**P**	**20 35 40.8**	**+0.4**
LPAZ				LR	LR	20 57 56.3	
	comp=Z,1.2nm,0.6s,baz=220,slow=3.1,SNR=2.9						
	comp=Z,49nm,20.5s,baz=227,slow=30						
	comp=Z,1.2nm,0.6s						
LPAZ	**La Paz**	**67.78**	**86**	P	**P**	**20 35 40.3**	**-0.1**
LPAZ				IAmb	IAmb	20 36 03.7	
	comp=Z,5.9nm,1.4s						
WRA	**Warramunga Arr**	**70.03**	**264**	P	**P**	**20 35 54.2**	**+0.5**
	comp=Z,2.5nm,0.8s,baz=147,slow=5.6,SNR=16						
	comp=Z,2.5nm,0.8s						
WRA	**Warramunga Arr**	**70.03**	**264**	P	**P**	**20 35 53.9**	**+0.2**
WB0	**Warramunga Arr**	**70.14**	**264**	P	**P**	**20 35 53.7**	**-0.6**
WB0				IAmb	IAmb	20 35 55.4	
	comp=Z,6.0nm,0.9s						
PMG	**Port Moresby**	**71.56**	**281**	LR	LR	21 02 11.7	
	comp=Z,42nm,20.1s,baz=222,slow=31						
BDFB	**Brasilia**	**79.39**	**102**	LR	LR	21 08 16.5	
	comp=Z,87nm,19.7s,baz=212,slow=33						
BOAV	**Boa Vista**	**87.38**	**82**	P	**P**	**20 37 29.6**	**+0.6**
IRM	**Iron Mountain**	**93.21**	**22**	P	**P**	**20 37 57.6**	**+1.9**
IRM				IAmb	IAmb	20 38 16.3	
	comp=Z,2.6nm,1.2s						
H10N3	**ASCENSION HYDR**	**102.88**	**126**	T	T	22 34 04.0	
	baz=206,slow=75,SNR=7.7						
H10N1	**ASCENSION HYDR**	**102.88**	**126**	T	T	22 33 59.7	
	baz=206,slow=75,SNR=12						
H10N2	**ASCENSION HYDR**	**102.89**	**126**	T	T	22 34 01.4	
	baz=206,slow=75,SNR=10						
ILAR	**Eielson Array**	**121.03**	**358**	PKP	**PKiKP**	**20 43 33.3**	**+0.3**
	comp=Z,1.4nm,0.8s,baz=167,slow=1.6,SNR=11						
ILAR	**Eielson Array**	**121.03**	**358**		**PKiKP**	**20 43 32.7**	**-0.3**
ESDC	**Sonseca Array**	**148.03**	**104**	PKPbc	**PKPdf**	**20 44 24.7**	**+1.1**
	comp=Z,1.7nm,0.8s,baz=215,slow=2.6,SNR=15						
ESDC	**Sonseca Array**	**148.03**	**104**		**PKPbc**	**20 44 25.4**	**-1.4**
MKAR	**Makanch

FOCM	**Foa**	**0.88**	**348**	Pg	**Pg**	**20 33 46.6**	**-0.4**
FOCM				AML	AML		
CHOS	**Chios island**	**0.90**	**307**	P	**Pg**	**20 33 47.0**	**-0.3**
CHOS				S	**Sb**	**20 33 59.7**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**307**	P	**Pg**	**20 33 47.1**	**-0.3**
CHOS				S	**Sb**	**20 33 59.8**	**+0.4**
KLNA	**Kalymnos**	**0.90**	**180**	P	**Pg**	**20 33 46.7**	**-0.5**
KLNA				AML	AML		
BODA	**Bodrum-Mula**	**0.90**	**156**	Pg	**Pg**	**20 33 46.9**	**-0.4**
KARB	**zmir-Karabur**	**0.92**	**332**	P	**Pg**	**20 33 47.1**	**-0.7**
CAMT	**Merkez**	**0.93**	**17**	P	**Pb**	**20 33 48.2**	**+0.1**
EAG2	**Marmaro, Chios**	**0.97**	**316**	P	Pn	**20 33 49.1**	**-0.1**
NAZL	**Nazilli-Aydin**	**1.05**	**84**	Pn	**Pn**	**20 33 50.5**	**0.0**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.09**	**92**	P	**Pn**	**20 33 51.1**	**0.0**
ZEDA	**zmir-Bergama**	**1.11**	**4**	P	**Pb**	**20 33 51.3**	**+0.1**
GOMA	**Golmarmara-Man**	**1.14**	**41**	Pn	**Pn**	**20 33 51.8**	**+0.2**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.18**	**73**	P	**Pg**	**20 33 53.4**	**+0.6**
DKL	**Dikili**	**1.22**	**358**	P	**Pg**	**20 33 53.6**	**+0.2**
KTTT	**Salihli**	**1.22**	**46**	P	**Pb**	**20 33 53.1**	**+0.2**
AKHS	**Akhisar**	**1.22**	**33**	P	**Pg**	**20 33 53.3**	**-0.2**
AKS	**Akhisar**	**1.22**	**33**	Pn	**Pg**	**20 33 53.5**	**0.0**
AKS				AML	AML		
DAT	**Datca**	**1.22**	**156**	P	**Pn**	**20 33 52.1**	**-0.8**
DAT				AML	AML		
DAT	**Datca**	**1.22**	**156**	P	**Pn**	**20 33 53.0**	**+0.1**
DAT	**Datca**	**1.22**	**156**	Pn	**Pg**	**20 33 53.2**	**-0.3**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.23**	**162**	P	**Pg**	**20 33 54.2**	**+0.6**
YER	**Yerkesik**	**1.27**	**124**	P	Pn	**20 33 53.4**	**-0.1**
YER				S	**Sb**	**20 34 09.9**	**-0.2**
YER	**Yerkesik**	**1.27**	**124**	Pn	**Pg**	**20 33 54.5**	**+0.1**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**19**	Pn	**Pg**	**20 33 56.2**	**-0.2**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**236**	P	**Pn**	**20 33 55.0**	**-0.1**
APE				S	**Sg**	**20 34 15.5**	**+0.9**
APE				AML	AML		
APE	**Apeiranthos**	**1.39**	**236**	P	**Pn**	**20 33 54.8**	**-0.3**
APE				AML	AML		
MANT	**Manisa**	**1.41**	**63**	P	**Pg**	**20 33 57.6**	**+0.6**
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn	**Pb**	**20 33 56.5**	**+0.1**
GORD				AML	AML		
SULTU	**Buldan**	**1.44**	**81**	P	**Pg**	**20 33 57.7**	**+0.1**
AYVA	**Ayvalik**	**1.47**	**352**	P	**Pg**	**20 33 57.8**	**-0.5**
TURN	**Turunc**	**1.48**	**136**	Pn	**Pn**	**20 33 56.7**	**+0.4**
TURN				AML	AML		
PRK	**Paraskevi**	**1.49**	**339**	P	**Pn**	**20 33 57.1**	**+0.5**
PRK				S	**Sg**	**20 34 18.6**	**+0.5**
PRK	**Paraskevi**	**1.49**	**339**	P	**Pb**	**20 33 57.3**	**-0.3**
PRK				AML	AML		
STEP	**BALIKESIR_Sava**	**1.63**	**21**	P	**Pg**	**20 34 00.9**	**-0.4**
BUHA	**Balikesir, Bur**	**1.65**	**3**	P	**Pb**	**20 34 00.3**	**+0.1**
DALY	**Dalyan (Mula)**	**1.70**	**127**	Pn	**Pb**	**20 34 00.4**	**-0.6**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.89**	**101**	Pn	**Pb**	**20 34 03.5**	**-0.9**
THERA	**Ancient Thera,**	**1.90**	**219**	P	**Pb**	**20 34 05.2**	**+0.6**
KARP	**Karpathos**	**2.31**	**176**	P	**Pn**	**20 34 07.4**	**-0.4**
KARP				AML	AML		

RSNC ***10*** *20:37:30.7±0.5,3°S±4″×7°7W±°, h0km,M4.4,mB5.0,mb4.6, ML3.5,Mw(mB)4.4*

IDC ***10*** *20:37:30.8±1.6,2°.61S×76°.81W,h97km±16km,mb3.7/12, mbtmp4.2/16,MS3.1/1,Error ellipse: s-maj=19.1km s-min=11.1km az=92.0*

NEIC ***10*** *20:37:33.6±1.5,2°.66S±0°.05×76°.76W±0°.07,h117km±7km, mb4.3/37,Error ellipse: s-maj=11.0km s-min=7.7km az=73.0*

CATAC ***10*** *20:37:40.6±0.9,2°S±7″×7°7W±°,h10km,M4.3/7,mb4.6/3, mB5.0/2,MLv4.2/7,Mw(mB)4.3/2,Error ellipse: s-maj=14.0km s-min=7.7km az=4.5,confirmed*

ISC 10 20:37:33.3±0.4,2°.63S±0°.04×76°.80W±0°.05,h124km,n106, σ1§96/121,mb4.3/18,1C,Peru-Ecuador border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h	m	s	Res ISC
PIAT	**Ana Tenorio**	**2.18**	**318**	P	**Pn**	**20 38 08.9**			**-0.7**
PIAT				S	**Sn**	**20 38 30.4**			**-7.0**
CHSH	**Refugio Sur-Vo**	**2.35**	**299**	P	**Pn**	**20 38 11.5**			**-0.4**
CHSH				S	**Sn**	**20 38 40.1**			**-1.4**
VCES	**Cotopaxi**	**2.42**	**319**	P	**Pn**	**20 38 12.6**			**0.0**
ANTS	**Antisana-Sarah**	**2.52**	**327**	P	**Pn**	**20 38 14.4**			**+0.3**
ANTS				S	**Sn**	**20 38 39.1**			**-6.3**
SLOR	**San Lorenzo -**	**2.54**	**318**	P	**Pn**	**20 38 15.1**			**+0.9**
SLOR	**San Lorenzo -**	**2.54**	**318**		**Pn**	**20 38 14.8**			**+0.7**
SLOR				Sn	Sn	20 38 36.4			-9.1
CASC	**Dorado de Casc**	**2.80**	**349**	P	**Pn**	**20 38 17.4**			**+0.2**
CASC				S	**Sn**	**20 38 50.4**			**-0.7**
GGPC	**Guagua Pichinc**	**3.02**	**324**	P	**Pn**	**20 38 21.7**			**+1.1**
GGPC				S	**Sn**	**20 38 52.4**			**-4.5**
PULU	**Pululahua**	**3.13**	**327**	P	**Pn**	**20 38 23.1**			**+1.2**
IMBA	**Imbabura, San**	**3.21**	**334**	P	**Pn**	**20 38 23.5**			**+0.7**
IMBA				S	**Sn**	**20 38 55.4**			**-5.6**
OTAV	**Otavalo**	**3.29**	**330**	P	**Pn**	**20 38 25.1**			**+1.1**
OTAV				S	**Sn**	**20 38 57.6**			**-5.4**
OTAV	**Otavalo**	**3.29**	**330**		**Pn**	**20 38 24.3**			**+0.3**
OTAV	**Otavalo**	**3.29**	**330**	P	**Pn**	**20 38 25.4**			**+1.4**
CUSE	**Cuicocha Este**	**3.32**	**331**	P	**Pn**	**20 38 27.3**			**+2.9**
PTLC	**Puerto Leguiza**	**3.43**	**36**	P	**Pn**	**20 38 22.8**			**-2.5**
TULM	**Tulcn-Chalpat**	**3.46**	**343**	P	**Pn**	**20 38 27.7**			**+1.4**
PAC1	**Pacto, Paraso**	**3.50**	**325**	P	**Pn**	**20 38 30.2**			**+3.8**
CMBC	**Cumbal**	**3.69**	**344**	P	**Pn**	**20 38 31.8**			**+2.6**
FLF1	**Flavio Alfaro-**	**3.79**	**307**	P	**Pn**	**20 38 29.8**			**-0.3**
FLF1				S	**Sn**	**20 39 11.9**			**-2.3**
PPLP	**Puerto Lpez**	**4.12**	**285**	P	**Pn**	**20 38 31.0**			**-3.5**
CRUC	**La Cruz**	**4.17**	**358**	P	**Pn**	**20 38 37.9**			**+2.4**
BBAC	**Balboa, Cauca**	**4.64**	**354**	P	**Pn**	**20 38 44.6**			**+2.9**
ATAH	**Atahualpa**	**4.75**	**199**	P	**Pn**	**20 38 42.5**			**-0.9**
	244nm,0.6s,baz=25,slow=8.9,SNR=171								
ATAH				S	**Sn**	**20 39 33.5**			**-4.2**
	386nm,0.7s,baz=199,slow=11,SNR=16								
POPC	**Popayan, Colom**	**5.13**	**1**	P	**Pn**	**20 38 50.5**			**+2.1**
	15nm,0.7s								
POPC				AML	AML				
BETC	**Betania**	**5.45**	**14**	P	**Pn**	**20 38 54.5**			**+2.1**
BETC				AML	AML				
MACC	**Macarena, Meta**	**5.58**	**32**	P	**Pn**	**20 38 54.9**			**+0.7**
	12µm108nm,0.4s								
MACC				AML	AML				
JAMC	**Jamundi, Valle**	**5.80**	**1**	P	**Pn**	**20 39 00.2**			**+2.8**
	444nm20nm,0.6s								
JAMC				AML	AML				
URMC	**La Uribe, Meta**	**6.32**	**23**	P	**Pn**	**20 39 06.2**			**+2.1**
	1µm77nm,0.6s								
CZSB	**Cruzeiro do Su**	**6.50**	**141**	Pn	**Pn**	**20 39 05.6**			**-1.0**
CZSB				Sn	**Sn**	**20 40 16.1**			**-3.4**
CZSB	**Cruzeiro do Su**	**6.50**	**141**	P	**Pn**	**20 39 06.9**			**+0.3**
	2µm38nm,0.7s								
PRAC	**Prado**	**6.58**	**17**	P	**Pn**	**20 39 09.7**			**+2.0**
	835nm37nm,0.7s								
YOTC	**Yotoco, Valle**	**6.58**	**4**	P	**Pn**	**20 39 09.6**			**+1.8**
	411nm15nm,0.8s								
GUVC	**San Jose del G**	**6.62**	**39**	P	**Pn**	**20 39 09.5**			**+1.4**
	19µm101nm,0.5s								
ORTC	**Ortega, Tolima**	**6.68**	**13**	P	**Pn**	**20 39 10.6**			**+1.6**
	1µm37nm,0.8s								
CVER	**Cruz Verde, Cu**	**7.61**	**21**	P	**Pn**	**20 39 24.5**			**+2.6**
	1µm69nm,0.9s								
ROSC	**El Rosal**	**7.82**	**18**	P	**Pn**	**20 39 24.0**			**-0.7**
	5.8nm,0.4s,baz=210,slow=20,SNR=4.4								
ROSC				S	**Sn**	**20 40 47.7**			**-4.2**
	19nm,0.5s,baz=172,slow=20,SNR=1.2								
CHIC	**Chingaza**	**7.83**	**23**	P	**Pn**	**20 39 27.1**			**+2.2**
	761nm49nm,0.8s								
GUY2C	**Guyana, Caldas**	**7.93**	**10**	P	**Pn**	**20 39 30.8**			**+4.5**
	607nm23nm,1.0s								
NORC	**Norcasia**	**8.36**	**13**	P	**Pn**	**20 39 35.1**			**+3.4**
	322nm18nm,1.1s								
CBOC	**Ciudad Bolivar**	**8.47**	**5**	P	**Pn**	**20 39 37.3**			**+4.0**
HELC	**Santa Helena**	**8.85**	**8**	Pn	**Pn**	**20 39 38.7**			**0.0**
RUSC	**La Rusia**	**9.24**	**24**	P	**Pn**	**20 39 46.5**			**+2.6**
RUSC	**La Rusia**	**9.24**	**24**		**Pn**	**20 39 44.5**			**+0.5**
NNA	**Nana**	**9.30**	**180**	P	**Pn**	**20 39 43.2**			**-1.1**
	18nm,0.3s,baz=324,slow=12,SNR=7.1								
NNA				S	Sn	20 41 14.9			-12
	26nm,0.5s,baz=360,slow=20,SNR=6.5								
NNA	**Nana**	**9.30**	**180**		**Pn**	**20 39 43.5**			**-0.9**
SJCC	**San Jacinto, C**	**12.55**	**7**		**Pn**	**20 40 28.5**			**+0.9**

URIC	**Uribia, Colomb**	**15.02**	**18**		**Pn**	**20 40 57.2**	**-2.0**
LPAZ	**La Paz**	**16.03**	**148**	P	**Pn**	**20 41 12.8**	**+0.3**
	2.2nm,0.6s,baz=335,slow=17,SNR=5.4						
LPAZ	**La Paz**	**16.03**	**148**		**Pn**	**20 41 12.1**	**-0.4**
BOAV	**Boa Vista**	**17.02**	**73**	P	**P**	**20 41 23.6**	**-0.2**
PB12	**IPOC Station P**	**17.11**	**159**	P	**Pn**	**20 41 25.2**	**+0.2**
PB12				IAmb	IAmb	20 41 48.9	
	comp=Z,39nm,1.5s						
PB16	**IPOC Station P**	**17.17**	**156**		**P**	**20 41 25.6**	**-0.4**
PSGCX	**Pisagua**	**18.08**	**159**	P	**P**	**20 41 35.7**	**+0.2**
PB11	**IPOC Station P**	**18.40**	**158**		**Pn**	**20 41 40.0**	**-0.7**
PB11				IAmb	IAmb	20 41 41.8	
	comp=Z,11nm,0.8s						
GO01	**Chusmiza**	**18.50**	**157**	P	**Pn**	**20 41 41.2**	**-0.9**
GO01				IAmb	IAmb	20 41 51.1	
	comp=Z,8.8nm,0.6s						
PB08	**IPOC Station P**	**18.94**	**157**	P	**Pn**	**20 41 45.9**	**-1.3**
PB07	**IPOC Station P**	**20.14**	**161**	P	**P**	**20 41 57.5**	**-0.4**
PB07				IAmb	IAmb	20 42 00.5	
	comp=Z,9.4nm,0.8s						
SIV	**San Ignacio**	**20.40**	**132**	P	**P**	**20 42 01.4**	**+0.8**
	comp=Z,2.8nm,0.3s,baz=315,slow=11,SNR=19						
	comp=Z,2.8nm,0.3s						
PB09	**IPOC Station P**	**20.42**	**159**	P	**P**	**20 42 00.6**	**-0.3**
PB09				IAmb	IAmb	20 42 03.8	
	comp=Z,17nm,1.0s						
PB03	**IPOC Station P**	**20.48**	**161**	P	**P**	**20 42 02.0**	**+0.4**
PB03				IAmb	IAmb	20 42 07.2	
	comp=Z,10nm,0.9s						
MTDJ	**Mount Denham**	**20.73**	**358**	P	**P**	**20 42 05.6**	**+1.3**
PB05	**IPOC Station P**	**21.10**	**163**	P	**P**	**20 42 09.8**	**+1.6**
PB05				IAmb	IAmb	20 42 30.4	
	comp=Z,17nm,1.2s						
PTLB	**Pontes e Lacer**	**21.57**	**127**		**P**	**20 42 13.2**	**+0.1**
CELP	**Cerrillos**	**22.91**	**26**	P	**P**	**20 42 26.4**	**-0.2**
CELP				IAmb	IAmb	20 42 28.3	
	comp=Z,29nm,1.3s						
ECPR	**Experimental S**	**23.21**	**26**	P	**P**	**20 42 29.6**	**+0.1**
MDP	**Montagnes des**	**25.33**	**72**	LR	LR	20 54 58.9	
	comp=Z,46nm,19.8s,baz=333,slow=41						
CO02	**Combarbal**	**28.95**	**170**	P	**P**	**20 43 22.6**	**+1.6**
GO06	**Curarrehue**	**37.10**	**173**	P	**P**	**20 44 31.9**	**+0.1**
GO06				IAmb	IAmb	20 44 34.4	
	comp=Z,8.8nm,1.5s						
PLCA	**Paso Flores**	**38.35**	**172**	P	**P**	**20 44 42.9**	**+0.6**
	comp=Z,4.3nm,0.9s,baz=338,slow=9.7,SNR=8.5						
	comp=Z,4.3nm,0.9s						
PLCA	**Paso Flores**	**38.35**	**172**		**P**	**20 44 42.7**	**+0.5**
PLCA				IAmb	IAmb	20 44 44.2	
	comp=Z,5.4nm,1.0s						
V55A	**Taylorsville**	**38.50**	**354**	P	**P**	**20 44 45.6**	**+2.1**
TXAR	**Lajitas Array**	**40.89**	**323**	P	**P**	**20 45 04.2**	**+0.7**
	comp=Z,0.3nm,0.6s,baz=133,slow=11,SNR=4.1						
TXAR				PcP	**PcP**	**20 47 02.8**	**+0.9**
	comp=Z,0.3nm,0.5s,baz=160,slow=4.0,SNR=3.6						
	comp=Z,0.3nm,0.6s						
TXAR	**Lajitas Array**	**40.89**	**323**	P	**P**	**20 45 04.0**	**+0.5**
TXAR				pP	**pP**	**20 45 30.3**	**-1.3**
VHRN	**Van Horn**	**42.73**	**323**		**P**	**20 45 19.5**	**+1.0**
VHRN					**pP**	**20 45 45.4**	**-1.4**
VHRN				IAmb	IAmb	20 45 49.1	
	comp=Z,4.8nm,0.8s						
SMWD	**Samnorwood**	**43.50**	**332**	P	**P**	**20 45 26.2**	**+1.7**
ALQ	**Albuquerque**	**46.59**	**326**		**P**	**20 45 49.9**	**+0.8**
ALQ					**pP**	**20 46 16.5**	**-1.4**
ALQ				IAmb	IAmb	20 46 20.2	
	comp=Z,5.8nm,0.7s						
ALQ	**Albuquerque**	**46.59**	**326**		**P**	**20 45 50.3**	**+1.1**
ALQ					**pP**	**20 46 16.9**	**-1.0**
ANMO	**Albuquerque**	**46.59**	**326**	P	**P**	**20 45 50.0**	**+0.8**
ANMO					**pP**	**20 46 17.1**	**-0.8**
ANMO				IAmb	IAmb	20 46 20.6	
	comp=Z,4.8nm,0.8s						
TASM	**ASL Pad, Albuq**	**46.59**	**326**	P	**P**	**20 45 50.2**	**+1.0**
TASM				pP	**pP**	**20 46 16.6**	**-1.3**
TASM				IAmb	IAmb	20 46 20.7	
	comp=Z,6.0nm,0.8s						
PV13	**Radium Mtn., P**	**50.23**	**327**	P	**P**	**20 46 17.7**	**+0.6**
PV18	**Skein Mesa, Pa**	**50.34**	**327**	P	**P**	**20 46 19.1**	**+1.1**
PV18				pP	**pP**	**20 46 46.1**	**-0.9**
PDAR	**Pinedale Array**	**54.00**	**330**	P	**P**	**20 46 44.6**	**-0.3**
	comp=Z,0.3nm,0.5s,baz=134,slow=6.8,SNR=3.0						
	comp=Z,0.3nm,0.5s						
PDAR	**Pinedale Array**	**54.00**	**330**	P	**P**	**20 46 44.4**	**-0.5**
ULM	**Lac du Bonnet**	**55.17**	**345**	P	**P**	**20 46 52.2**	**-0.7**
	comp=Z,1.8nm,0.5s,baz=153,slow=9.0,SNR=3.4						
	comp=Z,1.8nm,0.5s						
NVAR	**Mina Array Bea**	**55.99**	**321**	P	**P**	**20 47 00.4**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=129,slow=6.8,SNR=4.1						
	comp=Z,0.4nm,0.6s						
NVAR	**Mina Array Bea**	**55.99**	**321**	P	**P**	**20 46 59.5**	**+0.3**
YKA	**Yellowknife Ar**	**70.97**	**342**	P	**P**	**20 48 37.0**	**0.0**
	comp=Z,1.4nm,0.8s,baz=146,slow=6.4,SNR=2.3						
	comp=Z,1.4nm,0.8s						
DBIC	**Dimbokro**	**72.40**	**82**	P	**P**	**20 48 47.0**	**+0.3**
	comp=Z,7.0nm,0.9s,baz=250,slow=4.1,SNR=4.5						
	comp=Z,7.0nm,0.9s						
DBIC	**Dimbokro**	**72.40**	**82**	IAmb	IAmb	20 48 49.3	
	comp=Z,18nm,1.3s						
MD01	**Midelt array s**	**76.43**	**55**	P	**P**	**20 49 10.4**	**+0.6**
BELA	**Belgrano 2**	**78.40**	**172**	P	**P**	**20 49 20.3**	**+0.6**
ESDC	**Sonseca Array**	**78.55**	**49**	P	**P**	**20 49 21.6**	**+0.2**
	comp=Z,1.1nm,0.9s,baz=270,slow=6.7,SNR=8.2						
	comp=Z,1.1nm,0.9s						
ESDC	**Sonseca Array**	**78.55**	**49**	IAmb	IAmb	20 49 23.6	
	comp=Z,14nm,1.4s						
TORD	**Torodi Ar. Bea**	**79.41**	**76**	P	**P**	**20 49 26.5**	**+0.1**
	comp=Z,0.4nm,0.3s,baz=278,slow=7.9,SNR=9.2						
	comp=Z,0.4nm,0.3s						
TORD	**Torodi Ar. Bea**	**79.41**	**76**	P	**P**	**20 49 25.6**	**-0.8**
SNAA	**Sanae**	**82.50**	**162**	P	**P**	**20 49 42.2**	**+0.4**
	comp=Z,1.9nm,0.6s,baz=291,slow=6.3,SNR=3.7						
	comp=Z,1.9nm,0.6s						
SNAA	**Sanae**	**82.50**	**162**	IAmb	IAmb	20 49 43.6	
	comp=Z,7.2nm,1.3s						
TROLL	**Troll, Antarti**	**84.22**	**162**	⇑P	**P**	**20 49 52.0**	**+1.3**
	comp=Z,186nm,0.8s						
QSPA	**South Pole Qui**	**87.44**	**180**	P	**P**	**20 50 07.8**	**+1.1**
	comp=Z,3.9nm,0.7s,baz=153,slow=2.5,SNR=13						
	comp=Z,3.9nm,0.7s						
QSPA	**South Pole Qui**	**87.44**	**180**		**P**	**20 50 07.3**	**+0.6**
VNDA	**Vanda**	**93.93**	**191**	P	**P**	**20 50 36.4**	**-0.1**
VNDA				IAmb	IAmb	20 50 37.3	
	comp=Z,2.4nm,1.4s						
MKAR	**Makanchi Array**	**132.40**	**19**	PKP	**PKPdf**	**20 56 33.8**	**+0.6**
	comp=Z,0.1nm,0.4s,baz=323,slow=2.4,SNR=1.6						
SONM	**Songino Array**	**134.88**	**357**	PKP	**PKiKP**	**20 56 39.1**	**-0.3**
	comp=Z,0.3nm,0.5s,baz=337,slow=3.3,SNR=2.7						
ASAR	**Alice Springs**	**140.30**	**227**	PKhKP	PKPpre	20 56 41.4	
	comp=Z,0.4nm,0.6s,baz=130,slow=3.4,SNR=6.2						
ASAR				PKP	**PKPdf**	**20 56 47.8**	**-0.7**
	comp=Z,1.2nm,1.0s,baz=120,slow=2.0,SNR=6.5						
WRA	**Warramunga Arr**	**142.09**	**232**	PKhKP	PKPpre	20 56 45.8	
	comp=Z,0.6nm,0.7s,baz=124,slow=2.6,SNR=6.2						
WRA				PKP	**PKiKP**	**20 56 53.7**	**-1.1**
	comp=Z,0.6nm,0.5s,baz=121,slow=2.3,SNR=7.0						
WRA	**Warramunga Arr**	**142.09**	**232**		**PKPdf**	**20 56 51.5**	**-0.2**

IDC ***10*** *20:54:11.1±7.9,16°.94S×174°.17W,h125km±68km, mb4.0/11,mbtmp4.3/12,MS3.2/1,Error ellipse: s-maj=25.3km s-min=17.5km az=87.0*

NEIC ***10*** *20:54:12.0±1.3,17°.1S±0°.1×174°.15W±0°.03,h134km±5km, mb4.9/44,Error ellipse: s-maj=14.8km s-min=4.5km az=175.0*

ISC 10 20:54:11.8±0.7,17°.14S±0°.06×174°.23W±0°.06, h130km±6km,n123,σ1§84/126,mb4.7/33,2C-1D,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h	m	s	Res ISC
NIUE	**Niue**	**4.53**	**116**		**Pn**	**20 55 18.7**			**+0.2**
NIUE				Sn	**Sn**	**20 56 08.0**			**-2.4**
MSVF	**Nonsavu**	**7.39**	**264**	LR	LR	20 58 31.4			
	comp=Z,210nm,21.4s,baz=145,slow=35								
GLKZ	**Green Lake**	**12.53**	**195**	P	**Pn**	**20 57 05.8**			**+0.2**
GLKZ				S	**Sn**	**20 59 21.1**			**-2.5**
RAR	**Rarotonga**	**14.25**	**109**		**P**	**20 57 29.9**			**-1.1**
MARNC	**Mare, Loyalty**	**17.29**	**253**		**P**	**20 58 04.9**			**+0.2**
SANVU	**Saraoutou**	**17.90**	**273**	S	**S**	**21 01 25.7**			**-5.0**
PINNC	**Pines Island,**	**18.06**	**250**	P	**P**	**20 58 14.2**			**+0.9**
PINNC				IAmb	IAmb	20 58 23.4			
	comp=Z,220nm,1.7s								
DZM	**Mont Dzumac**	**18.85**	**252**	P	**Pn**	**20 58 24.7**			**+0.7**
	comp=Z,3.4nm,0.4s,baz=84,slow=19,SNR=6.8								

GRZ	**Great Barrier**	**21.12**	**204**	S	**S**	**21 02 30.2**		**-3.5**
WCZ	**Waipu Caves**	**21.30**	**206**	P	**P**	**20 58 51.7**		**+3.7**
MXZ	**Matakaoa Point**	**21.38**	**196**		**P**	**20 58 50.5**		**+1.5**
MXZ	**Matakaoa Point**	**21.38**	**196**	P	**P**	**20 58 53.8**		**+4.9**
HAZ	**Te Kaha**	**21.70**	**197**	P	**P**	**20 58 55.8**		**+3.4**
PUZ	**Puketiti**	**21.87**	**196**	P	**P**	**20 58 59.6**		**+5.4**
RUGZ	**Raukumara Rang**	**21.93**	**197**	P	**P**	**20 58 58.1**		**+3.2**
RUGZ				S	**S**	**21 02 47.5**		**-1.1**
TWGZ	**Tauwhareparae**	**22.04**	**197**	P	**P**	**20 59 01.5**		**+5.5**
TWGZ				S	**S**	**21 02 50.0**		**-0.4**
MWZ	**Matawai**	**22.32**	**197**	P	**P**	**20 59 02.5**		**+3.7**
MWZ				S	**S**	**21 02 55.5**		**+0.5**
URZ	**Urewera**	**22.37**	**198**	P	**P**	**20 58 59.5**		**+0.3**
URZ				S	**S**	**21 02 56.6**		**+1.0**
TOZ	**Tahuroa Road**	**22.41**	**202**	P	**P**	**20 59 01.3**		**+1.7**
TOZ	**Tahuroa Road**	**22.41**	**202**	P	**P**	**20 59 03.7**		**+4.1**
RAGZ	**Rawiri**	**22.50**	**197**	P	**P**	**20 59 05.3**		**+4.7**
RIGZ	**Rimuhau**	**22.60**	**196**	P	**P**	**20 59 05.4**		**+3.9**
MUGZ	**Murupara**	**22.67**	**199**	P	**P**	**20 59 05.9**		**+3.7**
HIZ	**Hauiti**	**23.34**	**202**	P	**P**	**20 59 12.1**		**+3.7**
BFZ	**Birch Farm**	**24.86**	**197**	P	**P**	**20 59 22.0**		**-0.2**
MRZ	**Mangatainoka R**	**25.04**	**199**	P	**P**	**20 59 23.4**		**-0.4**
MRZ				IAmb	IAmb	20 59 42.7		
	comp=Z,121nm,1.9s							
MRZ	**Mangatainoka R**	**25.04**	**199**	P	**P**	**20 59 28.6**		**+4.7**
QRZ	**Quarry Range**	**26.22**	**203**	P	**P**	**20 59 34.3**		**-0.2**
LTZ	**Lake Taylor**	**28.03**	**201**	P	**P**	**20 59 50.1**		**-0.6**
LTZ				IAmb	IAmb	20 59 56.1		
	comp=Z,20nm,0.8s							
INZ	**Inchbonnie**	**28.27**	**203**		**P**	**20 59 52.0**		**-0.7**
INZ				IAmb	IAmb	21 00 02.4		
	comp=Z,69nm,1.5s							
DCZ	**Deep Cove**	**32.24**	**205**	P	**P**	**21 00 28.3**		**+0.5**
EIDS	**Eidsvold**	**33.27**	**250**	P	**P**	**21 00 36.5**		**-0.5**
EIDS				IAmb	IAmb	21 01 41.7		
	comp=Z,12nm,1.1s							
ARMA	**Armidale**	**33.78**	**241**	P	**P**	**21 00 42.1**		**+0.6**
ARMA				IAmb	IAmb	21 00 43.3		
	comp=Z,15nm,0.6s							
CTAO	**Charters Tower**	**37.50**	**259**	P	**P**	**21 01 12.1**		**-1.2**
CTAO				IAmb	IAmb	21 01 29.0		
	comp=Z,15nm,1.2s							
H11S2	**WAKE ISLAND Hy**	**40.07**	**331**	T	T	21 44 07.3		
	baz=147,slow=75,SNR=23							
H11S3	**WAKE ISLAND Hy**	**40.08**	**331**	T	T	21 44 07.3		
	baz=147,slow=75,SNR=17							
H11S1	**WAKE ISLAND Hy**	**40.09**	**331**	T	T	21 44 07.3		
	baz=147,slow=75,SNR=12							
H11N3	**WAKE ISLAND Hy**	**41.05**	**332**	T	T	21 45 38.4		
	baz=153,slow=75							
H11N1	**WAKE ISLAND Hy**	**41.05**	**332**	T	T	21 45 43.8		
	baz=153							
H11N2	**WAKE ISLAND Hy**	**41.06**	**332**	T	T	21 45 44.4		
	baz=153,slow=75							
STKA	**Stephens Creek**	**42.49**	**241**	P	**P**	**21 01 55.3**		**+0.9**
	comp=Z,10nm,0.7s,baz=92,slow=10,SNR=13							
	comp=Z,10nm,0.7s							
STKA	**Stephens Creek**	**42.49**	**241**		**P**	**21 01 54.8**		**+0.5**
STKA				I

DKNS	**Dickens**	**86.14**	**53**	P	**P**	**21 06 36.5**	**-2.1**
DKNS				IAmb	IAmb	21 06 53.0	
	comp=Z,14nm,1.1s						
HHC	**Hu-ho-hao-te**	**89.62**	**313**	*e*P	**P**	**21 06 57.4**	**+2.3**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,4.6s						
ELIB	**Princess Elisa**	**90.33**	**185**	*d*P	**P**	**21 06 57.9**	**0.0**
	comp=Z,5.1nm,0.7s						
TROLL	**Troll, Antarti**	**91.04**	**179**	⇑P	**P**	**21 07 01.0**	**-0.3**
	comp=Z,55nm,0.5s						
VNA3	**Neumayer Olymp**	**91.20**	**175**	⇑P	**P**	**21 07 01.7**	**-0.2**
	comp=Z,1.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**92.40**	**288**	P	**P**	**21 07 08.9**	**+0.6**
	comp=Z,0.6nm,0.4s,baz=100,slow=1.8,SNR=7.4						
	comp=Z,0.6nm,0.4s						
CMAR	**Chiang Mai Arr**	**92.40**	**288**	P	**P**	**21 07 08.1**	**-0.2**
LZH	**Lanzhou**	**93.61**	**307**	*e*P	**P**	**21 07 18.3**	**+4.6**
LZH				pmax	pmax		
	comp=Z,21nm,1.4s						
BVAR	**Borovoye Array**	**118.75**	**322**	PKP	**PKPdf**	**21 12 42.9**	**-1.5**
	comp=Z,1.0nm,0.5s,baz=82,slow=2.0,SNR=6.3						
CLL	**Collm**	**145.43**	**352**		**PKPdf**	**21 13 32.5**	**-1.8**
CLL	**Collm**	**145.43**	**352**	*i* PKPbc	**PKPdf**	**21 13 33.4**	**-0.9**
	comp=Z,4.0nm,0.7s						
KOLS	**Kolonicke sedl**	**145.56**	**341**	*e*PKP	**PKPab**	**21 13 36.0**	**+0.6**
VRAC	**Vranov**	**146.73**	**347**	*e*PKP	**PKPbc**	**21 13 37.7**	**-0.8**
VYHS	**Vyhne**	**146.96**	**344**	*e*PKP	**PKPdf**	**21 13 37.7**	**+0.7**
BRTR	**Keskin Array B**	**146.96**	**319**	PKPbc	**PKPbc**	**21 13 39.0**	**-0.7**
	comp=Z,2.6nm,0.7s,baz=49,slow=3.0,SNR=14						
BRTR	**Keskin Array B**	**146.96**	**319**		**PKPdf**	**21 13 38.1**	**+0.6**
KRUC	**Moravsky**	**147.01**	**347**	*e*PKP	**PKPbc**	**21 13 38.4**	**-0.8**
GERES	**GERESS Array B**	**147.72**	**350**	PKPbc	**PKPbc**	**21 13 40.4**	**-1.0**
	comp=Z,0.4nm,0.5s,baz=17,slow=1.8,SNR=5.2						
GERES	**GERESS Array B**	**147.72**	**350**		**PKPdf**	**21 13 39.5**	**+1.1**
WINA	**Alland / Wiene**	**147.98**	**347**	*e*PKP	**PKPbc**	**21 13 42.2**	**+0.3**
	comp=Z,1.0nm,0.5s						
CONA	**Conrad Observa**	**148.20**	**347**	*e*PKP	**PKPbc**	**21 13 42.4**	**-0.2**
	comp=Z,0.6nm,0.3s						
RONA	**Rosalia, Austr**	**148.32**	**346**	*e*PKP	**PKPbc**	**21 13 42.5**	**-0.3**
	comp=Z,1.3nm,0.5s						
MMAI	**Mount Meron Ar**	**148.99**	**306**	PKPbc	**PKPbc**	**21 13 45.0**	**-0.1**
	comp=Z,1.9nm,0.6s,baz=56,slow=11,SNR=5.5						
SESA	**Seetaler Alpe,**	**149.24**	**348**	*i* PKP	**PKPbc**	**21 13 44.5**	**-0.9**
	comp=Z,3.1nm,0.8s						
KBA	**Koelnbreinsper**	**149.50**	**350**	*e*PKP	**PKPbc**	**21 13 45.0**	**-1.1**
	comp=Z,1.3nm,0.6s						
WATA	**Walderalm**	**149.51**	**352**	*e*PKP	**PKPbc**	**21 13 45.4**	**-0.6**
	comp=Z,0.2nm,0.2s						
MOTA	**Moosalm**	**149.56**	**353**	*e*PKP	**PKPbc**	**21 13 44.1**	**-2.0**
	comp=Z,1.6nm,0.7s						
WTTA	**Wattenberg**	**149.57**	**352**	*e*PKP	**PKPbc**	**21 13 45.5**	**-0.7**
	comp=Z,3.7nm,0.7s						
DAVA	**Damuels**	**149.75**	**354**	*e*PKP	**PKPdf**	**21 13 42.2**	**+0.4**
	comp=Z,1.2nm,0.5s						
FETA	**Feichten**	**149.92**	**353**	*e*PKP	**PKPdf**	**21 13 42.6**	**+0.5**
	comp=Z,0.9nm,0.5s						
ABTA	**Abfaltersbach**	**149.95**	**351**	*e*PKP	**PKPbc**	**21 13 45.7**	**-1.3**
	comp=Z,1.2nm,0.4s						

*NEIC **10** 21:00:54.3±1.5, 43°.75N±0°.05×105°.41W±0°.06, h0km±1km, ML3.4/52, Error ellipse: s-maj=9.8km s-min=5.1km az=319.0*
*IDC **10** 21:00:56.7±1.3, 44°.03N×105°.55W, h0km, mbtmp3.3/4, ML3.2/5, Error ellipse: s-maj=30.1km s-min=11.3km az=144.0*
ISC 10 21:00:55.0±0.9, **43°.77N**±0°.06×**105°.34W**±0°.06, **h0km**, **n59**, σ1§**14**/58, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RSSD	**Black Hills**	**1.01**	**69**	Pg	**Pg**	**21 01 14.9**	**+0.5**
K22A	**Casper**	**1.41**	**218**		**Pg**	**21 01 21.8**	**-0.2**
K22A				IAML		21 01 53.1	
	387nm,0.3s						
LAO	**LASA Array**	**2.99**	**348**	Pn	**Pn**	**21 01 42.6**	**-1.1**
LAO				IAML		21 02 30.6	
	180nm,0.9s						
LAO				IAML		21 03 05.4	
	180nm,1.0s						
RLMT	**Red Lodge**	**3.12**	**297**	Pn	**Pn**	**21 01 44.3**	**-1.4**
BW06	**Boulder Array**	**3.24**	**253**	Pn	**Pn**	**21 01 48.6**	**+1.3**
PD31	**Pinedale Array**	**3.24**	**253**	Pn	**Pn**	**21 01 47.8**	**+0.5**
PDAR	**Pinedale Array**	**3.24**	**253**	Pn	**Pn**	**21 01 48.9**	**+1.6**
	2.6nm,0.3s,baz=73,slow=16,SNR=51						
PDAR				Lg	Lg	21 02 34.9	
	6.5nm,0.3s,baz=67,slow=28,SNR=2.9						
	4.8nm,0.5s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**3.24**	**253**	Pn	**Pn**	**21 01 47.3**	**0.0**
HAYD	**Hayden**	**3.54**	**204**	Pn	**Pn**	**21 01 51.3**	**-0.2**
HAYD				IAML		21 03 02.2	
	comp=E,83nm,1.1s						
YNE	**Yellowstone No**	**3.57**	**292**	Pn	**Pn**	**21 01 50.8**	**-1.0**
YNE				IAML		21 02 54.8	
	comp=N,66nm,0.4s						
YNE				IAML		21 03 10.5	
	comp=E,64nm,0.9s						
YMP	**Mirror Lake Pl**	**3.59**	**287**	Pn	**Pn**	**21 01 53.2**	**+1.0**
YMP				IAML		21 02 54.4	
	comp=N,84nm,0.7s						
OGNE	**Ogallala**	**3.74**	**138**	Pn	**Pn**	**21 01 53.8**	**-0.2**
SNOW	**Snow King Moun**	**3.94**	**267**	Pn	**Pn**	**21 01 57.2**	**+0.2**
SNOW				IAML		21 03 15.9	
	comp=N,58nm,1.3s						
SNOW				IAML		21 03 20.5	
	comp=N,40nm,1.6s						
ISCO	**Idaho Springs**	**3.97**	**183**	Pn	**Pn**	**21 01 57.3**	**-0.1**
YPP	**Pitchstone Pla**	**3.97**	**279**	Pn	**Pn**	**21 01 57.0**	**-0.5**
O20A	**White River Ci**	**4.22**	**212**	Pn	**Pn**	**21 02 01.3**	**+0.5**
O20A				IAML		21 03 26.9	
	comp=N,30nm,1.2s						
E28A	**Huff**	**4.32**	**48**	Pn	**Pn**	**21 02 03.1**	**+1.1**
AHID	**Auburn Hatcher**	**4.32**	**259**	Pn	**Pn**	**21 02 02.5**	**+0.3**
AHID				IAML		21 03 30.9	
	comp=N,39nm,1.2s						
AHID				IAML		21 03 43.6	
	comp=N,27nm,1.7s						
YHL	**Hebgen Lake**	**4.33**	**287**	Pn	**Pn**	**21 02 03.8**	**+1.4**
YHL				IAML		21 03 33.1	
	comp=N,35nm,1.3s						
YHL				IAML		21 03 39.9	
	comp=E,42nm,1.0s						
DGMT	**Dagmar**	**4.77**	**9**	Pn	**Pn**	**21 02 08.0**	**-0.2**
Q24A	**Divide**	**4.80**	**178**	Pn	**Pn**	**21 02 08.8**	**0.0**
Q24A				IAML		21 03 32.2	
	comp=N,18nm,0.8s						
Q24A				IAML		21 03 36.2	
	comp=E,37nm,1.0s						
BOZ	**Bozeman (W)**	**4.84**	**294**	Pn	**Pn**	**21 02 10.3**	**+1.0**
BOZ				IAML		21 03 32.7	
	comp=E,19nm,0.9s						
BOZ				IAML		21 03 32.8	
	comp=E,18nm,0.8s						
HWUT	**Hardware Ranch**	**5.07**	**247**	Pn	**Pn**	**21 02 12.4**	**0.0**
HWUT				IAML		21 03 48.6	
	comp=E,33nm,1.2s						
HWUT				IAML		21 03 58.7	
	comp=E,31nm,0.8s						
BSUT	**Blindstream Ca**	**5.16**	**233**	Pn	**Pn**	**21 02 14.5**	**+0.7**
BSUT				IAML		21 03 58.0	
	comp=E,16nm,1.1s						
BSUT				IAML		21 03 59.9	
	comp=N,17nm,2.4s						
KSCO	**Kaye Shedlock'**	**5.17**	**156**	Pn	**Pn**	**21 02 13.8**	**+0.1**
TCUT	**Toone Canyon**	**5.21**	**242**	Pn	**Pn**	**21 02 15.2**	**+0.8**
EGMT	**Eagleton**	**5.25**	**326**	Pn	**Pn**	**21 02 15.8**	**+0.9**
MCMT	**McKenzie Canyo**	**5.49**	**284**	Pn	**Pn**	**21 02 19.0**	**+0.7**
P18A	**Preston Nutter**	**5.53**	**223**	Pn	**Pn**	**21 02 20.1**	**+1.3**
MDND	**Maddock**	**5.72**	**42**	Pn	**Pn**	**21 02 21.5**	**+0.3**
SPUT	**South Promonto**	**5.80**	**247**	Pn	**Pn**	**21 02 21.3**	**-1.1**
PV22	**Blue Mesa, Par**	**5.84**	**208**	Pn	**Pn**	**21 02 25.1**	**+2.1**
BCYI	**Bear Canyon**	**5.84**	**278**	Pn	**Pn**	**21 02 20.6**	**-2.4**
PV21	**Cone Mtn., Par**	**5.88**	**209**	Pn	**Pn**	**21 02 24.1**	**+0.5**
GBMT	**Granite Butte,**	**5.89**	**304**	Pn	**Pn**	**21 02 22.5**	**-1.2**
P17A	**Butcher Ranch,**	**5.90**	**225**	Pn	**Pn**	**21 02 24.8**	**+1.0**
PV15	**Paradox Valley**	**5.92**	**205**	Pn	**Pn**	**21 02 25.6**	**+1.5**
PV23	**Carpenter Ridg**	**5.99**	**209**	Pn	**Pn**	**21 02 26.5**	**+1.4**
PV04	**Paradox Valley**	**6.00**	**208**	Pn	**Pn**	**21 02 26.6**	**+1.4**
SDCO	**Great Sand Dun**	**6.02**	**181**	Pn	**Pn**	**21 02 25.1**	**-0.5**
SRU	**San Rafael Swe**	**6.07**	**222**	Pn	**Pn**	**21 02 26.7**	**+0.6**
PV11	**David Mesa, Pa**	**6.08**	**207**	Pn	**Pn**	**21 02 26.0**	**-0.3**
PV16	**Nyswonger Mesa**	**6.08**	**208**	Pn	**Pn**	**21 02 27.6**	**+1.2**
PV03	**Paradox Valley**	**6.11**	**207**	Pn	**Pn**	**21 02 26.8**	**0.0**
PV02	**Paradox Valley**	**6.12**	**206**	Pn	**Pn**	**21 02 27.6**	**+0.7**
PV13	**Radium Mtn., P**	**6.19**	**206**	Pn	**Pn**	**21 02 28.0**	**+0.1**
TMUT	**Trail Mountain**	**6.27**	**227**	Pn	**Pn**	**21 02 31.0**	**+1.9**
ECSD	**EROS Data Cent**	**6.32**	**87**	Pn	**Pn**	**21 02 30.3**	**+0.9**
DUG	**Dugway, Tooele**	**6.61**	**240**	Pn	**Pn**	**21 02 35.5**	**+1.9**
T25A	**Trinidad**	**6.66**	**174**	Pn	**Pn**	**21 02 35.7**	**+1.4**
F33A	**5 Mile Ranch,**	**6.76**	**69**	Pn	**Pn**	**21 02 34.8**	**-0.7**
RTBA	**Rita Blanca**	**7.59**	**164**	Pn	**Pn**	**21 02 47.1**	**+0.1**
ELK	**Elko**	**7.94**	**251**	Pn	**Pn**	**21 02 53.0**	**+1.2**
	comp=N,0.1nm,0.3s,baz=62,slow=15,SNR=1.7						
ELK				AML	AML		
PSUT	**Pine Spring**	**8.28**	**234**	Pn	**Pn**	**21 02 57.1**	**+0.6**
I10CA	**LAC DU BONNET**	**9.05**	**41**	I	I	21 54 50.0	
	baz=223,slow=286,SNR=6.4						
ULM	**Lac du Bonnet**	**9.15**	**42**	Pn	**Pn**	**21 03 08.1**	**-0.2**
	comp=N,1.5nm,0.3s,baz=223,slow=12,SNR=14						
ULM				Pg		21 03 43.2	
	comp=N,0.8nm,0.3s,baz=224,slow=16,SNR=7.5						
ULM				Lg	Lg	21 05 38.7	
	comp=N,0.4nm,0.3s,baz=126,slow=23,SNR=3.4						
	comp=N,3.1nm,0.3s						
ULM				AML	AML		
BLOK	**Blackwell**	**9.35**	**136**	Pn	**Pn**	**21 03 08.8**	**-2.3**
NVAR	**Mina Array Bea**	**11.14**	**246**	Pn	**Pn**	**21 03 39.1**	**+3.5**
	comp=N,0.1nm,0.3s,baz=57,slow=12,SNR=4.2						
	comp=N,0.5nm,0.6s						
NVAR				AML	AML		
TXAR	**Lajitas Array**	**14.47**	**174**	Pn	**P**	**21 04 27.4**	**-0.7**
	baz=356,slow=16,SNR=2.1						
	comp=N,0.2nm,0.6s						

*DJA **10** 21:07:44.6±0.3, 1°.N±3°.×12°.2E±°, h47km±7km, M4.1/18, mb4.2/1, MLv4.0/18*
ISC 10 21:07:46.5±2.1, **1°.0N**±0°.1×**122°.0E**±0°.1, **h44**km, **n8**, σ1§**52**/11, **Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APSI	**Ampana**	**1.97**	**191**	P	**Pn**	**21 08 18.6**	**+1.2**
APSI				AML	AML		
KMSI	**Cibinong**	**2.01**	**103**	P	**Pn**	**21 08 18.0**	**0.0**
KMSI				S	**Sn**	**21 08 43.8**	**+1.9**
KMSI				AML	AML		
LUWI	**Luwuk**	**2.20**	**160**	P	**Pn**	**21 08 21.0**	**+0.5**
MNI	**Manado**	**2.85**	**82**	P	**Pn**	**21 08 29.3**	**-0.2**
MNI				S	**Sn**	**21 09 01.0**	**-1.6**
MNI				AML	AML		
PCI	**Palu**	**2.91**	**229**	P	**Pn**	**21 08 27.9**	**-2.5**
PCI				AML	AML		
TTSI	**Tana Toraja**	**4.61**	**208**	P	**Pn**	**21 08 53.1**	**-0.6**
TTSI				S	**Sn**	**21 09 46.3**	**+0.2**
TTSI				AML	AML		
SANI	**Sanana**	**5.01**	**128**	P	**Pn**	**21 08 57.7**	**-1.5**
SANI				AML	AML		
DDMP	**Don Marcelino,**	**6.24**	**36**	*e*P	**Pn**	**21 09 17.5**	**+1.4**
DDMP				*e*S	Sn	21 10 15.0	-11

*IDC **10** 21:28:53.2±4.0, 29°.29N×58°.07E, h0km, mb3.5/6, mbtmp3.5/6, Error ellipse: s-maj=101.1km s-min=24.6km az=178.0*
*TEH **10** 21:28:55.5, 29°.79N×58°.01E, h6km±30km, ML3.9, Presumed earthquake*
*OMAN **10** 21:28:55.9±1.5, 30°.04N×58°.10E, h10km, mb3.2/18, ml3.5/4, Error ellipse: s-maj=19.7km s-min=12.1km az=125.0*
*DSN **10** 21:29:04.1±1.8, 29°.66N×57°.25E, h10km, ML3.6/10, Error ellipse: s-maj=21.4km s-min=12.6km az=62.0*
ISC 10 21:28:56.9±0.6, **29°.78N**±0°.03×**57°.96E**±0°.04, **h10**km, **n64**, σ3§**16**/62, **mb3.3/6**, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CHMN	**Cheshme madani**	**0.38**	**283**	Pg	**Pb**	**21 29 05.1**	**-0.8**
KBAM	**BAM**	**0.77**	**146**	Pg	**Pb**	**21 29 11.5**	**-0.9**
KBAM				Sg	**Sb**	**21 29 21.9**	**-1.0**
KRM1	**Kerman Provinc**	**0.94**	**321**	Pg	**Pn**	**21 29 15.2**	**-1.1**
KHGB	**Koh Gabri**	**1.42**	**295**	Pg	**Pg**	**21 29 24.6**	**+0.4**
ZRDN	**Zarand Kerman**	**1.71**	**314**	Pg	**Pg**	**21 29 29.9**	**+0.2**
ZRDN				Sg	**Sg**	**21 29 54.5**	**+2.5**
KHNJ	**Kahnooj**	**1.83**	**187**	Pn	**Pb**	**21 29 30.1**	**-0.5**
BSRN	**Basiran**	**2.40**	**24**	Pn	**Pb**	**21 29 38.3**	**-2.0**
NHDN	**Nehbandan**	**2.42**	**48**	Pn	**Pb**	**21 29 38.2**	**-2.4**
IKOO	**Kooshah**	**2.79**	**18**	Pn	**Pb**	**21 29 43.3**	**-3.6**
GENO	**Geno**	**2.84**	**214**	Pn	**Pb**	**21 29 45.8**	**-2.0**
ITEG	**Tejag**	**3.18**	**12**	Pn	**Pb**	**21 29 48.9**	**-4.8**
TPRV	**Paradeh(Tabas**	**3.42**	**342**	Pn	**Pn**	**21 29 52.6**	**+2.2**
IMON	**Monand**	**3.70**	**23**	Pn	**Pn**	**21 29 56.5**	**+2.1**
TKDS	**Koohdasht(Taba**	**3.89**	**350**	Pn	**Pn**	**21 29 58.9**	**+2.0**
JASK	**Jask - Hormozg**	**3.90**	**181**	P	**Pn**	**21 29 59.2**	**+2.4**
	SNR=11						
JASK	**Jask - Hormozg**	**3.90**	**181**	Pn	**Pn**	**21 29 59.3**	**+2.5**
SHME	**Shamm**	**4.05**	**204**	P	**Pn**	**21 30 02.4**	**+3.5**
SHME	**Shamm**	**4.05**	**204**	P	**Pb**	**21 30 03.8**	**-4.5**
SHME				S	**Sb**	**21 30 52.7**	**-4.5**
TSHB	**Tabas_ShorAb**	**4.11**	**342**	Pn	**Pn**	**21 30 01.7**	**+1.9**
BANOM	**Banah**	**4.11**	**201**	P	**Pb**	**21 30 04.9**	**-4.5**
BANOM				S	**Sn**	**21 30 49.0**	**+1.0**
BANOM	**Banah**	**4.11**	**201**	P	**Pb**	**21 30 05.0**	**-4.3**
	SNR=5.6						
BANOM				S	**Sb**	**21 30 55.9**	**-3.3**
SHRT	**Shahrakht**	**4.34**	**27**	Pn	**Pn**	**21 30 04.7**	**+1.8**
SRVN	**Saravan**	**4.56**	**120**	Pn	**Pn**	**21 30 07.9**	**+1.8**
KHL1	**Khalili_Fars**	**4.62**	**244**	Pn	**Pn**	**21 30 09.4**	**+2.7**
MASF	**Masafi**	**4.67**	**200**	P	Pb	21 30 12.9	-6.0
MASF				S	**Sb**	**21 31 11.1**	**-4.1**
MDH	**Madha**	**4.70**	**199**	P	**Pn**	**21 30 11.0**	**+3.2**
MDH	**Madha**	**4.70**	**199**	P	Pn	21 30 12.2	+4.3
MDH				S	**Sn**	**21 31 08.5**	**+6.1**
UOSS	**Minazif**	**5.06**	**198**	P	Pn	21 30 16.7	+3.9
UOSS	**Minazif**	**5.06**	**198**	P	Pb	21 30 18.4	-7.1
UOSS				S	**Sb**	**21 31 19.0**	**-7.4**
NAZ	**Nazwa, Dubai**	**5.19**	**204**	P	Pn	21 30 20.1	+5.6
	SNR=6.9						
NAZ				S	**Sb**	**21 31 22.8**	**-7.3**
HATD	**Hatta, Dubai**	**5.19**	**199**	P	**Pn**	**21 30 18.1**	**+3.4**
HATD	**Hatta, Dubai**	**5.19**	**199**	P	Pn	21 30 20.0	+5.3
HATD				S	**Sb**	**21 31 21.8**	**-8.4**
NGCH	**Negor - Chabah**	**5.22**	**147**	P	**Pn**	**21 30 16.0**	**+1.0**
ASHO	**Ashiyiah**	**5.35**	**199**	P	Pn	21 30 20.8	+4.0
ASHO	**Ashiyiah**	**5.35**	**199**	P	Pn	21 30 21.2	+4.4
FAQ	**Al Faqa, Dubai**	**5.44**	**203**	P	Pn	21 30 23.9	+5.9
SOHO	**SOHO**	**5.76**	**193**	P	**Pn**	**21 30 25.3**	**+2.9**
SOHO	**SOHO**	**5.76**	**193**	P	**Pn**	**21 30 26.0**	**+3.5**
AJN	**Ajban**	**5.83**	**208**	P	Pn	21 30 27.8	+4.4
AJN				S	**Sn**	**21 31 34.4**	**+4.0**
DSBU	**Dashti - Bushe**	**6.03**	**258**	Pn	**Pn**	**21 30 28.6**	**+2.4**
HOQ	**Hoqain**	**6.20**	**186**	P	**Pn**	**21 30 31.7**	**+3.2**
WSAR	**Wadi Sarin**	**6.54**	**175**	P	**Pn**	**21 30 34.5**	**+1.4**
ARQ	**Araqi**	**6.54**	**192**	P	Pn	21 30 38.0	+4.7
ARQ				S	Sn	21 31 56.3	+8.4
SMDO	**Samad**	**6.69**	**179**	P	**Pn**	**21 30 36.9**	**+1.6**
MZWR	**Madinat Zayed**	**7.01**	**212**	P	**Pn**	**21 30 41.7**	**+2.0**
BSY	**Bisya**	**7.04**	**186**	P	**Pn**	**21 30 43.5**	**+3.5**
WBK	**Wadi Bani Khal**	**7.19**	**173**	P	**Pn**	**21 30 42.6**	**+0.4**
	SNR=12						
JMDO	**Jabal Madar**	**7.38**	**179**	P	**Pn**	**21 30 47.3**	**+2.6**
UMZA	**Um Al Zommool**	**7.47**	**200**	P	**Pn**	**21 30 49.7**	**+3.8**
JLN	**Jalan Bani Buh**	**7.70**	**170**	P	**Pn**	**21 30 48.9**	**-0.2**
MZR	**Muzera**	**7.85**	**212**	P	**Pn**	**21 30 53.7**	**+2.5**
MZR	**Muzera**	**7.85**	**212**	P	**Pn**	**21 30 54.3**	**+3.1**
MHTO	**MHTO**	**8.75**	**180**	P	Pn	21 31 08.1	+4.5
DOK	**Doka**	**11.64**	**198**	P	Pn	21 31 47.6	+4.4
WHFO	**Wadi Hawf**	**12.41**	**199**	P	**Pn**	**21 31 55.0**	**+1.3**
RAYN	**Ar Rayn**	**12.76**	**244**	P	**Pn**	**21 31 56.8**	**-1.7**
RAYN	**Ar Rayn**	**12.76**	**244**	P	**Pn**	**21 31 57.9**	**-0.6**
ABTO	**Aybut**	**13.08**	**200**	P	**Pn**	**21 32 01.8**	**-1.1**
BRTR	**Keskin Array B**	**22.25**	**303**	P	**P**	**21 33 56.0**	**+1.9**
	0.7nm,0.9s,baz=119,slow=12,SNR=2.2						
	0.7nm,0.9s						
MKAR	**Makanchi Array**	**25.40**	**41**	P	**P**	**21 34 25.1**	**+0.6**
	0.3nm,0.7s,baz=218,slow=7.4,SNR=5.2						
	0.3nm,0.7s						
ZALV	**Zalesovo Beam**	**31.02**	**31**	P	**P**	**21 35 15.8**	**+1.3**
	0.8nm,0.5s,baz=246,slow=9.6,SNR=5.2						
	0.8nm,0.5s						
GERES	**GERESS Array B**	**38.53**	**312**	P	**P**	**21 36 20.4**	**+0.8**
	0.5nm,0.8s,baz=123,slow=9.7,SNR=4.9						
	0.5nm,0.8s						
LZDM	**Lanzhou Array**	**38.63**	**69**	P	**P**	**21 36 19.5**	**-1.3**
	1.3nm,0.3s,baz=262,slow=10.0,SNR=2.3						
	1.3nm,0.3s						
ESDC	**Sonseca Array**	**50.95**	**299**	P	**P**	**21 37 58.9**	**+0.2**
	0.4nm,0.9s,baz=64,slow=6.4,SNR=2.8						
	0.4nm,0.9s						

*IDC **10** 21:49:13.4±0.8, 33°.42N×34°.55E, h0km, mb3.7/5, mbtmp3.6/11, ML3.1/6, MS2.4/1, Error ellipse: s-maj=11.4km s-min=8.9km az=50.0*
*ISK **10** 21:49:14.4, 33°.25N×34°.62E, h30km, ML3.9/40*
*JSO **10** 21:49:15.7±0.5, 33°.N±4°.×3°.5E±°, h10km, M4.2/20, MLv4.2/20*
*NIC **10** 21:49:16.9, 33°.38N×34°.60E, h32km±48km, Ml3.5/10*
*HLW **10** 21:49:17.2, 33°.39N×34°.45E, h30km±5km, Ml3.6*
*GII **10** 21:49:18.6±0.0, 33°.378N±0°.001×34°.546E±0°.001, h0km, Mws3.4, confirmed*
ISC 10 21:49:15.4±1.3, **33°.37N**±0°.02×**34°.54E**±0°.03, **h18**km±4km, **n126**, σ1§**13**/165, **mb3.8**/5, **5C-12D**, **Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HNTI	**Hanita**	**0.60**	**118**	P	**Pb**	**21 49 28.2**	**+0.8**
HNTI				S	**Sb**	**21 49 36.9**	**+1.4**
MMA0B	**Mount Meron ar**	**0.80**	**116**	⇓P	**Pb**	**21 49 31.4**	**+0.5**
MMA0B				S	**Sb**	**21 49 42.1**	**+0.6**
MMAI	**Mount Meron Ar**	**0.80**	**116**	Pg	**Pb**	**21 49 31.5**	**+0.5**
	444nm,0.3s,baz=304,slow=13,SNR=1813						
MMAI				Lg	Lg	21 49 40.7	
	789nm,0.3s,baz=297,slow=32,SNR=32						
MMAI				LR	LR	21 49 47.4	
	comp=Z,58nm,18.9s,baz=100,slow=41						
OFRI	**Ofer**	**0.83**	**153**	⇓P	**Pb**	**21 49 31.7**	**+0.3**
OFRI				S	**Sb**	**21 49 42.2**	**0.0**
BLGI	**Bet Lehem HaGe**	**0.84**	**139**	⇓P	**Pb**	**21 49 31.7**	**+0.3**
BLGI				S	**Sb**	**21 49 42.4**	**+0.2**
KIRY	**Kiryat Shemona**	**0.88**	**100**	⇓P	**Pb**	**21 49 32.6**	**+0.5**
KIRY				S	**Sg**	**21 49 44.4**	**+0.3**
ZEFT	**Zefat**	**0.89**	**116**	⇓P	**Pb**	**21 49 32.9**	**+0.5**
HULT	**Hulata**	**0.95**	**109**	⇓P	**Pb**	**21 49 33.8**	**+0.4**
GEM	**Giv'at Ha'Em**	**0.95**	**99**	P	**Pb**	**21 49 33.9**	**+0.5**
GEM	**Giv'at Ha'Em**	**0.95**	**99**	⇓P	**Pb**	**21 49 34.0**	**+0.5**
GEM				S	**Sb**	**21 49 46.0**	**+0.3**
KNHM	**Kefar Nahum**	**1.00**	**119**	⇓P	**Pb**	**21 49 34.4**	**+0.3**
KNHM				S	**Sb**	**21 49 47.3**	**+0.3**
NATI	**Neve Ativ**	**1.01**	**96**	⇓P	**Pb**	**21 49 34.7**	**+0.3**
NATI				S	**Sb**	**21 49 47.3**	**0.0**
TVER	**Teveria**	**1.02**	**125**	⇓P	**Pb**	**21 49 34.7**	**+0.1**
TVER				S	**Sb**	**21 49 47.9**	**+0.2**
RMOT	**Ramot**	**1.07**	**118**	⇓P	**Pb**	**21 49 35.9**	**+0.4**
KSHT	**Keshet**	**1.13**	**109**	⇓P	**Pn**	**21 49 36.8**	**+0.3**
MMLI	**Mount Malkishu**	**1.19**	**141**	P	**Pn**	**21 49 36.5**	**-0.7**
MMLI				S	**Sb**	**21 49 51.2**	**-1.2**
MMLI	**Mount Malkishu**	**1.19**	**141**	P	**Pn**	**21 49 37.0**	**-0.1**
MMLI				S	**Sb**	**21 49 51.9**	**-0.5**
SLTI	**Sal'it**	**1.20**	**159**	⇑P	**Pn**	**21 49 36.9**	**-0.4**
SLTI				S	**Sb**	**21 49 51.3**	**-1.4**
QRNJ	**Al-Qirein**	**1.35**	**139**	P	**Pn**	**21 49 39.8**	**+0.5**
QRNJ				AML	AML		
ROII	**Roi**	**1.37**	**144**	P	**Pn**	**21 49 40.2**	**+0.6**
ARIL	**Ariel Universi**	**1.38**	**156**	P	**Pn**	**21 49 39.9**	**+0.1**
ARIL				S	**Sn**	**21 49 56.5**	**-1.1**
SALP	**Salfit**	**1.41**	**157**	P	**Pn**	**21 49 40.3**	**+0.1**
SALP				AML	AML		
RGMN	**Argaman**	**1.45**	**145**	P	**Pn**	**21 49 41.4**	**+0.6**
YITV	**Yitav**	**1.60**

ASF	**Jabal al Asfar**	**2.28**	**121**	P	**Pn**	**21 49 53.7 +0.9**
ASF				AML	AML	
SWQJ	**Karak**	**2.36**	**146**	P	**Pn**	**21 49 56.5 +1.5**
SWQJ				AML	AML	
ALFC	**Alefka**	**2.40**	**319**	P	**Pn**	**21 49 55.2 +1.3**
ALFC				S	**Sn**	**21 50 23.5 +0.6**
ALFC				AML	AML	21 50 25.9
	2.1nm,0.5s					
ALFC				AML	AML	21 50 27.1
	4.7nm,0.5s					
KZIT	**Kziot**	**2.46**	**183**	P	**Pn**	**21 49 55.7 +1.1**
KZIT				S	**Sn**	**21 50 22.6 -1.5**
KZIT	**Kziot**	**2.46**	**183**	P	**Pn**	**21 49 55.7 +1.1**
KZIT				AML	AML	
KZIT	**Kziot**	**2.46**	**183**	⇑P	**Pn**	**21 49 55.5 +0.9**
KZIT				S	**Sn**	**21 50 22.9 -1.2**
AKMS	**Akamas**	**2.46**	**313**	P	**Pn**	**21 49 56.0 +1.3**
AKMS				S	**Sn**	**21 50 25.3 +1.0**
AKMS				AML	AML	21 50 29.4
	0.7nm,0.4s					
AKMS				AML	AML	21 50 30.9
	1.0nm,0.4s					
IDAN	**Idan**	**2.60**	**166**	P	**Pn**	**21 49 57.4 +0.8**
IDAN				S	**Sn**	**21 50 27.5 -0.2**
OSC1	**CSNet OBS 1**	**2.73**	**274**	P	**Pn**	**21 49 59.4 +1.0**
OSC1				S	**Sn**	**21 50 32.4 +1.6**
TISA	**Tisan-Mersin**	**2.88**	**346**	Pn	**Pn**	**21 50 01.6 +1.2**
TISA				AML	AML	
AKK2	**Akkuyu-Mersin**	**2.88**	**344**	Pn	**Pn**	**21 50 01.6 +1.2**
AKK2				AML	AML	
AKK1	**Akkuyu-Mersin**	**2.89**	**344**	Pn	**Pn**	**21 50 01.7 +1.2**
AKK1				AML	AML	
BECE	**Buyukeceli-Mer**	**2.90**	**344**	Pn	**Pn**	**21 50 01.6 +0.9**
BECE				AML	AML	
KARG	**Kargicak-Mersi**	**2.91**	**347**	Pn	**Pn**	**21 50 01.7 +0.8**
KARG				AML	AML	
YESI	**Yesilovacik-Me**	**2.92**	**346**	Pn	**Pn**	**21 50 01.9 +1.0**
YESI				AML	AML	
YORU	**Yoruktepe-Mers**	**2.93**	**342**	Pn	**Pn**	**21 50 02.2 +1.0**
YORU				AML	AML	
IKL	**Isikli**	**2.95**	**346**	Pn	**Pn**	**21 50 02.6 +1.2**
IKL				AML	AML	
TEPK	**Tepekoy-MERSIN**	**2.97**	**344**	Pn	**Pn**	**21 50 02.6 +1.0**
TEPK				AML	AML	
OREN	**Orenkoy-Mersin**	**2.97**	**343**	Pn	**Pn**	**21 50 02.9 +1.3**
TEKE	**Tekeli-Mersin**	**3.01**	**337**	Pn	**Pn**	**21 50 03.2 +1.0**
TEKE				AML	AML	
BOZY	**Bozyazi-Mersin**	**3.02**	**335**	Pn	**Pn**	**21 50 03.6 +1.3**
BOZY				AML	AML	
PRNI	**Paran**	**3.03**	**172**	P	**Pn**	**21 50 03.7 +1.2**
PRNI				AML	AML	
SILI	**Silifke-Mersin**	**3.04**	**351**	Pn	**Pn**	**21 50 03.6 +1.1**
SILI				AML	AML	
KEBE	**Keben-Mersin**	**3.15**	**348**	Pn	**Pn**	**21 50 05.2 +1.0**
KEBE				AML	AML	
BERE	**Bereket-Mersin**	**3.17**	**340**	Pn	**Pn**	**21 50 05.6 +1.1**
BERE				AML	AML	
TEVE	**Tevekalti-Mers**	**3.19**	**344**	Pn	**Pn**	**21 50 05.9 +1.1**
TEVE				AML	AML	
HSNJ	**Maan**	**3.25**	**162**	P	**Pg**	**21 50 17.2 -0.6**
KRTS	**Karatas**	**3.27**	**12**	Pn	**Pn**	**21 50 06.8 +1.0**
KRTS				AML	AML	
TAHT	**Tahtakopru-Hat**	**3.29**	**24**	Pn	**Pn**	**21 50 06.8 +0.7**
TAHT				AML	AML	
HRFI	**Mount Harif**	**3.35**	**173**	P	**Pn**	**21 50 08.4 +1.5**
HRFI				AML	AML	
GAZI	**Gazipasa**	**3.40**	**328**	Pn	**Pn**	**21 50 08.8 +1.3**
GAZI				AML	AML	
AQBJ	**Aqaba**	**3.65**	**173**	P	**Pn**	**21 50 14.8 +3.8**
AQBJ				AML	AML	
EIL	**Elat**	**3.70**	**174**	Pn	**Pn**	**21 50 12.5 +0.8**
	4.9nm,0.3s,baz=350,slow=6.1,SNR=45					
EIL				Sn	**Sn**	**21 50 53.5 -1.3**
	37nm,0.3s,baz=117,slow=20,SNR=17					
EIL				LR	LR	21 51 43.6
	comp=Z,52nm,19.0s,baz=70,slow=40 13nm,0.4s					
EIL				AML	AML	
EIL	**Elat**	**3.70**	**174**	P	**Pn**	**21 50 12.8 +1.1**
CEYT	**Ceyhan**	**3.77**	**15**	Pn	**Pn**	**21 50 13.6 +1.0**
CEYT				AML	AML	
ALAN	**Alanya-ANTALYA**	**3.79**	**328**	Pn	**Pn**	**21 50 14.5 +1.6**
ALAN				AML	AML	
KRMN	**Karaman**	**3.94**	**345**	Pn	**Pn**	**21 50 16.3 +1.2**
KRMN				AML	AML	
HDMB	**Hadim**	**3.96**	**335**	Pn	**Pn**	**21 50 16.9 +1.4**
HDMB				AML	AML	
KOT	**Kottamia**	**4.13**	**215**	P	**Pn**	**21 50 18.3 +0.6**
HBST	**Basata**	**4.14**	**178**	P	**Pn**	**21 50 19.0 +1.2**
KOZT	**Kozan**	**4.24**	**14**	Pn	**Pn**	**21 50 20.4 +1.3**
KOZT				AML	AML	
CMRD	**Camardi-Nigde**	**4.30**	**5**	Pn	**Pn**	**21 50 21.5 +1.4**
CMRD				AML	AML	
NUB	**Nuweibaa**	**4.33**	**179**	P	**Pn**	**21 50 21.9 +1.6**
GAZ	**Gaziantep**	**4.38**	**29**	Pn	**Pn**	**21 50 21.9 +0.8**
ZAF	**Zafarana**	**4.41**	**203**	P	**Pn**	**21 50 22.2 +0.7**
YESY	**Yesilyurt**	**4.45**	**352**	Pn	**Pn**	**21 50 23.7 +1.5**
YESY				AML	AML	
KMRS	**Kahramanmaras**	**4.56**	**24**	Pn	**Pn**	**21 50 24.5 +1.0**
KMRS				AML	AML	
SEYD	**Seydisehir-KON**	**4.59**	**332**	Pn	**Pn**	**21 50 25.9 +1.8**
SEYD				AML	AML	
HDHB	**Dhahab**	**4.63**	**179**	P	**Pn**	**21 50 25.3 +0.8**
ANTB	**Antalya**	**4.75**	**319**	Pn	**Pn**	**21 50 28.4 +2.3**
ANTB				AML	AML	
HKAT	**Jabal Katrina**	**4.85**	**186**	P	**Pn**	**21 50 28.5 +0.8**
KONT	**Konya--Tatoy**	**4.90**	**339**	Pn	**Pn**	**21 50 30.4 +2.2**
KONT				AML	AML	
AKAS	**Kas**	**4.96**	**307**	Pn	**Pn**	**21 50 30.8 +1.6**
AKAS				AML	AML	
GULA	**Gulagac**	**4.97**	**357**	Pn	**Pn**	**21 50 31.1 +1.8**
GULA				AML	AML	
KORT	**Korkueli**	**4.99**	**318**	Pn	**Pn**	**21 50 31.8 +2.2**
KORT				AML	AML	
HNAT	**Natroun**	**5.01**	**223**	P	**Pn**	**21 50 30.6 +0.9**
TR2	**Tor 2**	**5.01**	**188**	P	**Pn**	**21 50 30.4 +0.6**
ELL	**Elmali**	**5.08**	**313**	Pn	**Pn**	**21 50 32.9 +2.1**
ELL				AML	AML	
LADK	**Ladik-KONYA**	**5.14**	**340**	Pn	**Pn**	**21 50 33.9 +2.4**
BCK	**Bucak**	**5.21**	**323**	Pn	**Pn**	**21 50 34.6 +2.2**
BCK				AML	AML	
NBNS	**Bani Suef**	**5.49**	**211**	P	**Pn**	**21 50 36.3 0.0**
RYAN	**Fayoum**	**5.62**	**222**	P	**Pn**	**21 50 38.0 0.0**
BRTR	**Keskin Array B**	**6.39**	**354**	Pn	**Pn**	**21 50 50.9 +2.2**
	0.3nm,0.3s,baz=170,slow=16,SNR=7.1 1.2nm,0.6s					
BRTR				AML	AML	
TAMRE	**El Minia**	**6.47**	**210**	P	**Pn**	**21 50 50.0 +0.2**
SLUM	**Salum**	**8.10**	**259**	P	**Pn**	**21 51 12.7 +0.6**
IDI	**Anoyia**	**8.21**	**286**	Pn	**Pn**	**21 51 13.5 -0.2**
	1.3nm,0.3s,baz=96,slow=19,SNR=8.7					
IDI				Sn	**Sn**	**21 52 41.6 -4.4**
	2.6nm,0.3s,baz=230,slow=22,SNR=7.5 4.5nm,0.4s					
IDI				AML	AML	
GNI	**Garni**	**10.62**	**47**	Pn	**Pn**	**21 51 46.4 -0.3**
	0.1nm,0.3s,baz=234,slow=17,SNR=3.7 1.0nm,0.4s					
GNI				AML	AML	
AKASG	**Malin Array Be**	**17.76**	**349**	P	**Pn**	**21 53 20.3 -1.2**
	0.4nm,0.3s,baz=169,slow=11,SNR=2.0 0.2nm,0.3s					
AKASG				AML	AML	
GERES	**GERESS Array B**	**21.93**	**321**	P	**P**	**21 54 07.5 -0.4**
	0.5nm,0.6s,baz=127,slow=11,SNR=8.2 0.5nm,0.6s					
AKTO	**Aktyubinsk**	**24.26**	**38**	P	**P**	**21 54 31.6 +0.4**
	2.2nm,0.7s,baz=240,slow=8.7,SNR=8.5 2.2nm,0.7s					
FINES	**FINESS Array B**	**28.62**	**352**	P	**P**	**21 55 08.8 -1.6**
	2.0nm,1.0s,baz=150,slow=9.6,SNR=4.9 2.0nm,1.0s					
KURBB	**Kurchatov Arra**	**36.34**	**48**	P	**P**	**21 56 19.2 +1.1**
	0.4nm,0.5s,baz=263,slow=8.6,SNR=4.2 0.4nm,0.5s					
ARCES	**ARCESS Array B**	**36.57**	**355**	P	**P**	**21 56 19.5 -0.4**
	1.6nm,0.8s,baz=169,slow=9.1,SNR=4.8 1.6nm,0.8s					

*NNC **10** 21:53:04.0±8.3, 37°.63N×69°.87E, h0km, mb4.1, mpv3.9, Error ellipse: s-maj=75.2km s-min=52.7km az=151.0*

*KRNET **10** 21:53:21.8±0.1, 39°.02N×70°.73E, mb3.6*
ISC 10 21:53:21.8±2.5, **39°.1N**±0°.1×**70°.69E**±0°.07, **h0**km±12km, **n20, σ1872/30, 10C-13D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time h m s	Res ISC
DRK	**Karamyk**	**0.96**	**64**	⇓*i*	P	**Pg**	**21 53 39.8**	**-0.4**
DRK				⇓*i*	S	**Sg**	**21 53 52.6**	**0.0**
BTK	**Batken**	**0.99**	**6**	⇓*i*	P	**Pb**	**21 53 41.1**	**-0.9**
BTK				⇓*i*	S	**Sb**	**21 53 55.3**	**-0.4**
OHH	**Osh**	**2.17**	**47**	⇓*i*	P	**Pn**	**21 53 59.3**	**-0.1**
OHH				⇓*i*	S	**Sn**	**21 54 27.0**	**-0.1**
SFK	**Sufi-Kurgan**	**2.37**	**66**	⇑*i*	P	**Pn**	**21 54 02.6**	**+0.4**
SFK				⇑*i*	S	**Sn**	**21 54 31.6**	**-0.6**
TRKS	**Terek-Say**	**2.48**	**8**	⇓*i*	P	**Pn**	**21 54 03.3**	**-0.4**
TRKS				⇓*i*	S	**Sn**	**21 54 34.4**	**-0.4**
ARSB	**Arslanbob**	**2.86**	**37**	⇓*i*	P	**Pn**	**21 54 09.2**	**+0.4**
ARSB				⇓*i*	S	**Sn**	**21 54 43.9**	**-0.1**
SALK	**Salom-Alik**	**3.02**	**52**	⇑*i*	P	**Pn**	**21 54 10.8**	**-0.2**
SALK				⇑*i*	S	**Sn**	**21 54 46.9**	**-1.0**
MNAS	**Manas**	**3.69**	**21**	⇑*e*	P	**Pn**	**21 54 20.7**	**+0.5**
MNAS				⇑*e*	S	**Sn**	**21 55 03.7**	**-0.7**
KK31	**Karatay Array**	**4.04**	**358**	⇑P	P	**Pn**	**21 54 24.8**	**-0.1**
	7.3nm,0.3s,baz=186,slow=14,SNR=138							
KK31				⇑S		**Sg**	**21 55 31.6**	**+0.1**
	130nm,0.7s,baz=179,slow=29,SNR=42							
EKS2	**Erkin-Say**	**4.29**	**32**	P	P	**Pn**	**21 54 31.5**	**+3.0**
	SNR=9.8							
UCH	**Uchtor**	**4.29**	**41**	P	P	**Pn**	**21 54 31.8**	**+3.0**
	SNR=22							
AAK	**Ala-Archa**	**4.59**	**38**	P	P	**Pn**	**21 54 35.4**	**+2.8**
	SNR=8.7							
AAK	**Ala-Archa**	**4.59**	**38**	⇑P	P	**Pn**	**21 54 35.5**	**+2.8**
	2.7nm,0.4s							
AAK				⇑S		**Sg**	**21 55 49.4**	**+0.2**
	16nm,0.8s							
NRN	**Naryn**	**4.70**	**58**	⇓*e*	P	**Pn**	**21 54 34.3**	**0.0**
NRN				⇓*e*	S	**Sn**	**21 55 27.2**	**-2.5**
KBK	**Karagaybulak**	**4.83**	**41**	P	P	**Pn**	**21 54 39.4**	**+3.5**
	SNR=14							
CHMS	**Chmysh**	**4.99**	**37**	P	P	**Pn**	**21 54 40.7**	**+2.8**
	SNR=5.7							
USP	**Ospenovka**	**5.09**	**33**	P	P	**Pn**	**21 54 41.4**	**+2.0**
	SNR=21							
TKM2	**Tokmak 2**	**5.35**	**42**	P	P	**Pn**	**21 54 45.9**	**+2.8**
	SNR=40							
AB31	**Akbulak array**	**12.76**	**326**	P	P	Pn	21 56 18.2	-6.3
	1.2nm,0.4s,baz=135,slow=16,SNR=48							
AKTO	**Aktyubinsk**	**14.47**	**326**	⇓P	P	**Pn**	**21 56 48.3**	**+0.5**
	1.6nm,0.5s							

*ISK **10** 22:21:04.5, 37°.88N×26°.86E, h11km, ML2.5/17*
*THE **10** 22:21:04.8, 37°.9N±0°.9×26°.9E±0°.7, h14km±1km, M2.6/7, ML h2.6/7*
ISC 10 22:21:04.6±0.8, **37°.87N**±0°.02×**26°.86E**±0°.03, **h16**km±6km, **n25, σ0937/43, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**185**	P	P	**Pg**	**22 21 08.8**	**0.0**
SMG				S	S	**Sg**	**22 21 11.8**	**+0.2**
SMG				AML	AML			
GMLD	**Gumuldur**	**0.21**	**13**	Pg	Pg	**Pg**	**22 21 09.1**	**-0.4**
GMLD				Sg	Sg	**Sg**	**22 21 12.8**	**+0.1**
GMLD				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.34**	**92**	Pg	Pg	**Pg**	**22 21 11.6**	**-0.1**
KUSD				Sg	Sg	**Sg**	**22 21 16.7**	**+0.2**
KUSD				AML	AML			
GCAM	**G?zelcaml?**	**0.34**	**120**	Pg	Pg	**Pg**	**22 21 11.9**	**+0.2**
GCAM				Sg	Sb	**Sb**	**22 21 17.5**	**-0.1**
GCAM				AML	AML			
BLCB	**Balcova**	**0.53**	**16**	P	Pg	**Pg**	**22 21 15.1**	**-0.1**
BLCB				S	Sg	**Sg**	**22 21 22.7**	**+0.4**
BLCB	**Balcova**	**0.53**	**16**	Pg	Pg	**Pg**	**22 21 15.1**	**-0.1**
BLCB				Sg	Sb	**Sb**	**22 21 22.9**	**-0.1**
BLCB				AML	AML			
CESE	**eme**	**0.63**	**316**	Pg	Pb	**Pb**	**22 21 17.2**	**-0.1**
CESE				Sg	Sb	**Sb**	**22 21 26.3**	**+0.3**
KRBN	**Karaburun**	**0.76**	**342**	Pg	Pg	**Pg**	**22 21 19.4**	**0.0**
KRBN				Sg	Sb	**Sb**	**22 21 30.3**	**+0.8**
KRBN				AML	AML			
CHOS	**Chios island**	**0.81**	**309**	P	Pg	**Pg**	**22 21 20.7**	**+0.2**
CHOS				S	Sg	**Sg**	**22 21 32.0**	**+0.7**
CHOS				AML	AML			
CHOS	**Chios island**	**0.81**	**309**	Pg	Pb	**Pb**	**22 21 20.3**	**-0.1**
CHOS				Sg	Sn	**Sn**	**22 21 32.5**	**-0.8**
CHOS				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.82**	**156**	Pg	Pg	**Pg**	**22 21 20.8**	**+0.2**
YKAV				Sg	Sn	**Sn**	**22 21 33.1**	**-0.2**
YKAV				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.82**	**85**	Pg	Pb	**Pb**	**22 21 20.5**	**-0.1**
AYDB				Sg	Sn	**Sn**	**22 21 33.0**	**-0.6**
AYDB				AML	AML			
FOCM	**Foa**	**0.84**	**353**	Pg	Pb	**Pb**	**22 21 20.7**	**-0.2**
FOCM				Sg	Sg	**Sg**	**22 21 32.9**	**+0.7**
FOCM				AML	AML			
BODT	**Bodrum**	**0.89**	**156**	P	Pb	**Pb**	**22 21 21.4**	**-0.2**
BODT				S	Sg	**Sg**	**22 21 34.3**	**+0.8**
BODT				AML	AML			
BODT	**Bodrum**	**0.89**	**156**	Pg	Pg	**Pg**	**22 21 22.1**	**+0.3**
BODT				Sg	Sn	**Sn**	**22 21 35.1**	**+0.1**
BODT				AML	AML			
MLSB	**Milas**	**0.93**	**128**	Pg	Pn	**Pn**	**22 21 23.1**	**0.0**
MLSB				AML	AML			
BODA	**Bodrum-Mula**	**0.95**	**151**	Pg	Pg	**Pg**	**22 21 23.2**	**+0.1**
NAZL	**Nazilli-Aydin**	**1.14**	**85**	Pn	Pg	**Pg**	**22 21 26.7**	**+0.1**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.18**	**45**	Pn	Pg	**Pg**	**22 21 27.7**	**+0.3**
GOMA				AML	AML			
DKL	**Dikili**	**1.20**	**2**	Pn	Pg	**Pg**	**22 21 27.7**	**0.0**
DKL				AML	AML			
APE	**Apeiranthos**	**1.33**	**233**	P	Pn	**Pn**	**22 21 27.8**	**-0.7**
APE				S	Sb	**Sb**	**22 21 46.0**	**+0.1**
APE				AML	AML			
YER	**Yerkesik**	**1.35**	**123**	P	Pb	**Pb**	**22 21 29.4**	**-0.2**
YER				S	Sg	**Sg**	**22 21 48.7**	**+0.3**
SOMA	**Soma-Manisa**	**1.39**	**22**	Pn	Pb	**Pb**	**22 21 30.1**	**-0.1**
SOMA				AML	AML			
PRK	**Paraskevi**	**1.45**	**342**	P	Pn	**Pn**	**22 21 30.2**	**+0.1**
PRK				S	Sg	**Sg**	**22 21 51.7**	**+0.4**
GORD	**Gordes-Manisa**	**1.47**	**45**	Pn	Pb	**Pb**	**22 21 31.4**	**-0.1**
GORD				AML	AML			

*IDC **10** 22:24:39.1±8.4, 14°.86S×165°.78E, h0km, mb4.5/3, mbtmp4.4/4, MS3.2/1, Error ellipse: s-maj=142.9km s-min=23.9km az=57.0*
*NEIC **10** 22:24:42.6±1.9, 14°.95S±0°.02×167°.4E±0°.1, h124km±8km, mb4.1/13, Error ellipse: s-maj=20.4km s-min=2.3km az=96.0*
*NOU **10** 22:24:45.9, 15°.13S×167°.25E, h72km, MLv5.0/17, Vanuatu Islands*
ISC 10 22:24:39.5±1.0, **14°.81S**±0°.09×**167°.3E**±0°.1, **h100**km, **n38, σ1994/29, mb4.3/8, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.64**	**191**	P	P	**Pn**	**22 25 00.7**	**+4.2**
SANVU	**Saraoutou**	**0.64**	**191**	S	S	**Sn**	**22 25 07.9**	**-1.2**
SANVU	**Saraoutou**	**0.64**	**191**	Pn	Pn	**Pn**	**22 25 00.6**	**+4.2**
DVP	**Devils Point**	**3.01**	**164**	P	P	**Pn**	**22 25 26.8**	**+1.3**
DVP	**Devils Point**	**3.01**	**164**	S	S	**Sn**	**22 26 00.3**	**-0.6**
KOUNC	**Koumac, New Ca**	**6.40**	**206**	Pn	Pn	**Pn**	**22 26 13.0**	**+1.7**
MARNC	**Mare, Loyalty**	**6.67**	**174**	Pn	Pn	**Pn**	**22 26 14.2**	**-0.7**
HURO	**Huro Makira**	**6.83**	**309**	P	Pn		22 26 24.1	+6.9
YATNC	**Mamie plateau,**	**7.22**	**183**	P	Pn	**Pn**	**22 26 24.4**	**+2.0**
DZM	**Mont Dzumac**	**7.27**	**186**	Pn	Pn	**Pn**	**22 26 25.2**	**+2.0**
	8.0nm,0.3s,baz=0.0,slow=17							
DZM					Sn	**Sn**	**22 27 43.7**	**-0.5**
	1.9nm,0.3s,baz=324,slow=22,SNR=1.6							
NOUC	**Port Laguerre**	**7.32**	**187**	P	Pn	**Pn**	**22 26 26.1**	**+2.4**
ONTNC	**Ouen Toro**	**7.50**	**186**	P	Pn	**Pn**	**22 26 28.8**	**+2.5**
ONTNC	**Ouen Toro**	**7.50**	**186**	Pn	Pn	**Pn**	**22 26 28.1**	**+1.8**
OUENC	**Ouen Island, N**	**7.58**	**183**	P	Pn	**Pn**	**22 26 28.9**	**+1.6**
OUENC	**Ouen Island, N**	**7.58**	**183**	Pn	Pn	**Pn**	**22 26 28.6**	**+1.3**
PINNC	**Pines Island,**	**7.76**	**179**	Pn	Pn	**Pn**	**22 26 31.6**	**+1.9**
NGOA	**Tingoa Renbel**	**7.78**	**294**	P	Pn		22 26 37.3	+7.2
SAVO	**Savo Central**	**9.26**	**307**	P	Pn		22 26 59.5	+9.3
TATA	**Tatamba Isabel**	**9.75**	**310**	P	Pn		22 27 05.8	+8.9
FUNA	**Funafuti**	**13.19**	**63**	Pn	Pn	**Pn**	**22 27 45.2**	**+2.1**

EIDS	**Eidsvold**	**18.50**	**233**	P	**P**	**22 28 49.0 +1.0**
EIDS				IAmb	IAmb	22 28 51.0
	comp=Z,7.0nm,0.7s					
CTAO	**Charters Tower**	**20.77**	**252**	P	**P**	**22 29 14.8 +2.2**
CTAO				IAmb	IAmb	22 29 21.7
	comp=Z,9.8nm,1.1s					
STKA	**Stephens Creek**	**28.98**	**230**	P	**P**	**22 30 29.7 -0.1**
	comp=Z,7.3nm,0.6s,baz=55,slow=8.7,SNR=14 comp=Z,7.3nm,0.6s					
STKA	**Stephens Creek**	**28.98**	**230**	P	**P**	**22 30 29.5 -0.3**
WR8	**Warramunga Arr**	**31.71**	**256**	P	P	22 30 52.3 -1.7
WR8				IAmb	IAmb	22 31 36.0
	comp=Z,3.2nm,1.0s					
WB0	**Warramunga Arr**	**31.80**	**256**	P	P	22 30 53.3 -1.5
WB0				IAmb	IAmb	22 31 24.3
	comp=Z,7.5nm,1.1s					
WRA	**Warramunga Arr**	**31.86**	**256**	P	P	22 30 53.6 -1.8
	comp=Z,1.6nm,0.9s,baz=84,slow=8.0,SNR=7.0					
WRA				LR	LR	22 43 32.8
	comp=Z,38nm,18.4s,baz=273,slow=37 comp=Z,1.6nm,0.9s					
WRA	**Warramunga Arr**	**31.86**	**256**	P	P	22 30 53.5 -1.8
AS31	**Alice Springs**	**32.69**	**249**	P	P	22 31 01.0 -1.7
AS31				IAmb	IAmb	22 31 02.5
	comp=Z,2.0nm,0.5s					
ASAR	**Alice Springs**	**32.70**	**249**	P	**P**	**22 31 01.2 -1.5**
	comp=Z,3.7nm,0.4s,baz=77,slow=9.2,SNR=55 comp=Z,3.7nm,0.4s					
ASAR	**Alice Springs**	**32.70**	**249**	P	P	22 31 00.7 -1.9
BBOO	**Buckleboo**	**33.57**	**232**	P	**P**	**22 31 10.1 -0.1**
KNRA	**Kununurra**	**37.18**	**264**	P	**P**	**22 31 40.2 -1.1**
KNRA				IAmb	IAmb	22 31 41.6
	comp=Z,6.0nm,1.0s					
FITZ	**Fitzroy Crossi**	**40.05**	**259**	P	**P**	**22 32 04.9 -0.3**
MBWA	**Marble Bar**	**45.58**	**255**	P	**P**	**22 32 49.3 -0.6**
VNDA	**Vanda**	**62.78**	**181**	P	**P**	**22 34 51.3 -2.5**
SBA	**Scott Base**	**63.06**	**180**		**P**	**22 34 53.7 -2.0**
SBA				IAmb	IAmb	22 34 56.0
	comp=Z,1.1nm,0.9s					
ANGG	**Ammassalik, Gr**	**126.52**	**13**	PKPdf	**PKPdf**	**22 43 30.6 +0.2**

*SJA **10** 22:39:02.2±0.6, 20°.49S×69°.03W, h125km±3km, ML3.5, MW3.5*
*GUC **10** 22:39:03.4±0.8, 20°.47S×68°.97W, h120km±3km, ML3.4, Presumed earthquake*
ISC 10 22:39:03.1±1.7, **20°.51S**±0°.03×**69°.06W**±0°.08, **h124**km±10km, **n28, σ0982/55, 6C-5D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time h m s	Res ISC
PB08	**IPOC Station P**	**0.37**	**346**	*e*P	P	**Pn**	**22 39 21.2**	**-0.2**
PB08				*e*S	S	**Sn**	**22 39 34.5**	**-0.5**
PB08				IAML			22 39 35.4	
	comp=Z,631nm,0.2s							
PB08	**IPOC Station P**	**0.37**	**346**	⇑*e*P	P	**Pn**	**22 39 20.9**	**-0.5**
PB08				*e*S	S	**Sn**	**22 39 34.1**	**-0.9**
PB08				IAML			22 39 35.2	
	comp=E,1μm,0.2s							
GO01	**Chusmiza**	**0.84**	**351**	*e*P	P	**Pn**	**22 39 24.6**	**-0.1**
GO01				*e*S	S	**Sn**	**22 39 41.2**	**+0.4**
GO01				IAML			22 39 42.2	
	comp=Z,521nm,0.3s							
GO01	**Chusmiza**	**0.84**	**351**	⇓*i*P	P	**Pn**	**22 39 24.2**	**-0.5**
GO01				*e*S	S	**Sn**	**22 39 40.1**	**-0.7**
PB11	**IPOC Station P**	**0.93**	**323**	*e*P	P	**Pn**	**22 39 25.0**	**0.0**
PB11				*e*S	S	**Sn**	**22 39 41.6**	**+0.1**
PB11				IAML			22 39 42.2	
	comp=Z,1μm,0.1s							
PB11	**IPOC Station P**	**0.93**	**323**	⇓*i*P	P	**Pn**	**22 39 24.8**	**-0.2**
PB11				*e*S	S	**Sn**	**22 39 41.2**	**-0.4**
TA02	**Huaiquique**	**1.03**	**283**	*e*P	P	**Pn**	**22 39 26.1**	**+0.3**
TA02				*e*S	S	**Sn**	**22 39 43.7**	**+0.7**
TA02				IAML			22 39 44.1	
	comp=Z,1μm,0.1s							
TA02	**Huaiquique**	**1.03**	**283**	⇑*e*P	P	**Pn**	**22 39 25.9**	**+0.1**
TA02				*e*S	S	**Sn**	**22 39 43.1**	**+0.1**
TA01	**Diego Aracena**	**1.06**	**267**	*e*P	P	**Pn**	**22 39 26.2**	**+0.1**
TA01				*e*S	S	**Sn**	**22 39 44.2**	**+0.8**
TA01	**Diego Aracena**	**1.06**	**267**	⇑*i*P	P	**Pn**	**22 39 26.1**	**+0.1**
TA01				*e*S	S	**Sn**	**22 39 43.0**	**-0.4**
TA01				IAML			22 39 44.8	
	comp=E,311nm,0.3s							
PB02	**IPOC Station P**	**1.13**	**224**	*e*P	P	**Pn**	**22 39 27.4**	**+0.5**
PB02				*e*S	S	**Sn**	**22 39 45.9**	**+1.0**
PB02				IAML			22 39 46.3	
	comp=Z,2μm,0.4s							
PB02	**IPOC Station P**	**1.13**	**224**	⇑*e*P	P	**Pn**	**22 39 27.4**	**+0.5**
PB02				*e*S	S	**Sn**	**22 39 45.5**	**+0.6**
PB09	**IPOC Station P**	**1.30**	**188**	*e*P	P	**Pn**	**22 39 29.1**	**+0.3**
PB09				*e*P			22 39 29.3	
PB09				*e*S	S	**Sn**	**22 39 48.9**	**+0.7**
PB09				IAML			22 39 51.4	
	comp=Z,360nm,0.5s							
PB09	**IPOC Station P**	**1.30**	**188**	⇓*i*P	P	**Pn**	**22 39 29.0**	**+0.3**
PB09				*e*S	S	**Sn**	**22 39 48.7**	**+0.5**
PB09				IAML			22 39 50.6	
	comp=E,601nm,0.3s							
PSGCX	**Pisagua**

0.4nm,0.6s,baz=155,slow=13,SNR=7.4

*CATAC **10** 22:49:04.7±0.6, 7°N±2°×7°W±°, h158km±5km, M4.3/8, MLv4.3/8, Error ellipse: s-maj=9.3km s-min=4.5km az=100.8, confirmed*
*IDC **10** 22:49:05.9±2.0, 6°71′N×72°98′W, h163km±19km, mb3.5/4, mbtmp4.0/5, MS3.4/1, Error ellipse: s-maj=31.5km s-min=24.3km az=95.0*
*RSNC **10** 22:49:05.9±0.0, 7°N±3°×7°3′W±°, h145km±5km, M3.9, mB4.6, mb4.2, ML3.5, Mw(mB)3.8*
*FUNV **10** 22:49:07.8, 6°88′N×73°15′W, h140km, MW3.2, Presumed earthquake*

ISC 10 22:49:05.1±0.7, 6°87′N±0°03′×73°11′W±0°04′, h154km±5km, n59, σ1°32′/104, mb4.0/4, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.29**	**194**	P	**Pn**	**22 49 26.9**	**+0.5**
BARC				S	**Sn**	**22 49 42.1**	**-0.6**
BRJC	**Barrancabermej**	**0.64**	**279**	P	**Pn**	**22 49 28.5**	**+0.8**
BRJC				S	**Sn**	**22 49 45.7**	**+0.9**
RUSC	**La Rusia**	**0.97**	**178**	P	**Pn**	**22 49 30.8**	**+0.1**
RUSC				S	**Sn**	**22 49 49.4**	**-0.8**
RUSC	**La Rusia**	**0.97**	**178**	P	**Pn**	**22 49 30.8**	**+0.1**
RUSC				S	**Sn**	**22 49 49.4**	**-0.8**
RUSC	**La Rusia**	**0.97**	**178**	*e*P	**Pn**	**22 49 30.9**	**+0.2**
RUSC				*e*S	**Sn**	**22 49 47.7**	**-2.5**
CAPV	**Capacho**	**1.26**	**39**	*e*P	**Pn**	**22 49 34.5**	**+1.6**
CAPV				*e*S	**Sn**	**22 49 53.3**	**-0.9**
OCAC	**Ocana**	**1.37**	**351**	P	**Pn**	**22 49 35.0**	**+1.1**
OCAC				S	**Sn**	**22 49 56.9**	**+0.9**
PTBC	**PUERTO BERRIO,**	**1.38**	**256**	P	**Pn**	**22 49 33.3**	**-0.5**
PTBC				S	**Sn**	**22 49 54.7**	**-1.0**
TAMC	**Tame, Arauca**	**1.38**	**108**	P	**Pn**	**22 49 35.3**	**+1.5**
TAMC				S	**Sn**	**22 49 57.1**	**+1.3**
SPBC	**San Pablo de B**	**1.54**	**218**	P	**Pn**	**22 49 35.6**	**0.0**
SPBC				S	**Sn**	**22 49 58.1**	**-0.8**
NORC	**Norcasia**	**2.18**	**233**	P	**Pn**	**22 49 42.5**	**-0.2**
NORC				S	**Sn**	**22 50 10.9**	**-0.7**
CHIC	**Chingaza**	**2.31**	**196**	P	**Pn**	**22 49 45.0**	**+0.4**
CHIC				S	**Sn**	**22 50 15.0**	**0.0**
ROSC	**El Rosal**	**2.35**	**211**	P	**Pn**	**22 49 46.9**	**+1.8**
	191nm,0.3s,baz=118,slow=20,SNR=237						
ROSC				S	**Sn**	**22 50 16.4**	**+0.6**
	1μm,0.3s,baz=186,slow=22,SNR=14						
ROSC	**El Rosal**	**2.35**	**211**	P	**Pn**	**22 49 46.5**	**+1.4**
ROSC				S	**Sn**	**22 50 17.4**	**+1.6**
HELC	**Santa Helena**	**2.50**	**254**	P	**Pn**	**22 49 48.4**	**+1.6**
HELC				S	**Sn**	**22 50 19.6**	**+0.8**
HELC	**Santa Helena**	**2.50**	**254**	P	**Pn**	**22 49 47.5**	**+0.7**
HELC				S	**Sn**	**22 50 18.7**	**-0.1**
HELC	**Santa Helena**	**2.50**	**254**	*e*P	**Pn**	**22 49 48.1**	**+1.3**
HELC				*e*S	**Sn**	**22 50 17.5**	**-1.3**
CVER	**Cruz Verde, Cu**	**2.52**	**202**	P	**Pn**	**22 49 48.4**	**+1.1**
CVER				S	**Sn**	**22 50 20.4**	**+0.7**
UREC	**San Jos de Ur**	**2.56**	**290**	P	**Pn**	**22 49 46.5**	**-0.7**
UREC				S	**Sn**	**22 50 17.3**	**-2.3**
GUY2C	**Guyana, Caldas**	**2.78**	**234**	P	**Pn**	**22 49 51.0**	**+0.7**
GUY2C				S	**Sn**	**22 50 25.7**	**+0.5**
PTGC	**Puerto Gaitan,**	**2.83**	**160**	P	**Pn**	**22 49 50.1**	**-0.5**
PTGC				S	**Sn**	**22 50 23.5**	**-2.2**
NIZA	**Niza - Manizal**	**2.96**	**233**	P	**Pn**	**22 49 54.3**	**+1.8**
NIZA				S	**Sn**	**22 50 30.3**	**+1.3**
CBOC	**Ciudad Bolivar**	**3.05**	**251**	P	**Pn**	**22 49 55.3**	**+1.8**
CBOC				S	**Sn**	**22 50 30.9**	**0.0**
ARGC	**Ariguani, Magd**	**3.17**	**339**	P	**Pn**	**22 49 57.0**	**+2.1**
ARGC				S	**Sn**	**22 50 36.5**	**+3.1**
APAC	**Apartado, Choc**	**3.59**	**287**	P	**Pn**	**22 50 00.7**	**+0.5**
APAC				S	**Sn**	**22 50 42.3**	**-0.6**
PRAC	**Prado**	**3.60**	**209**	P	**Pn**	**22 50 00.6**	**+0.2**
PRAC				S	**Sn**	**22 50 44.5**	**+1.1**
PRAC	**Prado**	**3.60**	**209**	P	**Pn**	**22 50 00.1**	**-0.3**
PRAC				S	**Sn**	**22 50 42.1**	**-1.3**
ORTC	**Ortega, Tolima**	**3.63**	**216**	P	**Pn**	**22 50 01.3**	**+0.5**
ORTC				S	**Sn**	**22 50 44.5**	**+0.5**
SJCC	**San Jacinto, C**	**3.63**	**326**	P	**Pn**	**22 50 00.3**	**-0.6**
SJCC				S	**Sn**	**22 50 42.0**	**-2.2**
SJCC	**San Jacinto, C**	**3.63**	**326**	P	**Pn**	**22 50 00.5**	**-0.3**
SJCC				S	**Sn**	**22 50 42.1**	**-2.0**
SJCC	**San Jacinto, C**	**3.63**	**326**	*e*P	**Pn**	**22 50 00.8**	**0.0**
SJCC				*e*S	**Sn**	**22 50 40.6**	**-3.5**
LCBC	**Los crdobas,**	**3.78**	**302**	P	**Pn**	**22 50 03.2**	**+0.5**
LCBC				S	**Sn**	**22 50 49.9**	**+2.5**
URMC	**La Uribe, Meta**	**3.82**	**199**	P	**Pn**	**22 50 03.6**	**+0.4**
URMC				S	**Sn**	**22 50 47.7**	**-0.7**
CRJC	**Cerrejon, Guaj**	**4.13**	**3**	P	**Pn**	**22 50 07.3**	**0.0**
CRJC				S	**Sn**	**22 50 55.1**	**-0.5**
YOTC	**Yotoco, Valle**	**4.31**	**228**	P	**Pn**	**22 50 09.4**	**-0.3**
YOTC				S	**Sn**	**22 51 00.1**	**+0.1**
GUVC	**San Jose del G**	**4.33**	**174**	P	**Pn**	**22 50 09.6**	**-0.2**
GUVC				S	**Sn**	**22 50 58.8**	**-1.4**
SMRC	**Santa Marta, M**	**4.40**	**346**	P	**Pn**	**22 50 12.1**	**+1.3**
SMRC				S	**Sn**	**22 51 00.4**	**-1.6**
MACC	**Macarena, Meta**	**4.75**	**189**	P	**Pn**	**22 50 14.1**	**-1.3**
MACC				S	**Sn**	**22 51 06.2**	**-4.1**
BETC	**Betania**	**4.77**	**209**	P	**Pn**	**22 50 15.6**	**-0.1**
BETC				S	**Sn**	**22 51 09.0**	**-1.7**
URI	**Uribia**	**4.92**	**13**	P	**Pn**	**22 50 16.7**	**-1.0**
URI				S	**Sn**	**22 51 12.5**	**-1.7**
URIC	**Uribia, Colomb**	**4.92**	**13**	P	**Pn**	**22 50 17.4**	**-0.2**
	649nm21nm,0.5s						
URIC				S	**Sn**	**22 51 13.2**	**-1.0**
	649nm21nm,0.5s						
URIC				AML	AML		
URIC	**Uribia, Colomb**	**4.92**	**13**	*e*P	**Pn**	**22 50 17.5**	**-0.1**
URIC				*e*S	**Sn**	**22 51 10.9**	**-3.3**
TEPV	**Terepaima**	**4.95**	**51**	*e*P	**Pn**	**22 50 18.7**	**+0.8**
TEPV				*e*S	**Sn**	**22 51 11.8**	**-3.0**
JAMC	**Jamundi, Valle**	**5.08**	**224**	P	**Pn**	**22 50 19.7**	**-0.2**
	2μm18nm,0.6s						
JAMC				AML	AML		
UPD2	**Meteti**	**5.14**	**289**	P	**Pn**	**22 50 20.2**	**-0.3**
	1μm30nm,0.5s						
UPD2				S	**Sn**	**22 51 18.2**	**-1.1**
	1μm30nm,0.5s						
UPD2				AML	AML		
POPC	**Popayan, Colom**	**5.58**	**220**	P	**Pn**	**22 50 26.7**	**+0.1**
	12nm,0.5s						
POPC				S	**Sn**	**22 51 30.8**	**+0.6**
	12nm,0.5s						
POPC				AML	AML		
BBAC	**Balboa, Cauca**	**6.34**	**221**	P	**Pn**	**22 50 38.2**	**+1.5**
BBAC				S	**Sn**	**22 51 48.5**	**+0.1**
BCIP	**Isla Barro Col**	**7.04**	**289**	P	**Pn**	**22 50 44.3**	**-1.5**
AZU	**Azuero**	**7.16**	**278**	P	**Pn**	**22 50 45.9**	**-1.5**
TXAR	**Lajitas Array**	**36.44**	**312**	P	**P**	**22 55 56.6**	**+1.3**
	0.2nm,0.4s,baz=119,slow=9.8,SNR=2.6						
	0.2nm,0.4s						
PLCA	**Paso Flores**	**47.43**	**177**	LR	LR	23 18 27.6	
	comp=Z,35nm,18.2s,baz=160,slow=37						
SCHQ	**Schefferville**	**48.09**	**5**	P	**P**	**22 57 30.2**	**+1.2**
	2.1nm,0.6s,baz=190,slow=11,SNR=5.2						
	2.1nm,0.6s						
YKA	**Yellowknife Ar**	**63.22**	**340**	P	**P**	**22 59 17.1**	**+0.4**
	0.9nm,0.6s,baz=133,slow=6.5,SNR=5.1						
	0.9nm,0.6s						
DBIC	**Dimbokro**	**67.72**	**86**	P	**P**	**22 59 44.9**	**-1.7**
	1.7nm,0.6s,baz=295,slow=8.3,SNR=3.7						
	1.7nm,0.6s						
MKAR	**Makanchi Array**	**122.27**	**20**	PKP	**PKiKP**	**23 07 41.7**	**-0.5**
	0.3nm,0.4s,baz=290,slow=2.7,SNR=5.7						
SONM	**Songino Array**	**125.53**	**0**	PKP	**PKiKP**	**23 07 48.6**	**-0.2**
	0.3nm,0.5s,baz=357,slow=0.2,SNR=4.2						
ASAR	**Alice Springs**	**149.15**	**234**	PKPbc	**PKPbc**	**23 08 35.6**	**-0.6**
	1.8nm,0.7s,baz=115,slow=3.4,SNR=17						
WRA	**Warramunga Arr**	**150.37**	**241**	PKPbc	**PKPbc**	**23 08 38.5**	**-0.8**
	1.2nm,0.5s,baz=110,slow=2.4,SNR=11						
CMAR	**Chiang Mai Arr**	**153.64**	**17**	PKPbc	**PKiKP**	**23 08 47.3**	**+0.5**
	0.8nm,0.5s,baz=327,slow=4.1,SNR=4.1						

*IDC **10** 22:54:11.7±4.8, 32°74′N×142°72′E, h0km, mb3.7/6, mbtmp3.8/8, ML3.3/2, MS3.0/1, Error ellipse: s-maj=162.7km s-min=16.2km az=70.0*
*NEIC **10** 22:54:17.1±1.1, 32°3′N±0°1′×141°8′E±0°2′, h10km±2km, mb4.2/5, Error ellipse: s-maj=34.0km s-min=7.5km az=45.0*

ISC 10 22:54:15.2±1.3, 32°3′N±0°1′×142°0′E±0°2′, h10km, n20, σ1°41′/20, mb3.9/9, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**2.02**	**295**		**Pn**	**22 54 49.0**	**-0.4**
JGF	**Kuroka**	**5.09**	**312**	Pn	**Pn**	**22 55 31.9**	**+0.3**
JCJ	**Chichijima**	**5.16**	**178**	Pn	**Pn**	**22 55 32.7**	**+0.2**
	6.0nm,0.3s,baz=117,slow=15,SNR=2.0						
JCJ				Sn	**Sn**	**22 56 29.2**	**-3.0**
	4.5nm,0.3s,baz=137,slow=22,SNR=1.8						
	75nm,0.7s						
JCJ				AML	AML		
MJAR	**Matsushiro Arr**	**5.29**	**325**	Pn	**Pn**	**22 55 32.1**	**-2.2**
	0.2nm,0.3s,baz=147,slow=11,SNR=8.6						
MJAR				Sn	Sn	22 56 23.9	-11
	0.1nm,0.3s,baz=140,slow=13,SNR=1.7						
	2.6nm,0.6s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.29**	**325**	Pn	**Pn**	**22 55 33.4**	**-0.9**
SONM	**Songino Array**	**31.05**	**310**	P	**P**	**23 00 32.6**	**-0.8**
	1.1nm,0.8s,baz=121,slow=9.6,SNR=7.6						
	1.1nm,0.8s						
SONM	**Songino Array**	**31.05**	**310**		**P**	**23 00 33.4**	**0.0**
TLY	**Talaya**	**33.96**	**316**	LR	LR	23 14 58.7	
	comp=Z,26nm,20.0s,baz=36,slow=37						
ZALV	**Zalesovo Beam**	**45.58**	**316**	P	**P**	**23 02 33.6**	**-1.6**
	0.3nm,0.4s,baz=107,slow=9.7,SNR=2.1						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**47.19**	**306**	P	**P**	**23 02 47.2**	**-0.7**
	0.9nm,0.9s,baz=85,slow=10,SNR=6.4						
	0.9nm,0.9s						
MKAR	**Makanchi Array**	**47.19**	**306**	P	**P**	**23 02 48.0**	**0.0**
KURK	**Kurchatov**	**49.35**	**311**	P	**P**	**23 03 05.3**	**+0.7**
KURK				IAmb	IAmb	23 03 16.8	
	comp=Z,1.2nm,0.8s						
KURBB	**Kurchatov Arra**	**49.41**	**311**	P	**P**	**23 03 05.2**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=89,slow=7.5,SNR=5.0						
	comp=Z,0.3nm,0.3s						
PDGK	**Podgornoye**	**49.56**	**302**	P	**P**	**23 03 06.2**	**-0.3**
WB0	**Warramunga Arr**	**52.26**	**189**	P	**P**	**23 03 28.0**	**+1.3**
WB0				IAmb	IAmb	23 04 04.7	
	comp=Z,5.0nm,1.1s						
WR8	**Warramunga Arr**	**52.43**	**189**	P	**P**	**23 03 30.4**	**+2.4**
WRA	**Warramunga Arr**	**52.44**	**189**	P	**P**	**23 03 30.4**	**+2.3**
	comp=Z,1.4nm,0.6s,baz=7.4,slow=7.8,SNR=7.8						
	comp=Z,1.4nm,0.6s						
ASAR	**Alice Springs**	**56.16**	**189**	P	**P**	**23 03 56.3**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=13,slow=8.6,SNR=2.5						
	comp=Z,0.2nm,0.3s						
AB31	**Akbulak array**	**61.44**	**312**	P	**P**	**23 04 32.5**	**+0.9**
AB31				IAmb	IAmb	23 04 55.5	
	comp=Z,2.0nm,1.1s						
ABKAR	**Akbulak array**	**61.44**	**312**	P	**P**	**23 04 32.2**	**+0.5**

*ISK **10** 23:02:21.3, 37°90′N×26°60′E, h8km, ML2.6/15*
*ATH **10** 23:02:21.4, 37°90′N×26°61′E, h17km±1km, ML2.5/6, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*AFAD **10** 23:02:22.1, 37°94′N×26°66′E, h7km±4km, ML2.4*
*THE **10** 23:02:22.0, 38°N±1°×2°7′E±°, h12km±2km, M2.5/7, MLh2.5/7*

ISC 10 23:02:21.8±0.8, 37°92′N±0°02′×26°64′E±0°02′, h13km±6km, n46, σ0°48′/66, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.14**	**156**	P	**Pg**	**23 02 25.3**	**0.0**
KRL1				S	**Sg**	**23 02 28.0**	**+0.3**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.16**	**187**	P	**Pg**	**23 02 25.8**	**+0.1**
SAM2				S	**Sg**	**23 02 28.2**	**-0.1**
DGB	**zmir**	**0.24**	**56**	P	**Pg**	**23 02 26.8**	**-0.1**
DGB				S	**Sg**	**23 02 29.2**	**-1.1**
DGB				IAML		23 02 30.0	
	comp=N,675nm,0.1s						
DGB				IAML		23 02 30.0	
	comp=E,904nm,0.2s						
SMG	**Samos**	**0.26**	**143**	P	**Pg**	**23 02 27.6**	**+0.2**
SMG				S	**Sg**	**23 02 31.8**	**+0.7**
SMG				AML	AML		
SMG	**Samos**	**0.26**	**143**	P	**Pg**	**23 02 27.5**	**+0.1**
SMG				S	**Sg**	**23 02 31.6**	**+0.5**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.27**	**54**	Pg	**Pg**	**23 02 27.3**	**-0.2**
GMLD				Sg	**Sg**	**23 02 31.8**	**+0.5**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.34**	**342**	P	**Pg**	**23 02 28.5**	**-0.2**
ZEYE				S	**Sg**	**23 02 33.3**	**0.0**
ZEYE				IAML		23 02 36.0	
	comp=N,486nm,0.5s						
BEYE	**izmir**	**0.38**	**37**	P	**Pg**	**23 02 29.4**	**-0.2**
BEYE				S	**Sg**	**23 02 33.4**	**-1.3**
CESE	**eme**	**0.49**	**327**	Pg	**Pg**	**23 02 31.2**	**-0.3**
CESE				Sg	**Sg**	**23 02 38.8**	**+0.8**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.52**	**115**	P	**Pg**	**23 02 32.4**	**+0.3**
GCAM				S	**Sg**	**23 02 39.0**	**0.0**
GCAM				IAML		23 02 40.0	
	comp=E,250nm,0.3s						
GCAM				IAML		23 02 43.0	
	comp=N,294nm,0.5s						
GCAM	**G?zelcaml?**	**0.52**	**115**	Pg	**Pg**	**23 02 32.2**	**+0.1**
GCAM				Sg	**Sb**	**23 02 40.2**	**-0.1**
GCAM				AML	AML		
BLCB	**Balcova**	**0.56**	**34**	P	**Pg**	**23 02 32.7**	**-0.2**
BLCB				S	**Sg**	**23 02 40.0**	**-0.4**
BLCB	**Balcova**	**0.56**	**34**	Pg	**Pg**	**23 02 33.0**	**+0.1**
BLCB				AML	AML		
CHOS	**Chios island**	**0.65**	**316**	P	**Pg**	**23 02 34.5**	**-0.1**
CHOS				S	**Sb**	**23 02 44.3**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.65**	**316**	Pg	**Pg**	**23 02 34.3**	**-0.3**
CHOS				Sg	**Sb**	**23 02 44.1**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.65**	**316**	P	**Pg**	**23 02 34.4**	**-0.2**
CHOS				S	**Sg**	**23 02 43.8**	**+0.5**
CHOS				AML	AML		
DDIM	**Aydin, Didim**	**0.67**	**134**	P	**Pg**	**23 02 35.1**	**+0.3**
KRBN	**Karaburun**	**0.68**	**355**	Pg	**Pb**	**23 02 35.4**	**-0.1**
KRBN				Sg	**Sb**	**23 02 45.6**	**+0.8**
KRBN				AML	AML		
DUVT	**Torbali**	**0.71**	**65**	P	**Pg**	**23 02 35.7**	**+0.1**
DUVT				S	**Sg**	**23 02 43.5**	**-1.5**
DUVT				IAML		23 02 45.0	
	comp=E,162nm,0.5s						
EAG2	**Marmaro, Chios**	**0.75**	**326**	P	**Pg**	**23 02 36.4**	**-0.1**
BAGT	**Foa**	**0.76**	**13**	P	**Pb**	**23 02 37.3**	**+0.5**
KARB	**zmir-Karabur**	**0.76**	**347**	P	**Pg**	**23 02 36.4**	**-0.2**
FOCM	**Foa**	**0.80**	**5**	Pg	**Pb**	**23 02 37.6**	**+0.1**
FOCM				AML	AML		
DAGE	**izmir**	**0.89**	**84**	P	**Pb**	**23 02 39.3**	**+0.2**
YKAV	**Yalikavak-Bodr**	**0.94**	**147**	Pg	**Pg**	**23 02 39.9**	**-0.2**
CAMT	**Merkez**	**0.98**	**32**	P	**Pn**	**23 02 41.7**	**+0.3**
AYDB	**Zeytinkoy-Aydi**	**0.99**	**88**	Pg	**Pg**	**23 02 41.1**	**+0.1**
AYDB				AML	AML		
KLNA	**Kalymnos**	**1.00**	**164**	P	**Pb**	**23 02 41.0**	**0.0**
KLNA				AML	AML		
BODT	**Bodrum**	**1.01**	**148**	P	**Pb**	**23 02 41.0**	**-0.1**
BODT				S	**Sn**	**23 02 56.1**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**1.01**	**148**	Pg	**Pb**	**23 02 41.1**	**-0.1**
BODT				AML	AML		
AYDN	**Tasoluk**	**1.02**	**104**	P	**Pb**	**23 02 41.5**	**+0.2**
IZMR	**zmir-demi**	**1.06**	**78**	P	**Pg**	**23 02 42.3**	**0.0**
BDRM	**Kayabasi**	**1.07**	**143**	P	**Pb**	**23 02 42.3**	**+0.1**
MLSB	**Milas**	**1.10**	**124**	Pn	**Pb**	**23 02 42.4**	**-0.3**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.10**	**18**	P	**Pb**	**23 02 42.9**	**+0.1**
DKL	**Dikili**	**1.17**	**10**	Pn	**Pg**	**23 02 44.3**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.17**	**10**	P	**Pg**	**23 02 44.6**	**+0.2**
APE	**Apeiranthos**	**1.22**	**226**	P	**Pn**	**23 02 43.5**	**-1.2**
APE				S	**Sb**	**23 03 00.9**	**+0.4**
APE				AML	AML		
APE	**Apeiranthos**	**1.22**	**226**	P	**Pn**	**23 02 43.5**	**-1.2**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.28**	**52**	Pn	**Pg**	**23 02 46.5**	**+0.1**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.31**	**88**	Pn	**Pg**	**23 02 47.1**	**+0.1**
NAZL				AML	AML		
PRK	**Paraskevi**	**1.36**	**348**	P	**Pg**	**23 02 48.4**	**+0.5**
PRK				S	**Sg**	**23 03 06.8**	**+1.3**
PRK	**Paraskevi**	**1.36**	**348**	P	**Pg**	**23 02 48.1**	**+0.2**
KIRA	**zmir-Kiraz**	**1.42**	**78**	P	**Pg**	**23 02 48.9**	**-0.3**
SOMA	**Soma-Manisa**	**1.42**	**29**	Pn	**Pb**	**23 02 48.4**	**+0.2**
YER	**Yerkesik**	**1.52**	**120**	P	**Pn**	**23 02 48.9**	**0.0**

*RSNC **10** 23:03:24.9±0.0, 3°N±3°×7°5W±°, h29km±4km, M3.4, mB4.7, ML3.1, Mw(mB)3.9*
*CATAC **10** 23:03:36.5±0.4, 3°N±3°×7°5W±°, h45km±8km, M3.7/7, MLv3.7/7, Error ellipse: s-maj=10.9km s-min=4.5km az=122.5, confirmed*

ISC 10 23:03:24.9±1.1, 2°76′N±0°02′×75°04′W±0°02′, h6km±10km, n39, σ1°81′/72, Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BETC	**Betania**	**0.41**	**260**	P	**Pg**	**23 03 33.2**	**+0.3**
BETC				S	**Sg**	**23 03 39.2**	**+0.9**
URMC	**La Uribe, Meta**	**0.82**	**53**	P	**Pb**	**23 03 41.1**	**-0.5**
URMC				S	**Sb**	**23 03 52.8**	**-0.1**
PRAC	**Prado**	**0.96**	**9**	P	**Pn**	**23 03 44.3**	**-0.8**
PRAC				S	**Sn**	**23 03 58.4**	**-0.8**
PRAC	**Prado**	**0.96**	**9**	P	**Pn**	**23 03 44.0**	**-1.1**
PRAC				S	**Sn**	**23 03 58.3**	**-0.8**
ORTC	**Ortega, Tolima**	**1.17**	**350**	P	**Pg**	**23 03 47.1**	**-0.2**
ORTC				S	**Sn**	**23 04 04.3**	**+0.2**
MACC	**Macarena, Meta**	**1.33**	**117**	P	**Pn**	**23 03 48.7**	**-1.4**
MACC				S	**Sb**	**23 04 05.9**	**-1.8**
POPC	**Popayan, Colom**	**1.65**	**263**	P	**Pn**	**23 03 53.9**	**-0.8**
POPC				S	**Sn**	**23 04 15.6**	**-0.8**
JAMC	**Jamundi, Valle**	**1.70**	**286**	P	**Pn**	**23 03 55.3**	**0.0**
JAMC				S	**Sb**	**23 04 18.3**	**-0.1**
YOTC	**Yotoco, Valle**	**1.79**	**313**	P	**Pn**	**23 03 56.0**	**-0.5**
YOTC				S	**Sb**	**23 04 20.0**	**-0.5**
ARMEC	**Armenia, Quind**	**1.89**	**341**	P	**Pb**	**23 03 58.6**	**-1.4**
ARMEC				S	**Sg**	**23 04 25.9**	**+0.1**
CVER	**Cruz Verde, Cu**	**2.00**	**29**	P	**Pg**	**23 04 02.3**	**-1.0**
CVER				S	**Sg**	**23 04 30.3**	**+1.0**
ROSC	**El Rosal**	**2.19**	**19**	P	**Pg**	**23 04 06.5**	**-0.4**
ROSC	**El Rosal**	**2.19**	**19**	P	**Pg**	**23 04 05.8**	**-1.2**
ROSC				S	**Sg**	**23 04 37.6**	**+2.2**
CRUC	**La Cruz**	**2.25**	**238**	P	**Pn**	**23 04 03.0**	**0.0**
CRUC				S	**Sb**	**23 04 33.2**	**-1.2**
CHIC	**Chingaza**	**2.27**	**35**	P	**Pb**	**23 04 06.4**	**-0.2**
CHIC				S	**Sg**	**23 04 36.6**	**-1.4**
BBAC	**Balboa, Cauca**	**2.33**	**252**	P	**Pn**	**23 04 05.3**	**+1.3**
BBAC				S	**Sb**	**23 04 36.8**	**+0.3**
GUVC	**San Jose del G**	**2.42**	**95**	P	**Pn**	**23 04 04.9**	**-0.1**
GUVC				S	**Sn**	**23 04 35.1**	**+0.1**
GUY2C	**Guyana, Caldas**	**2.47**	**352**	P	**Pn**	**23 04 07.2**	**+1.0**
GUY2C				S	**Sg**	**23 04 44.4**	**-0.1**
PTLC	**Puerto Leguiza**	**2.58**	**175**	P	**Pg**	**23 04 13.6**	**-0.8**
PTLC				S	**Sg**	**23 04 49.7**	**+1.9**
NORC	**Norcasia**	**2.79**	**3**	P	**Pn**	**23 04 09.8**	**-0.5**
NORC				S	**Sg**	**23 04 52.0**	**-2.8**
SPBC	**San Pablo de B**	**3.03**	**18**	P	**Pn**	**23 04 14.5**	**+0.9**
SPBC				S	**Sg**	**23 05 01.4**	**-1.1**
PTGC	**Puerto Gaitan,**	**3.23**	**64**	P	**Pn**	**23 04 16.9**	**+0.6**
PTGC				S	**Sg**	**23 05 09.5**	**+0.7**
CBOC	**Ciudad Bolivar**	**3.24**	**343**	P	**Pn**	**23 04 18.3**	**+1.8**
TULM	**Tulcn-Chalpat**	**3.42**	**234**	P	**Pn**	**23 04 16.5**	**-2.7**
TULM				S	**Sb**	**23 05 09.8**	**+1.6**
HELC	**Santa Helena**	**3.45**	**352**	P	**Pn**	**23 04 21.8**	**+2.2**
HELC				S	**Sn**	**23 04 54.9**	**-6.0**
HELC	**Santa Helena**	**3.45**	**352**	P	**Pn**	**23 04 22.0**	**+2.5**
HELC				S	**Sg**	**23 05 14.9**	**-0.9**
CASC	**Dorado de Casc**	**3.47**	**222**	P	**Pn**	**23 04 19.5**	**-0.2**
CASC				S	**Sb**	**23 05 10.3**	**+0.8**
RUSC	**La Rusia**	**3.67**	**32**	P	**Pn**	**23 04 24.6**	**+1.8**
RUSC				S	**Sn**	**23 05 05.5**	**-1.2**
RUSC	**La Rusia**	**3.67**	**32**	P	**Pn**	**23 04 24.8**	**+2.0**
RUSC				S	**Sb**	**23 05 11.5**	**-4.1**
PTBC	**PUERTO BERRIO,**	**3.80**	**9**	P	**Pn**	**23 04 24.3**	**+0.2**
PTBC				S	**Sb**	**23 05 21.0**	**+2.1**
OTAV	**Otavalo**	**4.23**	**234**	P	**Pb**	**23 04 41.2**	**+1.2**
OTAV				S	**Sb**	**23 05 32.4**	**+0.7**
OTAV	**Otavalo**	**4.23**	**234**	P	**Pn**	**23 04 30.2**	**-0.2**
OTAV				S	**Sg**	**23 05 37.4**	**-3.6**
BARC	**Barichara**	**4.24**	**26**	P	**Pn**	**23 04 30.3**	**0.0**
BARC				S	**Sn**	**23 05 24.1**	**+3.9**
BRJC	**Barrancabermej**	**4.38**	**17**	P	**Pn**	**23 04 33.4**	**+1.3**
TAMC	**Tame, Arauca**	**4.88**	**41**	P	**Pg**	**23 05 01.2**	**+2.7**
PIAT	**Ana Tenorio**	**4.93**	**221**	P	**Pn**	**23 04 38.4**	**-1.5**
PIAT				S	**Sb**	**23 05 55.0**	**+3.3**
UREC	**San Jos de Ur**	**4.99**	**354**

ZEYE				S	Sg	23 16 41.4	-0.2
ZEYE				IAML		23 16 42.0	
	comp=N,4μm,0.3s						
ZEYE				IAML		23 16 44.0	
	comp=E,1μm,0.4s						
DAGE	**izmir**	**0.62**	**75**	P	**Pg**	**23 16 35.3**	**-0.1**
AYDB	**Zeytinkoy-Aydi**	**0.72**	**81**	Pg	**Pg**	**23 16 36.9**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.72**	**104**	P	**Pb**	**23 16 37.4**	**-0.4**
CESE	**eme**	**0.73**	**312**	Pg	**Pg**	**23 16 37.3**	**-0.3**
CESE				Sg	**Sg**	**23 16 47.9**	**+0.7**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.75**	**162**	Pg	**Pg**	**23 16 37.6**	**-0.2**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.81**	**68**	P	**Pg**	**23 16 38.7**	**-0.3**
BODT	**Bodrum**	**0.82**	**162**	P	**Pg**	**23 16 38.7**	**-0.4**
BODT				S	**Sb**	**23 16 50.5**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**162**	Pg	**Pg**	**23 16 38.9**	**-0.2**
BODT				AML	AML		
BAGT	**Foa**	**0.82**	**352**	P	**Pg**	**23 16 39.1**	**-0.1**
MLSB	**Milas**	**0.83**	**131**	Pg	**Pb**	**23 16 39.5**	**0.0**
MLSB				AML	AML		
KRBN	**Karaburun**	**0.83**	**335**	Pg	**Pg**	**23 16 38.8**	**-0.5**
KRBN				AML	AML		
BDRM	**Kayabasi**	**0.85**	**155**	P	**Pb**	**23 16 40.2**	**+0.2**
BODA	**Bodrum-Mula**	**0.88**	**157**	Pg	**Pg**	**23 16 40.1**	**-0.1**
KLNA	**Kalymnos**	**0.88**	**181**	P	**Pg**	**23 16 39.8**	**-0.6**
KLNA				AML	AML		
FOCM	**Foa**	**0.90**	**347**	Pg	**Pg**	**23 16 40.4**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.92**	**307**	P	**Pg**	**23 16 40.5**	**-0.5**
CHOS				S	**Sb**	**23 16 54.0**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**307**	Pg	**Pg**	**23 16 40.9**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**307**	P	**Pg**	**23 16 41.1**	**0.0**
CHOS				S	**Sg**	**23 16 53.5**	**+0.4**
CAMT	**Merkez**	**0.94**	**15**	P	**Pb**	**23 16 41.7**	**+0.2**
KARB	**zmir-Karabur**	**0.94**	**331**	P	**Pb**	**23 16 41.7**	**+0.2**
EAG2	**Marmaro, Chios**	**0.99**	**315**	P	**Pg**	**23 16 41.8**	**-0.6**
NAZL	**Nazilli-Aydin**	**1.03**	**83**	Pg	**Pg**	**23 16 42.7**	**-0.5**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.07**	**92**	P	**Pb**	**23 16 43.7**	**0.0**
ZEDA	**zmir-Bergama**	**1.12**	**3**	P	**Pg**	**23 16 44.6**	**-0.4**
GOMA	**Golmarmara-Man**	**1.13**	**40**	Pn	**Pg**	**23 16 44.6**	**-0.4**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.17**	**72**	P	**Pb**	**23 16 45.5**	**+0.2**
DAT	**Datca**	**1.20**	**157**	P	**Pg**	**23 16 45.6**	**-0.9**
DAT				AML	AML		
KTTT	**Salihli**	**1.21**	**45**	P	**Pn**	**23 16 46.3**	**+0.3**
AKHS	**Akhisar**	**1.22**	**32**	P	**Pg**	**23 16 46.2**	**-0.6**
AKS	**Akhisar**	**1.22**	**32**	Pn	**Pb**	**23 16 46.4**	**+0.2**
AKS				AML	AML		
DKL	**Dikili**	**1.23**	**357**	Pn	**Pb**	**23 16 46.5**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.23**	**357**	P	**Pb**	**23 16 46.0**	**-0.4**
YER	**Yerkesik**	**1.24**	**124**	P	**Pn**	**23 16 46.8**	**+0.3**
YER				S	**Sb**	**23 17 03.0**	**+0.3**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**18**	Pn	**Pg**	**23 16 49.4**	**-0.4**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.40**	**237**	P	**Pn**	**23 16 48.0**	**-0.6**
APE				S	**Sg**	**23 17 09.1**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.40**	**237**	P	**Pn**	**23 16 48.3**	**-0.3**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.41**	**41**	Pn	**Pg**	**23 16 50.5**	**0.0**
GORD				AML	AML		
PRK	**Paraskevi**	**1.51**	**338**	P	**Pn**	**23 16 50.4**	**+0.3**
PRK				S	**Sg**	**23 17 12.8**	**+0.8**
PRK				AML	AML		
PRK	**Paraskevi**	**1.51**	**338**	P	**Pn**	**23 16 50.1**	**0.0**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.86**	**151**	P	**Pn**	**23 16 55.4**	**+0.6**
ARG	**Arkhangelos**	**1.86**	**151**	P	**Pn**	**23 16 54.9**	**0.0**
ARG				AML	AML		
KARP	**Karpathos**	**2.29**	**177**	P	**Pn**	**23 17 00.5**	**-0.4**
KARP				AML	AML		

*ISK **10** 23:22:28.2, 37°.87N×26°.99E, h9km, ML2.8/17*
*ATH **10** 23:22:28.2, 37°.85N×27°.01E, h12km, ML2.8/8, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*AFAD **10** 23:22:28.3, 37°.87N×26°.96E, h7km±2km, ML2.8*
*THE **10** 23:22:28.5, 37°.9N±0°.9×27°.0E±0°.8, h11km±1km, M2.7/8, MLh2.7/8*

ISC 10 23:22:28.4±0.8, 37°.87N±0°.02×26°.99E±0°.02, h14km±6km, n54, σ0$45/74, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.20**	**218**	P	**Pg**	**Pg**	**23 22 32.9**	**-0.1**
SMG				S	**Sg**	**Sg**	**23 22 36.6**	**+0.5**
SMG				AML	AML	AML		
SMG	**Samos**	**0.20**	**218**	P	**Pg**	**Pg**	**23 22 32.8**	**-0.2**
SMG				S	**Sg**	**Sg**	**23 22 35.9**	**-0.2**
SMG				AML	AML	AML		
DGB	**zmir**	**0.21**	**335**	P	**Pg**	**Pg**	**23 22 32.8**	**-0.4**
DGB				S	**Sg**	**Sg**	**23 22 34.8**	**-1.4**
DGB				IAML			23 22 35.0	
	comp=E,2μm,0.2s							
GMLD	**Gumuldur**	**0.22**	**344**	Pg	**Pg**	**Pg**	**23 22 33.2**	**-0.1**
GMLD				Sg	**Sg**	**Sg**	**23 22 36.5**	**-0.1**
GMLD				AML	AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**91**	Pg	**Pg**	**Pg**	**23 22 33.4**	**-0.1**
KUSD				Sg	**Sg**	**Sg**	**23 22 37.2**	**+0.2**
KUSD				AML	AML	AML		
KRL1	**Karlovasi Samo**	**0.24**	**253**	P	**Pg**	**Pg**	**23 22 33.5**	**-0.1**
KRL1				S	**Sg**	**Sg**	**23 22 37.1**	**+0.1**
KRL1				AML	AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**131**	P	**Pb**	**Pb**	**23 22 34.2**	**-0.5**
GCAM				S	**Sg**	**Sg**	**23 22 37.8**	**+0.4**
GCAM				IAML			23 22 38.0	
	comp=E,1μm,0.2s							
GCAM				IAML			23 22 39.0	
	comp=N,1μm,0.2s							
GCAM	**G?zelcaml?**	**0.25**	**131**	Pg	**Pg**	**Pg**	**23 22 34.1**	**+0.3**
GCAM				Sg	**Sg**	**Sg**	**23 22 38.3**	**+0.8**
GCAM				AML	AML	AML		
SAM2	**Drakei, Karlov**	**0.32**	**251**	P	**Pg**	**Pg**	**23 22 35.0**	**-0.1**
SAM2				S	**Sg**	**Sg**	**23 22 39.4**	**-0.2**
SAM2				AML	AML	AML		
BEYE	**izmir**	**0.36**	**352**	P	**Pg**	**Pg**	**23 22 35.7**	**-0.2**
BEYE				S	**Sg**	**Sg**	**23 22 40.4**	**-0.5**
BEYE				IAML			23 22 41.0	
	comp=N,950nm,0.3s							
DDIM	**Aydin, Didim**	**0.45**	**154**	P	**Pb**	**Pb**	**23 22 37.8**	**-0.4**
DUVT	**Torbali**	**0.51**	**45**	P	**Pg**	**Pg**	**23 22 38.3**	**-0.1**
BLCB	**Balcova**	**0.52**	**4**	P	**Pg**	**Pg**	**23 22 38.5**	**-0.2**
BLCB				S	**Sg**	**Sg**	**23 22 45.7**	**0.0**
BLCB	**Balcova**	**0.52**	**4**	Pg	**Pg**	**Pg**	**23 22 38.6**	**-0.2**
BLCB				Sg	**Sg**	**Sb**	**23 22 46.2**	**-0.6**
BLCB				AML	AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**314**	P	**Pg**	**Pg**	**23 22 38.9**	**-0.2**
ZEYE				S	**Sg**	**Sg**	**23 22 45.8**	**-0.4**
ZEYE				IAML			23 22 46.0	
	comp=N,840nm,0.3s							
ZEYE				IAML			23 22 47.0	
	comp=E,480nm,0.2s							
AYDB	**Zeytinkoy-Aydi**	**0.71**	**83**	Pg	**Pb**	**Pb**	**23 22 42.7**	**0.0**
AYDB				AML	AML	AML		
CESE	**eme**	**0.72**	**311**	Pg	**Pb**	**Pb**	**23 22 42.8**	**+0.1**
AYDN	**Tasoluk**	**0.73**	**106**	P	**Pb**	**Pb**	**23 22 43.0**	**0.0**
YKAV	**Yalikavak-Bodr**	**0.77**	**163**	Pg	**Pg**	**Pg**	**23 22 43.5**	**0.0**
YKAV				AML	AML	AML		
BAGT	**Foa**	**0.80**	**352**	P	**Pb**	**Pb**	**23 22 44.0**	**-0.1**
BAGT				S	**Sg**	**Sg**	**23 22 53.3**	**-1.1**
BAGT				IAML			23 22 55.0	
	comp=E,470nm,0.3s							
BAGT				IAML			23 22 58.0	
	comp=N,317nm,1.0s							
IZMR	**zmir-demi**	**0.80**	**70**	P	**Pb**	**Pb**	**23 22 44.0**	**-0.2**
KRBN	**Karaburun**	**0.81**	**335**	Pg	**Pb**	**Pb**	**23 22 44.7**	**+0.5**
KRBN				AML	AML	AML		
BODT	**Bodrum**	**0.84**	**162**	P	**Pg**	**Pg**	**23 22 44.5**	**-0.3**
BODT				S	**Sn**	**Sn**	**23 22 57.4**	**-0.6**
BODT				AML	AML	AML		
BODT	**Bodrum**	**0.84**	**162**	Pg	**Pb**	**Pb**	**23 22 44.9**	**+0.1**
BODT				AML	AML	AML		
MLSB	**Milas**	**0.84**	**132**	Pg	**Pg**	**Pg**	**23 22 44.5**	**-0.3**
MLSB				AML	AML	AML		
FOCM	**Foa**	**0.87**	**346**	Pg	**Pb**	**Pb**	**23 22 45.8**	**+0.5**
FOCM				AML	AML	AML		
BDRM	**Kayabasi**	**0.88**	**156**	P	**Pg**	**Pg**	**23 22 45.3**	**-0.1**
BODA	**Bodrum-Mula**	**0.90**	**157**	Pg	**Pb**	**Pb**	**23 22 45.8**	**0.0**
CHOS	**Chios island**	**0.91**	**305**	P	**Pb**	**Pb**	**23 22 46.3**	**+0.3**
CHOS				S	**Sb**	**Sb**	**23 22 58.9**	**+1.0**
CHOS				AML	AML	AML		
CHOS	**Chios island**	**0.91**	**305**	Pg	**Pg**	**Pg**	**23 22 45.9**	**-0.1**
CHOS				AML	AML	AML		
CHOS	**Chios island**	**0.91**	**305**	P	**Pb**	**Pb**	**23 22 46.4**	**+0.5**
CHOS				S	**Sb**	**Sb**	**23 22 59.1**	**+1.2**
CHOS				AML	AML	AML		
KLNA	**Kalymnos**	**0.91**	**181**	P	**Pg**	**Pg**	**23 22 45.7**	**-0.2**
KLNA				S	**Sg**	**Sg**	**23 22 57.5**	**-0.4**
KLNA				AML	AML	AML		
CAMT	**Merkez**	**0.92**	**16**	P	**Pb**	**Pb**	**23 22 46.2**	**+0.1**
KARB	**zmir-Karabur**	**0.92**	**330**	P	**Pn**	**Pn**	**23 22 46.9**	**0.0**
EAG2	**Marmaro, Chios**	**0.97**	**314**	P	**Pn**	**Pn**	**23 22 47.9**	**+0.3**
NAZL	**Nazilli-Aydin**	**1.03**	**84**	Pg	**Pn**	**Pn**	**23 22 48.5**	**0.0**
NAZL				AML	AML	AML		
ESEN	**Aydn-Nazilli**	**1.07**	**93**	P	**Pn**	**Pn**	**23 22 49.5**	**+0.5**
ZEDA	**zmir-Bergama**	**1.10**	**3**	P	**Pg**	**Pg**	**23 22 49.3**	**-0.4**
GOMA	**Golmarmara-Man**	**1.11**	**41**	Pn	**Pn**	**Pn**	**23 22 50.6**	**+1.0**
GOMA				AML	AML	AML		
KIRA	**zmir-Kiraz**	**1.16**	**73**	P	**Pg**	**Pg**	**23 22 51.2**	**+0.4**
KTTT	**Salihli**	**1.19**	**46**	P	**Pg**	**Pg**	**23 22 51.2**	**-0.3**
AKHS	**Akhisar**	**1.20**	**32**	P	**Pg**	**Pg**	**23 22 51.2**	**-0.4**
DKL	**Dikili**	**1.21**	**357**	Pn	**Pg**	**Pg**	**23 22 51.6**	**-0.1**
DKL				AML	AML	AML		
DKL	**Dikili**	**1.21**	**357**	P	**Pb**	**Pb**	**23 22 51.1**	**+0.1**
YER	**Yerkesik**	**1.26**	**125**	P	**Pg**	**Pg**	**23 22 52.5**	**-0.1**
YER				S	**Sg**	**Sg**	**23 23 09.1**	**0.0**
SOMA	**Soma-Manisa**	**1.36**	**18**	Pn	**Pb**	**Pb**	**23 22 53.5**	**-0.1**
SOMA				AML	AML	AML		
GORD	**Gordes-Manisa**	**1.40**	**41**	Pn	**Pg**	**Pg**	**23 22 55.3**	**0.0**
GORD				AML	AML	AML		
APE	**Apeiranthos**	**1.41**	**236**	P	**Pn**	**Pn**	**23 22 53.1**	**-0.6**
APE				S	**Sb**	**Sb**	**23 23 12.9**	**+0.5**
APE				AML	AML	AML		
APE	**Apeiranthos**	**1.41**	**236**	P	**Pn**	**Pn**	**23 22 53.5**	**-0.2**
APE				AML	AML	AML		
PRK	**Paraskevi**	**1.49**	**338**	P	**Pn**	**Pn**	**23 22 54.8**	**0.0**
PRK				AML	AML	AML		
PRK	**Paraskevi**	**1.49**	**338**	P	**Pn**	**Pn**	**23 22 55.4**	**+0.6**
ARG	**Arkhangelos**	**1.88**	**151**	P	**Pn**	**Pn**	**23 22 59.4**	**-0.7**
ARG	**Arkhangelos**	**1.88**	**151**	P	**Pn**	**Pn**	**23 22 59.4**	**-0.7**
ARG				AML	AML	AML		
KARP	**Karpathos**	**2.32**	**177**	P	**Pn**	**Pn**	**23 23 06.9**	**+0.7**
KARP				AML	AML	AML		

*IDC **10** 23:23:47.9±1.4, 5°.71S×150°.34E, h121km±14km, mb3.5/12, mbtmp4.0/14, Error ellipse: s-maj=34.6km s-min=9.4km az=120.0*

ISC 10 23:23:47.6±0.8, 5°.7S±0°.1×150°.3E±0°.1, h114km, n15, σ1$22/18, mb3.7/12, New Britain region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.17**	**52**	P		**Pn**	**23 24 23.3**	**+0.4**
	357nm,0.3s,baz=284,slow=7.7,SNR=8.2							
PMG	**Port Moresby**	**4.87**	**220**	P		**Pn**	**23 24 59.3**	**+0.6**
	84nm,0.3s,baz=56,slow=6.5,SNR=25							
PMG				S		**Sn**	**23 25 53.4**	**-0.6**
	214nm,0.5s,baz=344,slow=21,SNR=9.6							
CTA	**Charters Tower**	**14.89**	**195**	P		**P**	**23 27 15.8**	**+0.7**
	6.8nm,1.0s,baz=14,slow=14,SNR=3.8							
WRA	**Warramunga Arr**	**21.05**	**226**	P		**P**	**23 28 22.3**	**-0.4**
	5.1nm,0.4s,baz=51,slow=11,SNR=40							
WRA				S		**S**	**23 32 09.9**	**-0.8**
	0.5nm,0.8s,baz=348,slow=20,SNR=2.5 5.1nm,0.4s							
ASAR	**Alice Springs**	**23.88**	**220**	P		**P**	**23 28 51.5**	**+0.6**
	1.4nm,0.5s,baz=57,slow=8.5,SNR=30							
ASAR				S		**S**	**23 32 58.3**	**-0.7**
	0.4nm,0.8s,baz=45,slow=16,SNR=2.0 1.4nm,0.5s							
STKA	**Stephens Creek**	**27.34**	**196**	P		**P**	**23 29 22.4**	**+0.4**
	3.0nm,0.7s,baz=346,slow=8.4,SNR=3.4 3.0nm,0.7s							
MJAR	**Matsushiro Arr**	**43.47**	**346**	P		**P**	**23 31 38.5**	**-1.1**
	2.2nm,0.6s,baz=164,slow=8.7,SNR=3.3 2.2nm,0.6s							
KSRS	**Korea Array**	**47.69**	**336**	P		**P**	**23 32 13.6**	**+0.9**
	0.7nm,0.5s,baz=149,slow=7.8,SNR=2.0 0.7nm,0.5s							
USRK	**Ussuriysk Ar.**	**52.29**	**343**	P		**P**	**23 32 49.1**	**+1.8**
	1.2nm,0.5s,baz=134,slow=4.2,SNR=2.0 1.2nm,0.5s							
SONM	**Songino Array**	**65.74**	**329**	P		**P**	**23 34 22.0**	**+1.6**
	1.4nm,0.6s,baz=144,slow=5.6,SNR=8.2 1.4nm,0.6s							
MKAR	**Makanchi Array**	**79.34**	**320**	P		**P**	**23 35 40.4**	**-0.5**
	0.2nm,0.6s,baz=106,slow=6.2,SNR=1.3 0.2nm,0.6s							
ZALV	**Zalesovo Beam**	**80.49**	**327**	P		**P**	**23 35 45.2**	**-1.6**
	0.4nm,0.4s,baz=110,slow=5.7,SNR=2.0 0.4nm,0.4s							
KURBB	**Kurchatov Arra**	**82.94**	**322**	P		**P**	**23 35 57.7**	**-2.1**
	0.3nm,0.7s,baz=114,slow=4.1,SNR=2.8 0.3nm,0.7s							
ILAR	**Eielson Array**	**83.88**	**23**	P		**P**	**23 36 02.8**	**-1.5**
	0.3nm,0.5s,baz=243,slow=4.7,SNR=5.4 0.3nm,0.5s							
BVAR	**Borovoye Array**	**88.43**	**323**	P		**P**	**23 36 25.6**	**-1.3**
	0.3nm,0.5s,baz=68,slow=8.7,SNR=1.7 0.3nm,0.5s							

IDC 10 23:32:45.7±8.4, 5°.85S×146°.60E, h72km±55km, mb3.4/2, mbtmp3.9/5, ML4.0/2, MS2.7/1, Error ellipse: s-maj=66.9km s-min=45.6km az=29.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.58**	**171**	P		Pn	23 33 38.7	-0.1
	41nm,0.3s,baz=350,slow=12,SNR=15							
PMG				S		Sn	23 34 20.6	+0.6
	31nm,0.5s,baz=225,slow=20,SNR=6.9							
PMG				LR		LR	23 35 32.0	
	comp=Z,97nm,20.2s,baz=123,slow=46							
CTA	**Charters Tower**	**14.16**	**181**	P		Pn	23 36 02.6	-0.3
	0.5nm,0.3s,baz=360,slow=12,SNR=2.0 2.3nm,0.5s							
CTA				AML		AML		
WRA	**Warramunga Arr**	**18.40**	**219**	P		P	23 36 55.1	0.0
	0.4nm,0.3s,baz=41,slow=11,SNR=9.6 1.6nm,0.6s							
WRA				AML		AML		
ASAR	**Alice Springs**	**21.52**	**213**	P		P	23 37 29.2	+0.2
	1.3nm,0.5s,baz=46,slow=8.1,SNR=19 1.3nm,0.5s							
VNDA	**Vanda**	**72.09**	**177**	P		P	23 44 01.8	0.0
	0.5nm,0.6s,baz=335,slow=7.0,SNR=7.1 0.5nm,0.6s							

*VIE **10** 23:55:46.5±0.2, 50°.29N×18°.69E, h0km, mb2.5/3, ml2.4/4, ml2.2/4, Error ellipse: s-maj=1.8km s-min=1.3km az=16.0*
21 km WNW of Katowice Suspected Mining induced.
*IPEC **10** 23:55:46.9±0.1, 50°.20N×18°.74E, h1km, ML2.0/6, Error ellipse: s-maj=1.7km s-min=0.7km az=168.0*
*PRU **10** 23:55:47.6, 50°.18N×18°.68E, h0km*

ISC 10 23:55:46.7±0.8, 50°.19N±0°.04×18°.73E±0°.02, h0km, n32, σ0$97/56, Poland

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	**0.52**	**227**	*e*P	G	**Pg**	**23 55 57.5**	**+0.9**
OKC				*e*S	G	**Sg**	**23 56 04.3**	**+1.0**
STEB	**Steborice**	**0.67**	**248**	*e*P	G	**Pg**	**23 56 00.3**	**+0.8**
STEB				*e*S	G	**Sg**	**23 56 07.9**	**-0.3**
OJC	**Ojcow**	**0.69**	**87**	*e*Pg		**Pg**	**23 55 60.0**	**+0.1**
OJC				*e*Sg		**Sg**	**23 56 09.8**	**+1.0**
MORC	**Moravsky Berou**	**0.87**	**242**	*e*Pg		**Pg**	**23 56 03.7**	**+0.3**
	baz=61							
MORC				*e*Sg		**Sg**	**23 56 14.6**	**-0.1**
	26nm,0.5s,baz=61							
MORC				AML		AML		
ANAC	**Anensky vrch**	**0.88**	**263**	*e*Pg		**Pg**	**23 56 04.0**	**+0.5**
	baz=81							
ANAC				*e*Sg		**Sg**	**23 56 14.5**	**-0.4**
	39nm,0.3s,baz=81							
ANAC				AML		AML		
LOSC	**Losov**	**1.05**	**238**	*e*Pg		**Pg**	**23 56 06.9**	**+0.1**
	baz=56							
LOSC				*e*Sg		**Sg**	**23 56 19.9**	**-0.4**
	31nm,0.6s,baz=56							
LOSC				AML		AML		
NIE	**Niedzica**	**1.28**	**127**	*e*Pg		**Pg**	**23 56 11.3**	**+0.1**
NIE				*e*Sg		**Sn**	**23 56 31.3**	**+1.6**
JAVC	**Velka Javorina**	**1.50**	**208**	*e*Pn		**Pn**	**23 56 15.1**	**+0.1**
	baz=27							
JAVC	**Velka Javorina**	**1.50**	**208**	*e*PN		**Pn**	**23 56 15.2**	**+0.2**
DPC	**Dobruska-Polom**	**1.55**	**277**	*e*PG		**Pn**	**23 56 15.2**	**-0.5**
DPC				*e*SG		**Sn**	**23 56 36.2**	**-0.3**
	comp=Z,10nm,0.3s							
DPC				AML		AML		
VRAC	**Vranov**	**1.65**	**238**	*e*Pn		**Pn**	**23 56 16.9**	**0.0**
	baz=56							
VRAC				*e*Sg		**Sn**	**23 56 38.4**	**-0.3**
	7.3nm,0.3s,baz=56							
VRAC				AML		AML		
OSTC	**Ostas**	**1.65**	**284**	*e*PG		**Pn**	**23 56 16.5**	**-0.5**
OSTC				*e*SG		**Sn**	**23 56 38.4**	**-0.5**
KSP	**Ksiaz**	**1.69**	**294**	*e*Pg		**Pn**	**23 56 17.6**	**+0.1**
KSP				*e*Sg		**Sb**	**23 56 40.0**	**-0.4**
VYHS	**Vyhne**	**1.70**	**178**	*e*PN		**Pn**	**23 56 17.2**	**-0.4**
VYHS				*e*SN		**Sb**	**23 56 41.3**	**+0.5**
CHVC	**Chvalec**	**1.76**	**284**	*e*PG		**Pn**	**23 56 18.2**	**-0.3**
CHVC				*e*SG		**Sn**	**23 56 41.3**	**-0.3**
UPC	**Upice**	**1.77**	**281**	*e*PG		**Pb**	**23 56 19.4**	**-0.6**
UPC				*e*SG		**Sg**	**23 56 43.9**	**+0.3**
KRUC	**Moravsky**	**1.89**	**234**	*e*Pn		**Pn**	**23 56 20.5**	**+0.3**
	baz=52							
KRUC				*e*Sg		**Sb**	**23 56 46.3**	**0.0**
	6.7nm,0.5s,baz=52							
KRUC				AML		AML		
KRUC	**Moravsky**	**1.89**	**234**	*e*PN		**Pn**	**23 56 20.6**	**+0.3**
KRUC				*e*SG		**Sb**	**23 56 46.4**	**+0.1**
KECS	**Kecovo**	**2.06**	**145**	*e*PG		**Pg**	**23 56 26.2**	**0.0**
KECS				*e*SN		**Sn**	**23 56 48.6**	**-0.3**
KECS				*e*LG		Lg	23 56 53.4	
TREC	**Trest**	**2.29**	**248**	*e*SG		**Sb**	**23 56 57.7**	**0.0**
	comp=Z,4.5nm,0.2s							
TREC				AML		AML		
KOLS	**Kolonicke sedl**	**2.63**	**117**	*e*PG		**Pg**	**23 56 36.2**	**-0.8**
KOLS				*e*SN		**Sn**	**23 57 02.4**	**-0.6**
KOLS				*e*LG		Lg	23 57 14.8	
ABNA	**Allensteig Bun**	**2.64**	**236**	*e*Pn		**Pn**	**23 56 31.1**	**+0.5**
	0.4nm,0.1s							
ABNA				*e*Sn		**Sn**	**23 57 05.2**	**+2.0**
	2.3nm,0.1s							
PVCC	**Panska Ves**	**2.69**	**279**	*e*SG		**Sg**	**23 57 12.9**	**-0.1**
	comp=Z,9.8nm,0.3s							
PVCC				AML		AML		
PRU	**Pruhonice**	**2.71**	**267**	*e*SG		**Sg**	**23 57 11.5**	**-2.1**
CONA	**Conrad Observa**	**2.95**	**221**	*e*Pg		**Pg**	**23 56 44.0**	**+0.8**
	0.7nm,0.3s							
CONA				*e*Sn		**Sn**	**23 57 08.8**	**-2.2**
	1.6nm,0.5s							
ZVC	**Zvikov**	**3.04**	**257**	*e*PG		**Pb**	**23 56 42.4**	**+0.8**
HSKC	**Hora Svate Kat**	**3.42**	**279**	*e*SG		**Sg**	**23 57 35.6**	**-0.8**
KHC	**Kasperske Hory**	**3.51**	**254**	*e*PN		**Pn**	**23 56 41.7**	**-0.9**
KHC				*e*PG		**Pb**	**23 56 49.0**	**-0.7**
KHC				*e*SG		**Sg**	**23 57 37.8**	**-1.7**
	comp=Z,8.6nm,0.8s							
KHC				AML		AML		
MOA	**Molln**	**3.76**	**233**	Pg		**Pg**	**23 56 57.6**	**-1.2**
	0.5nm,0.4s							
MOA				*e*Sg		**Sg**	**23 57 44.9**	**-2.5**
	1.7nm,0.4s							
CLL	**Collm**	**3.81**	**289**	*i* Pg		**Pg**	**23 57 01.3**	**+1.7**
CLL				*i* Sg		**Sg**	**23 57 49.4**	**+0.5**
	comp=Z,3.0nm,0.5s							
BIOA	**Bad Ischl, Aus**	**4.19**	**235**	*e*Sg		**Sg**	**23 58 02.8**	**+1.7**
	comp=Z,2.4nm,0.3s							
WTTA	**Wattenberg**	**5.53**	**241**	*e*Sg		**Sb**	**23 58 33.7**	**+2.5**
	comp=Z,1.5nm,0.5s							

*KRNET **11** 00:10:37.7±0.1, 41°.48N×78°.92E, h17km, mb2.3*
*NNC **11** 00:10:42.9±1.7, 41°.68N×78°.87E, h0km, mb2.3, mpv2.7, Error ellipse: s-maj=11.5km s-min=7.3km az=164.0*
*SOME **11** 00:10:43.5, 41°.73N×78°.82E, h5km*

ISC 11 00:10:37.3±2.1, 41°.42N±0°.08×78°.92E±0°.06, h8km±11km, n29, σ1$11/51, 13C-3D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**0.89**	**291**	⇑*e*P		**Pg**	**00 10 54.2**	**-0.3**
TARG				⇑*e*S		**Sg**	**00 11 06.4**	**+0.3**
PRZ	**Przheval'sk**	**1.13**	**340**	⇑*e*P		**Pb**	**00 10 58.0**	**-1.2**
PRZ				⇑*e*S		**Sb**	**00 11 12.7**	**-1.4**
KDJ	**Kajisay**	**1.48**	**299**	⇑*i*P		**Pn**	**00 11 04.2**	**-0.2**
KDJ				⇑*i*S		**Sn**	**00 11 23.5**	**-0.5**
ANVS	**Anan'yevo**	**1.65**	**326**	⇑*e*P		**Pb**	**00 11 07.4**	**-0.6**
ANVS				⇑*e*S		**Sb**	**00

	10nm,0.4s						
KTBS	**Karatobe**	**2.82**	**325**	Pg	**Pg**	**00 11 30.2**	**-1.2**
KTBS				Lg	Lg	00 12 03.7	
	2.3nm,0.3s						
KTBS	**Karatobe**	**2.82**	**325**	*eP*	**Pg**	**00 11 30.2**	**-1.2**
KTBS				*eS*	**Sb**	**00 12 03.7**	**+1.0**
	2.3nm,0.3s						
TKM2	**Tokmak 2**	**2.89**	**302**	*iP*	**Pn**	**00 11 25.4**	**+1.6**
TKM2				*iS*	**Sn**	**00 12 00.1**	**+1.3**
ARXS	**Arharly**	**2.91**	**344**	Pg	**Pg**	**00 11 32.3**	**-0.6**
	0.8nm,0.2s						
ARXS				Lg	Lg	00 12 07.4	
	7.1nm,0.3s						
ARXS	**Arharly**	**2.91**	**344**	*eP*	**Pg**	**00 11 32.3**	**-0.6**
	0.8nm,0.2s						
ARXS				*eS*	**Sb**	**00 12 07.4**	**+2.4**
	7.1nm,0.3s						
DJR	**Jarkent**	**2.98**	**12**	Pg	**Pg**	**00 11 33.5**	**-0.8**
	0.8nm,0.1s						
DJR				Lg	Lg	00 12 09.2	
	2.6nm,0.3s						
DJR	**Jarkent**	**2.98**	**12**	*eP*	**Pg**	**00 11 33.4**	**-1.0**
	0.8nm,0.1s						
DJR				*eS*	**Sb**	**00 12 09.2**	**+2.0**
	2.6nm,0.3s						

UPP **11** *00:17:02.9±0.0, 67°.82N×20°.22E, h0km, ML2.2, Suspected explosion*

HEL **11** *00:17:03.3±0.2, 67°.81N×20°.20E, h0km, ML1.4, Suspected explosion*

IDC **11** *00:17:06.4±1.8, 67°.91N×20°.59E, h0km, mbtmp2.7/3, ML1.5/3, Error ellipse: s-maj=22.5km s-min=11.8km az=114.0*

ISC 11 00:17:03.5±0.8, 67°.82N±0°.02×20°.28E±0°.02, h0km, n33, σ1§33/55, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RATU	**Laukkuluspa**	**0.26**	**270**	P	**Pg**	**00 17 07.6**	**-0.9**
RATU				S	**Sg**	**00 17 11.1**	**-0.7**
KOVU	**Salmi**	**0.40**	**354**	P	**Pg**	**00 17 10.8**	**-0.5**
KOVU				S	**Sg**	**00 17 16.4**	**-0.1**
NIKU	**Nikkaluokta**	**0.47**	**276**	P	**Pg**	**00 17 11.5**	**-1.0**
NIKU				S	**Sg**	**00 17 17.9**	**-0.8**
LANU	**Lannavaara**	**0.69**	**70**	P	**Pg**	**00 17 16.3**	**-0.4**
LANU				S	**Sg**	**00 17 25.8**	**+0.2**
LANU	**Lannavaara**	**0.69**	**70**	PG	**Pg**	**00 17 16.3**	**-0.4**
LANU				SG	**Sg**	**00 17 25.6**	**0.0**
DUNU	**Dundret**	**0.71**	**171**	P	**Pg**	**00 17 16.3**	**-0.8**
DUNU				S	**Sg**	**00 17 26.4**	**-0.1**
MASU	**Masugnsbyn**	**0.76**	**118**	P	**Pg**	**00 17 17.5**	**-0.5**
SALU	**Saltoluokta**	**0.81**	**237**	P	**Pg**	**00 17 17.7**	**-1.3**
SALU				S	**Sg**	**00 17 28.9**	**-0.7**
SALU	**Saltoluokta**	**0.81**	**237**	*eP*	**Pg**	**00 17 12.2**	**-1.9**
PAJU	**Pajala**	**1.36**	**125**	P	**Pg**	**00 17 28.1**	**-1.4**
PAJU	**Pajala**	**1.36**	**125**	PG	**Pg**	**00 17 28.1**	**-1.4**
	baz=302						
PAJU				SB	**Sg**	**00 17 46.8**	**-0.2**
HEF	**Hetta**	**1.40**	**64**	*eP*	**Pn**	**00 17 28.7**	**-1.6**
HEF	**Hetta**	**1.40**	**64**	PG	**Pn**	**00 17 29.0**	**-1.3**
	baz=249						
HEF				MSG		00 17 46.3	
	comp=Z,3.7nm,0.2s						
HEF				SN	**Sn**	**00 17 49.4**	**0.0**
ERTU	**Ertsjaerv**	**1.48**	**149**	P	**Pn**	**00 17 30.1**	**-1.3**
ERTU				S	**Sg**	**00 17 51.0**	**+0.1**
ERTU	**Ertsjaerv**	**1.48**	**149**	PG	**Pn**	**00 17 30.0**	**-1.3**
ERTU				SN	**Sg**	**00 17 50.7**	**-0.2**
KLF	**Kolari**	**1.54**	**111**	PG	**Pn**	**00 17 31.3**	**-0.8**
KLF				MSG		00 17 50.0	
	comp=Z,2.1nm,0.2s						
KLF				SN	**Sg**	**00 17 53.5**	**+0.7**
KTK1	**Kautokeino**	**1.62**	**41**	PG	**Pn**	**00 17 32.8**	**-0.5**
KTK1				SN	**Sg**	**00 17 55.6**	**+0.1**
HARU	**Harads**	**1.69**	**170**	P	**Pn**	**00 17 33.7**	**-0.5**
TRO	**Tromso**	**1.88**	**345**	PG	**Pn**	**00 17 37.2**	**+0.3**
TRO				SG	**Sn**	**00 18 01.8**	**+0.6**
TOF	**Tornio**	**2.37**	**136**	PB	**Pn**	**00 17 44.6**	**+1.1**
	baz=316						
TOF				MSG		00 18 13.8	
	comp=Z,1.4nm,0.2s						
TOF				SG	**Sb**	**00 18 16.7**	**0.0**
RNF	**Rovaniemi**	**2.54**	**116**	PB	**Pn**	**00 17 47.4**	**+1.5**
RNF				SG	**Sb**	**00 18 21.1**	**-0.7**
ARCES	**ARCESS Array B**	**2.57**	**46**	Pn	**Pn**	**00 17 46.6**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=225,slow=15,SNR=22						
ARCES				Lg	Lg	00 18 19.6	
	comp=Z,0.8nm,0.3s,baz=230,slow=24,SNR=14						
	comp=Z,0.8nm,0.3s						
ARCES				AML	AML		
ARA0	**ARCESS Array S**	**2.57**	**46**	PB	**Pn**	**00 17 47.5**	**+1.1**
ARA0				SB	**Sb**	**00 18 20.9**	**-1.6**
RAJF	**Raja-Jooseppi**	**3.08**	**74**	PN	**Pn**	**00 17 53.2**	**-0.1**
RAJF				SG	**Sb**	**00 18 36.8**	**-0.3**
KEV	**Kevo**	**3.12**	**49**	PB	**Pn**	**00 17 54.8**	**+0.9**
KEV				SN	**Sn**	**00 18 32.4**	**+0.6**
RANF	**Ranua**	**3.14**	**122**	PB	**Pb**	**00 17 57.9**	**-2.3**
	baz=305						
BURU	**Burvik**	**3.29**	**172**	PB	**Pn**	**00 17 58.8**	**+2.7**
	baz=350						
BURU				SB	**Sn**	**00 18 39.1**	**+3.2**
VRF	**Varrio**	**3.55**	**87**	PG	**Pb**	**00 18 07.4**	**+0.3**
OUL	**Oulu**	**3.56**	**138**	PG	**Pb**	**00 18 07.4**	**+0.2**
OLKF	**Oulanka, Finla**	**3.88**	**109**	PG	**Pb**	**00 18 13.6**	**+0.9**
KU6	**Riekki**	**4.19**	**111**	PG	**Pb**	**00 18 18.6**	**+0.6**
	baz=297						
KU6				SG	**Sg**	**00 19 14.6**	**-3.4**
FINES	**FINESS Array B**	**6.87**	**156**	Pn	**Pn**	**00 18 48.7**	**+3.4**
	baz=338,slow=18,SNR=1.5						
FINES				Sn	**Sn**	**00 20 03.6**	**-0.5**
	comp=Z,0.1nm,0.3s,baz=341,slow=21,SNR=2.0						
FINES				Lg	Lg	00 20 34.9	
	comp=Z,0.1nm,0.3s,baz=337,slow=23,SNR=3.6						
	comp=Z,1.1nm,0.8s						
NOA	**NORSAR Array B**	**7.85**	**214**	Pn	**Pn**	**00 19 02.2**	**+3.4**
	baz=23,slow=16,SNR=1.0						
NOA				Lg	Lg	00 21 08.8	
	baz=27,slow=13,SNR=1.5						
	comp=Z,0.6nm,0.9s						

BJI **11** *00:48:40.7, 19°.42S×177°.20W, h401km, mB6.0/65, mb5.6/77*

IPGP **11** *00:48:43.0, 19°.74S×177°.55W, h424km, Mw6.0, Fault plane solution: NP1:φs149.00000°, δ38.00000°, λ-121.00000°. NP2:φs6.00000°, δ58.00000°, λ-68.00000°.*

MOS **11** *00:48:43.0±1.2, 19°.68S×177°.57W, h416km, mb5.7/46, MS4.6/4, Error ellipse: s-maj=8.7km s-min=7.0km az=112.6*

IDC **11** *00:48:43.6±0.6, 19°.73S×177°.59W, h415km±4km, mb5.0/34, mbtmp5.7/39, Error ellipse: s-maj=7.3km s-min=6.6km az=67.0*

NEIC **11** *00:48:43.7, 19°.75S×177°.54W, h412km*

GFZ **11** *00:48:44.0±0.3, 20°.S±2°×17°.8W±°, h415km±3km, M5.6/114, mB6.0/68, mb5.6/114, Mw(mB)5.7/68, Error ellipse: s-maj=4.8km s-min=3.9km az=159.7, confirmed*

GFZ **11** *00:48:44.0, 19°.68S×177°.61W, h421km, Mw5.9/100, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-7.07; Mθθ-0.99; Mϕϕ8.06; Mrθ-3.70; Mθϕ-2.68; Mϕr-4.13; Fault plane solution: M₀9.79806×10¹⁷ NP1: φs139.42332°, δ40.94464°, λ-134.19482°. NP2: φs11.58051°, δ61.97518°, λ-58.83452°. Principal axes: T 9.4204, Plg11.6464°, Azm79.6410°; N 0.7161, Plg27.1828°, Azm175.7171°; P -10.1365, Plg60.0367°, Azm328.6924°;*

NEIC **11** *00:48:44.1±2.2, 19°.72S±0°.08×177°.56W±0°.09, h417km±1km, mb5.6/752, Mwb6.0/101, Mww6.0/24 Error ellipse: s-maj=14.7km s-min=13.6km az=100.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr-1.33; Mθθ0.17; Mϕϕ1.16; Mrθ-0.45; Mθϕ-0.19; Mϕr-0.45; Fault plane solution: M₀1.42000×10¹⁸ NP1: φs154.62000°, δ39.14000°, λ-116.74000°. NP2:φs7.63000°, δ55.68000°, λ-69.89000°. Principal axes: T 1.2483, Plg9.0000°, Azm83.0000°; N 0.2934, Plg17.0000°, Azm176.0000°; P -1.5417, Plg71.0000°, Azm327.0000°;*

NOU **11** *00:48:44.1, 19°.73S×177°.53W, h410km, ML5.6/173, Fiji Islands Region*

NEIC **11** *00:48:44, 19°.74S×177°.54W, h416km*

BGR **11** *00:48:47.0, 19°.34S×177°.30W, h428km±4km*

GCMT **11** *00:48:47.2±0.1, 19°.71S±0°.01×177°.45W±0°.01, h426km, MW6.0/168, Moment Tensor Solution. s168,c383; s145,c174; Duration: 2§4 Moment tensor: Scale 10¹⁸Nm; Mrr-0.81±.01; Mθθ-0.10±.01; Mϕϕ0.91±.01; Mrθ-0.44±.01; Mθϕ-0.37±.01; Mϕr-0.44±.01; Best double couple: M₀1.12500×10¹⁸ NP1:φs136.00000°, δ44.00000°, λ-135.00000°. NP2:φs10.00000°, δ61.00000°, λ-56.00000°. Principal axes: T 1.0800, Plg10.0000°, Azm76.0000°; N 0.0900, Plg29.0000°, Azm171.0000°; P -1.1700, Plg59.0000°, Azm330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s. Triangular moment-rate function*

NEIC **11** *00:48:48, 19°.35S×177°.43W, h410km, Moment Tensor Solution. Duration: 4§8 Moment tensor: Scale 10¹⁸Nm; Mrr-0.71; Mθθ-0.23; Mϕϕ0.94; Mrθ-0.37; Mθϕ-0.28; Mϕr-0.54; Fault plane solution: M₀1.11000×10¹⁸ NP1: φs139.26000°, δ38.82000°, λ-138.62000°. NP2: φs14.80000°, δ65.52000°, λ-58.88000°. Principal axes: T 1.1231, Plg15.0000°, Azm83.0000°; N -0.0266, Plg28.0000°, Azm181.0000°; P -1.0965, Plg58.0000°, Azm328.0000°;*

ISC 11 00:48:43.2±0.2, 19°.72S±0°.03×177°.45W±0°.03, h417km±1km, h418km:pP-P, n1920, σ1§30/1949, mb5.6/556, 114C-127D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LKBA	**Tubou, Lakemba**	**1.96**	**318**	P	**P**	**00 49 40.9**	**+0.4**
LKBA	**Tubou, Lakemba**	**1.96**	**318**	S	**S**	**00 50 26.5**	**-0.3**
TAVE	**Taveuni**	**3.80**	**322**	P	**P**	**00 49 54.6**	**+0.2**
TAVE	**Taveuni**	**3.80**	**322**	S	**S**	**00 50 52.7**	**+0.4**
DGTI	**Dogotuki**	**4.33**	**321**	P	**P**	**00 49 59.1**	**-0.2**
DGTI	**Dogotuki**	**4.33**	**321**	S	**S**	**00 51 01.4**	**0.0**
MSVF	**Nonsavu**	**4.70**	**294**	P	**P**	**00 50 03.5**	**+0.5**
	671nm,0.6s,baz=130,slow=10,SNR=137						
MSVF				S	**S**	**00 51 07.2**	**-1.0**
	184nm,0.5s,baz=118,slow=16,SNR=4.2						
MSVF	**Nonsavu**	**4.70**	**294**	P	**P**	**00 50 03.1**	**0.0**
MSVF	**Nonsavu**	**4.70**	**294**	S	**S**	**00 51 07.5**	**-0.6**
MSVF	**Nonsavu**	**4.70**	**294**	P	**P**	**00 50 03.0**	**0.0**
MSVF	**Nonsavu**	**4.70**	**294**	P	**P**	**00 50 03.3**	**0.0**
MSVF	**Nonsavu**	**4.70**	**294**	P	**P**	**00 50 03.7**	**+0.7**
FUTU	**Fugatoga**	**5.42**	**353**	P	**P**	**00 50 11.1**	**+0.9**
FUTU	**Fugatoga**	**5.42**	**353**	S	**S**	**00 51 21.8**	**+0.5**
FUTU	**Fugatoga**	**5.42**	**353**		**P**	**00 50 09.5**	**-0.7**
FUTU	**Fugatoga**	**5.42**	**353**	P	**P**	**00 50 09.8**	**-0.4**
FUTU				S	**S**	**00 51 21.6**	**+0.4**
FUTU				AML	AML		
FUTU	**Fugatoga**	**5.42**	**353**	P	**P**	**00 50 10.4**	**+0.3**
	comp=Z,9μmcomp=Z,628nm,0.8s						
NIUE	**Niue**	**7.12**	**86**	P	**P**	**00 50 27.6**	**-1.3**
	comp=Z,6μm,0.7s,comp=Z,0.0nmcomp=Z,18996μm						
	comp=Z,0.0nm						
NIUE				AML	AML		
NIUE	**Niue**	**7.12**	**86**	P	**P**	**00 50 29.0**	**+0.1**
NIUE	**Niue**	**7.12**	**86**	P	**P**	**00 50 28.0**	**-0.9**
NIUE	**Niue**	**7.12**	**86**	P	**P**	**00 50 28.1**	**-0.7**
NIUE				S	**S**	**00 51 51.6**	**-3.2**
NIUE				AML	AML		
NIUE	**Niue**	**7.12**	**86**	P	**P**	**00 50 28.2**	**-0.7**
	comp=Z,70μmcomp=Z,6μm,0.7s						
RAO	**Raoul Island**	**9.50**	**183**	P	**P**	**00 50 55.5**	**+0.6**
	comp=Z,175nm,0.2s,baz=91,slow=19,SNR=4.3						
RAO				S	**S**	**00 52 38.7**	**-4.9**
	comp=Z,702nm,0.3s,baz=100,slow=23,SNR=11						
RAO	**Raoul Island**	**9.50**	**183**	P	**P**	**00 50 53.6**	**-1.3**
RAO	**Raoul Island**	**9.50**	**183**	P	**P**	**00 50 53.6**	**-1.3**
RAO	**Raoul Island**	**9.50**	**183**	S	**S**	**00 52 38.1**	**-5.5**
FUNA	**Funafuti**	**11.59**	**343**	P	**P**	**00 51 17.2**	**-0.9**
FUNA	**Funafuti**	**11.59**	**343**	P	**P**	**00 51 16.2**	**-1.9**
FUNA	**Funafuti**	**11.59**	**343**	P	**P**	**00 51 17.0**	**-1.1**
	comp=Z,854nm,1.0s						
RTV	**Rentapao**	**13.52**	**276**	P	**P**	**00 51 41.0**	**+1.8**
MARNC	**Mare, Loyalty**	**13.71**	**260**	P	**P**	**00 51 42.0**	**+0.8**
MARNC	**Mare, Loyalty**	**13.71**	**260**	S	**S**	**00 54 08.8**	**+0.3**
MARNC	**Mare, Loyalty**	**13.71**	**260**	P	**P**	**00 51 41.0**	**-0.2**
DVP	**Devils Point**	**13.76**	**276**	P	**P**	**00 51 43.0**	**+1.3**
PINNC	**Pines Island,**	**14.38**	**256**	P	**P**	**00 51 49.0**	**+0.5**
PINNC	**Pines Island,**	**14.38**	**256**	S	**S**	**00 54 21.9**	**+0.1**
PINNC	**Pines Island,**	**14.38**	**256**	P	**P**	**00 51 49.3**	**+0.8**
YATNC	**Mamie plateau,**	**14.82**	**258**	P	**P**	**00 51 53.9**	**+0.6**
OUENC	**Ouen Island, N**	**14.91**	**257**	P	**P**	**00 51 55.9**	**+1.7**
OUENC	**Ouen Island, N**	**14.91**	**257**	P	**P**	**00 51 55.0**	**+0.8**
DZM	**Mont Dzumac**	**15.24**	**258**	P	**P**	**00 51 57.6**	**-0.3**
	comp=Z,269nm,0.7s,baz=83,slow=15,SNR=109						
DZM				S	**S**	**00 54 38.2**	**-0.7**
	baz=150,slow=16						
SANVU	**Saraoutou**	**15.24**	**284**	P	**P**	**00 51 58.0**	**+0.2**
SANVU	**Saraoutou**	**15.24**	**284**	P	**P**	**00 51 56.0**	**-1.7**
SANVU				IAmb	IAmb	00 52 00.0	
	comp=Z,206nm,1.0s						
SANVU	**Saraoutou**	**15.24**	**284**	P	**P**	**00 51 57.5**	**-0.2**
SANVU	**Saraoutou**	**15.24**	**284**	P	**P**	**00 51 57.2**	**-0.5**
	comp=Z,209nm,0.8s						
ONTNC	**Ouen Toro**	**15.25**	**257**	P	**P**	**00 51 58.2**	**+0.3**
ONTNC	**Ouen Toro**	**15.25**	**257**	P	**P**	**00 51 58.5**	**+0.6**
NOUC	**Port Laguerre**	**15.37**	**258**	P	**P**	**00 51 59.8**	**+0.7**
NOUC	**Port Laguerre**	**15.37**	**258**	P	**P**	**00 52 01.2**	**+2.0**
NOUC				S	**S**	**00 54 42.8**	**+1.5**
NFK	**Norfolk Island**	**16.22**	**232**	P	**P**	**00 52 10.2**	**+2.0**
	comp=Z,345nm,1.4s,comp=Z,0.0nm						
RAR	**Rarotonga**	**16.63**	**98**	P	**P**	**00 52 13.8**	**+1.2**
	comp=Z,466nm,1.0s,baz=253,slow=6.6,SNR=41						
RAR				S	**S**	**00 55 09.7**	**+3.8**
	comp=Z,50nm,1.0s,baz=263,slow=4.2,SNR=1.6						
RAR	**Rarotonga**	**16.63**	**98**	P	**P**	**00 52 14.2**	**+1.6**
RAR	**Rarotonga**	**16.63**	**98**	P	**P**	**00 52 13.2**	**+0.6**
RAR				pmax	pmax		
	comp=Z,1μm,1.2s						
RAR	**Rarotonga**	**16.63**	**98**	P	**P**	**00 52 13.2**	**+0.6**
RAR	**Rarotonga**	**16.63**	**98**	P	**P**	**00 52 13.6**	**+1.0**
RAR	**Rarotonga**	**16.63**	**98**	P	**P**	**00 52 14.0**	**+1.4**
	comp=Z,21μmcomp=Z,928nm,1.5s						
KOUNC	**Koumac, New Ca**	**17.18**	**264**	P	**P**	**00 52 18.7**	**+0.3**
KOUNC	**Koumac, New Ca**	**17.18**	**264**	P	**P**	**00 52 17.5**	**-0.9**
KOUNC				IAmb	IAmb	00 52 23.5	
	comp=Z,375nm,0.9s						
OUZ	**Omahuta**	**17.35**	**205**	P	**P**	**00 52 20.8**	**+0.7**
OUZ	**Omahuta**	**17.35**	**205**	P	**P**	**00 52 22.7**	**+2.6**
	comp=Z,68nm,1.0s						
MXZ	**Matakaoa Point**	**18.16**	**191**	P	**P**	**00 52 29.2**	**+0.6**
MXZ	**Matakaoa Point**	**18.16**	**191**	P	**P**	**00 52 28.4**	**-0.2**
HAZ	**Te Kaha**	**18.45**	**192**	P	**P**	**00 52 32.1**	**+0.6**
PUZ	**Puketiti**	**18.67**	**191**	P	**P**	**00 52 34.8**	**+0.9**
TOZ	**Tahuroa Road**	**18.97**	**197**	P	**P**	**00 52 38.2**	**+1.3**
TOZ				IAmb	IAmb	00 52 40.0	
	comp=Z,203nm,1.2s						
TOZ	**Tahuroa Road**	**18.97**	**197**	P	**P**	**00 52 38.7**	**+1.9**
MWZ	**Matawai**	**19.06**	**192**	P	**P**	**00 52 38.6**	**+0.9**
URZ	**Urewera**	**19.07**	**193**	P	**P**	**00 52 36.8**	**-1.0**
	comp=Z,25nm,0.3s,baz=9.5,slow=8.2,SNR=17						
URZ				S	**S**	**00 55 44.3**	**-5.5**
	comp=Z,107nm,0.9s,baz=87,slow=23,SNR=6.2						
URZ				ScP	**ScP**	**00 59 37.1**	**0.0**
	comp=Z,58nm,1.0s,baz=349,slow=2.2,SNR=4.0						
URZ	**Urewera**	**19.07**	**193**	P	**P**	**00 52 37.8**	**0.0**
URZ	**Urewera**	**19.07**	**193**	P	**P**	**00 52 37.0**	**-0.8**
URZ	**Urewera**	**19.07**	**193**	P	**P**	**00 52 36.4**	**-1.4**
	comp=Z,133nm,0.7s						
TKGZ	**Te Karaka**	**19.10**	**191**	P	**P**	**00 52 39.6**	**+1.5**
TARZ	**Mount Tarawera**	**19.19**	**195**	P	**P**	**00 52 40.5**	**+1.5**
MUGZ	**Murupara**	**19.36**	**194**	P	**P**	**00 52 40.4**	**-0.1**
RIGZ	**Rimuhau**	**19.37**	**191**	P	**P**	**00 52 41.1**	**+0.4**
RTZ	**Ruatahuna**	**19.44**	**193**	P	**P**	**00 52 41.5**	**+0.1**
HIZ	**Hauiti**	**19.89**	**198**	P	**P**	**00 52 45.7**	**+0.3**
HIZ				IAmb	IAmb	00 52 47.9	
	comp=Z,305nm,1.4s						
HIZ	**Hauiti**	**19.89**	**198**	P	**P**	**00 52 47.0**	**+1.7**
HIZ	**Hauiti**	**19.89**	**198**	P	**P**	**00 52 46.1**	**+0.7**
	comp=Z,111nm,0.8s						
NMHZ	**Naumai**	**19.94**	**193**	P	**P**	**00 52 47.2**	**+1.2**
BKZ	**Black Stump Fm**	**20.08**	**194**	P	**P**	**00 52 47.9**	**+0.7**
BKZ	**Black Stump Fm**	**20.08**	**194**	P	**P**	**00 52 45.5**	**-1.6**
NTVZ	**North Tongariro**	**20.21**	**196**	P	**P**	**00 52 49.5**	**+1.0**
TMVZ	**Te Maari**	**20.22**	**196**	P	**P**	**00 52 49.1**	**+0.6**
WTVZ	**West Tongariro**	**20.25**	**196**	P	**P**	**00 52 48.7**	**-0.1**
OTVZ	**Oturere**	**20.27**	**196**	P	**P**	**00 52 48.7**	**-0.4**
NGZ	**Ngauruhoe**	**20.30**	**196**	P	**P**	**00 52 49.7**	**+0.4**
KWHZ	**Kaweka Forest**	**20.34**	**194**	P	**P**	**00 52 49.6**	**0.0**
WNVZ	**Wahianoa**	**20.45**	**196**	P	**P**	**00 52 50.0**	**-0.6**
MOVZ	**Moawhango**	**20.48**	**195**	P	**P**	**00 52 50.4**	**-0.4**
BHHZ	**Black Hill Sta**	**20.48**	**194**	P	**P**	**00 52 49.9**	**-1.0**
KRHZ	**Kereru**	**20.56**	**194**	P	**P**	**00 52 51.1**	**-0.5**
PXZ	**Pawanui**	**20.83**	**192**	P	**P**	**00 52 54.2**	**+0.3**
TSZ	**Takapari Road**	**21.05**	**194**	P	**P**	**00 52 55.4**	**-0.7**
BFZ	**Birch Farm**	**21.58**	**193**	P	**P**	**00 52 59.0**	**-1.8**
BFZ	**Birch Farm**	**21.58**	**193**	P	**P**	**00 52 59.5**	**-1.3**
MRZ	**Mangatainoka R**	**21.71**	**194**	P	**P**	**00 52 60.0**	**-2.0**
MRZ	**Mangatainoka R**	**21.71**	**194**	P	**P**	**00 53 00.1**	**-1.9**
SNZO	**South Karori**	**22.54**	**196**	P	**P**	**00 53 08.6**	**-0.8**
TCW	**Tory Channel**	**22.56**	**196**	P	**P**	**00 53 09.6**	**-0.1**
BHW	**Baring Head**	**22.59**	**195**	P	**P**	**00 53 09.2**	**-0.7**
PLWZ	**Palliser**	**22.65**	**194**	P	**P**	**00 53 09.0**	**-1.5**
QRZ	**Quartz Range**	**22.72**	**200**	P	**P**	**00 53 11.8**	**+0.7**
QRZ	**Quartz Range**	**22.72**	**200**	P	**P**	**00 53 11.1**	**0.0**
QRZ	**Quartz Range**	**22.72**	**200**	P	**P**	**00 53 11.1**	**0.0**
TKNZ	**Takaka Hill**	**22.77**	**199**	P	**P**	**00 53 11.1**	**-0.5**
NNZ	**Nelson**	**22.82**	**198**	P	**P**	**00 53 10.4**	**-1.6**
NNZ	**Nelson**	**22.82**	**198**	P	**P**	**00 53 11.5**	**-0.5**
TUWZ	**Tuamarina**	**22.85**	**197**	P	**P**	**00 53 11.8**	**-0.5**
THZ	**Tophouse**	**23.46**	**198**	P	**P**	**00 53 17.9**	**+0.1**
DSZ	**Denniston Nort**	**23.78**	**200**	P	**P**	**00 53 20.6**	**-0.1**
KHZ	**Kahutara**	**23.88**	**197**	P	**P**	**00 53 20.9**	**-0.6**
CTZ	**Chatham Island**	**23.96**	**179**	P	**P**	**00 53 24.7**	**+2.5**
LHI	**Lord Howe Isla**	**24.17**	**236**	P	**P**	**00 53 25.9**	**+1.7**
	comp=Z,63nm,1.5s						
LHI	**Lord Howe Isla**	**24.17**	**236**	P	**P**	**00 53 25.2**	**+1.0**
	comp=Z,63nm,1.5s						
LHI	**Lord Howe Isla**	**24.17**	**236**	P	**P**	**00 53 25.4**	**+1.2**
SAVO	**Savo Central**	**24.37**	**292**	P	**P**	**00 53 27.5**	**+1.2**
GVZ	**Greta Valley S**	**24.53**	**197**	P	**P**	**00 53 26.6**	**-0.7**
LTZ	**Lake Taylor**	**24.58**	**198**	P	**P**	**00 53 26.0**	**-1.8**
TATA	**Tatamba Isabel**	**24.74**	**294**	P	**P**	**00 53 29.6**	**0.0**
INZ	**Inchbonnie**	**24.78**	**200**	P	**P**	**00 53 28.0**	**-1.6**
OXZ	**Oxford**	**25.14**	**198**	P	**P**	**00 53 31.2**	**-1.6**
OXZ				PcP	**PcP**	**00 56 53.1**	**-0.6**
OXZ	**Oxford**	**25.14**	**198**	P	**P**	**00 53 31.0**	**-1.8**
WVZ	**Waitaha Valley**	**25.32**	**201**	P	**P**	**00 53 33.8**	**-0.6**
RPZ	**Rata Peaks**	**25.80**	**199**	ScP	**ScP**	**00 59 53.6**	**-1.0**
	comp=Z,20nm,0.8s,baz=52,slow=1.7,SNR=13						
FOZ	**Fox Glacier**	**26.04**	**201**	P	**P**	**00 53 39.6**	**-1.1**
TBI	**Tubuai**	**26.26**	**103**	*eP*	**P**	**00 53 41.6**	**-1.4**
	comp=Z,378nm,1.2s						
TBI				*ep*P	**PP**	**00 54 53.1**	**-0.1**
	comp=Z,819nm,1.4s						
TBI				*eS*	**S**	**00 57 44.8**	**+0.1**
	comp=Z,6μm,26.5s						
TBI				*eLQ*	LQ	00 59 48.4	
	comp=Z,20μm,28.2s						
TMZ	**Timaru**	**26.42**	**199**	P	**P**	**00 53 43.3**	**-0.7**
PAE	**Paea**	**26.46**	**90**	*eP*	**P**	**00 53 45.3**	**+0.5**
	comp=Z,585nm,1.2s						
PAE				*eLQ*	LQ	00 59 58.1	
	comp=Z,6μm,24.1s						
PPT2	**Papeete2**	**26.48**	**90**	*eP*	**P**	**00 53 46.5**	**+1.5**
	comp=Z,434nm,1.2s						
PPT2				*ep*P	**pP**	**00 54 54.1**	**-1.5**
	comp=Z,2μm,28.2s						
PPT2				*eS*	**S**	**00 57 42.8**	**-5.6**
	comp=Z,2μm,24.5s						
PPT2				*eLQ*	LQ	00 59 51.0	
	comp=Z,5μm,25.5s						
PPT	**Papeete**	**26.48**	**90**	P	**P**	**00 53 46.1**	**+1.1**
	comp=Z,283nm,0.7s,baz=94,slow=3.4,SNR=27						
PPT				ScP	**ScP**	**00 59 57.4**	**+0.3**
	comp=Z,88nm,1.0s,baz=323,slow=1.5,SNR=5.5						
	comp=Z,283nm,0.7s						
PPTF	**Pamatai, Papee**	**26.49**	**90**	P	**P**	**00 53 48.0**	**+2.9**
PPTF	**Pamatai, Papee**	**26.49**	**90**	P	**P**	**00 53 46.4**	**+1.3**
PPTF	**Pamatai, Papee**	**26.49**	**90**	P	**P**	**00 53 45.6**	**+0.4**
	comp=Z,583nm,1.2s						
LBZ	**Lake Benmore**	**26.68**	**200**	P	**P**	**00 53 43.9**	**-2.5**
TIAR	**Tiarei**	**26.70**	**90**	*eP*	**P**	**00 53 48.5**	**+1.5**
	comp=Z,1μm,0.9s						
TIAR				*eLQ*	LQ	01 00 02.2	
	comp=Z,34μm,24.6s						
TVO	**Taravao**	**26.75**	**91**	*eP*	**P**	**00 53 49.1**	**+1.6**
	comp=Z,336nm,1.2s						
TVO				*eLQ*	LQ	01 00 03.7	
	comp=Z,6μm,24.5s						
JCZ	**Jackson Bay**	**26.88**	**202**	P	**P**	**00 53 48.5**	**+0.3**
JCZ	**Jackson Bay**	**26.88**	**202**	P	**

CMSA Cobar Meteorol 35.10 243 P **P** **00 54 59.6 +0.2**
comp=Z,237nm,0.8s,comp=Z,0.0nmcomp=Z,0.0nm
CMSA Cobar Meteorol 35.10 243 P **P** **00 54 59.7 +0.2**
CMSA Cobar Meteorol 35.10 243 P **P** **00 54 59.9 +0.4**
comp=Z,2µmcomp=Z,237nm,0.8s
PATS Pohnpei 35.58 316 P **P** **00 55 04.5 +0.8**
comp=Z,273nm,1.1s
PATS Pohnpei 35.58 316 P **P** **00 55 03.8 +0.1**
comp=Z,271nm,1.2s
PATS Pohnpei 35.58 316 P **P** **00 55 05.6 +1.9**
PATS Pohnpei 35.58 316 P **P** **00 55 03.6 -0.1**
PATS IAmb IAmb 00 55 06.8
comp=Z,413nm,1.4s
PATS Pohnpei 35.58 316 P **P** **00 55 04.5 +0.8**
comp=Z,273nm,1.1s
PMG Port Moresby 35.69 282 S **S** **01 00 07.3 -3.1**
comp=Z,4.9nm,0.2s,baz=167,slow=11,SNR=1.4
PMG ScP **ScP** **01 00 26.4 -1.6**
comp=Z,35nm,0.9s,baz=60,slow=6.0,SNR=6.0
PMG Port Moresby 35.69 282 P **P** **00 55 05.3 +0.7**
PMG Port Moresby 35.69 282 *ce*P **P** **00 55 05.0 +0.4**
PMG pmax pmax
comp=Z,185nm,1.0s
PMG Port Moresby 35.69 282 P **P** **00 55 03.9 -0.8**
PMG Port Moresby 35.69 282 P **P** **00 55 04.4 -0.2**
comp=Z,2µmcomp=Z,173nm,1.1s
QLP Quilpie 35.79 252 P **P** **00 55 05.4 0.0**
comp=Z,416nm,0.9s,comp=Z,0.0nm
QLP Quilpie 35.79 252 P **P** **00 55 05.1 -0.3**
comp=Z,416nm,0.9s,comp=Z,0.0nm
QLP Quilpie 35.79 252 P **P** **00 55 06.0 +0.6**
QLP Quilpie 35.79 252 P **P** **00 55 05.4 0.0**
comp=Z,5µmcomp=Z,416nm,0.9s,comp=Z,5µm
MTSU Mount Surprise 36.16 266 P **P** **00 55 08.4 -0.1**
comp=Z,109nm,0.9s
MTSU Mount Surprise 36.16 266 P **P** **00 55 08.1 -0.5**
comp=Z,109nm,0.9s
MTSU Mount Surprise 36.16 266 P **P** **00 55 09.1 +0.5**
MTSU Mount Surprise 36.16 266 P **P** **00 55 08.4 -0.1**
comp=Z,961nmcomp=Z,109nm,0.9s,comp=Z,961nm
TOO Toolangi 36.78 233 P **P** **00 55 14.2 +0.6**
comp=Z,20nm,1.0s
TOO Toolangi 36.78 233 P **P** **00 55 13.8 +0.3**
comp=Z,20nm,1.0s
TAU Tasmania Unive 37.55 224 P **P** **00 55 20.6 +0.9**
TAU Tasmania Unive 37.55 224 P **P** **00 55 17.7 -2.0**
TAU pmax pmax
comp=Z,67nm,1.2s
TAU Tasmania Unive 37.55 224 P **P** **00 55 17.7 -2.0**
TAU Tasmania Unive 37.55 224 P **P** **00 55 21.4 +1.7**
comp=Z,64nm,1.1s
TAU Tasmania Unive 37.55 224 P **P** **00 55 20.9 +1.2**
TAU pP **pP** **00 56 37.8 +1.2**
TAOE Nuku Hiva Isla 37.64 79 *e*P **P** **00 55 18.9 -2.1**
comp=Z,414nm,1.3s
TAOE *e*S **S** **01 00 32.0 -7.8**
comp=Z,2µm,27.1s
TAOE *e*LQ LQ 01 03 56.6
comp=Z,4µm,25.9s
TAOE Nuku Hiva Isla 37.64 79 P **P** **00 55 21.8 +0.8**
TAOE IAmb IAmb 00 55 24.1
comp=Z,384nm,1.5s
TAOE Nuku Hiva Isla 37.64 79 P **P** **00 55 22.4 +1.4**
BRAT Ballarat 37.95 234 P **P** **00 55 23.9 +0.8**
STKA Stephens Creek 38.60 243 P **P** **00 55 29.3 +0.7**
comp=Z,627nm,1.5s,comp=Z,0.0nm
STKA Stephens Creek 38.60 243 P **P** **00 55 28.9 +0.3**
comp=Z,626nm,1.5s,comp=Z,0.0nm
STKA Stephens Creek 38.60 243 P **P** **00 55 29.0 +0.4**
comp=Z,71nm,0.7s,baz=92,slow=9.1,SNR=76
STKA PcP **sP** **00 57 33.0 -0.1**
comp=Z,43nm,0.7s,baz=77,slow=4.5,SNR=5.5
STKA ScP **ScP** **01 00 39.1 +0.3**
comp=Z,15nm,0.8s,baz=70,slow=6.7,SNR=4.4
STKA ScS **ScS** **01 04 51.0 +0.1**
comp=Z,22nm,1.3s,baz=338,slow=11,SNR=8.9
comp=Z,71nm,0.7s
STKA Stephens Creek 38.60 243 P **P** **00 55 29.3 +0.7**
STKA Stephens Creek 38.60 243 P **P** **00 55 28.5 -0.1**
STKA pmax pmax
comp=Z,3µm,2.0s
STKA Stephens Creek 38.60 243 P **P** **00 55 28.4 -0.1**
STKA Stephens Creek 38.60 243 P **P** **00 55 29.3 +0.7**
comp=Z,10µmcomp=Z,627nm,1.5s
MANU Manus Island 38.62 293 P **P** **00 55 27.8 -1.1**
MCQ Macquarie Isla 39.11 202 P **P** **00 55 31.5 -0.8**
comp=Z,124nm,1.4s
ARPS Mount Arapiles 39.35 236 P **P** **00 55 34.4 -0.3**
comp=Z,28nm,1.7s
ARPS Mount Arapiles 39.35 236 P **P** **00 55 34.1 -0.6**
comp=Z,28nm,1.7s
QIS Mount Isa 40.25 261 P **P** **00 55 41.4 -0.7**
comp=Z,76nm,1.7s,comp=Z,0.0nmcomp=Z,0.0nm
QIS Mount Isa 40.25 261 P **P** **00 55 40.6 -1.6**
comp=Z,76nm,1.7s,comp=Z,0.0nmcomp=Z,0.0nm
QIS Mount Isa 40.25 261 P **P** **00 55 42.3 +0.1**
QIS Mount Isa 40.25 261 P **P** **00 55 41.8 -0.4**
comp=Z,2µmcomp=Z,76nm,1.7s,comp=Z,2µm
AUMBR Murray Bridge 41.03 239 P **P** **00 55 48.7 +0.5**
HTT Hallett 41.05 241 P **P** **00 55 48.9 +0.4**
comp=Z,77nm,1.5s,comp=Z,0.0nm
HTT Hallett 41.05 241 P **P** **00 55 48.6 +0.1**
comp=Z,77nm,1.5s,comp=Z,0.0nm
HTT Hallett 41.05 241 P **P** **00 55 49.1 +0.6**
WAKE Wake Island 41.78 337 P **P** **00 55 55.2 +0.9**
WAKE Wake Island 41.78 337 P **P** **00 55 54.2 -0.1**
WAKE Wake Island 41.78 337 P **P** **00 55 53.4 -0.9**
comp=Z,9µmcomp=Z,490nm,1.4s
H11N3 WAKE ISLAND Hy 42.08 338 P **P** **00 55 56.5 0.0**
baz=170,slow=12,SNR=7.4
H11N1 WAKE ISLAND Hy 42.09 338 P **P** **00 55 56.7 +0.2**
baz=170,slow=12,SNR=14
H11N2 WAKE ISLAND Hy 42.10 338 P **P** **00 55 57.2 +0.5**
baz=170,slow=12,SNR=6.3
BBOO Buckleboo 43.36 243 P **P** **00 56 06.7 -0.2**
comp=Z,257nm,1.6s,comp=Z,0.0nm
BBOO Buckleboo 43.36 243 P **P** **00 56 06.5 -0.4**
comp=Z,257nm,1.6s,comp=Z,0.0nm
BBOO Buckleboo 43.36 243 P **P** **00 56 07.3 +0.5**
BBOO Buckleboo 43.36 243 P **P** **00 56 06.5 -0.4**
BBOO Buckleboo 43.36 243 P **P** **00 56 06.6 -0.2**
comp=Z,3µmcomp=Z,257nm,1.6s
SPT South Point 43.99 30 P **P** **00 56 12.3 +0.4**
OVEH Oceanview Est 44.09 30 P **P** **00 56 13.3 +0.5**
OVEH IAmb IAmb 00 56 15.9
comp=Z,358nm,0.9s
JAY Jayapura 44.30 287 P **P** **00 56 14.2 -0.2**
comp=Z,8µmcomp=Z,443nm,1.0s
KHLU Kahalu`u 44.41 30 P **P** **00 56 16.5 +1.3**
comp=Z,718nm,1.1s
PUH Pauahi 44.55 31 IAmb IAmb 00 56 19.7
comp=Z,497nm,1.2s
BYL Byron's Ledge 44.56 31 IAmb IAmb 00 56 19.9
comp=Z,409nm,1.3s
HATHI Halema'uma'u T 44.56 31 IAmb IAmb 00 56 20.0
comp=Z,229nm,1.1s
JOKA Jonika Flow 44.70 31 IAmb IAmb 00 56 20.8
comp=Z,226nm,0.8s
POHA Pohakuloa 44.72 30 P **P** **00 56 19.7 +1.9**
POHA Pohakuloa 44.72 30 P **P** **00 56 18.4 +0.6**
POHA IAmb IAmb 00 56 20.7
comp=Z,271nm,0.9s
POHA Pohakuloa 44.72 30 P **P** **00 56 19.5 +1.7**
comp=Z,297nm,1.3s
GENI Genyem 44.75 287 P **P** **00 56 19.1 +1.2**
GENI Genyem 44.75 287 P **P** **00 56 19.1 +1.2**
comp=Z,6µmcomp=Z,13µmcomp=Z,749nm,2.1s
GENI Genyem 44.75 287 P **P** **00 56 18.2 +0.3**
comp=Z,13µmcomp=Z,744nm,2.1s,comp=Z,13µm
HPAH Hawaii Prepara 44.88 30 P **P** **00 56 20.3 +1.4**
comp=Z,21µmcomp=Z,876nm,1.2s
KEKH Kekaha 44.92 24 P **P** **00 56 20.3 +1.3**
comp=Z,998nm,1.0s
HON Honolulu 45.01 26 P **P** **00 56 22.6 +2.9**
comp=Z,582nm,1.4s
WR0 Warramunga Arr 45.04 261 P **P** **00 56 19.4 -0.7**
comp=Z,108nm,0.8s,comp=Z,0.0nm
WR0 Warramunga Arr 45.04 261 P **P** **00 56 18.9 -1.2**
comp=Z,109nm,0.8s,comp=Z,0.0nm
KIP Kipapa 45.09 26 P **P** **00 56 22.3 +2.0**
KIP Kipapa 45.09 26 P **P** **00 56 22.0 +1.7**
KIP Kipapa 45.09 26 *i* P **P** **00 56 19.9 -0.4**
KIP Kipapa 45.09 26 P **P** **00 56 21.9 +1.6**
KIP Kipapa 45.09 26 P **P** **00 56 22.7 +2.4**
comp=Z,337nm,1.3s
AS17 Alice Springs 45.13 256 P **P** **00 56 20.7 -0.1**
comp=Z,814nm,0.7s
AS17 Alice Springs 45.13 256 P **P** **00 56 20.4 -0.4**
comp=Z,814nm,0.7s
AS01 Alice Springs 45.17 256 P **P** **00 56 20.9 -0.2**
AS09 Alice Springs 45.17 256 P **P** **00 56 20.9 -0.2**
comp=Z,553nm,0.8s
AS15 Alice Springs 45.20 256 P **P** **00 56 21.2 -0.1**
comp=Z,872nm,0.8s
WB0 Warramunga Arr 45.20 261 IAmb IAmb 00 56 23.2
comp=Z,304nm,1.1s
AS31 Alice Springs 45.21 256 P **P** **00 56 21.2 -0.2**
comp=Z,177nm,0.7s,comp=Z,0.0nm
AS31 Alice Springs 45.21 256 P **P** **00 56 20.9 -0.5**
comp=Z,177nm,0.7s,comp=Z,0.0nm
ASAR Alice Springs 45.21 256 P **P** **00 56 21.1 -0.4**
comp=Z,445nm,0.7s,baz=93,slow=8.0,SNR=1078
ASAR PcP **PcP** **00 57 53.7 +0.3**
comp=Z,66nm,0.7s,baz=111,slow=3.2,SNR=14
ASAR ScP **ScP** **01 01 05.0 -0.6**
comp=Z,8.3nm,0.9s,baz=89,slow=3.4,SNR=6.0
ASAR S **S** **01 02 27.4 -2.4**
comp=Z,31nm,1.1s,baz=95,slow=12,SNR=5.9
ASAR ScS **ScS** **01 05 33.8 +1.6**
comp=Z,10nm,1.0s,baz=82,slow=7.2,SNR=6.2
ASAR PKP2bc 01 28 15.0
comp=Z,4.0nm,1.1s,baz=282,slow=4.2,SNR=10
ASAR P4KPbc 01 34 06.2
comp=Z,0.7nm,0.9s,baz=86,slow=4.3,SNR=5.3
comp=Z,445nm,0.7s
ASAR Alice Springs 45.21 256 P **P** **00 56 20.9 -0.5**
ASAR Alice Springs 45.21 256 P **P** **00 56 20.9 -0.5**
ASAR PcP **PcP** **00 57 53.2 -0.2**
WB9 Warramunga Arr 45.21 261 P **P** **00 56 20.4 -1.0**
comp=Z,255nm,1.2s,comp=Z,0.0nm
WB9 Warramunga Arr 45.21 261 P **P** **00 56 20.3 -1.2**
comp=Z,255nm,1.2s,comp=Z,0.0nm
WB2 Warramunga Arr 45.22 261 P **P** **00 56 20.6 -0.9**
comp=Z,212nm,0.7s,comp=Z,0.0nm
WB2 Warramunga Arr 45.22 261 P **P** **00 56 20.4 -1.1**
comp=Z,212nm,0.7s,comp=Z,0.0nm
WB1 Warramunga Ar. 45.22 261 P **P** **00 56 21.3 -0.2**
WRAB Tennant Creek 45.22 261 P **P** **00 56 20.7 -0.8**
WRAB Tennant Creek 45.22 261 *ce*P **P** **00 56 21.2 -0.3**
WRAB pmax pmax
comp=Z,378nm,1.7s
WRAB Tennant Creek 45.22 261 P **P** **00 56 20.2 -1.3**
WRAB Tennant Creek 45.22 261 P **P** **00 56 20.5 -1.0**
comp=Z,4µmcomp=Z,169nm,0.7s,comp=Z,4µm
WR1 Warramunga Arr 45.23 261 P **P** **00 56 20.6 -1.0**
comp=Z,217nm,0.6s,comp=Z,0.0nm
WR1 Warramunga Arr 45.23 261 P **P** **00 56 20.5 -1.1**
comp=Z,217nm,0.6s,comp=Z,0.0nm
WRA Warramunga Arr 45.23 261 P **P** **00 56 19.8 -1.8**
comp=Z,64nm,0.5s,baz=98,slow=5.6,SNR=80
WRA PcP **PcP** **00 57 54.4 +0.9**
comp=Z,57nm,1.0s,baz=95,slow=3.5,SNR=11
WRA S **S** **01 02 27.3 -2.8**
comp=Z,35nm,1.1s,baz=104,slow=13,SNR=15
WRA PKP2bc 01 28 14.6
comp=Z,2.4nm,1.1s,baz=305,slow=3.4,SNR=5.7
comp=Z,64nm,0.5s
WRA Warramunga Arr 45.23 261 P **P** **00 56 20.7 -0.9**
WRA pmax pmax
comp=Z,31nm,1.2s
WRA Warramunga Arr 45.23 261 P **P** **00 56 20.6 -0.9**
HLK Haleakala 45.26 28 P **P** **00 56 24.9 +2.9**
comp=Z,664nm,1.3s
KHLH Kahului Airpor 45.30 28 IAmb IAmb 00 56 25.3
comp=Z,329nm,1.0s
KHLH Kahului Airpor 45.30 28 P **P** **00 56 23.8 +1.8**
comp=Z,470nm,1.7s
SMPI Sarmi 46.32 287 P **P** **00 56 31.1 +1.1**
comp=Z,5µmcomp=Z,9µmcomp=Z,639nm,1.0s
KDU Kakadu 48.46 270 P **P** **00 56 45.5 -0.7**
comp=Z,104nm,0.6s,comp=Z,0.0nm
KDU Kakadu 48.46 270 P **P** **00 56 45.0 -1.2**
comp=Z,104nm,0.6s,comp=Z,0.0nm
BAKI Biak 49.01 286 P **P** **00 56 51.8 +1.4**
MTN Manton Dam 49.68 270 P **P** **00 56 54.4 -1.0**
comp=Z,124nm,0.9s,comp=Z,0.0nmcomp=Z,0.0nm
MTN Manton Dam 49.68 270 P **P** **00 56 54.1 -1.2**
comp=Z,124nm,0.9s,comp=Z,0.0nmcomp=Z,0.0nm
GUMO Guam 49.71 309 P **P** **00 56 56.5 +1.0**
GUMO Guam 49.71 309 P **P** **00 56 55.6 +0.1**
GUMO pmax pmax
comp=Z,894nm,1.2s
GUMO Guam 49.71 309 P **P** **00 56 55.6 +0.1**
GUMO Guam 49.71 309 P **P** **00 56 55.9 +0.3**
comp=Z,10µmcomp=Z,615nm,0.8s,comp=Z,10µm
DRS Darwin Rock St 50.01 270 P **P** **00 56 58.3 +0.5**
FORT Forrest 50.09 246 P **P** **00 56 57.6 -0.6**
comp=Z,159nm,0.9s,comp=Z,0.0nm
FORT Forrest 50.09 246 P **P** **00 56 57.3 -0.9**
WRKA Warakurna 50.18 253 P **P** **00 56 58.8 -0.2**
comp=Z,172nm,1.7s,comp=Z,0.0nm
KMPI Kaimana, Papua 50.21 282 P **P** **00 57 01.1 +1.8**
comp=Z,10µmcomp=Z,512nm,0.9s
MWPI Manokwari, Pap 50.99 285 P **P** **00 57 06.6 +1.5**
KNRA Kununurra 51.23 265 P **P** **00 57 06.5 -0.4**
comp=Z,236nm,0.7s,comp=Z,0.0nm
KNRA Kununurra 51.23 265 IAmb IAmb 00 57 08.5
comp=Z,142nm,0.7s
FAKI Fak Fak 51.84 282 P **P** **00 57 11.3 0.0**
FAKI Fak Fak 51.84 282 P **P** **00 57 10.7 -0.6**
FAKI IAmb IAmb 00 57 13.8
comp=Z,294nm,1.2s
FAKI Fak Fak 51.84 282 P **P** **00 57 10.9 -0.4**
comp=Z,5µmcomp=Z,6µmcomp=Z,223nm,1.5s
FAKI Fak Fak 51.84 282 P **P** **00 57 10.7 -0.6**
comp=Z,6µmcomp=Z,220nm,1.6s,comp=Z,6µm
BNDI Bandanaira 53.41 279 P **P** **00 57 23.3 +0.7**
BNDI Bandanaira 53.41 279 P **P** **00 57 23.4 +0.8**
BNDI Bandanaira 53.41 279 P **P** **00 57 22.4 -0.3**
comp=Z,15µmcomp=Z,771nm,0.7s,comp=Z,15µm
SIJI Sorong 53.55 284 P **P** **00 57 23.6 0.0**
comp=Z,8µmcomp=Z,547nm,0.9s
FITZ Fitzroy Crossi 53.65 262 P **P** **00 57 24.4 0.0**
comp=Z,41nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm
FITZ Fitzroy Crossi 53.65 262 P **P** **00 57 23.9 -0.3**
comp=Z,41nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm
FITZ Fitzroy Crossi 53.65 262 P **P** **00 57 25.0 +0.7**
FITZ Fitzroy Crossi 53.65 262 P **P** **00 57 24.3 0.0**
comp=Z,1µmcomp=Z,41nm,1.5s,comp=Z,1µm
DRV Dumont d'Urvil 54.26 199 P **P** **00 57 28.4 +0.6**
DRV pP **pP** **00 58 53.6 +1.3**
DRV ScP **ScP** **01 01 44.0 +0.6**
MSAI Masohi 54.74 280 P **P** **00 57 33.5 +1.4**
comp=Z,8µmcomp=Z,332nm,0.5s
KMBL Kambalda 55.36 245 P **P** **00 57 36.2 -0.1**
comp=Z,45nm,1.2s
KMBL Kambalda 55.36 245 P **P** **00 57 36.1 -0.1**
comp=Z,45nm,1.2s
NLAI Namlea 56.48 279 P **P** **00 57 44.7 +0.4**
comp=Z,8µmcomp=Z,396nm,1.8s
SOEI Soe 57.00 271 P **P** **00 57 49.0 +0.9**
SOEI Soe 57.00 271 P **P** **00 57 49.6 +1.5**
SOEI Soe 57.00 271 P **P** **00 57 50.3 +2.2**
SOEI Soe 57.00 271 P **P** **00 57 49.4 +1.4**
comp=Z,14µmcomp=Z,691nm,0.6s,comp=Z,14µm
BATI Baumata 57.44 270 P **P** **00 57 52.6 +1.6**
comp=Z,3µmcomp=Z,6µmcomp=Z,244nm,0.6s
TNTI Ternate 57.77 284 P **P** **00 57 54.2 +1.0**
TNTI Ternate 57.77 284 P **P** **00 57 53.4 +0.2**
TNTI Ternate 57.77 284 P **P** **00 57 54.2 +1.0**
comp=Z,3µmcomp=Z,7µmcomp=Z,420nm,1.6s
TNTI Ternate 57.77 284 P **P** **00 57 53.0 -0.2**
comp=Z,7µmcomp=Z,419nm,1.6s
GAMI Galela, Maluku 57.82 285 P **P** **00 57 54.0 +0.4**
comp=Z,4µmcomp=Z,279nm,0.8s
SANI Sanana 57.95 280 P **P** **00 57 53.3 -1.2**
SANI Sanana 57.95 280 P **P** **00 57 54.5 +0.1**
SANI Sanana 57.95 280 P **P** **00 57 54.1 -0.3**
comp=Z,4µmcomp=Z,5µmcomp=Z,352nm,1.5s
SANI Sanana 57.95 280 P **P** **00 57 53.9 -0.5**
comp=Z,5µmcomp=Z,352nm,1.6s
AUKUL Kulin High Sch 58.44 243 P **P** **00 57 58.6 +1.1**
AUALB St Joseph's Co 58.49 240 P **P** **00 57 59.8 +2.0**
MBWA Marble Bar 58.53 257 P **P** **00 57 57.7 -0.6**
comp=Z,302nm,1.3s,comp=Z,0.0nm
MBWA Marble Bar 58.53 257 P **P** **00 57 57.5 -0.9**
comp=Z,302nm,1.3s,comp=Z,0.0nm
MBWA Marble Bar 58.53 257 P **P** **00 57 58.4 +0.1**
MBWA Marble Bar 58.53 257 P **P** **00 57 58.0 -0.3**
MBWA S **S** **01 05 27.3 -1.9**
MBWA Marble Bar 58.53 257 P **P** **00 57 57.4 -0.9**
MBWA IAmb IAmb 00 58 00.3
comp=Z,251nm,1.1s
MBWA Marble Bar 58.53 257 P **P** **00 57 57.8 -0.6**
comp=Z,4µmcomp=Z,302nm,1.3s
MBWA Marble Bar 58.53 257 P **P** **00 57 57.3 -1.0**
MBWA PcP **PcP** **00 58 42.7 -0.9**
MBWA ScP **ScP** **01 02 02.1 -1.1**
MEEK Meekatharra 58.67 250 P **P** **00 57 58.4 -0.8**
comp=Z,156nm,1.6s
MEEK Meekatharra 58.67 250 P **P** **00 57 58.0 -1.3**
comp=Z,156nm,1.6s
MEEK Meekatharra 58.67 250 P **P** **00 57 59.0 -0.2**
MEEK Meekatharra 58.67 250 P **P** **00 57 57.9 -1.3**
comp=Z,156nm,1.6s
SBA Scott Base 58.68 184 P **P** **00 58 01.4 +3.0**
SBA pmax pmax
comp=Z,128nm,1.0s
SBA Scott Base 58.68 184 P **P** **00 58 01.4 +3.0**
SBA Scott Base 58.68 184 P **P** **00 58 01.4 +3.0**
comp=Z,3µmcomp=Z,176nm,1.9s
SBA Scott Base 58.68 184 P **P** **00 58 01.1 +2.7**
SBA PcP **PcP** **00 58 45.4 +2.3**
SBA pP **pwP** **00 59 27.9 +0.3**
SBA ScP **ScP** **01 02 05.0 +2.2**
VNDA Vanda 58.73 185 P **P** **00 57 59.2 +0.5**
comp=Z,32nm,1.0s,baz=5.9,slow=7.1,SNR=60
VNDA ScP **ScP** **01 02 04.8 +1.8**
comp=Z,22nm,0.8s,baz=342,slow=4.3,SNR=16
VNDA S **S** **01 05 31.2 +1.2**
comp=Z,0.6nm,0.7s,baz=165,slow=5.3,SNR=1.5
VNDA PKP2bc **P'P'bc** **01 27 39.9 -4.5**
comp=Z,3.7nm,1.1s,baz=247,slow=3.9,SNR=9.3
comp=Z,32nm,1.0s
VNDA Vanda 58.73 185 P **P** **00 58 00.7 +2.0**
VNDA pmax pmax
comp=Z,121nm,1.5s
VNDA Vanda 58.73 185 P **P** **00 58 00.7 +2.0**
VNDA Vanda 58.73 185 P **P** **00 58 00.9 +2.2**
comp=Z,1µmcomp=Z,67nm,1.5s
VNDA Vanda 58.73 185 P **P** **00 58 00.6 +2.0**
VNDA pP **pwP** **00 59 28.1 +0.1**
VNDA ScP **ScP** **01 02 04.7 +1.7**
KLBR Kellerberrin 58.86 244 P **P** **00 58 00.1 -0.3**
comp=Z,475nm,1.0s
KLBR Kellerberrin 58.86 244 P **P** **00 57 59.6 -0.8**
comp=Z,474nm,1.0s
KLBR Kellerberrin 58.86 244 P **P** **00 58 00.1 -0.3**
KLBR Kellerberrin 58.86 244 P **P** **00 57 59.6 -0.8**
comp=Z,5µmcomp=Z,474nm,1.0s
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 03.0 +0.4**
comp=Z,244nm,1.5s
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 03.0 +0.4**
comp=Z,149nm,1.5s
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 03.5 +0.9**
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 02.9 +0.4**
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 01.8 -0.8**
NWAO pmax pmax
comp=Z,242nm,1.4s
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 01.8 -0.8**
NWAO IAmb IAmb 00 58 04.8
comp=Z,242nm,1.4s
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 02.2 -0.3**
comp=Z,142nm,1.5s
NWAO Narrogin (SRO) 59.19 243 P **P** **00 58 01.9 -0.7**
MMRI Maumere 59.25 272 P **P** **00 58 03.6 +0.3**
MMRI Maumere 59.25 272 P **P** **00 58 02.3 -1.0**
comp=Z,8µmcomp=Z,444nm,1.3s
RKGY Rocky Gully 59.28 241 P **P** **00 58 05.2 +2.0**
comp=Z,80nm,1.2s
RKGY Rocky Gully 59.28 241 P **P** **00 58 03.4 +0.2**
comp=Z,79nm,1.2s
EDFI Ende, Flores 59.73 271 P **P** **00 58 06.2 -0.4**
comp=Z,6µmcomp=Z,326nm,1.3s
BLDU Ballidu 59.85 245 P **P** **00 58 06.5 -0.5**
comp=Z,174nm,1.5s
BLDU Ballidu 59.85 245 P **P** **00 58 07.8 +0.7**
BLDU Ballidu 59.85 245 P **P** **00 58 06.6 -0.5**
comp=Z,174nm,1.5s
BBSI Bau Bau 59.93 275 P **P** **00 58 09.9 +2.0**
comp=Z,3µmcomp=Z,5µmcomp=Z,149nm,1.4s
BASI Baing, Sumba 60.34 269 P **P** **00 58 10.4 -0.2**
comp=Z,9µmcomp=Z,678nm,1.7s
MNI Manado 60.41 277 P **P** **00 58 11.8 +1.1**
comp=Z,12µmcomp=Z,376nm,0.6s
KDI Kendari 60.41 277 P **P** **00 58 11.5 +0.5**
MORW Morawa 60.61 247 P **P** **00 58 12.4 +0.2**
comp=Z,168nm,1.4s
MORW Morawa 60.61 247 P **P** **00 58 11.6 -0.6**
comp=Z,168nm,1.4s
MORW Morawa 60.61 247 P **P** **00 58 12.9 +0.7**
MORW Morawa 60.61 247 IAmb IAmb 00 58 14.1
comp=Z,236nm,1.3s
MORW Morawa 60.61 247 P **P** **00 58 11.8 -0.5**
comp=Z,168nm,1.4s
WSI Waingapu 60.77 270 P **P** **00 58 13.6 +0.2**
KMSI Cibinong 60.80 282 P **P** **00 58 13.7 0.0**
comp=Z,3µmcomp=Z,11µmcomp=Z,525nm,1.0s
LUWI Luwuk 61.31 280 P **P** **00 58 16.8 -0.2**
LUWI Luwuk 61.31 280 P **P** **00 58 18.2 +1.2**
LUWI Luwuk 61.31 280 P **P** **00 58 16.0 -1.0**
LUWI Luwuk 61.31 280 P **P** **00 58 18.7 +1.7**
comp=Z,10µmcomp=Z,556nm,1.8s
LUWI Luwuk 61.31 280 P **P** **00 58 17.1 +0.1**
comp=Z,10µmcomp=Z,551nm,1.9s
H01W1 Cape Leeuwin H 61.57 240 P **P** **00 58 19.4 +1.2**
baz=116,slow=5.6,SNR=3.1
H01W2 Cape Leeuwin H 61.59 240 P **P** **00 58 19.9 +1.6**
baz=116,slow=5.6,SNR=3.5
H01W3 Cape Leeuwin H 61.59 240 P **P** **00 58 19.6 +1.4**
baz=116,slow=5.6,SNR=3.3
BSSI Bau Bau, Buton 61.67 274 P **P** **00 58 20.8 +1.3**
comp=Z,4µmcomp=Z,237nm,1.8s
DAV Davao City (W) 62.06 290 P **P** **00 58 23.9 +1.9**
DAV Davao City (W) 62.06 290 P **P** **00 58 24.6 +2.6**
DAV Davao City (W) 62.06 290 P **P** **00 58 22.0 +0.1**
comp=Z,542nm,0.8s
BKSI Bulukumba 62.29 274 P **P** **00 58 23.4 -0.1**
TSSP Tandag City 62.41 292 *e*P **P** **00 58 24.4 +0.2**
KAPI Kappang 62.74 275 P **P** **00 58 27.8 +1.4**
KAPI Kappang 62.74 275 P **P** **00 58 26.8 +0.4**
KAPI S **S** **01 06 21.5 -0.6**
KAPI Kappang 62.74 275 *d i* P **P** **00 58 25.8 -0.6**
KAPI pmax pmax
comp=Z,154nm,1.1s
KAPI Kappang 62.74 275 P **P** **00 58 25.6 -0.8**
KAPI Kappang 62.74 275 P **P** **00 58 26.0 -0.4**
KAPI Kappang 62.74 275 P **P** **00 58 26.0 -0.4**
comp=Z,3µmcomp=Z,127nm,1.6s
BUKP Musuan 62.88 290 *e*P **P** **00 58 28.2 +0.9**
SPSI Sidrap Palu 63.07 276 P **P** **00 58 28.1 -0.5**
comp=Z,133nm,1.0s
GIRL Giralia 63.26 254 P **P** **00 58 31.2 +1.5**
comp=Z,190nm,1.4s,comp=Z,0.0nm
GIRL Giralia 63.26 254 P **P** **00 58 29.8 +0.1**
comp=Z,191nm,1.2s,comp=Z,0.0nm
GIRL Giralia 63.26 254 P **P** **00 58 29.9 +0.2**
TTSI Tana Toraja 63.34 277 P **P** **00 58 30.1 -0.2**
CCD Concordia, Ant 63.35 194 P **P** **00 58 31.0 +1.1**
CCD PcP **PcP** **00 59 03.2 +0.6**
PLAI Plampang 63.39 270 P **P** **00 58 31.0 +0.3**
PLAI Plampang 63.39 270 P **P** **00 58 30.5 -0.2**
comp=Z,3µmcomp=Z,8µmcomp=Z,610nm,1.1s
PLAI Plampang 63.39 270 P **P** **00 58 30.0 -0.7**
comp=Z,8µmcomp=Z,605nm,1.1s
TOLI2 Tolitoli 63.96 281 P **P** **00 58 34.9 +0.6**
TOLI2 Tolitoli 63.96 281 P **P** **00 58 34.5 +0.2**
TOLI2 IAmb IAmb 00 58 36.9
comp=Z,314nm,1.3s
TOLI2 Tolitoli 63.96 281 P **P** **00 58 33.9 -0.4**
comp=Z,5µmcomp=Z,224nm,1.7s
PMSI Majene 64.03 276 P **P** **00 58 35.8 +1.0**
comp=Z,3µmcomp=Z,7µmcomp=Z,466nm,1.3s
PCI Palu 64.08 279 P **P** **00 58 37.4 +2.3**
comp=Z,11µmcomp=Z,687nm,1.5s
TWSI Taliwang, Sumb 64.26 270 P **P** **00 58 36.7 +0.4**
comp=Z,3µmcomp=Z,7µmcomp=Z,532nm,1.0s
MMSI Mamuju 64.32 277 P **P** **00 58 37.6 +1.0**
PLP Palo 64.46 293 *e*P **P** **00 58 36.1 -1.3**
TBP Tagbilaran 64.75 291 *e*P **P** **00 58 39.4 0.0**
CASY Casey 64.89 205 P **P** **00 58 39.6 +0.3**
CASY IAmb IAmb 00 58 41.5
comp=Z,187nm,1.0s
CASY Casey 64.89 205 P **P** **00 58 39.8 +0.5**
comp=Z,2µmcomp=Z,202nm,1.0s
CASY Casey 64.89 205 P **P** **00 58 40.0 +0.6**
CASY PcP **PcP** **00 59 09.4 +0.8**

CASY pP **pP** **01 00 08.7 +0.8**
LLP **Lapu-Lapu** **64.94 292** *e*P **P** **00 58 41.1 +0.5**
LLP *e*S **S** **01 06 48.2 -0.6**
comp=Z,3µmcomp=Z,240nm,1.2s
KHKI **Kahang-Kahang** **65.58 270** P **P** **00 58 45.8 +1.2**
comp=Z,375nm,0.7s
DNP **Denpasar** **65.86 269** P **P** **00 58 48.6 +2.2**
comp=Z,373nm,1.2s
IGBI **Denpasar** **65.87 269** P **P** **00 58 47.6 +1.1**
SRBI **Singaraja** **66.03 270** P **P** **00 58 47.8 +0.3**
comp=Z,6µmcomp=Z,373nm,1.2s
JHJ2 **Mitsune** **66.52 322** P **P** **00 58 51.3 +1.2**
JHJ2 **Mitsune** **66.52 322** P **P** **00 58 50.4 +0.3**
comp=Z,20µmcomp=Z,2µm,0.8s
JAGI **Jajag, Banyuwa** **66.91 269** P **P** **00 58 53.5 +0.5**
JAGI **Jajag, Banyuwa** **66.91 269** P **P** **00 58 51.1 -1.9**
JAGI **Jajag, Banyuwa** **66.91 269** P **P** **00 58 53.6 +0.5**
comp=Z,3µmcomp=Z,4µmcomp=Z,343nm,1.3s
JAGI **Jajag, Banyuwa** **66.91 269** P **P** **00 58 51.2 -1.9**
comp=Z,4µmcomp=Z,342nm,1.3s
ABJI **Asem Bagus** **67.04 270** P **P** **00 58 55.2 +1.4**
comp=Z,4µmcomp=Z,290nm,1.3s
BLJI **Banyuglugur** **67.66 270** P **P** **00 58 57.8 +0.2**
comp=Z,5µmcomp=Z,379nm,1.1s
GQP **Guinayangan** **67.92 295** *e*P **P** **00 58 58.8 -0.4**
JSG **Sagara** **68.58 322** P **P** **00 59 04.4 +1.6**
JSG **Sagara** **68.58 322** P **P** **00 59 04.3 +1.5**
JSG **Sagara** **68.58 322** P **P** **00 59 03.4 +0.6**
comp=Z,12µmcomp=Z,781nm,0.7s
LQP **Lukban** **68.80 294** *e*P **P** **00 59 04.4 -0.3**
PWJI **Pagerwojo** **69.26 269** P **P** **00 59 08.5 +1.1**
comp=Z,4µmcomp=Z,279nm,1.0s
PPR **Puerto Princes** **69.33 289** *i* P **P** **00 59 08.1 +0.4**
SNJI **Sawahan-Nganju** **69.38 269** P **P** **00 59 10.6 +2.3**
comp=Z,4µmcomp=Z,329nm,1.5s
SJI **Sawahan** **69.39 269** P **P** **00 59 09.2 +0.9**
comp=Z,492nm,1.1s
TBJI **Tambak Boyo** **69.59 270** P **P** **00 59 10.2 +0.8**
comp=Z,11µmcomp=Z,669nm,1.7s
JGF **Kuroka** **69.72 322** P **P** **00 59 10.4 +0.7**
JGF **Kuroka** **69.72 322** P **P** **00 59 09.5 -0.2**
JGF IAmb IAmb 00 59 11.9
comp=Z,108nm,0.9s
JGF **Kuroka** **69.72 322** P **P** **00 59 09.6 -0.2**
comp=Z,2µmcomp=Z,141nm,1.5s,comp=Z,2µm
INU **Inuyama** **69.74 322** P **P** **00 59 11.5 +1.7**
INU **Inuyama** **69.74 322** P **P** **00 59 10.3 +0.5**
INU IAmb IAmb 00 59 12.2
comp=Z,130nm,1.2s
INU **Inuyama** **69.74 322** P **P** **00 59 09.9 +0.1**
comp=Z,3µmcomp=Z,111nm,1.5s
NGJI **Ngawi** **69.79 269** P **P** **00 59 12.9 +2.3**
comp=Z,361nm,0.9s
MJAR **Matsushiro Arr** **69.89 323** P **P** **00 59 10.3 -0.5**
comp=Z,129nm,0.7s,baz=156,slow=6.0,SNR=166
comp=Z,129nm,0.7s
MJAR **Matsushiro Arr** **69.89 323** P **P** **00 59 10.8 +0.1**
MJAR pmax pmax
comp=Z,143nm,0.7s
MJAR **Matsushiro Arr** **69.89 323** P **P** **00 59 10.8 +0.1**
MJAR IAmb IAmb 00 59 12.9
comp=Z,143nm,0.7s
MAJO **Matsushiro** **69.90 323** P **P** **00 59 11.5 +0.7**
MAJO **Matsushiro** **69.90 323** *d* *i*P **P** **00 59 10.7 -0.1**
MAJO pmax pmax
comp=Z,177nm,0.7s
MAJO **Matsushiro** **69.90 323** P **P** **00 59 10.5 -0.3**
MAJO IAmb IAmb 00 59 13.0
comp=Z,170nm,0.7s
MAJO **Matsushiro** **69.90 323** P **P** **00 59 10.7 -0.1**
comp=Z,4µmcomp=Z,264nm,0.8s
MJB9 **Matsu-Tunnel** **69.90 323** P **P** **00 59 11.9 +1.1**
KKM **Kota Kinabalu** **70.07 284** P **P** **00 59 12.8 +0.4**
KKM **Kota Kinabalu** **70.07 284** P **P** **00 59 12.5 +0.2**
KKM **Kota Kinabalu** **70.07 284** P **P** **00 59 13.0 +0.6**
KKM **Kota Kinabalu** **70.07 284** P **P** **00 59 12.3 -0.1**
comp=Z,6µmcomp=Z,414nm,0.7s
JOW **Kunigami** **70.07 309** P **P** **00 59 12.2 +0.2**
comp=Z,84nm,0.7s,baz=126,slow=8.8,SNR=13
comp=Z,84nm,0.7s
JOW **Kunigami** **70.07 309** P **P** **00 59 13.3 +1.3**
JOW **Kunigami** **70.07 309** P **P** **00 59 11.6 -0.4**
comp=Z,5µmcomp=Z,255nm,1.7s
WOJI **Wonogiri, Jawa** **70.15 269** P **P** **00 59 14.4 +1.6**
comp=Z,7µmcomp=Z,450nm,1.4s
QSPA **South Pole Qui** **70.35 180** P **P** **00 59 14.6 +1.5**
comp=Z,148nm,0.8s,baz=30,slow=1.4,SNR=299
QSPA S **S** **01 07 52.9 +1.9**
comp=Z,2.4nm,0.9s,baz=198,slow=22,SNR=15
QSPA PKP2bc **P'P'bc** **01 27 08.0 -5.4**
comp=Z,7.9nm,1.1s,baz=236,slow=2.7,SNR=11
comp=Z,148nm,0.8s
QSPA **South Pole Qui** **70.35 180** P **P** **00 59 14.2 +1.0**
QSPA IAmb IAmb 00 59 16.3
comp=Z,189nm,0.9s
QSPA **South Pole Qui** **70.35 180** P **P** **00 59 14.7 +1.5**
QSPA PcP **PcP** **00 59 33.5 +1.7**
QSPA pP **pwP** **01 00 45.7 -0.6**
UGM **Wanagama** **70.50 268** P **P** **00 59 15.6 +0.7**
UGM **Wanagama** **70.50 268** P **P** **00 59 14.5 -0.4**
comp=Z,407nm,1.0s
JMN **Monobe** **70.54 318** P **P** **00 59 16.8 +2.1**
JMN **Monobe** **70.54 318** IAmb IAmb 00 59 18.6
comp=Z,259nm,1.1s
JMN **Monobe** **70.54 318** P **P** **00 59 15.3 +0.5**
comp=Z,5µmcomp=Z,263nm,1.4s
SMRI **Semarang** **70.85 269** P **P** **00 59 18.7 +1.7**
SMRI **Semarang** **70.85 269** P **P** **00 59 17.2 +0.2**
comp=Z,5µmcomp=Z,389nm,1.1s
ADK **Adak** **71.30 0** P **P** **00 59 17.8 -0.9**
ADK PcP **PcP** **00 59 35.5 -0.2**
JSU **Suzuyama** **71.34 315** P **P** **00 59 19.7 +0.2**
JSU **Suzuyama** **71.34 315** IAmb IAmb 00 59 22.2
comp=Z,155nm,0.8s
JSU **Suzuyama** **71.34 315** P **P** **00 59 19.9 +0.4**
comp=Z,5µmcomp=Z,254nm,1.5s
ERM **Erimo** **71.41 330** P **P** **00 59 21.1 +1.5**
ERM **Erimo** **71.41 330** *i* P **P** **00 59 20.8 +1.2**
ERM pmax pmax
comp=Z,148nm,1.3s
ERM **Erimo** **71.41 330** P **P** **00 59 20.0 +0.5**
comp=Z,3µmcomp=Z,103nm,1.4s
JEM **Erimo** **71.41 330** P **P** **00 59 21.1 +1.5**
JTM **Tenmabayashi** **71.48 328** P **P** **00 59 21.3 +1.3**
JTM **Tenmabayashi** **71.48 328** P **P** **00 59 20.0 0.0**
JTM IAmb IAmb 00 59 22.7
comp=Z,171nm,0.9s
JTM **Tenmabayashi** **71.48 328** P **P** **00 59 20.1 0.0**
comp=Z,4µmcomp=Z,243nm,1.4s
ATKA **Atka Island** **71.67 2** P **P** **00 59 22.4 +1.6**
ATKA **Atka Island** **71.67 2** IAmb IAmb 00 59 21.9
comp=Z,200nm,1.0s
SCJI **Gunung Srandil** **71.85 268** P **P** **00 59 23.4 +0.5**
comp=Z,2µmcomp=Z,194nm,0.9s
KUR **Kuril'sk** **71.94 335** *i* P **P** **00 59 22.0 -0.6**
KUR pmax pmax
comp=Z,795nm,1.3s
CTJI **Waduk Cacaban** **72.05 269** P **P** **00 59 25.3 +1.3**
comp=Z,341nm,1.4s
JNU **Nakatsue** **72.07 316** P **P** **00 59 23.5 -0.3**
comp=Z,81nm,0.8s,baz=84,slow=3.7,SNR=25
comp=Z,81nm,0.8s
KPJI **Karang Pucung** **72.18 268** P **P** **00 59 25.1 +0.3**
comp=Z,3µmcomp=Z,176nm,0.7s
STKI **Sintang** **72.23 277** P **P** **00 59 26.0 +0.9**
comp=Z,4µmcomp=Z,338nm,1.5s
YOJ **Yonaguni jima** **72.72 305** P **P** **00 59 28.5 +0.9**
YOJ **Yonaguni jima** **72.72 305** P **P** **00 59 27.9 +0.3**
comp=Z,422nm,1.0s
JCJI **Jatiwangi** **73.07 269** P **P** **00 59 30.2 +0.2**
comp=Z,11µmcomp=Z,683nm,1.7s
JKA **Kamikawa-asahi** **73.29 331** P **P** **00 59 32.2 +1.7**
comp=Z,9µmcomp=Z,478nm,1.8s
ASAJ **Asahikawa** **73.29 331** P **P** **00 59 30.8 +0.2**
comp=Z,198nm,1.0s,baz=208,slow=11,SNR=32
comp=Z,198nm,1.0s
BBJI **Bungbulang** **73.35 268** P **P** **00 59 31.5 -0.2**
BBJI **Bungbulang** **73.35 268** IAmb IAmb 00 59 33.1
comp=Z,141nm,0.9s
BBJI **Bungbulang** **73.35 268** P **P** **00 59 31.5 -0.2**
comp=Z,2µmcomp=Z,197nm,1.4s
BBJI **Bungbulang** **73.35 268** P **P** **00 59 30.1 -1.6**
comp=Z,2µmcomp=Z,193nm,1.4s
TWGBT **Beinan** **73.39 302** P **P** **00 59 32.1 +0.5**
TWG **Pinlang** **73.40 302** IAmb IAmb 00 59 32.3
comp=Z,106nm,0.6s
TWG **Pinlang** **73.40 302** P **P** **00 59 30.9 -0.7**
comp=Z,169nm,0.7s
YULB **Yu-li** **73.51 303** P **P** **00 59 33.5 +1.2**
YULB **Yu-li** **73.51 303** P **P** **00 59 31.1 -1.2**
YULB IAmb IAmb 00 59 33.4
comp=Z,74nm,0.7s
YULB **Yu-li** **73.51 303** P **P** **00 59 30.8 -1.5**
comp=Z,138nm,1.6s
NACB **Ninganchiao** **73.67 304** P **P** **00 59 34.1 +0.9**
NACB **Ninganchiao** **73.67 304** P **P** **00 59 32.2 -1.0**
comp=Z,318nm,1.0s
UNV **Unalaska Valle** **73.86 7** P **P** **00 59 35.4 +1.9**
UNV **Unalaska Valle** **73.86 7** IAmb IAmb 00 59 34.8
comp=Z,389nm,1.6s
SKR **Severo-Kuril's** **73.87 343** *ce*P **P** **00 59 36.6 +3.0**
CNJI **Cibinong** **73.89 268** P **P** **00 59 33.8 -0.8**
comp=Z,6µmcomp=Z,496nm,1.2s
JTU **Tsushima** **73.91 317** IAmb IAmb 00 59 36.3
comp=Z,356nm,1.9s
SSLB **Suanglung** **73.98 303** P **P** **00 59 34.6 -0.4**
SSLB **Suanglung** **73.98 303** P **P** **00 59 33.9 -1.1**
SSLB **Suanglung** **73.98 303** P **P** **00 59 34.3 -0.7**
comp=Z,210nm,0.5s
TPUB **Ta-pu** **73.99 302** P **P** **00 59 34.8 -0.3**
TPUB **Ta-pu** **73.99 302** P **P** **00 59 33.2 -1.9**
comp=Z,584nm,0.8s
YHNB **Yeheng** **74.10 304** P **P** **00 59 37.1 +1.4**
YHNB **Yeheng** **74.10 304** IAmb IAmb 00 59 38.2
comp=Z,172nm,1.1s
YHNB **Yeheng** **74.10 304** P **P** **00 59 34.3 -1.4**
comp=Z,182nm,0.8s
TATO **Taipei** **74.17 304** P **P** **00 59 37.3 +1.3**
TATO **Taipei** **74.17 304** P **P** **00 59 36.8 +0.8**
TATO **Taipei** **74.17 304** P **P** **00 59 35.5 -0.5**
TATO IAmb IAmb 00 59 37.8
comp=Z,169nm,0.8s
CBJI **Citeko** **74.43 269** P **P** **00 59 38.4 +0.6**
comp=Z,367nm,1.3s
SKJI **Sukabumi** **74.52 268** P **P** **00 59 38.4 +0.1**
TPI **Tanjungpandan** **74.86 273** P **P** **00 59 40.8 +0.6**
comp=Z,2µmcomp=Z,3µmcomp=Z,223nm,1.2s
SBJI **Serang** **75.20 269** P **P** **00 59 42.5 +0.4**
comp=Z,784nm,1.6s
PET **Petropavlovsk** **75.34 345** *d* *i*P **P** **00 59 41.3 -0.7**
PET *e**PP **pP** **01 01 14.1 +0.9**
PET *e**SP **sP** **01 01 54.6 -2.2**
PET *e* 01 02 44.9
PET *i* S **S** **01 08 46.4 -0.1**
PET pmax pmax
comp=Z,2µm,4.6s
PET pmax pmax
comp=Z,122nm,1.7s
PET pmax pmax
comp=Z,1µm,15.2s
PET pmax pmax
comp=Z,300nm,15.9s
PET MLR MLR
comp=Z,200nm,17.0s
PET **Petropavlovsk** **75.34 345** P **P** **00 59 42.0 0.0**
PET IAmb IAmb 00 59 43.8
comp=Z,342nm,1.6s
PET **Petropavlovsk** **75.34 345** P **P** **00 59 41.7 -0.3**
comp=Z,121nm,2.0s
PET **Petropavlovsk** **75.34 345** P **P** **00 59 41.2 -0.7**
comp=Z,129nm,2.0s
YSS **Yuzhno-Sakhali** **75.43 333** P **P** **00 59 44.7 +2.1**
YSS **Yuzhno-Sakhali** **75.43 333** *de*P **P** **00 59 44.0 +1.4**
YSS *e**PP **pP** **01 01 15.1 +0.4**
YSS *e**SP **sP** **01 01 57.0 -1.5**
YSS *e* 01 02 38.8
YSS *e*S **S** **01 08 51.1 +3.4**
YSS *e*SS **SS** **01 13 55.0 +5.5**
YSS pmax pmax
comp=Z,260nm,0.9s
YSS pmax pmax
comp=Z,2µm,4.8s
YSS pmax pmax
comp=E,400nm,4.5s
YSS smax smax
comp=N,1µm,5.5s
YSS smax smax
comp=E,1µm,4.7s
YSS MLR MLR
comp=Z,300nm,17.0s
YSS MLR MLR
comp=N,400nm,14.0s
YSS MLR MLR
comp=E,500nm,18.0s
YSS **Yuzhno-Sakhali** **75.43 333** P **P** **00 59 45.4 +2.7**
YSS **Yuzhno-Sakhali** **75.43 333** P **P** **00 59 43.3 +0.7**
comp=Z,7µmcomp=Z,363nm,1.3s
YSS **Yuzhno-Sakhali** **75.43 333** P **P** **00 59 43.8 +1.1**
CGJI **Cibinong** **75.46 268** P **P** **00 59 43.4 -0.2**
PEA0B **Petropavlovsk-** **75.65 345** *ce*P **P** **00 59 45.3 +1.6**
PETK **Petropavlovsk-** **75.65 345** P **P** **00 59 43.9 +0.1**
comp=Z,53nm,0.7s,baz=125,slow=6.4,SNR=72
comp=Z,53nm,0.7s
PETK **Petropavlovsk-** **75.65 345** P **P** **00 59 44.2 +0.4**
PETK **Petropavlovsk-** **75.65 345** P **P** **00 59 44.1 +0.4**
KNMB **Chin-men Tao** **76.35 302** P **P** **00 59 48.9 +0.6**
comp=Z,183nm,1.5s
TJN **Taejon** **76.35 317** P **P** **00 59 49.4 +1.4**
TJN **Taejon** **76.35 317** *d* *i*P **P** **00 59 47.9 -0.1**
TJN **Taejon** **76.35 317** P **P** **00 59 48.1 +0.1**
comp=Z,9µmcomp=Z,354nm,1.7s
QZH2 **Quanzhou** **76.42 303** ⇓ *i*P **P** **00 59 49.0 +0.4**
QZH2 sP **sP** **01 02 06.0 +1.7**
QZH2 S **S** **01 09 02.0 +2.7**
QZH2 pmax pmax
comp=Z,240nm,0.8s
QZH2 pmax pmax
comp=Z,2µm,4.5s
KSRS **Korea Array** **76.65 318** P **P** **00 59 50.5 +0.9**
comp=Z,15nm,0.7s,baz=134,slow=5.5,SNR=54
comp=Z,15nm,0.7s
KSAR **Wonju Array Be** **76.67 318** P **P** **00 59 50.8 +1.1**
KSAR **Wonju Array Be** **76.67 318** P **P** **00 59 50.8 +1.1**
FARB **Farallon Islan** **76.68 42** P **P** **00 59 51.3 +1.5**
TEY **Ternei** **76.83 328** ⇓ *e*P **P** **00 59 46.4 -4.0**
TEY pmax pmax
comp=N,20nm,1.4s
TEY pmax pmax
comp=Z,40nm,1.5s
TEY pmax pmax
comp=E,10.0nm,1.6s
KASI **Kota Agung** **76.93 269** P **P** **00 59 51.6 -0.2**
comp=E,2µmcomp=E,5µmcomp=E,411nm,1.1s
JRSC **Jasper Ridge** **76.98 42** IAmb IAmb 00 59 55.8
comp=Z,226nm,1.1s
MCCM **Marconi Confer** **77.03 41** IAmb IAmb 00 59 55.2
comp=Z,121nm,0.9s
SAO **San Andreas Ge** **77.10 43** P **P** **00 59 54.5 +2.3**
SAO pmax pmax
comp=Z,192nm,0.9s
SAO **San Andreas Ge** **77.10 43** P **P** **00 59 54.5 +2.3**
SAO IAmb IAmb 00 59 56.5
comp=Z,192nm,0.9s
PKD **Bear Valley Ra** **77.21 44** IAmb IAmb 00 59 56.6
comp=Z,144nm,0.9s
MHC **Mount Hamilton** **77.32 43** IAmb IAmb 00 59 57.5
comp=Z,176nm,1.0s
INCN **Inchon** **77.48 318** P **P** **00 59 56.4 +2.1**
INCN **Inchon** **77.48 318** P **P** **00 59 55.6 +1.3**
INCN **Inchon** **77.48 318** P **P** **00 59 56.2 +1.9**
INCN pmax pmax
comp=Z,155nm,1.1s
INCN **Inchon** **77.48 318** P **P** **00 59 56.2 +1.9**
INCN IAmb IAmb 00 59 58.2
comp=Z,155nm,1.1s
INCN **Inchon** **77.48 318** P **P** **00 59 55.0 +0.7**
comp=Z,4µmcomp=Z,166nm,1.4s
LWLI **Liwa** **77.51 269** P **P** **00 59 55.1 0.0**
KCPM **Cahto Peak** **77.56 40** IAmb IAmb 00 59 58.6
comp=Z,176nm,1.2s
MDSI **Maura Dua** **77.57 270** P **P** **00 59 54.4 -0.9**
comp=Z,4µmcomp=Z,244nm,1.0s
DCMP **DeCamp, Califo** **77.57 40** P **P** **00 59 56.1 +1.3**
CCX **Cicese** **77.58 49** IAmb IAmb 00 59 58.7
comp=Z,141nm,0.9s
SSE **Sheshan** **77.59 310** P **P** **00 59 56.2 +1.3**
SSE sP **sP** **01 02 06.8 -4.0**
SSE S **S** **01 09 11.3 -0.3**
SSE pmax pmax
comp=Z,37nm,1.3s
SSE pmax pmax
comp=Z,590nm,5.0s
KMPM **Mount Pierce** **77.70 39** P **P** **00 59 57.6 +2.1**
KMPM IAmb IAmb 00 59 59.5
comp=Z,158nm,0.9s
CBX **Cerro Bola** **77.82 49** IAmb IAmb 01 00 00.1
comp=Z,100nm,0.8s
VLA **Vladivostok** **77.95 325** *c* *i*P **P** **00 59 57.4 +0.8**
VLA pmax pmax
comp=Z,185nm,0.9s
VTX **Valle De La Tr** **77.96 50** IAmb IAmb 01 00 01.8
comp=Z,275nm,1.5s
JCC **Jacoby Creek,** **78.01 39** IAmb IAmb 01 00 00.8
comp=Z,213nm,1.4s
ELS **Elsinore Mount** **78.01 48** IAmb IAmb 01 00 01.0
comp=Z,161nm,0.9s
TPO **Tropico Hills** **78.14 46** P **P** **00 59 59.3 +1.3**
ESJX **Sierra Juarez** **78.17 50** IAmb IAmb 01 00 02.5
comp=Z,136nm,1.0s
BFSC **Mount Baldy Ra** **78.17 47** IAmb IAmb 01 00 01.6
comp=Z,128nm,0.8s
O02D **Mt. Diablo Mer** **78.34 40** IAmb IAmb 01 00 03.2
comp=Z,163nm,0.9s
SUTB **Sutter Butte** **78.37 41** IAmb IAmb 01 00 02.1
comp=Z,141nm,1.1s
ISA **Isabella, Lake** **78.42 45** IAmb IAmb 01 00 03.3
comp=Z,175nm,0.9s
SFX **San Felipe** **78.45 51** IAmb IAmb 01 00 03.2
comp=Z,96nm,1.0s
DSRI **Dabo** **78.52 274** P **P** **01 00 00.9 +0.5**
comp=Z,196nm,1.7s
KRMB **Red Mountain** **78.53 38** IAmb IAmb 01 00 04.1
comp=Z,225nm,1.4s
YUH **Yuha Desert** **78.53 49** IAmb IAmb 01 00 03.9
comp=Z,133nm,1.0s
CMB **Columbia Colle** **78.54 43** IAmb IAmb 01 00 03.9
comp=Z,152nm,0.9s
TYV **Tymovskoe** **78.55 335** *e*P **P** **01 00 00.9 +1.2**
TYV *e*S **S** **01 09 15.6 -5.2**
TYV pmax pmax
comp=Z,2µm,2.6s
TYV pmax pmax
comp=Z,190nm,1.1s
TYV smax smax
comp=N,1µm,4.7s
TYV smax smax
comp=E,2µm,4.7s
SRIG **Santa Rosalia** **78.56 55** P **P** **01 00 01.9 +1.7**
comp=Z,259nm,1.1s
USA0B **Ussuriysk Arra** **78.61 325** *d* *i*P **P** **01 00 00.7 +0.5**
USRK **Ussuriysk Ar.** **78.61 325** P **P** **01 00 01.6 +1.4**
comp=Z,96nm,0.9s,baz=133,slow=3.0,SNR=89
USRK S **S** **01 09 24.2 +2.4**
comp=Z,1.2nm,0.7s,baz=79,slow=7.5,SNR=1.2
comp=Z,96nm,0.9s
USRK **Ussuriysk Ar.** **78.61 325** P **P** **01 00 01.5 +1.3**
USRK **Ussuriysk Ar.** **78.61 325** P **P** **01 00 01.4 +1.3**
PFO **Pinyon Flats O** **78.67 48** *d* *i*P **P** **01 00 02.3 +1.4**
PFO pmax pmax
comp=Z,220nm,1.0s
PFO **Pinyon Flats O** **78.67 48** P **P** **01 00 02.6 +1.7**
PFO IAmb IAmb 01 00 04.6
comp=Z,115nm,1.0s
PFO **Pinyon Flats O** **78.67 48** P **P** **01 00 02.2 +1.2**
comp=Z,138nm,1.1s
AFDM **Forest Hills D** **78.71 42** IAmb IAmb 01 00 04.8
comp=Z,160nm,1.1s
ORV **Oroville** **78.75 41** IAmb IAmb 01 00 05.0
comp=Z,127nm,0.9s
HKC **Hong Kong Obse** **78.76 299** ⇑P **P** **01 00 03.0 +1.5**
MNAI **Manna** **78.76 269** P **P** **01 00 03.7 +2.0**
MNAI **Manna** **78.76 269** P **P** **01 00 02.6 +0.9**
MNAI **Manna** **78.76 269** P **P** **01 00 00.7 -1.0**
comp=Z,12µmcomp=Z,680nm,1.3s
HKPS **Hong Kong Po S** **78.78 299** P **P** **01 00 03.1 +1.5**
HKPS **Hong Kong Po S** **78.78 299** P **P** **01 00 02.8 +1.2**
comp=Z,213nm,1.3s
CPBX **Cerro Prieto** **78.85 50** IAmb IAmb 01 00 08.0
comp=Z,158nm,0.9s
LRMC **Laurel Mtn Rad** **78.85 46** IAmb IAmb 01 00 05.5
comp=Z,131nm,1.1s
O03E **Paynes Creek** **79.01 40** P **P** **01 00 03.2 +0.6**
TPRI **Tanjung Pinang** **79.04 275** P **P** **01 00 04.5 +1.3**
M02C **Callahan** **79.06 39** IAmb IAmb 01 00 07.0
comp=Z,149nm,1.1s
CCCA **Chr Cany lake** **79.09 46** IAmb IAmb 01 00 06.9
comp=Z,215nm,1.1s
CLC **China Lake** **79.09 46** IAmb IAmb 01 00 06.8
comp=Z,155nm,1.1s
L02F **Cave Junction** **79.10 38** IAmb IAmb 01 00 06.8
comp=Z,145nm,1.4s
CWC **Cottonwood Cre** **79.12 45** IAmb IAmb 01 00 06.9
comp=Z,108nm,1.1s
MDPB **Devils Postpil** **79.14 43** IAmb IAmb 01 00 07.6
comp=Z,184nm,0.9s
OHAK **Old Harbor** **79.27 13** P **P** **01 00 05.0 +1.6**
OHAK **Old Harbor** **79.27 13** IAmb IAmb 01 00 05.5
comp=Z,91nm,0.7s
MPMC **Manual Prospec** **79.30 46** IAmb IAmb 01 00 08.1
comp=Z,149nm,1.3s
KSI **Kapahiang** **79.33 270** P **P** **01 00 05.3 +0.4**
GSC **Goldstone, Bar** **79.35 47** IAmb IAmb 01 00 08.1
comp=Z,122nm,1.1s
YBH **Yreka Blue Hor** **79.36 38** IAmb IAmb 01 00 08.2
comp=Z,114nm,0.8s
DLV **Lat** **79.39 287** P **P** **01 00 06.2 +0.9**
DLV **Lat** **79.39 287** IAmb IAmb 01 00 08.3
comp=Z,214nm,1.5s
DLV **Lat** **79.39 287** P **P** **01 00 07.4 +2.1**
comp=Z,116nm,1.4s
BC3 **Big Chuckawall** **79.40 49** IAmb IAmb 01 00 08.9
comp=Z,110nm,0.9s
WAKR **Walker** **79.42 43** P **P** **01 00 06.4 +1.5**
GLA **Glamis** **79.52 49** IAmb IAmb 01 00 09.8
comp=Z,211nm,1.0s
J01E **Myrtle Point** **79.55 37** IAmb IAmb 01 00 08.9
comp=Z,215nm,1.1s
UBSI **University, Be** **79.60 270** P **P** **01 00 07.1 +0.9**
comp=Z,3µmcomp=Z,546nm,1.4s
BEKR **Beckworth** **79.64 41** P **P** **01 00 06.8 +0.7**
BEKR IAmb IAmb 01 00 09.5
comp=Z,123nm,0.9s
PIX **Pinacate** **79.74 51** IAmb IAmb 01 00 10.3
comp=Z,175nm,1.1s
NJ2 **Nanjing** **79.79 309** ⇓ P **P** **01 00 07.6 +0.9**
NJ2 pmax pmax
comp=Z,170nm,1.5s
MASI **Maura Aman, Be** **79.83 270** P **P** **01 00 08.1 +0.6**
comp=Z,7µmcomp=Z,496nm,1.2s
LHV **Little Huntoon** **79.87 43** IAmb IAmb 01 00 11.1
comp=Z,181nm,1.0s
IRM **Iron Mountain** **79.88 48** IAmb IAmb 01 00 11.3
comp=Z,180nm,1.0s
BTDF **Bukit Timah Da** **79.90 275** P **P** **01 00 09.8 +2.0**
BTDF **Bukit Timah Da** **79.90 275** P **P** **01 00 08.7 +0.9**
comp=Z,3µmcomp=Z,190nm,1.3s
GRAC **Grapevine Rang** **79.91 45** IAmb IAmb 01 00 11.3
comp=Z,163nm,0.9s
KDAK **Kodiak Island** **79.94 13** P **P** **01 00 06.3 -0.6**
KDAK pmax pmax
comp=Z,85nm,1.0s
KDAK **Kodiak Island** **79.94 13** P **P** **01 00 06.2 -0.6**
KDAK **Kodiak Island** **79.94 13** P **P** **01 00 07.5 +0.5**
comp=Z,118nm,1.7s
KDAK **Kodiak Island** **79.94 13** P **P** **01 00 06.1 -0.8**
FURC **Furnace Creek,** **79.95 45** IAmb IAmb 01 00 11.1
comp=Z,125nm,1.1s
SHOC **Shoshone, Teco** **80.03 46** IAmb IAmb 01 00 11.5
comp=Z,158nm,1.1s
NVAR **Mina Array Bea** **80.10 43** P **P** **01 00 10.4 +1.8**
comp=Z,82nm,0.7s,baz=224,slow=8.4,SNR=261
NVAR S **S** **01 09 41.6 +3.5**
comp=Z,0.2nm,0.3s,baz=233,slow=6.4,SNR=1.9
NVAR PKKPbc **PKKPbc** **01 18 51.2 +0.3**
comp=Z,0.7nm,0.7s,baz=125,slow=2.6,SNR=5.3
NVAR PKPPKP **P'P'df** **01 26 52.4 -0.5**
comp=Z,1.0nm,0.9s,baz=116,slow=3.4,SNR=5.6
comp=Z,82nm,0.7s
NVAR **Mina Array Bea** **80.10 43** P **P** **01 00 09.5 +0.9**
BLYC **Blythe** **80.11 49** IAmb IAmb 01 00 12.5
comp=Z,137nm,0.8s
113A **Mohawk Valley,** **80.14 50** IAmb IAmb 01 00 12.7
comp=Z,148nm,1.0s
PAHR **Pah Rah Range** **80.15 42** IAmb IAmb 01 00 12.2
comp=Z,128nm,0.9s
MDJ **Mudanjiang** **80.18 325** P **P** **01 00 10.2 +1.6**
MDJ **Mudanjiang** **80.18 325** P **P** **01 00 09.7 +1.1**
MDJ S **SKSac** **01 09 44.9 -0.6**
MDJ pmax pmax
comp=Z,71nm,0.9s

MDJ pmax pmax
comp=Z,4μm,5.3s
MDJ Mudanjiang 80.18 325 P P 01 00 09.9 +1.3
comp=Z,7μmcomp=Z,379nm,1.2s
NV11 Mina Array Sit 80.20 43 IAmb IAmb 01 00 12.6
comp=Z,138nm,0.9s
BELA Belgrano 2 80.26 173 IAmb IAmb 01 00 10.6
comp=Z,103nm,0.8s
WCT Wildcat Mounta 80.29 45 IAmb IAmb 01 00 13.0
comp=Z,201nm,1.6s
MZP Montezuma Peak 80.29 44 P P 01 00 11.0 +1.3
MTPC Mountain Pass 80.30 47 IAmb IAmb 01 00 13.5
comp=Z,122nm,1.0s
HSIG 80.38 55 IAmb IAmb 01 00 13.6
comp=Z,111nm,0.9s
KVN Kaiserville 80.58 43 P P 01 00 11.6 +0.5
KVN pmax pmax
comp=Z,114nm,0.9s
KVN Kaiserville 80.58 43 P P 01 00 11.6 +0.5
KVN IAmb IAmb 01 00 14.4
comp=Z,114nm,0.9s
TPH Tonopah 80.60 44 IAmb IAmb 01 00 14.8
comp=Z,173nm,1.1s
TPNV Topopah Spring 80.62 45 IAmb IAmb 01 00 15.0
comp=Z,131nm,1.1s
BUCK Buck Mountain 80.74 36 IAmb IAmb 01 00 15.3
comp=Z,122nm,0.8s
COR Corvallis 80.81 36 P P 01 00 13.8 +2.0
COR pmax pmax
comp=Z,136nm,0.9s
COR Corvallis 80.81 36 P P 01 00 13.8 +2.0
COR IAmb IAmb 01 00 15.6
comp=Z,136nm,0.9s
COR Corvallis 80.81 36 P P 01 00 13.8 +2.0
COR sP **sP 01 02 31.0 +3.2**
I04A Tendick Farm, 80.81 37 IAmb IAmb 01 00 15.0
comp=Z,92nm,0.7s
N15K Kwethluk River 80.84 9 IAmb IAmb 01 00 14.1
comp=Z,224nm,1.5s
MOD Modoc Plateau 80.89 39 IAmb IAmb 01 00 16.0
comp=Z,167nm,0.8s
QIZ Qiongzhong 81.02 294 P P 01 00 13.2 -0.3
QIZ pP **pP 01 01 46.7 +0.1**
QIZ S **S 01 09 48.2 +0.5**
QIZ sS **sS 01 12 33.7 +1.0**
QIZ SS **SS 01 15 12.2 -1.5**
QIZ pmax pmax
comp=Z,72nm,1.9s
QIZ pmax pmax
comp=Z,690nm,4.3s
GRNR Gornyy 81.06 332 ⇓*i* P **P 01 00 13.8 +0.8**
GRNR pmax pmax
comp=Z,150nm,1.2s
H04D Lebanon 81.08 36 IAmb IAmb 01 00 16.9
comp=Z,126nm,0.9s
SHPR Sheep Range 81.12 46 IAmb IAmb 01 00 17.8
comp=Z,178nm,1.4s
G03D McMinnville, O 81.23 35 P P 01 00 15.3 +1.3
W13A Hualapai Mount 81.26 48 IAmb IAmb 01 00 18.6
comp=Z,99nm,1.0s
WIFE Three Sisters- 81.31 37 IAmb IAmb 01 00 18.3
comp=Z,169nm,1.0s
S11A Rachel 81.34 45 IAmb IAmb 01 00 19.1
comp=Z,161nm,0.9s
DL2 Dalian 81.52 316 P P 01 00 17.7 +2.0
DL2 pP **pP 01 01 45.2 -4.0**
DL2 S **S 01 09 53.2 +1.2**
DL2 pmax pmax
comp=Z,160nm,1.4s
DL2 pmax pmax
comp=Z,290nm,3.7s
PRN Pahroc Range 81.68 45 IAmb IAmb 01 00 20.8
comp=Z,163nm,0.9s
I05D Terrebonne, OR 81.75 37 IAmb IAmb 01 00 20.4
comp=Z,187nm,0.9s
CNPM China Poot 81.82 13 IAmb IAmb 01 00 18.9
comp=Z,88nm,0.9s
M16K Timber Creek 81.83 9 P P 01 00 17.4 +0.7
ILSW Iliamna Southw 81.85 12 IAmb IAmb 01 00 18.4
comp=Z,157nm,0.8s
SNY Shenyang 81.95 320 P P 01 00 17.8 0.0
SNY pmax pmax
comp=Z,13nm,1.2s
CN2 Changchun 82.00 322 ⇓*i* P **P 01 00 18.3 +0.3**
CN2 sP sP 01 02 33.8 -1.5
CN2 S **S 01 09 55.6 -1.1**
CN2 pmax pmax
comp=Z,130nm,1.2s
CN2 pmax pmax
comp=Z,1μm,3.0s
COCO West Island 82.00 260 P P 01 00 20.5 +1.8
K13K Kusilvak Mount 82.01 6 IAmb IAmb 01 00 21.1
comp=Z,178nm,1.5s
TUC Tucson 82.09 52 P P 01 00 21.3 +2.4
TUC pmax pmax
comp=Z,246nm,0.9s
TUC Tucson 82.09 52 P P 01 00 21.3 +2.4
TUC Tucson 82.09 52 P P 01 00 21.5 +2.6
comp=Z,4μmcomp=Z,364nm,1.1s,comp=Z,4μm
TUC Tucson 82.09 52 P P 01 00 21.6 +2.7
BNX BinXian 82.09 325 ⇓ **P P 01 00 18.6 +0.2**
BNX pP **pP 01 01 47.8 -4.4**
BNX sP sP 01 02 26.6 -8.9
BNX PP **PP 01 03 31.0 -2.8**
BNX S **S 01 09 55.7 -1.8**
BNX sS **sS 01 12 39.9 -3.3**
BNX pmax pmax
comp=Z,320nm,1.0s
BNX pmax pmax
comp=Z,2μm,3.2s
BRLK Bradley Lake 82.11 13 IAmb IAmb 01 00 20.6
comp=Z,123nm,0.9s
BKNI Bangkinang 82.12 273 P P 01 00 18.6 -0.7
BKNI Bangkinang 82.12 273 P P 01 00 21.7 +2.3
BKNI Bangkinang 82.12 273 P P 01 00 19.9 +0.5
comp=Z,3μmcomp=Z,5μmcomp=Z,275nm,1.3s
BKNI Bangkinang 82.12 273 P P 01 00 19.1 -0.3
comp=Z,5μmcomp=Z,276nm,1.3s
KLR Kul'dur 82.12 329 P P 01 00 19.2 +0.7
comp=Z,41nm,0.8s,baz=112,slow=5.5,SNR=61
KLR S **SKSac 01 09 59.2 +0.9**
comp=Z,1.4nm,0.9s,baz=28,slow=22,SNR=14
comp=Z,41nm,0.8s
KLR Kul'dur 82.12 329*ce* P **P 01 00 19.7 +1.2**
KLR pmax pmax
comp=Z,322nm,2.5s
F04A Amboy 82.14 35 IAmb IAmb 01 00 21.8
comp=Z,77nm,0.8s
WISH Wishkah 82.17 34 IAmb IAmb 01 00 22.8
comp=Z,169nm,0.8s
HOOD Mount Hood Mea 82.19 36 IAmb IAmb 01 00 22.9
comp=Z,202nm,1.1s
WVOR Wild Horse Val 82.20 40 IAmb IAmb 01 00 23.4
comp=Z,169nm,0.9s
WVOR Wild Horse Val 82.20 40 P P 01 00 20.6 +1.3
comp=Z,2μmcomp=Z,213nm,1.1s
C03A Quillayute Air 82.30 33 P P 01 00 21.4 +2.0
G05A Wamic 82.32 36 IAmb IAmb 01 00 23.0
comp=Z,162nm,1.0s
H02S2 DAWSON INLET T 82.35 25 P P 01 00 21.3 +1.8
SNR=12
DIB Dawson Inlet, 82.35 25 IAmb IAmb 01 00 22.8
comp=Z,86nm,0.9s
H02S1 DAWSON INLET T 82.35 25 P P 01 00 21.1 +1.5
SNR=12
HOLB Holberg 82.39 29 IAmb IAmb 01 00 22.8
comp=Z,166nm,0.9s
WHN Wuhan 82.40 306 ⇓ **P P 01 00 20.9 +0.5**
WHN sP **sP 01 02 37.4 -0.1**
WHN S **S 01 09 58.2 -3.1**
WHN pmax pmax
comp=Z,920nm,1.5s
WHN pmax pmax
comp=Z,5μm,2.9s
CNSH ChangSha 82.41 303 P P 01 00 21.5 +1.0
CNSH pmax pmax
comp=Z,87nm,1.4s
PPI Padang Panjang 82.46 272 P P 01 00 21.7 +0.6
MAW Mawson 82.47 200 P P 01 00 20.9 +0.8
comp=Z,41nm,1.1s,baz=114,slow=6.4,SNR=36
MAW S **SKSac 01 09 57.6 -2.7**
comp=Z,1.5nm,0.8s,baz=106,slow=12,SNR=2.0
comp=Z,41nm,1.1s
MAW Mawson 82.47 200 P P 01 00 20.7 +0.6
MAW pmax pmax
comp=Z,15nm,1.2s
MAW Mawson 82.47 200 P P 01 00 20.7 +0.6
comp=Z,11nm,1.3s
MAW Mawson 82.47 200 P P 01 00 20.9 +0.8
comp=Z,11nm,1.3s
LCMT Little Creek M 82.69 47 IAmb IAmb 01 00 25.7
comp=Z,114nm,0.8s
G06A Carlson Farm, 82.70 37 IAmb IAmb 01 00 24.9
comp=Z,175nm,1.1s
K15K Wolf Creek Mou 82.71 7 P P 01 00 21.8 +0.6
J08A Circle Bar Ran 82.83 39 IAmb IAmb 01 00 25.9
comp=Z,149nm,0.9s
CCUT Cedar City 82.89 46 IAmb IAmb 01 00 27.1
comp=Z,80nm,0.8s
B04A Port Angeles 82.92 33 IAmb IAmb 01 00 26.1
comp=Z,106nm,0.7s
J14K Nanvaranak Lak 82.92 6 P P 01 00 22.6 +0.4
GNW Green Mountain 82.95 34 IAmb IAmb 01 00 26.6
comp=Z,113nm,0.9s
O22K Cooper Landing 83.01 13 IAmb IAmb 01 00 24.4
comp=Z,124nm,0.7s
PSUT Pine Spring 83.08 45 IAmb IAmb 01 00 27.3
comp=Z,81nm,0.7s
CLRS Cowichan Lake 83.09 32 IAmb IAmb 01 00 27.2
comp=Z,134nm,1.0s
SZCU Shurtz Canyon 83.10 46 IAmb IAmb 01 00 28.0
comp=Z,135nm,1.0s
TIA Tai'an 83.14 312 P P 01 00 24.3 +0.3
TIA S **SKSac 01 10 05.2 -0.3**
TIA pmax pmax
comp=Z,130nm,1.6s
TIA pmax pmax
comp=Z,2μm,3.5s
MA2 Magadan 83.17 344 P P 01 00 23.7 +0.1
comp=Z,32nm,0.7s,baz=120,slow=5.7,SNR=10
comp=Z,32nm,0.7s
MA2 Magadan 83.17 344 *i* P **P 01 00 22.1 -1.5**
MA2 pmax pmax
comp=Z,217nm,1.9s
MA2 Magadan 83.17 344 P P 01 00 23.2 -0.5
MA2 Magadan 83.17 344 P P 01 00 23.5 -0.1
comp=Z,118nm,1.3s
GULI GuiLin 83.20 300 P P 01 00 27.6 +3.0
GULI S **S 01 10 13.0 +3.5**
GULI pmax pmax
comp=Z,140nm,1.4s
WUAZ Wupatki 83.24 49 IAmb IAmb 01 00 29.4
comp=Z,150nm,1.1s
CBB Campbell River 83.28 31 IAmb IAmb 01 00 28.2
comp=Z,118nm,1.0s
L18K Granite Mounta 83.31 10 IAmb IAmb 01 00 27.1
comp=Z,106nm,0.7s
PGC Sidney 83.32 33 IAmb IAmb 01 00 27.7
comp=Z,124nm,0.8s
GAMB Gambell 83.34 3 IAmb IAmb 01 00 27.6
comp=Z,135nm,1.0s
ELK Elko 83.36 43 S SKSac 01 10 07.2 0.0
comp=Z,0.3nm,0.3s,baz=197,slow=20,SNR=10.0
ELK Elko 83.36 43 IAmb IAmb 01 00 29.1
comp=Z,128nm,1.0s
BBB Bella Bella 83.47 28 IAmb IAmb 01 00 28.2
comp=Z,74nm,0.8s
F07A Phinny Hill Vi 83.49 36 IAmb IAmb 01 00 28.9
comp=Z,92nm,0.8s
STLK Strandline Lak 83.50 12 IAmb IAmb 01 00 26.1
comp=Z,71nm,0.7s
IPM Ipoh 83.55 277 P P 01 00 28.0 +1.4
IPM Ipoh 83.55 277 P P 01 00 27.0 +0.3
comp=Z,3μmcomp=Z,254nm,1.2s
IPM Ipoh 83.55 277 P P 01 00 26.9 +0.3
comp=Z,3μmcomp=Z,254nm,1.2s
RC01 Rabbit Creek A 83.56 13 IAmb IAmb 01 00 27.8
comp=Z,114nm,1.0s
HPIG 83.58 59 IAmb IAmb 01 00 30.3
comp=Z,92nm,0.8s
HPIG 83.58 59 P P 01 00 28.6 +1.9
comp=Z,123nm,1.1s
MNSI Mandaling Nat 83.65 273 P P 01 00 27.8 +0.7
comp=Z,82nm,1.0s
PWL Port Wells 83.66 14 IAmb IAmb 01 00 27.7
comp=Z,118nm,0.8s
HIN Hinchinbrook I 83.68 15 P P 01 00 26.2 0.0
HIN IAmb IAmb 01 00 27.9
comp=Z,95nm,0.8s
X18A Snowflake 83.77 50 IAmb IAmb 01 00 31.5
comp=Z,100nm,0.8s
J16K Anvik River 83.78 8 IAmb IAmb 01 00 29.3
comp=Z,73nm,0.8s
GO10 Punta Arenas 83.82 144 IAmb IAmb 01 00 31.4
comp=Z,124nm,1.1s
GO10 Punta Arenas 83.82 144 P P 01 00 30.9 +3.6
comp=Z,158nm,1.7s
MG03 Isla Dawson 83.85 145 P P 01 00 29.0 +1.7
E07A Sunnyside 83.93 36 IAmb IAmb 01 00 31.2
comp=Z,141nm,0.8s
EYAK Cordova Ski Ar 84.00 15 P P 01 00 28.5 +0.8
EYAK Cordova Ski Ar 84.00 15 IAmb IAmb 01 00 29.6
comp=Z,69nm,0.8s
HAWA Hanford 84.01 36 P P 01 00 29.6 +1.4
HAWA IAmb IAmb 01 00 31.5
comp=Z,132nm,0.9s
TCRU Three Creeks R 84.06 46 IAmb IAmb 01 00 32.9
comp=Z,81nm,1.0s
KNK Knik Glacier 84.13 14 IAmb IAmb 01 00 30.2
comp=Z,107nm,0.7s
PMR Palmer 84.14 13 P P 01 00 29.5 +1.1
PMR Palmer 84.14 13 IAmb IAmb 01 00 30.0
comp=Z,68nm,0.7s
KULM Kulim 84.18 278 P P 01 00 30.8 +1.1
KULM Kulim 84.18 278 IAmb IAmb 01 00 32.6
comp=Z,99nm,0.8s
KULM Kulim 84.18 278 P P 01 00 30.5 +0.8
comp=Z,3μmcomp=Z,2μmcomp=Z,144nm,1.5s
KULM Kulim 84.18 278 P P 01 00 30.0 +0.2
comp=Z,2μmcomp=Z,144nm,1.5s,comp=Z,2μm
W18A Petrified Fore 84.21 50 IAmb IAmb 01 00 33.4
comp=Z,119nm,1.1s
WAH2 Wahluke Slope 84.21 36 IAmb IAmb 01 00 32.3
comp=Z,74nm,0.8s
U33K Whale Pass 84.28 23 P P 01 00 29.9 +0.7
E08A Dider Farm, El 84.33 36 IAmb IAmb 01 00 33.0
comp=Z,102nm,0.8s
MOIG Morelia 84.34 67 IAmb IAmb 01 00 33.9
comp=Z,186nm,1.1s
SHUK Shuksan-Mt. Ba 84.36 33 IAmb IAmb 01 00 33.6
comp=Z,75nm,0.7s
BMO Blue Mountains 84.38 38 IAmb IAmb 01 00 33.2
comp=Z,78nm,0.9s
ZAIG Zacatecas 84.39 64 IAmb IAmb 01 00 35.0
comp=Z,80nm,0.9s
ZAIG Zacatecas 84.39 64 P P 01 00 33.3 +2.4
comp=Z,2μmcomp=Z,100nm,1.1s
MFID Camas Ranch 84.45 40 P P 01 00 31.3 +0.7
MFID IAmb IAmb 01 00 33.9
comp=Z,100nm,1.0s
USHA Ushuaia 84.49 147 P P 01 00 31.2 +0.7
comp=Z,37nm,0.8s,baz=278,slow=6.5,SNR=3.3
comp=Z,37nm,0.8s
SML Sawmill 84.51 13 IAmb IAmb 01 00 31.9
comp=Z,178nm,1.6s
EPH Ephrata 84.55 35 IAmb IAmb 01 00 33.8
comp=Z,131nm,1.1s
PBSI Pulau Batu 84.59 272 P P 01 00 34.3 +2.5
comp=Z,4μmcomp=Z,178nm,1.5s
S31K Pelican 84.61 21 IAmb IAmb 01 00 33.6
comp=Z,62nm,0.8s
DUG Dugway, Tooele 84.63 44 P P 01 00 32.6 +1.0
comp=Z,27nm,1.3s
PPLA Purkeypile 84.71 11 P P 01 00 30.7 -0.7
D08A Wollman Farm, 84.75 36 IAmb IAmb 01 00 35.1
comp=Z,117nm,1.0s
WRAK Wrangell Islan 84.80 23 P P 01 00 32.6 +0.9
WRAK IAmb IAmb 01 00 34.7
comp=Z,82nm,0.9s
K20K Telida 84.81 10 IAmb IAmb 01 00 33.7
comp=Z,107nm,0.8s
CRQM Cirque 84.84 16 IAmb IAmb 01 00 34.3
comp=Z,109nm,0.9s
E09A Wood Farm, Sta 84.86 37 IAmb IAmb 01 00 36.0
comp=Z,116nm,1.2s
GO08 Villa O'Higgin 84.88 140 IAmb IAmb 01 00 36.5
comp=Z,79nm,1.1s
GO08 Villa O'Higgin 84.88 140 P P 01 00 34.7 +2.1
comp=Z,74nm,1.4s
RPSI Rantau Prapat 84.91 275 IAmb IAmb 01 00 35.7
comp=Z,139nm,1.1s
RPSI Rantau Prapat 84.91 275 P P 01 00 32.7 -0.6
comp=Z,2μmcomp=Z,148nm,1.4s
TGL Tana Glacier 84.92 16 IAmb IAmb 01 00 34.6
comp=Z,102nm,0.9s
HEH HeiHe 84.92 328 ⇓*i* P **P 01 00 32.8 +0.3**
HEH SKS **SKSac 01 10 15.8 -0.4**
HEH S **S 01 10 27.6 +2.3**
HEH pmax pmax
comp=Z,260nm,1.4s
HEH pmax pmax
comp=Z,2μm,6.1s
PSI Prapat 84.94 275 P P 01 00 34.4 +0.7
PSI Prapat 84.94 275 P P 01 00 33.6 -0.1
comp=Z,2μmcomp=Z,2μmcomp=Z,148nm,1.4s
PNL Peninsula 84.98 18 P P 01 00 34.4 +1.8
MG02 Cerro Sombrero 84.98 145 P P 01 00 34.8 +1.8
comp=Z,272nm,1.1s
EPT El Paso 85.05 54 P P 01 00 36.2 +2.4
Q16A Castle Valley 85.07 46 IAmb IAmb 01 00 37.7
comp=Z,238nm,1.7s
VRDI Verde Repeater 85.16 16 IAmb IAmb 01 00 35.7
comp=Z,77nm,0.8s
GRNC Granite Creek 85.19 17 IAmb IAmb 01 00 36.1
comp=Z,79nm,0.8s
TMUT Trail Mountain 85.24 45 IAmb IAmb 01 00 38.5
comp=Z,100nm,0.7s
GLB Gilahina Butte 85.25 15 IAmb IAmb 01 00 36.0
comp=Z,104nm,0.7s
PLID Pearl Lake 85.28 39 IAmb IAmb 01 00 37.7
comp=Z,80nm,0.8s
LLLB Lillooet 85.36 32 P P 01 00 35.3 +0.5
LLLB IAmb IAmb 01 00 37.5
comp=Z,81nm,0.7s
HLID Hailey 85.40 41 P P 01 00 36.7 +1.4
comp=Z,1μmcomp=Z,75nm,1.4s,comp=Z,1μm
MCARA McCarthy VSAT 85.40 16 IAmb IAmb 01 00 37.5
comp=Z,83nm,1.0s
HNS HongShan 85.41 312 ⇓ **P P 01 00 35.8 +0.6**
HNS SKS **SKSac 01 10 19.3 -0.5**
HNS pmax pmax
comp=Z,210nm,1.0s
HNS pmax pmax
comp=Z,2μm,6.1s
H17K Granite Mounta 85.46 7 IAmb IAmb 01 00 36.7
comp=Z,181nm,2.0s
LOGN Logan Glacier 85.47 17 IAmb IAmb 01 00 37.4
comp=Z,75nm,0.8s
JIS Juneau Island 85.47 21 P P 01 00 37.5 +2.5
BARN Barnard Glacie 85.49 17 IAmb IAmb 01 00 37.6
comp=Z,111nm,0.9s
C09A Chrisman Ranch 85.54 35 IAmb IAmb 01 00 38.5
comp=Z,82nm,0.8s
BESE Bessie Mountai 85.55 21 IAmb IAmb 01 00 38.4
comp=Z,70nm,0.9s
KTH Kantishna Hill 85.55 12 IAmb IAmb 01 00 36.2
comp=Z,75nm,0.9s
J20K Nowinta River 85.56 10 P P 01 00 35.7 +0.4
J20K IAmb IAmb 01 00 37.4
comp=Z,68nm,0.8s
SRU San Rafael Swe 85.61 46 IAmb IAmb 01 00 39.6
comp=Z,119nm,0.7s
P17A Butcher Ranch, 85.64 45 IAmb IAmb 01 00 40.1
comp=Z,150nm,1.6s
O28M Mount Upton 85.65 17 IAmb IAmb 01 00 38.5
comp=Z,77nm,0.7s
LYN LuoYang 85.67 309 P P 01 00 37.1 +0.5
LYN sP sP 01 02 54.6 +0.4
LYN SKS **SKSac 01 10 20.3 -1.3**
LYN S **ScS 01 10 38.9 -1.6**
LYN pmax pmax
comp=Z,440nm,1.1s
LYN pmax pmax
comp=Z,3μm,4.0s
Y22A Socorro 85.68 52 IAmb IAmb 01 00 40.7
comp=Z,96nm,0.8s
BJI2 Beijing 85.70 315 P P 01 00 36.9 +0.3
BJI2 SKS **SKSac 01 10 20.3 -1.2**
BJI2 pmax pmax
comp=Z,130nm,1.9s
BJI2 pmax pmax
comp=Z,2μm,4.2s
BJT Baijiatuau 85.70 315 P P 01 00 38.5 +1.9
BJT Baijiatuau 85.70 315 IAmb IAmb 01 00 39.4
comp=Z,104nm,0.8s
BJT Baijiatuau 85.70 315 P P 01 00 37.1 +0.5
comp=Z,4μmcomp=Z,165nm,1.6s
BJT Baijiatuau 85.70 315 P P 01 00 37.3 +0.7
GSI Gunungsitoli 85.71 273 P P 01 00 39.1 +1.8
GSI Gunungsitoli 85.71 273 P P 01 00 38.2 +1.0
comp=Z,6μmcomp=Z,300nm,1.7s
GSI Gunungsitoli 85.71 273 P P 01 00 38.3 +1.0
comp=Z,5μmcomp=Z,302nm,1.7s
SEY Seymchan 85.73 347*ce* P **P 01 00 36.8 +0.6**
SEY pmax pmax
comp=Z,217nm,1.7s
RND Reindeer 85.82 12 P P 01 00 36.3 -0.4
RND pmax pmax
comp=Z,244nm,0.9s
RND Reindeer 85.82 12 P P 01 00 36.3 -0.4
TLIG Tlapa 85.83 70 IAmb IAmb 01 00 41.8
comp=Z,101nm,0.9s
MNTX Cornudas Mount 85.87 54 IAmb IAmb 01 00 41.7
comp=Z,153nm,0.9s
MNTX Cornudas Mount 85.87 54 P P 01 00 39.7 +2.0
comp=Z,3μmcomp=Z,197nm,1.0s
TCUT Toone Canyon 86.02 44 IAmb IAmb 01 00 41.7
comp=Z,88nm,0.8s
ENH Enshi 86.03 304 P P 01 00 40.7 +2.2
ENH Enshi 86.03 304 P P 01 00 39.0 +0.5
comp=Z,7μmcomp=Z,407nm,1.6s
SKAG Skagway 86.07 20 P P 01 00 40.1 +2.2
I20K Naaghedeneel 86.08 10 IAmb IAmb 01 00 42.0
comp=Z,142nm,1.2s
MVCO Mesa Verde 86.09 48 P P 01 00 39.8 +0.9
comp=Z,1μmcomp=Z,32nm,0.7s
MCK McKinley 86.10 12 P P 01 00 37.5 -0.5
MCK pmax pmax
comp=Z,146nm,0.8s
MCK McKinley 86.10 12 P P 01 00 37.5 -0.5
BSUT Blindstream Ca 86.16 45 IAmb IAmb 01 00 42.5
comp=Z,57nm,0.8s
HWUT Hardware Ranch 86.17 43 P P 01 00 39.9 +0.8
comp=Z,48nm,1.5s
TXAR Lajitas Array 86.20 57 P P 01 00 41.5 +2.1
comp=Z,77nm,0.8s,baz=216,slow=5.9,SNR=441
TXAR S **SKSac 01 10 26.2 +0.9**
comp=Z,0.2nm,0.8s,baz=292,slow=8.1,SNR=1.3
TXAR PKPPKP **P'P'df 01 26 42.6 +0.5**
comp=Z,0.6nm,0.9s,baz=72,slow=4.1,SNR=5.6
comp=Z,77nm,0.8s
PV10 Paradox Valley 86.26 47 IAmb IAmb 01 00 43.0
comp=Z,128nm,0.8s
KCSI Kotacane, Aceh 86.27 275 P P 01 00 40.7 +0.7
M26K Nabesna, AK 86.27 15 IAmb IAmb 01 00 41.8
comp=Z,67nm,0.9s
PV17 East Wray Mesa 86.27 47 IAmb IAmb 01 00 42.7
comp=Z,135nm,1.0s
PV18 Skein Mesa, Pa 86.29 47 IAmb IAmb 01 00 42.8
comp=Z,167nm,1.1s
PV20 West Nyswonger 86.30 47 IAmb IAmb 01 00 43.3
comp=Z,150nm,0.9s
PV13 Radium Mtn., P 86.31 47 IAmb IAmb 01 00 42.9
comp=Z,143nm,1.1s
PV16 Nyswonger Mesa 86.32 47 IAmb IAmb 01 00 43.0
comp=Z,144nm,1.2s
PV03 Paradox Valley 86.34 47 P P 01 00 40.4 +0.3
PV03 IAmb IAmb 01 00 43.0
comp=Z,139nm,1.2s
S34M Telegraph Cree 86.35 23 IAmb IAmb 01 00 43.0
comp=Z,122nm,0.8s
PV04 Paradox Valley 86.36 47 IAmb IAmb 01 00 43.3
comp=Z,121nm,0.9s
COYC Coyhue 86.37 137 P P 01 00 42.4 +2.6
comp=Z,205nm,1.5s
PV02 Paradox Valley 86.39 47 IAmb IAmb 01 00 43.3
comp=Z,136nm,1.0s
PV12 Saucer Basin, 86.40 47 IAmb IAmb 01 00 43.5
comp=Z,154nm,1.0s
BCYI Bear Canyon 86.41 40 IAmb IAmb 01 00 43.7
comp=Z,170nm,1.5s
NEW Newport 86.44 36 P P 01 00 41.0 +1.0
comp=Z,68nm,1.0s
H19K Roundabout Mou 86.47 9 IAmb IAmb 01 00 42.0
comp=Z,195nm,1.7s
PV01 Paradox Valley 86.47 47 IAmb IAmb 01 00 43.6
comp=Z,140nm,0.9s
TASM ASL Pad, Albuq 86.51 51 IAmb IAmb 01 00 44.3
comp=Z,86nm,0.9s
TASM ASL Pad, Albuq 86.51 51 IAmb IAmb 01 00 44.3
comp=Z,85nm,0.9s

ALQ Albuquerque 86.51 51 lAmb lAmb 01 00 44.3
comp=Z,91nm,0.9s
ALQ Albuquerque 86.51 51 lAmb lAmb 01 00 44.2
comp=Z,87nm,0.9s
ANMO Albuquerque 86.51 51 *d* iP **P 01 00 41.7 +0.8**
ANMO pmax pmax
comp=Z,110nm,0.9s
ANMO Albuquerque 86.51 51 P **P 01 00 42.2 +1.3**
ANMO lAmb lAmb 01 00 44.7
comp=Z,79nm,0.9s
ANMO Albuquerque 86.51 51 P **P 01 00 42.3 +1.5**
comp=Z,1µmcomp=Z,118nm,1.0s
ANMO Albuquerque 86.51 51 P **P 01 00 42.0 +1.1**
PV22 Blue Mesa, Par 86.51 47 lAmb lAmb 01 00 44.0
comp=Z,180nm,1.2s
M27K Edge Creek, AK 86.52 16 lAmb lAmb 01 00 42.8
comp=Z,105nm,0.9s
TPB28 86.54 55 lAmb lAmb 01 01 58.6
comp=Z,246nm,0.4s
MENT Mentasta 86.55 15 P **P 01 00 41.2 +1.0**
PV07 Paradox Valley 86.56 47 lAmb lAmb 01 00 44.1
comp=Z,133nm,1.1s
PV15 Paradox Valley 86.63 47 lAmb lAmb 01 00 44.9
comp=Z,138nm,1.0s
Q32M Nakina River 86.72 22 P **P 01 00 42.2 +0.9**
Q32M lAmb lAmb 01 00 44.2
comp=Z,61nm,0.7s
TPTI 86.74 275 P **P 01 00 43.3 +1.1**
comp=Z,2µmcomp=Z,113nm,1.4s
K24K Donnelly Dome 86.83 13 lAmb lAmb 01 00 43.6
comp=Z,123nm,0.9s
I21K Tanana 86.85 10 lAmb lAmb 01 00 43.8
comp=Z,62nm,0.8s
O30N Mendenhall 86.85 19 lAmb lAmb 01 00 44.4
comp=Z,76nm,1.0s
PECS Pecos 86.90 55 P **P 01 00 44.5 +1.9**
PECS lAmb lAmb 01 00 46.2
comp=Z,146nm,1.2s
WRH Wood River Hil 86.93 12 lAmb lAmb 01 00 44.0
comp=Z,129nm,0.9s
RIDG Independent Ri 86.98 14 lAmb lAmb 01 00 44.2
comp=Z,95nm,1.2s
SLVN Son La 87.04 294 P **P 01 00 44.8 +1.3**
SLVN Son La 87.04 294 P **P 01 00 44.6 +1.1**
comp=Z,2µmcomp=Z,51nm,1.8s
AHID Auburn Hatcher 87.05 42 lAmb lAmb 01 00 46.5
comp=Z,166nm,1.6s
AHID Auburn Hatcher 87.05 42 P **P 01 00 44.2 +0.9**
comp=Z,1µmcomp=Z,66nm,2.2s
HDA Harding Lake 87.11 13 lAmb lAmb 01 00 44.3
comp=Z,73nm,0.7s
DLBC Dease Lake 87.13 23 PKPPKP **P'P'df 01 26 42.0 +2.8**
comp=Z,1.1nm,0.8s,baz=357,slow=17,SNR=3.1
BCAR Beaver Creek A 87.13 15 P **P 01 00 44.0 +1.0**
LL05 Los Muermos 87.14 133 lAmb lAmb 01 00 47.2
comp=Z,94nm,1.0s
CCB Clear Creek Bu 87.14 12 lAmb lAmb 01 00 44.1
comp=Z,90nm,0.6s
WHY Whitehorse 87.14 19 lAmb lAmb 01 00 45.9
comp=Z,99nm,0.9s
TIY Taiyuan 87.15 312 *e*P **P 01 00 44.4 +0.7**
TIY SKS **SKSac 01 10 32.5 +1.9**
TIY S **S 01 10 49.4 +2.1**
TIY pmax pmax
comp=Z,150nm,1.3s
TIY pmax pmax
comp=Z,1µm,5.5s
ZEA Zeya 87.20 331 *e*P **P 01 00 44.7 +1.3**
ZEA *e*S **SKSac 01 10 31.7 +1.7**
ZEA pmax pmax
comp=N,60nm,0.9s
ZEA pmax pmax
comp=E,30nm,0.9s
ZEA pmax pmax
comp=Z,150nm,1.0s
ZEA smax smax
comp=E,400nm,4.1s
ZEA smax smax
comp=N,700nm,5.1s
ZEA MLR MLR
comp=Z,200nm,19.0s
I23K Minto, Yukon-K 87.29 11 lAmb lAmb 01 00 44.9
comp=Z,110nm,1.5s
IMAR Indian Mountai 87.30 9 P **P 01 00 43.3 -0.3**
COLA College 87.33 12 P **P 01 00 43.7 -0.1**
COLA College 87.33 12 *d* iP **P 01 00 42.5 -1.3**
COLA pmax pmax
comp=Z,149nm,0.8s
COLA College 87.33 12 P **P 01 00 43.5 -0.3**
COLA College 87.33 12 P **P 01 00 43.6 -0.1**
comp=Z,2µmcomp=Z,209nm,0.9s
COLA College 87.33 12 P **P 01 00 43.4 -0.3**
COLA pP **pwP 01 02 20.9 -0.4**
IL31 87.44 13 lAmb lAmb 01 00 45.7
comp=Z,84nm,1.1s
ILAR Eielson Array 87.44 13 P **P 01 00 44.0 -0.3**
comp=Z,29nm,0.7s,baz=214,slow=4.9,SNR=125
ILAR PP **PP 01 04 14.5 -1.9**
comp=Z,9.6nm,1.2s,baz=222,slow=6.9,SNR=4.4
ILAR PKiKP **PKiKP 01 05 45.6 +0.4**
comp=Z,1.0nm,0.7s,baz=189,slow=7.3,SNR=4.7
ILAR PKKPbc **PKKPbc 01 18 31.6 -3.1**
comp=Z,0.7nm,0.5s,baz=354,slow=2.5,SNR=7.3
ILAR PKPPKP 01 26 39.0
comp=Z,1.1nm,1.0s,baz=326,slow=3.0,SNR=5.2
comp=Z,29nm,0.7s
ELIB Princess Elisa 87.47 186 *d*P **P 01 00 44.7 -0.1**
ELIB *dx* x 01 00 59.8
ELIB *dp*P **pwP 01 02 22.0 -0.6**
R33M Jennings River 87.49 22 lAmb lAmb 01 00 47.8
comp=Z,120nm,1.4s
M29M Somme Creek 87.50 17 P **P 01 00 44.8 +0.1**
M29M lAmb lAmb 01 00 47.3
comp=Z,70nm,0.8s
LL02 Futaleuf 87.51 135 lAmb lAmb 01 00 49.7
comp=Z,88nm,1.1s
N31M Braeburn, Yuko 87.51 19 lAmb lAmb 01 00 47.4
comp=Z,77nm,0.9s
TPB06 Permian Basin 87.52 55 lAmb lAmb 01 00 49.7
comp=Z,97nm,1.0s
LDM Libby Dam 87.54 36 lAmb lAmb 01 00 48.2
comp=Z,111nm,0.8s
CPRX Cap Rock 87.61 54 P **P 01 00 47.7 +1.6**
H22K Ishtalitna Cre 87.61 10 lAmb lAmb 01 00 47.0
comp=Z,79nm,0.7s
SNOW Snow King Moun 87.62 42 lAmb lAmb 01 00 49.4
comp=Z,104nm,0.9s
LHMI Lhok Sumawe 87.62 276 P **P 01 00 47.5 +1.2**
LHMI Lhok Sumawe 87.62 276 P **P 01 00 46.8 +0.5**
comp=Z,4µmcomp=Z,348nm,1.2s
POKR Poker Plat Res 87.63 12 lAmb lAmb 01 00 46.4
comp=Z,75nm,0.7s
O20A White River Ci 87.64 46 lAmb lAmb 01 00 49.2
comp=Z,68nm,0.9s
SAND Sanderson 87.68 57 lAmb lAmb 01 00 49.6
comp=Z,90nm,1.0s
MNHN Monahans 87.75 56 lAmb lAmb 01 00 50.5
comp=Z,120nm,0.9s
BUT Butte 87.81 39 lAmb lAmb 01 00 49.7
comp=Z,114nm,0.8s
G21K Allakaket 87.83 9 lAmb lAmb 01 00 48.2
comp=Z,60nm,0.8s
QLMT Earthquake Lak 87.89 41 P **P 01 00 49.2 +2.1**
LL03 Petrohue 87.99 133 P **P 01 00 49.4 +1.8**
comp=Z,101nm,1.4s
YHB Horse Butte 87.99 41 lAmb lAmb 01 00 52.2
comp=Z,119nm,1.0s
YPP Pitchstone Pla 87.99 41 lAmb lAmb 01 00 52.5
comp=Z,128nm,1.6s
PDAR Pinedale Array 88.04 43 P **P 01 00 48.8 +0.9**
comp=Z,33nm,0.7s,baz=208,slow=3.3,SNR=192
PDAR PKKPbc **PKKPbc 01 18 31.5 -0.9**
comp=Z,2.5nm,0.8s,baz=88,slow=4.6,SNR=11
PDAR PKPPKP **P'P'df 01 26 40.0 +1.7**
comp=Z,1.0nm,0.9s,baz=90,slow=3.3,SNR=5.7
comp=Z,33nm,0.7s
PDAR Pinedale Array 88.04 43 P **P 01 00 49.0 +1.1**
YFT Old Faithful 88.06 41 lAmb lAmb 01 00 53.3
comp=Z,111nm,1.0s
M30M Minto, Yukon 88.07 18 lAmb lAmb 01 00 49.7
comp=Z,79nm,0.8s
XAN Xi'an 88.08 307 ⇓P **P 01 00 48.8 +0.7**
XAN SKS **SKSac 01 10 34.9 -1.4**
XAN S **ScS 01 11 01.0 +0.3**
XAN sS sS 01 13 39.9 -6.1
XAN SS **SS 01 17 02.3 +5.7**
XAN pmax pmax
comp=Z,380nm,1.2s
XAN pmax pmax
comp=Z,3µm,6.4s
YMR Madison River 88.09 41 lAmb lAmb 01 00 52.2
comp=Z,68nm,0.9s
L29M L29M 88.12 17 P **P 01 00 47.8 +0.2**
BOZ Bozeman (W) 88.16 40 lAmb lAmb 01 00 52.4
comp=Z,131nm,0.9s
H17A Grant Village 88.20 41 lAmb lAmb 01 00 53.7
comp=Z,101nm,1.0s
E19K Redstone River 88.20 8 lAmb lAmb 01 00 49.8
comp=Z,57nm,0.8s
YHH Holmes Hill 88.22 41 lAmb lAmb 01 00 53.7
comp=Z,96nm,1.1s
YNR Norris Junctio 88.29 41 lAmb lAmb 01 00 55.0
comp=Z,129nm,1.2s
BILL Bilibino 88.31 354 *d* iP **P 01 00 47.6 -0.7**
BILL pmax pmax
comp=Z,98nm,1.6s
BILL Bilibino 88.31 354 P **P 01 00 48.9 +0.6**
BILI Bilibino, Chuk 88.32 354 P **P 01 00 48.2 -0.2**
comp=Z,2µmcomp=Z,72nm,1.6s
HIA Hailar 88.36 324 P **P 01 00 51.3 +2.3**
HIA Hailar 88.36 324 *d* iP **P 01 00 48.3 -0.7**
HIA pmax pmax
comp=Z,116nm,1.0s
HIA Hailar 88.36 324 lAmb lAmb 01 00 51.6
comp=Z,89nm,0.9s
HIA Hailar 88.36 324 P **P 01 00 49.5 +0.5**
comp=Z,2µmcomp=Z,108nm,1.4s
TMB01 Midkiff 88.41 56 lAmb lAmb 01 00 53.1
comp=Z,71nm,0.9s
128A Castleberry Fa 88.49 55 lAmb lAmb 01 00 53.5
comp=Z,91nm,0.8s
F21K Alatna River 88.49 9 P **P 01 00 48.5 -0.7**
TROLL Troll, Antarti 88.51 180 ⇓P **P 01 00 49.7 +0.1**
comp=Z,2µm,0.8s
TROLL ⇑pP **pP 01 02 23.0 -1.1**
comp=Z,28µm,3.1s
TROLL ⇓SKSac **SKSac 01 10 37.2 -0.8**
comp=E,2µm,1.1s
HILR Hailar Array B 88.52 325 P **P 01 00 50.3 +0.5**
comp=E,59nm,0.6s,baz=133,slow=6.5,SNR=51
HILR S **SKSac 01 10 37.3 -0.9**
comp=E,1.2nm,0.3s,baz=129,slow=11,SNR=1.3
comp=E,59nm,0.6s
LR05 Currie 88.64 132 lAmb lAmb 01 00 54.1
comp=Z,156nm,1.2s
229A Bryant Ranch, 88.74 55 lAmb lAmb 01 00 55.1
comp=Z,93nm,1.0s
WTLY Watson Lake, Y 88.77 22 lAmb lAmb 01 00 53.5
comp=Z,128nm,1.0s
SNAA Sanae 88.77 178 ⇓P **P 01 00 50.4 -0.3**
comp=Z,921nm,0.9s
SNAA ⇑pP **pP 01 02 25.8 +0.5**
comp=Z,14µm,4.5s
SNAA ⇓SKSac **SKSac 01 10 38.3 -1.0**
comp=N,2µm,1.0s
SNAA Sanae 88.77 178 P **P 01 00 51.4 +0.6**
comp=N,27nm,1.0s,baz=197,slow=4.5,SNR=32
SNAA S **SKSac 01 10 38.5 -0.8**
comp=N,19nm,0.9s,baz=166,slow=24,SNR=50
comp=N,27nm,1.0s
SNAA Sanae 88.77 178 *i* P **P 01 00 49.2 -1.5**
SNAA pmax pmax
comp=Z,61nm,1.2s
SNAA Sanae 88.77 178 P **P 01 00 51.3 +0.6**
SNAA Sanae 88.77 178 P **P 01 00 50.8 +0.1**
comp=Z,1µmcomp=Z,42nm,0.9s,comp=Z,1µm
YNE Yellowstone No 88.85 41 lAmb lAmb 01 00 56.1
comp=Z,154nm,1.0s
OZNA Ozona 88.85 57 lAmb lAmb 01 00 55.0
comp=Z,94nm,1.0s
K29M Barlow Dome 88.88 17 lAmb lAmb 01 00 53.9
comp=Z,97nm,0.8s
VNA3 Neumayer Olymp 88.88 176 ⇓P **P 01 00 51.0 -0.2**
comp=Z,194nm,0.7s
VNA3 ⇑SKSac **SKSac 01 10 38.3 -1.5**
comp=E,7.4nm,1.1s
VNA3 ⇑S **S 01 10 59.0 -3.4**
comp=E,44nm,1.4s
VNA3 Neumayer Olymp 88.88 176 P **P 01 00 51.2 0.0**
comp=Z,2µmcomp=Z,330nm,0.7s,comp=Z,2µm
HHC Hu-ho-hao-te 89.18 314 *i* P **P 01 00 55.3 +2.1**
HHC pP pP 01 02 27.6 -1.1
HHC PP **PP 01 04 27.4 -3.5**
HHC SKS **SKSac 01 10 41.6 -1.0**
HHC S **ScS 01 11 11.9 +2.2**
HHC pmax pmax
comp=Z,140nm,1.2s
HHC pmax pmax
comp=Z,180nm,5.8s
J29N Klondike Camp 89.18 16 P **P 01 00 53.1 +0.6**
833A Chaparral WMA, 89.22 60 lAmb lAmb 01 00 56.9
comp=Z,72nm,0.9s
SGCY Sterling City 89.25 56 lAmb lAmb 01 00 56.6
comp=Z,106nm,1.0s
BSI Banda Aceh 89.26 276 P **P 01 00 54.6 +0.6**
comp=Z,3µmcomp=Z,189nm,1.2s
GO06 Curarrehue 89.28 132 lAmb lAmb 01 00 57.2
comp=Z,83nm,1.1s
GO06 Curarrehue 89.28 132 P **P 01 00 54.9 +1.1**
comp=Z,82nm,1.1s
ISCO Idaho Springs 89.28 47 P **P 01 00 54.6 +0.7**
VNA2 Neumayer--Watz 89.33 177 ⇓P **P 01 00 53.7 +0.4**
comp=Z,143nm,0.6s,baz=174,slow=4.0
VNA2 ⇑pP **pP 01 02 27.9 -0.1**
comp=Z,290nm,2.0s,baz=188,slow=7.2
VNA2 ⇓SKSac **SKSac 01 10 41.2 -1.3**
comp=E,13nm,1.2s
VNA2 ⇓S **S 01 11 03.0 -3.5**
comp=E,29nm,1.2s
VNA2 Neumayer--Watz 89.33 177 P **P 01 00 53.2 -0.1**
comp=Z,2µmcomp=Z,267nm,0.8s
RLMT Red Lodge 89.36 41 lAmb lAmb 01 00 58.2
comp=Z,108nm,1.0s
PLCA Paso Flores 89.43 133 P **P 01 00 55.8 +1.3**
comp=Z,27nm,1.0s,baz=236,slow=5.2,SNR=14
PLCA S **SKSac 01 10 44.0 -0.4**
comp=Z,1.0nm,0.8s,baz=307,slow=18,SNR=1.7
PLCA PKKPbc **PKKPbc 01 18 28.7 +0.7**
comp=Z,5.8nm,0.9s,baz=49,slow=2.9,SNR=10
PLCA PKPPKP 01 26 32.5
comp=Z,2.9nm,1.0s,baz=270,slow=10,SNR=3.5
comp=Z,27nm,1.0s
PLCA Paso Flores 89.43 133 P **P 01 00 56.3 +1.8**
PLCA pmax pmax
comp=Z,76nm,1.3s
PLCA Paso Flores 89.43 133 P **P 01 00 56.3 +1.8**
PLCA Paso Flores 89.43 133 P **P 01 00 56.2 +1.8**
comp=Z,51nm,1.4s
PLCA Paso Flores 89.43 133 *e*P **P 01 00 52.9 -1.5**
GCMT Greycliff 89.44 40 P **P 01 00 56.5 +2.2**
KMI2 Kunming 89.46 297 ⇓P **P 01 00 56.4 +1.4**
KMI2 pP pP 01 02 32.5 +2.1
KMI2 sP sP 01 03 13.2 -0.1
KMI2 SKS **SKSac 01 10 45.6 +0.4**
KMI2 S **S 01 11 10.5 +0.8**
KMI2 sS sS 01 13 51.3 -8.8
KMI2 pmax pmax
comp=Z,120nm,1.6s
KMI2 pmax pmax
comp=Z,1µm,5.7s
D20K Etivluk River 89.47 7 lAmb lAmb 01 00 55.8
comp=Z,81nm,0.8s
NVL N'lazarevskaya 89.52 183 ⇑ *i* P **P 01 00 53.2 -0.9**
NVL *e**PP **pP 01 02 29.7 +0.9**
NVL *e*PPP PPP 01 06 33.5
NVL *e*S **SKSac 01 10 40.4 -3.1**
NVL *e*SS **SS 01 17 18.7 +4.6**
NVL pmax pmax
comp=Z,59nm,0.8s
VNA1 Neumayer--Stat 89.56 176 ⇓P **P 01 00 54.7 +0.5**
comp=Z,137nm,0.8s
F24K Squaw Lake 89.68 11 lAmb lAmb 01 00 57.1
comp=Z,54nm,0.7s
JCT Junction City 89.73 57 lAmb lAmb 01 00 59.1
comp=Z,59nm,0.8s
I29M Ogilvie Camp, 89.89 15 P **P 01 00 55.6 -0.2**
SN07 Snyder 07 89.91 55 lAmb lAmb 01 00 59.2
comp=Z,93nm,0.9s
K22A Casper 89.95 44 lAmb lAmb 01 00 59.7
comp=Z,105nm,1.1s
G26K Porcupine Rive 89.97 13 lAmb lAmb 01 00 59.7
comp=Z,75nm,0.9s
AMTX Amarillo 90.03 53 P **P 01 00 58.2 +1.0**
AMTX lAmb lAmb 01 01 00.1
comp=Z,104nm,0.9s
PH02 Texas Public H 90.03 52 lAmb lAmb 01 01 00.1
comp=Z,69nm,0.8s
EF02 Christine 90.09 59 lAmb lAmb 01 01 02.7
comp=Z,106nm,0.9s
DKNS Dickens 90.11 54 lAmb lAmb 01 01 00.3
comp=Z,89nm,1.3s
D22K Ayikyak River 90.14 9 lAmb lAmb 01 00 59.3
comp=Z,78nm,0.7s
KVTX Kingsville 90.15 61 P **P 01 01 00.1 +2.3**
comp=Z,151nm,1.1s
BMAR Burnt Mountain 90.22 12 P **P 01 00 57.6 +0.3**
I30M Mount Dempster 90.28 16 lAmb lAmb 01 01 00.3
comp=Z,77nm,1.0s
BTO2 Baotou 90.28 314 *e*P **P 01 00 58.9 +0.6**
BTO2 S **S 01 11 09.6 -6.6**
BTO2 pmax pmax
comp=Z,190nm,1.4s
BTO2 pmax pmax
comp=Z,3µm,3.8s
CM31 Chiang Mai Arr 90.35 289 P **P 01 01 00.5 +1.5**
SNR=30
CMAR Chiang Mai Arr 90.35 289 P **P 01 00 59.3 +0.4**
comp=Z,60nm,1.0s,baz=112,slow=2.5,SNR=131
CMAR S **SKSac 01 10 50.2 +0.2**
comp=Z,0.9nm,0.3s,baz=106,slow=4.6,SNR=1.9
CMAR PKKPbc **PKKPbc 01 18 27.3 +2.1**
comp=Z,4.1nm,0.7s,baz=287,slow=4.6,SNR=15
CMAR SKKPbc **SKKPbc 01 21 24.2 +0.2**
comp=Z,0.9nm,0.3s,baz=298,slow=3.1,SNR=4.0
CMAR PKPPKP **P'P'df 01 26 31.2 -3.7**
comp=Z,1.2nm,0.2s,baz=273,slow=4.1,SNR=4.1
comp=Z,60nm,1.0s
CMAR Chiang Mai Arr 90.35 289 P **P 01 01 00.2 +1.2**
CMAR Chiang Mai Arr 90.35 289 P **P 01 01 00.2 +1.2**
CHTO Chiang Mai 90.47 290 P **P 01 01 01.0 +1.5**
CHTO Chiang Mai 90.47 290 P **P 01 01 00.8 +1.3**
CHTO Chiang Mai 90.47 290 P **P 01 01 00.1 +0.6**
CHTO pmax pmax
comp=Z,72nm,0.9s
CHTO Chiang Mai 90.47 290 P **P 01 01 00.1 +0.6**
CHTO lAmb lAmb 01 01 02.6
comp=Z,72nm,0.9s
CHTO Chiang Mai 90.47 290 P **P 01 01 00.6 +1.1**
comp=Z,2µmcomp=Z,123nm,1.7s
CHTO Chiang Mai 90.47 290 P **P 01 01 00.7 +1.1**
comp=Z,2µmcomp=Z,122nm,1.7s
EGMT Eagleton 90.49 38 lAmb lAmb 01 01 02.0
comp=Z,69nm,1.1s
D23K Nanushuk River 90.52 9 lAmb lAmb 01 01 01.6
comp=Z,86nm,1.0s
H29M Whitestone 90.57 15 lAmb lAmb 01 01 01.6
comp=Z,120nm,0.9s
BI02 San Fabin de 90.66 129 P **P 01 01 00.2 0.0**
comp=Z,46nm,1.0s
BRDY Brady 90.67 57 lAmb lAmb 01 01 03.0
comp=Z,73nm,1.1s
ABTX Abilene, Hawle 90.69 56 P **P 01 01 01.0 +0.8**
PZH PanZhiHua 90.81 298 P **P 01 01 02.9 +1.8**
PZH SKS **SKSac 01 10 50.3 -2.3**
PZH S **ScS 01 11 22.8 -1.0**
PZH pmax pmax
comp=Z,90nm,1.1s
PZH pmax pmax
comp=Z,910nm,5.4s
CD2 Chengdu 90.81 303 P **P 01 01 02.9 +2.0**
CD2 SKS **SKSac 01 10 50.7 -1.5**
CD2 S **ScS 01 11 24.7 +1.2**
CD2 pmax pmax
comp=Z,50nm,1.2s
CD2 pmax pmax
comp=Z,2µm,5.1s
GO05 Hualane 90.88 128 P **P 01 01 02.4 +1.1**
comp=Z,48nm,1.4s
ML02 Panimavida 90.94 129 lAmb lAmb 01 01 04.8
comp=Z,108nm,1.3s
ML02 Panimavida 90.94 129 P **P 01 01 01.9 +0.4**
comp=Z,73nm,1.6s
EPYK Eagle Plains 91.10 15 lAmb lAmb 01 01 03.4
comp=Z,80nm,0.8s
CCIG Comitan 91.11 73 lAmb lAmb 01 01 06.4
comp=Z,49nm,0.9s
EDM Edmonton 91.17 33 P **P 01 01 01.7 -0.3**
EDM pmax pmax
comp=Z,73nm,0.8s
EDM Edmonton 91.17 33 P **P 01 01 01.7 -0.3**
EDM lAmb lAmb 01 01 04.1
comp=Z,72nm,0.8s
SMWD Samnorwood 91.20 53 lAmb lAmb 01 01 05.9
comp=Z,80nm,1.0s
G29M Pine Creek 91.21 15 lAmb lAmb 01 01 04.4
comp=Z,49nm,0.8s
EFI East Falkland 91.45 147 *i* P **P 01 01 03.8 +0.4**
EFI pmax pmax
comp=Z,127nm,0.9s
EFI East Falkland 91.45 147 P **P 01 01 04.7 +1.3**
EFI lAmb lAmb 01 01 06.0
comp=Z,89nm,0.9s
EFI East Falkland 91.45 147 P **P 01 01 05.2 +1.7**
comp=Z,124nm,1.5s
E27K Coleen River 91.47 13 lAmb lAmb 01 01 05.6
comp=Z,82nm,1.6s
YAK Yakutsk 91.59 338 P **P 01 01 03.9 +0.3**
comp=Z,80nm,1.0s,baz=147,slow=8.9,SNR=27
comp=Z,80nm,1.0s
YAK Yakutsk 91.59 338 *d* iP **P 01 01 01.7 -1.9**
YAK *e**PP **pP 01 02 37.1 -1.8**
YAK *e* 01 04 44.7
YAK *e*S **SKSac 01 10 52.6 -2.4**
YAK pmax pmax
comp=Z,104nm,1.1s
YAK pmax pmax
comp=N,12nm,1.0s
YAK pmax pmax
comp=E,28nm,1.4s
YAK pmax pmax
comp=Z,275nm,2.8s
YAK pmax pmax
comp=E,259nm,2.8s
YAK pmax pmax
comp=N,223nm,2.6s
YAK smax smax
comp=E,114nm,2.0s
YAK smax smax
comp=N,214nm,2.3s
YAK Yakutsk 91.59 338 P **P 01 01 04.4 +0.8**
YAK lAmb lAmb 01 01 04.9
comp=Z,112nm,1.0s
YAK Yakutsk 91.59 338 P **P 01 01 01.9 -1.6**
comp=Z,2µmcomp=Z,147nm,1.6s
BO02 Sierra Bellavi 91.83 128 P **P 01 01 06.5 +0.8**
comp=Z,45nm,2.0s
MT01 Popeta 91.87 127 lAmb lAmb 01 01 08.6
comp=Z,54nm,0.8s
LAO LASA Array 91.98 41 P **P 01 01 07.3 +1.4**
WTFS Witchita Falls 92.04 55 lAmb lAmb 01 01 09.2
comp=Z,76nm,0.9s
WHTX Lake Whitney, 92.16 57 lAmb lAmb 01 01 09.9
comp=Z,56nm,0.8s
WMOK Wichita Mounta 92.16 54 P **P 01 01 07.2 +0.2**
comp=Z,24nm,1.5s
ELIS Ellis County 92.19 52 lAmb lAmb 01 01 10.9
comp=Z,112nm,1.1s
RSSD Black Hills 92.23 44 P **P 01 01 08.2 +0.8**
RSSD pmax pmax
comp=Z,144nm,1.0s
RSSD Black Hills 92.23 44 P **P 01 01 08.2 +0.8**
RSSD Black Hills 92.23 44 P **P 01 01 08.0 +0.6**
comp=Z,2µmcomp=Z,162nm,1.1s
OGNE Ogallala 92.25 47 lAmb lAmb 01 01 10.1
comp=Z,53nm,1.0s
FW13 Cleburne 92.31 57 lAmb lAmb 01 01 10.6
comp=Z,68nm,0.8s
C26K Camden Bay 92.31 11 lAmb lAmb 01 01 09.4
comp=Z,50nm,0.9s
FW06 Azle 92.44 56 P **P 01 01 09.6 +1.3**
FW06 lAmb lAmb 01 01 11.2
comp=Z,80nm,1.1s
PEL Peldehue 92.60 126 lAmb lAmb 01 01 12.2
comp=Z,52nm,1.0s
PEL Peldehue 92.60 126 P **P 01 01 11.7 +2.4**
comp=Z,55nm,1.4s
LZH Lanzhou 92.71 307 P **P 01 01 10.8 +1.1**
LZH pP pP 01 02 47.6 +2.2
LZH SKS **SKSac 01 10 59.5 -3.4**
LZH S **ScS 01 11 44.2 +4.8**
LZH pmax pmax

comp=Z,160nm,1.3s
LZH pmax pmax
comp=Z,840nm,4.8s
HKT Hockley 92.71 59 *e*P **P 01 01 11.3 +1.8**
HKT pmax pmax
comp=Z,113nm,1.6s
HKT Hockley 92.71 59 P **P 01 01 11.4 +1.9**
comp=Z,798nmcomp=Z,59nm,1.5s
WRGLY Wrigley 92.76 22 IAmb IAmb 01 01 11.2
comp=Z,43nm,0.8s
NOKA Waynoka 92.77 52 IAmb IAmb 01 01 12.6
comp=Z,71nm,1.2s
LZDM Lanzhou Array 92.77 307 P **P 01 01 10.3 +0.1**
comp=Z,12nm,0.6s,baz=84,slow=4.6,SNR=25
LZDM S **SKSac 01 11 02.3 -1.3**
comp=Z,1.2nm,0.3s,baz=122,slow=6.8,SNR=1.4
LZDM PKKPbc **PKKPbc 01 18 21.6 +1.3**
comp=Z,3.7nm,0.4s,baz=270,slow=1.5,SNR=3.7
comp=Z,12nm,0.6s
X34A Smith Ranch, M 92.83 54 IAmb IAmb 01 01 13.6
comp=Z,84nm,0.9s
OK038 West end E0370 92.85 52 IAmb IAmb 01 01 13.0
comp=Z,88nm,1.1s
TNCH TengChong 93.00 295 P **P 01 01 12.1 +0.8**
TNCH pP pP 01 02 47.3 +0.3
TNCH sP sP 01 03 28.6 -1.3
TNCH PP **PP 01 05 02.9 +1.8**
TNCH SKS **SKSac 01 11 06.4 +1.5**
TNCH S **S 01 11 40.8 -0.3**
TNCH SS **SS 01 18 09.0 +1.4**
TNCH pmax pmax
comp=Z,76nm,0.5s
TNCH pmax pmax
comp=Z,800nm,3.0s
LOOK Love County 93.11 55 IAmb IAmb 01 01 14.8
comp=Z,43nm,0.9s
CIT Chita 93.16 325 *e*P **P 01 01 12.4 +1.2**
CIT *e* 01 02 44.4
CIT *e* 01 04 58.2
CIT *e*S **SKSac 01 11 04.8 +0.5**
CIT *e* 01 11 38.1
CIT *e* 01 13 30.0
CIT pmax pmax
comp=Z,320nm,2.2s
NPW Naypyitaw 93.29 290 P **P 01 01 13.3 +0.9**
comp=Z,2µmcomp=Z,82nm,1.5s
INK Inuvik 93.38 15 PP **PP 01 04 59.1 -3.8**
comp=Z,2.8nm,0.8s,baz=237,slow=8.0,SNR=3.2
INK Inuvik 93.38 15 P **P 01 01 11.0 -0.7**
INK pmax pmax
comp=Z,53nm,1.0s
INK Inuvik 93.38 15 P **P 01 01 11.0 -0.7**
INK IAmb IAmb 01 01 13.9
comp=Z,53nm,0.9s
KAN01 Argonia South 93.84 52 IAmb IAmb 01 01 18.4
comp=Z,44nm,0.9s
DGMT Dagmar 93.99 40 P **P 01 01 16.3 +1.2**
BLOK Blackwell 94.10 53 IAmb IAmb 01 01 18.6
comp=Z,45nm,1.2s
OK052 Battle Ridge R 94.13 53 IAmb IAmb 01 01 19.1
comp=Z,40nm,1.0s
OK048 Pawnee Station 94.18 53 IAmb IAmb 01 01 18.9
comp=Z,47nm,1.2s
QUOK Quay 94.27 53 IAmb IAmb 01 01 19.1
comp=Z,59nm,1.0s
DEOK Depew 94.31 54 P **P 01 01 18.1 +1.3**
DEOK IAmb IAmb 01 01 19.4
comp=Z,51nm,1.2s
Z38A Mt. Pleasant 94.56 56 IAmb IAmb 01 02 43.7
comp=Z,28nm,0.4s
SNAG San Augustine 94.60 58 IAmb IAmb 01 01 22.3
comp=Z,42nm,0.8s
T35A Sooner Cattle 94.68 53 IAmb IAmb 01 01 21.6
comp=Z,34nm,0.8s
ULN Ulaanbaatar 95.11 319 P **P 01 01 21.4 +1.1**
ULN Ulaanbaatar 95.11 319*ce*P **P 01 01 20.7 +0.3**
ULN pmax pmax
comp=Z,58nm,1.4s
ULN Ulaanbaatar 95.11 319 P **P 01 01 21.6 +1.3**
ULN IAmb IAmb 01 01 22.3
comp=Z,58nm,1.3s
ULN Ulaanbaatar 95.11 319 P **P 01 01 21.6 +1.3**
ULN Ulaanbaatar 95.11 319 P **P 01 01 20.2 -0.2**
comp=Z,792nmcomp=Z,35nm,1.3s
CFA Coronel Fontan 95.14 126 P **P 01 01 21.4 +0.6**
comp=Z,7.4nm,0.8s,baz=290,slow=1.0,SNR=5.0
CFA PKKPbc **PKKPdf 01 18 12.6 +0.6**
comp=Z,0.5nm,0.3s,baz=27,slow=3.8,SNR=4.1
comp=Z,7.4nm,0.8s
E28A Huff 95.39 42 IAmb IAmb 01 01 23.6
comp=Z,51nm,1.1s
SONM Songino Array 95.51 319 P **P 01 01 22.3 +0.2**
comp=Z,8.2nm,0.9s,baz=128,slow=3.7,SNR=46
SONM PP **PP 01 05 16.4 -3.6**
comp=Z,2.1nm,0.8s,baz=129,slow=8.4,SNR=5.4
SONM S **SKSac 01 11 17.3 +0.1**
comp=Z,0.6nm,0.7s,baz=329,slow=6.4,SNR=2.9
SONM PKKPbc **PKKPbc 01 18 10.8 -2.6**
comp=Z,2.0nm,0.9s,baz=229,slow=2.5,SNR=6.9
SONM SKKPbc **SKKPbc 01 21 10.5 -3.9**
comp=Z,0.1nm,0.3s,baz=350,slow=5.0,SNR=3.9
comp=Z,8.2nm,0.9s
SONM Songino Array 95.51 319 P **P 01 01 21.2 -0.9**
SONM pmax pmax
comp=Z,56nm,1.6s
SONM Songino Array 95.51 319 P **P 01 01 21.2 -0.9**
SONM IAmb IAmb 01 01 23.9
comp=Z,56nm,1.6s
YKA Yellowknife Ar 95.59 25 P **P 01 01 22.0 +0.1**
comp=Z,18nm,0.9s,baz=240,slow=4.5,SNR=30
comp=Z,18nm,0.9s
YKA Yellowknife Ar 95.59 25 P **P 01 01 22.3 +0.4**
YKA Yellowknife Ar 95.59 25 P **P 01 01 22.3 +0.4**
ATAH Atahualpa 96.07 100 P **P 01 01 27.1 +1.4**
comp=Z,4.2nm,0.6s,baz=130,slow=2.9,SNR=6.5
ATAH S **SKSac 01 11 24.0 +1.8**
comp=Z,1.9nm,0.6s,baz=76,slow=22,SNR=8.4
comp=Z,4.2nm,0.6s
WLAR White Oak Lake 96.18 57 IAmb IAmb 01 01 29.8
comp=Z,35nm,1.1s
HHAR Hobbs 96.40 54 P **P 01 01 26.6 +0.3**
L34A Svendsen Farm, 96.57 48 IAmb IAmb 01 01 30.1
comp=Z,70nm,1.2s
GTA2 Gaotai 96.95 309 P **P 01 01 28.7 -0.1**
GTA2 SKS **SKSac 01 11 20.6 -4.4**
GTA2 S **ScS 01 12 17.4 +2.9**
GTA2 pmax pmax
comp=Z,40nm,1.2s
GTA2 pmax pmax
comp=Z,470nm,6.0s
ECSD EROS Data Cent 97.02 46 IAmb IAmb 01 01 31.1
comp=Z,63nm,1.4s
ECSD EROS Data Cent 97.02 46 P Pdif 01 01 30.3 +1.4
comp=Z,36nm,1.1s
P38A Dawn 97.81 51 IAmb IAmb 01 01 36.0
comp=Z,24nm,0.9s
F33A 5 Mile Ranch, 97.96 44 IAmb IAmb 01 01 36.5
comp=Z,21nm,0.9s
TIXI Tiksi 98.13 345 P **P 01 01 32.9 -0.2**
comp=Z,6.2nm,0.7s,baz=132,slow=4.1,SNR=19
TIXI PP **PP 01 05 36.1 -3.0**
comp=Z,1.6nm,0.3s,baz=153,slow=9.3,SNR=4.6
TIXI S **SKSac 01 11 27.0 -2.3**
comp=Z,2.0nm,0.3s,baz=359,slow=22,SNR=2.1
TIXI PKKPbc **PKKPbc 01 18 04.2 -2.7**
comp=Z,1.4nm,0.5s,baz=28,slow=2.5,SNR=5.4
comp=Z,6.2nm,0.7s
TIXI Tiksi 98.13 345*ce*P Pdif 01 01 33.5 +0.4
TIXI pmax pmax
comp=Z,31nm,1.8s
TIXI Tiksi 98.13 345 P Pdif 01 01 33.2 +0.1
TIXI Tiksi 98.13 345 P **P 01 01 33.1 0.0**
comp=Z,22nm,2.4s
ZAK Zakamensk 98.36 321 *e*P Pdif 01 01 33.4 -1.4
ZAK *e* 01 11 29.7
ZAK pmax pmax
comp=Z,18nm,1.8s
ZAK pmax pmax
comp=Z,13nm,2.3s
OTAV Otavalo 98.55 93 *e*P Pdif 01 01 35.6 -1.3
TLY Talaya 98.61 322 P **P 01 01 35.9 +0.1**
comp=Z,4.7nm,0.7s,baz=157,slow=6.0,SNR=4.0
TLY S **SKSac 01 11 32.4 -0.2**
comp=Z,3.2nm,0.6s,baz=97,slow=16,SNR=1.4
comp=Z,4.7nm,0.7s
TLY Talaya 98.61 322 *i* P Pdif 01 01 34.9 -0.9
TLY pmax pmax
comp=Z,10.0nm,0.9s
AGMN Agassiz Nation 99.07 42 P **Pdif 01 01 38.7 +0.9**
comp=Z,13nm,1.1s
GOMU GeErMu 99.62 305 P **Pdif 01 01 41.9 +0.8**
ULM Lac du Bonnet 99.70 40 P **Pdif 01 01 40.8 +0.2**
comp=Z,4.1nm,0.7s,baz=272,slow=4.3,SNR=5.6
comp=Z,4.1nm,0.7s
CZSB Cruzeiro do Su 101.11 102 *e*P **Pdif 01 01 48.0 +0.2**
LPAZ La Paz 101.88 112 P **Pdif 01 01 53.4 +1.5**
comp=Z,5.4nm,0.9s,baz=261,slow=3.9,SNR=4.2
LPAZ PKiKP **PKiKP 01 06 11.9 -0.7**
comp=Z,3.7nm,1.2s,baz=270,slow=3.0,SNR=3.7
LPAZ S **SKSac 01 11 50.8 -0.5**
comp=Z,0.5nm,0.5s,baz=219,slow=6.5,SNR=1.8
LPAZ PKKPbc **PKKPbc 01 17 55.4 +0.3**
comp=Z,2.6nm,0.6s,baz=43,slow=2.3,SNR=11
LPAZ La Paz 101.88 112 *e*P **Pdif 01 01 49.6 -2.3**
PSAL Palomas, Salto 103.29 130 *e*P **Pdif 01 01 55.3 -1.8**
EVN Everest 103.87 295 P **Pdif 01 02 00.9 +0.4**
comp=Z,6.4nm,1.2s
CPUP Villa Florida 106.04 126 PKiKP **PKiKP 01 06 18.6 -0.6**
comp=Z,1.5nm,0.9s,baz=239,slow=0.9,SNR=3.4
CPUP PKKPbc **PKKPbc 01 17 41.7 -0.6**
comp=Z,0.6nm,0.5s,baz=0.0,slow=3.0,SNR=3.1
WMQ Urumqi 106.81 311 Pdif **Pdif 01 02 13.9 +1.4**
WMQ PP **PP 01 06 43.2 -1.1**
WMQ S **Sdif 01 13 40.5 +4.0**
WMQ PPMZ
comp=Z,360nm,5.3s
SIV San Ignacio 108.10 115 PKiKP **PKiKP 01 06 23.2 -0.2**
comp=Z,0.8nm,0.6s,baz=283,slow=3.7,SNR=3.6
SIV PKKPbc **PKKPbc 01 17 36.8 +1.0**
comp=Z,6.8nm,0.9s,baz=89,slow=5.3,SNR=22
ZSN Zaisan 109.38 315 *e*PKiKP **PKiKP 01 06 25.2 +0.4**
NRIK Noril'sk 110.04 338 PKiKP **PKiKP 01 06 25.3 0.0**
comp=Z,3.3nm,0.7s,baz=73,slow=2.5,SNR=5.1
ZALV Zalesovo Beam 110.21 321 Pdiff **Pdif 01 02 27.1 -0.2**
comp=Z,1.2nm,0.7s,baz=104,slow=6.3,SNR=9.5
ZALV PKiKP **PKiKP 01 06 25.5 -0.6**
comp=Z,7.9nm,0.6s,baz=156,slow=1.1,SNR=31
ZALV SKP **SKPdf 01 09 20.9 -0.3**
comp=Z,2.2nm,0.8s,baz=119,slow=1.8,SNR=3.4
ZALV PKKPbc **PKKPbc 01 17 29.5 -0.6**
comp=Z,2.7nm,0.7s,baz=246,slow=4.2,SNR=7.6
ZALV PKKPab **PKKPab 01 17 41.4 +1.7**
comp=Z,1.7nm,0.6s,baz=276,slow=4.3,SNR=5.3
MK31 Makanchi Array 111.04 314*c* *i*PKiKP **PKiKP 01 06 28.2 +0.2**
MKAR Makanchi Array 111.04 314 Pdiff **Pdif 01 02 31.6 +0.3**
comp=Z,1.6nm,0.6s,baz=92,slow=5.3,SNR=12
MKAR PKiKP **PKiKP 01 06 27.1 -0.8**
comp=Z,7.1nm,0.6s,baz=89,slow=1.4,SNR=41
MKAR SKP **SKPdf 01 09 22.9 -0.3**
comp=Z,4.3nm,1.0s,baz=101,slow=1.2,SNR=5.2
MKAR PKKPbc **PKKPbc 01 17 27.3 +0.1**
comp=Z,4.6nm,0.7s,baz=275,slow=3.7,SNR=17
MKAR PKKPab **PKKPab 01 17 38.6 +2.2**
comp=Z,2.2nm,0.9s,baz=227,slow=3.0,SNR=4.5
MKAR Makanchi Array 111.04 314 **Pdif 01 02 32.0 +0.8**
SHLS Shalkode 112.63 309 *i* PKiKP **PKiKP 01 06 30.7 -0.5**
SHLS *e* 01 07 23.5
SHLS Shalkode 112.63 309 *e*PKiKP **PKiKP 01 06 30.7 -0.5**
SHLS *e*PP **PP 01 07 23.5 -2.5**
SEM Semipalatinsk 112.72 317 *i* PKiKP **PKiKP 01 06 31.4 +0.2**
SEM Semipalatinsk 112.72 317 *e*PKiKP **PKiKP 01 06 31.5 +0.2**
UZB Uzynbulak 112.95 309 *i* PKiKP **PKiKP 01 06 31.9 0.0**
UZB *e* 01 07 27.9
UZB Uzynbulak 112.95 309 *e*PKiKP **PKiKP 01 06 31.9 0.0**
UZB *e*PP **PP 01 07 27.9 -0.3**
KPKS Kokpek 113.22 310 *i* PKiKP **PKiKP 01 06 32.4 +0.1**
KPKS Kokpek 113.22 310 *e*PKiKP **PKiKP 01 06 32.4 +0.1**
SATY Saty 113.39 309 *i* PKiKP **PKiKP 01 06 32.7 0.0**
SATY *e* 01 07 31.0
SATY Saty 113.39 309 *e*PKiKP **PKiKP 01 06 32.8 0.0**
SATY *e*PP **PP 01 07 31.1 -0.2**
TDK Taldyqorghan 113.56 311 *i* PKiKP **PKiKP 01 06 32.8 0.0**
TDK *e* 01 07 32.1
TDK Taldyqorghan 113.56 311 *e*PKiKP **PKiKP 01 06 32.9 +0.1**
TDK *e*PP **PP 01 07 32.1 -0.2**
KURK Kurchatov 113.77 318 P **PKiKP 01 06 32.4 -0.6**
KURK Kurchatov 113.77 318*c* *i*PKiKP **PKiKP 01 06 33.3 +0.3**
KURK pmax pmax
comp=Z,28nm,1.0s
KURBB Kurchatov Arra 113.83 318 Pdiff **Pdif 01 02 43.8 +0.4**
comp=Z,0.2nm,0.3s,baz=86,slow=4.8,SNR=2.2
KURBB PKiKP **PKiKP 01 06 32.5 -0.6**
comp=Z,15nm,0.7s,baz=94,slow=1.8,SNR=88
KURBB SKP **SKPdf 01 09 28.7 +0.4**
comp=Z,4.3nm,1.0s,baz=105,slow=1.9,SNR=4.1
KURBB PKKPbc **PKKPbc 01 17 17.1 -1.0**
comp=Z,1.4nm,0.2s,baz=268,slow=4.0,SNR=4.4
KURBB SKKPbc **SKKPbc 01 20 20.3 -3.6**
comp=Z,0.7nm,0.2s,baz=276,slow=3.6,SNR=6.3
MDOK Medeo 114.39 309 *e*PKiKP PKPdf 01 06 34.6 0.0
MDOK Medeo 114.39 309 *e*PKP **PKiKP 01 06 34.7 0.0**
TNSS Tian-Shan 114.45 309 *e*PKiKP PKPdf 01 06 34.7 -0.4
TNSS Tian-Shan 114.45 309 *e*PKP PKPdf 01 06 34.8 -0.3
AAA Alma-Ata 114.49 309 *e*PKiKP **PKiKP 01 06 34.8 +0.1**
AAA Alma-Ata 114.49 309 *e*PKP **PKiKP 01 06 34.9 +0.1**
ULHL Ulahol 114.91 308 P **PKiKP 01 06 37.1 +1.3**
SNR=14
KUU Kurty 114.95 310 *e*PKiKP **PKiKP 01 06 35.7 +0.2**
KUU Kurty 114.95 310 *e*PKP **PKiKP 01 06 35.8 +0.2**
KSH2 Kashi 115.14 305 PKP **PKPdf 01 06 35.9 -0.3**
KSH2 PP **PP 01 07 43.3 -0.4**
KSH2 SKKS 01 13 59.5
KSH2 PPMZ
comp=Z,670nm,6.6s
SJG San Juan 115.41 79 PKiKP **PKPdf 01 06 36.2 -0.9**
SJG San Juan 115.41 79 **PKPdf 01 06 36.2 -0.9**
TKM2 Tokmak 2 115.43 309 P **PKiKP 01 06 37.2 +0.4**
SNR=32
FRB Frobisher Bay 115.85 28 PKP **PKiKP 01 06 36.8 +0.2**
comp=Z,12nm,0.9s,baz=318,slow=2.2,SNR=7.2
KBK Karagaybulak 115.89 309 P **PKiKP 01 06 38.3 +0.7**
SNR=9.5
CHMS Chumysh 116.05 309 P **PKiKP 01 06 38.0 +0.3**
SNR=8.7
BOAV Boa Vista 116.11 97 PKPdf **PKPdf 01 06 38.1 -0.6**
UCH Uchtor 116.19 308 P **PKiKP 01 06 39.7 +1.2**
SNR=24
AAK Ala-Archa 116.22 309 PKP **PKPdf 01 06 38.0 -0.2**
comp=Z,8.2nm,0.9s,baz=146,slow=0.9,SNR=13
AAK PKKPbc **PKKPbc 01 17 10.1 +0.2**
comp=Z,3.2nm,0.8s,baz=223,slow=2.9,SNR=4.7
AAK SKKPbc SKKPbc 01 20 13.2 -3.1
comp=Z,3.2nm,0.8s,baz=66,slow=18,SNR=3.7
AAK Ala-Archa 116.22 309 PKPdf **PKPdf 01 06 37.4 -0.8**
AAK Ala-Archa 116.22 309 P **PKiKP 01 06 38.6 +0.4**
AAK Ala-Archa 116.22 309*c* *i*PKiKP **PKiKP 01 06 39.1 +0.9**
AAK pmax pmax
comp=Z,27nm,1.7s
AAK Ala-Archa 116.22 309 PKPdf **PKPdf 01 06 38.1 -0.1**
USP Ospenovka 116.25 309 P **PKPdf 01 06 37.7 -0.4**
SNR=20
NEEM North Greenlan 116.71 11 *i* P **PKPdf 01 06 38.0 -0.3**
EKS2 Erkin-Say 116.75 309 P **PKiKP 01 06 40.2 +1.0**
SNR=10.0
NOR Nord 117.55 3 *i* P **PKPdf 01 06 38.9 -0.6**
UPNV Upernavik 117.77 17 *i* P **PKiKP 01 06 40.3 +0.2**
DZA Taraz 118.56 309 *e*PKiKP **PKiKP 01 06 42.6 +0.1**
DZA Taraz 118.56 309 *e*PKP **PKiKP 01 06 42.7 +0.1**
BVAR Borovoye Array 118.81 320 PKP **PKPdf 01 06 41.6 -1.0**
comp=Z,27nm,0.5s,baz=104,slow=1.4,SNR=67
BVAR PP **PP 01 08 05.1 -3.3**
comp=Z,6.9nm,0.8s,baz=76,slow=6.3,SNR=4.2
BVAR SKP **SKPdf 01 09 38.7 +0.9**
comp=Z,9.7nm,1.0s,baz=90,slow=3.0,SNR=5.3
BVAR PKKPbc **PKKPbc 01 17 01.2 +0.4**
comp=Z,4.0nm,0.7s,baz=276,slow=4.4,SNR=12
BORK Borovoye 118.86 320 PKiKP **PKPdf 01 06 41.9 -0.8**
BORK Borovoye 118.86 320 PKPdf **PKPdf 01 06 41.9 -0.8**
BDFB Brasilia 119.12 122 PKP **PKiKP 01 06 44.6 0.0**
comp=Z,11nm,0.7s,baz=211,slow=2.3,SNR=15
BDFB PKKPbc **PKKPbc 01 16 59.8 +0.6**
comp=Z,8.8nm,0.7s,baz=41,slow=2.3,SNR=13
BDFB Brasilia 119.12 122 PKiKP **PKPdf 01 06 44.1 -0.4**
BDFB Brasilia 119.12 122 PKPdf **PKPdf 01 06 44.1 -0.4**
KKAR Karatay Array 119.16 309 PKiKP **PKPdf 01 06 42.2 -1.5**
KKAR Karatay Array 119.16 309 **PKPdf 01 06 42.2 -1.5**
IUG luzhnay 119.51 308 *e*PKiKP **PKPdf 01 06 44.4 0.0**
IUG *e* 01 08 13.4
IUG luzhnay 119.51 308 *e*PKP **PKPdf 01 06 44.5 0.0**
IUG *e*PP **PP 01 08 13.4 -0.2**
BRLS Borolday 119.66 309 *e*PKiKP **PKiKP 01 06 44.9 +0.2**
BRLS *e* 01 08 15.1
BRLS Borolday 119.66 309 *e*PKP **PKiKP 01 06 45.0 +0.2**
BRLS *e*PP **PP 01 08 15.1 +0.7**
SAATT Saattut 119.92 18 *i* P **PKiKP 01 06 44.5 +0.2**
KBL Kabul 119.97 299 P **PKiKP 01 06 46.0 +0.1**
SNR=29
KBL Kabul 119.97 299 PKIKP **PKPdf 01 06 45.5 -0.2**
KBL Kabul 119.97 299 PKPdf **PKPdf 01 06 45.5 -0.2**
GDH Godhavn 120.04 20 *i* P **PKiKP 01 06 44.7 +0.1**
VOI Vohitsoka 120.16 229 P **PKiKP 01 06 47.5 +1.0**
SAQQ Saqqaq 120.20 19 *i* P **PKiKP 01 06 44.9 0.0**
ILULI Ilulissat 120.83 20 *i* P **PKPdf 01 06 45.5 -0.5**
SPA0 Spitsbergen Ar 121.12 357 *e*PKPdf **PKPdf 01 06 46.1 -0.3**
SPITS Spitsbergen Ar 121.12 357 PKP **PKPdf 01 06 46.4 -0.1**
comp=Z,23nm,0.6s,baz=101,slow=3.6,SNR=29
SPITS SKP **SKPdf 01 09 43.6 +2.0**
comp=Z,33nm,1.1s,baz=210,slow=8.3,SNR=3.7
ABPO Ambohimpanom 121.68 231 PKIKP **PKPdf 01 06 48.9 -0.6**
ABPO Ambohimpanom 121.68 231 PKPdf **PKPdf 01 06 48.9 -0.6**
ABPO Ambohimpanom 121.68 231 P **PKiKP 01 06 50.8 +1.2**
DAG Danmarks Havn 121.91 6 *i* P **PKPdf 01 06 47.1 -0.8**
SFJD Kangerlussuaq 122.03 22 PKP **PKPdf 01 06 48.1 -0.3**
comp=Z,16nm,0.5s,baz=190,slow=3.5,SNR=15
SFJD Kangerlussuaq 122.03 22 PKIKP **PKPdf 01 06 47.5 -0.9**
SFJD Kangerlussuaq 122.03 22 **PKPdf 01 06 47.5 -0.9**
SFJD Kangerlussuaq 122.03 22 *i* P **PKPdf 01 06 48.0 -0.3**
SUMG Summit 122.27 14 PKIKP **PKPdf 01 06 48.9 -0.4**
SUMG Summit 122.27 14 PKPdf **PKPdf 01 06 48.9 -0.4**
SJMB Sao Joao De Ma 122.56 129 *e*P **PKPdf 01 06 50.3 -0.6**
BSFB Barra de Sao F 122.73 129 *e*P **PKPdf 01 06 50.1 -1.1**
RIB01 Linhares ES 122.75 130 *e*P **PKPdf 01 06 49.9 -1.3**
SMTB Santa Maria do 123.05 115 *e*P **PKPdf 01 06 50.9 -1.1**
ARCA Araçuai, MG 123.14 127 *e*P **PKPdf 01 06 51.7 -0.4**
SDBA SAO DESIDERIO 123.41 120 *e*P **PKPdf 01 06 51.7 -1.0**
SVE Sverdlovsk 123.64 326 *e*PKIKP **PKPdf 01 06 51.6 -0.2**
SVE pmax pmax
comp=Z,63nm,0.9s
DBG Daneborg 124.00 7 *i* P **PKPdf 01 06 51.1 -0.9**
MDP Montagnes des 124.42 97 PKP **PKiKP 01 06 55.6 +0.7**
comp=Z,23nm,0.7s,baz=243,slow=3.6,SNR=24
GUA01 Guaratinga, BA 124.92 128 *e*P **PKPdf 01 06 54.7 -0.7**
ARTI Arti 124.96 326 PKP **PKPdf 01 06 53.6 -0.7**
comp=Z,42nm,0.6s,baz=95,slow=1.2,SNR=56
ARTI PP **PP 01 08 46.9 -2.4**
comp=Z,20nm,1.1s,baz=76,slow=2.0,SNR=6.9
ARTI SKP **SKPdf 01 09 50.4 +1.0**
comp=Z,9.9nm,1.0s,baz=78,slow=5.2,SNR=3.7
ARTI PKKPbc **PKKPbc 01 16 38.0 +0.3**
comp=Z,7.8nm,0.9s,baz=238,slow=3.3,SNR=8.6
ARTI Arti 124.96 326 *i* PKIKP **PKPdf 01 06 54.5 +0.2**
ARTI 01 08 45.3
ARTI 01 13 21.8
ARTI SP SP 01 18 01.9 -4.7
ARTI Arti 124.96 326 PKPdf **PKPdf 01 06 53.5 -0.8**
SUR Sutherland 125.33 199 PKPdf **PKiKP 01 06 56.7 +0.2**
SUR Sutherland 125.33 199 P **PKiKP 01 06 57.1 +0.5**
POGA Pongola 125.35 212 P **PKiKP 01 06 56.5 0.0**
IVI Ivigtut 125.60 27 *i* P **PKiKP 01 06 55.6 -0.2**
ABKAR Akbulak array 125.88 317 PKPdf **PKPdf 01 06 55.3 -1.0**
CMC01 Camacan, BA 125.90 127 *e*P **PKPdf 01 06 56.0 -1.4**
NGCH Negor - Chabah 125.96 287 P **PKiKP 01 07 00.1 +2.5**
SNR=6.3
ISOG Isortoq, Green 126.76 20 *i* P **PKiKP 01 06 57.9 -0.1**
NRS Narsarsuaq 126.81 27 *i* P **PKiKP 01 06 58.2 0.0**
AKTO Aktyubinsk 126.83 319 PKP **PKPdf 01 06 58.3 +0.2**
comp=Z,26nm,0.9s,baz=72,slow=2.0,SNR=52
VADS Vadso 127.07 349 *e*PKPdf **PKPdf 01 06 57.6 -0.4**
JLN Jalan Bani Buh 127.10 283 P **PKiKP 01 07 01.0 +1.0**
SNR=16
SCO Scoresbysund 127.15 10 *i* P **PKPdf 01 06 57.5 -0.6**
BOSA Boshof 127.18 205 PKP **PKiKP 01 07 00.5 +0.2**
comp=Z,16nm,0.7s,baz=143,slow=1.9,SNR=31
BOSA PKKPab PKKPab 01 16 28.4
comp=Z,1.1nm,0.5s,baz=331,slow=6.1,SNR=5.1
BOSA Boshof 127.18 205 P **PKiKP 01 07 01.4 +1.1**
HAMF Hammerfest 127.53 351 *e*PKPdf **PKPdf 01 06 58.1 -0.7**
WBK Wadi Bani Khal 127.57 284 P **PKiKP 01 07 03.0 +2.0**
SNR=7.9
WSAR Wadi Sarin 127.97 285 P **PKiKP 01 07 01.6 -0.1**
SNR=20
NBPN Ponto Novo - B 128.09 122 *e*P **PKPdf 01 07 01.2 -0.4**
ARA0 ARCESS Array S 128.25 350 *e*PKPdf **PKPdf 01 07 00.3 +0.1**
ARCES ARCESS Array B 128.25 350 PKP **PKPdf 01 07 00.4 +0.1**
comp=Z,25nm,0.7s,baz=13,slow=1.2,SNR=75
ARCES ARCESS Array B 128.25 350 PKIKP **PKPdf 01 06 59.7 -0.6**
ARCES ARCESS Array B 128.25 350 PKPdf **PKPdf 01 06 59.7 -0.6**
MHTO MHTO 128.25 282 P **PKPdf 01 07 02.0 +0.3**
SNR=22
APA Apatity 128.32 345 *e*PKIKP **PKPdf 01 06 59.3 -1.1**
APA *e* 01 08 39.0
JMDO Jabal Madar 128.33 283 P **PKiKP 01 07 03.0 +0.5**
SNR=21
BIDO Bidbid 128.46 285 P **PKiKP 01 07 03.0 +0.3**
SNR=16
SMDO Samad 128.47 284 P **PKiKP 01 07 03.0 +0.1**
SNR=27
DQM DQM 128.48 280 P **PKiKP 01 07 04.0 +1.1**
SNR=9.2
KIRV Kirov 128.54 331 PKP **PKiKP 01 07 01.8 0.0**
comp=Z,42nm,0.7s,baz=90,slow=1.0,SNR=26
KIRV PP **PP 01 09 10.1 -2.5**
comp=Z,6.8nm,0.8s,baz=63,slow=3.2,SNR=6.8
KIRV Kirov 128.54 331↑*e*PKIKP **PKiKP 01 07 02.1 +0.4**
JASK Jask - Hormozg 128.94 288 P **PKiKP 01 07 03.5 -0.2**
SNR=12
JETT Jettan, Norway 128.98 352 *e*PKPdf **PKPdf 01 07 01.8 +0.1**
KTK1 Kautokeino 129.08 351 *e*PKPdf **PKPdf 01 07 01.8 -0.1**
TRO Tromso 129.09 353 *e*PKPdf **PKPdf 01 07 01.3 -0.5**
BSY Bisya 129.21 284 P **PKPdf 01 07 02.7 -0.8**
SNR=18
HOQ Hoqain 129.21 285 P **PKPdf 01 07 03.0 -0.5**
SNR=24
MAKGR Makgori 129.85 206 P **PKiKP 01 07 06.0 +0.3**
MAKGR x x 01 09 48.2
ARQ Araqi 129.90 284 P **PKPdf 01 07 04.9 +0.1**
SNR=21
SHAO Shalim 129.92 277 P **PKPdf 01 07 04.3 -0.7**
SOHO SOHO 129.98 285 *i* PKPdf **PKPdf 01 07 03.8 -1.0**
SNR=38
SOHO SOHO 129.98 285 P **PKPdf 01 07 05.0 +0.1**
SNR=49
LBTB Lobatse 130.20 208 PKP **PKPdf 01 07 05.5 0.0**
comp=Z,7.6nm,0.5s,baz=155,slow=4.0,SNR=24
LBTB SKPab **SKPab 01 09 49.5 +0.4**
comp=Z,24nm,1.0s,baz=139,slow=4.9,SNR=10
LBTB Lobatse 130.20 208 P **PKiKP 01 07 07.1 +0.7**
LBTB x x 01 09 48.9
MDH Madha 130.31 287 *i* PKPdf **PKPdf 01 07 04.2 -1.2**
SNR=16
MDH Madha 130.31 287 P **PKiKP 01 07 06.0 -0.4**
SNR=19
BANOM Banah 130.36 288 *i* PKPdf **PKPdf 01 07 05.4 -0.2**
SNR=6.8
BANOM Banah 130.36 288 P **PKPdf 01 07 05.9 +0.3**
SNR=13
UOSS Minazif 130.36 286 *i* PKPdf **PKPdf 01 07 04.6 -1.0**
SNR=15
UOSS Minazif 130.36 286 P **PKPdf 01 07 05.3 -0.3**
UOSS Minazif 130.36 286 PKPdf **PKPdf 01 07 04.0 -1.6**
HATD Hatta, Dubai 130.41 286 *i* PKPdf **PKPdf 01 07 04.8 -1.0**
SNR=32
HATD Hatta, Dubai 130.41 286 P **PKPdf 01 07 06.0 +0.3**
SNR=28
MSFE Esma-Masafi 130.44 287 *i* PKPdf **PKPdf 01 07 04.6 -1.2**
SNR=16
MASF Masafi 130.44 287 P **PKPdf 01 07 05.9 +0.1**
SNR=20
ASHO Ashiyiah 130.47 286 *i* PKPdf **PKPdf 01 07 05.0 -0.9**
SNR=27
ASHO Ashiyiah 130.47 286 P **PKPdf 01 07 06.0 +0.1**
SNR=33
DMTO DMTO 130.50 277 P **PKPdf 01 07 06.0 0.0**
SNR=5.6
SHME Shamm 130.51 288 *i* PKPdf **PKPdf 01 07 05.5 -0.4**
SNR=10
SHME Shamm 130.51 288 P **PKiKP 01 07 07.2 +0.4**
SNR=6.9
NBPS Pedro II - PI 130.56 114 *e*P **PKPdf 01 07 05.0 -1.4**
ALNE Al Ain 130.68 285 *i* PKPdf **PKPdf 01 07 05.5 -0.7**
SNR=16
ALNE Al Ain 130.68 285 P **PKPdf 01 07 05.4 -0.9**
SNR=34
NAZ Nazwa, Dubai 130.85 286 *i* PKPdf **PKPdf 01 07 05.6 -1.0**
SNR=12
NAZ Nazwa, Dubai 130.85 286 P **PKPdf 01 07 07.0 +0.4**
SNR=19

FAQ	**Al Faqa, Dubai**	**130.89**	**286**	*i* PKPdf	**PKPdf**	**01 07 05.6**	**-1.0**
	SNR=6.5							
FAQ	**Al Faqa, Dubai**	**130.89**	**286**	P	**PKPdf**	**01 07 06.9**	**+0.3**
	SNR=13							
UMQ	**Umm Al-Quwin**	**130.90**	**287**	*i* PKPdf	**PKPdf**	**01 07 06.4**	**-0.2**
	SNR=5.5							
UMZA	**Um Al Zommool**	**131.07**	**283**	P	**PKPdf**	**01 07 07.4**	**+0.4**
LOF	**Lofoten**	**131.10**	**355**	*e*PKPdf	**PKPdf**	**01 07 04.8**	**-0.9**
STEI	**Steigen**	**131.13**	**354**	*e*PKPdf	**PKiKP**	**01 07 06.5**	**-0.3**
RBK	**Rabkut**	**131.15**	**276**	P	**PKPdf**	**01 07 07.2**	**-0.2**
	SNR=15							
SKOMA	**Sekoma**	**131.35**	**206**	P	**PKiKP**	**01 07 09.2**	**+0.5**
SKOMA				x	x	01 09 53.9		
KLMR	**Klimovskoe**	**131.37**	**337**	*e*PKIKP	**PKPdf**	**01 07 04.8**	**-1.6**
KLMR				*e*		01 09 30.2		
KLMR				pmax	pmax			
	comp=Z,43nm,0.9s							
AJN	**Ajban**	**131.43**	**286**	*i* PKPdf	**PKPdf**	**01 07 07.5**	**-0.1**
	SNR=12							
AJN	**Ajban**	**131.43**	**286**	P	**PKiKP**	**01 07 09.0**	**+0.4**
	SNR=10							
DOK	**Doka**	**131.43**	**278**	P	**PKPdf**	**01 07 07.9**	**+0.1**
	SNR=11							
WHFO	**Wadi Hawf**	**131.64**	**277**	P	**PKPdf**	**01 07 08.5**	**+0.3**
	SNR=12							
FAUS	**Fauske**	**131.66**	**353**	*e*PKPdf	**PKPdf**	**01 07 06.5**	**-0.3**
ABTO	**Aybut**	**131.97**	**276**	P	**PKiKP**	**01 07 09.8**	**-0.2**
	SNR=15							
KDWAN	**Kaudwane**	**132.04**	**208**	P	**PKiKP**	**01 07 10.2**	**0.0**
KDWAN				x	x	01 09 56.6		
BELG	**Belogornoye**	**132.28**	**324**	PKP	**PKPdf**	**01 07 08.8**	**+0.4**
	comp=Z,81nm,0.8s,baz=43,slow=1.6,SNR=22							
BELG				SKPab	**SKPbc**	**01 09 55.5**	**+0.3**
	comp=Z,74nm,1.1s,baz=1.7,slow=0.9,SNR=16							
BELG	**Belogornoye**	**132.28**	**324**	*d* iPKIKP	**PKPdf**	**01 07 07.5**	**-0.8**
VAGH	**Vaagaholmen**	**132.50**	**354**	*e*PKPdf	**PKPdf**	**01 07 08.8**	**+0.4**
MZR	**Muzera**	**132.65**	**283**	*i* PKPdf	**PKPdf**	**01 07 10.3**	**+0.3**
	SNR=10.0							
MZR	**Muzera**	**132.65**	**283**	P	**PKiKP**	**01 07 12.0**	**+0.8**
	SNR=14							
RAUS	**Rausandaksla**	**132.71**	**354**	*e*PKPdf	**PKiKP**	**01 07 09.8**	**-0.2**
KONS	**Konsvik**	**132.74**	**354**	*e*PKPdf	**PKiKP**	**01 07 09.7**	**-0.3**
LKGWB	**Lokgwabe**	**132.79**	**203**	P	**PKiKP**	**01 07 12.0**	**+0.3**
LKGWB				x	x	01 09 58.5		
STOK	**Stokkvaagen**	**132.91**	**354**	*e*PKPdf	**PKPdf**	**01 07 09.1**	**0.0**
MOR8	**Moi Rana**	**132.92**	**353**	*e*PKPdf	**PKiKP**	**01 07 10.3**	**-0.1**
LEIR	**Leirfjorden**	**133.11**	**354**	*e*PKPdf	**PKPdf**	**01 07 08.2**	**-1.3**
JRN	**Qarnain Island**	**133.39**	**286**	P	**PKPdf**	**01 07 11.3**	**+0.1**
	SNR=6.6							
NBPV	**Pedro Velho**	**134.60**	**121**	*e*P	**PKPdf**	**01 07 11.9**	**-2.0**
NSS	**Namsos**	**134.77**	**354**	*e*	PKPpre	01 07 03.6		
FINES	**FINESS Array B**	**135.17**	**344**	PKhKP	PKPpre	01 07 00.9		
	comp=Z,1.9nm,0.6s,baz=46,slow=3.1,SNR=13							
FINES				PKP	**PKPdf**	**01 07 13.8**	**+0.3**
	comp=Z,6.0nm,0.7s,baz=49,slow=1.8,SNR=5.7							
FINES				SKPbc	**SKPbc**	**01 10 04.6**	**+0.1**
	comp=Z,8.2nm,0.8s,baz=116,slow=4.4,SNR=6.4							
FINES				SKKPbc	**SKKPbc**	**01 19 08.0**	**-4.7**
	comp=Z,3.4nm,0.9s,baz=205,slow=1.8,SNR=5.8							
FINES	**FINESS Array B**	**135.17**	**344**	PKHKP	PKPpre	01 07 01.8		
FINES	**FINESS Array B**	**135.17**	**344**	PKPpre	PKPpre	01 07 01.8		
GRTLG	**Ghanzi**	**135.28**	**205**	P	**PKiKP**	**01 07 17.3**	**+0.5**
GRTLG				x	x	01 10 06.3		
MOS	**Moscow**	**135.45**	**332**	*i* PKIKP	**PKiKP**	**01 07 15.8**	**0.0**
MOS				*e*		01 08 55.3		
MOS				*e*		01 13 47.3		
MOS				pmax	pmax			
	comp=Z,26nm,1.0s							
SAKB	**Bahrain**	**135.54**	**287**	P	**PKPdf**	**01 07 14.6**	**-0.6**
MAK	**Makhachkala**	**135.82**	**312**	*e*P	**Pdif**	**01 04 17.4**	**-4.0**
MAK				*e*		01 10 07.0		
MAK				*e*		01 13 47.2		
MAK				*e*SS	SS	01 27 29.7	+5.6	
MAK				*e*SSS	SSS	01 32 38.0		
MAK				pmax	pmax			
	comp=Z,172nm,1.1s							
VRH	**Novokhopyorsk**	**136.07**	**325**	*e*PKIKP	**PKPdf**	**01 07 14.9**	**-0.6**
VRH				pmax	pmax			
	comp=Z,60nm,0.6s							
OBN	**Obninsk**	**136.31**	**332**	PKhKP	PKPpre	01 07 07.9		
	comp=Z,7.6nm,0.4s,baz=94,slow=13,SNR=3.5							
OBN				PKP	**PKPdf**	**01 07 15.3**	**-0.5**
	comp=Z,29nm,0.6s,baz=70,slow=2.4,SNR=9.6							
OBN				SKP	**SKPbc**	**01 10 09.3**	**+1.2**
	comp=Z,17nm,1.0s,baz=48,slow=2.3,SNR=4.1							
OBN	**Obninsk**	**136.31**	**332**	*de*PKIKP	**PKPdf**	**01 07 12.5**	**-3.3**
OBN				*e*		01 08 56.0		
OBN						01 09 36.0		
OBN				*i*		01 10 08.7		
OBN				*i* PPP	PPP	01 13 02.8		
OBN				*i*		01 13 42.9		
OBN				*i*		01 22 25.0		
OBN				pmax	pmax			
	comp=Z,13nm,0.6s							
OBN				pmax	pmax			
	comp=Z,86nm,1.6s							
OBN				MLR	MLR			
	comp=Z,202nm,19.0s							
OBN	**Obninsk**	**136.31**	**332**	PKPdf	**PKPdf**	**01 07 13.6**	**-2.2**
LPSR	**Galich'ya Gora**	**136.75**	**328**	*e*PKIKP	**PKPdf**	**01 07 16.1**	**-0.6**
LPSR				pmax	pmax			
	comp=Z,30nm,0.9s							
VORR	**Voronezh**	**137.14**	**327**	*e*PKIKP	**PKPdf**	**01 07 16.6**	**-0.8**
VORR				pmax	pmax			
	comp=Z,40nm,0.4s							
VSR	**Storozhevoye**	**137.42**	**326**	*e*PKIKP	**PKPdf**	**01 07 17.2**	**-0.8**
VSR				pmax	pmax			
	comp=Z,60nm,1.1s							
AKN	**Aaknes**	**137.46**	**357**	*e*PKPdf	PKPpre	01 07 11.6		
DOMB	**Dombas**	**137.47**	**355**	*e*	PKPpre	01 07 07.6		
VORD	**Divnogorie**	**137.49**	**326**	*e*PKIKP	**PKPdf**	**01 07 18.1**	**0.0**
VORD				pmax	pmax			
	comp=Z,50nm,0.6s							
FOO	**Floro**	**138.12**	**358**	*e*PKPdf	**PKPdf**	**01 07 18.9**	**-0.1**
NB2	**NORSAR Subarra**	**138.27**	**354**	PKP	PKPpre	01 07 08.9		
	comp=Z,13nm,0.8s,baz=17,slow=2.6							
NB2	**NORSAR Subarra**	**138.27**	**354**	PKPab	PKPpre	01 07 08.0		
NOA	**NORSAR Array B**	**138.27**	**354**	PKhKP	PKPpre	01 07 07.3		
	comp=Z,0.6nm,0.6s,baz=18,slow=2.7,SNR=14							
NOA				PKP	**PKPdf**	**01 07 19.5**	**+0.2**
	comp=Z,0.6nm,0.6s,baz=14,slow=4.0,SNR=12							
NOA				SKKPbc	SKKPbc	01 19 00.3	-0.8	
	comp=Z,5.4nm,0.9s,baz=189,slow=4.3,SNR=8.0							
NC602	**NORSAR Array S**	**138.53**	**353**	*e*PKPdf	PKPpre	01 07 12.3		
TSUM	**Tsumeb**	**138.61**	**202**	PKhKP	PKPpre	01 07 15.1		
	comp=Z,8.1nm,1.1s,baz=172,slow=3.3,SNR=3.9							
TSUM				PKP	**PKPdf**	**01 07 21.8**	**+0.5**
	comp=Z,21nm,1.0s,baz=171,slow=6.2,SNR=14							
TSUM				SKPbc	**SKPbc**	**01 10 16.9**	**+0.7**
	comp=Z,32nm,1.0s,baz=153,slow=4.5,SNR=14							
GNI	**Garni**	**138.63**	**309**	PKP	**PKPdf**	**01 07 20.8**	**0.0**
	comp=Z,32nm,1.0s,baz=24,slow=5.7,SNR=9.3							
GNI				SKPbc	**SKPbc**	**01 10 15.3**	**-0.2**
	comp=Z,19nm,1.0s,baz=108,slow=2.0,SNR=5.0							
GNI	**Garni**	**138.63**	**309**	P	**PKPdf**	**01 07 20.2**	**-0.6**
GNI	**Garni**	**138.63**	**309**	*ce*PKIKP	**PKPdf**	**01 07 19.0**	**-1.8**
GNI				pmax	pmax			
	comp=Z,122nm,1.7s							
GNI	**Garni**	**138.63**	**309**	PKPdf	**PKPdf**	**01 07 19.1**	**-1.8**
KBZ	**Khabaz**	**138.72**	**315**	PKhKP	PKPpre	01 07 11.7		
	comp=Z,5.6nm,0.9s,baz=136,slow=3.2,SNR=8.8							
KBZ				PKP	**PKPdf**	**01 07 21.3**	**+0.7**
	comp=Z,9.0nm,0.9s,baz=62,slow=0.6,SNR=8.7							
KBZ				SKPbc	**SKPbc**	**01 10 16.4**	**+1.0**
	comp=Z,7.5nm,0.9s,baz=91,slow=3.0,SNR=9.6							
KBZ				SKKPbc	**SKKPbc**	**01 18 58.9**	**+0.7**
	comp=Z,3.7nm,1.1s,baz=261,slow=7.8,SNR=4.3							
KBZ	**Khabaz**	**138.72**	**315**	↑*e*PKIKP	**PKiKP**	**01 07 22.8**	**-0.1**
KIV	**Kislovodsk**	**138.78**	**315**	P	**PKPdf**	**01 07 21.3**	**+0.5**
KIV	**Kislovodsk**	**138.78**	**315**	*i* PKIKP	**PKPdf**	**01 07 20.3**	**-0.6**
KIV				*e*		01 10 13.3		
KIV				*i* SS	SS	01 27 52.8	-6.1	
KIV				pmax	pmax			
	comp=Z,23nm,1.0s							
KIV	**Kislovodsk**	**138.78**	**315**	PKPpre	PKPpre	01 07 12.8		
KIV				PKPdf	**PKPdf**	**01 07 21.0**	**+0.1**	
KIBK	**Kibwezi**	**138.84**	**242**	PKP	PKPpre	01 07 14.0		
KIBK	**Kibwezi**	**138.84**	**242**	P	PKPpre	01 07 15.1		
	SNR=13							
KIBK	**Kibwezi**	**138.84**	**242**		PKPpre	01 07 13.5		
HFS	**Hagfors**	**138.85**	**352**	PKhKP	PKPpre	01 07 11.6		
	comp=Z,7.2nm,0.6s,baz=42,slow=2.4,SNR=18							
HFS				PKP	**PKPdf**	**01 07 21.0**	**+0.7**
	comp=Z,7.7nm,0.7s,baz=79,slow=7.6,SNR=6.9							
HFS				SKPbc	**SKPbc**	**01 10 16.1**	**+0.9**
	comp=Z,4.3nm,0.8s,baz=100,slow=3.5,SNR=3.6							
HFS				SKKPbc	**SKKPbc**	**01 18 57.5**	**-1.2**
	comp=Z,3.8nm,0.9s,baz=140,slow=7.6,SNR=6.0							
SKAR	**Skarslia**	**138.88**	**356**	*e*PKPdf	**PKPdf**	**01 07 18.0**	**-2.5**
ASK	**Askoy**	**139.23**	**358**	*e*PKPdf	PKPpre	01 07 15.1		
BER	**Bergen**	**139.33**	**358**	*e*PKPdf	PKPpre	01 07 15.4		
OSL	**Oslo**	**139.40**	**354**	*e*PKPdf	**PKPdf**	**01 07 19.4**	**-2.0**
ERBR	**Yeremizino-Bor**	**139.46**	**319**	*i* PKHKP	PKPpre	01 07 15.0		
ERBR				*e*		01 10 18.6		
ERBR				pmax	pmax			
	comp=Z,37nm,0.7s							
ODD1	**Odda**	**139.74**	**357**	*e*PKPdf	PKPpre	01 07 17.2		
LABN	**Labinsk**	**139.78**	**317**	*i* PKHKP	PKPpre	01 07 16.0		
LABN				*e*		01 10 18.8		
LABN				pmax	pmax			
	comp=Z,14nm,0.8s							
KONO	**Kongsberg**	**139.79**	**354**	*e*PKPdf	PKPpre	01 07 15.8		
RAYN	**Ar Rayn**	**140.00**	**283**	*i* PKPdf	**PKPdf**	**01 07 22.8**	**-0.8**
	SNR=12							
RAYN	**Ar Rayn**	**140.00**	**283**	P	PKPpre	01 07 17.2		
RAYN	**Ar Rayn**	**140.00**	**283**	↓PKHKP	PKPpre	01 07 16.2		
RAYN	**Ar Rayn**	**140.00**	**283**	PKPpre	PKPpre	01 07 15.3		
RAYN				PKPdf	**PKPdf**	**01 07 24.0**	**+0.4**	
BLS5	**Blasjo**	**140.24**	**357**	*e*PKPdf	PKPpre	01 07 17.4		
MNK	**Minsk**	**140.27**	**337**	*i* PKHKP	PKPpre	01 07 17.9		
MNK				*i*		01 13 48.1		
MNK				*i* SS	SS	01 28 13.5	-1.1	
MNK				*i* SSS	SSS	01 33 33.9		
MNK				pmax	pmax			
	comp=N,9.0nm,1.0s							
MNK				pmax	pmax			
	comp=Z,30nm,0.7s							
MNK				pmax	pmax			
	comp=E,15nm,1.0s							
MNK	**Minsk**	**140.27**	**337**	*i* PKP	PKPpre	01 07 17.9		
	comp=E,15nm,1.0s							
MNK				*i* PKP	PKPpre	01 07 17.9		
	comp=N,9.0nm,1.0s							
MNK				*i* PKP	PKPpre	01 07 17.9		
	comp=Z,30nm,0.7s,baz=39							
MNK				*i* pPKP	pPKPdf	01 08 57.8	-5.9	
MNK				*i* PP	**PP**	**01 10 20.2**	**-5.7**	
MNK				*i* PPP	PPP	01 13 30.9		
MNK				*i* SKS	**SKSdf**	**01 13 48.1**	**-4.7**	
MNK				*i* SKKS	**SKKSdf**	**01 23 13.6**	**-7.5**	
MNK				*i* SS	**SS**	**01 28 13.6**	**-1.1**	
MNK				*i* SSS	SSS	01 33 34.0		
NACGM	**Naroch**	**140.35**	**338**	↑*i* PKP	PKPpre	01 07 17.3		
	comp=Z,123nm,1.0s,baz=38							
ATD	**Arta Tunnel**	**140.43**	**264**	P	**PKiKP**	**01 07 28.9**	**+1.6**
	SNR=6.3							
KMY	**Karmoy**	**140.50**	**358**	*e*PKPdf	PKPpre	01 07 17.9		
SOC	**Sochi**	**140.89**	**316**	*e*PKIKP	**PKPdf**	**01 07 24.5**	**-0.1**
SOC				*e*		01 09 05.4		
SOC				*e*		01 10 29.2		
SOC				*e*SS	SS	01 28 28.0	+4.9	
SOC				pmax	pmax			
	comp=Z,36nm,0.9s							
HOMB	**Homborsund**	**141.25**	**355**	*e*PKPdf	PKPpre	01 07 19.4		
SNART	**Snartemo**	**141.28**	**356**	*e*PKPdf	PKPpre	01 07 20.0		
ANN	**Anapa**	**141.79**	**319**	*i* PKHKP	PKPpre	01 07 18.4		
ANN				pmax	pmax			
	comp=Z,61nm,0.9s							
SUW	**Suwalki**	**142.29**	**340**	*e*PKP	**PKPdf**	**01 07 23.1**	**-3.6**
AKASG	**Malin Array Be**	**142.58**	**332**	PKhKP	PKPpre	01 07 22.8		
	comp=Z,65nm,0.6s,baz=43,slow=4.1,SNR=229							
AKASG				SKPbc	**SKPbc**	**01 10 25.7**	**+0.5**
	comp=Z,11nm,1.0s,baz=37,slow=2.7,SNR=12							
AKASG				SKKPbc	**SKKPab**	**01 18 41.5**	**-0.9**
	comp=Z,1.6nm,0.8s,baz=235,slow=3.8,SNR=6.5							
KIEV	**Kiev**	**142.59**	**332**	*i* PKPdf	**PKPdf**	**01 07 23.4**	**-4.0**
	SNR=98							
KIEV	**Kiev**	**142.59**	**332**	↑PKHKP	PKPpre	01 07 23.5		
KIEV	**Kiev**	**142.59**	**332**	PKPpre	PKPpre	01 07 22.4		
KIEV	**Kiev**	**142.59**	**332**	↑P	**PKPdf**	**01 07 23.5**	**-3.8**	
MUD	**Monsted U'grnd**	**142.98**	**354**	*i* P	**PKPdf**	**01 07 26.2**	**-1.7**	
INVG	**Invergeldie, C**	**143.01**	**6**	*e*P	PKPab	01 07 24.0	-0.9	
LAWE	**Loch Awe, Argy**	**143.03**	**7**	*e*P	PKPab	01 07 24.1	-0.8	
EAB	**Aberfoyle**	**143.22**	**6**	*e*P	PKPab	01 07 25.5	-0.2	
COP	**Copenhagen**	**143.32**	**351**	*i* P	PKPbc	01 07 26.6	+0.3	
BSD	**Bornholm Skovb**	**143.44**	**348**	*i* P	PKPbc	01 07 26.9	+0.2	
PGBU	**Glenifferbraes**	**143.57**	**7**	*e*P	PKPab	01 07 26.5	-0.5	
SHEL	**Horse Pasture**	**143.62**	**166**	*i* PKIKP	**PKPdf**	**01 07 31.3**	**+1.0**	
SHEL	**Horse Pasture**	**143.62**	**166**	PKPdf	**PKPdf**	**01 07 29.9**	**-0.3**	
LLD	**Lille Linde**	**143.70**	**351**	*i* P	PKPab	01 07 27.4	-0.1	
SIM	**Simferopol'**	**143.72**	**321**	*e*PKIKP	PKPbc	01 07 28.3	+0.3	
SIM				*e*		01 10 53.8		
SIM				*e*PPS	PPS	01 23 27.7		
SIM				pmax	pmax			
	comp=Z,1μm,1.0s							
IDGL	**Inch Island, C**	**143.88**	**10**	PKP	PKPab	01 07 27.9	-0.3	
SSRD	**Sdr. Stenderup**	**143.90**	**353**	*i* P	PKPab	01 07 27.9	-0.3	
CLGH	**Cloghs, Cushen**	**144.09**	**8**	*e*P	PKPbc	01 07 27.8	-1.1	
LODK	**Lodwar**	**144.13**	**247**	P	**PKPdf**	**01 07 31.2**	**0.0**	
	SNR=122							
LODK	**Lodwar**	**144.13**	**247**	PKPdf	PKPbc	01 07 29.8	-0.6	
EKA	**Eskdalemuir Ar**	**144.18**	**6**	PKP	PKPbc	01 07 28.8	-0.4	
	comp=Z,123nm,0.8s,baz=332,slow=3.1,SNR=113							
EKA				SKKPbc	SKKPbc	01 18 35.5	-1.8	
	comp=Z,12nm,0.8s,baz=165,slow=4.8,SNR=14							
EKA	**Eskdalemuir Ar**	**144.18**	**6**	PKIKP	PKPbc	01 07 28.3	-0.8	
ESK	**Eskdalemuir**	**144.19**	**6**	PKIKP	PKPbc	01 07 28.6	-0.6	
ESK	**Eskdalemuir**	**144.19**	**6**		PKPbc	01 07 28.6	-0.6	
ESK	**Eskdalemuir**	**144.19**	**6**	*e*P	PKPbc	01 07 28.2	-1.0	
RGN	**Rugen**	**144.27**	**349**	*e*PKPbc	**PKPdf**	**01 07 30.4**	**+0.3**	
	baz=16,slow=2.6							
NEWG	**New Galloway**	**144.28**	**7**	*e*P	PKPbc	01 07 28.7	-0.7	
R9F13	**Warsaw-Wawer**	**144.46**	**340**	*e*PKPdf	**PKPab**	**01 07 30.4**	**0.0**	
R9F13				*e*PP	**SKPbc**	**01 10 31.4**	**+1.8**	
GAL1	**Galloway**	**144.48**	**7**	*e*P	PKPbc	01 07 29.4	-0.7	
GKP	**Gorka Klasztor**	**144.64**	**345**	*e*PKP	PKPbc	01 07 30.4	-0.3	
EDMD	**Edmundbyers**	**144.78**	**5**	*e*P	**PKPdf**	**01 07 30.9**	**-0.1**	
SORM	**Soroca**	**144.80**	**330**	↓PKIKP	**PKPab**	**01 07 32.2**	**+0.4**	
SORM	**Soroca**	**144.80**	**330**	↓P	**PKPab**	**01 07 32.2**	**+0.4**	
BEL	**Belsk**	**144.91**	**340**	*e*PKP	**PKPdf**	**01 07 31.4**	**+0.1**	
KESW	**Keswick, Cumbr**	**144.92**	**6**	*e*P	**PKPdf**	**01 07 30.4**	**-0.9**	
ILTH	**Belurgan, Co L**	**145.08**	**9**	PKPdf	**PKPab**	**01 07 32.5**	**-0.1**	
ILTH	**Belurgan, Co L**	**145.08**	**9**	*e*P	**PKPdf**	**01 07 30.9**	**-0.6**	
IOMK	**Kirk Michael**	**145.09**	**7**	*e*P	**PKPdf**	**01 07 31.8**	**+0.2**	
IGLA	**Glengowla, Co**	**145.12**	**12**	PKPdf	**PKPbc**	**01 07 32.3**	**+0.1**	
IGLA				PKP	**PKPab**	**01 07 33.3**	**+0.5**	
GDLE	**Glaisdale, N Y**	**145.26**	**3**	*e*P	**PKPdf**	**01 07 31.9**	**0.0**	
BSEG	**Bad Segeberg**	**145.33**	**352**	*e*PKPbc	**PKPab**	**01 07 34.3**	**+0.7**	
	baz=16,slow=2.6							
HLG	**Helgoland**	**145.35**	**354**	*e*PKPbc	**PKPab**	**01 07 34.1**	**+0.5**	
	baz=16,slow=2.6							
KIS	**Kishinev**	**145.36**	**328**	↑PKP2	**PKPab**	**01 07 34.9**	**+0.9**	
KIS	**Kishinev**	**145.36**	**328**	↑P	**PKPab**	**01 07 34.9**	**+0.9**	
BZK	**Bozkurt**	**145.37**	**317**	↑P	**PKPab**	**01 07 35.2**	**+1.1**	
HPK	**Haverah Park**	**145.67**	**4**	*e*P	**PKPbc**	**01 07 33.6**	**-0.2**	
MBAR	**Mbarara**	**145.78**	**237**	PKPbc	**PKPab**	**01 07 36.2**	**-0.6**	
	comp=Z,212nm,0.8s,baz=144,slow=1.8,SNR=176							
MBAR	**Mbarara**	**145.78**	**237**	P	**PKPbc**	**01 07 35.8**	**+0.3**	
MBAR	**Mbarara**	**145.78**	**237**	PKIKP	**PKPdf**	**01 07 34.9**	**+0.7**	
MBAR	**Mbarara**	**145.78**	**237**		**PKPdf**	**01 07 34.9**	**+0.7**	
MBAR	**Mbarara**	**145.78**	**237**	P	**PKPab**	**01 07 36.6**	**-0.2**	
DSB	**Dublin**	**145.83**	**10**	PKPdf	**PKPbc**	**01 07 34.0**	**-0.3**	
DSB				PKP	**PKPab**	**01 07 35.2**	**-0.4**	
DSB	**Dublin**	**145.83**	**10**	PKP	**PKPdf**	**01 07 30.3**	**-2.6**	
ILGA	**Ilgaz**	**146.01**	**316**	PKPbc	**PKPdf**	**01 07 34.6**	**+0.8**	
WLF1	**Llynfaes**	**146.06**	**7**	*e*P	**PKPbc**	**01 07 34.7**	**-0.2**	
KWP	**Kalwaria Pacla**	**146.08**	**336**	*e*PKP	**PKPbc**	**01 07 35.4**	**+0.2**	
CIDE	**Kastamonu/Cide**	**146.09**	**317**	↓P	**PKPab**	**01 07 36.4**	**-0.6**	
GORT1	**Trebel**	**146.10**	**351**	*e*PKPdf	**PKPbc**	**01 07 34.3**	**-0.7**	
	baz=14,slow=1.6							
GORT1				*e*PKPbc	**PKPab**	**01 07 36.1**	**-0.5**	
	baz=16,slow=2.6							
VASR	**Vaslui**	**146.12**	**328**	↓P	**PKPbc**	**01 07 35.4**	**0.0**	
RUE	**Ruedersdorf**	**146.15**	**348**	*e*PKPdf	**PKPbc**	**01 07 34.6**	**-0.6**	
	baz=14,slow=1.6							
RUE				*e*PKPbc	**PKPab**	**01 07 36.4**	**-0.4**	
	baz=16,slow=2.6							
NGRR	**Negresti**	**146.16**	**329**	↑P	**PKPbc**	**01 07 35.9**	**+0.5**	
MNTR	**Muntenesti**	**146.17**	**329**	↓P	**PKPab**	**01 07 37.1**	**-0.1**	
PDRR	**Padureni**	**146.19**	**329**	↑P	**PKPab**	**01 07 36.6**	**-0.6**	
LBWR	**Ladybower, Pea**	**146.22**	**5**	*e*P	**PKPbc**	**01 07 34.7**	**-0.7**	
LMK	**Market Rasen**	**146.25**	**3**	*e*P	**PKPbc**	**01 07 34.9**	**-0.6**	
DMBR	**Dumbraveni**	**146.25**	**329**	↑P	**PKPab**	**01 07 36.8**	**-0.6**	
VAL	**Valentia**	**146.31**	**14**	PKP	**PKPbc**	**01 07 35.3**	**-0.4**	
PRAR	**RASCA**	**146.36**	**330**	↓P	**PKPdf**	**01 07 34.4**	**+0.4**	
BIR	**Birlad**	**146.46**	**328**	↑PKP2	**PKPbc**	**01 07 36.5**	**+0.2**	
BIR	**Birlad**	**146.46**	**328**	↑P	**PKPbc**	**01 07 36.5**	**+0.2**	
STNC	**Stoke**	**146.49**	**5**	*e*P	**PKPbc**	**01 07 36.5**	**+0.4**	
VLDR	**Vladesti**	**146.52**	**327**	↑P	**PKPbc**	**01 07 37.3**	**+0.8**	
GIRR	**Girov**	**146.53**	**330**	↑P	**PKPbc**	**01 07 37.1**	**+0.6**	
TLCR		**146.57**	**325**	↑P	**PKPbc**	**01 07 37.1**	**+0.5**	
LLW	**Llanuwychllyn**	**146.58**	**7**	*e*P	**PKPbc**	**01 07 35.3**	**-1.1**	
FOEL	**Foel Wylfa**	**146.59**	**6**	*e*P	**PKPdf**	**01 07 35.2**	**+1.0**	
VARL	**Varlezi**	**146.60**	**327**	↓P	**PKPab**	**01 07 38.5**	**-0.3**	
IWEX	**Carrickbyrne,**	**146.60**	**10**	PKPdf	**PKPbc**	**01 07 36.4**	**-0.1**	
OJC	**Ojcow**	**146.62**	**340**	*e*PKP	**PKPdf**	**01 07 35.4**	**+1.1**	
RETH	**Rethem/Aller,**	**146.62**	**352**	*e*PKPdf	**PKPdf**	**01 07 34.9**	**+0.7**	
	baz=14,slow=1.6							
RETH				*e*PKPbc	**PKPbc**	**01 07 37.4**	**+1.0**	
	baz=16,slow=2.6							
RETH				*e*PKPab	**PKiKP**	**01 07 39.8**	**+1.1**	
	baz=13,slow=4.2							
BURAR	**Bucovina Array**	**146.63**	**332**	↑PKP2	**PKPbc**	**01 07 37.8**	**+0.9**	
BURAR	**Bucovina Array**	**146.63**	**332**		**PKPdf**	**01 07 35.0**	**+0.5**	
BURAR	**Bucovina Array**	**146.63**	**332**	↑P	**PKPbc**	**01 07 37.8**	**+0.9**	
SCTR	**Scanteiesti**	**146.68**	**327**	↑P	**PKiKP**	**01 07 38.5**	**-0.6**	
BR131	**Keskin Array S**	**146.69**	**314**	P	**PKPdf**	**01 07 35.7**	**+0.8**	
	SNR=79							
BRTR	**Keskin Array B**	**146.69**	**314**	PKPbc	**PKPbc**	**01 07 36.9**	**-0.5**	
	comp=Z,100nm,0.7s,baz=118,slow=2.3,SNR=139							
BRTR				SKPbc	**SKiKP**	**01 10 36.4**	**+0.8**	
	comp=Z,5.4nm,0.9s,baz=107,slow=1.3,SNR=4.2							
BRTR				SKKPbc	**SKKPab**	**01 18 23.1**	**-1.5**	
	comp=Z,5.9nm,1.1s,baz=210,slow=4.3,SNR=11							
BRTR	**Keskin Array B**	**146.69**	**314**	↑*e*PKIKP	**PKPdf**	**01 07 34.7**	**-0.3**	
BRTR				pmax	pmax			
	comp=Z,100nm,0.7s							
BRTR	**Keskin Array B**	**146.69**	**314**	PKPdf	**PKPdf**	**01 07 33.5**	**-1.5**	
GIUM	**Giurgiulesti**	**146.70**	**326**	↑P	**PKPbc**	**01 07 37.6**	**+0.6**

BOSR Bodos 147.56 329 ⇑P PKiKP 01 07 40.3 -0.7
MANR Mangalia 147.58 324 ⇑P PKPbc 01 07 39.0 -0.4
GEM Giv'at Ha'Em 147.61 301 P PKPdf 01 07 37.7 +1.2
GEM Giv'at Ha'Em 147.61 301 AML AML
LANS Liptovska Anna 147.65 339 ePKP PKPbc 01 07 38.2 -1.3
LANS e 01 07 41.8
LANS e 01 10 38.9
KRLC Kraliky 147.66 343 ePKIKP PKPbc 01 07 37.9 -1.6
KRLC e 01 07 41.3
ELMS Elmsett, Ipswi 147.66 2 eP PKPbc 01 07 38.2 -1.2
MONM Monmouth 147.67 6 eP PKPdf 01 07 37.1 +1.1
MORC Moravsky Berou 147.71 342 ⇑PKIKP PKPbc 01 07 38.1 -1.5
MORC Moravsky Berou 147.71 342 ePKP PKPdf 01 07 36.5 +0.3
MORC e 01 07 40.6
MORC Moravsky Berou 147.71 342 ⇑P PKPbc 01 07 38.1 -1.5
GTTG Gottingen 147.71 351 ePKPdf PKPdf 01 07 36.7 +0.6
baz=14,slow=1.6
GTTG ePKPbc PKiKP 01 07 40.7 -0.4
baz=16,slow=2.6
NEHR Nehoiu 147.71 328 ⇓P PKPbc 01 07 39.0 -0.7
PGOR Pogoanele 147.72 327 ⇑P PKiKP 01 07 41.2 -0.1
AMRR Amara 147.74 326 ⇓PKP2 PKiKP 01 07 42.0 +0.6
AMRR Amara 147.74 326 ⇓P PKiKP 01 07 42.0 +0.6
NEUB Neuenburg 147.74 349 ePKPdf PKPdf 01 07 36.9 +0.8
baz=14,slow=1.6
NEUB ePKPbc PKiKP 01 07 40.9 -0.3
baz=16,slow=2.6
NEUB ePKPab PKPab 01 07 44.7 +1.4
baz=13,slow=4.2
CEI Carei 147.75 334 ⇓PKP2 PKPbc 01 07 40.1 +0.4
CEI Carei 147.75 334 ⇓P PKPbc 01 07 40.1 +0.4
TGMR Targu Mures 147.76 331 ⇓P PKPab 01 07 42.9 -0.6
DOPR Dopca 147.77 330 ⇑P PKPbc 01 07 40.2 +0.4
ISR Istrita 147.81 327 ⇓PKP2 PKiKP 01 07 42.2 +0.6
ISR Istrita 147.81 327 ⇓P PKiKP 01 07 42.2 +0.6
PVCC Panska Ves 147.81 346 ePKIKP PKPbc 01 07 38.2 -1.6
PVCC e 01 07 41.8
PVCC Panska Ves 147.81 346 ePKPDF PKPbc 01 07 38.2 -1.6
PVCC ⇑ePKP PKiKP 01 07 41.8 +0.4
ICOR Ion Corvin 147.82 325 ⇓P PKiKP 01 07 41.2 -0.4
MLR Muntele Rosu 147.84 328 PKPbc PKPbc 01 07 40.6 +0.4
comp=Z,178nm,1.1s,baz=327,slow=4.3,SNR=80
MLR Muntele Rosu 147.84 328 ⇑PKIKP PKPbc 01 07 39.3 -0.9
MLR Muntele Rosu 147.84 328 ⇑P PKPbc 01 07 39.3 -0.9
KECS Kecovo 147.86 337 ePKP PKiKP 01 07 41.9 +0.4
KECS e 01 07 46.7
ASCN Ascension 147.87 147 PKiKP 01 07 42.1 -0.5
MMAI Mount Meron Ar 147.87 301 PKPbc PKiKP 01 07 41.7 -0.5
comp=Z,87nm,0.6s,baz=41,slow=9.0,SNR=244
H10N3 ASCENSION HYDR 147.88 147 PKPbc PKiKP 01 07 42.3 +0.1
baz=172,slow=3.6,SNR=5.4
H10N1 ASCENSION HYDR 147.88 147 PKPbc PKiKP 01 07 42.4 +0.2
baz=172,slow=3.6,SNR=4.9
H10N2 ASCENSION HYDR 147.89 147 PKPbc PKiKP 01 07 42.5 +0.2
baz=172,slow=3.6,SNR=7.3
QRNJ Al-Qirein 147.91 300 P PKPbc 01 07 39.0 -1.6
QRNJ Al-Qirein 147.91 300 AML AML
SAHE Sakarya_HENDEK 147.97 317 ⇑P PKiKP 01 07 41.5 -0.6
MESR Meseseni 147.97 333 ⇑P PKPdf 01 07 38.3 +1.6
HSKC Hora Svate Kat 147.99 347 ePKPDF PKPdf 01 07 37.9 +1.3
HSKC ⇑ePKP PKiKP 01 07 41.3 -0.5
CJR Cluj-Napoca 148.03 332 ⇑PKIKP PKPdf 01 07 38.5 +1.6
CJR Cluj-Napoca 148.03 332 ⇑P PKPdf 01 07 38.5 +1.6
UJAP Al Uja 148.10 299 P PKiKP 01 07 42.5 0.0
LEHL Lehliu 148.10 326 ⇑P PKiKP 01 07 41.7 -0.4
MDB Medias 148.12 331 ⇓P PKPbc 01 07 41.2 +0.5
BUG Bochum--Univer 148.12 354 ePKPdf PKPdf 01 07 37.3 +0.6
baz=14,slow=1.6
BUG ePKPbc PKiKP 01 07 41.6 -0.4
baz=16,slow=2.6
BUG ePKPab PKPab 01 07 45.5 +0.7
baz=13,slow=4.2
BUG epPKPbc pPKPab 01 09 24.3 +2.5
baz=16,slow=2.9
GHAJ Ghor Haditha 148.17 298 P PKiKP 01 07 42.1 -0.6
CY604 RAF Akrotiri, 148.18 304 PKPbc PKPbc 01 07 39.9 -1.0
PLAR PLOIESTI 148.21 328 ⇓P PKiKP 01 07 42.2 -0.2
LTVH Ltavrtes, Hu 148.22 335 ⇑P PKiKP 01 07 42.7 +0.4
KASTN Kahler Asten 148.24 353 ePKPdf PKPdf 01 07 37.8 +0.8
baz=14,slow=1.6
KASTN ePKPbc PKiKP 01 07 41.9 -0.4
baz=16,slow=2.6
KASTN ePKPab PKPab 01 07 46.4 +1.1
baz=13,slow=4.2
LISJ El Lisan 148.25 298 P PKPbc 01 07 39.5 -2.0
LISJ El Lisan 148.25 298 AML AML
SULR 148.26 327 ⇓P PKiKP 01 07 43.4 +1.0
MARR Marisel-Cluj 148.27 333 ⇑P PKPdf 01 07 37.8 +0.5
HSNJ Maan 148.29 296 P PKiKP 01 07 43.4 +0.2
HSNJ Maan 148.29 296 AML AML
SALP Salfit 148.29 299 P PKPdf 01 07 39.3 +1.6
SALP Salfit 148.29 299 AML AML
MOX Moxa 148.31 349 ePKPdf PKPdf 01 07 37.7 +0.6
baz=14,slow=1.6
MOX ePKPbc PKiKP 01 07 42.2 -0.2
baz=16,slow=2.6
MOX ePKPab PKPab 01 07 46.7 +1.1
baz=13,slow=4.2
PRU Pruhonice 148.32 345 ePKP2 PKPbc 01 07 41.7 +0.6
PRU Pruhonice 148.32 345⇑ePKP PKPbc 01 07 41.7 +0.6
PRU ePKPAB PKPab 01 07 47.4 +1.7
VOIR 148.32 329 ⇑P PKPdf 01 07 39.0 +1.6
DRGR 148.36 333 ⇓PKP2 PKPbc 01 07 41.7 +0.3
DRGR 148.36 333 ⇑P PKPbc 01 07 41.7 +0.3
PLN Plauen 148.37 348 ePKPdf PKPdf 01 07 37.7 +0.5
baz=14,slow=1.6
PLN ePKPbc PKiKP 01 07 42.5 0.0
baz=16,slow=2.6
PLN ePKPab PKPab 01 07 47.1 +1.2
baz=13,slow=4.2
TANN Tannenbergstha 148.37 348 ePKPdf PKPdf 01 07 38.1 +0.8
baz=14,slow=1.6
TANN ePKPbc PKiKP 01 07 42.5 -0.1
baz=16,slow=2.6
VRAC Vranov 148.40 342 PKPbc PKPbc 01 07 40.7 -0.7
comp=Z,68nm,1.1s,baz=170,slow=0.3,SNR=13
VRAC Vranov 148.40 342 ePKP PKPdf 01 07 37.3 0.0
VRAC e 01 07 42.4
VRAC Vranov 148.40 342 ⇑P PKiKP 01 07 42.2 -0.5
VYHS Vyhne 148.42 339 ePKP PKPdf 01 07 38.0 +0.6
VYHS e 01 07 43.3
JAVC Velka Javorina 148.48 341 ePKP PKPdf 01 07 38.6 +1.1
JAVC e 01 07 43.9
BORR Bors 148.50 334 ⇓P PKiKP 01 07 44.1 +1.2
BMOL Mol 148.50 357 PcP PKPbc 01 07 41.2 -0.2
TNR Turnu Rosu 148.53 330 ⇑P PKPdf 01 07 38.1 +0.4
PSZ Piszkesteto 148.55 337 ⇑PKHKP PKPpre 01 07 41.5
PSZ Piszkesteto 148.55 337 ⇑P PKPbc 01 07 41.5 -0.4
NKC Novy Kostel 148.55 348 ePKHKP PKPpre 01 07 39.5
NKC Novy Kostel 148.55 348 ePKPDF PKPdf 01 07 39.5 +2.0
NKC ⇑ePKP PKiKP 01 07 42.8 -0.1
ARR Arges 148.57 329 ⇓P PKPdf 01 07 39.4 +1.6
ELSH Elham, Standar 148.62 2 eP PKPbc 01 07 40.0 -1.7
AMAZ Amatzia 148.66 299 P PKPbc 01 07 40.5 -2.1
AMAZ Amatzia 148.66 299 AML AML
KRUC Moravsky 148.68 342 ePKP PKPdf 01 07 37.3 -0.4
KRUC e 01 07 43.0
SGRR Singureni 148.72 327 ⇑P PKiKP 01 07 43.2 -0.3
PRNI Paran 148.85 296 P PKPdf 01 07 40.2 +1.6
PRNI Paran 148.85 296 AML AML
CSS Mathiatis 148.88 306 P PKPbc 01 07 43.2 +0.2
CSS Mathiatis 148.88 306 AML AML
CSS Mathiatis 148.88 306 P PKPdf 01 07 39.5 +1.0
RAZG Razgrad 148.88 325 ⇑P PKPbc 01 07 42.9 +0.2
HRFI Mount Harif 148.89 296 P PKPdf 01 07 40.0 +1.3
HRFI Mount Harif 148.89 296 AML AML
ZVC Zvikov 148.91 345 ePKPDF PKPdf 01 07 39.6 +1.5
ZVC ⇑ePKP PKiKP 01 07 44.1 +0.4
ZVC ePKPAB PKPab 01 07 49.0 +0.9
ZVC ePPP PP 01 11 18.1 +1.4
DYA Yadsworthy 148.92 8 eP PKPdf 01 07 40.2 +2.1
LOT Lotru 148.92 330 ⇓P PKPbc 01 07 42.2 -0.7
BSZH Besenyszg 148.93 336 ⇓P PKiKP 01 07 45.0 +1.3
AQBJ Aqaba 148.94 295 P PKiKP 01 07 45.4 +1.1
AQBJ Aqaba 148.94 295 AML AML
UCC Uccle 148.95 358 dPKPdf PKPdf 01 07 38.5 +0.5
UCC dPKP PKPbc 01 07 42.9 +0.3
LOZB Loznitsa 148.97 325 ⇑P PKPbc 01 07 42.7 -0.3
CCA1 Carnmenellis 148.97 10 eP PKPdf 01 07 38.0 -0.2
DEV Deva 148.98 332 ⇓PKHKP PKPpre 01 07 39.5
DEV Deva 148.98 332 ⇓P PKPdf 01 07 39.5 +1.2
MODS Modra-Piesok 149.03 341 ePKP PKPdf 01 07 38.9 +0.5
MODS e 01 07 45.2
MODS e 01 09 27.8
MODS e 01 10 42.6
EIL Elat 149.03 295 PKP PKPdf 01 07 39.4 +0.5
comp=Z,12nm,1.1s,baz=338,slow=1.2,SNR=13
EIL PKPbc PKPbc 01 07 43.9 +0.3
comp=Z,331nm,1.2s,baz=53,slow=1.3,SNR=78
EIL Elat 149.03 295 P PKPdf 01 07 40.2 +1.3
EIL Elat 149.03 295 AML AML
MEM Membach 149.05 356 dPKPdf PKPdf 01 07 39.0 +0.7
MEM dPKP PKPbc 01 07 42.7 -0.2
BSKQ Steenkerk 149.11 358 dPKPdf PKPdf 01 07 38.8 +0.5
BSKQ dPKP PKiKP 01 07 43.6 -0.4
COPA Copaceanca 149.17 327 ⇑P PKPab 01 07 48.8 -0.5
SRO Srobarova 149.19 339 ePKP PKiKP 01 07 45.4 +1.1
TNS Taunus Mts 149.20 353 ePKPdf PKPdf 01 07 39.1 +0.5
baz=14,slow=1.6
TNS ePKPbc PKiKP 01 07 44.0 -0.3
baz=16,slow=2.6
TNS ePKPab PKPab 01 07 50.7 +1.4
baz=13,slow=4.2
SIRR Siria 149.22 334 ⇑P PKPdf 01 07 40.5 +1.8
KZIT Kziot 149.24 298 P PKPdf 01 07 40.5 +1.3
KZIT Kziot 149.24 298 AML AML
ZST Bratislava 149.24 341 ePKP PKiKP 01 07 44.8 +0.4
BCLA Clavier 149.29 357 dPKP PKiKP 01 07 44.4 0.0
GRF Grafenberg Arr 149.30 349 ePKPdf PKPdf 01 07 39.4 +0.7
baz=14,slow=1.6
GRF ePKPbc PKiKP 01 07 44.8 +0.3
baz=16,slow=2.6
GRF ePKPab PKPab 01 07 51.4 +1.7
baz=13,slow=4.2
GRFO Grafenberg 149.30 349 PKIKP PKPdf 01 07 38.8 0.0
GRFO Grafenberg 149.30 349 PKPdf 01 07 38.8 0.0
ABNA Allensteig Bun 149.30 343 ePKP PKPdf 01 07 37.9 -0.9
comp=Z,20nm,1.2s
ABNA ePKP PKiKP 01 07 44.1 -0.4
comp=Z,205nm,1.3s
KHC Kasperske Hory 149.35 346 ePKHKP PKPpre 01 07 40.5
KHC e 01 07 50.8
KHC e 01 11 21.3
KHC Kasperske Hory 149.35 346 ePKPDF PKPdf 01 07 40.5 +1.6
KHC ⇑ePKP PKiKP 01 07 44.6 0.0
KHC ePKPAB PKPab 01 07 50.8 +0.8
KHC ePP PP 01 11 21.3 +2.0
SZH Strazhitsa 149.37 325 P PKPdf 01 07 38.5 -0.6
KEPZ Antalya-Kepez 149.39 310 ⇑P PKPbc 01 07 42.9 -1.3
GZR Gura Zlata 149.41 331 ⇓PKHKP PKPpre 01 07 41.0
GZR Gura Zlata 149.41 331 ⇓P PKPdf 01 07 41.0 +1.8
SURR Surduc 149.42 333 ⇑P PKiKP 01 07 44.9 0.0
BMRD Maredsous 149.43 357 dPKPdf PKPdf 01 07 39.7 +0.8
BMRD dPKiKP PKiKP 01 07 44.8 +0.1
CKRC Cesky Krumlov 149.46 345 ePKHKP PKPpre 01 07 40.6
CKRC Cesky Krumlov 149.46 345 ePKPDF PKPdf 01 07 40.6 +1.6
CKRC ⇑ePKP PKiKP 01 07 44.8 -0.1
WET Wettzell 149.49 347 ePKPdf PKPdf 01 07 39.9 +0.8
baz=14,slow=1.6
WET ePKPbc PKiKP 01 07 44.9 -0.1
baz=16,slow=2.6
AMBH Ambrzfalva 149.53 335 ⇓P PKiKP 01 07 46.4 +1.3
RCHB Rochefort 149.55 357 dPKPdf PKPdf 01 07 39.6 +0.5
RCHB dPKP PKPbc 01 07 44.3 +0.2
PHSR Pinarhisar 149.56 321 ⇑P PKiKP 01 07 45.6 +0.3
GEC2 GERESS Array S 149.58 345 ePKPdf PKPdf 01 07 39.8 +0.5
baz=14,slow=1.6
GEC2 ePKPbc PKiKP 01 07 45.0 -0.3
baz=16,slow=2.6
GEC2 epPKPbc pPKPab 01 09 28.4 +0.8
baz=16,slow=2.9
GERES GERESS Array B 149.58 345 PKP PKPdf 01 07 39.7 +0.4
comp=Z,6.4nm,1.0s,baz=29,slow=2.4,SNR=37
GERES PKPbc PKPbc 01 07 44.8 +0.4
comp=Z,75nm,0.8s,baz=24,slow=1.8,SNR=134
GERES GERESS Array B 149.58 345 PKIKP PKPdf 01 07 39.3 0.0
GERES 01 07 51.8
GERES GERESS Array B 149.58 345 PKPdf 01 07 39.3 0.0
GERES PKPbc 01 07 44.4 0.0
GERES PKPab 01 07 51.8 +0.8
JMB Yambol 149.59 324 P PKPdf 01 07 38.6 -0.8
WINA Alland / Wiene 149.63 342 ePKP PKPdf 01 07 38.6 -0.7
comp=Z,39nm,1.6s,SNR=65
WINA ePKP PKPbc 01 07 44.7 +0.3
comp=Z,88nm,0.6s
WINA ePKP PKPab 01 07 51.3 +0.1
comp=Z,944nm,2.6s
DOU Dourbes 149.65 357 dPKPdf PKPdf 01 07 39.7 +0.4
DOU dPcP PKPbc 01 07 44.5 +0.1
VLAD Vladila 149.68 328 ⇑P PKiKP 01 07 45.6 +0.2
CRAR CRAIOVA 149.74 329 ⇓PKP2 PKiKP 01 07 46.3 +0.8
CRAR CRAIOVA 149.74 329 ⇓P PKiKP 01 07 46.3 +0.8
BZS Buzias 149.75 333 ⇑PKHKP PKPpre 01 07 40.1
BZS Buzias 149.75 333 ⇑P PKPdf 01 07 40.1 +0.5
SRE Strehaia 149.77 330 ⇑PKP2 PKiKP 01 07 46.3 +0.7
SRE Strehaia 149.77 330 ⇑P PKiKP 01 07 46.3 +0.7
TIM Timisoara 149.82 334 ⇓P PKiKP 01 07 45.8 +0.2
CONA Conrad Observa 149.86 342 ePKP PKPdf 01 07 39.1 -0.7
comp=Z,27nm,1.4s,SNR=11
CONA ePKP PKPbc 01 07 45.2 +0.2
comp=Z,256nm,1.2s
CONA ePKP PKPab 01 07 52.2 0.0
comp=Z,554nm,2.1s
PVL Pavlikeni 149.90 326 P PKPdf 01 07 40.3 +0.4
RONA Rosalia, Austr 149.93 341 ePKP PKPdf 01 07 39.5 -0.4
comp=Z,26nm,1.5s,SNR=4.9
RONA ePKP PKPbc 01 07 45.4 +0.2
comp=Z,137nm,0.7s
RONA ePKP PKPab 01 07 52.5 +0.1
comp=Z,725nm,2.2s
HERR Herculane 149.97 331 ⇓P PKPbc 01 07 43.2 -2.1
BAND Balkesir-Ban 149.98 319 ⇑P PKiKP 01 07 46.6 +0.4
WLF Walferdange 149.98 355 PKP PKPdf 01 07 40.1 +0.3
WLF Walferdange 149.98 355 dPKPdf PKPdf 01 07 40.1 +0.3
WLF dPKP PKPbc 01 07 45.4 +0.3
WLF Walferdange 149.98 355 ePKPbc PKiKP 01 07 46.9 +1.0
baz=16,slow=2.6
WLF epPKPbc pPKPab 01 09 29.7 +0.5
baz=16,slow=2.9
PLVB Pleven 150.00 327 ⇓P PKPbc 01 07 44.4 -1.1
RMGR Halanga-Turnu 150.01 331 ⇑P PKiKP 01 07 45.8 -0.2
BANR Banloc 150.14 333 ⇓P PKiKP 01 07 47.2 +0.9
BAIL Bailesti 150.18 329 ⇓P PKiKP 01 07 47.5 +1.0
MDVR Moldovita 150.37 332 ⇓P PKPdf 01 07 42.4 +1.8
MOA Molln 150.37 344 ePKP PKPdf 01 07 39.6 -0.9
comp=Z,12nm,1.1s,SNR=5.0
MOA ePKP PKPbc 01 07 46.0 -0.2
comp=Z,95nm,1.2s
MOA ePKP PKPab 01 07 54.1 -0.1
comp=Z,424nm,1.9s
MOA PP PP 01 11 24.9 -0.2
comp=Z,520nm,5.1s
DIM Dimitrovgrad 150.41 324 P PKPdf 01 07 40.8 +0.1
MORH Mrgy, Hungar 150.44 337 ⇑P PKPbc 01 07 45.1 -1.2
MPEP Malo Peshtene 150.47 328 P PKPdf 01 07 41.1 +0.3
STU Stuttgart 150.52 351 ePKPdf PKPdf 01 07 41.4 +0.8
baz=14,slow=1.6
STU ePKPbc PKiKP 01 07 47.5 +0.5
baz=16,slow=2.6
BALB Balikesir 150.53 318 PKPdf PKPdf 01 07 40.6 -0.3
ARSA Arzberg 150.57 342 ePKP PKPdf 01 07 40.5 -0.3
comp=Z,12nm,1.3s,SNR=14
ARSA ePKP PKPbc 01 07 46.4 -0.3
comp=Z,95nm,1.5s
ARSA ePKP PKPab 01 07 55.3 +0.2
comp=Z,1µm,3.7s
BIOA Bad Ischl, Aus 150.68 345 ePKP PKPdf 01 07 39.9 -1.1
comp=Z,16nm,1.3s,SNR=9.6
BIOA ePKP PKPbc 01 07 46.6 -0.3
comp=Z,102nm,1.1s
BIOA ePKP PKPab 01 07 56.3 +0.8
comp=Z,588nm,1.6s
FUR Furstenfeldbru 150.75 348 ePKPdf PKPdf 01 07 41.6 +0.6
baz=14,slow=1.6
FUR ePKPbc PKiKP 01 07 47.9 +0.4
baz=16,slow=2.6
PLD Plovdiv 150.80 325 P PKPdf 01 07 39.6 -1.7
BLKB Belogradchik 150.80 329 ⇓P PKPdf 01 07 41.7 +0.4
KDZ Kurdzhali 150.82 323 P PKPdf 01 07 39.9 -1.5
PGB Panagyurishte 150.85 326 P PKPdf 01 07 42.1 +0.7
FRGS Fruska Gora 150.88 334 eP PKPdf 01 07 39.8 -1.5
ALN Alexandroupoli 150.89 322 P PKPbc 01 07 46.0 -1.6
ENEZ Enez 150.93 321 P PKPbc 01 07 46.7 -0.9
CAVK Edirne/Enez-Ca 150.95 321 ⇓P PKPbc 01 07 45.9 -1.8
SESA Seetaler Alpe, 150.96 343 ePKP PKPdf 01 07 41.0 -0.7
comp=Z,32nm,1.1s,SNR=21
SESA ePKP PKPbc 01 07 47.3 -0.5
comp=Z,215nm,0.6s
SESA ePKP PKPab 01 07 57.1 +0.1
comp=Z,491nm,1.4s
TAVA DENIZLI_Tavas 151.02 313 ⇑P PKiKP 01 07 49.0 +0.4
BFO Black Forest 151.08 352 PKIKP PKPdf 01 07 41.0 -0.5
BFO Black Forest 151.08 352 PKPdf PKPdf 01 07 41.0 -0.5
BFO Black Forest 151.08 352 ePKPdf PKPdf 01 07 41.9 +0.4
baz=14,slow=1.6
BFO ePKPbc PKiKP 01 07 48.6 +0.4
baz=16,slow=2.6
RZN Rozhen 151.11 324 P PKPdf 01 07 40.0 -2.0
RZN Rozhen 151.11 324 P PKPdf 01 07 41.3 -0.7
LESA Schwarzleotal 151.16 346 ePKP PKPdf 01 07 40.5 -1.2
comp=Z,21nm,1.2s,SNR=15
LESA ePKP PKPbc 01 07 47.5 -0.6
comp=Z,40nm,0.5s
LESA ePKP PKPab 01 07 57.7 +0.1
comp=Z,536nm,2.0s
SOKA Soboth 151.23 342 PKP PKPdf 01 07 41.2 -0.7
comp=Z,27nm,1.4s,SNR=11
SOKA ePKP PKPbc 01 07 47.6 -0.7
comp=Z,123nm,1.1s
SOKA ePKP PKPab 01 07 57.8 -0.1
comp=Z,388nm,1.6s
PERS Pernice 151.24 342 i PKPdf PKPdf 01 07 41.1 -0.8
PERS i PKPbc PKPbc 01 07 48.1 -0.2
PERS i PKPab PKPab 01 07 58.4 +0.4
PERS e 01 09 21.3
PERS e 01 11 30.3
BOVS Bovan 151.25 330 ⇑P PKPbc 01 07 47.7 -0.6
VTS Vitosha 151.26 327 P PKPdf 01 07 39.4 -2.8
VTS Vitosha 151.26 327 P PKPdf 01 07 41.8 -0.4
KBA Koelnbreinsper 151.32 345 ePKP PKPdf 01 07 41.0 -1.2
comp=Z,23nm,1.3s,SNR=9.6
KBA ePKP PKPbc 01 07 47.8 -0.8
comp=Z,90nm,0.9s
KBA ePKP PKPab 01 07 58.3 -0.2
comp=Z,319nm,1.9s
KBA PP PP 01 11 30.6 -0.1
comp=Z,250nm,2.9s
EZN Ezine 151.39 320 ⇑PKIKP PKiKP 01 07 49.7 +0.6
EZN Ezine 151.39 320 ⇑P PKiKP 01 07 49.7 +0.6
TRAN Tran 151.40 328 P PKPdf 01 07 41.4 -0.9
UBR Ueberruh 151.44 349 ePKPdf PKPdf 01 07 42.4 +0.2
baz=14,slow=1.6
UBR ePKPbc PKiKP 01 07 49.5 +0.4
baz=16,slow=2.6
SMTH Samothraki Isl 151.46 321 P PKPbc 01 07 47.5 -1.4
WATA Walderalm 151.49 347 ePKP PKPdf 01 07 41.6 -0.7
comp=Z,17nm,1.1s,SNR=9.9
WATA ePKP PKPbc 01 07 48.7 -0.2
comp=Z,59nm,0.6s
WATA ePKP PKPab 01 07 58.8 -0.3
comp=Z,579nm,2.2s
WATA ePP PP 01 11 27.8 -3.7
comp=Z,132nm,2.5s
TEKS Tekeris 151.49 334 eP PKPdf 01 07 41.5 -0.8
RETA Reutte 151.50 348 ePKP PKPdf 01 07 41.9 -0.4
comp=Z,27nm,2.3s,SNR=21
RETA ePKP PKiKP 01 07 49.0 -0.2
comp=Z,112nm,1.4s
RETA ePKP PKPab 01 07 59.0 0.0
comp=Z,269nm,1.8s
RETA ePP PP 01 11 27.8 -3.7
comp=Z,12nm,2.0s
OBKA Obir 151.52 342 ePKP PKPdf 01 07 40.9 -1.5
comp=Z,8.4nm,0.8s
OBKA i PKP PKPbc 01 07 48.4 -0.6
comp=Z,34nm,0.8s
OBKA ePKP PKPab 01 07 59.4 +0.2
comp=Z,98nm,1.0s
OBKA ePP PP 01 11 30.3 -1.4
comp=Z,324nm,3.5s
WTTA Wattenberg 151.54 347 ePKP PKPdf 01 07 42.3 -0.2
comp=Z,29nm,1.1s,SNR=12
WTTA i PKP PKPbc 01 07 49.1 0.0
comp=Z,107nm,0.7s
WTTA ePKP PKPab 01 07 59.1 -0.3
comp=Z,628nm,2.2s
WTTA ePP PP 01 11 27.8 -4.0
comp=Z,25nm,1.9s
MOTA Moosalm 151.57 348 ePKP PKPdf 01 07 41.7 -0.8
comp=Z,28nm,1.0s,SNR=12
MOTA ePKP PKPbc 01 07 48.8 -0.3
comp=Z,103nm,0.9s
MOTA ePP PP 01 11 28.6 -3.4
comp=Z,153nm,3.0s
MYKA Terra Mystica 151.66 344 PKP PKPdf 01 07 41.7 -0.8
comp=Z,34nm,1.8s,SNR=7.6
MYKA ePKP PKPbc 01 07 48.6 -0.7
comp=Z,67nm,0.7s
MYKA ePKP PKPab 01 07 59.6 -0.2
comp=Z,302nm,1.7s
MYKA PP PP 01 11 31.9 -0.6
comp=Z,312nm,3.3s
SQTA Sankt Quirin 151.67 348 ePKP PKPdf 01 07 41.4 -1.2
comp=Z,21nm,1.2s,SNR=14
SQTA i PKP PKPbc 01 07 49.2 -0.2
comp=Z,109nm,0.8s
SQTA ePKP PKPab 01 07 59.7 -0.1
comp=Z,545nm,2.9s
SQTA ePP PP 01 11 29.8 -2.8
comp=Z,305nm,3.7s
KAVA Kavala 151.71 323 P PKPbc 01 07 47.4 -2.1
MMB Musomishta 151.75 325 P PKPdf 01 07 41.9 -0.9
MMB Musomishta 151.75 325 P PKPbc 01 07 47.9 -1.7
NVR Nevrokopi 151.83 325 P PKPdf 01 07 40.0 -2.9
ABTA Abfaltersbach 151.83 345 ePKP PKPdf 01 07 41.5 -1.3
comp=Z,44nm,0.9s,SNR=12
ABTA ePKP PKPbc 01 07 48.8 -0.8
comp=Z,94nm,0.6s
ABTA ePKP PKPab 01 07 59.6 -0.8
comp=Z,253nm,1.9s
ABTA ePP PP 01 11 33.4 0.0
comp=Z,0.2nm,0.3s
THAS Thassos island 151.85 322 P PKPbc 01 07 48.4 -1.3
DAVA Damuels 151.86 349 ePKP PKPdf 01 07 42.7 -0.2
comp=Z,23nm,1.7s,SNR=5.0
DAVA ePKP PKiKP 01 07 50.1 0.0
comp=Z,130nm,1.3s
DAVA ePKP PKPab 01 08 00.7 0.0
comp=Z,212nm,1.9s
DAVA ePP PP 01 11 30.1 -3.5
comp=Z,6.0nm,1.2s
KKB Krupnik 151.88 326 P PKPdf 01 07 41.9 -1.1
KKB Krupnik 151.88 326 P PKPdf 01 07 42.4 -0.6
LJU Ljubljana 151.95 342 i PKPdf PKPdf 01 07 43.0 +0.1
LJU i PKPbc PKPbc 01 07 49.9 +0.1
LJU i PKPab PKPab 01 08 01.2 +0.3
FETA Feichten 151.96 348 ePKP PKPdf 01 07 42.2 -0.9
comp=Z,30nm,1.3s,SNR=17
FETA i PKP PKiKP 01 07 50.3 0.0
comp=Z,55nm,0.7s
FETA ePKP PKPab 01 08 00.8 -0.3
comp=Z,306nm,2.2s
FETA ePP PP 01 11 31.2 -3.0
comp=Z,390nm,3.8s
PEHC Pehcevo 152.04 326 i P PKPdf 01 07 43.4 +0.1
BBLS Lazi&#263i 152.10 333 eP PKPdf 01 07 42.8 -0.5
SRS Serrai 152.13 325 P PKPbc 01 07 48.3 -2.1
BOJS Bojanci 152.22 341 i PKPdf PKPdf 01 07 43.5 +0.1
BOJS i PKPbc PKPbc 01 07 50.3 -0.1
BOJS i PKPab PKPab 01 08 02.6 +0.6
BLY Banja Luka 152.23 337 ⇓P PKiKP 01 07 51.7 +1.0
SJES Sjenica 152.34 332 eP PKPdf 01 07 42.7 -1.0
OUR Ouranopolis 152.45 323 P PKiKP 01 07 51.4 +0.2
SOH Sokhos 152.47 324 P PKPab 01 08 02.8 -0.6
TRI Trieste 152.47 343 PKP2 PKPab 01 08 03.4 +0.3
TRI 02 07 50.0
TRI Trieste 152.47 343 PKPbc 01 07 50.0 -1.0
TRI PKPab 01 08 03.4 +0.3
KNT Kendrikon 152.48 325 P PKPdf 01 07 43.6 -0.2
PLE Pljevlja 152.54 333 ⇓i PKP PKPdf 01 07 43.4 -0.6
VAY Valandovo 152.54 326 i P PKPdf 01 07 43.1 -0.8
IVA Berane 152.68 331 ⇓i PKP PKPdf 01 07 43.5 -0.7
PLG Polygyros 152.72 324 P PKPbc 01 07 50.5 -1.3
THE Thessaloniki 152.81 324 P PKPbc 01 07 51.6 -0.3
UPM Unac-Piva 152.85 333 eP PKPbc 01 07 49.6 -2.5
UPM Unac-Piva 152.85 333 ⇓i PKP PKPdf 01 07 43.4 -1.2
KOME Kolasin 152.87 332 ⇓i PKP PKPdf 01 07 43.7 -0.8
PVY Plav 152.87 331 ⇓i PKP PKPdf 01 07 43.6 -0.9
GRG Griva 152.89 326 P PKPdf 01 07 42.1 -2.4
PAIG Palouri 152.89 323 P PKPab 01 08 04.6 -0.5
KLINJ Klinje 153.01 334 eP PKPbc 01 07 51.8 -0.6

	NKME	**Niksic**	**153.18**	**333**	⇓*i*PKP	**PKPdf**	**01 07 44.0**	**-0.9**
	BRY	**Bratogost**	**153.25**	**333**	*e*P	**PKPdf**	**01 07 44.3**	**-0.8**
	BRY	**Bratogost**	**153.25**	**333**	⇓*i*PKP	**PKPdf**	**01 07 44.1**	**-1.0**
	PDG	**Podgorica**	**153.32**	**332**	⇓P	**PKPdf**	**01 07 45.6**	**+0.6**
	PDG	**Podgorica**	**153.32**	**332**	⇓*i*PKP	**PKPdf**	**01 07 44.7**	**-0.3**
	CEME	**Cevo**	**153.37**	**332**	⇓*i*PKP	**PKPdf**	**01 07 44.4**	**-0.8**
	DRME	**Dracevica, Mon**	**153.54**	**331**	*e*P	**PKiKP**	**01 07 54.0**	**+0.5**
	DRME	**Dracevica, Mon**	**153.54**	**331**	⇓*i*PKP	**PKPdf**	**01 07 44.8**	**-0.5**
	XOR	**Xorichti**	**153.55**	**322**	P	**PKPab**	**01 08 04.6**	**-3.3**
	NEO	**Neokhori**	**153.57**	**322**	P	**PKPab**	**01 08 03.1**	**-5.0**
	BUM	**Brajici-Budva**	**153.58**	**332**	⇓*i*PKP	**PKPdf**	**01 07 44.5**	**-1.0**
	OHR	**Ohrid**	**153.60**	**328**	*i* P	**PKPdf**	**01 07 46.1**	**+0.6**
	HCY	**Herceg Novi**	**153.64**	**333**	*e*P	**PKiKP**	**01 07 55.9**	**+2.2**
	HCY	**Herceg Novi**	**153.64**	**333**	⇓*i*PKP	**PKPdf**	**01 07 44.4**	**-1.1**
	KZN	**Kozani**	**153.69**	**325**	P	**PKPdf**	**01 07 43.8**	**-1.9**
	ULC	**Ulcinj**	**153.69**	**331**	⇓*i*PKP	**PKPdf**	**01 07 45.1**	**-0.5**
	TYRN	**Tyrnavos**	**153.86**	**324**	P	**PKPab**	**01 08 02.3**	**-6.9**
	KBN	**Korca**	**153.97**	**327**	P	**PKPdf**	**01 07 44.4**	**-1.7**
	NEST	**Nestorio**	**153.99**	**326**	P	**PKPbc**	**01 07 52.7**	**-1.9**
	THL	**Klokotos Trika**	**154.08**	**324**	P	**PKPdf**	**01 07 44.4**	**-1.7**
	ATAL	**Atalanti**	**154.09**	**321**	P	**PKPbc**	**01 07 53.1**	**-1.6**
	PENT	**Pentalofos**	**154.10**	**326**	P	**PKPdf**	**01 07 42.8**	**-3.5**
	KPRO	**Kipourio**	**154.16**	**325**	P	**PKPdf**	**01 07 43.0**	**-3.4**
	AGG	**Agios Georgios**	**154.27**	**323**	P	**PKPbc**	**01 07 52.5**	**-2.6**
	TETR	**Tetrakomo, Epi**	**154.64**	**324**	P	**PKPdf**	**01 07 45.8**	**-1.3**
	EVR	**Evrytania**	**154.64**	**323**	P	PKPdf	01 07 39.1	-8.0
	VLC	**Villacollemand**	**154.76**	**347**	PKP	**PKPdf**	**01 07 44.8**	**-2.2**
	ANX	**Ano Chora**	**154.80**	**322**	P	**PKPdf**	**01 07 48.6**	**+1.3**
	SERG	**Sergoula**	**154.84**	**322**	P	**PKPdf**	**01 07 49.1**	**+1.8**
	EFP	**Efpalio**	**154.92**	**322**	P	**PKPbc**	**01 07 56.5**	**+0.1**
	IDI	**Anoyia**	**154.93**	**313**	PKPbc	**PKPbc**	**01 07 57.4**	**+0.7**
		comp=Z,16nm,0.9s,baz=27,slow=9.0,SNR=8.9						
	IDI				PKPab	**PKPab**	**01 08 13.8**	**-0.2**
		comp=Z,18nm,0.4s,baz=317,slow=4.7,SNR=10						
	AMPL	**Ampelaki**	**154.97**	**324**	P	**PKiKP**	**01 07 56.2**	**-0.3**
	VVK	**Vomvokou**	**154.98**	**322**	P	**PKPbc**	**01 07 57.6**	**+1.0**
	PVO	**Paravola**	**155.01**	**323**	P	PKPdf	01 07 57.8	+10
	KLV	**Kalavryta, Ach**	**155.03**	**321**	P	PKPdf	01 07 57.6	+10
	KEK	**Kerkira**	**155.16**	**327**		**PKPab**	**01 08 12.6**	**-2.1**
	PDO	**Prodromos**	**155.21**	**323**	P	PKPdf	01 07 57.9	+10
	PLEV	**Plevrona-Mesol**	**155.22**	**323**	P	PKPdf	01 07 57.6	+10
	NYDR	**Nydri-Lefkada**	**155.40**	**324**	P	PKPdf	01 07 57.9	+10
	AMT	**Artemida-Makis**	**155.63**	**321**	P	PKPab	01 08 06.2	-11
	AQU	**L'Aquila**	**155.64**	**340**	PKP	**PKPdf**	**01 07 46.6**	**-1.6**
	PGAV	**Gavieira, Arco**	**156.00**	**20**	*e*PKPdf	**PKPdf**	**01 07 48.8**	**0.0**
	PCAB	**Cabril**	**156.30**	**20**	*e*PKPdf	**PKPdf**	**01 07 50.4**	**+1.3**
	PCAB				*e*PKPab	**PKPab**	**01 08 21.3**	**+1.6**
	ECAL	**Calabor**	**156.48**	**18**	PKP	**PKPdf**	**01 07 48.4**	**-1.1**
	PBRG	**Braganca**	**156.61**	**18**	*e*PKPdf	**PKPdf**	**01 07 49.5**	**0.0**
	PBRG				*e*PKPab	**PKPab**	**01 08 21.2**	**+0.2**
	PTO	**Porto**	**156.62**	**22**	*e*PKPdf	**PKPdf**	**01 07 50.6**	**+1.1**
	PTO				*e*PKPab	**PKPab**	**01 08 21.4**	**+0.4**
	POLO	**Lamas de Olo**	**156.68**	**20**	*e*PKPdf	**PKPdf**	**01 07 49.8**	**+0.1**
	POLO				*e*PKPab	**PKPab**	**01 08 21.6**	**+0.2**
	PVRL	**Vila Real**	**156.79**	**20**	*e*PKPdf	**PKPdf**	**01 07 51.2**	**+1.4**
	PVRL				*e*PKPab	**PKPab**	**01 08 22.6**	**+0.8**
	PVIS	**Viseu**	**157.24**	**21**	*e*PKPdf	**PKPdf**	**01 07 50.3**	**-0.1**
	PVIS				*e*PKPab	**PKPab**	**01 08 24.9**	**+1.1**
	EJON	**La Jonquera**	**157.34**	**359**	PKP	**PKPdf**	**01 07 49.3**	**-1.1**
	MTE	**Manteigas**	**157.64**	**21**		**PKPdf**	**01 07 51.2**	**+0.3**
	MTE					**PKPab**	**01 08 25.2**	**-0.3**
	MTE	**Manteigas**	**157.64**	**21**	*e*PKPdf	**PKPdf**	**01 07 51.1**	**+0.3**
	MTE				*e*PKPab	**PKPab**	**01 08 25.9**	**+0.4**
	PSBE	**So Bento**	**157.98**	**24**	*e*PKPdf	**PKPdf**	**01 07 52.1**	**+0.9**
	PSBE				*e*PKPab	**PKPab**	**01 08 27.9**	**+0.9**
	PMOZ	**Porto Moniz, M**	**158.05**	**50**	PKP	**PKPdf**	**01 07 51.0**	**-0.6**
	PMOZ	**Porto Moniz, M**	**158.05**	**50**	*e*PKPdf	**PKPdf**	**01 07 52.3**	**+0.6**
	PMOZ				*e*PKPab	**PKPab**	**01 08 30.3**	**+2.6**
	PSARD	**Sardoal**	**158.14**	**23**	*e*PKPdf	**PKPdf**	**01 07 51.7**	**+0.2**
	PSARD				*e*PKPab	**PKPab**	**01 08 27.6**	**-0.1**
	PCBR	**Castelo Branco**	**158.17**	**21**	*e*PKPdf	**PKPdf**	**01 07 52.4**	**+0.9**
	PCBR				*e*PKPab	**PKPab**	**01 08 28.2**	**+0.5**
	PMAFR	**Mafra**	**158.27**	**26**	PKP	**PKPdf**	**01 07 51.6**	**0.0**
	PMAFR	**Mafra**	**158.27**	**26**	*e*PKPdf	**PKPdf**	**01 07 52.5**	**+0.8**
	PMAFR				*e*PKPab	**PKPab**	**01 08 29.5**	**+1.3**
	PMAR	**Madeira**	**158.30**	**49**	*e*PKPdf	**PKPdf**	**01 07 52.7**	**+0.6**
	PMAR				*e*PKPab	**PKPab**	**01 08 31.5**	**+2.6**
	FUL	**Funchal**	**158.36**	**50**	*e*PKPdf	**PKPdf**	**01 07 54.2**	**+2.3**
	FUL				*e*PKPab	**PKPab**	**01 08 30.1**	**+1.2**
	LIS	**Lisbon**	**158.52**	**26**	*e*PKPab	**PKPab**	**01 08 29.8**	**+0.5**
	LIS				*e*PP	**PP**	**01 12 11.9**	**+1.4**
	LIS	**Lisbon**	**158.52**	**26**	*e*PKPab	**PKPab**	**01 08 30.9**	**+1.6**
	PMPST	**Porto Santo, M**	**158.52**	**48**	*e*PKPdf	**PKPdf**	**01 07 53.6**	**+1.5**
	PMPST				*e*PKPab	**PKPab**	**01 08 30.3**	**+0.7**
	PMRV	**Marv??o**	**158.56**	**21**	*e*PKPdf	**PKPdf**	**01 07 52.1**	**+0.1**
	PMRV				*e*PKPab	**PKPab**	**01 08 29.3**	**-0.2**
	PMTG	**Montargil**	**158.58**	**23**	*e*PKPdf	**PKPdf**	**01 07 52.4**	**+0.4**
	PMTG				*e*PKPab	**PKPab**	**01 08 29.6**	**+0.1**
	UCM	**Universidad Co**	**158.88**	**12**	PKP	**PKPdf**	**01 07 52.2**	**-0.2**
	PESTR	**Estremoz**	**158.99**	**23**	PKP	**PKPdf**	**01 07 52.3**	**-0.2**
	PESTR	**Estremoz**	**158.99**	**23**	*e*PKPdf	**PKPdf**	**01 07 52.7**	**+0.2**
	PESTR				*e*PKPab	**PKPab**	**01 08 31.9**	**+0.5**
	EVO	**Evora**	**159.13**	**24**	*e*PKPdf	**PKPdf**	**01 07 52.9**	**+0.3**
	EVO				*e*PKPab	**PKPab**	**01 08 31.2**	**-0.8**
	ESDC	**Sonseca Array**	**159.33**	**14**	PKP	**PKPdf**	**01 07 54.1**	**+1.2**
		comp=Z,5.1nm,0.9s,baz=349,slow=2.7,SNR=32						
	ESDC				PKPab	**PKPab**	**01 08 33.4**	**+0.5**
		comp=Z,12nm,1.1s,baz=346,slow=4.8,SNR=16						
	ESDC				PP	**PP**	**01 12 14.8**	**+0.1**
		comp=Z,2.0nm,1.1s,baz=350,slow=6.4,SNR=4.7						
	ESDC	**Sonseca Array**	**159.33**	**14**		**PKPdf**	**01 07 53.3**	**+0.4**
	ESDC				PKPab	**PKPab**	**01 08 34.0**	**+1.2**
	PAB	**San Pablo**	**159.36**	**15**	⇑PKIKP	**PKPdf**	**01 07 53.4**	**+0.4**
	PAB	**San Pablo**	**159.36**	**15**	PKPdf	**PKPdf**	**01 07 53.2**	**+0.2**
	PLOUS	**Minas do Lousa**	**159.41**	**25**	*e*PKPdf	**PKPdf**	**01 07 53.8**	**+0.9**
	PLOUS				*e*PKPab	**PKPab**	**01 08 33.1**	**0.0**
	PBEJ	**Beja**	**159.63**	**24**	*e*PKPdf	**PKPdf**	**01 07 54.4**	**+1.2**
	PBEJ				*e*PKPab	**PKPab**	**01 08 35.1**	**+0.9**
	MESJ	**Messejana**	**159.65**	**25**	*e*PKPdf	**PKPdf**	**01 07 52.9**	**-0.4**
	MESJ				*e*PKPab	**PKPab**	**01 08 34.8**	**+0.5**
	MESJ				*e*PP	**PP**	**01 12 18.2**	**+1.6**
	MESJ	**Messejana**	**159.65**	**25**	*e*PKPdf	**PKPdf**	**01 07 53.7**	**+0.5**
	MESJ				*e*PKPab	**PKPab**	**01 08 33.1**	**-1.1**
	PTEO	**Sao Teotonio**	**159.69**	**27**	*e*PKPdf	**PKPdf**	**01 07 53.4**	**+0.1**
	PTEO				*e*PKPab	**PKPab**	**01 08 34.7**	**+0.2**
	PBAR	**Barrancos**	**159.81**	**22**	*e*PKPdf	**PKPdf**	**01 07 53.7**	**+0.2**
	PBAR				*e*PKPab	**PKPab**	**01 08 35.0**	**+0.1**
	PCVE	**Castro Verde**	**159.90**	**25**	*e*PKPdf	**PKPdf**	**01 07 54.0**	**+0.4**
	PCVE				*e*PKPab	**PKPab**	**01 08 36.3**	**+0.9**
	MORF	**Marmelete**	**159.93**	**27**	*e*PKPdf	**PKPdf**	**01 07 53.2**	**-0.4**
	MORF				*e*PKPab	**PKPab**	**01 08 36.1**	**+0.5**
	MORF				*e*PP	**PP**	**01 12 19.6**	**+1.4**
	MORF	**Marmelete**	**159.93**	**27**	*e*PKPdf	**PKPdf**	**01 07 54.0**	**+0.3**
	MORF				*e*PKPab	**PKPab**	**01 08 35.7**	**+0.2**
	PFVI	**Vila Bisbo**	**160.00**	**27**	*e*PKPdf	**PKPdf**	**01 07 53.9**	**+0.3**
	PFVI				*e*PKPab	**PKPab**	**01 08 37.1**	**+1.3**
	PVAQ	**Vaqueiros**	**160.23**	**25**	*e*PKPdf	**PKPdf**	**01 07 54.9**	**+1.0**
	PVAQ				*e*PKPab	**PKPab**	**01 08 35.7**	**-1.0**
	PBDV	**Barranco-do-Ve**	**160.28**	**25**	*e*PKPdf	**PKPdf**	**01 07 55.5**	**+1.4**
	PBDV				*e*PKPab	**PKPab**	**01 08 38.8**	**+1.7**
	CBHR	**Beni Haroun da**	**162.90**	**350**	P	**PKPdf**	**01 07 57.9**	**+1.2**
	CBST	**Bordj Sabath**	**162.90**	**347**	P	**PKPdf**	**01 07 57.7**	**+0.9**
	KEST	**Kesra**	**162.96**	**341**	PKP	**PKPdf**	**01 07 57.7**	**+0.8**
		comp=Z,7.5nm,1.0s,baz=328,slow=6.1,SNR=10						
	KEST				PKPab	**PKPab**	**01 08 49.4**	**+0.5**
		comp=Z,32nm,0.9s,baz=234,slow=0.7,SNR=19						
	DFRA	**Djebel Bou Aff**	**162.98**	**351**	P	**PKPdf**	**01 07 58.7**	**+1.8**
	ATKB	**Taksebt**	**163.05**	**356**	P	**PKPdf**	**01 07 58.1**	**+1.3**
	CASM	**Ain Smara**	**163.16**	**349**	P	**PKPdf**	**01 07 57.6**	**+0.6**
	COAT	**Oued Athmania**	**163.22**	**350**	P	**PKPdf**	**01 07 58.5**	**+1.4**
	ATKJ	**Tikjda**	**163.28**	**356**	P	**PKPdf**	**01 07 57.4**	**+0.1**
	CJSR	**Ain Djasser**	**163.64**	**350**	P	**PKPdf**	**01 07 57.7**	**+0.2**
	AKET	**Djebel Ketaf**	**163.69**	**356**	P	**PKPdf**	**01 07 59.3**	**+1.7**
	EOFD	**Oued Fodda**	**163.71**	**3**	P	**PKPdf**	**01 07 59.0**	**+1.5**
	EDDR	**Deurdeur**	**163.77**	**1**	P	**PKPdf**	**01 07 58.7**	**+1.1**
	CTGD	**Timgad**	**163.86**	**348**	P	**PKPdf**	**01 07 58.7**	**+0.9**
	CBBAR	**Babar**	**164.09**	**346**	P	**PKPdf**	**01 07 58.9**	**+0.9**
	ESMB	**Sidi M'hamed B**	**164.11**	**6**	P	**PKPdf**	**01 08 01.1**	**+3.3**
	ABSD	**Ouled Sidi Bra**	**164.28**	**355**	P	**PKPdf**	**01 07 58.7**	**+0.7**
	CKTS	**El Kantara**	**164.30**	**350**	P	**PKPdf**	**01 07 59.5**	**+1.4**
	AFDJ	**Sidi Ladjel**	**164.38**	**360**	P	**PKPdf**	**01 07 58.9**	**+0.7**
	CNGR	**Negrine**	**164.66**	**344**	P	**PKPdf**	**01 08 00.0**	**+1.6**
	ADCK	**Dar Chioukh**	**164.84**	**357**	P	**PKPdf**	**01 08 00.9**	**+2.2**
	EADEB	**Ain Deheb**	**164.89**	**3**	P	**PKPdf**	**01 07 59.4**	**+0.7**
	EZEK	**Zmalet El Emir**	**164.91**	**1**	P	**PKPdf**	**01 08 00.1**	**+1.4**
	AFRS	**Ain Fares**	**164.96**	**354**	P	**PKPdf**	**01 07 59.7**	**+1.0**
	CDCN	**Doucen**	**165.01**	**352**	P	**PKPdf**	**01 07 58.4**	**-0.3**
	DBIC	**Dimbokro**	**165.17**	**150**	PKP	**PKPdf**	**01 07 59.3**	**0.0**
		comp=Z,23nm,0.7s,baz=164,slow=1.0,SNR=25						
	DBIC				PKPab	**PKPab**	**01 09 00.3**	**+1.3**
		comp=Z,28nm,0.8s,baz=215,slow=4.3,SNR=12						
	DBIC	**Dimbokro**	**165.17**	**150**	⇑PKIKP	**PKPdf**	**01 07 59.1**	**-0.3**
	MD01	**Midelt array s**	**165.36**	**25**	PKPdf	**PKPdf**	**01 08 00.1**	**+0.9**
	MD01				PKPab	**PKPab**	**01 09 00.2**	**+0.5**
	ADJF	**Tadmit**	**165.55**	**358**	P	**PKPdf**	**01 08 00.5**	**+1.3**
	EASA	**Ain Sidi Ali**	**165.59**	**3**	P	**PKPdf**	**01 08 01.4**	**+2.1**
	TORD	**Torodi Ar. Bea**	**173.42**	**173**	PKP	**PKPdf**	**01 08 04.2**	**-0.1**
		comp=Z,20nm,1.0s,baz=226,slow=2.7,SNR=26						
	TORD				PKPab	**PKPab**	**01 09 36.5**	**+1.1**
		comp=Z,9.2nm,0.7s,baz=201,slow=4.1,SNR=12						
	TORD				PP	**PP**	**01 13 27.4**	**+1.2**
		comp=Z,6.6nm,1.0s,baz=203,slow=5.3,SNR=4.9						

NEIC ***11*** *00:56:17.4±2.3,24˚.12S±0˚.06×66˚.93W±0˚.09,h167km±5km, mb4.5/55,ML4.6(GUC),Error ellipse: s-maj=11.5km s-min=9.0km az=87.0*

SJA ***11*** *00:56:17.2±0.7,24˚.23S×66˚.91W,h160km±8km,ML4.4, MW4.1*

GUC ***11*** *00:56:17.8±0.6,24˚.10S×67˚.11W,h210km±5km,ML4.7, Presumed earthquake*

VAO ***11*** *00:56:17.8±0.6,24˚.09S×67˚.00W,h182km±5km,mb4.3, Presumed earthquake*

IDC ***11*** *00:56:18.4±1.7,24˚.04S×66˚.87W,h181km±14km,mb3.9/14, mbtmp4.4/20,MS4.2/2, Error ellipse: s-maj=17.1km s-min=10.6km az=60.0*

GFZ ***11*** *00:56:18.6±0.2,24˚.S±2˚×6˚˚7W±˚,h190km±5km,M4.5/15, mb4.5/15*

ISC 11 00:56:17.5±0.6,24˚.14S±0˚.03×67˚.00W±0˚.04,h178km±5km, n248,σ1$44/273,mb4.3/32,9C-1D,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
SALTA		**0.61**	**99**	*e*P		**Pn**	**00 56 40.7**	**-2.6**
SALTA		**0.61**	**99**	P		**Pn**	**00 56 46.6**	**+3.3**
SLA	**San Lorenzo**	**1.48**	**113**	*e*P		**Pn**	**00 56 47.4**	**-2.0**
SLA				*e*S		**Sn**	**00 57 19.4**	**+5.4**
SLA	**San Lorenzo**	**1.48**	**113**	⇓*e*P		**Pn**	**00 56 52.8**	**+3.5**
AF01	**San Pedro de A**	**1.60**	**317**	*e*P		**Pn**	**00 56 49.2**	**-1.4**
AF01				*e*S		Sn	00 57 29.6	+13
AF01	**San Pedro de A**	**1.60**	**317**			**Pn**	**00 56 53.0**	**+2.4**
AF01	**San Pedro de A**	**1.60**	**317**	*i* P		**Pn**	**00 56 53.2**	**+2.6**
AF01				*e*S		**Sn**	**00 57 18.9**	**+2.7**
AF01				IAML			00 57 21.3	
	comp=N,2μm,0.6s							
FSA	**Cafayete**	**2.18**	**155**	*e*P		**Pn**	**00 56 53.6**	**-3.0**
FSA				*e*S		**Sn**	**00 57 22.1**	**-4.9**
YJA	**Yavi**	**2.38**	**35**	*e*P		**Pn**	**00 57 02.4**	**+3.1**
YJA				*e*S		**Sn**	**00 57 35.3**	**+3.7**
YJA	**Yavi**	**2.38**	**35**	*e*P		**Pn**	**00 57 01.7**	**+2.5**
PB06	**IPOC Station P**	**2.76**	**301**	*e*P		**Pn**	**00 57 04.4**	**+1.1**
PB06				*e*S		**Sn**	**00 57 38.8**	**-0.1**
PB06				IAML			00 57 43.3	
	comp=Z,960nm,0.5s							
PB06	**IPOC Station P**	**2.76**	**301**			**Pn**	**00 57 04.4**	**+1.1**
PB06	**IPOC Station P**	**2.76**	**301**	*e*P		**Pn**	**00 57 04.6**	**+1.3**
PB06				*i* S		**Sn**	**00 57 38.4**	**-0.6**
PB06				IAML			00 57 40.9	
	comp=E,3μm,0.1s							
PB06	**IPOC Station P**	**2.76**	**301**	P		**Pn**	**00 57 04.8**	**+1.5**
AHML	**Horco Molle**	**3.04**	**151**	*e*P		**Pn**	**00 57 06.5**	**-0.2**
AHML				*e*S		**Sn**	**00 57 40.0**	**-5.0**
AHML	**Horco Molle**	**3.04**	**151**	⇑*i*P		**Pn**	**00 57 06.4**	**-0.2**
AHML				*i* S		**Sn**	**00 57 43.6**	**-1.3**
PB09	**IPOC Station P**	**3.11**	**318**	*e*P		**Pn**	**00 57 09.2**	**+1.5**
PB09				*e*S		**Sn**	**00 57 47.6**	**+0.9**
PB09				IAML			00 57 52.3	
	comp=Z,679nm,0.6s							
PB09	**IPOC Station P**	**3.11**	**318**	P		**Pn**	**00 57 08.9**	**+1.2**
PB09	**IPOC Station P**	**3.11**	**318**	⇑*i*P		**Pn**	**00 57 09.2**	**+1.5**
PB09				*i* S		**Sn**	**00 57 47.1**	**+0.4**
PB09				IAML			00 57 53.3	
	comp=N,762nm,0.4s							
PB09	**IPOC Station P**	**3.11**	**318**	P		**Pn**	**00 57 09.3**	**+1.7**
PB14	**IPOC Station P**	**3.14**	**260**	*e*P		**Pn**	**00 57 09.1**	**+1.0**
PB14				*e*S		**Sn**	**00 57 46.7**	**-0.8**
PB14				IAML			00 57 48.6	
	comp=Z,313nm,0.6s							
PB14	**IPOC Station P**	**3.14**	**260**	Pn		**Pn**	**00 57 08.5**	**+0.4**
PB14	**IPOC Station P**	**3.14**	**260**	P		**Pn**	**00 57 09.0**	**+0.9**
PB05	**IPOC Station P**	**3.20**	**293**	*e*P		**Pn**	**00 57 09.3**	**+0.6**
PB05				*e*S		**Sn**	**00 57 46.7**	**-1.9**
PB05				IAML			00 57 53.7	
	comp=Z,660nm,0.5s							
PB05	**IPOC Station P**	**3.20**	**293**	Pn		**Pn**	**00 57 08.6**	**-0.1**
PB05	**IPOC Station P**	**3.20**	**293**	⇑*i*P		**Pn**	**00 57 09.3**	**+0.6**
PB05				*i* S		**Sn**	**00 57 46.4**	**-2.2**
PB05	**IPOC Station P**	**3.20**	**293**	P		**Pn**	**00 57 09.5**	**+0.8**
PB03	**IPOC Station P**	**3.27**	**309**	*e*P		**Pn**	**00 57 10.4**	**+0.7**
PB03				*e*S		**Sn**	**00 57 48.8**	**-1.5**
PB03				IAML			00 57 50.4	
	comp=Z,998nm,0.2s							
PB03	**IPOC Station P**	**3.27**	**309**	Pn		**Pn**	**00 57 10.2**	**+0.5**
PB03	**IPOC Station P**	**3.27**	**309**	⇑*i*P		**Pn**	**00 57 10.4**	**+0.7**
PB03				*i* S		**Sn**	**00 57 48.2**	**-2.1**
PB03	**IPOC Station P**	**3.27**	**309**	P		**Pn**	**00 57 10.6**	**+0.9**
AC02	**Maricunga**	**3.31**	**215**	*e*P		**Pn**	**00 57 12.2**	**+1.9**
AC02				*e*S		**Sn**	**00 57 54.2**	**+2.7**
AC02	**Maricunga**	**3.31**	**215**	Pn		**Pn**	**00 57 11.7**	**+1.4**
AC02	**Maricunga**	**3.31**	**215**	⇑*i*P		**Pn**	**00 57 12.1**	**+1.8**
AC02	**Maricunga**	**3.31**	**215**	P		**Pn**	**00 57 12.3**	**+1.9**
PB10	**IPOC Station P**	**3.31**	**280**	*e*P		**Pn**	**00 57 10.8**	**+0.9**
PB10				*e*S		**Sn**	**00 57 51.3**	**+0.5**
PB10				IAML			00 57 53.0	
	comp=Z,636nm,0.5s							
PB10	**IPOC Station P**	**3.31**	**280**	Pn		**Pn**	**00 57 10.3**	**+0.4**
PB10	**IPOC Station P**	**3.31**	**280**	*e*P		**Pn**	**00 57 10.7**	**+0.8**
PB10	**IPOC Station P**	**3.31**	**280**	P		**Pn**	**00 57 11.1**	**+1.1**
PB07	**IPOC Station P**	**3.58**	**311**	*e*P		**Pn**	**00 57 13.9**	**+0.4**
PB07				*e*S		**Sn**	**00 57 56.3**	**-0.8**
PB07				IAML			00 57 58.7	
	comp=Z,817nm,0.3s							
PB07	**IPOC Station P**	**3.58**	**311**	Pn		**Pn**	**00 57 13.8**	**+0.4**
PB07	**IPOC Station P**	**3.58**	**311**	⇑*i*P		**Pn**	**00 57 13.9**	**+0.4**
PB07				*i* S		**Sn**	**00 57 54.8**	**-2.4**
PB07	**IPOC Station P**	**3.58**	**311**	P		**Pn**	**00 57 14.1**	**+0.6**
AC01	**Pan de Azucar**	**3.83**	**238**	*e*P		**Pn**	**00 57 16.3**	**-0.1**
AC01				*e*S		**Sn**	**00 58 00.8**	**-1.6**
AC01				IAML			00 58 01.4	
	comp=Z,179nm,0.2s							
AC01	**Pan de Azucar**	**3.83**	**238**	Pn		**Pn**	**00 57 16.0**	**-0.3**
AC01	**Pan de Azucar**	**3.83**	**238**	*e*P		**Pn**	**00 57 16.1**	**-0.3**
AC01	**Pan de Azucar**	**3.83**	**238**	P		**Pn**	**00 57 16.3**	**-0.1**
PB02	**IPOC Station P**	**3.87**	**316**	*e*P		**Pn**	**00 57 17.4**	**+0.2**
PB02				*e*S		**Sn**	**00 58 02.4**	**-1.2**
PB02				IAML			00 58 07.7	
	comp=Z,1μm,0.3s							
PB02	**IPOC Station P**	**3.87**	**316**	Pn		**Pn**	**00 57 16.9**	**-0.2**
PB02	**IPOC Station P**	**3.87**	**316**	⇑*i*P		**Pn**	**00 57 17.1**	**0.0**
PB02				*i* S		**Sn**	**00 58 00.6**	**-3.1**
PB02	**IPOC Station P**	**3.87**	**316**	P		**Pn**	**00 57 17.3**	**+0.2**
TINO	**Tinogasta**	**3.94**	**187**	*e*P		**Pn**	**00 57 20.4**	**+2.4**
AC06	**Mina Casimiro**	**4.41**	**223**	Pn		**Pn**	**00 57 23.0**	**-0.9**
AC06	**Mina Casimiro**	**4.41**	**223**	*e*P		**Pn**	**00 57 23.2**	**-0.6**
CYA	**Choya**	**4.42**	**166**	*e*P		**Pn**	**00 57 21.4**	**-2.6**
CYA				*e*S		Sn	00 58 25.6	+9.4
PB08	**IPOC Station P**	**4.45**	**333**	*e*P		**Pn**	**00 57 25.6**	**+0.9**
PB08				*e*S		**Sn**	**00 58 17.3**	**0.0**
PB08				IAML			00 58 23.5	
	comp=Z,210nm,0.3s							
PB08	**IPOC Station P**	**4.45**	**333**	Pn		**Pn**	**00 57 25.3**	**+0.6**
PB08	**IPOC Station P**	**4.45**	**333**	⇑*e*P		**Pn**	**00 57 25.6**	**+0.9**
PB08	**IPOC Station P**	**4.45**	**333**	P		**Pn**	**00 57 25.7**	**+1.0**
GO03	**Copiapo**	**4.51**	**220**	*e*P		**Pn**	**00 57 25.0**	**-0.2**
GO03				*e*S		**Sn**	**00 58 16.6**	**-1.6**
GO03				IAML			00 58 20.1	
	comp=Z,340nm,0.4s							
GO03	**Copiapo**	**4.51**	**220**	Pn		**Pn**	**00 57 24.2**	**-1.0**
GO03	**Copiapo**	**4.51**	**220**	⇑*e*P		**Pn**	**00 57 24.9**	**-0.2**
GO03				*e*S		**Sn**	**00 58 16.0**	**-2.2**
GO03	**Copiapo**	**4.51**	**220**	P		**Pn**	**00 57 24.9**	**-0.2**
TA01	**Diego Aracena**	**4.61**	**320**	*e*P		**Pn**	**00 57 26.1**	**-0.3**
TA01				*e*S		**Sn**	**00 58 18.7**	**-1.8**
TA01				IAML			00 58 30.8	
	comp=Z,158nm,0.5s							
TA01	**Diego Aracena**	**4.61**	**320**	Pn		**Pn**	**00 57 25.8**	**-0.7**
TA01	**Diego Aracena**	**4.61**	**320**	*e*P		**Pn**	**00 57 25.6**	**-0.9**
TA01	**Diego Aracena**	**4.61**	**320**	P		**Pn**	**00 57 26.1**	**-0.3**
TA02	**Huaiquique**	**4.82**	**322**	*e*P		**Pn**	**00 57 28.9**	**-0.2**

	GO01	**Chusmiza**	**4.89**	**335**	*e*P		**Pn**	**00 57 30.6**	**+0.1**
	GO01				*e*S		**Sn**	**00 58 28.3**	**+0.6**
	GO01				IAML			00 58 31.4	
		comp=Z,141nm,0.2s							
	GO01	**Chusmiza**	**4.89**	**335**	P		**Pn**	**00 57 30.8**	**+0.2**
	PB11	**IPOC Station P**	**5.00**	**330**	*e*S		**Sn**	**00 58 26.8**	**-3.1**
	PB11				IAML			00 58 29.1	
		comp=Z,220nm,0.7s							
	PB11	**IPOC Station P**	**5.00**	**330**	Pn		**Pn**	**00 57 30.5**	**-1.2**
	PB11	**IPOC Station P**	**5.00**	**330**	P		**Pn**	**00 57 30.8**	**-0.9**
		comp=Z,600nm,0.7s

comp=Z,32nm,1.3s
TEIG Tepich 48.72 333 P P 01 04 43.9 -0.2
SNAA Sanae 59.22 161 P P 01 06 00.7 +1.0
comp=Z,4.0nm,0.7s,baz=341,slow=23,SNR=3.2
comp=Z,4.0nm,0.7s
SNAA Sanae 59.22 161 P P **01 06 00.2 +0.6**
SNAA IAmb IAmb 01 06 01.4
comp=Z,4.0nm,0.7s
JSC Jenkinsville 59.65 346 P P 01 06 03.0 +0.1
833A Chaparral WMA, 60.78 327 P P 01 06 11.3 +0.7
833A IAmb IAmb 01 06 12.0
comp=Z,7.4nm,0.6s
V55A Taylorsville 61.16 347 P P 01 06 13.5 +0.4
TKL Tuckaleechee C 61.55 344 P P 01 06 15.4 -0.3
V48A Smith Brothers 62.43 342 P P 01 06 21.7 +0.1
WHTX Lake Whitney, 62.95 331 P P 01 06 25.6 +0.5
WHTX IAmb IAmb 01 06 41.1
comp=Z,11nm,1.3s
BRDY Brady 63.05 329 P P 01 06 25.3 -0.5
BRDY IAmb IAmb 01 06 26.8
comp=Z,4.5nm,0.9s
WVT Waverly 63.09 341 P P 01 06 25.0 -0.9
WVT IAmb IAmb 01 06 26.1
comp=Z,7.7nm,0.7s
TXAR Lajitas Array 63.79 324 P P 01 06 30.9 +0.1
comp=Z,0.8nm,0.8s,baz=92,slow=6.3,SNR=4.8
comp=Z,0.8nm,0.8s
TXAR Lajitas Array 63.79 324 P P 01 06 31.4 +0.6
WCI Wyandotte Cave 64.62 343 P P 01 06 35.0 -0.8
WTFS Witchita Falls 64.90 331 P P 01 06 38.2 +0.4
MNHN Monahans 64.92 326 P P 01 06 39.3 +1.3
MNHN IAmb IAmb 01 06 39.7
comp=Z,13nm,1.4s
VHRN Van Horn 65.63 324 P P 01 06 43.4 +0.7
VHRN IAmb IAmb 01 06 45.3
comp=Z,6.0nm,1.1s
QSPA South Pole Qui 66.07 180 P P 01 06 46.7 +1.7
comp=Z,4.7nm,0.6s,baz=263,slow=0.8,SNR=12
comp=Z,4.7nm,0.6s
QSPA South Pole Qui 66.07 180 P P 01 06 46.3 +1.2
QSPA IAmb IAmb 01 06 49.2
comp=Z,3.6nm,0.7s
S39A Bolivar 66.29 337 P P 01 06 46.6 0.0
S39A IAmb IAmb 01 06 47.7
comp=Z,17nm,1.3s
MNTX Cornudas Mount 66.56 325 P P 01 06 47.7 -0.7
MNTX IAmb IAmb 01 06 50.1
comp=Z,7.5nm,1.3s
DBIC Dimbokro 67.85 71 P P 01 06 56.5 -0.5
comp=Z,8.9nm,1.3s,baz=292,slow=3.5,SNR=1.9
comp=Z,8.9nm,1.3s
DBIC Dimbokro 67.85 71 P P 01 06 56.3 -0.7
DBIC IAmb IAmb 01 07 11.5
comp=Z,21nm,1.4s
ALQ Albuquerque 69.65 326 P P 01 07 09.3 +1.4
ALQ IAmb IAmb 01 07 10.4
comp=Z,5.2nm,1.0s
T25A Trinidad 70.40 329 P P 01 07 13.3 +0.9
T25A IAmb IAmb 01 07 14.8
comp=Z,3.9nm,0.8s
SDCO Great Sand Dun 71.40 329 P P 01 07 19.8 +1.2
VNDA Vanda 74.57 190 P P 01 07 37.8 +1.5
comp=Z,2.2nm,0.9s,baz=357,slow=2.2,SNR=4.2
comp=Z,2.2nm,0.9s
VNDA Vanda 74.57 190 P P 01 07 37.6 +1.3
KNB Kanab 74.58 323 P P 01 07 38.6 +1.5
KNB IAmb IAmb 01 07 40.5
comp=Z,9.6nm,1.1s
CCUT Cedar City 75.27 324 P P 01 07 43.1 +2.0
RDMU Red Mountain 75.57 328 P P 01 07 44.0 +1.2
BSUT Blindstream Ca 76.13 327 P P 01 07 47.5 +1.4
PSUT Pine Spring 76.25 324 P P 01 07 48.4 +1.7
TORD Torodi Ar. Bea 76.62 69 P P 01 07 48.9 0.0
comp=Z,2.8nm,0.5s,baz=255,slow=5.2,SNR=6.2
comp=Z,2.8nm,0.5s
PDAR Pinedale Array 77.26 329 P P 01 07 52.8 +0.6
comp=Z,0.7nm,0.7s,baz=132,slow=7.3,SNR=6.3
comp=Z,0.7nm,0.7s
ULM Lac du Bonnet 78.35 342 P P 01 07 57.6 -0.1
comp=Z,3.3nm,0.6s,baz=138,slow=6.0,SNR=8.7
comp=Z,3.3nm,0.6s
ULM Lac du Bonnet 78.35 342 P P 01 07 57.4 -0.3
ULM IAmb IAmb 01 07 58.3
comp=Z,3.4nm,0.6s
NVAR Mina Array Bea 78.64 321 P P 01 08 00.9 +1.0
comp=Z,0.8nm,0.6s,baz=154,slow=6.0,SNR=4.6
comp=Z,0.8nm,0.6s
NVAR Mina Array Bea 78.64 321 P P 01 08 01.2 +1.3
SCHQ Schefferville 78.64 0 P P 01 08 00.7 +1.5
comp=Z,4.2nm,0.7s,baz=187,slow=4.5,SNR=2.1
comp=Z,4.2nm,0.7s
KVN Kaiserville 78.95 322 IAmb IAmb 01 08 03.8
comp=Z,5.3nm,1.0s
RLMT Red Lodge 78.96 331 P P 01 08 02.5 +1.0
YHL Hebgen Lake 79.61 330 P P 01 08 06.8 +1.7
BOSA Boshof 80.67 117 P P 01 08 11.0 -0.1
comp=Z,2.8nm,0.6s,baz=261,slow=5.1,SNR=1.1
comp=Z,2.8nm,0.6s
MAW Mawson 81.31 163 P P 01 08 14.7 +1.2
comp=Z,3.4nm,0.8s,baz=235,slow=6.1,SNR=4.6
comp=Z,3.4nm,0.8s
MAW Mawson 81.31 163 P P 01 08 14.9 +1.4
PLID Pearl Lake 82.09 327 P P 01 08 18.9 +0.7
PLID IAmb IAmb 01 08 20.4
comp=Z,6.0nm,0.9s
LBTB Lobatse 82.33 114 P P 01 08 21.0 +1.1
comp=Z,1.2nm,0.5s,baz=252,slow=8.5,SNR=3.0
comp=Z,1.2nm,0.5s
LDM Libby Dam 84.20 330 P P 01 08 29.5 +0.8
LDM IAmb IAmb 01 08 34.2
comp=Z,6.9nm,1.3s
LTY Liberty 85.93 327 P P 01 08 37.9 +0.6
LTY IAmb IAmb 01 08 57.4
comp=Z,8.8nm,1.4s
SHUK Shuksan-Mt. Ba 87.50 327 P P 01 08 45.0 0.0
SHUK IAmb IAmb 01 09 26.6
comp=Z,5.5nm,1.4s
FRB Frobisher Bay 87.59 359 LR LR 01 49 05.4
comp=Z,165nm,21.1s,baz=273,slow=36
YKA Yellowknife Ar 94.25 340 P 01 09 16.3 +0.5
comp=Z,1.7nm,0.6s,baz=135,slow=4.7,SNR=9.6
comp=Z,1.7nm,0.6s
ASAR Alice Springs 128.33 205 PKP **PKiKP 01 15 03.9 -0.3**
comp=Z,1.8nm,0.8s,baz=139,slow=1.9,SNR=12
WR8 Warramunga Arr 131.43 207 PKPdf **PKiKP 01 15 10.0 -0.5**
WRA Warramunga Arr 131.51 207 PKP **PKPdf 01 15 08.2 -1.4**
comp=Z,0.6nm,0.4s,baz=169,slow=1.7,SNR=6.6
WRA SKPbc **SKPbc 01 18 17.8 -0.6**
comp=Z,0.9nm,0.6s,baz=152,slow=3.6,SNR=5.1
WRA Warramunga Arr 131.51 207 PKPdf **PKiKP 01 15 10.2 -0.4**
KURBB Kurchatov Arra 142.49 36 PKP **PKPdf 01 15 28.2 -0.6**
comp=Z,0.3nm,0.5s,baz=298,slow=2.4,SNR=2.2
ZALV Zalesovo Beam 143.51 28 PKP PKPbc 01 15 29.2 +0.8
comp=Z,2.0nm,0.5s,baz=291,slow=3.7,SNR=7.9
ZALV Zalesovo Beam 143.51 28 PKPdf PKPbc 01 15 28.2 -0.1
KSH2 Kashi 145.06 56 PKPbc **PKPab 01 15 34.8 +0.8**
MAKZ Makanchi 146.44 40 PKPdf 01 15 35.2 -0.6
MKAR Makanchi Array 146.63 40 PKPbc **PKPdf 01 15 36.9 +0.7**
comp=Z,4.6nm,0.8s,baz=324,slow=2.8,SNR=14
MKAR Makanchi Array 146.63 40 PKPbc **PKPbc 01 15 37.1 -1.0**
SIJI Sorong 149.47 218 PKPbc **PKiKP 01 15 47.8 +0.3**
comp=Z,6.1nm,0.3s,baz=54,slow=6.0,SNR=4.1
KLR Kul'dur 150.95 334 PKPbc **PKPbc 01 15 49.0 +0.1**
comp=Z,2.3nm,0.6s,baz=338,slow=5.3,SNR=9.4
MJAR Matsushiro Arr 155.06 306 PKPab **PKPab 01 16 15.4 +0.6**
comp=Z,0.7nm,0.3s,baz=19,slow=2.6,SNR=5.1
MJAR Matsushiro Arr 155.06 306 PKPab 01 16 15.7 +1.0
SONM Songino Array 155.77 11 PKPab **PKPab 01 16 17.1 -0.5**
comp=Z,0.2nm,0.4s,baz=317,slow=6.1,SNR=2.4
HHC Hu-ho-hao-te 163.29 4 *eP* **PKPdf 01 15 59.8 +0.9**
NJ2 Nanjing 170.57 328 *eP* **PKPdf 01 16 04.0 -0.4**
NJ2 pmax pmax
comp=Z,15nm,0.6s

*ISK **11** 01:05:43.2,37.44N×26.98E,h13km,ML2.2/8*
THE 11 01:05:42.9,37°N±2°×2°7E±°,h3km±2km,M2.0/5,MLh2.0/5,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.28**	**355**	P	Pg	01 05 48.2	-0.1
SMG				S	Sg	01 05 51.8	-0.1
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.39**	**47**	Pg	Pg	01 05 50.3	-0.2
GCAM				Sg	Sg	01 05 55.9	+0.3
GCAM				AML	AML		
BODT	**Bodrum**	**0.51**	**136**	P	Pg	01 05 52.7	0.0
BODT				S	Sg	01 05 59.7	+0.4
BODT				AML	AML		
BODT	**Bodrum**	**0.51**	**136**	Pg	Pg	01 05 52.7	0.0
BODT				Sg	Sg	01 05 59.8	+0.5
BODT				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.54**	**38**	Pg	Pg	01 05 53.2	-0.1
KUSD				AML	AML		
BODA	**Bodrum-Mula**	**0.60**	**131**	Pg	Pg	01 05 54.1	-0.2
GMLD	**Gumuldur**	**0.65**	**3**	Pg	Pb	01 05 56.3	-0.6
GMLD				AML	AML		
MLSB	**Milas**	**0.73**	**100**	Pg	Pg	01 05 56.2	-0.8
MLSB				AML	AML		
DAT	**Datca**	**0.90**	**141**	S	Sg	01 06 12.6	+0.7
AYDB	**Zeytinkoy-Aydi**	**0.96**	**57**	Pg	Pg	01 06 00.7	-0.6
AYDB				AML	AML		
BLCB	**Balcova**	**0.96**	**8**	P	Pg	01 06 00.6	-0.8
BLCB				S	Sg	01 06 10.2	-3.6
APE	**Apeiranthos**	**1.13**	**252**	P	Pg	01 06 04.0	-0.6
APE				S	Sb	01 06 20.0	-0.2
CHOS	**Chios island**	**1.15**	**326**	P	Pg	01 06 05.1	+0.1
CHOS				S	Sb	01 06 20.6	-0.4
CHOS				AML	AML		
CHOS	**Chios island**	**1.15**	**326**	Pn	Pn	01 06 06.3	+0.2
CHOS				AML	AML		
YER	**Yerkesik**	**1.17**	**104**	P	Pg	01 06 04.8	-0.4
YER				S	Sg	01 06 20.4	+0.1
NAZL	**Nazilli-Aydin**	**1.25**	**64**	Pn	Pg	01 06 05.8	-1.0
NAZL				AML	AML		

*THE **11** 01:07:12.9,37.8N±0.9×26.8E±0.9,h10km±1km,M2.6/8,*
MLh2.6/8
*ISK **11** 01:07:12.9,37.86N×26.87E,h18km±1km,ML2.6/9*
ISC 11 01:07:12.8±0.9,37.82N±0.03×26.84E±0.04,h12km±7km,
n18,σ0s48/29,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.11**	**179**	P	**Pg**	**01 07 15.7**	**0.0**
SMG				S	**Sg**	**01 07 18.0**	**0.0**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.27**	**14**	Pg	**Pg**	**01 07 18.2**	**-0.1**
GMLD				Sg	**Sg**	**01 07 22.5**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**110**	Pg	**Pg**	**01 07 19.8**	**+0.2**
GCAM				Sg	**Sb**	**01 07 25.8**	**-0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**83**	Pg	**Pg**	**01 07 20.2**	**+0.1**
KUSD				Sg	**Sb**	**01 07 25.7**	**-1.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.59**	**16**	P	**Pg**	**01 07 24.2**	**-0.1**
BLCB				S	**Sg**	**01 07 32.3**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**16**	Pg	**Pg**	**01 07 24.2**	**-0.1**
BLCB				Sg	**Sg**	**01 07 32.4**	**+0.3**
BLCB				AML	AML		
CESE	**eme**	**0.66**	**321**	Pg	**Pb**	**01 07 26.4**	**+0.1**
CESE				AML	AML		
KRBN	**Karaburun**	**0.81**	**344**	Pg	**Pb**	**01 07 28.9**	**+0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**0.84**	**313**	P	**Pb**	**01 07 29.4**	**0.0**
CHOS				S	**Sb**	**01 07 40.8**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**313**	Pg	**Pb**	**01 07 29.4**	**0.0**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**81**	Pg	**Pg**	**01 07 29.1**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.84**	**153**	P	**Pg**	**01 07 29.0**	**-0.1**
BODT				S	**Sb**	**01 07 41.4**	**+0.6**
BODT				AML	AML		
FOCM	**Foa**	**0.90**	**355**	Pg	**Pg**	**01 07 30.1**	**0.0**
FOCM				AML	AML		
DAT	**Datca**	**1.24**	**151**	P	**Pn**	**01 07 35.6**	**-0.4**
DAT				S	**Sn**	**01 07 53.7**	**+0.9**
DAT				AML	AML		
APE	**Apeiranthos**	**1.28**	**235**	P	**Pn**	**01 07 35.5**	**-1.1**
APE				AML	AML		
YER	**Yerkesik**	**1.34**	**120**	P	**Pb**	**01 07 38.2**	**+0.3**
YER				S	**Sg**	**01 07 56.6**	**+0.6**
PRK	**Paraskevi**	**1.49**	**343**	P	**Pb**	**01 07 40.2**	**-0.3**
PRK				S	**Sb**	**01 07 59.6**	**+0.2**
PRK	**Paraskevi**	**1.49**	**343**	P	**Pg**	**01 07 42.4**	**+0.9**

*AEIC **11** 01:07:37.0±1.2,68.11N±0.02×145.08W±0.07,h15km±5km,*
Error ellipse: s-maj=4.0km s-min=2.8km az=61.0
*NEIC **11** 01:07:36,68.14N×144.94W,h13km,Moment Tensor*
Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}-1.34;
$M_{\theta\theta}$-0.28; $M_{\phi\phi}$1.62; $M_{r\theta}$-1.20; $M_{\theta\phi}$-1.52; $M_{\phi r}$-0.38; Fault
plane solution: M_o2.48000×10^{14} NP1:ϕ_s117.00000°,
δ62.00000°,λ-139.00000°. NP2:ϕ_s5.00000°,δ55.00000°,
λ-35.00000°. Principal axes: T 2.4802, Plg4.0000°,
Azm240.0000°; N -0.0018, Plg42.0000°, Azm146.0000°;
P -2.4784, Plg48.0000°, Azm334.0000°;
NEIC 11 01:07:36.7±1.2,68.15N±0.02×145.06W±0.07,h12km±5km,
ML3.7/162,ML3.5(AEIC),Mwr3.5/15(SLM) Error ellipse:
s-maj=4.0km s-min=2.7km az=69.0,Northern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
F26K	**Sheenjek River**	**0.57**	**143**	Pg	Pg	01 07 47.7	-0.1
F26K				Sg	Sg	01 07 55.0	-0.3
F25K	**Christian Rive**	**0.60**	**202**		Pg	01 07 47.9	-0.4
F25K				Sg	Sg	01 07 56.0	-0.3
BM01	**Burnt Mountain**	**0.73**	**164**		Pg	01 07 50.9	+0.1
BM05	**Burnt Mountain**	**0.74**	**166**		Sg	01 08 00.4	-0.4
BMAR	**Burnt Mountain**	**0.74**	**166**		Pg	01 07 51.1	0.0
F24K	**Squaw Lake**	**1.25**	**241**		Pn	01 07 58.5	-1.5
F24K				Sg	Sb	01 08 16.0	-0.2
F24K				IAML		01 08 18.5	
	comp=N,1μm,0.7s						
F24K				IAML		01 08 18.8	
	comp=E,980nm,0.4s						
D25K	**Kavik River**	**1.27**	**338**		Pn	01 07 59.7	-0.7
D25K					Sg	01 08 17.9	+0.3
D25K				IAML		01 08 21.7	
	comp=E,1μm,0.5s						
E24K	**Your Creek**	**1.29**	**268**		Pn	01 07 59.5	-1.1
E24K				Sg	Sb	01 08 16.5	-0.8
E24K				IAML		01 08 20.2	
	comp=E,930nm,0.8s						
E27K	**Coleen River**	**1.29**	**87**	Pn	Pn	01 08 00.2	-0.4
G26K	**Porcupine Rive**	**1.30**	**157**		Pn	01 08 00.3	-0.3
G26K					Sb	01 08 17.4	-0.2
G26K				IAML		01 08 20.8	
	comp=E,1μm,0.9s						
G25K	**Bearman Lake**	**1.45**	**197**		Pn	01 08 02.6	0.0
G25K					Sb	01 08 21.9	+0.1
C27K	**Jago River**	**1.56**	**18**	Pn	Pb	01 08 05.0	-0.5
C27K					Sn	01 08 24.7	+0.3
C27K				IAML		01 08 27.4	
	comp=E,892nm,0.4s						
C27K				IAML		01 08 28.7	
	comp=N,922nm,0.4s						
FYU	**Fort Yukon**	**1.59**	**183**		Pn	01 08 04.5	-0.1
FYU				Sn	Sb	01 08 26.7	+0.8
FYU				IAML		01 08 34.7	
	comp=N,1μm,0.9s						
PS04	**TAPS Pump Stn4**	**1.62**	**282**		Pn	01 08 05.0	-0.1
PS04					Pb	01 08 05.8	-0.8
PS04					Sn	01 08 26.4	+0.4
PS04					Sb	01 08 26.8	-0.2
D24K	**Happy Valley**	**1.71**	**308**		Pn	01 08 06.7	+0.5
D24K				IAML		01 08 34.7	
	comp=E,976nm,0.4s						
E23K	**Chandalar**	**1.71**	**269**	Pn	Pn	01 08 06.6	+0.3
E23K				IAML		01 08 34.3	
	comp=N,566nm,0.6s						
E23K				IAML		01 08 37.1	
	comp=E,616nm,0.7s						
E23K	**Chandalar**	**1.71**	**269**		Sn	01 08 28.8	+0.6
G24K	**Hadweenzic Riv**	**1.73**	**214**		Pn	01 08 06.0	-0.6
G24K	**Hadweenzic Riv**	**1.73**	**214**		Sn	01 08 28.6	0.0
G24K	**Hadweenzic Riv**	**1.73**	**214**	IAML		01 08 32.9	
	comp=E,926nm,0.5s						
G24K				IAML		01 08 36.0	
	comp=N,955nm,0.8s						
TOLK	**Toolik Lake Re**	**1.74**	**289**		Pn	01 08 07.3	+0.5
TOLK					Sn	01 08 30.0	-0.5
C26K	**Camden Bay**	**1.78**	**2**		Pn	01 08 08.2	+1.0
C26K				IAML		01 08 38.8	
	comp=N,875nm,0.5s						
C26K				IAML		01 08 38.9	
	comp=E,755nm,0.4s						
D27M	**Malcolm River**	**1.85**	**52**	Pn	Pn	01 08 08.7	+0.4
D27M				IAML		01 08 38.9	
	comp=N,562nm,0.4s						
G27K	**Doyon Strip**	**1.88**	**134**	Pn	Pn	01 08 08.3	-0.3
H25L	**Birch Creek**	**1.91**	**189**		Pn	01 08 09.1	+0.1
F28M	**Old Crow**	**2.03**	**103**		Pn	01 08 10.1	-0.6
F28M				IAML		01 08 43.9	
	comp=E,522nm,0.7s						
C24K	**Franklin Bluff**	**2.06**	**322**	Pn	Pn	01 08 11.5	+0.5
C24K				IAML		01 08 45.3	
	comp=N,432nm,0.7s						
C24K				IAML		01 08 49.3	
	comp=E,431nm,0.8s						
E28M	**Babbage River**	**2.10**	**75**	Pn	Pn	01 08 11.4	-0.1
D23K	**Nanushuk River**	**2.23**	**294**	Pn	Pn	01 08 14.3	+1.0
D23K				IAML		01 08 50.0	
	comp=E,477nm,0.8s						
D23K				IAML		01 08 55.5	
	comp=N,475nm,1.0s						
H27K	**Steamboat Moun**	**2.37**	**143**		Pn	01 08 15.1	-0.2
G23K	**Bananza Creek**	**2.40**	**235**		Pn	01 08 14.9	-0.9
G23K				IAML		01 08 56.7	
	comp=N,280nm,0.5s						
G23K				IAML		01 08 58.9	
	comp=E,388nm,0.9s						
PS01	**TAPS Pump Stn**	**2.47**	**331**		Pn	01 08 17.1	+0.4
H24K	**Noodor Dome**	**2.57**	**207**	Pn	Pn	01 08 17.6	-0.6
H24K				IAML		01 08 60.0	
	comp=E,308nm,0.8s						
D28M	**Stokes Point**	**2.59**	**60**		Pn	01 08 18.6	+0.3
D28M	**Stokes Point**	**2.59**	**60**	IAML		01 09 04.8	
	comp=N,382nm,0.5s						
C23K	**Itkillik River**	**2.62**	**313**		Pn	01 08 19.4	+0.6
PRP	**Porcupine Dome**	**2.65**	**184**		Pn	01 08 19.4	+0.1
PRP				IAML		01 09 05.1	
	comp=N,265nm,0.5s						
E29M	**Blow River**	**2.67**	**82**		Pn	01 08 18.8	-0.7
F22K	**John River**	**2.78**	**260**		Pn	01 08 21.0	0.0
I27K	**Kandik River**	**2.89**	**150**	Pn	Pn	01 08 22.5	-0.1
I27K				IAML		01 09 14.2	
	comp=E,270nm,0.7s						
I27K				IAML		01 09 18.3	
	comp=N,237nm,0.6s						
D22K	**Ayikyak River**	**2.90**	**288**	Pn	Pn	01 08 23.3	+0.7
D22K				IAML		01 09 06.7	
	comp=N,298nm,0.8s						
D22K				IAML		01 09 21.0	
	comp=E,243nm,1.2s						
H23K	**Yukon River**	**2.92**	**219**	Pn	Pn	01 08 22.2	-0.7
H23K				IAML		01 09 17.6	
	comp=N,245nm,0.5s						
PS06	**TAPS Pump Stn6**	**2.95**	**221**		Pn	01 08 22.9	-0.4
I26K	**Coal Creek Min**	**2.95**	**164**	Pn	Pn	01 08 23.4	0.0
I26K				IAML		01 09 14.7	
	comp=N,262nm,0.6s						
I26K				IAML		01 09 14.8	
	comp=E,244nm,0.7s						
G29M	**Pine Creek**	**2.97**	**111**		Pn	01 08 23.6	0.0
PS07	**TAPS Pump Stn7**	**3.12**	**206**		Pn	01 08 25.4	-0.2
POKR	**Poker Plat Res**	**3.19**	**198**		Pn	01 08 26.7	+0.1
POKR				IAML		01 09 25.2	
	comp=E,226nm,0.7s						
POKR				IAML		01 09 27.2	
	comp=N,161nm,0.9s						
H29M	**Whitestone**	**3.25**	**124**		Pn	01 08 27.9	+0.5
H29M	**Whitestone**	**3.25**	**124**	IAML		01 09 23.9	
	comp=N,212nm,0.9s						
H29M				IAML		01 09 29.6	
	comp=E,231nm,0.9s						
E21K	**Killik River**	**3.33**	**279**		Pn	01 08 28.5	0.0
E21K	**Killik River**	**3.33**	**279**	IAML		01 09 22.2	
	comp=E,140nm,0.8s						
E21K				IAML		01 09 27.1	
	comp=N,199nm,0.9s						
F21K	**Alatna River**	**3.35**	**258**		Pn	01 08 28.6	-0.2
F21K				IAML		01 09 23.9	
	comp=E,122nm,0.8s						
H22K	**Ishtalitna Cre**	**3.36**	**231**		Pn	01 08 27.9	-1.0
H22K				IAML		01 09 27.9	
	comp=E,175nm,0.7s						
H22K				IAML		01 09 32.6	
	comp=N,143nm,0.9s						
I28M	**Miner Creek**	**3.38**	**141**		Pn	01 08 29.6	+0.2
MDM	**Murphy Dome**	**3.45**	**203**		Pn	01 08 29.8	-0.3
I23K	**Minto, Yukon-K**	**3.47**	**212**		Pn	01 08 29.6	-0.8
I23K				IAML		01 09 32.3	
	comp=N,158nm,1.3s						
I23K				IAML		01 09 38.2	
	comp=E,139nm,0.7s						
IL31		**3.47**	**193**		Pn	01 08 30.4	0.0
ILAR	**Eielson Array**	**3.47**	**193**		Pn	01 08 30.7	+0.3
COLA	**College**	**3.48**	**200**		Pn	01 08 31.1	+0.6
F30M	**Barrier River**	**3.55**	**94**		Pn	01 08 32.5	+0.9
F30M				IAML		01 09 39.9	
	comp=N,117nm,0.9s						
J25K	**Salcha River,**	**3.55**	**182**		Pn	01 08 31.9	+0.3
J25K				IAML		01 09 28.4	
	comp=N,112nm,0.4s						
J25K				IAML		01 09 33.9	
	comp=E,148nm,0.5s						
G30M	**tAoh Zraii Nji**	**3.58**	**105**		Pn	01 08 31.9	-0.1
G30M				IAML		01 09 38.1	
	comp=E,105nm,1.1s						
G30M				IAML		01 09 41.6	
	comp=N,117nm,1.1s						
G21K	**Allakaket**	**3.66**	**247**	Pn	Pn	01 08 31.5	-1.5
CCB	**Clear Creek Bu**	**3.69**	**199**		Pn	01 08 32.7	-0.7
CCB				IAML		01 09 37.2	
	comp=E,113nm,0.5s						
EPYK	**Eagle Plains**	**3.70**	**115**		Pn	01 08 33.4	-0.2
C21K	**Knifeblade Rid**	**3.70**	**290**		Pn	01 08 33.8	+0.2
B22K	**Teshekpuk Lake**	**3.70**	**310**		Pn	01 08 33.9	+0.3
HDA	**Harding Lake**	**3.83**	**192**		Pn	01 08 35.6	+0.2
HDA				IAML		01 09 44.4	
	comp=N,131nm,0.8s						
MLY	**Manley**	**3.87**	**219**		Pn	01 08 35.5	-0.4
I29M	**Ogilvie Camp,**	**3.87**	**133**		Pn	01 08 35.7	-0.3
I29M				IAML		01 09 39.4	
	comp=E,94nm,1.1s						
I29M				IAML		01 09 47.2	
	comp=N,99nm,0.5s						
WRH	**Wood River Hil**	**3.89**	**200**		Pn	01 08 36.5	+0.3
WRH				IAML		01 09 45.8	
	comp=E,122nm,1.1s						
NEA2	**Nenana**	**3.92**	**206**		Pn	01 08 35.8	-0.8
NEA2				IAML		01 09 42.1	
	comp=E,77nm,0.8s						
IM01	**Indian Mountai**	**4.02**	**242**		Pn	01 08 37.5	-0.5
IMAR	**Indian Mountai**	**4.04**	**241**		Pn	01 08 36.9	-1.3
I21K	**Tanana**	**4.06**	**226**		Pn	01 08 38.0	-0.5
E20K	**Nigu River**	**4.15**	**277**		Pn	01 08 40.3	+0.4
SCRK	**Sand Creek**	**4.21**	**174**		Pn	01 08 40.9	+0.1
SCRK				IAML		01 09 52.6	
	comp=E,71nm,0.9s						
F20K	**Avaraart Lake**	**4.23**	**260**	Pn	Pn	01 08 40.6	-0.2
F20K				IAML		01 10 04.0	
	comp=E,60nm,0.9s						
F20K				IAML		01 10 05.3	
	comp=N,83nm,1.3s						
INK	**Inuvik**	**4.30**	**83**		Pn	01 08 41.4	-0.4
D20K	**Etivluk River**	**4.30**	**283**		Pn	01 08 42.8	+0.9
D20K				IAML		01 10 05.5	
	comp=E,65nm,1.2s						
D20K				IAML		01 10 24.6	
	comp=N,69nm,1.2s						
K27K	**Chicken**	**4.31**	**162**		Pn	01 08 42.3	+0.3
F31M	**Tsiigehtchic**	**4.35**	**94**		Pn	01 08 42.2	-0.3
F31M				IAML		01 09 59.8	
	comp=E,65nm,0.9s						
K24K	**Donnelly Dome**	**4.37**	**184**		Pn	01 08 43.3	+0.4
BWN	**Browne**	**4.38**	**206**		Pn	01 08 42.5	-0.3
RIDG	**Independent Ri**	**4.43**	**179**		Pn	01 08 43.8	+0.2
A22K	**Sinclair Lake**	**4.50**	**314**		Pn	01 08 44.6	+0.1
I30M	**Mount Dempster**	**4.53**	**126**		Pn	01 08 44.8	-0.3
I30M				IA

DOT IAML 01 10 07.8
comp=E,80nm,0.9s
J29N Klondike Camp 4.62 140 Pn Pn 01 08 46.4 0.0
E19K Redstone River 4.67 267 Pn Pn 01 08 47.1 +0.1
E19K IAML 01 10 13.2
comp=E,65nm,0.9s
H20K Anotleneega Mo 4.71 240 Pn 01 08 47.2 -0.2
MCK McKinley 4.71 202 Pn 01 08 47.1 -0.4
MCK McKinley 4.71 202 IAML 01 10 13.9
comp=E,45nm,1.0s
B20K Meade River 4.72 299 Pn 01 08 47.6 +0.1
BPAW Bear Paw Mtn. 4.72 213 Pn 01 08 46.8 -0.9
BPAW IAML 01 10 10.3
comp=E,49nm,1.7s
BPAW IAML 01 10 10.8
comp=N,42nm,0.5s
H31M Peel River 4.82 114 Pn Pn 01 08 47.9 -1.1
D19K Kuna River 4.86 280 Pn Pn 01 08 49.6 +0.2
D19K IAML 01 10 19.5
comp=N,56nm,2.0s
D19K IAML 01 10 36.4
comp=E,62nm,0.9s
RND Reindeer 5.01 200 Pn 01 08 51.8 +0.1
RND IAML 01 10 33.4
comp=E,50nm,3.7s
RND IAML 01 10 36.0
comp=N,43nm,4.2s
J30M Hart River 5.02 132 Pn 01 08 52.1 +0.4
J30M IAML 01 10 20.6
comp=E,37nm,0.8s
J30M IAML 01 10 25.4
comp=N,45nm,0.9s
I20K Naaghedeneel 5.05 233 Pn 01 08 51.6 -0.5
G19K Purcell Mounta 5.10 252 Pn 01 08 52.2 -0.6
A21K Barrow 5.12 314 Pn 01 08 54.0 +0.9
DHY Denali Highway 5.18 192 Pn 01 08 55.2 +1.1
DHY IAML 01 09 56.7
comp=E,40nm,0.4s
DHY IAML 01 10 29.3
comp=N,41nm,1.2s
TRF Thorofare Moun 5.18 207 Pn Pn 01 08 53.9 -0.3
L26K Log Cabin Wild 5.19 171 Pn 01 08 54.4 +0.3
KTH Kantishna Hill 5.20 210 Pn 01 08 54.0 -0.3
KTH IAML 01 10 23.4
comp=E,43nm,1.7s
KTH IAML 01 10 31.3
comp=N,55nm,1.4s
PAX Paxson 5.20 182 Pn 01 08 55.0 +0.7
PAX IAML 01 10 26.6
comp=E,32nm,1.6s
H19K Roundabout Mou 5.21 245 Pn Pn 01 08 53.4 -0.9
MENT Mentasta 5.26 173 Pn 01 08 54.6 -0.5
BC01 Beaver Creek A 5.28 164 Pn 01 08 55.2 -0.1
L27K Beaver Creek, 5.28 164 Pn 01 08 55.2 -0.1
L27K IAML 01 10 36.4
comp=E,28nm,1.1s
L27K IAML 01 10 48.1
comp=N,31nm,3.5s
BC03 5.28 164 Pn 01 08 55.3 0.0
BCAR Beaver Creek A 5.28 164 Pn 01 08 55.8 +0.4
K29M Barlow Dome 5.30 141 Pn 01 08 55.6 -0.1
K29M Barlow Dome 5.30 141 IAML 01 10 45.3
comp=N,30nm,2.8s
C19K Lookout Ridge 5.40 287 Pn 01 08 57.4 +0.5
J20K Nowinta River 5.43 227 Pn 01 08 57.5 +0.2
WAT1 Susitna Watana 5.54 197 Pn 01 08 58.4 -0.5
CAST Castle Rocks 5.56 215 Pn 01 08 58.2 -0.9
WAT7 Susitna Watana 5.57 198 Pn 01 08 58.9 -0.4
HARP HAARP 5.78 180 Pn 01 09 03.2 +1.1
G18K Tagagawik 5.78 253 Pn 01 09 01.8 -0.4
L29M L29M 5.81 147 Pn 01 09 02.7 +0.1
M26K Nabesna, AK 5.84 171 Pn 01 09 03.7 +0.8
F18K Selawik 5.84 261 Pn 01 09 03.0 +0.1
C18K Utukok River 5.98 282 Pn Pn 01 09 05.3 +0.4
J19K Poorman 5.99 231 Pn 01 09 04.6 -0.4
BVCY Beaver Creek 6.02 161 Pn 01 09 05.9 +0.4
PPLA Purkeypile 6.05 213 Pn Pn 01 09 05.4 -0.5
K20K Telida 6.07 222 Pn 01 09 05.7 -0.5
H18K Honhosa River 6.08 247 Pn 01 09 05.9 -0.3
WACK Wrangell Chich 6.20 177 Pn 01 09 07.6 -0.5
WASW Wrangell South 6.26 176 Pn 01 09 08.6 -0.3
M30M Minto, Yukon 6.57 144 Pn Pn 01 09 12.8 -0.2
YUK2 White River 6.63 162 Pn 01 09 14.0 +0.1
YUK3 Moose Creek 6.69 161 Pn 01 09 15.2 +0.4
G17K Kiwalik Mounta 6.70 254 Pn 01 09 14.4 -0.3
J18K Innoko River 6.71 231 Pn 01 09 13.8 -1.0
H17K Granite Mounta 6.74 248 Pn 01 09 15.0 -0.3
D17K Noatak River 6.80 275 Pn 01 09 15.6 -0.5
C36M Paulatuk 7.71 71 Pn 01 09 26.9 -1.6
A36M Sachs Harbour 7.76 51 Pn 01 09 28.2 -1.0
HYT Haines Junctio 8.04 153 Pn 01 09 33.9 +0.8
O30N Mendenhall 8.35 148 Pn Pn 01 09 37.8 +0.4
WHY Whitehorse 8.70 145 Pn Pn 01 09 42.5 +0.3
P33M Teslin, Yukon 9.57 140 Pn Pn 01 09 54.2 +0.1
S34M Telegraph Cree 12.02 142 Pn Pn 01 10 27.1 -0.4

*NEIC **11** 01:10:35.8,51.18N×131.29W,h5km,Moment Tensor Solution. Moment tensor: Scale 10^15^Nm; Mrr-1.25; Mθθ-4.46; Mϕϕ4.96; Mrθ-1.83; Mθϕ2.34; Mϕr1.07; Fault plane solution: M0 5.70000×10^15^ NP1:ϕ=56.00000°, δ69.00000°,λ-13.00000°. NP2:ϕ=151.00000°,δ78.00000°, λ-159.00000°. Principal axes: T 5.8160, Plg6.0000°, Azm282.0000°; N -0.1673, Plg66.0000°, Azm180.0000°; P -5.6487, Plg24.0000°, Azm15.0000°;*

*PGC **11** 01:10:35.8-3.7,51.18N×131.29W,h10km,MLSn3.9/30, Mw4.4,mb4.3(NEIC),237km south of Village of Queen Charlotte, Bc Haida Gwaii Region*

*NEIC **11** 01:10:37.7±1.9,51.35N±0.06×130.93W±0.10,h10km±1km, mb4.2/46,Mwr4.4(OTT),Error ellipse: s-maj=12.5km s-min=7.6km az=227.0*

*IDC **11** 01:10:38.7±0.8,51.44N×130.81W,h0km,mb4.0/13, mbtmp4.0/22,ML3.8/8,MS4.0/7,Error ellipse: s-maj=16.3km s-min=9.6km az=64.0*

*GFZ **11** 01:10:40.8±0.7,52.N±5.×13.1W±.,h10km,M4.2/16, mb4.2/16,confirmed*

ISC 11 01:10:36.6±3.4,51.29N±0.04×131.01W±0.05,h1km±22km, n237,σ1=75/251,mb4.3/27,MS4.3/5,Queen Charlotte Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BAIB	**Barry Inlet**	**1.36**	**341**	P	**Pn**	**01 10 59.7**	**-3.1**
BAIB				S	**Sb**	**01 11 16.6**	**-4.3**
HG1B	**Mitchell Dam**	**1.78**	**338**	P	**Pn**	**01 11 05.5**	**-2.9**
HOLB	**Holberg**	**1.94**	**109**		**Pn**	**01 11 08.4**	**-2.2**
HOLB				Sn	**Sn**	**01 11 31.5**	**-4.0**
HOLB	**Holberg**	**1.94**	**109**	Pn	**Pn**	**01 11 08.8**	**-1.8**
HOLB				Sn	**Sn**	**01 11 31.7**	**-3.8**
MOBC	**Moresby Island**	**1.95**	**343**		**Pn**	**01 11 08.4**	**-2.4**
MOBC	**Moresby Island**	**1.95**	**343**	Pn	**Pn**	**01 11 08.5**	**-2.3**
MOBC				Sn	**Sn**	**01 11 30.1**	**-5.8**
BBB	**Bella Bella**	**2.01**	**63**	Pn	**Pn**	**01 11 10.5**	**-1.1**
	26nm,0.3s,baz=241,slow=7.3,SNR=229						
BBB				Sn	**Sn**	**01 11 31.4**	**-6.0**
	118nm,0.3s,baz=225,slow=13,SNR=5.2						
BBB	**Bella Bella**	**2.01**	**63**		**Pn**	**01 11 10.2**	**-1.4**
BBB				Sn	**Sn**	**01 11 32.6**	**-4.8**
BBB	**Bella Bella**	**2.01**	**63**	Pn	**Pn**	**01 11 10.9**	**-0.7**
BBB				Sn	**Sn**	**01 11 35.2**	**-2.1**
BBB	**Bella Bella**	**2.01**	**63**	P	**Pn**	**01 11 11.0**	**-0.7**
DIB	**Dawson Inlet,**	**2.11**	**335**		**Pn**	**01 11 10.3**	**-2.7**
DIB	**Dawson Inlet,**	**2.11**	**335**	Pn	**Pn**	**01 11 10.1**	**-2.9**
DIB				Sn	**Sn**	**01 11 35.0**	**-4.9**
H02S1	**DAWSON INLET T**	**2.11**	**335**		**Pn**	**01 11 10.3**	**-2.7**
H02S2	**DAWSON INLET T**	**2.11**	**335**	Pn	**Pn**	**01 11 11.2**	**-1.8**
BNAB	**Bonilla**	**2.22**	**6**	Pn	**Pn**	**01 11 13.3**	**-1.1**
BNAB				Sn	**Sn**	**01 11 40.8**	**-1.6**
PHC	**Port Hardy**	**2.34**	**103**	Pn	**Pn**	**01 11 14.1**	**-2.0**
PHC				Sn	**Sn**	**01 11 41.2**	**-4.2**
GRIB	**Gribbell Islan**	**2.35**	**29**	Pn	**Pn**	**01 11 14.9**	**-1.3**
GRIB				Sn	**Sb**	**01 11 47.3**	**-1.9**
BPEB	**Brooks Peninsu**	**2.35**	**118**	Pn	**Pn**	**01 11 14.1**	**-2.2**
BPEB				Sn	**Sn**	**01 11 41.9**	**-4.0**
BUTB	**Butedale**	**2.37**	**41**	Pn	**Pn**	**01 11 15.8**	**-0.9**
PACB	**Port Alice, BC**	**2.39**	**110**	Pn	**Pn**	**01 11 15.0**	**-1.8**
PACB				Sn	**Sn**	**01 11 45.4**	**-1.2**
GRNB	**Grenville Isla**	**2.64**	**14**	Pn	**Pn**	**01 11 19.0**	**-1.2**
EDB	**Eliza Dome**	**2.86**	**118**	Pn	**Pn**	**01 11 21.0**	**-2.2**
WOSB	**Woss**	**3.04**	**110**	Pn	**Pn**	**01 11 24.7**	**-1.2**
WOSB				Sn	**Sn**	**01 12 00.2**	**-2.7**
RUBB	**Prince Rupert**	**3.07**	**8**		**Pn**	**01 11 25.4**	**-0.8**
RUBB	**Prince Rupert**	**3.07**	**8**	Pn	**Pn**	**01 11 25.7**	**-0.5**
TAHB	**Tahsis**	**3.10**	**115**	Pn	**Pn**	**01 11 24.8**	**-1.8**
KITB	**Kitimat**	**3.14**	**26**	Pn	**Pn**	**01 11 26.3**	**-0.8**
NCSB	**Newcastle Ridg**	**3.27**	**104**	Pn	**Pn**	**01 11 28.1**	**-0.8**
NCSB				Sn	**Sn**	**01 12 06.6**	**-1.8**
NTKA	**Nootka**	**3.29**	**119**	Pn	**Pn**	**01 11 26.7**	**-2.4**
SHPB	**Sharp Point**	**3.62**	**121**	Pn	**Pn**	**01 11 32.0**	**-1.6**
NC89	**ODP889**	**3.76**	**133**	Pn	**Pn**	**01 11 34.3**	**-1.1**
NC89	**ODP889**	**3.76**	**133**	Sn	**Sn**	**01 12 16.3**	**-3.8**
CBB	**Campbell River**	**3.81**	**107**		**Pn**	**01 11 34.6**	**-1.7**
CBB	**Campbell River**	**3.81**	**107**	Pn	**Pn**	**01 11 35.6**	**-0.7**
TOFB	**Tofino**	**3.92**	**121**	Pn	**Pn**	**01 11 36.3**	**-1.5**
V35K	**Ketchikan**	**4.06**	**355**		**Pn**	**01 11 38.7**	**-1.0**
B012	**Ucluelet**	**4.24**	**122**	Sn	**Sn**	**01 12 26.2**	**-6.2**
OZB	**Mount Ozzard**	**4.25**	**121**	Pn	**Pn**	**01 11 41.0**	**-1.4**
CRAG	**Craig**	**4.37**	**344**		**Pn**	**01 11 42.7**	**-1.3**
B927	**Port Alberni**	**4.49**	**115**	Pn	**Pn**	**01 11 44.2**	**-1.4**
PABB	**Port Alberni**	**4.49**	**115**	Pn	**Pn**	**01 11 44.7**	**-0.9**
TXDB	**Texada**	**4.49**	**108**	Pn	**Pn**	**01 11 45.1**	**-0.6**
TXDB				Sn	**Sn**	**01 12 35.4**	**-3.1**
B928	**Bamfield**	**4.52**	**121**	Pn	**Pn**	**01 11 44.6**	**-1.3**
MGRB	**Mount Grey**	**4.67**	**117**	Pn	**Pn**	**01 11 46.8**	**-1.4**
SHB	**Sechelt**	**4.87**	**108**	Pn	**Pn**	**01 11 51.2**	**+0.2**
NLLB	**Nanaimo Lost L**	**4.96**	**112**	Pn	**Pn**	**01 11 52.2**	**+0.1**
U33K	**Whale Pass**	**4.99**	**346**	Pn	**Pn**	**01 11 51.0**	**-1.5**
B926	**Mesachie Lake**	**5.08**	**116**	Pn	**Pn**	**01 11 53.0**	**-0.7**
CLRS	**Cowichan Lake**	**5.08**	**116**		**Pn**	**01 11 51.6**	**-2.1**
FSJB	**Fort St James**	**5.16**	**49**	Pn	**Pn**	**01 11 55.3**	**+0.4**
FSJB				Sn	**Sn**	**01 12 55.1**	**+0.1**
WRAK	**Wrangell Islan**	**5.20**	**352**		**Pn**	**01 11 54.5**	**-0.9**
WRAK	**Wrangell Islan**	**5.20**	**352**	Pn	**Pn**	**01 11 54.7**	**-0.6**
WRAK				Sn	**Sn**	**01 12 52.8**	**-3.0**
WPB	**Watts Point**	**5.25**	**105**	Pn	**Pn**	**01 11 56.8**	**+0.7**
WSLR	**Whistler**	**5.27**	**100**	Pn	**Pn**	**01 11 56.6**	**+0.1**
C03A	**Quillayute Air**	**5.36**	**126**	Pn	**Pn**	**01 11 56.9**	**-0.7**
SYMB	**Survey Mountai**	**5.40**	**118**	Pn	**Pn**	**01 11 57.4**	**-0.9**
PGC	**Sidney**	**5.55**	**116**	Pn	**Pn**	**01 11 59.6**	**-0.6**
SNB	**Saturna Island**	**5.65**	**113**	Pn	**Pn**	**01 12 00.8**	**-0.8**
T35M	**Bob Quinn**	**5.72**	**4**		**Pn**	**01 12 03.0**	**+0.5**
T35M	**Bob Quinn**	**5.72**	**4**	Pn	**Pn**	**01 12 03.5**	**+1.0**
LLLB	**Lillooet**	**5.81**	**93**		**Pn**	**01 12 03.9**	**0.0**
LLLB	**Lillooet**	**5.81**	**93**	Pn	**Pn**	**01 12 04.4**	**+0.5**
LLLB				Sn	**Sn**	**01 13 11.9**	**+0.7**
OSD	**Olympics--Snow**	**5.89**	**123**	Pn	**Pn**	**01 12 05.2**	**+0.1**
A04D	**Lummi Island**	**5.94**	**112**		**Pn**	**01 12 05.5**	**-0.1**
NLWA	**Neilton Lookou**	**6.08**	**127**		**Pn**	**01 12 07.3**	**-0.3**
A05A	**Maple Falls**	**6.18**	**108**		**Pn**	**01 12 07.7**	**-1.2**
HOPB	**Hope**	**6.43**	**104**	Pn	**Pn**	**01 12 13.2**	**+0.9**
SHUK	**Shuksan-Mt. Ba**	**6.49**	**108**		**Pn**	**01 12 13.4**	**+0.2**
GNW	**Green Mountain**	**6.51**	**122**		**Pn**	**01 12 13.6**	**+0.2**
GNW	**Green Mountain**	**6.51**	**122**	Pn	**Pn**	**01 12 13.7**	**+0.2**
S34M	**Telegraph Cree**	**6.63**	**359**		**Pn**	**01 12 15.3**	**+0.2**
S34M	**Telegraph Cree**	**6.63**	**359**	Pn	**Pn**	**01 12 16.2**	**+1.1**
S34M				Sn	**Sn**	**01 13 30.2**	**-1.0**
JCW	**Jim Creek**	**6.65**	**114**	Pn	**Pn**	**01 12 16.1**	**+0.7**
DLBC	**Dease Lake**	**7.18**	**4**	Pn	**Pn**	**01 12 23.8**	**+1.1**
	3.3nm,0.3s,baz=167,slow=12,SNR=24						
DLBC				Sn	**Sn**	**01 13 43.4**	**-1.5**
	baz=301,slow=24						
DLBC				Lg	Lg	01 14 20.8	
	0.6nm,0.3s,baz=143,slow=21,SNR=4.2						
DLBC				LR	LR	01 15 14.7	
	comp=Z,1µm,18.5s,baz=200,slow=39						
	8.8nm,0.3s						
DLBC				AML	AML		
DLBC	**Dease Lake**	**7.18**	**4**	Pn	**Pn**	**01 12 23.5**	**+0.8**
D05A	**Enumclaw**	**7.19**	**121**		**Pn**	**01 12 22.2**	**-0.5**
D05A	**Enumclaw**	**7.19**	**121**	Pn	**Pn**	**01 12 22.4**	**-0.5**
FMW	**Mount Fremont**	**7.52**	**122**	Pn	**Pn**	**01 12 29.1**	**+1.7**
PNT	**Penticton**	**7.56**	**101**	Pn	**Pn**	**01 12 30.3**	**+2.4**
LON	**Longmire**	**7.56**	**123**		**Pn**	**01 12 28.6**	**+0.6**
LON	**Longmire**	**7.56**	**123**	Pn	**Pn**	**01 12 29.7**	**+1.7**
LON				Sn	**Sn**	**01 13 51.2**	**-3.1**
Q32M	**Nakina River**	**7.72**	**355**		**Pn**	**01 12 30.3**	**+0.2**
Q32M	**Nakina River**	**7.72**	**355**	Pn	**Pn**	**01 12 30.8**	**+0.6**
F04A	**Amboy**	**7.82**	**130**	Pn	**Pn**	**01 12 30.1**	**-1.2**
LTY	**Liberty**	**7.88**	**117**		**Pn**	**01 12 32.5**	**+0.3**
LTY	**Liberty**	**7.88**	**117**	Pn	**Pn**	**01 12 33.7**	**+1.4**
LTY				Sn	**Sn**	**01 13 59.1**	**-2.9**
BDMTA	**Bald Mountain**	**8.10**	**59**	Pn	**Pn**	**01 12 37.2**	**+2.0**
BDMTA				Sn	**Sn**	**01 14 04.0**	**-3.3**
R33M	**Jennings River**	**8.12**	**0**	Pn	**Pn**	**01 12 36.7**	**+1.1**
G04A	**Mulino**	**8.33**	**134**		**Pn**	**01 12 37.5**	**-0.9**
EPH	**Ephrata**	**8.43**	**113**		**Pn**	**01 12 39.0**	**-0.9**
P32M	**Atlin**	**8.46**	**351**		**Pn**	**01 12 40.1**	**0.0**
P32M	**Atlin**	**8.46**	**351**	Pn	**Pn**	**01 12 41.0**	**+0.9**
COR	**Corvallis**	**8.47**	**139**	P	**Pn**	**01 12 45.0**	**+4.7**
	comp=Z,44nm,1.8s						
PLBC	**Pleasant Camp**	**8.73**	**342**	Pn	**Pn**	**01 12 43.9**	**+0.1**
E07A	**Sunnyside**	**8.74**	**118**		**Pn**	**01 12 43.9**	**-0.2**
G05A	**Wamic**	**8.85**	**129**		**Pn**	**01 12 45.6**	**0.0**
WTLY	**Watson Lake, Y**	**8.93**	**7**		**Pn**	**01 12 46.7**	**+0.1**
WTLY	**Watson Lake, Y**	**8.93**	**7**	Pn	**Pn**	**01 12 48.1**	**+1.6**
D08A	**Wollman Farm,**	**8.98**	**113**		**Pn**	**01 12 46.3**	**-1.0**
P33M	**Teslin, Yukon**	**9.00**	**354**		**Pn**	**01 12 48.0**	**+0.4**
P33M	**Teslin, Yukon**	**9.00**	**354**	Pn	**Pn**	**01 12 48.4**	**+0.8**
HAWA	**Hanford**	**9.02**	**118**		**Pn**	**01 12 46.3**	**-1.5**
NBC1	**NorthernBC 1**	**9.32**	**23**	Pn	**Pn**	**01 12 55.2**	**+3.4**
NEW	**Newport**	**9.48**	**103**	Pn	**Pn**	**01 12 54.3**	**+0.1**
	comp=Z,0.5nm,0.3s,baz=289,slow=15,SNR=8.6						
NEW				Lg	Lg	01 15 21.6	
	baz=240,slow=20						
NEW				LR	LR	01 16 27.3	
	comp=Z,565nm,21.1s,baz=253,slow=37						
	comp=Z,2.6nm,0.6s						
NEW				AML	AML		
NEW	**Newport**	**9.48**	**103**		**Pn**	**01 12 53.9**	**-0.3**
NEW	**Newport**	**9.48**	**103**	P	**Pn**	**01 12 56.1**	**+1.8**
	comp=Z,7.7nm,1.7s						
I05D	**Terrebonne, OR**	**9.52**	**133**		**Pn**	**01 12 54.6**	**-0.2**
WHY	**Whitehorse**	**9.63**	**349**	Pn	**Pn**	**01 12 56.6**	**+0.3**
WHY	**Whitehorse**	**9.63**	**349**	Pn	**Pn**	**01 12 57.6**	**+1.3**
G08A	**Pilot Rock**	**10.02**	**122**		**Pn**	**01 13 01.6**	**-0.1**
LNOR	**Lincton Mounta**	**10.02**	**118**		**Pn**	**01 13 01.5**	**-0.1**
BSMT	**Bassoo Peak**	**11.08**	**102**	P	**Pn**	**01 13 19.0**	**+2.7**
YBH	**Yreka Blue Hor**	**11.13**	**146**	Pn	**Pn**	**01 13 20.1**	**+3.2**
	comp=Z,0.1nm,0.3s,baz=338,slow=9.0,SNR=5.1						
	comp=Z,2.6nm,0.8s						
YBH				AML	AML		
GRNC	**Granite Creek**	**11.19**	**332**	P	**Pn**	**01 13 18.7**	**+1.0**
BMO	**Blue Mountains**	**11.20**	**120**		**Pn**	**01 13 17.7**	**0.0**
JTMT	**Jette**	**11.44**	**102**	P	**Pn**	**01 13 23.1**	**+2.1**
KHMM	**Horse Mountain**	**11.57**	**151**		**Pn**	**01 13 23.8**	**+0.8**
PLID	**Pearl Lake**	**11.78**	**116**		**Pn**	**01 13 25.4**	**-0.4**
MOD	**Modoc Plateau**	**11.92**	**138**		**Pn**	**01 13 26.9**	**-0.8**
KHBM	**Hayfork Bally**	**11.93**	**150**		**Pn**	**01 13 26.0**	**-1.8**
WVOR	**Wild Horse Val**	**12.24**	**132**	P	**Pn**	**01 13 35.4**	**+3.3**
	comp=Z,7.7nm,1.2s						
O03E	**Paynes Creek**	**12.73**	**146**		**Pn**	**01 13 37.1**	**-1.5**
K29M	**Barlow Dome**	**13.05**	**347**	P	**Pn**	**01 13 45.0**	**+2.0**
HLID	**Hailey**	**13.62**	**118**		**Pn**	**01 13 51.5**	**+0.6**
HLID	**Hailey**	**13.62**	**118**	P	**Pn**	**01 13 54.1**	**+3.2**
	comp=Z,17nm,1.1s						
MCMT	**McKenzie Canyo**	**13.74**	**111**		**Pn**	**01 13 52.5**	**-0.1**
EGMT	**Eagleton**	**14.14**	**95**	Pn	**Pn**	**01 13 56.8**	**-1.2**
PAHR	**Pah Rah Range**	**14.14**	**140**		**Pn**	**01 13 57.2**	**-0.9**
I30M	**Mount Dempster**	**14.24**	**351**	P	**Pn**	**01 14 00.2**	**+0.9**
YKA	**Yellowknife Ar**	**14.31**	**32**	Pn	**Pn**	**01 13 58.8**	**-1.2**
	comp=Z,0.2nm,0.3s,baz=225,slow=12,SNR=6.4						
YKA				Lg	Lg	01 18 00.9	
	baz=213,slow=27,SNR=2.1						
	comp=Z,2.5nm,0.7s						
YKA				AML	AML		
H31M	**Peel River**	**14.66**	**355**	Pn	**Pn**	**01 14 05.2**	**+0.4**
YHL	**Hebgen Lake**	**14.72**	**108**		**Pn**	**01 14 06.4**	**+0.4**
YHB	**Horse Butte**	**14.76**	**109**		**Pn**	**01 14 06.8**	**+0.3**
YMR	**Madison River**	**14.95**	**108**		**Pn**	**01 14 08.6**	**-0.4**
YHH	**Holmes Hill**	**14.95**	**108**		**Pn**	**01 14 08.9**	**-0.2**
YNR	**Norris Junctio**	**15.09**	**108**		**Pn**	**01 14 10.1**	**-0.9**
ELK	**Elko**	**15.18**	**128**	Pn	**Pn**	**01 14 13.2**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=317,slow=7.9,SNR=7.1						
	comp=Z,2.5nm,0.9s						
ELK				AML	AML		
ELK	**Elko**	**15.18**	**128**		**Pn**	**01 14 12.4**	**+0.2**
ELK				IAmb	IAmb	01 14 21.6	
	comp=Z,11nm,0.9s						
KVN	**Kaiserville**	**15.23**	**139**		**Pn**	**01 14 13.2**	**+0.4**
KVN				IAmb	IAmb	01 14 28.1	
	comp=Z,19nm,0.9s						
CMB	**Columbia Colle**	**15.24**	**146**		**Pn**	**01 14 13.8**	**+1.1**
H17A	**Grant Village**	**15.33**	**109**		**Pn**	**01 14 13.4**	**-0.8**
H29M	**Whitestone**	**15.43**	**349**	P	**Pn**	**01 14 16.9**	**+1.7**
NVAR	**Mina Array Bea**	**15.67**	**140**	Pn	**P**	**01 14 21.9**	**-1.1**
	comp=Z,0.2nm,0.3s,baz=322,slow=12,SNR=10.0						
	comp=Z,1.4nm,0.8s						
NVAR				AML	AML		
RLMT	**Red Lodge**	**15.73**	**105**		**Pn**	**01 14 19.6**	**+0.2**
RLMT				IAmb	IAmb	01 14 34.5	
	comp=Z,23nm,1.2s						
LHV	**Little Huntoon**	**15.74**	**141**		**Pn**	**01 14 19.9**	**+0.5**
LHV				IAmb	IAmb	01 14 33.7	
	comp=Z,10nm,0.9s						
IL31		**15.84**	**335**		**P**	**01 14 22.3**	**-2.1**
ILAR	**Eielson Array**	**15.84**	**335**	Pn	**Pn**	**01 14 22.0**	**+1.5**
	comp=Z,0.3nm,0.8s,baz=148,slow=9.8,SNR=6.2						
ILAR	**Eielson Array**	**15.84**	**335**		**Pn**	**01 14 20.7**	**+0.2**
G30M	**tAoh Zraii Nji**	**15.95**	**353**	P	**P**	**01 14 26.5**	**+0.8**
AHID	**Auburn Hatcher**	**15.99**	**114**		**Pn**	**01 14 23.0**	**+0.2**
AHID				IAmb	IAmb	01 14 36.5	
	comp=Z,14nm,1.0s						
AHID	**Auburn Hatcher**	**15.99**	**114**	P	**P**	**01 14 26.6**	**+0.1**
	comp=Z,14nm,1.7s						
CCB	**Clear Creek Bu**	**16.00**	**333**	P	**P**	**01 14 24.1**	**-2.0**
G29M	**Pine Creek**	**16.06**	**350**	P	**P**	**01 14 29.3**	**+2.5**
MDPB	**Devils Postpil**	**16.07**	**144**		**Pn**	**01 14 23.9**	**+0.1**
BGU	**Big Grassy Mou**	**16.17**	**123**		**Pn**	**01 14 24.3**	**-0.8**
F31M	**Tsiigehtchic**	**16.26**	**356**		**Pn**	**01 14 25.6**	**-0.1**
F31M				IAmb	IAmb	01 14 32.7	
	comp=Z,22nm,1.1s						
TPH	**Tonopah**	**16.42**	**138**		**Pn**	**01 14 27.9**	**-0.4**
TPH				IAmb	IAmb	01 14 39.6	
	comp=Z,20nm,1.1s						
HWUT	**Hardware Ranch**	**16.49**	**118**		**Pn**	**01 14 27.9**	**-1.3**
HWUT	**Hardware Ranch**	**16.49**	**118**	P	**P**	**01 14 32.4**	**+0.4**
	comp=Z,11nm,1.3s						
MZP	**Montezuma Peak**	**16.67**	**139**		**Pn**	**01 14 31.1**	**-0.5**
MZP				IAmb	IAmb	01 14 44.5	
	comp=Z,22nm,1.1s						
DUG	**Dugway, Tooele**	**16.82**	**124**		**Pn**	**01 14 32.0**	**-1.2**
DUG				IAmb	IAmb	01 14 39.5	
	comp=Z,16nm,1.1s						
DUG	**Dugway, Tooele**	**16.82**	**124**	P	**P**	**01 14 36.8**	**+1.2**
	comp=Z,16nm,1.9s						
LAO	**LASA Array**	**16.88**	**96**		**Pn**	**01 14 32.4**	**-1.5**
LAO				IAmb	IAmb	01 14 36.6	
	comp=Z,22nm,1.1s						
PD31	**Pinedale Array**	**16.88**	**112**		**Pn**	**01 14 33.3**	**-0.9**
PD31				IAmb	IAmb	01 14 41.2	
	comp=Z,20nm,1.1s						
PDAR	**Pinedale Array**	**16.88**	**112**	Pn	**P**	**01 14 36.5**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=314,slow=11,SNR=33						
	comp=Z,8.1nm,0.9s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**16.88**	**112**		**Pn**	**01 14 33.5**	**-0.7**
INK	**Inuvik**	**17.11**	**357**	Pn	**P**	**01 14 37.5**	**-1.0**
	baz=161,slow=7.5,SNR=5.7						
	comp=Z,7.2nm,0.9s						
INK	**Inuvik**	**17.11**	**357**		**Pn**	**01 14 35.8**	**-0.8**
INK	**Inuvik**	**17.11**	**357**	P	**P**	**01 14 37.4**	**-1.0**
	comp=Z,14nm,1.1s						
NLU	**North Lily Min**	**17.38**	**123**		**Pn**	**01 14 39.0**	**-1.4**
S11A	**Rachel**	**17.41**	**136**	P	**Pn**	**01 14 40.8**	**0.0**
FFC	**Flin Flon**	**17.75**	**67**	P	**Pn**	**01 14 43.8**	**-0.9**
FFC	**Flin Flon**	**17.75**	**67**	P	**Pn**	**01 14 43.9**	**-0.8**
	comp=Z,9.0nm,1.1s						
MPMC	**Manual Prospec**	**18.05**	**142**	P	**Pn**	**01 14 47.7**	**-1.0**
MPMC				IAmb	IAmb	01 15 00.1	
	comp=Z,16nm,1.0s						
IMAR	**Indian Mountai**	**18.71**	**330**	P	**Pn**	**01 14 56.1**	**-0.3**
K22A	**Casper**	**18.74**	**108**		**P**	**01 14 55.0**	**-1.9**
K22A				IAmb	IAmb	01 15 00.3	
	comp=Z,26nm,1.2s						
MTPC	**Mountain Pass**	**19.32**	**139**		**P**	**01 15 03.5**	**+0.3**
MTPC				IAmb	IAmb	01 15 15.0	
	comp=Z,20nm,1.1s						
RSSD	**Black Hills**	**19.45**	**101**		**P**	**01 15 03.8**	**-0.8**
RSSD	**Black Hills**	**19.45**	**101**	P	**Pn**	**01 15 06.7**	**+1.1**
	comp=Z,9.7nm,1.3s						
U15A	**North Rim**	**19.99**	**131**	P	**P**	**01 15 09.6**	**-1.0**
U15A				IAmb	IAmb	01 15 24.9	
	comp=Z,16nm,0.9s						
W13A	**Hualapai Mount**	**20.36

USRK	**Ussuriysk Ar.**	**60.94**	**305**	P		**P**	**01 20 53.1**	**+2.3**
	comp=Z,2.6nm,0.8s,baz=38,slow=7.3,SNR=3.5							
	comp=Z,2.6nm,0.8s							
USRK	**Ussuriysk Ar.**	**60.94**	**305**	P		**P**	**01 20 51.1**	**+0.2**
NOA	**NORSAR Array B**	**64.00**	**19**	P		**P**	**01 21 12.4**	**+1.3**
	comp=Z,0.8nm,0.8s,baz=332,slow=7.3,SNR=3.3							
	comp=Z,0.6nm,0.8s							
FINES	**FINESS Array B**	**66.13**	**12**	P		**P**	**01 21 25.1**	**+0.2**
	comp=Z,1.9nm,1.0s,baz=321,slow=11,SNR=2.7							
	comp=Z,1.9nm,1.0s							
ZALV	**Zalesovo Beam**	**70.92**	**339**	P		**P**	**01 21 56.7**	**+1.8**
	comp=Z,0.9nm,0.8s,baz=10,slow=9.2,SNR=3.8							
	comp=Z,0.9nm,0.8s							
ZALV	**Zalesovo Beam**	**70.92**	**339**	P		**P**	**01 21 55.2**	**+0.3**
HHC	**Hu-ho-hao-te**	**73.28**	**315**	*eP*		**P**	**01 22 08.2**	**-1.2**
HHC				pmax	pmax			
	comp=Z,9.0nm,0.6s							
HHC				pmax	pmax			
	comp=Z,120nm,5.7s							
BVAR	**Borovoye Array**	**74.51**	**347**	P		**P**	**01 22 18.7**	**+2.4**
	comp=Z,0.9nm,0.8s,baz=15,slow=6.0,SNR=2.9							
	comp=Z,0.9nm,0.8s							
KURBB	**Kurchatov Arra**	**75.40**	**341**	P		**P**	**01 22 23.2**	**+1.7**
	comp=Z,1.0nm,0.2s,baz=27,slow=4.3,SNR=1.5							
	comp=Z,1.0nm,0.2s							
GUMO	**Guam**	**75.86**	**274**	LR		LR	01 46 59.9	
	comp=Z,75nm,21.7s,baz=76,slow=29							
VRAC	**Vranov**	**76.03**	**21**	LR		LR	01 58 27.6	
	comp=Z,126nm,18.5s,baz=36,slow=38							
AKASG	**Malin Array Be**	**77.00**	**13**	P		**P**	**01 22 32.3**	**+1.8**
	comp=Z,0.2nm,0.3s,baz=341,slow=5.0,SNR=5.6							
	comp=Z,0.2nm,0.3s							
MKAR	**Makanchi Array**	**78.17**	**337**	P		**P**	**01 22 38.9**	**+1.7**
	comp=Z,0.7nm,0.7s,baz=20,slow=5.8,SNR=4.6							
	comp=Z,0.7nm,0.7s							
MKAR	**Makanchi Array**	**78.17**	**337**	P		**P**	**01 22 37.3**	**0.0**
BURAR	**Bucovina Array**	**79.38**	**16**	P		**P**	**01 22 43.4**	**-0.5**
WMQ	**Urumqi**	**79.49**	**333**	*eP*		**P**	**01 22 45.5**	**+0.9**
WMQ				sP		PcP	01 22 51.8	-0.8
WMQ				PP		**PP**	**01 25 47.8**	**+3.8**
WMQ				pmax	pmax			
	comp=Z,15nm,0.7s							
KVAR	**Kislovodsk Arr**	**84.97**	**5**	LR		LR	02 02 48.8	
	comp=Z,134nm,21.7s,baz=292,slow=37							

*IDC **11** 01:26:45.1±2.2,26°.49N×55°.10E,h0km,mb3.7/10, mbtmp3.7/14,ML3.5/4,Error ellipse: s-maj=44.5km s-min=20.6km az=171.0*
*TEH **11** 01:26:46.8,26°.61N×54°.98E,h12km±16km,ML3.8, Presumed earthquake*
*DSN **11** 01:26:46.8±1.5,26°.89N×54°.97E,h10km,ML3.9/18,Error ellipse: s-maj=18.3km s-min=5.0km az=6.0*
*OMAN **11** 01:26:49.1±0.1,26°.67N×54°.95E,h10km,mb3.8/8, ml3.7/22,Error ellipse: s-maj=2.7km s-min=1.3km az=348.0*

ISC 11 01:26:48.0±1.1,26°.63N±0°.03×54°.96E±0°.03,h13km±8km, n86,σ1°70/94,mb3.6/13,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHME	**Shamm**	**1.21**	**118**	*eP*	**Pg**	**01 27 11.6**	**+0.3**
	SNR=114						
SHME				S	**Sn**	**01 27 29.1**	**+2.2**
SHME	**Shamm**	**1.21**	**118**	P	**Pg**	**01 27 11.8**	**+0.6**
	SNR=114						
SHME				S	**Sn**	**01 27 29.4**	**+2.5**
	SNR=9.1						
UMQ	**Umm Al-Quwin**	**1.27**	**150**	*eP*	**Pg**	**01 27 14.7**	**+2.3**
	SNR=6.5						
UMQ	**Umm Al-Quwin**	**1.27**	**150**	P	**Pg**	**01 27 14.7**	**+2.3**
	SNR=24						
UMQ				S	**Sg**	**01 27 33.8**	**+4.9**
	SNR=11						
GENO	**Geno**	**1.33**	**54**	Pg	**Pg**	**01 27 13.3**	**-0.3**
BANOM	**Banah**	**1.40**	**120**	*eP*	**Pg**	**01 27 14.6**	**-0.2**
	SNR=82						
BANOM	**Banah**	**1.40**	**120**	P	**Pg**	**01 27 15.0**	**+0.2**
	SNR=124						
BANOM				S	**Sg**	**01 27 35.2**	**+2.3**
	SNR=8.1						
IBND	**Bandar-abas**	**1.63**	**60**	Pg	**Pg**	**01 27 17.9**	**-1.5**
MASF	**Masafi**	**1.65**	**139**	P	**Pg**	**01 27 18.9**	**-0.9**
	SNR=49						
MASF				S	**Sg**	**01 27 41.3**	**+0.1**
	SNR=6.1						
MSFE	**Esma-Masafi**	**1.66**	**139**	*eP*	**Pg**	**01 27 18.9**	**-1.0**
	SNR=82						
LMD1	**Lamerd**	**1.75**	**294**	Pg	**Pg**	**01 27 21.0**	**-0.5**
NAZ	**Nazwa, Dubai**	**1.75**	**159**	*eP*	**Pg**	**01 27 21.0**	**-0.6**
	SNR=30						
NAZ	**Nazwa, Dubai**	**1.75**	**159**	P	**Pg**	**01 27 20.9**	**-0.7**
	SNR=82						
NAZ				S	**Sg**	**01 27 45.9**	**+1.6**
KHL1	**Khalili_Fars**	**1.79**	**305**	Pn	**Pg**	**01 27 22.0**	**-0.3**
MDH	**Madha**	**1.79**	**137**	*eP*	**Pg**	**01 27 20.7**	**-1.7**
	SNR=65						
MDH	**Madha**	**1.79**	**137**	P	**Pg**	**01 27 20.8**	**-1.6**
	SNR=21						
MDH				S	**Sg**	**01 27 44.4**	**-1.3**
FAQ	**Al Faqa, Dubai**	**1.96**	**163**	*eP*	**Pg**	**01 27 24.2**	**-1.4**
	SNR=20						
FAQ	**Al Faqa, Dubai**	**1.96**	**163**	P	**Pg**	**01 27 24.0**	**-1.6**
UOSS	**Minazif**	**2.02**	**146**	*eP*	**Pb**	**01 27 23.6**	**-0.9**
	SNR=67						
UOSS	**Minazif**	**2.02**	**146**	P	**Pb**	**01 27 23.8**	**-0.8**
UOSS				S	**Sb**	**01 27 48.7**	**-0.9**
ASUD	**Al Ashush, Dub**	**2.02**	**170**	P	**Pg**	**01 27 25.2**	**-1.6**
AJN	**Ajban**	**2.06**	**179**	P	**Pg**	**01 27 26.1**	**-1.3**
HATD	**Hatta, Dubai**	**2.08**	**149**	*eP*	**Pg**	**01 27 26.0**	**-2.0**
	SNR=54						
HATD	**Hatta, Dubai**	**2.08**	**149**	P	**Pg**	**01 27 25.4**	**-2.6**
	SNR=54						
ASHO	**Ashiyiah**	**2.17**	**153**	*eP*	**Pb**	**01 27 26.2**	**-1.0**
	SNR=39						
ASHO	**Ashiyiah**	**2.17**	**153**	P	**Pb**	**01 27 26.6**	**-0.7**
	SNR=30						
JHRM	**Jahrom**	**2.24**	**327**	Pn	**Pb**	**01 27 27.2**	**-1.1**
ALNE	**Al Ain**	**2.66**	**164**	P	**Pb**	**01 27 33.5**	**-2.0**
JASK	**Jask - Hormozg**	**2.72**	**105**	P	**Pb**	**01 27 32.7**	**-3.8**
	SNR=13						
JASK	**Jask - Hormozg**	**2.72**	**105**	Pn	**Pb**	**01 27 32.8**	**-3.8**
KHNJ	**Kahnooj**	**2.78**	**61**	Pn	**Pn**	**01 27 33.2**	**+1.0**
SOHO	**SOHO**	**2.86**	**150**	*i* P	**Pb**	**01 27 35.0**	**-3.9**
	SNR=14						
SOHO	**SOHO**	**2.86**	**150**	P	**Pb**	**01 27 35.0**	**-3.9**
	SNR=14						
MZWR	**Madinat Zayed**	**3.02**	**199**	P	**Pb**	**01 27 38.2**	**-3.3**
ARQ	**Araqi**	**3.57**	**156**	P	Pb	01 27 45.9	-5.2
	SNR=21						
HOQ	**Hoqain**	**3.71**	**144**	P	**Pn**	**01 27 45.7**	**+0.7**
	SNR=11						
MZR	**Muzera**	**3.85**	**201**	P	**Pn**	**01 27 48.9**	**+2.0**
MZR	**Muzera**	**3.85**	**201**	P	**Pn**	**01 27 49.0**	**+2.0**
UMZA	**Um Al Zommool**	**3.90**	**177**	P	**Pn**	**01 27 50.0**	**+2.4**
CHMN	**Cheshme madani**	**3.95**	**35**	Pn	**Pn**	**01 27 51.2**	**+2.6**
KHGB	**Koh Gabri**	**3.97**	**19**	Pn	**Pn**	**01 27 51.1**	**+2.3**
KBAM	**BAM**	**3.98**	**50**	Pn	**Pn**	**01 27 50.5**	**+1.7**
BIDO	**Bidbid**	**4.22**	**136**	P	**Pn**	**01 27 53.0**	**+0.9**
KRM1	**Kerman Provinc**	**4.37**	**27**	Pn	**Pn**	**01 27 55.9**	**+1.6**
BSY	**Bisya**	**4.37**	**152**	P	**Pn**	**01 27 56.7**	**+2.6**
	SNR=14						
SMDO	**Samad**	**4.53**	**141**	P	**Pn**	**01 27 58.3**	**+1.9**
	SNR=44						
SMDO				S	**Sn**	**01 28 51.0**	**+2.0**
	SNR=6.9						
ZRDN	**Zarand Kerman**	**4.54**	**17**	Pn	**Pn**	**01 27 58.4**	**+1.7**
WSAR	**Wadi Sarin**	**4.74**	**135**	P	**Pn**	**01 28 00.7**	**+1.4**
	SNR=21						
IMEH	**Mehriz**	**4.76**	**356**	Pn	**Pn**	**01 28 01.7**	**+2.0**
IBAF	**Bafgh**	**4.97**	**6**	Pn	**Pn**	**01 28 03.9**	**+1.4**
CHBR	**Chabahar**	**5.07**	**100**	Pn	**Pn**	**01 28 05.0**	**+1.2**
JMDO	**Jabal Madar**	**5.12**	**145**	P	**Pn**	**01 28 06.0**	**+1.6**
	SNR=28						
KLNJ	**Kolanjah**	**5.27**	**327**	Pn	**Pn**	**01 28 08.7**	**+1.9**
WBK	**Wadi Bani Khal**	**5.42**	**137**	P	**Pn**	**01 28 10.0**	**+1.4**
	SNR=43						
NGCH	**Negor - Chabah**	**5.70**	**101**	P	**Pn**	**01 28 13.9**	**+1.4**
JLN	**Jalan Bani Buh**	**6.03**	**137**	P	**Pn**	**01 28 17.4**	**+0.5**
	SNR=9.4						
MHTO	**MHTO**	**6.25**	**153**	P	**Pn**	**01 28 21.2**	**+1.2**
	SNR=16						
SRVN	**Saravan**	**6.68**	**82**	Pn	**Pn**	**01 28 27.7**	**+1.7**
DQM	**DQM**	**7.08**	**160**	P	**Pn**	**01 28 32.0**	**+0.7**
	SNR=35						
DOK	**Doka**	**8.01**	**186**	P	**Pn**	**01 28 44.8**	**+0.7**
SHAO	**Shalim**	**8.59**	**176**	P	**Pn**	**01 28 53.5**	**+1.5**
WHFO	**Wadi Hawf**	**8.73**	**187**	P	**Pn**	**01 28 55.6**	**+1.5**
DMTO	**DMTO**	**8.87**	**180**	P	**Pn**	**01 28 56.9**	**+1.0**
RBK	**Rabkut**	**9.11**	**185**	P	**Pn**	**01 29 00.2**	**+0.9**
RAYN	**Ar Rayn**	**9.11**	**252**	*i* P	**Pn**	**01 28 58.3**	**-1.0**
	SNR=9.9						
RAYN	**Ar Rayn**	**9.11**	**252**	P	**Pn**	**01 28 58.5**	**-0.7**
ABTO	**Aybut**	**9.36**	**190**	P	**Pn**	**01 29 03.2**	**+0.5**
	SNR=26						
GNI	**Garni**	**15.94**	**330**	Pn	**Pn**	**01 30 32.4**	**+0.2**
	0.2nm,0.3s,baz=146,slow=22,SNR=1.5						
	2.4nm,0.7s						
GNI				AML	AML		
ASF	**Jabal al Asfar**	**16.71**	**294**	Pn	**Pn**	**01 30 40.3**	**-1.2**
	0.2nm,0.3s,baz=146,slow=5.9,SNR=3.6						
ASF				Sn	Sn	01 33 34.6	-12
	0.1nm,0.3s,baz=22,slow=24,SNR=2.0						
	0.5nm,0.4s						
ASF				AML	AML		
MMAI	**Mount Meron Ar**	**18.11**	**295**	P	**P**	**01 31 01.6**	**+1.9**
	0.4nm,0.3s,baz=95,slow=15,SNR=1.7						
	0.5nm,0.4s						
MMAI				AML	AML		
KBZ	**Khabaz**	**19.67**	**333**	P	**Pn**	**01 31 18.5**	**+0.4**
	0.1nm,0.3s,baz=156,slow=11,SNR=2.8						
	2.7nm,1.1s						
KBZ				AML	AML		
KVAR	**Kislovodsk Arr**	**19.94**	**333**	P	**Pn**	**01 31 21.2**	**-0.2**
	1.1nm,0.3s,baz=216,slow=12,SNR=2.5						
	1.1nm,0.3s						
BRTR	**Keskin Array B**	**22.05**	**312**	P	**P**	**01 31 43.8**	**+1.2**
	1.4nm,0.9s,baz=124,slow=11,SNR=6.8						
	1.4nm,0.9s						
BVAR	**Borovoye Array**	**28.78**	**20**	P	**P**	**01 32 45.0**	**-0.4**
	0.3nm,0.4s,baz=224,slow=6.2,SNR=2.2						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**29.51**	**40**	P	**P**	**01 32 51.4**	**-0.6**
	0.5nm,0.5s,baz=239,slow=11,SNR=3.7						
	0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**35.07**	**31**	P	**P**	**01 33 40.7**	**+0.1**
	1.7nm,0.5s,baz=244,slow=8.1,SNR=7.9						
	1.7nm,0.5s						
WTTA	**Wattenberg**	**39.65**	**313**	*eP*	**P**	**01 34 19.8**	**+0.1**
	0.6nm,0.2s						
FINES	**FINESS Array B**	**39.86**	**339**	P	**P**	**01 34 20.7**	**-0.4**
	0.5nm,0.4s,baz=132,slow=8.8,SNR=10						
	0.5nm,0.4s						
SQTA	**Sankt Quirin**	**39.92**	**313**	*eP*	**P**	**01 34 21.7**	**-0.2**
	1.5nm,0.3s						
MOTA	**Moosalm**	**40.02**	**313**	*eP*	**P**	**01 34 21.4**	**-1.4**
	0.4nm,0.2s						
RETA	**Reutte**	**40.28**	**313**	*eP*	**P**	**01 34 24.7**	**-0.1**
	0.2nm,0.2s						
DAVA	**Damuels**	**40.81**	**312**	*eP*	**P**	**01 34 28.9**	**-0.5**
	2.2nm,0.4s						
HFS	**Hagfors**	**43.72**	**331**	P	**P**	**01 34 52.9**	**+0.2**
	0.5nm,0.5s,baz=152,slow=6.5,SNR=1.4						
	0.5nm,0.5s						
SONM	**Songino Array**	**45.14**	**48**	P	**P**	**01 35 03.0**	**-1.4**
	0.6nm,0.3s,baz=251,slow=9.1,SNR=3.8						
	0.6nm,0.3s						
ESDC	**Sonseca Array**	**50.20**	**301**	P	**P**	**01 35 43.7**	**0.0**
	0.4nm,0.8s,baz=75,slow=6.6,SNR=4.9						
	0.4nm,0.8s						
TORD	**Torodi Ar. Bea**	**51.51**	**266**	P	**P**	**01 35 53.9**	**+0.1**
	0.5nm,0.4s,baz=64,slow=8.5,SNR=2.8						
	0.5nm,0.4s						

*IDC **11** 01:36:08.4±4.2,24°.45S×177°.19W,h155km±34km, mb3.5/4, mbtmp4.1/6,Error ellipse: s-maj=35.6km s-min=23.1km az=132.0*

ISC 11 01:36:06.4±0.7,24°.68S±0°.09×177°.0W±0°.1,h150km,n26, σ1°90/27,mb3.8/4,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**8.30**	**325**	P	**Pn**	**01 38 01.7**	**-2.2**
	7.6nm,0.6s,baz=122,slow=17,SNR=5.0						
URZ	**Urewera**	**14.43**	**199**	P	**P**	**01 39 27.5**	**+1.4**
	4.5nm,0.6s,baz=359,slow=6.4,SNR=1.9						
URZ				S	**Sn**	**01 41 59.1**	**-4.3**
	3.2nm,0.7s,baz=197,slow=13,SNR=1.6						
DZM	**Mont Dzumac**	**15.40**	**276**	P	**P**	**01 39 39.7**	**+2.5**
	2.8nm,0.9s,baz=285,slow=22,SNR=0.9						
STKA	**Stephens Creek**	**36.97**	**249**	P	**P**	**01 43 03.5**	**+2.2**
	1.7nm,0.4s,baz=98,slow=14,SNR=4.0						
	1.7nm,0.4s						
ASAR	**Alice Springs**	**44.59**	**261**	P	**P**	**01 44 05.0**	**+1.2**
	1.0nm,0.4s,baz=91,slow=6.6,SNR=15						
ASAR				PcP	**PcP**	**01 45 46.0**	**+1.7**
	0.6nm,0.8s,baz=97,slow=4.1,SNR=2.3						
	1.0nm,0.4s						
WRA	**Warramunga Arr**	**45.06**	**266**	P	**P**	**01 44 06.6**	**-1.0**
	1.2nm,0.5s,baz=102,slow=8.7,SNR=8.6						
	1.2nm,0.5s						
NVAR	**Mina Array Bea**	**83.46**	**43**	P	**P**	**01 48 19.9**	**+2.5**
	0.5nm,0.8s,baz=246,slow=3.0,SNR=2.0						
	0.5nm,0.8s						
MKAR	**Makanchi Array**	**114.69**	**312**	PKiKP	**PKiKP**	**01 54 29.0**	**+0.2**
	0.5nm,0.8s,baz=127,slow=3.8,SNR=3.0						
BVAR	**Borovoye Array**	**122.82**	**318**	PKP	**PKiKP**	**01 54 45.1**	**+0.7**
	0.7nm,0.4s,baz=140,slow=1.9,SNR=5.2						
SPITS	**Spitsbergen Ar**	**126.07**	**357**	PKP	**PKiKP**	**01 54 51.3**	**+1.1**
	16nm,1.0s,baz=82,slow=2.0,SNR=2.1						
ARCES	**ARCESS Array B**	**133.18**	**349**	PKP	**PKiKP**	**01 55 03.7**	**-1.0**
	1.8nm,0.8s,baz=58,slow=3.0,SNR=6.4						
FINES	**FINESS Array B**	**140.02**	**343**	PKhKP	PKPpre	01 55 08.0	
	1.5nm,1.0s,baz=114,slow=3.5,SNR=2.0						
FINES				PKP	**PKiKP**	**01 55 17.4**	**-1.4**
	1.1nm,0.7s,baz=17,slow=2.0,SNR=4.2						
NOA	**NORSAR Array B**	**143.22**	**353**	PKhKP	PKPpre	01 55 19.7	
	0.2nm,0.6s,baz=15,slow=2.9,SNR=1.8						
HFS	**Hagfors**	**143.79**	**351**	PKP	**PKPdf**	**01 55 21.3**	**-1.8**
	0.7nm,0.4s,baz=46,slow=4.3,SNR=5.3						
STRU	**Stroemstad**	**145.19**	**353**	*i* P	**PKiKP**	**01 55 26.3**	**-3.2**
TJOU	**Tjoern**	**146.11**	**352**	*i* P	**PKiKP**	**01 55 28.9**	**-2.5**
HOMB	**Homborsund**	**146.21**	**355**	*i* P	**PKiKP**	**01 55 30.0**	**-1.6**
ONAU	**Onsala**	**146.69**	**351**	*i* P	**PKPab**	**01 55 30.3**	**-1.1**
FABU	**Falkenberg**	**146.95**	**350**	*i* P	**PKiKP**	**01 55 31.3**	**-1.8**
BLEU	**Blekinge**	**147.05**	**347**	*i* P	**PKPab**	**01 55 31.1**	**-1.8**
AKASG	**Malin Array Be**	**147.07**	**329**	PKPbc	**PKPbc**	**01 55 30.1**	**-1.2**
	2.7nm,0.5s,baz=46,slow=4.4,SNR=14						
DEL	**Delary**	**147.27**	**349**	*i* P	**PKPab**	**01 55 32.4**	**-1.3**
BSD	**Bornholm Skovb**	**148.35**	**347**	*i* P	**PKiKP**	**01 55 35.5**	**-0.5**
EKA	**Eskdalemuir Ar**	**149.05**	**7**	PKPbc	**PKiKP**	**01 55 37.1**	**-0.5**
	2.0nm,0.9s,baz=28,slow=6.4,SNR=2.3						
BRTR	**Keskin Array B**	**150.21**	**308**	PKPbc	**PKiKP**	**01 55 40.7**	**+0.1**
	0.8nm,0.9s,baz=0.0,slow=6.1,SNR=1.8						
TORD	**Torodi Ar. Bea**	**168.46**	**174**	PKPab	**PKPab**	**01 57 06.4**	**+0.8**
	0.5nm,0.8s,baz=260,slow=5.7,SNR=3.7						

*NNC **11** 01:41:27.5±4.2,38°.89N×70°.99E,h0km,mb3.3,mpv2.8, Error ellipse: s-maj=32.8km s-min=20.3km az=177.0*
*KRNET **11** 01:41:27.3±0.1,39°.04N×70°.68E,mb2.7*

ISC 11 01:41:30.8±2.1,39°.2N±0°.1×70°.81E±0°.07,h10km,n11, σ1°65/19,8C-10D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**0.83**	**67**	*i* P	**Pg**	**01 41 45.8**	**-1.1**
DRK				⇑*i* S	**Sb**	**01 41 59.5**	**+0.6**
BTK	**Batken**	**0.90**	**0**	*e* P	**Pg**	**01 41 46.8**	**-1.3**
BTK				⇑*i* S	**Sg**	**01 42 00.8**	**+0.9**
OHH	**Osh**	**2.04**	**47**	⇓*i* P	**Pb**	**01 42 06.5**	**-1.5**
OHH				⇓*i* S	**Sb**	**01 42 35.1**	**+1.6**
SFK	**Sufi-Kurgan**	**2.25**	**67**	⇓*i* P	**Pb**	**01 42 09.5**	**-2.1**
SFK				⇓*i* S	**Sb**	**01 42 39.7**	**+0.1**
TRKS	**Terek-Say**	**2.38**	**6**	⇓*i* P	**Pn**	**01 42 09.7**	**-0.4**
TRKS				⇓*i* S	**Sb**	**01 42 43.1**	**-0.3**
ARSB	**Arslanbob**	**2.73**	**37**	⇓*e* P	**Pn**	**01 42 15.9**	**+1.1**
ARSB				⇓*e* S	**Sb**	**01 42 51.4**	**-1.9**
SALK	**Salom-Alik**	**2.88**	**52**	⇑*e* P	**Pn**	**01 42 18.6**	**+1.7**
SALK				⇑*e* S	**Sb**	**01 42 55.4**	**-2.4**
MNAS	**Manas**	**3.56**	**21**	⇓*i* P	**Pn**	**01 42 27.3**	**+1.0**
MNAS				⇓*i* S	**Sn**	**01 43 11.5**	**+2.9**
KK31	**Karatay Array**	**3.95**	**357**	⇑Pn	**Pn**	**01 42 29.7**	**-1.7**
	0.4nm,0.3s,baz=181,slow=14,SNR=17						
KK31				⇑Lg	Lg	01 43 36.2	
	2.8nm,0.3s,baz=173,slow=29						
AAK	**Ala-Archa**	**4.46**	**38**	Pn	**Pn**	**01 42 38.6**	**0.0**
	1.6nm,0.8s						
AB31	**Akbulak array**	**12.74**	**326**	P	**Pn**	**01 44 33.8**	**+1.9**
	0.7nm,0.8s,baz=155,slow=11,SNR=6.8						

*GRAL **11** 01:50:50.8±0.4,35°.34N×38°.21E,h34km±279km,MD3.9*

ISC 11 01:50:47.2±4.9,35°.0N±0°.2×38°.1E±0°.2,h10km,n13, σ0°63/15,Jordan-Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BEIL	**Beino**	**1.67**	**254**	*e* P	**Pg**	**01 51 19.1**	**-0.1**
BEIL				*e* S	**Sg**	**01 51 40.6**	**-0.3**
HWQ	**Hawqa**	**1.95**	**248**	*e* P	**Pb**	**01 51 23.5**	**+0.6**
HWQ				*e* S	**Sb**	**01 51 47.5**	**+0.3**
ZAHL	**Zahle**	**2.19**	**239**	*e* P	**Pb**	**01 51 27.3**	**+0.3**
BHL	**Bhannes**	**2.33**	**242**	*e* P	**Pb**	**01 51 29.2**	**-0.1**
RCY	**Rachaya**	**2.43**	**232**	*e* P	**Pb**	**01 51 31.0**	**-0.1**
DQRL	**Deir Qamar**	**2.49**	**239**	*e* P	**Pb**	**01 51 31.5**	**-0.6**
QRWL	**Qaraoun**	**2.50**	**235**	*e* P	**Pb**	**01 51 32.0**	**-0.3**
SHBL	**Chebaa**	**2.58**	**231**	*e* P	**Pb**	**01 51 33.1**	**-0.7**
GEM	**Giv'at Ha'Em**	**2.73**	**229**	P	**Pb**	**01 51 35.7**	**-0.4**
ASF	**Jabal al Asfar**	**3.03**	**201**	P	**Pb**	**01 51 40.6**	**-0.5**
	8µm222nm,0.7s						
QRNJ	**Al-Qirein**	**3.42**	**219**	P	**Pb**	**01 51 49.5**	**+1.6**
	114µm6µm,0.8s						
SALP	**Salfit**	**3.83**	**221**	P	**Pb**	**01 51 55.0**	**+0.1**
GHAJ	**Ghor Haditha**	**4.28**	**211**	P	**Pb**	**01 52 02.9**	**+0.3**

*IDC **11** 02:07:53.2±0.9,11°.25N×86°.25W,h0km,mb3.6/7, mbtmp3.6/8,ML2.7/2,Error ellipse: s-maj=38.2km s-min=13.6km az=44.0*
*UCR **11** 02:07:54.3±0.9,10°.44N×86°.53W,h15km±9km,MW4.7, Presumed earthquake*
*CATAC **11** 02:07:56.4±0.4,10°.N±2°×8°7W±°,h36km±8km,M4.0/41, MLv4.0/41,Error ellipse: s-maj=3.8km s-min=1.7km az=35.0,confirmed*

ISC 11 02:07:54.3±1.5,10°.49N±0°.03×86°.51W±0°.03,h15km±10km, n102,σ0°94/146,mb3.6/7,17C-3D,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SACU	**Santa Cruz**	**0.94**	**104**	*e* P	**Pb**	**02 08 12.1**	**-0.2**
SACU				*e* S	**Sg**	**02 08 25.0**	**+0.1**
ALIBA	**Liberia Airpor**	**0.95**	**84**	⇑*e* P	**Pn**	**02 08 13.4**	**+0.2**
ALIBA				*e* S	**Sn**	**02 08 28.2**	**+1.6**
LAPC	**Finca la Perla**	**1.09**	**75**	⇑*e* P	**Pn**	**02 08 14.8**	**-0.2**
NICO	**Nicoya**	**1.10**	**109**	*e* P	**Pb**	**02 08 14.8**	**-0.3**
NICO				*e* S	**Sb**	**02 08 28.3**	**-1.1**
GPS3	**Bodega del ICE**	**1.16**	**77**	*e* P	**Pg**	**02 08 17.0**	**+0.4**
VRLE	**La Escondida,**	**1.16**	**75**	*e* P	**Pn**	**02 08 15.9**	**-0.3**
CMARA	**Lajas Hojancha**	**1.17**	**114**	P	**Pn**	**02 08 15.8**	**-0.4**
CMARA				S	**Sb**	**02 08 30.8**	**-0.5**
CMARA	**Lajas Hojancha**	**1.17**	**114**	*e* P	**Pn**	**02 08 15.3**	**-0.9**
CMARA				*e* S	**Sb**	**02 08 29.9**	**-1.4**
GPS2	**Hotel Rincn d**	**1.17**	**77**	*e* P	**Pn**	**02 08 16.1**	**-0.1**
VORI	**VORI**	**1.19**	**74**	⇑*e* P	**Pn**	**02 08 16.4**	**-0.2**
CARN	**Rivas**	**1.19**	**54**	⇑P	**Pb**	**02 08 16.8**	**+0.1**
CARN				S	**Sn**	**02 08 32.5**	**+0.1**
CARN	**Rivas**	**1.19**	**54**	⇑*e* P	**Pb**	**02 08 16.8**	**+0.1**
BUAI	**Buenos Aires**	**1.22**	**72**	⇑*e* P	**Pb**	**02 08 17.2**	**+0.1**
BAGA	**Bagaces**	**1.23**	**88**	⇑*e* P	**Pb**	**02 08 17.2**	**-0.1**
PEJA	**Penjamo Buenos**	**1.24**	**71**	*e* P	**Pb**	**02 08 17.7**	**+0.1**
COLC	**Colonia**	**1.29**	**82**	*e* P	**Pn**	**02 08 17.7**	**-0.3**
MESS	**Mesas**	**1.32**	**79**	⇑*e* P	**Pn**	**02 08 18.3**	**0.0**
CUI	**Cuipilapa**	**1.33**	**83**	⇑*e* P	**Pn**	**02 08 18.6**	**+0.1**
NADN	**Granada**	**1.34**	**20**	P	**Pn**	**02 08 18.6**	**+0.1**
NADN				S	**Sb**	**02 08 36.6**	**+0.5**
NADN	**Granada**	**1.34**	**20**	*e* P	**Pn**	**02 08 18.0**	**-0.5**
CLARA	**Aguas Claras**	**1.34**	**77**	⇑*e* P	**Pn**	**02 08 18.8**	**+0.1**
MORN	**Al O del Volca**	**1.35**	**39**	⇑P	**Pn**	**02 08 18

	ALJI	**Alcalda de J**	**3.47**	**325**	S		**Sn**	**02 09 28.8**	**+0.1**
	TGUH	**Tegucigalpa,Un**	**3.62**	**348**	P		**Pn**	**02 08 50.5**	**+0.4**
	TGUH				S		**Sn**	**02 09 32.7**	**0.0**
	SIUN	**Universidad Ur**	**3.63**	**28**	P		**Pn**	**02 08 50.5**	**+0.5**
	SIUN				S		**Sn**	**02 09 32.6**	**0.0**
	PIRO	**Carate, Puerto**	**3.75**	**123**	P		**Pn**	**02 08 52.1**	**+0.4**
	TECO	**Alcaldía de Te**	**3.76**	**324**	P		**Pn**	**02 08 52.7**	**+0.8**
	TECO				S		**Sn**	**02 09 36.2**	**+0.3**
	SCLA	**Alcaldia de Sa**	**3.86**	**326**	S		**Sn**	**02 09 38.4**	**-0.1**
	PAVA	**Las Pavas**	**3.99**	**324**	P		**Pn**	**02 08 55.9**	**+0.8**
	PAVA				S		**Sn**	**02 09 42.1**	**+0.4**
	LALI	**Alcalda de L**	**4.06**	**318**	S		**Sn**	**02 09 43.5**	**+0.3**
	CDITO	**Canoas**	**4.06**	**118**	P		**Pn**	**02 08 56.5**	**+0.5**
	CDITO				S		**Sn**	**02 09 43.0**	**-0.3**
	LOMA	**Loma Larga**	**4.08**	**321**	S		**Sn**	**02 09 44.0**	**+0.1**
	P5NO	**Presa 5 de nov**	**4.11**	**328**	P		**Pn**	**02 08 57.2**	**+0.5**
	P5NO				S		**Sn**	**02 09 45.3**	**+0.7**
	PMON	**Piamonte**	**4.22**	**320**	S		**Sn**	**02 09 47.1**	**-0.2**
	JAYA	**Jayaque - finc**	**4.26**	**318**	P		**Pn**	**02 08 58.9**	**0.0**
	JAYA				S		**Sn**	**02 09 48.1**	**-0.4**
	CEDA	**San Andres**	**4.34**	**320**	S		**Sn**	**02 09 51.7**	**+1.5**
	CEVE	**Cerro Verde**	**4.50**	**318**	S		**Sn**	**02 09 54.7**	**+0.1**
	APG	**El Apazote**	**5.92**	**320**	Pn		**Pn**	**02 09 19.2**	**-2.5**
		baz=138,slow=13,SNR=1.8							
	CMIG	**Matias Romero**	**10.45**	**310**	Pn		**Pn**	**02 10 23.2**	**-0.5**
		0.4nm,0.3s,baz=104,slow=10,SNR=6.1							
		2.8nm,0.7s							
	CMIG				AML	AML			
	SJG	**San Juan**	**21.12**	**67**	P		**P**	**02 12 33.7**	**-5.0**
		3.2nm,0.2s,baz=297,slow=18,SNR=1.5							
		3.2nm,0.2s							
	TXAR	**Lajitas Array**	**24.67**	**322**	P		**P**	**02 13 12.6**	**-2.3**
		0.8nm,0.7s,baz=135,slow=9.7,SNR=11							
		0.8nm,0.7s							
	SIV	**San Ignacio**	**36.42**	**136**	P		**P**	**02 15 03.0**	**+4.3**
		0.4nm,0.4s,baz=270,slow=11,SNR=2.2							
		0.4nm,0.4s							
	PDAR	**Pinedale Array**	**37.93**	**332**	P		**P**	**02 15 07.9**	**-3.6**
		0.3nm,0.6s,baz=134,slow=6.8,SNR=4.0							
		0.3nm,0.6s							
	NVAR	**Mina Array Bea**	**39.78**	**320**	P		**P**	**02 15 25.5**	**-1.6**
		0.2nm,0.7s,baz=129,slow=10,SNR=1.3							
		0.2nm,0.7s							
	CFA	**Coronel Fontan**	**45.37**	**158**	P		**P**	**02 16 16.4**	**+4.1**
		0.4nm,0.4s,baz=294,slow=23,SNR=1.4							
		0.4nm,0.4s							
	CPUP	**Villa Florida**	**46.30**	**143**	P		P	02 16 26.0	+6.3
		0.8nm,0.8s,baz=57,slow=20,SNR=1.6							
		0.8nm,0.8s							

*IDC **11** 02:17:07.3±0.6,30°.59S×71°.87W,h0km,mb4.1/9, mbtmp4.1/13,ML4.1/5,MS3.6/3,Error ellipse: s-maj=13.3km s-min=11.8km az=46.0*

*NEIC **11** 02:17:08.5±1.9,30°.60S±0°.03×72°.09W±0°.04,h10km±3km, mb4.5/16,Mwr4.3/80,ML4.3(GUC),Error ellipse: s-maj=5.0km s-min=3.9km az=83.0,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.35; $M_{\theta\theta}$0.44; $M_{\phi\phi}$-2.79; $M_{r\theta}$0.15; $M_{\theta\phi}$-0.20; $M_{\phi r}$-1.52; Fault plane solution: $M_0$3.02000×10^{15} NP1:ϕ_s178.08000°, δ60.44000°,λ83.99000°. NP2:ϕ_s10.12000°,δ30.11000°, λ100.46000°. Principal axes: T 2.7854, Plg74.0000°, Azm73.0000°; N 0.4277, Plg5.0000°, Azm181.0000°; P -3.2131, Plg15.0000°, Azm272.0000°;*

*NEIC **11** 02:17:08,30°.56S×72°.17W,h12km*

*VAO **11** 02:17:09.5±1.6,30°.46S×71°.81W,h10km,mb4.3, Presumed earthquake*

*GUC **11** 02:17:10.1±0.8,30°.63S×71°.91W,h35km±2km,ML4.3, Presumed earthquake*

ISC 11 02:17:06.6±1.6,30°.56S±0°.03×72°.06W±0°.05,h2km±9km, n132,σ1§31/141,mb4.4/12,6C-8D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.39**	**108**			**Pb**	**02 17 17.6**	**+1.4**
CO06				Sg		**Sb**	**02 17 23.4**	**+0.8**
CO06	**Fray Jorge**	**0.39**	**108**	⇓*i*	P	**Pb**	**02 17 17.6**	**+1.4**
CO06				*e*	S	**Sb**	**02 17 23.3**	**+0.7**
CO05	**La Serena**	**0.95**	**48**		P	**Pn**	**02 17 27.3**	**+0.2**
CO05				Sg		**Sn**	**02 17 41.4**	**+0.2**
CO05	**La Serena**	**0.95**	**48**	⇓*i*	P	**Pn**	**02 17 27.2**	**+0.2**
CO05				*i*	S	**Sn**	**02 17 40.9**	**-0.4**
CO05				IAML			02 17 46.0	
	comp=N,11μm,0.6s							
CO02	**Combarbal**	**1.12**	**126**			**Pb**	**02 17 29.4**	**+0.5**
CO02				Sn		**Sn**	**02 17 45.5**	**0.0**
CO02	**Combarbal**	**1.12**	**126**	⇓*i*	P	**Pb**	**02 17 29.3**	**+0.5**
CO02				*i*	S	**Sg**	**02 17 42.5**	**0.0**
CO02				IAML			02 17 46.9	
	comp=N,17μm,0.5s							
GO04	**Tololo Observa**	**1.16**	**71**			**Pn**	**02 17 30.6**	**+0.5**
GO04				Sn		**Sn**	**02 17 47.5**	**+0.9**
GO04	**Tololo Observa**	**1.16**	**71**	⇓*i*	P	**Pn**	**02 17 30.6**	**+0.5**
GO04				*i*	S	**Sn**	**02 17 46.0**	**-0.6**
GO04				IAML			02 17 51.0	
	comp=N,28μm,0.5s							
CO03	**El Pedregal**	**1.22**	**104**			**Pn**	**02 17 30.9**	**+0.1**
CO03				Sn		**Sn**	**02 17 48.2**	**+0.3**
CO03	**El Pedregal**	**1.22**	**104**	⇓*i*	P	**Pn**	**02 17 30.8**	**+0.1**
CO03				*i*	S	**Sb**	**02 17 46.2**	**-0.4**
CO04	**Los Peladeros**	**1.75**	**148**			**Pn**	**02 17 39.1**	**+0.8**
CO04				Sn		**Sn**	**02 18 01.3**	**-0.1**
CO04	**Los Peladeros**	**1.75**	**148**	⇓*i*	P	**Pn**	**02 17 39.0**	**+0.8**
CO04				*e*	S	**Sn**	**02 18 00.8**	**-0.6**
CO04				IAML			02 18 07.3	
	comp=N,5μm,0.4s							
CO01	**Juntas del Tor**	**1.80**	**72**			**Pg**	**02 17 41.0**	**-0.1**
CO01				Sn		**Sg**	**02 18 04.3**	**-0.1**
CO01	**Juntas del Tor**	**1.80**	**72**	*e*	P	**Pg**	**02 17 41.3**	**+0.2**
CO01				*e*	S	**Sg**	**02 18 03.5**	**-0.9**
LCO	**Las Campanas**	**1.94**	**38**			**Pb**	**02 17 41.9**	**-1.0**
AC05	**El Transito**	**2.31**	**43**			**Pb**	**02 17 47.7**	**-1.4**
AC05	**El Transito**	**2.31**	**43**	⇑*e*	P	**Pb**	**02 17 47.8**	**-1.4**
VA01	**Torpederas**	**2.48**	**172**			**Pn**	**02 17 47.6**	**-0.5**
VA01	**Torpederas**	**2.48**	**172**	*e*	P	**Pn**	**02 17 48.1**	**-0.1**
AC04	**Llanos de Chal**	**2.50**	**20**			**Pn**	**02 17 48.2**	**0.0**
AC04	**Llanos de Chal**	**2.50**	**20**	⇑*e*	P	**Pn**	**02 17 48.3**	**0.0**
VA03	**San Esteban**	**2.55**	**150**			**Pn**	**02 17 50.4**	**+1.3**
VA03	**San Esteban**	**2.55**	**150**	⇑*e*	P	**Pn**	**02 17 50.8**	**+1.7**
ROCH	**El Roble**	**2.57**	**160**	⇓*e*	P	**Pb**	**02 17 50.4**	**-3.2**
ROCH				*e*	P	**Pn**	**02 17 50.2**	**+0.7**
MT02	**Curacav**	**2.81**	**164**			**Pn**	**02 17 53.2**	**+0.6**
MT02	**Curacav**	**2.81**	**164**	*e*	P	**Pn**	**02 17 52.9**	**+0.3**
PEL	**Peldehue**	**2.83**	**156**			**Pn**	**02 17 54.1**	**+1.2**
PEL	**Peldehue**	**2.83**	**156**	*e*	P	**Pn**	**02 17 54.2**	**+1.2**
MT10	**Hacienda Santa**	**3.00**	**155**	*e*	P	**Pn**	**02 17 56.9**	**+1.5**
MT05	**Renca**	**3.04**	**159**			**Pn**	**02 17 56.1**	**+0.2**
MT05	**Renca**	**3.04**	**159**	*e*	P	**Pn**	**02 17 57.1**	**+1.2**
ZON	**Zonda**	**3.07**	**110**			**Pn**	**02 17 59.2**	**+3.0**
MT14	**Cerro Cal¡n**	**3.11**	**156**	*e*	P	**Pn**	**02 17 58.2**	**+1.3**
VA05	**Santo Domingo**	**3.12**	**173**			**Pn**	**02 17 56.3**	**-0.5**
VA05	**Santo Domingo**	**3.12**	**173**	*e*	P	**Pn**	**02 17 55.9**	**-0.9**
FCH	**Farellones**	**3.15**	**152**	⇑*e*	P	**Pn**	**02 17 59.2**	**+1.7**
MT16	**CCHEN**	**3.15**	**156**			**Pn**	**02 17 58.3**	**+1.0**
MT16	**CCHEN**	**3.15**	**156**	*e*	P	**Pn**	**02 17 58.7**	**+1.4**
RTLL	**Cerro Villicun**	**3.18**	**105**	*e*	P	**Pb**	**02 18 01.6**	**-2.2**
MT03	**Universidad Ad**	**3.21**	**156**			**Pn**	**02 17 59.1**	**+0.9**
MT04	**Ro Olivares**	**3.28**	**151**	*e*	P	**Pn**	**02 18 01.5**	**+2.2**
MT09	**Talagante**	**3.34**	**164**			**Pn**	**02 18 01.1**	**+1.1**
MT09	**Talagante**	**3.34**	**164**	*e*	P	**Pn**	**02 18 01.2**	**+1.2**
GO03	**Copiapo**	**3.36**	**29**			**Pn**	**02 18 01.0**	**+0.8**
GO03	**Copiapo**	**3.36**	**29**	*e*	P	**Pn**	**02 18 00.6**	**+0.4**
MT08	**Bocatoma Ro**	**3.36**	**149**			**Pn**	**02 18 02.2**	**+1.7**
MT01	**Popeta**	**3.37**	**168**	*e*	P	**Pn**	**02 18 00.5**	**+0.2**
CFA	**Coronel Fontan**	**3.44**	**109**	Pn		**Pn**	**02 18 00.8**	**-0.6**
	comp=E,14nm,0.3s,baz=296,slow=14,SNR=130							
CFA				Pg		**Pb**	**02 18 05.5**	**-2.9**
	comp=E,12nm,0.3s,baz=301,slow=13,SNR=85							
CFA				Lg		Lg	02 18 50.5	
	comp=E,16nm,0.3s,baz=73,slow=19,SNR=7.1							
CFA				AML		AML		
AC06	**Mina Casimiro**	**3.52**	**26**	⇑*e*	P	**Pn**	**02 18 03.0**	**+0.6**
BO04	**La Punta**	**3.64**	**161**			**Pn**	**02 18 05.1**	**+1.0**
BO04	**La Punta**	**3.64**	**161**	⇓*e*	P	**Pn**	**02 18 05.6**	**+1.5**
LMEL	**Las Melosas**	**3.64**	**155**	*e*	P	**Pn**	**02 18 06.3**	**+2.1**
BO01	**Tunca**	**3.91**	**168**			**Pn**	**02 18 07.8**	**0.0**
BO02	**Sierra Bellavi**	**4.36**	**166**			**Pn**	**02 18 14.5**	**+0.5**
AC02	**Maricunga**	**4.51**	**36**			**Pn**	**02 18 17.9**	**+1.4**
AC02	**Maricunga**	**4.51**	**36**	*e*	P	**Pn**	**02 18 18.0**	**+1.5**
AC01	**Pan de Azucar**	**4.58**	**17**			**Pn**	**02 18 15.7**	**-1.2**
AC01	**Pan de Azucar**	**4.58**	**17**	*e*	P	**Pn**	**02 18 15.6**	**-1.4**
CYA	**Choya**	**5.85**	**70**	*e*	P	**Pn**	**02 18 36.9**	**+2.5**
PB14	**IPOC Station P**	**6.09**	**14**			**Pn**	**02 18 35.6**	**-2.4**
BI02	**San Fabin de**	**6.13**	**174**			**Pn**	**02 18 38.0**	**-0.3**
TCA	**Tanti**	**6.46**	**99**	*e*	P	**Pn**	**02 18 44.7**	**+1.8**
H03N1	**Juan Fernandez**	**6.49**	**242**	T		T	02 25 42.4	
	baz=190,slow=74,SNR=396							
H03N2	**Juan Fernandez**	**6.51**	**242**	T		T	02 25 47.6	
	baz=72,slow=74,SNR=514							
VA04	**Juan Fernndez**	**6.51**	**240**			Pn	02 18 41.1	-2.4
GO06	**Curarrehue**	**9.02**	**177**			**Pn**	**02 19 17.7**	**-0.3**
LR04	**Corral**	**9.37**	**186**	Pn		**Pn**	**02 19 21.1**	**-1.6**
LR05	**Currie**	**9.65**	**180**	Pn		**Pn**	**02 19 25.2**	**-1.3**
PLCA	**Paso Flores**	**10.23**	**174**	Pn		**Pn**	**02 19 35.0**	**+0.5**
	comp=E,0.8nm,0.3s,baz=334,slow=9.6,SNR=14							
PLCA				Sn		**Sn**	**02 21 26.0**	**-3.9**
	comp=E,0.2nm,0.3s,baz=263,slow=18,SNR=1.7							
PLCA				Lg		Lg	02 22 28.7	
	baz=245,slow=18,SNR=2.9							
	comp=E,2.0nm,0.4s							
PLCA				AML		AML		
PLCA	**Paso Flores**	**10.23**	**174**			**Pn**	**02 19 34.1**	**-0.4**
ANCO	**Parque Anchore**	**12.47**	**111**	*e*	P	**Pn**	**02 20 04.4**	**-0.8**
ITQB	**Itaqui**	**13.39**	**90**	*e*	P	**Pn**	**02 20 16.1**	**-1.7**
CPUP	**Villa Florida**	**13.63**	**76**	Pn		**Pn**	**02 20 20.1**	**-0.8**
	comp=E,0.1nm,0.3s,baz=266,slow=11,SNR=3.3							
CPUP				Sn		**Sn**	**02 22 46.5**	**-6.6**
	comp=E,0.1nm,0.3s,baz=204,slow=14,SNR=1.5							
CPUP				Lg		Lg	02 24 10.3	
	comp=E,0.2nm,0.3s,baz=2.5,slow=19,SNR=3.3							
CPUP				LR		LR	02 25 57.4	
	comp=E,247nm,18.1s,baz=264,slow=39							
	comp=E,1.5nm,0.8s							
CPUP				AML		AML		
CPUP	**Villa Florida**	**13.63**	**76**	Pn		**Pn**	**02 20 20.7**	**-0.3**
LPAZ	**La Paz**	**14.65**	**15**	Pn		**Pn**	**02 20 38.5**	**+2.9**
	comp=E,0.4nm,0.3s,baz=158,slow=8.2,SNR=17							
	comp=E,2.4nm,0.6s							
LPAZ				AML		AML		
LPAZ	**La Paz**	**14.65**	**15**	Pn		**Pn**	**02 20 37.2**	**+1.6**
LPAZ	**La Paz**	**14.65**	**15**	*e*	P	**Pn**	**02 20 34.1**	**-1.5**
COYC	**Coyhaique**	**14.99**	**180**	Pn		**Pn**	**02 20 40.3**	**+0.8**
SJPY	**San Joaquin**	**15.17**	**72**	*e*	P	**Pn**	**02 20 40.5**	**-1.5**
CPSB	**Cacapava Do Su**	**16.06**	**94**	Pn		**Pn**	**02 20 54.0**	**+0.4**
SIV	**San Ignacio**	**17.65**	**37**	P		**P**	**02 21 15.7**	**+0.9**
	comp=E,0.1nm,0.3s,baz=215,slow=11,SNR=39							
	comp=E,7.2nm,0.8s							
SIV				AML		AML		
ITAB	**Concordia**	**17.76**	**84**	P		**Pn**	**02 21 15.4**	**+0.3**
ITAB				IAmb		IAmb	02 21 28.0	
	comp=Z,34nm,1.0s							
ITAB	**Concordia**	**17.76**	**84**	*e*	P	**Pn**	**02 21 13.0**	**-2.1**
AQDB	**Aquidauana**	**17.84**	**60**			**P**	**02 21 16.6**	**-0.3**
PTLB	**Pontes e Lacer**	**19.15**	**41**	P		**P**	**02 21 31.6**	**+0.3**
PTLB	**Pontes e Lacer**	**19.15**	**41**	*e*	P	**P**	**02 21 28.6**	**-2.6**
PP1B	**Ponte de Pedra**	**20.27**	**54**	*e*	P	**P**	**02 21 44.2**	**+0.5**
VILB	**Vilhena**	**20.66**	**35**	P		**P**	**02 21 47.5**	**-0.3**
VILB				IAmb		IAmb	02 21 54.7	
	comp=Z,22nm,1.0s							
VILB	**Vilhena**	**20.66**	**35**	*e*	P	**P**	**02 21 48.6**	**+0.7**
PCMB	**Pacaembu**	**20.67**	**69**	*e*	P	**P**	**02 21 48.7**	**+0.8**
SALV	**Santo Antonio**	**20.91**	**49**	*e*	P	**P**	**02 21 50.3**	**-0.2**
CZSB	**Cruzeiro do Su**	**22.72**	**358**	P		**P**	**02 22 11.1**	**+1.2**
CZSB				IAmb		IAmb	02 22 40.2	
	comp=Z,16nm,1.1s							
CZSB	**Cruzeiro do Su**	**22.72**	**358**	*e*	P	**P**	**02 22 09.9**	**0.0**
MG03	**Isla Dawson**	**23.31**	**178**	P		**P**	**02 22 16.2**	**+0.5**
MG03				IAmb		IAmb	02 22 17.6	
	comp=Z,35nm,1.4s							
EFI	**East Falkland**	**23.51**	**158**	P		**P**	**02 22 17.8**	**+0.1**
VAO	**Valinhos**	**23.60**	**77**	P		**P**	**02 22 18.6**	**-0.5**
PDRB	**Porto dos Gac**	**23.61**	**40**	*e*	P	**P**	**02 22 17.5**	**-1.6**
ARAG	**Araguaiana, MT**	**23.71**	**56**	*e*	P	**P**	**02 22 19.9**	**-0.2**
BDFB	**Brasilia**	**26.56**	**61**	P		**P**	**02 22 45.0**	**-1.3**
	comp=Z,5.6nm,0.7s,baz=222,slow=7.7,SNR=11							
BDFB				LR		LR	02 33 47.8	
	comp=Z,145nm,18.2s,baz=140,slow=38							
	comp=Z,5.6nm,0.7s							
BDFB	**Brasilia**	**26.56**	**61**	P		**P**	**02 22 45.5**	**-0.8**
BDFB				IAmb		IAmb	02 22 47.4	
	comp=Z,8.1nm,0.9s							
BOAV	**Boa Vista**	**34.57**	**21**	P		**P**	**02 23 56.4**	**-0.5**
BOAV				IAmb		IAmb	02 23 58.5	
	comp=Z,4.2nm,0.7s							
BOAV	**Boa Vista**	**34.57**	**21**	*e*	P	**P**	**02 23 57.8**	**+0.9**
RUSC	**La Rusia**	**36.25**	**358**	P		**P**	**02 24 11.5**	**-0.4**
RUSC				IAmb		IAmb	02 24 16.9	
	comp=Z,8.2nm,0.8s							
SNAA	**Sanae**	**54.78**	**159**	⇑P		**P**	**02 26 38.2**	**+0.7**
	comp=Z,93nm,0.5s							
SNAA	**Sanae**	**54.78**	**159**	P		**P**	**02 26 38.0**	**+0.5**
	comp=Z,3.2nm,0.5s,baz=272,slow=9.8,SNR=7.6							
	comp=Z,3.2nm,0.5s							
SNAA	**Sanae**	**54.78**	**159**	P		**P**	**02 26 37.9**	**+0.3**
SNAA				IAmb		IAmb	02 26 39.1	
	comp=Z,3.7nm,0.6s							
TROLL	**Troll, Antarti**	**56.49**	**159**	P		**P**	**02 26 50.6**	**+0.7**
	comp=Z,149nm,0.5s							
QSPA	**South Pole Qui**	**59.67**	**180**	P		**P**	**02 27 13.2**	**+0.9**
	comp=Z,1.7nm,0.6s,baz=149,slow=0.8,SNR=10.0							
	comp=Z,1.7nm,0.6s							
QSPA	**South Pole Qui**	**59.67**	**180**	P		**P**	**02 27 12.9**	**+0.6**
TXAR	**Lajitas Array**	**66.74**	**330**	P		**P**	**02 28 00.9**	**+1.4**
	comp=Z,0.4nm,0.3s,baz=172,slow=3.3,SNR=4.0							
	comp=Z,0.4nm,0.3s							
DBIC	**Dimbokro**	**74.12**	**72**	P		**P**	**02 28 45.2**	**+0.3**
	comp=Z,1.5nm,0.7s,baz=169,slow=5.2,SNR=1.1							
	comp=Z,1.5nm,0.7s							
DBIC	**Dimbokro**	**74.12**	**72**	P		**P**	**02 28 44.6**	**-0.3**
MAW	**Mawson**	**76.48**	**164**	P		**P**	**02 28 58.0**	**+0.4**
	comp=Z,1.4nm,0.5s,baz=220,slow=13,SNR=4.4							
MAW				LR		LR	03 01 58.3	
	comp=Z,40nm,20.9s,baz=272,slow=35							
	comp=Z,1.4nm,0.5s							
MAW	**Mawson**	**76.48**	**164**	P		**P**	**02 28 58.2**	**+0.7**
PDAR	**Pinedale Array**	**80.69**	**333**	P		**P**	**02 29 22.6**	**+1.3**
	comp=Z,0.2nm,0.8s,baz=146,slow=8.0,SNR=1.9							
	comp=Z,0.2nm,0.8s							
PDAR	**Pinedale Array**	**80.69**	**333**	P		**P**	**02 29 22.2**	**+0.9**
NVAR	**Mina Array Bea**	**81.06**	**325**	P		**P**	**02 29 26.0**	**+2.6**
	comp=Z,0.1nm,0.2s,baz=170,slow=5.5,SNR=2.0							
	comp=Z,0.1nm,0.2s							
TORD	**Torodi Ar. Bea**	**83.07**	**70**	P		**P**	**02 29 34.5**	**+0.3**
	comp=Z,2.4nm,0.7s,baz=260,slow=5.1,SNR=8.9							
	comp=Z,2.4nm,0.7s							
WRA	**Warramunga Arr**	**123.74**	**210**	PKP		**PKPdf**	**02 36 05.8**	**-0.9**
	comp=Z,0.3nm,0.6s,baz=157,slow=1.9,SNR=1.8							
H11S2	**WAKE ISLAND Hy**	**125.73**	**272**	T		T	04 55 01.5	
	baz=116,slow=74,SNR=17							
H11S1	**WAKE ISLAND Hy**	**125.74**	**272**	T		T	04 55 02.3	
	baz=116,slow=74,SNR=12							
H11S3	**WAKE ISLAND Hy**	**125.75**	**272**	T		T	04 55 03.5	
	baz=116,slow=74,SNR=13							
H11N3	**WAKE ISLAND Hy**	**126.06**	**273**	T		T	04 55 18.6	
	baz=118							
H11N1	**WAKE ISLAND Hy**	**126.07**	**273**	T		T	04 55 15.9	
	baz=118							
H11N2	**WAKE ISLAND Hy**	**126.07**	**273**	T		T	04 55 26.0	
	baz=118							
BVAR	**Borovoye Array**	**144.71**	**40**	PKP		**PKPdf**	**02 36 45.3**	**+0.7**
	comp=Z,2.9nm,0.6s,baz=306,slow=3.0,SNR=12							
KURBB	**Kurchatov Arra**	**150.30**	**39**	PKPbc		**PKPbc**	**02 36 59.6**	**+0.5**
	comp=Z,3.0nm,0.5s,baz=303,slow=3.1,SNR=16							
KURK	**Kurchatov**	**150.30**	**39**			**PKPbc**	**02 36 59.4**	**+0.3**
ZALV	**Zalesovo Beam**	**151.28**	**29**	PKPbc		**PKPbc**	**02 37 02.2**	**+0.9**
	comp=Z,14nm,0.6s,baz=303,slow=3.0,SNR=70							
ZALV	**Zalesovo Beam**	**151.28**	**29**			**PKPbc**	**02 37 01.5**	**+0.2**
MKAR	**Makanchi Array**	**154.40**	**43**	PKPbc		**PKPbc**	**02 37 08.4**	**-0.1**
	comp=Z,0.5nm,0.7s,baz=5.6,slow=0.7,SNR=4.1							
MKAR	**Makanchi Array**	**154.40**	**43**			**PKPbc**	**02 37 07.9**	**-0.6**

NAM 11 02:32:04.0±5.4,19°.67S×16°.44E,h0km±999km,ML3.6, Presumed earthquake,Namibia

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KJAB	**KAMANJAB**	**1.50**	**272**	*i*	P	Pn	02 32 23.7	-8.5
KJAB				IAML			02 32 36.2	
	comp=Z,2μm,0.1s							
KJAB	**KAMANJAB**	**1.50**	**272**	*i*	P	Pn	02 32 24.8	-7.4
KJAB				*i*	S	Sg	02 32 34.8	-17
KJAB				IAML			02 32 37.7	
	comp=Z,985nm,0.1s							
KJAB	**KAMANJAB**	**1.50**	**272**	*i*	P	Pn	02 32 25.5	-6.8
KJAB				IAML			02 32 32.4	
	comp=Z,2μm,0.2s							
KARI	**Karibib**	**2.33**	**193**	*i*	P	Pg	02 32 49.2	+0.6
KARI				IAML			02 33 25.8	
	comp=Z,128nm,0.4s							
KARI	**Karibib**	**2.33**	**193**	*i*	P	Pg	02 32 52.5	+3.9
KARI				*i*	S	Sg	02 33 23.5	+4.7
KARI				IAML			02 33 26.2	
	comp=Z,124nm,0.4s							
KARI	**Karibib**	**2.33**	**193**	*i*	P	Pg	02 32 50.4	+1.7
KARI				IAML			02 33 25.9	
	comp=Z,128nm,0.3s							
OPU	**Opuwo**	**2.92**	**303**	*i*	P	Pn	02 32 52.5	+0.6
OPU				IAML			02 33 30.1	
	comp=Z,111nm,0.2s							
OPU	**Opuwo**	**2.92**	**303**	*i*	P	Pn	02 32 52.5	+0.6
OPU				IAML			02 33 30.4	
	comp=Z,102nm,0.2s							
OPU	**Opuwo**	**2.92**	**303**	*i*	P	Pn	02 32 48.1	-3.7
OPU				IAML			02 33 30.1	
	comp=Z,110nm,0.2s							
AUSN	**Aus**	**6.97**	**181**	*i*	P	Pb	02 34 00.1	-6.1
AUSN				IAML			02 35 45.7	
	comp=Z,440nm,1.6s							
AUSN	**Aus**	**6.97**	**181**	*i*	P	Pb	02 33 59.0	-7.2
AUSN				*i*	S	Sg	02 35 44.2	-3.9
AUSN				IAML			02 35 56.7	
	comp=Z,677nm,2.0s							
AUSN	**Aus**	**6.97**	**181**	*i*	P	Pb	02 33 59.0	-7.1
AUSN				IAML			02 35 40.1	
	comp=Z,1μm,5.0s							

*KRSC **11** 02:53:46.4±1.4,51°.20N×157°.10E,h119km±12km,Ml4.2*

*MOS **11** 02:53:46.6±1.1,51°.34N×156°.76E,h133km,mb4.1/5,Error ellipse: s-maj=17.7km s-min=5.4km az=68.4*

*IDC **11** 02:53:49.4±1.7,51°.51N×156°.65E,h137km±12km, mb3.5/10,mbtmp3.9/14,MS3.0/2,Error ellipse: s-maj=25.7km s-min=11.5km az=159.0*

*NEIC **11** 02:53:49.9±0.7,51°.6N±0°.1×156°.6E±0°.2,h138km±5km, mb4.3/13,Error ellipse: s-maj=19.9km s-min=11.9km az=138.0*

ISC 11 02:53:47.1±0.6,51°.29N±0°.06×156°.89E±0°.06,h124km±5km, n102,σ1§10/114,mb4.0/18,1C,Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PAU	**Pauzhetka**	**0.18**	**345**			**Pn**	**02 54 04.0**	**-0.2**
PAU	**Pauzhetka**	**0.18**	**345**	*e*	P	**Pn**	**02 54 04.1**	**-0.2**
SKR	**Severo-Kuril's**	**0.78**	**219**	⇑*i*	PN	**Pn**	**02 54 08.3**	**+0.8**
SKR				*i*	S	**Sn**	**02 54 23.9**	**+1.1**
SKR				pmax		pmax		
	comp=Z,896nm,0.4s							
SKR				smax		smax		
	comp=N,4μm,0.3s							
SKR				smax		smax		
	comp=E,4μm,0.3s							
SKR	**Severo-Kuril's**	**0.78**	**219**	*e*	P	**Pn**	**02 54 07.8**	**+0.4**
SKR				*e*	S	**Sn**	**02 54 23.3**	**+0.5**
KDTR	**Khodut

H11S2 WAKE ISLAND Hy 33.64 163 T T 03 35 32.2
baz=348,slow=76,SNR=13

BCAR Beaver Creek A 33.89 46 P **P** **03 00 18.2 +0.5**
INK Inuvik 36.50 36 P **P** **03 00 40.1 +0.3**
INK pmax pmax
comp=Z,4.0nm,1.4s

INK Inuvik 36.50 36 P **P** **03 00 40.0 +0.3**
Q32M Nakina River 39.43 50 P **P** **03 01 06.5 +1.8**
Q32M IAmb IAmb 03 01 10.3
comp=Z,9.7nm,1.4s

YKA Yellowknife Ar 45.82 40 P **P** **03 01 56.5 +0.5**
comp=Z,1.3nm,0.5s,baz=300,slow=6.8,SNR=7.8
comp=Z,1.3nm,0.5s

KURK Kurchatov 47.00 302 P **P** **03 02 04.5 -0.9**
KURK pmax pmax
comp=Z,2.0nm,0.6s

KURK Kurchatov 47.00 302 P **P** **03 02 04.5 -0.9**
KURK IAmb IAmb 03 02 05.8
comp=Z,2.1nm,0.6s

KURBB Kurchatov Arra 47.10 302 P **P** **03 02 05.7 -0.4**
comp=Z,1.0nm,0.5s,baz=62,slow=7.4,SNR=9.7
comp=Z,1.0nm,0.5s

MKAR Makanchi Array 47.15 295 P **P** **03 02 06.1 -0.6**
comp=Z,0.3nm,0.5s,baz=52,slow=8.0,SNR=2.7
comp=Z,0.3nm,0.5s

MKAR Makanchi Array 47.15 295 P **P** **03 02 05.5 -1.1**
MKAR Makanchi Array 47.15 295 P **P** **03 02 05.5 -1.1**
BVAR Borovoye Array 49.95 308 P **P** **03 02 26.7 -1.3**
comp=Z,1.0nm,0.5s,baz=73,slow=11,SNR=3.9
comp=Z,1.0nm,0.5s

EDM Edmonton 51.44 50 P **P** **03 02 39.5 +0.3**
EDM pmax pmax
comp=Z,7.0nm,0.7s

EDM Edmonton 51.44 50 P **P** **03 02 39.5 +0.3**
EDM IAmb IAmb 03 02 40.7
comp=Z,6.5nm,0.7s

MOD Modoc Plateau 54.80 65 P **P** **03 03 05.9 +1.8**
MOD IAmb IAmb 03 03 23.3
comp=Z,7.7nm,1.5s

SUMG Summit 55.97 6 P **P** **03 03 11.5 -0.7**
SUMG pmax pmax
comp=Z,2.0nm,0.9s

SUMG Summit 55.97 6 P **P** **03 03 11.5 -0.7**
SUMG IAmb IAmb 03 03 15.2
comp=Z,1.9nm,0.9s

AB31 Akbulak array 57.44 309 P **P** **03 03 21.4 -1.1**
ABKAR Akbulak array 57.44 309 P **P** **03 03 21.4 -1.1**
NVAR Mina Array Bea 58.24 67 P **P** **03 03 30.4 +1.8**
comp=Z,1.1nm,0.6s,baz=305,slow=7.9,SNR=11
comp=Z,1.1nm,0.6s

NVAR Mina Array Bea 58.24 67 P **P** **03 03 29.9 +1.3**
PDAR Pinedale Array 60.14 58 P **P** **03 03 42.9 +1.3**
comp=Z,1.1nm,0.7s,baz=318,slow=1.6,SNR=13
comp=Z,1.1nm,0.7s

PDAR Pinedale Array 60.14 58 P **P** **03 03 42.5 +0.9**
SRU San Rafael Swe 62.17 62 P **P** **03 03 56.5 +1.3**
SRU pmax pmax
comp=Z,5.0nm,0.9s

SRU San Rafael Swe 62.17 62 P **P** **03 03 56.5 +1.3**
SRU IAmb IAmb 03 03 57.5
comp=Z,5.0nm,0.9s

NOA NORSAR Array B 64.69 342 P **P** **03 04 07.3 -4.0**
comp=Z,0.4nm,0.7s,baz=29,slow=8.1,SNR=2.0

HFS Hagfors 65.03 341 LR LR 03 35 45.4
comp=Z,10nm,18.2s,baz=324,slow=39

EKA Eskdalemuir Ar 72.45 348 P **P** **03 04 58.1 -1.4**
comp=Z,0.4nm,0.4s,baz=22,slow=6.1,SNR=4.4
comp=Z,0.4nm,0.4s

TX31 Lajitas Ar. Si 73.18 64 P **P** **03 05 05.3 +1.0**
TXAR Lajitas Array 73.18 64 P **P** **03 05 05.8 +1.5**
comp=Z,1.7nm,0.6s,baz=299,slow=4.5,SNR=26
comp=Z,1.7nm,0.6s

TXAR Lajitas Array 73.18 64 P **P** **03 05 05.1 +0.7**
TXAR Lajitas Array 73.18 64 P **P** **03 05 05.1 +0.7**
PLCA Paso Flores 145.96 91 PKPbc **PKPdf** **03 13 11.5 +0.8**
comp=Z,0.9nm,0.8s,baz=304,slow=3.6,SNR=3.8

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*IDC **11** 02:57:27.8±0.8,4.°58S×151.°35E,h250km±6km,mb3.7/16, mbtmp4.3/19,Error ellipse: s-maj=15.9km s-min=10.5km az=110.0*

*NEIC **11** 02:57:28.2±1.4,4.°58S±0.°09×151.°3E±0.°1,h250km±6km, mb4.4/28,Error ellipse: s-maj=15.2km s-min=11.7km az=65.0*

*GFZ **11** 02:57:37.2±1.9,5.°S±9.°×15.°1E±1.°3,h323km±14km, M4.6/12,mb4.6/12,Error ellipse: s-maj=31.9km s-min=13.4km az=61.5,confirmed*

ISC 11 02:57:27.9±0.5,4.°57S±0.°06×151.°33E±0.°07,h250km,n80, σ0°79/88,mb4.4/34,New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**0.74**	**69**	P	**Pn**	**02 58 01.6**	**-0.1**
	2μm,0.4s,baz=313,slow=2.1,SNR=23						
RABL	**Rabaul**	**0.91**	**65**	Pn	**Pn**	**02 58 02.6**	**+0.1**
RABL				Sn	**S**	**02 58 30.8**	**+1.2**
MANU	**Manus Island**	**4.69**	**302**	Pn	**Pn**	**02 58 40.9**	**+0.9**
PMG	**Port Moresby**	**6.34**	**221**	P	**Pn**	**02 59 02.1**	**+1.7**
	5.0nm,0.4s,baz=48,slow=15,SNR=1.9						
PMG				S	**S**	**03 00 14.1**	**-0.4**
	13nm,0.5s,baz=33,slow=16,SNR=3.2						
PMG	**Port Moresby**	**6.34**	**221**		**Pn**	**02 59 00.4**	**0.0**
JAY	**Jayapura**	**10.80**	**281**	P	**Pn**	**02 59 56.7**	**0.0**
	19nm,1.0s,baz=119,slow=12,SNR=8.3						
GENI	**Genyem**	**11.32**	**280**	P	**P**	**03 00 06.5**	**-0.6**
	comp=Z,51nm,0.7s						
MTSU	**Mount Surprise**	**15.13**	**206**	P	**Pn**	**03 00 51.5**	**+1.7**
	comp=Z,9.1nm,0.7s						
CTA	**Charters Tower**	**16.20**	**197**	P	**Pn**	**03 01 02.5**	**+0.1**
	comp=Z,13nm,0.8s,baz=12,slow=12,SNR=19						
CTAO	**Charters Tower**	**16.20**	**197**	P	**Pn**	**03 01 03.1**	**+0.7**
	comp=Z,17nm,0.9s						
FAKI	**Fak Fak**	**19.11**	**274**	P	**P**	**03 01 31.9**	**-0.8**
FAKI				IAmb	IAmb	03 01 39.1	
	comp=Z,21nm,1.3s						
QIS	**Mount Isa**	**19.56**	**215**	P	**P**	**03 01 37.9**	**+0.5**
	comp=Z,17nm,0.7s						
SIJI	**Sorong**	**20.38**	**280**	P	**P**	**03 01 46.9**	**+0.7**
	comp=Z,6.5nm,0.5s,baz=35,slow=19,SNR=2.1						
	comp=Z,6.5nm,0.5s						
EIDS	**Eidsvold**	**20.68**	**181**	P	**P**	**03 01 48.7**	**-0.6**
EIDS				IAmb	IAmb	03 02 16.0	
	comp=Z,13nm,1.3s						
EIDS	**Eidsvold**	**20.68**	**181**	P	**P**	**03 01 50.3**	**+1.0**
	comp=Z,11nm,1.2s						
MTN	**Manton Dam**	**21.58**	**246**	P	**P**	**03 01 57.6**	**-0.6**
MTN				IAmb	IAmb	03 01 58.9	
	comp=Z,4.9nm,0.9s						
WB0	**Warramunga Arr**	**22.37**	**226**	P	**P**	**03 02 05.5**	**0.0**
WRAB	**Tennant Creek**	**22.51**	**226**	P	**P**	**03 02 07.0**	**+0.3**
	comp=Z,149nm,0.6s						
WRA	**Warramunga Arr**	**22.53**	**226**	P	**P**	**03 02 07.0**	**+0.1**
	comp=Z,56nm,0.4s,baz=50,slow=9.5,SNR=77						
WRA				PcP	**PcP**	**03 05 51.4**	**-0.7**
	comp=Z,4.1nm,0.6s,baz=47,slow=2.2,SNR=12						
WRA				ScP	**ScP**	**03 09 05.9**	**0.0**
	comp=Z,0.9nm,0.7s,baz=45,slow=2.3,SNR=4.4						
WRA	**Warramunga Arr**	**22.53**	**226**	P	**P**	**03 02 05.0**	**-1.9**
WRA				IAmb	IAmb	03 02 07.9	
	comp=Z,9.4nm,0.6s						
QLP	**Quilpie**	**22.92**	**197**	P	**P**	**03 02 11.5**	**+1.1**
	comp=Z,52nm,0.6s						
KNRA	**Kununurra**	**24.77**	**242**	P	**P**	**03 02 26.4**	**-1.0**
KNRA				IAmb	IAmb	03 02 30.1	
	comp=Z,6.2nm,0.5s						
INKA	**Innaminka**	**25.15**	**203**	P	**P**	**03 02 29.8**	**-0.8**
INKA				IAmb	IAmb	03 02 31.9	
	comp=Z,7.9nm,0.5s						
AS31	**Alice Springs**	**25.36**	**220**	P	**P**	**03 02 32.3**	**-0.3**
ASAR	**Alice Springs**	**25.36**	**220**	P	**P**	**03 02 32.4**	**-0.2**
	comp=Z,5.0nm,0.3s,baz=55,slow=8.4,SNR=164						
ASAR				PcP	**PcP**	**03 05 58.7**	**+0.5**
	comp=Z,0.9nm,0.7s,baz=42,slow=2.3,SNR=4.5						
ASAR				ScP	**ScP**	**03 09 13.4**	**-0.2**
	comp=Z,0.7nm,0.7s,baz=36,slow=2.2,SNR=5.2						
	comp=Z,5.0nm,0.3s						
ASAR	**Alice Springs**	**25.36**	**220**	P	**P**	**03 02 31.8**	**-0.7**
ASAR					**PcP**	**03 05 58.4**	**+0.2**
ASAR					**ScP**	**03 09 13.8**	**+0.2**
FITZ	**Fitzroy Crossi**	**28.50**	**240**	P	**P**	**03 02 59.1**	**-1.4**
	comp=Z,4.5nm,0.4s,baz=70,slow=8.2,SNR=12						
	comp=Z,4.5nm,0.4s						
FITZ	**Fitzroy Crossi**	**28.50**	**240**	P	**P**	**03 02 59.4**	**-1.1**
FITZ	**Fitzroy Crossi**	**28.50**	**240**	P	**P**	**03 02 58.9**	**-1.6**
	comp=Z,3.0nm,0.9s						

STKA Stephens Creek 28.66 197 P **P** **03 03 01.6 -0.1**
comp=Z,4.6nm,0.5s,baz=14,slow=9.3,SNR=9.3
comp=Z,4.6nm,0.5s

STKA Stephens Creek 28.66 197 P **P** **03 03 01.8 -0.1**
STKA Stephens Creek 28.66 197 P **P** **03 03 01.4 -0.3**
comp=Z,51nm,0.6s

BBOO Buckleboo 31.51 205 P **P** **03 03 26.1 -0.7**
BBOO Buckleboo 31.51 205 P **P** **03 03 26.1 -0.7**
comp=Z,18nm,1.1s

FORT Forrest 34.06 217 P **P** **03 03 48.0 -0.9**
MGBR Mount Gambier 34.43 195 P **P** **03 03 52.5 +0.6**
MGBR IAmb IAmb 03 04 20.7
comp=Z,25nm,1.2s

MBWA Marble Bar 34.83 239 P **P** **03 03 54.3 -1.3**
MBWA IAmb IAmb 03 04 01.4
comp=Z,22nm,1.2s

MEEK Meekatharra 38.19 231 P **P** **03 04 23.5 -0.4**
comp=Z,79nm,1.0s

TAU Tasmania Unive 38.34 185 P **P** **03 04 25.8 +0.9**
MORW Morawa 41.36 230 P **P** **03 04 49.0 -0.9**
MORW Morawa 41.36 230 P **P** **03 04 49.0 -0.9**
comp=Z,42nm,0.7s

KLBR Kellerberrin 41.41 226 P **P** **03 04 48.7 -1.6**
comp=Z,47nm,0.6s

BLDU Ballidu 41.64 227 P **P** **03 04 51.2 -1.0**
comp=Z,23nm,0.7s

NWAO Narrogin (SRO) 42.52 224 P **P** **03 04 58.0 -1.2**
NWAO IAmb IAmb 03 05 39.4
comp=Z,31nm,1.2s

MLZ Mavora Lakes 43.20 163 P **P** **03 05 04.6 +0.1**
MLZ IAmb IAmb 03 05 38.0
comp=Z,18nm,1.2s

NJ2 Nanjing 47.76 322 *e*P **P** **03 05 40.6 +0.4**
NJ2 pmax pmax
comp=Z,9.0nm,0.5s

CMAR Chiang Mai Arr 56.46 296 P **P** **03 06 45.6 +1.2**
comp=Z,1.0nm,0.3s,baz=106,slow=6.6,SNR=4.7
comp=Z,1.0nm,0.3s

CMAR Chiang Mai Arr 56.46 296 P **P** **03 06 45.0 +0.6**
HHC Hu-ho-hao-te 58.02 325 *e*P **P** **03 06 56.9 +1.9**
HHC pmax pmax
comp=Z,6.0nm,0.6s

HHC pmax pmax
comp=Z,74nm,4.5s

SONM Songino Array 65.36 328 P **P** **03 07 44.7 +0.9**
comp=Z,1.7nm,0.6s,baz=145,slow=5.6,SNR=11
comp=Z,1.7nm,0.6s

SONM Songino Array 65.36 328 P **P** **03 07 43.8 0.0**
CASY Casey 67.81 197 P **P** **03 07 58.5 -0.3**
CASY IAmb IAmb 03 07 59.6
comp=Z,6.2nm,0.6s

CASY Casey 67.81 197 P **P** **03 07 58.8 +0.1**
comp=Z,8.5nm,0.8s

VNDA Vanda 73.11 178 P **P** **03 08 31.0 +0.4**
comp=Z,1.1nm,0.7s,baz=336,slow=6.8,SNR=11
comp=Z,1.1nm,0.7s

VNDA Vanda 73.11 178 P **P** **03 08 30.9 +0.4**
VNDA Vanda 73.11 178 P **P** **03 08 31.4 +0.8**
MKAR Makanchi Array 79.20 319 P **P** **03 09 05.8 +0.4**
comp=Z,0.6nm,0.8s,baz=108,slow=4.0,SNR=5.2
comp=Z,0.6nm,0.6s

MKAR Makanchi Array 79.20 319 P **P** **03 09 05.4 +0.1**
ZALV Zalesovo Beam 80.16 327 P **P** **03 09 09.5 -0.7**
comp=Z,0.9nm,0.4s,baz=103,slow=5.2,SNR=5.9
comp=Z,0.9nm,0.4s

ZALV Zalesovo Beam 80.16 327 P **P** **03 09 09.4 -0.9**
E19K Redstone River 80.41 18 P **P** **03 09 12.2 +0.8**
E19K IAmb IAmb 03 09 15.2
comp=Z,9.6nm,1.3s

IMAR Indian Mountai 80.66 20 P **P** **03 09 12.6 -0.2**
MCK McKinley 81.22 23 P **P** **03 09 15.0 -0.7**
ILAR Eielson Array 82.50 22 P **P** **03 09 21.6 -0.8**
comp=Z,0.7nm,0.6s,baz=248,slow=5.3,SNR=7.5
comp=Z,0.7nm,0.6s

KURBB Kurchatov Arra 82.72 322 P **P** **03 09 23.5 -0.3**
comp=Z,1.1nm,0.8s,baz=112,slow=3.9,SNR=9.7
comp=Z,1.1nm,0.8s

J25K Salcha River, 83.01 23 P **P** **03 09 24.9 -0.2**
D23K Nanushuk River 83.28 18 P **P** **03 09 27.1 +0.9**
D23K IAmb IAmb 03 09 33.1
comp=Z,4.4nm,1.3s

AAK Ala-Archa 83.45 314 P **P** **03 09 28.1 +0.2**
MAW Mawson 85.22 203 P **P** **03 09 35.8 -0.2**
comp=Z,1.4nm,0.5s,baz=300,slow=14,SNR=6.3
comp=Z,1.4nm,0.5s

MAW Mawson 85.22 203 P **P** **03 09 35.8 -0.2**
QSPA South Pole Qui 85.39 180 P **P** **03 09 36.9 -0.1**
comp=Z,3.2nm,0.5s,baz=272,slow=0.7,SNR=11
comp=Z,3.2nm,0.5s

QSPA South Pole Qui 85.39 180 P **P** **03 09 37.2 +0.1**
QSPA IAmb IAmb 03 09 38.8
comp=Z,7.5nm,1.1s

BVAR Borovoye Array 88.19 323 P **P** **03 09 49.2 -1.4**
comp=Z,0.7nm,0.5s,baz=100,slow=5.3,SNR=4.4
comp=Z,0.7nm,0.5s

NVAR Mina Array Bea 93.09 52 P **P** **03 10 13.4 -0.6**
comp=Z,0.5nm,0.8s,baz=311,slow=4.9,SNR=1.6
comp=Z,0.5nm,0.8s

PDAR Pinedale Array 99.78 48 P **Pdif** **03 10 43.5 -0.7**
comp=Z,0.1nm,0.6s,baz=215,slow=4.3,SNR=1.9
comp=Z,0.1nm,0.6s

FINES FINESS Array B 110.24 335 PKiKP **PKiKP** **03 15 28.9 -0.8**
comp=Z,0.4nm,0.4s,baz=98,slow=4.2,SNR=3.6

GERES GERESS Array B 123.09 328 PKPdf **PKPdf** **03 15 54.9 -0.1**
EKA Eskdalemuir Ar 125.39 342 PKP **PKPdf** **03 15 59.1 +0.1**
comp=Z,0.8nm,0.5s,baz=21,slow=3.6,SNR=3.9

TORD Torodi Ar. Bea 148.85 288 PKPbc **PKPbc** **03 16 46.2 -0.9**
comp=Z,2.3nm,0.7s,baz=79,slow=2.4,SNR=13

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*IDC **11** 03:27:14.2±1.4,22.°02S×65.°93W,h242km±13km,mb3.6/13, mbtmp4.2/18,Error ellipse: s-maj=16.5km s-min=11.3km az=74.0*

*NEIC **11** 03:27:15.8±1.5,22.°04S±0.°07×66.°05W±0.°06,h260km±5km, mb4.1/18,Error ellipse: s-maj=10.8km s-min=7.1km az=200.0*

*GFZ **11** 03:27:16.0±0.2,22.°2S±2.°×6.°6W±.°,h253km,M4.3/19, mb4.3/19,confirmed*

*SJA **11** 03:27:16.1±0.7,22.°03S×66.°10W,h264km±4km,ML4.5, MW4.1*

*VAO **11** 03:27:18.8±1.3,21.°77S×65.°82W,h267km±8km,mb3.8, Presumed earthquake*

ISC 11 03:27:15.6±0.4,22.°02S±0.°04×66.°12W±0.°05,h262km, n170,σ1°39/189,mb4.0/25,Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YJA	**Yavi**	**0.58**	**106**	*e*P	**Pn**	**03 27 51.9**	**+1.2**
YJA				*e*S	**S**	**03 28 18.3**	**+0.1**
AF01	**San Pedro de A**	**2.12**	**244**	*e*P	**Pn**	**03 28 03.4**	**+2.8**
AF01				*e*S	**S**	**03 28 34.8**	**-1.2**
AF01	**San Pedro de A**	**2.12**	**244**		**Pn**	**03 28 02.2**	**+1.7**
SALTA		**2.20**	**185**	*e*P	**Pn**	**03 28 03.4**	**+2.0**
SALTA		**2.20**	**185**	P	**Pn**	**03 28 03.5**	**+2.0**
SLA	**San Lorenzo**	**2.75**	**168**	*e*P	**Pn**	**03 28 08.3**	**+1.9**
PB09	**IPOC Station P**	**2.91**	**274**	*e*P	**Pn**	**03 28 08.5**	**+0.3**
PB09				*e*S	**S**	**03 28 50.6**	**+0.8**
PB09				IAML		03 28 53.1	
	comp=Z,420nm,0.2s						
PB09	**IPOC Station P**	**2.91**	**274**		**Pn**	**03 28 08.8**	**+0.7**
PB09	**IPOC Station P**	**2.91**	**274**	P	**Pn**	**03 28 09.8**	**+1.6**
PB06	**IPOC Station P**	**3.27**	**257**	*e*P	**Pn**	**03 28 13.2**	**+1.3**
PB06				*e*S	**S**	**03 28 57.9**	**+1.3**
PB06				IAML		03 28 59.7	
	comp=Z,472nm,0.2s						
PB06	**IPOC Station P**	**3.27**	**257**		**Pn**	**03 28 12.7**	**+0.7**
PB06	**IPOC Station P**	**3.27**	**257**	P	**Pn**	**03 28 14.2**	**+2.2**
PB03	**IPOC Station P**	**3.38**	**269**	*e*P	**Pn**	**03 28 14.3**	**+1.1**
PB03				*e*S	**S**	**03 28 57.9**	**-0.9**
PB03				IAML		03 29 02.2	
	comp=Z,826nm,0.2s						
PB03	**IPOC Station P**	**3.38**	**269**		**Pn**	**03 28 13.9**	**+0.8**
PB03	**IPOC Station P**	**3.38**	**269**	P	**Pn**	**03 28 14.3**	**+1.1**
PB08	**IPOC Station P**	**3.40**	**303**	*e*P	**Pn**	**03 28 15.2**	**+1.6**
PB08				*e*S	**S**	**03 29 00.9**	**+1.3**
PB08	**IPOC Station P**	**3.40**	**303**		**Pn**	**03 28 14.9**	**+1.2**
PB08	**IPOC Station P**	**3.40**	**303**	P	**Pn**	**03 28 15.4**	**+1.7**
PB07	**IPOC Station P**	**3.52**	**274**	*e*P	**Pn**	**03 28 15.8**	**+1.1**
PB07				*e*S	**S**	**03 29 00.7**	**-0.9**
PB07	**IPOC Station P**	**3.52**	**274**		**Pn**	**03 28 15.7**	**+1.1**
PB07	**IPOC Station P**	**3.52**	**274**	P	**Pn**	**03 28 16.0**	**+1.4**
PB02	**IPOC Station P**	**3.58**	**280**	*e*P	**Pn**	**03 28 16.5**	**+1.1**
PB02				*e*S	**S**	**03 29 01.2**	**-1.7**
PB02	**IPOC Station P**	**3.58**	**280**		**Pn**	**03 28 16.4**	**+1.1**
PB02	**IPOC Station P**	**3.58**	**280**	P	**Pn**	**03 28 16.3**	**+0.9**
GO01	**Chusmiza**	**3.71**	**309**	*e*P	**Pn**	**03 28 18.7**	**+1.4**
GO01				*e*S	**S**	**03 29 10.1**	**+4.0**
GO01				IAML		03 29 11.7	
	comp=Z,168nm,0.1s						
GO01	**Chusmiza**	**3.71**	**309**		**Pn**	**03 28 18.6**	**+1.4**
GO01	**Chusmiza**	**3.71**	**309**	P	**Pn**	**03 28 18.6**	**+1.3**
PB05	**IPOC Station P**	**3.87**	**257**	*e*P	**Pn**	**03 28 19.5**	**+0.9**
PB05				*e*S	**S**	**03 29 07.6**	**-1.1**
PB05				IAML		03 29 10.7	
	comp=Z,423nm,0.4s						
PB05	**IPOC Station P**	**3.87**	**257**		**Pn**	**03 28 19.5**	**+0.9**
PB05	**IPOC Station P**	**3.87**	**257**	P	**Pn**	**03 28 19.7**	**+1.0**
PB11	**IPOC Station P**	**4.00**	**304**	*e*P	**Pn**	**03 28 21.0**	**+0.8**
PB11				*e*S	**S**	**03 29 09.5**	**-2.1**
PB11				IAML		03 29 13.9	
	comp=Z,454nm,0.1s						
PB11	**IPOC Station P**	**4.00**	**304**		**Pn**	**03 28 20.7**	**+0.5**
PB11	**IPOC Station P**	**4.00**	**304**	P	**Pn**	**03 28 20.6**	**+0.5**
TA01	**Diego Aracena**	**4.06**	**290**	*e*P	**Pn**	**03 28 21.1**	**+0.5**
TA01				*e*S	**S**	**03 29 10.7**	**-1.8**
TA01				IAML		03 29 13.1	
	comp=Z,298nm,0.4s						
TA01	**Diego Aracena**	**4.06**	**290**		**Pn**	**03 28 20.9**	**+0.2**
TA01	**Diego Aracena**	**4.06**	**290**	P	**Pn**	**03 28 21.4**	**+0.7**
FSA	**Cafayete**	**4.08**	**178**	*e*P	**Pn**	**03 28 22.3**	**+1.3**
TA02	**Huaiquique**	**4.13**	**294**	*e*P	**Pn**	**03 28 22.4**	**+0.8**
TA02				*e*S	**S**	**03 29 12.2**	**-1.9**
TA02				IAML		03 29 14.3	
	comp=Z,728nm,0.1s						
PB10	**IPOC Station P**	**4.36**	**249**	*e*P	**Pn**	**03 28 25.1**	**+0.9**
PB10				*e*S	**S**	**03 29 16.4**	**-2.4**
PB10				IAML		03 29 18.4	
	comp=Z,275nm,0.8s						
PB10	**IPOC Station P**	**4.36**	**249**		**Pn**	**03 28 24.8**	**+0.6**
PSGCX	**Pisagua**	**4.46**	**302**	*e*P	**Pn**	**03 28 25.5**	**0.0**
PSGCX				*e*S	**S**	**03 29 18.2**	**-2.3**
PSGCX				IAML		03 29 20.2	
	comp=Z,262nm,0.2s						
PSGCX	**Pisagua**	**4.46**	**302**	Pn	**Pn**	**03 28 25.0**	**-0.5**
PSGCX	**Pisagua**	**4.46**	**302**	P	**Pn**	**03 28 26.1**	**+0.6**
PB14	**IPOC Station P**	**4.72**	**236**	*e*P	**Pn**	**03 28 29.2**	**+0.5**
PB14				*e*S	**S**	**03 29 24.2**	**-2.8**
PB14				IAML		03 29 27.9	
	comp=Z,539nm,0.6s						
PB14	**IPOC Station P**	**4.72**	**236**		**Pn**	**03 28 29.1**	**+0.5**
PB14	**IPOC Station P**	**4.72**	**236**	P	**Pn**	**03 28 29.3**	**+0.5**
AHML	**Horco Molle**	**4.80**	**172**	*e*P	**Pn**	**03 28 29.0**	**-0.4**
AHML				*e*S	**S**	**03 29 24.5**	**-3.8**
PB16	**IPOC Station P**	**4.86**	**318**	*e*P	**Pn**	**03 28 32.4**	**+1.6**
PB16	**IPOC Station P**	**4.86**	**318**		**Pn**	**03 28 31.5**	**+0.8**
PB16	**IPOC Station P**	**4.86**	**318**	P	**Pn**	**03 28 32.5**	**+1.8**
PB12	**IPOC Station P**	**5.21**	**310**	*e*P	**Pn**	**03 28 34.1**	**-0.4**
PB12				*e*S	**S**	**03 29 32.6**	**-4.9**
PB12				IAML		03 29 40.6	
	comp=Z,126nm,0.4s						
PB12	**IPOC Station P**	**5.21**	**310**		**Pn**	**03 28 33.5**	**-1.0**
PB18	**Visviri**	**5.43**	**324**		**Pn**	**03 28 38.8**	**+1.2**
PB18	**Visviri**	**5.43**	**324**	P	**Pn**	**03 28 40.9**	**+3.2**
	comp=Z,27nm,0.7s						
AC02	**Maricunga**	**5.53**	**209**		**Pn**	**03 28 39.1**	**+0.4**
AC02	**Maricunga**	**5.53**	**209**	P	**Pn**	**03 28 39.5**	**+0.9**
	comp=Z,60nm,0.8s						
AC01	**Pan de Azucar**	**5.80**	**224**		**Pn**	**03 28 41.0**	**-0.6**
AC01	**Pan de Azucar**	**5.80**	**224**	P	**Pn**	**03 28 41.4**	**-0.2**
	comp=Z,128nm,0.7s						
LPAZ	**La Paz**	**6.01**	**341**	P	**Pn**	**03 28 45.4**	**+0.5**
	comp=Z,5.8nm,0.3s,baz=150,slow=4.1,SNR=91						
LPAZ				S	**S**	**03 29 53.5**	**-2.8**
	comp=Z,18nm,1.0s,baz=281,slow=18,SNR=12						
LPAZ	**La Paz**	**6.01**	**341**		**Pn**	**03 28 44.6**	**-0.3**
LPAZ	**La Paz**	**6.01**	**341**	P	**Pn**	**03 28 46.2**	**+1.4**
	comp=Z,12nm,0.8s						
LPAZ	**La Paz**	**6.01**	**341**	*e*P	**Pn**	**03 28 46.0**	**+1.1**
AC06	**Mina Casimiro**	**6.56**	**215**		**Pn**	**03 28 50.1**	**-0.9**
GO03	**Copiapo**	**6.69**	**213**		**Pn**	**03 28 51.8**	**-0.9**
GO03	**Copiapo**	**6.69**	**213**	P	**Pn**	**03 28 52.1**	**-0.5**
AC04	**Llanos de Chal**	**7.62**	**215**		**Pn**	**03 29 01.9**	**-2.3**
SIV	**San Ignacio**	**7.66**	**39**	P	**Pn**	**03 29 03.0**	**-1.9**
	comp=Z,47nm,0.6s,baz=228,slow=9.5,SNR=242						
AC05	**El Transito**	**7.76**	**208**		**Pn**	**03 29 05.0**	**-1.1**
LCO	**Las Campanas**	**8.10**	**210**		**Pn**	**03 29 09.0**	**-1.5**
CO01	**Juntas del Tor**	**8.69**	**203**		**Pn**	**03 29 18.3**	**+0.4**
BDQN	**Bodoquena, MS**	**8.87**	**82**	*e*P	**Pn**	**03 29 18.6**	**-1.4**
CPUP	**Villa Florida**	**9.10**	**120**	P	**Pn**	**03 29 22.6**	**-0.2**
	comp=Z,0.7nm,0.8s,baz=304,slow=11,SNR=1.4						
CPUP	**Villa Florida**	**9.10**	**120**		**Pn**	**03 29 21.3**	**-1.4**
GO04	**Tololo Observa**	**9.14**	**206**		**Pn**	**03 29 22.9**	**-0.7**
PTLB	**Pontes e Lacer**	**9.29**	**47**		**Pn**	**03 29 23.4**	**-2.0**
PTLB	**Pontes e Lacer**	**9.29**	**47**	*e*P	**Pn**	**03 29 24.1**	**-1.3**
CO03	**El Pedregal**	**9.69**	**204**		**Pn**	**03 29 29.8**	**-0.4**
CO03	**El Pedregal**	**9.69**	**204**	P	**Pn**	**03 29 30.0**	**-0.3**
	comp=Z,21nm,0.5s						
CFA	**Coronel Fontan**	**9.73**	**191**	P	**Pn**	**03 29 28.4**	**-2.3**
	comp=Z,4.4nm,0.3s,baz=44,slow=12,SNR=110						
CFA				S	S	03 31 10.4	-10
	comp=Z,5.0nm,0.3s,baz=145,slow=21,SNR=9.2						
ZON	**Zonda**	**9.76**	**193**		**Pn**	**03 29 29.9**	**-1.2**
AQDB	**Aquidauana**	**9.84**	**83**		**Pn**	**03 29 30.9**	**-1.2**
AQDB	**Aquidauana**	**9.84**	**83**	P	**Pn**	**03 29 27.4**	**-4.6**
	comp=Z,6.8nm,0.7s						
AQDB	**Aquidauana**	**9.84**	**83**	*e*P	**Pn**	**03 29 31.2**	**-0.9**
CO02	**Combarbal**	**10.13**	**204**		**Pn**	**03 29 35.6**	**-0.2**
CO02	**Combarbal**	**10.13**	**204**	P	**Pn**	**03 29 35.8**	**0.0**
	comp=Z,24nm,0.5s						
VILB	**Vilhena**	**10.63**	**33**		**Pn**	**03 29 42.0**	**-0.2**
VILB	**Vilhena**	**10.63**	**33**	*e*P	**Pn**	**03 29 40.8**	**-1.4**
CO04	**Los Peladeros**	**10.88**	**202**	P	**Pn**	**03 29 44.8**	**-0.5**
	comp=Z,14nm,0.7s						
VA03	**San Esteban**	**11.40**	**199**	P	**Pn**	**03 29 52.6**	**+1.0**
VA03	**San Esteban**	**11.40**	**199**	P	**Pn**	**03 29 53.2**	**+1.6**
	comp=Z,55nm,0.6s						
SALV	**Santo Antonio**	**11.58**	**60**	*e*P	**Pn**	**03 29 53.0**	**-0.9**
MT08	**Bocatoma Ro**	**11.89**	**196**	Pn	**Pn**	**03 29 58.4**	**+0.5**
MT16	**CCHEN**	**12.01**	**198**	Pn	**Pn**	**03 29 58.5**	**-0.6**
MT02	**Curacav**	**12.05**

OTAV				IAmb	IAmb	03 32 27.3		
	comp=Z,5.8nm,1.4s							
RUSC	**La Rusia**	**28.57**	**345**		**P**	**03 32 48.4**	**+0.1**	
JUD3	**Juan Diaz 3**	**37.23**	**327**	P	**P**	**03 34 01.4**	**-1.3**	
APG	**El Apazote**	**43.86**	**325**	P	**P**	**03 34 58.4**	**+1.5**	
	comp=Z,0.2nm,0.4s,baz=112,slow=11,SNR=2.1							
VNA2	**Neumayer--Watz**	**59.31**	**161**	P	**P**	**03 36 52.9**	**+3.1**	
	comp=Z,15nm,1.1s							
TKL	**Tuckaleechee C**	**59.75**	**343**	P	**P**	**03 36 53.0**	**-0.2**	
	comp=Z,4.6nm,0.9s,baz=157,slow=6.1,SNR=4.5							
	comp=Z,4.6nm,0.9s							
TKL	**Tuckaleechee C**	**59.75**	**343**	P	**P**	**03 36 52.9**	**-0.4**	
TKL				IAmb	IAmb	03 36 55.4		
	comp=Z,9.1nm,1.1s							
WVT	**Waverly**	**61.37**	**340**	P	**P**	**03 37 03.8**	**-0.3**	
	comp=Z,17nm,2.3s							
TXAR	**Lajitas Array**	**62.57**	**323**	P	**P**	**03 37 13.5**	**+1.2**	
	comp=Z,0.3nm,0.5s,baz=144,slow=7.2,SNR=8.9							
	comp=Z,0.3nm,0.5s							
TXAR	**Lajitas Array**	**62.57**	**323**	P	**P**	**03 37 13.0**	**+0.7**	
WCI	**Wyandotte Cave**	**62.86**	**342**	P	**P**	**03 37 13.5**	**-0.3**	
	comp=Z,9.0nm,0.8s							
DBIC	**Dimbokro**	**66.41**	**72**	P	**P**	**03 37 36.5**	**-0.8**	
	comp=Z,2.3nm,0.7s,baz=257,slow=9.1,SNR=1.9							
	comp=Z,2.3nm,0.7s							
DBIC	**Dimbokro**	**66.41**	**72**	P	**P**	**03 37 35.4**	**-1.9**	
QSPA	**South Pole Qui**	**68.18**	**180**	P	**P**	**03 37 48.6**	**+0.9**	
	comp=Z,0.6nm,0.3s,baz=139,slow=3.9,SNR=3.5							
	comp=Z,0.6nm,0.3s							
QSPA	**South Pole Qui**	**68.18**	**180**	P	**P**	**03 37 47.8**	**+0.2**	
QSPA				IAmb	IAmb	03 38 08.6		
	comp=Z,3.6nm,1.3s							
MVCO	**Mesa Verde**	**71.17**	**325**	P	**P**	**03 38 08.8**	**+2.4**	
	comp=Z,5.0nm,1.0s							
AGMN	**Agassiz Nation**	**74.90**	**340**	P	**P**	**03 38 28.4**	**+0.8**	
	comp=Z,7.7nm,1.5s							
TORD	**Torodi Ar. Bea**	**75.10**	**69**	P	**P**	**03 38 29.0**	**-0.5**	
	comp=Z,2.5nm,0.5s,baz=270,slow=4.7,SNR=10							
	comp=Z,2.5nm,0.5s							
TORD	**Torodi Ar. Bea**	**75.10**	**69**	P	**P**	**03 38 28.6**	**-0.8**	
TORD				IAmb	IAmb	03 38 30.8		
	comp=Z,3.0nm,1.1s							
PDAR	**Pinedale Array**	**75.88**	**329**	P	**P**	**03 38 35.5**	**+1.8**	
	comp=Z,0.7nm,0.5s,baz=126,slow=7.9,SNR=10							
	comp=Z,0.7nm,0.5s							
PDAR	**Pinedale Array**	**75.88**	**329**	P	**P**	**03 38 34.3**	**+0.7**	
HWUT	**Hardware Ranch**	**76.02**	**327**	P	**P**	**03 38 36.3**	**+1.9**	
ULM	**Lac du Bonnet**	**76.62**	**341**	P	**P**	**03 38 38.3**	**+1.0**	
	comp=Z,6.3nm,0.4s,baz=147,slow=7.3,SNR=30							
	comp=Z,6.3nm,0.4s							
ULM	**Lac du Bonnet**	**76.62**	**341**	P	**P**	**03 38 38.1**	**+0.9**	
AHID	**Auburn Hatcher**	**76.64**	**328**	P	**P**	**03 38 40.1**	**+2.3**	
	comp=Z,5.0nm,0.7s							
TIO	**Tiouine**	**77.19**	**49**	P	**P**	**03 38 42.0**	**+1.0**	
	comp=Z,18nm,2.5s							
ELK	**Elko**	**77.35**	**324**	P	**P**	**03 38 42.8**	**+0.9**	
	comp=Z,1.0nm,0.6s,baz=125,slow=3.2,SNR=5.7							
	comp=Z,1.0nm,0.6s							
ELK	**Elko**	**77.35**	**324**	P	**P**	**03 38 42.7**	**+0.8**	
NVAR	**Mina Array Bea**	**77.52**	**321**	P	**P**	**03 38 45.1**	**+2.3**	
	comp=Z,0.6nm,0.7s,baz=157,slow=8.0,SNR=3.9							
	comp=Z,0.6nm,0.7s							
NVAR	**Mina Array Bea**	**77.52**	**321**	P	**P**	**03 38 43.5**	**+0.7**	
HLID	**Hailey**	**78.89**	**326**	P	**P**	**03 38 53.2**	**+3.0**	
	comp=Z,5.4nm,1.1s							
YBH	**Yreka Blue Hor**	**82.23**	**321**	P	**P**	**03 39 08.3**	**+0.5**	
	comp=Z,0.7nm,0.6s,baz=90,slow=4.0,SNR=1.7							
	comp=Z,0.7nm,0.6s							
YBH	**Yreka Blue Hor**	**82.23**	**321**	P	**P**	**03 39 08.5**	**+0.7**	
YBH				IAmb	IAmb	03 39 46.0		
	comp=Z,7.8nm,1.4s							
MAW	**Mawson**	**83.07**	**163**	P	**P**	**03 39 11.6**	**0.0**	
	comp=Z,1.9nm,0.7s,baz=269,slow=6.1,SNR=4.8							
	comp=Z,1.9nm,0.7s							
PAB	**San Pablo**	**84.09**	**43**	P	**P**	**03 39 17.9**	**+0.6**	
	comp=Z,4.5nm,1.9s							
ESDC	**Sonseca Array**	**84.40**	**43**	P	**P**	**03 39 19.1**	**+0.3**	
	comp=Z,0.7nm,0.7s,baz=255,slow=5.1,SNR=5.9							
	comp=Z,0.7nm,0.7s							
ESDC	**Sonseca Array**	**84.40**	**43**	P	**P**	**03 39 18.9**	**+0.1**	
ESDC				IAmb	IAmb	03 39 21.1		
	comp=Z,4.8nm,1.2s							
YKA	**Yellowknife Ar**	**92.56**	**340**	P	**P**	**03 39 57.9**	**+1.1**	
	comp=Z,0.7nm,0.5s,baz=133,slow=4.8,SNR=7.7							
	comp=Z,0.7nm,0.5s							
YKA	**Yellowknife Ar**	**92.56**	**340**	P	**P**	**03 39 57.6**	**+0.8**	
ASAR	**Alice Springs**	**130.59**	**204**	PKP	**PKiKP**	**03 45 57.0**	**0.0**	
	comp=Z,0.4nm,0.7s,baz=177,slow=5.0,SNR=4.3							
ASAR	**Alice Springs**	**130.59**	**204**		**PKiKP**	**03 45 56.8**	**-0.2**	
WRA	**Warramunga Arr**	**133.75**	**207**	PKP	**PKiKP**	**03 46 03.8**	**+0.4**	
	comp=Z,0.5nm,0.3s,baz=156,slow=1.8,SNR=6.6							
WRA	**Warramunga Arr**	**133.75**	**207**		**PKPdf**	**03 46 01.8**	**-0.3**	
ZALV	**Zalesovo Beam**	**141.27**	**27**	PKP	**PKPdf**	**03 46 14.5**	**-0.3**	
	comp=Z,0.3nm,0.4s,baz=247,slow=3.0,SNR=4.0							
MKAR	**Makanchi Array**	**144.48**	**38**	PKP	**PKPdf**	**03 46 21.4**	**+0.7**	
	comp=Z,6.8nm,0.7s,baz=316,slow=3.9,SNR=32							
MKAR	**Makanchi Array**	**144.48**	**38**		**PKPdf**	**03 46 20.6**	**-0.2**	

CATAC ***11*** *03:28:41.6±0.3,9°N±2°×8°4W±°, h10km±1km, M3.7/15, MLv3.7/15, Error ellipse: s-maj=5.4km s-min=2.5km az=46.3, confirmed*

UCR ***11*** *03:28:41.9±0.9, 9°.31N×84°.24W, h23km±2km, MW4.0, Presumed earthquake*

UPA ***11*** *03:28:42.8±2.8, 9°.08N±0°.03×84°24W±0°.02, h8km±6km, MW3.6, Presumed earthquake*

ISC 11 03:28:41.8±0.9, 9°28N±0°.03×84°24W±0°.02, h17km±6km, n135, σ0.9 91/171, 8C-26D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
QUEP	**Quepos**	**0.17**	**25**	P	**Pb**	**03 28 46.1**	**-0.3**
QUEP				S	**Sb**	**03 28 49.3**	**-0.2**
QUEP	**Quepos**	**0.17**	**25**	*e*P	**Pb**	**03 28 46.1**	**-0.3**
QUEP				*e*S	**Sg**	**03 28 49.6**	**+0.6**
RITA	**Parrita**	**0.26**	**338**	*e*P	**Pg**	**03 28 48.2**	**+0.6**
RITA				*e*S	**Sg**	**03 28 53.5**	**+2.0**
RAZU	**San Marcos de**	**0.43**	**29**	*e*P	**Pg**	**03 28 50.5**	**-0.2**
RAZU				*e*S	**Sg**	**03 28 57.5**	**+0.9**
PITB	**Pirrs, San**	**0.43**	**29**	*i*P	**Pg**	**03 28 50.5**	**-0.2**
ABE2	**San Pablo**	**0.46**	**23**	*i*P	**Pg**	**03 28 50.8**	**-0.3**
LCR2	**La Lucha 2**	**0.51**	**26**	P	**Pb**	**03 28 51.5**	**-1.0**
LCR2				S	**Sg**	**03 28 58.0**	**-1.1**
LCR2	**La Lucha 2**	**0.51**	**26**	*e*P	**Pb**	**03 28 51.5**	**-1.0**
LCR2				*e*S	**Sg**	**03 28 59.1**	**0.0**
ACOS	**Acosta**	**0.52**	**8**	*e*P	**Pb**	**03 28 51.3**	**-1.2**
ACOS				*e*S	**Sg**	**03 28 59.0**	**-0.2**
ZEDO	**Perez Zeledon**	**0.55**	**82**	*e*P	**Pb**	**03 28 53.1**	**+0.1**
ZEDO				*e*S	**Sb**	**03 29 01.1**	**+0.4**
PURI	**Puriscal**	**0.57**	**352**	*e*P	**Pb**	**03 28 52.2**	**-1.2**
REPA	**Paraso**	**0.65**	**34**	*i*P	**Pb**	**03 28 53.8**	**-1.0**
TAGO	**Cartago**	**0.66**	**28**	*i*P	**Pb**	**03 28 54.0**	**-1.0**
TAGO				*e*S	**Sb**	**03 29 03.8**	**-0.1**
LUJA	**Lujan**	**0.66**	**14**	*e*P	**Pb**	**03 28 53.9**	**-1.1**
TRB2	**Turrubares**	**0.66**	**341**	P	**Pb**	**03 28 54.8**	**-0.1**
TRB2				S	**Sg**	**03 29 04.1**	**+0.4**
TRB2	**Turrubares**	**0.66**	**341**	*e*P	**Pb**	**03 28 53.3**	**-1.7**
TRIO	**Tres Rios**	**0.66**	**21**	*e*P	**Pb**	**03 28 53.6**	**-1.4**
EDPE	**Pejibaye, P**	**0.67**	**100**	*e*P	**Pb**	**03 28 54.1**	**-0.9**
EDPE				*e*S	**Sb**	**03 29 04.0**	**0.0**
MEXI	**Barrio Mexico**	**0.67**	**13**	*e*P	**Pb**	**03 28 54.1**	**-1.1**
ECI	**Escuela Centro**	**0.68**	**15**	*e*P	**Pb**	**03 28 54.3**	**-1.0**
SJS3	**Mercedes San J**	**0.68**	**15**	*e*P	**Pb**	**03 28 54.5**	**-0.8**
SJS3				*e*S	**Sb**	**03 29 04.3**	**-0.1**
SJS	**Escuela Geolog**	**0.68**	**15**	*i*P	**Pb**	**03 28 54.3**	**-1.0**
LUPE	**Guadalupe**	**0.69**	**15**	*i*P	**Pb**	**03 28 54.5**	**-1.0**
BELE	**Belen**	**0.69**	**4**	*e*P	**Pb**	**03 28 54.2**	**-1.3**
DOMI	**Santo Domingo**	**0.71**	**11**	*e*P	**Pb**	**03 28 54.5**	**-1.3**
HEME	**Heredia, Merce**	**0.72**	**8**	*i*P	**Pb**	**03 28 56.1**	**+0.2**
CORON	**Coronado**	**0.72**	**18**	*e*P	**Pb**	**03 28 55.3**	**-0.8**
HDC	**Heredia**	**0.73**	**9**	P	**Pb**	**03 28 55.4**	**-0.7**
HDC				S	**Sb**	**03 29 05.2**	**-0.6**
HDC	**Heredia**	**0.73**	**9**	*e*P	**Pb**	**03 28 55.1**	**-1.0**
PCAYA	**Pacayas**	**0.76**	**33**	*e*P	**Pb**	**03 28 55.7**	**-1.0**
TCS1	**Tacares**	**0.76**	**355**	P	**Pb**	**03 28 55.9**	**-0.8**
TCS1	**Tacares**	**0.76**	**355**	*i*P	**Pb**	**03 28 55.8**	**-0.9**
VINA	**Juan Vinas**	**0.78**	**38**	*i*P	**Pb**	**03 28 55.9**	**-1.1**
POAS	**San Pedro de P**	**0.79**	**359**	*e*P	**Pb**	**03 28 56.5**	**-0.7**
GREC	**Grecia**	**0.79**	**355**	*e*P	**Pb**	**03 28 57.5**	**+0.3**
RAFA	**San Farael, Vo**	**0.79**	**32**	*e*P	**Pb**	**03 28 56.4**	**-0.9**
CVIMO	**Finca Echandi**	**0.79**	**21**	*e*P	**Pn**	**03 29 00.3**	**+1.9**
PALD	**Palmares**	**0.79**	**346**	*e*P	**Pb**	**03 28 55.6**	**-1.7**
VICA	**Volcano Irazu**	**0.80**	**29**	*e*P	**Pb**	**03 28 56.4**	**-1.1**
VICA				*e*S	**Sb**	**03 29 07.1**	**-1.0**
SARCI	**Sarchi**	**0.81**	**352**	*e*P	**Pb**	**03 28 56.6**	**-1.0**
NARAN	**Naranjo de Ala**	**0.82**	**350**	*i*P	**Pb**	**03 28 57.0**	**-0.7**
ARZA	**Esparza**	**0.82**	**329**	*e*P	**Pb**	**03 28 56.8**	**-1.0**
ARZA				*e*S	**Sb**	**03 29 07.8**	**-0.7**
TURIB	**Turrialba**	**0.82**	**41**	*e*P	**Pb**	**03 28 56.1**	**-1.7**
PANP	**Palmar Norte**	**0.83**	**113**	*e*P	**Pb**	**03 28 57.9**	**+0.1**
PANP				*e*S	**Sb**	**03 29 09.5**	**+0.9**
SRA1	**San Ramn**	**0.83**	**343**	*e*P	**Pb**	**03 28 56.6**	**-1.3**
SRA1				*e*S	**Sb**	**03 29 07.3**	**-1.7**
VBV1	**V. Barva**	**0.84**	**9**	*i*P	**Pb**	**03 28 57.3**	**-0.8**
VTCV	**VTCV, Calle Va**	**0.86**	**36**	*e*P	**Pb**	**03 28 57.3**	**-1.1**
CVTV	**Tajo**	**0.86**	**34**	*i*P	**Pb**	**03 28 57.7**	**-0.8**
CVTV				*e*S	**Sb**	**03 29 09.9**	**0.0**
VTR0	**Volcan Turrial**	**0.87**	**33**	*i*P	**Pb**	**03 28 57.8**	**-0.9**
CVTR	**Volcan Turrial**	**0.87**	**33**	*i*P	**Pb**	**03 28 57.8**	**-0.9**
PAQE	**Paquera**	**0.87**	**308**	*e*P	**Pb**	**03 28 57.7**	**-0.8**
PAQE				*e*S	**Sg**	**03 29 10.3**	**-0.1**
ABRB	**Las Abras (San**	**0.88**	**35**	*i*P	**Pb**	**03 28 58.0**	**-0.8**
BURE	**Buenos Aires**	**0.89**	**97**	*e*P	**Pb**	**03 28 58.1**	**-0.8**
VPS8	**V Poas**	**0.89**	**360**	*i*P	**Pb**	**03 28 58.3**	**-0.8**
VPS8				*e*S	**Sb**	**03 29 10.9**	**+0.1**
VPS5	**V. Poas**	**0.90**	**0**	*e*P	**Pb**	**03 28 58.2**	**-1.1**
ZARE	**Zarcero**	**0.91**	**350**	*e*P	**Pb**	**03 28 58.6**	**-0.7**
FIMO	**Fila Mora**	**0.92**	**108**	*e*P	**Pb**	**03 28 58.7**	**-0.7**
RESJ	**San Isidro (Tu**	**0.94**	**38**	*e*P	**Pb**	**03 28 58.9**	**-0.9**
CVTG	**V. Turrialba,**	**0.97**	**28**	*i*P	**Pb**	**03 28 59.8**	**-0.5**
DRK0	**Durika**	**0.98**	**91**	*e*P	Pb	03 28 43.8	-17
VPL1	**V. Platanar**	**0.98**	**352**	*i*P	**Pb**	**03 28 59.2**	**-1.2**
PILE	**Guapiles**	**1.03**	**25**	*i*P	**Pb**	**03 29 00.6**	**-0.6**
VPL2	**V. Platanar**	**1.03**	**352**	*i*P	**Pb**	**03 29 00.2**	**-1.1**
LCOCO	**El Coco**	**1.04**	**40**	*e*P	**Pb**	**03 28 60.0**	**-1.4**
RVLA	**Villa Bonita**	**1.04**	**38**	*e*P	**Pb**	**03 29 00.3**	**-1.1**
QUEU	**Ciudad Quesada**	**1.05**	**349**	*e*P	**Pb**	**03 29 01.2**	**-0.4**
ARTO	**Ro Cuarto**	**1.06**	**1**	*i*P	**Pb**	**03 29 00.8**	**-0.9**
VPL3	**V. Platanar**	**1.06**	**356**	*i*P	**Pb**	**03 29 00.8**	**-1.0**
EDP2	**Potrero Grande**	**1.08**	**104**	*e*P	**Pn**	**03 29 01.1**	**-1.1**
EGUB	**Earth Gu|pi**	**1.12**	**34**	*i*P	**Pn**	**03 29 02.0**	**-0.8**
ITAL	**Pital**	**1.16**	**358**	*e*P	**Pn**	**03 29 02.1**	**-1.2**
CARI	**Cariari**	**1.18**	**25**	*e*P	**Pn**	**03 29 03.1**	**-0.5**
VERH	**Veragua Rainfo**	**1.21**	**58**	*i*P	**Pn**	**03 29 03.4**	**-0.6**
NYURE	**Nandayure**	**1.23**	**305**	*e*P	**Pn**	**03 29 02.7**	**-1.6**
PIRO	**Carate, Puerto**	**1.24**	**134**	P	**Pn**	**03 29 03.4**	**-1.1**
PIRO				S	**Sn**	**03 29 20.3**	**-0.5**
PIRO	**Carate, Puerto**	**1.24**	**134**	*e*P	**Pn**	**03 29 03.3**	**-1.1**
CASO	**Castillo**	**1.25**	**337**	*e*P	**Pn**	**03 29 04.0**	**-0.5**
FITO	**Golfito**	**1.25**	**121**	*e*S	**Sn**	**03 29 20.7**	**-0.3**
VACR	**Volcan Arenal**	**1.26**	**340**	*i*P	**Pn**	**03 29 04.7**	**0.0**
LAES	**El Progreso Va**	**1.26**	**68**	*i*P	**Pn**	**03 29 04.6**	**-0.1**
ARE1	**Arenal 1**	**1.27**	**338**	*e*P	**Pn**	**03 29 04.9**	**+0.1**
VARE2	**V. Arenal**	**1.27**	**338**	*e*P	**Pn**	**03 29 04.5**	**-0.4**
TABAC	**Tabacon**	**1.32**	**337**	*i*P	**Pb**	**03 29 06.1**	**-0.1**
VITO	**San Vito**	**1.33**	**110**	*e*S	**Sg**	**03 29 26.3**	**+1.4**
CHIK	**Chiripa**	**1.33**	**330**	*e*P	**Pn**	**03 29 04.6**	**-1.1**
TRT2	**Tortugero**	**1.36**	**21**	P	**Pn**	**03 29 05.6**	**-0.5**
TRT2				S	**Sn**	**03 29 23.9**	**+0.2**
TRT2	**Tortugero**	**1.36**	**21**	*i*P	**Pn**	**03 29 05.5**	**-0.5**
CMARA	**Lajas Hojancha**	**1.38**	**302**	P	**Pb**	**03 29 07.2**	**0.0**
CMARA				S	**Sg**	**03 29 26.5**	**-0.1**
CMARA	**Lajas Hojancha**	**1.38**	**302**	*e*P	**Pn**	**03 29 04.4**	**-2.0**
TILA	**Tilaran**	**1.39**	**329**	*e*P	**Pn**	**03 29 05.8**	**-0.6**
NELY	**Ciudad Neily**	**1.42**	**116**	*e*S	**Sb**	**03 29 26.3**	**+0.6**
COVE	**Coope Vega, Sa**	**1.44**	**353**	P	**Pn**	**03 29 06.7**	**-0.4**
COVE				S	**Sb**	**03 29 26.6**	**+0.3**
COTE	**Lago Cote**	**1.45**	**332**	*e*P	**Pn**	**03 29 07.5**	**+0.1**
NICO	**Nicoya**	**1.47**	**305**	*e*P	**Pn**	**03 29 07.5**	**+0.1**
QUEB	**Quebradon, Cot**	**1.48**	**334**	*i*P	**Pn**	**03 29 08.0**	**+0.2**
SCLRA	**Santa Clara, W**	**1.50**	**107**	*e*P	**Pn**	**03 29 08.3**	**+0.2**
SCLRA	**Santa Clara, W**	**1.50**	**107**	*i*P	**Pn**	**03 29 08.8**	**+0.7**
SCLRA				*e*S	**Sg**	**03 29 31.4**	**+1.0**
TIMP	**Tierras Morena**	**1.51**	**329**	*e*P	**Pn**	**03 29 07.6**	**-0.6**
CDITO	**Canoas**	**1.52**	**117**	P	**Pn**	**03 29 08.3**	**+0.1**
CDITO				S	**Sn**	**03 29 27.4**	**-0.2**
TENO	**El Achiote**	**1.59**	**333**	*e*P	**Pn**	**03 29 09.2**	**-0.1**
BRU2	**Volcan**	**1.60**	**107**	P	**Pn**	**03 29 09.2**	**-0.3**
BRU2				S	**Sn**	**03 29 29.4**	**-0.5**
BRU2	**Volcan**	**1.60**	**107**	*e*P	**Pn**	**03 29 09.0**	**-0.5**
BRU2	**Volcan**	**1.60**	**107**	*i*P	**Pb**	**03 29 11.4**	**+0.4**
BRU2				*e*S	**Sb**	**03 29 31.0**	**0.0**
RGM0	**Gandoca**	**1.64**	**79**	S	**Sn**	**03 29 30.1**	**-0.3**
RGM0	**Gandoca**	**1.64**	**79**	*e*P	**Pb**	**03 29 11.2**	**-0.3**
CUI	**Cuipilapa**	**1.65**	**326**	*e*P	**Pn**	**03 29 10.0**	**0.0**
COLC	**Colonia**	**1.67**	**325**	*e*P	**Pn**	**03 29 10.5**	**+0.1**
CLLRA	**Cordillera,**	**1.69**	**108**	*e*P	**Pn**	**03 29 10.2**	**-0.5**
CLLRA	**Cordillera,**	**1.69**	**108**	*e*P	**Pn**	**03 29 11.1**	**+0.4**
CLLRA				*e*S	**Sg**	**03 29 32.0**	**-0.2**
PTPA	**Petro Terminal**	**1.72**	**128**	*e*P	**Pn**	**03 29 10.4**	**-0.6**
MESS	**Mesas**	**1.73**	**327**	*e*P	**Pn**	**03 29 11.0**	**-0.2**
VMAR	**Armenia, Volca**	**1.75**	**330**	*e*P	**Pn**	**03 29 11.4**	**0.0**
CLARA	**Aguas Claras**	**1.76**	**328**	*e*P	**Pn**	**03 29 11.2**	**-0.3**
UPAL	**Upala**	**1.78**	**335**	S	**Sb**	**03 29 36.0**	**0.0**
BQTLY	**Boquete Panama**	**1.83**	**106**	*e*P	**Pn**	**03 29 12.8**	**+0.2**
BQTLY	**Boquete Panama**	**1.83**	**106**	*e*P	**Pn**	**03 29 13.0**	**+0.4**
BQTLY				*e*S	**Sb**	**03 29 38.3**	**+0.7**
GPS2	**Hotel Rincn d**	**1.83**	**323**	*e*P	**Pn**	**03 29 13.0**	**+0.4**
GPS3	**Bodega del ICE**	**1.84**	**323**	*e*P	**Pn**	**03 29 12.3**	**-0.4**
VRLE	**La Escondida,**	**1.87**	**323**	*e*P	**Pn**	**03 29 13.0**	**-0.1**
VORI	**VORI**	**1.88**	**324**	*e*P	**Pn**	**03 29 13.5**	**+0.2**
LAPC	**Finca la Perla**	**1.89**	**321**	*e*P	**Pn**	**03 29 13.5**	**+0.2**
BUAI	**Buenos Aires**	**1.92**	**326**	*e*P	**Pn**	**03 29 13.8**	**0.0**
PEJA	**Penjamo Buenos**	**1.92**	**327**	*e*P	**Pn**	**03 29 14.2**	**+0.4**
BGUAL	**Bijagual, Pana**	**2.03**	**112**	*e*P	**Pn**	**03 29 15.2**	**-0.1**
BGUAL	**Bijagual, Pana**	**2.03**	**112**	*i*P	**Pn**	**03 29 16.0**	**+0.8**
RBALA	**Bur**	**2.09**	**101**	*e*P	**Pn**	**03 29 16.2**	**+0.1**
RBALA	**Bur**	**2.09**	**101**	*i*P	**Pn**	**03 29 16.6**	**+0.4**
RBALA				*e*S	**Sn**	**03 29 42.2**	**+0.4**
CARN	**Rivas**	**2.28**	**326**	P	**Pn**	**03 29 19.7**	**+1.0**
CARN				S	**Sb**	**03 29 48.9**	**-1.5**
CARN	**Rivas**	**2.28**	**326**	*e*P	**Pn**	**03 29 17.7**	**-1.0**
MORN	**Al O del Volca**	**2.65**	**328**	P	**Pn**	**03 29 24.9**	**+1.1**
MORN				S	**Sn**	**03 29 58.1**	**+2.6**
CONN	**Concepcion**	**2.65**	**329**	P	**Pn**	**03 29 25.4**	**+1.6**
CONN				S	**Sn**	**03 29 58.1**	**+2.6**
BLUN	**Bluefields**	**2.75**	**9**	P	**Pn**	**03 29 25.6**	**+0.5**
BLUN				S	**Sn**	**03 29 59.0**	**+1.1**
ACON	**Acoyapa**	**2.83**	**341**	P	**Pn**	**03 29 26.9**	**+0.7**
ACON				S	**Sn**	**03 30 02.3**	**+2.5**
BOAB	**BOACO BROADBAN**	**3.45**	**336**	P	**Pn**	**03 29 36.2**	**+1.4**
BOAB				S	**Sn**	**03 30 17.0**	**+1.7**
MOM2	**El Cardon**	**3.84**	**325**	S	**Sn**	**03 30 26.8**	**+2.0**

ATH ***11*** *03:48:59.3, 37°.85N×26°.99E, h14km, ML2.9/7, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

THE ***11*** *03:48:59.8, 37°.9N±0°.9×27°.0E±0°.7, h9km±1km, M3.0/9, MLh3.0/9*

ISK ***11*** *03:48:59.1, 37°.86N×26°.97E, h6km, ML3.1/18*

AFAD ***11*** *03:48:59.2, 37°.86N×26°.95E, h7km±3km, ML3.0*

ISC 11 03:48:59.5±0.8, 37°.86N±0°.02×26°.97E±0°.02, h13km±6km, n56, σ0.8 33/75, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.18**	**216**	P	**Pg**	**03 49 03.7**	**-0.1**
SMG				S	**Sg**	**03 49 06.8**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**216**	P	**Pg**	**03 49 03.5**	**-0.2**
SMG				S	**Sg**	**03 49 06.8**	**+0.2**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**340**	P	**Pg**	**03 49 04.1**	**-0.1**
DGB				S	**Sg**	**03 49 06.4**	**-0.8**
DGB				IAML		03 49 07.0	
	comp=E,4µm,0.2s						
KRL1	**Karlovasi Samo**	**0.22**	**254**	P	**Pg**	**03 49 04.2**	**-0.1**
KRL1				S	**Sg**	**03 49 07.8**	**+0.3**
KRL1				AML	AML		
GMLD	**Gumuldur**	**0.22**	**349**	Pg	**Pg**	**03 49 04.3**	**-0.1**
GMLD				Sg	**Sg**	**03 49 07.9**	**+0.2**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**89**	Pg	**Pg**	**03 49 04.4**	**-0.5**
KUSD				Sg	**Sg**	**03 49 08.5**	**0.0**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**127**	P	**Pg**	**03 49 05.2**	**+0.1**
GCAM				S	**Sg**	**03 49 08.8**	**+0.1**
GCAM				IAML		03 49 09.0	
	comp=N,4µm,0.5s						
GCAM				IAML		03 49 09.0	
	comp=E,3µm,0.3s						
GCAM	**G?zelcaml?**	**0.26**	**127**	Pg	**Pg**	**03 49 04.8**	**-0.2**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.30**	**251**	P	**Pg**	**03 49 05.9**	**+0.1**
SAM2				S	**Sg**	**03 49 10.0**	**0.0**
SAM2				AML	AML		
BEYE	**izmir**	**0.37**	**355**	P	**Pg**	**03 49 07.1**	**0.0**
BEYE				S	**Sg**	**03 49 11.5**	**-0.6**
DDIM	**Aydin, Didim**	**0.45**	**152**	P	**Pg**	**03 49 08.6**	**0.0**
DUVT	**Torbali**	**0.52**	**46**	P	**Pg**	**03 49 09.8**	**0.0**
DUVT				S	**Sg**	**03 49 16.0**	**-0.9**
DUVT				IAML		03 49 16.0	
	comp=E,948nm,0.2s						
BLCB	**Balcova**	**0.53**	**6**	P	**Pg**	**03 49 09.9**	**-0.1**
BLCB				S	**Sg**	**03 49 17.0**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**6**	Pg	**Pg**	**03 49 09.7**	**-0.3**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**316**	P	**Pg**	**03 49 09.7**	**-0.3**
ZEYE				S	**Sg**	**03 49 16.7**	**-0.4**
ZEYE				IAML		03 49 20.0	
	comp=N,2µm,0.2s						
ZEYE				IAML		03 49 20.0	
	comp=E,750nm,0.3s						
CESE	**eme**	**0.71**	**312**	Pg	**Pg**	**03 49 13.2**	**-0.2**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**83**	Pg	**Pg**	**03 49 13.7**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**105**	P	**Pb**	**03 49 14.3**	**-0.1**
YKAV	**Yalikavak-Bodr**	**0.77**	**161**	Pg	**Pg**	**03 49 14.4**	**-0.1**
YKAV				AML	AML		
BAGT	**Foa**	**0.80**	**353**	P	**Pg**	**03 49 14.9**	**-0.2**
KRBN	**Karaburun**	**0.81**	**336**	Pg	**Pg**	**03 49 15.1**	**-0.1**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.82**	**70**	P	**Pg**	**03 49 15.2**	**-0.3**
BODT	**Bodrum**	**0

NEIC ***11*** *03:54:15.8, 41˚.67N×20˚.79E, h16km*
NAO ***11*** *03:54:15.8, 41˚.63N±0˚.63E, h10km, MB4.8*
NEIC ***11*** *03:54:16, 41˚.69N×20˚.80E, h12km*
GFZ ***11*** *03:54:16.8, 41˚.69N×20˚.81E, h13km, Mw5.0/148, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=3.72; Mθθ=2.57; Mφφ 1.15; Mrθ=0.37; Mθφ 1.97; Mφr=1.01; Fault plane solution: M₀3.99184×10¹⁶ NP1:φs64.44391°, δ39.30218°, λ-75.27485°. NP2:φs225.68467°, δ52.22177°, λ-101.75339°. Principal axes: T 4.0583, Plg6.5455°, Azm324.0209°; N -0.1364, Plg9.2650°, Azm232.9484°; P -3.9219, Plg78.6226°, Azm88.7856°;*
MCSM ***11*** *03:54:16.6±0.3, 42˚.N±2˚×2˚.1E±˚, h12km±2km, mb5.0, mB5.2, MLv5.3, Mw(mB)4.6*
IDC ***11*** *03:54:17.5±1.7, 41˚.67N×20˚.82E, h29km±12km, mb4.5/28, mbtmp4.7/42, ML4.1/11, MS4.3/83, Error ellipse: s-maj=8.6km s-min=7.2km az=140.0*
GII ***11*** *03:54:17.4±0.0, 41˚.68N×20˚.82E, h0km, confirmed*
PRU ***11*** *03:54:17.7, 41˚.72N×21˚.13E, h10km, M5.2*
THE ***11*** *03:54:19.5, 42˚.N±3˚×2˚.1E±˚, h29km±12km, M4.7/31, MLh4.7/31*
NEIC ***11*** *03:54:19.8, 41˚.69N×20˚.80E, h12km, Moment Tensor Solution. Duration: 1s7 Moment tensor: Scale 10¹⁶Nm; Mrr=3.78; Mθθ=2.73; Mφφ 1.06; Mrθ=0.50; Mθφ 2.64; Mφr-1.16; Fault plane solution: M₀4.47000×10¹⁶ NP1: φs252.88000°, δ46.50000°, λ-61.79000°. NP2:φs34.95000°, δ50.26000°, λ-116.48000°. Principal axes: T 4.6666, Plg2.0000°, Azm143.0000°; N -0.4275, Plg20.0000°, Azm53.0000°; P -4.2391, Plg70.0000°, Azm239.0000°;*
ISC 11 03:54:15.3±0.4, 41˚.66N±0˚.01×20˚.82E±0˚.01, h14km±2km, h14km:pP-P, n1252, σ1°53/1279, mb5.1/235, MS4.4/86, 108C-39D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.28**	**276**	⇑	*i*	Pg	**Pg**	**03 54 19.5**	**-1.8**
PHP						Sg	**Sg**	**03 54 23.3**	**-2.1**
PHP						IAML		03 54 24.3	
	1057μm,1.1s								
OHR	**Ohrid**	**0.54**	**182**		*i*	Pg	**Pg**	**03 54 24.9**	**-1.2**
OHR					*i*	Sg	**Sg**	**03 54 33.5**	**+0.2**
OHR					*e*Lg	Lg		03 54 35.9	
	comp=E,129μm,0.8s								
OHR					*e*Lg	Lg		03 54 36.7	
	comp=N,35μm,0.6s								
SKO	**Skopje**	**0.56**	**55**		*i*	Pg	**Pg**	**03 54 25.9**	**-0.5**
SKO					*i*	Sg	**Sb**	**03 54 34.5**	**-0.4**
TIR	**Tirane**	**0.78**	**247**	⇑		Pg	**Pg**	**03 54 29.0**	**-1.5**
TIR						Sg	**Sg**	**03 54 39.5**	**-1.2**
TIR						IAML		03 54 43.3	
	comp=N,22μm,0.4s								
KBN	**Korca**	**1.03**	**181**	⇑		P	**Pb**	**03 54 33.2**	**-1.8**
KBN						S	**Sn**	**03 54 49.5**	**-0.3**
KBN	**Korca**	**1.03**	**181**			Pg	**Pb**	**03 54 34.1**	**-0.9**
KBN						Sg	**Sn**	**03 54 49.6**	**-0.1**
KBN	**Korca**	**1.03**	**181**			P	**Pb**	**03 54 33.3**	**-1.8**
SDA	**Shkodra**	**1.06**	**292**			Pg	**Pb**	**03 54 33.5**	**-2.0**
SDA						Sg	**Sn**	**03 54 50.4**	**-0.1**
SDA						IAML		03 55 00.7	
	comp=N,44μm,0.8s								
PVY	**Plav**	**1.14**	**326**	⇑	*i*	Pg	**Pb**	**03 54 34.7**	**-2.2**
PVY					*i*	Sg	**Sn**	**03 54 53.5**	**+1.0**
BERA	**Berati**	**1.16**	**215**			Pg	**Pb**	**03 54 36.0**	**-1.1**
BERA						Sg	**Sn**	**03 54 56.5**	**+3.8**
BERA						IAML		03 55 03.6	
	comp=N,14μm,1.0s								
ULC	**Ulcinj**	**1.22**	**285**	⇓	*i*	Pg	**Pn**	**03 54 36.5**	**-1.5**
ULC					*i*	Sg	**Sg**	**03 54 56.2**	**+1.6**
NEST	**Nestorio**	**1.25**	**172**			P	**Pn**	**03 54 36.9**	**-1.7**
NEST						S	**Sg**	**03 54 55.8**	**+0.1**
NEST						AML	AML		
NEST	**Nestorio**	**1.25**	**172**			Pn	**Pn**	**03 54 37.3**	**-1.3**
NEST						Sn	**Sg**	**03 54 57.0**	**+1.2**
NEST						IAML		03 55 06.5	
	comp=N,42μm,1.0s								
DRME	**Dracevica, Mon**	**1.33**	**294**	⇑	*i*	Pg	**Pn**	**03 54 37.9**	**-1.7**
DRME					*e*Sg		**Sg**	**03 54 59.4**	**+1.1**
VAY	**Valandovo**	**1.36**	**104**		*i*	Pg	**Pn**	**03 54 39.9**	**+0.1**
VAY					*i*	Sg	**Sg**	**03 54 58.8**	**-0.2**
VAY					*e*Lg	Lg		03 55 00.6	
	comp=N,26μm,0.7s								
VAY					*e*Lg	Lg		03 55 02.7	
	comp=E,11μm,0.4s								
BARS	**Barje**	**1.38**	**32**		*e*	Pg	**Pb**	**03 54 41.0**	**+0.1**
GRG	**Griva**	**1.38**	**120**			P	**Pn**	**03 54 40.2**	**0.0**
GRG						S	**Sg**	**03 54 59.7**	**-0.2**
GRG						AML	AML		
GRG	**Griva**	**1.38**	**120**			P	**Pn**	**03 54 40.4**	**+0.1**
IVA	**Berane**	**1.40**	**331**	⇑	*i*	Pg	**Pn**	**03 54 39.0**	**-1.6**
IVA					*i*	Sg	**Sg**	**03 55 01.6**	**+1.2**
PDG	**Podgorica**	**1.40**	**304**			Pn	**Pn**	**03 54 38.6**	**-1.8**
PDG						Sn	**Sn**	**03 54 58.2**	**-0.3**
PDG	**Podgorica**	**1.40**	**304**		*e*	Pg	**Pn**	**03 54 39.4**	**-1.1**
PDG					*e*	Sg	**Sg**	**03 55 01.6**	**+1.2**
PDG	**Podgorica**	**1.40**	**304**	⇑		P	**Pn**	**03 54 38.7**	**-1.8**
PDG						S	**Sg**	**03 55 00.9**	**+0.4**
PDG	**Podgorica**	**1.40**	**304**	⇑		P	**Pn**	**03 54 39.8**	**-0.7**
PDG	**Podgorica**	**1.40**	**304**			Pg	**Pn**	**03 54 39.3**	**-1.2**
PDG						Sg	**Sb**	**03 54 59.4**	**+0.4**
PDG	**Podgorica**	**1.40**	**304**			P	**Pn**	**03 54 38.8**	**-1.7**
PDG	**Podgorica**	**1.40**	**304**	⇑	*i*	Pg	**Pn**	**03 54 38.5**	**-2.0**
PDG					*e*	Sg	**Sg**	**03 55 02.6**	**+2.2**
PENT	**Pentalofos**	**1.48**	**170**			P	**Pn**	**03 54 42.0**	**+0.3**
PENT						S	**Sg**	**03 55 03.9**	**+1.0**
BOSS	**Bosilegrad**	**1.50**	**55**		*e*	Pg	**Pb**	**03 54 42.4**	**-0.5**
BOSS					*e*	Sg	**Sg**	**03 55 03.4**	**-0.1**
LSK	**Leskovik**	**1.51**	**186**	⇑		P	**Pn**	**03 54 41.7**	**-0.4**
LSK						S	**Sg**	**03 55 04.3**	**+0.2**
LSK	**Leskovik**	**1.51**	**186**			Pg	**Pb**	**03 54 42.7**	**-0.5**
KZN	**Kozani**	**1.53**	**152**			P	**Pn**	**03 54 42.0**	**-0.3**
KZN						S	**Sg**	**03 55 05.1**	**+0.6**
KZN						AML	AML		
KOME	**Kolasin**	**1.54**	**321**	⇑	*i*	Pn	**Pn**	**03 54 42.0**	**-0.5**
KOME					*i*	Sn	**Sg**	**03 55 06.4**	**+1.5**
VLO	**Vlora**	**1.55**	**221**			P	**Pg**	**03 54 45.2**	**0.0**
VLO						S	**Sg**	**03 55 05.9**	**+0.6**
VLO						AML	AML		
VLO	**Vlora**	**1.55**	**221**	⇓		P	**Pg**	**03 54 45.1**	**0.0**
VLO						S	**Sg**	**03 55 07.7**	**+2.4**
VLO	**Vlora**	**1.55**	**221**			Pn	**Pg**	**03 54 45.1**	**0.0**
VLO						Sn	**Sg**	**03 55 07.0**	**+1.7**
VLO						IAML		03 55 15.4	
	comp=E,47μm,0.5s								
VLO	**Vlora**	**1.55**	**221**			P	**Pg**	**03 54 45.1**	**0.0**
PEHC	**Pehcevo**	**1.56**	**85**		*i*	Pg	**Pb**	**03 54 43.8**	**-0.3**
BUM	**Brajici-Budva**	**1.57**	**295**	⇑	*i*	Pn	**Pn**	**03 54 42.6**	**-0.4**
BUM					*i*	Sn	**Sg**	**03 55 08.0**	**+1.9**
SELS	**Selova**	**1.58**	**8**		*e*	Pg	**Pn**	**03 54 43.3**	**+0.3**
SELS					*e*	Sg	**Sg**	**03 55 06.2**	**0.0**
KNT	**Kendrikon**	**1.64**	**107**			P	**Pn**	**03 54 44.1**	**+0.3**
KNT						S	**Sn**	**03 55 03.4**	**-1.4**
KNT						AML	AML		
KNT	**Kendrikon**	**1.64**	**107**			P	**Pn**	**03 54 44.1**	**+0.3**
CEME	**Cevo**	**1.67**	**303**	⇑	*i*	Pn	**Pn**	**03 54 43.2**	**-1.1**
CEME					*i*	Sn	**Sg**	**03 55 10.1**	**+0.9**
SJES	**Sjenica**	**1.72**	**339**		*e*	Pg	**Pn**	**03 54 45.2**	**+0.1**
SJES					*e*	Sg	**Sg**	**03 55 10.9**	**+0.1**
KKB	**Krupnik**	**1.74**	**83**			P	**Pn**	**03 54 45.7**	**+0.5**
KKB						S	**Sn**	**03 55 05.2**	**-1.9**
KKB						AML	AML		
KKB	**Krupnik**	**1.74**	**83**		*i*	P	**Pn**	**03 54 46.0**	**+0.8**
KPRO	**Kipourio**	**1.75**	**166**			P	**Pn**	**03 54 45.6**	**+0.3**
KPRO						S	**Sn**	**03 55 06.0**	**-1.5**
KPRO						AML	AML		
NKME	**Niksic**	**1.78**	**309**	⇓	*i*	Pn	**Pn**	**03 54 45.6**	**-0.1**
NKME					*e*	Sn	**Sg**	**03 55 12.5**	**0.0**
TRAN	**Tran**	**1.80**	**48**		*i*	P	**Pn**	**03 54 46.7**	**+0.7**
TRAN						S	**Sg**	**03 55 14.4**	**+1.1**
SRN	**Sarande**	**1.88**	**200**			P	**Pb**	**03 54 48.9**	**-0.6**
SRN						S	**Sb**	**03 55 11.8**	**-0.9**
SRN						AML	AML		
SRN	**Sarande**	**1.88**	**200**			Pn	**Pb**	**03 54 49.1**	**-0.3**
SRN	**Sarande**	**1.88**	**200**			P	**Pb**	**03 54 49.4**	**0.0**
HCY	**Herceg Novi**	**1.91**	**295**	⇑	*i*	Pn	**Pn**	**03 54 48.0**	**+0.6**
HCY					*e*	Sn	**Sg**	**03 55 16.8**	**+0.2**
GOCS	**Kraljevo Serbi**	**1.91**	**1**		*e*	Pn	**Pn**	**03 54 48.2**	**+0.6**
GOCS					*e*	Sn	**Sn**	**03 55 11.2**	**-0.3**
THE	**Thessaloniki**	**1.92**	**122**			P	**Pn**	**03 54 47.8**	**+0.2**
THE						S	**Sn**	**03 55 10.3**	**-1.2**
THE	**Thessaloniki**	**1.92**	**122**			P	**Pn**	**03 54 48.2**	**+0.7**
PLE	**Pljevlja**	**1.98**	**328**	⇓	*i*	Pn	**Pn**	**03 54 49.7**	**+1.1**
PLE					*i*	Sn	**Sg**	**03 55 17.8**	**-1.3**
IVAS	**Ivanjica**	**1.98**	**346**		*e*	Pn	**Pn**	**03 54 48.5**	**-0.1**
IVAS					*e*	Sg	**Sg**	**03 55 18.0**	**-1.1**
JAN	**Janina**	**2.00**	**179**			P	**Pb**	**03 54 50.8**	**-0.6**
JAN						S	**Sb**	**03 55 16.7**	**+0.4**
JAN						AML	AML		
VTS	**Vitosha**	**2.04**	**61**			P	**Pn**	**03 54 50.0**	**+0.7**
VTS						S	**Sn**	**03 55 13.8**	**-1.0**
VTS						AML	AML		
VTS	**Vitosha**	**2.04**	**61**		*i*	P	**Pn**	**03 54 50.1**	**+0.7**
VTS						S	**Sg**	**03 55 21.4**	**+0.5**
VTS	**Vitosha**	**2.04**	**61**		*e*	Pn	**Pn**	**03 54 50.2**	**+0.8**
VTS					*e*	Sg	**Sb**	**03 55 18.6**	**+1.1**
BOVS	**Bovan**	**2.08**	**18**		*e*	Pn	**Pn**	**03 54 50.5**	**+0.6**
BOVS					*e*	Sg	**Sb**	**03 55 20.3**	**+1.6**
BOVS	**Bovan**	**2.08**	**18**	⇓		P	**Pn**	**03 54 50.4**	**+0.6**
SOH	**Sokhos**	**2.08**	**113**			P	**Pn**	**03 54 50.4**	**+0.5**
SOH						S	**Sn**	**03 55 14.5**	**-1.2**
SOH						AML	AML		
SOH	**Sokhos**	**2.08**	**113**			P	**Pn**	**03 54 50.5**	**+0.5**
KEK	**Kerkira**	**2.09**	**202**			P	**Pn**	**03 54 49.2**	**-0.8**
KEK						S	**Sb**	**03 55 20.0**	**+1.1**
KEK						AML	AML		
KEK	**Kerkira**	**2.09**	**202**				**Pn**	**03 54 49.3**	**-0.8**
KEK						Sn	**Sn**	**03 55 15.7**	**-0.1**
KEK	**Kerkira**	**2.09**	**202**			P	**Pn**	**03 54 49.6**	**-0.4**
UPM	**Unac-Piva**	**2.10**	**318**	⇑	*i*	Pn	**Pb**	**03 54 51.9**	**-1.4**
UPM					*i*	Sn	**Sg**	**03 55 21.3**	**-1.5**
BRY	**Bratogost**	**2.10**	**307**	⇑	*i*	Pn	**Pn**	**03 54 50.9**	**+0.6**
BRY					*i*	Sn	**Sb**	**03 55 21.0**	**+1.6**
ZAPS	**Zavoj**	**2.10**	**39**		*e*	Pn	**Pn**	**03 54 51.0**	**+0.8**
PLNA	**Plana**	**2.11**	**66**		*i*	P	**Pn**	**03 54 51.6**	**+1.3**
PRMD	**Pramanda**	**2.13**	**174**			P	**Pb**	**03 54 52.5**	**-1.3**
PRMD						S	**Sg**	**03 55 22.4**	**-1.5**
PRMD						AML	AML		
IGT	**Igoumenitsa**	**2.15**	**190**			P	**Pb**	**03 54 53.0**	**-1.1**
IGT						AML	AML		
IGT	**Igoumenitsa**	**2.15**	**190**		*e*	Pn	**Pb**	**03 54 53.2**	**-0.9**
IGT					*e*	Sg	**Sg**	**03 55 24.8**	**+0.3**
IGT	**Igoumenitsa**	**2.15**	**190**		Pn		**Pb**	**03 54 53.7**	**-0.4**
SRS	**Serrai**	**2.15**	**104**			P	**Pn**	**03 54 51.3**	**+0.4**
SRS						S	**Sn**	**03 55 16.5**	**-0.9**
SRS						AML	AML		
SRS	**Serrai**	**2.15**	**104**		*e*	Pn	**Pn**	**03 54 51.5**	**+0.6**
SRS					*e*	Sn	**Sn**	**03 55 18.7**	**+1.3**
SRS	**Serrai**	**2.15**	**104**		P		**Pn**	**03 54 51.4**	**+0.6**
BLSH	**Balsha**	**2.19**	**56**		*i*	P	**Pg**	**03 54 56.2**	**-1.1**
BLSH						S	**Sg**	**03 55 29.3**	**+3.7**
MMB	**Musomishta**	**2.20**	**92**			P	**Pn**	**03 54 52.2**	**+0.6**
MMB						S	**Sn**	**03 55 17.3**	**-1.3**
MMB						AML	AML		
MMB	**Musomishta**	**2.20**	**92**		*e*	P	**Pn**	**03 54 53.2**	**+1.7**
TYRN	**Tyrnavos**	**2.22**	**151**			P	**Pn**	**03 54 52.9**	**+1.2**
TYRN						AML	AML		
DBRK	**Dubrovnik**	**2.23**	**298**		*i*	Pn	**Pb**	**03 54 54.4**	**-1.1**
DBRK						Sn	**Sb**	**03 55 24.1**	**+1.1**
GRUS	**Gruza**	**2.23**	**358**		*e*	Pn	**Pn**	**03 54 52.5**	**+0.5**
THL	**Klokotos Trika**	**2.28**	**156**			P	**Pn**	**03 54 53.2**	**+0.6**
THL						AML	AML		
NVR	**Nevrokopi**	**2.31**	**97**			P	**Pn**	**03 54 53.6**	**+0.7**
NVR						S	**Sn**	**03 55 20.5**	**-0.7**
NVR						AML	AML		
PLG	**Polygyros**	**2.36**	**122**			P	**Pn**	**03 54 54.4**	**+0.6**
PLG						S	**Sn**	**03 55 21.8**	**-0.8**
PLG						AML	AML		
ZAGS	**Zajecar**	**2.40**	**25**		*e*	Pn	**Pn**	**03 54 54.9**	**+0.7**
BLKB	**Belogradchik**	**2.40**	**34**		*e*	Pn	**Pn**	**03 54 55.3**	**+1.1**
BLKB					*e*	Sn	**Sn**	**03 55 24.9**	**+1.5**
BLKB	**Belogradchik**	**2.40**	**34**	⇓		P	**Pn**	**03 54 55.5**	**+1.3**
BBLS	**Lazi&#263i**	**2.44**	**335**		*e*	Pn	**Pn**	**03 54 55.5**	**+0.6**
DIVS	**Divibare**	**2.52**	**346**		*e*	Pn	**Pn**	**03 54 56.3**	**+0.4**
TRUS	**Trudelj**	**2.58**	**353**		*e*	Pn	**Pn**	**03 54 57.1**	**+0.3**
BORS2	**Bor- Borsko je**	**2.59**	**19**		*e*	Pn	**Pn**	**03 54 56.4**	**-0.5**
BORS2					*e*	Sg	**Sg**	**03 55 37.7**	**-0.8**
STON	**Ston**	**2.62**	**299**		*e*	Pn	**Pn**	**03 54 59.2**	**+2.1**
STON						Sn	**Sb**	**03 55 32.0**	**-1.9**
STON	**Ston**	**2.62**	**299**		*e*	Pn	**Pn**	**03 54 58.9**	**+1.7**
STON					*e*	Sn	**Sn**	**03 55 30.8**	**+2.1**
STON	**Ston**	**2.62**	**299**	⇑		P	**Pn**	**03 54 58.6**	**+1.5**
STON						AML	AML		
	comp=N,8930μm,0.8s								
STON						AML	AML		
	comp=E,7920μm,1.2s								
SVIS	**Svilajnac**	**2.63**	**6**		*e*	Pn	**Pn**	**03 54 59.1**	**+1.8**
PGB	**Panagyurishte**	**2.64**	**70**		*i*	P	**Pn**	**03 54 59.1**	**+1.5**
OUR	**Ouranopolis**	**2.73**	**118**			P	**Pn**	**03 54 59.2**	**+0.4**
OUR						S	**Sn**	**03 55 33.6**	**+1.9**
OUR						AML	AML		
MPEP	**Malo Peshtene**	**2.75**	**51**		*e*	P	**Pn**	**03 55 00.3**	**+1.3**
PAIG	**Paliouri**	**2.77**	**128**			P	**Pn**	**03 54 59.6**	**+0.2**
PAIG						S	**Sn**	**03 55 32.2**	**-0.4**
PAIG	**Paliouri**	**2.77**	**128**			P	**Pn**	**03 55 00.4**	**+1.0**
VALD	**Valchedram**	**2.80**	**43**		*e*	P	**Pb**	**03 55 05.1**	**-0.1**
KUBS	**Kucevo**	**2.83**	**13**		*e*	Pn	**Pn**	**03 54 59.1**	**-1.0**
KUBS					*e*	Sg	**Sg**	**03 55 44.8**	**-1.3**
EVR	**Evrytania**	**2.84**	**164**			P	**Pn**	**03 55 02.5**	**+2.1**
EVR						S	**Sn**	**03 55 33.5**	**-0.9**
EVR						AML	AML		
KAVA	**Kavala**	**2.86**	**102**			P	**Pn**	**03 55 01.1**	**+0.6**
KAVA						S	**Sn**	**03 55 33.0**	**-1.7**
KAVA						AML	AML		
LKD2	**Lefkada island**	**2.87**	**183**			P	**Pn**	**03 55 02.1**	**+1.4**
LKD2						AML	AML		
LKD2	**Lefkada island**	**2.87**	**183**			P	**Pn**	**03 55 03.2**	**+2.5**
AGG	**Agios Georgios**	**2.87**	**156**			P	**Pn**	**03 55 01.3**	**+0.6**
AGG						AML	AML		
AGG	**Agios Georgios**	**2.87**	**156**			P	**Pn**	**03 55 01.6**	**+0.9**
XOR	**Xorichti**	**2.92**	**141**			P	**Pn**	**03 55 01.2**	**-0.2**
XOR						AML	AML		
XOR	**Xorichti**	**2.92**	**141**			P	**Pn**	**03 55 01.5**	**+0.2**
RZN	**Rozhen**	**2.94**	**88**			P	**Pn**	**03 55 02.8**	**+0.9**
RZN	**Rozhen**	**2.94**	**88**		*i*	P	**Pn**	**03 55 02.7**	**+0.9**
NYDR	**Nydri-Lefkada**	**2.94**	**182**			P	**Pn**	**03 55 03.0**	**+1.4**
NYDR						AML	AML		
NOCI	**Noci**	**2.96**	**254**	⇑		P	**Pn**	**03 55 02.1**	**+0.1**
NOCI						AML	AML		
	comp=E,6400μm,1.1s								
NOCI						AML	AML		
	comp=N,6275μm,1.2s								
PLD	**Plovdiv**	**2.97**	**79**			P	**Pn**	**03 55 03.2**	**+1.1**
PLD						AML	AML		
PLD	**Plovdiv**	**2.97**	**79**		*i*	P	**Pn**	**03 55 03.3**	**+1.2**
PLD	**Plovdiv**	**2.97**	**79**		*e*	Pn	**Pn**	**03 55 03.2**	**+1.1**
BAIL	**Bailesti**	**3.01**	**37**	⇓		P	**Pn**	**03 55 03.4**	**+0.8**
TEKS	**Tekeris**	**3.04**	**342**		*e*	Pn	**Pn**	**03 55 03.3**	**+0.2**
AVAS	**Avala Beograd**	**3.05**	**356**		*e*	Pn	**Pn**	**03 55 03.6**	**+0.4**
AVAS					*e*	Sg	**Sg**	**03 55 52.0**	**-1.2**
PDO	**Prodromos**	**3.06**	**175**			P	**Pn**	**03 55 05.2**	**+1.9**
PDO						AML	AML		
LSTV	**Lastovo**	**3.12**	**292**		*e*	Pn	**Pn**	**03 55 04.5**	**+0.3**
LSTV						Sn	**Sn**	**03 55 39.8**	**-1.4**
THAS	**Thassos island**	**3.13**	**108**			P	**Pn**	**03 55 04.7**	**+0.5**
BEO	**Beograd**	**3.16**	**356**		*e*	Pn	**Pn**	**03 55 04.9**	**+0.2**
BEO					*e*	Sg	**Sg**	**03 55 57.0**	**+0.1**
MDVR	**Moldovita**	**3.19**	**11**		*e*	Pn	**Pn**	**03 55 05.5**	**+0.3**
MDVR	**Moldovita**	**3.19**	**11**	⇓		P	**Pn**	**03 55 05.4**	**+0.2**
MAKA	**Makarska**	**3.25**	**301**		Sn		**Sn**	**03 55 47.0**	**+2.6**
MAKA	**Makarska**	**3.25**	**301**		*e*	Pn	**Pn**	**03 55 07.1**	**+1.2**
DJES	**Djerdap**	**3.26**	**22**		*e*	Pn	**Pn**	**03 55 06.5**	**+0.5**
DJES					*e*	Sg	**Sg**	**03 55 58.6**	**-1.3**
AMUR	**Altamura**	**3.26**	**258**	⇑		P	**Pn**	**03 55 06.2**	**+0.1**
AMUR						AML	AML		
	comp=E,3835μm,0.7s								
AMUR						AML	AML		
	comp=N,3665μm,1.2s								
MATE	**Matera**	**3.27**	**253**			P	**Pn**	**03 55 05.8**	**-0.3**
MATE						AML	AML		
	comp=E,3985μm,1.2s								
MATE						AML	AML		
	comp=N,5345μm,1.3s								
MATE	**Matera**	**3.27**	**253**	⇑		P	**Pn**	**03 55 06.9**	**+0.8**
MATE	**Matera**	**3.27**	**253**			P	**Pn**	**03 55 06.7**	**+0.6**
RICI	**Ricice**	**3.29**	**305**		*i*	Pn	**Pn**	**03 55 09.2**	**+2.7**
RICI						Sn	**Sb**	**03 55 50.8**	**-2.5**
PLVB	**Pleven**	**3.30**	**57**	⇑		P	**Pn**	**03 55 08.1**	**+1.5**
KDZ	**Kurdzhali**	**3.39**	**89**			P	**Pn**	**03 55 08.6**	**+0.8**
KDZ						AML	AML		
KDZ	**Kurdzhali**	**3.39**	**89**		*i*	P	**Pn**	**03 55 08.7**	**+0.8**
HERR	**Herculane**	**3.43**	**19**	⇑		P	**Pn**	**03 55 09.3**	**+0.9**
MIGL	**Miglionico**	**3.47**	**254**			P	**Pn**	**03 55 09.8**	**+0.8**
MIGL						AML	AML		
	comp=E,18300μm,0.8s								
MIGL						AML	AML		
	comp=N,18650μm,0.8s								
SRE	**Strehaia**	**3.48**	**29**			P	**Pn**	**03 55 10.2**	**+1.2**
SRE	**Strehaia**	**3.48**	**29**	⇑		P	**Pn**	**03 55 10.3**	**+1.2**
OT13	**Castello Viest**	**3.48**	**275**	⇑		P	**Pn**	**03 55 09.6**	**+0.6**
OT13						AML	AML		
	comp=E,5925μm,0.8s								
OT13						AML	AML		
	comp=N,5465μm,1.1s								
VLS	**Valsamata**	**3.48**	**183**			P	**Pn**	**03 55 09.3**	**+0.2**
VLS						AML	AML		
	comp=N,2070μm,0.7s								
VLS						AML	AML		
	comp=E,3550μm,0.5s								
VRSS	**Vrsac**	**3.49**	**6**		*e*	Pn	**Pn**	**03 55 09.1**	**-0.1**
VRSS					*e*	Sg	**Sg**	**03 56 05.2**	**-2.1**
VLAD	**Vladila**	**3.53**	**47**	⇓		P	**Pn**	**03 55 10.3**	**+0.6**
MRVN	**Minervino Murg**	**3.53**	**262**	⇑		P	**Pn**	**03 55 10.0**	**+0.1**
MRVN						AML	AML		
	comp=E,2260μm,1.2s								
MRVN						AML	AML		
	comp=N,2655μm,0.4s								
PVL	**Pavlikeni**	**3.54**	**64**			P	**Pn**	**03 55 11.3**	**+1.4**
CRAC	**Craco**	**3.56**	**250**	⇓		P	**Pn**	**03 55 10.9**	**+0.8**
CRAC						AML	AML		
	comp=E,7240μm,1.2s								
CRAC						AML	AML		
	comp=N,9850μm,0.7s								
HVAR	**Hvar**	**3.58**	**297**		*e*	Pn	**Pn**	**03 55 11.3**	**+0.9**
HVAR						Sn	**Sn**	**03 55 52.6**	**+0.2**
FRGS	**Fruska Gora**	**3.58**	**348**		*e*	Pn	**Pn**	**03 55 10.7**	**+0.2**
ORI	**Oriolo Calabro**	**3.68**	**246**			P	**Pn**	**03 55 12.1**	**+0.3**
ORI						AML	AML		
	comp=E,4720μm,1.4s								
ORI						AML	AML		
	comp=N,5250μm,0.7s								
PALZ	**Palazzo San Ge**	**3.73**	**261**			P	**Pn**	**03 55 13.1**	**+0.6**
PALZ						AML	AML		
	comp=E,11100μm,1.2s								
PALZ						AML	AML		
	comp=N,11880μm,0.4s								
BANR	**Banloc**	**3.73**	**3**		*e*	Pn	**Pn**	**03 55 13.1**	**+0.6**
BANR	**Banloc**	**3.73**	**3**	⇑		P	**Pn**	**03 55 13.8**	**+1.3**
PIPA	**Pietrapaola**	**3.74**	**236**			P	**Pn**	**03 55 12.6**	**-0.1**
PIPA						AML	AML		
	comp=E,2190μm,1.3s								
PIPA						AML	AML		
	comp=E,2170μm,1.3s								
PIPA						AML	AML		
	comp=N,1665μm,0.6s								
PIPA						AML	AML		
	comp=N,1680μm,0.6s								
LADO	**San Nicola del**	**3.77**	**232**			P	**Pn**	**03 55 13.7**	**+0.7**
LADO						AML	AML		
	comp=E,3135μm,0.8s								
LADO						AML	AML		
	comp=N,2100μm,0.4s								
PTRP	**Pietrapertosa**	**3.77**	**254**	⇑		P	**Pn**	**03 55 13.8**	**+0.6**
PTRP						AML	AML		
	comp=E,6060μm,1.1s								
PTRP						AML	AML		
	comp=N,8985μm,0.7s								
ACER	**Acerenza**	**3.78**	**258**				**Pn

comp=E,2345µm,1.3s
MARCO Tramutola 4.03 252 P Pn 03 55 18.1 +1.4
SIRI Monte Sirino - 4.03 250 P Pn 03 55 17.0 +0.2
SIRI AML AML
comp=E,2165µm,0.6s
SIRI AML AML
comp=E,2150µm,0.6s
SIRI AML AML
comp=N,1770µm,1.0s
SIRI AML AML
comp=N,1765µm,1.0s
COPA Copaceanca 4.07 51 ⇑P Pn 03 55 18.2 +1.0
BLY Banja Luka 4.08 321 Pn 03 55 17.3 0.0
BLY Banja Luka 4.08 321 *e*Pn **Pn 03 55 19.4 +2.1**
BLY Banja Luka 4.08 321 P Pn 03 55 19.6 +2.3
TIM Timisoara 4.09 4 P Pn 03 55 17.3 -0.1
TIM Timisoara 4.09 4 ⇑P Pn 03 55 17.4 -0.1
MRLC Muro Lucano 4.12 259 ⇑P Pn 03 55 18.4 +0.4
MRLC AML AML
comp=E,1745µm,1.2s
MRLC AML AML
comp=E,850µm,1.2s
MRLC AML AML
comp=N,3430µm,0.7s
MRLC AML AML
comp=N,1670µm,0.7s
SGTA Sant Agata di 4.14 265 ⇑P Pn 03 55 18.8 +0.6
SGTA AML AML
comp=N,2930µm,0.7s
SGTA AML AML
comp=N,2975µm,0.7s
SGTA AML AML
comp=E,3305µm,1.1s
SGTA AML AML
comp=E,3200µm,1.1s
SZH Strazhitsa 4.14 65 P Pn 03 55 19.2 +1.0
SZH Strazhitsa 4.14 65 *i*P **Pn 03 55 19.1 +1.0**
CUC Castrocucco 4.14 248 Pn 03 55 18.9 +0.6
CUC Castrocucco 4.14 248 P Pn 03 55 19.6 +1.4
CAVK Edirne/Enez-Ca 4.15 102 ⇑P Pn 03 55 18.9 +0.7
HUMR Humele 4.19 45 ⇑P Pn 03 55 19.9 +1.1
HUMR Humele 4.19 45 P Pn 03 55 19.8 +1.0
SURR Surduc 4.21 13 ⇑P Pn 03 55 19.0 0.0
RMVG GOVORA 4.22 36 ⇑P Pn 03 55 19.6 +0.3
LOT Lotru 4.36 28 ⇓P Pn 03 55 21.7 +0.5
LOT Lotru 4.36 28 P Pn 03 55 21.7 +0.5
MORI Morici 4.37 302 *e*Pn **Pn 03 55 23.1 +1.9**
MORI Sn **Sn 03 56 12.9 +1.0**
STFAR Stefanesti-Arg 4.41 42 ⇑P Pn 03 55 23.8 +2.0
DEV Deva 4.49 19 P Pn 03 55 24.1 +1.2
DEV Deva 4.49 19 ⇑P Pn 03 55 24.1 +1.2
DEV Deva 4.49 19 P Pn 03 55 23.8 +0.8
SUBS Subotica 4.54 350 *e*Pn **Pn 03 55 24.2 +0.6**
ITM Ithomi 4.55 169 Pn 03 55 25.7 +1.9
ITM Ithomi 4.55 169 P Pn 03 55 26.2 +2.4
EZN Ezine 4.56 112 P Pn 03 55 24.9 +1.0
EZN Ezine 4.56 112 ⇑P Pn 03 55 25.0 +1.0
SGRR Singureni 4.57 54 ⇓P Pn 03 55 24.5 +0.5
LOZB Loznitsa 4.60 66 ⇑P Pn 03 55 25.4 +0.9
RAZG Razgrad 4.61 64 ⇑P Pn 03 55 26.2 +1.5
ARR Arges 4.63 34 ⇑P Pn 03 55 26.2 +1.2
ARR Arges 4.63 35 P Pn 03 55 25.9 +0.9
SIRR Siria 4.65 7 *e*Pn **Pn 03 55 25.1 -0.1**
SIRR Siria 4.65 7 ⇓P Pn 03 55 25.6 +0.4
UDBI Udbina 4.69 309 *i* Pn **Pn 03 55 28.4 +2.7**
UDBI Sn **Sn 03 56 23.9 +4.0**
AMBH Ambrzfalva 4.70 359 P Pn 03 55 26.2 +0.5
PAOL Paolisi 4.75 265 Pn 03 55 26.5 -0.1
MORH Mrgy, Hungar 4.82 342 ⇑P Pn 03 55 27.5 -0.1
MORH Mrgy, Hungar 4.82 342 P Pn 03 55 27.4 -0.1
DUGI Dugi Otok 4.84 301 *i* Pn **Pn 03 55 29.2 +1.4**
DUGI Sn **Sn 03 56 24.1 +0.5**
VOIR 4.87 38 P Pn 03 55 29.2 +0.9
VOIR 4.87 38 ⇑P Pn 03 55 29.3 +0.9
VOIR 4.87 38 P Pn 03 55 29.4 +1.1
PLIT Plitvice 4.98 312 *e*Pn **Pn 03 55 33.8 +4.1**
PLIT Sn **Sn 03 56 33.2 +6.2**
SULR 4.99 51 P Pn 03 55 32.1 +2.2
PLAR PLOIESTI 5.01 48 ⇑P Pn 03 55 31.6 +1.5
PHSR Pinarhisar 5.02 88 ⇑P Pn 03 55 31.1 +0.8
CEL Celeste 5.08 230 Pn 03 55 31.3 +0.2
CEL Celeste 5.08 230 P Pn 03 55 31.8 +0.6
comp=E,1.7nmcomp=E,3µmcomp=E,310nm,1.1s
CEL AML AML
CEL Celeste 5.08 230 P Pn 03 55 31.7 +0.5
comp=Z,312nm,1.1s,comp=Z,3µm
IST3 Stromboli F 5.14 238 AML AML
comp=E,998µm,0.6s
IST3 AML AML
comp=N,1180µm,0.7s
CHOS Chios island 5.18 127 P Pn 03 55 34.0 +1.5
comp=Z,206nm,1.1s
INTR Introdacqua 5.18 276 Pn 03 55 32.8 +0.3
NVLJ Novalja 5.24 306 *e*Pn **Pn 03 55 35.0 +1.9**
NVLJ Sn **Sn 03 56 35.0 +1.7**
IOCA Ischia Osserva 5.30 262 AML AML
comp=E,2530µm,0.8s
IOCA AML AML
comp=N,2255µm,0.9s
DRGR 5.31 14 *e*Pn **Pn 03 55 34.3 0.0**
DRGR 5.31 14 P Pn 03 55 34.5 +0.1
comp=Z,2µmcomp=Z,189nm,0.9s
MLR Muntele Rosu 5.34 42 Pn Pn 03 55 35.8 +1.0
comp=Z,14nm,0.3s,baz=90,slow=24,SNR=143
MLR Sn **Sn 03 56 38.6 +2.4**
comp=Z,16nm,0.3s,baz=107,slow=21,SNR=4.1
MLR Lg Lg 03 57 11.7
comp=Z,1.5nm,0.3s,baz=293,slow=16,SNR=4.3
MLR LR LR 03 58 36.8
comp=Z,3µm,19.6s,baz=180,slow=49
comp=Z,35nm,0.3s
MLR AML AML
MLR Muntele Rosu 5.34 42 P Pn 03 55 36.8 +2.0
MLR Muntele Rosu 5.34 42 Pn Pn 03 55 34.8 0.0
MLR Muntele Rosu 5.34 42 *e*Pn **Pn 03 55 36.4 +1.6**
MLR Muntele Rosu 5.34 42 ⇑P Pn 03 55 36.8 +2.0
MLR Muntele Rosu 5.34 42 P Pn 03 55 36.6 +1.8
comp=Z,4µmcomp=Z,335nm,0.9s
RABC Rab 5.39 307 *e*Pn **Pn 03 55 37.1 +1.8**
RABC Sn **Sn 03 56 39.1 +2.0**
ISR Istrita 5.42 48 P Pn 03 55 37.6 +1.8
ISR Istrita 5.42 48 ⇑P Pn 03 55 37.7 +1.8
DOPR Dopca 5.43 36 ⇑P Pn 03 55 37.5 +1.5
ZAG Zagreb 5.44 322 P Pn 03 55 38.2 +2.1
comp=Z,2µm,1.0s,comp=Z,30µm
BORR Bors 5.48 7 ⇑P Pn 03 55 38.1 +1.6
NEHR Nehoiu 5.48 45 ⇑P Pn 03 55 38.6 +2.0
BALY Balya 5.51 108 P Pn 03 55 39.3 +2.2
comp=Z,1µm,0.8s,comp=Z,11µm
TGMR Targu Mures 5.55 27 ⇑P Pn 03 55 38.3 +0.7
AQU L'Aquila 5.57 280 P Pn 03 55 39.0 +1.1
AQU S **Sn 03 56 44.5 +2.7**
AQU L'Aquila 5.57 280 Pn 03 55 38.4 +0.6
AQU L'Aquila 5.57 280 P Pn 03 55 39.0 +1.1
comp=Z,2.9nmcomp=Z,7µmcomp=Z,825nm,0.8s
AQU AML AML
AQU L'Aquila 5.57 280 P Pn 03 55 39.3 +1.4
comp=Z,1µm,0.8s,comp=Z,9µm
BOJS Bojanci 5.58 315 *i* Pn **Pn 03 55 39.6 +1.6**
BOJS *i* 03 55 41.0
BOJS *e* 03 55 56.4
BOJS *e*Sn **Sn 03 56 43.2 +1.3**
BOJS *e* 03 57 20.1
BOJS IAML 03 58 03.0
comp=Z,27µm,6.5s
BOJS Bojanci 5.58 315 *e*Pn **Pn 03 55 40.0 +2.1**
BEHE Becsehely 5.63 330 Pn 03 55 38.8 +0.3
BEHE Becsehely 5.63 330 P Pn 03 55 39.3 +0.8
comp=Z,400nm,1.4s,comp=Z,9µm
BOSR Bodos 5.64 37 ⇑P Pn 03 55 40.3 +1.6
BSZH Besenyszg 5.66 356 ⇑P Pn 03 55 39.8 +0.9
BSZH Besenyszg 5.66 356 P Pn 03 55 40.0 +1.0
comp=Z,952nm,1.1s,comp=Z,10µm
ICOR Ion Corvin 5.69 62 ⇓P Pn 03 55 40.7 +1.3
CRES Cresnjevec Ost 5.70 319 *e*Pn **Pn 03 55 41.1 +1.5**
CRES *i* Sg **Sg 03 57 18.4 +0.2**
OZUR 5.71 37 ⇑P Pn 03 55 41.3 +1.6
GUMA Gualdo di Mace 5.72 287 Pn 03 55 40.2 +0.3
COVR Voineasa-Covas 5.72 41 ⇑P Pn 03 55 41.7 +1.8
BALB Balikesir 5.74 108 Pn 03 55 40.6 +0.6
BISRR Bisoca 5.78 46 ⇓P Pn 03 55 41.6 +0.8
LTVH Ltavrtes, Hu 5.78 7 ⇑P Pn 03 55 40.8 +0.1
LTVH Ltavrtes, Hu 5.78 7 P Pn 03 55 42.0 +1.3
comp=Z,461nm,0.9s,comp=Z,4µm
TURR Turia 5.78 39 ⇑P Pn 03 55 42.4 +1.6
KOGS Kog 5.81 327 *e*Pn **Pn 03 55 41.5 +0.4**
KOGS *e*Sg **Sg 03 57 30.4 +8.5**
GRER 5.82 48 ⇑P Pn 03 55 42.7 +1.5
GBRS Gornja Briga 5.83 314 *e*Pn **Pn 03 55 43.5 +2.0**
GBRS *e*Sn **Sn 03 56 52.2 +4.0**
NRCA Norcia 5.84 284 Pn 03 55 41.6 0.0
APE Apeiranthos 5.86 140 *i* P **Pn 03 55 44.0 +2.2**
APE Apeiranthos 5.86 140 ⇑P Pn 03 55 43.8 +2.0
APE Apeiranthos 5.86 140 P Pn 03 55 43.1 +1.4
comp=Z,287nm,0.9s
SAHR Sahastru 5.88 44 ⇑P Pn 03 55 44.1 +1.9
RIY Rijeka 5.89 311 *e*Pn **Pn 03 55 45.7 +3.5**
RIY Sn **Sn 03 56 53.6 +4.2**
RIY Rijeka 5.89 311 *e*Pn **Pn 03 55 43.7 +1.5**
FDMO Fiordimonte 5.89 286 Pn 03 55 42.6 +0.3
CVDA Cernavoda 5.93 61 ⇑P Pn 03 55 44.1 +1.4
PLOR Plostina 5.95 43 P Pn 03 55 45.0 +1.9
PLOR Plostina 5.95 43 ⇑P Pn 03 55 45.0 +1.9
BUD Budapest 5.97 348 P Pn 03 55 41.9 -1.3
comp=Z,273nm,0.6s,comp=Z,4µm
MPLH Magyarpolny 5.99 338 P Pn 03 55 43.9 +0.3
comp=Z,7.7nmcomp=Z,19µmcomp=Z,2µm,1.1s
MPLH AML AML
MPLH Magyarpolny 5.99 338 P Pn 03 55 43.9 +0.3
comp=Z,889nm,1.1s,comp=Z,7µm
VRI Vrincioaia 6.00 43 P Pn 03 55 45.7 +2.0
VRI Vrincioaia 6.00 43 ⇑P Pn 03 55 45.8 +2.0
VRI Vrincioaia 6.00 43 P Pn 03 55 45.5 +1.8
comp=Z,3µmcomp=Z,298nm,0.8s
HARR Harsova 6.02 57 P Pn 03 55 45.5 +1.6
HARR Harsova 6.02 57 ⇑P Pn 03 55 45.5 +1.6
TLBR Topalu 6.03 59 ⇑P Pn 03 55 44.9 +0.8
KNDS Knezji Dol 6.07 312 *e*Pn **Pn 03 55 46.1 +1.3**
KNDS *e*Sn **Sn 03 56 55.2 +1.1**
ODBI Odobesti 6.11 46 ⇑P Pn 03 55 46.5 +1.4
MFTR Murfatlar 6.12 63 ⇑P Pn 03 55 47.3 +1.9
ONER Baraj Valea Uz 6.17 39 ⇑P Pn 03 55 47.8 +1.8
CEY Cernica 6.17 314 *e*Pn **Pn 03 55 48.0 +1.9**
CESX Cesi 6.20 282 Pn 03 55 46.4 -0.1
TIRR Tirgusor 6.23 61 P Pn 03 55 48.3 +1.5
comp=Z,2µmcomp=Z,162nm,0.8s
SKDS Skadanscina 6.29 311 *e*Pn **Pn 03 55 48.4 +0.7**
PSZ Piszkesteto 6.30 354 P Pn 03 55 48.2 +0.4
PSZ Piszkesteto 6.30 354 Pn 03 55 46.7 -1.2
PSZ Piszkesteto 6.30 354 ⇑P Pn 03 55 48.3 +0.4
PSZ Piszkesteto 6.30 354 P Pn 03 55 47.6 -0.2
comp=Z,456nm,1.0s,comp=Z,5µm
BMR Baia Mare 6.31 17 P Pn 03 55 49.7 +1.8
BMR Baia Mare 6.31 17 ⇓P Pn 03 55 49.8 +1.8
TUDR 6.34 49 ⇑P Pn 03 55 50.2 +1.9
MURB Monte Urbino 6.34 287 Pn 03 55 48.7 +0.3
IZVR Izvoarele 6.37 50 ⇓P Pn 03 55 49.5 +0.8
CFR Carcaliu 6.39 54 P Pn 03 55 49.9 +0.9
CFR Carcaliu 6.39 54 ⇓P Pn 03 55 49.9 +0.9
THERA Ancient Thera, 6.40 144 P Pn 03 55 51.9 +2.6
comp=Z,210nm,1.4s
TPGR Topolog 6.41 57 ⇑P Pn 03 55 50.3 +1.0
SRO Srobarova 6.41 345 *e*PN **Pn 03 55 50.5 +1.2**
SRO *e*SN **Sn 03 57 06.5 +4.2**
SRO Srobarova 6.41 345 P Pn 03 55 50.0 +0.6
comp=Z,396nm,0.9s,comp=Z,3µm
TESR Tescani 6.42 39 ⇑P Pn 03 55 49.3 -0.1
TESR Tescani 6.42 39 P Pn 03 55 50.6 +1.1
comp=Z,2nmcomp=Z,93nm,1s
VAE Valguarnera 6.47 232 Pn **Pn 03 55 52.3 +2.0**
comp=Z,16nm,0.7s,baz=57,slow=10,SNR=7.2
VAE Sn **Sn 03 57 04.4 +0.5**
comp=Z,5.8nm,0.3s,baz=38,slow=9.0,SNR=4.2
VAE LR LR 03 59 04.6
comp=Z,3µm,18.8s,baz=78,slow=44
GHRR 6.49 45 ⇑P Pn 03 55 51.9 +1.5
BIZ Bicaz 6.50 34 ⇓P Pn 03 55 52.5 +1.9
SOKA Soboth 6.52 322 *e*Pn **Pn 03 55 51.9 +1.0**
comp=Z,11nm,0.4s,SNR=137
TRI Trieste 6.53 311 P Pn 03 55 51.0 +0.1
TRI Trieste 6.53 311 Pn 03 55 51.0 +0.1
TATR Tataraca 6.56 51 ⇑P Pn 03 55 52.8 +1.4
SCTR Scanteiesti 6.57 50 ⇓P Pn 03 55 52.5 +1.0
TRPA Tarpa 6.59 10 P Pn 03 55 52.8 +1.0
comp=Z,101nm,0.7s,comp=Z,2µm
VARL Varlezi 6.62 48 ⇑P Pn 03 55 53.9 +1.7
OBKA Obir 6.63 319 *i* Pn **Pn 03 55 53.5 +1.1**
comp=Z,39nm,0.5s,SNR=70
OBKA Obir 6.63 319 P Pn 03 55 54.5 +2.1
comp=Z,11µmcomp=Z,816nm,1.5s
ABAH Abaijker 6.65 2 P Pn 03 55 52.8 +0.2
comp=Z,223nm,1.1s,comp=Z,2µm
VOJS Vojsko 6.65 313 *e*Pn **Pn 03 55 54.1 +1.4**
VOJS *e*Sn **Sn 03 57 09.3 +0.9**
JURR Jurilovca 6.66 59 ⇓P Pn 03 55 54.3 +1.6
RAFF Raffo Rosso 6.67 231 Pn 03 55 51.2 -1.8
GIRR Girov 6.68 36 ⇑P Pn 03 55 53.7 +0.6
VLDR Vladesti 6.72 49 ⇑P Pn 03 55 54.6 +1.0
BURAR Bucovina Array 6.73 26 P Pn 03 55 55.7 +1.9
BURAR Bucovina Array 6.73 26 ⇓P Pn 03 55 55.7 +1.9
SOP Sopron 6.75 335 P Pn 03 55 54.3 +0.3
comp=Z,141nm,1.2s,comp=Z,3µm
AYDN Tasoluk 6.75 124 P Pn 03 55 56.5 +2.4
comp=Z,5µmcomp=Z,257nm,0.8s
ARSA Arzberg 6.76 328 *e*Pn **Pn 03 55 55.4 +1.3**
ARSA Arzberg 6.76 328 *e*Pn **Pn 03 55 54.3 +0.2**
comp=Z,25nm,0.5s,SNR=152
ARSA *e*Sn **Sn 03 57 09.3 -1.5**
comp=Z,84nm,0.7s
ARSA Arzberg 6.76 328 P Pn 03 55 54.5 +0.4
comp=Z,5µmcomp=Z,581nm,1.0s
GORS Gorjuse 6.78 316 *e*Pn **Pn 03 55 55.5 +1.0**
TLCR 6.81 56 P Pn 03 55 56.1 +1.4
TLCR 6.81 56 ⇑P Pn 03 55 56.1 +1.4
KECS Kecovo 6.83 358 *e*PN **Pn 03 55 57.0 +1.9**
KECS Kecovo 6.83 358 P Pn 03 55 57.0 +1.9
comp=Z,123nm,0.7s,comp=Z,1µm
RONA Rosalia, Austr 6.85 333 *i* Pn **Pn 03 55 55.1 -0.3**
comp=Z,5.1nm,0.4s,SNR=60
RONA Sn **Sn 03 57 13.6 +0.4**
comp=Z,79nm,0.7s
DRE Drenchia 6.87 313 P Pn 03 55 56.8 +1.0
comp=Z,6µmcomp=Z,694nm,1.0s
DMBR Dumbraveni 6.93 40 ⇓P Pn 03 55 57.8 +1.3
VYHS Vyhne 6.98 349 *e*PN **Pn 03 55 57.5 +0.3**
VYHS *e*SN **Sn 03 57 13.6 -2.8**
VYHS Vyhne 6.98 349 P Pn 03 55 57.6 +0.5
comp=Z,554nmcomp=Z,25nm,0.9s
MNTR Muntenesti 7.02 41 ⇓P Pn 03 55 58.2 +0.6
UZHM Uzhgorod 7.05 8 P Pn 03 55 58.6 +0.5
ZST Bratislava 7.05 339 *e*PN **Pn 03 55 59.4 +1.3**
ZST *e*SN **Sn 03 57 14.3 -3.8**
ZST Bratislava 7.05 339 P Pn 03 56 00.1 +2.0
comp=Z,98µmcomp=Z,4µm,1.2s
SESA Seetaler Alpe, 7.06 323 *e*Pn **Pn 03 55 59.7 +1.3**
comp=Z,2.5nm,0.4s,SNR=73
VASR Vaslui 7.07 43 ⇑P Pn 03 55 59.4 +1.1
PRED Cave del Predi 7.08 315 P Pn 03 55 59.9 +1.3
comp=Z,3µmcomp=Z,193nm,0.9s
IDI Anoyia 7.11 152 Pn **Pn 03 56 00.8 +1.7**
comp=Z,13nm,0.4s,baz=316,slow=4.8,SNR=14
IDI Sn **Sn 03 57 17.6 -2.2**
comp=Z,2.1nm,0.3s,baz=101,slow=21,SNR=1.0
IDI LR LR 03 58 56.8
comp=Z,3µm,20.2s,baz=335,slow=39
IDI Anoyia 7.11 152 P Pn 03 56 00.4 +1.4
CLTB Caltabellotta 7.13 238 P Pn 03 56 02.1 +2.7
comp=Z,8µmcomp=Z,823nm,0.8s
MYKA Terra Mystica 7.17 316 *e*PN **Pn 03 56 01.2 +1.4**
comp=Z,8.5nm,0.4s,SNR=57
MYKA *e*Sn **Sn 03 57 23.3 +2.3**
comp=Z,40nm,0.5s
MODS Modra-Piesok 7.17 341 *e*PN **Pn 03 56 01.4 +1.6**
MODS *e*SN **Sn 03 57 19.6 -1.4**
MODS Modra-Piesok 7.17 341 P Pn 03 56 01.1 +1.3
comp=Z,386nm,1.1s,comp=Z,6µm
ACOM Acomizza, Ital 7.18 315 P Pn 03 56 01.3 +1.2
comp=Z,7µmcomp=Z,635nm,0.8s
CONA Conrad Observa 7.19 332 *e*Pn **Pn 03 56 00.0 -0.2**
comp=Z,1.9nm,0.3s,SNR=72
CONA Sn **Sn 03 57 21.9 +0.2**
comp=Z,159nm,1.0s
GVD Gavdhos 7.27 158 P Pn 03 56 01.5 +0.3
comp=Z,214nm,1.0s
WINA Alland / Wiene 7.28 334 *i* Pn **Pn 03 56 01.6 +0.3**
comp=Z,2.5nm,0.4s,SNR=42
KOLS Kolonicke sedl 7.35 8 *e*PN **Pn 03 56 02.4 +1.9**
KOLS Kolonicke sedl 7.35 8 P Pn 03 56 04.4 +2.2
comp=Z,112nm,0.7s,comp=Z,1µm
JAVC Velka Javorina 7.54 344 *e*PN **Pn 03 56 05.3 +0.4**
JAVC *e*SN **Sn 03 57 29.2 -0.9**
JAVC Velka Javorina 7.54 344 P Pn 03 56 06.8 +1.9
comp=Z,3µmcomp=Z,99nm,1.3s
LANS Liptovska Anna 7.56 353 *e*PN **Pn 03 56 06.1 +1.0**
LANS *e*SN **Sn 03 57 33.6 +3.1**
WDD Wied Dalam 7.61 222 P Pn 03 56 05.3 -0.5
comp=Z,1µmcomp=Z,157nm,0.9s
KBA Koelnbreinsper 7.62 318 *e*Pn **Pn 03 56 07.9 +1.8**
comp=Z,57nm,0.4s,SNR=173
KBA *e*Sn **Sn 03 57 33.1 +0.8**
comp=Z,1.6nm,0.2s
KBA Koelnbreinsper 7.62 318 P Pn 03 56 07.7 +1.6
comp=Z,8µmcomp=Z,541nm,0.8s
MOA Molln 7.75 325 *i* Pn **Pn 03 56 09.8 +2.1**
comp=Z,6.8nm,0.3s,SNR=73
MOA *e*Sn **Sn 03 57 34.7 -0.6**
comp=Z,99nm,0.8s,SNR=108
CGRP Cima Grappa 7.77 306 P Pn 03 56 08.3 +0.1
comp=Z,3µmcomp=Z,391nm,0.7s
NIE Niedzica 7.77 357 *e*P **Pn 03 56 09.9 +1.8**
NIE Niedzica 7.77 357 P Pn 03 56 10.2 +2.1
comp=Z,0.4nmcomp=Z,1µmcomp=Z,109nm,1.1s
NIE AML AML
ABTA Abfaltersbach 7.84 313 *i* Pn **Pn 03 56 10.4 +1.3**
comp=Z,4.4nm,0.3s,SNR=231
ABTA *e*Sn **Sn 03 57 37.7 0.0**
comp=Z,261nm,0.8s
KARP Karpathos 7.86 139 P Pn 03 56 14.1 +4.8
comp=Z,2.6nmcomp=Z,9µmcomp=Z,9µmcomp=Z,837nm,1.2s
KARP AML AML
BIOA Bad Ischl, Aus 7.91 322 *i* Pn **Pn 03 56 12.3 +2.4**
comp=Z,247nm,1.3s,SNR=146
KMPD K-Podol'skiy 7.97 28 P Pn 03 56 12.5 +1.7
ABNA Allensteig Bun 7.98 333 *e*Pn **Pn 03 56 12.0 +1.1**
comp=Z,22nm,1.1s
KRUC Moravsky 8.03 339 *e*PN **Pn 03 56 11.4 -0.2**
KRUC *e*SN **Sn 03 57 40.5 -1.7**
KRUC Moravsky 8.03 339 P Pn 03 56 12.4 +0.8
comp=Z,1µmcomp=Z,48nm,0.8s
VLC Villacollemand 8.06 292 P Pn 03 56 12.5 +0.5
VLC Villacollemand 8.06 292 P Pn 03 56 12.6 +0.6
comp=Z,2µmcomp=Z,174nm,0.7s
KWP Kalwaria Pacla 8.09 9 *e*P Pn 03 56 17.8 +5.5
LESA Schwarzleotal 8.19 318 *i* Pn **Pn 03 56 15.4 +1.6**
comp=Z,94nm,0.6s,SNR=175
LESA *i* Sn **Sn 03 57 48.7 +2.5**
comp=Z,24nm,0.4s,SNR=4.7
VRAC Vranov 8.21 340 Pn Pn 03 56 14.6 +0.6
comp=Z,1.0nm,0.3s,baz=167,slow=12,SNR=38
VRAC Sn **Sn 03 57 42.5 -4.1**
comp=Z,0.8nm,0.3s,baz=107,slow=11,SNR=1.4
VRAC LR LR 03 59 33.9
comp=Z,3µm,19.0s,baz=157,slow=39
comp=Z,55nm,1.1s
VRAC AML AML
VRAC Vranov 8.21 340 P Pn 03 56 15.1 +1.1
VRAC Vranov 8.21 340 *e*PN **Pn 03 56 13.6 -0.4**
VRAC *e*SN **Sn 03 57 47.8 +1.3**
VRAC Vranov 8.21 340 ⇓P Pn 03 56 15.2 +1.1
VRAC Vranov 8.21 340 P Pn 03 56 14.9 +0.9
comp=Z,406nmcomp=Z,26nm,1.6s
RJOB Jochberg 8.34 320 P Pn 03 56 18.1 +2.2
comp=Z,6µmcomp=Z,745nm,0.7s
OKC Ostrava-Krasne 8.39 348 P Pn 03 56 17.1 +0.5
comp=Z,1µmcomp=Z,54nm,1.3s
ISP Isparta 8.40 114 *i* P **Pn 03 56 17.3 +0.6**
MORC Moravsky Berou 8.44 345 *e*PN **Pn 03 56 16.4 -0.8**
MORC *e*SN **Sn 03 57 51.8 -0.5**
MORC Moravsky Berou 8.44 345 P Pn 03 56 18.9 +1.7
comp=Z,997nmcomp=Z,57nm,1.2s
CKRC Cesky Krumlov 8.51 330 *e*P **Pn 03 56 21.5 +3.4**
CKRC *e* 03 57 53.9
CKRC Cesky Krumlov 8.51 330 *e*PN **Pn 03 56 21.5 +3.4**
CKRC *e*SN **Sn 03 57 53.9 0.0**
TREC Trest 8.51 336 P Pn 03 56 19.1 +0.9
comp=Z,960nmcomp=Z,50nm,1.6s
STEB Steborice 8.55 347 *e*PN **Pn 03 56 20.2 +1.5**
STEB *e*SN **Sn 03 57 52.8 -2.1**
ELL Elmali 8.59 122 P Pn 03 56 22.3 +2.9
ELL Elmali 8.59 122 Pn 03 56 22.3 +2.9
OJC Ojcow 8.60 356 *e*P **Pn 03 56 21.5 +2.2**
OJC Ojcow 8.60 356 P Pn 03 56 21.2 +1.9
comp=Z,1µmcomp=Z,80nm,1.1s
WTTA Wattenberg 8.63 314 *e*Pn **Pn 03 56 21.4 +1.4**
comp=Z,9.0nm,0.5s,SNR=167
WTTA *e*Sn **Sn 03 57 59.5 +2.3**
comp=Z,106nm,0.5s
WTTA Wattenberg 8.63 314 P Pn 03 56 21.7 +1.7
comp=Z,6µmcomp=Z,629nm,0.8s
WATA Walderalm 8.71 314 *e*Pn **Pn 03 56 23.0 +2.0**
comp=Z,43nm,0.4s,SNR=90
WATA *e*Sn **Sn 03 58 00.3 +1.3**
comp=Z,115nm,0.5s
AKAS Kas 8.72 125 Pn 03 56 23.4 +2.1
GEC2 GERESS Array S 8.77 328 Pn 03 56 21.6 -0.1
GEC2 GERESS Array S 8.77 328 P Pn 03 56 23.9 +2.2
comp=Z,2µmcomp=Z,111nm,0.9s
GERES GERESS Array B 8.77 328 Pn **Pn 03 56 23.2 +1.5**
comp=Z,0.5nm,0.3s,baz=150,slow=14,SNR=68
GERES LR LR 04 00 37.5
comp=Z,1µm,19.1s,baz=142,slow=43
comp=Z,50nm,0.9s
GERES AML AML
GERES GERESS Array B 8.77 328 P Pn 03 56 21.5 -0.2
GERES GERESS Array B 8.77 328 Pn 03 56 21.5 -0.2
PGF Pioggiola 8.83 280 P Pn 03 56 24.1 +1.4
comp=Z,2µmcomp=Z,246nm,1.3s
SQTA Sankt Quirin 8.84 312 *e*Pn **Pn 03 56 25.1 +2.3**
comp=Z,38nm,0.3s,SNR=148
SQTA *e*Sn **Sn 03 58 03.7 +1.5**
comp=Z,170nm,0.9s
VSL Villasalto 8.97 260 P Pn 03 56 24.1 -0.4
comp=Z,572nmcomp=Z,60nm,1.0s
MOTA Moosalm 8.97 313 *e*Pn **Pn 03 56 26.3 +1.7**
comp=Z,8.9nm,0.5s,SNR=120
MOTA *e*Sn **Sn 03 58 06.1 +0.6**
comp=Z,165nm,0.9s
FETA Feichten 9.00 310 *e*Pn **Pn 03 56 26.6 +1.6**
comp=Z,36nm,1.0s,SNR=88
FETA *e*Sn **Sn 03 58 07.4 +1.2**
comp=Z,58nm,0.6s
KHC Kasperske Hory 9.04 328 *e*P **Pn 03 56 27.5 +2.1**
KHC *e* 03 58 05.3
KHC Kasperske Hory 9.04 328 *e*PN **Pn 03 56 27.5 +2.1**
KHC *ex* x 03 56 45.0
KHC *e*SN **Sn 03 58 05.3 -1.8**
KHC Kasperske Hory 9.04 328 P Pn 03 56 28.0 +2.5
comp=Z,2µmcomp=Z,118nm,1.1s
KHC Kasperske Hory 9.04 328 P Pn 03 56 27.6 +2.1
comp=Z,2µmcomp=Z,118nm,1.1s
ZVC Zvikov 9.06 331 *e*PN **Pn 03 56 28.1 +2.4**
ZVC *e*SN **Sn 03 58 06.4 -1.1**
FUORN Ofenpass-Fuorn 9.07 307 P Pn 03 56 27.6 +1.6
comp=Z,3µmcomp=Z,190nm,1.2s
DPC Dobruska-Polom 9.24 342 *e*P **Pn 03 56 29.5 +1.3**
DPC *e* 03 58 08.8
DPC Dobruska-Polom 9.24 342 *e*PN **Pn 03 56 29.5 +1.3**
DPC *e*SN **Sn 03 58 08.8 -3.1**
DPC Dobruska-Polom 9.24 342 P Pn 03 56 29.5 +1.3
comp=Z,50nm,0.9s
DPC Dobruska-Polom 9.24 342 P Pn 03 56 29.3 +1.1
comp=Z,50nm,0.9s
RETA Reutte 9.24 312 *e*Pn **Pn 03 56 29.6 +1.4**
comp=Z,13nm,0.6s,SNR=48
RETA *i* Sn **Sn 03 58 12.3 +0.2**
comp=Z,54nm,0.4s
WET Wettzell 9.34 326 P Pn 03 56 30.1 +0.5
comp=Z,1µmcomp=Z,72nm,1.1s
DAVOX Davos/Dischmat 9.38 307 Pn **Pn 03 56 31.9 +1.8**
comp=Z,84nm,0.5s,baz=119,slow=8.8,SNR=151
DAVOX Sn **Sn 03 58 10.9 -4.6**
comp=Z,1.3nm,0.3s,baz=131,slow=19,SNR=1.4
DAVOX Lg Lg 03 59 16.4
baz=229,slow=20
FUR Furstenfeldbru 9.39 317 P Pn 03 56 30.6 +0.4
comp=Z,4µmcomp=Z,254nm,0.8s
PRU Pruhonice 9.41 334 *e*P **Pn 03 56 32.9 +2.4**
PRU *e* 03 58 14.6
PRU Pruhonice 9.41 334 *e*PN **Pn 03 56 32.9 +2.4**
PRU *e*SN **Sn 03 58 14.6 -1.5**
OSTC Ostas 9.46 342 *e*P **Pn 03 56 33.2 +2.1**
OSTC *e* 03 58 14.7
OSTC Ostas 9.46 342 *e*PN **Pn 03 56 33.2 +2.1**

OSTC eSN Sn 03 58 14.7 -2.5
UPC Upice 9.46 341 eP Pn 03 56 32.6 +1.4
UPC e 03 58 15.3
UPC Upice 9.46 341 ePN Pn 03 56 32.6 +1.4
UPC eSN Sn 03 58 15.3 -2.0
UPC Upice 9.46 341 P Pn 03 56 32.3 +1.2
comp=Z,934nmcomp=Z,49nm,1.1s
CHVC Chvalec 9.53 341 eP Pn 03 56 33.4 +1.3
CHVC e 03 58 16.5
CHVC Chvalec 9.53 341 ePN Pn 03 56 33.4 +1.3
CHVC eSN Sn 03 58 16.5 -2.4
TUE Stuetta 9.56 304 P Pn 03 56 34.4 +1.7
comp=Z,8µmcomp=Z,1µm,0.8s
TUE Stuetta 9.56 304 P Pn 03 56 33.9 +1.3
comp=Z,2µmcomp=Z,278nm,0.8s
LUBAR Lubar, Ukraine 9.58 28 P Pn 03 56 34.8 +2.1
DAVA Damuels 9.63 309 ePn Pn 03 56 35.1 +1.5
comp=Z,34nm,0.6s,SNR=49
DAVA eSn Sn 03 58 22.0 +0.3
comp=Z,162nm,1.0s
DAVA Damuels 9.63 309 P Pn 03 56 35.8 +2.1
comp=Z,4µmcomp=Z,204nm,0.7s
KSP Ksiaz 9.71 343 eP Pn 03 56 36.6 +2.1
KSP Ksiaz 9.71 343 P Pn 03 56 36.0 +1.5
comp=Z,57nm,1.1s
UBR Ueberruh 9.72 312 P Pn 03 56 36.5 +1.8
comp=Z,3µmcomp=Z,239nm,0.8s
GRC3 Grafenberg Arr 9.73 321 P Pn 03 56 35.1 +0.3
comp=Z,3µmcomp=Z,235nm,1.1s
GRC2 Grafenberg Arr 9.81 321 P Pn 03 56 36.1 +0.2
comp=Z,3µmcomp=Z,201nm,0.9s
GRC1 Grafenberg Arr 9.83 321 P Pn 03 56 35.9 -0.3
comp=Z,2µmcomp=Z,169nm,0.8s
GRB5 Grafenberg Arr 9.84 322 P Pn 03 56 36.7 +0.3
comp=Z,3µmcomp=Z,270nm,0.8s
GRC4 Grafenberg Arr 9.89 322 P Pn 03 56 36.7 -0.4
comp=Z,3µmcomp=Z,172nm,0.8s
BR106 Keskin Array S 9.91 97 P Pn 03 56 39.3 +1.8
comp=Z,133nmcomp=Z,13nm,0.9s
BR105 Keskin Array S 9.91 97 P Pn 03 56 40.2 +2.7
comp=Z,183nmcomp=Z,17nm,0.8s
BR131 Keskin Array S 9.93 97 P Pn 03 56 39.2 +1.5
BR131 S Sn 03 58 25.7 -3.3
BR131 Keskin Array S 9.93 97 *i* P Pn 03 56 38.7 +1.0
BR131 Keskin Array S 9.93 97 Pn 03 56 39.9 +2.1
BRTR Keskin Array B 9.93 97 Pn Pn 03 56 39.0 +1.3
comp=Z,0.7nm,0.3s,baz=280,slow=9.8,SNR=16
BRTR LR LR 04 00 21.9
comp=Z,3µm,18.2s,baz=290,slow=37
comp=Z,4.0nm,0.7s
BRTR AML AML
BRTR Keskin Array B 9.93 97 *i* P Pn 03 56 41.2 +3.5
BRTR pmax pmax
comp=Z,8.0nm,0.7s
BRTR Keskin Array B 9.93 97 Pn 03 56 39.4 +1.6
BR104 Keskin Array S 9.93 97 P Pn 03 56 39.7 +1.9
comp=Z,158nmcomp=Z,20nm,1.0s
GRB3 Grafenberg Arr 9.95 324 P Pn 03 56 39.2 +1.3
comp=Z,2µmcomp=Z,154nm,1.2s
GRB2 Grafenberg Arr 9.96 323 P Pn 03 56 38.3 +0.3
comp=Z,2µmcomp=Z,167nm,0.8s
GRB1 Grafenberg Arr 10.05 323 P Pn 03 56 40.5 +1.2
comp=Z,2µmcomp=Z,146nm,1.2s
MON Monaco 10.08 286 P Pn 03 56 41.2 +1.6
comp=Z,1µmcomp=Z,94nm,1.1s
ESCA l'Escarene 10.13 287 P Pn 03 56 41.0 +0.6
comp=Z,842nmcomp=Z,50nm,0.9s
GRB4 Grafenberg Arr 10.15 323 P Pn 03 56 40.9 +0.3
comp=Z,3µmcomp=Z,178nm,1.1s
BEL Belsk 10.19 360 eP Pn 03 56 44.1 +3.1
RNPP5 Staryi Chortor 10.19 18 P Pn 03 56 43.1 +2.0
SIM Simferopol' 10.24 67 eP Pn 03 56 43.1 +1.3
SIM eS Sn 03 58 50.8 +14
SIM pmax pmax
comp=Z,73nm,1.1s
SIM MLR MLR
comp=Z,1µm,18.0s
HSKC Hora Svate Kat 10.31 333 P Pn 03 56 43.4 +0.5
comp=Z,29nm,1.0s
RNPP9 Sopachiv 10.36 18 P Pn 03 56 45.2 +1.7
NKC Novy Kostel 10.37 329 eP Pn 03 56 46.0 +2.4
NKC Novy Kostel 10.37 329 ePN Pn 03 56 46.0 +2.4
NKC Novy Kostel 10.37 329 P Pn 03 56 44.7 +1.1
comp=Z,981nmcomp=Z,48nm,0.9s
ISO Isola 10.41 289 P Pn 03 56 45.2 +1.0
comp=Z,64nm,1.5s
CALF Calern 10.44 286 P Pn 03 56 45.5 +0.7
comp=Z,1µmcomp=Z,114nm,1.6s
GRA1 Grafenberg Arr 10.47 323 P Pn 03 56 45.1 +0.1
comp=Z,2µmcomp=Z,167nm,1.1s
GRA3 Grafenberg Arr 10.47 324 P Pn 03 56 46.3 +1.3
comp=Z,2µmcomp=Z,164nm,1.0s
TANN Tannenbergstha 10.51 329 P Pn 03 56 46.7 +1.2
comp=Z,2µmcomp=Z,120nm,1.6s
R9F13 Warsaw-Wawer 10.57 1 eP Pn 03 56 53.7 +7.4
R9F13 eS Sn 03 58 47.4 +2.9
AK13 Malin Array Si 10.62 30 P Pn 03 56 49.0 +2.0
AK07 Malin Array Si 10.62 30 P Pn 03 56 48.7 +1.6
AK06 Malin Array Si 10.65 30 P Pn 03 56 49.0 +1.6
AK14 Malin Array Si 10.65 30 P Pn 03 56 49.0 +1.5
AK17 Malin Array Si 10.68 29 P Pn 03 56 48.9 +1.1
AK05 Malin Array Si 10.68 30 P Pn 03 56 48.8 +1.0
AK10 Malin Array Si 10.68 30 P Pn 03 56 48.8 +1.0
AK12 Malin Array Si 10.68 30 P Pn 03 56 48.8 +1.0
SLE Schleitheim 10.68 309 P Pn 03 56 48.3 +0.3
comp=Z,905nmcomp=Z,143nm,0.9s
AK16 Malin Array Si 10.69 30 P Pn 03 56 48.9 +1.0
AK19 Malin Array Si 10.69 29 P Pn 03 56 49.0 +1.0
AK09 Malin Array Si 10.71 30 P Pn 03 56 49.2 +1.0
AK20 Malin Array Si 10.71 29 P Pn 03 56 49.2 +1.0
AK08 Malin Array Si 10.71 30 P Pn 03 56 49.0 +0.8
AK02 Malin Array Si 10.71 30 P Pn 03 56 49.0 +0.7
AK15 Malin Array Si 10.71 30 P Pn 03 56 49.1 +0.8
AK18 Malin Array Si 10.71 29 P Pn 03 56 49.1 +0.8
AK11 Malin Array Si 10.71 30 P Pn 03 56 49.1 +0.8
KEST Kesra 10.74 240 Pn Pn 03 56 51.6 +2.8
comp=Z,0.5nm,0.3s,baz=359,slow=2.5,SNR=25
KEST LR LR 04 02 21.3
comp=Z,2µm,18.4s,baz=54,slow=45
comp=Z,42nm,1.0s
KEST AML AML
KEST Kesra 10.74 240 P Pn 03 56 51.9 +3.2
SNR=11
KEST S Sn 03 58 51.7 +2.9
AK01 Malin Array Si 10.74 30 P Pn 03 56 49.5 +0.8
KIEV Kiev 10.74 30 *i* P Pn 03 56 49.5 +0.8
SNR=22
KIEV Kiev 10.74 30 P Pn 03 56 49.3 +0.6
KIEV Kiev 10.74 30 ⇑P Pn 03 56 49.4 +0.8
KIEV Kiev 10.74 30 P Pn 03 56 49.6 +0.9
comp=Z,170nm,1.3s
KIEV Kiev 10.74 30 P Pn 03 56 50.1 +1.4
comp=Z,43nm,1.3s
AK22 Malin Array Si 10.75 29 P Pn 03 56 49.5 +0.8
AK21 Malin Array Si 10.75 29 P Pn 03 56 49.5 +0.8
AK04 Malin Array Si 10.75 30 P Pn 03 56 49.6 +0.8
AKASG Malin Array Be 10.75 30 Pn Pn 03 56 49.9 +1.1
comp=Z,1.7nm,0.3s,baz=216,slow=13,SNR=31
AKASG Lg Lg 03 59 55.2
baz=224,slow=30
AKASG LR LR 04 02 20.8
comp=Z,899nm,19.9s,baz=217,slow=45
comp=Z,12nm,0.8s
AKASG AML AML
AKASG Malin Array Be 10.75 30 *i* P Pn 03 56 49.9 +1.1
AKASG pmax pmax
comp=Z,13nm,0.8s
AKBB Malin Array Si 10.75 30 *ce* P Pn 03 56 47.1 -1.7
AKBB Malin Array Si 10.75 30 P Pn 03 56 49.6 +0.8
AK23 Malin Array Si 10.77 29 P Pn 03 56 49.8 +0.8
AK03 Malin Array Si 10.77 30 P Pn 03 56 49.9 +0.8
BNI Bardonecchia 10.84 293 P Pn 03 56 50.6 +0.4
comp=Z,77nm,1.6s
STU Stuttgart 10.85 315 P Pn 03 56 50.5 +0.3
comp=Z,2µmcomp=Z,138nm,0.7s
MOX Moxa 11.02 328 P Pn 03 56 54.4 +1.9
comp=Z,79nm,0.7s
CLL Collm 11.05 334 *i* P Pn 03 56 54.8 +1.9
CLL pmax pmax
comp=Z,46nm,1.3s
CLL MLR MLR
comp=Z,9µm,8.4s
CLL Collm 11.05 334 P Pn 03 56 54.7 +1.9
comp=Z,24nm,1.3s
CLL Collm 11.05 334 P Pn 03 56 54.8 +1.9
comp=Z,24nm,1.3s
CLL Collm 11.05 334 *i* Pn Pn 03 56 54.8 +1.9
comp=Z,46nm,1.3s
CLL *e*Sn Sn 03 58 50.0 -6.2
CLL AMS AMS 04 00 00.0
comp=N,4µm,8.3s
CLL AMS AMS 04 00 00.0
comp=E,7µm,13.3s
CLL *e*Sg 04 00 22.0
comp=Z,618nm,2.1s
CLL AMS AMS 04 01 00.0
comp=Z,0.0nm,7.7s
CLL AMS AMS 04 01 00.0
comp=Z,9µm,8.4s
BOURR Bourrignon 11.27 305 P Pn 03 56 56.6 +0.7
comp=Z,2µmcomp=Z,179nm,0.9s
ORIF Oris-en-Rattie 11.37 292 P Pn 03 56 57.6 +0.2
comp=Z,904nmcomp=Z,75nm,0.9s
NEUB Neuenburg 11.40 330 P Pn 03 56 59.2 +1.5
comp=Z,816nmcomp=Z,64nm,0.9s
GIMEL St. Georges / 11.54 300 P Pn 03 56 60.0 +0.2
comp=Z,82nm,1.1s
ARBF Arbois 11.57 284 P Pn 03 57 00.2 +0.1
comp=Z,1µmcomp=Z,94nm,1.2s
ECH Echery 11.69 309 P Pn 03 57 01.5 -0.1
comp=Z,59nm,0.9s
WIMM Wimmelburg 11.76 330 P Pn 03 57 03.6 +1.1
comp=Z,2µmcomp=Z,78nm,1.3s
GKP Gorka Klasztor 11.87 349 *e*P Pn 03 57 08.7 +4.6
CSS Mathiatis 11.88 120 P Pn 03 57 13.8 +9.5
comp=Z,513nmcomp=Z,42nm,1.2s
CSS Mathiatis 11.88 120 P Pn 03 57 07.1 +2.8
TNS Taunus Mts 12.13 319 P Pn 03 57 07.8 +0.1
comp=Z,1µmcomp=Z,96nm,0.9s
SSB Saint Sauveur 12.37 292 P Pn 03 57 09.6 -1.4
comp=Z,37nm,0.8s
SUW Suwalki 12.47 6 *e*P Pn 03 57 16.6 +4.3
SUW Suwalki 12.47 6 *e*P Pn 03 57 13.8 +1.6
ANN Anapa 12.52 70 *e*P Pn 03 57 15.7 +2.7
ANN *e*S Sn 03 59 30.6 -1.6
ANN pmax pmax
comp=Z,58nm,1.1s
WLF Walferdange 13.00 313 P Pn 03 57 21.5 +2.0
WLF Walferdange 13.00 313 P Pn 03 57 22.1 +2.6
comp=Z,54nm,1.0s
LOR Lormes 13.34 301 P Pn 03 57 23.6 -0.6
comp=Z,988nmcomp=Z,64nm,1.2s
BUG Bochum–Univer 13.50 321 P Pn 03 57 28.0 +1.8
comp=Z,1µmcomp=Z,59nm,1.8s
RETH Rethem/Aller, 13.53 329 P Pn 03 57 28.8 +2.1
comp=Z,60nm,1.7s
KHAM Kharkiv 13.60 47 P Pn 03 57 30.1 +2.4
ARPR Arapgir-MALATY 13.60 95 P Pn 03 57 30.0 +2.1
comp=Z,1µmcomp=Z,68nm,1.3s
MEM Membach 13.60 316 *d*P Pn 03 57 29.3 +1.6
MEM *d*S Sn 03 59 56.9 -1.7
MEM Membach 13.60 316 P Pn 03 57 29.6 +1.9
comp=Z,852nmcomp=Z,56nm,0.8s
MNK Minsk 13.68 18 *i* P Pn 03 57 28.3 -0.5
MNK *i* S Sn 04 00 00.3 -0.2
MNK pmax pmax
comp=N,29nm,1.0s
MNK pmax pmax
comp=E,174nm,1.2s
MNK pmax pmax
comp=Z,153nm,1.1s
MNK MLR MLR
comp=N,1µm,15.0s
MNK MLR MLR
comp=Z,2µm,14.0s
MNK MLR MLR
comp=E,2µm,14.0s
MNK Minsk 13.68 18 *i* P Pn 03 57 28.3 -0.5
comp=E,174nm,1.2s
MNK *i* P Pn 03 57 28.3 -0.5
comp=N,29nm,1.0s
MNK *i* P Pn 03 57 28.3 -0.5
comp=Z,153nm,1.1s,baz=203
MNK *i* PP PnPn 03 57 35.8 -0.9
MNK *i* PPP PPP 03 57 44.7
MNK *i* S Sn 04 00 00.4 -0.2
MNK *i* SS SnSn 04 00 13.8 +1.0
MNK *i* SSS SSS 04 00 26.4
MNK *i* LQ LQ 04 01 16.8
MNK *i* LR LR 04 02 29.0
MNK *i* LRM MLR 04 02 59.6
comp=N,1µm,14.6s
MNK *i* LRM MLR 04 03 09.1
comp=Z,2µm,14.4s
MNK *i* LRM MLR 04 03 13.1
comp=E,2µm,13.8s
RCHB Rochefort 13.77 313 *d*P Pn 03 57 30.6 +0.6
comp=Z,44nm,0.7s
RCHB *d*PP PbPb 03 58 14.1 -1.0
RCHB Rochefort 13.77 313 P Pn 03 57 31.4 +1.4
comp=Z,63nm,0.7s
ETOS Mallorca 13.79 268 P P 03 57 34.9 -4.0
MTLF Montolieu 13.83 283 P Pn 03 57 32.8 +1.8
comp=Z,35nm,0.9s
NACGM Naroch 13.83 15 *e*P Pn 03 57 31.2 +0.3
BCLA Clavier 13.87 314 *d*P Pn 03 57 34.6 +3.2
BCLA *d*S Sn 04 00 05.2 +0.1
PABE Paberze 14.02 7 *e*P P 03 57 37.5 -3.8
PABE Paberze 14.02 7 P Pn 03 57 35.6 +2.3
comp=Z,105nm,1.3s
BSD Bornholm Skovb 14.02 346 *i* P P 03 57 39.4 -1.9
SOC Sochi 14.05 76 *e*P Pn 03 57 36.7 +2.8
SOC *e* 04 00 15.7
SOC pmax pmax
comp=Z,32nm,0.9s
SOC MLR MLR
comp=Z,620nm,13.0s
WTSB Winterswijk 14.06 322 P Pn 03 57 36.1 +2.1
comp=Z,90nm,1.3s
DOU Dourbes 14.08 312 *d*P Pn 03 57 35.4 +1.1
comp=Z,19nm,1.0s
DOU *d*S Sn 04 00 10.3 0.0
BMRD Maredsous 14.10 313 *d*P Pn 03 57 36.3 +1.8
comp=Z,47nm,0.7s
BMRD *d*S Sn 04 00 06.1 -4.6
VSLR Vesyoloye 14.28 76 *i* P Pn 03 57 39.2 +2.2
PBUR Paburge 14.40 3 *e*P P 03 57 43.9 -1.6
PBUR Paburge 14.40 3 P Pn 03 57 40.6 +2.0
comp=Z,2µmcomp=Z,64nm,0.9s
BMOL Mol 14.43 317 *d*P Pn 03 57 42.0 +3.0
OFRI `Ofer 14.44 124 P Pn 03 57 41.9 +2.5
MMA0B Mount Meron ar 14.44 122 P Pn 03 57 42.6 +3.2
MMAI Mount Meron Ar 14.44 122 Pn Pn 03 57 39.4 0.0
comp=Z,1.2nm,0.3s,baz=329,slow=14,SNR=18
MMAI LR LR 04 04 08.3
comp=Z,1µm,18.4s,baz=352,slow=41
comp=Z,17nm,0.9s
MMAI AML AML
GEM Giv'at Ha'Em 14.48 121 P P 03 57 44.6 -2.0
NATI Neve Ativ 14.49 120 P Pn 03 57 43.2 +3.2
UCC Uccle 14.58 314 P Pn 03 57 42.9 +1.8
comp=Z,4.5nm,1.1s
KNHM Kefar Nahum 14.64 122 P Pn 03 57 44.6 +2.5
KSHT Keshet 14.72 121 P Pn 03 57 46.3 +3.0
SLTI Sal'it 14.73 125 P Pn 03 57 46.3 +3.0
ERBR Yeremizino-Bor 14.79 67 *e*P Pn 03 57 43.9 -0.1
ERBR pmax pmax
comp=Z,103nm,1.4s
ERBR MLR MLR
comp=Z,1µm,14.0s
LUNU Lund 14.80 343 *i* P P 03 57 47.7 -2.3
LABN Labinsk 14.83 72 *e*P Pn 03 57 45.5 +0.9
LABN *e*S Sn 04 00 31.6 +3.0
LABN pmax pmax
comp=Z,185nm,0.9s
MMLI Mount Malkishu 14.83 124 P Pn 03 57 46.5 +1.8
comp=Z,2µmcomp=Z,116nm,1.4s
MMLI Mount Malkishu 14.83 124 P Pn 03 57 47.6 +2.9
ARIL Ariel Universi 14.93 125 P P 03 57 49.0 -2.6
SALP Salfit 14.94 125 P P 03 57 51.7 -0.1
comp=Z,52µmcomp=Z,2µmcomp=Z,176nm,1.4s
KOPT Kop Dagi 14.99 90 Pn Pn 03 57 47.5 +0.5
QRNJ Al-Qirein 15.00 124 P P 03 57 51.6 -0.7
comp=Z,68µmcomp=Z,9µm,1.0s
BLEU Blekinge 15.02 349 *i* P P 03 57 51.6 -0.8
RGMN Argaman 15.08 124 P Pn 03 57 50.5 +2.6
EIBI Ibiza 15.08 266 P P 03 57 52.8 -0.4
AMAZ Amatzia 15.15 127 P P 03 57 53.3 -0.8
comp=Z,2µmcomp=Z,4µmcomp=Z,217nm,1.4s
JER Jerusalem 15.15 126 P P 03 57 52.3 -1.9
UJAP Al Uja 15.19 125 P Pn 03 57 51.5 +2.0
comp=Z,1µmcomp=Z,57nm,1.1s
KZIT Kziot 15.31 130 P Pn 03 57 51.5 +0.5
comp=Z,1µmcomp=Z,6µmcomp=Z,591nm,1.2s
KZIT Kziot 15.31 130 P Pn 03 57 50.8 -0.2
comp=Z,6µmcomp=Z,591nm,1.2s
KZIT Kziot 15.31 130 P Pn 03 57 53.3 +2.3
DEL Delary 15.50 345 *i* P P 03 57 57.8 +0.1
HSUJ Al Zarqa 15.54 123 P P 03 58 06.7 +8.3
MSBI Mazada 15.57 127 P Pn 03 57 55.6 +1.2
comp=Z,3µmcomp=Z,171nm,1.5s
MSBI Mazada 15.57 127 P Pn 03 57 55.8 +1.3
LISJ El Lisan 15.70 127 P P 03 58 00.3 +0.2
comp=Z,2µmcomp=Z,94nm,1.8s
GHAJ Ghor Haditha 15.71 126 P Pn 03 57 58.1 +2.0
GHAJ Ghor Haditha 15.71 126 P P 03 58 00.9 +0.7
comp=Z,2µmcomp=Z,3µmcomp=Z,197nm,1.5s
GHAJ Ghor Haditha 15.71 126 P Pn 03 57 58.0 +1.8
comp=Z,3µmcomp=Z,197nm,1.5s
GHAJ Ghor Haditha 15.71 126 P P 03 57 59.0 -1.2
RMNI Mount Ramon 15.75 130 P P 03 57 59.5 -1.2
VORD Divnogorie 15.76 48 *e*P P 03 57 58.8 -1.9
VORD pmax pmax
comp=Z,60nm,0.5s
VSR Storozhevoye 15.82 47 *e*P Pn 03 57 57.7 +0.2
VSR pmax pmax
comp=Z,30nm,0.8s
VSR MLR MLR
comp=Z,3µm,10.0s
MFF Saint Martin d 15.83 295 P Pn 03 57 56.1 -1.6
comp=Z,11nm,1.2s
IDAN Idan 15.87 128 P P 03 58 00.6 -1.4
ASF Jabal al Asfar 15.91 121 Pn P 03 58 04.5 +1.6
comp=Z,0.2nm,0.3s,baz=268,slow=1.8,SNR=13
ASF LR LR 04 04 47.9
comp=Z,573nm,19.6s,baz=310,slow=40
ASF Jabal al Asfar 15.91 121 P P 03 58 05.5 +2.6
comp=Z,22µmcomp=Z,11µmcomp=Z,378nm,1.2s
ATE Arette 15.97 282 P Pn 03 57 57.8 -1.7
comp=Z,649nmcomp=Z,33nm,1.3s
SLIT Siltere, Latvi 16.02 3 *e*P P 03 58 03.0 -0.5
ZFRI Zfri 16.02 129 P P 03 58 02.6 -1.0
PRNI Paran 16.07 130 P P 03 58 03.6 -0.6
comp=Z,11µmcomp=Z,1µm,1.1s
VORR Voronezh 16.07 45 *e*P Pn 03 58 01.4 +0.6
VORR pmax pmax
comp=Z,30nm,0.4s
KIV Kislovodsk 16.21 75 *i* P P 03 58 08.7 +2.9
SNR=6.3
KIV Kislovodsk 16.21 75 P P 03 58 07.4 +1.6
KIV Kislovodsk 16.21 75 *e*P P 03 58 04.4 -1.4
KIV *e*S Sn 04 01 06.2 +4.0
KIV pmax pmax
comp=Z,32nm,1.1s
KIV MLR MLR
comp=Z,259nm,14.0s
KIV Kislovodsk 16.21 75 P P 03 58 04.4 -1.4
KIV Kislovodsk 16.21 75 P Pn 03 58 03.4 +0.7
comp=Z,731nmcomp=Z,85nm,1.1s
FABU Falkenberg 16.22 344 *i* P P 03 58 05.0 -0.7
NEUR Neytrino 16.23 77 *i* P Pn 03 58 04.1 +1.1
HRFI Mount Harif 16.32 131 P P 03 58 06.0 -1.1
comp=Z,234nm,1.4s
HRFI Mount Harif 16.32 131 P P 03 58 05.7 -1.4
comp=Z,3µmcomp=Z,234nm,1.4s
HRFI Mount Harif 16.32 131 P P 03 58 07.0 -0.1
KBZ Khabaz 16.36 75 Pn P 03 58 08.7 +1.3
comp=Z,0.3nm,0.3s,baz=276,slow=9.0,SNR=22
KBZ LR LR 04 06 21.3
comp=Z,320nm,20.1s,baz=276,slow=44
KBZ Khabaz 16.36 75 *i* P Pn 03 58 05.0 +0.5
LPSR Galich'ya Gora 16.43 42 *e*P Pn 03 58 03.6 -1.8
LPSR pmax pmax
comp=Z,167nm,1.0s
GURO Guroymak-BITLI 16.52 94 Pn 03 58 07.8 +1.0
HSNJ Maan 16.53 129 P P 03 58 15.3 +5.8
EIL Elat 16.55 132 Pn P 03 58 08.8 -0.8
comp=Z,1.1nm,0.3s,baz=341,slow=7.8,SNR=13
comp=Z,45nm,1.1s
EIL AML AML
EIL Elat 16.55 132 P P 03 58 09.5 -0.1
comp=Z,1µmcomp=Z,103nm,1.2s
EIL Elat 16.55 132 P P 03 58 09.2 -0.4
comp=Z,1µmcomp=Z,102nm,1.2s
EIL Elat 16.55 132 P P 03 58 08.7 -0.9
AQBJ Aqaba 16.56 131 P Pn 03 58 08.0 +0.8
comp=Z,4µmcomp=Z,375nm,1.0s
MUD Monsted U'grnd 16.62 337 *i* P P 03 58 11.1 +0.9
ECHE Chera 16.67 270 P P 03 58 11.1 +0.3
ONAU Onsala 16.76 343 *i* P P 03 58 12.8 +1.1
NCK Nalchik 16.87 76 *e*P P 03 58 14.5 +1.4
OBN Obninsk 17.00 32 Pn Pn 03 58 10.0 -2.4
comp=Z,1.9nm,0.3s,baz=216,slow=14,SNR=11
OBN LR LR 04 04 58.0
comp=Z,668nm,20.7s,baz=216,slow=38
comp=Z,98nm,0.9s
OBN AML AML
OBN Obninsk 17.00 32 *d* iP Pn 03 58 10.1 -2.4
OBN *e*S Sn 04 01 25.4 +4.4
OBN pmax pmax
comp=Z,129nm,2.2s
OBN MLR MLR
comp=Z,896nm,16.0s
OBN Obninsk 17.00 32 Pn Pn 03 58 10.1 -2.4
OBN IAmb IAmb 03 58 19.7
comp=Z,170nm,0.9s
OBN Obninsk 17.00 32 P P 03 58 10.0 -2.4
comp=Z,3µmcomp=Z,212nm,1.1s
MTSE Matsula 17.18 5 *e*P P 03 58 16.1 -0.3
MTSE Matsula 17.18 5 P Pn 03 58 14.5 -0.2
comp=Z,11µmcomp=Z,899nm,0.8s,comp=Z,11µm
VRH Novokhopyorsk 17.23 49 *e*P Pn 03 58 12.8 -2.7
VRH pmax pmax
comp=Z,80nm,1.2s
VRH MLR MLR
comp=Z,2µm,10.0s
VSU Vasula 17.24 11 *ce*P Pn 03 58 13.7 -1.7
VSU pmax pmax
comp=Z,111nm,1.3s
VSU Vasula 17.24 11 *e*P P 03 58 16.7 -0.2
VSU Vasula 17.24 11 P P 03 58 17.5 +0.6
comp=Z,3µmcomp=Z,260nm,1.2s,comp=Z,3µm
CART Cartagena 17.29 264 P P 03 58 18.8 +1.2
CART Cartagena 17.29 264 Pn Pn 03 58 15.1 -1.2
CART Cartagena 17.29 264 P P 03 58 18.4 +0.7
comp=Z,51nm,1.3s
ETOB Tobarra 17.36 267 P P 03 58 20.3 +1.8
GEVA Gevas 17.36 94 Pn 03 58 17.4 +0.1
TJOU Tjoern 17.41 343 *e*P P 03 58 20.0 +1.2
MOS Moscow 17.86 32 *e*P Pn 03 58 21.6 -1.6
MOS *e*S Sn 04 01 37.6 -4.4
MOS pmax pmax
comp=Z,59nm,0.8s
MOS MLR MLR
comp=Z,2µm,11.0s
ARBE Arbavere 18.09 9 *e*P P 03 58 27.6 +1.3
ARBE Arbavere 18.09 9 P P 03 58 27.9 +1.5
comp=Z,374nm,0.8s
GNI Garni 18.14 87 P P 03 58 30.0 +2.8
comp=Z,115nm,0.9s,baz=290,slow=1.9,SNR=60
GNI LR LR 04 05 40.5
comp=Z,899nm,19.7s,baz=283,slow=38
GNI Garni 18.14 87 P P 03 58 30.0 +2.8
GNI Garni 18.14 87 P P 03 58 29.9 +2.7
GNI S Sn 04 01 50.1 +0.9
GNI Garni 18.14 87 *ce*P P 03 58 28.7 +1.5
GNI pmax pmax
comp=Z,333nm,1.7s
GNI Garni 18.14 87 Pn 03 58 26.9 0.0
GNI IAmb IAmb 03 58 32.3
comp=Z,150nm,0.9s
UCM Universidad Co 18.21 274 P P 03 58 30.0 +2.1
UCM Universidad Co 18.21 274 P Pn 03 58 26.8 -0.9
comp=Z,22nm,1.1s
ROSF Rostrenen 18.26 300 P P 03 58 29.5 +1.1
comp=Z,55nm,1.1s
UPP Uppsala 18.33 355 *e*P Pn 03 58 28.7 -0.3
ENIJ Nijar 18.40 263 P Pn 03 58 32.3 +2.2
STRU Stroemstad 18.42 344 *e*P P 03 58 29.8 -0.2
STRU Stroemstad 18.42 344 *i* P Pn 03 58 31.3 +1.3
CWF Charnwood Fore 18.60 314 P Pn 03 58 34.1 +1.8
comp=Z,91nm,2.3s
MEF Metsahovi 18.72 6 *e*P P 03 58 33.0 -0.2
ESDC Sonseca Array 18.89 272 P Pn 03 58 36.2 +0.2
comp=Z,0.1nm,0.3s,baz=73,slow=9.9,SNR=39

ESDC LR LR 04 07 04.1
comp=Z,334nm,19.1s,baz=83,slow=41
comp=Z,8.9nm,1.0s
ESDC AML AML
ESDC Sonseca Array 18.89 272 P **P** **03 58 35.6 +0.2**
EBER Berja 18.94 263 P **Pn** **03 58 40.2 +3.4**
HFS Hagfors 19.02 349 P **P** **03 58 36.3 -0.3**
comp=Z,0.8nm,0.3s,baz=115,slow=14,SNR=17
HFS LR LR 04 06 09.0
comp=Z,1μm,20.0s,baz=166,slow=37
comp=Z,17nm,0.9s
HFS AML AML
PUL Pulkovo 19.08 15 *i* P **P** **03 58 36.8 -0.4**
LBWR Ladybower, Pea 19.14 316 *eP* **P** **03 58 38.2 +0.3**
LBWR IAmb IAmb 03 58 45.5
comp=Z,32nm,0.8s
LBWR Ladybower, Pea 19.14 316 P **P** **03 58 37.6 -0.4**
comp=Z,72nm,0.8s
PAB San Pablo 19.21 272 P **P** **03 58 37.9 -1.1**
PAB pmax pmax
comp=Z,26nm,1.3s
PAB San Pablo 19.21 272 P **P** **03 58 37.9 -1.1**
PAB San Pablo 19.21 272 P **Pn** **03 58 41.0 +1.1**
comp=Z,699nmcomp=Z,20nm,1.1s
EQTA Presa de Quent 19.24 265 P **Pn** **03 58 40.9 +0.6**
KONO Kongsberg 19.32 343 *i* P **Pn** **03 58 40.9 0.0**
KONO Kongsberg 19.32 343 **P** **03 58 39.9 0.0**
KONO Kongsberg 19.32 343 P **Pn** **03 58 41.6 +0.7**
comp=Z,43nm,1.0s
HPK Haverah Park 19.36 317 *eP* **P** **03 58 39.8 -0.6**
HPK IAmb IAmb 03 58 46.4
comp=Z,28nm,0.7s
RAF Rauma 19.40 1 *eP* **P** **03 58 40.6 -0.1**
WMELI Melilla 19.62 259 P **Pn** **03 58 45.5 +0.7**
MAK Makhachkala 19.75 77 *eP* **Pn** **03 58 47.5 +1.2**
MAK *eS* **Sn** **04 02 33.5 +5.6**
MAK pmax pmax
comp=Z,493nm,1.5s
MAK MLR MLR
comp=Z,1μm,13.0s
NC602 NORSAR Array S 19.93 347 P **P** **03 58 46.1 -0.5**
NC602 IAmb IAmb 03 58 52.2
comp=Z,69nm,0.8s
EDMD Edmundbyers 19.98 319 *eP* **P** **03 58 46.6 -0.6**
EDMD IAmb IAmb 03 58 52.8
comp=Z,40nm,0.7s
EDMD Edmundbyers 19.98 319 P **P** **03 58 46.6 -0.6**
comp=Z,91nm,1.3s
FINES FINESS Array B 20.07 7 P **P** **03 58 47.7 -0.3**
comp=Z,13nm,0.8s,baz=182,slow=10,SNR=34
FINES PcP **PcP** **04 03 01.1 -1.9**
comp=Z,3.3nm,0.8s,baz=191,slow=2.1,SNR=5.5
FINES ScP **ScP** **04 06 36.3 -2.4**
comp=Z,2.6nm,0.8s,baz=231,slow=12,SNR=3.9
FINES LR LR 04 07 16.6
comp=Z,714nm,19.4s,baz=192,slow=39
comp=Z,13nm,0.8s
FINES FINESS Array B 20.07 7 P **P** **03 58 47.8 -0.3**
FINES FINESS Array B 20.07 7 P **P** **03 58 47.8 -0.3**
FINES **PcP** **04 03 01.1 -1.9**
FINES **ScP** **04 06 38.9 +0.2**
FIA1 FINESS Array S 20.07 7 P **P** **03 58 47.2 -0.8**
EMAL Malaga-Limoner 20.14 264 P Pn 03 58 50.1 -0.7
EMAL Malaga-Limoner 20.14 264 P Pn 03 58 50.5 -0.3
comp=Z,431nmcomp=Z,33nm,1.3s
NAO01 NORSAR Array S 20.15 346 IAmb IAmb 03 58 56.7
comp=Z,77nm,0.9s
NAO01 NORSAR Array S 20.15 346 P **P** **03 58 49.6 +0.7**
comp=Z,480nmcomp=Z,49nm,0.9s
NC405 NORSAR Array S 20.26 347 IAmb IAmb 03 58 56.1
comp=Z,137nm,0.8s
NB201 NORSAR Array S 20.27 347 **P** **03 58 49.6 -0.7**
NB201 IAmb IAmb 03 58 55.5
comp=Z,217nm,1.8s
NB2 NORSAR Subarra 20.28 346 P **P** **03 58 49.9 -0.4**
comp=Z,66nm,1.1s,baz=159,slow=11
NOA NORSAR Array B 20.28 346 P **P** **03 58 49.9 -0.4**
comp=Z,17nm,0.8s,baz=219,slow=23,SNR=23
NOA LR LR 04 06 55.7
comp=Z,503nm,18.3s,baz=165,slow=37
comp=Z,17nm,0.8s
NBO00 NORSAR Array S 20.35 346 P **P** **03 58 49.6 -1.5**
NC303 NORSAR Array S 20.42 347 **P** **03 58 50.5 -1.4**
PBRG Braganca 20.54 280 *eP* Pn 03 58 54.7 -0.9
PBRG *epP* pP 03 58 57.0 -0.7
PBRG IAmb IAmb 03 59 02.4
comp=Z,89nm,1.8s
NC204 NORSAR Array S 20.58 346 IAmb IAmb 03 59 00.7
comp=Z,100nm,0.8s
KEF Keuruu 20.69 5 *eP* **P** **03 58 54.6 -0.1**
EKA Eskdalemuir Ar 20.83 319 P **P** **03 58 56.0 -0.4**
comp=Z,28nm,0.6s,baz=111,slow=9.5,SNR=63
EKA LR LR 04 07 23.5
comp=Z,604nm,22.0s,baz=130,slow=38
comp=Z,28nm,0.6s
EKA Eskdalemuir Ar 20.83 319 P **P** **03 58 55.1 -1.2**
EKA pmax pmax
comp=Z,399nm,1.8s
ESK Eskdalemuir 20.84 319 P **P** **03 58 55.9 -0.6**
ESK pmax pmax
comp=Z,454nm,1.8s
ESK Eskdalemuir 20.84 319 **P** **03 58 55.9 -0.6**
ESK Eskdalemuir 20.84 319 *eP* **P** **03 58 55.8 -0.6**
ESK IAmb IAmb 03 59 01.5
comp=Z,55nm,0.6s
ESK Eskdalemuir 20.84 319 P **P** **03 58 56.5 +0.1**
comp=Z,132nm,1.4s
ESK Eskdalemuir 20.84 319 P **P** **03 58 56.6 +0.1**
comp=Z,130nm,1.4s
BELG Belogornoye 21.07 50 P **P** **03 58 59.0 +0.1**
comp=Z,122nm,1.0s,baz=74,slow=5.9,SNR=20
BELG LR LR 04 07 45.5
comp=Z,947nm,19.4s,baz=257,slow=38
comp=Z,122nm,1.0s
BELG Belogornoye 21.07 50 *i* P **P** **03 58 59.7 +0.8**
BELG pmax pmax
comp=Z,68nm,1.4s
EDI Edinburgh 21.16 321 *eP* **P** **03 58 59.3 -0.5**
EDI IAmb IAmb 03 59 08.0
comp=Z,28nm,0.6s
SUF Sumiainen 21.34 7 *eP* **P** **03 59 01.6 -0.1**
POLO Lamas de Olo 21.39 279 *eP* **P** **03 59 05.8 +3.2**
POLO IAmb IAmb 03 59 13.5
comp=Z,60nm,1.6s
MTE Manteigas 21.40 276 P **P** **03 59 02.5 -0.1**
MTE Manteigas 21.40 276 *eP* **P** **03 59 02.0 -0.6**
MTE Manteigas 21.40 276 *eP* **P** **03 59 05.8 +3.1**
MTE *epP* **sP** **03 59 08.2 -0.7**
MTE IAmb IAmb 03 59 14.0
comp=Z,100nm,1.5s
MTE *eS* Sn 04 03 04.5 -3.1
VAF Ylistaro 21.45 2 *eP* **P** **03 59 02.8 -0.1**
PCBR Castelo Branco 21.48 275 *eP* **P** **03 59 06.2 +2.8**
PCBR *epP* **sP** **03 59 09.7 0.0**
PCBR IAmb IAmb 03 59 17.7
comp=Z,52nm,1.5s
PMRV Marv??o 21.52 273 *eP* **P** **03 59 07.3 +3.4**
PMRV *epP* **sP** **03 59 10.9 +0.8**
PMRV IAmb IAmb 03 59 25.1
comp=Z,90nm,1.5s
PMRV *eS* Sn 04 03 06.9 -3.5
IWEX Carrickbyrne, 21.52 309 P **P** **03 59 07.3 +3.5**
PVIS Viseu 21.59 277 *eP* **P** **03 59 06.1 +1.4**
PVIS *epP* **sP** **03 59 10.7 -0.3**
DSB Dublin 21.60 312 P **P** **03 59 08.2 +3.6**
PBAR Barrancos 21.61 270 *eP* **P** **03 59 07.5 +2.7**
PBAR IAmb IAmb 03 59 28.7
comp=Z,139nm,1.7s
PGAV Gavieira, Arco 21.64 281 *eP* **P** **03 59 07.7 +2.4**
PGAV *epP* **pP** **03 59 09.3 -0.3**
PGAV IAmb IAmb 03 59 16.6
comp=Z,121nm,1.5s
PGAV *eS* **S** **04 03 07.5 +2.8**
PESTR Estremoz 21.82 272 P **P** **03 59 05.8 -1.3**
PESTR Estremoz 21.82 272 *eP* **P** **03 59 09.9 +2.7**
PESTR IAmb IAmb 03 59 23.6
comp=Z,53nm,1.1s
PESTR Estremoz 21.82 272 P **P** **03 59 09.5 +2.3**
comp=Z,34nm,0.9s
INVG Invergeldie, C 21.83 321 *eP* **P** **03 59 06.8 -0.3**
INVG IAmb IAmb 03 59 11.9
comp=Z,23nm,0.7s
EAB Aberfoyle 21.84 320 *eP* **P** **03 59 05.9 -1.3**
EAB IAmb IAmb 03 59 11.6
comp=Z,28nm,0.9s

MDT Midelt 22.02 255 LR LR 04 07 44.9
comp=Z,386nm,18.2s,baz=54,slow=37
PTO Porto 22.03 279 *eP* **P** **03 59 10.9 +1.5**
PTO IAmb IAmb 03 59 20.4
comp=Z,56nm,1.6s
IFR Ifrane 22.05 257 P **P** **03 59 10.8 +1.0**
IFR Ifrane 22.05 257 P **P** **03 59 11.6 +1.8**
comp=Z,178nmcomp=Z,13nm,1.4s
PSARD Sardoal 22.05 274 *eP* **P** **03 59 10.6 +1.0**
PSARD *epP* **pP** **03 59 12.7 -1.3**
PSARD IAmb IAmb 03 59 19.3
comp=Z,89nm,1.6s
MD01 Midelt array s 22.11 255 **P** **03 59 09.5 -0.9**
JOF Joensuu 22.18 13 *eP* **P** **03 59 11.3 +0.5**
CLGH Cloghs, Cushen 22.20 316 *eP* **P** **03 59 10.9 -0.1**
CLGH IAmb IAmb 03 59 18.9
comp=Z,63nm,0.8s
CLGH Cloghs, Cushen 22.20 316 P **P** **03 59 10.7 -0.3**
comp=Z,102nm,0.8s
EVO Evora 22.23 272 P **P** **03 59 14.4 +2.8**
EVO Evora 22.23 272 *eP* **P** **03 59 13.0 +1.4**
EVO *epP* **pP** **03 59 14.5 -1.4**
EVO IAmb IAmb 03 59 52.6
comp=Z,39nm,1.8s
EVO Evora 22.23 272 P **P** **03 59 14.6 +3.0**
comp=Z,10.0nm,1.1s
PMTG Montargil 22.24 273 *eP* **P** **03 59 12.2 +0.5**
PMTG *epP* **pP** **03 59 14.1 -1.8**
PMTG IAmb IAmb 03 59 35.0
comp=Z,99nm,1.6s
PBEJ Beja 22.28 270 *eP* **P** **03 59 13.5 +1.4**
PBEJ *epP* **pP** **03 59 14.6 -1.8**
PBEJ IAmb IAmb 03 59 19.0
comp=Z,32nm,2.3s
KLMR Klimovskoe 22.35 24 *eP* **P** **03 59 11.1 -1.5**
KLMR pmax pmax
comp=Z,214nm,1.4s
KLMR MLR MLR
comp=Z,1μm,11.0s
PVAQ Vaqueiros 22.37 268 *eP* **P** **03 59 14.6 +1.5**
PVAQ *epP* **sP** **03 59 18.7 -0.6**
PVAQ IAmb IAmb 03 59 35.4
comp=Z,76nm,1.8s
PVAQ *eS* **S** **04 03 14.4 -4.0**
PVAQ Vaqueiros 22.37 268 P **P** **03 59 14.3 +1.3**
comp=Z,28nm,1.0s
PCVE Castro Verde 22.53 269 *eP* **P** **03 59 15.6 +0.8**
PCVE IAmb IAmb 04 00 05.8
comp=Z,58nm,2.0s
PSBE So Bento 22.55 274 *eP* **P** **03 59 16.6 +1.6**
PSBE IAmb IAmb 03 59 22.3
comp=Z,145nm,1.9s
PBDV Barranco-do-Ve 22.58 268 *eP* **P** **03 59 16.5 +1.1**
PBDV IAmb IAmb 03 59 45.3
comp=Z,94nm,1.8s
MESJ Messejana 22.60 270 *eP* **P** **03 59 15.0 -0.5**
MESJ IAmb IAmb 03 59 21.2
comp=Z,28nm,1.8s
MESJ *eS* **S** **04 03 24.2 +1.5**
MESJ Messejana 22.60 270 *eP* **P** **03 59 16.5 +1.0**
PLOUS Minas do Lousa 22.69 271 *eP* **P** **03 59 17.5 +1.0**
PLOUS IAmb IAmb 03 59 54.6
comp=Z,56nm,1.7s
TAM Tamanrasset 22.77 219 P **P** **03 59 17.3 -0.2**
TAM pmax pmax
comp=Z,41nm,1.0s
TAM Tamanrasset 22.77 219 **P** **03 59 17.3 -0.2**
TAM Tamanrasset 22.77 219 P **P** **03 59 18.2 +0.7**
comp=Z,457nmcomp=Z,27nm,1.1s
IDGL Inch Island, C 22.92 316 P **P** **03 59 20.0 +1.3**
BIGH Upper Bighouse 22.94 326 *eP* **P** **03 59 20.9 +2.1**
BIGH IAmb IAmb 03 59 28.7
comp=Z,24nm,0.8s
MORF Marmelete 23.10 269 *eP* **P** **03 59 22.8 +2.0**
PFVI Vila Bisbo 23.29 269 *eP* **P** **03 59 25.3 +2.6**
PFVI IAmb IAmb 04 00 19.4
comp=Z,100nm,1.6s
IGLA Glengowla, Co 23.35 311 P **P** **03 59 26.2 +3.1**
OUL Oulu 23.65 5 P **P** **03 59 24.3 -1.6**
comp=Z,63nm,1.2s
AVE Averroes 23.83 259 P **P** **03 59 29.1 +1.2**
AVE Averroes 23.83 259 P **P** **03 59 29.2 +1.2**
comp=Z,1μmcomp=Z,105nm,1.7s
SJUU Sjulsmark 23.90 1 *eP* **P** **03 59 28.3 -0.1**
KIRV Kirov 24.68 37 LR LR 04 10 18.7
comp=Z,2μm,18.5s,baz=240,slow=39
KIRV Kirov 24.68 37 *ceP* **P** **03 59 35.9 +0.4**
TIO Tiouine 24.93 254 P **P** **03 59 39.0 +0.7**
TIO Tiouine 24.93 254 P **P** **03 59 40.4 +2.1**
comp=Z,101nm,1.3s
LANU Lannavaara 26.46 1 *eP* **P** **03 59 51.6 0.0**
APA Apatity 26.86 11 *eP* **P** **03 59 52.3 -2.9**
APA *e* 04 00 36.3
APA *eS* **S** **04 04 22.5 -8.5**
APA pmax pmax
comp=Z,25nm,1.0s
APA MLR MLR
comp=Z,3μm,6.5s
AKTO Aktyubinsk 27.03 58 LR LR 04 12 29.5
comp=Z,657nm,19.7s,baz=236,slow=40
AKTO Aktyubinsk 27.03 58 P **P** **03 59 56.6 -0.3**
AKTO pmax pmax
comp=Z,30nm,1.3s
LVZ Lovozero 27.34 11 *i* P **P** **04 00 00.3 +0.7**
LVZ pmax pmax
comp=Z,60nm,1.3s
RAYN Ar Rayn 27.41 124 P **P** **04 00 00.2 -0.3**
RAYN S **S** **04 04 37.2 -3.3**
RAYN Ar Rayn 27.41 124 P **P** **04 00 00.3 -0.3**
RAYN pmax pmax
comp=Z,11nm,1.2s
RAYN Ar Rayn 27.41 124 **P** **04 00 00.2 -0.3**
ARCES ARCESS Array B 28.05 4 P **P** **04 00 05.0 -0.9**
comp=Z,4.6nm,0.7s,baz=189,slow=10,SNR=10
ARCES PcP **PcP** **04 03 18.2 -1.8**
comp=Z,1.4nm,0.6s,baz=210,slow=2.6,SNR=7.7
ARCES LR LR 04 10 30.2
comp=Z,373nm,21.6s,baz=188,slow=35
comp=Z,4.6nm,0.7s
AB31 Akbulak array 28.22 61 *i* P **P** **04 00 08.0 +0.4**
AB31 pmax pmax
comp=Z,9.0nm,0.7s
AB31 Akbulak array 28.22 61 **P** **04 00 06.9 -0.7**
ABKAR Akbulak array 28.22 61 **P** **04 00 07.3 -0.3**
ARTI Arti 28.28 46 LR LR 04 12 28.8
comp=Z,819nm,21.4s,baz=252,slow=39
ARTI Arti 28.28 46 *di* P **P** **04 00 08.3 +0.3**
ARTI 04 00 53.3
ARTI 04 03 19.6
ARTI S **S** **04 04 56.1 +2.5**
ARTI SS **SnSn** **04 06 12.8 +2.4**
ARTI pmax pmax
comp=Z,117nm,1.7s
ARTI MLR MLR
comp=Z,804nm,12.0s
ARTI Arti 28.28 46 **P** **04 00 07.8 -0.3**
SAKB Bahrain 29.04 113 P **P** **04 00 14.9 -0.2**
SVE Sverdlovsk 29.59 45 *ceP* **P** **04 00 20.9 +1.2**
SVE pmax pmax
comp=Z,86nm,1.6s
SVE MLR MLR
comp=Z,1μm,11.0s
JRN Qarnain Island 31.30 112 P **P** **04 00 35.4 +0.4**
JRN S **S** **04 05 39.5 -2.0**
MZWR Madinat Zayed 32.78 113 P **P** **04 00 46.9 -1.2**
JMIC Jan Mayen 32.89 343 LR LR 04 13 38.6
comp=Z,146nm,19.9s,baz=140,slow=35
UMQ Umm Al-Quwin 32.92 108 *i* P **P** **04 00 50.4 +1.1**
SNR=7.8
UMQ Umm Al-Quwin 32.92 108 P **P** **04 00 49.7 +0.4**
SNR=6.7
UMQ S **S** **04 06 03.8 -3.0**
TORD Torodi Ar. Bea 32.93 216 P **P** **04 00 49.5 +0.1**
comp=Z,21nm,1.0s,baz=28,slow=8.4,SNR=34
TORD PcP **PcP** **04 03 33.4 -0.2**
comp=Z,4.0nm,1.1s,baz=321,slow=1.8,SNR=3.6
comp=Z,21nm,1.0s
SHME Shamm 32.94 107 *i* P **P** **04 00 48.9 -0.6**
SNR=5.9
SHME Shamm 32.94 107 P **P** **04 00 48.5 -1.0**
SNR=8.0
MZR Muzera 33.01 114 P **P** **04 00 50.9 +0.8**
AJN Ajban 33.04 110 *i* P **P** **04 00 50.5 +0.2**
SNR=5.9
AJN Ajban 33.04 110 P **P** **04 00 50.9 +0.6**
SNR=5.6
AJN S **S** **04 06 05.0 -3.6**
BANOM Banah 33.13 107 *i* P **P** **04 00 51.0 -0.2**
SNR=6.1
BANOM Banah 33.13 107 P **P** **04 00 52.0 +0.8**
SNR=6.4
BORG Borgarnes 33.23 328 LR LR 04 15 57.4
comp=Z,494nm,19.4s,baz=121,slow=39
ASUD Al Ashush, Dub 33.24 110 P **P** **04 00 52.1 0.0**
NAZ Nazwa, Dubai 33.25 109 *i* P **P** **04 00 52.0 -0.2**
SNR=12
NAZ Nazwa, Dubai 33.25 109 P **P** **04 00 51.7 -0.4**
SNR=16
FAQ Al Faqa, Dubai 33.35 109 *i* P **P** **04 00 53.0 -0.1**
SNR=8.9
FAQ Al Faqa, Dubai 33.35 109 P **P** **04 00 53.0 -0.1**
SNR=12
MASF Masafi 33.37 108 P **P** **04 00 53.2 -0.1**
SNR=12
MASF S **S** **04 06 11.5 -2.3**
MSFE Esma-Masafi 33.37 108 *i* P **P** **04 00 52.5 -0.8**
SNR=6.6
MDH Madha 33.51 108 *i* P **P** **04 00 54.0 -0.4**
SNR=11
MDH Madha 33.51 108 P **P** **04 00 53.9 -0.6**
SNR=14
MDH S **S** **04 06 15.5 -0.5**
UOSS Minazif 33.66 108 *i* P **P** **04 00 55.1 -0.8**
SNR=7.4
UOSS Minazif 33.66 108 P **P** **04 00 54.4 -1.4**
UOSS S **S** **04 06 16.2 -2.1**
UOSS Minazif 33.66 108 **P** **04 00 54.2 -1.5**
UOSS IAmb IAmb 04 01 00.4
comp=Z,32nm,1.1s
UOSS Minazif 33.66 108 P **P** **04 00 55.0 -0.8**
comp=Z,452nmcomp=Z,34nm,1.3s
HATD Hatta, Dubai 33.68 109 *i* P **P** **04 00 55.1 -0.9**
SNR=11
HATD Hatta, Dubai 33.68 109 P **P** **04 00 55.5 -0.5**
SNR=16
HATD S **S** **04 06 16.4 -2.3**
ASHO Ashiyiah 33.72 109 *i* P **P** **04 00 55.3 -1.0**
SNR=22
ASHO Ashiyiah 33.72 109 P **P** **04 00 55.5 -0.9**
SNR=20
ALNE Al Ain 33.90 110 *i* P **P** **04 00 57.2 -0.6**
SNR=7.8
ALNE Al Ain 33.90 110 P **P** **04 00 57.7 -0.2**
SNR=22
JASK Jask - Hormozg 34.29 106 P **P** **04 01 02.6 +1.3**
SNR=7.1
UMZA Um Al Zommool 34.36 113 P **P** **04 01 01.6 -0.2**
SOHO SOHO 34.40 109 *i* P **P** **04 01 01.2 -1.0**
SNR=20
SOHO SOHO 34.40 109 P **P** **04 01 02.0 -0.2**
SNR=22
BORK Borovoye 34.75 54 *i* P **P** **04 01 06.3 +1.4**
BORK pmax pmax
comp=Z,84nm,0.9s
BORK Borovoye 34.75 54 **P** **04 01 05.5 +0.6**
BVAR Borovoye Array 34.79 54 P **P** **04 01 05.9 +0.6**
comp=Z,30nm,0.8s,baz=274,slow=6.7,SNR=105
comp=Z,30nm,0.8s
BVA2 Borovoye Array 34.79 54 P **P** **04 01 06.3 +1.0**
BVA2 pmax pmax
comp=Z,38nm,0.9s
ARQ Araqi 34.90 110 P **P** **04 01 06.8 +0.3**
SNR=10.0
HOQ Hoqain 35.30 109 P **P** **04 01 10.1 +0.1**
SNR=10
ATD Arta Tunnel 35.67 141 P **P** **04 01 13.6 +0.3**
ATD IAmb IAmb 04 01 20.3
comp=Z,29nm,1.2s
ATD Arta Tunnel 35.67 141 P **P** **04 01 15.3 +2.1**
comp=Z,24nm,1.2s
BSY Bisya 35.76 110 P **P** **04 01 12.9 -1.0**
SNR=6.3
BRLS Borolday 35.85 71 *c i* P **P** **04 01 16.0 +1.5**
BRLS Borolday 35.85 71 *i* P **P** **04 01 16.1 +1.5**
CHM Chimkent 35.87 72 *eP* **P** **04 01 16.6 +1.9**
CHM Chimkent 35.87 72 *eP* **P** **04 01 16.6 +1.9**
BIDO Bidbid 35.92 108 P **P** **04 01 15.8 +0.5**
SMDO Samad 36.15 109 P **P** **04 01 17.0 -0.5**
SNR=12
IUG Iuzhnay 36.22 72 *c i* P **P** **04 01 19.5 +1.7**
IUG pmax pmax
comp=Z,17nm,0.8s
IUG Iuzhnay 36.22 72 *i* P **P** **04 01 19.6 +1.7**
comp=Z,17nm,0.8s
KK31 Karatay Array 36.30 71 *i* P **P** **04 01 19.2 +0.7**
KK31 pmax pmax
comp=Z,8.0nm,0.8s
KK31 Karatay Array 36.30 71 IAmb IAmb 04 01 21.7
comp=Z,66nm,1.9s
KKAR Karatay Array 36.30 71 P **P** **04 01 18.1 -0.3**
KKAR Karatay Array 36.30 71 **P** **04 01 18.1 -0.3**
WSAR Wadi Sarin 36.45 108 P **P** **04 01 20.1 +0.2**
SNR=5.7
DOK Doka 36.48 119 P **P** **04 01 19.4 -0.8**
JMDO Jabal Madar 36.63 110 P **P** **04 01 20.4 -1.1**
SNR=8.9
SPITS Spitsbergen Ar 36.68 358 P **P** **04 01 21.8 +0.5**
comp=Z,8.0nm,1.0s,baz=134,slow=12,SNR=4.3
SPITS LR LR 04 17 15.0
comp=Z,544nm,20.1s,baz=166,slow=38
comp=Z,8.0nm,1.0s
WHFO Wadi Hawf 36.76 120 P **P** **04 01 23.4 +0.9**
DZA Taraz 36.94 71 *eP* **P** **04 01 25.6 +1.8**
DZA Taraz 36.94 71 *eP* **P** **04 01 25.7 +1.8**
WBK Wadi Bani Khal 37.09 109 P **P** **04 01 25.0 -0.4**
SNR=6.6
MHTO MHTO 37.45 112 P **P** **04 01 29.0 +0.7**
SNR=9.1
DMTO DMTO 37.67 119 P **P** **04 01 30.0 -0.3**
JLN Jalan Bani Buh 37.70 109 P **P** **04 01 29.9 -0.6**
SNR=7.5
SHAO Shalim 37.90 118 P **P** **04 01 32.6 +0.4**
ARSB Arslanbob 38.58 73 IAmb IAmb 04 01 45.5
comp=Z,38nm,1.0s
DAG Danmarks Havn 38.96 347 P **P** **04 01 40.0 -0.4**
comp=Z,12nm,1.0s
DAG Danmarks Havn 38.96 347 *i* P **P** **04 01 40.2 -0.2**
DAG IAmb IAmb 04 01 46.2
comp=Z,11nm,1.0s
AAK Ala-Archa 39.24 70 LR LR 04 20 37.7
comp=Z,344nm,18.2s,baz=300,slow=40
AAK Ala-Archa 39.24 70 *i* P **P** **04 01 46.0 +2.5**
SNR=15
AAK Ala-Archa 39.24 70 P **P** **04 01 46.2 +2.7**
AAK Ala-Archa 39.24 70 *ceP* **P** **04 01 45.0 +1.5**
AAK pmax pmax
comp=Z,45nm,1.7s
AAK Ala-Archa 39.24 70 **P** **04 01 43.1 -0.4**
AAK IAmb IAmb 04 01 53.2
comp=Z,103nm,1.7s
AAK Ala-Archa 39.24 70 P **P** **04 01 44.7 +1.2**
comp=Z,675nmcomp=Z,22nm,1.6s
KURBB Kurchatov Arra 40.05 57 P **P** **04 01 50.6 +0.7**
comp=Z,10.0nm,0.9s,baz=283,slow=9.0,SNR=70
KURBB PP **PnPn** **04 03 26.8 +1.5**
comp=Z,3.0nm,0.6s,baz=284,slow=11,SNR=6.6
KURBB LR LR 04 22 14.5
comp=Z,489nm,18.9s,baz=184,slow=42
comp=Z,10.0nm,0.9s
KURBB Kurchatov Arra 40.05 57 P **P** **04 01 49.9 0.0**
KURBB pmax pmax
comp=Z,34nm,1.0s
KURK Kurchatov 40.09 57 P **P** **04 01 52.0 +1.7**
KURK Kurchatov 40.09 57 *ceP* **P** **04 01 51.4 +1.2**
KURK pmax pmax
comp=Z,75nm,1.7s
KURK Kurchatov 40.09 57 **P** **04 01 50.4 +0.2**
KURK Kurchatov 40.09 57 P **P** **04 01 51.1 +0.9**
comp=Z,49nm,1.5s
LODK Lodwar 40.24 157 P **P** **04 01 52.8 +1.0**
SNR=8.3
LODK Lodwar 40.24 157 **P** **04 01 51.5 -0.3**
LODK Lodwar 40.24 157 P **P** **04 01 52.1 +0.3**
comp=Z,15nm,1.3s
AAA Alma-Ata 40.77 68 *eP* **P** **04 01 57.8 +1.8**
AAA pmax pmax
comp=Z,44nm,1.0s
AAA Alma-Ata 40.77 68 *eP* **P** **04 01 57.8 +1.8**
comp=Z,44nm,1.0s
TNSS Tian-Shan 40.84 69 *eP* **P** **04 01 58.3 +1.3**
TNSS Tian-Shan 40.84 69 *eP* **P** **04 01 58.3 +1.3**

MDOK **Medeo** 40.88 68 *e*P P 04 01 58.5 +1.5
MDOK **Medeo** 40.88 68 *e*P P 04 01 58.6 +1.5
SEM **Semipalatinsk** 41.17 57 *e*P P 04 02 00.9 +1.5
SEM pmax pmax
comp=Z,47nm,1.5s
SEM **Semipalatinsk** 41.17 57 *e*P P 04 02 00.9 +1.5
comp=Z,47nm,1.5s
KSH2 **Kashi** 41.18 75 P P 04 01 59.9 +0.4
KSH2 sP sP 04 02 05.1 -0.9
KSH2 pmax pmax
comp=Z,8.0nm,1.7s
KSH2 pmax pmax
comp=Z,270nm,5.9s
KSH2 L L
comp=Z,440nm,14.4s
KSH2 L L
comp=Z,480nm,13.7s
KSH2 L L
comp=Z,450nm,14.1s
ASAI **AK-SAY(Kyrgyzs** 41.23 72 P P 04 02 01.4 +1.2
comp=Z,12nm,1.3s
TDK **Taldyqorghan** 41.27 65 *e*P P 04 02 01.7 +1.7
TDK pmax pmax
comp=Z,10.0nm,0.6s
TDK **Taldyqorghan** 41.27 65 *e*P P 04 02 01.8 +1.7
comp=Z,10nm,0.6s
KDJ **Kajisay** 41.29 70 P P 04 02 03.0 +2.5
comp=Z,508nmcomp=Z,18nm,1.2s
DBIC **Dimbokro** 41.65 220 P P 04 02 04.0 +0.6
comp=Z,4.5nm,0.4s,baz=30,slow=9.0,SNR=14
DBIC LR LR 04 20 20.6
comp=Z,295nm,18.4s,baz=30,slow=38
comp=Z,4.5nm,0.4s
DBIC **Dimbokro** 41.65 220 P P 04 02 03.3 0.0
DBIC pmax pmax
comp=Z,22nm,0.9s
DBIC **Dimbokro** 41.65 220 P 04 02 03.3 0.0
DBIC **Dimbokro** 41.65 220 P P 04 02 03.7 +0.4
comp=Z,28nm,0.9s
NIL **Nilore** 41.73 83 P P 04 02 03.0 -1.0
NIL pmax pmax
comp=Z,51nm,1.5s
NIL **Nilore** 41.73 83 P 04 02 03.0 -1.0
NIL IAmb IAmb 04 02 11.1
comp=Z,51nm,1.4s
NIL **Nilore** 41.73 83 P P 04 02 04.0 0.0
comp=Z,21nm,1.2s
SATY **Saty** 41.85 68 *e*P P 04 02 06.6 +1.6
SATY pmax pmax
comp=Z,29nm,1.2s
SATY **Saty** 41.85 68 *e*P P 04 02 06.6 +1.6
comp=Z,29nm,1.2s
TARG **Taragay, Kyrgy** 41.87 70 P P 04 02 07.7 +2.2
comp=Z,25nm,1.6s
KPKS **Kokpek** 41.92 67 *e*P P 04 02 07.2 +1.7
KPKS **Kokpek** 41.92 67 *e*P P 04 02 07.2 +1.7
NOR **Nord** 42.07 352 P P 04 02 06.0 -0.1
comp=Z,15nm,0.9s
NOR **Nord** 42.07 352 *i*P P 04 02 06.1 -0.1
NOR IAmb IAmb 04 02 11.4
comp=Z,11nm,0.8s
UZB **Uzynbulak** 42.25 68 *e*P P 04 02 09.5 +1.3
UZB **Uzynbulak** 42.25 68 *e*P P 04 02 09.6 +1.3
PDGK **Podgornoye** 42.52 67 P P 04 02 10.6 +0.2
PDGK pmax pmax
comp=Z,70nm,1.2s
SHLS **Shalkode** 42.55 68 *e*P P 04 02 14.7 +4.0
SHLS pmax pmax
comp=Z,25nm,1.0s
SHLS **Shalkode** 42.55 68 *e*P P 04 02 14.8 +4.0
comp=Z,25nm,1.0s
MBAR **Mbarara** 43.01 165 LR LR 04 21 08.8
comp=Z,294nm,21.8s,baz=354,slow=37
MBAR **Mbarara** 43.01 165 *i*P P 04 02 14.8 +0.2
MBAR pmax pmax
comp=Z,21nm,1.8s
WUS **Wushi** 43.05 70 P P 04 02 15.7 +0.9
comp=Z,393nmcomp=Z,21nm,1.8s
ZAA0 **Zalesovo Array** 43.26 51 IAmb IAmb 04 02 22.6
comp=Z,46nm,0.8s
ZALV **Zalesovo Beam** 43.26 51 P P 04 02 16.5 +0.4
comp=Z,24nm,0.6s,baz=280,slow=8.5,SNR=102
ZALV LR LR 04 22 35.4
comp=Z,693nm,18.4s,baz=268,slow=39
comp=Z,24nm,0.6s
ZALV **Zalesovo Beam** 43.26 51 *i*P P 04 02 16.8 +0.7
ZALV pmax pmax
comp=Z,24nm,0.6s
ZALV **Zalesovo Beam** 43.26 51 P 04 02 16.0 -0.1
MK31 **Makanchi Array** 43.36 62*ce*P P 04 02 18.4 +1.3
MKAR **Makanchi Array** 43.36 62 P P 04 02 18.0 +0.9
comp=Z,9.6nm,0.7s,baz=284,slow=6.7,SNR=44
MKAR LR LR 04 23 04.5
comp=Z,642nm,19.0s,baz=274,slow=40
comp=Z,9.6nm,0.7s
MKAR **Makanchi Array** 43.36 62*ce*P P 04 02 18.0 +0.9
MKAR pmax pmax
comp=Z,10.0nm,0.7s
MKAR **Makanchi Array** 43.36 62 P 04 02 16.8 -0.3
NRIK **Noril'sk** 43.61 28 P P 04 02 19.1 +0.4
comp=Z,8.3nm,0.9s,baz=271,slow=7.3,SNR=6.1
comp=Z,8.3nm,0.9s
NRIK **Noril'sk** 43.61 28 *i*P P 04 02 19.8 +1.1
NRIK pmax pmax
comp=Z,28nm,1.5s
NRIK **Noril'sk** 43.61 28 P 04 02 19.1 +0.4
ZSN **Zaisan** 44.86 60 *e*P P 04 02 30.8 +1.8
ZSN pmax pmax
comp=Z,22nm,1.1s
ZSN **Zaisan** 44.86 60 *e*P P 04 02 30.8 +1.8
comp=Z,22nm,1.1s
KMBO **Kilima Mbogo** 45.11 156 LR LR 04 22 45.1
comp=Z,326nm,18.4s,baz=310,slow=38
KMBO **Kilima Mbogo** 45.11 156 *i*P P 04 02 29.9 -1.7
SFJD **Kangerlussuaq** 45.36 328 LR LR 04 23 01.7
comp=Z,233nm,18.3s,baz=89,slow=38
NEEM **North Greenlan** 45.81 343 *i*P P 04 02 36.5 0.0
NEEM IAmb IAmb 04 02 42.8
comp=Z,10nm,0.8s
KIBK **Kibwezi** 46.50 156 P P 04 02 40.6 -1.8
KIBK **Kibwezi** 46.50 156 P P 04 02 43.1 +0.7
KIBK **Kibwezi** 46.50 156 P 04 02 42.4 0.0
KIBK **Kibwezi** 46.50 156 P P 04 02 43.5 +1.1
comp=Z,12nm,1.5s
WMQ **Urumqi** 47.94 64 *e*P P 04 02 55.8 +2.4
WMQ PcP PcP 04 04 22.3 +0.7
WMQ PP PP 04 04 47.8 +2.6
WMQ pmax pmax
comp=Z,23nm,1.3s
WMQ pmax pmax
comp=Z,210nm,3.6s
WMQ L L
comp=Z,500nm,19.3s
WMQ L L
comp=Z,340nm,19.3s
WMQ L L
comp=Z,240nm,19.3s
KNGR **Kungurtug, Tuv** 51.67 52 *i*P P 04 03 21.6 -0.1
KNGR pmax pmax
comp=Z,40nm,1.8s
FRB **Frobisher Bay** 53.36 326 LR LR 04 27 21.0
comp=Z,323nm,18.7s,baz=96,slow=37
EVN **Everest** 54.66 82 P 04 03 43.6 -1.1
EVN **Everest** 54.66 82 P P 04 03 44.1 -0.5
comp=Z,8.3nm,0.9s
TLY **Talaya** 54.80 49 P P 04 03 45.3 +0.7
comp=Z,4.4nm,0.8s,baz=297,slow=4.2,SNR=8.6
comp=Z,4.4nm,0.8s
TLY **Talaya** 54.80 49*ce*P P 04 03 47.2 +2.6
TLY pmax pmax
comp=Z,15nm,1.3s
TLY **Talaya** 54.80 49 P 04 03 45.2 +0.6
TLY **Talaya** 54.80 49 P P 04 03 45.5 +0.9
comp=Z,12nm,1.1s
ZAK **Zakamensk** 55.14 51 *e*P P 04 03 47.8 +0.6
ZAK pmax pmax
comp=Z,11nm,1.5s
SCHQ **Schefferville** 56.09 316 P P 04 03 53.3 -0.6
comp=Z,11nm,1.0s,baz=74,slow=4.4,SNR=4.3
SCHQ LR LR 04 27 02.0
comp=Z,280nm,19.8s,baz=68,slow=35
comp=Z,11nm,1.0s
SCHQ **Schefferville** 56.09 316 P P 04 03 53.7 -0.2
GOMU **GeErMu** 56.19 69 P P 04 03 56.3 +1.1
GOMU pP pP 04 04 00.1 +0.2
GOMU sP sP 04 04 03.9 +2.1
GOMU S S 04 11 40.4 -4.1
GOMU pmax pmax
comp=Z,2.0nm,0.3s
GOMU L L
comp=Z,260nm,13.7s
GOMU L L
comp=Z,130nm,13.6s
GOMU L L
comp=Z,350nm,13.5s
TIXI **Tiksi** 56.32 21 LR LR 04 31 20.4
comp=Z,936nm,18.1s,baz=338,slow=40
TIXI **Tiksi** 56.32 21 *i*P P 04 03 55.2 +0.1
TIXI pmax pmax
comp=Z,8.0nm,1.0s
TIXI **Tiksi** 56.32 21 P 04 03 55.3 +0.1
TIXI **Tiksi** 56.32 21 P P 04 03 53.8 -1.4
comp=Z,7.0nm,1.3s
RES **Resolute Bay** 56.50 343 LR LR 04 28 26.8
comp=Z,221nm,19.6s,baz=56,slow=36
GTA2 **Gaotai** 57.95 64 *e*P P 04 04 07.3 -0.1
GTA2 pP pP 04 04 12.3 +0.2
GTA2 pmax pmax
comp=Z,4.0nm,1.0s
GTA2 L L
comp=Z,420nm,14.9s
GTA2 L L
comp=Z,420nm,16.5s
GTA2 L L
comp=Z,350nm,18.7s
SONM **Songino Array** 58.11 52 P P 04 04 08.3 -0.1
comp=Z,12nm,1.0s,baz=282,slow=7.1,SNR=54
SONM LR LR 04 30 33.4
comp=Z,413nm,18.8s,baz=312,slow=38
comp=Z,12nm,1.0s
SONM **Songino Array** 58.11 52 P P 04 04 08.2 -0.2
SONM pmax pmax
comp=Z,19nm,1.1s
SONM **Songino Array** 58.11 52 P 04 04 08.2 -0.2
SONM IAmb IAmb 04 04 14.9
comp=Z,19nm,1.1s
ULN **Ulaanbaatar** 58.49 52*ce*P P 04 04 12.2 +1.1
ULN pmax pmax
comp=Z,17nm,1.3s
ULN **Ulaanbaatar** 58.49 52 P 04 04 10.8 -0.2
ULN IAmb IAmb 04 04 13.1
comp=Z,20nm,1.3s
ULN **Ulaanbaatar** 58.49 52 P P 04 04 12.1 +1.1
ULN **Ulaanbaatar** 58.49 52 P P 04 04 12.1 +1.1
comp=Z,13nm,1.2s
BATG **Bathurst New B** 59.16 308 P 04 04 15.2 -0.3
TSUM **Tsumeb** 60.62 184 LR LR 04 33 38.9
comp=Z,354nm,19.1s,baz=1.5,slow=39
YAK **Yakutsk** 61.98 30 LR LR 04 34 33.9
comp=Z,507nm,19.8s,baz=302,slow=39
YAK **Yakutsk** 61.98 30 *i*P P 04 04 34.9 +0.4
YAK pmax pmax
comp=Z,11nm,0.6s
LZH **Lanzhou** 62.48 65 *e*P P 04 04 39.2 +0.7
LZH pP pP 04 04 43.7 +0.5
LZH pmax pmax
comp=Z,12nm,1.2s
LZH L L
comp=Z,420nm,14.1s
LZH L L
comp=Z,400nm,13.7s
LZH L L
comp=Z,420nm,13.7s
GRTLG **Ghanzi** 62.70 180 P 04 04 39.1 -0.8
GRTLG IAmb IAmb 04 04 44.4
comp=Z,15nm,0.9s
PALK **Pallekele** 62.85 105 LR LR 04 34 10.0
comp=Z,184nm,20.2s,baz=312,slow=38
PALK **Pallekele** 62.85 105 P P 04 04 39.9 -1.2
PALK pmax pmax
comp=Z,72nm,1.5s
PALK **Pallekele** 62.85 105 P P 04 04 39.9 -1.2
PALK **Pallekele** 62.85 105 P P 04 04 39.3 -1.8
PALK **Pallekele** 62.85 105 P P 04 04 39.9 -1.2
comp=Z,36nm,2.7s
BTO2 **Baotou** 63.91 58 *e*P P 04 04 48.0 +0.1
BTO2 pP pP 04 04 52.8 +0.2
BTO2 PP PP 04 07 14.6 +6.6
BTO2 S S 04 13 25.4 +2.3
BTO2 pmax pmax
comp=Z,27nm,1.1s
BTO2 pmax pmax
comp=Z,430nm,5.1s
BTO2 L L
comp=Z,1μm,14.7s
BTO2 L L
comp=Z,920nm,13.3s
BTO2 L L
comp=Z,610nm,15.2s
A36M **Sachs Harbour** 64.16 349 IAmb IAmb 04 05 03.0
comp=Z,31nm,1.4s
KOOLE **Kule** 64.32 181 P P 04 04 50.1 -0.5
OPO **Ambohidratompo** 64.70 152 LR LR 04 35 23.1
comp=Z,56nm,19.9s,baz=267,slow=38
HILR **Hailar Array B** 64.74 45 LR LR 04 36 29.5
comp=Z,180nm,19.1s,baz=85,slow=39
HHC **Hu-ho-hao-te** 64.91 57 *e*P P 04 04 55.0 +0.6
HHC pP pP 04 04 59.7 +0.6
HHC pmax pmax
comp=Z,18nm,1.2s
HHC pmax pmax
comp=Z,91nm,3.7s
HHC L L
comp=Z,470nm,17.7s
HHC L L
comp=Z,490nm,17.7s
HHC L L
comp=Z,220nm,12.6s
LKGWB **Lokgwabe** 65.44 180 P P 04 04 57.1 -0.7
XLT **XiLinHaoTe** 65.93 52 *e*P P 04 05 02.0 +1.1
XLT pP pP 04 05 05.9 +0.2
XLT pmax pmax
comp=Z,19nm,1.0s
XLT L L
comp=Z,350nm,11.7s
XLT L L
comp=Z,340nm,14.8s
C36M **Paulatuk** 66.32 347 IAmb IAmb 04 05 16.6
comp=Z,23nm,1.2s
LBTB **Lobatse** 66.48 175 LR LR 04 36 31.3
comp=Z,215nm,18.3s,baz=350,slow=38
LBTB **Lobatse** 66.48 175 P P 04 05 05.8 +1.4
comp=Z,15nm,1.5s
PHPEN **Phepeng** 66.82 178 IAmb IAmb 04 05 11.2
comp=Z,24nm,1.0s
XAN **Xi'an** 67.07 64 P P 04 05 08.3 0.0
XAN pmax pmax
comp=Z,19nm,1.2s
XAN L L
comp=Z,660nm,19.1s
XAN L L
comp=Z,550nm,17.7s
XAN L L
comp=Z,580nm,22.3s
L59A **Walton** 67.28 307 IAmb IAmb 04 05 19.0
comp=Z,20nm,1.0s
BILL **Bilibino** 67.58 13 *i*P P 04 05 10.4 -0.5
BILL pmax pmax
comp=Z,20nm,1.5s
SADO **Sadowa** 68.14 311 LR LR 04 33 49.8
comp=Z,253nm,19.5s,baz=54,slow=35
C26K **Camden Bay** 68.25 355 IAmb IAmb 04 05 30.5
comp=Z,20nm,1.2s
BJT **Baijiatuan** 68.26 55 P P 04 05 16.0 +0.3
comp=Z,11nm,0.9s
BJI2 **Beijing** 68.26 55 P P 04 05 15.9 +0.3
BJI2 pP pP 04 05 20.5 +0.1
BJI2 sP sP 04 05 22.9 +0.8
BJI2 S S 04 14 14.2 -1.6
BJI2 pmax pmax
comp=Z,9.0nm,1.5s
BJI2 pmax pmax
comp=Z,73nm,5.5s
BJI2 L L
comp=Z,530nm,15.4s
BJI2 L L
comp=Z,380nm,14.0s
BJI2 L L
comp=Z,490nm,15.3s
HEH **HeiHe** 68.26 41 *e*P P 04 05 15.5 0.0
HEH pmax pmax
comp=Z,14nm,1.1s
HEH L L
comp=Z,760nm,15.4s
HEH L L
comp=Z,490nm,15.4s
HEH L L
comp=Z,1μm,13.6s
C27K **Jago River** 68.45 354 IAmb IAmb 04 05 30.4
comp=Z,11nm,0.9s
INK **Inuvik** 68.68 350 LR LR 04 40 06.1
comp=Z,56nm,18.1s,baz=6.0,slow=40
SEY **Seymchan** 68.82 22 LR LR 04 39 15.5
comp=Z,347nm,18.2s,baz=328,slow=39
SEY **Seymchan** 68.82 22 *i*P P 04 05 18.9 +0.2
SEY pmax pmax
comp=Z,19nm,1.4s
HNS **HongShan** 68.90 58 ⇑P P 04 05 20.0 +0.3
HNS SS SS 04 18 57.7 +10
HNS pmax pmax
comp=Z,12nm,1.3s
HNS L L
comp=Z,610nm,17.8s
HNS L L
comp=Z,490nm,17.1s
HNS L L
comp=Z,330nm,12.2s
CHTO **Chiang Mai** 69.00 83 P P 04 05 19.1 -1.5
CHTO pmax pmax
comp=Z,19nm,1.3s
CHTO **Chiang Mai** 69.00 83 P P 04 05 19.1 -1.5
CHTO IAmb IAmb 04 05 23.8
comp=Z,19nm,1.3s
CHTO **Chiang Mai** 69.00 83 P P 04 05 18.7 -1.9
CHTO **Chiang Mai** 69.00 83 P P 04 05 19.4 -1.2
comp=Z,12nm,1.4s
M57A **Sunshine Farm,** 69.04 307 IAmb IAmb 04 05 33.5
comp=Z,15nm,1.0s
E28M **Babbage River** 69.08 352 IAmb IAmb 04 05 34.9
comp=Z,35nm,1.7s
N58A **Sunbury** 69.10 306 P P 04 05 19.9 -0.9
LYN **LuoYang** 69.14 62 *e*P P 04 05 21.6 +0.3
LYN L L
comp=Z,500nm,11.5s
LYN L L
comp=Z,540nm,8.7s
LYN L L
comp=Z,480nm,13.9s
CMAR **Chiang Mai Arr** 69.22 83 P P 04 05 19.8 -2.2
comp=Z,1.2nm,0.3s,baz=306,slow=7.9,SNR=8.5
comp=Z,1.2nm,0.3s
CMAR **Chiang Mai Arr** 69.22 83 P P 04 05 20.6 -1.4
CMAR **Chiang Mai Arr** 69.22 83 P P 04 05 20.6 -1.4
E27K **Coleen River** 69.69 353 IAmb IAmb 04 05 38.6
comp=Z,21nm,1.3s
SSPA **Standing Stone** 69.93 307 P P 04 05 25.1 -0.9
SSPA **Standing Stone** 69.93 307 P P 04 05 27.6 +1.6
comp=Z,15nm,1.6s
RCBR **Riachuelo** 69.98 242 LR LR 04 35 41.2
comp=Z,23nm,21.4s,baz=38,slow=36
BOSA **Boshof** 70.04 176 P P 04 05 26.8 +0.1
comp=Z,7.3nm,1.0s,baz=350,slow=4.7,SNR=5.5
BOSA LR LR 04 39 19.5
comp=Z,156nm,18.7s,baz=3.5,slow=39
comp=Z,7.3nm,1.0s
F28M **Old Crow** 70.08 352 IAmb IAmb 04 05 41.6
comp=Z,38nm,1.9s
YKA **Yellowknife Ar** 70.21 340 P P 04 05 26.3 -1.0
comp=Z,4.4nm,0.9s,baz=33,slow=6.0,SNR=9.0
YKA LR LR 04 35 21.5
comp=Z,160nm,21.4s,baz=48,slow=35
comp=Z,4.4nm,0.9s
YKA **Yellowknife Ar** 70.21 340*ce*P P 04 05 27.1 -0.2
YKA pmax pmax
comp=Z,8.0nm,0.9s
YKA **Yellowknife Ar** 70.21 340 P P 04 05 27.2 -0.1
G30M **tAoh Zraii Nji** 70.28 351 IAmb IAmb 04 05 40.7
comp=Z,17nm,1.4s
E23K **Chandalar** 70.37 356 IAmb IAmb 04 05 55.1
comp=Z,36nm,1.6s
PAOC **Oil Creek Stat** 70.45 308 IAmb IAmb 04 05 42.3
comp=Z,22nm,1.0s
G29M **Pine Creek** 70.56 351 IAmb IAmb 04 05 42.7
comp=Z,23nm,1.1s
F25K **Christian Rive** 70.59 355 IAmb IAmb 04 05 57.1
comp=Z,22nm,1.4s
F24K **Squaw Lake** 70.82 355 IAmb IAmb 04 06 16.6
comp=Z,27nm,1.6s
EPYK **Eagle Plains** 70.92 351 IAmb IAmb 04 05 44.5
comp=Z,37nm,1.6s
MA2 **Magadan** 71.03 24 LR LR 04 41 49.1
comp=Z,260nm,18.1s,slow=40
KLR **Kul'dur** 71.06 40 P P 04 05 32.3 -0.5
comp=Z,4.5nm,0.9s,baz=319,slow=5.8,SNR=7.1
KLR LR LR 04 39 34.6
comp=Z,473nm,18.1s,slow=38
comp=Z,4.5nm,0.9s
KLR **Kul'dur** 71.06 40*ce*P P 04 05 33.5 +0.7
KLR pmax pmax
comp=Z,22nm,1.7s
TIA **Tai'an** 71.16 58 P P 04 05 33.3 -0.3
TIA pmax pmax
comp=Z,9.0nm,1.0s
BNX **BinXian** 71.16 45 ⇑P P 04 05 33.5 0.0
BNX pmax pmax
comp=Z,12nm,1.4s
E19K **Redstone River** 71.21 359 IAmb IAmb 04 05 40.4
comp=Z,13nm,0.8s
H29M **Whitestone** 71.26 351 IAmb IAmb 04 05 58.2
comp=Z,39nm,1.7s
CN2 **Changchun** 71.36 48 P P 04 05 35.4 +0.7
CN2 pmax pmax
comp=Z,10.0nm,0.7s
F21K **Alatna River** 71.36 358 IAmb IAmb 04 05 48.6
comp=Z,15nm,1.0s
N53A **Lisbon** 71.57 308 IAmb IAmb 04 06 02.4
comp=Z,39nm,1.4s
FYU **Fort Yukon** 71.58 354 IAmb IAmb 04 05 50.9
comp=Z,33nm,1.2s
H27K **Steamboat Moun** 71.59 353 IAmb IAmb 04 05 50.6
comp=Z,26nm,1.4s
I29M **Ogilvie Camp,** 72.08 351 IAmb IAmb 04 05 52.6
comp=Z,33nm,1.5s
I28M **Miner Creek** 72.18 352 IAmb IAmb 04 05 53.4
comp=Z,29nm,1.6s
I27K **Kandik River** 72.21 352 IAmb IAmb 04 05 45.8
comp=Z,14nm,1.1s
DL2 **Dalian** 72.27 54 P P 04 05 33.2 -7.0
DL2 S S 04 14 52.9 -10
DL2 pmax pmax
comp=Z,30nm,1.0s
DL2 pmax pmax
comp=Z,270nm,4.4s
DL2 LR LR
comp=N,580nm,14.7s
DL2 LR LR
comp=E,710nm,14.7s
DL2 LR LR
comp=Z,890nm,16.7s
EPLO **Experimental L** 72.47 322 IAmb IAmb 04 05 48.0
comp=Z,24nm,1.2s
H23K **Yukon River** 72.59 356 IAmb IAmb 04 06 09.8
comp=Z,16nm,1.2s
IMAR **Indian Mountai** 72.61 358 P P 04 05 41.5 -0.3
H22K **Ishtalitna Cre** 72.61 357 IAmb IAmb 04 05 57.3
comp=Z,22nm,1.2s
I26K **Coal Creek Min** 72.64 353 IAmb IAmb 04 05 56.8
comp=Z,21nm,1.5s
NBPS **Pedro II - PI** 72.70 248 *e*P P 04 05 42.6 -0.6
WHN **Wuhan** 72.84 64 P P 04 05 49.6 +5.8
ULM **Lac du Bonnet** 73.05 323 P P 04 05 44.8 +0.2
comp=Z,9.5nm,0.8s,baz=38,slow=6.4,SNR=8.1
ULM LR LR 04 39 09.7
comp=Z,262nm,18.4s,baz=40,slow=37
comp=Z,9.5nm,0.8s
ULM **Lac du Bonnet** 73.05 323 *i*P P 04 05 43.6 -1.1
ULM **Lac du Bonnet** 73.05 323 IAmb IAmb 04 05 45.4
comp=Z,19nm,1.1s
POKR **Poker Plat Res** 73.17 355 IAmb IAmb 04 05 57.5
comp=Z,22nm,1.4s
COLA **College** 73.44 355 *i*P P 04 05 44.4 -2.3
COLA pmax pmax
comp=Z,14nm,1.2s
K29M **Barlow Dome** 73.45 350 IAmb IAmb 04 06 01.7
comp=Z,30nm,1.8s
DAWY **Dawson** 73.46 351 IAmb IAmb 04 06 01.3
comp=Z,24nm,1.3s
IL31 **Inuvik** 73.47 355 IAmb IAmb 04 05 55.0
comp=Z,27nm,1.9s

ILAR	**Eielson Array**	**73.47**	**355**	P	**P**	**04 05 46.5**	**-0.4**
	comp=Z,1.1nm,0.7s,baz=0.4,slow=4.3,SNR=23						
ILAR				LR	LR	04 40 05.9	
	comp=Z,105nm,19.5s,baz=338,slow=37						
	comp=Z,1.1nm,0.7s						
SUR	**Sutherland**	**73.67**	**180**	LR	LR	04 40 15.2	
	comp=Z,232nm,18.4s,baz=1.0,slow=37						
K27K	**Chicken**	**73.79**	**352**	lAmb	lAmb	04 06 00.8	
	comp=Z,22nm,1.2s						
HDA	**Harding Lake**	**73.84**	**355**	lAmb	lAmb	04 06 02.8	
	comp=Z,15nm,1.1s						
SCRK	**Sand Creek**	**74.02**	**353**	lAmb	lAmb	04 06 05.8	
	comp=Z,28nm,1.7s						
Q51A	**Peebles**	**74.19**	**308**	lAmb	lAmb	04 06 04.0	
	comp=Z,29nm,1.2s						
MDP	**Montagnes des**	**74.28**	**263**	LR	LR	04 34 56.9	
	comp=Z,114nm,20.1s,baz=88,slow=33						
USA0B	**Ussuriysk Arra**	**74.61**	**44**	*i* P	**P**	**04 05 55.7**	**+1.8**
USRK	**Ussuriysk Ar.**	**74.61**	**44**	P	**P**	**04 05 53.3**	**-0.6**
	comp=Z,1.4nm,0.6s,baz=261,slow=7.3,SNR=5.7						
	comp=Z,1.4nm,0.6s						
USRK	**Ussuriysk Ar.**	**74.61**	**44**	P	**P**	**04 05 53.2**	**-0.7**
USRK	**Ussuriysk Ar.**	**74.61**	**44**		**P**	**04 05 53.2**	**-0.7**
MCK	**McKinley**	**74.64**	**355**	P	**P**	**04 05 53.8**	**0.0**
MCK				pmax	pmax		
	comp=Z,77nm,1.8s						
MCK	**McKinley**	**74.64**	**355**		**P**	**04 05 53.8**	**0.0**
BCAR	**Beaver Creek A**	**74.70**	**352**		**P**	**04 05 54.2**	**0.0**
NJ2	**Nanjing**	**74.89**	**61**	*e*P	**P**	**04 05 57.5**	**+1.8**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
M29M	**Somme Creek**	**74.92**	**350**	lAmb	lAmb	04 06 03.1	
	comp=Z,13nm,0.8s						
DHY	**Denali Highway**	**75.19**	**354**	P	**P**	**04 05 57.0**	**-0.2**
DHY				lAmb	lAmb	04 06 04.8	
	comp=Z,53nm,1.7s						
M26K	**Nabesna, AK**	**75.48**	**352**	lAmb	lAmb	04 06 19.6	
	comp=Z,21nm,1.4s						
BLO	**Bloomington**	**75.94**	**310**	lAmb	lAmb	04 06 08.5	
	comp=Z,24nm,1.0s						
SJG	**San Juan**	**75.98**	**282**	LR	LR	04 34 16.9	
	comp=Z,130nm,21.9s,baz=76,slow=32						
HYT	**Haines Junctio**	**76.35**	**349**	lAmb	lAmb	04 06 09.7	
	comp=Z,20nm,1.4s						
WCI	**Wyandotte Cave**	**76.44**	**309**	P	**P**	**04 06 05.4**	**+0.8**
	comp=Z,22nm,0.8s						
R33M	**Jennings River**	**76.64**	**346**	lAmb	lAmb	04 06 12.2	
	comp=Z,26nm,1.2s						
TKL	**Tuckaleechee C**	**76.67**	**306**	LR	LR	04 40 26.0	
	comp=Z,196nm,20.0s,baz=66,slow=36						
KSAR	**Wonju Array Be**	**76.95**	**51**	P	**P**	**04 06 06.6**	**-0.8**
KSAR	**Wonju Array Be**	**76.95**	**51**		**P**	**04 06 06.6**	**-0.8**
KSRS	**Korea Array**	**76.96**	**51**	P	**P**	**04 06 07.0**	**-0.4**
	comp=Z,8.5nm,1.0s,baz=316,slow=5.2,SNR=29						
KSRS				LR	LR	04 42 51.9	
	comp=Z,335nm,19.6s,baz=325,slow=38						
	comp=Z,8.5nm,1.0s						
U49A	**Red Boiling Sp**	**77.30**	**308**	lAmb	lAmb	04 06 16.5	
	comp=Z,22nm,1.1s						
DLBC	**Dease Lake**	**77.35**	**345**	LR	LR	04 40 33.5	
	comp=Z,219nm,21.1s,baz=62,slow=36						
EDM	**Edmonton**	**77.58**	**334**	lAmb	lAmb	04 06 15.3	
	comp=Z,16nm,1.0s						
YSS	**Yuzhno-Sakhali**	**77.83**	**36**	*e*P	**P**	**04 06 13.5**	**+1.4**
YSS				pmax	pmax		
	comp=Z,40nm,1.2s						
YSS				MLR	MLR		
	comp=Z,600nm,17.0s						
YSS				MLR	MLR		
	comp=N,400nm,15.0s						
YSS				MLR	MLR		
	comp=E,700nm,17.0s						
W50A	**Signal Mountai**	**77.91**	**306**	lAmb	lAmb	04 06 19.7	
	comp=Z,23nm,0.8s						
ECSD	**EROS Data Cent**	**78.12**	**319**	P	**P**	**04 06 13.9**	**0.0**
	comp=Z,7.0nm,0.8s						
PETK	**Petropavlovsk-**	**78.55**	**25**	LR	LR	04 46 12.2	
	comp=Z,365nm,18.6s,baz=331,slow=40						
KULM	**Kulim**	**78.91**	**93**	lAmb	lAmb	04 06 21.8	
	comp=Z,26nm,1.2s						
KULM	**Kulim**	**78.91**	**93**	P	**P**	**04 06 16.5**	**-2.1**
	comp=Z,25nm,1.4s						
CGM3	**Cape Girardeau**	**79.02**	**310**	lAmb	lAmb	04 06 25.6	
	comp=Z,30nm,1.3s						
SDDR	**Presa de Saban**	**79.16**	**286**	P	**P**	**04 06 22.3**	**+2.3**
	comp=Z,37nm,1.2s						
RPSI	**Rantau Prapat**	**79.33**	**96**	lAmb	lAmb	04 06 24.3	
	comp=Z,21nm,0.9s						
RPSI	**Rantau Prapat**	**79.33**	**96**	P	**P**	**04 06 18.7**	**-2.2**
	comp=Z,30nm,1.2s						
RPSI				pP	**pP**	**04 06 22.9**	**-2.9**
P38A	**Dawn**	**79.52**	**314**	lAmb	lAmb	04 06 27.9	
	comp=Z,18nm,1.0s						
ASAJ	**Asahikawa**	**79.92**	**38**	LR	LR	04 46 30.9	
	comp=Z,309nm,18.7s,baz=352,slow=39						
SMTB	**Santa Maria do**	**80.14**	**249**		**P**	**04 06 24.7**	**-0.6**
SMTB				lAmb	lAmb	04 06 27.3	
	comp=Z,28nm,1.3s						
SMTB	**Santa Maria do**	**80.14**	**249**	*e*P	**P**	**04 06 25.0**	**-0.3**
LAO	**LASA Array**	**80.24**	**326**	lAmb	lAmb	04 06 33.6	
	comp=Z,34nm,1.1s						
LRAL	**Lakeview Retre**	**80.41**	**306**	lAmb	lAmb	04 06 33.2	
	comp=Z,21nm,0.9s						
GUA01	**Guaratinga, BA**	**80.52**	**238**	*e*P	**P**	**04 06 26.4**	**-0.8**
BGNE	**Belgrade**	**80.60**	**318**	lAmb	lAmb	04 06 34.4	
	comp=Z,17nm,0.7s						
KDAK	**Kodiak Island**	**80.77**	**356**	LR	LR	04 43 04.9	
	comp=Z,102nm,20.7s,baz=5.8,slow=36						
S39A	**Bolivar**	**80.79**	**313**	lAmb	lAmb	04 06 35.7	
	comp=Z,18nm,1.0s						
SDBA	**SAO DESIDERIO**	**80.81**	**244**	*e*P	**P**	**04 06 28.5**	**-0.4**
RSSD	**Black Hills**	**81.32**	**323**	P	**P**	**04 06 31.5**	**0.0**
	comp=Z,4.9nm,1.9s						
KSU1	**Kansas State U**	**81.53**	**316**	lAmb	lAmb	04 06 39.5	
	comp=Z,26nm,1.0s						
WHAR	**Wooly Hollow**	**81.94**	**311**	lAmb	lAmb	04 06 41.9	
	comp=Z,26nm,1.0s						
BOAV	**Boa Vista**	**81.94**	**266**		**P**	**04 06 34.3**	**-0.7**
BOAV	**Boa Vista**	**81.94**	**266**	*e*P	**P**	**04 06 36.0**	**+1.0**
HHAR	**Hobbs**	**82.15**	**312**	lAmb	lAmb	04 06 40.1	
	comp=Z,22nm,1.4s						
U38A	**Gravette**	**82.28**	**313**	lAmb	lAmb	04 06 37.8	
	comp=Z,38nm,1.5s						
BBB	**Bella Bella**	**82.73**	**341**	LR	LR	04 43 59.2	
	comp=Z,162nm,20.3s,baz=28,slow=36						
ITTB	**Itaituba**	**82.90**	**258**	*e*P	**P**	**04 06 40.7**	**+0.8**
NEW	**Newport**	**83.06**	**333**	LR	LR	04 45 31.5	
	comp=Z,190nm,19.4s,baz=28,slow=37						
NEW	**Newport**	**83.06**	**333**	lAmb	lAmb	04 06 54.4	
	comp=Z,26nm,1.8s						
NEW	**Newport**	**83.06**	**333**	P	**P**	**04 06 40.2**	**-0.1**
	comp=Z,6.4nm,0.8s						
T35A	**Sooner Cattle**	**83.09**	**314**	lAmb	lAmb	04 06 46.5	
	comp=Z,15nm,0.8s						
R32A	**Long Quarter,**	**83.13**	**316**	lAmb	lAmb	04 06 48.0	
	comp=Z,21nm,1.0s						
YNE	**Yellowstone No**	**83.16**	**327**	lAmb	lAmb	04 06 54.3	
	comp=Z,14nm,1.0s						
SHEM	**Shemya Is, Ala**	**83.19**	**16**	LR	LR	04 49 40.8	
	comp=Z,124nm,18.4s,baz=310,slow=40						
MIAR	**Mount Ida**	**83.21**	**311**	lAmb	lAmb	04 06 49.0	
	comp=Z,21nm,1.1s						
MIAR	**Mount Ida**	**83.21**	**311**	P	**P**	**04 06 42.6**	**+1.3**
	comp=Z,28nm,1.0s						
MJAR	**Matsushiro Arr**	**83.40**	**46**	P	**P**	**04 06 42.2**	**-0.1**
	comp=Z,3.0nm,0.9s,baz=310,slow=5.0,SNR=4.6						
	comp=Z,3.0nm,0.9s						
MJAR	**Matsushiro Arr**	**83.40**	**46**	P	**P**	**04 06 41.9**	**-0.4**
MJAR				pmax	pmax		
	comp=Z,12nm,1.5s						
MJAR	**Matsushiro Arr**	**83.40**	**46**		**P**	**04 06 41.9**	**-0.4**
TUL3	**Leonard**	**83.44**	**313**	lAmb	lAmb	04 06 51.1	
	comp=Z,16nm,0.9s						
BLOK	**Blackwell**	**83.59**	**314**	lAmb	lAmb	04 06 45.3	
	comp=Z,30nm,1.4s						
K22A	**Casper**	**83.59**	**324**	lAmb	lAmb	04 06 56.2	
	comp=Z,14nm,1.0s						
YHL	**Hebgen Lake**	**83.76**	**328**	lAmb	lAmb	04 07 17.6	
	comp=Z,16nm,1.4s						
C09A	**Chrisman Ranch**	**83.85**	**334**	lAmb	lAmb	04 06 58.6	
	comp=Z,14nm,1.1s						
DLMT	**Dillon**	**83.89**	**329**	lAmb	lAmb	04 07 00.1	
	comp=Z,15nm,1.2s						
DIAM	**Diamantina, MG**	**84.26**	**240**	*e*P	**P**	**04 06 45.7**	**-1.2**
URIC	**Uribia, Colomb**	**84.41**	**281**	lAmb	lAmb	04 06 52.9	
	comp=Z,25nm,1.4s						
NPGB	**Novo Progresso**	**84.43**	**256**	*e*P	**P**	**04 06 48.6**	**+0.8**

JOW	**Kunigami**	**84.47**	**59**	LR	LR	04 48 16.1		
	comp=Z,234nm,21.0s,baz=16,slow=38							
PDAR	**Pinedale Array**	**84.81**	**326**	P	**P**	**04 06 49.0**	**-0.6**	
	comp=Z,2.6nm,1.0s,baz=30,slow=8.0,SNR=12							
PDAR				LR	LR	04 46 34.6		
	comp=Z,191nm,19.2s,baz=20,slow=37							
	comp=Z,2.6nm,1.0s							
PDAR	**Pinedale Array**	**84.81**	**326**		**P**	**04 06 48.7**	**-0.9**	
SNDB	**Serra Nova Dou**	**84.91**	**249**	*e*P	**P**	**04 06 49.0**	**-1.1**	
E09A	**Wood Farm, Sta**	**84.92**	**333**	lAmb	lAmb	04 07 03.1		
	comp=Z,8.6nm,0.9s							
F10A	**Beach Ranch, E**	**85.07**	**332**	lAmb	lAmb	04 06 56.0		
	comp=Z,10.0nm,1.0s							
BDFB	**Brasilia**	**85.22**	**244**	P	**P**	**04 06 52.5**	**+0.8**	
	comp=Z,13nm,0.8s,baz=60,slow=4.2,SNR=18							
BDFB				LR	LR	04 45 30.0		
	comp=Z,118nm,19.6s,baz=37,slow=36							
	comp=Z,13nm,0.8s							
BDFB	**Brasilia**	**85.22**	**244**	P	**P**	**04 06 51.2**	**-0.6**	
BDFB				pmax	pmax			
	comp=Z,19nm,0.9s							
BDFB	**Brasilia**	**85.22**	**244**		**P**	**04 06 51.2**	**-0.6**	
BDFB				lAmb	lAmb	04 06 57.6		
	comp=Z,19nm,0.9s							
E08A	**Dider Farm, El**	**85.25**	**333**	lAmb	lAmb	04 06 57.1		
	comp=Z,13nm,1.2s							
ISCO	**Idaho Springs**	**85.45**	**322**	P	**P**	**04 06 54.5**	**+1.5**	
	comp=Z,5.3nm,2.0s							
GNW	**Green Mountain**	**85.50**	**336**	lAmb	lAmb	04 07 07.2		
	comp=Z,19nm,1.1s							
WMOK	**Wichita Mounta**	**85.94**	**314**	lAmb	lAmb	04 07 00.1		
	comp=Z,16nm,1.2s							
WMOK	**Wichita Mounta**	**85.94**	**314**	P	**P**	**04 06 56.5**	**+1.3**	
	comp=Z,13nm,2.5s							
BMO	**Blue Mountains**	**86.07**	**332**	lAmb	lAmb	04 07 10.0		
	comp=Z,31nm,1.9s							
PMNB	**Pato De Minas**	**86.24**	**241**	P	**P**	**04 06 57.1**	**+0.3**	
	comp=Z,22nm,1.9s							
PMNB	**Patos De Minas**	**86.24**	**241**	*e*P	**P**	**04 06 55.8**	**-1.0**	
HWUT	**Hardware Ranch**	**86.61**	**326**	P	**P**	**04 06 57.6**	**-0.9**	
	comp=Z,5.9nm,0.9s							
IPMB	**Ipameri, GO**	**87.02**	**243**	*e*P	**P**	**04 07 00.6**	**+0.1**	
CLDB	**Colider**	**87.35**	**253**	P	**P**	**04 07 02.8**	**+0.7**	
	comp=Z,17nm,1.3s							
CLDB	**Colider**	**87.35**	**253**	*e*P	**P**	**04 07 01.8**	**-0.4**	
CANS	**Sao Roque de M**	**87.47**	**240**	*e*P	**P**	**04 07 02.5**	**-0.2**	
APMT	**Aspermont**	**87.74**	**314**	lAmb	lAmb	04 08 10.0		
	comp=Z,24nm,1.6s							
ARAG	**Araguaiana, MT**	**87.86**	**247**	*e*P	**P**	**04 07 04.3**	**-0.3**	
HKT	**Hockley**	**87.87**	**309**	*i* P	**P**	**04 07 04.6**	**+0.1**	
HKT				pmax	pmax			
	comp=Z,25nm,1.4s							
HKT	**Hockley**	**87.87**	**309**	P	**P**	**04 07 06.0**	**+1.6**	
	comp=Z,16nm,2.7s							
PV22	**Blue Mesa, Par**	**87.93**	**323**	lAmb	lAmb	04 07 15.0		
	comp=Z,10nm,0.8s							
PV07	**Paradox Valley**	**87.94**	**323**	lAmb	lAmb	04 07 15.0		
	comp=Z,8.8nm,0.7s							
PV21	**Cone Mtn., Par**	**87.99**	**323**	lAmb	lAmb	04 07 14.1		
	comp=Z,7.4nm,0.7s							
PV04	**Paradox Valley**	**88.10**	**323**	lAmb	lAmb	04 07 14.7		
	comp=Z,9.2nm,0.8s							
PV23	**Carpenter Ridg**	**88.10**	**323**	lAmb	lAmb	04 07 15.2		
	comp=Z,11nm,0.8s							
PV14	**Lion Creek, Pa**	**88.17**	**323**	lAmb	lAmb	04 07 15.1		
	comp=Z,11nm,0.7s							
PV20	**West Nyswonger**	**88.17**	**323**	lAmb	lAmb	04 07 14.9		
	comp=Z,8.6nm,0.8s							
PV10	**Paradox Valley**	**88.17**	**323**	lAmb	lAmb	04 07 17.8		
	comp=Z,13nm,0.9s							
PV03	**Paradox Valley**	**88.19**	**323**	lAmb	lAmb	04 07 20.0		
	comp=Z,16nm,1.2s							
PV17	**East Wray Mesa**	**88.22**	**323**	lAmb	lAmb	04 07 20.7		
	comp=Z,20nm,1.3s							
PV18	**Skein Mesa, Pa**	**88.22**	**323**	lAmb	lAmb	04 07 20.0		
	comp=Z,18nm,1.2s							
DUG	**Dugway, Tooele**	**88.31**	**326**	lAmb	lAmb	04 07 20.6		
	comp=Z,12nm,1.4s							
DUG	**Dugway, Tooele**	**88.31**	**326**	P	**P**	**04 07 07.0**	**+0.3**	
	comp=Z,6.9nm,0.8s							
PDRB	**Porto dos Gac**	**88.52**	**253**	*e*P	**P**	**04 07 07.5**	**-0.3**	
BRDY	**Brady**	**88.67**	**312**	lAmb	lAmb	04 07 13.7		
	comp=Z,22nm,1.4s							
MVCO	**Mesa Verde**	**88.88**	**322**	P	**P**	**04 07 09.8**	**+0.2**	
HMU	**Henry Mountain**	**89.30**	**324**	lAmb	lAmb	04 07 25.5		
	comp=Z,13nm,1.1s							
TCRU	**Three Creeks R**	**89.48**	**325**	lAmb	lAmb	04 07 27.6		
	comp=Z,14nm,1.4s							
ANMO	**Albuquerque**	**89.73**	**319**	LR	LR	04 47 45.8		
	comp=Z,212nm,19.6s,baz=40,slow=36							
ANMO	**Albuquerque**	**89.73**	**319**	*ce*P	**P**	**04 07 11.6**	**-1.9**	
ANMO				pmax	pmax			
	comp=Z,5.0nm,2.5s							
VAO	**Valinhos**	**89.78**	**239**		**P**	**04 07 12.8**	**-0.8**	
VAO	**Valinhos**	**89.78**	**239**	*e*P	**P**	**04 07 13.5**	**-0.1**	
OZNA	**Ozona**	**90.12**	**313**	lAmb	lAmb	04 07 20.3		
	comp=Z,17nm,1.2s							
HNDO	**Hondo**	**90.16**	**311**	lAmb	lAmb	04 07 17.5		
	comp=Z,20nm,1.5s							
ROSC	**El Rosal**	**90.65**	**277**	LR	LR	04 44 54.8		
	comp=Z,177nm,21.1s,baz=50,slow=34							
MNHN	**Monahans**	**90.69**	**315**	lAmb	lAmb	04 07 22.2		
	comp=Z,15nm,1.5s							
YBH	**Yreka Blue Hor**	**90.69**	**334**	LR	LR	04 51 00.0		
	comp=Z,100nm,18.7s,baz=20,slow=38							
SALV	**Santo Antonio**	**90.69**	**249**	*e*P	**P**	**04 07 17.8**	**-0.1**	
PP1B	**Ponte de Pedra**	**91.29**	**248**	*e*P	**P**	**04 07 20.5**	**-0.1**	
SAND	**Sanderson**	**91.42**	**313**	lAmb	lAmb	04 07 23.1		
	comp=Z,22nm,1.6s							
TPB01	**Permian Basin**	**91.54**	**315**	lAmb	lAmb	04 07 23.4		
	comp=Z,17nm,1.5s							
WUAZ	**Wupatki**	**91.58**	**323**	lAmb	lAmb	04 07 34.7		
	comp=Z,17nm,1.6s							
PCMB	**Pacaembu**	**91.60**	**242**	*e*P	**P**	**04 07 21.9**	**-0.1**	
VILB	**Vilhena**	**91.92**	**254**	*e*P	**P**	**04 07 23.4**	**-0.2**	
NVAR	**Mina Aray Bea**	**92.02**	**329**	LR	LR	04 48 41.2		
	comp=Z,244nm,21.9s,baz=12,slow=36							
TX31	**Lajitas Ar. Si**	**92.74**	**314**	lAmb	lAmb	04 07 32.4		
	comp=Z,19nm,1.4s							
TXAR	**Lajitas Array**	**92.74**	**314**	P	**P**	**04 07 27.5**	**+0.1**	
	comp=Z,5.3nm,1.1s,baz=72,slow=4.1,SNR=20							
TXAR				LR	LR	04 50 24.3		
	comp=Z,125nm,18.2s,baz=42,slow=36							
	comp=Z,5.3nm,1.1s							
TXAR	**Lajitas Array**	**92.74**	**314**	P	**P**	**04 07 26.1**	**-1.4**	
TXAR	**Lajitas Array**	**92.74**	**314**		**P**	**04 07 26.1**	**-1.4**	
PTLB	**Pontes e Lacer**	**92.82**	**252**	lAmb	lAmb	04 07 32.7		
	comp=Z,13nm,1.2s							
PTLB	**Pontes e Lacer**	**92.82**	**252**	*e*P	**P**	**04 07 27.5**	**-0.2**	
JTS	**Las Juntas de**	**94.76**	**288**	LR	LR	04 48 21.7		
	comp=Z,49nm,18.4s,baz=41,slow=34							
PFO	**Pinyon Flats O**	**95.43**	**325**	LR	LR	04 51 01.2		
	comp=Z,192nm,21.6s,baz=37,slow=36							
DAV	**Davao City (W)**	**96.23**	**75**	LR	LR	04 57 29.3		
	comp=Z,115nm,20.3s,baz=340,slow=39							
CMIG	**Mmas Romero**	**96.74**	**300**	LR	LR	04 51 45.5		
	comp=Z,96nm,19.3s,baz=15,slow=36							
OTAV	**Otavalo**	**96.78**	**276**	P	**P**	**04 07 44.8**	**-1.8**	
OTAV				pmax	pmax			
	comp=Z,6.0nm,1.2s							
OTAV	**Otavalo**	**96.78**	**276**	P	**P**	**04 07 44.8**	**-1.8**	
OTAV				lAmb	lAmb	04 07 51.9		
	comp=Z,6.4nm,1.2s							
CPUP	**Villa Florida**	**98.86**	**243**	LR	LR	04 55 23.0		
	comp=Z,156nm,18.1s,baz=49,slow=37							
LPAZ	**La Paz**	**99.87**	**257**	LR	LR	04 48 04.7		
	comp=Z,51nm,21.1s,baz=50,slow=32							
KAPI	**Kappang**	**99.99**	**88**	LR	LR	04 59 56.8		
	comp=Z,50nm,20.9s,baz=309,slow=39							
NVL	**N'lazarevskaya**	**112.30**	**183**	*i* PKIKP	PKiKP	04 12 35.8	-14	
NVL				pmax	pmax			
	comp=Z,7.0nm,1.0s							
NVL				MLR	MLR			
	comp=Z,274nm,19.0s							
WRA	**Warramunga Arr**	**120.39**	**90**	PKP	**PKPdf**	**04 13 04.0**	**-2.5**	
	comp=Z,1.2nm,1.0s,baz=304,slow=1.6,SNR=4.5							
WRA	**Warramunga Arr**	**120.39**	**90**	PKIKP	**PKPdf**	**04 13 05.0**	**-1.5**	
WRA	**Warramunga Arr**	**120.39**	**90**		**PKPdf**	**04 13 05.0**	**-1.5**	
ASAR	**Alice Springs**	**122.26**	**94**	PKP	**PKPdf**	**04 13 08.2**	**-1.9**	
	comp=Z,2.0nm,0.8s,baz=318,slow=1.7,SNR=12							
ASAR	**Alice Springs**	**122.26**	**94**	PKIKP	**PKPdf**	**04 13 08.9**	**-1.2**	
ASAR	**Alice Springs**	**122.26**	**94**		**PKPdf**	**04 13 08.9**	**-1.2**	
BELA	**Belgrano 2**	**123.87**	**192**	PKPdf	**PKPdf**	**04 13 10.9**	**-0.6**	
QSPA	**South Pole Qui**	**131.50**	**180**	PKP	**PKPdf**	**04 13 25.0**	**-1.4**	
	comp=Z,2.8nm,0.8s,baz=211,slow=2.9,SNR=8.4							
PPT2	**Papeete2**	**154.64**	**338**	*e*LR	LR	05 05 50.0		
	comp=Z,112nm,22.8s							
PPT2				*e*LR	LR	05 05 59.7		
	comp=Z,134nm,32.8s							
TBI	**Tubuai**	**160.02**	**333**	*e*LR	LR	05 08 19.9		
	comp=Z,1μm,35.0s							

SKO **11** *04:02:14.4, 41.°63N×20.°86E, h6km, ML2.5*
TIR **11** *04:02:15.0, 41.°64N×20.°71E, h11km±2km, ML2.2, ML2.2, Presumed earthquake*

ISC 11 04:02:14.4±1.1, 41.°62N±0.°03×20.°78E±0.°03, h4km±10km, n19, σ1°19/33, 1D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.26**	**285**	Pg	**Pg**	**04 02 19.6**	**+0.1**	
PHP				Sg	**Sg**	**04 02 21.9**	**-1.0**	
PHP				IAML		04 02 22.2		
	4μm,0.2s							
OHR	**Ohrid**	**0.51**	**178**	*i* Pg	**Pg**	**04 02 24.7**	**+0.5**	
OHR				*i* Sg	**Sb**	**04 02 33.5**	**-0.1**	
OHR				*e*Lg	Lg	04 02 34.0		
	comp=N,90nm,0.5s							
OHR				*e*Lg	Lg	04 02 34.4		
	comp=E,342nm,0.9s							
SKO	**Skopje**	**0.61**	**54**	*i* Pg	**Pg**	**04 02 24.9**	**-1.1**	
SKO				*i* Sg	**Sg**	**04 02 34.0**	**+0.1**	
TIR	**Tirane**	**0.74**	**249**	P	**Pg**	**04 02 26.4**	**-2.2**	
TIR				Sg	**Sg**	**04 02 39.0**	**+0.9**	
TIR				IAML		04 02 42.4		
	comp=E,71nm,0.5s							
KBN	**Korca**	**0.99**	**180**	Pn	**Pg**	**04 02 32.6**	**-0.8**	
KBN				Sn	**Sn**	**04 02 49.1**	**-0.6**	
KBN				IAML		04 02 51.5		
	comp=E,107nm,0.5s							
SDA	**Shkodra**	**1.05**	**295**	P	**Pg**	**04 02 34.3**	**-0.2**	
NEST	**Nestorio**	**1.22**	**170**	Pn	**Pg**	**04 02 38.5**	**+0.8**	
NEST				Sn	**Sn**	**04 02 56.4**	**+1.1**	
NEST				IAML		04 02 59.7		
	comp=E,71nm,0.4s							
VAY	**Valandovo**	**1.38**	**102**	↓*i* Pg	**Pn**	**04 02 39.9**	**-0.5**	
VAY				*i* Sg	**Sg**	**04 02 59.1**	**+0.4**	
VAY				*e*Lg	Lg	04 02 59.8		
	comp=E,28nm,0.3s							
VAY				*e*Lg	Lg	04 03 01.1		
	comp=N,32nm,0.4s							
PDG	**Podgorica**	**1.39**	**306**	Pg	**Pg**	**04 02 42.9**	**+1.8**	
PDG				Sg	**Sg**	**04 02 59.9**	**+0.8**	
LSK	**Leskovik**	**1.47**	**185**	Pn	**Pg**	**04 02 43.5**	**+0.9**	
PEHC	**Pehcevo**	**1.60**	**84**	*i* Pg	**Pb**	**04 02 44.6**	**+0.1**	
DBRK	**Dubrovnik**	**2.22**	**299**	*e*Pn	**Pn**	**04 02 53.0**	**+1.0**	
DBRK				Sn	**Sn**	**04 03 20.4**	**+0.6**	
STON	**Ston**	**2.60**	**300**	*i* Pn	**Pn**	**04 02 57.6**	**+0.4**	
STON				Sn	**Sn**	**04 03 29.9**	**+0.6**	
LSTV	**Lastovo**	**3.11**	**293**	*i* Pn	**Pn**	**04 03 01.7**	**-2.4**	
LSTV				Sn	**Sn**	**04 03 38.6**	**-3.0**	
MAKA	**Makarska**	**3.24**	**302**	Sn	**Sn**	**04 03 45.1**	**+0.1**	
RICI	**Ricice**	**3.28**	**306**	*e*Pn	**Pn**	**04 03 06.7**	**+0.2**	
RICI				Sn	**Sn**	**04 03 47.4**	**+1.4**	
HVAR	**Hvar**	**3.56**	**297**	*e*Pn	**Pn**	**04 03 10.1**	**-0.3**	
HVAR				Sn	**Sn**	**04 03 51.0**	**-2.0**	
KIJV	**Kijevo**	**4.00**	**308**	Sn	**Sn**	**04 04 05.1**	**+1.2**	
MORI	**Morici**	**4.36**	**303**	*e*Pn	**Pn**	**04 03 21.3**	**0.0**	
MORI				Sn	**Sn**	**04 04 12.7**	**+0.3**	

TIR **11** *04:04:35.4, 41.°70N×20.°77E, h11km±1km, ML2.9, ML2.9, Presumed earthquake*
SKO **11** *04:04:35.5, 41.°68N×20.°72E, h16km, ML3.0*
BEO **11** *04:04:36.4±0.4, 41.°62N×20.°82E, h1km±2km, ML2.7/11*
PDG **11** *04:04:37.2±0.3, 41.°64N×20.°62E, h6km, ML2.9/13, Error ellipse: s-maj=1.0km s-min=1.7km az=0.0*

ISC 11 04:04:35.8±1.1, 41.°66N±0.°02×20.°77E±0.°02, h2km±10km, n74, σ1°03/125, 10C-7D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
PHP

VTS	**Vitosha**	**2.07**	**62**	*e*Pn	**Pn**	**04 05 12.4**	**+0.7**
VTS				*e*Sn	**Sn**	**04 05 38.7**	**+0.6**
TREB	**Trebinje**	**2.09**	**301**	*e*Pn	**Pb**	**04 05 13.7**	**-0.7**
BOVS	**Bovan**	**2.10**	**19**	*e*Sg	**Sg**	**04 05 43.3**	**+0.2**
IGT	**Igoumenitsa**	**2.15**	**189**	Pn	**Pg**	**04 05 17.8**	**+0.8**
IGT				Sn	**Sg**	**04 05 44.8**	**0.0**
SRS	**Serrai**	**2.19**	**103**	*e*Pg	**Pn**	**04 05 13.9**	**+0.7**
DBRK	**Dubrovnik**	**2.20**	**298**	*e*Pn	**Pn**	**04 05 14.4**	**+1.1**
DBRK				Sn	**Sb**	**04 05 42.9**	**-1.0**
KLINJ	**Klinje**	**2.21**	**314**	*e*Pn	**Pb**	**04 05 16.8**	**+0.2**
GRUS	**Gruza**	**2.23**	**359**	*e*Pn	**Pn**	**04 05 14.9**	**+1.1**
ZAGS	**Zajecar**	**2.41**	**26**	*e*Pn	**Pn**	**04 05 17.1**	**+0.9**
BLKB	**Belogradchik**	**2.42**	**35**	*e*Pn	**Pn**	**04 05 17.4**	**+1.0**
BLKB				*e*Sn	**Sb**	**04 05 48.3**	**-2.0**
BBLS	**Lazi&#263i**	**2.42**	**336**	*e*Pn	**Pn**	**04 05 17.9**	**+1.4**
BBLS				*e*Sn	**Sb**	**04 05 48.5**	**-2.0**
BBLS	**Lazi&#263i**	**2.42**	**336**	*e*Pn	**Pn**	**04 05 17.6**	**+1.1**
DIVS	**Divibare**	**2.51**	**347**	*e*Pn	**Pn**	**04 05 17.8**	**+0.2**
DIVS				*e*Sn	**Sn**	**04 05 49.9**	**+1.1**
TRUS	**Trudelj**	**2.58**	**354**	*e*Pn	**Pn**	**04 05 19.3**	**+0.7**
STON	**Ston**	**2.58**	**299**	*e*Pn	**Pn**	**04 05 19.8**	**+1.3**
STON				Sn	**Sn**	**04 05 51.6**	**+1.1**
STON	**Ston**	**2.58**	**299**	*e*Pn	**Pb**	**04 05 20.5**	**-2.3**
STON				*e*Sn	**Sb**	**04 05 54.1**	**-0.8**
KUBS	**Kucevo**	**2.83**	**13**	*e*Pn	**Pn**	**04 05 21.0**	**-1.1**
KUBS				*e*Sn	**Sn**	**04 05 58.1**	**+1.4**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn	**Pn**	**04 05 25.4**	**+0.6**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn	**Pn**	**04 05 24.9**	**+0.1**
LSTV	**Lastovo**	**3.09**	**292**	*e*Pn	**Pn**	**04 05 26.5**	**+1.0**
LSTV				Sn	**Sn**	**04 06 03.6**	**+0.6**
MAKA	**Makarska**	**3.22**	**302**	*e*Pn	**Pn**	**04 05 28.9**	**+1.7**
MAKA				Sn	**Sn**	**04 06 06.8**	**+0.7**
RICI	**Ricice**	**3.25**	**306**	*e*Pn	**Pn**	**04 05 29.7**	**+1.8**
RICI				Sn	**Sn**	**04 06 08.4**	**+1.3**
VRSS	**Vrsac**	**3.49**	**6**	*e*Pn	**Pn**	**04 05 30.8**	**-0.2**
HVAR	**Hvar**	**3.54**	**297**	*e*Pn	**Pn**	**04 05 33.0**	**+1.3**
HVAR				Sn	**Sn**	**04 06 14.8**	**+0.7**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn	**Pn**	**04 05 32.3**	**+0.1**
FRGS				*e*Sn	**Sn**	**04 06 15.3**	**+0.4**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn	**Pn**	**04 05 31.6**	**-0.6**
KIJV	**Kijevo**	**3.98**	**308**	*e*Pn	**Pn**	**04 05 39.3**	**+1.6**
KIJV				Sn	**Sn**	**04 06 25.6**	**+0.7**
BZS	**Buzias**	**4.01**	**9**	*e*Pn	**Pn**	**04 05 37.8**	**-0.4**
GZR	**Gura Zlata**	**4.01**	**21**	*e*Pn	**Pn**	**04 05 38.7**	**+0.4**
MORI	**Morici**	**4.33**	**302**	*e*Pn	**Pn**	**04 05 44.2**	**+1.6**
MORI				Sn	**Sn**	**04 06 34.0**	**+0.4**
SIRR	**Siria**	**4.65**	**8**	*e*Pn	**Pn**	**04 05 47.3**	**+0.2**
DUGI	**Dugi Otok**	**4.80**	**301**	*e*Pn	**Pn**	**04 05 50.2**	**+1.0**
DUGI				Sn	**Sn**	**04 06 45.8**	**+0.5**
MOSL	**Moslavina**	**4.91**	**325**	*e*Pn	**Pn**	**04 05 51.9**	**+1.3**
MOSL				Sn	**Sn**	**04 06 46.3**	**-1.7**
NVLJ	**Novalja**	**5.20**	**306**	*i* Pn	**Pn**	**04 05 55.6**	**+1.0**
NVLJ				Sn	**Sn**	**04 06 55.2**	**+0.1**
RABC	**Rab**	**5.36**	**307**	*e*Pn	**Pn**	**04 05 59.1**	**+2.4**
RABC				Sn	**Sn**	**04 06 59.8**	**+0.9**
BOJS	**Bojanci**	**5.55**	**316**	*e*Pn	**Pn**	**04 06 01.8**	**+2.4**
SKDS	**Skadanscina**	**6.26**	**311**	*e*Pn	**Pn**	**04 06 10.2**	**+1.1**
SKDS				*e*Sn	**Sn**	**04 07 19.8**	**-1.3**

JMA ***11*** *04:10:43.0±0.2,36°N±1°×133°4E±0°.9, h430km±2km, MV3.6/34, OKINOSHIMA ISLAND REGION*
NIED ***11*** *04:10:43.0, 36°.47N×133°.35E, h430km, MW4.1, Moment Tension Solution. s2 Moment tensor: Scale 10¹⁵Nm; Mrr0.57; Mθθ1.01; Mϕϕ-1.58; Mrθ0.36; Mθϕ1.27; Mϕr-0.36; Fault plane solution: M₀1.88000×10¹⁵ NP1:φs23.00000°, δ75.00000°, λ179.00000°. NP2:φs113.00000°, δ89.00000°, λ15.00000°.*
IDC ***11*** *04:10:43.5±0.9, 36°.42N×133°.31E, h430km±11km, mb3.1/15, mbtmp3.9/21 Error ellipse: s-maj=14.1km s-min=12.3km az=75.0*
ISC 11 04:10:43.2±0.6, 36°.41N±0°.09×133°.35E±0°.07, h427km±7km, n35, σ0°73/42, mb3.3/15, Sea of Japan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JOI	**OKI**	**0.15**	**215**	*e*P	**P**	**04 11 36.2**	**+0.6**
JISK	**Izumosakaura**	**0.99**	**204**	*e*P	**P**	**04 11 37.7**	**+0.5**
JKSM	**Kasumi**	**1.34**	**127**	*e*P	**P**	**04 11 39.0**	**+0.6**
JKSM				*e*S	**S**	**04 12 23.4**	**+0.4**
JHS	**Saijyo**	**1.42**	**188**	*e*P	**P**	**04 11 39.0**	**+0.2**
JHS				*e*S	**S**	**04 12 22.9**	**-0.8**
JGT2	**ShimaneMisato**	**1.51**	**207**	*e*P	**P**	**04 11 39.3**	**+0.2**
JKY	**Yasaka**	**1.62**	**118**	*e*P	**P**	**04 11 40.4**	**+0.8**
JKY				*e*S	**S**	**04 12 25.1**	**-0.1**
JHT	**Toyohira**	**1.90**	**204**	*e*P	**P**	**04 11 41.2**	**0.0**
JWT	**Wachi**	**2.01**	**123**	*e*P	**P**	**04 11 42.6**	**+1.0**
JWT				*e*S	**S**	**04 12 29.3**	**+0.2**
JMN	**Monobe**	**2.71**	**171**	*e*P	**P**	**04 11 47.5**	**+1.1**
JAI	**Aioi**	**2.76**	**161**	*e*P	**P**	**04 11 47.5**	**+0.8**
JNA	**Nagahama**	**2.94**	**194**	*e*P	**P**	**04 11 48.9**	**+0.9**
JTNC	**Tanabenakahech**	**3.18**	**144**	*e*P	**P**	**04 11 50.3**	**+0.3**
JTNC				*e*S	**S**	**04 12 42.9**	**-1.2**
JIE	**Ise**	**3.40**	**125**	*e*P	**P**	**04 11 52.4**	**+0.8**
JIE				*e*S	**S**	**04 12 46.7**	**-0.6**
JTO	**Tosashimizu**	**3.57**	**187**	*e*P	**P**	**04 11 54.4**	**+1.2**
JNU	**Nakatsue**	**3.86**	**213**	P	**P**	**04 11 56.3**	**+0.6**
	27nm,0.4s,baz=17,slow=1.0,SNR=30						
MJAR	**Matsushiro Arr**	**3.92**	**87**	P	**P**	**04 11 56.5**	**+0.4**
	14nm,0.6s,baz=274,slow=8.8,SNR=32						
KSRS	**Korea Array**	**4.47**	**285**	P	**P**	**04 12 02.9**	**+1.7**
	6.0nm,0.8s,baz=106,slow=10,SNR=20						
USRK	**Ussuriysk Ar.**	**7.85**	**353**	P	**P**	**04 12 37.4**	**+0.8**
	4.8nm,0.5s,baz=181,slow=14,SNR=11						
ASAJ	**Asahikawa**	**10.44**	**40**	P	**P**	**04 13 04.4**	**-0.6**
	15nm,0.4s,baz=240,slow=8.4,SNR=18						
HILR	**Hailar Array B**	**16.45**	**327**	P	**P**	**04 14 09.8**	**-0.3**
	11nm,0.5s,baz=133,slow=12,SNR=11						
SONM	**Songino Array**	**22.90**	**308**	P	**P**	**04 15 12.2**	**0.0**
	0.5nm,0.5s,baz=122,slow=11,SNR=2.1 0.5nm,0.5s						
LZDM	**Lanzhou Array**	**23.90**	**278**	P	**P**	**04 15 21.5**	**-0.1**
	1.3nm,0.3s,baz=82,slow=12,SNR=3.7 1.3nm,0.3s						
ZALV	**Zalesovo Beam**	**37.59**	**313**	P	**P**	**04 17 17.2**	**-1.8**
	0.3nm,0.3s,baz=57,slow=10,SNR=1.8						
ZALV				PcP	**PcP**	**04 19 25.5**	**-0.7**
	0.4nm,0.3s,baz=85,slow=1.7,SNR=2.0 0.3nm,0.3s						
MKAR	**Makanchi Array**	**38.95**	**302**	P	**P**	**04 17 30.7**	**+0.3**
	0.5nm,0.5s,baz=88,slow=12,SNR=4.6 0.5nm,0.5s						
BVAR	**Borovoye Array**	**46.17**	**312**	P	**P**	**04 18 27.4**	**0.0**
	1.0nm,0.5s,baz=109,slow=8.2,SNR=4.4 1.0nm,0.5s						
ILAR	**Eielson Array**	**53.46**	**32**	P	**P**	**04 19 21.6**	**+0.3**
	1.0nm,0.7s,baz=267,slow=5.6,SNR=18 1.0nm,0.7s						
WRA	**Warramunga Arr**	**56.05**	**179**	P	**P**	**04 19 40.0**	**0.0**
	0.8nm,0.5s,baz=355,slow=7.6,SNR=12 0.8nm,0.5s						
ASAR	**Alice Springs**	**59.75**	**179**	P	**P**	**04 20 05.6**	**+0.2**
	0.6nm,0.7s,baz=9.0,slow=13,SNR=4.8 0.6nm,0.7s						
ARCES	**ARCESS Array B**	**62.21**	**338**	P	**P**	**04 20 20.9**	**-0.1**
	1.7nm,0.7s,baz=57,slow=8.8,SNR=4.8 1.7nm,0.7s						
FINES	**FINESS Array B**	**66.22**	**330**	P	**P**	**04 20 46.6**	**-0.2**
	2.7nm,1.0s,baz=73,slow=6.2,SNR=9.3 2.7nm,1.0s						
HFS	**Hagfors**	**71.83**	**333**	P	**P**	**04 21 20.7**	**-0.1**
	1.7nm,0.7s,baz=56,slow=3.7,SNR=4.7 1.7nm,0.7s						
GERES	**GERESS Array B**	**79.63**	**324**	P	**P**	**04 22 04.3**	**-0.4**
	0.2nm,0.3s,baz=72,slow=7.0,SNR=2.3 0.2nm,0.3s						
NVAR	**Mina Array Bea**	**80.42**	**49**	P	**P**	**04 22 10.3**	**+1.1**
	0.3nm,0.5s,baz=310,slow=5.2,SNR=3.8 0.3nm,0.5s						
PDAR	**Pinedale Array**	**82.57**	**41**	P	**P**	**04 22 20.8**	**+0.4**
	0.4nm,0.7s,baz=327,slow=2.5,SNR=4.8 0.4nm,0.7s						
ULM	**Lac du Bonnet**	**83.40**	**29**	P	**P**	**04 22 24.3**	**+0.3**
	1.7nm,0.5s,baz=276,slow=6.6,SNR=4.7 1.7nm,0.5s						

MDD 11 04:27:29.4±0.5, 28°.36N×16°.66W, h20km±4km, mb_Lg1.5/16, 8C-2D, Error ellipse: s-maj=4.8km s-min=4.1km az=173.0, Canary Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC

CNOR	**Icod de los Vi**	**0.05**	**185**	P	Pg	04 27 39.0	+5.8
CNOR	**Icod de los Vi**	**0.05**	**185**	P	Pg	04 27 33.0	-0.2
CNOR				S	Sg	04 27 35.3	-0.5
CREA	**Los Realejos,**	**0.07**	**97**	P	Pg	04 27 34.6	+1.4
CREA				⇑IVmb_VC		04 27 37.9	
	831nm,SNR=2.5						
CREA	**Los Realejos,**	**0.07**	**97**	P	Pg	04 27 32.8	-0.4
CREA				S	Sg	04 27 34.9	-0.9
CREA				IVmb_Lg		04 27 35.7	
CFOR	**Fortaleza, Los**	**0.07**	**130**	P	Pg	04 27 32.8	-0.7
CFOR				⇑IVmb_VC		04 27 37.9	
	1µm,SNR=6.6						
CFOR	**Fortaleza, Los**	**0.07**	**130**	⇓P	Pg	04 27 33.1	-0.4
CFOR				S	Sg	04 27 35.8	-0.4
CFOR				IVmb_Lg		04 27 36.3	
CDIE	**La Orotava (Te**	**0.11**	**132**	P	Pb	04 27 32.8	-0.3
CDIE	**La Orotava (Te**	**0.11**	**132**	⇓P	Pb	04 27 33.2	+0.2
CDIE				S	Sb	04 27 36.0	+0.5
GUIA	**Guia de Isora,**	**0.13**	**207**	P	Pg	04 27 34.9	+1.0
GUIA				⇑IVmb_VC		04 27 40.1	
	824nm,SNR=1.8						
GUIA	**Guia de Isora,**	**0.13**	**207**	P	Pg	04 27 33.8	-0.1
GUIA				S	Sg	04 27 36.9	0.0
GUIA				IVmb_Lg		04 27 38.5	
CCHO	**La Orotava (Te**	**0.14**	**187**	P	Pb	04 27 33.4	-0.1
CCHO				⇑IVmb_VC		04 27 41.8	
	569nm,SNR=3.9						
CCHO	**La Orotava (Te**	**0.14**	**187**	P	Pb	04 27 33.5	0.0
CCHO				S	Sg	04 27 36.8	-0.4
CCHO				IVmb_Lg		04 27 38.0	
CCAN	**Las Canadas**	**0.14**	**163**	P	Pb	04 27 33.3	-0.3
CCAN				⇑IVmb_VC		04 27 33.9	
	704nm,SNR=2.7						
CCAN	**Las Canadas**	**0.14**	**163**	P	Pb	04 27 33.6	0.0
CCAN				S	Sb	04 27 36.5	+0.1
CCAN				IVmb_Lg		04 27 37.7	
CBOL	**Buenavista del**	**0.16**	**253**	P	Pg	04 27 34.3	+0.1
CBOL				⇑IVmb_VC		04 27 36.8	
	360nm,SNR=2.6						
CBOL	**Buenavista del**	**0.16**	**253**	P	Pb	04 27 34.0	+0.2
CBOL				S	Sg	04 27 37.5	+0.1
CBOL				IVmb_Lg		04 27 38.7	
MACI	**Morro de la Ar**	**0.17**	**130**	P	Pg	04 27 34.6	+0.2
MACI	**Morro de la Ar**	**0.17**	**130**	P	Pb	04 27 33.8	-0.2
MACI				S	Sb	04 27 37.0	-0.1
MACI				IVmb_Lg		04 27 39.7	
CLAJ	**Vilaflor (Tene**	**0.20**	**185**	P	Pb	04 27 34.0	-0.6
CLAJ				⇑IVmb_VC		04 27 39.5	
	749nm,SNR=1.8						
CLAJ	**Vilaflor (Tene**	**0.20**	**185**	P	Pb	04 27 34.3	-0.3
CLAJ				S	Sb	04 27 37.2	-0.9
CLAJ				IVmb_Lg		04 27 39.1	
CADE	**Adeje, Tenerif**	**0.21**	**201**	P	Pb	04 27 34.5	-0.2
CADE	**Adeje, Tenerif**	**0.21**	**201**	P	Pb	04 27 34.3	-0.4
CADE				S	Sb	04 27 37.2	-1.0
CADE				IVmb_Lg		04 27 41.6	
CINF	**Adeje, Tenerif**	**0.24**	**195**	S	Sb	04 27 38.3	-0.6
CINF				IVmb_Lg		04 27 41.2	
CTFS	**San Miguel de**	**0.28**	**176**	P	Pb	04 27 35.3	-0.5
CTFS				⇑IVmb_VC		04 27 41.6	
	557nm,SNR=2.1						
CTFS	**San Miguel de**	**0.28**	**176**	P	Pb	04 27 35.5	-0.3
CTFS				S	Sb	04 27 39.8	-0.2
CTFS				IVmb_Lg		04 27 42.6	
CGRA	**Granadilla de**	**0.28**	**157**	P	Pb	04 27 35.3	-0.5
CGRA				S	Sb	04 27 39.5	-0.5
CGRA				IVmb_Lg		04 27 41.5	
EBAJ	**Bajamar**	**0.33**	**57**	P	Pg	04 27 36.2	-0.4
EBAJ				S	Sb	04 27 40.2	-1.2
EBAJ				IVmb_Lg		04 27 42.4	
CLUM	**San Bartolome**	**1.04**	**121**	P	Pb	04 27 46.1	-2.7
CLUM				S	Sb	04 27 57.8	-4.1
CLUM				IVmb_Lg		04 28 00.4	
CMIR	**El Paso, La Pa**	**1.11**	**288**	P	Pn	04 27 47.6	-2.5
CMIR				S	Sb	04 27 58.5	-5.8
CMIR				IVmb_Lg		04 28 00.3	

PRE ***11*** *04:44:08.4±0.9, 26°.24S×27°.35E, h2km, ML2.7, Presumed earthquake*
BGSI ***11*** *04:44:09.6±1.2, 26°.33S×27°.75E, h0km±31km, ML3.0, Presumed earthquake*
ISC 11 04:44:08.4±1.2, 26°.27S±0°.03×27°.44E±0°.03, h7km±10km, n25, σ2°.07/47, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**0.44**	**30**	*e*P	**Pg**	**04 44 17.2**	**+0.2**
HRAO				*e*S	**Sg**	**04 44 23.6**	**+0.8**
TSWA	**Tswaing Meteor**	**1.02**	**34**	*e*P	**Pg**	**04 44 28.2**	**+0.1**
TSWA				*e*S	**Sb**	**04 44 42.6**	**+0.4**
TSWA				IAML		04 44 48.3	
	comp=Z,185nm,0.5s						
LBTB	**Lobatse**	**2.09**	**307**	*i* P	**Pb**	**04 44 47.3**	**+0.6**
LBTB				*i* S	**Sg**	**04 45 15.8**	**+0.3**
LBTB				IAML		04 45 16.8	
	comp=E,203nm,0.3s						
LBTB	**Lobatse**	**2.09**	**307**	*e*P	**Pn**	**04 44 44.3**	**+0.4**
LBTB				*e*S	**Sn**	**04 45 10.0**	**-0.2**
LBTB				IAML		04 45 17.3	
	comp=Z,80nm,0.4s						
CRLN	**Carolina, Mapu**	**2.33**	**84**	*e*P	**Pb**	**04 44 49.5**	**-1.5**
CRLN				*e*S	**Sb**	**04 45 20.2**	**+0.1**
CRLN				IAML		04 45 27.5	
	comp=Z,17nm,0.2s						
MAKGR	**Makgori**	**2.42**	**280**	*i* P	Pg	04 45 04.7	+10
MAKGR				*i* S	**Sb**	**04 45 23.0**	**+0.5**
MAKGR				IAML		04 45 33.3	
	comp=E,197nm,0.7s						
MAKGR	**Makgori**	**2.42**	**280**	*i* P	**Pb**	**04 44 52.5**	**+0.1**
MAKGR				*i* S	**Sb**	**04 45 23.3**	**+0.8**
MAKGR				IAML		04 45 33.0	
	comp=N,359nm,0.5s						
LEPH	**Lephalale, Lim**	**2.43**	**8**	*e*P	**Pn**	**04 44 49.8**	**+1.3**
LEPH				*e*S	**Sn**	**04 45 20.5**	**+1.9**
LEPH				IAML		04 45 27.4	
	comp=Z,36nm,0.4s						
NWCL	**Newcastle**	**2.62**	**124**	*e*P	**Pb**	**04 44 53.7**	**-2.2**
NWCL				*e*S	**Sb**	**04 45 27.4**	**-0.9**
NWCL				IAML		04 45 29.1	
	comp=Z,89nm,0.4s						
BOSA	**Boshof**	**3.04**	**219**	*i* P	**Pg**	**04 45 07.3**	**+0.6**
BOSA				*i* S	**Sn**	**04 45 31.1**	**-2.5**
BOSA				IAML		04 45 39.5	
	comp=N,55nm,0.2s						
BOSA	**Boshof**	**3.04**	**219**	*i* P	**Pn**	**04 44 58.9**	**+2.0**
BOSA				*i* S	**Sn**	**04 45 35.9**	**+2.3**
BOSA				IAML		04 45 39.4	
	comp=N,51nm,0.3s						
BOSA	**Boshof**	**3.04**	**219**	*e*P	**Pn**	**04 44 58.2**	**+1.3**
BOSA				*e*S	**Sn**	**04 45 34.2**	**+0.5**
BOSA				IAML		04 45 39.2	
	comp=Z,38nm,0.3s						
SKOMA	**Sekoma**	**3.63**	**298**	*i* P	Pg	04 45 24.0	+6.0
SKOMA				*i* S	**Sb**	**04 45 59.0**	**+1.9**
SKOMA				IAML		04 46 08.1	
	comp=N,45nm,0.5s						
SKOMA	**Sekoma**	**3.63**	**298**	*i* P	**Pn**	**04 45 08.9**	**+3.8**
SKOMA				*i* S	**Sb**	**04 45 53.6**	**-3.5**
SKOMA				IAML		04 46 08.0	
	comp=N,43nm,0.3s						
MPHEP	**Siloam, Limpop**	**4.17**	**37**	*e*P	**Pn**	**04 45 15.0**	**+2.3**
MPHEP				*e*S	**Sn**	**04 46 03.1**	**+1.4**
MPHEP				IAML		04 46 23.1	
	comp=Z,19nm,0.4s						
PMBG	**Pietermaritzbu**	**4.21**	**141**	*e*P	**Pn**	**04 45 15.8**	**+2.6**
PMBG				*e*S	**Sn**	**04 46 05.5**	**+2.8**
PMBG				IAML		04 46 18.5	
	comp=Z,37nm,0.4s						
MOPA	**Mopani**	**4.52**	**53**	*e*P	**Pn**	**04 45 18.9**	**+1.7**
MOPA				*e*S	**Sn**	**04 46 11.3**	**+1.2**
MOPA				IAML		04 46 27.2	
	comp=Z,34nm,0.4s						
KSTD	**Kokstad**	**4.63**	**160**	*e*P	**Pn**	**04 45 22.1**	**+3.2**
KSTD				*e*S	**Sn**	**04 46 14.8**	**+1.8**
KSTD				IAML		04 46 34.8	

	comp=Z,11nm,0.5s						
SOOWA	**Sowa**	**5.79**	**349**	*i* P	Pg	04 46 05.8	+6.4
SOOWA				*i* S	**Sg**	**04 47 09.5**	**-5.1**
ALKP	**Alkanpan, Nort**	**5.87**	**230**	*e*P	**Pn**	**04 45 37.4**	**+1.5**
ALKP				*e*S	**Sn**	**04 46 41.2**	**-2.2**
ALKP				IAML		04 47 11.8	
	comp=Z,20nm,0.5s						
BLWY	**Bulawayo**	**6.20**	**10**	*e*P	**Pn**	**04 45 40.6**	**+0.1**
BLWY				*e*S	**Sn**	**04 46 48.8**	**-2.9**
BLWY				IAML		04 47 28.4	
	comp=Z,21nm,0.4s						
BFON	**Badsfontein, M**	**6.41**	**210**	*e*P	**Pn**	**04 45 44.5**	**+1.1**
BFON				*e*S	**Sn**	**04 46 56.0**	**-0.9**
BFON				IAML		04 47 36.1	
	comp=Z,14nm,0.7s						
BRAK	**Brakfontein**	**6.78**	**215**	*e*P	**Pn**	**04 45 50.2**	**+1.8**
BRAK				*e*S	**Sn**	**04 47 03.9**	**-2.1**
BRAK				IAML		04 47 40.2	
	comp=Z,10nm,0.6s						
FRAZ	**Fraserburg**	**7.72**	**222**	*e*P	**Pn**	**04 46 02.5**	**+1.2**
FRAZ				*e*S	**Sn**	**04 47 25.6**	**-3.5**
FRAZ				IAML		04 48 09.8	
	comp=Z,6.1nm,0.4s						
MERW	**Merweville**	**8.20**	**218**	*e*P	**Pn**	**04 46 09.2**	**+1.2**
MERW				*e*S	**Sn**	**04 47 37.2**	**-3.8**
MERW				IAML		04 48 23.1	
	comp=Z,4.8nm,0.5s						

TIR ***11*** *05:04:57.4, 41°.65N×20°.73E, h9km±1km, ML2.4, ML2.4, Presumed earthquake*
SKO ***11*** *05:04:57.7, 41°.63N×20°.84E, h13km, ML2.5*
BEO ***11*** *05:04:59.3±0.4, 41°.69N×20°.73E, h0km, ML2.1/6*
ISC 11 05:04:57.5±1.0, 41°.66N±0°.02×20°.73E±0°.02, h8km±8km, n32, σ1°.26/57, 1C-1D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PHP	**Peshkopia**	**0.21**	**278**	Pg	**Pg**	**05 05 01.5**	**-0.4**
PHP				Sg	**Sg**	**05 05 05.1**	**+0.2**
PHP				IAML		05 05 05.3	
	7µm,0.3s						
OHR	**Ohrid**	**0.55**	**174**	⇑*i*Pg	**Pg**	**05 05 08.0**	**-0.2**
OHR				*i* Sg	**Sb**	**05 05 16.3**	**-1.1**
OHR				*e*Lg	Lg	05 05 17.6	
	comp=N,262nm,0.7s						
OHR				*e*Lg	Lg	05 05 18.1	
	comp=E,642nm,0.7s						
SKO	**Skopje**	**0.62**	**59**	*i* Pg	**Pg**	**05 05 08.8**	**-0.7**
SKO				*i* Sg	**Sg**	**05 05 17.7**	**0.0**
TIR	**Tirane**	**0.72**	**245**	Pg	**Pg**	**05 05 11.2**	**-0.1**
TIR				Sg	**Sb**	**05 05 22.1**	**-0.1**
TIR				IAML		05 05 28.1	
	comp=E,143nm,0.4s						
SDA	**Shkodra**	**1.00**	**294**	Pn	**Pg**	**05 05 16.0**	**-0.7**
SDA				Sn	**Sn**	**05 05 31.8**	**-0.3**
SDA				IAML		05 05 34.7	
	comp=E,107nm,0.3s						
KBN	**Korca**	**1.03**	**177**	Pn	**Pb**	**05 05 17.8**	**+0.1**
KBN				Sn	**Sb**	**05 05 31.1**	**-0.3**
BERA	**Berati**	**1.12**	**212**	Pn	**Pg**	**05 05 18.4**	**-0.6**
NEST	**Nestorio**	**1.27**	**169**	Pn	**Pn**	**05 05 21.5**	**0.0**
NEST				Sn	**Sn**	**05 05 40.2**	**+1.4**
NEST				IAML		05 05 46.3	
	comp=E,143nm,0.6s						
PDG	**Podgorica**	**1.34**	**306**	*e*Pg	**Pn**	**05 05 21.8**	**-0.7**
PDG				*e*Sg	**Sg**	**05 05 42.2**	**+1.6**
PDG	**Podgorica**	**1.34**	**306**	Pg	**Pn**	**05 05 21.8**	**-0.7**
PDG				Sg	**Sg**	**05 05 42.0**	**+1.4**
BARS	**Barje**	**1.41**	**35**	*e*Pg	**Pn**	**05 05 23.3**	**-0.2**
BARS				*e*Sg	**Sg**	**05 05 42.9**	**-0.1**
VAY	**Valandovo**	**1.43**	**103**	⇓*i*Pg	**Pn**	**05 05 23.4**	**-0.2**
VAY				*i* Sg	**Sn**	**05 05 42.3**	**-0.3**
VAY				*e*Lg	Lg	05 05 42.9	
	comp=E,31nm,0.5s						
VAY				*e*Lg	Lg	05 05 44.0	
	comp=N,42nm,0.7s						
LSK	**Leskovik**	**1.51**	**184**	Pn	**Pg**	**05 05 26.3**	**-0.2**
LSK				Sn	**Sg**	**05 05 46.9**	**+0.8**
BOSS	**Bosilegrad**	**1.55**	**57**	*e*Pg	**Pn**	**05 05 25.9**	**+0.4**
BOSS				*e*Sg	**Sg**	**05 05 47.2**	**-0.2**
SELS	**Selova**	**1.59**	**10**	*e*Pg	**Pn**	**05 05 26.3**	**+0.3**
SELS				*e*Sg	**Sg**	**05 05 49.8**	**+1.2**
SJES	**Sjenica**	**1.70**	**341**	*e*Pn	**Pb**	**05 05 29.1**	**+0.1**
SJES				*e*Sg	**Sg**	**05 05 52.1**	**0.0**
GOCS	**Kraljevo Serbi**	**1.91**	**3**	*e*Pn	**Pg**	**05 05 33.6**	**-0.5**
GOCS				*e*Sg	**Sg**	**05 05 59.4**	**+0.5**
IVAS	**Ivanjica**	**1.96**	**348**	*e*Pn	**Pb**	**05 05 33.9**	**+0.3**
IVAS				*e*Sg	**Sg**	**05 05 59.8**	**-0.9**
VTS	**Vitosha**	**2.10**	**62**	*e*Pn	**Pb**	**05 05 35.5**	**-0.4**
VTS				*e*Sn	**Sn**	**05 06 00.1**	**+0.6**
BOVS	**Bovan**	**2.10**	**20**	*e*Pn	**Pb**	**05 05 36.1**	**+0.2**

NEIC ***11*** *05:17:56.3,25˙47N×142˙75E,h10km*
GFZ ***11*** *05:17:56.1,25˙50N×142˙63E,h17km,Mw5.6/58,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm: Mrr2.31; Mθθ-2.47; Mϕϕ0.16; Mrθ-0.29; Mθϕ-0.75; Mϕr-1.21; Fault plane solution: M₀2.80312×10¹⁷ NP1:φ₁96.97955°, δ42.91701°,λ125.30440°. NP2:φ₂232.94146°,δ56.24043°, λ61.74835°. Principal axes: T 2.8571, Plg65.6146°, Azm88.7795°; N -0.1113, Plg23.1742°, Azm249.5678°; P -2.7458, Plg7.1748°, Azm342.6568°;*
ISC-PP ***11*** *05:17:56,25˙47N×142˙75E,h16km,Mwppsm5.9,Moment Tensor Solution. s42 Moment tensor: Scale 10¹⁷Nm; Mrr-0.39±.09; Mθθ-0.22±.13; Mϕϕ0.62±.14; Mrθ-0.05±.09; Mθϕ-0.45±.14; Mϕr0.02±.04; Fault plane solution: M₀8.51000×10¹⁷ NP1:φ₁s6.10000°,δ66.10000°, λ275.50000°. NP2:φ₂172.60000°,δ24.50000°, λ-102.30000°.*
GCMT ***11*** *05:17:57.1±0.1,25˙45N±0˙01×142˙76E±0˙01,h12km, MW5.6/164,Moment Tensor Solution. s119,c205; s164,c346; Duration: 1s5 Moment tensor: Scale 10¹⁷ Nm; Mrr2.46±.03; Mθθ-2.47±.03; Mϕϕ0.01±.03; Mrθ-0.05±.07; Mθϕ-0.91±.03; Mϕr-1.30±.09; Best double couple: M₀2.92500×10¹⁷ NP1:φ₁s94.00000°,δ45.00000°, λ125.00000°. NP2:φ₂229.00000°,δ55.00000°,λ60.00000°. Principal axes: T 3.0410, Plg66.0000°, Azm82.0000°; N -0.2270, Plg24.0000°, Azm247.0000°; P -2.8090, Plg5.0000°, Azm340.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NEIC ***11*** *05:17:58.9,25˙87N×143˙19E,h18km,Moment Tensor Solution. Duration: 3s8 Moment tensor: Scale 10¹⁷Nm; Mrr3.64; Mθθ-2.58; Mϕϕ-1.06; Mrθ-1.49; Mθϕ-0.82; Mϕr-3.36; Fault plane solution: M₀4.97000×10¹⁷ NP1: φs73.58000°,δ24.82000°,λ123.43000°. NP2: φs217.55000°,δ69.50000°,λ75.71000°. Principal axes: T 5.5051, Plg63.0000°, Azm105.0000°; N -1.3481, Plg13.0000°, Azm223.0000°; P -4.1570, Plg23.0000°, Azm319.0000°;*

ISC 11 05:17:56.7±0.4,25˙46N±0˙03×142˙73E±0˙04,h18km±1km, h18km:pP-P,n1469,σ1s76/1043,mb5.7/513,MS5.3/383, 46C-46D,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHH2	**Haha-jima-NKT2**	**1.27**	**337**	*e*P	**Pn**	**05 18 18.6**	**-1.0**
JHH2				A	A	05 18 18.6	
	comp=N,424nm,4.5s,comp=E,437nm,5.6s						
CBIJ	**Chichi jima**	**1.70**	**343**	*e*P	**Pn**	**05 18 25.6**	**+0.1**
CBIJ				A	A	05 18 25.6	
	comp=N,241nm,3.6s,comp=E,371nm,5.1s						
CBIJ				*e*S	**Sg**	**05 18 51.1**	**-0.4**
JCJ	**Chichijima**	**1.70**	**343**	Pn	**Pn**	**05 18 23.9**	**-1.7**
	comp=E,818nm,0.3s,baz=153,slow=9.7,SNR=217						
JCJ				Sn	**Sb**	**05 18 48.2**	**-0.3**
	comp=E,980nm,0.3s,baz=279,slow=23,SNR=15						
JCJ	**Chichijima**	**1.70**	**343**	P	**Pb**	**05 18 27.4**	**-0.1**
JCJ	**Chichijima**	**1.70**	**343**	S	**Sg**	**05 18 53.0**	**+1.5**
JCJ	**Chichijima**	**1.70**	**343**	P	**Pb**	**05 18 26.9**	**-0.6**
JAOM	**Aogashimamukai**	**7.44**	**340**	A	A	05 19 46.2	
	comp=N,26nm,4.9s,comp=E,42nm,6.6s						
JHCJ	**Hachijojimakas**	**8.00**	**342**	A	A	05 19 54.1	
	comp=N,17nm,9.6s,comp=E,18nm,7.9s						
JHJ2	**Mitsune**	**8.04**	**342**	Pn	**Pn**	**05 19 52.9**	**+0.3**
JHJ2	**Mitsune**	**8.04**	**342**	A	A	05 19 54.6	
	comp=N,16nm,8.5s,comp=E,23nm,6.1s						
JMKN	**Mikurajimanish**	**8.83**	**343**	A	A	05 20 05.6	
	comp=N,16nm,7.8s,comp=E,27nm,8.2s						
JMYK	**Miyake Tsubota**	**9.00**	**343**	A	A	05 20 07.9	
	comp=N,35nm,4.6s,comp=E,23nm,4.4s						
JSKK	**Shikinejimakit**	**9.35**	**342**	A	A	05 20 12.7	
	comp=N,14nm,10.7s,comp=E,17nm,11.5s						
JNIO	**Nijimaoohara**	**9.36**	**342**	A	A	05 20 12.7	
	comp=N,22nm,15.8s,comp=E,25nm,5.6s						
BSO3	**Boso 3**	**9.50**	**349**	*e*P	**Pn**	**05 20 13.4**	**+1.0**
JTHY	**Toshimahigashi**	**9.51**	**343**	A	A	05 20 14.9	
	comp=N,26nm,6.0s,comp=E,21nm,4.4s						
TTO3	**TONANKAI O.B.S**	**9.57**	**332**	A	A	05 20 14.7	
	comp=N,41nm,8.5s,comp=E,39nm,9.9s						
TTO2	**TONANKAI O.B.S**	**9.62**	**330**	A	A	05 20 15.4	
	comp=N,52nm,8.5s,comp=E,49nm,7.0s						
TTO4	**TONANKAI O.B.S**	**9.64**	**333**	A	A	05 20 15.4	
	comp=N,19nm,7.8s,comp=E,34nm,10.4s						
TTO1	**TONANKAI O.B.S**	**9.64**	**329**	A	A	05 20 15.5	
	comp=N,45nm,7.4s,comp=E,43nm,10.1s						
JIM2	**Oshima 3**	**9.65**	**344**	A	A	05 20 17.0	
	comp=N,13nm,8.9s,comp=E,16nm,7.6s						
BSO4	**Boso 4**	**9.72**	**348**	*e*P	**Pn**	**05 20 17.4**	**+1.9**
TTO5	**TONANKAI O.B.S**	**9.78**	**335**	A	A	05 20 17.5	
	comp=N,26nm,9.4s,comp=E,37nm,6.0s						
JIZS	**Izushimoda**	**9.81**	**341**	A	A	05 20 18.9	
	comp=N,8.0nm,11.1s,comp=E,9.0nm,8.8s						
TATJ	**Tateyama 2**	**9.85**	**346**	A	A	05 20 19.8	
	comp=N,21nm,7.6s,comp=E,21nm,8.2s						
JKUC	**kamogawauchiur**	**9.91**	**348**	A	A	05 20 20.6	
	comp=N,12nm,5.5s,comp=E,14nm,8.8s						
JSG	**Sagara**	**9.99**	**338**	Pn	**Pn**	**05 20 20.9**	**+1.6**
JSG	**Sagara**	**9.99**	**338**	A	A	05 20 21.2	
	comp=N,22nm,6.4s,comp=E,24nm,11.6s						
JHTM	**Izuhatsuma**	**10.00**	**342**	A	A	05 20 21.5	
	comp=N,8.0nm,14.9s,comp=E,14nm,12.0s						
JYO	**Yokosk**	**10.08**	**346**	A	A	05 20 22.9	
	comp=N,23nm,8.2s,comp=E,25nm,10.3s						
JCCN	**Chibachonan**	**10.12**	**348**	A	A	05 20 23.6	
	comp=N,43nm,10.4s,comp=E,46nm,7.8s						
JKKS	**Kakegawashinom**	**10.13**	**337**	A	A	05 20 23.0	
	comp=N,20nm,5.8s,comp=E,24nm,14.9s						
JFNN	**Fujinakano**	**10.31**	**341**	A	A	05 20 25.7	
	comp=N,15nm,4.8s,comp=E,17nm,6.3s						
HMMJ	**Hamamatsu 2**	**10.31**	**336**	A	A	05 20 25.6	
	comp=N,4.0nm,8.1s,comp=E,7.0nm,16.0s						
JIE	**Ise**	**10.32**	**331**	A	A	05 20 25.3	
	comp=N,5.0nm,8.8s,comp=E,5.0nm,19.5s						
JKDJ	**Kitadaitoujima**	**10.33**	**275**	A	A	05 20 21.1	
	comp=N,22nm,7.9s,comp=E,18nm,6.9s						
JSMT	**Sammumatsuo**	**10.34**	**350**	A	A	05 20 26.5	
	comp=N,60nm,7.7s,comp=E,42nm,6.5s						
SHZ3	**Shizuoka 3**	**10.34**	**339**	A	A	05 20 26.1	
	comp=N,7.0nm,11.4s,comp=E,8.0nm,8.6s						
JAA	**Atsumi**	**10.34**	**333**	A	A	05 20 25.7	
	comp=N,4.0nm,20.6s,comp=E,5.0nm,14.0s						
JCAJ	**Choshiashikaji**	**10.35**	**351**	A	A	05 20 26.9	
	comp=N,9.0nm,4.5s,comp=E,18nm,7.0s						
JMZ	**Minamidaito 2**	**10.39**	**274**	P	Pn	05 20 34.4	+9.5
JMZ	**Minamidaito 2**	**10.39**	**274**	S	Sn	05 22 31.6	+11
JMZ	**Minamidaito 2**	**10.39**	**274**	A	A	05 20 21.9	
	comp=N,26nm,6.7s,comp=E,19nm,5.3s						
TOK	**Tokyo**	**10.51**	**347**	A	A	05 20 28.8	
	comp=N,38nm,7.9s,comp=E,49nm,14.1s						
JSGW	**Sagamiharawaka**	**10.55**	**344**	A	A	05 20 29.2	
	comp=N,6.0nm,9.5s,comp=E,8.0nm,9.4s						
JIHU	**Itakohorinouch**	**10.64**	**350**	A	A	05 20 30.7	
	comp=N,28nm,3.9s,comp=E,28nm,4.2s						
JNY	**Yasuok**	**10.72**	**338**	*e*P	**Pn**	**05 20 31.9**	**+2.4**
JNY				A	A	05 20 31.9	
	comp=N,5.0nm,16.2s,comp=E,6.0nm,17.8s						
JAO	**Obara**	**10.85**	**335**	*e*P	**Pn**	**05 20 33.6**	**+2.4**
JAO				A	A	05 20 33.6	
	comp=N,6.0nm,16.5s,comp=E,8.0nm,15.9s						
INU	**Inuyama**	**11.02**	**335**	P	Pn	05 20 40.3	+6.9
INU	**Inuyama**	**11.02**	**335**	S	**Sn**	**05 22 44.1**	**+7.9**
INU	**Inuyama**	**11.02**	**335**		**Pn**	**05 20 35.3**	**+1.9**
INU	**Inuyama**	**11.02**	**335**	P	**Pn**	**05 20 36.3**	**+2.9**
	comp=Z,86nm,2.7s						
JEG	**Eigenji**	**11.09**	**332**	A	A	05 20 35.8	
	comp=N,6.0nm,12.7s,comp=E,4.0nm,20.5s						
JNT	**Takato**	**11.10**	**340**	A	A	05 20 36.7	
	comp=N,7.0nm,5.5s,comp=E,11nm,6.9s						
JGF	**Kuroka**	**11.11**	**337**	P	Pn	05 20 41.2	+6.4
JGF	**Kuroka**	**11.11**	**337**		**Pn**	**05 20 35.2**	**+0.4**
JGF	**Kuroka**	**11.11**	**337**	P	**Pn**	**05 20 37.0**	**+2.2**
	comp=Z,60nm,1.0s						
JGF	**Kuroka**	**11.11**	**337**	A	A	05 20 36.5	
	comp=N,5.0nm,17.7s,comp=E,7.0nm,18.0s						
JHO	**Hitachi**	**11.27**	**351**	*e*P	**Pn**	**05 20 37.0**	**+0.1**
JMN	**Monobe**	**11.27**	**319**	P	Pn	05 20 43.9	+6.9
JMN	**Monobe**	**11.27**	**319**		**Pn**	**05 20 39.2**	**+2.2**
JMN	**Monobe**	**11.27**	**319**	P	Pn	05 20 42.6	+5.6
	comp=Z,401nm,1.4s						
JAG	**Ashikaga**	**11.28**	**346**	*e*P	**Pn**	**05 20 36.7**	**-0.4**
JAG				A	A	05 20 36.7	
	comp=N,4.0nm,5.9s,comp=E,4.0nm,7.8s						
JGK	**Kuni**	**11.61**	**343**	A	A	05 20 43.5	
	comp=N,7.0nm,4.1s,comp=E,7.0nm,16.7s						
JNG	**Nsakai**	**11.61**	**341**	*e*P	**Pn**	**05 20 42.6**	**+0.9**
JGN	**Niukaw**	**11.69**	**338**	A	A	05 20 44.3	
	comp=N,4.0nm,21.5s,comp=E,6.0nm,18.2s						
MJAR	**Matsushiro Arr**	**11.70**	**342**	Pn	**Pn**	**05 20 42.3**	**-0.6**
	comp=E,0.3nm,0.3s,baz=164,slow=10.0,SNR=16						
MJAR				Sn	Sn	05 22 40.1	-13
	comp=E,0.1nm,0.3s,baz=146,slow=13,SNR=1.1						
MJAR				LR	LR	05 25 15.0	
	comp=E,18μm,20.3s,baz=155,slow=38						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**11.70**	**342**	P	**Pn**	**05 20 41.7**	**-1.2**
MJAR	**Matsushiro Arr**	**11.70**	**342**		**Pn**	**05 20 41.7**	**-1.2**
MAJO	**Matsushiro**	**11.70**	**342**	P	Pn	05 20 49.9	+7.0
MAJO	**Matsushiro**	**11.70**	**342**	P	**Pn**	**05 20 43.9**	**+1.0**
MAJO	**Matsushiro**	**11.70**	**342**		**Pn**	**05 20 42.0**	**-0.9**
MAJO	**Matsushiro**	**11.70**	**342**	P	**Pn**	**05 20 47.0**	**+4.1**
MAJO	**Matsushiro**	**11.70**	**342**	P	**Pn**	**05 20 44.9**	**+2.0**
	comp=Z,68nm,0.9s						
MJB9	**Matsu-Tunnel**	**11.71**	**342**		**Pn**	**05 20 41.8**	**-1.2**
GUMO	**Guam**	**11.98**	**170**	Pn	**Pn**	**05 20 46.4**	**-0.3**
	comp=Z,9.3nm,0.3s,baz=277,slow=4.0,SNR=12						
GUMO	**Guam**	**11.98**	**170**	P	**Pn**	**05 20 48.5**	**+1.8**
GUMO	**Guam**	**11.98**	**170**	P	**Pn**	**05 20 46.3**	**-0.4**
GUMO	**Guam**	**11.98**	**170**		**Pn**	**05 20 46.3**	**-0.4**
GUMO	**Guam**	**11.98**	**170**	P	**Pn**	**05 20 48.6**	**+1.9**
	comp=Z,835nm,1.2s						
JSU	**Suzuyama**	**12.36**	**302**	P	**P**	**05 21 00.0**	**-3.9**
JSU	**Suzuyama**	**12.36**	**302**		**Pn**	**05 20 52.4**	**+0.5**
JMM	**Marumori**	**12.47**	**353**	*e*P	**Pn**	**05 20 52.6**	**-0.8**
JNU	**Nakatsue**	**12.85**	**309**	Pn	**Pn**	**05 20 59.3**	**+0.7**
	comp=Z,0.1nm,0.3s,baz=110,slow=5.0,SNR=3.6						
JNU				LR	LR	05 24 11.9	
	comp=Z,2μm,20.8s,baz=110,slow=30 comp=Z,7.6nm,0.9s						
JNU				AML	AML		
JOW	**Kunigami**	**13.06**	**279**	LR	LR	05 25 10.6	
	comp=Z,3μm,20.4s,baz=91,slow=34						
JTU	**Tsushima**	**14.65**	**311**	P	**P**	**05 21 31.1**	**+1.8**
JTU	**Tsushima**	**14.65**	**311**		**Pn**	**05 21 23.4**	**+0.3**
JTM	**Tenmabayashi**	**15.35**	**355**	P	**P**	**05 21 37.4**	**+0.4**
JTM	**Tenmabayashi**	**15.35**	**355**		**Pn**	**05 21 32.0**	**-0.3**
JTM	**Tenmabayashi**	**15.35**	**355**	P	**Pn**	**05 21 32.2**	**-0.2**
	comp=Z,225nm,1.3s						
ERM	**Erimo**	**16.51**	**1**	P	**P**	**05 21 52.3**	**+2.4**
ERM	**Erimo**	**16.51**	**1**	*i* P	**Pn**	**05 21 47.0**	**-0.4**
ERM	**Erimo**	**16.51**	**1**	Pn	**Pn**	**05 21 47.7**	**+0.4**
ERM	**Erimo**	**16.51**	**1**	P	**P**	**05 21 48.9**	**-1.0**
ERM	**Erimo**	**16.51**	**1**	P	**P**	**05 21 52.3**	**+2.4**
	comp=Z,314nm,1.1s						
JEM	**Erimo**	**16.51**	**1**	P	**P**	**05 21 52.4**	**+2.5**
TJN	**Taejon**	**17.07**	**313**	P	**P**	**05 22 00.4**	**+4.2**
TJN	**Taejon**	**17.07**	**313**	*i* P	**Pn**	**05 21 54.4**	**-0.1**
TJN	**Taejon**	**17.07**	**313**	P	**Pn**	**05 21 55.1**	**+0.6**
	comp=Z,532nm,1.3s						
KSRS	**Korea Array**	**17.37**	**317**	P	**Pn**	**05 21 58.0**	**-0.2**
	comp=Z,0.4nm,0.3s,baz=149,slow=11,SNR=20						
KSRS				LR	LR	05 28 11.5	
	comp=Z,9μm,21.9s,baz=130,slow=36						
KSRS				ScP	**ScP**	**05 30 15.0**	**+1.1**
	comp=Z,0.7nm,0.4s,baz=76,slow=1.4,SNR=6.5						
KSRS				AML	AML		
KSRS	**Korea Array**	**17.37**	**317**	P	**Pn**	**05 21 58.0**	**-0.2**
KSAR	**Wonju Array Be**	**17.38**	**317**	P	**P**	**05 21 59.2**	**-0.4**
KSAR	**Wonju Array Be**	**17.38**	**317**		**P**	**05 21 59.2**	**-0.4**
KS19	**Wonju Array Si**	**17.43**	**317**		**Pn**	**05 21 59.2**	**+0.2**
INCN	**Inchon**	**18.20**	**315**	P	**P**	**05 22 11.5**	**+2.9**
INCN	**Inchon**	**18.20**	**315**	P	**Pn**	**05 22 06.5**	**-1.9**
INCN				S	**S**	**05 25 36.1**	**-0.2**
INCN	**Inchon**	**18.20**	**315**	P	**P**	**05 22 08.6**	**0.0**
INCN				pmax	pmax		
	comp=Z,60nm,1.1s						
INCN	**Inchon**	**18.20**	**315**	P	**P**	**05 22 08.6**	**0.0**
INCN	**Inchon**	**18.20**	**315**	P	**P**	**05 22 10.0**	**+1.4**
	comp=Z,160nm,2.5s						
ASAJ	**Asahikawa**	**18.61**	**360**	P	**Pn**	**05 22 15.6**	**+2.2**
	comp=Z,34nm,0.8s,baz=140,slow=11,SNR=8.4						
ASAJ				LR	LR	05 30 07.5	
	comp=Z,6μm,21.6s,baz=183,slow=39						
ASAJ	**Asahikawa**	**18.61**	**360**	P	**Pn**	**05 22 13.3**	**-0.1**
ASAJ				pmax	pmax		
	comp=Z,380nm,1.7s						
JKA	**Kamikawa-asahi**	**18.61**	**360**		**Pn**	**05 22 13.3**	**-0.1**
JKA	**Kamikawa-asahi**	**18.61**	**360**	P	**Pn**	**05 22 16.3**	**+2.9**
	comp=Z,136nm,1.2s						
YUK	**Yuzh-Kuril'sk**	**18.70**	**7**	*d i* P	**Pn**	**05 22 15.0**	**+0.5**
YUK				*i* S	**Sn**	**05 25 44.6**	**+1.4**
YUK				pmax	pmax		
	comp=Z,620nm,1.4s						
YUK				pmax	pmax		
	comp=N,549nm,1.1s						
YUK				pmax	pmax		
	comp=E,361nm,1.2s						
YUK				pmax	pmax		
	comp=Z,1μm,3.2s						
NACB	**Ninganchiao**	**19.23**	**271**	P	Pn	05 22 28.3	+7.2
NACB	**Ninganchiao**	**19.23**	**271**	P	**P**	**05 22 19.1**	**-1.0**
YHNB	**Yeheng**	**19.36**	**272**	P	Pn	05 22 30.1	+7.3
YHNB	**Yeheng**	**19.36**	**272**		**Pn**	**05 22 23.2**	**+0.5**
YULB	**Yu-li**	**19.63**	**268**	P	**Pn**	**05 22 30.0**	**+4.2**
YULB	**Yu-li**	**19.63**	**268**	P	**Pn**	**05 22 26.1**	**+0.2**
VLA	**Vladivostok**	**19.73**	**336**	P	**P**	**05 22 25.3**	**0.0**
SSE	**Sheshan**	**19.78**	**291**	P	**P**	**05 22 26.0**	**0.0**
SSE				S	**Sn**	**05 26 11.8**	**+2.4**
SSE				pmax	pmax		
	comp=Z,34nm,1.0s						
SSE				pmax	pmax		
	comp=Z,800nm,4.9s						
SSE				L	L		
	comp=Z,4μm,16.9s						
SSE				L	L		
	comp=Z,2μm,13.4s						
SSLB	**Suanglung**	**19.87**	**270**	P	**Pn**	**05 22 34.6**	**+5.8**
SSLB	**Suanglung**	**19.87**	**270**		**Pn**	**05 22 28.6**	**-0.1**
TWGBT	**Beinan**	**19.93**	**267**	P	**Pn**	**05 22 35.9**	**+6.4**
TEY	**Ternei**	**20.15**	**347**	⇑ *e*P	**P**	**05 22 25.6**	**-4.3**
TEY				pmax	pmax		
	comp=N,20nm,1.8s						
TEY				pmax	pmax		
	comp=Z,30nm,1.7s						
TEY				pmax	pmax		
	comp=E,10.0nm,1.5s						
TEY				pmax	pmax		
	comp=Z,600nm,4.4s						
TEY				pmax	pmax		
	comp=N,500nm,4.5s						
TEY				pmax	pmax		
	comp=E,100nm,4.5s						
KUR	**Kuril'sk**	**20.16**	**11**	*i* P	**P**	**05 22 29.1**	**-0.9**
TPUB	**Ta-pu**	**20.25**	**269**	P	Pn	05 22 39.3	+6.1
USRK	**Ussuriysk Ar.**	**20.63**	**338**	P	**P**	**05 22 35.0**	**-0.2**
	comp=E,16nm,0.9s,baz=156,slow=9.8,SNR=19						
USRK				LR	LR	05 30 28.2	
	comp=E,12μm,18.1s,baz=146,slow=36 comp=E,16nm,0.9s						
USA0B	**Ussuriysk Arra**	**20.64**	**338**	*i* P	**P**	**05 22 34.4**	**-0.8**
USA0B	**Ussuriysk Arra**	**20.64**	**338**		**P**	**05 22 35.5**	**+0.3**
YSS	**Yuzhno-Sakhali**	**21.45**	**0**	P	**P**	**05 22 46.1**	**+2.2**
YSS	**Yuzhno-Sakhali**	**21.45**	**0**	α *i* P	**P**	**05 22 45.7**	**+1.8**
YSS				*e*S	**S**	**05 26 40.1**	**-1.0**
YSS				pmax	pmax		
	comp=Z,40μm,7.8s						
YSS				pmax	pmax		
	comp=N,4μm,8.2s						
YSS				pmax	pmax		
	comp=Z,190nm,1.1s						
YSS				smax	smax		
	comp=N,30nm,1.1s						
YSS				smax	smax		
	comp=E,20nm,0.7s						
YSS				smax	smax		
	comp=N,10μm,10.0s						
YSS				smax	smax		
	comp=E,5μm,9.3s						
YSS				MLR	MLR		
	comp=Z,4μm,13.0s						
YSS				MLR	MLR		
	comp=N,4μm,15.0s						
YSS				MLR	MLR		
	comp=E,4μm,14.0s						
YSS	**Yuzhno-Sakhali**	**21.45**	**0**		**P**	**05 22 44.5**	**+0.6**
YSS	**Yuzhno-Sakhali**	**21.45**	**0**	P	**P**	**05 22 45.9**	**+1.9**
	comp=Z,213nm,1.2s						
QZH2	**Quanzhou**	**21.84**	**274**	P	**P**	**05 22 47.2**	**-1.1**
QZH2				S	**S**	**05 26 46.3**	**-2.9**
QZH2				pmax	pmax		
	comp=Z,930nm,6.5s						
QZH2				L	L		
	comp=Z,2μm,11.7s						
QZH2				L	L		
	comp=Z,4μm,12.7s						
QZH2				L	L		
	comp=Z,4μm,17.7s						
MDJ	**Mudanjiang**	**21.88**	**334**	P	**P**	**05 22 51.1**	**+2.5**
MDJ	**Mudanjiang**	**21.88**	**334**	P	**P**	**05 22 47.5**	**-1.1**
MDJ				S	**S**	**05 26 52.9**	**+3.3**
MDJ				sS	pS	05 26 56.6	+0.1
MDJ				pmax	pmax		
	comp=Z,12nm,0.8s						
MDJ				pmax	pmax		
	comp=Z,1μm,8.5s						
MDJ				L	L		
	comp=Z,26μm,16.7s						
NJ2	**Nanjing**	**21.92**	**293**	*e*P	**P**	**05 22 50.0**	**+0.9**
NJ2				sP	**pwP**	**05 22 58.9**	**+2.7**
NJ2				S	**S**	**05 26 49.2**	**-1.3**
NJ2				pmax	pmax		
	comp=Z,30nm,0.6s						
NJ2				pmax	pmax		
	comp=Z,1μm,8.5s						
NJ2				L	L		
	comp=Z,5μm,18.0s						
NJ2				L	L		
	comp=Z,5μm,13.7s						
NJ2				L	L		
	comp=Z,5μm,16.1s						
DL2	**Dalian**	**22.26**	**312**	P	**P**	**05 22 52.7**	**-0.1**
DL2				S	**S**	**05 26 58.9**	**+1.9**
DL2				pmax	pmax		
	comp=Z,55nm,0.9s						
DL2				pmax	pmax		
	comp=Z,710nm,7.0s						
DL2				L	L		
	comp=Z,5μm,13.7s						
DL2				L	L		
	comp=Z,6μm,16.8s						
DL2				L	L		
	comp=Z,7μm,15.7s						
SNY	**Shenyang**	**22.74**	**321**	P	**P**	**05 22 58.2**	**+0.4**
SNY				S	**S**	**05 26 57.0**	**-8.6**
SNY				pmax	pmax		
	comp=Z,53nm,1.0s						
SNY				pmax	pmax		
	comp=Z,800nm,6.7s						
SNY				L	L		
	comp=Z,4μm,12.6s						
SNY				L	L		
	comp=Z,4μm,14.3s						
SNY				L	L		
	comp=Z,5μm,13.2s						
H11N1	**WAKE ISLAND Hy**	**23.01**	**99**	P	**P**	**05 23 00.8**	**+0.2**
	baz=40,slow=75,SNR=3.9						
H11N1				T	T	05 46 56.5	
	baz=291,slow=75,SNR=92						
H11N2	**WAKE ISLAND Hy**	**23.01**	**99**	P	**P**	**05 23 00.8**	**+0.2**
	baz=40,slow=75,SNR=2.3						
H11N2				T	T	05 46 55.5	
	baz=291,slow=75,SNR=67						
H11N3	**WAKE ISLAND Hy**	**23.03**	**99**	P	**P**	**05 23 00.6**	**-0.1**
	baz=40,slow=75,SNR=3.5						
H11N3				T	T	05 46 54.6	
	baz=291,slow=75,SNR=103						
CN2	**Changchun**	**23.09**	**327**	P	**P**	**05 22 59.0**	**-2.4**
CN2				S	**S**	**05 27 05.5**	**-6.2**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,700nm,6.0s						
CN2				L	L		
	comp=Z,8μm,15.0s						
CN2				L	L		
	comp=Z,5μm,15.0s						
CN2				L	L		
	comp=Z,8μm,17.0s						
H11S3	**WAKE ISLAND Hy**	**23.25**	**103**	P	**P**	**05 23 03.4**	**+0.3**
H11S3				T	T	05 47 05.1	
	baz=292,slow=75,SNR=119						
H11S1	**WAKE ISLAND Hy**	**23.25**	**103**	P	**P**	**05 23 02.3**	**-0.8**
H11S1				T	T	05 47 06.1	
	baz=292,slow=75,SNR=127						
H11S2	**WAKE ISLAND Hy**	**23.27**	**103**	P	**P**	**05 23 06.2**	**+2.9**
H11S2				T	T	05 47 06.3	
	baz=292,slow=75,SNR=139						
UGL	**Uglegorsk**	**23.58**	**359**	*e*P	**P**	**05 23 07.9**	**+1.7**
UGL				*e*S	**S**	**05 27 24.9**	**+5.3**
UGL				pmax	pmax		
	comp=Z,300nm,2.5s						
UGL				pmax	pmax		
	comp=Z,5μm,5.7s						
UGL				smax	smax		
	comp=E,6μm,6.0s						
UGL				smax	smax		
	comp=N,21μm,10.0s						
UGL				MLR	MLR		
	comp=E,4μm,15.0s						
UGL				MLR	MLR		
	comp=N,6μm,11.0s						
UGL				MLR	MLR		
	comp=Z,5μm,13.0s						
BNX	**BinXian**	**23.68**	**333**	⇓ P	**P**	**05 23 05.2**	**-2.1**
BNX				pP	**pwP**	**05 23 16.4**	**+1.2**
BNX				sP	sP	05 23 21.3	+7.4
BNX				S	**S**	**05 27 19.5**	**-1.9**
BNX				sS	Sn	05 27 37.7	-5.2
BNX				pmax	pmax		
	comp=Z,81nm,1.3s						
BNX				pmax	pmax		
	comp=Z,2μm,7.0s						
BNX				L	L		
	comp=Z,11μm,15.7s						
BNX				L	L		
	comp=Z,14μm,15.1s						
BNX				L	L		
	comp=Z,17μm,15.9s						
PATS	**Pohnpei**	**23.76**	**139**	P	**P**	**05 23 07.6**	**-0.7**
	comp=Z,605nm,1.4s,comp=Z,0.0nm						
PATS	**Pohnpei**	**23.76**	**139**	P	**P**	**05 23 09.0**	**+0.7**
PATS	**Pohnpei**	**23.76**	**139**		**P**	**05 23 06.8**	**-1.5**
PATS	**Pohnpei**	**

comp=Z,19µm,18.5s
WHN L L
comp=Z,16µm,15.3s
GRNR Gornyy 25.73 351 ⇑*i*P **P** **05 23 27.1 +1.1**
GRNR pmax pmax
comp=Z,20nm,1.0s
GRNR MLR MLR
comp=E,3µm,14.0s
GRNR MLR MLR
comp=N,3µm,19.0s
GRNR MLR MLR
comp=Z,5µm,18.0s
BJI2 Beijing 26.52 310 P **P** **05 23 31.4 -1.9**
BJI2 PP **PnPn** **05 24 16.7 +3.1**
BJI2 S **S** **05 28 01.0 -5.7**
BJI2 pmax pmax
comp=Z,11nm,1.1s
BJI2 pmax pmax
comp=Z,510nm,10.2s
HNS HongShan 26.61 303 ⇑P **P** **05 23 31.5 -2.6**
HNS PP **PnPn** **05 24 18.9 +4.1**
HNS S **S** **05 28 15.7 +7.5**
HNS pmax pmax
comp=Z,50nm,1.1s
HNS L L
comp=Z,4µm,15.5s
HNS L L
comp=Z,7µm,15.5s
HNS L L
comp=Z,9µm,14.9s
SKR Severo-Kuril's 27.21 19 *i*P **P** **05 23 40.0 +0.7**
HEH HeiHe 27.44 338 *e*P **P** **05 23 42.4 +1.0**
HEH pP **sP** **05 23 46.7 -1.3**
HEH S **S** **05 28 20.2 -0.7**
HEH pmax pmax
comp=Z,100nm,1.1s
HEH pmax pmax
comp=Z,1µm,6.1s
HEH L L
comp=Z,14µm,19.2s
HEH L L
comp=Z,14µm,18.5s
HEH L L
comp=Z,20µm,16.0s
LYN LuoYang 27.65 296 *e*P **P** **05 23 42.3 -1.2**
LYN pP pwP 05 23 50.2 -0.8
LYN S **S** **05 28 21.1 -3.5**
LYN sS sS 05 28 46.2 +14
LYN pmax pmax
comp=Z,27nm,0.7s
LYN pmax pmax
comp=Z,580nm,7.1s
LYN L L
comp=Z,4µm,13.0s
LYN L L
comp=Z,8µm,15.1s
LYN L L
comp=Z,12µm,16.3s
NKL Nikolayevsk 27.69 357 *e*P **P** **05 23 43.9 +0.3**
NKL *e*S **S** **05 28 28.4 +3.5**
NKL pmax pmax
comp=N,170nm,1.8s
NKL pmax pmax
comp=E,119nm,1.8s
NKL pmax pmax
comp=Z,472nm,1.8s
NKL smax smax
comp=E,1µm,6.7s
NKL smax smax
comp=N,571nm,3.0s
NKL MLR MLR
comp=N,9µm,16.0s
NKL MLR MLR
comp=E,4µm,15.0s
NKL MLR MLR
comp=Z,13µm,15.0s
MANU Manus Island 27.71 170 **P** **05 23 43.8 -0.3**
JAY Jayapura 27.88 184 LR LR 05 32 56.5
comp=Z,4µm,20.0s,baz=10.0,slow=32
JAY Jayapura 27.88 184 P **P** **05 23 45.3 -0.4**
GENI Genyem 28.00 185 P **P** **05 23 50.1 +3.4**
GENI Genyem 28.00 185 P **P** **05 23 49.5 +2.8**
comp=Z,113nm,1.5s
GENI Genyem 28.00 185 P **P** **05 23 46.7 0.0**
comp=Z,111nm,1.6s
XLT XiLinHaoTe 28.42 317 *e*P **P** **05 23 50.7 +0.3**
XLT sP pwP 05 24 05.1 +6.9
XLT PP **PnPn** **05 24 40.4 +0.8**
XLT PcP **PcP** **05 27 02.9 +0.5**
XLT S **S** **05 28 33.3 -3.5**
XLT sS sS 05 28 49.2 +5.0
XLT pmax pmax
comp=Z,7.0nm,0.8s
XLT pmax pmax
comp=Z,440nm,7.8s
XLT L L
comp=Z,900nm,14.5s
XLT L L
comp=Z,7µm,17.4s
XLT L L
comp=Z,7µm,19.7s
TIY Taiyuan 28.43 303 *e*P **P** **05 23 52.1 +1.6**
TIY S **S** **05 28 34.7 -2.3**
TIY SS **SnSn** **05 30 02.7 +7.2**
TIY pmax pmax
comp=Z,580nm,7.8s
TIY L L
comp=Z,6µm,17.9s
TIY L L
comp=Z,3µm,15.8s
TIY L L
comp=Z,5µm,17.9s
SIJI Sorong 28.43 205 LR LR 05 33 19.1
comp=Z,11µm,18.1s,baz=26,slow=33
HIA Hailar 29.75 329 P P 05 24 07.8 +5.7
PEA0B Petropavlovsk- 29.81 18 *i*P **P** **05 24 02.9 +0.3**
PEA0B Petropavlovsk- 29.81 18 P **P** **05 24 03.1 +0.6**
PETK Petropavlovsk- 29.81 18 P **P** **05 24 04.3 +1.8**
comp=Z,14nm,0.9s,baz=194,slow=5.5,SNR=11
PETK PcP **PcP** **05 27 05.5 -0.1**
comp=Z,7.7nm,1.0s,baz=278,slow=2.2,SNR=3.6
PETK LR LR 05 37 24.3
comp=Z,2µm,20.7s,baz=197,slow=39
comp=Z,14nm,0.9s
PETK Petropavlovsk- 29.81 18 P **P** **05 24 04.5 +1.9**
HILR Hailar Array B 29.95 329 P **P** **05 24 04.5 +0.6**
comp=Z,2.9nm,0.4s,baz=138,slow=11,SNR=5.4
HILR PcP **PcP** **05 27 06.3 +0.1**
comp=Z,1.3nm,0.4s,baz=134,slow=8.3,SNR=1.4
HILR LR LR 05 36 14.1
comp=Z,3µm,18.8s,baz=75,slow=37
comp=Z,2.9nm,0.4s
FAKI Fak Fak 29.99 201 P P 05 24 09.4 +5.0
FAKI Fak Fak 29.99 201 **P** **05 24 04.6 +0.2**
FAKI IAMs_20 IAMs_20 05 33 20.1
comp=Z,7µm,21.0s
FAKI Fak Fak 29.99 201 P **P** **05 24 05.7 +1.3**
comp=Z,47nm,1.2s
FAKI Fak Fak 29.99 201 P **P** **05 24 08.1 +3.6**
comp=Z,47nm,1.2s
PET Petropavlovsk 30.02 19 *e*P **P** **05 24 06.2 +1.9**
PET *e*S **S** **05 29 02.6 +1.2**
PET pmax pmax
comp=Z,84nm,1.9s
PET pmax pmax
comp=Z,2µm,5.0s
PET pmax pmax
comp=Z,300nm,19.9s
PET Petropavlovsk 30.02 19 P **P** **05 24 03.4 -0.9**
PET IAmb IAmb 05 24 07.4
comp=Z,371nm,1.9s
PET Petropavlovsk 30.02 19 P **P** **05 24 04.8 +0.5**
comp=Z,82nm,2.1s
PET Petropavlovsk 30.02 19 P **P** **05 24 06.6 +2.3**
comp=Z,86nm,2.1s
HHC Hu-ho-hao-te 30.08 308 *e*P **P** **05 24 05.3 +0.1**
HHC S **S** **05 28 57.5 -5.5**
HHC pmax pmax
comp=Z,14nm,0.7s
HHC pmax pmax
comp=Z,350nm,5.7s
HHC L L
comp=Z,5µm,18.1s
HHC L L
comp=Z,4µm,18.1s
HHC L L
comp=Z,3µm,17.3s
XAN Xi'an 30.47 294 P **P** **05 24 07.1 -1.5**
XAN pP pwP 05 24 18.9 +2.9
XAN PP **PnPn** **05 25 08.4 +1.0**
XAN S **S** **05 29 06.0 -3.1**
XAN sS sS 05 29 23.5 +7.1
XAN SS **ScP** **05 30 50.3 +0.8**
XAN pmax pmax
comp=Z,44nm,1.1s
XAN pmax pmax
comp=Z,730nm,4.6s
XAN L L
comp=Z,9µm,14.4s
XAN L L
comp=Z,4µm,16.7s
XAN L L
comp=Z,9µm,15.1s
ZEA Zeya 30.52 342 *e*P **P** **05 24 09.2 +0.5**
ZEA *e*S **S** **05 29 04.7 -4.6**
ZEA pmax pmax
comp=E,20nm,0.6s
ZEA pmax pmax
comp=N,50nm,0.9s
ZEA pmax pmax
comp=Z,80nm,0.9s
ZEA pmax pmax
comp=E,100nm,4.2s
ZEA pmax pmax
comp=N,300nm,4.4s
ZEA pmax pmax
comp=Z,400nm,4.3s
ZEA smax smax
comp=N,900nm,13.4s
ZEA MLR MLR
comp=N,5µm,14.0s
ZEA MLR MLR
comp=E,2µm,14.0s
ZEA MLR MLR
comp=Z,6µm,15.0s
KMSI Cibinong 30.66 219 P **P** **05 24 11.3 +0.9**
RABL Rabaul 30.87 161 P **P** **05 24 11.6 -0.6**
RABL IAmb IAmb 05 24 16.1
comp=Z,109nm,0.9s
KRVT Keravat (AS076 30.94 162 LR LR 05 35 26.6
comp=Z,5µm,21.6s,baz=346,slow=34
QIZ Qiongzhong 31.05 265 P **P** **05 24 14.6 +0.7**
QIZ S **S** **05 29 21.4 +3.0**
QIZ L L
comp=Z,1µm,8.8s
QIZ L L
comp=Z,2µm,9.0s
QIZ L L
comp=Z,1µm,9.0s
GTOI Gorontalo 31.17 221 P **P** **05 24 13.8 -1.1**
comp=Z,2µmcomp=Z,113nm,1.5s
BTO2 Baotou 31.24 307 *e*P **P** **05 24 15.0 -0.5**
BTO2 pP **pwP** **05 24 26.6 +3.6**
BTO2 S **S** **05 29 23.4 +2.1**
BTO2 SS **SnSn** **05 31 06.5 +2.4**
BTO2 pmax pmax
comp=Z,24nm,0.5s
BTO2 pmax pmax
comp=Z,320nm,3.9s
BTO2 L L
comp=Z,9µm,14.8s
BTO2 L L
comp=Z,10µm,17.5s
BTO2 L L
comp=Z,13µm,17.1s
MSAI Masohi 31.61 207 P **P** **05 24 22.1 +3.3**
SANI Sanana 31.80 213 P P 05 24 25.0 +4.6
SANI Sanana 31.80 213 P **P** **05 24 21.8 +1.4**
comp=Z,1µmcomp=Z,30nm,0.8s
SANI Sanana 31.80 213 P **P** **05 24 19.0 -1.4**
comp=Z,30nm,0.9s
KKM Kota Kinabalu 31.88 237 P P 05 24 25.8 +4.5
KKM Kota Kinabalu 31.88 237 **P** **05 24 21.2 -0.1**
KKM Kota Kinabalu 31.88 237 P **P** **05 24 23.5 +2.2**
comp=Z,1µmcomp=Z,52nm,1.2s
KKM Kota Kinabalu 31.88 237 P **P** **05 24 21.3 0.0**
comp=Z,52nm,1.2s
TOLI2 Tolitoli 32.16 225 P P 05 24 28.3 +4.7
TOLI2 Tolitoli 32.16 225 **P** **05 24 24.1 +0.4**
TOLI2 Tolitoli 32.16 225 P **P** **05 24 23.3 -0.3**
comp=Z,44nm,1.2s
BNDI Bandanaira 32.30 204 P P 05 24 29.5 +4.7
BNDI Bandanaira 32.30 204 P **P** **05 24 26.6 +1.8**
comp=Z,222nm,1.2s
BNDI Bandanaira 32.30 204 P **P** **05 24 27.0 +2.1**
comp=Z,223nm,1.2s
GYA Guiyang 32.38 280 ⇓P P 05 24 32.5 +6.9
GYA S **S** **05 29 39.1 -0.2**
GYA pmax pmax
comp=Z,46nm,0.9s
GYA LR LR
comp=N,3µm,14.6s
GYA LR LR
comp=E,2µm,21.7s
GYA LR LR
comp=Z,2µm,14.8s
LUWI Luwuk 32.67 219 P **P** **05 24 28.4 +0.4**
LUWI Luwuk 32.67 219 P **P** **05 24 26.9 -1.1**
LUWI IAmb IAmb 05 24 35.9
comp=Z,151nm,1.1s
LUWI Luwuk 32.67 219 P **P** **05 24 28.6 +0.6**
comp=Z,3µmcomp=Z,106nm,1.0s
LUWI Luwuk 32.67 219 P **P** **05 24 26.8 -1.2**
comp=Z,106nm,1.1s
CIT Chita 34.52 328 *e*P **P** **05 24 44.6 +0.7**
CIT *e* 05 25 56.3
CIT *e* 05 26 22.8
CIT *e* 05 27 19.3
CIT *e*S **S** **05 30 19.0 +7.1**
CIT *e* 05 32 19.6
CIT *e* 05 35 02.4
CIT pmax pmax
comp=Z,368nm,2.6s
MA2 Magadan 34.55 7 P **P** **05 24 48.4 +4.4**
MA2 Magadan 34.55 7*ce*P **P** **05 24 44.6 +0.6**
MA2 pmax pmax
comp=Z,233nm,2.5s
MA2 Magadan 34.55 7 P **P** **05 24 44.7 +0.7**
comp=Z,3µmcomp=Z,75nm,1.3s
MA2 Magadan 34.55 7 P **P** **05 24 45.4 +1.4**
comp=Z,69nm,1.3s
CD2 Chengdu 34.66 288 P **P** **05 24 43.8 -1.6**
CD2 S **S** **05 30 11.0 -3.4**
CD2 pmax pmax
comp=Z,50nm,0.6s
CD2 pmax pmax
comp=Z,690nm,4.7s
CD2 L L
comp=Z,10µm,14.6s
CD2 L L
comp=Z,7µm,14.0s
CD2 L L
comp=Z,5µm,15.9s
LZH Lanzhou 34.85 297 *e*P **P** **05 24 45.4 -1.7**
LZH sP pwP 05 24 56.5 +1.8
LZH S **S** **05 30 14.5 -3.0**
LZH pmax pmax
comp=Z,94nm,1.2s
LZH pmax pmax
comp=Z,620nm,4.1s
LZH L L
comp=Z,5µm,13.4s
LZH L L
comp=Z,5µm,13.7s
LZH L L
comp=Z,8µm,14.1s
PMG Port Moresby 34.92 172 LR LR 05 39 02.6
comp=Z,4µm,18.0s,baz=340,slow=36
PMG Port Moresby 34.92 172 P **P** **05 24 49.7 +2.1**
PMG Port Moresby 34.92 172 P **P** **05 24 49.4 +1.8**
PMG Port Moresby 34.92 172*ce*P **P** **05 24 47.8 +0.2**
PMG pmax pmax
comp=Z,365nm,2.5s
PMG Port Moresby 34.92 172 **P** **05 24 46.9 -0.7**
PMG IAmb IAmb 05 24 53.8
comp=Z,135nm,0.9s
PMG Port Moresby 34.92 172 P **P** **05 24 47.6 -0.1**
comp=Z,227nm,2.5s
LZDM Lanzhou Array 34.95 297 P **P** **05 24 46.5 -1.7**
comp=Z,20nm,0.5s,baz=116,slow=8.4,SNR=26
LZDM PcP **PcP** **05 27 20.4 -0.1**
comp=Z,2.4nm,0.3s,baz=151,slow=3.3,SNR=2.8
LZDM LR LR 05 39 28.9
comp=Z,4µm,19.5s,baz=85,slow=37
comp=Z,20nm,0.5s
KDI Kendari 35.16 217 P **P** **05 24 51.0 +1.3**
comp=Z,168nm,2.1s
SLVN Son La 35.79 272 P **P** **05 24 59.2 +4.0**
SLVN Son La 35.79 272 P **P** **05 24 57.4 +2.2**
comp=Z,5nm,1.0s
ULN Ulaanbaatar 35.85 318 P **P** **05 24 54.7 -0.9**
ULN S **S** **05 30 36.1 +3.5**
ULN Ulaanbaatar 35.85 318*ce*P **P** **05 24 54.3 -1.2**
ULN pmax pmax
comp=Z,14nm,1.0s
ULN Ulaanbaatar 35.85 318 **P** **05 24 55.1 -0.4**
ULN Ulaanbaatar 35.85 318 IAMs_20 IAMs_20 05 39 57.6
comp=Z,5µm,21.0s
ULN Ulaanbaatar 35.85 318 P **P** **05 24 54.6 -0.9**
comp=Z,3µmcomp=Z,105nm,0.9s
ULN Ulaanbaatar 35.85 318 P **P** **05 24 54.1 -1.5**
comp=Z,27nm,0.9s
KKSI Kolaka, Sulawe 35.87 218 P **P** **05 24 58.5 +2.7**
comp=Z,4µmcomp=Z,124nm,0.7s
SHEM Shemya Is, Ala 36.02 33 LR LR 05 39 35.2
comp=Z,3µm,19.0s,baz=226,slow=36
KMI2 Kunming 36.06 278 P **P** **05 24 58.4 +0.7**
KMI2 S **S** **05 30 35.9 -0.5**
KMI2 pmax pmax
comp=Z,31nm,1.3s
KMI2 L L
comp=Z,2µm,13.1s
KMI2 L L
comp=Z,2µm,16.9s
KMI2 L L
comp=Z,2µm,14.2s
SONM Songino Array 36.24 318 P **P** **05 24 56.7 -2.1**
comp=Z,4.2nm,0.7s,baz=129,slow=9.1,SNR=16
SONM PcP **PcP** **05 27 23.4 -0.4**
comp=Z,8.7nm,0.8s,baz=134,slow=3.6,SNR=7.3
SONM LR LR 05 39 40.4
comp=Z,6µm,20.5s,baz=116,slow=36
comp=Z,4.2nm,0.7s
SONM Songino Array 36.24 318 P **P** **05 24 57.8 -1.0**
SONM 05 27 23.4
SONM pmax pmax
comp=Z,13nm,0.8s
SONM Songino Array 36.24 318 P **P** **05 24 57.8 -1.0**
MMSI Mamuju 36.28 223 P **P** **05 24 59.5 +0.1**
comp=Z,1µmcomp=Z,59nm,1.1s
BBSI Bau Bau 36.48 215 P **P** **05 25 02.8 +1.8**
PZH PanZhiHua 36.75 281 P **P** **05 25 03.8 +0.3**
PZH S **S** **05 30 44.5 -2.3**
PZH pmax pmax
comp=Z,60nm,0.9s
PZH pmax pmax
comp=Z,500nm,5.3s
PZH L L
comp=Z,1µm,12.6s
PZH L L
comp=Z,2µm,20.8s
PZH L L
comp=Z,2µm,17.6s
SPSI Sidrap Palu 36.77 221 P **P** **05 25 04.3 +0.8**
TATA Tatamba Isabel 37.53 152 P **P** **05 25 12.9 +3.0**
YAK Yakutsk 37.60 350 LR LR 05 41 47.0
comp=Z,4µm,18.5s,baz=156,slow=38
YAK Yakutsk 37.60 350 *e*P **P** **05 25 07.7 -2.3**
YAK *e**PP **pwP** **05 25 16.9 -0.9**
YAK *e* 05 26 42.6
YAK *e* 05 27 28.3
YAK *e*S **S** **05 30 56.1 -2.5**
YAK *e*SSS SSS 05 33 58.9
YAK *e* 05 35 25.1
YAK pmax pmax
comp=Z,58nm,1.3s
YAK pmax pmax
comp=E,7.0nm,1.1s
YAK pmax pmax
comp=N,25nm,1.2s
YAK pmax pmax
comp=Z,262nm,2.6s
YAK pmax pmax
comp=N,277nm,2.2s
YAK smax smax
comp=E,179nm,2.3s
YAK smax smax
comp=N,306nm,3.0s
YAK MLR MLR
comp=E,7µm,16.0s
YAK Yakutsk 37.60 350 P **P** **05 25 10.0 -0.1**
YAK Yakutsk 37.60 350 IAMs_20 IAMs_20 05 39 22.4
comp=Z,5µm,22.0s
YAK Yakutsk 37.60 350 P **P** **05 25 09.9 -0.1**
comp=Z,74nm,1.1s
KAPI Kappang 37.63 220 LR LR 05 39 08.0
comp=Z,2µm,21.1s,baz=34,slow=34
KAPI Kappang 37.63 220 P P 05 25 15.4 +4.6
KAPI Kappang 37.63 220 P **P** **05 25 11.8 +1.0**
KAPI Kappang 37.63 220 *i*P **P** **05 25 09.7 -1.1**
KAPI pmax pmax
comp=Z,211nm,1.5s
KAPI Kappang 37.63 220 **P** **05 25 10.7 -0.1**
KAPI IAmb IAmb 05 25 32.3
comp=Z,219nm,1.4s
KAPI Kappang 37.63 220 P **P** **05 25 13.4 +2.6**
comp=Z,652nmcomp=Z,992nmcomp=Z,61nm,1.6s
KAPI Kappang 37.63 220 P **P** **05 25 11.3 +0.5**
KAPI Kappang 37.63 220 P **P** **05 25 11.1 +0.3**
comp=Z,118nm,1.6s
BKSI Bulukumba 37.67 219 P **P** **05 25 12.0 +0.9**
comp=Z,2µmcomp=Z,116nm,1.0s
MKS Makassar 37.96 220 P **P** **05 25 15.2 +1.6**
comp=Z,5µmcomp=Z,249nm,1.5s
SEY Seymchan 38.01 7*ce*P **P** **05 25 15.3 +1.8**
SEY pmax pmax
comp=Z,64nm,1.0s
BSSI Bau Bau, Buton 38.14 218 P **P** **05 25 15.2 +0.1**
SAVO Savo Central 38.21 152 P **P** **05 25 16.8 +1.1**
GTA2 Gaotai 38.50 302 P **P** **05 25 16.0 -2.1**
GTA2 S **S** **05 31 11.2 -1.8**
GTA2 SS **SnSn** **05 33 51.6 -8.3**
GTA2 pmax pmax
comp=Z,8.0nm,1.2s
GTA2 pmax pmax
comp=Z,410nm,7.3s
GTA2 L L
comp=Z,4µm,17.5s
GTA2 L L
comp=Z,3µm,17.8s
GTA2 L L
comp=Z,4µm,20.0s
ZAK Zakamensk 39.16 320 *e*P **P** **05 25 21.1 -2.4**
ZAK pmax pmax
comp=Z,26nm,1.2s
KDU Kakadu 39.22 196 P **P** **05 25 22.9 -1.2**
comp=Z,29nm,1.7s
MMRI Maumere 39.33 213 P **P** **05 25 28.2 +3.1**
MMRI Maumere 39.33 213 P **P** **05 25 26.0 +0.9**
MMRI Maumere 39.33 213 P **P** **05 25 27.2 +2.1**
comp=Z,127nm,0.9s
SOEI Soe 39.36 209 P **P** **05 25 27.5 +2.0**
SOEI Soe 39.36 209 **P** **05 25 25.6 +0.1**
SOEI IAmb IAmb 05 25 54.1
comp=Z,262nm,1.4s
SOEI IAMs_20 IAMs_20 05 40 07.4
comp=Z,5µm,22.0s
SOEI Soe 39.36 209 P **P** **05 25 27.4 +2.0**
comp=Z,3µmcomp=Z,125nm,1.1s
SOEI Soe 39.36 209 P **P** **05 25 24.2 -1.2**
comp=Z,126nm,1.1s
DRS Darwin Rock St 39.39 198 P **P** **05 25 29.3 +3.8**
IRK Irkutsk 39.43 323 *e*P **P** **05 25 27.0 +1.4**
IRK pmax pmax
comp=Z,26nm,1.9s
TLY Talaya 39.52 322 LR LR 05 43 00.1
comp=Z,11µm,18.7s,baz=114,slow=38
TLY Talaya 39.52 322 P **P** **05 25 28.8 +2.5**
TLY S **S** **05 31 32.8 +5.0**
TLY Talaya 39.52 322 *i*P **P** **05 25 24.4 -1.9**
TLY pmax pmax
comp=Z,38nm,1.3s
TLY Talaya 39.52 322 **P** **05 25 27.2 +0.9**
TLY Talaya 39.52 322 P **P** **05 25 28.9 +2.5**
comp=Z,33nm,1.1s
EDFI Ende, Flores 39.70 214 P **P** **05 25 27.4 -0.9**
MTN Manton Dam 39.72 198 P **P** **05 25 27.1 -1.2**
comp=Z,63nm,1.1s,comp=Z,0.0nm

MTN	Manton Dam	39.72 198		P	P	05 25 26.6	-1.7	
TNCH	TengChong	39.85 279	P	P	05 25 28.4	-1.3		
TNCH			S	S	05 31 32.7	-1.1		
TNCH			pmax	pmax				
	comp=Z,68nm,0.9s							
TNCH			pmax	pmax				
	comp=Z,460nm,4.4s							
TNCH			L	L				
	comp=Z,2µm,11.4s							
TNCH			L	L				
	comp=Z,1µm,13.3s							
TNCH			L	L				
	comp=Z,3µm,15.1s							
BATI	Baumata	40.03 210	P	P	05 25 32.2	+1.3		
	comp=Z,3µmcomp=Z,131nm,1.4s							
CHTO	Chiang Mai	40.96 270	P	P	05 25 45.7	+7.0		
CHTO	Chiang Mai	40.96 270	P	P	05 25 38.2	-0.5		
CHTO	Chiang Mai	40.96 270	P	P	05 25 39.0	+0.3		
CHTO			pmax	pmax				
	comp=Z,60nm,1.5s							
CHTO	Chiang Mai	40.96 270		P	05 25 39.0	+0.3		
CHTO	Chiang Mai	40.96 270	P	P	05 25 40.4	+1.7		
CHTO	Chiang Mai	40.96 270	P	P	05 25 37.7	-1.0		
CHTO	Chiang Mai	40.96 270	P	P	05 25 38.5	-0.2		
	comp=Z,25nm,1.6s							
CMAR	Chiang Mai Arr	41.07 269	P	P	05 25 38.4	-1.2		
	comp=Z,2.8nm,0.5s,baz=60,slow=8.4,SNR=15							
CMAR			ScP	ScP	05 31 28.6	+0.3		
	comp=Z,1.9nm,0.3s,baz=94,slow=2.4,SNR=4.7							
CMAR			LR	LR	05 42 31.2			
	comp=Z,773nm,19.5s,baz=75,slow=36							
	comp=Z,2.8nm,0.5s							
CMAR	Chiang Mai Arr	41.07 269	P	P	05 25 40.6	+1.0		
CMAR	Chiang Mai Arr	41.07 269		P	05 25 40.6	+1.0		
DBNI	Kabupaten Domp	41.29 218	P	P	05 25 43.6	+2.2		
	comp=Z,2µmcomp=Z,76nm,1.6s							
PLAI	Plampang	41.86 219	P	P	05 25 48.3	+2.3		
PLAI	Plampang	41.86 219	P	P	05 25 47.2	+1.2		
	comp=Z,3µmcomp=Z,142nm,2.4s							
PLAI	Plampang	41.86 219	P	P	05 25 45.5	-0.5		
	comp=Z,141nm,2.4s							
GOMU	GeErMu	42.15 297	P	P	05 25 47.5	-1.2		
GOMU			S	S	05 32 06.5	-1.6		
GOMU			pmax	pmax				
	comp=Z,29nm,1.0s							
GOMU			L	L				
	comp=Z,990nm,15.5s							
GOMU			L	L				
	comp=Z,2µm,15.2s							
GOMU			L	L				
	comp=Z,3µm,15.6s							
TWSI	Taliwang, Sumb	42.30 220	P	P	05 25 50.8	+1.2		
	comp=Z,2µmcomp=Z,80nm,0.9s							
KNGR	Kungurtug, Tuv	42.67 318	*i* P	P	05 25 51.5	-0.9		
KNGR			pmax	pmax				
	comp=Z,8.0nm,0.9s							
KHKI	Kahang-Kahang	42.75 222	P	P	05 25 55.1	+1.8		
KNRA	Kununurra	43.10 200	P	P	05 25 55.3	-0.7		
	comp=Z,47nm,2.0s							
KNRA	Kununurra	43.10 200	P	P	05 25 55.2	-0.8		
	comp=Z,47nm,2.0s							
NPW	Naypyitaw	43.22 272	P	P	05 25 58.4	+1.3		
	comp=Z,40nm,1.1s							
MTSU	Mount Surprise	43.36 178	P	P	05 25 58.8	+0.6		
	comp=Z,21nm,0.9s							
MTSU	Mount Surprise	43.36 178	P	P	05 25 58.8	+0.6		
	comp=Z,21nm,0.9s							
MTSU	Mount Surprise	43.36 178	P	P	05 25 58.6	+0.4		
MTSU	Mount Surprise	43.36 178	P	P	05 25 58.7	+0.6		
	comp=Z,21nm,0.9s							
JAGI	Jajag, Banyuwa	43.72 223	P	P	05 26 06.5	+5.4		
JAGI	Jajag, Banyuwa	43.72 223		P	05 26 00.9	-0.2		
JAGI	Jajag, Banyuwa	43.72 223	P	P	05 26 00.4	-0.7		
	comp=Z,64nm,1.3s							
MORE	Moreh	43.77 279	P	P	05 26 00.6	-0.9		
TPI	Tanjungpandan	44.07 236	P	P	05 26 03.4	-0.6		
	comp=Z,46nm,0.8s							
BILL	Bilibino	44.94 12	*ce*P	P	05 26 11.8	+1.6		
BILL			pmax	pmax				
	comp=Z,319nm,2.5s							
BILL	Bilibino	44.94 12	P	P	05 26 10.2	0.0		
BILL			IAmb	IAmb	05 26 12.9			
	comp=Z,148nm,1.2s							
BILI	Bilibino, Chuk	44.98 12	P	P	05 26 11.6	+0.9		
	comp=Z,107nm,1.8s							
DSRI	Dabo	44.99 241	P	P	05 26 13.5	+2.2		
	comp=Z,52nm,1.0s							
KULM	Kulim	44.99 251	P	P	05 26 13.7	+2.3		
KULM	Kulim	44.99 251		P	05 26 11.2	-0.1		
KULM	Kulim	44.99 251	P	P	05 26 12.7	+1.3		
	comp=Z,827nmcomp=Z,52nm,1.0s							
IPM	Ipoh	45.09 249	P	P	05 26 14.3	+2.1		
IPM	Ipoh	45.09 249	P	P	05 26 12.9	+0.7		
	comp=Z,908nmcomp=Z,50nm,0.8s							
IPM	Ipoh	45.09 249	P	P	05 26 12.3	+0.1		
	comp=Z,50nm,0.8s							
CTA	Charters Tower	45.41 175	LR	LR	05 44 03.5			
	comp=Z,2µm,21.3s,baz=331,slow=35							
CTAO	Charters Tower	45.41 175	P	P	05 26 16.9	+2.4		
CTAO	Charters Tower	45.41 175	P	P	05 26 15.1	+0.6		
	comp=Z,164nm,1.7s							
QIS	Mount Isa	45.85 184	P	P	05 26 17.9	0.0		
	comp=Z,54nm,1.6s							
QIS	Mount Isa	45.85 184	P	P	05 26 17.7	-0.3		
	comp=Z,54nm,1.6s							
QIS	Mount Isa	45.85 184	P	P	05 26 18.6	+0.6		
QIS	Mount Isa	45.85 184	P	P	05 26 18.0	0.0		
	comp=Z,54nm,1.6s							
WR8	Warramunga Arr	45.85 191		P	05 26 17.3	-0.7		
WRAB	Tennant Creek	45.85 191	P	P	05 26 18.7	+0.7		
WRAB	Tennant Creek	45.85 191	*ce*P	P	05 26 17.7	-0.4		
WRAB			pmax	pmax				
	comp=Z,169nm,1.3s							
WRAB	Tennant Creek	45.85 191	P	P	05 26 17.6	-0.4		
WRAB	Tennant Creek	45.85 191	IAMs_20	IAMs_20	05 43 41.5			
	comp=Z,5µm,22.0s							
WRAB	Tennant Creek	45.85 191	P	P	05 26 17.4	-0.6		
	comp=Z,150nm,1.0s							
WRA	Warramunga Arr	45.87 191	P	P	05 26 16.9	-1.3		
	comp=Z,13nm,0.4s,baz=12,slow=8.8,SNR=63							
WRA			ScP	ScP	05 31 47.5	-0.1		
	comp=Z,3.0nm,1.1s,baz=18,slow=4.7,SNR=4.4							
WRA			S	S	05 33 01.0	-0.6		
	comp=Z,4.8nm,1.1s,baz=7.1,slow=8.9,SNR=15							
WRA			LR	LR	05 44 14.8			
	comp=Z,4µm,21.5s,baz=90,slow=35							
	comp=Z,13nm,0.4s							
WRA	Warramunga Arr	45.87 191	P	P	05 26 17.0	-1.1		
WRA			pmax	pmax				
	comp=Z,75nm,1.7s							
WRA	Warramunga Arr	45.87 191		P	05 26 17.0	-1.1		
KPJI	Karang Pucung	46.30 230	P	P	05 26 23.8	+2.1		
	comp=Z,57nm,1.2s							
FITZ	Fitzroy Crossi	46.38 203	P	P	05 26 22.4	+0.2		
	comp=Z,43nm,1.4s							
FITZ	Fitzroy Crossi	46.38 203	P	P	05 26 22.1	-0.1		
	comp=Z,43nm,1.4s							
FITZ	Fitzroy Crossi	46.38 203	LR	LR	05 47 04.8			
	comp=Z,847nm,18.2s,baz=26,slow=38							
FITZ	Fitzroy Crossi	46.38 203	P	P	05 26 23.9	+1.7		
FITZ	Fitzroy Crossi	46.38 203	P	P	05 26 21.8	-0.4		
	comp=Z,43nm,1.4s							
LEM	Lembang	46.86 232	LR	LR	05 45 22.0			
	comp=Z,459nm,21.8s,baz=51,slow=35							
TIXI	Tiksi	46.88 354	P	P	05 26 26.0	+0.5		
	comp=Z,4.5nm,0.3s,baz=159,slow=7.2,SNR=14							
TIXI			S	S	05 33 18.5	+3.4		
	comp=Z,4.2nm,0.3s,baz=329,slow=1.5,SNR=3.5							
TIXI			LR	LR	05 47 24.4			
	comp=Z,3µm,20.1s,baz=168,slow=38							
	comp=Z,4.5nm,0.3s							
TIXI	Tiksi	46.88 354	*ce*P	P	05 26 25.9	+0.5		
TIXI			pmax	pmax				
	comp=Z,68nm,2.5s							
TIXI	Tiksi	46.88 354		P	05 26 25.4	-0.1		
TIXI	Tiksi	46.88 354	IAMs_20	IAMs_20	05 45 58.0			
	comp=Z,3µm,21.0s							
TIXI	Tiksi	46.88 354	P	P	05 26 25.7	+0.2		
	comp=Z,65nm,1.0s							
SANVU	Saraoutou	47.14 147	P	P	05 26 29.9	+1.8		
SANVU	Saraoutou	47.14 147		P	05 26 27.4	-0.7		
SANVU			IAMs_20	IAMs_20	05 45 10.3			
	comp=Z,4µm,20.0s							
SANVU	Saraoutou	47.14 147	P	P	05 26 28.1	0.0		
	comp=Z,187nm,1.0s							
BBJI	Bungbulang	47.28 231	P	P	05 26 35.3	+5.9		
BBJI	Bungbulang	47.28 231	P	P	05 26 30.2	+0.8		
BBJI			IAmb	IAmb	05 26 39.3			
	comp=Z,75nm,1.4s							
BBJI	Bungbulang	47.28 231	P	P	05 26 31.9	+2.5		
	comp=Z,37nm,1.1s							
BKNI	Bangkinang	47.36 245	P	P	05 26 31.5	+1.5		
AKUT	Akutan	47.40 39	P	P	05 26 30.6	+0.8		
PSI	Prapat	47.75 249	P	P	05 26 34.8	+1.6		
PSI	Prapat	47.75 249	P	P	05 26 33.9	+0.7		
PSI			pmax	pmax				
	comp=Z,46nm,0.9s							
RPSI	Rantau Prapat	47.81 249		P	05 26 33.9	+0.4		
RPSI	Rantau Prapat	47.81 249	P	P	05 26 33.3	-0.2		
	comp=Z,50nm,0.8s							
WMQ	Urumqi	47.94 307	*e*P	P	05 26 33.8	-0.5		
WMQ			pP	sP	05 26 40.7	-0.3		
WMQ			PcP	PcP	05 28 03.8	+1.3		
WMQ			PP	PP	05 28 20.3	-5.9		
WMQ			S	S	05 33 27.9	-3.2		
WMQ			pmax	pmax				
	comp=Z,12nm,1.1s							
WMQ			pmax	pmax				
	comp=Z,250nm,4.5s							
WMQ			L	L				
	comp=Z,5µm,16.7s							
WMQ			L	L				
	comp=Z,2µm,23.5s							
WMQ			L	L				
	comp=Z,3µm,24.1s							
LHMI	Lhok Sumawe	48.20 253	P	P	05 26 43.0	+6.4		
MNSI	Mandailing Nat	48.30 246	P	P	05 26 39.7	+2.4		
	comp=Z,9nm,0.8s							
PPI	Padang Panjang	48.33 244	P	P	05 26 39.8	+2.3		
	comp=Z,1µmcomp=Z,65nm,1.2s							
KCSI	Kotacane, Aceh	48.35 251	P	P	05 26 37.6	-0.2		
	comp=Z,47nm,1.1s							
MASI	Maura Aman, Be	48.46 240	P	P	05 26 40.4	+1.8		
	comp=Z,3µmcomp=Z,204nm,1.2s							
AS15	Alice Springs	49.55 191	P	P	05 26 46.8	+0.1		
	comp=Z,25nm,1.6s							
AS15	Alice Springs	49.55 191	P	P	05 26 47.0	+0.3		
	comp=Z,25nm,1.6s							
AS17	Alice Springs	49.57 191	P	P	05 26 46.3	-0.5		
	comp=Z,28nm,1.5s							
AS17	Alice Springs	49.57 191	P	P	05 26 46.5	-0.3		
	comp=Z,28nm,1.5s							
AS01	Alice Springs	49.57 191	P	P	05 26 48.1	+1.2		
	comp=Z,28nm,1.4s							
AS01	Alice Springs	49.57 191	P	P	05 26 48.7	+1.8		
	comp=Z,28nm,1.4s							
AS01	Alice Springs	49.57 191	P	P	05 26 49.6	+2.7		
AS31	Alice Springs	49.58 191	P	P	05 26 49.1	+2.1		
	comp=Z,8.9nm,0.6s							
AS31	Alice Springs	49.58 191	P	P	05 26 49.4	+2.4		
	comp=Z,8.9nm,0.6s							
ASAR	Alice Springs	49.58 191	P	P	05 26 46.0	-1.0		
	comp=Z,3.6nm,0.7s,baz=19,slow=12,SNR=33							
ASAR			PcP	PcP	05 28 07.0	-1.5		
	comp=Z,7.9nm,0.8s,baz=16,slow=3.9,SNR=4.6							
ASAR			S	S	05 33 54.4	0.0		
	comp=Z,8.5nm,1.1s,baz=15,slow=17,SNR=12							
ASAR			LR	LR	05 46 30.5			
	comp=Z,6µm,21.6s,baz=28,slow=35							
	comp=Z,3.6nm,0.7s							
ASAR	Alice Springs	49.58 191	P	P	05 26 46.3	-0.7		
ASAR	Alice Springs	49.58 191		P	05 26 46.3	-0.7		
AS09	Alice Springs	49.61 191	P	P	05 26 47.0	-0.1		
	comp=Z,25nm,0.9s							
AS09	Alice Springs	49.61 191	P	P	05 26 47.8	+0.7		
	comp=Z,25nm,0.9s							
GSI	Gunungsitoli	49.69 248	P	P	05 26 48.6	+0.6		
GSI	Gunungsitoli	49.69 248		P	05 26 47.4	-0.6		
GSI			IAmb	IAmb	05 27 02.2			
	comp=Z,88nm,1.0s							
GSI	Gunungsitoli	49.69 248	P	P	05 26 47.8	-0.2		
	comp=Z,96nm,1.1s							
GSI	Gunungsitoli	49.69 248	P	P	05 26 47.2	-0.8		
	comp=Z,96nm,1.1s							
ZSN	Zaisan	50.18 312	*e*P	P	05 26 51.1	-0.2		
ZSN	Zaisan	50.18 312	*e*P	P	05 26 51.2	-0.2		
ZALV	Zalesovo Beam	51.05 320	P	P	05 26 55.8	-1.9		
	comp=Z,9.4nm,0.7s,baz=99,slow=6.5,SNR=17							
ZALV			PcP	PcP	05 28 12.6	-0.9		
	comp=Z,6.1nm,0.8s,baz=92,slow=3.6,SNR=1.9							
ZALV			ScP	ScP	05 32 10.0	+0.9		
	comp=Z,0.4nm,0.3s,baz=107,slow=9.2,SNR=1.7							
ZALV			ScS	ScS	05 36 47.5	+0.1		
	comp=Z,0.6nm,0.3s,baz=177,slow=8.9,SNR=3.5							
ZALV			LR	LR	05 49 51.6			
	comp=Z,6µm,18.8s,baz=98,slow=38							
	comp=Z,9.4nm,0.7s							
ZALV	Zalesovo Beam	51.05 320	P	P	05 26 56.8	-0.9		
ZALV	Zalesovo Beam	51.05 320		P	05 26 56.8	-0.9		
L14K	Kuka Creek	51.16 30	IAmb	IAmb	05 27 01.9			
	comp=Z,172nm,1.4s							
EIDS	Eidsvold	51.17 170	P	P	05 26 60.0	+1.1		
	comp=Z,52nm,2.2s							
EIDS	Eidsvold	51.17 170	P	P	05 27 00.3	+1.3		
	comp=Z,52nm,2.2s							
EIDS	Eidsvold	51.17 170	P	P	05 27 00.2	+1.3		
N14K	Kuskokwak Cree	51.19 32	IAMs_20	IAMs_20	05 48 00.5			
	comp=Z,3µm,19.0s							
J14K	Nanvaranak Lak	51.26 28	IAmb	IAmb	05 27 02.7			
	comp=Z,156nm,1.2s							
MBWA	Marble Bar	51.45 208	P	P	05 27 01.7	+0.7		
	comp=Z,132nm,1.4s							
MBWA	Marble Bar	51.45 208	P	P	05 27 02.0	+1.0		
	comp=Z,132nm,1.4s							
MBWA	Marble Bar	51.45 208	P	P	05 27 01.1	+0.1		
MBWA	Marble Bar	51.45 208	P	P	05 27 01.2	+0.1		
MBWA	Marble Bar	51.45 208	P	P	05 27 00.4	-0.6		
QLP	Quilpie	51.76 178	P	P	05 27 03.4	+0.2		
	comp=Z,208nm,1.8s							
QLP	Quilpie	51.76 178	P	P	05 27 03.5	+0.2		
	comp=Z,208nm,1.8s							
QLP	Quilpie	51.76 178	P	P	05 27 05.8	+2.5		
MK31	Makanchi Array	51.90 311	*ce*P	P	05 27 04.9	+0.6		
MKAR	Makanchi Array	51.90 311	P	P	05 27 03.2	-1.1		
	comp=Z,9.1nm,0.8s,baz=92,slow=8.5,SNR=30							
MKAR			PcP	PcP	05 28 16.4	-0.5		
	comp=Z,6.2nm,0.9s,baz=87,slow=6.4,SNR=1.6							
MKAR			ScP	ScP	05 32 14.1	+1.1		
	comp=Z,3.1nm,1.1s,baz=72,slow=4.7,SNR=2.9							
MKAR			LR	LR	05 50 15.1			
	comp=Z,2µm,18.6s,baz=82,slow=38							
	comp=Z,9.1nm,0.8s							
O15K	Ungalikthiuk R	51.90 33	IAmb	IAmb	05 27 07.1			
	comp=Z,171nm,1.3s							
O15K			IAMs_20	IAMs_20	05 50 37.3			
	comp=Z,3µm,20.0s							
F15K	North Star Dit	51.95 25	IAMs_20	IAMs_20	05 52 36.5			
	comp=Z,3µm,20.0s							
N15K	Kwethluk River	52.03 32	IAMs_20	IAMs_20	05 47 55.6			
	comp=Z,3µm,20.0s							
WRKA	Warakurna	52.11 197	P	P	05 27 06.0	0.0		
	comp=Z,31nm,1.2s							
WRKA	Warakurna	52.11 197	P	P	05 27 06.1	+0.2		
	comp=Z,31nm,1.2s							
MAKZ	Makanchi	52.11 311	P	P	05 27 05.1	-0.8		
MAKZ			pmax	pmax				
	comp=Z,26nm,1.1s							
MAKZ			MLR	MLR				
	comp=Z,3µm,18.0s							
MAKZ	Makanchi	52.11 311		P	05 27 05.1	-0.8		
MAKZ			IAMs_20	IAMs_20	05 51 30.9			
	comp=Z,3µm,18.0s							
DZM	Mont Dzumac	52.55 152	LR	LR	05 46 37.5			
	comp=Z,5µm,20.9s,baz=338,slow=33							
G16K	Koyuk River	52.71 26	IAMs_20	IAMs_20	05 52 27.5			
	comp=Z,3µm,19.0s							
P16K	Nushagak River	52.78 34	IAMs_20	IAMs_20	05 43 29.7			
	comp=Z,3µm,20.0s							
M16K	Timber Creek	52.79 31	IAmb	IAmb	05 27 13.8			
	comp=Z,134nm,1.2s							
M16K			IAMs_20	IAMs_20	05 49 38.8			
	comp=Z,3µm,20.0s							
I17K	Unalakleet	52.86 28	IAmb	IAmb	05 27 14.6			
	comp=Z,108nm,1.1s							
O16K	Kotwok River B	52.86 33	IAmb	IAmb	05 27 14.2			
	comp=Z,122nm,1.2s							
O16K			IAMs_20	IAMs_20	05 51 16.8			
	comp=Z,2µm,19.0s							
J17K	VABM Dome	53.39 28	IAmb	IAmb	05 27 18.6			
	comp=Z,137nm,1.2s							
SEM	Semipalatinsk	53.43 315	*e*P	P	05 27 15.3	-0.4		
SEM			pmax	pmax				
	comp=Z,27nm,0.8s							
SEM			MLR	MLR				
	comp=Z,2µm,16.0s							
SEM	Semipalatinsk	53.43 315	*e*P	P	05 27 15.4	-0.4		
	comp=Z,27nm,0.8s							
SEM			LR	LR	05 51 10.4			
	comp=Z,2µm,15.8s							
F17K	Baldwin Pennin	53.52 24	IAmb	IAmb	05 27 19.4			
	comp=Z,100nm,1.2s							
N17K	Nushagak Hills	53.52 32	IAmb	IAmb	05 27 19.5			
	comp=Z,137nm,1.1s							
N17K			IAMs_20	IAMs_20	05 48 42.9			
	comp=Z,3µm,18.0s							
K17K	Iditarod	53.54 29	IAMs_20	IAMs_20	05 49 49.7			
	comp=Z,3µm,18.0s							
RDOG	Red Dog Mine	53.54 22	IAmb	IAmb	05 27 20.6			
	comp=Z,99nm,1.2s							
M17K	Holitna River	53.60 31	IAmb	IAmb	05 27 20.1			
	comp=Z,170nm,1.2s							
M17K			IAMs_20	IAMs_20	05 50 34.1			
	comp=Z,3µm,18.0s							
P17K	Kvichak River	53.60 34	IAMs_20	IAMs_20	05 43 54.3			
	comp=Z,3µm,21.0s							
SHLS	Shalkode	53.92 306	*e*P	P	05 27 16.7	-2.7		
SHLS	Shalkode	53.92 306	*e*P	P	05 27 16.7	-2.7		
KIP	Kipapa	54.13 81	P	P	05 27 22.6	+1.5		
KIP	Kipapa	54.13 81	P	P	05 27 22.8	+1.7		
KIP	Kipapa	54.13 81	*i* P	P	05 27 20.5	-0.6		
L18K	Granite Mounta	54.14 30	IAmb	IAmb	05 27 24.2			
	comp=Z,121nm,1.3s							
N18K	Kilae Creek	54.17 32	IAmb	IAmb	05 27 24.1			
	comp=Z,100nm,1.2s							
N18K			IAMs_20	IAMs_20	05 49 36.3			
	comp=Z,3µm,20.0s							
H18K	Honhosa River	54.21 26	IAmb	IAmb	05 27 23.9			
	comp=Z,69nm,1.1s							
WUS	Wushi	54.21 304	IAMs_20	IAMs_20	05 53 57.8			
	comp=Z,2µm,18.0s							
UZB	Uzynbulak	54.24 306	*e*P	P	05 27 21.3	-0.5		
UZB			*e*S	S	05 34 59.2	+0.7		
UZB	Uzynbulak	54.24 306	*e*P	P	05 27 21.3	-0.5		
UZB			*e*S	S	05 34 59.3	+0.7		
G18K	Tagagawik	54.32 26	IAmb	IAmb	05 27 24.8			
	comp=Z,71nm,1.1s							
NRIK	Noril'sk	54.34 339	P	P	05 27 21.8	0.0		
	comp=Z,55nm,1.0s,baz=113,slow=8.1,SNR=37							
NRIK			S	S	05 34 58.6	-0.1		
	comp=Z,3.2nm,0.7s,baz=150,slow=8.1,SNR=8.6							
NRIK			LR	LR	05 52 43.1			
	comp=Z,4µm,18.5s,baz=118,slow=38							
	comp=Z,55nm,1.0s							
NRIK	Noril'sk	54.34 339	*c i* P	P	05 27 21.4	-0.5		
NRIK			pmax	pmax				
	comp=Z,87nm,1.0s							
NRIK	Noril'sk	54.34 339		P	05 27 21.9	0.0		
NRIK			IAmb	IAmb	05 27 27.9			
	comp=Z,76nm,1.0s							
J18K	Innoko River	54.43 29	IAMs_20	IAMs_20	05 51 06.9			
	comp=Z,3µm,18.0s							
KPKS	Kokpek	54.47 306	*e*P	P	05 27 22.9	-0.4		
KPKS			*e*S	S	05 35 02.2	+0.7		
KPKS	Kokpek	54.47 306	*e*P	P	05 27 23.0	-0.4		
KPKS			*e*S	S	05 35 02.3	+0.7		
KURK	Kurchatov	54.48 315	P	P	05 27 21.8	-1.3		
KURK	Kurchatov	54.48 315	*i* P	P	05 27 20.9	-2.3		
KURK			pmax	pmax				
	comp=Z,72nm,0.8s							
KURK	Kurchatov	54.48 315		P	05 27 22.8	-0.4		
KURK			IAmb	IAmb	05 27 28.2			
	comp=Z,59nm,0.8s							
KURBB	Kurchatov Arra	54.54 315	P	P	05 27 21.9	-1.7		
	comp=Z,37nm,0.8s,baz=92,slow=7.8,SNR=128							
KURBB			LR	LR	05 52 24.6			
	comp=Z,5µm,19.0s,baz=97,slow=38							
	comp=Z,37nm,0.8s							
KURBB	Kurchatov Arra	54.54 315	P	P	05 27 21.8	-1.7		
KURBB			pmax	pmax				
	comp=Z,68nm,0.8s							
TDK	Taldyqorghan	54.61 308	*e*P	P	05 27 24.1	-0.1		
TDK			pmax	pmax				
	comp=Z,17nm,0.4s							
TDK			MLR	MLR				
	comp=Z,2µm,15.0s							
TDK	Taldyqorghan	54.61 308	*e*P	P	05 27 24.1	-0.1		
	comp=Z,17nm,0.4s							
TDK			LR	LR	05 52 00.8			
	comp=Z,2µm,15.0s							
SATY	Saty	54.70 306	*d i* P	P	05 27 24.7	-0.3		
SATY	Saty	54.70 306	‖ *i* P	P	05 27 24.7	-0.3		
AULRC	Lightning Ridg	54.81 174	P	P	05 27 25.7	0.0		
N19K	Bonanza Creek	54.88 32	IAmb	IAmb	05 27 29.2			
	comp=Z,76nm,1.1s							
L19K	White Mountain	54.97 31	IAmb	IAmb	05 27 29.7			
	comp=Z,78nm,1.2s							
L19K			IAMs_20	IAMs_20	05 51 34.4			
	comp=Z,2µm,18.0s							
DGTI	Dogotuki	54.97 135	P	P	05 27 28.1	+1.0		
Q19K	Cape Douglas,	54.98 35	IAMs_20	IAMs_20	05 48 18.7			
	comp=Z,3µm,20.0s							
MSVF	Nonsavu	55.00 138	LR	LR	05 46 48.9			
	comp=Z,2µm,21.6s,baz=331,slow=32							
MSVF	Nonsavu	55.00 138	P	P	05 27 29.5	+2.1		
MSVF	Nonsavu	55.00 138	*i* P	P	05 27 27.1	-0.3		
MSVF			pmax	pmax				
	comp=Z,103nm,1.1s							
MSVF	Nonsavu	55.00 138		P	05 27 26.9	-0.5		
MSVF			IAmb	IAmb	05 27 35.2			
	comp=Z,94nm,1.1s							
G19K	Purcell Mounta	55.01 26	IAMs_20	IAMs_20	05 54 52.3			
	comp=Z,2µm,18.0s							
J19K	Poorman	55.04 28	IAmb	IAmb	05 27 30.0			
	comp=Z,111nm,1.2s							
M19K	Big River Lodg	55.13 31	IAmb	IAmb	05 27 31.0			
	comp=Z,178nm,1.9s							
M19K			IAMs_20	IAMs_20	05 51 30.7			
	comp=Z,3µm,19.0s							
GIRL	Giralia	55.23 212	P	P	05 27 36.0	+7.2		
TARG	Taragay, Kyrgy

ARMA IAmb IAmb 05 27 50.2
comp=Z,96nm,1.3s
IMAR Indian Mountai 56.28 26 P **P** **05 27 36.6 +0.7**
CNPM China Poot 56.29 34 IAMs_20 IAMs_20 05 51 59.2
comp=Z,2µm,20.0s
PPLA Purkeypile 56.32 30 IAMs_20 IAMs_20 05 54 59.0
comp=Z,2µm,19.0s
CAST Castle Rocks 56.46 29 IAmb IAmb 05 27 40.3
comp=Z,99nm,1.1s
CAST IAMs_20 IAMs_20 05 56 03.6
comp=Z,2µm,19.0s
SKT Skwentna 56.47 31 IAmb IAmb 05 27 39.4
comp=Z,95nm,1.2s
SKT IAMs_20 IAMs_20 05 52 23.1
comp=Z,2µm,20.0s
BRLK Bradley Lake 56.49 34 IAMs_20 IAMs_20 05 52 17.3
comp=Z,2µm,20.0s
G21K Allakaket 56.50 26 IAmb IAmb 05 27 40.9
comp=Z,133nm,1.2s
CMSA Cobar Meteorol 56.75 177 P **P** **05 27 40.9 +1.3**
comp=Z,172nm,1.7s
CMSA Cobar Meteorol 56.75 177 P **P** **05 27 41.0 +1.5**
comp=Z,172nm,1.7s
CMSA Cobar Meteorol 56.75 177 P **P** **05 27 42.3 +2.7**
SUA Susitna One 56.77 32 IAmb IAmb 05 27 43.6
comp=Z,216nm,1.9s
SUA IAMs_20 IAMs_20 05 50 38.0
comp=Z,2µm,18.0s
AUPHS Peel High Scho 56.78 172 P **P** **05 27 42.7 +2.9**
MEEK Meekatharra 56.78 206 P P 05 27 44.6 +4.6
comp=Z,92nm,2.9s
MEEK Meekatharra 56.78 206 P P 05 27 44.4 +4.5
MEEK Meekatharra 56.78 206 P **P** **05 27 42.8 +2.8**
E21K Killik River 56.81 23 IAmb IAmb 05 27 42.8
comp=Z,102nm,1.2s
E21K IAMs_20 IAMs_20 05 55 58.8
comp=Z,2µm,19.0s
I21K Tanana 56.83 27 IAmb IAmb 05 27 43.3
comp=Z,90nm,1.2s
POHA Pohakuloa 56.85 82 P **P** **05 27 42.5 +1.6**
SLKM Skilak Lake 56.91 33 IAMs_20 IAMs_20 05 49 57.6
comp=Z,3µm,20.0s
KTH Kantishna Hill 56.99 29 IAMs_20 IAMs_20 05 53 39.8
comp=Z,2µm,19.0s
STKA Stephens Creek 57.03 181 P **P** **05 27 41.6 0.0**
comp=Z,383nm,2.0s
STKA Stephens Creek 57.03 181 P **P** **05 27 42.3 +0.7**
comp=Z,383nm,2.0s
STKA Stephens Creek 57.03 181 P **P** **05 27 39.9 -1.6**
comp=Z,11nm,0.6s,baz=350,slow=7.6,SNR=12
STKA LR LR 05 53 39.1
comp=Z,1µm,18.8s,baz=0.2,slow=38
comp=Z,11nm,0.6s
STKA Stephens Creek 57.03 181 P **P** **05 27 43.9 +2.4**
STKA Stephens Creek 57.03 181 *i* P **P** **05 27 40.6 -0.9**
STKA Stephens Creek 57.03 181 **P** **05 27 41.2 -0.3**
BPAW Bear Paw Mtn. 57.05 29 **P** **05 27 41.9 +0.5**
BPAW IAMs_20 IAMs_20 05 52 47.4
comp=Z,3µm,18.0s
M22K Willow 57.10 31 IAmb IAmb 05 27 44.0
comp=Z,99nm,0.9s
CUT Chulitna 57.12 31 P **P** **05 27 42.2 +0.4**
CUT IAmb IAmb 05 28 38.8
comp=Z,103nm,1.1s
O22K Cooper Landing 57.15 33 IAMs_20 IAMs_20 05 50 13.0
comp=Z,3µm,21.0s
KSH2 Kashi 57.21 302 P **P** **05 27 42.3 -0.8**
KSH2 PcP **PcP** **05 28 35.4 -2.1**
KSH2 PP **PP** **05 29 48.9 -1.2**
KSH2 S **S** **05 35 38.9 +0.7**
KSH2 pmax pmax
comp=Z,33nm,1.0s
KSH2 pmax pmax
comp=Z,410nm,7.1s
KSH2 L L
comp=Z,2µm,17.5s
KSH2 L L
comp=Z,2µm,19.9s
KSH2 L L
comp=Z,3µm,18.2s
RC01 Rabbit Creek A 57.21 32 IAmb IAmb 05 27 44.3
comp=Z,130nm,1.3s
RC01 IAMs_20 IAMs_20 05 53 36.5
comp=Z,2µm,20.0s
H22K Ishtalitna Cre 57.21 26 IAmb IAmb 05 27 46.2
comp=Z,85nm,1.4s
SEW Seward 57.24 33 IAMs_20 IAMs_20 05 52 53.6
comp=Z,3µm,20.0s
TRF Thorofare Moun 57.26 29 **P** **05 27 43.0 -0.1**
TRF IAmb IAmb 05 27 45.3
comp=Z,103nm,1.2s
TRF IAMs_20 IAMs_20 05 56 39.8
comp=Z,2µm,18.0s
MLY Manley 57.32 28 IAmb IAmb 05 27 46.6
comp=Z,214nm,1.8s
D22K Ayikyak River 57.38 23 IAMs_20 IAMs_20 05 56 26.9
comp=Z,2µm,19.0s
PMR Palmer 57.55 32 P **P** **05 27 46.1 +1.2**
PMR Palmer 57.55 32 IAmb IAmb 05 27 46.6
comp=Z,141nm,1.3s
AAK Ala-Archa 57.60 306 P **P** **05 27 46.2 +0.4**
AAK S **S** **05 35 43.6 +0.4**
AAK Ala-Archa 57.60 306 *i* P **P** **05 27 44.5 -1.3**
AAK pmax pmax
comp=Z,11nm,0.8s
AAK Ala-Archa 57.60 306 **P** **05 27 46.0 +0.2**
AAK Ala-Archa 57.60 306 IAMs_20 IAMs_20 05 55 04.2
comp=Z,3µm,18.0s
AAK Ala-Archa 57.60 306 P **P** **05 27 47.8 +2.0**
AUDCS Dubbo College 57.65 174 P **P** **05 27 48.5 +2.6**
FORT Forrest 57.66 195 P **P** **05 27 46.7 +0.7**
comp=Z,102nm,1.2s
FORT Forrest 57.66 195 P **P** **05 27 46.3 +0.3**
comp=Z,102nm,1.2s
GHO Glory Hole Cre 57.67 32 IAmb IAmb 05 28 03.6
comp=Z,62nm,1.0s
GHO IAMs_20 IAMs_20 05 51 47.8
comp=Z,3µm,20.0s
BWN Browne 57.73 29 IAMs_20 IAMs_20 05 53 19.1
comp=Z,3µm,19.0s
KNK Knik Glacier 57.86 32 IAmb IAmb 05 27 49.2
comp=Z,95nm,1.1s
KNK IAMs_20 IAMs_20 05 52 41.7
comp=Z,3µm,20.0s
PWL Port Wells 57.87 33 IAmb IAmb 05 27 49.2
comp=Z,146nm,1.2s
PWL IAMs_20 IAMs_20 05 47 08.0
comp=Z,3µm,22.0s
RND Reindeer 57.89 30 IAmb IAmb 05 27 50.5
comp=Z,143nm,1.5s
RND IAMs_20 IAMs_20 05 57 00.5
comp=Z,2µm,20.0s
MCK McKinley 57.90 29 IAmb IAmb 05 27 49.5
comp=Z,130nm,1.2s
I23K Minto, Yukon-K 57.91 28 IAmb IAmb 05 27 49.8
comp=Z,128nm,1.8s
H23K Yukon River 57.94 27 IAmb IAmb 05 27 51.3
comp=Z,180nm,1.6s
SML Sawmill 57.95 32 IAMs_20 IAMs_20 05 51 46.3
comp=Z,3µm,20.0s
P23K Montague Islan 58.26 34 IAMs_20 IAMs_20 05 48 08.4
comp=Z,2µm,20.0s
BBOO Buckleboo 58.30 187 P **P** **05 27 53.1 +2.7**
comp=Z,46nm,1.2s
BBOO Buckleboo 58.30 187 P **P** **05 27 51.5 +1.0**
comp=Z,46nm,1.2s
BBOO Buckleboo 58.30 187 **P** **05 27 49.6 -0.8**
BBOO IAmb IAmb 05 28 04.2
comp=Z,123nm,1.6s
WRH Wood River Hil 58.36 28 IAMs_20 IAMs_20 05 53 25.9
comp=Z,2µm,19.0s
TOLK Toolik Lake Re 58.43 23 IAmb IAmb 05 27 54.6
comp=Z,123nm,1.2s
SCM Sheep Creek Mo 58.43 32 P **P** **05 27 51.4 +0.2**
SCM pmax pmax
comp=Z,248nm,1.2s
SCM Sheep Creek Mo 58.43 32 P **P** **05 27 51.4 +0.2**
SCM IAMs_20 IAMs_20 05 52 10.9
comp=Z,3µm,20.0s
CCB Clear Creek Bu 58.50 28 IAmb IAmb 05 27 53.8
comp=Z,151nm,1.9s
CCB IAMs_20 IAMs_20 05 53 39.7
comp=Z,2µm,19.0s
COLA College 58.51 28 P **P** **05 27 54.8 +3.2**
COLA College 58.51 28 *i* P **P** **05 27 49.8 -1.8**
COLA pmax pmax
comp=Z,69nm,1.8s
COLA College 58.51 28 P **P** **05 27 52.6 +1.0**
COLA IAmb IAmb 05 27 54.2
comp=Z,120nm,1.7s
COLA College 58.51 28 P **P** **05 27 52.5 +1.0**
DHY Denali Highway 58.52 30 IAMs_20 IAMs_20 05 57 22.2
comp=Z,2µm,19.0s
HTT Hallett 58.68 184 P **P** **05 27 54.1 +0.9**
comp=Z,21nm,1.2s
HTT Hallett 58.68 184 P **P** **05 27 53.9 +0.8**
comp=Z,21nm,1.2s
HTT Hallett 58.68 184 P **P** **05 27 56.1 +2.9**
E24K Your Creek 58.72 24 IAmb IAmb 05 27 56.8
comp=Z,94nm,1.1s
HIN Hinchinbrook I 58.73 33 IAMs_20 IAMs_20 05 52 20.9
comp=Z,3µm,20.0s
FID Port Fidalgo 58.76 33 P **P** **05 27 53.7 +0.2**
FID IAMs_20 IAMs_20 05 47 45.2
comp=Z,3µm,22.0s
D24K Happy Valley 58.79 23 IAMs_20 IAMs_20 05 58 04.2
comp=Z,2µm,20.0s
HDA Harding Lake 58.84 29 IAmb IAmb 05 27 55.5
comp=Z,95nm,1.3s
HDA IAMs_20 IAMs_20 05 53 31.7
comp=Z,2µm,18.0s
ARSB Arslanbob 58.88 304 IAmb IAmb 05 28 03.0
comp=Z,69nm,1.1s
MGCD Mangrove Creek 58.89 172 P P 05 28 01.1 +6.5
G24K Hadweenzic Riv 58.90 26 IAmb IAmb 05 27 58.0
comp=Z,101nm,1.2s
IL31 58.91 28 IAmb IAmb 05 27 56.0
comp=Z,105nm,1.2s
ILAR Eielson Array 58.91 28 P **P** **05 27 54.1 -0.3**
comp=Z,33nm,1.0s,baz=260,slow=4.4,SNR=125
ILAR LR LR 05 53 55.1
comp=Z,1µm,19.4s,baz=248,slow=37
comp=Z,33nm,1.0s
ILAR Eielson Array 58.91 28 P **P** **05 27 53.8 -0.6**
ILAR Eielson Array 58.91 28 P **P** **05 27 53.8 -0.6**
KLU Klutina 59.08 32 P **P** **05 27 55.2 -0.5**
KLU IAmb IAmb 05 27 58.3
comp=Z,79nm,1.1s
KLU IAMs_20 IAMs_20 05 54 36.0
comp=Z,2µm,20.0s
EYAK Cordova Ski Ar 59.11 33 P **P** **05 27 58.8 +2.9**
AFI Afiamalu 59.12 126 LR LR 05 50 08.6
comp=Z,2µm,19.6s,baz=304,slow=33
DIV Divide 59.13 32 P **P** **05 27 56.3 +0.2**
AUKHS Kincumber High 59.17 172 P **P** **05 27 59.2 +2.7**
K24K Donnelly Dome 59.30 29 IAMs_20 IAMs_20 05 49 19.8
comp=Z,3µm,21.0s
PAX Paxson 59.38 30 IAMs_20 IAMs_20 05 57 48.9
comp=Z,2µm,20.0s
SYDH Sydney Hard Ro 59.39 172 P **P** **05 28 00.3 +2.3**
HARP HAARP 59.49 31 IAMs_20 IAMs_20 05 53 03.8
comp=Z,2µm,20.0s
BVA2 Borovoye Array 59.58 318 P **P** **05 27 57.9 -1.3**
BVA2 pmax pmax
comp=Z,23nm,0.6s
BVAR Borovoye Array 59.58 318 P **P** **05 27 58.1 -1.2**
comp=Z,44nm,0.6s,baz=90,slow=7.3,SNR=67
comp=Z,44nm,0.6s
BORK Borovoye 59.62 318 *i* P **P** **05 27 57.6 -1.9**
BORK pmax pmax
comp=Z,40nm,0.8s
D25K Kavik River 59.68 23 IAmb IAmb 05 28 03.1
comp=Z,100nm,1.0s
BMRM Bremner River 59.69 33 IAMs_20 IAMs_20 05 52 35.2
comp=Z,3µm,20.0s
F25K Christian Rive 59.72 25 IAmb IAmb 05 28 04.1
comp=Z,105nm,1.1s
HYB Hyderabad 59.80 276 *e*P **P** **05 28 01.2 -0.2**
HYB IVmB_BB 05 28 20.2
comp=Z,680nm,5.6s
HYB *e*S **S** **05 36 13.1 +0.8**
HYB *e*ScS **ScS** **05 37 51.4 -0.1**
HYB IVMs_BB IVMs_BB 06 00 32.7
comp=Z,327nm,15.3s
DZA Taraz 59.88 306 *e*P **P** **05 28 01.3 -0.2**
DZA Taraz 59.88 306 *e*P **P** **05 28 01.3 -0.2**
KMBL Kambalda 59.92 201 P P 05 28 06.2 +4.4
comp=Z,22nm,1.5s
MORW Morawa 59.98 207 P **P** **05 28 05.6 +3.4**
comp=Z,101nm,1.6s
MORW Morawa 59.98 207 P **P** **05 28 05.8 +3.6**
MORW Morawa 59.98 207 **P** **05 28 03.5 +1.3**
NIL Nilore 59.99 296 P **P** **05 28 02.1 -0.3**
NIL Nilore 59.99 296 P **P** **05 28 01.8 -0.7**
NIL pmax pmax
comp=Z,233nm,1.8s
NIL Nilore 59.99 296 **P** **05 28 01.8 -0.7**
WOLH Wollongong Har 60.04 172 P **P** **05 28 05.0 +2.5**
DRK Karamyk 60.05 302 IAmb IAmb 05 28 19.5
comp=Z,147nm,1.9s
DOT Dot Lake 60.05 30 IAmb IAmb 05 28 04.6
comp=Z,100nm,1.2s
DOT IAMs_20 IAMs_20 05 57 35.6
comp=Z,2µm,20.0s
GLB Gilahina Butte 60.09 32 IAmb IAmb 05 28 05.4
comp=Z,108nm,1.3s
SCRK Sand Creek 60.10 29 IAmb IAmb 05 28 05.0
comp=Z,118nm,1.2s
SCRK IAMs_20 IAMs_20 05 49 55.0
comp=Z,2µm,20.0s
BMAR Burnt Mountain 60.11 25 P **P** **05 28 04.5 +1.8**
VRDI Verde Repeater 60.26 32 IAmb IAmb 05 28 27.3
comp=Z,125nm,1.5s
VRDI IAMs_20 IAMs_20 05 53 15.1
comp=Z,2µm,20.0s
F26K Sheenjek River 60.30 25 IAmb IAmb 05 28 08.0
comp=Z,76nm,1.1s
L26K Log Cabin Wild 60.35 30 IAmb IAmb 05 28 31.1
comp=Z,168nm,2.0s
L26K IAMs_20 IAMs_20 05 54 44.5
comp=Z,2µm,20.0s
G26K Porcupine Rive 60.38 26 IAmb IAmb 05 28 08.3
comp=Z,117nm,1.4s
KK31 Karatay Array 60.44 307 *i* P **P** **05 28 04.1 -1.3**
KK31 pmax pmax
comp=Z,29nm,0.8s
KK31 Karatay Array 60.44 307 **P** **05 28 05.2 -0.2**
KKAR Karatay Array 60.44 307 P **P** **05 28 05.1 -0.3**
KKAR Karatay Array 60.44 307 **P** **05 28 05.1 -0.3**
M26K Nabesna, AK 60.49 31 IAmb IAmb 05 28 33.0
comp=Z,125nm,1.9s
TGL Tana Glacier 60.55 33 P **P** **05 28 06.8 +0.9**
TGL IAmb IAmb 05 28 08.4
comp=Z,128nm,1.3s
C27K Jago River 60.65 23 IAmb IAmb 05 28 09.8
comp=Z,107nm,1.2s
C27K IAMs_20 IAMs_20 05 58 42.4
comp=Z,2µm,18.0s
AUMTS Mt Stromlo 60.74 174 P **P** **05 28 10.5 +3.2**
CAN Canberra 60.74 174 P **P** **05 28 10.9 +3.6**
comp=Z,89nm,2.0s
CAN Canberra 60.74 174 P **P** **05 28 09.4 +2.0**
comp=Z,89nm,2.0s
CAN Canberra 60.74 174 P **P** **05 28 10.0 +2.6**
CAN Canberra 60.74 174 P **P** **05 28 07.0 -0.4**
CAN pmax pmax
comp=Z,108nm,1.2s
CAN MLR MLR
comp=Z,2µm,19.0s
CAN Canberra 60.74 174 **P** **05 28 07.0 -0.4**
CAN IAmb IAmb 05 28 14.0
comp=Z,108nm,1.2s
CAN IAMs_20 IAMs_20 05 56 16.8
comp=Z,2µm,19.0s
CNB Canberra Magne 60.77 174 P **P** **05 28 10.6 +3.0**
comp=Z,70nm,2.2s
CNB Canberra Magne 60.77 174 P **P** **05 28 09.7 +2.2**
comp=Z,70nm,2.2s
IUG Iuzhnay 60.94 306 *e*P **P** **05 28 08.5 -0.4**
IUG pmax pmax
comp=Z,44nm,1.0s
IUG Iuzhnay 60.94 306 *e*P **P** **05 28 08.5 -0.4**
comp=Z,44nm,1.0s
BRLS Boroldav 60.94 307 *d i* P **P** **05 28 09.5 +0.7**
BRLS Boroldav 60.94 307 ‖ *i* P **P** **05 28 09.5 +0.7**
K27K Chicken 60.95 29 IAmb IAmb 05 28 11.5
comp=Z,116nm,1.6s
K27K IAMs_20 IAMs_20 05 58 20.3
comp=Z,2µm,18.0s
M27K Edge Creek, AK 61.02 31 IAMs_20 IAMs_20 05 59 04.2
comp=Z,2µm,19.0s
L27K Beaver Creek, 61.04 30 IAmb IAmb 05 28 11.9
comp=Z,65nm,1.2s
L27K IAMs_20 IAMs_20 05 55 42.9
comp=Z,2µm,18.0s
BCAR Beaver Creek A 61.06 30 P **P** **05 28 09.7 +0.4**
BLDU Ballidu 61.08 206 P **P** **05 28 07.5 -2.2**
comp=Z,131nm,2.4s
BLDU Ballidu 61.08 206 P **P** **05 28 09.8 +0.1**
comp=Z,130nm,2.4s
BLDU Ballidu 61.08 206 P **P** **05 28 13.3 +3.6**
GRNC Granite Creek 61.08 33 IAmb IAmb 05 28 12.1
comp=Z,65nm,1.1s
YAH Yahtse 61.09 33 IAmb IAmb 05 28 12.6
comp=Z,105nm,1.3s
YAH IAMs_20 IAMs_20 05 51 19.4
comp=Z,2µm,20.0s
BARN Barnard Glacie 61.12 33 IAmb IAmb 05 28 33.5
comp=Z,80nm,1.4s
BARN IAMs_20 IAMs_20 05 54 40.1
comp=Z,3µm,20.0s
G27K Doyon Strip 61.21 26 IAmb IAmb 05 28 13.8
comp=Z,131nm,1.9s
CHM Chimkent 61.23 306 *e*P **P** **05 28 10.5 -0.2**
CHM Chimkent 61.23 306 *e*P **P** **05 28 10.6 -0.2**
CHM LR LR 05 55 35.6
E27K Coleen River 61.30 24 IAmb IAmb 05 28 14.3
comp=Z,58nm,1.2s
E27K IAMs_20 IAMs_20 05 58 50.6
comp=Z,2µm,18.0s
KLBR Kellerberrin 61.55 204 P P 05 28 17.8 +4.9
comp=Z,71nm,1.3s
KLBR Kellerberrin 61.55 204 P P 05 28 17.7 +4.8
D27M Malcolm River 61.59 23 IAmb IAmb 05 28 16.4
comp=Z,91nm,1.1s
D27M IAMs_20 IAMs_20 05 59 24.2
comp=Z,2µm,19.0s
PALK Pallekele 61.68 264 P **P** **05 28 11.9 -2.3**
PALK pmax pmax
comp=Z,49nm,1.8s
PALK Pallekele 61.68 264 P **P** **05 28 14.5 +0.2**
PCA Pinnacle 61.84 34 IAmb IAmb 05 28 17.2
comp=Z,64nm,1.2s
O28M Mount Upton 61.85 33 IAmb IAmb 05 28 17.7
comp=Z,81nm,1.3s
I28M Miner Creek 61.88 28 IAmb IAmb 05 28 17.7
comp=Z,59nm,1.1s
ARPS Mount Arapiles 61.91 181 P **P** **05 28 16.9 +1.8**
comp=Z,75nm,1.8s
ARPS Mount Arapiles 61.91 181 P **P** **05 28 15.7 +0.6**
comp=Z,75nm,1.8s
F28M Old Crow 61.93 25 IAmb IAmb 05 28 18.5
comp=Z,103nm,1.1s
E28M Babbage River 62.08 24 IAMs_20 IAMs_20 05 59 25.1
comp=Z,2µm,19.0s
DAWY Dawson 62.13 29 IAmb IAmb 05 28 19.4
comp=Z,95nm,1.3s
PNL Peninsula 62.30 34 P **P** **05 28 19.4 +1.7**
AUKUL Kulin High Sch 62.38 203 P P 05 28 22.9 +4.5
MILA Mila 62.48 174 P **P** **05 28 21.2 +2.2**
comp=Z,21nm,1.6s
MILA Mila 62.48 174 P **P** **05 28 20.0 +0.9**
comp=Z,21nm,1.6s
H29M Whitestone 62.52 27 IAmb IAmb 05 28 22.2
comp=Z,92nm,1.2s
M29M Somme Creek 62.60 31 IAmb IAmb 05 28 23.1
comp=Z,61nm,1.1s
J29N Klondike Camp 62.63 29 IAmb IAmb 05 28 23.0
comp=Z,69nm,1.1s
O29M Mount Kennedy 62.67 33 IAmb IAmb 05 28 23.7
comp=Z,103nm,1.2s
O29M IAMs_20 IAMs_20 06 00 16.1
comp=Z,2µm,18.0s
E29M Blow River 62.68 24 IAMs_20 IAMs_20 05 59 44.0
comp=Z,2µm,18.0s
BRAT Ballarat 62.69 179 P **P** **05 28 23.0 +2.7**
L29M L29M 62.72 30 IAMs_20 IAMs_20 05 58 43.3
comp=Z,2µm,18.0s
TOO Toolangi 62.75 178 IAmb IAmb 05 28 27.7
comp=Z,53nm,1.1s
NWAO Narrogin (SRO) 62.94 204 P **P** **05 28 25.5 +3.3**
comp=Z,128nm,2.6s
NWAO Narrogin (SRO) 62.94 204 P **P** **05 28 25.5 +3.3**
comp=Z,211nm,2.6s
NWAO Narrogin (SRO) 62.94 204 P **P** **05 28 23.2 +1.1**
comp=Z,128nm,2.6s
NWAO Narrogin (SRO) 62.94 204 P **P** **05 28 24.2 +2.1**
comp=Z,210nm,2.6s
NWAO Narrogin (SRO) 62.94 204 LR LR 05 54 30.7
comp=Z,1µm,21.7s,baz=47,slow=35
NWAO Narrogin (SRO) 62.94 204 P P 05 28 26.5 +4.4
NWAO Narrogin (SRO) 62.94 204 P **P** **05 28 25.4 +3.2**
K29M Barlow Dome 62.96 29 IAmb IAmb 05 28 25.3
comp=Z,113nm,1.3s
K29M IAMs_20 IAMs_20 05 59 32.5
comp=Z,2µm,19.0s
HYT Haines Junctio 63.16 33 IAmb IAmb 05 28 26.8
comp=Z,79nm,1.2s
KBL Kabul 63.20 297 P **P** **05 28 23.6 -0.7**
SNR=28
KBL Kabul 63.20 297 P **P** **05 28 22.9 -1.4**
KBL pmax pmax
comp=Z,58nm,1.0s
KBL Kabul 63.20 297 P **P** **05 28 22.9 -1.4**
KBL IAmb IAmb 05 28 31.8
comp=Z,58nm,1.0s
N30M Aishikik Lake 63.31 32 IAMs_20 IAMs_20 05 54 40.0
comp=Z,3µm,20.0s
G30M tAoh Zraii Nji 63.35 26 IAMs_20 IAMs_20 05 56 27.9
comp=Z,2µm,18.0s
M30M Minto, Yukon 63.37 31 IAmb IAmb 05 28 27.9
comp=Z,69nm,1.4s
I30M Mount Dempster 63.38 28 IAmb IAmb 05 28 40.3
comp=Z,73nm,1.4s
I30M IAMs_20 IAMs_20 05 56 14.6
comp=Z,2µm,19.0s
J30M Hart River 63.44 28 IAmb IAmb 05 28 28.3
comp=Z,58nm,1.2s
O30N Mendenhall 63.86 33 IAmb IAmb 05 28 30.8
comp=Z,64nm,1.4s
O30N IAMs_20 IAMs_20 05 56 00.4
comp=Z,2µm,20.0s
N31M Braeburn, Yuko 63.94 32 IAmb IAmb 05 28 31.8
comp=Z,86nm,1.2s
S31K Pelican 64.10 36 IAmb IAmb 05 28 32.6
comp=Z,81nm,1.4s
S31K IAMs_20 IAMs_20 05 54 29.5
comp=Z,3µm,20.0s
F31M Tsiigehtchic 64.29 25 IAmb IAmb 05 28 32.9
comp=Z,55nm,1.1s
INK Inuvik 64.31 24 LR LR 05 55 40.1
comp=Z,652nm,21.1s,baz=264,slow=35
INK Inuvik 64.31 24 IAmb IAmb 05 28 33.0
comp=Z,61nm,1.1s
SKAG Skagway 64.38 34 P **P** **05 28 33.2 +1.8**
M31M Drury Creek, Y 64.52 31 IAmb IAmb 05 28 35.1
comp=Z,61nm,1.3s
RKGY Rocky Gully 64.55 203 P **P** **05 28 32.8 +0.1**
comp=Z,23nm,1.4s
RKGY Rocky Gully 64.55 203 P **P** **05 28 32.5 -0.2**
comp=Z,23nm,1.4s
SVE Sverdlovsk 64.82 323 *e*P **P** **05 28 33.8 -0.5**
SVE *e*S **S** **05 37 11.4 -2.9**
SVE pmax pmax
comp=Z,66nm,1.8s
SVE MLR MLR
comp=Z,3µm,17.0s
R32K Eaglecrest 64.96 35 IAmb IAmb 05 28 38.4
comp=Z,81nm,1.2s
R32K IAMs_20 IAMs_20 05 54 47.3
comp=Z,2µm,20.0s
JIS Juneau Island 65.03 35 P **P** **05 28 38.2 +2.6**
S32K Killisnoo 65.04 36 IAMs_20 IAMs_20 05 53 00.6
comp=Z,2µm,21.0s
P32M Atlin 65.18 34 IAMs_20 IAMs_20 05 55 41.4
comp=Z,2µm,20.0s
N32M Quiet Lake 65.27 32 IAmb IAmb 05 28 39.9
comp=Z,127nm,1.6s
P33M Teslin, Yukon 65.54 33 IAmb IAmb 05 28 42.0
comp=Z,76nm,1.4s
P33M IAMs_20 IAMs_20 06 01 55.5
comp=Z,2µm,18.0s
Q32M Nakina River 66.01 34 IAMs_20 IAMs_20 05 56 19.1
comp=Z,2µm,20.0s
ARTI Arti 66.12 323 P **P** **05 28 41.2 -1.5**
comp=Z,19nm,0.7s,baz=109,slow=3.9,SNR=13
ARTI LR LR 05 59 05.5
comp=Z,2µm,19.2s,baz=78,slow=37
comp=Z,19nm,0.7s
ARTI Arti 66.12 323 *c i* P **P** **05 28 41.1 -1.6**

ARTI									05 29 09.1	
ARTI					S	**S**			**05 37 30.3**	**+0.1**
ARTI					pmax	pmax				
	comp=Z,42nm,1.3s									
ARTI					MLR	MLR				
	comp=Z,3µm,15.0s									
ARTI	**Arti**	**66.12**	**323**		P	**P**			**05 28 41.5**	**-1.2**
ARTI					IAmb	IAmb			05 28 47.7	
	comp=Z,52nm,0.7s									
ARTI					IAMs_20	IAMs_20			05 58 53.7	
	comp=Z,2µm,19.0s									
CRAG	**Craig**	**66.17**	**38**		P	**P**			**05 28 46.4**	**+3.4**
RAO	**Raoul Island**	**66.23**	**143**		LR	LR			05 52 17.2	
	comp=Z,1µm,22.0s,baz=340,slow=31									
GLAD	**Gladstone**	**66.29**	**176**		P	**P**			**05 28 47.0**	**+3.2**
WRAK	**Wrangell Islan**	**66.42**	**37**		IAmb	IAmb			05 28 47.6	
	comp=Z,75nm,1.4s									
AB31	**Akbulak array**	**66.59**	**315**	*i*	P	**P**			**05 28 43.9**	**-2.0**
AB31					pmax	pmax				
	comp=Z,21nm,0.8s									
R33M	**Jennings River**	**66.59**	**34**		IAmb	IAmb			05 29 07.3	
	comp=Z,116nm,1.9s									
R33M					IAMs_20	IAMs_20			05 57 04.5	
	comp=Z,2µm,20.0s									
A36M	**Sachs Harbour**	**66.64**	**20**		IAmb	IAmb			05 28 48.2	
	comp=Z,63nm,1.2s									
S34M	**Telegraph Cree**	**66.79**	**35**		IAmb	IAmb			05 28 50.4	
	comp=Z,85nm,1.2s									
S34M					IAMs_20	IAMs_20			05 56 42.7	
	comp=Z,2µm,20.0s									
H02S1	**DAWSON INLET T**	**66.99**	**41**		T	T			06 42 06.4	
	SNR=8.3									
H02S2	**DAWSON INLET T**	**66.99**	**41**		T	T			06 42 00.8	
	SNR=7.6									
V35K	**Ketchikan**	**67.04**	**38**		IAmb	IAmb			05 28 51.3	
	comp=Z,106nm,1.6s									
DLBC	**Dease Lake**	**67.26**	**35**		LR	LR			05 57 14.9	
	comp=Z,2µm,20.1s,baz=252,slow=35									
T35M	**Bob Quinn**	**67.44**	**36**		IAmb	IAmb			05 28 54.5	
	comp=Z,79nm,1.3s									
T35M					IAMs_20	IAMs_20			05 54 34.1	
	comp=Z,2µm,20.0s									
AKTO	**Aktyubinsk**	**67.55**	**316**		LR	LR			06 00 08.0	
	comp=Z,4µm,19.1s,baz=64,slow=38									
AKTO	**Aktyubinsk**	**67.55**	**316**		P	**P**			**05 28 49.4**	**-2.5**
AKTO					pmax	pmax				
	comp=Z,15nm,0.9s									
C36M	**Paulatuk**	**67.55**	**23**		IAmb	IAmb			05 28 54.9	
	comp=Z,96nm,1.3s									
MOO	**Moorlands**	**67.69**	**176**		P	**P**			**05 28 55.9**	**+3.2**
	comp=Z,68nm,1.9s									
RUBB	**Prince Rupert**	**68.03**	**39**		IAmb	IAmb			05 28 57.3	
	comp=Z,105nm,1.5s									
TAU	**Tasmania Unive**	**68.16**	**176**		P	**P**			**05 28 58.5**	**+2.8**
TAU	**Tasmania Unive**	**68.16**	**176**		IAMs_20	IAMs_20			05 59 40.3	
	comp=Z,2µm,19.0s									
HRA	**Herat**	**68.66**	**299**		IAmb	IAmb			05 29 13.9	
	comp=Z,138nm,1.9s									
BBB	**Bella Bella**	**69.81**	**41**		LR	LR			05 54 03.3	
	comp=Z,686nm,21.1s,baz=288,slow=31									
TOZ	**Tahuroa Road**	**69.99**	**153**		P	**P**			**05 29 08.1**	**+1.0**
KIRV	**Kirov**	**70.32**	**326**		P	**P**			**05 29 08.4**	**-0.6**
	comp=Z,50nm,0.7s,baz=90,slow=2.5,SNR=17									
KIRV					LR	LR			06 02 58.2	
	comp=Z,7µm,18.1s,baz=68,slow=38									
	comp=Z,50nm,0.7s									
KIRV	**Kirov**	**70.32**	**326**	*i*	P	**P**			**05 29 08.1**	**-0.8**
MXZ	**Matakaoa Point**	**71.05**	**151**		IAMs_20	IAMs_20			05 52 29.7	
	comp=Z,2µm,20.0s									
URZ	**Urewera**	**71.11**	**152**		LR	LR			05 58 01.7	
	comp=Z,2µm,20.1s,baz=328,slow=34									
RTZ	**Ruatahuna**	**71.36**	**152**		IAMs_20	IAMs_20			05 56 00.9	
	comp=Z,2µm,22.0s									
BKZ	**Black Stump Fm**	**71.62**	**153**		P	**P**			**05 29 19.0**	**+1.9**
SPITS	**Spitsbergen Ar**	**72.07**	**350**		P	**P**			**05 29 18.6**	**-0.7**
	comp=Z,20nm,0.8s,baz=51,slow=10,SNR=5.9									
SPITS					LR	LR			06 02 50.5	
	comp=Z,2µm,20.4s,baz=34,slow=37									
	comp=Z,20nm,0.8s									
KBS	**Kingsbay**	**72.22**	**351**	*i*	P	**P**			**05 29 17.4**	**-2.8**
THZ	**Tophouse**	**72.48**	**157**		IAMs_20	IAMs_20			05 57 45.7	
	comp=Z,2µm,20.0s									
MRZ	**Mangatainoka R**	**72.53**	**154**		IAmb	IAmb			05 29 27.5	
	comp=Z,65nm,1.0s									
RAR	**Rarotonga**	**72.57**	**124**		LR	LR			05 57 13.1	
	comp=Z,1µm,19.5s,baz=301,slow=32									
NOR	**Nord**	**72.63**	**357**	*i*	P	**P**			**05 29 22.9**	**+0.2**
NOR					IAmb	IAmb			05 29 24.5	
	comp=Z,59nm,1.6s									
FOZ	**Fox Glacier**	**73.03**	**160**		P	**P**			**05 29 24.7**	**-0.6**
FOZ					IAmb	IAmb			05 29 30.9	
	comp=Z,53nm,1.0s									
LTZ	**Lake Taylor**	**73.16**	**158**		IAmb	IAmb			05 29 56.6	
	comp=Z,86nm,1.4s									
PLWZ	**Palliser**	**73.18**	**155**		P	**P**			**05 29 25.7**	**-0.6**
JCZ	**Jackson Bay**	**73.20**	**161**		P	**P**			**05 29 29.8**	**+3.3**
BELG	**Belogornoye**	**73.23**	**320**		LR	LR			06 03 11.4	
	comp=Z,2µm,19.0s,baz=66,slow=37									
BELG	**Belogornoye**	**73.23**	**320**	*i*	P	**P**			**05 29 24.4**	**-2.2**
BELG					pmax	pmax				
	comp=Z,31nm,1.1s									
KHZ	**Kahutara**	**73.28**	**157**		IAmb	IAmb			05 29 31.2	
	comp=Z,53nm,0.9s									
YKAW3	**Yellowknife Wh**	**73.31**	**28**		IAmb	IAmb			05 29 28.9	
	comp=Z,57nm,1.0s									
YKA	**Yellowknife Ar**	**73.34**	**28**		P	**P**			**05 29 27.4**	**+0.3**
	comp=Z,31nm,0.8s,baz=295,slow=5.6,SNR=60									
	comp=Z,31nm,0.8s									
YKA	**Yellowknife Ar**	**73.34**	**28**		P	**P**			**05 29 26.7**	**-0.4**
YKA	**Yellowknife Ar**	**73.34**	**28**		P	**P**			**05 29 26.7**	**-0.4**
YKAW1	**Yellowknife Wh**	**73.39**	**28**		IAmb	IAmb			05 29 29.4	
	comp=Z,69nm,1.0s									
ADZR	**Andozero**	**73.51**	**333**	*e*	P	**P**			**05 29 27.4**	**-0.6**
ADZR					S	**SKiKP**			**05 38 57.4**	**-0.3**
ADZR					pmax	pmax				
	comp=Z,52nm,0.7s									
ADZR					MLR	MLR				
	comp=Z,2µm,16.0s									
RES	**Resolute Bay**	**73.53**	**14**		LR	LR			06 02 30.0	
	comp=Z,897nm,21.9s,baz=319,slow=36									
OXZ	**Oxford**	**73.56**	**158**		IAmb	IAmb			05 29 33.2	
	comp=Z,69nm,0.9s									
RPZ	**Rata Peaks**	**73.59**	**159**		LR	LR			05 57 47.5	
	comp=Z,228nm,20.9s,baz=334,slow=33									
RPZ	**Rata Peaks**	**73.59**	**159**		IAmb	IAmb			05 29 35.9	
	comp=Z,81nm,0.9s									
GVZ	**Greta Valley S**	**73.59**	**157**		P	**P**			**05 29 27.8**	**-0.9**
APA	**Apatity**	**73.74**	**338**	*e*	P	**P**			**05 29 28.2**	**-1.1**
APA				*e*					05 29 41.7	
APA				*e*					05 32 11.6	
APA				*e*	S	**SKiKP**			**05 38 55.4**	**-2.6**
APA				*e*					05 39 30.3	
APA				*e*	SS	**SS**			**05 43 38.7**	**-3.3**
APA					pmax	pmax				
	comp=Z,38nm,1.0s									
APA					MLR	MLR				
	comp=Z,5µm,20.9s									
VADS	**Vadso**	**73.79**	**341**	*e*	P	**P**			**05 29 29.9**	**+0.3**
LBZ	**Lake Benmore**	**73.91**	**160**		IAmb	IAmb			05 29 51.8	
	comp=Z,100nm,1.5s									
BJO1	**Bjornoya**	**73.93**	**347**	*e*	P	**P**			**05 29 31.9**	**+1.6**
LLLB	**Llilooet**	**74.01**	**41**		P	**P**			**05 29 32.4**	**+1.1**
KLMR	**Klimovskoe**	**74.24**	**330**	*e*	P	**P**			**05 29 30.4**	**-2.0**
KLMR				*e*					05 29 44.6	
KLMR					SS	SS			05 43 51.3	+1.4
KLMR					pmax	pmax				
	comp=Z,80nm,1.7s									
KLMR					MLR	MLR				
	comp=Z,2µm,14.0s									
A05A	**Maple Falls**	**74.45**	**43**		IAmb	IAmb			05 29 36.5	
	comp=Z,103nm,1.4s									
GNW	**Green Mountain**	**74.50**	**44**		IAmb	IAmb			05 29 37.4	
	comp=Z,102nm,1.3s									
KEV	**Kevo**	**74.68**	**341**		P	**P**			**05 29 35.3**	**+0.5**
KEV					pmax	pmax				
	comp=Z,86nm,1.2s									
KEV	**Kevo**	**74.68**	**341**		P	**P**			**05 29 35.3**	**+0.5**
KEV					IAmb	IAmb			05 29 48.3	
	comp=Z,86nm,1.2s									
SHUK	**Shuksan-Mt. Ba**	**74.76**	**43**		IAmb	IAmb			05 29 38.7	
	comp=Z,110nm,1.4s									
JASK	**Jask - Hormozg**	**75.03**	**292**		P	**P**			**05 29 39.0**	**+1.4**
	SNR=9.0									
JLN	**Jalan Bani Buh**	**75.06**	**288**		P	**P**			**05 29 38.3**	**+0.4**
	SNR=10									
HAMF	**Hammerfest**	**75.12**	**342**	*e*	P	**P**			**05 29 38.4**	**+1.1**
ARA0	**ARCESS Array S**	**75.24**	**341**	*e*	P	**P**			**05 29 39.5**	**+1.4**
ARCES	**ARCESS Array B**	**75.24**	**341**		P	**P**			**05 29 38.2**	**+0.1**
	comp=Z,19nm,0.8s,baz=60,slow=4.9,SNR=20									
ARCES					LR	LR			06 06 43.1	
	comp=Z,3µm,20.0s,baz=68,slow=39									
	comp=Z,19nm,0.8s									
ARCES	**ARCESS Array B**	**75.24**	**341**		P	**P**			**05 29 38.0**	**-0.1**
ARCES					pmax	pmax				
	comp=Z,44nm,1.0s									
ARCES	**ARCESS Array B**	**75.24**	**341**		P	**P**			**05 29 38.0**	**-0.1**
WBK	**Wadi Bani Khal**	**75.28**	**288**		P	**P**			**05 29 40.0**	**+0.8**
	SNR=18									
WSAR	**Wadi Sarin**	**75.33**	**289**		P	**P**			**05 29 40.2**	**+0.7**
	SNR=13									
G04A	**Mulino**	**75.58**	**47**		IAmb	IAmb			05 29 43.4	
	comp=Z,122nm,1.2s									
KSXB	**Camp Six Broad**	**75.87**	**50**		IAmb	IAmb			05 29 45.5	
	comp=Z,133nm,1.5s									
HOOD	**Mount Hood Mea**	**76.08**	**46**		IAmb	IAmb			05 29 46.3	
	comp=Z,125nm,1.2s									
JMDO	**Jabal Madar**	**76.11**	**288**		P	**P**			**05 29 44.0**	**+0.1**
	SNR=13									
I04A	**Tendick Farm,**	**76.14**	**48**		IAmb	IAmb			05 29 46.4	
	comp=Z,146nm,1.3s									
KTK1	**Kautokeino**	**76.20**	**341**	*e*	P	**P**			**05 29 44.4**	**+0.8**
KTK1					IVmB				05 29 45.6	
	comp=Z,1µm,3.5s									
HOQ	**Hoqain**	**76.33**	**290**		P	**P**			**05 29 45.0**	**-0.2**
	SNR=29									
SHME	**Shamm**	**76.40**	**293**	*i*	P	**P**			**05 29 45.0**	**-0.5**
	SNR=26									
SHME	**Shamm**	**76.40**	**293**		P	**P**			**05 29 46.5**	**+1.0**
	SNR=32									
MXC	**Moxie City**	**76.48**	**45**		IAmb	IAmb			05 29 48.4	
	comp=Z,80nm,1.2s									
MDH	**Madha**	**76.55**	**292**	*i*	P	**P**			**05 29 45.7**	**-0.7**
	SNR=5.9									
MDH	**Madha**	**76.55**	**292**		P	**P**			**05 29 48.0**	**+1.6**
	SNR=5.7									
EPH	**Ephrata**	**76.61**	**44**		IAmb	IAmb			05 29 48.6	
	comp=Z,63nm,1.2s									
MASF	**Masafi**	**76.64**	**292**		P	**P**			**05 29 47.8**	**+0.8**
	SNR=17									
MSFE	**Esma-Masafi**	**76.64**	**292**	*i*	P	**P**			**05 29 46.2**	**-0.8**
	SNR=13									
I05D	**Terrebonne, OR**	**76.65**	**47**		IAmb	IAmb			05 29 49.5	
	comp=Z,131nm,1.4s									
JETT	**Jettan, Norway**	**76.67**	**342**	*e*	P	**P**			**05 29 47.1**	**+0.8**
MAK	**Makhachkala**	**76.71**	**311**	*c*	P	**P**			**05 29 42.6**	**-4.3**
MAK				*e*	S	**S**			**05 39 26.9**	**-6.2**
MAK				*e*	SS	**SS**			**05 44 32.2**	**+3.9**
MAK				*e*	SSS	SSS			05 47 48.2	
MAK					pmax	pmax				
	comp=Z,359nm,1.8s									
MAK					MLR	MLR				
	comp=Z,4µm,17.0s									
YBH	**Yreka Blue Hor**	**76.71**	**50**		LR	LR			05 57 44.9	
	comp=Z,625nm,20.4s,baz=294,slow=31									
YBH	**Yreka Blue Hor**	**76.71**	**50**		IAmb	IAmb			05 29 50.1	
	comp=Z,73nm,1.2s									
BSY	**Bisya**	**76.74**	**289**		P	**P**			**05 29 47.1**	**-0.4**
	SNR=20									
M02C	**Callahan**	**76.74**	**50**		IAMs_20	IAMs_20			05 57 03.8	
	comp=Z,1µm,20.0s									
MHTO	**MHTO**	**76.74**	**287**		P	**P**			**05 29 46.4**	**-1.0**
	SNR=25									
UOSS	**Minazif**	**76.76**	**291**	*i*	P	**P**			**05 29 45.7**	**-1.8**
	SNR=11									
UOSS	**Minazif**	**76.76**	**291**		P	**P**			**05 29 48.0**	**+0.4**
UOSS	**Minazif**	**76.76**	**291**		P	**P**			**05 29 46.3**	**-1.2**
UOSS	**Minazif**	**76.76**	**291**		P	**P**			**05 29 46.2**	**-1.4**
E07A	**Sunnyside**	**76.76**	**45**		IAmb	IAmb			05 29 50.0	
	comp=Z,104nm,1.2s									
KHBM	**Hayfork Bally**	**76.76**	**51**		IAmb	IAmb			05 29 50.5	
	comp=Z,94nm,1.4s									
G06A	**Carlson Farm,**	**76.77**	**46**		IAmb	IAmb			05 29 50.1	
	comp=Z,174nm,1.6s									
SOHO	**SOHO**	**76.79**	**291**	*i*	P	**P**			**05 29 46.0**	**-1.7**
	SNR=41									
SOHO	**SOHO**	**76.79**	**291**		P	**P**			**05 29 47.0**	**-0.7**
	SNR=39									
L04D	**Klamath Falls**	**76.81**	**49**		IAmb	IAmb			05 29 50.4	
	comp=Z,137nm,1.3s									
HATD	**Hatta, Dubai**	**76.87**	**291**	*i*	P	**P**			**05 29 47.3**	**-0.8**
	SNR=20									
HATD	**Hatta, Dubai**	**76.87**	**291**		P	**P**			**05 29 48.5**	**+0.4**
	SNR=28									
WAH2	**Wahluke Slope**	**76.87**	**44**		IAmb	IAmb			05 29 50.4	
	comp=Z,77nm,1.2s									
F07A	**Phinny Hill Vi**	**76.97**	**45**		IAmb	IAmb			05 29 51.2	
	comp=Z,70nm,1.3s									
ASHO	**Ashiyiah**	**76.98**	**291**	*i*	P	**P**			**05 29 47.7**	**-1.1**
	SNR=20									
ASHO	**Ashiyiah**	**76.98**	**291**		P	**P**			**05 29 49.0**	**+0.1**
	SNR=35									
NEEM	**North Greenlan**	**76.99**	**3**	*i*	P	**P**			**05 29 49.4**	**+1.1**
NEEM					IAmb	IAmb			05 29 52.1	
	comp=Z,112nm,1.1s									
TRO	**Tromso**	**77.03**	**343**	*e*	P	**P**			**05 29 48.8**	**+0.6**
HAWA	**Hanford**	**77.03**	**45**		IAmb	IAmb			05 29 51.5	
	comp=Z,75nm,1.3s									
VRH	**Novokhopyorsk**	**77.07**	**321**	*e*	P	**P**			**05 29 47.7**	**-1.1**
VRH					pmax	pmax				
	comp=Z,30nm,0.8s									
VRH					MLR	MLR				
	comp=Z,3µm,15.0s									
ARQ	**Aragi**	**77.10**	**290**		P	**P**			**05 29 50.0**	**+0.5**
	SNR=20									
D08A	**Wollman Farm,**	**77.16**	**44**		IAmb	IAmb			05 29 51.9	
	comp=Z,75nm,1.2s									
NAZ	**Nazwa, Dubai**	**77.20**	**292**	*i*	P	**P**			**05 29 48.4**	**-1.6**
	SNR=8.5									
NAZ	**Nazwa, Dubai**	**77.20**	**292**		P	**P**			**05 29 51.1**	**+1.1**
	SNR=13									
O02D	**Mt. Diablo Mer**	**77.25**	**52**		IAmb	IAmb			05 29 53.4	
	comp=Z,112nm,1.3s									
C09A	**Chrisman Ranch**	**77.26**	**43**		IAmb	IAmb			05 29 52.5	
	comp=Z,75nm,1.1s									
MOS	**Moscow**	**77.33**	**326**	*e*	P	**P**			**05 29 49.8**	**-0.3**
MOS				*e*					05 29 59.4	
MOS				*e*					05 32 44.5	
MOS				*e*	PPP	PPP			05 34 32.3	
MOS				*e*	S	**S**			**05 39 37.6**	**-1.7**
MOS				*e*					05 40 00.8	
MOS				*e*	SS	**SS**			**05 44 38.4**	**+1.5**
MOS					pmax	pmax				
	comp=Z,71nm,1.1s									
MOS					pmax	pmax				
	comp=Z,400nm,2.2s									
MOS					MLR	MLR				
	comp=Z,8µm,16.0s									
MOS					MLR	MLR				
	comp=N,4µm,17.0s									
MOS					MLR	MLR				
	comp=E,6µm,18.0s									
FAQ	**Al Faqa, Dubai**	**77.35**	**291**	*i*	P	**P**			**05 29 48.8**	**-2.1**
	SNR=7.8									
FAQ	**Al Faqa, Dubai**	**77.35**	**291**		P	**P**			**05 29 51.5**	**+0.7**
	SNR=8.5									
DAG	**Danmarks Havn**	**77.36**	**356**	*i*	P	**P**			**05 29 50.4**	**+0.4**
DAG					IAmb	IAmb			05 29 51.5	
	comp=Z,170nm,2.0s									
ALNE	**Al Ain**	**77.48**	**291**	*i*	P	**P**			**05 29 50.6**	**-1.1**
	SNR=10									
ALNE	**Al Ain**	**77.48**	**291**		P	**P**			**05 29 52.4**	**+0.8**
	SNR=22									
DQM	**DQM**	**77.52**	**286**		P	**P**			**05 29 52.1**	**+0.2**
	SNR=6.8									
YPT	**Yellepit**	**77.53**	**45**		IAmb	IAmb			05 29 54.3	
	comp=Z,93nm,1.3s									
ASUD	**Al Ashush, Dub**	**77.62**	**291**		P	**P**			**05 29 51.6**	**-0.8**
GDXM	**Geysers**	**77.77**	**53**		IAmb	IAmb			05 29 56.1	
	comp=Z,86nm,1.4s									
NEW	**Newport**	**77.78**	**42**		LR	LR			05 59 13.1	
	comp=Z,717nm,20.5s,baz=304,slow=32									
NEW	**Newport**	**77.78**	**42**		IAMs_20	IAMs_20			05 59 10.6	
	comp=Z,1µm,19.0s									
NEW	**Newport**	**77.78**	**42**		IAmb	IAmb			05 29 55.4	
	comp=Z,102nm,1.2s									
E09A	**Wood Farm, Sta**	**77.86**	**44**		IAmb	IAmb			05 29 56.0	
	comp=Z,111nm,1.3s									
AJN	**Ajban**	**77.93**	**291**	*i*	P	**P**			**05 29 52.5**	**-1.6**
	SNR=8.8									
AJN	**Ajban**	**77.93**	**291**		P	**P**			**05 29 53.1**	**-1.0**
	SNR=8.5									
HATC	**Hat Creek Radi**	**77.94**	**51**		IAmb	IAmb			05 29 56.7	
	comp=Z,138nm,1.3s									
MCCM	**Marconi Confer**	**77.97**	**53**		IAMs_20	IAMs_20			06 05 25.4	
	comp=Z,1µm,18.0s									
LNOR	**Lincton Mounta**	**78.03**	**45**		IAmb	IAmb			05 29 57.4	
	comp=Z,212nm,2.0s									
LPSR	**Galich'ya Gora**	**78.04**	**323**	*e*	P	**P**			**05 29 53.3**	**-0.8**
LPSR					pmax	pmax				
	comp=Z,59nm,0.9s									
FARB	**Farallon Islan**	**78.05**	**54**		IAMs_20	IAMs_20			06 02 44.7	
	comp=Z,2µm,21.0s									
OBN	**Obninsk**	**78.15**	**326**		LR	LR			06 07 43.0	
	comp=Z,9µm,18.2s,baz=49,slow=38									
OBN	**Obninsk**	**78.15**	**326**	*c*	P	**P**			**05 29 54.2**	**-0.5**
OBN					*e*PP	**pP**			**05 29 58.5**	**-1.4**
OBN					*e*SP	**sP**			**05 30 00.1**	**-1.5**
OBN					*e*				05 30 08.4	
OBN					*e*PPP	PPP			05 34 41.5	
OBN					*i* S	**S**			**05 39 46.2**	**-2.0**
OBN					*i*				05 40 05.9	
OBN					*e*SS	**SS**			**05 44 48.1**	**-1.1**
OBN					*i* SSS	SSS			05 48 09.3	
OBN					pmax	pmax				
	comp=Z,76nm,1.1s									
OBN					MLR	MLR				
	comp=Z,9µm,17.0s									
VORR	**Voronezh**	**78.29**	**322**	*e*	P	**P**			**05 29 54.1**	**-1.5**
VORR					pmax	pmax				
	comp=Z,110nm,0.5s									
MOD	**Modoc Plateau**	**78.31**	**49**		IAmb	IAmb			05 29 58.6	
	comp=Z,83nm,1.3s									
SUTB	**Sutter Butte**	**78.33**	**52**		IAmb	IAmb			05 29 58.1	
	comp=Z,69nm,1.2s									
ORV	**Oroville**	**78.41**	**52**		IAmb	IAmb			05 29 58.6	
	comp=Z,128nm,1.4s									
ORV					IAMs_20	IAMs_20			06 00 52.9	
	comp=Z,1µm,19.0s									
UMZA	**Um Al Zommool**	**78.49**	**290**		P	**P**			**05 29 55.8**	**-1.5**
PPT	**Papeete**	**78.52**	**116**		LR	LR			05 58 11.0	
	comp=Z,2µm,21.4s,baz=304,slow=31									
VSR	**Storozhevoye**	**78.52**	**321**	*e*	P	**P**			**05 29 56.0**	**-0.8**
VSR					pmax	pmax				
	comp=Z,70nm,1.2s									
VSR					MLR	MLR				
	comp=Z,3µm,15.0s									
PPT2	**Papeete2**	**78.53**	**116**	*e*	S	**S**			**05 39 49.7**	**-3.8**
	comp=Z,342nm,32.0s									
PPT2				*e*	LQ	LQ			05 50 02.9	
	comp=Z,1µm,25.5s									
PPT2				*e*	LR	LR			05 54 13.8	
	comp=Z,2µm,22.0s									
PPT2				*e*	LR	LR			05 54 15.1	
	comp=Z,2µm,22.2s									
VORD	**Divnogorie**	**78.56**	**321**	*e*	P	**P**			**05 29 56.3**	**-0.8**
VORD					pmax	pmax				
	comp=Z,130nm,0.8s									
JRSC	**Jasper Ridge**	**78.72**	**54**		IAmb	IAmb			05 30 00.6	
	comp=Z,121nm,1.3s									
PUL	**Pulkovo**	**78.79**	**332**	*i*	P	**P**			**05 29 57.6**	**-0.5**
PUL					pmax	pmax				
	comp=Z,45nm,0.7s									
J08A	**Circle Bar Ran**	**78.95**	**47**		IAmb	IAmb			05 30 02.3	
	comp=Z,74nm,1.2s									
AFDM	**Forest Hills D**	**79.02**	**52**		IAmb	IAmb			05 30 02.4	
	comp=Z,123nm,1.5s									
BEKR	**Beckworth**	**79.09**	**51**		IAmb	IAmb			05 30 02.7	
	comp=Z,127nm,1.3s									
BMO	**Blue Mountains**	**79.09**	**46**		IAmb	IAmb			05 30 02.9	
	comp=Z,98nm,1.2s									
STEI	**Steigen**	**79.17**	**342**	*e*	P	**P**			**05 29 59.9**	**-0.2**
MZWR	**Madinat Zayed**	**79.17**	**291**		P	**P**			**05 29 59.6**	**-1.3**
MHC	**Mount Hamilton**	**79.18**	**54**		IAmb	IAmb			05 30 03.6	
	comp=Z,164nm,1.5s									
MHC					IAMs_20	IAMs_20			06 03 00.9	
	comp=Z,1µm,18.0s									
WVOR	**Wild Horse Val**	**79.22**	**48**		IAmb	IAmb			05 30 03.7	
	comp=Z,125nm,1.4s									
WVOR					IAMs_20	IAMs_20			06 02 41.2	
	comp=Z,1µm,18.0s									
KULLO	**Kullorsuaq**	**79.36**	**5**	*i*	P	**P**			**05 30 01.9**	**+0.9**
KULLO					IAmb	IAmb			05 30 02.8	
	comp=Z,106nm,1.1s									
KBZ	**Khabaz**	**79.48**	**313**		P	**P**			**05 30 01.9**	**-0.3**
	comp=Z,33nm,0.9s,baz=105,slow=2.3,SNR=42									
KBZ

PKD IAMs_20 IAMs_20 06 03 40.2
comp=Z,2µm,18.0s
MOR8 Moi Rana 80.61 341 *eP* **P 05 30 07.2 -0.8**
DMTO DMTO 80.64 285 P **P 05 30 07.5 -1.6**
MFID Camas Ranch 80.67 46 IAmb IAmb 05 30 11.6
comp=Z,106nm,1.2s
KONS Konsvik 80.76 342 *eP* **P 05 30 10.3 +1.6**
OZAP Van, Ozalp-Mer 80.88 308 ⇑P **P 05 30 11.2 +1.0**
STOK Stokkvaagen 80.91 342 *eP* **P 05 30 09.6 +0.1**
DOK Doka 80.99 286 P **P 05 30 09.3 -1.6**
SNR=9.1
KVN Kaiserville 81.02 51 IAmb IAmb 05 30 13.4
comp=Z,85nm,1.2s
LEIR Leirfjorden 81.04 341 *eP* **P 05 30 09.8 -0.4**
KARE Kearney REC, C 81.05 54 IAMs_20 IAMs_20 06 04 47.1
comp=Z,1µm,19.0s
VSU Vasula 81.06 331 *i* P **P 05 30 09.1 -1.3**
VSU pmax pmax
comp=Z,46nm,1.0s
LHV Little Huntoon 81.07 52 IAmb IAmb 05 30 14.1
comp=Z,116nm,1.3s
SAKB Bahrain 81.08 294 P **P 05 30 09.8 -1.4**
NVAR Mina Array Bea 81.14 52 P **P 05 30 12.5 +0.9**
comp=Z,26nm,1.0s,baz=277,slow=5.2,SNR=90
NVAR LR LR 06 00 26.2
comp=Z,840nm,21.0s,baz=308,slow=31
comp=Z,26nm,1.0s
NVAR Mina Array Bea 81.14 52 P **P 05 30 12.1 +0.5**
UPNV Upernavik 81.17 6 *i* P **P 05 30 11.9 +1.1**
UPNV IAmb IAmb 05 30 11.9
comp=Z,105nm,1.4s
BATM Batumi 81.20 312 ⇓P **P 05 30 12.6 +1.0**
BATM Batumi 81.20 312 ⇓P **P 05 30 12.6 +1.0**
RBK Rabkut 81.38 285 P **P 05 30 11.3 -1.7**
VSLR Vesyoloye 81.47 314 *i* P **P 05 30 11.5 -1.5**
VSLR pmax pmax
comp=Z,132nm,0.9s
WHFO Wadi Hawf 81.59 286 P **P 05 30 13.1 -1.0**
SNR=7.2
SOC Sochi 81.62 314 *c i* P **P 05 30 12.7 -1.1**
SOC *e* 05 33 16.5
SOC *eS* **S 05 40 24.8 -0.5**
SOC *eSS* **SS 05 45 36.3 -5.5**
SOC *eSSS* SSS 05 49 11.7
SOC pmax pmax
comp=Z,39nm,0.8s
SOC MLR MLR
comp=Z,3µm,17.0s
TBI Tubuai 81.64 121 *eS* **S 05 40 29.2 +3.3**
comp=Z,2µm,27.0s
JMIC Jan Mayen 81.71 351 LR LR 06 07 34.2
comp=Z,284nm,18.2s,baz=61,slow=36
HOMI Horasan 81.74 310 ⇓P **P 05 30 15.7 +0.8**
TIN Tinemaha, Big 81.78 53 IAmb IAmb 05 30 17.6
comp=Z,134nm,1.3s
DLMT Dillon 81.84 44 IAmb IAmb 05 30 17.6
comp=Z,147nm,1.6s
TPH Tonopah 82.06 52 IAmb IAmb 05 30 18.9
comp=Z,80nm,1.3s
CWC Cottonwood Cre 82.16 53 IAMs_20 IAMs_20 06 03 48.3
comp=Z,1µm,20.0s
ABTO Aybut 82.23 285 P **P 05 30 16.2 -1.3**
SNR=7.6
ELK Elko 82.25 49 LR LR 06 03 48.2
comp=Z,719nm,19.1s,baz=301,slow=33
ELK Elko 82.25 49 IAMs_20 IAMs_20 06 03 55.7
comp=Z,1µm,20.0s
EGMT Eagleton 82.28 40 IAMs_20 IAMs_20 06 08 29.7
comp=Z,1µm,19.0s
TAOE Nuku Hiva Isla 82.31 104 *eS* **S 05 40 30.8 -2.7**
comp=Z,304nm,28.9s
TAOE *eLR* LR 05 55 52.5
comp=Z,2µm,23.3s
GRAC Grapevine Rang 82.43 53 IAmb IAmb 05 30 20.8
comp=Z,82nm,1.4s
OSI Osito Audit: C 82.47 55 IAmb IAmb 05 30 21.1
comp=Z,64nm,1.2s
OSI IAMs_20 IAMs_20 06 04 55.8
comp=Z,2µm,20.0s
ANN Anapa 82.50 316 *eP* **P 05 30 17.5 -0.9**
ANN *eS* **S 05 40 30.1 -4.2**
ANN pmax pmax
comp=Z,80nm,1.0s
NSS Namsos 82.51 341 *eP* **P 05 30 17.0 -1.0**
NSS IVmB_BB 05 30 19.4
comp=Z,852nm,2.6s
KOPT Kop Dagi 82.72 311 IAmb IAmb 05 30 39.6
comp=Z,65nm,1.1s
MPMC Manual Prospec 82.75 54 IAmb IAmb 05 30 22.5
comp=Z,76nm,1.4s
MNK Minsk 82.78 328 *i* P **P 05 30 19.0 -0.6**
MNK *i* 05 30 23.6
MNK *i* 05 33 28.4
MNK *i* PPP PPP 05 35 19.9
MNK *i* S **S 05 40 37.9 +1.2**
MNK *i* SS **SS 05 46 01.1 +2.8**
MNK *i* SSS SSS 05 49 29.7
MNK pmax pmax
comp=E,9.0nm,0.7s
MNK pmax pmax
comp=Z,26nm,1.0s
MNK pmax pmax
comp=N,8.0nm,0.8s
MNK MLR MLR
comp=E,2µm,16.0s
MNK MLR MLR
comp=Z,3µm,16.0s
MNK MLR MLR
comp=N,2µm,14.0s
MNK Minsk 82.78 328 *i* P **P 05 30 19.1 -0.6**
comp=E,9.0nm,0.7s
MNK *i* P **P 05 30 19.1 -0.6**
comp=N,8.0nm,0.8s
MNK *i* P **P 05 30 19.1 -0.6**
comp=Z,26nm,1.0s,baz=56
MNK *i* PcP **pP 05 30 23.7 -0.9**
MNK *i* PP **PP 05 33 28.5 -0.7**
MNK *i* PPP PPP 05 35 20.0
MNK *i* S **S 05 40 37.9 +1.2**
MNK *i* SS **SS 05 46 01.1 +2.8**
MNK *i* SSS SSS 05 49 29.8
MNK *i* LQ LQ 06 00 30.5
CLC China Lake 82.78 54 IAmb IAmb 05 30 22.4
comp=Z,84nm,1.4s
FFC Flin Flon 82.86 32 P **P 05 30 20.2 +0.1**
FFC pmax pmax
comp=Z,106nm,1.2s
FFC MLR MLR
comp=Z,1µm,20.0s
FFC Flin Flon 82.86 32 P **P 05 30 20.2 +0.1**
FFC IAmb IAmb 05 30 22.4
comp=Z,106nm,1.1s
FFC Flin Flon 82.86 32 IAMs_20 IAMs_20 06 06 12.5
comp=Z,1µm,20.0s
LRMC Laurel Mtn Rad 82.86 54 IAmb IAmb 05 30 23.0
comp=Z,90nm,1.3s
YHL Hebgen Lake 82.97 44 IAmb IAmb 05 30 24.3
comp=Z,73nm,1.2s
YHB Horse Butte 83.01 44 IAmb IAmb 05 30 24.5
comp=Z,59nm,1.3s
PASC Pasadena Art C 83.06 56 IAmb IAmb 05 30 23.6
comp=Z,55nm,1.2s
CCCA Chr Cany lake 83.08 54 IAmb IAmb 05 30 24.2
comp=Z,103nm,1.3s
MWC Mount Wilson 83.14 55 IAmb IAmb 05 30 24.2
comp=Z,57nm,1.2s
YHH Holmes Hill 83.21 43 IAmb IAmb 05 30 25.6
comp=Z,68nm,1.4s
TPNV Topopah Spring 83.25 52 IAMs_20 IAMs_20 06 04 31.5
comp=Z,1µm,20.0s
GWY Greenwater Val 83.29 53 IAmb IAmb 05 30 25.1
comp=Z,93nm,1.2s
BFSC Mount Baldy Ra 83.43 55 IAmb IAmb 05 30 25.5
comp=Z,76nm,1.7s
GSC Goldstone, Bar 83.58 54 IAmb IAmb 05 30 26.7
comp=Z,117nm,1.4s
YNE Yellowstone No 83.62 43 IAmb IAmb 05 30 27.6
comp=Z,109nm,1.8s
BGU Big Grassy Mou 83.65 48 IAmb IAmb 05 30 28.4
comp=Z,101nm,1.9s
SCO Scoresbysund 83.70 355 *i* P **P 05 30 24.8 +0.7**
SCO IAmb IAmb 05 30 26.2
comp=Z,119nm,1.8s
SHOC Shoshone, Teco 83.70 53 IAmb IAmb 05 30 27.1
comp=Z,60nm,1.2s
SHOC IAMs_20 IAMs_20 06 07 00.3
comp=Z,1µm,19.0s
PRN Pahroc Range 83.90 52 IAmb IAmb 05 30 28.5
comp=Z,51nm,1.3s
SNOW Snow King Moun 83.91 45 IAmb IAmb 05 30 39.8
comp=Z,89nm,1.8s
SNOW IAMs_20 IAMs_20 06 00 46.3
comp=Z,2µm,22.0s
AHID Auburn Hatcher 84.03 45 IAmb IAmb 05 30 29.2
comp=Z,69nm,1.4s
AHID IAMs_20 IAMs_20 06 02 35.4
comp=Z,1µm,20.0s
DUG Dugway, Tooele 84.14 48 IAmb IAmb 05 30 29.6
comp=Z,100nm,1.3s
DUG IAMs_20 IAMs_20 06 05 24.5
comp=Z,1µm,19.0s
AK03 Malin Array Si 84.21 324 P **P 05 30 26.2 -0.8**
PSUT Pine Spring 84.21 50 IAmb IAmb 05 30 29.9
comp=Z,71nm,1.3s
AKASG Malin Array Be 84.22 324 P **P 05 30 26.5 -0.6**
comp=Z,13nm,0.5s,baz=47,slow=5.3,SNR=56
AKASG LR LR 06 11 25.3
comp=Z,4µm,18.9s,baz=48,slow=38
comp=Z,13nm,0.5s
AKBB Malin Array Si 84.22 324 *i* P **P 05 30 25.0 -2.1**
AKBB pmax pmax
comp=Z,42nm,1.1s
AKBB Malin Array Si 84.22 324 P **P 05 30 26.3 -0.8**
SHPR Sheep Range 84.23 52 IAmb IAmb 05 30 30.4
comp=Z,70nm,1.4s
AK01 Malin Array Si 84.23 324 P **P 05 30 26.4 -0.8**
KIEV Kiev 84.23 324 *i* P **P 05 30 26.3 -0.9**
SNR=8.0
KIEV Kiev 84.23 324 ⇓P **P 05 30 26.7 -0.4**
KIEV Kiev 84.23 324 P **P 05 30 25.9 -1.3**
KIEV IAmb IAmb 05 30 42.5
comp=Z,48nm,0.9s
KIEV Kiev 84.23 324 ⇓P **P 05 30 26.7 -0.4**
KIEV Kiev 84.23 324 P **P 05 30 26.3 -0.9**
comp=Z,5µmcomp=Z,284nm,1.2s
AK09 Malin Array Si 84.24 324 P **P 05 30 26.4 -0.8**
AK04 Malin Array Si 84.24 324 P **P 05 30 26.4 -0.8**
AK23 Malin Array Si 84.24 324 P **P 05 30 26.4 -0.8**
AK08 Malin Array Si 84.24 324 P **P 05 30 26.4 -0.8**
AK02 Malin Array Si 84.26 324 P **P 05 30 26.5 -0.8**
AK10 Malin Array Si 84.26 324 P **P 05 30 26.5 -0.8**
AK11 Malin Array Si 84.26 324 P **P 05 30 26.5 -0.8**
AK22 Malin Array Si 84.27 324 P **P 05 30 26.5 -0.8**
AK21 Malin Array Si 84.28 324 P **P 05 30 26.6 -0.8**
AK05 Malin Array Si 84.28 324 P **P 05 30 26.6 -0.8**
AK15 Malin Array Si 84.28 324 P **P 05 30 26.6 -0.8**
AK16 Malin Array Si 84.30 324 P **P 05 30 26.7 -0.8**
AK14 Malin Array Si 84.32 324 P **P 05 30 26.8 -0.8**
AK19 Malin Array Si 84.32 324 P **P 05 30 26.8 -0.8**
AK13 Malin Array Si 84.36 324 P **P 05 30 27.0 -0.8**
MTPC Mountain Pass 84.41 53 IAmb IAmb 05 30 31.1
comp=Z,79nm,1.3s
SIM Simferopol' 84.48 317 *eP* **P 05 30 28.5 -0.1**
SIM pmax pmax
comp=Z,88nm,0.9s
DNR Dunn Ranch,Anz 84.49 56 IAmb IAmb 05 30 31.3
comp=Z,80nm,1.3s
PFO Pinyon Flats O 84.60 55 LR LR 06 06 29.6
comp=Z,722nm,18.1s,baz=280,slow=34
PFO Pinyon Flats O 84.60 55 *i* P **P 05 30 29.3 -0.3**
PFO Pinyon Flats O 84.60 55 P **P 05 30 29.9 +0.3**
PFO IAmb IAmb 05 30 31.7
comp=Z,63nm,1.2s
TCUT Toone Canyon 84.64 47 IAmb IAmb 05 30 32.2
comp=Z,54nm,1.2s
NLU North Lily Min 84.75 48 IAmb IAmb 05 30 32.8
comp=Z,60nm,1.3s
BORC Borrego Spring 84.78 56 IAmb IAmb 05 30 32.4
comp=Z,77nm,1.6s
BAR Barrett 84.86 56 IAmb IAmb 05 30 32.8
comp=Z,66nm,1.4s
BAR IAMs_20 IAMs_20 06 06 44.3
comp=Z,1µm,19.0s
CCUT Cedar City 85.02 51 IAmb IAmb 05 30 34.5
comp=Z,66nm,1.6s
BW06 Boulder Array 85.02 45 IAMs_20 IAMs_20 06 03 28.5
comp=Z,2µm,20.0s
PDAR Pinedale Array 85.02 45 P **P 05 30 31.8 +0.1**
comp=Z,8.8nm,0.9s,baz=279,slow=1.1,SNR=50
PDAR LR LR 06 02 17.5
comp=Z,1µm,21.5s,baz=295,slow=31
comp=Z,8.8nm,0.9s
LAO LASA Array 85.03 40 IAMs_20 IAMs_20 06 10 24.3
comp=Z,1µm,19.0s
CBX Cerro Bola 85.03 57 IAmb IAmb 05 30 33.8
comp=Z,47nm,1.2s
ILULI Ilulissat 85.06 5 IAmb IAmb 05 30 42.3
comp=Z,62nm,1.2s
ILULI Ilulissat 85.06 5 *i* P **P 05 30 31.8 +0.8**
ILULI IAmb IAmb 05 30 32.7
comp=Z,93nm,1.5s
HFS Hagfors 85.11 337 P **P 05 30 30.5 -1.0**
comp=Z,14nm,0.6s,baz=90,slow=3.3,SNR=20
HFS LR LR 06 11 46.3
comp=Z,2µm,19.9s,baz=44,slow=38
comp=Z,14nm,0.6s
NC303 NCSAR Array S 85.12 339 IAmb IAmb 05 30 38.6
comp=Z,75nm,1.0s
DGMT Dagmar 85.22 38 IAMs_20 IAMs_20 06 04 02.2
comp=Z,1µm,21.0s
DOMB Dombas 85.24 340 *eP* **P 05 30 32.3 +0.2**
NB201 NORSAR Array S 85.27 339 IAmb IAmb 05 30 39.8
comp=Z,62nm,1.0s
SUW Suwalki 85.30 329 *eP* **P 05 30 31.4 -1.1**
SUW *eL* L 06 10 18.8
comp=Z,3µm,21.8s
MOL Mole 85.30 341 *eP* **P 05 30 30.9 -1.3**
NB2 NORSAR Subarra 85.30 339 P **P 05 30 31.5 -0.9**
comp=Z,121nm,1.7s,baz=46,slow=4.8
NB2 PP **PP 05 33 48.1 -1.5**
comp=Z,144nm,2.5s,baz=38,slow=7.9
NB2 NORSAR Subarra 85.30 339 P **P 05 30 31.0 -1.4**
NOA NORSAR Array B 85.30 339 P **P 05 30 31.4 -1.1**
comp=Z,18nm,0.8s,baz=49,slow=4.8,SNR=47
NOA PP **PP 05 33 48.7 -0.9**
comp=Z,5.0nm,1.0s,baz=42,slow=8.1,SNR=4.0
NOA LR LR 06 12 24.5
comp=Z,3µm,21.4s,baz=40,slow=38
comp=Z,18nm,0.8s
IRM Iron Mountain 85.32 54 IAmb IAmb 05 30 35.5
comp=Z,70nm,1.4s
IRM IAMs_20 IAMs_20 06 06 01.5
comp=Z,2µm,19.0s
BC3 Big Chuckawall 85.33 55 IAmb IAmb 05 30 35.6
comp=Z,84nm,1.3s
BC3 IAMs_20 IAMs_20 06 06 18.6
comp=Z,2µm,20.0s
BSUT Blindstream Ca 85.35 47 IAmb IAmb 05 30 36.0
comp=Z,83nm,1.7s
LCMT Little Creek M 85.36 51 IAmb IAmb 05 30 36.0
comp=Z,61nm,1.2s
NC602 NORSAR Array S 85.42 338 *eP* **P 05 30 33.0 +0.1**
YUH Yuha Desert 85.44 56 IAmb IAmb 05 30 35.8
comp=Z,81nm,1.4s
NBO00 NORSAR Array S 85.45 339 IAmb IAmb 05 30 40.2
comp=Z,43nm,1.0s
RNPP9 Sopachiy 85.54 326 P **P 05 30 33.1 -0.6**
NAO01 NORSAR Array S 85.56 339 IAmb IAmb 05 30 40.4
comp=Z,44nm,1.1s
RNPP8 Varash 85.61 326 P **P 05 30 33.1 -0.9**
RNPP5 Staryi Chortor 85.65 326 P **P 05 30 33.6 -0.7**
ESJX Sierra Juarez 85.71 57 IAmb IAmb 05 30 37.7
comp=Z,94nm,1.5s
AKN Aaknes 85.76 341 *eP* **P 05 30 35.0 +0.3**
Q16A Castle Valley 85.87 49 IAmb IAmb 05 30 38.6
comp=Z,106nm,1.2s
P17A Butcher Ranch, 85.89 48 IAmb IAmb 05 30 38.4
comp=Z,89nm,1.2s
BLYC Blythe 85.97 55 IAmb IAmb 05 30 38.8
comp=Z,66nm,1.2s
GLA Glamis 86.07 55 IAmb IAmb 05 30 39.4
comp=Z,96nm,1.3s
RDMU Red Mountain 86.12 47 IAmb IAmb 05 30 39.5
comp=Z,76nm,1.2s
SORM Soroca 86.13 322 ⇑P **P 05 30 36.1 -0.6**
SORM Soroca 86.13 322 ⇑P **P 05 30 36.1 -0.6**
SORM Soroca 86.13 322 P **P 05 30 35.5 -1.2**
comp=Z,22nm,1.5s
PURM Purcari 86.17 320 P **P 05 30 36.3 -0.6**
comp=Z,6µmcomp=Z,136nm,0.6s
SRU San Rafael Swe 86.21 48 IAmb IAmb 05 30 39.6
comp=Z,66nm,1.1s
RAYN Ar Rayn 86.26 294 *i* P **P 05 30 37.4 -0.5**
SNR=36
RAYN Ar Rayn 86.26 294 P **P 05 30 38.3 +0.4**
RAYN Ar Rayn 86.26 294 ⇓P **P 05 30 37.8 -0.1**
RAYN Ar Rayn 86.26 294 P **P 05 30 36.6 -1.3**
RAYN IAmb IAmb 05 30 43.9
comp=Z,40nm,0.8s
OSL Oslo 86.28 338 *eP* **P 05 30 37.5 +0.3**
BNN Bunyan 86.44 312 IAmb IAmb 05 30 58.7
comp=Z,108nm,2.0s
SKAR Skarslia 86.52 339 *eP* **P 05 30 38.0 -0.4**
SKAR IVmB 05 30 40.3
comp=Z,1µm,4.2s
HMU Henry Mountain 86.65 49 IAmb IAmb 05 30 41.7
comp=Z,52nm,1.1s
STRU Stroemstad 86.79 337 *i* P **P 05 30 38.6 -1.1**
FOO Floro 86.80 341 *eP* **P 05 30 40.4 +0.7**
HYA Hoyanger 86.80 340 *eP* **P 05 30 39.5 -0.1**
KONO Kongsberg 86.88 338 *i* P **P 05 30 38.9 -1.3**
KONO pmax pmax
comp=Z,25nm,1.2s
KONO Kongsberg 86.88 338 *eP* **P 05 30 42.7 +2.6**
113A Mohawk Valley, 86.99 55 IAmb IAmb 05 30 43.6
comp=Z,49nm,1.1s
K22A Casper 86.99 44 IAmb IAmb 05 30 44.6
comp=Z,81nm,1.4s
O20A White River Ci 87.21 47 IAmb IAmb 05 30 44.5
comp=Z,52nm,1.2s
SFJD Kangerlussuaq 87.28 5 LR LR 06 10 38.6
comp=Z,728nm,21.9s,baz=354,slow=36
SFJD Kangerlussuaq 87.28 5 P **P 05 30 41.5 -0.4**
SFJD pmax pmax
comp=Z,97nm,1.3s
SFJD Kangerlussuaq 87.28 5 P **P 05 30 41.5 -0.4**
SFJD IAmb IAmb 05 30 43.8
comp=Z,97nm,1.2s
SFJD Kangerlussuaq 87.28 5 P **P 05 30 43.2 +1.3**
SFJD Kangerlussuaq 87.28 5 *i* P **P 05 30 42.8 +0.8**
SFJD IAmb IAmb 05 30 43.5
comp=Z,89nm,1.2s
SUE Sulen 87.31 341 *eP* **P 05 30 42.0 -0.2**
MNTR Muntenesti 87.37 321 ⇓P **P 05 30 43.2 +0.4**
WUAZ Wupatki 87.40 52 IAmb IAmb 05 30 46.0
comp=Z,87nm,1.2s
PDRR Padureni 87.41 322 ⇑P **P 05 30 43.4 +0.4**
BR131 Keskin Array S 87.47 313 P **P 05 30 42.9 -0.8**
BR131 Keskin Array S 87.47 313 *i* P **P 05 30 41.3 -2.4**
BRTR Keskin Array B 87.47 313 P **P 05 30 41.3 -2.4**
comp=Z,6.3nm,0.9s,baz=103,slow=2.5,SNR=18
BRTR LR LR 06 13 35.0
comp=Z,1µm,19.6s,baz=40,slow=38
comp=Z,6.3nm,0.9s
BRTR Keskin Array B 87.47 313 P **P 05 30 41.7 -1.9**
BRTR Keskin Array B 87.47 313 P **P 05 30 41.7 -1.9**
DMBR Dumbraveni 87.47 322 ⇑P **P 05 30 42.5 -0.9**
TLCR 87.53 320 ⇓P **P 05 30 44.2 +0.6**
TLCR 87.53 320 ⇓P **P 05 30 44.2 +0.6**
VLDR Vladesti 87.58 321 ⇑P **P 05 30 44.5 +0.6**
ODD1 Odda 87.64 340 *eP* **P 05 30 43.1 -0.9**
DEL Delary 87.66 334 *i* P **P 05 30 43.5 -0.5**
RSSD Black Hills 87.72 41 P **P 05 30 45.1 +0.3**
RSSD pmax pmax
comp=Z,222nm,1.9s
RSSD MLR MLR
comp=Z,1µm,18.0s
RSSD Black Hills 87.72 41 P **P 05 30 45.1 +0.3**
RSSD Black Hills 87.72 41 IAMs_20 IAMs_20 06 12 43.6
comp=Z,1µm,18.0s
FRB Frobisher Bay 87.74 13 LR LR 06 11 22.9
comp=Z,1µm,21.9s,baz=342,slow=36
BEL Belsk 87.79 328 *eP* **P 05 30 44.0 -0.7**
BEL *eL* L 06 14 30.3
comp=Z,4µm,16.9s
PIX Pinacate 87.79 56 IAmb IAmb 05 30 47.4
comp=Z,89nm,1.3s
X16A Lo Mia Camp, P 87.89 53 IAmb IAmb 05 30 48.7
comp=Z,62nm,1.4s
CFR Carcaliu 87.93 320 ⇓P **P 05 30 45.6 +0.1**
CFR Carcaliu 87.93 320 ⇓P **P 05 30 45.6 +0.1**
TPGR Topolog 87.95 320 ⇓P **P 05 30 46.1 +0.4**
TESR Tescani 88.01 322 ⇓P **P 05 30 45.3 -0.6**
BIZ Bicaz 88.06 322 ⇓P **P 05 30 46.2 0.0**
BLS5 Blasjo 88.08 339 *eP* **P 05 30 46.3 +0.3**
MDND Maddock 88.09 37 IAMs_20 IAMs_20 06 13 05.1
comp=Z,1µm,20.0s
BURAR Bucovina Array 88.15 323 ⇓P **P 05 30 46.5 -0.2**
BURAR Bucovina Array 88.15 323 P **P 05 30 45.3 -1.4**
BURAR Bucovina Array 88.15 323 ⇓P **P 05 30 46.5 -0.2**
KWP Kalwaria Pacla 88.24 326 *eP* **P 05 30 46.0 -0.9**
E28A Huff 88.25 38 IAMs_20 IAMs_20 06 05 35.4
comp=Z,1µm,21.0s
ONER Baraj Valea Uz 88.26 322 ⇓P **P 05 30 46.0 -1.1**
TLBR Topalu 88.34 319 ⇓P **P 05 30 47.8 +0.3**
VRI Vrincioaia 88.34 321 ⇓P **P 05 30 47.6 +0.1**
VRI Vrincioaia 88.34 321 ⇓P **P 05 30 47.6 +0.1**
PLOR Plostina 88.39 321 ⇑P **P 05 30 46.9 -0.9**
PLOR Plostina 88.39 321 ⇑P **P 05 30 46.9 -0.9**
LUNU Lund 88.42 334 *i* P **P 05 30 46.3 -1.3**
SAHR Sahastru 88.45 321 ⇑P **P 05 30 48.3 +0.2**
ULM Lac du Bonnet 88.54 33 P **P 05 30 48.0 -0.3**
comp=Z,17nm,1.1s,baz=321,slow=5.3,SNR=11
comp=Z,17nm,1.1s
ULM Lac du Bonnet 88.54 33 IAmb IAmb 05 30 50.2
comp=Z,70nm,1.4s
BISRR Bisoca 88.54 321 ⇓P **P 05 30 47.2 -1.3**
MVCO Mesa Verde 88.55 49 IAmb IAmb 05 30 51.4
comp=Z,70nm,1.4s
MVCO IAMs_20 IAMs_20 06 04 32.5
comp=Z,1µm,21.0s
SNART Snartemo 88.68 338 *eP* **P 05 30 49.5 +0.7**
SNART Snartemo 88.68 338 *i* P **P 05 30 49.3 +0.5**
OZUR 88.74 322 ⇑P **P 05 30 50.3 +0.8**
NEHR Nehoiu 88.84 321 ⇑P **P 05 30 49.8 -0.1**
KOLS Kolonicke sedl 88.90 325 *eP* **P 05 30 50.3 +0.2**
X18A Snowflake 88.91 52 IAmb IAmb 05 30 53.3
comp=Z,48nm,1.3s
ASF Jabal al Asfar 89.00 305 LR LR 06 15 26.0
comp=Z,478nm,19.0s,baz=22,slow=39
MLR Muntele Rosu 89.01 321 LR LR 06 13 56.2
comp=Z,2µm,18.4s,baz=4.0,slow=38
MLR Muntele Rosu 89.01 321 ⇑P **P 05 30 52.0 +1.2**
MLR Muntele Rosu 89.01 321 ⇑P **P 05 30 52.0 +1.2**
DOPR Dopca 89.04 322 ⇓P **P 05 30 49.6 -1.2**
UZHM Uzhgorod 89.08 325 P **P 05 30 50.2 -0.7**
ISCO Idaho Springs 89.10 46 IAMs_20 IAMs_20 06 08 37.6
comp=Z,1µm,20.0s
BORG Borgarnes 89.23 353 LR LR 06 11 04.7
comp=Z,493nm,21.5s,baz=13,slow=36
OJC Ojcow 89.31 327 *eP* **P 05 30 50.8 -1.2**
OJC *eL* L 06 08 02.0
comp=Z,2µm,24.6s
OJC Ojcow 89.31 327 P **P 05 30 51.0 -1.0**
comp=Z,52nm,1.3s
TUC Tucson 89.41 54 P **P 05 30 53.3 +0.4**
TUC pmax pmax
comp=Z,65nm,1.5s
TUC Tucson 89.41 54 P **P 05 30 53.3 +0.4**
TUC IAmb IAmb 05 30 55.9
comp=Z,65nm,1.4s
TUC Tucson 89.41 54 IAMs_20 IAMs_20 06 08 45.7
comp=Z,1µm,19.0s
VOIR 89.55 321 ⇑P **P 05 30 52.1 -1.2**
VOIR 89.55 321 ⇑P **P 05 30 52.1 -1.2**
NIE Niedzica 89.59 327 *eP* **P 05 30 53.2 -0.2**
NIE *eL* L 06 14 53.8
comp=Z,2µm,17.5s
NIE Niedzica 89.59 327 P **P 05 30 53.3 0.0**
comp=Z,17nm,1.3s
MMAI Mount Meron Ar 89.68 307 P **P 05 30 52.2 -2.0**
comp=Z,0.4nm,0.3s,baz=34,slow=10,SNR=6.1
MMAI LR LR 06 16 12.0
comp=Z,724nm,18.4s,baz=24,slow=39
comp=Z,0.4nm,0.3s
AGMN Agassiz Nation 89.78 35 IAmb IAmb 05 30 56.2
comp=Z,105nm,1.4s
ARR Arges 89.82 322 ⇑P **P 05 30 54.4 -0.1**
MARR Marisel-Cluj 89.86 323 ⇑P **P 05 30 54.6 -0.2**
Q24A Divide 89.86 46 IAMs_20 IAMs_20 06 14 31.0
comp=Z,1µm,19.0s
EPLO Experimental L 89.97 33 IAmb IAmb 05 30 56.9
comp=Z,62nm,1.3s
DRGR 90.01 323 ⇑P **P 05 30 54.6 -0.8**
DRGR 90.01 323 ⇑P **P 05 30 54.6 -0.8**
KECS Kecovo 90.10 326 *eP* **P 05 30 55.2 -0.5**
LANS Liptovska Anna 90.18 327 *eP* **P 05 30 56.8 +0.7**
OKC Ostrava-Krasne 90.37 328 AMS AMS 06 15 40.0

comp=Z,3µm,15.4s
STEB Steborice 90.48 328 *e*P **P 05 30 55.3 -2.1**
SUSD Miller 90.50 39 IAmb IAmb 05 30 59.5
comp=Z,67nm,1.0s
SUSD IAMs_20 IAMs_20 06 14 07.1
comp=Z,1µm,19.0s
ISP Isparta 90.55 313 IAMs_20 IAMs_20 06 15 19.6
comp=Z,1µm,21.0s
KSP Ksiaz 90.56 329 *e*P **P 05 30 56.9 -0.8**
KSP *e*L L 06 16 41.6
comp=Z,3µm,17.1s
KSP Ksiaz 90.56 329 P **P 05 30 57.2 -0.6**
comp=Z,42nm,0.9s
ELND Elena 90.56 319 ⇑P **P 05 30 57.6 -0.4**
MORC Moravsky Berou 90.70 328 IAmb IAmb 05 31 00.8
comp=Z,91nm,2.0s
MORC Moravsky Berou 90.70 328 *e*P **P 05 30 57.2 -1.3**
OGNE Ogallala 90.73 43 IAmb IAmb 05 31 00.9
comp=Z,54nm,1.1s
PSZ Piszkesteto 90.77 326 IAmb IAmb 05 31 18.4
comp=Z,71nm,1.3s
OSTC Ostas 90.79 329 *e*P **P 05 31 00.5 +1.6**
OSTC Ostas 90.79 329 *e*P **P 05 31 00.5 +1.6**
CHVC Chvalec 90.84 329 *e*P **P 05 30 59.3 +0.1**
CHVC Chvalec 90.84 329 *e*P **P 05 30 59.3 +0.1**
DPC Dobruska-Polom 90.88 329 *e*P **P 05 30 58.8 -0.6**
DPC *e* 05 47 55.6
DPC MLR MLR
comp=Z,4µm,14.7s
DPC Dobruska-Polom 90.88 329 *e*P **P 05 30 58.8 -0.6**
DPC *ex* x 05 47 55.6
DPC AMS AMS 06 15 50.0
comp=Z,4µm,14.7s
DPC Dobruska-Polom 90.88 329 P **P 05 30 59.2 -0.2**
comp=Z,649nmcomp=Z,23nm,1.0s
SIRR Siria 90.90 324 ⇓P **P 05 30 59.3 -0.2**
UPC Upice 90.92 329 *e*P **P 05 30 59.7 +0.2**
UPC *e* 05 47 54.9
UPC MLR MLR
comp=Z,5µm,15.8s
UPC Upice 90.92 329 *e*P **P 05 30 59.7 +0.2**
UPC *e*SS SS 05 47 54.9 -2.6
UPC AMS AMS 06 16 10.0
comp=Z,5µm,15.8s
HSIG 90.92 57 IAmb IAmb 05 31 02.5
comp=Z,57nm,1.3s
VYHS Vyhne 90.92 326 *e*P **P 05 30 59.4 -0.1**
SURR Surduc 90.97 323 ⇓P **P 05 30 59.1 -0.7**
F33A 5 Mile Ranch, 91.12 37 IAmb IAmb 05 31 02.7
comp=Z,58nm,1.1s
F33A IAMs_20 IAMs_20 06 10 35.2
comp=Z,1µm,20.0s
TASM ASL Pad, Albuq 91.14 50 IAmb IAmb 05 31 03.8
comp=Z,63nm,1.3s
TASM ASL Pad, Albuq 91.14 50 IAmb IAmb 05 31 03.8
comp=Z,65nm,1.3s
ANMO Albuquerque 91.15 50 LR LR 06 11 43.5
comp=Z,352nm,18.0s,baz=310,slow=35
ANMO Albuquerque 91.15 50 *i* P **P 05 30 58.7 -2.4**
ANMO pmax pmax
comp=Z,60nm,1.3s
ANMO Albuquerque 91.15 50 P **P 05 31 01.8 +0.7**
ANMO IAmb IAmb 05 31 03.7
comp=Z,64nm,1.4s
ALQ Albuquerque 91.15 50 IAmb IAmb 05 31 03.8
comp=Z,67nm,1.3s
ALQ Albuquerque 91.15 50 IAmb IAmb 05 31 03.7
comp=Z,69nm,1.3s
JAVC Velka Javorina 91.25 327 *e*P **P 05 31 00.8 -0.3**
Y22A Socorro 91.33 51 IAmb IAmb 05 31 04.7
comp=Z,42nm,1.1s
T25A Trinidad 91.35 47 IAMs_20 IAMs_20 06 18 06.5
comp=Z,975nm,18.0s
KSCO Kaye Shedlock' 91.46 45 IAMs_20 IAMs_20 06 04 50.1
comp=Z,1µm,22.0s
VRAC Vranov 91.47 328 LR LR 06 14 26.5
comp=Z,2µm,21.8s,baz=42,slow=37
VRAC Vranov 91.47 328 *e*P **P 05 31 01.1 -1.0**
PVCC Panska Ves 91.57 330 AMS AMS 06 15 20.0
comp=Z,2µm,15.7s
SRO Srobarova 91.64 326 *e*P **P 05 31 03.1 +0.3**
EIL Elat 91.70 304 LR LR 06 18 04.9
comp=Z,598nm,18.1s,baz=48,slow=39
CLL Collm 91.71 331 *i* P **P 05 31 01.7 -1.4**
CLL *e* 05 41 35.0
CLL *e*PS **PS 05 43 12.0 -1.8**
CLL pmax pmax
comp=Z,27nm,1.4s
CLL MLR MLR
comp=Z,2µm,18.7s
CLL Collm 91.71 331 P **P 05 31 02.1 -1.0**
comp=Z,462nmcomp=Z,20nm,1.1s
CLL Collm 91.71 331 *i* P **P 05 31 01.7 -1.4**
comp=Z,27nm,1.4s
CLL *i* pP **pP 05 31 07.0 -1.2**
comp=Z,24nm,1.2s
CLL *i* x x 05 31 20.9
comp=Z,37nm,1.5s
CLL *e*PP **PP 05 34 48.0 +7.0**
CLL *e*SKSac **SKSac 05 41 35.0 0.0**
CLL *e*PS **PS 05 43 12.0 -1.8**
CLL *ex* x 05 45 00.0
CLL *e*SS **SS 05 48 10.0 +1.2**
CLL *e*SSS SSS 05 51 52.0
CLL *ex* x 05 54 10.0
CLL *e*SSSS 05 55 42.0
CLL LR LR 06 02 00.0
CLL AMS AMS 06 12 00.0
comp=N,2µm,17.5s
CLL AMS AMS 06 12 00.0
comp=E,2µm,17.3s
CLL AMS AMS 06 16 00.0
comp=Z,2µm,18.7s
KRUC Moravsky 91.73 328 *e*P **P 05 31 02.2 -1.1**
MODS Modra-Piesok 91.78 327 *e*P **P 05 31 03.3 -0.2**
MDVR Moldovita 91.81 322 ⇑P **P 05 31 03.8 0.0**
PRU Pruhonice 91.96 329 *e*P P 05 31 09.2 +4.9
PRU *e* 05 48 16.0
PRU pmax pmax
comp=Z,2.0nm,0.4s
PRU MLR MLR
comp=Z,3µm,15.0s
PRU Pruhonice 91.96 329 *e*P P 05 31 09.2 +4.9
comp=Z,1.9nm,0.4s
PRU *e*SS SS 05 48 16.0 +3.5
PRU AMS AMS 06 17 10.0
comp=Z,3µm,15.0s
ZST Bratislava 91.98 327 *e*P **P 05 31 05.0 +0.6**
BLKB Belogradchik 92.00 321 ⇓P **P 05 31 04.1 -0.6**
EYMN Ely 92.22 33 IAMs_20 IAMs_20 06 14 03.1
comp=Z,993nm,19.0s
ECSD EROS Data Cent 92.27 39 IAMs_20 IAMs_20 06 14 08.7
comp=Z,1µm,20.0s
ECSD EROS Data Cent 92.27 39 IAmb IAmb 05 31 07.8
comp=Z,74nm,1.3s
MPLH Magyarpolny 92.46 326 P **P 05 31 06.1 -0.5**
comp=Z,1µmcomp=Z,75nm,1.4s
ABNA Allensteig Bun 92.46 328 *i* P **P 05 31 06.0 -0.7**
comp=Z,14nm,1.0s
ZVC Zvikov 92.51 329 *e*P **P 05 31 07.2 +0.4**
ZVC AMS AMS 06 17 10.0
comp=Z,5µm,15.6s
MORH Mrgy, Hungar 92.53 325 ⇑P **P 05 31 06.5 -0.5**
MORH Mrgy, Hungar 92.53 325 P **P 05 31 05.8 -1.2**
comp=Z,485nmcomp=Z,20nm,1.5s
WINA Alland / Wiene 92.55 327 *e*P **P 05 31 06.8 -0.3**
comp=Z,16nm,1.2s,SNR=9.0
RONA Rosalia, Austr 92.72 327 *i* P **P 05 31 07.3 -0.6**
comp=Z,20nm,1.6s,SNR=8.5
NKC Novy Kostel 92.73 331 *e*P **P 05 31 10.0 +2.1**
NKC Novy Kostel 92.73 331 *e*P **P 05 31 10.0 +2.1**
CONA Conrad Observa 92.77 327 *i* P **P 05 31 07.7 -0.5**
comp=Z,18nm,1.1s,SNR=13
EPT El Paso 92.80 53 IAMs_20 IAMs_20 06 11 54.5
comp=Z,1µm,20.0s
CKRC Cesky Krumlov 92.89 329 *e*P **P 05 31 08.4 -0.3**
CKRC *e* 05 48 27.8
CKRC MLR MLR
comp=Z,3µm,20.2s
CKRC Cesky Krumlov 92.89 329 *e*P **P 05 31 08.4 -0.3**
CKRC *ex* x 05 48 27.8
CKRC AMS AMS 06 14 00.0
comp=Z,3µm,20.2s
KHC Kasperske Hory 93.01 329 *e*P **P 05 31 08.5 -0.7**
KHC *e* 05 48 27.7
KHC pmax pmax
comp=Z,9.0nm,0.7s
KHC MLR MLR
comp=Z,6µm,15.6s
KHC Kasperske Hory 93.01 329 *e*P **P 05 31 08.5 -0.7**
comp=Z,8.9nm,0.7s
KHC *e*SS SS 05 48 27.7 0.0
KHC AMS AMS 06 17 40.0
comp=Z,6µm,15.6s
KHC Kasperske Hory 93.01 329 P **P 05 31 08.7 -0.5**
comp=Z,20nm,0.9s
GERES GERESS Array B 93.16 329 P **P 05 31 08.6 -1.4**
comp=Z,4.3nm,0.7s,baz=37,slow=3.9,SNR=33
GERES PP **PP 05 34 49.8 -2.7**
comp=Z,1.2nm,0.9s,baz=32,slow=5.3,SNR=2.7
GERES LR LR 06 15 37.0
comp=Z,2µm,21.5s,baz=51,slow=37
comp=Z,4.3nm,0.7s
GERES GERESS Array B 93.16 329 P **P 05 31 08.4 -1.6**
SPMN Marine on St. 93.38 36 IAmb IAmb 05 31 13.1
comp=Z,49nm,1.4s
SPMN IAMs_20 IAMs_20 06 15 17.1
comp=Z,1µm,20.0s
ARSA Arzberg 93.41 327 *i* P **P 05 31 09.8 -1.3**
comp=Z,10nm,1.2s
CBKS Cedar Bluff 93.41 44 IAMs_20 IAMs_20 06 06 29.5
comp=Z,973nm,20.0s
L34A Svendsen Farm, 93.51 40 IAMs_20 IAMs_20 06 15 10.8
comp=Z,1µm,20.0s
MOA Molln 93.60 328 *i* P **P 05 31 11.0 -0.9**
comp=Z,10nm,1.1s,SNR=9.3
MNTX Cornudas Mount 93.65 52 IAmb IAmb 05 31 15.1
comp=Z,60nm,1.4s
MNTX IAMs_20 IAMs_20 06 12 23.9
comp=Z,910nm,19.0s
GRFO Grafenberg 93.67 331 P **P 05 31 12.7 +0.5**
GRFO Grafenberg 93.67 331 P **P 05 31 12.7 +0.5**
LPIG La Paz 93.86 61 LR LR 06 05 12.7
comp=Z,484nm,22.0s,baz=312,slow=30
I37A Lemond, Waseca 93.86 37 IAMs_20 IAMs_20 06 16 02.9
comp=Z,1µm,19.0s
SESA Seetaler Alpe, 93.97 327 *e*P **P 05 31 12.7 -1.2**
comp=Z,17nm,1.0s,SNR=17
BIOA Bad Ischl, Aus 94.01 328 *i* P **P 05 31 12.8 -1.0**
comp=Z,12nm,1.3s
PERS Pernice 94.03 327 *i* P **P 05 31 12.9 -1.1**
SOKA Soboth 94.05 327 *e*P **P 05 31 12.8 -1.3**
comp=Z,10nm,1.0s,SNR=8.9
KARP Karpathos 94.06 312 IAMs_20 IAMs_20 06 21 00.7
comp=Z,1µm,18.0s
MSTX Muleshoe 94.22 49 IAmb IAmb 05 31 17.0
comp=Z,74nm,1.7s
R32A Long Quarter, 94.29 44 IAmb IAmb 05 31 16.8
comp=Z,50nm,1.2s
R32A IAMs_20 IAMs_20 06 06 58.7
comp=Z,986nm,21.0s
OBKA Obir 94.40 327 *i* P **P 05 31 14.1 -1.6**
comp=Z,5.6nm,0.9s
EKA Eskdalemuir Ar 94.40 341 P **P 05 31 16.1 +0.7**
comp=Z,5.3nm,1.1s,baz=46,slow=3.3,SNR=4.4
EKA PP **PP 05 35 01.4 -0.4**
comp=Z,3.3nm,0.8s,baz=42,slow=6.6,SNR=4.7
EKA LR LR 06 19 47.4
comp=Z,2µm,18.1s,baz=34,slow=39
comp=Z,5.3nm,1.1s
VHRN Van Horn 94.43 53 IAmb IAmb 05 31 18.9
comp=Z,92nm,1.7s
AMTX Amarillo 94.44 48 IAMs_20 IAMs_20 06 11 45.2
comp=Z,1µm,19.0s
KBA Koelnbreinsper 94.58 328 *i* P **P 05 31 15.0 -1.7**
comp=Z,6.5nm,0.9s
LESA Schwarzleotal 94.65 329 *i* P **P 05 31 15.2 -1.7**
comp=Z,7.8nm,1.1s
CASY Casey 94.68 192 IAMs_20 IAMs_20 06 08 53.6
comp=Z,1µm,22.0s
PDG Podgorica 94.69 322 ⇑P **P 05 31 16.4 -0.6**
MYKA Terra Mystica 94.76 328 *i* P **P 05 31 15.3 -2.1**
comp=Z,6.9nm,0.8s
GBAS Gorenja Brezov 94.86 327 *i* P **P 05 31 15.9 -1.9**
PECS Pecos 94.91 52 IAmb IAmb 05 31 20.8
comp=Z,83nm,1.8s
MEM Membach 95.15 334 *d*P **P 05 31 18.8 -0.2**
comp=Z,8.9nm,0.9s
ABTA Abtserbach 95.22 328 *i* P **P 05 31 17.1 -2.4**
comp=Z,9.2nm,1.1s
WATA Walderalm 95.23 329 *i* P **P 05 31 18.2 -1.4**
comp=Z,4.7nm,0.6s
WTTA Wattenberg 95.26 329 *i* P **P 05 31 18.1 -1.7**
comp=Z,5.9nm,1.3s
SMWD Samnorwood 95.28 47 IAmb IAmb 05 31 22.5
comp=Z,62nm,1.5s
BHOU Houvegnez 95.35 334 *d*P **P 05 31 19.3 -0.6**
comp=Z,6.3nm,1.0s
F42A Maple Grove Fa 95.40 33 IAMs_20 IAMs_20 06 17 06.2
comp=Z,1µm,19.0s
I40A Norwalk 95.43 36 IAMs_20 IAMs_20 06 18 30.4
comp=Z,1µm,20.0s
OK038 West end E0370 95.44 45 IAMs_20 IAMs_20 06 07 38.4
comp=Z,1µm,22.0s
MOTA Moosalm 95.44 329 *i* P **P 05 31 19.5 -1.1**
comp=Z,5.7nm,1.2s
SQTA Sankt Quirin 95.49 329 *i* P **P 05 31 18.8 -1.9**
comp=Z,4.2nm,0.5s
RETA Reutte 95.50 330 *i* P **P 05 31 19.1 -1.7**
comp=Z,7.1nm,1.2s
BCLA Clavier 95.58 334 *d*P **P 05 31 19.7 -1.2**
comp=Z,5.2nm,1.1s
POST Post 95.61 49 IAmb IAmb 05 31 22.6
comp=Z,46nm,1.7s
UCC Uccle 95.64 335 *d*P **P 05 31 20.8 -0.3**
BGES Gesves 95.69 334 *d*P **P 05 31 20.5 -1.0**
comp=Z,6.2nm,1.0s
IDI Anoyia 95.71 313 LR LR 06 18 56.4
comp=Z,707nm,19.1s,baz=36,slow=38
MNHN Monahans 95.71 51 IAmb IAmb 05 31 25.6
comp=Z,52nm,1.9s
RCHB Rochefort 95.82 334 *d*P **P 05 31 20.7 -1.2**
comp=Z,11nm,0.9s
RCHB *d*PP **PP 05 35 13.3 +0.3**
BOST Ostende 95.83 336 *d*P **P 05 31 22.0 +0.1**
comp=Z,18nm,1.0s
WLF Walferdange 95.83 333 *d*P **P 05 31 22.0 -0.1**
comp=Z,14nm,1.2s
FETA Feichten 95.86 329 *e*P **P 05 31 20.7 -1.8**
comp=Z,3.9nm,0.9s
BSKQ Steenkerk 95.87 335 *d*P **P 05 31 21.9 -0.3**
BMRD Maredsous 95.88 334 *d*P **P 05 31 21.5 -0.8**
comp=Z,6.7nm,1.0s
HPIG 96.00 57 IAmb IAmb 05 31 26.0
comp=Z,41nm,1.8s
SN07 Snyder 07 96.01 49 IAmb IAmb 05 31 25.1
comp=Z,54nm,2.0s
DAVA Damuels 96.05 330 *i* P **P 05 31 21.4 -1.9**
comp=Z,9.9nm,1.2s
N38A Joes South For 96.08 39 IAMs_20 IAMs_20 06 15 29.0
comp=Z,904nm,19.0s
SCHQ Schefferville 96.09 17 LR LR 06 15 15.0
comp=Z,869nm,21.8s,baz=340,slow=36
DOU Dourbes 96.11 334 *d*P **P 05 31 21.7 -1.7**
TX31 Lajitas Ar. Si 96.18 54 IAmb IAmb 05 31 26.8
comp=Z,30nm,1.3s
TXAR Lajitas Array 96.18 54 P **P 05 31 24.9 +0.6**
comp=Z,8.2nm,1.0s,baz=303,slow=2.5,SNR=36
TXAR PP **PP 05 35 18.2 +1.3**
comp=Z,1.1nm,1.1s,baz=311,slow=4.5,SNR=2.7
TXAR LR LR 06 12 56.1
comp=Z,292nm,18.4s,baz=307,slow=34
comp=Z,8.2nm,1.0s
TXAR Lajitas Array 96.18 54 P **P 05 31 24.4 +0.2**
TXAR Lajitas Array 96.18 54 P **P 05 31 24.4 +0.2**
JFWS Jewell Farm 96.30 36 IAMs_20 IAMs_20 06 15 01.4
comp=Z,1µm,19.0s
FUORN Ofenpass-Fuorn 96.37 329 IAmb IAmb 05 31 31.3
comp=Z,20nm,0.9s
DAVOX Davos/Dischmat 96.43 330 LR LR 06 18 46.2
comp=Z,2µm,19.3s,baz=26,slow=38
H43A Windswept, Lux 96.50 34 IAMs_20 IAMs_20 06 17 41.3
comp=Z,1µm,20.0s
SGCY Sterling City 96.53 50 IAmb IAmb 05 31 26.7
comp=Z,44nm,1.7s
OK048 Pawnee Station 96.63 45 IAmb IAmb 05 31 31.0
comp=Z,52nm,1.4s
OK048 IAMs_20 IAMs_20 06 09 22.7
comp=Z,1µm,22.0s
P38A Dawn 96.67 40 IAMs_20 IAMs_20 06 17 06.8
comp=Z,1µm,19.0s
OK029 Liberty Lake 96.68 45 IAMs_20 IAMs_20 06 07 53.2
comp=Z,1µm,22.0s
TUE Stuetta 96.90 330 IAmb IAmb 05 31 46.3
comp=Z,46nm,1.8s
L42A Oliver, Polo 97.24 37 IAMs_20 IAMs_20 06 17 58.2
comp=Z,1µm,19.0s
W35A Tecumseh 97.45 45 IAmb IAmb 05 31 31.6
comp=Z,39nm,1.4s
K43A Burlington 97.46 35 IAMs_20 IAMs_20 06 21 02.3
comp=Z,1µm,20.0s
N41A Harden Midland 97.48 38 IAMs_20 IAMs_20 06 21 30.0
comp=Z,1µm,19.0s
P40A Paris 97.59 40 IAmb IAmb 05 31 33.5
comp=Z,27nm,1.3s
TUL3 Leonard 97.67 44 IAMs_20 IAMs_20 06 10 12.7
comp=Z,966nm,20.0s
S39A Bolivar 98.05 42 IAMs_20 IAMs_20 06 19 41.6
comp=Z,1µm,20.0s
U38A Gravette 98.21 43 IAMs_20 IAMs_20 06 18 55.0
comp=Z,1µm,20.0s
JCT Junction City 98.29 51 IAmb IAmb 05 31 35.4
comp=Z,18nm,1.1s
JCT IAMs_20 IAMs_20 06 12 33.5
comp=Z,896nm,20.0s
R40A Maddies Statio 98.29 41 IAMs_20 IAMs_20 06 20 47.7
comp=Z,1µm,18.0s
Z35A Perchaven, San 98.32 47 IAmb IAmb 05 31 35.4
comp=Z,35nm,1.2s
BRDY Brady 98.37 50 IAmb IAmb 05 31 35.9
comp=Z,27nm,1.5s
HDIL Hopedale 98.44 37 IAMs_20 IAMs_20 06 21 27.6
comp=Z,1µm,19.0s
M44A Midewin, Midew 98.54 36 IAMs_20 IAMs_20 06 12 07.0
comp=Z,1µm,20.0s
P43A Skaggs, Pawnee 98.95 38 IAMs_20 IAMs_20 06 21 47.0
comp=Z,1µm,20.0s
WHTX Lake Whitney, 99.00 48 IAMs_20 IAMs_20 06 17 19.2
comp=Z,1µm,20.0s
CEL Celeste 99.38 320 P **Pdif 05 31 38.5 +0.1**
SFIN Lafayette 99.76 36 IAMs_20 IAMs_20 06 19 32.9
comp=Z,1µm,20.0s
Z38A Mt. Pleasant 99.85 46 IAMs_20 IAMs_20 06 26 11.6
comp=Z,1µm,19.0s
AAM Ann Arbor 100.13 33 IAMs_20 IAMs_20 06 19 33.4
comp=Z,1µm,19.0s
N47A Urbana 100.14 35 IAMs_20 IAMs_20 06 20 42.9
comp=Z,1µm,20.0s
K50A Casco 100.28 32 IAMs_20 IAMs_20 06 19 06.2
comp=Z,983nm,20.0s
S44A Carbondale 100.44 39 IAMs_20 IAMs_20 06 24 27.7
comp=Z,984nm,19.0s
N49A Columbus Grove 100.89 34 IAMs_20 IAMs_20 06 23 47.0
comp=Z,849nm,19.0s
NATX Nacogdoches 101.01 47 IAMs_20 IAMs_20 06 16 41.3
comp=Z,1µm,20.0s
P48A Milroy 101.31 36 IAMs_20 IAMs_20 06 22 26.0
comp=Z,1µm,19.0s
HKT Hockley 101.35 49 IAMs_20 IAMs_20 06 18 10.1
comp=Z,1µm,20.0s
O49A Covington 101.35 35 IAMs_20 IAMs_20 06 23 03.9
comp=Z,1µm,20.0s
ERPA Erie 102.03 31 IAMs_20 IAMs_20 06 18 29.5
comp=Z,1µm,21.0s
J55A Hilton 102.11 29 IAMs_20 IAMs_20 06 18 39.5
comp=Z,1µm,21.0s
T47A Sharon Grove 102.16 39 IAMs_20 IAMs_20 06 20 29.7
comp=Z,938nm,20.0s
R49A Shelbyville 102.30 37 IAMs_20 IAMs_20 06 20 54.1
comp=Z,1µm,19.0s
MMNY Mt. Morris Dam 102.49 29 IAMs_20 IAMs_20 06 15 54.7
comp=Z,1µm,21.0s
N53A Lisbon 102.64 32 IAMs_20 IAMs_20 06 26 40.2
comp=Z,1µm,18.0s
O52A Adamsville 102.68 33 IAMs_20 IAMs_20 06 21 11.9
comp=Z,980nm,19.0s
Q51A Peebles 102.73 35 IAMs_20 IAMs_20 06 21 49.3
comp=Z,860nm,20.0s
R50A Paris 102.76 36 IAMs_20 IAMs_20 06 14 27.7
comp=Z,1µm,20.0s
Y45A Yeager Farm, C 102.89 42 IAMs_20 IAMs_20 06 21 01.7
comp=Z,1µm,19.0s
K57A Scipio Center 103.10 29 IAMs_20 IAMs_20 06 25 19.8
comp=Z,1µm,20.0s
L56A Greenwood 103.12 30 IAMs_20 IAMs_20 06 16 13.4
comp=Z,1µm,21.0s
V48A Smith Brothers 103.20 39 IAMs_20 IAMs_20 06 25 00.7
comp=Z,873nm,19.0s
U49A Red Boiling Sp 103.25 38 IAMs_20 IAMs_20 06 25 13.7
comp=Z,1µm,20.0s
Q52A Bidwell 103.33 35 IAMs_20 IAMs_20 06 19 57.3
comp=Z,799nm,19.0s
O54A Avella 103.34 33 IAMs_20 IAMs_20 06 22 26.5
comp=Z,1µm,20.0s
P53A Whipple 103.38 34 IAMs_20 IAMs_20 06 21 24.4
comp=Z,1µm,20.0s
VNDA Vanda 103.39 176 Pdiff **Pdif 05 31 54.1 -0.9**
comp=Z,0.1nm,0.5s,baz=352,slow=2.5,SNR=1.5
S51A Beattyville 103.62 36 IAMs_20 IAMs_20 06 14 45.2
comp=Z,1µm,21.0s
LBNH Lisbon 103.72 25 IAMs_20 IAMs_20 06 22 17.8
comp=Z,1µm,21.0s
H62A Milan 103.72 24 IAMs_20 IAMs_20 06 19 39.9
comp=Z,1µm,20.0s
BINY Binghamton 103.76 29 IAMs_20 IAMs_20 06 26 08.3
comp=Z,1µm,19.0s
PKME Peaks-Kenny Pk 103.80 23 IAMs_20 IAMs_20 06 18 46.8
comp=Z,1µm,21.0s
MCWV Mont Chateau 104.01 33 IAMs_20 IAMs_20 06 21 35.4
comp=Z,965nm,20.0s
146A Union 104.02 43 IAMs_20 IAMs_20 06 25 19.7
comp=Z,862nm,18.0s
Z47A Carrollton 104.24 42 IAMs_20 IAMs_20 06 26 18.4
comp=Z,836nm,20.0s
I62A Tamworth 104.25 25 IAMs_20 IAMs_20 06 22 31.0
comp=Z,1µm,21.0s
WVL Waterville 104.28 23 IAMs_20 IAMs_20 06 21 30.5
comp=Z,1µm,21.0s
KSPA Keystone Colle 104.38 29 IAMs_20 IAMs_20 06 27 05.6
comp=Z,1µm,20.0s
I63A Otisfield 104.39 24 IAMs_20 IAMs_20 06 20 19.4
comp=Z,1µm,21.0s
W50A Signal Mountai 104.45 39 IAMs_20 IAMs_20 06 18 51.7
comp=Z,821nm,20.0s
Y49A Blount Mountai 104.77 41 IAMs_20 IAMs_20 06 23 07.3
comp=Z,975nm,19.0s
Q56A Snyder Ridge, 104.81 33 IAMs_20 IAMs_20 06 23 04.2
comp=Z,1µm,20.0s
K62A Royalston 104.93 26 IAMs_20 IAMs_20 06 22 51.0
comp=Z,1µm,21.0s
LRAL Lakeview Retre 105.00 42 IAMs_20 IAMs_20 06 19 14.4
comp=Z,922nm,21.0s
P57A Homestead Farm 105.02 32 IAMs_20 IAMs_20 06 21 55.9
comp=Z,915nm,20.0s
UNM Universidad Na 105.14 60 IAMs_20 IAMs_20 06 16 49.0
comp=Z,931nm,21.0s
X51A Calhoun 105.17 39 IAMs_20 IAMs_20 06 22 14.7
comp=Z,1µm,20.0s
W52A Murphy 105.31 38 IAMs_20 IAMs_20 06 22 37.4
comp=Z,1µm,20.0s
U54A Nelsons Funny 105.40 36 IAMs_20 IAMs_20 06 25 01.5
comp=Z,1µm,20.0s
BLA Blacksburg 105.61 35 IAMs_20 IAMs_20 06 28 05.9
comp=Z,924nm,20.0s
BRNJ Basking Ridge 105.62 29 IAMs_20 IAMs_20 06 17 23.3
comp=Z,1µm,21.0s
L64A Middleborough 106.10 25 IAMs_20 IAMs_20 06 16 43.8
comp=Z,1µm,22.0s
Y52A Lilburn 106.13 39 IAMs_20 IAMs_20 06 26 49.1
comp=Z,1µm,20.0s
U56A King 106.28 35 IAMs_20 IAMs_20 06 30 38.9
comp=Z,1µm,19.0s
CBN Corbin Frederi 106.34 32 IAMs_20 IAMs_20 06 18 39.7
comp=Z,981nm,20.0s
P61A Hammonton 106.35 29 IAMs_20 IAMs_20 06 17 05.7
comp=Z,1µm,22.0s
M65A Busby, Falmout 106.49 26 IAMs_20 IAMs_20 06 26 32.2
comp=Z,1µm,20.0s
152A Waverly Hall 106.61 40 IAMs_20 IAMs_20 06 19 42.6
comp=Z,914nm,19.0s
KMSC Kings Mountain 106.70 37 IAMs_20 IAMs_20 06 16 40.9
comp=Z,1µm,20.0s
GOGA Godfrey 106.80 39 IAMs_20 IAMs_20 06 27 24.8
comp=Z,1µm,19.0s
T59A Double "B" Far 107.23 33 IAMs_20 IAMs_20 06 24 48.3
comp=Z,1µm,20.0s
V58A Windy Hill, Pi 107.37 35 IAMs_20 IAMs_20 06 17 37.1
comp=Z,881nm,20.0s
ESDC Sonseca Array 108.13 334 Pdiff **Pdif 05 32 16.9 -0.4**
comp=Z,0.9nm,1.1s,baz=29,slow=5.0,SNR=4.5
W59A Clinton 108.20 35 IAMs_20 IAMs_20 06 17 52.1

comp=Z,981nm,20.0s
X58A Rowland 108.20 36 IAMs_20 IAMs_20 06 21 23.8
comp=Z,926nm,20.0s
Y60A Bolivia 109.22 35 IAMs_20 IAMs_20 06 21 37.6
comp=Z,926nm,20.0s
QSPA South Pole Qui 115.24 180 PKP **PKPdf 05 36 36.7 +0.3**
comp=Z,2.4nm,1.0s,baz=342,slow=4.2,SNR=5.4
BBSR BB Station 116.82 26 IAMs_20 IAMs_20 06 27 28.6
comp=Z,918nm,21.0s
ELIB Princess Elisa 123.00 199 *d*PKPdf **PKiKP 05 36 51.7 +0.1**
ELIB *d*pPKP **pPKPdf 05 36 55.4 -1.2**
BOSA Boshof 124.78 252 PKP **PKiKP 05 36 56.1 -0.3**
comp=Z,4.1nm,1.0s,baz=147,slow=3.0,SNR=3.9
EDA Edea 125.62 295 IAMs_20 IAMs_20 06 39 55.3
comp=Z,754nm,19.0s
TORD Torodi Ar. Bea 126.02 311 PKP **PKPdf 05 36 57.7 -1.0**
comp=Z,7.3nm,1.0s,baz=10,slow=4.5,SNR=12
TORD Torodi Ar. Bea 126.02 311 PKP **PKPdf 05 36 58.3 -0.3**
GRTLG Ghanzi 126.54 261 **PKPdf 05 36 58.4 -1.2**
NVL N'lazarevskaya 126.84 198 *e*PKIKP **PKiKP 05 37 02.3 +3.3**
NVL *e* 05 39 01.9
NVL *e*PPP PPP 05 41 39.8
NVL *e* 05 48 51.0
NVL *e*SSS SSS 06 00 50.5
NVL pmax pmax
comp=Z,7.0nm,0.9s
BELA Belgrano 2 127.50 181 **PKPdf 05 36 58.5 -1.2**
TROLL Troll, Antarti 128.48 195 ⇑PKPdf **PKPdf 05 37 00.8 -1.1**
comp=Z,191nm,0.7s
SNAA Sanae 129.91 193 PKP **PKPdf 05 37 04.1 -0.3**
comp=Z,1.5nm,0.7s,baz=73,slow=7.4,SNR=2.0
SNAA PP **PP 05 39 13.5 -2.8**
comp=Z,3.2nm,0.9s,baz=128,slow=8.7,SNR=4.2
SNAA Sanae 129.91 193 PKIKP **PKPdf 05 37 04.1 -0.3**
SNAA MLR MLR
comp=Z,1μm,21.0s
URIC Uribia, Colomb 129.91 47 **PKiKP 05 37 06.2 -0.6**
SMRT St. Maarten 129.98 33 IAMs_20 IAMs_20 06 43 28.3
comp=Z,768nm,21.0s
VNA2 Neumayer--Watz 131.42 193 ⇑PKPdf **PKiKP 05 37 08.4 +0.2**
comp=Z,12nm,0.6s,baz=115,slow=2.1
VNA3 Neumayer Olymp 131.59 192 PKPdf **PKPdf 05 37 06.9 -0.7**
comp=Z,6.2nm,0.8s
OTAV Otavalo 132.73 64 IAMs_20 IAMs_20 06 37 50.2
comp=Z,545nm,19.0s
OTAV Otavalo 132.73 64 *e*P **PKPdf 05 37 07.3 -4.7**
SDV Santo Domingo 132.88 48 IAMs_20 IAMs_20 06 45 07.0
comp=Z,782nm,20.0s
ROSC El Rosal 133.08 55 PKP **PKPdf 05 37 12.2 -0.5**
comp=Z,2.6nm,0.5s,baz=42,slow=3.4,SNR=4.5
ROSC El Rosal 133.08 55 PKIKP PKPdf 05 37 04.1 -8.5
FDFM Morne la Roset 133.76 33 IAMs_20 IAMs_20 06 37 34.3
comp=Z,728nm,20.0s
DBIC Dimbokro 135.13 311 PKP **PKPdf 05 37 15.6 -0.4**
comp=Z,5.1nm,0.8s,baz=25,slow=3.3,SNR=5.5
GRGR Grenville 135.72 35 IAMs_20 IAMs_20 06 38 06.4
comp=Z,629nm,21.0s
ATAH Atahualpa 136.76 72 PKhKP PKPpre 05 37 15.5
comp=Z,6.8nm,0.9s,baz=298,slow=1.6,SNR=5.1
CZSB Cruzeiro do Su 141.91 69 *e*P **PKPdf 05 37 24.1 -4.2**
BOAV Boa Vista 144.30 43 PKPbc 05 37 30.8 -0.1
BOAV Boa Vista 144.30 43 PKP PKPbc 05 37 30.4 -0.5
BOAV Boa Vista 144.30 43 *e*P **PKPab 05 37 30.2 -0.3**
COYC Coyhaique 145.65 135 **PKPab 05 37 34.6 0.0**
PLCA Paso Flores 148.45 127 PKPbc **PKPbc 05 37 42.7 +0.2**
comp=Z,13nm,1.0s,baz=228,slow=3.0,SNR=23
PLCA Paso Flores 148.45 127 *e*P **PKPdf 05 37 37.1 -1.8**
LPAZ La Paz 149.81 78 PKPbc **PKiKP 05 37 47.5 -0.8**
comp=Z,44nm,1.0s,baz=315,slow=3.1,SNR=33
LPAZ La Paz 149.81 78 PKP **PKPdf 05 37 43.3 +0.8**
LPAZ La Paz 149.81 78 *e*P **PKPdf 05 37 39.2 -3.2**
PEL Peldehue 149.96 113 PKIKP **PKPbc 05 37 45.3 -1.2**
PEL Peldehue 149.96 113 **PKPbc 05 37 45.3 -1.2**
ITTB Itaituba 152.54 43 PKP **PKPdf 05 37 46.9 +0.9**
ITTB Itaituba 152.54 43 *e*P **PKPdf 05 37 43.4 -2.6**
ATM1 UHE Belo Monte 153.67 36 PKP **PKPdf 05 37 47.7 0.0**
BMO1 UHE Belo Monte 153.80 34 PKP **PKPdf 05 37 47.6 -0.2**
BMO1 PKP **pPKPdf 05 37 50.6 -2.6**
NPGB Novo Progresso 154.82 46 *e*P **PKPdf 05 37 45.8 -3.4**
VILB Vilhena 155.07 64 PKP **PKPdf 05 37 50.6 +1.1**
VILB Vilhena 155.07 64 *e*P **PKPdf 05 37 46.1 -3.4**
BBSD Serra de San D 156.77 74 *e*P **PKPdf 05 37 48.4 -3.4**
PDRB Porto dos Gac 157.02 57 PKP **PKPdf 05 37 53.5 +1.4**
PDRB Porto dos Gac 157.02 57 *e*P **PKPdf 05 37 49.5 -2.7**
CLDB Colider 157.23 54 PKP **PKPdf 05 37 53.2 +0.8**
CLDB Colider 157.23 54 *e*P **PKPdf 05 37 49.1 -3.3**
PTLB Pontes e Lacer 157.25 68 PKP **PKPdf 05 37 52.9 +0.6**
PTLB Pontes e Lacer 157.25 68 *e*P **PKPdf 05 37 49.1 -3.2**
COIM Forte Coimbra 160.28 78 *e*P **PKPdf 05 37 52.7 -3.1**
SALV Santo Antonio 160.33 65 PKP **PKPdf 05 37 56.1 +0.1**
SALV Santo Antonio 160.33 65 *e*P **PKPdf 05 37 51.7 -4.2**
SMTB Santa Maria do 160.79 35 PKP **PKPdf 05 37 57.5 +1.1**
SMTB Santa Maria do 160.79 33 *e*P **PKPdf 05 37 52.5 -4.1**
MURT Porto Murtinho 160.97 83 *e*P **PKPdf 05 37 52.6 -4.0**
SNDB Serra Nova Dou 161.14 47 PKP **PKPdf 05 37 57.0 +0.1**
SNDB Serra Nova Dou 161.14 47 *e*P **PKPdf 05 37 54.2 -2.7**
PSAL Palomas, Salto 161.24 112 *e*P **PKPdf 05 37 52.8 -3.7**
BDQN Bodoquena, MS 161.38 78 *e*P **PKPdf 05 37 53.0 -4.0**
CPUP Villa Florida 161.93 97 PKP **PKPdf 05 37 57.3 -0.1**
comp=Z,1.8nm,1.0s,baz=239,slow=5.5,SNR=2.9
CPUP PKPab **PKPab 05 38 42.9 -0.6**
comp=Z,6.0nm,1.2s,baz=233,slow=12,SNR=4.3
CPUP Villa Florida 161.93 97 *e*P **PKPdf 05 37 53.5 -3.9**
AQDB Aquidauana 162.32 77 *e*P **PKPdf 05 37 55.0 -3.0**
ARAG Araguaiana, MT 163.29 57 *e*P **PKPdf 05 37 54.9 -4.1**
CPSB Cacapava Do Su 164.88 113 *e*P **PKPdf 05 37 57.5 -2.6**
SDBA SAO DESIDERIO 165.15 30 PKP **PKPdf 05 38 01.5 +0.6**
SDBA SAO DESIDERIO 165.15 30 *e*P **PKPdf 05 37 56.9 -4.0**
NBPN Ponto Novo - B 165.20 11 PKP **PKPdf 05 38 01.5 +0.7**
NBPN Ponto Novo - B 165.20 11 *e*P **PKPdf 05 37 57.0 -3.9**
BDFB Brasilia 165.98 48 PKPab **PKPab 05 39 01.7 +0.2**
comp=Z,7.7nm,1.1s,baz=314,slow=11,SNR=6.2
ITU3 Corumbazu 167.04 58 PKP **PKPdf 05 38 02.7 +0.5**
LDASE Londrina, Braz 167.21 84 *e*P **PKPdf 05 37 58.4 -3.8**
IPMB Ipameri, GO 167.40 56 PKP **PKPdf 05 38 03.0 +0.4**
IPMB Ipameri, GO 167.40 56 *e*P **PKPdf 05 37 58.4 -4.1**
CANS Sao Roque de M 170.14 60 *e*P **PKPdf 05 38 00.3 -4.0**
ARCA Araçuai, MG 170.37 28 *e*P **PKPdf 05 38 00.7 -3.7**
GUA01 Guaratinga, BA 170.85 15 *e*P **PKPdf 05 38 00.9 -3.7**

*ISK **11** 05:18:45.9, 37°.90N×26°.89E, h3km, ML2.8/17*
*THE **11** 05:18:46.3, 37°.9N±0°.7×26°.9E±0°.6, h10km±1km, M2.9/9, MLh2.9/9*
*AFAD **11** 05:18:46.0, 37°.89N×26°.88E, h5km±2km, ML2.7*
ISC 11 05:18:46.3±0.9, **37°.88N**±0°.02×**26°.87E**±0°.02, **h12**km±7km, **n43**, σ0**s62**/59, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**188**	P	**Pg**	**05 18 50.1**	**-0.1**
SMG				S	**Sg**	**05 18 53.3**	**+0.4**
SMG				AML	AML		
DGB	**zmir**	**0.18**	**4**	P	**Pg**	**05 18 49.9**	**-0.4**
DGB				S	**Sg**	**05 18 52.1**	**-0.9**
GMLD	**Gumuldur**	**0.20**	**11**	Pg	**Pg**	**05 18 50.4**	**-0.3**
GMLD				Sg	**Sg**	**05 18 53.9**	**+0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**93**	Pg	**Pg**	**05 18 52.7**	**-0.3**
KUSD				Sg	**Sg**	**05 18 58.0**	**+0.4**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**121**	P	**Pg**	**05 18 53.1**	**0.0**
GCAM				S	**Sg**	**05 18 57.8**	**+0.1**
GCAM				IAML		05 18 58.0	
	comp=N,1μm,0.6s						
GCAM	**G?zelcaml?**	**0.34**	**121**	Pg	**Pg**	**05 18 53.1**	**0.0**
GCAM				Sg	**Sb**	**05 18 58.8**	**-0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**8**	P	**Pg**	**05 18 53.2**	**-0.2**
BEYE				S	**Sg**	**05 18 57.5**	**-0.7**
BEYE				IAML		05 18 58.0	
	comp=N,670nm,0.3s						
BEYE				IAML		05 18 58.0	
	comp=E,911nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**322**	P	**Pg**	**05 18 55.2**	**-0.2**
ZEYE				S	**Sg**	**05 19 01.5**	**0.0**
ZEYE				IAML		05 19 02.0	
	comp=N,2μm,0.2s						
DDIM	**Aydin, Didim**	**0.51**	**144**	P	**Pg**	**05 18 56.5**	**+0.2**
BLCB	**Balcova**	**0.53**	**15**	P	**Pg**	**05 18 56.3**	**-0.3**
BLCB				S	**Sg**	**05 19 03.6**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**15**	Pg	**Pg**	**05 18 56.2**	**-0.4**
BLCB				Sg	**Sg**	**05 19 03.4**	**-0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.57**	**53**	P	**Pg**	**05 18 57.2**	**-0.3**
DUVT				S	**Sg**	**05 19 03.5**	**-1.6**
DUVT				IAML		05 19 04.0	
	comp=E,549nm,0.1s						
CESE	**eme**	**0.64**	**316**	Pg	**Pb**	**05 18 59.0**	**-0.3**
CESE				Sg	**Sb**	**05 19 08.3**	**+0.2**
CESE				AML	AML		
KRBN	**Karaburun**	**0.76**	**341**	Pg	**Pb**	**05 19 01.3**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**359**	P	**Pb**	**05 19 02.2**	**+0.5**
AYDB	**Zeytinkoy-Aydi**	**0.81**	**85**	Pg	**Pg**	**05 19 01.9**	**-0.1**
AYDB				AML	AML		
CHOS	**Chios island**	**0.82**	**309**	P	**Pg**	**05 19 02.0**	**-0.1**
CHOS				S	**Sb**	**05 19 13.9**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**309**	Pg	**Pb**	**05 19 02.6**	**+0.2**
CHOS				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**156**	Pg	**Pb**	**05 19 02.5**	**+0.1**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.83**	**105**	P	**Pg**	**05 19 02.0**	**-0.3**
FOCM	**Foa**	**0.84**	**353**	Pg	**Pb**	**05 19 02.6**	**-0.2**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.86**	**336**	P	**Pb**	**05 19 03.2**	**+0.1**
BODT	**Bodrum**	**0.89**	**156**	P	**Pg**	**05 19 02.9**	**-0.5**
BODT				S	**Sb**	**05 19 16.1**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**156**	Pg	**Pb**	**05 19 03.9**	**+0.4**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.90**	**73**	P	**Pg**	**05 19 02.9**	**-0.7**
MLSB	**Milas**	**0.93**	**128**	Pg	**Pb**	**05 19 04.4**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.93**	**150**	P	**Pb**	**05 19 04.7**	**+0.3**
CAMT	**Merkez**	**0.94**	**22**	P	**Pb**	**05 19 04.9**	**+0.5**
ZEDA	**zmir-Bergama**	**1.10**	**9**	P	**Pb**	**05 19 07.4**	**+0.2**
NAZL	**Nazilli-Aydin**	**1.13**	**85**	Pn	**Pb**	**05 19 07.8**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**45**	Pn	**Pn**	**05 19 08.7**	**+0.3**
GOMA				AML	AML		
ESEN	**Aydn-Nazilli**	**1.18**	**93**	P	**Pg**	**05 19 08.1**	**-0.8**
DKL	**Dikili**	**1.19**	**1**	Pn	**Pn**	**05 19 09.3**	**+0.6**
DKL				AML	AML		
AKHS	**Akhisar**	**1.25**	**36**	P	**Pn**	**05 19 10.7**	**+1.2**
AKS	**Akhisar**	**1.25**	**36**	Pn	**Pn**	**05 19 10.3**	**+0.8**
AKS				AML	AML		
KIRA	**zmir-Kiraz**	**1.25**	**75**	P	**Pn**	**05 19 10.4**	**+0.8**
KTTT	**Salihli**	**1.26**	**50**	P	**Pg**	**05 19 09.1**	**-1.4**
DAT	**Datca**	**1.28**	**153**	P	**Pg**	**05 19 09.7**	**-1.1**
DAT				S	**Sg**	**05 19 26.3**	**-1.2**
DAT				AML	AML		
MULA	**Mugla, Merkez-**	**1.31**	**118**	P	**Pb**	**05 19 12.4**	**+1.5**
APE	**Apeiranthos**	**1.33**	**233**	P	**Pn**	**05 19 10.5**	**-0.2**
YER	**Yerkesik**	**1.35**	**123**	P	**Pn**	**05 19 10.8**	**-0.1**
YER				S	**Sg**	**05 19 28.5**	**-1.2**
GORD	**Gordes-Manisa**	**1.46**	**45**	Pn	**Pg**	**05 19 13.8**	**-0.5**
GORD				AML	AML		
MANT	**Manisa**	**1.47**	**65**	P	**Pg**	**05 19 14.7**	**+0.2**

*SOF **11** 05:23:40.8, 41°.55N±0°.01×20°.13E±0°.06, h15km±6km, MD3.7/7*
*TIR **11** 05:23:46.7, 41°.63N×20°.73E, h6km±2km, ML3.4, ML3.4, Presumed earthquake*
*PDG **11** 05:23:46.2±0.2, 41°.61N×20°.76E, h0km, MD3.3/1, ML3.2/13, Error ellipse: s-maj=1.0km s-min=1.3km az=0.0*
*SKO **11** 05:23:46.1, 41°.67N×20°.74E, h16km, ML3.5*
*BEO **11** 05:23:48.1±0.4, 41°.71N×20°.78E, h8km±2km, ML3.0/18*
*VIE **11** 05:23:51.0±0.6, 41°.43N×20°.23E, h8km, mb3.1/10, ms3.6/8, Error ellipse: s-maj=26.7km s-min=5.0km az=43.0 34 km ENE of Tirana*
ISC 11 05:23:47.0±1.0, **41°.66N**±0°.02×**20°.78E**±0°.02, **h7**km±9km, **n97**, σ1**s37**/146, **3C-3D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHP	**Peshkopia**	**0.26**	**275**	⇑Pg	**Pg**	**05 23 50.9**	**-1.2**
PHP				Sg	**Sg**	**05 23 54.4**	**-1.2**
PHP				IAML		05 23 56.0	
	16μm,0.3s						
OHR	**Ohrid**	**0.55**	**179**	⇓*i*Pg	**Pg**	**05 23 57.3**	**-0.3**
OHR				*i* Sg	**Sb**	**05 24 05.8**	**-1.2**
OHR				*e*Lg	Lg	05 24 07.0	
	comp=N,3μm,0.9s						
OHR				*e*Lg	Lg	05 24 07.3	
	comp=E,7μm,0.8s						
SKO	**Skopje**	**0.58**	**58**	⇓*i*Pg	**Pg**	**05 23 58.1**	**-0.1**
SKO				*i* Sg	**Sg**	**05 24 06.9**	**+1.1**
TIR	**Tirane**	**0.76**	**246**	Pg	**Pg**	**05 24 00.6**	**-1.0**
TIR				Sg	**Sg**	**05 24 10.8**	**-0.6**
TIR				IAML		05 24 20.0	
	comp=E,821nm,0.7s						
SDA	**Shkodra**	**1.04**	**293**	Pg	**Pg**	**05 24 05.5**	**-1.3**
SDA				Sg	**Sb**	**05 24 21.0**	**0.0**
SDA				IAML		05 24 30.5	
	comp=E,893nm,0.4s						
KBN	**Korca**	**1.04**	**180**	Pg	**Pg**	**05 24 06.3**	**-0.5**
KBN				Sg	**Sg**	**05 24 19.8**	**-0.5**
PVY	**Plav**	**1.12**	**327**	*e*Pg	**Pg**	**05 24 07.7**	**-0.7**
PVY				*e*Sg	**Sn**	**05 24 25.2**	**+0.4**
BERA	**Berati**	**1.15**	**214**	Pn	**Pg**	**05 24 07.8**	**-1.1**
BERA				Sn	**Sn**	**05 24 25.7**	**+0.4**
BERA				IAML		05 24 29.7	
	comp=E,1μm,0.6s						
ULC	**Ulcinj**	**1.19**	**285**	*e*Pg	**Pg**	**05 24 07.9**	**-1.9**
ULC				*e*Sg	**Sn**	**05 24 26.7**	**+0.2**
NEST	**Nestorio**	**1.26**	**171**	Pg	**Pn**	**05 24 10.8**	**-0.3**
NEST				Sg	**Sn**	**05 24 27.9**	**-0.4**
NEST				IAML		05 24 32.2	
	comp=E,1μm,0.9s						
DRME	**Dracevica, Mon**	**1.30**	**294**	*e*Pn	**Pn**	**05 24 10.5**	**-1.1**
DRME	**Dracevica, Mon**	**1.30**	**294**	*e*Pg	**Pn**	**05 24 10.4**	**-1.1**
DRME				*e*Sg	**Sn**	**05 24 31.1**	**+1.9**
PDG	**Podgorica**	**1.37**	**305**	*e*Pg	**Pn**	**05 24 11.1**	**-1.4**
PDG				*e*Sg	**Sg**	**05 24 31.0**	**-0.1**
PDG	**Podgorica**	**1.37**	**305**	Pg	**Pn**	**05 24 11.4**	**-1.2**
PDG				Sg	**Sg**	**05 24 33.0**	**+1.8**
PDG	**Podgorica**	**1.37**	**305**	*e*Pg	**Pn**	**05 24 11.3**	**-1.2**
PDG				*i* Sg	**Sg**	**05 24 33.4**	**+2.3**
IVA	**Berane**	**1.38**	**332**	*e*Pg	**Pn**	**05 24 12.4**	**-0.3**
IVA				*e*Sg	**Sg**	**05 24 32.8**	**+1.5**
BARS	**Barje**	**1.39**	**33**	*e*Pg	**Pn**	**05 24 12.6**	**-0.1**
VAY	**Valandovo**	**1.39**	**104**	⇓*i*Pg	**Pn**	**05 24 12.8**	**+0.2**
VAY				*i* Sg	**Sg**	**05 24 31.9**	**+0.4**
VAY				*e*Lg	Lg	05 24 32.5	
	comp=E,270nm,0.5s						
VAY				*e*Lg	Lg	05 24 32.9	
	comp=N,514nm,0.8s						
BOSS	**Bosilegrad**	**1.51**	**56**	*e*Pg	**Pn**	**05 24 14.7**	**+0.2**
BOSS				*e*Sg	**Sg**	**05 24 36.3**	**+0.7**
KOME	**Kolasin**	**1.52**	**322**	⇑*i*Pg	**Pn**	**05 24 14.6**	**0.0**
KOME				*e*Sg	**Sg**	**05 24 38.1**	**+2.4**
LSK	**Leskovik**	**1.52**	**185**	Pn	**Pn**	**05 24 14.9**	**+0.3**
LSK				Sn	**Sg**	**05 24 35.5**	**-0.2**
VLO	**Vlora**	**1.54**	**220**	Pn	**Pg**	**05 24 17.3**	**+0.8**
VLO				Sn	**Sg**	**05 24 40.4**	**+4.0**
VLO				IAML		05 24 42.5	
	comp=N,3μm,0.6s						
BUM	**Brajici-Budva**	**1.55**	**295**	⇓*i*Pg	**Pn**	**05 24 15.1**	**+0.1**
BUM				*e*Sg	**Sg**	**05 24 39.5**	**+2.8**
SELS	**Selova**	**1.58**	**9**	*e*Pg	**Pn**	**05 24 15.5**	**+0.1**
SELS				*e*Sg	**Sb**	**05 24 37.1**	**+0.5**
PEHC	**Pehcevo**	**1.59**	**85**	*e*Pg	**Pb**	**05 24 16.8**	**+0.1**
PEHC				*i* Sg	**Sg**	**05 24 38.3**	**+0.2**
CEME	**Cevo**	**1.65**	**303**	*e*Pn	**Pn**	**05 24 16.5**	**+0.1**
CEME				*e*Sn	**Sg**	**05 24 42.4**	**+2.5**
SJES	**Sjenica**	**1.71**	**340**	*e*Pn	**Pg**	**05 24 18.4**	**-0.3**
SJES				*e*Sg	**Sg**	**05 24 41.3**	**-0.6**
SJES	**Sjenica**	**1.71**	**340**	*e*Pn	**Pb**	**05 24 18.8**	**+0.1**
NKME	**Niksic**	**1.75**	**310**	*e*Pn	**Pb**	**05 24 18.9**	**-0.6**
NKME				*e*Sn	**Sg**	**05 24 44.8**	**+1.5**
KKB	**Krupnik**	**1.76**	**83**	P	**Pb**	**05 24 19.6**	**0.0**
TRAN	**Tran**	**1.82**	**49**	*e*P	**Pg**	**05 24 21.9**	**+0.1**
HCY	**Herceg Novi**	**1.88**	**295**	*e*Pn	**Pn**	**05 24 19.8**	**+0.3**
HCY	**Herceg Novi**	**1.88**	**295**	*e*Pn	**Pn**	**05 24 20.3**	**+0.8**
HCY				*e*Sn	**Sg**	**05 24 47.9**	**+0.6**
SRN	**Sarande**	**1.88**	**199**	Pn	**Pb**	**05 24 22.0**	**+0.5**
GOCS	**Kraljevo Serbi**	**1.90**	**2**	*e*Pn	**Pn**	**05 24 19.8**	**-0.1**
GOCS				*e*Sg	**Sb**	**05 24 45.7**	**-0.3**
PLE	**Pljevlja**	**1.96**	**329**	*e*Pn	**Pb**	**05 24 22.2**	**-0.9**
PLE				*e*Sn	**Sb**	**05 24 47.9**	**+0.2**
IVAS	**Ivanjica**	**1.97**	**347**	*e*Pn	**Pn**	**05 24 20.5**	**-0.3**
IVAS				*e*Sn	**Sn**	**05 24 46.4**	**+0.6**
VTS	**Vitosha**	**2.06**	**62**	P	**Pn**	**05 24 22.9**	**+0.8**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn	**Pb**	**05 24 25.1**	**0.0**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn	**Pb**	**05 24 23.7**	**-1.4**
UPM				*i* Sn	**Sg**	**05 24 54.8**	**+1.1**
BRY	**Bratogost**	**2.08**	**307**	*e*Pn	**Pb**	**05 24 25.0**	**0.0**
BRY	**Bratogost**	**2.08**	**307**	*e*Pn	**Pb**	**05 24 23.9**	**-1.1**
BRY				*e*Sn	**Sg**	**05 24 52.5**	**-1.2**
BOVS	**Bovan**	**2.09**	**19**	*e*Pn	**Pn**	**05 24 22.8**	**+0.5**
TREB	**Trebinje**	**2.09**	**301**	*e*Pn	**Pb**	**05 24 24.6**	**-0.6**
ZAPS	**Zavoj**	**2.11**	**40**	*e*Pn	**Pn**	**05 24 23.2**	**+0.4**
PLNA	**Plana**	**2.13**	**67**	P	**Pn**	**05 24 24.6**	**+1.6**
IGT	**Igoumenitsa**	**2.15**	**189**	*e*Pn	**Pb**	**05 24 25.4**	**-0.9**
IGT	**Igoumenitsa**	**2.15**	**189**	Pn	**Pb**	**05 24 26.3**	**0.0**
SRS	**Serrai**	**2.18**	**104**	*e*Pn	**Pn**	**05 24 24.6**	**+0.9**
DBRK	**Dubrovnik**	**2.20**	**298**	*e*Pn	**Pn**	**05 24 25.1**	**+1.1**
DBRK				Sn	**Sb**	**05 24 53.4**	**-1.2**
BLSH	**Balsha**	**2.20**	**56**	P	**Pg**	**05 24 28.7**	**-0.5**
KLINJ	**Klinje**	**2.22**	**314**	*e*Pn	**Pb**	**05 24 27.1**	**-0.3**
GRUS	**Gruza**	**2.23**	**359**	*e*Pn	**Pn**	**05 24 24.6**	**+0.3**
MMB	**Musomishta**	**2.23**	**92**	P	**Pn**	**05 24 26.0**	**+1.7**
ZAGS	**Zajecar**	**2.40**	**26**	*e*Pn	**Pn**	**05 24 27.4**	**+0.7**
ZAGS				*e*Sn	**Sn**	**05 24 56.0**	**-0.3**
BLKB	**Belogradchik**	**2.41**	**35**	*e*Pn	**Pn**	**05 24 27.5**	**+0.7**
BBLS	**Lazi&#263i**	**2.42**	**336**	*e*Pn	**Pn**	**05 24 28.0**	**+0.9**
BBLS	**Lazi&#263i**	**2.42**	**336**	*e*Pn	**Pn**	**05 24 27.4**	**+0.3**
DIVS	**Divibare**	**2.50**	**347**	*e*Pn	**Pn**	**05 24 28.1**	**-0.1**
DIVS				*e*Sn	**Sn**	**05 24 58.9**	**-0.1**
TRUS	**Trudelj**	**2.58**	**354**	*e*Pn	**Pn**	**05 24 29.2**	**+0.1**
STON	**Ston**	**2.59**	**299**	*i* Pn	**Pn**	**05 24 30.8**	**+1.5**
STON				Sn	**Sn**	**05 25 01.7**	**+0.8**
STON	**Ston**	**2.59**	**299**	*e*Pn	**Pn**	**05 24 30.7**	**+1.5**
BORS2	**Bor- Borsko je**	**2.59**	**20**	*e*Pn	**Pn**	**05 24 28.5**	**-0.8**
BORS2				*e*Sn	**Sn**	**05 25 00.6**	**-0.4**
MPEP	**Malo Peshtene**	**2.77**	**51**	P	**Pg**	**05 24 40.2**	**+0.2**
VALD	**Valchedram**	**2.82**	**43**	P	**Pg**	**05 24 41.6**	**+0.7**
KUBS	**Kucevo**	**2.83**	**13**	*e*Pn	**Pn**	**05 24 31.2**	**-1.3**
RZN	**Rozhen**	**2.96**	**88**	P	**Pb**	**05 24 38.1**	**-2.1**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn	**Pn**	**05 24 35.2**	**-0.1**
TEKS				*e*Sn	**Sn**	**05 25 10.7**	**-1.1**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn	**Pn**	**05 24 34.5**	**-0.8**
LSTV	**Lastovo**	**3.10**	**292**	*e*Pn	**Pn**	**05 24 37.0**	**+0.8**
LSTV				Sn	**Sn**	**05 25 14.7**	**+1.3**
MAKA	**Makarska**	**3.22**	**302**	*i* Pn	**Pn**	**05 24 38.6**	**+0.7**
MAKA				Sn	**Sn**	**05 25 16.4**	**-0.1**
RICI	**Ricice**	**3.26**	**305**	*e*Pn	**Pn**	**05 24 39.2**	**+0.8**
RICI				Sn	**Sn**	**05 25 16.7**	**-0.8**
VRUS	**Vrsac**	**3.48**	**6**	*e*Pn	**Pn**	**05 24 41.2**	**-0.3**
HVAR	**Hvar**	**3.55**	**297**	*e*Pn	**Pn**	**05 24 43.6**	**+1.2**
HVAR				Sn	**Sn**	**05 25 25.7**	**+1.1**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn	**Pn**	**05 24 42.9**	**+0.2**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn	**Pn**	**05 24 42.2**	**-0.5**
KIJV	**Kijevo**	**3.98**	**307**	*e*Pn	**Pn**	**05 24 49.6**	**+1.2**
KIJV				Sn	**Sn**	**05 25 34.4**	**-0.9**
BZS	**Buzias**	**4.00**	**8**	*e*Pn	**Pn**	**05 24 48.1**	**-0.5**
GZR	**Gura Zlata**	**4.00**	**21**	*e*Pn	**Pn**	**05 24 49.1**	**+0.4**
MORI	**Morici**	**4.34**	**302**	*e*Pn	**Pn**	**05 24 54.2**	**+1.0**
MORI				Sn	**Sn**	**05 25 43.7**	**-0.3**
UDBI	**Udbina**	**4.66**	**310**	*e*Pn	**Pn**	**05 24 58.8**	**+1.1**
UDBI				Sn	**Sn**	**05 25 51.9**	**-0.2**
DUGI	**Dugi Otok**	**4.81**	**301**	*e*Pn	**Pn**	**05 25 00.1**	**+0.3**
DUGI				Sn	**Sn**	**05 25 54.7**	**-1.0**
MOSL	**Moslavina**	**4.91**	**325**	*e*Pn	**Pn**	**05 25 00.9**	**-0.3**
MOSL				Sn	**Sn**	**05 25 54.7**	**-3.6**
PLIT	**Plitvice**	**4.95**	**312**	*e*Pn	**Pn**	**05 25 02.4**	**+1.2**
PLIT				Sn	**Sn**	**05 25 57.8**	**-1.5**
NVLJ	**Novalja**	**5.21**	**306**	*e*Pn	**Pn**	**05 25 05.9**	**+0.7**
NVLJ				Sn	**Sn**	**05 26 03.9**	**-1.6**
SOKA	**Soboth**	**6.50**	**322**	*e*Pn	**Pn**	**05 25 26.7**	**+3.7**
	comp=N,0.6nm,0.2s						
OBKA	**Obir**	**6.60**

PINC					IAML			05 29 41.0	
	comp=N,106nm,0.3s								
PINC					IAML			05 29 41.4	
	comp=E,65nm,0.3s								
CAIB	**Caibarien**	**3.25**	**350**	*e*P		**Pn**		**05 29 07.1**	**+1.9**
CAIB				*e*S		**Sn**		**05 29 43.5**	**+0.4**
CAIB				IAML				05 29 44.0	
	comp=E,19nm,0.2s								
CAIB				IAML				05 29 44.3	
	comp=N,8.3nm,0.2s								
SABCS	**La Quijada**	**3.52**	**71**	*e*P		**Pn**		**05 29 09.7**	**+0.8**
SABCS				*e*S		Sn		05 29 45.0	-4.6
SABCS				IAML				05 29 50.5	
	comp=E,29nm,0.3s								
SABCS				IAML				05 29 51.4	
	comp=N,32nm,0.4s								
GTBY	**Guantanamo Bay**	**3.60**	**79**⇑	*i*P		**Pn**		**05 29 10.7**	**+0.7**
GTBY				⇑*i*S		**Sn**		**05 29 50.5**	**-1.1**
GTBY	**Guantanamo Bay**	**3.60**	**79**	*e*P		**Pn**		**05 29 10.4**	**+0.4**
GTBY				IAML				05 29 52.2	
	comp=N,24nm,0.2s								
GTBY				IAML				05 29 52.4	
	comp=N,55nm,0.2s								
NMDO	**Nuevo Mundo**	**3.87**	**70**	*e*P		**Pn**		**05 29 13.9**	**+0.2**
NMDO				*e*S		**Sn**		**05 29 54.8**	**-3.5**
NMDO				IAML				05 29 57.8	
	comp=E,12nm,0.2s								
NMDO				IAML				05 29 58.0	
	comp=N,8.0nm,0.1s								
MOAC	**Moa**	**3.92**	**69**	*e*P		**Pn**		**05 29 16.1**	**+1.7**
MOAC				*e*S		**Sn**		**05 29 56.8**	**-2.8**
MOAC				IAML				05 30 02.2	
	comp=N,19nm,0.2s								
MOAC				IAML				05 30 02.3	
	comp=E,11nm,0.2s								
QMBU	**Quimbuelo**	**3.93**	**76**⇓	*e*P		**Pn**		**05 29 14.8**	**+0.3**
QMBU				*e*S		Sn		05 29 52.5	-7.3
QMBU				IAML				05 29 58.5	
	comp=E,15nm,0.2s								
QMBU				IAML				05 29 58.9	
	comp=N,18nm,0.2s								

PDG ***11*** *05:31:17.2±0.3, 41°.67N×20°.63E, h2km±1km, ML2.5/11, Error ellipse: s-maj=1.6km s-min=1.9km az=0.0*
BEO ***11*** *05:31:17.1±0.9, 41°.68N×20°.74E, h5km±5km, ML1.7/3*

ISC 11 05:31:14.1±2.4, 41°.6N±0°.1×20°.77E±0°.05, h3km±11km, n17, σ1§05/33, 2C-1D, Albania

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PVY	**Plav**	**1.21**	**330**	*e*Pg	**Pg**	**05 31 36.4**	**-0.8**
PVY				*i* Sg	**Sn**	**05 31 53.7**	**-1.2**
DRME	**Dracevica, Mon**	**1.34**	**299**	*e*Pg	**Pg**	**05 31 39.2**	**-0.6**
DRME				*e*Sg	**Sn**	**05 31 58.4**	**+0.3**
PDG	**Podgorica**	**1.43**	**309**	*e*Pg	**Pg**	**05 31 41.4**	**-0.1**
PDG				*i* Sg	**Sn**	**05 32 01.0**	**+0.8**
IVA	**Berane**	**1.48**	**334**⇓	*i*Pg	**Pg**	**05 31 41.7**	**-0.6**
IVA				*i* Sg	**Sn**	**05 32 02.2**	**+0.7**
BARS	**Barje**	**1.49**	**31**	*e*Pg	**Pn**	**05 31 43.0**	**+1.3**
BARS				*e*Sg	**Sb**	**05 32 01.2**	**-0.5**
BUM	**Brajici-Budva**	**1.59**	**299**	*e*Pg	**Pn**	**05 31 43.7**	**+0.6**
BUM				*i* Sg	**Sg**	**05 32 06.5**	**+1.4**
BOSS	**Bosilegrad**	**1.59**	**53**	*e*Pg	**Pn**	**05 31 43.4**	**+0.3**
KOME	**Kolasin**	**1.60**	**325**⇑	*i*Pg	**Pn**	**05 31 43.7**	**+0.4**
KOME				*i* Sg	**Sn**	**05 32 05.7**	**+1.1**
SELS	**Selova**	**1.69**	**9**	*e*Pg	**Pn**	**05 31 45.4**	**+0.9**
SELS				*e*Sg	**Sn**	**05 32 06.0**	**-0.7**
CEME	**Cevo**	**1.70**	**307**⇑	*i*Pg	**Pn**	**05 31 45.1**	**+0.4**
CEME				*i* Sg	**Sg**	**05 32 10.0**	**+1.2**
SJES	**Sjenica**	**1.81**	**341**	*e*Pn	**Pn**	**05 31 47.0**	**+0.7**
SJES				*e*Sn	**Sn**	**05 32 09.0**	**-0.8**
NKME	**Niksic**	**1.82**	**313**	*e*Pn	**Pn**	**05 31 48.1**	**+1.8**
NKME				*e*Sn	**Sg**	**05 32 14.6**	**+2.1**
HCY	**Herceg Novi**	**1.92**	**299**	*e*Pn	**Pn**	**05 31 48.8**	**+1.2**
HCY				*i* Sn	**Sg**	**05 32 16.0**	**+0.3**
BRY	**Bratogost**	**2.14**	**310**	*e*Pn	**Pb**	**05 31 53.4**	**-0.1**
BRY				*e*Sn	**Sg**	**05 32 21.6**	**-1.2**
UPM	**Unac-Piva**	**2.15**	**321**	*e*Pn	**Pb**	**05 31 54.0**	**+0.2**
UPM				*i* Sn	**Sg**	**05 32 22.0**	**-1.3**
STON	**Ston**	**2.64**	**301**	*i* Pn	**Pn**	**05 31 56.6**	**-0.9**
STON				Sn	**Sn**	**05 32 27.7**	**-2.2**
LSTV	**Lastovo**	**3.13**	**294**	*i* Pn	**Pn**	**05 32 04.3**	**0.0**
LSTV				Sn	**Sn**	**05 32 41.6**	**-0.5**

IDC ***11*** *05:36:41.8±2.5, 19°.81S×176°.14W, h190km±22km, mb4.1/18, mbtmp4.6/20, Error ellipse: s-maj=13.9km s-min=10.6km az=126.0*
NEIC ***11*** *05:36:44.1±2.4, 19°.80S±0°.10×176°.02W±0°.09, h208km±5km, mb4.6/43, Error ellipse: s-maj=14.6km s-min=11.5km az=164.0*
NOU ***11*** *05:36:46.8, 19°.93S×175°.81W, h250km, mb4.6/37, Tonga Islands*
GFZ ***11*** *05:36:46.7±0.5, 20°.5S±7°.17°.6W±°, h232km±5km, M4.6/27, mb4.6/27, Error ellipse: s-maj=9.7km s-min=7.6km az=174.7, confirmed*

ISC 11 05:36:44.7±0.3, 20°.00S±0°.05×175°.93W±0°.05, h222km, n238, σ1§36/235, mb4.4/55, 10C, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LKBA	**Tubou, Lakemba**	**3.25**	**302**	P	**Pn**	**05 37 41.2**	**+2.8**
LKBA	**Tubou, Lakemba**	**3.25**	**302**	P	S	05 38 29.2	+8.9
DGTI	**Dogotuki**	**5.52**	**311**	P	**Pn**	**05 38 08.3**	**+2.0**
NIUE	**Niue**	**5.73**	**82**	P	**Pn**	**05 38 09.3**	**+0.3**
NIUE	**Niue**	**5.73**	**82**	Pn	**Pn**	**05 38 08.9**	**-0.1**
NIUE	**Niue**	**5.73**	**82**	P	**Pn**	**05 38 08.9**	**-0.1**
NIUE				S	**S**	**05 39 11.6**	**-4.1**
NIUE				AML	AML		
NIUE	**Niue**	**5.73**	**82**	P	**Pn**	**05 38 09.3**	**+0.3**
	comp=Z,151nm,0.9s						
FUTU	**Fugatoga**	**6.03**	**339**	P	**Pn**	**05 38 14.2**	**+1.4**
	comp=Z,220nm,1.2s						
MSVF	**Nonsavu**	**6.13**	**291**	P	**Pn**	**05 38 14.5**	**+0.4**
	comp=Z,28nm,0.8s,baz=126,slow=19,SNR=16						
MSVF	**Nonsavu**	**6.13**	**291**	P	**Pn**	**05 38 17.7**	**+3.6**
MSVF	**Nonsavu**	**6.13**	**291**		**Pn**	**05 38 10.6**	**-3.5**
MSVF	**Nonsavu**	**6.13**	**291**	P	**Pn**	**05 38 17.9**	**+3.8**
	comp=Z,51nm,0.8s						
AFI	**Afiamalu**	**7.24**	**34**	P	**Pn**	**05 38 23.6**	**-4.8**
	comp=Z,33nm,0.6s,baz=347,slow=3.6,SNR=6.7						
AFI				S	S	05 39 38.6	-12
	comp=Z,72nm,0.3s,baz=42,slow=23,SNR=7.3						
GLKZ	**Green Lake**	**9.40**	**191**	P	**Pn**	**05 38 53.8**	**-2.1**
GLKZ				S	**S**	**05 40 39.9**	**-1.6**
MARNC	**Mare, Loyalty**	**15.08**	**262**	P	**P**	**05 40 09.5**	**+2.3**
MARNC	**Mare, Loyalty**	**15.08**	**262**		**P**	**05 40 07.5**	**+0.3**
DVP	**Devils Point**	**15.20**	**276**	P	**Pn**	**05 40 11.1**	**+2.5**
PINNC	**Pines Island,**	**15.71**	**258**	Pn	**Pn**	**05 40 15.3**	**+0.7**
YATNC	**Mamie plateau,**	**16.17**	**260**	P	**Pn**	**05 40 21.0**	**+0.8**
OUENC	**Ouen Island, N**	**16.25**	**258**	P	**Pn**	**05 40 22.2**	**+1.1**
OUENC	**Ouen Island, N**	**16.25**	**258**		**P**	**05 40 20.5**	**+0.5**
OUENC				IAmb	IAmb	05 40 24.3	
	comp=Z,34nm,0.7s						
SANVU	**Saraoutou**	**16.69**	**283**	P	**Pn**	**05 40 27.6**	**+1.2**
SANVU	**Saraoutou**	**16.69**	**283**		**Pn**	**05 40 28.1**	**+1.7**
NOUC	**Port Laguerre**	**16.72**	**260**	P	**Pn**	**05 40 28.3**	**+1.6**
MXZ	**Matakaoa Point**	**18.21**	**195**	P	**Pn**	**05 40 43.6**	**-0.4**
MXZ	**Matakaoa Point**	**18.21**	**195**	P	**Pn**	**05 40 44.3**	**+0.3**
MXZ	**Matakaoa Point**	**18.21**	**195**	P	**Pn**	**05 40 43.9**	**-0.1**
HAZ	**Te Kaha**	**18.52**	**196**	P	**P**	**05 40 46.3**	**+1.6**
PUZ	**Puketiti**	**18.70**	**194**	P	**P**	**05 40 47.6**	**+0.9**
MKAZ	**Moumakai**	**18.74**	**203**	P	**Pn**	**05 40 49.0**	**-1.2**
RUGZ	**Raukumara Rang**	**18.75**	**196**	P	**P**	**05 40 48.4**	**+1.2**
MWZ	**Matawai**	**19.13**	**196**	P	**P**	**05 40 52.4**	**+1.1**
URZ	**Urewera**	**19.17**	**197**	P	**P**	**05 40 51.4**	**-0.2**
	comp=Z,14nm,0.3s,baz=321,slow=2.4,SNR=17						
URZ				S	**S**	**05 44 11.3**	**-5.6**
	comp=Z,11nm,0.5s,baz=86,slow=23,SNR=11						
URZ	**Urewera**	**19.17**	**197**	P	**P**	**05 40 53.0**	**+1.3**
URZ	**Urewera**	**19.17**	**197**	P	**P**	**05 40 51.7**	**+0.1**
URZ	**Urewera**	**19.17**	**197**	P	**P**	**05 40 52.1**	**+0.4**
	comp=Z,58nm,0.7s						
TOZ	**Tahuroa Road**	**19.18**	**201**	P	**Pn**	**05 40 54.3**	**-1.1**
TOZ				IAmb	IAmb	05 41 02.3	
	comp=Z,14nm,0.9s						
TOZ	**Tahuroa Road**	**19.18**	**201**	P	**Pn**	**05 40 53.9**	**-1.5**
RIGZ	**Rimuhau**	**19.43**	**195**	P	**P**	**05 40 56.1**	**+1.7**
MUGZ	**Murupara**	**19.47**	**197**	P	**P**	**05 40 56.7**	**+1.8**
MTHZ	**Maungataniwha**	**19.80**	**197**	P	**P**	**05 41 00.4**	**+1.9**

NMHZ	**Naumai**	**20.04**	**197**	P		**P**		**05 41 02.8**	**+1.7**
BKZ	**Black Stump Fm**	**20.19**	**197**	P		**P**		**05 41 02.9**	**+0.3**
BKZ	**Black Stump Fm**	**20.19**	**197**	P		**P**		**05 41 02.6**	**0.0**
OTVZ	**Oturere**	**20.43**	**199**	P		**P**		**05 41 04.2**	**-1.2**
KWHZ	**Kaweka Forest**	**20.45**	**197**	P		**P**		**05 41 06.2**	**+0.8**
SNVZ	**South Ngauruho**	**20.46**	**199**	P		**P**		**05 41 05.0**	**-0.7**
NGZ	**Ngauruhoe**	**20.46**	**199**	P		**P**		**05 41 05.7**	**0.0**
WNVZ	**Wahianoa**	**20.60**	**199**	P		**P**		**05 41 06.6**	**-0.5**
BHHZ	**Black Hill Sta**	**20.61**	**198**	P		**P**		**05 41 05.0**	**-2.1**
PKVZ	**Pokaka**	**20.65**	**200**	P		**P**		**05 41 09.0**	**+1.5**
KRHZ	**Kereru**	**20.67**	**197**	P		**P**		**05 41 07.3**	**-0.5**
KAHZ	**Kahuranaki**	**20.68**	**196**	P		**P**		**05 41 10.7**	**+2.9**
PXZ	**Pawanui**	**20.90**	**196**	P		**P**		**05 41 11.7**	**+1.6**
PNHZ	**Pukenui**	**20.97**	**197**	P		**P**		**05 41 11.5**	**+0.7**
DVHZ	**Dannevirke**	**21.34**	**197**	P		**P**		**05 41 15.0**	**+0.4**
BFZ	**Birch Farm**	**21.68**	**196**	P		**P**		**05 41 19.0**	**+1.1**
BFZ	**Birch Farm**	**21.68**	**196**	P		**P**		**05 41 20.1**	**+2.2**
TCW	**Tory Channel**	**22.73**	**199**	P		**P**		**05 41 27.6**	**-0.1**
QRZ	**Quartz Range**	**22.98**	**203**	P		**P**		**05 41 30.8**	**+0.9**
NNZ	**Nelson**	**23.03**	**201**	P		**P**		**05 41 31.6**	**+1.3**
THZ	**Tophouse**	**23.68**	**201**	P		**P**		**05 41 38.8**	**+2.5**
DSZ	**Denniston Nort**	**24.05**	**203**	P		**P**		**05 41 41.5**	**+1.8**
KHZ	**Kahutara**	**24.06**	**199**	P		**P**		**05 41 40.4**	**+0.8**
LTZ	**Lake Taylor**	**24.80**	**201**	P		**P**		**05 41 46.8**	**+0.4**
LTZ				IAmb		IAmb		05 41 51.5	
	comp=Z,19nm,0.6s								
INZ	**Inchbonnie**	**25.03**	**202**	P		**P**		**05 41 49.7**	**+1.2**
OXZ	**Oxford**	**25.36**	**201**	P		**P**		**05 41 53.4**	**+2.0**
RPZ	**Rata Peaks**	**26.04**	**202**	P		**P**		**05 41 58.4**	**+0.9**
TATA	**Tatamba Isabel**	**26.16**	**293**	P		**P**		**05 41 58.3**	**-0.6**
JCZ	**Jackson Bay**	**27.19**	**205**	P		**P**		**05 42 08.9**	**+1.0**
ODZ	**Otahua Downs**	**27.34**	**201**	P		**P**		**05 42 10.3**	**+1.1**
EIDS	**Eidsvold**	**30.85**	**254**	P		**P**		**05 42 40.5**	**+0.1**
EIDS	**Eidsvold**	**30.85**	**254**	P		**P**		**05 42 40.3**	**-0.1**
EIDS				IAmb		IAmb		05 42 41.4	
	comp=Z,8.8nm,0.6s								
ARMA	**Armidale**	**31.03**	**244**	P		**P**		**05 42 42.2**	**+0.2**
ARMA				IAmb		IAmb		05 43 14.9	
	comp=Z,23nm,1.5s								
CTA	**Charters Tower**	**35.48**	**263**	P		**P**		**05 43 20.3**	**-0.2**
CTAO	**Charters Tower**	**35.48**	**263**	P		**P**		**05 43 20.4**	**0.0**
CTAO	**Charters Tower**	**35.48**	**263**	P		**P**		**05 43 20.5**	**0.0**
CTAO				IAmb		IAmb		05 43 20.8	
	comp=Z,17nm,0.5s								
CTAO	**Charters Tower**	**35.48**	**263**	P		**P**		**05 43 20.2**	**-0.3**
	comp=Z,32nm,1.1s								
CMSA	**Cobar Meteorol**	**36.25**	**244**	P		**P**		**05 43 26.6**	**-0.3**
CMSA	**Cobar Meteorol**	**36.25**	**244**	P		**P**		**05 43 26.5**	**-0.3**
	comp=Z,6.6nm,1.4s								
QLP	**Quilpie**	**37.06**	**252**	P		**P**		**05 43 33.7**	**-0.1**
	comp=Z,13nm,0.6s								
MTSU	**Mount Surprise**	**37.56**	**266**	P		**P**		**05 43 37.8**	**-0.2**
	comp=Z,18nm,0.6s								
STKA	**Stephens Creek**	**39.76**	**244**	P		**P**		**05 43 53.5**	**-2.6**
	comp=Z,1.3nm,0.4s,baz=87,slow=12,SNR=3.0								
	comp=Z,1.3nm,0.4s								
STKA	**Stephens Creek**	**39.76**	**244**	IAmb		IAmb		05 44 24.2	
	comp=Z,50nm,1.2s								
BBOO	**Buckleboo**	**44.51**	**243**	P		**P**		**05 44 33.4**	**-1.1**
BBOO	**Buckleboo**	**44.51**	**243**	P		**P**		**05 44 32.8**	**-1.7**
BBOO				IAmb		IAmb		05 45 03.4	
	comp=Z,70nm,1.5s								
WR8	**Warramunga Arr**	**46.45**	**261**			**P**		**05 44 48.4**	**-1.4**
AS01	**Alice Springs**	**46.48**	**256**	P		**P**		**05 44 49.6**	**-0.5**
AS31	**Alice Springs**	**46.52**	**256**			**P**		**05 44 49.8**	**-0.7**
AS31				IAmb		IAmb		05 44 51.3	
	comp=Z,4.2nm,0.3s								
ASAR	**Alice Springs**	**46.53**	**256**	P		**P**		**05 44 49.5**	**-0.9**
	comp=Z,4.4nm,0.3s,baz=97,slow=8.2,SNR=56								
ASAR				PcP		**PcP**		**05 46 20.3**	**-0.7**
	comp=Z,1.7nm,0.5s,baz=96,slow=3.4,SNR=6.2								
	comp=Z,4.4nm,0.3s								
ASAR	**Alice Springs**	**46.53**	**256**	P		**P**		**05 44 49.2**	**-1.3**
WB0	**Warramunga Arr**	**46.58**	**261**			**P**		**05 44 49.4**	**-1.4**
WB0				IAmb		IAmb		05 44 50.1	
	comp=Z,10nm,0.6s								
WRAB	**Tennant Creek**	**46.59**	**261**	P		**P**		**05 44 49.5**	**-1.5**
WRAB	**Tennant Creek**	**46.59**	**261**	P		**P**		**05 44 49.4**	**-1.5**
WRAB				IAmb		IAmb		05 44 50.6	
	comp=Z,13nm,1.3s								
WRAB	**Tennant Creek**	**46.59**	**261**	P		**P**		**05 44 48.8**	**-2.1**
	comp=Z,12nm,1.4s								
WRA	**Warramunga Arr**	**46.60**	**261**	P		**P**		**05 44 49.3**	**-1.6**
	comp=Z,3.7nm,0.3s,baz=96,slow=5.2,SNR=60								
WRA				PcP		**PcP**		**05 46 20.4**	**-0.8**
	comp=Z,0.8nm,0.8s,baz=103,slow=6.3,SNR=1.6								
	comp=Z,3.7nm,0.3s								
WRA	**Warramunga Arr**	**46.60**	**261**			**P**		**05 44 49.5**	**-1.5**
SMPI	**Sarmi**	**47.77**	**286**	P		**P**		**05 44 59.1**	**-1.0**
	comp=Z,62nm,0.8s								
MTN	**Manton Dam**	**51.11**	**269**			**P**		**05 45 23.9**	**-1.3**
FORT	**Forrest**	**51.28**	**246**	P		**P**		**05 45 26.5**	**+0.2**
FORT				IAmb		IAmb		05 46 03.8	
	comp=Z,22nm,1.1s								
KNRA	**Kununurra**	**52.63**	**265**			**P**		**05 45 35.5**	**-0.9**
KNRA				IAmb		IAmb		05 45 36.8	
	comp=Z,5.5nm,0.9s								
FAKI	**Fak Fak**	**53.29**	**282**	P		**P**		**05 45 41.2**	**-0.1**
FAKI	**Fak Fak**	**53.29**	**282**	P		**P**		**05 45 40.8**	**-0.5**
SIJI	**Sorong**	**55.00**	**284**	P		**P**		**05 45 53.0**	**-0.7**
	comp=Z,27nm,0.5s,baz=87,slow=7.1,SNR=11								
	comp=Z,27nm,0.5s								
SIJI	**Sorong**	**55.00**	**284**	P		**P**		**05 45 53.0**	**-0.7**
	comp=Z,44nm,1.1s								
FITZ	**Fitzroy Crossi**	**55.02**	**262**	P		**P**		**05 45 53.0**	**-0.8**
	comp=Z,3.1nm,0.5s,baz=83,slow=4.4,SNR=31								
	comp=Z,3.1nm,0.5s								
FITZ	**Fitzroy Crossi**	**55.02**	**262**	P		**P**		**05 45 53.7**	**0.0**
SOEI	**Soe**	**58.43**	**271**			**P**		**05 46 18.2**	**+0.3**
SBA	**Scott Base**	**58.51**	**184**	P		**P**		**05 46 21.5**	**+4.3**
SBA				IAmb		IAmb		05 46 22.2	
	comp=Z,6.2nm,0.8s								
SBA	**Scott Base**	**58.51**	**184**	P		**P**		**05 46 20.8**	**+3.6**
	comp=Z,9.7nm,0.9s								
VNDA	**Vanda**	**58.59**	**186**	P		**P**		**05 46 20.6**	**+2.8**
	comp=Z,2.4nm,0.8s,baz=352,slow=7.9,SNR=17								
	comp=Z,2.4nm,0.8s								
VNDA	**Vanda**	**58.59**	**186**			**P**		**05 46 20.9**	**+3.1**
VNDA	**Vanda**	**58.59**	**186**	P		**P**		**05 46 20.7**	**+2.8**
	comp=Z,5.3nm,1.2s								
MBWA	**Marble Bar**	**59.86**	**257**	P		**P**		**05 46 26.2**	**-1.3**
MBWA				IAmb		IAmb		05 46 26.8	
	comp=Z,9.3nm,0.8s								
MBWA	**Marble Bar**	**59.86**	**257**	P		**P**		**05 46 26.2**	**-1.3**
	comp=Z,13nm,2.4s								
EDFI	**Ende, Flores**	**61.16**	**271**	P		**P**		**05 46 35.1**	**-1.3**
	comp=Z,11nm,0.6s								
PLAI	**Plampang**	**64.82**	**269**	P		**P**		**05 46 59.5**	**-0.9**
QSPA	**South Pole Qui**	**70.07**	**180**	P		**P**		**05 47 34.8**	**+2.3**
	comp=Z,10nm,0.8s,baz=29,slow=3.5,SNR=14								
	comp=Z,10nm,0.8s								
QSPA	**South Pole Qui**	**70.07**	**180**	IAmb		IAmb		05 47 35.8	
	comp=Z,15nm,1.0s								
KKM	**Kota Kinabalu**	**71.52**	**284**	P		**P**		**05 47 41.6**	**-0.5**
	comp=Z,20nm,0.7s								
UNV	**Unalaska Valle**	**73.98**	**6**	P		**P**		**05 47 54.6**	**-0.9**
BBJI	**Bungbulang**	**74.76**	**267**	P		**P**		**05 47 59.2**	**-1.8**
BBJI				IAmb		IAmb		05 48 00.1	
	comp=Z,21nm,0.9s								
BBJI	**Bungbulang**	**74.76**	**267**	P		**P**		**05 47 59.4**	**-1.7**
	comp=Z,28nm,1.3s								
PEA0B	**Petropavlovsk-**	**76.31**	**344**	P		**P**		**05 48 08.2**	**-0.6**
PEA0B				IAmb		IAmb		05 48 33.4	
	comp=Z,41nm,1.3s								
PETK	**Petropavlovsk-**	**76.31**	**344**	P		**P**		**05 48 08.7**	**-0.1**
	comp=Z,4.9nm,0.7s,baz=137,slow=5.2,SNR=5.6								
	comp=Z,4.9nm,0.7s								
YSS	**Yuzhno-Sakhali**	**76.34**	**332**	P		**P**		**05 48 08.3**	**-0.8**
O02D	**Mt. Diablo Mer**	**77.66**	**39**	P		**P**		**05 48 16.0**	**-0.8**
O02D				IAmb		IAmb		05 48 34.1	
	comp=Z,10nm,1.4s								
KSRS	**Korea Array**	**77.82**	**317**	P		**P**		**05 48 18.1**	**+0.6**
	comp=Z,0.9nm,0.5s,baz=134,slow=5.2,SNR=2.1								
	comp=Z,0.9nm,0.5s								
WAKR	**Walker**	**78.66**	**42**	IAmb		IAmb		05 48 24.7	
	comp=Z,6.0nm,1.0s								
NVAR	**Mina Array Bea**	**79.33**	**42**	P		**P**		**05 48 27.3**	**+1.1**
	comp=Z,3.6nm,0.8s,baz=223,slow=8.8,SNR=17								
	comp=Z,3.6nm,0.8s								
NV11	**Mina Array Sit**	**79.43**	**43**	P		**P**		**05 48 28.3**	**+1.7**
TPNV	**Topopah Spring**	**79.81**	**45**	IAmb		IAmb		05 48 31.2	
	comp=Z,4.3nm,0.9s								
TUC	**Tucson**	**81.15**	**51**	P		**P**		**05 48 37.8**	**+2.0**
	comp=Z,4.9nm,1.3s								
WVOR	**Wild Horse Val**	**81.51**	**39**	P		**P**		**05 48 38.9**	**+1.4**

	comp=Z,5.8nm,1.5s								
MAW	**Mawson**	**82.69**	**199**	P		**P**		**05 48 44.2**	**+1.2**
	comp=Z,2.6nm,0.5s,baz=145,slow=5.3,SNR=9.1								
	comp=Z,2.6nm,0.5s								
MAW	**Mawson**	**82.69**	**199**	IAmb		IAmb		05 48 45.5	
	comp=Z,2.1nm,1.5s								
MAW	**Mawson**	**82.69**	**199**	P		**P**		**05 48 44.6**	**+1.5**
	comp=Z,1.4nm,1.5s								
HLID	**Hailey**	**84.69**	**40**	P		**P**		**05 48 55.0**	**+1.2**
	comp=Z,4.3nm,0.8s								
MNTX	**Cornudas Mount**	**84.88**	**54**	P		**P**		**05 48 56.8**	**+2.0**
	comp=Z,5.0nm,1.7s								
IPM	**Ipoh**	**85.00**	**277**	P		**P**		**05 48 55.6**	**-0.3**
	comp=Z,18nm,0.8s								
TXAR	**Lajitas Array**	**85.15**	**57**	P		**P**		**05 48 58.1**	**+1.7**
	comp=Z,3.1nm,0.9s,baz=217,slow=8.1,SNR=19								
	comp=Z,3.1nm,0.9s								
COYC	**Coyhaique**	**85.19**	**137**	P		**P**		**05 48 59.5**	**+3.4**
	comp=Z,23nm,1.4s								
LOGN	**Logan Glacier**	**85.33**	**16**	P		**P**		**05 48 57.0**	**+0.5**
LOGN				IAmb		IAmb		05 48 58.5	
	comp=Z,28nm,1.5s								
ANMO	**Albuquerque**	**85.58**	**50**	P		**P**		**05 49 00.1**	**+1.7**
	comp=Z,3.3nm,2.3s								
PDAR	**Pinedale Array**	**87.27**	**42**	P		**P**		**05 49 06.7**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=185,slow=1.9,SNR=5.8								
	comp=Z,0.4nm,0.6s								
COLA	**College**	**87.31**	**12**	P		**P**		**05 49 05.5**	**-0.4**
COLA	**College**	**87.31**	**12**	P		**P**		**05 49 05.4**	**-0.4**
	comp=Z,11nm,0.9s								
ILAR	**Eielson Array**	**87.41**	**12**	P		**P**		**05 49 06.0**	**-0.4**
	comp=Z,1.7nm,0.4s,baz=214,slow=5.1,SNR=75								
	comp=Z,1.7nm,0.4s								
PLCA	**Paso Flores**	**88.20**	**133**	P		**P**		**05 49 12.7**	**+1.7**
	comp=Z,2.1nm,0.6s,baz=248,slow=5.5,SNR=6.7								
	comp=Z,2.1nm,0.6s								
PLCA	**Paso Flores**	**88.20**	**133**	P		**P**		**05 49 13.0**	**+2.1**
	comp=Z,8.5nm,2.9s								
TROLL	**Troll, Antarti**	**88.22**	**180**⇑	P		**P**		**05 49 11.4**	**+0.9**
	comp=Z,216nm,0.4s								
SNAA	**Sanae**	**88.45**	**178**	P		**P**		**05 49 11.9**	**+0.5**
	comp=Z,5.7nm,0.8s,baz=187,slow=3.4,SNR=11								
	comp=Z,5.7nm,0.8s								
SNAA	**Sanae**	**88.45**	**178**			**P**		**05 49 11.8**	**+0.4**
SNAA				IAmb		IAmb		05 49 13.2	
	comp=Z,6.5nm,0.9s								
SNAA	**Sanae**	**88.45**	**178**	P		**P**		**05 49 12.7**	**+1.3**
	comp=Z,8.0nm,1.0s								
VNA3	**Neumayer Olymp**	**88.50**	**176**⇑	P		**P**		**05 49 12.5**	**+0.9**
	comp=Z,17nm,0.6s								
VNA3	**Neumayer Olymp**	**88.50**	**176**	P		**P**		**05 49 12.7**	**+1.0**
	comp=Z,31nm,0.8s								
VNA2	**Neumayer--Watz**	**88.97**	**176**⇑	P		**P**		**05 49 14.9**	**+1.1**
	comp=Z,12nm,0.6s

WTTA	**Wattenberg**	**152.11**	**349**	*i* PKiKP	**PKiKP**	**05 56 14.0**	**-0.2**
	comp=Z,23nm,0.5s,SNR=11						
MOTA	**Moosalm**	**152.13**	**350**	*e*PKiKP	**PKPbc**	**05 56 14.0**	**0.0**
	comp=Z,6.4nm,0.8s						
SQTA	**Sankt Quirin**	**152.23**	**350**	*i* PKiKP	**PKPbc**	**05 56 14.2**	**0.0**
	comp=Z,11nm,0.6s						
MYKA	**Terra Mystica**	**152.30**	**346**	*i* PKP	**PKPbc**	**05 56 13.5**	**-0.7**
	comp=Z,6.8nm,0.5s						
DAVA	**Damuels**	**152.37**	**351**	*e*PKiKP	**PKiKP**	**05 56 14.6**	**-0.1**
	comp=Z,5.9nm,0.5s						
ABTA	**Abfaltersbach**	**152.44**	**347**	*e*PKP	**PKPbc**	**05 56 14.1**	**-0.5**
	comp=Z,16nm,0.5s,SNR=7.6						
FETA	**Feichten**	**152.50**	**350**	*i* PKiKP	**PKiKP**	**05 56 15.0**	**0.0**
	comp=Z,7.8nm,0.6s						
ESDC	**Sonseca Array**	**159.21**	**18**	PKPab	**PKPab**	**05 56 55.3**	**+0.5**
	comp=Z,1.0nm,0.5s,baz=330,slow=3.8,SNR=12						
ESDC	**Sonseca Array**	**159.21**	**18**		**PKPab**	**05 56 55.6**	**+0.8**
TORD	**Torodi Ar. Bea**	**172.82**	**161**	PKP	**PKPdf**	**05 56 27.1**	**-0.9**
	comp=Z,2.8nm,1.1s,baz=90,slow=2.9,SNR=5.6						
TORD				PKPab	**PKPab**	**05 57 56.0**	**+0.8**
	comp=Z,1.8nm,0.9s,baz=174,slow=4.3,SNR=5.0						

IDC ***11*** *05:40:41.8±1.1,21°.67N×121°.99E,h0km,mb3.6/7, mbtmp3.6/8,ML3.2/1, Error ellipse: s-maj=30.6km s-min=21.1km az=71.0*

TAP ***11*** *05:40:45.6,21°.58N×121°.95E,h43km,ML4.2,D*

JMA ***11*** *05:40:49.0±0.3,22°.1N×121°.9E±0°.6,h72km,MV4.0/13, TAIWAN REGION*

ISC 11 05:40:47.4±1.1,**21°.60N**±0°.05×**121°.86E**±0°.04,**h39**km±4km, **n83,σ1s64/93,mb3.6/6,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LYUB	**Lan-yu**	**0.47**	**328**	P	**Pn**	**05 40 57.3**	**-0.4**
LYUB				S	**Sn**	**05 41 05.3**	**+0.4**
LAY	**Lan-yu**	**0.52**	**327**	P	**Pn**	**05 40 57.2**	**-1.2**
LAY				S	**Sn**	**05 41 04.5**	**-1.7**
TSEB	**Hengchuen, Pin**	**0.94**	**289**	*e*P	**Pn**	**05 41 05.2**	**+1.1**
TSEB				*e*S	**Sn**	**05 41 18.0**	**+1.7**
TWKBT	**Hengchun**	**1.02**	**289**	P	**Pn**	**05 41 04.6**	**-0.7**
TWKBT				S	**Sn**	**05 41 20.8**	**+2.3**
SMST	**Manzhou Townsh**	**1.03**	**294**	*e*P	**Pn**	**05 41 04.1**	**-1.3**
SMST				*e*S	**Sn**	**05 41 18.6**	**0.0**
TWK1	**Hengchun**	**1.03**	**289**	*e*P	**Pn**	**05 41 04.3**	**-1.1**
HEN	**Hengchun**	**1.11**	**291**	*e*P	**Pn**	**05 41 06.1**	**-0.4**
LDUT	**Ludao**	**1.12**	**341**	*e*P	**Pn**	**05 41 04.8**	**-1.9**
LDUT				*e*S	**Sn**	**05 41 19.9**	**-1.0**
SLIU	**Shizi**	**1.15**	**302**	P	**Pn**	**05 41 06.3**	**-0.8**
SLIU				S	**Sn**	**05 41 22.1**	**+0.4**
TAW	**Tawu**	**1.16**	**310**	*e*P	**Pn**	**05 41 06.7**	**-0.5**
EAST	**Anshuo**	**1.21**	**310**	P	**Pn**	**05 41 07.1**	**-0.9**
EAST				S	**Sn**	**05 41 21.8**	**-1.4**
SCZT	**Fangliau**	**1.38**	**304**	P	**Pn**	**05 41 10.0**	**-0.1**
TWGBT	**Beinan**	**1.41**	**329**	P	**Pn**	**05 41 10.6**	**0.0**
TWGBT	**Beinan**	**1.41**	**329**	*e*P	**Pn**	**05 41 10.9**	**+0.4**
TWG	**Pinlang**	**1.41**	**329**	*e*P	**Pn**	**05 41 10.8**	**+0.1**
EDH	**Donghe**	**1.45**	**340**	P	**Pn**	**05 41 10.2**	**-1.0**
EDH				S	**Sn**	**05 41 29.5**	**+0.4**
LONT	**Longtian**	**1.46**	**333**	*e*P	**Pn**	**05 41 11.7**	**+0.3**
SSPT	**Xinbi**	**1.48**	**306**	P	**Pn**	**05 41 11.7**	**+0.2**
MASBT	**Mashibuluo**	**1.51**	**312**	*e*P	**Pn**	**05 41 12.1**	**0.0**
CHKT	**Chengkung**	**1.56**	**343**	P	**Pn**	**05 41 11.9**	**-0.7**
CHKT				S	**Sn**	**05 41 31.1**	**-0.5**
TSMG	**Majia**	**1.57**	**315**	*e*P	**Pn**	**05 41 14.7**	**+1.9**
SSD	**Sandimen**	**1.60**	**315**	P	**Pn**	**05 41 14.2**	**+0.8**
CHKH	**Chenggong**	**1.64**	**345**	*e*P	**Pn**	**05 41 13.1**	**-0.7**
EHD	**Haiduan**	**1.65**	**339**	*e*P	**Pn**	**05 41 15.7**	**+1.7**
FULB	**Fuli**	**1.67**	**342**	*e*P	**Pn**	**05 41 13.7**	**-0.5**
ELDTW	**Lidau**	**1.76**	**334**	P	**Pn**	**05 41 16.3**	**+0.8**
EYUL	**Yuli**	**1.80**	**344**	*e*P	**Pn**	**05 41 16.8**	**+0.7**
TWF1	**Yuli**	**1.81**	**344**	*e*P	**Pn**	**05 41 16.0**	**-0.2**
YULB	**Yu-li**	**1.85**	**344**	P	**Pn**	**05 41 17.1**	**+0.4**
YULB	**Yu-li**	**1.85**	**344**	*e*P	**Pn**	**05 41 16.9**	**+0.2**
SGST	**Jiashian**	**1.88**	**322**	*e*P	**Pn**	**05 41 19.8**	**+2.7**
HGSD	**Ruisui**	**1.92**	**348**	*e*P	**Pn**	**05 41 17.2**	**-0.5**
EHYH	**Wanrong**	**1.94**	**346**	*e*P	**Pn**	**05 41 17.7**	**-0.2**
WTP	**Ta-pu**	**2.00**	**325**	*e*P	**Pn**	**05 41 21.8**	**+3.1**
TPUB	**Ta-pu**	**2.03**	**326**	P	**Pn**	**05 41 22.0**	**+2.8**
TPUB	**Ta-pu**	**2.03**	**326**	*e*P	**Pn**	**05 41 21.5**	**+2.3**
YUS	**Yu-Shan**	**2.05**	**336**	*e*P	**Pn**	**05 41 22.4**	**+2.5**
TWK	**Hsinying**	**2.08**	**323**	*e*P	**Pn**	**05 41 22.8**	**+2.9**
ALS	**Alishan**	**2.13**	**333**	*e*P	**Pn**	**05 41 23.7**	**+2.9**
WARBT	**Fenglin Townsh**	**2.15**	**348**	*e*P	**Pn**	**05 41 20.2**	**-0.5**
VWDT	**VWDT**	**2.24**	**343**	*e*P	**Pn**	**05 41 23.9**	**+1.9**
SSLB	**Suanglung**	**2.33**	**339**	P	**Pn**	**05 41 27.1**	**+3.8**
ETM	**Tongmen**	**2.37**	**352**	*e*P	**Pn**	**05 41 23.6**	**-0.2**
WDLH	**Douliu**	**2.41**	**330**	*e*P	**Pn**	**05 41 27.5**	**+3.2**
OWD	**Renai**	**2.42**	**345**	*e*P	**Pn**	**05 41 26.8**	**+2.1**
SMLT	**Sun Moon Lake**	**2.43**	**339**	*e*P	**Pn**	**05 41 27.4**	**+2.7**
LXIB	**Xiulin Townshi**	**2.44**	**350**	*e*P	**Pn**	**05 41 24.5**	**-0.5**
TYC	**Yuchr**	**2.47**	**338**	*e*P	**Pn**	**05 41 28.5**	**+3.4**
WUSB	**Renai**	**2.47**	**344**	*e*P	**Pn**	**05 41 27.1**	**+1.7**
WHF	**Hehuan Shan**	**2.59**	**348**	*e*P	**Pn**	**05 41 28.5**	**+1.3**
WCS	**Beigang Elemen**	**2.59**	**341**	*e*P	**Pn**	**05 41 29.6**	**+2.7**
FUSS	**Fushou**	**2.69**	**348**	*e*P	**Pn**	**05 41 30.5**	**+2.0**
EOS3	**EOS3**	**2.70**	**9**	*e*P	**Pn**	**05 41 29.4**	**+1.2**
PHUB	**P'eng-hu**	**2.84**	**312**	*e*P	**Pn**	**05 41 31.8**	**+1.6**
PHUB				S	**Sn**	**05 42 03.7**	**+0.5**
JYNG	**Yonagunijimaku**	**3.01**	**19**	*e*P	**Pn**	**05 41 33.6**	**+1.0**
JYNG				*e*S	**Sn**	**05 42 08.7**	**+1.3**
HATJ	**Hateruma jima**	**3.03**	**36**	*e*P	**Pn**	**05 41 34.5**	**+1.6**
HATJ				*e*S	**Sn**	**05 42 08.7**	**+0.8**
ENTT	**Nioudou**	**3.03**	**355**	*e*S	**Sn**	**05 42 09.2**	**+1.2**
YHNB	**Yeheng**	**3.08**	**352**	P	**Pn**	**05 41 37.2**	**+3.5**
NFF	**Wufeng Townshi**	**3.09**	**347**	*e*P	**Pn**	**05 41 38.1**	**+4.3**
PACPP	**Pamplona Cagay**	**3.16**	**189**	*i* P	**Pn**	**05 41 35.7**	**+1.0**
IRIF	**Iriomote-Funau**	**3.22**	**32**	P	**Pn**	**05 41 37.1**	**+1.6**
JKRS	**Kuro-shima**	**3.29**	**37**	P	**Pn**	**05 41 38.5**	**+2.0**
JIJ	**Ishigaki jima**	**3.46**	**37**	P	**Pn**	**05 41 40.2**	**+1.4**
JIJ				S	**Sn**	**05 42 18.1**	**-0.4**
SXI1	**Grass Mountain**	**3.47**	**0**	*e*S	**Sn**	**05 42 21.5**	**+2.5**
JISG	**Ishigakijimahi**	**3.73**	**37**	*e*P	**Pn**	**05 41 43.7**	**+1.2**
JISG				S	**Sn**	**05 42 25.3**	**0.0**
JTJ	**Tarama**	**4.00**	**40**	P	**Pn**	**05 41 48.0**	**+1.8**
JTJ				S	**Sn**	**05 42 32.6**	**+0.8**
JIRJ	**Irabujima**	**4.45**	**43**	S	**Sn**	**05 42 43.2**	**+0.4**
JMJ2	**Miyako jima3**	**4.47**	**45**	S	**Sn**	**05 42 43.0**	**-0.4**
JIKM	**Ikemajima**	**4.54**	**43**	S	**Sn**	**05 42 43.2**	**-2.1**
KSRS	**Korea Array**	**16.65**	**17**	Pn	**Pn**	**05 44 36.9**	**-0.9**
	0.1nm,0.3s,baz=197,slow=14,SNR=1.2 0.5nm,0.3s						
KSRS				AML	AML		
MJAR	**Matsushiro Arr**	**20.59**	**40**	P	**P**	**05 45 20.8**	**-2.3**
	0.7nm,0.4s,baz=229,slow=13,SNR=5.2 0.7nm,0.4s						
CMAR	**Chiang Mai Arr**	**21.75**	**266**	P	**P**	**05 45 36.8**	**+1.1**
	0.9nm,0.3s,baz=71,slow=12,SNR=4.5 0.9nm,0.3s						
MKAR	**Makanchi Array**	**40.63**	**318**	P	**P**	**05 48 22.7**	**-1.0**
	0.6nm,0.6s,baz=108,slow=8.0,SNR=5.3 0.6nm,0.6s						
H11N1	**WAKE ISLAND Hy**	**42.07**	**84**	T	T	06 33 51.0	
	baz=282,slow=75,SNR=12						
H11N2	**WAKE ISLAND Hy**	**42.08**	**84**	T	T	06 33 48.5	
	baz=282,slow=75,SNR=18						
H11N3	**WAKE ISLAND Hy**	**42.09**	**84**	T	T	06 33 50.5	
	baz=282,slow=75,SNR=14						
H11S3	**WAKE ISLAND Hy**	**42.12**	**86**	T	T	06 33 55.1	
	baz=283,slow=75,SNR=31						
H11S1	**WAKE ISLAND Hy**	**42.13**	**86**	T	T	06 33 53.7	
	baz=283,slow=75,SNR=30						
H11S2	**WAKE ISLAND Hy**	**42.14**	**86**	T	T	06 33 54.6	
	baz=283,slow=75,SNR=32						
ZALV	**Zalesovo Beam**	**42.75**	**328**	P	**P**	**05 48 40.3**	**-0.5**
	1.3nm,0.6s,baz=119,slow=12,SNR=6.2 1.3nm,0.6s						
WRA	**Warramunga Arr**	**43.06**	**163**	P	**P**	**05 48 42.7**	**-1.0**
	0.9nm,0.8s,baz=344,slow=8.3,SNR=4.1 0.9nm,0.8s						
KURBB	**Kurchatov Arra**	**44.49**	**321**	P	**P**	**05 48 56.1**	**+1.2**
	0.3nm,0.4s,baz=116,slow=7.3,SNR=4.4 0.3nm,0.4s						
ASAR	**Alice Springs**	**46.50**	**165**	P	**P**	**05 49 12.2**	**+1.1**
	0.2nm,0.3s,baz=343,slow=8.3,SNR=2.3 0.2nm,0.3s						

TIR ***11*** *05:45:51.8,41°.66N×20°.75E,h9km±2km,ML2.2,ML2.2, Presumed earthquake*

BEO ***11*** *05:45:54.1±0.8,41°.69N×20°.76E,h0km,ML1.8/4*

PDG 11 05:45:53.5±0.1,**41°.68N×20°.72E,h6**km,**ML2.5**/11,**4C-1D,**

Error ellipse: s-maj=0.5km s-min=0.7km az=0.0, Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PHP	**Peshkopia**	**0.21**	**272**	⇑Pg	Pg	05 45 56.1	-1.4
PHP				Sg	Sg	05 45 59.5	-0.8
PHP				IAML		05 45 59.9	
	5μm,0.2s						
SDA	**Shkodra**	**0.98**	**293**	Pn	Pb	05 46 13.3	+0.4
SDA				Sn	Sb	05 46 26.9	+0.7
SDA				IAML		05 46 30.0	
	71nm,0.3s						
KBN	**Korca**	**1.05**	**177**	Pg	Pg	05 46 13.6	-0.1
KBN				Sg	Sg	05 46 26.4	-1.0
PVY	**Plav**	**1.08**	**329**	*e*Pg	Pg	05 46 13.5	-0.7
PVY				*i* Sg	Sn	05 46 30.2	-0.5
DRME	**Dracevica, Mon**	**1.25**	**295**	*e*Pg	Pg	05 46 16.5	-1.0
DRME				*i* Sg	Sn	05 46 36.3	+1.5
NEST	**Nestorio**	**1.29**	**169**	Pn	Pg	05 46 15.0	-3.2
NEST				Sn	Sg	05 46 34.2	-0.6
NEST				IAML		05 46 37.1	
	71nm,0.8s						
PDG	**Podgorica**	**1.32**	**305**	⇑*i*Pg	Pn	05 46 18.0	-0.6
PDG				*i* Sg	Sn	05 46 39.1	+2.6
IVA	**Berane**	**1.34**	**333**	*e*Pg	Pn	05 46 18.5	-0.4
IVA				*i* Sg	Sn	05 46 39.4	+2.2
BARS	**Barje**	**1.40**	**35**	*e*Pg	Pn	05 46 18.9	-0.8
BARS				*e*Sg	Sb	05 46 37.0	-1.3
KOME	**Kolasin**	**1.47**	**323**	⇓*i*Pg	Pn	05 46 20.8	+0.1
KOME				*i* Sg	Sg	05 46 43.1	+2.2
BUM	**Brajici-Budva**	**1.49**	**295**	*e*Pg	Pn	05 46 21.3	+0.3
BUM				*i* Sg	Sg	05 46 44.6	+3.1
BOSS	**Bosilegrad**	**1.55**	**57**	*e*Pg	Pn	05 46 21.7	0.0
SELS	**Selova**	**1.57**	**11**	*e*Pg	Pn	05 46 21.8	-0.2
SELS				*e*Sg	Sb	05 46 43.1	-0.1
CEME	**Cevo**	**1.59**	**304**	⇑*i*Pn	Pn	05 46 22.7	+0.3
CEME				*i* Sn	Sg	05 46 48.1	+3.3
SJES	**Sjenica**	**1.68**	**341**	*e*Pn	Pn	05 46 23.7	+0.1
SJES				*e*Sn	Sg	05 46 47.1	-0.3
NKME	**Niksic**	**1.70**	**310**	*e*Pn	Pb	05 46 25.1	-0.2
NKME				*i* Sn	Sg	05 46 50.8	+2.6
HCY	**Herceg Novi**	**1.82**	**296**	*e*Pn	Pb	05 46 26.8	-0.5
HCY				*i* Sn	Sg	05 46 53.6	+1.5
IVAS	**Ivanjica**	**1.94**	**348**	*e*Pn	Pn	05 46 27.8	+0.6
IVAS				*e*Sn	Sb	05 46 53.7	-0.3
BRY	**Bratogost**	**2.03**	**308**	⇑*i*Pn	Pb	05 46 30.0	-0.9
BRY				*i* Sn	Sg	05 46 58.4	-0.2
UPM	**Unac-Piva**	**2.03**	**319**	*e*Pn	Pb	05 46 30.0	-1.0
UPM				*i* Sn	Sg	05 46 58.4	-0.3
DBRK	**Dubrovnik**	**2.15**	**298**	Sn	Sb	05 47 00.5	+0.6
STON	**Ston**	**2.54**	**299**	*i* Pn	Pn	05 46 33.9	-1.3
STON				Sn	Sb	05 47 08.9	-2.0
LSTV	**Lastovo**	**3.04**	**292**	*e*Pn	Pn	05 46 38.9	-3.3
LSTV				Sn	Sn	05 47 18.1	-0.8
RICI	**Ricice**	**3.21**	**306**	*e*Pn	Pn	05 46 43.5	-1.0
RICI				Sn	Sn	05 47 26.6	+3.5

PDG ***11*** *06:13:09.1±0.3,41°.96N×20°.96E,h12km,ML2.6/13, Error ellipse: s-maj=1.5km s-min=2.0km az=0.0*

SKO ***11*** *06:13:11.1,41°.58N×20°.88E,h12km,ML2.2*

BEO ***11*** *06:13:12.7±0.7,41°.73N×20°.70E,h2km±6km,ML1.7/5*

ISC 11 06:13:10.5±1.0,**41°.69N**±0°.03×**20°.83E**±0°.03,**h17**km±9km, **n24,σ1s60/45,4C-12D,Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKO	**Skopje**	**0.54**	**58**	⇓*e*Pg	**Pb**	**06 13 22.1**	**+0.7**
SKO				*i* Sg	**Sb**	**06 13 30.3**	**+1.4**
OHR	**Ohrid**	**0.58**	**182**	⇓*i*Pg	**Pg**	**06 13 20.6**	**-1.4**
OHR				*i* Sg	**Sg**	**06 13 29.1**	**-0.7**
OHR				*e*Lg	Lg	06 13 29.7	
	comp=N,72nm,0.7s						
OHR				*e*Lg	Lg	06 13 30.3	
	comp=E,156nm,0.6s						
PVY	**Plav**	**1.11**	**325**	⇓*i*Pg	Pb	06 13 27.1	-4.3
PVY				*i* Sg	**Sb**	**06 13 43.1**	**-2.5**
ULC	**Ulcinj**	**1.22**	**283**	⇓*i*Pg	**Pn**	**06 13 33.0**	**+0.2**
ULC				*i* Sg	**Sg**	**06 13 52.9**	**+3.0**
DRME	**Dracevica, Mon**	**1.32**	**293**	⇑*i*Pg	**Pn**	**06 13 33.9**	**-0.3**
DRME				*i* Sg	**Sg**	**06 13 54.3**	**+1.0**
BARS	**Barje**	**1.34**	**33**	*e*Pg	**Pg**	**06 13 36.9**	**+0.5**
BARS				*e*Sg	**Sg**	**06 13 56.9**	**+3.0**
VAY	**Valandovo**	**1.36**	**105**	⇓*i*Pg	**Pb**	**06 13 36.0**	**+0.5**
VAY				*i* Sg	**Sg**	**06 13 54.6**	**+0.2**
VAY				*e*Lg	Lg	06 13 55.1	
	comp=E,15nm,0.4s						
VAY				*e*Lg	Lg	06 13 56.0	
	comp=N,17nm,0.7s						
IVA	**Berane**	**1.37**	**330**	⇓*i*Pg	**Pn**	**06 13 31.6**	**-3.4**
IVA				*i* Sg	**Sb**	**06 13 50.6**	**-2.4**
PDG	**Podgorica**	**1.39**	**303**	⇑*i*Pg	**Pn**	**06 13 31.9**	**-3.2**
PDG				*i* Sg	**Sg**	**06 13 55.5**	**+0.2**
BOSS	**Bosilegrad**	**1.47**	**56**	*e*Pg	**Pg**	**06 13 39.8**	**+1.1**
KOME	**Kolasin**	**1.52**	**320**	⇓*i*Pg	**Pn**	**06 13 34.7**	**-2.3**
KOME				*i* Sg	**Sg**	**06 13 59.9**	**+0.5**
SELS	**Selova**	**1.54**	**8**	*e*Pg	**Pb**	**06 13 38.6**	**-0.1**
SELS				*e*Sg	**Sg**	**06 13 59.3**	**-1.0**
PEHC	**Pehcevo**	**1.55**	**86**	*i* Pg	**Pg**	**06 13 40.0**	**-0.4**
PEHC				*i* Sg	**Sg**	**06 14 00.8**	**+0.3**
BUM	**Brajici-Budva**	**1.57**	**294**	⇓*i*Pn	**Pn**	**06 13 37.6**	**0.0**
BUM				*i* Sn	**Sb**	**06 14 01.1**	**+2.4**
CEME	**Cevo**	**1.66**	**302**	⇑*i*Pn	**Pn**	**06 13 37.4**	**-1.5**
CEME				*i* Sn	**Sn**	**06 14 02.0**	**+2.1**
SJES	**Sjenica**	**1.69**	**338**	*e*Pn	**Pb**	**06 13 42.0**	**+0.7**
SJES				*e*Sg	**Sg**	**06 14 04.8**	**-0.3**
NKME	**Niksic**	**1.76**	**308**	⇓*i*Pn	**Pn**	**06 13 40.0**	**-0.3**
NKME				*i* Sn	**Sn**	**06 14 03.8**	**+1.4**
GOCS	**Kraljevo Serbi**	**1.87**	**1**	*e*Pn	**Pg**	**06 13 44.7**	**+0.4**
GOCS				*e*Sg	**Sg**	**06 14 12.5**	**+1.7**
HCY	**Herceg Novi**	**1.90**	**294**	⇓*i*Pn	**Pn**	**06 13 42.9**	**+0.8**
HCY				*i* Sn	**Sn**	**06 14 08.3**	**+2.6**
IVAS	**Ivanjica**	**1.95**	**345**	*e*Pn	**Pb**	**06 13 45.2**	**-0.4**
IVAS				*e*Sg	**Sg**	**06 14 12.1**	**-1.2**
PLE	**Pljevlja**	**1.96**	**327**	⇑*i*Pn	**Pn**	**06 13 40.9**	**-2.1**
PLE				*i* Sn	**Sn**	**06 14 05.8**	**-1.4**
VTS	**Vitosha**	**2.01**	**62**	*e*Pn	**Pg**	**06 13 49.2**	**+0.1**
UPM	**Unac-Piva**	**2.08**	**317**	⇓*i*Pn	**Pn**	**06 13 43.2**	**-1.6**
UPM				*i* Sn	**Sn**	**06 14 10.0**	**-0.4**
BRY	**Bratogost**	**2.09**	**306**	⇓*i*Pn	**Pn**	**06 13 43.8**	**-1.1**
BRY				*i* Sn	**Sn**	**06 14 11.3**	**+0.8**

IDC ***11*** *06:29:40.3±1.4,32°.14S×178°.38W,h0km,mb3.9/4, mbtmp3.9/5,ML3.6/1, Error ellipse: s-maj=38.4km s-min=30.5km az=62.0*

ISC 11 06:29:46.1±1.5,**32°.3S**±0°.1×**178°.6W**±0°.3,**h33**km,**n7, σ0s71/8,mb3.9/4,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**6.90**	**210**	Pn	**Pn**	**06 31 24.6**	**-0.2**
	1.1nm,0.3s,baz=37,slow=15,SNR=6.2						
URZ				Sn	**Sn**	**06 32 41.9**	**-0.3**
	3.2nm,0.3s,baz=18,slow=14,SNR=10.0 3.9nm,0.5s						
URZ				AML	AML		
ASAR	**Alice Springs**	**42.55**	**269**	P	**P**	**06 37 39.6**	**+0.6**
	1.0nm,0.8s,baz=113,slow=8.0,SNR=7.5 1.0nm,0.8s						
WRA	**Warramunga Arr**	**43.72**	**274**	P	**P**	**06 37 48.8**	**+0.5**
	1.5nm,0.6s,baz=115,slow=8.2,SNR=13 1.5nm,0.6s						
FITZ	**Fitzroy Crossi**	**51.89**	**272**	P	**P**	**06 38 51.5**	**-0.3**
	1.3nm,0.8s,baz=126,slow=8.7,SNR=2.0 1.3nm,0.8s						
QSPA	**South Pole Qui**	**57.80**	**180**	P	**P**	**06 39 34.6**	**+0.6**
	1.1nm,1.0s,baz=36,slow=6.0,SNR=21 1.1nm,1.0s						
FINES	**FINESS Array B**	**146.76**	**339**	PKPbc	**PKPdf**	**06 49 22.2**	**+0.1**
	1.2nm,0.4s,baz=40,slow=4.6,SNR=18						
HFS	**Hagfors**	**151.01**	**347**	PKPbc	**PKPbc**	**06 49 33.7**	**-1.1**
	0.7nm,0.5s,baz=57,slow=5.3,SNR=2.6						

BJI ***11*** *06:49:43.0,37°.80N×26°.90E,h13km,mB5.1/5,mb4.8/29*

IDC ***11*** *06:49:43.7±0.4,37°.80N×26°.98E,h0km,mb4.2/28, mbtmp4.2/39,ML3.9/10,MS3.6/19, Error ellipse: s-maj=7.8km s-min=7.4km az=131.0*

MOS ***11*** *06:49:44.2±1.0,37°.92N×26°.98E,h10km,mb4.6/19, Error ellipse: s-maj=6.6km s-min=4.3km az=75.9*

ISK ***11*** *06:49:45.4,37°.85N×26°.97E,h8km,ML4.7/25*

MED_RC ***11*** *06:49:45.0,37°.84N×26°.95E,h12km,Mw4.5,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=0.72±.06; Mθθ=0.72±.05; Mφφ=0.00±.04; Mrθ=0.29±.10; Mθφ=-0.04±.03; Mrφ=0.10±.11; Fault plane solution: M₀0.78000×10¹⁶ NP1:φs101.00000°,δ35.00000°, λ-76.00000°. NP2:φs265.00000°,δ56.00000°, λ-99.00000°. Principal axes: T 0.7800, Plg11.0000°, Azm1.0000°; N 0.0100, Plg8.0000°, Azm270.0000°; P -0.7900, Plg77.0000°, Azm145.0000°;*

ATH ***11*** *06:49:45.9,37°.81N×26°.96E,h16km,ML4.2/6,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

AFAD ***11*** *06:49:45.4,37°.84N×26°.95E,h10km±1km,MW4.5*

MCSM ***11*** *06:49:45.2±0.5,38°.N±3°×2°.7E±°,h12km±3km,mb4.6, mB4.8,MLv4.6,Mw(mB)4.1*

NEIC ***11*** *06:49:46.0±1.6,37°.85N±0°.04×26°.97E±0°.03,h10km±1km, mb4.6/40,Error ellipse: s-maj=7.1km s-min=2.8km az=209.0*

THE ***11*** *06:49:46.0,37°.9N±1°.0×2°.7E±°,h11km±1km,M4.2/20, MLh4.2/20*

GII ***11*** *06:49:46.7±0.0,37°.719N±0°.003×27°.060E±0°.001,h0km, Mws4.5,confirmed*

GFZ ***11*** *06:49:47.9,37°.82N×27°.08E,h15km,Mw4.5/31,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=6.58; Mθθ6.33; Mφφ0.25; Mrθ=1.29; Mθφ2.20; Mφr=0.02; Fault plane solution: M₀6.94266×10¹⁵ NP1:φs68.15771°, δ40.04427°,λ-95.90639°. NP2:φs255.85378°,δ50.21088°, λ-85.05725°. Principal axes: T 7.1470, Plg5.0946°, Azm342.3470°; N -0.4285, Plg3.7961°, Azm72.6860°; P -6.7185, Plg83.6406°, Azm199.2231°.*

GFZ ***11*** *06:49:48.0±0.1,38°.N±2°×2°.7E±°,h10km,M4.5/30, mb4.6/30*

CFUSG ***11*** *06:49:55.4,38°.25N×27°.59E,h37km,MD3.6/2,MSH3.4/6*

NAO ***11*** *06:49:55.1,39°.54N×29°.57E,h10km,MB4.0*

SOF ***11*** *06:50:09.4,39°.55N±0°.07×26°.09E±0°.06,h12km±9km, MD3.7/9*

ISC 11 06:49:46.0±0.5,**37°.85N**±0°.01×**26°.98E**±0°.01,**h15**km±3km, **n483,σ1s57/553,mb4.5/59,MS3.7/9,45C-12D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.18**	**218**	P	**Pg**	**06 49 49.8**	**-0.6**
SMG				S	**Sg**	**06 49 53.5**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**218**	P	**Pg**	**06 49 50.0**	**-0.4**
SMG				S	**Sg**	**06 49 53.1**	**-0.3**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**339**	P	**Pg**	**06 49 50.4**	**-0.5**
DGB				S	**Sg**	**06 49 53.4**	**-0.9**
DGB				IAML		06 49 54.0	
	comp=E,8μm,0.5s						
DGB				IAML		06 49 54.0	
	comp=N,7μm,0.8s						
KRL1	**Karlovasi Samo**	**0.22**	**256**	P	**Pg**	**06 49 50.7**	**-0.4**
KRL1				S	**Sg**	**06 49 54.2**	**-0.3**
GMLD	**Gumuldur**	**0.23**	**348**	Pg	**Pg**	**06 49 50.9**	**-0.3**
GMLD				Sg	**Sg**	**06 49 54.5**	**-0.2**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**88**	Pg	**Pg**	**06 49 51.5**	**+0.1**
KUSD				Sg	**Sg**	**06 49 55.1**	**0.0**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**127**	P	**Pg**	**06 49 51.4**	**-0.1**
GCAM				IAML		06 49 55.0	
	comp=E,13μm,0.4s						
GCAM				S	**Sg**	**06 49 55.3**	**+0.1**
GCAM				IAML		06 49 56.0	
	comp=N,17μm,0.6s						
GCAM	**G?zelcaml?**	**0.25**	**127**	Pg	**Pg**	**06 49 51.5**	**-0.1**
GCAM

KARB IAML 06 50 20.0
comp=E,1µm,0.5s
CAMT Merkez 0.93 16 P Pb 06 50 03.8 -0.2
CAMT S Sg 06 50 16.4 -0.1
CAMT IAML 06 50 19.0
comp=E,5µm,0.6s
CAMT IAML 06 50 19.0
comp=N,3µm,0.5s
EAG2 Marmaro, Chios 0.97 316 P Pb 06 50 04.7 0.0
EAG2 S Sg 06 50 17.7 +0.1
NAZL Nazilli-Aydin 1.04 83 Pg Pb 06 50 05.9 +0.1
NAZL AML AML
ESEN Aydn-Nazilli 1.09 92 P Pb 06 50 06.4 -0.1
ESEN S Sg 06 50 20.8 -0.4
ESEN IAML 06 50 24.0
comp=N,7µm,0.4s
ESEN IAML 06 50 25.0
comp=E,9µm,0.4s
ZEDA zmir-Bergama 1.12 4 P Pb 06 50 06.6 -0.4
ZEDA S Sb 06 50 21.4 0.0
ZEDA IAML 06 50 24.0
comp=E,2µm,0.7s
ZEDA IAML 06 50 25.0
comp=N,1µm,0.3s
GOMA Golmarmara-Man 1.13 41 Pn Pb 06 50 07.0 -0.3
GOMA AML AML
KIRA zmir-Kiraz 1.18 72 P Pn 06 50 07.7 -0.3
KIRA S Sb 06 50 22.2 -0.9
KIRA IAML 06 50 24.0
comp=N,7µm,0.8s
KIRA IAML 06 50 31.0
comp=E,6µm,0.6s
KTTT Salihli 1.21 46 P Pn 06 50 08.0 -0.5
KTTT S Sb 06 50 23.9 -0.2
KTTT IAML 06 50 26.0
comp=N,1µm,0.6s
DAT Datca 1.22 157 P Pn 06 50 08.2 -0.5
DAT S Sb 06 50 23.6 -0.8
DAT AML AML
DAT Datca 1.22 157 Pn Pn 06 50 08.1 -0.5
DAT AML AML
AKS Akhisar 1.22 32 Pn Pn 06 50 08.6 +0.1
AKS Sn Sg 06 50 26.5 +1.0
AKS AML AML
DATC Datca-Mugla 1.22 153 Pn Pn 06 50 08.3 -0.2
DATC AML AML
AKHS Akhisar 1.22 32 P Pn 06 50 07.5 -1.0
AKHS S Sb 06 50 23.2 -1.2
DKL Dikili 1.22 357 Pn Pb 06 50 08.9 +0.1
DKL Sn Sg 06 50 26.2 +0.7
DKL AML AML
DKL Dikili 1.22 357 P Pg 06 50 09.5 0.0
DKL S Sg 06 50 25.2 -0.3
MULA Mugla, Merkez- 1.22 119 P Pn 06 50 08.6 0.0
MULA S Sg 06 50 26.2 +0.7
MULA IAML 06 50 27.0
comp=E,1µm,1.2s
MULA IAML 06 50 29.0
comp=N,7µm,0.8s
YAZI Mula-Datşa- 1.23 162 P Pn 06 50 08.0 -0.6
YAZI S Sg 06 50 25.8 +0.1
YAZI IAML 06 50 30.0
comp=E,4µm,0.9s
YAZI IAML 06 50 33.0
comp=N,3µm,0.7s
YER Yerkesik 1.26 124 P Pn 06 50 09.2 +0.1
YER S Sb 06 50 23.8 -1.7
YER AML AML
YER Yerkesik 1.26 124 Pn Pg 06 50 10.3 0.0
YER AML AML
SOMA Soma-Manisa 1.38 18 Pn Pb 06 50 11.2 -0.3
SOMA AML AML
APE Apeiranthos 1.39 236 P Pn 06 50 10.0 -0.9
APE AML AML
APE Apeiranthos 1.39 236 *i* P Pn 06 50 09.8 -1.2
APE Apeiranthos 1.39 236 ⇑P Pn 06 50 09.7 -1.2
APE Apeiranthos 1.39 236 P Pg 06 50 12.6 -0.2
APE Apeiranthos 1.39 236 Pn Pb 06 50 11.4 -0.4
APE AML AML
APE Apeiranthos 1.39 236 P Pn 06 50 10.4 -0.6
APE S Sn 06 50 27.8 -1.2
APE AML AML
ASTA Astypalaia 1.40 201 P Pn 06 50 10.1 -0.8
ASTA S Sn 06 50 27.6 -1.5
ASTA AML AML
MANT Manisa 1.40 62 P Pn 06 50 10.7 -0.6
MANT S Sn 06 50 29.2 -0.4
MANT IAML 06 50 32.0
comp=E,8µm,0.4s
MANT IAML 06 50 33.0
comp=N,7µm,0.6s
MANT Manisa 1.40 62 Pn 06 50 11.0 -0.2
GORD Gordes-Manisa 1.42 41 Pn Pb 06 50 12.2 0.0
GORD AML AML
SULTU Buldan 1.43 81 P Pn 06 50 11.4 -0.2
SULTU S Sn 06 50 29.6 -0.5
SULTU IAML 06 50 36.0
comp=E,7µm,0.6s
SULTU IAML 06 50 48.0
comp=N,7µm,0.9s
AYVA Ayvalik 1.47 351 P Pb 06 50 12.8 -0.3
AYVA IAML 06 50 39.0
comp=E,7µm,0.6s
AYVA IAML 06 50 45.0
comp=N,8µm,0.7s
TNSA Tinos 1.47 258 P Pn 06 50 10.7 -1.3
TNSA S Sn 06 50 29.5 -1.4
TURN Turunc 1.47 136 P Pn 06 50 11.6 -0.4
TURN S Sb 06 50 32.3 +0.7
TURN IAML 06 50 39.0
comp=N,4µm,0.7s
TURN IAML 06 50 40.0
comp=E,6µm,0.7s
TURN Turunc 1.47 136 Pn Pn 06 50 11.8 -0.2
TURN AML AML
PRK Paraskevi 1.50 339 P Pn 06 50 12.0 -0.4
PRK S Sn 06 50 32.1 +0.4
PRK AML AML
PRK Paraskevi 1.50 339 P Pn 06 50 12.5 +0.1
PRK S Sb 06 50 32.7 +0.3
HARTU Esme 1.52 71 P Pn 06 50 12.6 -0.1
HARTU IAML 06 50 40.0
comp=E,2µm,0.7s
HARTU IAML 06 50 43.0
comp=N,4µm,0.9s
TAVA DENIZLI_Tavas 1.58 103 P Pn 06 50 13.7 +0.1
TAVA IAML 06 50 47.0
comp=E,2µm,0.5s
TAVA IAML 06 50 48.0
comp=N,3µm,0.9s
STEP BALIKESIR_Sava 1.63 21 P Pn 06 50 13.3 -0.9
STEP S Sn 06 50 34.8 -0.1
STEP IAML 06 50 42.0
comp=N,2µm,0.7s
STEP IAML 06 50 45.0
comp=E,1µm,0.8s
DNIZ Denizli-Tavas- 1.65 97 P Pn 06 50 14.8 +0.3
DNIZ S Sg 06 50 39.5 +0.3
DNIZ IAML 06 50 46.0
comp=E,6µm,0.4s
DNIZ IAML 06 50 48.0
comp=N,7µm,1.0s
BUHA Balikesir, Bur 1.65 3 P Pn 06 50 14.3 -0.2
BUHA S Sg 06 50 38.3 -0.9
BUHA IAML 06 50 42.0
comp=N,1µm,0.9s
BUHA IAML 06 50 43.0
comp=E,1µm,0.5s
DALY Dalyan (Mula) 1.69 127 P Pn 06 50 15.2 +0.2
DALY S Sg 06 50 39.0 -1.3
DALY IAML 06 50 47.0
comp=N,8µm,0.8s
DALY IAML 06 50 48.0
comp=E,4µm,0.8s
DNZT Denizli-Tavas- 1.72 109 P Pn 06 50 15.8 +0.2
YAYO Edremit-Balk 1.76 2 Pn Pn 06 50 16.1 +0.1
YAYO AML AML
DEMI Demirci 1.81 48 P Pb 06 50 19.8 +0.8
DEMI S Sb 06 50 42.4 +1.0
DEMI IAML 06 50 48.0
comp=E,5µm,0.4s
DEMI IAML 06 50 50.0
comp=N,4µm,0.7s

USAK Uak-Merkez 1.82 61 P Pn 06 50 16.6 -0.3
ARG Arkhangelos 1.87 150 P Pn 06 50 17.7 +0.2
ARG AML AML
ARG Arkhangelos 1.87 150 P Pn 06 50 17.6 +0.1
ARG Arkhangelos 1.87 150 Pn 06 50 17.6 +0.1
ARG Arkhangelos 1.87 150 P Pn 06 50 17.7 +0.2
SABU Mula-Dalaman 1.89 122 P Pn 06 50 18.1 +0.4
SABU S Sb 06 50 43.1 -0.6
SABU IAML 06 50 53.0
comp=N,4µm,0.6s
SABU IAML 06 50 56.0
comp=E,3µm,0.9s
THERA Ancient Thera, 1.91 220 P Pn 06 50 16.7 -1.3
THERA AML AML
THERA Ancient Thera, 1.91 220 P Pb 06 50 20.3 -0.2
THERA Ancient Thera, 1.91 220 P Pn 06 50 16.8 -1.3
THERA S Sn 06 50 40.4 -1.3
THERA AML AML
BAYC CANAKKALE_Bayr 1.92 350 P Pn 06 50 17.6 -0.6
BAYC IAML 06 50 53.0
comp=E,3µm,1.1s
BAYC IAML 06 50 56.0
comp=N,2µm,0.5s
BALB Balikesir 1.92 21 Pn 06 50 18.8 +0.6
BALB Balikesir 1.92 21 Pn Pn 06 50 19.2 +1.0
BALB AML AML
BALY Balya 1.95 15 P Pn 06 50 18.5 -0.2
BALY S Sn 06 50 43.1 +0.2
BALY IAML 06 50 50.0
comp=E,6µm,0.5s
BALY IAML 06 50 50.0
comp=N,9µm,0.4s
BALY Balya 1.95 15 P Pn 06 50 19.8 +1.1
EZNE Ezine-Canakkal 1.96 346 Pn Pn 06 50 18.1 -0.6
CAEL Denizli, Camel 2.00 111 P Pn 06 50 20.3 +0.9
CAEL IAML 06 51 17.0
comp=N,7µm,1.5s
CAEL IAML 06 51 20.0
comp=E,6µm,0.9s
KARY Karystos 2.02 276 P Pn 06 50 19.2 -0.3
KARY AML AML
KARY Karystos 2.02 276 P Pn 06 50 19.0 -0.5
KARY S Sn 06 50 44.4 -0.1
BKES Balkesir-Mer 2.02 21 P Pn 06 50 19.1 -0.5
BKES S Sb 06 50 49.0 +1.5
BKES IAML 06 50 52.0
comp=E,4µm,0.6s
BKES IAML 06 50 55.0
comp=N,4µm,0.5s
EZN Ezine 2.04 346 P Pn 06 50 19.5 -0.3
EZN AML AML
EZN Ezine 2.04 346 ⇑P Pn 06 50 21.1 +1.3
EZN Ezine 2.04 346 P Pn 06 50 19.4 -0.3
EZN AML AML
SIMV Simav 2.04 51 P Pn 06 50 19.9 0.0
SIMV IAML 06 50 55.0
comp=N,2µm,1.1s
SIMV IAML 06 50 58.0
comp=E,3µm,0.6s
PASA Karahalli, USA 2.04 75 P Pn 06 50 20.2 +0.3
PASA IAML 06 50 58.0
comp=N,2µm,0.9s
PASA IAML 06 51 00.0
comp=E,1µm,1.0s
INCE Denizli-Bozkur 2.06 93 P Pn 06 50 20.7 +0.5
INCE IAML 06 50 59.0
comp=N,2µm,1.0s
INCE IAML 06 51 14.0
comp=E,1µm,0.8s
DURS Dursunbey 2.10 33 P Pn 06 50 20.2 -0.6
DURS IAML 06 50 56.0
comp=N,4µm,0.5s
DURS IAML 06 51 02.0
comp=E,5µm,0.5s
BOZC Bozcaada 2.12 340 P Pn 06 50 20.4 -0.5
BOZC S Sg 06 50 52.9 -1.2
BOZC IAML 06 50 54.0
comp=N,5µm,0.7s
BOZC IAML 06 51 04.0
comp=E,4µm,0.9s
GOLH Golhisar 2.14 106 P Pn 06 50 22.3 +1.0
GOLH IAML 06 51 16.0
comp=E,3µm,1.3s
GOLH IAML 06 51 17.0
comp=N,2µm,1.3s
BLKS Balkesir-Sus 2.16 21 P Pn 06 50 21.5 -0.1
BLKS IAML 06 51 01.0
comp=N,2µm,1.3s
BLKS IAML 06 51 02.0
comp=E,2µm,0.9s
CNKL anakkale-Mer 2.26 348 P Pn 06 50 22.6 -0.3
CNKL IAML 06 51 05.0
comp=N,3µm,1.5s
CNKL IAML 06 51 06.0
comp=E,4µm,1.4s
ECEA Canakkale, Ece 2.28 344 P Pn 06 50 23.9 +0.9
ECEA S Sb 06 50 57.0 +2.1
ECEA IAML 06 51 02.0
comp=N,8µm,0.5s
ECEA IAML 06 51 04.0
comp=E,6µm,0.6s
IZZE Mula-Seydike 2.28 127 P Pn 06 50 24.0 +0.8
IZZE S Sn 06 50 52.6 +1.6
IZZE IAML 06 51 04.0
comp=N,4µm,0.5s
IZZE IAML 06 51 10.0
comp=E,3µm,0.5s
KNIK Mula-Seydike 2.30 115 P Pn 06 50 24.5 +1.0
KARP Karpathos 2.30 176 P Pn 06 50 23.0 -0.4
KARP AML AML
KARP Karpathos 2.30 176 Pn 06 50 23.1 -0.4
KARP Karpathos 2.30 176 P Pn 06 50 22.9 -0.6
KARP AML AML
KARP Karpathos 2.30 176 P Pn 06 50 23.4 -0.1
KARP AML AML
KARP Karpathos 2.30 176 P Pn 06 50 23.5 +0.1
KARP Karpathos 2.30 176 P Pn 06 50 23.2 -0.2
KARP AML AML
GDZ Gediz 2.32 57 P Pn 06 50 23.9 +0.1
EMET Ktahya-Emet 2.38 50 P Pn 06 50 24.7 +0.1
KYMI Kymi, Euboea I 2.40 290 P Pn 06 50 24.6 -0.1
KYMI AML AML
LAPS Lapseki, ANA 2.40 357 P Pn 06 50 24.1 -0.7
LAPS IAML 06 51 06.0
comp=E,4µm,0.5s
LAPS IAML 06 51 06.0
comp=N,2µm,0.5s
DION Dionisos Attik 2.42 276 P Pn 06 50 24.8 -0.2
DION AML AML
BNAZ Uak-Banaz 2.43 69 P Pn 06 50 26.1 +0.9
BNAZ IAML 06 51 06.0
comp=N,3µm,0.6s
BNAZ IAML 06 51 18.0
comp=E,3µm,0.9s
GOAD anakkale-G¶ 2.45 340 P Pn 06 50 25.2 -0.3
GOAD S Sb 06 51 01.0 +1.2
GOAD IAML 06 51 06.0
comp=N,3µm,0.7s
GOAD IAML 06 51 07.0
comp=E,3µm,0.5s
PTL Penteli 2.47 276 P Pn 06 50 25.5 -0.2
PTL AML AML
LIA Limnos Island 2.48 326 P Pn 06 50 25.8 0.0
LIA AML AML
GADA Gvkgeada 2.48 341 P Pn 06 50 25.9 0.0
GADA AML AML
VLY Voula,Athens 2.52 271 P Pn 06 50 26.2 -0.2
ELL Elmali 2.58 114 P Pn 06 50 29.3 +1.9
ELL Elmali 2.58 114 Pn 06 50 29.3 +1.9
BAND Balkesir-Ban 2.65 19 ⇑P Pn 06 50 29.9 +1.7
AKAS Kas 2.65 127 P Pn 06 50 29.7 +1.4
AKAS Kas 2.65 127 Pn 06 50 29.8 +1.5
AKAS Kas 2.65 127 P Pn 06 50 30.2 +1.9
AFYO Afyonkarahisar 2.77 69 P Pn 06 50 30.9 +0.8
AFYO IAML 06 51 26.0
comp=N,3µm,1.2s
AFYO IAML 06 51 27.0
comp=E,3µm,1.4s
ZKR Zakros 2.80 193 P Pb 06 50 33.9 -1.9
ISP Isparta 2.81 89 *i* P Pn 06 50 30.8 +0.4
ISP Isparta 2.81 89 Pn 06 50 30.3 -0.2
ANDZ Kutahya, Merke 2.82 53 P Pb 06 50 36.1 -0.1
ANDZ IAML 06 51 24.0
comp=E,2µm,0.7s
ANDZ IAML 06 51 29.0
comp=N,1µm,0.7s
YYLC Yaylacik 2.84 30 P Pb 06 50 38.2 +1.8
DOMA Ktahya-Doman 2.87 47 P Pb 06 50 38.8 +1.8
DOMA S Sg 06 51 15.5 -2.8
CAVK Edirne/Enez-Ca 2.91 348 ⇓P Pn 06 50 31.0 -0.7
KESN Edirne-Kesan 2.98 356 P Pn 06 50 32.8 -0.3
IDI Anoyia 3.06 214 Pn Pn 06 50 33.2 -0.7
28nm,0.6s,baz=31,slow=15,SNR=17
IDI Pg Pb 06 50 40.5 +0.3
30nm,0.3s,baz=44,slow=12,SNR=22
IDI Sn Sn 06 51 08.7 -1.6
16nm,0.3s,baz=308,slow=19,SNR=3.9
IDI Lg Lg 06 51 22.1
19nm,0.3s,baz=322,slow=19,SNR=7.3
IDI Anoyia 3.06 214 Pn 06 50 34.5 +0.6
ALN Alexandroupoli 3.13 347 P Pn 06 50 34.8 0.0
ALN Alexandroupoli 3.13 347 Pn 06 50 34.8 0.0
ALN Alexandroupoli 3.13 347 P Pn 06 50 35.1 +0.3
BILE Bilecik/Merkez 3.23 43 P Pg 06 50 46.1 -1.7
BILE S Sg 06 51 27.3 -2.4
KURO Afyon-Bolvadin 3.23 73 P Pn 06 50 36.7 +0.3
KURO IAML 06 51 38.0
comp=N,251nm,1.0s
KURO IAML 06 52 00.0
comp=E,160nm,1.6s
MURA Muratl, TEK 3.32 7 P Pb 06 50 44.6 0.0
KLYT Kilyos 3.75 25 ⇑P Pg 06 50 55.7 -2.2
CTYL Yalikoy Yolu 3.76 15 ⇑P Pn 06 50 41.5 -2.0
CTYL Yalikoy Yolu 3.76 15 P Pn 06 50 42.9 -0.5
CTYL AML AML
PHSR Pinarhisar 3.80 6 ⇑P Pn 06 50 47.4 +3.4
KEPZ Antalya-Kepez 3.80 103 ⇑P Pn 06 50 45.3 +1.2
GVD Gavdhos 3.81 219 P Pb 06 50 50.2 +2.6
AGG Agios Georgios 3.83 289 P Pn 06 50 45.0 +0.5
AGG Agios Georgios 3.83 289 Pn Pn 06 50 45.0 +0.5
SILT Sile 3.89 31 ⇑P Pb 06 50 53.3 -1.0
KDZ Kurdzhali 3.98 342 P Pn 06 50 46.7 +0.2
ITM Ithomi 4.07 262 Pn 06 50 48.9 +1.2
ITM Ithomi 4.07 262 P Pb 06 50 52.8 -4.6
SOH Sokhos 4.09 318 P Pn 06 50 51.4 +3.4
THE Thessaloniki 4.17 313 P Pn 06 50 53.4 +4.3
SRS Serrai 4.18 322 P Pb 06 50 54.5 -4.8
RZN Rozhen 4.21 336 P Pn 06 50 50.3 +0.5
SAHE Sakarya_HENDEK 4.24 44 ⇓P Pg 06 51 05.9 -1.5
DIM Dimitrovgrad 4.33 346 P Pn 06 50 51.7 +0.5
MMB Musomishta 4.45 327 P Pn 06 50 53.9 +0.9
KNT Kendrikon 4.57 318 P Pn 06 50 54.9 +0.2
PLD Plovdiv 4.62 339 P Pn 06 50 55.9 +0.6
GRG Griva 4.71 313 P Pn 06 51 00.5 +3.9
KKUL Konya-Kulu 4.84 72 P Pn 06 51 01.0 +2.6
VAY Valandovo 4.86 317 *i* Pn Pg 06 51 18.1 -1.0
KKB Krupnik 4.97 325 P Pn 06 51 01.4 +1.3
PEHC Pehcevo 5.03 323 *i* Pn Pn 06 51 06.7 +5.7
ELND Elena 5.14 351 ⇑P Pn 06 51 01.7 -0.8
PLNA Plana 5.36 331 P Pn 06 51 07.1 +1.5
NEF NEVSHA 5.41 2 P Pn 06 51 07.0 +0.8
BR105 Keskin Array S 5.51 68 P Pn 06 51 08.9 +1.2
0.4nm845nm69nm,1.0s
BR105 AML AML
BR106 Keskin Array S 5.52 68 P Pn 06 51 08.9 +1.2
0.3nm623nm57nm,1.0s
BR106 AML AML
LOZB Loznitsa 5.52 357 ⇓P Pn 06 51 06.4 -1.3
BR104 Keskin Array S 5.53 68 P Pn 06 51 09.0 +1.1
0.2nm549nm53nm,0.9s
BR104 AML AML
BR131 Keskin Array S 5.53 68 *i* P Pn 06 51 08.9 +1.0
BR131 Keskin Array S 5.53 68 Pn 06 51 09.6 +1.7
BRTR Keskin Array B 5.53 68 Pn Pn 06 51 09.4 +1.5
4.5nm,0.3s,baz=250,slow=14,SNR=82
BRTR Lg Lg 06 52 42.4
baz=264,slow=26
32nm,0.7s
BRTR AML AML
BRTR Keskin Array B 5.53 68 *i* P Pn 06 51 09.5 +1.5
BRTR pmax pmax
comp=Z,32nm,0.7s
BRTR Keskin Array B 5.53 68 Pn 06 51 08.6 +0.7
KBN Korca 5.55 302 P Pn 06 51 14.1 +6.0
comp=Z,137nm,1.1s
VTS Vitosha 5.56 330 P Pn 06 51 09.3 +1.0
KIRS Kirsehir-Merke 5.59 75 ⇓P Pn 06 51 10.8 +2.0
RAZG Razgrad 5.72 357 ⇑P Pn 06 51 09.0 -1.4
OHR Ohrid 5.78 306 *i* Pn Pb 06 51 20.9 -5.7
PLVB Pleven 5.81 343 ⇑P Pn 06 51 11.2 -0.4
CSS Mathiatis 5.88 117 Pn 06 51 13.1 +0.5
CSS Mathiatis 5.88 117 P Pn 06 51 13.2 +0.6
comp=Z,0.3nmcomp=Z,671nmcomp=Z,81nm,0.6s
CSS AML AML
CSS Mathiatis 5.88 117 P Pn 06 51 15.9 +3.3
comp=Z,0.3nmcomp=Z,671nmcomp=Z,81nm,0.6s
CSS AML AML
CSS Mathiatis 5.88 117 P Pn 06 51 13.6 +1.0
comp=Z,81nm,0.6s
CSS Mathiatis 5.88 117 P Pn 06 51 11.1 -1.5
CSS S Sn 06 52 16.9 -2.8
MPEP Malo Peshtene 6.03 337 P Pn 06 51 15.5 +0.9
ILGA Ilgaz 6.12 56 Pn 06 51 18.2 +2.2
ICOR Ion Corvin 6.29 5 ⇑P Pn 06 51 18.6 +0.4
VLAD Vladila 6.44 343 ⇑P Pn 06 51 20.6 +0.2
BLKB Belogradchik 6.63 332 ⇑P Pn 06 51 23.7 +0.8
TIRR Tirgusor 6.69 9 P Pn 06 51 24.1 +0.4
TIRR Tirgusor 6.69 9 Pn Pn 06 51 24.1 +0.4
BZK Bozkurt 6.78 51 Pn Pn 06 51 26.1 +1.1
BZK Bozkurt 6.78 51 ⇑P Pg 06 51 50.2 -5.7
HUMR Humele 6.84 348 ⇑P Pn 06 51 24.0 -1.7
HUMR Humele 6.84 348 P Pn 06 51 28.1 +2.3
comp=Z,206nm,0.9s
BOVS Bovan 7.03 327 ⇑P Pn 06 51 28.1 -0.3
CY604 RAF Akrotiri, 7.03 118 Pn 06 51 28.4 +0.2
BNN Bunyan 7.04 79 Pn 06 51 29.2 +0.5
TPGR Topolog 7.08 8 ⇑P Pb 06 51 40.8 -7.9
ISR Istrita 7.27 358 ⇑P Pn 06 51 32.2 +0.5
CFR Carcaliu 7.37 6 ⇓P Pn 06 51 32.3 -0.7
SRE Strehaia 7.37 339 ⇓P Pn 06 51 34.7 +1.6
ANDN Andirin 7.43 89 P Pn 06 51 37.9 +3.9
comp=Z,90nm,1.0s
TLCR 7.46 10 ⇑P Pn 06 51 37.3 +3.1
MTUR Matau 7.51 350 ⇑P Pn 06 51 36.7 +1.7
MLR Muntele Rosu 7.67 355 Pn Pn 06 51 37.1 -0.2
comp=Z,1.0nm,0.3s,baz=270,slow=24,SNR=17
MLR Lg Lg 06 53 48.3
comp=Z,0.8nm,0.3s,baz=84,slow=18,SNR=3.3
MLR LR LR 06 54 10.8
comp=Z,367nm,22.0s,baz=181,slow=35
comp=Z,15nm,0.9s
MLR AML AML
MLR Muntele Rosu 7.67 355 P Pn 06 51 38.7 +1.4
MLR Muntele Rosu 7.67 355 Pn 06 51 38.7 +1.4
MLR Muntele Rosu 7.67 355 ⇓P Pn 06 51 38.5 +1.2
MLR Muntele Rosu 7.67 355 ⇑P Pn 06 51 39.4 +2.1
MLR Muntele Rosu 7.67 355 P Pn 06 51 41.5 +4.2
comp=Z,88nm,1.1s
BISRR Bisoca 7.69 359 ⇑P Pn 06 51 39.5 +1.9
ARR Arges 7.71 348 ⇓P Pn 06 51 40.7 +2.9
ARR Arges 7.71 348 P Pn 06 51 40.9 +3.1
comp=Z,25nm,1.1s
VOIR 7.72 350 ⇑P Pn 06 51 38.1 +0.2
VOIR 7.72 350 P Pn 06 51 39.3 +1.4
comp=Z,40nm,1.1s
HERR Herculane 7.81 335 ⇑P Pn 06 51 35.0 -4.1
SAHR Sahastru 7.87 359 ⇓P Pn 06 51 41.3 +1.3
LOT Lotru 7.96 343 ⇓P Pn 06 51 40.9 -0.3
LOT Lotru 7.96 343 P Pn 06 51 44.2 +3.0
comp=Z,40nm,0.9s
MDVR Moldovita 7.98 332 ⇑P Pn 06 51 40.4 -1.0
PLOR Plostina 8.00 358 ⇑P Pn 06 51 43.4 +1.7
COVR Voineasa-Covas 8.01 356 ⇑P Pn 06 51 42.5 +0.6
VRI Vrincioaia 8.01 359 ⇑P Pn 06 51 42.3 +0.5
VRI Vrincioaia 8.01 359 P Pn 06 51 45.6 +3.7
comp=Z,75nm,0.8s
TIP Timpagrande 8.12 283 Pn 06 51 44.2 +0.8
TIP Timpagrande 8.12 283 ⇑P Pn 06 51 44.7 +1.3
TIP Timpagrande 8.12 283 P Pn 06 51 45.4 +2.0
comp=Z,36nm,1.4s
GAZ Gaziantep 8.16 92 Pn Pn 06 51 44.5 +0.5
GZR Gura Zlata 8.16 339 ⇑P Pn 06 51 43.6 -0.4
DOPR Dopca 8.20 352 ⇑P Pn 06 51 44.9 +0.5
GHRR 8.21 2 P Pn 06 51 48.2 +3.7
comp=Z,167nm,0.8s
TURR Turia 8.23 355 ⇑P Pn 06 51 45.9 +1.0

OZUR 8.29 354 ⇑P Pn 06 51 45.9 +0.2
SEV Sevastopol' 8.37 35 *e*P Pn 06 51 46.4 -0.4
SEV *e*S Sn 06 53 14.5 -6.5
SEV Sevastopol' 8.37 35 *e*P Pn 06 51 46.4 -0.4
SEV pmax pmax 06 51 50.2
comp=Z,2.0nm,0.3s
SEV *e*S Sn 06 53 14.5 -6.5
SEV smax smax 06 53 18.0
comp=N,6.0nm,0.3s
SEV smax smax 06 53 18.2
comp=E,1.0nm,0.2s
MMA0B Mount Meron ar 8.40 123 P Pn 06 51 46.5 -0.7
MMA0B S Sn 06 53 19.6 -2.2
MMAI Mount Meron Ar 8.40 123 Pn Pn 06 51 45.7 -1.5
comp=E,8.4nm,0.3s,baz=325,slow=16,SNR=19
MMAI Sn Sn 06 53 15.0 -6.8
comp=E,17nm,0.3s,baz=314,slow=29,SNR=8.3
MMAI LR LR 06 55 33.3
comp=E,232nm,18.3s,baz=310,slow=42
comp=E,7.0nm,0.4s
MMAI AML AML
GEM Giv'at Ha'Em 8.46 121 P Pn 06 51 48.7 +0.7
GEM Giv'at Ha'Em 8.46 121 P Pn 06 51 47.5 -0.4
GEM S Sn 06 53 20.9 -2.3
NATI Neve Ativ 8.48 120 P Pn 06 51 47.3 -0.9
NATI S Sn 06 53 20.6 -3.0
ONER Baraj Valea Uz 8.49 357 ⇑P Pn 06 51 47.9 -0.5
MDB Medias 8.51 348 ⇑P Pn 06 51 51.5 +2.8
YAL Yalta 8.55 37 *e*S Sn 06 53 20.5 -5.0
YAL smax smax 06 53 23.3
comp=N,26nm,0.5s
YAL smax smax 06 53 23.3
comp=E,9.0nm,0.3s
DEV Deva 8.58 341 P Pn 06 51 53.9 +4.2
comp=Z,41nm,1.0s
TARU Tarkhankut 8.59 27 *e*P Pn 06 51 52.6 +2.9
TARU pmax pmax 06 52 02.1
comp=Z,15nm,0.5s
TARU *e*S Sn 06 53 21.3 -5.0
TARU smax smax 06 53 25.5
comp=N,12nm,0.3s
TARU smax smax 06 53 25.5
comp=E,11nm,0.4s
KNHM Kefar Nahum 8.59 123 P Pn 06 51 48.6 -1.3
KNHM S Sn 06 53 23.4 -3.1
TESR Tescani 8.66 358 ⇑P Pn 06 51 50.5 -0.2
TESR Tescani 8.66 358 P Pn 06 51 51.2 +0.5
comp=E,52nm,0.8s
TESR Tescani 8.66 358 P Pn 06 51 52.1 +1.4
comp=Z,53nm,0.8s
SURR Surduc 8.69 337 ⇑P Pn 06 51 52.0 +0.9
BZS Buzias 8.73 334 P Pn 06 51 53.1 +1.4
comp=Z,24nm,0.8s
CEL Celeste 8.76 276 Pn Pn 06 51 52.6 +0.5
MMLI Mount Malkishu 8.77 125 P Pn 06 51 52.8 +0.5
comp=Z,32nm,0.7s
MMLI Mount Malkishu 8.77 125 P Pn 06 51 51.1 -1.2
MMLI S Sn 06 53 28.0 -3.0
ALU Alushta 8.82 37 *e*S Sn 06 53 28.1 -3.8
ALU smax smax 06 53 36.6
comp=N,108nm,0.4s
ALU smax smax 06 53 36.6
comp=E,16nm,0.4s
DNZ2 Donuzlav2 8.85 30 *e*S Sn 06 53 27.8 -4.8
DNZ2 smax smax 06 53 34.9
comp=N,10.0nm,0.3s
DNZ2 smax smax 06 53 34.9
comp=E,5.0nm,0.4s
SALP Salfit 8.87 128 P Pn 06 52 01.7 +8.0
SIM Simferopol' 8.89 35 P Pn 06 51 50.0 -3.8
SIM *e*S Sn 06 53 27.0 -6.7
SIM pmax pmax
comp=Z,30nm,0.8s
SIM smax smax
comp=E,104nm,1.0s
SIM smax smax
comp=N,96nm,0.9s
QRNJ Al-Qirein 8.94 125 P Pn 06 51 55.1 +0.6
comp=N,34nmcomp=N,48µmcomp=N,8µm,0.8s
QRNJ AML AML
CUC Castrocucco 8.96 287 Pn 06 51 54.7 -0.2
CUC Castrocucco 8.96 287 P Pn 06 51 57.1 +2.2
comp=Z,24nm,0.8s
MARCO Tramutola 9.03 289 P Pn 06 52 03.0 +7.2
comp=Z,50nm,1.1s
ACER Acerenza 9.04 292 Pn 06 51 55.9 -0.1
BIZ Bicaz 9.11 356 ⇑P Pn 06 51 50.8 -6.1
KEMA Kemaliye 9.13 78 P Pn 06 52 00.4 +3.1
comp=Z,42nm,0.9s
KZIT Kziot 9.25 136 P Pn 06 51 58.5 -0.3
comp=Z,2µmcomp=Z,227nm,0.8s
KZIT Kziot 9.25 136 P Pn 06 51 58.1 -0.8
comp=Z,227nm,0.8s
KZIT Kziot 9.25 136 P Pn 06 51 57.4 -1.4
KZIT S Sn 06 53 39.6 -3.0
SUDU Sudak 9.26 38 *e*S Sn 06 53 37.1 -5.7
SUDU smax smax 06 53 43.3
comp=N,66nm,0.5s
SUDU smax smax 06 53 43.3
comp=E,21nm,0.5s
MARR Marisel-Cluj 9.27 343 ⇓P Pn 06 51 57.5 -1.7
MSBI Mazada 9.50 131 P Pn 06 52 03.6 +1.4
comp=Z,31nm,0.9s
MSBI Mazada 9.50 131 P Pn 06 52 01.0 -1.2
MSBI S Sn 06 53 45.9 -2.7
GHAJ Ghor Haditha 9.63 130 Pn 06 52 04.3 +0.3
GHAJ Ghor Haditha 9.63 130 P Pn 06 52 09.4 +5.4
comp=Z,684nmcomp=Z,38nm,0.6s
GHAJ Ghor Haditha 9.63 130 P Pn 06 52 07.2 +3.2
comp=Z,38nm,0.6s
GHAJ Ghor Haditha 9.63 130 P Pn 06 52 02.5 -1.6
GHAJ S Sn 06 53 49.0 -2.9
RMNI Mount Ramon 9.69 136 P Pn 06 52 03.5 -1.4
RMNI S Sn 06 53 50.5 -3.0
BURAR Bucovina Array 9.84 353 Pn 06 52 08.7 +1.7
BURAR Bucovina Array 9.84 353 ⇓P Pn 06 52 08.0 +0.9
ASF Jabal al Asfar 9.88 122 Pn Pn 06 52 06.8 -1.2
comp=Z,0.8nm,0.3s,baz=308,slow=13,SNR=8.4
ASF Sn Sn 06 53 52.7 -6.3
comp=Z,0.4nm,0.3s,baz=249,slow=18,SNR=1.6
ASF LR LR 06 56 57.8
comp=Z,257nm,18.1s,baz=280,slow=44
comp=Z,5.3nm,0.6s
ASF AML AML
ASF Jabal al Asfar 9.88 122 P Pn 06 52 10.8 +2.8
comp=Z,122nm,0.9s
BUR08 Bucovina Ar. S 9.88 353 Pn 06 52 08.5 +1.0
PRNI Paran 10.01 136 P Pn 06 52 10.3 +1.0
comp=Z,110nm,0.8s
BLY Banja Luka 10.08 316 Pn 06 52 11.2 +1.0
BLY Banja Luka 10.08 316 P Pn 06 52 13.8 +3.5
comp=Z,25nm,1.1s
HRFI Mount Harif 10.27 137 P Pn 06 52 11.9 -1.0
comp=Z,38nm,0.6s
HRFI Mount Harif 10.27 137 P Pn 06 52 11.6 -1.3
HRFI S Sn 06 54 04.7 -3.1
SORM Soroca 10.33 5 P Pn 06 52 14.3 +0.8
comp=Z,3µmcomp=Z,19nm,0.9s
MORH Mrgy, Hungar 10.40 326 P Pn 06 52 14.4 -0.1
comp=Z,9.5nm,0.7s
MORH Mrgy, Hungar 10.40 326 P Pn 06 52 18.7 +4.1
comp=Z,8.4nm,1.0s
EIL Elat 10.51 139 Pn Pn 06 52 14.0 -2.2
comp=Z,1.8nm,0.3s,baz=350,slow=19,SNR=9.7
EIL Sn Sn 06 54 03.8 -10
comp=Z,3.1nm,0.3s,baz=30,slow=20,SNR=5.8
EIL LR LR 06 58 10.0
comp=Z,112nm,18.6s,baz=314,slow=48
comp=Z,7.6nm,0.5s
EIL AML AML
EIL Elat 10.51 139 P Pn 06 52 16.2 0.0
comp=Z,26nm,0.8s
EIL Elat 10.51 139 P Pn 06 52 15.8 -0.3
comp=Z,26nm,0.8s
EIL Elat 10.51 139 P Pn 06 52 13.3 -2.8
EIL S Sn 06 54 10.5 -3.2
AQBJ Aqaba 10.52 138 P Pn 06 52 24.9 +8.7
SOC Sochi 11.23 55 *e*P Pn 06 52 26.7 +0.8
SOC *e* 06 54 32.9
SOC MLR MLR
comp=Z,311nm,13.0s
PSZ Piszkesteto 11.32 335 P Pn 06 52 28.1 +0.9
PSZ Piszkesteto 11.32 335 Pn 06 52 28.1 +0.9
PSZ Piszkesteto 11.32 335 P Pn 06 52 30.0 +2.9
comp=Z,12nm,0.9s

MPLH Magyarpolny 11.62 326 P Pn 06 52 35.1 +3.8
comp=Z,19nm,1.0s
KECS Kecovo 11.63 338 *e*PN Pn 06 52 36.1 +4.7
LUBAR Lubar, Ukraine 12.08 2 P Pn 06 52 36.9 -0.6
ARSA Arzberg 12.62 322 Pn 06 52 45.6 +0.7
ARSA Arzberg 12.62 322 P Pn 06 52 45.9 +1.0
comp=Z,80nm,0.7s
ARSA Arzberg 12.62 322 *e*Sg Pn 06 52 45.1 +0.2
comp=Z,4.4nm,0.1s
EPOS Posof 12.67 68 P Pn 06 52 50.6 +4.8
comp=Z,25nm,1.2s
ERBR Yeremizino-Bor 12.77 48 *e*P Pn 06 52 48.0 +1.1
ERBR pmax pmax
comp=Z,19nm,0.8s
AKASG Malin Array Be 12.95 6 Pn Pn 06 52 49.5 +0.2
comp=Z,0.6nm,0.3s,baz=194,slow=12,SNR=4.8
AKASG LR LR 06 58 24.1
comp=Z,100nm,18.6s,baz=169,slow=40
AKASG AML AML
AKBB Malin Array Si 12.95 6 *i* P Pn 06 52 48.8 -0.5
AK18 Malin Array Si 12.96 6 P Pn 06 52 49.0 -0.4
AK20 Malin Array Si 12.97 6 P Pn 06 52 50.3 +0.6
AK03 Malin Array Si 12.97 6 P Pn 06 52 50.4 +0.7
AK21 Malin Array Si 13.01 6 P Pn 06 52 50.7 +0.5
KIV Kislovodsk 13.35 58 *e*P Pn 06 52 53.6 -1.3
KIV pmax pmax
comp=Z,7.0nm,1.1s
KIV MLR MLR
comp=Z,133nm,13.0s
KVAR Kislovodsk Arr 13.35 58 LR LR 06 58 45.8
comp=Z,174nm,18.3s,baz=83,slow=40
RNPP5 Staryi Chortor 13.40 357 P Pn 06 52 56.2 +0.7
KBZ Khabaz 13.41 59 Pn Pn 06 52 57.0 +1.4
comp=Z,0.7nm,0.6s,baz=242,slow=9.9,SNR=1.0
KBZ LR LR 06 59 13.1
comp=Z,169nm,18.6s,baz=256,slow=42
KBZ Khabaz 13.41 59 *i* P Pn 06 52 56.6 +1.0
RNPP8 Varash 13.51 357 P Pn 06 52 58.2 +1.2
KBA Koelnbreinsper 13.63 317 P Pn 06 53 02.9 +4.0
comp=Z,9.1nm,1.0s
VRAC Vranov 13.69 330 Pn Pn 06 53 01.1 +1.6
comp=Z,0.3nm,0.3s,baz=146,slow=15,SNR=1.3
comp=Z,1.9nm,0.4s
VRAC AML AML
GNI Garni 14.01 75 *i* P Pn 06 53 03.3 -0.7
KEST Kesra 14.29 267 Pn Pn 06 53 07.2 -0.7
comp=Z,0.4nm,0.3s,baz=113,slow=8.9,SNR=2.1
comp=Z,1.7nm,0.5s
KEST AML AML
PGF Pioggiola 14.52 294 P P 06 53 15.4 -2.1
comp=Z,6.9nm,1.0s
GERES GERESS Array B 14.61 323 Pn Pn 06 53 15.1 +3.0
baz=134,slow=11,SNR=16
GERES LR LR 06 59 59.2
comp=Z,184nm,19.0s,baz=320,slow=42
comp=Z,0.2nm,0.3s
GERES GERESS Array B 14.61 323 P Pn 06 53 13.6 +1.5
GERES GERESS Array B 14.61 323 Pn Pn 06 53 13.6 +1.5
DPC Dobruska-Polom 14.63 332 P Pn 06 53 13.1 +0.7
comp=Z,4.9nm,1.0s
KHC Kasperske Hory 14.86 324 *i* P Pn 06 53 13.6 -2.0
KHC Kasperske Hory 14.86 324 *e*P P 06 53 23.5 +2.2
KHC *ex* x 06 53 27.8
WET Wettzell 15.21 322 P P 06 53 27.2 +2.1
comp=Z,14nm,1.0s
DAVOX Davos/Dischmat 15.45 311 Pn Pn 06 53 22.2 -1.3
comp=Z,0.4nm,0.3s,baz=173,slow=18,SNR=3.8
DAVOX LR LR 07 00 02.9
comp=Z,103nm,18.3s,baz=136,slow=40
comp=Z,1.3nm,0.4s
DAVOX AML AML
VORD Divnogorie 15.76 30 *e*P Pn 06 53 28.7 +1.4
VORD pmax pmax
comp=Z,10.0nm,1.0s
VSR Storozhevoye 15.91 29 *e*P Pn 06 53 30.7 +1.5
VSR pmax pmax
comp=Z,20nm,0.9s
TANN Tannenbergstha 16.28 325 P P 06 53 39.2 +2.2
comp=Z,9.7nm,1.0s
VORR Voronezh 16.29 28 *e*P Pn 06 53 31.2 -2.9
VORR pmax pmax
comp=Z,50nm,0.4s
BNALP Bannalp 16.38 309 P P 06 53 40.7 +2.5
comp=Z,12nm,1.0s
MNK Minsk 16.67 2 *i* P Pn 06 53 36.6 -2.2
MNK *i* S Sn 06 56 41.1 -2.4
MNK pmax pmax
comp=Z,7.0nm,0.5s
MNK pmax pmax
comp=N,12nm,0.9s
MNK pmax pmax
comp=E,17nm,0.7s
MNK MLR MLR
comp=Z,122nm,15.0s
MNK MLR MLR
comp=E,106nm,15.0s
MNK MLR MLR
comp=N,24nm,11.0s
MNK Minsk 16.67 2 *i* P Pn 06 53 36.7 -2.2
comp=E,17nm,0.7s
MNK *i* P Pn 06 53 36.7 -2.2
comp=N,12nm,0.9s
MNK *i* P Pn 06 53 36.7 -2.2
comp=Z,7.0nm,0.5s,baz=182
MNK *i* PP sP 06 53 46.3 -1.1
MNK *i* PPP PPP 06 53 53.3
MNK *i* S Sn 06 56 41.1 -2.4
MNK *i* SS S 06 56 55.6 +0.9
MNK *i* SSS SSS 06 57 08.1
MNK *i* LQ LQ 06 58 29.7
MNK *i* LR LR 06 59 27.2
MNK *i* LRM MLR 07 00 33.6
comp=Z,122nm,15.4s
MNK *i* LRM MLR 07 00 37.7
comp=E,106nm,14.5s
MNK *i* LRM MLR 07 01 08.3
comp=N,24nm,11.1s
CLL Collm 16.70 328 *i* P Pn 06 53 39.6 +0.3
CLL pmax pmax
comp=Z,8.0nm,1.2s
CLL MLR MLR
comp=Z,600nm,9.5s
CLL Collm 16.70 328 *i* P Pn 06 53 39.6 +0.3
comp=Z,8.0nm,1.2s
CLL *i* x x 06 53 42.3
CLL *i* x x 06 53 52.5
CLL LQ LQ 06 58 00.0
CLL AMS AMS 06 59 00.0
comp=N,300nm,18.1s
CLL AMS AMS 06 59 00.0
comp=E,400nm,15.9s
CLL AMS AMS 07 01 00.0
comp=Z,600nm,11.4s
SLE Schleitheim 16.76 312 P P 06 53 43.2 +0.9
comp=Z,9.0nm,1.1s
MOX Moxa 16.83 324 P P 06 53 45.9 +2.9
comp=Z,11nm,1.2s
SENIN Lac Senin/Sane 16.87 307 P 06 53 44.0 +0.3
LPSR Galich'ya Gora 16.95 26 *e*P Pn 06 53 43.1 +0.7
LPSR pmax pmax
comp=Z,20nm,0.9s
VRH Novokhopyorsk 16.95 33 *e*P Pn 06 53 43.4 +1.0
VRH pmax pmax
comp=Z,20nm,0.3s
NACGM Naroch 17.06 360 *e*P P 06 53 45.1 -0.4
comp=Z,24nm,1.1s,baz=180
PABE Paberze 17.78 354 Pn Pn 06 53 52.2 -0.5
PABE IAmb IAmb 06 53 58.1
comp=Z,34nm,0.8s
PABE Paberze 17.78 354 P Pn 06 53 52.3 -0.4
comp=Z,45nm,0.9s
OBN Obninsk 18.46 18 LR LR 07 01 18.3
comp=Z,217nm,19.6s,baz=128,slow=38
OBN Obninsk 18.46 18 ⇓*e*P P 06 54 01.0 +0.1
OBN *e*S Sn 06 57 15.0 -12
OBN pmax pmax
comp=Z,7.0nm,0.4s
OBN MLR MLR
comp=Z,174nm,15.0s
MOS Moscow 19.28 18 *e*P Pn 06 54 12.4 +1.4
BELG Belogornoye 20.48 38 P P 06 54 21.6 -1.5
comp=Z,25nm,0.6s,baz=298,slow=2.2,SNR=12
comp=Z,25nm,0.6s
BELG Belogornoye 20.48 38 *i* P P 06 54 22.3 -0.7
BELG pmax pmax
comp=Z,9.0nm,0.8s

VSU Vasula 20.63 360 *i* P P 06 54 23.8 -0.8
VSU pmax pmax
comp=Z,19nm,1.0s
RAYN Ar Rayn 21.34 127 P P 06 54 34.2 +1.5
RAYN pmax pmax
comp=Z,6.0nm,0.9s
RAYN Ar Rayn 21.34 127 P 06 54 34.2 +1.5
RAYN Ar Rayn 21.34 127 P P 06 54 38.0 +5.4
comp=Z,10nm,1.2s
FINES FINESS Array B 23.62 359 P P 06 54 55.5 -0.7
comp=Z,4.3nm,0.9s,baz=169,slow=11,SNR=6.9
comp=Z,4.3nm,0.9s
FINES FINESS Array B 23.62 359 *i* P P 06 54 56.5 +0.3
FINES pmax pmax
comp=Z,3.0nm,0.7s
TAM Tamanrasset 23.76 237 P P 06 54 59.6 +1.6
TAM pmax pmax
comp=Z,52nm,0.2s
TAM Tamanrasset 23.76 237 P P 06 54 59.6 +1.6
TAM Tamanrasset 23.76 237 P P 06 55 00.4 +2.4
comp=Z,8.8nm,1.8s
HFS Hagfors 23.85 343 P P 06 54 57.6 -0.8
comp=Z,3.4nm,0.8s,baz=129,slow=12,SNR=5.4
HFS LR LR 07 04 59.7
comp=Z,181nm,18.9s,baz=167,slow=38
comp=Z,3.4nm,0.8s
ESDC Sonseca Array 24.14 284 P P 06 55 01.3 -0.2
comp=Z,1.0nm,0.7s,baz=77,slow=12,SNR=8.6
comp=Z,1.0nm,0.7s
KLMR Klimovskoe 24.34 15 *e*P P 06 55 01.2 -1.8
KLMR pmax pmax
comp=Z,30nm,1.4s
KONO Kongsberg 24.49 339 *i* P P 06 55 03.9 -0.5
KONO pmax pmax
comp=Z,16nm,1.1s
NC602 NORSAR Array S 24.89 342 P P 06 55 08.4 +0.4
NC602 IAmb IAmb 06 55 14.7
comp=Z,13nm,1.0s
NAO01 NORSAR Array S 25.15 341 P P 06 55 11.9 +1.6
NAO01 IAmb IAmb 06 55 16.0
comp=Z,20nm,0.9s
NB2 NORSAR Subarra 25.24 342 P P 06 55 11.9 +0.8
comp=Z,3.6nm,0.8s,baz=144,slow=10
NOA NORSAR Array B 25.24 342 P P 06 55 11.7 +0.6
comp=Z,1.8nm,0.8s,baz=146,slow=9.6,SNR=9.7
NOA LR LR 07 07 21.1
comp=Z,111nm,18.4s,baz=140,slow=42
comp=Z,1.8nm,0.8s
AKTO Aktyubinsk 25.38 50 LR LR 07 06 46.4
comp=Z,112nm,18.9s,baz=256,slow=40
AB31 Akbulak array 26.26 54 P P 06 55 22.1 +1.6
ABKAR Akbulak array 26.26 54 P P 06 55 21.6 +1.1
EKA Eskdalemuir Ar 26.79 320 P P 06 55 26.1 +0.9
comp=Z,1.9nm,0.8s,baz=104,slow=11,SNR=5.5
comp=Z,1.9nm,0.8s
ARTI Arti 27.92 38 *ce*P P 06 55 36.0 +0.6
ARTI pmax pmax
comp=Z,14nm,1.0s
ARTI Arti 27.92 38 P P 06 55 35.5 +0.1
ARTI IAmb IAmb 06 55 36.1
comp=Z,21nm,1.1s
UOSS Minazif 27.94 109 P P 06 55 36.2 +0.3
UOSS IAmb IAmb 06 56 01.3
comp=Z,9.6nm,1.1s
ARCES ARCESS Array B 31.75 359 P P 06 56 09.3 +0.2
comp=Z,2.1nm,0.7s,baz=185,slow=8.8,SNR=4.0
ARCES LR LR 07 10 34.7
comp=Z,146nm,18.1s,baz=193,slow=39
comp=Z,2.1nm,0.7s
ARCES ARCESS Array B 31.75 359 P P 06 56 09.3 +0.2
ARCES pmax pmax
comp=Z,12nm,1.2s
ARCES ARCESS Array B 31.75 359 IAmb IAmb 06 56 47.5
comp=Z,12nm,1.2s
KK31 Karatay Array 33.24 67 P P 06 56 23.3 +0.8
KK31 pmax pmax
comp=Z,5.0nm,0.9s
KK31 Karatay Array 33.24 67 P P 06 56 23.3 +0.8
KK31 IAmb IAmb 06 56 24.6
comp=Z,4.5nm,0.8s
KKAR Karatay Array 33.24 67 P P 06 56 23.3 +0.8
KKAR Karatay Array 33.24 67 P P 06 56 23.3 +0.8
TORD Torodi Ar. Bea 33.35 229 P P 06 56 24.2 +0.6
comp=Z,3.6nm,0.6s,baz=39,slow=9.0,SNR=14
comp=Z,3.6nm,0.6s
TORD Torodi Ar. Bea 33.35 229 P P 06 56 23.8 +0.2
BORK Borovoye 33.42 49 *i* P P 06 56 24.7 +0.8
BORK pmax pmax
comp=Z,2.0nm,1.1s
BVAR Borovoye Array 33.45 49 P P 06 56 25.2 +1.0
comp=Z,0.4nm,0.4s,baz=269,slow=7.1,SNR=1.9
comp=Z,0.4nm,0.4s
ARSB Arslanbob 35.30 70 IAmb IAmb 06 56 46.9
comp=Z,13nm,1.1s
AAK Ala-Archa 36.21 67 *i* P P 06 56 49.3 +1.0
AAK pmax pmax
comp=Z,4.0nm,0.7s
AAK Ala-Archa 36.21 67 P P 06 56 49.7 +1.4
AAK IAmb IAmb 06 56 55.0
comp=Z,8.3nm,0.9s
NIL Nilore 37.49 82 P P 06 57 00.4 +1.2
NIL pmax pmax
comp=Z,35nm,1.0s
NIL Nilore 37.49 82 P P 06 57 00.4 +1.2
NRN Naryn 37.52 69 IAmb IAmb 06 57 02.6
comp=Z,9.5nm,0.8s
KSH2 Kashi 37.69 73 P P 06 57 02.7 +1.8
KSH2 pP sP 06 57 07.1 -0.3
KSH2 pmax pmax
comp=Z,7.0nm,1.0s
KDJ Kajisay 38.25 67 IAmb IAmb 06 57 08.7
comp=Z,9.2nm,1.0s
KURBB Kurchatov Arra 38.32 54 P P 06 57 06.5 +0.6
comp=Z,3.0nm,0.7s,baz=278,slow=8.9,SNR=15
KURBB PcP PcP 06 59 19.8 +0.3
comp=Z,0.7nm,0.4s,baz=274,slow=4.2,SNR=4.7
KURBB LR LR 07 15 56.8
comp=Z,90nm,18.4s,baz=192,slow=41
comp=Z,3.0nm,0.7s
KURK Kurchatov 38.38 53 *ce*P P 06 57 06.6 +0.2
KURK pmax pmax
comp=Z,8.0nm,1.5s
KURK Kurchatov 38.38 53 P P 06 57 06.5 +0.2
KURK Kurchatov 38.38 53 PcP 06 59 19.8 +0.1
KURK Kurchatov 38.38 53 IAmb IAmb 06 57 08.0
comp=Z,5.7nm,1.1s
TARG Taragay, Kyrgy 38.79 68 P P 06 57 11.1 +0.6
TARG pmax pmax
comp=Z,6.0nm,0.9s
TARG Taragay, Kyrgy 38.79 68 P P 06 57 11.1 +0.6
WUS Wushi 39.94 68 IAmb IAmb 06 57 22.4
comp=Z,14nm,1.0s
MK31 Makanchi Array 41.10 59 *ce*P P 06 57 29.9 +0.7
MKAR Makanchi Array 41.10 59 P P 06 57 30.1 +0.9
comp=Z,2.2nm,0.4s,baz=269,slow=8.8,SNR=17
comp=Z,2.2nm,0.4s
MKAR Makanchi Array 41.10 59 P P 06 57 29.8 +0.6
ZAA0 Zalesovo Array 42.10 48 P P 06 57 37.1 -0.1
ZALV Zalesovo Beam 42.10 48 P P 06 57 37.6 +0.3
comp=Z,3.4nm,0.8s,baz=261,slow=8.8,SNR=15
comp=Z,3.4nm,0.8s
ZALV Zalesovo Beam 42.10 48 *i* P P 06 57 37.5 +0.3
ZALV pmax pmax
comp=Z,4.0nm,0.8s
ZALV Zalesovo Beam 42.10 48 P P 06 57 37.4 +0.1
DBIC Dimbokro 42.39 231 P P 06 57 40.0 0.0
comp=Z,3.4nm,0.6s,baz=49,slow=11,SNR=7.7
comp=Z,3.4nm,0.6s
DBIC Dimbokro 42.39 231 P P 06 57 40.0 0.0
DBIC pmax pmax
comp=Z,13nm,1.2s
DBIC Dimbokro 42.39 231 IAmb IAmb 06 58 01.2
comp=Z,13nm,1.2s
NRIK Noril'sk 44.82 26 P P 06 57 59.2 +0.3
comp=Z,4.3nm,0.7s,baz=244,slow=5.8,SNR=3.9
NRIK LR LR 07 19 22.3
comp=Z,107nm,18.5s,baz=246,slow=40
comp=Z,4.3nm,0.7s
NRIK Noril'sk 44.82 26 *i* P P 06 57 59.4 +0.5
NRIK pmax pmax
comp=Z,8.0nm,1.0s
NRIK Noril'sk 44.82 26 IAmb IAmb 06 58 00.8
comp=Z,6.0nm,0.9s
WMQ Urumqi 45.42 62 *e*P P 06 58 06.4 +2.2
WMQ pP sP 06 58 10.1 -0.6
WMQ pmax pmax
comp=Z,25nm,0.7s

EVN	**Everest**	**50.45**	**83**		**P**	**06 58 44.0**	**0.0**
EVN				IAmb	IAmb	06 58 45.6	
	comp=Z,12nm,1.0s						
TLY	**Talaya**	**53.71**	**49**	LR	LR	07 23 13.9	
	comp=Z,73nm,19.6s,baz=332,slow=37						
GTA2	**Gaotai**	**55.37**	**64**	*e*P	**P**	**06 59 20.4**	**+0.9**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
SONM	**Songino Array**	**56.67**	**52**	P	**P**	**06 59 29.7**	**+1.0**
	comp=Z,1.1nm,0.6s,baz=292,slow=7.8,SNR=4.0						
	comp=Z,1.1nm,0.6s						
SONM	**Songino Array**	**56.67**	**52**	P	**P**	**06 59 29.7**	**+1.0**
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM	**Songino Array**	**56.67**	**52**	IAmb	IAmb	06 59 30.8	
	comp=Z,2.6nm,1.0s						
ULN	**Ulaanbaatar**	**57.07**	**52**	*i* P	**P**	**06 59 32.1**	**+0.5**
ULN				pmax	pmax		
	comp=Z,7.0nm,1.2s						
TIXI	**Tiksi**	**58.13**	**21**	LR	LR	07 27 08.1	
	comp=Z,87nm,18.9s,baz=14,slow=39						
LZDM	**Lanzhou Array**	**59.68**	**66**	P	**P**	**06 59 51.3**	**+1.0**
	comp=Z,1.3nm,0.3s,baz=287,slow=12,SNR=1.7						
	comp=Z,1.3nm,0.3s						
LZH	**Lanzhou**	**59.73**	**66**	*e*P	**P**	**06 59 51.2**	**+0.8**
LZH				pP	sP	06 59 55.9	-1.2
LZH				pmax	pmax		
	comp=Z,24nm,1.3s						
SCHQ	**Schefferville**	**62.10**	**319**	P	**P**	**07 00 05.5**	**-0.5**
	comp=Z,3.4nm,0.7s,baz=74,slow=5.3,SNR=5.2						
	comp=Z,3.4nm,0.7s						
HHC	**Hu-ho-hao-te**	**62.95**	**58**	*e*P	**P**	**07 00 13.0**	**+1.0**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,150nm,5.5s						
CMAR	**Chiang Mai Arr**	**64.85**	**86**	P	**P**	**07 00 25.3**	**+0.6**
	comp=Z,2.0nm,0.3s,baz=296,slow=7.5,SNR=12						
	comp=Z,2.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**64.85**	**86**	*i* P	**P**	**07 00 25.6**	**+0.9**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BJI2	**Beijing**	**66.42**	**57**	P	**P**	**07 00 34.9**	**+0.3**
BJI2				pP	**pP**	**07 00 39.8**	**+0.3**
BJI2				pmax	pmax		
	comp=Z,6.0nm,1.1s						
HEH	**HeiHe**	**67.88**	**43**	*e*P	**P**	**07 00 44.3**	**+0.7**
HEH				pmax	pmax		
	comp=Z,13nm,0.9s						
A36M	**Sachs Harbour**	**68.73**	**351**	P	**P**	**07 00 49.1**	**+0.6**
TIA	**Tai'an**	**69.04**	**60**	P	**P**	**07 00 52.0**	**+0.9**
TIA				pmax	pmax		
	comp=Z,12nm,0.7s						
BNX	**BinXian**	**70.38**	**47**	⇑P	**P**	**07 00 57.3**	**-1.9**
BNX				pmax	pmax		
	comp=Z,5.0nm,0.6s						
MA2	**Magadan**	**72.43**	**26**	P	**P**	**07 01 11.2**	**-0.1**
	comp=Z,4.5nm,0.3s,baz=14,slow=19,SNR=2.2						
	comp=Z,4.5nm,0.3s						
MA2	**Magadan**	**72.43**	**26**	P	**P**	**07 01 11.2**	**-0.1**
MA2				pmax	pmax		
	comp=Z,70nm,1.4s						
NJ2	**Nanjing**	**72.50**	**63**	*e*P	**P**	**07 01 12.6**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,13nm,0.5s						
USRK	**Ussuriysk Ar.**	**73.92**	**46**	P	**P**	**07 01 20.6**	**+0.2**
	comp=Z,6.1nm,0.9s,baz=280,slow=5.7,SNR=7.1						
	comp=Z,6.1nm,0.9s						
PSI	**Prapat**	**74.06**	**99**	P	**P**	**07 01 21.1**	**-0.7**
PSI				pmax	pmax		
	comp=Z,7.0nm,0.9s						
RPSI	**Rantau Prapat**	**74.12**	**99**	P	**P**	**07 01 21.1**	**-1.0**
RPSI				IAmb	IAmb	07 01 24.0	
	comp=Z,7.0nm,0.9s						
YKA	**Yellowknife Ar**	**75.33**	**343**	P	**P**	**07 01 28.1**	**-0.2**
	comp=Z,1.5nm,0.8s,baz=78,slow=23,SNR=4.5						
	comp=Z,1.5nm,0.8s						
KSAR	**Wonju Array Be**	**75.48**	**54**	P	**P**	**07 01 29.9**	**+0.3**
KSAR	**Wonju Array Ba**	**75.48**	**54**	P	**P**	**07 01 29.9**	**+0.3**
KSRS	**Korea Array**	**75.50**	**54**	P	**P**	**07 01 30.1**	**+0.4**
	comp=Z,8.7nm,0.7s,baz=305,slow=5.1,SNR=36						
KSRS				LR	LR	07 38 16.5	
	comp=Z,50nm,18.5s,baz=305,slow=39						
	comp=Z,8.7nm,0.7s						
J30M	**Hart River**	**77.06**	**353**	IAmb	IAmb	07 01 45.7	
	comp=Z,4.3nm,0.9s						
ILAR	**Eielson Array**	**77.60**	**357**	P	**P**	**07 01 41.2**	**+0.1**
	comp=Z,0.6nm,0.9s,baz=345,slow=4.0,SNR=4.4						
	comp=Z,0.6nm,0.9s						
ULM	**Lac du Bonnet**	**78.88**	**327**	P	**P**	**07 01 47.9**	**-0.6**
	comp=Z,8.5nm,1.1s,baz=90,slow=4.2,SNR=5.5						
	comp=Z,8.5nm,1.1s						
ULM	**Lac du Bonnet**	**78.88**	**327**	P	**P**	**07 01 48.6**	**+0.1**
ULM				pmax	pmax		
	comp=Z,11nm,1.0s						
ULM	**Lac du Bonnet**	**78.88**	**327**	P	**P**	**07 01 48.6**	**+0.1**
M29M	**Somme Creek**	**79.36**	**353**	IAmb	IAmb	07 01 59.0	
	comp=Z,5.3nm,1.0s						
PETK	**Petropavlovsk-**	**79.85**	**28**	P	**P**	**07 01 53.7**	**0.0**
	comp=Z,1.6nm,0.8s,baz=305,slow=6.3,SNR=1.3						
	comp=Z,1.6nm,0.8s						
MJAR	**Matsushiro Arr**	**82.45**	**49**	P	**P**	**07 02 08.5**	**+0.6**
	comp=Z,1.1nm,0.4s,baz=330,slow=5.6,SNR=2.7						
	comp=Z,1.1nm,0.4s						
MJAR	**Matsushiro Arr**	**82.45**	**49**	P	**P**	**07 02 08.5**	**+0.6**
MJAR				pmax	pmax		
	comp=Z,4.0nm,1.2s						
MJAR	**Matsushiro Arr**	**82.45**	**49**	IAmb	IAmb	07 02 09.7	
	comp=Z,3.6nm,1.2s						
ECSD	**EROS Data Cent**	**84.06**	**323**	P	**P**	**07 02 15.9**	**-0.2**
PDAR	**Pinedale Array**	**90.56**	**330**	P	**P**	**07 02 47.1**	**-0.7**
	comp=Z,0.2nm,0.4s,baz=48,slow=8.9,SNR=4.0						
	comp=Z,0.2nm,0.4s						
TXAR	**Lajitas Array**	**98.77**	**318**	P	Pdif	07 03 25.6	+0.2
	comp=Z,0.5nm,0.9s,baz=30,slow=2.7,SNR=3.2						
	comp=Z,0.5nm,0.9s						

WEL 11 06:50:56.3±1.2,32°S±17°×18°0E±2°6,h420km±42km, M4.2/7,mB4.6/1,ML4.1/6,MLv4.2/7,Mw(mB)3.8/1,Error ellipse: s-maj=34.3km s-min=21.5km az=103.9,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WMGZ	**Waiomatatini S**	**5.67**	**190**	P	P	06 52 26.8	+1.0
WMGZ				S	S	06 53 39.9	+0.7
WMGZ				AML	AML		
HAZ	**Te Kaha**	**5.72**	**195**	P	P	06 52 26.3	0.0
HAZ				S	S	06 53 39.7	-0.4
HAZ				AML	AML		
WCZ	**Waipu Caves**	**5.74**	**228**	P	P	06 52 27.4	+0.8
PKGZ	**Pakihiroa**	**5.77**	**192**	P	P	06 52 27.1	+0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.95**	**195**	P	P	06 52 28.2	-0.7
RUGZ				S	S	06 53 44.8	0.0
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.09**	**192**	P	P	06 52 30.9	+0.6
TWGZ				AML	AML		
MWZ	**Matawai**	**6.33**	**195**	P	P	06 52 33.9	+1.0
MWZ				S	S	06 53 53.1	+1.0
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**6.36**	**198**	P	P	06 52 32.2	-0.9
URZ				S	S	06 53 51.5	-1.1
TKGZ	**Te Karaka**	**6.37**	**193**	P	P	06 52 34.3	+1.2
TKGZ				AML	AML		
RIGZ	**Rimuhau**	**6.64**	**193**	P	P	06 52 35.9	-0.8
RIGZ				S	S	06 53 58.9	+0.6
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	**6.66**	**200**	P	P	06 52 36.5	-0.3
MUGZ				S	S	06 53 59.5	+0.9
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**6.99**	**198**	P	P	06 52 40.4	-0.1
MTHZ				S	S	06 54 06.5	+1.3
MTHZ				AML	AML		
MTHZ				AML	AML		
BKZ	**Black Stump Fm**	**7.38**	**199**	P	P	06 52 43.2	-1.5
BKZ				AML	AML		

VIE 11 06:52:40.0±0.3,47.16N×15.35E,h0km,ml1.1/2,Error ellipse: s-maj=2.2km s-min=1.1km az=164.0 8 km N of Graz Suspected Mining explosion.,Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ARSA	**Arzberg**	**0.15**	**52**	*e*Pg	Pg	06 52 43.0	+0.1
	1.0nm,0.1s						
SESA	**Seetaler Alpe,**	**0.54**	**265**	*e*Pg	Pg	06 52 50.6	+0.3
	0.2nm,0.1s						
SESA				*e*Sg	Sg	06 52 58.1	+0.7
	2.5nm,0.3s,SNR=6.1						

ISK 11 06:53:53.8,37.85N×26.97E,h13km,ML2.8/30
THE 11 06:53:54.5,38.1°×27.0E±0.7,h10km±1km,M2.8/10, MLh2.8/10
AFAD 11 06:53:54.0,37.84N×26.94E,h7km±2km,ML2.7
ISC 11 06:53:54.3±0.8,37.84N±0.02×26.97E±0.02,h15km±6km, n49,σ0.48/70,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**217**	P	**Pg**	**06 53 58.3**	**-0.2**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**342**	P	**Pg**	**06 53 58.8**	**-0.4**
DGB				S	**Sg**	**06 54 01.9**	**-0.6**
DGB				IAML		06 54 02.0	
	comp=N,565nm,0.3s						
DGB				IAML		06 54 04.0	
	comp=E,809nm,0.2s						
GMLD	**Gumuldur**	**0.24**	**350**	Pg	**Pg**	**06 53 58.9**	**-0.6**
GMLD				Sg	**Sg**	**06 54 03.1**	**+0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**86**	Pg	**Pg**	**06 53 59.7**	**-0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**124**	P	**Pg**	**06 53 59.6**	**-0.2**
GCAM				S	**Sg**	**06 54 03.9**	**+0.4**
GCAM				IAML		06 54 04.0	
	comp=E,2μm,0.3s						
GCAM				IAML		06 54 05.0	
	comp=N,2μm,0.1s						
GCAM	**G?zelcaml?**	**0.26**	**124**	Pg	**Pg**	**06 53 59.9**	**+0.1**
GCAM				Sg	**Sg**	**06 54 03.7**	**+0.2**
GCAM				AML	AML		
BEYE	**izmir**	**0.39**	**355**	P	**Pg**	**06 54 01.8**	**-0.3**
BEYE				S	**Sg**	**06 54 07.8**	**+0.4**
BEYE				IAML		06 54 08.0	
	comp=E,386nm,0.3s						
BEYE				IAML		06 54 09.0	
	comp=N,504nm,0.6s						
DDIM	**Aydin, Didim**	**0.44**	**150**	P	**Pg**	**06 54 03.0**	**-0.1**
DDIM				S	**Sb**	**06 54 09.9**	**-0.4**
DDIM				IAML		06 54 10.0	
	comp=E,737nm,0.8s						
DDIM				IAML		06 54 13.0	
	comp=N,524nm,0.6s						
DUVT	**Torbali**	**0.54**	**45**	P	**Pg**	**06 54 04.3**	**-0.5**
DUVT				S	**Sg**	**06 54 11.5**	**-0.5**
DUVT				IAML		06 54 16.0	
	comp=E,1μm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**317**	P	**Pg**	**06 54 04.7**	**-0.2**
ZEYE				IAML		06 54 12.0	
	comp=N,1μm,0.2s						
ZEYE				S	**Sb**	**06 54 12.5**	**-0.6**
ZEYE				IAML		06 54 15.0	
	comp=E,703nm,0.3s						
BLCB	**Balcova**	**0.55**	**6**	P	**Pg**	**06 54 04.6**	**-0.4**
BLCB				S	**Sg**	**06 54 12.1**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**6**	Pg	**Pg**	**06 54 04.8**	**-0.2**
BLCB				Sg	**Sb**	**06 54 12.8**	**-0.4**
BLCB				AML	AML		
DAGE	**izmir**	**0.64**	**75**	P	**Pb**	**06 54 07.1**	**-0.1**
DAGE				S	**Sg**	**06 54 14.4**	**-0.9**
DAGE				IAML		06 54 18.0	
	comp=N,348nm,0.3s						
DAGE				IAML		06 54 19.0	
	comp=E,558nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.74**	**82**	Pg	**Pb**	**06 54 09.3**	**+0.3**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**161**	Pg	**Pb**	**06 54 09.1**	**-0.1**
YKAV				AML	AML		
BAGT	**Foa**	**0.82**	**354**	P	**Pg**	**06 54 09.8**	**-0.3**
BAGT				S	**Sb**	**06 54 21.9**	**+0.8**
BAGT				IAML		06 54 22.0	
	comp=E,338nm,0.4s						
BAGT				IAML		06 54 24.0	
	comp=N,688nm,0.6s						
KRBN	**Karaburun**	**0.82**	**337**	Pg	**Pg**	**06 54 09.9**	**-0.3**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**161**	P	**Pg**	**06 54 10.0**	**-0.3**
BODT				S	**Sb**	**06 54 21.6**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**161**	Pg	**Pb**	**06 54 10.2**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.84**	**130**	Pg	**Pb**	**06 54 11.1**	**+0.4**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.89**	**155**	Pg	**Pb**	**06 54 11.8**	**+0.4**
FOCM	**Foa**	**0.89**	**348**	Pg	**Pb**	**06 54 11.6**	**+0.2**
FOCM				Sg	**Sb**	**06 54 23.9**	**+0.8**
FOCM				AML	AML		
CHOS	**Chios island**	**0.90**	**307**	P	**Pb**	**06 54 12.0**	**+0.3**
CHOS				S	**Sb**	**06 54 24.8**	**+1.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**307**	Pg	**Pb**	**06 54 11.8**	**+0.1**
CHOS				Sg	**Sn**	**06 54 25.1**	**-0.3**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.93**	**332**	P	**Pg**	**06 54 11.5**	**-0.8**
KARB				S	**Sb**	**06 54 25.1**	**+0.8**
KARB				IAML		06 54 27.0	
	comp=E,285nm,0.3s						
KARB				IAML		06 54 28.0	
	comp=N,301nm,0.3s						
CAMT	**Merkez**	**0.94**	**17**	P	**Pg**	**06 54 12.1**	**-0.4**
CAMT				S	**Sn**	**06 54 26.0**	**-0.3**
CAMT				IAML		06 54 27.0	
	comp=E,787nm,0.6s						
CAMT				IAML		06 54 28.0	
	comp=N,443nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.06**	**83**	Pg	**Pb**	**06 54 14.6**	**+0.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.14**	**41**	Pn	**Pn**	**06 54 16.1**	**+0.3**
GOMA				AML	AML		
DAT	**Datca**	**1.21**	**156**	P	**Pb**	**06 54 16.6**	**-0.5**
DAT				AML	AML		
DAT	**Datca**	**1.21**	**156**	Pn	**Pb**	**06 54 17.1**	**+0.1**
DAT				AML	AML		
AKS	**Akhisar**	**1.23**	**32**	Pn	**Pn**	**06 54 17.0**	**0.0**
AKS				AML	AML		
YER	**Yerkesik**	**1.26**	**124**	P	**Pn**	**06 54 17.7**	**+0.2**
YER				S	**Sb**	**06 54 33.9**	**-0.1**
YER	**Yerkesik**	**1.26**	**124**	Pn	**Pn**	**06 54 17.8**	**+0.3**
YER				AML	AML		
APE	**Apeiranthos**	**1.38**	**236**	P	**Pn**	**06 54 18.7**	**-0.4**
APE				S	**Sg**	**06 54 38.9**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.38**	**236**	Pn	**Pn**	**06 54 19.3**	**+0.2**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**19**	Pn	**Pn**	**06 54 18.9**	**-0.2**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.43**	**41**	Pn	**Pn**	**06 54 20.1**	**+0.3**
GORD				AML	AML		
TURN	**Turunc**	**1.47**	**136**	Pn	**Pn**	**06 54 20.7**	**+0.4**
TURN				AML	AML		
PRK	**Paraskevi**	**1.50**	**339**	P	**Pn**	**06 54 21.1**	**+0.4**
PRK				S	**Sg**	**06 54 41.8**	**-0.9**
DALY	**Dalyan (Mula)**	**1.69**	**127**	Pn	**Pb**	**06 54 24.4**	**-0.7**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.77**	**3**	Pn	**Pn**	**06 54 25.0**	**+0.6**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.87**	**150**	Pn	**Pn**	**06 54 26.0**	**+0.2**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.89**	**101**	Pn	**Pn**	**06 54 26.4**	**+0.3**
BALB	**Balikesir**	**1.93**	**21**	Pn	**Pn**	**06 54 27.0**	**+0.4**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.01**	**51**	Pn	**Pn**	**06 54 28.7**	**+0.9**
SIMA				AML	AML		
EZN	**Ezine**	**2.04**	**346**	Pn	**Pn**	**06 54 28.8**	**+0.7**
EZN				AML	AML		
CAME	**Cameli-Denizli**	**2.07**	**115**	Pn	**Pn**	**06 54 29.0**	**+0.4**
CAME				AML	AML		
BOZC	**Bozcaada**	**2.12**	**341**	Pn	**Pn**	**06 54 29.7**	**+0.5**
BOZC				AML	AML		
SUSR	**Susurluk-Balik**	**2.29**	**22**	Pn	**Pn**	**06 54 32.6**	**+1.0**
SUSR				AML	AML		

AFAD 11 06:55:23.5,37.83N×26.94E,h7km±3km,ML2.4
THE 11 06:55:24.3,38°N±1°×27.0E±0.7,h9km±2km,M2.5/9, MLh2.5/9
ISK 11 06:55:24.1,37.88N×27.01E,h8km,ML2.5/23
ISC 11 06:55:24.3±0.8,37.85N±0.02×26.98E±0.02,h11km±7km, n44,σ0.46/72,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**219**	P	**Pg**	**06 55 28.1**	**-0.2**
SMG				S	**Sg**	**06 55 31.0**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**339**	P	**Pg**	**06 55 28.4**	**-0.5**
DGB				S	**Sg**	**06 55 31.4**	**-0.5**
DGB				IAML		06 55 33.0	
	comp=E,445nm,0.2s						
GMLD	**Gumuldur**	**0.23**	**347**	Pg	**Pg**	**06 55 29.1**	**-0.1**
GMLD				Sg	**Sg**	**06 55 32.9**	**+0.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**88**	Pg	**Pg**	**06 55 28.8**	**-0.6**
KUSD				Sg	**Sg**	**06 55 32.8**	**0.0**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**127**	P	**Pg**	**06 55 29.2**	**-0.3**
GCAM				IAML		06 55 33.0	
	comp=E,895nm,0.5s						
GCAM				S	**Sg**	**06 55 33.8**	**+0.8**
GCAM				IAML		06 55 34.0	
	comp=N,833nm,0.1s						
GCAM	**G?zelcaml?**	**0.25**	**127**	Pg	**Pg**	**06 55 29.6**	**+0.1**
GCAM				Sg	**Sg**	**06 55 33.6**	**+0.6**
GCAM				AML	AML		
BEYE	**izmir**	**0.38**	**354**	P	**Pg**	**06 55 31.5**	**-0.4**
BEYE				S	**Sg**	**06 55 37.6**	**+0.7**
DDIM	**Aydin, Didim**	**0.45**	**152**	P	**Pg**	**06 55 32.5**	**-0.6**
DDIM				S	**Sb**	**06 55 39.9**	**-0.9**
DDIM				IAML		06 55 40.0	
	comp=E,272nm,0.7s						
DUVT	**Torbali**	**0.52**	**45**	P	**Pg**	**06 55 34.1**	**-0.5**
DUVT				S	**Sg**	**06 55 41.2**	**-0.3**
DUVT				IAML		06 55 46.0	
	comp=E,476nm,0.3s						
BLCB	**Balcova**	**0.54**	**5**	P	**Pg**	**06 55 34.5**	**-0.3**
BLCB				S	**Sg**	**06 55 41.8**	**0.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**5**	Pg	**Pg**	**06 55 34.5**	**-0.3**
BLCB				Sg	**Sg**	**06 55 41.9**	**0.0**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**316**	P	**Pg**	**06 55 34.2**	**-0.7**
ZEYE				IAML		06 55 42.0	
	comp=N,753nm,0.2s						
ZEYE				S	**Sg**	**06 55 42.1**	**+0.1**
ZEYE				IAML		06 55 45.0	
	comp=E,388nm,0.2s						
DAGE	**izmir**	**0.63**	**76**	P	**Pg**	**06 55 36.5**	**-0.1**
DAGE				S	**Sg**	**06 55 44.0**	**-0.9**
DAGE				IAML		06 55 46.0	
	comp=E,211nm,0.2s						
DAGE				IAML		06 55 48.0	
	comp=N,149nm,0.3s						
CESE	**eme**	**0.72**	**312**	Pg	**Pb**	**06 55 38.7**	**-0.2**
CESE				Sg	**Sb**	**06 55 49.1**	**+0.3**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**82**	Pg	**Pg**	**06 55 38.4**	**0.0**
AYDB				Sg	**Sg**	**06 55 47.9**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.74**	**105**	P	**Pg**	**06 55 38.0**	**-0.6**
AYDN				S	**Sg**	**06 55 48.5**	**+0.2**
AYDN				IAML		06 55 52.0	
	comp=N,107nm,0.3s						
AYDN				IAML		06 55 52.0	
	comp=E,139nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.76**	**162**	Pg	**Pb**	**06 55 39.6**	**0.0**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.81**	**336**	Pg	**Pb**	**06 55 40.5**	**0.0**
KRBN				Sg	**Sb**	**06 55 51.5**	**0.0**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**161**	P	**Pg**	**06 55 39.8**	**-0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**161**	Pg	**Pg**	**06 55 40.1**	**-0.3**
BODT				AML	AML		
MLSB	**Milas**	**0.84**	**131**	Pg	**Pb**	**06 55 41.1**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.87**	**155**	P	**Pg**	**06 55 40.1**	**-1.0**
BDRM				IAML		06 55 52.0	
	comp=E,111nm,0.6s						
BDRM				S	**Sg**	**06 55 52.3**	**-0.1**
BDRM				IAML		06 55 56.0	
	comp=N,143nm,0.6s						
FOCM	**Foa**	**0.88**	**347**	Pg	**Pg**	**06 55 41.1**	**-0.3**
FOCM				Sg	**Sb**	**06 55 53.6**	**+0.1**
BODA	**Bodrum-Mula**	**0.89**	**156**	Pg	**Pb**	**06 55 42.1**	**+0.3**
BODA				Sg	**Sb**	**06 55 54.6**	**+0.9**
CHOS	**Chios island**	**0.90**	**307**	P	**Pb**	**06 55 42.1**	**0.0**
CHOS				S	**Sb**	**06 55 54.5**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**307**	Pg	**Pb**	**06 55 42.1**	**0.0**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.93**	**331**	P	**Pg**	**06 55 41.4**	**-0.8**
KARB				S	**Sb**	**06 55 54.6**	**-0.2**
KARB				IAML		06 55 57.0	
	comp=N,110nm,0.5s						
KARB				IAML		06 55 57.0	
	comp=E,124nm,0.3s						
CAMT	**Merkez**	**0.93**	**16**	P	**Pg**	**06 55 41.9**	**-0.4**
CAMT				S	**Sb**	**06 55 56.2**	**+1.2**
CAMT				IAML		06 55 57.0	
	comp=E,278nm,0.6s						
CAMT				IAML		06 55 58.0	
	comp=N,146nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.04**	**83**	Pg	**Pg**	**06 55 44.2**	**-0.2**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**4**	P	**Pg**	**06 55 45.0**	**-0.8**
ZEDA				S	**Sn**	**06 56 01.4**	**+0.1**
ZEDA				IAML		06 56 02.0	
	comp=E,67nm,0.7s						
GOMA	**Golmarmara-Man**	**1.13**	**41**	Pn	**Pg**	**06 55 45.6**	**-0.5**
KTTT	**Salihli**	**1.21**	**46**	P	**Pb**	**06 55 46.9**	**-0.4**
KTTT				S	**Sb**	**06 56 02.8**	**-0.2**
KTTT				IAML		06 56 07.0	
	comp=N,42nm,0.4s						
AKS	**Akhisar**	**1.22**	**32**	Pn	**Pb**	**06 55 47.3**	**-0.1**
AKS				Sn	**Sg**	**06 56 03.8**	**+0.2**
DAT	**Datca**	**1.22**	**157**	Pn	**Pn**	**06 55 48.1**	**+0.7**
DAT				AML	AML		
DKL	**Dikili**	**1.22**	**357**	Pn	**Pg**	**06 55 47.9**	**+0.1**
DKL				AML	AML		
YER	**Yerkesik**	**1.26**	**124**	P	**Pn**	**06 55 47.4**	**-0.5**
YER				S	**Sb**	**06 56 04.0**	**-0.4**
YER	**Yerkesik**	**1.26**	**124**	Pn	**Pg**	**06 55 48.5**	**0.0**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.37**	**18**	Pn	**Pn**	**06 55 49.8**	**+0.3**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**236**	P	**Pg**	**06 55 50.6**	**-0.5**
APE				S	**Sg**	**06 56 09.2**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.39**	**236**	Pn	**Pg**

OHR	**Ohrid**	**0.48**	**174**	⇓*i*Pg	**Pb**	**07 15 47.5**	**-0.4**
OHR				*i* Sg	**Sb**	**07 15 56.0**	**+0.9**
OHR				*e*Lg	Lg	07 15 56.0	
	comp=E,392nm,0.4s						
OHR				*e*Lg	Lg	07 15 56.4	
	comp=N,246nm,0.3s						
SKO	**Skopje**	**0.65**	**54**	*i* Pg	**Pg**	**07 15 49.0**	**-0.6**
SKO				*i* Sg	**Sg**	**07 15 57.5**	**-0.5**
PVY	**Plav**	**1.16**	**330**	*e*Pg	**Pg**	**07 15 58.7**	**-0.5**
PVY				*i* Sg	**Sn**	**07 16 15.4**	**-0.6**
ULC	**Ulcinj**	**1.17**	**289**	*e*Pg	**Pg**	**07 15 59.3**	**-0.2**
ULC				*i* Sg	**Sn**	**07 16 16.9**	**+0.7**
DRME	**Dracevica, Mon**	**1.30**	**298**	*e*Pg	**Pn**	**07 16 01.6**	**0.0**
DRME				*i* Sg	**Sn**	**07 16 21.0**	**+1.7**
PDG	**Podgorica**	**1.39**	**308**	*e*Pg	**Pb**	**07 16 03.1**	**-0.1**
PDG				*i* Sg	**Sn**	**07 16 23.4**	**+2.0**
VAY	**Valandovo**	**1.41**	**100**	⇓*i*Pg	**Pn**	**07 16 03.0**	**0.0**
VAY				*i* Sg	**Sg**	**07 16 22.9**	**+0.8**
VAY				*e*Lg	Lg	07 16 23.7	
	comp=N,40nm,0.5s						
VAY				*e*Lg	Lg	07 16 24.9	
	comp=E,30nm,0.6s						
IVA	**Berane**	**1.43**	**334**	*e*Pg	**Pb**	**07 16 03.8**	**-0.2**
IVA				*i* Sg	**Sn**	**07 16 24.2**	**+1.7**
BARS	**Barje**	**1.47**	**33**	*e*Pg	**Pb**	**07 16 04.8**	**+0.2**
BARS				*e*Sg	**Sg**	**07 16 24.3**	**+0.2**
BUM	**Brajici-Budva**	**1.54**	**298**	*e*Pg	**Pg**	**07 16 06.3**	**-0.3**
BUM				*i* Sg	**Sg**	**07 16 29.1**	**+2.5**
KOME	**Kolasin**	**1.55**	**325**	*e*Pg	**Pg**	**07 16 06.2**	**-0.5**
KOME				*i* Sg	**Sg**	**07 16 28.7**	**+1.9**
BOSS	**Bosilegrad**	**1.59**	**55**	*e*Pg	**Pn**	**07 16 05.5**	**-0.1**
BOSS				*e*Sg	**Sb**	**07 16 27.0**	**0.0**
PEHC	**Pehcevo**	**1.64**	**83**	*i* Pg	**Pb**	**07 16 07.3**	**-0.2**
PEHC				*i* Sg	**Sb**	**07 16 28.6**	**+0.1**
SELS	**Selova**	**1.66**	**10**	*e*Pg	**Pn**	**07 16 06.9**	**+0.4**
SELS				*e*Sg	**Sn**	**07 16 28.1**	**0.0**
CEME	**Cevo**	**1.66**	**306**	*e*Pg	**Pg**	**07 16 08.2**	**-0.5**
CEME				*i* Sg	**Sg**	**07 16 32.6**	**+2.4**
SJES	**Sjenica**	**1.76**	**342**	*e*Pn	**Pn**	**07 16 08.8**	**+0.7**
SJES				*e*Sg	**Sb**	**07 16 32.4**	**+0.2**
NKME	**Niksic**	**1.77**	**312**	*e*Pn	**Pg**	**07 16 10.2**	**-0.7**
NKME				*i* Sn	**Sg**	**07 16 35.9**	**+2.0**
HCY	**Herceg Novi**	**1.88**	**298**	*e*Pn	**Pg**	**07 16 12.4**	**-0.5**
HCY				*i* Sn	**Sg**	**07 16 38.6**	**+1.4**
GOCS	**Kraljevo Serbi**	**1.98**	**3**	*e*Pn	**Sn**	**07 16 10.5**	**-0.5**
GOCS				*e*Sn	**Sn**	**07 16 35.5**	**-0.6**
IVAS	**Ivanjica**	**2.03**	**348**	*e*Pn	**Pn**	**07 16 11.1**	**-0.6**
IVAS				*e*Sn	**Sn**	**07 16 36.5**	**-1.0**
BRY	**Bratogost**	**2.09**	**310**	*e*Pn	**Pb**	**07 16 15.0**	**-0.3**
BRY				*i* Sn	**Sg**	**07 16 43.6**	**-0.6**
UPM	**Unac-Piva**	**2.11**	**321**	*e*Pn	**Pb**	**07 16 15.5**	**-0.1**
UPM				*i* Sn	**Sg**	**07 16 43.9**	**-0.7**
VTS	**Vitosha**	**2.13**	**60**	*e*Pn	**Pn**	**07 16 14.3**	**+1.2**
GRUS	**Gruza**	**2.30**	**360**	*e*Pn	**Pn**	**07 16 16.0**	**+0.7**
GRUS				*e*Sn	**Sn**	**07 16 43.1**	**-0.8**
BBLS	**Lazi&#263i**	**2.48**	**337**	*e*Pn	**Pn**	**07 16 17.9**	**0.0**
STON	**Ston**	**2.59**	**301**	*e*Pn	**Pn**	**07 16 18.8**	**-0.6**
STON				Sn	**Sb**	**07 16 53.4**	**-2.4**
LSTV	**Lastovo**	**3.09**	**294**	*i* Pn	**Pn**	**07 16 23.1**	**-3.1**
LSTV				Sn	**Sn**	**07 17 00.4**	**-3.0**
TEKS	**Tekeris**	**3.09**	**344**	*e*Pn	**Pn**	**07 16 26.0**	**-0.2**
MAKA	**Makarska**	**3.23**	**303**	Sn	**Sn**	**07 17 08.4**	**+1.6**
RICI	**Ricice**	**3.27**	**307**	*e*Pn	**Pn**	**07 16 29.2**	**+0.4**
RICI				Sn	**Sn**	**07 17 11.1**	**+3.1**
HVAR	**Hvar**	**3.55**	**298**	*e*Pn	**Pn**	**07 16 30.9**	**-1.6**
HVAR				Sn	**Sn**	**07 17 13.7**	**-1.1**
KIJV	**Kijevo**	**4.00**	**309**	*e*Pn	**Pn**	**07 16 39.0**	**+0.3**
KIJV				Sn	**Sn**	**07 17 28.4**	**+2.6**
MORI	**Morici**	**4.34**	**303**	*e*Pn	**Pn**	**07 16 42.5**	**-1.0**
MORI				Sn	**Sn**	**07 17 34.7**	**+0.4**
DUGI	**Dugi Otok**	**4.82**	**302**	*e*Pn	**Pn**	**07 16 48.8**	**-1.1**
DUGI				Sn	**Sn**	**07 17 46.0**	**0.0**

NOU 11 07:17:06.0,14°82S×167°23E,h94km, MLv4.7/17,
Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**0.62**	**182**	P	Pn	07 17 23.5	+1.3
SANVU	**Saraoutou**	**0.62**	**182**	S	Sn	07 17 36.7	+2.4
SANVU	**Saraoutou**	**0.62**	**182**	P	Pn	07 17 23.3	+1.1
DVP	**Devils Point**	**3.03**	**162**	P	Pn	07 17 52.1	+0.1
DVP	**Devils Point**	**3.03**	**162**	S	Sn	07 18 28.1	+0.6
YATNC	**Mamie plateau,**	**7.21**	**183**	P	Pn	07 18 47.7	-1.0
YATNC	**Mamie plateau,**	**7.21**	**183**	S	Sn	07 20 09.6	+0.5
NOUC	**Port Laguerre**	**7.29**	**187**	P	Pn	07 18 50.8	+0.9

*BER **11** 07:17:30.5±2.9,81°77N×18°40W,h0km±13km, ML3.2, Mw4.4, ML2.8(DNK), Confirmed Earthquake*
*DNK **11** 07:17:31.0±1.8,81°77N×17°61W,h12km±5km, ML2.8, Presumed earthquake*
ISC 11 07:17:28.6±1.2,81°74N±0°09×18°22W±0°05,h10km,n14,
σ2§41/25,2C,Near north coast of Kalaallit Nunaat

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NOR	**Nord**	**0.26**	**121**	⇑*i*P	**Pg**	**07 17 35.7**	**+1.8**
NOR				*i* S	**Sg**	**07 17 38.6**	**+1.1**
NOR				IAML		07 17 38.7	
	comp=Z,3μm,0.1s						
NOR	**Nord**	**0.26**	**121**	⇑*i*P	**Pg**	**07 17 35.7**	**+1.8**
NOR				*i* S	**Sg**	**07 17 38.6**	**+1.1**
NOR				IAML		07 17 38.7	
	comp=Z,3μm,0.1s						
DAG	**Danmarks Havn**	**5.00**	**181**	*i* P	**Pn**	**07 18 45.4**	**+1.9**
DAG				*i* S	**Sn**	**07 19 40.9**	**-0.4**
DAG				IAML		07 19 42.6	
	comp=Z,43nm,0.5s						
DAG	**Danmarks Havn**	**5.00**	**181**	*i* P	**Pn**	**07 18 45.4**	**+1.9**
DAG				*i* S	**Sn**	**07 19 40.9**	**-0.4**
DAG				IAML		07 19 42.6	
	comp=Z,43nm,0.5s						
KBS	**Kingsbay**	**5.74**	**104**	*i* P	**Pn**	**07 18 54.6**	**+1.0**
KBS				*i* S	**Sn**	**07 19 55.5**	**-3.9**
KBS	**Kingsbay**	**5.74**	**104**	*i* P	**Pn**	**07 18 54.6**	**+1.0**
KBS				*i* S	**Sn**	**07 19 55.5**	**-3.9**
BRBB	**Barentsburg B**	**6.65**	**106**	*e*P	**Pn**	**07 19 08.1**	**+1.9**
SPA0	**Spitsbergen Ar**	**6.89**	**103**	*e*P	**Pn**	**07 19 11.1**	**+1.6**
SPA0				IAML		07 19 12.9	
	comp=Z,6.3nm,0.3s						
SPA0				*e*S	**Sn**	**07 20 25.7**	**-2.1**
NEEM	**North Greenlan**	**7.21**	**251**	*i* P	**Pn**	**07 19 16.2**	**+2.1**
NEEM				*i* S	**Sn**	**07 20 34.5**	**-1.5**
NEEM				IAML		07 20 43.6	
	comp=Z,15nm,0.4s						
NEEM	**North Greenlan**	**7.21**	**251**	*i* P	**Pn**	**07 19 16.2**	**+2.1**
NEEM				*i* S	**Sn**	**07 20 34.5**	**-1.5**
NEEM				IAML		07 20 43.6	
	comp=Z,15nm,0.4s						
DBG	**Daneborg**	**7.49**	**184**	*i* P	**Pn**	**07 19 18.0**	**+0.4**
DBG				*i* S	**Sn**	**07 20 37.2**	**-5.2**
DBG				IAML		07 21 09.5	
	comp=Z,10nm,0.6s						
DBG	**Daneborg**	**7.49**	**184**	*i* P	**Pn**	**07 19 18.0**	**+0.4**
DBG				*i* S	**Sn**	**07 20 37.2**	**-5.2**
DBG				IAML		07 21 09.5	
	comp=Z,10nm,0.6s						
UPNV	**Upernavik**	**11.88**	**243**	*i* P	**Pn**	**07 20 17.0**	**-0.7**
UPNV				*i* S	Sn	07 22 20.4	-10
UPNV				IAML		07 22 36.4	
	comp=Z,12nm,1.5s						
UPNV	**Upernavik**	**11.88**	**243**	*i* P	**Pn**	**07 20 17.0**	**-0.7**
UPNV				*i* S	Sn	07 22 20.4	-10
UPNV				IAML		07 22 36.4	
	comp=Z,12nm,1.5s						

*PDG **11** 07:25:22.6±0.1,41°69N×20°77E,h1km, ML2.5/11, Error ellipse: s-maj=0.5km s-min=0.6km az=0.0*
*SKO **11** 07:25:22.2,41°56N×20°89E,h15km, ML2.4*
*BEO **11** 07:25:23.5±0.8,41°70N×20°75E,h5km±4km, ML2.0/6*
ISC 11 07:25:21.8±1.1,41°63N±0°03×20°78E±0°02,h9km±9km,
n28,σ1§45/49,1C-1D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OHR	**Ohrid**	**0.52**	**178**	⇑*i*Pg	**Pg**	**07 25 31.5**	**-0.4**
OHR				*i* Sg	**Sg**	**07 25 39.7**	**+1.0**
OHR				*e*Lg	Lg	07 25 40.1	
	comp=N,148nm,0.3s						
OHR				*e*Lg	Lg	07 25 40.8	
	comp=E,541nm,0.8s						
SKO	**Skopje**	**0.60**	**55**	*i* Pg	**Pg**	**07 25 33.7**	**+0.3**
SKO				*i* Sg	**Sg**	**07 25 41.0**	**-0.3**
PVY	**Plav**	**1.14**	**328**	⇓*i*Pg	**Pg**	**07 25 42.4**	**-1.2**
PVY				*i* Sg	**Sn**	**07 25 59.7**	**-0.2**
ULC	**Ulcinj**	**1.19**	**287**	*e*Pg	**Pg**	**07 25 44.2**	**-0.4**
ULC				*i* Sg	**Sn**	**07 26 02.5**	**+1.5**
DRME	**Dracevica, Mon**	**1.31**	**296**	*e*Pg	**Pn**	**07 25 46.2**	**-0.1**
DRME				*i* Sg	**Sn**	**07 26 06.2**	**+2.3**
VAY	**Valandovo**	**1.38**	**102**	*i* Pg	**Pn**	**07 25 46.8**	**-0.4**
VAY				*i* Sg	**Sb**	**07 26 04.8**	**-0.7**
VAY				*e*Lg	Lg	07 26 06.0	
	comp=E,26nm,0.4s						
VAY				*e*Lg	Lg	07 26 06.8	
	comp=N,53nm,0.4s						
PDG	**Podgorica**	**1.39**	**306**	*e*Pg	**Pn**	**07 25 47.5**	**+0.2**
PDG				*i* Sg	**Sn**	**07 26 08.7**	**+3.0**
IVA	**Berane**	**1.40**	**332**	*e*Pg	**Pn**	**07 25 47.6**	**0.0**
IVA				*i* Sg	**Sn**	**07 26 07.5**	**+1.2**
BARS	**Barje**	**1.41**	**33**	*e*Pg	**Pn**	**07 25 47.9**	**+0.2**
BARS				*e*Sg	**Sn**	**07 26 07.5**	**+1.0**
BOSS	**Bosilegrad**	**1.54**	**55**	*e*Pg	**Pn**	**07 25 49.9**	**+0.5**
BUM	**Brajici-Budva**	**1.55**	**296**	*e*Pg	**Pn**	**07 25 50.8**	**+1.1**
BUM				*i* Sg	**Sg**	**07 26 14.4**	**+2.6**
PEHC	**Pehcevo**	**1.60**	**84**	*i* Pg	**Pn**	**07 25 50.8**	**+0.5**
PEHC				*i* Sg	**Sn**	**07 26 11.8**	**+0.7**
SELS	**Selova**	**1.61**	**9**	*e*Pg	**Pn**	**07 25 50.7**	**+0.3**
SELS				*e*Sg	**Sg**	**07 26 12.6**	**-0.9**
CEME	**Cevo**	**1.66**	**304**	*e*Pn	**Pb**	**07 25 52.6**	**+0.1**
CEME				*i* Sn	**Sg**	**07 26 17.6**	**+2.5**
SJES	**Sjenica**	**1.73**	**340**	*e*Pn	**Pb**	**07 25 53.6**	**-0.3**
SJES				*e*Sg	**Sb**	**07 26 15.8**	**0.0**
NKME	**Niksic**	**1.77**	**311**	*e*Pn	**Pb**	**07 25 54.5**	**+0.1**
NKME				*i* Sn	**Sg**	**07 26 20.1**	**+1.5**
HCY	**Herceg Novi**	**1.89**	**296**	*e*Pn	**Pb**	**07 25 56.4**	**0.0**
HCY				*i* Sn	**Sg**	**07 26 23.5**	**+1.2**
GOCS	**Kraljevo Serbi**	**1.93**	**2**	*e*Pn	**Pn**	**07 25 55.9**	**+1.0**
GOCS				*e*Sn	**Sn**	**07 26 19.3**	**-0.1**
IVAS	**Ivanjica**	**2.00**	**347**	*e*Pn	**Pn**	**07 25 56.3**	**+0.5**
BRY	**Bratogost**	**2.09**	**308**	*e*Pn	**Pn**	**07 25 59.1**	**+2.0**
BRY				*i* Sn	**Sg**	**07 26 28.1**	**-0.8**
UPM	**Unac-Piva**	**2.09**	**319**	*e*Pn	**Pn**	**07 25 59.0**	**+1.8**
UPM				*i* Sn	**Sg**	**07 26 28.0**	**-1.1**
BBLS	**Lazi&#263i**	**2.45**	**336**	*e*Pn	**Pn**	**07 26 04.1**	**+2.1**
STON	**Ston**	**2.60**	**300**	*e*Pn	**Pn**	**07 26 02.5**	**-1.4**
STON				Sn	**Sn**	**07 26 37.8**	**+2.1**
MAKA	**Makarska**	**3.23**	**302**	Sg	**Sn**	**07 26 49.5**	**-1.8**
RICI	**Ricice**	**3.27**	**306**	*e*Pn	**Pn**	**07 26 10.1**	**-3.2**
KIJV	**Kijevo**	**4.00**	**308**	*e*Pn	Pn	07 26 18.6	-4.6
MORI	**Morici**	**4.35**	**303**	*e*Pn	**Pn**	**07 26 25.5**	**-2.5**
MORI				Sn	**Sn**	**07 27 17.4**	**-1.4**
DUGI	**Dugi Otok**	**4.82**	**301**	*e*Pn	**Pn**	**07 26 32.4**	**-2.1**
DUGI				Sn	**Sn**	**07 27 28.4**	**-2.1**

*GCG **11** 07:47:15.2±2.0, 15°81N×90°20W,h1km±7km, MD4.2, Presumed earthquake*
*CATAC **11** 07:47:17.3±0.2, 16°N±2°×9°0W±°, h1km, M3.5/17, MLv3.5/17, Error ellipse: s-maj=3.6km s-min=2.8km az=43.9, confirmed*
ISC 11 07:47:14.6±1.4,15°85N±0°04×90°19W±0°03,h1km±14km,
n25,σ0§71/44,Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AVCB	**Coban**	**0.43**	**209**	*i* S	**Sg**	**07 47 27.5**	**-1.0**
APG	**El Apazote**	**0.89**	**197**	*i* P	**Pg**	**07 47 30.9**	**-0.6**
PETF	**Flores**	**1.10**	**16**	P	**Pn**	**07 47 37.1**	**-0.1**
PETF				S	**Sn**	**07 47 53.6**	**+0.5**
PETF	**Flores**	**1.10**	**16**	*i* P	**Pb**	**07 47 36.2**	**-0.3**
PETF				*i* S	**Sn**	**07 47 52.8**	**-0.3**
HUEH	**Huehuetenango**	**1.37**	**247**	P	**Pb**	**07 47 40.9**	**-0.3**
HUEH				S	**Sg**	**07 48 00.8**	**+2.1**
HUEH	**Huehuetenango**	**1.37**	**247**	*i* P	**Pb**	**07 47 40.9**	**-0.3**
HUEH				*i* S	**Sg**	**07 47 59.0**	**+0.2**
ZAFR2	**Estanzuela, Za**	**1.50**	**147**	*i* P	Pn	07 47 34.1	-8.6
ESQI	**Esquipulas**	**1.52**	**147**	P	**Pg**	**07 47 44.0**	**+0.2**
ESQI				S	**Sg**	**07 48 05.3**	**+1.7**
JUAM	**Asuncion Mita**	**1.58**	**163**	*i* P	**Pb**	**07 47 43.9**	**-0.7**
JUAM				*i* S	**Sg**	**07 48 06.3**	**+1.0**
SARH	**Santa Rosa de**	**1.75**	**128**	*i* P	**Pn**	**07 47 46.1**	**-0.1**
SLOZ	**Alcaldia de Sa**	**1.86**	**168**	P	**Pb**	**07 47 48.6**	**-0.8**
SLOZ				S	**Sg**	**07 48 14.7**	**+0.4**
LOAL	**Lomas de Alarc**	**1.89**	**168**	P	**Pg**	**07 47 50.6**	**-0.2**
LOAL				S	**Sg**	**07 48 16.0**	**+0.8**
CCIG	**Comitan**	**1.92**	**283**	P	**Pg**	**07 47 51.3**	**-0.1**
CCIG	**Comitan**	**1.92**	**283**	*i* P	**Pb**	**07 47 50.3**	**-0.2**
CCIG				*i* S	**Sg**	**07 48 16.5**	**+0.2**
UNIC	**Universidad Ca**	**1.96**	**161**	P	**Pb**	**07 47 51.7**	**+0.5**
UNIC				S	**Sg**	**07 48 18.2**	**+0.5**
RTAL	**Retalhuleu**	**1.96**	**228**	P	**Pb**	**07 47 51.5**	**+0.3**
RTAL				S	**Sg**	**07 48 18.2**	**+0.5**
NUBE	**Las Nubes**	**1.98**	**168**	P	**Pb**	**07 47 51.3**	**-0.2**
NUBE				S	**Sg**	**07 48 19.5**	**+1.3**
FAME	**Alcaldia de Sa**	**2.00**	**175**	P	**Pg**	**07 47 52.7**	**-0.3**
FAME				S	**Sg**	**07 48 20.3**	**+1.2**
CEVE	**Cerro Verde**	**2.09**	**165**	P	**Pg**	**07 47 54.1**	**-0.5**
CEVE				S	**Sg**	**07 48 21.2**	**-0.5**
CEDA	**San Andres**	**2.18**	**159**	P	**Pb**	**07 47 54.9**	**0.0**
CEDA				S	**Sg**	**07 48 23.7**	**-0.9**
PMON	**Piamonte**	**2.29**	**158**	P	**Pb**	**07 47 56.9**	**+0.1**
PMON				S	**Sg**	**07 48 27.9**	**-0.3**
JAYA	**Jayaque - finc**	**2.30**	**162**	P	**Pg**	**07 47 57.9**	**-0.8**
JAYA				S	**Sb**	**07 48 26.4**	**+0.4**
UEES	**Universidad Ev**	**2.31**	**156**	P	**Pb**	**07 47 57.7**	**+0.5**
UEES				S	**Sb**	**07 48 26.5**	**+0.1**
UDBS	**Universidad Do**	**2.35**	**155**	P	**Pb**	**07 47 57.0**	**-0.8**
UDBS				S	**Sb**	**07 48 27.6**	**+0.2**
PAVA	**Las Pavas**	**2.45**	**150**	P	**Pb**	**07 47 59.9**	**+0.3**
PAVA				S	**Sb**	**07 48 29.9**	**-0.3**

*TIR **11** 07:49:01.2,41°63N×20°72E,h9km±3km, ML2.8, ML2.8, Presumed earthquake*
*SKO **11** 07:49:01.6,41°60N×20°87E,h8km, ML2.9*
*BEO **11** 07:49:02.7±0.3,41°65N×20°84E,h16km±3km, ML2.7/12*
*THE **11** 07:49:03.8,42°N±5°×2°1E±°,h15km±19km, M2.7/8, MLh2.7/8*
*PDG **11** 07:49:03.2±0.5,41°58N×20°55E,h11km±1km, ML3.0/13, Error ellipse: s-maj=1.4km s-min=1.9km az=0.0*
ISC 11 07:49:01.2±1.0,41°62N±0°02×20°77E±0°02,h6km±9km,
n55,σ1§06/106,3D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PHP	**Peshkopia**	**0.25**	**284**	Pg	**Pg**	**07 49 04.9**	**-1.3**
PHP				S	**Sg**	**07 49 08.2**	**-1.2**
PHP				IAML		07 49 08.7	
	34μm,0.2s						
OHR	**Ohrid**	**0.51**	**177**	⇓*i*Pg	**Pg**	**07 49 11.2**	**+0.1**
OHR				*i* Sg	**Sb**	**07 49 19.8**	**-0.6**
OHR				*e*Lg	Lg	07 49 20.5	
	comp=N,464nm,0.4s						
OHR				*e*Lg	Lg	07 49 20.6	
	comp=E,1μm,0.8s						
SKO	**Skopje**	**0.61**	**55**	⇓*i*Pg	**Pg**	**07 49 12.6**	**-0.4**
SKO				*i* Sg	**Sg**	**07 49 21.5**	**+0.5**
TIR	**Tirane**	**0.73**	**248**	Pg	**Pg**	**07 49 14.5**	**-0.7**
TIR				Sg	**Sg**	**07 49 25.4**	**+0.6**
TIR				IAML		07 49 31.0	
	comp=E,321nm,0.3s						
KBN	**Korca**	**1.00**	**179**	P	**Pb**	**07 49 21.7**	**+0.6**
KBN				S	**Sb**	**07 49 35.2**	**+0.7**
KBN				AML	AML		
KBN	**Korca**	**1.00**	**179**	Pg	**Pb**	**07 49 21.5**	**+0.5**
KBN				Sg	**Sb**	**07 49 34.6**	**+0.1**
SDA	**Shkodra**	**1.04**	**295**	Pg	**Pg**	**07 49 21.1**	**-0.1**
SDA				Sg	**Sb**	**07 49 36.0**	**+0.5**
SDA				IAML		07 49 40.7	
	comp=E,500nm,0.4s						
BERA	**Berati**	**1.11**	**214**	Pg	**Pn**	**07 49 24.5**	**+1.2**
BERA				Sg	**Sn**	**07 49 38.7**	**-0.2**
BERA				IAML		07 49 45.8	
	comp=E,250nm,0.7s						
PVY	**Plav**	**1.14**	**329**	*e*Pg	**Pg**	**07 49 22.9**	**-0.2**
PVY				*i* Sg	**Sn**	**07 49 41.0**	**+1.0**
ULC	**Ulcinj**	**1.19**	**287**	*e*Pg	**Pg**	**07 49 22.1**	**-1.9**
ULC				*i* Sg	**Sg**	**07 49 39.7**	**+0.3**
NEST	**Nestorio**	**1.23**	**170**	P	**Pg**	**07 49 23.7**	**-1.1**
NEST				S	**Sb**	**07 49 41.6**	**+0.5**
NEST				AML	AML		
DRME	**Dracevica, Mon**	**1.31**	**296**	*e*Pg	**Pn**	**07 49 24.8**	**-1.3**
DRME				*i* Sg	**Sn**	**07 49 44.2**	**+0.3**
PDG	**Podgorica**	**1.38**	**306**	*e*Pg	**Pg**	**07 49 29.2**	**+1.4**
PDG				*e*Sg	**Sg**	**07 49 48.2**	**+2.5**
PDG	**Podgorica**	**1.38**	**306**	*e*Pg	**Pn**	**07 49 26.6**	**-0.5**
PDG				*i* Sg	**Sg**	**07 49 47.5**	**+1.8**
VAY	**Valandovo**	**1.39**	**102**	⇓*i*Pg	**Pn**	**07 49 26.8**	**-0.4**
VAY				*i* Sg	**Sg**	**07 49 46.2**	**+0.3**
VAY				*e*Lg	Lg	07 49 47.0	
	comp=N,96nm,0.6s						
VAY				*e*Lg	Lg	07 49 48.1	
	comp=E,91nm,0.5s						
GRG	**Griva**	**1.40**	**118**	P	**Pn**	**07 49 27.1**	**-0.3**
GRG				S	**Sg**	**07 49 46.4**	**+0.1**
GRG				AML	AML		
IVA	**Berane**	**1.41**	**333**	*e*Pg	**Pb**	**07 49 28.0**	**0.0**
IVA				*i* Sg	**Sg**	**07 49 48.2**	**+1.8**
BARS	**Barje**	**1.43**	**33**	*e*Pg	**Pn**	**07 49 27.8**	**+0.1**
BARS				*e*Sg	**Sg**	**07 49 48.4**	**+1.4**
PENT	**Pentalofos**	**1.45**	**169**	P	**Pb**	**07 49 28.7**	**-0.1**
PENT				S	**Sg**	**07 49 48.4**	**+0.4**
KOME	**Kolasin**	**1.54**	**323**	*e*Pg	**Pb**	**07 49 30.1**	**-0.1**
KOME				*i* Sg	**Sg**	**07 49 53.4**	**+2.7**
BOSS	**Bosilegrad**	**1.55**	**55**	*e*Pg	**Pb**	**07 49 30.2**	**-0.1**
BOSS				*e*Sg	**Sb**	**07 49 50.1**	**-0.1**
BUM	**Brajici-Budva**	**1.55**	**296**	*e*Pg	**Pg**	**07 49 29.4**	**-0.1**
BUM				*i* Sg	**Sg**	**07 49 52.7**	**+1.6**
PEHC	**Pehcevo**	**1.61**	**84**	*i* Pg	**Pb**	**07 49 30.9**	**-0.4**
PEHC				*i* Sg	**Sg**	**07 49 52.6**	**-0.3**
SELS	**Selova**	**1.62**	**9**	*e*Pg	**Pn**	**07 49 30.7**	**+0.3**
SELS				*e*Sg	**Sg**	**07 49 53.6**	**+0.4**
CEME	**Cevo**	**1.66**	**304**	*e*Pg	**Pn**	**07 49 31.6**	**+0.7**
CEME				*i* Sg	**Sg**	**07 49 56.2**	**+1.8**
KNT	**Kendrikon**	**1.67**	**105**	P	**Pn**	**07 49 31.6**	**+0.5**
KNT				S	**Sg**	**07 49 54.5**	**-0.4**
KNT				AML	AML		
SJES	**Sjenica**	**1.74**	**341**	*e*Pg	**Pn**	**07 49 32.8**	**+0.7**
SJES				*e*Sg	**Sg**	**07 49 56.9**	**-0.2**
NKME	**Niksic**	**1.77**	**311**	*e*Pn	**Pb**	**07 49 34.3**	**+0.2**
NKME				*i* Sn	**Sg**	**07 49 59.3**	**+1.3**
KKB	**Krupnik**	**1.78**	**82**	P	**Pb**	**07 49 34.3**	**-0.1**
KKB				S	**Sb**	**07 49 57.2**	**+0.2**
KKB				AML	AML		
SRN	**Sarande**	**1.84**	**199**	P	**Pg**	**07 49 36.6**	**+0.2**
SRN				S	**Sg**	**07 50 01.4**	**+1.2**
HCY	**Herceg Novi**	**1.88**	**297**	*e*Pn	**Pn**	**07 49 34.9**	**+0.9**
HCY				*i* Sn	**Sg**	**07 50 01.4**	**-0.3**
GOCS	**Kraljevo Serbi**	**1.94**	**2**	*e*Pg	**Pn**	**07 49 34.5**	**-0.4**
GOCS				*e*Sg	**Sg**	**07 50 04.7**	**+1.1**
PLE	**Pljevlja**	**1.99**	**330**	*e*Pn	**Pb**	**07 49 37.5**	**-0.4**
PLE				*i* Sn	**Sg**	**07 50 04.3**	**-0.8**
IVAS	**Ivanjica**	**2.00**	**347**	*e*Pn	**Pn**	**07 49 34.7**	**-1.0**
IVAS				*e*Sn	**Sn**	**07 50 01.5**	**+0.3**
KEK	**Kerkira**	**2.04**	**201**	P	**Pn**	**07 49 36.1**	**-0.1**
KEK				AML	AML		
BRY	**Bratogost**	**2.09**	**308**	*e*Pn	**Pb**	**07 49 38.6**	**-1.0**
BRY				*i* Sn	**Sb**	**07 50 07.0**	**+1.1**
VTS	**Vitosha**	**2.09**	**61**	P	**Pn**	**07 49 37.8**	**+0.8**
VTS				AML	AML		
UPM	**Unac-Piva**	**2.10**	**320**	*e*Pn	**Pb**	**07 49 38.8**	**-1.0**
UPM				*i* Sn	**Sg**	**07 50 07.5**	**-1.1**
IGT	**Igoumenitsa**	**2.12**	**189**	*e*Pg	**Pg**	**07 49 42.6**	**+0.8**
IGT				*e*Sg	**Sg**	**07 50 09.8**	**+0.6**
BOVS	**Bovan**	**2.13**	**19**	*e*Pg	**Pg**	**07 49 41.7**	**-0.3**
BOVS				*e*Sg	**Sb**	**07 50 06.8**	**-0.1**
ZAPS	**Zavoj**	**2.15**	**39**	*e*Pg	**Pb**	**07 49 40.6**	**-0.1**
ZAPS				*e*Sg	**Sb**	**07 50 08.0**	**+0.4**
SRS	**Serrai**	**2.19**	**102**	P	**Pb**	**07 49 39.8**	**-1.4**
DBRK	**

BUM	**Brajici-Budva**	**1.54**	**296**	*e*Pg	**Pn**	**07 58 46.9**	**-0.8**
BUM				*i* Sg	**Sg**	**07 59 11.0**	**+2.3**
SELS	**Selova**	**1.59**	**9**	*e*Pg	**Pn**	**07 58 48.4**	**0.0**
SELS				*e*Sg	**Sg**	**07 59 11.1**	**+0.7**
CEME	**Cevo**	**1.64**	**304**	*e*Pn	**Pn**	**07 58 48.9**	**-0.2**
CEME				*i* Sn	**Sg**	**07 59 14.3**	**+2.3**
KNT	**Kendrikon**	**1.68**	**106**	P	**Pn**	**07 58 48.4**	**-1.1**
KNT				S	**Sn**	**07 59 10.8**	**-0.7**
KNT				AML	AML		
SJES	**Sjenica**	**1.72**	**340**	*e*Pg	**Pn**	**07 58 49.9**	**-0.2**
SJES				*e*Sg	**Sb**	**07 59 13.2**	**-0.3**
KPRO	**Kipourio**	**1.75**	**165**	P	**Pb**	**07 58 51.3**	**-0.7**
KPRO				S	**Sg**	**07 59 17.4**	**+2.1**
KPRO				AML	AML		
NKME	**Niksic**	**1.75**	**310**	*e*Pn	**Pn**	**07 58 51.0**	**+0.5**
NKME				*i* Sn	**Sg**	**07 59 17.4**	**+1.9**
KKB	**Krupnik**	**1.78**	**83**	P	**Pn**	**07 58 51.3**	**+0.4**
KKB				S	**Sn**	**07 59 14.1**	**+0.1**
KKB				AML	AML		
SRN	**Sarande**	**1.86**	**198**	Pn	**Pg**	**07 58 54.7**	**0.0**
SRN				Sn	**Sg**	**07 59 20.0**	**+1.2**
HCY	**Herceg Novi**	**1.87**	**296**	*e*Pn	**Pn**	**07 58 52.2**	**0.0**
HCY				*i* Sn	**Sg**	**07 59 19.6**	**+0.3**
GOCS	**Kraljevo Serbi**	**1.92**	**2**	*e*Pg	**Pn**	**07 58 51.8**	**-1.1**
GOCS				*e*Sg	**Sg**	**07 59 22.5**	**+1.7**
PLE	**Pljevlja**	**1.97**	**329**	⇑*i*Pn	**Pn**	**07 58 54.0**	**+0.4**
PLE				*i* Sn	**Sb**	**07 59 21.4**	**+0.7**
IVAS	**Ivanjica**	**1.98**	**347**	*e*Pg	**Pn**	**07 58 54.7**	**+1.0**
KEK	**Kerkira**	**2.07**	**201**	P	**Pn**	**07 58 55.5**	**+0.7**
KEK				S	**Sb**	**07 59 22.4**	**-1.0**
KEK				AML	AML		
BRY	**Bratogost**	**2.08**	**308**	⇑*i*Pn	**Pn**	**07 58 55.7**	**+0.6**
BRY				*i* Sn	**Sb**	**07 59 24.9**	**+1.0**
VTS	**Vitosha**	**2.08**	**61**	P	**Pn**	**07 58 55.1**	**0.0**
VTS				S	**Sn**	**07 59 21.9**	**+0.3**
VTS				AML	AML		
UPM	**Unac-Piva**	**2.08**	**319**	⇓*i*Pn	**Pn**	**07 58 56.1**	**+0.9**
UPM				*i* Sn	**Sg**	**07 59 25.7**	**-0.3**
PRMD	**Pramanda**	**2.13**	**173**	P	**Pn**	**07 58 55.2**	**-0.5**
PRMD				S	**Sb**	**07 59 24.7**	**-0.6**
PRMD				AML	AML		
IGT	**Igoumenitsa**	**2.14**	**189**	*e*Pg	**Pg**	**07 59 00.7**	**+0.6**
IGT				*e*Sg	**Sb**	**07 59 25.8**	**+0.3**
SRS	**Serrai**	**2.19**	**103**	P	**Pn**	**07 58 56.3**	**-0.2**
SRS				S	**Sn**	**07 59 24.8**	**+0.6**
SRS				AML	AML		
DBRK	**Dubrovnik**	**2.20**	**299**	*e*Pn	**Pn**	**07 58 57.4**	**+0.7**
DBRK				Sn	**Sn**	**07 59 25.2**	**+0.9**
MMB	**Musomishta**	**2.24**	**92**	P	**Pn**	**07 58 57.3**	**+0.1**
MMB				S	**Sb**	**07 59 29.5**	**+1.0**
GRUS	**Gruza**	**2.24**	**359**	*e*Pn	**Pn**	**07 58 57.6**	**+0.4**
GRUS				*e*Sn	**Sn**	**07 59 24.2**	**-1.2**
DIVS	**Divibare**	**2.52**	**347**	*e*Pn	**Pn**	**07 59 00.3**	**-0.8**
DIVS				*e*Sn	**Sn**	**07 59 29.2**	**-3.1**
STON	**Ston**	**2.58**	**299**	*e*Pn	**Pn**	**07 59 02.0**	**+0.1**
STON				Sn	**Sn**	**07 59 33.8**	**0.0**
LSTV	**Lastovo**	**3.09**	**293**	*i* Pn	**Pn**	**07 59 08.8**	**0.0**
LSTV				Sn	**Sn**	**07 59 46.6**	**+0.3**
MAKA	**Makarska**	**3.22**	**302**	*e*Pn	**Pn**	**07 59 09.8**	**-0.8**
MAKA				Sn	**Sn**	**07 59 49.7**	**+0.1**
RICI	**Ricice**	**3.26**	**306**	*e*Pn	**Pn**	**07 59 11.3**	**+0.1**
RICI				Sn	**Sn**	**07 59 50.1**	**-0.4**
HVAR	**Hvar**	**3.54**	**297**	*e*Pn	**Pn**	**07 59 15.2**	**+0.1**
HVAR				Sn	**Sn**	**07 59 56.9**	**-0.6**
KIJV	**Kijevo**	**3.98**	**308**	*e*Pn	**Pn**	**07 59 21.3**	**+0.2**
KIJV				Sn	**Sn**	**08 00 08.2**	**-0.1**
MORI	**Morici**	**4.34**	**302**	*e*Pn	**Pn**	**07 59 26.4**	**+0.4**
MORI				Sn	**Sn**	**08 00 17.7**	**+0.7**
DUGI	**Dugi Otok**	**4.81**	**301**	*e*Pn	**Pn**	**07 59 32.1**	**-0.4**
DUGI				Sn	**Sn**	**08 00 27.6**	**-1.1**

AFAD ***11*** *08:03:22.9, 38°.09N×36°.89E, h7km, 3km, ML2.5*
ISK ***11*** *08:03:23.4, 38°.16N×36°.89E, h7km, ML2.3/9*
ISC 11 08:03:23.2±1.1, 38°.10N±0°.03×36°.90E±0°.02, h6km±10km, n21, σ0ˢ52/34, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELBS	**KAHRAMANMARAS**	**0.29**	**40**	P	**Pg**	**08 03 28.6**	**-0.3**
ELBS				S	**Sg**	**08 03 33.7**	**+0.9**
ELBS				IAML		08 03 35.0	
	comp=N,379nm,0.6s						
ELBS				IAML		08 03 37.0	
	comp=E,429nm,0.4s						
SARI	**SarD1z-Kayseri**	**0.49**	**309**	Pg	**Pg**	**08 03 32.6**	**0.0**
SARI				Sg	**Sg**	**08 03 39.3**	**+0.3**
SARI				AML	AML		
KAHM	**Kahramanmaras,**	**0.59**	**173**	P	**Pg**	**08 03 34.0**	**-0.5**
KAHM				S	**Sg**	**08 03 42.6**	**+0.4**
SAIM	**ADANA**	**0.66**	**259**	P	**Pg**	**08 03 35.1**	**-0.7**
SAIM				S	**Sb**	**08 03 46.4**	**-0.1**
DARE	**Darende-Malaty**	**0.66**	**44**	Pg	**Pg**	**08 03 35.5**	**-0.3**
DARE				Sg	**Sg**	**08 03 45.1**	**+0.7**
DARE				AML	AML		
ANDN	**Andirin**	**0.68**	**220**	P	**Pg**	**08 03 36.2**	**-0.1**
CUGUR	**Gurin_SVAS**	**0.69**	**25**	S	**Sb**	**08 03 47.2**	**-0.3**
CUGUR				P	**Sb**	**08 03 47.7**	**+0.2**
AKCA	**Adyaman/G¶ll**	**0.70**	**116**	P	**Pg**	**08 03 36.5**	**-0.1**
AKCA				S	**Sb**	**08 03 47.3**	**-0.4**
AKCA				IAML		08 03 48.0	
	comp=N,701nm,0.4s						
AKCA				IAML		08 03 48.0	
	comp=E,329nm,0.5s						
KHMN	**Narli-Kahraman**	**0.74**	**164**	Pg	**Pn**	**08 03 39.5**	**-0.7**
KHMN				AML	AML		
AKCD	**Akcadag**	**0.83**	**76**	P	**Pg**	**08 03 38.6**	**-0.5**
AKCD				S	**Sg**	**08 03 50.5**	**+0.6**
AKCD				IAML		08 03 53.0	
	comp=N,276nm,0.2s						
AKCD				IAML		08 03 55.0	
	comp=E,161nm,0.9s						
GZT	**Gaziantep**	**0.91**	**144**	P	**Pb**	**08 03 42.1**	**+0.6**
GZT				S	**Sg**	**08 03 53.2**	**+0.6**
GZT				IAML		08 03 57.0	
	comp=N,122nm,0.5s						
GZT				IAML		08 03 57.0	
	comp=E,76nm,0.4s						
KAMA	**Osmaniye**	**0.93**	**191**	P	**Pg**	**08 03 40.5**	**-0.6**
GAZ	**Gaziantep**	**0.96**	**165**	Pg	**Pn**	**08 03 43.4**	**+0.1**
GAZ				AML	AML		
KOZT	**Kozan**	**1.05**	**234**	Pn	**Pn**	**08 03 44.6**	**+0.1**
KOZT				Sn	**Sn**	**08 03 59.8**	**+0.4**
KOZT				AML	AML		
AZEY	**Adyaman-Merk**	**1.11**	**105**	P	**Pg**	**08 03 43.9**	**-0.6**
AZEY				S	**Sn**	**08 04 01.5**	**+0.6**
AZEY				IAML		08 04 03.0	
	comp=N,78nm,0.7s						
AZEY				IAML		08 04 04.0	
	comp=E,92nm,0.4s						
BNN	**Bunyan**	**1.11**	**313**	Pg	**Pg**	**08 03 44.3**	**-0.3**
BNN				AML	AML		
NZIP	**Nizip/Gaziante**	**1.22**	**149**	P	**Pg**	**08 03 46.2**	**-0.5**
NZIP				S	**Sn**	**08 04 03.9**	**+0.1**
NZIP				IAML		08 04 05.0	
	comp=N,91nm,0.3s						
NZIP				IAML		08 04 05.0	
	comp=E,85nm,0.6s						
ATAB	**Bozova**	**1.27**	**119**	P	**Pb**	**08 03 47.5**	**0.0**
ATAB				S	**Sn**	**08 04 05.8**	**+0.8**
ATAB				IAML		08 04 07.0	
	comp=N,225nm,0.3s						
ATAB				IAML		08 04 08.0	
	comp=E,181nm,1.1s						
CMRD	**Camardi-Nigde**	**1.57**	**254**	Pn	**Pb**	**08 03 52.3**	**-0.4**
CMRD				AML	AML		
TAHT	**Tahtakopru-Hat**	**1.81**	**198**	Pn	**Pb**	**08 03 56.9**	**+0.1**
TAHT				AML	AML		
SVRC	**Sivrice-ELAZID**	**1.92**	**81**	Pn	**Pb**	**08 03 57.5**	**-1.1**

IDC ***11*** *08:24:09.0±1.0, 43°.80N×86°.77E, h0km, mb3.9/4, mbtmp3.7/9, ML3.3/5, MS3.2/5, Error ellipse: s-maj=20.6km s-min=10.1km az=48.0*
NNC ***11*** *08:24:10.5±8.9, 44°.63N×87°.52E, h0km, mb4.1, mpv3.8, Error ellipse: s-maj=68.5km s-min=54.9km az=77.0*
ISC 11 08:24:11.9±1.0, 43°.82N±0°.09×86°.84E±0°.08, h20km, n23, σ1ˢ74/23, mb3.8/3, MS3.3/5, 5C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZSN	**Zaisan**	**3.89**	**340**	Pg	**Pn**	**08 25 13.3**	**+2.9**
	8.1nm,0.1s						
ZSN				Lg	Lg	08 25 59.2	
	51nm,0.3s						
MK31	**Makanchi Array**	**4.37**	**314**	Pn	**Pn**	**08 25 17.9**	**+0.7**
	1.0nm,0.2s,baz=127,slow=16,SNR=109						
MK31				⇓Sn	**Sn**	**08 26 08.5**	**+0.9**
	12nm,0.5s,baz=110,slow=25						
MK31				⇑Lg	Lg	08 26 26.7	
	17nm,0.5s,baz=115,slow=35						
MKAR	**Makanchi Array**	**4.37**	**314**	Pn	**Pn**	**08 25 18.4**	**+1.3**
	2.8nm,0.3s,baz=114,slow=14,SNR=71						
MKAR				Pg	**Pb**	**08 25 28.9**	**+0.9**
	2.5nm,0.3s,baz=131,slow=14,SNR=11						
MKAR				Sn	**Sn**	**08 26 09.6**	**+2.0**
	7.9nm,0.3s,baz=119,slow=25,SNR=7.9						
MKAR				Lg	Lg	08 26 25.4	
	8.8nm,0.3s,baz=129,slow=33,SNR=7.5						
	4.3nm,0.3s						
MKAR				AML	AML		
MAKZ	**Makanchi**	**4.55**	**313**	⇑Pn	**Pn**	**08 25 20.4**	**+0.9**
	4.7nm,0.3s						
MAKZ				⇓Sn	**Sn**	**08 26 14.4**	**+2.6**
	15nm,0.6s						
MAKZ				⇑Lg	Lg	08 26 32.5	
	34nm,0.5s						
DJR	**Jarkent**	**5.10**	**278**	Pg	**Pn**	**08 25 27.8**	**+0.5**
	3.1nm,0.3s						
DJR				Lg	Lg	08 26 25.0	
	8.5nm,0.5s						
PDGK	**Podgornoye**	**5.36**	**267**	⇑Pn	Pn	08 25 37.7	+6.9
	3.0nm,0.5s						
PDGK				⇑Lg	Lg	08 26 55.5	
	86nm,1.0s						
SHLS	**Shalkode**	**5.41**	**266**	Pg	**Pn**	**08 25 29.7**	**-1.8**
	5.8nm,0.1s						
SHLS				Lg	Lg	08 26 27.7	
	29nm,0.4s						
UZB	**Uzynbulak**	**5.72**	**266**	Pg	**Pn**	**08 25 36.5**	**+0.6**
	6.6nm,0.3s						
UZB				Lg	Lg	08 26 40.1	
	12nm,0.5s						
SATY	**Saty**	**6.18**	**266**	Pg	**Pn**	**08 25 42.5**	**+0.3**
	2.0nm,0.4s						
SATY				Lg	Lg	08 26 49.3	
	16nm,0.2s						
ARXS	**Arharly**	**6.51**	**277**	Pg	**Pn**	**08 25 46.3**	**-0.2**
	1.8nm,0.3s						
ARXS				Lg	Lg	08 26 55.9	
	27nm,0.3s						
KURBB	**Kurchatov Arra**	**8.84**	**323**	Pn	**Pn**	**08 26 17.6**	**-0.9**
	0.3nm,0.3s,baz=133,slow=14,SNR=8.6						
KURBB				Sn	**Sn**	**08 27 55.3**	**-2.1**
	0.3nm,0.3s,baz=96,slow=5.7,SNR=4.5						
KURBB				Lg	Lg	08 28 44.5	
	0.2nm,0.3s,baz=165,slow=30,SNR=4.7						
	0.8nm,0.4s						
KURBB				AML	AML		
AAK	**Ala-Archa**	**9.09**	**267**	Lg	Lg	08 28 53.4	
	0.2nm,0.3s,baz=53,slow=20,SNR=1.3						
ZALV	**Zalesovo Beam**	**10.22**	**353**	Pn	**Pn**	**08 26 37.0**	**-0.4**
	1.4nm,0.3s,baz=174,slow=14,SNR=27						
ZALV				Sn	**Sn**	**08 28 27.1**	**-4.2**
	1.5nm,0.3s,baz=169,slow=24,SNR=7.2						
ZALV				Lg	Lg	08 29 33.7	
	baz=183,slow=26						
	4.5nm,0.4s						
ZALV				AML	AML		
SONM	**Songino Array**	**14.21**	**67**	Pn	**Pn**	**08 27 32.3**	**+0.3**
	0.2nm,0.3s,baz=267,slow=9.9,SNR=1.7						
SONM				Lg	Lg	08 31 38.1	
	0.1nm,0.3s,baz=264,slow=31,SNR=1.4						
	0.3nm,0.4s						
SONM				AML	AML		
BVAR	**Borovoye Array**	**14.26**	**316**	Pn	**Pn**	**08 27 29.6**	**-2.9**
	0.1nm,0.3s,baz=116,slow=13,SNR=2.2						
	0.6nm,0.4s						
BVAR				AML	AML		
ARTI	**Arti**	**21.97**	**315**	LR	LR	08 38 21.8	
	comp=Z,25nm,19.2s,baz=58,slow=39						
NRIK	**Noril'sk**	**25.59**	**1**	P	**P**	**08 29 40.2**	**+1.0**
	2.4nm,0.5s,baz=171,slow=6.8,SNR=2.4						
NRIK				LR	LR	08 42 01.4	
	comp=Z,16nm,21.3s,baz=74,slow=42						
	2.4nm,0.5s						
KIRV	**Kirov**	**27.27**	**316**	LR	LR	08 41 29.1	
	comp=Z,78nm,18.5s,baz=200,slow=38						
MBAR	**Mbarara**	**66.64**	**245**	LR	LR	09 05 09.8	
	comp=Z,22nm,19.4s,baz=148,slow=37						
FRB	**Frobisher Bay**	**71.02**	**349**	LR	LR	09 11 14.5	
	comp=Z,42nm,18.1s,baz=58,slow=40						
WRA	**Warramunga Arr**	**76.93**	**135**	P	**P**	**08 36 03.1**	**+0.3**
	0.6nm,0.6s,baz=331,slow=5.1,SNR=7.2						
	0.6nm,0.6s						
TORD	**Torodi Ar. Bea**	**77.55**	**276**	P	**P**	**08 36 06.0**	**-0.6**
	0.4nm,0.5s,baz=59,slow=2.9,SNR=2.6						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**79.82**	**137**	P	**P**	**08 36 19.3**	**+0.5**
	0.2nm,0.4s,baz=335,slow=5.1,SNR=5.4						
	0.2nm,0.4s						

CATAC ***11*** *08:34:10.1±0.6, 15°.N×3°.3W±°, h9km±3km, M3.6/12, MLv3.6/12, Error ellipse: s-maj=7.2km s-min=3.5km az=44.0, confirmed*
GCG ***11*** *08:34:12.8±2.1, 14°.63N×93°.14W, h37km±651km, MD4.1, Presumed earthquake*
MEX ***11*** *08:34:12.6±1.0, 14°.67N×93°.34W, h18km±819km, MD4.2, Presumed earthquake*
ISC 11 08:34:08.2±1.6, 14°.76N±0°.04×93°.29W±0°.03, h3km±11km, n36, σ1ˢ57/66, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCIG		**0.94**	**4**	*i* P	**Pn**	**08 34 28.9**	**+0.6**
PCIG				*e*S	**Sn**	**08 34 41.0**	**-1.3**
THIG		**1.00**	**82**	*i* P	**Pb**	**08 34 28.7**	**+0.4**
THIG		**1.00**	**82**	*i* P	**Pn**	**08 34 29.1**	**-0.1**
THIG				*e*S	**Sb**	**08 34 41.5**	**-0.3**
PATR	**El Naranjo**	**1.08**	**71**	*e*P	**Pn**	**08 34 30.1**	**-0.3**
PATR				*e*S	**Sb**	**08 34 44.0**	**-0.3**
PAVE	**Pavencul**	**1.16**	**68**	*e*P	**Pn**	**08 34 31.7**	**+0.1**
PAVE				*e*S	**Sn**	**08 34 46.4**	**-1.6**
CHUJ	**Union Juarez**	**1.19**	**74**	*e*P	**Pg**	**08 34 31.3**	**+0.2**
CHUJ				*e*S	**Sb**	**08 34 46.4**	**-1.0**
RTAL	**Retalhuleu**	**1.56**	**98**	P	**Pn**	**08 34 37.7**	**+0.7**
RTAL				S	**Sb**	**08 34 58.1**	**+0.1**
RTAL	**Retalhuleu**	**1.56**	**98**	*e*P	**Pn**	**08 34 36.6**	**-0.3**
RTAL				*e*S	**Sn**	**08 34 57.0**	**-0.7**
QUEO	**Labor Ovalle**	**1.72**	**86**	*i* P	**Pn**	**08 34 39.6**	**+0.2**
QUEO				*i* S	**Sn**	**08 35 00.3**	**-1.7**
HUEH	**Huehuetenango**	**1.81**	**72**	P	**Pg**	**08 34 42.7**	**-0.3**
HUEH				S	**Sg**	**08 35 07.1**	**+0.6**
HUEH	**Huehuetenango**	**1.81**	**72**	*i* P	**Pb**	**08 34 42.2**	**0.0**
HUEH				*i* S	**Sb**	**08 35 04.1**	**-1.4**
HUEH	**Huehuetenango**	**1.81**	**72**	*e*P	**Pb**	**08 34 42.1**	**0.0**
HUEH				*e*S	**Sg**	**08 35 05.4**	**-1.1**
CCIG	**Comitan**	**1.88**	**36**	P	**Pb**	**08 34 43.1**	**-0.2**
CCIG				S	**Sg**	**08 35 08.3**	**-0.3**
CCIG	**Comitan**	**1.88**	**36**	*i* P	**Pg**	**08 34 44.5**	**+0.2**
CCIG	**Comitan**	**1.88**	**36**	*e*P	**Pg**	**08 34 44.3**	**0.0**
CCIG				*e*S	**Sg**	**08 35 07.6**	**-1.0**
STG8	**El Palmar, Qui**	**1.90**	**99**	*i* P	Pn	08 34 37.5	-4.3
STG8				*i* S	Sn	08 34 56.1	-10
TGIG		**2.01**	**5**	*i* P	**Pb**	**08 34 45.2**	**-0.4**
TGIG		**2.01**	**5**	*i* P	**Pb**	**08 34 45.1**	**-0.4**
TGIG				*e*S	**Sb**	**08 35 08.9**	**-2.1**
UXUV	**UXUV**	**2.67**	**342**	*i* P	**Pn**	**08 34 54.8**	**+2.6**
UXUV				*e*S	**Sn**	**08 35 26.5**	**+1.3**
CMIG	**Matias Romero**	**2.78**	**327**	*e*P	**Pn**	**08 34 55.2**	**+1.5**
CMIG				*e*S	**Sn**	**08 35 28.2**	**+0.4**
HUIG	**Huatulco**	**2.90**	**291**	*e*P	**Pn**	**08 34 55.2**	**-0.2**
HUIG				*e*S	**Sn**	**08 35 24.8**	**-6.0**
FAME	**Alcaldia de Sa**	**3.30**	**106**	P	**Pn**	**08 35 01.7**	**+0.9**
FAME				S	**Sn**	**08 35 42.3**	**+1.6**
SLOZ	**Alcaldia de Sa**	**3.47**	**102**	P	**Pn**	**08 35 05.1**	**+1.8**
SLOZ				S	**Sn**	**08 35 46.9**	**+1.9**
NUBE	**Las Nubes**	**3.51**	**104**	P	**Pn**	**08 35 04.4**	**+0.6**
NUBE				S	**Sn**	**08 35 46.7**	**+0.8**
NEUV	**Arroyo Zacate**	**3.80**	**321**	*e*P	**Pn**	**08 35 08.9**	**+1.2**
NEUV				*e*S	**Sn**	**08 35 53.0**	**+0.1**
JAYA	**Jayaque - finc**	**3.88**	**106**	P	**Pn**	**08 35 09.1**	**+0.1**
JAYA				S	**Sn**	**08 35 55.8**	**+0.5**
PEIG	**Puerto Escondi**	**3.92**	**289**	*e*P	**Pn**	**08 35 10.2**	**+0.8**
PEIG				*e*S	**Sn**	**08 35 53.9**	**-2.1**
PETF	**Flores**	**3.93**	**56**	P	**Pn**	**08 35 11.2**	**+1.7**
PETF				S	**Sn**	**08 35 58.1**	**+1.9**
PETF	**Flores**	**3.93**	**56**	*e*P	**Pn**	**08 35 12.8**	**+3.3**
PETF				*e*S	**Sn**	**08 35 52.8**	**-3.4**
VHO	**Vista Hermosa**	**4.03**	**305**	*e*P	**Pn**	**08 35 14.0**	**+2.9**
VHO				*e*S	**Sn**	**08 36 00.0**	**+1.0**
PAVA	**Las Pavas**	**4.35**	**103**	P	**Pn**	**08 35 15.9**	**+0.5**
YOIG	**Yosondua**	**4.60**	**298**	*e*P	**Pn**	**08 35 21.4**	**+2.4**
YOIG				*e*S	**Sn**	**08 36 14.5**	**+1.4**
SCIG	**Sabancuy**	**4.64**	**25**	*e*P	**Pn**	**08 35 21.6**	**+2.3**
SCIG				*e*S	**Sn**	**08 36 12.3**	**-1.4**
TOIG	**Toxpalan**	**4.91**	**313**	*e*P	**Pn**	**08 35 24.8**	**+1.6**
TOIG				*e*S	**Sn**	**08 36 20.1**	**-0.5**
PNIG	**Pinotepa**	**4.94**	**290**	*e*P	**Pn**	**08 35 24.7**	**+1.3**
PNIG				*e*S	**Sn**	**08 36 18.9**	**-2.2**
TXIG	**Tlaxiaco**	**4.97**	**301**	*e*P	**Pn**	**08 35 25.7**	**+1.7**
TXIG				*e*S	**Sn**	**08 36 23.9**	**+1.6**

SARA 11 08:35:12.3±0.4, 42°.923N±0°.002×72°.739E±0°.002, h0km, ML2.5/5, Mwp2.6/5, Central Italy

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TREV	**Trevi**	**0.05**	**175**	Pg	Pg	08 35 13.1	-0.1
TREV				Sg	Sg	08 35 14.3	+0.6
ASSB	**Assisi San Ben**	**0.13**	**334**	Pg	Pg	08 35 15.0	+0.1
ASSB				Sg	Sg	08 35 18.3	+1.7
USLL	**Sellano**	**0.17**	**104**	Pg	Pg	08 35 16.2	+0.7
USLL				Sg	Sg	08 35 19.8	+2.1
MOMA	**Monte Martano**	**0.17**	**226**	Pg	Pg	08 35 16.0	+0.4
MOMA				Sg	Sg	08 35 19.7	+1.9
BETT	**Bettona**	**0.20**	**290**	Pg	Pg	08 35 16.6	+0.4
BETT				Sg	Sg	08 35 21.1	+2.3

KRNET ***11*** *09:09:25.6±0.1, 41°.75N×79°.45E, h18km, mb2.6*
SOME ***11*** *09:09:26.9, 41°.80N×79°.33E, h10km*
NNC ***11*** *09:09:27.3±1.8, 41°.80N×79°.38E, h0km, mb2.6, mpv2.7, Error ellipse: s-maj=11.5km s-min=9.4km az=155.0*
ISC 11 09:09:28.4±2.3, 41°.8N±0°.1×79°.41E±0°.09, h22km±9km, n20, σ1ˢ18/37, 7C-7D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRZ	**Przheval'sk**	**1.04**	**314**	⇓*i*P	**Pn**	**09 09 46.3**	**-1.6**
PRZ				⇓*i*S	**Sn**	**09 10 01.5**	**-0.4**
TARG	**Taragay, Kyrgy**	**1.20**	**269**	⇓*i*P	**Pn**	**09 09 49.3**	**-1.0**
TARG				⇓*i*S	**Sb**	**09 10 06.5**	**+0.5**
SHLS	**Shalkode**	**1.40**	**1**	P	**Pb**	**09 09 54.1**	**+0.3**
	2.1nm,0.1s						
SHLS				S	**Sb**	**09 10 13.4**	**+2.2**
	30nm,0.4s						
UZB	**Uzynbulak**	**1.42**	**348**	P	**Pn**	**09 09 53.0**	**0.0**
	0.5nm,0.1s						
UZB				S	**Sb**	**09 10 11.8**	**-0.1**
	6.2nm,0.1s						
UZB	**Uzynbulak**	**1.42**	**348**	*e*P	**Pn**	**09 09 53.0**	**0.0**
	0.5nm,0.1s						
UZB				*e*S	**Sb**	**09 10 11.8**	**-0.1**
	6.2nm,0.1s						
SATY	**Saty**	**1.50**	**330**	P	**Pn**	**09 09 54.3**	**+0.2**
	1.9nm,0.1s						
SATY				S	**Sb**	**09 10 14.5**	**+0.3**
	14nm,0.1s						
SATY	**Saty**	**1.50**	**330**	*e*P	**Pn**	**09 09 54.3**	**+0.2**
	1.9nm,0.1s						
SATY				*e*S	**Sb**	**09 10 14.5**	**+0.3**
	14nm,0.1s						
PDGK	**Podgornoye**	**1.57**	**2**	⇑P	**Pn**	**09 09 54.7**	**-0.4**
	1.3nm,0.3s						
PDGK				⇓S	**Sb**	**09 10 15.7**	**-0.6**
	12nm,0.5s						
ANVS	**Anan'yevo**	**1.65**	**309**	⇑*i*P	**Pb**	**09 09 57.0**	**-1.2**
ANVS				⇑*i*S	**Sb**	**09 10 20.0**	**+1.4**
KDJ	**Kajisay**	**1.71**	**283**	⇑*i*P	**Pn**	**09 09 57.8**	**+0.8**
KDJ				⇑*i*S	**Sb**	**09 10 21.3**	**+1.1**
KPKS	**Kokpek**	**1.79**	**343**	P	**Pb**	**09 09 59.6**	**-0.9**
	0.2nm,0.1s						
KPKS				S	**Sb**	**09 10 23.4**	**+0.9**
	11nm,0.2s						
KPKS	**Kokpek**	**1.79**	**343**	*e*P	**Pb**	**09 09 59.6**	**-0.9**
	0.2nm,0.1s						
KPKS				*e*S	**Sb**	**09 10 23.4**	**+0.9**
	11nm,0.2s						
MDOK	**Medeo**	**2.24**	**310**	Pg	**Pb**	**09 10 07.8**	**-0.5**
	3.0nm,0.1s						
MDOK				Lg	Lg	09 10 37.1	
	22nm,0.4s						
MDOK	**Medeo**	**2.24**	**310**	*e*P	**Pb**	**09 10 07.8**	**-0.5**
	3.0nm,0.1s						
MDOK				*e*S	**Sb**	**09 10 37.1**	**+1.5**
	22nm,0.4s						
ULHL	**Ulahol**	**2.41**	**283**	⇓*i*P	**Pn**	**09 10 08.9**	**+2.2**
ULHL				⇓*i*S	**Sb**	**09 10 40.4**	**-0.2**
ARXS	**Arharly**	**2.71**	**335**	Pg	**Pb**	**09 10 15.3**	**-0.9**
	1.2nm,0.4s						
ARXS				Lg	Lg	09 10 49.9	
	6.0nm,0.3s						
ARXS	**Arharly**	**2.71**	**335**	*e*P	**Pb**	**09 10 15.3**	**-0.9**
	1.2nm,0.4s						
ARXS

REDR	**Restauracion**	**1.06**	**29**	⇓	*e*Pg		**Pb**	**09 12 32.5**	**-0.4**
REDR				⇑	*e*Sg		**Sb**	**09 12 45.9**	**-0.4**
REDR					IAML			09 12 47.1	
	comp=N,954nm,0.1s								
ABDR	**Alto Bandera**	**1.37**	**65**	⇑	*e*Pg		**Pb**	**09 12 38.6**	**+0.2**
ABDR				⇓	*e*Sg		**Sb**	**09 12 56.5**	**+0.9**
ABDR					IAML			09 12 58.4	
	comp=N,246nm,0.5s								
BANI	**BANI**	**1.51**	**84**	⇓	*e*Pg		**Pb**	**09 12 40.6**	**+0.1**
BANI				⇓	*e*Sg		**Sg**	**09 13 01.2**	**-0.8**
BANI					IAML			09 13 05.8	
	comp=N,250nm,0.6s								
MADR	**Mao Valverde**	**1.54**	**31**	⇑	*e*Pg		**Pb**	**09 12 41.0**	**-0.1**
MADR				⇓	*e*Sg		**Sb**	**09 13 00.9**	**+0.7**
MADR					IAML			09 13 07.2	
	comp=N,633nm,0.6s								
SC01	**Santiago de lo**	**1.65**	**44**	⇑	*e*Pg		**Pb**	**09 12 42.8**	**-0.2**
SC01					IAML			09 13 17.8	
	comp=N,86nm,0.9s								
SC01	**Santiago de lo**	**1.65**	**44**		*i* P		**Pb**	**09 12 42.9**	**0.0**
SC01					IAML			09 13 11.6	
	comp=Z,87nm,0.5s								
HIDR	**Higuey Centro**	**3.08**	**83**	⇓	*e*Sg		**Sb**	**09 13 43.0**	**-1.5**
HIDR					IAML			09 13 59.4	
	comp=N,58nm,3.0s								
QMBU	**Quimbuelo**	**3.35**	**306**		*e*P		**Pn**	**09 13 03.9**	**-0.5**
QMBU					*e*S		**Sn**	**09 13 45.1**	**+1.5**
GTBY	**Guantanamo Bay**	**3.44**	**300**		*e*P		**Pn**	**09 13 07.2**	**+1.5**
GTBY					*e*S		**Sb**	**09 13 54.6**	**-0.3**
GTBY	**Guantanamo Bay**	**3.44**	**300**	⇓	*i* P		**Pn**	**09 13 07.7**	**+2.1**
GTBY					IAML			09 14 00.4	
	comp=Z,107nm,0.5s								
NMDO	**Nuevo Mundo**	**3.69**	**309**		*e*P		**Pn**	**09 13 10.2**	**+1.1**
NMDO					*e*S		**Sb**	**09 13 57.8**	**-4.3**
SABCS	**La Quijada**	**3.83**	**304**	⇓	*e*P		**Pn**	**09 13 12.7**	**+1.7**
SABCS					*e*S		**Sn**	**09 13 55.7**	**+0.2**
MARVS	**Santiago de Cu**	**4.14**	**296**		*e*P		**Sn**	**09 13 17.2**	**+2.0**
MARVS					*e*S		**Sb**	**09 14 13.9**	**-1.0**
PINC	**Pinares de May**	**4.27**	**302**	⇓	*e*P		**Pn**	**09 13 18.5**	**+1.4**
CHIV	**Chivirico**	**4.57**	**293**		*e*P		**Pn**	**09 13 23.2**	**+2.0**
LMGC	**Las Mercedes**	**5.12**	**292**		*e*P		**Pn**	**09 13 29.7**	**+0.9**
PILO	**Pilon**	**5.43**	**289**		*e*P		**Pn**	**09 13 33.2**	**+0.1**
CCCC	**Cccc**	**6.23**	**299**		*e*P		**Pn**	**09 13 40.9**	**-3.1**

RSNC ***11*** *09:15:07.4±0.8,6˚N±3˚×8˚3W±˚, h0km, M4.6, mB5.5, mb4.1, ML2.8, Mw(mB)5.0*
UCR ***11*** *09:15:12.9±1.0, 6.˚07N×82.˚62W, h20km±45km, MW3.5, Presumed earthquake*
UPA ***11*** *09:15:22.2±4.5, 6.˚78N×83.˚01W, h10km±35km, MW3.3, Presumed earthquake*

ISC 11 09:15:10.8±1.2,**5.˚96N**±0.˚07×**82.˚8W**±0.˚1,**h10**km,**n53,**
g095/57,2C-1D,South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
PIRO	**Carate, Puerto**	**2.50**	**347**		*e*P	**Pn**	**09 15 50.0**	**-1.5**
BGUAL	**Bijagual, Pana**	**2.57**	**9**		*e*P	**Pn**	**09 15 51.8**	**-0.8**
BGUAL	**Bijagual, Pana**	**2.57**	**9**	⇑	*i*P	**Pn**	**09 15 52.0**	**-0.5**
FITO	**Golfito**	**2.68**	**352**		*e*P	**Pn**	**09 15 52.4**	**-1.6**
FITO					*i* Sg	**Sn**	**09 16 23.5**	**-3.0**
NELY	**Ciudad Neily**	**2.68**	**356**		*e*P	**Pn**	**09 15 52.9**	**-1.2**
NELY					*e*S	**Sn**	**09 16 27.6**	**+0.9**
CLLRA	**Cordillera,**	**2.77**	**3**		*e*P	**Pn**	**09 15 54.2**	**-1.2**
CLLRA	**Cordillera,**	**2.77**	**3**		*e*P	**Pn**	**09 15 54.6**	**-0.9**
CLLRA					*e*S	**Sn**	**09 16 30.1**	**+1.0**
BQTLY	**Boquete Panama**	**2.80**	**6**		*e*P	**Pn**	**09 15 54.7**	**-1.1**
BQTLY	**Boquete Panama**	**2.80**	**6**		*e*P	**Pn**	**09 15 54.9**	**-0.9**
BRU2	**Volcan**	**2.82**	**1**		*e*P	**Pn**	**09 15 55.4**	**-0.7**
BRU2	**Volcan**	**2.82**	**1**	⇓	*i*P	**Pn**	**09 15 55.6**	**-0.5**
VITO	**San Vito**	**2.85**	**356**		*e*S	Sn	09 16 23.5	-7.5
SCLRA	**Santa Clara, W**	**2.86**	**359**		*e*P	**Pn**	**09 15 56.2**	**-0.4**
RBALA	**Bur**	**2.96**	**12**		*e*P	**Pn**	**09 15 57.4**	**-0.5**
RBALA	**Bur**	**2.96**	**12**		*e*P	**Pn**	**09 15 57.6**	**-0.4**
AZU	**Azuero**	**3.06**	**53**		P	Pn	09 15 54.8	-4.5
PANP	**Palmar Norte**	**3.06**	**347**		*e*P	**Pn**	**09 15 58.8**	**-0.5**
PANP					*e*S	**Sn**	**09 16 34.6**	**-1.5**
EDPE	**Pejibaye, P**	**3.28**	**346**	⇑	*e*P	**Pn**	**09 16 02.0**	**-0.4**
EDPE					*e*S	**Sn**	**09 16 41.2**	**-0.3**
RAZU	**San Marcos de**	**3.89**	**341**		*e*P	**Pn**	**09 16 11.2**	**+0.4**
RAZU					*e*S	**Sn**	**09 16 57.3**	**+0.7**
ABE2	**San Pablo**	**3.94**	**341**		*e*P	**Pn**	**09 16 11.9**	**+0.3**
LCR2	**La Lucha 2**	**3.96**	**342**		*e*P	**Pn**	**09 16 11.9**	**0.0**
VERH	**Veragua Rainfo**	**3.97**	**354**		*e*P	**Pn**	**09 16 12.4**	**+0.6**
REPA	**Paraso**	**4.00**	**344**		*e*P	**Pn**	**09 16 12.7**	**+0.3**
ACOS	**Acosta**	**4.06**	**340**		*e*P	**Pn**	**09 16 13.1**	**-0.1**
VTCV	**VTCV, Calle Va**	**4.11**	**347**		*e*P	**Pn**	**09 16 14.5**	**+0.5**
ABRB	**Las Abras (San**	**4.13**	**347**		*e*P	**Pn**	**09 16 15.0**	**+0.8**
CVTV	**Tajo**	**4.14**	**346**		*e*P	**Pn**	**09 16 14.7**	**+0.3**
RESJ	**San Isidro (Tu**	**4.14**	**348**		*e*P	**Pn**	**09 16 14.7**	**+0.4**
VICA	**Volcano Irazu**	**4.14**	**345**		*e*P	**Pn**	**09 16 15.0**	**+0.4**
CVTR	**Volcan Turrial**	**4.16**	**346**		*e*P	**Pn**	**09 16 15.2**	**+0.5**
SJS	**Escuela Geolog**	**4.16**	**342**		*e*P	**Pn**	**09 16 15.0**	**+0.4**
DOMI	**Santo Domingo**	**4.21**	**342**		*e*P	**Pn**	**09 16 15.8**	**+0.6**
HDC	**Heredia**	**4.24**	**342**		*e*P	**Pn**	**09 16 16.1**	**+0.5**
HEME	**Heredia, Merce**	**4.24**	**341**		*e*P	**Pn**	**09 16 17.3**	**+1.6**
BCIP	**Isla Barro Col**	**4.30**	**42**		P	**Pn**	**09 16 15.5**	**-0.9**
BCIP	**Isla Barro Col**	**4.30**	**42**		*e*P	**Pn**	**09 16 15.4**	**-1.0**
ATEO	**Atenas**	**4.31**	**338**		*e*P	**Pn**	**09 16 16.8**	**+0.3**
VBV1	**V. Barva**	**4.34**	**342**		*e*P	**Pn**	**09 16 17.7**	**+0.5**
UPA	**Univ. de Panam**	**4.38**	**47**		P	**Pn**	**09 16 17.7**	**+0.2**
CMARA	**Lajas Hojancha**	**4.82**	**327**		*e*P	**Pn**	**09 16 23.7**	**+0.1**
ARE1	**Arenal 1**	**4.88**	**337**		*e*P	**Pn**	**09 16 25.2**	**+0.9**
TILA	**Tilaran**	**4.99**	**334**		*e*P	**Pn**	**09 16 26.9**	**+1.0**
TENO	**El Achiote**	**5.20**	**335**		*e*P	**Pn**	**09 16 29.6**	**+0.8**
CUI	**Cuipilapa**	**5.24**	**333**		*e*P	**Pn**	**09 16 30.3**	**+0.9**
JAMC	**Jamundi, Valle** 5.7nm,1.5s	**6.65**	**114**		P	**Pn**	**09 16 47.9**	**-0.9**
YOTC	**Yotoco, Valle** 5.7nm,1.7s	**6.68**	**107**		P	**Pn**	**09 16 48.7**	**-0.5**
BBAC	**Balboa, Cauca**	**6.74**	**125**		P	**Pn**	**09 16 49.3**	**-0.8**
PAC1	**Pacto, Paraso**	**6.90**	**145**		P	**Pn**	**09 16 50.7**	**-1.5**
FLF1	**Flavio Alfaro-**	**6.91**	**155**		P	**Pn**	**09 16 52.5**	**+0.2**
POPC	**Popayan, Colom** 5.9nm,0.5s	**6.95**	**119**		P	**Pn**	**09 16 51.6**	**-1.4**
OTAV	**Otavalo** 3.3nm,1.4s	**7.12**	**143**		P	**Pn**	**09 16 54.7**	**-0.9**
CRUC	**La Cruz**	**7.25**	**127**		P	**Pn**	**09 16 57.8**	**+0.6**
GUY2C	**Guyana, Caldas** 6.3nm,0.6s	**7.39**	**95**		P	**Pn**	**09 17 01.2**	**+1.9**

TIF ***11*** *09:29:27.2, 42.˚66N×48.˚46E, h25km±1km*
MOS ***11*** *09:29:27.4, 42.˚59N×48.˚38E, h32km, MPVA4.3*
DRS ***11*** *09:29:28.6, 42.˚54N×48.˚32E, h6km*

ISC 11 09:29:28.0±1.2,**42.˚61N**±0.˚03×**48.˚48E**±0.˚04,**h32**km±11km,
n52,σ1ŝ71/97,3C-1D,Caspian Sea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
DRN	**Derbent**	**0.59**	**190**		*e*Pg	**Pn**	**09 29 40.5**	**+0.3**
DRN					*e*Sg	**Sn**	**09 29 50.5**	**+1.8**
DRN	**Derbent**	**0.59**	**190**		*de*PG	**Pn**	**09 29 40.4**	**+0.3**
DRN					pmax	pmax		
	comp=Z,679nm,1.1s							
SGKR	**Sergokala**	**0.62**	**256**		*e*Pg	**Pn**	**09 29 40.0**	**-0.7**
SGKR					*e*Sg	**Sn**	**09 29 48.9**	**-0.7**
SGKR	**Sergokala**	**0.62**	**256**		*e*PG	**Pn**	**09 29 39.9**	**-0.7**
SGKR					*e*S	**Sn**	**09 29 48.8**	**-0.7**
SGKR					pmax	pmax		
	comp=Z,109nm,0.1s							
URKR	**Urkarakh**	**0.77**	**235**		*e*Pg	**Pn**	**09 29 42.6**	**-0.2**
URKR					*e*Sg	**Sn**	**09 29 53.3**	**+0.1**
URKR	**Urkarakh**	**0.77**	**235**		*e*PG	**Pn**	**09 29 42.6**	**-0.2**
URKR					*e*S	**Sn**	**09 29 53.3**	**+0.1**
MAK	**Makhachkala**	**0.79**	**296**		*e*PG	**Pn**	**09 29 43.6**	**+0.6**
MAK					*e*S	**Sn**	**09 29 54.7**	**+1.0**
KANR	**Karaman**	**0.93**	**309**		*e*PG	**Pn**	**09 29 45.8**	**+1.0**
KANR					*e*S	**Sn**	**09 29 58.7**	**+1.7**
BUJR	**Buynaksk**	**1.03**	**282**		*e*Pg	**Pb**	**09 29 47.1**	**-0.2**
BUJR					*e*Sg	**Sn**	**09 30 01.4**	**+1.9**
BUJR	**Buynaksk**	**1.03**	**282**		*e*PG	**Pb**	**09 29 47.2**	**-0.2**
BUJR					*e*S	**Sn**	**09 30 01.4**	**+1.9**
KSMR	**Kasumkent**	**1.04**	**194**		*e*Pg	**Pb**	**09 29 47.2**	**-0.4**
KSMR					*e*Sg	**Sn**	**09 30 02.2**	**+2.2**
KSMR	**Kasumkent**	**1.04**	**194**		*e*PG	**Pb**	**09 29 47.4**	**-0.2**
KSMR					*e*S	**Sn**	**09 30 02.1**	**+2.2**
KSMR					pmax	pmax		
	comp=Z,305nm,0.2s							
ARKR	**Arakani**	**1.09**	**270**		*e*PG	**Pb**	**09 29 47.9**	**-0.6**
ARKR					*e*S	**Sn**	**09 30 02.7**	**+1.5**
KMKR	**Kumukh**	**1.13**	**245**		*e*Pg	**Pb**	**09 29 48.4**	**-0.7**
KMKR					*e*Sg	**Sn**	**09 30 04.3**	**+2.0**
KMKR	**Kumukh**	**1.13**	**245**		*e*PG	**Pb**	**09 29 48.6**	**-0.5**
KMKR					*e*S	**Sn**	**09 30 04.5**	**+2.2**
KMKR					pmax	pmax		
	comp=Z,156nm,0.2s							
GNBR	**Gunib**	**1.14**	**259**		*e*Pg	**Pb**	**09 29 48.7**	**-0.6**
GNBR					*e*Sg	**Sn**	**09 30 04.3**	**+1.9**
GNBR	**Gunib**	**1.14**	**259**		*e*PG	**Pb**	**09 29 49.2**	**0.0**
GNBR					*e*S	**Sn**	**09 30 04.2**	**+1.9**
GNBR					pmax	pmax		
	comp=Z,85nm,0.1s							
KRNR	**Karanay**	**1.18**	**281**		*e*Pg	**Pb**	**09 29 48.7**	**-1.2**
KRNR					*e*Sg	**Sb**	**09 30 05.1**	**+0.3**
KRNR	**Karanay**	**1.18**	**281**		*e*PG	**Pb**	**09 29 48.9**	**-1.0**
KRNR					*e*S	**Sb**	**09 30 05.1**	**+0.3**
KRNR					pmax	pmax		
	comp=Z,70nm,0.4s							
UNCR	**Uncukul**	**1.24**	**275**		*e*Pg	**Pb**	**09 29 49.9**	**-1.1**
UNCR					*e*Sg	**Sb**	**09 30 06.3**	**-0.4**
UNCR	**Uncukul**	**1.24**	**275**		*e*PG	**Pb**	**09 29 49.9**	**-1.1**
UNCR					*e*S	**Sb**	**09 30 06.3**	**-0.4**
AKT	**Akhty**	**1.26**	**206**		*e*Pg	**Pb**	**09 29 50.6**	**-0.8**
AKT					*e*Sg	**Sb**	**09 30 07.2**	**-0.1**
AKT	**Akhty**	**1.26**	**206**		*e*PG	**Pb**	**09 29 50.8**	**-0.5**
AKT					*e*S	**Sb**	**09 30 07.1**	**-0.1**
AKT					pmax	pmax		
	comp=Z,213nm,0.1s							
DBC	**Dubki**	**1.28**	**289**		*e*Pg	**Pb**	**09 29 50.3**	**-1.2**
DBC					*e*Sg	**Sb**	**09 30 07.5**	**-0.2**
DBC	**Dubki**	**1.28**	**289**		*e*PG	**Pb**	**09 29 50.3**	**-1.2**
DBC					*e*S	**Sb**	**09 30 07.5**	**-0.2**
HNZR	**Khunzah**	**1.30**	**268**		*e*PG	**Pb**	**09 29 51.5**	**-0.5**
HNZR					*e*S	**Sb**	**09 30 08.9**	**+0.5**
XNZR	**Khunzakh**	**1.31**	**267**		*e*Pg	**Pb**	**09 29 51.5**	**-0.7**
XNZR					*e*Sg	**Sb**	**09 30 08.9**	**+0.2**
DLMR	**Dylym**	**1.43**	**289**		*e*Pg	**Pb**	**09 29 53.4**	**-0.8**
DLMR					*e*Sg	**Sb**	**09 30 12.6**	**+0.6**
DLMR	**Dylym**	**1.43**	**289**		*e*PG	**Pb**	**09 29 53.9**	**-0.2**
DLMR					*e*S	**Sb**	**09 30 13.1**	**+1.1**
DLMR					pmax	pmax		
	comp=Z,121nm,0.3s							
BTLR	**Botlikh**	**1.66**	**272**		*e*Pg	**Pb**	**09 29 57.4**	**-0.8**
BTLR					*e*Sg	**Sb**	**09 30 19.4**	**+0.7**
BTLR	**Botlikh**	**1.66**	**272**		*e*PN	**Pb**	**09 29 57.3**	**-0.8**
BTLR					*e*S	**Sb**	**09 30 19.4**	**+0.7**
SEKA	**Sheki**	**1.70**	**215**		PN	**Pb**	**09 29 58.2**	**-0.5**
DVE	**Vedeno**	**1.76**	**282**		*e*Pg	**Pb**	**09 29 58.0**	**-1.8**
DVE					*e*Sg	**Sb**	**09 30 20.6**	**-1.0**
DVE	**Vedeno**	**1.76**	**282**		*e*PN	**Pb**	**09 29 58.0**	**-1.8**
LGD	**Lagodekhi**	**1.83**	**246**		P	**Pb**	**09 30 00.1**	**-0.8**
LGD					S	**Sb**	**09 30 23.5**	**0.0**
LGD	**Lagodekhi**	**1.83**	**246**		PN	**Pb**	**09 30 00.1**	**-0.8**
GROC	**Groznyy**	**2.05**	**288**		*e*Pg	**Pb**	**09 30 03.4**	**-1.2**
GROC					*e*Sg	**Sb**	**09 30 29.9**	**+0.1**
GROC	**Groznyy**	**2.05**	**288**		*e*PN	**Pb**	**09 30 03.4**	**-1.2**
GROC					*e*S	**Sb**	**09 30 29.9**	**+0.1**
VSHL	**Vashlovani**	**2.08**	**229**		P	**Pb**	**09 30 04.7**	**-0.4**
VSHL					S	**Sb**	**09 30 34.9**	**+4.4**
SHTL	**Shatili**	**2.45**	**272**		P	**Pb**	**09 30 07.7**	**-3.8**
SHTL					S	**Sb**	**09 30 40.1**	**-1.3**
SHTL	**Shatili**	**2.45**	**272**		PN	**Pb**	**09 30 07.7**	**-3.8**
SHTL					S	**Sb**	**09 30 40.1**	**-1.3**
GANJ	**Ganja**	**2.54**	**220**		PN	**Pb**	**09 30 09.2**	**-3.8**
CHRG	**Chargali**	**2.64**	**265**		P	**Pb**	**09 30 12.1**	**-2.6**
CHRG					S	**Sb**	**09 30 48.9**	**+2.1**
KZRT	**Kazreti**	**3.28**	**249**		P	**Pn**	**09 30 13.3**	**-3.9**
KZRT					S	**Sn**	**09 30 52.1**	**-3.0**
KZRT	**Kazreti**	**3.28**	**249**		PN	**Pn**	**09 30 13.3**	**-3.9**
TRLG	**Trialeti**	**3.43**	**253**		P	**Pn**	**09 30 21.6**	**+2.3**
TRLG					S	**Sn**	**09 31 02.0**	**+3.1**
TRLG	**Trialeti**	**3.43**	**253**		PN	**Pn**	**09 30 21.6**	**+2.3**
TRLG					S	**Sn**	**09 31 02.0**	**+3.1**
KBZ	**Khabaz**	**4.23**	**287**		*e*Pn	**Pn**	**09 30 31.6**	**+1.4**
KBZ					*e*Sn	**Sn**	**09 31 19.9**	**+1.5**
KBZ	**Khabaz**	**4.23**	**287**		*e*PN	**Pn**	**09 30 31.6**	**+1.4**
KBZ					*e*S	**Sn**	**09 31 19.9**	**+1.5**
KIV	**Kislovodsk**	**4.43**	**290**		*e*PN	**Pn**	**09 30 35.2**	**+2.1**
KIV					*e*S	**Sn**	**09 31 28.2**	**+4.6**
KIV					pmax	pmax		
	comp=Z,8.0nm,1.1s							
AKTO	**Aktyubinsk**	**10.21**	**37**	⇑	P	**Pn**	**09 31 51.6**	**-0.6**
	comp=Z,2.2nm,0.9s							
AKTO				⇑	S	Sn	09 33 37.3	-8.2
	comp=Z,1.9nm,0.8s							
AB31	**Akbulak array**	**10.38**	**46**		P	**Pn**	**09 31 56.2**	**+1.6**
	comp=Z,0.2nm,0.3s,baz=243,slow=16,SNR=14							
AB31				⇑	S	**Sn**	**09 33 46.0**	**-3.7**
	comp=Z,2.0nm,0.7s,baz=244,slow=22							

SKO ***11*** *09:37:12.0, 41.˚60N×20.˚88E, h5km, ML2.3*
BEO ***11*** *09:37:12.5±1.0, 41.˚66N×20.˚70E, h0km, ML1.9/5*

PDG 11 09:37:11.8±0.1,**41.˚66N×20.˚76E,h0**km,**ML2.6**/12,**1D,**
Error ellipse: s-maj=0.4km s-min=0.5km az=0.0,
Albania

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
OHR	**Ohrid**	**0.55**	**177**	⇓	*i*Pg	Pg	09 37 21.7	-0.6
OHR					*i* Sg	Sg	09 37 30.3	+0.9
OHR					*e*Lg	Lg	09 37 30.4	
	comp=N,106nm,0.4s							
OHR					*e*Lg	Lg	09 37 31.3	
	comp=E,152nm,0.6s							
SKO	**Skopje**	**0.60**	**58**		*i* Pg	Pg	09 37 22.8	-0.5
SKO					*i* Sg	Sg	09 37 31.6	+0.7
PVY	**Plav**	**1.11**	**328**		*e*Pg	Pg	09 37 32.3	-0.8
PVY					*i* Sg	Sb	09 37 49.8	+0.8
ULC	**Ulcinj**	**1.18**	**286**		*e*Pg	Pg	09 37 33.5	-0.8
ULC					*i* Sg	Sn	09 37 51.9	-0.3
DRME	**Dracevica, Mon**	**1.29**	**295**		*e*Pg	Pg	09 37 35.5	-1.0
DRME					*i* Sg	Sn	09 37 55.8	+0.8
PDG	**Podgorica**	**1.36**	**305**		*e*Pg	Pg	09 37 36.7	-1.2
PDG					*i* Sg	Sn	09 37 58.4	+1.6
IVA	**Berane**	**1.37**	**332**		*e*Pg	Pg	09 37 37.5	-0.6
IVA					*i* Sg	Sn	09 37 58.5	+1.3
BARS	**Barje**	**1.40**	**34**		*e*Pg	Pn	09 37 37.8	-0.7
BARS					*e*Sg	Sn	09 37 58.2	+0.5
VAY	**Valandovo**	**1.40**	**103**		*i* Pg	Pn	09 37 37.2	-1.3
VAY					*i* Sg	Sb	09 37 57.0	-0.1
VAY					*e*Lg	Lg	09 37 57.1	
	comp=E,27nm,0.5s							
VAY					*e*Lg	Lg	09 37 57.7	
	comp=N,48nm,0.6s							
KOME	**Kolasin**	**1.51**	**323**		*e*Pg	Pn	09 37 39.6	-0.6
KOME					*i* Sg	Sn	09 38 02.9	+2.3
BOSS	**Bosilegrad**	**1.53**	**56**		*e*Pg	Pg	09 37 42.0	+0.9
BOSS					*e*Sg	Sg	09 38 00.6	-0.3
BUM	**Brajici-Budva**	**1.53**	**295**		*e*Pg	Pn	09 37 39.8	-0.7
BUM					*i* Sg	Sn	09 38 04.2	+3.1
SELS	**Selova**	**1.58**	**9**		*e*Pg	Pn	09 37 41.0	-0.1
SELS					*e*Sg	Sg	09 38 03.3	+0.6
PEHC	**Pehcevo**	**1.60**	**85**		*i* Pg	Pn	09 37 41.1	-0.4
PEHC					*i* Sg	Sb	09 38 03.2	+0.1
CEME	**Cevo**	**1.64**	**304**		*e*Pn	Pn	09 37 42.1	+0.2
CEME					*i* Sn	Sg	09 38 07.4	+3.1
SJES	**Sjenica**	**1.71**	**340**		*e*Pg	Pn	09 37 43.3	+0.4
SJES					*e*Sg	Sb	09 38 05.8	-0.3
NKME	**Niksic**	**1.74**	**310**		*e*Pn	Pb	09 37 44.0	-0.7
NKME					*i* Sn	Sg	09 38 10.0	+2.2
HCY	**Herceg Novi**	**1.86**	**296**		*e*Pn	Pb	09 37 46.0	-0.7
HCY					*i* Sn	Sg	09 38 12.7	+1.0
GOCS	**Kraljevo Serbi**	**1.91**	**2**		*e*Pg	Pn	09 37 45.0	-0.6
IVAS	**Ivanjica**	**1.97**	**347**		*e*Pn	Pn	09 37 46.2	-0.3
IVAS					*e*Sn	Sn	09 38 12.5	+0.6
BRY	**Bratogost**	**2.07**	**308**		*e*Pn	Pn	09 37 48.7	+0.8
BRY					*i* Sn	Sg	09 38 17.9	-0.3
UPM	**Unac-Piva**	**2.07**	**319**		*e*Pn	Pn	09 37 48.7	+0.8
UPM					*i* Sn	Sg	09 38 18.0	-0.2
DBRK	**Dubrovnik**	**2.19**	**298**		*e*Pn	Pb	09 37 51.4	-0.9
DBRK					Sn	Sn	09 38 18.0	+0.7
STON	**Ston**	**2.58**	**299**		*e*Pn	Pn	09 37 56.5	+1.8
LSTV	**Lastovo**	**3.08**	**292**		*e*Pn	Pn	09 38 04.0	+2.4
MAKA	**Makarska**	**3.21**	**302**		*e*Pn	Pn	09 38 05.5	+2.1
MAKA					Sn	Sn	09 38 41.4	-1.0
RICI	**Ricice**	**3.25**	**306**		*e*Pn	Pn	09 38 04.9	+0.9
HVAR	**Hvar**	**3.54**	**297**		Sn	Sn	09 38 51.0	+0.6
KIJV	**Kijevo**	**3.97**	**308**		*e*Pn	Pn	09 38 15.2	+1.3
KIJV					Sn	Sn	09 38 58.3	-2.8
MORI	**Morici**	**4.33**	**302**		Sn	Sn	09 39 07.6	-2.3
DUGI	**Dugi Otok**	**4.80**	**301**		*e*Pn	Pn	09 38 26.1	+0.8
DUGI					Sn	Sn	09 39 18.9	-2.6

ROM 11 09:44:52.3±0.1,**46.˚084N**±0.˚005×**11.˚926E**±0.˚009,
h8km,**ML1.5**/18,**2C,Error ellipse: s-maj=0.6km**
s-min=0.5km az=231.0,Northern Italy

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
VARN	**Col Varnada, M**	**0.15**	**126**	⇑	*e*Pg	Pg	09 44 56.5	+0.9
VARN					*e*Sg	Sg	09 44 58.9	+1.0
VARN	**Col Varnada, M**	**0.15**	**126**		P	Pg	09 44 56.2	+0.6
VARN					S	Sg	09 44 58.3	+0.4
VARN					AML	AML		
	comp=E,561μm,0.3s							
VARN					AML	AML		
	comp=N,442μm,1.0s							
VARN					AML	AML		
	comp=E,599μm,0.3s							
VARN					AML	AML		
	comp=N,456μm,0.2s							
VARN					AML	AML		
	comp=N,441μm,1.0s							
VARN					AML	AML		
	comp=N,441μm,1.0s							
VARN					AML	AML		
	comp=E,599μm,1.7s							
VARN					AML	AML		
	comp=E,561μm,1.7s							
VARN					AML	AML		
	comp=N,441μm,0.2s							
VARN					AML	AML		
	comp=E,561μm,0.3s							
VARN					AML	AML		
	comp=E,599μm,0.3s							
VARN					AML	AML		
	comp=N,456μm,0.2s							
CTI	**Castel Tesino**	**0.20**	**260**		P	Pg	09 44 57.3	+0.9
CTI					S	Sg	09 45 00.1	+1.0
CTI					AML	AML		
	comp=E,424μm,0.3s							
CTI					AML	AML		
	comp=N,466μm,0.2s							
CTI					AML	AML		
	comp=E,413μm,0.2s							
CTI					AML	AML		
	comp=N,465μm,0.2s							
AGOR	**Agordo**	**0.22**	**23**		*e*Pg	Pg	09 44 57.8	+1.1
AGOR	**Agordo**	**0.22**	**23**		P	Pg	09 44 57.5	+0.8
CGRP	**Cima Grappa**	**0.22**	**203**	⇑	*e*Pg	Pg	09 44 57.4	+0.6
CGRP					*e*Sg	Sg	09 45 00.9	+0.9
CGRP	**Cima Grappa**	**0.22**	**203**		P	Pg	09 44 57.5	+0.6
CGRP					AML	AML		
	comp=N,68μm,0.4s							
ASOL	**Asolo**	**0.28**	**183**		P	Pg	09 44 58.5	+0.6
ASOL					S	Sb	09 45 03.8	-0.7
MTLO	**Montello**	**0.30**	**156**		*e*Pg	Pg	09 44 59.0	+0.8
MTLO					*e*Sg	Sb	09 45 03.8	-1.0
ED06	**Collalto TV**	**0.30**	**139**		*e*Pg	Pg	09 44 59.0	+0.8
ED06					*e*Sg	Sb	09 45 03.8	-1.

az=46.6, confirmed
ISC 11 09:53:09.9±1.3, **10°60N**±0°03×**84°70W**±0°03, **h109**km±5km, **n131**, σ0**97**/194, **24C-33D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TABAC	**Tabacon**	**0.12**	**214**	⇑*i*P	**Pn**	**09 53 24.9**	**-0.2**
TABAC				*e*S	**Sn**	**09 53 37.2**	**+0.8**
VACR	**Volcan Arenal**	**0.12**	**169**	⇑*i*P	**Pn**	**09 53 24.7**	**-0.3**
VACR				*e*S	**Sn**	**09 53 36.5**	**+0.2**
ARE1	**Arenal 1**	**0.13**	**187**	⇑*i*P	**Pn**	**09 53 25.3**	**+0.3**
ARE1				*e*S	**Sn**	**09 53 37.3**	**+1.0**
VARE2	**V. Arenal**	**0.13**	**187**	⇑*i*P	**Pn**	**09 53 24.9**	**-0.2**
VARE2				*e*S	**Sn**	**09 53 37.1**	**+0.6**
CASO	**Castillo**	**0.16**	**191**	⇑*i*P	**Pn**	**09 53 24.8**	**-0.4**
CASO				*e*S	**Sn**	**09 53 37.2**	**+0.7**
QUEB	**Quebradon, Cot**	**0.19**	**278**	⇑*e*P	**Pn**	**09 53 24.6**	**-0.5**
QUEB				*e*S	**Sn**	**09 53 36.9**	**+0.3**
CHIK	**Chiripa**	**0.25**	**233**	⇑*i*P	**Pn**	**09 53 25.3**	**-0.2**
CHIK				*e*S	**Sn**	**09 53 38.1**	**+1.0**
TENO	**El Achiote**	**0.29**	**292**	⇑*i*P	**Pn**	**09 53 25.5**	**-0.1**
TILA	**Tilaran**	**0.29**	**245**	⇑*i*P	**Pn**	**09 53 25.1**	**-0.5**
TILA				*e*S	**Sn**	**09 53 38.1**	**+0.9**
TIMP	**Tierras Morena**	**0.31**	**268**	⇑*i*P	**Pn**	**09 53 25.2**	**-0.4**
TIMP				*e*S	**Sn**	**09 53 37.9**	**+0.4**
COVE	**Coope Vega, Sa**	**0.32**	**67**	P	**Pn**	**09 53 24.9**	**-0.7**
COVE				S	**Sn**	**09 53 37.2**	**-0.1**
QUEU	**Ciudad Quesada**	**0.38**	**136**	*e*P	**Pn**	**09 53 25.5**	**-0.4**
QUEU				*e*S	**Sn**	**09 53 38.2**	**+0.3**
CNAS	**Canas**	**0.42**	**247**	*e*P	**Pn**	**09 53 25.7**	**-0.4**
CNAS				*e*S	**Sn**	**09 53 39.3**	**+1.1**
VPL2	**V. Platanar**	**0.42**	**132**	⇓*i*P	**Pn**	**09 53 26.0**	**-0.3**
VPL2				*e*S	**Sn**	**09 53 38.9**	**+0.3**
UPAL	**Upala**	**0.43**	**315**	P	**Pn**	**09 53 25.8**	**-0.4**
UPAL				S	**Sn**	**09 53 38.4**	**0.0**
UPAL	**Upala**	**0.43**	**315**	⇑*i*P	**Pn**	**09 53 25.6**	**-0.5**
LCHIL	**Los Chiles**	**0.44**	**358**	⇑*i*P	**Pn**	**09 53 25.7**	**-0.5**
LCHIL				*e*S	**Sn**	**09 53 38.9**	**+0.5**
ITAL	**Pital**	**0.45**	**109**	⇑*i*P	**Pn**	**09 53 25.8**	**-0.5**
ITAL				*e*S	**Sn**	**09 53 38.5**	**0.0**
VPL3	**V. Platanar**	**0.46**	**122**	⇓*i*P	**Pn**	**09 53 26.0**	**-0.4**
VPL3				*e*S	**Sn**	**09 53 39.0**	**+0.3**
CUI	**Cuipilapa**	**0.46**	**278**	⇑*i*P	**Pn**	**09 53 26.0**	**-0.4**
CUI				*e*S	**Sn**	**09 53 39.0**	**+0.3**
VMAR	**Armenia, Volca**	**0.46**	**298**	⇑*i*P	**Pn**	**09 53 26.1**	**-0.3**
VMAR				*e*S	**Sn**	**09 53 39.0**	**+0.3**
VPL1	**V. Platanar**	**0.47**	**136**	*e*P	**Pn**	**09 53 25.9**	**-0.8**
VPL1				*e*S	**Sn**	**09 53 39.0**	**-0.2**
COLC	**Colonia**	**0.50**	**278**	*e*P	**Pn**	**09 53 26.2**	**-0.5**
CLARA	**Aguas Claras**	**0.50**	**292**	⇑*i*P	**Pn**	**09 53 26.4**	**-0.3**
CLARA				*e*S	**Sn**	**09 53 40.0**	**+0.7**
MESS	**Mesas**	**0.51**	**287**	⇑*i*P	**Pn**	**09 53 26.0**	**-0.7**
MESS				*e*S	**Sn**	**09 53 39.7**	**+0.4**
ZARE	**Zarcero**	**0.51**	**143**	*e*P	**Pn**	**09 53 26.9**	**-0.1**
ARTO	**Ro Cuarto**	**0.54**	**118**	⇓*i*P	**Pn**	**09 53 26.3**	**-0.6**
ARTO				*e*S	**Sn**	**09 53 36.8**	**-3.3**
SRA1	**San Ramn**	**0.55**	**157**	*e*P	**Pn**	**09 53 26.4**	**-0.7**
BAGA	**Bagaces**	**0.55**	**263**	⇑*i*P	**Pn**	**09 53 26.5**	**-0.5**
BAGA				*e*S	**Sn**	**09 53 40.0**	**+0.2**
PALD	**Palmares**	**0.60**	**154**	⇓*i*P	**Pn**	**09 53 26.6**	**-0.8**
ARZA	**Esparza**	**0.60**	**177**	*e*P	**Pn**	**09 53 26.7**	**-0.6**
ARZA				*e*S	**Sn**	**09 53 40.5**	**+0.1**
SARCI	**Sarchi**	**0.61**	**145**	⇓*i*P	**Pn**	**09 53 27.3**	**-0.3**
VPS8	**V Poas**	**0.61**	**132**	⇓*i*P	**Pn**	**09 53 27.7**	**-0.1**
ENAS	**Puntarenas**	**0.63**	**192**	*e*P	**Pn**	**09 53 27.2**	**-0.3**
ENAS				*e*S	**Sn**	**09 53 41.3**	**+0.5**
GPS2	**Hotel Rincn d**	**0.66**	**284**	⇑*i*P	**Pn**	**09 53 27.3**	**-0.5**
GPS2				*e*S	**Sn**	**09 53 42.2**	**+0.9**
PEJA	**Penjamo Buenos**	**0.67**	**296**	⇑*i*P	**Pn**	**09 53 27.6**	**-0.3**
GPS3	**Bodega del ICE**	**0.67**	**284**	⇓*i*P	**Pn**	**09 53 30.7**	**+2.8**
GPS3				*e*S	**Sn**	**09 53 45.4**	**+3.9**
VORI	**VORI**	**0.67**	**289**	*e*P	**Pn**	**09 53 27.7**	**-0.4**
TCS1	**Tacares**	**0.68**	**144**	P	**Pn**	**09 53 27.8**	**-0.3**
TCS1				S	**Sn**	**09 53 43.3**	**+1.7**
TCS1	**Tacares**	**0.68**	**144**	⇓*i*P	**Pn**	**09 53 27.6**	**-0.5**
TCS1				*e*S	**Sn**	**09 53 42.5**	**+0.8**
BUAI	**Buenos Aires**	**0.68**	**294**	⇑*i*P	**Pn**	**09 53 27.5**	**-0.4**
BUAI				*e*S	**Sn**	**09 53 42.2**	**+0.6**
VRLE	**La Escondida,**	**0.68**	**286**	*e*P	**Pn**	**09 53 27.3**	**-0.7**
ATEO	**Atenas**	**0.69**	**153**	⇓*i*P	**Pn**	**09 53 27.4**	**-0.8**
ATEO				*e*S	**Sn**	**09 53 41.6**	**-0.2**
TRB2	**Turrubares**	**0.72**	**160**	*e*P	**Pn**	**09 53 27.6**	**-0.8**
LAPC	**Finca la Perla**	**0.74**	**283**	⇑*i*P	**Pn**	**09 53 27.8**	**-0.6**
LAPC				*e*S	**Sn**	**09 53 42.5**	**0.0**
UELA	**Alajuela**	**0.75**	**140**	⇓*i*P	**Pn**	**09 53 24.6**	**-4.1**
VBV1	**V. Barva**	**0.76**	**129**	⇓*i*P	**Pn**	**09 53 28.3**	**-0.7**
BELE	**Belen**	**0.80**	**141**	⇓*i*P	**Pn**	**09 53 28.4**	**-0.7**
BELE				*e*S	**Sn**	**09 53 43.3**	**-0.2**
PAQE	**Paquera**	**0.80**	**197**	*e*P	**Pn**	**09 53 27.6**	**-1.5**
NYURE	**Nandayure**	**0.81**	**222**	*e*P	**Pn**	**09 53 27.8**	**-1.3**
HEME	**Heredia, Merce**	**0.81**	**137**	⇓*i*P	**Pn**	**09 53 29.9**	**+0.6**
HDC	**Heredia**	**0.83**	**136**	P	**Pn**	**09 53 29.1**	**-0.3**
HDC				S	**Sn**	**09 53 44.0**	**0.0**
HDC	**Heredia**	**0.83**	**136**	⇓*i*P	**Pn**	**09 53 28.9**	**-0.6**
HDC				*e*S	**Sn**	**09 53 44.5**	**+0.4**
ALIBA	**Liberia Airpor**	**0.83**	**270**	⇓*i*P	**Pn**	**09 53 28.8**	**-0.4**
ALIBA				*e*S	**Sn**	**09 53 43.8**	**0.0**
PURI	**Puriscal**	**0.84**	**153**	*e*P	**Pn**	**09 53 29.0**	**-0.5**
NICO	**Nicoya**	**0.86**	**238**	*e*P	**Pn**	**09 53 28.6**	**-1.0**
NICO				*e*S	**Sn**	**09 53 44.0**	**-0.5**
MEXI	**Barrio Mexico**	**0.89**	**137**	⇓*i*P	**Pn**	**09 53 29.4**	**-0.6**
LUPE	**Guadalupe**	**0.90**	**135**	*e*P	**Pn**	**09 53 29.4**	**-0.7**
LUJA	**Lujan**	**0.91**	**137**	*e*P	**Pn**	**09 53 29.4**	**-0.8**
SJS	**Escuela Geolog**	**0.91**	**136**	*e*P	**Pn**	**09 53 29.6**	**-0.7**
CMARA	**Lajas Hojancha**	**0.91**	**231**	P	**Pn**	**09 53 29.4**	**-0.7**
CMARA				S	**Sn**	**09 53 45.5**	**+0.1**
CMARA	**Lajas Hojancha**	**0.91**	**231**	*e*P	**Pn**	**09 53 29.0**	**-1.2**
ECI	**Escuela Centro**	**0.91**	**136**	⇓*i*P	**Pn**	**09 53 29.6**	**-0.7**
ECI				*e*S	**Sn**	**09 53 46.8**	**+1.2**
SJS3	**Mercedes San J**	**0.91**	**136**	*e*P	**Pn**	**09 53 29.8**	**-0.5**
CORON	**Coronado**	**0.92**	**132**	*e*P	**Pn**	**09 53 30.3**	**-0.1**
SACU	**Santa Cruz**	**0.93**	**249**	*e*P	**Pn**	**09 53 29.2**	**-1.0**
CVIMO	**Finca Echandi**	**0.94**	**127**	⇓*i*P	**Pn**	**09 53 34.3**	**+3.7**
TRT2	**Tortugero**	**0.95**	**92**	P	**Pn**	**09 53 30.0**	**-0.5**
TRT2	**Tortugero**	**0.95**	**92**	⇓*i*P	**Pn**	**09 53 29.7**	**-0.8**
TRT2				*e*S	**Sn**	**09 53 46.0**	**0.0**
ACOS	**Acosta**	**0.95**	**146**	⇓*i*P	**Pn**	**09 53 30.0**	**-0.7**
ACOS				*e*S	**Sn**	**09 53 46.1**	**-0.2**
BITO	**Garabito Jaco**	**0.97**	**175**	*e*P	**Pn**	**09 53 29.8**	**-0.9**
PILE	**Guapiles**	**0.97**	**113**	⇓*i*P	**Pn**	**09 53 30.5**	**-0.2**
CARI	**Cariari**	**0.98**	**103**	*e*P	**Pn**	**09 53 30.3**	**-0.4**
CARN	**Rivas**	**1.00**	**306**	P	**Pn**	**09 53 30.5**	**-0.4**
CARN				S	**Sn**	**09 53 47.5**	**+0.7**
CARN	**Rivas**	**1.00**	**306**	*e*P	**Pn**	**09 53 30.4**	**-0.6**
CARN				*e*S	**Sn**	**09 53 47.0**	**+0.2**
CVTG	**V. Turrialba,**	**1.01**	**116**	⇓*i*P	**Pn**	**09 53 30.9**	**-0.3**
CVTG				*e*S	**Sn**	**09 53 47.6**	**+0.3**
VICA	**Volcano Irazu**	**1.04**	**126**	⇓*i*P	**Pn**	**09 53 31.2**	**-0.6**
TAGO	**Cartago**	**1.05**	**133**	*e*P	**Pn**	**09 53 30.8**	**-0.9**
RAFA	**San Farael, Vo**	**1.08**	**126**	*e*P	**Pn**	**09 53 32.8**	**+0.7**
CVTR	**Volcan Turrial**	**1.09**	**122**	⇓*i*P	**Pn**	**09 53 31.8**	**-0.6**
VTR0	**Volcan Turrial**	**1.09**	**122**	⇓*i*P	**Pn**	**09 53 31.7**	**-0.7**
ABE2	**San Pablo**	**1.09**	**144**	*e*P	**Pn**	**09 53 31.6**	**-0.6**
ABE2				*e*S	**Sn**	**09 53 49.7**	**+0.7**
LCR2	**La Lucha 2**	**1.09**	**141**	P	**Pn**	**09 53 31.6**	**-0.6**
LCR2				S	**Sn**	**09 53 49.4**	**+0.5**
LCR2	**La Lucha 2**	**1.09**	**141**	⇓*i*P	**Pn**	**09 53 31.5**	**-0.7**
CVTV	**Tajo**	**1.10**	**122**	⇓*i*P	**Pn**	**09 53 32.0**	**-0.4**
CVTV				*e*S	**Sn**	**09 53 54.3**	**+4.9**
PCAYA	**Pacayas**	**1.10**	**127**	*e*P	**Pn**	**09 53 32.0**	**-0.3**
REPA	**Paraso**	**1.12**	**133**	*e*P	**Pn**	**09 53 31.9**	**-0.5**
ABRB	**Las Abras (San**	**1.13**	**121**	⇓*i*P	**Pn**	**09 53 32.3**	**-0.4**
ABRB				*e*S	**Sn**	**09 53 54.6**	**+4.8**
VTCV	**VTCV, Calle Va**	**1.14**	**122**	⇓*i*P	**Pn**	**09 53 32.5**	**-0.1**
PITB	**Pirrs, San**	**1.14**	**144**	⇑*e*P	**Pn**	**09 53 32.0**	**-0.7**
RAZU	**San Marcos de**	**1.15**	**144**	*e*P	**Pn**	**09 53 32.0**	**-0.7**
EGUB	**Earth Gu;pi**	**1.16**	**109**	⇓*i*P	**Pn**	**09 53 32.4**	**-0.3**
VINA	**Juan Vinas**	**1.17**	**126**	*e*P	**Pn**	**09 53 32.8**	**-0.1**
RESJ	**San Isidro (Tu**	**1.18**	**118**	⇓*i*P	**Pn**	**09 53 32.7**	**-0.3**
RVLA	**Villa Bonita**	**1.20**	**114**	*e*P	**Pn**	**09 53 33.0**	**-0.1**
TURIB	**Turrialba**	**1.21**	**124**	⇓*i*P	**Pn**	**09 53 33.0**	**-0.4**
LCOCO	**El Coco**	**1.23**	**114**	*e*P	**Pn**	**09 53 33.1**	**-0.5**
QUEP	**Quepos**	**1.27**	**155**	P	**Pn**	**09 53 33.7**	**-0.3**
QUEP	**Quepos**	**1.27**	**155**	⇑*i*P	**Pn**	**09 53 33.7**	**-0.3**
QUEP				*e*S	**Sn**	**09 53 52.5**	**+0.3**
CONN	**Concepcion**	**1.32**	**317**	P	**Pn**	**09 53 33.8**	**-0.8**
CONN				S	**Sn**	**09 53 52.4**	**-0.8**
ACON	**Acoyapa**	**1.44**	**341**	P	**Pn**	**09 53 35.5**	**-0.4**
ZEDO	**Perez Zeledon**	**1.59**	**141**	*e*P	**Pn**	**09 53 38.4**	**+0.6**
VERH	**Veragua Rainfo**	**1.63**	**114**	⇓*i*P	**Pn**	**09 53 37.5**	**-0.7**
BLUN	**Bluefields**	**1.67**	**33**	P	**Pn**	**09 53 37.8**	**-0.9**
BLUN				S	**Sn**	**09 53 59.3**	**-1.3**
SAJE	**San Jernim**	**1.71**	**136**	*e*P	**Pn**	**09 53 38.5**	**-0.9**
EDPE	**Pejibaye, P**	**1.81**	**142**	*e*P	**Pn**	**09 53 40.4**	**-0.1**
LAES	**El Progreso Va**	**1.82**	**117**	*e*P	**Pn**	**09 53 40.1**	**-0.5**
BURE	**Buenos Aires**	**1.95**	**136**	*e*P	**Pn**	**09 53 41.6**	**-0.6**
PANP	**Palmar Norte**	**2.03**	**143**	*e*P	**Pn**	**09 53 44.0**	**+0.7**
BOAB	**BOACO BROADBAN**	**2.07**	**333**	P	**Pn**	**09 53 43.2**	**-0.6**
BOAB				S	**Sn**	**09 54 09.5**	**-0.1**
FIMO	**Fila Mora**	**2.08**	**140**	*e*P	**Pn**	**09 53 43.8**	**-0.2**
MGAN	**Managua**	**2.16**	**316**	P	**Pn**	**09 53 44.8**	**-0.1**
MGAN				S	**Sn**	**09 54 13.8**	**+2.1**
TISN	**Laguna Tiscapa**	**2.17**	**315**	P	**Pn**	**09 53 44.3**	**-0.7**
APQ2	**Apoyeque**	**2.25**	**315**	P	**Pn**	**09 53 45.9**	**-0.1**
APQ2				S	**Sn**	**09 54 15.0**	**+1.3**
VITO	**San Vito**	**2.46**	**136**	*e*P	**Pn**	**09 53 49.5**	**+0.7**
VITO				*e*S	**Sn**	**09 54 19.4**	**+0.8**
FITO	**Golfito**	**2.48**	**142**	*e*P	**Pn**	**09 53 48.2**	**-0.8**
MOM2	**El Cardon**	**2.53**	**317**	P	**Pn**	**09 53 49.5**	**-0.2**
MOM2				S	**Sn**	**09 54 21.0**	**+0.8**
PIRO	**Carate, Puerto**	**2.56**	**148**	P	**Pn**	**09 53 50.5**	**+0.4**
PIRO				S	**Sn**	**09 54 20.8**	**-0.1**
SCLRA	**Santa Clara, W**	**2.58**	**133**	*e*P	**Pn**	**09 53 50.7**	**+0.2**
NELY	**Ciudad Neily**	**2.59**	**138**	*e*S	**Sn**	**09 54 21.4**	**-0.3**
LEVN	**Ruinas Leon Vi**	**2.60**	**314**	P	**Pn**	**09 53 50.4**	**-0.1**
LEVN				S	**Sn**	**09 54 21.6**	**-0.2**
MOM3	**MOM3**	**2.61**	**317**	P	**Pn**	**09 53 49.7**	**-1.0**
BRU2	**Volcan**	**2.67**	**132**	P	**Pn**	**09 53 51.6**	**-0.1**
BRU2				S	**Sn**	**09 54 24.1**	**+0.3**
BRU2	**Volcan**	**2.67**	**132**	*e*P	**Pn**	**09 53 51.0**	**-0.7**
BRU2				*e*S	**Sn**	**09 54 22.8**	**-1.0**
CDITO	**Canoas**	**2.70**	**138**	P	**Pn**	**09 53 51.9**	**-0.9**
CDITO				S	**Sn**	**09 54 24.3**	**+0.1**
CNGN	**Cerro Negro**	**2.72**	**314**	P	**Pn**	**09 53 52.3**	**0.0**
CNGN				S	**Sn**	**09 54 26.0**	**+1.2**
CLLRA	**Cordillera,**	**2.76**	**132**	*e*P	**Pn**	**09 53 52.3**	**-0.5**
CLLRA	**Cordillera,**	**2.76**	**132**	*e*P	**Pn**	**09 53 52.5**	**-0.3**
BQTLY	**Boquete Panama**	**2.87**	**129**	*e*P	**Pn**	**09 53 54.8**	**+0.5**
RBALA	**Bur**	**3.04**	**124**	*e*P	**Pn**	**09 53 55.6**	**-0.7**
RBALA	**Bur**	**3.04**	**124**	*e*P	**Pn**	**09 53 55.9**	**-0.4**

SKO **11** *09:59:51.9, 41°66N×20°71E, h18km, ML2.2*
PDG **11** *09:59:54.0±0.1, 41°68N×20°73E, h0km, ML2.7/11, Error ellipse: s-maj=0.7km s-min=0.7km az=0.0*
BEO **11** *09:59:54.0±1.1, 41°68N×20°73E, h0km, ML2.0/3*
ISC 11 09:59:53.0±1.2, **41°65N**±0°03×**20°79E**±0°02, **h2**km±10km, **n27**, σ1**9**08/50, **3D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OHR	**Ohrid**	**0.54**	**179**	⇓*i*Pg	**Pg**	**10 00 03.0**	**-0.4**
OHR				*i* Sg	**Sg**	**10 00 11.7**	**+1.2**
OHR				*e*Lg	Lg	10 00 12.0	
	comp=N,75nm,0.3s						
OHR				*e*Lg	Lg	10 00 12.7	
	comp=E,202nm,0.6s						
SKO	**Skopje**	**0.58**	**57**	*e*Pg	**Pg**	**10 00 04.5**	**+0.2**
SKO				*i* Sg	**Sg**	**10 00 12.6**	**+0.8**
PVY	**Plav**	**1.12**	**327**	*e*Pg	**Pg**	**10 00 13.6**	**-1.0**
PVY				*i* Sg	**Sb**	**10 00 31.0**	**+0.6**
ULC	**Ulcinj**	**1.20**	**286**	*e*Pg	**Pg**	**10 00 15.1**	**-0.8**
ULC				*i* Sg	**Sn**	**10 00 33.1**	**-0.5**
DRME	**Dracevica, Mon**	**1.31**	**295**	*e*Pg	**Pg**	**10 00 17.1**	**-1.1**
DRME				*i* Sg	**Sn**	**10 00 37.0**	**+0.6**
PDG	**Podgorica**	**1.38**	**305**	*e*Pg	**Pg**	**10 00 18.4**	**-1.1**
PDG				*i* Sg	**Sn**	**10 00 39.4**	**+1.3**
VAY	**Valandovo**	**1.38**	**103**	⇓*i*Pg	**Pn**	**10 00 18.3**	**-1.0**
VAY				*i* Sg	**Sg**	**10 00 37.6**	**+0.3**
VAY				*e*Lg	Lg	10 00 38.1	
	comp=E,19nm,0.4s						
VAY				*e*Lg	Lg	10 00 38.3	
	comp=N,31nm,0.7s						
IVA	**Berane**	**1.39**	**332**	*e*Pg	**Pg**	**10 00 18.9**	**-0.7**
IVA				*i* Sg	**Sn**	**10 00 39.6**	**+1.1**
BARS	**Barje**	**1.39**	**33**	*e*Pg	**Pg**	**10 00 18.9**	**-0.6**
BARS				*e*Sg	**Sg**	**10 00 38.4**	**+0.7**
BOSS	**Bosilegrad**	**1.52**	**56**	*e*Pg	**Pn**	**10 00 21.6**	**+0.4**
BUM	**Brajici-Budva**	**1.55**	**295**	*e*Pg	**Pn**	**10 00 21.8**	**0.0**
BUM				*i* Sg	**Sn**	**10 00 45.2**	**+2.7**
SELS	**Selova**	**1.58**	**9**	*e*Pg	**Pn**	**10 00 22.1**	**-0.1**
SELS				*e*Sg	**Sn**	**10 00 43.7**	**+0.4**
PEHC	**Pehcevo**	**1.59**	**85**	*i* Pg	**Pn**	**10 00 22.0**	**-0.3**
PEHC				*i* Sg	**Sn**	**10 00 43.7**	**+0.4**
CEME	**Cevo**	**1.65**	**303**	⇓*i*Pn	**Pn**	**10 00 22.7**	**-0.4**
CEME				*i* Sn	**Sg**	**10 00 48.4**	**+2.2**
SJES	**Sjenica**	**1.72**	**340**	*e*Pn	**Pn**	**10 00 24.1**	**0.0**
SJES				*e*Sn	**Sn**	**10 00 47.1**	**+0.5**
NKME	**Niksic**	**1.76**	**310**	*e*Pn	**Pn**	**10 00 25.5**	**+0.9**
NKME				*i* Sn	**Sg**	**10 00 51.3**	**+1.7**
HCY	**Herceg Novi**	**1.88**	**296**	*e*Pn	**Pb**	**10 00 27.6**	**-0.6**
HCY				*i* Sn	**Sg**	**10 00 54.4**	**+0.8**
BRY	**Bratogost**	**2.08**	**308**	*e*Pn	**Pn**	**10 00 30.6**	**+1.5**
BRY				*i* Sn	**Sg**	**10 00 59.1**	**-0.9**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn	**Pn**	**10 00 30.5**	**+1.3**
UPM				*i* Sn	**Sg**	**10 00 59.2**	**-0.8**
DBRK	**Dubrovnik**	**2.21**	**298**	*e*Pn	**Pn**	**10 00 32.5**	**+1.7**
DBRK				Sn	**Sn**	**10 00 57.9**	**-0.7**
LSTV	**Lastovo**	**3.10**	**292**	*i* Pn	**Pn**	**10 00 43.8**	**+0.8**
MAKA	**Makarska**	**3.23**	**302**	*e*Pn	**Pn**	**10 00 45.5**	**+0.8**
RICI	**Ricice**	**3.27**	**305**	*e*Pn	**Pn**	**10 00 46.4**	**+1.2**
RICI				Sn	**Sn**	**10 01 23.6**	**-1.1**
HVAR	**Hvar**	**3.56**	**297**	Sn	**Sn**	**10 01 30.7**	**-1.1**
KIJV	**Kijevo**	**3.99**	**308**	*e*Pn	**Pn**	**10 00 55.6**	**+0.4**
KIJV				Sn	**Sn**	**10 01 40.7**	**-1.8**
MORI	**Morici**	**4.34**	**302**	*i* Pn	**Pn**	**10 01 00.2**	**+0.2**
MORI				Sn	**Sn**	**10 01 49.2**	**-2.0**
DUGI	**Dugi Otok**	**4.82**	**301**	*e*Pn	**Pn**	**10 01 07.1**	**+0.5**
DUGI				Sn	**Sn**	**10 02 02.1**	**-0.8**

PDG **11** *10:02:06.8±0.1, 41°61N×20°72E, h0km±11km, ML2.6/9, Error ellipse: s-maj=0.6km s-min=0.8km az=0.0*
SKO **11** *10:02:06.4, 41°61N×20°91E, h1km, ML2.5*
ISC 11 10:02:06.0±1.2, **41°64N**±0°04×**20°81E**±0°03, **h5**km±10km, **n20**, σ1**9**14/38, **1C-1D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OHR	**Ohrid**	**0.53**	**181**	⇓*i*Pg	**Pg**	**10 02 16.4**	**+0.1**
OHR				*i* Sg	**Sb**	**10 02 24.9**	**-0.9**
OHR				*e*Lg	Lg	10 02 25.0	
	comp=E,246nm,0.4s						
OHR				*e*Lg	Lg	10 02 25.4	
	comp=N,119nm,0.4s						
SKO	**Skopje**	**0.57**	**55**	*i* Pg	**Pg**	**10 02 16.6**	**-0.5**
SKO				*i* Sg	**Sb**	**10 02 25.7**	**-1.4**
PVY	**Plav**	**1.14**	**327**	*e*Pg	**Pg**	**10 02 27.6**	**-0.4**
PVY				*i* Sg	**Sn**	**10 02 45.5**	**+0.5**
ULC	**Ulcinj**	**1.21**	**286**	*e*Pg	**Pg**	**10 02 27.9**	**-1.4**
ULC				*i* Sg	**Sn**	**10 02 46.2**	**-0.4**
DRME	**Dracevica, Mon**	**1.33**	**295**	*e*Pg	**Pg**	**10 02 30.2**	**-1.3**
DRME				*i* Sg	**Sn**	**10 02 50.5**	**+1.1**
VAY	**Valandovo**	**1.36**	**103**	*i* Pg	**Pg**	**10 02 31.8**	**-0.3**
VAY				*i* Sg	**Sn**	**10 02 50.0**	**-0.2**
VAY				*e*Lg	Lg	10 02 50.7	
	comp=N,76nm,0.6s						
VAY				*e*Lg	Lg	10 02 50.9	
	comp=E,53nm,0.6s						
PDG	**Podgorica**	**1.40**	**305**	*e*Pg	**Pn**	**10 02 32.0**	**-0.3**
PDG				*i* Sg	**Sn**	**10 02 53.2**	**+2.1**
IVA	**Berane**	**1.41**	**331**	⇑*i*Pg	**Pn**	**10 02 32.4**	**0.0**
IVA				*i* Sg	**Sn**	**10 02 54.4**	**+3.0**
PEHC	**Pehcevo**	**1.57**	**84**	*i* Pg	**Pb**	**10 02 35.3**	**-0.4**
PEHC				*i* Sg	**Sg**	**10 02 57.5**	**+1.0**
BUM	**Brajici-Budva**	**1.57**	**295**	*e*Pg	**Pn**	**10 02 34.8**	**+0.1**
BUM				*i* Sg	**Sg**	**10 02 59.0**	**+2.4**
CEME	**Cevo**	**1.67**	**303**	*e*Pn	**Pb**	**10 02 37.4**	**0.0**
CEME				*i* Sn	**Sg**	**10 03 02.5**	**+2.7**
UPM	**Unac-Piva**	**2.10**	**319**	*e*Pn	**Pb**	**10 02 44.1**	**-0.7**
UPM				*i* Sn	**Sg**	**10 03 13.3**	**-0.3**
BRY	**Bratogost**	**2.10**	**308**	*e*Pn	**Pb**	**10 02 44.0**	**-0.8**
BRY				*i* Sn	**Sg**	**10 03 13.1**	**-0.5**
DBRK	**Dubrovnik**	**2.23**	**298**	*e*Pn	**Pn**	**10 02 43.8**	**+0.1**
DBRK				Sn	**Sn**	**10 03 11.7**	**0.0**
LSTV	**Lastovo**	**3.12**	**292**	*e*Pn	**Pn**	**10 02 56.1**	**+0.2**
LSTV				Sn	**Sn**	**10 03 32.2**	**-1.3**
MAKA	**Makarska**	**3.25**	**302**	*e*Pn	**Pn**	**10 02 57.9**	**+0.2**
RICI	**Ricice**	**3.29**	**306**	*e*Pn	**Pn**	**10 02 59.5**	**+1.3**
RICI				Sn	**Sn**	**10 03 37.5**	**-0.3**
KIJV	**Kijevo**	**4.01**	**308**	*e*Pn	**Pn**	**10 03 09.6**	**+1.4**
KIJV				Sn	**Sn**	**10 03 55.5**	**0.0**
MORI	**Morici**	**4.37**	**302**	*e*Pn	**Pn**	**10 03 13.9**	**+0.9**
DUGI	**Dugi Otok**	**4.84**	**301**	*e*Pn	**Pn**	**10 03 20.3**	**+0.8**
DUGI				Sn	**Sn**	**10 04 16.0**	**+0.1**

NEIC **11** *10:04:53.3±0.7, 6°0S±0°1×148°6E±0°1, h61km±12km, mb4.1/18, Error ellipse: s-maj=27.7km s-min=7.6km az=133.0*
IDC **11** *10:04:54.6±3.2, 6°23S×148°87E, h94km±38km, mb3.7/2, mbtmp4.4/5, MS2.9/2, Error ellipse: s-maj=110.1km s-min=15.3km az=130.0*
ISC 11 10:04:52.7±0.8, **5°9S**±0°1×**148°5E**±0°1, **h65**km, **n26, σ**0**72**/**28, mb3.9**/8, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.69**	**201**	P	**Pn**	**10 05 47.2**	**0.0**
	66nm,0.3s,baz=29,slow=10,SNR=50						
PMG				S	**Sn**	**10 06 30.2**	**+0.7**
	167nm,0.7s,baz=351,slow=19,SNR=11						
PMG	**Port Moresby**	**3.69**	**201**		**Pn**	**10 05 47.4**	**+0.1**
PMG				Sn	**Sn**	**10 06 28.3**	**-1.2**
KRVT	**Keravat (AS076**	**3.89**	**66**	P	**Pn**	**10 05 50.0**	**0.0**
	190nm,0.5s,baz=248,slow=5.4,SNR=6.8						
KRVT				LR	LR	10 07 14.3	
	comp=Z,78nm,19.5s,baz=118,slow=38						
RABL	**Rabaul**	**4.06**	**65**	Pn	**Pn**	**10 05 52.5**

VAY				*i* Sg	**Sg**	**11 00 21.4**	**+0.2**
VAY				*e*Lg	Lg	11 00 22.3	
	comp=E,1μm,0.5s						
VAY				*e*Lg	Lg	11 00 23.6	
	comp=N,2μm,0.7s						
BARS	**Barje**	**1.39**	**33**	*e*Pg	**Pn**	**11 00 02.2**	**-0.5**
GRG	**Griva**	**1.41**	**119**	P	**Pn**	**11 00 02.6**	**-0.3**
GRG				AML	AML		
GRG	**Griva**	**1.41**	**119**	P	**Pn**	**11 00 02.8**	**-0.2**
PENT	**Pentalofos**	**1.48**	**169**	P	**Pn**	**11 00 04.1**	**0.0**
LSK	**Leskovik**	**1.51**	**185**	Pn	**Pb**	**11 00 05.1**	**0.0**
LSK				Sn	**Sg**	**11 00 26.2**	**+1.1**
KOME	**Kolasin**	**1.52**	**322**⇑	*i* Pg	**Pn**	**11 00 03.1**	**-1.4**
KOME				*i* Sg	**Sb**	**11 00 25.2**	**+0.3**
BOSS	**Bosilegrad**	**1.52**	**56**	*e*Pg	**Pn**	**11 00 04.4**	**-0.1**
BOSS				*e*Sg	**Sg**	**11 00 25.7**	**+0.3**
VLO	**Vlora**	**1.53**	**220**	P	**Pg**	**11 00 07.0**	**+1.0**
VLO				AML	AML		
VLO	**Vlora**	**1.53**	**220**	Pg	**Pg**	**11 00 07.2**	**+1.2**
VLO				Sg	**Sg**	**11 00 27.7**	**+1.9**
VLO				IAML		11 00 34.7	
	comp=N,4μm,0.6s						
VLO	**Vlora**	**1.53**	**220**	P	**Pg**	**11 00 06.3**	**+0.3**
KZN	**Kozani**	**1.54**	**151**	P	**Pn**	**11 00 05.0**	**+0.2**
KZN				S	**Sn**	**11 00 25.2**	**-0.1**
KZN				AML	AML		
BUM	**Brajici-Budva**	**1.55**	**295**	*e*Pg	**Pn**	**11 00 03.4**	**-1.5**
BUM				*i* Sg	**Sb**	**11 00 25.7**	**0.0**
SELS	**Selova**	**1.58**	**9**	*e*Pg	**Pn**	**11 00 05.1**	**-0.2**
SELS				*e*Sg	**Sb**	**11 00 27.5**	**+0.8**
PEHC	**Pehcevo**	**1.59**	**85**	*i* Pg	**Pb**	**11 00 06.3**	**-0.3**
CEME	**Cevo**	**1.65**	**303**	*e*Pg	**Pn**	**11 00 05.3**	**-0.9**
CEME				*i* Sg	**Sn**	**11 00 28.1**	**+0.3**
KNT	**Kendrikon**	**1.67**	**107**	P	**Pn**	**11 00 06.4**	**-0.1**
KNT				S	**Sn**	**11 00 27.0**	**-1.3**
KNT				AML	AML		
KNT	**Kendrikon**	**1.67**	**107**	P	**Pn**	**11 00 07.0**	**+0.5**
	comp=Z,696nm,0.8s						
SJES	**Sjenica**	**1.71**	**340**	*e*Pg	**Pn**	**11 00 08.0**	**+0.8**
SJES				*e*Sg	**Sb**	**11 00 31.1**	**+0.6**
SJES	**Sjenica**	**1.71**	**340**	*e*Pn	**Pn**	**11 00 06.7**	**-0.5**
SJES				*e*Sn	**Sn**	**11 00 27.4**	**-2.1**
NKME	**Niksic**	**1.75**	**310**	*e*Pn	**Pn**	**11 00 06.9**	**-0.8**
NKME				*i* Sn	**Sn**	**11 00 30.8**	**+0.4**
KPRO	**Kipourio**	**1.76**	**165**	P	**Pb**	**11 00 08.7**	**-0.6**
KPRO				AML	AML		
KKB	**Krupnik**	**1.77**	**83**	P	**Pn**	**11 00 08.7**	**+0.8**
KKB				S	**Sn**	**11 00 30.3**	**-0.5**
KKB				AML	AML		
KKB	**Krupnik**	**1.77**	**83**	*i* P	**Pb**	**11 00 09.2**	**-0.3**
KKB				S	**Sb**	**11 00 32.4**	**+0.4**
SRN	**Sarande**	**1.87**	**199**	P	**Pb**	**11 00 11.0**	**-0.3**
SRN				AML	AML		
SRN	**Sarande**	**1.87**	**199**	Pn	**Pb**	**11 00 10.8**	**-0.4**
SRN				Sn	**Sg**	**11 00 38.7**	**+2.0**
SRN	**Sarande**	**1.87**	**199**	P	**Pg**	**11 00 12.1**	**-0.4**
HCY	**Herceg Novi**	**1.88**	**296**	*e*Pn	**Pn**	**11 00 09.3**	**0.0**
HCY				*e*Sn	**Sn**	**11 00 32.7**	**-0.7**
HCY	**Herceg Novi**	**1.88**	**296**⇑	*i* Pn	**Pn**	**11 00 08.7**	**-0.6**
HCY				*i* Sn	**Sn**	**11 00 33.6**	**+0.2**
THE	**Thessaloniki**	**1.94**	**121**	P	**Pn**	**11 00 09.7**	**-0.5**
THE				AML	AML		
THE	**Thessaloniki**	**1.94**	**121**	P	**Pb**	**11 00 12.2**	**-0.3**
	comp=Z,152nm,0.9s						
PLE	**Pljevlja**	**1.96**	**329**	*e*Pn	**Pn**	**11 00 10.0**	**-0.7**
PLE				*i* Sn	**Sn**	**11 00 36.1**	**+0.4**
IVAS	**Ivanjica**	**1.97**	**347**	*e*Pn	**Pn**	**11 00 10.2**	**-0.6**
IVAS				*e*Sn	**Sn**	**11 00 37.0**	**+1.1**
JAN	**Janina**	**2.00**	**178**	P	**Pb**	**11 00 13.3**	**-0.2**
JAN				S	**Sb**	**11 00 38.8**	**+0.2**
VTS	**Vitosha**	**2.06**	**61**	P	**Pn**	**11 00 12.5**	**+0.4**
VTS				S	**Sb**	**11 00 39.7**	**-1.0**
VTS				AML	AML		
VTS	**Vitosha**	**2.06**	**61**	*i* P	**Pn**	**11 00 12.5**	**+0.4**
VTS				S	**Sn**	**11 00 39.5**	**+1.2**
BRY	**Bratogost**	**2.08**	**308**⇑	*i* Pn	**Pn**	**11 00 10.8**	**+0.6**
BRY				*e*Sn	**Sn**	**11 00 37.2**	**-1.3**
BRY	**Bratogost**	**2.08**	**308**	*e*Pn	**Pn**	**11 00 11.3**	**-0.9**
BRY				*i* Sn	**Sn**	**11 00 38.4**	**-0.1**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn	**Pn**	**11 00 12.7**	**+0.4**
UPM				*e*Sn	**Sn**	**11 00 37.2**	**-1.4**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn	**Pn**	**11 00 11.6**	**-0.7**
UPM				*i* Sn	**Sn**	**11 00 38.8**	**+0.2**
KEK	**Kerkira**	**2.08**	**201**	P	**Pb**	**11 00 13.5**	**-1.3**
KEK				AML	AML		
KEK	**Kerkira**	**2.08**	**201**		**Pn**	**11 00 10.7**	**-1.5**
KEK				Sn	**Sn**	**11 00 37.8**	**-0.6**
KEK	**Kerkira**	**2.08**	**201**	P	**Pb**	**11 00 13.7**	**-1.2**
BOVS	**Bovan**	**2.09**	**19**	*e*Pn	**Pn**	**11 00 12.3**	**0.0**
BOVS				*e*Sn	**Sb**	**11 00 41.9**	**+0.6**
BOVS	**Bovan**	**2.09**	**19**	⇑P	**Pn**	**11 00 11.6**	**-0.7**
TREB	**Trebinje**	**2.09**	**301**	*e*Pn	**Pn**	**11 00 13.3**	**+1.0**
TREB				*e*Sn	**Sn**	**11 00 37.9**	**-0.8**
SOH	**Sokhos**	**2.11**	**112**	P	**Pb**	**11 00 14.9**	**-0.5**
SOH				AML	AML		
SOH	**Sokhos**	**2.11**	**112**	P	**Pb**	**11 00 15.1**	**-0.3**
	comp=Z,175nm,0.8s						
ZAPS	**Zavoj**	**2.12**	**40**	*e*Pn	**Pn**	**11 00 13.1**	**+0.4**
PLNA	**Plana**	**2.13**	**67**	*i* P	**Pb**	**11 00 14.6**	**-1.2**
PRMD	**Pramanda**	**2.14**	**173**	P	**Pn**	**11 00 14.4**	**+1.4**
PRMD				S	**Sn**	**11 00 41.0**	**+1.1**
PRMD				AML	AML		
IGT	**Igoumenitsa**	**2.15**	**189**	P	**Pb**	**11 00 14.8**	**-1.2**
IGT				S	**Sb**	**11 00 42.4**	**-0.5**
IGT				AML	AML		
SRS	**Serrai**	**2.18**	**103**	P	**Pn**	**11 00 13.7**	**+0.1**
SRS				AML	AML		
SRS	**Serrai**	**2.18**	**103**	P	**Pn**	**11 00 14.0**	**+0.4**
	comp=Z,226nm,0.7s						
DBRK	**Dubrovnik**	**2.20**	**298**	*e*Pn	**Pn**	**11 00 15.5**	**+1.7**
DBRK				Sn	**Sb**	**11 00 43.6**	**-0.9**
BLSH	**Balsha**	**2.21**	**56**	*i* P	**Pb**	**11 00 18.1**	**+1.0**
BLSH				S	**Sb**	**11 00 45.1**	**+0.3**
KLINJ	**Klinje**	**2.22**	**314**	*e*Pn	**Pn**	**11 00 14.2**	**0.0**
KLINJ				*e*Sn	**Sn**	**11 00 39.9**	**-2.1**
MMB	**Musomishta**	**2.23**	**92**	P	**Pn**	**11 00 15.1**	**+0.9**
MMB				AML	AML		
MMB	**Musomishta**	**2.23**	**92**	P	**Pb**	**11 00 16.8**	**-0.6**
MMB				S	**Sn**	**11 00 43.0**	**+0.8**
GRUS	**Gruza**	**2.23**	**359**	*e*Pn	**Pn**	**11 00 13.9**	**-0.3**
GRUS				*e*Sn	**Sb**	**11 00 44.3**	**-1.0**
TYRN	**Tyrnavos**	**2.24**	**150**	P	**Pn**	**11 00 14.8**	**+0.6**
TYRN				S	**Sn**	**11 00 42.2**	**-0.1**
TYRN				AML	AML		
THL	**Klokotos Trika**	**2.29**	**155**	P	**Pn**	**11 00 15.3**	**+0.3**
THL				S	**Sn**	**11 00 44.6**	**+1.0**
THL				AML	AML		
NVR	**Nevrokopi**	**2.34**	**97**	P	**Pn**	**11 00 16.3**	**+0.6**
NVR				S	**Sn**	**11 00 45.5**	**+0.7**
NVR				AML	AML		
PLG	**Polygyros**	**2.39**	**122**	P	**Pn**	**11 00 16.2**	**-0.2**
ZAGS	**Zajecar**	**2.41**	**26**	*e*Pn	**Pn**	**11 00 17.1**	**+0.5**
BLKB	**Belogradchik**	**2.41**	**35**	⇑P	**Pn**	**11 00 16.9**	**+0.1**
BBLS	**Lazi&#263i**	**2.43**	**336**	*e*Pn	**Pn**	**11 00 17.0**	**0.0**
BBLS				*e*Sn	**Sb**	**11 00 50.0**	**-1.1**
BBLS	**Lazi&#263i**	**2.43**	**336**	*e*Pn	**Pn**	**11 00 17.2**	**+0.2**
BBLS				*e*Sn	**Sn**	**11 00 45.4**	**-1.7**
DIVS	**Divibare**	**2.51**	**347**	*e*Pn	**Pn**	**11 00 17.5**	**-0.6**
DIVS				*e*Sn	**Sn**	**11 00 47.6**	**-1.5**
TRUS	**Trudelj**	**2.58**	**354**	*e*Pn	**Pn**	**11 00 19.0**	**0.0**
STON	**Ston**	**2.59**	**299**	*e*Pn	**Pn**	**11 00 21.1**	**+2.0**
STON				Sn	**Sn**	**11 00 52.2**	**+1.3**
PGB	**Panagyurishte**	**2.67**	**70**	P	**Pb**	**11 00 24.8**	**-0.1**
MPEP	**Malo Peshtene**	**2.77**	**51**	P	**Pb**	**11 00 25.9**	**-0.7**
PAIG	**Paliouri**	**2.80**	**127**	P	**Pn**	**11 00 24.4**	**+2.4**
VALD	**Valchedram**	**2.82**	**43**	P	**Pg**	**11 00 29.8**	**-0.9**
KUBS	**Kucevo**	**2.83**	**13**	*e*Pn	**Pn**	**11 00 21.0**	**-1.5**
AGG	**Agios Georgios**	**2.89**	**155**	P	**Pb**	**11 00 26.8**	**-1.8**
RZN	**Rozhen**	**2.97**	**88**	P	**Pn**	**11 00 26.2**	**+1.7**
RZN				S	**Sn**	**11 01 01.7**	**+1.1**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn	**Pn**	**11 00 25.1**	**-0.2**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn	**Pn**	**11 00 25.4**	**+0.1**
TEKS				*e*Sn	**Sn**	**11 01 00.1**	**-1.9**
AVAS	**Avala Beograd**	**3.04**	**356**	*e*Pn	**Pn**	**11 00 25.1**	**-0.3**
AVAS				*e*Sn	**Sn**	**11 01 03.2**	**+1.0**
LSTV	**Lastovo**	**3.09**	**292**	*e*Pn	**Pn**	**11 00 27.9**	**+1.9**
LSTV				Sn	**Sn**	**11 01 05.5**	**+2.1**
MDVR	**Moldovita**	**3.20**	**12**	⇓P	**Pb**	**11 00 34.6**	**+0.7**
MDVR				⇑S	**Sg**	**11 01 19.8**	**+0.5**
MAKA	**Makarska**	**3.22**	**302**	*i* Pn	**Pn**	**11 00 29.0**	**+1.2**
MAKA				Sn	**Sn**	**11 01 08.0**	**+1.4**
MATE	**Matera**	**3.24**	**253**	⇑P	**Pn**	**11 00 26.8**	**-1.2**
RICI	**Ricice**	**3.26**	**306**	*e*Pn	**Pn**	**11 00 29.7**	**+1.3**
RICI				Sn	**Sn**	**11 01 08.4**	**+0.9**
DJES	**Djerdap**	**3.27**	**22**	⇓P	**Pn**	**11 00 27.5**	**-1.0**
PLVB	**Pleven**	**3.33**	**57**	⇓P	**Pg**	**11 00 38.5**	**-1.8**
HERR	**Herculane**	**3.44**	**20**	⇑P	**Pn**	**11 00 29.9**	**-0.9**
SRE	**Strehaia**	**3.49**	**30**	⇑P	**Pb**	**11 00 41.4**	**+2.5**
HVAR	**Hvar**	**3.55**	**297**	*e*Pn	**Pn**	**11 00 33.6**	**+1.3**
HVAR				Sn	**Sn**	**11 01 16.3**	**+1.7**
VLAD	**Vladila**	**3.55**	**48**	⇑P	**Pg**	**11 00 44.1**	**-0.5**
PVL	**Pavlikeni**	**3.57**	**64**	P	**Pb**	**11 00 42.6**	**+2.4**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn	**Pn**	**11 00 32.4**	**-0.3**
FRGS				*e*Sn	**Sn**	**11 01 12.3**	**-2.9**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn	**Pn**	**11 00 32.4**	**-0.3**
FRGS				*e*Sn	**Sn**	**11 01 12.6**	**-2.6**
ACER	**Acerenza**	**3.75**	**258**	Pn	**Pn**	**11 00 35.2**	**+0.1**
TIP	**Timpagrande**	**3.94**	**232**		**Pn**	**11 00 37.4**	**-0.5**
TIP	**Timpagrande**	**3.94**	**232**	⇓P	**Pn**	**11 00 36.7**	**-1.1**
KIJV	**Kijevo**	**3.98**	**308**	*e*Pn	**Pn**	**11 00 38.9**	**+0.6**
KIJV				Sn	**Sn**	**11 01 25.4**	**+0.1**
KIJV	**Kijevo**	**3.98**	**308**	P	**Pn**	**11 00 41.0**	**+2.7**
ELND	**Elena**	**3.99**	**70**	⇑P	**Pg**	**11 00 51.6**	**-1.5**
BZS	**Buzias**	**4.01**	**8**	P	**Pn**	**11 00 38.0**	**-0.6**
GZR	**Gura Zlata**	**4.01**	**21**	⇓P	**Pn**	**11 00 40.7**	**+2.0**
ALN	**Alexandroupoli**	**4.04**	**99**		**Pn**	**11 00 40.0**	**+0.9**
ALN				Sn	**Sn**	**11 01 26.7**	**-0.1**
ALN	**Alexandroupoli**	**4.04**	**99**	P	**Pn**	**11 00 40.0**	**+0.9**
BLY	**Banja Luka**	**4.06**	**321**	Pn	**Pn**	**11 00 39.6**	**+0.3**
BLY	**Banja Luka**	**4.06**	**321**	⇓P	**Pn**	**11 00 43.7**	**+4.4**
BLY	**Banja Luka**	**4.06**	**321**	P	**Pn**	**11 00 42.5**	**+3.2**
CUC	**Castrocucco**	**4.12**	**248**		**Pn**	**11 00 39.2**	**-0.9**
CUC				Sn	**Sn**	**11 01 29.1**	**+0.4**
CUC	**Castrocucco**	**4.12**	**248**	P	**Pn**	**11 00 41.4**	**+1.2**
SURR	**Surduc**	**4.21**	**13**	⇓P	**Pn**	**11 00 44.9**	**+3.5**
MORI	**Morici**	**4.34**	**302**	*e*Pn	**Pn**	**11 00 44.4**	**+1.3**
MORI				Sn	**Sn**	**11 01 34.3**	**+0.2**
LOT	**Lotru**	**4.37**	**29**	⇓P	**Pn**	**11 00 46.3**	**+2.6**
LOT	**Lotru**	**4.37**	**29**	P	**Pn**	**11 00 43.6**	**-0.2**
ITM	**Ithomi**	**4.56**	**168**	Pn	**Pn**	**11 00 45.5**	**-0.8**
LOZB	**Loznitsa**	**4.63**	**66**	⇑P	**Pb**	**11 00 55.7**	**-2.5**
RAZG	**Razgrad**	**4.64**	**64**	⇓P	**Pb**	**11 00 55.5**	**-3.0**
ARR	**Arges**	**4.65**	**36**	⇑P	**Pn**	**11 00 48.2**	**+0.7**
ARR	**Arges**	**4.65**	**36**	P	**Pn**	**11 00 48.2**	**+0.7**
SIRR	**Siria**	**4.65**	**8**	⇓P	**Pn**	**11 00 50.6**	**+3.1**
UDBI	**Udbina**	**4.66**	**310**	*e*Pn	**Pn**	**11 00 48.8**	**+1.1**
PAOL	**Paolisi**	**4.72**	**264**		**Pn**	**11 00 47.8**	**-0.7**
DUGI	**Dugi Otok**	**4.81**	**301**	*e*Pn	**Pn**	**11 00 51.5**	**+1.8**
DUGI				Sn	**Sn**	**11 01 46.0**	**+0.2**
MORH	**Mrgy, Hungar**	**4.81**	**342**	⇑P	**Pn**	**11 00 50.2**	**+0.5**
MORH	**Mrgy, Hungar**	**4.81**	**342**⇑	*i* Pn	**Pn**	**11 00 49.4**	**-0.2**
MORH				*e*Sn	**Sn**	**11 01 42.1**	**-3.6**
MORH	**Mrgy, Hungar**	**4.81**	**342**	P	**Pn**	**11 00 49.7**	**0.0**
VOIR		**4.89**	**38**	⇓P	**Pn**	**11 00 52.1**	**+1.3**
VOIR		**4.89**	**38**	P	**Pn**	**11 00 51.9**	**+1.0**
MOSL	**Moslavina**	**4.92**	**325**	*e*Pn	**Pn**	**11 00 50.5**	**-0.6**
MOSL				Sn	**Sn**	**11 01 45.3**	**-3.1**
PLIT	**Plitvice**	**4.95**	**312**	*e*Pn	**Pn**	**11 00 52.8**	**+1.2**
PLIT				Sn	**Sn**	**11 01 48.4**	**-0.9**
CEL	**Celeste**	**5.06**	**229**	Pn	**Pn**	**11 00 52.5**	**-0.6**
INTR	**Introdacqua**	**5.15**	**276**		**Pn**	**11 00 53.8**	**-0.6**
MARR	**Marisel-Cluj**	**5.29**	**18**	⇓P	**Pn**	**11 00 60.0**	**+3.6**
RABC	**Rab**	**5.36**	**307**	*e*Pn	**Pn**	**11 00 58.3**	**+1.1**
RABC				Sn	**Sn**	**11 01 59.5**	**+0.2**
MLR	**Muntele Rosu**	**5.36**	**43**	Pn	**Pn**	**11 01 00.7**	**+3.3**
	comp=Z,1.7nm,0.3s,baz=223,slow=12,SNR=10.0						
MLR				Lg	Lg	11 02 35.3	
	baz=132,slow=15						
MLR				LR	LR	11 03 41.3	
	comp=Z,93nm,18.4s,baz=268,slow=44						
	comp=Z,6.5nm,0.4s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**5.36**	**43**		**Pn**	**11 00 58.5**	**+1.1**
MLR	**Muntele Rosu**	**5.36**	**43**	⇑P	**Pn**	**11 01 01.1**	**+3.7**
DOPR	**Dopca**	**5.45**	**36**	⇓P	**Pn**	**11 00 59.0**	**+0.5**
AQU	**L'Aquila**	**5.54**	**280**	*e*Pn	**Pn**	**11 00 59.7**	**0.0**
AQU				*e*Sn	**Sn**	**11 02 01.7**	**-2.1**
AQU	**L'Aquila**	**5.54**	**280**	P	**Pn**	**11 01 01.7**	**+1.9**
	comp=Z,42nm,0.7s						
BEHE	**Becsehely**	**5.61**	**330**	Pn	**Pn**	**11 01 00.8**	**+0.2**
GUMA	**Gualdo di Mace**	**5.69**	**287**	Pn	**Pn**	**11 01 01.7**	**-0.1**
NRCA	**Norcia**	**5.81**	**284**		**Pn**	**11 01 03.7**	**+0.2**
FDMO	**Fiordimonte**	**5.86**	**286**		**Pn**	**11 01 03.9**	**-0.2**
SAHR	**Sahastru**	**5.91**	**44**	⇓P	**Pn**	**11 01 08.9**	**+4.1**
VISS	**Visnje**	**5.97**	**316**	*i* Pn	**Pn**	**11 01 07.6**	**+2.0**
MPLH	**Magyarpolny**	**5.98**	**338**	P	**Pn**	**11 01 07.8**	**+2.0**
	comp=Z,15nm,0.9s						
VRI	**Vrincioaia**	**6.02**	**44**	⇓P	**Pn**	**11 01 08.0**	**+1.7**
KNDS	**Knezji Dol**	**6.05**	**312**	*e*Pn	**Pn**	**11 01 08.1**	**+1.4**
KNDS				*i* Sn	**Sn**	**11 02 17.4**	**+1.1**
CESI	**Cesi**	**6.17**	**282**		**Pn**	**11 01 07.8**	**-0.5**
TIRR	**Tirgusor**	**6.25**	**61**	Pn	**Pn**	**11 01 10.6**	**+1.1**
PSZ	**Piszkesteto**	**6.29**	**355**		**Pn**	**11 01 10.5**	**+0.4**
PSZ	**Piszkesteto**	**6.29**	**355**	⇑P	**Pn**	**11 01 10.1**	**0.0**
PSZ	**Piszkesteto**	**6.29**	**355**	P	**Pn**	**11 01 10.3**	**+0.2**
	comp=Z,16nm,1.0s						
MURB	**Monte Urbino**	**6.31**	**287**		**Pn**	**11 01 10.3**	**-0.1**
TPGR	**Topolog**	**6.43**	**58**	⇑P	**Pb**	**11 01 27.9**	**-1.1**
TRI	**Trieste**	**6.50**	**311**	Pn	**Pn**	**11 01 12.9**	**+0.1**
SOKA	**Soboth**	**6.50**	**322**	*e*Pn	**Pn**	**11 01 14.0**	**+1.0**
	comp=Z,2.6nm,0.5s						
OBKA	**Obir**	**6.61**	**319**	*e*Pn	**Pn**	**11 01 16.7**	**+2.3**
	comp=Z,4.7nm,0.4s						
OBKA	**Obir**	**6.61**	**319**	P	**Pn**	**11 01 17.6**	**+3.1**
	comp=Z,20nm,0.8s						
RAFF	**Raffo Rosso**	**6.65**	**230**	Pn	**Pn**	**11 01 13.9**	**-1.0**
ARSA	**Arzberg**	**6.74**	**328**	Pn	**Pn**	**11 01 16.2**	**0.0**
ARSA	**Arzberg**	**6.74**	**328**	*e*Pn	**Pn**	**11 01 17.4**	**+1.2**
	comp=Z,1.7nm,0.2s						
ARSA				*e*Sn	**Sn**	**11 02 30.3**	**-3.0**
	comp=Z,2.6nm,0.4s						
ARSA	**Arzberg**	**6.74**	**328**	P	**Pn**	**11 01 20.1**	**+3.9**
	comp=Z,22nm,1.0s						
BURAM	**Bucovina Array**	**6.75**	**26**	Pn	**Pn**	**11 01 17.6**	**+1.3**
MANT	**Manisa**	**6.75**	**115**	Pn	**Pn**	**11 01 17.8**	**+1.2**
SABO	**M.te Sabotino**	**6.75**	**312**		**Pn**	**11 01 16.0**	**-0.4**
BUR08	**Bucovina Ar. S**	**6.76**	**26**		**Pn**	**11 01 16.9**	**+0.3**
CADS	**Cadrg**	**6.83**	**314**	*i* Pn	**Pn**	**11 01 19.0**	**+1.5**
CADS				*i* Sn	**Sn**	**11 02 37.9**	**+2.3**
RONA	**Rosalia, Austr**	**6.83**	**334**	*e*Pn	**Pn**	**11 01 18.1**	**+0.6**
	comp=Z,1.7nm,0.5s						
DRE	**Drenchia**	**6.85**	**314**	P	**Pn**	**11 01 19.9**	**+2.2**
	comp=Z,37nm,0.8s						
VYHS	**Vyhne**	**6.97**	**349**	*e*PN	**Pn**	**11 01 21.7**	**+2.3**
VYHS				*e*SN	**Sn**	**11 02 31.9**	**-7.1**
PRED	**Cave del Predi**	**7.06**	**315**	Pn	**Pn**	**11 01 19.9**	**-0.8**
PRED	**Cave del Predi**	**7.06**	**315**	P	**Pn**	**11 01 21.1**	**+0.5**
	comp=Z,12nm,0.6s						
CLTB	**Caltabellotta**	**7.12**	**238**	P	**Pn**	**11 01 19.4**	**-2.0**
	comp=Z,51nm,0.8s						
IDI	**Anoyia**	**7.13**	**152**	Pn	**Pn**	**11 01 18.6**	**-3.0**
	comp=Z,24nm,1.1s,baz=327,slow=17,SNR=2.0						
IDI				Sn	**Sn**	**11 02 37.1**	**-5.8**
	comp=Z,0.5nm,0.3s,baz=141,slow=3.8,SNR=1.8						
IDI				LR	LR	11 04 41.8	
	comp=Z,69nm,21.3s,baz=319,slow=45						
IDI	**Anoyia**	**7.13**	**152**	Pn	**Pn**	**11 01 20.7**	**-0.9**
MYKA	**Terra Mystica**	**7.14**	**316**	Pg	**Pn**	**11 01 21.6**	**-0.2**
	comp=Z,2.6nm,0.4s						
ACOM	**Acomizza, Ital**	**7.16**	**316**	P	**Pn**	**11 01 23.5**	**+1.4**
	comp=Z,21nm,0.7s						
MODS	**Modra-Piesok**	**7.16**	**341**	*e*PN	**Pn**	**11 01 23.5**	**+1.6**
MODS				*e*SN	**Sn**	**11 02 35.0**	**-8.6**
CONA	**Conrad Observa**	**7.18**	**333**	*e*Pn	**Pn**	**11 01 21.9**	**-0.4**
	comp=Z,1.5nm,0.5s						
CONA				*e*Sn	**Sn**	**11 02 41.0**	**-3.2**
	comp=Z,2.1nm,0.5s						
KOLS	**Kolonicke sedl**	**7.35**	**8**	*e*PN	**Pn**	**11 01 26.1**	**+1.5**
STAL	**STALIGIAL**	**7.42**	**311**	Pn	**Pn**	**11 01 24.9**	**-0.7**
TEOL	**Teolo**	**7.58**	**302**	Pn	**Pn**	**11 01 28.0**	**+0.2**
ZCCA	**Zocca**	**7.67**	**294**	Pn	**Pn**	**11 01 28.6**	**-0.4**
MOA	**Molln**	**7.73**	**325**	*i* Sn	**Sn**	**11 02 56.2**	**-1.6**
	comp=Z,1.9nm,0.3s						
ABTA	**Abfaltersbach**	**7.82**	**313**	*i* Pn	**Pn**	**11 01 32.5**	**+1.4**
	comp=Z,6.0nm,0.3s,SNR=11						
ABTA				*e*Sn	**Sn**	**11 03 01.4**	**+1.5**
	comp=Z,7.7nm,0.7s						
CTI	**Castel Tesino**	**7.92**	**307**		**Pn**	**11 01 32.5**	**0.0**
MDUB	**Mudumu**	**7.96**	**95**	Pn	**Pn**	**11 01 34.0**	**+0.9**
LESA	**Schwarzleotal**	**8.17**	**318**	*i* Pn	**Pn**	**11 01 37.8**	**+2.0**
	comp=Z,2.9nm,0.4s,SNR=9.1						
LESA				*e*Sn	**Sn**	**11 03 10.5**	**+2.1**
	comp=Z,3.4nm,0.5s						
VRAC	**Vranov**	**8.20**	**340**	LR	LR	11 05 27.2	
	comp=Z,84nm,18.1s,baz=158,slow=41						
RJOB	**Jochberg**	**8.32**	**320**	P	**Pn**	**11 01 40.9**	**+3.0**
	comp=Z,25nm,0.7s						
SALO	**Salr**	**8.42**	**301**	Pn	**Pn**	**11 01 38.8**	**-0.5**
WTTA	**Wattenberg**	**8.61**	**314**	*e*Pn	**Pn**	**11 01 43.9**	**+1.9**
	comp=Z,8.0nm,0.4s,SNR=8.5						
WTTA				*e*Sn	**Sn**	**11 03 19.8**	**+0.3**
	comp=Z,6.8nm,0.5s						
WTTA	**Wattenberg**	**8.61**	**314**	P	**Pn**	**11 01 44.5**	**+2.5**
	comp=Z,22nm,0.6s						
MSSA	**Maissana**	**8.67**	**292**		**Pn**	**11 01 41.9**	**-0.8**
WATA	**Walderalm**	**8.69**	**314**	*e*Pn	**Pn**	**11 01 45.8**	**+2.8**
	comp=Z,3.4nm,0.2s						
GERES	**GERESS Array B**	**8.75**	**328**	Pn	**Pn**	**11 01 47.0**	**+3.2**
	comp=Z,0.1nm,0.3s,baz=150,slow=14,SNR=12						
	comp=Z,0.7nm,0.3s						
GERES				AML	AML		
SQTA	**Sankt Quirin**	**8.82**	**312**	*i* Pn	**Pn**	**11 01 46.9**	**+2.1**
	comp=Z,4.3nm,0.3s						
VSL	**Villasalto**	**8.94**	**260**	Pn	**Pn**	**11 01 44.6**	**-1.7**
MOTA	**Moosalm**	**8.95**	**313**	*i* Pn	**Pn**	**11 01 49.1**	**+2.5**
	comp=Z,3.1nm,0.3s,SNR=5.3						
MOTA				*e*Sn	**Sn**	**11 03 29.9**	**+2.1**
	comp=Z,11nm,0.6s						
FETA	**Feichten**	**8.98**	**310**	*e*Pn	**Pn**	**11 01 48.3**	**+1.4**
	comp=Z,3.8nm,0.6s						
FETA				*e*Sn	**Sn**	**11 03 30.6**	**+2.1**
	comp=Z,7.7nm,1.5s						
KHC	**Kasperske Hory**	**9.03**	**328**	*e*PN	**Pn**	**11 01 47.1**	**-0.4**
KHC				*e*SN	Sn	11 04 06.1	+37
FUORN	**Ofenpass-Fuorn**	**9.04**	**307**	Pn	**Pn**	**11 01 46.7**	**-1.3**
RETA	**Reutte**	**9.22**	**313**	*e*Pn	**Pn**	**11 01 52.5**	**+2.2**
	comp=Z,1.9nm,0.5s						
DAVOX	**Davos/Dischmat**	**9.35**	**307**	Pn	**Pn

SAUI	Saumlaki	2.03	158	P	Pn	11 49 34.1	+5.6
SAUI	Saumlaki	2.03	158	Pn	**Pn**	**11 49 31.6**	**+3.0**
FAKI	Fak Fak	3.58	28	P	**Pn**	**11 49 50.5**	**+2.0**
FAKI	Fak Fak	3.58	28		**Pn**	**11 49 50.8**	**+2.2**
FAKI				Sn	**Sn**	**11 50 31.4**	**+1.1**
SIJI	Sorong	5.23	8	P	**Pn**	**11 50 12.0**	**+1.3**
	51nm,0.2s,baz=213,slow=18,SNR=118						
SIJI				S	**Sn**	**11 51 07.1**	**-2.9**
	78nm,0.2s,baz=266,slow=23,SNR=26						
SANI	Sanana	6.06	311	P	**Pn**	**11 50 24.2**	**+2.4**
DRS	Darwin Rock St	6.32	177	P	**Pn**	**11 50 27.8**	**+2.6**
MTN	Manton Dam	6.74	175		**Pn**	**11 50 33.7**	**+2.7**
MTN				Sn	**Sn**	**11 51 45.6**	**-0.8**
SOEI	Soe	7.21	239	P	**Pn**	**11 50 40.8**	**+3.4**
SOEI	Soe	7.21	239	Pn	**Pn**	**11 50 39.5**	**+2.2**
KNRA	Kununurra	9.69	190		**Pn**	**11 51 11.2**	**+0.4**
TOLI2	Tolitoli	12.09	306	P	**Pn**	**11 51 44.4**	**+1.6**
FITZ	Fitzroy Crossi	12.86	201	P	**Pn**	**11 51 51.7**	**-1.1**
	1.6nm,0.3s,baz=24,slow=9.4,SNR=31						
FITZ				S	Sn	11 54 03.9	-11
	4.6nm,0.4s,baz=68,slow=22,SNR=6.3						
FITZ	Fitzroy Crossi	12.86	201	P	**Pn**	**11 51 53.5**	**+0.6**
WB0	Warramunga Arr	14.11	165	Pn	**Pn**	**11 52 08.8**	**-0.2**
WRAB	Tennant Creek	14.25	165	Pn	**Pn**	**11 52 10.4**	**-0.4**
WRA	Warramunga Arr	14.26	165	P	**Pn**	**11 52 10.9**	**0.0**
	4.8nm,0.8s,baz=339,slow=12,SNR=57						
WRA				S	Sn	11 54 39.5	-9.1
	3.6nm,0.4s,baz=345,slow=24,SNR=11						
WRA	Warramunga Arr	14.26	165	Pn	**Pn**	**11 52 09.2**	**-1.7**
WR8	Warramunga Arr	14.31	165		**Pn**	**11 52 11.1**	**-0.5**
QIS	Mount Isa	16.86	149	P	**Pn**	**11 52 45.4**	**+2.2**
AS31	Alice Springs	17.78	170	P	**Pn**	**11 52 55.3**	**+1.1**
AS31				IAmb	IAmb	11 52 57.0	
	comp=Z,4.8nm,0.6s						
ASAR	Alice Springs	17.78	170	P	**Pn**	**11 52 55.2**	**+1.0**
	comp=Z,9.5nm,0.7s,baz=347,slow=10,SNR=115						
ASAR				S	**S**	**11 56 07.5**	**-4.2**
	comp=Z,1.5nm,0.7s,baz=354,slow=26,SNR=7.7						
KKM	Kota Kinabalu	18.70	310	P	**Pn**	**11 53 04.5**	**-0.9**
KKM	Kota Kinabalu	18.70	310	P	**P**	**11 53 03.7**	**+0.2**
KKM				IAmb	IAmb	11 53 05.9	
	comp=Z,11nm,0.4s						
INKA	Innaminka	23.62	157	P	**P**	**11 53 55.8**	**+1.4**
MORW	Morawa	26.66	209	P	**P**	**11 54 22.1**	**+0.3**
BBOO	Buckleboo	27.08	170	P	**P**	**11 54 25.9**	**+0.3**
STKA	Stephens Creek	27.66	159	P	**P**	**11 54 30.9**	**+0.1**
	comp=Z,2.6nm,0.4s,baz=341,slow=7.7,SNR=13						
	comp=Z,2.6nm,0.4s						
STKA	Stephens Creek	27.66	159	P	**P**	**11 54 31.1**	**+0.3**
MKAR	Makanchi Array	67.76	326	P	**P**	**11 59 38.7**	**-0.2**
	comp=Z,1.3nm,0.4s,baz=112,slow=8.6,SNR=20						
	comp=Z,1.3nm,0.4s						
MKAR	Makanchi Array	67.76	326	P	**P**	**11 59 38.6**	**-0.3**
MAKZ	Makanchi	67.94	326	P	**P**	**11 59 39.7**	**-0.3**
MAKZ				IAmb	IAmb	11 59 58.6	
	comp=Z,6.7nm,1.1s						
KURBB	Kurchatov Arra	72.02	328	P	**P**	**12 00 03.9**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=127,slow=4.7,SNR=4.7						
	comp=Z,0.3nm,0.4s						
VNDA	Vanda	73.28	173	P	**P**	**12 00 11.6**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=352,slow=5.6,SNR=3.1						
	comp=Z,0.4nm,0.7s						
VNDA	Vanda	73.28	173	P	**P**	**12 00 10.3**	**-1.5**
QSPA	South Pole Qui	83.89	180	P	**P**	**12 01 09.3**	**-1.0**
	comp=Z,0.5nm,0.5s,baz=314,slow=2.6,SNR=2.2						
	comp=Z,0.5nm,0.5s						
QSPA	South Pole Qui	83.89	180	P	**P**	**12 01 09.2**	**-1.1**
QSPA				IAmb	IAmb	12 01 34.4	
	comp=Z,2.1nm,1.1s						
TORD	Torodi Ar. Bea	129.15	282	PKP	**PKPdf**	**12 07 48.2**	**-0.9**
	comp=Z,0.3nm,0.5s,baz=60,slow=0.2,SNR=2.1						

TRN ***11*** *11:57:00.0, 11°.70N×61°.06W, h26km, MD3.3, South-east of Grenada.*

FUNV 11 11:57:55.6, 11°.65N×61°.01W, h25km, MW3.4, Presumed earthquake, Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GRGR	Grenville	0.79	308	*eP*	Pb	11 58 10.3	-0.5
GRGR				*eS*	Sn	11 58 22.0	-0.3
GRGR	Grenville	0.79	308	*eP*	Pb	11 58 10.2	-0.6
GRGR				*eS*	Sn	11 58 23.0	+0.7
GRW	Mount Saint Ca	0.82	309	*eP*	Pb	11 58 10.8	-0.4
GRW				*eS*	Sn	11 58 22.5	-0.5
GRSS	Sisters	0.88	318	*eP*	Pb	11 58 11.5	-0.7
GRSS				*eS*	Sb	11 58 23.3	-0.2
TRN	Trinidad (W)	1.06	201	*eP*	Pn	11 58 14.9	0.0
TRN				*eS*	Sn	11 58 29.0	+0.1
TRN	Trinidad (W)	1.06	201	*eP*	Pb	11 58 16.0	+0.6
TRN				*eS*	Sn	11 58 30.3	+1.4
DMDM	Guralp CMG5TDE	1.08	209	*eP*	Pb	11 58 16.4	+0.8
DMDM				*eS*	Sb	11 58 32.2	+2.8
PSMG	Mucurapo Girls	1.09	208	*eP*	Pb	11 58 16.8	+0.9
PSMG				*eS*	Sb	11 58 32.2	+2.5
SVB	Belmont	1.63	352	*eP*	Pn	11 58 22.1	-0.8
SVB				*eS*	Sn	11 58 42.5	-0.5
SVB	Belmont	1.63	352	*eP*	Pn	11 58 22.9	0.0
SVB				*eS*	Sn	11 58 43.0	-0.1
MCLT	Moule a Chique	2.05	2	*eP*	Pn	11 58 28.0	-0.6
MCLT				*eS*	Sn	11 58 52.4	-1.1
SLBI	Saint Lucia, B	2.36	1	*eP*	Pn	11 58 32.8	-0.1
SLBI				*eS*	Sn	11 59 00.8	-0.3
BIM	Bigot	2.85	359	*eP*	Pn	11 58 40.5	+0.9
BIM				*eS*	Sn	11 59 13.4	+0.1
PCRV	Puerto La Cruz	3.85	248	*eP*	Pn	11 58 52.1	-1.2
PCRV				*eS*	Sn	11 59 32.5	-5.3
CACV	CAICARA DEL OR	6.79	234	*eP*	Pn	11 59 26.3	-7.5
CACV				*eS*	Sn	12 00 33.9	-17

IDC 11 12:19:25.4±3.5, 22°.36N×13°.14W, h0km, mbtmp3.8/2, ML3.6/2, Error ellipse: s-maj=115.6km s-min=59.8km az=56.0, Western Sahara

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	16.82	121	Pn	Pn	12 23 19.4	-3.1
	0.1nm,0.3s,baz=307,slow=12,SNR=4.3						
	0.8nm,0.6s						
TORD				AML	AML		
DBIC	Dimbokro	17.52	152	P	Pn	12 23 30.9	-0.4
	0.3nm,0.3s,baz=355,slow=11,SNR=1.7						
	2.2nm,0.6s						
DBIC				AML	AML		
I48TN	KESRA INFRASON	23.70	51	I	I	14 43 00.0	
	baz=239,slow=305,SNR=4.9						
ASAR	Alice Springs	149.67	99	PKPbc	PKPbc	12 39 17.4	-0.5
	0.5nm,1.0s,baz=281,slow=1.9,SNR=4.2						

AFAD ***11*** *12:19:53.8, 37°.83N×26°.92E, h7km±1km, ML2.5*
ISK ***11*** *12:19:54.0, 37°.86N×26°.98E, h7km, ML2.8/25*
THE ***11*** *12:19:54.4, 37°.9N±0°.8×27°.0E±0°.7, h8km±2km, M2.7/9, MLh2.7/9*

ISC 11 12:19:54.4±0.8, 37°.86N±0°.02×26°.98E±0°.02, h12km±6km, n46, σ0°.47/72, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	Samos	0.19	217	P	**Pg**	**12 19 58.3**	**-0.2**
SMG				S	**Sg**	**12 20 01.4**	**0.0**
SMG				AML	AML		
DGB	zmir	0.21	339	P	**Pg**	**12 19 58.7**	**-0.2**
DGB				S	**Sg**	**12 20 01.6**	**-0.4**
DGB				IAML		12 20 02.0	
	comp=N,781nm,0.1s						
DGB				IAML		12 20 02.0	
	comp=E,2μm,0.2s						
GMLD	Gumuldur	0.23	347	Pg	**Pg**	**12 19 59.2**	**0.0**
GMLD				Sg	**Sg**	**12 20 02.7**	**+0.3**
GMLD				AML	AML		
KUSD	Kusadasi-Aydin	0.24	89	Pg	**Pg**	**12 19 59.2**	**-0.3**
KUSD				Sg	**Sg**	**12 20 03.1**	**+0.1**
KUSD				AML	AML		
GCAM	G?zelcaml?	0.26	128	P	**Pg**	**12 19 59.8**	**+0.1**
GCAM				IAML		12 20 04.0	
	comp=E,958nm,0.2s						
GCAM				S	**Sb**	**12 20 04.3**	**-1.0**
GCAM	G?zelcaml?	0.26	128	Pg	**Pg**	**12 19 59.6**	**-0.1**
GCAM				Sg	**Sg**	**12 20 03.7**	**+0.4**
GCAM				AML	AML		
BEYE	izmir	0.37	354	P	**Pg**	**12 20 01.6**	**-0.3**
BEYE				S	**Sb**	**12 20 07.5**	**-1.2**
BEYE				IAML		12 20 08.0	
	comp=E,341nm,0.2s						
DDIM	Aydin, Didim	0.45	152	P	**Pg**	**12 20 02.6**	**-0.6**
DDIM				S	**Sg**	**12 20 09.4**	**+0.2**
DDIM				IAML		12 20 10.0	
	comp=E,412nm,0.5s						
DDIM				IAML		12 20 13.0	
	comp=N,379nm,0.6s						
DUVT	Torbali	0.52	46	P	**Pg**	**12 20 04.4**	**-0.1**
DUVT				S	**Sg**	**12 20 10.7**	**-0.8**
DUVT				IAML		12 20 16.0	
	comp=E,690nm,0.3s						
DIDI	Didim-Aydin	0.52	157	Pg	**Pg**	**12 20 04.4**	**-0.2**
DIDI				Sg	**Sb**	**12 20 12.7**	**-0.3**
DIDI				AML	AML		
BLCB	Balcova	0.53	5	P	**Pg**	**12 20 04.4**	**-0.3**
BLCB				S	**Sg**	**12 20 11.8**	**0.0**
BLCB				AML	AML		
BLCB	Balcova	0.53	5	Pg	**Pg**	**12 20 04.6**	**-0.2**
BLCB				Sg	**Sg**	**12 20 12.1**	**+0.3**
BLCB				AML	AML		
ZEYE	Izmir, Urla-Ze	0.54	316	P	**Pg**	**12 20 04.4**	**-0.4**
ZEYE				S	**Sg**	**12 20 12.1**	**+0.1**
ZEYE				IAML		12 20 15.0	
	comp=E,578nm,0.2s						
CESE	eme	0.71	312	Pg	**Pg**	**12 20 08.0**	**-0.2**
CESE				Sg	**Sb**	**12 20 19.0**	**+0.5**
CESE				AML	AML		
AYDB	Zeytinkoy-Aydi	0.73	83	Pg	**Pb**	**12 20 08.8**	**-0.3**
AYDB				Sg	**Sb**	**12 20 19.2**	**+0.2**
AYDB				AML	AML		
AYDN	Tasoluk	0.74	105	P	**Pb**	**12 20 08.9**	**-0.3**
AYDN				S	**Sb**	**12 20 20.0**	**+0.6**
AYDN				IAML		12 20 22.0	
	comp=N,251nm,0.3s						
AYDN				IAML		12 20 22.0	
	comp=E,362nm,0.4s						
YKAV	Yalikavak-Bodr	0.77	162	Pg	**Pb**	**12 20 09.5**	**-0.2**
YKAV				Sg	**Sb**	**12 20 20.5**	**+0.4**
YKAV				AML	AML		
BAGT	Foa	0.80	353	P	**Pb**	**12 20 10.9**	**+0.6**
BAGT				S	**Sb**	**12 20 21.6**	**+0.5**
BAGT				IAML		12 20 24.0	
	comp=N,203nm,0.4s						
BAGT				IAML		12 20 24.0	
	comp=E,165nm,0.7s						
KRBN	Karaburun	0.81	336	Pg	**Pb**	**12 20 09.9**	**-0.5**
KRBN				Sg	**Sb**	**12 20 21.7**	**+0.5**
KRBN				AML	AML		
IZMR	zmir-demi	0.82	70	P	**Pb**	**12 20 10.7**	**+0.2**
IZMR				S	**Sg**	**12 20 19.8**	**-1.1**
BODT	Bodrum	0.84	162	P	**Pg**	**12 20 10.3**	**-0.2**
BODT				AML	AML		
BODT	Bodrum	0.84	162	Pg	**Pg**	**12 20 10.4**	**-0.2**
BODT				Sg	**Sb**	**12 20 22.7**	**+0.6**
BODT				AML	AML		
MLSB	Milas	0.85	131	Pg	**Pg**	**12 20 10.7**	**0.0**
MLSB				Sg	**Sb**	**12 20 22.9**	**+0.5**
MLSB				AML	AML		
BDRM	Kayabasi	0.87	155	P	**Pg**	**12 20 10.9**	**-0.4**
BDRM				IAML		12 20 25.0	
	comp=E,225nm,0.5s						
BDRM				IAML		12 20 26.0	
	comp=N,428nm,0.7s						
FOCM	Foa	0.88	347	Pg	**Pb**	**12 20 11.2**	**-0.3**
FOCM				AML	AML		
BODA	Bodrum-Mula	0.90	156	Pg	**Pg**	**12 20 11.5**	**-0.2**
CHOS	Chios island	0.90	306	P	**Pg**	**12 20 11.5**	**-0.3**
CHOS				S	**Sb**	**12 20 24.3**	**+0.3**
CHOS				AML	AML		
CHOS	Chios island	0.90	306	Pg	**Pb**	**12 20 12.1**	**+0.1**
CHOS				AML	AML		
KARB	zmir-Karabur	0.92	331	P	**Pb**	**12 20 11.9**	**-0.4**
KARB				IAML		12 20 26.0	
	comp=N,110nm,0.5s						
KARB				IAML		12 20 26.0	
	comp=E,231nm,0.8s						
CAMT	Merkez	0.93	16	P	**Pb**	**12 20 12.3**	**-0.1**
CAMT				S	**Sn**	**12 20 26.4**	**-0.1**
CAMT				IAML		12 20 27.0	
	comp=E,380nm,0.4s						
CAMT				IAML		12 20 33.0	
	comp=N,284nm,0.7s						
NAZL	Nazilli-Aydin	1.04	84	Pg	**Pg**	**12 20 14.2**	**-0.3**
NAZL				AML	AML		
ZEDA	zmir-Bergama	1.11	4	P	**Pg**	**12 20 15.1**	**-0.6**
ZEDA				S	**Sn**	**12 20 32.1**	**+1.1**
ZEDA				IAML		12 20 35.0	
	comp=E,97nm,0.6s						
ZEDA				IAML		12 20 38.0	
	comp=N,77nm,0.4s						
GOMA	Golmarmara-Man	1.12	41	Pn	**Pb**	**12 20 15.9**	**+0.1**
GOMA				AML	AML		
AKS	Akhisar	1.21	32	Pn	**Pn**	**12 20 17.4**	**+0.2**
AKHS	Akhisar	1.21	32	P	**Pg**	**12 20 17.1**	**-0.6**
AKHS				S	**Sb**	**12 20 33.3**	**+0.4**
AKHS				IAML		12 20 43.0	
	comp=N,105nm,0.5s						
DKL	Dikili	1.21	357	Pn	**Pn**	**12 20 17.7**	**+0.5**
DKL				AML	AML		
DAT	Datca	1.22	157	Pn	**Pn**	**12 20 17.9**	**+0.5**
DAT				AML	AML		
YER	Yerkesik	1.26	124	P	**Pn**	**12 20 17.5**	**-0.4**
YER				AML	AML		
YER	Yerkesik	1.26	124	Pn	**Pn**	**12 20 17.7**	**-0.2**
YER				AML	AML		
SOMA	Soma-Manisa	1.37	18	Pn	**Pb**	**12 20 19.8**	**-0.1**
SOMA				AML	AML		
APE	Apeiranthos	1.40	236	Pn	**Pg**	**12 20 20.6**	**-0.6**
APE				AML	AML		
GORD	Gordes-Manisa	1.41	42	Pn	**Pb**	**12 20 20.8**	**+0.1**
GORD				AML	AML		
TURN	Turunc	1.48	137	Pn	**Pn**	**12 20 20.6**	**-0.2**
TURN				AML	AML		
PRK	Paraskevi	1.49	338	P	**Pn**	**12 20 20.3**	**-0.7**
YAYO	Edremit-Balk	1.75	2	Pn	**Pb**	**12 20 25.9**	**-0.6**
YAYO				AML	AML		
BALB	Balikesir	1.91	21	Pn	**Pn**	**12 20 27.9**	**+1.1**
BALB				AML	AML		

IDC ***11*** *12:26:20.6±2.9, 40°.14N×20°.90E, h0km, mb3.3/3, mbtmp3.7/7, ML3.4/4, MS2.3/2, Error ellipse: s-maj=42.5km s-min=16.1km az=141.0*
BEO ***11*** *12:26:33.8±0.6, 41°.42N×20°.79E, h0km, ML3.4/8*
SOF ***11*** *12:26:35.4, 41°.63N±0°.02×20°.71E±0°.04, h4km±4km, MD3.6/6*
TIR ***11*** *12:26:36.5, 41°.68N×20°.74E, h11km±2km, ML3.8, ML3.8, Presumed earthquake*
SKO ***11*** *12:26:36.7, 41°.64N×20°.80E, h14km, ML3.8*
PDG ***11*** *12:26:37.2±0.5, 41°.72N×20°.80E, h2km, MD3.8/6, ML3.7/13, Error ellipse: s-maj=0.5km s-min=0.7km az=0.0*
RHSSO ***11*** *12:26:38.9±0.7, 41°.79N×20°.68E, h5km±3km, ML3.6/7*
THE ***11*** *12:26:40.4, 42°.N±5°.×2°.1E±°, h1km±18km, M3.2/24, MLh3.2/24*
PRU ***11*** *12:26:48.0, 41°.71N×19°.75E, h10km*

ISC 11 12:26:37.0±1.0, 41°.66N±0°.01×20°.76E±0°.02, h7km±8km, n154, σ1s34/220, 26C-9D, Albania

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PHP	Peshkopia	0.24	275	Pg	**Pg**	**12 26 41.1**	**-0.7**
PHP				Sg	**Sg**	**12 26 44.2**	**-0.8**
PHP				IAML		12 26 44.8	
	126μm,0.2s						
OHR	Ohrid	0.55	177	↓*i* Pg	**Pg**	**12 26 47.4**	**-0.3**
OHR				*i* Sg	**Sb**	**12 26 56.2**	**-1.1**
OHR				*e*Lg	Lg	12 26 56.9	
	comp=N,5μm,0.8s						
OHR				*e*Lg	Lg	12 26 57.5	
	comp=E,11μm,0.8s						
SKO	Skopje	0.59	59	↓*i* Pg	**Pg**	**12 26 48.2**	**-0.4**
SKO				*i* Sg	**Sb**	**12 26 57.5**	**-1.0**
TIR	Tirane	0.74	245	Pg	**Pg**	**12 26 50.4**	**-0.8**
TIR				Sg	**Sb**	**12 27 01.7**	**-0.9**
TIR				IAML		12 27 03.2	
	comp=E,2μm,0.8s						
SDA	Shkodra	1.02	293	Pg	**Pg**	**12 26 55.5**	**-1.1**
SDA				S	**Sb**	**12 27 11.2**	**+0.6**
SDA				IAML		12 27 20.7	
	comp=E,2μm,0.9s						
KBN	Korca	1.04	179	P	**Pn**	**12 26 57.7**	**-0.5**
KBN				S	**Sb**	**12 27 11.7**	**+0.4**
KBN	Korca	1.04	179	Pg	**Pg**	**12 26 56.8**	**-0.2**
KBN				S	**Sn**	**12 27 12.6**	**-0.4**
PVY	Plav	1.10	328	*e*Pg	**Pg**	**12 26 57.1**	**-1.1**
PVY				*i* Sg	**Sb**	**12 27 13.9**	**+0.7**
BERA	Berati	1.14	213	P	**Pg**	**12 26 58.2**	**-0.6**
BERA				Sg	**Sn**	**12 27 15.2**	**-0.1**
BERA				IAML		12 27 21.5	
	comp=E,929nm,0.8s						
ULC	Ulcinj	1.17	285	↓*i* Pg	**Pg**	**12 26 58.0**	**-1.5**
ULC				*i* Sg	**Sn**	**12 27 17.5**	**+1.4**
NEST	Nestorio	1.27	170	P	**Pn**	**12 26 59.7**	**-1.6**
NEST				S	**Sn**	**12 27 19.0**	**+0.4**
NEST				AML	AML		
DRME	Dracevica, Mon	1.28	294	⇑*i* Pg	**Pn**	**12 27 00.3**	**-1.2**
DRME				*e*Sg	**Sb**	**12 27 16.7**	**-1.6**
DRME	Dracevica, Mon	1.28	294	⇑*i* Pg	**Pn**	**12 27 00.9**	**-0.6**
DRME				*i* Sg	**Sn**	**12 27 21.3**	**+2.4**
PDG	Podgorica	1.36	305	*e*Pg	**Pn**	**12 27 01.2**	**-1.2**
PDG				*e*Sg	**Sn**	**12 27 23.4**	**+2.7**
PDG	Podgorica	1.36	305	⇑P	**Pn**	**12 27 00.5**	**-2.0**
PDG	Podgorica	1.36	305	⇑*i* Pg	**Pn**	**12 27 00.4**	**-2.0**
PDG				*e*Sg	**Sb**	**12 27 18.4**	**-1.9**
PDG	Podgorica	1.36	305	↓*i* Pg	**Pn**	**12 27 01.3**	**-1.2**
PDG				*i* Sg	**Sn**	**12 27 23.3**	**+2.6**
IVA	Berane	1.37	332	*e*Pg	**Pn**	**12 27 02.0**	**-0.7**
IVA				*i* Sg	**Sn**	**12 27 22.7**	**+1.6**
BARS	Barje	1.39	34	*e*Pg	**Pn**	**12 27 02.9**	**-0.1**
BARS				*e*Sg	**Sg**	**12 27 23.2**	**+1.3**
VAY	Valandovo	1.40	104	*i* Pg	**Pn**	**12 27 03.0**	**-0.1**
VAY				*i* Sg	**Sg**	**12 27 22.0**	**-0.1**
VAY				*e*Lg	Lg	12 27 22.9	
	comp=E,502nm,0.5s						
VAY				*e*Lg	Lg	12 27 24.3	
	comp=N,868nm,0.7s						
GRG	Griva	1.43	119	P	**Pn**	**12 27 03.2**	**-0.2**
GRG				AML	AML		
PENT	Pentalofos	1.50	169	P	**Pg**	**12 27 05.8**	**+0.1**
PENT				S	**Sg**	**12 27 24.9**	**-0.2**
KOME	Kolasin	1.50	323	*e*Pg	**Sg**	**12 27 03.8**	**-0.7**
KOME				*i* Sg	**Sg**	**12 27 27.5**	**+2.2**
LSK	Leskovik	1.52	185	Pn	**Sg**	**12 27 05.8**	**-0.4**
LSK				Sn	**Sg**	**12 27 26.0**	**+0.2**
BOSS	Bosilegrad	1.53	56	*e*Pg	**Pn**	**12 27 04.9**	**+0.1**
BOSS				*e*Sg	**Sb**	**12 27 25.4**	**+0.1**
BUM	Brajici-Budva	1.53	295	*e*Pg	**Pn**	**12 27 04.7**	**-0.2**
BUM				*i* Sg	**Sg**	**12 27 29.6**	**+3.4**
VLO	Vlora	1.53	219	Pn	**Pg**	**12 27 06.2**	**-0.2**
VLO				S	**Sg**	**12 27 27.0**	**+0.8**
VLO				IAML		12 27 35.2	
	comp=N,3μm,0.6s						
KZN	Kozani	1.56	150	P	**Pb**	**12 27 06.0**	**-0.3**
KZN				S	**Sb**	**12 27 26.1**	**-0.1**
KZN				AML	AML		
SELS	Selova	1.58	10	*e*Pg	**Pn**	**12 27 05.4**	**-0.1**
SELS				*e*Sg	**Sg**	**12 27 31.1**	**+3.3**
PEHC	Pehcevo	1.61	85	*i* Pg	**Pb**	**12 27 07.1**	**0.0**
CEME	Cevo	1.63	303	⇑*i* Pn	**Pn**	**12 27 06.1**	**-0.1**
CEME				*i* Sn	**Sg**	**12 27 32.1**	**+2.7**
KNT	Kendrikon	1.69	107	P	**Pn**	**12 27 07.0**	**0.0**
KNT				AML	AML		
SJES	Sjenica	1.70	340	*e*Pg	**Pb**	**12 27 08.3**	**-0.4**
SJES				*e*Sg	**Sg**	**12 27 32.9**	**+1.3**
SJES	Sjenica	1.70	340	*e*Pn	**Pn**	**12 27 07.6**	**+0.3**
SJES				*e*Sn	**Sn**	**12 27 28.5**	**-0.8**
NKME	Niksic	1.74	310	*e*Pn	**Pb**	**12 27 09.0**	**-0.3**
NKME				*i* Sn	**Sg**	**12 27 34.6**	**+1.8**
KPRO	Kipourio	1.77	165	P	**Pb**	**12 27 10.0**	**+0.2**
KPRO				AML	AML		
KKB	Krupnik	1.78	83	P	**Pb**	**12 27 09.2**	**-0.8**
KKB				AML	AML		
KKB	Krupnik	1.78	83	P	**Pb**	**12 27 09.3**	**-0.8**
KKB				S	**Sb**	**12 27 33.0**	**+0.4**
TRAN	Tran	1.83	50	P	**Pb**	**12 27 10.3**	**-0.6**
TRAN				S	**Sg**	**12 27 37.8**	**+2.0**
HCY	Herceg Novi	1.86	296	⇑*i* Pn	**Pn**	**12 27 09.7**	**+0.4**
HCY				*e*Sn	**Sn**	**12 27 32.8**	**-0.3**
HCY	Herceg Novi	1.86	296	*e*Pn	**Pb**	**12 27 11.0**	**-0.4**
HCY				*i* Sn	**Sg**	**12 27 37.7**	**+0.9**
SRN	Sarande	1.87	198	P	**Pg**	**12 27 12.1**	**-0.8**
SRN				AML	AML		
SRN	Sarande	1.87	198	Pn	**Pb**	**12 27 11.9**	**+0.3**
SRN				Sn	**Sg**	**12 27 37.3**	**+0.1**
SRN				IAML		12 27 42.5	
	comp=N,1μm,1.1s						
GOCS	Kraljevo Serbi	1.90	3	*e*Pn	**Pn**	**12 27 10.2**	**+0.2**
GOCS				*e*Sn	**Sg**	**12 27 38.5**	**+0.4**
PLE	Pljevlja	1.95	329	*e*Pn	**Pb**	**12 27 11.8**	**-1.2**
PLE				*i* Sn	**Sg**	**12 27 39.1**	**-0.6**
THE	Thessaloniki	1.96	121	P	**Pn**	**12 27 11.5**	**+0.8**
THE				AML	AML		
IVAS	Ivanjica	1.96	347	*e*Pn	**Pn**	**12 27 10.7**	**-0.1**
IVAS				*e*Sn	**Sg**	**12 27 40.7**	**+0.6**
BRY	Bratogost	2.06	308	*e*Pn	**Pn**	**12 27 11.5**	**-0.7**
BRY				*e*Sn	**Sn**	**12 27 37.3**	**-1.0**
BRY	Bratogost	2.06	308	*e*Pn	**Pb**	**12 27 13.8**	**-1.1**
BRY				*i* Sn	**Sg**	**12 27 42.3**	**-0.9**
UPM	Unac-Piva	2.06	319	*e*Pn	**Pn**	**12 27 12.6**	**+0.3**
UPM				*e*Sn	**Sn**	**12 27 37.1**	**-1.3**
UPM	Unac-Piva	2.06	319	*e*Pn	**Pb**	**12 27 13.7**	**-1.2**
UPM				*i* Sn	**Sg**	**12 27 42.1**	**-1.2**
VTS	Vitosha	2.07	62	P	**Pn**	**12 27 13.0**	**+0.6**
VTS				AML	AML		
VTS	Vitosha	2.07	62	P	**Pn**	**12 27 13.0**	**+0.6**
TREB	Trebinje	2.08	301	*e*Pn	**Pn**	**12 27 13.1**	**+0.8**
TREB				*e*Sn	**Sn**	**12 27 38.0**	**-0.5**
BOVS	Bovan	2.09	19	*e*Pn	**Pn**	**12 27 12.6**	**+0.1**
BOVS				*e*Sn	**Sb**	**12 27 41.9**	**+0.4**
BOVS	Bovan	2.09	19

LKD2	**Lefkada island**	**2.87**	**182**	P	**Pn**	**12 27 24.5**	**+1.2**
LKD2				AML	AML		
AGG	**Agios Georgios**	**2.90**	**155**	P	**Pn**	**12 27 23.9**	**+0.2**
AGG				AML	AML		
KAVA	**Kavala**	**2.91**	**102**	P	**Pn**	**12 27 24.1**	**+0.3**
KAVA				AML	AML		
RZN	**Rozhen**	**2.98**	**88**	P	**Pn**	**12 27 26.5**	**+1.5**
TEKS	**Tekeris**	**3.02**	**343**	*e*Pn	**Pn**	**12 27 25.9**	**+0.6**
TEKS	**Tekeris**	**3.02**	**343**	*e*Pn	**Pn**	**12 27 25.6**	**+0.3**
TEKS				*e*Sn	**Sn**	**12 28 00.3**	**-1.5**
LSTV	**Lastovo**	**3.08**	**292**	*e*Pn	**Pn**	**12 27 26.7**	**+0.6**
LSTV				Sn	**Sn**	**12 28 04.6**	**+1.5**
MDVR	**Moldovita**	**3.19**	**12**	⇑P	**Pn**	**12 27 27.5**	**-0.3**
MAKA	**Makarska**	**3.21**	**302**	*e*Pn	**Pn**	**12 27 28.7**	**+0.8**
MAKA				Sn	**Sn**	**12 28 07.7**	**+1.4**
MATE	**Matera**	**3.22**	**253**	⇑P	**Pn**	**12 27 28.7**	**+0.6**
RICI	**Ricice**	**3.24**	**306**	*e*Pn	**Pn**	**12 27 29.7**	**+1.3**
RICI				Sn	**Sn**	**12 28 07.9**	**+0.7**
DJES	**Djerdap**	**3.27**	**23**	⇑P	**Pn**	**12 27 28.2**	**-0.5**
PLVB	**Pleven**	**3.33**	**58**	⇑P	**Pn**	**12 27 29.9**	**+0.3**
HERR	**Herculane**	**3.44**	**20**	⇑P	**Pn**	**12 27 31.4**	**+0.4**
VRSS	**Vrsac**	**3.48**	**7**	*e*Pn	**Pn**	**12 27 31.6**	**-0.1**
HVAR	**Hvar**	**3.53**	**297**	*e*Pn	**Pn**	**12 27 33.2**	**+0.8**
HVAR				Sn	**Sn**	**12 28 15.1**	**+0.8**
FRGS	**Fruska Gora**	**3.56**	**349**	⇑*i*Pn	**Pn**	**12 27 32.9**	**+0.2**
FRGS				*e*Sn	**Sn**	**12 28 12.9**	**-2.2**
TIP	**Timpagrande**	**3.94**	**232**	⇑P	**Pn**	**12 27 38.0**	**0.0**
KIJV	**Kijevo**	**3.96**	**308**	*e*Pn	**Pn**	**12 27 39.4**	**+1.1**
KIJV				Sn	**Sn**	**12 28 25.4**	**+0.3**
BZS	**Buzias**	**4.00**	**9**	⇑P	**Pn**	**12 27 38.9**	**+0.2**
ELND	**Elena**	**4.00**	**70**	⇓P	**Pn**	**12 27 40.8**	**+2.1**
GZR	**Gura Zlata**	**4.01**	**21**	⇓P	**Pn**	**12 27 39.2**	**+0.3**
BLY	**Banja Luka**	**4.04**	**321**	*e*Pn	**Pn**	**12 27 39.8**	**+0.5**
BLY				*e*Sn	**Sn**	**12 28 24.4**	**-2.5**
SURR	**Surduc**	**4.21**	**13**	⇑P	**Pn**	**12 27 41.1**	**-0.5**
MORI	**Morici**	**4.32**	**302**	*e*Pn	**Pn**	**12 27 43.7**	**+0.5**
MORI				Sn	**Sn**	**12 28 35.6**	**+1.8**
LOT	**Lotru**	**4.37**	**29**	⇑P	**Pn**	**12 27 43.6**	**-0.3**
UDBI	**Udbina**	**4.64**	**310**	*e*Pn	**Pn**	**12 27 48.9**	**+1.2**
UDBI				Sn	**Sn**	**12 28 42.8**	**+1.0**
SIRR	**Siria**	**4.65**	**8**	⇑P	**Pn**	**12 27 46.7**	**-1.0**
ARR	**Arges**	**4.65**	**36**	⇑P	**Pn**	**12 27 47.4**	**-0.4**
DUGI	**Dugi Otok**	**4.79**	**301**	*e*Pn	**Pn**	**12 27 50.2**	**+0.5**
DUGI				Sn	**Sn**	**12 28 46.3**	**+0.8**
MORH	**Mrgy, Hungar**	**4.80**	**342**	⇑P	**Pn**	**12 27 48.3**	**-1.4**
MORH	**Mrgy, Hungar**	**4.80**	**342**	*e*Pn	**Pn**	**12 27 49.4**	**-0.3**
MORH				*e*Sn	**Sn**	**12 28 42.6**	**-3.0**
VOIR		**4.89**	**38**	⇓P	**Pn**	**12 27 52.2**	**+1.1**
MOSL	**Moslavina**	**4.90**	**325**	*e*Pn	**Pn**	**12 27 52.4**	**+1.2**
MOSL				Sn	**Sn**	**12 28 48.1**	**-0.1**
PLIT	**Plitvice**	**4.94**	**312**	*e*Pn	**Pn**	**12 27 52.6**	**+1.0**
PLIT				Sn	**Sn**	**12 28 50.1**	**+1.0**
MARR	**Marisel-Cluj**	**5.29**	**18**	⇑P	**Pn**	**12 27 56.5**	**-0.1**
MLR	**Muntele Rosu**	**5.37**	**43**	Pn	**Pn**	**12 28 00.6**	**+2.9**
	comp=N,1.1nm,0.3s,baz=224,slow=8.8,SNR=5.7						
MLR				Lg	Lg	12 29 47.1	
	comp=N,0.2nm,0.3s,baz=102,slow=20,SNR=3.6						
MLR				LR	LR	12 30 39.8	
	comp=N,58nm,20.8s,baz=277,slow=40 comp=N,5.9nm,0.5s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**5.37**	**43**	⇑P	**Pn**	**12 27 58.7**	**+1.0**
DOPR	**Dopca**	**5.45**	**36**	⇓P	**Pn**	**12 27 59.1**	**+0.3**
AQU	**L'Aquila**	**5.52**	**280**	*e*Pn	**Pn**	**12 28 00.3**	**+0.5**
AQU				*e*Sn	**Sn**	**12 29 01.1**	**-2.4**
RIY	**Rijeka**	**5.85**	**311**	Sn	**Sn**	**12 29 12.1**	**+0.7**
PLOR	**Plostina**	**5.98**	**44**	⇑P	**Pn**	**12 28 06.6**	**+0.7**
VRI	**Vrincioaia**	**6.03**	**44**	⇑P	**Pn**	**12 28 06.2**	**-0.4**
SOKA	**Soboth**	**6.49**	**323**	*e*P	**Pn**	**12 28 15.2**	**+2.3**
	comp=N,9.1nm,1.1s						
OBKA	**Obir**	**6.59**	**319**	*e*P	**Pn**	**12 28 17.6**	**+3.2**
	comp=N,7.8nm,0.6s						
ARSA	**Arzberg**	**6.72**	**328**	P	**Pn**	**12 28 19.6**	**+3.4**
	comp=N,6.7nm,0.5s						
BURAR	**Bucovina Array**	**6.75**	**27**	⇑P	**Pn**	**12 28 16.9**	**+0.3**
KECS	**Kecovo**	**6.82**	**358**	*e*PN	**Pn**	**12 28 18.9**	**+1.4**
VYHS	**Vyhne**	**6.96**	**349**	*e*PN	**Pn**	**12 28 21.8**	**+2.3**
VYHS				*e*SN	**Sn**	**12 29 35.8**	**-3.1**
SESA	**Seetaler Alpe,**	**7.02**	**323**	*e*P	**Pn**	**12 28 22.9**	**+2.5**
	comp=N,3.4nm,0.5s						
MYKA	**Terra Mystica**	**7.13**	**317**	*e*P	**Pn**	**12 28 23.9**	**+2.1**
	comp=N,4.7nm,0.5s						
MODS	**Modra-Piesok**	**7.15**	**341**	*e*SN	**Sn**	**12 29 41.3**	**-2.1**
KBA	**Koelnbreinsper**	**7.58**	**318**	*e*P	**Pn**	**12 28 30.4**	**+2.3**
	comp=N,5.1nm,0.6s,SNR=8.0						
MOA	**Molln**	**7.72**	**325**	P	**Pn**	**12 28 33.0**	**+3.2**
	comp=N,1.7nm,0.3s						
ABTA	**Abfaltersbach**	**7.80**	**313**	*e*P	**Pn**	**12 28 32.9**	**+1.8**
	comp=N,14nm,0.5s,SNR=15						
BIOA	**Bad Ischl, Aus**	**7.88**	**322**	*e*P	**Pn**	**12 28 35.1**	**+3.1**
	comp=N,4.5nm,0.5s						
LESA	**Schwarzleotal**	**8.15**	**318**	*e*P	**Pn**	**12 28 38.3**	**+2.5**
	comp=N,11nm,0.5s,SNR=4.8						
WTTA	**Wattenberg**	**8.59**	**314**	*e*P	**Pn**	**12 28 44.5**	**+2.5**
	comp=N,12nm,0.5s,SNR=8.1						
WATA	**Walderalm**	**8.67**	**314**	*e*P	**Pn**	**12 28 46.4**	**+3.4**
	comp=N,7.8nm,0.4s						
GERES	**GERESS Array B**	**8.73**	**328**	Pn	**Pn**	**12 28 47.0**	**+3.2**
	baz=150,slow=14,SNR=13 comp=N,1.3nm,0.6s						
SQTA	**Sankt Quirin**	**8.80**	**312**	*e*P	**Pn**	**12 28 48.3**	**+3.5**
	comp=N,4.0nm,0.3s						
MOTA	**Moosalm**	**8.93**	**313**	*e*P	**Pn**	**12 28 49.4**	**+2.8**
	comp=N,11nm,0.7s,SNR=4.5						
FETA	**Feichten**	**8.96**	**310**	*e*P	**Pn**	**12 28 49.7**	**+2.8**
	comp=N,5.0nm,0.8s						
KHC	**Kasperske Hory**	**9.01**	**328**	*e*PN	Pn	12 28 52.6	+5.0
DAVOX	**Davos/Dischmat**	**9.33**	**307**	Pn	**Pn**	**12 28 52.1**	**-0.1**
	comp=N,0.8nm,0.3s,baz=120,slow=14,SNR=9.9 comp=N,6.6nm,0.6s						
DAVOX				AML	AML		
BRTR	**Keskin Array B**	**9.97**	**97**	LR	LR	12 32 12.4	
	comp=N,8.7nm,18.5s,baz=328,slow=36						
KEST	**Kesra**	**10.70**	**240**	Pn	Pn	12 28 46.7	-24
	comp=N,0.4nm,0.3s,baz=290,slow=22,SNR=5.5 comp=N,4.3nm,0.7s						
KEST				AML	AML		
FINES	**FINESS Array B**	**20.07**	**7**	P	**P**	**12 31 11.4**	**+0.7**
	comp=N,0.8nm,0.7s,baz=185,slow=9.8,SNR=1.3 comp=N,0.8nm,0.7s						
NOA	**NORSAR Array B**	**20.26**	**347**	P	Pn	12 31 14.9	+0.1
	comp=N,0.8nm,0.8s,baz=160,slow=11,SNR=3.4 comp=N,0.8nm,0.8s						
EKA	**Eskdalemuir Ar**	**20.79**	**319**	P	**P**	**12 31 17.8**	**-0.9**
	comp=N,1.7nm,0.6s,baz=117,slow=10,SNR=4.4 comp=N,1.7nm,0.6s						

LJU 11 12:27:05.2, 45.73N×14.09E, h0km, ML0.5, 2C,
Suspected explosion, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAVS	**Javornik**	**0.16**	**354**	⇑*i*Pg	Pg	12 27 07.9	-0.4
JAVS				*i* Sg	Sg	12 27 10.9	+0.5
JAVS				IAML		12 27 11.6	
	comp=Z,4.8nm,0.1s						
SKDS	**Skadanscina**	**0.20**	**196**	*i* Pg	Pg	12 27 08.7	-0.2
SKDS				*i* Sg	Sg	12 27 12.4	+1.0
SKDS				IAML		12 27 12.8	
	comp=Z,8.4nm,0.1s						
GBAS	**Gorenja Brezov**	**0.32**	**51**	⇑*i*Pg	Pg	12 27 11.1	-0.2
GBAS				*i* Sg	Sg	12 27 16.6	+1.1
GBAS				IAML		12 27 18.4	
	comp=Z,2.7nm,0.1s						
VOJS	**Vojsko**	**0.33**	**334**	*i* Pg	Pg	12 27 10.9	-0.6
VOJS				*i* Sg	Sg	12 27 17.2	+1.4
VOJS				IAML		12 27 17.8	
	comp=Z,2.3nm,0.1s						

*ATH **11** 12:29:47.7, 37.81N×26.84E, h17km±1km, ML2.4/5,*
Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
*AFAD **11** 12:29:47.9, 37.81N×26.80E, h7km±1km, ML2.1*
*ISK **11** 12:29:49.0, 37.88N×26.87E, h5km, ML2.6/18*
ISC 11 12:29:48.5±0.9, 37.84N±0.02×26.84E±0.03, h11km±7km,
n29, σ0°63/38, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.11**	**248**	P	**Pg**	**12 29 51.2**	**-0.1**
KRL1				S	**Sg**	**12 29 53.8**	**+0.4**
KRL1				AML	AML		
SMG	**Samos**	**0.13**	**181**	P	**Pg**	**12 29 51.6**	**0.0**
SMG				S	**Sg**	**12 29 53.9**	**+0.1**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.20**	**246**	P	**Pg**	**12 29 52.5**	**-0.2**
SAM2				S	**Sg**	**12 29 55.7**	**+0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.22**	**9**	P	**Pg**	**12 29 52.7**	**-0.4**
DGB				IAML		12 29 57.0	
	comp=N,344nm,0.2s						
DGB				S	**Sg**	**12 29 57.1**	**+1.0**
DGB				IAML		12 29 58.0	
	comp=E,366nm,0.5s						
GMLD	**Gumuldur**	**0.25**	**14**	Pg	**Pg**	**12 29 53.5**	**-0.1**
GMLD				Sg	**Sg**	**12 29 57.1**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**114**	P	**Pg**	**12 29 55.3**	**-0.1**
GCAM	**G?zelcaml?**	**0.34**	**114**	Pg	**Pb**	**12 29 55.4**	**-1.2**
GCAM				Sg	**Sb**	**12 30 01.2**	**-0.9**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**86**	Pg	**Pb**	**12 29 55.9**	**-1.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**10**	P	**Pg**	**12 29 56.2**	**-0.2**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**327**	P	**Pg**	**12 29 57.5**	**-0.4**
DDIM	**Aydin, Didim**	**0.50**	**140**	P	**Pb**	**12 29 58.1**	**-1.2**
DIDI	**Didim-Aydin**	**0.56**	**145**	Pg	**Pb**	**12 30 00.8**	**+0.5**
DIDI				AML	AML		
BLCB	**Balcova**	**0.57**	**16**	Pg	**Pg**	**12 29 59.5**	**-0.1**
BLCB				Sg	**Sg**	**12 30 07.6**	**+0.4**
BLCB				AML	AML		
KRBN	**Karaburun**	**0.79**	**344**	Pg	**Pg**	**12 30 03.9**	**+0.2**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**154**	Pg	**Pn**	**12 30 05.1**	**-0.6**
YKAV				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	Pg	**Pb**	**12 30 05.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**12 30 04.0**	**-0.5**
CHOS				S	**Sb**	**12 30 16.1**	**0.0**
AYDB	**Zeytinkoy-Aydi**	**0.84**	**82**	Pg	**Pb**	**12 30 05.3**	**+0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.86**	**154**	Pg	**Pn**	**12 30 06.2**	**-0.4**
BODT				AML	AML		
FOCM	**Foa**	**0.88**	**354**	Pg	**Pb**	**12 30 05.8**	**0.0**
FOCM				AML	AML		
EAG2	**Marmaro, Chios**	**0.91**	**321**	P	**Pg**	**12 30 06.0**	**-0.1**
EAG2				S	**Sg**	**12 30 17.7**	**-0.3**
MLSB	**Milas**	**0.92**	**126**	Pg	**Pn**	**12 30 07.6**	**+0.1**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.16**	**83**	Pn	**Pn**	**12 30 11.1**	**+0.4**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.21**	**44**	Pn	**Pg**	**12 30 12.3**	**+0.4**
DKL	**Dikili**	**1.23**	**2**	P	**Pn**	**12 30 11.6**	**-0.1**
DAT	**Datca**	**1.25**	**152**	Pn	**Pn**	**12 30 14.3**	**+2.2**
DAT				AML	AML		
AKS	**Akhisar**	**1.29**	**36**	Pn	**Pg**	**12 30 13.2**	**-0.1**
AKS				AML	AML		
YER	**Yerkesik**	**1.35**	**121**	Pn	**Pg**	**12 30 15.2**	**+0.8**
YER				AML	AML		
TURN	**Turunc**	**1.54**	**133**	Pn	**Pg**	**12 30 18.3**	**+0.2**
TURN				AML	AML		

NNC 11 12:34:24.6±3.5, 36.94N×70.37E, h0km, mb3.6, mpv3.4,
2C-2D, Error ellipse: s-maj=28.4km s-min=22.2km
az=157.0, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**6.15**	**1**	⇓P	Pn	12 35 57.3	+0.5
	0.3nm,0.1s,baz=181,slow=12,SNR=6.6						
KK31				⇓S	Sn	12 37 08.5	+0.6
	1.8nm,0.5s,baz=180,slow=25						
AAK	**Ala-Archa**	**6.51**	**28**	⇑P	Pn	12 36 01.4	-0.5
	8.0nm,1.8s						
AAK				⇑S	Sn	12 37 18.9	+1.9
	2.6nm,1.1s						
AB31	**Akbulak array**	**14.45**	**332**	P	Pn	12 37 49.9	-0.5
	0.3nm,0.5s,baz=155,slow=13,SNR=9.6						

*IDC **11** 12:54:48.6±0.8, 32.49N×142.04E, h0km, mb3.6/8,*
mbtmp3.6/10, ML3.3/2, MS2.9/4, Error ellipse:
s-maj=28.5km s-min=14.6km az=76.0
*JMA **11** 12:54:52.3±0.5, 32°N±2.2°×14°2E±°, h59km, E OFF*
HACHIJOJIMA ISLAND
ISC 11 12:54:53.8±0.9, 32.36N±0.09×141.9E±0.1, h39km, n20,
σ1°49/17, mb3.7/8, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**1.93**	**293**	P	**Pn**	**12 55 22.9**	**-1.1**
JHCJ	**Hachijojimakas**	**1.93**	**292**	P	**Pn**	**12 55 22.7**	**-1.4**
BSO1	**Boso 1**	**2.42**	**341**	*e*P	**Pn**	**12 55 29.4**	**-0.9**
BSO3	**Boso 3**	**2.71**	**334**	*e*P	**Pn**	**12 55 33.1**	**-1.4**
JOD2	**Odawara 2**	**3.74**	**322**	*e*P	**Pn**	**12 55 47.4**	**-1.5**
JRY	**Ryogami san**	**4.42**	**326**	*e*P	**Pn**	**12 55 57.6**	**-0.8**
JAG	**Ashikaga**	**4.54**	**334**	*e*P	**Pn**	**12 55 58.4**	**-1.6**
MJAR	**Matsushiro Arr**	**5.18**	**325**	Pn	**Pn**	**12 56 06.8**	**-1.9**
	0.2nm,0.3s,baz=155,slow=12,SNR=10						
MJAR				LR	LR	12 58 14.2	
	comp=Z,52nm,19.7s,baz=174,slow=40 1.5nm,0.6s						
MJAR				AML	AML		
JCJ	**Chichijima**	**5.25**	**178**	Pn	**Pn**	**12 56 06.9**	**-2.9**
	5.9nm,0.3s,baz=308,slow=21,SNR=9.7 44nm,0.6s						
JCJ				AML	AML		
KSRS	**Korea Array**	**12.57**	**298**	LR	LR	13 02 33.3	
	comp=Z,43nm,20.0s,baz=120,slow=37						
MA2	**Magadan**	**27.85**	**10**	LR	LR	13 15 39.2	
	comp=Z,22nm,18.0s,baz=108,slow=45						
SONM	**Songino Array**	**30.95**	**310**	P	**P**	**13 01 08.4**	**+1.3**
	0.3nm,0.4s,baz=98,slow=11,SNR=1.7 0.3nm,0.4s						
MKAR	**Makanchi Array**	**47.08**	**306**	P	**P**	**13 03 21.7**	**0.0**
	1.0nm,0.9s,baz=83,slow=9.8,SNR=5.2 1.0nm,0.9s						
KURBB	**Kurchatov Arra**	**49.30**	**311**	P	**P**	**13 03 40.3**	**+1.6**
	0.5nm,0.4s,baz=76,slow=4.9,SNR=3.3 0.5nm,0.4s						
WRA	**Warramunga Arr**	**52.51**	**189**	P	**P**	**13 04 03.2**	**+0.1**
	1.2nm,0.6s,baz=5.8,slow=7.6,SNR=22 1.2nm,0.6s						
ILAR	**Eielson Array**	**53.25**	**30**	P	**P**	**13 04 07.8**	**-0.3**
	0.4nm,0.6s,baz=262,slow=6.5,SNR=5.1 0.4nm,0.6s						
ASAR	**Alice Springs**	**56.24**	**189**	P	**P**	**13 04 31.8**	**+1.6**
	0.3nm,0.5s,baz=1.9,slow=6.8,SNR=9.7 0.3nm,0.5s						
NVAR	**Mina Array Bea**	**77.47**	**52**	LR	LR	13 36 07.4	
	comp=Z,33nm,21.3s,baz=244,slow=32						
PDAR	**Pinedale Array**	**80.65**	**45**	P	**P**	**13 07 02.2**	**-0.7**
	0.1nm,0.4s,baz=276,slow=8.3,SNR=2.3 0.1nm,0.4s						
TXAR	**Lajitas Array**	**92.62**	**53**	P	**P**	**13 08 02.2**	**+0.5**
	0.3nm,0.6s,baz=302,slow=2.4,SNR=3.7 0.3nm,0.6s						

*IDC **11** 12:54:58.0±1.5, 54.36N×159.81W, h0km, mb3.4/3,*
mbtmp3.6/6, ML3.7/3, Error ellipse: s-maj=28.0km
s-min=18.6km az=142.0
*NEIC **11** 12:55:00.6±1.2, 54.29N±0.04×159.82W±0.03,*
h23km±10km, mb3.4/8, ML3.3/26, ML3.4(AEIC), Error ellipse:
s-maj=5.7km s-min=2.2km az=173.0
*AEIC **11** 12:55:01.5±1.6, 54.32N±0.07×159.85W±0.08, h7km±7km,*
Error ellipse: s-maj=10.9km s-min=5.6km az=158.0
ISC 11 12:54:58.4±1.9, 54.32N±0.06×159.82W±0.03, h9km±12km,
n101, σ1°30/106, mb3.3/3, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**0.52**	**15**		**Pn**	**12 55 12.6**	**+0.6**
CNBA					**Pb**	**12 55 12.9**	**+3.2**
CNBA				IAML		12 55 22.0	
	comp=E,3μm,0.6s						
CNBA				IAML		12 55 22.1	
	comp=N,2μm,0.4s						
CHNA	**Chernabura Isl**	**0.53**	**14**	P	**Pn**	**12 55 12.4**	**+0.2**
CHNA	**Chernabura Isl**	**0.53**	**14**	S	**Sb**	**12 55 18.8**	**+1.1**
SDPT	**Sand Point**	**1.10**	**340**	P	**Pn**	**12 55 20.7**	**+0.7**
SDPT	**Sand Point**	**1.10**	**340**	S	**Sn**	**12 55 35.0**	**-0.4**
SDPT	**Sand Point**	**1.10**	**340**		**Pn**	**12 55 20.9**	**+0.9**
SDPT					**Sn**	**12 55 36.1**	**+0.7**
SDPT				IAML		12 55 45.8	
	comp=N,618nm,1.0s						
SDPT				IAML		12 55 46.8	
	comp=E,476nm,0.9s						
DOL	**Dolgoi Island**	**1.45**	**306**		**Pn**	**12 55 25.4**	**+0.5**
DOL					**Sb**	**12 55 43.7**	**-0.5**
PVV	**Pavlof Volcano**	**1.56**	**314**		**Pb**	**12 55 27.4**	**0.0**
PS4A	**Pavlof South-4**	**1.57**	**312**		**Pn**	**12 55 27.4**	**+1.0**
PS4A					**Sb**	**12 55 47.6**	**+0.1**
PS1A	**Pavlof South-1**	**1.57**	**316**		**Pb**	**12 55 27.8**	**+0.2**
DT1	**Dutton Round H**	**1.64**	**300**		**Pn**	**12 55 27.8**	**+0.5**
DT1					**Sn**	**12 55 47.8**	**-0.7**
DTNA	**Dutton South F**	**1.64**	**302**		**Pn**	**12 55 28.2**	**+0.8**
PN7A	**Pavlof North-7**	**1.69**	**312**		**Pb**	**12 55 29.6**	**0.0**
VNKR	**Veniaminof 5**	**1.74**	**8**		**Pg**	**12 55 30.6**	**-1.1**
VNKR					**Sg**	**12 55 53.7**	**-0.5**
VNSG	**Veniaminof 6**	**1.86**	**13**		**Pb**	**12 55 32.1**	**-0.5**
S12K	**Black Hills**	**1.90**	**318**	Pn	**Pn**	**12 55 30.6**	**-0.4**
CHGN	**Chignik**	**2.15**	**21**		**Pn**	**12 55 35.4**	**+1.0**
CHGN					**Sn**	**12 56 01.3**	**+0.3**
CHGN				IAML		12 56 03.3	
	comp=E,257nm,0.4s						
CHGN				IAML		12 56 06.7	
	comp=N,204nm,0.6s						
ISLZ	**Isanotski Laza**	**2.31**	**282**		**Pn**	**12 55 37.9**	**+1.3**
ISLZ					**Sn**	**12 56 05.1**	**0.0**
ISNN	**Isanotski Nort**	**2.36**	**284**		**Pn**	**12 55 39.3**	**+1.9**
ISNN					**Pb**	**12 55 39.6**	**-1.5**
ISNN					**Sn**	**12 56 08.8**	**+2.3**
BPBCA	**Veniaminof**	**2.41**	**18**		**Pn**	**12 55 39.3**	**+1.3**
SSLS	**Shishaldin Sou**	**2.47**	**281**		**Pn**	**12 55 40.6**	**+1.7**
ANPB	**Aniakchak Plen**	**2.64**	**19**		**Pn**	**12 55 42.7**	**+1.5**
WTUG	**Tugumak**	**2.71**	**283**		**Pn**	**12 55 43.6**	**+1.5**
CHIR	**Chirikof Islan**	**2.84**	**56**	P	**Pn**	**12 55 44.2**	**+0.3**
CHIR	**Chirikof Islan**	**2.84**	**56**	Pn	**Pn**	**12 55 44.2**	**+0.3**
CHIR				IAML		12 56 50.6	
	comp=E,109nm,1.1s						
CHIR				IAML		12 57 33.9	
	comp=N,101nm,1.1s						
AKUT	**Akutan**	**3.50**	**269**	Pn	**Pn**	**12 55 52.3**	**-0.7**
AKUT				IAML		12 56 54.2	
	comp=N,47nm,1.1s						
AKUT				IAML		12 57 02.6	
	comp=E,74nm,1.2s						
R17L	**Mt. Peulik Vol**	**3.85**	**29**		**Pn**	**12 55 59.8**	**+2.1**
SII	**Sitkinak Islan**	**3.92**	**53**	P	**Pn**	**12 55 58.8**	**+0.1**
SII	**Sitkinak Islan**	**3.92**	**53**		**Pn**	**12 55 59.2**	**+0.5**
UNV	**Unalaska Valle**	**3.97**	**266**	P	**Pn**	**12 56 00.1**	**+0.7**
UNV	**Unalaska Valle**	**3.97**	**266**	S	**Sn**	**12 56 44.6**	**-1.3**
UNV	**Unalaska Valle**	**3.97**	**266**		**Pn**	**12 56 00.0**	**+0.7**
KJL	**Kejulik**	**4.43**	**31**		**Pn**	**12 56 07.1**	**+1.3**
CAHL	**Cahill**	**4.51**	**32**		**Pn**	**12 56 08.1**	**+1.1**
Q17K	**Contact Creek**	**4.52**	**27**		**Pn**	**12 56 08.3**	**+1.2**
ANCK	**Angle Creek**	**4.58**	**30**		**Pn**	**12 56 09.2**	**+1.3**
OHAK	**Old Harbor**	**4.70**	**49**	P	**Pn**	**12 56 09.3**	**-0.1**
OHAK	**Old Harbor**	**4.70**	**49**	S	**Sn**	**12 57 03.5**	**-0.4**
OHAK	**Old Harbor**	**4.70**	**49**		**Pn**	**12 56 09.7**	**+0.4**
O15K	**Ungalikthiuk R**	**4.87**	**360**	Pn	**Pn**	**12 56 12.4**	**+0.6**
O14K	**Tigyukauivet M**	**5.01**	**351**	Pn	**Pn**	**12 56 14.1**	**+0.4**
O14K				IAML		12 58 21.4	
	comp=N,20nm,1.1s						
O14K				IAML		12 59 09.9	
	comp=E,26nm,1.2s						
Q18K	**Katmai Hardscr**	**5.09**	**30**		**Pn**	**12 56 15.9**	**+1.0**
P17K	**Kvichak River**	**5.23**	**19**	Pn	**Pn**	**12 56 16.9**	**+0.2**
KDAK	**Kodiak Island**	**5.34**	**46**	Pn	**Pn**	**12 56 18.2**	**+0.1**
	comp=E,1.5nm,0.3s,baz=256,slow=12,SNR=42						
KDAK				Sn	**Sn**	**12 57 14.4**	**-5.3**
	comp=E,1.0nm,0.3s,baz=37,slow=18,SNR=5.8 comp=E,7.5nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.34**	**46**		**Pn**	**12 56 18.4**	**+0.3**
KDAK	**Kodiak Island**	**5.34**	**46**	IAML		12 57 17.2	
	comp=E,15nm,1.1s						
KDAK				IAML		12 57 54.7	
	comp=E,15nm,1.1s						
Q16K	**Kokwok River B**	**5.38**	**9**	Pn	**Pn**	**12 56 20.1**	**+1.5**
Q17K	**Koliganek Bris**	**5.67**	**14**		**Pn**	**12 56 24.1**	**+1.4**
P18K	**Big Mountain,**	**5.68**	**24**		**Pn**	**12 56 24.2**	**+1.3**
Q19K	**Cape Douglas,**	**5.74**	**34**	Pn	**Pn**	**12 56 25.2**	**+1.4**
N16K	**Nishlik Lake**	**6.20**	**5**		**Pn**	**12 56 32.0**	**+2.0**
N17K	**Nushagak Hills**	**6.39**	**12**	Pn	**Pn**	**12

s-min=12.1km az=79.0
*NEIC **11** 12:55:20.6±1.6, 32°.41N±0°.06×142°.1E±0°.1, h10km±1km, mb4.3/18, Error ellipse: s-maj=17.7km s-min=5.1km az=58.0*
*NIED **11** 12:55:22.4, 32°.50N×142°.04E, h59km, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr1.01; Mθθ-0.24; Mφφ-0.77; Mrθ0.54; Mθφ-0.00; Mφr-0.40; Fault plane solution: M₀1.08000×10¹⁵ NP1:φ9.00000°, δ33.00000°, λ120.00000°. NP2:φ154.00000°, δ62.00000°, λ72.00000°.*
*JMA **11** 12:55:22.4±0.4, 32°.N±1°×14°.2E±°, h59km, MV3.7/23, FAR E OFF IZU ISLANDS*

ISC 11 12:55:23.6±0.6, 32°.38N±0°.05×142°.01E±0°.09, h39km, n48, σ1§57/52, mb4.2/17, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAOM	**Aogashimamukai**	**1.90**	**273**	P	**Pn**	**12 55 52.9**	**-0.7**
JHJ2	**Mitsune**	**1.99**	**292**	P	**Pn**	**12 55 54.9**	**+0.2**
BSO1	**Boso 1**	**2.43**	**339**	*e*P	**Pn**	**12 55 58.3**	**-2.0**
BSO1				*e*S	**Sn**	**12 56 26.7**	**-1.8**
BSO3	**Boso 3**	**2.72**	**333**	*e*S	**Sn**	**12 56 34.9**	**-1.2**
JOD2	**Odawara 2**	**3.77**	**321**	*e*P	**Pn**	**12 56 17.9**	**-1.3**
JOD2				*e*S	**Sn**	**12 56 57.2**	**-5.0**
JRY	**Ryogami san**	**4.45**	**325**	*e*S	**Sn**	**12 57 17.2**	**-1.9**
JAG	**Ashikaga**	**4.55**	**333**	*e*P	**Pn**	**12 56 29.0**	**-1.0**
JAG				*e*S	**Sn**	**12 57 17.8**	**-3.9**
INU	**Inuyama**	**5.10**	**307**	Pn	**Pn**	**12 56 37.0**	**-0.5**
MJAR	**Matsushiro Arr**	**5.21**	**324**	Pn	**Pn**	**12 56 37.9**	**-1.0**
	0.6nm,0.3s,baz=156,slow=13,SNR=16 4.0nm,0.4s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.21**	**324**		**Pn**	**12 56 39.1**	**+0.2**
MAJO	**Matsushiro**	**5.21**	**324**	Pn	**Pn**	**12 56 38.9**	**-0.1**
MJB9	**Matsu-Tunnel**	**5.21**	**324**		**Pn**	**12 56 39.2**	**+0.2**
JCJ	**Chichijima**	**5.27**	**178**	Pn	**Pn**	**12 56 37.9**	**-1.9**
	20nm,0.3s,baz=12,slow=18,SNR=14						
JCJ				Sn	**Sn**	**12 57 34.3**	**-5.0**
	23nm,0.3s,baz=307,slow=22,SNR=4.6 49nm,0.3s						
JCJ				AML	AML		
JCJ	**Chichijima**	**5.27**	**178**		**Pn**	**12 56 38.9**	**-0.9**
JTM	**Tenmabayashi**	**8.43**	**355**	Pn	**Pn**	**12 57 21.2**	**-1.9**
ERM	**Erimo**	**9.66**	**5**	Pn	**Pn**	**12 57 37.8**	**-2.2**
SONM	**Songino Array**	**30.99**	**310**	P	**P**	**13 01 38.9**	**+1.6**
	2.0nm,0.7s,baz=120,slow=8.7,SNR=7.3 2.0nm,0.7s						
SONM	**Songino Array**	**30.99**	**310**	P	**P**	**13 01 38.1**	**+0.8**
SONM				IAmb	IAmb	13 01 40.8	
	comp=Z,2.1nm,0.9s						
MTN	**Manton Dam**	**46.16**	**195**	P	**P**	**13 03 44.5**	**0.0**
MTN				IAmb	IAmb	13 04 05.9	
	comp=Z,4.5nm,1.1s						
O15K	**Ungalikthiuk R**	**46.63**	**37**		**P**	**13 03 47.4**	**-0.4**
MKAR	**Makanchi Array**	**47.13**	**306**	P	**P**	**13 03 51.9**	**0.0**
	comp=Z,1.7nm,0.7s,baz=85,slow=9.5,SNR=6.1 comp=Z,1.7nm,0.7s						
KURK	**Kurchatov**	**49.28**	**311**	P	**P**	**13 04 09.2**	**+0.9**
KURK				IAmb	IAmb	13 04 30.6	
	comp=Z,1.8nm,0.7s						
KURBB	**Kurchatov Arra**	**49.34**	**311**	P	**P**	**13 04 08.7**	**-0.2**
	comp=Z,0.8nm,0.4s,baz=87,slow=7.9,SNR=4.7 comp=Z,0.8nm,0.4s						
J19K	**Poorman**	**49.35**	**31**	P	**P**	**13 04 09.1**	**+0.3**
E19K	**Redstone River**	**49.37**	**26**	P	**P**	**13 04 09.8**	**+1.0**
KNRA	**Kununurra**	**49.44**	**197**	P	**P**	**13 04 10.7**	**+0.9**
KNRA				IAmb	IAmb	13 04 35.3	
	comp=Z,3.5nm,1.1s						
PDGK	**Podgornoye**	**49.51**	**302**		**P**	**13 04 10.4**	**-0.1**
WB0	**Warramunga Arr**	**52.36**	**189**	P	**P**	**13 04 33.0**	**+1.1**
WRAB	**Tennant Creek**	**52.53**	**189**	P	**P**	**13 04 34.4**	**+1.3**
WRAB				IAmb	IAmb	13 04 50.8	
	comp=Z,5.3nm,1.1s						
WR8	**Warramunga Arr**	**52.53**	**189**		**P**	**13 04 34.3**	**+1.2**
WR8				IAmb	IAmb	13 04 35.9	
	comp=Z,4.2nm,0.9s						
WRA	**Warramunga Arr**	**52.54**	**189**	P	**P**	**13 04 34.4**	**+1.2**
	comp=Z,2.4nm,0.6s,baz=5.2,slow=7.6,SNR=16 comp=Z,2.4nm,0.6s						
FITZ	**Fitzroy Crossi**	**52.58**	**200**	P	**P**	**13 04 34.2**	**+0.8**
	comp=Z,1.4nm,0.5s,baz=16,slow=8.7,SNR=5.0 comp=Z,1.4nm,0.5s						
ILAR	**Eielson Array**	**53.20**	**30**	P	**P**	**13 04 37.7**	**+0.1**
	comp=Z,0.4nm,0.7s,baz=277,slow=7.7,SNR=2.5 comp=Z,0.4nm,0.7s						
KK31	**Karatay Array**	**55.98**	**303**	P	**P**	**13 04 58.8**	**+0.7**
KK31				IAmb	IAmb	13 04 59.5	
	comp=Z,4.0nm,1.1s						
KKAR	**Karatay Array**	**55.98**	**303**	P	**P**	**13 04 58.7**	**+0.6**
AS31	**Alice Springs**	**56.27**	**189**	P	**P**	**13 05 00.5**	**+0.3**
ASAR	**Alice Springs**	**56.27**	**189**	P	**P**	**13 05 01.8**	**+1.5**
	comp=Z,0.5nm,0.4s,baz=6.6,slow=7.3,SNR=13 comp=Z,0.5nm,0.4s						
ASAR	**Alice Springs**	**56.27**	**189**	P	**P**	**13 05 00.6**	**+0.3**
G30M	**tAoh Zraii Nji**	**57.48**	**27**	P	**P**	**13 05 09.0**	**+0.6**
INK	**Inuvik**	**58.32**	**26**	P	**P**	**13 05 15.0**	**+0.8**
	comp=Z,1.1nm,0.8s,baz=303,slow=3.6,SNR=4.1 comp=Z,1.1nm,0.8s						
F31M	**Tsiigehtchic**	**58.37**	**27**	P	**P**	**13 05 15.6**	**+1.1**
SKAG	**Skagway**	**59.11**	**36**	P	**P**	**13 05 19.9**	**+0.1**
SKAG				IAmb	IAmb	13 05 35.0	
	comp=Z,4.1nm,1.1s						
ARTI	**Arti**	**60.32**	**320**	P	**P**	**13 05 28.5**	**+0.3**
AB31	**Akbulak array**	**61.37**	**312**		**P**	**13 05 35.4**	**-0.1**
AB31				IAmb	IAmb	13 05 50.6	
	comp=Z,1.1nm,0.8s						
FORT	**Forrest**	**64.19**	**193**	P	**P**	**13 05 55.2**	**+0.9**
TXAR	**Lajitas Array**	**92.55**	**53**	P	**P**	**13 08 32.6**	**+1.3**
	comp=Z,0.3nm,0.7s,baz=314,slow=3.6,SNR=3.7 comp=Z,0.3nm,0.7s						
QSPA	**South Pole Qui**	**122.13**	**180**	PKP	**PKiKP**	**13 14 14.8**	**+1.4**
	comp=Z,0.7nm,0.7s,baz=225,slow=1.2,SNR=2.6						
QSPA	**South Pole Qui**	**122.13**	**180**		**PKiKP**	**13 14 15.4**	**+2.0**

*SJA **11** 12:56:15.7±0.6, 20°.16S×69°.27W, h105km±3km, ML3.7, MW3.6*
*GUC **11** 12:56:16.8±0.8, 20°.18S×69°.29W, h96km±3km, ML3.4, Presumed earthquake*

ISC 11 12:56:17.5±1.5, 20°.18S±0°.03×69°.31W±0°.06, h98km±8km, n26, σ0§78/52, 7C-2D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**0.15**	**75**	*e*P	**Pn**	**12 56 31.3**	**-0.5**
PB08				*e*S	**Sn**	**12 56 42.9**	**+0.6**
PB08				IAML		12 56 43.0	
	comp=Z,3μm,0.2s						
PB08	**IPOC Station P**	**0.15**	**75**	*e*P	**Pn**	**12 56 31.5**	**-0.3**
PB08				*e*S	**Sn**	**12 56 42.3**	**-0.1**
PB08				IAML		12 56 43.1	
	comp=E,7μm,0.2s						
GO01	**Chusmiza**	**0.52**	**12**	*e*P	**Pn**	**12 56 33.3**	**-0.5**
GO01				*e*S	**Sn**	**12 56 46.0**	**+0.1**
GO01				IAML		12 56 47.0	
	comp=Z,2μm,0.3s						
GO01	**Chusmiza**	**0.52**	**12**	*i*P	**Pn**	**12 56 32.9**	**-0.9**
GO01				*i* S	**Sn**	**12 56 45.4**	**-0.5**
PB11	**IPOC Station P**	**0.53**	**322**	*e*P	**Pn**	**12 56 33.1**	**-0.4**
PB11				*e*S	**Sn**	**12 56 46.0**	**+0.6**
PB11				IAML		12 56 48.9	
	comp=Z,2μm,0.5s						
PB11	**IPOC Station P**	**0.53**	**322**	*e*P	**Pn**	**12 56 33.2**	**-0.4**
PB11				*e*S	**Sn**	**12 56 45.6**	**+0.2**
TA02	**Huaiquique**	**0.78**	**263**	*e*P	**Pn**	**12 56 35.5**	**+0.1**
TA02				*e*S	**Sn**	**12 56 50.0**	**+1.1**
TA02				IAML		12 56 50.9	
	comp=Z,2μm,0.1s						
TA02	**Huaiquique**	**0.78**	**263**	*e*P	**Pn**	**12 56 35.1**	**-0.3**
TA02				*e*S	**Sn**	**12 56 48.9**	**+0.1**
TA02				IAML		12 56 50.3	
	comp=E,6μm,0.1s						
TA01	**Diego Aracena**	**0.90**	**245**	*e*P	**Pn**	**12 56 36.5**	**-0.2**
TA01				*e*S	**Sn**	**12 56 52.2**	**+1.1**
TA01	**Diego Aracena**	**0.90**	**245**	*e*P	**Pn**	**12 56 36.3**	**-0.4**
TA01				*e*S	**Sn**	**12 56 51.2**	**+0.1**
PSGCX	**Pisagua**	**0.96**	**307**	*e*P	**Pn**	**12 56 37.1**	**-0.4**
PSGCX				*e*S	**Sn**	**12 56 53.1**	**+0.7**
PSGCX	**Pisagua**	**0.96**	**307**	*i*P	**Pn**	**12 56 37.0**	**-0.5**
PSGCX				*e*S	**Sn**	**12 56 52.0**	**-0.4**
PB02	**IPOC Station P**	**1.26**	**206**	*e*P	**Pn**	**12 56 40.8**	**-0.1**
PB02				*e*S	**Sn**	**12 56 59.5**	**+1.0**
PB02				IAML		12 57 05.0	
	comp=Z,969nm,0.2s						
PB02	**IPOC Station P**	**1.26**	**206**	*e*P	**Pn**	**12 56 40.7**	**-0.1**
PB02				*e*S	**Sn**	**12 56 58.4**	**0.0**
PB02				IAML		12 57 03.0	
	comp=E,1μm,0.2s						
PB09	**IPOC Station P**	**1.61**	**178**	*e*P	**Pn**	**12 56 45.4**	**+0.2**
PB09				*e*S	**Sn**	**12 57 07.2**	**+1.1**
PB09				IAML		12 57 09.3	
	comp=Z,340nm,0.7s						
PB09	**IPOC Station P**	**1.61**	**178**	*e*P	**Pn**	**12 56 45.4**	**+0.2**
PB09				*i* S	**Sn**	**12 57 06.7**	**+0.6**
PB09				IAML		12 57 09.6	
	comp=E,314nm,0.3s						
PB07	**IPOC Station P**	**1.63**	**199**	*e*P	**Pn**	**12 56 45.2**	**-0.2**
PB07				*e*S	**Sn**	**12 57 07.5**	**+0.9**
PB07				IAML		12 57 09.5	
	comp=Z,440nm,0.4s						
PB07	**IPOC Station P**	**1.63**	**199**	*e*P	**Pn**	**12 56 45.1**	**-0.4**
PB07				*e*S	**Sn**	**12 57 07.4**	**+0.7**
PB07				IAML		12 57 09.6	
	comp=N,594nm,0.2s						
PB12	**IPOC Station P**	**1.83**	**328**	*e*P	**Pn**	**12 56 47.6**	**-0.3**
PB12				*e*S	**Sn**	**12 57 12.8**	**+1.7**
PB12	**IPOC Station P**	**1.83**	**328**	*e*P	**Pn**	**12 56 47.2**	**-0.7**
PB12				*e*S	**Sn**	**12 57 09.2**	**-1.9**
PB12				IAML		12 57 17.8	
	comp=E,185nm,0.3s						
PB16	**IPOC Station P**	**1.85**	**354**	*e*P	**Pn**	**12 56 49.3**	**+0.7**
PB16				*e*S	**Sn**	**12 57 13.5**	**+1.4**
PB16	**IPOC Station P**	**1.85**	**354**	*e*P	**Pn**	**12 56 49.3**	**+0.7**
PB16				*e*S	**Sn**	**12 57 12.0**	**-0.2**
PB06	**IPOC Station P**	**2.52**	**186**	*e*P	**Pn**	**12 56 56.7**	**-0.3**
PB06				*e*S	**Sn**	**12 57 28.2**	**+0.9**
PB06	**IPOC Station P**	**2.52**	**186**	*e*P	**Pn**	**12 56 56.5**	**-0.6**
PB06				*e*S	**Sn**	**12 57 25.9**	**-1.4**
PB06				IAML		12 57 34.0	
	comp=E,154nm,0.2s						
PB05	**IPOC Station P**	**2.79**	**197**	*e*P	**Pn**	**12 57 00.3**	**-0.2**
PB05				*e*S	**Sn**	**12 57 34.5**	**+1.0**
PB10	**IPOC Station P**	**3.51**	**199**	*e*P	**Pn**	**12 57 09.3**	**-0.8**
PB10				*e*S	**Sn**	**12 57 48.9**	**-1.8**

*IDC **11** 13:41:58.3±7.5, 36°.25N×71°.03E, h104km±63km, mb3.4/4, mbtmp3.6/8, ML3.2/4, Error ellipse: s-maj=58.3km s-min=30.5km az=44.0*
*NNC **11** 13:42:01.2±10.0, 36°.75N×70°.99E, h0km, mb4.0, mpv3.7, Error ellipse: s-maj=88.2km s-min=62.9km az=155.0*

ISC 11 13:42:04.1±1.3, 36°.5N±0°.1×71°.2E±0°.1, h150km, n12, σ1§56/16, mb3.1/3, 2C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**6.57**	**356**	P	**Pn**	**13 43 37.5**	**-0.8**
	6.3nm,0.3s,baz=175,slow=12,SNR=68						
KK31				⇑S	**Sn**	**13 44 50.1**	**-2.2**
	5.1nm,0.3s,baz=171,slow=21						
AAK	**Ala-Archa**	**6.61**	**22**	P	**Pn**	**13 43 37.5**	**-1.5**
	1.8nm,0.3s,baz=205,slow=14,SNR=15						
AAK				S	**Sn**	**13 44 53.5**	**+0.3**
	2.4nm,0.4s,baz=248,slow=20,SNR=3.7 4.1nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**6.61**	**22**	⇓P	**Pn**	**13 43 38.3**	**-0.6**
	1.4nm,0.5s,baz=144,slow=24						
AAK				⇑S	**Sn**	**13 44 53.2**	**-0.1**
	7.3nm,0.7s,baz=144,slow=24						
MKAR	**Makanchi Array**	**13.18**	**36**	P	**Pn**	**13 45 06.9**	**+1.5**
	0.1nm,0.3s,baz=216,slow=11,SNR=1.1 0.3nm,0.7s						
MKAR				AML	AML		
AB31	**Akbulak array**	**15.11**	**331**	P	**Pn**	**13 45 30.8**	**+1.1**
	0.5nm,0.3s,baz=154,slow=12,SNR=51						
AB31				S	**Sn**	**13 48 17.4**	**-0.1**
	0.5nm,0.4s,baz=150,slow=26,SNR=3.5						
BVAR	**Borovoye Array**	**16.49**	**358**	P	**Pn**	**13 45 47.1**	**+0.5**
	baz=169,slow=11,SNR=3.5 0.4nm,0.4s						
AKTO	**Aktyubinsk**	**16.81**	**330**	P	**P**	**13 45 49.0**	**-1.2**
	0.1nm,0.3s,baz=137,slow=11,SNR=1.5 0.7nm,0.4s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**16.81**	**330**	⇓P	**Pn**	**13 45 54.3**	**+3.8**
	2.6nm,0.8s,baz=144,slow=24						
ZALV	**Zalesovo Beam**	**19.82**	**24**	P	**P**	**13 46 24.3**	**+1.4**
	1.6nm,0.3s,baz=206,slow=11,SNR=3.8 1.6nm,0.3s						
ARCES	**ARCESS Array B**	**41.16**	**338**	P	**P**	**13 49 33.6**	**+0.4**
	3.2nm,1.0s,baz=116,slow=8.3,SNR=4.9 3.2nm,1.0s						
WRA	**Warramunga Arr**	**81.90**	**122**	P	**P**	**13 54 05.9**	**-1.1**
	0.3nm,0.7s,baz=312,slow=5.4,SNR=1.5 0.3nm,0.7s						
ASAR	**Alice Springs**	**84.17**	**125**	P	**P**	**13 54 17.7**	**-0.9**
	0.2nm,0.6s,baz=304,slow=5.4,SNR=4.2 0.2nm,0.6s						

*NOU **11** 14:15:36.3, 10°.62S×161°.82E, h61km, mb4.7/41, Solomon Islands*
*NEIC **11** 14:15:38.3±1.4, 10°.68S±0°.08×161°.64E±0°.09, h85km±7km, mb4.7/66, Error ellipse: s-maj=14.6km s-min=9.1km az=46.0*
*IDC **11** 14:15:39.2±2.0, 10°.62S×161°.52E, h106km±15km, mb3.8/16, mbtmp4.2/19, MS3.2/17, Error ellipse: s-maj=20.8km s-min=12.9km az=92.0*

ISC 11 14:15:36.4±0.7, 10°.63S±0°.05×161°.76E±0°.05, h74km±6km, n152, σ1§10/129, mb4.6/48, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HURO	**Huro Makira**	**0.21**	**41**	P	**Pn**	**14 15 46.5**	**-1.1**
HURO	**Huro Makira**	**0.21**	**41**	S	**Sn**	**14 15 54.2**	**-1.5**
NGOA	**Tingoa Renbel**	**1.91**	**241**	P	**Pn**	**14 16 06.6**	**-0.3**
ALEG	**Aligegeo Malai**	**2.14**	**330**	P	**Pn**	**14 16 10.6**	**+0.6**
ALEG	**Aligegeo Malai**	**2.14**	**330**	S	**Sn**	**14 16 36.0**	**+0.4**
HNR	**Honiara**	**2.15**	**303**	P	**Pn**	**14 16 10.9**	**+0.8**
	2μm,0.4s,baz=28,slow=3.5,SNR=624						
HNR				S	**Sn**	**14 16 36.4**	**+0.6**
	5μm,0.3s,baz=143,slow=20,SNR=14						
HNR				LR	LR	14 16 44.9	
	comp=Z,485nm,20.0s,baz=249,slow=34						
HNR	**Honiara**	**2.15**	**303**	P	**Pn**	**14 16 10.8**	**+0.8**
HNR	**Honiara**	**2.15**	**303**	S	**Sn**	**14 16 36.5**	**+0.7**
HNR	**Honiara**	**2.15**	**303**		**Pn**	**14 16 10.9**	**+0.8**
HNR					**Sn**	**14 16 35.9**	**+0.1**
SAVO	**Savo Central**	**2.42**	**307**	P	**Pn**	**14 16 14.4**	**+0.6**
TATA	**Tatamba Isabel**	**2.94**	**319**	P	**Pn**	**14 16 21.3**	**+0.4**
TATA	**Tatamba Isabel**	**2.94**	**319**	S	**Sn**	**14 16 56.2**	**+1.0**
SANVU	**Saraoutou**	**7.15**	**133**	P	**Pn**	**14 17 18.2**	**-0.1**
SANVU	**Saraoutou**	**7.15**	**133**		**Pn**	**14 17 18.9**	**+0.7**
KOUNC	**Koumac, New Ca**	**10.16**	**166**	P	**Pn**	**14 17 59.5**	**0.0**
KOUNC	**Koumac, New Ca**	**10.16**	**166**	S	**Sn**	**14 19 53.1**	**+1.3**
KOUNC	**Koumac, New Ca**	**10.16**	**166**	Pn	**Pn**	**14 18 00.5**	**+1.1**
RABL	**Rabaul**	**11.46**	**303**	Pn	**Pn**	**14 18 18.1**	**+0.9**
DZM	**Mont Dzumac**	**12.23**	**159**	P	**Pn**	**14 18 29.9**	**+2.1**
	11nm,0.7s,baz=4.9,slow=11,SNR=52						
DZM				S	**Sn**	**14 20 40.6**	**-1.9**
	11nm,0.6s,baz=169,slow=23,SNR=3.8						
MARNC	**Mare, Loyalty**	**12.36**	**152**	Pn	**Pn**	**14 18 31.4**	**+2.0**
YATNC	**Mamie plateau,**	**12.39**	**157**	P	**Pn**	**14 18 30.0**	**+0.2**
YATNC	**Mamie plateau,**	**12.39**	**157**	S	**Sn**	**14 20 47.3**	**+1.3**
ONTNC	**Ouen Toro**	**12.46**	**159**	P	**Pn**	**14 18 30.9**	**+0.2**
ONTNC	**Ouen Toro**	**12.46**	**159**	S	**Sn**	**14 20 49.0**	**+1.3**
ONTNC	**Ouen Toro**	**12.46**	**159**	Pn	**Pn**	**14 18 31.5**	**+0.8**
OUENC	**Ouen Island, N**	**12.70**	**158**	Pn	**Pn**	**14 18 35.0**	**+1.0**
PINNC	**Pines Island,**	**13.10**	**156**	Pn	**Pn**	**14 18 39.7**	**+0.2**
PMG	**Port Moresby**	**14.43**	**274**	P	**Pn**	**14 18 55.2**	**-1.8**
	7.5nm,0.9s,baz=103,slow=7.8,SNR=3.5						
PMG				LR	LR	14 24 08.8	
	comp=Z,165nm,21.5s,baz=103,slow=36						
PMG	**Port Moresby**	**14.43**	**274**		**Pn**	**14 18 55.8**	**-1.2**
MANU	**Manus Island**	**16.64**	**300**		**Pn**	**14 19 25.1**	**0.0**
MSVF	**Nonsavu**	**17.29**	**116**	LR	LR	14 24 32.4	
	comp=Z,205nm,20.8s,baz=53,slow=30						
CTA	**Charters Tower**	**17.65**	**236**	P	**P**	**14 19 35.4**	**-2.1**
	12nm,0.8s,baz=61,slow=11,SNR=15						
CTA				LR	LR	14 25 14.5	
	comp=Z,74nm,21.1s,baz=48,slow=33						
CTA	**Charters Tower**	**17.65**	**236**	P	**Pn**	**14 19 39.4**	**+2.0**
CTAO	**Charters Tower**	**17.65**	**236**	P	**Pn**	**14 19 39.5**	**+2.0**
PATS	**Pohnpei**	**17.68**	**349**	P	**P**	**14 19 39.2**	**+1.4**
PATS	**Pohnpei**	**17.68**	**349**	P	**P**	**14 19 39.4**	**+1.6**
EIDS	**Eidsvold**	**17.82**	**213**		**P**	**14 19 38.6**	**-0.7**
MTSU	**Mount Surprise**	**18.46**	**244**	P	**Pn**	**14 19 48.4**	**+1.1**
FUTU	**Fugatoga**	**19.98**	**103**	P	**Pn**	**14 20 04.8**	**-0.5**
ARMA	**Armidale**	**21.84**	**204**	P	**P**	**14 20 23.6**	**+0.7**
ARMA	**Armidale**	**21.84**	**204**	P	**P**	**14 20 22.4**	**-0.5**
AFI	**Afiamalu**	**26.06**	**100**	LR	LR	14 29 35.7	
	comp=Z,62nm,19.3s,baz=350,slow=32						
INKA	**Innaminka**	**26.08**	**226**	P	**P**	**14 21 02.6**	**-0.5**
WR8	**Warramunga Arr**	**27.85**	**247**	P	**P**	**14 21 18.3**	**-0.9**
WB0	**Warramunga Arr**	**27.89**	**248**		**P**	**14 21 18.6**	**-1.0**
WB0				IAmb	IAmb	14 21 19.6	
	comp=Z,8.9nm,0.5s						
WRAB	**Tennant Creek**	**27.98**	**247**	P	**P**	**14 21 21.1**	**+0.8**
WRA	**Warramunga Arr**	**27.99**	**247**	P	**P**	**14 21 17.2**	**-3.2**
	comp=Z,4.2nm,0.5s,baz=76,slow=9.0,SNR=31 comp=Z,4.2nm,0.5s						
WRA	**Warramunga Arr**	**27.99**	**247**	P	**P**	**14 21 19.4**	**-1.1**
STKA	**Stephens Creek**	**28.19**	**218**	P	**P**	**14 21 21.0**	**-1.0**
	comp=Z,1.8nm,0.7s,baz=41,slow=13,SNR=3.6						
STKA				LR	LR	14 31 35.6	
	comp=Z,65nm,18.9s,baz=26,slow=34 comp=Z,1.8nm,0.7s						
STKA	**Stephens Creek**	**28.19**	**218**	P	**P**	**14 21 20.8**	**-1.3**
GUMO	**Guam**	**29.32**	**325**	LR	LR	14 32 53.2	
	comp=Z,44nm,21.4s,baz=134,slow=35						
GUMO	**Guam**	**29.32**	**325**	P	**P**	**14 21 31.8**	**-0.3**
H11S2	**WAKE ISLAND Hy**	**29.34**	**10**	T	T	14 52 35.5	
	baz=189,slow=76,SNR=34						
H11S3	**WAKE ISLAND Hy**	**29.34**	**10**	T	T	14 52 28.8	
	baz=189,slow=76,SNR=32						
H11S1	**WAKE ISLAND Hy**	**29.36**	**10**	T	T	14 52 27.6	
	baz=189,slow=76,SNR=6.2						
AS01	**Alice Springs**	**29.50**	**240**	P	**P**	**14 21 34.6**	**+0.8**
AS31	**Alice Springs**	**29.54**	**240**	P	**P**	**14 21 33.1**	**-1.0**
ASAR	**Alice Springs**	**29.54**	**240**	P	**P**	**14 21 32.6**	**-1.6**
	comp=Z,1.2nm,0.5s,baz=64,slow=10,SNR=33						
ASAR				LR	LR	14 32 49.0	
	comp=Z,86nm,19.4s,baz=76,slow=35 comp=Z,1.2nm,0.5s						
ASAR	**Alice Springs**	**29.54**	**240**	P	**P**	**14 21 33.0**	**-1.1**
MTN	**Manton Dam**	**30.06**	**263**	P	**P**	**14 21 38.1**	**-0.8**
DPSS	**Saipan**	**30.18**	**328**	P	**P**	**14 21 40.2**	**+0.4**
H11N1	**WAKE ISLAND Hy**	**30.57**	**10**	T	T	14 54 01.7	
	baz=188,slow=76,SNR=4.5						
H11N3	**WAKE ISLAND Hy**	**30.59**	**10**	T	T	14 54 02.3	
	baz=188,slow=76,SNR=4.7						
H11N2	**WAKE ISLAND Hy**	**30.59**	**10**	T	T	14 54 01.0	
	baz=188,slow=76,SNR=4.3						
URZ	**Urewera**	**30.77**	**156**	LR	LR	14 33 43.8	
	comp=Z,37nm,18.5s,baz=309,slow=35						
URZ	**Urewera**	**30.77**	**156**	P	**P**	**14 21 46.0**	**+1.3**
RTZ	**Ruatahuna**	**31.02**	**156**	P	**P**	**14 21 47.0**	**-0.1**
BKZ	**Black Stump Fm**	**31.31**	**158**	P	**P**	**14 21 50.1**	**+0.5**
SIJI	**Sorong**	**31.82**	**286**	LR	LR	14 37 15.9	
	comp=Z,31nm,18.4s,baz=100,slow=41						
MRZ	**Mangatainoka R**	**32.31**	**160**	P	**P**	**14 21 58.9**	**+0.5**
MRZ				IAmb	IAmb	14 22 00.7	
	comp=Z,23nm,1.2s						
BBOO	**Buckleboo**	**32.35**	**223**	P	**P**	**14 22 00.0**	**+1.2**
BBOO	**Buckleboo**	**32.35**	**223**	P	**P**	**14 21 58.4**	**-0.5**
KNRA	**Kununurra**	**32.50**	**258**		**P**	**14 21 59.9**	**-0.3**
KNRA				IAmb	IAmb	14 22 00.6	
	comp=Z,7.7nm,0.9s						
KHZ	**Kahutara**	**33.30**	**164**	P	**P**	**14 22 07.7**	**+0.8**
OXZ	**Oxford**	**33.78**	**166**	P	**P**	**14 22 11.7**	**+0.6**
OXZ				IAmb	IAmb	14 22 12.8	
	comp=Z,10nm,0.7s						
RPZ	**Rata Peaks**	**33.94**	**168**	LR	LR	14 35 19.5	
	comp=Z,15nm,18.5s,baz=257,slow=35						
ODZ	**Otahua Downs**	**35.14**	**169**	P	**P**	**14 22 24.7**	**+1.9**
FITZ	**Fitzroy Crossi**	**35.72**	**254**	LR	LR	14 35 21.0	
	comp=Z,80nm,21.2s,baz=61,slow=33						
FITZ	**Fitzroy Crossi**	**35.72**	**254**	P	**P**	**14 22 27.4**	**-0.8**
FORT	**Forrest**	**37.14**	**232**	P	**P**	**14 22 38.8**	**-1.3**
BATI	**Baumata**	**37.46**	**267**	LR	LR	14 38 07.7	
	comp=Z,42nm,19.0s,baz=154,slow=36						
RAR	**Rarotonga**	**38.36**	**111**	LR	LR	14 37 00.3	
	comp=Z,31nm,19.2s,baz=290,slow=33						
DAV	**Davao City (W)**	**40.08**	**294**	LR	LR	14 39 16.9	
	comp=Z,29nm,18.5s,baz=99,slow=36						
MBWA	**Marble Bar**	**41.64**	**250**	P	**P**	**14 23 17.2**	**-0.5**

comp=Z,11nm,1.3s
O02D **Mt. Diablo Mer** **85.90** **48** P **P** **14 28 10.1 +1.6**
O02D IAmb IAmb 14 28 10.9
comp=Z,5.1nm,1.0s
I27K **Kandik River** **86.67** **20** P **P** **14 28 13.0 +1.4**
I27K IAmb IAmb 14 28 19.6
comp=Z,5.0nm,1.2s
M30M **Minto, Yukon** **86.84** **24** P **P** **14 28 13.4 +1.0**
M30M IAmb IAmb 14 28 29.2
comp=Z,8.2nm,1.4s
MDPB **Devils Postpil** **87.97** **51** P **P** **14 28 19.0 +0.2**
MDPB IAmb IAmb 14 28 20.6
comp=Z,4.2nm,1.1s
I30M **Mount Dempster** **88.32** **22** P **P** **14 28 20.4 +0.8**
CWC **Cottonwood Cre** **88.44** **53** P **P** **14 28 21.5 +0.6**
CWC IAmb IAmb 14 28 23.1
comp=Z,5.3nm,1.3s
CLC **China Lake** **88.67** **53** P **P** **14 28 23.1 +1.3**
CLC IAmb IAmb 14 28 24.6
comp=Z,4.2nm,1.0s
NVAR **Mina Array Bea** **88.77** **51** P **P** **14 28 23.2 +0.7**
comp=Z,0.9nm,0.7s,baz=235,slow=6.9,SNR=9.3
comp=Z,0.9nm,0.7s
CCCA **Chr Cany lake** **88.78** **54** IAmb IAmb 14 28 25.4
comp=Z,7.8nm,1.1s
MPMC **Manual Prospec** **88.81** **53** **P** **14 28 24.1 +1.4**
MPMC IAmb IAmb 14 28 24.8
comp=Z,3.2nm,1.1s
KVN **Kaiserville** **89.07** **50** **P** **14 28 24.1 +0.3**
KVN IAmb IAmb 14 28 26.7
comp=Z,3.8nm,1.1s
YUH **Yuha Desert** **89.28** **57** IAmb IAmb 14 28 27.6
comp=Z,8.2nm,1.2s
MZP **Montezuma Peak** **89.29** **52** IAmb IAmb 14 28 26.8
comp=Z,4.0nm,1.1s
FURC **Furnace Creek,** **89.40** **53** IAmb IAmb 14 28 27.9
comp=Z,7.5nm,0.9s
BELC **Belle Mtn. Jos** **89.52** **55** **P** **14 28 27.0 +1.0**
BELC IAmb IAmb 14 28 28.7
comp=Z,8.2nm,1.2s
WVOR **Wild Horse Val** **89.53** **47** IAmb IAmb 14 28 28.9
comp=Z,6.8nm,1.2s
J08A **Circle Bar Ran** **89.88** **46** IAmb IAmb 14 28 30.2
comp=Z,7.0nm,1.2s
TPNV **Topopah Spring** **89.99** **52** **P** **14 28 29.4 +1.2**
TPNV IAmb IAmb 14 28 30.3
comp=Z,4.3nm,0.9s
BMN **Battle Mountai** **90.07** **49** IAmb IAmb 14 28 30.7
comp=Z,5.2nm,1.1s
MKAR **Makanchi Array** **90.56** **318** P **P** **14 28 28.0 -2.3**
comp=Z,0.5nm,0.6s,baz=88,slow=6.9,SNR=5.4
comp=Z,0.5nm,0.6s
MKAR **Makanchi Array** **90.56** **318** P **P** **14 28 29.7 -0.7**
SHPR **Sheep Range** **90.75** **53** **P** **14 28 33.2 +1.5**
SHPR IAmb IAmb 14 28 34.0
comp=Z,3.5nm,0.9s
PRN **Pahroc Range** **91.03** **52** **P** **14 28 33.8 +0.9**
BELA **Belgrano 2** **91.17** **177** P **P** **14 28 32.0 -0.7**
BELA IAmb IAmb 14 28 32.5
comp=Z,2.0nm,0.7s
PDAR **Pinedale Array** **96.16** **48** P **P** **14 28 56.7 +0.2**
comp=Z,0.1nm,0.4s,baz=261,slow=6.6,SNR=2.2
comp=Z,0.1nm,0.4s
YKA **Yellowknife Ar** **96.41** **28** P **P** **14 28 56.3 -0.6**
comp=Z,0.6nm,0.7s,baz=259,slow=4.6,SNR=1.9
comp=Z,0.6nm,0.7s
YKA **Yellowknife Ar** **96.41** **28** P **P** **14 28 57.0 +0.2**

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*SJA **11** 14:21:38.5±0.6, 19°.20S×69°.50W, h107km±3km, ML3.5, MW3.5*
*GUC **11** 14:21:40.1±0.8, 19°.19S×69°.43W, h102km±3km, ML3.5, Presumed earthquake*
ISC 11 14:21:38.8±1.6,**19°.22S**±0°.04×**69°.51W**±0°.06,**h111**km±9km,
n30,σ1°**49**/44,**4C-2D**,**Northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
GO01	**Chusmiza**	**0.54**	**146**	*e*P		**Pn**	**14 21 56.6**	**-0.2**
GO01				IAML			14 22 11.8	
	comp=Z,2μm,0.5s							
GO01	**Chusmiza**	**0.54**	**146**	*i* P		**Pn**	**14 21 56.5**	**-0.2**
GO01				*e*S		**Sn**	**14 22 09.3**	**-0.7**
GO01				IAML			14 22 10.6	
	comp=N,5μm,0.1s							
PB11	**IPOC Station P**	**0.56**	**194**	*e*P		**Pn**	**14 21 56.5**	**+0.1**
PB11				*e*S		**Sn**	**14 22 09.7**	**0.0**
PB11				IAML			14 22 10.0	
	comp=Z,2μm,0.3s							
PB11	**IPOC Station P**	**0.56**	**194**	⇑*i* P		**Pn**	**14 21 56.6**	**+0.1**
PB11				*e*S		**Sn**	**14 22 09.4**	**-0.2**
PB11				IAML			14 22 10.3	
	comp=E,5μm,0.4s							
PSGCX	**Pisagua**	**0.69**	**237**	*e*P		**Pn**	**14 21 57.5**	**+0.1**
PSGCX				*e*S		**Sn**	**14 22 11.7**	**+0.4**
PSGCX				IAML			14 22 15.6	
	comp=Z,588nm,0.2s							
PSGCX	**Pisagua**	**0.69**	**237**	⇑*i* P		**Pn**	**14 21 57.6**	**+0.2**
PSGCX				*e*S		**Sn**	**14 22 11.4**	**+0.1**
PX02	**IPOC Station P**	**0.70**	**291**	*e*P		**Pn**	**14 21 56.7**	**-0.7**
PX02				IAML			14 22 14.4	
	comp=N,808nm,0.4s							
PB16	**IPOC Station P**	**0.88**	**0**	*e*P		**Pn**	**14 21 59.3**	**-0.3**
PB16				IAML			14 22 15.9	
	comp=Z,819nm,0.7s							
PB16	**IPOC Station P**	**0.88**	**0**	⇓*i* P		**Pn**	**14 21 59.3**	**-0.3**
PB16				*e*S		**Sn**	**14 22 13.6**	**-1.6**
PB16				IAML			14 22 15.2	
	comp=E,1μm,0.4s							
PB08	**IPOC Station P**	**0.98**	**160**	*e*P		**Pn**	**14 22 00.7**	**+0.3**
PB08				*e*S		**Sn**	**14 22 16.9**	**+0.3**
PB08				IAML			14 22 18.0	
	comp=Z,832nm,0.3s							
PB08	**IPOC Station P**	**0.98**	**160**	⇑*i* P		**Pn**	**14 22 00.7**	**+0.3**
PB08				*e*S		**Sn**	**14 22 16.8**	**+0.3**
PB08				IAML			14 22 18.1	
	comp=E,2μm,0.2s							
PB12	**IPOC Station P**	**0.98**	**308**	*e*P		**Pn**	**14 22 00.1**	**+0.1**
PB12				*e*S		**Sn**	**14 22 15.8**	**-0.2**
PB12				IAML			14 22 17.4	
	comp=Z,568nm,0.3s							
PB12	**IPOC Station P**	**0.98**	**308**	⇓*i* P		**Pn**	**14 22 00.0**	**0.0**
PB12				*e*S		**Sn**	**14 22 15.7**	**-0.3**
PB12				IAML			14 22 16.3	
	comp=N,2μm,0.3s							
AP01	**Chacalluta**	**1.15**	**317**	*e*P		Pn	14 21 56.5	-5.2
AP01				*e*P			14 22 02.1	
AP01				*e*S		Sn	14 22 02.1	-17
AP01				IAML			14 22 26.0	
	comp=Z,720nm,0.3s							
TA02	**Huaiquique**	**1.20**	**209**	*e*P		**Pn**	**14 22 03.2**	**+0.9**
TA02				*e*S		**Sn**	**14 22 24.0**	**+4.0**
TA02				IAML			14 22 27.2	
	comp=Z,959nm,0.1s							
TA02	**Huaiquique**	**1.20**	**209**	*e*P		**Pn**	**14 22 03.0**	**+0.7**
TA02				*e*S		**Sn**	**14 22 20.9**	**+0.9**
TA01	**Diego Aracena**	**1.48**	**205**	*e*P		**Pn**	**14 22 06.2**	**+0.7**
TA01	**Diego Aracena**	**1.48**	**205**	*e*P		**Pn**	**14 22 05.9**	**+0.4**
TA01				*e*S		**Sn**	**14 22 26.2**	**+0.4**
TA01				IAML			14 22 32.0	
	comp=N,386nm,0.5s							
PB18	**Visviri**	**1.62**	**1**	*e*P		**Pn**	**14 22 09.2**	**+1.5**
PB02	**IPOC Station P**	**2.12**	**190**	*e*P		**Pn**	**14 22 14.5**	**+0.9**
PB02				*e*S		**Sn**	**14 22 37.0**	**-3.1**
PB02				IAML			14 22 48.4	
	comp=Z,349nm,0.5s							
PB02	**IPOC Station P**	**2.12**	**190**	⇑*e*P		**Pn**	**14 22 14.5**	**+0.9**
PB02				IAML			14 22 50.2	
	comp=E,556nm,0.2s							
PB07	**IPOC Station P**	**2.52**	**188**	*e*P		**Pn**	**14 22 19.6**	**+0.9**
PB07				*e*S		Sn	14 22 59.3	+10
PB07				IAML			14 23 02.4	
	comp=Z,144nm,0.7s							
PB09	**IPOC Station P**	**2.58**	**174**	*e*P		**Pn**	**14 22 20.6**	**+1.2**
PB09				IAML			14 22 57.3	
	comp=Z,122nm,1.0s							
PB09	**IPOC Station P**	**2.58**	**174**	*e*P		**Pn**	**14 22 20.7**	**+1.2**
PB09				IAML			14 22 49.3	
	comp=E,143nm,0.5s							
LPAZ	**La Paz**	**3.20**	**25**	*e*P		**Pn**	**14 22 29.3**	**+1.2**
PB06	**IPOC Station P**	**3.47**	**181**	*e*P		**Pn**	**14 22 32.5**	**+1.2**
PB06				*e*S		Sn	14 23 01.4	-10
PB06				IAML			14 23 16.1	
	comp=Z,48nm,0.3s							
PB06	**IPOC Station P**	**3.47**	**181**	*i* P		**Pn**	**14 22 32.6**	**+1.2**
PB06				IAML			14 23 26.2	
	comp=N,76nm,0.4s							
PB05	**IPOC Station P**	**3.67**	**190**	*e*P		**Pn**	**14 22 34.7**	**+0.7**
PB05				IAML			14 23 37.0	
	comp=Z,40nm,0.6s							
PB05	**IPOC Station P**	**3.67**	**190**	*i* P		**Pn**	**14 22 34.5**	**+0.5**
PB05				IAML			14 23 38.6	
	comp=N,58nm,0.5s							
PB10	**IPOC Station P**	**4.38**	**193**	*e*P		**Pn**	**14 22 44.0**	**+0.7**
PB10				*e*S		**Sn**	**14 23 27.0**	**-6.5**
PB10				IAML			14 23 27.1	
	comp=Z,50nm,0.4s							

PRU 11 14:24:53.7, 50°.28N×18°.95E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
OJC	**Ojcow**	**0.55**	**96**	*e*Pg		Pg	14 25 03.6	-0.6
OJC				*e*Sg		Sg	14 25 10.8	-0.5
STEB	**Steborice**	**0.83**	**246**	*e*PG		Pg	14 25 09.5	-0.1
MORC	**Moravsky Berou**	**1.04**	**242**	*e*PG		Pg	14 25 13.0	-0.6
MORC				*e*SG		Sg	14 25 26.4	-0.6
LANS	**Liptovska Anna**	**1.18**	**163**	*e*PG		Pg	14 25 15.8	-0.5
LANS				*e*SG		Sg	14 25 30.2	-1.3
DPC	**Dobruska-Polom**	**1.69**	**273**	*e*PG		Pn	14 25 24.0	-0.5
DPC				*e*SG		Sn	14 25 46.8	0.0
	comp=Z,5.3nm,0.6s							
DPC				AML		AML		
VYHS	**Vyhne**	**1.79**	**182**	*e*PN		Pn	14 25 24.1	-1.7
VYHS				*e*SN		Sn	14 25 47.8	-1.5

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*SOF **11** 14:25:08.4, 41°.56N±0°.04×20°.22E±0°.05, h10km±6km, MD5.1/4*
*BEO **11** 14:25:09.1±0.5, 41°.34N×20°.86E, h0km, ML4.8/9*
*TIR **11** 14:25:11.3, 41°.72N×20°.79E, h6km±2km, ML4.9, ML4.9, Presumed earthquake*
*ROM **11** 14:25:11.4±0.2, 41°.688N±0°.009×20°.88E±0°.02, h10km, ML4.9/202, Error ellipse: s-maj=2.1km s-min=0.6km az=244.0*
*MOS **11** 14:25:11.9±0.9, 41°.62N×20°.64E, h12km, mb4.9/29, MS4.5/14, Error ellipse: s-maj=4.6km s-min=3.1km az=80.9*
*SKO **11** 14:25:13.0, 41°.59N×20°.87E, h12km, ML4.9*
*PDG **11** 14:25:12.0±0.6, 41°.66N×20°.73E, h1km±1km, MD5.0/13, ML4.9/12, Error ellipse: s-maj=0.4km s-min=0.8km az=0.0*
*MED_RC **11** 14:25:13.0, 41°.68N×20°.74E, h14km, Mw5.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-2.46±.14; $M_{\theta\theta}$1.14±.09; $M_{\phi\phi}$0.00±.08; $M_{r\theta}$0.26±.15; $M_{\theta\phi}$1.80±.06; $M_{\phi r}$-1.75±.14; Fault plane solution: M_o3.30000×10^{16} NP1:ϕ$_s$248.00000°, δ40.00000°, λ-49.00000°. NP2:ϕ$_s$19.00000°, δ61.00000°, λ-119.00000°. Principal axes: T 3.2700, Plg12.0000°, Azm129.0000°; N 0.0900, Plg25.0000°, Azm34.0000°; P -3.3400, Plg62.0000°, Azm242.0000°;*
*GII **11** 14:25:13.3±0.0, 41°.69N×20°.65E, h0km, confirmed*
*PRU **11** 14:25:13.5, 41°.46N×20°.95E, h10km, M4.9*
*IDC **11** 14:25:13.8±1.4, 41°.62N×20°.70E, h15km±8km, mb4.4/28, mbtmp4.5/45, ML4.0/13, MS4.1/74, Error ellipse: s-maj=7.4km s-min=7.0km az=177.0*
*MCSM **11** 14:25:13.9±0.5, 42°.N±3°×2°1E±°, h11km±4km, mb4.9, mB5.1, MLv5.2, Mw(mB)4.4*
*NAO **11** 14:25:14.1, 41°.68N×20°.74E, h10km, MB4.4*
*GCMT **11** 14:25:14.1±0.2, 41°.55N±0°.02×20°.67E±0°.02, h13km, MW5.0/109, Moment Tensor Solution. s45,c56; s109,c177; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.55±.11; $M_{\theta\theta}$1.18±.08; $M_{\phi\phi}$1.38±.08; $M_{r\theta}$-0.69±.22; $M_{\theta\phi}$1.83±.06; $M_{\phi r}$-1.72±.23; Best double couple: M_o3.39900×10^{16} NP1:ϕ$_s$239.00000°, δ31.00000°, λ-65.00000°. NP2:ϕ$_s$30.00000°, δ62.00000°, λ-105.00000°. Principal axes: T 3.6030, Plg16.0000°, Azm131.0000°; N -0.3960, Plg13.0000°, Azm37.0000°; P -3.1960, Plg69.0000°, Azm270.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **11** 14:25:14.1±1.1, 41°.67N±0°.03×20°.66E±0°.06, h10km±1km, mb4.9/138 Error ellipse: s-maj=8.7km s-min=4.2km az=117.0*
*THE **11** 14:25:15.2, 42°.N±3°×2°1E±°, h0km±16km, M4.6/39, MLh4.6/39*
*GFZ **11** 14:25:15.4±0.1, 42°.N±1°×2°1E±°, h10km, M4.7/98, mb5.0/98*
*GFZ **11** 14:25:15.3, 41°.61N×20°.68E, h10km, Mw4.8/113, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-2.04; $M_{\theta\theta}$0.99; $M_{\phi\phi}$1.06; $M_{r\theta}$0.40; $M_{\theta\phi}$1.08; $M_{\phi r}$0.18; Fault plane solution: M_o2.11701×10^{16} NP1: ϕ$_s$228.53588°, δ50.70589°, λ-84.28097°. NP2:ϕ$_s$39.54968°, δ39.64133°, λ-96.94297°. Principal axes: T 2.1407, Plg5.5491°, Azm314.4762°; N -0.0482, Plg4.4230°, Azm44.9068°; P -2.0925, Plg82.8952°, Azm173.2652°;*
ISC 11 14:25:13.7±0.5,**41°.66N**±0°.02×**20°.75E**±0°.02,**h11**km±2km,
n1002,σ1°**53**/1072,**mb4.8**/125,**MS4.2**/66,**45C-57D**,
Albania

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PHP	**Peshkopia**	**0.23**	**276**	Pg		**Pg**	**14 25 16.5**	**-2.2**
PHP				Sg		**Sg**	**14 25 20.0**	**-1.9**
PHP				IAML			14 25 20.6	
	1088μm,0.8s							
OHR	**Ohrid**	**0.55**	**176**	⇑*i*Pg		**Pg**	**14 25 22.6**	**-1.9**
OHR				*i* Sg		**Sg**	**14 25 31.9**	**+0.2**
OHR				*e*Lg		Lg	14 25 32.3	
	comp=E,112μm,0.7s							
OHR				*e*Lg		Lg	14 25 33.6	
	comp=N,80μm,0.9s							
SKO	**Skopje**	**0.60**	**59**	*i* Pg		**Pg**	**14 25 24.1**	**-1.4**
SKO				*i* Sg		**Sb**	**14 25 34.2**	**-0.6**
TIR	**Tirane**	**0.73**	**245**	Pg		**Pg**	**14 25 26.2**	**-1.7**
TIR				Sg		**Sb**	**14 25 38.1**	**-0.4**
TIR				IAML			14 25 40.7	
	comp=N,32μm,1.0s							
SDA	**Shkodra**	**1.01**	**293**	Pg		**Pb**	**14 25 31.3**	**-1.9**
SDA				S		**Sg**	**14 25 46.0**	**-0.4**
SDA				IAML			14 25 50.5	
	comp=N,48μm,0.4s							
KBN	**Korca**	**1.03**	**178**	⇑P		**Pg**	**14 25 30.8**	**-2.9**
KBN				S		**Sg**	**14 25 45.8**	**-1.3**
KBN	**Korca**	**1.03**	**178**	Pg		**Pn**	**14 25 34.3**	**+0.1**
KBN				Sg		**Sn**	**14 25 49.5**	**+0.8**
PVY	**Plav**	**1.10**	**328**	*e*Pg		**Pb**	**14 25 32.1**	**-2.8**
PVY				*i* Sg		**Sb**	**14 25 49.6**	**+0.2**
BERA	**Berati**	**1.13**	**213**	Pg		**Pb**	**14 25 34.5**	**-0.7**
BERA				Sg		**Sn**	**14 25 51.8**	**+0.8**
BERA				IAML			14 25 56.2	
	comp=N,25μm,0.8s							
ULC	**Ulcinj**	**1.17**	**286**	*e*Pg		**Pb**	**14 25 33.1**	**-2.8**
ULC				*i* Sg		**Sb**	**14 25 50.8**	**-0.2**
NEST	**Nestorio**	**1.26**	**170**	P		**Pn**	**14 25 36.0**	**-1.4**
NEST				S		**Sn**	**14 25 54.8**	**+0.5**
NEST				AML		AML		
DRME	**Dracevica, Mon**	**1.28**	**295**	*e*Pg		**Pn**	**14 25 34.9**	**-2.6**
DRME				*i* Sg		**Sg**	**14 25 55.6**	**+0.6**
PDG	**Podgorica**	**1.35**	**305**			**Pn**	**14 25 36.7**	**-1.8**
PDG	**Podgorica**	**1.35**	**305**	*e*Pg		**Pn**	**14 25 37.5**	**-1.0**
PDG				*e*Sg		**Sg**	**14 26 01.8**	**+4.5**
PDG	**Podgorica**	**1.35**	**305**	⇑P		**Pn**	**14 25 36.1**	**-2.4**
PDG				S		**Sb**	**14 25 56.3**	**0.0**
PDG				AML		AML		
	comp=E,42550μm,0.6s							
PDG				AML		AML		
	comp=E,42850μm,0.6s							
PDG				AML		AML		
	comp=N,59400μm,0.6s							
PDG				AML		AML		
	comp=N,59300μm,0.6s							
PDG				AML		AML		
	comp=N,59400μm,0.6s							
PDG				AML		AML		
	comp=E,42850μm,1.4s							
PDG				AML		AML		
	comp=E,42550μm,1.4s							
PDG	**Podgorica**	**1.35**	**305**	⇓P		**Pn**	**14 25 37.4**	**-1.0**
PDG				⇑S		**Sb**	**14 25 56.3**	**0.0**
PDG	**Podgorica**	**1.35**	**305**	P		**Pn**	**14 25 36.7**	**-1.8**
PDG	**Podgorica**	**1.35**	**305**	*e*P		**Pn**	**14 25 36.5**	**-2.0**
PDG				*i* Sg		**Sg**	**14 25 58.2**	**+0.9**
IVA	**Berane**	**1.37**	**333**	*e*Pg		**Pn**	**14 25 37.0**	**-1.8**
IVA				*i* Sg		**Sg**	**14 25 58.1**	**+0.3**
BARS	**Barje**	**1.40**	**34**	*e*Pg		**Pn**	**14 25 39.6**	**+0.4**
BARS				*e*Sg		**Sg**	**14 26 00.5**	**+1.6**
VAY	**Valandovo**	**1.41**	**103**	⇑*i*Pg		**Pn**	**14 25 38.2**	**-1.1**
VAY				*i* Sg		**Sg**	**14 26 00.1**	**+1.0**
VAY				*e*Lg		Lg	14 26 00.7	
	comp=N,12μm,0.6s							
VAY				*e*Lg		Lg	14 26 02.0	
	comp=E,8μm,0.6s							
GRG	**Griva**	**1.43**	**119**	P		**Pn**	**14 25 38.2**	**-1.4**
GRG				S		**Sn**	**14 25 56.5**	**-1.9**
GRG				AML		AML		
GRG	**Griva**	**1.43**	**119**	P		**Pn**	**14 25 38.7**	**-0.9**
	comp=Z,29μm,1.0s							
PENT	**Pentalofos**	**1.49**	**168**	P		**Pn**	**14 25 40.2**	**-0.3**
PENT				S		**Sg**	**14 26 01.7**	**0.0**
KOME	**Kolasin**	**1.50**	**323**	⇓*i*Pg		**Pn**	**14 25 39.2**	**-1.5**
KOME				*i* Sg		**Sg**	**14 26 02.5**	**+0.4**
LSK	**Leskovik**	**1.51**	**184**	⇑P		**Pn**	**14 25 39.7**	**-1.1**
LSK				S		**Sn**	**14 26 00.2**	**-0.2**
LSK	**Leskovik**	**1.51**	**184**	Pn		**Pb**	**14 25 41.5**	**-0.3**
LSK				S		**Sg**	**14 26 03.5**	**+1.1**
VLO	**Vlora**	**1.52**	**219**	P		**Pg**	**14 25 43.2**	**+0.3**
VLO				S		**Sg**	**14 26 05.6**	**+2.9**
VLO				AML		AML		
VLO	**Vlora**	**1.52**	**219**	⇓P		**Pb**	**14 25 41.7**	**-0.2**
VLO				S		**Sg**	**14 26 03.7**	**+1.0**
VLO	**Vlora**	**1.52**	**219**	Pg		**Pg**	**14 25 43.8**	**+0.8**
VLO				S		**Sg**	**14 26 03.7**	**+1.0**
VLO				IAML			14 26 10.3	
	comp=Z,52μm,0.5s							
VLO	**Vlora**	**1.52**	**219**	P		**Pg**	**14 25 42.5**	**-0.4**
	comp=E,11μm,0.6s							
BUM	**Brajici-Budva**	**1.52**	**295**	*e*Pg		**Pn**	**14 25 39.6**	**-1.4**
BUM				*i* Sg		**Sg**	**14 26 03.0**	**+0.2**
BOSS	**Bosilegrad**	**1.54**	**56**	*e*Pg		**Pn**	**14 25 41.1**	**0.0**
BOSS				*e*Sg		**Sg**	**14 26 02.7**	**-0.5**
KZN	**Kozani**	**1.56**	**150**	P		**Pn**	**14 25 41.0**	**-0.4**
KZN				S		**Sn**	**14 26 01.5**	**-0.1**
KZN				AML		AML		
SELS	**Selova**	**1.58**	**10**	*e*Pg		**Pn**	**14 25 42.2**	**+0.5**
PEHC	**Pehcevo**	**1.61**	**85**	⇑*i*Pg		**Pn**	**14 25 41.8**	**-0.5**
CEME	**Cevo**	**1.63**	**304**	*e*Pn		**Pn**	**14 25 41.5**	**-0.8**
CEME				*i* Sn		**Sg**	**14 26 06.5**	**+0.4**
KNT	**Kendrikon**	**1.69**	**106**	P		**Pn**	**14 25 42.5**	**-0.7**
KNT				AML		AML		
KNT	**Kendrikon**	**1.69**	**106**	P		**Pn**	**14 25 42.9**	**-0.2**
	comp=Z,3μm,1.0s							
SJES	**Sjenica**	**1.70**	**341**	*e*Pg		**Pb**	**14 25 44.9**	**-0.2**
SJES				*e*Sg		**Sg**	**14 26 11.1**	**+2.6**
NKME	**Niksic**	**1.73**	**310**	*e*Pn		**Pn**	**14 25 43.4**	**-0.4**
NKME				*i* Sn		**Sg**	**14 26 09.8**	**+0.3**
KPRO	**Kipourio**	**1.77**	**164**	P		**Pb**	**14 25 45.1**	**-1.0**
KPRO				AML		AML		
KKB	**Krupnik**	**1.79**	**83**	P		**Pn**	**14 25 44.0**	**-0.6**
KKB				S		**Sn**	**14 26 07.4**	**+0.2**
KKB				AML		AML		
KKB	**Krupnik**	**1.79**	**83**	P		**Pb**	**14 25 46.4**	**-0.1**
KKB				S		Sg	14 26 20.9	+10
TRAN	**Tran**	**1.84**	**50**	P		**Pb**	**14 25 46.5**	**-0.8**
TRAN				S		**Sg**	**14 26 14.9**	**+2.1**
HCY	**Herceg Novi**	**1.86**	**296**	*e*Pn		**Pn**	**14 25 45.5**	**+0.1**
HCY				*i* Sn		**Sb**	**14 26 12.2**	**+1.4**
SRN	**Sarande**	**1.87**	**198**	P		**Pb**	**14 25 47.1**	**-0.6**
SRN				AML		AML		
SRN	**Sarande**	**1.87**	**198**	P		**Pb**	**14 25 47.5**	**-0.3**
SRN				Sg		**Sg**	**14 26 15.7**	**+1.9**
GOCS	**Kraljevo Serbi**	**1.91**	**3**	*e*Pn		**Pn**	**14 25 46.2**	**0.0**
PLE	**Pljevlja**	**1.95**	**329**	*e*Pn		**Pn**	**14 25 46.9**	**+0.1**
PLE				*i* Sn		**Sb**	**14 26 14.5**	**+0.8**
THE	**Thessaloniki**	**1.96**	**121**	P		**Pn**	**14 25 46.3**	**-0.6**
THE				AML		AML		
THE	**Thessaloniki**	**1.96**	**121**	P		**Pn**	**14 25 46.6**	**-0.3**
	comp=Z,2μm,0.9s							
IVAS	**Ivanjica**	**1.97**	**347**	*e*Pn		**Pn**	**14 25 46.9**	**-0.1**
IVAS				*e*Sn		**Sg**	**14 26 17.3**	**+0.3**
JAN	**Janina**	**2.00**	**178**	P		**Pb**	**14 25 48.9**	**-1.3**
JAN				AML		AML		
BRY	**Bratogost**	**2.06**	**308**	*e*Pn		**Pn**	**14 25 48.5**	**+0.2**
BRY				*i* Sn		**Sb**	**14 26 17.5**	**+0.7**
UPM	**Unac-Piva**	**2.06**	**319**	*e*Pn		**Pn**	**14 25 48.5**	**+0.1**
UPM				*i* Sn		**Sb**	**14 26 17.1**	**+0.2**
KEK	**Kerkira**	**2.07**	**201**	Pn		**Pn**	**14 25 47.6**	**-0.8**
KEK	**Kerkira**	**2.07**	**201**	⇓P		**Pn**	**14 25 46.8**	**-1.6**
KEK				S		**Sn**	**14 26 14.4**	**+0.2**
KEK				AML		AML		
	comp=E,10330μm,1.1s							
KEK				AML		AML		
	comp=N,9710μm,0.5s							
KEK				AML		AML		
	comp=E,10330μm,0.9s							
KEK	**Kerkira**	**2.07**	**201**	P		**Pn**	**14 25 47.8**	**-0.6**
	comp=Z,2μm,0.8s							
VTS	**Vitosha**	**2.08**	**62**	P		**Pn**	**14 25 49.3**	**+0.6**
VTS				AML		AML		
VTS	**Vitosha**	**2.08**	**62**	P		**Pn**	**14 25 49.6**	**+0.9**
VTS				S		**Sg**	**14 26 21.4**	**+0.7**
BOVS	**Bovan**	**2.10**	**19**	*e*Pn		**Pn**	**14 25 49.7**	**+0.9**
BOVS				*e*Sn		**Sg**	**14 26 20.8**	**-0.3**
BOVS	**Bovan**	**2.10**	**19**	⇓P		**Pn**	**14 25 50.0**	**+1.2**
ZAPS	**Zavoj**	**2.13**	**40**	*e*Pn		**Pn**	**14 25 50.0**	**+0.7**
SOH	**Sokhos**	**2.13**	**112**	P		**Pn**	**14 25 48.7**	**-0.7**
SOH				AML		AML		
SOH	**Sokhos**	**2.13**	**112**	P		**Pn**	**14 25 49.6**	**+0.3**
	comp=Z,2μm,0.7s							
PRMD	**Pramanda**	**2.14**	**173**	P		**Pb**	**14 25 51.0**	**-1.5**
PRMD				AML		AML		
PLNA	**Plana**	**2.15**	**67**	P		**Pn**	**14 25 51.0**	**+1.4**
PLNA				S		**Sg**	**14 26 24.3**	**+1.4**
DBRK	**Dubrovnik**	**2.18**	**298**	*i* Pn		**Pn**	**14 25 50.7**	**+0.8**
DBRK				Sn		**Sb**	**14 26 19.4**	**-0.8**
SOF	**Sofia**	**2.20**	**62**	P		**Pg**	**14 25 55.1**	**-0.8**
SRS	**Serrai**	**2.21**	**103**	P		**Pn**	**14 25 50.0**	**-0.3**
SRS				AML		AML		
SRS	**Serrai**	**2.21**	**103**	P		**Pn**	**14 25 50.3**	**0.0**
	comp=Z,3μm,0.7s							
GRUS	**Gruza**	**2.23**	**359**	*e*Pn		**Pn**

TSLK	**Tsoukalades, L**	**2.83**	**181**	P	**Pn**	**14 26 00.6**	**+1.8**
TSLK				AML	AML		
KUBS	**Kucevo**	**2.83**	**14**	*e*Pn	**Pn**	**14 25 57.3**	**-1.6**
VALD	**Valchedram**	**2.84**	**43**	P	**Pn**	**14 26 00.9**	**+2.0**
EVR	**Evrytania**	**2.86**	**163**	P	**Pn**	**14 25 60.0**	**+0.7**
EVR				AML	AML		
LKD2	**Lefkada island**	**2.87**	**181**	P	**Pn**	**14 26 00.8**	**+1.4**
LKD2				AML	AML		
LKD2	**Lefkada island**	**2.87**	**181**	P	**Pn**	**14 26 00.8**	**+1.4**
	comp=Z,1µm,0.6s						
AGG	**Agios Georgios**	**2.90**	**155**	P	**Pn**	**14 25 59.5**	**-0.3**
AGG				AML	AML		
AGG	**Agios Georgios**	**2.90**	**155**	P	**Pn**	**14 25 59.7**	**-0.1**
AGG	**Agios Georgios**	**2.90**	**155**	Pn	**Pn**	**14 25 59.7**	**-0.1**
AGG	**Agios Georgios**	**2.90**	**155**	P	**Pn**	**14 26 00.8**	**+1.0**
	comp=Z,1µm,0.6s						
KAVA	**Kavala**	**2.91**	**102**	P	**Pn**	**14 25 59.7**	**-0.2**
KAVA				AML	AML		
NYDR	**Nydri-Lefkada**	**2.94**	**181**	P	**Pn**	**14 26 01.6**	**+1.2**
NYDR				AML	AML		
XOR	**Xorichti**	**2.95**	**140**	P	**Pn**	**14 26 00.5**	**0.0**
XOR				AML	AML		
XOR	**Xorichti**	**2.95**	**140**	P	**Pn**	**14 26 01.1**	**+0.6**
	comp=Z,1µm,0.9s						
DRAG	**Dragano-Lefkad**	**2.98**	**183**	P	**Pn**	**14 26 01.8**	**+1.0**
DRAG				AML	AML		
RZN	**Rozhen**	**2.99**	**88**	P	**Pn**	**14 26 01.0**	**-0.1**
RZN				AML	AML		
RZN	**Rozhen**	**2.99**	**88**	P	**Pn**	**14 26 03.4**	**+2.2**
NEO	**Neokhori**	**3.01**	**140**	P	**Pn**	**14 26 01.1**	**-0.2**
NEO				AML	AML		
TEKS	**Tekeris**	**3.02**	**343**	*e*Pn	**Pn**	**14 26 01.5**	**0.0**
BAIL	**Bailesti**	**3.04**	**38**	⇑P	**Pn**	**14 26 02.9**	**+1.2**
EVGI	**Lefkada island**	**3.04**	**181**	P	**Pn**	**14 26 02.9**	**+1.2**
EVGI				AML	AML		
AVAS	**Avala Beograd**	**3.04**	**357**	*e*Pn	**Pn**	**14 26 02.0**	**+0.3**
LSTV	**Lastovo**	**3.07**	**292**	*e*Pn	**Pn**	**14 26 03.3**	**+1.2**
LSTV				Sn	**Sn**	**14 26 41.7**	**+2.9**
PDO	**Prodromos**	**3.08**	**174**	P	**Pn**	**14 26 03.1**	**+0.9**
PDO				AML	AML		
PVO	**Paravola**	**3.10**	**169**	P	**Pn**	**14 26 03.8**	**+1.3**
PVO				AML	AML		
ANX	**Ano Chora**	**3.19**	**163**	P	**Pn**	**14 26 04.2**	**+0.3**
ANX				AML	AML		
MDVR	**Moldovita**	**3.20**	**12**	⇑P	**Pn**	**14 26 04.9**	**+0.9**
MAKA	**Makarska**	**3.20**	**302**	*i* Pn	**Pn**	**14 26 05.6**	**+1.7**
MAKA				Sn	**Sn**	**14 26 43.6**	**+1.6**
AMUR	**Altamura**	**3.21**	**258**	⇓P	**Pn**	**14 26 03.7**	**-0.5**
AMUR				S	**Sn**	**14 26 40.4**	**-2.0**
AMUR				AML	AML		
	comp=E,3215µm,1.4s						
AMUR				AML	AML		
	comp=N,2520µm,0.7s						
AMUR				AML	AML		
	comp=E,3215µm,0.6s						
MATE	**Matera**	**3.22**	**253**	⇓P	**Pn**	**14 26 03.5**	**-0.6**
MATE	**Matera**	**3.22**	**253**	P	**Pn**	**14 26 03.3**	**-0.8**
RICI	**Ricice**	**3.24**	**306**	*i* Pn	**Pn**	**14 26 05.8**	**+1.3**
RICI				Sn	**Sn**	**14 26 44.5**	**+1.4**
DJES	**Djerdap**	**3.27**	**23**	*e*Pn	**Pn**	**14 26 05.6**	**+0.7**
DJES				*e*Sn	**Sn**	**14 26 47.4**	**+3.6**
DJES	**Djerdap**	**3.27**	**23**	⇑P	**Pn**	**14 26 05.4**	**+0.5**
PLVB	**Pleven**	**3.34**	**58**	⇑P	**Pn**	**14 26 07.2**	**+1.4**
EFP	**Efpalio**	**3.35**	**164**	P	**Pn**	**14 26 07.3**	**+1.4**
EFP				AML	AML		
SERG	**Sergoula**	**3.39**	**162**	P	**Pn**	**14 26 06.7**	**+0.1**
SERG				AML	AML		
MIGL	**Miglionico**	**3.42**	**253**	⇑P	**Pn**	**14 26 07.1**	**+0.1**
MIGL				AML	AML		
	comp=N,13250µm,0.7s						
MIGL				AML	AML		
	comp=E,19650µm,0.8s						
OT13	**Castello Viest**	**3.43**	**275**	P	**Pn**	**14 26 06.8**	**-0.2**
OT13				AML	AML		
	comp=E,4940µm,0.8s						
OT13				AML	AML		
	comp=N,6545µm,0.4s						
KALE	**Kalithea**	**3.43**	**161**	P	**Pn**	**14 26 07.2**	**0.0**
HERR	**Herculane**	**3.44**	**20**	⇓P	**Pn**	**14 26 08.2**	**+0.9**
MRVN	**Minervino Murg**	**3.48**	**262**	⇓P	**Pn**	**14 26 07.2**	**-0.6**
MRVN				AML	AML		
	comp=N,1865µm,0.9s						
MRVN				AML	AML		
	comp=N,1865µm,1.1s						
MRVN				AML	AML		
	comp=E,2440µm,0.9s						
VLS	**Valsamata**	**3.48**	**182**	P	**Pn**	**14 26 07.7**	**0.0**
VRSS	**Vrsac**	**3.49**	**7**	*e*Pn	**Pn**	**14 26 07.9**	**0.0**
SRE	**Strehaia**	**3.50**	**30**	P	**Pn**	**14 26 09.3**	**+1.3**
SRE	**Strehaia**	**3.50**	**30**	⇓P	**Pn**	**14 26 08.7**	**+0.7**
HVAR	**Hvar**	**3.53**	**297**	*i* Pn	**Pn**	**14 26 09.6**	**+1.2**
HVAR				Sn	**Sn**	**14 26 51.8**	**+1.7**
FRGS	**Fruska Gora**	**3.56**	**349**	*e*Pn	**Pn**	**14 26 08.6**	**-0.3**
FRGS				*e*Sn	**Sb**	**14 26 56.0**	**-4.0**
PVL	**Pavlikeni**	**3.59**	**64**	P	**Pg**	**14 26 20.3**	**-2.2**
PALZ	**Palazzo San Ge**	**3.68**	**260**	⇓P	**Pn**	**14 26 10.4**	**-0.1**
PALZ				AML	AML		
	comp=E,10655µm,0.9s						
PALZ				AML	AML		
	comp=N,9600µm,0.8s						
PALZ				AML	AML		
	comp=E,10655µm,1.1s						
PIPA	**Pietrapaola**	**3.70**	**235**	⇓P	**Pn**	**14 26 09.6**	**-1.2**
PIPA				AML	AML		
	comp=E,1285µm,1.4s						
PIPA				AML	AML		
	comp=N,1265µm,1.6s						
PIPA				AML	AML		
	comp=N,1305µm,1.6s						
PIPA				AML	AML		
	comp=E,1285µm,0.6s						
PIPA				AML	AML		
	comp=N,1305µm,0.4s						
PIPA				AML	AML		
	comp=N,1265µm,0.4s						
PIPA				AML	AML		
	comp=E,1285µm,1.6s						
PTRP	**Pietrapertosa**	**3.72**	**254**	⇓P	**Pn**	**14 26 11.0**	**-0.2**
PTRP				AML	AML		
	comp=N,5360µm,0.9s						
PTRP				AML	AML		
	comp=N,5360µm,1.1s						
PTRP				AML	AML		
	comp=E,5345µm,0.8s						
LADO	**San Nicola del**	**3.73**	**232**	P	**Pn**	**14 26 10.4**	**-0.8**
LADO				AML	AML		
	comp=E,3120µm,0.7s						
LADO				AML	AML		
	comp=E,3120µm,1.3s						
LADO				AML	AML		
	comp=N,2105µm,0.8s						
ACER	**Acerenza**	**3.73**	**258**	Pn	**Pn**	**14 26 10.5**	**-0.7**
ACER	**Acerenza**	**3.73**	**258**	⇓P	**Pn**	**14 26 11.1**	**-0.1**
ACER				AML	AML		
	comp=E,6010µm,0.6s						
ACER				AML	AML		
	comp=E,5780µm,0.6s						
ACER				AML	AML		
	comp=N,6800µm,0.8s						
ACER				AML	AML		
	comp=N,6410µm,0.8s						
CAPA	**Cerignola FG**	**3.74**	**264**	⇓P	**Pn**	**14 26 11.1**	**-0.3**
CAPA				AML	AML		
	comp=N,3670µm,0.8s						
CAPA				AML	AML		
	comp=E,7065µm,0.8s						
CAPA				AML	AML		
	comp=E,3845µm,0.9s						
CAPA				AML	AML		
	comp=N,7765µm,1.0s						
CAPA				AML	AML		
	comp=N,3670µm,1.2s						
SGRT	**San Giovanni R**	**3.75**	**273**	⇓P	**Pn**	**14 26 10.7**	**-0.8**
SGRT				AML	AML		
	comp=E,3320µm,1.1s						
SGRT				AML	AML		
	comp=N,2695µm,0.7s						
KLV	**Kalavryta, Ach**	**3.77**	**163**	P	**Pn**	**14 26 13.0**	**+1.2**
SCHR	**S. Chirico Rap**	**3.83**	**249**	⇓P	**Pn**	**14 26 11.6**	**-1.0**
SCHR				AML	AML		
	comp=E,1645µm,0.6s						
SCHR				AML	AML		
	comp=N,1890µm,0.8s						
OT05	**Madonna di Cri**	**3.86**	**272**	P	**Pn**	**14 26 12.0**	**-0.9**
OT05				AML	AML		
	comp=E,3190µm,0.7s						
OT05				AML	AML		
	comp=E,3190µm,1.3s						
OT05				AML	AML		
	comp=N,2915µm,0.8s						
APRC	**Apricena**	**3.90**	**273**	⇓P	**Pn**	**14 26 13.1**	**-0.4**
APRC				AML	AML		
	comp=N,2235µm,0.8s						
APRC				AML	AML		
	comp=N,4370µm,0.9s						
APRC				AML	AML		
	comp=N,4370µm,1.1s						
APRC				AML	AML		
	comp=E,2730µm,0.9s						
APRC				AML	AML		
	comp=E,2550µm,0.8s						
APRC				AML	AML		
	comp=N,2235µm,1.2s						
TIP	**Timpagrande**	**3.93**	**232**	Pn	**Pn**	**14 26 13.0**	**-0.9**
TIP	**Timpagrande**	**3.93**	**232**	⇓P	**Pn**	**14 26 13.0**	**-0.9**
TIP				AML	AML		
	comp=E,813µm,1.0s						
TIP				AML	AML		
	comp=N,744µm,1.6s						
TIP				AML	AML		
	comp=N,709µm,1.6s						
TIP				AML	AML		
	comp=N,709µm,0.4s						
TIP				AML	AML		
	comp=E,806µm,1.0s						
TIP				AML	AML		
	comp=N,744µm,0.4s						
TIP	**Timpagrande**	**3.93**	**232**	⇓P	**Pn**	**14 26 13.1**	**-0.9**
TIP	**Timpagrande**	**3.93**	**232**	P	**Pn**	**14 26 13.2**	**-0.8**
TIP				AML	AML		
TIP	**Timpagrande**	**3.93**	**232**	P	**Pn**	**14 26 13.2**	**-0.8**
VULT	**Monte Vulture**	**3.93**	**261**	⇓P	**Pn**	**14 26 13.7**	**-0.3**
VULT				AML	AML		
	comp=E,3625µm,1.3s						
VULT				AML	AML		
	comp=N,4705µm,0.8s						
VULT				AML	AML		
	comp=E,3625µm,0.7s						
VULT				AML	AML		
	comp=E,3755µm,1.3s						
VULT				AML	AML		
	comp=N,4780µm,0.9s						
TREM	**Isole Tremiti**	**3.94**	**279**	P	**Pn**	**14 26 14.2**	**+0.2**
TREM				AML	AML		
	comp=N,8745µm,0.9s						
TREM				AML	AML		
	comp=E,8950µm,0.9s						
TREM				AML	AML		
	comp=E,9095µm,0.8s						
TREM				AML	AML		
	comp=N,8765µm,0.9s						
CELI	**Celico**	**3.94**	**237**	⇓P	**Pn**	**14 26 13.3**	**-0.9**
CELI				AML	AML		
	comp=E,1132µm,0.9s						
CELI				AML	AML		
	comp=N,961µm,1.2s						
CELI				AML	AML		
	comp=E,1134µm,0.9s						
CELI				AML	AML		
	comp=N,959µm,1.2s						
CELI				AML	AML		
	comp=N,959µm,0.8s						
CELI				AML	AML		
	comp=N,961µm,0.8s						
KIJV	**Kijevo**	**3.96**	**308**	*i* Pn	**Pn**	**14 26 15.6**	**+1.2**
KIJV				Sn	**Sn**	**14 27 01.8**	**+0.9**
KIJV	**Kijevo**	**3.96**	**308**	P	**Pn**	**14 26 16.8**	**+2.4**
MARCO	**Tramutola**	**3.98**	**252**	P	**Pn**	**14 26 14.8**	**0.0**
SIRI	**Monte Sirino -**	**3.98**	**250**	⇓P	**Pn**	**14 26 13.7**	**-1.1**
SIRI				AML	AML		
	comp=E,2210µm,1.0s						
SIRI				AML	AML		
	comp=E,2235µm,1.0s						
SIRI				AML	AML		
	comp=E,2210µm,1.0s						
SIRI				AML	AML		
	comp=N,1550µm,0.8s						
SIRI				AML	AML		
	comp=N,1575µm,0.8s						
SIRI				AML	AML		
	comp=E,2235µm,1.0s						
BZS	**Buzias**	**4.01**	**9**	P	**Pn**	**14 26 14.2**	**-0.8**
BZS	**Buzias**	**4.01**	**9**	P	**Pn**	**14 26 14.7**	**-0.3**
ELND	**Elena**	**4.01**	**70**	⇑P	**Pn**	**14 26 16.4**	**+1.4**
GZR	**Gura Zlata**	**4.01**	**21**	P	**Pn**	**14 26 16.0**	**+0.9**
GZR	**Gura Zlata**	**4.01**	**21**	⇑P	**Pn**	**14 26 16.0**	**+0.9**
STN3	**Satriano di Lu**	**4.01**	**255**	P	**Pn**	**14 26 15.9**	**+0.7**
MMN	**Mormanno**	**4.02**	**246**	P	**Pn**	**14 26 15.5**	**+0.3**
MMN				AML	AML		
	comp=E,1880µm,0.8s						
MMN				AML	AML		
	comp=N,2300µm,0.5s						
BLY	**Banja Luka**	**4.04**	**321**	Pn	**Pn**	**14 26 15.3**	**-0.1**
BLY	**Banja Luka**	**4.04**	**321**	P	**Pn**	**14 26 17.2**	**+1.8**
BLY				AML	AML		
	comp=N,3800µm,1.0s						
BLY				AML	AML		
	comp=E,6275µm,1.0s						
BLY				AML	AML		
	comp=N,3805µm,1.0s						
BLY				AML	AML		
	comp=E,6355µm,1.0s						
BLY				AML	AML		
	comp=N,3805µm,1.0s						
BLY				AML	AML		
	comp=N,3800µm,1.0s						
BLY	**Banja Luka**	**4.04**	**321**	P	**Pn**	**14 26 18.1**	**+2.6**
SERS	**Sersale**	**4.06**	**231**	⇓P	**Pn**	**14 26 14.3**	**-1.6**
SERS				AML	AML		
	comp=E,818µm,0.8s						
SERS				AML	AML		
	comp=N,815µm,0.6s						
SERS				AML	AML		
	comp=E,826µm,0.9s						
SERS				AML	AML		
	comp=E,826µm,1.1s						
SERS				AML	AML		
	comp=N,815µm,1.4s						
SERS				AML	AML		
	comp=N,880µm,0.8s						
ALN	**Alexandroupoli**	**4.06**	**99**	P	**Pn**	**14 26 16.1**	**+0.3**
ALN	**Alexandroupoli**	**4.06**	**99**	Pn	**Pn**	**14 26 16.1**	**+0.3**
ALN	**Alexandroupoli**	**4.06**	**99**	P	**Pn**	**14 26 16.6**	**+0.9**
MRLC	**Muro Lucano**	**4.07**	**259**	⇓P	**Pn**	**14 26 15.4**	**-0.5**
MRLC				AML	AML		
	comp=E,738µm,0.5s						
MRLC				AML	AML		
	comp=E,1525µm,0.5s						
MRLC				AML	AML		
	comp=N,1530µm,1.1s						
MRLC				AML	AML		
	comp=E,738µm,1.5s						
MRLC				AML	AML		
	comp=E,1525µm,1.5s						
MRLC				AML	AML		
	comp=N,754µm,1.1s						
SLCN	**Sala Consilina**	**4.07**	**254**	P	**Pn**	**14 26 15.4**	**-0.6**
SLCN				AML	AML		
	comp=E,3670µm,0.7s						
SLCN				AML	AML		
	comp=E,3935µm,0.7s						
SLCN				AML	AML		
	comp=N,2945µm,0.6s						
SLCN				AML	AML		
	comp=N,2880µm,0.6s						
SLCN				AML	AML		
	comp=E,3935µm,1.3s						
SLCN				AML	AML		
	comp=E,3670µm,1.3s						
CUC	**Castrocucco**	**4.10**	**248**	Pn	**Pn**	**14 26 15.8**	**-0.5**
CUC	**Castrocucco**	**4.10**	**248**	P	**Pn**	**14 26 16.0**	**-0.3**
CUC				AML	AML		
	comp=N,2545µm,0.7s						
CUC				AML	AML		
	comp=N,2550µm,0.7s						
CUC				AML	AML		
	comp=N,2550µm,1.3s						
CUC				AML	AML		
	comp=E,2435µm,0.8s						
CUC				AML	AML		
	comp=N,2545µm,1.3s						
CUC				AML	AML		
	comp=E,2475µm,0.8s						
CUC	**Castrocucco**	**4.10**	**248**	P	**Pn**	**14 26 16.5**	**+0.2**
CAFE	**Carife**	**4.20**	**263**	⇓P	**Pn**	**14 26 17.3**	**-0.4**
CAFE				AML	AML		
	comp=E,2335µm,0.9s						
CAFE				AML	AML		
	comp=N,2405µm,0.8s						
CAFE				AML	AML		
	comp=E,2375µm,0.9s						
CAFE				AML	AML		
	comp=N,2490µm,0.8s						
CAFE				AML	AML		
	comp=E,2335µm,1.1s						
CAFE				AML	AML		
	comp=E,2375µm,1.1s						
CAFE				AML	AML		
	comp=N,2490µm,1.2s						
CAFE				AML	AML		
	comp=N,2405µm,1.2s						
CAVK	**Edirne/Enez-Ca**	**4.20**	**102**	⇑P	**Pn**	**14 26 19.1**	**+1.4**
MELA	**Melanico ??? S**	**4.21**	**273**	P	**Pn**	**14 26 17.8**	**0.0**
MELA				AML	AML		
	comp=N,4800µm,0.6s						
MELA				AML	AML		
	comp=N,4600µm,0.6s						
MELA				AML	AML		
	comp=E,6890µm,0.7s						
MELA				AML	AML		
	comp=N,4800µm,1.4s						
MELA				AML	AML		
	comp=E,6635µm,0.7s						
CAR1	**CAROLEI**	**4.21**	**237**	P	**Pn**	**14 26 17.8**	**-0.1**
CAR1				AML	AML		
	comp=E,1935µm,1.1s						
CAR1				AML	AML		
	comp=E,2005µm,1.1s						
CAR1				AML	AML		
	comp=N,1775µm,0.7s						
CAR1				AML	AML		
	comp=N,1980µm,0.7s						
CAR1				AML	AML		
	comp=E,1935µm,0.9s						
CAR1				AML	AML		
	comp=E,2005µm,0.9s						
HUMR	**Humele**	**4.22**	**46**	⇓P	**Pn**	**14 26 19.1**	**+1.1**
HUMR	**Humele**	**4.22**	**46**	P	**Pn**	**14 26 20.1**	**+2.1**
MGR	**Morigerati**	**4.22**	**251**	⇓P	**Pn**	**14 26 17.7**	**-0.2**
MGR				AML	AML		
	comp=E,1635µm,0.7s						
MGR				AML	AML		
	comp=N,1330µm,0.6s						
MGR				AML	AML		
	comp=N,1330µm,1.4s						
MGR				AML	AML		
	comp=E,1665µm,0.8s						
MGR				AML	AML		
	comp=N,1162µm,1.0s						
CET2	**Cetraro**	**4.22**	**241**	P	**Pn**	**14 26 17.6**	**-0.4**
CET2				AML	AML		
	comp=E,2655µm,0.8s						
CET2				AML	AML		
	comp=N,4690µm,0.8s						
SNAL	**S. Angelo Dei**	**4.24**	**262**	P	**Pn**	**14 26 17.7**	**-0.5**
SNAL				AML	AML		
	comp=E,2290µm,1.3s						
SNAL				AML	AML		
	comp=E,2435µm,1.2s						
SNAL				AML	AML		
	comp=N,4745µm,0.9s						
SNAL				AML	AML		
	comp=E,2290µm,0.7s						
SNAL				AML	AML		
	comp=E,2435µm,0.8s						
SNAL				AML	AML		
	comp=N,4790µm,0.9s						
SGO	**Sicignano**	**4.25**	**257**	P	**Pn**	**14 26 17.4**	**-1.1**
SGO				AML	AML		
	comp=E,940µm,0.4s						
SGO				AML	AML		
	comp=N,1205µm,0.5s						
SGO				AML	AML		
	comp=N,1235µm,0.5s						
SGO				AML	AML		
	comp=E,917µm,0.5s						
CDRU	**Civita di Ruta**	**4.28**	**256**	⇓P	**Pn**	**14 26 18.1**	**-0.8**
CDRU				AML	AML		
	comp=E,1070µm,0.5s						
CDRU				AML	AML		
	comp=N,888µm,0.8s						
MCRV	**Calabrutti - M**	**4.30**	**260**	P	**Pn**	**14 26 17.9**	**-1.2**
MCRV				AML	AML		
	comp=N,2000µm,0.8s						
MCRV				AML	AML		
	comp=E,1655µm,0.7s						
MORI	**Morici**	**4.32**	**302**	*e*Pn	**Pn**	**14 26 20.0**	**+0.7**
MORI				Sn	**Sn**	**14 27 11.0**	**+1.4**
LOT	**Lotru**	**4.38**	**29**	⇑P	**Pn**	**14 26 21.1**	**+0.9**
MRB1	**Monte Rocchett**	**4.38**	**265**	AML	AML		
	comp=N,3535µm,1.4s						
MRB1				AML	AML		
	comp=N,3535µm,0.6s						
MRB1				AML	AML		
	comp=E,3965µm,0.9s						
MRB1				AML	AML		
	comp=N,3695µm,0.6s						
MRB1				AML	AML		
	comp=E,3820µm,0.9s						
MRB1				AML	AML		
	comp=N,3695µm,1.4s						
STFAR	**Stefanesti-Arg**	**4.44**	**42**	⇓P	**Pn**	**14 26 22.2**	**+1.2**
DEV	**Deva**	**4.50**	**20**	P	**Pn**	**14 26 25.2**	**+3.4**
ITM	**Ithomi**	**4.56**	**168**	Pn	**Pn**	**14 26 23.3**	**+0.6**
ITM	**Ithomi**	**4.56**	**168**	P	**Pn**	**14 26 24.6**	**+1.9**
SGRR	**Singureni**	**4.61**	**55**	⇓P	**Pn**	**14 26 25.6**	**+2.3**
EZN	**Ezine**	**4.61**	**112**	P	**Pn**	**14 26 24.7**	**+1.4**
EZN	**Ezine**	**4.61**	**112**	⇑P	**Pn**	**14 26 24.7**	**+1.4**
EZN	**Ezine**	**4.61**	**112**	P	**Pn**	**14 26 23.3**	**0.0**
EZN				AML	AML		
UDBI	**Udbina**	**4.64**	**310**	Sn	**Sn**	**14 27 18.3**	**+0.6**
UDBI	**Udbina**	**4.64**	**310**	*e*Pn	**Pn**	**14 26 25.6**	**+1.9**
SIRR	**Siria**	**4.65**	**8**	⇑P	**Pn**	**14 26 24.6**	**+0.7**
RAZG	**Razgrad**	**4.66**	**64**	⇑P	**Pn**	**14 26 25.6**	**+1.7**
ARR	**Arges**	**4.66**	**36**	⇑P	**Pn**	**14 26 25.3**	**+1.3**
ARR	**Arges**	**4.66**	**36**	P	**Pn**	**14 26 25.0**	**+1.0**
AMBH	**Ambrzfalva**	**4.69**	**360**	⇑P	**Pn**	**14 26 25.0**	**+0.7**
AMBH	**Ambrzfalva**	**4.69**	**360**	P	**Pn**	**14 26 25.9**	**+1.6**
PAOL	**Paolisi**	**4.70**	**264**	Pn	**Pn**	**14 26 24.4**	**-0.1**
MTUR	**Matau**	**4.75**	**40**	P	**Pn**	**14 26 26.9**	**+1.6**
MTUR	**Matau**	**4.75**	**40**	⇓P	**Pn**	**14 26 26.9**	**+1.6**
DUGI	**Dugi Otok**	**4.79**	**301**	*i* Pn	**Pn**	**14 26 27.5**	**+1.8**
DUGI				Sn	**Sn**	**14 27 21.7**	**+0.4**
MORH	**Mrgy, Hungar**	**4.80**	**342**	⇓P	**Pn**	**14 26 26.1**	**+0.2**
MORH	**Mrgy, Hungar**	**4.80**	**342**	P	**Pn**	**14 26 26.0**	**+0.1**
MORH				AML	AML		
MORH	**Mrgy, Hungar**	**4.80**	**342**	P	**Pn**	**14 26 25.4**	**-0.4**
VOIR		**4.90**	**38**	P	**Pn**	**14 26 29.1**	**+1.7**
VOIR		**4.90**	**38**	⇓P	**Pn**	**14 26 29.1**	**+1.7**
VOIR		**4.90**	**38**	P	**Pn**	**14 26 29.1**	**+1.7**
MOSL	**Moslavina**	**4.90**	**325**	Sn	**Sn**	**14 27 22.9**	**-1.1**
MOSL	**Moslavina**	**4.90**	**325**	*e*Pn	**Pn**	**14 26 28.1**	**+0.8**
PLIT	**Plitvice**	**4.94**	**312**	*e*Pn	**Pn**	**14 26 29.1**	**+1.3**
PLIT				Sn	**Sn**	**14 27 25.1**	**+0.3**
SULR		**5.03**	**51**	P	**Pn**	**14 26 31.7**	**+2.7**
	comp=Z,444nm,0.9s						
CEL	**Celeste**	**5.04**	**229**	Pn	**Pn**	**14 26 28.5**	**-0.8**
CEL	**Celeste**	**5.04**	**229**	P	**Pn**	**14 26 28.5**	**-0.8**
	comp=Z,1.4nmcomp=Z,2µmcomp=Z,205nm,1.0s						
CEL				AML	AML		
CEL	**Celeste**	**5.04**	**229**	P	**Pn**	**14 26 28.7**	**-0.6**
CPOZ	**Campi Flegrei,**	**5.07**	**263**	AML	AML		
	comp=N,2540µm,0.9s						
CPOZ				AML	AML		
	comp=E,5550µm,0.7s						
PHSR	**Pinarhisar**	**5.08**	**88**	⇓P	**Pn**	**14 26 30.9**	**+1.2**
INTR	**Introdacqua**	**5.13**	**276**	Pn	**Pn**	**14 26 30.2**	**-0.3**
MDB	**Medias**	**5.19**	**29**	P	**Pn**	**14 26 33.0**	**+1.7**
MDB	**Medias**	**5.19**	**29**	⇑P	**Pn**	**14 26 33.1**	**+1.7**
CHOS	**Chios island**	**5.22**	**127**	P	**Pn**	**14 26 35.9**	**+4.1**
	comp=Z,116nm,0.7s						
MARR	**Marisel-Cluj**	**5.30**	**18**	⇑P	**Pn**	**14 26 34.9**	**+2.1**
DRGR		**5.32**	**15**	P	**Pn**	**14 26 34.0**	**+0.9**
DRGR		**5.32**	**15**	⇓P	**Pn**	**14 26 34.1**	**+0.9**
DRGR		**5.32**	**15**	P	**Pn**	**14 26 37.5**	**+4.3**
	comp=Z,177nm,0.9s						

RABC **Rab** 5.34 307 *i* Pn Pn 14 26 35.5 +2.1
RABC Sn Sn 14 27 36.0 +1.2
MLR Muntele Rosu 5.38 43 Pn Pn 14 26 35.8 +1.9
comp=Z,120nm,0.3s,baz=166,slow=13,SNR=35
MLR Sn Sn 14 27 37.9 +2.1
comp=Z,6.9nm,0.3s,baz=310,slow=20,SNR=6.1
MLR Lg Lg 14 28 08.7
comp=Z,1.3nm,0.3s,baz=292,slow=22,SNR=5.8
MLR LR LR 14 29 38.0
comp=Z,1µm,20.3s,baz=246,slow=49
comp=Z,87nm,0.6s
MLR AML AML
MLR Muntele Rosu 5.38 43 P Pn 14 26 35.6 +1.7
MLR Muntele Rosu 5.38 43 Pn Pn 14 26 34.9 +1.0
MLR Muntele Rosu 5.38 43 ⇓P Pn 14 26 35.7 +1.7
MLR Muntele Rosu 5.38 43 P Pn 14 26 36.5 +2.5
comp=Z,146nm,0.9s
ZAG Zagreb 5.41 322 *e*Pn Pn 14 26 35.0 +0.8
KALN Kalnik 5.44 327 *e*Pn Pn 14 26 34.6 -0.1
KALN Sn Sn 14 27 35.9 -1.4
ISR Istrita 5.46 49 P Pn 14 26 36.9 +2.0
ISR Istrita 5.46 49 ⇓P Pn 14 26 37.0 +2.0
DOPR Dopca 5.46 36 ⇑P Pn 14 26 36.1 +1.1
PTJ Puntijarka 5.48 322 *e*Pn Pn 14 26 35.4 +0.1
PTJ Sn Sn 14 27 37.1 -1.2
OZLJ Ozalj 5.51 318 *e*Pn Pn 14 26 37.2 +1.7
OZLJ Sn Sn 14 27 38.0 -0.8
NEHR Nehoiu 5.52 45 ⇑P Pn 14 26 37.6 +1.8
AQU L'Aquila 5.52 280 P Pn 14 26 36.4 +0.5
AQU L'Aquila 5.52 280 P Pn 14 26 35.6 -0.2
AQU L'Aquila 5.52 280 Pn 14 26 35.6 -0.2
AQU L'Aquila 5.52 280 P Pn 14 26 37.1 +1.3
comp=Z,1µm,0.8s
BOJS Bojanci 5.54 316 *i* Pn Pn 14 26 38.2 +2.2
BOJS *e* 14 26 58.1
BOJS *i* Sn Sn 14 27 42.1 +2.3
BOJS *e* 14 28 23.8
BOJS IAML 14 29 04.9
comp=Z,16µm,6.7s
BALY Balya 5.56 108 P Pn 14 26 38.7 +2.2
comp=Z,542nm,0.7s
BEHE Becsehely 5.60 331 Pn Pn 14 26 36.7 -0.2
BEHE Becsehely 5.60 331 P Pn 14 26 38.0 +1.1
comp=Z,276nm,0.7s
LOBO Lobor 5.62 325 *i* Pn Pn 14 26 38.4 +1.2
LOBO Sn Sn 14 27 40.6 -1.1
BSZH Besenyszg 5.65 357 P Pn 14 26 39.6 +2.1
comp=Z,301nm,0.7s
CTYL Yalikoy Yolu 5.66 89 ⇑P Pn 14 26 38.9 +1.2
CTYL Yalikoy Yolu 5.66 89 P Pn 14 26 37.7 0.0
comp=Z,3.0nmcomp=Z,7µmcomp=Z,208nm,0.5s
CTYL AML AML
CRES Cresnjevec Ost 5.66 319 *e*Pn Pn 14 26 39.4 +1.7
GUMA Gualdo di Mace 5.67 287 Pn 14 26 37.6 -0.3
BAND Balkesir-Ban 5.71 101 ⇓P Pn 14 26 39.3 +0.9
OZUR 5.74 38 ⇑P Pn 14 26 40.2 +1.4
COVR Voineasa-Covas 5.75 42 ⇑P Pn 14 26 41.2 +2.2
KOGS Kog 5.78 327 *i* Pn Pn 14 26 39.9 +0.6
BALB Balikesir 5.79 108 Pn 14 26 41.1 +1.7
NRCA Norcia 5.79 284 Pn 14 26 39.8 +0.2
TURR Turia 5.81 39 ⇑P Pn 14 26 41.1 +1.3
FDMO Fiordimonte 5.84 286 Pn 14 26 40.4 +0.2
RIY Rijeka 5.85 311 *e*Pn Pn 14 26 41.4 +1.1
RIY Sn Sn 14 27 47.8 +0.5
RIY Rijeka 5.85 311 *e*Pn Pn 14 26 41.8 +1.5
APE Apeiranthos 5.89 140 *i* P Pn 14 26 40.2 -0.8
APE Apeiranthos 5.89 140 ⇑P Pn 14 26 43.3 +2.3
APE Apeiranthos 5.89 140 P Pn 14 26 44.6 +3.7
comp=Z,262nm,0.7s
SAHR Sahastru 5.92 45 ⇑P Pn 14 26 43.4 +2.1
BUD Budapest 5.95 349 P Pn 14 26 42.9 +1.2
comp=Z,217nm,0.6s
MPLH Magyarpolny 5.97 338 P Pn 14 26 42.5 +0.5
comp=Z,4.0nmcomp=Z,8µmcomp=Z,985nm,0.8s
MPLH AML AML
MPLH Magyarpolny 5.97 338 P Pn 14 26 43.0 +1.1
comp=Z,387nm,0.8s
PLOR Plostina 5.98 44 P Pn 14 26 44.9 +2.7
PLOR Plostina 5.98 44 ⇑P Pn 14 26 44.9 +2.7
KNDS Knezji Dol 6.03 312 *e*Pn Pn 14 26 46.8 +4.0
KNDS *e*Sn Sn 14 27 54.2 +2.3
VRI Vrincioaia 6.03 44 P Pn 14 26 44.7 +1.9
VRI Vrincioaia 6.03 44 ⇓P Pn 14 26 44.8 +1.9
VRI Vrincioaia 6.03 44 P Pn 14 26 45.1 +2.3
comp=Z,108nm,0.7s
HARR Harsova 6.06 58 P Pn 14 26 44.9 +1.7
HARR Harsova 6.06 58 ⇓P Pn 14 26 45.0 +1.7
CESX Cesi 6.15 282 Pn Pn 14 26 44.3 -0.1
ONER Baraj Valea Uz 6.20 39 ⇑P Pn 14 26 46.7 +1.6
TIRR Tirgusor 6.27 61 P Pn 14 26 47.3 +1.2
TIRR Tirgusor 6.27 61 Pn Pn 14 26 47.3 +1.2
TIRR Tirgusor 6.27 61 ⇑P Pn 14 26 47.3 +1.2
TIRR Tirgusor 6.27 61 P Pn 14 26 46.6 +0.5
comp=Z,1.6nmcomp=Z,1µmcomp=Z,94nm,0.7s
TIRR AML AML
TIRR Tirgusor 6.27 61 P Pn 14 26 48.0 +1.9
comp=Z,94nm,0.7s
PSZ Piszkesteto 6.29 355 P Pn 14 26 46.7 +0.3
PSZ Piszkesteto 6.29 355 Pn 14 26 46.1 -0.3
PSZ Piszkesteto 6.29 355 ⇓P Pn 14 26 46.8 +0.3
PSZ Piszkesteto 6.29 355 P Pn 14 26 47.0 +0.6
comp=Z,163nm,1.3s
BMR Baia Mare 6.32 17 P Pn 14 26 51.6 +4.7
comp=Z,161nm,1.1s
SRO Srobarova 6.39 345 *e*PN Pn 14 26 50.9 +3.2
SRO *e*SN Sn 14 28 04.3 +3.6
SRO Srobarova 6.39 345 P Pn 14 26 50.2 +2.5
comp=Z,177nm,0.7s
VAE Valguarnera 6.43 232 Pn Pn 14 26 47.9 -0.5
comp=Z,5.3nm,0.3s,baz=46,slow=14,SNR=7.5
VAE Sn Sn 14 27 58.3 -3.5
comp=Z,3.2nm,0.3s,baz=88,slow=15,SNR=3.0
TESR Tescani 6.45 39 ⇑P Pn 14 26 50.0 +1.5
TESR Tescani 6.45 39 P Pn 14 26 48.9 +0.4
comp=Z,0.5nmcomp=Z,73nm,0.8s
TESR AML AML
TESR Tescani 6.45 39 P Pn 14 26 50.3 +1.7
comp=Z,74nm,0.8s
TPGR Topolog 6.45 58 ⇑P Pn 14 26 49.5 +1.0
TRI Trieste 6.48 311 P Pn 14 26 49.0 0.0
TRI Trieste 6.48 311 Pn 14 26 49.0 0.0
SOKA Soboth 6.49 323 *e*Pn Pn 14 26 49.6 +0.5
comp=Z,107nm,0.5s,SNR=95
SOKA *e*Sn Sn 14 28 04.7 +1.6
comp=Z,65nm,0.6s
GHRR 6.52 45 P Pn 14 26 54.0 +4.5
comp=Z,198nm,0.7s
BIZ Bicaz 6.53 34 ⇑P Pn 14 26 51.2 +1.6
OBKA Obir 6.59 319 *e*Pn Pn 14 26 52.8 +2.3
comp=Z,336nm,1.2s,SNR=43
OBKA *e*Sg Sg 14 28 50.3 +5.1
comp=Z,1µm,1.0s
OBKA Obir 6.59 319 P Pn 14 26 52.9 +2.3
comp=Z,256nm,0.7s
TRPA Tarpa 6.59 10 P Pn 14 26 53.6 +3.1
comp=Z,59nm,0.8s
YLV Yalova 6.60 97 P Pn 14 26 51.7 +1.0
comp=Z,0.7nmcomp=Z,1µmcomp=Z,87nm,0.9s
YLV AML AML
RAFF Raffo Rosso 6.64 230 Pn Pn 14 26 49.3 -1.8
ABAH Abaujker 6.65 3 P Pn 14 26 52.1 +0.9
comp=Z,93nm,0.6s
SOP Sopron 6.72 335 P Pn 14 26 53.2 +0.9
comp=Z,106nm,0.7s
ARSA Arzberg 6.72 328 Pn 14 26 53.0 +0.6
ARSA Arzberg 6.72 328 *i* Pn Pn 14 26 53.3 +0.9
comp=Z,62nm,0.4s,SNR=52
ARSA *e*Sn Sn 14 28 08.2 -0.7
comp=Z,105nm,0.5s
ARSA Arzberg 6.72 328 P Pn 14 26 53.4 +1.1
comp=Z,302nm,0.8s
SABO M.te Sabotino 6.74 312 Pn 14 26 52.6 +0.1
BURAR Bucovina Array 6.75 27 P Pn 14 26 54.8 +2.0
BURAR Bucovina Array 6.75 27 Pn 14 26 53.8 +1.0
BURAR Bucovina Array 6.75 27 ⇓P Pn 14 26 54.9 +2.0
BUR08 Bucovina Ar. S 6.77 26 Pn 14 26 54.1 +1.0
MANT Manisa 6.77 115 Pn 14 26 54.7 +1.5
AYDN Tasoluk 6.80 124 P Pn 14 26 57.5 +4.1
comp=Z,199nm,1.4s
RONA Rosalia, Austr 6.82 334 *e*Pn Pn 14 26 54.3 +0.6
comp=Z,30nm,0.5s,SNR=27
RONA *e*Sn Sn 14 28 10.1 -1.2
comp=Z,142nm,1.0s
KECS Kecovo 6.83 359 *e*PN Pn 14 26 54.8 +1.1
KECS *e*SN Sn 14 28 13.2 +1.8
KECS Kecovo 6.83 359 P Pn 14 26 55.5 +1.8
comp=Z,72nm,0.6s
DRE Drenchia 6.83 314 P Pn 14 26 55.3 +1.5
comp=Z,520nm,0.7s
TLCR 6.85 56 P Pn 14 26 55.9 +1.9
TLCR 6.85 56 ⇓P Pn 14 26 56.0 +1.9
ROBS Robic 6.95 314 *e*Pn Pn 14 26 56.5 +1.1
ROBS *e*Sn Sn 14 28 14.4 +0.1
VYHS Vyhne 6.97 349 *e*PN Pn 14 26 57.1 +1.4
VYHS *e*SN Sn 14 28 12.5 -2.3
VYHS Vyhne 6.97 349 P Pn 14 26 57.7 +2.0
comp=Z,21nm,0.6s
SESA Seetaler Alpe, 7.02 323 *e*Pn Pn 14 26 57.9 +1.3
comp=Z,147nm,1.0s,SNR=33
SESA *e*Sn Sn 14 28 19.2 +2.7
comp=Z,84nm,0.6s
ZST Bratislava 7.03 340 *e*PN Pn 14 26 58.4 +1.9
ZST *e*SN Sn 14 28 13.5 -2.8
PRED Cave del Predi 7.04 315 Pn 14 26 57.4 +0.6
PRED Cave del Predi 7.04 315 P Pn 14 26 58.0 +1.2
comp=Z,101nm,0.8s
MNTR Muntenesti 7.05 41 ⇓P Pn 14 26 58.8 +2.0
CLTB Caltabellotta 7.10 237 P Pn 14 26 58.5 +1.0
comp=Z,446nm,0.9s
MYKA Terra Mystica 7.13 317 *i* Pn Pn 14 26 59.1 +1.2
comp=Z,128nm,0.7s,SNR=43
IDI Anoyia 7.14 152 Pn Pn 14 26 58.6 +0.4
comp=Z,16nm,0.6s,baz=324,slow=15,SNR=14
IDI Sn Sn 14 28 15.8 -3.5
comp=Z,12nm,0.3s,baz=90,slow=8.5,SNR=6.2
IDI Anoyia 7.14 152 P Pn 14 27 01.5 +3.4
IDI S Sn 14 28 19.2 0.0
IDI Anoyia 7.14 152 Pn Pn 14 26 58.9 +0.8
MODS Modra-Piesok 7.15 341 *e*PN Pn 14 26 59.7 +1.5
MODS *e*SN Sn 14 28 17.2 -2.1
MODS Modra-Piesok 7.15 341 P Pn 14 27 00.3 +2.2
comp=Z,184nm,1.1s
CONA Conrad Observa 7.17 333 *e*Pn Pn 14 26 59.4 +0.9
comp=Z,29nm,0.7s,SNR=34
CONA *e*Sn Sn 14 28 18.4 -1.4
comp=Z,57nm,0.6s
WINA Alland / Wiene 7.25 334 *e*Pn Pn 14 27 01.0 +1.4
comp=Z,40nm,0.5s,SNR=23
WINA *e*Sn Sn 14 28 22.3 +0.5
comp=Z,86nm,0.5s
KOLS Kolonicke sedl 7.35 8 *e*PN Pn 14 27 02.5 +1.6
KOLS Kolonicke sedl 7.35 8 P Pn 14 27 02.6 +1.6
comp=Z,49nm,0.6s
STAL STALIGIAL 7.40 311 Pn 14 27 01.6 0.0
JAVC Velka Javorina 7.52 344 *e*PN Pn 14 27 04.6 +1.3
JAVC Velka Javorina 7.52 344 P Pn 14 27 06.2 +2.9
comp=Z,45nm,0.9s
LANS Liptovska Anna 7.55 354 *e*PN Pn 14 27 06.3 +2.7
LANS *e*SN Sn 14 28 32.6 +3.5
TEOL Teolo 7.56 302 Pn 14 27 03.6 -0.3
TAVA DENIZLI_Tavas 7.57 121 ⇑P Pn 14 27 05.9 +1.9
KBA Koelnbreinsper 7.58 318 *i* Pn Pn 14 27 05.8 +1.6
comp=Z,493nm,1.3s,SNR=74
KBA Koelnbreinsper 7.58 318 P Pn 14 27 06.0 +1.8
comp=Z,260nm,0.8s
ZCCA Zocca 7.65 294 Pn 14 27 05.0 -0.1
SAHE Sakarya_HENDEK 7.66 93 ⇑P Pn 14 27 07.2 +2.1
MOA Molln 7.72 326 *e*Pn Pn 14 27 08.1 +2.1
comp=Z,118nm,1.0s,SNR=23
MOA Molln 7.72 326 P Pn 14 27 07.9 +1.9
comp=Z,107nm,1.0s
CGRP Cima Grappa 7.73 306 P Pn 14 27 06.3 +0.1
comp=Z,243nm,0.6s
NIE Niedzica 7.77 358 *e*P Pn 14 27 09.8 +3.1
ABTA Abfaltersbach 7.80 313 *e*Pn Pn 14 27 08.4 +1.3
comp=Z,214nm,0.5s,SNR=125
ABTA *e*Sn Sn 14 28 36.8 +1.4
comp=Z,211nm,0.6s
ZKR Zakros 7.82 145 P Pn 14 27 12.5 +5.1
comp=Z,225nm,1.6s
BIOA Bad Ischl, Aus 7.88 322 *e*Pn Pn 14 27 10.3 +2.1
comp=Z,73nm,0.5s,SNR=32
KARP Karpathos 7.90 139 Pn Pn 14 27 10.5 +2.0
KARP Karpathos 7.90 139 *e*P Pn 14 27 12.0 +3.5
KARP Karpathos 7.90 139 P Pn 14 27 12.9 +4.4
comp=Z,0.9nmcomp=Z,5µmcomp=Z,3µmcomp=Z,287nm,0.8s
KARP AML AML
KARP Karpathos 7.90 139 P Pn 14 27 12.4 +3.9
comp=Z,288nm,0.8s
CTI Castel Tesino 7.90 307 P Pn 14 27 08.2 -0.4
CTI Castel Tesino 7.90 307 Pn Pn 14 27 08.2 -0.4
ABNA Allensteig Bun 7.95 334 *e*Pn Pn 14 27 12.3 +3.1
comp=Z,18nm,0.6s
ABNA *e*Sn Sn 14 28 38.7 -0.4
comp=Z,30nm,0.4s
MDUB Mudurnu 7.98 95 Pn 14 27 12.0 +2.3
VLC Villacollemand 8.01 292 P Pn 14 27 09.9 -0.1
VLC S Sn 14 28 39.1 -1.4
VLC Villacollemand 8.01 292 P Pn 14 27 10.3 +0.3
comp=Z,173nm,0.8s
KRUC Moravsky 8.01 339 *e*PN Pn 14 27 10.7 +0.7
KRUC Moravsky 8.01 339 P Pn 14 27 11.9 +2.0
comp=Z,21nm,0.7s
LESA Schwarzleotal 8.15 318 *e*Pn Pn 14 27 13.3 +1.4
comp=Z,268nm,0.6s,SNR=149
LESA Sn Sn 14 28 46.9 +2.9
comp=Z,77nm,0.7s
VRAC Vranov 8.19 341 Pn Pn 14 27 11.7 -0.7
comp=Z,0.8nm,0.3s,baz=169,slow=12,SNR=28
VRAC Sn Sn 14 28 44.3 -0.5
comp=Z,3.4nm,0.3s,baz=312,slow=6.4,SNR=5.5
comp=Z,34nm,0.8s
VRAC AML AML
VRAC Vranov 8.19 341 *e*PN Pn 14 27 13.3 +0.9
RJOB Jochberg 8.30 320 P Pn 14 27 16.7 +2.6
comp=Z,532nm,0.7s
OKC Ostrava-Krasne 8.38 348 *e*SN Sn 14 28 49.2 -0.3
OKC Ostrava-Krasne 8.38 348 P Pn 14 27 17.7 +2.7
comp=Z,45nm,0.8s
SALO Salr 8.40 302 Pn 14 27 15.8 +0.4
MORC Moravsky Berou 8.42 346 P Pn 14 27 17.2 +1.6
MORC Moravsky Berou 8.42 346 Pn Pn 14 27 15.6 0.0
MORC Moravsky Berou 8.42 346 *e*PN Pn 14 27 17.7 +2.1
MORC Moravsky Berou 8.42 346 ⇓P Pn 14 27 17.2 +1.6
MORC Moravsky Berou 8.42 346 P Pn 14 27 18.9 +3.2
comp=Z,38nm,0.8s
ISP Isparta 8.45 114 *i* P Pn 14 27 15.4 -0.7
ISP Isparta 8.45 114 Pn Pn 14 27 17.8 +1.7
CKRC Cesky Krumlov 8.48 330 *e*P Pn 14 27 17.8 +1.4
CKRC *e* 14 28 54.5
CKRC MLR MLR
comp=Z,4µm,9.2s
CKRC Cesky Krumlov 8.48 330 *e*PN Pn 14 27 17.8 +1.4
CKRC *e*SN Sn 14 28 54.5 +2.5
CKRC AMS AMS 14 30 40.0
comp=Z,4µm,9.2s
TREC Trest 8.48 336 AMS AMS 14 30 50.0
comp=Z,9µm,8.1s
TREC Trest 8.48 336 P Pn 14 27 18.8 +2.3
comp=Z,25nm,1.0s
OJC Ojcow 8.59 356 *e*P Pn 14 27 20.2 +2.3
OJC Ojcow 8.59 356 P Pn 14 27 18.5 +0.6
OJC Ojcow 8.59 356 Pn 14 27 18.4 +0.6
OJC Ojcow 8.59 356 P Pn 14 27 20.7 +2.9
comp=Z,38nm,0.8s
WTTA Wattenberg 8.59 314 *i* Pn Pn 14 27 19.8 +1.7
comp=Z,202nm,0.6s,SNR=76
WTTA *i* Sn Sn 14 28 55.7 +0.7
comp=Z,347nm,0.6s
WTTA Wattenberg 8.59 314 P Pn 14 27 20.4 +2.3
comp=Z,354nm,0.7s
MSSA Maissana 8.65 292 Pn 14 27 18.6 -0.2
WATA Walderalm 8.67 314 *e*Pn Pn 14 27 21.0 +1.9
comp=Z,235nm,0.6s,SNR=56
WATA *e*Sn Sn 14 28 57.6 +0.7
comp=Z,442nm,1.0s
GEC2 GERESS Array S 8.73 328 Pn Pn 14 27 19.1 -0.9
GEC2 GERESS Array S 8.73 328 P Pn 14 27 22.6 +2.6
comp=Z,52nm,0.7s
GERES GERESS Array B 8.73 328 Pn Pn 14 27 21.3 +1.3
comp=Z,0.2nm,0.3s,baz=150,slow=14,SNR=66
GERES Sn Sn 14 28 59.6 +1.2
comp=Z,0.3nm,0.3s,baz=138,slow=24,SNR=1.3
GERES Lg Lg 14 29 55.3
baz=152,slow=27
GERES LR LR 14 31 13.0
comp=Z,2µm,21.6s,baz=136,slow=41
comp=Z,23nm,0.7s
GERES AML AML
GERES GERESS Array B 8.73 328 P Pn 14 27 20.4 +0.5
GERES GERESS Array B 8.73 328 Pn Pn 14 27 20.4 +0.5
AKAS Kas 8.77 125 Pn Pn 14 27 21.8 +1.2
PGF Pioggiola 8.78 280 P Pn 14 27 21.6 +0.9
comp=Z,132nm,1.1s
SQTA Sankt Quirin 8.80 312 *e*Pn Pn 14 27 23.2 +2.3
comp=Z,190nm,0.5s,SNR=88
SQTA *e*Sn Sn 14 29 01.0 +0.9
comp=Z,135nm,0.8s
VSL Villasalto 8.92 260 Pn 14 27 21.4 -1.1
VSL Villasalto 8.92 260 P Pn 14 27 21.6 -0.9
comp=Z,49nm,0.8s
MOTA Moosalm 8.93 313 *i* Pn Pn 14 27 24.6 +1.9
comp=Z,83nm,0.4s,SNR=58
MOTA *e*Sn Sn 14 29 03.7 +0.4
comp=Z,147nm,0.6s
FETA Feichten 8.96 310 *i* Pn Pn 14 27 24.5 +1.4
comp=Z,33nm,0.4s,SNR=35
FETA *i* Sn Sn 14 29 03.4 -0.6
comp=Z,113nm,0.7s
KHC Kasperske Hory 9.01 328 *i* P Pn 14 27 24.8 +1.1
KHC Kasperske Hory 9.01 328 Pn 14 27 23.6 -0.1
KHC Kasperske Hory 9.01 328 *e*PN Pn 14 27 25.0 +1.3
KHC *e*SN Sn 14 29 05.7 +0.6
KHC AMS AMS 14 31 00.0
comp=Z,6µm,8.3s
KHC Kasperske Hory 9.01 328 P Pn 14 27 24.8 +1.1
comp=Z,872nmcomp=Z,71nm,0.9s
KHC Kasperske Hory 9.01 328 P Pn 14 27 26.0 +2.3
comp=Z,71nm,0.9s
FUORN Ofenpass-Fuorn 9.02 307 Pn Pn 14 27 23.5 -0.6
FUORN Ofenpass-Fuorn 9.02 307 P Pn 14 27 26.0 +1.9
comp=Z,116nm,0.6s
ZVC Zvikov 9.04 332 *e*PN Pn 14 27 25.8 +1.8
ZVC AMS AMS 14 31 10.0
comp=Z,6µm,12.1s
RETA Reutte 9.20 313 *i* Pn Pn 14 27 27.9 +1.5
comp=Z,29nm,0.4s,SNR=27
RETA *i* Sn Sn 14 29 08.7 -1.2
comp=Z,86nm,0.5s
DPC Dobruska-Polom 9.22 342 *e*P Pn 14 27 29.0 +2.5
DPC *e* 14 29 11.1
DPC MLR MLR
comp=Z,4µm,8.3s
DPC Dobruska-Polom 9.22 342 *e*PN Pn 14 27 29.0 +2.5
DPC *e*SN Sn 14 29 11.1 +0.8
DPC AMS AMS 14 31 50.0
comp=Z,4µm,8.3s
DPC Dobruska-Polom 9.22 342 P Pn 14 27 29.1 +2.5
comp=Z,23nm,0.9s
DPC Dobruska-Polom 9.22 342 P Pn 14 27 29.2 +2.6
comp=Z,23nm,0.9s
WET Wettzell 9.30 326 P Pn 14 27 29.8 +2.1
comp=Z,38nm,0.8s
DAVOX Davos/Dischmat 9.33 307 Pn Pn 14 27 29.2 +1.0
comp=Z,134nm,0.6s,baz=132,slow=14,SNR=64
DAVOX Sn Sn 14 29 13.1 -0.1
comp=Z,8.6nm,0.3s,baz=308,slow=20,SNR=8.8
DAVOX Lg Lg 14 30 05.3
baz=338,slow=21
DAVOX LR LR 14 31 59.6
comp=Z,1µm,19.2s,baz=112,slow=44
FUR Furstenfeldbru 9.35 317 P Pn 14 27 30.4 +2.1
comp=Z,129nm,0.8s
PRU Pruhonice 9.39 335 *e*P Pn 14 27 31.1 +2.3
PRU MLR MLR
comp=Z,8µm,8.5s
PRU Pruhonice 9.39 335 *e*PN Pn 14 27 31.1 +2.3
PRU AMS AMS 14 31 30.0
comp=Z,8µm,8.5s
PRU Pruhonice 9.39 335 P Pn 14 27 31.9 +3.1
comp=Z,18nm,1.1s
OSTC Ostas 9.44 342 *e*P Pn 14 27 32.0 +2.5
OSTC MLR MLR
comp=Z,4µm,8.4s
OSTC Ostas 9.44 342 *e*PN Pn 14 27 32.0 +2.5
OSTC AMS AMS 14 31 50.0
comp=Z,4µm,8.4s
UPC Upice 9.44 341 AMS AMS 14 31 40.0
comp=Z,4µm,11.2s
CHVC Chvalec 9.51 342 *e*P Pn 14 27 32.5 +2.0
CHVC Chvalec 9.51 342 *e*PN Pn 14 27 32.5 +2.0
TUE Stuetta 9.51 304 Pn 14 27 30.1 -0.6
TUE Stuetta 9.51 304 P Pn 14 27 32.4 +1.7
comp=Z,6µmcomp=Z,606nm,0.7s
TUE Stuetta 9.51 304 P Pn 14 27 32.8 +2.0
comp=Z,153nm,0.7s
DAVA Damuels 9.59 310 *e*Pn Pn 14 27 33.7 +2.0
comp=Z,59nm,0.5s,SNR=26
DAVA *e*Sn Sn 14 29 17.4 -2.0
comp=Z,150nm,0.9s
DAVA Damuels 9.59 310 P Pn 14 27 34.3 +2.5
comp=Z,126nm,0.6s
KEPZ Antalya-Kepez 9.66 116 ⇑P Pn 14 27 35.2 +2.5
UBR Ueberruh 9.68 312 P Pn 14 27 34.0 +1.2
comp=Z,128nm,0.7s
KSP Ksiaz 9.69 343 *e*P Pn 14 27 35.9 +2.9
GRC3 Grafenberg Arr 9.69 321 P Pn 14 27 34.5 +1.5
comp=Z,94nm,0.8s
ILGA Ilgaz 9.77 89 Pn Pn 14 27 35.3 +1.0
GRC2 Grafenberg Arr 9.77 321 P Pn 14 27 36.0 +1.9
comp=Z,108nm,0.8s
GRC1 Grafenberg Arr 9.79 322 P Pn 14 27 36.3 +1.9
comp=Z,83nm,0.7s
GRB5 Grafenberg Arr 9.80 323 P Pn 14 27 36.8 +2.3
comp=Z,108nm,0.8s
PVCC Panska Ves 9.85 336 AMS AMS 14 31 40.0
comp=Z,7µm,8.6s
PVCC Panska Ves 9.85 336 P Pn 14 27 37.8 +2.6
comp=Z,36nm,0.9s
GRC4 Grafenberg Arr 9.86 322 P Pn 14 27 37.4 +2.1
comp=Z,124nm,0.8s
GRB3 Grafenberg Arr 9.92 324 P Pn 14 27 38.9 +2.8
comp=Z,90nm,0.7s
GRB2 Grafenberg Arr 9.93 323 P Pn 14 27 38.6 +2.4
comp=Z,104nm,0.9s
BR106 Keskin Array S 9.96 97 P Pn 14 27 38.2 +1.3
comp=Z,67nmcomp=Z,6.9nm,0.8s
BR105 Keskin Array S 9.96 97 P Pn 14 27 38.3 +1.4
comp=Z,95nmcomp=Z,8.2nm,0.7s
BR131 Keskin Array S 9.98 97 P Pn 14 27 37.7 +0.6
BR131 Keskin Array S 9.98 97 *i* P Pn 14 27 38.0 +0.9
BR131 Keskin Array S 9.98 97 Pn Pn 14 27 38.2 +1.1
BRTR Keskin Array B 9.98 97 Pn Pn 14 27 37.3 +0.1
comp=Z,0.6nm,0.3s,baz=279,slow=12,SNR=19
BRTR Sn Sn 14 29 26.8 -2.3
comp=Z,0.2nm,0.3s,baz=266,slow=18,SNR=1.5
BRTR Lg Lg 14 30 32.8
baz=215,slow=30
BRTR LR LR 14 32 21.6
comp=Z,2µm,18.4s,baz=288,slow=43
comp=Z,4.3nm,0.6s
BRTR AML AML
BRTR Keskin Array B 9.98 97 *i* P Pn 14 27 39.2 +2.1
BRTR pmax pmax
comp=Z,5.0nm,0.6s
BRTR Keskin Array B 9.98 97 Pn Pn 14 27 38.7 +1.6
BR104 Keskin Array S 9.99 97 P Pn 14 27 38.6 +1.4
comp=Z,95nmcomp=Z,12nm,0.8s
RICC Richard 10.01 335 AMS AMS 14 31 50.0
comp=Z,6µm,9.2s
GRB1 Grafenberg Arr 10.02 324 P Pn 14 27 39.6 +2.1
comp=Z,98nm,0.8s
MON Monaco 10.03 286 P Pn 14 27 39.2 +1.6
comp=Z,58nm,0.8s
ESCA l'Escarene 10.08 287 P Pn 14 27 38.9 +0.6
comp=Z,42nm,0.7s
GRB4 Grafenberg Arr 10.12 324 P Pn 14 27 41.6 +2.8
comp=Z,94nm,0.7s
BNALP Bannalp 10.26 305 P Pn 14 27 43.9 +3.0
comp=Z,80nm,0.8s
SIM Simferopol' 10.28 67 *e*P Pn 14 27 42.2 +1.1
SIM pmax pmax
comp=Z,25nm,0.8s
SIM MLR MLR
comp=Z,741nm,16.0s
HSKC Hora Svate Kat 10.28 333 *e*PN Pn 14 27 43.8 +2.7
HSKC AMS AMS 14 31 50.0
comp=Z,6µm,10.9s
HSKC Hora Svate Kat 10.28 333 P Pn 14 27 43.6 +2.4
comp=Z,29nm,0.9s
NKC Novy Kostel 10.34 329 *e*P Pn 14 27 43.1 +1.3
NKC MLR MLR
comp=Z,4µm,8.5s
NKC Novy Kostel 10.34 329 *e*PN Pn 14 27 43.1 +1.3
NKC AMS AMS 14 31 50.0
comp=Z,4µm,8.5s

NKC **Novy Kostel** 10.34 329 P Pn 14 27 45.9 +4.0
comp=Z,29nm,1.1s
ISO **Isola** 10.36 289 P Pn 14 27 44.6 +2.4
comp=Z,33nm,0.9s
CALF **Calern** 10.39 286 P Pn 14 27 43.9 +1.2
comp=Z,76nm,0.8s
GRA1 **Grafenberg Arr** 10.43 324 Pn Pn 14 27 42.8 -0.3
GRA1 **Grafenberg Arr** 10.43 324 P Pn 14 27 46.3 +3.1
comp=Z,57nm,0.8s
GRF **Grafenberg Arr** 10.43 324 P Pn 14 27 42.8 -0.3
GRA3 **Grafenberg Arr** 10.44 324 P Pn 14 27 46.2 +3.0
comp=Z,85nm,0.8s
TANN **Tannenbergstha** 10.47 330 P Pn 14 27 45.5 +1.7
comp=Z,44nm,0.7s
SLE **Schleitheim** 10.64 309 P Pn 14 27 47.2 +1.2
comp=Z,91nm,0.8s
KEST **Kesra** 10.69 240 Pn Pn 14 27 48.3 +1.4
comp=Z,0.5nm,0.3s,baz=44,slow=2.0,SNR=14
KEST LR LR 14 33 09.4
comp=Z,2µm,18.6s,baz=36,slow=45
comp=Z,22nm,1.0s
KEST AML AML
KEST **Kesra** 10.69 240 P Pn 14 27 48.7 +1.8
SNR=8.1
KEST **Kesra** 10.69 240 Pn Pn 14 27 45.4 -1.5
AK20 **Malin Array Si** 10.73 29 P Pn 14 27 48.0 +0.8
KIEV **Kiev** 10.77 30 *eP* Pn 14 27 50.8 +3.1
KIEV **Kiev** 10.77 30 Pn Pn 14 27 47.3 -0.4
KIEV **Kiev** 10.77 30 P Pn 14 27 50.8 +3.1
SENIN **Lac Senin/Sane** 10.77 300 Pn Pn 14 27 46.9 -1.0
AKASG **Malin Array Be** 10.78 30 Pn Pn 14 27 49.7 +1.9
comp=Z,0.8nm,0.3s,baz=219,slow=12,SNR=11
AKASG Lg Lg 14 30 55.2
baz=272,slow=39
AKASG LR LR 14 33 21.3
comp=Z,835nm,19.9s,baz=204,slow=45
comp=Z,2.5nm,0.7s
AKASG AML AML
AKBB **Malin Array Si** 10.78 30 *i* P Pn 14 27 49.6 +1.8
BNI **Bardonecchia** 10.79 293 P Pn 14 27 51.1 +2.8
comp=Z,52nm,0.6s
STU **Stuttgart** 10.81 315 *eP* Pn 14 27 49.0 +0.7
STU **Stuttgart** 10.81 315 P Pn 14 27 49.4 +1.1
comp=Z,96nm,1.1s
MOX **Moxa** 10.99 328 P Pn 14 27 53.8 +3.0
comp=Z,40nm,0.9s
CLL **Collm** 11.02 334 *i* P Pn 14 27 53.7 +2.5
CLL pmax pmax
comp=Z,7.0nm,0.8s
CLL MLR MLR
comp=Z,4µm,12.4s
CLL **Collm** 11.02 334 Pn Pn 14 27 50.8 -0.4
CLL **Collm** 11.02 334 *i* Pn Pn 14 27 53.7 +2.5
comp=Z,7.0nm,0.8s
CLL *e*Sn Sn 14 29 56.0 +1.6
CLL *ex* x 14 30 35.0
CLL *e*Sg 14 31 27.0
CLL AMS AMS 14 31 36.0
comp=N,2µm,16.4s
CLL AMS AMS 14 31 36.0
comp=E,4µm,16.6s
CLL AMS AMS 14 32 00.0
comp=Z,0.0nm,7.5s
CLL AMS AMS 14 32 00.0
comp=Z,4µm,12.4s
BFO **Black Forest** 11.03 311 *i* P Pn 14 27 51.9 +0.6
BFO **Black Forest** 11.03 311 Pn Pn 14 27 49.7 -1.6
BOURR **Bourrignon** 11.22 305 P Pn 14 27 54.9 +0.9
comp=Z,81nm,0.8s
ORIF **Oris-en-Rattie** 11.32 292 P Pn 14 27 56.0 +0.6
comp=Z,63nm,0.8s
NEUB **Neuenburg** 11.37 330 P Pn 14 28 01.3 +5.4
comp=Z,30nm,0.8s
RUSF **Rustrel** 11.45 287 P Pn 14 27 57.0 0.0
comp=Z,31nm,1.2s
GIMEL **St. Georges /** 11.49 300 P Pn 14 27 57.4 -0.3
comp=Z,38nm,0.9s
ARBF **Arbois** 11.52 284 P Pn 14 27 56.1 -1.9
comp=Z,61nm,1.1s
ECH **Echery** 11.64 309 P Pn 14 27 59.2 -0.5
ECH **Echery** 11.64 309 Pn Pn 14 27 59.2 -0.5
ECH **Echery** 11.64 309 P Pn 14 28 00.8 +1.1
comp=Z,21nm,1.0s
WIMM **Wimmelburg** 11.73 330 P Pn 14 28 02.2 +1.4
comp=Z,26nm,0.8s
CSS **Mathiatis** 11.92 120 P Pn 14 28 08.3 +4.7
comp=Z,31nm,0.8s
TNS **Taunus Mts** 12.10 319 P Pn 14 28 06.3 +0.4
comp=Z,54nm,0.7s
SSB **Saint Sauveur** 12.32 293 P Pn 14 28 07.8 -1.2
SSB **Saint Sauveur** 12.32 293 Pn Pn 14 28 07.8 -1.2
SSB **Saint Sauveur** 12.32 293 P Pn 14 28 08.2 -0.8
comp=Z,33nm,0.6s
GTTG **Gottingen** 12.35 327 P Pn 14 28 14.0 +4.8
comp=Z,57nm,1.0s
SUW **Suwalki** 12.47 7 *eP* P 14 28 17.8 -5.0
SUW **Suwalki** 12.47 7 *eP* Pn 14 28 16.1 +5.1
ANN **Anapa** 12.57 70 *eP* Pn 14 28 15.5 +3.2
ANN *eS* Sn 14 30 36.1 +3.9
ANN pmax pmax
comp=Z,38nm,1.0s
ANN MLR MLR
comp=Z,687nm,12.0s
MAHO **Mahon** 12.62 267 P Pn 14 28 13.3 +0.2
ANDN **Andirin** 12.69 104 P Pn 14 28 19.8 +5.6
comp=Z,105nm,0.8s
WLF **Walferdange** 12.96 313 P Pn 14 28 19.6 +2.0
WLF **Walferdange** 12.96 313 *dP* Pn 14 28 18.3 +0.7
comp=Z,23nm,0.8s
WLF **Walferdange** 12.96 313 P Pn 14 28 21.3 +3.6
comp=Z,33nm,0.8s
CY603 **RAF Akrotiri,** 13.07 120 Pn Pn 14 28 19.9 +0.9
LOR **Lormes** 13.29 301 P Pn 14 28 21.5 -0.8
comp=Z,58nm,0.7s
BUG **Bochum--Univer** 13.46 321 P Pn 14 28 28.6 +4.1
comp=Z,36nm,0.9s
MEM **Membach** 13.56 316 *dP* Pn 14 28 27.4 +1.5
MEM **Membach** 13.56 316 P Pn 14 28 29.0 +3.1
comp=Z,24nm,0.8s
MNK **Minsk** 13.70 18 *i* P Pn 14 28 27.8 +0.1
MNK *i* S Sn 14 31 00.8 +1.2
MNK pmax pmax
comp=E,10.0nm,0.8s
MNK pmax pmax
comp=N,10.0nm,0.8s
MNK pmax pmax
comp=Z,29nm,0.8s
MNK MLR MLR
comp=N,867nm,14.0s
MNK MLR MLR
comp=Z,777nm,16.0s
MNK MLR MLR
comp=E,532nm,15.0s
MNK **Minsk** 13.70 18 *i* P Pn 14 28 27.8 +0.1
comp=E,10.0nm,0.8s
MNK *i* P Pn 14 28 27.8 +0.1
comp=N,10.0nm,0.8s
MNK *i* P Pn 14 28 27.8 +0.1
comp=Z,29nm,0.8s,baz=204
MNK *i* PP PnPn 14 28 35.7 +0.2
MNK *i* PPP PPP 14 28 43.4
MNK *i* S Sn 14 31 00.8 +1.2
MNK *i* SS SnSn 14 31 14.3 +2.4
MNK *i* SSS SSS 14 31 26.8
MNK *i* LQ LQ 14 32 25.4
MNK *i* LR LR 14 33 30.6
MNK *i* LRM MLR 14 34 07.9
comp=N,867nm,13.6s
MNK *i* LRM MLR 14 34 20.1
comp=Z,777nm,15.9s
MNK *i* LRM MLR 14 34 27.2
comp=E,532nm,14.5s
RCHB **Rochefort** 13.73 313 *dP* Pn 14 28 31.7 +3.6
comp=Z,24nm,0.8s
RCHB *d*S Sn 14 30 55.0 -5.4
RCHB **Rochefort** 13.73 313 P Pn 14 28 30.6 +2.5
comp=Z,35nm,0.7s
ETOS **Mallorca** 13.74 268 P Pn 14 28 30.1 +1.7
MTLF **Montolieu** 13.78 283 P Pn 14 28 32.3 +3.4
comp=Z,32nm,1.1s
BCLA **Clavier** 13.83 315 *dP* Pn 14 28 31.5 +2.0
comp=Z,21nm,0.7s
BCLA *d*S Sn 14 31 00.5 -2.5
IBBN **Ibbenburen** 13.84 325 P Pn 14 28 33.8 +4.3
comp=Z,41nm,0.8s
NACGM **Naroch** 13.84 15 *eP* P 14 28 35.3 -2.7
comp=N,11nm,0.9s
BSD **Bornholm Skovb** 14.00 346 *i* P P 14 28 38.3 -1.5
PABE **Paberze** 14.02 8 *eP* P 14 28 36.1 -3.9
PABE **Paberze** 14.02 8 P Pn 14 28 35.1 +3.1
comp=Z,45nm,1.0s
DOU **Dourbes** 14.04 312 *dP* Pn 14 28 35.1 +2.7
BMRD **Maredsous** 14.05 313 *dP* Pn 14 28 34.7 +2.1
comp=Z,28nm,0.7s
BMRD *d*PP PbPb 14 29 16.7 -1.9
SOC **Sochi** 14.10 76 *eP* Pn 14 28 32.8 -0.5
SOC *e* 14 31 08.7
SOC pmax pmax
comp=Z,16nm,1.0s
SOC MLR MLR
comp=Z,506nm,17.0s
MMA0B **Mount Meron ar** 14.49 122 P Pn 14 28 39.7 +1.0
MMAI **Mount Meron Ar** 14.49 122 Pn Pn 14 28 39.3 +0.6
comp=Z,0.4nm,0.3s,baz=315,slow=15,SNR=7.4
MMAI Sn Sn 14 31 16.6 -2.7
comp=Z,1.1nm,0.3s,baz=256,slow=17,SNR=1.6
MMAI Lg Lg 14 32 46.3
comp=Z,0.9nm,0.3s,baz=232,slow=50,SNR=1.6
MMAI LR LR 14 35 17.9
comp=Z,753nm,19.7s,baz=302,slow=42
comp=Z,11nm,1.0s
MMAI AML AML
CEST **Esterri de Car** 14.50 280 Pn Pn 14 28 37.4 -1.5
GEM **Giv'at Ha'Em** 14.53 121 P P 14 28 44.1 -1.7
UCC **Uccle** 14.54 314 P Pn 14 28 38.1 -1.1
UCC **Uccle** 14.54 314 Pn Pn 14 28 38.1 -1.1
LUNU **Lund** 14.78 344 *i* P P 14 28 49.1 +0.6
ERBR **Yeremizino-Bor** 14.84 68 *eP* P 14 28 48.6 -0.6
ERBR pmax pmax
comp=Z,38nm,1.7s
ERBR MLR MLR
comp=N,2µm,14.0s
LABN **Labinsk** 14.88 72 *eP* Pn 14 28 46.1 +2.2
LABN *eS* Sn 14 31 22.5 -6.1
LABN pmax pmax
comp=Z,49nm,0.7s
MMLI **Mount Malkishu** 14.88 123 P Pn 14 28 45.1 +1.1
SALP **Salfit** 14.99 125 P P 14 28 53.1 +2.1
comp=Z,1µmcomp=Z,105nm,1.1s
BLEU **Blekinge** 15.01 349 *i* P P 14 28 50.5 -0.4
EIBI **Ibiza** 15.03 266 P Pn 14 28 46.4 +0.5
KOPT **Kop Dagi** 15.04 90 Pn Pn 14 28 46.3 0.0
QRNJ **Al-Qirein** 15.04 123 P P 14 28 49.9 -1.6
comp=Z,30µmcomp=Z,3µm,0.9s
UJAP **Al Uja** 15.24 125 P Pn 14 28 50.5 +1.8
comp=Z,48nm,1.0s
UJAP **Al Uja** 15.24 125 P Pn 14 28 49.2 +0.5
KZIT **Kziot** 15.35 130 P Pn 14 28 50.7 +0.5
KZIT **Kziot** 15.35 130 P Pn 14 28 50.1 -0.1
comp=Z,170nm,1.0s
KZIT **Kziot** 15.35 130 P Pn 14 28 50.6 +0.3
DEL **Delary** 15.48 346 *i* P P 14 28 56.2 0.0
MSBI **Mazada** 15.62 127 P Pn 14 28 54.4 +0.6
comp=Z,72nm,2.4s
MSBI **Mazada** 15.62 127 P Pn 14 28 53.9 +0.2
LISJ **El Lisan** 15.74 127 P P 14 29 02.6 +3.3
comp=Z,1µmcomp=Z,49nm,1.6s
GHAJ **Ghor Haditha** 15.75 126 Pn Pn 14 28 56.3 +0.9
GHAJ IAmb IAmb 14 28 58.5
comp=Z,220nm,1.8s
GHAJ **Ghor Haditha** 15.75 126 P P 14 28 59.2 -0.2
comp=Z,1µmcomp=Z,87nm,1.7s
GHAJ **Ghor Haditha** 15.75 126 P Pn 14 28 56.6 +1.1
comp=Z,88nm,1.7s
MFF **Saint Martin d** 15.78 295 P Pn 14 28 57.0 +1.3
comp=Z,8.1nm,1.5s
RMNI **Mount Ramon** 15.79 130 P Pn 14 28 56.3 +0.3
VORD **Divnogorie** 15.80 48 *eP* Pn 14 28 54.4 -1.5
VORD pmax pmax
comp=Z,20nm,1.0s
VSR **Storozhevoye** 15.85 47 *eP* P 14 28 59.6 -0.8
VSR pmax pmax
comp=Z,10.0nm,0.7s
VSR MLR MLR
comp=Z,2µm,10.0s
IDAN **Idan** 15.91 128 P Pn 14 28 57.3 -0.2
ATE **Arette** 15.92 282 P Pn 14 28 58.5 +1.0
ASF **Jabal al Asfar** 15.96 121 Pn Pn 14 28 59.3 +0.6
comp=Z,1.5nm,0.3s,baz=279,slow=4.4,SNR=7.9
ASF Sn Sn 14 31 59.6 +3.7
comp=Z,0.2nm,0.3s,baz=248,slow=11,SNR=1.3
ASF LR LR 14 36 56.1
comp=Z,193nm,20.4s,baz=303,slow=44
ASF **Jabal al Asfar** 15.96 121 P P 14 29 06.1 +3.9
comp=Z,5µmcomp=Z,133nm,1.3s
ZFRI **Zfri** 16.06 129 P Pn 14 28 59.7 +0.3
VORR **Voronezh** 16.11 45 *eP* P 14 29 03.6 +0.4
VORR pmax pmax
comp=Z,30nm,0.5s
PRNI **Paran** 16.11 130 P P 14 29 04.0 +0.6
comp=Z,5µmcomp=Z,515nm,1.7s
FABU **Fabenberg** 16.20 344 *i* P P 14 29 04.8 +0.6
SHA1 **Shidzhatmaz** 16.23 75 *i* P P 14 29 04.3 -0.7
KIV **Kislovodsk** 16.26 75 P P 14 29 09.4 +4.4
KIV **Kislovodsk** 16.26 75 *eP* P 14 29 04.0 -1.1
KIV *eS* Sn 14 32 05.9 +3.6
KIV pmax pmax
comp=Z,12nm,1.1s
KIV MLR MLR
comp=Z,195nm,14.0s
KIV **Kislovodsk** 16.26 75 P P 14 29 06.4 +1.4
HRFI **Mount Harif** 16.36 131 P P 14 29 08.2 +1.9
comp=Z,1µmcomp=Z,72nm,1.7s
HRFI **Mount Harif** 16.36 131 P Pn 14 29 03.3 -0.1
comp=Z,72nm,1.7s
HRFI **Mount Harif** 16.36 131 P Pn 14 29 03.8 +0.4
KBZ **Khabaz** 16.41 75 Pn P 14 29 05.5 -1.1
comp=Z,0.3nm,0.3s,baz=304,slow=7.9,SNR=9.2
KBZ LR LR 14 37 28.8
comp=Z,530nm,18.2s,baz=264,slow=45
comp=Z,2.4nm,0.9s
KBZ AML AML
KBZ **Khabaz** 16.41 75 *i* P P 14 29 06.0 -0.6
EPOS **Posof** 16.45 83 P P 14 29 08.7 +1.5
comp=Z,54nm,1.5s
LPSR **Galich'ya Gora** 16.47 42 *eP* Pn 14 29 04.3 -0.2
LPSR pmax pmax
comp=Z,30nm,1.0s
LPSR MLR MLR
comp=Z,1µm,9.0s
YTVT **Yotvata** 16.49 131 P Pn 14 29 05.1 +0.2
GURO **Guroymak-BITLI** 16.57 94 P P 14 29 10.9 +2.2
EIL **Elat** 16.59 132 Pn Pn 14 29 06.7 +0.4
comp=Z,1.0nm,0.3s,baz=309,slow=13,SNR=16
EIL Sn Sn 14 32 03.9 -6.6
comp=Z,0.2nm,0.3s,baz=14,slow=13,SNR=2.1
EIL LR LR 14 38 26.4
comp=Z,227nm,19.1s,baz=298,slow=48
comp=Z,16nm,1.0s
EIL AML AML
EIL **Elat** 16.59 132 P P 14 29 10.1 +1.3
comp=Z,528nmcomp=Z,41nm,1.2s
EIL **Elat** 16.59 132 P P 14 29 09.4 +0.6
comp=Z,41nm,1.2s
EIL **Elat** 16.59 132 P Pn 14 29 06.9 +0.6
MUD **Monsted U'grnd** 16.60 337 *i* P P 14 29 09.9 +1.2
AQBJ **Aqaba** 16.61 131 P P 14 29 10.5 +1.6
comp=Z,2µmcomp=Z,121nm,0.9s
ECHE **Chera** 16.61 270 P P 14 29 09.8 +0.8
NCK **Nalchik** 16.92 76 *i* P Pn 14 29 11.0 +0.6
OBN **Obninsk** 17.02 32 P Pn 14 29 10.1 -1.4
comp=Z,2.1nm,0.3s,baz=344,slow=5.3,SNR=5.6
OBN LR LR 14 36 30.4
comp=Z,290nm,21.1s,baz=42,slow=40
comp=Z,28nm,0.6s
OBN AML AML
OBN **Obninsk** 17.02 32 *c i* P P 14 29 13.4 +0.2
OBN *e*S Sn 14 32 23.8 +3.4
OBN pmax pmax
comp=Z,51nm,1.1s
OBN MLR MLR
comp=Z,560nm,12.0s
OBN **Obninsk** 17.02 32 P P 14 29 13.5 +0.2
MTSE **Matsula** 17.18 5 *eP* P 14 29 14.7 -0.4
MTSE **Matsula** 17.18 5 P P 14 29 16.6 +1.6
comp=Z,313nm,1.1s
CART **Cartagena** 17.23 264 P Pn 14 29 14.5 +0.3
VSU **Vasula** 17.24 11 *ceP* Pn 14 29 14.6 +0.4
VSU pmax pmax
comp=Z,24nm,0.6s
VSU **Vasula** 17.24 11 *eP* P 14 29 15.3 -0.4
comp=Z,97nm,0.8s
VRH **Novokhopyorsk** 17.27 49 *eP* Pn 14 29 12.9 -1.7
VRH pmax pmax
comp=Z,20nm,0.9s
VRH MLR MLR
comp=Z,2µm,12.0s
ETOB **Tobarra** 17.30 267 P P 14 29 17.9 +1.2
TJOU **Tjoern** 17.39 344 *i* P P 14 29 18.0 +0.7
MOS **Moscow** 17.89 32 *eP* Pn 14 29 21.9 -0.3
MOS MLR MLR
comp=Z,1µm,11.0s
MOS MLR MLR
comp=N,1µm,10.0s
MOS MLR MLR
comp=E,900nm,10.0s
ARBE **Arbavere** 18.10 9 *eP* P 14 29 27.6 +2.4
ARBE **Arbavere** 18.10 9 P P 14 29 26.6 +1.5
comp=Z,149nm,0.8s
HAKT **HAKKARI** 18.14 95 P P 14 29 29.8 +3.7
comp=Z,177nm,1.6s
GNI **Garni** 18.19 87 P P 14 29 28.0 +1.5
comp=Z,2.0nm,0.3s,baz=311,slow=2.4,SNR=18
GNI LR LR 14 36 40.5
comp=Z,491nm,20.6s,baz=279,slow=38
comp=Z,57nm,1.1s
GNI AML AML
GNI **Garni** 18.19 87 P P 14 29 30.9 +4.4
GNI **Garni** 18.19 87 *i* P P 14 29 26.8 +0.3
GNI pmax pmax
comp=Z,99nm,1.0s
GNI **Garni** 18.19 87 P P 14 29 27.0 +0.5
GNI IAmb IAmb 14 29 34.1
comp=Z,85nm,0.9s
GNI **Garni** 18.19 87 P P 14 29 31.1 +4.5
comp=Z,110nm,1.1s
UPP **Uppsala** 18.32 355 *eP* Pn 14 29 27.5 -0.1
ENIJ **Nijar** 18.35 263 P P 14 29 32.0 +3.8
STRU **Stroemstad** 18.40 344 *eP* P 14 29 28.4 -0.1
STRU **Stroemstad** 18.40 344 *i* P Pn 14 29 28.7 +0.2
MEF **Metsahovi** 18.72 6 *eP* P 14 29 31.9 0.0
ESBB **Sonseca Array** 18.84 272 P P 14 29 32.7 -0.8
ESDC **Sonseca Array** 18.84 272 P P 14 29 32.2 -1.4
comp=Z,0.2nm,0.3s,baz=71,slow=12,SNR=23
ESDC PcP PcP 14 33 59.9 -0.2
comp=Z,0.5nm,0.7s,baz=90,slow=1.3,SNR=1.7
ESDC LR LR 14 36 29.6
comp=Z,346nm,21.9s,baz=83,slow=36
comp=Z,4.8nm,0.9s
ESDC AML AML
ESDC **Sonseca Array** 18.84 272 P 14 29 32.2 -1.4
ESDC PcP **PcP** 14 34 00.1 0.0
HFS **Hagfors** 19.00 349 P P 14 29 35.3 +0.1
comp=Z,2.6nm,0.3s,baz=167,slow=9.1,SNR=26
HFS LR LR 14 37 07.5
comp=Z,631nm,19.1s,baz=166,slow=38
comp=Z,14nm,0.5s
HFS AML AML
LBWR **Ladybower, Pea** 19.10 316 P P 14 29 33.3 -2.9
comp=Z,83nm,0.8s
KONO **Kongsberg** 19.30 343 P P 14 29 38.9 +0.5
KONO pmax pmax
comp=Z,37nm,1.3s
KONO **Kongsberg** 19.30 343 P P 14 29 38.9 +0.5
KONO **Kongsberg** 19.30 343 *eP* P 14 29 38.1 -0.2
OSL **Oslo** 19.33 345 *eP* P 14 29 38.6 -0.1
RAF **Rauma** 19.40 1 *eP* P 14 29 37.1 -2.3
MAK **Makhachkala** 19.80 77 *eP* P 14 29 42.4 -1.6
MAK *eS* S 14 33 25.5 -1.4
MAK pmax pmax
comp=Z,347nm,1.3s
MAK MLR MLR
comp=Z,1µm,13.0s
BLS5 **Blasjo** 19.89 338 *eP* Pn 14 29 46.0 -0.4
NC602 **NORSAR Array S** 19.92 347 P P 14 29 44.5 -0.6
NC602 **NORSAR Array S** 19.92 347 *eP* P 14 29 44.7 -0.4
FINES **FINESS Array B** 20.07 7 P P 14 29 46.4 -0.4
comp=Z,8.0nm,0.7s,baz=187,slow=7.9,SNR=24
FINES PcP **PcP** 14 34 01.2 -0.5
comp=Z,2.1nm,0.5s,baz=176,slow=1.9,SNR=9.0
comp=Z,8.0nm,0.7s
FINES **FINESS Array B** 20.07 7 P P 14 29 47.2 +0.4
FINES **FINESS Array B** 20.07 7 P P 14 29 47.2 +0.4
FINES PcP **PcP** 14 34 01.3 -0.4
FIA1 **FINESS Array S** 20.08 7 P P 14 29 47.6 +0.8
FIA1 IAmb IAmb 14 30 00.6
comp=Z,43nm,0.9s
EMAL **Malaga-Limoner** 20.09 264 P P 14 29 46.0 -1.1
EMAL **Malaga-Limoner** 20.09 264 P P 14 29 48.0 +0.9
comp=Z,18nm,1.2s
NAO01 **NORSAR Array S** 20.14 346 P P 14 29 47.5 0.0
NAO01 **NORSAR Array S** 20.14 346 P Pn 14 29 49.7 +0.3
comp=Z,18nm,0.7s
NC405 **NORSAR Array S** 20.24 347 P P 14 29 48.3 -0.4
NC405 IAmb IAmb 14 29 50.0
comp=Z,51nm,0.7s
NB2 **NORSAR Subarra** 20.26 347 P P 14 29 48.5 -0.4
comp=Z,17nm,0.8s,baz=159,slow=11
NB2 **NORSAR Subarra** 20.26 347 P P 14 29 48.0 -0.9
NOA **NORSAR Array B** 20.26 347 P P 14 29 47.7 -1.2
comp=Z,7.5nm,0.7s,baz=165,slow=10,SNR=48
NOA ScP **ScP** 14 37 36.6 -1.7
comp=Z,0.6nm,0.8s,baz=169,slow=6.4,SNR=3.3
NOA LR LR 14 37 54.8
comp=Z,272nm,18.7s,baz=165,slow=38
comp=Z,7.5nm,0.7s
NC303 **NORSAR Array S** 20.41 347 P P 14 29 50.3 -0.2
NC303 IAmb IAmb 14 29 52.0
comp=Z,50nm,0.8s
PBRG **Braganca** 20.49 280 *eP* P 14 29 52.6 +1.0
PBRG IAmb IAmb 14 30 00.8
comp=Z,57nm,1.7s
SKAR **Skarslia** 20.52 342 *eP* P 14 29 51.1 -0.6
KEF **Keuruu** 20.69 5 *eP* P 14 29 53.1 -0.4
EKA **Eskdalemuir Ar** 20.79 319 P P 14 29 53.9 -0.8
comp=Z,24nm,0.6s,baz=116,slow=9.1,SNR=67
EKA LR LR 14 39 03.9
comp=Z,2µm,19.1s,baz=140,slow=40
comp=Z,24nm,0.6s
EKA **Eskdalemuir Ar** 20.79 319 P P 14 29 54.3 -0.4
EKA pmax pmax
comp=Z,29nm,0.9s
ESK **Eskdalemuir** 20.81 319 *i* P P 14 29 55.5 +0.7
ESK **Eskdalemuir** 20.81 319 P P 14 29 54.6 -0.2
ESK IAmb IAmb 14 29 55.7
comp=Z,47nm,0.7s
ESK **Eskdalemuir** 20.81 319 P P 14 29 55.1 +0.3
comp=Z,69nm,0.7s
ESK **Eskdalemuir** 20.81 319 P P 14 29 55.1 +0.3
comp=Z,80nm,0.7s
EKB **Eskdalemuir** 20.81 319 P P 14 29 54.6 -0.2
EKB IAmb IAmb 14 29 57.2
comp=Z,37nm,0.7s
BER **Bergen** 21.01 338 *eP* P 14 29 57.0 +0.1
BELG **Belogornoye** 21.11 50 P P 14 29 59.0 +0.9
comp=Z,47nm,0.7s,baz=347,slow=0.8,SNR=12
comp=Z,47nm,0.7s
BELG **Belogornoye** 21.11 50 *i* P P 14 29 57.8 -0.3
BELG pmax pmax
comp=Z,7.0nm,0.6s
ASK **Askoy** 21.13 338 *eP* P 14 29 57.9 -0.3
PVRL **Vila Real** 21.30 278 *eP* P 14 30 02.9 +2.6
PVRL IAmb IAmb 14 30 16.1
comp=Z,48nm,1.9s
SUF **Sumiainen** 21.34 7 *eP* P 14 30 00.2 -0.2
POLO **Lamas de Olo** 21.34 279 *eP* P 14 29 58.4 -2.4
POLO *ep*Pn sP 14 30 06.6 +0.5
POLO IAmb IAmb 14 30 10.4
comp=Z,32nm,1.4s
MTE **Manteigas** 21.35 276 *eP* P 14 30 00.5 -0.3
MTE **Manteigas** 21.35 276 *eP* P 14 30 01.3 +0.5
MTE *ep*P pP 14 30 04.0 -0.5
MTE IAmb IAmb 14 30 13.7
comp=Z,57nm,1.8s
PCBR **Castelo Branco** 21.43 275 *eP* P 14 30 01.7 +0.1
PCBR *ep*P pP 14 30 04.9 -0.4
PCBR IAmb IAmb 14 30 10.3
comp=Z,39nm,1.6s
HYA **Hoyanger** 21.45 341 *eP* P 14 29 59.9 -1.7
VAF **Ylistaro** 21.45 2 *eP* P 14 30 01.4 -0.2
PCAB **Cabril** 21.45 280 *eP* P 14 30 02.8 +0.9
PCAB *ep*P pP 14 30 05.1 -0.6
PMRV **Marv??o** 21.47 273 *eP* P 14 30 02.5 +0.5
PMRV *ep*P pP 14 30 05.9 +0.2
PMRV IAmb IAmb 14 30 12.4

comp=Z,35nm,2.1s
PVIS Viseu 21.54 277 *e*P **P** **14 30 06.1 +3.2**
PVIS *e*pP **sP** **14 30 08.9 +0.7**
PBAR Barrancos 21.56 270 *e*P **P** **14 30 04.7 +1.6**
PBAR IAmb IAmb 14 30 09.2
comp=Z,70nm,2.3s
PBAR *e*pP **sP** **14 30 09.8 +1.4**
DOMB Dombas 21.59 345 *e*P **P** **14 30 03.6 +0.5**
PGAV Gavieira, Arco 21.59 281 *e*P **P** **14 30 02.3 -1.2**
PGAV *e*pP **pP** **14 30 07.7 +0.5**
PGAV IAmb IAmb 14 30 11.6
comp=Z,95nm,2.1s
PESTR Estremoz 21.77 272 P **P** **14 30 04.0 -1.3**
PESTR Estremoz 21.77 272 *e*P **P** **14 30 07.3 +2.0**
PESTR IAmb IAmb 14 30 14.1
comp=Z,36nm,1.1s
PESTR Estremoz 21.77 272 P **P** **14 30 07.2 +1.9**
comp=Z,24nm,1.3s
MDT Midelt 21.97 255 P **P** **14 30 06.8 -0.8**
comp=Z,8.0nm,0.8s,baz=78,slow=12,SNR=18
MDT LR LR 14 38 39.0
comp=Z,510nm,18.3s,baz=58,slow=37
comp=Z,8.0nm,0.8s
PSARD Sardoal 22.00 274 *e*P **P** **14 30 08.1 +0.3**
PSARD *e*pP **pP** **14 30 11.4 0.0**
PSARD IAmb IAmb 14 30 14.3
comp=Z,74nm,2.6s
IFR Ifrane 22.00 257 P **P** **14 30 07.4 -0.6**
IFR Ifrane 22.00 257 P **P** **14 30 07.9 -0.1**
comp=Z,6.6nm,1.8s
MD01 Midelt array s 22.05 255 **P** **14 30 07.3 -1.3**
MD31 MD31 22.06 255 P **P** **14 30 08.3 -0.2**
AKN Aaknes 22.14 343 *e*P **P** **14 30 08.6 -0.5**
EVO Evora 22.18 271 *e*P **P** **14 30 11.3 +1.6**
EVO *e*pP **sP** **14 30 14.6 -0.5**
EVO IAmb IAmb 14 30 15.9
comp=Z,39nm,2.1s
PMTG Montargil 22.18 273 *e*P **P** **14 30 10.8 +1.0**
PMTG IAmb IAmb 14 30 20.6
comp=Z,53nm,1.7s
JOF Joensuu 22.19 13 *e*P **P** **14 30 09.5 -0.1**
PBEJ Beja 22.22 270 *e*pP **pP** **14 30 13.2 -0.6**
PBEJ IAmb IAmb 14 30 18.6
comp=Z,45nm,2.3s
PVAQ Vaqueiros 22.32 268 *e*P **P** **14 30 13.6 +2.4**
PVAQ *e*pP **sP** **14 30 16.4 -0.2**
MOL Molde 22.37 344 *e*P **P** **14 30 10.3 -1.2**
KLMR Klimovskoe 22.37 24 *e*P **P** **14 30 12.5 +1.0**
KLMR S **S** **14 34 17.4 +0.4**
KLMR pmax pmax
comp=Z,64nm,1.0s
KLMR MLR MLR
comp=Z,680nm,10.0s
PCVE Castro Verde 22.48 269 *e*P **P** **14 30 14.4 +1.4**
PCVE *e*pP **pP** **14 30 16.2 -0.4**
PCVE IAmb IAmb 14 30 20.7
comp=Z,48nm,2.7s
PBDV Barranco-do-Ve 22.53 268 *e*P **P** **14 30 14.0 +0.5**
PBDV IAmb IAmb 14 30 29.9
comp=Z,85nm,1.7s
MESJ Messejana 22.55 270 *e*P **P** **14 30 14.0 +0.3**
MESJ IAmb IAmb 14 30 23.0
comp=Z,5.5nm,1.0s
MESJ Messejana 22.55 270 *e*P **P** **14 30 15.8 +2.1**
MESJ *e*pP **sP** **14 30 19.2 +0.1**
PLOUS Minas do Lousa 22.64 270 *e*P **P** **14 30 15.1 +0.5**
PLOUS *e*pP **pP** **14 30 17.3 -0.9**
PLOUS IAmb IAmb 14 30 23.0
comp=Z,57nm,2.2s
TAM Tamanrasset 22.73 219 P **P** **14 30 15.5 -0.4**
TAM pmax pmax
comp=Z,48nm,1.2s
TAM Tamanrasset 22.73 219 P **P** **14 30 15.5 -0.4**
TAM IAmb IAmb 14 30 22.7
comp=Z,48nm,1.2s
TAM Tamanrasset 22.73 219 P **P** **14 30 20.1 +4.2**
comp=Z,19nm,1.1s
NSS Namsos 23.46 350 *e*P **P** **14 30 22.8 0.0**
OUL Oulu 23.65 5 P **P** **14 30 27.5 +2.9**
comp=Z,43nm,2.3s
AVE Averroes 23.78 259 P **P** **14 30 25.2 -1.1**
KIRV Kirov 24.70 37 *i* P **P** **14 30 34.1 -0.4**
TIO Tiouine 24.89 254 P **P** **14 30 37.5 +0.8**
TIO Tiouine 24.89 254 P **P** **14 30 38.7 +2.1**
comp=Z,30nm,1.0s
RAUS Rausandaksla 25.11 354 *e*P **P** **14 30 39.5 +1.4**
KONS Konsvik 25.25 353 *e*P **P** **14 30 40.4 +1.0**
VAGH Vaagaholmen 25.46 353 *e*P **P** **14 30 42.4 +1.1**
FAUS Fauske 25.95 355 *e*P **P** **14 30 47.1 +1.3**
AKTO Aktyubinsk 27.07 58 LR LR 14 45 37.1
comp=Z,442nm,19.8s,baz=272,slow=45
KTK1 Kautokeino 27.45 2 *e*P **P** **14 31 00.4 +1.2**
ARA0 ARCESS Array S 28.05 4 *e*P **P** **14 31 04.7 +0.1**
ARCES ARCESS Array B 28.05 4 P **P** **14 31 02.7 -1.9**
comp=Z,1.6nm,0.5s,baz=186,slow=9.8,SNR=14
ARCES PcP **PcP** **14 34 17.8 -1.0**
comp=Z,0.6nm,0.4s,baz=194,slow=1.9,SNR=5.3
ARCES LR LR 14 44 01.9
comp=Z,234nm,19.9s,baz=188,slow=40
comp=Z,1.6nm,0.5s
ARCES ARCESS Array B 28.05 4 P **P** **14 31 02.8 -1.9**
ARCES 14 34 18.3
ARCES pmax pmax
comp=Z,94nm,2.0s
ARCES ARCESS Array B 28.05 4 P **P** **14 31 02.8 -1.9**
ARCES **PcP** **14 34 18.2 -0.6**
AB31 Akbulak array 28.27 61 **P** **14 31 07.3 +0.5**
ABKAR Akbulak array 28.27 61 P **P** **14 31 07.2 +0.5**
ARTI Arti 28.31 46 LR LR 14 42 56.9
comp=Z,344nm,18.2s,baz=246,slow=38
ARTI Arti 28.31 46 P **P** **14 31 07.8 +0.7**
ARTI pmax pmax
comp=Z,14nm,0.6s
ARTI Arti 28.31 46 **P** **14 31 07.8 +0.7**
ARTI IAmb IAmb 14 31 12.4
comp=Z,14nm,0.6s
SVE Sverdlovsk 29.63 45 *e*P **P** **14 31 20.6 +1.8**
SVE pmax pmax
comp=Z,48nm,2.1s
SVE MLR MLR
comp=Z,772nm,10.0s
JRN Qarnain Island 31.35 112 P **P** **14 31 34.0 -0.2**
MZWR Madinat Zayed 32.83 113 P **P** **14 31 49.0 +1.7**
TORD Torodi Ar. Bea 32.90 216 P **P** **14 31 47.3 -0.6**
comp=Z,13nm,0.9s,baz=24,slow=7.7,SNR=31
TORD PcP **PcP** **14 34 30.1 -2.2**
comp=Z,1.2nm,0.8s,baz=275,slow=3.0,SNR=3.1
comp=Z,13nm,0.9s
TORD Torodi Ar. Bea 32.90 216 P **P** **14 31 48.0 +0.1**
SHME Shamm 32.99 107 P **P** **14 31 48.1 -0.6**
MZR Muzera 33.06 114 P **P** **14 31 48.4 -0.9**
AJN Ajban 33.09 110 P **P** **14 31 50.4 +0.8**
BANOM Banah 33.18 107 P **P** **14 31 50.2 -0.2**
BORG Borgarnes 33.20 328 LR LR 14 46 20.7
comp=Z,226nm,18.6s,baz=122,slow=38
ASUD Al Ashush, Dub 33.29 110 P **P** **14 31 51.4 +0.1**
NAZ Nazwa, Dubai 33.30 109 P **P** **14 31 51.3 -0.1**
SNR=5.9
FAQ Al Faqa, Dubai 33.40 109 P **P** **14 31 53.4 +1.1**
SNR=5.0
UOSS Minazif 33.71 108 P **P** **14 31 55.2 +0.3**
UOSS Minazif 33.71 108 P **P** **14 31 55.3 +0.3**
UOSS IAmb IAmb 14 32 05.4
comp=Z,13nm,0.9s
HATD Hatta, Dubai 33.73 109 P **P** **14 31 53.4 -1.8**
ASHO Ashiyiah 33.77 109 P **P** **14 31 53.2 -2.3**
ALNE Al Ain 33.95 110 P **P** **14 31 57.5 +0.4**
SNR=10
JASK Jask - Hormozg 34.34 105 P **P** **14 32 01.7 +1.2**
SOHO SOHO 34.45 109 P **P** **14 32 00.9 -0.5**
SNR=6.6
BORK Borovoye 34.79 54 *i* P **P** **14 32 05.7 +1.7**
BORK pmax pmax
comp=Z,17nm,0.8s
BORK Borovoye 34.79 54 P **P** **14 32 05.4 +1.4**
BORK IAmb IAmb 14 32 09.5
comp=Z,14nm,0.8s
BVAR Borovoye Array 34.83 54 P **P** **14 32 04.6 +0.2**
comp=Z,11nm,0.8s,baz=267,slow=7.3,SNR=24
BVAR PcP **PcP** **14 34 36.9 -0.4**
comp=Z,1.0nm,0.6s,baz=213,slow=5.0,SNR=1.7
comp=Z,11nm,0.8s
ARQ Araqi 34.95 110 P **P** **14 32 04.5 -1.2**
SNR=5.8
HOQ Hoqain 35.35 109 P **P** **14 32 10.1 +1.0**
BSY Bisya 35.81 110 P **P** **14 32 13.6 +0.5**
SMDO Samad 36.20 109 P **P** **14 32 15.9 -0.7**
KK31 Karatay Array 36.35 71 P **P** **14 32 18.2 +0.6**
KK31 pmax pmax
comp=Z,6.0nm,0.7s
KK31 Karatay Array 36.35 71 **P** **14 32 18.2 +0.6**
KKAR Karatay Array 36.35 71 P **P** **14 32 18.3 +0.7**
KKAR Karatay Array 36.35 71 P **P** **14 32 18.3 +0.7**
WSAR Wadi Sarin 36.50 108 P **P** **14 32 20.7 +1.6**
DOK Doka 36.53 119 P **P** **14 32 18.8 -0.5**
SPA0 Spitsbergen Ar 36.68 358 *e*P **P** **14 32 21.7 +1.7**
SPITS Spitsbergen Ar 36.68 358 P **P** **14 32 20.1 +0.2**
comp=Z,1.1nm,0.4s,baz=150,slow=11,SNR=10
SPITS LR LR 14 48 44.0
comp=Z,320nm,19.6s,baz=166,slow=38
comp=Z,1.1nm,0.4s
JMDO Jabal Madar 36.69 110 P **P** **14 32 21.6 +0.9**
SNR=6.9
NGCH Negor - Chabah 37.02 103 P **P** **14 32 26.5 +3.1**
WBK Wadi Bani Khal 37.14 109 P **P** **14 32 25.6 +1.1**
MHTO MHTO 37.50 112 P **P** **14 32 27.2 -0.3**
DMTO DMTO 37.72 119 P **P** **14 32 27.7 -1.7**
JLN Jalan Bani Buh 37.75 109 P **P** **14 32 29.5 -0.2**
ARSB Arslanbob 38.62 73 P **P** **14 32 37.7 +0.7**
ARSB pmax pmax
comp=Z,10.0nm,1.1s
ARSB Arslanbob 38.62 73 P **P** **14 32 37.7 +0.7**
DAG Danmarks Havn 38.95 347 *i* P **P** **14 32 38.0 -1.1**
DAG IAmb IAmb 14 32 43.9
comp=Z,5.6nm,0.8s
AAK Ala-Archa 39.29 70 LR LR 14 51 58.1
comp=Z,396nm,18.1s,baz=296,slow=41
AAK Ala-Archa 39.29 70 P **P** **14 32 45.5 +2.9**
AAK Ala-Archa 39.29 70 *i* P **P** **14 32 43.1 +0.5**
AAK pmax pmax
comp=Z,9.0nm,1.5s
KURBB Kurchatov Arra 40.10 57 P **P** **14 32 49.0 0.0**
comp=Z,2.0nm,0.3s,baz=286,slow=9.7,SNR=23
KURBB PcP **PcP** **14 34 52.5 -0.9**
comp=Z,0.8nm,0.5s,baz=255,slow=4.5,SNR=3.2
KURBB ScP **ScP** **14 38 40.6 -1.6**
comp=Z,0.8nm,0.9s,baz=277,slow=5.1,SNR=3.0
KURBB LR LR 14 52 27.6
comp=Z,455nm,18.8s,baz=167,slow=41
comp=Z,2.0nm,0.3s
KURK Kurchatov 40.14 57*ce*P **P** **14 32 50.0 +0.7**
KURK pmax pmax
comp=Z,27nm,1.8s
KURK Kurchatov 40.14 57 P **P** **14 32 50.3 +1.0**
LODK Lodwar 40.26 157 P **P** **14 32 52.3 +1.6**
SNR=5.3
LODK Lodwar 40.26 157 **P** **14 32 51.0 +0.3**
NRN Naryn 40.74 71 P **P** **14 32 55.2 +0.4**
NRN pmax pmax
comp=Z,19nm,1.9s
NRN Naryn 40.74 71 P **P** **14 32 55.2 +0.4**
KSH2 Kashi 41.23 75 P **P** **14 33 01.5 +2.8**
KSH2 sP sP 14 33 07.4 +3.0
KSH2 pmax pmax
comp=Z,3.0nm,1.7s
KSH2 L L
comp=Z,640nm,14.8s
KSH2 L L
comp=Z,410nm,13.1s
KSH2 L L
comp=Z,380nm,15.1s
KDJ Kajisay 41.34 70 P **P** **14 33 00.1 +0.4**
KDJ pmax pmax
comp=Z,22nm,1.7s
KDJ Kajisay 41.34 70 P **P** **14 33 00.1 +0.4**
DBIC Dimbokro 41.62 220 P **P** **14 33 01.2 -0.6**
comp=Z,6.8nm,0.6s,baz=32,slow=8.6,SNR=11
DBIC LR LR 14 52 05.1
comp=Z,128nm,19.4s,baz=34,slow=39
comp=Z,6.8nm,0.6s
DBIC Dimbokro 41.62 220 P **P** **14 33 01.5 -0.3**
DBIC pmax pmax
comp=Z,30nm,1.4s
DBIC Dimbokro 41.62 220 P **P** **14 33 01.5 -0.3**
DBIC IAmb IAmb 14 33 18.8
comp=Z,30nm,1.4s
SUMG Summit 41.67 337 P **P** **14 33 01.6 -0.6**
SUMG pmax pmax
comp=Z,22nm,1.6s
SUMG Summit 41.67 337 P **P** **14 33 01.6 -0.6**
TARG Taragay, Kyrgy 41.91 70 P **P** **14 33 04.9 +0.3**
TARG pmax pmax
comp=Z,5.0nm,0.8s
TARG Taragay, Kyrgy 41.91 70 P **P** **14 33 04.9 +0.3**
NOR Nord 42.06 352 *i* P **P** **14 33 03.5 -1.3**
NOR IAmb IAmb 14 33 07.1
comp=Z,4.5nm,0.7s
PDGK Podgornoye 42.56 67 P **P** **14 33 09.1 -0.4**
PDGK Podgornoye 42.56 67 **P** **14 33 09.1 -0.4**
MBAR Mbarara 43.03 165 LR LR 14 55 08.3
comp=Z,212nm,19.3s,baz=352,slow=42
ZAA0 Zalesovo Array 43.30 51 P **P** **14 33 15.6 +0.4**
ZALV Zalesovo Beam 43.30 51 P **P** **14 33 16.4 +1.2**
comp=Z,6.0nm,0.5s,baz=281,slow=8.7,SNR=20
ZALV LR LR 14 53 35.2
comp=Z,257nm,18.4s,baz=38,slow=39
comp=Z,6.0nm,0.5s
ZALV Zalesovo Beam 43.30 51 **P** **14 33 15.8 +0.7**
MK31 Makanchi Array 43.41 62*ce*P **P** **14 33 17.8 +1.6**
MKAR Makanchi Array 43.41 62 P **P** **14 33 16.4 +0.2**
comp=Z,4.6nm,0.6s,baz=284,slow=6.4,SNR=26
MKAR PcP **PcP** **14 35 04.2 -0.3**
comp=Z,2.4nm,0.7s,baz=279,slow=3.8,SNR=3.5
MKAR ScP **ScP** **14 38 54.5 -1.1**
comp=Z,1.2nm,0.9s,baz=324,slow=6.0,SNR=3.9
MKAR LR LR 14 53 06.5
comp=Z,268nm,18.6s,baz=280,slow=38
comp=Z,4.6nm,0.6s
MKAR Makanchi Array 43.41 62 *i* P **P** **14 33 17.2 +1.0**
MKAR pmax pmax
comp=Z,5.0nm,0.6s
MKAR Makanchi Array 43.41 62 **P** **14 33 16.4 +0.2**
MKAR **PcP** **14 35 04.5 0.0**
NRIK Noril'sk 43.63 28 P **P** **14 33 18.4 +0.8**
comp=Z,2.2nm,0.5s,baz=288,slow=1.7,SNR=4.1
comp=Z,2.2nm,0.5s
NRIK Noril'sk 43.63 28 *i* P **P** **14 33 19.1 +1.5**
NRIK pmax pmax
comp=Z,7.0nm,1.4s
NRIK Noril'sk 43.63 28 P **P** **14 33 17.9 +0.2**
KMBO Kilima Mbogo 45.14 156 LR LR 14 53 13.5
comp=Z,66nm,19.5s,baz=156,slow=37
SFJD Kangerlussuaq 45.33 328 LR LR 14 53 07.5
comp=Z,523nm,18.4s,baz=88,slow=37
NEEM North Greenlan 45.79 343 *i* P **P** **14 33 37.0 +1.9**
NEEM IAmb IAmb 14 33 38.6
comp=Z,12nm,1.1s
WMQ Urumqi 47.99 64 *e*P **P** **14 33 55.9 +3.4**
WMQ L L
comp=Z,400nm,15.5s
WMQ L L
comp=Z,450nm,14.5s
WMQ L L
comp=Z,240nm,17.7s
DRLN Deer Lake 53.12 307 P **P** **14 34 30.9 -0.2**
FRB Frobisher Bay 53.33 326 LR LR 14 58 10.9
comp=Z,378nm,18.4s,baz=92,slow=37
SCHQ Schefferville 56.05 316 P **P** **14 34 50.9 -1.4**
comp=Z,9.2nm,0.7s,baz=65,slow=6.2,SNR=12
SCHQ LR LR 14 58 24.1
comp=Z,175nm,18.4s,baz=116,slow=36
comp=Z,9.2nm,0.7s
SCHQ Schefferville 56.05 316 P **P** **14 34 51.8 -0.5**
TIXI Tiksi 56.34 21 *i* P **P** **14 34 54.5 +0.4**
TIXI pmax pmax
comp=Z,2.0nm,1.0s
RES Resolute Bay 56.48 343 LR LR 15 00 26.1
comp=Z,114nm,18.7s,baz=24,slow=37
GBN Guysborough 57.24 304 P **P** **14 35 00.1 -0.8**
HMDM Hanimaadhoo 57.91 112 P **P** **14 35 05.5 -0.5**
SONM Songino Array 58.15 52 P **P** **14 35 08.1 +0.7**
comp=Z,2.7nm,0.8s,baz=292,slow=7.6,SNR=12
SONM LR LR 15 01 41.8
comp=Z,194nm,18.9s,baz=287,slow=38
comp=Z,2.7nm,0.8s
TSUM Tsumeb 60.62 183 LR LR 15 05 24.4
comp=Z,171nm,18.7s,baz=332,slow=40
BRDH Bariadhala 61.29 84 LR LR 15 06 17.8
comp=Z,148nm,18.1s,baz=325,slow=40
E62A Clayton Lake 61.49 308 P **P** **14 35 30.4 +0.1**
YAK Yakutsk 62.01 30 LR LR 15 06 05.5
comp=Z,224nm,18.1s,baz=296,slow=40
YAK Yakutsk 62.01 30 P **P** **14 35 32.7 -0.7**
YAK IAmb IAmb 14 35 33.9
comp=Z,8.6nm,0.7s
LZDM Lanzhou Array 62.50 65 LR LR 15 04 54.6
comp=Z,132nm,19.6s,baz=80,slow=38
GRTLG Ghanzi 62.70 180 P **P** **14 35 39.1 +0.5**
PALK Pallekele 62.90 105 P **P** **14 35 40.4 +0.2**
PALK pmax pmax
comp=Z,28nm,1.3s
PALK Pallekele 62.90 105 P **P** **14 35 40.4 +0.2**
BTO2 Baotou 63.95 58 *e*P **P** **14 35 47.2 +0.3**
BTO2 S **S** **14 44 24.7 +2.0**
BTO2 pmax pmax
comp=Z,10.0nm,0.5s
BTO2 pmax pmax
comp=Z,600nm,5.3s
BTO2 L L
comp=Z,380nm,6.6s
BTO2 L L
comp=Z,480nm,9.0s
BTO2 L L
comp=Z,280nm,5.8s
A36M Sachs Harbour 64.15 349 **P** **14 35 47.9 +0.4**
A36M IAmb IAmb 14 35 55.0
comp=Z,7.2nm,0.8s
OPO Ambohidratompo 64.73 152 LR LR 15 08 12.1
comp=Z,39nm,18.0s,baz=119,slow=40
HHC Hu-ho-hao-te 64.95 57 *e*P **P** **14 35 54.1 +0.7**
HHC pmax pmax
comp=Z,12nm,0.6s
HHC pmax pmax
comp=Z,180nm,4.9s
LKGWB Lokgwabe 65.44 180 P **P** **14 35 57.5 +0.9**
LBTB Lobatse 66.49 175 LR LR 15 08 27.6
comp=Z,138nm,18.2s,baz=355,slow=39
LBTB Lobatse 66.49 175 P **P** **14 36 03.4 +0.1**
LBTB pmax pmax
comp=Z,7.0nm,0.8s
LBTB Lobatse 66.49 175 P **P** **14 36 03.4 +0.1**
LBTB IAmb IAmb 14 36 11.2
comp=Z,6.8nm,0.8s
PHPEN Phepeng 66.82 178 P **P** **14 36 05.8 +0.4**
XAN Xi'an 67.12 64 P **P** **14 36 07.4 0.0**
XAN pmax pmax
comp=Z,6.0nm,0.9s
SADO Sadowa 68.09 311 LR LR 15 05 12.6
comp=Z,195nm,18.2s,baz=31,slow=35
HEH HeiHe 68.30 41 *e*P **P** **14 36 14.7 +0.2**
HEH pmax pmax
comp=Z,6.0nm,0.9s
HEH L L
comp=Z,510nm,15.2s
HEH L L
comp=Z,360nm,13.7s
HEH L L
comp=Z,800nm,13.8s
C27K Jago River 68.44 354 **P** **14 36 16.0 +0.9**
C27K IAmb IAmb 14 36 24.5
comp=Z,13nm,1.2s
D27M Malcolm River 68.59 353 IAmb IAmb 14 37 36.8
comp=Z,11nm,1.4s
SEY Seymchan 68.83 22 LR LR 15 11 12.9
comp=Z,136nm,19.2s,baz=331,slow=40
HNS HongShan 68.94 58 ⇑P **P** **14 36 21.7 +3.0**
CHTO Chiang Mai 69.05 83 P **P** **14 36 19.0 -0.7**
CHTO Chiang Mai 69.05 83 P **P** **14 36 19.8 +0.1**
CHTO pmax pmax
comp=Z,8.0nm,1.2s
CHTO Chiang Mai 69.05 83 **P** **14 36 19.8 +0.1**
CHTO IAmb IAmb 14 36 23.3
comp=Z,8.2nm,1.1s
E29M Blow River 69.11 352 IAmb IAmb 14 36 26.9
comp=Z,8.5nm,0.8s
CMAR Chiang Mai Arr 69.27 83 P **P** **14 36 19.9 -1.1**
comp=Z,3.1nm,0.9s,baz=305,slow=7.4,SNR=14
CMAR LR LR 15 13 16.5
comp=Z,83nm,19.5s,baz=280,slow=42
comp=Z,3.1nm,0.9s
CMAR Chiang Mai Arr 69.27 83 *i* P **P** **14 36 21.2 +0.1**
CMAR pmax pmax
comp=Z,2.0nm,0.7s
CMAR Chiang Mai Arr 69.27 83 P **P** **14 36 21.3 +0.3**
RCBR Riachuelo 69.94 242 LR LR 15 07 36.9
comp=Z,51nm,18.4s,baz=212,slow=36
BOSA Boshof 70.04 176 P **P** **14 36 25.3 -0.2**
comp=Z,6.7nm,1.0s,baz=7.3,slow=5.5,SNR=5.5
BOSA LR LR 15 11 19.7
comp=Z,132nm,18.1s,baz=6.5,slow=40
comp=Z,6.7nm,1.0s
BOSA Boshof 70.04 176 P **P** **14 36 25.6 0.0**
BOSA pmax pmax
comp=Z,10.0nm,0.9s
BOSA Boshof 70.04 176 P **P** **14 36 25.6 0.0**
BOSA IAmb IAmb 14 36 32.9
comp=Z,9.8nm,0.9s
YKA Yellowknife Ar 70.19 340 P **P** **14 36 24.6 -1.3**
comp=Z,2.4nm,0.7s,baz=39,slow=5.3,SNR=13
comp=Z,2.4nm,0.7s
YKA Yellowknife Ar 70.19 340 *i* P **P** **14 36 25.2 -0.8**
YKA pmax pmax
comp=Z,3.0nm,0.7s
YKA Yellowknife Ar 70.19 340 P **P** **14 36 25.0 -1.0**
E23K Chandalar 70.37 356 IAmb IAmb 14 37 15.6
comp=Z,18nm,1.4s
F26K Sheenjek River 70.37 354 IAmb IAmb 14 36 34.1
comp=Z,18nm,1.6s
G29M Pine Creek 70.55 351 IAmb IAmb 14 36 35.7
comp=Z,10nm,0.8s
F25K Christian Rive 70.59 355 IAmb IAmb 14 37 49.8
comp=Z,19nm,1.9s
BMAR Burnt Mountain 70.67 354 P **P** **14 36 29.6 +0.6**
F24K Squaw Lake 70.81 355 IAmb IAmb 14 36 37.6
comp=Z,6.8nm,0.8s
MA2 Magadan 71.05 24 LR LR 15 09 33.0
comp=Z,112nm,18.4s,baz=320,slow=37
G26K Porcupine Rive 71.08 354 IAmb IAmb 14 36 41.1
comp=Z,8.3nm,1.0s
KLR Kul'dur 71.09 40 *e*P **P** **14 36 31.6 -0.1**
KLR pmax pmax
comp=Z,1.0nm,0.7s
H29M Whitestone 71.25 351 IAmb IAmb 14 36 39.8
comp=Z,8.2nm,0.7s
F21K Alatna River 71.36 358 **P** **14 36 34.1 +1.0**
F21K IAmb IAmb 14 36 41.3
comp=Z,11nm,0.9s
CN2 Changchun 71.39 48 P **P** **14 36 34.3 +0.6**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
H27K Steamboat Moun 71.58 353 IAmb IAmb 14 36 42.1
comp=Z,8.6nm,1.0s
I30M Mount Dempster 71.97 350 IAmb IAmb 14 36 43.7
comp=Z,8.0nm,0.8s
I29M Ogilvie Camp, 72.07 351 IAmb IAmb 14 36 44.5
comp=Z,8.9nm,0.8s
I28M Miner Creek 72.17 352 IAmb IAmb 14 37 16.2
comp=Z,11nm,1.2s
I27K Kandik River 72.20 352 IAmb IAmb 14 36 46.0
comp=Z,7.3nm,0.8s
J30M Hart River 72.58 350 IAmb IAmb 14 36 48.4
comp=Z,8.7nm,0.8s
H23K Yukon River 72.59 356 IAmb IAmb 14 36 48.9
comp=Z,11nm,0.9s
H21K Melozitna Rive 72.90 357 IAmb IAmb 14 36 51.0
comp=Z,12nm,0.9s
ULM Lac du Bonnet 73.01 323 P **P** **14 36 42.0 -1.3**
comp=Z,4.0nm,0.5s,baz=28,slow=4.1,SNR=9.9
ULM LR LR 15 08 36.3
comp=Z,308nm,18.4s,baz=28,slow=36
comp=Z,4.0nm,0.5s
ULM Lac du Bonnet 73.01 323 P **P** **14 36 42.8 -0.5**
ULM pmax pmax
comp=Z,37nm,1.7s
ULM Lac du Bonnet 73.01 323 P **P** **14 36 42.8 -0.5**
DAWY Dawson 73.45 351 P **P** **14 36 46.5 +0.8**
DAWY IAmb IAmb 14 36 53.4
comp=Z,9.2nm,0.8s
IL31 73.47 355 P **P** **14 36 46.4 +0.8**
IL31 IAmb IAmb 14 37 42.3
comp=Z,34nm,1.9s
ILAR Eielson Array 73.47 355 P **P** **14 36 46.0 +0.3**
comp=Z,1.8nm,0.6s,baz=1.1,slow=5.1,SNR=19
ILAR LR LR 15 11 24.8
comp=Z,81nm,19.0s,baz=316,slow=38
comp=Z,1.8nm,0.6s
ILAR Eielson Array 73.47 355 P **P** **14 36 46.7 +1.0**
ILAR Eielson Array 73.47 355 P **P** **14 36 46.6 +1.0**

SUR	**Sutherland**	**73.67**	**180**	LR	LR	15 11 04.7		
	comp=Z,220nm,20.0s,baz=0.0,slow=37							
HDA	**Harding Lake**	**73.83**	**354**	IAmb	IAmb	14 36 55.3		
	comp=Z,9.4nm,0.7s							
MDP	**Montagnes des**	**74.23**	**263**	LR	LR	15 06 37.2		
	comp=Z,107nm,20.2s,baz=72,slow=34							
USRK	**Ussuriysk Ar.**	**74.64**	**44**	P	**P**	**14 36 51.9**	**-1.0**	
	comp=Z,2.4nm,0.6s,baz=345,slow=2.5,SNR=2.9							
USRK				LR	LR	15 13 39.1		
	comp=Z,450nm,18.3s,baz=324,slow=39							
	comp=Z,2.4nm,0.6s							
USRK	**Ussuriysk Ar.**	**74.64**	**44**	P	**P**	**14 36 52.0**	**-0.9**	
USRK	**Ussuriysk Ar.**	**74.64**	**44**	P	**P**	**14 36 52.0**	**-0.9**	
L27K	**Beaver Creek,**	**74.70**	**352**	IAmb	IAmb	14 37 09.3		
	comp=Z,27nm,1.7s							
M29M	**Somme Creek**	**74.91**	**350**	IAmb	IAmb	14 37 02.8		
	comp=Z,11nm,0.8s							
NJ2	**Nanjing**	**74.93**	**61**	*e*P	**P**	**14 36 55.3**	**+0.6**	
NJ2				pmax	pmax			
	comp=Z,10.0nm,0.6s							
PPLA	**Purkeypile**	**75.64**	**357**	P	**P**	**14 36 58.9**	**+0.4**	
PDPR	**Patillas Dam,**	**75.89**	**282**	P	**P**	**14 37 00.9**	**+0.4**	
SJG	**San Juan**	**75.93**	**282**	LR	LR	15 05 18.4		
	comp=Z,25nm,21.0s,baz=95,slow=32							
WCI	**Wyandotte Cave**	**76.40**	**309**	P	**P**	**14 37 01.8**	**-1.3**	
WCI				pmax	pmax			
	comp=Z,15nm,0.7s							
WCI	**Wyandotte Cave**	**76.40**	**309**	P	**P**	**14 37 01.8**	**-1.3**	
TKL	**Tuckaleechee C**	**76.63**	**306**	LR	LR	15 11 05.7		
	comp=Z,285nm,19.4s,baz=66,slow=36							
KSAR	**Wonju Array Be**	**76.99**	**51**	P	**P**	**14 37 06.2**	**-0.2**	
KSAR	**Wonju Array Be**	**76.99**	**51**	P	**P**	**14 37 06.2**	**-0.2**	
KSRS	**Korea Array**	**77.00**	**51**	P	**P**	**14 37 05.9**	**-0.5**	
	comp=Z,2.3nm,0.7s,baz=320,slow=5.0,SNR=13							
KSRS				LR	LR	15 15 45.0		
	comp=Z,124nm,18.2s,baz=305,slow=39							
	comp=Z,2.3nm,0.7s							
DLBC	**Dease Lake**	**77.34**	**345**	LR	LR	15 13 41.1		
	comp=Z,97nm,18.2s,baz=52,slow=38							
YSS	**Yuzhno-Sakhali**	**77.86**	**36**	*e*P	**P**	**14 37 11.6**	**+0.5**	
YSS				pmax	pmax			
	comp=Z,20nm,0.8s							
YSS				MLR	MLR			
	comp=Z,500nm,17.0s							
YSS				MLR	MLR			
	comp=N,400nm,14.0s							
YSS				MLR	MLR			
	comp=E,500nm,17.8s							
YSS	**Yuzhno-Sakhali**	**77.86**	**36**		**P**	**14 37 12.0**	**+0.9**	
CLTN	**Cedars of Leba**	**77.87**	**308**	IAmb	IAmb	14 37 12.7		
	comp=Z,6.4nm,0.6s							
PSI	**Prapat**	**79.31**	**96**	LR	LR	15 14 54.2		
	comp=Z,58nm,22.0s,baz=306,slow=38							
CCM	**Cathedral Cave**	**79.34**	**312**	P	**P**	**14 37 19.6**	**+0.1**	
CCM				pmax	pmax			
	comp=Z,12nm,0.6s							
CCM	**Cathedral Cave**	**79.34**	**312**	P	**P**	**14 37 19.6**	**+0.1**	
X48A	**Hartselle**	**79.42**	**307**	IAmb	IAmb	14 37 21.1		
	comp=Z,12nm,0.8s							
R40A	**Maddies Statio**	**79.74**	**313**	IAmb	IAmb	14 37 22.9		
	comp=Z,6.9nm,0.7s							
T42A	**Van Buren**	**79.98**	**311**	IAmb	IAmb	14 37 28.1		
	comp=Z,32nm,1.7s							
LRAL	**Lakeview Retre**	**80.36**	**306**	IAmb	IAmb	14 37 26.0		
	comp=Z,9.9nm,0.7s							
S39A	**Bolivar**	**80.75**	**313**	IAmb	IAmb	14 37 28.5		
	comp=Z,8.2nm,0.7s							
KDAK	**Kodiak Island**	**80.77**	**356**	LR	LR	15 15 00.2		
	comp=Z,77nm,18.9s,baz=9.8,slow=37							
JNU	**Nakatsue**	**81.74**	**53**	LR	LR	15 18 54.9		
	comp=Z,236nm,18.8s,baz=326,slow=39							
BOAV	**Boa Vista**	**81.89**	**266**	P	**P**	**14 37 33.2**	**-0.2**	
BOAV				IAmb	IAmb	14 37 40.2		
	comp=Z,26nm,1.9s							
WHAR	**Wooly Hollow**	**81.90**	**310**	P	**P**	**14 37 33.3**	**+0.1**	
LDM	**Libby Dam**	**82.25**	**332**	P	**P**	**14 37 35.1**	**+0.3**	
JTMT	**Jette**	**82.48**	**331**		**P**	**14 37 36.5**	**+0.3**	
BBB	**Bella Bella**	**82.71**	**341**	LR	LR	15 15 28.6		
	comp=Z,182nm,20.0s,baz=41,slow=36							
OGNE	**Ogallala**	**82.82**	**320**	P	**P**	**14 37 37.3**	**-0.7**	
NEW	**Newport**	**83.03**	**333**	LR	LR	15 16 20.3		
	comp=Z,193nm,19.0s,baz=31,slow=37							
T35A	**Sooner Cattle**	**83.05**	**314**	P	**P**	**14 37 38.5**	**-0.7**	
MIAR	**Mount Ida**	**83.17**	**311**	P	**P**	**14 37 40.0**	**+0.2**	
MIAR				pmax	pmax			
	comp=Z,8.0nm,0.7s							
MIAR	**Mount Ida**	**83.17**	**311**	P	**P**	**14 37 40.0**	**+0.2**	
MIAR				IAmb	IAmb	14 37 41.1		
	comp=Z,7.8nm,0.7s							
SHEM	**Shemya Is, Ala**	**83.20**	**16**	LR	LR	15 18 00.1		
	comp=Z,46nm,20.7s,baz=262,slow=38							
MJAR	**Matsushiro Arr**	**83.44**	**46**	P	**P**	**14 37 41.2**	**0.0**	
	comp=Z,1.7nm,0.8s,baz=336,slow=2.8,SNR=4.9							
MJAR				LR	LR	15 18 41.7		
	comp=Z,178nm,18.1s,baz=329,slow=38							
	comp=Z,1.7nm,0.8s							
MJAR	**Matsushiro Arr**	**83.44**	**46**	P	**P**	**14 37 41.2**	**0.0**	
MJAR				pmax	pmax			
	comp=Z,8.0nm,1.4s							
MJAR	**Matsushiro Arr**	**83.44**	**46**	P	**P**	**14 37 41.2**	**0.0**	
K22A	**Casper**	**83.56**	**324**		**P**	**14 37 41.0**	**-0.9**	
K22A				IAmb	IAmb	14 37 50.2		
	comp=Z,7.3nm,0.9s							
C09A	**Chrisman Ranch**	**83.82**	**334**	P	**P**	**14 37 43.0**	**0.0**	
C09A				IAmb	IAmb	14 37 45.9		
	comp=Z,7.5nm,0.9s							
URIC	**Uribia, Colomb**	**84.36**	**281**	P	**P**	**14 37 47.0**	**+0.8**	
URIC				IAmb	IAmb	14 40 19.0		
	comp=Z,16nm,1.6s							
PD31	**Pinedale Array**	**84.78**	**326**		**P**	**14 37 48.5**	**+0.3**	
PD31				IAmb	IAmb	14 38 07.4		
	comp=Z,17nm,1.9s							
PDAR	**Pinedale Array**	**84.78**	**326**	P	**P**	**14 37 47.9**	**-0.3**	
	comp=Z,1.6nm,0.7s,baz=59,slow=3.7,SNR=13							
PDAR				LR	LR	15 15 42.6		
	comp=Z,291nm,20.2s,baz=22,slow=36							
	comp=Z,1.6nm,0.7s							
PDAR	**Pinedale Array**	**84.78**	**326**	P	**P**	**14 37 47.6**	**-0.6**	
E09A	**Wood Farm, Sta**	**84.89**	**333**	P	**P**	**14 37 48.5**	**0.0**	
E09A				IAmb	IAmb	14 37 55.3		
	comp=Z,7.7nm,1.0s							
BDFB	**Brasilia**	**85.18**	**244**	P	**P**	**14 37 51.5**	**+1.2**	
	comp=Z,5.0nm,0.7s,baz=56,slow=6.2,SNR=8.0							
BDFB				LR	LR	15 15 29.6		
	comp=Z,59nm,20.9s,baz=317,slow=35							
	comp=Z,5.0nm,0.7s							
BDFB	**Brasilia**	**85.18**	**244**	P	**P**	**14 37 50.7**	**+0.4**	
BDFB	**Brasilia**	**85.18**	**244**		**P**	**14 37 50.7**	**+0.4**	
BDFB				IAmb	IAmb	14 37 59.2		
	comp=Z,7.0nm,0.9s							
HAWA	**Hanford**	**85.47**	**334**		**P**	**14 37 51.8**	**+0.5**	
HAWA				IAmb	IAmb	14 37 53.2		
	comp=Z,7.2nm,0.8s							
GNW	**Green Mountain**	**85.47**	**336**	P	**P**	**14 37 52.0**	**+0.7**	
GNW				IAmb	IAmb	14 37 59.3		
	comp=Z,11nm,0.9s							
BMO	**Blue Mountains**	**86.04**	**332**	IAmb	IAmb	14 38 19.2		
	comp=Z,14nm,1.6s							
MFID	**Camas Ranch**	**86.74**	**330**	IAmb	IAmb	14 37 59.9		
	comp=Z,4.8nm,0.8s							
PV07	**Paradox Valley**	**87.91**	**323**	IAmb	IAmb	14 38 11.0		
	comp=Z,8.4nm,0.9s							
PV15	**Paradox Valley**	**87.91**	**322**	IAmb	IAmb	14 38 09.6		
	comp=Z,7.0nm,0.9s							
PV21	**Cone Mtn., Par**	**87.96**	**323**	IAmb	IAmb	14 39 03.6		
	comp=Z,7.7nm,1.0s							
PV18	**Skein Mesa, Pa**	**88.18**	**323**	IAmb	IAmb	14 38 13.5		
	comp=Z,8.4nm,1.0s							
SRU	**San Rafael Swe**	**88.20**	**324**	IAmb	IAmb	14 38 21.0		
	comp=Z,5.0nm,0.9s							
PV05	**Paradox Valley**	**88.41**	**323**	IAmb	IAmb	14 38 20.2		
	comp=Z,5.2nm,0.8s							
BRDY	**Brady**	**88.63**	**312**		**P**	**14 38 06.8**	**-0.2**	
BRDY				IAmb	IAmb	14 38 19.7		
	comp=Z,4.0nm,0.8s							
BBOR	**Butler Butte**	**89.61**	**334**	P	**P**	**14 38 11.7**	**+0.1**	
ANMO	**Albuquerque**	**89.69**	**319**	LR	LR	15 17 49.4		
	comp=Z,132nm,20.3s,baz=46,slow=35							
PSUT	**Pine Spring**	**90.11**	**326**		**P**	**14 38 13.9**	**-0.1**	
ROSC	**El Rosal**	**90.60**	**277**	P	**P**	**14 38 16.8**	**0.0**	
	comp=Z,26nm,0.3s,baz=125,slow=11,SNR=8.0							
ROSC				LR	LR	15 14 02.2		
	comp=Z,120nm,21.1s,baz=68,slow=32							
ROSC	**El Rosal**	**90.60**	**277**	P	**P**	**14 38 15.7**	**-1.2**	
ROSC				pmax	pmax			
	comp=Z,192nm,0.6s							
ROSC	**El Rosal**	**90.60**	**277**		**P**	**14 38 15.7**	**-1.2**	

YBH	**Yreka Blue Hor**	**90.66**	**334**	LR	LR	15 22 31.1		
	comp=Z,110nm,18.9s,baz=16,slow=38							
TPB01	**Permian Basin**	**91.50**	**315**	IAmb	IAmb	14 38 21.9		
	comp=Z,5.3nm,1.0s							
NVAR	**Mina Array Bea**	**91.98**	**329**	P	**P**	**14 38 22.4**	**-0.4**	
	comp=Z,0.3nm,0.6s,baz=16,slow=6.5,SNR=2.5							
NVAR				LR	LR	15 20 26.0		
	comp=Z,299nm,20.0s,baz=8.0,slow=36							
	comp=Z,0.3nm,0.6s							
TX31	**Lajitas Ar. Si**	**92.70**	**314**		**P**	**14 38 26.1**	**+0.1**	
TXAR	**Lajitas Array**	**92.70**	**314**	P	**P**	**14 38 26.4**	**+0.3**	
	comp=Z,1.2nm,0.8s,baz=62,slow=4.0,SNR=13							
TXAR				LR	LR	15 20 35.5		
	comp=Z,124nm,20.9s,baz=36,slow=36							
	comp=Z,1.2nm,0.8s							
TXAR	**Lajitas Array**	**92.70**	**314**	P	**P**	**14 38 25.7**	**-0.4**	
TXAR	**Lajitas Array**	**92.70**	**314**	P	**P**	**14 38 25.7**	**-0.4**	
JTS	**Las Juntas de**	**94.71**	**288**	LR	LR	15 16 41.2		
	comp=Z,56nm,21.9s,baz=17,slow=33							
PFO	**Pinyon Flats O**	**95.39**	**325**	LR	LR	15 22 25.5		
	comp=Z,250nm,19.9s,baz=32,slow=36							
CMIG	**Matias Romero**	**96.70**	**300**	LR	LR	15 23 05.0		
	comp=Z,110nm,18.8s,baz=20,slow=36							
CPUP	**Villa Florida**	**98.81**	**243**	LR	LR	15 26 16.9		
	comp=Z,133nm,18.7s,baz=64,slow=37							
LPAZ	**La Paz**	**99.82**	**257**	LR	LR	15 23 17.7		
	comp=Z,59nm,20.0s,baz=54,slow=35							
WRA	**Warramunga Arr**	**120.44**	**90**	PKP	**PKPdf**	**14 44 04.0**	**-1.4**	
	comp=Z,0.5nm,0.6s,baz=330,slow=2.0,SNR=8.6							
WRA	**Warramunga Arr**	**120.44**	**90**	PKIKP	**PKPdf**	**14 44 04.0**	**-1.4**	
ASAR	**Alice Springs**	**122.31**	**94**	PKP	**PKPdf**	**14 44 06.6**	**-2.3**	
	comp=Z,2.5nm,0.6s,baz=313,slow=1.4,SNR=54							
QSPA	**South Pole Qui**	**131.51**	**180**	PKP	**PKPdf**	**14 44 23.4**	**-1.8**	
	comp=Z,1.8nm,0.9s,baz=248,slow=0.6,SNR=9.1							
QSPA				SKPbc	**SKPbc**	**14 47 49.5**	**-0.7**	
	comp=Z,1.6nm,1.1s,baz=315,slow=5.0,SNR=2.3							
QSPA				SKP	**SKPdf**	**14 47 58.7**	**-1.4**	
	comp=Z,1.1nm,1.0s,baz=82,slow=9.8,SNR=2.1							
VNDA	**Vanda**	**140.64**	**168**	PKP	**PKPdf**	**14 44 39.5**	**-2.3**	
	comp=Z,0.6nm,0.8s,baz=311,slow=3.4,SNR=5.3							
TAOE	**Nuku Hiva Isla**	**143.23**	**327**	*e*LR	LR	15 31 31.5		
	comp=Z,182nm,30.5s							
PPT2	**Papeete2**	**154.62**	**338**	*e*LR	LR	15 36 55.8		
	comp=Z,140nm,21.5s							
PPT2				*e*LR	LR	15 36 58.3		
	comp=Z,143nm,22.5s							

SKO ***11*** *14:41:10.8,41.57N×20.80E,h18km,ML2.2*
PDG ***11*** *14:41:10.7±0.1,41.69N×20.71E,h3km,ML2.5/12,Error ellipse: s-maj=0.4km s-min=0.5km az=0.0*
BEO ***11*** *14:41:13.9±0.8,41.78N×20.77E,h21km±7km,ML2.1/4*

ISC 11 14:41:10.5±1.1,41.65N±0.03×20.75E±0.02,h19km±3km, n27,σ1s01/51,4C-4D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
OHR	**Ohrid**	**0.53**	**176**	⇓*i*	Pg	**Pg**	**14 41 20.2**	**-1.1**
OHR				*i*	Sg	**Sg**	**14 41 28.7**	**+0.2**
OHR				*e*	Lg	Lg	14 41 29.0	
	comp=N,76nm,0.4s							
OHR				*e*	Lg	Lg	14 41 29.8	
	comp=E,119nm,0.6s							
SKO	**Skopje**	**0.61**	**57**	*i*	Pg	**Pb**	**14 41 23.3**	**+0.8**
SKO				*i*	Sg	**Sb**	**14 41 30.9**	**+0.3**
PVY	**Plav**	**1.12**	**328**	*e*	Pg	**Pb**	**14 41 30.5**	**-0.9**
PVY				*i*	Sg	**Sg**	**14 41 47.1**	**+0.1**
ULC	**Ulcinj**	**1.17**	**286**	*e*	Pg	**Pn**	**14 41 31.7**	**-0.3**
ULC				*i*	Sg	**Sg**	**14 41 49.4**	**+0.8**
DRME	**Dracevica, Mon**	**1.29**	**295**	⇑*i*	Pg	**Pn**	**14 41 33.4**	**-0.2**
DRME				*i*	Sg	**Sg**	**14 41 53.3**	**+0.9**
PDG	**Podgorica**	**1.36**	**306**	*e*	Pg	**Pg**	**14 41 38.2**	**+1.3**
PDG				*e*	Sg	**Sg**	**14 41 56.0**	**+1.3**
PDG	**Podgorica**	**1.36**	**306**	⇑*i*	Pg	**Pn**	**14 41 35.2**	**+0.4**
PDG				*i*	Sg	**Sg**	**14 41 55.7**	**+1.0**
IVA	**Berane**	**1.38**	**333**	*e*	Pg	**Pb**	**14 41 35.6**	**-0.2**
IVA				*i*	Sg	**Sg**	**14 41 56.0**	**+0.7**
VAY	**Valandovo**	**1.40**	**103**	⇓*i*	Pg	**Pb**	**14 41 36.3**	**+0.1**
VAY				*e*	Lg	Lg	14 41 56.3	
	comp=E,25nm,0.6s							
VAY				*i*	Sg	**Sg**	**14 41 56.5**	**+0.6**
VAY				*e*	Lg	Lg	14 41 57.3	
	comp=N,26nm,0.6s							
BARS	**Barje**	**1.41**	**34**	*e*	Pg	**Pb**	**14 41 36.4**	**+0.1**
BARS				*e*	Sg	**Sg**	**14 41 56.5**	**+0.3**
KOME	**Kolasin**	**1.52**	**323**	⇑*i*	Pg	**Pn**	**14 41 37.3**	**+0.5**
KOME				*i*	Sg	**Sg**	**14 42 00.6**	**+1.0**
BUM	**Brajici-Budva**	**1.53**	**296**	*e*	Pg	**Pb**	**14 41 38.4**	**0.0**
BUM				*e*	Sg	**Sg**	**14 42 01.6**	**+1.5**
BOSS	**Bosilegrad**	**1.54**	**56**	*e*	Pg	**Pg**	**14 41 40.8**	**+0.5**
SELS	**Selova**	**1.60**	**10**	*e*	Pg	**Pb**	**14 41 39.1**	**-0.4**
SELS				*e*	Sg	**Sg**	**14 42 00.4**	**-1.7**
PEHC	**Pehcevo**	**1.61**	**85**	*i*	Pg	**Pg**	**14 41 41.3**	**-0.3**
PEHC				*i*	Sg	**Sg**	**14 42 03.2**	**+0.6**
CEME	**Cevo**	**1.64**	**304**	⇓*i*	Pn	**Pb**	**14 41 39.9**	**-0.3**
CEME				*i*	Sn	**Sg**	**14 42 04.5**	**+1.1**
SJES	**Sjenica**	**1.71**	**341**	*e*	Pg	**Pb**	**14 41 41.6**	**+0.1**
SJES				*e*	Sg	**Sg**	**14 42 04.3**	**-1.6**
NKME	**Niksic**	**1.75**	**311**	⇓*i*	Pn	**Pb**	**14 41 41.8**	**-0.2**
NKME				*i*	Sn	**Sg**	**14 42 07.2**	**+0.3**
HCY	**Herceg Novi**	**1.86**	**296**	*e*	Pn	**Pb**	**14 41 43.9**	**-0.1**
HCY				*i*	Sn	**Sg**	**14 42 10.1**	**-0.5**
GOCS	**Kraljevo Serbi**	**1.92**	**3**	*e*	Pn	**Pb**	**14 41 44.4**	**-0.6**
IVAS	**Ivanjica**	**1.98**	**347**	*e*	Pn	**Pn**	**14 41 43.4**	**+0.3**
BRY	**Bratogost**	**2.07**	**308**	*e*	Pn	**Pb**	**14 41 46.9**	**-0.7**
BRY				*i*	Sn	**Sg**	**14 42 14.9**	**-2.3**
UPM	**Unac-Piva**	**2.07**	**319**	⇑*i*	Pn	**Pb**	**14 41 46.7**	**-1.0**
UPM				*i*	Sn	**Sg**	**14 42 15.0**	**-2.3**
DBRK	**Dubrovnik**	**2.19**	**299**	*e*	Pn	**Pn**	**14 41 47.1**	**+1.2**
DBRK					Sn	**Sb**	**14 42 18.5**	**+2.1**
STON	**Ston**	**2.58**	**299**	*e*	Pn	**Pn**	**14 41 51.7**	**+0.5**
STON					Sn	**Sb**	**14 42 27.8**	**+0.4**
LSTV	**Lastovo**	**3.08**	**293**	*e*	Pn	**Pn**	**14 41 59.3**	**+1.2**
LSTV					Sn	**Sb**	**14 42 41.1**	**-0.8**
KIJV	**Kijevo**	**3.97**	**308**	*e*	Pn	**Pn**	**14 42 08.4**	**-2.1**
KIJV					Sn	**Sn**	**14 42 55.4**	**-1.1**

NNC ***11*** *14:49:09.3±3.3,36.35N×70.25E,h0km,mb4.5,mpv4.2, Error ellipse: s-maj=26.6km s-min=24.0km az=173.0*
IDC ***11*** *14:49:18.1±3.1,36.26N×71.14E,h226km±28km,mb3.4/12, mbtmp4.1/17,Error ellipse: s-maj=21.9km s-min=13.1km az=33.0*
NEIC ***11*** *14:49:20.1±2.0,36.44N±0.05×71.26E±0.09,h237km±6km, mb4.2/32,Error ellipse: s-maj=11.7km s-min=6.7km az=65.0*

ISC 11 14:49:20.0±0.5,36.36N±0.05×71.25E±0.06,h250km,n90, σ1s89/102,mb4.1/23,2C-1D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
KBL	**Kabul**	**2.56**	**225**			**Pn**	**14 50 07.2**	**-0.9**
KBL					Sn	**S**	**14 50 42.6**	**-3.5**
NIL	**Nilore**	**3.17**	**148**			**Pn**	**14 50 14.8**	**+0.4**
NIL					Sn	**S**	**14 50 56.6**	**-0.9**
BTK	**Batken**	**3.71**	**355**			**Pn**	**14 50 20.1**	**-0.4**
BTK					Sn	**S**	**14 51 04.1**	**-4.3**
JMU	**Jammu**	**4.64**	**139**	*i*	P	**Pn**	**14 50 28.5**	**-3.0**
JMU				*i*	S	**S**	**14 51 26.0**	**-2.3**
JMU					IAML		14 51 28.4	
	comp=N,251nm,0.2s							
ARSB	**Arslanbob**	**5.14**	**15**	Pn		**Pn**	**14 50 36.0**	**-1.5**
ALCI	**Alchi Leh**	**5.31**	**112**	*i*	P	**Pn**	**14 50 39.2**	**-0.8**
TSSA	**Tissa**	**5.36**	**130**	*i*	P	**Pn**	**14 50 38.1**	**-2.4**
TSSA				*i*	P		14 50 39.8	
TSSA					IAML		14 51 44.0	
	comp=N,348nm,0.5s							
NRN	**Naryn**	**6.28**	**35**			**Pn**	**14 50 49.5**	**-2.3**
UCH	**Uchtor**	**6.38**	**22**	P		**Pn**	**14 50 52.3**	**-0.9**
	SNR=100							
EKS2	**Erkin-Say**	**6.59**	**16**	P		**Pn**	**14 50 54.6**	**-1.0**
	SNR=31							
AAK	**Ala-Archa**	**6.75**	**21**	P		**Pn**	**14 50 56.8**	**-0.8**
	comp=N,8.8nm,0.3s,baz=169,slow=5.9,SNR=46							
AAK					S	**S**	**14 52 12.0**	**-3.8**
	comp=N,16nm,0.3s,baz=123,slow=22,SNR=15							
AAK	**Ala-Archa**	**6.75**	**21**	⇑P		**Pn**	**14 50 56.5**	**-1.1**
	SNR=13							
AAK	**Ala-Archa**	**6.75**	**21**	⇑P		**Pn**	**14 50 54.5**	**-3.1**
	comp=N,4.1nm,0.5s							
AAK				⇑S		**S**	**14 52 16.0**	**+0.1**
	comp=N,34nm,0.8s							

KK31	**Karatay Array**	**6.76**	**355**	P		Pn	14 50 49.9	-7.7
	comp=N,16nm,0.3s,baz=181,slow=12,SNR=138							
KK31				⇓S		**S**	**14 52 08.9**	**-6.9**
	comp=N,45nm,0.4s,baz=184,slow=25							
KK31	**Karatay Array**	**6.76**	**355**			**Pn**	**14 50 56.1**	**-1.4**
KKAR	**Karatay Array**	**6.76**	**355**			**Pn**	**14 50 56.1**	**-1.5**
KBK	**Karagaybulak**	**6.91**	**23**	P		**Pn**	**14 50 59.2**	**-0.4**
	SNR=9.9							
ULHL	**Ulahol**	**7.04**	**32**	P		**Pn**	**14 51 00.2**	**-1.0**
	SNR=15							
USP	**Ospenovka**	**7.34**	**19**	P		**Pn**	**14 51 05.1**	**+0.2**
	SNR=6.3							
TKM2	**Tokmak 2**	**7.36**	**26**	P		**Pn**	**14 51 04.7**	**-0.7**
	SNR=9.1							
KDJ	**Kajisay**	**7.37**	**37**			**Pn**	**14 51 05.4**	**-0.1**
TARG	**Taragay, Kyrgy**	**7.40**	**42**	Pn		**Pn**	**14 51 04.2**	**-1.9**
KLP	**Kalpa**	**7.55**	**128**	*i* P		**Pn**	**14 51 08.5**	**+0.5**
KLP				*i* S		**S**	**14 52 29.2**	**-5.6**
HRA	**Herat**	**7.61**	**258**	Pn		**Pn**	**14 51 09.2**	**+0.5**
WUS	**Wushi**	**7.88**	**50**	Pn		**Pn**	**14 51 09.6**	**-2.3**
UTK	**UTTARKASHI**	**8.22**	**131**	*i* P		**Pn**	**14 51 15.9**	**-0.4**
UTK				*i* S		**S**	**14 52 43.8**	**-6.1**
PRZ	**Przheval'sk**	**8.25**	**40**	Pn		**Pn**	**14 51 14.9**	**-1.6**
KUDL	**Kundal**	**9.32**	**150**	*i* P		**Pn**	**14 51 26.6**	**-3.4**
PDGK	**Podgornoye**	**9.41**	**40**	P		**Pn**	**14 51 32.8**	**+1.7**
PDGK	**Podgornoye**	**9.41**	**40**			**Pn**	**14 51 28.8**	**-2.4**
MAKZ	**Makanchi**	**13.16**	**34**			**Pn**	**14 52 16.8**	**-0.9**
MKAR	**Makanchi Array**	**13.29**	**35**	P		**Pn**	**14 52 17.9**	**-1.4**
	comp=N,2.3nm,0.3s,baz=202,slow=9.0,SNR=28							
MKAR				S		**S**	**14 54 49.8**	**+3.1**
	comp=N,0.5nm,0.6s,baz=236,slow=16,SNR=1.9							
MKAR	**Makanchi Array**	**13.29**	**35**			**Pn**	**14 52 18.5**	**-0.8**
KURBB	**Kurchatov Arra**	**15.19**	**18**	P		**Pn**	**14 52 41.0**	**-1.3**
	comp=N,5.0nm,0.7s,baz=209,slow=11,SNR=25							
KURK	**Kurchatov**	**15.30**	**18**	P		**Pn**	**14 52 42.4**	**-1.2**
KURK				IAmb		IAmb	14 52 44.6	
	comp=Z,5.0nm,0.6s							
AB31	**Akbulak array**	**15.30**	**331**	P		**Pn**	**14 52 42.0**	**-1.5**
	comp=Z,1.8nm,0.3s,baz=141,slow=12,SNR=142							
AB31	**Akbulak array**	**15.30**	**331**			**Pn**	**14 52 42.1**	**-1.5**
AB31				IAmb		IAmb	14 52 45.9	
	comp=Z,11nm,0.9s							
ABKAR	**Akbulak array**	**15.30**	**331**			**P**	**14 52 42.0**	**-1.0**
BVAR	**Borovoye Array**	**16.67**	**358**	P		**Pn**	**14 52 58.8**	**-1.0**
	comp=Z,18nm,0.5s,baz=165,slow=11,SNR=38							
BVAR				S		**S**	**14 55 58.4**	**-0.7**
	comp=Z,1.3nm,0.8s,baz=164,slow=16,SNR=2.4							
BORK	**Borovoye**	**16.70**	**358**			**Pn**	**14 52 58.8**	**-1.3**
AKTO	**Aktyubinsk**	**17.00**	**330**	P		**Pn**	**14 53 02.5**	**-1.1**
	comp=Z,42nm,0.6s,baz=137,slow=8.8,SNR=74							
ZAA0	**Zalesovo Array**	**19.96**	**24**	P		**P**	**14 53 33.3**	**-0.1**
ZAA0				IAmb		IAmb	14 53 49.7	
	comp=Z,4.5nm,0.5s							
ZALV	**Zalesovo Beam**	**19.96**	**24**	P		**P**	**14 53 33.4**	**+0.1**
	comp=Z,2.5nm,0.3s,baz=216,slow=15,SNR=8.1							
	comp=Z,2.5nm,0.3s							
ARTI	**Arti**	**21.84**	**341**	P		**P**	**14 53 54.3**	**+2.0**
MORE	**Moreh**	**23.22**	**115**	P		**P**	**14 54 06.6**	**+1.4**
MORE				IAmb		IAmb	14 54 09.1	
	comp=Z,7.3nm,0.6s							
SONM

IUG	**Iuzhnay**	**1.02**	**342**	P	**Pb**	**14 54 56.2**	**-0.4**
	8.8nm,0.1s						
IUG				S	**Sn**	**14 55 18.7**	**+6.1**
	119nm,0.2s						
IUG	**Iuzhnay**	**1.02**	**342**	*e*P	**Pg**	**14 54 55.4**	**-0.3**
	8.8nm,0.1s						
IUG				*e*S	**Sn**	**14 55 12.7**	**+0.2**
	119nm,0.2s						
BTK	**Batken**	**1.15**	**166**⇑	*e*P	**Pg**	**14 54 58.6**	**+0.6**
BTK			⇑	*e*S	**Sn**	**14 55 15.1**	**-0.4**
BRLS	**Boroldaу**	**1.91**	**346**	P	**Pn**	**14 55 09.2**	**-0.5**
	7.1nm,0.2s						
BRLS				S	**Sn**	**14 55 33.9**	**-0.5**
	16nm,0.3s						
BRLS	**Boroldaу**	**1.91**	**346**	*e*P	**Pn**	**14 55 07.6**	**-2.1**
	7.1nm,0.2s						
BRLS				*e*S	**Sn**	**14 55 33.9**	**-0.5**
	16nm,0.3s						
ARSB	**Arslanbob**	**1.92**	**85**⇓	*e*P	**Pg**	**14 55 12.5**	**-0.2**
ARSB			⇓	*e*S	**Sg**	**14 55 39.6**	**+2.0**
KK31	**Karatay Array**	**1.93**	**1**	Pn	**Pb**	**14 55 12.4**	**+0.5**
	1.1nm,0.2s,baz=185,slow=15,SNR=8.8						
KK31			⇑	Lg	Lg	14 55 43.4	
	2.3nm,0.2s,baz=186,slow=30						
MNAS	**Manas**	**2.02**	**49**⇓	*e*P	**Pb**	**14 55 13.8**	**+0.2**
MNAS			⇓	*e*S	**Sg**	**14 55 41.2**	**+0.2**
MRKS	**Merke**	**2.60**	**52**	Pg	**Pb**	**14 55 23.0**	**-0.4**
	2.9nm,0.2s						
MRKS				Lg	Lg	14 55 59.3	
	6.8nm,0.4s						
MRKS	**Merke**	**2.60**	**52**	*e*P	**Pb**	**14 55 22.4**	**-1.0**
	2.9nm,0.2s						
MRKS				*e*S	**Sg**	**14 55 59.3**	**-0.2**
	6.8nm,0.4s						

DSN ***11*** *14:56:17.7±2.1,29˚.30N×47˚.46E,h5km,ML4.9/15,Error ellipse: s-maj=26.3km s-min=6.6km az=151.0*
IDC ***11*** *14:56:20.6±0.8,28˚.76N×47˚.71E,h0km,mb4.2/20, mbtmp4.2/26,ML3.4/6,MS3.5/21,Error ellipse: s-maj=16.9km s-min=11.9km az=176.0*
MOS ***11*** *14:56:21.2±1.0,28˚.89N×47˚.66E,h10km,mb4.8/35,Error ellipse: s-maj=7.6km s-min=4.7km az=89.4*
NEIC ***11*** *14:56:23.6±0.9,28˚.92N±0˚.06×47˚.70E±0˚.08,h10km±1km, mb4.7/49,Error ellipse: s-maj=11.7km s-min=10.7km az=258.0*
GFZ ***11*** *14:56:24.1±0.2,29˚N±3˚×4˚8E±˚,h10km,M4.9/37, mb4.6/37,Error ellipse: s-maj=6.7km s-min=4.5km az=27.4,confirmed*
SGS ***11*** *14:56:26.1,28˚.93N×47˚.61E,h9km,Ml4.6*
OMAN ***11*** *14:56:29.9±1.8,28˚.43N×48˚.09E,h10km,mb4.4/34,Error ellipse: s-maj=14.4km s-min=9.1km az=166.0*

ISC 11 14:56:23.5±0.3,28˚92N±0˚.03×47˚.73E±0˚.04,h13km,n330, σ2s01/372,mb4.6/96,MS3.6/17,6C-3D,Eastern Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KFJS1	**Al Wafrah**	**0.75**	**166**	P	**Pb**	**14 56 39.1**	**+0.6**
KFJS1				S	**Sn**	**14 56 52.8**	**+1.7**
KFJS2	**Khafji**	**0.81**	**134**	P	**Pb**	**14 56 40.2**	**+0.7**
KFJS2				S	**Sn**	**14 56 54.7**	**+2.1**
QYSM	**Um Kedad**	**1.30**	**216**	P	**Pg**	**14 56 48.0**	**-0.6**
QYSM				S	**Sg**	**14 57 09.2**	**+3.6**
WANAN	**Al Wanan**	**2.12**	**162**	P	**Pb**	**14 57 02.8**	**+1.0**
RQBS	**RQBS**	**2.22**	**225**	P	**Pn**	**14 57 00.9**	**+0.8**
SRFHA	**Rafha**	**2.74**	**273**	P	**Pn**	**14 57 07.7**	**+0.4**
SMAN	**Sihmah**	**2.75**	**174**	P	**Pn**	**14 57 09.3**	**+2.0**
ARIRA	**AirJ**	**2.87**	**159**	P	**Pn**	**14 57 11.2**	**+2.3**
ASYS		**3.31**	**246**	P	**Pn**	**14 57 15.3**	**+0.3**
MJMS	**Al Majmaah**	**3.40**	**213**	P	**Pn**	**14 57 16.9**	**+0.5**
SAKB	**Bahrain**	**3.85**	**139**	P	**Pn**	**14 57 24.6**	**+2.2**
SAKB				S	**Sn**	**14 58 12.8**	**+5.3**
SAKB	**Bahrain**	**3.85**	**139**	P	**Pn**	**14 57 24.6**	**+2.2**
SAKB				S	**Sn**	**14 58 00.2**	**-7.3**
HOFOF	**Al Hofuf**	**4.00**	**151**	P	**Pn**	**14 57 26.9**	**+2.3**
HIL04	**Ash Shaalaniya**	**4.53**	**256**	P	**Pn**	**14 57 31.7**	**-0.3**
BTHS		**5.60**	**149**	P	**Pn**	**14 57 48.1**	**+1.6**
RAYN	**Ar Rayn**	**5.74**	**201**	*i* P	**Pn**	**14 57 47.7**	**-0.7**
	SNR=6.0						
RAYN	**Ar Rayn**	**5.74**	**201**	P	**Pn**	**14 57 48.2**	**-0.3**
RAYN				S	**Sn**	**14 58 54.7**	**+0.5**
RAYN	**Ar Rayn**	**5.74**	**201**	P	**Pn**	**14 57 47.8**	**-0.7**
RAYN				S	**Sn**	**14 58 52.8**	**-1.4**
RAYN	**Ar Rayn**	**5.74**	**201**	P	**Pn**	**14 57 48.2**	**-0.3**
RAYN				S	**Sn**	**14 58 52.8**	**-1.4**
RAYN	**Ar Rayn**	**5.74**	**201**	P	**Pn**	**14 57 47.8**	**-0.7**
RAYN	**Ar Rayn**	**5.74**	**201**	Pn	**Pn**	**14 57 47.8**	**-0.7**
RAYN	**Ar Rayn**	**5.74**	**201**	P	**Pn**	**14 57 47.9**	**-0.5**
	comp=Z,178nm,1.1s						
SLWR	**Sila**	**5.99**	**143**	P	**Pn**	**14 57 53.5**	**+1.6**
SLWR				S	**Sn**	**14 59 00.2**	**-0.3**
SLWR	**Sila**	**5.99**	**143**	P	**Pn**	**14 57 53.5**	**+1.6**
SLWR				S	**Sn**	**14 59 01.0**	**+0.5**
SLWR	**Sila**	**5.99**	**143**	P	**Pn**	**14 57 53.5**	**+1.6**
SLWR				S	**Sn**	**14 58 56.2**	**-4.2**
JRN	**Qarnain Island**	**6.04**	**130**	P	**Pn**	**14 57 53.8**	**+1.1**
JRN				S	**Sn**	**14 59 01.3**	**-0.4**
JRN	**Qarnain Island**	**6.04**	**130**	P	**Pn**	**14 57 53.8**	**+1.1**
JRN				S	**Sn**	**14 59 00.6**	**-1.1**
GHWR	**Ruwais**	**6.75**	**136**	P	**Pn**	**14 58 03.0**	**+0.7**
GHWR				S	**Sn**	**14 59 17.9**	**-1.2**
MZWR	**Madinat Zayed**	**7.54**	**132**	P	**Pn**	**14 58 14.6**	**+1.4**
MZWR				S	**Sn**	**14 59 35.2**	**-3.2**
AJN	**Ajban**	**7.80**	**122**	P	**Pn**	**14 58 18.9**	**+2.1**
UMQ	**Umm Al-Quwin**	**7.83**	**114**	P	**Pn**	**14 58 18.6**	**+1.5**
UMQ				S	**Sn**	**14 59 45.8**	**+0.2**
MZR	**Muzera**	**7.84**	**137**	*i* P	**Pn**	**14 58 18.4**	**+1.1**
	SNR=45						
MZR	**Muzera**	**7.84**	**137**	P	**Pn**	**14 58 18.7**	**+1.4**
	SNR=15						
MZR				S	**Sn**	**14 59 44.3**	**-1.7**
SHME	**Shamm**	**8.00**	**109**	*i* P	**Pn**	**14 58 18.6**	**-0.9**
	SNR=73						
SHME	**Shamm**	**8.00**	**109**	P	**Pn**	**14 58 19.3**	**-0.2**
	SNR=9.4						
SHME				S	**Sn**	**14 59 44.1**	**-5.7**
ASUD	**Al Ashush, Dub**	**8.02**	**120**	*i* P	**Pn**	**14 58 21.3**	**+1.5**
	SNR=9.4						
ASUD	**Al Ashush, Dub**	**8.02**	**120**	P	**Pn**	**14 58 21.6**	**+1.8**
	SNR=9.4						
ASUD				S	**Sn**	**14 59 47.8**	**-2.7**
NAZ	**Nazwa, Dubai**	**8.09**	**117**	*i* P	**Pn**	**14 58 22.0**	**+1.3**
	SNR=81						
NAZ	**Nazwa, Dubai**	**8.09**	**117**	P	**Pn**	**14 58 22.0**	**+1.3**
	SNR=81						
NAZ				S	**Sn**	**14 59 49.4**	**-2.6**
FAQ	**Al Faqa, Dubai**	**8.16**	**119**	*i* P	**Pn**	**14 58 22.8**	**+1.1**
	SNR=8.4						
FAQ	**Al Faqa, Dubai**	**8.16**	**119**	P	**Pn**	**14 58 22.9**	**+1.2**
	SNR=8.3						
FAQ				S	**Sn**	**14 59 50.8**	**-3.0**
BANOM	**Banah**	**8.18**	**109**	*i* P	**Pn**	**14 58 21.2**	**-0.8**
	SNR=29						
BANOM	**Banah**	**8.18**	**109**	P	**Pn**	**14 58 21.8**	**-0.2**
	SNR=29						
BANOM				S	**Sn**	**14 59 49.8**	**-4.6**
MASF	**Masafi**	**8.30**	**113**	P	**Pn**	**14 58 24.2**	**+0.6**
	SNR=11						
MASF				S	**Sn**	**14 59 52.6**	**-4.7**
MSFE	**Esma-Masafi**	**8.30**	**113**	*i* P	**Pn**	**14 58 23.3**	**-0.4**
	SNR=12						
MDH	**Madha**	**8.44**	**113**	*i* P	**Pn**	**14 58 26.0**	**+0.4**
	SNR=7.5						
MDH	**Madha**	**8.44**	**113**	P	**Pn**	**14 58 26.2**	**+0.6**
	SNR=7.6						
MDH				S	**Sn**	**14 59 55.8**	**-5.0**
UOSS	**Minazif**	**8.53**	**116**	*i* P	**Pn**	**14 58 26.9**	**+0.1**
	SNR=6.7						
UOSS	**Minazif**	**8.53**	**116**	P	**Pn**	**14 58 27.2**	**+0.4**
UOSS				S	**Sn**	**14 59 57.9**	**-5.2**
UOSS	**Minazif**	**8.53**	**116**	Pn	**Pn**	**14 58 27.0**	**+0.1**
UOSS	**Minazif**	**8.53**	**116**	P	**Pn**	**14 58 27.3**	**+0.4**
	comp=Z,151nm,0.6s						
HATD	**Hatta, Dubai**	**8.54**	**117**	*i* P	**Pn**	**14 58 27.2**	**+0.3**
	SNR=35						
HATD	**Hatta, Dubai**	**8.54**	**117**	P	**Pn**	**14 58 28.1**	**+1.3**
	SNR=35						
HATD				S	**Sn**	**14 59 59.6**	**-3.5**
ASHO	**Ashiyiah**	**8.55**	**118**	*i* P	**Pn**	**14 58 28.3**	**+1.2**
	SNR=31						
ASHO	**Ashiyiah**	**8.55**	**118**	P	**Pn**	**14 58 27.3**	**+0.2**
	SNR=41						
ASHO	**Ashiyiah**	**8.55**	**118**	S	**Sn**	**14 59 59.8**	**-3.7**
ALNE	**Al Ain**	**8.66**	**122**	*i* P	**Pn**	**14 58 29.4**	**+0.8**
	SNR=23						
ALNE	**Al Ain**	**8.66**	**122**	P	**Pn**	**14 58 29.6**	**+0.9**
	SNR=25						
ALNE				S	**Sn**	**15 00 02.8**	**-3.4**
UMZA	**Um Al Zommool**	**9.11**	**131**	P	**Pn**	**14 58 35.8**	**+1.1**
UMZA				S	**Sn**	**15 00 12.6**	**-4.5**
SOHO	**SOHO**	**9.21**	**119**	*i* P	**Pn**	**14 58 36.3**	**+0.2**
	SNR=35						
SOHO	**SOHO**	**9.21**	**119**	P	**Pn**	**14 58 36.7**	**+0.6**
	SNR=35						
SOHO				S	**Sn**	**15 00 16.0**	**-3.6**
HAKT	**HAKKARI**	**9.25**	**340**	P	**Pn**	**14 58 35.8**	**-1.0**
	comp=Z,73nm,0.7s						
JASK	**Jask - Hormozg**	**9.51**	**106**	P	**Pn**	**14 58 39.6**	**-0.6**
	SNR=11						
JASK				S	**Sn**	**15 00 22.3**	**-4.6**
ARQ	**Araqi**	**9.66**	**123**	P	**Pn**	**14 58 42.6**	**+0.4**
	SNR=22						
ARQ				S	**Sn**	**15 00 27.0**	**-3.6**
ASF	**Jabal al Asfar**	**9.93**	**292**	Pn	**Pn**	**14 58 44.1**	**-1.4**
	comp=Z,0.2nm,0.3s,baz=294,slow=13,SNR=2.0						
ASF				Sn	**Sn**	**15 00 32.8**	**-3.6**
	comp=Z,1.9nm,0.3s,baz=269,slow=10,SNR=3.7						
ASF				Lg	Lg	15 01 39.9	
	comp=Z,2.3nm,0.3s,baz=290,slow=23,SNR=7.6						
	comp=Z,1.0nm,0.6s						
ASF				AML	AML		
HOQ	**Hoqain**	**10.11**	**120**	P	**Pn**	**14 58 49.0**	**+0.5**
	SNR=24						
HOQ				S	**Sn**	**15 00 35.3**	**-6.4**
GEVA	**Gevas**	**10.14**	**339**	Pn	**Pn**	**14 58 49.1**	**+0.1**
BSY	**Bisya**	**10.51**	**124**	P	**Pn**	**14 58 56.0**	**+2.0**
	SNR=12						
BSY				S	**Sn**	**15 00 46.4**	**-5.3**
GURO	**Guroymak-BITLI**	**10.71**	**335**	Pn	**Pn**	**14 58 56.4**	**-0.4**
BIDO	**Bidbid**	**10.77**	**118**	P	**Pn**	**14 58 57.1**	**-0.3**
BIDO				S	**Sn**	**15 00 51.7**	**-6.2**
GHAJ	**Ghor Haditha**	**10.80**	**286**	Pn	**Pn**	**14 58 57.4**	**-0.4**
SMDO	**Samad**	**10.96**	**120**	P	**Pn**	**14 59 01.0**	**+0.8**
	SNR=31						
SMDO				S	**Sn**	**15 00 58.1**	**-4.7**
HRFI	**Mount Harif**	**11.12**	**279**	P	**Pn**	**14 59 01.5**	**-0.8**
	comp=Z,23nm,1.1s						
EIL	**Elat**	**11.18**	**277**	Pn	**Pn**	**14 59 03.0**	**-0.1**
	comp=Z,0.2nm,0.3s,baz=106,slow=17,SNR=2.3						
EIL				Lg	Lg	15 02 29.8	
	comp=Z,1.7nm,0.3s,baz=3.4,slow=15,SNR=6.4						
EIL				LR	LR	15 03 42.3	
	comp=Z,233nm,19.6s,baz=96,slow=40						
	comp=Z,3.4nm,0.8s						
EIL				AML	AML		
WSAR	**Wadi Sarin**	**11.31**	**118**	P	**Pn**	**14 59 04.4**	**-0.5**
	SNR=20						
WSAR				S	**Sn**	**15 01 04.6**	**-6.6**
MMAI	**Mount Meron Ar**	**11.34**	**294**	Pn	**Pn**	**14 59 07.3**	**+1.9**
	comp=Z,0.4nm,0.3s,baz=94,slow=13,SNR=1.6						
MMAI				Sn	Sn	15 01 02.0	-10
	comp=Z,1.3nm,0.3s,baz=333,slow=24,SNR=3.7						
MMAI				Lg	Lg	15 02 25.7	
	comp=Z,2.4nm,0.3s,baz=115,slow=34,SNR=1.4						
MMAI				LR	LR	15 03 48.1	
	comp=Z,123nm,18.5s,baz=100,slow=39						
	comp=Z,0.4nm,0.3s						
MMAI				AML	AML		
JMDO	**Jabal Madar**	**11.40**	**123**	P	**Pn**	**14 59 05.6**	**-0.6**
	SNR=17						
JMDO				S	**Sn**	**15 01 06.7**	**-6.7**
GNI	**Garni**	**11.47**	**348**	Pn	**Pn**	**14 59 09.1**	**+2.0**
	comp=Z,0.4nm,0.3s,baz=170,slow=16,SNR=3.3						
GNI				LR	LR	15 04 19.2	
	comp=Z,88nm,20.6s,baz=170,slow=41						
	comp=Z,4.2nm,0.6s						
GNI				AML	AML		
GNI	**Garni**	**11.47**	**348**	P	**Pn**	**14 59 06.8**	**-0.3**
GNI	**Garni**	**11.47**	**348**		**Pn**	**14 59 06.8**	**-0.3**
DOK	**Doka**	**11.80**	**149**	P	**Pn**	**14 59 10.3**	**-1.4**
	SNR=6.5						
DOK				S	**Sn**	**15 01 17.3**	**-6.1**
WBK	**Wadi Bani Khal**	**11.91**	**119**	P	**Pn**	**14 59 13.0**	**-0.2**
	SNR=11						
WBK				S	**Sn**	**15 01 20.0**	**-6.0**
DIGO	**Kars**	**12.01**	**344**	P	**Pn**	**14 59 15.9**	**+1.3**
	comp=Z,43nm,0.7s						
MHTO	**MHTO**	**12.18**	**128**	P	**Pn**	**14 59 17.0**	**+0.1**
	SNR=40						
MHTO				S	**Sn**	**15 01 26.4**	**-6.2**
WHFO	**Wadi Hawf**	**12.27**	**152**	P	**Pn**	**14 59 16.3**	**-1.7**
WHFO				S	**Sn**	**15 01 26.2**	**-8.6**
NGCH	**Negor - Chabah**	**12.45**	**103**	P	**Pn**	**14 59 17.7**	**-2.8**
NGCH				S	**Sn**	**15 01 31.4**	**-7.7**
JLN	**Jalan Bani Buh**	**12.51**	**120**	P	**Pn**	**14 59 20.7**	**-0.6**
	SNR=13						
JLN				S	**Sn**	**15 01 33.6**	**-7.0**
DQM	**DQM**	**12.64**	**133**	P	**Pn**	**14 59 22.2**	**-0.9**
DQM				S	Sn	15 01 35.1	-8.7
ARPR	**Arapgir-MALATY**	**12.79**	**325**		**Pn**	**14 59 25.4**	**+0.3**
RBK	**Rabkut**	**12.82**	**151**	P	**Pn**	**14 59 24.4**	**-1.2**
	SNR=5.2						
RBK				S	**Sn**	**15 01 41.6**	**-6.7**
KEMA	**Kemaliye**	**12.84**	**326**	P	**Pn**	**14 59 27.3**	**+1.4**
	comp=Z,20nm,0.9s						
DMTO	**DMTO**	**12.97**	**148**	P	**Pn**	**14 59 26.0**	**-1.6**
	SNR=14						
DMTO				S	Sn	15 01 42.1	-10
SHAO	**Shalim**	**13.04**	**145**	P	**Pn**	**14 59 27.4**	**-1.2**
SHAO				S	**Sn**	**15 01 45.6**	**-7.9**
KELT	**Kelkit**	**13.19**	**330**	P	**Pn**	**14 59 32.9**	**+2.2**
	comp=Z,42nm,1.5s						
HRA	**Herat**	**13.51**	**63**	Pn	**Pn**	**14 59 35.7**	**+0.6**
CSS	**Mathiatis**	**13.63**	**300**	P	**Pn**	**14 59 37.3**	**+0.8**
	comp=Z,11nm,0.9s						
MAK	**Makhachkala**	**14.01**	**359***c*	*i* P	**Pn**	**14 59 40.0**	**-1.7**
MAK				*e*S	**Sn**	**15 02 15.4**	**-1.7**
MAK				pmax	pmax		
	comp=Z,254nm,1.2s						
MAK				MLR	MLR		
	comp=Z,338nm,13.0s						
KBZ	**Khabaz**	**15.28**	**347**	Pn	**Pn**	**15 00 00.5**	**+1.6**
	comp=Z,0.2nm,0.3s,baz=179,slow=7.0,SNR=7.4						
KBZ				LR	LR	15 07 15.4	
	comp=Z,66nm,21.2s,baz=193,slow=42						
	comp=Z,5.2nm,0.9s						
KBZ				AML	AML		
KBZ	**Khabaz**	**15.28**	**347**	*i* P	**Pn**	**15 00 00.3**	**+1.4**
SHA1	**Shidzhatmaz**	**15.34**	**346***ce*	P	**Pn**	**15 00 00.3**	**+0.4**
KIV	**Kislovodsk**	**15.54**	**346**	*e*P	**Pn**	**15 00 02.9**	**+0.5**
KIV				pmax	pmax		
	comp=Z,27nm,1.1s						
KIV				MLR	MLR		
	comp=Z,39nm,14.0s						
KIV	**Kislovodsk**	**15.54**	**346**	Pn	**Pn**	**15 00 01.8**	**-0.6**
KIV				lAmb	lAmb	15 00 13.9	
	comp=Z,78nm,1.5s						
KIV	**Kislovodsk**	**15.54**	**346**	P	**Pn**	**15 00 03.6**	**+1.2**
	comp=Z,22nm,1.2s						
KIV	**Kislovodsk**	**15.54**	**346**	P	**Pn**	**15 00 03.8**	**+1.4**
	comp=Z,29nm,1.2s						
BR104	**Keskin Array S**	**15.83**	**316**	P	**Pn**	**15 00 07.1**	**+0.8**
	comp=Z,75nmcomp=Z,7.5nm,1.0s						
BR131	**Keskin Array S**	**15.85**	**317**	*i* P	**Pn**	**15 00 06.6**	**+0.2**
BR131	**Keskin Array S**	**15.85**	**317**	Pn	**Pn**	**15 00 05.7**	**-0.8**
BRTR	**Keskin Array B**	**15.85**	**317**	Pn	**Pn**	**15 00 06.7**	**+0.2**
	comp=Z,0.1nm,0.3s,baz=136,slow=9.9,SNR=9.8						
BRTR				Sn	**S**	**15 03 10.0**	**-6.5**
	comp=Z,0.1nm,0.3s,baz=100,slow=9.9,SNR=1.2						
BRTR				LR	LR	15 06 29.4	
	comp=Z,44nm,21.0s,baz=143,slow=38						
	comp=Z,2.4nm,0.9s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**15.85**	**317**	P	**Pn**	**15 00 06.0**	**-0.5**
BRTR	**Keskin Array B**	**15.85**	**317**	Pn	**Pn**	**15 00 06.0**	**-0.5**
BR106	**Keskin Array S**	**15.86**	**317**	P	**Pn**	**15 00 06.9**	**+0.2**
	comp=Z,64nmcomp=Z,6.4nm,1.0s						
KKUL	**Konya-Kulu**	**15.96**	**314**	P	**P**	**15 00 09.9**	**-1.5**
	comp=Z,19nm,1.1s						
SOC	**Sochi**	**15.98**	**338**	*e*P	**Pn**	**15 00 05.4**	**-2.7**
SOC				*e*		15 03 01.7	
SOC				pmax	pmax		
	comp=Z,44nm,0.8s						
SOC				MLR	MLR		
	comp=Z,94nm,15.0s						
ERBR	**Yeremizino-Bor**	**17.71**	**343**	*e*P	**Pn**	**15 00 30.2**	**+0.3**
ERBR				pmax	pmax		
	comp=Z,42nm,1.0s						
KARP	**Karpathos**	**18.60**	**296**	P	**P**	**15 00 39.7**	**-0.9**
KARP				lAmb	lAmb	15 00 40.4	
	comp=Z,91nm,1.2s						
KBL	**Kabul**	**18.96**	**67**	P	**P**	**15 00 44.7**	**-0.1**
KBL				pmax	pmax		
	comp=Z,12nm,1.1s						
KBL	**Kabul**	**18.96**	**67**	P	**P**	**15 00 44.7**	**-0.1**
KBL	**Kabul**	**18.96**	**67**	P	**Pn**	**15 00 47.0**	**+1.5**
	comp=Z,8.9nm,1.2s						
IDI	**Anoyia**	**20.34**	**294**	P	**P**	**15 00 59.5**	**-0.2**
	comp=Z,19nm,1.1s,baz=305,slow=21,SNR=1.8						
	comp=Z,19nm,1.1s						
IDI	**Anoyia**	**20.34**	**294**	P	**P**	**15 00 59.2**	**-0.5**
BTK	**Batken**	**21.97**	**54**	P	**P**	**15 01 17.2**	**0.0**
BTK				pmax	pmax		
	comp=Z,60nm,1.4s						
BTK	**Batken**	**21.97**	**54**	P	**P**	**15 01 17.2**	**0.0**
BTK				lAmb	lAmb	15 01 21.3	
	comp=Z,60nm,1.4s						
BTK	**Batken**	**21.97**	**54**	P	**P**	**15 01 18.2**	**+0.9**
	comp=Z,27nm,1.3s						
NIL	**Nilore**	**22.29**	**71**	P	**P**	**15 01 20.8**	**+0.1**
NIL				pmax	pmax		
	comp=Z,60nm,1.5s						
NIL	**Nilore**	**22.29**	**71**	P	**P**	**15 01 20.8**	**+0.1**
NIL	**Nilore**	**22.29**	**71**	P	**P**	**15 01 20.8**	**+0.1**
	comp=Z,31nm,1.1s						
AB31	**Akbulak array**	**22.36**	**21**	P	**P**	**15 01 20.2**	**-1.0**
AB31				lAmb	lAmb	15 01 26.5	
	comp=Z,24nm,1.2s						
ABKAR	**Akbulak array**	**22.36**	**21**	P	**P**	**15 01 20.3**	**-0.8**
VRH	**Novokhopyorsk**	**22.71**	**350**	*e*P	**P**	**15 01 23.3**	**-1.6**
VRH				pmax	pmax		
	comp=Z,40nm,0.6s						
AKTO	**Aktyubinsk**	**22.86**	**17**	P	**P**	**15 01 25.7**	**-0.8**
	comp=Z,8.3nm,0.6s,baz=203,slow=9.2,SNR=27						
	comp=Z,8.3nm,0.6s						
VORD	**Divnogorie**	**22.92**	**346**	*e*P	**P**	**15 01 25.7**	**-1.4**
VORD				pmax	pmax		
	comp=Z,20nm,0.6s						
KK31	**Karatay Array**	**23.14**	**46**	P	**P**	**15 01 29.4**	**-0.1**
KK31				pmax	pmax		
	comp=Z,15nm,1.2s						
KK31	**Karatay Array**	**23.14**	**46**	P	**P**	**15 01 29.4**	**-0.1**
KKAR	**Karatay Array**	**23.14**	**46**	P	**P**	**15 01 29.3**	**-0.2**
KKAR	**Karatay Array**	**23.14**	**46**	P	**P**	**15 01 29.3**	**-0.2**
VSR	**Storozhevoye**	**23.18**	**346**	*e*P	**P**	**15 01 28.0**	**-1.8**
VSR				pmax	pmax		
	comp=Z,20nm,0.7s						
BISRR	**Bisoca**	**23.46**	**321**	P	**P**	**15 01 33.8**	**+1.0**
	comp=Z,36nm,1.1s						
OHH	**Osh**	**23.54**	**54**	P	**P**	**15 01 34.7**	**+1.1**
	comp=Z,22nm,1.3s						
VORR	**Voronezh**	**23.61**	**347**	*e*P	**P**	**15 01 31.6**	**-2.4**
VORR				pmax	pmax		
	comp=Z,30nm,0.4s						
MLR	**Muntele Rosu**	**23.86**	**320**	P	**P**	**15 01 36.1**	**-0.6**
MLR				pmax	pmax		
	comp=Z,21nm,1.2s						
MLR	**Muntele Rosu**	**23.86**	**320**	P	**P**	**15 01 36.1**	**-0.6**
MLR				lAmb	lAmb	15 01 48.1	
	comp=Z,21nm,1.2s						
MLR	**Muntele Rosu**	**23.86**	**320**	P	**P**	**15 01 37.9**	**+1.2**
	comp=Z,15nm,1.1s						
MLR	**Muntele Rosu**	**23.86**	**320**	P	**P**	**15 01 38.1**	**+1.5**
	comp=Z,15nm,1.2s						
ARSB	**Arslanbob**	**23.98**	**52**	P	**P**	**15 01 37.4**	**-0.5**
ARSB				pmax	pmax		
	comp=Z,14nm,1.2s						
ARSB	**Arslanbob**	**23.98**	**52**	P	**P**	**15 01 37.4**	**-0.5**
TESR	**Tescani**	**24.10**	**323**	P	**P**	**15 01 38.9**	**+0.1**
	comp=Z,17nm,1.0s						
TESR	**Tescani**	**24.10**	**323**	P	**P**	**15 01 39.2**	**+0.4**
	comp=Z,16nm,1.0s						
VOIR		**24.34**	**319**	P	**P**	**15 01 41.5**	**+0.4**
	comp=Z,18nm,1.1s						
VOIR		**24.34**	**319**	P	**P**	**15 01 41.9**	**+0.8**
	comp=Z,18nm,1.1s						
ARR	**Arges**	**24.54**	**318**	P	**P**	**15 01 42.2**	**-0.7**
	comp=Z,14nm,1.4s						
LPSR	**Galich'ya Gora**	**24.54**	**347**	*e*P	**P**	**15 01 41.8**	**-0.9**
LPSR				pmax	pmax		
	comp=Z,40nm,0.8s						
EKS2	**Erkin-Say**	**25.07**	**50**	P	**P**	**15 01 51.9**	**+4.1**
	SNR=5.1						
LOT	**Lotru**	**25.09**	**318**	P	**P**	**15 01 49.2**	**+1.3**
	comp=Z,8.2nm,1.8s						
KSH2	**Kashi**	**25.13**	**59**	P	**P**	**15 01 50.0**	**+1.5**
KSH2				pmax	pmax		
	comp=Z,23nm,0.7s						
UCH	**Uchtor**	**25.39**	**51**	P	**P**	**15 01 53.6**	**+2.5**
	SNR=14						
AAK	**Ala-Archa**	**25.54**	**50**	LR	LR	15 13 42.5	
	comp=Z,114nm,21.1s,baz=264,slow=41						
AAK	**Ala-Archa**	**25.54**	**50***ce*	P	**P**	**15 01 54.1**	**+2.0**
AAK				pmax	pmax		
	comp=Z,7.0nm,1.0s						
AAK	**Ala-Archa**	**25.54**	**50**	P	**P**	**15 01 55.4**	**+3.3**
	comp=Z,11nm,1.2s	

TARG				IAmb	IAmb	15 02 20.9	
	comp=Z,16nm,0.9s						
RNPP8	**Varash**	**27.75**	**330**	P	**P**	**15 02 12.6**	**+0.9**
ANVS	**Anan'yevo**	**27.76**	**52**	P	**P**	**15 02 15.2**	**+3.0**
	comp=Z,7.5nm,1.2s						
MOS	**Moscow**	**27.76**	**348**	*e*P	**P**	**15 02 13.7**	**+1.9**
MOS				*e*		15 02 59.2	
MOS				*e*PPP	PPP	15 03 08.9	
MOS				*e*		15 06 59.3	
MOS				pmax	pmax		
	comp=Z,25nm,0.6s						
RNPP9	**Sopachiv**	**27.79**	**330**	P	**P**	**15 02 12.5**	**+0.4**
LODK	**Lodwar**	**27.95**	**207**	P	**P**	**15 02 14.4**	**+0.4**
LODK	**Lodwar**	**27.95**	**207**	P	**P**	**15 02 16.2**	**+2.2**
	comp=Z,4.4nm,1.8s						
PRZ	**Przheval'sk**	**28.17**	**53**	P	**P**	**15 02 15.7**	**-0.2**
PRZ				pmax	pmax		
	comp=Z,9.0nm,0.6s						
PRZ	**Przheval'sk**	**28.17**	**53**	P	**P**	**15 02 15.7**	**-0.2**
PRZ				IAmb	IAmb	15 02 20.1	
	comp=Z,9.3nm,0.6s						
WUS	**Wushi**	**28.38**	**56**	P	**P**	**15 02 17.5**	**-0.2**
CUC	**Castrocucco**	**28.40**	**301**	P	**P**	**15 02 17.0**	**-0.8**
ARTI	**Arti**	**28.48**	**12**	*d* *i*P	**P**	**15 02 19.2**	**+1.0**
ARTI						15 03 04.8	
ARTI						15 05 27.7	
ARTI				S	**S**	**15 07 08.2**	**+2.9**
ARTI				SS	**SnSn**	**15 08 25.4**	**+1.5**
ARTI				pmax	pmax		
	comp=Z,11nm,1.0s						
ARTI	**Arti**	**28.48**	**12**	P	**P**	**15 02 18.3**	**+0.1**
ARTI				IAmb	IAmb	15 02 20.8	
	comp=Z,8.1nm,0.9s						
PDGK	**Podgornoye**	**29.20**	**52**	P	**P**	**15 02 25.7**	**+0.7**
PDGK	**Podgornoye**	**29.20**	**52**	P	**P**	**15 02 25.7**	**+0.7**
BORK	**Borovoye**	**29.28**	**28**	*i* P	**P**	**15 02 25.7**	**+0.3**
BORK				pmax	pmax		
	comp=Z,11nm,1.4s						
BORK	**Borovoye**	**29.28**	**28**	P	**P**	**15 02 25.5**	**+0.2**
BVAR	**Borovoye Array**	**29.30**	**28**	P	**P**	**15 02 26.6**	**+1.1**
	comp=Z,4.1nm,0.6s,baz=224,slow=6.2,SNR=18						
	comp=Z,4.1nm,0.6s						
PAOL	**Paolisi**	**29.56**	**303**	P	**P**	**15 02 28.0**	**-0.1**
PAOL				IAmb	IAmb	15 03 04.4	
	comp=Z,7.0nm,0.7s						
KIRV	**Kirov**	**29.68**	**2**	LR	LR	15 17 40.5	
	comp=Z,94nm,18.1s,baz=168,slow=43						
KIRV	**Kirov**	**29.68**	**2**	*ce*P	**P**	**15 02 29.9**	**+1.1**
NACGM	**Naroch**	**30.05**	**336**	*e*P	**P**	**15 02 33.4**	**+1.3**
	comp=N,13nm,1.0s						
MORC	**Moravsky Berou**	**30.96**	**321**	P	**P**	**15 02 39.8**	**-0.5**
MORC				pmax	pmax		
	comp=Z,9.0nm,1.5s						
MORC	**Moravsky Berou**	**30.96**	**321**	P	**P**	**15 02 39.8**	**-0.5**
OBKA	**Obir**	**31.28**	**313**	*e*pP	**P**	**15 02 44.1**	**+0.9**
	comp=Z,13nm,1.4s						
SESA	**Seetaler Alpe,**	**31.50**	**314**	*e*pP	**P**	**15 02 46.2**	**+0.9**
	comp=Z,8.8nm,1.6s						
KURBB	**Kurchatov Arra**	**31.73**	**38**	P	**P**	**15 02 48.3**	**+1.3**
	comp=Z,7.3nm,0.8s,baz=242,slow=9.3,SNR=25						
	comp=Z,7.3nm,0.8s						
KURK	**Kurchatov**	**31.83**	**38**	*ce*P	**P**	**15 02 49.3**	**+1.4**
KURK				pmax	pmax		
	comp=Z,18nm,1.0s						
KURK	**Kurchatov**	**31.83**	**38**	P	**P**	**15 02 48.3**	**+0.4**
KURK	**Kurchatov**	**31.83**	**38**	P	**P**	**15 02 49.0**	**+1.1**
	comp=Z,21nm,1.3s						
MYKA	**Terra Mystica**	**31.90**	**313**	*e*pP	**P**	**15 02 49.2**	**+0.5**
	comp=Z,4.0nm,1.2s						
MOA	**Molln**	**31.98**	**315**	*i* pP	**P**	**15 02 50.9**	**+1.6**
	comp=Z,9.3nm,1.2s						
MOA	**Molln**	**31.98**	**315**	P	**P**	**15 02 50.1**	**+0.8**
	comp=Z,9.2nm,1.9s						
MAKZ	**Makanchi**	**32.07**	**47**	P	**P**	**15 02 52.0**	**+1.9**
	comp=Z,10nm,1.6s						
KBA	**Koelnbreinsper**	**32.26**	**314**	*e*P	**P**	**15 02 51.4**	**-0.6**
	comp=Z,5.6nm,1.3s						
KBA	**Koelnbreinsper**	**32.26**	**314**	P	**P**	**15 02 53.3**	**+1.4**
	comp=Z,8.0nm,1.1s						
MK31	**Makanchi Array**	**32.26**	**47**	*ce*P	**P**	**15 02 52.8**	**+1.0**
MKAR	**Makanchi Array**	**32.26**	**47**	P	**P**	**15 02 52.8**	**+1.0**
	comp=Z,3.4nm,0.6s,baz=248,slow=7.5,SNR=19						
MKAR				LR	LR	15 18 02.0	
	comp=Z,225nm,18.1s,baz=238,slow=40						
	comp=Z,3.4nm,0.6s						
MKAR	**Makanchi Array**	**32.26**	**47**	*i* P	**P**	**15 02 53.2**	**+1.4**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR	**Makanchi Array**	**32.26**	**47**	P	**P**	**15 02 53.0**	**+1.2**
KLMR	**Klimovskoe**	**32.41**	**353**	*e*P	**P**	**15 02 51.1**	**-1.7**
KLMR				pmax	pmax		
	comp=Z,30nm,1.2s						
KIBK	**Kibwezi**	**32.44**	**198**	P	**P**	**15 02 54.2**	**+0.6**
KIBK	**Kibwezi**	**32.44**	**198**	P	**P**	**15 02 55.8**	**+2.1**
	comp=Z,6.1nm,1.5s						
PRU	**Pruhonice**	**32.75**	**319**	P	**P**	**15 02 56.2**	**+0.2**
	comp=Z,7.8nm,1.3s						
KHC	**Kasperske Hory**	**32.94**	**317**	*i* P	**P**	**15 02 57.7**	**0.0**
KHC				pmax	pmax		
	comp=Z,2.0nm,0.9s						
VSL	**Villasalto**	**33.21**	**299**	P	**P**	**15 03 00.7**	**+0.5**
	comp=Z,12nm,1.0s						
MBAR	**Mbarara**	**33.56**	**212**	LR	LR	15 15 17.1	
	comp=Z,37nm,20.6s,baz=43,slow=34						
GRC4	**Grafenberg Arr**	**34.15**	**316**	P	**P**	**15 03 08.6**	**+0.3**
	comp=Z,9.3nm,0.8s						
CLL	**Collm**	**34.23**	**321**	*e*Px	Px	15 03 12.0	
WMQ	**Urumqi**	**35.08**	**54**	*e*P	**P**	**15 03 19.4**	**+3.0**
WMQ				pP	pP	15 03 21.8	+1.3
WMQ				pmax	pmax		
	comp=Z,15nm,0.9s						
FINES	**FINESS Array B**	**35.57**	**342**	P	**P**	**15 03 20.3**	**0.0**
	comp=Z,2.1nm,0.7s,baz=150,slow=9.8,SNR=12						
	comp=Z,2.1nm,0.7s						
FINES	**FINESS Array B**	**35.57**	**342**	P	**P**	**15 03 20.2**	**-0.1**
TNS	**Taunus Mts**	**36.43**	**317**	P	**P**	**15 03 28.7**	**+0.8**
	comp=Z,11nm,1.2s						
ZAA0	**Zalesovo Array**	**36.73**	**37**		**P**	**15 03 30.6**	**+0.3**
ZAA0				IAmb	IAmb	15 03 33.4	
	comp=Z,20nm,1.2s						
ZALV	**Zalesovo Beam**	**36.73**	**37**	P	**P**	**15 03 31.3**	**+1.0**
	comp=Z,5.5nm,0.7s,baz=248,slow=7.8,SNR=21						
ZALV				LR	LR	15 20 39.1	
	comp=Z,67nm,19.7s,baz=40,slow=40						
	comp=Z,5.5nm,0.7s						
ZALV	**Zalesovo Beam**	**36.73**	**37**	*i* P	**P**	**15 03 31.2**	**+0.9**
ZALV				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ZALV	**Zalesovo Beam**	**36.73**	**37**	P	**P**	**15 03 30.7**	**+0.4**
TAM	**Tamanrasset**	**38.32**	**271**	P	**P**	**15 03 44.3**	**-0.1**
TAM				pmax	pmax		
	comp=Z,46nm,0.3s						
TAM	**Tamanrasset**	**38.32**	**271**	P	**P**	**15 03 44.3**	**-0.1**
TAM	**Tamanrasset**	**38.32**	**271**	P	**P**	**15 03 44.1**	**-0.3**
	comp=Z,6.0nm,0.8s						
HFS	**Hagfors**	**38.73**	**333**	P	**P**	**15 03 47.5**	**+0.4**
	comp=Z,3.2nm,0.7s,baz=114,slow=9.9,SNR=6.2						
HFS				LR	LR	15 24 37.3	
	comp=Z,39nm,18.3s,baz=83,slow=44						
	comp=Z,3.2nm,0.7s						
APA	**Apatity**	**39.62**	**351**	*e*P	**P**	**15 03 55.4**	**+0.9**
APA				*e*		15 05 27.2	
APA				pmax	pmax		
	comp=Z,9.0nm,1.2s						
APA				MLR	MLR		
	comp=Z,939nm,4.6s						
NB2	**NORSAR Subarra**	**40.26**	**333**	P	**P**	**15 03 58.4**	**-1.5**
	comp=Z,3.0nm,0.9s,baz=125,slow=8.6						
NOA	**NORSAR Array B**	**40.26**	**333**	P	**P**	**15 03 59.5**	**-0.5**
	comp=Z,0.8nm,0.7s,baz=126,slow=8.5,SNR=4.0						
NOA				LR	LR	15 22 30.0	
	comp=Z,27nm,18.1s,baz=240,slow=39						
	comp=Z,0.8nm,0.7s						
KNGR	**Kungurtug, Tuv**	**42.99**	**46**	*i* P	**P**	**15 04 24.8**	**+2.2**
KNGR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ESDC	**Sonseca Array**	**43.51**	**298**	P	**P**	**15 04 25.7**	**-1.1**
	comp=Z,0.8nm,0.9s,baz=92,slow=8.2,SNR=2.5						
	comp=Z,0.8nm,0.9s						
ESDC	**Sonseca Array**	**43.51**	**298**	P	**P**	**15 04 26.3**	**-0.5**
GTA2	**Gaotai**	**43.77**	**62**	*e*P	**P**	**15 04 31.3**	**+2.3**
GTA2				pmax	pmax		
	comp=Z,12nm,1.4s						
NPW	**Naypyitaw**	**44.77**	**90**	P	**P**	**15 04 38.9**	**+1.7**
	comp=Z,12nm,0.5s						
MD01	**Midelt array s**	**44.84**	**289**	P	**P**	**15 04 37.4**	**-0.3**
TORD	**Torodi Ar. Bea**	**45.45**	**260**	P	**P**	**15 04 41.8**	**-0.7**
	comp=Z,4.5nm,0.8s,baz=56,slow=8.3,SNR=19						
	comp=Z,4.5nm,0.8s						
TORD	**Torodi Ar. Bea**	**45.45**	**260**	P	**P**	**15 04 41.8**	**-0.7**
TORD				IAmb	IAmb	15 05 10.0	
	comp=Z,5.1nm,0.9s						
NRIK	**Noril'sk**	**46.47**	**18**	P	**P**	**15 04 50.6**	**+0.7**
	comp=Z,2.1nm,0.5s,baz=203,slow=7.0,SNR=3.6						
NRIK				LR	LR	15 27 32.1	
	comp=Z,32nm,19.2s,baz=244,slow=40						
	comp=Z,2.1nm,0.5s						
NRIK	**Noril'sk**	**46.47**	**18**	P	**P**	**15 04 50.1**	**+0.2**
NRIK				pmax	pmax		
	comp=Z,16nm,1.5s						
NRIK	**Noril'sk**	**46.47**	**18**	P	**P**	**15 04 50.1**	**+0.2**
NRIK				IAmb	IAmb	15 04 52.5	
	comp=Z,16nm,1.5s						
TLY	**Talaya**	**46.97**	**45**	LR	LR	15 27 02.3	
	comp=Z,113nm,18.5s,baz=263,slow=39						
CHTO	**Chiang Mai**	**47.59**	**90**	P	**P**	**15 04 59.6**	**+0.3**
CHTO				pmax	pmax		
	comp=Z,7.0nm,1.2s						
CHTO	**Chiang Mai**	**47.59**	**90**	P	**P**	**15 04 59.6**	**+0.3**
CHTO				IAmb	IAmb	15 05 02.1	
	comp=Z,7.0nm,1.2s						
CHTO	**Chiang Mai**	**47.59**	**90**	P	**P**	**15 05 00.8**	**+1.5**
	comp=Z,5.4nm,1.2s						
CMAR	**Chiang Mai Arr**	**47.73**	**91**	P	**P**	**15 04 59.1**	**-1.3**
	comp=Z,1.7nm,0.5s,baz=286,slow=8.0,SNR=11						
	comp=Z,1.7nm,0.5s						
CMAR	**Chiang Mai Arr**	**47.73**	**91**	*i* P	**P**	**15 05 00.4**	**0.0**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**47.73**	**91**	P	**P**	**15 04 59.3**	**-1.1**
SONM	**Songino Array**	**48.49**	**50**	P	**P**	**15 05 06.4**	**+0.3**
	comp=Z,2.9nm,1.1s,baz=258,slow=7.4,SNR=12						
	comp=Z,2.9nm,1.1s						
SONM	**Songino Array**	**48.49**	**50**	P	**P**	**15 05 06.5**	**+0.3**
SONM				pmax	pmax		
	comp=Z,6.0nm,1.4s						
SONM	**Songino Array**	**48.49**	**50**	P	**P**	**15 05 06.5**	**+0.3**
SONM				IAmb	IAmb	15 05 09.3	
	comp=Z,6.4nm,1.4s						
KMI2	**Kunming**	**48.78**	**81**	P	**P**	**15 05 10.4**	**+1.6**
KMI2				pmax	pmax		
	comp=Z,17nm,1.3s						
HHC	**Hu-ho-hao-te**	**52.65**	**59**	*e*P	**P**	**15 05 39.5**	**+1.9**
HHC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,59nm,4.9s						
TPTI		**53.40**	**109**	P	**P**	**15 05 43.0**	**-0.3**
	comp=Z,118nm,0.7s						
DBIC	**Dimbokro**	**54.23**	**257**	LR	LR	15 30 34.2	
	comp=Z,98nm,18.7s,baz=29,slow=38						
LYN	**LuoYang**	**54.52**	**66**	*e*P	**P**	**15 05 53.0**	**+1.7**
LYN				pmax	pmax		
	comp=Z,16nm,1.1s						
PSI	**Prapat**	**55.10**	**108**	P	**P**	**15 05 55.5**	**-0.4**
PSI				pmax	pmax		
	comp=Z,9.0nm,0.9s						
RPSI	**Rantau Prapat**	**55.16**	**108**	P	**P**	**15 05 55.5**	**-0.6**
RPSI				IAmb	IAmb	15 05 58.5	
	comp=Z,8.8nm,0.9s						
RPSI	**Rantau Prapat**	**55.16**	**108**	P	**P**	**15 05 56.2**	**+0.1**
	comp=Z,13nm,1.0s						
RPSI	**Rantau Prapat**	**55.16**	**108**	P	**P**	**15 05 55.9**	**-0.2**
	comp=Z,8.0nm,0.9s						
XLT	**XiLinHaoTe**	**55.51**	**55**	*e*P	**P**	**15 06 01.1**	**+2.7**
XLT				pmax	pmax		
	comp=Z,13nm,0.8s						
IPM	**Ipoh**	**55.96**	**105**	P	**P**	**15 06 01.0**	**-0.9**
IPM				IAmb	IAmb	15 06 03.6	
	comp=Z,8.6nm,0.9s						
IPM	**Ipoh**	**55.96**	**105**	P	**P**	**15 06 01.4**	**-0.6**
	comp=Z,12nm,1.2s						
TSUM	**Tsumeb**	**56.01**	**215**	P	**P**	**15 06 01.1**	**-1.0**
TSUM				IAmb	IAmb	15 06 05.0	
	comp=Z,7.2nm,1.1s						
LBTB	**Lobatse**	**57.69**	**204**	LR	LR	15 31 25.4	
	comp=Z,141nm,19.1s,baz=22,slow=37						
LBTB	**Lobatse**	**57.69**	**204**	P	**P**	**15 06 15.1**	**+1.1**
	comp=Z,7.4nm,1.7s						
TIA	**Tai'an**	**57.82**	**63**	P	**P**	**15 06 16.3**	**+1.4**
TIA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KOOLE	**Kule**	**58.03**	**210**	P	**P**	**15 06 15.7**	**-0.8**
LKGWB	**Lokgwabe**	**58.58**	**209**	P	**P**	**15 06 18.1**	**-2.1**
TIXI	**Tiksi**	**60.06**	**21**	LR	LR	15 36 53.7	
	comp=Z,86nm,18.2s,baz=18,slow=40						
TIXI	**Tiksi**	**60.06**	**21**	P	**P**	**15 06 30.5**	**+0.7**
NJ2	**Nanjing**	**60.33**	**68**	*e*P	**P**	**15 06 32.0**	**-0.3**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
BOSA	**Boshof**	**61.12**	**203**	P	**P**	**15 06 35.3**	**-2.3**
	comp=Z,4.7nm,0.9s,baz=7.2,slow=8.5,SNR=4.7						
BOSA				LR	LR	15 33 48.1	
	comp=Z,67nm,18.3s,baz=24,slow=37						
	comp=Z,4.7nm,0.9s						
BOSA	**Boshof**	**61.12**	**203**	P	**P**	**15 06 38.2**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,19nm,1.4s						
BOSA	**Boshof**	**61.12**	**203**	P	**P**	**15 06 38.2**	**+0.5**
YAK	**Yakutsk**	**61.17**	**32**	LR	LR	15 34 38.9	
	comp=Z,42nm,19.8s,baz=298,slow=38						
YAK	**Yakutsk**	**61.17**	**32**	*e*P	**P**	**15 06 37.9**	**+0.4**
YAK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.4s						
ZEA	**Zeya**	**61.20**	**42**	*e*P	**P**	**15 06 39.8**	**+1.9**
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
HEH	**HeiHe**	**61.98**	**46**	*e*P	**P**	**15 06 43.8**	**+0.6**
HEH				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KLR	**Kul'dur**	**64.96**	**46**	LR	LR	15 38 15.4	
	comp=Z,64nm,19.7s,baz=322,slow=39						
KSRS	**Korea Array**	**65.78**	**59**	P	**P**	**15 07 06.9**	**-1.5**
	comp=Z,2.7nm,0.8s,baz=274,slow=7.3,SNR=8.3						
	comp=Z,2.7nm,0.8s						
SUR	**Sutherland**	**66.11**	**205**	LR	LR	15 36 36.3	
	comp=Z,156nm,18.0s,baz=4.0,slow=37						
MJAR	**Matsushiro Arr**	**73.78**	**57**	P	**P**	**15 07 58.9**	**+1.1**
	comp=Z,0.6nm,0.4s,baz=300,slow=9.7,SNR=4.3						
	comp=Z,0.6nm,0.4s						
MJAR	**Matsushiro Arr**	**73.78**	**57**	P	**P**	**15 07 57.9**	**+0.1**
MJAR				pmax	pmax		
	comp=Z,7.0nm,1.5s						
MJAR	**Matsushiro Arr**	**73.78**	**57**	P	**P**	**15 07 57.9**	**+0.1**
MJAR				IAmb	IAmb	15 08 15.3	
	comp=Z,6.8nm,1.5s						
A36M	**Sachs Harbour**	**79.25**	**358**	P	**P**	**15 08 28.9**	**+0.8**
A36M				IAmb	IAmb	15 08 30.5	
	comp=Z,5.8nm,0.9s						
C18K	**Utukok River**	**80.41**	**10**	P	**P**	**15 08 35.0**	**+0.5**
C18K				IAmb	IAmb	15 08 37.1	
	comp=Z,8.3nm,0.8s						
TOLK	**Toolik Lake Re**	**81.89**	**6**	P	**P**	**15 08 43.9**	**+1.5**
TOLK				IAmb	IAmb	15 08 45.5	
	comp=Z,6.2nm,1.2s						
E29M	**Blow River**	**82.89**	**2**	P	**P**	**15 08 48.6**	**+1.1**
E29M				IAmb	IAmb	15 08 51.3	
	comp=Z,9.3nm,1.4s						
INK	**Inuvik**	**83.06**	**0**	P	**P**	**15 08 49.5**	**+1.1**
INK				pmax	pmax		
	comp=Z,7.0nm,1.5s						
INK	**Inuvik**	**83.06**	**0**	P	**P**	**15 08 49.5**	**+1.1**
INK				IAmb	IAmb	15 09 10.7	
	comp=Z,7.2nm,1.5s						
BMAR	**Burnt Mountain**	**83.50**	**5**	P	**P**	**15 08 52.6**	**+1.8**
IMAR	**Indian Mountai**	**83.97**	**9**	P	**P**	**15 08 54.3**	**+1.2**
H29M	**Whitestone**	**85.05**	**2**	P	**P**	**15 08 59.5**	**+0.9**
ILAR	**Eielson Array**	**85.92**	**6**	P	**P**	**15 09 02.9**	**-0.1**
	comp=Z,1.0nm,0.9s,baz=333,slow=4.4,SNR=7.4						
	comp=Z,1.0nm,0.9s						
ILAR	**Eielson Array**	**85.92**	**6**	P	**P**	**15 09 03.3**	**+0.3**
ILAR	**Eielson Array**	**85.92**	**6**	P	**P**	**15 09 03.3**	**+0.3**
BPAW	**Bear Paw Mtn.**	**86.12**	**8**	P	**P**	**15 09 04.9**	**+0.9**
SCRK	**Sand Creek**	**86.95**	**5**	P	**P**	**15 09 09.4**	**+1.2**
YKA	**Yellowknife Ar**	**87.81**	**352**	P	**P**	**15 09 12.5**	**+0.3**
	comp=Z,1.1nm,0.8s,baz=17,slow=4.8,SNR=4.2						
	comp=Z,1.1nm,0.8s						
YKA	**Yellowknife Ar**	**87.81**	**352**	P	**P**	**15 09 12.2**	**0.0**
YKA	**Yellowknife Ar**	**87.81**	**352**	P	**P**	**15 09 12.2**	**0.0**
BCAR	**Beaver Creek A**	**88.02**	**4**	P	**P**	**15 09 13.0**	**-0.2**
FITZ	**Fitzroy Crossi**	**88.50**	**112**	P	**P**	**15 09 16.5**	**+0.4**
QSPA	**South Pole Qui**	**118.77**	**180**	PKP	**PKPdf**	**15 15 08.6**	**-2.1**
	comp=Z,1.5nm,0.8s,baz=226,slow=1.7,SNR=7.2						

SKO ***11*** *14:57:47.8,41°.61N×20°.87E,h6km,ML2.8*
TIR ***11*** *14:57:47.0,41°.66N×20°.73E,h11km±3km,ML2.7,ML2.7, Presumed earthquake*
PDG ***11*** *14:57:48.1±0.5,41°.67N×20°.67E,h4km±1km,ML2.9/13, Error ellipse: s-maj=0.8km s-min=1.2km az=0.0*
BEO ***11*** *14:57:49.2±0.9,41°.64N×20°.81E,h6km±5km,ML2.3/4*

ISC 11 14:57:47.2±1.1,41°.64N±0°.02×20°.76E±0°.02,h1km±10km, n45,σ0°96/84,1C-2D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
PHP	**Peshkopia**	**0.25**	**281**	Pg		**Pg**	**Pg**	**14 57 51.1**	**-0.8**
PHP				Sg		**Sg**	**Sg**	**14 57 54.4**	**-0.7**
PHP				IAML				14 57 54.6	
	2μm,0.1s								
OHR	**Ohrid**	**0.53**	**177**	*i* Pg		**Pg**	**Pg**	**14 57 57.6**	**+0.3**
OHR				*i* Sg		**Sb**	**Sb**	**14 58 06.4**	**-1.0**
OHR				*e*Lg		Lg	Lg	14 58 06.9	
	comp=N,564nm,0.4s								
OHR				*e*Lg		Lg		14 58 07.1	
	comp=E,601nm,0.6s								
SKO	**Skopje**	**0.61**	**56**	*i* Pg		**Pg**	**Pg**	**14 57 58.5**	**-0.3**
SKO				*i* Sg		**Sg**	**Sg**	**14 58 07.8**	**+1.1**
TIR	**Tirane**	**0.73**	**247**	Pg		**Pg**	**Pg**	**14 58 00.5**	**-0.8**
TIR				Sg		**Sg**	**Sg**	**14 58 11.8**	**+1.0**
TIR				IAML				14 58 17.8	
	comp=E,321nm,0.6s								
KBN	**Korca**	**1.01**	**179**	Pg		**Pb**	**Pb**	**14 58 07.4**	**-0.2**
KBN				Sg		**Sb**	**Sb**	**14 58 21.3**	**-0.2**
KBN				IAML				14 58 24.3	
	comp=E,250nm,0.7s								
SDA	**Shkodra**	**1.03**	**294**	Pg		**Pg**	**Pg**	**14 58 06.8**	**-0.2**
SDA				Sg		**Sb**	**Sb**	**14 58 21.7**	**-0.3**
SDA				IAML				14 58 30.9	
	comp=E,429nm,0.2s								
BERA	**Berati**	**1.12**	**214**	Pn		**Pg**	**Pn**	**14 58 08.6**	**0.0**
BERA				Sn		**Sn**	**Sn**	**14 58 25.4**	**-0.7**
BERA				IAML				14 58 31.9	
	comp=E,250nm,0.6s								
PVY	**Plav**	**1.13**	**328**	*e*Pg		**Pg**	**Pg**	**14 58 07.5**	**-1.4**
PVY				*i* Sg		**Sg**	**Sg**	**14 58 24.2**	**+0.7**
ULC	**Ulcinj**	**1.18**	**286**	*e*Pg		**Pg**	**Pg**	**14 58 08.1**	**-1.8**
ULC				*i* Sg		**Sg**	**Sg**	**14 58 26.0**	**+0.8**
NEST	**Nestorio**	**1.24**	**170**	Pn		**Pg**	**Pg**	**14 58 10.1**	**-0.9**
NEST				Sn		**Sn**	**Sn**	**14 58 30.1**	**+0.8**
NEST				IAML				14 58 33.0	
	comp=E,286nm,0.5s								
DRME	**Dracevica, Mon**	**1.30**	**295**	*e*Pg		**Pg**	**Pg**	**14 58 10.8**	**-1.4**
DRME				*i* Sg		**Sb**	**Sb**	**14 58 30.0**	**+0.3**
PDG	**Podgorica**	**1.38**	**306**	*e*Pg		**Pg**	**Pg**	**14 58 15.5**	**+1.9**
PDG				*e*Sg		**Sn**	**Sn**	**14 58 34.2**	**+1.8**
PDG	**Podgorica**	**1.38**	**306**	Pg		**Pn**	**Pn**	**14 58 11.1**	**-2.5**
PDG				Sg		**Sn**	**Sn**	**14 58 34.0**	**+1.6**
PDG	**Podgorica**	**1.38**	**306**	*e*Pg		**Pn**	**Pn**	**14 58 12.0**	**-1.6**
PDG				*i* Sg		**Sn**	**Sn**	**14 58 32.6**	**+0.2**
IVA	**Berane**	**1.39**	**333**	*e*Pg		**Pn**	**Pn**	**14 58 12.8**	**-1.1**
IVA				*i* Sg		**Sn**	**Sn**	**14 58 33.4**	**+0.4**
VAY	**Valandovo**	**1.39**	**103**	||*i*Pg		**Pn**	**Pn**	**14 58 13.2**	**-0.7**
VAY				*i* Sg		**Sn**	**Sn**	**14 58 32.7**	**-0.2**
VAY				*e*Lg		Lg	Lg	14 58 33.5	
	comp=N,98nm,0.6s								
VAY				*e*Lg		Lg		14 58 34.1	
	comp=E,59nm,0.6s								
BARS	**Barje**	**1.41**	**33**	*e*Pg		**Pn**	**Pn**	**14 58 13.6**	**-0.6**
BARS				*e*Sg		**Sn**	**Sn**	**14 58 35.7**	**+2.3**
LSK	**Leskovik**	**1.49**	**185**	Pg		**Pg**	**Pg**	**14 58 16.7**	**+0.9**
LSK				Sg		**Sg**	**Sg**	**14 58 36.4**	**+1.3**
KOME	**Kolasin**	**1.53**	**323**	*e*Pg		**Pn**	**Pn**	**14 58 14.7**	**-1.1**
KOME				*i* Sg		**Sg**	**Sg**	**14 58 37.6**	**+1.3**
BOSS	**Bosilegrad**	**1.54**	**56**	*e*Pg		**Pb**	**Pb**	**14 58 16.3**	**-0.3**
BOSS				*e*Sg		**Sn**	**Sn**	**14 58 35.9**	**-0.6**
BUM	**Brajici-Budva**	**1.54**	**296**	||*i*Pg		**Pn**	**Pn**	**14 58 15.0**	**-1.0**
BUM				*i* Sg		**Sg**	**Sg**	**14 58 38.5**	**+1.7**
SELS	**Selova**	**1.60**	**9**	*e*Pg		**Pn**	**Pn**	**14 58 16.4**	**-0.4**
SELS				*e*Sg		**Sg**	**Sg**	**14 58 38.7**	**0.0**
PEHC	**Pehcevo**	**1.61**	**84**	*i* Pg		**Pn**	**Pn**	**14 58 16.9**	**+0.1**
PEHC				*i* Sg		**Sg**	**Sg**

0.5nm,0.8s
MKAR Makanchi Array 55.26 342 P **P** **15 27 56.4 -0.6**
0.4nm,0.5s,baz=156,slow=7.6,SNR=4.2
0.4nm,0.5s
H04N2 CROZET ISLANDS 61.16 219 T T 16 34 58.3
baz=64,slow=75,SNR=4.7
H04N1 CROZET ISLANDS 61.17 219 T T 16 35 01.2
baz=64,slow=75,SNR=6.3
H04N3 CROZET ISLANDS 61.17 219 T T 16 34 53.2
baz=64,slow=75,SNR=4.8

*PDG **11** 15:33:42.9±0.3,41°.67N×20°.76E,h5km,ML2.6/12,Error ellipse: s-maj=1.8km s-min=1.8km az=0.0*
*SKO **11** 15:33:43.6,41°.59N×20°.84E,h10km,ML2.5*
*TIR **11** 15:33:43.4,41°.63N×20°.72E,h9km±3km,ML2.5,ML2.5, Presumed earthquake*
*BEO **11** 15:33:44.4±0.5,41°.70N×20°.76E,h9km±3km,ML2.1/8*
ISC 11 15:33:43.2±1.1,41°.65N±0°.02×20.74E±0°.02,h4km±1.9km, n45,σ1§15/79,6C-3D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PHP	**Peshkopia**	**0.23**	**280**	Pg		**Pg**	**15 33 46.4**	**-1.3**
PHP				Sg		**Sg**	**15 33 49.6**	**-1.2**
PHP				IAML			15 33 49.9	
	5μm,0.2s							
PHP				IAML			15 33 50.2	
	679nm,0.1s							
OHR	**Ohrid**	**0.54**	**176**	*i* Pg		**Pg**	**15 33 53.1**	**-0.4**
OHR				*e*Lg		Lg	15 34 01.7	
	comp=E,266nm,0.5s							
OHR				*i* Sg		**Sg**	**15 34 01.7**	**+1.2**
OHR				*e*Lg		Lg	15 34 02.0	
	comp=N,329nm,0.3s							
SKO	**Skopje**	**0.61**	**58**	*i* Pg		**Pg**	**15 33 55.0**	**+0.1**
SKO				*i* Sg		**Sg**	**15 34 03.4**	**+0.5**
TIR	**Tirane**	**0.72**	**246**	Pg		**Pg**	**15 33 57.1**	**0.0**
TIR				Sg		**Sg**	**15 34 07.2**	**+0.7**
TIR				IAML			15 34 09.6	
	comp=N,71nm,0.5s							
TIR				IAML			15 34 12.0	
	comp=N,71nm,0.4s							
SDA	**Shkodra**	**1.01**	**294**	Pg		**Pn**	**15 34 04.5**	**+0.3**
SDA				Sg		**Sn**	**15 34 18.0**	**-0.8**
SDA				IAML			15 34 26.1	
	comp=N,214nm,0.3s							
KBN	**Korca**	**1.02**	**178**	Pg		**Pn**	**15 34 03.8**	**-0.6**
KBN				Sg		**Sb**	**15 34 17.7**	**+0.4**
KBN				IAML			15 34 22.6	
	comp=N,179nm,0.5s							
PVY	**Plav**	**1.11**	**329**	*i* Pg		**Pg**	**15 34 02.9**	**-1.7**
PVY				*i* Sg		**Sn**	**15 34 21.1**	**-0.4**
BERA	**Berati**	**1.12**	**213**	Pg		**Pg**	**15 34 03.9**	**-0.7**
BERA				Sg		**Sn**	**15 34 21.0**	**-0.3**
ULC	**Ulcinj**	**1.17**	**286**	*i* Pg		**Pg**	**15 34 03.5**	**-2.0**
ULC				*i* Sg		**Sn**	**15 34 21.9**	**-0.7**
NEST	**Nestorio**	**1.25**	**169**	Pg		**Pg**	**15 34 06.8**	**-0.4**
NEST				Sg		**Sn**	**15 34 25.0**	**+0.2**
NEST				IAML			15 34 30.3	
	comp=N,107nm,0.5s							
DRME	**Dracevica, Mon**	**1.28**	**295**	*e*Pg		**Pn**	**15 34 06.7**	**-1.2**
DRME				*i* Sg		**Sn**	**15 34 26.5**	**+1.0**
PDG	**Podgorica**	**1.36**	**306**	*e*Pg		**Pg**	**15 34 09.7**	**+0.5**
PDG				*e*Sg		**Sn**	**15 34 27.3**	**0.0**
PDG	**Podgorica**	**1.36**	**306**	Pg		**Pg**	**15 34 09.5**	**+0.3**
PDG				Sg		**Sn**	**15 34 28.5**	**+1.2**
PDG	**Podgorica**	**1.36**	**306**	*i* Pg		**Pn**	**15 34 07.2**	**-1.7**
PDG				*i* Sg		**Sn**	**15 34 29.2**	**+1.9**
IVA	**Berane**	**1.38**	**333**	*e*Pg		**Pn**	**15 34 08.7**	**-0.6**
IVA				*i* Sg		**Sn**	**15 34 30.1**	**+2.2**
VAY	**Valandovo**	**1.41**	**103**	*i* Pg		**Pn**	**15 34 09.1**	**-0.5**
VAY				*i* Sg		**Sg**	**15 34 28.9**	**+0.4**
VAY				*e*Lg		Lg	15 34 29.2	
	comp=N,38nm,0.5s							
VAY				*e*Lg		Lg	15 34 29.9	
	comp=E,31nm,0.8s							
BARS	**Barje**	**1.41**	**34**	*e*Pg		**Pn**	**15 34 08.5**	**-1.2**
BARS				*e*Sg		**Sb**	**15 34 27.9**	**-0.6**
LSK	**Leskovik**	**1.50**	**184**	Pg		**Pg**	**15 34 13.9**	**+2.0**
KOME	**Kolasin**	**1.51**	**323**	*i* Pg		**Pn**	**15 34 10.7**	**-0.4**
KOME				*i* Sg		**Sg**	**15 34 34.2**	**+2.5**
BUM	**Brajici-Budva**	**1.53**	**296**	*e*Pg		**Pn**	**15 34 11.3**	**0.0**
BUM				*i* Sg		**Sg**	**15 34 34.8**	**+2.5**
BOSS	**Bosilegrad**	**1.55**	**56**	*e*Pg		**Pn**	**15 34 11.7**	**+0.2**
BOSS				*e*Sg		**Sn**	**15 34 32.0**	**0.0**
SELS	**Selova**	**1.60**	**10**	*e*Pg		**Pn**	**15 34 11.1**	**-1.1**
SELS				*e*Sg		**Sn**	**15 34 32.8**	**-0.5**
PEHC	**Pehcevo**	**1.62**	**85**	*e*Pg		**Pg**	**15 34 14.7**	**+0.4**
PEHC				*i* Pn		**Pg**	**15 34 14.7**	**+0.4**
PEHC				*i* Sg		**Sb**	**15 34 34.2**	**-0.3**
CEME	**Cevo**	**1.63**	**304**	*i* Pn		**Pn**	**15 34 12.3**	**-0.4**
CEME				*i* Sn		**Sg**	**15 34 38.0**	**+2.4**
SJES	**Sjenica**	**1.71**	**341**	*e*Pg		**Pn**	**15 34 14.0**	**+0.1**
SJES				*e*Sg		**Sb**	**15 34 37.5**	**+0.3**
NKME	**Niksic**	**1.74**	**311**	*e*Pn		**Pb**	**15 34 15.3**	**-0.4**
NKME				*i* Sn		**Sg**	**15 34 41.1**	**+2.0**
HCY	**Herceg Novi**	**1.86**	**296**	*e*Pn		**Pb**	**15 34 17.1**	**-0.6**
HCY				*i* Sn		**Sg**	**15 34 43.8**	**+0.9**
GOCS	**Kraljevo Serbi**	**1.92**	**3**	*e*Pn		**Pn**	**15 34 15.2**	**-1.5**
GOCS				*e*Sn		**Sn**	**15 34 40.7**	**-0.6**
PLE	**Pljevlja**	**1.96**	**330**	*i* Pn		**Pn**	**15 34 17.0**	**-0.3**
IVAS	**Ivanjica**	**1.98**	**347**	*e*Pn		**Pn**	**15 34 16.4**	**-1.1**
BRY	**Bratogost**	**2.06**	**308**	*i* Pn		**Pn**	**15 34 19.7**	**+1.0**
BRY				*i* Sn		**Sb**	**15 34 48.3**	**+1.0**
UPM	**Unac-Piva**	**2.07**	**319**	*i* Pn		**Pn**	**15 34 19.9**	**+1.1**
UPM				*i* Sn		**Sb**	**15 34 48.5**	**+1.0**
VTS	**Vitosha**	**2.09**	**62**	*e*Pn		**Pn**	**15 34 19.1**	**0.0**
IGT	**Igoumenitsa**	**2.13**	**189**	*e*Pn		**Pb**	**15 34 20.9**	**-1.5**
IGT	**Igoumenitsa**	**2.13**	**189**	Pn		**Pb**	**15 34 21.7**	**-0.7**
ZAPS	**Zavoj**	**2.14**	**40**	*e*Pn		**Pn**	**15 34 19.8**	**+0.1**
ZAPS				*e*Sn		**Sn**	**15 34 46.2**	**-0.6**
DBRK	**Dubrovnik**	**2.19**	**299**	*e*Pn		**Pn**	**15 34 21.6**	**+1.3**
DBRK				Sn		**Sb**	**15 34 49.2**	**-1.4**
GRUS	**Gruza**	**2.24**	**359**	*e*Pn		**Pn**	**15 34 21.2**	**+0.2**
BBLS	**Lazi&#263i**	**2.43**	**336**	*e*Pn		**Pn**	**15 34 22.8**	**-0.9**
ZAGS	**Zajecar**	**2.43**	**26**	*e*Pn		**Pn**	**15 34 23.9**	**+0.3**
DIVS	**Divibare**	**2.51**	**348**	*e*Pn		**Pn**	**15 34 23.9**	**-0.9**
STON	**Ston**	**2.57**	**299**	*e*Pn		**Pn**	**15 34 27.5**	**+2.0**
STON				Sn		**Sn**	**15 34 58.0**	**+0.8**
STON	**Ston**	**2.57**	**299**	*e*Pn		**Pn**	**15 34 26.7**	**+1.2**
LSTV	**Lastovo**	**3.07**	**293**	*e*Pn		**Pn**	**15 34 31.5**	**-0.9**
LSTV				Sn		**Sn**	**15 35 06.2**	**-3.4**
MAKA	**Makarska**	**3.21**	**302**	*e*Pn		**Pn**	**15 34 35.3**	**+1.0**

*IDC **11** 15:34:46.1±1.1,38°.01N×105°.95E,h0km,mb3.4/4, mbtmp3.4/6,ML3.2/2,Error ellipse: s-maj=23.8km s-min=13.4km az=103.0*
ISC 11 15:34:47.3±1.2,38°.0N±0°.1×106°.0E±0°.2,h10km,n7, σ0§29/6,mb3.9/3,Western Nei Mongol

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
LZDM	**Lanzhou Array**	**2.75**	**222**	Pg		**Pb**	**15 35 36.8**	**0.0**
	baz=34,slow=16							
LZDM				Lg		Lg	15 36 11.6	
	baz=293,slow=30							
SONM	**Songino Array**	**9.80**	**2**	Pn		**Pn**	**15 37 08.4**	**+0.1**
	0.3nm,0.3s,baz=184,slow=14,SNR=4.6							
SONM				Lg		Lg	15 39 52.2	
	0.3nm,0.3s,baz=179,slow=31,SNR=5.3							
	0.7nm,0.4s							
SONM				AML		AML		
MKAR	**Makanchi Array**	**19.48**	**304**	P		**Pn**	**15 39 15.5**	**-0.1**
	0.1nm,0.3s,baz=114,slow=8.6,SNR=1.6							
	0.2nm,0.5s							
MKAR				AML		AML		
CMAR	**Chiang Mai Arr**	**20.45**	**199**	P		Pn	15 39 25.9	-1.1
	0.3nm,0.3s,baz=0.3,slow=16,SNR=1.7							
	0.3nm,0.3s							
ZALV	**Zalesovo Beam**	**21.52**	**324**	P		**P**	**15 39 36.3**	**-0.1**
	0.8nm,0.4s,baz=123,slow=11,SNR=2.2							
	0.8nm,0.4s							
WRA	**Warramunga Arr**	**63.55**	**150**	P		**P**	**15 45 17.7**	**-0.4**
	0.6nm,0.8s,baz=340,slow=5.9,SNR=3.3							
	0.6nm,0.8s							
ASAR	**Alice Springs**	**66.76**	**152**	P		**P**	**15 45 39.2**	**+0.3**
	0.3nm,0.4s,baz=336,slow=6.4,SNR=18							
	0.3nm,0.4s							

*BJI **11** 15:40:35.2,4°.67N×126°.60E,h38km,mB5.3/16,mb4.9/64, Ms4.6/29,Ms7.4,4/31*
*MAN **11** 15:40:39.0,5°.14N×126°.50E,h16km,MS4.9*
*IDC **11** 15:40:40.1±1.5,5°.41N×126°.38E,h21km±8km,mb4.6/37, mbtmp4.7/40,ML4.2/3,MS3.9/59,Error ellipse: s-maj=16.3km s-min=7.8km az=75.0*
*MOS **11** 15:40:40.7±1.0,5°.40N×126°.41E,h40km,mb5.1/50,Error ellipse: s-maj=10.2km s-min=4.8km az=116.6*
*GFZ **11** 15:40:41.9±0.2,5°.N±2°×12°.7E±°,h31km,M5.1/37, mb5.0/37,confirmed*
*GFZ **11** 15:40:41.9,5°.46N×126°.61E,h31km,Mw4.9/75,Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr2.60; Mθθ0.19; Mϕϕ-2.79; Mrθ0.81; Mθϕ-0.29; Mrϕ0.31; Fault plane solution: M0 2.85158×10^16 NP1: ϕs169.57105°,δ43.26994°,λ65.79529°. NP2:ϕs21.26039°, δ51.30480°,λ111.10443°. Principal axes: T 2.8548, Plg73.1238°, Azm352.5473°; N -0.0065, Plg16.3215°, Azm187.6947°; P -2.8483, Plg4.1748°, Azm96.4699°;*
*NEIC **11** 15:40:43.2±2.1,5°.40N±0°.06×126°.44E±0°.07,h40km±5km, mb5.0/103,Mww4.9/10 Error ellipse: s-maj=11.0km s-min=7.7km az=71.0*
*GCMT **11** 15:40:44.0±0.2,5°.27N±0°.01×126°.59E±0°.01,h34km, MW5.1/98,Moment Tensor Solution. s78,c100; s98,c164; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr3.99±.15; Mθθ0.70±.09; Mϕϕ-4.69±.10; Mrθ1.38±.12; Mθϕ-0.49±.08; Mϕr1.71±.13; Best double couple: M0 4.91400×10^16 NP1:ϕs168.00000°,δ36.00000°, λ62.00000°. NP2:ϕs21.00000°,δ59.00000°,λ109.00000°. Principal axes: T 4.7180, Plg70.0000°, Azm333.0000°; N 0.3910, Plg16.0000°, Azm191.0000°; P -5.1100, Plg12.0000°, Azm98.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*DJA **11** 15:40:44.1±1.3,5°.N±4°×12°.6E±°,h25km±14km,M4.9/27, mb5.2/27,mB5.4/19,MLv5.3/17,Mw(mB)4.8/19, MwMwp4.7/6,Mwp5.0/6*
ISC 11 15:40:43.0±0.3,5°.37N±0°.03×126°.47E±0°.05,h41km±2km, h41km:pP-P,n456,σ1§55/459,mb5.0/172,MS4.0/70, 16C-2D,Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DDMP	**Don Marcelino,**	**1.05**	**314**	*e*P		**Pn**	**15 41 00.5**	**-0.8**
DDMP				*e*S		**Sn**	**15 41 13.7**	**-1.1**
GSPH	**General Santos**	**1.67**	**295**	*i* P		**Pn**	**15 41 07.6**	**-2.3**
GSPH				*i* S		**Sn**	**15 41 26.1**	**-4.1**
DAV	**Davao City (W)**	**1.91**	**333**	Pg		**Pn**	**15 41 13.4**	**+0.4**
	226nm,0.3s,baz=121,slow=1.7,SNR=12							
DAV				Lg		Lg	15 41 37.6	
	260nm,0.3s,baz=114,slow=10,SNR=6.9							
DAV				LR		LR	15 42 10.8	
	comp=Z,8μm,20.2s,baz=156,slow=50							
DAV	**Davao City (W)**	**1.91**	**333**			**Pn**	**15 41 13.6**	**+0.5**
DAV	**Davao City (W)**	**1.91**	**333**	P		**Pn**	**15 41 14.8**	**+1.7**
DAV				AML		AML		
DAV	**Davao City (W)**	**1.91**	**333**	P		**Pn**	**15 41 14.5**	**+1.4**
DAV	**Davao City (W)**	**1.91**	**333**	P		**Pn**	**15 41 14.0**	**+0.9**
DMPH	**Davao City--Mi**	**1.96**	**331**	*e*P		**Pn**	**15 41 13.8**	**+0.2**
DMPH				*i* S		**Sn**	**15 41 42.3**	**+5.3**
KCP	**Kidapawan**	**2.13**	**320**	*i* P		**Pn**	**15 41 16.4**	**+0.3**
KCP				*i* S		**Sn**	**15 41 46.2**	**+4.7**
CDOP	**Cateel, Davao**	**2.40**	**359**	*e*P		**Pn**	**15 41 20.2**	**+0.3**
CDOP				*i* S		**Sn**	**15 41 52.1**	**+4.1**
BIPH	**Bislig**	**2.80**	**358**	*e*P		**Pn**	**15 41 28.2**	**+2.9**
BIPH				*e*S		**Sn**	**15 42 01.5**	**+3.6**
BUKP	**Musuan**	**2.86**	**331**	*e*P		**Pn**	**15 41 27.4**	**+1.3**
BUKP				*i* S		**Sn**	**15 42 04.0**	**+4.6**
CTBH	**Cotabato--PC H**	**2.88**	**310**	*i* P		**Pn**	**15 41 27.5**	**+1.2**
CGP	**Cagayan de Oro**	**3.54**	**330**	*i* P		**Pn**	**15 41 36.8**	**+1.3**
CGP				*i* S		Sn	15 42 24.9	+8.8
TSSP	**Tandag City**	**3.67**	**356**	*e*P		**Pn**	**15 41 39.9**	**+2.7**
TSSP				*e*S		Sn	15 42 31.8	+13
GAMI	**Galela, Maluku**	**3.74**	**159**	P		**Pn**	**15 41 39.6**	**+1.3**
GAMI				AML		AML		
PAGZ	**Pagadian**	**3.93**	**309**	*i* P		**Pn**	**15 41 42.6**	**+1.8**
PAGZ				*i* S		**Sn**	**15 42 32.3**	**+6.5**
MNI	**Manado**	**4.22**	**203**	P		**Pn**	**15 41 45.8**	**+1.0**
MNI				AML		AML		
DCPH	**Dipolog City**	**4.45**	**316**	*e*P		Pn	15 41 52.1	+4.2
TNTI	**Ternate**	**4.65**	**169**			**Pn**	**15 41 51.8**	**+1.0**
TNTI	**Ternate**	**4.65**	**169**	P		**Pn**	**15 41 52.6**	**+1.9**
TNTI				AML		AML		
TNTI	**Ternate**	**4.65**	**169**	P		**Pn**	**15 41 52.6**	**+1.9**
LSIP	**Lazi, Siquijor**	**4.68**	**323**	*i* P		**Pn**	**15 41 53.3**	**+2.1**
TBP	**Tagbilaran**	**5.01**	**329**	*e*P		**Pn**	**15 41 56.8**	**+1.1**
SNPH	**Sibulan**	**5.09**	**321**	*e*P		**Pn**	**15 42 00.2**	**+3.4**
SNPH				*e*S		Sn	15 43 10.6	+16
KMSI	**Cibinong**	**5.37**	**208**	P		**Pn**	**15 42 02.4**	**+1.8**
LLP	**Lapu-Lapu**	**5.51**	**333**	*e*P		**Pn**	**15 42 05.8**	**+3.3**
LLP				*i* S		Sn	15 43 12.6	+7.9
GTOI	**Gorontalo**	**5.83**	**216**	P		**Pn**	**15 42 06.5**	**-0.4**
	4μm2μm219nm,0.8s							
PLP	**Palo**	**5.95**	**346**	*e*P		**Pn**	**15 42 11.9**	**+3.4**
TOLI2	**Tolitoli**	**7.08**	**234**			**Pn**	**15 42 22.8**	**-1.3**
TOLI2	**Tolitoli**	**7.08**	**234**	P		**Pn**	**15 42 23.3**	**-0.7**
	comp=Z,138nm,1.1s							
LUWI	**Luwuk**	**7.36**	**210**			**Pn**	**15 42 29.0**	**+1.1**
LUWI	**Luwuk**	**7.36**	**210**	P		**Pn**	**15 42 29.2**	**+1.3**
LUWI	**Luwuk**	**7.36**	**210**	P		**Pn**	**15 42 31.9**	**+4.0**
	comp=Z,628nm,1.0s							
SANI	**Sanana**	**7.38**	**184**	P		**Pn**	**15 42 27.6**	**-0.6**
	comp=Z,0.6nmcomp=Z,2μmcomp=Z,119nm,1.0s							
SANI				AML		AML		
SANI	**Sanana**	**7.38**	**184**	P		**Pn**	**15 42 28.5**	**+0.2**
	comp=Z,120nm,0.9s							
SIJI	**Sorong**	**7.83**	**142**	Pn		**Pn**	**15 42 35.6**	**+1.2**
	comp=Z,3.2nm,0.3s,baz=346,slow=11,SNR=19							
SIJI				Sn		**Sn**	**15 43 58.5**	**-3.4**
	baz=163,slow=23							
	comp=Z,15nm,0.5s							
SIJI				AML		AML		
SIJI	**Sorong**	**7.83**	**142**	P		**Pn**	**15 42 35.4**	**+1.0**
APSI	**Ampana**	**7.88**	**218**	P		**Pn**	**15 42 37.2**	**+2.2**
	comp=Z,3μmcomp=Z,396nm,0.9s							
NLAI	**Namlea**	**8.57**	**176**	P		**Pn**	**15 42 44.1**	**-0.5**
	comp=Z,2μmcomp=Z,128nm,0.9s							
PCI	**Palu**	**9.09**	**227**	P		**Pn**	**15 42 51.0**	**-0.7**
	comp=Z,2μmcomp=Z,168nm,1.1s							
MWPI	**Manokwari, Pap**	**9.81**	**129**	P		**Pn**	**15 43 04.3**	**+2.7**
	comp=Z,110nm,1.1s							
LQP	**Lukban**	**9.96**	**331**	*e*P		Pn	15 43 09.2	+5.5
KDI	**Kendari**	**10.03**	**203**	P		**Pn**	**15 43 05.8**	**+1.3**
	comp=Z,82nm,1.2s							
FAKI	**Fak Fak**	**10.05**	**145**			**Pn**	**15 43 06.0**	**+1.1**
KKM	**Kota Kinabalu**	**10.22**	**274**			**Pn**	**15 43 07.0**	**-0.3**
KKM	**Kota Kinabalu**	**10.22**	**274**	P		**Pn**	**15 43 08.7**	**+1.4**
KKM	**Kota Kinabalu**	**10.22**	**274**	P		**Pn**	**15 43 10.6**	**+3.2**
	comp=Z,84nm,1.4s							
KAPI	**Kappang**	**12.30**	**213**	Pn		**Pn**	**15 43 37.4**	**+1.7**
	comp=Z,0.6nm,0.3s,baz=32,slow=10,SNR=6.2							
KAPI				LR		LR	15 49 15.4	
	comp=Z,1μm,19.2s,baz=40,slow=42							
	comp=Z,18nm,0.9s							
KAPI				AML		AML		
KAPI	**Kappang**	**12.30**	**213**	P		**Pn**	**15 43 36.1**	**+0.5**
KAPI	**Kappang**	**12.30**	**213**			**Pn**	**15 43 36.1**	**+0.5**
KAPI	**Kappang**	**12.30**	**213**	P		**Pn**	**15 43 39.4**	**+3.8**
	comp=Z,63nm,1.0s							
SOEI	**Soe**	**15.18**	**188**			**Pn**	**15 44 15.6**	**+0.9**
BATI	**Baumata**	**15.72**	**190**	Pn		**P**	**15 44 25.0**	**-0.1**
	comp=Z,3.7nm,0.3s,baz=262,slow=1.4,SNR=11							
BATI				Sn		**Sn**	**15 47 19.2**	**+4.3**
	comp=Z,2.2nm,0.3s,baz=236,slow=21,SNR=1.2							
JAY	**Jayapura**	**16.23**	**118**	Pn		**Pn**	**15 44 25.8**	**-2.5**
	comp=Z,0.4nm,0.3s,baz=151,slow=18,SNR=1.6							
JAY				LR		LR	15 50 20.0	
	comp=Z,493nm,21.1s,baz=306,slow=36							
PLAI	**Plampang**	**16.55**	**212**	P		**P**	**15 44 33.8**	**-0.5**
	comp=Z,86nm,0.8s							
JAGI	**Jajag, Banyuwa**	**18.43**	**222**			**P**	**15 44 55.0**	**-0.1**
MTN	**Manton Dam**	**18.67**	**166**	P		**P**	**15 44 57.1**	**-0.7**
	comp=Z,17nm,0.7s							
MTN	**Manton Dam**	**18.67**	**166**	P		**P**	**15 44 56.9**	**-0.8**
	comp=Z,17nm,0.7s							
MTN	**Manton Dam**	**18.67**	**166**			**P**	**15 44 56.5**	**-1.3**
KDU	**Kakadu**	**18.90**	**162**	P		**Pn**	**15 45 01.2**	**+0.1**
	comp=Z,25nm,1.1s							
KDU	**Kakadu**	**18.90**	**162**	P		**P**	**15 45 01.0**	**+0.8**
	comp=Z,25nm,1.1s							

GUMO Guam 19.89 64 P **P** **15 45 10.7 -0.4**
comp=Z,2.0nm,0.3s,baz=76,slow=18,SNR=1.5
comp=Z,44nm,0.7s
GUMO AML AML
GUMO Guam 19.89 64 P **P** **15 45 10.4 -0.7**
GUMO pmax pmax
comp=Z,282nm,1.4s
GUMO Guam 19.89 64 P **P** **15 45 10.4 -0.7**
KNRA Kununurra 21.03 174 P **P** **15 45 21.8 -1.6**
comp=Z,46nm,0.9s
KNRA Kununurra 21.03 174 P **P** **15 45 24.1 +0.7**
comp=Z,46nm,0.9s
KNRA Kununurra 21.03 174 P **P** **15 45 22.1 -1.2**
QIZ Qiongzhong 21.15 311 P **P** **15 45 25.6 +0.9**
QIZ S **S** **15 49 20.7 +2.8**
QIZ L L
comp=Z,540nm,7.1s
QIZ L L
comp=Z,470nm,6.3s
QIZ L L
comp=Z,690nm,10.4s
JOW Kunigami 21.42 4 P **P** **15 45 26.2 -1.3**
comp=Z,10nm,0.6s,baz=153,slow=6.4,SNR=5.0
JOW LR LR 15 54 30.4
comp=Z,261nm,19.3s,baz=186,slow=39
comp=Z,10nm,0.6s
JOW Kunigami 21.42 4 IAmb IAmb 15 45 40.4
comp=Z,68nm,1.0s
LEM Lembang 22.37 237 LR LR 15 56 29.3
comp=Z,411nm,19.4s,baz=30,slow=42
PMBI Palembang 23.18 250 P **P** **15 45 45.8 -0.6**
FITZ Fitzroy Crossi 23.33 182 P **P** **15 45 47.5 -0.1**
FITZ Fitzroy Crossi 23.33 182 P **P** **15 45 47.5 -0.1**
comp=Z,23nm,0.9s,baz=9.4,slow=8.7,SNR=34
FITZ ScP **ScP** **15 53 10.6 +1.6**
comp=Z,3.1nm,0.9s,baz=353,slow=8.1,SNR=2.5
comp=Z,23nm,0.9s
FITZ Fitzroy Crossi 23.33 182 P **P** **15 45 47.6 -0.1**
FITZ Fitzroy Crossi 23.33 182 P **P** **15 45 47.8 +0.1**
comp=Z,14nm,1.1s
PMG Port Moresby 25.31 125 LR LR 15 55 39.5
comp=Z,268nm,21.4s,baz=278,slow=35
IPM Ipoh 25.36 269 P **P** **15 46 05.9 -0.7**
IPM IAmb IAmb 15 46 23.3
comp=Z,36nm,1.0s
IPM Ipoh 25.36 269 P **P** **15 46 08.1 +1.5**
comp=Z,43nm,1.0s
WB0 Warramunga Arr 26.16 163 IAmb IAmb 15 46 27.6
comp=Z,77nm,1.1s
JCJ Chichijima 26.30 33 LR LR 15 56 53.1
comp=Z,138nm,20.2s,baz=8.0,slow=37
WRAB Tennant Creek 26.31 163 *ce*P **P** **15 46 15.7 +0.7**
WRAB pmax pmax
comp=Z,37nm,1.3s
WRAB Tennant Creek 26.31 163 P **P** **15 46 13.3 -1.7**
WRAB IAmb IAmb 15 46 41.0
comp=Z,57nm,1.1s
WRAB Tennant Creek 26.31 163 P **P** **15 46 17.3 +2.3**
comp=Z,54nm,1.1s
WRA Warramunga Arr 26.31 163 P **P** **15 46 15.1 +0.1**
comp=Z,21nm,1.0s,baz=341,slow=10,SNR=17
WRA ScP **ScP** **15 53 18.9 +1.4**
comp=Z,2.6nm,0.8s,baz=334,slow=3.3,SNR=6.8
WRA LR LR 15 58 03.2
comp=Z,254nm,20.7s,baz=269,slow=40
comp=Z,21nm,1.0s
WRA Warramunga Arr 26.31 163 *i* P **P** **15 46 15.1 +0.1**
WRA pmax pmax
comp=Z,24nm,0.9s
WRA Warramunga Arr 26.31 163 P **P** **15 46 14.2 -0.8**
WR8 Warramunga Arr 26.37 163 IAmb IAmb 15 46 45.4
comp=Z,60nm,0.9s
MBWA Marble Bar 27.18 194 P **P** **15 46 22.8 0.0**
comp=Z,32nm,1.0s
MBWA Marble Bar 27.18 194 P **P** **15 46 22.6 -0.2**
comp=Z,32nm,1.0s
MBWA Marble Bar 27.18 194 P **P** **15 46 22.1 -0.7**
MBWA IAmb IAmb 15 46 30.7
comp=Z,33nm,1.1s
MBWA Marble Bar 27.18 194 P **P** **15 46 22.7 0.0**
comp=Z,32nm,1.0s
KRVT Keravat (AS076 27.27 110 LR LR 15 55 26.1
comp=Z,578nm,21.6s,baz=280,slow=32
NJ2 Nanjing 27.49 346 *eP* **P** **15 46 27.6 +2.1**
NJ2 pmax pmax
comp=Z,32nm,0.8s
WHN Wuhan 27.52 337 P **P** **15 46 30.6 +4.8**
WHN pmax pmax
comp=Z,130nm,1.4s
PSI Prapat 27.59 266 LR LR 16 00 03.5
comp=Z,143nm,18.4s,baz=84,slow=42
RPSI Rantau Prapat 27.60 266 P **P** **15 46 26.8 +0.1**
comp=Z,17nm,1.1s
JNU Nakatsue 27.92 8 P **P** **15 46 28.1 -1.4**
comp=Z,13nm,0.8s,baz=291,slow=2.4,SNR=6.8
JNU LR LR 15 57 53.4
comp=Z,176nm,20.4s,baz=174,slow=37
comp=Z,13nm,0.8s
QIS Mount Isa 28.81 154 P **P** **15 46 38.4 +1.0**
comp=Z,19nm,0.9s
QIS Mount Isa 28.81 154 P **P** **15 46 38.3 +0.8**
comp=Z,19nm,0.9s
QIS Mount Isa 28.81 154 P **P** **15 46 38.4 +1.0**
comp=Z,19nm,0.9s
GSI Gunungsitoli 29.12 263 P **P** **15 46 38.7 -1.6**
GSI IAmb IAmb 15 46 55.3
comp=Z,53nm,1.2s
GSI Gunungsitoli 29.12 263 P **P** **15 46 39.5 -0.8**
comp=Z,43nm,1.2s
MTSU Mount Surprise 29.25 143 P P 15 46 49.5 +8.2
ENH Enshi 29.49 329 **P** **15 46 41.7 -1.7**
ENH IAmb IAmb 15 46 53.4
comp=Z,25nm,1.0s
AS15 Alice Springs 29.73 166 P **P** **15 46 47.3 +1.8**
comp=Z,15nm,0.8s
AS15 Alice Springs 29.73 166 P **P** **15 46 49.1 +3.6**
comp=Z,15nm,0.8s
AS31 Alice Springs 29.75 166 P **P** **15 46 47.0 +1.3**
comp=Z,4.3nm,0.8s
AS31 Alice Springs 29.75 166 P **P** **15 46 47.9 +2.1**
comp=Z,4.3nm,0.8s
ASAR Alice Springs 29.75 166 P **P** **15 46 45.5 -0.2**
comp=Z,3.4nm,0.7s,baz=340,slow=6.9,SNR=23
ASAR PcP **PcP** **15 49 49.2 +0.1**
comp=Z,2.2nm,0.6s,baz=352,slow=2.4,SNR=5

TJN **Taejon** 30.88 1 *i* P **P** **15 46 56.1 +0.6**
LYN **LuoYang** 31.80 338 P **P** **15 47 04.9 +1.2**
LYN pP sP 15 47 17.1 -1.5
LYN pmax pmax
comp=Z,28nm,0.7s
LYN L L
comp=Z,910nm,18.0s
LYN L L
comp=Z,560nm,16.1s
LYN L L
comp=Z,780nm,18.6s
TIA **Tai'an** 31.88 346 P **P** **15 47 04.6 +0.2**
TIA pmax pmax
comp=Z,19nm,1.1s
CTA **Charters Tower** 31.91 143 P **P** **15 47 08.3 +3.5**
comp=Z,4.0nm,0.8s
CTA **Charters Tower** 31.91 143 P **P** **15 47 05.4 +0.5**
comp=Z,4.7nm,0.7s,baz=308,slow=7.6,SNR=7.3
CTA ScP **ScP** **15 53 35.9 +0.7**
comp=Z,14nm,1.1s,baz=1.4,slow=8.9,SNR=4.4
CTA LR LR 16 02 59.7
comp=Z,192nm,18.2s,baz=314,slow=42
comp=Z,4.7nm,0.7s
KSAR **Wonju Array Be** 31.95 2 P **P** **15 47 05.2 +0.2**
KSAR **Wonju Array Be** 31.95 2 P **P** **15 47 05.2 +0.2**
KSRS **Korea Array** 31.97 2 P **P** **15 47 05.5 +0.5**
comp=Z,6.0nm,0.7s,baz=188,slow=9.3,SNR=29
KSRS PcP **PcP** **15 49 55.5 +0.9**
comp=Z,6.7nm,0.7s,baz=184,slow=2.2,SNR=25
KSRS ScP **ScP** **15 53 37.0 +2.0**
comp=Z,1.6nm,1.0s,baz=211,slow=2.3,SNR=6.0
KSRS LR LR 16 01 53.3
comp=Z,182nm,18.5s,baz=195,slow=40
comp=Z,6.0nm,0.7s
INCN **Inchon** 31.97 0 P **P** **15 47 06.1 +0.9**
INCN pmax pmax
comp=Z,14nm,0.9s
INCN **Inchon** 31.97 0 P **P** **15 47 06.1 +0.9**
MEEK **Meekatharra** 32.71 193 P **P** **15 47 11.7 -0.1**
comp=Z,27nm,1.0s
MEEK **Meekatharra** 32.71 193 P **P** **15 47 11.4 -0.4**
comp=Z,27nm,1.0s
MEEK **Meekatharra** 32.71 193 P **P** **15 47 11.6 -0.1**
comp=Z,27nm,1.0s
MEEK pP **pP** **15 47 23.0 +1.1**
NPW **Naypyitaw** 32.80 299 P **P** **15 47 12.9 +0.2**
comp=Z,11nm,0.8s
MJAR **Matsushiro Arr** 32.85 18 P **P** **15 47 12.6 -0.3**
comp=Z,4.0nm,0.8s,baz=192,slow=9.5,SNR=9.1
MJAR PcP **PcP** **15 49 57.9 +0.8**
comp=Z,4.8nm,0.7s,baz=171,slow=2.6,SNR=8.2
MJAR ScP **ScP** **15 53 38.2 +0.1**
comp=Z,7.0nm,1.1s,baz=192,slow=2.9,SNR=11
MJAR LR LR 15 59 36.7
comp=Z,297nm,21.8s,baz=198,slow=35
comp=Z,4.0nm,0.8s
XAN **Xi'an** 32.85 333 P **P** **15 47 12.0 -1.0**
XAN pmax pmax
comp=Z,23nm,1.0s
XAN pmax pmax
comp=Z,290nm,4.3s
XAN **Xi'an** 32.85 333 P **P** **15 47 12.2 -0.8**
XAN pP **pP** **15 47 22.2 -1.1**
HNS **HongShan** 33.65 343 ⇓P **P** **15 47 20.2 +0.4**
HNS pP **pP** **15 47 27.1 -3.0**
HNS PcP **PcP** **15 50 00.4 +1.1**
HNS pmax pmax
comp=Z,30nm,1.0s
DL2 **Dalian** 33.68 353 P **P** **15 47 21.6 +1.6**
DL2 pmax pmax
comp=Z,110nm,1.0s
MORW **Morawa** 35.67 196 P **P** **15 47 37.7 +0.3**
comp=Z,26nm,1.3s
MORW **Morawa** 35.67 196 P **P** **15 47 37.2 -0.2**
comp=Z,29nm,1.7s
MORW **Morawa** 35.67 196 P **P** **15 47 37.4 0.0**
MORW IAmb IAmb 15 47 53.6
comp=Z,30nm,1.1s
INKA **Innaminka** 35.68 158 P **P** **15 47 37.8 +0.3**
BJI2 **Beijing** 35.73 346 P **P** **15 47 38.5 +0.7**
BJI2 pP **sP** **15 47 50.3 -2.6**
BJI2 sP **pwP** **15 47 55.8 +4.2**
BJI2 PcP **PcP** **15 50 06.4 +1.1**
BJI2 S **S** **15 53 11.5 -0.4**
BJI2 pmax pmax
comp=Z,25nm,1.1s
BJI2 pmax pmax
comp=Z,92nm,4.0s
BJT **Baijiatuau** 35.73 346 P **P** **15 47 37.9 +0.2**
BJT pmax pmax
comp=Z,19nm,0.6s
BJT **Baijiatuau** 35.73 346 P **P** **15 47 37.9 +0.2**
BJT IAmb IAmb 15 47 39.1
comp=Z,19nm,0.6s
BJT **Baijiatuau** 35.73 346 P **P** **15 47 38.4 +0.6**
BJT pP **pwP** **15 47 48.7 -2.9**
FORT **Forrest** 35.97 178 P **P** **15 47 40.1 +0.2**
comp=Z,26nm,0.9s
FORT **Forrest** 35.97 178 P **P** **15 47 39.6 -0.3**
FORT IAmb IAmb 15 47 57.2
comp=Z,26nm,1.1s
QLP **Quilpie** 36.12 152 P **P** **15 47 43.1 +1.8**
comp=Z,26nm,0.9s
HNR **Honiara** 36.46 114 LR LR 16 01 26.4
comp=Z,229nm,21.9s,baz=15,slow=34
KMBL **Kambalda** 36.79 187 P **P** **15 47 47.1 +0.2**
comp=Z,20nm,1.0s
KMBL **Kambalda** 36.79 187 P **P** **15 47 47.0 +0.1**
comp=Z,20nm,1.0s
LZDM **Lanzhou Array** 36.95 329 P **P** **15 47 49.0 +0.3**
comp=Z,1.4nm,0.3s,baz=141,slow=9.6,SNR=5.7
LZDM PcP **PcP** **15 50 10.0 +0.5**
comp=Z,4.1nm,0.5s,baz=115,slow=6.7,SNR=3.6
LZDM LR LR 16 04 50.9
comp=Z,382nm,18.6s,baz=310,slow=39
comp=Z,1.4nm,0.3s
LZH **Lanzhou** 36.97 329 *e*P **P** **15 47 49.1 +0.4**
LZH pP pP 15 47 58.7 -0.4
LZH pmax pmax
comp=Z,52nm,1.2s
LZH L L
comp=Z,450nm,13.7s
LZH L L
comp=Z,510nm,13.7s
LZH L L
comp=Z,680nm,13.7s
BLDU **Ballidu** 36.98 194 P **P** **15 47 48.0 -0.5**
comp=Z,34nm,1.4s
BLDU **Ballidu** 36.98 194 P **P** **15 47 47.9 -0.6**
comp=Z,34nm,1.4s
BLDU **Ballidu** 36.98 194 P **P** **15 47 48.0 -0.5**
comp=Z,34nm,1.4s
KLBR **Kellerberrin** 37.68 192 P **P** **15 47 54.8 +0.3**
comp=Z,47nm,1.2s
KLBR **Kellerberrin** 37.68 192 P **P** **15 47 54.4 -0.1**
comp=Z,47nm,1.1s
KLBR **Kellerberrin** 37.68 192 P **P** **15 47 54.7 +0.3**
comp=Z,47nm,1.1s
BRDH **Bariadhala** 37.77 301 LR LR 16 04 41.6
comp=Z,202nm,18.6s,baz=144,slow=38
HHC **Hu-ho-hao-te** 37.77 341 *e*P **P** **15 47 55.9 +0.6**
HHC pmax pmax
comp=Z,15nm,0.7s
HHC pmax pmax
comp=Z,110nm,4.7s
CN2 **Changchun** 38.29 359 P **P** **15 48 00.5 +1.0**
CN2 PcP **PcP** **15 50 13.3 +0.4**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
SHL **Shillong** 38.72 305 P **P** **15 48 03.3 -0.2**
SHL pmax pmax
comp=Z,28nm,0.8s
SHL **Shillong** 38.72 305 P **P** **15 48 03.3 -0.2**
SHL IAmb IAmb 15 48 04.0
comp=Z,28nm,0.8s
EIDS **Eidsvold** 38.80 143 P **P** **15 48 04.3 +0.3**
comp=Z,16nm,1.1s
EIDS **Eidsvold** 38.80 143 P **P** **15 48 04.0 -0.1**
EIDS **Eidsvold** 38.80 143 P **P** **15 48 03.9 -0.1**
comp=Z,16nm,1.1s
USA0B **Ussuriysk Arra** 38.98 6 IAmb IAmb 15 48 08.6
comp=Z,15nm,0.8s
USRK **Ussuriysk Ar.** 38.98 6 P **P** **15 48 04.4 -0.9**
comp=Z,14nm,0.8s,baz=196,slow=7.7,SNR=16
USRK PcP **PcP** **15 50 15.1 0.0**
comp=Z,3.6nm,0.7s,baz=207,slow=3.1,SNR=2.8
USRK LR LR 16 05 34.4
comp=Z,44nm,19.3s,baz=185,slow=38
comp=Z,14nm,0.8s
USRK **Ussuriysk Ar.** 38.98 6 P **P** **15 48 06.5 +1.3**
USRK **Ussuriysk Ar.** 38.98 6 P **P** **15 48 06.5 +1.3**
BBOO **Buckleboo** 39.04 167 P **P** **15 48 05.0 -0.9**
comp=Z,31nm,1.1s
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.7 +0.5**
comp=Z,35nm,1.2s
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.8 +0.5**
comp=Z,57nm,1.2s
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.5 +0.3**
comp=Z,35nm,1.2s
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.0 -0.2**
NWAO pmax pmax
comp=Z,72nm,1.5s
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.0 -0.2**
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.7 +0.5**
comp=Z,34nm,1.2s
NWAO **Narrogin (SRO)** 39.08 192 P **P** **15 48 06.2 0.0**
NWAO pP **pP** **15 48 16.8 +0.4**
NWAO sP **pwP** **15 48 21.1 -0.2**
MDJ **Mudanjiang** 39.19 4 P **P** **15 48 08.4 +1.4**
MDJ S **S** **15 54 08.2 +3.8**
MDJ pmax pmax
comp=Z,22nm,0.8s
MDJ L L
comp=Z,230nm,13.5s
XLT **XiLinHaoTe** 39.45 348 *e*P **P** **15 48 10.0 +0.7**
XLT pmax pmax
comp=Z,24nm,1.0s
XLT pmax pmax
comp=Z,280nm,5.2s
STKA **Stephens Creek** 39.74 160 P **P** **15 48 13.2 +1.4**
comp=Z,101nm,0.8s
STKA **Stephens Creek** 39.74 160 P **P** **15 48 13.1 +1.3**
comp=Z,101nm,0.8s
STKA **Stephens Creek** 39.74 160 P **P** **15 48 11.3 -0.5**
comp=Z,9.3nm,0.7s,baz=335,slow=8.2,SNR=11
STKA LR LR 16 07 00.8
comp=Z,157nm,18.1s,baz=332,slow=40
comp=Z,9.3nm,0.7s
STKA **Stephens Creek** 39.74 160 *i* P **P** **15 48 11.4 -0.4**
STKA **Stephens Creek** 39.74 160 P **P** **15 48 12.2 +0.5**
STKA **Stephens Creek** 39.74 160 P **P** **15 48 10.7 -1.1**
comp=Z,101nm,0.8s
BNX **BinXian** 40.23 1 ⇓P **P** **15 48 16.7 +1.1**
BNX pmax pmax
comp=Z,27nm,0.7s
CMSA **Cobar Meteorol** 41.02 155 P **P** **15 48 23.5 +1.1**
comp=Z,14nm,1.3s
CMSA **Cobar Meteorol** 41.02 155 P **P** **15 48 23.5 +1.1**
comp=Z,14nm,1.3s
CMSA **Cobar Meteorol** 41.02 155 P **P** **15 48 23.6 +1.1**
comp=Z,14nm,1.3s
ASAJ **Asahikawa** 41.12 18 LR LR 16 04 37.7
comp=Z,246nm,21.3s,baz=254,slow=35
LSA **Lhasa** 41.18 310 P P 15 48 29.5 +5.2
H11S3 **WAKE ISLAND Hy** 41.34 68 T T 16 32 25.3
baz=252
H11S1 **WAKE ISLAND Hy** 41.36 68 T T 16 32 21.7
baz=252
H11S2 **WAKE ISLAND Hy** 41.36 68 T T 16 32 19.2
baz=252
GTA2 **Gaotai** 41.66 328 P **P** **15 48 27.1 -0.6**
GTA2 PcP **PcP** **15 50 24.8 +0.8**
GTA2 ScS ScS 15 58 27.3 -0.6
GTA2 pmax pmax
comp=Z,9.0nm,0.8s
GTA2 L L
comp=Z,340nm,16.8s
GTA2 L L
comp=Z,330nm,17.1s
GTA2 L L
comp=Z,480nm,17.5s
H11N1 **WAKE ISLAND Hy** 41.82 66 T T 16 32 56.4
baz=254,slow=75,SNR=96
H11N2 **WAKE ISLAND Hy** 41.83 66 T T 16 32 57.4
baz=254,slow=75,SNR=29
H11N3 **WAKE ISLAND Hy** 41.84 66 T T 16 32 57.8
baz=254,slow=75,SNR=54
GOMU **GeErMu** 42.25 321 P **P** **15 48 33.3 +0.4**
GOMU S **S** **15 54 49.0 -2.0**
GOMU pmax pmax
comp=Z,8.0nm,1.2s
GOMU L L
comp=Z,250nm,14.5s
GOMU L L
comp=Z,200nm,14.3s
GOMU L L
comp=Z,430nm,14.5s
ARMA **Armidale** 42.97 147 P **P** **15 48 36.5 -1.9**
comp=Z,18nm,0.9s
ARMA **Armidale** 42.97 147 P **P** **15 48 38.0 -0.5**
ARMA IAmb IAmb 15 48 45.1
comp=Z,48nm,1.5s
ARMA **Armidale** 42.97 147 P **P** **15 48 36.5 -1.9**
comp=Z,18nm,0.9s
ARMA pP **pP** **15 48 48.3 -0.5**
KLR **Kul'dur** 43.94 5 P **P** **15 48 44.6 -1.3**
comp=Z,15nm,0.8s,baz=228,slow=4.8,SNR=32
KLR PcP **PcP** **15 50 31.9 +0.6**
comp=Z,7.6nm,0.9s,baz=271,slow=1.8,SNR=5.0
KLR LR LR 16 07 03.0
comp=Z,77nm,21.8s,baz=194,slow=36
comp=Z,15nm,0.8s
KLR **Kul'dur** 43.94 5 *ce*P **P** **15 48 45.4 -0.4**
KLR pmax pmax
comp=Z,16nm,0.9s
HIA **Hailar** 44.12 354 IAmb IAmb 15 48 49.5
comp=Z,54nm,1.3s
HIA **Hailar** 44.12 354 P **P** **15 48 48.6 +1.3**
ARPS **Mount Arapiles** 44.31 162 P **P** **15 48 51.4 +2.5**
comp=Z,16nm,1.3s
HILR **Hailar Array B** 44.40 354 P **P** **15 48 49.4 -0.3**
comp=Z,15nm,0.7s,baz=163,slow=11,SNR=19
HILR PcP **PP** **15 50 34.1 +0.4**
comp=Z,8.8nm,0.5s,baz=145,slow=5.4,SNR=10.0
comp=Z,15nm,0.7s
HEH **HeiHe** 44.74 1 *e*P **P** **15 48 52.3 +0.1**
HEH PcP **PcP** **15 50 33.8 -0.2**
HEH pmax pmax
comp=Z,17nm,0.8s
HEH L L
comp=Z,170nm,15.6s
HEH L L
comp=Z,260nm,16.8s
HEH L L
comp=Z,340nm,17.5s
PALK **Pallekele** 45.51 275 LR LR 16 10 19.3
comp=Z,94nm,18.2s,baz=98,slow=39
SONM **Songino Array** 45.68 341 P **P** **15 48 58.5 -1.4**
comp=Z,9.2nm,1.0s,baz=161,slow=9.2,SNR=28
SONM PcP **PcP** **15 50 37.7 +0.3**
comp=Z,6.9nm,0.9s,baz=148,slow=3.6,SNR=8.6
SONM LR LR 16 09 45.1
comp=Z,199nm,21.8s,baz=158,slow=38
comp=Z,9.2nm,1.0s
SONM **Songino Array** 45.68 341 P **P** **15 49 00.0 +0.1**
SONM pmax pmax
comp=Z,10.0nm,1.0s
SONM **Songino Array** 45.68 341 P **P** **15 49 00.0 +0.1**
MILA **Mila** 47.22 155 P P 15 49 17.6 +5.6
CIT **Chita** 47.72 349 *e*P **P** **15 49 17.0 +1.3**
CIT *e* 15 49 26.2
CIT *e* 15 49 32.2
CIT *e* 15 50 45.4
CIT *e* 15 51 13.4
CIT *e* 15 52 00.4
CIT *e* 15 56 10.2
CIT pmax pmax
comp=Z,106nm,1.2s
ZEA **Zeya** 48.23 1 *e*P **P** **15 49 19.4 -0.1**
ZEA *e* 15 50 47.0
ZEA pmax pmax
comp=Z,10.0nm,0.9s
ZAK **Zakamensk** 48.91 340 *e*P **P** **15 49 24.4 -0.5**
ZAK pmax pmax
comp=Z,6.0nm,1.6s
TLY **Talaya** 49.91 342 LR LR 16 12 43.6
comp=Z,163nm,19.1s,baz=144,slow=39
TLY **Talaya** 49.91 342 *i* P **P** **15 49 33.2 +0.8**
TLY pmax pmax
comp=Z,18nm,0.8s
TLY **Talaya** 49.91 342 P **P** **15 49 32.2 -0.2**
TLY IAmb IAmb 15 49 35.3
comp=Z,17nm,0.8s
TLY **Talaya** 49.91 342 P **P** **15 49 34.1 +1.6**
comp=Z,24nm,0.8s
MOY **Mondy** 50.77 340 *e*P **P** **15 49 39.2 +0.1**
MOY pmax pmax
comp=Z,27nm,1.1s
KNGR **Kungurtug, Tuv** 51.19 337 *i* P **P** **15 49 42.7 +0.4**
KNGR pmax pmax
comp=Z,6.0nm,0.7s
WMQ **Urumqi** 51.25 324 *e*P **P** **15 49 43.3 +0.5**
WMQ PcP **PcP** **15 50 57.9 +0.3**
WMQ pmax pmax
comp=Z,9.0nm,1.1s
WMQ L L
comp=Z,310nm,16.5s
WMQ L L
comp=Z,320nm,24.1s
WMQ L L
comp=Z,310nm,24.0s
PETK **Petropavlovsk-** 54.03 23 P **P** **15 50 01.9 -1.2**
comp=Z,6.5nm,0.8s,baz=163,slow=1.5,SNR=6.8
PETK LR LR 16 11 26.9
comp=Z,80nm,21.9s,baz=220,slow=34
comp=Z,6.5nm,0.8s
ZSN **Zaisan** 55.00 327 *e*P **P** **15 50 09.7 -0.6**
ZSN **Zaisan** 55.00 327 *e*P **P** **15 50 09.8 -0.6**
MSVF **Nonsavu** 55.84 116 LR LR 16 11 37.8
comp=Z,194nm,20.9s,baz=346,slow=33
SHLS **Shalkode** 55.93 320 *c* *i*P **P** **15 50 14.5 -2.7**
SHLS pmax pmax
comp=Z,9.0nm,0.8s
SHLS **Shalkode** 55.93 320 ⇑ *i*P **P** **15 50 14.5 -2.7**
comp=Z,8.8nm,0.8s
PDGK **Podgornoye** 56.00 320 P **P** **15 50 16.9 -0.8**
PDGK **Podgornoye** 56.00 320 P **P** **15 50 16.9 -0.8**
MK31 **Makanchi Array** 56.08 325 *i* P **P** **15 50 16.9 -1.1**
MK31 pmax pmax
comp=Z,4.0nm,0.6s
MKAR **Makanchi Array** 56.08 325 P **P** **15 50 17.3 -0.7**
comp=Z,11nm,0.7s,baz=118,slow=7.6,SNR=76
MKAR PcP **PcP** **15 51 15.0 -0.8**
comp=Z,8.8nm,0.7s,baz=116,slow=4.6,SNR=6.3
MKAR ScP **ScP** **15 55 13.4 +1.4**
comp=Z,2.8nm,1.1s,baz=123,slow=5.3,SNR=2.8
MKAR LR LR 16 15 02.0
comp=Z,337nm,21.6s,baz=102,slow=37
comp=Z,11nm,0.7s
MKAR **Makanchi Array** 56.08 325 *i* P **P** **15 50 17.2 -0.8**
MKAR pmax pmax
comp=Z,12nm,0.6s
MKAR **Makanchi Array** 56.08 325 P **P** **15 50 17.4 -0.6**
UZB **Uzunbulak** 56.21 320 *e*P **P** **15 50 18.3 -0.9**
UZB pmax pmax
comp=Z,12nm,1.1s
UZB **Uzunbulak** 56.21 320 *e*P **P** **15 50 18.4 -0.9**
comp=Z,12nm,1.1s
MAKZ **Makanchi** 56.26 325 P **P** **15 50 18.9 -0.5**
MAKZ pmax pmax
comp=Z,14nm,0.8s
MAKZ **Makanchi** 56.26 325 P **P** **15 50 18.9 -0.5**
MAKZ IAmb IAmb 15 50 19.4
comp=Z,14nm,0.8s
MAKZ **Makanchi** 56.26 325 P **P** **15 50 18.5 -0.9**
MAKZ PcP **PcP** **15 51 16.0 -0.5**
PRZ **Przheval'sk** 56.31 319 IAmb IAmb 15 50 21.2
comp=Z,21nm,0.9s
PRZ **Przheval'sk** 56.31 319 P **P** **15 50 20.3 +0.3**
comp=Z,28nm,1.0s
TARG **Taragay, Kyrgy** 56.37 318 P **P** **15 50 20.4 -0.3**
TARG pmax pmax
comp=Z,23nm,1.4s
TARG **Taragay, Kyrgy** 56.37 318 P **P** **15 50 20.4 -0.3**
TARG IAmb IAmb 15 50 30.4
comp=Z,23nm,1.4s
TARG **Taragay, Kyrgy** 56.37 318 P **P** **15 50 20.9 +0.2**
comp=Z,11nm,1.2s
TARG pP **pP** **15 50 28.4 -3.1**
SATY **Saty** 56.57 319 *c* *i*P **P** **15 50 21.0 -0.7**
SATY pmax pmax
comp=Z,11nm,1.0s
SATY **Saty** 56.57 319 ⇑ *i*P **P** **15 50 21.0 -0.7**
comp=Z,12nm,1.0s
KPKS **Kokpek** 56.58 320 *e*P **P** **15 50 21.1 -0.7**
KPKS **Kokpek** 56.58 320 *e*P **P** **15 50 21.1 -0.7**
YAK **Yakutsk** 56.59 2 LR LR 16 17 27.9
comp=Z,79nm,18.8s,baz=185,slow=39
YAK **Yakutsk** 56.59 2 *e*P **P** **15 50 19.9 -1.4**
YAK *e**PP **pP** **15 50 32.5 +0.2**
YAK *e* 15 51 16.3
YAK *e* 15 52 25.2
YAK *e*PPP PPP 15 53 42.0
YAK *e*S **S** **15 58 07.7 -2.5**
YAK *e**SS **sS** **15 58 32.4 +3.2**
YAK *e*SS **SS** **16 01 52.0 -6.2**
YAK *e*SSS SSS 16 04 13.1
YAK pmax pmax
comp=Z,114nm,0.9s
YAK pmax pmax
comp=N,44nm,1.2s
YAK pmax pmax
comp=E,15nm,1.5s
YAK pmax pmax
comp=Z,50nm,2.0s
YAK pmax pmax
comp=E,61nm,3.0s
YAK pmax pmax
comp=N,123nm,3.4s
YAK smax smax
comp=N,39nm,1.9s
YAK smax smax
comp=E,66nm,2.6s
YAK **Yakutsk** 56.59 2 P **P** **15 50 22.5 +1.2**
YAK **Yakutsk** 56.59 2 P **P** **15 50 21.9 +0.5**
comp=Z,146nm,0.9s
NIL **Nilore** 56.73 307 P **P** **15 50 21.9 -1.1**
NIL pmax pmax
comp=Z,22nm,1.0s
NIL **Nilore** 56.73 307 P **P** **15 50 21.9 -1.1**
NIL IAmb IAmb 15 50 35.4
comp=Z,22nm,0.9s
NIL **Nilore** 56.73 307 P **P** **15 50 22.2 -0.8**
comp=Z,28nm,0.8s
NIL pP **pP** **15 50 34.0 -0.2**
KSH2 **Kashi** 56.86 314 P **P** **15 50 23.1 -0.8**
KSH2 pmax pmax
comp=Z,10.0nm,1.2s
ASAI **AK-SAY(Kyrgyzs** 56.90 316 P **P** **15 50 24.0 -0.4**
comp=Z,9.5nm,1.0s
ASAI pP **pP** **15 50 33.0 -2.2**
KDJ **Kajisay** 56.96 318 IAmb IAmb 15 50 28.5
comp=Z,24nm,1.3s
KDJ **Kajisay** 56.96 318 P **P** **15 50 24.2 -0.4**
comp=Z,15nm,1.1s
TDK **Taldyqorghan** 57.48 321 *e*P **P** **15 50 27.4 -0.6**
TDK pmax pmax
comp=Z,10.0nm,0.7s
TDK **Taldyqorghan** 57.48 321 *e*P **P** **15 50 27.4 -0.6**
comp=Z,9.7nm,0.7s
MDOK **Medeo** 57.51 319 *e*P **P** **15 50 27.7 -0.7**
MDOK **Medeo** 57.51 319 *e*P **P** **15 50 27.7 -0.7**
TNSS **Tian-Shan** 57.52 319 *e*P **P** **15 50 27.8 -1.0**
TNSS **Tian-Shan** 57.52 319 *e*P **P** **15 50 27.9 -1.0**
AAA **Alma-Ata** 57.61 319 *e*P **P** **15 50 28.2 -0.8**
AAA pmax pmax
comp=Z,7.0nm,0.4s
AAA **Alma-Ata** 57.61 319 *e*P **P** **15 50 28.2 -0.8**
comp=Z,6.6nm,0.4s
TKM2 **Tokmak 2** 58.36 318 P **P** **15 50 33.5 -1.0**
SNR=9.6
KBK **Karagaybulak** 58.69 317 P **P** **15 50 36.6 -0.1**
SNR=7.6
UCH **Uchtor** 58.80 317 P **P** **15 50 38.1 +0.2**
SNR=19
AAK **Ala-Archa** 58.98 317 LR LR 16 19 42.5
comp=Z,139nm,19.3s,baz=95,slow=40
AAK **Ala-Archa** 58.98 317 *ce*P **P** **15 50 39.0 +0.2**
AAK pmax pmax
comp=Z,12nm,1.4s
AAK **Ala-Archa** 58.98 317 P **P** **15 50 38.3 -0.5**
comp=Z,8.8nm,1.4s
ZAA0 **Zalesovo Array** 59.02 333 IAmb IAmb 15 50 43.2
comp=Z,10nm,1.0s
ZALV **Zalesovo Beam** 59.02 333 P **P** **15 50 37.2 -1.4**
comp=Z,5.5nm,0.7s,baz=139,slow=6.7,SNR=11
ZALV PcP **PcP** **15 51 25.6 -1.6**
comp=Z,3.3nm,0.6s,baz=175,slow=2.8,SNR=3.9

ZALV LR LR 16 18 18.5
comp=Z,54nm,19.4s,baz=168,slow=38
comp=Z,5.5nm,0.7s
USP Ospenovka 59.23 318 P P 15 50 39.2 -1.1
SNR=20
EKS2 Erkin-Say 59.48 317 P P 15 50 41.5 -0.6
SNR=14
KURBB Kurchatov Arra 60.23 327 P P 15 50 45.8 -1.1
comp=Z,6.7nm,0.2s,baz=124,slow=6.4,SNR=29
KURBB LR LR 16 18 08.3
comp=Z,132nm,21.3s,baz=191,slow=37
comp=Z,6.7nm,0.2s
KURBB Kurchatov Arra 60.23 327 P P 15 50 45.1 -1.9
KURBB pmax pmax
comp=Z,18nm,0.8s
KURK Kurchatov 60.23 327*ce*P P 15 50 46.0 -1.0
KURK pmax pmax
comp=Z,22nm,0.6s
KURK Kurchatov 60.23 327 P P 15 50 46.3 -0.7
KURK Kurchatov 60.23 327 P P 15 50 45.9 -1.1
comp=Z,40nm,1.1s
KURK pP **pP** 15 50 55.8 -2.2
KBL Kabul 60.33 307 P P 15 50 46.4 -1.9
KBL pmax pmax
comp=Z,8.0nm,0.8s
KBL Kabul 60.33 307 P P 15 50 46.4 -1.9
KBL IAmb IAmb 15 50 53.2
comp=Z,8.4nm,0.8s
SEY Seymchan 60.51 13 *e*P P 15 50 48.0 -0.6
SEY pmax pmax
comp=Z,14nm,1.4s
DZA Taraz 61.23 317 *e*P P 15 50 53.2 -0.8
DZA Taraz 61.23 317 *e*P P 15 50 53.3 -0.8
KK31 Karatay Array 61.87 317 *i*P P 15 50 56.5 -1.8
KK31 pmax pmax
comp=Z,10.0nm,0.9s
KK31 Karatay Array 61.87 317 P P 15 50 56.6 -1.6
KK31 IAmb IAmb 15 51 02.1
comp=Z,10nm,0.8s
KKAR Karatay Array 61.87 317 P P 15 50 56.5 -1.8
KKAR Karatay Array 61.87 317 P P 15 50 56.5 -1.8
IUG luzhnay 61.87 315 *e*P P 15 50 57.6 -0.8
IUG pmax pmax
comp=Z,24nm,1.4s
IUG luzhnay 61.87 315 *e*P P 15 50 57.7 -0.8
comp=Z,24nm,1.4s
CHM Chimkent 62.23 315 *e*P P 15 51 00.1 -0.6
CHM pmax pmax
comp=Z,6.0nm,0.8s
CHM Chimkent 62.23 315 *e*P P 15 51 00.1 -0.6
comp=Z,6.1nm,0.8s
RPZ Rata Peaks 63.24 145 LR LR 16 20 36.4
comp=Z,38nm,18.1s,baz=302,slow=38
RAO Raoul Island 63.50 126 LR LR 16 17 01.4
comp=Z,20nm,21.0s,baz=312,slow=34
URZ Urewera 63.91 137 LR LR 16 17 22.4
comp=Z,184nm,22.0s,baz=312,slow=34
AFI Afiamalu 64.19 108 LR LR 16 14 37.0
comp=Z,125nm,21.8s,baz=334,slow=32
BVA2 Borovoye Array 65.81 327 P P 15 51 22.3 -1.7
BVA2 pmax pmax
comp=Z,24nm,1.0s
BVAR Borovoye Array 65.82 327 P P 15 51 23.1 -1.0
comp=Z,12nm,0.8s,baz=124,slow=8.0,SNR=28
comp=Z,12nm,0.8s
BORK Borovoye 65.86 327⇑ *i*P P 15 51 23.1 -1.3
BORK pmax pmax
comp=Z,17nm,0.9s
BORK Borovoye 65.86 327 P P 15 51 23.0 -1.3
TIXI Tiksi 66.22 1*ce*P P 15 51 25.8 -0.5
TIXI pmax pmax
comp=Z,19nm,0.9s
TIXI Tiksi 66.22 1 P P 15 51 25.4 -0.9
TIXI IAmb IAmb 15 51 28.2
comp=Z,17nm,0.8s
TIXI Tiksi 66.22 1 P P 15 51 25.5 -0.7
comp=Z,28nm,0.9s
TIXI Tiksi 66.22 1 P P 15 51 26.8 +0.5
NRIK Noril'sk 68.79 346 P P 15 51 43.2 +0.7
comp=Z,37nm,0.8s,baz=132,slow=5.9,SNR=32
NRIK LR LR 16 22 08.6
comp=Z,78nm,21.6s,baz=150,slow=36
comp=Z,37nm,0.8s
NRIK Noril'sk 68.79 346 *i*P P 15 51 42.7 +0.2
NRIK pmax pmax
comp=Z,64nm,0.9s
AB31 Akbulak array 70.73 320 *i*P P 15 51 52.8 -2.1
AB31 pmax pmax
comp=Z,8.0nm,0.7s
AB31 Akbulak array 70.73 320 IAmb IAmb 15 52 06.8
comp=Z,11nm,0.8s
ABKAR Akbulak array 70.73 320 P P 15 51 53.1 -1.8
AKTO Aktyubinsk 72.23 321 LR LR 16 26 56.4
comp=Z,244nm,18.9s,baz=42,slow=38
AKTO Aktyubinsk 72.23 321 P P 15 52 02.1 -1.8
AKTO pmax pmax
comp=Z,13nm,1.0s
CASY Casey 72.40 187 P P 15 52 05.5 +1.1
SVE Sverdlovsk 72.44 328 *e*P P 15 52 04.0 -1.0
SVE pmax pmax
comp=Z,44nm,1.5s
ARTI Arti 73.51 327 LR LR 16 27 26.9
comp=Z,108nm,19.8s,baz=109,slow=38
ARTI Arti 73.51 327*c i*P P 15 52 09.6 -1.8
ARTI 15 52 30.5
ARTI S **S** **16 01 34.1 -4.0**
ARTI pmax pmax
comp=Z,14nm,1.0s
ARTI Arti 73.51 327 P P 15 52 09.3 -2.0
ARTI Arti 73.51 327 P P 15 52 09.3 -2.0
ARTI pP **pP** 15 52 20.9 -1.6
RAR Rarotonga 76.91 113 LR LR 16 23 22.4
comp=Z,32nm,21.2s,baz=273,slow=33
KIRV Kirov 78.70 329*ce*P P 15 52 39.7 -1.1
BELG Belogornoye 78.96 322 P P 15 52 40.7 -1.7
comp=Z,29nm,1.0s,baz=233,slow=3.0,SNR=5.5
BELG LR LR 16 29 31.4
comp=Z,132nm,20.9s,baz=74,slow=37
comp=Z,29nm,1.0s
RAYN Ar Rayn 79.61 293 P P 15 52 47.5 +0.9
E19K Redstone River 79.83 22 IAmb IAmb 15 53 12.2
comp=Z,21nm,1.2s
GNI Garni 80.24 310 LR LR 16 34 06.1
comp=Z,37nm,18.6s,baz=96,slow=40
CCD Concordia, Ant 80.36 181 P P 15 52 50.9 +0.8
KDAK Kodiak Island 80.66 32 LR LR 16 22 04.8
comp=Z,183nm,21.1s,baz=245,slow=31
RED Redoubt Volcan 80.80 30 P P 15 52 51.6 -0.7
HAKT HAKKARI 81.02 307 P P 15 52 54.4 +0.2
comp=Z,20nm,1.0s
CAST Castle Rocks 81.40 27 IAmb IAmb 15 53 12.6
comp=Z,32nm,1.5s
ABPO Ambohimpanom 81.62 250 P P 15 52 57.0 -0.6
ABPO pP **pP** 15 53 08.2 -0.5
KBZ Khabaz 81.67 313 P P 15 52 57.5 +0.3
comp=Z,2.7nm,1.0s,baz=76,slow=7.9,SNR=3.6
KBZ LR LR 16 34 02.0
comp=Z,73nm,19.7s,baz=72,slow=39
comp=Z,2.7nm,1.0s
KIV Kislovodsk 81.83 314 *e*P P 15 52 58.0 -0.1
KIV pmax pmax
comp=Z,5.0nm,1.0s
KIV MLR MLR
comp=Z,56nm,19.0s
SHA1 Shidzhatmaz 81.85 313*ce*P P 15 52 58.2 -0.2
BPAW Bear Paw Mtn. 81.94 26 IAmb IAmb 15 53 17.7
comp=Z,13nm,0.9s
MLY Manley 82.12 25 P P 15 52 59.2 +0.1
G23K Bananza Creek 82.53 23 IAmb IAmb 15 53 29.6
comp=Z,11nm,1.0s
VRH Novokhopyorsk 82.56 321 *e*P P 15 53 00.4 -1.2
VRH pmax pmax
comp=Z,8.0nm,0.6s
H23K Yukon River 82.67 24 IAmb IAmb 15 53 17.6
comp=Z,9.6nm,0.9s
E23K Chandalar 82.78 22 IAmb IAmb 15 53 18.6
comp=Z,21nm,1.2s
NEA2 Nenana 82.81 26 IAmb IAmb 15 53 20.0
comp=Z,11nm,1.1s
D24K Happy Valley 83.13 21 IAmb IAmb 15 53 32.9
comp=Z,12nm,0.8s
E24K Your Creek 83.20 22 IAmb IAmb 15 53 33.5
comp=Z,12nm,1.2s
C24K Franklin Bluff 83.20 20 P P 15 53 05.6 +1.0
CCB Clear Creek Bu 83.35 26 IAmb IAmb 15 53 08.5
comp=Z,22nm,1.4s

F24K Squaw Lake 83.41 23 IAmb IAmb 15 53 42.8
comp=Z,34nm,1.8s
G24K Hadweenzic Riv 83.54 24 IAmb IAmb 15 53 08.7
comp=Z,18nm,1.2s
HDA Harding Lake 83.72 26 IAmb IAmb 15 53 22.6
comp=Z,9.1nm,0.8s
IL31 83.75 25 IAmb IAmb 15 55 19.7
comp=Z,43nm,1.9s
ILAR Eielson Array 83.75 25 P P 15 53 07.1 -0.4
comp=Z,1.3nm,0.5s,baz=252,slow=5.0,SNR=33
comp=Z,1.3nm,0.5s
ILAR Eielson Array 83.75 25 P P 15 53 07.0 -0.6
ILAR Eielson Array 83.75 25 P P 15 53 07.0 -0.6
KLMR Klimovskoe 83.86 331 *e*P P 15 53 05.5 -2.7
KLMR pmax pmax
comp=Z,45nm,1.4s
SOC Sochi 83.98 313 *e*P P 15 53 04.7 -4.5
SOC *e*PPP PPP 15 58 15.7
SOC *e*S S 16 03 20.8 -10
SOC *e*SS **SS** **16 08 59.9 +0.8**
SOC pmax pmax
comp=Z,18nm,0.8s
SOC MLR MLR
comp=Z,106nm,19.0s
VORD Divnogorie 84.09 321 *e*P P 15 53 08.3 -1.2
VORD pmax pmax
comp=Z,4.0nm,0.5s
VORR Voronezh 84.13 321 *e*P P 15 53 10.6 +0.9
VSR Storozhevoye 84.16 321 *e*P P 15 53 09.5 -0.4
VSR pmax pmax
comp=Z,8.0nm,0.5s
F25K Christian Rive 84.27 23 IAmb IAmb 15 53 26.4
comp=Z,25nm,1.6s
LPSR Galich'ya Gora 84.28 322 *e*P P 15 53 11.2 +0.7
LPSR pmax pmax
comp=Z,10.0nm,0.6s
BMAR Burnt Mountain 84.68 23 P P 15 53 13.4 +1.2
F26K Sheenjek River 84.84 23 IAmb IAmb 15 53 15.6
comp=Z,34nm,1.8s
C27K Jago River 84.95 21 IAmb IAmb 15 53 15.9
comp=Z,11nm,1.0s
MOS Moscow 84.95 325 *e*P P 15 53 09.5 -4.3
MOS *e* 15 53 22.6
G26K Porcupine Rive 85.00 23 IAmb IAmb 15 53 17.0
comp=Z,31nm,1.6s
VNDA Vanda 85.07 173 P P 15 53 13.9 +0.1
comp=Z,2.4nm,0.8s,baz=308,slow=5.3,SNR=15
VNDA LR LR 16 31 02.0
comp=Z,74nm,21.1s,baz=336,slow=36
comp=Z,2.4nm,0.8s
VNDA Vanda 85.07 173 P P 15 53 14.2 +0.3
VNDA pmax pmax
comp=Z,4.0nm,1.0s
VNDA Vanda 85.07 173 P P 15 53 14.2 +0.3
VNDA Vanda 85.07 173 P P 15 53 14.2 +0.3
comp=Z,5.6nm,0.9s
VNDA Vanda 85.07 173 P P 15 53 14.1 +0.1
VNDA PcP **PcP** 15 53 17.7 +0.6
VNDA pP **pP** 15 53 25.1 0.0
KEMA Kemaliye 85.07 309 P P 15 53 16.0 +1.1
comp=Z,33nm,1.1s
MAW Mawson 85.19 200 P P 15 53 14.4 -0.2
comp=Z,2.0nm,0.8s,baz=56,slow=7.8,SNR=5.9
MAW LR LR 16 28 19.0
comp=Z,43nm,19.5s,baz=83,slow=34
comp=Z,2.0nm,0.8s
MAW Mawson 85.19 200 P P 15 53 15.0 +0.4
MAW pmax pmax
comp=Z,1.0nm,1.0s
MAW Mawson 85.19 200 P P 15 53 15.0 +0.4
I26K Coal Creek Min 85.32 25 IAmb IAmb 15 53 31.3
comp=Z,13nm,1.1s
OBN Obninsk 85.58 325 P P 15 53 15.3 -1.6
comp=Z,14nm,0.4s,baz=68,slow=12,SNR=5.4
comp=Z,14nm,0.4s
OBN Obninsk 85.58 325*ce*P P 15 53 15.3 -1.6
OBN *i**PP **pP** 15 53 26.9 -1.4
OBN *e**SP **sP** 15 53 36.0 +3.4
OBN 15 56 36.0
OBN *i* PPP PPP 15 58 25.9
OBN S **SKSac** **16 03 43.0 +4.0**
OBN SS **SS** **16 09 28.0 +6.0**
OBN *e*SSS SSS 16 12 55.7
OBN pmax pmax
comp=Z,39nm,1.2s
OBN MLR MLR
comp=Z,111nm,19.0s
OBN Obninsk 85.58 325 P P 15 53 16.2 -0.8
comp=Z,63nm,1.3s
OBN pP **pP** 15 53 25.6 -2.8
LVZ Lovozero 85.75 338*ce*P P 15 53 16.3 -1.3
LVZ pmax pmax
comp=Z,18nm,1.0s
LVZ Lovozero 85.75 338 P P 15 53 16.6 -1.0
G27K Doyon Strip 85.85 23 IAmb IAmb 15 53 20.4
comp=Z,14nm,1.5s
K27K Chicken 85.86 26 IAmb IAmb 15 54 06.5
comp=Z,23nm,1.5s
PPT Papeete 85.86 108 LR LR 16 28 46.3
comp=Z,48nm,19.8s,baz=236,slow=34
PPT2 Papeete2 85.87 108 *e*LR LR 16 20 31.2
comp=Z,198nm,25.5s
PPT2 *e*LR LR 16 20 37.1
comp=Z,153nm,28.8s
H27K Steamboat Moun 85.94 24 IAmb IAmb 15 53 21.5
comp=Z,21nm,1.6s
I27K Kandik River 85.95 25 IAmb IAmb 15 53 22.8
comp=Z,22nm,1.3s
F28M Old Crow 86.48 23 P P 15 53 21.4 +0.2
F28M IAmb IAmb 15 53 40.4
comp=Z,7.8nm,0.8s
E28M Babbage River 86.51 22 IAmb IAmb 15 53 43.0
comp=Z,30nm,1.9s
I28M Miner Creek 86.66 25 IAmb IAmb 15 53 29.0
comp=Z,6.9nm,0.9s
TBI Tubuai 86.68 114 *e*LR LR 16 20 49.6
comp=Z,1μm,32.2s
ASF Jabal al Asfar 86.82 302 P P 15 53 22.5 -1.2
comp=Z,3.8nm,0.8s,baz=80,slow=6.2,SNR=8.1
ASF LR LR 16 37 37.1
comp=Z,32nm,19.6s,baz=75,slow=39
comp=Z,3.8nm,0.8s
ANDN Andirin 86.86 307 P P 15 53 24.0 +0.2
comp=Z,38nm,1.0s
MMAI Mount Meron Ar 88.00 303 LR LR 16 37 09.3
comp=Z,47nm,21.4s,baz=54,slow=39
EIL Elat 88.69 300 LR LR 16 40 37.2
comp=Z,45nm,18.2s,baz=100,slow=41
INK Inuvik 88.75 21 P P 15 53 32.3 +0.3
comp=Z,8.2nm,2.4s
BR131 Keskin Array S 88.78 310 *i*P P 15 53 32.2 -0.8
BRTR Keskin Array B 88.78 310 P P 15 53 32.9 -0.1
comp=Z,2.3nm,0.9s,baz=114,slow=4.6,SNR=8.0
BRTR LR LR 16 40 34.5
comp=Z,30nm,18.3s,baz=89,slow=40
comp=Z,2.3nm,0.9s
BRTR Keskin Array B 88.78 310 P P 15 53 32.5 -0.5
ARCES ARCESS Array B 88.83 340 P P 15 53 32.5 +0.1
comp=Z,7.1nm,0.6s,baz=84,slow=5.6,SNR=13
ARCES LR LR 16 38 30.3
comp=Z,83nm,18.2s,baz=54,slow=39
comp=Z,7.1nm,0.6s
ARCES ARCESS Array B 88.83 340 P P 15 53 32.0 -0.4
ARCES pmax pmax
comp=Z,40nm,1.2s
ARCES ARCESS Array B 88.83 340 P P 15 53 32.0 -0.4
SPITS Spitsbergen Ar 88.83 349 P P 15 53 31.4 -1.0
comp=Z,11nm,0.6s,baz=91,slow=8.7,SNR=18
comp=Z,11nm,0.6s
KKUL Konya-Kulu 89.40 309 P P 15 53 35.9 0.0
comp=Z,18nm,1.0s
FINES FINESS Array B 90.28 332 P P 15 53 38.1 -1.1
comp=Z,3.9nm,0.6s,baz=55,slow=3.8,SNR=17
FINES LR LR 16 37 43.7
comp=Z,216nm,19.0s,baz=79,slow=38
comp=Z,3.9nm,0.6s
FINES FINESS Array B 90.28 332 P P 15 53 37.8 -1.5
AKASG Malin Array Be 90.47 321 P P 15 53 38.9 -1.5
comp=Z,0.8nm,0.6s,baz=72,slow=3.9,SNR=4.9
AKASG LR LR 16 36 42.8
comp=Z,81nm,18.6s,baz=50,slow=37
comp=Z,0.8nm,0.6s
AKASG Malin Array Be 90.47 321 *i*P P 15 53 41.9 +1.5
AKASG pmax pmax
comp=Z,1.0nm,0.4s
AKBB Malin Array Si 90.47 321*ce*P P 15 53 40.4 0.0
AKBB pmax pmax
comp=Z,3.0nm,0.9s
MNK Minsk 90.64 325 *i*P P 15 53 39.9 -1.2
MNK *i**PP **pwP** 15 53 54.6 -2.1
MNK *i* 15 57 15.2
MNK *i* PPP PPP 15 59 11.4
MNK *i* S **SKSac** **16 04 06.6 -2.9**
MNK *i* SS **SS** **16 10 35.2 -0.5**
MNK *i* SSS SSS 16 14 12.3
MNK pmax pmax
comp=E,21nm,1.5s
MNK pmax pmax
comp=N,24nm,1.0s
MNK pmax pmax
comp=Z,12nm,0.7s
MNK Minsk 90.64 325 *i*P P 15 53 40.0 -1.2
comp=E,21nm,1.5s
MNK *i*P P 15 53 40.0 -1.2
comp=N,24nm,1.0s
MNK *i*P P 15 53 40.0 -1.2
comp=Z,12nm,0.7s,baz=80
MNK *i*pP **pwP** 15 53 54.7 -2.1
MNK *i*sP **sP** 15 54 00.5 +3.6
MNK *i*PP **PP** 15 57 15.2 -1.2
MNK *i*PPP PPP 15 59 11.4
MNK *i*SKS S 16 03 57.3 -37
MNK *i*S **SKSac** **16 04 06.6 -2.9**
MNK *i*SS **SS** **16 10 35.2 -0.5**
MNK *i*SSS SSS 16 14 12.4
MNK *i*LR LR 16 33 55.0
NACGM Naroch 91.20 325 *e*P P 15 53 42.6 -1.1
comp=Z,8.0nm,0.9s,baz=79
NOR Nord 91.45 355 *i*P P 15 53 44.0 -0.4
NOR IAmb IAmb 15 53 44.9
comp=Z,19nm,1.3s
VRI Vrincioaia 92.94 316 P P 15 53 52.1 +0.1
comp=Z,11nm,1.4s
MLR Muntele Rosu 93.55 316 LR LR 16 41 20.2
comp=Z,135nm,21.0s,baz=78,slow=39
TAOE Nuku Hiva Isla 94.15 98 *e*LR LR 16 24 20.2
comp=Z,316nm,24.3s
BBB Bella Bella 95.15 37 LR LR 16 27 40.4
comp=Z,24nm,21.6s,baz=224,slow=30
KOLS Kolonicke sedl 95.23 320 *e*PDIFF P 15 54 04.8 +2.3
QSPA South Pole Qui 95.26 180 P P 15 54 02.3 0.0
comp=Z,3.9nm,1.1s,baz=292,slow=2.0,SNR=12
QSPA PKKP **PKKPdf** **16 10 56.2 -2.7**
comp=Z,1.3nm,0.7s,baz=217,slow=0.3,SNR=9.0
comp=Z,3.9nm,1.1s
QSPA South Pole Qui 95.26 180 P P 15 54 03.0 +0.7
DAG Danmarks Havn 95.61 352 P P 15 54 02.9 -0.7
comp=Z,31nm,1.1s
DAG Danmarks Havn 95.61 352 *i*P P 15 54 02.5 -1.1
DAG IAmb IAmb 15 54 03.5
comp=Z,22nm,0.8s
MBAR Mbarara 95.76 270 LR LR 16 35 45.1
comp=Z,30nm,20.2s,baz=80,slow=34
HFS Hagfors 96.46 332 P P 15 54 06.4 -1.4
comp=Z,4.4nm,1.0s,baz=101,slow=6.2,SNR=4.8
HFS LR LR 16 40 19.1
comp=Z,119nm,19.5s,baz=66,slow=37
comp=Z,4.4nm,1.0s
NB2 NORSAR Subarra 97.22 334 P P 15 54 09.1 -2.2
comp=Z,3.1nm,0.7s,baz=66,slow=4.6
NOA NORSAR Array B 97.22 334 P P 15 54 09.3 -2.0
comp=Z,2.1nm,0.7s,baz=65,slow=4.6,SNR=8.4
NOA LR LR 16 42 15.0
comp=Z,114nm,21.8s,baz=65,slow=38
comp=Z,2.1nm,0.7s
NEEM North Greenlan 97.30 359 *i*P P 15 54 11.4 -0.3
NEEM IAmb IAmb 15 54 14.9
comp=Z,7.0nm,0.7s
DBG Daneborg 97.88 351 *i*P P 15 54 13.4 -0.6
DBG IAmb IAmb 15 54 14.2
comp=Z,12nm,0.9s
YKA Yellowknife Ar 98.13 24 P Pdif 15 54 16.1 +0.8
comp=Z,0.6nm,0.7s,baz=307,slow=5.0,SNR=2.5
comp=Z,0.6nm,0.7s
VRAC Vranov 98.70 321 LR LR 16 41 28.5
comp=Z,72nm,21.9s,baz=64,slow=37
CLL Collm 100.17 324 *ep*Pdif **pPdif** **15 54 35.0 -1.2**
CLL LH 16 30 00.0
CLL LV 16 34 00.0
CLL AMS AMS 16 44 00.0
comp=Z,100nm,18.5s
GERES GERESS Array B 100.65 322 P **Pdif** **15 54 23.9 -3.1**
comp=Z,0.1nm,0.3s,baz=90,slow=12,SNR=1.4
PDAR Pinedale Array 110.30 41 PKiKP **PKiKP** **15 59 11.3 0.0**
comp=Z,0.3nm,0.5s,baz=136,slow=2.0,SNR=4.0
PDAR PKKPab **PKKPab** **16 10 23.4 -0.7**
comp=Z,1.1nm,1.1s,baz=119,slow=5.2,SNR=4.0
PDAR Pinedale Array 110.30 41 **PKiKP** **15 59 10.0 -1.2**
ULM Lac du Bonnet 113.66 28 PKiKP **PKiKP** **15 59 16.5 -0.6**
comp=Z,2.3nm,0.7s,baz=45,slow=20,SNR=3.0
ULM Lac du Bonnet 113.66 28 *i* PKiKP **PKiKP** **15 59 16.7 -0.4**
ULM Lac du Bonnet 113.66 28 **PKiKP** **15 59 16.7 -0.4**
SCHQ Schefferville 119.00 9 PKP **PKiKP** **15 59 27.7 +0.4**
comp=Z,4.0nm,0.5s,baz=278,slow=4.7,SNR=6.4
SCHQ Schefferville 119.00 9 **PKPdf** **15 59 27.0 -0.2**
TXAR Lajitas Array 120.80 51 PKP **PKiKP** **15 59 32.1 +0.4**
comp=Z,0.7nm,0.6s,baz=282,slow=0.7,SNR=10
TXAR PKKPbc **PKKPbc** **16 09 36.5 +0.3**
comp=Z,0.6nm,0.8s,baz=131,slow=5.7,SNR=5.9
TXAR Lajitas Array 120.80 51 PKiKP **PKiKP** **15 59 32.5 +0.8**
TXAR Lajitas Array 120.80 51 **PKiKP** **15 59 32.5 +0.8**
TORD Torodi Ar. Bea 122.15 289 PKP **PKPdf** **15 59 34.0 -0.4**
comp=Z,2.3nm,0.7s,baz=56,slow=1.9,SNR=15
TORD Torodi Ar. Bea 122.15 289 **PKPdf** **15 59 33.6 -0.8**
PLCA Paso Flores 141.62 159 PKP **PKPdf** **16 00 09.6 -0.8**
comp=Z,3.2nm,0.7s,baz=205,slow=2.7,SNR=13
CPUP Villa Florida 158.84 171 PKP **PKPdf** **16 00 36.6 -0.5**
comp=Z,2.2nm,1.1s,baz=55,slow=8.4,SNR=2.9
LPAZ La Paz 162.03 128 PKP **PKPdf** **16 00 42.3 +0.5**
comp=Z,2.9nm,1.0s,baz=347,slow=4.1,SNR=6.6

NAO ***11*** *15:43:08.8, 40.53N×21.82E, h10km, MB3.3*
SOF ***11*** *15:43:16.4, 41.60N±0.04×20.23E±0.04, h10km±6km, MD4.2/4*
IDC ***11*** *15:43:19.8±0.7, 41.52N×20.78E, h0km, mb3.7/9, mbtmp3.7/18, ML3.3/5, MS3.0/12, Error ellipse: s-maj=12.7km s-min=10.8km az=142.0*
TIR ***11*** *15:43:20.8, 41.65N×20.75E, h7km±3km, ML3.8, ML3.8, Presumed earthquake*
PDG ***11*** *15:43:21.6±0.6, 41.67N×20.79E, h9km±1km, MD3.9/12, ML3.8/13, Error ellipse: s-maj=0.8km s-min=1.2km az=0.0*
BEO ***11*** *15:43:22.9±0.4, 41.71N×20.78E, h5km±2km, ML3.7/23*
SKO ***11*** *15:43:22.2, 41.58N×20.76E, h21km, ML3.8*
RHSSO ***11*** *15:43:23.2±0.7, 41.75N×20.75E, h5km±3km, ML3.9/8*
THE ***11*** *15:43:24.4, 42°N±4°×2°1E±°, h3km±15km, M3.6/29, MLh3.6/29*
GFZ ***11*** *15:43:24.6±0.1, 42°N×2°×2°1E±°, h10km, M4.4/22, mb4.4/22*
PRU ***11*** *15:43:28.4, 41.63N×20.31E, h10km*
ISC 11 15:43:21.8±1.0, **41.66N**±0.02×**20.78E**±0.02, **h8**km±7km, **n279**,σ1°67/376, **mb3.8**/5, **MS3.9**/3, **27C-21D, Albania**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.26**	**277**	Pg	**Pg**	**Pg**	**15 43 25.4**	**-1.5**
PHP				Sg	**Sg**	**Sg**	**15 43 28.6**	**-1.7**
PHP				IAML			15 43 29.1	
	16μm,0.2s							
OHR	**Ohrid**	**0.54**	**178**	*i* Pg	**Pg**	**Pg**	**15 43 32.1**	**-0.2**
OHR				*i* Sg	**Sb**	**Sb**	**15 43 40.9**	**-0.8**
OHR				*e*Lg	Lg	Lg	15 43 41.0	
	comp=N,5μm,0.4s							
OHR				*e*Lg	Lg	Lg	15 43 41.2	
	comp=E,5μm,0.5s							
SKO	**Skopje**	**0.59**	**57**	*i* Pg	**Pb**	**Pb**	**15 43 35.1**	**+0.7**
SKO				*i* Sg	**Sb**	**Sb**	**15 43 42.3**	**-0.5**
TIR	**Tirane**	**0.75**	**246**	Pg	**Pg**	**Pg**	**15 43 34.7**	**-1.6**
TIR				Sg	**Sg**	**Sg**	**15 43 45.9**	**-0.1**
TIR				IAML			15 43 47.7	
	comp=E,2μm,0.5s							
KBN	**Korca**	**1.03**	**180**	P	**Pg**	**Pg**	**15 43 41.0**	**-0.6**
KBN				S	**Sn**	**Sn**	**15 43 57.5**	**+0.1**
KBN				AML	AML			
KBN	**Korca**	**1.03**	**180**	Pg	**Pg**	**Pg**	**15 43 41.4**	**-0.3**
KBN				Sg	**Sb**	**Sb**	**15 43 55.8**	**+0.1**
KBN	**Korca**	**1.03**	**180**	P	**Pg**	**Pg**	**15 43 41.3**	**-0.3**
SDA	**Shkodra**	**1.04**	**293**	Pg	**Pg**	**Pg**	**15 43 40.1**	**-1.6**
SDA				Sg	**Sb**	**Sb**	**15 43 56.3**	**+0.5**
SDA				IAML			15 44 04.8	

	comp=E,4µm,0.3s								
PVY	**Plav**	**1.12**	**327**	⇑*i*	Pg	**Pg**	**15 43 41.9**	**-1.4**
PVY				*i*	Sg	**Sn**	**15 43 59.9**	**+0.2**
BERA	**Berati**	**1.14**	**214**		Pg	**Pg**	**15 43 42.5**	**-1.2**
BERA					Sg	**Sg**	**15 43 57.9**	**-0.5**
BERA					IAML		15 44 04.8	
	comp=E,2µm,0.4s							
BERA					IAML		15 44 07.0	
	comp=E,2µm,0.5s							
ULC	**Ulcinj**	**1.19**	**286**	*e*Pg		**Pb**	**15 43 42.1**	**-2.5**
ULC				*i*	Sg	**Sn**	**15 44 02.5**	**+1.3**
NEST	**Nestorio**	**1.26**	**171**		P	**Pn**	**15 43 44.5**	**-1.3**
NEST					S	**Sn**	**15 44 03.8**	**+0.9**
NEST					AML	AML		
NEST	**Nestorio**	**1.26**	**171**		Pn	**Pn**	**15 43 44.3**	**-1.5**
NEST					Sn	**Sn**	**15 44 03.4**	**+0.4**
NEST					IAML		15 44 07.5	
	comp=E,4µm,0.5s							
NEST					IAML		15 44 08.6	
	comp=E,3µm,0.6s							
DRME	**Dracevica, Mon**	**1.30**	**295**	*e*Pg		**Pn**	**15 43 45.2**	**-1.2**
DRME					eSg	**Sb**	**15 44 03.3**	**-0.2**
DRME	**Dracevica, Mon**	**1.30**	**295**	⇑*i*	Pg	**Pn**	**15 43 44.4**	**-2.0**
DRME				*i*	Sg	**Sn**	**15 44 05.9**	**+1.9**
PDG	**Podgorica**	**1.37**	**305**	*e*Pg		**Pn**	**15 43 45.9**	**-1.4**
PDG					eSg	**Sg**	**15 44 06.3**	**+0.3**
PDG	**Podgorica**	**1.37**	**305**	⇑P		**Pn**	**15 43 47.1**	**-0.2**
PDG				⇓S		**Sg**	**15 44 06.8**	**+0.9**
PDG	**Podgorica**	**1.37**	**305**	*e*Pg		**Pn**	**15 43 45.6**	**-1.7**
PDG					eSg	**Sb**	**15 44 04.7**	**-0.8**
PDG	**Podgorica**	**1.37**	**305**	Pg		**Pn**	**15 43 45.9**	**-1.4**
PDG					Sg	**Sg**	**15 44 07.3**	**+1.3**
PDG	**Podgorica**	**1.37**	**305**	P		**Pg**	**15 43 49.5**	**+1.3**
PDG	**Podgorica**	**1.37**	**305**	⇑*i*	Pg	**Pn**	**15 43 45.8**	**-1.5**
PDG				*i*	Sg	**Sg**	**15 44 08.7**	**+2.7**
IVA	**Berane**	**1.38**	**332**	*e*Pg		**Pn**	**15 43 47.3**	**-0.2**
IVA				*i*	Sg	**Sg**	**15 44 08.2**	**+1.9**
VAY	**Valandovo**	**1.39**	**103**	⇑*i*	Pg	**Pn**	**15 43 47.6**	**+0.1**
VAY				*i*	Sg	**Sg**	**15 44 07.6**	**+1.2**
VAY				*e*Lg		Lg	15 44 07.9	
	comp=E,741nm,0.5s							
VAY				*e*Lg		Lg	15 44 09.2	
	comp=N,1µm,0.6s							
BARS	**Barje**	**1.39**	**33**	*e*Pg		**Pn**	**15 43 47.7**	**+0.1**
BARS					eSg	**Sg**	**15 44 07.0**	**+0.4**
GRG	**Griva**	**1.41**	**119**	P		**Pn**	**15 43 47.9**	**0.0**
GRG					S	**Sb**	**15 44 05.9**	**-0.6**
GRG					AML	AML		
GRG	**Griva**	**1.41**	**119**	P		**Pn**	**15 43 48.0**	**+0.2**
PENT	**Pentalofos**	**1.48**	**169**	P		**Pn**	**15 43 49.2**	**+0.3**
PENT					S	**Sg**	**15 44 10.5**	**+1.0**
LSK	**Leskovik**	**1.51**	**185**	Pg		**Pn**	**15 43 49.7**	**+0.4**
LSK					Sg	**Sg**	**15 44 10.8**	**+0.5**
BOSS	**Bosilegrad**	**1.52**	**56**	*e*Pg		**Pn**	**15 43 49.8**	**+0.4**
BOSS					eSg	**Sg**	**15 44 10.7**	**+0.1**
KOME	**Kolasin**	**1.52**	**322**	⇓*i*	Pg	**Pn**	**15 43 48.9**	**-0.5**
KOME				*i*	Sg	**Sg**	**15 44 12.7**	**+2.0**
VLO	**Vlora**	**1.53**	**220**	P		**Pg**	**15 43 52.0**	**+0.8**
VLO					S	**Sg**	**15 44 14.8**	**+3.8**
VLO					AML	AML		
VLO	**Vlora**	**1.53**	**220**	Pn		**Pg**	**15 43 52.0**	**+0.8**
VLO					Sn	**Sg**	**15 44 15.3**	**+4.2**
VLO					IAML		15 44 19.4	
	comp=N,5µm,0.9s							
VLO	**Vlora**	**1.53**	**220**	P		**Pg**	**15 43 51.7**	**+0.5**
KZN	**Kozani**	**1.54**	**151**	P		**Pn**	**15 43 50.1**	**+0.4**
KZN					S	**Sg**	**15 44 11.1**	**-0.2**
KZN					AML	AML		
BUM	**Brajici-Budva**	**1.55**	**295**	*e*Pg		**Pb**	**15 43 50.7**	**-0.1**
BUM				*i*	Sg	**Sg**	**15 44 14.4**	**+2.9**
SELS	**Selova**	**1.58**	**9**	*e*Pg		**Pn**	**15 43 50.6**	**+0.3**
SELS					eSg	**Sb**	**15 44 12.1**	**+0.5**
PEHC	**Pehcevo**	**1.59**	**85**	*i*	Pg	**Pb**	**15 43 51.2**	**-0.4**
PEHC				*i*	Sg	**Sb**	**15 44 11.8**	**0.0**
CEME	**Cevo**	**1.65**	**303**	⇓*i*	Pn	**Pn**	**15 43 50.3**	**-0.9**
CEME				*i*	Sn	**Sg**	**15 44 16.8**	**+2.0**
KNT	**Kendrikon**	**1.67**	**106**	P		**Pn**	**15 43 51.5**	**+0.1**
KNT					S	**Sn**	**15 44 12.9**	**-0.1**
KNT					AML	AML		
KNT	**Kendrikon**	**1.67**	**106**	P		**Pn**	**15 43 52.0**	**+0.7**
SJES	**Sjenica**	**1.71**	**340**	*e*Pg		**Pb**	**15 43 53.4**	**-0.2**
SJES					eSg	**Sb**	**15 44 15.5**	**+0.1**
SJES	**Sjenica**	**1.71**	**340**	⇑*i*	Pn	**Pn**	**15 43 52.6**	**+0.5**
SJES					eSn	**Sn**	**15 44 14.3**	**0.0**
NKME	**Niksic**	**1.75**	**310**	⇑*i*	Pn	**Pn**	**15 43 53.3**	**+0.7**
NKME				*i*	Sn	**Sg**	**15 44 19.1**	**+0.9**
KPRO	**Kipourio**	**1.75**	**165**	P		**Pb**	**15 43 53.6**	**-0.7**
KPRO					AML	AML		
KKB	**Krupnik**	**1.77**	**83**	P		**Pn**	**15 43 53.6**	**+0.9**
KKB					AML	AML		
KKB	**Krupnik**	**1.77**	**83**	P		**Pb**	**15 43 54.3**	**-0.2**
TRAN	**Tran**	**1.82**	**49**	P		**Pn**	**15 43 54.4**	**+0.9**
TRAN					S	**Sg**	**15 44 22.4**	**+2.1**
SRN	**Sarande**	**1.87**	**199**	P		**Pb**	**15 43 56.4**	**+0.2**
SRN					AML	AML		
SRN	**Sarande**	**1.87**	**199**	Pn		**Pb**	**15 43 55.8**	**-0.4**
SRN	**Sarande**	**1.87**	**199**	P		**Pb**	**15 43 55.8**	**-0.4**
HCY	**Herceg Novi**	**1.88**	**296**	*e*Pn		**Pn**	**15 43 54.5**	**+0.2**
HCY					eSn	**Sn**	**15 44 18.4**	**+0.2**
HCY	**Herceg Novi**	**1.88**	**296**	⇑*i*	Pn	**Pn**	**15 43 54.6**	**+0.3**
HCY				*i*	Sn	**Sg**	**15 44 21.8**	**-0.3**
GOCS	**Kraljevo Serbi**	**1.91**	**2**	*e*Pn		**Pn**	**15 43 54.8**	**0.0**
GOCS					eSn	**Sn**	**15 44 19.1**	**0.0**
THE	**Thessaloniki**	**1.94**	**121**	P		**Pn**	**15 43 55.6**	**+0.5**
THE					AML	AML		
THE	**Thessaloniki**	**1.94**	**121**	P		**Pb**	**15 43 57.0**	**-0.4**
PLE	**Pljevlja**	**1.96**	**329**	*e*Pn		**Pn**	**15 43 56.7**	**+1.1**
PLE				*i*	Sn	**Sb**	**15 44 23.9**	**+1.3**
IVAS	**Ivanjica**	**1.98**	**347**	*e*Pn		**Pn**	**15 43 55.5**	**-0.2**
IVAS					eSn	**Sn**	**15 44 20.4**	**-0.3**
JAN	**Janina**	**2.00**	**178**	P		**Pb**	**15 43 58.1**	**-0.3**
JAN					AML	AML		
VTS	**Vitosha**	**2.06**	**61**	P		**Pn**	**15 43 57.7**	**+0.8**
VTS					AML	AML		
VTS	**Vitosha**	**2.06**	**61**	P		**Pn**	**15 43 58.0**	**+1.0**
VTS					S	**Sg**	**15 44 29.4**	**+1.3**
VTS	**Vitosha**	**2.06**	**61**	*e*Pn		**Pn**	**15 43 57.6**	**+0.6**
VTS					eSn	**Sn**	**15 44 24.0**	**+1.0**
BRY	**Bratogost**	**2.08**	**308**	*e*Pn		**Pn**	**15 43 57.9**	**+0.8**
BRY					eSn	**Sn**	**15 44 23.1**	**-0.2**
BRY	**Bratogost**	**2.08**	**308**	*e*Pn		**Pn**	**15 43 58.5**	**+1.4**
BRY				*i*	Sn	**Sb**	**15 44 26.9**	**+1.0**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn		**Pn**	**15 43 57.9**	**+0.7**
UPM					eSn	**Sn**	**15 44 22.7**	**-0.7**
UPM	**Unac-Piva**	**2.08**	**319**	*e*Pn		**Pn**	**15 43 58.3**	**+1.1**
UPM				*i*	Sn	**Sb**	**15 44 26.6**	**+0.6**
KEK	**Kerkira**	**2.08**	**201**	P		**Pb**	**15 43 58.6**	**-1.2**
BOVS	**Bovan**	**2.09**	**19**	*e*Pn		**Pn**	**15 43 57.6**	**+0.4**
BOVS	**Bovan**	**2.09**	**19**	⇑P		**Pn**	**15 43 57.7**	**+0.4**
BOVS				⇑S		**Sn**	**15 44 23.2**	**-0.2**
TREB	**Trebinje**	**2.09**	**301**	*e*Pn		**Pb**	**15 43 59.1**	**-1.0**
TREB				eSn		**Sb**	**15 44 25.2**	**-1.1**
TREB	**Trebinje**	**2.09**	**301**	*e*Pn		**Pn**	**15 43 58.6**	**+1.4**
TREB				eSn		**Sn**	**15 44 23.5**	**0.0**
SOH	**Sokhos**	**2.11**	**112**	P		**Pn**	**15 43 58.3**	**+0.8**
SOH					AML	AML		
SOH	**Sokhos**	**2.11**	**112**	P		**Pn**	**15 43 58.3**	**+0.8**
ZAPS	**Zavoj**	**2.12**	**40**	*e*Pn		**Pn**	**15 43 58.2**	**+0.6**
PLNA	**Plana**	**2.13**	**67**	P		**Pb**	**15 43 59.8**	**-1.0**
PLNA					S	**Sg**	**15 44 31.8**	**+1.4**
PRMD	**Pramanda**	**2.14**	**173**	P		**Pb**	**15 43 59.5**	**-1.3**
PRMD					AML	AML		
IGT	**Igoumenitsa**	**2.15**	**189**	P		**Pb**	**15 43 59.7**	**-1.3**
IGT					AML	AML		
IGT	**Igoumenitsa**	**2.15**	**189**	*e*Pn		**Pb**	**15 43 59.6**	**-1.4**
IGT					eSn	**Sb**	**15 44 28.7**	**+0.9**
IGT	**Igoumenitsa**	**2.15**	**189**	Pn		**Pb**	**15 44 00.2**	**-0.8**
SRS	**Serrai**	**2.18**	**103**	P		**Pn**	**15 43 58.8**	**+0.4**
SRS					AML	AML		
SRS	**Serrai**	**2.18**	**103**	*e*Pn		**Pn**	**15 43 58.9**	**+0.4**
SRS	**Serrai**	**2.18**	**103**	P		**Pn**	**15 43 59.4**	**+0.9**
DBRK	**Dubrovnik**	**2.20**	**298**	*i*	Pn	**Pb**	**15 44 00.6**	**-1.4**
DBRK					Sn	**Sn**	**15 44 27.7**	**+1.5**
KLINJ	**Klinje**	**2.22**	**314**	*e*Pn		**Pn**	**15 44 00.0**	**+0.9**
KLINJ					eSn	**Sn**	**15 44 26.7**	**-0.1**
MMB	**Musomishta**	**2.23**	**92**	P		**Pn**	**15 44 00.0**	**+0.9**
MMB					AML	AML		
MMB	**Musomishta**	**2.23**	**92**	P		**Pb**	**15 44 01.0**	**-1.4**
GRUS	**Gruza**	**2.23**	**359**	*e*Pn		**Pn**	**15 43 59.2**	**+0.1**
TYRN	**Tyrnavos**	**2.23**	**150**	P		**Pn**	**15 44 00.6**	**+1.5**
TYRN					AML	AML		
THL	**Kłokotos Trika**	**2.29**	**155**	P		**Pn**	**15 44 00.9**	**+1.0**
THL					AML	AML		
NVR	**Nevrokopi**	**2.33**	**96**	P		**Pn**	**15 44 02.2**	**+1.6**
NVR					AML	AML		
TETR	**Tetrakomo, Epi**	**2.34**	**171**	P		**Pb**	**15 44 02.6**	**-1.7**
TETR					AML	AML		
ZAGS	**Zajecar**	**2.41**	**26**	*e*Pn		**Pn**	**15 44 02.0**	**+0.5**
BLKB	**Belogradchik**	**2.41**	**35**	*e*Pn		**Pn**	**15 44 02.7**	**+1.1**
BLKB					eSn	**Sn**	**15 44 32.0**	**+0.6**
BLKB	**Belogradchik**	**2.41**	**35**	⇓P		**Pn**	**15 44 02.8**	**+1.1**
BLKB				⇓S		**Sn**	**15 44 33.0**	**+1.6**
BBLS	**Lazi&#263i**	**2.43**	**336**	*e*Pn		**Pn**	**15 44 02.4**	**+0.5**
BBLS	**Lazi&#263i**	**2.43**	**336**	*e*Pn		**Pn**	**15 44 02.2**	**+0.3**
BBLS					eSn	**Sn**	**15 44 31.6**	**-0.3**
DIVS	**Divibare**	**2.51**	**347**	*e*Pn		**Pn**	**15 44 03.1**	**+0.1**
DIVS					eSn	**Sn**	**15 44 33.7**	**-0.2**
TRUS	**Trudelj**	**2.58**	**354**	*e*Pn		**Pn**	**15 44 04.2**	**+0.3**
STON	**Ston**	**2.59**	**299**	*e*Pn		**Pn**	**15 44 06.1**	**+2.1**
STON					Sn	**Sn**	**15 44 36.6**	**+0.9**
STON	**Ston**	**2.59**	**299**	*e*Pn		**Pn**	**15 44 04.7**	**+0.7**
STON					eSn	**Sb**	**15 44 38.3**	**-2.1**
BORS2	**Bor- Borsko je**	**2.60**	**20**	*e*Pn		**Pn**	**15 44 03.4**	**-0.8**
PGB	**Panagyurishte**	**2.67**	**70**	P		**Pn**	**15 44 07.6**	**+2.4**
AMPL	**Ampelaki**	**2.75**	**173**	P		**Pn**	**15 44 08.3**	**+2.0**
AMPL					AML	AML		
MPEP	**Malo Peshtene**	**2.77**	**51**	P		**Pn**	**15 44 08.3**	**+1.8**
PAIG	**Paliouri**	**2.80**	**127**	P		**Pn**	**15 44 07.2**	**+0.3**
PAIG					AML	AML		
PAIG	**Paliouri**	**2.80**	**127**	P		**Pb**	**15 44 11.3**	**-0.8**
TSLK	**Tsoukalades, L**	**2.83**	**182**	P		**Pn**	**15 44 09.3**	**+2.0**
TSLK					AML	AML		
KUBS	**Kucevo**	**2.83**	**13**	*e*Pn		**Pn**	**15 44 06.5**	**-0.9**
LKD2	**Lefkada island**	**2.87**	**182**	P		**Pn**	**15 44 09.1**	**+1.3**
LKD2					AML	AML		
LKD2	**Lefkada island**	**2.87**	**182**	P		**Pb**	**15 44 12.9**	**-0.3**
AGG	**Agios Georgios**	**2.88**	**155**	P		**Pn**	**15 44 09.1**	**+1.0**
AGG					AML	AML		
AGG	**Agios Georgios**	**2.88**	**155**	P		**Pn**	**15 44 09.5**	**+1.4**
KAVA	**Kavala**	**2.89**	**102**	P		**Pn**	**15 44 09.1**	**+1.0**
KAVA					AML	AML		
XOR	**Xorichti**	**2.93**	**140**	P		**Pn**	**15 44 09.3**	**+0.5**
XOR					AML	AML		
XOR	**Xorichti**	**2.93**	**140**	P		**Pb**	**15 44 14.7**	**+0.3**
RZN	**Rozhen**	**2.97**	**88**	P		**Pn**	**15 44 10.7**	**+1.3**
BAIL	**Bailesti**	**3.02**	**38**	⇓P		**Pn**	**15 44 11.6**	**+1.7**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn		**Pn**	**15 44 10.0**	**-0.2**
TEKS	**Tekeris**	**3.03**	**343**	*e*Pn		**Pn**	**15 44 10.2**	**0.0**
TEKS					eSn	**Sn**	**15 44 46.2**	**-0.5**
AVAS	**Avala Beograd**	**3.05**	**356**	*e*Pn		**Pn**	**15 44 10.3**	**0.0**
LSTV	**Lastovo**	**3.10**	**292**	*e*Pn		**Pn**	**15 44 12.7**	**+1.8**
LSTV					Sn	**Sn**	**15 44 49.6**	**+1.4**
MDVR	**Moldovita**	**3.20**	**12**	*e*Pn		**Pn**	**15 44 12.3**	**-0.2**
MDVR	**Moldovita**	**3.20**	**12**	⇑P		**Pn**	**15 44 12.7**	**+0.3**
MAKA	**Makarska**	**3.23**	**302**	*i*	Pn	**Pn**	**15 44 13.9**	**+1.2**
MAKA					Sn	**Sn**	**15 44 51.7**	**+0.3**
MATE	**Matera**	**3.24**	**253**	⇓P		**Pn**	**15 44 15.1**	**+2.2**
MATE	**Matera**	**3.24**	**253**	P		**Pb**	**15 44 19.8**	**+0.3**
RICI	**Ricice**	**3.26**	**306**	*i*	Pn	**Pn**	**15 44 14.9**	**+1.6**
RICI					Sn	**Sn**	**15 44 52.4**	**+0.1**
PLVB	**Pleven**	**3.33**	**57**	⇑P		**Pn**	**15 44 16.4**	**+2.3**
HERR	**Herculane**	**3.44**	**20**	⇓P		**Pn**	**15 44 16.3**	**+0.6**
VRSS	**Vrsac**	**3.49**	**6**	*e*Pn		**Pn**	**15 44 15.8**	**-0.6**
SRE	**Strehaia**	**3.49**	**30**	⇑P		**Pn**	**15 44 17.3**	**+0.9**
VLAD	**Vladila**	**3.55**	**47**	⇑P		**Pn**	**15 44 19.9**	**+2.7**
HVAR	**Hvar**	**3.55**	**297**	*e*Pn		**Pn**	**15 44 18.6**	**+1.4**
HVAR					Sn	**Sn**	**15 45 00.1**	**+0.7**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn		**Pn**	**15 44 17.1**	**-0.5**
FRGS	**Fruska Gora**	**3.57**	**349**	*e*Pn		**Pn**	**15 44 17.3**	**-0.3**
FRGS					eSn	**Sn**	**15 44 58.8**	**-1.2**
TIP	**Timpagrande**	**3.94**	**232**	⇑P		**Pn**	**15 44 24.4**	**+1.7**
TIP	**Timpagrande**	**3.94**	**232**	P		**Pn**	**15 44 25.3**	**+2.6**
TIP	**Timpagrande**	**3.94**	**232**	P		**Pn**	**15 44 24.7**	**+2.0**
KIJV	**Kijevo**	**3.98**	**308**	*e*Pn		**Pn**	**15 44 25.0**	**+1.8**
KIJV					Sn	**Sn**	**15 45 10.4**	**+0.3**
KIJV	**Kijevo**	**3.98**	**308**	P		**Pn**	**15 44 25.5**	**+2.3**
ELND	**Elena**	**3.99**	**70**	⇓P		**Pn**	**15 44 25.3**	**+2.0**
MARCO	**Tramutola**	**4.00**	**252**	P		**Pb**	**15 44 29.6**	**-3.0**
BZS	**Buzias**	**4.01**	**8**	*e*Pn		**Pn**	**15 44 22.9**	**-0.6**
BZS	**Buzias**	**4.01**	**8**	⇑P		**Pn**	**15 44 24.1**	**+0.6**
BZS	**Buzias**	**4.01**	**8**	P		**Pn**	**15 44 23.9**	**+0.3**
GZR	**Gura Zlata**	**4.01**	**21**	*e*Pn		**Pn**	**15 44 23.8**	**+0.2**
GZR	**Gura Zlata**	**4.01**	**21**	⇓P		**Pn**	**15 44 24.4**	**+0.8**
BLY	**Banja Luka**	**4.06**	**321**	*e*Pn		**Pn**	**15 44 26.4**	**+2.2**
BLY	**Banja Luka**	**4.06**	**321**	⇑P		**Pn**	**15 44 25.0**	**+0.8**
BLY	**Banja Luka**	**4.06**	**321**	*e*Pn		**Pn**	**15 44 25.0**	**+0.8**
BLY					eSn	**Sn**	**15 45 10.3**	**-1.6**
BLY	**Banja Luka**	**4.06**	**321**	P		**Pn**	**15 44 27.3**	**+3.1**
COPA	**Copaceanca**	**4.09**	**51**	⇓P		**Pn**	**15 44 26.9**	**+2.2**
CUC	**Castrococo**	**4.12**	**248**	P		**Pn**	**15 44 26.9**	**+1.9**
HUMR	**Humele**	**4.21**	**46**	P		**Pn**	**15 44 28.4**	**+2.1**
SURR	**Surduc**	**4.21**	**13**	⇑P		**Pn**	**15 44 26.8**	**+0.4**
MORI	**Morici**	**4.34**	**302**	*e*Pn		**Pn**	**15 44 29.2**	**+1.1**
MORI					Sn	**Sn**	**15 45 19.2**	**+0.3**
LOT	**Lotru**	**4.37**	**29**	⇑P		**Pn**	**15 44 29.2**	**+0.6**
ITM	**Ithomi**	**4.56**	**168**	P		**Pn**	**15 44 35.6**	**+4.5**
EZN	**Ezine**	**4.59**	**112**	⇑P		**Pn**	**15 44 34.7**	**+3.2**
ARR	**Arges**	**4.65**	**36**	⇓P		**Pn**	**15 44 33.9**	**+1.5**
ARR				⇓S		**Sn**	**15 45 28.1**	**+1.4**
ARR	**Arges**	**4.65**	**36**	P		**Pn**	**15 44 35.1**	**+2.6**
SIRR	**Siria**	**4.65**	**8**	*e*Pn		**Pn**	**15 44 31.8**	**-0.6**
SIRR	**Siria**	**4.65**	**8**	⇑P		**Pn**	**15 44 33.1**	**+0.7**
UDBI	**Udbina**	**4.66**	**310**	*e*Pn		**Pn**	**15 44 34.3**	**+1.6**
UDBI					Sn	**Sn**	**15 45 26.4**	**-0.5**
MORH	**Mrgy, Hungar**	**4.81**	**342**	⇓P		**Pn**	**15 44 35.1**	**+0.6**
MORH	**Mrgy, Hungar**	**4.81**	**342**	*e*Pn		**Pn**	**15 44 34.6**	**0.0**
MORH					eSn	**Sn**	**15 45 28.0**	**-2.5**
MORH	**Mrgy, Hungar**	**4.81**	**342**	P		**Pn**	**15 44 35.2**	**+0.6**
DUGI	**Dugi Otok**	**4.81**	**301**	*e*Pn		**Pn**	**15 44 35.8**	**+1.2**
DUGI					Sn	**Sn**	**15 45 30.8**	**+0.2**
VOIR		**4.89**	**38**	⇑P		**Pn**	**15 44 37.6**	**+1.8**
VOIR		**4.89**	**38**	P		**Pn**	**15 44 38.0**	**+2.3**
MOSL	**Moslavina**	**4.92**	**325**	*e*Pn		**Pn**	**15 44 35.6**	**-0.5**
MOSL					Sn	**Sn**	**15 45 29.6**	**-3.6**
PLIT	**Plitvice**	**4.96**	**312**	*e*Pn		**Pn**	**15 44 38.7**	**+2.1**
PLIT					Sn	**Sn**	**15 45 33.7**	**-0.4**
CEL	**Celeste**	**5.06**	**229**	P		**Pn**	**15 44 38.2**	**+0.1**
	comp=Z,19nm,0.7s							
MARR	**Marisel-Cluj**	**5.29**	**18**	⇓P		**Pn**	**15 44 43.1**	**+1.8**
MLR	**Muntele Rosu**	**5.36**	**43**	Pn		**Pn**	**15 44 44.5**	**+2.2**
	comp=Z,2.9nm,0.3s,baz=205,slow=11,SNR=14							
MLR					Sn	**Sn**	**15 45 44.3**	**0.0**
	comp=Z,0.6nm,0.3s,baz=255,slow=20,SNR=3.3							
MLR					Lg	Lg	15 46 14.0	
	comp=Z,0.3nm,0.3s,baz=126,slow=20,SNR=4.4							
	comp=Z,15nm,0.6s							
MLR					AML	AML		
MLR	**Muntele Rosu**	**5.36**	**43**	⇓P		**Pn**	**15 44 44.9**	**+2.6**
MLR	**Muntele Rosu**	**5.36**	**43**	P		**Pn**	**15 44 47.0**	**+4.7**
	comp=Z,15nm,0.6s							
RABC	**Rab**	**5.37**	**307**	*e*Pn		**Pn**	**15 44 43.2**	**+1.1**
RABC					Sn	**Sn**	**15 45 43.5**	**-0.6**
ISR	**Istrita**	**5.44**	**49**	⇑P		**Pn**	**15 44 45.1**	**+1.8**
DOPR	**Dopca**	**5.45**	**36**	⇑P		**Pn**	**15 44 44.9**	**+1.5**
KALN	**Kalnik**	**5.46**	**327**	*e*Pn		**Pn**	**15 44 43.3**	**-0.1**
KALN					Sn	**Sn**	**15 45 42.5**	**-4.0**
PTJ	**Puntijarka**	**5.49**	**322**	*e*Pn		**Pn**	**15 44 43.9**	**-0.2**
NEHR	**Nehoiu**	**5.50**	**45**	⇓P		**Pn**	**15 44 46.6**	**+2.5**
OZLJ	**Ozalj**	**5.53**	**318**	*e*Pn		**Pn**	**15 44 45.0**	**+0.7**
AQU	**L'Aquila**	**5.54**	**280**	*e*Pn		**Pn**	**15 44 44.9**	**+0.2**
AQU	**L'Aquila**	**5.54**	**280**	P		**Pn**	**15 44 45.7**	**+1.0**
	comp=Z,80nm,1.0s							
BOJS	**Bojanci**	**5.56**	**316**	*e*Pn		**Pn**	**15 44 46.6**	**+1.8**
BEHE	**Becsehely**	**5.61**	**330**	*e*Pn		**Pn**	**15 44 45.6**	**0.0**
BEHE					eSn	**Sn**	**15 45 47.2**	**-3.0**
LOBO	**Lobor**	**5.64**	**324**	*e*Pn		**Pn**	**15 44 45.6**	**-0.4**
OZUR		**5.73**	**37**	⇓P		**Pn**	**15 44 49.1**	**+2.0**
COVR	**Voineasa-Covas**	**5.74**	**41**	⇑P		**Pn**	**15 44 49.8**	**+2.4**
RIY	**Rijeka**	**5.87**	**311**	*e*Pn		**Pn**	**15 44 49.6**	**+0.5**
RIY					Sn	**Sn**	**15 45 55.1**	**-1.4**
MPLH	**Magyarpolny**	**5.98**	**338**	P		**Pn**	**15 44 52.0**	**+1.3**
	comp=Z,41nm,0.8s							
VRI	**Vrincioaia**	**6.02**	**44**	⇑P		**Pn**	**15 44 53.8**	**+2.6**
CEY	**Cerknica**	**6.15**	**314**	*e*Pn		**Pn**	**15 44 54.6**	**+1.6**
ONER	**Baraj Valea Uz**	**6.19**	**39**	⇓P		**Pn**	**15 44 55.0**	**+1.5**
SKDS	**Skadanscina**	**6.26**	**311**	*e*Pn		**Pn**	**15 44 55.1**	**+0.5**
PSZ	**Piszkesteto**	**6.29**	**355**	⇑P		**Pn**	**15 44 56.3**	**+1.3**
PSZ	**Piszkesteto**	**6.29**	**355**	P		**Pn**	**15 44 56.6**	**+1.6**
	comp=Z,16nm,0.7s							
CFR	**Carcaliu**	**6.41**	**54**	⇓P		**Pn**	**15 44 59.1**	**+2.6**
VAE	**Valguarnera**	**6.45**	**232**	Pn		**Pn**	**15 44 56.2**	**-0.9**
	comp=Z,4.7nm,0.3s,baz=78,slow=9.5,SNR=1.7							
VAE					Sn	**Sn**	**15 46 06.5**	**-4.5**
	comp=Z,2.7nm,0.3s,baz=99,slow=6.4,SNR=4.1							
VAE					Lg	Lg	15 46 35.7	
	comp=Z,2.6nm,0.3s,baz=310,slow=17,SNR=3.3							
SOKA	**Soboth**	**6.50**	**322**	*i*	Pn	**Pn**	**15 44 59.5**	**+1.7**
	comp=Z,3.3nm,0.3s							
SOKA					eSn	**Sn**	**15 46 10.6**	**-1.6**
	comp=Z,9.2nm,0.8s							
OBKA	**Obir**	**6.61**	**319**	*e*Pn		**Pn**	**15 45 02.2**	**+2.9**
	comp=Z,13nm,0.5s							
OBKA	**Obir**	**6.61**	**319**	P		**Pn**	**15 45 02.5**	**+3.1**
	comp=Z,36nm,0.8s							
ABAH	**Abaujker**	**6.65**	**3**	P		**Pn**	**15 44 58.8**	**-1.0**
	comp=Z,14nm,0.7s							
ARSA	**Arzberg**	**6.74**	**328**	*i*	Pn	**Pn**	**15 45 02.4**	**+1.3**
	comp=Z,5.2nm,0.4s							
ARSA					eSn	**Sn**	**15 46 16.3**	**-1.7**
	comp=Z,9.3nm,0.6s							
ARSA	**Arzberg**	**6.74**	**328**	P		**Pn**	**15 45 02.8**	**+1.7**
	comp=Z,19nm,0.8s							
BURAR	**Bucovina Array**	**6.75**	**26**	⇓P		**Pn**	**15 45 03.4**	**+2.2**
KECS	**Kecovo**	**6.83**	**358**	*e*PN		**Pn**	**15 45 03.8**	**+1.5**
KECS					eSN	**Sn**	**15 46 15.9**	**-4.3**
KECS	**Kecovo**	**6.83**	**358**	P		Pn	15 45 08.6	+6.3
	comp=Z,17nm,0.8s							
RONA	**Rosalia, Austr**	**6.83**	**334**	*i*	Pn	**Pn**	**15 45 03.7**	**+1.3**
	comp=Z,3.2nm,0.5s			

CLL				AMS	AMS	15 50 00.0	
MMAI	**Mount Meron Ar**	**14.47**	**122**	Pn	**Pn**	**15 46 45.4**	**-1.5**
	comp=E,0.6nm,0.5s,baz=299,slow=16,SNR=2.4						
MMAI				LR	LR	15 53 00.7	
	comp=E,56nm,18.7s,baz=346,slow=40						
KZIT	**Kziot**	**15.33**	**130**	P	**Pn**	**15 46 58.7**	**+0.1**
	comp=Z,21nm,1.1s						
ASF	**Jabal al Asfar**	**15.94**	**121**	LR	LR	15 54 09.6	
	comp=Z,49nm,21.5s,baz=300,slow=41						
KBZ	**Khabaz**	**16.39**	**75**	LR	LR	15 56 20.8	
	comp=Z,18nm,19.4s,baz=238,slow=48						
EIL	**Elat**	**16.57**	**132**	LR	LR	15 54 29.4	
	comp=Z,28nm,20.5s,baz=294,slow=41						
HAKT	**HAKKARI**	**18.12**	**95**	P	**P**	**15 47 38.2**	**+3.8**
	comp=Z,16nm,1.6s						
ESDC	**Sonseca Array**	**18.86**	**272**	P	**P**	**15 47 42.0**	**-0.4**
	comp=Z,0.5nm,0.6s,baz=77,slow=12,SNR=2.4						
ESDC				LR	LR	15 54 01.7	
	comp=Z,26nm,21.7s,baz=86,slow=34						
HFS	**Hagfors**	**19.01**	**349**	P	**P**	**15 47 44.0**	**+0.2**
	comp=Z,0.2nm,0.3s,baz=145,slow=11,SNR=5.1						
HFS				LR	LR	15 57 04.3	
	comp=Z,62nm,18.9s,baz=355,slow=43						
	comp=Z,1.0nm,0.7s						
HFS				AML	AML		
FINES	**FINESS Array B**	**20.08**	**7**	P	**P**	**15 47 54.5**	**-0.9**
	comp=Z,2.0nm,0.8s,baz=223,slow=10,SNR=4.0						
	comp=Z,2.0nm,0.8s						
NB2	**NORSAR Subarra**	**20.27**	**346**	P	**P**	**15 47 57.7**	**+0.1**
	comp=Z,0.7nm,0.4s,baz=158,slow=11						
NOA	**NORSAR Array B**	**20.27**	**346**	P	**P**	**15 47 57.0**	**-0.6**
	comp=Z,0.5nm,0.6s,baz=154,slow=10,SNR=5.5						
NOA				LR	LR	15 55 43.7	
	comp=Z,32nm,19.9s,baz=145,slow=36						
	comp=Z,0.5nm,0.6s						
EKA	**Eskdalemuir Ar**	**20.81**	**319**	P	**P**	**15 48 02.5**	**-1.0**
	comp=Z,3.7nm,0.7s,baz=115,slow=11,SNR=6.0						
	comp=Z,3.7nm,0.7s						
MDT	**Midelt**	**21.99**	**255**	P	**P**	**15 48 16.1**	**-0.4**
	comp=Z,1.8nm,0.7s,baz=132,slow=6.9,SNR=4.2						
	comp=Z,1.8nm,0.7s						
TORD	**Torodi Ar. Bea**	**32.91**	**216**	P	**P**	**15 49 55.0**	**-1.6**
	comp=Z,0.7nm,0.9s,baz=14,slow=13,SNR=4.3						
	comp=Z,0.7nm,0.9s						
BVAR	**Borovoye Array**	**34.81**	**54**	P	**P**	**15 50 14.1**	**+1.2**
	comp=Z,1.8nm,0.8s,baz=267,slow=5.8,SNR=4.4						
	comp=Z,1.8nm,0.8s						
ILAR	**Eielson Array**	**73.47**	**355**	P	**P**	**15 54 54.8**	**+0.4**
	comp=Z,0.4nm,0.8s,baz=2.9,slow=6.5,SNR=1.8						
	comp=Z,0.4nm,0.8s						
PETK	**Petropavlovsk-**	**78.56**	**25**	P	**P**	**15 55 23.8**	**+0.2**
	comp=Z,3.9nm,0.9s,baz=298,slow=6.2,SNR=2.7						
	comp=Z,3.9nm,0.9s						
NEW	**Newport**	**83.04**	**333**	LR	LR	16 33 41.8	
	comp=Z,54nm,21.6s,baz=295,slow=36						
PDAR	**Pinedale Array**	**84.79**	**326**	P	**P**	**15 55 56.7**	**-0.4**
	comp=Z,0.6nm,1.0s,baz=10,slow=6.6,SNR=2.1						
	comp=Z,0.6nm,1.0s						
YBH	**Yreka Blue Hor**	**90.67**	**334**	LR	LR	16 43 17.2	
	comp=Z,50nm,19.3s,baz=290,slow=40						
ASAR	**Alice Springs**	**122.28**	**94**	PKP	**PKPdf**	**16 02 16.2**	**-1.4**
	comp=Z,0.2nm,0.5s,baz=314,slow=1.7,SNR=6.6						

*SJA **11** 15:43:32.2±0.6,30˚.57S×72˚.07W,h14km,ML3.3,MW3.6*
*GUC **11** 15:43:32.4±0.9,30˚.63S×72˚.08W,h20km±17km,ML3.4, Presumed earthquake*

ISC 11 15:43:28.5±2.4,30˚.54S±0˚.05×72˚.22W±0˚.10,h16km±11km, n28,σ1°943/30,2D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.52**	**105**	⇓*iP*		**Pb**		**15 43 40.5**	**+1.2**
CO06				*eS*		**Sb**		**15 43 46.0**	**-0.6**
CO06				IAML				15 43 47.5	
	comp=N,2μm,0.2s								
CO05	**La Serena**	**1.05**	**54**	*eP*		**Pn**		**15 43 50.0**	**+1.5**
CO05				IAML				15 44 06.7	
	comp=E,1μm,0.4s								
CO02	**Combarbal**	**1.24**	**123**	*eP*		**Pb**		**15 43 52.4**	**+0.7**
CO02				*eS*		**Sn**		**15 44 09.2**	**+1.3**
CO02				IAML				15 44 09.3	
	comp=Z,845nm,0.7s								
CO02	**Combarbal**	**1.24**	**123**	⇓*iP*		**Pb**		**15 43 52.2**	**+0.5**
CO02				*eS*		**Sb**		**15 44 06.8**	**-0.6**
GO04	**Tololo Observa**	**1.28**	**74**	*eP*		**Pg**		**15 43 53.7**	**+0.5**
GO04				*eS*		**Sn**		**15 44 11.2**	**+2.2**
GO04				IAML				15 44 12.4	
	comp=Z,2μm,0.5s								
GO04	**Tololo Observa**	**1.28**	**74**	*iP*		**Pg**		**15 43 53.4**	**+0.2**
GO04				*eS*		**Sn**		**15 44 10.3**	**+1.3**
CO03	**El Pedregal**	**1.35**	**103**	*eP*		**Pb**		**15 43 54.0**	**+0.5**
CO03				*eS*		**Sg**		**15 44 13.8**	**+1.6**
CO03				IAML				15 44 16.2	
	comp=Z,366nm,0.5s								
CO03	**El Pedregal**	**1.35**	**103**	*eP*		**Pn**		**15 43 53.6**	**+0.8**
CO03				*eS*		**Sb**		**15 44 10.0**	**-0.7**
CO03				IAML				15 44 14.3	
	comp=E,858nm,0.2s								
CO04	**Los Peladeros**	**1.84**	**145**	*eP*		**Pb**		**15 44 02.2**	**+0.2**
CO04				*eS*		**Sn**		**15 44 23.5**	**+0.6**
CO04				IAML				15 44 32.3	
	comp=N,479nm,0.2s								
CO01	**Juntas del Tor**	**1.92**	**74**	*eP*		**Pb**		**15 44 04.1**	**+0.8**
CO01				IAML				15 44 34.1	
	comp=N,199nm,0.3s								
LCO	**Las Campanas**	**2.01**	**41**	*iP*		**Pb**		**15 44 04.8**	**-0.2**
LCO				IAML				15 44 37.7	
	comp=N,964nm,0.3s								
AC05	**El Transito**	**2.40**	**45**	*eP*		**Pb**		**15 44 10.7**	**-0.6**
AC05				IAML				15 44 49.8	
	comp=N,154nm,0.7s								
AROD	**Rodeo**	**2.40**	**82**	*eP*		**Pb**		**15 44 12.6**	**+1.1**
ROCH	**El Roble**	**2.64**	**157**	IAML				15 44 58.4	
	comp=N,469nm,0.5s								
VA03	**San Esteban**	**2.64**	**148**	IAML				15 44 57.1	
	comp=E,457nm,0.1s								
ACCO	**Cerro Coronel**	**2.72**	**92**	*eP*		**Pb**		**15 44 17.7**	**+0.7**
ACCO				*eS*		**Sg**		**15 44 55.8**	**-0.2**
ACCO				IAML				15 44 59.0	
	comp=Z,125nm,1.0s								
RTLS	**Leoncito**	**2.80**	**117**	*eP*		**Pb**		**15 44 18.6**	**+0.3**
RTLS				*eS*		**Sg**		**15 44 56.5**	**-2.1**
RTLS				IAML				15 44 59.1	
	comp=Z,263nm,0.6s								
MT02	**Curacav**	**2.87**	**162**	IAML				15 45 06.8	
	comp=E,50nm,0.5s								
PEL	**Peldehue**	**2.91**	**154**	IAML				15 45 02.8	
	comp=E,113nm,0.4s								
AUSP	**Uspallata**	**2.95**	**125**	*eP*		**Pb**		**15 44 20.4**	**-0.4**
AUSP				*eS*		**Sb**		**15 44 57.0**	**+0.2**
MT05	**Renca**	**3.11**	**157**	IAML				15 45 13.3	
	comp=E,322nm,0.5s								
MT14	**Cerro Calan**	**3.19**	**154**	IAML				15 45 11.8	
	comp=E,341nm,0.9s								
MT16	**CCHEN**	**3.22**	**154**	IAML				15 45 16.4	
	comp=N,96nm,0.7s								
FCH	**Farellones**	**3.23**	**150**	IAML				15 45 14.7	
	comp=E,54nm,0.4s								
MT15	**Las Vizcachas**	**3.38**	**155**	IAML				15 45 16.9	
	comp=N,173nm,0.4s								
MT13	**San Alfonso**	**3.59**	**153**	IAML				15 45 25.9	
	comp=N,75nm,0.2s								
AVFE	**Valle Fertil**	**4.11**	**93**	*eP*		**Pn**		**15 44 27.5**	**-3.3**
AVFE				*eP*		Pb		15 44 35.8	-4.7
AVFE				*eS*		**Sb**		**15 45 27.5**	**-2.5**
AVFE				IAML				15 45 44.5	
	comp=Z,28nm,0.6s								
ACLC	**CERRO LA CRUZ**	**4.70**	**78**	*eP*		Pn		15 44 44.8	+5.7
ACLC				*eS*		**Sb**		**15 45 44.0**	**-3.2**
ACLC				IAML				15 45 52.0	
	comp=Z,20nm,1.2s								

*SKO **11** 15:49:08.5,41˚.61N×20˚.83E,h13km, ML2.4*
*BEO **11** 15:49:09.7±0.5,41˚.71N×20˚.76E,h9km±3km,ML2.1/8*
*TIR **11** 15:49:09.0,41˚.63N×20˚.68E,h8km±2km,ML2.4,ML2.4, Presumed earthquake*
*PDG **11** 15:49:09.4±0.1,41˚.63N×20˚.58E,h5km, ML2.5/12,Error ellipse: s-maj=0.2km s-min=0.4km az=0.0*

ISC 11 15:49:08.4±1.1,41˚.65N±0˚.02×20.76E±0˚.02,h4km±9km, n43,σ1°912/80,1C-1D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.24**	**279**	Pg		**Pg**		**15 49 11.6**	**-1.5**
PHP				Sg		**Sg**		**15 49 14.7**	**-1.5**
PHP				IAML				15 49 15.2	
	5μm,0.2s								
OHR	**Ohrid**	**0.54**	**177**	⇓*iPg*		**Pg**		**15 49 18.4**	**-0.4**
OHR				*eLg*		Lg		15 49 27.0	
	comp=E,195nm,0.6s								
OHR				*i* Sg		**Sg**		**15 49 27.2**	**+1.4**
OHR				*eLg*		Lg		15 49 27.4	
	comp=N,299nm,0.3s								
SKO	**Skopje**	**0.60**	**58**	*i* Pg		**Pg**		**15 49 20.0**	**-0.1**
SKO				*i* Sg		**Sg**		**15 49 28.8**	**+0.9**
TIR	**Tirane**	**0.73**	**246**	Pg		**Pg**		**15 49 21.5**	**-1.0**
TIR				Sg		**Sg**		**15 49 32.5**	**+0.5**
TIR				IAML				15 49 35.3	
	comp=N,71nm,0.3s								
SDA	**Shkodra**	**1.02**	**294**	Pg		**Pg**		**15 49 28.9**	**+0.9**
SDA				Sg		**Sg**		**15 49 42.3**	**+1.0**
SDA				IAML				15 49 51.4	
	comp=N,179nm,0.3s								
KBN	**Korca**	**1.02**	**179**	Pg		**Pg**		**15 49 28.4**	**+0.3**
KBN				Sg		**Sb**		**15 49 42.8**	**+0.1**
PVY	**Plav**	**1.11**	**328**	*eP*		**Pg**		**15 49 29.0**	**-0.8**
PVY				*i* Sg		**Sg**		**15 49 45.8**	**+1.5**
BERA	**Berati**	**1.12**	**213**	Pg		**Pg**		**15 49 29.3**	**-0.7**
BERA				Sg		**Sn**		**15 49 46.2**	**-0.6**
BERA				IAML				15 49 50.4	
	comp=N,71nm,0.5s								
BERA				IAML				15 49 51.6	
	comp=N,71nm,0.4s								
ULC	**Ulcinj**	**1.17**	**286**	*eP*		**Pb**		**15 49 28.8**	**-2.5**
ULC				*i* Sg		**Sb**		**15 49 45.6**	**-1.2**
NEST	**Nestorio**	**1.25**	**170**	Pg		**Pn**		**15 49 30.9**	**-1.9**
NEST				Sg		**Sg**		**15 49 49.4**	**+0.7**
NEST				IAML				15 49 53.8	
	comp=N,107nm,0.7s								
NEST				IAML				15 49 55.6	
	comp=N,107nm,0.5s								
DRME	**Dracevica, Mon**	**1.29**	**295**	*eP*		**Pn**		**15 49 31.3**	**-1.9**
DRME				*i* Sg		**Sb**		**15 49 49.7**	**-0.5**
PDG	**Podgorica**	**1.36**	**305**	*eP*		**Pn**		**15 49 34.3**	**+0.1**
PDG				*eSg*		**Sb**		**15 49 52.9**	**+0.6**
PDG	**Podgorica**	**1.36**	**305**	Pg		**Pg**		**15 49 35.9**	**+1.3**
PDG				Sg		**Sg**		**15 49 53.7**	**+1.4**
PDG	**Podgorica**	**1.36**	**305**	*eP*		**Pn**		**15 49 33.1**	**-1.1**
PDG				*i* Sg		**Sb**		**15 49 52.9**	**+0.6**
IVA	**Berane**	**1.38**	**333**	*eP*		**Pn**		**15 49 34.3**	**-0.3**
IVA				*i* Sg		**Sg**		**15 49 55.2**	**+2.4**
VAY	**Valandovo**	**1.40**	**103**	*i* Pg		**Pn**		**15 49 34.3**	**-0.4**
VAY				*i* Sg		**Sb**		**15 49 53.2**	**-0.2**
VAY				*eLg*		Lg		15 49 54.3	
	comp=E,18nm,0.4s								
VAY				*eLg*		Lg		15 49 54.5	
	comp=N,25nm,0.4s								
BARS	**Barje**	**1.41**	**34**	*eP*		**Pn**		**15 49 33.8**	**-1.1**
BARS				*eSg*		**Sn**		**15 49 53.3**	**-0.6**
	comp=N,6.1nm,0.2s								
LSK	**Leskovik**	**1.50**	**185**	Pg		**Pb**		**15 49 37.5**	**+0.5**
LSK				Sg		**Sg**		**15 49 57.9**	**+1.2**
KOME	**Kolasin**	**1.51**	**323**	*eP*		**Pn**		**15 49 36.3**	**-0.1**
KOME				*i* Sg		**Sg**		**15 49 59.0**	**+1.9**
BUM	**Brajici-Budva**	**1.53**	**296**	*eP*		**Pn**		**15 49 35.9**	**-0.8**
BUM				*i* Sg		**Sb**		**15 49 58.2**	**+0.9**
BOSS	**Bosilegrad**	**1.54**	**56**	*eP*		**Pn**		**15 49 36.7**	**0.0**
BOSS				*eSg*		**Sn**		**15 49 57.1**	**0.0**
SELS	**Selova**	**1.59**	**10**	*eP*		**Sn**		**15 49 36.6**	**-0.8**
SELS				*eSg*		**Sn**		**15 49 58.5**	**0.0**
PEHC	**Pehcevo**	**1.61**	**85**	*i* Pg		**Pn**		**15 49 37.1**	**-0.6**
PEHC				*i* Sg		**Sg**		**15 50 00.4**	**+0.2**
CEME	**Cevo**	**1.64**	**304**	*eP*		**Pn**		**15 49 37.9**	**-0.2**
CEME				*i* Sg		**Sg**		**15 50 01.9**	**+0.9**
SJES	**Sjenica**	**1.71**	**340**	*eP*		**Pn**		**15 49 39.2**	**+0.1**
SJES				*eSg*		**Sn**		**15 50 01.2**	**-0.3**
NKME	**Niksic**	**1.74**	**310**	*ePn*		**Pn**		**15 49 40.2**	**+0.7**
NKME				*i* Sn		**Sg**		**15 50 05.5**	**+1.0**
SRN	**Sarande**	**1.86**	**198**	Pn		**Pb**		**15 49 43.2**	**+0.3**
SRN				Sn		**Sg**		**15 50 09.4**	**+1.3**
HCY	**Herceg Novi**	**1.86**	**296**	*ePn*		**Pn**		**15 49 41.9**	**+0.8**
HCY				*i* Sn		**Sb**		**15 50 08.0**	**+1.3**
GOCS	**Kraljevo Serbi**	**1.91**	**3**	*ePn*		**Pn**		**15 49 40.8**	**-1.1**
GOCS				*eSg*		**Sb**		**15 50 08.5**	**+0.3**
IVAS	**Ivanjica**	**1.98**	**347**	*ePn*		**Pn**		**15 49 41.7**	**-1.0**
BRY	**Bratogost**	**2.07**	**308**	*ePn*		**Pn**		**15 49 45.3**	**+1.2**
BRY				*i* Sn		**Sb**		**15 50 13.4**	**+0.7**
UPM	**Unac-Piva**	**2.07**	**319**	⇑*iPn*		**Pn**		**15 49 45.5**	**+1.3**
UPM				*i* Sn		**Sb**		**15 50 13.8**	**+1.0**
TREB	**Trebinje**	**2.08**	**302**	*ePn*		**Pn**		**15 49 45.3**	**+1.2**
VTS	**Vitosha**	**2.08**	**61**	*ePn*		**Pn**		**15 49 44.4**	**+0.1**
ZAPS	**Zavoj**	**2.14**	**40**	*ePn*		**Pn**		**15 49 44.8**	**-0.1**
ZAPS				*eSn*		**Sn**		**15 50 11.3**	**-0.6**
IGT	**Igoumenitsa**	**2.14**	**189**	*ePn*		**Pn**		**15 49 46.5**	**+1.6**
DBRK	**Dubrovnik**	**2.19**	**299**	*ePn*		**Pn**		**15 49 46.4**	**+0.8**
DBRK				Sn		**Sn**		**15 50 15.1**	**+1.9**
ZAGS	**Zajecar**	**2.42**	**26**	*ePn*		**Pn**		**15 49 47.7**	**-1.1**
BBLS	**Lazi&#263i**	**2.43**	**336**	*ePn*		**Pn**		**15 49 47.9**	**-1.1**
BBLS				*eSn*		**Sn**		**15 50 18.9**	**-0.2**
STON	**Ston**	**2.58**	**299**	*ePn*		**Pn**		**15 49 51.3**	**+0.4**
STON				Sn		**Sn**		**15 50 24.4**	**+1.8**
TEKS	**Tekeris**	**3.03**	**343**	*ePn*		**Pn**		**15 49 56.1**	**-1.1**
LSTV	**Lastovo**	**3.08**	**293**	*ePn*		**Pn**		**15 49 56.3**	**-1.5**
LSTV				Sn		**Sn**		**15 50 31.7**	**-3.4**
MAKA	**Makarska**	**3.21**	**302**	*ePn*		**Pn**		**15 49 59.1**	**-0.5**
MAKA				Sn		**Sn**		**15 50 39.1**	**+0.8**

*SKO **11** 15:52:49.4,41˚.59N×20˚.92E,h0km,ML2.2*
*TIR **11** 15:52:49.5,41˚.61N×20˚.69E,h8km±3km,ML2.2,ML2.2, Presumed earthquake*
*BEO **11** 15:52:50.3±0.6,41˚.71N×20˚.82E,h12km±3km, ML2.0/7*
*PDG **11** 15:52:50.1±0.1,41˚.65N×20˚.64E,h10km,ML2.6/13,Error ellipse: s-maj=0.6km s-min=0.7km az=0.0*

ISC 11 15:52:48.9±1.1,41˚.66N±0˚.02×20.79E±0˚.02,h3km±10km, n42,σ1°919/76,2C-4D,Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.26**	**276**	Pg		**Pg**		**15 52 52.3**	**-1.7**
PHP				Sg		**Sg**		**15 52 55.7**	**-1.7**
PHP				IAML				15 52 56.0	
	2μm,0.2s								
OHR	**Ohrid**	**0.55**	**179**	⇓*iPg*		**Pg**		**15 52 58.8**	**-0.6**
OHR				*i* Sg		**Sg**		**15 53 07.5**	**+1.0**
OHR				*eLg*		Lg		15 53 07.5	
	comp=E,255nm,0.9s								
OHR				*eLg*		Lg		15 53 07.8	
	comp=N,122nm,0.3s								
SKO	**Skopje**	**0.58**	**57**	*i* Pg		**Pg**		**15 52 59.7**	**-0.3**
SKO				*i* Sg		**Sg**		**15 53 08.9**	**+1.4**
TIR	**Tirane**	**0.76**	**246**	Pg		**Pg**		**15 53 03.6**	**+0.1**
TIR				Sg		**Sg**		**15 53 13.2**	**-0.2**
TIR				IAML				15 53 15.2	
	comp=N,71nm,0.2s								
KBN	**Korca**	**1.03**	**180**	Pg		**Pg**		**15 53 09.7**	**+0.9**
KBN				Sg		**Sb**		**15 53 24.2**	**+0.7**
SDA	**Shkodra**	**1.04**	**293**	Pg		**Pg**		**15 53 08.9**	**+0.1**
SDA				Sg		**Sg**		**15 53 22.9**	**+0.5**
SDA				IAML				15 53 27.7	
	comp=N,71nm,0.3s								
PVY	**Plav**	**1.12**	**327**	*eP*		**Pb**		**15 53 10.1**	**-0.9**
PVY				*i* Sg		**Sg**		**15 53 26.6**	**+1.7**
ULC	**Ulcinj**	**1.20**	**285**	*eP*		**Pn**		**15 53 10.1**	**-2.5**
ULC				*i* Sg		**Sb**		**15 53 27.2**	**-0.9**
NEST	**Nestorio**	**1.26**	**171**	Pg		**Pn**		**15 53 13.1**	**-0.4**
NEST				Sg		**Sn**		**15 53 31.5**	**+0.5**
NEST				IAML				15 53 33.6	
	comp=N,71nm,0.5s								
NEST				IAML				15 53 35.6	
	comp=N,71nm,0.4s								
DRME	**Dracevica, Mon**	**1.31**	**294**	*eP*		**Pn**		**15 53 12.6**	**-1.5**
DRME				*i* Sg		**Sb**		**15 53 31.6**	**+0.2**
VAY	**Valandovo**	**1.38**	**104**	⇓*iPg*		**Pn**		**15 53 15.0**	**0.0**
VAY				*i* Sg		**Sn**		**15 53 33.1**	**-0.7**
VAY				*eLg*		Lg		15 53 33.7	
	comp=E,16nm,0.3s								
VAY				*eLg*		Lg		15 53 34.1	
	comp=N,25nm,0.6s								
PDG	**Podgorica**	**1.38**	**304**	*eP*		**Pn**		**15 53 15.9**	**+0.8**
PDG				*eSg*		**Sb**		**15 53 34.4**	**+1.0**
PDG	**Podgorica**	**1.38**	**304**	Pg		**Pn**		**15 53 15.4**	**+0.3**
PDG				Sg		**Sg**		**15 53 34.8**	**+1.6**
PDG	**Podgorica**	**1.38**	**304**	*eP*		**Pn**		**15 53 14.0**	**-1.1**
PDG				*i* Sg		**Sb**		**15 53 34.3**	**+0.9**
IVA	**Berane**	**1.38**	**331**	*eP*		**Pn**		**15 53 14.9**	**-0.3**
IVA				*i* Sg		**Sg**		**15 53 34.9**	**+1.6**
BARS	**Barje**	**1.38**	**33**	*eP*		**Pn**		**15 53 14.1**	**-1.1**
BARS				*eSg*		**Sn**		**15 53 33.9**	**-0.1**
BOSS	**Bosilegrad**	**1.51**	**56**	*eP*		**Pn**		**15 53 16.2**	**-0.7**
BOSS				*eSg*		**Sn**		**15 53 36.7**	**-0.4**
KOME	**Kolasin**	**1.52**	**322**	*eP*		**Pn**		**15 53 17.2**	**+0.1**
KOME				*i* Sg		**Sg**		**15 53 39.8**	**+2.0**
BUM	**Brajici-Budva**	**1.55**	**295**	⇑*iPg*		**Pn**		**15 53 17.2**	**-0.3**
BUM				*i* Sg		**Sb**		**15 53 39.9**	**+1.4**
SELS	**Selova**	**1.58**	**9**	*eP*		**Pn**		**15 53 16.9**	**-1.0**
SELS				*eSg*		**Sn**		**15 53 38.1**	**-0.7**
PEHC	**Pehcevo**	**1.58**	**85**	*i* Pg		**Pn**		**15 53 18.2**	**+0.2**
PEHC				*i* Sg		**Sg**		**15 53 40.0**	**+0.2**
CEME	**Cevo**	**1.65**	**303**	*eP*		**Pn**		**15 53 19.4**	**+0.5**
CEME				*i* Sg		**Sb**		**15 53 42.9**	**+1.6**
SJES	**Sjenica**	**1.71**	**340**	*eP*		**Pn**		**15 53 19.4**	**-0.4**
SJES				*eSg*		**Sn**		**15 53 42.7**	**+0.5**
NKME	**Niksic**	**1.76**	**310**	⇓*iPn*		**Pn**		**15 53 21.4**	**+1.1**
NKME				*i* Sn		**Sb**		**15 53 45.8**	**+1.5**
SRN	**Sarande**	**1.88**	**199**	Pn		**Pb**		**15 53 23.4**	**-0.3**
SRN				Sn		**Sg**		**15 53 49.2**	**0.0**
HCY	**Herceg Novi**	**1.88**	**295**	*ePn*		**Pn**		**15 53 22.6**	**+0.6**
HCY				*i* Sn		**Sb**		**15 53 48.1**	**+0.2**
GOCS	**Kraljevo Serbi**	**1.90**	**2**	*ePn*		**Pn**		**15 53 21.2**	**-1.2**
GOCS				*eSn*		**Sn**		**15 53 46.2**	**-0.7**
PLE	**Pljevlja**	**1.97**	**329**	⇑*iPn*		**Pn**		**15 53 24.9**	**+1.6**
PLE				*i* Sn		**Sb**		**15 53 51.0**	**+0.6**
IVAS	**Ivanjica**	**1.97**	**346**	*ePn*		**Pn**		**15 53 21.2**	**-2.1**
IVAS				*eSn*		**Sn**		**15 53 47.3**	**-1.3**
VTS	**Vitosha**	**2.06**	**61**	*ePn*		**Pn**		**15 53 23.5**	**-1.0**
UPM	**Unac-Piva**	**2.08**	**318**	*ePn*		**Pn**		**15 53 25.8**	**+0.9**
UPM				*i* Sn		**Sb**		**15 53 53.6**	**-0.2**
BRY	**Bratogost**	**2.08**	**307**	⇓*iPn*		**Pn**		**15 53 25.3**	**+0.4**
BRY				*i* Sn		**Sb**		**15 53 53.5**	**-0.3**
TREB	**Trebinje**	**2.10**	**301**	*ePn*		**Pn**		**15 53 26.6**	**+1.6**
ZAPS	**Zavoj**	**2.11**	**40**	*ePn*		**Pn**		**15 53 25.3**	**+0.1**
DBRK	**Dubrovnik**	**2.21**	**298**	*ePn*		**Pb**		**15 53 29.5**	**0.0**
DBRK				Sn		**Sn**		**15 53 55.9**	**+1.5**
GRUS	**Gruza**	**2.23**	**359**	*ePn*		**Pn**		**15 53 26.0**	**-0.8**
ZAGS	**Zajecar**	**2.40**	**26**	*ePn*		**Pn**		**15 53 28.6**	**-0.5**
BLKB	**Belogradchik**	**2.41**	**35**	*ePn*		**Pn**		**15 53 29.0**	**-0.2**
BBLS	**Lazi&#263i**	**2.43**	**336**	*ePn*		**Pn**		**15 53 28.8**	**-0.8**
TRUS	**Trudelj**	**2.58**	**354**	*ePn*		**Pn**		**15 53 30.4**	**-1.2**
STON	**Ston**	**2.59**	**299**	*ePn*		**Pn**		**15 53 34.2**	**+2.5**
STON				Sn		**Sn**		**15 54 06.2**	**+2.4**
LSTV	**Lastovo**	**3.10**	**292**	*ePn*		**Pn**		**15 53 37.5**	**-1.3**
LSTV				Sn		**Sn**		**15 54 12.3**	**-4.0**

*IDC **11** 16:24:45.4±1.0,16˚.86S×173˚.66W,h0km,mb3.8/7, mbtmp3.8/8,ML4.0/1,Error ellipse: s-maj=47.4km s-min=14.4km az=133.0*
*NEIC **11** 16:24:48.5±2.5,16˚.79S±0˚.03×173˚.3W±0˚.1,h32km±8km, mb4.3/12,Error ellipse: s-maj=19.2km s-min=3.5km az=79.0*

ISC 11 16:24:50.6±0.9,16˚.7S±0˚.2×173˚.7W±0˚.2,h35km,n40, σ0°887/31,mb4.1/13,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**3.37**	**34**	Pn		Pn		16 25 37.2	-3.7
	13nm,0.3s,baz=239,slow=5.9,SNR=14								
AFI				Sn		Sn		16 26 12.5	-7.2
	43nm,0.3s,baz=37,slow=20,SNR=15								
	66nm,0.6s								
AFI				AML		AML			
NIUE	**Niue**	**4.28**	**123**			Pn		16 25 46.0	-7.3
NIUE	**Niue**	**4.28**	**123**	P		Pn		16 25

NIF	**Nilsia**	**2.55**	**293**	PG	**Pn**	**16 33 56.6 +2.9**
NIF				MSG		16 34 25.4
	comp=Z,1.0nm,0.2s					
KAF	**Kangasniemi**	**3.15**	**266**	PB	**Pn**	**16 34 04.9 +2.8**
KAF				MSG		16 34 42.2
	comp=Z,1.2nm,0.2s					
KAF				SB	**Sn**	**16 34 43.4 +3.0**
SUF	**Sumiainen**	**3.18**	**277**	PB	**Pn**	**16 34 06.1 +3.7**
	baz=94					
SUF				MSG		16 34 43.3
	comp=Z,0.5nm,0.2s					
SUF				SB	**Sb**	**16 34 45.2 -2.7**
FIA0	**FINESS Array S**	**3.44**	**256**	PB	**Pn**	**16 34 09.5 +3.6**
FIA0				SB	**Sn**	**16 34 50.9 +3.6**
FINES	**FINESS Array B**	**3.44**	**256**	Pn	**Pn**	**16 34 07.3 +1.4**
	comp=Z,0.3nm,0.3s,baz=70,slow=14,SNR=15					
FINES				Pg	**Pb**	**16 34 10.0 -2.8**
	comp=Z,0.3nm,0.3s,baz=70,slow=14,SNR=3.3					
FINES				Sn	**Sn**	**16 34 47.1 -0.1**
	comp=Z,0.3nm,0.3s,baz=68,slow=20,SNR=5.7					
FINES				Lg	Lg	16 35 02.6
	comp=Z,0.2nm,0.3s,baz=86,slow=26,SNR=3.8					
	comp=Z,0.9nm,0.3s					
FINES				AML	AML	
KU1	**Kurvinen**	**3.46**	**335**	PN	**Pn**	**16 34 07.7 +1.5**
KEF	**Keuruu**	**3.81**	**269**	SB	**Sb**	**16 35 02.2 -3.7**
KU6	**Riekki**	**3.82**	**340**	PN	**Pn**	**16 34 12.1 +1.0**
KU2	**Taivalkoski**	**3.87**	**329**	PN	**Pn**	**16 34 14.6 +2.8**
OUF	**Merijarvi**	**4.18**	**301**	SG	**Sb**	**16 35 18.8 +2.3**
I43RU	**DUBNA INFRASON**	**6.15**	**158**	I	I	17 10 10.0
	baz=343,slow=318,SNR=1.9					
ARCES	**ARCESS Array B**	**7.72**	**340**	Pn	**Pn**	**16 35 04.1 -0.6**
	baz=145,slow=13,SNR=1.0					
	comp=Z,1.0nm,0.8s					

BER 11 16:33:26.0±1.4, 66°.73N×13°.50E, h0km±9km, ML0.4, Confirmed Earthquake, Northern Norway

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VAGH	**Vaagaholmen**	**0.09**	**273**	*eP*	Pg	16 33 27.5	-0.3
VAGH				*eS*	Sg	16 33 29.2	+0.3
VAGH				IAML		16 33 29.7	
	comp=Z,21nm,0.2s						
KONS	**Konsvik**	**0.27**	**214**	*eP*	Pg	16 33 30.6	-0.6
KONS				*eS*	Sg	16 33 34.7	0.0
KONS				IAML		16 33 35.5	
	comp=Z,6.3nm,0.4s						
RAUS	**Rausandaksla**	**0.36**	**143**	*eP*	Pg	16 33 32.3	-0.6
RAUS				*eS*	Sg	16 33 37.3	-0.2
RAUS				IAML		16 33 38.1	
	comp=Z,3.0nm,0.2s						
STOK	**Stokkvaagen**	**0.44**	**206**	*eP*	Pg	16 33 33.6	-0.8
STOK				*eS*	Sg	16 33 39.9	-0.1
STOK				IAML		16 33 40.5	
	comp=Z,3.0nm,0.6s						
LEIR	**Leirfjorden**	**0.64**	**194**	*eP*	Pg	16 33 37.1	-1.0
LEIR				*eS*	Sg	16 33 45.7	-0.7
LEIR				IAML		16 33 51.7	
	comp=Z,1.9nm,0.8s						
SALU	**Saltoluokta**	**2.07**	**69**	*eS*	Sn	16 34 26.8	-1.7

*RSNC **11** 16:40:52.8±0.0, 7°.N±3°.×7°.3W±°, h143km±6km, M3.0, mb4.4, mb3.5, ML2.6, Mw(mB)3.6*
*IDC **11** 16:40:55.3±7.5, 5°.99N×76°.36W, h106km±72km, mbtmp3.7/1, ML2.2/1, Error ellipse: s-maj=140.4km s-min=76.2km az=34.0*
ISC 11 16:40:52.9±1.0, 6°.84N±0°.03×73°.10W±0°.04, h148km±7km, n34, σ1$35/64, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.26**	**199**	P	**Pn**	**16 41 13.7 +0.2**
BARC				S	**Sn**	**16 41 28.5 -0.6**
BRJC	**Barrancabermej**	**0.65**	**282**	P	**Pn**	**16 41 15.4 +0.5**
BRJC				S	**Sn**	**16 41 32.1 +0.4**
RUSC	**La Rusia**	**0.94**	**179**	P	**Pn**	**16 41 17.7 +0.1**
RUSC				S	**Sn**	**16 41 35.5 -0.9**
TAMC	**Tame, Arauca**	**1.36**	**107**	P	**Pn**	**16 41 22.1 +1.2**
TAMC				S	**Sn**	**16 41 43.4 +1.1**
PTBC	**PUERTO BERRIO,**	**1.38**	**258**	P	**Pn**	**16 41 20.4 -0.7**
PTBC				S	**Sn**	**16 41 40.8 -1.9**
OCAC	**Ocana**	**1.41**	**351**	P	**Pn**	**16 41 22.6 +1.0**
OCAC				S	**Sn**	**16 41 43.7 +0.1**
SPBC	**San Pablo de B**	**1.52**	**219**	P	**Pn**	**16 41 22.8 +0.1**
SPBC				S	**Sn**	**16 41 44.5 -1.0**
NORC	**Norcasia**	**2.17**	**234**	P	**Pn**	**16 41 29.8 -0.2**
NORC				S	**Sn**	**16 41 57.9 -0.6**
CHIC	**Chingaza**	**2.28**	**196**	P	**Pn**	**16 41 32.1 +0.4**
CHIC				S	**Sn**	**16 42 00.8 -0.8**
ROSC	**El Rosal**	**2.33**	**212**	P	**Pn**	**16 41 32.7 +0.5**
	13nm,0.3s,baz=298,slow=16,SNR=9.6					
ROSC				S	**Sn**	**16 42 01.9 -0.6**
	32nm,0.3s,baz=126,slow=19,SNR=4.6					
	25nm,0.3s					
ROSC				AML	AML	
ROSC	**El Rosal**	**2.33**	**212**	P	**Pn**	**16 41 33.5 +1.3**
ROSC				S	**Sn**	**16 42 03.2 +0.7**
CVER	**Cruz Verde, Cu**	**2.50**	**203**	P	**Pn**	**16 41 35.1 +0.7**
CVER				S	**Sn**	**16 42 04.0 -2.3**
HELC	**Santa Helena**	**2.50**	**255**	P	**Pn**	**16 41 36.1 +1.8**
HELC				S	**Sn**	**16 42 06.4 +0.3**
UREC	**San Jos de Ur**	**2.58**	**291**	P	**Pn**	**16 41 34.2 -0.7**
UREC				S	**Sn**	**16 42 06.0 -1.3**
GUY2C	**Guyana, Caldas**	**2.77**	**235**	P	**Pn**	**16 41 39.3 +1.6**
GUY2C				S	**Sn**	**16 42 14.4 +2.2**
PTGC	**Puerto Gaitan,**	**2.79**	**160**	P	**Pn**	**16 41 37.0 -0.6**
PTGC				S	**Sn**	**16 42 10.2 -2.0**
CBOC	**Ciudad Bolivar**	**3.05**	**252**	P	**Pn**	**16 41 41.4 +0.4**
CBOC				S	**Sn**	**16 42 18.8 +0.6**
ARGC	**Ariguani, Magd**	**3.21**	**339**	P	**Pn**	**16 41 44.5 +1.6**
ARGC				S	**Sn**	**16 42 22.3 +0.7**
PRAC	**Prado**	**3.58**	**210**	P	**Pn**	**16 41 46.9 -0.8**
PRAC				S	**Sn**	**16 42 29.5 -0.7**
ORTC	**Ortega, Tolima**	**3.61**	**216**	P	**Pn**	**16 41 48.1 0.0**
ORTC				S	**Sn**	**16 42 30.3 -0.6**
APAC	**Apartado, Choc**	**3.61**	**287**	P	**Pn**	**16 41 47.6 -0.4**
APAC				S	**Sn**	**16 42 31.7 +0.9**
SJCC	**San Jacinto, C**	**3.67**	**326**	P	**Pn**	**16 41 48.1 -0.8**
SJCC				S	**Sn**	**16 42 29.7 -2.7**
URMC	**La Uribe, Meta**	**3.79**	**200**	P	**Pn**	**16 41 50.8 +0.3**
URMC				S	**Sn**	**16 42 34.8 -0.3**
LCBC	**Los crdobas,**	**3.81**	**302**	P	**Pn**	**16 41 48.1 -2.5**
LCBC				S	**Sn**	**16 42 37.5 +2.0**
CRJC	**Cerrejon, Guaj**	**4.16**	**3**	P	**Pn**	**16 41 54.6 -0.7**
CRJC				S	**Sn**	**16 42 42.1 -1.8**
GUVC	**San Jose del G**	**4.29**	**174**	P	**Pn**	**16 41 54.4 -2.6**
GUVC				S	**Sn**	**16 42 46.6 -0.2**
YOTC	**Yotoco, Valle**	**4.30**	**229**	P	**Pn**	**16 41 56.2 -1.0**
SMRC	**Santa Marta, M**	**4.44**	**346**	P	**Pn**	**16 41 58.8 -0.1**
SMRC				S	**Sn**	**16 42 48.0 -2.3**
MACC	**Macarena, Meta**	**4.72**	**189**	P	**Pn**	**16 42 01.0 -1.7**
MACC				S	**Sn**	**16 42 57.6 +0.6**
URIC	**Uribia, Colomb**	**4.96**	**13**	P	**Pn**	**16 42 04.6 -1.1**
	7.1nm,0.6s					
URIC				S	**Sn**	**16 42 59.2 -3.3**
	7.1nm,0.6s					
URIC				AML	AML	
POPC	**Popayan, Colom**	**5.56**	**220**	P	**Pn**	**16 42 14.2 +0.2**
	2.8nm,0.9s					
POPC				AML	AML	
BBAC	**Balboa, Cauca**	**6.32**	**221**	P	**Pn**	**16 42 24.9 +0.8**
BBAC				S	**Sn**	**16 43 33.6 -1.9**
ASAR	**Alice Springs**	**149.14**	**234**	PKPbc	**PKPbc**	**17 00 23.5 -1.2**
	0.2nm,0.6s,baz=121,slow=3.5,SNR=6.6					
WRA	**Warramunga Arr**	**150.36**	**241**	PKPbc	**PKPdf**	**17 00 25.4 +3.1**
	0.4nm,0.9s,baz=108,slow=2.8,SNR=6.1					

*IDC **11** 16:41:11.8±1.1, 5°.25S×151°.97E, h61km±8km, mb3.7/12, mbtmp4.1/14, MS3.0/9, Error ellipse: s-maj=21.8km s-min=10.5km az=115.0*
*NEIC **11** 16:41:11.1±1.3, 5°.31S±0°.07×152°.0E±0°.1, h51km±6km, mb4.5/24, Error ellipse: s-maj=18.3km s-min=10.8km az=89.0*
ISC 11 16:41:10.9±0.5, 5°.24S±0°.06×151°.99E±0°.08, h50km, n61, σ1$17/56, mb4.3/23, MS3.0/6, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**0.93**	**2**	P	**Pn**	**16 41 28.5 +0.9**
	5μm,0.3s,baz=272,slow=1.2,SNR=1110					
KRVT				LR	LR	16 41 42.4
	comp=Z,258nm,18.2s,baz=244,slow=33					
KRVT				S	**Sn**	**16 41 42.6 +2.7**
	6μm,0.3s,baz=218,slow=22,SNR=9.9					
KRVT	**Keravat (AS076**	**0.93**	**2**		**Pn**	**16 41 28.5 +0.9**
KRVT					**Sn**	**16 41 42.6 +2.7**
RABL	**Rabaul**	**1.05**	**10**	Pn	**Pn**	**16 41 29.6 +0.3**
MANU	**Manus Island**	**5.60**	**304**	Pn	**Pn**	16 42 37.1 +5.5
PMG	**Port Moresby**	**6.33**	**229**	P	**Pn**	**16 42 43.5 +1.8**
	17nm,0.5s,baz=46,slow=11,SNR=25					
PMG				S	**Sn**	**16 43 54.8 +2.2**
	42nm,0.3s,baz=193,slow=24,SNR=8.7					
PMG				LR	LR	16 44 36.7
	comp=Z,63nm,20.4s,baz=14,slow=32					
PMG	**Port Moresby**	**6.33**	**229**	Pn	**Pn**	**16 42 43.8 +2.2**
HNR	**Honiara**	**8.93**	**118**	P	**Pn**	**16 43 19.3 +2.0**
	25nm,0.7s,baz=270,slow=6.2,SNR=2.3					
HNR	**Honiara**	**8.93**	**118**	Pn	**Pn**	**16 43 18.6 +1.3**
CTA	**Charters Tower**	**15.78**	**200**	LR	LR	16 50 31.9
	comp=Z,91nm,18.5s,baz=50,slow=36					
GUMO	**Guam**	**20.00**	**339**	LR	LR	16 52 17.1
	comp=Z,31nm,21.4s,baz=100,slow=33					
SIJI	**Sorong**	**21.14**	**281**	P	**P**	**16 45 50.5 -1.3**
	5.0nm,0.8s,baz=120,slow=8.1,SNR=6.3					
	5.0nm,0.8s					
DZM	**Mont Dzumac**	**21.81**	**141**	LR	LR	16 53 37.2
	comp=Z,46nm,19.9s,baz=309,slow=34					
MTN	**Manton Dam**	**21.92**	**248**	P	**P**	**16 45 59.7 -0.6**
MTN				IAmb	IAmb	16 46 04.5
	comp=Z,5.8nm,0.5s					
WB0	**Warramunga Arr**	**22.40**	**228**	P	**P**	**16 46 04.5 -0.9**
WB0				IAmb	IAmb	16 46 18.5
	comp=Z,24nm,1.4s					
WR8	**Warramunga Arr**	**22.44**	**228**	P	**P**	**16 46 04.8 -0.9**
WR8				IAmb	IAmb	16 46 18.6
	comp=Z,25nm,1.4s					
WRAB	**Tennant Creek**	**22.54**	**228**	P	**P**	**16 46 05.9 -0.9**
WRAB				IAmb	IAmb	16 46 18.1
	comp=Z,23nm,1.4s					
WRA	**Warramunga Arr**	**22.55**	**228**	P	**P**	**16 46 05.8 -1.1**
	comp=Z,2.5nm,0.4s,baz=54,slow=10,SNR=35					
WRA				ScP	**ScP**	**16 53 31.4 -1.6**
	comp=Z,0.6nm,1.1s,baz=61,slow=3.1,SNR=1.8					
	comp=Z,2.5nm,0.4s					
WRA	**Warramunga Arr**	**22.55**	**228**	P	**P**	**16 46 04.0 -2.9**
INKA	**Innaminka**	**24.80**	**204**	P	**P**	**16 46 27.1 -1.2**
KNRA	**Kununurra**	**25.05**	**244**	P	**P**	**16 46 30.2 -0.5**
KNRA				IAmb	IAmb	16 46 42.8
	comp=Z,18nm,1.4s					
AS31	**Alice Springs**	**25.28**	**222**	P	**P**	**16 46 32.2 -0.6**
ASAR	**Alice Springs**	**25.28**	**222**	P	**P**	**16 46 32.4 -0.5**
	comp=Z,3.5nm,0.8s,baz=56,slow=9.3,SNR=64					
ASAR				ScP	**ScP**	**16 53 40.9 +0.5**
	comp=Z,1.2nm,1.2s,baz=42,slow=3.8,SNR=3.2					
	comp=Z,3.5nm,0.8s					
ASAR	**Alice Springs**	**25.28**	**222**	P	**P**	**16 46 31.9 -0.9**
STKA	**Stephens Creek**	**28.23**	**199**	LR	LR	16 58 26.3
	comp=Z,49nm,20.8s,baz=30,slow=37					
FITZ	**Fitzroy Crossi**	**28.74**	**241**	P	**P**	**16 47 02.8 -1.0**
FUTU	**Fugatoga**	**30.77**	**109**	P	**P**	**16 47 21.1 -0.8**
KAPI	**Kappang**	**32.10**	**269**	LR	LR	17 01 40.6
	comp=Z,25nm,19.7s,baz=88,slow=38					
MBWA	**Marble Bar**	**35.05**	**240**	P	**P**	**16 47 57.6 -1.6**
MORW	**Morawa**	**41.44**	**231**	P	**P**	**16 48 54.1 +1.2**
MORW				IAmb	IAmb	16 49 00.0
	comp=Z,17nm,1.4s					
RPZ	**Rata Peaks**	**41.84**	**159**	LR	LR	17 04 34.3
	comp=Z,16nm,20.1s,baz=278,slow=34					
CMAR	**Chiang Mai Arr**	**57.33**	**296**	P	**P**	**16 50 54.9 +0.6**
	comp=Z,0.5nm,0.3s,baz=116,slow=6.5,SNR=4.3					
	comp=Z,0.5nm,0.3s					
MA2	**Magadan**	**64.62**	**359**	LR	LR	17 15 21.2
	comp=Z,22nm,21.7s,baz=133,slow=32					
SONM	**Songino Array**	**66.27**	**328**	P	**P**	**16 51 54.1 +0.1**
	comp=Z,0.3nm,0.4s,baz=141,slow=4.8,SNR=2.4					
	comp=Z,0.3nm,0.4s					
SONM	**Songino Array**	**66.27**	**328**	P	**P**	**16 51 54.8 +0.8**
Q19K	**Cape Douglas,**	**77.09**	**26**	P	**P**	**16 52 57.9 -0.9**
TIXI	**Tiksi**	**78.22**	**353**	LR	LR	17 25 27.5
	comp=Z,11nm,20.7s,baz=164,slow=34					
CNPM	**China Poot**	**78.46**	**26**	P	**P**	**16 53 06.4 +0.1**
J20K	**Nowinta River**	**79.88**	**21**	P	**P**	**16 53 13.7 -0.3**
MKAR	**Makanchi Array**	**80.12**	**319**	P	**P**	**16 53 15.2 -0.5**
	comp=Z,0.6nm,0.8s,baz=273,slow=4.4,SNR=3.8					
	comp=Z,0.6nm,0.8s					
MKAR	**Makanchi Array**	**80.12**	**319**	P	**P**	**16 53 14.6 -1.1**
E19K	**Redstone River**	**80.84**	**18**	P	**P**	**16 53 19.6 +0.5**
E19K				IAmb	IAmb	16 53 24.7
	comp=Z,7.9nm,1.3s					
ZALV	**Zalesovo Beam**	**81.07**	**327**	P	**P**	**16 53 20.2 -0.4**
	comp=Z,0.4nm,0.3s,baz=101,slow=7.5,SNR=2.1					
	comp=Z,0.4nm,0.3s					
D19K	**Kuna River**	**81.24**	**17**	P	**P**	**16 53 21.3 +0.1**
ILAR	**Eielson Array**	**82.87**	**22**	P	**P**	**16 53 28.6 -1.2**
	comp=Z,0.9nm,0.8s,baz=246,slow=5.5,SNR=6.0					
	comp=Z,0.9nm,0.8s					
D22K	**Ayikyak River**	**83.06**	**17**	P	**P**	**16 53 31.3 +0.6**
KURBB	**Kurdov Arra**	**83.64**	**322**	P	**P**	**16 53 32.6 -1.5**
	comp=Z,0.8nm,0.2s,baz=111,slow=2.3,SNR=1.3					
	comp=Z,0.8nm,0.2s					
D23K	**Nanushuk River**	**83.71**	**18**	P	**P**	**16 53 34.9 +0.8**
D23K				IAmb	IAmb	16 53 56.8
	comp=Z,8.4nm,1.2s					
TOLK	**Toolik Lake Re**	**83.88**	**18**	P	**P**	**16 53 35.0 +0.1**
TOLK				IAmb	IAmb	16 54 00.2
	comp=Z,6.5nm,1.2s					
QSPA	**South Pole Qui**	**84.72**	**180**	P	**P**	**16 53 38.9 -0.5**
	comp=Z,1.4nm,0.8s,baz=74,slow=2.0,SNR=8.0					
	comp=Z,1.4nm,0.8s					
QSPA	**South Pole Qui**	**84.72**	**180**	P	**P**	**16 53 38.5 -0.9**
QSPA				IAmb	IAmb	16 53 40.2
	comp=Z,8.8nm,1.4s					
MAW	**Mawson**	**84.86**	**203**	P	**P**	**16 53 39.5 -0.4**
	comp=Z,1.2nm,0.6s,baz=233,slow=16,SNR=2.4					
	comp=Z,1.2nm,0.6s					
MAW	**Mawson**	**84.86**	**203**	P	**P**	**16 53 39.4 -0.4**
BMAR	**Burnt Mountain**	**84.94**	**20**	P	**P**	**16 53 41.1 +0.7**
C27K	**Jago River**	**86.20**	**18**	P	**P**	**16 53 47.4 +0.8**
C27K				IAmb	IAmb	16 54 05.3
	comp=Z,5.0nm,1.3s					
H31M	**Peel River**	**88.12**	**23**	P	**P**	**16 53 55.2 -0.7**
H31M				IAmb	IAmb	16 54 35.5
	comp=Z,5.9nm,1.3s					
NVAR	**Mina Array Bea**	**92.99**	**52**	P	**P**	**16 54 19.7 +0.2**
	comp=Z,0.3nm,0.5s,baz=264,slow=4.3,SNR=3.6					
	comp=Z,0.3nm,0.5s					
AKASG	**Malin Array Be**	**114.37**	**324**	PKP	PKPdf	16 59 43.6 -1.5
	comp=Z,0.7nm,0.4s,baz=50,slow=1.4,SNR=4.4					
GERES	**GERESS Array B**	**124.00**	**328**	PKP	**PKPdf**	**17 00 03.4 -0.5**
	comp=Z,0.4nm,0.5s,baz=8.1,slow=1.9,SNR=4.9					
GERES	**GERESS Array B**	**124.00**	**328**		**PKiKP**	**17 00 03.8 -0.4**
HRV	**Adam Dziewonsk**	**126.50**	**39**	PKPdf	**PKiKP**	**17 00 09.5 +0.3**
TORD	**Torodi Ar. Bea**	**149.67**	**287**	PKPbc	**PKPbc**	**17 00 55.8 -0.3**
	comp=Z,2.1nm,0.4s,baz=98,slow=2.0,SNR=21					

*GCG **11** 17:03:28.8±1.1, 17°.07N×91°.74W, h22km±15km, MD4.4, Presumed earthquake*
*MEX **11** 17:03:30.9±0.5, 17°.16N×91°.74W, h10km, MD4.2, Presumed earthquake*
ISC 11 17:03:26.0±1.2, 17°.22N±0°.03×91°.77W±0°.03, h8km±10km, n24, σ1$77/40, Mexico-Guatemala border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CCIG	**Comitan**	**0.99**	**201**	*i* P	**Pg**	**17 03 44.8 -0.3**
CCIG				*i* S	**Sg**	**17 03 58.2 +0.1**
CCIG	**Comitan**	**0.99**	**201**	*eP*	**Pg**	**17 03 44.9 -0.3**
CCIG				*eS*	**Sg**	**17 03 56.5 -1.5**
TGIG		**1.37**	**252**	*i* P	**Pb**	**17 03 52.4 +0.5**
TGIG		**1.37**	**252**	*i* P	**Pb**	**17 03 52.4 +0.5**
TGIG				*eS*	**Sn**	**17 04 10.8 +1.0**
SCIG	**Sabancuy**	**1.83**	**18**	*i* P	**Pg**	**17 04 01.3 +0.2**
SCIG				*i* S	**Sg**	**17 04 24.9 0.0**
SCIG	**Sabancuy**	**1.83**	**18**	*eP*	**Pb**	**17 03 59.9 +0.2**
SCIG				*eS*	**Sn**	**17 04 21.8 +0.7**
PETF	**Flores**	**1.84**	**99**	*i* S	**Sn**	**17 04 21.2 -0.3**
PETF	**Flores**	**1.84**	**99**	*eS*	**Sn**	**17 04 21.4 0.0**
HUEH	**Huehuetenango**	**1.90**	**172**	*eS*	**Sn**	**17 04 24.1 +0.8**
PAVE	**Pavencul**	**2.05**	**191**	*eP*	**Pn**	**17 04 02.0 +1.0**
PAVE				*eS*	**Sb**	**17 04 29.7 +0.4**
PCIG		**2.05**	**223**	*eP*	**Pn**	**17 04 01.0 +0.3**
PCIG				*eS*	**Sn**	**17 04 27.2 +0.7**

PATR	**El Naranjo**	**2.13**	**192**	*eP*	**Pn**	**17 04 03.1 +1.0**
PATR				*eS*	**Sb**	**17 04 31.1 -0.7**
CHUJ	**Union Juarez**	**2.13**	**189**	*eP*	**Pn**	**17 04 02.4 +0.2**
CHUJ				*eS*	**Sb**	**17 04 31.4 -0.4**
UXUV	**UXUV**	**2.27**	**273**	*eP*	**Pn**	**17 04 02.5 -1.4**
UXUV				*eS*	**Sn**	**17 04 33.2 +1.1**
APG	**El Apazote**	**2.53**	**150**	*i* P	**Pn**	**17 04 08.0 +0.4**
RTAL	**Retalhuleu**	**2.68**	**178**	*eP*	**Pg**	**17 04 18.7 +1.4**
RTAL				*eS*	**Sg**	**17 04 50.0 -2.1**
CMIG	**Matias Romero**	**2.98**	**268**	*eP*	**Pb**	**17 04 20.1 +0.7**
CMIG				*eS*	**Sn**	**17 04 50.4 +0.8**
NEUV	**Arroyo Zacate**	**3.88**	**278**	*eP*	**Pn**	**17 04 29.0 +3.0**
NEUV				*eS*	**Sn**	**17 05 14.6 +2.8**
TEIG	**Tepich**	**4.46**	**47**	*eP*	**Pn**	**17 04 33.7 -0.3**
TEIG				*eS*	**Sn**	**17 05 22.2 -3.9**
TOIG	**Toxpalan**	**5.13**	**281**	*eP*	**Pn**	**17 04 43.7 +0.5**
TOIG				*eS*	**Sn**	**17 05 42.4 -0.3**
JAUV	**Jalcomulco**	**5.24**	**295**	*eP*	Pn	17 04 50.0 +5.2
JAUV				*eS*	**Sn**	**17 05 42.5 -3.0**
YOIG	**Yosondua**	**5.54**	**267**	*eS*	**Sn**	**17 05 52.8 -0.3**
TXIG	**Tlaxiaco**	**5.73**	**271**	*eS*	**Sn**	**17 05 50.8 -7.1**
FTIG	**Fresnillo de T**	**6.11**	**277**	*eP*	**Pn**	**17 04 56.7 -0.1**
FTIG				*eS*	**Sn**	**17 06 06.1 -0.9**

*MAN **11** 17:07:24.0, 9°.13N×126°.44E, h18km, MS4.1*
MAN INTENSITY III - BAYABAS AND TANDAG CITY SURIGAO DEL SUR; . INTENSITY II - LANUZA SURIGAO DEL SUR.
*NEIC **11** 17:07:27.0±2.2, 9°.13N±0°.07×126°.3E±0°.1, h62km±2km, mb4.4/21, Error ellipse: s-maj=20.0km s-min=10.6km az=84.0*
*IDC **11** 17:07:28.5±2.1, 9°.13N×126°.35E, h80km±20km, mb3.7/18, mbtmp4.0/20, MS2.8/7, Error ellipse: s-maj=23.6km s-min=11.7km az=74.0*
ISC 11 17:07:21.8±0.6, 9°.20N±0°.03×126°.53E±0°.06, h20km±5km, n78, σ1$59/87, mb4.3/26, MS2.7/5, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSSP	**Tandag City**	**0.36**	**245**	*eP*	**Pn**	**17 07 31.9 +0.1**
TSSP				*eS*	**Sn**	**17 07 37.7 -0.5**
BIPH	**Bislig**	**1.02**	**189**	*eP*	**Pn**	**17 07 40.8 -0.1**
BIPH				*eS*	**Sb**	**17 07 52.4 -1.3**
CDOP	**Cateel, Davao**	**1.41**	**184**	*i* P	**Pn**	**17 07 46.4 +0.1**
CDOP				*i* S	**Sb**	**17 08 03.7 -1.2**
BUKP	**Musuan**	**1.95**	**228**	*i* P	**Pb**	**17 07 56.2 -0.5**
BUKP				*i* S	**Sn**	**17 08 18.3 +0.6**
CGP	**Cagayan de Oro**	**1.96**	**248**	*i* P	**Pn**	**17 07 54.9 +1.1**
CGP				*i* S	**Sn**	**17 08 17.6 -0.1**
DAV	**Davao City (W)**	**2.31**	**204**	P	**Pb**	**17 08 01.9 -0.9**
	116nm,0.3s,baz=190,slow=3.5,SNR=4.4					
DAV				S	**Sb**	**17 08 30.1 -0.8**
	260nm,0.4s,baz=82,slow=21,SNR=7.9					
DAV				LR	LR	17 09 11.7
	comp=Z,311nm,19.3s,baz=7.0,slow=47					
DAV	**Davao City (W)**	**2.31**	**204**		**Pn**	**17 07 59.8 +1.1**
DAV					**Sb**	**17 08 33.9 +2.9**
DMPH	**Davao City--Mi**	**2.33**	**206**	*eP*	**Pn**	**17 07 58.5 -0.4**
DMPH				*i* S	**Sb**	**17 08 35.7 +4.2**
PLP	**Palo**	**2.48**	**322**	*eP*	**Pb**	**17 08 04.7 -0.9**
PLP				*eS*	**Sb**	**17 08 34.7 -1.0**
KCP	**Kidapawan**	**2.60**	**213**	*i* P	**Pb**	**17 08 05.1 -2.6**
KCP				*i* S	**Sn**	**17 08 33.9 +0.1**
TBP	**Tagbilaran**	**2.67**	**281**	*eP*	**Pn**	**17 08 06.0 +2.4**
TBP				*eS*	**Sn**	**17 08 36.7 +1.2**
LLP	**Lapu-Lapu**	**2.76**	**294**	*eP*	**Pb**	**17 08 08.7 -1.7**
LLP				*i* S	**Sb**	**17 08 43.0 -0.8**
LSIP	**Lazi, Siquijor**	**2.86**	**269**	*i* P	**Pn**	**17 08 08.0 +1.8**
LSIP				*i* S	**Sn**	**17 08 43.3 +3.2**
CTBH	**Cotabato--PC H**	**2.99**	**229**	*i* P	**Pn**	**17 08 10.8 +2.7**
DDMP	**Don Marcelino,**	**3.18**	**195**	*eP*	**Pn**	**17 08 12.9 +2.3**
DDMP				*eS*	**Sn**	**17 08 49.7 +1.7**
DCPH	**Dipolog City**	**3.19**	**259**	*i* P	**Pn**	**17 08 13.2 +2.3**
DCPH				*i* s	**Sn**	**17 08 47.5 -0.9**
SNPH	**Sibulan**	**3.25**	**273**	*i* P	**Pn**	**17 08 14.4 +2.7**
SNPH				*i* S	**Sb**	**17 08 55.4 -2.7**
GSPH	**General Santos**	**3.46**	**207**	*i* P	**Pn**	**17 08 13.2 -1.5**
GSPH				*i* S	**Sn**	**17 08 56.9 +1.7**
TOLI2	**Tolitoli**	**9.86**	**216**	Pn	**Pn**	**17 09 43.9 +1.4**
SIJI	**Sorong**	**11.06**	**154**	P	**Pn**	**17 10 02.6 +3.7**
	4.1nm,0.3s,baz=105,slow=23,SNR=19					
SIJI				LR	LR	17 15 44.1
	comp=Z,25nm,18.4s,baz=306,slow=45					
FAKI	**Fak Fak**	**13.32**	**154**	Pn	**Pn**	**17 10 32.1 +2.2**
YULB	**Ta-li**	**14.98**	**341**	Pn	**Pn**	**17 10 54.9 +2.5**
TPUB	**Ta-pu**	**15.12**	**339**		**P**	**17 10 58.8 -0.5**
MTN	**Manton Dam**	**22.37**	**

comp=Z,1.8nm,0.4s,baz=124,slow=7.0,SNR=22
comp=Z,1.8nm,0.4s
KK31 Karatay Array 59.18 315 P **P** **17 17 19.9 -1.6**
KK31 IAmb IAmb 17 17 21.8
comp=Z,4.7nm,1.5s
KKAR Karatay Array 59.18 315 P **P** **17 17 19.9 -1.6**
TIXI Tiksi 62.41 1 P **P** **17 17 43.9 +1.0**
TIXI IAmb IAmb 17 17 44.0
comp=Z,3.2nm,0.6s
BVAR Borovoye Array 62.69 326 P **P** **17 17 44.8 -0.3**
comp=Z,1.6nm,0.6s,baz=101,slow=7.7,SNR=6.0
comp=Z,1.6nm,0.6s
NRIK Noril'sk 65.11 346 P **P** **17 18 00.0 -0.7**
comp=Z,2.4nm,0.6s,baz=135,slow=6.5,SNR=4.5
comp=Z,2.4nm,0.6s
NRIK Noril'sk 65.11 346 P **P** **17 18 00.3 -0.4**
NRIK IAmb IAmb 17 18 29.1
comp=Z,10nm,1.5s
URZ Urewera 66.70 139 LR LR 17 51 38.8
comp=Z,12nm,18.4s,baz=342,slow=40
ILAR Eielson Array 80.29 26 P **P** **17 19 31.1 +0.1**
comp=Z,0.6nm,0.6s,baz=243,slow=4.8,SNR=12
comp=Z,0.6nm,0.6s
ILAR Eielson Array 80.29 26 P **P** **17 19 30.9 -0.1**
I27K Kandik River 82.46 25 P **P** **17 19 44.9 +2.2**
I27K IAmb IAmb 17 19 46.1
comp=Z,7.0nm,0.9s
INK Inuvik 85.18 22 P **P** **17 19 57.1 +0.8**
comp=Z,1.2nm,0.8s,baz=292,slow=6.4,SNR=3.8
comp=Z,1.2nm,0.8s
INK Inuvik 85.18 22 P **P** **17 19 56.9 +0.5**
INK IAmb IAmb 17 20 28.0
comp=Z,5.2nm,1.4s
ARCES ARCESS Array B 85.28 340 P **P** **17 19 56.4 -0.5**
comp=Z,1.8nm,0.8s,baz=87,slow=6.6,SNR=6.5
comp=Z,1.8nm,0.8s
ARCES ARCESS Array B 85.28 340 P **P** **17 19 56.1 -0.8**
H31M Peel River 85.41 24 P **P** **17 19 58.9 +1.3**
H31M IAmb IAmb 17 20 29.2
comp=Z,7.0nm,1.4s
FINES FINESS Array B 86.95 332 P **P** **17 20 04.1 -1.1**
comp=Z,0.7nm,0.5s,baz=87,slow=4.2,SNR=7.1
comp=Z,0.7nm,0.5s
FINES FINESS Array B 86.95 332 P **P** **17 20 03.5 -1.7**
VNDA Vanda 88.84 173 P **P** **17 20 13.1 -0.7**
comp=Z,0.6nm,0.8s,baz=321,slow=3.9,SNR=3.5
comp=Z,0.6nm,0.8s
VNDA Vanda 88.84 173 P **P** **17 20 11.6 -2.3**
VNDA IAmb IAmb 17 20 30.2
comp=Z,2.9nm,1.5s
PLCA Paso Flores 145.13 157 PKPbc **PKPbc** **17 26 57.5 -0.3**
comp=Z,1.3nm,0.7s,baz=117,slow=2.3,SNR=4.8
PLCA Paso Flores 145.13 157 **PKPbc** **17 26 54.1 -3.7**

*IDC **11** 17:17:48.4±2.0, 18°.91S×175°.48W, h204km±18km, mb3.6/10, mbtmp4.1/13, Error ellipse: s-maj=19.5km s-min=14.3km az=100.0*
*NEIC **11** 17:17:49.2±1.7, 18°.9S±0°.1×175°.51W±0°.10, h212km±6km, mb4.3/24, Error ellipse: s-maj=16.0km s-min=11.8km az=151.0*
ISC 11 17:17:51.0±0.6, 19°.02S±0°.09×175°.56W±0°.09, h231km, n54, σ1s35/50, mb4.1/20, 1D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**5.33**	**92**		**Pn**	**17 19 08.3**	**-2.1**
NIUE				Sn	S	17 20 01.9	-11
MSVF	**Nonsavu**	**6.20**	**281**	P	**Pn**	**17 19 20.4**	**-1.1**
	1.9nm,0.4s,baz=67,slow=11,SNR=11						
MSVF	**Nonsavu**	**6.20**	**281**		**Pn**	**17 19 19.9**	**-1.5**
AFI	**Afiamalu**	**6.24**	**36**	P	Pn	17 19 16.0	-6.0
	12nm,0.4s,baz=16,slow=21,SNR=2.1						
AFI				S	S	17 20 21.6	-13
	36nm,0.3s,baz=45,slow=17,SNR=8.5						
MARNC	**Mare, Loyalty**	**15.59**	**258**	Pn	**Pn**	**17 21 21.1**	**+2.0**
PINNC	**Pines Island,**	**16.28**	**254**	Pn	**Pn**	**17 21 29.5**	**+2.2**
DZM	**Mont Dzumac**	**17.12**	**257**	P	**Pn**	**17 21 36.3**	**-1.1**
	8.5nm,0.7s,baz=83,slow=16,SNR=5.6						
URZ	**Urewera**	**20.21**	**197**	P	**P**	**17 22 09.0**	**+0.6**
	6.1nm,0.4s,baz=4.9,slow=2.6,SNR=6.3						
URZ				S	**S**	**17 25 37.1**	**-4.9**
	10.0nm,1.2s,baz=18,slow=17,SNR=1.4						
	6.1nm,0.4s						
RTZ	**Ruatahuna**	**20.58**	**197**	P	**P**	**17 22 12.8**	**+0.3**
BFZ	**Birch Farm**	**22.71**	**196**	P	**P**	**17 22 33.9**	**+0.9**
QRZ	**Quartz Range**	**24.01**	**203**	P	**P**	**17 22 45.1**	**+0.3**
TKNZ	**Takaka Hill**	**24.04**	**202**	P	**P**	**17 22 46.9**	**+1.7**
EIDS	**Eidsvold**	**31.47**	**252**	P	**P**	**17 23 51.8**	**+0.4**
EIDS				IAmb	IAmb	17 24 31.0	
	comp=Z,18nm,1.5s						
ARMA	**Armidale**	**31.78**	**243**	P	**P**	**17 23 54.2**	**+0.1**
ARMA				IAmb	IAmb	17 24 02.9	
	comp=Z,22nm,1.5s						
TOO	**Toolangi**	**38.62**	**233**	P	**P**	**17 24 53.0**	**+0.8**
TOO				IAmb	IAmb	17 25 01.4	
	comp=Z,6.8nm,1.4s						
INKA	**Innaminka**	**40.86**	**249**	P	**P**	**17 25 11.5**	**+0.8**
H11S2	**WAKE ISLAND Hy**	**41.14**	**334**	T	T	18 09 25.0	
	baz=157,slow=76,SNR=6.6						
H11S3	**WAKE ISLAND Hy**	**41.15**	**334**	T	T	18 09 18.5	
	baz=157,slow=76,SNR=6.5						
H11S1	**WAKE ISLAND Hy**	**41.16**	**334**	T	T	18 09 20.9	
	baz=157,slow=76,SNR=4.9						
WR0	**Warramunga Arr**	**46.91**	**260**	P	**P**	**17 25 58.2**	**-0.7**
WR0				IAmb	IAmb	17 25 59.4	
	comp=Z,4.9nm,0.5s						
WR8	**Warramunga Arr**	**46.95**	**260**	P	**P**	**17 25 58.4**	**-0.7**
WR8				IAmb	IAmb	17 25 59.5	
	comp=Z,5.3nm,0.4s						
WB0	**Warramunga Arr**	**47.07**	**260**	P	**P**	**17 25 59.1**	**-0.9**
WB0				IAmb	IAmb	17 26 00.1	
	comp=Z,9.9nm,0.3s						
WB2	**Warramunga Arr**	**47.09**	**260**	P	**P**	**17 25 59.7**	**-0.5**
WRAB	**Tennant Creek**	**47.09**	**260**	P	**P**	**17 25 59.6**	**-0.6**
WRAB				IAmb	IAmb	17 26 00.1	
	comp=Z,7.0nm,0.3s						
WRA	**Warramunga Arr**	**47.10**	**260**	P	**P**	**17 25 59.9**	**-0.4**
	comp=Z,6.0nm,0.3s,baz=97,slow=5.8,SNR=138						
WRA				PcP	**PcP**	**17 27 28.1**	**-0.2**
	comp=Z,0.5nm,0.3s,baz=100,slow=3.2,SNR=3.7						
WRA	**Warramunga Arr**	**47.10**	**260**	P	**P**	**17 25 59.0**	**-1.3**
WRA					**PcP**	**17 27 28.5**	**+0.1**
AS31	**Alice Springs**	**47.10**	**255**	P	**P**	**17 26 00.3**	**-0.1**
ASAR	**Alice Springs**	**47.10**	**255**	P	**P**	**17 26 00.5**	**+0.1**
	comp=Z,5.8nm,0.6s,baz=94,slow=7.7,SNR=172						
ASAR				PcP	**PcP**	**17 27 28.6**	**+0.2**
	comp=Z,1.4nm,0.5s,baz=107,slow=4.1,SNR=8.7						
ASAR				S	**S**	**17 32 31.5**	**-3.4**
	comp=Z,0.2nm,0.7s,baz=93,slow=14,SNR=4.1						
	comp=Z,5.8nm,0.6s						
MTN	**Manton Dam**	**51.47**	**269**	P	**P**	**17 26 32.1**	**-1.3**
MTN				IAmb	IAmb	17 26 34.2	
	comp=Z,3.9nm,0.7s						
FORT	**Forrest**	**51.99**	**245**	P	**P**	**17 26 36.5**	**-0.5**
FORT				IAmb	IAmb	17 27 09.3	
	comp=Z,15nm,1.1s						
KNRA	**Kununurra**	**53.07**	**264**	P	**P**	**17 26 45.0**	**-0.1**
KNRA				IAmb	IAmb	17 26 45.6	
	comp=Z,5.8nm,0.8s						
FITZ	**Fitzroy Crossi**	**55.52**	**261**	P	**P**	**17 27 03.0**	**+0.3**
VNDA	**Vanda**	**59.59**	**186**	P	**P**	**17 27 31.0**	**+0.9**
	comp=Z,0.7nm,0.8s,baz=16,slow=6.4,SNR=4.5						
	comp=Z,0.7nm,0.8s						
VNDA	**Vanda**	**59.59**	**186**	P	**P**	**17 27 32.0**	**+1.9**
MJAR	**Matsushiro Arr**	**70.42**	**322**	P	**P**	**17 28 39.8**	**-0.5**
	comp=Z,1.1nm,0.6s,baz=157,slow=5.7,SNR=2.6						
	comp=Z,1.1nm,0.6s						
MJAR	**Matsushiro Arr**	**70.42**	**322**	IAmb	IAmb	17 28 40.7	
	comp=Z,2.1nm,0.9s						
QSPA	**South Pole Qui**	**71.05**	**180**	P	**P**	**17 28 45.0**	**+1.2**
	comp=Z,2.0nm,0.8s,baz=86,slow=0.9,SNR=11						
	comp=Z,2.0nm,0.8s						
QSPA	**South Pole Qui**	**71.05**	**180**	P	**P**	**17 28 44.9**	**+1.1**
QSPA				IAmb	IAmb	17 28 54.1	
	comp=Z,7.5nm,1.4s						
PETK	**Petropavlovsk-**	**75.47**	**344**	P	**P**	**17 29 09.2**	**-0.2**
	comp=Z,1.6nm,0.6s,baz=84,slow=8.5,SNR=4.6						
	comp=Z,1.6nm,0.6s						
PETK	**Petropavlovsk-**	**75.47**	**344**	P	**P**	**17 29 08.5**	**-0.9**
KSRS	**Korea Array**	**77.33**	**317**	P	**P**	**17 29 21.2**	**+0.9**
	comp=Z,1.5nm,0.8s,baz=145,slow=6.7,SNR=7.8						
	comp=Z,1.5nm,0.8s						
H03S2	**Juan Fernandez**	**84.92**	**124**	T	T	19 02 55.6	
	baz=249,slow=75,SNR=5.6						
H03S1	**Juan Fernandez**	**84.94**	**124**	T	T	19 02 59.8	
	baz=249,slow=75,SNR=5.1						
H03S3	**Juan Fernandez**	**84.94**	**124**	T	T	19 02 59.4	
	baz=249,slow=75,SNR=5.1						
ILAR	**Eielson Array**	**86.38**	**12**	P	**P**	**17 30 06.0**	**-0.7**
	comp=Z,0.2nm,0.7s,baz=208,slow=6.1,SNR=4.1						
	comp=Z,0.2nm,0.7s						
ELIB	**Princess Elisa**	**88.36**	**186**	*d*P	**P**	**17 30 16.9**	**+0.5**
CMAR	**Chiang Mai Arr**	**91.80**	**289**	P	**P**	**17 30 34.3**	**+1.0**
	comp=Z,0.9nm,0.8s,baz=105,slow=4.6,SNR=6.2						
	comp=Z,0.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**91.80**	**289**	P	**P**	**17 30 33.4**	**+0.2**
SONM	**Songino Array**	**96.16**	**318**	P	**P**	**17 30 54.1**	**+1.4**
	comp=Z,0.4nm,0.8s,baz=126,slow=2.5,SNR=2.1						
	comp=Z,0.4nm,0.8s						
SONM	**Songino Array**	**96.16**	**318**	IAmb	IAmb	17 31 28.5	
	comp=Z,1.2nm,1.2s						
KURBB	**Kurchatov Arra**	**114.51**	**318**	PKiKP	**PKiKP**	**17 36 05.5**	**+2.1**
	comp=Z,0.2nm,0.5s,baz=125,slow=4.7,SNR=4.1						
BRTR	**Keskin Array B**	**147.47**	**316**	PKPbc	**PKPbc**	**17 37 07.6**	**-0.5**
	comp=Z,0.5nm,0.6s,baz=354,slow=1.7,SNR=2.4						
BRTR	**Keskin Array B**	**147.47**	**316**		**PKPdf**	**17 37 03.9**	**-1.4**
GERES	**GERESS Array B**	**149.32**	**348**	PKPbc	**PKPbc**	**17 37 12.8**	**+0.3**
	comp=Z,0.2nm,0.4s,baz=356,slow=2.9,SNR=3.8						

*NEIC **11** 17:27:41.0±1.1, 17°.94N±0°.02×66°.85W±0°.02, h10km±2km, ML3.6/41, Md3.4/12(RSPR), Error ellipse: s-maj=3.9km s-min=3.1km az=1.0*
*RSPR **11** 17:27:41.8, 17°.98N×66°.88W, h8km, MD3.4/12*
*OSPL **11** 17:27:41.8±0.4, 17°.93N×66°.88W, h11km±2km, ML3.8, Presumed earthquake*
ISC 11 17:27:39.9±1.1, 17°.93N±0°.05×66°.88W±0°.02, h20km±1km, n49, σ0s60/59, 12C-2D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GBPR	**Guanica, Bosqu**	**0.05**	**359**		**Pb**	**17 27 43.3**	**-0.3**
GBPR	**Guanica, Bosqu**	**0.05**	**359**	⇑*i*P	**Pb**	**17 27 43.3**	**-0.3**
MLPR	**Magueyes Islan**	**0.16**	**285**		**Pb**	**17 27 45.3**	**-0.1**
MLPR					**Sb**	**17 27 48.3**	**-1.0**
MLPR	**Magueyes Islan**	**0.16**	**285**	IAML		17 27 49.2	
	10μm,0.1s						
MLPR				IAML		17 27 49.7	
	13μm,0.1s						
MLPR	**Magueyes Islan**	**0.16**	**285**	⇑*e*P	**Pb**	**17 27 45.3**	**-0.1**
CRPR	**Cabo Rojo, PR**	**0.23**	**290**		**Pb**	**17 27 46.4**	**+0.6**
CRPR					**Sb**	**17 27 49.7**	**-0.2**
CRPR	**Cabo Rojo, PR**	**0.23**	**290**	IAML		17 27 51.8	
	5μm,0.2s						
CRPR				IAML		17 27 52.9	
	5μm,0.4s						
CRPR	**Cabo Rojo, PR**	**0.23**	**290**	⇓*e*P	**Pb**	**17 27 46.4**	**+0.6**
CRPR	**Cabo Rojo, PR**	**0.23**	**290**	*i* P	**Pb**	**17 27 46.4**	**+0.6**
CRPR				*e*S	**Sb**	**17 27 49.6**	**-0.2**
OBIP	**Obispado Ponce**	**0.28**	**66**		**Pb**	**17 27 46.7**	**+0.3**
OBIP	**Obispado Ponce**	**0.28**	**66**	⇑*e*P	**Pb**	**17 27 47.2**	**+0.8**
OBIP				*e*S	**Sb**	**17 27 51.7**	**+0.8**
OBIP	**Obispado Ponce**	**0.28**	**66**	*i* P	**Pb**	**17 27 47.1**	**+0.7**
OBIP				*e*S	**Sb**	**17 27 51.2**	**+0.4**
OBIP				IAML		17 27 51.9	
	comp=Z,12μm,0.1s						
CELP	**Cerrillos**	**0.32**	**63**		**Pb**	**17 27 47.3**	**+0.4**
CELP	**Cerrillos**	**0.32**	**63**	⇑*e*P	**Pb**	**17 27 47.9**	**+0.9**
PRSN	**Puerto Rico Se**	**0.38**	**319**		**Pb**	**17 27 48.6**	**+0.6**
PRSN	**Puerto Rico Se**	**0.38**	**319**		**Sb**	**17 27 54.1**	**+0.7**
PRSN	**Puerto Rico Se**	**0.38**	**319**	⇑*e*P	**Pb**	**17 27 48.8**	**+0.8**
AOPR	**Arecibo Observ**	**0.43**	**16**		**Pb**	**17 27 49.1**	**+0.2**
AOPR	**Arecibo Observ**	**0.43**	**16**		**Sb**	**17 27 54.7**	**-0.2**
AOPR	**Arecibo Observ**	**0.43**	**16**	⇑*e*P	**Pb**	**17 27 49.2**	**+0.4**
AGPR	**Aguadilla, PR**	**0.58**	**338**		**Pb**	**17 27 52.0**	**+0.5**
AGPR				IAML		17 28 00.3	
	comp=Z,6μm,0.4s						
AGPR	**Aguadilla, PR**	**0.58**	**338**		**Sb**	**17 27 59.8**	**+0.4**
AGPR	**Aguadilla, PR**	**0.58**	**338**	⇑*e*P	**Pb**	**17 27 52.1**	**+0.5**
AGPR	**Aguadilla, PR**	**0.58**	**338**	*i* P	**Pb**	**17 27 52.0**	**+0.5**
AGPR				*e*S	**Sb**	**17 27 60.0**	**+0.6**
ECPR	**Experimental S**	**0.63**	**52**		**Pb**	**17 27 52.7**	**+0.4**
ECPR				IAML		17 28 04.3	
	comp=Z,5μm,0.2s						
ECPR	**Experimental S**	**0.63**	**52**		**Sb**	**17 28 01.0**	**+0.3**
ECPR	**Experimental S**	**0.63**	**52**	⇑*e*P	**Pb**	**17 27 52.9**	**+0.6**
EMPR	**Esperanza - Ma**	**0.64**	**31**		**Pn**	**17 27 53.4**	**-0.5**
EMPR					**Sn**	**17 28 02.0**	**-1.4**
EMPR	**Esperanza - Ma**	**0.64**	**31**	⇑*e*P	**Pn**	**17 27 53.4**	**-0.5**
EMPR				*e*S	**Sn**	**17 28 02.0**	**-1.4**
SJG	**San Juan**	**0.72**	**75**		**Pb**	**17 27 54.3**	**+0.5**
SJG				IAML		17 28 05.1	
	comp=Z,4μm,0.3s						
SJG	**San Juan**	**0.72**	**75**	⇓*e*P	**Pn**	**17 27 54.7**	**-0.2**
SJG	**San Juan**	**0.72**	**75**	*i* P	**Pn**	**17 27 54.6**	**-0.3**
SJG				*e*S	**Sn**	**17 28 04.4**	**-1.0**
IDE	**Isla Desecheo**	**0.73**	**309**		**Pn**	**17 27 54.9**	**-0.2**
IDE					**Sn**	**17 28 04.9**	**-0.6**
IDE	**Isla Desecheo**	**0.73**	**309**	⇑*e*P	**Pn**	**17 27 54.9**	**-0.2**
IDE				*e*S	**Sn**	**17 28 04.9**	**-0.6**
IGPR	**InterUniversit**	**0.74**	**87**		**Pn**	**17 27 55.3**	**+0.1**
IGPR					**Sn**	**17 28 05.5**	**-0.3**
IGPR	**InterUniversit**	**0.74**	**87**	⇑*e*P	**Pn**	**17 27 55.3**	**+0.1**
PDPR	**Patillas Dam,**	**0.82**	**84**		**Pb**	**17 27 56.2**	**+0.7**
PDPR				IAML		17 28 08.2	
	comp=Z,1μm,0.4s						
PDPR	**Patillas Dam,**	**0.82**	**84**		**Sb**	**17 28 06.6**	**+0.5**
PDPR	**Patillas Dam,**	**0.82**	**84**	⇑*e*P	**Pn**	**17 27 56.8**	**+0.4**
GCPR	**Guaynabo City**	**0.85**	**63**		**Pn**	**17 27 56.4**	**-0.3**
GCPR				IAML		17 28 08.0	
	comp=Z,1μm,0.4s						
HUMP	**Col San Antoni**	**1.00**	**78**		**Pb**	**17 27 58.8**	**+0.1**
HUMP				IAML		17 28 17.4	
	comp=Z,989nm,0.2s						
HUMP				IAML		17 28 17.6	
	comp=Z,1μm,0.2s						
HUMP	**Col San Antoni**	**1.00**	**78**		**Sn**	**17 28 11.9**	**-0.5**
HUMP	**Col San Antoni**	**1.00**	**78**	⇑*e*P	**Pn**	**17 27 59.1**	**+0.3**
PCDR	**Punta Cana, DR**	**1.54**	**292**	Pn	**Pn**	**17 28 06.8**	**+0.5**
BANI	**BANI**	**3.34**	**278**	Pg	**Pb**	**17 28 37.6**	**-1.0**
PODR	**Polo**	**4.20**	**274**	Pn	**Pn**	**17 28 44.0**	**+1.0**
PODR				IAML		17 29 14.2	
	comp=E,40nm,3.0s						
PODR				IAML		17 30 30.7	
	comp=N,37nm,3.2s						
SDDR	**Presa de Saban**	**4.31**	**285**		**Pb**	**17 28 55.4**	**+0.2**
SDDR				IAML		17 29 40.0	
	comp=N,40nm,3.9s						
SDDR				IAML		17 30 00.6	
	comp=N,39nm,1.6s						
URIC	**Uribia, Colomb**	**7.92**	**219**	Pn	**Pn**	**17 29 34.1**	**+0.1**
NMDO	**Nuevo Mundo**	**8.09**	**290**	Pn	**Pn**	**17 29 36.7**	**+0.4**

IDC 11 17:38:16.3±1.5, 33°.15N×95°.57E, h0km, mb3.3/3, mbtmp3.3/5, ML2.8/1, Error ellipse: s-maj=71.1km s-min=23.8km az=62.0, Qinghai

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**16.79**	**26**	Pn	Pn	17 42 13.5	+0.5
	0.4nm,0.5s,baz=199,slow=12,SNR=1.4						
MKAR	**Makanchi Array**	**16.97**	**327**	Pn	Pn	17 42 15.2	+0.1
	baz=128,slow=15,SNR=1.1						
	0.2nm,0.6s						
KURBB	**Kurchatov Arra**	**21.49**	**329**	P	P	17 43 05.7	-0.7
	1.2nm,0.7s,baz=136,slow=10,SNR=12						
	1.2nm,0.7s						
WRA	**Warramunga Arr**	**64.48**	**139**	P	P	17 48 54.0	-0.9
	0.2nm,0.5s,baz=322,slow=5.8,SNR=1.7						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**67.29**	**142**	P	P	17 49 13.6	+0.6
	0.2nm,0.8s,baz=323,slow=5.9,SNR=3.8						
	0.2nm,0.8s						

*IDC **11** 17:52:34.3±3.7, 17°.48S×176°.83W, h404km±23km, mb3.5/5, mbtmp4.3/6, Error ellipse: s-maj=69.2km s-min=28.8km az=135.0*
ISC 11 17:52:32.1±1.8, 17°.6S±0°.4×176°.5W±0°.3, h400km, n7, σ1s59/10, mb3.8/5, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**5.21**	**268**	P	**Pn**	**17 53 57.0**	**+0.6**
	31nm,0.4s,baz=105,slow=13,SNR=41						
STKA	**Stephens Creek**	**40.37**	**241**	P	**P**	**17 59 33.6**	**+0.5**
	3.3nm,0.6s,baz=88,slow=7.2,SNR=5.7						
	3.3nm,0.6s						

WRA Warramunga Arr 46.48 259 P **P** **18 00 19.7 -1.8**
0.4nm,0.4s,baz=91,slow=7.8,SNR=5.0
WRA PcP **PcP** **18 01 49.8 +1.3**
0.2nm,0.4s,baz=94,slow=3.2,SNR=2.0
0.4nm,0.4s
ASAR Alice Springs 46.63 254 P **P** **18 00 21.4 -1.1**
7.4nm,0.5s,baz=89,slow=8.0,SNR=192
ASAR PcP **PcP** **18 01 49.9 +0.9**
0.3nm,0.5s,baz=94,slow=3.7,SNR=3.4
ASAR ScP **ScP** **18 05 05.5 +1.7**
0.2nm,0.5s,baz=89,slow=3.9,SNR=6.0
7.4nm,0.5s
SIJI Sorong 53.96 282 P **P** **18 01 17.1 +0.2**
9.2nm,0.6s,baz=125,slow=12,SNR=7.5
9.2nm,0.6s
ILAR Eielson Array 85.22 12 P **P** **18 04 24.9 +0.6**
0.3nm,0.5s,baz=214,slow=7.4,SNR=4.8
0.3nm,0.5s
BRTR Keskin Array B 145.87 316 PKPbc **PKiKP** **18 11 26.1 -2.6**
0.4nm,0.6s,baz=64,slow=3.4,SNR=2.3

*IDC **11** 18:07:51.1±1.3, 37°.87N×73°.71E, h0km, mb3.7/7, mbtmp3.6/11, ML2.7/4, MS2.8/1, Error ellipse: s-maj=26.6km s-min=21.9km az=123.0*
*SOME **11** 18:07:55.4, 38°.03N×74°.13E, h10km*
*NNC **11** 18:07:57.9±1.7, 38°.10N×74°.13E, h16km±9km, mb4.2, mpv3.7, Error ellipse: s-maj=12.9km s-min=9.9km az=146.0*
ISC 11 18:07:53.5±0.9, 38°.04N±0°.06×73°.96E±0°.06, h10km, n43, σ2s34/53, mb3.7/6, 1C-4D, Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AAK	**Ala-Archa**	**4.61**	**5**	⇓Pg	**Pb**	**18 09 18.5**	**+3.9**
	5.5nm,0.5s						
AAK				⇑Lg	Lg	18 10 21.5	
	12nm,0.8s						
KST	**Kastek**	**5.22**	**16**	Pg	**Pg**	**18 09 31.0**	**-2.6**
	4.8nm,0.4s						
KST				Lg	Lg	18 10 41.2	
	25nm,0.9s						
KST	**Kastek**	**5.22**	**16**	*e*P	**Pg**	**18 09 32.0**	**-1.6**
	4.8nm,0.4s						
KST				*e*S	**Sg**	**18 10 41.2**	**0.0**
	25nm,0.9s						
DGS	**Degeres**	**5.38**	**14**	Pg	**Pg**	**18 09 35.5**	**-1.0**
	13nm,0.7s						
DGS				Lg	Lg	18 10 47.3	
	14nm,0.7s						
DGS	**Degeres**	**5.38**	**14**	*e*P	**Pg**	**18 09 35.5**	**-1.0**
	13nm,0.7s						
DGS				*e*S	**Sg**	**18 10 47.3**	**+1.2**
	14nm,0.7s						
TNSS	**Tian-Shan**	**5.48**	**24**	Pg	**Pg**	**18 09 37.1**	**-1.5**
	3.7nm,0.5s						
TNSS				Lg	Lg	18 10 50.1	
	5.9nm,1.1s						
TNSS	**Tian-Shan**	**5.48**	**24**	*e*P	**Pg**	**18 09 37.1**	**-1.5**
	3.7nm,0.5s						
TNSS				*e*S	**Sg**	**18 10 50.1**	**+0.5**
	5.9nm,1.1s						
MDOK	**Medeo**	**5.63**	**24**	Pg	**Pg**	**18 09 39.0**	**-2.4**
	9.0nm,0.6s						
MDOK				Lg	Lg	18 10 53.2	
	23nm,0.8s						
MDOK	**Medeo**	**5.63**	**24**	*e*P	**Pg**	**18 09 39.0**	**-2.4**
	9.0nm,0.6s						
MDOK				*e*S	**Sg**	**18 10 53.2**	**-1.1**
	23nm,0.8s						
KK31	**Karatay Array**	**5.70**	**334**	Pn	**Pn**	**18 09 20.3**	**+2.0**
	3.9nm,0.6s,baz=145,slow=12,SNR=42						
KK31				⇓Sn	**Sn**	**18 10 29.2**	**+5.5**
	5.5nm,0.4s,baz=147,slow=25						
KOTS	**Kotyrbulak**	**5.71**	**24**	Pg	**Pg**	**18 09 40.9**	**-2.1**
	8.7nm,0.6s						
KOTS				Lg	Lg	18 10 57.1	
	39nm,0.9s						
KOTS	**Kotyrbulak**	**5.71**	**24**	*e*P	**Pg**	**18 09 40.9**	**-2.1**
	8.7nm,0.6s						
KOTS				*e*S	**Sg**	**18 10 57.1**	**+0.1**
	39nm,0.9s						
KRBS	**Karabastau**	**5.80**	**12**	Pg	**Pg**	**18 09 42.4**	**-2.2**
	4.2nm,0.5s						
KRBS				Lg	Lg	18 10 59.4	
	15nm,0.6s						
KRBS	**Karabastau**	**5.80**	**12**	*e*P	**Pg**	**18 09 42.4**	**-2.2**
	4.2nm,0.5s						
KRBS				*e*S	**Sg**	**18 10 59.4**	**-0.2**
	15nm,0.6s						
BRLS	**Borolday**	**5.89**	**329**	Pg	Pb	18 09 43.5	+7.2
	5.6nm,0.3s						
BRLS				Lg	Lg	18 11 01.6	
	16nm,0.5s						
BRLS	**Borolday**	**5.89**	**329**	*e*P	Pb	18 09 43.5	+7.2
	5.6nm,0.3s						
BRLS				*e*S	**Sg**	**18 11 01.6**	**-1.0**
	16nm,0.5s						
KTBS	**Karatobe**	**6.03**	**19**	Pg	**Pg**	**18 09 46.1**	**-2.8**
	0.1nm,0.2s						
KTBS				Lg	Lg	18 11 05.7	
	9.4nm,0.6s						
KTBS	**Karatobe**	**6.03**	**19**	*e*P	**Pg**	**18 09 46.1**	**-2.8**
	0.1nm,0.2s						
KTBS				*e*S	**Sg**	**18 11 05.7**	**-1.4**
	9.4nm,0.6s						
SATY	**Saty**	**6.05**	**33**	Pg	**Pg**	**18 09 46.6**	**-2.8**
	9.5nm,1.0s						
SATY				Lg	Lg	18 11 06.3	
	24nm,0.8s						
SATY	**Saty**	**6.05**	**33**	*e*P	**Pg**	**18 09 46.6**	**-2.8**
	9.5nm,1.0s						
SATY				*e*S	**Sg**	**18 11 06.3**	**-1.4**
	24nm,0.8s						
KUU	**Kurty**	**6.12**	**16**	Pg	**Pg**	**18 09 48.2**	**-2.4**
	2.7nm,0.1s						
KUU				Lg	Lg	18 11

BVAR	**Borovoye Array**	**15.19**	**352**	Pn		**Pn**	**18 11 25.5**	**-2.5**	
	baz=151,slow=9.0,SNR=4.8								
	1.1nm,0.7s								
ZALV	**Zalesovo Beam**	**17.57**	**22**	P		**Pn**	**18 12 00.2**	**+1.8**	
	0.1nm,0.3s,baz=202,slow=11,SNR=1.6								
	0.5nm,0.3s								
ZALV				AML		AML			
SONM	**Songino Array**	**25.52**	**57**	P		**P**	**18 13 24.8**	**+2.6**	
	0.3nm,0.5s,baz=260,slow=8.6,SNR=3.9								
	0.3nm,0.5s								
CMAR	**Chiang Mai Arr**	**29.25**	**125**	LR		LR	18 28 11.3		
	comp=Z,19nm,19.3s,baz=175,slow=42								
FINES	**FINESS Array B**	**37.57**	**324**	P		**P**	**18 15 06.4**	**-1.3**	
	1.7nm,0.9s,baz=112,slow=7.6,SNR=4.1								
	1.7nm,0.9s								
ARCES	**ARCESS Array B**	**40.66**	**336**	P		**P**	**18 15 33.7**	**+0.2**	
	1.2nm,0.7s,baz=109,slow=7.8,SNR=3.8								
	1.2nm,0.7s								
HFS	**Hagfors**	**43.34**	**321**	P		**P**	**18 15 53.7**	**-1.8**	
	0.6nm,0.5s,baz=109,slow=11,SNR=1.9								
	0.6nm,0.5s								
TORD	**Torodi Ar. Bea**	**68.10**	**270**	P		**P**	**18 18 52.8**	**-1.0**	
	0.5nm,0.5s,baz=52,slow=4.7,SNR=2.1								
	0.5nm,0.5s								
YKA	**Yellowknife Ar**	**79.57**	**4**	P		**P**	**18 20 00.9**	**+0.5**	
	0.6nm,0.8s,baz=357,slow=5.5,SNR=2.1								
	0.6nm,0.8s								
WRA	**Warramunga Arr**	**80.85**	**124**	P		**P**	**18 20 06.5**	**-1.3**	
	0.3nm,0.7s,baz=319,slow=5.7,SNR=2.3								
	0.3nm,0.7s								

IDC 11 18:09:37.6±4.6, 47°.68N×92°.79W, h0km, mbtmp2.8/2, ML0.5/1, Error ellipse: s-maj=43.6km s-min=23.3km az=95.0, Minnesota

Code	Station Name	Δ°	AZ°	Phase	ID		Time			Res
				Op	ISC		h	m	s	ISC
ULM	**Lac du Bonnet**	**3.27**	**323**	Pn	Pn		18	10	30.4	+0.3
	0.1nm,0.3s,baz=122,slow=19,SNR=2.1									
ULM				Pg	Pb		18	10	37.9	+1.3
	0.5nm,0.3s,baz=141,slow=16,SNR=7.3									
ULM				Lg	Lg		18	11	20.6	
	4.1nm,0.3s,baz=216,slow=16,SNR=9.0									
	1.9nm,0.8s									
ULM				AML	AML					
I10CA	**LAC DU BONNET**	**3.30**	**321**	I	I		18	34	10.0	
	baz=130,slow=338,SNR=0.9									
PDAR	**Pinedale Array**	**12.80**	**254**	Pn	Pn		18	12	37.6	-3.3
	0.2nm,0.3s,baz=68,slow=9.3,SNR=2.2									
PDAR				Lg	Lg		18	16	15.2	
	baz=63,slow=34									

*NOU **11** 18:12:33.9, 17°.32S×168°.45E, h207km, MLv4.7/33, Vanuatu Islands*
*NEIC **11** 18:12:34.4±1.3, 17°.28S±0°.08×168°.34E±0°.08, h214km±5km, mb4.4/8, Error ellipse: s-maj=11.8km s-min=10.9km az=96.0*
*IDC **11** 18:12:35.8±1.8, 17°.32S×168°.32E, h236km±16km, mb3.6/10, mbtmp4.2/13, Error ellipse: s-maj=16.4km s-min=14.7km az=32.0*
ISC 11 18:12:33.0±0.6, 17°.32S±0°.05×168°.40E±0°.07, h200km, n74, σ1§91/79, mb4.1/13, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time			Res
				Op	ISC		h	m	s	ISC
DVP	**Devils Point**	**0.45**	**207**	P	**Pn**		**18**	**13**	**02.5**	**+2.6**
DVP	**Devils Point**	**0.45**	**207**	S	**Sn**		**18**	**13**	**25.3**	**+4.4**
RTV	**Rentapao**	**0.47**	**178**	P	**Pn**		**18**	**13**	**02.1**	**+2.2**
RTV	**Rentapao**	**0.47**	**178**	S	**Sn**		**18**	**13**	**24.2**	**+3.2**
SANVU	**Saraoutou**	**2.19**	**328**		**Pn**		**18**	**13**	**14.9**	**+1.4**
SANVU	**Saraoutou**	**2.19**	**328**	P	**Pn**		**18**	**13**	**14.9**	**+1.4**
SANVU				S	**Sn**		**18**	**13**	**47.4**	**+2.4**
SANVU				AML	AML					
MARNC	**Mare, Loyalty**	**4.15**	**185**	P	**Pn**		**18**	**13**	**37.0**	**+0.4**
MARNC	**Mare, Loyalty**	**4.15**	**185**		**Pn**		**18**	**13**	**37.1**	**+0.5**
MARNC				Sn	**Sn**		**18**	**14**	**20.8**	**-6.0**
YATNC	**Mamie plateau,**	**4.92**	**197**	P	**Pn**		**18**	**13**	**46.8**	**+0.4**
YATNC	**Mamie plateau,**	**4.92**	**197**	S	**Sn**		**18**	**14**	**46.3**	**+1.9**
KOUNC	**Koumac, New Ca**	**5.05**	**230**	P	**Pn**		**18**	**13**	**50.8**	**+2.8**
KOUNC	**Koumac, New Ca**	**5.05**	**230**	Pn	**Pn**		**18**	**13**	**49.0**	**+1.0**
DZM	**Mont Dzumac**	**5.07**	**201**	P	**Pn**		**18**	**13**	**50.8**	**+2.4**
	46nm,0.5s,baz=36,slow=9.0,SNR=20									
DZM				S	**Sn**		**18**	**14**	**53.1**	**+5.2**
	baz=142,slow=19									
NOUC	**Port Laguerre**	**5.15**	**202**	P	**Pn**		**18**	**13**	**51.2**	**+1.9**
NOUC	**Port Laguerre**	**5.15**	**202**	P	**Pn**		**18**	**13**	**51.4**	**+2.1**
NOUC				S	**Sn**		**18**	**14**	**53.8**	**+4.2**
NOUC				AML	AML					
OUENC	**Ouen Island, N**	**5.28**	**196**	P	**Pn**		**18**	**13**	**53.3**	**+2.4**
OUENC	**Ouen Island, N**	**5.28**	**196**		**Pn**		**18**	**13**	**51.6**	**+0.7**
ONTNC	**Ouen Toro**	**5.29**	**200**	P	**Pn**		**18**	**13**	**52.6**	**+1.5**
ONTNC	**Ouen Toro**	**5.29**	**200**	S	**Sn**		**18**	**14**	**55.0**	**+2.2**
ONTNC	**Ouen Toro**	**5.29**	**200**		**Pn**		**18**	**13**	**52.5**	**+1.5**
PINNC	**Pines Island,**	**5.34**	**190**	P	**Pn**		**18**	**13**	**53.6**	**+1.9**
PINNC	**Pines Island,**	**5.34**	**190**	Pn	**Pn**		**18**	**13**	**55.1**	**+3.4**
MSVF	**Nonsavu**	**9.21**	**94**	P	**Pn**		**18**	**14**	**45.4**	**+3.3**
	2.2nm,0.5s,baz=247,slow=22,SNR=1.7									
NGOA	**Tingoa Renbel**	**9.90**	**304**	P	**Pn**		**18**	**14**	**53.6**	**+2.6**
HNR	**Honiara**	**11.36**	**313**	P	**Pn**		**18**	**15**	**13.0**	**+3.2**
	37nm,0.8s,baz=58,slow=7.5,SNR=4.9									
HNR	**Honiara**	**11.36**	**313**		**Pn**		**18**	**15**	**09.7**	**-0.1**
TATA	**Tatamba Isabel**	**12.21**	**316**	P	**Pn**		**18**	**15**	**21.6**	**+1.0**
OUZ	**Omahuta**	**18.42**	**166**	P	**P**		**18**	**16**	**35.4**	**+2.1**
OUZ	**Omahuta**	**18.42**	**166**	P	**P**		**18**	**16**	**35.5**	**+2.3**
WCZ	**Waipu Caves**	**19.28**	**165**	P	**P**		**18**	**16**	**44.7**	**+2.1**
CTA	**Charters Tower**	**21.16**	**259**	P	**P**		**18**	**17**	**02.0**	**-0.8**
	4.4nm,0.8s,baz=89,slow=7.9,SNR=5.1									
	4.4nm,0.8s									
HAZ	**Te Kaha**	**21.97**	**160**	P	**P**		**18**	**17**	**11.4**	**+0.7**
MXZ	**Matakaoa Point**	**21.97**	**159**	P	**P**		**18**	**17**	**10.6**	**-0.2**
MXZ	**Matakaoa Point**	**21.97**	**159**	P	**P**		**18**	**17**	**11.0**	**+0.3**
RUGZ	**Raukumara Rang**	**22.12**	**160**	P	**P**		**18**	**17**	**12.4**	**0.0**
PKGZ	**Pakihiroa**	**22.16**	**159**	P	**P**		**18**	**17**	**13.5**	**+0.8**
URZ	**Urewera**	**22.21**	**162**	P	**P**		**18**	**17**	**13.6**	**+0.5**
	12nm,0.4s,baz=253,slow=2.0,SNR=14									
	12nm,0.4s									
URZ	**Urewera**	**22.21**	**162**	P	**P**		**18**	**17**	**13.7**	**+0.6**
URZ	**Urewera**	**22.21**	**162**	P	**P**		**18**	**17**	**13.7**	**+0.6**
MUGZ	**Murupara**	**22.32**	**162**	P	**P**		**18**	**17**	**15.6**	**+1.6**
PUZ	**Puketiti**	**22.41**	**159**	P	**P**		**18**	**17**	**14.9**	**0.0**
MWZ	**Matawai**	**22.41**	**161**	P	**P**		**18**	**17**	**15.5**	**+0.6**
TWGZ	**Tauwhareparae**	**22.41**	**160**	P	**P**		**18**	**17**	**15.5**	**+0.5**
RTZ	**Ruatahuna**	**22.50**	**162**	P	**P**		**18**	**17**	**15.5**	**-0.4**
RTZ	**Ruatahuna**	**22.50**	**162**	P	**P**		**18**	**17**	**16.2**	**+0.3**
RIGZ	**Rimuhau**	**22.82**	**161**	P	**P**		**18**	**17**	**18.8**	**+0.1**
BKZ	**Black Stump Fm**	**22.88**	**164**	P	**P**		**18**	**17**	**19.4**	**+0.2**
BKZ	**Black Stump Fm**	**22.88**	**164**	P	**P**		**18**	**17**	**19.7**	**+0.5**
TSZ	**Takapari Road**	**23.59**	**165**	P	**P**		**18**	**17**	**25.6**	**+0.1**
PXZ	**Pawanui**	**23.79**	**164**	P	**P**		**18**	**17**	**26.4**	**-1.0**
MRZ	**Mangatainoka R**	**24.07**	**167**	P	**P**		**18**	**17**	**29.4**	**-0.6**
BFZ	**Birch Farm**	**24.25**	**165**	P	**P**		**18**	**17**	**31.1**	**-0.4**
BFZ	**Birch Farm**	**24.25**	**165**	P	**P**		**18**	**17**	**29.4**	**-2.2**
LTZ	**Lake Taylor**	**25.59**	**173**	P	**P**		**18**	**17**	**43.9**	**+0.2**
STKA	**Stephens Creek**	**28.26**	**234**	P	**P**		**18**	**18**	**05.9**	**-1.7**
	3.7nm,1.0s,baz=54,slow=8.7,SNR=4.1									
	3.7nm,1.0s									
STKA	**Stephens Creek**	**28.26**	**234**	P	**P**		**18**	**18**	**06.7**	**-0.9**
WRAB	**Tennant Creek**	**32.34**	**260**	P	**P**		**18**	**18**	**43.3**	**-0.4**
WRA	**Warramunga Arr**	**32.35**	**260**	P	**P**		**18**	**18**	**41.8**	**-2.0**
	0.4nm,0.7s,baz=81,slow=6.6,SNR=11									
	0.4nm,0.7s									
WRA	**Warramunga Arr**	**32.35**	**260**	P	**P**		**18**	**18**	**42.1**	**-1.7**
AS01	**Alice Springs**	**32.83**	**253**	P	**P**		**18**	**18**	**47.4**	**-0.5**
AS31	**Alice Springs**	**32.87**	**253**	P	**P**		**18**	**18**	**47.6**	**-0.6**
AS31				IAmb	IAmb		18	18	48.9	
	comp=Z,5.2nm,0.5s									
ASAR	**Alice Springs**	**32.87**	**253**	P	**P**		**18**	**18**	**47.6**	**-0.7**
	comp=Z,9.1nm,0.6s,baz=80,slow=9.1,SNR=201									
ASAR				PcP	**PcP**		**18**	**21**	**26.6**	**-1.6**
	comp=Z,0.2nm,0.7s,baz=86,slow=2.8,SNR=3.1									
	comp=Z,9.1nm,0.6s									
ASAR	**Alice Springs**	**32.87**	**253**	P	**P**		**18**	**18**	**46.9**	**-1.4**
KNRA	**Kununurra**	**38.00**	**267**	P	**P**		**18**	**19**	**30.5**	**-1.5**
KNRA				IAmb	IAmb		18	19	32.5	
	comp=Z,11nm,1.1s									
FAKI	**Fak Fak**	**38.26**	**288**	P	**P**		**18**	**19**	**34.2**	**0.0**
FAKI	**Fak Fak**	**38.26**	**288**	P	**P**		**18**	**19**	**33.0**	**-1.2**
FAKI				IAmb	IAmb		18	19	37.3	
	comp=Z,21nm,1.0s									
FITZ	**Fitzroy Crossi**	**40.68**	**262**	P	**P**		**18**	**19**	**53.8**	**-0.3**
PETK	**Petropavlovsk-**	**70.74**	**353**	P	**P**		**18**	**23**	**26.2**	**-0.9**
	comp=Z,5.2nm,1.0s,baz=160,slow=6.5,SNR=2.0									
	comp=Z,5.2nm,1.0s									
QSPA	**South Pole Qui**	**72.72**	**180**	P	**P**		**18**	**23**	**38.2**	**-0.8**
	comp=Z,3.1nm,0.9s,baz=301,slow=0.7,SNR=11									
	comp=Z,3.1nm,0.9s									
QSPA	**South Pole Qui**	**72.72**	**180**	P	**P**		**18**	**23**	**38.5**	**-0.5**
QSPA				IAmb	IAmb		18	23	39.3	
	comp=Z,5.7nm,1.1s									
CMAR	**Chiang Mai Arr**	**77.00**	**294**	P	**P**		**18**	**24**	**03.4**	**-0.8**
	comp=Z,1.0nm,0.8s,baz=121,slow=3.9,SNR=7.1									
	comp=Z,1.0nm,0.8s									
NVAR	**Mina Array Bea**	**88.14**	**49**	P	**P**		**18**	**24**	**60.0**	**-1.5**
	comp=Z,0.8nm,0.7s,baz=233,slow=9.1,SNR=5.4									
	comp=Z,0.8nm,0.7s									
NVAR	**Mina Array Bea**	**88.14**	**49**	P	**P**		**18**	**24**	**59.8**	**-1.7**
ILAR	**Eielson Array**	**88.65**	**18**	P	**P**		**18**	**25**	**00.6**	**-2.3**
	comp=Z,0.2nm,0.6s,baz=248,slow=6.0,SNR=1.7									
	comp=Z,0.2nm,0.6s									

*MDD **11** 18:17:23.7±0.1, 39°.58N×2°.73W, h0km±1km, mb_Lg2.9/76, Error ellipse: s-maj=1.0km s-min=0.7km az=108.0*
*INMG **11** 18:17:25.4±1.4, 39°.60N×2°.71W, h16km±2km, ML2.6, Error ellipse: s-maj=1.4km s-min=1.1km az=101.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Cuenca (ESP)*
*SFS **11** 18:17:26.1, 39°.62N×2°.71W, h21km, ML3.4/15, ML3.6/15, MLv3.4/15*
ISC 11 18:17:23.5±1.1, 39°.59N±0°.01×2°.77W±0°.01, h9km±9km, n87, σ1§40/228, 4D, Spain

Code	Station Name	Δ°	AZ°	Phase	ID		Time			Res
				Op	ISC		h	m	s	ISC
UCM	**Universidad Co**	**0.81**	**333**	Pg	**Pg**		**18**	**17**	**39.8**	**+0.8**
UCM				Sg	**Sb**		**18**	**17**	**50.9**	**+0.2**
ESBB	**Sonseca Array**	**0.93**	**276**	↓Pg	**Pb**		**18**	**17**	**42.2**	**+0.4**
ESBB				Sg	**Sb**		**18**	**17**	**54.6**	**+0.4**
ESDC	**Sonseca Array**	**0.93**	**276**	↓Pg	**Pb**		**18**	**17**	**42.1**	**+0.3**
ESDC				Sg	**Sb**		**18**	**17**	**54.8**	**+0.6**
ESDC				IVmb_Lg			18	17	57.1	
YEBES	**Yebes (Guadala**	**0.96**	**345**	Pg	**Pb**		**18**	**17**	**42.6**	**+0.2**
YEBES				Sg	**Sg**		**18**	**17**	**56.0**	**+1.4**
YEBES				IVmb_Lg			18	17	58.2	
EXMAD	**Madrid**	**1.08**	**319**	Pg	**Pb**		**18**	**17**	**44.5**	**+0.1**
EXMAD				Sg	**Sn**		**18**	**17**	**59.8**	**-0.3**
PAB	**San Pablo**	**1.22**	**268**	↓Pg	**Pb**		**18**	**17**	**47.2**	**+0.4**
PAB				Sg	**Sg**		**18**	**18**	**03.7**	**+0.8**
PAB				IVmb_Lg			18	18	05.2	
EVIV	**Cofrentes, Val**	**1.32**	**104**	Pg	**Pn**		**18**	**17**	**47.7**	**-0.4**
EVIV				Sg	**Sb**		**18**	**18**	**04.6**	**-0.8**
EVIV				IVmb_Lg			18	18	08.2	
ETOB	**Tobarra**	**1.34**	**135**	Pn	**Pn**		**18**	**17**	**48.2**	**-0.2**
ETOB	**Tobarra**	**1.34**	**135**	Pg	**Pn**		**18**	**17**	**47.5**	**-0.9**
ETOB				Sg	**Sn**		**18**	**18**	**05.0**	**-1.4**
ETOB				IVmb_Lg			18	18	07.1	
ETOR	**Torete**	**1.34**	**24**	Pg	**Pn**		**18**	**17**	**48.3**	**-0.2**
ETOR				Sg	**Sn**		**18**	**18**	**05.2**	**-1.4**
ETOR				IVmb_Lg			18	18	08.8	
ECHE	**Chera**	**1.39**	**89**	Pn	**Pn**		**18**	**17**	**49.3**	**+0.2**
ECHE				Sn	**Sn**		**18**	**18**	**08.1**	**+0.4**
ECHE	**Chera**	**1.39**	**89**	Pg	**Pn**		**18**	**17**	**48.9**	**-0.3**
ECHE				Pn	**Pb**		**18**	**17**	**49.5**	**-0.2**
ECHE				Sn	**Sn**		**18**	**18**	**06.7**	**-1.0**
ECHE				Sg	**Sb**		**18**	**18**	**07.6**	**+0.1**
ECHE				IVmb_Lg			18	18	09.1	
GUD	**Guadarrama**	**1.50**	**315**	Pn	**Pn**		**18**	**17**	**50.9**	**+0.2**
GUD				Pg	**Pb**		**18**	**17**	**52.4**	**+0.8**
GUD				Sn	**Sn**		**18**	**18**	**10.4**	**0.0**
GUD				Sg	**Sg**		**18**	**18**	**12.8**	**+1.1**
GUD				IVmb_Lg			18	18	13.5	
E0901	**Celadas (Terue**	**1.54**	**54**	Pn	**Pn**		**18**	**17**	**50.9**	**-0.4**
E0901				Pg	**Pb**		**18**	**17**	**53.1**	**+0.9**
E0901				Sn	**Sn**		**18**	**18**	**10.8**	**-0.7**
E0901				Sg	**Sb**		**18**	**18**	**12.6**	**+0.7**
E0901				IVmb_Lg			18	18	15.5	
E0802	**Ubeda,Jaen**	**1.63**	**197**	Pn	**Pn**		**18**	**17**	**51.9**	**-0.5**
E0802				Pg	**Pb**		**18**	**17**	**54.4**	**+0.6**
E0802				Sn	**Sn**		**18**	**18**	**13.0**	**-0.6**
E0802				Sg	**Sb**		**18**	**18**	**15.3**	**+0.8**
EQES	**Quesada**	**1.80**	**188**	Pn	**Pn**		**18**	**17**	**54.3**	**-0.5**
EQES				Pg	**Pb**		**18**	**17**	**57.3**	**+0.6**
EQES				Sn	**Sn**		**18**	**18**	**17.1**	**-0.7**
EQES				Sg	**Sb**		**18**	**18**	**20.5**	**+1.1**
EQES				IVmb_Lg			18	18	22.8	
EZAR	**Zarzadilla de**	**1.91**	**154**	Pn	**Pn**		**18**	**17**	**55.8**	**-0.5**
EZAR				Pg	**Pb**		**18**	**17**	**58.9**	**+0.4**
EZAR				Sn	**Sn**		**18**	**18**	**19.5**	**-0.9**
EZAR				Sg	**Sb**		**18**	**18**	**24.1**	**+1.6**
EZAR				IVmb_Lg			18	18	26.8	
EMOS	**Mosqueruela**	**1.93**	**66**	Pn	**Pn**		**18**	**17**	**56.3**	**-0.3**
EMOS				Pg	**Pb**		**18**	**17**	**59.7**	**+0.9**
EMOS				Sn	**Sn**		**18**	**18**	**19.9**	**-1.1**
EMOS				Sg	**Sb**		**18**	**18**	**24.0**	**+1.0**
EMOS				IVmb_Lg			18	18	25.8	
AFON	**Font Roja**	**1.96**	**117**	Pn	**Pn**		**18**	**17**	**56.6**	**-0.4**
AFON				Pg	**Pb**		**18**	**18**	**00.5**	**+1.0**
AFON				Sn	**Sn**		**18**	**18**	**20.2**	**-1.6**
AFON				Sg	**Sb**		**18**	**18**	**26.2**	**+2.1**
AFON				IVmb_Lg			18	18	30.5	
EADA	**Adamuz**	**2.00**	**225**	Pn	**Pn**		**18**	**17**	**57.1**	**-0.4**
EADA				Sn	**Sn**		**18**	**18**	**22.4**	**-0.4**
EADA	**Adamuz**	**2.00**	**225**	Pn	**Pn**		**18**	**17**	**57.5**	**0.0**
EADA				Pg	**Pb**		**18**	**18**	**00.9**	**+0.8**
EADA				Sn	**Sn**		**18**	**18**	**22.7**	**-0.1**
EADA				Sg	**Sb**		**18**	**18**	**26.6**	**+1.4**
EADA				IVmb_Lg			18	18	30.2	
CIBOR	**Castaar de Ib**	**2.05**	**272**	↓Pn	**Pn**		**18**	**17**	**58.9**	**+0.6**
CIBOR				Sn	**Sn**		**18**	**18**	**23.7**	**-0.3**
CIBOR				Sg	**Sg**		**18**	**18**	**29.0**	**-0.6**
EBEN2	**Beniarda presa**	**2.20**	**114**	Pn	**Pn**		**18**	**17**	**59.5**	**-0.7**
EBEN2				Pg	**Pb**		**18**	**18**	**04.5**	**+1.0**
EBEN2				Sn	**Sn**		**18**	**18**	**27.2**	**-0.4**
EBEN2				Sg	**Sb**		**18**	**18**	**32.7**	**+1.8**
EBEN2				IVmb_Lg			18	18	39.1	
CART	**Cartagena**	**2.43**	**145**	Sg	**Sb**		**18**	**18**	**38.1**	**+0.7**
EQTA	**Presa de Quent**	**2.44**	**193**	Pg	**Pb**		**18**	**18**	**08.9**	**+1.3**
EQTA				Sg	**Sg**		**18**	**18**	**41.8**	**0.0**
EQUE	**Quentar**	**2.44**	**193**	Pn	**Pn**		**18**	**18**	**03.3**	**-0.3**
EQUE				Pg	**Pb**		**18**	**18**	**08.7**	**+1.1**
EQUE				Sn	**Sn**		**18**	**18**	**32.8**	**-0.8**
EQUE				Sg	**Sg**		**18**	**18**	**40.8**	**-1.1**
EQUE				IVmb_Lg			18	18	46.6	
ECAB	**El Cabril**	**2.56**	**235**	Pn	**Pn**		**18**	**18**	**05.8**	**+0.5**
ECAB				Sn	**Sn**		**18**	**18**	**36.3**	**-0.3**
ECAB	**El Cabril**	**2.56**	**235**	Pn	**Pn**		**18**	**18**	**05.7**	**+0.5**
ECAB				Pg	**Pb**		**18**	**18**	**11.3**	**+1.6**
ECAB				Sn	**Sn**		**18**	**18**	**36.7**	**+0.1**
ECAB				Sg	**Sg**		**18**	**18**	**44.7**	**-1.2**
ECAB				IVmb_Lg			18	18	46.2	
EPLA	**Plasencia**	**2.59**	**282**	Pn	**Pn**		**18**	**18**	**06.0**	**+0.3**
EPLA				Pg	**Pb**		**18**	**18**	**11.6**	**+1.4**
EPLA				Sn	**Sn**		**18**	**18**	**37.5**	**+0.1**
EPLA				Sg	**Sg**		**18**	**18**	**44.9**	**-2.0**
EPLA				IVmb_Lg			18	18	48.9	
ENIJ	**Nijar**	**2.65**	**170**	Pn	**Pn**		**18**	**18**	**06.2**	**-0.2**
ENIJ				Pg	**Pb**		**18**	**18**	**12.7**	**+1.6**
ENIJ				Sn	**Sn**		**18**	**18**	**38.1**	**-0.6**
ENIJ				Sg	**Sb**		**18**	**18**	**47.2**	**+3.4**
ENIJ				IVmb_Lg			18	18	51.2	
EBER	**Berja**	**2.69**	**182**	Pn	**Pn**		**18**	**18**	**07.3**	**+0.2**
EBER				Sn	**Sn**		**18**	**18**	**38.7**	**-1.2**
EBER	**Berja**	**2.69**	**182**	Pn	**Pn**		**18**	**18**	**06.8**	**-0.3**
EBER				Pg	**Pb**		**18**	**18**	**12.7**	**+0.8**
EBER				Sn	**Sn**		**18**	**18**	**38.1**	**-1.8**
EBER				Sg	**Sg**		**18**	**18**	**48.7**	**-1.2**
EBER				IVmb_Lg			18	18	56.3	
EGOR	**Sierra Gorda,**	**2.69**	**204**	Pn	**Pn**		**18**	**18**	**06.9**	**-0.2**
EGOR				Sn	**Sn**		**18**	**18**	**39.7**	**-0.2**
EGOR	**Sierra Gorda,**	**2.69**	**204**	Pn	**Pn**		**18**	**18**	**06.8**	**-0.3**
EGOR				Pg	**Pb**		**18**	**18**	**12.6**	**+0.7**
EGOR				Sn	**Sn**		**18**	**18**	**38.5**	**-1.3**
EGOR				Sg	**Sb**		**18**	**18**	**47.8**	**+2.7**
EGOR				IVmb_Lg			18	19	00.4	
ERTA	**Horta de San J**	**2.74**	**59**	Pn	**Pn**		**18**	**18**	**07.2**	**-0.4**
ERTA				Pg	**Pb**		**18**	**18**	**14.4**	**+1.8**
ERTA				Sn	**Sn**		**18**	**18**	**41.0**	**+0.2**
ERTA				Sg	**Sb**		**18**	**18**	**47.8**	**+1.6**
ERTA				IVmb_Lg			18	18	50.5	
ESAC	**San Caprasio**	**2.75**	**39**	Pn	**Pn**		**18**	**18**	**07.4**	**-0.5**
ESAC				Sn	**Sn**		**18**	**18**	**41.2**	**-0.1**
ESAC				Sg	**Sb**		**18**	**18**	**49.1**	**+2.3**
ESAC				IVmb_Lg			18	18	53.8	
ELGU	**Los Guajares,**	**2.80**	**194**	Pg	**Pb**		**18**	**18**	**15.6**	**+1.8**
ELGU				Sg	**Sb**		**18**	**18**	**51.2**	**+3.0**
ELGU	**Los Guajares,**	**2.80**	**194**	Pn	**Pn**		**18**	**18**	**08.5**	**0.0**
ELGU				Pg	**Pb**		**18**	**18**	**14.8**	**+1.1**
ELGU				Sn	**Sn**		**18**	**18**	**41.3**	**-1.2**
ELGU				Sg	**Sg**		**18**	**18**	**53.5**	**0.0**
ELGU				IVmb_Lg			18	19	03.7	
EJUZ	**Juzbado, Salam**	**2.82**	**303**	Pn	**Pn**		**18**	**18**	**09.3**	**+0.5**
EJUZ				Pg	**Pb**		**18**	**18**	**15.3**	**+1.3**
EJUZ				Sn	**Sn**		**18**	**18**	**43.0**	**+0.2**
EJUZ				Sg	**Sg**		**18**	**18**	**52.1**	**-1.9**
EIBI	**Ibiza**	**3.24**	**99**	Pn	**Pn**		**18**	**18**	**12.9**	**-1.6**
EIBI				Sn	**Sn**		**18**	**18**	**50.9**	**-2.2**
EIBI	**Ibiza**	**3.24**	**99**	Pn	**Pn**		**18**	**18**	**13.5**	**-1.0**
EBAD	**Badajoz**	**3.40**	**257**	Pn	**Pn**		**18**	**18**	**16.3**	**-0.5**
EBAD				Sn	**Sn**		**18**	**18**	**55.9**	**-1.4**
EBAD	**Badajoz**	**3.40**	**257**	Pn	**Pn**		**18**	**18**	**16.6**	**-0.2**
EBAD				Pg	**Pb**		**18**	**18**	**24.5**	**+0.5**
EBAD				Sn	**Sn**		**18**	**18**	**55.1**	**-2.1**
EBAD				Sg	**Sg**		**18**	**19**	**10.2**	**-2.6**
EBAD				IVmb_Lg			18	19	17.9	
EMIJ	**Mijas**	**3.41**	**208**	Pn	**Pn**		**18**	**18**	**15.9**	**-1.0**
EMIJ				Sn	**Sn**		**18**	**18**	**58.6**	**+1.1**
EMIJ	**Mijas**	**3.41**	**208**	Pn	**Pn**		**18**	**18**	**16.7**	**-0.1**
EMIJ				Pg	**Pb**		**18**	**18**	**24.6**	**+0.5**
EMIJ				Sn	**Sn**		**18**	**18**	**57.1**	**-0.3**
EMIJ				Sg	**Sg**		**18**	**19**	**11.5**	**-1.6**
EMIJ				IVmb_Lg			18	19	18.3	
EPOB	**Poblet**	**3.42**	**58**	Pn	**Pn**		**18**	**18**	**17.1**	**0.0**
EPOB				Pg	**Pb**		**18**	**18**	**25.3**	**+1.0**
EPOB				Sn	**Sn**		**18**	**18**	**56.6**	**-1.2**
EPOB				Sg	**Sb**		**18**	**19**	**10.4**	**+4.1**
EPOB				IVmb_Lg			18	19	11.3	
EORO	**Oroz-Betelu**	**3.48**	**18**	Pn	**Pn**		**18**	**18**	**17.8**	**-0.1**
EORO			

ELOB				IVmb_Lg			18 20 01.1		
PSBE	**So Bento**	**4.66**	**271**	*e*Pn	**Pn**	**18 18 34.7**	**+0.6**		
PLOUS	**Minas do Lousa**	**4.68**	**252**	*e*Sn	**Sn**	**18 19 27.6**	**-1.1**		
PLOUS				IAML		18 19 56.6			
PLOUS				IAML		18 19 59.7			
PLOUS				IAML		18 20 04.6			
PBDV	**Barranco-do-Ve**	**4.68**	**242**	Sn	**Sn**	**18 19 28.1**	**-0.8**		
PBDV	**Barranco-do-Ve**	**4.68**	**242**	*e*Sn	**Sn**	**18 19 27.9**	**-1.0**		
PBDV				IAML		18 19 57.0			
PBDV				IAML		18 19 59.7			
PBDV				IAML		18 20 00.1			
PGAV	**Gavieira, Arco**	**4.80**	**301**	*e*Pn	**Pn**	**18 18 37.3**	**+1.2**		
PGAV				*e*Sn	**Sn**	**18 19 30.6**	**-1.3**		
PGAV				IAML		18 18 58.4			
PGAV				IAML		18 20 02.8			
EPON	**Pontenova**	**4.98**	**320**	Sn	**Sn**	**18 19 31.8**	**-4.2**		
EPON				Sg	**Sg**	**18 20 01.1**	**-2.1**		
EPON				IVmb_Lg		18 20 05.5			
EAGO	**Agolada(Pontev**	**5.14**	**310**	Sn	**Sn**	**18 19 37.7**	**-2.4**		
EAGO				Sg	**Sg**	**18 20 05.5**	**-3.0**		
EAGO				IVmb_Lg		18 20 06.9			
MORF	**Marmelete**	**5.15**	**246**	*e*Sn	**Sn**	**18 19 39.2**	**-1.3**		
MORF				IAML		18 19 39.8			
MORF				IAML		18 20 14.8			
MORF				IAML		18 20 15.0			
PFVI	**Vila Bisbo**	**5.36**	**245**	Pn	**Pn**	**18 18 43.4**	**-0.2**		
PFVI				Sn	**Sn**	**18 19 42.9**	**-2.5**		
PFVI	**Vila Bisbo**	**5.36**	**245**	*e*Pn	**Pn**	**18 18 44.6**	**+1.0**		
PFVI				*e*Sn	**Sn**	**18 19 43.9**	**-1.5**		

RSNC ***11*** *18:30:59.9±0.0, 7°N±3″×7°3W±°, h145km±6km, M2.4, ML2.2*
FUNV ***11*** *18:31:04.9, 7.03N×73.35W, h5km, MW2.8, Presumed earthquake*
ISC 11 18:30:59.6±1.4, **6.86N**±0.03×**73.12W**±0.04, **h153**km±9km, **n24**, σ1**§00**/48, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.27**	**193**	P	**Pn**	**18 31 20.8**	**+0.1**
BARC				S	**Sn**	**18 31 36.1**	**-0.7**
BRJC	**Barrancabermej**	**0.63**	**281**	P	**Pn**	**18 31 22.4**	**+0.4**
BRJC				S	**Sn**	**18 31 39.8**	**+0.8**
RUSC	**La Rusia**	**0.96**	**178**	P	**Pn**	**18 31 24.8**	**-0.1**
RUSC				S	**Sn**	**18 31 43.6**	**-0.6**
RUSC	**La Rusia**	**0.96**	**178**	*e*P	**Pn**	**18 31 25.0**	**+0.1**
RUSC				*e*S	**Sn**	**18 31 42.5**	**-1.7**
CAPV	**Capacho**	**1.28**	**39**	*e*P	**Pn**	**18 31 29.1**	**+1.7**
CAPV				*e*S	**Sn**	**18 31 47.7**	**-1.0**
PTBC	**PUERTO BERRIO,**	**1.36**	**257**	P	**Pn**	**18 31 27.5**	**-0.5**
PTBC				S	**Sn**	**18 31 48.6**	**-1.1**
TAMC	**Tame, Arauca**	**1.38**	**108**	P	**Pn**	**18 31 29.2**	**+1.0**
TAMC				S	**Sn**	**18 31 51.1**	**+1.0**
OCAC	**Ocana**	**1.39**	**352**	P	**Pn**	**18 31 28.8**	**+0.4**
OCAC				S	**Sn**	**18 31 51.0**	**+0.5**
SPBC	**San Pablo de B**	**1.53**	**218**	P	**Pn**	**18 31 29.9**	**+0.1**
SPBC				S	**Sn**	**18 31 52.5**	**-0.4**
NORC	**Norcasia**	**2.16**	**234**	P	**Pn**	**18 31 36.7**	**-0.2**
NORC				S	**Sn**	**18 32 05.4**	**-0.2**
CHIC	**Chingaza**	**2.30**	**195**	P	**Pn**	**18 31 38.7**	**-0.1**
CHIC				S	**Sn**	**18 32 08.3**	**-0.7**
ROSC	**El Rosal**	**2.33**	**211**	P	**Pn**	**18 31 39.8**	**+0.6**
ROSC				S	**Sn**	**18 32 09.3**	**-0.5**
HELC	**Santa Helena**	**2.48**	**255**	P	**Pn**	**18 31 42.0**	**+1.0**
HELC				S	**Sn**	**18 32 13.3**	**+0.4**
HELC	**Santa Helena**	**2.48**	**255**	*e*P	**Pn**	**18 31 43.2**	**+2.2**
HELC				*e*S	**Sn**	**18 32 12.6**	**-0.3**
CVER	**Cruz Verde, Cu**	**2.51**	**202**	P	**Pn**	**18 31 43.4**	**+2.0**
CVER				S	**Sn**	**18 32 13.9**	**+0.2**
UREC	**San Jos de Ur**	**2.55**	**291**	P	**Pn**	**18 31 41.0**	**-0.5**
UREC				S	**Sn**	**18 32 11.5**	**-2.4**
GUY2C	**Guyana, Caldas**	**2.76**	**234**	P	**Pn**	**18 31 45.0**	**+0.4**
GUY2C				S	**Sn**	**18 32 21.6**	**+2.4**
PTGC	**Puerto Gaitan,**	**2.82**	**160**	P	**Pn**	**18 31 44.0**	**-0.8**
PTGC				S	**Sn**	**18 32 17.8**	**-2.0**
CBOC	**Ciudad Bolivar**	**3.04**	**251**	P	**Pn**	**18 31 47.9**	**+0.1**
CBOC				S	**Sn**	**18 32 25.6**	**+0.6**
PRAC	**Prado**	**3.58**	**209**	P	**Pn**	**18 31 54.6**	**0.0**
PRAC				S	**Sn**	**18 32 37.4**	**+0.1**
ORTC	**Ortega, Tolima**	**3.61**	**216**	P	**Pn**	**18 31 54.8**	**-0.2**
ORTC				S	**Sn**	**18 32 38.7**	**+0.7**
SJCC	**San Jacinto, C**	**3.64**	**326**	P	**Pn**	**18 31 54.7**	**-0.7**
SJCC				S	**Sn**	**18 32 38.3**	**-0.4**
URMC	**La Uribe, Meta**	**3.80**	**199**	P	**Pn**	**18 31 58.0**	**+0.5**
URMC				S	**Sn**	**18 32 42.4**	**0.0**
CRJC	**Cerrejon, Guaj**	**4.14**	**3**	P	**Pn**	**18 32 01.0**	**-0.9**
CRJC				S	**Sn**	**18 32 51.5**	**+1.1**

IDC ***11*** *18:41:42.0±0.8, 49.02S×108.45E, h0km, mb4.4/11, mbtmp4.3/11, MS3.6/25, Error ellipse: s-maj=36.2km s-min=16.0km az=104.0*
NEIC ***11*** *18:41:43.2±1.6, 49.0S±0.1×108.3E±0.2, h10km±1km, mb4.5/21, Error ellipse: s-maj=22.5km s-min=18.8km az=113.0*
ISC 11 18:41:43.0±0.5, **49.00S**±0.09×**108.4E**±0.1, **h10**km, **n68**, σ0**§65/46**, **mb4.4**/18, **MS3.6**/24, **Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H01W2	**Cape Leeuwin H**	**14.71**	**19**	T	T	19 00 16.4	
	baz=195,slow=74,SNR=509						
H01W1	**Cape Leeuwin H**	**14.72**	**19**	T	T	19 00 08.4	
	baz=195,slow=74,SNR=630						
H01W3	**Cape Leeuwin H**	**14.73**	**19**	T	T	19 00 08.4	
	baz=195,slow=74,SNR=502						
NWAO	**Narrogin (SRO)**	**17.37**	**26**	LR	LR	18 51 01.6	
	comp=Z,153nm,20.5s,baz=231,slow=32						
MORW	**Morawa**	**20.75**	**19**	P	**P**	**18 46 23.8**	**-0.1**
MORW				IAmb	IAmb	18 46 29.8	
	comp=Z,19nm,0.9s						
BBOO	**Buckleboo**	**26.23**	**62**	P	**P**	**18 47 16.8**	**-1.3**
MAW	**Mawson**	**29.32**	**214**	LR	LR	18 57 10.3	
	comp=Z,116nm,19.1s,baz=69,slow=32						
STKA	**Stephens Creek**	**30.20**	**68**	P	**P**	**18 47 53.8**	**+0.3**
	comp=Z,4.9nm,1.0s,baz=216,slow=11,SNR=3.2						
STKA				LR	LR	18 57 46.6	
	comp=Z,154nm,20.7s,baz=206,slow=32						
	comp=Z,4.9nm,1.0s						
STKA	**Stephens Creek**	**30.20**	**68**	P	**P**	**18 47 53.6**	**+0.1**
ASAR	**Alice Springs**	**32.29**	**48**	P	**P**	**18 48 12.2**	**+0.1**
	comp=Z,7.5nm,0.8s,baz=210,slow=8.0,SNR=65						
ASAR				PcP	**PcP**	**18 50 59.2**	**-0.9**
	comp=Z,0.9nm,0.8s,baz=205,slow=2.6,SNR=5.8						
ASAR				LR	LR	18 59 32.7	
	comp=Z,170nm,22.0s,baz=230,slow=33						
	comp=Z,7.5nm,0.8s						
ASAR	**Alice Springs**	**32.29**	**48**		**P**	**18 48 11.8**	**-0.2**
AS31	**Alice Springs**	**32.29**	**48**		**P**	**18 48 10.8**	**-1.3**
INKA	**Innaminka**	**32.70**	**61**		**P**	**18 48 16.7**	**+1.2**
INKA				IAmb	IAmb	18 48 17.3	
	comp=Z,3.9nm,0.9s						
FITZ	**Fitzroy Crossi**	**33.84**	**30**	P	**P**	**18 48 26.3**	**+0.8**
	comp=Z,6.8nm,1.1s,baz=193,slow=11,SNR=5.7						
	comp=Z,6.8nm,1.1s						
FITZ	**Fitzroy Crossi**	**33.84**	**30**		**P**	**18 48 26.4**	**+0.9**
VNDA	**Vanda**	**34.94**	**162**	P	**P**	**18 48 35.2**	**+0.7**
	comp=Z,1.0nm,0.7s,baz=294,slow=10.0,SNR=12						
VNDA				PcP	**PcP**	**18 51 06.2**	**-0.4**
	comp=Z,0.5nm,1.1s,baz=23,slow=9.1,SNR=1.5						
VNDA				LR	LR	19 01 38.2	
	comp=Z,56nm,18.3s,baz=316,slow=34						
	comp=Z,1.0nm,0.7s						
VNDA	**Vanda**	**34.94**	**162**	P	**P**	**18 48 35.0**	**+0.5**
WRA	**Warramunga Arr**	**35.68**	**45**	P	**P**	**18 48 41.5**	**0.0**
	comp=Z,12nm,0.8s,baz=210,slow=8.2,SNR=38						
	comp=Z,12nm,0.8s						
WRA	**Warramunga Arr**	**35.68**	**45**		**P**	**18 48 41.0**	**-0.4**
WRAB	**Tennant Creek**	**35.70**	**45**	P	**P**	**18 48 41.4**	**-0.2**
WR8	**Warramunga Arr**	**35.75**	**45**	P	**P**	**18 48 41.8**	**-0.2**
WR8				IAmb	IAmb	18 48 43.0	
	comp=Z,13nm,0.8s						
WB0	**Warramunga Arr**	**35.86**	**45**	P	**P**	**18 48 42.6**	**-0.4**
WB0				IAmb	IAmb	18 48 44.9	
	comp=Z,14nm,1.1s						
ARMA	**Armidale**	**37.48**	**77**	P	**P**	**18 48 57.6**	**+0.7**
ARMA				IAmb	IAmb	18 49 13.6	
	comp=Z,20nm,1.4s						
BATI	**Baumata**	**40.72**	**23**	P	**P**	**18 49 24.6**	**+0.7**
	comp=Z,13nm,0.7s,baz=248,slow=3.8,SNR=4.9						
BATI				LR	LR	19 06 03.1	
	comp=Z,120nm,18.6s,baz=222,slow=36						
	comp=Z,13nm,0.7s						
QSPA	**South Pole Qui**	**41.14**	**180**	P	**P**	**18 49 27.2**	**+0.1**
	comp=Z,3.7nm,1.0s,baz=314,slow=2.7,SNR=9.7						
QSPA				LR	LR	19 05 32.9	
	comp=Z,134nm,20.7s,baz=326,slow=35						
	comp=Z,3.7nm,1.0s						
QSPA	**South Pole Qui**	**41.14**	**180**	P	**P**	**18 49 27.8**	**+0.8**
QSPA				IAmb	IAmb	18 49 29.8	
	comp=Z,9.5nm,1.2s						
CTA	**Charters Tower**	**41.79**	**60**	LR	LR	19 06 34.4	
	comp=Z,134nm,18.1s,baz=222,slow=36						
LEM	**Lembang**	**42.03**	**359**	LR	LR	19 02 36.5	
	comp=Z,92nm,21.9s,baz=188,slow=30						
RPZ	**Rata Peaks**	**42.48**	**107**	LR	LR	19 03 10.9	
	comp=Z,21nm,20.4s,baz=307,slow=30						
KAPI	**Kappang**	**44.88**	**16**	LR	LR	19 06 42.3	
	comp=Z,79nm,20.8s,baz=193,slow=33						
RTZ	**Ruatahuna**	**49.01**	**105**	P	**P**	**18 50 29.5**	**-0.3**
URZ	**Urewera**	**49.30**	**105**	LR	LR	19 08 17.0	
	comp=Z,60nm,18.0s,baz=258,slow=32						
SNAA	**Sanae**	**50.33**	**203**	P	**P**	**18 50 39.7**	**+0.2**
	comp=Z,1.9nm,0.6s,baz=218,slow=21,SNR=3.3						
	comp=Z,1.9nm,0.6s						
SNAA	**Sanae**	**50.33**	**203**	P	**P**	**18 50 39.2**	**-0.2**
SNAA				IAmb	IAmb	18 50 49.2	
	comp=Z,7.0nm,1.2s						
H08S2	**Diego Garcia H**	**51.07**	**312**	T	T	19 45 33.5	
	baz=151						
H08S1	**Diego Carcia H**	**51.08**	**312**	T	T	19 45 39.2	
	baz=151						
H08S3	**Diego Garcia H**	**51.09**	**312**	T	T	19 45 37.0	
	baz=151						
BELA	**Belgrano 2**	**51.37**	**189**		**P**	**18 50 47.1**	**-0.1**
BELA				IAmb	IAmb	18 50 55.4	
	comp=Z,3.3nm,0.7s						
SIJI	**Sorong**	**51.82**	**30**	LR	LR	19 11 32.4	
	comp=Z,57nm,21.4s,baz=94,slow=34						
PSI	**Prapat**	**52.24**	**348**	LR	LR	19 10 05.7	
	comp=Z,48nm,19.7s,baz=187,slow=33						
DZM	**Mont Dzumac**	**52.82**	**81**	LR	LR	19 09 20.9	
	comp=Z,50nm,21.1s,baz=196,slow=31						
JAY	**Jayapura**	**53.92**	**41**	LR	LR	19 13 06.2	
	comp=Z,182nm,21.5s,baz=171,slow=35						
BOSA	**Boshof**	**64.67**	**255**	LR	LR	19 14 39.8	
	comp=Z,62nm,18.8s,baz=184,slow=31						
SUR	**Sutherland**	**64.87**	**249**	LR	LR	19 14 04.8	
	comp=Z,76nm,21.4s,baz=156,slow=30						
LBTB	**Lobatse**	**66.96**	**258**	LR	LR	19 17 56.8	
	comp=Z,28nm,18.4s,baz=148,slow=32						
CMAR	**Chiang Mai Arr**	**67.67**	**350**	P	**P**	**18 52 41.6**	**+1.5**
	comp=Z,1.5nm,0.9s,baz=188,slow=5.6,SNR=8.9						
CMAR				LR	LR	19 19 23.8	
	comp=Z,21nm,19.8s,baz=90,slow=33						
	comp=Z,1.5nm,0.9s						
CMAR	**Chiang Mai Arr**	**67.67**	**350**	P	**P**	**18 52 40.6**	**+0.4**
GUMO	**Guam**	**70.17**	**38**	LR	LR	19 23 09.5	
	comp=Z,31nm,19.1s,baz=60,slow=36						
MORE	**Moreh**	**73.98**	**347**	P	**P**	**18 53 17.3**	**-1.2**
MORE				IAmb	IAmb	18 53 18.3	
	comp=Z,2.6nm,0.7s						
TSUM	**Tsumeb**	**76.27**	**257**	LR	LR	19 21 42.3	
	comp=Z,49nm,19.0s,baz=156,slow=32						
MBAR	**Mbarara**	**81.45**	**279**	LR	LR	19 26 01.8	
	comp=Z,35nm,18.4s,baz=150,slow=33						
LODK	**Lodwar**	**81.53**	**285**	P	**P**	**18 54 00.5**	**-0.5**
KSRS	**Korea Array**	**87.80**	**15**	P	**P**	**18 54 33.0**	**+1.2**
	comp=Z,0.9nm,0.7s,baz=160,slow=3.9,SNR=2.9						
	comp=Z,0.9nm,0.7s						
NIL	**Nilore**	**88.03**	**331**	P	**P**	**18 54 33.1**	**0.0**
GTA2	**Gaotai**	**88.43**	**353**	*e*P	**P**	**18 54 35.1**	**+0.1**
GTA2				sP	pwP	18 54 43.9	+2.5
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
PLCA	**Paso Flores**	**90.65**	**181**	LR	LR	19 34 09.5	
	comp=Z,31nm,20.8s,baz=179,slow=35						
SONM	**Songino Array**	**96.46**	**359**	P	**P**	**18 55 11.9**	**0.0**
	comp=Z,0.6nm,0.7s,baz=168,slow=7.4,SNR=2.5						
SONM				LR	LR	19 36 26.9	
	comp=Z,27nm,21.9s,baz=70,slow=34						
	comp=Z,0.6nm,0.7s						
SONM	**Songino Array**	**96.46**	**359**	P	**P**	**18 55 11.5**	**-0.5**
SONM				IAmb	IAmb	18 55 49.3	
	comp=Z,1.9nm,1.4s						
GWY	**Greenwater Val**	**144.96**	**94**		**PKPab**	**19 01 19.5**	**0.0**
FURC	**Furnace Creek,**	**144.99**	**94**	PKPdf	**PKPab**	**19 01 19.5**	**+0.2**
SHOC	**Shoshone, Teco**	**145.05**	**95**		**PKPdf**	**19 01 20.4**	**+0.2**
J04A	**Umpqua Nationa**	**145.07**	**80**	PKPdf	**PKPdf**	**19 01 20.2**	**0.0**
PAHR	**Pah Rah Range**	**145.11**	**87**		**PKPbc**	**19 01 19.1**	**-0.8**
NVAR	**Mina Array Bea**	**145.15**	**90**	PKPbc	**PKPdf**	**19 01 20.9**	**+0.4**
	comp=Z,3.6nm,0.7s,baz=220,slow=6.1,SNR=25						
GMN	**Gold Mountain**	**145.21**	**92**		**PKPbc**	**19 01 20.0**	**-0.4**
TXAR	**Lajitas Array**	**148.67**	**117**	PKPbc	**PKPbc**	**19 01 30.3**	**-0.1**
	comp=Z,2.4nm,0.8s,baz=201,slow=5.2,SNR=24						
TXAR	**Lajitas Array**	**148.67**	**117**		**PKPbc**	**19 01 29.7**	**-0.7**
YKA	**Yellowknife Ar**	**152.89**	**44**	PKPbc	**PKPbc**	**19 01 38.2**	**-0.9**
	comp=Z,2.0nm,0.8s,baz=293,slow=2.3,SNR=6.0						

KRNET ***11*** *18:48:10.7±0.1, 42.26N×70.67E, h17km, mb2.6*
NNC ***11*** *18:48:11.1±0.5, 43.14N×70.58E, h0km, mb3.4, mpv3.3, Error ellipse: s-maj=7.8km s-min=2.8km az=179.0*
SOME ***11*** *18:48:11.1, 42.30N×70.57E, h20km*
ISC 11 18:48:09.8±0.8, **42.30N**±0.03×**70.63E**±0.02, **h10**km, **n24**, σ2**§08/42**, **11C-8D**, **Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CHM	**Chimkent**	**0.76**	**272**	*e*P	**Pg**	**18 48 25.3**	**+0.7**
	82nm,0.2s						
CHM				*e*S	**Sg**	**18 48 35.6**	**+1.1**
	57nm,0.3s						
KK31	**Karatay Array**	**0.81**	**354**	P	**Pg**	**18 48 25.8**	**+0.4**
	1.9nm,0.2s,baz=158,slow=11,SNR=418						
KK31				⇑S	**Sg**	**18 48 36.0**	**+0.2**
	16nm,0.2s,baz=166,slow=22						
TRKS	**Terek-Say**	**0.86**	**154**	⇓*i*P	**Pb**	**18 48 27.6**	**+0.7**
TRKS				⇓*i*S	**Sn**	**18 48 39.7**	**-1.1**
BRLS	**Boroldaу**	**0.94**	**321**	P	**Pg**	**18 48 25.6**	**-2.1**
	14nm,0.1s						
BRLS				S	**Sg**	**18 48 36.2**	**-3.7**
	46nm,0.1s						
BRLS	**Boroldaу**	**0.94**	**321**	*e*P	**Pg**	**18 48 25.6**	**-2.1**
	14nm,0.1s						
BRLS				*e*S	**Sg**	**18 48 36.2**	**-3.7**
	46nm,0.1s						
MNAS	**Manas**	**1.40**	**82**	⇓*i*P	**Pn**	**18 48 36.2**	**+0.7**
MNAS				⇓*i*S	**Sg**	**18 48 55.2**	**+0.4**
MRKS	**Merke**	**1.97**	**76**	Pg	**Pg**	**18 48 47.3**	**-0.3**
	2.7nm,0.3s						
MRKS				Lg	Lg	18 49 13.9	
	22nm,0.3s						
MRKS	**Merke**	**1.97**	**76**	*e*P	**Pg**	**18 48 47.3**	**-0.3**
	2.7nm,0.3s						
MRKS				*e*S	**Sg**	**18 49 13.9**	**+0.9**
	22nm,0.3s						
ARSB	**Arslanbob**	**2.01**	**118**	⇑*i*P	**Pb**	**18 48 46.7**	**+0.2**
ARSB				⇑*i*S	**Sg**	**18 49 13.1**	**-1.3**
BTK	**Batken**	**2.25**	**176**	⇑*i*P	**Pb**	**18 48 50.1**	**-0.4**
BTK				⇑*i*S	**Sb**	**18 49 18.7**	**+0.3**
EKS2	**Erkin-Say**	**2.35**	**80**	⇑*i*P	**Pb**	**18 48 51.9**	**-0.5**
EKS2				⇑*i*S	**Sb**	**18 49 21.6**	**+0.1**
OHH	**Osh**	**2.40**	**137**	⇑*i*P	**Pb**	**18 48 52.0**	**-1.2**
OHH				⇑*i*S	**Sb**	**18 49 22.1**	**-0.8**
SALK	**Salom-Alik**	**2.78**	**120**	⇓*i*P	**Pb**	**18 48 57.5**	**-2.1**
SALK				⇓*i*S	**Sb**	**18 49 31.5**	**-2.3**
AAK	**Ala-Archa**	**2.88**	**82**	Pg	**Pb**	**18 49 03.5**	**+2.2**
AAK				Lg	Lg	18 49 42.7	
UCH	**Uchtor**	**2.88**	**90**	⇑*i*P	**Pn**	**18 48 59.2**	**+3.0**
UCH				⇑*i*S	**Sb**	**18 49 34.7**	**-2.3**
SFK	**Sufi-Kurgan**	**3.15**	**136**	⇓*e*P	**Pn**	**18 49 02.3**	**+2.6**
SFK				⇓*e*S	**Sn**	**18 49 40.3**	**+2.9**
DGS	**Degeres**	**3.90**	**74**	Pg	**Pg**	**18 49 22.2**	**-2.3**
	1.6nm,0.3s						
DGS				Lg	Lg	18 50 13.1	
	4.8nm,0.5s						
DGS	**Degeres**	**3.90**	**74**	*e*P	**Pg**	**18 49 22.2**	**-2.3**
	1.6nm,0.3s						
DGS				*e*S	**Sg**	**18 50 13.1**	**-1.8**
	4.8nm,0.5s						
KST	**Kastek**	**4.00**	**78**	Pg	**Pb**	**18 49 22.2**	**+1.8**
	0.4nm,0.2s						
KST				Lg	Lg	18 50 13.5	
	5.1nm,0.4s						
KST	**Kastek**	**4.00**	**78**	*e*P	**Pb**	**18 49 22.2**	**+1.8**
	0.4nm,0.2s						
KST				*e*S	**Sb**	**18 50 13.5**	**+4.6**
	5.1nm,0.4s						
MDOK	**Medeo**	**4.80**	**78**	Pg	**Pg**	**18 49 38.8**	**-3.0**
	0.9nm,0.3s						
MDOK				Lg	Lg	18 50 41.9	
	3.3nm,0.6s						
MDOK	**Medeo**	**4.80**	**78**	*e*P	**Pg**	**18 49 38.8**	**-3.0**
	0.9nm,0.3s						
MDOK				*e*S	**Sg**	**18 50 41.9**	**-2.1**
	3.3nm,0.6s						
KOTS	**Kotyrbulak**	**4.86**	**77**	Pg	**Pg**	**18 49 40.4**	**-2.4**
	1.0nm,0.1s						
KOTS				Lg	Lg	18 50 44.5	
	4.8nm,0.5s						
KOTS	**Kotyrbulak**	**4.86**	**77**	*e*P	**Pg**	**18 49 40.4**	**-2.4**
	1.0nm,0.1s						
KOTS				*e*S	**Sg**	**18 50 44.5**	**-1.3**
	4.8nm,0.5s						

DJA ***11*** *18:48:45.7±0.2, 0.7N±2.2°×12.2E±°, h137km±4km, M4.5/38, mb4.7/28, mB5.1/13, MLv4.8/38, Mw(mB)4.4/13*
NEIC ***11*** *18:48:45.2±2.0, 0.32N±0.05×121.62E±0.06, h142km±5km, mb4.6/41, Error ellipse: s-maj=8.6km s-min=6.8km az=88.0*
GFZ ***11*** *18:48:45.7±0.2, 0.7N±3.2°×12.2E±°, h148km, M4.5/18, mb4.7/18*
IDC ***11*** *18:48:47.3±1.1, 0.26N×121.77E, h170km±10km, mb4.0/17, mbtmp4.6/22, MS2.8/3, Error ellipse: s-maj=15.1km s-min=7.0km az=69.0*
ISC 11 18:48:45.5±0.3, **0.31N**±0.04×**121.70E**±0.04, **h150**km, **n209**, σ1**§44/222**, **mb4.6**/48, **Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TOLI2	**Tolitoli**	**1.21**	**311**	P	**Pn**	**18 49 11.4**	**-0.8**
TOLI2	**Tolitoli**	**1.21**	**311**		**Pn**	**18 49 10.7**	**-1.4**
TOLI2				Sn	**Sn**	**18 49 28.9**	**-3.7**
TOLI2	**Tolitoli**	**1.21**	**311**	P	**Pn**	**18 49 11.1**	**-1.1**
APSI	**Ampana**	**1.22**	**182**	P	**Pn**	**18 49 13.2**	**+1.0**
APSI				AML	AML		
APSI	**Ampana**	**1.22**	**182**	P	**Pn**	**18 49 13.3**	**+1.1**
GTOI	**Gorontalo**	**1.35**	**76**	P	**Pn**	**18 49 12.1**	**-1.4**
GTOI				AML	AML		
LUWI	**Luwuk**	**1.72**	**141**	P	**Pn**	**18 49 17.7**	**+0.2**
LUWI	**Luwuk**	**1.72**	**141**	S	**Sn**	**18 49 42.2**	**+0.2**
LUWI	**Luwuk**	**1.72**	**141**		**Pn**	**18 49 17.8**	**+0.4**
LUWI	**Luwuk**	**1.72**	**141**	P	**Pn**	**18 49 18.1**	**+0.6**
LUWI				AML	AML		
LUWI	**Luwuk**	**1.72**	**141**	P	**Pn**	**18 49 18.3**	**+0.8**
PCI	**Palu**	**2.22**	**237**	P	**Pn**	**18 49 23.1**	**-0.1**
PCI				AML	AML		
KMSI	**Cibinong**	**2.30**	**83**	P	**Pn**	**18 49 24.5**	**+0.4**
KMSI	**Cibinong**	**2.30**	**83**	P	**Pn**	**18 49 24.3**	**+0.2**
MNI	**Manado**	**3.34**	**70**	P	**Pn**	**18 49 36.0**	**-1.2**
TTSI	**Tana Toraja**	**3.83**	**209**	P	**Pn**	**18 49 45.4**	**+1.9**
TTSI				AML	AML		
TTSI	**Tana Toraja**	**3.83**	**209**	P	**Pn**	**18 49 45.3**	**+1.9**
MMSI	**Mamuju**	**4.08**	**223**	P	**Pn**	**18 49 47.2**	**+0.3**
MMSI				AML	AML		
MMSI	**Mamuju**	**4.08**	**223**	P	**Pn**	**18 49 47.1**	**+0.3**
KDI	**Kendari**	**4.34**	**168**	P	**Pn**	**18 49 51.6**	**+1.4**
KKSI	**Kolaka, Sulawe**	**4.45**	**181**	P	**Pn**	**18 49 53.9**	**+2.2**
PMSI	**Majene**	**4.70**	**216**	P	**Pn**	**18 49 57.6**	**+2.6**
PMSI				AML	AML		
PMSI	**Majene**	**4.70**	**216**	P	**Pn**	**18 49 57.5**	**+2.6**
SANI	**Sanana**	**4.89**	**119**	P	**Pn**	**18 49 55.3**	**-2.2**
SANI	**Sanana**	**4.89**	**119**	P	**Pn**	**18 49 55.3**	**-2.2**
SANI	**Sanana**	**4.89**	**119**	P	**Pn**	**18 49 55.5**	**-2.0**
BKB	**Balikpapan**	**5.05**	**252**	P	**Pn**	**18 49 59.7**	**+0.1**
BKB	**Balikpapan**	**5.05**	**252**	S	**Sn**	**18 50 56.2**	**-1.1**
BKB	**Balikpapan**	**5.05**	**252**		**Pn**	**18 49 57.5**	**-2.1**
BKB	**Balikpapan**	**5.05**	**252**	P	**Pn**	**18 49 59.4**	**-0.2**
	0.9nm4µm163nm,0.7s						
BKB				AML	AML		
BKB	**Balikpapan**	**5.05**	**252**	P	**Pn**	**18 49 59.7**	**+0.1**
	comp=Z,167nm,0.7s						
TARAI	**Tarakan**	**5.10**	**306**	P	**Pn**	**18 49 57.8**	**-2.4**
KAPI	**Kappang**	**5.64**	**200**	P	**Pn**	**18 50 08.3**	**+1.0**
	comp=Z,20nm,0.5s,baz=352,slow=9.3,SNR=7.5						
KAPI				S	**Sn**	**18 51 14.3**	**+2.9**
	comp=Z,8.8nm,0.4s,baz=345,slow=

comp=Z,41nm,0.8s
SOEI Soe 10.32 166 P **Pn** 18 51 09.9 -0.1
SOEI Soe 10.32 166 **Pn** 18 51 10.3 +0.3
SOEI Soe 10.32 166 P **Pn** 18 51 13.4 +3.4
comp=Z,42nm,1.1s
BATI Baumata 10.63 169 P **Pn** 18 51 18.1 +4.2
comp=Z,23nm,0.7s,baz=284,slow=3.3,SNR=7.0
BATI Baumata 10.63 169 P **Pn** 18 51 16.7 +2.8
comp=Z,27nm,0.5s
FAKI Fak Fak 11.03 107 P **Pn** 18 51 18.5 -0.6
FAKI Fak Fak 11.03 107 S **Sn** 18 53 20.6 -0.5
FAKI Fak Fak 11.03 107 Pn **Pn** 18 51 17.2 -1.9
JAGI Jajag, Banyuwa 11.52 221 P **Pn** 18 51 26.2 +0.6
BAKI Biak 14.49 96 P P 18 52 11.2 +5.1
DRS Darwin Rock St 15.61 145 P **Pn** 18 52 17.9 +0.4
LEM Lembang 15.74 243 P **Pn** 18 52 13.7 -5.6
comp=Z,45nm,0.8s,baz=266,slow=9.9,SNR=6.2
BBJI Bungbulang 16.00 241 P **P** 18 52 23.7 +0.8
BBJI Bungbulang 16.00 241 P **Pn** 18 52 22.1 -0.2
BBJI IAmb IAmb 18 52 27.4
comp=Z,18nm,0.8s
MTN Manton Dam 16.08 145 **P** 18 52 24.4 +0.7
CBJI Citeko 16.26 245 P **P** 18 52 28.7 +3.0
KNRA Kununurra 17.35 157 **P** 18 52 38.0 +0.3
MDSI Maura Dua 18.14 255 P **Pn** 18 52 48.7 +0.6
FITZ Fitzroy Crossi 18.70 168 P **P** 18 52 53.0 +0.5
comp=Z,22nm,0.5s,baz=4.8,slow=7.9,SNR=164
FITZ ScP **ScP** 19 00 33.4 -2.7
comp=Z,1.6nm,0.9s,baz=354,slow=23,SNR=2.0
FITZ Fitzroy Crossi 18.70 168 P **Pn** 18 52 54.2 -0.4
FITZ Fitzroy Crossi 18.70 168 P **P** 18 52 52.9 +0.4
FITZ Fitzroy Crossi 18.70 168 **P** 18 52 52.8 +0.4
FITZ Fitzroy Crossi 18.70 168 P **P** 18 52 53.2 +0.7
comp=Z,10nm,1.3s
JAY Jayapura 19.21 99 P **P** 18 52 57.6 -0.6
comp=Z,10nm,0.3s,baz=226,slow=9.8,SNR=17
IPM Ipoh 21.06 282 P **P** 18 53 17.6 -0.4
MBWA Marble Bar 21.43 185 P **P** 18 53 22.7 +0.9
MBWA Marble Bar 21.43 185 P **P** 18 53 21.1 -0.7
MBWA Marble Bar 21.43 185 **P** 18 53 20.6 -1.2
MBWA IAmb IAmb 18 53 21.9
comp=Z,32nm,1.3s
KULM Kulim 21.59 284 P **P** 18 53 23.9 +0.3
KULM Kulim 21.59 284 P **P** 18 53 23.2 -0.5
KULM IAmb IAmb 18 53 31.2
comp=Z,17nm,1.3s
WB0 Warramunga Arr 23.52 149 P **P** 18 53 41.4 -0.7
WB0 IAmb IAmb 18 53 42.9
comp=Z,35nm,0.8s
WRAB Tennant Creek 23.63 149 P **P** 18 53 43.0 -0.2
WRAB Tennant Creek 23.63 149 P **P** 18 53 42.8 -0.4
WRAB Tennant Creek 23.63 149 P **P** 18 53 42.7 -0.4
WRAB IAmb IAmb 18 53 44.2
comp=Z,18nm,0.6s
WRAB Tennant Creek 23.63 149 P **P** 18 53 42.9 -0.4
comp=Z,35nm,0.8s
WRA Warramunga Arr 23.64 149 P **P** 18 53 41.0 -2.2
comp=Z,9.3nm,0.3s,baz=325,slow=10,SNR=200
WRA S **S** 18 57 42.8 -4.1
comp=Z,3.4nm,1.1s,baz=337,slow=16,SNR=4.9
WRA ScP **ScP** 19 00 45.0 -3.3
comp=Z,0.7nm,1.1s,baz=319,slow=2.6,SNR=5.0
comp=Z,9.3nm,0.3s
WRA Warramunga Arr 23.64 149 **ScP** 19 00 46.6 -1.7
WB1 Warramunga Ar. 23.65 149 P **P** 18 53 43.2 -0.2
WR8 Warramunga Arr 23.73 149 **P** 18 53 43.4 -0.7
GIRL Giralia 23.95 197 P **P** 18 53 46.6 +0.7
GSI Gunungsitoli 24.14 272 P **P** 18 53 48.2 +0.3
GSI Gunungsitoli 24.14 272 **P** 18 53 47.3 -0.5
GSI IAmb IAmb 18 53 48.3
comp=Z,26nm,0.7s
GSI Gunungsitoli 24.14 272 P **P** 18 53 47.8 0.0
comp=Z,39nm,1.1s
AS31 Alice Springs 26.62 154 P **P** 18 54 09.8 -0.4
ASAR Alice Springs 26.62 154 P **P** 18 54 09.8 -0.4
comp=Z,6.7nm,0.6s,baz=343,slow=14,SNR=174
ASAR PcP **PcP** 18 57 29.6 -1.0
comp=Z,1.2nm,0.3s,baz=351,slow=2.1,SNR=13
ASAR S **S** 18 58 32.4 -1.8
comp=Z,4.9nm,1.1s,baz=346,slow=22,SNR=11
ASAR ScP **ScP** 19 00 54.1 -2.6
comp=Z,0.5nm,0.6s,baz=341,slow=2.5,SNR=5.5
comp=Z,6.7nm,0.6s
ASAR Alice Springs 26.62 154 **P** 18 54 10.5 +0.3
AS01 Alice Springs 26.64 154 P **P** 18 54 08.9 -1.5
AS01 Alice Springs 26.64 154 P **P** 18 54 10.5 +0.1
MEEK Meekatharra 26.96 186 P **P** 18 54 12.7 -0.5
MEEK Meekatharra 26.96 186 P **P** 18 54 13.5 +0.3
QIS Mount Isa 27.15 141 P **P** 18 54 14.9 -0.1
QIS Mount Isa 27.15 141 P **P** 18 54 14.4 -0.5
comp=Z,8.8nm,0.7s
CMAR Chiang Mai Arr 28.72 310 P **P** 18 54 30.6 +1.7
comp=Z,2.5nm,0.7s,baz=134,slow=6.9,SNR=22
CMAR ScP **ScP** 19 01 02.1 -1.1
comp=Z,0.6nm,0.7s,baz=137,slow=3.3,SNR=4.6
comp=Z,2.5nm,0.7s
CMAR Chiang Mai Arr 28.72 310 P **P** 18 54 30.1 +1.2
CMAR **ScP** 19 01 01.0 -2.2
CHTO Chiang Mai 28.93 311 P **P** 18 54 31.0 +0.3
CHTO Chiang Mai 28.93 311 P **P** 18 54 30.4 -0.3
CHTO IAmb IAmb 18 54 34.1
comp=Z,4.6nm,0.7s
CHTO Chiang Mai 28.93 311 P **P** 18 54 33.0 +2.3
comp=Z,8.5nm,0.7s
MORW Morawa 29.71 190 P **P** 18 54 37.0 -0.5
MORW Morawa 29.71 190 P **P** 18 54 37.1 -0.4
MORW IAmb IAmb 18 54 38.2
comp=Z,23nm,1.3s
BLDU Ballidu 31.12 188 P **P** 18 54 49.7 -0.2
FORT Forrest 31.51 169 P **P** 18 54 51.1 -2.2
FORT IAmb IAmb 18 54 53.8
comp=Z,11nm,0.8s
NPW Nayppyitaw 31.64 309 P **P** 18 54 54.6 0.0
comp=Z,5.8nm,0.8s
NJ2 Nanjing 31.68 355 *e*P **P** 18 54 57.3 +2.5
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
KLBR Kellerberrin 31.95 186 P **P** 18 54 57.3 +0.1
NWAO Narrogin (SRO) 33.33 187 P **P** 18 55 08.6 -0.6
comp=Z,14nm,0.9s,baz=20,slow=8.3,SNR=9.9
NWAO LR LR 19 08 52.9
comp=Z,16nm,18.0s,baz=247,slow=36
comp=Z,14nm,0.9s
NWAO Narrogin (SRO) 33.33 187 **P** 18 55 09.4 +0.2
NWAO Narrogin (SRO) 33.33 187 P **P** 18 55 08.4 -0.8
NWAO IAmb IAmb 18 55 21.4
comp=Z,33nm,1.4s
INKA Innaminka 33.35 148 P **P** 18 55 08.9 -0.5
INKA IAmb IAmb 18 55 11.4
comp=Z,4.0nm,0.7s
QLP Quilpie 34.44 143 P **P** 18 55 20.0 +1.1
QLP Quilpie 34.44 143 P **P** 18 55 19.1 +0.2
QLP Quilpie 34.44 143 P **P** 18 55 17.6 -1.3
comp=Z,19nm,1.3s
BBOO Buckleboo 35.62 159 P **P** 18 55 29.1 +0.2
BBOO Buckleboo 35.62 159 P **P** 18 55 28.6 -0.3
MORE Moreh 35.64 314 **P** 18 55 30.0 +0.8
STKA Stephens Creek 37.14 151 P **P** 18 55 41.9 0.0
comp=Z,7.7nm,0.5s,baz=332,slow=7.7,SNR=35
comp=Z,7.7nm,0.5s
STKA Stephens Creek 37.14 151 P **P** 18 55 41.7 -0.2
STKA Stephens Creek 37.14 151 P **P** 18 55 42.1 +0.2
HTT Hallett 37.27 156 P **P** 18 55 43.6 +0.6
EIDS Eidsvold 38.19 134 P **P** 18 55 52.0 +1.2
EIDS Eidsvold 38.19 134 P **P** 18 55 51.8 +1.1
EIDS Eidsvold 38.19 134 P **P** 18 55 52.2 +1.5
comp=Z,61nm,0.5s
CMSA Cobar Meteorol 38.99 147 P **P** 18 55 57.5 +0.2
CMSA Cobar Meteorol 38.99 147 P **P** 18 55 58.2 +0.9
CMSA Cobar Meteorol 38.99 147 P **P** 18 55 58.6 +1.2
comp=Z,29nm,0.7s
LZH Lanzhou 39.27 337 *e*P **P** 18 56 01.9 +2.1
LZH pP pP 18 56 35.5 +2.8
LZH pmax pmax
comp=Z,46nm,1.1s
LSA Lhasa 41.24 318 P **P** 18 56 17.5 +1.0
comp=Z,7.6nm,0.7s
HHC Hu-ho-hao-te 41.38 348 *e*P **P** 18 56 20.3 +3.3
HHC pmax pmax
comp=Z,10.0nm,0.6s
HHC pmax pmax
comp=Z,110nm,4.8s
PALK Pallekele 41.46 281 P **P** 18 56 17.9 -0.1
PALK IAmb IAmb 18 56 45.1
comp=Z,24nm,1.4s
ARMA Armidale 41.77 140 P **P** 18 56 21.9 +1.5
ARMA IAmb IAmb 18 56 38.5
comp=Z,16nm,1.2s
CAN Canberra 43.65 147 P **P** 18 56 36.4 +1.0
CAN Canberra 43.65 147 P **P** 18 56 36.1 +0.7
GTA2 Gaotai 43.84 335 *e*P **P** 18 56 38.2 +1.3
GTA2 pmax pmax
comp=Z,3.0nm,1.0s
TAU Tasmania Unive 48.79 155 P **P** 18 57 16.4 +1.1
TAU IAmb IAmb 18 57 20.4
comp=Z,24nm,1.1s
HILR Hailar Array B 49.09 358 P **P** 18 57 18.3 +0.8
comp=Z,1.9nm,0.4s,baz=165,slow=16,SNR=2.4
comp=Z,1.9nm,0.4s
SONM Songino Array 49.17 346 P **P** 18 57 18.7 +0.4
comp=Z,1.1nm,0.5s,baz=159,slow=9.5,SNR=7.0
comp=Z,1.1nm,0.5s
SONM Songino Array 49.17 346 P **P** 18 57 18.7 +0.4
PDGK Podgornoye 57.03 324 P **P** 18 58 16.1 +0.2
KSH2 Kashi 57.16 318 P **P** 18 58 17.7 +0.8
KSH2 pP pP 18 58 50.8 -1.4
KSH2 pmax pmax
comp=Z,2.0nm,1.2s
MKAR Makanchi Array 57.67 329 P **P** 18 58 20.6 +0.4
comp=Z,7.9nm,0.4s,baz=127,slow=8.8,SNR=131
comp=Z,7.9nm,0.4s
MAKZ Makanchi 57.84 329 P **P** 18 58 21.7 +0.3
MAKZ Makanchi 57.84 329 P **P** 18 58 20.4 -1.0
comp=Z,12nm,0.8s
KBL Kabul 59.75 311 P **P** 18 58 35.0 0.0
KBL IAmb IAmb 18 58 36.6
comp=Z,7.0nm,0.5s
KBL Kabul 59.75 311 P **P** 18 58 35.1 +0.1
comp=Z,10nm,0.6s
ARSB Arslanbob 59.97 319 P **P** 18 58 36.2 -0.1
ARSB IAmb IAmb 18 58 38.2
comp=Z,5.5nm,0.6s
PEA0B Petropavlovsk- 60.52 24 P **P** 18 58 39.9 +0.2
PETK Petropavlovsk- 60.52 24 P **P** 18 58 41.2 +1.5
comp=Z,2.9nm,0.9s,baz=188,slow=8.7,SNR=1.8
comp=Z,2.9nm,0.9s
PETK Petropavlovsk- 60.52 24 P **P** 18 58 40.3 +0.6
ZAA0 Zalesovo Array 61.50 336 P **P** 18 58 44.8 -1.4
ZAA0 IAmb IAmb 18 58 46.3
comp=Z,5.5nm,1.0s
ZALV Zalesovo Beam 61.50 336 P **P** 18 58 45.3 -0.9
comp=Z,2.3nm,0.5s,baz=122,slow=5.6,SNR=13
comp=Z,2.3nm,0.5s
ZALV Zalesovo Beam 61.50 336 P **P** 18 58 45.0 -1.2
LBZ Lake Benmore 61.87 142 P **P** 18 58 48.8 -0.1
KURBB Kurchatov Arra 62.05 330 P **P** 18 58 49.8 -0.1
comp=Z,5.2nm,0.5s,baz=139,slow=6.2,SNR=54
comp=Z,5.2nm,0.5s
KURK Kurchatov 62.06 331 P **P** 18 58 50.1 +0.1
KURK Kurchatov 62.06 331 P **P** 18 58 50.4 +0.4
comp=Z,30nm,0.9s
KK31 Karatay Array 62.44 320 P **P** 18 58 51.0 -1.7
KKAR Karatay Array 62.44 320 P **P** 18 58 52.0 -0.7
KHZ Kahutara 63.01 139 P **P** 18 58 56.8 +0.3
KHZ IAmb IAmb 18 59 12.0
comp=Z,24nm,1.4s
BVAR Borovoye Array 67.55 329 P **P** 18 59 25.1 -0.4
comp=Z,4.7nm,0.7s,baz=140,slow=7.8,SNR=23
comp=Z,4.7nm,0.7s
BORK Borovoye 67.59 329 P **P** 18 59 25.1 -0.8
BORK IAmb IAmb 18 59 26.9
comp=Z,8.9nm,0.9s
AB31 Akbulak array 71.69 323 **P** 18 59 50.5 -0.5
AB31 IAmb IAmb 18 59 51.3
comp=Z,5.0nm,0.8s
ABKAR Akbulak array 71.69 323 P **P** 18 59 50.5 -0.5
MAW Mawson 78.85 200 P **P** 19 00 31.5 0.0
comp=Z,1.6nm,0.5s,baz=82,slow=4.4,SNR=6.2
comp=Z,1.6nm,0.5s
MAW Mawson 78.85 200 P **P** 19 00 31.7 +0.2
VNDA Vanda 80.74 172 P **P** 19 00 41.4 -0.2
comp=Z,1.7nm,0.6s,baz=320,slow=6.7,SNR=22
comp=Z,1.7nm,0.6s
VNDA Vanda 80.74 172 P **P** 19 00 41.3 -0.2
KBZ Khabaz 81.69 314 P **P** 19 00 46.6 -0.6
comp=Z,3.0nm,1.1s,baz=111,slow=14,SNR=2.9
comp=Z,3.0nm,1.1s
BRTR Keskin Array B 88.31 310 P **P** 19 01 18.5 -2.1
comp=Z,0.5nm,0.5s,baz=120,slow=4.6,SNR=2.7
comp=Z,0.5nm,0.5s
BRTR Keskin Array B 88.31 310 P **P** 19 01 18.8 -1.7
QSPA South Pole Qui 90.24 180 P **P** 19 01 28.3 -0.7
comp=Z,1.4nm,0.5s,baz=298,slow=1.7,SNR=20
comp=Z,1.4nm,0.5s
QSPA South Pole Qui 90.24 180 P **P** 19 01 28.1 -0.9
QSPA IAmb IAmb 19 01 31.4
comp=Z,8.8nm,1.5s
TXAR Lajitas Array 127.65 52 PKP **PKPdf** 19 07 33.1 -0.7
comp=Z,0.2nm,0.5s,baz=90,slow=1.3,SNR=4.1
TXAR Lajitas Array 127.65 52 **PKPdf** 19 07 33.4 -0.4

*IDC **11** 19:22:54.1±1.0, 15.°03S×173.°74W, h0km, mb3.7/5, mbtmp3.7/6, ML3.7/1, MS3.2/8, Error ellipse: s-maj=55.2km s-min=19.3km az=152.0*

ISC 11 19:22:54.8±0.9, 14.°8S±0.°3×173.°6W±0.°2, h10km, n22, σ2°65/7, mb3.8/5, MS3.3/8, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**2.02**	**63**	Pn	**Pn**	**19 23 26.4**	**-2.7**
	21nm,0.3s,baz=237,slow=17,SNR=9.6						
AFI				Sn	Sn	19 23 48.6	-5.8
	43nm,0.3s,baz=298,slow=23,SNR=7.1						
	27nm,0.3s						
AFI				AML	AML		
PPT	**Papeete**	**23.26**	**100**	LR	LR	19 34 32.4	
	comp=Z,52nm,21.0s,baz=314,slow=30						
PPT2	**Papeete2**	**23.26**	**100**	*e*LR	LR	19 33 23.3	
	152nm,26.8s						
TBI	**Tubuai**	**24.34**	**114**	*e*LR	LR	19 33 49.0	
	1μm,31.2s						
HNR	**Honiara**	**26.37**	**279**	LR	LR	19 36 35.7	
	comp=Z,111nm,19.7s,baz=177,slow=31						
H11S2	**WAKE ISLAND Hy**	**38.36**	**329**	T	T	20 10 53.5	
	baz=149,slow=76,SNR=12						
H11S3	**WAKE ISLAND Hy**	**38.38**	**329**	T	T	20 10 53.9	
	baz=149,slow=76,SNR=11						
H11S1	**WAKE ISLAND Hy**	**38.38**	**329**	T	T	20 10 52.2	
	baz=149,slow=76,SNR=11						
CTA	**Charters Tower**	**38.55**	**256**	LR	LR	19 45 10.4	
	comp=Z,9.1nm,18.5s,baz=53,slow=35						
H11N3	**WAKE ISLAND Hy**	**39.31**	**330**	T	T	20 12 06.1	
	baz=150,slow=76,SNR=30						
H11N1	**WAKE ISLAND Hy**	**39.31**	**330**	T	T	20 12 01.5	
	baz=150,slow=76,SNR=24						
H11N2	**WAKE ISLAND Hy**	**39.33**	**330**	T	T	20 12 09.4	
	baz=150,slow=76,SNR=28						
WRA	**Warramunga Arr**	**49.75**	**256**	P	**P**	**19 31 46.0**	**-2.0**
	0.9nm,0.9s,baz=90,slow=7.0,SNR=9.0						
	0.9nm,0.9s						
ASAR	**Alice Springs**	**50.07**	**251**	P	**P**	**19 31 49.8**	**-0.6**
	2.3nm,0.7s,baz=90,slow=7.4,SNR=20						
ASAR				LR	LR	19 51 20.3	
	comp=Z,27nm,18.8s,baz=100,slow=34						
	2.3nm,0.7s						
FITZ	**Fitzroy Crossi**	**58.10**	**258**	LR	LR	19 54 59.3	
	comp=Z,27nm,21.6s,baz=5.5,slow=33						
PFO	**Pinyon Flats O**	**72.70**	**47**	LR	LR	19 58 41.6	
	comp=Z,40nm,21.1s,baz=194,slow=30						
NVAR	**Mina Array Bea**	**74.06**	**42**	P	**P**	**19 34 35.0**	**+3.5**
	0.2nm,0.4s,baz=254,slow=6.3,SNR=1.7						
	0.2nm,0.4s						
QSPA	**South Pole Qui**	**75.21**	**180**	P	**P**	**19 34 38.2**	**+0.6**
	1.0nm,1.0s,baz=53,slow=2.8,SNR=2.0						
	1.0nm,1.0s						
TXAR	**Lajitas Array**	**80.49**	**56**	P	**P**	**19 35 08.8**	**+1.2**
	0.2nm,0.7s,baz=260,slow=6.8,SNR=2.0						
	0.2nm,0.7s						
YKA	**Yellowknife Ar**	**89.67**	**23**	LR	LR	20 09 51.5	
	comp=Z,32nm,18.6s,baz=294,slow=31						
CMAR	**Chiang Mai Arr**	**92.22**	**288**	LR	LR	20 15 09.0	
	comp=Z,4.3nm,19.6s,baz=160,slow=34						
BRTR	**Keskin Array B**	**145.57**	**321**	PKPbc	**PKiKP**	**19 42 36.5**	**-1.4**
	1.3nm,0.9s,baz=35,slow=4.5,SNR=3.8						

*IDC **11** 19:33:10.0±1.9, 5.°64N×126.°47E, h0km, mb3.7/4, mbtmp3.7/4, Error ellipse: s-maj=107.1km s-min=16.2km az=65.0*

*MAN **11** 19:33:16.0, 6.°20N×126.°36E, h108km, MS3.4*

ISC 11 19:33:17.0±1.0, 6.°24N±0.°06×126.°36E±0.°10, h114km±11km, n19, σ1°64/24, mb3.6/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.66**	**258**	*i* P	**Pn**	**19 33 36.2**	**+0.7**
DDMP				*e*S	**Sn**	**19 33 50.1**	**+0.7**
DAV	**Davao City (W)**	**1.13**	**317**	Pn	**Pn**	**19 33 41.0**	**+1.0**
	68nm,0.3s,baz=220,slow=0.7,SNR=4.6						
DAV				Sn	**Sn**	**19 33 59.4**	**+2.1**
	89nm,0.3s,baz=270,slow=24,SNR=7.9						
DMPH	**Davao City--Mi**	**1.19**	**315**	*i* P	**Pn**	**19 33 41.3**	**+0.7**
DMPH				*i* S	**Sn**	**19 33 53.4**	**-5.0**
GSPH	**General Santos**	**1.42**	**264**	*i* P	**Pn**	**19 33 42.5**	**-0.8**
GSPH				*i* S	**Sn**	**19 34 01.2**	**-1.9**
KCP	**Kidapawan**	**1.48**	**301**	*i* P	**Pn**	**19 33 44.2**	**+0.3**
KCP				*i* S	**Sn**	**19 34 04.6**	**+0.3**
CDOP	**Cateel, Davao**	**1.53**	**3**	*i* P	**Pn**	**19 33 44.4**	**-0.1**
CDOP				*i* S	**Sn**	**19 34 05.0**	**-0.4**
BIPH	**Bislig**	**1.93**	**360**	*e*P	**Pn**	**19 33 49.9**	**+0.6**
BIPH				*e*S	**Sn**	**19 34 14.3**	**+0.3**
BUKP	**Musuan**	**2.08**	**322**	*e*P	**Pn**	**19 33 51.8**	**+0.5**
BUKP				*i* S	**Sn**	**19 34 17.9**	**+0.5**
CGP	**Cagayan de Oro**	**2.75**	**323**	*e*P	**Pn**	**19 34 00.2**	**+0.3**
CGP				*e*S	**Sn**	**19 34 34.5**	**+1.5**
TSSP	**Tandag City**	**2.79**	**357**	*e*P	**Pn**	**19 34 01.0**	**+0.6**
TSSP				*e*S	**Sn**	**19 34 30.2**	**-3.6**
FITZ	**Fitzroy Crossi**	**24.20**	**182**	P	**P**	**19 38 23.6**	**+0.5**
	1.6nm,0.5s,baz=13,slow=9.4,SNR=13						
	1.6nm,0.5s						
WRA	**Warramunga Arr**	**27.18**	**163**	P	**P**	**19 38 49.7**	**-0.3**
	0.3nm,0.5s,baz=342,slow=10.0,SNR=7.1						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**30.62**	**166**	P	**P**	**19 39 20.9**	**+0.2**
	0.4nm,0.5s,baz=342,slow=7.4,SNR=15						
	0.4nm,0.5s						
STKA	**Stephens Creek**	**40.60**	**160**	P	**P**	**19 40 45.4**	**-0.2**
	0.9nm,0.4s,baz=329,slow=12,SNR=3.8						
	0.9nm,0.4s						
H03S2	**Juan Fernandez**	**143.91**	**143**	T	T	22 33 49.2	
	baz=229,slow=73,SNR=20						
H03S1	**Juan Fernandez**	**143.91**	**143**	T	T	22 33 53.6	
	baz=229,slow=73,SNR=19						
H03S3	**Juan Fernandez**	**143.92**	**143**	T	T	22 33 52.5	
	baz=229,slow=73,SNR=19						
H03N2	**Juan Fernandez**	**144.18**	**142**	T	T	22 34 02.4	
	baz=222,slow=74,SNR=22						
H03N1	**Juan Fernandez**	**144.19**	**142**	T	T	22 34 05.9	
	baz=40,slow=74,SNR=46						

*NEIC **11** 19:50:09.4±0.9, 44.°10N±0.°05×105.°45W±0.°05, h0km±1km, ML3.0/32, Error ellipse: s-maj=8.3km s-min=5.2km az=345.0*

*IDC **11** 19:50:11.5±1.9, 44.°30N×105.°82W, h0km, mbtmp3.3/2, ML3.1/2, Error ellipse: s-maj=58.8km s-min=12.5km az=143.0*

ISC 11 19:50:08.1±1.1, 44.°07N±0.°05×105.°37W±0.°05, h0km, n22, σ1°82/23, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RSSD	**Black Hills**	**0.96**	**86**	Pg	**Pn**	**19 50 28.8**	**-0.3**
K22A	**Casper**	**1.65**	**211**		**Pb**	**19 50 39.5**	**+0.1**
K22A				IAML		19 51 04.5	
	139nm,0.9s						
LAO	**LASA Array**	**2.69**	**347**	Pn	**Pn**	**19 50 53.5**	**+0.9**
LAO				Pg	**Pb**	**19 50 57.5**	**+0.4**
RLMT	**Red Lodge**	**2.98**	**292**	Pn	**Pn**	**19 50 58.6**	**+1.8**
RLMT				IAML		19 51 55.6	
	49nm,2.0s						
RLMT				IAML		19 52 16.4	
	39nm,1.4s						
BW06	**Boulder Array**	**3.32**	**248**	Pn	**Pn**	**19 51 04.1**	**+2.6**
PD31	**Pinedale Array**	**3.32**	**248**	Pn	**Pn**	**19 51 04.4**	**+2.9**
PDAR	**Pinedale Array**	**3.32**	**248**	Pn	**Pn**	**19 51 04.1**	**+2.7**
	2.7nm,0.3s,baz=58,slow=14,SNR=42						
PDAR				Pg	**Pb**	**19 51 08.1**	**+0.2**
	2.7nm,0.3s,baz=66,slow=18,SNR=33						
PDAR				Lg	Lg	19 51 49.3	
	3.0nm,0.3s,baz=63,slow=30,SNR=4.6						
	2.4nm,0.3s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**3.32**	**248**		**Pn**	**19 51 03.8**	**+2.4**
YNE	**Yellowstone No**	**3.45**	**287**	Pn	**Pn**	**19 51 05.4**	**+2.2**
YNE				IAML		19 52 07.8	
	comp=N,30nm,0.8s						
YNE				IAML		19 52 12.5	
	comp=E,27nm,0.9s						
GCMT	**Greycliff**	**3.50**	**301**	Pn	**Pn**	**19 51 05.9**	**+1.9**
H17A	**Grant Village**	**3.76**	**277**	Pn	**Pb**	**19 51 15.8**	**+0.3**
H17A				IAML		19 52 16.1	
	comp=E,25nm,2.4s						
H17A				IAML		19 52 16.2	
	comp=N,23nm,1.3s						
HAYD	**Hayden**	**3.81**	**202**	Pn	**Pg**	**19 51 19.2**	**-2.0**
HAYD				IAML		19 52 54.7	
	comp=N,38nm,2.0s						
HAYD				IAML		19 53 00.7	
	comp=E,34nm,1.6s						
YNR	**Norris Junctio**	**3.86**	**281**	Pn	**Pb**	**19 51 15.8**	**-1.4**
YPP	**Pitchstone Pla**	**3.92**	**275**		**Pb**	**19 51 16.1**	**-2.0**
YPP				IAML		19 52 29.4	
	comp=N,17nm,1.4s						
YPP				IAML		19 52 35.5	
	comp=E,19nm,1.5s						
SNOW	**Snow King Moun**	**3.95**	**263**		**Pb**	**19 51 18.6**	**-0.1**
OGNE	**Ogallala**	**3.98**	**141**		**Pb**	**19 51 18.6**	**-0.5**
YHH	**Holmes Hill**	**3.99**	**282**		**Pb**	**19 51 18.4**	**-1.1**
YHH				IAML		19 52 32.2	
	comp=N,16nm,1.4s						
YHL	**Hebgen Lake**	**4.24**	**283**		**Pb**	**19 51 20.9**	**-2.7**
YHL				IAML		19 52 41.3	
	comp=N,22nm,1.2s						
YHL				IAML		19 52 42.0	
	comp=E,23nm,1.5s						
AHID	**Auburn Hatcher**	**4.37**	**255**		**Pb**	**19 51 26.0**	**+0.1**
AHID				IAML		19 52 31.2	
	comp=E,29nm,1.2s						
AHID				IAML		19 52 43.2	
	comp=E,23nm,1.6s						
DGMT	**Dagmar**	**4.48**	**10**		**Pn**	**19 51 16.3**	**-0.9**
I10CA	**LAC DU BONNET**	**8.84**	**43**	I	I	20 42 40.0	
	baz=224,slow=287,SNR=1.3						
ULM	**Lac du Bonnet**	**8.94**	**43**	Pn	**Pn**	**19 52 20.8**	**+2.4**
	comp=E,0.4nm,0.3s,baz=232,slow=15,SNR=1.9						
ULM				Lg	Lg	19 54 54.6	
	comp=E,0.1nm,0.3s,baz=94,slow=14,SNR=3.3						
	comp=E,0.8nm,0.3s						
ULM				AML	AML		

*SJA **11** 20:36:08.3±0.7, 29.°92S×71.°67W, h12km±3km, ML4.0, MW3.8*

*NEIC **11** 20:36:12.4±1.4, 29.°98S±0.°02×71.°57W±0.°06, h38km±6km, mb4.2/4, ML4.0(GUC), Error ellipse: s-maj=7.3km s-min=2.6km az=102.0*

*GUC **11** 20:36:12.3±0.7, 29.°99S×71.°43W, h48km±3km, ML4.1, Presumed earthquake*

*IDC **11** 20:36:13.2±3.3, 30.°00S×71.°64W, h52km±29km, mb3.5/3, mbtmp3.8/8, ML3.8/5, MS3.1/4, Error ellipse: s-maj=29.2km s-min=19.5km az=68.0*

ISC 11 20:36:11.6±0.7, 29.°97S±0.°03×71.°72W±0.°05, h37km±1km, n113, σ1°58/133, mb4.0/3, MS3.3/3, 8C-6D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO05	**La Serena**	**0.42**	**83**		**Pn**	**20 36 20.6**	**-0.3**
CO05				Sn	**Sn**	**20 36 26.4**	**-1.4**
CO05	**La Serena**	**0.42**	**83**	*i* P	**Pn**	**20 36 20.7**	**-0.3**
CO05				*e*S	**Sn**	**20 36 26.5**	**-1.3**
CO05				IAML		20 36 27.0	
	comp=E,34μm,0.2s						
CO06	**Fray Jorge**	**0.71**	**174**		**Pn**	**20 36 25.5**	**+0.4**
CO06					**Sn**	**20 36 35.2**	**+0.5**
CO06	**Fray Jorge**	**0.71**	**174**	*e*P	**Pn**	**20 36 25.7**	**+0.6**
CO06				*e*S	**Sn**	**20 36 34.9**	**+0.2**
CO06				IAML		20 36 36.7	
	comp=E,7μm,0.2s						
GO04	**Tololo Observa**	**0.83**	**104**	*e*P	Pn	20 36 09.5	-17
GO04				*e*S	**Sn**	**20 36 35.9**	**-2.2**
GO04				IAML		20 36 38.9	
	comp=Z,13μm,0.7s						

GO04	**Tololo Observa**	**0.83**	**104**			**Pn**	**20 36 25.4**	**-1.5**
GO04						**Sn**	**20 36 34.8**	**-3.2**
GO04	**Tololo Observa**	**0.83**	**104**	⇓	*eP*	**Pn**	**20 36 25.5**	**-1.4**
GO04					*eS*	**Sn**	**20 36 34.8**	**-3.2**
CO03	**El Pedregal**	**1.25**	**134**		*eP*	**Pn**	**20 36 31.8**	**-0.7**
CO03					*eS*	**Sn**	**20 36 46.9**	**-1.1**
CO03					IAML		20 36 47.6	
	comp=Z,3µm,0.3s							
CO03	**El Pedregal**	**1.25**	**134**		Pn	**Pn**	**20 36 31.7**	**-0.7**
CO03					Sn	**Sn**	**20 36 46.0**	**-2.1**
CO03	**El Pedregal**	**1.25**	**134**	⇓	*iP*	**Pn**	**20 36 31.9**	**-0.7**
CO03					*eS*	**Sn**	**20 36 46.2**	**-1.8**
CO03					IAML		20 36 47.8	
	comp=N,6µm,0.2s							
LCO	**Las Campanas**	**1.31**	**43**		*eP*	**Pn**	**20 36 33.1**	**-0.4**
LCO					*eS*	**Sn**	**20 36 49.4**	**-0.4**
LCO					IAML		20 36 49.6	
	comp=Z,6µm,0.2s							
LCO	**Las Campanas**	**1.31**	**43**		Pn	**Pn**	**20 36 33.3**	**-0.2**
LCO					Sn	**Sn**	**20 36 48.8**	**-1.1**
CO02	**Combarbal**	**1.38**	**153**		Pn	**Pn**	**20 36 34.5**	**+0.1**
CO02	**Combarbal**	**1.38**	**153**	⇑	*eP*	**Pn**	**20 36 34.8**	**+0.4**
CO02					*eS*	**Sn**	**20 36 51.2**	**-0.3**
CO02					IAML		20 36 55.4	
	comp=E,8µm,0.4s							
CO01	**Juntas del Tor**	**1.41**	**91**		*eP*	**Pn**	**20 36 34.3**	**-0.7**
CO01					IAML		20 36 50.7	
	comp=Z,2µm,0.6s							
CO01					*eS*	**Sn**	**20 36 50.7**	**-1.8**
CO01	**Juntas del Tor**	**1.41**	**91**		Pn	**Pn**	**20 36 34.2**	**-0.7**
CO01	**Juntas del Tor**	**1.41**	**91**	⇓	*iP*	**Pn**	**20 36 34.1**	**-0.8**
CO01					*eS*	**Sn**	**20 36 49.2**	**-3.2**
AC05	**El Transito**	**1.69**	**49**		*eP*	**Pn**	**20 36 39.1**	**+0.3**
AC05					IAML		20 36 59.5	
	comp=Z,952nm,0.3s							
AC05					*eS*	**Sn**	**20 36 59.9**	**+0.7**
AC05	**El Transito**	**1.69**	**49**		Pn	**Pn**	**20 36 39.0**	**+0.3**
AC05	**El Transito**	**1.69**	**49**	⇓	*iP*	**Pn**	**20 36 39.1**	**+0.3**
AC05					*eS*	**Sn**	**20 36 58.6**	**-0.7**
AC05					IAML		20 37 00.1	
	comp=N,4µm,0.7s							
AC04	**Llanos de Chal**	**1.85**	**18**		*eP*	**Pn**	**20 36 41.2**	**+0.5**
AC04					IAML		20 37 13.9	
	comp=Z,835nm,0.5s							
AC04	**Llanos de Chal**	**1.85**	**18**		Pn	**Pn**	**20 36 41.0**	**+0.2**
AC04	**Llanos de Chal**	**1.85**	**18**		*eP*	**Pn**	**20 36 41.2**	**+0.5**
AC04					IAML		20 37 18.7	
	comp=E,2µm,0.4s							
AROD	**Rodeo**	**1.96**	**96**		*eP*	**Pn**	**20 36 43.6**	**+1.1**
AROD					*eS*	**Sn**	**20 37 06.9**	**+0.8**
CO04	**Los Peladeros**	**2.17**	**163**		Pn	**Pn**	**20 36 46.1**	**+0.7**
CO04	**Los Peladeros**	**2.17**	**163**	⇑	*eP*	**Pn**	**20 36 46.5**	**+1.1**
CO04					IAML		20 37 20.2	
	comp=N,2µm,0.4s							
ACDV	**Cuesta del Vie**	**2.27**	**96**		*eP*	**Pn**	**20 36 48.3**	**+1.7**
ACDV					IAML		20 37 16.4	
	comp=Z,570nm,0.4s							
ACDV					*eS*	**Sn**	**20 37 16.5**	**+3.1**
ACCO	**Cerro Coronel**	**2.38**	**106**		*eP*	**Pn**	**20 36 50.4**	**+2.0**
ACCO					*eS*	**Sn**	**20 37 21.7**	**+5.3**
GO03	**Copiapo**	**2.70**	**29**		*eP*	**Pn**	**20 36 53.4**	**+0.9**
GO03					*eS*	**Sn**	**20 37 26.7**	**+2.7**
GO03					IAML		20 37 40.4	
	comp=Z,676nm,0.8s							
GO03	**Copiapo**	**2.70**	**29**		Pn	**Pn**	**20 36 52.7**	**+0.2**
GO03	**Copiapo**	**2.70**	**29**		*eP*	**Pn**	**20 36 52.6**	**+0.1**
GO03					IAML		20 37 40.5	
	comp=E,978nm,0.4s							
RTLS	**Leoncito**	**2.77**	**132**		*eP*	**Pn**	**20 36 56.1**	**+2.4**
RTLS					*eS*	**Sn**	**20 37 24.7**	**-1.3**
RTLS					IAML		20 37 32.5	
	comp=Z,1µm,0.6s							
AC06	**Mina Casimiro**	**2.87**	**25**		Pn	**Pn**	**20 36 54.5**	**-0.2**
AC06	**Mina Casimiro**	**2.87**	**25**		*eP*	**Pn**	**20 36 54.9**	**+0.2**
AC06					IAML		20 37 47.0	
	comp=N,1µm,0.4s							
VA03	**San Esteban**	**2.96**	**160**		*eP*	**Pn**	**20 36 58.0**	**+1.9**
VA03					*eS*	**Sn**	**20 37 32.7**	**+2.3**
VA03					IAML		20 37 46.8	
	comp=Z,505nm,0.8s							
VA03	**San Esteban**	**2.96**	**160**		Pn	**Pn**	**20 36 56.6**	**+0.5**
VA03	**San Esteban**	**2.96**	**160**		*eP*	**Pn**	**20 36 57.8**	**+1.7**
VA03					IAML		20 37 39.6	
	comp=E,1µm,0.5s							
VA01	**Torpederas**	**3.04**	**179**		Pn	**Pn**	**20 36 57.1**	**0.0**
ROCH	**El Roble**	**3.06**	**169**	⇑	*eP*		20 36 58.3	
ROCH				⇑	*eP*	**Pn**	**20 36 58.3**	**+0.8**
ROCH					IAML		20 37 49.0	
	comp=E,950nm,0.4s							
ZON	**Zonda**	**3.06**	**122**		*eP*	**Pn**	**20 36 59.2**	**+1.8**
ZON					*eS*	**Sn**	**20 37 37.1**	**+4.4**
ZON					*eS*		20 37 41.2	
ZON					IAML		20 37 58.6	
	comp=Z,231nm,0.6s							
ZON	**Zonda**	**3.06**	**122**		Pn	**Pn**	**20 36 57.2**	**-0.2**
PEL	**Peldehue**	**3.29**	**165**		Pn	**Pn**	**20 37 01.2**	**+0.7**
MT02	**Curacav**	**3.32**	**171**		Pn	**Pn**	**20 37 01.2**	**+0.3**
MT02	**Curacav**	**3.32**	**171**		*eP*	**Pn**	**20 37 01.1**	**+0.2**
CFA	**Coronel Fontan**	**3.41**	**119**		P	**Pn**	**20 37 03.6**	**+1.3**
	comp=Z,15nm,0.3s,baz=309,slow=15,SNR=152							
CFA					S	**Sn**	**20 37 41.7**	**+0.2**
	comp=Z,35nm,0.3s,baz=208,slow=22,SNR=8.5							
	comp=Z,40nm,0.3s							
CFA					AML	AML		
CFA	**Coronel Fontan**	**3.41**	**119**		*eP*	**Pn**	**20 37 03.7**	**+1.5**
CFA					*eS*	**Sn**	**20 37 42.4**	**+0.9**
CFA					IAML		20 38 01.5	
	comp=Z,228nm,0.6s							
MT10	**Hacienda Santa**	**3.45**	**163**		*eP*	**Pn**	**20 37 04.0**	**+1.2**
MT05	**Renca**	**3.51**	**166**		*eP*	**Pn**	**20 37 05.2**	**+1.5**
MT05					IAML		20 38 02.1	
	comp=Z,304nm,0.7s							
MT05	**Renca**	**3.51**	**166**		Pn	**Pn**	**20 37 03.5**	**-0.1**
MT05	**Renca**	**3.51**	**166**		*eP*	**Pn**	**20 37 04.4**	**+0.7**
MT14	**Cerro Cal¡n**	**3.56**	**164**		*eP*	**Pn**	**20 37 05.6**	**+1.3**
FCH	**Farellones**	**3.56**	**160**		*eP*	**Pn**	**20 37 06.0**	**+1.5**
FCH					IAML		20 37 59.5	
	comp=E,236nm,0.6s							
MT16	**CCHEN**	**3.60**	**164**		Pn	**Pn**	**20 37 05.2**	**+0.3**
MT16	**CCHEN**	**3.60**	**164**		*eP*	**Pn**	**20 37 06.0**	**+1.2**
MT03	**Universidad Ad**	**3.66**	**164**		Pn	**Pn**	**20 37 07.1**	**+1.4**
MT03	**Universidad Ad**	**3.66**	**164**		*eP*	**Pn**	**20 37 07.3**	**+1.6**
MT04	**Ro Olivares**	**3.68**	**159**	⇑	*eP*	**Pn**	**20 37 08.8**	**+2.7**
ARCO	**CERRO ARCO**	**3.73**	**141**		*eP*	**Pn**	**20 37 09.5**	**+2.8**
ARCO					*eS*	**Sn**	**20 37 52.7**	**+3.3**
ARCO					IAML		20 38 14.9	
	comp=Z,240nm,0.9s							
MT08	**Bocatoma Ro**	**3.76**	**158**	⇓	*eP*	**Pn**	**20 37 10.4**	**+3.2**
MT15	**Las Vizcachas**	**3.77**	**164**		*eP*	**Pn**	**20 37 08.4**	**+1.3**
MT09	**Talagante**	**3.85**	**171**	⇑	*eP*	**Pn**	**20 37 09.2**	**+0.9**
AC02	**Maricunga**	**3.87**	**37**		*eP*	**Pn**	**20 37 10.0**	**+1.1**
AC02					*eS*	**Sn**	**20 37 56.7**	**+3.3**
AC02					IAML		20 38 05.1	
	comp=Z,404nm,0.6s							
AC02	**Maricunga**	**3.87**	**37**		Pn	**Pn**	**20 37 09.5**	**+0.5**
AC02	**Maricunga**	**3.87**	**37**		*eP*	**Pn**	**20 37 09.7**	**+0.8**
MT12	**Pirque**	**3.88**	**165**		*eP*	**Pn**	**20 37 09.7**	**+1.0**
MT01	**Popeta**	**3.90**	**174**		Pn	**Pn**	**20 37 09.5**	**+0.5**
MT01	**Popeta**	**3.90**	**174**		*eP*	**Pn**	**20 37 09.4**	**+0.5**
AC01	**Pan de Azucar**	**3.93**	**15**		Pn	**Pn**	**20 37 08.0**	**-1.4**
AC01	**Pan de Azucar**	**3.93**	**15**		*eP*	**Pn**	**20 37 08.3**	**-1.1**
MT13	**San Alfonso**	**3.96**	**162**		*eP*	**Pn**	**20 37 11.9**	**+2.1**
LMEL	**Las Melosas**	**4.08**	**162**		*eP*	**Pn**	**20 37 13.1**	**+1.6**
TINO	**Tinogasta**	**4.10**	**63**		*eP*	**Pn**	**20 37 13.3**	**+1.5**
TINO					*eS*	Sn	20 38 10.1	+11
TINO					IAML		20 38 12.2	
	comp=Z,164nm,1.2s							
BO04	**La Punta**	**4.12**	**167**		*eP*	**Pn**	**20 37 12.7**	**+0.7**
ACLC	**CERRO LA CRUZ**	**4.19**	**84**		*eP*	**Pn**	**20 37 13.9**	**+0.9**
ACLC					IAML		20 38 23.6	
	comp=Z,109nm,1.3s							
BO02	**Sierra Bellavi**	**4.88**	**171**		Pn	**Pn**	**20 37 22.4**	**0.0**
CYA	**Choya**	**5.39**	**75**	⇓	*eP*	**Pn**	**20 37 29.5**	**0.0**
BI02	**San Fabin de**	**6.69**	**177**		Pn	**Pn**	**20 37 46.4**	**-0.9**
VA04	**Juan Fernndez**	**7.07**	**237**		Pn	**Pn**	**20 37 53.1**	**+0.6**
GO06	**Curarrehue**	**9.59**	**179**		Pn	**Pn**	**20 38 27.4**	**+0.3**
PLCA	**Paso Flores**	**10.78**	**175**		P	**Pn**	**20 38 44.6**	**+1.2**
	comp=Z,0.1nm,0.3s,baz=2.9,slow=13,SNR=3.1							
PLCA					LR	LR	20 43 13.0	
	comp=Z,53nm,20.3s,baz=340,slow=39							
	comp=Z,1.4nm,0.9s							
PLCA					AML	AML		
PLCA	**Paso Flores**	**10.78**	**175**		Pn	**Pn**	**20 38 44.8**	**+1.4**

CPUP	**Villa Florida**	**13.21**	**78**		P	**Pn**	**20 39 15.6**	**-1.0**
	comp=Z,0.2nm,0.3s,baz=267,slow=18,SNR=3.2							
CPUP					LR	LR	20 44 52.0	
	comp=Z,70nm,19.4s,baz=234,slow=40							
	comp=Z,0.8nm,0.5s							
CPUP					AML	AML		
CPUP	**Villa Florida**	**13.21**	**78**		Pn	**Pn**	**20 39 16.7**	**+0.2**
LPAZ	**La Paz**	**14.01**	**14**		P	**Pn**	**20 39 31.0**	**+2.9**
	comp=Z,0.1nm,0.3s,baz=183,slow=13,SNR=4.3							
	comp=Z,1.0nm,0.7s							
LPAZ					AML	AML		
LPAZ	**La Paz**	**14.01**	**14**		P	**P**	**20 39 32.2**	**-3.3**
SIV	**San Ignacio**	**17.00**	**37**		P	**Pn**	**20 40 06.6**	**0.0**
	baz=226,slow=11,SNR=14							
	comp=Z,3.5nm,0.7s							
BDFB	**Brasilia**	**26.02**	**62**		LR	LR	20 52 42.3	
	comp=Z,55nm,21.3s,baz=337,slow=38							
PMSA	**Palmer Station**	**35.16**	**174**		P	**P**	**20 43 01.8**	**+0.4**
MDP	**Montagnes des**	**39.38**	**31**		LR	LR	20 59 58.8	
	comp=Z,40nm,19.0s,baz=192,slow=36							
BELA	**Belgrano 2**	**50.80**	**171**		P	**P**	**20 45 07.6**	**0.0**
BELA					IAmb	IAmb	20 45 27.4	
	comp=Z,3.9nm,1.4s							
TROLL	**Troll, Antarti**	**56.94**	**159**		P	**P**	**20 45 52.0**	**-0.7**
	comp=Z,98nm,1.0s							
QSPA	**South Pole Qui**	**60.26**	**180**		P	**P**	**20 46 16.1**	**+0.2**
	comp=Z,0.6nm,0.6s,baz=79,slow=5.2,SNR=1.4							
	comp=Z,2.6nm,0.6s							
QSPA	**South Pole Qui**	**60.26**	**180**		P	**P**	**20 46 16.1**	**+0.2**
QSPA					IAmb	IAmb	20 46 30.6	
	comp=Z,1.1nm,0.7s							
TXAR	**Lajitas Array**	**66.38**	**330**		P	**P**	**20 46 57.0**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=150,slow=4.7,SNR=6.4							
	comp=Z,0.4nm,0.5s							
TXAR	**Lajitas Array**	**66.38**	**330**		P	**P**	**20 46 58.1**	**+1.3**
TX31	**Lajitas Ar. Si**	**66.38**	**330**		P	**P**	**20 46 58.3**	**+1.5**
TORD	**Torodi Ar. Bea**	**82.59**	**70**		P	**P**	**20 48 31.3**	**+0.1**
	comp=Z,0.7nm,0.7s,baz=242,slow=3.1,SNR=3.6							
	comp=Z,0.7nm,0.7s							
ASAR	**Alice Springs**	**121.26**	**208**		PKP	**PKPdf**	**20 55 00.3**	**-0.9**
	comp=Z,0.1nm,0.4s,baz=131,slow=1.7,SNR=1.2							
WRA	**Warramunga Arr**	**124.39**	**210**		PKP	**PKPdf**	**20 55 06.4**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=148,slow=1.8,SNR=9.4							
WRA	**Warramunga Arr**	**124.39**	**210**			**PKPdf**	**20 55 06.0**	**-1.2**
H11S2	**WAKE ISLAND Hyd**	**26.00**	**272**		T	T	23 14 06.7	
	baz=114,slow=75,SNR=35							
H11S1	**WAKE ISLAND Hyd**	**26.01**	**272**		T	T	23 14 05.2	
	baz=114,slow=75,SNR=27							
H11S3	**WAKE ISLAND Hyd**	**26.02**	**272**		T	T	23 14 05.1	
	baz=114,slow=75,SNR=30							
H11N3	**WAKE ISLAND Hyd**	**26.31**	**273**		T	T	23 14 33.3	
	baz=116,slow=74							
H11N1	**WAKE ISLAND Hyd**	**26.33**	**273**		T	T	23 14 36.1	
	baz=116							
H11N2	**WAKE ISLAND Hyd**	**26.33**	**273**		T	T	23 14 32.8	
	baz=116,slow=74							
KKAR	**Karatay Array**	**147.23**	**56**		PKPdf	**PKPdf**	**20 55 49.0**	**+0.6**
TOLI2	**Tolitoli**	**148.93**	**205**		PKPdf	**PKPdf**	**20 55 50.2**	**-1.9**
KURBB	**Kurchatov Arra**	**149.66**	**39**		PKPbc	**PKPbc**	**20 55 56.6**	**-0.2**
	comp=Z,0.5nm,0.6s,baz=300,slow=2.9,SNR=4.3							
KURK	**Kurchatov**	**149.66**	**39**			**PKPdf**	**20 55 53.7**	**+1.6**
GSI	**Gunungsitoli**	**149.73**	**158**		PKPdf	**PKPdf**	**20 55 49.3**	**-4.1**
ZALV	**Zalesovo Beam**	**150.62**	**29**		PKPbc	**PKPbc**	**20 55 58.7**	**-0.3**
	comp=Z,2.0nm,0.5s,baz=306,slow=3.8,SNR=12							
WMQ	**Urumqi**	**158.58**	**44**	*e*	PKP	**PKPdf**	**20 56 05.6**	**+0.6**
WMQ					PKPab	**PKPab**	**20 56 44.3**	**+4.1**
WMQ					LR	LR		
	comp=N,490nm,19.7s							
WMQ					LR	LR		
	comp=E,700nm,17.7s							
WMQ					LR	LR		
	comp=Z,180nm,21.5s							

NEIC ***11*** *20:39:55.7±1.8, 45.80N±0.04×106.65W±0.07, h0km±1km, ML3.2/46, Error ellipse: s-maj=8.5km s-min=6.1km az=128.0*
IDC ***11*** *20:39:57.3±1.3, 45.82N×106.50W, h0km, mbtmp3.1/3, ML3.0/4, Error ellipse: s-maj=20.4km s-min=11.7km az=139.0*

ISC 11 20:39:57.2±1.1, **45.88N**±0.06×**106.58W**±0.07, **h0**km, **n34, σ1s42/34, Montana**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LAO	**LASA Array**	**0.84**	**17**		**Pb**	**20 40 14.2**	**-0.6**
RLMT	**Red Lodge**	**2.04**	**249**		**Pn**	**20 40 32.5**	**-0.5**
RLMT				IAML		20 41 04.5	
	186nm,0.3s						
RLMT				IAML		20 41 04.6	
	162nm,0.6s						
GCMT	**Greycliff**	**2.16**	**269**		**Pn**	**20 40 33.5**	**-1.1**
RSSD	**Black Hills**	**2.52**	**133**		**Pn**	**20 40 38.0**	**-1.6**
RSSD				IAML		20 41 18.8	
	96nm,0.5s						
RSSD				IAML		20 41 22.1	
	135nm,0.6s						
YNE	**Yellowstone No**	**2.57**	**251**		**Pn**	**20 40 39.9**	**-0.4**
YNE					**Sn**	**20 41 12.7**	**+0.3**
YMP	**Mirror Lake Pl**	**2.77**	**247**		**Pn**	**20 40 43.6**	**+0.4**
EGMT	**Eagleton**	**3.05**	**316**		**Pn**	**20 40 48.0**	**+1.2**
DGMT	**Dagmar**	**3.06**	**31**		**Pn**	**20 40 48.4**	**+1.6**
YNR	**Norris Junctio**	**3.12**	**249**		**Pn**	**20 40 46.5**	**-1.4**
YNR				IAML		20 41 33.3	
	comp=N,72nm,0.6s						
YNR				IAML		20 41 36.9	
	comp=E,49nm,0.5s						
YNM	**Yellowstone No**	**3.13**	**250**		Pn	**Pn**	**20 40 45.8**	**-2.2**
YNM					IAML		20 42 27.4	
	comp=E,84nm,0.1s						
H17A	**Grant Village**	**3.20**	**244**		Pn	**Pn**	**20 40 47.1**	**-1.8**
YHH	**Holmes Hill**	**3.21**	**252**			**Pn**	**20 40 47.7**	**-1.5**
YHH				IAML			20 41 49.9	
	comp=N,42nm,0.8s							
K22A	**Casper**	**3.23**	**179**			**Pn**	**20 40 48.0**	**-1.3**
K22A				IAML			20 41 41.7	
	comp=N,63nm,0.4s							
K22A				IAML			20 41 48.5	
	comp=N,78nm,0.5s							
YMR	**Madison River**	**3.33**	**250**			**Pn**	**20 40 49.2**	**-1.5**
YMR				IAML			20 42 13.9	
	comp=N,83nm,1.0s							
YFT	**Old Faithful**	**3.33**	**246**	Pn		**Pn**	**20 40 46.2**	**-4.6**
YPP	**Pitchstone Pla**	**3.40**	**243**			**Pn**	**20 40 52.4**	**+0.6**
YHL	**Hebgen Lake**	**3.41**	**254**			**Pn**	**20 40 50.8**	**-1.0**
YHL				IAML			20 41 49.1	
	comp=N,68nm,1.0s							
YHB	**Horse Butte**	**3.45**	**252**			**Pn**	**20 40 52.1**	**-0.3**
YHB				IAML			20 41 49.7	
	comp=N,35nm,1.0s							
BOZ	**Bozeman (W)**	**3.55**	**267**			**Pn**	**20 40 52.4**	**-1.3**
BOZ				IAML			20 41 55.4	
	comp=N,55nm,0.8s							
QLMT	**Earthquake Lak**	**3.58**	**255**			**Pn**	**20 40 52.2**	**-2.0**
BW06	**Boulder Array**	**3.78**	**216**			**Pn**	**20 40 56.9**	**0.0**
BW06				IAML			20 41 57.1	
	comp=N,36nm,0.8s							
BW06				IAML			20 41 58.0	
	comp=N,38nm,0.5s							
PD31	**Pinedale Array**	**3.78**	**216**			**Pn**	**20 40 57.3**	**+0.4**
PDAR	**Pinedale Array**	**3.78**	**216**	Pn		**Pn**	**20 40 57.4**	**+0.4**
	comp=N,0.7nm,0.3s,baz=36,slow=12,SNR=25							
PDAR				Pg		**Pb**	**20 41 04.7**	**-0.2**
	comp=N,3.2nm,0.3s,baz=35,slow=17,SNR=32							
PDAR				Lg	Lg		20 41 55.0	
	comp=N,4.2nm,0.3s,baz=38,slow=32,SNR=5.3							
	comp=N,1.0nm,0.4s							
PDAR				AML	AML			
PDAR	**Pinedale Array**	**3.78**	**216**			**Pn**	**20 40 57.2**	**+0.2**
SNOW	**Snow King Moun**	**3.84**	**232**			**Pn**	**20 40 59.0**	**+1.2**
SNOW				IAML			20 42 07.2	
	comp=N,39nm,0.8s							
SNOW				IAML			20 42 11.1	
	comp=N,36nm,1.2s							
GBMT	**Granite Butte,**	**4.18**	**286**			**Pn**	**20 41 03.5**	**+0.9**
GBMT				IAML			20 42 13.4	
	comp=E,28nm,0.8s							
GBMT				IAML			20 42 14.9	
	comp=N,28nm,0.7s							
AHID	**Auburn Hatcher**	**4.50**	**228**	IAML			20 42 23.6	
	comp=N,15nm,1.2s							
AHID				IAML			20 42 27.6	
	comp=N,21nm,1.1s							
MSO	**Missoula**	**5.18**	**283**			**Pn**	**20 41 17.1**	**+0.9**
MSO				IAML			20 42 49.1	
	comp=N,20nm,0.8s							
MSO				IAML			20 42 58.9	
	comp=N,19nm,0.9s							
O20A	**White River Ci**	**5.87**	**193**			**Pn**	**20 41 25.0**	**-0.7**
NEW	**Newport**	**7.58**	**292**	Pn		**Pn**	**20 41 50.4**	**+1.4**
	comp=N,0.1nm,0.3s,baz=117,slow=18,SNR=2.0							
NEW				Lg	Lg		20 43 50.5	
	comp=N,0.3nm,0.3s,baz=189,slow=14,SNR=6.5							
	comp=N,0.8nm,0.7s							
NEW				AML	AML			
PV18	**Skein Mesa, Pa**	**7.83**	**194**			**Pn**	**20 41 52.0**	**-0.5**
ELK	**Elko**	**8.14**	**234**	Pn		**Pn**	**20 41 58.1**	**+1.3**
	comp=N,0.1nm,0.3s,baz=18,slow=9.6,SNR=3.1							
ELK				AML	AML			
I10CA	**LAC DU BONNET**	**8.28**	**55**	I	I		21 29 27.0	
	baz=239,slow=239,SNR=2.5							
ULM	**Lac du Bonnet**	**8.39**	**55**	Pn		**Pn**	**20 41 59.2**	**-0.7**
	comp=N,0.7nm,0.3s,baz=241,slow=9.3,SNR=8.9							
ULM				Lg	Lg		20 44 18.0	
	comp=N,1.4nm,0.3s,baz=324,slow=19,SNR=4.2							
	comp=N,1.3nm,0.4s							
ULM				AML	AML			

THE ***11*** *20:56:19.5, 38°N±2°×2°E±°, h12km±1km, M3.0/8, MLh3.0/8*
AFAD ***11*** *20:56:19.3, 37.87N×26.98E, h6km±2km, ML2.6*
ISK ***11*** *20:56:19.0, 37.84N×26.93E, h8km, ML3.0/19*
ATH ***11*** *20:56:19.2, 37.85N×26.97E, h14km, ML3.0/8, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 11 20:56:19.2±0.8, **37.85N**±0.01×**26.98E**±0.02, **h16**km±5km, **n92, σ0s64/124, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.18**	**220**	P	**Pg**	**20 56 23.4**	**-0.3**
SMG				S	**Sg**	**20 56 26.3**	**-0.4**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**220**	P	**Pg**	**20 56 23.6**	**-0.1**
SMG				S	**Sg**	**20 56 26.6**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**338**	P	**Pg**	**20 56 24.1**	**-0.1**
DGB				S	**Sg**	**20 56 26.7**	**-0.9**
DGB				IAML		20 56 27.0	
	comp=E,1µm,0.3s						
KRL1	**Karlovasi Samo**	**0.23**	**256**	P	**Pg**	**20 56 24.2**	**-0.2**
KRL1				S	**Sg**	**20 56 27.8**	**0.0**
KRL1				AML	AML		
GMLD	**Gumuldur**	**0.23**	**347**	Pg	**Pg**	**20 56 24.4**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**87**	Pg	**Pg**	**20 56 25.1**	**+0.5**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**127**	P	**Pb**	**20 56 25.2**	**-0.1**
GCAM				S	**Sg**	**20 56 29.0**	**+0.6**
GCAM				IAML		20 56 30.0	
	comp=N,2µm,0.4s						
GCAM				IAML		20 56 30.0	
	comp=E,2µm,0.1s						
GCAM	**G?zelcaml?**	**0.25**	**127**	Pg	**Pg**	**20 56 25.1**	**+0.4**
GCAM				Sg	**Sb**	**20 56 29.5**	**+0.1**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.31**	**253**	P	**Pg**	**20 56 25.5**	**-0.3**
SAM2				S	**Sg**	**20 56 29.7**	**-0.5**
SAM2				AML	AML		
BEYE	**izmir**	**0.38**	**353**	P	**Pg**	**20 56 27.1**	**+0.1**
BEYE				S	**Sg**	**20 56 30.9**	**-1.4**
DDIM	**Aydin, Didim**	**0.44**	**152**	P	**Pb**	**20 56 28.5**	**-0.1**
DDIM				S	**Sb**	**20 56 34.7**	**-0.2**
DDIM				IAML		20 56 36.0	
	comp=N,457nm,0.2s						
DDIM				IAML		20 56 36.0	
	comp=E,630nm,0.4s						
DIDI	**Didim-Aydin**	**0.51**	**157**	Pg	**Pb**	**20 56 29.8**	**0.0**
DIDI				AML	AML		
DUVT	**Torbali**	**0.52**	**45**	P	**Pg**	**20 56 29.7**	**0.0**
DUVT				S	**Sg**	**20 56 35.8**	**-0.8**
DUVT				IAML		20 56 41.0	
	comp=E,896nm,0.3s						
BLCB	**Balcova**	**0.54**	**5**	P	**Pg**	**20 56 29.8**	**-0.1**
BLCB	**Balcova**	**0.54**	**5**	Pg	**Pg**	**20 56 29.9**	**0.0**
ZEYE	**Izmir, Urla-Ze**	**0.54**	**316**	P	**Pg**	**20 56 29.7**	**-0.3**
ZEYE				S	**Sg**	**20 56 36.6**	**-0.7**
ZEYE

MULA				IAML		20 57 02.0		
	comp=E,92nm,0.6s							
AKHS	**Akhisar**	**1.22**	**32**	P	**Pg**	**20 56 42.7**	**-0.1**	
AKHS				S	**Sb**	**20 56 57.8**	**+0.4**	
AKHS				IAML		20 57 01.0		
	comp=N,181nm,0.3s							
AKS	**Akhisar**	**1.22**	**32**	Pn	**Pg**	**20 56 43.3**	**+0.6**	
AKS				AML	AML			
DKL	**Dikili**	**1.22**	**357**	P	**Pn**	**20 56 41.9**	**+0.2**	
DKL				S	**Sb**	**20 56 57.9**	**+0.4**	
YAZI	**Mula-Dat§a-**	**1.22**	**162**	P	**Pn**	**20 56 40.9**	**-0.8**	
YAZI				S	**Sb**	**20 56 58.0**	**+0.5**	
YER	**Yerkesik**	**1.25**	**124**	Pn	**Pg**	**20 56 43.8**	**+0.4**	
YER				AML	AML			
SOMA	**Soma-Manisa**	**1.38**	**18**	Pn	**Pb**	**20 56 45.4**	**+0.8**	
SOMA				AML	AML			
APE	**Apeiranthos**	**1.39**	**237**	P	**Pn**	**20 56 43.3**	**-0.7**	
APE				AML	AML			
APE	**Apeiranthos**	**1.39**	**237**	P	**Pn**	**20 56 43.4**	**-0.7**	
APE				S	**Sn**	**20 57 01.5**	**-0.7**	
APE				AML	AML			
ASTA	**Astypalaia**	**1.40**	**201**	P	**Pb**	**20 56 45.4**	**+0.5**	
ASTA				S	**Sn**	**20 57 02.1**	**0.0**	
ASTA				AML	AML			
MANT	**Manisa**	**1.40**	**62**	P	**Pg**	**20 56 46.0**	**-0.1**	
MANT				S	**Sn**	**20 57 00.9**	**-1.6**	
MANT				IAML		20 57 07.0		
	comp=N,97nm,0.3s							
MANT				IAML		20 57 07.0		
	comp=E,88nm,0.3s							
GORD	**Gordes-Manisa**	**1.41**	**41**	Pn	**Pb**	**20 56 45.8**	**+0.5**	
GORD				AML	AML			
SULTU	**Buldan**	**1.43**	**81**	P	**Pb**	**20 56 45.9**	**+0.4**	
SULTU				IAML		20 57 10.0		
	comp=E,81nm,0.6s							
SULTU				IAML		20 57 17.0		
	comp=N,75nm,1.3s							
TURN	**Turunc**	**1.47**	**136**	P	**Pn**	**20 56 44.6**	**-0.5**	
TURN	**Turunc**	**1.47**	**136**	Pn	**Pb**	**20 56 46.7**	**+0.6**	
TURN				AML	AML			
AYVA	**Ayvalik**	**1.48**	**351**	P	**Pb**	**20 56 46.8**	**+0.5**	
AYVA				S	**Sb**	**20 57 05.6**	**+0.8**	
AYVA				IAML		20 57 11.0		
	comp=E,78nm,0.4s							
AYVA				IAML		20 57 15.0		
	comp=N,102nm,0.5s							
TNSA	**Tinos**	**1.48**	**259**	P	**Pn**	**20 56 45.8**	**+0.7**	
TNSA				S	**Sn**	**20 57 03.9**	**-0.2**	
NAX1	**Naxos Island**	**1.48**	**240**	P	**Pn**	**20 56 45.5**	**+0.3**	
PRK	**Paraskevi**	**1.50**	**338**	P	**Pn**	**20 56 45.7**	**+0.2**	
PRK	**Paraskevi**	**1.50**	**338**	P	**Pn**	**20 56 45.5**	**0.0**	
PRK				AML	AML			
HARTU	**Esme**	**1.51**	**70**	P	**Pn**	**20 56 45.8**	**0.0**	
HARTU				S	**Sn**	**20 57 03.7**	**-1.5**	
TAVA	**DENIZLI_Tavas**	**1.58**	**103**	P	**Pn**	**20 56 47.8**	**+1.2**	
STEP	**BALIKESİR_Sava**	**1.63**	**20**	P	**Pb**	**20 56 49.2**	**+0.3**	
STEP				S	**Sb**	**20 57 10.9**	**+1.6**	
STEP				IAML		20 57 14.0		
	comp=E,97nm,0.3s							
STEP				IAML		20 57 17.0		
	comp=N,118nm,0.7s							
BUHA	**Balikesir, Bur**	**1.65**	**2**	P	**Pn**	**20 56 47.7**	**+0.1**	
BUHA				IAML		20 57 17.0		
	comp=N,76nm,0.3s							
BUHA				IAML		20 57 18.0		
	comp=E,80nm,0.3s							
DALY	**Dalyan (Mula)**	**1.68**	**127**	Pn	**Pb**	**20 56 50.2**	**+0.4**	
DALY				AML	AML			
DEMI	**Demirci**	**1.81**	**48**	P	**Pb**	**20 56 52.6**	**+0.5**	
DEMI				IAML		20 57 21.0		
	comp=E,53nm,0.3s							
CMBO	**Columbo, Santo**	**1.87**	**223**	P	**Pn**	**20 56 50.5**	**0.0**	
ARG	**Arkhangelos**	**1.87**	**150**	P	**Pn**	**20 56 50.8**	**+0.3**	
THR2	**Thira island,**	**1.87**	**222**	P	**Pn**	**20 56 50.0**	**-0.6**	
THR8	**Santorini-Mono**	**1.88**	**220**	P	**Pn**	**20 56 50.4**	**-0.2**	
APMY	**Acipayam-Deniz**	**1.88**	**101**	Pn	**Pb**	**20 56 52.6**	**-0.6**	
THERA	**Ancient Thera,**	**1.91**	**220**	P	**Pn**	**20 56 50.6**	**-0.5**	
THR3	**Thira Island,**	**1.92**	**222**	P	**Pn**	**20 56 51.7**	**+0.6**	
BALB	**Balikesir**	**1.92**	**21**	P	**Pn**	**20 56 52.6**	**+1.3**	
BALB				AML	AML			
BAYC	**CANAKKALE_Bayr**	**1.92**	**350**	P	**Pn**	**20 56 51.2**	**-0.1**	
SNT5	**Nea Kammeni, S**	**1.92**	**222**	P	**Pn**	**20 56 52.3**	**+1.0**	
SAP3	**Santorini-Thir**	**1.93**	**223**	P	**Pn**	**20 56 51.6**	**+0.3**	
THR5	**Thira Island,**	**1.94**	**223**	P	**Pn**	**20 56 52.0**	**+0.5**	
THR6	**Thira Island,**	**1.96**	**221**	P	**Pn**	**20 56 52.5**	**+0.8**	
KARY	**Karystos**	**2.02**	**276**	P	**Pn**	**20 56 51.6**	**-1.0**	
KARP	**Karpathos**	**2.30**	**176**	P	**Pn**	**20 56 56.9**	**+0.4**	
DION	**Dionisos Attik**	**2.42**	**276**	P	**Pn**	**20 56 58.4**	**+0.2**	
PTL	**Penteli**	**2.47**	**276**	P	**Pn**	**20 56 58.8**	**-0.1**	
LIA	**Limnos Island**	**2.48**	**326**	P	**Pn**	**20 56 59.7**	**+0.7**	
SMTH	**Samothraki Isl**	**2.85**	**337**	P	**Pn**	**20 57 03.8**	**-0.3**	
IDI	**Anoyia**	**3.06**	**214**	P	**Pn**	**20 57 08.1**	**+1.0**	
GUR	**Goura**	**3.67**	**273**	P	**Pn**	**20 57 14.9**	**-0.5**	
KLV	**Kalavryta, Ach**	**3.83**	**274**	P	**Pn**	**20 57 18.5**	**+1.0**	
ANX	**Ano Chora**	**4.06**	**282**	P	**Pn**	**20 57 21.9**	**+1.2**	
DRO	**Drossia**	**4.17**	**273**	P	**Pn**	**20 57 22.1**	**-0.1**	

NDI ***11*** *20:59:30.3±1.9, 32°.54N×76°.37E, h5km±4km, ML3.9, MW3.5, Presumed earthquake*

IDC ***11*** *20:59:30.3±0.8, 32°.74N×75°.65E, h0km, mb3.8/13, mbtmp3.9/15, ML4.1/2, MS2.7/4, Error ellipse: s-maj=20.7km s-min=14.9km az=71.0*

NNC ***11*** *20:59:35.7±2.2, 33°.02N×75°.16E, h0km, mb3.9, Error ellipse: s-maj=27.3km s-min=19.8km az=109.0*

ISC 11 20:59:31.8±0.5, 32°.59N±0°.04×75°.97E±0°.05, h20km, n56, σ2§65/71, mb3.7/12, 3C-3D, Kashmir-India border region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
TSSA	**Tissa**	**0.29**	**32**	*i* P		**Pb**	**20 59 36.9**	**-1.7**
TSSA				*i* S		**Sb**	**20 59 41.6**	**-1.6**
TSSA				IAML			20 59 48.6	
	comp=N,8μm,0.4s							
DHRM	**DHARAMSHALA**	**0.44**	**140**	*i* P		Pb	20 59 35.9	-5.1
JMU	**Jammu**	**0.98**	**282**	*i* P		**Pn**	**20 59 54.6**	**+4.3**
JMU				*i* S		Sn	21 00 12.2	+8.6
BHK	**Bhakra**	**1.24**	**163**	*i* P		**Pn**	**20 59 54.2**	**+0.2**
BHK				*i* S		**Sn**	**21 00 11.5**	**+1.4**
BHK				IAML			21 00 21.8	
	comp=N,2μm,0.7s							
SRNI	**Srinagar**	**1.75**	**327**	*i* S		**Sb**	**21 00 31.1**	**+6.0**
SRNI				IAML			21 00 31.8	
	comp=N,5μm,0.1s							
SMLA	**Simla**	**1.78**	**145**	*i* P		**Pn**	**20 59 59.4**	**-1.9**
SMLA				*i* S		**Sn**	**21 00 20.0**	**-3.3**
SMLA				IAML			21 00 35.1	
	comp=N,1μm,0.3s							
ALCI	**Alchi Leh**	**1.92**	**32**	*i* P		**Pn**	**21 00 02.6**	**-1.1**
ALCI				*i* S		**Sn**	**21 00 26.3**	**-1.1**
KLP	**Kalpa**	**2.21**	**118**	*i* P		Pn	21 00 03.7	-3.8
KLP				*i* S		Sn	21 00 27.7	-6.7
KLP				IAML			21 00 48.6	
	comp=N,664nm,0.3s							
UTK	**UTTARKASHI**	**2.81**	**131**	*i* P		Pn	21 00 09.8	-5.9
UTK				*i* S		Sn	21 00 42.6	-6.4
UTK				IAML			21 01 00.3	
	comp=N,548nm,0.2s							
SRGN	**SRI GANGA NAGA**	**3.20**	**214**	*i* P		**Pn**	**21 00 23.8**	**+2.9**
SRGN				*i* S		**Sn**	**21 01 02.8**	**+4.4**
JOSI	**Joshimath**	**3.67**	**122**	*i* P		Pn	21 00 23.5	-4.1
JOSI				*i* S		Sn	21 01 02.4	-8.1
MERT	**Meerut**	**3.91**	**157**	*i* P		**Pn**	**21 00 28.9**	**-1.8**
MERT				*i* S		**Sn**	**21 01 11.5**	**-4.5**
NDI	**New Delhi**	**4.03**	**164**	*i* P		**Pn**	**21 00 31.0**	**-1.4**
NDI				*i* S		**Sn**	**21 01 15.2**	**-3.8**
NPLP	**NPLP New Delhi**	**4.07**	**165**	*i* P		**Pn**	**21 00 31.6**	**-1.3**
NPLP				*i* S		**Sn**	**21 01 16.5**	**-3.4**
KUDL	**Kundal**	**4.45**	**174**	*i* P		**Pn**	**21 00 38.0**	**-0.1**
KUDL				*i* S		**Sn**	**21 01 26.8**	**-2.5**
PTH	**Pithoragarh**	**4.71**	**128**	*i* P		Pn	21 00 37.8	-4.0
PTH				*i* S		Sn	21 01 27.7	-8.3
LGTI	**Lohaghat**	**4.76**	**131**	*i* P		Pn	21 00 38.7	-3.8
LGTI				*i* S		Sn	21 01 28.6	-8.5
BKNR	**BIKANER**	**5.11**	**208**	*i* P		**Pn**	**21 00 49.0**	**+1.9**
BKNR				*i* S		**Sn**	**21 01 43.5**	**-2.0**
BKNR				IAML			21 01 58.8	
	comp=N,386nm,0.6s							
AJM	**Ajmer**	**6.25**	**191**	*i* P		**Pn**	**21 01 03.5**	**+0.6**
AJM				*i* S		**Sn**	**21 02 11.6**	**-2.2**
KSH2	**Kashi**	**6.55**	**357**	P		**Pn**	**21 01 11.2**	**+4.0**
KSH2				S		**Sn**	**21 02 23.2**	**+1.8**
KSH2				pmax	pmax			
	comp=Z,42nm,0.4s							
KSH2				LR	LR			
	comp=N,450nm,12.7s							
KSH2				LR	LR			
	comp=E,190nm,12.7s							
KSH2				LR	LR			
	comp=Z,290nm,9.3s							
JHNI	**Jhansi**	**7.47**	**161**	*i* P		**Pn**	**21 01 17.3**	**-2.4**
DANN	**Dangsing**	**7.94**	**120**	Pn		**Pn**	**21 01 29.6**	**+3.2**
	baz=122,slow=0.0							
DANN				Sn		**Sn**	**21 02 56.9**	**+1.1**
	comp=Z,40nm,0.4s,baz=122,slow=0.0							
DANN				AML		AML		
KOLN	**Koldanda**	**8.17**	**124**	Pn		**Pn**	**21 01 32.9**	**+3.5**
	baz=126,slow=0.0							
KOLN				Sn		**Sn**	**21 03 02.5**	**+1.3**
	comp=Z,31nm,0.4s,baz=126,slow=0.0							
KOLN				AML		AML		
GKN	**Gorkha**	**8.78**	**119**	Pn		**Pn**	**21 01 41.4**	**+3.7**
	baz=121,slow=0.0							
GKN				Sn		**Sn**	**21 03 15.8**	**-0.3**
	comp=Z,60nm,0.3s,baz=121,slow=0.0							
GKN				AML		AML		
DMN	**Daman**	**9.34**	**120**	Pn		**Pn**	**21 01 48.3**	**+2.8**
	baz=122,slow=0.0							
DMN				Sn		**Sn**	**21 03 30.1**	**0.0**
	baz=122,slow=0.0							
KKN	**Kakani**	**9.37**	**118**	Pn		**Pn**	**21 01 49.5**	**+3.6**
	baz=120,slow=0.0							
KKN				Sn		**Sn**	**21 03 29.5**	**-1.3**
	comp=Z,50nm,0.6s,baz=120,slow=0.0							
KKN				AML		AML		
BHPL	**Bhopal**	**9.40**	**172**	*i* S		Sn	21 03 21.8	-9.4
PKIN	**Phulchoki**	**9.57**	**119**	Pn		**Pn**	**21 01 52.4**	**+3.7**
	baz=121,slow=0.0							
PKIN				Sn		**Sn**	**21 03 35.9**	**+0.1**
	comp=Z,66nm,0.5s,baz=121,slow=0.0							
PKIN				AML		AML		
PKI	**Pulchoki**	**9.59**	**119**	Pn		**Pn**	**21 01 52.1**	**+3.2**
	baz=121,slow=0.0							
PKI				Sn		**Sn**	**21 03 35.9**	**-0.3**
	comp=Z,39nm,0.4s,baz=121,slow=0.0							
PKI				AML		AML		
GUN	**Gumba**	**9.76**	**116**	Pn		**Pn**	**21 01 54.1**	**+2.8**
	baz=118,slow=0.0							
GUN				Sn		**Sn**	**21 03 39.5**	**-1.0**
	comp=Z,22nm,0.3s,baz=118,slow=0.0							
GUN				AML		AML		
AAK	**Ala-Archa**	**10.10**	**354**	Pn		**Pn**	**21 01 57.2**	**+1.4**
	comp=Z,1.7nm,0.3s,baz=158,slow=9.0,SNR=17							
AAK				Sn		**Sn**	**21 03 43.6**	**-5.0**
	comp=Z,0.6nm,0.3s,baz=12,slow=12,SNR=3.8							
AAK				LR		LR	21 06 13.4	
	comp=Z,36nm,20.1s,baz=162,slow=41							
	comp=Z,4.0nm,0.3s							
AAK				AML		AML		
AAK	**Ala-Archa**	**10.10**	**354**	⇓P		**Pn**	**21 01 55.7**	**-0.1**
	comp=Z,1.0nm,0.4s							
AAK				⇑S		**Sn**	**21 03 46.2**	**-2.4**
	comp=Z,5.1nm,0.9s							
RAMN	**Ramite**	**10.81**	**119**	Pn		**Pn**	**21 02 07.7**	**+2.1**
	baz=120,slow=0.0							
RAMN				Sn		**Sn**	**21 04 04.8**	**-1.4**
	comp=Z,30nm,0.3s,baz=120,slow=0.0							
RAMN				AML		AML		
PDGK	**Podgornoye**	**11.08**	**14**	⇑P		**Pn**	**21 02 10.2**	**+1.0**
	comp=Z,4.2nm,0.3s							
KK31	**Karatay Array**	**11.35**	**339**	⇓P		**Pn**	**21 02 10.9**	**-1.8**
	comp=Z,2.1nm,0.3s,baz=165,slow=15,SNR=5.3							
KK31				⇓S		**Sn**	**21 04 11.6**	**-7.3**
	comp=Z,3.4nm,0.3s,baz=161,slow=22							
ODAN	**Odare**	**11.45**	**117**	Pn		**Pn**	**21 02 17.2**	**+2.8**
	baz=118,slow=0.0							
MK31	**Makanchi Array**	**14.99**	**17**	P		**Pn**	**21 03 04.9**	**+2.4**
	comp=Z,0.8nm,0.4s,baz=200,slow=12,SNR=51							
MKAR	**Makanchi Array**	**14.99**	**17**	Pn		**Pn**	**21 03 01.7**	**-0.8**
	comp=Z,0.8nm,0.3s,baz=204,slow=13,SNR=30							
MKAR				Sn		**Sn**	**21 05 42.5**	**-5.4**
	comp=Z,0.2nm,0.3s,baz=211,slow=21,SNR=3.0							
MKAR				LR		LR	21 08 21.4	
	comp=Z,4.8nm,20.6s,baz=246,slow=36							
	comp=Z,1.1nm,0.4s							
MKAR				AML		AML		
KURBB	**Kurchatov Arra**	**18.12**	**5**	P		**Pn**	**21 03 39.5**	**-2.6**
	comp=Z,2.9nm,0.7s,baz=192,slow=11,SNR=25							
GTA2	**Gaotai**	**20.41**	**64**	P		Pn	21 04 10.2	+0.4
GTA2				pP		pP	21 04 15.7	+2.0
GTA2				pmax		pmax		
	comp=Z,13nm,0.7s							
AB31	**Akbulak array**	**20.52**	**329**	⇑P		**P**	**21 04 08.2**	**-0.4**
	comp=Z,0.6nm,0.4s,baz=134,slow=12,SNR=27							
BVAR	**Borovoye Array**	**20.82**	**350**	P		**P**	**21 04 11.9**	**+0.1**
	comp=Z,18nm,0.7s,baz=160,slow=10,SNR=90							
	comp=Z,18nm,0.7s							
AKTO	**Aktyubinsk**	**22.23**	**329**	P		**P**	**21 04 25.8**	**-1.2**
	comp=Z,5.9nm,1.9s							
ZALV	**Zalesovo Beam**	**22.27**	**14**	P		**P**	**21 04 26.9**	**-0.5**
	comp=Z,3.5nm,0.5s,baz=219,slow=12,SNR=16							
	comp=Z,3.5nm,0.5s							
CMAR	**Chiang Mai Arr**	**24.98**	**119**	P		**P**	**21 04 57.9**	**+3.6**
	comp=Z,0.9nm,0.7s,baz=305,slow=9.7,SNR=2.6							
	comp=Z,0.9nm,0.7s							
SONM	**Songino Array**	**27.56**	**48**	P		**P**	**21 05 19.4**	**+2.0**
	comp=Z,1.1nm,0.6s,baz=246,slow=9.2,SNR=11							
SONM				LR		LR	21 17 07.0	
	comp=Z,16nm,18.1s,baz=147,slow=38							
	comp=Z,1.1nm,0.6s							
HILR	**Hailar Array B**	**36.52**	**49**	LR		LR	21 25 17.8	
	comp=Z,67nm,21.3s,baz=80,slow=42							
FINES	**FINESS Array B**	**42.99**	**327**	P		**P**	**21 07 29.2**	**-0.1**
	comp=Z,1.9nm,0.8s,baz=127,slow=5.7,SNR=7.2							
	comp=Z,1.9nm,0.8s							
ARCES	**ARCESS Array B**	**46.31**	**338**	P		**P**	**21 07 55.8**	**+0.1**
	comp=Z,2.5nm,1.0s,baz=64,slow=5.6,SNR=4.3							
	comp=Z,2.5nm,1.0s							
HFS	**Hagfors**	**48.65**	**324**	P		**P**	**21 08 13.3**	**-0.8**
	comp=Z,0.8nm,0.7s,baz=80,slow=8.9,SNR=1.0							
	comp=Z,0.8nm,0.7s							
NOA	**NORSAR Array B**	**49.95**	**325**	P		**P**	**21 08 25.0**	**+1.0**
	comp=Z,0.4nm,0.9s,baz=107,slow=6.6,SNR=2.2							
	comp=Z,0.4nm,0.9s							
ESDC	**Sonseca Array**	**62.95**	**301**	P		**P**	**21 09 56.1**	**-0.9**
	comp=Z,0.5nm,0.9s,baz=61,slow=6.7,SNR=4.3							
	comp=Z,0.5nm,0.9s							
TORD	**Torodi Ar. Bea**	**69.87**	**273**	P		**P**	**21 10 41.0**	**-0.6**
	comp=Z,0.5nm,0.4s,baz=42,slow=6.1,SNR=9.2							
	comp=Z,0.5nm,0.4s							
WRA	**Warramunga Arr**	**76.42**	**125**	P		**P**	**21 11 23.0**	**+2.8**
	comp=Z,0.6nm,0.9s,baz=311,slow=6.3,SNR=2.3							
	comp=Z,0.6nm,0.9s							
ILAR	**Eielson Array**	**77.35**	**17**	P		**P**	**21 11 24.7**	**0.0**
	comp=Z,0.2nm,0.4s,baz=321,slow=6.3,SNR=5.3							
	comp=Z,0.2nm,0.4s							
ASAR	**Alice Springs**	**78.64**	**128**	P		P	21 11 37.9	+5.4
	comp=Z,0.5nm,0.9s,baz=344,slow=5.8,SNR=3.9							
	comp=Z,0.5nm,0.9s							

MOS ***11*** *21:33:24.9±1.0, 21°.54N×121°.92E, h11km, mb5.3/70, MS4.5/12, Error ellipse: s-maj=6.7km s-min=4.0km az=115.6*

IDC ***11*** *21:33:25.0±0.5, 21°.44N×121°.79E, h0km, mb4.6/32, mbtmp4.6/35, ML4.1/3, MS4.3/50, Error ellipse: s-maj=13.0km s-min=10.3km az=103.0*

TAP ***11*** *21:33:27.0, 21°.60N×121°.83E, h33km, ML5.3, D*

BJI ***11*** *21:33:26.5, 21°.49N×121°.83E, h10km, mB5.1/38, mb4.6/76, ML4.9/4, Ms4.8/83, Ms7 4.6/81*

GFZ ***11*** *21:33:27.9, 21°.62N×121°.93E, h18km, Mw5.0/80, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=0.70; Mθθ 3.36; Mϕϕ -2.67; Mrθ 0.28; Mθϕ -1.65; Mϕr 0.67; Fault plane solution: M₀3.56369×10¹⁶ NP1: ϕs148.29584°, δ78.08316°, λ-10.12038°. NP2: ϕs240.40667°, δ80.09995°, λ-167.90032°. Principal axes: T 3.7865, Plg1.4004°, Azm14.1639°; N -0.4979, Plg74.4132°, Azm279.1364°; P -3.2886, Plg15.5206°, Azm104.5529°;*

GFZ ***11*** *21:33:27.9±0.1, 22°N×2°E±°, h10km, M5.0/69, mb5.0/69, confirmed*

NIED ***11*** *21:33:27.4, 21°.60N×121°.81E, h71km, MW5.1, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁶Nm; Mrr 1.23; Mθθ 2.69; Mϕϕ -3.92; Mrθ 1.94; Mθϕ -2.03; Mϕr 0.58; Fault plane solution: M₀4.48000×10¹⁶ NP1: ϕs154.00000°, δ60.00000°, λ15.00000°. NP2: ϕs57.00000°, δ77.00000°, λ150.00000°.*

NEIC ***11*** *21:33:27.4±1.3, 21°.65N±0°.05×121°.84E±0°.07, h10km±1km, mb5.1/113, Mww5.0/21 Error ellipse: s-maj=10.6km s-min=8.0km az=82.0*

JMA ***11*** *21:33:27.4±0.4, 22°N±2°×121°.8E±0°.9, h71km, MV5.0/20, TAIWAN REGION*

GCMT ***11*** *21:33:30.4±0.2, 21°.58N±0°.01×121°.72E±0°.01, h18km, MW5.1/119, Moment Tensor Solution. s54,c68; s119,c198; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=0.60±.12; Mθθ4.35±.11; Mϕϕ-3.75±.11; Mrθ 1.39±.23; Mθϕ-2.71±.09; Mϕr-0.44±.23; Best double couple: M₀5.04700×10¹⁶ NP1:ϕs61.00000°, δ80.00000°, λ171.00000°. NP2:ϕs153.00000°, δ81.00000°, λ10.00000°. Principal axes: T 5.5210, Plg13.0000°, Azm17.0000°; N -0.9490, Plg77.0000°, Azm196.0000°; P -4.5730, Plg0.0000°, Azm287.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 11 21:33:28.2±0.4, 21°.60N±0°.02×121°.85E±0°.03, h15km±2km, h15km:pP-P, n799, σ1§69/898, mb5.0/210, MS4.4/72, 45C-25D, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.47**	**328**	*eP*		**Pb**	**21 33 38.0**	**-0.2**
LYUB				*eS*		**Sb**	**21 33 45.8**	**+0.8**
LAY	**Lan-yu**	**0.52**	**327**	*i* P		**Pg**	**21 33 37.6**	**-0.9**
LAY				S		**Sg**	**21 33 45.2**	**-0.2**
TSEB	**Hengchuen, Pin**	**0.93**	**289**	*eP*		**Pg**	**21 33 44.4**	**-1.9**
TSEB				S		**Sb**	**21 33 58.6**	**+0.3**
TWKBT	**Hengchun**	**1.02**	**289**	P		**Pb**	**21 33 45.3**	**-2.3**
TWKBT				*eS*		**Sb**	**21 33 58.0**	**-2.8**
TWK1	**Hengchun**	**1.03**	**289**	*i* P		**Pb**	**21 33 45.1**	**-2.6**
TWK1				*eS*		**Sb**	**21 33 59.3**	**-1.8**
SMST	**Manzhou Townsh**	**1.03**	**294**	*eP*		**Pb**	**21 33 45.0**	**-2.7**
HEN	**Hengchun**	**1.11**	**291**	*eP*		**Pb**	**21 33 46.6**	**-2.5**
LDUT	**Ludao**	**1.12**	**342**	*eP*		**Pb**	**21 33 46.3**	**-3.3**
LDUT				S		**Sb**	**21 34 01.5**	**-2.3**
SLIU	**Shizi**	**1.15**	**302**	P		**Pb**	**21 33 47.0**	**-2.8**
SLIU				*eS*		**Sb**	**21 34 01.4**	**-3.3**
TAW	**Tawu**	**1.16**	**310**	*eP*		**Pb**	**21 33 47.2**	**-2.8**
TAW				*eS*		**Sb**	**21 34 02.8**	**-2.1**
EAST	**Anshuo**	**1.21**	**310**	⇓*eP*		**Pn**	**21 33 47.8**	**-2.9**
EAST				S		**Sb**	**21 34 02.4**	**-4.0**
ECL	**Taimali**	**1.29**	**320**	*eP*		**Pn**	**21 33 48.8**	**-3.0**
TTN	**Taitung**	**1.32**	**330**	*eP*		**Pn**	**21 33 50.9**	**-1.2**
TTN				*eS*		**Sb**	**21 34 08.0**	**-1.5**
SCZT	**Fangliau**	**1.38**	**304**	*i* P		**Pn**	**21 33 50.6**	**-2.2**
SCZT				*eS*		**Sn**	**21 34 07.2**	**-3.6**
TWGBT	**Beinan**	**1.41**	**330**	P		**Pn**	**21 33 51.5**	**-1.8**
TWGBT	**Beinan**	**1.41**	**330**	S		**Sn**	**21 34 05.2**	**-6.3**
TWGBT	**Beinan**	**1.41**	**330**	P		**Pn**	**21 33 51.3**	**-2.0**
TWGBT				*eS*		**Sn**	**21 34 08.0**	**-3.5**
TWG	**Pinlang**	**1.41**	**329**			**Pn**	**21 33 51.3**	**-2.1**
TWG					Sn	**Sn**	**21 34 09.5**	**-2.2**
TWG	**Pinlang**	**1.41**	**329**	P		**Pn**	**21 33 51.3**	**-2.1**
	comp=Z,9μm,0.7s							
TWG	**Pinlang**	**1.41**	**329**	⇑*iP*		**Pn**	**21 33 51.2**	**-2.1**
EDH	**Donghe**	**1.46**	**340**	*eP*		**Pn**	**21 33 51.1**	**-2.8**
EDH				*i* S		**Sn**	**21 34 09.4**	**-3.4**
LONT	**Longtian**	**1.46**	**333**	*eP*		**Pn**	**21 33 52.3**	**-1.8**
LONT				*eS*		**Sn**	**21 34 11.7**	**-1.2**
SSPT	**Xinbi**	**1.48**	**307**	*eP*		**Pn**	**21 33 52.9**	**-1.4**
MASBT	**Mashibuluo**	**1.51**	**312**	*eP*		**Pn**	**21 33 52.7**	**-2.1**
CHKT	**Chengkung**	**1.56**	**343**	*i* P		**Pn**	**21 33 52.4**	**-2.9**
CHKT				*eS*		**Sn**	**21 34 11.1**	**-4.2**
WLCH	**Liuqiu**	**1.56**	**299**	*eP*		**Pb**	**21 33 56.0**	**-0.7**
TSMG	**Majia**	**1.57**	**315**	*eP*		**Pn**	**21 33 53.4**	**-2.1**
TWP	**Hsiaoliuchiu**	**1.57**	**298**	*eP*		**Pn**	**21 33 55.5**	**0.0**
TWP				*eS*		**Sg**	**21 34 17.1**	**-1.7**
ECS	**Chishang**	**1.60**	**339**	*eP*		**Pn**	**21 33 54.1**	**-1.8**
ECS				*eS*		**Sn**	**21 34 15.6**	**-2.8**
SSD	**Sandimen**	**1.60**	**315**	*eP*		**Pn**	**21 33 54.2**	**-1.8**
CHKH	**Chenggong**	**1.64**	**345**	*eP*		**Pn**	**21 33 53.5**	**-3.0**
CHKH				*eS*		**Sn**	**21 34 13.6**	**-3.6**
EHD	**Haiduan**	**1.65**	**339**	*eP*		**Pn**	**21 33 54.5**	**-2.2**
FULB	**Fuli**	**1.67**	**342**	*eP*		**Pn**	**21 33 54.1**	**-2.9**
SGLT	**Jiouru**	**1.69**	**312**	*eP*		**Pb**	**21 33 57.8**	**-1.1**
ECBN	**Changbin**	**1.75**	**348**	*eP*		**Pn**	**21 33 55.1**	**-2.9**
ELDTW	**Lidau**	**1.76**	**334**

EOS4 S **Sn** **21 34 35.6 -3.5**
ETL Fush Village 2.55 355 *e*P **Pn** **21 34 07.0 -2.1**
ETL *e*S **Sn** **21 34 37.2 -2.7**
NACB Ninganchiao 2.57 355 P **Pn** **21 34 07.2 -2.1**
NACB Ninganchiao 2.57 355 **Pn** **21 34 06.8 -2.5**
NACB Ninganchiao 2.57 355 P **Pn** **21 34 07.4 -1.9**
comp=Z,1μm,0.7s
NACB Ninganchiao 2.57 355 P **Pn** **21 34 07.0 -2.3**
WHF Hehuan Shan 2.59 348 *e*P **Pn** **21 34 08.6 -1.3**
WHF S **Sn** **21 34 39.8 -1.6**
WCS Beigang Elemen 2.59 341 P **Pn** **21 34 10.1 +0.5**
WDGT Dungji 2.62 310 *e*P **Pn** **21 34 08.0 -1.9**
WDGT *e*S **Sn** **21 34 37.6 -3.8**
ETLH Xiulin Townshi 2.62 353 *e*P **Pn** **21 34 08.0 -2.0**
RLNB Erlin 2.66 329 *e*P **Pn** **21 34 09.7 -0.9**
RLNB *e*S **Sn** **21 34 43.0 +0.5**
FUSS Fushou 2.69 348 P **Pn** **21 34 10.0 -1.2**
FUSS *e*S **Sn** **21 34 42.1 -1.5**
EOS3 EOS3 2.71 9 P **Pn** **21 34 10.2 -0.8**
EOS3 *e*S **Sn** **21 34 40.6 -2.8**
TWT Tachien 2.71 347 *e*P **Pn** **21 34 11.0 -0.4**
TDCB Techi 2.72 347 *e*P **Pn** **21 34 10.9 -0.5**
EAHA Aohua 2.72 358 *e*P **Pn** **21 34 08.8 -2.5**
EAHA *e*S **Sn** **21 34 40.9 -3.0**
WCHH Zhanghua 2.74 334 *e*P **Pn** **21 34 12.4 +0.8**
VCHM Qimei 2.75 306 *e*P **Pn** **21 34 09.4 -2.4**
TCU Taichung 2.76 337 *e*P **Pn** **21 34 13.3 +1.4**
WHP Taichung City 2.79 343 *e*P **Pn** **21 34 14.2 +1.8**
WHP *e*S **Sn** **21 34 48.2 +2.3**
ENA Nanau 2.81 358 *e*P **Pn** **21 34 11.2 -1.4**
ENA *e*S **Sn** **21 34 42.8 -3.5**
EOS2 EOS2 2.83 7 *e*P **Pn** **21 34 12.3 -0.4**
EWUT Wuta 2.83 359 *e*P **Pn** **21 34 11.3 -1.6**
EWUT *e*S **Sn** **21 34 44.8 -1.9**
PHUB P'eng-hu 2.84 313 *e*P **Pn** **21 34 11.2 -1.7**
NNSB Datong 2.85 351 *e*P **Pn** **21 34 12.1 -1.1**
PNG Penghu 2.89 313 *e*P **Pn** **21 34 11.4 -2.3**
TWQ1 Liyutan 2.91 340 *e*P **Pn** **21 34 15.5 +1.5**
LATG Datong 2.94 354 *e*P **Pn** **21 34 12.8 -1.6**
WDJ Dajia District 2.95 338 *e*P **Pn** **21 34 16.7 +2.1**
ESAO Su ao 2.96 360 *e*P **Pn** **21 34 13.9 -0.8**
ESAO *e*S **Sn** **21 34 47.9 -2.0**
TWC Suao 2.99 360 *e*P **Pn** **21 34 13.9 -1.2**
TWC S **Sn** **21 34 48.4 -2.4**
JYNG Yonagunijimaku 3.01 19 *e*P **Pn** **21 34 14.4 -0.9**
JYNG *e*S **Sn** **21 34 49.3 -1.8**
NDS Dongshan 3.02 358 *e*P **Pn** **21 34 14.4 -1.1**
NDS *e*S **Sn** **21 34 50.0 -1.4**
ENTT Nioudou 3.04 355 *e*P **Pn** **21 34 14.8 -0.9**
HATJ Hateruma jima 3.04 36 *e*P **Pn** **21 34 14.3 -1.4**
HATJ *e*S **Sn** **21 34 49.6 -2.1**
YOJ Yonaguni jima 3.04 20 P **Pn** **21 34 15.0 -0.7**
YOJ Yonaguni jima 3.04 20 S **Sn** **21 34 49.5 -2.4**
YOJ Yonaguni jima 3.04 20 P **Pn** **21 34 14.6 -1.1**
YOJ Yonaguni jima 3.04 20 **Pn** **21 34 14.6 -1.1**
YOJ Yonaguni jima 3.04 20 P **Pn** **21 34 15.0 -0.7**
comp=Z,1μm,0.9s
YOJ Yonaguni jima 3.04 20 *e*P **Pn** **21 34 14.7 -1.1**
YOJ *e*S **Sn** **21 34 49.0 -2.8**
YOJ Yonaguni jima 3.04 20 P **Pn** **21 34 14.8 -1.0**
YOJ *e*S **Sn** **21 34 50.4 -1.4**
YHNB Yeheng 3.08 352 P **Pn** **21 34 16.2 -0.2**
YHNB Yeheng 3.08 352 **Pn** **21 34 15.5 -1.0**
YHNB Yeheng 3.08 352 P **Pn** **21 34 16.2 -0.2**
comp=Z,2μm,0.8s
YHNB Yeheng 3.08 352 *e*P **Pn** **21 34 15.6 -0.8**
NFF Wufeng Townshi 3.09 348 P **Pn** **21 34 18.3 +1.8**
NFF *e*S **Sn** **21 34 53.5 +0.3**
NSK Sanguang 3.09 352 *e*P **Pn** **21 34 16.6 0.0**
NSK *e*S **Sn** **21 34 52.1 -1.2**
TWE Neicheng 3.11 357 *e*P **Pn** **21 34 16.1 -0.6**
NSTT Nanjuang 3.12 346 *e*P **Pn** **21 34 17.3 +0.5**
NSTT *e*S **Sn** **21 34 52.8 -0.9**
LIOB Emei 3.13 346 *e*P **Pn** **21 34 17.5 +0.5**
FUSB Fushanzhiwuyua 3.15 356 *e*P **Pn** **21 34 16.7 -0.7**
FUSB *e*S **Sn** **21 34 54.3 -0.5**
NWLT Wulai 3.18 354 *e*P **Pn** **21 34 18.1 +0.5**
NWLT *e*S **Sn** **21 34 52.8 -2.5**
KSHI Guanxi Townshi 3.22 349 *e*P **Pn** **21 34 19.1 +0.8**
KSHI *e*S **Sn** **21 34 57.2 +0.8**
IRIF Iriomote-Funau 3.23 32 *e*P **Pn** **21 34 17.4 -0.8**
IRIF *e*S **Sn** **21 34 55.0 -1.4**
JKRS Kuro-shima 3.29 37 *e*P **Pn** **21 34 18.6 -0.6**
JKRS *e*S **Sn** **21 34 56.5 -1.6**
TIPB Shuangxi 3.35 360 *e*P **Pn** **21 34 19.8 -0.3**
TIPB S **Sn** **21 34 58.4 -1.3**
TWA Mucha 3.37 356 *e*P **Pn** **21 34 21.0 +0.7**
TWA *e*S **Sn** **21 34 58.1 -2.0**
TATO Taipei 3.38 354 P **Pn** **21 34 20.3 0.0**
TATO Taipei 3.38 354 **Pn** **21 34 19.8 -0.6**
TATO Taipei 3.38 354 P **Pn** **21 34 20.8 +0.5**
comp=Z,1μm,0.9s
TWB1 Santiao Chiao 3.39 2 *e*P **Pn** **21 34 20.5 -0.1**
NWF Wu-fen Shan 3.45 359 *e*P **Pn** **21 34 22.2 +0.7**
NWF *e*S **Sn** **21 35 01.3 -0.9**
WFSB Wu-fen Shan 3.45 359 *e*P **Pn** **21 34 22.6 +1.1**
WFSB *e*S **Sn** **21 35 01.3 -0.8**
PIP Pasuquin 3.46 200 *e*P Pn 21 34 15.9 -5.7
PIP *e*S **Sn** **21 35 03.3 +1.1**
JIJ Ishigaki jima 3.47 37 P **Pn** **21 34 20.8 -0.8**
JIJ *e*S **Sn** **21 34 58.9 -3.5**
SXI1 Grass Mountain 3.48 0 *i* P **Pn** **21 34 21.4 -0.4**
SXI1 *e*S **Sn** **21 35 01.7 -1.1**
YM01 YM01 3.54 356 *e*P **Pn** **21 34 23.2 +0.6**
YM01 *e*S **Sn** **21 35 02.8 -1.4**
ZUZH Zhuzihu 3.56 356 *e*P **Pn** **21 34 22.0 -0.9**
NTST Danshui 3.57 354 *e*P **Pn** **21 34 23.9 +0.9**
YM08 YM08 3.58 356 *e*P **Pn** **21 34 23.3 +0.1**
ANP Anpu 3.58 355 *e*P **Pn** **21 34 25.0 +1.8**
ANP *e*S **Sn** **21 35 03.6 -1.8**
TWY Chenhua 3.67 356 *e*P **Pn** **21 34 27.0 +2.6**
JISG Ishigakijimahi 3.74 37 P **Pn** **21 34 24.2 -1.1**
JISG *e*S **Sn** **21 35 06.0 -3.0**
SIPP Brgy, Tapao 3.89 200 *e*P **Pn** **21 34 25.7 -1.7**
SIPP *e*S **Sn** **21 35 10.1 -2.7**
JTJ Tarama 4.00 40 P **Pn** **21 34 28.3 -0.7**
JTJ *e*S **Sn** **21 35 13.3 -2.3**
VWUC VWUC 4.03 327 *e*P **Pn** **21 34 28.5 -0.8**
KNM Kinmen 4.21 312 *e*P **Pn** **21 34 31.2 -0.7**
KNM *e*S **Sn** **21 35 23.2 +2.3**
SZP Santa 4.24 198 **Pn** **21 34 32.1 -0.1**
SZP Santa 4.24 198 P **Pn** **21 34 33.0 +0.7**
PTMZ Houxiangcun 4.25 324 *e*P **Pn** **21 34 31.6 -0.7**
PTMZ *e*S **Sn** **21 35 17.6 -4.0**
KNMB Chin-men Tao 4.28 312 **Pn** **21 34 31.3 -1.4**
KNMB Chin-men Tao 4.28 312 P **Pn** **21 34 31.9 -0.8**
KNMB Chin-men Tao 4.28 312 *e*P **Pn** **21 34 31.6 -1.1**
KNMB *e*S **Sn** **21 35 20.1 -2.2**
ZPLA Ao Xicun 4.44 302 P **Pn** **21 34 32.9 -2.1**
ZPLA *e*S **Sn** **21 35 22.5 -3.9**
JIRJ Irabujima 4.45 43 *e*P **Pn** **21 34 34.1 -1.0**
JIRJ *e*S **Sn** **21 35 24.2 -2.4**
JMJ2 Miyako jima3 4.47 45 *e*P **Pn** **21 34 34.4 -1.0**
JMJ2 *e*S **Sn** **21 35 25.1 -2.1**
QZH2 Quanzhou 4.48 319 Pn **Pn** **21 34 34.7 -0.8**
QZH2 AML AML
comp=Z,560nm,0.9s
QZH2 AML AML
comp=Z,810nm,1.0s
QZH2 L L
comp=Z,5μm,11.9s
JOGS Gusukube 4.54 45 *e*S **Sn** **21 35 26.4 -2.3**
JIKM Ikemajima 4.55 43 *e*P **Pn** **21 34 35.7 -0.7**
JIKM *e*S **Sn** **21 35 27.0 -2.1**
DSXP Dongshan 4.59 298 P **Pn** **21 34 34.6 -2.5**
AXDP Jialang 4.85 313 *e*P **Pn** **21 34 39.5 -1.1**
MATB Ma-tsu 4.85 339 P **Pn** **21 34 40.4 -0.3**
MATB S **Sn** **21 35 34.0 -2.6**
MHZQ Yeshan 5.17 331 *e*P **Pn** **21 34 44.5 -0.5**
LYJJ Jianjiangzhen 5.28 339 *e*P **Pn** **21 34 46.2 -0.4**
XPSS Dashiqiu 5.52 344 *e*P **Pn** **21 34 49.0 -0.8**
SXFK Yanhouchang 6.13 322 *e*P **Pn** **21 34 56.7 -1.6**
JKE Kume jima 2 6.52 43 *e*S **Sn** **21 36 11.3 -6.3**
HKPS Hong Kong Po S 7.19 277 S **Sn** **21 36 35.6 +1.4**
HKPS Hong Kong Po S 7.19 277 **Pn** **21 35 11.2 -1.6**
HKPS Hong Kong Po S 7.19 277 P **Pn** **21 35 14.5 +1.7**
comp=Z,358nm,0.7s
JOW Kunigami 7.84 47 Pn **Pn** **21 35 21.1 -0.6**
comp=Z,7.3nm,0.3s,baz=145,slow=15,SNR=13
JOW Sn **Sn** **21 36 44.6 -5.6**
comp=Z,3.6nm,0.3s,baz=104,slow=29,SNR=6.6
comp=Z,17nm,0.3s
JOW AML AML
JOW Kunigami 7.84 47 **Pn** **21 35 20.9 -0.8**
GZH2 Guangzhou 7.84 287 P **Pn** **21 35 19.9 -1.9**
GZH2 S **Sn** **21 36 48.6 -1.7**
GZH2 AML AML
comp=Z,440nm,1.0s
GZH2 AML AML
comp=Z,460nm,0.7s
SSE Sheshan 9.47 357 P **Pn** **21 35 44.0 -0.1**
SSE S **Sn** **21 37 33.6 +3.2**
SSE pmax pmax
comp=Z,14nm,0.9s
SSE pmax pmax
comp=Z,62nm,3.7s
SSE L L
comp=Z,740nm,12.8s
SSE L L
comp=Z,1μm,12.5s
CNSH ChangSha 10.41 311 P **Pn** **21 35 55.7 -1.3**
CNSH S **Sn** **21 37 51.4 -2.0**
NJ2 Nanjing 10.75 346 *e*P **Pn** **21 36 01.5 0.0**
NJ2 S **Sn** **21 37 56.9 -4.7**
NJ2 pmax pmax
comp=Z,12nm,0.6s
NJ2 L L
comp=Z,3μm,13.7s
NJ2 L L
comp=Z,5μm,12.8s
NJ2 L L
comp=Z,3μm,12.3s
PLP Palo 10.80 163 *e*P **Pn** **21 36 03.1 +0.7**
GULI GuiLin 11.16 291 P **Pn** **21 36 08.8 +1.5**
GULI S **Sn** **21 38 07.8 -4.1**
WHN Wuhan 11.16 324 P **Pn** **21 36 06.1 -1.2**
WHN S **Sn** **21 38 12.0 +0.2**
WHN L L
comp=Z,4μm,8.4s
WHN L L
comp=Z,8μm,12.5s
WHN L L
comp=Z,5μm,9.1s
QIZ Qiongzhong 11.55 259 P **Pn** **21 36 11.9 -0.8**
QIZ S **Sn** **21 38 23.7 +2.2**
QIZ pmax pmax
comp=Z,60nm,1.8s
QIZ L L
comp=Z,3μm,12.5s
QIZ L L
comp=Z,2μm,12.8s
QIZ L L
comp=Z,2μm,12.4s
QIZ Qiongzhong 11.55 259 Pn **Pn** **21 36 11.3 -1.4**
JNU Nakatsue 13.99 33 Pn **Pn** **21 36 45.5 -0.4**
comp=Z,0.5nm,0.3s,baz=125,slow=6.8,SNR=6.3
JNU LR LR 21 42 43.5
comp=Z,2μm,18.6s,baz=204,slow=39
comp=Z,12nm,0.8s
JNU AML AML
ENH Enshi 14.07 310 **Pn** **21 36 46.6 -0.5**
TIA Tai'an 15.13 345 P **Pn** **21 37 02.4 +1.0**
TIA pmax pmax
comp=Z,14nm,1.1s
TIA pmax pmax
comp=Z,520nm,4.8s
TIA L L
comp=Z,2μm,12.4s
TIA L L
comp=Z,940nm,12.0s
TIA L L
comp=Z,3μm,13.1s
LYN LuoYang 15.32 329 P **Pn** **21 37 04.0 +0.1**
LYN sP pP 21 37 10.1 -2.1
LYN PP **pwP** **21 37 18.9 +3.4**
LYN S **Sn** **21 39 54.3 +1.0**
LYN SS **S** **21 40 13.6 +4.0**
LYN pmax pmax
comp=Z,32nm,1.6s
LYN pmax pmax
comp=Z,620nm,5.1s
LYN L L
comp=Z,5μm,14.1s
LYN L L
comp=Z,4μm,15.9s
LYN L L
comp=Z,3μm,10.6s
TJN Taejon 15.49 17 P **Pn** **21 37 06.6 +0.5**
TJN Taejon 15.49 17 P **Pn** **21 37 04.6 -1.5**
TJN pmax pmax
comp=Z,236nm,1.0s
TJN Taejon 15.49 17 Pn **Pn** **21 37 04.6 -1.5**
TJN Taejon 15.49 17 P **Pn** **21 37 04.1 -2.0**
comp=Z,287nm,1.1s
DLV Lat 15.99 235 P **P** **21 37 18.8 +2.5**
INCN Inchon 16.36 14 P **Pn** **21 37 17.9 +0.6**
INCN Inchon 16.36 14 P **Pn** **21 37 16.0 -1.3**
INCN pmax pmax
comp=Z,187nm,1.4s
INCN Inchon 16.36 14 Pn **Pn** **21 37 16.0 -1.3**
INCN IAmb IAmb 21 37 23.8
comp=Z,187nm,1.4s
INCN Inchon 16.36 14 P **Pn** **21 37 18.5 +1.1**
comp=Z,115nm,1.3s
KKM Kota Kinabalu 16.40 200 **Pn** **21 37 16.8 -1.2**
KKM Kota Kinabalu 16.40 200 P **Pn** **21 37 17.7 -0.3**
comp=Z,2μmcomp=Z,55nm,1.3s
KKM Kota Kinabalu 16.40 200 P **Pn** **21 37 18.2 +0.2**
comp=Z,55nm,1.3s
KSAR Wonju Array Be 16.63 17 P **Pn** **21 37 20.0 -0.7**
KSAR Wonju Array Be 16.63 17 **Pn** **21 37 20.0 -0.7**
KSRS Korea Array 16.65 17 Pn **Pn** **21 37 21.0 0.0**
comp=Z,0.4nm,0.3s,baz=200,slow=12,SNR=67
KSRS LR LR 21 44 20.1
comp=Z,1μm,18.6s,baz=190,slow=39
comp=Z,26nm,0.9s
KSRS AML AML
KS19 Wonju Array Si 16.68 17 Pn **Pn** **21 37 20.0 -1.4**
SLVN Son La 16.71 272 P **P** **21 37 26.8 +2.6**
SLVN Son La 16.71 272 Pn **Pn** **21 37 21.3 -0.7**
SLVN Son La 16.71 272 P **P** **21 37 27.0 +2.8**
comp=Z,26nm,1.4s
XAN Xi'an 16.84 320 P **Pn** **21 37 24.2 +0.7**
XAN S **Sn** **21 40 32.9 +2.5**
XAN pmax pmax
comp=Z,19nm,1.4s
XAN pmax pmax
comp=Z,380nm,4.1s
XAN L L
comp=Z,4μm,14.1s
XAN L L
comp=Z,3μm,16.3s
XAN L L
comp=Z,3μm,14.1s
HNS HongShan 16.92 340 ⇑P **Pn** **21 37 25.1 +0.8**
HNS PP **PnPn** **21 37 37.6 +3.5**
HNS pmax pmax
comp=Z,16nm,0.9s
HNS L L
comp=Z,2μm,15.5s
HNS L L
comp=Z,2μm,13.7s
HNS L L
comp=Z,2μm,13.5s
DL2 Dalian 17.25 359 P **Pn** **21 37 28.5 0.0**
DL2 S **Sn** **21 40 42.7 +2.6**
DL2 pmax pmax
comp=Z,89nm,1.3s
DL2 pmax pmax
comp=Z,680nm,3.6s
DL2 L L
comp=Z,2μm,11.3s
DL2 L L
comp=Z,2μm,18.5s
DL2 L L
comp=Z,2μm,13.9s
KMI2 Kunming 17.89 285 P **Pn** **21 37 35.6 -1.2**
KMI2 pmax pmax
comp=Z,22nm,2.0s
KMI2 pmax pmax
comp=Z,400nm,6.8s
KMI2 L L
comp=Z,1μm,11.2s
KMI2 L L
comp=Z,2μm,12.4s
KMI2 L L
comp=Z,2μm,13.2s
TIY Taiyuan 18.00 335 *e*P **P** **21 37 39.7 +1.3**
TIY S **S** **21 41 06.1 +1.5**
TIY SS **SnSn** **21 41 22.0 +10**
TIY pmax pmax
comp=Z,23nm,0.6s
TIY L L
comp=Z,3μm,12.7s
TIY L L
comp=Z,2μm,13.4s
TIY L L
comp=Z,3μm,14.6s
CD2 Chengdu 18.67 303 P **Pn** **21 37 46.7 +0.6**
CD2 S **S** **21 41 16.4 -1.7**
CD2 pmax pmax
comp=Z,60nm,0.8s
CD2 pmax pmax
comp=Z,1μm,4.2s
CD2 L L
comp=Z,5μm,12.1s
CD2 L L
comp=Z,4μm,14.0s
CD2 L L
comp=Z,4μm,14.6s
BJI2 Beijing 18.99 346 P **P** **21 37 48.6 -0.5**
BJI2 pP **pP** **21 37 52.2 -0.7**
BJI2 sP **pwP** **21 37 55.7 +0.1**
BJI2 PP **PnPn** **21 38 05.9 +3.4**
BJI2 S **Sn** **21 41 16.6 -5.6**
BJI2 pmax pmax
comp=Z,7.0nm,1.2s
BJI2 pmax pmax
comp=Z,160nm,8.5s
BJI2 L L
comp=Z,1μm,15.1s
BJI2 L L
comp=Z,950nm,12.3s
BJI2 L L
comp=Z,1μm,13.8s
BJT Baijiatuau 18.99 346 P **P** **21 37 48.0 -1.1**
BJT pmax pmax
comp=Z,14nm,0.8s
BJT Baijiatuau 18.99 346 P **P** **21 37 48.0 -1.1**
BJT Baijiatuau 18.99 346 P **Pn** **21 37 52.5 +2.7**
comp=Z,28nm,1.1s
PZH PanZhiHua 19.00 289 P **Pn** **21 37 52.9 +2.7**
PZH pmax pmax
comp=Z,30nm,1.1s
PZH pmax pmax
comp=Z,450nm,5.9s
PZH L L
comp=Z,2μm,13.6s
PZH L L
comp=Z,1μm,13.0s
PZH L L
comp=Z,1μm,12.6s
INU Inuyama 19.08 41 P **Pn** **21 37 53.2 +2.2**
INU Inuyama 19.08 41 P **P** **21 37 49.8 -0.4**
INU IAmb IAmb 21 37 56.7
comp=Z,184nm,2.0s
INU Inuyama 19.08 41 P **Pn** **21 37 53.0 +2.0**
comp=Z,75nm,1.1s
JCJ Chichijima 19.31 70 LR LR 21 43 44.1
comp=Z,503nm,21.9s,baz=3.5,slow=32
JGF Kuroka 19.45 41 P **Pn** **21 37 57.5 +1.9**
JGF Kuroka 19.45 41 P **P** **21 37 53.5 -0.8**
JGF Kuroka 19.45 41 P **Pn** **21 37 55.8 +0.2**
comp=Z,90nm,1.0s
SNY Shenyang 20.22 4 P Pn 21 38 04.2 -0.3
SNY pmax pmax
comp=Z,28nm,1.1s
SNY pmax pmax
comp=Z,150nm,4.9s
SNY L L
comp=Z,1μm,13.6s
SNY L L
comp=Z,700nm,15.5s
SNY L L
comp=Z,1μm,16.8s
TOLI2 Tolitoli 20.39 183 P **P** **21 38 02.2 -2.4**
TOLI2 IAmb IAmb 21 38 14.5
comp=Z,107nm,1.5s
TOLI2 Tolitoli 20.39 183 P **P** **21 38 04.6 -0.1**
comp=Z,32nm,1.1s
MAJO Matsushiro 20.59 40 P Pn 21 38 09.5 +0.5
MAJO Matsushiro 20.59 40 *i* P **P** **21 38 07.4 +0.7**
MAJO Matsushiro 20.59 40 P **P** **21 38 05.3 -1.4**
MAJO IAmb IAmb 21 38 10.4
comp=Z,71nm,1.0s
MAJO Matsushiro 20.59 40 P Pn 21 38 09.8 +0.8
comp=Z,89nm,1.3s
MJAR Matsushiro Arr 20.59 40 P Pn 21 38 08.3 -0.7
comp=Z,91nm,1.1s,baz=229,slow=10,SNR=104
MJAR LR LR 21 45 40.6
comp=Z,408nm,21.0s,baz=219,slow=35
comp=Z,91nm,1.1s
MJAR Matsushiro Arr 20.59 40 P **P** **21 38 05.7 -1.0**
MJAR pmax pmax
comp=Z,72nm,1.0s
MJAR Matsushiro Arr 20.59 40 P **P** **21 38 05.7 -1.0**
MJAR IAmb IAmb 21 38 10.4
comp=Z,72nm,1.0s
MJB9 Matsu-Tunnel 20.59 40 **P** **21 38 06.0 -0.7**
MJB9 IAmb IAmb 21 38 11.3
comp=Z,75nm,1.0s
GTOI Gorontalo 20.87 177 P **P** **21 38 08.5 -1.3**
comp=Z,48nm,0.8s
KMSI Cibinong 21.00 174 P **P** **21 38 14.7 +3.5**
comp=Z,4μmcomp=Z,136nm,0.8s
HHC Hu-ho-hao-te 21.08 338 *e*P **P** **21 38 12.8 +0.8**
HHC S Sn 21 42 10.7 -2.0
HHC pmax pmax
comp=Z,18nm,0.6s
HHC pmax pmax
comp=Z,220nm,4.0s
HHC L L
comp=Z,1μm,17.4s
HHC L L
comp=Z,2μm,14.4s
HHC L L
comp=Z,1μm,15.9s
LZH Lanzhou 21.33 316 *e*P **P** **21 38 16.4 +1.6**
LZH sP pwP 21 38 23.8 +1.6
LZH S **S** **21 42 11.4 0.0**
LZH SS **SnSn** **21 42 43.2 +9.1**
LZH pmax pmax
comp=Z,55nm,1.2s
LZH pmax pmax
comp=Z,410nm,6.5s
LZH L L
comp=Z,1μm,18.6s
LZH L L
comp=Z,2μm,16.8s
LZH L L
comp=Z,2μm,19.2s
LZDM Lanzhou Array 21.34 316 P **P** **21 38 16.4 +1.2**
comp=Z,25nm,0.8s,baz=120,slow=11,SNR=16
LZDM LR LR 21 46 47.6
comp=Z,1μm,19.7s,baz=100,slow=38
comp=Z,25nm,0.8s
BTO2 Baotou 21.62 335 *e*P **P** **21 38 18.0 +0.2**
BTO2 pP **sP** **21 38 22.1 -1.1**
BTO2 PP **PnPn** **21 38 42.3 +3.7**
BTO2 S **S** **21 42 19.8 +2.9**
BTO2 pmax pmax
comp=Z,21nm,0.9s
BTO2 pmax pmax
comp=Z,380nm,4.3s
BTO2 L L
comp=Z,6μm,13.5s
BTO2 L L
comp=Z,3μm,14.3s
BTO2 L L
comp=Z,7μm,13.5s
CHTO Chiang Mai 21.67 267 P **P** **21 38 22.3 +3.8**
CHTO Chiang Mai 21.67 267 P **P** **21 38 17.7 -0.8**
CHTO pmax pmax
comp=Z,42nm,1.3s
CHTO Chiang Mai 21.67 267 **P** **21 38 17.7 -0.8**
CHTO Chiang Mai 21.67 267 P **P** **21 38 20.2 +1.7**
CHTO Chiang Mai 21.67 267 P **P** **21 38 20.6 +2.1**
comp=Z,27nm,1.5s
TNCH TengChong 21.69 284 P **P** **21 38 20.3 +1.5**
TNCH S **S** **21 42 13.2 -5.5**
TNCH pmax pmax
comp=Z,120nm,1.0s

TNCH pmax pmax
comp=Z,330nm,2.6s
TNCH L L
comp=Z,2μm,14.0s
TNCH L L
comp=Z,800nm,10.4s
TNCH L L
comp=Z,1μm,14.8s
CM31 Chiang Mai Arr 21.75 266 P P 21 38 18.7 -0.6
CMAR Chiang Mai Arr 21.75 266 P P 21 38 19.2 0.0
comp=Z,5.2nm,1.0s,baz=75,slow=9.4,SNR=24
CMAR PcP PcP **21 42 19.9 0.0**
comp=Z,1.6nm,0.8s,baz=85,slow=0.4,SNR=5.9
CMAR ScP ScP **21 45 54.2 -2.4**
comp=Z,1.5nm,0.9s,baz=68,slow=2.7,SNR=5.0
CMAR LR LR 21 48 23.3
comp=Z,633nm,19.1s,baz=80,slow=42
comp=Z,5.2nm,1.0s
CMAR Chiang Mai Arr 21.75 266 P P 21 38 20.0 +0.7
CMAR Chiang Mai Arr 21.75 266 P P 21 38 20.0 +0.7
CN2 Changchun 22.34 7 P P 21 38 25.5 +0.1
CN2 S S **21 42 25.5 -5.0**
CN2 pmax pmax
comp=Z,10.0nm,1.2s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 L L
comp=Z,1μm,13.0s
CN2 L L
comp=Z,700nm,13.0s
CN2 L L
comp=Z,1μm,15.0s
APSI Ampana 22.38 181 P P 21 38 30.1 +4.1
comp=Z,2μmcomp=Z,134nm,1.2s
PCI Palu 22.46 185 P P 21 38 31.4 +4.5
comp=Z,2μmcomp=Z,82nm,1.2s
LUWI Luwuk 22.52 178 P P 21 38 25.0 -2.5
LUWI IAmb IAmb 21 38 50.1
comp=Z,110nm,1.1s
LUWI Luwuk 22.52 178 P P 21 38 29.7 +2.1
comp=Z,2μmcomp=Z,100nm,1.0s
LUWI Luwuk 22.52 178 P P 21 38 26.8 -0.8
comp=Z,101nm,1.0s
XLT XiLinHaoTe 22.75 349 *e*P **P 21 38 30.1 +0.2**
XLT sP pwP 21 38 36.6 +0.3
XLT PP **PnPn 21 38 58.8 +4.8**
XLT S **S 21 42 32.0 -6.1**
XLT pmax pmax
comp=Z,15nm,0.7s
XLT L L
comp=Z,930nm,15.2s
XLT L L
comp=Z,1μm,13.6s
VLA Vladivostok 23.04 19 *i* P **P 21 38 33.8 +1.1**
VLA pmax pmax
comp=Z,164nm,1.1s
GUMO Guam 23.32 106 LR LR 21 45 51.0
comp=Z,538nm,21.1s,baz=299,slow=32
MDJ Mudanjiang 23.83 14 P **P 21 38 40.5 -0.1**
MDJ S **S 21 42 53.7 -2.1**
MDJ sS sS 21 43 05.4 +3.6
MDJ pmax pmax
comp=Z,140nm,1.7s
MDJ pmax pmax
comp=Z,920nm,3.7s
MDJ L L
comp=Z,1μm,19.0s
MDJ Mudanjiang 23.83 14 P 21 38 40.5 -0.1
MDJ Mudanjiang 23.83 14 P **P 21 38 42.1 +1.5**
comp=Z,122nm,1.3s
SANI Sanana 23.85 170 P P 21 38 51.4 +10
SANI Sanana 23.85 170 P **P 21 38 43.5 +2.5**
comp=Z,27nm,0.6s
USA0B Ussuriysk Arra 24.05 18 *i* P **P 21 38 41.9 -0.8**
USA0B Ussuriysk Arra 24.05 18 P **P 21 38 41.8 -0.9**
USA0B IAmb IAmb 21 38 46.0
comp=Z,42nm,0.9s
USRK Ussuriysk Ar. 24.05 18 P **P 21 38 44.2 +1.5**
comp=Z,28nm,0.8s,baz=204,slow=9.7,SNR=29
USRK LR LR 21 49 10.3
comp=Z,730nm,18.8s,baz=194,slow=39
comp=Z,28nm,0.8s
USRK Ussuriysk Ar. 24.05 18 P **P 21 38 42.0 -0.7**
USRK Ussuriysk Ar. 24.05 18 P 21 38 42.0 -0.7
NPW Naypyitaw 24.12 270 P **P 21 38 45.0 +1.5**
comp=Z,37nm,1.3s
SIJI Sorong 24.15 156 P **P 21 38 41.2 -2.7**
comp=Z,6.2nm,0.8s,baz=284,slow=23,SNR=2.3
SIJI LR LR 21 51 16.9
comp=Z,213nm,18.0s,baz=40,slow=45
comp=Z,6.2nm,0.8s
MMSI Mamuju 24.31 187 P **P 21 38 47.9 +2.5**
comp=Z,1μmcomp=Z,80nm,1.9s
BNX BinXian 24.50 9 ⇓P **P 21 38 47.4 +0.6**
BNX pP **sP 21 38 50.5 -1.4**
BNX sP **pP 21 38 51.8 +1.4**
BNX S **S 21 43 07.1 +0.5**
BNX sS **sS 21 43 12.0 -0.5**
BNX pmax pmax
comp=Z,50nm,1.1s
BNX pmax pmax
comp=Z,290nm,4.5s
BNX L L
comp=Z,700nm,16.8s
BNX L L
comp=Z,1μm,13.7s
BNX L L
comp=Z,720nm,17.5s
TTSI Tana Toraja 24.57 185 P **P 21 38 51.4 +3.7**
comp=Z,48nm,0.9s
PMSI Majene 25.11 187 P **P 21 38 56.5 +3.9**
comp=Z,2μmcomp=Z,126nm,1.5s
JTM Tenmabayashi 25.12 36 P 21 38 51.6 -0.9
JTM Tenmabayashi 25.12 36 P **P 21 38 53.4 +0.9**
comp=Z,151nm,1.3s
NLAI Namlea 25.22 168 P **P 21 38 52.5 -1.0**
comp=Z,63nm,0.9s
KDI Kendari 25.41 178 P **P 21 38 55.6 +0.3**
MORE Moreh 25.50 281 P 21 38 55.3 -0.7
KKSI Kolaka, Sulawe 25.61 180 P **P 21 38 59.0 +1.9**
GTA2 Gaotai 25.96 318 P **P 21 39 00.4 +0.1**
GTA2 sS sS 21 43 42.2 +5.1
GTA2 pmax pmax
comp=Z,20nm,1.1s
GTA2 L L
comp=Z,1μm,19.7s
GTA2 L L
comp=Z,1μm,18.1s
GTA2 L L
comp=Z,1μm,16.8s
KULM Kulim 26.17 235 P **P 21 39 01.4 -0.9**
KULM IAmb IAmb 21 39 06.1
comp=Z,53nm,1.5s
KULM Kulim 26.17 235 P **P 21 39 03.2 +1.0**
KULM Kulim 26.17 235 P **P 21 39 04.3 +2.0**
comp=Z,23nm,1.7s
FAKI Fak Fak 26.41 156 P **P 21 39 03.5 -0.9**
FAKI IAmb IAmb 21 39 32.0
comp=Z,42nm,1.2s
IPM Ipoh 26.42 233 P 21 39 03.3 -1.2
IPM Ipoh 26.42 233 P **P 21 39 05.4 +0.9**
comp=Z,571nmcomp=Z,48nm,1.6s
IPM Ipoh 26.42 233 P **P 21 39 04.7 +0.2**
comp=Z,48nm,1.6s
KAPI Kappang 26.53 185 P **P 21 39 04.2 -1.2**
comp=Z,3.8nm,0.3s,baz=69,slow=5.2,SNR=3.9
KAPI LR LR 21 51 04.4
comp=Z,792nm,21.1s,baz=3.0,slow=40
comp=Z,3.8nm,0.3s
KAPI Kappang 26.53 185 P **P 21 39 03.9 -1.5**
KAPI pmax pmax
comp=Z,120nm,1.6s
KAPI Kappang 26.53 185 P P 21 39 03.9 -1.5
KAPI Kappang 26.53 185 P **P 21 39 07.4 +2.0**
comp=Z,348nmcomp=Z,25nm,1.5s
ERM Erimo 27.11 36 *i* P **P 21 39 13.4 +3.0**
GOMU GeErMu 27.66 308 P **P 21 39 17.2 +1.2**
GOMU pP sP 21 39 20.1 -1.6
GOMU sP pwP 21 39 24.2 +1.4
GOMU S **S 21 43 51.2 -6.6**
GOMU pmax pmax
comp=Z,9.0nm,1.2s
GOMU L L
comp=Z,2μm,16.5s
GOMU L L
comp=Z,1μm,16.8s
GOMU L L
comp=Z,3μm,17.0s
SHL Shillong 27.72 284 P **P 21 39 15.7 -0.6**
SHL pmax pmax
comp=Z,86nm,1.7s
SHL Shillong 27.72 284 P **P 21 39 15.7 -0.6**
SHL IAmb IAmb 21 39 23.6
comp=Z,86nm,1.7s
HILR Hailar Array B 27.95 357 P **P 21 39 19.6 +1.7**
comp=Z,2.1nm,0.6s,baz=184,slow=12,SNR=3.9
comp=Z,2.1nm,0.6s
BRDH Bariadhala 27.98 278 LR LR 21 51 05.1
comp=Z,418nm,19.4s,baz=127,slow=38
ASAJ Asahikawa 28.27 33 P **P 21 39 22.8 +1.9**
comp=Z,28nm,0.8s,baz=250,slow=14,SNR=7.1
ASAJ LR LR 21 51 08.1
comp=Z,898nm,21.2s,baz=240,slow=37
comp=Z,28nm,0.8s
ASAJ Asahikawa 28.27 33 P **P 21 39 20.4 -0.4**
ASAJ pmax pmax
comp=Z,111nm,1.2s
JKA Kamikawa-asahi 28.27 33 P **P 21 39 20.4 -0.5**
KLR Kul'dur 28.67 14 LR LR 21 52 06.0
comp=Z,923nm,20.1s,baz=196,slow=39
KLR Kul'dur 28.67 14*ce*P **P 21 39 26.2 +1.8**
KLR pmax pmax
comp=Z,36nm,1.0s
LSA Lhasa 28.76 293 P **P 21 39 28.6 +2.6**
LSA Lhasa 28.76 293⇓*e*P P 21 39 32.6 +6.7
LSA pmax pmax
comp=Z,19nm,0.9s
LSA L L
comp=Z,650nm,16.1s
LSA L L
comp=Z,420nm,14.9s
LSA L L
comp=Z,700nm,14.7s
LSA Lhasa 28.76 293 P **P 21 39 25.3 -0.7**
LSA pmax pmax
comp=Z,15nm,0.8s
LSA Lhasa 28.76 293 P **P 21 39 25.3 -0.7**
LSA Lhasa 28.76 293 P **P 21 39 28.3 +2.3**
comp=Z,26nm,1.3s
HEH HeiHe 28.93 7 *e*P **P 21 39 28.9 +2.3**
HEH sP **pwP 21 39 35.8 +0.8**
HEH S **S 21 44 20.1 +3.5**
HEH pmax pmax
comp=Z,29nm,1.0s
HEH L L
comp=Z,940nm,15.3s
HEH L L
comp=Z,1μm,13.5s
HEH L L
comp=Z,1μm,12.6s
SONM Songino Array 28.98 338 P **P 21 39 26.2 -1.1**
comp=Z,8.7nm,0.9s,baz=155,slow=11,SNR=39
SONM LR LR 21 51 59.6
comp=Z,792nm,18.0s,baz=151,slow=38
comp=Z,8.7nm,0.9s
SONM Songino Array 28.98 338 P **P 21 39 25.0 -2.3**
SONM pmax pmax
comp=Z,21nm,1.3s
SONM Songino Array 28.98 338 P 21 39 25.0 -2.3
PSI Prapat 29.09 233 P **P 21 39 28.5 -0.1**
comp=Z,3.5nm,0.2s,baz=27,slow=5.8,SNR=15
PSI LR LR 21 51 17.6
comp=Z,211nm,18.4s,baz=347,slow=37
comp=Z,3.5nm,0.2s
PSI Prapat 29.09 233 P **P 21 39 28.5 -0.1**
PSI pmax pmax
comp=Z,106nm,1.9s
PSI Prapat 29.09 233 P **P 21 39 30.5 +1.9**
comp=Z,441nmcomp=Z,24nm,1.4s
RPSI Rantau Prapat 29.16 233 P **P 21 39 28.5 -0.5**
RPSI IAmb IAmb 21 39 32.1
comp=Z,106nm,1.9s
RPSI Rantau Prapat 29.16 233 P **P 21 39 29.9 +0.9**
comp=Z,24nm,1.4s
BKNI Bangkinang 29.31 227 P **P 21 39 29.5 -0.9**
KCSI Kotacane, Aceh 29.50 236 P **P 21 39 32.4 +0.4**
comp=Z,20nm,1.4s
LBFI Labuhan Bajo, 29.96 184 P **P 21 39 36.5 +0.5**
MMRI Maumere 30.05 179 **P 21 39 35.7 -1.2**
MMRI Maumere 30.05 179 P **P 21 39 39.0 +2.1**
comp=Z,91nm,1.6s
MMRI Maumere 30.05 179 P **P 21 39 37.3 +0.5**
comp=Z,90nm,1.6s
MLSI Meulaboh, Aceh 30.11 239 P **P 21 39 39.5 +2.1**
EDFI Ende, Flores 30.16 180 P **P 21 39 37.6 -0.4**
comp=Z,61nm,1.4s
JAY Jayapura 30.24 140 LR LR 21 49 38.0
comp=Z,755nm,20.7s,baz=356,slow=32
BSI Banda Aceh 30.29 242 P **P 21 39 40.7 +1.6**
comp=Z,34nm,1.3s
PPI Padang Panjang 30.32 226 P **P 21 39 41.6 +2.3**
comp=Z,55nm,1.4s
YSS Yuzhno-Sakhali 30.44 29 *e*P **P 21 39 41.4 +1.4**
YSS *e*S **S 21 44 39.5 -0.8**
YSS pmax pmax
comp=Z,80nm,1.0s
YSS MLR MLR
comp=N,900nm,17.0s
YSS MLR MLR
comp=Z,900nm,17.0s
YSS MLR MLR
comp=E,500nm,15.0s
YSS Yuzhno-Sakhali 30.44 29 P 21 39 39.1 -0.9
YSS Yuzhno-Sakhali 30.44 29 P **P 21 39 41.5 +1.6**
comp=Z,84nm,1.5s
GSI Gunungsitoli 31.09 233 P **P 21 39 45.1 -1.0**
GSI IAmb IAmb 21 40 49.5
comp=Z,56nm,1.2s
MDSI Maura Dua 31.18 216 P **P 21 39 48.7 +1.9**
comp=Z,30nm,1.0s
ZAK Zakamensk 32.23 338 *e*P **P 21 39 53.8 -2.1**
ZAK pmax pmax
comp=Z,6.0nm,1.1s
ZEA Zeya 32.35 6 *e*P **P 21 39 59.2 +2.4**
ZEA pmax pmax
comp=Z,20nm,1.1s
ZEA MLR MLR
comp=E,500nm,14.0s
ZEA MLR MLR
comp=N,400nm,13.0s
ZEA MLR MLR
comp=Z,500nm,14.0s
TLY Talaya 33.20 339 LR LR 21 56 00.2
comp=Z,587nm,18.9s,baz=142,slow=41
TLY Talaya 33.20 339 P **P 21 40 02.9 -1.3**
TLY IAmb IAmb 21 40 14.1
comp=Z,11nm,0.6s
IRK Irkutsk 33.47 340 *e*P **P 21 40 04.6 -2.1**
IRK pmax pmax
comp=Z,32nm,1.3s
KNGR Kungurtug, Tuv 34.67 333 *i* P **P 21 40 16.4 -0.8**
KNGR pmax pmax
comp=Z,6.0nm,1.1s
KDU Kakadu 35.63 162 P **P 21 40 26.9 +1.3**
comp=Z,8.2nm,1.1s
WMQ Urumqi 35.91 316 ⇓P **P 21 40 29.4 +1.5**
WMQ sP pwP 21 40 36.0 +1.4
WMQ pmax pmax
comp=Z,16nm,0.7s
WMQ pmax pmax
comp=Z,96nm,3.6s
WMQ L L
comp=Z,640nm,13.7s
WMQ L L
comp=Z,480nm,18.1s
WMQ L L
comp=Z,330nm,19.5s
PATS Pohnpei 38.14 107 P **P 21 40 44.9 -2.2**
comp=Z,67nm,1.1s
KRVT Keravat (AS076 39.20 128 LR LR 21 55 00.7
comp=Z,237nm,21.4s,baz=320,slow=33
ZSN Zaisan 39.35 320 *e*P **P 21 40 57.3 +0.4**
ZSN Zaisan 39.35 320 *e*P **P 21 40 57.3 +0.4**
SKR Severo-Kuril's 39.50 34 *e*P P 21 40 50.9 -7.1
SKR pmax pmax
comp=Z,100nm,2.9s
SKR MLR MLR
comp=Z,600nm,17.0s
PMG Port Moresby 39.58 139 LR LR 21 57 20.0
comp=Z,205nm,18.6s,baz=304,slow=36
FITZ Fitzroy Crossi 39.63 174 P **P 21 40 57.3 -2.1**
MK31 Makanchi Array 40.63 318*ce*P **P 21 41 08.3 +0.7**
MKAR Makanchi Array 40.63 318 P **P 21 41 08.1 +0.5**
comp=Z,33nm,0.9s,baz=111,slow=9.7,SNR=127
MKAR ScP **ScP 21 46 58.3 -0.1**
comp=Z,1.3nm,0.7s,baz=116,slow=6.2,SNR=4.0
MKAR LR LR 21 59 08.2
comp=Z,504nm,18.0s,baz=105,slow=38
comp=Z,33nm,0.9s
MKAR Makanchi Array 40.63 318*ce*P **P 21 41 08.1 +0.5**
MKAR pmax pmax
comp=Z,34nm,0.9s
MKAR Makanchi Array 40.63 318 P **P 21 41 07.6 0.0**
MKAR ScP **ScP 21 46 56.7 -1.7**
YAK Yakutsk 40.76 6 P **P 21 41 10.2 +1.9**
comp=Z,28nm,0.9s,baz=37,slow=1.6,SNR=15
YAK LR LR 21 59 32.5
comp=Z,479nm,19.1s,baz=180,slow=38
comp=Z,28nm,0.9s
YAK Yakutsk 40.76 6 *e*P **P 21 41 09.8 +1.5**
YAK *e**PP **sP 21 41 13.5 -0.2**
YAK *e* 21 42 45.0
YAK *e*PPP PPP 21 43 13.9
YAK *e*S **S 21 47 22.2 +4.0**
YAK *e**SS **sS 21 47 27.4 +3.3**
YAK pmax pmax
comp=E,3.0nm,1.3s
YAK pmax pmax
comp=Z,13nm,1.3s
YAK pmax pmax
comp=N,8.0nm,1.2s
YAK pmax pmax
comp=Z,45nm,2.6s
YAK pmax pmax
comp=E,48nm,2.3s
YAK pmax pmax
comp=N,80nm,3.0s
YAK smax smax
comp=N,56nm,2.5s
YAK smax smax
comp=E,52nm,2.2s
YAK MLR MLR
comp=Z,1μm,16.0s
YAK MLR MLR
comp=N,753nm,17.0s
YAK Yakutsk 40.76 6 P **P 21 41 07.6 -0.7**
YAK IAmb IAmb 21 41 13.8
comp=Z,53nm,1.1s
YAK Yakutsk 40.76 6 P **P 21 41 10.4 +2.1**
comp=Z,52nm,1.2s
WUS Wushi 40.82 309 P **P 21 41 08.9 -0.4**
WUS Wushi 40.82 309 P **P 21 41 10.7 +1.3**
comp=Z,12nm,1.1s
MAKZ Makanchi 40.84 318 P **P 21 41 08.4 -0.9**
MAKZ pmax pmax
comp=Z,47nm,1.0s
MAKZ Makanchi 40.84 318 **P 21 41 08.4 -0.9**
MAKZ IAmb IAmb 21 41 10.9
comp=Z,47nm,1.0s
MAKZ Makanchi 40.84 318 P **P 21 41 09.9 +0.6**
comp=Z,52nm,1.1s
SHLS Shalkode 41.20 311*c* *i*P **P 21 41 10.5 -1.9**
SHLS Shalkode 41.20 311⇑*i*P **P 21 41 10.6 -1.9**
PDGK Podgornoye 41.23 312 P **P 21 41 12.0 -0.7**
PDGK Podgornoye 41.23 312 **P 21 41 12.0 -0.7**
UZB Uzynbulak 41.50 311 *e*P **P 21 41 15.5 +0.5**
UZB Uzynbulak 41.50 311 *e*P **P 21 41 15.5 +0.5**
PETK Petropavlovsk- 41.69 32 LR LR 21 59 56.6
comp=Z,417nm,18.8s,baz=232,slow=38
PRZ Przheval'sk 41.75 310 P **P 21 41 17.1 0.0**
PRZ pmax pmax
comp=Z,35nm,1.0s
PRZ Przheval'sk 41.75 310 P **P 21 41 17.1 0.0**
PRZ IAmb IAmb 21 41 20.9
comp=Z,35nm,1.0s
KPKS Kokpek 41.83 312 *e*P **P 21 41 18.0 +0.4**
KPKS Kokpek 41.83 312 *e*P **P 21 41 18.1 +0.4**
SATY Saty 41.91 311 *e*P **P 21 41 18.9 +0.7**
SATY Saty 41.91 311 *e*P **P 21 41 18.9 +0.7**
TARG Taragay, Kyrgy 41.98 309 P **P 21 41 18.9 -0.3**
TARG pmax pmax
comp=Z,20nm,1.1s
TARG Taragay, Kyrgy 41.98 309 **P 21 41 18.9 -0.3**
TARG Taragay, Kyrgy 41.98 309 P **P 21 41 21.4 +2.2**
comp=Z,18nm,1.6s
H11N1 WAKE ISLAND Hy 42.08 84 T T 22 26 29.4
baz=282,slow=75,SNR=119
H11N2 WAKE ISLAND Hy 42.08 84 T T 22 26 27.8
baz=282,slow=75,SNR=175
H11N3 WAKE ISLAND Hy 42.09 84 T T 22 26 35.2
baz=282,slow=75,SNR=163
PET Petropavlovsk 42.12 33 *e*P **P 21 41 24.0 +4.4**
PET *e*S **S 21 47 40.4 +1.9**
PET pmax pmax
comp=Z,40nm,1.4s
PET MLR MLR
comp=Z,500nm,17.0s
PET MLR MLR
comp=Z,300nm,17.0s
PALK Pallekele 42.16 257 LR LR 22 00 06.3
comp=Z,340nm,19.6s,baz=59,slow=38
PALK Pallekele 42.16 257 P **P 21 41 22.4 +1.9**
PALK Pallekele 42.16 257 P **P 21 41 19.8 -0.8**
PALK pmax pmax
comp=Z,114nm,2.0s
PALK Pallekele 42.16 257 P **P 21 41 19.8 -0.8**
PALK IAmb IAmb 21 41 22.8
comp=Z,114nm,1.9s
TDK Taldyqorghan 42.50 314*c* *i*P **P 21 41 23.7 +0.8**
TDK pmax pmax
comp=Z,34nm,1.0s
TDK Taldyqorghan 42.50 314⇑*i*P **P 21 41 23.7 +0.8**
comp=Z,34nm,1.0s
KDJ Kajisay 42.53 309 P **P 21 41 22.9 -0.5**
KDJ pmax pmax
comp=Z,18nm,1.0s
KDJ Kajisay 42.53 309 P **P 21 41 22.9 -0.5**
ASAI AK-SAY,Kyrgyzs 42.73 307 P **P 21 41 27.2 +2.0**
comp=Z,7.3nm,1.4s
ZAA0 Zalesovo Array 42.75 328 **P 21 41 23.9 -0.9**
ZAA0 IAmb IAmb 21 41 25.1
comp=Z,41nm,0.9s
ZALV Zalesovo Beam 42.75 328 P **P 21 41 24.1 -0.6**
comp=Z,36nm,0.9s,baz=115,slow=7.0,SNR=104
comp=Z,36nm,0.9s
ZALV Zalesovo Beam 42.75 328 P **P 21 41 23.7 -1.0**
MDOK Medeo 42.89 311 *e*P **P 21 41 26.8 +0.5**
MDOK Medeo 42.89 311 *e*P **P 21 41 26.8 +0.5**
TNSS Tian-Shan 42.93 311 *e*P **P 21 41 27.0 +0.1**
TNSS Tian-Shan 42.93 311 *e*P **P 21 41 27.0 +0.1**
AAA Alma-Ata 43.00 311 *e*P **P 21 41 27.5 +0.5**
AAA pmax pmax
comp=Z,20nm,0.8s
AAA Alma-Ata 43.00 311 *e*P **P 21 41 27.6 +0.5**
comp=Z,20nm,0.8s
WRAB Tennant Creek 43.05 163 P **P 21 41 25.5 -2.1**
comp=Z,18nm,1.1s
WRA Warramunga Arr 43.06 163 P **P 21 41 24.5 -3.1**
comp=Z,4.3nm,0.8s,baz=344,slow=8.7,SNR=21
comp=Z,4.3nm,0.8s
WRA Warramunga Arr 43.06 163 P **P 21 41 24.5 -3.1**
WRA pmax pmax
comp=Z,2.0nm,1.3s
WRA Warramunga Arr 43.06 163 **P 21 41 24.5 -3.1**
KSH2 Kashi 43.09 305 P **P 21 41 29.8 +1.8**
KSH2 sP pwP 21 41 37.9 +3.1
KSH2 pmax pmax
comp=Z,12nm,1.1s
KSH2 L L
comp=Z,860nm,15.1s
KSH2 L L
comp=Z,540nm,13.4s
KSH2 L L
comp=Z,610nm,13.7s
WR8 Warramunga Arr 43.11 162 P **P 21 41 25.7 -2.3**
comp=Z,18nm,0.9s
WR8 Warramunga Arr 43.11 162 **P 21 41 25.1 -3.0**
MA2 Magadan 43.14 21 LR LR 22 01 49.8
comp=Z,551nm,18.1s,baz=220,slow=39
NRN Naryn 43.22 308 P **P 21 41 28.3 -0.9**
NRN pmax pmax
comp=Z,36nm,1.0s
NRN Naryn 43.22 308 **P 21 41 28.3 -0.9**
NRN IAmb IAmb 21 41 32.3
comp=Z,35nm,1.0s
ULHL Ulahol 43.24 309 P **P 21 41 30.4 +1.3**
SNR=27
SEM Semipalatinsk 43.40 322 *e*P **P 21 41 30.7 +0.4**
SEM pmax pmax

comp=Z,26nm,0.9s
SEM Semipalatinsk 43.40 322 *e*P P **21 41 30.8 +0.4**
comp=Z,26nm,0.9s
TKM2 Tokmak 2 43.86 310 P P **21 41 35.6 +1.4**
SNR=37
KBK Karagaybulak 44.26 309 P P **21 41 39.2 +1.8**
SNR=12
NIL Nilore 44.34 296 P P **21 41 37.0 -1.0**
NIL pmax pmax
comp=Z,46nm,1.0s
NIL Nilore 44.34 296 P P **21 41 37.0 -1.0**
NIL IAmb IAmb 21 41 40.1
comp=Z,46nm,1.0s
NIL Nilore 44.34 296 P P **21 41 39.1 +1.2**
comp=Z,53nm,1.1s
KURK Kurchatov 44.47 322 P P **21 41 37.7 -1.0**
KURK pmax pmax
comp=Z,23nm,0.9s
KURK Kurchatov 44.47 322 P P **21 41 37.7 -1.0**
KURK IAmb IAmb 21 41 39.8
comp=Z,23nm,0.9s
KURK Kurchatov 44.47 322 P P **21 41 38.9 +0.2**
comp=Z,36nm,1.3s
UCH Uchtor 44.48 309 P P **21 41 40.9 +1.5**
SNR=31
CHMS Chumysh 44.48 310 P P **21 41 40.3 +1.4**
SNR=10
KURBB Kurchatov Arra 44.49 321 P P **21 41 38.9 +0.1**
comp=Z,24nm,1.0s,baz=120,slow=7.2,SNR=79
KURBB LR LR 22 01 07.6
comp=Z,284nm,18.9s,baz=170,slow=37
comp=Z,24nm,1.0s
FRU1 Bishkek 44.53 310 P P **21 41 38.4 -0.9**
FRU1 pmax pmax
comp=Z,28nm,1.2s
FRU1 Bishkek 44.53 310 P P **21 41 38.4 -0.9**
FRU1 IAmb IAmb 21 41 42.2
comp=Z,28nm,1.2s
AAK Ala-Archa 44.59 309 LR LR 22 03 22.3
comp=Z,998nm,18.1s,baz=98,slow=40
AAK Ala-Archa 44.59 309 P P **21 41 41.6 +1.7**
SNR=6.9
AAK Ala-Archa 44.59 309 *i* P P **21 41 41.5 +1.7**
SNR=13
AAK Ala-Archa 44.59 309*ce*P P **21 41 40.7 +0.8**
AAK pmax pmax
comp=Z,13nm,1.3s
AAK Ala-Archa 44.59 309 P P **21 41 38.8 -1.1**
AAK Ala-Archa 44.59 309 P P **21 41 41.7 +1.7**
comp=Z,9.9nm,1.1s
GIRL Giralia 44.60 190 P P **21 41 39.0 -0.9**
USP Ospenovka 44.72 310 P P **21 41 41.7 +0.8**
SNR=14
EKS2 Erkin-Say 45.11 309 P P **21 41 45.6 +1.6**
SNR=9.9
MTSU Mount Surprise 45.20 149 P P **21 41 44.6 -0.3**
comp=Z,8.9nm,0.8s
QIS Mount Isa 45.35 156 P P **21 41 47.1 +1.1**
comp=Z,19nm,0.8s,comp=Z,0.0nm
QIS Mount Isa 45.35 156 P P **21 41 44.7 -1.3**
comp=Z,19nm,0.8s
ARSB Arslanbob 45.43 307 P P **21 41 45.8 -0.9**
ARSB pmax pmax
comp=Z,25nm,1.3s
ARSB Arslanbob 45.43 307 P P **21 41 45.8 -0.9**
ARSB IAmb IAmb 21 41 58.4
comp=Z,24nm,1.3s
SEY Seymchan 46.20 19 P P **21 41 53.2 +1.1**
comp=Z,1.4nm,0.5s,baz=210,slow=14,SNR=5.2
comp=Z,1.4nm,0.5s
AS15 Alice Springs 46.47 165 P P **21 41 56.2 +1.4**
comp=Z,12nm,0.8s
AS31 Alice Springs 46.50 165 P P **21 41 56.8 +1.7**
comp=Z,3.1nm,0.8s
AS31 Alice Springs 46.50 165 P P **21 41 54.1 -1.0**
comp=Z,3.0nm,0.8s
AS31 Alice Springs 46.50 165 P P **21 41 53.2 -1.8**
ASAR Alice Springs 46.50 165 P P **21 41 52.9 -2.2**
comp=Z,0.9nm,0.3s,baz=344,slow=7.2,SNR=12
comp=Z,0.9nm,0.3s
ASAR Alice Springs 46.50 165 P P **21 41 53.2 -1.8**
ASAR Alice Springs 46.50 165 P P **21 41 53.2 -1.8**
AS17 Alice Springs 46.52 165 P P **21 41 56.2 +1.0**
comp=Z,9.6nm,1.0s
AS09 Alice Springs 46.54 165 P P **21 41 52.8 -2.5**
comp=Z,9.2nm,0.8s
WRKA Warakurna 46.78 172 P P **21 41 58.4 +1.1**
comp=Z,8.5nm,1.3s
DZA Taraz 46.92 309 *e*P P **21 41 58.6 +0.4**
DZA Taraz 46.92 309 *e*P P **21 41 58.7 +0.5**
KK31 Karatay Array 47.55 309 P P **21 42 01.9 -1.2**
KK31 pmax pmax
comp=Z,14nm,1.1s
KK31 Karatay Array 47.55 309 P P **21 42 01.9 -1.2**
KK31 IAmb IAmb 21 42 10.4
comp=Z,14nm,1.1s
KKAR Karatay Array 47.55 309 P P **21 42 01.5 -1.6**
KKAR Karatay Array 47.55 309 P P **21 42 01.5 -1.6**
IUG luzhnay 47.74 308*c i*P P **21 42 05.2 +0.5**
IUG pmax pmax
comp=Z,19nm,1.1s
IUG luzhnay 47.74 308⇑*i*P P **21 42 05.2 +0.5**
comp=Z,19nm,1.1s
CTA Charters Tower 47.81 148 LR LR 22 01 37.5
comp=Z,240nm,21.0s,baz=356,slow=36
KBL Kabul 47.86 298 P P **21 42 05.5 -0.4**
KBL pmax pmax
comp=Z,30nm,1.1s
KBL Kabul 47.86 298 P P **21 42 05.5 -0.4**
KBL IAmb IAmb 21 42 08.5
comp=Z,30nm,1.1s
KBL Kabul 47.86 298 P P **21 42 07.3 +1.4**
comp=Z,32nm,1.2s
BRLS Boroldaу 48.02 309 *e*P P **21 42 07.7 +0.9**
BRLS Boroldaу 48.02 309 *e*P P **21 42 07.8 +0.9**
CHM Chimkent 48.08 308 *e*P P **21 42 07.8 +0.6**
CHM pmax pmax
comp=Z,40nm,1.5s
CHM Chimkent 48.08 308 *e*P P **21 42 07.9 +0.6**
comp=Z,40nm,1.5s
HNR Honiara 48.47 126 LR LR 21 58 58.8
comp=Z,185nm,22.0s,baz=16,slow=32
BVAR Borovoye Array 50.06 322 P P **21 42 22.3 0.0**
comp=Z,6.0nm,0.5s,baz=107,slow=6.9,SNR=29
BVAR PcP **PcP 21 43 41.7 -0.1**
comp=Z,1.5nm,0.5s,baz=109,slow=3.1,SNR=1.3
comp=Z,6.0nm,0.5s
BORK Borovoye 50.11 322⇑*i*P P **21 42 22.1 -0.5**
BORK pmax pmax
comp=Z,17nm,1.0s
BORK Borovoye 50.11 322 P P **21 42 21.6 -1.0**
BORK IAmb IAmb 21 42 29.0
comp=Z,20nm,0.9s
TIXI Tiksi 50.23 3 LR LR 22 05 49.1
comp=Z,956nm,18.5s,baz=197,slow=39
TIXI Tiksi 50.23 3*ce*P P **21 42 23.9 +0.7**
TIXI pmax pmax
comp=Z,11nm,1.3s
TIXI Tiksi 50.23 3 P P **21 42 21.8 -1.4**
TIXI IAmb IAmb 21 42 34.2
comp=Z,20nm,1.2s
TIXI Tiksi 50.23 3 P P **21 42 23.5 +0.3**
comp=Z,17nm,1.1s
SHEM Shemya Is, Ala 50.43 39 LR LR 22 05 35.1
comp=Z,38nm,19.7s,baz=292,slow=38
MORW Morawa 50.69 187 P P **21 42 25.4 -1.8**
MORW IAmb IAmb 21 42 33.0
comp=Z,26nm,1.2s
NRIK Noril'sk 52.05 345 P P **21 42 35.9 -1.0**
comp=Z,5.8nm,0.7s,baz=125,slow=10,SNR=8.6
NRIK LR LR 22 06 08.5
comp=Z,387nm,20.9s,baz=152,slow=38
comp=Z,5.8nm,0.7s
NRIK Noril'sk 52.05 345 *i* P P **21 42 36.6 -0.3**
NRIK pmax pmax
comp=Z,37nm,1.0s
NRIK Noril'sk 52.05 345 P P **21 42 35.9 -1.0**
NRIK IAmb IAmb 21 42 48.0
comp=Z,46nm,1.1s
INKA Innaminka 52.34 159 P P **21 42 38.5 -1.0**
QLP Quilpie 52.58 155 P P **21 42 45.4 +4.1**
comp=Z,19nm,1.4s
KLBR Kellerberrin 53.03 184 P P **21 42 44.7 +0.1**
comp=Z,32nm,0.8s
HRA Herat 53.48 297 P **21 42 47.5 -0.8**
BILL Bilibino 53.90 19 *i* P P **21 42 50.3 -0.3**
BILL pmax pmax
comp=Z,8.0nm,0.7s
NWAO Narrogin (SRO) 54.40 185 LR LR 22 07 53.9
comp=Z,78nm,20.8s,baz=312,slow=38
NWAO Narrogin (SRO) 54.40 185 P P **21 42 53.8 -0.8**
NWAO pmax pmax
comp=Z,31nm,1.2s
NWAO Narrogin (SRO) 54.40 185 P P **21 42 53.8 -0.8**
NWAO IAmb IAmb 21 43 02.2
comp=Z,31nm,1.1s
AB31 Akbulak array 55.69 316 P P **21 43 03.9 0.0**
AB31 IAmb IAmb 21 43 05.3
comp=Z,27nm,1.1s
ABKAR Akbulak array 55.69 316 P P **21 43 03.8 -0.1**
STKA Stephens Creek 56.44 160 P P **21 43 08.0 -1.2**
comp=Z,6.2nm,0.7s,baz=324,slow=9.2,SNR=6.8
STKA LR LR 22 09 10.3
comp=Z,168nm,21.5s,baz=356,slow=38
comp=Z,6.2nm,0.7s
STKA Stephens Creek 56.44 160 P P **21 43 08.1 -1.2**
STKA pmax pmax
comp=Z,31nm,0.9s
STKA Stephens Creek 56.44 160 P P **21 43 08.1 -1.2**
SVE Sverdlovsk 56.49 325 *e*P P **21 43 09.7 +0.3**
SVE pmax pmax
comp=Z,43nm,1.3s
ARTI Arti 57.63 324 LR LR 22 08 54.0
comp=Z,257nm,18.4s,baz=102,slow=37
ARTI Arti 57.63 324*c i*P P **21 43 16.8 -0.7**
ARTI 21 44 05.7
ARTI S S **21 51 15.2 +0.1**
ARTI SS SS **21 55 00.0 -5.0**
ARTI pmax pmax
comp=Z,23nm,1.2s
ARTI Arti 57.63 324 P P **21 43 16.1 -1.5**
ARTI IAmb IAmb 21 43 23.1
comp=Z,19nm,0.6s
SOHO SOHO 59.74 286 P P **21 43 34.2 +1.4**
MSFE Esma-Masafi 59.84 288 P P **21 43 35.5 +2.0**
UOSS Minazif 59.88 287 P P **21 43 34.7 +1.0**
UOSS Minazif 59.88 287 P P **21 43 32.8 -0.9**
NAZ Nazwa, Dubai 60.35 287 *i* P P **21 43 38.0 +1.0**
SNR=6.1
ALNE Al Ain 60.46 286 *i* P P **21 43 38.7 +1.0**
SNR=8.2
ASUD Al Ashush, Dub 60.72 287 P P **21 43 41.0 +1.5**
KIRV Kirov 62.69 326 LR LR 22 11 52.7
comp=Z,285nm,19.1s,baz=94,slow=37
KIRV Kirov 62.69 326*ce*P P **21 43 51.7 -0.4**
MZR Muzera 62.73 285 *i* P P **21 43 53.5 +0.5**
SNR=13
MAK Makhachkala 64.35 308 *e*P P 21 43 56.3 -7.1
MAK pmax pmax
comp=Z,209nm,1.3s
MAK MLR MLR
comp=Z,342nm,15.0s
C18K Utukok River 65.32 23 P P **21 44 08.6 -0.8**
J17K VABM Dome 66.03 29 P P **21 44 14.2 +0.2**
GNI Garni 66.78 306 LR LR 22 17 44.3
comp=Z,160nm,20.0s,baz=90,slow=40
GNI Garni 66.78 306 *i* P P **21 44 20.0 +0.6**
GNI pmax pmax
comp=Z,30nm,1.1s
GNI Garni 66.78 306 P P **21 44 18.5 -1.0**
GNI Garni 66.78 306 P P **21 44 19.1 -0.3**
comp=Z,28nm,1.4s
GNI Garni 66.78 306 P P **21 44 21.2 +1.8**
comp=Z,28nm,1.4s
H19K Roundabout Mou 67.13 27 P P **21 44 20.7 -0.2**
VRH Novokhopyorsk 67.36 318 *e*P P **21 44 21.8 -0.9**
VRH pmax pmax
comp=Z,56nm,1.1s
MSVF Nonsavu 67.50 121 LR LR 22 10 43.4
comp=Z,105nm,21.8s,baz=351,slow=33
KBZ Khabaz 67.58 310 P P **21 44 23.8 -0.4**
comp=Z,12nm,1.0s,baz=58,slow=5.1,SNR=16
comp=Z,12nm,1.0s
KBZ Khabaz 67.58 310*ce*P P **21 44 24.0 -0.2**
KBZ pmax pmax
comp=Z,27nm,1.2s
KLMR Klimovskoe 67.67 328 *e*P P **21 44 21.8 -2.6**
KLMR pmax pmax
comp=Z,61nm,1.2s
KIV Kislovodsk 67.70 310 *i* P P **21 44 26.0 +0.9**
SNR=12
KIV Kislovodsk 67.70 310 *e*P P **21 44 24.8 -0.3**
KIV *e*S S **21 53 21.9 -0.3**
KIV pmax pmax
comp=Z,26nm,1.0s
KIV MLR MLR
comp=Z,187nm,17.0s
KIV Kislovodsk 67.70 310 P P **21 44 24.1 -1.0**
KIV Kislovodsk 67.70 310⇑P P **21 44 25.5 +0.5**
KIV Kislovodsk 67.70 310 P P **21 44 26.1 +1.0**
comp=Z,456nmcomp=Z,38nm,1.4s
KIV Kislovodsk 67.70 310 P P **21 44 25.8 +0.7**
comp=Z,49nm,1.4s
SHA1 Shidzhatmaz 67.75 310*ce*P P **21 44 25.6 0.0**
NEUR Neytrino 67.80 309 *i* P P **21 44 25.4 -0.4**
NEUR pmax pmax
comp=Z,17nm,1.6s
HAKT HAKKARI 68.03 303 P P **21 44 27.9 +0.4**
comp=Z,44nm,0.9s
EPOS Posof 68.07 307 P P **21 44 26.4 -1.1**
comp=Z,19nm,1.3s
IMAR Indian Mountai 68.22 26 P P **21 44 28.4 +0.5**
GEVA Gevas 68.39 304 P P **21 44 29.7 0.0**
GEVA IAmb IAmb 21 44 38.0
comp=Z,16nm,1.0s
VORR Voronezh 68.86 319 *e*P P **21 44 30.8 -1.3**
VORR pmax pmax
comp=Z,84nm,1.5s
LPSR Galich'ya Gora 68.90 320 *e*P P **21 44 31.0 -1.3**
LPSR pmax pmax
comp=Z,40nm,1.0s
VORD Divnogorie 68.91 318 *e*P P **21 44 30.9 -1.5**
VORD pmax pmax
comp=Z,10.0nm,0.8s
VSR Storozhevoye 68.96 318 *e*P P **21 44 31.5 -1.2**
VSR pmax pmax
comp=Z,40nm,1.1s
ERBR Yeremizino-Bor 68.96 312 *e*P P **21 44 32.8 0.0**
ERBR pmax pmax
comp=Z,63nm,1.0s
ERBR MLR MLR
comp=Z,271nm,17.0s
CAST Castle Rocks 69.17 29 P P **21 44 34.1 +0.3**
CAST IAmb IAmb 21 44 45.3
comp=Z,22nm,1.0s
MOS Moscow 69.22 323 *e*P P **21 44 33.2 -1.0**
MOS *e* 21 44 42.1
MOS *e* 21 44 56.6
MOS *e* 21 47 06.5
MOS pmax pmax
comp=Z,40nm,1.3s
MLY Manley 69.56 27 P P **21 44 36.2 -0.1**
MLY IAmb IAmb 21 44 47.9
comp=Z,24nm,1.2s
APA Apatity 69.66 336 *e*P P **21 44 38.4 +1.7**
APA *e* 21 44 59.6
APA *e* 21 47 09.2
APA *e*S S **21 53 48.1 +3.7**
APA *e* 21 54 35.0
APA *e*SS SS **21 58 09.2 -2.7**
APA pmax pmax
comp=Z,9.0nm,1.0s
APA MLR MLR
comp=Z,924nm,4.2s
KDAK Kodiak Island 69.66 35 LR LR 22 16 22.7
comp=Z,72nm,20.8s,baz=256,slow=37
KDAK Kodiak Island 69.66 35 P P **21 44 35.7 -1.2**
KDAK pmax pmax
comp=Z,113nm,1.6s
KDAK Kodiak Island 69.66 35 P P **21 44 35.7 -1.2**
RAYN Ar Rayn 69.70 288 *i* P P **21 44 38.3 +0.5**
SNR=20
RAYN Ar Rayn 69.70 288 P P **21 44 37.0 -0.9**
RAYN pmax pmax
comp=Z,15nm,1.0s
RAYN Ar Rayn 69.70 288 P P **21 44 37.0 -0.9**
RAYN IAmb IAmb 21 44 39.4
comp=Z,15nm,0.9s
RAYN Ar Rayn 69.70 288 P P **21 44 38.4 +0.5**
comp=Z,23nm,1.2s
OBN Obninsk 69.91 322 LR LR 22 16 14.7
comp=Z,201nm,19.5s,baz=69,slow=37
OBN Obninsk 69.91 322⇓*e*P P **21 44 37.9 -0.5**
OBN *e**PP pP **21 44 41.1 -1.8**
OBN *e**SP pwP **21 44 45.5 +0.4**
OBN 21 45 00.0
OBN *i* S S **21 53 48.7 +1.0**
OBN PS PnS 21 54 32.0 +18
OBN pmax pmax
comp=Z,46nm,1.7s
OBN MLR MLR
comp=Z,137nm,19.0s
OBN Obninsk 69.91 322 P P **21 44 37.3 -1.2**
OBN Obninsk 69.91 322 P P **21 44 38.2 -0.2**
comp=Z,27nm,1.8s
OBN Obninsk 69.91 322 P P **21 44 38.0 -0.4**
comp=Z,27nm,1.8s
KOPT Kop Dagi 70.01 306 P **21 44 39.6 -0.2**
KOPT IAmb IAmb 21 44 55.4
comp=Z,12nm,0.9s
MCK McKinley 70.52 28 P P **21 44 41.2 -1.0**
MCK pmax pmax
comp=Z,29nm,1.2s
MCK McKinley 70.52 28 P P **21 44 41.2 -1.0**
MCK IAmb IAmb 21 44 51.2
comp=Z,29nm,1.2s
ILAR Eielson Array 71.22 27 P P **21 44 46.9 +0.6**
comp=Z,0.7nm,0.7s,baz=270,slow=6.1,SNR=6.5
ILAR LR LR 22 19 32.7
comp=Z,82nm,18.0s,baz=277,slow=39
comp=Z,0.7nm,0.7s
ILAR Eielson Array 71.22 27 P P **21 44 45.2 -1.1**
ILAR Eielson Array 71.22 27 P P **21 44 45.2 -1.1**
ANN Anapa 71.25 312 *e*P P **21 44 46.4 -0.4**
ANN pmax pmax
comp=Z,53nm,1.0s
KEV Kevo 71.59 339 P P **21 44 48.0 -0.5**
KEV pmax pmax
comp=Z,99nm,1.7s
KEV Kevo 71.59 339 P P **21 44 48.0 -0.5**
BMAR Burnt Mountain 71.62 24 P **21 44 49.4 +0.6**
SPITS Spitsbergen Ar 72.13 348 P P **21 44 52.3 +0.7**
comp=Z,5.6nm,0.8s,baz=71,slow=14,SNR=5.1
comp=Z,5.6nm,0.8s
SPITS Spitsbergen Ar 72.13 348 P P **21 44 51.6 0.0**
SPITS pmax pmax
comp=Z,193nm,1.8s
ARCES ARCESS Array B 72.15 338 P P **21 44 51.6 -0.3**
comp=Z,5.2nm,0.9s,baz=68,slow=8.0,SNR=8.8
ARCES LR LR 22 19 44.6
comp=Z,200nm,19.4s,baz=60,slow=38
comp=Z,5.2nm,0.9s
ARCES ARCESS Array B 72.15 338 P P **21 44 51.2 -0.7**
ARCES pmax pmax
comp=Z,124nm,2.0s
ARCES ARCESS Array B 72.15 338 P P **21 44 51.2 -0.7**
E27K Coleen River 72.56 23 P **21 44 54.4 +0.1**
E27K IAmb IAmb 21 44 55.8
comp=Z,18nm,1.4s
OUL Oulu 73.10 334 P P **21 44 57.2 -0.3**
comp=Z,18nm,0.9s
GAZ Gaziantep 73.16 304 P **21 44 58.5 -0.1**
GAZ IAmb IAmb 21 45 00.3
comp=Z,14nm,1.0s
ANDN Andirin 73.73 304 P P **21 45 03.0 +1.0**
comp=Z,62nm,1.2s
BCAR Beaver Creek A 73.81 28 P **21 45 02.2 +0.3**
FIA1 FINESS Array S 73.98 330 P **21 45 01.6 -1.2**
FINES FINESS Array B 73.98 330 P P **21 45 02.1 -0.7**
comp=Z,17nm,1.0s,baz=68,slow=4.6,SNR=13
FINES LR LR 22 19 46.3
comp=Z,315nm,20.3s,baz=76,slow=38
comp=Z,17nm,1.0s
FINES FINESS Array B 73.98 330 *i* P P **21 45 02.0 -0.8**
FINES pmax pmax
comp=Z,17nm,1.0s
FINES FINESS Array B 73.98 330 P P **21 45 01.8 -1.0**
VSU Vasula 74.47 327*ce*P P **21 45 03.7 -2.0**
VSU pmax pmax
comp=Z,39nm,1.0s
VSU Vasula 74.47 327 P P **21 45 04.2 -1.5**
comp=Z,46nm,1.2s
DAWY Dawson 74.55 27 P P **21 45 06.3 +0.1**
DAWY IAmb IAmb 21 45 17.4
comp=Z,16nm,1.1s
ARBE Arbavere 74.57 328 P P **21 45 06.3 0.0**
comp=Z,94nm,1.7s
ASF Jabal al Asfar 74.73 299 P P **21 45 09.3 +1.4**
ASF AML AML
MNK Minsk 74.94 323 *i* P P **21 45 08.7 +0.2**
MNK *i* 21 45 21.7
MNK *i* 21 47 56.3
MNK *i* PPP PPP 21 49 42.7
MNK *i* S S **21 54 47.5 +2.1**
MNK *i* SS SS **21 59 37.2 +3.9**
MNK pmax pmax
comp=E,14nm,0.8s
MNK pmax pmax
comp=Z,32nm,1.2s
MNK pmax pmax
comp=N,15nm,0.9s
MNK MLR MLR
comp=Z,139nm,15.0s
MNK MLR MLR
comp=N,152nm,15.0s
MNK MLR MLR
comp=E,182nm,15.0s
MNK Minsk 74.94 323 *i* P P **21 45 08.7 +0.2**
comp=E,14nm,0.8s
MNK *i* P P **21 45 08.7 +0.2**
comp=N,15nm,0.9s
MNK *i* P P **21 45 08.7 +0.2**
comp=Z,32nm,1.2s,baz=74
MNK *i* PcP PcP **21 45 21.7 -0.6**
MNK *i* PP PP **21 47 56.4 +0.5**
MNK *i* PPP PPP 21 49 42.7
MNK *i* S S **21 54 47.5 +2.1**
MNK *i* SS SS **21 59 37.2 +3.9**
MNK *i* SSS SSS 22 02 59.6
MNK *i* LQ LQ 22 13 25.0
MNK *i* LR LR 22 17 25.9
MNK *i* LRM MLR 22 20 37.7
comp=Z,139nm,14.7s
MNK *i* LRM MLR 22 20 42.5
comp=N,152nm,15.4s
MNK *i* LRM MLR 22 21 13.9
comp=E,182nm,15.3s
KIRS Kirsehir-Merke 75.16 306⇑P P **21 45 09.9 -0.3**
BR131 Keskin Array S 75.20 307 P P **21 45 09.9 -0.6**
BR131 pmax pmax
comp=Z,14nm,1.3s
BR131 Keskin Array S 75.20 307 P P **21 45 09.9 -0.6**
BRTR Keskin Array B 75.20 307 P P **21 45 10.5 -0.1**
comp=Z,3.1nm,0.7s,baz=111,slow=6.8,SNR=20
comp=Z,3.1nm,0.7s
BRTR Keskin Array B 75.20 307 P P **21 45 09.4 -1.2**
AKASG Malin Array Be 75.21 319 P P **21 45 09.3 -0.8**
comp=Z,6.5nm,0.9s,baz=64,slow=5.3,SNR=18
comp=Z,6.5nm,0.9s
AKBB Malin Array Si 75.21 319*ce*P P **21 45 07.9 -2.2**
AKBB pmax pmax
comp=Z,27nm,1.4s
KIEV Kiev 75.22 319 P P **21 45 09.6 -0.6**
KIEV Kiev 75.22 319 P P **21 45 08.5 -1.7**
KIEV IAmb IAmb 21 45 18.2
comp=Z,56nm,1.8s
KIEV Kiev 75.22 319⇑P P **21 45 09.6 -0.6**
KIEV Kiev 75.22 319 P P **21 45 09.5 -0.7**
comp=Z,15nm,1.1s
BR105 Keskin Array S 75.22 307 P P **21 45 10.0 -0.7**
comp=Z,82nmcomp=Z,8.3nm,1.1s
INK Inuvik 75.38 22 LR LR 22 20 57.7
comp=Z,177nm,20.7s,baz=340,slow=38
INK Inuvik 75.38 22 P P **21 45 10.1 -0.7**
INK pmax pmax
comp=Z,7.0nm,0.9s
INK Inuvik 75.38 22 P **21 45 10.1 -0.7**
INK Inuvik 75.38 22 P P **21 45 10.7 -0.1**
comp=Z,10nm,1.1s
GEM Giv'at Ha'Em 75.44 300 P P **21 45 15.7 +3.9**
GEM AML AML
MMAI Mount Meron Ar 75.70 300 P P **21 45 13.8 +0.4**
comp=Z,3.4nm,0.9s,baz=50,slow=6.6,SNR=6.3
comp=Z,3.4nm,0.9s
QRNJ Al-Qirein 75.76 299 P P **21 45 16.1 +2.5**
QRNJ AML AML
MMLI Mount Malkishu 75.85 300 P P **21 45 13.6 -0.7**
comp=Z,14nm,1.5s

KKUL	**Konya-Kulu**	**75.89 307**	P	**P**	**21 45 13.8**	**-0.7**
	comp=Z,34nm,1.0s					
SALP	**Salfit**	**76.15 299**	P	**P**	**21 45 17.7**	**+1.8**
SALP			AML	AML		
SORM	**Soroca**	**76.48 317**	P	**P**	**21 45 17.3**	**-0.1**
SORM	**Soroca**	**76.48 317**	⇑P	**P**	**21 45 17.4**	**-0.1**
CSS	**Mathiatis**	**76.79 303**	P	**P**	**21 45 18.9**	**-0.6**
CSS			IAmb	IAmb	21 45 27.5	
	comp=Z,27nm,1.1s					
CSS	**Mathiatis**	**76.79 303**	P	**P**	**21 45 20.4**	**+0.9**
CSS	**Mathiatis**	**76.79 303**	P	**P**	**21 45 19.9**	**+0.4**
	comp=Z,22nm,0.8s					
PABE	**Paberze**	**76.80 325**	P	**P**	**21 45 18.5**	**-0.6**
PABE	**Paberze**	**76.80 325**	P	**P**	**21 45 19.2**	**+0.1**
	comp=Z,34nm,1.3s					
PRNI	**Paran**	**76.81 298**	P	**P**	**21 45 22.5**	**+2.8**
PRNI			AML	AML		
HRFI	**Mount Harif**	**76.87 297**	P	**P**	**21 45 22.0**	**+1.9**
HRFI			AML	AML		
RNPP9	**Sopachiv**	**77.01 320**	P	**P**	**21 45 19.8**	**-0.6**
EIL	**Elat**	**77.05 297**	P	**P**	**21 45 23.1**	**+2.0**
EIL			AML	AML		
EIL	**Elat**	**77.05 297**	P	**P**	**21 45 22.1**	**+1.0**
	comp=Z,13nm,1.2s					
TLCR		**77.06 314**	P	**P**	**21 45 21.2**	**+0.5**
TLCR		**77.06 314**	⇑P	**P**	**21 45 21.3**	**+0.5**
KZIT	**Kziot**	**77.14 298**	P	**P**	**21 45 22.8**	**+1.3**
KZIT			AML	AML		
VLDR	**Vladesti**	**77.35 314**	⇓P	**P**	**21 45 23.4**	**+1.0**
TPGR	**Topolog**	**77.43 313**	⇑P	**P**	**21 45 23.4**	**+0.4**
MNTR	**Muntenesti**	**77.43 315**	⇓P	**P**	**21 45 23.0**	**+0.1**
NGRR	**Negresti**	**77.47 315**	⇓P	**P**	**21 45 23.6**	**+0.6**
DMBR	**Dumbraveni**	**77.55 315**	⇑P	**P**	**21 45 23.8**	**+0.3**
KMPD	**K-Podol'skiy**	**77.56 317**	P	**P**	**21 45 22.6**	**-0.9**
HARR	**Harsova**	**77.81 313**	P	**P**	**21 45 25.8**	**+0.8**
HARR	**Harsova**	**77.81 313**	⇑P	**P**	**21 45 25.8**	**+0.8**
GIRR	**Girov**	**78.04 316**	⇓P	**P**	**21 45 26.0**	**-0.3**
ODBI	**Odobesti**	**78.06 315**	⇑P	**P**	**21 45 26.9**	**+0.5**
TESR	**Tescani**	**78.09 315**	⇑P	**P**	**21 45 26.6**	**+0.1**
TESR	**Tescani**	**78.09 315**	P	**P**	**21 45 26.5**	**-0.1**
	comp=Z,15nm,0.9s					
VRI	**Vrincioaia**	**78.24 315**	P	**P**	**21 45 27.8**	**+0.4**
VRI	**Vrincioaia**	**78.24 315**	⇑P	**P**	**21 45 27.8**	**+0.4**
VRI	**Vrincioaia**	**78.24 315**	P	**P**	**21 45 28.0**	**+0.6**
VRI	**Vrincioaia**	**78.24 315**	P	**P**	**21 45 26.8**	**-0.7**
	comp=Z,18nm,1.2s					
PLOR	**Plostina**	**78.30 315**	P	**P**	**21 45 27.8**	**0.0**
PLOR	**Plostina**	**78.30 315**	⇓P	**P**	**21 45 27.8**	**0.0**
BIZ	**Bicaz**	**78.30 316**	⇓P	**P**	**21 45 27.7**	**-0.1**
ONER	**Baraj Valea Uz**	**78.31 315**	⇑P	**P**	**21 45 28.6**	**+0.8**
SAHR	**Sahastru**	**78.32 315**	⇓P	**P**	**21 45 28.2**	**+0.3**
COVR	**Voineasa-Covas**	**78.60 315**	⇑P	**P**	**21 45 29.7**	**+0.3**
TURR	**Turia**	**78.65 315**	⇑P	**P**	**21 45 30.2**	**+0.5**
BURAR	**Bucovina Array**	**78.65 317**	P	**P**	**21 45 29.9**	**+0.2**
BURAR	**Bucovina Array**	**78.65 317**	P	**P**	**21 45 29.0**	**-0.7**
BURAR			IAmb	IAmb	21 45 41.3	
	comp=Z,14nm,0.9s					
BURAR	**Bucovina Array**	**78.65 317**	⇑P	**P**	**21 45 30.0**	**+0.2**
BUR08	**Bucovina Ar. S**	**78.65 317**		**P**	**21 45 29.5**	**-0.3**
BUR08			IAmb	IAmb	21 45 40.5	
	comp=Z,12nm,0.9s					
NEHR	**Nehoiu**	**78.67 314**	⇑P	**P**	**21 45 29.4**	**-0.4**
OZUR		**78.79 315**	⇑P	**P**	**21 45 31.4**	**+1.0**
MLR	**Muntele Rosu**	**78.88 315**	P	**P**	**21 45 30.4**	**-0.7**
MLR			pmax	pmax		
	comp=Z,13nm,1.1s					
MLR	**Muntele Rosu**	**78.88 315**		**P**	**21 45 30.4**	**-0.7**
MLR	**Muntele Rosu**	**78.88 315**	⇑P	**P**	**21 45 31.4**	**+0.3**
MLR	**Muntele Rosu**	**78.88 315**	P	**P**	**21 45 31.4**	**+0.3**
	comp=Z,10nm,0.9s					
URZ	**Urewera**	**78.94 139**	LR	LR	22 19 24.5	
	comp=Z,94nm,19.7s,baz=304,slow=35					
DOPR	**Dopca**	**79.09 315**	⇑P	**P**	**21 45 32.9**	**+0.8**
LOZB	**Loznitsa**	**79.15 312**	⇓P	**P**	**21 45 32.8**	**+0.4**
ARCR	**ARCALIA**	**79.38 316**	⇓P	**P**	**21 45 34.3**	**+0.6**
BMR	**Baia Mare**	**79.72 317**	P	**P**	**21 45 36.1**	**+0.6**
	comp=Z,18nm,1.0s					
ELND	**Elena**	**79.79 312**	⇓P	**P**	**21 45 36.0**	**0.0**
ARR	**Arges**	**79.80 315**	⇓P	**P**	**21 45 36.3**	**+0.4**
ARR	**Arges**	**79.80 315**	P	**P**	**21 45 36.4**	**+0.4**
	comp=Z,10nm,1.1s					
HUMR	**Humele**	**79.85 314**	P	**P**	**21 45 36.6**	**+0.3**
	comp=Z,65nm,1.0s					
CJR	**Cluj-Napoca**	**80.00 316**	P	**P**	**21 45 37.6**	**+0.6**
CJR	**Cluj-Napoca**	**80.00 316**	⇓P	**P**	**21 45 37.7**	**+0.6**
KOLS	**Kolonicke sedl**	**80.04 319**	*e*P	**P**	**21 45 40.7**	**+3.5**
HFS	**Hagfors**	**80.11 331**	P	**P**	**21 45 36.4**	**-1.0**
	comp=Z,3.5nm,0.9s,baz=80,slow=3.3,SNR=5.6					
HFS			LR	LR	22 24 32.6	
	comp=Z,472nm,18.9s,baz=64,slow=38					
	comp=Z,3.5nm,0.9s					
TRPA	**Tarpa**	**80.16 318**	P	**P**	**21 45 38.2**	**+0.3**
	comp=Z,9.0nm,1.9s					
MARR	**Marisel-Cluj**	**80.32 316**	⇑P	**P**	**21 45 39.5**	**+0.6**
LOT	**Lotru**	**80.34 315**	⇓P	**P**	**21 45 39.2**	**+0.2**
LOT	**Lotru**	**80.34 315**	P	**P**	**21 45 39.2**	**+0.2**
	comp=Z,9.1nm,1.0s					
NC405	**NORSAR Array S**	**80.54 332**	P	**P**	**21 45 38.5**	**-1.2**
DRGR		**80.54 317**	P	**P**	**21 45 40.6**	**+0.6**
DRGR		**80.54 317**	⇑P	**P**	**21 45 40.7**	**+0.6**
DRGR		**80.54 317**	P	**P**	**21 45 40.4**	**+0.3**
	comp=Z,12nm,1.0s					
DEV	**Deva**	**80.75 316**	P	**P**	**21 45 41.4**	**+0.4**
DEV	**Deva**	**80.75 316**	⇓P	**P**	**21 45 41.5**	**+0.4**
DEV	**Deva**	**80.75 316**	P	**P**	**21 45 41.6**	**+0.6**
	comp=Z,18nm,1.0s					
NB2	**NORSAR Subarra**	**80.79 333**	P	**P**	**21 45 39.3**	**-1.7**
	comp=Z,15nm,1.2s,baz=62,slow=5.3					
NOA	**NORSAR Array B**	**80.79 333**	P	**P**	**21 45 39.4**	**-1.6**
	comp=Z,8.2nm,1.1s,baz=62,slow=5.3,SNR=8.8					
NOA			LR	LR	22 25 44.2	
	comp=Z,464nm,19.3s,baz=65,slow=39					
	comp=Z,8.2nm,1.1s					
ABAH	**Abaujker**	**80.91 318**	P	**P**	**21 45 42.2**	**+0.4**
	comp=Z,11nm,1.5s					
GZR	**Gura Zlata**	**81.01 315**	P	**P**	**21 45 42.8**	**+0.3**
GZR	**Gura Zlata**	**81.01 315**	⇓P	**P**	**21 45 42.8**	**+0.3**
OJC	**Ojcow**	**81.04 321**	*e*P	**P**	**21 45 43.2**	**+0.7**
OJC	**Ojcow**	**81.04 321**	P	**P**	**21 45 42.1**	**-0.4**
OJC	**Ojcow**	**81.04 321**		**P**	**21 45 42.1**	**-0.4**
OJC	**Ojcow**	**81.04 321**	P	**P**	**21 45 42.7**	**+0.1**
	comp=Z,23nm,1.0s					
NIE	**Niedzica**	**81.06 320**	*e*P	**P**	**21 45 42.8**	**+0.1**
SURR	**Surduc**	**81.30 316**	⇓P	**P**	**21 45 43.9**	**-0.1**
SIRR	**Siria**	**81.41 316**	⇓P	**P**	**21 45 44.6**	**0.0**
HERR	**Herculane**	**81.44 315**	⇓P	**P**	**21 45 45.1**	**+0.4**
JMIC	**Jan Mayen**	**81.47 345**	LR	LR	22 26 24.8	
	comp=Z,190nm,18.4s,baz=37,slow=39					
BLKB	**Belogradchik**	**81.73 314**	⇑P	**P**	**21 45 46.5**	**+0.2**
PSZ	**Piszkesteto**	**81.89 318**	P	**P**	**21 45 46.0**	**-1.2**
PSZ			pmax	pmax		
	comp=Z,17nm,1.4s					
PSZ	**Piszkesteto**	**81.89 318**	P	**P**	**21 45 46.0**	**-1.2**
PSZ			IAmb	IAmb	21 45 52.5	
	comp=Z,16nm,1.4s					
PSZ	**Piszkesteto**	**81.89 318**	P	**P**	**21 45 46.6**	**-0.5**
	comp=Z,8.0nm,1.3s					
MDVR	**Moldovita**	**81.94 315**	⇑P	**P**	**21 45 47.9**	**+0.4**
VYHS	**Vyhne**	**82.31 319**	*e*P	**P**	**21 45 50.0**	**+0.7**
VYHS	**Vyhne**	**82.31 319**	P	**P**	**21 45 50.0**	**+0.7**
	comp=Z,4.5nm,1.1s					
STEB	**Steborice**	**82.35 321**	*e*P	**P**	**21 45 50.9**	**+1.4**
BOVS	**Bovan**	**82.38 314**	⇑P	**P**	**21 45 50.1**	**+0.4**
MORC	**Moravsky Berou**	**82.56 321**	P	**P**	**21 45 50.2**	**-0.4**
MORC			pmax	pmax		
	comp=Z,17nm,1.6s					
MORC	**Moravsky Berou**	**82.56 321**	P	**P**	**21 45 50.2**	**-0.4**
MORC			IAmb	IAmb	21 45 52.3	
	comp=Z,16nm,1.6s					
MORC	**Moravsky Berou**	**82.56 321**	*e*P	**P**	**21 45 50.6**	**0.0**
MORC	**Moravsky Berou**	**82.56 321**	P	**P**	**21 45 51.6**	**+1.0**
	comp=Z,8.3nm,1.8s					
JAVC	**Velka Javorina**	**82.86 320**	*e*P	**P**	**21 45 53.2**	**+1.0**
JAVC	**Velka Javorina**	**82.86 320**	P	**P**	**21 45 53.8**	**+1.6**
	comp=Z,15nm,1.0s					
DPC	**Dobruska-Polom**	**83.03 322**	*e*P	P	21 45 58.5	+5.5
DPC			MLR	MLR		
	comp=Z,300nm,17.6s					
DPC	**Dobruska-Polom**	**83.03 322**	*e*P	P	21 45 58.5	+5.5
DPC			AMS	AMS	22 27 50.0	
	comp=Z,300nm,17.6s					
VRAC	**Vranov**	**83.31 321**	P	**P**	**21 45 55.2**	**+0.7**
VRAC	**Vranov**	**83.31 321**	*e*P	**P**	**21 45 54.4**	**-0.1**
VRAC	**Vranov**	**83.31 321**	⇓P	**P**	**21 45 55.2**	**+0.7**
VRAC	**Vranov**	**83.31 321**	P	**P**	**21 45 55.1**	**+0.7**
	comp=Z,3.7nm,1.2s					
MORH	**Mrgy, Hungar**	**83.35 317**	⇓P	**P**	**21 45 54.6**	**-0.1**
MORH	**Mrgy, Hungar**	**83.35 317**	P	**P**	**21 45 54.8**	**+0.1**
	comp=Z,8.1nm,1.5s					
ABPO	**Ambohimpanom**	**83.40 247**	*i* P	**P**	**21 45 56.9**	**+1.3**
ABPO	**Ambohimpanom**	**83.40 247**	P	**P**	**21 45 55.1**	**-0.5**
ABPO			IAmb	IAmb	21 45 57.4	
	comp=Z,7.0nm,0.7s					
KRUC	**Moravsky**	**83.54 320**	*e*P	**P**	**21 45 55.8**	**+0.2**
MPLH	**Magyarpolny**	**83.65 318**	P	**P**	**21 45 56.5**	**+0.3**
	comp=Z,12nm,1.4s					
TREC	**Trest**	**83.97 321**	P	**P**	**21 45 58.2**	**+0.3**
	comp=Z,6.2nm,1.1s					
WINA	**Alland / Wiene**	**84.14 320**	*e*pP	**P**	**21 45 59.3**	**+0.5**
	comp=Z,21nm,1.9s					
PRU	**Pruhonice**	**84.21 322**	*e*P	P	21 46 04.8	+5.7
PRU	**Pruhonice**	**84.21 322**	*e*P	P	21 46 04.8	+5.7
PRU	**Pruhonice**	**84.21 322**	P	**P**	**21 45 59.1**	**0.0**
	comp=Z,7.6nm,1.3s					
ABNA	**Allensteig Bun**	**84.28 320**	*e*P	**P**	**21 45 59.4**	**0.0**
	comp=Z,11nm,1.3s					
CONA	**Conrad Observa**	**84.35 319**	*e*pP	**P**	**21 46 00.3**	**+0.4**
	comp=Z,11nm,1.3s					
CLL	**Collm**	**84.48 323**	*i* P	**P**	**21 45 58.8**	**-1.6**
CLL			pmax	pmax		
	comp=Z,9.0nm,1.1s					
CLL			MLR	MLR		
	comp=Z,300nm,17.5s					
CLL	**Collm**	**84.48 323**		**P**	**21 45 59.2**	**-1.1**
CLL			IAmb	IAmb	21 46 06.3	
	comp=Z,23nm,1.5s					
CLL	**Collm**	**84.48 323**	P	**P**	**21 45 59.9**	**-0.4**
CLL	**Collm**	**84.48 323**	*i* P	**P**	**21 45 58.8**	**-1.6**
	comp=Z,9.0nm,1.1s					
CLL			*i* x	x	21 46 08.4	
	comp=Z,13nm,1.3s					
CLL			L	L	22 14 00.0	
CLL			AMS	AMS	22 25 00.0	
	comp=N,300nm,19.4s					
CLL			AMS	AMS	22 25 00.0	
	comp=E,300nm,22.1s					
CLL			AMS	AMS	22 31 00.0	
	comp=Z,300nm,17.5s					
ZVC	**Zvikov**	**84.66 321**	*e*P	**P**	**21 46 02.0**	**+0.6**
ITM	**Ithomi**	**84.71 308**		**P**	**21 46 00.8**	**-1.1**
ARSA	**Arzberg**	**84.85 319**	*e*P	**P**	**21 46 01.7**	**-0.7**
	comp=Z,11nm,1.5s					
CKRC	**Cesky Krumlov**	**84.88 321**	*e*P	**P**	**21 46 03.0**	**+0.5**
CKRC	**Cesky Krumlov**	**84.88 321**	*e*P	**P**	**21 46 03.0**	**+0.5**
BLY	**Banja Luka**	**84.90 316**	P	**P**	**21 46 02.0**	**-0.6**
BLY			IAmb	IAmb	21 46 08.0	
	comp=Z,16nm,1.2s					
BLY	**Banja Luka**	**84.90 316**	⇑P	**P**	**21 46 03.2**	**+0.5**
BLY	**Banja Luka**	**84.90 316**	P	**P**	**21 46 03.5**	**+0.9**
	comp=Z,12nm,1.2s					
VOI	**Vohitsoka**	**85.01 244**	P	**P**	**21 46 02.9**	**-0.7**
VOI			IAmb	IAmb	21 46 15.4	
	comp=Z,31nm,1.4s					
KIBK	**Kibwezi**	**85.10 266**	P	**P**	**21 46 05.6**	**+1.3**
	comp=Z,5.3nm,1.0s					
YKA	**Yellowknife Ar**	**85.10 23**	P	**P**	**21 46 01.6**	**-1.6**
	comp=Z,3.2nm,1.0s,baz=316,slow=4.6,SNR=7.4					
	comp=Z,3.2nm,1.0s					
YKA	**Yellowknife Ar**	**85.10 23**	*i* P	**P**	**21 46 02.0**	**-1.3**
YKA			pmax	pmax		
	comp=Z,3.0nm,1.0s					
YKA	**Yellowknife Ar**	**85.10 23**	P	**P**	**21 46 01.5**	**-1.7**
SUMG	**Summit**	**85.12 354**	P	**P**	**21 46 02.8**	**-0.9**
SUMG			pmax	pmax		
	comp=Z,12nm,1.0s					
SUMG	**Summit**	**85.12 354**	P	**P**	**21 46 02.8**	**-0.9**
SUMG			IAmb	IAmb	21 46 25.8	
	comp=Z,12nm,1.0s					
KHC	**Kasperske Hory**	**85.16 321**	*e*P	**P**	**21 46 04.3**	**+0.4**
KHC	**Kasperske Hory**	**85.16 321**	*e*P	**P**	**21 46 04.3**	**+0.4**
GEC2	**GERESS Array S**	**85.22 321**		**P**	**21 46 03.7**	**-0.6**
GEC2	**GERESS Array S**	**85.22 321**	P	**P**	**21 46 03.4**	**-0.9**
	comp=Z,8.4nm,1.6s					
GERES	**GERESS Array B**	**85.22 321**	P	**P**	**21 46 02.7**	**-1.6**
	comp=Z,2.0nm,0.9s,baz=46,slow=3.9,SNR=14					
	comp=Z,2.0nm,0.9s					
GERES	**GERESS Array B**	**85.22 321**	P	**P**	**21 46 03.0**	**-1.3**
GERES	**GERESS Array B**	**85.22 321**	P	**P**	**21 46 03.0**	**-1.3**
MOA	**Molln**	**85.34 320**	*e*PcP	**P**	**21 46 05.5**	**+0.6**
	comp=Z,7.1nm,0.9s					
MOA	**Molln**	**85.34 320**	P	**P**	**21 46 05.0**	**+0.2**
	comp=Z,14nm,1.8s					
SOKA	**Soboth**	**85.41 319**	*e*PcP	**P**	**21 46 05.3**	**+0.1**
	comp=Z,7.3nm,1.2s					
LODK	**Lodwar**	**85.49 272**	P	**P**	**21 46 06.3**	**+0.1**
SESA	**Seetaler Alpe,**	**85.50 319**	*e*PcP	**P**	**21 46 06.2**	**+0.4**
	comp=Z,14nm,1.1s					
CLZ	**Clausthal**	**85.66 325**	P	**P**	**21 46 06.6**	**+0.2**
	comp=Z,12nm,1.2s					
KBA	**Koelnbreinsper**	**86.26 319**	*e*pP	**P**	**21 46 13.2**	**+3.6**
	comp=Z,6.4nm,1.1s					
LESA	**Schwarzleotal**	**86.49 320**	*e*pP	**P**	**21 46 12.1**	**+1.5**
	comp=Z,7.2nm,1.3s					
ABTA	**Abfaltersbach**	**86.92 319**	*i* pP	**P**	**21 46 14.6**	**+1.9**
	comp=Z,7.3nm,1.4s					
RAR	**Rarotonga**	**87.52 114**	LR	LR	22 18 49.7	
	comp=Z,59nm,20.9s,baz=288,slow=31					
TIP	**Timpagrande**	**87.60 311**		**P**	**21 46 14.5**	**-1.6**
TIP			IAmb	IAmb	21 46 17.7	
	comp=Z,19nm,1.4s					
TIP	**Timpagrande**	**87.60 311**	P	**P**	**21 46 15.5**	**-0.6**
	comp=Z,10nm,1.5s					
FDMO	**Fiordimonte**	**88.31 316**	P	**P**	**21 46 18.8**	**-0.7**
FDMO			IAmb	IAmb	21 46 28.8	
	comp=Z,9.5nm,1.0s					
NRCA	**Norcia**	**88.39 316**	P	**P**	**21 46 18.9**	**-1.0**
NRCA			IAmb	IAmb	21 46 32.2	
	comp=Z,28nm,1.7s					
CEL	**Celeste**	**88.61 311**	P	**P**	**21 46 21.7**	**+0.7**
	comp=Z,19nm,1.4s					
LLLB	**Lillooet**	**88.87 35**	P	**P**	**21 46 21.9**	**0.0**
LLLB			IAmb	IAmb	21 46 35.4	
	comp=Z,28nm,1.5s					
EKA	**Eskdalemuir Ar**	**90.27 332**	LR	LR	22 33 42.9	
	comp=Z,254nm,18.0s,baz=43,slow=40					
PGF	**Pioggiola**	**91.17 317**	P	**P**	**21 46 33.5**	**+0.6**
	comp=Z,21nm,1.2s					
PPT2	**Papeete2**	**95.04 107**	*e*S	**S**	**21 58 04.9**	**-0.8**
	comp=Z,101nm,28.0s					
PPT2			*e*LR	LR	22 17 19.9	
	comp=Z,153nm,26.5s					
PPT2			*e*LR	LR	22 17 28.1	
	comp=Z,203nm,25.0s					
TBI	**Tubuai**	**97.16 112**	*e*LR	LR	22 18 21.6	
	comp=Z,2μm,36.0s					
NVAR	**Mina Array Bea**	**97.89 43**	LR	LR	22 25 43.2	
	comp=Z,47nm,20.1s,baz=305,slow=32					
ESDC	**Sonseca Array**	**100.81 320**	PP	**PP**	**21 51 25.4**	**+1.6**
	comp=Z,0.8nm,0.9s,baz=34,slow=8.6,SNR=4.1					
TORD	**Torodi Ar. Bea**	**111.88 295**	PP	**PP**	**21 52 43.0**	**-3.2**
	comp=Z,2.4nm,1.2s,baz=59,slow=9.3,SNR=4.4					

*IDC **11** 21:35:33.1±0.6,21.47N×121.85E,h0km,mb4.4/26, mbtmp4.5/29,ML4.0/3,MS4.1/4,Error ellipse: s-maj=14.7km s-min=11.6km az=102.0*

*NEIC **11** 21:35:34.2±1.4,21.59N±0.03×121.94E±0.06,h10km±1km, mb4.9/61,Error ellipse: s-maj=10.6km s-min=3.7km az=108.0*

*BJI **11** 21:35:34.7,21.68N×121.83E,h7km,mb4.6/39*

*TAP **11** 21:35:34.6,21.54N×121.78E,h48km,ML5.0,D*

*JMA **11** 21:35:35.2±0.3,22.2N±1.1×121.9E±0.5,h8km,MV5.1/18, TAIWAN REGION*

*GCMT **11** 21:35:36.2±0.4,21.51N±0.02×121.70E±0.02,h25km±1km, MW5.0/76,Moment Tensor Solution. s28,c32; s76,c108; Duration: 0 Moment tensor: Scale 10^{16}Nm; Mrr-0.37±.19; Mθθ3.22±.15; Mθθ-2.86±.17; Mrθ-0.43±.28; Mθφ-1.70±.11; Mφr-0.06±.34; Best double couple: M03.50800×10^{16} NP1:θ330.00000°,δ84.00000°,λ2.00000°. NP2: φ240.00000°,δ88.00000°,λ174.00000°. Principal axes: T 3.7030, Plg6.0000°, Azm194.0000°; N -0.3970, Plg83.0000°, Azm45.0000°; P -3.3130, Plg3.0000°, Azm285.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 11 21:35:35.6±0.6,21.57N±0.03×121.86E±0.03,h20km,2km, n296,σ1.61/348,mb4.7/61,MS4.1/4,3D,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.50**	**329**	*i* P	**Pg**	**21 35 45.9**	**0.0**
LYUB				*i* S	**Sb**	**21 35 53.8**	**+1.2**
LAY	**Lan-yu**	**0.55**	**328**	P	**Pg**	**21 35 45.9**	**-0.8**
LAY				S	**Sb**	**21 35 54.5**	**+0.5**
TSEB	**Hengchuen, Pin**	**0.95**	**290**	P	**Pb**	**21 35 51.8**	**-1.7**
TSEB				S	**Sb**	**21 36 05.1**	**-0.6**
TWKBT	**Hengchun**	**1.04**	**291**	P	**Pb**	**21 35 52.6**	**-2.4**
TWKBT				S	**Sb**	**21 36 06.1**	**-2.3**
TWK1	**Hengchun**	**1.05**	**291**	P	**Pb**	**21 35 52.5**	**-2.7**
TWK1				S	**Sb**	**21 36 06.1**	**-2.4**
SMST	**Manzhou Townsh**	**1.05**	**295**	P	**Pb**	**21 35 52.7**	**-2.5**
SMST				S	**Sb**	**21 36 06.1**	**-2.5**
SNW	**Nanwan**	**1.10**	**291**	*e*P	**Pn**	**21 35 54.7**	**-1.3**
HEN	**Hengchun**	**1.13**	**293**	*e*P	**Pn**	**21 35 55.0**	**-1.4**
HEN				S	**Sb**	**21 36 08.9**	**-2.0**
LDUT	**Ludao**	**1.16**	**342**	P	**Pn**	**21 35 53.8**	**-3.0**
LDUT				S	**Sb**	**21 36 08.2**	**-3.4**
SLIU	**Shizi**	**1.18**	**303**	P	**Pn**	**21 35 54.6**	**-2.5**
SLIU				S	**Sb**	**21 36 08.4**	**-3.8**
TAWH	**Dawu Township**	**1.19**	**310**	*e*P	**Pn**	**21 35 54.9**	**-2.2**
TAWH				*e*S	**Sb**	**21 36 10.0**	**-2.4**
TAW	**Tawu**	**1.19**	**311**	P	**Pn**	**21 35 54.6**	**-2.6**
TAW				S	**Sb**	**21 36 10.4**	**-2.1**
EAST	**Anshuo**	**1.24**	**311**	P	**Pn**	**21 35 55.4**	**-2.6**
EAST				*e*S	**Sb**	**21 36 11.3**	**-2.8**
ECL	**Taimali**	**1.32**	**321**	*e*P	**Pn**	**21 35 56.8**	**-2.2**
ECL				*e*S	**Sn**	**21 36 13.0**	**-3.1**
SCZT	**Fangliau**	**1.40**	**305**	*e*P	**Pn**	**21 35 57.8**	**-2.3**
SCZT				*e*S	**Sn**	**21 36 14.4**	**-3.7**
TWGBT	**Beinan**	**1.44**	**330**	*e*P	**Pn**	**21 35 58.5**	**-2.1**
TWG	**Pinlang**	**1.44**	**330**	Pn	**Pn**	**21 35 58.8**	**-1.9**
TWG				Sn	**Sn**	**21 36 20.7**	**+0.8**
TWG	**Pinlang**	**1.44**	**330**	*e*P	**Pn**	**21 35 59.1**	**-1.6**
TWG				*e*S	**Sn**	**21 36 17.1**	**-2.0**
EDH	**Donghe**	**1.49**	**340**	*e*P	**Pn**	**21 35 58.8**	**-2.5**
EDH				*e*S	**Sn**	**21 36 17.9**	**-2.2**
LONT	**Longtian**	**1.49**	**333**	*e*P	**Pn**	**21 35 59.9**	**-1.4**
LONT				*e*S	**Sn**	**21 36 19.6**	**-0.7**
SSPT	**Xinbi**	**1.50**	**307**	*e*P	**Pn**	**21 36 00.8**	**-0.8**
MASBT	**Mashibuluo**	**1.54**	**312**	*e*P	**Pn**	**21 36 00.2**	**-1.8**
WLCH	**Liuqiu**	**1.58**	**300**	*e*P	**Pn**	**21 36 02.5**	**-0.1**
CHKT	**Chengkung**	**1.59**	**343**	P	**Pn**	**21 35 59.6**	**-3.0**
CHKT				S	**Sn**	**21 36 19.4**	**-3.3**
TWP	**Hsiaoliuchiu**	**1.59**	**299**	*e*P	**Pn**	**21 36 03.6**	**+0.9**
TSMG	**Majia**	**1.60**	**315**	*e*P	**Pn**	**21 36 02.3**	**-0.5**
ECS	**Chishang**	**1.63**	**339**	*e*P	**Pn**	**21 36 01.9**	**-1.4**
ECS				*e*S	**Sn**	**21 36 22.9**	**-0.8**
SSD	**Sandimen**	**1.63**	**316**	*e*P	**Pn**	**21 36 03.2**	**-0.1**
CHKH	**Chenggong**	**1.67**	**345**	*e*P	**Pn**	**21 36 01.5**	**-2.3**
CHKH				*e*S	**Sn**	**21 36 20.8**	**-3.9**
TSPT	**Pingtung City**	**1.68**	**311**	*e*P	**Pn**	**21 36 04.3**	**+0.4**
EHD	**Haiduan**	**1.68**	**339**	*e*P	**Pn**	**21 36 02.2**	**-1.8**
EHD				*e*S	**Sn**	**21 36 23.2**	**-1.8**
FULB	**Fuli**	**1.70**	**342**	*e*P	**Pn**	**21 36 04.3**	**0.0**
FULB				*e*S	**Sn**	**21 36 23.3**	**-2.2**
SGLT	**Jiouru**	**1.71**	**312**	*e*P	**Pn**	**21 36 04.5**	**+0.1**
ECBN	**Changbin**	**1.78**	**348**	*e*P	**Pn**	**21 36 04.0**	**-1.2**
ECBN				*e*S	**Sn**	**21 36 24.5**	**-2.9**
ELDTW	**Lidau**	**1.79**	**334**	*e*P	**Pn**	**21 36 05.0**	**-0.5**
SLGT	**Liugui**	**1.81**	**322**	*e*P	**Pn**	**21 36 06.2**	**+0.4**
SCST	**Cishan**	**1.82**	**316**	*e*P	**Pb**	**21 36 07.7**	**-0.6**
TWM1	**Shoushan**	**1.82**	**313**	*e*P	**Pb**	**21 36 07.9**	**-0.6**
WSSB	**Gushan**	**1.83**	**306**	*e*P	**Pn**	**21 36 06.2**	**+0.2**
EYUL	**Yuli**	**1.84**	**344**	*e*P	**Pn**	**21 36 04.3**	**-1.8**
TWF1	**Yuli**	**1.85**	**344**	*e*P	**Pn**	**21 36 04.5**	**-1.8**
STYH	**Taoyuan**	**1.88**	**328**	*e*P	**Pn**	**21 36 06.9**	**+0.1**
YULB	**Yu-li**	**1.89**	**344**	Pn	**Pn**	**21 36 04.9**	**-1.9**
YULB	**Yu-li**	**1.89**	**344**	*e*P	**Pn**	**21 36 04.6**	**-2.2**
YULB				*e*S	**Sn**	**21 36 28.6**	**-1.5**
SGST	**Jiash

HATJ eS Sn 21 36 57.0 -1.8
YOJ Yonaguni jima 3.06 20 Pn Pn 21 36 21.8 -1.2
YOJ Yonaguni jima 3.06 20 eP Pn 21 36 22.8 -0.2
YOJ eS Sn 21 36 57.2 -1.9
YOJ Yonaguni jima 3.06 20 eP Pn 21 36 22.6 -0.4
YOJ eS Sn 21 36 56.8 -2.3
ENTT Nioudou 3.07 355 eP Pn 21 36 23.6 +0.6
YHNB Yeheng 3.12 352 Pn Pn 21 36 22.4 -1.4
YHNB Yeheng 3.12 352 eP Pn 21 36 23.8 0.0
NFF Wufeng Townshi 3.12 347 eP Pn 21 36 23.0 -0.8
NSK Sanguang 3.12 352 eP Pn 21 36 23.5 -0.4
NSK eS Sn 21 36 59.1 -1.6
TWE Neicheng 3.14 357 eP Pn 21 36 24.5 +0.4
NSTT Nanjuang 3.15 346 eP Pn 21 36 25.4 +1.3
LIOB Emei 3.16 346 eP Pn 21 36 25.7 +1.4
FUSB Fushanzhiwuyua 3.18 355 eP Pn 21 36 25.9 +1.2
NWLT Wulai 3.21 354 eP Pn 21 36 25.9 +0.9
NWLT eS Sn 21 37 00.9 -1.8
IRIF Iriomote-Funau 3.24 32 eP Pn 21 36 25.3 -0.1
KSHI Guanxi Townshi 3.25 349 eP Pn 21 36 27.0 +1.4
JKRS Kuro-shima 3.31 36 eP Pn 21 36 26.6 +0.2
JKRS eS Sn 21 37 03.9 -1.3
TIPB Shuangxi 3.38 359 eP Pn 21 36 27.6 +0.2
TATO Taipei 3.41 354 Pn Pn 21 36 27.2 -0.5
TWB1 Santiao Chiao 3.42 2 eP Pn 21 36 28.0 +0.1
TWB1 eS Sn 21 37 05.6 -2.3
PIP Pasuquin 3.44 200 eP Pn 21 36 26.5 -1.6
PIP eS Sn 21 37 06.1 -2.2
JIJ Ishigaki jima 3.48 37 eP Pn 21 36 28.5 -0.3
JIJ eS Sn 21 37 06.6 -2.8
NWF Wu-fen Shan 3.48 359 eP Pn 21 36 28.6 -0.3
WFSB Wu-fen Shan 3.48 359 eP Pn 21 36 29.3 +0.5
SXI1 Grass Mountain 3.51 0 eP Pn 21 36 29.6 +0.4
YM01 YM01 3.57 356 eP Pn 21 36 31.3 +1.3
ZUZH Zhuzihu 3.58 355 eP Pn 21 36 31.0 +0.8
YM08 YM08 3.61 356 eP Pn 21 36 31.8 +1.3
JISG Ishigakijimahi 3.75 36 P Pn 21 36 32.0 -0.5
JISG S Sn 21 37 13.5 -2.6
SIPP Brgy, Tapao 3.86 200 eP Pn 21 36 33.7 -0.3
SIPP eS Sn 21 37 17.1 -1.8
JTJ Tarama 4.02 40 eP Pn 21 36 36.5 +0.4
JTJ eS Sn 21 37 21.1 -1.6
SZP Santa 4.21 199 Pn Pn 21 36 39.0 +0.1
KNMB Chin-men Tao 4.30 313 eP Pn 21 36 39.1 -1.0
JIRJ Irabujima 4.46 43 eP Pn 21 36 41.6 -0.7
JIRJ eS Sn 21 37 31.1 -2.5
ZPLA Ao Xicun 4.46 302 eP Pn 21 36 39.8 -2.4
JMJ2 Miyako jima3 4.48 45 eS Sn 21 37 32.2 -2.0
JOGS Gusukube 4.55 45 eS Sn 21 37 33.8 -1.9
JIKM Ikemajima 4.56 42 eS Sn 21 37 34.1 -1.9
DSXP Dongshan 4.62 298 eP Pn 21 36 43.2 -1.2
AXDP Jialang 4.88 314 eP Pn 21 36 46.5 -1.5
JOW Kunigami 7.85 47 Pn Pn 21 37 28.7 -0.1
comp=E,4.7nm,0.3s,baz=37,slow=16,SNR=1.6
JOW Sn Sn 21 38 48.7 -8.4
comp=E,2.6nm,0.3s,baz=127,slow=27,SNR=1.4
comp=E,19nm,0.4s
JOW AML AML
JOW Kunigami 7.85 47 Pn 21 37 26.9 -1.9
NJ2 Nanjing 10.78 346 eP Pn 21 38 09.3 +0.4
NJ2 pmax pmax
comp=E,12nm,0.5s
QIZ Qiongzhong 11.56 259 P Pn 21 38 21.6 +1.9
QIZ S Sn 21 40 31.2 +2.9
QIZ Qiongzhong 11.56 259 Pn Pn 21 38 19.7 0.0
JNU Nakatsue 14.01 33 Pn Pn 21 38 51.8 -1.3
comp=E,0.7nm,0.3s,baz=60,slow=16,SNR=2.5
comp=E,18nm,1.1s
JNU AML AML
TIA Tai'an 15.16 345 P Pn 21 39 10.5 +1.8
TIA pmax pmax
comp=E,12nm,1.3s
LYN LuoYang 15.35 329 P Pn 21 39 13.8 +2.6
LYN pP P 21 39 17.0 +1.3
LYN sP sP 21 39 21.3 -1.5
LYN PP **pwP** 21 39 27.4 +3.4
LYN pmax pmax
comp=E,39nm,0.7s
TJN Taejon 15.51 17 Pn Pn 21 39 12.1 -1.1
DLV Lat 15.98 235 P 21 39 22.1 -1.0
KKM Kota Kinabalu 16.38 200 Pn Pn 21 39 24.8 +0.1
INCN Inchon 16.39 14 Pn Pn 21 39 23.8 -0.7
KSAR Wonju Array Be 16.65 17 Pn Pn 21 39 27.3 -0.6
KSRS Korea Array 16.68 17 Pn Pn 21 39 28.7 +0.5
comp=E,0.3nm,0.3s,baz=199,slow=13,SNR=6.0
comp=E,15nm,1.0s
KSRS AML AML
KS19 Wonju Array Si 16.70 17 Pn Pn 21 39 27.6 -0.9
XAN Xi'an 16.87 320 P P 21 39 33.4 +0.7
XAN pmax pmax
comp=E,34nm,1.0s
KMI2 Kunming 17.91 285 P P 21 39 46.2 +1.8
KMI2 pmax pmax
comp=E,13nm,1.7s
CD2 Chengdu 18.69 304 P Pn 21 39 55.8 +2.5
CD2 pmax pmax
comp=E,50nm,0.8s
BJI2 Beijing 19.02 346 P P 21 39 56.4 +0.1
BJI2 pmax pmax
comp=E,7.0nm,1.1s
JGF Kuroka 19.47 41 P P 21 40 00.5 -0.9
SNY Shenyang 20.25 4 P Pn 21 40 12.7 +1.0
SNY pmax pmax
comp=E,20nm,1.2s
TOLI2 Tolitoli 20.36 183 P P 21 40 10.0 -1.2
MAJO Matsushiro 20.61 40 P P 21 40 12.9 -0.8
MAJO IAmb IAmb 21 40 17.9
comp=Z,34nm,0.9s
MJAR Matsushiro Arr 20.61 40 P Pn 21 40 15.3 -0.7
comp=Z,36nm,0.9s,baz=230,slow=11,SNR=12
comp=Z,36nm,0.9s
MJAR Matsushiro Arr 20.61 40 P P 21 40 13.7 0.0
MJAR IAmb IAmb 21 40 17.9
comp=Z,46nm,1.0s
MJB9 Matsu-Tunnel 20.61 40 P P 21 40 13.2 -0.5
MJB9 IAmb IAmb 21 40 18.8
comp=Z,39nm,1.0s
HHC Hu-ho-hao-te 21.11 338 eP P 21 40 22.2 +3.0
HHC pmax pmax
comp=Z,17nm,0.6s
LZH Lanzhou 21.36 317 eP P 21 40 24.9 +3.0
LZH sP pwP 21 40 33.9 +3.9
LZH pmax pmax
comp=Z,43nm,1.6s
LZDM Lanzhou Array 21.37 316 P P 21 40 23.6 +1.3
comp=Z,6.1nm,0.6s,baz=133,slow=8.1,SNR=4.1
comp=Z,6.1nm,0.6s
CHTO Chiang Mai 21.68 267 P P 21 40 25.6 +0.2
TNCH TengChong 21.71 284 P P 21 40 28.3 +2.5
TNCH pmax pmax
comp=Z,37nm,0.8s
CM31 Chiang Mai Arr 21.75 266 P P 21 40 27.6 +1.4
CMAR Chiang Mai Arr 21.75 266 P P 21 40 27.9 +1.7
comp=Z,6.6nm,0.8s,baz=74,slow=7.4,SNR=12
CMAR PcP **PcP** 21 44 28.3 +1.7
comp=Z,1.0nm,0.6s,baz=6.0,slow=0.2,SNR=5.1
CMAR ScP **ScP** 21 48 01.2 -1.6
comp=Z,0.5nm,0.7s,baz=107,slow=1.3,SNR=4.0
comp=Z,6.6nm,0.8s
CMAR Chiang Mai Arr 21.75 266 P 21 40 27.0 +0.8
CN2 Changchun 22.37 7 P P 21 40 34.7 +2.2
CN2 pmax pmax
comp=Z,10.0nm,0.6s
LUWI Luwuk 22.49 178 P P 21 40 33.4 -0.7
LUWI IAmb IAmb 21 41 11.0
comp=Z,96nm,1.1s
XLT XiLinHaoTe 22.78 349 eP P 21 40 44.8 +7.8
XLT PP PnPn 21 41 14.4 +13
XLT pmax pmax
comp=Z,24nm,1.5s
MDJ Mudanjiang 23.85 14 P 21 40 47.3 -0.3
MDJ IAmb IAmb 21 40 51.1
comp=Z,90nm,1.3s
USRK Ussuriysk Ar. 24.08 18 P P 21 40 51.5 +1.9
comp=Z,11nm,0.8s,baz=209,slow=11,SNR=8.0
comp=Z,11nm,0.8s
USRK Ussuriysk Ar. 24.08 18 P 21 40 49.0 -0.7
SIJI Sorong 24.12 156 P P 21 40 50.1 -0.3
comp=Z,4.0nm,0.5s,baz=324,slow=17,SNR=2.5
comp=Z,4.0nm,0.5s
BNX BinXian 24.53 9 ⇓P P 21 40 54.7 +0.8
BNX pP **pP** 21 40 57.6 -1.2
BNX sP **sP** 21 40 59.1 -2.0
BNX S S 21 45 17.0 +3.6
BNX sS **sS** 21 45 23.8 +1.9
BNX pmax pmax
comp=Z,20nm,1.0s
JTM Tenmabayashi 25.14 36 P P 21 40 57.8 -1.6
IPM Ipoh 26.41 233 P P 21 41 10.4 -0.8
IPM IAmb IAmb 21 41 29.9
comp=Z,23nm,1.0s
KAPI Kappang 26.50 185 P P 21 41 13.0 +1.0
comp=Z,5.0nm,0.6s,baz=61,slow=9.7,SNR=1.9
comp=Z,5.0nm,0.6s
KAPI Kappang 26.50 185 P P 21 41 11.2 -0.7
KAPI IAmb IAmb 21 41 30.1
comp=Z,24nm,1.1s
ASAJ Asahikawa 28.29 33 P P 21 41 29.8 +2.0
comp=Z,17nm,0.9s,baz=263,slow=8.1,SNR=3.2
comp=Z,17nm,0.9s
JKA Kamikawa-asahi 28.29 33 P P 21 41 26.3 -1.5
JKA IAmb IAmb 21 41 43.0
comp=Z,53nm,1.2s
KLR Kul'dur 28.70 14 P P 21 41 33.1 +1.8
comp=Z,12nm,0.8s,baz=232,slow=6.4,SNR=6.9
comp=Z,12nm,0.8s
LSA Lhasa 28.78 293 P P 21 41 32.3 -0.6
LSA IAmb IAmb 21 41 36.7
comp=Z,13nm,1.0s
HEH HeiHe 28.96 7 eP P 21 41 38.6 +5.0
HEH pmax pmax
comp=Z,19nm,1.5s
SONM Songino Array 29.01 338 P P 21 41 34.1 -0.2
comp=Z,3.2nm,0.9s,baz=167,slow=9.9,SNR=3.8
comp=Z,3.2nm,0.9s
SONM Songino Array 29.01 338 P P 21 41 33.3 -1.0
SONM IAmb IAmb 21 41 45.0
comp=Z,25nm,1.8s
PSI Prapat 29.08 233 P P 21 41 35.8 +0.5
comp=Z,3.1nm,0.3s,baz=28,slow=5.0,SNR=3.6
comp=Z,3.1nm,0.3s
RPSI Rantau Prapat 29.15 233 P P 21 41 35.8 0.0
MMRI Maumere 30.02 179 P P 21 41 43.0 -0.3
LEM Lembang 31.49 208 LR LR 21 56 35.3
comp=Z,367nm,18.4s,baz=24,slow=40
MTN Manton Dam 35.39 164 P P 21 42 27.8 -2.6
MTN IAmb IAmb 21 42 55.9
comp=Z,18nm,1.7s
WMQ Urumqi 35.94 316 eP P 21 42 36.5 +1.6
WMQ pmax pmax
comp=Z,10.0nm,0.7s
KNRA Kunumurra 37.63 169 P P 21 42 47.5 -1.9
ZSN Zaisan 39.38 320 eP P 21 43 05.8 +2.0
FITZ Fitzroy Crossi 39.60 174 P P 21 43 04.3 -1.6
MKAR Makanchi Array 40.66 318 P P 21 43 15.7 +1.1
comp=Z,8.9nm,0.7s,baz=113,slow=7.9,SNR=9.2
comp=Z,8.9nm,0.7s
MKAR Makanchi Array 40.66 318 P P 21 43 14.8 +0.1
YAK Yakutsk 40.79 6 P P 21 43 12.9 -2.5
comp=Z,7.7nm,0.5s,baz=48,slow=1.5,SNR=1.6
YAK Yakutsk 40.79 6 P P 21 43 13.2 -2.1
YAK IAmb IAmb 21 43 21.4
comp=Z,37nm,1.2s
MAKZ Makanchi 40.87 318 P P 21 43 15.4 -0.9
MAKZ IAmb IAmb 21 43 18.6
comp=Z,30nm,1.1s
SHLS Shalkode 41.23 312 eP P 21 43 18.6 -0.8
comp=Z,16nm,1.3s
PDGK Podgornoye 41.26 312 P P 21 43 19.5 -0.2
UZB Uzynbulak 41.53 311 eP P 21 43 23.6 +1.7
PRZ Przheval'sk 41.78 310 P P 21 43 24.2 +0.1
PRZ IAmb IAmb 21 43 28.5
comp=Z,23nm,1.0s
KPKS Kokpek 41.86 312 eP P 21 43 26.3 +1.7
SATY Saty 41.94 311 eP P 21 43 26.9 +1.6
H11N1 WAKE ISLAND Hy 42.07 84 T T 22 28 36.0
baz=282,slow=75,SNR=10.0
H11N2 WAKE ISLAND Hy 42.07 84 T T 22 28 37.0
baz=282,slow=75,SNR=8.9
H11N3 WAKE ISLAND Hy 42.09 84 T T 22 28 35.9
baz=282,slow=75,SNR=7.6
TDK Taldygorghan 42.53 314 eP P 21 43 31.7 +1.8
comp=Z,25nm,1.0s
ZAA0 Zalesovo Array 42.78 328 P P 21 43 31.5 -0.2
ZAA0 IAmb IAmb 21 43 32.8
comp=Z,28nm,1.2s
ZALV Zalesovo Beam 42.78 328 P P 21 43 31.7 0.0
comp=Z,11nm,0.7s,baz=116,slow=7.6,SNR=6.8
comp=Z,11nm,0.7s
ZALV Zalesovo Beam 42.78 328 P P 21 43 31.2 -0.6
WB0 Warramunga Arr 42.87 163 P 21 43 31.6 -1.3
MDOK Medeo 42.92 311 eP P 21 43 34.9 +1.6
TNSS Tian-Shan 42.96 311 eP P 21 43 35.3 +1.4
WRA Warramunga Arr 43.03 163 P P 21 43 32.2 -1.9
comp=Z,5.4nm,0.8s,baz=345,slow=9.0,SNR=6.9
comp=Z,5.4nm,0.8s
WRA Warramunga Arr 43.03 163 P P 21 43 31.5 -2.6
AAA Alma-Ata 43.03 311 eP P 21 43 35.8 +1.7
KSH2 Kashi 43.12 305 P P 21 43 37.6 +2.6
KSH2 sP pwP 21 43 46.1 +2.9
KSH2 pmax pmax
comp=Z,9.0nm,1.7s
NRN Naryn 43.25 308 P P 21 43 35.8 -0.4
NRN IAmb IAmb 21 43 39.9
comp=Z,23nm,1.1s
NIL Nilore 44.36 296 P P 21 43 43.9 -1.0
NIL IAmb IAmb 21 43 47.7
comp=Z,34nm,1.1s
KURK Kurchatov 44.50 322 P P 21 43 44.7 -1.0
KURK IAmb IAmb 21 43 59.6
comp=Z,8.2nm,0.8s
KURBB Kurchatov Arra 44.52 321 P P 21 43 46.9 +1.1
comp=Z,9.4nm,0.9s,baz=122,slow=7.2,SNR=8.2
comp=Z,9.4nm,0.9s
AAK Ala-Archa 44.61 309 P P 21 43 46.8 -0.1
AS31 Alice Springs 46.47 165 P P 21 44 00.7 -0.9
ASAR Alice Springs 46.47 165 P P 21 44 01.0 -0.6
comp=Z,4.2nm,1.0s,baz=352,slow=13,SNR=3.8
comp=Z,4.2nm,1.0s
ASAR Alice Springs 46.47 165 P P 21 44 00.2 -1.3
DZA Taraz 46.94 309 eP P 21 44 07.0 +1.8
KK31 Karatay Array 47.57 309 P P 21 44 10.2 +0.1
KK31 IAmb IAmb 21 44 22.2
comp=Z,6.5nm,0.8s
KKAR Karatay Array 47.57 309 P P 21 44 10.1 0.0
IUG Iuzhnay 47.77 308 eP P 21 44 13.4 +1.7
comp=Z,14nm,1.3s
KBL Kabul 47.88 298 P P 21 44 12.0 -0.9
BRLS Borolday 48.05 309 eP P 21 44 16.1 +2.4
CHM Chimkent 48.11 308 eP P 21 44 16.0 +1.8
comp=Z,5.2nm,1.0s
BVAR Borovoye Array 50.09 322 P P 21 44 29.7 +0.4
comp=Z,4.0nm,0.5s,baz=110,slow=8.3,SNR=6.4
comp=Z,4.0nm,0.5s
BORK Borovoye 50.14 322 P P 21 44 28.5 -1.1
BORK IAmb IAmb 21 44 40.1
comp=Z,8.2nm,0.8s
MORW Morawa 50.66 187 P P 21 44 32.3 -1.4
MORW IAmb IAmb 21 44 46.6
comp=Z,24nm,1.5s
INKA Innaminka 52.31 159 P P 21 44 45.6 -0.4
INKA IAmb IAmb 21 44 57.8
comp=Z,8.2nm,0.8s
FORT Forrest 52.39 173 P P 21 44 45.5 -1.1
AB31 Akbulak array 55.72 316 P P 21 45 10.8 -0.1
AB31 IAmb IAmb 21 45 13.6
comp=Z,17nm,1.3s
ABKAR Akbulak array 55.72 316 P P 21 45 10.6 -0.2
BBOO Buckleboo 55.75 166 P P 21 45 10.3 -0.9
STKA Stephens Creek 56.41 160 P P 21 45 15.2 -0.6
comp=Z,3.0nm,0.8s,baz=332,slow=5.5,SNR=5.6
comp=Z,3.0nm,0.8s
STKA Stephens Creek 56.41 160 P P 21 45 14.9 -0.9
ARTI Artí 57.66 324 P P 21 45 24.1 -0.4
ARTI IAmb IAmb 21 45 36.2
comp=Z,14nm,0.7s
J17K VABM Dome 66.05 29 P P 21 46 20.2 -0.6
D19K Kuna River 66.47 23 P P 21 46 22.9 -0.6
D20K Etivluk River 67.02 23 P P 21 46 26.5 -0.5
KBZ Khabaz 67.61 310 P P 21 46 31.9 +0.9
comp=Z,4.7nm,0.8s,baz=57,slow=6.8,SNR=4.0
comp=Z,4.7nm,0.8s
KIV Kislovodsk 67.72 310 P P 21 46 32.3 +0.3
H21K Melozitna Rive 68.65 26 P P 21 46 37.3 +0.1
H21K IAmb IAmb 21 46 49.9
comp=Z,6.4nm,0.8s
ILAR Eielson Array 71.24 27 P P 21 46 55.2 +2.0
comp=Z,0.5nm,0.8s,baz=279,slow=6.1,SNR=2.4
comp=Z,0.5nm,0.8s
KEV Kevo 71.62 339 P P 21 46 55.5 +0.1
BMAR Burnt Mountain 71.64 24 P P 21 46 56.1 +0.4
G26K Porcupine Rive 72.05 24 P P 21 46 58.9 +0.9
G26K IAmb IAmb 21 47 11.9
comp=Z,6.7nm,0.8s
SPITS Spitsbergen Ar 72.16 348 P P 21 47 01.0 +2.4
comp=Z,18nm,1.1s,baz=106,slow=8.9,SNR=5.3
comp=Z,18nm,1.1s
ARCES ARCESS Array B 72.19 338 P P 21 47 01.0 +2.1
comp=Z,2.0nm,0.7s,baz=76,slow=5.1,SNR=4.1
comp=Z,2.0nm,0.7s
ARCES ARCESS Array B 72.19 338 P P 21 46 58.8 0.0
M26K Nabesna, AK 73.46 29 P P 21 47 06.3 -0.2
M26K IAmb IAmb 21 47 42.8
comp=Z,24nm,1.4s
BCAR Beaver Creek A 73.83 28 P P 21 47 08.6 -0.1
FIA1 FINESS Array S 74.01 330 P P 21 47 08.8 -0.8
FINES FINESS Array B 74.01 330 P P 21 47 09.4 -0.3
comp=Z,3.2nm,0.7s,baz=104,slow=8.0,SNR=4.4
comp=Z,3.2nm,0.7s
FINES FINESS Array B 74.01 330 P P 21 47 09.0 -0.7
BR131 Keskin Array S 75.23 307 P P 21 47 16.2 -1.2
BR131 IAmb IAmb 21 47 19.0
comp=Z,16nm,1.6s
BRTR Keskin Array B 75.23 307 P P 21 47 18.5 +1.1
comp=Z,1.8nm,0.8s,baz=102,slow=7.8,SNR=5.1
comp=Z,1.8nm,0.8s
BRTR Keskin Array B 75.23 307 P P 21 47 16.1 -1.4
AKASG Malin Array Be 75.23 319 P P 21 47 16.8 -0.2
comp=Z,0.6nm,0.5s,baz=65,slow=4.7,SNR=5.9
comp=Z,0.6nm,0.5s
RAO Raoul Island 76.92 129 LR LR 22 12 59.4
comp=Z,160nm,20.6s,baz=31,slow=29
NB2 NORSAR Subarra 80.82 333 P P 21 47 47.1 -0.8
comp=Z,15nm,1.7s,baz=56,slow=5.6
IDI Anoyia 83.24 305 LR LR 22 30 57.4
comp=Z,88nm,20.0s,baz=118,slow=40
CLL Collm 84.51 323 *i* P P 21 48 08.0 +0.8
CLL *i* x x 21 48 16.3
CLL Collm 84.51 323 *i* PP PP 21 51 23.5 +1.3
YKA Yellowknife Ar 85.12 23 P P 21 48 11.1 +1.0
comp=Z,1.5nm,0.9s,baz=310,slow=4.6,SNR=5.1
comp=Z,1.5nm,0.9s
GERES GERESS Array B 85.25 321 P P 21 48 12.9 +1.7
comp=Z,0.9nm,0.7s,baz=57,slow=4.9,SNR=3.8
comp=Z,0.9nm,0.7s
GERES GERESS Array B 85.25 321 P P 21 48 10.5 -0.7
BMRD Maredsous 89.51 325 *d*P P 21 48 30.2 -1.3
BMRD *d*PcP **PcP** 21 48 32.0 -0.9
MAW Mawson 98.85 199 LR LR 22 29 53.7
comp=Z,55nm,20.7s,baz=78,slow=33

NEIC ***11*** *21:39:58.2±0.8, 17.92N±0.02×66.74W±0.01, h16km±2km, ML3.6/37, Md3.1/16(RSPR), Error ellipse: s-maj=2.9km s-min=1.8km az=163.0*
RSPR ***11*** *21:39:59.1, 17.96N×66.76W, h11km, MD3.1/16*
SDD ***11*** *21:39:59.5±0.9, 17.94N×66.75W, h13km±10km, MD3.2, ML3.3, MW3.4, Presumed earthquake*
OSPL ***11*** *21:39:59.1±0.5, 17.92N×66.75W, h11km±2km, ML3.6, Presumed earthquake*

ISC 11 21:39:58.4±1.0, 17.93N±0.04×66.75W±0.02, h18km±5km, n52, σ0.9 69/74, 8C-6D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GBPR	**Guanica, Bosqu**	**0.13**	**291**			**Pg**		**21 40 02.2**	**-0.2**
GBPR	**Guanica, Bosqu**	**0.13**	**291**	⇓*i*P		**Pg**		**21 40 02.2**	**-0.2**
OBIP	**Obispado Ponce**	**0.18**	**50**			**Pg**		**21 40 02.7**	**-0.3**
OBIP				Sg		**Sg**		**21 40 05.8**	**-0.3**
OBIP	**Obispado Ponce**	**0.18**	**50**	⇑*i*P		**Pg**		**21 40 02.9**	**-0.1**
OBIP				*e*S		**Sg**		**21 40 05.9**	**-0.3**
OBIP	**Obispado Ponce**	**0.18**	**50**	*i* P		**Pg**		**21 40 02.7**	**-0.3**
OBIP				*e*S		**Sg**		**21 40 05.7**	**-0.5**
OBIP				IAML				21 40 07.2	
comp=Z,14μm,0.2s									
CELP	**Cerrillos**	**0.22**	**48**			**Pg**		**21 40 03.5**	**-0.1**
CELP				Sg		**Sg**		**21 40 06.9**	**-0.3**
CELP				IAML				21 40 07.5	
comp=Z,6μm,0.2s									
CELP				IAML				21 40 08.2	
comp=Z,7μm,0.2s									
CELP	**Cerrillos**	**0.22**	**48**	⇓*e*Pg		**Pg**		**21 40 03.5**	**-0.1**
CELP				⇑*e*Sg		**Sg**		**21 40 07.2**	**0.0**
CELP				IAML				21 40 07.4	
comp=E,2μm,0.2s									
CELP				IAML				21 40 08.1	
comp=N,3μm,0.2s									
CELP	**Cerrillos**	**0.22**	**48**	⇑*i*P		**Pg**		**21 40 03.5**	**-0.1**
MLPR	**Magueyes Islan**	**0.28**	**279**			**Pg**		**21 40 04.5**	**-0.1**
MLPR				Sg		**Sg**		**21 40 08.9**	**0.0**
MLPR				IAML				21 40 09.8	
comp=N,4μm,0.5s									
MLPR				IAML				21 40 10.3	
comp=N,7μm,0.3s									
MLPR	**Magueyes Islan**	**0.28**	**279**	⇑*e*Pg		**Pg**		**21 40 04.6**	**-0.1**
MLPR				IAML				21 40 09.6	
comp=E,1μm,0.7s									
MLPR				IAML				21 40 10.3	
comp=N,3μm,0.2s									
MLPR	**Magueyes Islan**	**0.28**	**279**	⇑*i*P		**Pg**		**21 40 04.6**	**-0.1**
CRPR	**Cabo Rojo, PR**	**0.35**	**283**			**Pg**		**21 40 05.6**	**-0.1**
CRPR				Sg		**Sg**		**21 40 10.7**	**-0.2**
CRPR				IAML				21 40 14.5	
comp=N,4μm,0.5s									
CRPR	**Cabo Rojo, PR**	**0.35**	**283**	⇑*e*Pg		**Pg**		**21 40 05.7**	**-0.1**
CRPR				IAML				21 40 12.4	
comp=N,3μm,0.2s									
CRPR				IAML				21 40 14.4	
comp=E,4μm,0.6s									
CRPR	**Cabo Rojo, PR**	**0.35**	**283**	⇑*i*P		**Pg**		**21 40 05.8**	**-0.1**
CRPR	**Cabo Rojo, PR**	**0.35**	**283**	*i* P		**Pg**		**21 40 05.7**	**-0.1**
CRPR				*e*S		**Sg**		**21 40 10.8**	**0.0**
AOPR	**Arecibo Observ**	**0.42**	**359**			**Pg**		**21 40 06.5**	**-0.5**
AOPR				Sg		**Sg**		**21 40 12.0**	**-0.8**
AOPR				IAML				21 40 15.1	
comp=E,6μm,0.3s									
AOPR	**Arecibo Observ**	**0.42**	**359**	⇑*e*Pg		**Pg**		**21 40 06.5**	**-0.5**
AOPR				⇓*e*Sg		**Sg**		**21 40 12.2**	**-0.7**
AOPR				IAML				21 40 14.5	
comp=E,11μm,0.4s									
AOPR				IAML				21 40 15.1	
comp=N,5μm,0.3s									
AOPR	**Arecibo Observ**	**0.42**	**359**	⇑*i*P		**Pg**		**21 40 06.5**	**-0.5**
PRSN	**Puerto Rico Se**	**0.47**	**308**			**Pg**		**21 40 07.5**	**-0.5**
PRSN				Sg		**Sg**		**21 40 14.6**	**+0.1**
PRSN	**Puerto Rico Se**	**0.47**	**308**	⇑*e*Pg		**Pg**		**21 40 07.5**	**-0.5**
PRSN				IAML				21 40 16.7	
comp=E,9μm,0.2s									
PRSN				IAML				21 40 17.9	
comp=N,9μm,0.3s									
PRSN	**Puerto Rico Se**	**0.47**	**308**	⇑*i*P		**Pg**		**21 40 07.5**	**-0.5**
ECPR	**Experimental S**	**0.54**	**43**			**Pg**		**21 40 08.8**	**-0.4**
ECPR				Sg		**Sg**		**21 40 15.9**	**-0.5**
ECPR				IAML				21 40 17.9	
comp=N,8μm,0.2s									
ECPR	**Experimental S**	**0.54**	**43**	⇓*i*P		**Pg**		**21 40 08.9**	**-0.3**
EMPR	**Esperanza - Ma**	**0.59**	**21**			**Pg**		**21 40 10.3**	**+0.2**
EMPR						**Sg**		**21 40 18.3**	**+0.3**
EMPR	**Esperanza - Ma**	**0.59**	**21**	⇑*i*P		**Pg**		**21 40 10.3**	**+0.2**
EMPR				*e*S		**Sg**		**21 40 18.3**	**+0.3**
SJG	**San Juan**	**0.60**	**72**			**Pg**		**21 40 09.9**	**-0.4**
SJG				Sg		**Sg**		**21 40 18.0**	**-0.3**
SJG				IAML				21 40 20.0	
comp=N,2μm,0.3s									
SJG	**San Juan**	**0.60**	**72**	*e*Pg		**Pg**		**21 40 10.0**	**-0.2**
SJG				⇑*e*Sg		**Sg**		**21 40 18.3**	**-0.1**
SJG	**San Juan**	**0.60**	**72**	⇑*i*P		**Pg**		**21 40 10.2**	**-0.1**
SJG	**San Juan**	**0.60**	**72**	*i* P		**Pg**		**21 40 10.1**	**-0.2**
SJG				*e*S		**Sg**		**21 40 18.2**	**-0.2**
IGPR	**InterUniversit**	**0.61**	**86**			**Pg**		**21 40 10.6**	**0.0**
IGPR						**Sg**		**21 40 19.2**	**+0.4**
IGPR	**InterUniversit**	**0.61**	**86**	⇑*i*P		**Pg**		**21 40 10.6**	**0.0**
AGPR	**Aguadilla, PR**	**0.64**	**327**			**Pg**		**21 40 10.3**	**-0.7**
AGPR				IAML				21 40 22.6	
comp=N,2μm,0.4s									
AGPR				IAML				21 40 24.6	
comp=N,2μm,0.5s									
AGPR	**Aguadilla, PR**	**0.64**	**327**			**Sg**		**21 40 18.7**	**-0.9**
AGPR	**Aguadilla, PR**	**0.64**	**327**	⇑*e*Pg		**Pg**		**21 40 10.4**	**-0.7**
AGPR				⇑*e*Sg		**Sg**		**21 40 19.4**	**-0.2**
AGPR				IAML				21 40 19.5	
comp=E,1μm,0.3s									
AGPR				IAML				21 40 24.4	

comp=N,2µm,0.6s
AGPR Aguadilla, PR 0.64 327 ⇑*i* P **Pg 21 40 10.4 -0.7**
AGPR Aguadilla, PR 0.64 327 *i* P **Pg 21 40 10.4 -0.7**
AGPR *e*S **Sg 21 40 19.4 -0.2**
PDPR Patillas Dam, 0.70 82 Pg 21 40 11.7 -0.4
GCPR Guaynabo City 0.74 59 Pg 21 40 12.2 -0.7
GCPR IAML 21 40 23.1
comp=N,2µm,0.3s
IDE Isla Desecheo 0.83 304 Pg 21 40 13.6 -1.0
IDE *e*S **Sg 21 40 25.1 -0.5**
IDE Isla Desecheo 0.83 304 ⇓*i* P **Pg 21 40 13.6 -1.0**
IDE *e*S **Sg 21 40 25.1 -0.5**
HUMP Col San Antoni 0.88 76 Sg 21 40 14.6 -1.0
HUMP Col San Antoni 0.88 76 Sg 21 40 26.2 -1.1
HUMP Col San Antoni 0.88 76 ⇓*i* P **Pg 21 40 14.8 -0.8**
PCDR Punta Cana, DR 1.66 291 Pn **Pn 21 40 27.3 +0.7**
PCDR IAML 21 41 00.1
comp=N,589nm,0.5s
PCDR Punta Cana, DR 1.66 291 *e*Pg **Pn 21 40 28.6 +2.0**
PCDR IAML 21 41 00.0
comp=N,322nm,0.5s
SADR Isla Saona 1.95 278 *e*Pg **Pn 21 40 33.0 +2.3**
SADR IAML 21 41 06.9
comp=E,189nm,0.6s
SADR IAML 21 41 11.0
comp=N,404nm,0.5s
HIDR Higuey Centro 1.98 290 *e*Pg **Pn 21 40 33.5 +2.4**
HIDR IAML 21 41 02.2
comp=E,273nm,0.3s
HIDR IAML 21 41 02.5
comp=N,303nm,0.3s
SMDR Samana, DR 2.68 301 *e*Pg **Pb 21 40 45.6 -0.3**
SMDR IAML 21 41 31.7
comp=N,147nm,0.8s
BANI BANI 3.46 278 Pn 21 40 51.7 +0.1
PODR Polo 4.32 274 Pn **Pn 21 41 03.2 -0.2**
SDDR Presa de Saban 4.43 284 Pn **Pn 21 41 06.7 +1.8**
URIC Uribia, Colomb 8.00 220 Pn **Pn 21 41 53.1 -0.7**

TRN ***11*** *22:05:23.1, 17°.93N×63°.06W, h77km, MD3.9, South of St. Martin.*
NEIC ***11*** *22:05:23.6±1.0, 18°.0N±0°.1×63°.10W±0°.05, h86km±5km, ML3.3/49, Error ellipse: s-maj=15.1km s-min=7.3km az=180.0*
ISC 11 22:05:23.0±1.5**, 17°.99N**±0°.08×**63°.09W**±0°.05**, h87**km±7km**, n30,** σ0°.69**/46, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMRT	**St. Maarten**	**0.07**	**12**	Pn	**Pn**	**22 05 35.9**	**+0.5**
SMRT				Sn	**Sn**	**22 05 44.5**	**0.0**
SMRT	**St. Maarten**	**0.07**	**12**	*e*P	**Pn**	**22 05 35.6**	**+0.3**
SMRT				*e*S	**Sn**	**22 05 44.4**	**-0.1**
SABA	**Saba**	**0.39**	**202**	Pn	**Pn**	**22 05 36.9**	**+0.3**
SABA				Sn	**Sn**	**22 05 46.2**	**-0.6**
SABA				IAML		22 05 49.7	
	comp=N,2µm,0.4s						
SABA				IAML		22 05 50.4	
	comp=E,2µm,0.4s						
SABA	**Saba**	**0.39**	**202**	*e*P	**Pn**	**22 05 37.0**	**+0.3**
SABA				*e*S	**Sn**	**22 05 45.9**	**-0.9**
SEUS	**St. Eustatius**	**0.50**	**168**	Pn	**Pn**	**22 05 38.7**	**+1.2**
SEUS				Sn	**Sn**	**22 05 47.4**	**-0.7**
SEUS				IAML		22 05 49.5	
	comp=E,731nm,0.2s						
SEUS				IAML		22 05 59.2	
	comp=N,756nm,0.4s						
SEUS	**St. Eustatius**	**0.50**	**168**	*e*P	**Pn**	**22 05 36.6**	**-0.8**
SEUS				*e*S	**Sn**	**22 05 48.1**	**-0.1**
SKI	**Saint Kitts**	**0.73**	**153**	*e*P	**Pn**	**22 05 40.2**	**+0.6**
SKI				*e*S	**Sn**	**22 05 52.0**	**0.0**
ANWB	**Willy Bob**	**1.28**	**104**	Pn	**Pn**	**22 05 46.1**	**+0.3**
ANWB				Sn	**Sn**	**22 06 01.9**	**-1.2**
ANWB	**Willy Bob**	**1.28**	**104**	*e*P	**Pn**	**22 05 46.1**	**+0.3**
ANWB				*e*S	**Sn**	**22 06 03.4**	**+0.3**
DHSZ	**Broadband at M**	**2.12**	**143**	*e*P	**Pn**	**22 05 56.9**	**+0.1**
DHSZ				*e*S	**Sn**	**22 06 22.9**	**+0.5**
GDHS	**Morne Mazeau,**	**2.12**	**143**	Pn	**Pn**	**22 05 56.6**	**-0.1**
GDHS				Sn	**Sn**	**22 06 22.5**	**-0.1**
ABD	**La Joyeuse, An**	**2.15**	**134**	Pn	**Pn**	**22 05 57.1**	**+0.1**
ABD				Sn	**Sn**	**22 06 22.6**	**-0.4**
ABD				IAML		22 06 26.1	
	comp=N,147nm,1.1s						
ABD				IAML		22 06 52.9	
	comp=E,163nm,2.0s						
CBE	**Ff, Capester**	**2.38**	**143**	Pn	**Pn**	**22 06 00.7**	**+0.5**
CBE				Sn	**Sn**	**22 06 29.3**	**+0.8**
TDBA	**Terre de Bas,**	**2.54**	**147**	Pn	**Pn**	**22 06 02.8**	**+0.5**
TDBA				IAML		22 06 55.5	
	comp=E,134nm,0.8s						
TDBA				IAML		22 07 50.4	
	comp=N,118nm,1.4s						
DSDZ	**La Diserade, G**	**2.55**	**130**	*e*P	**Pn**	**22 06 03.0**	**+0.6**
DSDZ				*e*S	**Sn**	**22 06 31.6**	**-1.1**
GDSD	**La Dsirade Is**	**2.55**	**130**	Pn	**Pn**	**22 06 01.2**	**-1.2**
HUMP	**Col San Antoni**	**2.63**	**274**	Pn	**Pn**	**22 06 04.0**	**+0.6**
MAGL	**Barre de l'ile**	**2.66**	**139**	Pn	**Pn**	**22 06 04.9**	**+0.9**
MAGL				IAML		22 06 34.5	
	comp=E,185nm,2.6s						
MAGL				IAML		22 06 55.5	
	comp=N,151nm,1.4s						
MAGL	**Barre de l'ile**	**2.66**	**139**	*e*P	**Pn**	**22 06 05.2**	**+1.2**
MAGL				*e*S	**Sn**	**22 06 35.6**	**+0.2**
PDPR	**Patillas Dam,**	**2.79**	**271**	Pn	**Pn**	**22 06 06.1**	**+0.5**
GCPR	**Guaynabo City**	**2.87**	**277**	Pn	**Pn**	**22 06 06.8**	**+0.2**
SJG	**San Juan**	**2.92**	**273**	Pn	**Pn**	**22 06 08.0**	**+0.7**
SJG				IAML		22 06 43.1	
	comp=N,55nm,0.8s						
DWS	**Wesley**	**2.95**	**144**	*e*S	**Sn**	**22 06 40.7**	**-1.5**
DSLB	**Salisbury**	**3.00**	**148**	*e*P	**Pn**	**22 06 09.5**	**+1.0**
DSLB				*e*S	**Sn**	**22 06 42.5**	**-1.0**
ECPR	**Experimental S**	**3.13**	**277**	Pn	**Pn**	**22 06 10.2**	**0.0**
ECPR				IAML		22 06 53.2	
	comp=N,71nm,0.2s						
ECPR				IAML		22 06 58.6	
	comp=N,92nm,0.2s						
CELP	**Cerrillos**	**3.32**	**272**	Pn	**Pn**	**22 06 13.5**	**+0.7**
CELP				IAML		22 07 10.7	
	comp=N,47nm,3.5s						
OBIP	**Obispado Ponce**	**3.35**	**271**	Pn	**Pn**	**22 06 13.1**	**0.0**
OBIP				IAML		22 07 11.1	
	comp=N,38nm,0.9s						
AOPR	**Arecibo Observ**	**3.50**	**276**	Pn	**Pn**	**22 06 15.6**	**+0.3**
AOPR				IAML		22 07 13.6	
	comp=N,73nm,1.3s						
MLPR	**Magueyes Islan**	**3.76**	**270**	Pn	**Pn**	**22 06 18.8**	**0.0**
MLPR				IAML		22 07 19.3	
	comp=N,42nm,3.5s						
MLPR				IAML		22 07 30.4	
	comp=N,49nm,3.0s						
CRPR	**Cabo Rojo, PR**	**3.83**	**271**	Pn	**Pn**	**22 06 19.1**	**-0.5**
CRPR				IAML		22 08 04.6	
	comp=N,54nm,2.2s						
CRPR				IAML		22 08 46.2	
	comp=N,52nm,2.5s						

SSNC ***11*** *22:12:22.7±0.9, 19°.02N×76°.90W, h13km±7km, MD2.6, ML1.7, Presumed earthquake*
JSN ***11*** *22:12:24.3±0.5, 18°.85N×76°.91W, h16km±2km, MD2.9, Presumed earthquake*
ISC 11 22:12:18.4±1.5**, 19°.01N**±0°.03×**76°.87W**±0°.06**, h4**km±14km**, n9,** σ0°.62**/19, 3C-2D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STH	**Stony Hill**	**0.93**	**177**	⇑*i* P	**Pn**	**22 12 38.3**	**+0.2**
STH				⇓*i* P	**Pn**	**22 12 38.4**	**+0.2**
STH				⇑*i* S	**Sg**	**22 12 48.5**	**+0.3**
GWJ	**Greenwich**	**0.94**	**172**	*i* P	**Pn**	**22 12 38.6**	**+0.2**
CVJ	**Coleyville**	**1.00**	**219**	⇑*i* P	**Pn**	**22 12 39.7**	**+0.4**
CVJ				*i* S	**Sb**	**22 12 51.2**	**-0.7**
MTDJ	**Mount Denham**	**1.00**	**219**	*e*P	**Pn**	**22 12 39.7**	**+0.4**
MTDJ				⇓*e*S	**Sb**	**22 12 51.5**	**-0.4**
MTDJ				IAML		22 12 52.1	
	154nm,0.3s						
MTDJ				IAML		22 12 52.3	
	comp=Z,125nm,0.2s						
PILO	**Pilon**	**1.03**	**331**	*e*P	**Pn**	**22 12 39.8**	**+0.2**
PILO				*e*S	**Sb**	**22 12 51.9**	**-0.8**
PILO				IAML		22 12 52.8	
	comp=E,72nm,0.1s						
PILO				IAML		22 12 53.0	
	comp=N,185nm,0.4s						
LMGC	**Las Mercedes**	**1.06**	**353**	*e*P	**Pn**	**22 12 40.7**	**+0.7**
LMGC				*e*S	**Sb**	**22 12 52.9**	**-0.6**
LMGC				IAML		22 12 54.6	
	comp=E,9.1nm,0.1s						
LMGC				IAML		22 12 55.1	
	comp=N,12nm,0.1s						
PCJ	**Portland Cotta**	**1.29**	**192**	*i* P	**Pn**	**22 12 43.6**	**+0.5**
PCJ				*i* S	**Sg**	**22 12 58.8**	**-1.0**
MARVS	**Santiago de Cu**	**1.35**	**43**	*e*P	**Pb**	**22 12 44.4**	**+0.2**
MARVS				*e*S	**Sg**	**22 13 01.1**	**-0.6**
MARVS				IAML		22 13 01.8	
	comp=E,3.9nm,0.1s						
MARVS				IAML		22 13 02.2	
	comp=N,3.9nm,0.1s						
RCC	**Rio Carpintero**	**1.48**	**48**	*e*P	**Pg**	**22 12 47.1**	**+0.3**
RCC				*e*S	**Sb**	**22 13 04.5**	**-1.1**
RCC				*e*Sg	**Sn**	**22 13 05.8**	**+0.2**
RCC				IAML		22 13 06.0	
	comp=E,2.7nm,0.1s						
RCC				IAML		22 13 06.5	
	comp=N,2.1nm,0.1s						

AZER ***11*** *22:34:40.2, 38°.25N×44°.60E, h13km, ml2.4*
TEH ***11*** *22:34:41.0, 38°.43N×44°.37E, h4km±70km, ML2.5, Presumed earthquake*
ISC 11 22:34:43.4±2.4**, 38°.37N**±0°.07×**44°.50E**±0°.09**, h5**km±14km**, n14,** σ1°.51**/24, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ISHB	**Shabestar**	**0.88**	**95**	Pg	**Pg**	**22 35 00.1**	**-0.2**
IMRD	**Marand**	**1.00**	**70**	Pg	**Pg**	**22 35 01.3**	**-1.3**
IMRD				Sg	**Sb**	**22 35 16.6**	**-0.3**
NAX	**Nakhchivan**	**1.11**	**44**	P	**Pg**	**22 35 03.2**	**-1.6**
NAX				S	**Sg**	**22 35 19.6**	**+0.3**
ORD	**Ordubad**	**1.29**	**64**	P	**Pn**	**22 35 06.3**	**-1.9**
ORD				S	**Sb**	**22 35 24.9**	**-0.3**
SBZ	**Shahbuz**	**1.31**	**38**	Pn	**Pn**	**22 35 06.8**	**-1.7**
SBZ				Sn	**Sg**	**22 35 26.8**	**+1.3**
IAZR	**Azarshahr**	**1.36**	**120**	Pg	**Pn**	**22 35 08.6**	**-0.7**
HYR	**Heyderabad**	**1.37**	**11**	Pn	**Pb**	**22 35 09.5**	**-0.2**
HYR				Sn	**Sg**	**22 35 32.1**	**+4.6**
IHRS	**Heris**	**2.00**	**91**	Pn	**Pn**	**22 35 19.1**	**+1.0**
QRD	**Qoradiz**	**2.45**	**63**	Pn	**Pb**	**22 35 28.3**	**+0.3**
QRD				Sn	**Sb**	**22 35 59.6**	**+1.1**
GDB	**GEDABAY**	**2.54**	**22**	Pn	**Pn**	**22 35 26.0**	**+0.6**
AGDM	**Agdam**	**2.66**	**49**	Pn	**Pn**	**22 35 26.3**	**-0.8**
AGDM				Sn	**Sb**	**22 35 50.0**	**+0.4**
GANJ	**Ganja**	**2.67**	**31**	Pn	**Pn**	**22 35 28.1**	**+1.0**
GANJ				Sn	**Sb**	**22 36 05.1**	**+0.3**
QZX	**Qazax, Azerbai**	**2.76**	**14**	Pg	**Pb**	**22 35 33.2**	**-0.2**
QZX				Sg	**Sg**	**22 36 10.8**	**-1.4**
YRD	**Yardimli**	**2.98**	**78**	Pg	**Pn**	**22 35 33.5**	**+2.0**
YRD				Sg	**Sb**	**22 36 13.1**	**-0.7**

IDC ***11*** *22:48:19.4±1.1, 21°.45N×121°.85E, h0km, mb3.6/8, mbtmp3.6/8, MS3.2/2, Error ellipse: s-maj=33.5km s-min=20.0km az=66.0*
TAP ***11*** *22:48:20.7, 21°.56N×121°.76E, h39km, ML4.0, D*
JMA ***11*** *22:48:21.1±0.3, 22°N±2°×121°.8E±0°.8, h67km, MV4.2/11, TAIWAN REGION*
ISC 11 22:48:20.7±1.6**, 21°.61N**±0°.06×**121°.85E**±0°.04**, h15**km±9km**, n100,** σ1°.45**/84, mb3.6/7, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.46**	**328**	*i* P	**Pg**	**22 48 31.1**	**+1.2**
LYUB				*i* S	**Sb**	**22 48 38.5**	**+1.2**
LAY	**Lan-yu**	**0.51**	**327**	P	**Pg**	**22 48 31.1**	**+0.3**
LAY				S	**Sg**	**22 48 37.7**	**-0.1**
TSEB	**Hengchuen, Pin**	**0.93**	**288**	*e*P	**Pb**	**22 48 38.3**	**-0.3**
TWKBT	**Hengchun**	**1.02**	**289**	P	**Pb**	**22 48 38.4**	**-1.7**
TWKBT				*e*S	**Sb**	**22 48 50.9**	**-2.4**
TWK1	**Hengchun**	**1.02**	**289**	*e*P	**Pb**	**22 48 38.4**	**-1.8**
SMST	**Manzhou Townsh**	**1.03**	**294**	*e*P	**Pb**	**22 48 38.1**	**-2.1**
HEN	**Hengchun**	**1.10**	**291**	*e*P	**Pb**	**22 48 39.2**	**-2.3**
LDUT	**Ludao**	**1.12**	**342**	*e*P	**Pb**	**22 48 39.5**	**-2.2**
SLIU	**Shizi**	**1.15**	**302**	*e*P	Pn	22 48 39.8	-2.5
SLIU				*e*S	**Sb**	**22 48 54.3**	**-2.7**
TAWH	**Dawu Township**	**1.15**	**309**	*e*P	Pn	22 48 40.2	-2.1
EAST	**Anshuo**	**1.21**	**310**	*e*P	Pn	22 48 40.9	-2.3
EAST				*e*S	**Sb**	**22 48 55.1**	**-3.6**
ECL	**Taimali**	**1.29**	**320**	*e*P	Pn	22 48 42.1	-2.1
SCZT	**Fangliau**	**1.37**	**304**	*e*P	Pn	22 48 43.8	-1.6
SCZT				*e*S	**Sn**	**22 49 01.1**	**-2.1**
TWGBT	**Beinan**	**1.40**	**330**	P	Pn	22 48 44.2	-1.5
TWGBT				S	**Sn**	**22 49 02.3**	**-1.6**
TWG	**Pinlang**	**1.41**	**329**	P	Pn	22 48 44.5	-1.4
TWG				*e*S	**Sn**	**22 49 01.4**	**-2.7**
EDH	**Donghe**	**1.45**	**340**	*e*P	Pn	22 48 45.3	-1.1
LONT	**Longtian**	**1.45**	**333**	*e*P	Pn	22 48 44.7	-1.8
SSPT	**Xinbi**	**1.47**	**307**	*e*P	**Pn**	**22 48 46.5**	**-0.2**
MASBT	**Mashibuluo**	**1.51**	**312**	*e*P	Pn	22 48 46.1	-1.1
MASBT				*e*S	**Sn**	**22 49 04.1**	**-2.5**
CHKT	**Chengkung**	**1.55**	**343**	*e*P	Pn	22 48 45.9	-1.9
CHKT				*e*S	Sn	22 49 04.2	-3.4
TSMG	**Majia**	**1.56**	**315**	*e*P	**Pn**	**22 48 48.0**	**0.0**
ECS	**Chishang**	**1.59**	**339**	*e*P	Pn	22 48 47.9	-0.5
SSD	**Sandimen**	**1.60**	**315**	*e*P	Pn	22 48 47.6	-0.9
CHKH	**Chenggong**	**1.63**	**345**	*e*P	Pn	22 48 46.8	-2.1
FULB	**Fuli**	**1.66**	**342**	*e*P	Pn	22 48 47.8	-1.6
ECBN	**Changbin**	**1.74**	**348**	*e*P	**Pn**	**22 48 50.7**	**+0.3**
ELDTW	**Lidau**	**1.75**	**334**	*e*P	Pn	22 48 50.2	-0.5
SCST	**Cishan**	**1.79**	**316**	*e*P	**Pn**	**22 48 52.3**	**+1.2**
TWM1	**Shoushan**	**1.79**	**313**	*e*P	**Pn**	**22 48 51.9**	**+0.7**
EYUL	**Yuli**	**1.80**	**344**	*e*P	Pn	22 48 50.2	-1.0
TWF1	**Yuli**	**1.81**	**344**	*e*P	Pn	22 48 49.9	-1.5
TWF1				*e*S	**Sn**	**22 49 11.3**	**-2.8**
STYH	**Taoyuan**	**1.84**	**328**	*e*P	**Pn**	**22 48 51.8**	**-0.1**
STYT	**Tauyuan**	**1.85**	**327**	*e*P	**Pn**	**22 48 51.9**	**-0.1**
YULB	**Yu-li**	**1.85**	**344**	P	Pn	22 48 50.9	-1.1
YULB				S	**Sn**	**22 49 13.8**	**-1.3**
SGST	**Jiashian**	**1.88**	**322**	*e*P	**Pn**	**22 48 52.6**	**+0.2**
SGST				*e*S	**Sn**	**22 49 15.5**	**-0.3**
HGSD	**Ruisui**	**1.92**	**348**	*e*P	Pn	22 48 52.0	-0.9
EHYH	**Wanrong**	**1.93**	**346**	*e*P	Pn	22 48 51.8	-1.4
CHN1	**Nanshi**	**1.99**	**322**	*e*P	**Pn**	**22 48 54.9**	**+1.0**
CHN1				*e*S	**Sn**	**22 49 18.1**	**-0.4**
WTP	**Ta-pu**	**1.99**	**325**	*e*P	**Pn**	**22 48 55.4**	**+1.4**
TPUB	**Ta-pu**	**2.03**	**326**	*e*P	**Pn**	**22 48 55.0**	**+0.6**
TPUB				*e*S	**Sn**	**22 49 19.0**	**-0.5**
TWK	**Hsinying**	**2.08**	**323**	*e*P	**Pn**	**22 48 55.6**	**+0.5**
CHN4	**Tsaushan**	**2.09**	**326**	*e*P	**Pn**	**22 48 56.5**	**+1.3**
CHN4				*e*S	**Sn**	**22 49 23.6**	**+2.6**
ALS	**Alishan**	**2.12**	**333**	*e*P	**Pn**	**22 48 56.1**	**+0.1**
ALS				*e*S	**Sn**	**22 49 22.9**	**+0.6**
WARBT	**Fenglin Townsh**	**2.14**	**349**	*e*P	Pn	22 48 54.8	-1.2
SHUL	**Shoufeng**	**2.19**	**353**	*e*P	Pn	22 48 55.6	-0.9
CHN5	**Tsauling**	**2.26**	**332**	*e*P	**Pn**	**22 48 58.5**	**+0.9**
CHN5				*e*S	**Sn**	**22 49 26.7**	**+1.5**
WHYT	**Xinyi Township**	**2.27**	**336**	*e*P	**Pn**	**22 48 58.3**	**+0.5**
CHY	**Chiayi**	**2.30**	**325**	*e*P	**Pn**	**22 48 58.5**	**+0.4**
SSLB	**Suanglung**	**2.32**	**339**	*e*P	Pn	22 48 58.3	-0.1
SSLB				*e*S	**Sn**	**22 49 28.9**	**+2.1**
OWD	**Renai**	**2.42**	**345**	*e*P	Pn	22 48 59.8	-0.1
SMLT	**Sun Moon Lake**	**2.43**	**339**	*e*P	**Pn**	**22 49 00.1**	**+0.1**
SMLT				*e*S	**Sn**	**22 49 29.4**	**+0.1**
LXIB	**Xiulin Townshi**	**2.44**	**351**	*e*P	Pn	22 48 59.3	-0.9
TYC	**Yuchr**	**2.46**	**338**	*e*P	**Pn**	**22 49 02.2**	**+1.9**
TYC				*e*S	**Sn**	**22 49 31.2**	**+1.0**
WUSB	**Renai**	**2.47**	**344**	*e*P	Pn	22 48 60.0	-0.6
WUSB				*e*S	**Sn**	**22 49 29.2**	**-1.3**
FUSS	**Fushou**	**2.69**	**348**	*e*P	Pn	22 49 03.5	-0.2
EOS3	**EOS3**	**2.70**	**9**	*e*P	**Pn**	**22 49 03.6**	**+0.1**
EOS3				*e*S	**Sn**	**22 49 35.1**	**-0.8**
TWT	**Tachien**	**2.71**	**347**	*e*P	**Pn**	**22 49 05.1**	**+1.2**
TDCB	**Techi**	**2.71**	**347**	*e*P	Pn	22 49 02.9	-1.0
VCHM	**Qimei**	**2.75**	**306**	*e*P	Pn	22 49 02.9	-1.4
WHP	**Taichung City**	**2.79**	**343**	*e*P	**Pn**	**22 49 06.6**	**+1.7**
ENA	**Nanau**	**2.81**	**358**	*e*P	Pn	22 49 04.4	-0.7
EOS2	**EOS2**	**2.82**	**7**	*e*P	**Pn**	**22 49 05.9**	**+0.7**
NNSB	**Datong**	**2.84**	**351**	*e*P	Pn	22 49 05.2	-1.2
NNSH	**Datong**	**2.84**	**351**	*e*P	Pn	22 49 05.1	-0.6
NNS	**Nan Shan**	**2.85**	**351**	*e*P	**Pn**	**22 49 07.2**	**+1.3**
TWQ1	**Liyutan**	**2.90**	**340**	*e*P	Pn	22 49 05.2	-1.2
LATG	**Datong**	**2.93**	**354**	*e*P	**Pn**	**22 49 07.3**	**+0.4**
TWC	**Suao**	**2.99**	**0**	*e*P	**Pn**	**22 49 09.4**	**+1.9**
NDS	**Dongshan**	**3.01**	**358**	*e*P	**Pn**	**22 49 08.8**	**+0.9**
ENTT	**Nioudou**	**3.03**	**355**	*e*P	Pn	22 49 08.1	-0.1
HATJ	**Hateruma jima**	**3.03**	**36**	*e*S	**Sn**	**22 49 43.3**	**-0.9**
YOJ	**Yonaguni jima**	**3.04**	**20**	*e*P	**Pn**	**22 49 08.3**	**0.0**
YOJ				S	**Sn**	**22 49 43.1**	**-1.2**
YHNB	**Yeheng**	**3.08**	**352**	*e*P	**Pn**	**22 49 09.6**	**+0.7**
NSK	**Sanguang**	**3.09**	**352**	*e*P	**Pn**	**22 49 09.4**	**+0.4**
TWE	**Neicheng**	**3.10**	**357**	*e*P	**Pn**	**22 49 10.2**	**+1.1**
FUSB	**Fushanzhiwuyua**	**3.15**	**356**	*e*P	**Pn**	**22 49 10.3**	**+0.4**
NWLT	**Wulai**	**3.17**	**354**	*e*P	**Pn**	**22 49 11.5**	**+1.3**
IRIF	**Iriomote-Funau**	**3.22**	**32**	P	**Pn**	**22 49 11.3**	**+0.5**
IRIF				*e*S	**Sn**	**22 49 48.9**	**0.0**
JKRS	**Kuro-shima**	**3.29**	**37**	P	**Pn**	**22 49 12.6**	**+0.8**
TIPB	**Shuangxi**	**3.35**	**360**	*e*P	**Pn**	**22 49 13.0**	**+0.4**
JIJ	**Ishigaki jima**	**3.46**	**37**	P	**Pn**	**22 49 14.3**	**+0.2**
JIJ				*e*S	**Sn**	**22 49 52.0**	**-2.9**
SXI1	**Grass Mountain**	**3.47**	**0**	*e*P	**Pn**	**22 49 15.0**	**+0.7**
JISG	**Ishigakijimahi**	**3.73**	**37**	P	**Pn**	**22 49 18.0**	**+0.2**
JISG				S	**Sn**	**22 49 59.4**	**-2.2**
JTJ	**Tarama**	**4.00**	**40**	P	**Pn**	**22 49 22.0**	**+0.5**
JTJ				S	**Sn**	**22 50 06.7**	**-1.5**
KSRS	**Korea Array**	**16.64**	**17**	LR	LR	22 59 13.3	
	comp=Z,32nm,18.0s,baz=240,slow=39						
MJAR	**Matsushiro Arr**	**20.59**	**40**	P	Pn	22 53 02.7	+1.1
	1.9nm,0.8s,baz=227,slow=11,SNR=5.2 1.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**21.74**	**266**	P	**P**	**22 53 13.4**	**+1.6**
	1.6nm,0.3s,baz=79,slow=13,SNR=4.6 1.6nm,0.3s						
SONM	**Songino Array**	**28.97**	**338**	P	**P**	**22 54 20.9**	**+1.1**
	0.2nm,0.5s,baz=159,slow=12,SNR=2.0 0.2nm,0.5s						
MKAR	**Makanchi Array**	**40.63**	**318**	P	**P**	**22 56 01.5**	**+1.4**
	1.2nm,0.8s,baz=115,slow=8.3,SNR=7.1 1.2nm,0.8s						
H11N1	**WAKE ISLAND Hy**	**42.08**	**84**	T	T	23 41 28.7	
	baz=282,slow=75,SNR=8.1						
H11N2	**WAKE ISLAND Hy**	**42.08**	**84**	T	T	23 41 25.0	
	baz=282,slow=75,SNR=17						
H11N3	**WAKE ISLAND Hy**	**42.10**	**84**	T	T	23 41 25.2	
	baz=282,slow=75,SNR=9.9						
H11S3	**WAKE ISLAND Hy**	**42.13**	**86**	T	T	23 41 27.3	
	baz=282,slow=75,SNR=26						
H11S1	**WAKE ISLAND Hy**	**42.14**	**86**	T	T	23 41 24.3	
	baz=282,slow=75,SNR=38						
H11S2	**WAKE ISLAND Hy**	**42.15**	**86**	T	T	23 41 28.7	
	baz=282,slow=75,SNR=31						
ZALV	**Zalesovo Beam**	**42.74**	**328**	P	**P**	**22 56 18.4**	**+1.2**
	0.6nm,0.5s,baz=125,slow=9.3,SNR=5.2 0.6nm,0.5s						
WRA	**Warramunga Arr**	**43.06**	**163**	P	**P**	**22 56 18.3**	**-1.9**
	0.5nm,0.6s,baz=346,slow=8.6,SNR=3.6 0.5nm,0.6s						
KURBB	**Kurchatov Arra**	**44.48**	**321**	P	**P**	**22 56 34.6**	**+3.3**
	0.3nm,0.2s,baz=113,slow=7.1,SNR=4.7 0.3nm,0.2s						
ASAR	**Alice Springs**	**46.51**	**165**	P	**P**	**22 56 48.4**	**+0.7**
	0.2nm,0.4s,baz=355,slow=14,SNR=5.6 0.2nm,0.4s						
MSVF	**Nonsavu**	**67.51**	**121**	LR	LR	23 25 11.0	
	comp=Z,40nm,19.8s,baz=36,slow=33						

BJI ***11*** *22:54:24.4, 5°.68S×150°.57E, h124km, mB5.2/9, mb5.0/52*
IDC ***11*** *22:54:27.2±0.6, 5°.61S×150°.35E, h122km±5km, mb4.1/20, mbtmp4.6/25, MS3.2/12, Error ellipse: s-maj=12.1km s-min=6.5km az=126.0*
NEIC ***11*** *22:54:27.5±1.8, 5°.61S±0°.06×150°.38E±0°.06, h124km±7km, mb4.8/52, Error ellipse: s-maj=11.1km s-min=4.0km az=138.0*
GFZ ***11*** *22:54:30.8±0.2, 6°S±3°×15°0E±°, h147km, M4.7/31, mb4.8/31, confirmed*
ISC 11 22:54:26.6±0.5**, 5°.54S**±0°.04×**150°.31E**±0°.05**, h116**km±4km**, h116**km**:pP-P, n183,** σ1°.12**/198, mb4.8/86, 3C, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.10**	**54**	P	**Pn**	**22 55 02.4**	**+1.2**
	1µm,0.6s,baz=51,slow=2.3,SNR=20						
KRVT				S	**Sn**	**22 55 29.0**	**+1.4**
	752nm,0.4s,baz=173,slow=24,SNR=12						
RABL	**Rabaul**	**2.28**	**54**		**Pn**	**22 55 04.0**	**+0.5**
RABL				Sn	**Sn**	**22 55 32.4**	**+0.6**
MANU	**Manus Island**	**4.55**	**320**		**Pn**	**22 55 35.8**	**+2.3**
PMG	**Port Moresby**	**4.95**	**219**	P	**Pn**	**22 55 39.9**	**+1.0**
	111nm,0.7s,baz=33,slow=5.8,SNR=26						
PMG				S	**Sn**	**22 56 36.6**	**+1.5**
	219nm,0.3s,baz=198,slow=14,SNR=16						
PMG	**Port Moresby**	**4.95**	**219**	S	**Sn**	**22 56 36.1**	**+1.0**
PMG	**Port Moresby**	**4.95**	**219**

ASAR					PcP	23 03 09.1	-0.8
ASAR					ScP	23 06 36.5	-1.3
ARMA	**Armidale**	**24.78 177**			**P**	**22 59 37.3**	**-0.5**
ARMA			IAmb	IAmb		22 59 41.1	
	comp=Z,36nm,1.1s						
ARMA	**Armidale**	**24.78 177**	P		**P**	**22 59 39.1**	**+1.3**
	comp=Z,39nm,1.2s						
CMSA	**Cobar Meteorol**	**26.22 189**	P		**P**	**22 59 49.8**	**-1.0**
	comp=Z,18nm,0.9s						
FITZ	**Fitzroy Crossi**	**27.13 241**	LR	LR		23 12 58.5	
	comp=Z,37nm,18.1s,baz=8.5,slow=41						
FITZ	**Fitzroy Crossi**	**27.13 241**	P		**P**	**22 59 58.4**	**-0.6**
FITZ	**Fitzroy Crossi**	**27.13 241**	P		**P**	**22 59 58.9**	**-0.1**
	comp=Z,3.2nm,1.4s						
STKA	**Stephens Creek**	**27.44 196**	P		**P**	**23 00 01.4**	**-0.2**
	comp=Z,8.9nm,0.6s,baz=359,slow=9.4,SNR=12						
STKA			LR	LR		23 10 29.7	
	comp=Z,49nm,19.3s,baz=27,slow=35						
	comp=Z,8.9nm,0.6s						
STKA	**Stephens Creek**	**27.44 196**	P		**P**	**23 00 01.1**	**-0.6**
STKA	**Stephens Creek**	**27.44 196**	P		**P**	**23 00 01.5**	**-0.2**
	comp=Z,67nm,0.7s						
DAV	**Davao City (W)**	**27.68 297**	LR	LR		23 12 06.6	
	comp=Z,49nm,18.0s,baz=274,slow=38						
TOO	**Toolangi**	**32.18 187**	P		**P**	**23 00 44.4**	**+0.9**
FORT	**Forrest**	**32.68 217**	P		**P**	**23 00 47.3**	**-0.5**
FORT			IAmb	IAmb		23 00 49.6	
	comp=Z,9.8nm,0.8s						
MBWA	**Marble Bar**	**33.46 239**	P		**P**	**23 00 53.6**	**-1.2**
MBWA			IAmb	IAmb		23 00 55.0	
	comp=Z,14nm,0.8s						
MBWA	**Marble Bar**	**33.46 239**	P		**P**	**23 00 54.1**	**-0.7**
	comp=Z,21nm,1.3s						
MBWA	**Marble Bar**	**33.46 239**	P		**P**	**23 00 54.2**	**-0.7**
OUZ	**Omahuta**	**36.52 147**	P		**P**	**23 01 22.8**	**+1.9**
	comp=Z,18nm,0.9s						
MEEK	**Meekatharra**	**36.79 232**	P		**P**	**23 01 23.0**	**-0.4**
	comp=Z,11nm,1.5s						
MOO	**Moorlands**	**36.85 184**	P		**P**	**23 01 25.1**	**+1.5**
	comp=Z,43nm,1.8s						
TAU	**Tasmania Unive**	**37.31 184**	P		**P**	**23 01 27.9**	**+0.5**
TAU	**Tasmania Unive**	**37.31 184**	P		**P**	**23 01 28.7**	**+1.2**
	comp=Z,42nm,1.1s						
MORW	**Morawa**	**39.96 230**	P		**P**	**23 01 48.9**	**-1.0**
MORW			IAmb	IAmb		23 02 30.1	
	comp=Z,28nm,1.6s						
KLBR	**Kellerberrin**	**40.01 226**	P		**P**	**23 01 49.7**	**-0.5**
	comp=Z,33nm,1.0s						
URZ	**Urewera**	**40.66 147**	LR	LR		23 16 18.0	
	comp=Z,55nm,20.7s,baz=292,slow=32						
URZ	**Urewera**	**40.66 147**	P		**P**	**23 01 56.1**	**+0.7**
	comp=Z,15nm,0.9s						
NACB	**Ninganchiao**	**40.69 318**	P		**P**	**23 01 56.1**	**+0.2**
NACB	**Ninganchiao**	**40.69 318**	P		**P**	**23 01 57.3**	**+1.4**
	comp=Z,76nm,1.2s						
TKNZ	**Takaka Hill**	**40.74 153**	P		**P**	**23 01 55.9**	**-0.2**
DSZ	**Denniston Nort**	**40.83 155**	P		**P**	**23 01 56.3**	**-0.6**
DSZ			IAmb	IAmb		23 02 24.1	
	comp=Z,48nm,1.4s						
YHNB	**Yeheng**	**41.17 318**	P		**P**	**23 02 00.1**	**+0.1**
YHNB	**Yeheng**	**41.17 318**	P		**P**	**23 02 01.2**	**+1.3**
	comp=Z,80nm,1.1s						
TCW	**Tory Channel**	**41.48 152**	P		**P**	**23 02 02.3**	**+0.2**
BFZ	**Birch Farm**	**42.01 150**	P		**P**	**23 02 05.8**	**-0.7**
	comp=Z,24nm,1.1s						
JMN	**Monobe**	**42.04 339**	P		**P**	**23 02 07.4**	**+0.6**
JMN	**Monobe**	**42.04 339**	P		**P**	**23 02 08.2**	**+1.3**
	comp=Z,54nm,1.2s						
RPZ	**Rata Peaks**	**42.18 158**	LR	LR		23 17 41.3	
	comp=Z,15nm,21.9s,baz=192,slow=33						
JGF	**Kuroka**	**42.70 344**	P		**P**	**23 02 12.1**	**0.0**
JGF			IAmb	IAmb		23 02 17.4	
	comp=Z,15nm,1.0s						
KNMB	**Chin-men Tao**	**43.08 315**	P		**P**	**23 02 16.4**	**+1.0**
	comp=Z,81nm,1.1s						
MJAR	**Matsushiro Arr**	**43.37 346**	P		**P**	**23 02 17.1**	**-0.4**
	comp=Z,8.4nm,0.9s,baz=165,slow=7.9,SNR=14						
MJAR			LR	LR		23 20 03.6	
	comp=Z,23nm,18.5s,baz=198,slow=35						
	comp=Z,8.4nm,0.9s						
MJAR	**Matsushiro Arr**	**43.37 346**	P		**P**	**23 02 17.3**	**-0.2**
MAJO	**Matsushiro**	**43.37 346**	P		**P**	**23 02 17.0**	**-0.5**
MAJO			IAmb	IAmb		23 02 20.3	
	comp=Z,14nm,0.9s						
MAJO	**Matsushiro**	**43.37 346**	P		**P**	**23 02 17.7**	**+0.2**
	comp=Z,18nm,0.9s						
JTM	**Tenmabayashi**	**46.88 350**	P		**P**	**23 02 45.5**	**+0.3**
JTM			IAmb	IAmb		23 02 46.5	
	comp=Z,34nm,1.0s						
JTM	**Tenmabayashi**	**46.88 350**	P		**P**	**23 02 45.6**	**+0.5**
	comp=Z,41nm,0.9s						
KSRS	**Korea Array**	**47.60 336**	P		**P**	**23 02 52.0**	**+1.3**
	comp=Z,6.5nm,0.9s,baz=152,slow=9.1,SNR=19						
	comp=Z,6.5nm,0.9s						
KSAR	**Wonju Array Be**	**47.60 336**	P		**P**	**23 02 51.3**	**+0.5**
KS19	**Wonju Array Si**	**47.66 336**	P		**P**	**23 02 51.4**	**+0.1**
KS19			IAmb	IAmb		23 02 53.5	
	comp=Z,28nm,1.3s						
NJ2	**Nanjing**	**47.91 323**	*e*P		**P**	**23 02 54.4**	**+1.2**
NJ2			pmax	pmax			
	comp=Z,19nm,0.8s						
INCN	**Inchon**	**48.16 335**	P		**P**	**23 02 55.7**	**+0.6**
INCN			IAmb	IAmb		23 02 58.7	
	comp=Z,41nm,1.2s						
WHN	**Wuhan**	**49.72 318**	⇑P		**P**	**23 03 09.1**	**+2.0**
WHN			pmax	pmax			
	comp=Z,56nm,0.8s						
JKA	**Kamikawa-asahi**	**49.91 353**	P		**P**	**23 03 08.8**	**+0.4**
TIA	**Tai'an**	**51.88 326**	P		**P**	**23 03 23.2**	**-0.1**
TIA			pmax	pmax			
	comp=Z,24nm,0.8s						
USA0B	**Ussuriysk Arra**	**52.19 343**	P		**P**	**23 03 26.1**	**+0.7**
USRK	**Ussuriysk Ar.**	**52.19 343**	P		**P**	**23 03 27.1**	**+1.7**
	comp=Z,20nm,0.9s,baz=180,slow=9.2,SNR=20						
	comp=Z,20nm,0.9s						
USRK	**Ussuriysk Ar.**	**52.19 343**			**P**	**23 03 26.5**	**+1.1**
ENH	**Enshi**	**52.88 315**	P		**P**	**23 03 30.9**	**+0.2**
ENH	**Enshi**	**52.88 315**	P		**P**	**23 03 31.0**	**+0.2**
	comp=Z,28nm,1.0s						
ENH	**Enshi**	**52.88 315**	P		**P**	**23 03 31.6**	**+0.8**
MDJ	**Mudanjiang**	**53.29 342**	P		**P**	**23 03 35.3**	**+1.8**
MDJ			pmax	pmax			
	comp=Z,29nm,0.9s						
MDJ	**Mudanjiang**	**53.29 342**	P		**P**	**23 03 34.0**	**+0.5**
MDJ			IAmb	IAmb		23 03 36.0	
	comp=Z,21nm,0.9s						
MDJ	**Mudanjiang**	**53.29 342**	P		**P**	**23 03 34.9**	**+1.4**
	comp=Z,25nm,1.1s						
LYN	**LuoYang**	**53.51 321**	P		**P**	**23 03 36.2**	**+0.9**
LYN			pmax	pmax			
	comp=Z,21nm,0.6s						
CN2	**Changchun**	**54.00 338**	P		**P**	**23 03 39.8**	**+1.1**
CN2			pmax	pmax			
	comp=Z,10.0nm,0.7s						
HNS	**HongShan**	**54.09 325**	⇑P		**P**	**23 03 40.5**	**+1.1**
HNS			pmax	pmax			
	comp=Z,38nm,1.0s						
BNX	**BinXian**	**54.99 341**	⇑P		**P**	**23 03 47.1**	**+1.3**
BNX			pmax	pmax			
	comp=Z,72nm,1.1s						
BJI2	**Beijing**	**55.16 328**	P		**P**	**23 03 47.8**	**+0.6**
BJI2			pmax	pmax			
	comp=Z,10.0nm,0.9s						
BJT	**Baijiatuan**	**55.16 328**	P		**P**	**23 03 47.6**	**+0.5**
BJT			IAmb	IAmb		23 03 49.8	
	comp=Z,11nm,0.7s						
BJT	**Baijiatuan**	**55.16 328**	P		**P**	**23 03 47.8**	**+0.6**
	comp=Z,17nm,0.7s						
BJT	**Baijiatuan**	**55.16 328**	P		**P**	**23 03 47.7**	**+0.5**
XAN	**Xi'an**	**55.48 318**	P		**P**	**23 03 50.2**	**+0.5**
XAN			pmax	pmax			
	comp=Z,29nm,0.7s						
XAN	**Xi'an**	**55.48 318**	P		**P**	**23 03 50.1**	**+0.4**
XAN			pP		**pP**	**23 04 15.8**	**-1.4**
CMAR	**Chiang Mai Arr**	**55.97 297**	P		**P**	**23 03 54.2**	**+0.9**
	comp=Z,1.2nm,0.4s,baz=126,slow=5.8,SNR=11						
	comp=Z,1.2nm,0.4s						
CMAR	**Chiang Mai Arr**	**55.97 297**	P		**P**	**23 03 53.8**	**+0.4**
CHTO	**Chiang Mai**	**56.09 297**	P		**P**	**23 03 54.5**	**+0.3**
	comp=Z,3.5nm,1.7s						
XLT	**XiLinHaoTe**	**58.09 331**	*e*P		**P**	**23 04 09.1**	**+1.2**
XLT			pmax	pmax			
	comp=Z,18nm,1.6s						
HHC	**Hu-ho-hao-te**	**58.24 326**	*e*P		**P**	**23 04 10.4**	**+1.4**
HHC			pmax	pmax			
	comp=Z,20nm,0.7s						
HHC			pmax	pmax			
	comp=Z,92nm,4.6s						
PETK	**Petropavlovsk-**	**58.76 5**	P		**P**	**23 04 12.6**	**+0.3**
	comp=Z,6.0nm,0.7s,baz=174,slow=5.1,SNR=4.5						
PETK			LR	LR		23 24 48.2	
	comp=Z,32nm,21.0s,baz=176,slow=31						
	comp=Z,6.0nm,0.7s						
NPW	**Naypyitaw**	**58.91 297**	P		**P**	**23 04 15.0**	**+1.0**
	comp=Z,12nm,0.9s						
HEH	**HeiHe**	**59.00 343**	*e*P		**P**	**23 04 15.3**	**+1.3**
HEH			pmax	pmax			
	comp=Z,30nm,0.7s						
LZH	**Lanzhou**	**60.06 317**	*e*P		**P**	**23 04 23.4**	**+1.6**
LZH			pP	pP		23 04 53.9	+4.0
LZH			sP	PcP		23 05 08.1	+1.5
LZH			pmax	pmax			
	comp=Z,23nm,0.8s						
LZDM	**Lanzhou Array**	**60.09 317**	P		**P**	**23 04 23.5**	**+1.3**
	comp=Z,0.8nm,0.3s,baz=126,slow=7.5,SNR=4.6						
	comp=Z,0.8nm,0.3s						
HIA	**Hailar**	**60.73 338**	P		**P**	**23 04 26.7**	**+0.8**
HIA	**Hailar**	**60.73 338**	P		**P**	**23 04 27.6**	**+1.7**
	comp=Z,51nm,0.8s						
HIA	**Hailar**	**60.73 338**	P		**P**	**23 04 27.3**	**+1.4**
HIA			pP		**pP**	**23 04 53.5**	**-0.6**
HILR	**Hailar Array B**	**60.96 338**	P		**P**	**23 04 29.1**	**+1.6**
	comp=Z,15nm,0.6s,baz=142,slow=7.5,SNR=14						
	comp=Z,15nm,0.6s						
GTA2	**Gaotai**	**64.62 319**	*e*P		**P**	**23 04 53.8**	**+1.7**
GTA2			pmax	pmax			
	comp=Z,4.0nm,1.0s						
SONM	**Songino Array**	**65.66 329**	P		**P**	**23 04 60.0**	**+1.4**
	comp=Z,3.4nm,0.6s,baz=150,slow=5.7,SNR=25						
SONM			pP		**PcP**	**23 05 29.9**	**+0.8**
	comp=Z,1.0nm,0.7s,baz=146,slow=8.0,SNR=1.8						
SONM			LR	LR		23 35 06.6	
	comp=Z,18nm,18.6s,baz=154,slow=37						
	comp=Z,3.4nm,0.6s						
SONM	**Songino Array**	**65.66 329**	P		**P**	**23 04 59.4**	**+0.8**
SONM			IAmb	IAmb		23 05 01.4	
	comp=Z,18nm,1.5s						
GOMU	**GeErMu**	**66.44 313**	P		**P**	**23 05 05.5**	**+1.3**
GOMU			pmax	pmax			
	comp=Z,3.0nm,0.7s						
PALK	**Pallekele**	**70.61 280**	LR	LR		23 39 05.1	
	comp=Z,11nm,21.9s,baz=94,slow=38						
VNDA	**Vanda**	**72.19 177**	P		**P**	**23 05 39.1**	**+0.7**
	comp=Z,1.8nm,0.8s,baz=335,slow=7.1,SNR=15						
	comp=Z,1.8nm,0.8s						
VNDA	**Vanda**	**72.19 177**	P		**P**	**23 05 38.7**	**+0.3**
VNDA	**Vanda**	**72.19 177**	P		**P**	**23 05 39.3**	**+0.9**
	comp=Z,4.4nm,2.0s						
VNDA	**Vanda**	**72.19 177**	P		**P**	**23 05 39.2**	**+0.9**
VNDA			pP		**pP**	**23 06 05.9**	**-1.7**
VNDA			sP		**sP**	**23 06 18.1**	**-2.0**
WMQ	**Urumqi**	**74.62 318**	*e*P		**P**	**23 05 54.5**	**+1.2**
WMQ			pmax	pmax			
	comp=Z,10.0nm,0.7s						
L14K	**Kuka Creek**	**75.93 21**	P		**P**	**23 06 00.2**	**0.0**
K17K	**Iditarod**	**78.40 22**	P		**P**	**23 06 13.7**	**-0.4**
MKAR	**Makanchi Array**	**79.27 320**	P		**P**	**23 06 19.4**	**+0.2**
	comp=Z,2.8nm,0.8s,baz=109,slow=6.4,SNR=18						
MKAR			pP		**pP**	**23 06 49.8**	**+1.0**
	comp=Z,1.3nm,0.9s,baz=84,slow=4.3,SNR=3.3						
	comp=Z,2.8nm,0.8s						
MKAR	**Makanchi Array**	**79.27 320**	P		**P**	**23 06 18.8**	**-0.5**
CNPM	**China Poot**	**79.46 26**	P		**P**	**23 06 19.1**	**-0.9**
MAKZ	**Makanchi**	**79.47 320**			**P**	**23 06 18.9**	**-1.5**
MAKZ	**Makanchi**	**79.47 320**	P		**P**	**23 06 20.4**	**0.0**
	comp=Z,6.2nm,1.1s						
MAKZ	**Makanchi**	**79.47 320**	P		**P**	**23 06 20.5**	**+0.2**
MAKZ			PcP		**PcP**	**23 06 27.7**	**-0.3**
WUS	**Wushi**	**79.60 313**	P		**P**	**23 06 19.8**	**-1.5**
WUS	**Wushi**	**79.60 313**	P		**P**	**23 06 22.2**	**+0.8**
	comp=Z,6.1nm,0.9s						
PDGK	**Podgornoye**	**80.04 316**			**P**	**23 06 22.9**	**-0.8**
ZAA0	**Zalesovo Array**	**80.40 327**	P		**P**	**23 06 24.0**	**-1.1**
ZALV	**Zalesovo Beam**	**80.40 327**	P		**P**	**23 06 24.1**	**-1.1**
	comp=Z,3.1nm,0.6s,baz=116,slow=5.8,SNR=16						
ZALV			pP		**pP**	**23 06 55.2**	**+0.4**
	comp=Z,0.7nm,0.6s,baz=114,slow=5.3,SNR=1.6						
	comp=Z,3.1nm,0.6s						
ZALV	**Zalesovo Beam**	**80.40 327**	P		**P**	**23 06 24.2**	**-0.9**
KDJ	**Kajisay**	**81.33 314**	P		**P**	**23 06 30.9**	**+0.3**
	comp=Z,7.7nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**81.49 313**	P		**P**	**23 06 31.8**	**+0.1**
	comp=Z,2.7nm,0.8s						
KSH2	**Kashi**	**81.76 311**	P		**P**	**23 06 32.8**	**-0.1**
KSH2			pmax	pmax			
	comp=Z,4.0nm,0.8s						
BOOM	**Boomskoye usch**	**82.31 314**	P		**P**	**23 06 34.5**	**-1.2**
BOOM			IAmb	IAmb		23 06 37.3	
	comp=Z,17nm,1.7s						
NIL	**Nilore**	**82.36 305**	P		**P**	**23 06 34.9**	**-1.1**
NIL			IAmb	IAmb		23 06 36.6	
	comp=Z,11nm,0.8s						
MLY	**Manley**	**82.47 22**	P		**P**	**23 06 34.8**	**-1.1**
MLY			IAmb	IAmb		23 07 18.8	
	comp=Z,23nm,1.7s						
KURK	**Kurchatov**	**82.83 323**			**P**	**23 06 37.5**	**-0.5**
KURK	**Kurchatov**	**82.83 323**	P		**P**	**23 06 37.8**	**-0.2**
	comp=Z,7.4nm,1.0s						
KURK	**Kurchatov**	**82.83 323**	P		**P**	**23 06 37.6**	**-0.4**
KURK			PcP		**PcP**	**23 06 42.5**	**-0.1**
KURK			pP		**pP**	**23 07 06.3**	**-1.5**
KURBB	**Kurchatov Arra**	**82.86 322**	P		**P**	**23 06 37.3**	**-0.9**
	comp=Z,1.0nm,0.3s,baz=111,slow=4.1,SNR=13						
	comp=Z,1.0nm,0.3s						
IL31		**83.78 23**	P		**P**	**23 06 40.4**	**-2.2**
IL31			IAmb	IAmb		23 06 59.3	
	comp=Z,15nm,1.6s						
ILAR	**Eielson Array**	**83.78 23**	P		**P**	**23 06 40.4**	**-2.2**
	comp=Z,1.7nm,0.5s,baz=251,slow=5.1,SNR=25						
ILAR	**Eilson Array**	**83.78 23**	P		**P**	**23 06 39.8**	**-2.8**
MAW	**Mawson**	**83.94 203**	P		**P**	**23 06 43.0**	**-0.3**
	comp=Z,2.4nm,0.8s,baz=126,slow=9.1,SNR=3.9						
	comp=Z,2.4nm,0.8s						
OHH	**Osh**	**84.16 312**	P		**P**	**23 06 43.5**	**-1.7**
	comp=Z,10nm,0.8s						
ARSB	**Arslanbob**	**84.18 312**	P		**P**	**23 06 44.4**	**-1.0**
ARSB			IAmb	IAmb		23 06 48.1	
	comp=Z,30nm,1.8s						
J25K	**Salcha River,**	**84.30 23**	P		**P**	**23 06 43.8**	**-1.5**
J25K			IAmb	IAmb		23 06 46.2	
	comp=Z,6.3nm,1.0s						
QSPA	**South Pole Qui**	**84.42 180**	P		**P**	**23 06 46.2**	**+0.1**
	comp=Z,3.7nm,0.9s,baz=62,slow=1.0,SNR=10						
	comp=Z,3.7nm,0.9s						
QSPA	**South Pole Qui**	**84.42 180**	P		**P**	**23 06 45.0**	**-1.0**
QSPA			IAmb	IAmb		23 07 16.0	
	comp=Z,15nm,1.2s						
QSPA	**South Pole Qui**	**84.42 180**	P		**P**	**23 06 47.6**	**+1.5**
	comp=Z,16nm,1.2s						
QSPA	**South Pole Qui**	**84.42 180**	P		**P**	**23 06 44.3**	**-1.7**
QSPA			pP		**pP**	**23 07 13.3**	**-2.7**
BCAR	**Beaver Creek A**	**85.12 25**	P		**P**	**23 06 48.7**	**-0.7**
BTK	**Batken**	**85.54 311**	P		**P**	**23 06 50.9**	**-1.2**
	comp=Z,5.3nm,0.8s						
NRIK	**Noril'sk**	**85.87 342**	P		**P**	**23 06 52.2**	**-0.7**
	comp=Z,3.0nm,0.6s,baz=33,slow=7.2,SNR=4.2						
	comp=Z,3.0nm,0.6s						
KBL	**Kabul**	**85.95 305**	P		**P**	**23 06 53.0**	**-1.4**
KK31	**Karatay Array**	**86.34 314**			**P**	**23 06 55.4**	**-0.5**
KKAR	**Karatay Array**	**86.34 314**			**P**	**23 06 54.4**	**-1.5**
I28M	**Miner Creek**	**86.75 23**	P		**P**	**23 06 56.2**	**-1.3**
I28M			IAmb	IAmb		23 07 11.2	
	comp=Z,12nm,1.6s						
BVAR	**Borovoye Array**	**88.35 323**	P		**P**	**23 07 03.5**	**-1.8**
	comp=Z,3.7nm,0.9s,baz=96,slow=6.0,SNR=8.6						
	comp=Z,3.7nm,0.9s						
INK	**Inuvik**	**90.03 21**	P		**P**	**23 07 11.0**	**-1.7**
HRA	**Herat**	**91.50 304**	P		**P**	**23 07 18.9**	**-1.8**
HRA			IAmb	IAmb		23 07 20.5	
	comp=Z,2.1nm,0.7s						
ABKAR	**Akbulak array**	**94.40 319**	P		**P**	**23 07 31.6**	**-1.8**
NVAR	**Mina Array Bea**	**94.49 52**	P		**P**	**23 07 34.3**	**-0.1**
	comp=Z,0.6nm,0.7s,baz=245,slow=7.8,SNR=5.1						
	comp=Z,0.6nm,0.7s						
GERES	**GERESS Array B**	**123.36 327**	PKP		**PKPdf**	**23 13 08.8**	**-1.5**
	comp=Z,0.4nm,0.5s,baz=67,slow=1.8,SNR=7.1						
TORD	**Torodi Ar. Bea**	**148.15 286**	PKPbc		**PKPbc**	**23 13 58.5**	**-1.4**
	comp=Z,2.2nm,0.7s,baz=33,slow=2.6,SNR=11						

IDC 11 23:00:59.4±3.2, 16°.91N×123°.62E, h0^{km}, mb3.5/4, mbtmp3.5/4, MS3.0/1, Error ellipse: s-maj=298.7km

s-min=24.6km az=65.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOW	**Kunigami**	**10.77**	**23**	LR	LR	23 07 24.7	
	comp=Z,79nm,21.3s,baz=22,slow=36						
WRA	**Warramunga Arr**	**38.11**	**164**	P	P	23 08 20.9	+0.6
	0.9nm,1.0s,baz=343,slow=8.9,SNR=1.9						
	0.9nm,1.0s						
H11S3	**WAKE ISLAND Hy**	**40.99**	**81**	T	T	23 50 56.6	
	baz=282,slow=75,SNR=9.2						
H11S1	**WAKE ISLAND Hy**	**41.00**	**81**	T	T	23 50 56.2	
	baz=282,slow=75,SNR=8.6						
H11S2	**WAKE ISLAND Hy**	**41.01**	**81**	T	T	23 50 57.7	
	baz=282,slow=75,SNR=9.5						
ASAR	**Alice Springs**	**41.57**	**166**	P	P	23 08 48.1	-0.9
	0.2nm,0.5s,baz=346,slow=9.7,SNR=2.4						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**45.25**	**320**	P	P	23 09 18.7	+0.1
	1.4nm,1.0s,baz=123,slow=7.6,SNR=5.0						
	1.4nm,1.0s						
ZALV	**Zalesovo Beam**	**47.61**	**330**	P	P	23 09 36.5	-0.4
	0.3nm,0.4s,baz=110,slow=7.8,SNR=1.6						
	0.3nm,0.4s						

*THE **11** 23:05:02.6, 38°.N±2°.×26°.9E±0°.8, h11^{km}±1^{km}, M2.6/7, MLh2.6/7*
*AFAD **11** 23:05:02.2, 37°.89N×26°.89E, h7^{km}±3^{km}, ML2.2*
*ISK **11** 23:05:02.3, 37°.89N×26°.90E, h3^{km}, ML2.4/17*
ISC 11 23:05:02.3±0.8, 37°.88N±0°.02×26°.90E±0°.02, h13^{km}±6^{km}, n56, σ0°77/81, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**357**	P	**Pg**	**23 05 06.2**	**-0.2**
DGB				S	**Sg**	**23 05 07.7**	**-1.5**
DGB				IAML		23 05 11.0	
	comp=E,482nm,0.1s						
SMG	**Samos**	**0.18**	**195**	P	**Pg**	**23 05 06.5**	**+0.1**
SMG				S	**Sg**	**23 05 09.1**	**-0.1**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.20**	**5**	Pg	**Pg**	**23 05 06.8**	**0.0**
GMLD				Sg	**Sg**	**23 05 10.2**	**+0.4**
KUSD	**Kusadasi-Aydin**	**0.31**	**93**	Pg	**Pg**	**23 05 09.1**	**+0.4**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.32**	**124**	P	**Pg**	**23 05 09.1**	**+0.2**
GCAM				IAML		23 05 15.0	
	comp=N,378nm,0.2s						
GCAM				IAML		23 05 15.0	
	comp=E,240nm,0.1s						
GCAM	**G?zelcaml?**	**0.32**	**124**	Pg	**Pg**	**23 05 09.4**	**+0.5**
GCAM				Sg	**Sb**	**23 05 14.8**	**-0.2**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**4**	P	**Pg**	**23 05 09.4**	**-0.1**
BEYE				IAML		23 05 14.0	
	comp=N,236nm,0.4s						
BEYE				S	**Sg**	**23 05 14.1**	**-0.1**
BEYE				IAML		23 05 15.0	
	comp=E,294nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**319**	P	**Pg**	**23 05 11.0**	**-0.7**
ZEYE				S	**Sg**	**23 05 17.5**	**-0.6**
ZEYE				IAML		23 05 19.0	
	comp=E,218nm,0.2s						
DDIM	**Aydin, Didim**	**0.50**	**147**	P	**Pg**	**23 05 12.7**	**+0.5**
DDIM				S	**Sg**	**23 05 19.6**	**+0.7**
DDIM				IAML		23 05 20.0	
	comp=N,159nm,0.5s						
DDIM				IAML		23 05 21.0	
	comp=E,255nm,0.5s						
BLCB	**Balcova**	**0.52**	**13**	P	**Pg**	**23 05 12.5**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**13**	Pg	**Pg**	**23 05 12.7**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.55**	**52**	P	**Pg**	**23 05 13.1**	**-0.1**
DUVT				S	**Sg**	**23 05 19.7**	**-0.9**
DUVT				IAML		23 05 21.0	
	comp=E,146nm,0.3s						
CESE	**eme**	**0.65**	**314**	Pg	**Pb**	**23 05 15.6**	**+0.1**
CESE				AML	AML		
DAGE	**izmir**	**0.69**	**79**	P	**Pg**	**23 05 15.6**	**-0.1**
DAGE				S	**Sg**	**23 05 23.3**	**-1.6**
DAGE				IAML		23 05 25.0	
	comp=N,112nm,0.1s						
DAGE				IAML		23 05 27.0	
	comp=E,138nm,0.2s						
KRBN	**Karaburun**	**0.76**	**339**	Pg	**Pb**	**23 05 17.7**	**+0.3**
KRBN				Sg	**Sb**	**23 05 29.3**	**+1.6**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**357**	P	**Pg**	**23 05 17.4**	**-0.1**
BAGT				S	**Sg**	**23 05 27.9**	**+0.2**
BAGT				IAML		23 05 31.0	
	comp=N,118nm,0.4s						
BAGT				IAML		23 05 31.0	
	comp=E,137nm,0.6s						
AYDB	**Zeytinkoy-Aydi**	**0.79**	**85**	Pg	**Pb**	**23 05 18.4**	**+0.4**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.81**	**105**	P	**Pg**	**23 05 18.3**	**+0.3**
AYDN				IAML		23 05 33.0	
	comp=N,64nm,0.4s						
AYDN				IAML		23 05 33.0	
	comp=E

SOMA				AML	AML			
AYVA	**Ayvalik**	**1.44**	**354**	P	**Pg**	**23 05 29.6**	**-0.3**
AYVA				IAML		23 06 15.0		
	comp=E,37nm,2.3s							
AYVA				IAML		23 06 28.0		
	comp=N,31nm,1.3s							
GORD	**Gordes-Manisa**	**1.44**	**44**	Pn	**Pg**	**23 05 30.1**	**+0.1**
GORD				AML	AML			
MANT	**Manisa**	**1.45**	**64**	P	**Pg**	**23 05 30.6**	**+0.4**
MANT				S	**Sb**	**23 05 46.5**	**-1.1**
SULTU	**Buldan**	**1.49**	**83**	P	**Pn**	**23 05 28.9**	**0.0**
SULTU				S	**Sg**	**23 05 50.2**	**-0.2**
TURN	**Turunc**	**1.54**	**135**	P	**Pb**	**23 05 31.1**	**+0.5**
HARTU	**Esme**	**1.57**	**72**	P	**Pn**	**23 05 30.7**	**+0.8**
HARTU				S	**Sn**	**23 05 47.9**	**-2.2**
BUHA	**Balikesir, Bur**	**1.63**	**5**	P	**Pb**	**23 05 32.3**	**+0.2**
BUHA				IAML		23 05 59.0		
	comp=N,26nm,0.4s							
BUHA				IAML		23 05 59.0		
	comp=E,48nm,0.4s							
STEP	**BALIKESIR_Sava**	**1.63**	**23**	P	**Pg**	**23 05 33.5**	**-0.2**
STEP				S	**Sn**	**23 05 52.1**	**+0.5**
STEP				IAML		23 05 58.0		
	comp=E,30nm,0.2s							
STEP				IAML		23 06 04.0		
	comp=N,37nm,0.6s							
TAVA	**DENIZLI_Tavas**	**1.65**	**104**	P	**Pn**	**23 05 31.4**	**+0.3**
DNIZ	**Denizli-Tavas-**	**1.72**	**98**	P	**Pn**	**23 05 32.3**	**+0.3**
DNIZ				IAML		23 06 08.0		
	comp=E,17nm,0.3s							
DEMI	**Demirci**	**1.84**	**50**	P	**Pb**	**23 05 36.6**	**+0.7**
DEMI				S	**Sn**	**23 05 57.9**	**+1.0**
DEMI				IAML		23 06 03.0		
	comp=E,21nm,0.6s							
DEMI				IAML		23 06 08.0		
	comp=N,17nm,1.1s							
BAYC	**CANAKKALE_Bayr**	**1.88**	**352**	P	**Pb**	**23 05 36.5**	**0.0**
BAYC				IAML		23 06 13.0		
	comp=E,16nm,1.5s							

*IDC **11** 23:13:33.0±3.2,21.°92N×122.°56E,h0km,mb3.6/5, mbtmp3.6/5,MS3.1/3,Error ellipse: s-maj=273.8km s-min=22.2km az=63.0*
*TAP **11** 23:13:37.2,21.°62N×121.°75E,h39km,ML4.0,D*
*JMA **11** 23:13:38.4±0.6,22.°N±3.°×121.°8E±0.°7,h62km,MV4.2/15, TAIWAN REGION*

ISC 11 23:13:35.7±1.7,**21.°67N**±0.°05×**121.°83E**±0.°04,**h13**km±10km, **n94**,σ1°**19**/116,**mb3.6**/5,**Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LYUB	**Lan-yu**	**0.40**	**325**	*i* P	**Pn**	**23 13 46.8**	**-0.4**
LYUB				S	**Sn**	**23 13 53.6**	**-1.0**
LAY	**Lan-yu**	**0.45**	**325**	*e*P	**Pb**	**23 13 46.6**	**+1.1**
LAY				S	**Sn**	**23 13 54.0**	**-1.8**
TSEB	**Hengchuen, Pin**	**0.89**	**285**	*e*S	**Sn**	**23 14 06.3**	**-0.5**
TWKBT	**Hengchun**	**0.98**	**286**	P	**Pb**	**23 13 53.8**	**-0.8**
TWKBT				*e*S	**Sb**	**23 14 07.4**	**-0.1**
SMST	**Manzhou Townsh**	**0.98**	**291**	*e*P	**Pb**	**23 13 54.3**	**-0.4**
SMST				S	**Sb**	**23 14 07.0**	**-0.6**
TWK1	**Hengchun**	**0.99**	**286**	*e*P	**Pb**	**23 13 53.1**	**-1.6**
TWK1				*e*S	**Sb**	**23 14 07.4**	**-0.3**
LDUT	**Ludao**	**1.05**	**342**	P	**Pb**	**23 13 55.1**	**-0.7**
LDUT				S	**Sn**	**23 14 10.7**	**0.0**
HEN	**Hengchun**	**1.07**	**288**	*e*P	**Pb**	**23 13 55.4**	**-0.6**
HEN				*e*S	**Sb**	**23 14 10.3**	**+0.3**
SLIU	**Shizi**	**1.10**	**300**	*e*P	**Pb**	**23 13 56.0**	**-0.7**
SLIU				*e*S	**Sb**	**23 14 10.5**	**-0.4**
TAW	**Tawu**	**1.10**	**308**	*e*P	**Pg**	**23 13 58.5**	**+1.5**
TAW				*e*S	**Sb**	**23 14 10.6**	**-0.4**
EAST	**Anshuo**	**1.15**	**308**	*e*P	**Pn**	**23 13 56.3**	**-1.3**
EAST				*e*S	**Sb**	**23 14 12.4**	**-0.1**
ECL	**Taimali**	**1.23**	**319**	*e*P	**Pn**	**23 13 58.2**	**-0.4**
ECL				*e*S	**Sb**	**23 14 14.0**	**-0.6**
SCZT	**Fangliau**	**1.32**	**302**	*e*P	**Pn**	**23 13 59.7**	**-0.2**
SCZT				*e*S	**Sb**	**23 14 17.9**	**+0.6**
TWGBT	**Beinan**	**1.33**	**329**	P	**Pb**	**23 14 00.9**	**+0.3**
TWGBT	**Beinan**	**1.33**	**329**	*e*P	**Pn**	**23 13 59.9**	**-0.2**
TWGBT				*e*S	**Sg**	**23 14 18.4**	**-0.3**
TWG	**Pinlang**	**1.34**	**329**	*e*P	**Pn**	**23 14 00.2**	**0.0**
TWG				*e*S	**Sb**	**23 14 17.6**	**-0.2**
SSPT	**Xinbi**	**1.42**	**305**	*e*P	**Pb**	**23 14 01.8**	**-0.3**
MASBT	**Mashibuluo**	**1.45**	**310**	*e*P	**Pn**	**23 14 01.8**	**+0.1**
SSD	**Sandimen**	**1.54**	**314**	*e*P	**Pb**	**23 14 03.8**	**-0.3**
CHKH	**Chenggong**	**1.56**	**345**	*e*P	**Pb**	**23 14 03.7**	**-0.1**
CHKH				*e*S	**Sn**	**23 14 22.7**	**-0.7**
EHD	**Haiduan**	**1.58**	**339**	*e*P	**Pn**	**23 14 03.7**	**+0.2**
FULB	**Fuli**	**1.60**	**342**	*e*P	**Pb**	**23 14 04.6**	**-0.5**
FULB				*e*S	**Sb**	**23 14 24.9**	**-0.4**
TWF1	**Yuli**	**1.74**	**344**	*e*P	**Pn**	**23 14 06.5**	**+0.8**
TWF1				*e*S	**Sb**	**23 14 28.9**	**-0.6**
STYH	**Taoyuan**	**1.78**	**327**	*e*P	**Pb**	**23 14 08.1**	**-0.1**
YULB	**Yu-li**	**1.78**	**344**	P	**Pn**	**23 14 06.7**	**+0.4**
YULB	**Yu-li**	**1.78**	**344**	*e*P	**Pn**	**23 14 06.4**	**+0.1**
YULB				*e*S	**Sb**	**23 14 29.4**	**-1.1**
SGST	**Jiashian**	**1.82**	**321**	*e*P	**Pb**	**23 14 09.4**	**+0.5**
HGSD	**Ruisui**	**1.85**	**348**	*e*P	**Pn**	**23 14 07.4**	**+0.3**
EHYH	**Wanrong**	**1.87**	**346**	*e*P	**Pn**	**23 14 07.8**	**+0.3**
EHY	**Hungye**	**1.89**	**346**	*e*P	**Pn**	**23 14 08.1**	**+0.4**
CHN1	**Nanshi**	**1.93**	**322**	*e*P	**Pb**	**23 14 11.1**	**+0.4**
WTP	**Ta-pu**	**1.93**	**325**	*e*P	**Pb**	**23 14 10.3**	**-0.5**
TPUB	**Ta-pu**	**1.96**	**326**	P	**Pb**	**23 14 10.9**	**-0.5**
TPUB	**Ta-pu**	**1.96**	**326**	*e*P	**Pb**	**23 14 11.8**	**+0.5**
TWK	**Hsinying**	**2.02**	**322**	*e*P	**Pg**	**23 14 13.6**	**-0.8**
CHN4	**Tsaushan**	**2.02**	**326**	*e*P	**Pb**	**23 14 12.8**	**+0.4**
ALS	**Alishan**	**2.06**	**333**	*e*P	**Pb**	**23 14 12.4**	**-0.8**
WARBT	**Fenglin Townsh**	**2.08**	**349**	*e*P	**Pn**	**23 14 10.3**	**-0.1**
WARBT				*e*S	**Sn**	**23 14 36.4**	**+0.2**
WCKO	**Fanlu**	**2.09**	**327**	*e*P	**Pb**	**23 14 13.9**	**+0.4**
SHUL	**Shoufeng**	**2.12**	**353**	*e*P	**Pn**	**23 14 12.3**	**+1.4**
SHUL				*e*S	**Sb**	**23 14 38.5**	**-1.8**
TSCK	**Chigu Township**	**2.18**	**313**	*e*P	**Pb**	**23 14 14.2**	**-0.8**
CHN5	**Tsauling**	**2.19**	**331**	*e*P	**Pb**	**23 14 15.8**	**+0.5**
WHYT	**Xinyi Township**	**2.21**	**336**	*e*P	**Pb**	**23 14 14.9**	**-0.6**
WHYT				*e*S	**Sb**	**23 14 43.9**	**+1.0**
CHY	**Chiayi**	**2.23**	**325**	*e*P	**Pb**	**23 14 16.1**	**+0.1**
SSLB	**Suanglung**	**2.25**	**339**	P	**Pb**	**23 14 14.7**	**-1.7**
SSLB	**Suanglung**	**2.25**	**339**	*e*P	**Pb**	**23 14 14.7**	**-1.7**
OWD	**Renai**	**2.35**	**345**	*e*P	**Pn**	**23 14 16.0**	**+1.8**
SMLT	**Sun Moon Lake**	**2.36**	**339**	*e*P	**Pb**	**23 14 17.1**	**-1.1**
TYC	**Yuchr**	**2.40**	**338**	*e*P	**Pb**	**23 14 17.6**	**-1.1**
WUSB	**Renai**	**2.40**	**344**	*e*P	**Pn**	**23 14 16.4**	**+1.5**
WUSB				*e*S	**Sb**	**23 14 48.2**	**-0.3**
WNT	**Mingjian**	**2.44**	**334**	*e*P	**Pb**	**23 14 19.1**	**-0.3**
EOS4	**EOS4**	**2.48**	**10**	*e*P	**Pn**	**23 14 16.5**	**+1.0**
NACB	**Ninganchiao**	**2.50**	**355**	*e*P	**Pn**	**23 14 16.2**	**+0.1**
NACB				*e*S	**Sn**	**23 14 48.2**	**+1.7**
WCS	**Beigang Elemen**	**2.52**	**341**	*e*P	**Pb**	**23 14 19.1**	**-1.7**
ETLH	**Xiulin Townshi**	**2.54**	**353**	*e*P	**Pn**	**23 14 17.1**	**+0.3**
TWT	**Tachien**	**2.64**	**347**	*e*P	**Pn**	**23 14 20.1**	**+1.9**
EOS3	**EOS3**	**2.64**	**10**	*e*P	**Pn**	**23 14 20.1**	**+2.1**
EOS3				S	**Sn**	**23 14 51.7**	**+1.9**
WHP	**Taichung City**	**2.72**	**343**	*e*P	**Pb**	**23 14 22.7**	**-1.5**
WHP				*e*S	**Sb**	**23 14 57.8**	**+0.2**
ENA	**Nanau**	**2.74**	**358**	*e*P	**Pn**	**23 14 20.0**	**+0.5**
EOS2	**EOS2**	**2.76**	**8**	*e*P	**Pn**	**23 14 21.5**	**+1.9**
NNSB	**Datong**	**2.77**	**352**	*e*P	**Pn**	**23 14 22.1**	**+2.1**
NNS	**Nan Shan**	**2.79**	**351**	*e*P	**Pn**	**23 14 22.1**	**+2.0**
TWQ1	**Liyutan**	**2.84**	**340**	*e*P	**Pb**	**23 14 24.4**	**-1.8**
LATG	**Datong**	**2.86**	**354**	*e*P	**Pn**	**23 14 22.9**	**+1.6**
TWC	**Suao**	**2.92**	**0**	*e*P	**Pb**	**23 14 24.2**	**+2.3**
ENTT	**Nioudou**	**2.96**	**355**	*e*P	**Pb**	**23 14 26.5**	**-1.9**
HATJ	**Hateruma jima**	**2.99**	**37**	*e*S	**Sn**	**23 14 58.8**	**+0.2**
YHNB	**Yeheng**	**3.01**	**352**	P	**Pb**	**23 14 26.9**	**-2.4**
YHNB	**Yeheng**	**3.01**	**352**	*e*P	**Pn**	**23 14 25.8**	**+2.6**
NFF	**Wufeng Townshi**	**3.02**	**348**	*e*P	**Pb**	**23 14 26.8**	**-2.5**
FUSB	**Fushanzhiwuyua**	**3.08**	**356**	*e*P	**Pb**	**23 14 27.3**	**-3.2**
NWLT	**Wulai**	**3.10**	**354**	*e*P	**Pb**	**23 14 27.7**	**-3.1**
IRIF	**Iriomote-Funau**	**3.18**	**33**	*e*P	**Pn**	**23 14 26.8**	**+1.4**
IRIF				*e*S	**Sn**	**23 15 03.6**	**+0.4**
JKRS	**Kuro-shima**	**3.25**	**38**	*e*P	**Pn**	**23 14 28.0**	**+1.6**
JKRS				*e*S	**Sn**	**23 15 04.7**	**-0.3**
TIPB	**Shuangxi**	**3.29**	**360**	*e*P	**Pn**	**23 14 29.1**	**+2.2**
JIJ	**Ishigaki jima**	**3.42**	**38**	*e*P	**Pn**	**23 14 29.9**	**+1.1**
JIJ				*e*S	**Sn**	**23 15 07.9**	**-1.4**
JISG	**Ishigakijimahi**	**3.69**	**38**	*e*P	**Pn**	**23 14 33.4**	**+0.9**
JISG				*e*S	**Sn**	**23 15 15.2**	**-0.7**
JTJ	**Tarama**	**3.96**	**41**	*e*P	**Pn**	**23 14 37.7**	**+1.5**
JTJ				*e*S	**Sn**	**23 15 21.9**	**-0.8**
JIRJ	**Irabujima**	**4.41**	**44**	*e*S	**Sn**	**23 15 32.4**	**-1.3**
JMJ2	**Miyako jima3**	**4.44**	**46**	*e*S	**Sn**	**23 15 34.0**	**-0.3**
JIKM	**Ikemajima**	**4.51**	**43**	*e*S	**Sn**	**23 15 36.1**	**-0.1**
JNU	**Nakatsue**	**13.94**	**33**	LR	LR	23 21 00.1		
	comp=Z,25nm,20.9s,baz=216,slow=33							
MKAR	**Makanchi Array**	**40.57**	**318**	P	**P**	**23 21 17.1**	**+2.2**
	0.6nm,0.6s,baz=106,slow=8.9,SNR=4.4							
MKAR				LR	LR	23 38 40.8		
	comp=Z,41nm,18.0s,baz=45,slow=37							
	0.6nm,0.6s							
H11N1	**WAKE ISLAND Hy**	**42.09**	**84**	T	T	00 06 35.0		
	baz=282,slow=75,SNR=18							
H11N2	**WAKE ISLAND Hy**	**42.09**	**84**	T	T	00 06 36.9		
	baz=282,slow=75,SNR=19							
H11N3	**WAKE ISLAND Hy**	**42.11**	**84**	T	T	00 06 42.1		
	baz=282,slow=75,SNR=23							
H11S3	**WAKE ISLAND Hy**	**42.14**	**86**	T	T	00 06 36.9		
	baz=282,slow=75,SNR=47							
H11S1	**WAKE ISLAND Hy**	**42.15**	**86**	T	T	00 06 37.6		
	baz=282,slow=75,SNR=53							
H11S2	**WAKE ISLAND Hy**	**42.16**	**86**	T	T	00 06 38.2		
	baz=282,slow=75,SNR=40							
ZALV	**Zalesovo Beam**	**42.68**	**328**	P	**P**	**23 21 31.8**	**-0.3**
	0.6nm,0.4s,baz=132,slow=6.2,SNR=4.1							
	0.6nm,0.4s							
WRA	**Warramunga Arr**	**43.13**	**163**	P	**P**	**23 21 36.3**	**+0.3**
	0.5nm,0.8s,baz=343,slow=8.7,SNR=4.5							
	0.5nm,0.8s							
KURBB	**Kurchatov Arra**	**44.42**	**321**	P	**P**	**23 21 47.1**	**+1.0**
	0.4nm,0.3s,baz=125,slow=7.4,SNR=1.9							
	0.4nm,0.3s							
AAK	**Ala-Archa**	**44.52**	**309**	LR	LR	23 40 39.7		
	comp=Z,41nm,19.1s,baz=112,slow=36							
ASAR	**Alice Springs**	**46.57**	**165**	P	**P**	**23 22 02.2**	**-1.3**
	0.3nm,0.5s,baz=346,slow=9.1,SNR=2.9							
	0.3nm,0.5s							

*IDC **11** 23:25:02.8±0.7,8.°89N×122.°47E,h0km,mb4.1/11, mbtmp4.2/13,ML4.3/2,MS3.1/10,Error ellipse: s-maj=38.5km s-min=14.5km az=57.0*
*NEIC **11** 23:25:04.7±1.8,9.°28N±0.°10×122.°93E±0.°03,h10km±1km, mb4.5/16,Error ellipse: s-maj=16.8km s-min=4.6km az=179.0*
*MAN **11** 23:25:05.0,9.°11N×122.°95E,h12km,MS3.9*
MAN INTENSITY III - SIATON STA. CATALINA ZAMBOANGUITA AND BAYAWAN CITY NEGROS ORIENTAL; . INTENSITY II - DAUIN PAMPLONA AND VALENCIA NEGROS ORIENTAL; . INTENSITY I - DUMAGUETE CITY AND SIBULAN NEGROS ORIENTAL.

ISC 11 23:25:04.8±1.7,**9.°12N**±0.°03×**122.°91E**±0.°03,**h14**km±11km, **n60**,σ1°**30**/64,**mb4.3**/18,**MS3.0**/8,**Negros**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SNPH	**Sibulan**	**0.39**	**56**	*i* P	**Pb**	**23 25 13.8**	**+0.2**
SNPH				*i* S	**Sb**	**23 25 19.4**	**0.0**
DCPH	**Dipolog City**	**0.69**	**141**	*i* P	Pn	23 25 28.0	+7.8
LSIP	**Lazi, Siquijor**	**0.71**	**89**	*i* P	**Pb**	**23 25 19.0**	**0.0**
LSIP				*i* S	**Sb**	**23 25 28.6**	**-0.1**
TBP	**Tagbilaran**	**1.09**	**59**	*e*P	**Pn**	**23 25 25.5**	**-0.2**
TBP				*i* S	**Sn**	**23 25 40.1**	**-0.7**
PAGZ	**Pagadian**	**1.35**	**160**	*i* P	**Pb**	**23 25 29.4**	**-0.5**
PAGZ				*i* S	**Sg**	**23 25 48.6**	**+0.2**
LLP	**Lapu-Lapu**	**1.58**	**41**	*i* P	**Pb**	**23 25 33.2**	**-0.6**
LLP				*i* S	**Sg**	**23 25 54.7**	**-1.0**
JAP	**San Jose, Anti**	**1.87**	**330**	*e*P	**Pb**	**23 25 38.2**	**-0.7**
CTBH	**Cotabato--PC H**	**2.31**	**145**	*i* P	**Pb**	**23 25 44.8**	**-1.5**
BUKP	**Musuan**	**2.46**	**120**	*e*P	**Pb**	**23 25 47.4**	**-1.5**
BUKP				*i* S	**Sb**	**23 26 19.6**	**+0.5**
SCPH	**Surigao**	**2.62**	**75**	*e*P	**Pn**	**23 25 47.5**	**+0.6**
SCPH				*e*S	**Sn**	**23 26 18.5**	**0.0**
IBAJ	**Ibajay, Aklan**	**2.78**	**345**	*e*P	**Pn**	**23 25 48.8**	**-0.1**
IBAJ				*e*S	**Sn**	**23 26 24.3**	**+2.0**
PLP	**Palo**	**2.87**	**45**	*i* P	**Pn**	**23 25 51.0**	**+0.8**
PLP				*i* S	**Sn**	**23 26 26.8**	**+2.1**
KCP	**Kidapawan**	**3.01**	**134**	*e*P	**Pb**	**23 25 59.6**	**+1.3**
MMPH	**Masbate**	**3.29**	**12**	*e*P	**Pn**	**23 25 58.5**	**+2.5**
DAV	**Davao City (W)**	**3.34**	**127**	Pn	**Pb**	**23 26 00.9**	**-2.9**
	21nm,0.3s,baz=39,slow=20,SNR=1.4							
	66nm,0.3s							
DAV				AML	AML			
DAV	**Davao City (W)**	**3.34**	**127**		**Pn**	**23 25 58.3**	**+1.6**
BIPH	**Bislig**	**3.54**	**105**	*e*P	**Pn**	**23 26 00.7**	**+1.3**
BIPH				*e*S	**Sn**	**23 26 43.7**	**+2.7**
PPR	**Puerto Princes**	**4.18**	**279**	*e*P	**Pn**	**23 26 09.3**	**+1.1**
PPR				*e*S	**Sn**	**23 26 56.7**	**-0.2**
KKM	**Kota Kinabalu**	**7.31**	**246**		**Pn**	**23 26 52.0**	**+0.6**
LUWI	**Luwuk**	**10.10**	**181**	Pn	**Pn**	**23 27 32.6**	**+3.1**
SIJI	**Sorong**	**12.95**	**140**	LR	LR	23 33 59.9		
	comp=Z,47nm,18.1s,baz=142,slow=41							
KAPI	**Kappang**	**14.39**	**193**	LR	LR	23 34 09.8		
	comp=Z,61nm,18.8s,baz=323,slow=39							
JOW	**Kunigami**	**18.33**	**15**	P	**P**	**23 29 23.7**	**+4.8**
	1.7nm,0.3s,baz=167,slow=8.6,SNR=3.8							
	24nm,0.6s							
JOW				AML	AML			
JOW	**Kunigami**	**18.33**	**15**	P	**Pn**	**23 29 17.6**	**-1.2**
JOW				IAmb	IAmb	23 29 59.3		
	comp=Z,90nm,1.3s							
CMAR	**Chiang Mai Arr**	**25.03**	**294**	P	**P**	**23 30 27.6**	**-1.2**
	comp=Z,1.1nm,0.3s,baz=112,slow=12,SNR=1.1							
CMAR				LR	LR	23 41 08.2		
	comp=Z,22nm,18.7s,baz=120,slow=39							
	comp=Z,1.1nm,0.3s							
FITZ	**Fitzroy Crossi**	**27.18**	**174**	P	**P**	**23 30 49.1**	**+0.9**
KSRS	**Korea Array**	**28.57**	**8**	LR	LR	23 42 35.7		
	comp=Z,29nm,19.3s,baz=180,slow=36							
MJAR	**Matsushiro Arr**	**30.63**	**25**	LR	LR	23 42 19.8		
	comp=Z,28nm,21.1s,baz=194,slow=33							
WB0	**Warramunga Ar**	**30.85**	**159**	P	**P**	**23 31 20.0**	**-0.9**
WB0				IAmb	IAmb	23 31 33.4		
	comp=Z,7.8nm,1.4s							
WRA	**Warramunga Arr**	**31.00**	**159**	P	**P**	**23 31 20.7**	**-1.4**
	comp=Z,0.5nm,0.4s,baz=338,slow=9.3,SNR=8.1							
	comp=Z,0.5nm,0.4s							
WRA	**Warramunga Arr**	**31.00**	**159**	P	**P**	**23 31 20.8**	**-1.4**
AS31	**Alice Springs**	**34.31**	**162**	P	**P**	**23 31 50.1**	**-1.1**
ASAR	**Alice Springs**	**34.31**	**162**	P	**P**	**23 31 51.3**	**+0.1**
	comp=Z,1.4nm,0.6s,baz=341,slow=6.9,SNR=14							
	comp=Z,1.4nm,0.6s							
ASAR	**Alice Springs**	**34.31**	**162**	P	**P**	**23 31 50.4**	**-0.7**
CTA	**Charters Tower**	**37.02**	**142**	LR	LR	23 50 37.3		
	comp=Z,32nm,19.8s,baz=308,slow=41							
SONM	**Songino Array**	**41.04**	**343**	P	**P**	**23 32 48.4**	**+0.5**
	comp=Z,1.0nm,0.8s,baz=160,slow=10,SNR=6.7							
	comp=Z,1.0nm,0.8s							
SONM	**Songino Array**	**41.04**	**343**	P	**P**	**23 32 47.5**	**-0.4**
TLY	**Talaya**	**45.28**	**343**	LR	LR	23 51 58.6		
	comp=Z,14nm,21.2s,baz=108,slow=36							
MKAR	**Makanchi Array**	**50.99**	**325**	P	**P**	**23 34 07.4**	**+1.1**
	comp=Z,2.7nm,0.7s,baz=138,slow=9.3,SNR=17							
MKAR				PcP	**PcP**	**23 35 21.6**	**-0.7**
	comp=Z,0.2nm,0.5s,baz=115,slow=3.2,SNR=1.4							
MKAR				LR	LR	23 56 50.4		
	comp=Z,31nm,19.0s,baz=61,slow=38							
	comp=Z,2.7nm,0.7s							
MAKZ	**Makanchi**	**51.18**	**325**	P	**P**	**23 34 07.1**	**-0.6**
MAKZ				IAmb	IAmb	23 34 10.9		
	comp=Z,7.0nm,1.4s							
MAKZ				PcP	**PcP**	**23 35 22.1**	**-1.0**
ZAA0	**Zalesovo Array**	**54.09**	**333**	P	**P**	**23 34 28.1**	**-1.0**
ZAA0				IAmb	IAmb	23 34 29.7		
	comp=Z,3.1nm,0.9s							
ZALV	**Zalesovo Beam**	**54.09**	**333**	P	**P**	**23 34 28.8**	**-0.3**
	comp=Z,2.5nm,0.3s,baz=126,slow=6.9,SNR=14							
	comp=Z,2.5nm,0.3s							
ZALV	**Zalesovo Beam**	**54.09**	**333**	P	**P**	**23 34 28.5**	**-0.6**
KURBB	**Kurchatov Arra**	**55.18**	**327**	P	**P**	**23 34 37.8**	**+0.7**
	comp=Z,3.4nm,0.5s,baz=120,slow=8.6,SNR=24							
	comp=Z,3.4nm,0.5s							
KURK	**Kurchatov**	**55.18**	**327**	P	**P**	**23 34 37.1**	**0.0**
KK31	**Karatay Array**	**56.73**	**316**	P	**P**	**23 34 48.4**	**0.0**
KK31				IAmb	IAmb	23 34 50.3		
	comp=Z,2.7nm,1.0s							
KKAR	**Karatay Array**	**56.73**	**316**	P	**P**	**23 34 48.3**	**-0.1**
BVAR	**Borovoye Array**	**60.76**	**327**	P	**P**	**23 35 16.3**	**+0.1**
	comp=Z,1.1nm,0.5s,baz=113,slow=7.6,SNR=10							
	comp=Z,1.1nm,0.5s							
BORK	**Borovoye**	**60.81**	**327**	P	**P**	**23 35 16.4**	**-0.1**
BORK				IAmb	IAmb	23 35 17.8		
	comp=Z,2.8nm,0.7s							
NRIK	**Noril'sk**	**64.34**	**347**	LR	LR	00 07 46.7		
	comp=Z,24nm,18.3s,baz=196,slow=40							
AB31	**Akbulak array**	**65.60**	**320**	P	**P**	**23 35 48.1**	**-0.3**
AB31				IAmb	IAmb	23 35 49.3		
	comp=Z,2.5nm,0.6s							
ABKAR	**Akbulak array**	**65.60**	**320**	P	**P**	**23 35 47.7**	**-0.7**
D19K	**Kuna River**	**77.52**	**22**	P	**P**	**23 36 59.4**	**-0.5**
D20K	**Etivluk River**	**78.09**	**22**	P	**P**	**23 37 02.5**	**-0.6**
D20K				IAmb	IAmb	23 37 44.4		
	comp=Z,11nm,1.5s							
EIL	**Elat**	**83.79**	**299**	LR	LR	00 18 52.9		
	comp=Z,15nm,18.2s,baz=16,slow=39							
ARCES	**ARCESS Array B**	**84.11**	**339**	P	**P**	**23 37 34.5**	**-0.6**
	comp=Z,0.3nm,0.3s,baz=82,slow=6.0,SNR=7.9							
	comp=Z,0.3nm,0.3s							
FIA1	**FINESS Array S**	**85.31**	**331**	P	**P**	**23 37 40.3**	**-1.0**
FINES	**FINESS Array B**	**85.32**	**331**	P	**P**	**23 37 40.2**	**-1.0**
	comp=Z,0.8nm,0.4s,baz=71,slow=4.6,SNR=14							
	comp=Z,0.8nm,0.4s							
FINES	**FINESS Array B**	**85.32**	**331**	P	**P**	**23 37 39.6**	**-1.7**
AKASG	**Malin Array Be**	**85.34**	**320**	P	**P**	**23 37 40.6**	**-1.1**
	comp=Z,1.0nm,0.6s,baz=82,slow=2.0,SNR=1.4							
	comp=Z,1.0nm,0.6s							

*IDC **11** 23:26:37.0±1.7,22.°61S×179.°69W,h575km±18km, mb3.4/10,mbtmp4.3/13,Error ellipse: s-maj=21.8km s-min=15.2km az=143.0*
*NEIC **11** 23:26:36.7±1.0,22.°6S±0.°1×179.°5W±0.°1,h577km±10km, mb4.5/29,Error ellipse: s-maj=19.3km s-min=17.7km az=147.0*

ISC 11 23:26:36.9±0.5,**22.°62S**±0.°10×**179.°63W**±0.°09,**h579**km, **n55**,σ0°**73**/55,**mb4.4**/25,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**5.33**	**335**	P	**P**	**23 28 11.4**	**+0.1**
	3.6nm,0.3s,baz=256,slow=23,SNR=11						
MSVF	**Nonsavu**	**5.33**	**335**	P	**P**	**23 28 11.2**	**-0.2**
NIUE	**Niue**	**9.74**	**71**	P	**P**	**23 28 51.1**	**-1.6**
MARNC	**Mare, Loyalty**	**11.50**	**273**	P	**P**	**23 29 10.1**	**-0.4**
DZM	**Mont Dzumac**	**12.90**	**270**	P	**P**	**23 29 25.2**	**+0.3**
	7.0nm,0.6s,baz=106,slow=22,SNR=6.5						
URZ	**Urewera**	**15.84**	**189**	P	**P**	**23 29 51.7**	**-1.8**
	4.5nm,0.4s,baz=308,slow=2.5,SNR=5.1						
TCW	**Tory Channel**	**19.23**	**194**	P	**P**	**23 30 23.8**	**-0.6**
WHZ	**Wether Hill Ro**	**25.32**	**201**	P	**P**	**23 31 18.5**	**-0.2**
WHZ				IAmb	IAmb	23 31 19.0		
	comp=Z,33nm,1.5s							
ARMA	**Armidale**	**26.81**	**247**	P	**P**	**23 31 33.3**	**+1.1**
ARMA				IAmb	IAmb	23 31 34.0		
	comp=Z,24nm,1.4s							
EIDS	**Eidsvold**	**26.87**	**258**	P	**P**	**23 31 32.8**	**+0.1**
EIDS				IAmb	IAmb	23 31 33.8		
	comp=Z,7.0nm,0.8s							
CAN	**Canberra**	**30.09**	**238**	P	**P**	**23 32 01.2**	**+0.7**
CAN				IAmb	IAmb	23 32 24.0		
	comp=Z,26nm,1.4s							
CTAO	**Charters Tower**	**31.83**	**268**	P	**P**	**23 32 15.7**	**+0.1**
CTAO				IAmb

OHR				*e*Lg	Lg	23 37 29.3			
	comp=N,102nm,0.4s								
OHR				*e*Lg	Lg	23 37 29.4			
	comp=E,114nm,0.4s								
SKO	**Skopje**	**0.61**	**57**	*i* Pg	**Pg**	**23 37 22.9**	**+0.4**		
SKO				*i* Sg	**Sg**	**23 37 31.5**	**+1.0**		
LMS2	**Laimos Florina**	**0.86**	**160**	P	**Pg**	**23 37 26.4**	**-0.9**		
LMS2				S	**Sg**	**23 37 39.5**	**+1.1**		
LMS2				AML	AML				
PVY	**Plav**	**1.12**	**329**	⇓ *i* Pg	**Pg**	**23 37 31.3**	**-0.8**		
PVY				*i* Sg	**Sg**	**23 37 47.1**	**+0.5**		
ULC	**Ulcinj**	**1.17**	**286**	⇓ *i* Pg	**Pg**	**23 37 31.6**	**-1.5**		
ULC				*i* Sg	**Sg**	**23 37 48.4**	**+0.2**		
NEST	**Nestorio**	**1.25**	**169**	P	**Pg**	**23 37 33.0**	**-1.6**		
NEST				S	**Sg**	**23 37 51.9**	**+1.1**		
NEST				AML	AML				
DRME	**Dracevica, Mon**	**1.29**	**295**	⇑ *i* Pg	**Pn**	**23 37 33.6**	**-2.2**		
DRME				*i* Sg	**Sg**	**23 37 52.1**	**+0.1**		
PDG	**Podgorica**	**1.36**	**306**	*e*Pg	**Pn**	**23 37 36.6**	**-0.2**		
PDG				*e*Sg	**Sn**	**23 37 56.3**	**+0.9**		
PDG	**Podgorica**	**1.36**	**306**	P	**Pn**	**23 37 35.7**	**-1.1**		
PDG	**Podgorica**	**1.36**	**306**	⇑ *i* Pg	**Pn**	**23 37 35.2**	**-1.6**		
PDG				*i* Sg	**Sb**	**23 37 54.5**	**-0.3**		
IVA	**Berane**	**1.38**	**333**	⇑ *i* Pg	**Pn**	**23 37 36.1**	**-1.1**		
IVA				*i* Sg	**Sb**	**23 37 55.7**	**+0.2**		
VAY	**Valandovo**	**1.41**	**103**	⇓ *i* Pg	**Pn**	**23 37 36.4**	**-1.0**		
VAY				*i* Sg	**Sb**	**23 37 56.2**	**+0.1**		
VAY				*e*Lg	Lg	23 37 57.2			
	comp=E,32nm,0.6s								
VAY				*e*Lg	Lg	23 37 57.3			
	comp=N,39nm,0.4s								
BARS	**Barje**	**1.42**	**34**	*e*Pg	**Pn**	**23 37 36.9**	**-0.7**		
BARS				*e*Sg	**Sb**	**23 37 55.7**	**-0.7**		
GRG	**Griva**	**1.42**	**118**	P	**Pn**	**23 37 36.5**	**-1.2**		
PENT	**Pentalofos**	**1.48**	**168**	P	**Pn**	**23 37 37.8**	**-0.7**		
KOME	**Kolasin**	**1.51**	**323**	⇑ *i* Pg	**Pn**	**23 37 37.8**	**-1.2**		
KOME				*i* Sg	**Sg**	**23 38 00.4**	**+1.1**		
BUM	**Brajici-Budva**	**1.53**	**296**	⇑ *i* Pg	**Pn**	**23 37 38.1**	**-1.1**		
BUM				*i* Sg	**Sn**	**23 38 00.4**	**+0.7**		
KZN	**Kozani**	**1.54**	**150**	P	**Pn**	**23 37 39.1**	**-0.3**		
KZN				S	**Sn**	**23 38 00.4**	**+0.3**		
KZN				AML	AML				
BOSS	**Bosilegrad**	**1.55**	**56**	*e*Pg	**Pn**	**23 37 39.6**	**+0.2**		
BOSS				*e*Sg	**Sn**	**23 37 59.1**	**-1.0**		
SELS	**Selova**	**1.60**	**10**	*e*Pg	**Pn**	**23 37 39.8**	**-0.3**		
SELS				*e*Sg	**Sg**	**23 38 02.1**	**0.0**		
PEHC	**Pehcevo**	**1.62**	**85**	*i* Pg	**Pn**	**23 37 40.5**	**+0.1**		
PEHC				*i* Sg	**Sb**	**23 38 02.2**	**-0.1**		
CEME	**Cevo**	**1.63**	**304**	⇑ *i* Pg	**Pn**	**23 37 40.0**	**-0.6**		
CEME				*i* Sg	**Sb**	**23 38 03.8**	**+1.1**		
KNT	**Kendrikon**	**1.69**	**106**	P	**Pn**	**23 37 40.7**	**-0.7**		
SJES	**Sjenica**	**1.71**	**341**	*e*Pg	**Pn**	**23 37 42.5**	**+0.7**		
SJES				*e*Sg	**Sn**	**23 38 04.1**	**-0.3**		
NKME	**Niksic**	**1.74**	**311**	⇑ *i* Pn	**Pn**	**23 37 42.9**	**+0.8**		
NKME				*i* Sn	**Sg**	**23 38 07.4**	**+0.7**		
KPRO	**Kipourio**	**1.75**	**164**	P	**Pn**	**23 37 42.1**	**-0.1**		
KPRO				AML	AML				
HCY	**Herceg Novi**	**1.86**	**296**	⇑ *i* Pn	**Pn**	**23 37 43.8**	**+0.1**		
HCY				*i* Sn	**Sb**	**23 38 10.1**	**+0.9**		
IVAS	**Ivanjica**	**1.98**	**347**	*e*Pn	**Pn**	**23 37 44.5**	**-0.9**		
BRY	**Bratogost**	**2.06**	**308**	⇑ *i* Pn	**Pn**	**23 37 48.2**	**+1.6**		
BRY				*i* Sn	**Sb**	**23 38 15.2**	**0.0**		
UPM	**Unac-Piva**	**2.07**	**319**	⇑ *i* Pn	**Pn**	**23 37 48.1**	**+1.4**		
UPM				*i* Sn	**Sb**	**23 38 15.6**	**+0.1**		
TREB	**Trebinje**	**2.08**	**302**	*e*Pn	**Pn**	**23 37 47.9**	**+1.2**		
TREB				*e*Sn	**Sn**	**23 38 14.9**	**+1.7**		
VTS	**Vitosha**	**2.09**	**61**	*e*Pn	**Pn**	**23 37 46.8**	**-0.2**		
VTS				*e*Sn	**Sn**	**23 38 13.2**	**-0.5**		
BOVS	**Bovan**	**2.11**	**19**	*e*Pn	**Pn**	**23 37 47.9**	**+0.8**		
PRMD	**Pramanda**	**2.13**	**173**	P	**Pn**	**23 37 47.6**	**+0.2**		
IGT	**Igoumenitsa**	**2.13**	**189**	*e*Pn	**Pn**	**23 37 48.9**	**+1.5**		
IGT	**Igoumenitsa**	**2.13**	**189**	P	**Pn**	**23 37 47.8**	**+0.4**		
ZAPS	**Zavoj**	**2.15**	**40**	*e*Pn	**Pn**	**23 37 49.0**	**+1.4**		
DBRK	**Dubrovnik**	**2.19**	**299**	*e*Pn	**Pn**	**23 37 48.8**	**+0.6**		
DBRK				Sn	**Sn**	**23 38 17.0**	**+1.1**		
SRS	**Serrai**	**2.21**	**103**	*e*Pn	**Pn**	**23 37 48.6**	**+0.2**		
TYRN	**Tyrnavos**	**2.24**	**149**	P	**Pn**	**23 37 49.1**	**+0.3**		
GRUS	**Gruza**	**2.24**	**359**	*e*Pn	**Pn**	**23 37 49.1**	**+0.2**		
THL	**Klokotos Trika**	**2.29**	**155**	P	**Pn**	**23 37 49.0**	**-0.6**		
TETR	**Tetrakomo, Epi**	**2.33**	**170**	P	**Pn**	**23 37 49.9**	**-0.3**		
BBLS	**Lazi&#263i**	**2.43**	**336**	*e*Pn	**Pn**	**23 37 52.4**	**+0.8**		
BLKB	**Belogradchik**	**2.44**	**35**	*e*Pn	**Pn**	**23 37 51.5**	**-0.1**		
STON	**Ston**	**2.57**	**299**	*e*Pn	**Pn**	**23 37 54.1**	**+0.6**		
STON				Sn	**Sn**	**23 38 25.7**	**+0.4**		
STON	**Ston**	**2.57**	**299**	*e*Pn	**Pn**	**23 37 53.8**	**+0.4**		
TRUS	**Trudelj**	**2.59**	**355**	*e*Pn	**Pn**	**23 37 53.5**	**-0.2**		
TEKS	**Tekeris**	**3.04**	**343**	*e*Pn	**Pn**	**23 37 59.6**	**-0.3**		
LSTV	**Lastovo**	**3.08**	**293**	*e*Pn	**Pn**	**23 38 00.5**	**+0.1**		
LSTV				Sn	**Sn**	**23 38 35.6**	**-2.2**		
MAKA	**Makarska**	**3.21**	**302**	*e*Pn	**Pn**	**23 38 03.5**	**+1.3**		
MAKA				Sn	**Sn**	**23 38 41.2**	**+0.2**		
RICI	**Ricice**	**3.25**	**306**	*i* Pn	**Pn**	**23 38 04.2**	**+1.4**		
RICI				Sn	**Sn**	**23 38 42.2**	**+0.2**		
HVAR	**Hvar**	**3.53**	**297**	*e*Pn	**Pn**	**23 38 06.3**	**-0.4**		
HVAR				Sn	**Sn**	**23 38 47.2**	**-1.8**		

TIF **11** *23:52:21.4,38°.37N×39°.12E, h9km±1km*
ISK **11** *23:52:21.6,38°.34N×39°.11E, h5km, ML3.5/19*
AFAD **11** *23:52:22.1,38°.37N×39°.14E, h7km±2km, MW3.6*

ISC 11 23:52:22.2±0.9**, 38°.37N**±0°.02×**39°.14E**±0°.02**, h8**km±8km**,**
n58,σ1§**17**/81**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SVRC	**Sivrice-ELAZID**	**0.13**	**85**	Pg	**Pg**	**23 52 25.2**	**0.0**
SVRC				AML	AML		
ELZG	**Elazig**	**0.18**	**318**	P	**Pg**	**23 52 26.2**	**+0.3**
ELZG				S	**Sg**	**23 52 28.8**	**+0.2**
ELZ	**Elazig**	**0.33**	**10**	P	**Pg**	**23 52 28.7**	**0.0**
ELZ				S	**Sg**	**23 52 33.4**	**+0.3**
MDNT	**Maden**	**0.43**	**86**	P	**Pg**	**23 52 30.7**	**+0.1**
MDNT				S	**Sg**	**23 52 36.3**	**+0.1**
MAYA	**Malatya/Merkez**	**0.56**	**266**	P	**Pb**	**23 52 33.4**	**-0.9**
MAYA				S	**Sg**	**23 52 40.3**	**-0.1**
NARI	**Adyaman-Kaht**	**0.56**	**212**	P	**Pb**	**23 52 34.0**	**-0.4**
KOVA	**Elazig, Kovanc**	**0.63**	**57**	P	**Pb**	**23 52 34.6**	**-0.9**
KOVA				S	**Sb**	**23 52 43.5**	**-1.0**
DYBB	**Diyarbakir**	**0.89**	**117**	Pg	**Pb**	**23 52 40.0**	**+0.1**
DYBB				Sg	**Sn**	**23 52 53.6**	**-0.5**
DYBB				AML	AML		
DIYA	**Diyarbakir**	**0.89**	**119**	P	**Pn**	**23 52 40.2**	**-0.8**
DIYA				S	**Sb**	**23 52 51.9**	**-0.1**
AZEY	**Adyaman-Merk**	**0.89**	**232**	P	**Pn**	**23 52 40.4**	**-0.7**
AZEY				S	**Sb**	**23 52 52.1**	**+0.1**
AKCD	**Akcadag**	**0.96**	**266**	P	**Pb**	**23 52 40.4**	**-0.7**
AKCD				S	**Sg**	**23 52 52.6**	**-0.5**
ARPR	**Arapgir-MALATY**	**0.96**	**319**	Pg	**Pg**	**23 52 40.2**	**-0.4**
ARPR				Sg	**Sn**	**23 52 55.7**	**-0.3**
ARPR				AML	AML		
KEMA	**Kemaliye**	**1.03**	**331**	P	**Pg**	**23 52 40.6**	**-1.4**
KEMA				S	**Sg**	**23 52 55.0**	**-0.5**
HEKM	**Malatya_Hekimh**	**1.05**	**299**	P	**Pb**	**23 52 42.0**	**-0.8**
HEKM				S	**Sg**	**23 52 55.2**	**-0.9**
ATAB	**Bozova**	**1.12**	**217**	P	**Pn**	**23 52 44.2**	**+0.1**
ILIC	**ilic-Erzincan**	**1.17**	**338**	Pn	**Pg**	**23 52 43.9**	**-0.8**
ILIC				AML	AML		
SANL	**SANLIURFA_Merk**	**1.20**	**186**	P	**Pn**	**23 52 45.8**	**+0.6**
SANL				S	**Sn**	**23 53 01.8**	**+0.2**
AKCA	**Adyaman/G¶l**	**1.28**	**244**	P	**Pg**	**23 52 46.8**	**+0.1**
AKCA				S	**Sn**	**23 53 03.2**	**-0.5**
ERZN	**Erzincan**	**1.30**	**20**	Pn	**Pg**	**23 52 48.2**	**+1.0**
ERZN				Sn	**Sn**	**23 53 07.8**	**+3.4**
ERZN				AML	AML		
DARE	**Darende-Malaty**	**1.31**	**279**	Pn	**Pg**	**23 52 47.3**	**-0.1**
DARE				Sn	**Sn**	**23 53 06.7**	**+2.1**
DARE				AML	AML		
BNGB	**Bingl**	**1.36**	**62**	Pn	**Pg**	**23 52 49.1**	**+0.9**
BNGB				AML	AML		
EUZM	**Uzumlu**	**1.41**	**18**	P	**Pg**	**23 52 48.7**	**-0.5**
EUZM				S	**Sb**	**23 53 05.7**	**-1.3**
CUGUR	**Gurin_SVAS**	**1.51**	**284**	P	**Pb**	**23 52 49.8**	**-0.6**
YEDI	**Yedisu-Bingol**	**1.53**	**45**	Pn	**Pg**	**23 52 51.6**	**0.0**
YEDI				AML	AML		
SURC	**SANLIURFA_SURC**	**1.54**	**196**	P	**Pg**	**23 52 51.2**	**-0.5**
ELBS	**KAHRAMANMARAS**	**1.58**	**269**	P	**Pg**	**23 52 51.6**	**-0.8**
ELBS				S	**Sg**	**23 53 14.6**	**+1.7**
SLHN	**Bingol, Solhan**	**1.59**	**68**	P	**Pg**	**23 52 52.5**	**-0.2**
GZT	**Gaziantep**	**1.60**	**231**	P	**Pb**	**23 52 51.2**	**-0.8**
SVAN	**Silvan-Diyarba**	**1.64**	**97**	P	**Pb**	**23 52 52.1**	**-0.5**
SVAN				S	**Sn**	**23 53 10.2**	**-2.3**
SVAN	**Silvan-Diyarba**	**1.64**	**97**	Pn	**Pb**	**23 52 52.1**	**-0.5**
SVAN				Sn	**Sg**	**23 53 15.9**	**+1.1**
SVAN				AML	AML		
BTMN	**Batman**	**1.75**	**105**	P	**Pn**	**23 52 53.2**	**+0.4**
BTMN				S	**Sn**	**23 53 14.4**	**-0.9**
NZIP	**Nizip/Gaziante**	**1.76**	**222**	P	**Pb**	**23 52 53.9**	**-0.8**
NZIP				S	**Sb**	**23 53 15.9**	**-1.0**
KARO	**Karliova-Bingo**	**1.77**	**57**	Pn	**Pg**	**23 52 55.4**	**-0.6**
KARO				AML	AML		
KELT	**Kelkit**	**1.78**	**3**	P	**Pb**	**23 52 55.2**	**+0.1**
TUNC	**Hafik-SIVAS**	**1.82**	**317**	Pn	**Pb**	**23 52 55.5**	**-0.3**
KHMN	**Narli-Kahraman**	**1.84**	**239**	Pn	**Pb**	**23 52 55.4**	**-0.7**
KHMN				AML	AML		
ECAT	**Cat-ERZURUM**	**1.89**	**49**	P	**Pb**	**23 52 57.1**	**0.0**
MUSM	**Mu-Merkez**	**1.90**	**78**	P	**Pb**	**23 52 56.3**	**-0.7**
KAHM	**Kahramanmaras,**	**1.90**	**244**	P	**Pb**	**23 52 56.0**	**-1.1**
GAZ	**Gaziantep**	**1.94**	**233**	Pn	**Pb**	**23 52 56.6**	**-1.1**
GAZ				AML	AML		
KOPT	**Kop Dagi**	**1.96**	**32**	P	**Pg**	**23 52 58.7**	**-1.0**
KMRS	**Kahramanmaras**	**1.97**	**245**	Pn	**Pb**	**23 52 57.2**	**-1.0**
KMRS				AML	AML		
VRTB	**Varto-Mus**	**1.98**	**66**	P	**Pg**	**23 52 59.2**	**-0.9**
VRTB	**Varto-Mus**	**1.98**	**66**	Pn	**Pb**	**23 52 58.4**	**-0.1**
VRTB				AML	AML		
MIDY	**Mardin/Midyat-**	**2.03**	**117**	P	**Pb**	**23 52 58.0**	**-1.3**
MIDY				S	**Sb**	**23 53 23.7**	**-1.0**
SARI	**SarD1z-Kayseri**	**2.14**	**272**	Pn	**Pb**	**23 52 59.9**	**-1.3**
SARI				AML	AML		
BAYT	**Aydıntepe-Bayb**	**2.17**	**21**	Pn	**Pb**	**23 53 01.1**	**-0.7**
BAYT				AML	AML		
SRTM	**Siirt_Merkez**	**2.23**	**99**	P	**Pn**	**23 52 59.9**	**+0.5**
SVSK	**Karacayir**	**2.27**	**314**	Pn	**Pb**	**23 53 02.4**	**-1.0**
SVSK				AML	AML		
GURO	**Guroymak-BITLI**	**2.28**	**84**	Pn	**Pb**	**23 53 01.9**	**-1.7**
GURO				AML	AML		
RSDY	**Resadiye-TOKAT**	**2.47**	**326**	Pn	**Pb**	**23 53 05.0**	**-1.7**
RSDY				AML	AML		
BATM	**Batumi**	**3.78**	**30**	P	**Pn**	**23 53 23.2**	**+2.5**
BEIL	**Beino**	**4.50**	**213**	*e*P	**Pn**	**23 53 32.5**	**+1.9**
HWQ	**Hawqa**	**4.83**	**213**	*e*P	**Pn**	**23 53 37.4**	**+2.2**
ZAHL	**Zahle**	**5.21**	**211**	*e*P	**Pn**	**23 53 43.2**	**+2.7**
BHL	**Bhannes**	**5.27**	**213**	*e*P	**Pn**	**23 53 43.7**	**+2.5**
DQRL	**Deir Qamar**	**5.47**	**213**	*e*P	**Pn**	**23 53 46.4**	**+2.4**
SHBL	**Chebaa**	**5.71**	**210**	*e*P	**Pn**	**23 53 50.4**	**+2.9**

WEL **12** *00:11:27.4±1.1, 32°.S±19°×17°.9E±4°.5, h171km±57km, M4.6/7, mB4.5/3, ML4.2/6, MLv4.7/7, Mw(mB)3.7/3, Error ellipse: s-maj=63.1km s-min=6.6km az=112.2*
IDC **12** *00:11:29.2±8.1, 32°.54S×179°.74E, h432km±101km, mb2.6/2, mbtmp3.6/3, Error ellipse: s-maj=119.6km s-min=47.6km az=5.0*

ISC 12 00:11:27.5±2.2**, 32°.6S**±0°.1×**179°.8W**±0°.3**, h450**km**, n25,**
σ1§**36**/33**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.69**	**26**	P	P	00 12 20.5	-20
MXZ	**Matakaoa Point**	**5.19**	**197**	P	**P**	**00 12 54.1**	**+0.5**
MXZ				S	**S**	**00 14 01.8**	**-2.1**
HAZ	**Te Kaha**	**5.52**	**201**	P	**P**	**00 12 55.6**	**-1.1**
HAZ				S	**S**	**00 14 08.2**	**-1.5**
HAZ				AML	AML		
PUZ	**Puketiti**	**5.69**	**196**	P	**P**	**00 13 00.1**	**+1.6**
PUZ				S	**S**	**00 14 12.1**	**-0.8**
MWZ	**Matawai**	**6.13**	**200**	P	**P**	**00 13 04.4**	**+1.4**
MWZ				S	**S**	**00 14 21.6**	**+0.5**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**6.19**	**203**	P	**P**	**00 13 04.2**	**+0.6**
	6.8nm,0.3s,baz=16,slow=18,SNR=13						
URZ				S	**S**	**00 14 20.9**	**-1.3**
	21nm,0.5s,baz=59,slow=12,SNR=16						
URZ	**Urewera**	**6.19**	**203**	P	**P**	**00 13 04.7**	**+1.1**
URZ				S	**S**	**00 14 20.8**	**-1.5**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**6.31**	**201**	P	**P**	**00 13 06.4**	**+1.4**
RAGZ				S	**S**	**00 14 24.9**	**+0.2**
RAGZ				AML	AML		
RAGZ				AML	AML		
MUGZ	**Murupara**	**6.50**	**205**	P	**P**	**00 13 07.7**	**+0.8**
MUGZ				S	**S**	**00 14 27.0**	**-1.2**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**6.56**	**203**	P	**P**	**00 13 08.7**	**+1.2**
RTZ				AML	AML		
RTZ				AML	AML		
MTHZ	**Maungataniwha**	**6.82**	**203**	P	**P**	**00 13 11.4**	**+1.3**
MTHZ				S	**S**	**00 14 33.9**	**-0.4**
MTHZ				AML	AML		
MTHZ				AML	AML		
TLZ	**Tolley Road**	**6.88**	**213**	P	**P**	**00 13 14.0**	**+3.2**
NMHZ	**Naumai**	**7.05**	**202**	P	**P**	**00 13 13.2**	**+0.6**
ARHZ	**Aropaoanui**	**7.14**	**201**	P	**P**	**00 13 15.9**	**+2.4**
BKZ	**Black Stump Fm**	**7.22**	**204**	P	**P**	**00 13 15.7**	**+1.3**
KRVZ	**Karewarewa**	**7.47**	**209**	P	**P**	**00 13 17.0**	**-0.2**
OTVZ	**Oturere**	**7.52**	**208**	P	**P**	**00 13 18.8**	**+1.0**
SNVZ	**South Ngauruho**	**7.55**	**208**	P	**P**	**00 13 19.8**	**+1.7**
FWVZ	**Far West T-bar**	**7.64**	**208**	P	**P**	**00 13 20.4**	**+1.3**
BHHZ	**Black Hill Sta**	**7.66**	**205**	P	**P**	**00 13 19.8**	**+0.7**
KAHZ	**Kahuranaki**	**7.67**	**200**	P	**P**	**00 13 21.1**	**+1.9**
KRHZ	**Kereru**	**7.69**	**203**	P	**P**	**00 13 20.6**	**+1.2**
ASAR	**Alice Springs**	**41.55**	**270**	P	**P**	**00 18 34.3**	**-0.1**
	0.2nm,0.4s,baz=114,slow=8.1,SNR=1.6						
	0.2nm,0.4s						
WRA	**Warramunga Arr**	**42.74**	**275**	P	**P**	**00 18 43.1**	**-0.7**
	0.9nm,0.8s,baz=114,slow=7.6,SNR=5.4						
	0.9nm,0.8s						
FINES	**FINESS Array B**	**146.65**	**338**	PKPbc	**PKPab**	**00 30 19.0**	**-0.3**
	4.4nm,1.1s,baz=50,slow=2.2,SNR=5.3						

IDC **12** *00:21:03.7±1.2, 28°.10N×104°.91E, h0km, mb3.6/5, mbtmp3.5/6, ML3.5/1, Error ellipse: s-maj=84.4km s-min=21.3km az=61.0*

ISC 12 00:21:08.9±1.4**, 28°.1N**±0°.2×**105°.0E**±0°.4**, h35**km**, n6,**
σ0§**43**/6**, mb3.5**/5**, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**19.70**	**3**	P	**P**	**00 25 35.0**	**-0.2**
	0.1nm,0.3s,baz=172,slow=12,SNR=4.4						
	0.6nm,0.6s						
SONM				AML	AML		
MKAR	**Makanchi Array**	**25.74**	**322**	P	**P**	**00 26 35.8**	**-0.3**
	0.7nm,0.6s,baz=125,slow=9.0,SNR=4.8						
	0.7nm,0.6s						
ZALV	**Zalesovo Beam**	**29.72**	**336**	P	**P**	**00 27 11.9**	**+0.4**
	0.2nm,0.3s,baz=136,slow=7.0,SNR=1.8						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**30.07**	**326**	P	**P**	**00 27 14.7**	**0.0**
	0.7nm,0.7s,baz=135,slow=9.1,SNR=7.5						
	0.7nm,0.7s						
WRA	**Warramunga Arr**	**55.60**	**146**	P	**P**	**00 30 40.9**	**-0.4**
	0.5nm,0.9s,baz=337,slow=7.4,SNR=2.6						
	0.5nm,0.9s						
ASAR	**Alice Springs**	**58.58**	**149**	P	**P**	**00 31 02.7**	**+0.4**
	0.4nm,0.7s,baz=322,slow=6.9,SNR=2.9						
	0.4nm,0.7s						

SJA **12** *00:47:08.5±0.7, 23°.76S×66°.75W, h229km±4km, ML3.9, MW3.7*
NEIC **12** *00:47:09.7±1.7, 23°.76S±0°.08×66°.7W±0°.1, h205km±5km, mb4.0/3, Error ellipse: s-maj=14.8km s-min=11.3km az=106.0*
IDC **12** *00:47:10.8±1.9, 23°.55S×66°.40W, h216km±19km, mb3.3/4, mbtmp3.8/8, Error ellipse: s-maj=25.9km s-min=15.0km az=81.0*

ISC 12 00:47:09.6±0.7**, 23°.77S**±0°.04×**66°.78W**±0°.05**, h213**km±6km**,**
n63,σ1§**85**/85**, mb4.0**/3**, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**0.61**	**139**	*e*P	**Pn**	**00 47 39.7**	**+0.4**
SLA	**San Lorenzo**	**1.50**	**129**	*e*P	**Pn**	**00 47 45.5**	**+0.8**
SLA				*e*S	**S**	**00 48 12.9**	**+1.1**
AF01	**San Pedro de A**	**1.52**	**302**	*e*P	**Pn**	**00 47 46.9**	**+1.9**
AF01				*e*S	**S**	**00 48 13.5**	**+1.3**
AF01				*e*S	S	00 48 17.9	+5.6
AF01				IAML		00 48 34.6	
	comp=Z,212nm,0.9s						
AF01	**San Pedro de A**	**1.52**	**302**		**Pn**	**00 47 45.4**	**+0.4**
AF01				Sn	**S**	**00 48 13.8**	**+1.6**
YJA	**Yavi**	**1.97**	**37**	*e*P	**Pn**	**00 47 49.6**	**+0.3**
YJA				*e*S	**S**	**00 48 20.8**	**+0.9**
FSA	**Cafayete**	**2.44**	**163**	*e*P	**Pn**	**00 47 54.4**	**+0.6**
FSA				*e*S	**S**	**00 48 22.2**	**-6.1**
PB06	**IPOC Station P**	**2.77**	**292**	*e*P	**Pn**	**00 47 58.7**	**+1.2**
PB06				*e*S	**S**	**00 48 33.1**	**-1.5**
PB06				IAML		00 48 36.8	
	comp=Z,201nm,0.4s						
PB06	**IPOC Station P**	**2.77**	**292**		**Pn**	**00 47 58.3**	**+0.8**
PB06				Sn	**S**	**00 48 34.6**	**-0.1**
PB09	**IPOC Station P**	**3.00**	**310**	*e*P	**Pn**	**00 48 01.6**	**+1.4**
PB09				*e*S	**S**	**00 48 40.5**	**+1.1**
PB09				IAML		00 48 42.3	
	comp=Z,160nm,0.2s						
PB09	**IPOC Station P**	**3.00**	**310**		**Pn**	**00 48 01.2**	**+1.1**
PB03	**IPOC Station P**	**3.23**	**301**	*e*P	**Pn**	**00 48 03.5**	**+0.7**
PB03				*e*S	**S**	**00 48 43.8**	**-0.3**
PB03				IAML		00 48 47.0	
	comp=Z,386nm,0.4s						
PB03	**IPOC Station P**	**3.23**	**301**		**Pn**	**00 48 03.4**	**+0.7**
PB05	**IPOC Station P**	**3.27**	**285**	*e*P	**Pn**	**00 48 04.0**	**+0.8**
PB05				*e*S	**S**	**00 48 44.6**	**-0.3**
PB05				IAML		00 48 52.1	
	comp=Z,100nm,0.4s						
PB05	**IPOC Station P**	**3.27**	**285**		**Pn**	**00 48 04.1**	**+0.8**
AHML	**Horco Molle**	**3.28**	**157**	*e*P	**Pn**	**00 48 01.5**	**-1.7**
AHML				*e*S	**S**	**00 48 42.6**	**-2.4**
PB14	**IPOC Station P**	**3.42**	**255**	*e*P	**Pn**	**00 48 05.9**	**+0.8**
PB14				*e*S	**S**	**00 48 48.0**	**-0.2**
PB14				IAML		00 48 52.8	
	comp=Z,128nm,0.5s						
PB14	**IPOC Station P**	**3.42**	**255**		**Pn**	**00 48 05.8**	**+0.7**
PB10	**IPOC Station P**	**3.47**	**273**	*e*P	**Pn**	**00 48 06.7**	**+1.2**
PB10				*e*S	**S**	**00 48 48.5**	**-0.4**
PB10				IAML		00 48 50.5	
	comp=Z,151nm,0.3s						
PB10	**IPOC Station P**	**3.47**	**273**		**Pn**	**00 48 06.4**	**+1.0**
PB07	**IPOC Station P**	**3.51**	**305**	*e*P	**Pn**	**00 48 06.8**	**+0.6**
PB07				*e*S	**S**	**00 48 49.4**	**-0.7**
PB07				IAML		00 48 51.5	
	comp=Z,239nm,0.2s						
PB07	**IPOC Station P**	**3.51**	**305**		**Pn**	**00 48 06.5**	**+0.4**
AC02	**Maricunga**	**3.72**	**214**	*e*P	**Pn**	**00 48 10.2**	**+1.3**
AC02				*e*S	**S**	**00 48 54.0**	**-1.2**
AC02	**Maricunga**	**3.72**	**214**		**Pn**	**00 48 10.1**	**+1.2**
PB02	**IPOC Station P**	**3.77**	**310**	*e*P	**Pn**	**00 48 09.8**	**+0.6**
PB02				*e*S	**S**	**00 48 54.0**	**-1.7**
PB02				IAML		00 48 58.6	
	comp=Z,347nm,0.2s						
PB02	**IPOC Station P**	**3.77**	**310**		**Pn**	**00 48 09.4**	**+0.2**
AC01	**Pan de Azucar**	**4.20**	**235**	*e*P	**Pn**	**00 48 14.3**	**0.0**
AC01				*e*S	**S**	**00 49 03.2**	**-1.7**
AC01				IAML		00 49 04.2	
	comp=Z,66nm,0.7s						
AC01	**Pan de Azucar**	**4.20**	**235**		**Pn**	**00 48 14.2**	**-0.1**
PB08	**IPOC Station P**	**4.23**	**328**	*e*P	**Pn**	**00 48 16.1**	**+1.0**
PB08				IAML		00 49 09.9	
	comp=Z,74nm,0.5s						
PB08	**IPOC Station P**	**4.23**	**328**		**Pn**	**00 48 16.1**	**+1.0**
TINO	**Tinogasta**	**4.34**	**189**	*e*P	**Pn**	**00 48 17.9**	**+1.8**
TA01	**Diego Aracena**	**4.48**	**315**	*e*P	**Pn**	**00 48 18.2**	**+0.4**
TA01				*e*S	**S**	**00 49 09.6**	**-1.7**
TA01				IAML		00 49

TNTI	**Ternate**	**2.35**	143	P		**Pn**	**01 19 13.7**	**-0.8**
KMSI	**Cibinong**	**2.88**	**224**	P		**Pn**	**01 19 22.3**	**+0.8**
KMSI				AML		AML		
KMSI	**Cibinong**	**2.88**	**224**	P		**Pn**	**01 19 23.9**	**+2.4**
DDMP	**Don Marcelino,**	**3.42**	**356**	*e*P		**Pn**	**01 19 27.0**	**-1.8**
DDMP				*e*S		**Sn**	**01 20 04.2**	**-4.3**
GSPH	**General Santos**	**3.54**	**343**	*i* P		**Pn**	**01 19 29.0**	**-1.6**
GSPH				*i* S		**Sn**	**01 20 08.7**	**-2.9**
GTOI	**Gorontalo**	**3.58**	**236**	P		**Pn**	**01 19 30.4**	**-0.6**
GTOI				AML		AML		
DAV	**Davao City (W)**	**4.38**	**355**	S		**Sn**	**01 20 31.9**	**+0.1**
	372nm,0.4s,baz=33,slow=13,SNR=1.5							
DAV				LR		LR	01 21 51.2	
	comp=Z,189nm,18.0s,baz=236,slow=44							
DAV	**Davao City (W)**	**4.38**	**355**	Pn		**Pn**	**01 19 42.8**	**+0.9**
DAV						**Sn**	**01 20 31.9**	**+0.1**
KCP	**Kidapawan**	**4.39**	**349**	*e*P		**Pn**	**01 19 42.7**	**+0.6**
KCP				*e*S		**Sn**	**01 20 35.0**	**+2.8**
SANI	**Sanana**	**4.69**	**180**	P		**Pn**	**01 19 44.7**	**-1.3**
SANI				AML		AML		
SANI	**Sanana**	**4.69**	**180**	P		**Pn**	**01 19 43.5**	**-2.6**
	comp=Z,34nm,0.6s							
CTBH	**Cotabato--PC H**	**4.83**	**339**	*i* P		**Pn**	**01 19 48.8**	**+0.9**
LUWI	**Luwuk**	**4.88**	**221**	Pn		**Pn**	**01 19 47.5**	**-1.1**
LUWI	**Luwuk**	**4.88**	**221**	P		**Pn**	**01 19 51.3**	**+2.7**
LUWI				AML		AML		
LUWI	**Luwuk**	**4.88**	**221**	P		Pn	01 19 51.6	+3.0
	comp=Z,258nm,0.7s							
TOLI2	**Tolitoli**	**5.41**	**253**	Pn		**Pn**	**01 19 53.5**	**-2.2**
TOLI2	**Tolitoli**	**5.41**	**253**	P		**Pn**	**01 19 54.1**	**-1.7**
	comp=Z,288nm,0.8s							
BIPH	**Bislig**	**5.49**	**4**	*e*P		Pn	01 20 02.9	+6.0
BIPH				*e*S		**Sn**	**01 21 00.3**	**+1.6**
APSI	**Ampana**	**5.60**	**231**	P		Pn	01 20 01.5	+3.2
	comp=Z,1.2nmcomp=Z,2µmcomp=Z,149nm,0.9s							
APSI				AML		AML		
APSI	**Ampana**	**5.60**	**231**	P		Pn	01 20 01.9	+3.7
	comp=Z,149nm,1.1s							
NLAI	**Namlea**	**5.98**	**169**	P		**Pn**	**01 20 02.4**	**-1.1**
	comp=Z,0.5nmcomp=Z,2µmcomp=Z,54nm,1.0s							
NLAI				AML		AML		
NLAI	**Namlea**	**5.98**	**169**	P		**Pn**	**01 20 02.1**	**-1.4**
	comp=Z,31nm,1.0s							
SIJI	**Sorong**	**6.36**	**124**	P		**Pn**	**01 20 09.0**	**+0.3**
	comp=Z,12nm,0.7s,baz=300,slow=20,SNR=6.7							
SIJI				LR		LR	01 23 22.3	
	comp=Z,77nm,18.2s,baz=353,slow=43							
SIJI	**Sorong**	**6.36**	**124**	P		**Pn**	**01 20 09.9**	**+1.2**
SIJI	**Sorong**	**6.36**	**124**	P		**Pn**	**01 20 09.3**	**+0.6**
	comp=Z,17nm,1.1s							
DCPH	**Dipolog City**	**6.42**	**336**	*i* P		**Pn**	**01 20 12.1**	**+2.6**
MSAI	**Masohi**	**6.67**	**154**	P		**Pn**	**01 20 13.2**	**+0.3**
	comp=Z,4µmcomp=Z,57nm,0.8s							
MSAI	**Masohi**	**6.67**	**154**	P		**Pn**	**01 20 12.7**	**-0.3**
	comp=Z,31nm,0.8s							
KDI	**Kendari**	**7.39**	**207**	P		**Pn**	**01 20 22.3**	**-0.4**
	comp=Z,19nm,0.5s							
TTSI	**Tana Toraja**	**8.37**	**227**	P		**Pn**	**01 20 37.6**	**+1.6**
	comp=Z,41nm,0.9s							
FAKI	**Fak Fak**	**8.38**	**131**	Pn		**Pn**	**01 20 34.1**	**-2.2**
FAKI	**Fak Fak**	**8.38**	**131**	P		**Pn**	**01 20 35.9**	**-0.4**
	comp=Z,37nm,1.0s							
FAKI	**Fak Fak**	**8.38**	**131**	P		**Pn**	**01 20 34.9**	**-1.3**
	comp=Z,37nm,1.1s							
SPSI	**Sidrap Palu**	**9.05**	**223**	P		**Pn**	**01 20 46.0**	**+0.7**
	comp=Z,16nm,1.0s							
KAPI	**Kappang**	**9.84**	**219**	LR		LR	01 25 05.0	
	comp=Z,109nm,20.1s,baz=33,slow=41							
KKM	**Kota Kinabalu**	**10.28**	**289**	Pn		**Pn**	**01 21 02.9**	**+0.7**
KKM	**Kota Kinabalu**	**10.28**	**289**	P		**Pn**	**01 21 03.6**	**+1.4**
	comp=Z,1µmcomp=Z,77nm,1.0s							
KKM	**Kota Kinabalu**	**10.28**	**289**	P		**Pn**	**01 21 03.5**	**+1.3**
	comp=Z,77nm,1.0s							
BAKI	**Biak**	**10.84**	**111**	P		**Pn**	**01 21 10.5**	**+0.8**
EDFI	**Ende, Flores**	**12.12**	**201**	P		**Pn**	**01 21 29.2**	**+2.2**
	comp=Z,14nm,0.8s							
GENI	**Genyem**	**15.13**	**110**	P		**P**	**01 22 10.3**	**+1.4**
GENI	**Genyem**	**15.13**	**110**	P		**Pn**	**01 22 05.9**	**-0.2**
	comp=Z,103nm,0.6s							
JAY	**Jayapura**	**15.61**	**109**	P		**P**	**01 22 15.0**	**+0.7**
	comp=Z,18nm,0.8s,baz=291,slow=8.6,SNR=4.5							
JAY				LR		LR	01 28 35.9	
	comp=Z,107nm,18.7s,baz=21,slow=38							
MTN	**Manton Dam**	**16.25**	**162**	Pn		**Pn**	**01 22 17.6**	**-2.4**
KNRA	**Kununurra**	**18.44**	**171**	P		**P**	**01 22 44.8**	**-0.7**
TPI	**Tanjungpandan**	**19.09**	**254**	P		**Pn**	**01 22 53.8**	**-0.6**
FITZ	**Fitzroy Crossi**	**20.64**	**181**	P		**P**	**01 23 08.1**	**-1.3**
	comp=Z,6.9nm,0.6s,baz=5.8,slow=7.6,SNR=26							
	comp=Z,6.9nm,0.6s							
FITZ	**Fitzroy Crossi**	**20.64**	**181**	P		**P**	**01 23 09.4**	**+0.1**
FITZ	**Fitzroy Crossi**	**20.64**	**181**	P		Pn	01 23 12.7	+0.2
	comp=Z,2.3nm,0.7s							
MDSI	**Maura Dua**	**22.90**	**252**	P		**P**	**01 23 34.3**	**+1.0**
WB0	**Warramunga Arr**	**23.79**	**160**	P		**P**	**01 23 40.7**	**-0.7**
WB0				IAmb		IAmb	01 23 42.8	
	comp=Z,15nm,0.7s							
WRAB	**Tennant Creek**	**23.93**	**160**	P		**P**	**01 23 41.7**	**-0.9**
WRAB				IAmb		IAmb	01 23 51.0	
	comp=Z,13nm,0.9s							
WRA	**Warramunga Arr**	**23.93**	**160**	P		**P**	**01 23 42.0**	**-0.6**
	comp=Z,5.3nm,0.7s,baz=330,slow=11,SNR=50							
WRA				PcP		**PcP**	**01 27 23.2**	**+0.3**
	comp=Z,0.9nm,0.9s,baz=311,slow=2.8,SNR=2.9							
WRA				S		**S**	**01 27 54.6**	**+2.3**
	comp=Z,5.6nm,0.8s,baz=340,slow=18,SNR=9.3							
	comp=Z,5.3nm,0.7s							
WRA	**Warramunga Arr**	**23.93**	**160**	P		**P**	**01 23 40.8**	**-1.8**
WRA						**PcP**	**01 27 23.1**	**+0.2**
WR8	**Warramunga Arr**	**24.00**	**160**	P		**P**	**01 23 42.8**	**-0.5**
KULM	**Kulim**	**25.39**	**277**	P		**P**	**01 23 59.7**	**+3.7**
	comp=Z,18nm,1.2s							
PSI	**Prapat**	**27.01**	**271**	LR		LR	01 35 22.4	
	comp=Z,20nm,19.0s,baz=102,slow=38							
AS31	**Alice Springs**	**27.30**	**164**	P		**P**	**01 24 13.3**	**+0.2**
ASAR	**Alice Springs**	**27.30**	**164**	P		**P**	**01 24 12.3**	**-0.8**
	comp=Z,0.7nm,0.4s,baz=347,slow=12,SNR=16							
ASAR				PcP		**PcP**	**01 27 31.3**	**+0.7**
	comp=Z,1.9nm,0.7s,baz=342,slow=2.4,SNR=9.6							
ASAR				S		**S**	**01 28 44.9**	**-0.8**
	comp=Z,0.7nm,0.9s,baz=349,slow=22,SNR=2.7							
	comp=Z,0.7nm,0.4s							
ASAR	**Alice Springs**	**27.30**	**164**	P		**P**	**01 24 12.1**	**-1.0**
ASAR						**PcP**	**01 27 31.0**	**+0.5**
MTSU	**Mount Surprise**	**27.47**	**140**	P		**P**	**01 24 18.2**	**+3.5**
	comp=Z,6.6nm,1.0s							
NJ2	**Nanjing**	**29.98**	**348**	*e*P		**P**	**01 24 38.6**	**+1.8**
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.5s							
CTA	**Charters Tower**	**30.14**	**140**	LR		LR	01 38 41.2	
	comp=Z,63nm,18.4s,baz=38,slow=40							
CMAR	**Chiang Mai Arr**	**30.77**	**303**	P		**P**	**01 24 41.7**	**-2.2**
	comp=Z,1.5nm,0.7s,baz=120,slow=6.5,SNR=6.8							
	comp=Z,1.5nm,0.7s							
CMAR	**Chiang Mai Arr**	**30.77**	**303**	P		**P**	**01 24 42.5**	**-1.5**
MORW	**Morawa**	**32.97**	**196**	P		**P**	**01 25 02.6**	**-0.4**
MORW				IAmb		IAmb	01 25 27.3	
	comp=Z,19nm,1.4s							
FORT	**Forrest**	**33.33**	**177**	P		**P**	**01 25 06.2**	**0.0**
FORT				IAmb		IAmb	01 25 06.8	
	comp=Z,8.4nm,0.7s							
KSRS	**Korea Array**	**34.66**	**3**	P		**P**	**01 25 17.8**	**+0.2**
	comp=Z,3.5nm,0.5s,baz=180,slow=10.0,SNR=18							
KSRS				PcP		**PcP**	**01 27 51.1**	**+1.4**
	comp=Z,1.3nm,0.6s,baz=186,slow=2.3,SNR=6.1							
	comp=Z,3.5nm,0.5s							
MJAR	**Matsushiro Arr**	**35.55**	**17**	P		**P**	**01 25 24.8**	**-0.5**
	comp=Z,5.0nm,0.7s,baz=201,slow=9.3,SNR=9.4							
	comp=Z,5.0nm,0.7s							
MJAR	**Matsushiro Arr**	**35.55**	**17**	P		**P**	**01 25 25.3**	**0.0**
STKA	**Stephens Creek**	**37.43**	**158**	P		**P**	**01 25 40.5**	**-0.9**
	comp=Z,1.9nm,0.3s,baz=331,slow=8.8,SNR=3.6							
	comp=Z,1.9nm,0.3s							
STKA	**Stephens Creek**	**37.43**	**158**	P		**P**	**01 25 41.0**	**-0.3**
HHC	**Hu-ho-hao-te**	**40.17**	**343**	*e*P		**P**	**01 26 08.2**	**+4.0**
HHC				pmax		pmax		
	comp=Z,13nm,0.7s							
HHC				pmax		pmax		
	comp=Z,85nm,4.2s							
JTM	**Tenmabayashi**	**40.32**	**18**	P		**P**	**01 26 06.4**	**+1.0**
ARMA	**Armidale**	**41.02**	**145**	P		**P**	**01 26 12.9**	**+1.5**
ARMA				IAmb		IAmb	01 26 21.4	
	comp=Z,20nm,1.4s							
USRK	**Ussuriysk Ar.**	**41.69**	**7**	P		**P**	**01 26 17.4**	**+0.8**
	comp=Z,7.0nm,0.8s,baz=198,slow=7.7,SNR=7.2							
	comp=Z,7.0nm,0.8s							
USRK	**Ussuriysk Ar.**	**41.69**	**7**	P		**P**	**01 26 16.3**	**-0.3**
H11S3	**WAKE ISLAND Hy**	**42.85**	**66**	T		T	02 12 49.2	
	baz=253,slow=75,SNR=8.0							
H11S2	**WAKE ISLAND Hy**	**42.87**	**66**	T		T	02 12 50.1	
	baz=253,slow=75,SNR=8.4							
H11S1	**WAKE ISLAND Hy**	**42.87**	**66**	T		T	02 12 48.4	
	baz=253,slow=75,SNR=5.6							
BNX	**BinXian**	**42.91**	**1**	⇓P		**P**	**01 26 26.3**	**-0.1**
BNX				pmax		pmax		
	comp=Z,10.0nm,0.9s							
H11N1	**WAKE ISLAND Hy**	**43.40**	**64**	T		T	02 13 36.7	
	baz=255							
H11N2	**WAKE ISLAND Hy**	**43.41**	**64**	T		T	02 13 37.8	
	baz=255							
H11N3	**WAKE ISLAND Hy**	**43.42**	**64**	T		T	02 13 37.8	
	baz=255							
ASAJ	**Asahikawa**	**43.82**	**17**	LR		LR	01 43 18.5	
	comp=Z,16nm,20.7s,baz=260,slow=34							
JKA	**Kamikawa-asahi**	**43.82**	**17**	P		**P**	**01 26 35.3**	**+1.6**
JKA	**Kamikawa-asahi**	**43.82**	**17**	P		**P**	**01 26 35.4**	**+1.7**
	comp=Z,35nm,1.3s							
PALK	**Pallekele**	**45.31**	**278**	LR		LR	01 46 55.4	
	comp=Z,13nm,19.8s,baz=88,slow=38							
HEH	**HeiHe**	**47.42**	**1**	*e*P		**P**	**01 27 02.3**	**+0.3**
HEH				pmax		pmax		
	comp=Z,21nm,0.7s							
SONM	**Songino Array**	**48.06**	**342**	P		**P**	**01 27 06.0**	**-1.1**
	comp=Z,1.1nm,0.7s,baz=149,slow=8.0,SNR=5.4							
SONM				PcP		**PcP**	**01 28 33.3**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=152,slow=6.5,SNR=4.1							
	comp=Z,1.1nm,0.7s							
SONM	**Songino Array**	**48.06**	**342**	P		**P**	**01 27 07.6**	**+0.4**
SONM						**PcP**	**01 28 33.0**	**-0.6**
TLY	**Talaya**	**52.30**	**343**	LR		LR	01 51 00.1	
	comp=Z,15nm,21.3s,baz=154,slow=37							
PETK	**Petropavlovsk-**	**56.69**	**22**	P		**P**	**01 28 12.2**	**+1.4**
	comp=Z,7.4nm,0.8s,baz=207,slow=4.4,SNR=8.5							
	comp=Z,7.4nm,0.8s							
PETK	**Petropavlovsk-**	**56.69**	**22**	P		**P**	**01 28 12.4**	**+1.7**
MKAR	**Makanchi Array**	**57.99**	**326**	P		**P**	**01 28 18.7**	**-1.3**
	comp=Z,2.3nm,0.5s,baz=124,slow=7.8,SNR=26							
MKAR				PcP		**PcP**	**01 29 10.7**	**-0.3**
	comp=Z,3.0nm,0.8s,baz=126,slow=4.3,SNR=9.3							
	comp=Z,2.3nm,0.5s							
KSH2	**Kashi**	**58.38**	**315**	P		**P**	**01 28 22.0**	**-1.1**
KSH2				PcP		**PcP**	**01 29 13.5**	**+0.5**
YAK	**Yakutsk**	**59.28**	**2**	P		**P**	**01 28 29.4**	**+0.8**
	comp=Z,56nm,0.9s							
MIDW	**Midway**	**59.59**	**59**	P		**P**	**01 28 28.4**	**-2.9**
	comp=Z,209nm,1.2s							
ZALV	**Zalesovo Beam**	**61.18**	**334**	P		**P**	**01 28 39.5**	**-2.3**
	comp=Z,0.7nm,0.5s,baz=126,slow=7.3,SNR=2.3							
	comp=Z,0.7nm,0.5s							
ZALV	**Zalesovo Beam**	**61.18**	**334**	P		**P**	**01 28 41.4**	**-0.4**
KURBB	**Kurchatov Arra**	**62.22**	**328**	P		**P**	**01 28 46.8**	**-2.0**
	comp=Z,4.4nm,0.6s,baz=129,slow=6.2,SNR=47							
	comp=Z,4.4nm,0.6s							
KURK	**Kurchatov**	**62.22**	**328**	P		**P**	**01 28 47.4**	**-1.4**
KURK	**Kurchatov**	**62.22**	**328**	P		**P**	**01 28 47.6**	**-1.2**
	comp=Z,12nm,0.6s							
BVAR	**Borovoye Array**	**67.79**	**327**	P		**P**	**01 29 23.2**	**-1.6**
	comp=Z,1.6nm,0.6s,baz=132,slow=8.9,SNR=9.8							
	comp=Z,1.6nm,0.6s							
BORK	**Borovoye**	**67.84**	**327**	P		**P**	**01 29 24.0**	**-1.1**
TIXI	**Tiksi**	**68.90**	**1**	P		**P**	**01 29 30.8**	**-0.6**
TIXI				IAmb		IAmb	01 29 32.3	
	comp=Z,12nm,1.1s							
NRIK	**Noril'sk**	**71.27**	**347**	P		**P**	**01 29 45.7**	**-0.2**
	comp=Z,14nm,0.6s,baz=126,slow=6.0,SNR=35							
	comp=Z,14nm,0.6s							
NRIK	**Noril'sk**	**71.27**	**347**	P		**P**	**01 29 46.0**	**+0.1**
AB31	**Akbulak array**	**72.48**	**321**	P		**P**	**01 29 51.8**	**-1.8**
ABKAR	**Akbulak array**	**72.48**	**321**	P		**P**	**01 29 51.7**	**-1.9**
M16K	**Timber Creek**	**80.46**	**28**	P		**P**	**01 30 40.2**	**+1.8**
D19K	**Kuna River**	**82.38**	**21**	P		**P**	**01 30 50.1**	**+1.7**
D19K				IAmb		IAmb	01 30 51.1	
	comp=Z,8.7nm,0.6s							
H19K	**Roundabout Mou**	**82.44**	**24**	P		**P**	**01 30 49.9**	**+1.2**
H19K				IAmb		IAmb	01 30 52.5	
	comp=Z,12nm,0.8s							
VNDA	**Vanda**	**82.48**	**173**	P		**P**	**01 30 49.1**	**+0.4**
	comp=Z,2.6nm,0.8s,baz=319,slow=6.3,SNR=19							
	comp=Z,2.6nm,0.8s							
VNDA	**Vanda**	**82.48**	**173**	P		**P**	**01 30 49.2**	**+0.5**
E19K	**Redstone River**	**82.49**	**22**	P		**P**	**01 30 51.1**	**+2.1**
E19K				IAmb		IAmb	01 30 52.0	
	comp=Z,13nm,1.1s							
F20K	**Avaraart Lake**	**82.99**	**23**	P		**P**	**01 30 53.5**	**+1.9**
F20K				IAmb		IAmb	01 30 54.3	
	comp=Z,8.3nm,1.2s							
IMAR	**Indian Mountai**	**83.61**	**24**	P		**P**	**01 30 56.6**	**+1.8**
E21K	**Killik River**	**83.87**	**21**	P		**P**	**01 30 57.3**	**+1.2**
E21K				IAmb		IAmb	01 30 58.8	
	comp=Z,9.0nm,0.7s							
H21K	**Melozitna Rive**	**83.95**	**24**	P		**P**	**01 30 58.4**	**+1.9**
H21K				IAmb		IAmb	01 30 59.5	
	comp=Z,7.2nm,1.0s							
CNPM	**China Poot**	**84.05**	**31**	P		**P**	**01 30 58.0**	**+0.9**
E23K	**Chandalar**	**85.44**	**22**	P		**P**	**01 31 05.5**	**+1.5**
E23K				IAmb		IAmb	01 31 11.2	
	comp=Z,5.2nm,0.9s							
KNK	**Knik Glacier**	**85.54**	**29**	P		**P**	**01 31 06.0**	**+1.4**
D24K	**Happy Valley**	**85.81**	**21**	P		**P**	**01 31 07.3**	**+1.5**
F24K	**Squaw Lake**	**86.07**	**23**	P		**P**	**01 31 08.6**	**+1.4**
G24K	**Hadweenzic Riv**	**86.19**	**23**			**P**	**01 31 09.2**	**+1.5**
G24K				IAmb		IAmb	01 31 10.4	
	comp=Z,5.5nm,0.8s							
ILAR	**Eielson Array**	**86.38**	**25**	P		**P**	**01 31 08.0**	**-0.6**
	comp=Z,0.3nm,0.6s,baz=240,slow=5.3,SNR=5.2							
	comp=Z,0.3nm,0.6s							
ILAR	**Eielson Array**	**86.38**	**25**	P		**P**	**01 31 08.7**	**+0.1**
BMAR	**Burnt Mountain**	**87.34**	**23**	P		**P**	**01 31 14.9**	**+1.6**
C27K	**Jago River**	**87.62**	**21**	P		**P**	**01 31 15.4**	**+0.9**
C27K				IAmb		IAmb	01 31 16.9	
	comp=Z,4.6nm,0.7s							
E27K	**Coleen River**	**88.45**	**22**			**P**	**01 31 19.5**	**+0.9**
E27K				IAmb		IAmb	01 31 20.7	
	comp=Z,6.0nm,1.0s							
K27K	**Chicken**	**88.48**	**26**	P		**P**	**01 31 20.5**	**+1.8**
K27K				IAmb		IAmb	01 31 29.0	
	comp=Z,5.7nm,1.3s							
F28M	**Old Crow**	**89.14**	**22**	P		**P**	**01 31 22.4**	**+0.6**
F28M				IAmb		IAmb	01 31 24.1	
	comp=Z,3.1nm,0.8s							
E28M	**Babbage River**	**89.18**	**21**	P		**P**	**01 31 22.9**	**+1.0**
E28M				IAmb		IAmb	01 31 24.3	
	comp=Z,4.2nm,1.0s							
G29M	**Pine Creek**	**89.92**	**23**	P		**P**	**01 31 26.3**	**+0.9**
G29M				IAmb		IAmb	01 31 27.3	
	comp=Z,7.5nm,1.0s							
BRTR	**Keskin Array B**	**90.10**	**310**	P		**P**	**01 31 24.6**	**-2.5**
	comp=Z,0.6nm,0.8s,baz=126,slow=42,SNR=2.7							
	comp=Z,0.6nm,0.8s							
BRTR	**Keskin Array B**	**90.10**	**310**	P		**P**	**01 31 25.2**	**-1.8**
L29M	**L29M**	**90.31**	**27**	P		**P**	**01 31 29.3**	**+1.9**
ARCES	**ARCESS Array B**	**91.17**	**340**	P		**P**	**01 31 29.5**	**-1.7**
	comp=Z,3.3nm,0.8s,baz=76,slow=6.7,SNR=6.8							
	comp=Z,3.3nm,0.8s							
ARCES	**ARCESS Array B**	**91.17**	**340**	P		**P**	**01 31 31.4**	**+0.2**
ARCES				IAmb		IAmb	01 32 02.7	
	comp=Z,7.6nm,1.3s							
SPITS	**Spitsbergen Ar**	**91.36**	**349**	P		**P**	**01 31 30.9**	**-1.0**
	comp=Z,15nm,1.0s,baz=69,slow=4.9,SNR=1.8							
	comp=Z,15nm,1.0s							
INK	**Inuvik**	**91.42**	**21**	P		**P**	**01 31 32.5**	**+0.2**
INK				IAmb		IAmb	01 31 52.2	
	comp=Z,7.0nm,1.5s							
N31M	**Braeburn, Yuko**	**91.61**	**28**	P		**P**	**01 31 34.4**	**+0.9**
AKASG	**Malin Array Be**	**92.22**	**321**	P		**P**	**01 31 34.3**	**-2.1**
	comp=Z,0.5nm,0.5s,baz=83,slow=3.3,SNR=4.7							
	comp=Z,0.5nm,0.5s							
FINES	**FINESS Array B**	**92.40**	**332**	P		**P**	**01 31 35.3**	**-1.7**
	comp=Z,4.3nm,0.7s,baz=33,slow=4.5,SNR=13							
	comp=Z,4.3nm,0.7s							
FINES	**FINESS Array B**	**92.40**	**332**	P		**P**	**01 31 35.4**	**-1.5**
QSPA	**South Pole Qui**	**92.59**	**180**	P		**P**	**01 31 38.3**	**+0.4**
	comp=Z,3.3nm,1.0s,baz=278,slow=1.9,SNR=6.6							
	comp=Z,3.3nm,1.0s							
QSPA	**South Pole Qui**	**92.59**	**180**	P		**P**	**01 31 38.6**	**+0.7**
QSPA				IAmb		IAmb	01 32 19.4	
	comp=Z,4.7nm,1.4s							
BURAR	**Bucovina Array**	**95.28**	**318**	P		**P**	**01 31 49.7**	**-1.0**
BUR08	**Bucovina Ar. S**	**95.28**	**318**			**P**	**01 31 50.6**	**-0.2**
BUR08				IAmb		IAmb	01 31 50.7	
	comp=Z,3.1nm,0.8s							
HFS	**Hagfors**	**98.59**	**332**	P		**P**	**01 32 03.4**	**-1.9**
	comp=Z,2.1nm,0.8s,baz=71,slow=5.1,SNR=2.8							
	comp=Z,2.1nm,0.8s							
NB2	**NORSAR Subarra**	**99.39**	**333**	P		**Pdif**	**01 32 06.7**	**-2.1**
	comp=Z,1.4nm,0.7s,baz=69,slow=4.4							
NOA	**NORSAR Array B**	**99.39**	**333**	P		**Pdif**	**01 32 07.1**	**-1.8**
	comp=Z,2.2nm,1.0s,baz=77,slow=4.2,SNR=4.7							
NOA				LR		LR	02 21 27.4	
	comp=Z,9.8nm,18.2s,baz=280,slow=38							
	comp=Z,2.2nm,1.0s							
ECSD	**EROS Data Cent**	**120.08**	**35**	PKPdf		**PKPdf**	**01 37 17.5**	**+0.3**
TORD	**Torodi Ar. Bea**	**122.51**	**287**	PKP		**PKPdf**	**01 37 22.1**	**-0.6**
	comp=Z,1.1nm,0.7s,baz=38,slow=1.6,SNR=6.0							
TXAR	**Lajitas Array**	**122.84**	**52**	PKP		**PKiKP**	**01 37 24.3**	**+1.0**
	comp=Z,0.2nm,0.7s,baz=211,slow=2.2,SNR=3.7							
TXAR	**Lajitas Array**	**122.84**	**52**			**PKiKP**	**01 37 23.9**	**+0.7**

VIE ***12*** *01:22:20.8±0.4, 49.78N×18.57E, h0km, mb2.1/6, ml2.4/9, ml2.4/9, ms3.6/2, Error ellipse: s-maj=3.6km s-min=2.6km az=163.0 24 km ESE of Ostrava Suspected Mining induced.*
IPEC ***12*** *01:22:20.9±0.3, 49.85N×18.54E, h1km, ML2.1/6, Error ellipse: s-maj=1.8km s-min=1.5km az=69.0*
PRU ***12*** *01:22:22.3, 49.87N×18.49E, h0km, Mining Induced Event Csm, E=1.5e+05*

ISC 12 01:22:20.3±0.8, 49.81N±0.03×18.54E±0.02, h0km, n32, σ1.9 04/58, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	**0.25**	**275**	*e*PG		**Pb**	**01 22 26.5**	**-1.3**
OKC				*e*SG		**Sg**	**01 22 30.3**	**+1.9**
	comp=Z,71nm,0.2s							
OKC				AML		AML		
STEB	**Steborice**	**0.51**	**284**	*e*PG		**Pb**	**01 22 31.2**	**-0.9**
STEB				*e*SG		**Sg**	**01 22 36.6**	**0.0**
	comp=Z,49nm,0.5s							
STEB				AML		AML		
MORC	**Moravsky Berou**	**0.65**	**267**	*e*Pg		**Pg**	**01 22 33.4**	**+0.8**
	baz=83							
MORC				*e*Sg		**Sg**	**01 22 41.4**	**+0.4**
	44nm,0.4s,baz=83							
MORC				AML		AML		
LOSC	**Losov**	**0.78**	**256**	*e*Pg		**Pb**	**01 22 36.1**	**-0.6**
	baz=73							
LOSC				*e*Sg		**Sg**	**01 22 45.9**	**+0.6**
	40nm,0.3s,baz=73							
LOSC				AML		AML		
ANAC	**Anensky vrch**	**0.79**	**290**	*e*Pg		**Pg**	**01 22 35.8**	**+0.3**
	baz=106							
ANAC				*e*Sg		**Sg**	**01 22 45.4**	**-0.3**
	50nm,0.2s,baz=106							
ANAC				AML		AML		
LANS	**Liptovska Anna**	**0.90**	**137**	*e*PG		**Pb**	**01 22 38.8**	**0.0**
LANS				*e*SG		**Sb**	**01 22 52.1**	**+0.7**
LANS				*e*LG		Lg	01 22 54.6	
OJC	**Ojcow**	**0.91**	**63**	*e*Pg		**Pg**	**01 22 37.5**	**-0.2**
OJC				*e*Sg		**Sb**	**01 22 51.5**	**-0.1**
JAVC	**Velka Javorina**	**1.11**	**211**	*e*Pg		**Pn**	**01 22 43.2**	**+0.1**
	baz=30							
JAVC	**Velka Javorina**	**1.11**	**211**	*e*PG		**Pn**	**01 22 43.3**	**+0.1**
NIE	**Niedzica**	**1.21**	**108**	*e*Pg		**Pb**	**01 22 44.0**	**-0.1**
NIE				*e*Sg		**Sn**	**01 23 02.2**

DDMP				*e*S		**Sn**	01 35 43.6	-4.4
GSPH	**General Santos**	**0.93**	**334**	*i* P		**Pn**	01 35 23.3	-2.1
GSPH				*i* S		Sn	01 35 34.3	-14
KCP	**Kidapawan**	**1.77**	**351**	*i* P		**Pn**	01 35 31.4	-0.8
KCP				*i* S		**Sn**	01 35 58.5	-2.1
DAV	**Davao City (W)**	**1.83**	**7**	P		**Pn**	01 35 32.4	-0.3
	252nm,0.4s,baz=243,slow=2.3,SNR=1.2							
DAV				S		**Sn**	01 36 02.0	+0.6
	286nm,0.3s,baz=309,slow=23,SNR=6.2							
DAV	**Davao City (W)**	**1.83**	**7**			**Pn**	01 35 32.9	+0.2
DAV						**Sn**	01 36 01.0	-0.4
CTBH	**Cotabato--PC H**	**2.26**	**331**	*i* P		**Pn**	01 35 37.6	+0.4
BIPH	**Bislig**	**3.08**	**19**	*i* P		**Pn**	01 35 46.7	+0.2
BIPH				*e*S		**Sn**	01 36 24.2	-2.0
TOLI2	**Tolitoli**	**6.15**	**228**			**Pn**	01 36 24.3	-0.8
BATI	**Baumata**	**15.44**	**186**	P		**P**	01 38 25.3	+1.5
	34nm,0.4s,baz=278,slow=4.4,SNR=4.0							
JAY	**Jayapura**	**17.15**	**116**	P		**Pn**	01 38 44.4	+0.2
	11nm,0.7s,baz=302,slow=9.5,SNR=5.6							
MTN	**Manton Dam**	**18.86**	**162**	P		**P**	01 39 01.8	+0.6
MTN				IAmb	IAmb	IAmb	01 39 43.4	
	comp=Z,8.6nm,1.4s							
KNRA	**Kununurra**	**21.06**	**171**	P		**P**	01 39 23.6	-1.0
KNRA				IAmb	IAmb	IAmb	01 39 26.6	
	comp=Z,4.4nm,0.7s							
FITZ	**Fitzroy Crossi**	**23.20**	**179**	P		**P**	01 39 45.2	+0.1
WB0	**Warramunga Arr**	**26.39**	**161**	P		**P**	01 40 13.2	-0.9
WB0				IAmb	IAmb	IAmb	01 40 45.4	
	comp=Z,13nm,1.5s							
WRA	**Warramunga Arr**	**26.54**	**161**	P		**P**	01 40 14.8	-0.6
	comp=Z,1.6nm,0.7s,baz=330,slow=11,SNR=16							
	comp=Z,1.6nm,0.7s							
WRA	**Warramunga Arr**	**26.54**	**161**	P		**P**	01 40 14.4	-1.0
WR8	**Warramunga Arr**	**26.61**	**161**	P		**P**	01 40 15.3	-0.6
WR8				IAmb	IAmb	IAmb	01 40 51.9	
	comp=Z,7.5nm,1.2s							
AS31	**Alice Springs**	**29.92**	**164**	P		**P**	01 40 45.4	+0.1
ASAR	**Alice Springs**	**29.92**	**164**	P		**P**	01 40 45.0	-0.4
	comp=Z,1.1nm,0.5s,baz=340,slow=7.0,SNR=23							
ASAR				PcP		**PcP**	01 43 43.5	+0.4
	comp=Z,0.5nm,0.3s,baz=334,slow=2.6,SNR=5.8							
	comp=Z,1.1nm,0.5s							
ASAR	**Alice Springs**	**29.92**	**164**	P		**P**	01 40 45.5	+0.2
ASAR						**PcP**	01 43 43.7	+0.6
MORW	**Morawa**	**35.27**	**194**	P		**P**	01 41 31.5	-0.3
MORW				IAmb	IAmb	IAmb	01 41 36.9	
	comp=Z,11nm,1.2s							
FORT	**Forrest**	**35.91**	**176**	P		**P**	01 41 37.0	-0.1
FORT				IAmb	IAmb	IAmb	01 41 58.5	
	comp=Z,12nm,1.2s							
NWAO	**Narrogin (SRO)**	**38.74**	**191**	P		**P**	01 42 01.4	+0.5
	comp=Z,3.9nm,0.4s,baz=19,slow=7.1,SNR=13							
	comp=Z,3.9nm,0.4s							
NWAO	**Narrogin (SRO)**	**38.74**	**191**	P		**P**	01 42 01.1	+0.2
NWAO				IAmb	IAmb	IAmb	01 42 05.9	
	comp=Z,13nm,1.1s							
BBOO	**Buckleboo**	**39.19**	**166**	P		**P**	01 42 05.2	+0.6
STKA	**Stephens Creek**	**40.02**	**158**	P		**P**	01 42 12.1	+0.5
	comp=Z,2.1nm,0.6s,baz=343,slow=10.0,SNR=4.3							
	comp=Z,2.1nm,0.6s							
STKA	**Stephens Creek**	**40.02**	**158**	P		**P**	01 42 12.5	+1.0
HILR	**Hailar Array B**	**44.41**	**355**	P		**P**	01 42 47.7	+1.0
	comp=Z,0.7nm,0.3s,baz=170,slow=7.8,SNR=1.6							
	comp=Z,0.7nm,0.3s							
MGBR	**Mount Gambier**	**45.03**	**163**	P		**P**	01 42 50.4	-1.3
PEA0B	**Petropavlovsk-**	**54.57**	**23**	P		**P**	01 44 03.8	+0.5
PETK	**Petropavlovsk-**	**54.57**	**23**	P		**P**	01 44 03.7	+0.3
MK31	**Makanchi Array**	**55.54**	**325**	P		**P**	01 44 10.4	-0.1
MK31				IAmb	IAmb	IAmb	01 44 38.9	
	comp=Z,4.1nm,1.4s							
MKAR	**Makanchi Array**	**55.54**	**325**	P		**P**	01 44 11.7	+1.2
	comp=Z,0.5nm,0.5s,baz=118,slow=8.0,SNR=4.5							
	comp=Z,0.5nm,0.5s							
KURBB	**Kurchatov Arra**	**59.74**	**327**	P		**P**	01 44 40.6	+1.0
	comp=Z,0.2nm,0.4s,baz=123,slow=6.8,SNR=5.0							
	comp=Z,0.2nm,0.4s							
KURK	**Kurchatov**	**59.74**	**328**	P		**P**	01 44 39.7	+0.1
KURK				IAmb	IAmb	IAmb	01 45 23.5	
	comp=Z,4.2nm,1.4s							
AB31	**Akbulak array**	**70.12**	**321**	P		**P**	01 45 45.9	-0.6
AB31				IAmb	IAmb	IAmb	01 45 48.7	
	comp=Z,3.9nm,1.5s							
ABKAR	**Akbulak array**	**70.12**	**321**	P		**P**	01 45 45.7	-0.9
ILAR	**Eielson Array**	**84.33**	**25**	P		**P**	01 47 05.8	+0.6
	comp=Z,0.2nm,0.5s,baz=263,slow=6.6,SNR=1.5							
	comp=Z,0.2nm,0.5s							
ILAR	**Eielson Array**	**84.33**	**25**	P		**P**	01 47 06.6	+1.4
VNDA	**Vanda**	**85.09**	**173**	P		**P**	01 47 09.3	+0.6
	comp=Z,0.3nm,0.3s,baz=304,slow=3.6,SNR=6.8							
	comp=Z,0.3nm,0.3s							
VNDA	**Vanda**	**85.09**	**173**	P		**P**	01 47 09.6	+0.9
FINES	**FINESS Array B**	**89.86**	**332**	P		**P**	01 47 30.6	-1.2
	comp=Z,1.1nm,0.9s,baz=82,slow=4.6,SNR=4.9							
	comp=Z,1.1nm,0.9s							
FINES	**FINESS Array B**	**89.86**	**332**	P		**P**	01 47 31.0	-0.8
TXAR	**Lajitas Array**	**121.73**	**51**	PKP		**PKiKP**	01 53 27.0	0.0
	comp=Z,0.4nm,1.0s,baz=320,slow=1.8,SNR=2.4							
TXAR	**Lajitas Array**	**121.73**	**51**			**PKiKP**	01 53 26.8	-0.2

TAP ***12*** *01:51:26.5,24.70N×122.55E,h109km,ML3.2,D*
JMA ***12*** *01:51:26.6±0.2,25.2N×122.5E±0.5,h110km±1km,*
MV2.1/11,NW OFF ISHIGAKIJIMA IS

ISC 12 01:51:27.1±1.6,**24.65N**±0.06×**122.55E**±0.03,**h105**km±9km,
n52,σ0.977/99,**Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EOS2	**EOS2**	**0.37**	**231**	P	**Pn**	**01 51 42.2**	**-0.3**
EOS2				S	**Sn**	**01 51 55.4**	**+1.5**
JYNG	**Yonagunijimaku**	**0.41**	**119**	P	**Pn**	**01 51 42.9**	**+0.1**
JYNG				*e*S	**Sn**	**01 51 54.9**	**+0.2**
EOS3	**EOS3**	**0.42**	**210**	*e*P	**Pn**	**01 51 42.9**	**+0.2**
EOS3				*e*S	**Sn**	**01 51 55.8**	**+1.4**
YOJ	**Yonaguni jima**	**0.46**	**114**	P	**Pn**	**01 51 43.1**	**0.0**
YOJ				*e*S	**Sn**	**01 51 55.8**	**+0.6**
YOJ	**Yonaguni jima**	**0.46**	**114**	*e*P	**Pn**	**01 51 43.2**	**+0.1**
EOS4	**EOS4**	**0.57**	**202**	P	**Pn**	**01 51 43.8**	**+0.3**
EOS4				S	**Sn**	**01 51 56.6**	**+0.8**
TWC	**Suao**	**0.64**	**266**	P	**Pn**	**01 51 44.0**	**-0.4**
TWC				S	**Sn**	**01 51 56.4**	**-1.0**
ESAO	**Su ao**	**0.65**	**264**	*e*P	**Pn**	**01 51 44.8**	**+0.3**
ESAO				*e*S	**Sn**	**01 51 57.5**	**-0.1**
EWUT	**Wuta**	**0.73**	**254**	*e*P	**Pn**	**01 51 45.6**	**+0.4**
EWUT				*i* S	**Sn**	**01 51 58.8**	**0.0**
TIPB	**Shuangxi**	**0.73**	**296**	*e*P	**Pn**	**01 51 45.3**	**0.0**
TIPB				*i* S	**Sn**	**01 51 58.5**	**-0.5**
NDS	**Dongshan**	**0.76**	**269**	*e*P	**Pn**	**01 51 45.7**	**+0.3**
NDS				*i* S	**Sn**	**01 51 58.7**	**-0.6**
ENA	**Nanau**	**0.77**	**253**	*e*P	**Pn**	**01 51 45.6**	**+0.1**
ENA				S	**Sn**	**01 51 59.2**	**-0.3**
TWE	**Neicheng**	**0.80**	**275**	*e*P	**Pn**	**01 51 45.9**	**0.0**
TWE				S	**Sn**	**01 51 59.9**	**-0.1**
FUSB	**Fushanzhiwuyua**	**0.88**	**277**	*e*P	**Pn**	**01 51 46.8**	**+0.1**
FUSB				*e*S	**Sn**	**01 52 00.7**	**-0.8**
ENTT	**Nioudou**	**0.89**	**270**	*e*P	**Pn**	**01 51 47.3**	**+0.5**
ENTT				S	**Sn**	**01 52 02.0**	**+0.3**
LATG	**Datong**	**0.94**	**263**	*e*P	**Pn**	**01 51 47.7**	**+0.4**
LATG				*i* S	**Sn**	**01 52 03.2**	**+0.6**
NDT	**Datong Townshi**	**0.94**	**267**	*e*P	**Pn**	**01 51 47.9**	**+0.6**
NDT				*e*S	**Sn**	**01 52 03.2**	**+0.7**
NWLT	**Wulai**	**0.96**	**278**	*e*P	**Pn**	**01 51 47.3**	**-0.1**
NWLT				*i* S	**Sn**	**01 52 01.9**	**-1.0**
ETL	**Fush Village**	**0.97**	**240**	*e*P	**Pn**	**01 51 47.2**	**-0.4**
ETL				*e*S	**Sn**	**01 52 02.5**	**-0.7**
NACB	**Ninganchiao**	**0.99**	**242**	*e*P	**Pn**	**01 51 47.5**	**-0.3**
NACB				S	**Sn**	**01 52 02.8**	**-0.6**
YM01	**YM01**	**1.02**	**299**	P	**Pn**	**01 51 48.1**	**0.0**
YM01				*e*S	**Sn**	**01 52 03.3**	**-0.6**
TWD	**Chiawan**	**1.04**	**237**	*e*P	**Pn**	**01 51 47.5**	**-0.8**
TWD				S	**Sn**	**01 52 03.8**	**-0.5**
ZUZH	**Zhuzihu**	**1.04**	**299**	*e*P	**Pn**	**01 51 48.1**	**-0.3**
ZUZH				*e*S	**Sn**	**01 52 03.5**	**-1.0**
ETLH	**Xiulin Townshi**	**1.07**	**246**	*e*P	**Pn**	**01 51 48.5**	**-0.2**
ETLH				*e*S	**Sn**	**01 52 04.0**	**-1.0**
YHNB	**Yeheng**	**1.07**	**271**	*i* P	**Pn**	**01 51 49.1**	**+0.4**
YHNB				*i* S	**Sn**	**01 52 04.9**	**-0.1**
NSK	**Sanguang**	**1.08**	**272**	*e*P	**Pn**	**01 51 49.0**	**+0.2**
NSK				*i* S	**Sn**	**01 52 05.0**	**-0.3**
NNSB	**Datong**	**1.08**	**258**	*e*P	**Pn**	**01 51 49.1**	**+0.2**
NNSB				*e*S	**Sn**	**01 52 05.9**	**+0.5**
NNS	**Nan Shan**	**1.09**	**259**	*e*P	**Pn**	**01 51 49.5**	**+0.5**
NNS				S	**Sn**	**01 52 04.9**	**-0.6**
IRIF	**Iriomote-Funau**	**1.12**	**106**	*e*P	**Pn**	**01 51 49.1**	**-0.1**
IRIF				*e*S	**Sn**	**01 52 06.2**	**+0.3**
ETM	**Tongmen**	**1.18**	**235**	*e*P	**Pn**	**01 51 49.5**	**-0.4**
ETM				*e*S	**Sn**	**01 52 06.0**	**-1.0**
LXIB	**Xiulin Townshi**	**1.21**	**239**	*e*P	**Pn**	**01 51 49.8**	**-0.6**
LXIB				*e*S	**Sn**	**01 52 07.0**	**-1.0**
FUSS	**Fushou**	**1.25**	**252**	*e*P	**Pn**	**01 51 51.0**	**+0.1**
FUSS				*e*S	**Sn**	**01 52 08.6**	**-0.4**
WHF	**Hehuan Shan**	**1.27**	**247**	*e*P	**Pn**	**01 51 51.2**	**-0.1**
WHF				*e*S	**Sn**	**01 52 09.0**	**-0.7**
NFF	**Wufeng Townshi**	**1.30**	**269**	P	**Pn**	**01 51 51.5**	**+0.2**
NFF				S	**Sn**	**01 52 09.3**	**-0.3**
ESL	**Shilin**	**1.31**	**231**	*e*P	**Pn**	**01 51 50.7**	**-0.7**
ESL				*e*S	**Sn**	**01 52 07.1**	**-2.8**
TDCB	**Techi**	**1.33**	**253**	*i* P	**Pn**	**01 51 52.4**	**+0.7**
TDCB				S	**Sn**	**01 52 10.1**	**-0.2**
JKRS	**Kuro-shima**	**1.39**	**107**	*e*S	**Sn**	**01 52 11.7**	**+0.3**
LIOB	**Emei**	**1.39**	**270**	*e*P	**Pn**	**01 51 52.5**	**+0.2**
LIOB				S	**Sn**	**01 52 11.4**	**-0.1**
WARBT	**Fenglin Townsh**	**1.41**	**229**	P	**Pn**	**01 51 51.7**	**-0.8**
WARBT				S	**Sn**	**01 52 10.4**	**-1.5**
OWD	**Renai**	**1.43**	**241**	P	**Pn**	**01 51 52.9**	**0.0**
OWD				S	**Sn**	**01 52 11.8**	**-0.7**
WUSB	**Renai**	**1.46**	**244**	*i* P	**Pn**	**01 51 53.7**	**+0.4**
WUSB				*e*S	**Sn**	**01 52 13.2**	**+0.1**
JIJ	**Ishigaki jima**	**1.48**	**101**	*e*P	**Pn**	**01 51 53.5**	**+0.1**
JIJ				*e*S	**Sn**	**01 52 12.8**	**-0.5**
WHP	**Taichung City**	**1.51**	**256**	*e*P	**Pn**	**01 51 54.2**	**+0.5**
WHP				*e*S	**Sn**	**01 52 14.4**	**+0.4**
HGSD	**Ruisui**	**1.54**	**222**	*e*P	**Pn**	**01 51 54.0**	**-0.1**
EHY	**Hungye**	**1.60**	**225**	*e*P	**Pn**	**01 51 54.0**	**-0.8**
JISG	**Ishigakijimahi**	**1.61**	**92**	*e*P	**Pn**	**01 51 54.8**	**-0.1**
JISG				*e*S	**Sn**	**01 52 15.4**	**-0.6**
SMLT	**Sun Moon Lake**	**1.69**	**243**	P	**Pn**	**01 51 57.2**	**+1.2**
SMLT				*e*S	**Sn**	**01 52 20.6**	**+2.5**
SSLB	**Suanglung**	**1.69**	**240**	*e*P	**Pn**	**01 51 57.3**	**+1.3**
SSLB				*e*S	**Sn**	**01 52 19.5**	**+1.5**
YULB	**Yu-li**	**1.70**	**223**	*e*P	**Pn**	**01 51 55.4**	**-0.6**
YULB				*e*S	**Sn**	**01 52 16.4**	**-1.7**
TYC	**Yuchr**	**1.71**	**245**	*e*P	**Pn**	**01 51 57.1**	**+0.9**
TYC				*e*S	**Sn**	**01 52 19.9**	**+1.5**
TWF1	**Yuli**	**1.73**	**222**	*e*P	**Pn**	**01 51 55.9**	**-0.6**
ALS	**Alishan**	**1.96**	**235**	*e*P	**Pn**	**01 52 00.5**	**+0.9**
ALS				*e*S	**Sn**	**01 52 26.1**	**+1.7**

NEIC ***12*** *02:06:11.7±1.6,35.48N×07.07E×70.97E±0.07,h105km±8km,*
mb4.0/11,Error ellipse: s-maj=9.9km s-min=8.5km
az=156.0
IDC ***12*** *02:06:12.3±4.7,35.51N×71.01E,h96km±41km,mb3.5/15,*
mbtmp3.8/20,Error ellipse: s-maj=31.0km s-min=14.2km
az=10.0
NNC ***12*** *02:06:17.5±17.0,36.04N×70.12E,h27km±383km,mb4.2,*
mpv3.8,Error ellipse: s-maj=314.1km s-min=65.3km
az=177.0

ISC 12 02:06:11.0±0.6,**35.58N**±0.06×**70.87E**±0.06,**h90**km,**n57,**
σ2.14/63,mb3.7/17,**4C-2D,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBL	**Kabul**	**1.82**	**236**		**Pn**	**02 06 42.6**	**+1.6**
NIL	**Nilore**	**2.75**	**134**		**Pn**	**02 06 52.7**	**-0.5**
DRK	**Karamyk**	**3.97**	**10**		**Pn**	**02 07 13.7**	**+3.8**
BTK	**Batken**	**4.48**	**360**		**Pn**	**02 07 20.4**	**+3.9**
KSH2	**Kashi**	**5.17**	**45**	Pn	**Pn**	**02 07 30.4**	**+4.4**
KSH2				Sn	**Sn**	**02 08 25.8**	**+1.4**
KSH2				smax	smax		
	comp=N,75nm,0.5s						
KSH2				smax	smax		
	comp=E,56nm,0.4s						
NRN	**Naryn**	**7.10**	**33**		**Pn**	**02 07 55.0**	**+2.6**
KK31	**Karatay Array**	**7.52**	**358**	⇓P	**Pn**	**02 07 59.8**	**+1.9**
	comp=E,5.9nm,0.3s,baz=178,slow=14,SNR=248						
KK31				⇑S	**Sn**	**02 09 19.9**	**-1.7**
	comp=E,2.6nm,0.2s,baz=187,slow=25,SNR=8.3						
KK31	**Karatay Array**	**7.52**	**358**		**Pn**	**02 07 59.5**	**+1.6**
KKAR	**Karatay Array**	**7.52**	**358**		**Pn**	**02 07 59.3**	**+1.4**
AAK	**Ala-Archa**	**7.59**	**21**	P	**Pn**	**02 08 00.9**	**+1.9**
	comp=E,2.3nm,0.3s,baz=175,slow=5.0,SNR=12						
AAK				S	**Sn**	**02 09 24.1**	**+0.6**
	comp=E,4.7nm,0.5s,baz=161,slow=21,SNR=1.6						
AAK	**Ala-Archa**	**7.59**	**21**	⇑P	**Pn**	**02 08 01.7**	**+2.7**
	comp=E,0.8nm,0.4s						
AAK				⇑S	**Sn**	**02 09 25.3**	**+1.8**
	comp=E,2.7nm,0.6s						
BOOM	**Boomskoye usch**	**7.95**	**28**	Pn	**Pn**	**02 08 05.2**	**+1.3**
TARG	**Taragay, Kyrgy**	**8.20**	**39**	Pn	**Pn**	**02 08 07.5**	**+0.1**
MKAR	**Makanchi Array**	**14.11**	**34**	P	**Pn**	**02 09 27.2**	**+0.6**
	comp=E,0.3nm,0.4s,baz=217,slow=11,SNR=4.7						
AB31	**Akbulak array**	**15.85**	**333**	⇑P	**Pn**	**02 09 49.7**	**+1.0**
	comp=E,2.3nm,0.3s,baz=160,slow=12,SNR=194						
AB31				S	**Sn**	**02 12 36.0**	**-7.7**
	comp=E,0.9nm,0.5s,baz=158,slow=23,SNR=5.3						
AB31	**Akbulak array**	**15.85**	**333**		**Pn**	**02 09 49.7**	**+1.0**
ABKAR	**Akbulak array**	**15.85**	**333**		**Pn**	**02 09 49.5**	**+0.8**
KURBB	**Kurchatov Arra**	**16.03**	**18**	P	**Pn**	**02 09 51.9**	**+1.0**
	comp=E,0.1nm,0.3s,baz=203,slow=10,SNR=1.9						
KURK	**Kurchatov**	**16.14**	**18**	Pn	**Pn**	**02 09 52.4**	**+0.2**
KURK				IAmb	IAmb	02 10 11.0	
	comp=Z,2.9nm,0.2s						
BVAR	**Borovoye Array**	**17.45**	**359**	P	**Pn**	**02 10 10.2**	**+1.9**
	comp=Z,1.4nm,0.6s,baz=166,slow=9.1,SNR=5.8						
AKTO	**Aktyubinsk**	**17.54**	**332**	P	**Pn**	**02 10 11.3**	**+1.9**
	comp=Z,7.1nm,0.6s,baz=147,slow=11,SNR=31						
AKTO				S	**Sn**	**02 13 18.2**	**-6.1**
	comp=Z,1.5nm,0.8s,baz=230,slow=2.6,SNR=2.8						
AKTO	**Aktyubinsk**	**17.54**	**332**	⇓P	**Pn**	**02 10 10.6**	**+1.1**
	comp=Z,4.2nm,0.7s						
LSA	**Lhasa**	**18.05**	**103**	P	**P**	**02 10 11.9**	**-3.6**
LSA				IAmb	IAmb	02 10 22.7	
	comp=Z,3.8nm,0.6s						
ZAA0	**Zalesovo Array**	**20.80**	**24**	P	**P**	**02 10 44.0**	**-0.7**
ZAA0				IAmb	IAmb	02 10 48.8	
	comp=Z,2.4nm,1.0s						
ZALV	**Zalesovo Beam**	**20.80**	**24**	P	**P**	**02 10 45.5**	**+0.8**
	comp=Z,1.5nm,0.3s,baz=215,slow=13,SNR=7.1						
	comp=Z,1.5nm,0.3s						
ZALV	**Zalesovo Beam**	**20.80**	**24**	P	**P**	**02 10 44.3**	**-0.4**
GNI	**Garni**	**21.10**	**290**	P	**P**	**02 10 51.4**	**+3.1**
	comp=Z,6.7nm,0.7s,baz=95,slow=11,SNR=3.9						
	comp=Z,6.7nm,0.7s						
GNI	**Garni**	**21.10**	**290**	P	**P**	**02 10 48.7**	**+0.4**
GNI				IAmb	IAmb	02 10 58.0	
	comp=Z,16nm,0.9s						
ARTI	**Arti**	**22.48**	**342**	P	**P**	**02 11 01.7**	**-1.0**
ARTI				IAmb	IAmb	02 11 07.1	
	comp=Z,4.3nm,0.8s						
KBZ	**Khabaz**	**22.95**	**299**	P	**P**	**02 11 08.5**	**+1.0**
	comp=Z,2.5nm,0.9s,baz=99,slow=5.1,SNR=4.4						
	comp=Z,2.5nm,0.9s						
RAYN	**Ar Rayn**	**25.05**	**248**	P	**P**	**02 11 27.6**	**+0.7**
RAYN				IAmb	IAmb	02 11 31.1	
	comp=Z,2.2nm,0.8s						
SONM	**Songino Array**	**28.96**	**54**	P	**P**	**02 12 03.1**	**+1.3**
	comp=Z,0.3nm,0.4s,baz=243,slow=9.5,SNR=3.6						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**28.96**	**54**	P	**P**	**02 12 01.7**	**-0.1**
BZK	**Bozkurt**	**29.28**	**294**	P	**P**	**02 12 04.4**	**-0.2**
BRTR	**Keskin Array B**	**29.63**	**289**	P	**P**	**02 12 10.6**	**+2.8**
	comp=Z,0.9nm,0.8s,baz=95,slow=8.1,SNR=6.1						
	comp=Z,0.9nm,0.8s						
BRTR	**Keskin Array B**	**29.63**	**289**	P	**P**	**02 12 09.0**	**+1.1**
GHAJ	**Ghor Haditha**	**29.67**	**272**	P	**P**	**02 12 07.3**	**-0.8**
GHAJ				IAmb	IAmb	02 12 13.2	
	comp=Z,8.7nm,1.1s						
AKASG	**Malin Array Be**	**33.45**	**310**	P	**P**	**02 12 42.9**	**+1.7**
	comp=Z,0.3nm,0.3s,baz=84,slow=7.3,SNR=4.6						
	comp=Z,0.3nm,0.3s						
FIA1	**FINESS Array S**	**38.19**	**327**	P	**P**	**02 13 21.1**	**-0.4**
FINES	**FINESS Array B**	**38.19**	**327**	P	**P**	**02 13 23.2**	**+1.7**
	comp=Z,1.1nm,0.9s,baz=103,slow=8.0,SNR=3.9						
	comp=Z,2.1nm,0.9s						
FINES	**FINESS Array B**	**38.19**	**327**	P	**P**	**02 13 21.2**	**-0.3**
GERES	**GERESS Array B**	**43.38**	**306**	P	**P**	**02 14 05.9**	**+1.4**
	comp=Z,0.3nm,0.6s,baz=83,slow=8.3,SNR=2.2						
	comp=Z,0.3nm,0.6s						
GERES	**GERESS Array B**	**43.38**	**306**	P	**P**	**02 14 03.5**	**-0.9**
HFS	**Hagfors**	**43.73**	**323**	P	**P**	**02 14 09.0**	**+2.0**
	comp=Z,1.0nm,0.5s,baz=110,slow=8.2,SNR=8.5						
	comp=Z,1.0nm,0.5s						
NB2	**NORSAR Subarra**	**45.06**	**324**	P	**P**	**02 14 18.4**	**+0.8**
	comp=Z,0.6nm,0.5s,baz=99,slow=7.9						
NOA	**NORSAR Array B**	**45.06**	**324**	P	**P**	**02 14 18.9**	**+1.3**
	comp=Z,0.8nm,0.5s,baz=98,slow=7.8,SNR=5.3						
	comp=Z,0.8nm,0.5s						
KSRS	**Korea Array**	**45.29**	**70**	P	**P**	**02 14 20.8**	**+1.1**
	comp=Z,0.8nm,0.4s,baz=290,slow=7.5,SNR=4.2						
	comp=Z,0.8nm,0.4s						
ESDC	**Sonseca Array**	**57.80**	**298**	P	**P**	**02 15 54.4**	**+1.5**
	comp=Z,0.3nm,0.8s,baz=76,slow=6.3,SNR=1.5						
	comp=Z,0.3nm,0.8s						
ESDC	**Sonseca Array**	**57.80**	**298**	P	**P**	**02 15 52.5**	**-0.4**
BMAR	**Burnt Mountain**	**73.86**	**13**	P	**P**	**02 17 34.3**	**-1.2**
H24K	**Noodor Dome**	**74.57**	**16**	P	**P**	**02 17 37.0**	**-2.7**
WRA	**Warramunga Arr**	**81.59**	**122**	P	**P**	**02 18 18.3**	**-0.8**
	comp=Z,0.5nm,0.4s,baz=322,slow=4.8,SNR=4.6						
	comp=Z,0.5nm,0.4s						
WRA	**Warramunga Arr**	**81.59**	**122**	P	**P**	**02 18 16.7**	**-2.4**
YKA	**Yellowknife Ar**	**82.17**	**3**	P	**P**	**02 18 22.0**	**+0.5**
	comp=Z,0.9nm,0.7s,baz=353,slow=5.2,SNR=2.0						
	comp=Z,0.9nm,0.7s						
YKA	**Yellowknife Ar**	**82.17**	**3**	P	**P**	**02 18 19.8**	**-1.7**
ASAR	**Alice Springs**	**83.81**	**125**	P	**P**	**02 18 30.2**	**-0.4**
	comp=Z,0.6nm,0.7s,baz=305,slow=5.1,SNR=7.7						
	comp=Z,0.6nm,0.7s						
ASAR	**Alice Springs**	**83.81**	**125**	P	**P**	**02 18 28.7**	**-1.9**

NOU ***12*** *02:17:19.1,38.74S×175.42E,h240km,MLv3.6/14,North*
Island, New Zealand
WEL ***12*** *02:17:21.3±1.9,38°S±13'×17'5E±', h220km±16km,*
M3.4/25,MLv3.4/25,Error ellipse: s-maj=17.5km
s-min=8.2km az=168.6

ISC 12 02:17:17.0±2.1,**38.60S**±0.06×**175.36E**±0.05,
h252km±11km,**n95,σ1.66/122,North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TLZ	**Tolley Road**	**0.30**	**28**	P	**Pn**	**02 17 50.7**	**+1.0**
TLZ				AML	AML		
WATZ	**Wairara**	**0.31**	**111**	P	**Pn**	**02 17 51.4**	**+1.8**
WATZ				AML	AML		
HIZ	**Hauiti**	**0.40**	**282**	P	**Pn**	**02 17 51.0**	**+1.2**
HIZ	**Hauiti**	**0.40**	**282**	P	**Pn**	**02 17 50.9**	**+1.1**
HIZ				AML	AML		
RATZ	**Rangitukua**	**0.42**	**130**	P	**Pn**	**02 17 51.4**	**+1.5**
KATZ	**Kakaramea**	**0.46**	**145**	P	**Pn**	**02 17 51.7**	**+1.6**
TWTZ	**Taurewa**	**0.48**	**173**	P	**Pn**	**02 17 51.5**	**+1.5**
TWVZ				S	**S**	**02 18 14.9**	**-1.2**
KRVZ	**Karewarewa**	**0.54**	**156**	P	**Pn**	**02 17 51.8**	**+1.5**
RITZ	**Rihia Road**	**0.54**	**134**	P	**Pn**	**02 17 52.0**	**+1.9**
WTVZ	**West Tongariro**	**0.55**	**161**	P	**Pn**	**02 17 52.1**	**+1.8**
NTVZ	**North Tongarir**	**0.56**	**154**	P	**Pn**	**02 17 52.0**	**+1.7**
TMVZ	**Te Maari**	**0.58**	**153**	P	**Pn**	**02 17 51.5**	**+1.1**
TMVZ				S	**S**	**02 18 15.6**	**-1.2**
ETVZ	**East Tongariro**	**0.60**	**153**	P	**Pn**	**02 17 52.5**	**+2.0**
ETVZ				S	**S**	**02 18 16.1**	**-

MRZ	**Mangatainoka R**	**2.07**	**175**	P		**Pn**	**02 18 01.4**	**+1.3**
MRZ				S		**S**	**02 18 32.6**	**-1.7**
HAZ	**Te Kaha**	**2.08**	**67**	P		**Pn**	**02 18 00.7**	**+0.3**
TWGZ	**Tauwhareparae**	**2.10**	**79**	P		**Pn**	**02 18 02.2**	**+1.7**
TWGZ				S		**S**	**02 18 34.0**	**-0.9**
BFZ	**Birch Farm**	**2.19**	**162**	P		**Pn**	**02 18 02.4**	**+1.1**
BFZ	**Birch Farm**	**2.19**	**162**	S		**S**	**02 18 34.4**	**-1.9**
BFZ	**Birch Farm**	**2.19**	**162**	P		**Pn**	**02 18 02.6**	**+1.4**
TIWZ	**Tintock**	**2.21**	**170**	P		**Pn**	**02 18 02.9**	**+1.4**
TIWZ				S		**S**	**02 18 35.6**	**-1.2**
OGWZ	**Otaki Gorge**	**2.22**	**184**	P		**Pn**	**02 18 03.1**	**+1.6**
OGWZ				S		**S**	**02 18 35.3**	**-1.5**
HOWZ	**Holdsworth Sta**	**2.30**	**177**	P		**Pn**	**02 18 03.4**	**+1.1**
HOWZ				S		**S**	**02 18 36.2**	**-2.1**
CPWZ	**Castlepoint**	**2.40**	**165**	P		**Pn**	**02 18 05.1**	**+1.9**
CPWZ				S		**S**	**02 18 40.6**	**+0.7**
DUWZ	**D'Urville Isla**	**2.47**	**206**	P		**Pn**	**02 18 05.0**	**+1.1**
DUWZ				S		**S**	**02 18 39.2**	**-2.0**
MXZ	**Matakaoa Point**	**2.54**	**67**	P		**Pn**	**02 18 06.1**	**+1.3**
MTW	**Mount Morrison**	**2.56**	**178**	P		**Pn**	**02 18 05.8**	**+0.9**
MTW				S		**S**	**02 18 40.7**	**-2.1**
SNZO	**South Karori**	**2.76**	**190**	P		**Pn**	**02 18 07.8**	**+1.0**
SNZO	**South Karori**	**2.76**	**190**	S		**S**	**02 18 44.2**	**-2.2**
TRWZ	**Traveller**	**2.81**	**175**	P		**Pn**	**02 18 08.5**	**+1.1**
TRWZ				S		**S**	**02 18 46.2**	**-1.3**
QRZ	**Quartz Range**	**3.12**	**224**	P		**Pn**	**02 18 10.6**	**-0.1**
KHZ	**Kahutara**	**4.06**	**199**	P		**Pn**	**02 18 22.3**	**+0.9**
JCZ	**Jackson Bay**	**7.37**	**220**	P		**Pn**	**02 19 02.2**	**-0.1**

NEIC ***12*** *02:18:29.9±1.8, 15°.21S±0°.07×72°.41W±0°.06, h96km±8km, mb4.3/16, Error ellipse: s-maj=10.9km s-min=8.1km az=195.0*
IDC ***12*** *02:18:30.9±1.4, 15°.09S×72°.41W, h115km±13km, mb3.6/7, mbtmp4.0/11, MS3.1/1, Error ellipse: s-maj=24.4km s-min=10.1km az=28.0*
VAO ***12*** *02:18:30.5±0.5, 15°.11S×72°.23W, h93km, mb4.3, Presumed earthquake*

ISC 12 02:18:30.4±0.5, 15°.17S±0°.06×72°.43W±0°.06, h114km, n79, σ1§39/80, mb4.1/13, Southern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB18	**Visviri**	**3.71**	**131**		**Pn**	**02 19 26.3**	**-0.2**
AP01	**Chacalluta**	**3.76**	**148**	Pn	**Pn**	**02 19 26.5**	**-0.1**
PB12	**IPOC Station P**	**3.97**	**150**		**Pn**	**02 19 28.6**	**-1.0**
PB16	**IPOC Station P**	**4.21**	**139**		**Pn**	**02 19 33.8**	**+0.6**
LPAZ	**La Paz**	**4.29**	**106**	P	**Pn**	**02 19 36.8**	**+2.5**
	23nm,0.4s,baz=286,slow=8.9,SNR=107						
LPAZ				S	**Sn**	**02 20 25.4**	**+1.7**
	18nm,0.8s,baz=138,slow=19,SNR=4.9						
LPAZ	**La Paz**	**4.29**	**106**		**Pn**	**02 19 36.6**	**+2.3**
LPAZ	**La Paz**	**4.29**	**106**	*eP*	**Pn**	**02 19 32.4**	**-1.9**
PSGCX	**Pisagua**	**4.92**	**154**		**Pn**	**02 19 40.2**	**-2.1**
PB11	**IPOC Station P**	**5.28**	**150**		**Pn**	**02 19 44.8**	**-2.3**
NNA	**Nana**	**5.33**	**306**	P	**Pn**	**02 19 48.3**	**+0.5**
	46nm,0.3s,baz=122,slow=10,SNR=34						
NNA				S	**Sn**	**02 20 46.9**	**-1.2**
	176nm,0.8s,baz=267,slow=21,SNR=15						
NNA	**Nana**	**5.33**	**306**		**Pn**	**02 19 47.8**	**0.0**
GO01	**Chusmiza**	**5.43**	**146**		**Pn**	**02 19 49.1**	**-0.5**
TA01	**Diego Aracena**	**5.78**	**159**	Pn	**Pn**	**02 19 51.7**	**-2.1**
PB08	**IPOC Station P**	**5.85**	**148**		**Pn**	**02 19 54.1**	**-1.0**
PB02	**IPOC Station P**	**6.57**	**159**		**Pn**	**02 20 02.2**	**-2.4**
PB01	**IPOC Station P**	**6.95**	**160**		**Pn**	**02 20 07.4**	**-2.5**
PB09	**IPOC Station P**	**7.25**	**156**	Pn	**Pn**	**02 20 12.5**	**-1.4**
PB03	**IPOC Station P**	**7.29**	**160**		**Pn**	**02 20 11.7**	**-2.8**
CZSB	**Cruzeiro do Su**	**7.40**	**358**		**Pn**	**02 20 14.7**	**-1.1**
CZSB	**Cruzeiro do Su**	**7.40**	**358**	*eP*	**Pn**	**02 20 14.4**	**-1.4**
ATAH	**Atahualpa**	**9.90**	**323**	S	**Sn**	**02 22 35.9**	**-3.7**
	3.3nm,0.7s,baz=99,slow=12,SNR=1.9						
SIV	**San Ignacio**	**10.97**	**96**	P	**Pn**	**02 21 02.7**	**-1.6**
	4.3nm,0.5s,baz=276,slow=11,SNR=30						
BBSD	**Serra de San D**	**11.53**	**102**	*eP*	**Pn**	**02 21 09.5**	**-2.2**
VILB	**Vilhena**	**12.07**	**81**	*eP*	**Pn**	**02 21 16.8**	**-2.0**
PTLB	**Pontes e Lacer**	**12.83**	**93**		**Pn**	**02 21 27.1**	**-1.5**
PTLB	**Pontes e Lacer**	**12.83**	**93**	*eP*	**Pn**	**02 21 27.9**	**-0.7**
COIM	**Forte Coimbra**	**14.73**	**111**	*eP*	**Pn**	**02 21 51.5**	**-1.7**
MURT	**Porto Murtinho**	**15.47**	**117**	*eP*	**Pn**	**02 22 01.0**	**-1.4**
PDRB	**Porto dos Gac**	**15.68**	**179**	*eP*	**Pn**	**02 22 03.8**	**-1.3**
BDQN	**Bodoquena, MS**	**15.82**	**112**	*eP*	**Pn**	**02 22 04.6**	**-2.2**
SALV	**Santo Antonio**	**16.14**	**95**	*eP*	**Pn**	**02 22 10.4**	**-0.5**
OTAV	**Otavalo**	**16.43**	**338**		**P**	**02 22 15.2**	**-0.3**
CLDB	**Colider**	**16.76**	**77**	*eP*	**Pn**	**02 22 17.0**	**-1.4**
AQDB	**Aquidauana**	**16.78**	**111**		**Pn**	**02 22 18.4**	**-0.1**
AQDB				IAmb	IAmb	02 22 19.1	
	comp=Z,15nm,0.9s						
AQDB	**Aquidauana**	**16.78**	**111**	*eP*	**Pn**	**02 22 18.2**	**-0.4**
PP1B	**Ponte de Pedra**	**17.01**	**101**	*eP*	**Pn**	**02 22 21.2**	**-0.3**
CPUP	**Villa Florida**	**17.94**	**131**	P	**Pn**	**02 22 32.8**	**+0.1**
	comp=Z,1.2nm,0.7s,baz=315,slow=11,SNR=4.7						
CPUP	**Villa Florida**	**17.94**	**131**	P	**P**	**02 22 31.2**	**-0.5**
CPUP	**Villa Florida**	**17.94**	**131**	*eP*	**P**	**02 22 31.3**	**-0.3**
SJPY	**San Joaquin**	**18.17**	**125**	*eP*	**P**	**02 22 34.0**	**-0.2**
NPGB	**Novo Progresso**	**18.59**	**66**	*eP*	**P**	**02 22 38.6**	**-0.2**
ITTB	**Itaituba**	**19.63**	**59**	*eP*	**P**	**02 22 49.8**	**-0.4**
ARAG	**Araguaiana, MT**	**19.88**	**94**	*eP*	**P**	**02 22 51.8**	**-1.1**
ITQB	**Itaqui**	**20.50**	**137**	*eP*	**P**	**02 23 00.5**	**+1.1**
SNDB	**Serra Nova Dou**	**20.79**	**84**	*eP*	**P**	**02 23 02.2**	**-0.4**
BOAV	**Boa Vista**	**21.06**	**35**	P	**P**	**02 23 05.4**	**-0.2**
BOAV	**Boa Vista**	**21.06**	**35**	*eP*	**P**	**02 23 05.7**	**+0.1**
PCMB	**Pacaembu**	**21.07**	**111**	*eP*	**P**	**02 23 06.3**	**+0.7**
LDASE	**Londrina, Braz**	**21.70**	**115**	*eP*	**P**	**02 23 11.6**	**-0.8**
ITAB	**Concordia**	**22.37**	**126**	P	**P**	**02 23 19.6**	**+0.3**
ITAB				IAmb	IAmb	02 23 47.5	
	comp=Z,50nm,1.5s						
ITAB	**Concordia**	**22.37**	**126**	*eP*	**P**	**02 23 20.0**	**+0.7**
CPSB	**Cacapava Do Su**	**23.11**	**134**	P	**P**	**02 23 29.1**	**+2.7**
CPSB				IAmb	IAmb	02 23 31.4	
	comp=Z,8.8nm,0.5s						
CPSB	**Cacapava Do Su**	**23.11**	**134**	*eP*	**P**	**02 23 27.4**	**+0.9**
BB19B	**Bebedouro**	**23.45**	**108**	*eP*	**P**	**02 23 29.7**	**-0.1**
BDFB	**Brasilia**	**23.54**	**94**	P	**P**	**02 23 30.4**	**-0.3**
	comp=Z,1.5nm,0.5s,baz=263,slow=11,SNR=4.1						
	comp=Z,1.5nm,0.5s						
BDFB	**Brasilia**	**23.54**	**94**	P	**P**	**02 23 30.9**	**+0.2**
GO06	**Curarrehue**	**24.34**	**178**	P	**P**	**02 23 38.4**	**+0.8**
GO06				IAmb	IAmb	02 23 41.7	
	comp=Z,6.0nm,1.1s						
SPB	**Sao Paulo**	**24.99**	**113**	*eP*	**P**	**02 23 44.0**	**+0.3**
SJCC	**San Jacinto, C**	**25.05**	**354**	P	**P**	**02 23 45.3**	**+0.9**
SJCC				IAmb	IAmb	02 23 59.6	
	comp=Z,9.2nm,1.3s						
SMTB	**Santa Maria do**	**25.08**	**78**	*eP*	**P**	**02 23 44.1**	**-0.5**
PLCA	**Paso Flores**	**25.52**	**177**	P	**P**	**02 23 49.1**	**+0.8**
	comp=Z,1.4nm,0.8s,baz=344,slow=8.2,SNR=3.9						
	comp=Z,1.4nm,0.8s						
PLCA	**Paso Flores**	**25.52**	**177**	*eP*	**P**	**02 23 51.9**	**+3.6**
MDP	**Montagnes des**	**28.11**	**46**	LR	LR	02 35 18.2	
	comp=Z,36nm,18.2s,baz=288,slow=36						
GUA01	**Guaratinga, BA**	**31.39**	**97**	*eP*	**P**	**02 24 39.5**	**-1.2**
MOIG	**Morelia**	**44.72**	**320**	P	**P**	**02 26 33.2**	**+0.5**
PMSA	**Palmer Station**	**49.88**	**175**	P	**P**	**02 27 11.7**	**-0.2**
HNDO	**Hondo**	**51.45**	**330**	P	**P**	**02 27 26.2**	**+2.1**
HNDO				IAmb	IAmb	02 27 26.9	
	comp=Z,4.2nm,0.7s						
TXAR	**Lajitas Array**	**53.55**	**326**	P	**P**	**02 27 41.0**	**+1.2**
	comp=Z,0.4nm,0.5s,baz=153,slow=8.7,SNR=14						
	comp=Z,0.4nm,0.5s						
TXAR	**Lajitas Array**	**53.55**	**326**	P	**P**	**02 27 40.6**	**+0.9**
PV15	**Paradox Valley**	**63.05**	**329**	P	**P**	**02 28 47.5**	**+1.6**
PV15				IAmb	IAmb	02 28 50.3	
	comp=Z,3.2nm,0.8s						
BELA	**Belgrano 2**	**65.45**	**172**	P	**P**	**02 29 01.2**	**+0.6**
BELA				IAmb	IAmb	02 29 37.4	
	comp=Z,1.6nm,0.6s						
DBIC	**Dimbokro**	**70.37**	**77**	P	**P**	**02 29 31.7**	**-0.8**
	comp=Z,2.4nm,0.6s,baz=233,slow=7.0,SNR=3.7						
	comp=Z,2.4nm,0.6s						
DBIC	**Dimbokro**	**70.37**	**77**	P	**P**	**02 29 31.9**	**-0.6**
QSPA	**South Pole Qui**	**74.98**	**180**	P	**P**	**02 29 60.0**	**+0.9**
	comp=Z,1.4nm,0.7s,baz=164,slow=4.1,SNR=3.8						
	comp=Z,1.4nm,0.7s						
TORD	**Torodi Ar. Bea**	**78.55**	**73**	P	**P**	**02 30 19.4**	**-0.5**
	comp=Z,1.5nm,0.7s,baz=258,slow=3.8,SNR=6.9						
	comp=Z,1.5nm,0.7s						
ESDC	**Sonseca Array**	**83.79**	**46**	P	**P**	**02 30 47.7**	**+0.5**
	comp=Z,0.8nm,0.8s,baz=249,slow=6.0,SNR=6.5						
	comp=Z,0.8nm,0.8s						
ESDC	**Sonseca Array**	**83.79**	**46**	P	**P**	**02 30 48.5**	**+1.3**
WRA	**Warramunga Arr**	**136.29**	**218**	PKP	**PKPdf**	**02 37 40.4**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=136,slow=2.0,SNR=1.5						
WRA	**Warramunga Arr**	**136.29**	**218**		**PKPdf**	**02 37 39.8**	**+0.3**

MEX ***12*** *02:34:00.2±0.8, 14°.65N×92°.44W, h81km±9km, MD4.3, Presumed earthquake*
GCG ***12*** *02:34:00.7±1.6, 14°.68N×92°.37W, h68km±9km, MD3.9, Presumed earthquake*

ISC 12 02:33:56.0±1.3, 14°.46N±0°.06×92°.45W±0°.03, h87km±8km, n30, σ2§07/53, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**0.48**	**22**	*i* P	**Pn**	**02 34 11.3**	**+0.9**
THIG				*i* S	**Sn**	**02 34 19.6**	**-1.3**
THIG		**0.48**	**22**	*eP*	**Pn**	**02 34 11.6**	**+1.2**
THIG				*eS*	**Sn**	**02 34 19.3**	**-1.7**
PATR	**El Naranjo**	**0.69**	**18**	*eP*	**Pn**	**02 34 12.4**	**0.0**
PATR				*eS*	**Sn**	**02 34 22.6**	**-2.1**
CHUJ	**Union Juarez**	**0.71**	**28**	*eP*	**Pn**	**02 34 13.2**	**+0.4**
CHUJ				*eS*	**Sn**	**02 34 23.6**	**-1.5**
RTAL	**Retalhuleu**	**0.73**	**85**	*eP*	**Pn**	**02 34 15.4**	**+2.8**
RTAL				*eS*	**Sn**	**02 34 26.5**	**+1.5**
PAVE	**Pavencul**	**0.78**	**20**	*eP*	**Pn**	**02 34 13.8**	**+0.4**
PAVE				*eS*	**Sn**	**02 34 24.7**	**-1.5**
QUEO	**Labor Ovalle**	**0.99**	**66**	*i* P	**Pn**	**02 34 18.2**	**+2.4**
STG8	**El Palmar, Qui**	**1.06**	**90**	*i* P	**Pn**	**02 34 16.4**	**-0.1**
STG8				*i* S	**Sn**	**02 34 28.1**	**-3.8**
HUEH	**Huehuetenango**	**1.25**	**47**	*i* P	**Pn**	**02 34 21.0**	**+2.2**
HUEH				*i* S	**Sn**	**02 34 37.3**	**+1.5**
HUEH	**Huehuetenango**	**1.25**	**47**	*eP*	**Pn**	**02 34 21.2**	**+2.4**
HUEH				*eS*	**Sn**	**02 34 37.4**	**+1.5**
PCIG		**1.44**	**329**	*eP*	**Pn**	**02 34 22.0**	**+1.1**
PCIG				*eS*	**Sn**	**02 34 38.2**	**-1.6**
CCIG	**Comitan**	**1.84**	**9**	*i* P	**Pn**	**02 34 28.3**	**+2.1**
CCIG	**Comitan**	**1.84**	**9**	*eP*	**Pn**	**02 34 28.0**	**+1.8**
CCIG				*eS*	**Sn**	**02 34 48.3**	**-0.8**
FG8	**Yepocapa, Chim**	**1.84**	**96**	*i* P	**Pn**	**02 34 25.2**	**-1.0**
FG16	**Alotenango, Sa**	**1.89**	**95**	*i* P	**Pn**	**02 34 26.5**	**-0.4**
APG	**El Apazote**	**2.00**	**74**	*i* P	**Pn**	**02 34 31.5**	**+3.2**
PCG5	**San Vicente Pa**	**2.02**	**97**	*i* P	**Pn**	**02 34 29.6**	**+0.9**
PCG5				*i* S	**Sn**	**02 34 51.4**	**-2.0**
TGIG		**2.39**	**344**	*i* P	**Pn**	**02 34 33.8**	**+0.3**
TGIG		**2.39**	**344**	*eP*	**Pn**	**02 34 34.5**	**+1.1**
TGIG				*eS*	**Sn**	**02 34 59.4**	**-2.8**
UXUV	**UXUV**	**3.28**	**330**	*eP*	**Pn**	**02 34 48.1**	**+2.8**
PETF	**Flores**	**3.49**	**45**	*eP*	**Pn**	**02 34 49.7**	**+1.6**
PETF				*eS*	**Sn**	**02 35 27.4**	**-0.9**
CMIG	**Matias Romero**	**3.51**	**318**	*eP*	**Pn**	**02 34 49.7**	**+1.2**
CMIG				*eS*	**Sn**	**02 35 28.4**	**-0.6**
HUIG	**Huatulco**	**3.77**	**291**	*eP*	**Pn**	**02 34 53.1**	**+1.2**
HUIG				*eS*	**Sn**	**02 35 29.4**	**-5.7**
NEUV	**Arroyo Zacate**	**4.56**	**316**	*eP*	**Pn**	**02 35 05.0**	**+2.2**
NEUV				*eS*	**Sn**	**02 35 54.0**	**-0.6**
SCIG	**Sabancuy**	**4.64**	**15**	*eP*	**Pn**	**02 35 03.3**	**-0.5**
SCIG				*eS*	**Sn**	**02 35 51.0**	**-5.5**
PEIG	**Puerto Escondi**	**4.79**	**289**	*eP*	**Pn**	**02 35 07.7**	**+1.9**
PEIG				*eS*	**Sn**	**02 35 58.2**	**-1.8**
YOIG	**Yosondua**	**5.46**	**297**	*eP*	**Pn**	**02 35 18.1**	**+3.0**
YOIG				*eS*	**Sn**	**02 36 16.2**	**-0.6**
PNIG	**Pinotepa**	**5.80**	**290**	*eP*	**Pn**	**02 35 21.8**	**+2.2**
PNIG				*eS*	**Sn**	**02 36 23.6**	**-1.3**
TXIG	**Tlaxiaco**	**5.82**	**299**	*eP*	**Pn**	**02 35 20.9**	**+0.8**
TXIG				*eS*	**Sn**	**02 36 25.2**	**-0.5**
FTIG	**Fresnillo de T**	**6.45**	**303**	*eP*	**Pn**	**02 35 30.7**	**+2.2**
FTIG				*eS*	**Sn**	**02 36 40.4**	**-0.4**

IDC ***12*** *02:38:32.6±2.5, 27°.52N×111°.08W, h0km, mb3.4/2, mbtmp3.2/6, ML3.2/4, MS3.2/16, Error ellipse: s-maj=28.5km s-min=15.9km az=3.0*
NEIC ***12*** *02:38:32.4±1.6, 27°.6N±0°.1×111°.47W±0°.06, h10km±2km, mb3.9/12, Error ellipse: s-maj=18.7km s-min=7.1km az=164.0*
MEX ***12*** *02:38:33.6±0.5, 27°.41N×111°.33W, h10km, MD3.9, Presumed earthquake*

ISC 12 02:38:31.0±1.2, 27°.48N±0°.03×111°.47W±0°.03, h6km±9km, n90, σ1§71/94, MS3.2/8, 6C-7D, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUYB	**Guaymas**	**0.67**	**52**	*eP*	**Pg**	**02 38 44.5**	**+0.6**
GUYB				*eS*	**Sg**	**02 38 52.9**	**+0.2**
GUYB				IAML		02 38 53.3	
	comp=N,21μm,0.5s						
GUYB				⇑*e*		02 38 53.3	
GUYB	**Guaymas**	**0.67**	**52**	*i* P	**Pg**	**02 38 44.8**	**+0.9**
GUYB				*eP*	**Pg**	**02 38 44.9**	**+0.9**
GUYB				*i* S	**Sg**	**02 38 52.8**	**+0.2**
GUYB				*eS*	**Sg**	**02 38 52.9**	**+0.2**
SRIG	**Santa Rosalia**	**0.70**	**257**	⇑*iP*	**Pn**	**02 38 47.2**	**-0.3**
SRIG				*eS*	**Sn**	**02 38 57.8**	**-0.8**
SRIG				⇑*e*		02 38 59.2	
SRIG				IAML		02 38 59.2	
	comp=E,8μm,0.2s						
SRIG				*e*		02 38 59.3	
SRIG				IAML		02 38 59.3	
	comp=N,7μm,0.3s						
SRIG	**Santa Rosalia**	**0.70**	**257**		**Pb**	**02 38 46.4**	**+0.7**
SRIG	**Santa Rosalia**	**0.70**	**257**		**Sb**	**02 38 57.5**	**+1.9**
SRIG	**Santa Rosalia**	**0.70**	**257**	*i* P	**Pn**	**02 38 47.2**	**-0.3**
SRIG				*i* S	**Sb**	**02 38 57.5**	**+1.9**
SNIRB	**San Nicol¡s**	**0.94**	**184**	⇓*eP*	**Pn**	**02 38 50.9**	**+0.2**
SNIRB				⇑*e*		02 39 00.9	
NE77	**Loreto B.C.S**	**1.47**	**176**	⇓*eP*	**Pg**	**02 38 58.7**	**-0.3**
HSIG		**1.60**	**17**	*eP*	**Pn**	**02 38 58.4**	**-1.4**
HSIG				*eS*	**Sn**	**02 39 17.5**	**-3.3**
HSIG				IAML		02 39 25.5	
	comp=N,928nm,0.6s						
HSIG				⇓*e*		02 39 25.5	
HSIG				IAML		02 39 25.6	
	comp=E,2μm,0.7s						
HSIG				⇑*e*		02 39 25.6	
HSIG		**1.60**	**17**		**Pn**	**02 38 58.4**	**-1.4**
HSIG		**1.60**	**17**		**Sn**	**02 39 19.3**	**-1.5**
HSIG		**1.60**	**17**	*eP*	**Pn**	**02 38 58.9**	**-1.0**
HSIG				*eS*	**Sn**	**02 39 19.3**	**-1.5**
UAGRB	**Rancho Ultima**	**1.92**	**174**	⇓*eP*	**Pb**	**02 39 05.1**	**-1.3**
NE80	**Navojoa**	**2.08**	**105**	⇑*eP*	**Pn**	**02 39 05.3**	**-1.1**
NE80				*eS*	**Sn**	**02 39 30.2**	**-2.3**
NOVRB	**El Novillo Son**	**2.17**	**48**	*eP*	**Pn**	**02 39 05.8**	**-1.8**
NOVRB				⇓*e*		02 39 43.2	
NOVRB				IAML		02 39 43.2	
	comp=E,1μm,0.8s						
BAHB	**Baha de los**	**2.35**	**309**	*eP*	**Pn**	**02 39 08.7**	**-1.4**
BAHB	**Baha de los**	**2.35**	**309**		**Pn**	**02 39 09.6**	**-0.5**
BAHB					**Sn**	**02 39 38.7**	**-0.6**
BAHB	**Baha de los**	**2.35**	**309**	*eP*	**Pn**	**02 39 09.6**	**-0.5**
BAHB				*eS*	**Sn**	**02 39 38.7**	**-0.6**
EVAR0	**San Evaristo**	**2.65**	**165**	*eP*	**Pn**	**02 39 14.3**	**+0.1**
PLIB	**Puerto Liberta**	**2.65**	**336**	*eP*	**Pn**	**02 39 12.4**	**-1.8**
LAPR	**La Primavera**	**3.10**	**346**	*eP*	**Pn**	**02 39 20.9**	**+0.5**
LAPR				*eS*	**Sn**	**02 39 55.4**	**-2.3**
LAPR				IAML		02 40 31.2	
	comp=E,377nm,0.9s						
LAPR				⇓*e*		02 40 31.2	
LAPR				IAML		02 40 32.3	
	comp=N,359nm,0.9s						
LAPR				⇓*e*		02 40 32.3	
NZIG	**Nacozari, Sono**	**3.33**	**30**		**Pg**	**02 39 33.9**	**-1.0**
NZIG					**Sb**	**02 40 14.3**	**+2.8**
NZIG	**Nacozari, Sono**	**3.33**	**30**	*eP*	**Pg**	**02 39 33.9**	**-1.0**
NZIG				*eS*	**Sb**	**02 40 14.3**	**+2.8**
LPIG	**La Paz**	**3.53**	**162**	LR	LR	02 40 54.1	
	comp=N,244nm,19.4s,baz=250,slow=41						
319A	**Douglas**	**4.32**	**26**		**Pn**	**02 39 37.7**	**+0.3**
PIX	**Pinacate**	**4.42**	**337**	Pn	**Pn**	**02 39 38.6**	**+0.1**
TUC	**Tucson**	**4.85**	**7**	Pn	**Pn**	**02 39 45.0**	**+0.5**
TUC	**Tucson**	**4.85**	**7**	*eP*	**Pn**	**02 39 43.8**	**-0.8**
TUC				*eS*	**Sg**	**02 41 02.9**	**-3.8**
SQX	**San Quintin**	**4.94**	**310**		**Sb**	**02 40 54.9**	**-2.6**
SQX	**San Quintin**	**4.94**	**310**	*eP*	Pn	02 39 37.8	-7.9
SQX				*eS*	**Sb**	**02 40 54.9**	**-2.6**
DUN6	**Lazy B Ranch**	**5.46**	**22**	Pn	**Pn**	**02 39 53.5**	**+0.5**
113A	**Mohawk Valley,**	**5.63**	**340**	Pn	**Pn**	**02 39 56.2**	**+1.0**
ESJX	**Sierra Juarez**	**5.95**	**320**	Pn	**Pn**	**02 40 01.8**	**+1.9**
121A	**Cookes Peak, D**	**5.96**	**32**	Pn	**Pn**	**02 39 59.5**	**-0.5**
GLA	**Glamis**	**6.26**	**333**	Pn	**Pn**	**02 40 05.6**	**+1.7**
YUH	**Yuha Desert**	**6.43**	**324**	Pn	**Pn**	**02 40 09.0**	**+2.8**
VHRN	**Van Horn**	**6.56**	**58**	Pn	**Pn**	**02 40 09.7**	**+1.6**
MNTX	**Cornudas Mount**	**6.76**	**50**	Pn	**Pn**	**02 40 11.9**	**+1.0**
BLYC	**Blythe**	**6.78**	**338**	Pn	**Pn**	**02 40 13.0**	**+2.1**
BAR	**Barrett**	**6.86**	**320**	Pn	**Pn**	**02 40 14.5**	**+2.2**
X16A	**Lo Mia Camp, P**	**6.91**	**0**		**Pn**	**02 40 15.0**	**+2.0**
BC3	**Big Chuckawall**	**7.04**	**332**	Pn	**Pn**	**02 40 16.4**	**+1.6**
TXAR	**Lajitas Array**	**7.12**	**73**	Pn	**Pn**	**02 40 15.6**	**-0.2**
	comp=N,0.3nm,0.3s,baz=243,slow=13,SNR=16						
TXAR				Sn	**Sn**	**02 41 33.5**	**-3.5**
	comp=N,0.3nm,0.3s,baz=250,slow=25,SNR=1.5						
TXAR				Lg	Lg	02 42 04.3	
	comp=N,0.6nm,0.3s,baz=249,slow=34,SNR=2.8						
	comp=N,0.8nm,0.5s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**7.12**	**73**	Pn	**Pn**	**02 40 17.7**	**+1.9**
X18A	**Snowflake**	**7.14**	**10**		**Pn**	**02 40 18.1**	**+1.9**
IRM	**Iron Mountain**	**7.36**	**336**	Pn	**Pn**	**02 40 20.7**	**+1.6**
TPB28		**7.36**	**54**	Pn	**Pn**	**02 40 20.8**	**+1.6**
ALPN	**Alpine**	**7.44**	**65**	Pn	**Pn**	**02 40 21.7**	**+1.4**
SBM	**South Baldy**	**7.45**	**29**	Pn	**Pn**	**02 40 22.5**	**+1.9**
PFO	**Pinyon Flats O**	**7.47**	**326**	LR	LR	02 43 22.1	
	comp=N,162nm,19.0s,baz=143,slow=38						
TPB01	**Permian Basin**	**7.55**	**61**	Pn	**Pn**	**02 40 24.2**	**+2.4**
CRNM	**Carthage**	**7.63**	**31**	Pn	**Pn**	**02 40 23.8**	**+0.9**
BMNM	**Bear Mountains**	**7.68**	**27**	Pn	**Pn**	**02 40 24.4**	**+0.8**
PECS	**Pecos**	**7.68**	**58**	Pn	**Pn**	**02 40 25.0**	**+1.6**
GDL2	**Guadalupe Moun**	**7.76**	**51**	Pn	**Pn**	**02 40 25.1**	**+0.5**
W13A	**Hualapai Mount**	**7.87**	**345**	Pn	**Pn**	**02 40 26.2**	**0.0**
TPB05	**Hovey Rd**	**7.90**	**62**	Pn	**Pn**	**02 40 26.7**	**+0.2**
MNHN	**Monahans**	**8.51**	**61**		**Pn**	**02 40 35.8**	**+1.0**
SAND	**Sanderson**	**8.57**	**71**		**Pn**	**02 40 37.1**	**+1.4**
ANMO	**Albuquerque**	**8.59**	**29**	Pn	**Pn**	**02 40 36.4**	**+0.4**
	comp=N,0.1nm,0.3s,baz=192,slow=14,SNR=1.3						
ANMO				Sn	**Sn**	**02 42 12.3**	**-1.0**
	comp=N,0.3nm,0.3s,baz=213,slow=13,SNR=1.8						
ANMO				Lg	Lg	02 42 57.8	
	comp=N,0.9nm,0.3s,baz=167,slow=1.9,SNR=14						
ANMO				LR	LR	02 43 32.9	
	comp=N,121nm,19.8s,baz=198,slow=36						
	comp=N,0.3nm,0.5s						
ANMO				AML	AML		
U15A	**North Rim**	**8.95**	**356**		**Pn**	**02 40 42.5**	**+1.5**
TPNV	**Topopah Spring**	**10.27**	**338**	Pn	**Pn**	**02 41 03.0**	**+3.9**
PRN	**Pahroc Range**	**10.35**	**344**		**Pn**	**02 41 03.2**	**+3.1**
GMN	**Gold Mountain**	**10.94**	**335**	Pn	**Pn**	**02 41 12.3**	**+4.0**
NVAR	**Mina Array Bea**	**12.33**	**334**	Pn	Pn	02 41 32.1	+4.9
	comp=N,0.1nm,0.3s,baz=150,slow=15,SNR=3.8						
NVAR				LR	LR	02 46

KNDR AML AML
RODP Rodopos 1.49 96 P **Pb** 02 50 54.7 +1.2
RODP AML AML
VLX Vlachokerasia 1.66 12 P **Pb** 02 50 57.2 +0.6
VLX S **Sg** 02 51 19.4 -0.6
VLX AML AML
IMMV Iera Moni Meta 1.68 99 P **Pn** 02 50 56.9 +1.9
IMMV S **Sg** 02 51 19.8 -0.7
IMMV AML AML
IMMV Iera Moni Meta 1.68 99 P **Pn** 02 50 56.1 +1.1
IMMV AML AML
CH01 Chania 1.70 97 P **Pn** 02 50 57.0 +1.7
CH01 AML AML
CHAN Chania 1.72 97 P **Pn** 02 50 57.5 +2.0
AMT Artemida-Makis 1.80 354 P **Pn** 02 50 59.0 +2.4
AMT AML AML
AMT Artemida-Makis 1.80 354 P **Pn** 02 50 58.7 +2.1
AMT AML AML
VAM Vamos 1.87 100 P **Pn** 02 50 59.5 +2.0
VAM AML AML
VAM Vamos 1.87 100 P **Pn** 02 50 59.2 +1.7
GVDS Gavdos 1.95 117 P **Pn** 02 51 00.3 +1.7
GVDS AML AML
GVD Gavdhos 1.97 117 P **Pn** 02 51 00.8 +1.9
GVD Gavdhos 1.97 117 P **Pn** 02 51 00.5 +1.6
MET3 Ano Fanari,Met 2.10 29 P **Pn** 02 51 02.3 +1.5
LTHK Lithakia 2.16 336 P **Pn** 02 51 03.9 +2.4
LTHK Lithakia 2.16 336 P **Pn** 02 51 03.1 +1.6
MET6 Megalochori,Me 2.17 31 P **Pn** 02 51 03.3 +1.7
MET6 AML AML
MET2 Kameni Chora, 2.17 30 P **Pn** 02 51 03.9 +2.1
MET2 AML AML
MET5 Makryloggos,Me 2.19 31 P **Pn** 02 51 05.0 +2.9
MHLO Agia Marina, M 2.20 64 P **Pn** 02 51 03.0 +1.0
MET4 Agioi Theodoro 2.21 31 P **Pn** 02 51 03.6 +1.3
MET4 AML AML
GUR Goura 2.21 8 P **Pn** 02 51 05.2 +2.8
GUR AML AML
GUR Goura 2.21 8 P **Pn** 02 51 04.9 +2.4
GUR AML AML
DRO Drossia 2.22 355 P **Pn** 02 51 05.3 +3.0
DRO AML AML
DRO Drossia 2.22 355 P **Pn** 02 51 04.1 +1.8
DRO AML AML
ACOR Acrocorinthos 2.27 19 P **Pn** 02 51 04.3 +1.2
ACOR AML AML
KLV Kalavryta, Ach 2.31 4 P **Pn** 02 51 05.2 +1.5
KLV AML AML
RLS Riolos of Patr 2.34 351 P **Pn** 02 51 07.1 +3.0
RLS AML AML
RLS Riolos of Patr 2.34 351 P **Pn** 02 51 06.0 +1.9
RLS AML AML
IDI Anoyia 2.44 100 Pn **Pn** 02 51 07.1 +1.6
5.0nm,0.3s,baz=306,slow=12,SNR=30
IDI Sn **Sn** 02 51 36.1 +1.0
9.4nm,0.3s,baz=61,slow=20,SNR=9.3
IDI Anoyia 2.44 100 P **Pn** 02 51 07.4 +1.9
IDI S **Sn** 02 51 38.8 +3.8
IDI AML AML
SIVA Sivas 2.45 106 P **Pn** 02 51 07.5 +2.0
SIVA AML AML
VLY Voula,Athens 2.58 35 P **Pn** 02 51 09.9 +2.6
PSDA Pessada-Kefalo 2.61 336 P **Pn** 02 51 09.9 +2.2
VILL Villia 2.66 24 P **Pn** 02 51 11.3 +2.8
VLS Valsamata 2.66 336 P **Pn** 02 51 10.7 +2.1
VLS S **Sn** 02 51 44.8 +4.4
ATHU Athens Univers 2.67 33 P **Pn** 02 51 10.9 +2.4
VAE Valguarnera 6.30 288 Pn **Pn** 02 52 02.3 +3.7
1.1nm,0.3s,baz=8.8,slow=12,SNR=6.5
VAE Sn **Sn** 02 53 08.6 -1.6
0.4nm,0.3s,baz=194,slow=23,SNR=1.5
2.5nm,0.3s
VAE AML AML
ULC Ulcinj 6.56 342 ⇓*i* Pn **Pn** 02 52 01.1 -1.0
ULC *i* Sn **Sn** 02 53 16.0 -0.5
DRME Dracevica, Mon 6.79 342 ⇑*i* Pn **Pn** 02 52 04.9 -0.2
DRME *i* Sn **Sn** 02 53 22.1 +0.1
BUM Brajici-Budva 6.97 341 ⇑*i* Pn **Pn** 02 52 08.0 +0.3
BUM *i* Sn **Sn** 02 53 26.2 -0.4
PDG Podgorica 7.00 343 ⇑*i* Pn **Pn** 02 52 07.9 -0.1
PVY Plav 7.02 348 ⇓*i* Pn **Pn** 02 52 08.6 +0.2
PVY *i* Sn **Sn** 02 53 27.7 -0.1
CEME Cevo 7.19 342 ⇑*i* Pn **Pn** 02 52 10.6 -0.1
CEME *i* Sn **Sn** 02 53 31.6 -0.5
HCY Herceg Novi 7.21 339 ⇓*i* Pn **Pn** 02 52 11.1 +0.1
HCY *i* Sn **Sn** 02 53 32.1 -0.4
IVA Berane 7.30 348 ⇓*i* Pn **Pn** 02 52 12.7 +0.5
IVA *i* Sn **Sn** 02 53 34.6 -0.1
KOME Kolasin 7.35 346 ⇓*i* Pn **Pn** 02 52 13.8 +0.9
KOME *i* Sn **Sn** 02 53 35.4 -0.5
NKME Niksic 7.39 343 ⇑*i* Pn **Pn** 02 52 13.2 -0.3
NKME *i* Sn **Sn** 02 53 35.8 -1.1
BRY Bratogost 7.62 341 ⇓*i* Pn **Pn** 02 52 16.7 0.0
BRY *i* Sn **Sn** 02 53 41.6 -1.2
UPM Unac-Piva 7.81 343 ⇑*i* Pn **Pn** 02 52 19.8 +0.4
UPM *i* Sn **Sn** 02 53 46.7 -0.9
PLE Pljevlja 7.83 346 ⇓*i* Pn **Pn** 02 52 20.2 +0.6
PLE *i* Sn **Sn** 02 53 47.5 -0.4
BRTR Keskin Array B 10.08 63 Pn **Pn** 02 52 49.1 -1.3
0.1nm,0.3s,baz=267,slow=17,SNR=2.7
BRTR LR LR 02 57 29.5
comp=Z,22nm,18.2s,baz=35,slow=43
0.6nm,0.8s
BRTR AML AML
EIL Elat 12.51 115 Pn **Pn** 02 53 21.8 -1.8
0.2nm,0.3s,baz=259,slow=16,SNR=1.3
EIL Sn Sn 02 55 29.1 -13
0.1nm,0.3s,baz=53,slow=22,SNR=1.4
0.7nm,0.3s
EIL AML AML
GERES GERESS Array B 14.43 338 Pn **Pn** 02 53 47.3 -2.5
baz=135,slow=11,SNR=2.3
0.2nm,0.5s
AKASG Malin Array Be 15.85 17 Pn **Pn** 02 54 05.5 -3.0
0.2nm,0.3s,baz=214,slow=10,SNR=1.5
ESDC Sonseca Array 20.85 289 P **P** 02 55 09.2 +1.9
0.5nm,0.7s,baz=94,slow=12,SNR=4.4
0.5nm,0.7s
HFS Hagfors 24.99 350 P **P** 02 55 48.8 0.0
0.5nm,0.4s,baz=129,slow=12,SNR=5.5
0.5nm,0.4s
FINES FINESS Array B 25.86 5 P **P** 02 55 56.0 -0.7
0.4nm,0.4s,baz=178,slow=9.7,SNR=5.2
0.4nm,0.4s
KIRV Kirov 29.14 30 LR LR 03 08 31.4
comp=Z,42nm,19.4s,baz=272,slow=38
ARCES ARCESS Array B 33.91 2 P **P** 02 57 07.2 -0.8
0.9nm,0.6s,baz=186,slow=8.8,SNR=8.5
0.9nm,0.6s
MKAR Makanchi Array 45.65 57 P **P** 02 58 45.6 -0.3
1.0nm,0.5s,baz=266,slow=7.2,SNR=9.9
1.0nm,0.5s

IDC ***12*** *02:51:44.2±1.0,21.7°70N×122.7°38E,h0km,mb3.6/9,*
mbtmp3.6/10,ML3.6/1,MS3.1/9,Error ellipse:
s-maj=30.9km s-min=19.1km az=71.0
NIED ***12*** *02:51:47.1,21.7°84N×121.7°88E,h0km,MW4.2,Moment*
Tensor Solution. s2 Moment tensor: Scale 10¹⁵Nm;
Mrr1.50; Mθθ-1.34; Mφφ-0.15; Mrθ0.53; Mθφ-0.00; Mφr1.42;
Fault plane solution: M₀1.95000×10¹⁵ NP1:
φs282.00000°,δ34.00000°,λ135.00000°. NP2:
φs52.00000°,δ67.00000°,λ64.00000°.
TAP ***12*** *02:51:47.1,21.7°57N×121.7°82E,h41km,ML4.3,D*
ISC 12 02:51:44.7±1.3,21.7°56N±0.7°04×121.7°83E±0.7°04,h12km±7km,
n132,σ1ᵗ55/187,mb3.6/8,MS3.0/7,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
LYUB	**Lan-yu**	**0.49**	**332**	P		**Pn**	**02 51 57.9**	**+0.3**
LYUB				S		**Sn**	**02 52 05.6**	**+4.7**
LAY	**Lan-yu**	**0.54**	**331**	P		**Pn**	**02 51 57.8**	**-0.4**
LAY				S		**Sb**	**02 52 05.2**	**+1.4**
TSEB	**Hengchuen, Pin**	**0.93**	**291**	eS		**Sn**	**02 52 16.5**	**-0.3**
TWKBT	**Hengchun**	**1.02**	**292**	eP		**Pn**	**02 52 05.4**	**+0.7**
TWK1	**Hengchun**	**1.02**	**292**	eP		**Pn**	**02 52 05.9**	**+1.1**
TWK1				eS		**Sn**	**02 52 17.5**	**-1.7**
SMST	**Manzhou Townsh**	**1.03**	**296**	eP		**Pn**	**02 52 05.3**	**+0.4**
SMST				S		**Sn**	**02 52 18.0**	**-1.3**
SNW	**Nanwan**	**1.08**	**292**	eS		**Sn**	**02 52 21.6**	**+1.1**
HEN	**Hengchun**	**1.11**	**294**	eS		**Sn**	**02 52 20.6**	**-0.5**
LDUT	**Ludao**	**1.15**	**343**	eP		**Pg**	**02 52 07.5**	**+0.6**
LDUT				eS		**Sb**	**02 52 21.8**	**+0.3**
SLIU	**Shizi**	**1.16**	**304**	eP		**Pn**	**02 52 06.7**	**+0.1**
SLIU				eS		**Sg**	**02 52 19.6**	**-2.4**
TAWH	**Dawu Township**	**1.17**	**312**	eP		**Pg**	**02 52 07.5**	**+0.4**
TAWH				eS		**Sb**	**02 52 21.2**	**-0.6**
TAW	**Tawu**	**1.17**	**312**	eS		**Sb**	**02 52 21.4**	**-0.6**
EAST	**Anshuo**	**1.22**	**312**	P		**Pg**	**02 52 08.1**	**-0.1**
EAST				eS		**Sg**	**02 52 23.2**	**-0.9**
ECL	**Taimali**	**1.31**	**322**	P		**Pg**	**02 52 10.2**	**+0.4**
ECL				S		**Sb**	**02 52 24.9**	**-1.1**
SCZT	**Fangliau**	**1.38**	**306**	*i* P		**Pg**	**02 52 10.7**	**-0.6**
SCZT				eS		**Sg**	**02 52 27.7**	**-1.5**
TWGBT	**Beinan**	**1.43**	**331**	P		Pg	02 52 16.7	+4.6
TWGBT	**Beinan**	**1.43**	**331**	eP		**Pg**	**02 52 11.5**	**-0.6**
TWGBT				eS		**Sn**	**02 52 28.1**	**-1.0**
TWG	**Pinlang**	**1.44**	**331**	eS		**Sn**	**02 52 28.1**	**-1.2**
EDH	**Donghe**	**1.48**	**341**	P		**Pg**	**02 52 11.7**	**-1.5**
EDH				S		**Sn**	**02 52 30.1**	**-0.3**
LONT	**Longtian**	**1.48**	**334**	eP		**Pg**	**02 52 12.5**	**-0.7**
LONT				eS		**Sn**	**02 52 30.9**	**+0.4**
SSPT	**Xinbi**	**1.49**	**308**	eP		**Pg**	**02 52 12.7**	**-0.5**
MASBT	**Mashibuluo**	**1.52**	**313**	eP		**Pg**	**02 52 12.8**	**-1.1**
WLCH	**Liuqiu**	**1.56**	**300**	P		**Pg**	**02 52 12.7**	**-1.9**
TWP	**Hsiaoliuchiu**	**1.57**	**300**	eS		**Sg**	**02 52 33.4**	**-1.8**
TSMG	**Majia**	**1.58**	**316**	eP		**Pg**	**02 52 15.6**	**+0.6**
TSMG				eS		**Sb**	**02 52 33.1**	**-0.7**
CHKT	**Chengkung**	**1.59**	**344**	eS		**Sn**	**02 52 31.5**	**-1.5**
SSD	**Sandimen**	**1.62**	**317**	eP		**Pg**	**02 52 13.9**	**-1.9**
SSD				eS		**Sn**	**02 52 33.4**	**-0.4**
ECS	**Chishang**	**1.62**	**340**	eS		**Sb**	**02 52 36.2**	**+1.2**
CHKH	**Chenggong**	**1.67**	**346**	P		**Pb**	**02 52 13.7**	**-1.6**
CHKH				S		**Sn**	**02 52 33.4**	**-1.6**
EHD	**Haiduan**	**1.68**	**340**	eP		**Pg**	**02 52 15.9**	**-1.0**
EHD				eS		**Sb**	**02 52 37.7**	**+1.1**
FULB	**Fuli**	**1.70**	**343**	eP		**Pb**	**02 52 14.6**	**-1.4**
FULB				eS		**Sn**	**02 52 35.4**	**-0.5**
ECBN	**Changbin**	**1.78**	**349**	eS		**Sn**	**02 52 37.2**	**-0.5**
SLGT	**Liugui**	**1.80**	**323**	P		**Pb**	**02 52 16.4**	**-1.1**
SLGT				S		**Sn**	**02 52 38.6**	**+0.4**
WSSB	**Gushan**	**1.81**	**307**	eS		**Sg**	**02 52 40.8**	**-2.1**
TWM1	**Shoushan**	**1.81**	**314**	eP		**Pg**	**02 52 20.8**	**+1.4**
TWM1				eS		**Sg**	**02 52 42.4**	**-0.5**
EYUL	**Yuli**	**1.84**	**345**	P		**Pb**	**02 52 17.3**	**-0.9**
EYUL				S		**Sn**	**02 52 39.6**	**+0.3**
TWF1	**Yuli**	**1.85**	**345**	eP		**Pb**	**02 52 17.1**	**-1.3**
TWF1				eS		**Sn**	**02 52 40.4**	**+0.9**
STYH	**Taoyuan**	**1.87**	**329**	eP		**Pb**	**02 52 17.9**	**-1.0**
STYH				eS		**Sn**	**02 52 40.5**	**+0.4**
STYT	**Tauyuan**	**1.88**	**328**	eS		**Sn**	**02 52 39.4**	**-0.9**
YULB	**Yu-li**	**1.89**	**345**	P		**Pb**	**02 52 17.3**	**-1.7**
YULB	**Yu-li**	**1.89**	**345**	eP		**Pb**	**02 52 17.5**	**-1.5**
YULB				eS		**Sn**	**02 52 40.9**	**+0.5**
SGST	**Jiashian**	**1.90**	**323**	eP		**Pg**	**02 52 19.8**	**-1.4**
SGST				eS		**Sg**	**02 52 44.5**	**-1.4**
HGSD	**Ruisui**	**1.96**	**349**	eP		**Pb**	**02 52 19.1**	**-1.2**
HGSD				S		**Sn**	**02 52 42.3**	**+0.2**
EHYH	**Wanrong**	**1.97**	**347**	eS		**Sn**	**02 52 42.4**	**-0.2**
EHY	**Hungye**	**1.99**	**346**	eS		**Sn**	**02 52 43.3**	**+0.3**
CHN1	**Nanshi**	**2.01**	**323**	P		**Pg**	**02 52 22.9**	**-0.4**
CHN1				eS		**Sn**	**02 52 44.6**	**+1.0**
WTP	**Ta-pu**	**2.02**	**326**	eP		**Pb**	**02 52 20.8**	**-0.6**
WTP				eS		**Sb**	**02 52 45.6**	**-0.8**
TPUB	**Ta-pu**	**2.05**	**327**	P		**Pg**	**02 52 22.3**	**-1.8**
TPUB	**Ta-pu**	**2.05**	**327**	P		**Pg**	**02 52 22.6**	**-1.5**
TPUB				S		**Sb**	**02 52 48.2**	**+0.8**
TWK	**Hsinying**	**2.10**	**324**	eP		**Pb**	**02 52 21.0**	**-1.8**
TWK				eS		**Sb**	**02 52 47.8**	**-1.0**
CHN4	**Tsaushan**	**2.12**	**327**	eP		**Pg**	**02 52 23.5**	**-1.7**
CHN4				S		**Sb**	**02 52 48.6**	**-0.5**
TEGC	**Jichi Village**	**2.15**	**353**	eP		**Pb**	**02 52 21.6**	**-2.0**
TEGC				eS		**Sn**	**02 52 46.7**	**-0.2**
ALS	**Alishan**	**2.16**	**334**	eP		**Pb**	**02 52 23.6**	**-0.2**
ALS				eS		**Sb**	**02 52 50.6**	**-0.1**
WARBT	**Fenglin Townsh**	**2.18**	**349**	eP		**Pb**	**02 52 21.8**	**-2.4**
WARBT				eS		**Sn**	**02 52 48.4**	**+0.6**
WCKO	**Fanlu**	**2.18**	**329**	eP		**Pb**	**02 52 23.0**	**-1.1**
WCKO				eS		**Sb**	**02 52 50.1**	**-1.0**
SHUL	**Shoufeng**	**2.23**	**354**	eS		**Sn**	**02 52 49.1**	**+0.3**
ESL	**Shilin**	**2.27**	**351**	eS		**Sn**	**02 52 50.1**	**+0.2**
CHN5	**Tsauling**	**2.29**	**332**	eP		**Pb**	**02 52 26.0**	**0.0**
CHN5				eS		**Sb**	**02 52 52.5**	**-1.7**
WHYT	**Xinyi Township**	**2.31**	**337**	eP		**Pb**	**02 52 26.3**	**+0.1**
WHYT				eS		**Sb**	**02 52 53.5**	**-1.2**
CHY	**Chiayi**	**2.32**	**326**	eP		**Pb**	**02 52 27.0**	**-2.6**
CHY				eS		**Sn**	**02 52 52.6**	**+1.4**
SSLB	**Suanglung**	**2.36**	**340**	P		**Pb**	**02 52 27.3**	**+0.2**
SSLB	**Suanglung**	**2.36**	**340**	eP		**Pb**	**02 52 25.1**	**-2.0**
SSLB				eS		**Sn**	**02 52 53.6**	**+1.5**
ETM	**Tongmen**	**2.41**	**353**	eP		**Pb**	**02 52 26.3**	**-1.7**
ETM				eS		**Sn**	**02 52 53.6**	**+0.2**
WDLH	**Douliu**	**2.43**	**331**	eS		**Sn**	**02 52 55.3**	**+1.5**
WSL	**Shuilin Townsh**	**2.45**	**323**	eP		**Sn**	**02 52 24.8**	**+0.3**
WSL				eS		**Sn**	**02 52 55.2**	**+0.9**
OWD	**Renai**	**2.45**	**346**	eP		**Pb**	**02 52 27.1**	**-1.7**
OWD				eS		**Sn**	**02 52 55.8**	**+1.1**
SMLT	**Sun Moon Lake**	**2.46**	**340**	eP		**Pb**	**02 52 28.1**	**-0.9**
SMLT				eS		**Sb**	**02 52 58.3**	**-1.0**
LXIB	**Xiulin Townshi**	**2.48**	**351**	eP		**Pb**	**02 52 26.3**	**-2.9**
LXIB				S		**Sn**	**02 52 55.2**	**0.0**
TYC	**Yuchr**	**2.50**	**339**	P		**Pb**	**02 52 29.0**	**-0.4**
TYC				eS		**Sn**	**02 52 57.4**	**+1.9**
WUSB	**Renai**	**2.50**	**345**	eP		**Pb**	**02 52 28.4**	**-1.2**
WUSB				eS		**Sb**	**02 52 58.9**	**-1.6**
TWD	**Chiawan**	**2.51**	**355**	eP		**Pb**	**02 52 27.9**	**-1.8**
WNT	**Mingjian**	**2.53**	**336**	eS		**Sn**	**02 52 58.9**	**+2.4**
EOS4	**EOS4**	**2.58**	**10**	eP		**Pn**	**02 52 27.4**	**+1.5**
EOS4				S		**Sn**	**02 52 56.2**	**-0.9**
NACB	**Ninganchiao**	**2.61**	**355**	P		**Pg**	**02 52 34.3**	**-0.4**
NACB	**Ninganchiao**	**2.61**	**355**	eP		**Pn**	**02 52 27.2**	**+0.6**
NACB				S		**Sn**	**02 52 57.1**	**-1.1**
WHF	**Hehuan Shan**	**2.62**	**349**	eP		**Pb**	**02 52 29.6**	**-2.3**
WHF				eS		**Sn**	**02 53 00.2**	**+1.0**
WCS	**Beigang Elemen**	**2.62**	**341**	P		**Pb**	**02 52 30.4**	**-1.2**
WCS				S		**Sb**	**02 53 01.9**	**-1.9**
ETLH	**Xiulin Townshi**	**2.65**	**353**	eP		**Pn**	**02 52 27.3**	**0.0**
ETLH				eS		**Sn**	**02 52 59.4**	**0.0**
TWT	**Tachien**	**2.74**	**347**	eS		**Sn**	**02 53 04.2**	**+2.3**
EOS3	**EOS3**	**2.75**	**9**	P		**Pb**	**02 52 30.5**	**-3.1**
EOS3				eS		**Sn**	**02 53 01.6**	**+0.2**
TDCB	**Techi**	**2.75**	**347**	eP		**Pb**	**02 52 31.1**	**-2.8**
TDCB				S		**Sn**	**02 53 03.8**	**+1.9**
EAHA	**Aohua**	**2.75**	**358**	eS		**Sn**	**02 53 01.9**	**+0.1**
WHP	**Taichung City**	**2.82**	**343**	eP		**Pb**	**02 52 34.5**	**-0.5**
WHP				eS		**Sb**	**02 53 09.1**	**-0.5**
PHUB	**P'eng-hu**	**2.85**	**313**	eS		**Sn**	**02 53 03.4**	**-0.8**
ENA	**Nanau**	**2.85**	**358**	eS		**Sn**	**02 53 02.8**	**-1.4**
EOS2	**EOS2**	**2.87**	**7**	eS		**Sn**	**02 53 05.2**	**+0.8**
NNSB	**Datong**	**2.88**	**352**	eP		**Pn**	**02 52 31.6**	**+1.1**
NNSB				eS		**Sn**	**02 53 05.8**	**+0.7**
NNS	**Nan Shan**	**2.89**	**352**	eP		**Pb**	**02 52 32.7**	**-3.6**
NNS				eS		**Sn**	**02 53 06.3**	**+0.8**
TWQ1	**Liyutan**	**2.94**	**341**	eP		**Pn**	**02 52 31.9**	**+0.7**
TWQ1				eS		**Sn**	**02 53 09.2**	**+2.8**
LATG	**Datong**	**2.97**	**355**	eP		**Pb**	**02 52 34.9**	**-2.7**
LATG				eS		**Sn**	**02 53 08.6**	**+1.3**
TWC	**Suao**	**3.03**	**0**	eS		**Sn**	**02 53 08.9**	**+0.2**
NDT	**Datong Townshi**	**3.04**	**355**	eS		**Sn**	**02 53 11.0**	**+2.1**
NDS	**Dongshan**	**3.06**	**358**	eP		**Pb**	**02 52 35.1**	**-3.9**
NDS				eS		**Sn**	**02 53 09.4**	**+0.1**
ENTT	**Nioudou**	**3.07**	**355**	eP		**Pb**	**02 52 35.8**	**-3.4**
ENTT				eS		**Sn**	**02 53 10.1**	**+0.4**
YOJ	**Yonaguni jima**	**3.08**	**20**	P		**Pn**	**02 52 35.2**	**+2.0**
YOJ				S		**Sn**	**02 53 10.6**	**+0.7**
YHNB	**Yeheng**	**3.12**	**352**	P		**Pb**	**02 52 39.6**	**-0.5**
YHNB	**Yeheng**	**3.12**	**352**	eP		**Pb**	**02 52 37.0**	**-3.1**
YHNB				eS		**Sn**	**02 53 13.6**	**+2.6**
NFF	**Wufeng Townshi**	**3.12**	**348**	P		**Pb**	**02 52 38.3**	**-1.9**
NFF				S		**Sb**	**02 53 15.2**	**-3.1**
NSK	**Sanguang**	**3.13**	**352**	eS		**Sn**	**02 53 11.7**	**+0.5**
FUSB	**Fushanzhiwuyua**	**3.19**	**356**	P		**Pb**	**02 52 39.9**	**-1.4**
FUSB				S		**Sn**	**02 53 14.3**	**+1.7**
NWLT	**Wulai**	**3.21**	**355**	eP		**Pb**	**02 52 39.3**	**-2.3**
NWLT				eS		**Sn**	**02 53 14.4**	**+1.2**
TIPB	**Shuangxi**	**3.39**	**360**	eP		**Pb**	**02 52 40.4**	**-4.3**
TIPB				eS		**Sn**	**02 53 19.0**	**+1.4**
PIP	**Pasuquin**	**3.42**	**200**	eP		Pn	02 52 30.9	-6.9
PIP				eS		**Sn**	**02 53 17.1**	**-1.2**
SXI1	**Grass Mountain**	**3.51**	**1**	eP		**Pn**	**02 52 41.9**	**+2.7**
SXI1				eS		**Sn**	**02 53 20.9**	**+0.2**
ZUZH	**Zhuzihu**	**3.59**	**356**	eP		**Pb**	**02 52 45.0**	**-3.1**
ZUZH				eS		**Sn**	**02 53 24.7**	**+2.1**
PTMZ	**Houxiangcun**	**4.26**	**325**	eS		**Sn**	**02 53 40.3**	**+1.2**
KNMB	**Chin-men Tao**	**4.29**	**313**	eP		**Pn**	**02 52 50.8**	**+1.0**
KNMB				eS		**Sn**	**02 53 39.3**	**-0.4**
AXDP	**Jialang**	**4.86**	**314**	eP		**Pn**	**02 52 58.9**	**+1.3**
AXDP				eS		**Sn**	**02 53 53.4**	**-0.4**
MHZQ	**Yeshan**	**5.19**	**331**	eS		**Sn**	**02 54 03.3**	**+1.3**
JNU	**Nakatsue**	**14.03**	**33**	LR		LR	03 01 02.4	
	comp=Z,62nm,18.1s,baz=216,slow=41							
KSRS	**Korea Array**	**16.69**	**17**	Pn		**Pn**	**02 55 36.3**	**-2.0**
	0.2nm,0.3s,baz=205,slow=11,SNR=1.6							
KSRS				LR		LR	03 02 39.4	
	comp=Z,57nm,18.3s,baz=200,slow=40							
	0.4nm,0.3s							
KSRS				AML		AML		
MJAR	**Matsushiro Arr**	**20.64**	**40**	P		**P**	**02 56 21.4**	**-2.7**
	0.4nm,0.3s,baz=229,slow=9.9,SNR=4.1							
	0.4nm,0.3s							
CMAR	**Chiang Mai Arr**	**21.72**	**266**	P		P	02 56 43.6	+7.7
	0.6nm,0.2s,baz=47,slow=8.4,SNR=4.2							
CMAR				LR		LR	03 07 07.5	
	comp=Z,28nm,18.1s,baz=270,slow=42							
	0.6nm,0.2s							
KAPI	**Kappang**	**26.49**	**185**	LR		LR	03 07 40.7	
	comp=Z,33nm,21.3s,baz=29,slow=36							
ASAJ	**Asahikawa**	**28.31**	**33**	LR		LR	03 07 54.9	
	comp=Z,29nm,21.3s,baz=268,slow=35							
KLR	**Kul'dur**	**28.71**	**14**	LR		LR	03 10 41.8	
	comp=Z,42nm,18.5s,baz=186,slow=40							
SONM	**Songino Array**	**29.01**	**338**	P		**P**	**02 57 46.3**	**+1.8**
	0.3nm,0.6s,baz=153,slow=8.1,SNR=2.0							
	0.3nm,0.6s							
MKAR	**Makanchi Array**	**40.65**	**318**	P		**P**	**02 59 27.5**	**+2.8**
	0.7nm,0.5s,baz=115,slow=8.0,SNR=4.1							
	0.7nm,0.5s							
PETK	**Petropavlovsk-**	**41.73**	**32**	LR		LR	03 17 58.4	
	comp=Z,20nm,19.6s,baz=186,slow=38							
H11N1	**WAKE ISLAND Hy**	**42.10**	**84**	T		T	03 44 49.1	
	baz=282,slow=75,SNR=8.7							
H11N2	**WAKE ISLAND Hy**	**42.10**	**84**	T		T	03 44 50.5	
	baz=282,slow=75,SNR=12							
H11N3	**WAKE ISLAND Hy**	**42.12**	**84**	T		T	03 44 49.3	
	baz=282,slow=75,SNR=9.2							
H11S3	**WAKE ISLAND Hy**	**42.15**	**86**	T		T	03 44 52.3	
	baz=282,slow=75,SNR=24							
H11S1	**WAKE ISLAND Hy**	**42.16**	**86**	T		T	03 44 51.1	
	baz=282,slow=75,SNR=26							
H11S2	**WAKE ISLAND Hy**	**42.17**	**86**	T		T	03 44 52.1	
	baz=282,slow=75,SNR=23							
ZALV	**Zalesovo Beam**	**42.77**	**328**	P		**P**	**02 59 44.3**	**+2.4**
	0.9nm,0.5s,baz=134,slow=8.5,SNR=3.8							
	0.9nm,0.5s							
WRA	**Warramunga Arr**	**43.03**	**163**	P		**P**	**02 59 45.1**	**+0.8**
	0.8nm,0.8s,baz=342,slow=8.9,SNR=5.0							
	0.8nm,0.8s							
MA2	**Magadan**	**43.19**	**21**	LR		LR	03 18 39.0	
	comp=Z,26nm,18.7s,baz=324,slow=38							
KURBB	**Kurchatov Arra**	**44.50**	**321**	P		**P**	**02 59 59.0**	**+3.1**
	0.4nm,0.4s,baz=117,slow=7.4,SNR=6.2							
	0.4nm,0.4s							
AAK	**Ala-Archa**	**44.59**	**309**	LR		LR	03 21 51.9	
	comp=Z,37nm,19.6s,baz=112,slow=40							
ASAR	**Alice Springs**	**46.47**	**165**	P		**P**	**03 00 13.2**	**+1.5**
	0.4nm,0.9s,baz=344,slow=7.6,SNR=4.8							
	0.4nm,0.9s							
BVAR	**Borovoye Array**	**50.08**	**322**	P		**P**	**03 00 42.2**	**+2.9**
	0.4nm,0.5s,baz=120,slow=8.5,SNR=1.2							
	0.4nm,0.5s							

IDC 12 03:00:01.9±3.2,31.°04N×103.°92E,h0km,mb3.5/3,
mbtmp3.5/4,ML3.6/1,MS3.0/1,Error ellipse:
s-maj=84.5km s-min=34.1km az=98.0,Sichuan

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
SONM	**Songino Array**	**16.88**	**6**	Pn		Pn	03 03 58.1	-1.5
	0.2nm,0.3s,baz=182,slow=14,SNR=1.8							
	0.2nm,0.3s							
SONM				AML		AML		
KSRS	**Korea Array**	**20.82**	**66**	P		P	03 04 44.7	-0.3
	1.5nm,0.7s,baz=255,slow=10.0,SNR=4.4							
	1.5nm,0.7s							
NRIK	**Noril'sk**	**39.47**	**351**	LR		LR	03 25 28.1	
	comp=Z,25nm,21.9s,baz=342,slow=39							
WRA	**Warramunga Arr**	**58.51**	**146**	P		P	03 10 00.2	+0.1
	0.7nm,0.8s,baz=337,slow=7.6,SNR=6.4							
	0.7nm,0.8s							
ASAR	**Alice Springs**	**61.52**	**149**	P		P	03 10 20.6	-0.2
	0.2nm,0.6s,baz=344,slow=8.2,SNR=1.1							
	0.2nm,0.6s							

THE ***12*** *03:06:26.6,38.°N±1.°×26.°9E±0.°8,h11km±1km,M2.4/7,*
MLh2.4/7
AFAD ***12*** *03:06:26.4,37.°90N×26.°94E,h11km±2km,ML2.3*
ISK ***12*** *03:06:26.6,37.°90N×26.°95E,h

IZMR					S	Sb	03 06 52.1	-0.8		
FOCM	**Foa**	**0.85**	**349**		Pg	Pn	03 06 43.1	0.0		
FOCM					AML	AML				
BODT	**Bodrum**	**0.87**	**160**		P	Pg	03 06 42.9	+0.1		
BODT					S	Sn	03 06 55.2	-0.4		
BODT					AML	AML				
BODT	**Bodrum**	**0.87**	**160**		Pg	Pn	03 06 43.6	+0.2		
BODT					AML	AML				
CHOS	**Chios island**	**0.87**	**306**		P	Pg	03 06 42.9	+0.1		
CHOS					S	Sn	03 06 55.5	-0.2		
CHOS					AML	AML				
CHOS	**Chios island**	**0.87**	**306**		Pg	Pn	03 06 43.6	+0.2		
CHOS					AML	AML				
MLSB	**Milas**	**0.88**	**131**		Pg	Pn	03 06 44.3	+0.7		
MLSB					AML	AML				
KARB	**zmir-Karabur**	**0.89**	**332**		P	Pb	03 06 43.1	+0.2		
KARB					S	Sg	03 06 54.9	0.0		
KARB					IAML		03 06 57.0			
	comp=N,120nm,0.5s									
KARB					IAML		03 06 58.0			
	comp=E,73nm,0.5s									
BDRM	**Kayabasi**	**0.90**	**154**		P	Pn	03 06 43.9	0.0		
BDRM					IAML		03 06 58.0			
	comp=E,76nm,0.5s									
BDRM					IAML		03 07 01.0			
	comp=N,99nm,0.3s									
CAMT	**Merkez**	**0.92**	**18**		P	Pn	03 06 44.3	+0.3		
CAMT					IAML		03 07 00.0			
	comp=E,134nm,0.4s									
CAMT					IAML		03 07 01.0			
	comp=N,150nm,0.7s									
BODA	**Bodrum-Mula**	**0.93**	**155**		Pg	Pn	03 06 45.4	+1.2		
NAZL	**Nazilli-Aydin**	**1.07**	**85**		Pg	Pg	03 06 47.4	+0.8		
NAZL					AML	AML				
ZEDA	**zmir-Bergama**	**1.09**	**5**		P	Pg	03 06 47.3	+0.3		
ZEDA					S	Sb	03 07 00.5	+0.2		
ZEDA					IAML		03 07 06.0			
	comp=E,58nm,0.5s									
ZEDA					IAML		03 07 09.0			
	comp=N,57nm,0.9s									
ESEN	**Aydn-Nazilli**	**1.11**	**94**		P	Pg	03 06 47.5	+0.1		
ESEN					S	Sn	03 07 02.2	+0.5		
GOMA	**Golmarmara-Man**	**1.13**	**42**		Pn	Pg	03 06 48.3	+0.6		
GOMA					AML	AML				
DKL	**Dikili**	**1.19**	**359**		Pn	Pg	03 06 48.9	0.0		
DKL					AML	AML				
KIRA	**zmir-Kiraz**	**1.19**	**74**		P	Pb	03 06 48.8	+0.7		
AKHS	**Akhisar**	**1.21**	**34**		P	Pn	03 06 48.6	+0.5		
AKHS					IAML		03 07 10.0			
	comp=N,72nm,0.5s									
KTTT	**Salihli**	**1.21**	**48**		P	Pb	03 06 49.1	+0.7		
KTTT					IAML		03 07 08.0			
	comp=N,59nm,0.3s									
DAT	**Datca**	**1.25**	**156**		P	Pn	03 06 48.3	-0.5		
MULA	**Mugla, Merkez-**	**1.26**	**119**		P	Pn	03 06 48.4	-0.5		
YAZI	**Mula-Dat§a-**	**1.26**	**161**		P	Pn	03 06 48.9	+0.1		
YAZI					S	Sb	03 07 04.3	-0.9		
YER	**Yerkesik**	**1.30**	**125**		P	Pb	03 06 50.4	+0.5		
SOMA	**Soma-Manisa**	**1.36**	**20**		Pn	Pb	03 06 51.5	+0.6		
SOMA					AML	AML				
MANT	**Manisa**	**1.41**	**64**		P	Pg	03 06 53.5	+0.4		
MANT					S	Sn	03 07 08.0	-1.4		
MANT					IAML		03 07 15.0			
	comp=N,37nm,0.2s									
MANT					IAML		03 07 15.0			
	comp=E,35nm,0.5s									
GORD	**Gordes-Manisa**	**1.41**	**43**		Pn	Pb	03 06 52.3	+0.4		
GORD					AML	AML				
AYVA	**Ayvalik**	**1.44**	**352**		P	Pg	03 06 53.5	-0.2		
AYVA					S	Sn	03 07 10.0	+0.2		
AYVA					IAML		03 07 24.0			
	comp=E,35nm,1.4s									
SULTU	**Buldan**	**1.45**	**83**		P	Pb	03 06 52.7	+0.1		
SULTU					S	Sn	03 07 08.5	-1.8		
PRK	**Paraskevi**	**1.46**	**339**		P	Pb	03 06 52.8	+0.1		
PRK					S	Sg	03 07 12.7	-0.5		
TURN	**Turunc**	**1.51**	**136**		P	Pn	03 06 52.5	+0.3		
TURN					S	Sn	03 07 09.5	-2.1		
HARTU	**Esme**	**1.53**	**72**		P	Pn	03 06 51.4	-1.2		
STEP	**BALIKESIR_Sava**	**1.61**	**22**		P	Pb	03 06 55.3	+0.1		
STEP					S	Sb	03 07 16.8	+1.4		
STEP					IAML		03 07 24.0			
	comp=N,34nm,0.6s									
STEP					IAML		03 07 28.0			
	comp=E,40nm,0.7s									
TAVA	**DENIZLI_Tavas**	**1.61**	**104**		P	Pb	03 06 55.0	-0.4		
TAVA					S	Sn	03 07 14.0	-0.3		
BUHA	**Balikesir, Bur**	**1.62**	**4**		P	Pn	03 06 54.1	+0.3		
BUHA					IAML		03 07 28.0			
	comp=E,37nm,0.6s									
DNIZ	**Denizli-Tavas-**	**1.68**	**98**		P	Pn	03 06 55.7	+1.1		
DNIZ					S	Sg	03 07 19.3	-0.8		
DNIZ					IAML		03 07 26.0			
	comp=N,37nm,0.4s									
DNIZ					IAML		03 07 28.0			
	comp=E,52nm,0.4s									
DEMI	**Demirci**	**1.81**	**50**		P	Pg	03 07 00.5	-0.3		
DEMI					IAML		03 07 30.0			
	comp=E,23nm,0.4s									
BAYC	**CANAKKALE_Bayr**	**1.89**	**351**		P	Pn	03 06 56.9	-0.5		
ARG	**Arkhangelos**	**1.91**	**150**		P	Pn	03 06 58.3	+0.6		

IDC **12** *03:19:59.9±7.9, 36°.54N×70°.71E, h199km±49km, mb3.5/6, mbtmp4.1/12, Error ellipse: s-maj=76.9km s-min=34.2km az=172.0*

NEIC **12** *03:20:00.2±1.2, 36°.48N±0°.07×70°.8E±0°.1, h216km±8km, mb4.3/20, Error ellipse: s-maj=14.5km s-min=10.1km az=93.0*

NNC **12** *03:20:06.4±2.8, 37°.06N×70°.64E, h236km±26km, mb2.8, mpv3.9, Error ellipse: s-maj=26.4km s-min=16.2km az=7.0*

ISC 12 03:19:58.4±0.7**, 36°.41N**±0°.06×**70°.86E**±0°.06**, h200km, n70,** σ1§**62**/74**, mb4.3**/14**, 3C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.38**	**219**		**Pn**	**03 20 43.6**	**+2.4**
KBL				Sn	**Sn**	**03 21 16.0**	**+1.4**
DRK	**Karamyk**	**3.15**	**13**	Pn	**Pn**	**03 20 51.8**	**+1.7**
NIL	**Nilore**	**3.39**	**144**	Pn	**Pn**	**03 20 56.3**	**+3.6**
BTK	**Batken**	**3.64**	**360**	Pn	**Pn**	**03 20 58.5**	**+2.7**
KSH2	**Kashi**	**4.62**	**52**	Pn	**Pn**	**03 21 11.5**	**+3.4**
KSH2				Sn	**Sn**	**03 22 05.4**	**+2.5**
KSH2				smax	smax		
	comp=N,120nm,0.7s						
KSH2				smax	smax		
	comp=E,110nm,0.6s						
ARSB	**Arslanbob**	**5.18**	**18**	Pn	**Pn**	**03 21 16.4**	**+1.3**
TSSA	**Tissa**	**5.64**	**128**	*i* P	Pn	03 20 47.9	-33
TSSA				IAmb	IAmb	03 21 00.6	
	comp=Z,7.1nm,0.4s						
TSSA				*i* S	**Sn**	**03 22 25.8**	**-0.7**
TSSA				IAML		03 22 28.0	
	comp=N,595nm,0.5s						
NRN	**Naryn**	**6.42**	**37**	Pn	**Pn**	**03 21 30.8**	**-0.5**
UCH	**Uchtor**	**6.46**	**25**	P	**Pn**	**03 21 33.4**	**+1.5**
SNR=53							
EKS2	**Erkin-Say**	**6.63**	**19**	P	**Pn**	**03 21 35.9**	**+2.0**
SNR=13							
KK31	**Karatay Array**	**6.69**	**358**	⇓S	**Sn**	**03 22 45.3**	**-5.4**
	comp=N,18nm,0.5s,baz=184,slow=22,SNR=20						
KK31	**Karatay Array**	**6.69**	**358**	Pn	**Pn**	**03 21 34.3**	**-0.2**
KKAR	**Karatay Array**	**6.69**	**358**	Pn	**Pn**	**03 21 34.3**	**-0.2**
BHK	**Bhakra**	**6.79**	**136**	*i* P	Pn	03 21 01.3	-35
BHK				IAmb	IAmb	03 21 09.4	
	comp=E,19nm,0.4s						
BHK				*i* S	**Sn**	**03 22 48.5**	**-4.8**
AAK	**Ala-Archa**	**6.82**	**23**	P	**Pn**	**03 21 38.0**	**+1.6**
	comp=E,10.0nm,0.3s,baz=176,slow=4.4,SNR=30						
AAK				S	**Sn**	**03 22 53.3**	**-0.7**
	comp=E,33nm,0.8s,baz=246,slow=19,SNR=13						
AAK	**Ala-Archa**	**6.82**	**23**	⇑P	**Pn**	**03 21 38.5**	**+2.2**
SNR=8.6							
AAK	**Ala-Archa**	**6.82**	**23**	⇑P	**Pn**	**03 21 38.2**	**+1.8**
	comp=E,8.2nm,0.7s						
AAK				⇑S	**Sn**	**03 22 52.6**	**-1.5**
	comp=E,7.9nm,0.5s						
AAK	**Ala-Archa**	**6.82**	**23**	Pn	**Pn**	**03 21 37.9**	**+1.6**
KBK	**Karagaybulak**	**6.99**	**26**	P	**Pn**	**03 21 41.1**	**+2.6**
SNR=12							
BOOM	**Boomskoye usch**	**7.23**	**31**	Pn	**Pn**	**03 21 43.0**	**+1.4**
USP	**Ospenovka**	**7.39**	**21**	P	**Pn**	**03 21 45.7**	**+2.0**
SNR=8.8							
TKM2	**Tokmak 2**	**7.46**	**28**	P	**Pn**	**03 21 46.1**	**+1.5**
SNR=8.2							
KDJ	**Kajisay**	**7.52**	**39**	Pn	**Pn**	**03 21 46.6**	**+1.1**
TARG	**Taragay, Kyrgy**	**7.57**	**43**	Pn	**Pn**	**03 21 46.8**	**+0.5**
KLP	**Kalpa**	**7.83**	**126**	*i* P	Pn	03 21 13.6	-36
KLP				IAmb	IAmb	03 21 19.9	
	comp=E,7.3nm,0.5s						
KLP				*i* S	**Sn**	**03 23 17.3**	**-1.1**
WUS	**Wushi**	**8.09**	**51**	Pn	**Pn**	**03 21 54.0**	**+1.2**
UTK	**UTTARKASHI**	**8.50**	**130**	*i* S	**Sn**	**03 23 30.8**	**-3.1**
UTK				*i* S		03 23 30.8	
PDGK	**Podgornoye**	**9.57**	**41**	Pn	**Pn**	**03 22 13.2**	**+1.1**
MAKZ	**Makanchi**	**13.29**	**35**	Pn	**Pn**	**03 22 58.7**	**-0.6**
MK31	**Makanchi Array**	**13.43**	**36**	P	**Pn**	**03 23 01.9**	**+0.8**
	comp=E,1.0nm,0.5s,baz=220,slow=18,SNR=12						
MKAR	**Makanchi Array**	**13.43**	**36**	P	**Pn**	**03 23 02.0**	**+0.9**
	comp=E,1.3nm,0.5s,baz=222,slow=17,SNR=11						
WMQ	**Urumqi**	**14.84**	**55**	*e*P	**P**	**03 23 20.2**	**+0.7**
WMQ				pmax	pmax		
	comp=Z,12nm,0.7s						
AB31	**Akbulak array**	**15.10**	**332**	P	**Pn**	**03 23 20.1**	**-1.5**
	comp=Z,3.6nm,0.6s,baz=143,slow=12,SNR=59						
AB31	**Akbulak array**	**15.10**	**332**		**Pn**	**03 23 19.9**	**-1.8**
AB31				IAmb	IAmb	03 23 23.7	
	comp=Z,6.2nm,0.7s						
ABKAR	**Akbulak array**	**15.10**	**332**		**Pn**	**03 23 20.1**	**-1.5**
KURBB	**Kurchatov Arra**	**15.24**	**19**	P	**Pn**	**03 23 22.9**	**-0.4**
	comp=Z,1.1nm,0.3s,baz=210,slow=11,SNR=7.7						
KURBB	**Kurchatov Arra**	**15.24**	**19**	⇑P	**Pn**	**03 23 22.6**	**-0.7**
	comp=Z,2.0nm,0.5s						
KURK	**Kurchatov**	**15.35**	**19**	⇓P	**Pn**	**03 23 24.3**	**-0.3**
	comp=Z,0.9nm,0.8s						
KURK	**Kurchatov**	**15.35**	**19**		**P**	**03 23 25.4**	**+0.5**
BVAR	**Borovoye Array**	**16.61**	**359**	P	**Pn**	**03 23 40.0**	**+0.2**
	comp=E,6.5nm,0.4s,baz=166,slow=10,SNR=18						
BORK	**Borovoye**	**16.64**	**359**	P	**P**	**03 23 39.4**	**+0.3**
AKTO	**Aktyubinsk**	**16.80**	**331**	P	**Pn**	**03 23 41.6**	**-0.4**
	comp=Z,13nm,0.5s,baz=141,slow=8.6,SNR=30						
ZAA0	**Zalesovo Array**	**20.04**	**25**		**P**	**03 24 16.3**	**+0.3**
ZALV	**Zalesovo Beam**	**20.04**	**25**	P	**P**	**03 24 16.2**	**+0.3**
	comp=Z,2.0nm,0.4s,baz=227,slow=9.6,SNR=11						
ZALV	**Zalesovo Beam**	**20.04**	**25**		**P**	**03 24 15.5**	**-0.5**
ARTI	**Arti**	**21.69**	**341**	P	**P**	**03 24 33.0**	**-0.1**
	comp=Z,4.5nm,0.4s,baz=160,slow=9.9,SNR=7.3						
	comp=Z,4.5nm,0.4s						
ARTI	**Arti**	**21.69**	**341**		**P**	**03 24 33.3**	**+0.1**
HHC	**Hu-ho-hao-te**	**31.90**	**69**	*e*P	**P**	**03 26 07.5**	**+2.4**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,60nm,6.2s						
NRIK	**Noril'sk**	**34.23**	**10**	P	**P**	**03 26 26.0**	**+1.3**
	comp=Z,3.7nm,0.5s,baz=179,slow=5.7,SNR=4.5						
	comp=Z,3.7nm,0.5s						
NRIK	**Noril'sk**	**34.23**	**10**	P	**P**	**03 26 24.2**	**-0.5**
NRIK				IAmb	IAmb	03 26 26.4	
	comp=Z,4.2nm,0.6s						
ATD	**Arta Tunnel**	**35.38**	**233**	P	**P**	**03 26 35.0**	**-0.2**
ATD				IAmb	IAmb	03 26 35.9	
	comp=Z,8.7nm,1.1s						
FIA1	**FINESS Array S**	**37.49**	**326**	P	**P**	**03 26 51.7**	**-0.7**
FINES	**FINESS Array B**	**37.49**	**326**	P	**P**	**03 26 52.5**	**0.0**
	comp=Z,0.7nm,0.4s,baz=120,slow=9.4,SNR=16						
	comp=Z,0.7nm,0.4s						
FINES	**FINESS Array B**	**37.49**	**326**	P	**P**	**03 26 52.1**	**-0.4**
ARCES	**ARCESS Array B**	**41.18**	**338**	P	**P**	**03 27 23.5**	**+0.6**
	comp=Z,2.1nm,0.7s,baz=108,slow=7.8,SNR=5.4						
	comp=Z,2.1nm,0.7s						
ARCES	**ARCESS Array B**	**41.18**	**338**	P	**P**	**03 27 22.7**	**-0.2**
ARCES				IAmb	IAmb	03 27 50.5	
	comp=Z,12nm,1.4s						
HFS	**Hagfors**	**43.06**	**322**	P	**P**	**03 27 37.8**	**-0.3**
	comp=Z,1.0nm,0.8s,baz=89,slow=14,SNR=5.0						
	comp=Z,1.0nm,0.8s						
NB201	**NORSAR Array S**	**44.34**	**323**	P	**P**	**03 27 47.7**	**-0.7**
NB201				IAmb	IAmb	03 27 55.9	
	comp=Z,12nm,1.1s						
NB2	**NORSAR Subarra**	**44.38**	**323**	P	**P**	**03 27 48.1**	**-0.6**
	comp=Z,0.9nm,0.6s,baz=93,slow=7.9						
NOA	**NORSAR Array B**	**44.38**	**323**	P	**P**	**03 27 47.9**	**-0.7**
	comp=Z,0.4nm,0.5s,baz=110,slow=7.3,SNR=1.9						
	comp=Z,0.4nm,0.5s						
C26K	**Camden Bay**	**70.82**	**12**	P	**P**	**03 30 53.1**	**+0.5**
C26K				IAmb	IAmb	03 31 16.2	
	comp=Z,6.0nm,1.4s						
TOLK	**Toolik Lake Re**	**71.03**	**15**	P	**P**	**03 30 54.3**	**+0.2**
TOLK				IAmb	IAmb	03 30 55.4	
	comp=Z,7.4nm,1.4s						
C27K	**Jago River**	**71.28**	**12**	P	**P**	**03 30 56.6**	**+1.1**
E24K	**Your Creek**	**71.73**	**15**	P	**P**	**03 30 58.5**	**+0.2**
E24K				IAmb	IAmb	03 31 34.0	
	comp=Z,7.2nm,1.4s						
E28M	**Babbage River**	**72.87**	**11**	P	**P**	**03 31 04.9**	**0.0**
F30M	**Barrier River**	**74.35**	**10**	P	**P**	**03 31 13.7**	**+0.1**
H29M	**Whitestone**	**75.24**	**12**	P	**P**	**03 31 19.1**	**+0.4**
H29M				IAmb	IAmb	03 31 54.7	
	comp=Z,8.5nm,1.3s						
H31M	**Peel River**	**76.25**	**10**	P	**P**	**03 31 23.9**	**-0.5**
H31M				IAmb	IAmb	03 32 03.3	
	comp=Z,15nm,1.4s						
CRQM	**Cirque**	**79.25**	**16**	P	**P**	**03 31 41.3**	**0.0**
BARN	**Barnard Glacie**	**79.31**	**15**	P	**P**	**03 31 39.1**	**-2.5**

MOS **12** *03:21:37.3±1.2, 14°.26N×91°.51W, h10km, mb4.9/15, Error ellipse: s-maj=17.1km s-min=6.3km az=109.1*

SNET **12** *03:21:43.6±2.9, 14°.22N×91°.96W, h60km, ML4.9, Presumed earthquake*

IDC **12** *03:21:45.0±0.5, 14°.05N×91°.95W, h65km±4km, mb4.1/15, mbtmp4.4/19, MS3.7/54, Error ellipse: s-maj=8.5km s-min=6.8km az=171.0*

NEIC **12** *03:21:45.2±1.7, 14°.23N±0°.06×91°.90W±0°.06, h52km±1km, mb4.8/491, Mwr4.7/16, Md5.0/119(MEX), Error ellipse: s-maj=10.0km s-min=6.5km az=223.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr~0.15; Mθθ~0.46; Mϕϕ0.61; Mrθ1.20; Mrϕ0.22; Mθϕ~0.72; Fault plane solution: M₀1.52000×10¹⁶ NP1:ϕs129.89000°, δ89.94000°, λ109.30000°. NP2:ϕs220.05000°, δ19.30000°, λ0.17000°. Principal axes: T 1.2322, Plg42.0000°, Azm58.0000°; N 0.4663, Plg19.0000°, Azm310.0000°; P -1.6985, Plg42.0000°, Azm202.0000°;*

NEIC **12** *03:21:45, 14°.20N×91°.93W, h52km*

CATAC **12** *03:21:45.6±0.6, 14°.N±3°.×9°.2W±°, h10km±6km, M5.1/23, MLv5.1/23, Error ellipse: s-maj=11.7km s-min=6.8km az=93.4, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr1.73; Mθθ-1.53; Mϕϕ-0.20; Mrθ2.00; Mθϕ-1.05; Mrϕ~1.19; Fault plane solution: M₀3.03829×10¹⁶ NP1: ϕs97.67764°, δ71.23582°, λ118.62949°. NP2: ϕs218.18719°, δ33.78962°, λ35.33802°. Principal axes: T 3.3485, Plg54.5996°, Azm43.4712°; N -0.7677, Plg26.9799°, Azm267.7182°; P -2.5808, Plg21.1130°, Azm166.3817°; confirmed*

GCG **12** *03:21:45.7±1.5, 14°.22N×91°.85W, h36km±778km, MD5.1, ML5.0, Presumed earthquake*

GFZ **12** *03:21:46.3±0.2, 14°.N±3°.×9°.2W±°, h62km, M4.8/38, mb4.8/38, confirmed*

MEX **12** *03:21:46.2±1.4, 14°.10N×92°.07W, h32km±13km, MD5.0, Presumed earthquake*

GCMT **12** *03:21:46.2±0.3, 14°.10N±0°.02×91°.87W±0°.02, h62km±1km, MW4.9/82, Moment Tensor Solution. s57,c70; s82,c118; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr2.29±.09; Mθθ-2.04±.08; Mϕϕ-0.25±.09; Mrθ0.64±.05; Mθϕ0.87±.07; Mϕr-0.14±.06; Best double couple: M₀2.43200×10¹⁶ NP1:ϕs295.00000°, δ37.00000°, λ95.00000°. NP2: ϕs109.00000°, δ53.00000°, λ87.00000°. Principal axes: T 2.3820, Plg82.0000°, Azm2.0000°; N 0.1000, Plg3.0000°, Azm111.0000°; P -2.4830, Plg8.0000°, Azm202.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

RSNC **12** *03:21:50.3±0.7, 15°.N±3°.×9°.2W±°, h86km±6km, M4.6, mb4.8, mB5.0, ML4.3, Mw(mB)4.4, MwMwp4.6, Mwp5.0*

ISC 12 03:21:45.1±0.3**, 14°.16N**±0°.04×**91°.87W**±0°.03**, h63**km±3km**, h64**km**:pP-P, n744,** σ1§**93**/664**, mb4.8**/215**, 8C-8D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RTAL	**Retalhuleu**	**0.40**	**26**		**Pn**	**03 21 55.1**	**-1.2**
RTAL	**Retalhuleu**	**0.40**	**26**	⇓*i* P	**Pn**	**03 21 55.7**	**-0.7**
RTAL				*i* S	**Sn**	**03 22 04.3**	**-0.3**
STG8	**El Palmar, Qui**	**0.58**	**60**	*i* P	**Pn**	**03 21 58.0**	**-0.4**
STG8				IAML		03 22 13.0	
	comp=E,90μm,0.3s						
QUEO	**Labor Ovalle**	**0.79**	**26**	*i* P	**Pn**	**03 22 00.6**	**-0.3**
QUEO				*i* S	**Sn**	**03 22 12.5**	**+0.1**
QUEO				IAML		03 22 12.9	
	comp=N,210μm,0.3s						
THIG		**0.83**	**333**		**Pn**	**03 21 60.0**	**-1.2**
THIG					**Sn**	**03 22 10.8**	**-2.1**
THIG		**0.83**	**333**	*i* P	**Pn**	**03 21 59.9**	**-1.2**
THIG		**0.83**	**333**	*e*P	**Pn**	**03 21 60.0**	**-1.2**
THIG				*i* S	**Sn**	**03 22 10.8**	**-2.1**
CHUJ	**Union Juarez**	**0.95**	**346**	*i* P	**Pn**	**03 22 01.6**	**-1.3**
CHUJ				*i* S	**Sn**	**03 22 13.9**	**-2.2**
PATR	**El Naranjo**	**1.01**	**340**		**Pn**	**03 22 01.9**	**-1.8**
PATR					**Sn**	**03 22 14.5**	**-2.9**
PATR	**El Naranjo**	**1.01**	**340**	⇓*i* P	**Pn**	**03 22 01.9**	**-1.8**
PATR				*i* S	**Sn**	**03 22 14.5**	**-2.9**
PAVE	**Pavencul**	**1.07**	**344**		**Pn**	**03 22 03.0**	**-1.3**
PAVE					**Sn**	**03 22 16.4**	**-2.2**
PAVE	**Pavencul**	**1.07**	**344**	⇓*i* P	**Pn**	**03 22 03.0**	**-1.3**
PAVE				*i* S	**Sn**	**03 22 16.4**	**-2.2**
HUEH	**Huehuetenango**	**1.20**	**17**	P	**Pn**	**03 22 06.6**	**+0.5**
HUEH				S	**Sn**	**03 22 24.0**	**+2.2**
HUEH	**Huehuetenango**	**1.20**	**17**	Pn	**Pn**	**03 22 06.3**	**+0.1**
HUEH	**Huehuetenango**	**1.20**	**17**	*i* P	**Pn**	**03 22 06.7**	**+0.5**
HUEH				*i* S	**Sn**	**03 22 21.0**	**-0.8**
HUEH				IAML		03 22 31.8	
	comp=E,57μm,0.8s						
HUEH	**Huehuetenango**	**1.20**	**17**	*e*P	**Pn**	**03 22 06.8**	**+0.5**
HUEH				*e*S	**Sn**	**03 22 22.3**	**+0.5**
HUEH	**Huehuetenango**	**1.20**	**17**	⇓*i* P	**Pn**	**03 22 06.7**	**+0.5**
HUEH				*i* S	**Sn**	**03 22 22.7**	**+0.9**
FG8	**Yepocapa, Chim**	**1.28**	**85**	*i* P	Pn	03 22 02.4	-4.6
FG8				IAML		03 22 21.9	
	comp=N,22μm,0.6s						
FG16	**Alotenango, Sa**	**1.33**	**85**	*i* P	**Pn**	**03 22 03.5**	**-4.3**
PCG5	**San Vicente Pa**	**1.45**	**88**	*i* P	**Pn**	**03 22 06.4**	**-3.0**
PCG5				*i* S	**Sn**	**03 22 21.4**	**-6.2**
PCG5				IAML		03 22 23.6	
	comp=N,104μm,0.6s						
ESSJ	**San Jos, E**	**1.46**	**114**	*i* P	Pn	03 22 03.6	-5.7
APG	**El Apazote**	**1.60**	**58**	P	**Pn**	**03 22 12.2**	**+0.8**
	comp=N,353nm,0.7s,baz=193,slow=12,SNR=1191						
APG				S	**Sn**	**03 22 34.9**	**+3.6**
	comp=N,1μm,0.9s,baz=143,slow=10.0,SNR=43						
APG				LR	LR	03 22 51.0	
	comp=N,334nm,18.9s,baz=220,slow=38						
APG	**El Apazote**	**1.60**	**58**	*i* P	**Pn**	**03 22 12.4**	**+1.0**
APG				IAML		03 22 36.2	
	comp=N,7μm,1.0s						
FAME	**Alcaldia de Sa**	**1.83**	**100**	P	**Pn**	**03 22 14.0**	**-0.3**
FAME				S	**Sn**	**03 22 34.4**	**-2.1**
AVCB	**Coban**	**1.93**	**47**	*i* P	**Pn**	**03 22 17.0**	**+1.3**
PCIG		**2.01**	**320**		**Pn**	**03 22 15.6**	**-1.1**
PCIG					**Sn**	**03 22 38.1**	**-2.8**
PCIG		**2.01**	**320**	⇓*e*P	**Pn**	**03 22 15.6**	**-1.1**
PCIG				*i* P		03 22 15.8	
PCIG				*e*S	**Sn**	**03 22 37.3**	**-3.6**
PCIG				*i* S		03 22 38.1	
SLOZ	**Alcaldia de Sa**	**2.03**	**94**	P	**Pn**	**03 22 18.1**	**+1.0**
LOAL	**Lomas de Alarc**	**2.04**	**94**	P	**Pn**	**03 22 18.2**	**+1.1**
LOAL				S	**Sn**	**03 22 43.0**	**+1.4**
LOAL	**Lomas de Alarc**	**2.04**	**94**	*e*S	**Sn**	**03 22 43.6**	**+2.1**
NUBE	**Las Nubes**	**2.05**	**97**	P	**Pn**	**03 22 18.1**	**+0.7**
NUBE				S	**Sn**	**03 22 41.4**	**-0.6**
NUBE	**Las Nubes**	**2.05**	**97**	*i* P	**Pn**	**03 22 17.9**	**+0.5**
NUBE				IAML		03 22 46.4	
	comp=N,6μm,0.6s						
CCIG	**Comitan**	**2.12**	**353**	Pn	**Pn**	**03 22 17.3**	**-1.2**
CCIG	**Comitan**	**2.12**	**353**	*i* P	**Pn**	**03 22 19.6**	**+1.2**
CCIG				IAML		03 22 51.3	
	comp=E,7μm,0.3s						
CCIG	**Comitan**	**2.12**	**353**	⇓*e*P	**Pn**	**03 22 20.1**	**+1.6**
CCIG				*e*S	**Sn**	**03 22 44.2**	**+0.3**
CEVE	**Cerro Verde**	**2.21**	**98**	P	**Pn**	**03 22 20.6**	**+0.9**
CEVE	**Cerro Verde**	**2.21**	**98**	*e*P	**Pn**	**03 22 21.5**	**+1.8**
CEVE				*e*S	**Sn**	**03 22 47.3**	**+1.2**
CEVE				*e*S		03 22 47.8	
UNIC	**Universidad Ca**	**2.26**	**94**	P	**Pn**	**03 22 21.2**	**+0.9**
UNIC				S	**Sn**	**03 22 49.0**	**+1.9**
JAYA	**Jayaque - finc**	**2.41**	**102**	P	**Pn**	**03 22 22.9**	**+0.6**
JAYA				S	**Sn**	**03 22 51.2**	**+0.5**
JAYA	**Jayaque - finc**	**2.41**	**102**	*i* P	**Pn**	**03 22 22.9**	**+0.6**
JAYA				IAML		03 22 53.8	
	comp=N,16μm,0.2s						
JAYA	**Jayaque - finc**	**2.41**	**102**	*e*P	**Pn**	**03 22 22.9**	**+0.6**
CEDA	**San And

SCIG Sn 03 23 53.6 +3.8
SCIG Sabancuy 4.82 8 *i* P Pn 03 22 54.8 -0.4
SCIG Sabancuy 4.82 8 *eP* Pn 03 22 55.2 0.0
SCIG *eS* Sn 03 23 53.6 +3.8
CRIN San Cristobal 4.91 107 Pn Pn 03 22 58.7 +2.2
CRIN San Cristobal 4.91 107 P Pn 03 22 59.4 +2.9
CRIN S Sn 03 23 51.3 -0.8
CRIN San Cristobal 4.91 107 P Pn 03 22 58.5 +2.0
HERN Volcan Telica 5.14 107 Pn Pn 03 23 00.1 +0.5
NEUV Arroyo Zacate 5.17 314 Pn 03 23 00.0 +0.1
NEUV Sn 03 23 55.5 -2.8
NEUV Arroyo Zacate 5.17 314 *eP* Pn 03 23 00.0 +0.1
NEUV *eS* Sn 03 23 55.5 -2.8
CNGN Cerro Negro 5.30 108 P Pn 03 23 03.2 +1.4
comp=N,4µmcomp=N,299nm,0.6s
CNGN S Sn 03 24 00.6 -1.0
comp=N,4µmcomp=N,299nm,0.6s
CNGN AML AML
CNGN Cerro Negro 5.30 108 P Pn 03 23 03.6 +1.8
comp=Z,316nm,0.6s
PEIG Puerto Escondi 5.41 290 Pn 03 23 01.4 -1.8
PEIG Sn 03 23 57.8 -6.4
PEIG Puerto Escondi 5.41 290 *eP* Pn 03 23 01.4 -1.8
PEIG *eS* Sn 03 23 57.8 -6.4
OXLC Oaxaca 5.48 302 Pn 03 23 03.9 -0.4
OXLC Sn 03 24 02.5 -3.7
OXLC Oaxaca 5.48 302 *eP* Pn 03 23 03.9 -0.4
OXLC *eS* Sn 03 24 02.5 -3.7
OXBJ Oaxaca 5.49 302 Pn 03 23 05.3 +0.7
OXBJ Sn 03 24 03.0 -3.6
OXBJ Oaxaca 5.49 302 *eP* Pn 03 23 05.3 +0.7
OXBJ *eS* Sn 03 24 03.0 -3.6
OXIG Oaxaca 5.50 302 Pn 03 23 07.1 +2.3
OXIG Sn 03 24 05.6 -1.2
VHO Vista Hermosa 5.50 302 *eP* Pn 03 23 07.1 +2.4
VHO *eS* Sn 03 24 05.6 -1.2
MGAN Managua 5.83 109 Pn Pn 03 23 10.4 +1.4
MGAN Managua 5.83 109 P Pn 03 23 11.3 +2.2
comp=Z,5µmcomp=Z,464nm,0.8s
MGAN S Sn 03 24 14.9 +0.3
comp=Z,5µmcomp=Z,464nm,0.8s
MGAN AML AML
MGAN Managua 5.83 109 P Pn 03 23 11.5 +2.4
comp=Z,488nm,0.8s
YOIG Yosondua 6.09 297 Pn 03 23 15.0 +2.2
YOIG Sn 03 24 17.8 -3.5
YOIG Yosondua 6.09 297 *eP* Pn 03 23 15.0 +2.2
YOIG *eS* Sn 03 24 17.8 -3.5
BOAB BOACO BROADBAN 6.28 105 Pn Pn 03 23 16.7 +1.6
BOAB BOACO BROADBAN 6.28 105 P Pn 03 23 15.8 +0.7
comp=Z,268nm,0.7s
TOIG Toxpalan 6.34 309 Pn 03 23 19.7 +3.7
TOIG Sn 03 24 25.4 -1.8
TOIG Toxpalan 6.34 309 *eP* Pn 03 23 19.7 +3.7
TOIG *eS* Sn 03 24 25.4 -1.8
PNIG Pinotepa 6.43 291 Pn 03 23 16.8 -0.5
PNIG Sn 03 24 27.4 -1.9
PNIG Pinotepa 6.43 291 *eP* Pn 03 23 16.8 -0.5
PNIG *eS* Sn 03 24 27.4 -1.9
TXIG Tlaxiaco 6.46 299 Pn 03 23 18.6 +0.8
TXIG Sn 03 24 26.5 -3.7
TXIG Tlaxiaco 6.46 299 *eP* Pn 03 23 18.6 +0.8
TXIG *eS* Sn 03 24 26.5 -3.7
TPIG Tehuac#an 6.76 310 Pn 03 23 23.0 +1.1
TPIG Sn 03 24 38.5 +1.0
TPIG Tehuac#an 6.76 310 *eP* Pn 03 23 23.0 +1.1
TPIG *eS* Sn 03 24 38.5 +1.0
HLIG Huajuapan de L 6.77 303 Pn 03 23 23.0 +1.0
HLIG Sn 03 24 34.6 -3.2
HLIG Huajuapan de L 6.77 303 *eP* Pn 03 23 23.0 +1.0
HLIG *eS* Sn 03 24 34.6 -3.2
LCRUZ La Cruz 6.82 116 *eP* Pn 03 23 25.3 +2.7
SIUN Universidad Ur 6.91 93 Pn Pn 03 23 25.1 +1.3
TEIG Tepich 6.94 29 Pn Pn 03 23 23.5 -0.7
TEIG Tepich 6.94 29 P Pn 03 23 23.8 -0.4
comp=Z,2µmcomp=Z,6µmcomp=Z,557nm,0.7s
TEIG S Sn 03 24 37.6 -4.1
comp=Z,2µmcomp=Z,6µmcomp=Z,557nm,0.7s
TEIG Tepich 6.94 29 P Pn 03 23 24.4 +0.2
comp=Z,576nm,0.7s
JAUV Jalcomulco 7.00 318 Pn 03 23 21.9 -3.2
JAUV Sn 03 24 38.9 -4.5
JAUV Jalcomulco 7.00 318 *eP* Pn 03 23 21.9 -3.2
JAUV *eS* Sn 03 24 38.9 -4.5
FTIG Fresnillo de T 7.08 303 Pn 03 23 28.6 +2.5
FTIG Sn 03 24 41.9 -3.4
FTIG Fresnillo de T 7.08 303 *eP* Pn 03 23 28.6 +2.5
FTIG *eS* Sn 03 24 41.9 -3.4
ALIBA Liberia Airpor 7.13 119 *eP* Pn 03 23 30.3 +3.6
TLIG Tlapa 7.27 299 Pn Pn 03 23 26.5 -2.4
TLIG Tlapa 7.27 299 *eP* Pn 03 23 29.6 +0.7
TLIG *eS* Sn 03 24 46.6 -3.5
CLARA Aguas Claras 7.35 116 *eP* Pn 03 23 32.5 +2.6
VMAR Armenia, Volca 7.39 116 *eP* Pn 03 23 33.2 +2.7
CUI Cuipilapa 7.42 117 *eP* Pn 03 23 33.7 +2.8
NICO Nicoya 7.45 122 *eP* Pn 03 23 34.4 +3.3
CRIG Cruz Grande 7.45 291 Pn 03 23 31.9 +0.7
CRIG Sn 03 24 56.8 +2.5
CRIG Cruz Grande 7.45 291 *eP* Pn 03 23 31.9 +0.7
CRIG *eS* Sn 03 24 56.8 +2.5
QUEB Quebradon, Cot 7.67 117 *eP* Pn 03 23 37.6 +3.4
CHIK Chiripa 7.75 118 *eP* Pn 03 23 39.3 +3.9
JTS Las Juntas de 7.78 119 P Pn 03 23 35.7 0.0
comp=Z,4.2nm,0.5s,baz=283,slow=8.1,SNR=17
JTS S Sn 03 25 02.1 -0.4
comp=Z,17nm,0.6s,baz=269,slow=15,SNR=0.7
JTS Las Juntas de 7.78 119 *i* P Pn 03 23 38.2 +2.4
JTS Las Juntas de 7.78 119 Pn Pn 03 23 37.2 +1.4
JTS Las Juntas de 7.78 119 P Pn 03 23 39.4 +3.6
JTS S Sn 03 25 12.4 +10
JTS Las Juntas de 7.78 119 P Pn 03 23 40.0 +4.3
comp=Z,79nm,0.8s
TABAC Tabacon 7.84 117 *eP* Pn 03 23 40.3 +3.7
PPAX Atlixo 7.86 308 Pn 03 23 39.2 +2.2
PPAX Atlixo 7.86 308 *eP* Pn 03 23 39.2 +2.2
ARE1 Arenal 1 7.90 117 *eP* Pn 03 23 41.4 +4.0
CASO Castillo 7.90 117 *eP* Pn 03 23 40.4 +3.0
VARE2 V. Arenal 7.90 117 *eP* Pn 03 23 40.9 +3.5
PPCL Tochimilco 8.01 307 Pn 03 23 41.6 +2.5
PPCL Tochimilco 8.01 307 *eP* Pn 03 23 41.6 +2.5
DAIG Los Arroyos 8.02 292 Pn 03 23 39.0 +0.1
DAIG Sn 03 25 07.0 -1.1
DAIG Los Arroyos 8.02 292 *eP* Pn 03 23 39.0 +0.1
DAIG *eS* Sn 03 25 07.0 -1.1
PPPT Popocatepetl 8.05 307 Pn 03 23 40.0 +0.1
PPPT Popocatepetl 8.05 307 *eP* Pn 03 23 40.0 +0.1
PPCU Popocatapetl 8.06 308 Pn 03 23 37.1 -2.9
PPCU Popocatapetl 8.06 308 *eP* Pn 03 23 37.1 -2.9
PBPN Popocatapetl 8.09 308 *eP* Pn 03 23 36.8 -3.7
PBXN Popocatepetl 8.09 307 *eP* Pn 03 23 36.4 -4.0
CXUV Coxquihui 8.10 318 Pn 03 23 36.9 -3.2
CXUV Sn 03 25 04.3 -5.8
CXUV Coxquihui 8.10 318 *eP* Pn 03 23 36.9 -3.2
CXUV *eS* Sn 03 25 04.3 -5.8
PPM Popocatepetl 8.10 308 *eP* Pn 03 23 44.1 +3.6
PPM *eS* Sn 03 25 15.9 +4.9
PPIG Popocatepetl 8.11 308 Pn 03 23 44.1 +3.5
PPIG Sn 03 25 15.9 +4.8
BLUN Bluefields 8.18 104 P Pn 03 23 40.6 -0.5
comp=Z,41nm,2.0s
YAIG Yautepec 8.33 305 Pn 03 23 45.1 +1.7
YAIG Sn 03 25 17.7 +1.6
YAIG Yautepec 8.33 305 *eP* Pn 03 23 45.1 +1.7
YAIG *eS* Sn 03 25 17.7 +1.6
MEIG Mezcala 8.33 298 Pn 03 23 41.4 -1.9
MEIG Sn 03 25 16.2 +0.1
MEIG Mezcala 8.33 298 *eP* Pn 03 23 41.4 -1.9
MEIG *eS* Sn 03 25 16.2 +0.1
PLIG Platanillo 8.45 301 Pn 03 23 49.9 +5.0
PLIG Sn 03 25 17.2 -1.6
PLIG Platanillo 8.45 301 *eP* Pn 03 23 49.9 +5.0
PLIG *eS* Sn 03 25 17.2 -1.6
MPVM San Francisco 8.48 307 Pn 03 23 45.1 -0.3
MPVM San Francisco 8.48 307 *eP* Pn 03 23 45.1 -0.3
THVM De Xico 8.51 308 Pn 03 23 47.4 +1.5
THVM De Xico 8.51 308 *eP* Pn 03 23 47.4 +1.5
CAIG El Cayaco 8.58 291 Pn 03 23 45.3 -1.4
CAIG Sn 03 25 20.6 -1.4
CAIG El Cayaco 8.58 291 *eP* Pn 03 23 45.3 -1.4
CAIG *eS* Sn 03 25 20.6 -1.4
TLVM San Miguel Top 8.59 307 Pn 03 23 50.4 +3.3

TLVM San Miguel Top 8.59 307 *eP* Pn 03 23 50.4 +3.3
MZVM 8.64 306 Pn 03 23 51.5 +4.1
MZVM 8.64 306 *eP* Pn 03 23 51.5 +4.1
HDC Heredia 8.64 118 *eP* Pn 03 23 41.1 -6.5
VTVM Tizayuca 8.64 311 Pn 03 23 50.1 +2.4
VTVM Tizayuca 8.64 311 *eP* Pn 03 23 50.1 +2.4
PBVM Pinon 8.67 308 Pn 03 23 52.4 +4.5
PBVM Pinon 8.67 308 *eP* Pn 03 23 52.4 +4.5
UNM Universidad Na 8.68 307 *eS* Sn 03 25 26.5 +1.7
MAVM Malinalco, Edo 8.72 304 Pn 03 23 51.8 +3.0
MAVM Malinalco, Edo 8.72 304 *eP* Pn 03 23 51.8 +3.0
MHVM Bosque de Chap 8.75 308 Pn 03 23 47.4 -1.8
MHVM Bosque de Chap 8.75 308 *eP* Pn 03 23 47.4 -1.8
AOVM Tlapan 8.76 306 Pn 03 23 52.4 +2.9
AOVM Tlapan 8.76 306 *eP* Pn 03 23 52.4 +2.9
PTVM Pico Tres Padr 8.79 309 Pn 03 23 52.6 +2.9
PTVM Pico Tres Padr 8.79 309 *eP* Pn 03 23 52.6 +2.9
INVM La Marquesa 8.82 306 Pn 03 23 52.6 +2.3
INVM La Marquesa 8.82 306 *eP* Pn 03 23 52.6 +2.3
LCR2 La Lucha 2 8.86 119 Pn Pn 03 23 50.6 -0.1
CVTG V. Turrialba, 8.87 116 *eP* Pn 03 23 53.9 +3.3
VICA Volcano Irazu 8.88 117 *eP* Pn 03 23 54.4 +3.2
AZVM Cuida Lopez Ma 8.91 308 Pn 03 23 54.1 +2.7
AZVM Cuida Lopez Ma 8.91 308 *eP* Pn 03 23 54.1 +2.7
TOVM TOLUCA 9.04 305 Pn 03 23 56.6 +3.3
TOVM TOLUCA 9.04 305 *eP* Pn 03 23 56.6 +3.3
ARIG Puente Sto Nin 9.11 298 Pn 03 23 56.4 +2.4
ARIG Sn 03 25 30.2 -4.9
ARIG Puente Sto Nin 9.11 298 *eP* Pn 03 23 56.4 +2.4
ARIG *eS* Sn 03 25 30.2 -4.9
DHIG Demacu 9.17 313 Pn 03 23 55.8 +0.9
DHIG Sn 03 25 41.0 +4.3
DHIG Demacu 9.17 313 *eP* Pn 03 23 55.8 +0.9
DEIG *eS* Sn 03 25 41.0 +4.3
EDPE Pejibaye, P 9.53 121 *eP* Pn 03 24 03.4 +3.8
CTUV Llano Grande 9.54 321 Pn 03 23 57.4 -2.3
CTUV Sn 03 25 40.1 -5.3
CTUV Llano Grande 9.54 321 *eP* Pn 03 23 57.4 -2.3
CTUV *eS* Sn 03 25 40.1 -5.3
ZIIG Zihuatanejo 9.84 292 Pn 03 24 04.6 +0.7
ZIIG Sn 03 25 56.4 +3.5
ZIIG Zihuatanejo 9.84 292 *eP* Pn 03 24 04.6 +0.7
ZIIG *eS* Sn 03 25 56.4 +3.5
PIRO Carate, Puerto 10.14 123 Pn Pn 03 24 08.4 +0.5
PIRO Carate, Puerto 10.14 123 *eP* Pn 03 24 12.3 +4.3
BRU2 Volcan 10.46 120 Pn Pn 03 24 12.0 -0.5
BRU2 Volcan 10.46 120 P Pn 03 24 16.2 +3.7
comp=Z,54nm,0.6s
MOIG Morelia 10.46 303 Pn Pn 03 24 11.6 -1.1
MOIG Morelia 10.46 303 Sn 03 26 12.8 +4.4
MOIG Morelia 10.46 303 *eP* Pn 03 24 15.2 +2.6
MOIG *eS* Sn 03 26 12.8 +4.4
BQTLY Boquete Panama 10.67 119 *eP* Pn 03 24 19.3 +3.9
RPIG Rio Verde 10.88 316 Pn 03 24 19.1 +0.9
RPIG Sn 03 26 17.0 -1.5
RPIG Rio Verde 10.88 316 *eP* Pn 03 24 19.1 +0.9
RPIG *eS* Sn 03 26 17.0 -1.5
GTIG Gomez Farias 11.23 323 Pn 03 24 26.4 +3.5
GTIG Sn 03 26 19.3 -7.6
GTIG Gomez Farias 11.23 323 *eP* Pn 03 24 26.4 +3.5
GTIG *eS* Sn 03 26 19.3 -7.6
INCO Volcan de Coli 12.43 297 *eP* P 03 24 46.2 -3.2
LCCY Blossom Villag 12.54 62 *eP* Pn 03 24 43.3 +2.6
CEGR Campo Tres 12.60 296 Pn 03 24 45.6 +3.9
CEGR Campo Tres 12.60 296 *eP* Pn 03 24 45.6 +3.9
BCIP Isla Barro Col 12.79 112 P Pn 03 24 45.0 +1.8
BCIP Isla Barro Col 12.79 112 P Pn 03 24 44.9 +0.7
comp=Z,14nm,0.9s
BCIP Isla Barro Col 12.79 112 P Pn 03 24 46.0 +1.8
comp=Z,14nm,0.9s
CBCY The Bluff, Cay 12.85 63 *eP* Pn 03 24 47.0 +2.1
ZAIG Zacatecas 13.27 312 Pn Pn 03 24 48.8 -2.1
ZAIG Zacatecas 13.27 312 P Pn 03 24 53.8 +2.9
comp=Z,20nm,0.8s
CIHU Emiliano Zapat 13.32 294 Pn 03 24 49.6 -1.8
CIHU Emiliano Zapat 13.32 294 *eP* Pn 03 24 49.6 -1.8
ESTA Talpa de Allen 13.85 298 Pn 03 24 58.9 +0.3
ESTA Talpa de Allen 13.85 298 *eP* Pn 03 24 58.9 +0.3
CAIB Caibarien 14.39 53 Pn Pn 03 25 06.9 +1.3
CAIB Caibarien 14.39 53 *eP* Pn 03 25 06.8 +1.3
PAYG Puerto Ayora 14.82 174 P P 03 25 21.2 +5.5
PAYG Puerto Ayora 14.82 174 P P 03 25 21.0 +5.3
comp=Z,88nm,1.1s
CCCC Cccc 15.15 60 *eP* P 03 25 34.9 +16
LMGC Las Mercedes 15.37 66 *eP* P 03 25 23.9 +2.2
735A Kenedy 15.62 340 Pn Pn 03 25 21.8 +0.4
833A Chaparral WMA, 15.73 335 Pn Pn 03 25 22.9 +0.1
833A IAmb IAmb 03 25 50.7
comp=Z,70nm,1.4s
CHIV Chivirico 15.87 66 Pn Pn 03 25 25.2 +0.6
CHIV IAmb IAmb 03 25 31.3
comp=Z,44nm,0.8s
HKT Hockley 16.13 348 *i* P Pn 03 25 27.7 -0.1
HKT pmax pmax
comp=Z,34nm,1.8s
HKT Hockley 16.13 348 Pn Pn 03 25 26.4 -1.4
HKT Hockley 16.13 348 P P 03 25 28.9 -1.1
comp=Z,26nm,1.8s
MLDN Muldoon 16.27 344 Pn Pn 03 25 28.1 -1.5
MLDN IAmb IAmb 03 25 52.1
comp=Z,69nm,1.1s
RCC Rio Carpintero 16.51 67 *eP* P 03 25 39.7 +5.3
441A DeRidder 16.55 356 P Pn 03 25 32.7 -0.5
441A IAmb IAmb 03 25 38.9
comp=Z,77nm,0.8s
PINC Pinares de May 16.59 65 *eP* P 03 25 38.9 +3.7
HNDO Hondo 16.76 337 Pn Pn 03 25 35.1 -0.6
HNVL Huntsville, TX 16.84 349 IAmb IAmb 03 26 00.5
comp=Z,72nm,1.2s
SJCC San Jacinto, C 16.87 103 P Pn 03 25 34.7 -2.5
comp=Z,22nm,0.9s
346A Big Creek Wild 17.29 7 P 03 25 43.3 +0.5
346A IAmb IAmb 03 25 47.5
comp=Z,80nm,0.8s
435B Jarrell 17.36 343 Pn Pn 03 25 40.6 -2.5
SNAG San Augustine 17.41 353 Pn 03 25 42.3 -1.3
SNAG IAmb IAmb 03 25 46.8
comp=Z,117nm,0.9s
CBOC Ciudad Bolivar 17.65 116 P Pn 03 25 47.1 +0.1
comp=Z,16nm,0.9s
NATX Nacogdoches 17.70 352 IAmb IAmb 03 25 50.1
comp=Z,56nm,0.8s
JCT Junction City 17.81 337 P P 03 25 50.0 +1.3
JCT pmax pmax
comp=Z,17nm,0.9s
JCT Junction City 17.81 337 P 03 25 50.0 +1.3
VBMS Vicksburg 18.02 4 IAmb IAmb 03 26 14.8
comp=Z,55nm,0.7s
HPIG 18.10 317 P 03 25 49.7 -2.3
HPIG 18.10 317 P Pn 03 25 54.5 +2.1
comp=Z,21nm,0.9s
BRDY Brady 18.26 340 P Pn 03 25 54.5 +0.3
YOTC Yotoco, Valle 18.35 122 P Pn 03 25 56.6 +1.1
comp=Z,21nm,0.7s
352A Blakely 18.38 19 IAmb IAmb 03 26 01.0
comp=Z,84nm,1.0s
143A Socs Landing, 18.46 1 IAmb IAmb 03 26 12.2
comp=Z,104nm,1.1s
WHTX Lake Whitney, 18.47 345 P P 03 25 53.6 -2.3
GUY2C Guyana, Caldas 18.52 117 P Pn 03 25 58.3 +0.4
comp=Z,393nmcomp=Z,45nm,0.7s
JAMC Jamundi, Valle 18.53 125 P Pn 03 25 58.5 +0.8
comp=Z,17nm,1.0s
146A Union 18.57 7 IAmb IAmb 03 26 01.1
comp=Z,133nm,1.4s
TXAR Lajitas Array 18.63 326 P Pn 03 25 59.1 +0.4
comp=Z,16nm,0.8s,baz=154,slow=11,SNR=124
TXAR PcP PcP 03 30 23.0 -1.5
comp=Z,1.2nm,0.7s,baz=158,slow=3.5,SNR=4.5
TXAR ScP ScP 03 33 54.5 -0.2
comp=Z,0.9nm,0.9s,baz=166,slow=5.8,SNR=5.4
TXAR Lajitas Array 18.63 326 P Pn 03 25 59.8 +1.1
TXAR Lajitas Array 18.63 326 P Pn 03 25 59.8 +1.1
OZNA Ozona 18.73 335 P Pn 03 26 00.3 +0.5
TIGA Tifton 18.80 22 IAmb IAmb 03 26 01.6
comp=Z,66nm,0.7s
FW13 Cleburne 18.81 345 IAmb IAmb 03 26 04.2
comp=Z,45nm,1.0s
POPC Popayan, Colom 18.94 126 P Pn 03 26 03.9 +1.3
comp=Z,352nmcomp=Z,22nm,0.8s
OTAV Otavalo 19.18 135 *eP* P 03 26 01.4 -2.9
Z38A Mt. Pleasant 19.22 352 P Pn 03 26 04.7 -0.9
Z38A IAmb IAmb 03 26 28.0

comp=Z,63nm,1.2s
Z47A Carrollton 19.27 10 P Pn 03 26 05.8 -0.3
LRAL Lakeview Retre 19.31 12 P Pn 03 26 05.3 -1.4
LRAL IAmb IAmb 03 26 10.7
comp=Z,55nm,0.9s
ORTC Ortega, Tolima 19.31 120 P Pn 03 26 07.7 +0.9
comp=Z,665nmcomp=Z,104nm,0.8s
FW06 Azle 19.43 346 IAmb IAmb 03 26 12.8
comp=Z,89nm,1.0s
ALPN Alpine 19.44 328 P Pn 03 26 08.2 -0.2
PLPT Palo Pinto 19.47 344 IAmb IAmb 03 26 08.3
comp=Z,37nm,0.5s
152A Waverly Hall 19.55 18 IAmb IAmb 03 26 27.3
comp=Z,49nm,1.2s
ROSC El Rosal 19.62 116 P P 03 26 09.7 +0.7
comp=Z,21nm,0.7s,baz=94,slow=21,SNR=12
ROSC LR LR 03 34 04.8
comp=Z,119nm,21.1s,baz=287,slow=38
ROSC El Rosal 19.62 116 P Pn 03 26 11.8 +0.9
ROSC pmax pmax
comp=Z,73nm,1.2s
ROSC El Rosal 19.62 116 P Pn 03 26 11.8 +0.9
ROSC IAmb IAmb 03 26 27.9
comp=Z,73nm,1.2s
ROSC El Rosal 19.62 116 P Pn 03 26 12.0 +1.1
comp=Z,669nmcomp=Z,56nm,1.3s
ABTX Abilene, Hawle 19.70 340 IAmb IAmb 03 26 30.8
comp=Z,57nm,1.3s
Z35A Perchaven, San 19.70 347 P P 03 26 09.2 -0.2
Z35A IAmb IAmb 03 26 15.9
comp=Z,56nm,0.9s
PRAC Prado 19.71 120 P Pn 03 26 11.4 -0.2
comp=Z,39nm,0.8s
TPB01 Permian Basin 19.97 329 P Pn 03 26 14.2 -0.4
LPIG La Paz 20.01 302 P P 03 26 12.9 +0.1
comp=Z,7.9nm,0.3s,baz=264,slow=1.9,SNR=4.0
LPIG LR LR 03 34 30.1
comp=Z,74nm,20.7s,baz=95,slow=38
comp=Z,7.9nm,0.3s
Y49A Blount Mountai 20.23 13 P P 03 26 14.8 -0.2
Y49A IAmb IAmb 03 26 44.4
comp=Z,44nm,1.0s
CHIC Chingaza 20.23 116 P Pn 03 26 17.5 -0.6
comp=Z,64nm,0.9s
RUSC La Rusia 20.23 112 P 03 26 15.4 -0.4
RUSC IAmb IAmb 03 26 34.3
comp=Z,113nm,1.5s
RUSC La Rusia 20.23 112 P P 03 26 14.5 -1.3
comp=Z,52nm,1.2s
X40A Basin Creek Fa 20.26 358 P P 03 26 15.3 0.0
X40A IAmb IAmb 03 26 37.9
comp=Z,80nm,1.4s
TPB06 Permian Basin 20.27 331 P P 03 26 14.7 -1.0
TPB06 IAmb IAmb 03 26 21.1
comp=Z,26nm,0.6s
SDDR Presa de Saban 20.30 74 P P 03 26 17.0 +0.9
comp=Z,23nm,1.1s
LOOK Love County 20.32 347 P P 03 26 16.0 -0.1
LOOK IAmb IAmb 03 26 37.3
comp=Z,49nm,0.9s
MIAR Mount Ida 20.35 356 P P 03 26 15.3 -1.1
MIAR pmax pmax
comp=Z,72nm,1.0s
MIAR Mount Ida 20.35 356 P 03 26 15.3 -1.1
MIAR IAmb IAmb 03 26 39.9
comp=Z,72nm,0.9s
MIAR Mount Ida 20.35 356 P P 03 26 15.7 -0.7
comp=Z,84nm,1.1s
PECS Pecos 20.36 329 P P 03 26 16.7 +0.1
ODSA Odessa 20.37 333 P P 03 26 16.5 -0.2
ODSA IAmb IAmb 03 26 19.3
comp=Z,50nm,0.8s
OXF Oxford 20.38 6 P P 03 26 16.0 -0.7
OXF pmax pmax
comp=Z,110nm,1.1s
OXF Oxford 20.38 6 P P 03 26 16.0 -0.7
URMC La Uribe, Meta 20.39 121 P P 03 26 18.9 +1.8
comp=Z,472nmcomp=Z,65nm,0.8s
WTFS Witchita Falls 20.41 344 P P 03 26 16.5 -0.6
WTFS IAmb IAmb 03 26 44.0
comp=Z,27nm,0.8s
TPB07 Mentone 20.43 330 P P 03 26 16.3 -1.0
TPB07 IAmb IAmb 03 26 23.4
comp=Z,52nm,0.7s
VHRN Van Horn 20.48 326 P 03 26 18.4 +0.5
VHRN IAmb IAmb 03 26 21.3
comp=Z,24nm,0.7s
APMT Aspermont 20.50 340 P P 03 26 17.7 -0.3
APMT IAmb IAmb 03 26 21.7
comp=Z,30nm,0.7s
UALR University of 20.53 359 P 03 26 16.7 -1.6
UALR IAmb IAmb 03 26 40.8
comp=Z,51nm,0.9s
GOGA Godfrey 20.63 20 P P 03 26 18.4 -1.0
GOGA pmax pmax
comp=Z,32nm,1.0s
GOGA Godfrey 20.63 20 P P 03 26 18.4 -1.0
GOGA IAmb IAmb 03 26 42.7
comp=Z,32nm,0.9s
GOGA Godfrey 20.63 20 P P 03 26 19.8 +0.4
comp=Z,31nm,0.8s
X48A Hartselle 20.67 11 P P 03 26 19.2 -0.6
X48A IAmb IAmb 03 26 26.8
comp=Z,51nm,0.8s
POST Post 20.76 337 IAmb IAmb 03 26 22.9
comp=Z,26nm,0.6s
Y52A Lilburn 20.86 19 IAmb IAmb 03 26 47.7
comp=Z,82nm,1.4s
SC01 Santiago de lo 20.90 73 P P 03 26 23.0 +0.5
TPB28 20.92 329 IAmb IAmb 03 26 28.2
comp=Z,17nm,0.6s
WHAR Wooly Hollow 21.04 359 IAmb IAmb 03 26 46.6
comp=Z,76nm,1.4s
X34A Smith Ranch, M 21.05 346 P P 03 26 23.9 0.0
X34A IAmb IAmb 03 26 46.1
comp=Z,65nm,1.1s
FPAL Fort Paine 21.07 15 IAmb IAmb 03 26 45.6
comp=Z,41nm,0.9s
DKNS Dickens 21.09 339 IAmb IAmb 03 26 30.2
comp=Z,29nm,0.6s
X51A Calhoun 21.28 16 IAmb IAmb 03 26 33.5
comp=Z,72nm,1.0s
W35A Tecumseh 21.38 349 IAmb IAmb 03 26 35.7
comp=Z,76nm,1.1s
MNTX Cornudas Mount 21.40 327 P P 03 26 27.9 +0.2
MNTX IAmb IAmb 03 26 32.1
comp=Z,32nm,0.7s
MNTX Cornudas Mount 21.40 327 P P 03 26 28.6 +0.9
comp=Z,50nm,0.8s
WMOK Wichita Mounta 21.42 344 P P 03 26 26.0 -1.9
WMOK Wichita Mounta 21.42 344 P P 03 26 27.0 -0.9
comp=Z,24nm,1.1s
MACC Macarena, Meta 21.44 122 P P 03 26 30.0 +1.7
comp=Z,766nmcomp=Z,78nm,0.9s
SWET Sewanee 21.64 13 IAmb IAmb 03 26 51.5
comp=Z,40nm,1.0s
CPRX Cap Rock 21.73 332 P P 03 26 32.7 +1.4
W50A Signal Mountai 21.77 15 IAmb IAmb 03 26 48.1
comp=Z,65nm,1.1s
HODGE Hodges 21.80 22 IAmb IAmb 03 26 56.3
comp=Z,55nm,1.3s
LCAR Lake Charles 21.82 2 IAmb IAmb 03 26 49.1
comp=Z,25nm,0.6s
V48A Smith Brothers 21.96 11 IAmb IAmb 03 26 50.3
comp=Z,43nm,1.2s
W52A Murphy 22.04 18 IAmb IAmb 03 26 55.5
comp=Z,21nm,0.6s
MSTX Muleshoe 22.06 335 P P 03 26 33.7 -1.1
MSTX IAmb IAmb 03 27 13.2
comp=Z,43nm,1.3s
OK029 Liberty Lake 22.12 348 IAmb IAmb 03 26 53.3
comp=Z,30nm,0.8s
WVT Waverly 22.17 9 P P 03 26 34.0 -1.9
WVT pmax pmax
comp=Z,42nm,1.2s
WVT Waverly 22.17 9 P P 03 26 34.0 -1.9
WVT IAmb IAmb 03 26 44.1
comp=Z,42nm,1.1s
WVT Waverly 22.17 9 P P 03 26 35.4 -0.5
comp=Z,23nm,0.8s
CPCT Cooper Cave 22.21 16 IAmb IAmb 03 26 53.7
comp=Z,29nm,0.9s
JSC Jenkinsville 22.22 24 IAmb IAmb 03 27 02.5
comp=Z,32nm,1.1s
GUVC San Jose del G 22.24 120 P P 03 26 38.7 +1.8
BG3 Lake Jocassee 22.25 20 IAmb IAmb 03 27 02.4
comp=Z,40nm,1.1s

CLTN	**Cedars of Leba**	**22.40**	**12**	IAmb	IAmb	03 26 46.7			
	comp=Z,48nm,1.1s								
AMTX	**Amarillo**	**22.45**	**338**	IAmb	IAmb	03 26 43.1			
	comp=Z,34nm,0.6s								
PBMO	**Poplar Bluff**	**22.56**	**3**	IAmb	IAmb	03 27 04.2			
	comp=Z,41nm,1.1s								
TKL	**Tuckaleechee C**	**22.61**	**17**	LR	LR	03 36 24.1			
	comp=Z,44nm,21.9s,baz=204,slow=39								
TKL	**Tuckaleechee C**	**22.61**	**17**	IAmb	IAmb	03 27 04.7			
	comp=Z,30nm,1.0s								
OK048	**Pawnee Station**	**22.62**	**349**	IAmb	IAmb	03 26 49.9			
	comp=Z,54nm,0.9s								
ELIS	**Ellis County**	**22.84**	**344**	IAmb	IAmb	03 27 11.2			
	comp=Z,42nm,1.1s								
BIRD	**Birdtown, Kers**	**22.85**	**25**	IAmb	IAmb	03 26 59.5			
	comp=Z,21nm,0.8s								
V53A	**Saluda**	**22.91**	**19**	IAmb	IAmb	03 27 17.9			
	comp=Z,65nm,1.4s								
U49A	**Red Boiling Sp**	**22.92**	**13**	P	**P**	**03 26 41.6**	**-2.2**		
U49A				IAmb	IAmb	03 26 53.3			
	comp=Z,49nm,1.1s								
T35A	**Sooner Cattle**	**23.04**	**350**	IAmb	IAmb	03 27 18.6			
	comp=Z,26nm,1.0s								
CGM3	**Cape Girardeau**	**23.13**	**5**	IAmb	IAmb	03 27 07.7			
	comp=Z,27nm,0.9s								
T47A	**Sharon Grove**	**23.13**	**10**	IAmb	IAmb	03 26 45.4			
	comp=Z,41nm,0.7s								
121A	**Cookes Peak, D**	**23.35**	**324**	IAmb	IAmb	03 26 51.9			
	comp=Z,46nm,0.9s								
319A	**Douglas**	**23.42**	**320**	IAmb	IAmb	03 26 52.3			
	comp=Z,52nm,1.3s								
TZTN	**Tazewell**	**23.50**	**17**	IAmb	IAmb	03 27 08.4			
	comp=Z,81nm,1.4s								
TZTN	**Tazewell**	**23.50**	**17**	P	**P**	**03 26 47.8**	**-1.7**		
	comp=Z,38nm,0.7s								
T50A	**Nancy**	**23.61**	**14**	P	**P**	**03 26 47.9**	**-2.5**		
T50A				IAmb	IAmb	03 27 12.6			
	comp=Z,16nm,0.6s								
V55A	**Taylorsville**	**23.62**	**22**	IAmb	IAmb	03 26 51.4			
	comp=Z,26nm,0.8s								
Y22A	**Socorro**	**23.98**	**328**	IAmb	IAmb	03 26 57.5			
	comp=Z,17nm,0.8s								
U54A	**Nelsons Funny**	**24.02**	**20**	IAmb	IAmb	03 27 19.0			
	comp=Z,32nm,0.7s								
R40A	**Maddies Statio**	**24.04**	**359**	IAmb	IAmb	03 27 21.6			
	comp=Z,36nm,1.3s								
RTBA	**Rita Blanca**	**24.22**	**338**	IAmb	IAmb	03 26 57.7			
	comp=Z,27nm,0.6s								
U56A	**King**	**24.37**	**23**	IAmb	IAmb	03 27 25.4			
	comp=Z,34nm,1.0s								
WCI	**Wyandotte Cave**	**24.48**	**11**	P	**P**	**03 26 56.3**	**-2.0**		
WCI				pmax	pmax				
	comp=Z,49nm,0.9s								
WCI	**Wyandotte Cave**	**24.48**	**11**	P	**P**	**03 26 56.3**	**-2.0**		
WCI	**Wyandotte Cave**	**24.48**	**11**	P	**P**	**03 26 56.9**	**-1.3**		
	comp=Z,58nm,0.9s								
S51A	**Beattyville**	**24.52**	**16**	IAmb	IAmb	03 27 13.2			
	comp=Z,34nm,1.0s								
ALQ	**Albuquerque**	**24.52**	**330**	IAmb	IAmb	03 27 01.3			
	comp=Z,14nm,0.6s								
ALQ	**Albuquerque**	**24.52**	**330**	IAmb	IAmb	03 27 01.2			
	comp=Z,14nm,0.6s								
ANMO	**Albuquerque**	**24.52**	**330**	LR	LR	03 38 31.2			
	comp=Z,114nm,21.1s,baz=157,slow=41								
ANMO	**Albuquerque**	**24.52**	**330**	*c*	**eP**	**P**	**03 26 58.9**	**-0.1**	
ANMO					pmax	pmax			
	comp=Z,12nm,0.6s								
ANMO	**Albuquerque**	**24.52**	**330**		P	**P**	**03 26 59.5**	**+0.6**	
ANMO	**Albuquerque**	**24.52**	**330**		P	**P**	**03 27 00.6**	**+1.6**	
	comp=Z,20nm,0.9s								
TASM	**ASL Pad, Albuq**	**24.52**	**330**	IAmb	IAmb	03 27 01.3			
	comp=Z,13nm,0.6s								
TASM	**ASL Pad, Albuq**	**24.52**	**330**	IAmb	IAmb	03 27 01.3			
	comp=Z,13nm,0.6s								
R49A	**Shelbyville**	**24.76**	**13**	IAmb	IAmb	03 27 14.9			
	comp=Z,35nm,1.0s								
Q44A	**Meyer Farm, Va**	**24.77**	**5**	IAmb	IAmb	03 27 01.1			
	comp=Z,31nm,0.7s								
R32A	**Long Quarter,**	**24.91**	**347**	IAmb	IAmb	03 27 32.0			
	comp=Z,17nm,0.8s								
R50A	**Paris**	**24.94**	**14**	IAmb	IAmb	03 27 19.2			
	comp=Z,38nm,1.2s								
TUC	**Tucson**	**24.99**	**319**	P	**P**	**03 27 04.4**	**+1.2**		
TUC				pmax	pmax				
	comp=Z,13nm,0.9s								
TUC	**Tucson**	**24.99**	**319**	P	**P**	**03 27 04.4**	**+1.2**		
TUC	**Tucson**	**24.99**	**319**	P	**P**	**03 27 05.3**	**+2.1**		
	comp=Z,18nm,0.8s								
TUC				pP	**pP**	**03 27 17.7**	**-0.6**		
SJG	**San Juan**	**25.01**	**78**	LR	LR	03 36 03.3			
	comp=Z,112nm,21.5s,baz=245,slow=34								
ATAH	**Atahualpa**	**25.03**	**147**	LR	LR	03 35 46.0			
	comp=Z,148nm,18.9s,baz=329,slow=34								
KSU1	**Kansas State U**	**25.19**	**351**	IAmb	IAmb	03 27 46.6			
	comp=Z,20nm,0.8s								
BLO	**Bloomington**	**25.36**	**10**	IAmb	IAmb	03 27 39.9			
	comp=Z,28nm,0.8s								
T25A	**Trinidad**	**25.47**	**336**	IAmb	IAmb	03 27 50.0			
	comp=Z,24nm,1.1s								
HDIL	**Hopedale**	**26.39**	**4**	P	**P**	**03 27 13.5**	**-2.1**		
HDIL				IAmb	IAmb	03 27 32.0			
	comp=Z,30nm,1.1s								
SFIN	**Lafayette**	**26.45**	**8**	IAmb	IAmb	03 27 15.4			
	comp=Z,20nm,0.7s								
KSCO	**Kaye Shedlock'**	**26.51**	**341**	IAmb	IAmb	03 27 42.6			
	comp=Z,33nm,1.3s								
ACSO	**Alum Creek Sta**	**27.11**	**15**	IAmb	IAmb	03 27 59.9			
	comp=Z,21nm,0.8s								
N47A	**Urbana**	**27.16**	**10**	IAmb	IAmb	03 27 37.5			
	comp=Z,50nm,1.3s								
O52A	**Adamsville**	**27.31**	**17**	IAmb	IAmb	03 28 01.7			
	comp=Z,21nm,1.0s								
MVCO	**Mesa Verde**	**27.32**	**330**	IAmb	IAmb	03 27 27.0			
	comp=Z,23nm,1.2s								
MVCO	**Mesa Verde**	**27.32**	**330**	P	**P**	**03 27 26.0**	**+1.7**		
	comp=Z,22nm,1.1s								
P57A	**Homestead Farm**	**28.02**	**23**	IAmb	IAmb	03 27 30.2			
	comp=Z,13nm,0.6s								
PV15	**Paradox Valley**	**28.22**	**332**	P	**P**	**03 27 33.6**	**+1.2**		
PV02	**Paradox Valley**	**28.23**	**331**	IAmb	IAmb	03 28 18.1			
	comp=Z,17nm,1.0s								
PV13	**Radium Mtn., P**	**28.23**	**331**	IAmb	IAmb	03 27 35.2			
	comp=Z,41nm,1.4s								
PV05	**Paradox Valley**	**28.30**	**330**	IAmb	IAmb	03 28 10.2			
	comp=Z,29nm,1.1s								
PV03	**Paradox Valley**	**28.32**	**331**	IAmb	IAmb	03 28 10.7			
	comp=Z,24nm,1.1s								
PV18	**Skein Mesa, Pa**	**28.34**	**331**	IAmb	IAmb	03 28 10.8			
	comp=Z,24nm,1.0s								
PV12	**Saucer Basin,**	**28.35**	**331**	IAmb	IAmb	03 27 36.3			
	comp=Z,19nm,0.7s								
PV11	**David Mesa, Pa**	**28.37**	**331**	IAmb	IAmb	03 28 11.1			
	comp=Z,17nm,0.9s								
PV17	**East Wray Mesa**	**28.39**	**331**	IAmb	IAmb	03 27 36.5			
	comp=Z,13nm,0.7s								
PV04	**Paradox Valley**	**28.46**	**331**	IAmb	IAmb	03 27 39.5			
	comp=Z,17nm,0.7s								
PV14	**Lion Creek, Pa**	**28.50**	**331**	IAmb	IAmb	03 28 12.1			
	comp=Z,23nm,1.1s								
PV10	**Paradox Valley**	**28.51**	**331**	IAmb	IAmb	03 28 11.5			
	comp=Z,25nm,1.2s								
PV22	**Blue Mesa, Par**	**28.52**	**331**	IAmb	IAmb	03 27 37.5			
	comp=Z,12nm,0.7s								
PV23	**Carpenter Ridg**	**28.56**	**331**	IAmb	IAmb	03 27 39.7			
	comp=Z,17nm,0.9s								
BC3	**Big Chuckawall**	**28.88**	**316**	IAmb	IAmb	03 27 41.4			
	comp=Z,22nm,0.9s								
HMU	**Henry Mountain**	**29.00**	**328**	IAmb	IAmb	03 27 42.3			
	comp=Z,18nm,0.8s								
SSPA	**Standing Stone**	**29.07**	**22**	P	**P**	**03 27 38.1**	**-1.5**		
SSPA				IAmb	IAmb	03 27 39.2			
	comp=Z,16nm,0.9s								
SSPA	**Standing Stone**	**29.07**	**22**	P	**P**	**03 27 38.4**	**-1.2**		
	comp=Z,21nm,0.9s								
KNB	**Kanab**	**29.45**	**324**	IAmb	IAmb	03 27 46.6			
	comp=Z,16nm,0.8s								
PFO	**Pinyon Flats O**	**29.54**	**315**	LR	LR	03 39 36.4			
	comp=Z,205nm,21.8s,baz=125,slow=36								
PFO	**Pinyon Flats O**	**29.54**	**315**	*i*	**P**	**P**	**03 27 44.9**	**+1.0**	
NNA	**Nana**	**29.95**	**149**	LR	LR	03 37 52.4			
	comp=Z,120nm,18.7s,baz=320,slow=32								
M57A	**Sunshine Farm,**	**29.96**	**23**	IAmb	IAmb	03 27 47.3			
	comp=Z,17nm,0.7s								
SZCU	**Shurtz Canyon**	**30.01**	**325**	IAmb	IAmb	03 27 51.6			
	comp=Z,15nm,0.8s								
MTPC	**Mountain Pass**	**30.06**	**319**	P	**P**	**03 27 49.9**	**+1.3**		
TCRU	**Three Creeks R**	**30.39**	**327**	IAmb	IAmb	03 27 55.1			
	comp=Z,17nm,0.9s								
BINY	**Binghamton**	**31.14**	**23**	IAmb	IAmb	03 27 57.4			
	comp=Z,18nm,0.9s								
BINY	**Binghamton**	**31.14**	**23**	P	**P**	**03 27 56.5**	**-1.3**		
	comp=Z,23nm,0.8s								
CCCA	**Chr Cany lake**	**31.26**	**317**	IAmb	IAmb	03 28 05.0			
	comp=Z,9.1nm,0.7s								
TPNV	**Topopah Spring**	**31.43**	**321**	P	**P**	**03 28 03.4**	**+2.8**		
TPO	**Tropico Hills**	**31.46**	**316**	IAmb	IAmb	03 28 03.9			
	comp=Z,20nm,1.3s								
FURC	**Furnace Creek,**	**31.51**	**319**	IAmb	IAmb	03 28 04.7			
	comp=Z,14nm,1.1s								
S11A	**Rachel**	**31.57**	**322**	IAmb	IAmb	03 28 05.9			
	comp=Z,26nm,1.1s								
RSSD	**Black Hills**	**31.62**	**343**	P	**P**	**03 28 01.4**	**-0.8**		
RSSD				pmax	pmax				
	comp=Z,3.0nm,0.7s								
RSSD	**Black Hills**	**31.62**	**343**	P	**P**	**03 28 01.4**	**-0.8**		
MPMC	**Manual Prospec**	**31.66**	**318**	IAmb	IAmb	03 28 05.8			
	comp=Z,12nm,0.9s								
DUG	**Dugway, Tooele**	**31.76**	**329**	P	**P**	**03 28 05.7**	**+2.2**		
DUG	**Dugway, Tooele**	**31.76**	**329**	P	**P**	**03 28 05.7**	**+2.2**		
	comp=Z,5.5nm,0.7s								
TCUT	**Toone Canyon**	**31.79**	**331**	IAmb	IAmb	03 28 06.7			
	comp=Z,11nm,0.8s								
GRAC	**Grapevine Rang**	**32.15**	**320**	IAmb	IAmb	03 28 10.8			
	comp=Z,25nm,1.1s								
HWUT	**Hardware Ranch**	**32.25**	**332**	P	**P**	**03 28 09.1**	**+1.3**		
	comp=Z,7.4nm,0.7s								
PDAR	**Pinale Array**	**32.33**	**335**	P	**P**	**03 28 08.2**	**-0.3**		
	comp=Z,0.9nm,0.6s,baz=123,slow=10,SNR=12								
PDAR				PcP	**PcP**	**03 30 55.4**	**+0.1**		
	comp=Z,1.8nm,0.6s,baz=114,slow=3.7,SNR=10.0								
PDAR				pPcP		03 31 12.1			
	comp=Z,0.8nm,0.7s,baz=114,slow=3.6,SNR=4.3								
PDAR				LR	LR	03 44 19.8			
	comp=Z,85nm,19.9s,baz=136,slow=42								
	comp=Z,0.9nm,0.6s								
PDAR	**Pinedale Array**	**32.33**	**335**	P	**P**	**03 28 08.0**	**-0.5**		
PDAR					**PcP**	**03 30 55.1**	**-0.2**		
SADO	**Sadowa**	**32.37**	**17**	LR	LR	03 41 55.0			
	comp=Z,305nm,21.6s,baz=190,slow=37								
BGU	**Big Grassy Mou**	**32.42**	**329**	IAmb	IAmb	03 28 12.0			
	comp=Z,8.2nm,0.7s								
MZP	**Montezuma Peak**	**32.60**	**321**	IAmb	IAmb	03 28 14.2			
	comp=Z,12nm,1.0s								
TIN	**Tinemaha, Big**	**32.73**	**319**	P	**P**	**03 28 13.4**	**+1.4**		
TIN				pmax	pmax				
	comp=Z,52nm,0.3s								
TIN	**Tinemaha, Big**	**32.73**	**319**	P	**P**	**03 28 13.4**	**+1.4**		
TPH	**Tonopah**	**32.74**	**321**	IAmb	IAmb	03 28 15.6			
	comp=Z,15nm,1.2s								
AHID	**Auburn Hatcher**	**32.97**	**334**	P	**P**	**03 28 15.1**	**+0.9**		
	comp=Z,6.5nm,0.8s								
ELK	**Elko**	**33.42**	**327**	LR	LR	03 44 09.2			
	comp=Z,153nm,21.2s,baz=165,slow=40								
ELK	**Elko**	**33.42**	**327**	P	**P**	**03 28 20.3**	**+2.1**		
ELK	**Elko**	**33.42**	**327**	IAmb	IAmb	03 28 21.2			
	comp=Z,8.1nm,0.7s								
MDPB	**Devils Postpil**	**33.62**	**319**	IAmb	IAmb	03 28 23.5			
	comp=Z,10nm,0.9s								
NVAR	**Mina Array Bea**	**33.62**	**321**	P	**P**	**03 28 20.7**	**+0.8**		
	comp=Z,19nm,0.8s,baz=136,slow=8.7,SNR=112								
NVAR				pP	**pP**	**03 28 36.5**	**+1.1**		
	comp=Z,12nm,0.7s,baz=134,slow=9.1,SNR=8.7								
NVAR				PcP	**PcP**	**03 30 59.2**	**+0.2**		
	comp=Z,3.7nm,0.7s,baz=134,slow=4.3,SNR=7.9								
NVAR				pPcP		03 31 17.8			
	comp=Z,3.0nm,0.8s,baz=143,slow=3.8,SNR=5.2								
NVAR				LR	LR	03 42 34.6			
	comp=Z,227nm,20.7s,baz=164,slow=37								
	comp=Z,19nm,0.8s								
LHV	**Little Huntoon**	**33.64**	**320**	IAmb	IAmb	03 28 23.9			
	comp=Z,15nm,0.8s								
KVN	**Kaiserville**	**33.89**	**322**	IAmb	IAmb	03 28 26.1			
	comp=Z,17nm,0.9s								
PMPB	**Monarch Peak**	**33.95**	**316**	P	**P**	**03 28 23.2**	**+0.7**		
PMPB				IAmb	IAmb	03 28 25.7			
	comp=Z,21nm,1.1s								
RLMT	**Red Lodge**	**34.20**	**338**	IAmb	IAmb	03 28 26.6			
	comp=Z,5.7nm,0.6s								
BMN	**Battle Mountai**	**34.29**	**325**	IAmb	IAmb	03 28 28.9			
	comp=Z,8.4nm,0.7s								
WAKR	**Walker**	**34.37**	**320**	P	**P**	**03 28 28.0**	**+1.6**		
WAKR				IAmb	IAmb	03 28 30.4			
	comp=Z,20nm,1.5s								
YHL	**Hebgen Lake**	**34.71**	**336**	IAmb	IAmb	03 29 14.1			
	comp=Z,12nm,1.5s								
PNTR	**Pine Nut**	**34.83**	**321**	IAmb	IAmb	03 28 34.0			
	comp=Z,13nm,0.8s								
PAHR	**Pah Rah Range**	**35.08**	**322**	IAmb	IAmb	03 28 35.8			
	comp=Z,9.6nm,1.0s								
HLID	**Hailey**	**35.09**	**331**	IAmb	IAmb	03 28 36.8			
	comp=Z,8.2nm,0.7s								
HLID	**Hailey**	**35.09**	**331**	P	**P**	**03 28 34.4**	**+1.9**		
	comp=Z,12nm,0.8s								
MHC	**Mount Hamilton**	**35.12**	**317**	IAmb	IAmb	03 28 36.0			
	comp=Z,13nm,1.0s								
MFID	**Camas Ranch**	**35.66**	**330**	IAmb	IAmb	03 28 41.1			
	comp=Z,6.7nm,0.8s								
DGMT	**Dagmar**	**35.70**	**346**	IAmb	IAmb	03 28 39.9			
	comp=Z,6.7nm,0.8s								
BEKR	**Beckworth**	**35.77**	**321**	P	**P**	**03 28 39.2**	**+0.8**		
BEKR				IAmb	IAmb	03 28 41.8			
	comp=Z,12nm,1.1s								
ULM	**Lac du Bonnet**	**36.14**	**356**	P	**P**	**03 28 39.6**	**-1.5**		
	comp=Z,2.8nm,0.7s,baz=158,slow=8.3,SNR=5.3								
ULM				PcP	**PcP**	**03 31 05.3**	**-0.3**		
	comp=Z,6.3nm,0.7s,baz=175,slow=4.7,SNR=7.0								
ULM				LR	LR	03 46 32.2			
	comp=Z,72nm,21.2s,baz=176,slow=41								
	comp=Z,2.8nm,0.7s								
ULM	**Lac du Bonnet**	**36.14**	**356**	*i*	P	**P**	**03 28 39.1**	**-2.0**	
ULM	**Lac du Bonnet**	**36.14**	**356**		P	**P**	**03 28 38.5**	**-2.6**	
ULM				IAmb	IAmb	03 28 57.4			
	comp=Z,12nm,1.3s								
ULM						**PcP**	**03 31 05.6**	**-0.1**	
WVOR	**Wild Horse Val**	**36.43**	**326**	P	**P**	**03 28 45.4**	**+1.5**		
WVOR	**Wild Horse Val**	**36.43**	**326**	IAmb	IAmb	03 28 46.6			
	comp=Z,11nm,1.1s								
WVOR	**Wild Horse Val**	**36.43**	**326**	P	**P**	**03 28 45.4**	**+1.5**		
	comp=Z,12nm,1.2s								
EGMT	**Eagleton**	**36.88**	**340**	IAmb	IAmb	03 28 49.3			
	comp=Z,7.3nm,0.6s								
O03E	**Paynes Creek**	**36.91**	**321**	IAmb	IAmb	03 28 53.4			
	comp=Z,7.8nm,0.8s								
PLID	**Pearl Lake**	**36.99**	**331**	IAmb	IAmb	03 28 50.5			
	comp=Z,14nm,0.8s								
MOD	**Modoc Plateau**	**37.01**	**324**	IAmb	IAmb	03 29 24.6			
	comp=Z,17nm,1.5s								
M03C	**McCloud**	**37.69**	**322**	IAmb	IAmb	03 28 58.4			
	comp=Z,9.5nm,0.8s								
I07A	**Izee**	**38.01**	**327**	IAmb	IAmb	03 28 59.2			
	comp=Z,8.6nm,0.9s								
LPAZ	**La Paz**	**38.28**	**141**	P	**P**	**03 29 00.0**	**-0.4**		
	comp=Z,1.8nm,0.6s,baz=322,slow=4.2,SNR=9.6								
LPAZ				pP	**pP**	**03 29 16.1**	**0.0**		
	comp=Z,1.4nm,0.8s,baz=348,slow=7.4,SNR=3.3								
LPAZ				PcP	**PcP**	**03 31 13.3**	**-0.3**		
	comp=Z,1.1nm,0.6s,baz=313,slow=4.3,SNR=2.2								
LPAZ				LR	LR	03 44 32.6			
	comp=Z,114nm,21.1s,baz=322,slow=36								
	comp=Z,1.8nm,0.6s								
LPAZ	**La Paz**	**38.28**	**141**	P	**P**	**03 29 00.3**	**0.0**		
LPAZ					**PcP**	**03 31 13.6**	**0.0**		
YBH	**Yreka Blue Hor**	**38.31**	**322**	LR	LR	03 47 10.1			
	comp=Z,170nm,18.8s,baz=148,slow=40								
L04D	**Klamath Falls**	**38.37**	**323**	P	**P**	**03 29 00.5**	**+0.2**		
L04D				IAmb	IAmb	03 29 03.1			
	comp=Z,16nm,1.0s								
PINE	**Pine Mountain**	**38.59**	**326**	IAmb	IAmb	03 29 04.8			
	comp=Z,9.3nm,0.9s								
E09A	**Wood Farm, Sta**	**39.06**	**331**	IAmb	IAmb	03 29 08.3			
	comp=Z,8.8nm,0.7s								
PB16	**IPOC Station P**	**39.10**	**145**	P	**P**	**03 29 08.2**	**+1.1**		
WIFE	**Three Sisters-**	**39.24**	**325**	IAmb	IAmb	03 29 10.7			
	comp=Z,14nm,1.2s								
I04A	**Tendick Farm,**	**39.41**	**325**	IAmb	IAmb	03 29 11.8			
	comp=Z,9.8nm,0.8s								
MDP	**Montagnes des**	**39.66**	**99**	LR	LR	03 45 54.1			
	comp=Z,50nm,21.0s,baz=250,slow=36								
NEW	**Newport**	**39.91**	**334**	LR	LR	03 48 11.3			
	comp=Z,124nm,18.3s,baz=136,slow=40								
NEW	**Newport**	**39.91**	**334**	P	**P**	**03 29 12.0**	**-0.9**		
NEW	**Newport**	**39.91**	**334**	P	**P**	**03 29 13.0**	**0.0**		
	comp=Z,5.2nm,0.8s								
MXC	**Moxie City**	**40.14**	**329**	IAmb	IAmb	03 29 17.5			
	comp=Z,12nm,1.1s								
ITTB	**Itaituba**	**40.30**	**115**	*e*	**P**	**P**	**03 29 15.2**	**-1.3**	
G04A	**Mulino**	**40.34**	**326**	IAmb	IAmb	03 29 44.8			
	comp=Z,22nm,0.8s								
EPH	**Ephrata**	**40.35**	**331**	P	**P**	**03 29 17.2**	**+0.6**		
EPH				IAmb	IAmb	03 29 18.5			
	comp=Z,11nm,0.8s								
GO01	**Chusmiza**	**40.35**	**146**	P	**P**	**03 29 19.7**	**+2.3**		
	comp=Z,8.0nm,2.1s								
LTY	**Liberty**	**40.80**	**330**	P	**P**	**03 29 20.8**	**+0.5**		
LON	**Longmire**	**41.02**	**328**	IAmb	IAmb	03 29 24.3			
	comp=Z,16nm,0.8s								
PB02	**IPOC Station P**	**41.34**	**148**	P	**P**	**03 29 27.4**	**+2.2**		
	comp=Z,20nm,1.2s								
VILB	**Vilhena**	**41.35**	**129**	P	**P**	**03 29 25.6**	**+0.4**		
VILB				IAmb	IAmb	03 29 26.8			
	comp=Z,22nm,1.0s								
VILB	**Vilhena**	**41.35**	**129**	*e*	**P**	**P**	**03 29 25.7**	**+0.5**	
D05A	**Enumclaw**	**41.40**	**329**	IAmb	IAmb	03 29 27.8			
	comp=Z,17nm,0.8s								
NPGB	**Novo Progresso**	**41.91**	**118**	*e*	**P**	**P**	**03 29 28.6**	**-1.3**	
SHUK	**Shuksan-Mt. Ba**	**42.40**	**331**	IAmb	IAmb	03 29 34.9			
	comp=Z,24nm,0.8s								
NLWA	**Neilton Lookou**	**42.50**	**328**	IAmb	IAmb	03 29 36.7			
	comp=Z,18nm,0.9s								
EDM	**Edmonton**	**42.52**	**341**	IAmb	IAmb	03 29 35.4			
	comp=Z,14nm,0.7s								
B04A	**Port Angeles**	**42.75**	**329**	IAmb	IAmb	03 29 38.5			
	comp=Z,19nm,0.8s								
PGC	**Sidney**	**43.12**	**329**	IAmb	IAmb	03 29 41.1			
	comp=Z,22nm,0.8s								
PDRB	**Porto dos Gac**	**43.24**	**125**	*e*	**P**	**P**	**03 29 39.3**	**-1.2**	
CLDB	**Colider**	**43.57**	**123**	P	**P**	**03 29 42.7**	**-0.5**		
	comp=Z,39nm,1.1s								
CLDB				pP	**pP**	**03 29 56.5**	**-2.7**		
CLDB	**Colider**	**43.57**	**123**	*e*	**P**	**03 29 41.9**	**-1.4**		
LLLB	**Lillooet**	**43.73**	**333**		P	**03 29 45.2**	**+1.1**		
LLLB				IAmb	IAmb	03 29 46.0			
	comp=Z,13nm,0.6s								
PTLB	**Pontes e Lacer**	**43.74**	**131**	P	**P**	**03 29 44.8**	**+0.2**		
PTLB	**Pontes e Lacer**	**43.74**	**131**	*e*	**P**	**03 29 44.2**	**-0.4**		
BBSD	**Serra de San D**	**43.85**	**134**	*e*	**P**	**03 29 45.9**	**+0.4**		
RPN	**Rapa Nui**	**44.41**	**202**	LR	LR	03 43 43.2			
	comp=Z,112nm,21.1s,baz=26,slow=30								
SCHQ	**Schefferville**	**45.03**	**20**	P	**P**	**03 29 51.8**	**-2.6**		
	comp=Z,4.1nm,0.6s,baz=220,slow=9.8,SNR=6.4								
SCHQ				LR	LR	03 49 41.6			
	comp=Z,305nm,21.3s,baz=272,slow=37								
SCHQ	**Schefferville**	**45.03**	**20**	P	**P**	**03 29 51.8**	**-2.6**		
SCHQ				IAmb	IAmb	03 30 18.4			
	comp=Z,21nm,1.4s								
AC02	**Maricunga**	**46.36**	**151**	P	**P**	**03 30 07.8**	**+2.0**		
SALV	**Santo Antonio**	**46.59**	**129**	*e*	**P**	**03 30 07.1**	**-0.1**		
COIM	**Forte Coimbra**	**47.65**	**134**	*e*	**P**	**03 30 15.0**	**-0.4**		
BBB	**Bella Bella**	**47.68**	**331**	LR	LR	03 53 53.5			
	comp=Z,55nm,18.8s,baz=168,slow=40								
SNDB	**Serra Nova Dou**	**47.87**	**121**	*e*	**P**	**P**	**03 30 17.0**	**-0.2**	
PP1B	**Ponte de Pedra**	**48.25**	**130**	*e*	**P**	**P**	**03 30 20.6**	**+0.5**	
GO04	**Tololo Observa**	**48.53**	**155**	P	**P**	**P**	**03 30 25.3**	**+3.0**	
	comp=Z,12nm,1.9s								
BDQN	**Bodoquena, MS**	**48.73**	**134**	*e*	**P**	**P**	**03 30 23.7**	**0.0**	
MURT	**Porto Murtinho**	**48.97**	**136**	*e*	**P**	**P**	**03 30 25.1**	**-0.4**	
CO03	**El Pedregal**

INK Inuvik 60.32 343 P **P** **03 31 47.6 +0.6**
comp=Z,15nm,0.7s
H29M Whitestone 60.46 340 IAmb IAmb 03 32 28.1
comp=Z,8.7nm,1.1s
L26K Log Cabin Wild 60.53 336 IAmb IAmb 03 31 50.6
comp=Z,5.2nm,0.8s
RES Resolute Bay 60.54 359 LR LR 04 01 06.2
comp=Z,98nm,18.6s,baz=184,slow=39
I28M Miner Creek 60.54 339 IAmb IAmb 03 32 09.4
comp=Z,6.0nm,1.1s
K27K Chicken 60.55 337 IAmb IAmb 03 31 51.5
comp=Z,7.0nm,0.8s
RIB01 Linhares ES 60.62 122 *e*P **P** **03 31 50.2 +0.4**
G29M Pine Creek 60.76 341 IAmb IAmb 03 31 51.5
comp=Z,8.8nm,0.8s
CAM01 Campos-RJ 60.87 125 *e*P **P** **03 31 51.4 0.0**
A36M Sachs Harbour 61.11 349 IAmb IAmb 03 32 35.3
comp=Z,6.8nm,0.7s
SCRK Sand Creek 61.25 337 P **P** **03 31 53.7 +0.1**
SCRK IAmb IAmb 03 31 55.7
comp=Z,10nm,1.2s
H27K Steamboat Moun 61.52 339 IAmb IAmb 03 31 57.0
comp=Z,8.4nm,0.9s
I26K Coal Creek Min 61.61 338 IAmb IAmb 03 31 57.9
comp=Z,8.4nm,0.7s
E29M Blow River 61.62 342 IAmb IAmb 03 31 57.6
comp=Z,15nm,1.2s
G27K Doyon Strip 61.88 340 IAmb IAmb 03 32 14.6
comp=Z,9.3nm,1.4s
E28M Babbage River 62.23 342 IAmb IAmb 03 32 01.2
comp=Z,9.6nm,0.8s
PRP Porcupine Dome 62.58 338 P **P** **03 32 02.5 0.0**
KDAK Kodiak Island 62.65 328 LR LR 03 58 43.2
comp=Z,59nm,18.4s,baz=120,slow=35
KDAK Kodiak Island 62.65 328 *i* P **P** **03 32 03.5 +0.7**
KDAK pmax pmax
comp=Z,15nm,0.6s
ILAR Eielson Array 62.74 337 P **P** **03 32 03.5 +0.1**
comp=Z,14nm,0.9s,baz=127,slow=4.7,SNR=102
ILAR PcP **PcP** **03 32 42.0 +0.5**
comp=Z,2.0nm,0.7s,baz=119,slow=1.8,SNR=6.0
ILAR LR LR 04 02 20.6
comp=Z,111nm,18.8s,baz=102,slow=39
comp=Z,14nm,0.9s
ILAR Eielson Array 62.74 337 **P** **03 32 03.2 -0.2**
ILAR **PcP** **03 32 42.3 +0.9**
D27M Malcolm River 63.02 342 IAmb IAmb 03 32 06.6
comp=Z,6.3nm,0.6s
CCB Clear Creek Bu 63.04 336 IAmb IAmb 03 32 43.6
comp=Z,7.8nm,0.9s
COLA College 63.16 337 *i* P **P** **03 32 06.1 0.0**
COLA pmax pmax
comp=Z,15nm,0.8s
COLA College 63.16 337 P **P** **03 32 05.4 -0.7**
COLA College 63.16 337 P **P** **03 32 06.1 0.0**
comp=Z,24nm,0.8s
F26K Sheenjek River 63.17 340 IAmb IAmb 03 32 08.2
comp=Z,9.9nm,1.1s
BMAR Burnt Mountain 63.18 340 P **P** **03 32 06.6 +0.2**
SPU Mount Spurr 63.49 332 P **P** **03 32 08.9 +0.4**
SPU IAmb IAmb 03 32 10.5
comp=Z,12nm,0.8s
STLK Strandline Lak 63.50 332 IAmb IAmb 03 32 10.2
comp=Z,11nm,1.0s
NEA2 Nenana 63.51 336 IAmb IAmb 03 32 45.8
comp=Z,9.1nm,1.0s
F25K Christian Rive 63.62 340 IAmb IAmb 03 32 11.5
comp=Z,8.4nm,0.7s
G24K Hadweenzic Riv 63.83 339 **P** **03 32 10.9 +0.3**
G24K IAmb IAmb 03 32 13.0
comp=Z,13nm,1.0s
KTH Kantishna Hill 63.85 335 P **P** **03 32 10.7 -0.1**
C27K Jago River 64.05 342 **P** **03 32 12.4 +0.4**
C27K IAmb IAmb 03 32 14.0
comp=Z,10nm,0.9s
H23K Yukon River 64.20 337 IAmb IAmb 03 32 35.7
comp=Z,13nm,1.3s
M20K Styx River 64.21 333 P **P** **03 32 13.6 +0.3**
C26K Camden Bay 64.56 342 IAmb IAmb 03 32 17.5
comp=Z,8.6nm,0.8s
D25K Kavik River 64.70 341 P **P** **03 32 16.4 +0.1**
E24K Your Creek 64.80 340 P **P** **03 32 16.6 -0.4**
E24K IAmb IAmb 03 32 20.5
comp=Z,10.0nm,1.3s
PPT Papeete 65.07 243 LR LR 03 54 55.3
comp=Z,60nm,20.1s,baz=58,slow=31
L19K White Mountain 65.08 333 P **P** **03 32 18.6 -0.3**
L19K IAmb IAmb 03 32 19.9
comp=Z,15nm,1.0s
PPT2 Papeete2 65.08 243 *e*LR LR 03 51 41.1
comp=Z,150nm,27.5s
PPT2 *e*LR LR 03 51 46.8
comp=Z,202nm,27.5s
N18K Kilae Creek 65.11 331 P **P** **03 32 18.2 -0.9**
H21K Melozitna Rive 65.38 337 IAmb IAmb 03 32 21.5
comp=Z,13nm,0.8s
J20K Nowinta River 65.40 335 **P** **03 32 19.9 -0.9**
J20K IAmb IAmb 03 32 21.4
comp=Z,11nm,0.8s
TOLK Toolik Lake Re 65.41 340 **P** **03 32 21.2 +0.3**
I20K Naaghedeneel 65.74 335 P **P** **03 32 23.3 +0.3**
D23K Nanushuk River 65.92 340 P **P** **03 32 23.7 -0.4**
J19K Poorman 65.96 334 P **P** **03 32 24.0 -0.5**
F21K Alatna River 66.20 338 P **P** **03 32 26.6 +0.6**
D22K Ayikyak River 66.54 340 P **P** **03 32 28.8 +0.6**
K17K Iditarod 66.76 333 P **P** **03 32 29.3 -0.3**
H19K Roundabout Mou 66.77 336 P **P** **03 32 29.8 +0.2**
E21K Killik River 66.82 339 P **P** **03 32 30.0 +0.1**
F20K Avaraart Lake 66.97 338 P **P** **03 32 31.3 +0.5**
G19K Purcell Mounta 67.20 336 **P** **03 32 32.5 +0.2**
TBI Tubuai 67.54 237 *e*LR LR 03 52 53.9
comp=Z,1μm,33.2s
F19K Shaleruckik Mo 67.67 337 P **P** **03 32 35.4 +0.2**
J16K Anvik River 67.92 333 P **P** **03 32 38.0 +1.1**
H17K Granite Mounta 68.01 335 P **P** **03 32 38.3 +0.8**
H17K IAmb IAmb 03 32 40.2
comp=Z,18nm,1.1s
K15K Wolf Creek Mou 68.13 332 P **P** **03 32 39.3 +1.0**
BORG Borgarnes 69.01 26 LR LR 04 02 58.9
comp=Z,67nm,18.3s,baz=265,slow=36
J14K Nanvaranak Lak 69.13 332 P **P** **03 32 45.5 +1.1**
DAG Danmarks Havn 72.48 13 P **P** **03 33 01.7 -2.8**
comp=Z,8.1nm,1.2s
JMIC Jan Mayen 74.55 20 LR LR 04 05 57.8
comp=Z,106nm,22.0s,baz=246,slow=36
RAR Rarotonga 75.34 243 LR LR 03 58 21.5
comp=Z,37nm,18.3s,baz=272,slow=29
EKA Eskdalemuir Ar 77.76 36 P **P** **03 33 32.8 -2.6**
comp=Z,2.7nm,0.5s,baz=275,slow=6.2,SNR=22
EKA pP **pP** **03 33 49.7 -3.0**
comp=Z,2.2nm,0.6s,baz=271,slow=6.4,SNR=3.1
EKA LR LR 04 03 43.2
comp=Z,48nm,21.5s,baz=200,slow=32
ESDC Sonseca Array 79.52 52 P **P** **03 33 42.8 -2.6**
comp=Z,1.3nm,0.7s,baz=282,slow=5.4,SNR=14
ESDC pP **pP** **03 33 59.2 -3.6**
comp=Z,1.7nm,0.9s,baz=291,slow=5.8,SNR=5.4
ESDC LR LR 04 01 21.3
comp=Z,62nm,20.7s,baz=278,slow=30
ESDC Sonseca Array 79.52 52 P **P** **03 33 42.6 -2.8**
SPITS Spitsbergen Ar 79.91 11 LR LR 04 10 35.6
comp=Z,112nm,20.7s,baz=272,slow=37
MDT Midelt 80.21 59 LR LR 04 04 17.0
comp=Z,40nm,19.7s,baz=293,slow=32
SHEM Shemya Is, Ala 81.28 322 LR LR 04 09 06.3
comp=Z,20nm,18.1s,baz=274,slow=35
BILI Bilibino, Chuk 81.29 338 P **P** **03 33 55.8 +1.5**
comp=Z,48nm,0.7s
BILL Bilibino 81.36 338 *ce*P **P** **03 33 54.9 +0.3**
BILL pmax pmax
comp=Z,23nm,0.9s
BILL Bilibino 81.36 338 P **P** **03 33 55.0 +0.3**
AFI Afiamalu 83.86 254 LR LR 04 03 12.2
comp=Z,33nm,21.3s,baz=26,slow=30
NB2 NORSAR Subarra 83.94 28 P **P** **03 34 08.0 -0.2**
comp=Z,0.3nm,0.4s,baz=288,slow=5.6
NOA NORSAR Array B 83.94 28 P **P** **03 34 07.0 -1.2**
comp=Z,1.7nm,0.8s,baz=290,slow=5.1,SNR=5.7
NOA LR LR 04 10 12.3
comp=Z,33nm,21.6s,baz=275,slow=35
comp=Z,1.7nm,0.8s
HFS Hagfors 85.40 29 P **P** **03 34 13.9 -1.6**
comp=Z,4.0nm,1.0s,baz=283,slow=8.7,SNR=4.3
HFS LR LR 04 10 58.1
comp=Z,36nm,22.0s,baz=274,slow=34
comp=Z,4.0nm,1.0s

DBIC Dimbokro 85.52 84 LR LR 04 05 53.1
comp=Z,76nm,21.4s,baz=319,slow=31
ARCES ARCESS Array B 85.95 18 P **P** **03 34 16.8 -1.3**
comp=Z,5.1nm,1.1s,baz=295,slow=3.4,SNR=5.1
ARCES LR LR 04 12 12.7
comp=Z,61nm,21.3s,baz=289,slow=35
comp=Z,5.1nm,1.1s
ARCES ARCESS Array B 85.95 18 P **P** **03 34 17.1 -1.0**
ARCES pmax pmax
comp=Z,15nm,1.4s
ARCES ARCESS Array B 85.95 18 P **P** **03 34 17.1 -1.0**
ARCES IAmb IAmb 03 34 23.0
comp=Z,15nm,1.4s
BNALP Bannalp 86.68 43 P **P** **03 34 22.1 -0.3**
comp=Z,13nm,2.5s
TUE Stuetta 87.41 43 P **P** **03 34 24.9 -1.0**
comp=Z,7.1nm,1.4s
DAVA Damuels 87.50 42 P **P** **03 34 25.5 -0.8**
comp=Z,10nm,1.6s
DAVOX Davos/Dischmat 87.66 42 LR LR 04 07 52.0
comp=Z,44nm,21.5s,baz=276,slow=32
CLL Collm 88.11 37 LV 04 03 00.0
SEY Seymchan 88.66 336 *ce*P **P** **03 34 31.2 0.0**
SEY pmax pmax
comp=Z,7.0nm,1.0s
KHC Kasperske Hory 89.22 39 *ce*P **P** **03 34 32.0 -2.3**
KHC pmax pmax
comp=Z,2.0nm,1.0s
GERES GERESS Array B 89.40 40 P **P** **03 34 34.1 -1.1**
comp=Z,0.7nm,0.8s,baz=270,slow=6.7,SNR=4.9
GERES LR LR 04 10 40.6
comp=Z,41nm,21.9s,baz=74,slow=33
comp=Z,0.7nm,0.8s
GERES GERESS Array B 89.40 40 P **P** **03 34 34.4 -0.7**
GERES GERESS Array B 89.40 40 P **P** **03 34 34.4 -0.7**
TIXI Tiksi 90.12 348 LR LR 04 21 43.3
comp=Z,21nm,18.1s,baz=14,slow=40
TIXI Tiksi 90.12 348 *ce*P **P** **03 34 36.6 -1.3**
TIXI pmax pmax
comp=Z,5.0nm,0.7s
TIXI Tiksi 90.12 348 **P** **03 34 37.1 -0.9**
TIXI IAmb IAmb 03 34 38.1
comp=Z,5.9nm,0.8s
TIXI Tiksi 90.12 348 P **P** **03 34 36.9 -1.0**
comp=Z,8.7nm,0.8s
TORD Torodi Ar. Bea 90.22 76 P **P** **03 34 37.6 -1.9**
comp=Z,0.3nm,0.6s,baz=294,slow=4.7,SNR=2.5
comp=Z,0.3nm,0.6s
TORD Torodi Ar. Bea 90.22 76 P **P** **03 34 38.8 -0.8**
FINES FINESS Array B 90.30 25 LR LR 04 16 01.0
comp=Z,24nm,18.2s,baz=286,slow=36
DPC Dobruska-Polom 90.42 37 P **P** **03 34 38.3 -1.6**
comp=Z,4.6nm,2.1s
PETK Petropavlovsk- 90.58 326 LR LR 04 16 14.1
comp=Z,12nm,19.0s,baz=82,slow=36
VRAC Vranov 90.99 38 LR LR 04 13 15.5
comp=Z,34nm,21.7s,baz=300,slow=34
MA2 Mayan 91.01 333 LR LR 04 18 03.6
comp=Z,28nm,19.9s,baz=94,slow=37
VYHS Vyhne 92.67 39 *e*P **P** **03 34 51.6 +1.3**
LANS Ľiptovska Anna 92.77 38 *e*P **P** **03 34 51.1 +0.3**
VAE Valguarnera 93.96 50 LR LR 04 12 25.6
comp=Z,93nm,19.3s,baz=252,slow=32
KOLS Kolonicke sedl 94.53 37 *e*P P 03 35 04.1 +5.3
CEL Celeste 94.77 49 P **P** **03 34 58.7 -1.5**
NRIK Noril'sk 96.72 0 LR LR 04 23 58.1
comp=Z,91nm,18.7s,baz=360,slow=39
YAK Yakutsk 97.34 342 LR LR 04 24 59.7
comp=Z,18nm,20.7s,baz=39,slow=39
BVAR Borovoye Array 111.36 11 PKiKP **PKiKP** **03 40 12.4 +0.4**
comp=Z,1.3nm,0.6s,baz=338,slow=3.2,SNR=4.9
ZALV Zalesovo Beam 112.11 2 PKiKP **PKiKP** **03 40 13.5 +0.2**
comp=Z,0.7nm,0.5s,baz=338,slow=1.5,SNR=2.8
KURK Kurchatov 114.87 7 PKIKP PKPdf 03 40 19.1 +0.4
KURBB Kurchatov Arra 114.95 7 PKP PKPdf 03 40 19.1 +0.2
comp=Z,2.6nm,0.7s,baz=344,slow=2.1,SNR=12
SONM Songino Array 116.16 346 PKP **PKPdf** **03 40 22.0 +0.5**
comp=Z,0.3nm,0.3s,baz=35,slow=49,SNR=2.0
SONM Songino Array 116.16 346 PKIKP **PKPdf** **03 40 22.0 +0.5**
KSRS Korea Array 116.48 325 PKP **PKiKP** **03 40 22.9 +0.6**
comp=Z,1.7nm,0.6s,baz=15,slow=1.5,SNR=7.3
KSRS pPKP pPKPdf 03 40 39.9 -0.7
comp=Z,1.3nm,0.8s,baz=294,slow=1.2,SNR=2.9
DL2 Dalian 118.62 331 PKP **PKiKP** **03 40 27.9 +1.6**
MKAR Makanchi Array 119.10 5 *c i*PKIKP **PKPdf** **03 40 26.8 -0.3**
comp=Z,1.4nm,0.7s,baz=5.6,slow=1.1,SNR=7.9
MKAR Makanchi Array 119.10 5 *c i*PKIKP **PKPdf** **03 40 26.8 -0.3**
MKAR pmax pmax
comp=Z,1.0nm,0.6s
MKAR Makanchi Array 119.10 5 PKPdf **PKPdf** **03 40 26.0 -1.1**
BOSA Boshof 120.31 115 PKP **PKPdf** **03 40 29.8 -0.2**
comp=Z,7.2nm,0.8s,baz=310,slow=1.0,SNR=12
BOSA pPKP **pPKPdf** **03 40 47.4 -1.0**
comp=Z,9.4nm,0.8s,baz=304,slow=3.1,SNR=8.1
BOSA Boshof 120.31 115 PKIKP **PKiKP** **03 40 30.9 +0.9**
BOSA Boshof 120.31 115 **PKiKP** **03 40 30.9 +0.9**
LBTB Lobatse 120.54 111 PKIKP **PKPdf** **03 40 30.6 +0.1**
LBTB Lobatse 120.54 111 PKPdf **PKPdf** **03 40 30.6 +0.1**
HHC Hu-ho-hao-te 121.11 339 *e*P **PKPdf** **03 40 26.5 -4.7**
GRHM Grahamstown, E 121.16 120 PKPdf **PKiKP** **03 40 31.7 +0.2**
AAK Ala-Archa 122.11 12 *c i*PKIKP **PKiKP** **03 40 35.0 +1.7**
AAK pmax pmax
comp=Z,2.0nm,0.6s
WMQ Urumqi 122.30 0 *e*PKP **PKPdf** **03 40 31.2 -2.2**
WMQ sPKP sPKPdf 03 41 02.7 +4.3
WMQ PKS **PKSdf** **03 44 06.7 -3.4**
WMQ LR LR
comp=Z,87nm,24.3s
KDJ Kajisay 123.09 10 PKIKP **PKPdf** **03 40 34.9 -0.2**
KDJ Kajisay 123.09 10 PKPdf **PKPdf** **03 40 34.9 -0.2**
MAW Mawson 124.11 169 PKP **PKPdf** **03 40 36.1 +0.2**
comp=Z,2.9nm,0.7s,baz=207,slow=2.3,SNR=2.8
MAW pPKP **pPKPdf** **03 40 53.8 -0.4**
comp=Z,2.7nm,0.7s,baz=246,slow=4.7,SNR=2.6
NJ2 Nanjing 125.43 328 *e*P **PKPdf** **03 40 39.7 +0.1**
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
STKA Stephens Creek 128.24 241 PKP **PKPdf** **03 40 44.8 -0.1**
comp=Z,4.4nm,1.0s,baz=130,slow=7.9,SNR=3.3
STKA pPKP **pPKPdf** **03 41 03.4 +0.1**
comp=Z,5.5nm,0.8s,baz=121,slow=3.7,SNR=3.3
WRA Warramunga Arr 135.55 256 PKP **PKPdf** **03 40 59.8 +0.8**
comp=Z,1.0nm,0.6s,baz=80,slow=1.6,SNR=7.3
WRA pPKP **pPKPdf** **03 41 17.2 -0.2**
comp=Z,1.8nm,0.7s,baz=85,slow=2.0,SNR=6.1
WRA Warramunga Arr 135.55 256 *c i*PKIKP **PKiKP** **03 41 01.2 +0.6**
WRA pmax pmax
comp=Z,1.0nm,0.6s
ASAR Alice Springs 135.84 251 PKP **PKPdf** **03 41 00.0 +0.5**
comp=Z,1.0nm,0.8s,baz=108,slow=2.6,SNR=7.1
ASAR pPKP **pPKPdf** **03 41 17.5 -0.4**
comp=Z,1.8nm,0.8s,baz=118,slow=1.9,SNR=5.6
FITZ Fitzroy Crossi 143.79 259 PKPdf PKPbc 03 41 12.3 +0.6
TOLI2 Tolitoli 144.28 292 PKPdf PKPbc 03 41 13.4 0.0
CHTO Chiang Mai 145.54 342 PKIKP **PKPdf** **03 41 16.8 -0.3**
CMAR Chiang Mai Arr 145.88 341 PKPbc **PKPab** **03 41 18.8 0.0**
comp=Z,36nm,0.8s,baz=339,slow=3.7,SNR=127
CMAR pPKPbc **pPKPdf** **03 41 35.8 -0.3**
comp=Z,9.6nm,0.6s,baz=337,slow=3.4,SNR=4.7
CMAR Chiang Mai Arr 145.88 341 PKPbc **PKPbc** **03 41 18.1 -0.2**
MBWA Marble Bar 149.13 252 PKPbc **PKPbc** **03 41 27.9 +0.7**
MORW Morawa 150.21 236 PKPbc **PKPbc** **03 41 30.0 +0.4**

IDC ***12*** *03:34:12.5±1.5, 37.65N×26.77E, h0km, mb3.8/1, mbtmp3.5/4, ML3.2/3, MS3.3/3, Error ellipse: s-maj=29.2km s-min=14.3km az=169.0*
AFAD ***12*** *03:34:14.6, 37.82N×26.84E, h12km±2km, MW3.5*
THE ***12*** *03:34:15.2, 37.8N±0.8×26.9E±0.5, h10km, M3.2/11, MLh3.2/11*
NEIC ***12*** *03:34:15.6±1.6, 37.74N±0.03×26.80E±0.06, h10km±1km, mb4.4/6, Error ellipse: s-maj=8.2km s-min=5.0km az=90.0*
ISK ***12*** *03:34:15.2, 37.82N×26.88E, h7km, ML3.7/19*
ATH ***12*** *03:34:15.0, 37.78N×26.85E, h11km, ML3.3/14, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 12 03:34:15.2±0.7, **37.79N**±0.01×**26.87E**±0.02, **h11**km±4km, **n142**, σ1**09**/187, **mb4.3**/4, **12C-5D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.09**	**197**	P	**Pg**	**03 34 17.6**	**-0.2**
SMG				S	**Sg**	**03 34 19.5**	**-0.2**
SMG				AML	AML		
SMG	**Samos**	**0.09**	**197**	P	**Pg**	**03 34 17.8**	**0.0**
SMG				S	**Sg**	**03 34 19.4**	**-0.2**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.13**	**270**	P	**Pg**	**03 34 18.1**	**-0.2**
KRL1				S	**Sg**	**03 34 20.3**	**-0.2**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.21**	**260**	P	**Pg**	**03 34 19.3**	**-0.3**
SAM2				S	**Sg**	**03 34 22.3**	**-0.3**
SAM2				AML	AML		
DGB	**zmir**	**0.26**	**2**	P	**Pg**	**03 34 20.0**	**-0.5**
DGB				S	**Sg**	**03 34 23.7**	**-0.3**
GMLD	**Gumuldur**	**0.28**	**7**	Pg	**Pg**	**03 34 20.8**	**-0.2**
GMLD				Sg	**Sg**	**03 34 25.2**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.30**	**108**	P	**Pg**	**03 34 21.6**	**+0.3**
GCAM	**G?zelcaml?**	**0.30**	**108**	Pg	**Pg**	**03 34 21.6**	**+0.3**
GCAM				Sg	**Sb**	**03 34 26.9**	**-0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**79**	Pg	**Pg**	**03 34 21.9**	**-0.1**
KUSD				Sg	**Sg**	**03 34 27.2**	**+0.7**
KUSD				AML	AML		
BEYE	**izmir**	**0.43**	**6**	P	**Pg**	**03 34 23.3**	**-0.5**
BEYE				S	**Sg**	**03 34 28.5**	**-1.1**
DDIM	**Aydin, Didim**	**0.45**	**139**	P	**Pg**	**03 34 24.5**	**+0.5**
DDIM				S	**Sb**	**03 34 31.2**	**-0.6**
DIDI	**Didim-Aydin**	**0.51**	**145**	Pg	**Pb**	**03 34 25.9**	**-0.3**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**327**	P	**Pg**	**03 34 24.8**	**-0.7**
ZEYE				S	**Sg**	**03 34 31.7**	**-0.9**
BLCB	**Balcova**	**0.61**	**13**	P	**Pg**	**03 34 26.5**	**-0.4**
BLCB				S	**Sg**	**03 34 35.3**	**+0.3**
BLCB	**Balcova**	**0.61**	**13**	Pg	**Pg**	**03 34 26.6**	**-0.4**
BLCB				AML	AML		
DUT	**Torbali**	**0.62**	**47**	P	**Pg**	**03 34 26.8**	**-0.5**
DUVT				S	**Sg**	**03 34 33.9**	**-1.7**
CESE	**eme**	**0.70**	**320**	Pg	**Pb**	**03 34 29.1**	**-0.3**
CESE				AML	AML		
DAGE	**izmir**	**0.73**	**73**	P	**Pg**	**03 34 29.7**	**+0.4**
DAGE				S	**Sg**	**03 34 36.7**	**-2.2**
YKAV	**Yalikavak-Bodr**	**0.74**	**154**	Pg	**Pb**	**03 34 30.4**	**+0.2**
YKAV				AML	AML		
BODT	**Bodrum**	**0.81**	**154**	P	**Pg**	**03 34 30.8**	**-0.1**
BODT				S	**Sb**	**03 34 42.4**	**+0.1**
BODT	**Bodrum**	**0.81**	**154**	Pg	**Pb**	**03 34 31.5**	**+0.2**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.81**	**99**	P	**Pg**	**03 34 30.8**	**-0.1**
AYDN				S	**Sg**	**03 34 40.8**	**-0.7**
AYDB	**Zeytinkoy-Aydi**	**0.82**	**79**	Pg	**Pg**	**03 34 31.1**	**0.0**
AYDB				AML	AML		
KRBN	**Karaburun**	**0.84**	**343**	Pg	**Pg**	**03 34 31.1**	**-0.3**
KRBN				Sg	**Sb**	**03 34 43.7**	**+0.7**
KRBN				AML	AML		
KLNA	**Kalymnos**	**0.84**	**174**	P	**Pg**	**03 34 31.2**	**-0.2**
KLNA				S	**Sb**	**03 34 43.1**	**0.0**
BAGT	**Foa**	**0.86**	**359**	P	**Pg**	**03 34 30.7**	**-1.1**
BAGT				S	**Sg**	**03 34 42.7**	**-0.3**
BDRM	**Kayabasi**	**0.86**	**148**	P	**Pg**	**03 34 31.4**	**-0.4**
BDRM				S	**Sg**	**03 34 42.8**	**-0.2**
BDRM	**Kayabasi**	**0.86**	**148**	⇑P	**Pn**	**03 34 33.3**	**+0.1**
CHOS	**Chios island**	**0.87**	**313**	P	**Pg**	**03 34 31.7**	**-0.4**
CHOS				S	**Sb**	**03 34 44.0**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**313**	Pg	**Pb**	**03 34 32.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**313**	P	**Pg**	**03 34 31.3**	**-0.8**
CHOS				S	**Sg**	**03 34 43.3**	**-0.2**
CHOS				AML	AML		
MLSB	**Milas**	**0.88**	**124**	Pg	**Pb**	**03 34 32.4**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.88**	**149**	Pg	**Pn**	**03 34 33.1**	**-0.4**
IZMR	**zmir-demi**	**0.92**	**68**	P	**Pb**	**03 34 33.2**	**0.0**
IZMR				S	**Sg**	**03 34 42.7**	**-2.3**
FOCM	**Foa**	**0.92**	**353**	Pg	**Pg**	**03 34 31.7**	**-1.3**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**338**	P	**Pg**	**03 34 32.3**	**-1.0**
KARB				S	**Sg**	**03 34 44.2**	**-1.4**
EAG2	**Marmaro, Chios**	**0.96**	**322**	P	**Pg**	**03 34 32.6**	**-1.0**
EAG2				S	**Sb**	**03 34 46.6**	**0.0**
CAMT	**Merkez**	**1.01**	**20**	P	**Pg**	**03 34 34.3**	**-0.5**
CAMT				S	**Sg**	**03 34 47.3**	**-0.6**
NAZL	**Nazilli-Aydin**	**1.14**	**81**	Pn	**Pb**	**03 34 36.7**	**-0.2**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.17**	**89**	P	**Pb**	**03 34 36.9**	**-0.6**
ESEN				S	**Sg**	**03 34 53.0**	**+0.1**
ZEDA	**zmir-Bergama**	**1.18**	**8**	P	**Pb**	**03 34 36.7**	**-0.9**
ZEDA				S	**Sb**	**03 34 52.7**	**-0.8**
DAT	**Datca**	**1.20**	**152**	P	**Pn**	**03 34 37.5**	**-0.6**
YAZI	**Mula-Dat§a-**	**1.21**	**157**	P	**Pn**	**03 34 37.0**	**-1.0**
YAZI				S	**Sb**	**03 34 52.0**	**-1.6**
GOMA	**Golmarmara-Man**	**1.23**	**42**	Pn	**Pn**	**03 34 38.2**	**-0.1**
GOMA				AML	AML		
MULA	**Mugla, Merkez-**	**1.27**	**115**	P	**Pn**	**03 34 39.1**	**+0.1**
MULA				S	**Sb**	**03 34 55.0**	**-0.7**
DKL	**Dikili**	**1.27**	**1**	Pn	**Pg**	**03 34 39.6**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.27**	**1**	P	**Pn**	**03 34 38.3**	**-0.6**
DKL				S	**Sn**	**03 34 56.0**	**-0.1**
KIRA	**zmir-Kiraz**	**1.27**	**71**	P	**Pn**	**03 34 38.6**	**-0.5**
APE	**Apeiranthos**	**1.29**	**236**	P	**Pn**	**03 34 38.3**	**-0.9**
APE				S	**Sg**	**03 34 56.7**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.29**	**236**	⇑P	**Pn**	**03 34 38.2**	**-0.9**
APE	**Apeiranthos**	**1.29**	**236**	P	**Pn**	**03 34 37.9**	**-1.3**
APE				AML	AML		
YER	**Yerkesik**	**1.30**	**120**	P	**Pn**	**03 34 39.0**	**-0.5**
YER				S	**Sb**	**03 34 56.6**	**+0.1**
AKHS	**Akhisar**	**1.31**	**34**	P	**Pn**	**03 34 39.5**	**0.0**
AKHS				S	**Sg**	**03 34 57.4**	**-0.1**
AKS	**Akhisar**	**1.31**	**34**	Pn	**Pb**	**03 34 39.9**	**0.0**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.31**	**198**	P	**Pb**	**03 34 40.1**	**+0.2**
ASTA				AML	AML		
KTTT	**Salihli**	**1.31**	**47**	P	**Pn**	**03 34 39.7**	**+0.2**
KTTT				S	**Sb**	**03 34 55.5**	**-1.3**
TNSA	**Tinos**	**1.38**	**260**	P	**Pn**	**03 34 39.1**	**-1.2**
TNSA				AML	AML		
SOMA	**Soma-Manisa**	**1.46**	**21**	Pn	**Pb**	**03 34 42.5**	**+0.2**
SOMA				AML	AML		
TURN	**Turunc**	**1.50**	**132**	P	**Pn**	**03 34 41.9**	**-0.1**
TURN				S	**Sn**	**03 35 00.8**	**-0.7**
MANT	**Manisa**	**1.50**	**62**	P	**Pn**	**03 34 43.3**	**-0.1**
MANT				S	**Sn**	**03 34 59.4**	**-2.6**
MANT	**Manisa**	**1.50**	**62**		**Pg**	**03 34 43.8**	**-0.3**
MANT				Sn	**Sg**	**03 35 03.7**	**+0.1**
GORD	**Gordes-Manisa**	**1.52**	**42**	Pn	**Pb**	**03 34 43.5**	**+0.1**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.52**	**355**	P	**Pn**	**03 34 42.8**	**+0.5**
AYVA				S	**Sg**	**03 35 04.0**	**-0.1**
SULTU	**Buldan**	**1.52**	**80**	P	**Pn**	**03 34 41.9**	**-0.6**
SULTU				S	**Sn**	**03 35 00.8**	**-1.6**
PRK	**Paraskevi**	**1.52**	**342**	P	**Pn**	**03 34 41.9**	**-0.5**
PRK				S	**Sn**	**03 35 02.3**	**+0.1**
PRK	**Paraskevi**	**1.52**	**342**	P	**Pn**	**03 34 42.4**	**0.0**
TAVA	**DENIZLI_Tavas**	**1.66**	**101**	P	**Pn**	**03 34 44.7**	**+0.3**
TAVA				S	**Sn**	**03 35 06.3**	**+0.7**
TAVA	**DENIZLI_Tavas**	**1.66**	**101**	⇓P	**Pn**	**03 34 44.6**	**+0.3**
BUHA	**Balikesir, Bur**	**1.71**	**5**	P	**Pn**	**03 34 44.7**	**-0.3**
BUHA				S	**Sn**	**03 35 07.0**	**+0.1**
STEP	**BALIKESIR_Sava**	**1.71**	**23**	P	**Pn**	**03 34 45.7**	**+0.6**
STEP				S	**Sb**	**03 35 08.2**	**-0.2**
DNIZ	**Denizli-Tavas-**	**1.73**	**95**	P	**Pn**	**03 34 46.0**	**+0.7**
THERA	**Ancient Thera,**	**1.81**	**218**	P	**Pn**	**03 34 45.4**	**-0.9**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.87**	**147**	P	**Pn**	**03 34 46.8**	**-0.3**
ARG				S	**Sn**	**03 35 11.4**	**+0.7**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.87**	**147**		**Pn**	**03 34 46.4**	**-0.7**
ARG	**Arkhangelos**	**1.87**	**147**	P	**Pn**	**03 34 47.3**	**+0.1**
ARG				AML	AML		
DEMI	**Demirci**	**1.91**	**49**	P	**Pb**	**03 34 49.8**	**-0.4**
DEMI				S	**Sn**	**03 35 12.8**	**

region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP				AML	AML		
KARP	**Karpathos**	**2.25**	**174**	Pn	**Pn**	**03 34 52.3**	**-0.2**
KARP	**Karpathos**	**2.25**	**174**	P	**Pn**	**03 34 52.3**	**-0.2**
KARP				AML	AML		
DION	**Dionisos Attik**	**2.34**	**278**	P	**Pn**	**03 34 52.9**	**-0.8**
DION				AML	AML		
DION	**Dionisos Attik**	**2.34**	**278**	P	**Pn**	**03 34 52.8**	**-0.8**
PTL	**Penteli**	**2.39**	**277**	P	**Pn**	**03 34 53.8**	**-0.6**
LIA	**Limnos Island**	**2.48**	**328**	P	**Pn**	**03 34 55.1**	**-0.5**
LIA				AML	AML		
LIA	**Limnos Island**	**2.48**	**328**	P	**Pn**	**03 34 55.9**	**+0.4**
ELL	**Elmali**	**2.64**	**112**	Pn	**Pn**	**03 34 58.6**	**+0.7**
AKAS	**Kas**	**2.69**	**125**		**Pn**	**03 34 57.8**	**-0.8**
NPS	**Neapolis**	**2.72**	**202**	P	**Pn**	**03 34 58.6**	**-0.3**
NPS	**Neapolis**	**2.72**	**202**	P	**Pn**	**03 34 58.5**	**-0.4**
NPS				AML	AML		
VIL2	**Platees**	**2.88**	**279**	P	**Pn**	**03 34 60.0**	**-1.1**
MET3	**Ano Fanari,Met**	**2.90**	**267**	P	**Pn**	**03 35 00.6**	**-0.7**
CAVK	**Edirne/Enez-Ca**	**2.94**	**350**	⇑P	**Pn**	**03 34 58.7**	**-3.2**
IDI	**Anoyia**	**2.97**	**213**	Pn	**Pn**	**03 35 00.9**	**-1.4**
IDI	**Anoyia**	**2.97**	**213**	P	**Pn**	**03 35 02.1**	**-0.2**
IDI				AML	AML		
ALN	**Alexandroupoli**	**3.16**	**349**		**Pn**	**03 35 05.0**	**+0.1**
ALN	**Alexandroupoli**	**3.16**	**349**	P	**Pn**	**03 35 04.9**	**0.0**
ALN				AML	AML		
VLI	**Veliai**	**3.32**	**252**	P	**Pn**	**03 35 06.2**	**-0.8**
GUR	**Goura**	**3.58**	**274**	P	**Pn**	**03 35 10.8**	**0.0**
KLV	**Kalavryta, Ach**	**3.74**	**275**	P	**Pn**	**03 35 13.0**	**+0.1**
AGG	**Agios Georgios**	**3.77**	**290**	P	**Pn**	**03 35 13.2**	**-0.1**
AGG	**Agios Georgios**	**3.77**	**290**	Pn	**Pn**	**03 35 13.2**	**-0.1**
AGG	**Agios Georgios**	**3.77**	**290**	P	**Pn**	**03 35 13.7**	**+0.4**
KEPZ	**Antalya-Kepez**	**3.88**	**102**	⇑P	**Pn**	**03 35 17.5**	**+2.7**
ANK	**Ano Chora**	**3.98**	**283**	P	**Pn**	**03 35 16.8**	**+0.6**
ITM	**Ithomi**	**3.98**	**263**	Pn	**Pn**	**03 35 15.1**	**-1.0**
SAHE	**Sakarya_HENDEK**	**4.34**	**44**	⇑P	**Pn**	**03 35 25.3**	**+4.1**
ELND	**Elena**	**5.18**	**352**	⇓P	**Pn**	**03 35 34.8**	**+2.1**
BRTR	**Keskin Array B**	**5.63**	**68**	Pn	**Pn**	**03 35 40.2**	**+1.2**
	0.2nm,0.3s,baz=246,slow=14,SNR=5.5						
BRTR				Lg	Lg	03 37 20.1	
	baz=254,slow=25 0.5nm,0.3s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**5.63**	**68**		**Pn**	**03 35 39.5**	**+0.5**
KIRS	**Kirsehir-Merke**	**5.69**	**74**	⇓P	**Pn**	**03 35 42.0**	**+2.2**
PLVB	**Pleven**	**5.84**	**344**	⇑P	**Pn**	**03 35 39.6**	**-2.1**
BLKB	**Belogradchik**	**6.64**	**333**	⇑P	**Pn**	**03 35 53.2**	**+0.5**
BOVS	**Bovan**	**7.03**	**328**	⇓P	**Pn**	**03 35 58.9**	**+0.9**
CY604	**RAF Akrotiri,**	**7.08**	**117**	Pn	**Pn**	**03 35 58.8**	**+0.3**
MLR	**Muntele Rosu**	**7.72**	**355**	LR	LR	03 39 45.9	
	comp=Z,58nm,18.1s,baz=204,slow=42						
ODBI	**Odobesti**	**7.96**	**1**	⇓P	**Pn**	**03 36 14.0**	**+3.1**
TIP	**Timpagrande**	**8.05**	**283**	Pn	**Pn**	**03 36 12.8**	**+0.7**
TIP	**Timpagrande**	**8.05**	**283**	⇑P	**Pn**	**03 36 11.1**	**-1.1**
VRI	**Vrincioaia**	**8.07**	**359**	⇑P	**Pn**	**03 36 12.9**	**+0.6**
DOPR	**Dopca**	**8.24**	**353**	⇑P	**Pn**	**03 36 16.8**	**+2.2**
MMAI	**Mount Meron Ar**	**8.44**	**122**	Pn	**Pn**	**03 36 15.0**	**-2.5**
	1.9nm,0.3s,baz=309,slow=14,SNR=6.2						
MMAI				Sn	**Sn**	**03 37 46.3**	**-6.6**
	1.1nm,0.3s,baz=305,slow=25,SNR=2.6 0.6nm,0.3s						
MMAI				AML	AML		
BZS	**Buzias**	**8.74**	**335**	⇑P	**Pn**	**03 36 22.4**	**+0.8**
KEST	**Kesra**	**14.20**	**267**	Pn	**Pn**	**03 37 33.1**	**-3.2**
	0.1nm,0.3s,baz=76,slow=17,SNR=2.4 1.6nm,0.8s						
KEST				AML	AML		
KEST	**Kesra**	**14.20**	**267**		**Pn**	**03 37 38.0**	**+1.7**
SUW	**Suwalki**	**16.42**	**352**	Pn	**Pn**	**03 38 06.7**	**+1.3**
CLL	**Collm**	**16.70**	**328**	*eP*	**Pn**	**03 38 07.0**	**-2.0**
BFO	**Black Forest**	**17.11**	**314**		**Pn**	**03 38 15.0**	**+0.7**
OBN	**Obninsk**	**18.54**	**18**	LR	LR	03 45 34.5	
	comp=Z,118nm,20.4s,baz=282,slow=36						
ABKAR	**Akbulak array**	**26.37**	**54**	P	**P**	**03 39 53.1**	**+1.8**
MTE	**Manteigas**	**26.74**	**286**	P	**P**	**03 39 54.7**	**-0.1**
MTE				IAmb	IAmb	03 40 13.0	
	comp=Z,4.3nm,0.8s						
LVZ	**Lovozero**	**30.47**	**6**	P	**P**	**03 40 28.3**	**+0.6**
TORD	**Torodi Ar. Bea**	**33.24**	**229**	P	**P**	**03 40 51.2**	**-1.4**
	comp=Z,0.7nm,0.5s,baz=46,slow=10,SNR=4.1 comp=Z,0.7nm,0.5s						
KBL	**Kabul**	**33.99**	**82**	P	**P**	**03 41 00.2**	**+1.0**
KBL				IAmb	IAmb	03 41 12.8	
	comp=Z,3.4nm,0.5s						
KDJ	**Kajisay**	**38.35**	**67**	P	**P**	**03 41 37.0**	**+0.6**
KDJ				IAmb	IAmb	03 41 48.1	
	comp=Z,4.8nm,1.0s						
MKAR	**Makanchi Array**	**41.21**	**59**	P	**P**	**03 42 01.1**	**+1.2**
GRHM	**Grahamstown, E**	**70.71**	**180**	P	**P**	**03 45 31.5**	**+0.4**
GRHM				IAmb	IAmb	03 45 34.2	
	comp=Z,4.2nm,1.0s						
KLR	**Kul'dur**	**70.88**	**42**	LR	LR	04 23 27.9	
	comp=Z,44nm,18.1s,slow=42						

*TRN **12** 03:42:25.0, 10˚.93N×62˚.29W, h29km, MD3.0, North of the Paria peninsula.*
*FUNV **12** 03:42:37.6, 10˚.90N×62˚.23W, h27km, MW3.3, Presumed earthquake*
ISC 12 03:42:37.5±1.6**, 10˚.93N**±0˚.05×**62˚.29W**±0˚.05**, h32**km±16km**, n12**, σ**0**.**50**/21, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.76**	**108**	*eP*	**Pb**	**03 42 52.8**	**+0.4**
DMDM				*eS*	**Sn**	**03 43 03.5**	**+1.1**
PSMG	**Mucurapo Girls**	**0.79**	**109**	*eP*	**Pb**	**03 42 53.0**	**+0.2**
PSMG				*eS*	**Sn**	**03 43 03.6**	**+0.5**
PSDM	**Port of Spain,**	**0.81**	**109**	*eP*	**Pb**	**03 42 52.7**	**-0.5**
PSDM				*eS*	**Sn**	**03 43 04.3**	**+0.5**
TRN	**Trinidad (W)**	**0.91**	**108**	*eP*	**Pn**	**03 42 53.6**	**-0.6**
TRN				*eS*	**Sn**	**03 43 05.9**	**-0.4**
TRN	**Trinidad (W)**	**0.91**	**108**	*eP*	**Pn**	**03 42 53.9**	**-0.2**
TRN				*eS*	**Sn**	**03 43 05.8**	**-0.4**
GRGR	**Grenville**	**1.35**	**27**	*eP*	**Pn**	**03 42 59.8**	**-0.3**
GRGR				*eS*	**Sn**	**03 43 17.5**	**+0.5**
GRGR	**Grenville**	**1.35**	**27**	*eP*	**Pn**	**03 42 60.0**	**-0.2**
GRGR				*eS*	**Sn**	**03 43 17.4**	**+0.5**
GRW	**Mount Saint Ca**	**1.37**	**27**	*eP*	**Pn**	**03 43 00.1**	**-0.5**
GRW				*eS*	**Sn**	**03 43 17.5**	**-0.1**
GRSS	**Sisters**	**1.51**	**26**	*eP*	**Pn**	**03 43 02.3**	**-0.1**
GRSS				*eS*	**Sn**	**03 43 21.4**	**+0.4**
PCRV	**Puerto La Cruz**	**2.43**	**252**	*eP*	**Pn**	**03 43 15.3**	**+0.3**
PCRV				*eS*	**Sn**	**03 43 43.2**	**+0.5**
SVB	**Belmont**	**2.54**	**23**	*eS*	**Sn**	**03 43 46.2**	**-0.2**
CACV	**CAICARA DEL OR**	**5.37**	**232**	*eP*	Pn	03 43 48.8	-6.7
CACV				*eS*	Sn	03 44 42.5	-14

IDC 12 03:42:42.9±5.9**, 23˚.27N×108˚.63W, h0**km**, mbtmp2.7**/3**, ML3.4**/3**, Error ellipse: s-maj=81.5km s-min=33.8km az=149.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	**7.50**	**35**	Pn	Pn	03 44 35.4	+1.6
	0.1nm,0.3s,baz=211,slow=14,SNR=4.4						
TXAR				Lg	Lg	03 46 39.7	
	0.2nm,0.3s,baz=217,slow=31,SNR=5.4 0.1nm,0.3s						
TXAR				AML	AML		
NVAR	**Mina Array Bea**	**17.22**	**334**	P	Pn	03 46 45.4	+0.2
	0.1nm,0.3s,baz=162,slow=11,SNR=1.9 0.2nm,0.5s						
NVAR				AML	AML		
PDAR	**Pinedale Array**	**19.46**	**358**	P	P	03 47 11.8	+0.4
	baz=167,slow=11,SNR=1.9 0.1nm,0.4s						

*DJA **12** 03:48:38.3±0.2, 10˚.5S×2˚.2W×11˚.8E±˚, h10km, M5.2/53, mb5.2/44, mB5.6/29, MLv5.4/53, Mw(mB)5.1/29*
*IDC **12** 03:48:40.0±0.4, 9˚.26S×118˚.23E, h75km±3km, mb4.3/22, mbtmp4.6/25, MS3.3/19, Error ellipse: s-maj=12.6km s-min=9.2km az=57.0*
*NEIC **12** 03:48:40.1±2.0, 9˚.29S±0˚.09×118˚.14E±0˚.07, h73km±5km, mb4.8/37, Error ellipse: s-maj=13.4km s-min=9.7km az=193.0*
*GFZ **12** 03:48:40.8±0.2, 9˚S±2˚×11˚8E±˚, h76km, M4.9/29, mb4.9/29, confirmed*
ISC 12 03:48:40.0±0.3**, 9˚.45S**±0˚.04×**118˚.14E**±0˚.04**, h77**km±2km**, h78**km**:pP-P, n281**, σ1**s62**/306**, mb4.8**/61**, 2C, Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLAI	**Plampang**	**0.72**	**330**	P	**Pn**	**03 48 55.6**	**-0.1**
PLAI	**Plampang**	**0.72**	**330**	P	**Pn**	**03 48 55.7**	**0.0**
PLAI				S	**Sn**	**03 49 06.4**	**-0.9**
PLAI				AML	AML		
PLAI	**Plampang**	**0.72**	**330**	P	**Pn**	**03 48 55.8**	**+0.1**
PLAI				S	**Sn**	**03 49 07.1**	**-0.3**
DBNI	**Kabupaten Domp**	**0.96**	**10**	P	**Pn**	**03 48 59.1**	**+0.6**
DBNI				S	**Sn**	**03 49 13.1**	**+0.9**
DBNI				AML	AML		
TWSI	**Taliwang, Sumb**	**1.43**	**300**	P	**Pn**	**03 49 05.5**	**+1.1**
TWSI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.98**	**61**	P	**Pn**	**03 49 12.6**	**+1.0**
WSI	**Waingapu**	**2.14**	**96**	P	**Pn**	**03 49 13.6**	**-0.1**
WSI				AML	AML		
BASI	**Baing, Sumba**	**2.52**	**108**	P	**Pn**	**03 49 18.8**	**0.0**
BASI				AML	AML		
KHKI	**Kahang-Kahang**	**2.73**	**293**	P	**Pn**	**03 49 24.2**	**+2.5**
KHKI				AML	AML		
DNP	**Denpasar**	**3.00**	**285**	P	**Pn**	**03 49 26.1**	**+0.8**
IGBI	**Denpasar**	**3.03**	**282**	P	**Pn**	**03 49 25.7**	**0.0**
SRBI	**Singaraja**	**3.20**	**295**	P	**Pn**	**03 49 28.9**	**+0.8**
SRBI				AML	AML		
EDFI	**Ende, Flores**	**3.57**	**79**	P	**Pn**	**03 49 33.2**	**0.0**
EDFI				AML	AML		
BSSI	**Bau Bau, Buton**	**4.03**	**35**	P	**Pn**	**03 49 40.7**	**+1.3**
BSSI				AML	AML		
JAGI	**Jajag, Banyuwa**	**4.06**	**284**	P	**Pn**	**03 49 39.9**	**+0.1**
JAGI	**Jajag, Banyuwa**	**4.06**	**284**		**Pn**	**03 49 38.7**	**-1.1**
JAGI	**Jajag, Banyuwa**	**4.06**	**284**	P	**Pn**	**03 49 39.3**	**-0.5**
JAGI				AML	AML		
JAGI	**Jajag, Banyuwa**	**4.06**	**284**	P	**Pn**	**03 49 39.9**	**+0.1**
MMRI	**Maumere**	**4.12**	**79**	P	**Pn**	**03 49 41.4**	**+0.7**
MMRI	**Maumere**	**4.12**	**79**	S	**Sn**	**03 50 29.5**	**+1.8**
MMRI	**Maumere**	**4.12**	**79**	Pn	**Pn**	**03 49 41.6**	**+1.0**
MMRI	**Maumere**	**4.12**	**79**	P	**Pn**	**03 49 42.1**	**+1.5**
MMRI				AML	AML		
MMRI	**Maumere**	**4.12**	**79**	P	**Pn**	**03 49 42.2**	**+1.5**
ABJI	**Asem Bagus**	**4.20**	**293**	P	**Pn**	**03 49 43.4**	**+1.7**
ABJI				AML	AML		
MKS	**Makassar**	**4.41**	**17**	P	**Pn**	**03 49 46.4**	**+1.9**
MKS				AML	AML		
BKSI	**Bulukumba**	**4.55**	**26**	P	**Pn**	**03 49 48.1**	**+1.6**
KAPI	**Kappang**	**4.69**	**20**	P	**Pn**	**03 49 50.3**	**+2.0**
	199nm,0.4s,baz=193,slow=8.0,SNR=154						
KAPI				S	**Sn**	**03 50 41.0**	**-0.6**
	978nm,0.3s,baz=98,slow=21,SNR=82						
KAPI				LR	LR	03 52 01.7	
	comp=Z,604nm,21.1s,baz=233,slow=45						
KAPI	**Kappang**	**4.69**	**20**	P	**Pn**	**03 49 50.1**	**+1.7**
KAPI	**Kappang**	**4.69**	**20**	S	**Sn**	**03 50 40.9**	**-0.6**
KAPI	**Kappang**	**4.69**	**20**	P	**Pn**	**03 49 48.8**	**+0.4**
KAPI				S	**Sn**	**03 50 41.5**	**0.0**
KAPI	**Kappang**	**4.69**	**20**	P	**Pn**	**03 49 49.9**	**+1.5**
KAPI				AML	AML		
KAPI	**Kappang**	**4.69**	**20**	P	**Pn**	**03 49 50.4**	**+2.0**
	comp=Z,277nm,0.5s						
KAPI				S	**Sn**	**03 50 41.0**	**-0.6**
KMMI	**Kalianget**	**4.77**	**300**	P	**Pn**	**03 49 52.8**	**+3.3**
BLJI	**Banyuglugur**	**4.81**	**290**	P	**Pn**	**03 49 50.4**	**+0.4**
BLJI				AML	AML		
BATI	**Baumata**	**5.49**	**98**	P	**Pn**	**03 49 59.6**	**+0.3**
	comp=Z,398nm,0.4s,baz=293,slow=2.8,SNR=50						
BATI				S	**Sn**	**03 50 58.9**	**-2.3**
	comp=Z,179nm,0.3s,baz=30,slow=22,SNR=8.1						
BATI	**Baumata**	**5.49**	**98**	P	**Pn**	**03 49 59.9**	**+0.5**
BATI				AML	AML		
SPSI	**Sidrap Palu**	**5.69**	**17**	P	**Pn**	**03 50 04.5**	**+2.5**
	comp=Z,1.5nmcomp=Z,6μmcomp=Z,160nm,0.5s						
SPSI				AML	AML		
BBSI	**Bau Bau**	**5.90**	**48**	P	**Pn**	**03 50 08.3**	**+3.4**
BBSI				AML	AML		
PMSI	**Majene**	**5.96**	**7**	P	**Pn**	**03 50 08.0**	**+2.2**
	comp=Z,1.3nmcomp=Z,3μmcomp=Z,188nm,0.5s						
PMSI				AML	AML		
SOEI	**Soe**	**6.05**	**93**	P	**Pn**	**03 50 08.3**	**+1.3**
SOEI	**Soe**	**6.05**	**93**	Pn	**Pn**	**03 50 06.8**	**-0.2**
SOEI	**Soe**	**6.05**	**93**	P	**Pn**	**03 50 07.5**	**+0.5**
	comp=Z,1.7nmcomp=Z,5μmcomp=Z,539nm,0.9s						
SOEI				AML	AML		
SOEI	**Soe**	**6.05**	**93**	P	**Pn**	**03 50 07.7**	**+0.7**
	comp=Z,539nm,1.0s						
GRJI	**Gresik**	**6.15**	**294**	P	**Pn**	**03 50 10.2**	**+1.9**
	comp=Z,1.3nmcomp=Z,265nm,1.2s						
GRJI				AML	AML		
KKSI	**Kolaka, Sulawe**	**6.30**	**34**	P	Pn	03 50 15.3	+5.0
	comp=Z,1.2nmcomp=Z,5μmcomp=Z,320nm,0.5s						
KKSI				AML	AML		
PWJI	**Pagerwojo**	**6.42**	**282**	P	**Pn**	**03 50 13.8**	**+1.7**
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**6.53**	**284**	P	**Pn**	**03 50 13.6**	**0.0**
	comp=Z,1.9nmcomp=Z,3μmcomp=Z,208nm,0.6s						
SNJI				AML	AML		
SJI	**Sawahan**	**6.53**	**285**	P	**Pn**	**03 50 17.6**	**+4.0**
	comp=Z,4.0nmcomp=Z,289nm,0.6s						
SJI				AML	AML		
TTSI	**Tana Toraja**	**6.58**	**15**	P	**Pn**	**03 50 17.7**	**+3.5**
	comp=Z,2.1nmcomp=Z,4μmcomp=Z,206nm,0.5s						
TTSI				AML	AML		
MMSI	**Mamuju**	**6.76**	**7**	P	**Pn**	**03 50 19.6**	**+2.9**
	comp=Z,1μmcomp=Z,79nm,0.4s						
BBKI	**Banjar Baru**	**6.79**	**331**	P	**Pn**	**03 50 19.9**	**+2.8**
	comp=Z,1.0nmcomp=Z,260nm,0.6s						
BBKI				AML	AML		
NGJI	**Ngawi**	**6.93**	**287**	P	Pn	03 50 25.8	+6.9
	comp=Z,240nm,0.7s						
KDI	**Kendari**	**7.04**	**39**	P	**Pn**	**03 50 23.9**	**+3.4**
	comp=Z,0.4nmcomp=Z,5μmcomp=Z,92nm,0.8s						
KDI				AML	AML		
WOJI	**Wonogiri, Jawa**	**7.32**	**282**	P	**Pn**	**03 50 27.2**	**+2.9**
	comp=Z,2.1nmcomp=Z,125nm,0.4s						
WOJI				AML	AML		
UGM	**Wanagama**	**7.69**	**281**	P	**Pn**	**03 50 30.9**	**+1.5**
UGM	**Wanagama**	**7.69**	**281**	S	**Sn**	**03 51 58.1**	**+3.1**
UGM	**Wanagama**	**7.69**	**281**	Pn	**Pn**	**03 50 29.5**	**+0.2**
UGM	**Wanagama**	**7.69**	**281**	P	**Pn**	**03 50 32.7**	**+3.3**
	comp=Z,218nm,0.9s						
YOGI	**Yogyakarta**	**7.93**	**281**	P	**Pn**	**03 50 35.6**	**+3.0**
	comp=Z,1.8nmcomp=Z,151nm,1.0s						
YOGI				AML	AML		
PCI	**Palu**	**8.66**	**11**	P	Pn	03 50 50.3	+7.7
	comp=Z,7μmcomp=Z,135nm,1.2s						
APSI	**Ampana**	**9.17**	**23**	P	**Pn**	**03 50 53.2**	**+3.6**
	comp=Z,2μmcomp=Z,68nm,0.9s						
KPJI	**Karang Pucung**	**9.35**	**282**	P	**Pn**	**03 50 54.0**	**+1.9**
	comp=Z,51nm,1.0s						
LUWI	**Luwuk**	**9.54**	**29**	P	**Pn**	**03 50 57.7**	**+3.1**
	comp=Z,4μmcomp=Z,153nm,1.2s						
BBJI	**Bungbulang**	**10.57**	**280**	P	Pn	**03 51 08.3**	**-0.5**
BBJI	**Bungbulang**	**10.57**	**280**	Pn	Pn	**03 51 05.1**	**-3.6**
BBJI	**Bungbulang**	**10.57**	**280**	P	**Pn**	**03 51 08.2**	**-0.5**
	comp=Z,705nmcomp=Z,26nm,0.6s						
SANI	**Sanana**	**10.72**	**47**	P	**Pn**	**03 51 12.9**	**+2.1**
SANI	**Sanana**	**10.72**	**47**	P	**Pn**	**03 51 13.5**	**+2.7**
	comp=Z,1μmcomp=Z,112nm,1.2s						
SANI	**Sanana**	**10.72**	**47**	P	**Pn**	**03 51 13.4**	**+2.7**
	comp=Z,113nm,1.2s						
LEM	**Lembang**	**10.74**	**283**	P	**Pn**	**03 51 10.6**	**-0.6**
	comp=Z,13nm,0.3s,baz=111,slow=22,SNR=3.6						
NLAI	**Namlea**	**10.83**	**56**	P	**Pn**	**03 51 15.0**	**+2.8**
	comp=Z,3μmcomp=Z,336nm,1.1s						
GTOI	**Gorontalo**	**11.13**	**26**	P	**Pn**	**03 51 20.4**	**+4.0**
	comp=Z,36nm,0.8s						
FITZ	**Fitzroy Crossi**	**11.26**	**141**	P	**Pn**	**03 51 16.5**	**-1.6**
	comp=Z,6.1nm,0.5s,baz=312,slow=8.7,SNR=35						
FITZ				S	Sn	03 53 13.5	-8.7
	comp=Z,47nm,0.6s,baz=168,slow=13,SNR=15						
FITZ				LR	LR	03 56 24.7	
	comp=Z,64nm,21.3s,baz=339,slow=41						
FITZ	**Fitzroy Crossi**	**11.26**	**141**	P	**Pn**	**03 51 18.4**	**+0.3**
FITZ	**Fitzroy Crossi**	**11.26**	**141**	Pn	**Pn**	**03 51 16.3**	**-1.8**
FITZ	**Fitzroy Crossi**	**11.26**	**141**	P	**Pn**	**03 51 19.6**	**+1.5**
	comp=Z,4.9nm,1.3s						
MBWA	**Marble Bar**	**11.74**	**173**	P	**Pn**	**03 51 24.2**	**-0.4**
MBWA	**Marble Bar**	**11.74**	**173**	P	Pn	03 51 16.7	-7.9
MBWA				S	Sn	03 53 20.1	-14
MBWA	**Marble Bar**	**11.74**	**173**	Pn	**Pn**	**03 51 22.0**	**-2.6**
KNRA	**Kununurra**	**12.07**	**122**	Pn	**Pn**	**03 51 26.8**	**-2.3**
BNDI	**Bandanaira**	**12.66**	**68**	P	**P**	**03 51 46.7**	**+1.2**
DRS	**Darwin Rock St**	**12.87**	**104**	P	**Pn**	**03 51 40.6**	**+0.6**
MTN	**Manton Dam**	**13.18**	**106**	Pn	**Pn**	**03 51 39.9**	**-4.3**
GIRL	**Giralia**	**13.64**	**195**	Pn	**Pn**	**03 51 48.2**	**-2.0**
FAKI	**Fak Fak**	**15.45**	**66**	P	**Pn**	**03 52 14.8**	**+1.2**
FAKI	**Fak Fak**	**15.45**	**66**	Pn	**Pn**	**03 52 10.2**	**-3.4**
FAKI				IAmb	IAmb	03 52 16.9	
	comp=Z,82nm,0.6s						
FAKI	**Fak Fak**	**15.45**	**66**	P	**Pn**	**03 52 12.2**	**-1.4**
	comp=Z,116nm,0.7s						
SIJI	**Sorong**	**15.60**	**58**	P	**Pn**	**03 52 13.2**	**-2.3**
	comp=Z,12nm,0.4s,baz=246,slow=4.0,SNR=14						
SIJI				LR	LR	03 58 40.7	
	comp=Z,91nm,18.5s,baz=32,slow=39						
MNAI	**Manna**	**15.90**	**288**	P	**Pn**	**03 52 20.1**	**+0.8**
MEEK	**Meekatharra**	**17.10**	**179**	P	**P**	**03 52 36.0**	**+1.3**
MEEK	**Meekatharra**	**17.10**	**179**	P	**P**	**03 52 36.8**	**+2.1**
	comp=Z,29nm,1.1s						
WB0	**Warramunga Arr**	**18.75**	**125**	P	**P**	**03 52 53.1**	**+0.1**
WRA	**Warramunga Arr**	**18.80**	**125**	P	**P**	**03 52 53.2**	**-0.3**
	comp=Z,3.6nm,0.6s,baz=300,slow=14,SNR=25						
WRA				S	S	03 56 10.3	-13
	comp=Z,5.0nm,0.5s,baz=294,slow=23,SNR=6.4						
WRA				ScP	**ScP**	**04 00 46.8**	**-0.2**
	comp=Z,3.6nm,1.1s,baz=304,slow=2.0,SNR=4.5						
WRA	**Warramunga Arr**	**18.80**	**125**	P	**P**	**03 52 52.7**	**-0.8**
WRA				ScP	**ScP**	**04 00 43.8**	**-3.2**
WRAB	**Tennant Creek**	**18.80**	**125**	P	**Pn**	**03 52 54.6**	**-0.3**
WRAB	**Tennant Creek**	**18.80**	**125**	P	**P**	**03 52 54.0**	**+0.4**
WRAB	**Tennant Creek**	**18.80**	**125**	P	**P**	**03 52 53.9**	**+0.4**
	comp=Z,15nm,0.9s						
WR8	**Warramunga Arr**	**18.94**	**125**		**P**	**03 52 54.4**	**-0.6**
BKNI	**Bangkinang**	**19.61**	**299**	P	**P**	**03 53 02.0**	**-0.3**
	comp=Z,80nm,0.6s						
MORW	**Morawa**	**19.61**	**185**	P	**Pn**	**03 53 04.2**	**-0.1**
MORW	**Morawa**	**19.61**	**185**	P	**Pn**	**03 53 04.1**	**-0.2**
MORW	**Morawa**	**19.61**	**185**	P	**Pn**	**03 53 06.9**	**+2.5**
	comp=Z,22nm,1.0s						
AS31	**Alice Springs**	**20.66**	**135**	P	Pn	03 53 16.7	0.0
ASAR	**Alice Springs**	**20.66**	**135**	P	**P**	**03 53 14.3**	**+0.7**
	comp=Z,6.6nm,0.7s,baz=310,slow=9.9,SNR=38						
ASAR				S	**S**	**03 56 56.5**	**-3.9**
	comp=Z,4.5nm,0.8s,baz=314,slow=24,SNR=6.3						
ASAR				ScP	**ScP**	**04 00 52.2**	**+1.0**
	comp=Z,3.3nm,0.8s,baz=333,slow=3.0,SNR=9.1						
ASAR				LR	LR	04 01 41.0	
	comp=Z,66nm,19.5s,baz=284,slow=38 comp=Z,6.6nm,0.7s						
ASAR	**Alice Springs**	**20.66**	**135**	P	Pn	03 53 17.1	+0.5
ASAR					**ScP**	**04 00 50.3**	**-1.0**
AS01	**Alice Springs**	**20.69**	**135**	P	Pn	03 53 16.5	-0.5
BLDU	**Ballidu**	**21.10**	**183**	P	**P**	**03 53 20.1**	**+1.8**
KLBR	**Kellerberrin**	**22.03**	**181**	P	**P**	**03 53 29.9**	**+1.6**
KLBR	**Kellerberrin**	**22.03**	**181**	P	**P**	**03 53 29.3**	**+1.0**
	comp=Z,45nm,0.9s						
RPSI	**Rantau Prapat**	**22.64**	**301**	P	**P**	**03 53 34.4**	**-0.5**
RPSI	**Rantau Prapat**	**22.64**	**301**	P	**P**	**03 53 34.1**	**-0.8**
	comp=Z,88nm,1.2s						
PSI	**Prapat**	**22.69**	**302**	LR	LR	04 03 33.1	
	comp=Z,106nm,18.3s,baz=134,slow=40						
PSI	**Prapat**	**22.69**	**302**	P	**P**	**03 53 34.8**	**-0.8**
KULM	**Kulim**	**22.77**	**309**	P	**P**	**03 53 34.7**	**-1.6**
KULM				IAmb	IAmb	03 53 40.8	
	comp=Z,87nm,1.8s						
KULM	**Kulim**	**22.77**	**309**	P	**P**	**03 53 34.6**	**-1.6**
	comp=Z,18nm,1.4s						
NWAO	**Narrogin (SRO)**	**23.38**	**182**	P	**P**	**03 53 42.6**	**+0.6**
NWAO	**Narrogin (SRO)**	**23.38**	**182**	P	**P**	**03 53 36.3**	**-5.7**
NWAO				S	**S**	**03 57 43.6**	**-5.4**
NWAO	**Narrogin (SRO)**	**23.38**	**182**	P	**P**	**03 53 42.4**	**+0.4**
NWAO				IAmb	IAmb	03 53 43.8	
	comp=Z,34nm,0.9s						
QIS	**Mount Isa**	**23.45**	**121**	P	**P**	**03 53 44.3**	**+1.4**
QIS	**Mount Is

comp=Z,17nm,0.8s
MDJ Mudanjiang 54.80 10 P P 03 58 01.7 -0.2
USRK Ussuriysk Ar. 54.85 12 P P 03 58 01.9 -0.4
comp=Z,11nm,0.4s,baz=196,slow=6.2,SNR=26
comp=Z,11nm,0.4s
USRK Ussuriysk Ar. 54.85 12 P 03 58 01.2 -1.1
SONM Songino Array 57.98 351 P **P 03 58 24.2 -0.5**
comp=Z,4.2nm,0.6s,baz=168,slow=8.8,SNR=34
comp=Z,4.2nm,0.6s
SONM Songino Array 57.98 351 P **P 03 58 23.9 -0.8**
SONM IAmb IAmb 03 58 24.8
comp=Z,4.0nm,0.7s
WMQ Urumqi 59.80 335 *e*P **P 03 58 38.9 +1.6**
HEH HeiHe 60.00 7 *e*P **P 03 58 37.8 -0.6**
HEH pmax pmax
comp=Z,16nm,0.6s
TLY Talaya 62.16 350 LR LR 04 27 28.4
comp=Z,38nm,21.8s,baz=3.5,slow=38
KSH2 Kashi 62.46 324 P **P 03 58 54.1 -1.4**
KSH2 pmax pmax
comp=Z,10.0nm,0.9s
ASAI AK-SAY(Kyrgyzs 63.10 326 P **P 03 58 59.1 -0.9**
comp=Z,2.8nm,1.4s
NRN Naryn 63.74 326 P 03 59 02.4 -1.7
KBL Kabul 63.82 316 P **P 03 59 02.6 -2.1**
KBL IAmb IAmb 03 59 04.5
comp=Z,7.5nm,0.7s
KBL Kabul 63.82 316 P **P 03 59 02.6 -2.1**
comp=Z,11nm,0.6s
MKAR Makanchi Array 64.48 334 P **P 03 59 07.5 -1.0**
comp=Z,8.3nm,0.6s,baz=155,slow=7.0,SNR=55
MKAR pP **pP 03 59 26.6 -1.4**
comp=Z,2.5nm,0.5s,baz=161,slow=7.0,SNR=3.6
comp=Z,8.3nm,0.6s
MKAR Makanchi Array 64.48 334 P **P 03 59 07.0 -1.5**
BOOM Boomskoye usch 64.48 327 P **P 03 59 07.5 -1.3**
comp=Z,8.9nm,1.0s
AAK Ala-Archa 65.38 326 P **P 03 59 14.2 -0.4**
comp=Z,7.9nm,1.0s
AAK Ala-Archa 65.38 326 P **P 03 59 14.3 -0.2**
ARSB Arslanbob 65.38 324 P **P 03 59 12.8 -1.8**
ARSB IAmb IAmb 03 59 14.3
comp=Z,18nm,0.8s
JLN Jalan Bani Buh 65.57 300 P **P 03 59 13.3 -2.8**
CCD Concordia, Ant 65.69 179 P **P 03 59 18.4 +2.1**
CCD pP **pP 03 59 37.4 +1.7**
BTK Batken 65.88 322 P **P 03 59 17.2 -0.6**
comp=Z,8.5nm,0.6s
MHTO MHTO 66.39 298 P **P 03 59 20.1 -1.2**
SNR=7.3
WSAR Wadi Sarin 66.65 300 P **P 03 59 21.5 -1.4**
JMDO Jabal Madar 66.78 299 P **P 03 59 21.5 -2.3**
SMDO Samad 67.08 300 P **P 03 59 24.4 -1.4**
BSY Bisya 67.69 299 P **P 03 59 28.3 -1.2**
KKAR Karatay Array 67.92 324 P **P 03 59 28.4 -2.2**
DMTO DMTO 67.99 293 P **P 03 59 28.3 -3.2**
MAW Mawson 68.53 200 P **P 03 59 35.0 +1.1**
comp=Z,3.4nm,0.6s,baz=89,slow=6.6,SNR=5.9
comp=Z,3.4nm,0.6s
MAW Mawson 68.53 200 P **P 03 59 35.6 +1.7**
KURBB Kurchatov Arra 69.00 334 P **P 03 59 35.8 -1.3**
comp=Z,4.4nm,0.5s,baz=145,slow=5.4,SNR=36
comp=Z,4.4nm,0.5s
DOK Doka 69.01 294 P **P 03 59 36.9 -0.9**
SNR=16
ABPO Ambohimpanom 69.02 253 P **P 03 59 39.7 +1.6**
ABPO Ambohimpanom 69.02 253 P **P 03 59 39.8 +1.6**
ABPO PcP **PcP 04 00 02.3 +0.4**
KURK Kurchatov 69.03 334 P **P 03 59 35.9 -1.4**
KURK IAmb IAmb 03 59 36.7
comp=Z,12nm,1.1s
KURK Kurchatov 69.03 334 P **P 03 59 35.9 -1.4**
comp=Z,11nm,1.0s
KURK Kurchatov 69.03 334 P **P 03 59 36.0 -1.2**
WHFO Wadi Hawf 69.12 293 P **P 03 59 37.2 -1.4**
SNR=30
ZAA0 Zalesovo Array 69.16 340 P 03 59 35.7 -2.4
ZAA0 IAmb IAmb 03 59 36.8
comp=Z,6.6nm,0.6s
ZALV Zalesovo Beam 69.16 340 P **P 03 59 36.2 -1.9**
comp=Z,3.9nm,0.3s,baz=148,slow=5.2,SNR=26
ZALV pP **pP 03 59 56.3 -1.5**
comp=Z,3.7nm,0.5s,baz=151,slow=5.1,SNR=5.3
comp=Z,3.9nm,0.3s
ZALV Zalesovo Beam 69.16 340 P **P 03 59 36.2 -1.9**
ZALV pP **pP 03 59 56.7 -1.1**
ABTO Aybut 69.38 293 P **P 03 59 39.2 -1.0**
SNR=6.6
PETK Petropavlovsk- 70.83 24 P **P 03 59 48.2 -0.1**
comp=Z,3.6nm,0.6s,baz=226,slow=7.2,SNR=3.0
PETK pP **pP 04 00 07.1 -1.0**
comp=Z,2.9nm,0.6s,baz=220,slow=6.3,SNR=2.1
comp=Z,3.6nm,0.6s
PETK Petropavlovsk- 70.83 24 P **P 03 59 47.5 -0.7**
PETK pP **04 00 07.6 -0.5**
VNDA Vanda 71.68 171 P **P 03 59 54.5 +1.5**
comp=Z,1.0nm,0.4s,baz=313,slow=8.0,SNR=9.4
VNDA pP **pP 04 00 13.6 +1.1**
comp=Z,1.1nm,0.5s,baz=52,slow=0.6,SNR=3.8
VNDA LR LR 04 28 09.6
comp=Z,26nm,21.8s,baz=1.5,slow=33
comp=Z,1.0nm,0.4s
VNDA Vanda 71.68 171 P **P 03 59 53.4 +0.3**
VNDA pP **pP 04 00 13.4 +0.9**
VNDA Vanda 71.68 171 P **P 03 59 55.3 +2.2**
comp=Z,3.5nm,1.6s
VNDA Vanda 71.68 171 P **P 03 59 54.7 +1.6**
VNDA pP **pP 04 00 13.7 +1.1**
BVAR Borovoye Array 74.30 332 P **P 04 00 07.7 -1.2**
comp=Z,5.5nm,0.8s,baz=140,slow=7.7,SNR=18
comp=Z,5.5nm,0.8s
BORK Borovoye 74.34 332 P 04 00 07.9 -1.2
BORK IAmb IAmb 04 00 09.3
comp=Z,4.7nm,0.6s
AB31 Akbulak array 77.44 325 P 04 00 25.3 -1.5
AB31 IAmb IAmb 04 00 26.6
comp=Z,16nm,1.4s
ABKAR Akbulak array 77.44 325 P 04 00 24.7 -2.2
RAYN Ar Rayn 78.14 296 P **P 04 00 30.2 -1.2**
RAYN IAmb IAmb 04 00 31.6
comp=Z,12nm,0.8s
RAYN Ar Rayn 78.14 296 P **P 04 00 30.9 -0.6**
comp=Z,20nm,0.8s
RAYN Ar Rayn 78.14 296 P P 04 00 30.8 -0.6
RAYN pP **pP 04 00 49.1 -2.3**
KIBK Kibwezi 79.85 269 P P 04 00 40.3 -0.8
KIBK IAmb IAmb 04 00 43.5
comp=Z,6.2nm,0.8s
KIBK Kibwezi 79.85 269 P **P 04 00 42.7 +1.6**
QSPA South Pole Qui 80.55 180 P **P 04 00 44.4 +0.7**
comp=Z,2.7nm,0.6s,baz=302,slow=1.9,SNR=8.9
QSPA pP **pwP 04 01 05.7 -1.1**
comp=Z,1.8nm,0.7s,baz=330,slow=4.0,SNR=2.7
QSPA LR LR 04 35 47.9
comp=Z,14nm,19.2s,baz=216,slow=35
comp=Z,2.7nm,0.6s
QSPA South Pole Qui 80.55 180 P 04 00 44.6 +0.9
QSPA IAmb IAmb 04 00 46.5
comp=Z,26nm,1.7s
QSPA South Pole Qui 80.55 180 P **P 04 00 45.2 +1.4**
QSPA pP **pP 04 01 05.0 +1.2**
KMBO Kilima Mbogo 80.83 270 P **P 04 00 45.2 -1.2**
baz=93,slow=3.0
TIXI Tiksi 81.24 3 P **P 04 00 45.1 -1.9**
comp=Z,6.6nm,0.9s
POGA Pongola 82.58 244 P **P 04 00 56.9 +1.7**
comp=Z,53nm,0.8s
XMAS Kiritimati 84.82 87 P **P 04 01 07.3 +0.5**
XMAS pP **pP 04 01 26.3 -0.8**
GURO Guroymak-BITLI 85.16 310 P **P 04 01 08.0 -0.2**
KBZ Khabaz 86.00 315 P **P 04 01 11.9 -0.1**
comp=Z,3.1nm,0.9s,baz=64,slow=3.5,SNR=5.2
comp=Z,3.1nm,0.9s
KOPT Kop Dagi 86.70 311 P **P 04 01 16.7 +0.8**
KOPT IAmb IAmb 04 01 21.1
comp=Z,8.9nm,0.7s
MBAR Mbarara 87.34 270 P **P 04 01 20.9 +1.4**
MBAR IAmb IAmb 04 01 21.8
comp=Z,8.0nm,0.8s
MBAR Mbarara 87.34 270 P **P 04 01 21.0 +1.6**
comp=Z,12nm,1.0s
MBAR Mbarara 87.34 270 P **P 04 01 20.8 +1.3**
MBAR pP **pP 04 01 40.4 +0.8**
KELT Kelkit 87.65 311 P **P 04 01 21.3 +0.9**
comp=Z,31nm,1.6s
ASF Jabal al Asfar 87.66 303 P **P 04 01 21.9 +1.5**
comp=Z,11nm,0.8s,baz=96,slow=2.1,SNR=25
comp=Z,11nm,0.8s
ASF Jabal al Asfar 87.66 303 P **P 04 01 22.2 +1.7**
ASF AML AML
KEMA Kemaliye 88.01 310 P **P 04 01 22.8 +0.8**
comp=Z,29nm,1.1s
BOSA Boshof 88.05 241 P **P 04 01 24.1 +1.6**
comp=Z,3.2nm,0.5s,baz=90,slow=3.2,SNR=12
BOSA pP **pwP 04 01 45.2 -0.3**
comp=Z,2.7nm,0.7s,baz=101,slow=4.5,SNR=2.7
BOSA LR LR 04 34 17.6
comp=Z,26nm,20.0s,baz=40,slow=31
comp=Z,3.2nm,0.5s
BOSA Boshof 88.05 241 P **P 04 01 23.0 +0.4**
BOSA Boshof 88.05 241 P **P 04 01 24.1 +1.6**
LBTB Lobatse 88.35 245 LR LR 04 33 12.2
comp=Z,38nm,21.7s,baz=194,slow=30
LBTB Lobatse 88.35 245 P **P 04 01 24.1 +0.1**
LBTB IAmb IAmb 04 01 26.9
comp=Z,9.1nm,0.8s
LBTB Lobatse 88.35 245 P **P 04 01 26.0 +2.0**
comp=Z,17nm,1.2s
LBTB Lobatse 88.35 245 P **P 04 01 25.9 +2.0**
LBTB pP **pwP 04 01 46.7 -0.2**
TBI Tubuai 88.49 113 *e*LR LR 04 29 35.8
comp=Z,746nm,35.8s
GHAJ Ghor Haditha 88.58 302 P 04 01 24.1 -0.6
GHAJ Ghor Haditha 88.58 302 P **P 04 01 26.5 +1.8**
GHAJ AML AML
LISJ El Lisan 88.64 302 P **P 04 01 27.6 +2.7**
LISJ AML AML
TROLL Troll, Antarti 88.71 196 ⇑P **P 04 01 26.9 +2.1**
comp=Z,76nm,0.5s
EIL Elat 88.77 300 P **P 04 01 26.2 +0.6**
comp=Z,15nm,1.0s,baz=17,slow=3.2,SNR=7.5
EIL LR LR 04 41 25.6
comp=Z,20nm,21.9s,baz=78,slow=36
comp=Z,15nm,1.0s
EIL Elat 88.77 300 P **P 04 01 27.5 +1.8**
EIL AML AML
EIL Elat 88.77 300 P **P 04 01 27.1 +1.5**
comp=Z,16nm,1.1s
HRFI Mount Harif 88.77 301 P P 04 01 31.7 +6.0
HRFI AML AML
HRFI Mount Harif 88.77 301 P **P 04 01 26.9 +1.2**
comp=Z,18nm,0.9s
QRNJ Al-Qirein 88.79 303 P **P 04 01 28.3 +2.7**
PRNI Paran 88.86 301 P **P 04 01 28.1 +2.0**
PRNI AML AML
MMAI Mount Meron Ar 89.07 304 P **P 04 01 28.0 +0.9**
comp=Z,1.3nm,0.4s,baz=53,slow=7.4,SNR=6.7
comp=Z,1.3nm,0.4s
PPT2 Papeete2 89.34 108 *e*LR LR 04 30 07.5
comp=Z,71nm,31.2s
KDWAN **Kaudwane 89.47 247 P 04 01 29.3 +0.1**
KZIT Kziot 89.48 301 P **P 04 01 30.4 +1.4**
comp=Z,17nm,0.9s
KSANE Kasane 89.96 252 P **P 04 01 31.1 -0.5**
BRTR Keskin Array B 91.78 310 P **P 04 01 38.6 -1.1**
comp=Z,1.1nm,0.7s,baz=119,slow=5.2,SNR=7.1
BRTR LR LR 04 45 59.2
comp=Z,12nm,19.5s,baz=46,slow=38
comp=Z,1.1nm,0.7s
VNA3 Neumayer Olymp 92.37 195 ⇑P **P 04 01 43.0 +1.3**
comp=Z,1.5nm,0.8s
GRTLG **Ghanzi 92.97 248 P P 04 01 45.9 +0.3**
PURM Purcari 95.59 316 P **P 04 01 53.3 -3.5**
FINES FINESS Array B 99.22 331 P **Pdif 04 02 11.3 -1.5**
comp=Z,3.3nm,1.0s,baz=108,slow=4.2,SNR=3.5
comp=Z,3.3nm,1.0s
FINES FINESS Array B 99.22 331 P Pdif 04 02 11.6 -1.2
ILAR Eielson Array 100.61 26 P **Pdif 04 02 18.0 -1.0**
comp=Z,0.2nm,0.8s,baz=256,slow=4.7,SNR=1.6
ILAR pP **pPdif 04 02 37.5 -2.0**
comp=Z,0.3nm,0.6s,baz=260,slow=4.6,SNR=2.1
GERES **GERESS Array B 106.56 318** PKiKP **PKiKP 04 06 56.6 +0.3**
comp=Z,0.1nm,0.3s,baz=121,slow=1.4,SNR=3.6
YKA Yellowknife Ar 114.95 24 PKP **PKiKP 04 07 11.6 0.0**
comp=Z,1.1nm,0.5s,baz=293,slow=1.9,SNR=18
YKA pPKP PKPdf 04 07 32.9 +21
comp=Z,1.2nm,0.6s,baz=302,slow=1.7,SNR=2.6
TORD Torodi Ar. Bea 117.71 280 PKP **PKiKP 04 07 18.5 +0.2**
comp=Z,1.5nm,0.5s,baz=41,slow=1.8,SNR=9.5
TORD pPKP **pPKPdf 04 07 40.1 +0.5**
comp=Z,0.8nm,0.6s,baz=81,slow=1.6,SNR=2.8
ESDC Sonseca Array 120.56 311 PKP **PKiKP 04 07 23.7 +0.4**
comp=Z,0.3nm,0.7s,baz=13,slow=3.9,SNR=4.5
ESDC pPKP **pPKPdf 04 07 45.1 +0.6**
comp=Z,0.6nm,0.9s,baz=28,slow=3.2,SNR=3.3
ESDC Sonseca Array 120.56 311 PKPdf 04 07 22.5 -0.7
NVAR Mina Array Bea 121.96 50 PKP **PKiKP 04 07 26.3 -0.1**
comp=Z,0.6nm,0.6s,baz=296,slow=2.1,SNR=4.4
NVAR pPKP **pPKPdf 04 07 48.2 +0.6**
comp=Z,1.0nm,0.7s,baz=252,slow=2.1,SNR=5.4
NVAR Mina Array Bea 121.96 50 PKiKP 04 07 26.8 +0.5
DBIC Dimbokro 123.54 272 PKP **PKPdf 04 07 29.3 -0.3**
comp=Z,2.0nm,0.6s,baz=109,slow=1.9,SNR=4.1
DBIC pPKP **pPKPdf 04 07 49.4 -1.5**
comp=Z,1.7nm,0.6s,baz=207,slow=2.4,SNR=1.9
DBIC Dimbokro 123.54 272 PKPdf 04 07 28.9 -0.7
PDAR Pinedale Array 126.82 43 PKP **PKPdf 04 07 35.5 0.0**
comp=Z,0.2nm,0.3s,baz=120,slow=2.1,SNR=4.3
PDAR pPKP **pPKPdf 04 07 56.1 -0.6**
comp=Z,0.2nm,0.3s,baz=134,slow=6.4,SNR=2.6
PDAR Pinedale Array 126.82 43 PKPdf 04 07 34.9 -0.5
ULM Lac du Bonnet 130.55 28 SKPbc **SKPab 04 10 57.4 -1.5**
comp=Z,4.1nm,0.7s,baz=26,slow=3.1,SNR=5.5
TXAR Lajitas Array 136.19 57 PKP **PKPdf 04 07 53.3 0.0**
comp=Z,0.2nm,0.8s,baz=341,slow=4.1,SNR=2.5
TXAR SKPbc **SKPbc 04 11 18.4 -0.3**
comp=Z,0.6nm,0.8s,baz=219,slow=2.7,SNR=6.9
CPUP Villa Florida 144.16 187 PKP **PKPdf 04 08 07.3 -0.4**
comp=Z,1.5nm,0.6s,baz=204,slow=2.9,SNR=6.4
CPUP pPKP **pPKPdf 04 08 30.2 +1.2**
comp=Z,2.1nm,0.8s,baz=184,slow=19,SNR=3.7
CPUP Villa Florida 144.16 187 PKPbc 04 08 06.5 +0.6
BDFB Brasilia 151.55 209 PKPbc **PKiKP 04 08 27.5 +0.6**
comp=Z,4.4nm,0.5s,baz=157,slow=0.9,SNR=12
BDFB pPKPbc **sPKPdf 04 08 49.8 +0.4**
comp=Z,2.5nm,0.5s,baz=112,slow=3.8,SNR=3.0
BDFB Brasilia 151.55 209 PKPbc **PKPbc 04 08 26.5 0.0**
LPAZ La Paz 153.68 166 PKPbc **PKPbc 04 08 31.8 0.0**
comp=Z,2.0nm,1.1s,baz=196,slow=1.4,SNR=6.6
LPAZ La Paz 153.68 166 PKPbc 04 08 30.4 -1.4

TIR ***12*** *03:51:50.3,41.71N×20.78E,h10km±2km, ML2.1, ML2.1, Presumed earthquake*
SKO ***12*** *03:51:51.6,41.63N×20.87E,h10km, ML2.2*
PDG ***12*** *03:51:51.6±0.1,41.63N×20.65E,h10km, ML2.5/12, Error ellipse: s-maj=0.6km s-min=0.9km az=0.0*
BEO ***12*** *03:51:52.0±0.6,41.68N×20.80E,h11km±3km, ML1.8/7*
ISC 12 03:51:51.2±1.1, 41.68N±0.02×20.78E±0.02, h3km±10km, n45, σ1s09/82, 7C-8D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.25**	**272**	⇑Pg		**Pg**		**03 51 55.4**	**-0.7**
PHP				Sg		**Sg**		**03 51 59.1**	**-0.4**
PHP				IAML				03 51 59.3	
	2μm,0.2s								
OHR	**Ohrid**	**0.56**	**179**	*i*Pg		**Pg**		**03 52 01.9**	**-0.2**
OHR				*i* Sg		**Sg**		**03 52 10.6**	**+1.2**
OHR				*e*Lg		Lg		03 52 10.7	
	comp=N,62nm,0.7s								
OHR				*e*Lg		Lg		03 52 11.7	
	comp=E,188nm,0.7s								
SKO	**Skopje**	**0.57**	**59**	*i*Pg		**Pg**		**03 52 02.4**	**+0.1**
SKO				*i* Sg		**Sg**		**03 52 10.6**	**+0.9**
TIR	**Tirane**	**0.76**	**245**	Pg		**Pb**		**03 52 06.9**	**-0.2**
TIR				Sg		**Sg**		**03 52 16.4**	**+0.7**
TIR				IAML				03 52 19.3	
	comp=E,36nm,0.2s								
SDA	**Shkodra**	**1.03**	**292**	Pg		**Pg**		**03 52 09.9**	**-1.0**
SDA				Sg		**Sb**		**03 52 25.8**	**+0.3**
SDA				IAML				03 52 30.1	
	comp=E,71nm,0.3s								
KBN	**Korca**	**1.05**	**180**	Pg		**Pn**		**03 52 12.7**	**-0.2**
KBN				Sg		**Sb**		**03 52 26.4**	**+0.1**
PVY	**Plav**	**1.10**	**327**	⇑*i*Pg		**Pb**		**03 52 11.7**	**-1.3**
PVY				*i* Sg		**Sn**		**03 52 29.0**	**-0.4**
BERA	**Berati**	**1.16**	**213**	Pg		**Pg**		**03 52 14.3**	**+0.9**
BERA				Sg		**Sn**		**03 52 32.0**	**+1.4**
BERA				IAML				03 52 36.7	
	comp=E,36nm,0.4s								
ULC	**Ulcinj**	**1.18**	**285**	⇑*i*Pg		**Pb**		**03 52 11.9**	**-2.4**
ULC				*i* Sg		**Sb**		**03 52 29.5**	**-0.5**
NEST	**Nestorio**	**1.28**	**171**	Pn		**Pn**		**03 52 13.9**	**-2.1**
NEST				Sn		**Sn**		**03 52 34.0**	**+0.3**
NEST				IAML				03 52 39.0	
	comp=E,36nm,0.4s								
DRME	**Dracevica, Mon**	**1.29**	**294**	⇓*i*Pg		**Pn**		**03 52 14.2**	**-2.0**
DRME				*i* Sg		**Sg**		**03 52 33.6**	**+0.8**
PDG	**Podgorica**	**1.36**	**304**	*e*Pg		**Pn**		**03 52 15.4**	**-1.7**
PDG				*e*Sg		**Sg**		**03 52 36.3**	**+1.3**
PDG	**Podgorica**	**1.36**	**304**	Pn		**Pn**		**03 52 15.5**	**-1.6**
PDG				Sn		**Sb**		**03 52 34.8**	**-0.3**
PDG	**Podgorica**	**1.36**	**304**	*e*Pg		**Pn**		**03 52 15.7**	**-1.4**
PDG				*i* Sg		**Sg**		**03 52 37.1**	**+2.1**
IVA	**Berane**	**1.36**	**331**	⇑*i*Pg		**Pb**		**03 52 17.1**	**-0.3**
IVA				*i* Sg		**Sg**		**03 52 38.5**	**+3.5**
BARS	**Barje**	**1.37**	**34**	*e*Pg		**Pn**		**03 52 16.7**	**-0.6**
BARS				*e*Sg		**Sg**		**03 52 36.6**	**+1.2**
VAY	**Valandovo**	**1.39**	**104**	⇓*i*Pg		**Pn**		**03 52 16.8**	**-0.7**
VAY				*i* Sg		**Sg**		**03 52 36.1**	**+0.2**
VAY				*e*Lg		Lg		03 52 37.2	
	comp=E,20nm,0.4s								
VAY				*e*Lg		Lg		03 52 37.5	
	comp=N,38nm,0.6s								
KOME	**Kolasin**	**1.50**	**322**	⇓*i*Pg		**Pn**		**03 52 19.0**	**-0.1**
KOME				*i* Sg		**Sg**		**03 52 41.4**	**+1.9**
BOSS	**Bosilegrad**	**1.51**	**57**	*e*Pg		**Pn**		**03 52 18.7**	**-0.4**
BOSS				*e*Sg		**Sb**		**03 52 39.0**	**-0.3**
LSK	**Leskovik**	**1.53**	**185**	Pn		**Pg**		**03 52 21.3**	**+0.7**
BUM	**Brajici-Budva**	**1.54**	**295**	⇑*i*Pg		**Pn**		**03 52 18.9**	**-0.7**
BUM				*i* Sg		**Sg**		**03 52 41.2**	**+0.6**
SELS	**Selova**	**1.56**	**9**	*e*Pg		**Pb**		**03 52 20.8**	**0.0**
SELS				*e*Sg		**Sb**		**03 52 41.0**	**+0.1**
PEHC	**Pehcevo**	**1.59**	**86**	*i* Pg		**Pb**		**03 52 20.6**	**-0.6**
PEHC				*i* Sg		**Sg**		**03 52 42.7**	**+0.4**
CEME	**Cevo**	**1.64**	**303**	⇑*i*Pn		**Pn**		**03 52 20.7**	**-0.2**
CEME				*i* Sn		**Sg**		**03 52 43.9**	**+0.1**
SJES	**Sjenica**	**1.69**	**340**	*e*Pg		**Pn**		**03 52 22.0**	**+0.2**
SJES				*e*Sg		**Sg**		**03 52 45.4**	**-0.2**
NKME	**Niksic**	**1.74**	**309**	⇓*i*Pn		**Pn**		**03 52 22.4**	**0.0**
NKME				*i* Sn		**Sb**		**03 52 46.4**	**+0.3**
HCY	**Herceg Novi**	**1.87**	**295**	⇑*i*Pn		**Pn**		**03 52 23.6**	**-0.5**
HCY				*i* Sn		**Sn**		**03 52 48.1**	**-0.1**
GOCS	**Kraljevo Serbi**	**1.89**	**2**	*e*Pn		**Pn**		**03 52 23.9**	**-0.5**
GOCS				*e*Sn		**Sn**		**03 52 48.2**	**-0.5**
PLE	**Pljevlja**	**1.95**	**329**	⇓*i*Pn		**Pn**		**03 52 25.8**	**+0.5**
IVAS	**Ivanjica**	**1.95**	**347**	*e*Pn		**Pn**		**03 52 24.3**	**-1.0**
VTS	**Vitosha**	**2.05**	**62**	*e*Pn		**Pn**		**03 52 27.2**	**+0.4**
UPM	**Unac-Piva**	**2.06**	**318**	⇓*i*Pn		**Pn**		**03 52 27.2**	**+0.3**
UPM				*i* Sn		**Sb**		**03 52 54.6**	**-0.9**
BRY	**Bratogost**	**2.06**	**307**	⇓*i*Pn		**Pn**		**03 52 26.2**	**-0.7**
BRY				*i* Sn		**Sb**		**03 52 53.9**	**-1.6**
TREB	**Trebinje**	**2.08**	**301**	*e*Pn		**Pn**		**03 52 27.7**	**+0.7**
ZAPS	**Zavoj**	**2.10**	**40**	*e*Pn		**Pn**		**03 52 25.3**	**-2.1**
DBRK	**Dubrovnik**	**2.19**	**298**	*i* Pn		**Pn**		**03 52 28.9**	**+0.3**
DBRK				Sn		**Sb**		**03 52 58.9**	**-0.2**
BLKB	**Belogradchik**	**2.40**	**35**	*e*Pn		**Pn**		**03 52 30.3**	**-1.1**
STON	**Ston**	**2.58**	**299**	*e*Pn		**Pn**		**03 52 34.6**	**+0.8**
STON				Sn		**Sb**		**03 53 07.7**	**-2.4**
STON	**Ston**	**2.58**	**299**	*e*Pn		**Pn**		**03 52 34.9**	**+1.1**
RICI	**Ricice**	**3.25**	**305**	*e*Pn		**Pn**		**03 52 44.1**	**+1.0**
RICI				Sn		**Sn**		**03 53 24.4**	**+2.2**
HVAR	**Hvar**	**3.54**	**297**	*e*Pn		**Pn**		**03 52 47.8**	**+0.8**
HVAR				Sn		**Sn**		**03 53 30.8**	**+1.5**
KIJV	**Kijevo**	**3.97**	**307**	*e*Pn		**Pn**		**03 52 52.9**	**0.0**
KIJV				Sn		**Sn**		**03 53 41.7**	**+1.7**
MORI	**Morici**	**4.33**	**302**	*e*Pn		**Pn**		**03 52 58.5**	**+0.6**
MORI				Sn		**Sn**		**03 53 49.5**	**+0.7**
UDBI	**Udbina**	**4.65**	**309**	*e*Pn		**Pn**		**03 53 03.3**	**+1.0**
UDBI				Sn		**Sn**		**03 53 57.5**	**+0.7**
DUGI	**Dugi Otok**	**4.80**	**301**	*e*Pn		**Pn**		**03 53 04.9**	**+0.5**
DUGI				Sn		**Sn**		**03 54 01.0**	**+0.5**

TIR ***12*** *03:52:45.0,41.72N×20.78E,h8km±1km, ML2.6, ML2.6, Presumed earthquake*
SKO ***12*** *03:52:46.1,41.65N×20.84E,h9km, ML2.5*
BEO ***12*** *03:52:47.4±0.5,41.71N×20.79E,h6km±3km, ML2.1/10*
PDG ***12*** *03:52:48.6±0.2,41.71N×20.52E,h9km, ML2.6/12, Error ellipse: s-maj=0.6km s-min=0.9km az=0.0*
ISC 12 03:52:45.7±1.1, 41.69N±0.02×20.76E±0.02, h1km±10km, n49, σ0s85/83, 7C-9D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.24**	**269**	⇑Pg		**Pg**		**03 52 50.2**	**-0.1**
PHP				Sg		**Sg**		**03 52 53.9**	**+0.4**
PHP				IAML				03 52 54.2	
	5μm,0.2s								
OHR	**Ohrid**	**0.58**	**177**	⇑*i*Pg		**Pg**		**03 52 56.7**	**-0.1**
OHR				*i* Sg		**Sg**		**03 53 05.4**	**+1.0**
OHR				*e*Lg		Lg		03 53 05.7	
	comp=N,219nm,0.7s								
OHR				*e*Lg		Lg		03 53 06.8	
	comp=E,442nm,0.6s								
SKO	**Skopje**	**0.58**	**61**	⇓*i*Pg		**Pg**		**03 52 56.9**	**0.0**
SKO				*i* Sg		**Sg**		**03 53 05.6**	**+1.3**
TIR	**Tirane**	**0.76**	**243**	Pg		**Pg**		**03 52 60.0**	**-0.3**
TIR				Sg		**Sb**		**03 53 11.5**	**-1.0**
TIR				IAML				03 53 17.3	
	comp=E,107nm,0.3s								
SDA	**Shkodra**	**1.01**	**291**	Pg		**Pg**		**03 53 05.0**	**-0.1**
SDA				Sg		**Sn**		**03 53 23.6**	**+1.7**
SDA				IAML				03 53 29.4	
	comp=E,250nm,0.3s								
KBN	**Korca**	**1.07**	**179**	Pg		**Pg**		**03 53 06.1**	**-0.1**
KBN				Sg		**Sb**		**03 53 21.4**	**-0.1**
PVY	**Plav**	**1.08**	**327**	⇑*i*Pg		**Pg**		**03 53 06.6**	**+0.1**
PVY				*i* Sg		**Sb**		**03 53 22.0**	**-0.1**
BERA	**Berati**	**1.16**	**212**	Pg		**Pn**		**03 53 09.1**	**0.0**
BERA				Sg		**Sn**		**03 53 25.7**	**+0.1**
BERA				IAML				03 53 36.5	
	comp=E,71nm,0.5s								
ULC	**Ulcinj**	**1.17**	**284**	⇓*i*Pg		**Pg**		**03 53 07.0**	**-1.1**
ULC				*i* Sg		**Sg**		**03 53 22.3**	**-0.9**
DRME	**Dracevica, Mon**	**1.28**	**293**	⇑*i*Pg		**Pg**		**03 53 09.0**	**-1.2**
DRME				*i* Sg		**Sg**		**03 53 26.4**	**-0.4**
NEST	**Nestorio**	**1.29**	**170**	Pn		**Pg**		**03 53 09.9**	**-0.6**
NEST				Sn		**Sn**		**03 53 30.1**	**+1.1**
NEST				IAML				03 53 34.9	
	comp=E,143nm,0.5s								
PDG	**Podgorica**	**1.34**	**304**	*e*Pg		**Pn**		**03 53 10.5**	**-1.1**
PDG				*e*Sg		**Sn**		**03 53 30.9**	**+0.8**
PDG	**Podgorica**	**1.34**	**304**	Pg		**Pn**		**03 53 09.5**	**-2.2**
PDG				Sn		**Sn**		**03 53 30.1**	**0.0**
PDG	**Podgorica**	**1.34**	**304**	⇓*i*Pg		**Pn**		**03 53 10.3**	**-1.3**
PDG				*i* Sg		**Sg**		**03 53 28.9**	**0.0**
IVA	**Berane**	**1.35**	**332**	⇑*i*Pg		**Pn**		**03 53 11.9**	**+0.1**
IVA				*i* Sg		**Sn**		**03 53 31.1**	**+0.7**
BARS	**Barje**	**1.37**	**34**	*e*Pg		**Pn**		**03 53 12.1**	**+0.1**
BARS				*e*Sg		**Sb**		**03 53 30.4**	**+0.2**
VAY	**Valandovo**	**1.41**	**105**	⇓*i*Pg		**Pn**		**03 53 11.7**	**-0.8**
VAY				*i* Sg		**Sn**		**03 53 31.0**	**-0.7**
VAY				*e*Lg		Lg		03 53 31.2	
	comp=E,45nm,0.4s								
VAY				*e*Lg		Lg		03 53 32.1	
	comp=N,77nm,0.5s

SRN				Sn	Sg	03 53 48.3	+1.6
SRN				IAML		03 53 56.7	
	comp=N,71nm,0.6s						
PLE	**Pljevlja**	**1.93**	**329**	*i* Pn	Pb	03 53 21.0	-0.8
PLE				*i* Sn	Sb	03 53 46.9	+0.5
IVAS	**Ivanjica**	**1.94**	**347**	*e*Pn	Pn	03 53 19.4	-0.5
BRY	**Bratogost**	**2.05**	**307**	*i* Pn	Pb	03 53 23.8	0.0
BRY				*i* Sn	Sn	03 53 48.6	+0.9
VTS	**Vitosha**	**2.06**	**62**	*e*Pn	Pb	03 53 22.9	-1.1
VTS				*e*Sn	Sn	03 53 47.3	-0.7
BOVS	**Bovan**	**2.06**	**19**	*e*Pn	Pb	03 53 23.0	-1.0
TREB	**Trebinje**	**2.07**	**301**	*e*Pn	Pb	03 53 23.5	-0.5
ZAPS	**Zavoj**	**2.10**	**41**	*e*Pn	Pb	03 53 23.0	+0.9
DBRK	**Dubrovnik**	**2.18**	**298**	*e*Pn	Pb	03 53 25.3	-0.6
DBRK				Sn	Sn	03 53 51.2	+0.5
GRUS	**Gruza**	**2.20**	**359**	*e*Pn	Pn	03 53 24.0	+0.6
SRS	**Serrai**	**2.20**	**104**	*e*Pn	Pn	03 53 23.0	-0.5
ZAGS	**Zajecar**	**2.38**	**27**	*e*Pn	Pn	03 53 26.7	+0.8
BLKB	**Belogradchik**	**2.39**	**36**	*e*Pn	Pn	03 53 26.3	+0.2
BBLS	**Lazi&#263i**	**2.39**	**336**	*e*Pn	Pn	03 53 26.5	+0.3
DIVS	**Divibare**	**2.47**	**347**	*e*Pn	Pn	03 53 28.3	+1.0
STON	**Ston**	**2.56**	**298**	*e*Pn	Pn	03 53 29.1	+0.7
STON				Sn	Sn	03 54 00.5	+0.4
LSTV	**Lastovo**	**3.07**	**292**	Sn	Sn	03 54 11.8	-0.9
MAKA	**Makarska**	**3.20**	**301**	Sn	Sn	03 54 16.9	+1.1
RICI	**Ricice**	**3.23**	**305**	Sn	Sn	03 54 18.5	+1.7
HVAR	**Hvar**	**3.52**	**296**	Sn	Sn	03 54 23.2	-0.7
KIJV	**Kijevo**	**3.95**	**307**	Sn	Sn	03 54 35.3	+0.8

RSNC ***12*** *04:08:52.0±2.5, 3°S±21°×8°0W±°, h0km, M3.9, mB5.8, mb4.0, ML3.1, Mw(mB)5.4*
IGQ ***12*** *04:09:00.9±0.3, 2°S±2°×7°9W±°, h5km±4km, M3.8/10, Mjma3.6/10, Mjma4.0/1, MLv3.5/10, MLv4.1/1*

ISC 12 04:08:59.4±1.6, **2°27S**±0°03×**79°17W**±0°03, **h3**km±16km, **n79**, σ0°91/83, **28C-5D**, **Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ABAB	**Ecuador-Univer**	**0.58**	**324**	⇓P	**Pb**	**04 09 12.9**	**+0.7**
JSCH	**Cashca Tororas**	**0.58**	**19**	⇑P	**Pb**	**04 09 12.5**	**0.0**
JSCH				S	**Sb**	**04 09 21.0**	**-0.3**
ACUE	**Ecuador-Cuenca**	**0.67**	**162**	P	**Pb**	**04 09 14.1**	**+0.1**
AGRD	**Ecuador-Guaran**	**0.71**	**13**	P	**Pg**	**04 09 12.7**	**-0.5**
TAMH	**Tambohuasha Ch**	**0.82**	**28**	⇑P	**Pn**	**04 09 17.2**	**-1.1**
TAMH				S	**Sb**	**04 09 29.0**	**+0.7**
AC07	**Ecuador-Guayaq**	**0.82**	**278**	⇓P	**Pb**	**04 09 16.8**	**+0.5**
CHSH	**Refugio Sur-Vo**	**0.83**	**21**	⇑P	**Pb**	**04 09 17.0**	**+0.2**
CHSH				S	**Sb**	**04 09 28.5**	**0.0**
SANGA	**Volcan Sangay**	**0.83**	**75**	⇑P	**Pb**	**04 09 16.3**	**-0.5**
SANGA				S	**Sb**	**04 09 26.9**	**-1.6**
IGUA	**Igualata**	**0.94**	**34**	⇑P	**Pb**	**04 09 18.6**	**-0.1**
IGUA				S	**Sb**	**04 09 31.7**	**0.0**
ARRY	**Arrayan**	**1.04**	**43**	⇑P	**Pb**	**04 09 19.9**	**-0.4**
ARRY				S	**Sb**	**04 09 33.2**	**-1.3**
BIL2	**Estacion Bilba**	**1.05**	**40**	P	**Pn**	**04 09 20.9**	**-0.4**
BPAT	**Tungurahua Vol**	**1.06**	**44**	⇑P	**Pb**	**04 09 20.5**	**-0.2**
BBIL	**Ulba Tungurahu**	**1.06**	**40**	P	**Pn**	**04 09 21.1**	**-0.4**
JUI6	**Juive**	**1.09**	**40**	P	**Pn**	**04 09 21.5**	**-0.4**
BOSC	**San Juan Bosco**	**1.10**	**142**	⇓P	**Pn**	**04 09 22.2**	**+0.2**
AAM2	**Ambato 2 (Merc**	**1.14**	**29**	P	**Pn**	**04 09 22.5**	**-0.1**
ISPG	**Isla Puna-Puer**	**1.22**	**235**	⇑P	**Pn**	**04 09 24.5**	**+1.1**
MORR	**Playas El Morr**	**1.22**	**252**	⇑P	**Pn**	**04 09 23.7**	**+0.2**
ASLC	**Ecuador-Salced**	**1.35**	**25**	P	**Pb**	**04 09 27.1**	**+1.5**
PIS1	**Pisayambo**	**1.44**	**33**	⇑P	**Pb**	**04 09 27.6**	**+0.5**
ALAT	**Latacunga**	**1.44**	**22**	P	**Pb**	**04 09 28.9**	**+1.7**
PIAT	**Ana Tenorio**	**1.56**	**36**	P	**Pg**	**04 09 29.7**	**+0.4**
PIAT	**Ana Tenorio**	**1.56**	**36**	P	**Pg**	**04 09 29.5**	**+0.2**
ILLI	**Illinizas Sur**	**1.61**	**16**	⇓P	**Pg**	**04 09 31.7**	**+1.4**
SRAM	**San Ramn-Vol**	**1.62**	**22**	⇑P	**Pg**	**04 09 31.6**	**+1.0**
BRRN	**Barrancas-Volc**	**1.63**	**25**	⇑P	**Pg**	**04 09 31.4**	**+0.6**
VCES	**Cotopaxi**	**1.65**	**28**	⇑P	**Pg**	**04 09 31.7**	**+0.6**
JIPI	**JIPIJAPA**	**1.65**	**303**	⇑P	**Pn**	**04 09 29.0**	**-0.4**
SLOR	**San Lorenzo -**	**1.67**	**24**	⇑P	**Pg**	**04 09 32.3**	**+0.8**
TAIS	**Taisha**	**1.67**	**94**	P	**Pg**	**04 09 31.5**	**0.0**
BMOR	**Cotopaxi Volca**	**1.69**	**25**	⇑P	**Pg**	**04 09 32.5**	**+0.7**
PKYU	**Pakayacu**	**1.69**	**69**	⇑P	**Pg**	**04 09 32.3**	**+0.4**
PECV	**Mancha de Ca P**	**1.72**	**329**	⇑P	**Pg**	**04 09 33.1**	**+0.6**
BREF	**Cotopaxi Volca**	**1.75**	**25**	⇑P	**Pg**	**04 09 33.9**	**+0.9**
SUCR	**Mariscal Sucre**	**1.75**	**23**	⇑P	**Pg**	**04 09 33.8**	**+0.7**
PPLP	**Puerto Lpez**	**1.76**	**294**	P	**Pn**	**04 09 28.7**	**-1.1**
PPLP	**Puerto Lpez**	**1.76**	**294**	P	**Pn**	**04 09 28.7**	**-2.1**
TAMB	**Tambo**	**1.76**	**27**	⇑P	**Pg**	**04 09 33.8**	**+0.6**
NAS2	**Nasa**	**1.76**	**24**	⇑P	**Pg**	**04 09 34.1**	**+0.9**
BTAM	**Cotopaxi Volca**	**1.76**	**26**	⇑P	**Pg**	**04 09 33.8**	**+0.6**
BVC2	**Cotopaxi Volca**	**1.77**	**25**	⇑P	**Pg**	**04 09 34.1**	**+0.6**
VC1	**Cotopaxi 1**	**1.79**	**25**	⇑P	**Pg**	**04 09 34.4**	**+0.6**
PITA	**Cotopaxi Volc**	**1.85**	**23**	P	**Pg**	**04 09 35.6**	**+0.6**
ARDO	**Archidona, Ten**	**1.86**	**47**	⇑P	**Pg**	**04 09 34.8**	**-0.5**
TOMA	**Boca Toma-Volc**	**1.91**	**23**	P	**Pg**	**04 09 36.5**	**+0.5**
ANTM	**Antisana-La Mi**	**1.96**	**29**	P	**Pg**	**04 09 37.1**	**-0.1**
FLF1	**Flavio Alfaro-**	**2.02**	**340**	P	**Pb**	**04 09 36.1**	**-0.6**
FLF1	**Flavio Alfaro-**	**2.02**	**340**	P	**Pg**	**04 09 37.9**	**-0.2**
ANTS	**Antisana-Sarah**	**2.02**	**30**	P	**Pg**	**04 09 38.4**	**+0.1**
ANTI	**Antisana**	**2.07**	**29**	P	**Pg**	**04 09 38.8**	**-0.4**
GGPT	**Toaza - Volcan**	**2.10**	**15**	⇑P	**Pg**	**04 09 39.7**	**-0.1**
JUA2	**San Juan 2**	**2.12**	**15**	P	**Pg**	**04 09 40.3**	**+0.2**
ISPT	**Isla de la Pla**	**2.15**	**298**	⇓P	**Pn**	**04 09 36.6**	**+0.4**
GGPC	**Guagua Pichinc**	**2.16**	**15**	P	**Pg**	**04 09 41.2**	**+0.4**
TERV	**Terraza Guagua**	**2.16**	**15**	⇑P	**Pg**	**04 09 41.0**	**+0.2**
PULU	**Pululahua**	**2.37**	**16**	P	**Pg**	**04 09 45.1**	**+0.2**
BV15	**Puerto Quito-O**	**2.41**	**359**	P	**Pb**	**04 09 42.0**	**-1.5**
PAC1	**Pacto, Paraso**	**2.55**	**9**	P	**Pb**	**04 09 46.4**	**+0.5**
PAC1	**Pacto, Paraso**	**2.55**	**9**	P	**Pg**	**04 09 47.0**	**-1.3**
CAYR	**Refugio Cayamb**	**2.55**	**27**	P	**Pg**	**04 09 48.6**	**+0.2**
ANGU	**Angureal**	**2.58**	**27**	P	**Pg**	**04 09 49.1**	**+0.2**
ZUMB	**Zumba**	**2.58**	**179**	P	**Pb**	**04 09 46.2**	**-0.2**
OTAV	**Otavalo**	**2.59**	**16**	P	**Pg**	**04 09 47.6**	**-1.6**
OTAV	**Otavalo**	**2.59**	**16**	P	**Pb**	**04 09 47.0**	**+0.2**
CUSE	**Cuicocha Este**	**2.67**	**17**	P	**Pb**	**04 09 48.6**	**+0.4**
CUIC	**Cuicocha-Domo**	**2.68**	**18**	P	**Pg**	**04 09 49.3**	**-1.5**
IMBA	**Imbabura, San**	**2.71**	**21**	P	**Pg**	**04 09 52.5**	**+1.0**
COTA	**Cotacachi**	**2.72**	**18**	P	**Pg**	**04 09 52.1**	**+0.5**
URCU	**Urcuqui**	**2.84**	**19**	P	**Pg**	**04 09 52.5**	**-1.5**
YAHU	**Yahuarcocha**	**2.84**	**23**	P	**Pg**	**04 09 53.9**	**-0.1**
CASC	**Dorado de Casc**	**3.01**	**37**	P	**Pg**	**04 09 55.2**	**-2.0**
CASC	**Dorado de Casc**	**3.01**	**37**	P	**Pb**	**04 09 54.8**	**+1.0**
LITE1	**Lita**	**3.15**	**15**	P	**Pb**	**04 09 54.9**	**-1.2**
TULM	**Tulcn-Chalpat**	**3.27**	**25**	P	**Pg**	**04 10 03.2**	**+1.0**
CRUC	**La Cruz**	**4.41**	**30**	P	**Pg**	**04 10 22.6**	**-1.4**
CRUC				AML	AML		
BBAC	**Balboa, Cauca**	**4.68**	**24**	P	Pb	04 10 16.8	-5.5
PTLC	**Puerto Leguiza** 829nm25nm,0.7s	**5.00**	**61**	P	**Pn**	**04 10 16.7**	**+1.3**
PTLC				AML	AML		
POPC	**Popayan, Colom** 2.8nm,0.6s	**5.39**	**28**	P	**Pn**	**04 10 23.9**	**+2.9**
JAMC	**Jamundi, Valle**	**5.99**	**25**	P	Pn	04 10 34.1	+4.8

IDC ***12*** *04:12:44.1±0.7, 32°63N×138°32E, h0km, mb3.8/11, mbtmp3.8/12, ML2.5/1, MS2.9/2, Error ellipse: s-maj=26.3km s-min=14.6km az=87.0*
NEIC ***12*** *04:12:46.7±1.7, 32°70N±0°09×138°22E±0°06, h10km±1km, mb4.2/5, Error ellipse: s-maj=14.5km s-min=8.2km az=10.0*
JMA ***12*** *04:12:47.2±0.2, 32°7N±0°7×138°0E±0°6, h65km±1km, MV3.2/23, FAR S OFF TOKAI DISTRICT*

ISC 12 04:12:43.8±2.0, **32°61N**±0°07×**138°04E**±0°05, **h1**km±11km, **n50**, σ1°67/52, **mb3.8**/13, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TTO3	**TONANKAI O.B.S**	**1.36**	**337**	*e*S	**Sg**	**04 13 28.1**	**+0.6**
TTO2	**TONANKAI O.B.S**	**1.40**	**323**	P	**Pg**	**04 13 10.3**	**-0.5**
TTO4	**TONANKAI O.B.S**	**1.45**	**343**	P	**Pb**	**04 13 10.8**	**-0.8**
TTO1	**TONANKAI O.B.S**	**1.46**	**314**	P	**Pb**	**04 13 10.9**	**-0.7**
TTO1				*e*S	**Sn**	**04 13 29.1**	**-1.6**
JHJ2	**Mitsune**	**1.58**	**71**	Pn	**Pb**	**04 13 12.3**	**-1.6**
JHJ2					**Sn**	**04 13 30.6**	**-3.5**
TTO5	**TONANKAI O.B.S**	**1.66**	**351**	P	**Pb**	**04 13 13.6**	**-1.5**
TTO5				S	**Sn**	**04 13 34.3**	**-1.6**
JMMH	**Miemihama**	**2.07**	**306**	P	**Pn**	**04 13 19.3**	**-0.5**
JMMH				S	**Sn**	**04 13 42.6**	**-3.6**
JWKM	**Wakayamakushim**	**2.09**	**294**	*e*S	**Sn**	**04 13 42.8**	**-3.9**
JIE	**Ise**	**2.10**	**328**	P	**Pn**	**04 13 19.8**	**-0.3**
JIE				S	**Sn**	**04 13 44.3**	**-2.5**
JKN2	**Miekihoku**	**2.19**	**318**	*e*P	**Pn**	**04 13 20.8**	**-0.7**
JKN2				S	**Sn**	**04 13 45.6**	**-3.7**
INU	**Inuyama**		**2.86**	**343**		**Pn**	**04 13 31.3**	**+0.7**
JGF	**Kuroka**		**3.04**	**349**		**Pn**	**04 13 33.5**	**+0.4**
MAJO	**Matsushiro**		**3.92**	**2**		**Pn**	**04 13 46.9**	**+1.6**
MJAR	**Matsushiro Arr**		**3.92**	**2**	Pn	**Pn**	**04 13 46.9**	**+1.6**
	0.3nm,0.3s,baz=179,slow=12,SNR=20							
MJAR					Sn	**Sn**	**04 14 30.6**	**-1.4**
	0.8nm,0.3s,baz=186,slow=22,SNR=17 8.8nm,0.5s							
MJAR					AML	AML		
MJAR	**Matsushiro Arr**		**3.92**	**2**		**Pn**	**04 13 46.5**	**+1.2**
MJAR						**Sn**	**04 14 30.6**	**-1.4**
MJB9	**Matsu-Tunnel**		**3.93**	**2**		**Pn**	**04 13 47.2**	**+1.9**
ASAJ	**Asahikawa**		**12.03**	**16**	LR	LR	04 21 13.3	
	comp=Z,42nm,20.6s,baz=262,slow=43							
SONM	**Songino Array**		**28.30**	**312**	P	**P**	**04 18 41.0**	**+1.9**
	0.4nm,0.4s,baz=102,slow=12,SNR=2.0 0.4nm,0.4s							
SONM	**Songino Array**		**28.30**	**312**	P	**P**	**04 18 41.0**	**+1.9**
SONM					IAmb	IAmb	04 18 57.3	
	comp=Z,2.2nm,1.2s							
H11N2	**WAKE ISLAND Hy**		**28.80**	**109**	T	T	04 48 53.1	
	baz=302,slow=74,SNR=6.0							
H11N1	**WAKE ISLAND Hy**		**28.81**	**109**	T	T	04 48 53.5	
	baz=302,slow=74,SNR=6.1							
H11N3	**WAKE ISLAND Hy**		**28.82**	**109**	T	T	04 48 54.5	
	baz=302,slow=74,SNR=7.5							
H11S3	**WAKE ISLAND Hy**		**29.31**	**112**	T	T	04 49 30.8	
	baz=305,slow=75,SNR=9.9							
H11S1	**WAKE ISLAND Hy**		**29.31**	**112**	T	T	04 49 31.1	
	baz=305,slow=75,SNR=8.0							
H11S2	**WAKE ISLAND Hy**		**29.33**	**112**	T	T	04 49 32.0	
	baz=305,slow=75,SNR=6.9							
ZALV	**Zalesovo Beam**		**43.00**	**316**	PcP	**PcP**	**04 22 35.6**	**+0.7**
	comp=Z,0.8nm,0.6s,baz=116,slow=5.0,SNR=2.5							
ZALV	**Zalesovo Beam**		**43.00**	**316**	P	**P**	**04 20 46.5**	**+1.9**
ZALV						**PcP**	**04 22 36.2**	**+1.3**
MKAR	**Makanchi Array**		**44.27**	**306**	P	**P**	**04 20 56.4**	**+1.4**
	comp=Z,0.8nm,0.7s,baz=79,slow=12,SNR=4.3 comp=Z,0.8nm,0.7s							
MKAR	**Makanchi Array**		**44.27**	**306**	P	**P**	**04 20 56.9**	**+1.9**
KURK	**Kurchatov**		**46.60**	**311**	P	**P**	**04 21 15.4**	**+2.0**
KURK					IAmb	IAmb	04 21 24.1	
	comp=Z,4.1nm,1.2s							
KURK					PcP	**PcP**	**04 22 46.8**	**-0.6**
KURBB	**Kurchatov Arra**		**46.66**	**311**	P	**P**	**04 21 16.0**	**+2.1**
	comp=Z,0.2nm,0.3s,baz=94,slow=9.4,SNR=4.6							
KURBB					PcP	**PcP**	**04 22 48.5**	**+0.9**
	comp=Z,0.2nm,0.4s,baz=103,slow=3.2,SNR=1.5 comp=Z,0.2nm,0.3s							
WB0	**Warramunga Arr**		**52.20**	**184**	P	**P**	**04 21 56.6**	**+0.2**
WB0					IAmb	IAmb	04 21 57.7	
	comp=Z,4.7nm,0.8s							
WRA	**Warramunga Arr**		**52.38**	**184**	P	**P**	**04 21 57.9**	**+0.2**
	comp=Z,4.2nm,0.7s,baz=0.4,slow=7.8,SNR=34 comp=Z,4.2nm,0.7s							
WRA	**Warramunga Arr**		**52.38**	**184**	P	**P**	**04 21 58.4**	**+0.7**
WR8	**Warramunga Arr**		**52.38**	**184**	P	**P**	**04 21 58.3**	**+0.5**
ILAR	**Eielson Array**		**54.71**	**30**	P	**P**	**04 22 12.9**	**-1.5**
	comp=Z,0.3nm,0.8s,baz=0.6,slow=8.6,SNR=7.8 comp=Z,0.3nm,0.8s							
ILAR	**Eielson Array**		**54.71**	**30**	P	**P**	**04 22 13.7**	**-0.7**
ASAR	**Alice Springs**		**56.10**	**185**	P	**P**	**04 22 25.1**	**+0.2**
	comp=Z,0.7nm,0.8s,baz=16,slow=12,SNR=8.5 comp=Z,0.7nm,0.8s							
ASAR	**Alice Springs**		**56.10**	**185**	P	P	04 22 29.0	+4.1
FINES	**FINESS Array B**		**71.41**	**332**	P	**P**	**04 24 06.2**	**+0.8**
	comp=Z,0.7nm,0.7s,baz=40,slow=13,SNR=3.3 comp=Z,0.7nm,0.7s							
NOA	**NORSAR Array B**		**77.15**	**336**	P	**P**	**04 24 40.2**	**+1.2**
	comp=Z,0.9nm,0.8s,baz=47,slow=8.9,SNR=2.4 comp=Z,0.9nm,0.8s							
BRTR	**Keskin Array B**		**79.65**	**311**	P	**P**	**04 24 55.0**	**+1.6**
	comp=Z,0.9nm,0.8s,baz=20,slow=3.9,SNR=4.6 comp=Z,0.9nm,0.8s							
BRTR	**Keskin Array B**		**79.65**	**311**	P	**P**	**04 24 54.0**	**+0.7**
NVAR	**Mina Array Bea**		**79.89**	**51**	P	**P**	**04 24 54.7**	**-0.1**
	comp=Z,0.9nm,0.8s,baz=316,slow=4.1,SNR=5.4 comp=Z,0.9nm,0.8s							
NVAR	**Mina Array Bea**		**79.89**	**51**	P	**P**	**04 24 54.4**	**-0.4**
BORG	**Borgarnes**		**81.62**	**351**	LR	LR	05 01 32.4	
	comp=Z,12nm,20.8s,baz=46,slow=36							
TXAR	**Lajitas Array**		**95.04**	**51**	P	**P**	**04 26 09.2**	**+0.3**
	comp=Z,0.5nm,0.7s,baz=304,slow=3.4,SNR=7.6 comp=Z,0.5nm,0.7s							
TXAR	**Lajitas Array**		**95.04**	**51**	P	**P**	**04 26 06.6**	**-2.3**
LPAZ	**La Paz**		**151.28**	**62**	PKPbc	**PKiKP**	**04 32 40.2**	**-0.8**
	comp=Z,2.4nm,0.9s,baz=286,slow=2.0,SNR=9.6							
LPAZ	**La Paz**		**151.28**	**62**		**PKPbc**	**04 32 38.8**	**-1.8**

FCIAR ***12*** *04:16:08.0, 85°28N×23°59E, h10km, station OMEGA has station magnitude of 3.50*

ISC 12 04:16:13.4±2.9, **85°2N**±0°2×**24°17E**±0°09, **h10**km, **n10**, σ1°33/15, **North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OMEGA	**Omega**	**5.22**	**135**	*e*P	**Pn**	**04 17 31.0**	**-0.4**
OMEGA				*e*S	**Sn**	**04 18 32.8**	**+1.3**
	76nm,1.5s						
OMEGA				AML	AML		
SPA0	**Spitsbergen Ar**	**7.15**	**193**	*e*P	**Pn**	**04 17 57.7**	**-0.2**
SPA0				*e*S	**Sn**	**04 19 20.5**	**+1.5**
SPA0	**Spitsbergen Ar**	**7.15**	**193**	*e*P	**Pn**	**04 17 57.8**	**-0.2**
SPA0				*e*S	**Sn**	**04 19 21.5**	**+2.4**
SPA0				IAML		04 19 28.7	
	comp=Z,5.2nm,0.8s						
BRBB	**Barentsburg B**	**7.28**	**196**	*e*P	**Pn**	**04 17 60.0**	**+0.3**
BRBA	**Barentsburg A**	**7.32**	**196**	*e*P	**Pn**	**04 18 00.3**	**+0.2**
HOPEN	**Hopen**	**8.76**	**179**	*e*P	**Pn**	**04 18 19.9**	**+0.1**
HOPEN				*e*S	**Sn**	**04 19 55.7**	**-2.7**
HOPEN	**Hopen**	**8.76**	**179**	*e*P	**Pn**	**04 18 20.6**	**+0.8**
HOPEN				IAML		04 19 56.3	
	comp=Z,17nm,0.8s						
HOPEN				*e*S	**Sn**	**04 19 56.8**	**-1.6**
DAG	**Danmarks Havn**	**10.30**	**241**	*e*P	**Pn**	**04 18 40.7**	**-0.3**
BJO1	**Bjornoya**	**10.80**	**187**	P	**Pn**	**04 18 47.3**	**-0.5**
DBG	**Daneborg**	**12.79**	**239**	*e*P	**Pn**	**04 19 14.1**	**-0.8**

NEIC ***12*** *04:26:55.2±1.0, 14°2S±0°1×167°4E±0°1, h155km±7km, mb4.2/14, Error ellipse: s-maj=25.4km s-min=10.1km az=131.0*
IDC ***12*** *04:26:57.8±4.7, 14°40S×167°18E, h176km±42km, mb3.4/5, mbtmp3.9/6, Error ellipse: s-maj=33.9km s-min=27.2km az=159.0*

ISC 12 04:26:56.6±0.8, **14°34S**±0°09×**167°3E**±0°2, **h170**km, **n28**, σ0°89/30, **mb3.9**/12, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**1.10**	**186**		**Pn**	**04 27 22.4**	**-1.7**
SANVU				Sn	**Sn**	**04 27 42.9**	**-2.6**
DZM	**Mont Dzumac**	**7.73**	**186**	P	**Pn**	**04 28 47.1**	**+0.6**
	2.9nm,0.3s,baz=175,slow=19,SNR=8.6						
DZM				S	**Sn**	**04 30 13.5**	**+0.3**
	5.3nm,0.8s,baz=109,slow=21,SNR=1.3						
EIDS	**Eidsvold**	**18.79**	**232**		**P**	**04 31 03.6**	**+0.5**
STKA	**Stephens Creek**	**29.29**	**229**	P	**P**	**04 32 43.1**	**+0.1**
	4.0nm,0.5s,baz=52,slow=10,SNR=7.7 4.0nm,0.5s						
STKA	**Stephens Creek**	**29.29**	**229**	P	**P**	**04 32 43.9**	**+0.9**
WR8	**Warramunga Arr**	**31.82**	**255**	P	**P**	**04 33 04.4**	**-1.1**
WR8					IAmb	IAmb	04 33 09.5	
	comp=Z,2.5nm,1.0s						
WB0	**Warramunga Arr**	**31.91**	**256**	P	**P**	**04 33 07.1**	**+0.8**
WB0					IAmb	IAmb	04 33 26.8	
	comp=Z,2.1nm,1.0s						
WRA	**Warramunga Arr**	**31.98**	**255**	P	**P**	**04 33 05.8**	**-1.1**
	comp=Z,0.5nm,1.0s,baz=83,slow=8.7,SNR=3.1 comp=Z,0.5nm,1.0s						
WRA	**Warramunga Arr**	**31.98**	**255**	P	**P**	**04 33 07.4**	**+0.5**
AS31	**Alice Springs**	**32.86**	**249**	P	**P**	**04 33 14.2**	**-0.4**
ASAR	**Alice Springs**	**32.86**	**249**	P	**P**	**04 33 13.3**	**-1.3**
	comp=Z,0.7nm,0.4s,baz=77,slow=9.5,SNR=11 comp=Z,0.7nm,0.4s						
ASAR	**Alice Springs**	**32.86**	**249**	P	**P**	**04 33 14.1**	**-0.5**
BBOO	**Buckleboo**	**33.86**	**232**	P	**P**	**04 33 23.4**	**+0.3**
BBOO					IAmb	IAmb	04 33 26.3	
	comp=Z,7.0nm,1.1s						
FORT	**Forrest**	**39.54**	**239**	P	**P**	**04 34 11.0**	**-0.1**
FORT					IAmb	IAmb	04 34 11.8	
	comp=Z,7.8nm,0.9s						
FITZ	**Fitzroy Crossi**	**40.14**	**259**	P	**P**	**04 34 15.8**	**-0.4**
MORW	**Morawa**	**49.48**	**244**	P	**P**	**04 35 29.9**	**0.0**
MORW				IAmb	IAmb	04 35 39.4	
VNDA	**Vanda**	**63.25**	**181**	P	**P**	**04 37 06.0**	**-0.4**
	comp=Z,1.3nm,1.0s,baz=15,slow=6.7,SNR=5.9 comp=Z,1.3nm,1.0s						
VNDA	**Vanda**	**63.25**	**181**	P	**P**	**04 37 06.6**	**+0.2**
VNDA				IAmb	IAmb	04 37 07.3	
	comp=Z,0.9nm,0.8s						
SBA	**Scott Base**	**63.52**	**180**	P	**P**	**04 37 09.5**	**+1.3**
SBA				IAmb	IAmb	04 37 19.5	
	comp=Z,7.3nm,1.1s						
CASY	**Casey**	**63.91**	**202**	P	**P**	**04 37 11.1**	**+0.2**
CASY				IAmb	IAmb	04 37 25.6	
	comp=Z,11nm,1.1s						
UNV	**Unalaska Valle**	**71.51**	**16**	P	**P**	**04 37 58.1**	**-0.4**
O14K	**Tigyukauivet M**	**77.65**	**16**	P	**P**	**04 38 33.4**	**-0.4**
ILAR	**Eielson Array**	**86.14**	**18**	P	**P**	**04 39 18.5**	**+0.4**
	comp=Z,0.4nm,0.7s,baz=236,slow=5.2,SNR=7.5 comp=Z,0.4nm,0.7s						
ILAR	**Eielson Array**	**86.14**	**18**	P	**P**	**04 39 18.2**	**+0.1**
ARCES	**ARCESS Array B**	**119.89**	**345**	PKP	**PKiKP**	**04 45 26.9**	**+0.7**
	comp=Z,5.0nm,0.9s,baz=64,slow=1.9,SNR=17						
ARCES	**ARCESS Array B**	**119.89**	**345**		**PKiKP**	**04 45 27.0**	**+0.8**
FINES	**FINESS Array B**	**125.39**	**338**	PKP	**PKiKP**	**04 45 37.8**	**+0.6**
	comp=Z,2.1nm,1.0s,baz=62,slow=5.5,SNR=4.9						
FINES	**FINESS Array B**	**125.39**	**338**		**PKiKP**	**04 45 38.1**	**+0.9**

VIE ***12*** *04:38:26.8±0.5, 51°42N×16°35E, h0km, mb2.5/5, ml2.4/8, ml2.4/8, Error ellipse: s-maj=5.4km s-min=3.6km az=85.0*
59 km NW of Wroclaw Suspected Mining induced.
DNK ***12*** *04:38:26.2±0.5, 51°45N×16°80E, h30km±21km, ML2.8, Presumed earthquake*
PRU ***12*** *04:38:27.9, 51°42N×16°22E, h0km*

ISC 12 04:38:24.6±0.8, **51°51N**±0°03×**16°29E**±0°03, **h0**km, **n25**, σ1°38/46, **Poland**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.67**	**180**	*e*Pg	**Pb**	**04 38 38.4**	**-0.7**
KSP				*e*Sg	**Sg**	**04 38 46.2**	**+0.2**
CHVC	**Chvalec**	**0.94**	**189**	*e*PG	**Pb**	**04 38 43.3**	**-0.4**
CHVC				*e*SG	**Sb**	**04 38 55.5**	**-1.2**
	comp=Z,6.0nm,0.3s						
CHVC				AML	AML		
OSTC	**Ostas**	**0.96**	**183**	*e*PG	**Pb**	**04 38 44.0**	**0.0**
OSTC				*e*SG	**Sb**	**04 38 56.2**	**-1.0**
	comp=Z,8.5nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**1.02**	**190**	*e*PG	**Pb**	**04 38 45.3**	**+0.2**
UPC				*e*SG	**Sg**	**04 38 57.5**	**+0.2**
	comp=Z,37nm,0.4s						
UPC				AML	AML		
DPC	**Dobruska-Polom

EDRZ				AML	AML			
MARZ	**Manawahe**	**0.61**	**263**	P	**Pn**	**04 39 48.7**	**+0.5**
MARZ				S	**Sn**	**04 39 58.6**	**+0.9**
MARZ				AML	AML		
MARZ				AML	AML		
TKGZ	**Te Karaka**	**0.62**	**149**	P	**Pn**	**04 39 49.1**	**+0.8**
TKGZ				S	**Sn**	**04 40 00.1**	**+2.4**
TKGZ				AML	AML		
TKGZ				AML	AML		
PUZ	**Puketiti**	**0.66**	**104**	P	**Pn**	**04 39 49.0**	**+0.2**
PUZ				S	**Sn**	**04 40 00.4**	**+1.7**
PUZ				AML	AML		
PUZ				AML	AML		
OPRZ	**Ohinepanea**	**0.71**	**275**	P	**Pn**	**04 39 49.8**	**+0.5**
OPRZ				S	**Sn**	**04 40 00.4**	**+0.8**
OPRZ				AML	AML		
OPRZ				AML	AML		
MXZ	**Matakaoa Point**	**0.77**	**63**	P	**Pn**	**04 39 49.9**	**-0.2**
MXZ	**Matakaoa Point**	**0.77**	**63**	S	**Sn**	**04 39 59.3**	**-1.6**
MXZ	**Matakaoa Point**	**0.77**	**63**	P	**Pn**	**04 39 50.3**	**+0.2**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**0.77**	**84**	P	**Pn**	**04 39 50.6**	**+0.4**
WMGZ				S	**Sn**	**04 40 03.6**	**+2.6**
WMGZ				AML	AML		
WMGZ				AML	AML		
MUGZ	**Murupara**	**0.78**	**223**	P	**Pn**	**04 39 50.7**	**+0.5**
MUGZ				AML	AML		
MUGZ				AML	AML		
TDHS	**Te Araroa Dist**	**0.78**	**70**	P	**Pn**	**04 39 51.3**	**+1.1**
RTZ	**Ruatahuna**	**0.79**	**207**	P	**Pn**	**04 39 50.8**	**+0.2**
RTZ				S	**Sn**	**04 40 02.7**	**+1.0**
RTZ				AML	AML		
RTZ				AML	AML		
MKRZ	**Makatiti**	**0.81**	**253**	P	**Pn**	**04 39 51.8**	**+1.1**
MKRZ				AML	AML		
MKRZ				AML	AML		
TARZ	**Mount Tarawera**	**0.81**	**246**	P	**Pn**	**04 39 51.7**	**+0.9**
TARZ				AML	AML		
TARZ				AML	AML		
CNGZ	**Carnagh Statio**	**0.83**	**134**	P	**Pn**	**04 39 51.6**	**+0.7**
CNGZ				AML	AML		
CNGZ				AML	AML		
RIGZ	**Rimuhau**	**0.83**	**163**	P	**Pn**	**04 39 51.7**	**+0.7**
RIGZ				AML	AML		
RIGZ				AML	AML		
RRRZ	**Republican Roa**	**0.85**	**239**	P	**Pn**	**04 39 52.0**	**+0.8**
RRRZ				AML	AML		
RRRZ				AML	AML		
HLRZ	**Highlands Stat**	**0.93**	**248**	P	**Pn**	**04 39 53.3**	**+1.1**
KARZ	**Kaharoa**	**0.95**	**263**	P	**Pn**	**04 39 53.4**	**+0.9**
PRRZ	**Plateau Road**	**1.02**	**234**	P	**Pn**	**04 39 54.1**	**+0.7**
HRRZ	**Handcock Road**	**1.03**	**242**	P	**Pn**	**04 39 54.6**	**+1.0**
RAHZ	**Arahi**	**1.04**	**195**	P	**Pn**	**04 39 54.9**	**+1.2**
MTHZ	**Maungataniwha**	**1.05**	**207**	P	**Pn**	**04 39 54.4**	**+0.4**
PRGZ	**Paritu Road**	**1.07**	**161**	P	**Pn**	**04 39 54.9**	**+0.8**
ALRZ	**Allen Road**	**1.08**	**233**	P	**Pn**	**04 39 55.0**	**+0.7**
KNZ	**Kokohu**	**1.13**	**171**	P	**Pn**	**04 39 55.1**	**+0.3**
MYRZ	**Mayor Island**	**1.14**	**303**	P	**Pn**	**04 39 53.0**	**-2.1**
MYRZ				AML	AML		
MYRZ				AML	AML		
WHHZ	**Waihua**	**1.18**	**188**	P	**Pn**	**04 39 56.6**	**+1.1**
MRHZ	**Matea Rd**	**1.23**	**221**	P	**Pn**	**04 39 56.8**	**+0.6**
NMHZ	**Naumai**	**1.29**	**203**	P	**Pn**	**04 39 58.3**	**+1.3**
MHGZ	**Mahia Peninsul**	**1.29**	**164**	P	**Pn**	**04 39 57.3**	**+0.2**
ARHZ	**Aropaoanui**	**1.40**	**194**	P	**Pn**	**04 39 59.4**	**+1.0**
KUTZ	**Kaahu Road**	**1.40**	**245**	P	**Pn**	**04 39 59.6**	**+1.1**
BKZ	**Black Stump Fm**	**1.46**	**210**	P	**Pn**	**04 39 59.3**	**-0.1**
BKZ	**Black Stump Fm**	**1.46**	**210**	P	**Pn**	**04 40 00.0**	**+0.6**
HIZ	**Hauiti**	**2.13**	**253**	P	**Pn**	**04 40 10.3**	**+1.9**
BFZ	**Birch Farm**	**2.92**	**198**	P	**Pn**	**04 40 17.0**	**-2.2**
BFZ	**Birch Farm**	**2.92**	**198**	S	**Sn**	**04 40 50.2**	**-2.9**
SNZO	**South Karori**	**4.00**	**211**	P	**Pn**	**04 40 32.2**	**-1.8**
SNZO	**South Karori**	**4.00**	**211**	S	**Sn**	**04 41 17.7**	**-1.9**
OUZ	**Omahuta**	**4.10**	**310**	P	**Pn**	**04 40 37.1**	**+1.8**
QRZ	**Quartz Range**	**4.79**	**231**	P	**Pn**	**04 40 43.7**	**-1.2**
QRZ	**Quartz Range**	**4.79**	**231**	S	**Sn**	**04 41 39.3**	**+0.2**
KHZ	**Kahutara**	**5.40**	**212**	P	**Pn**	**04 40 50.9**	**-2.3**

IDC 12 05:04:50.2±9.1, 30.12S×179.74W, h428km±97km, mb3.0/2, mbtmp4.0/3, Error ellipse: s-maj=90.3km s-min=46.0km az=24.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**8.53**	**197**	P	P	05 06 51.6	+0.7
	14nm,0.3s,baz=298,slow=1.8,SNR=19						
URZ				S	S	05 08 30.1	-0.2
	5.3nm,0.4s,baz=242,slow=23,SNR=10						
ASAR	**Alice Springs**	**41.62**	**267**	P	P	05 11 59.4	+0.1
	0.4nm,0.4s,baz=105,slow=7.6,SNR=7.5						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**42.58**	**273**	P	P	05 12 06.6	-0.4
	1.3nm,0.6s,baz=111,slow=7.6,SNR=12						
	1.3nm,0.6s						
FINES	**FINESS Array B**	**144.35**	**339**	PKP	PKPbc	05 23 35.0	-0.2
	0.7nm,0.3s,baz=60,slow=2.9,SNR=8.8						

*SNET **12** 05:35:30.1±0.4, 13°.91N×89°.72W, h5km, ML2.8, Presumed earthquake*
*CATAC **12** 05:35:30.6±0.3, 14°.N±.2°×9°.0W±°, h4km±1km, M2.8/13, MLv2.8/13, Error ellipse: s-maj=4.2km s-min=2.5km az=25.4, confirmed*
*GCG **12** 05:35:30.3±1.3, 13°.88N×89°.71W, h6km±8km, MD4.0, Presumed earthquake*
ISC 12 05:35:30.8±0.9, 13°.88N±0°.03×89.72W±0°.03, h9km±5km, n31, σ1s11/43, El Salvador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NUBE	**Las Nubes**	**0.06**	**292**	P	**Pg**	**05 35 32.7**	**-0.2**
NUBE				S	**Sg**	**05 35 34.2**	**-0.2**
NUBE	**Las Nubes**	**0.06**	**292**	*i* P	**Pg**	**05 35 32.7**	**-0.2**
NUBE				*i* S	**Sg**	**05 35 34.0**	**-0.4**
CEVE	**Cerro Verde**	**0.11**	**118**	P	**Pg**	**05 35 33.7**	**+0.1**
CEVE				S	**Sg**	**05 35 36.1**	**+0.6**
CEVE	**Cerro Verde**	**0.11**	**118**	*eP*	**Pg**	**05 35 33.9**	**+0.3**
LOAL	**Lomas de Alarc**	**0.13**	**334**	P	**Pg**	**05 35 33.7**	**0.0**
SLCA	**Alcaldia de Sa**	**0.16**	**335**	P	**Pg**	**05 35 34.6**	**-0.1**
UNIC	**Universidad Ca**	**0.20**	**59**	P	**Pg**	**05 35 34.4**	**-0.4**
FAME	**Alcaldia de Sa**	**0.29**	**263**	P	**Pg**	**05 35 36.7**	**+0.2**
FAME				S	**Sg**	**05 35 39.6**	**-0.8**
CEDA	**San Andres**	**0.33**	**103**	P	**Pg**	**05 35 37.2**	**0.0**
JAYA	**Jayaque - finc**	**0.35**	**130**	P	**Pg**	**05 35 37.6**	**-0.1**
JAYA				S	**Sg**	**05 35 43.0**	**+0.7**
JAYA	**Jayaque - finc**	**0.35**	**130**	*i* P	**Pg**	**05 35 37.7**	**0.0**
JAYA				*i* S	**Sg**	**05 35 42.4**	**+0.1**
JAYA	**Jayaque - finc**	**0.35**	**130**	*eP*	**Pg**	**05 35 37.7**	**0.0**
PMON	**Piamonte**	**0.43**	**113**	P	**Pb**	**05 35 39.6**	**-1.0**
BOQS	**Boqueron**	**0.45**	**108**	*eP*	**Pb**	**05 35 40.1**	**-0.9**
JUAM	**Asuncion Mita**	**0.45**	**2**	*i* P	**Pg**	**05 35 39.2**	**-0.5**
UEES	**Universidad Ev**	**0.50**	**109**	P	**Pg**	**05 35 40.5**	**+0.1**
LALI	**Alcalda de L**	**0.55**	**135**	P	**Pg**	**05 35 40.8**	**-0.6**
LALI				S	**Sg**	**05 35 48.3**	**-0.4**
LALI	**Alcalda de L**	**0.55**	**135**	*i* P	**Pg**	**05 35 40.3**	**-1.2**
ESQI	**Esquipulas**	**0.77**	**29**	P	**Pg**	**05 35 44.9**	**-0.8**
ESQI				S	**Sg**	**05 35 55.1**	**-0.6**
ESQI	**Esquipulas**	**0.77**	**29**	*i* P	**Pg**	**05 35 44.8**	**-0.8**
PAVA	**Las Pavas**	**0.78**	**102**	P	**Pg**	**05 35 45.6**	**-0.2**
PAVA				S	**Sg**	**05 35 55.7**	**-0.3**
ZAFR2	**Estanzuela, Za**	**0.78**	**27**	*i* P	**Pn**	**05 35 50.5**	**+2.4**
ZAFR2				*i* S	**Sn**	**05 36 05.3**	**+5.4**
TECO	**Alcaldia de Te**	**0.98**	**110**	P	**Pb**	**05 35 49.4**	**-0.5**
SCLA	**Alcaldia de Sa**	**0.98**	**100**	S	**Sn**	**05 36 04.6**	**-0.2**
ALJI	**Alcalda de J**	**1.25**	**116**	S	**Sb**	**05 36 11.0**	**+0.3**
SARH	**Santa Rosa de**	**1.29**	**46**	P	**Pg**	**05 35 54.5**	**-1.0**
SARH				S	**Sn**	**05 36 12.3**	**-0.3**
SARH	**Santa Rosa de**	**1.29**	**46**	*i* P	**Pg**	**05 35 54.4**	**-1.2**
SARH				*i* S	**Sg**	**05 36 11.5**	**-0.9**
APG	**El Apazote**	**1.33**	**327**	*i* P	**Pn**	**05 35 55.0**	**-0.8**
PACA	**Pacayal**	**1.42**	**107**	P	**Pn**	**05 35 56.4**	**-0.5**
LCND	**La Caada**	**1.87**	**107**	P	**Pb**	**05 36 04.2**	**-0.9**
CNCH	**Conchagua**	**1.93**	**108**	P	**Pn**	**05 36 04.3**	**+0.3**

*CATAC **12** 05:55:57.7±0.6, 14°.N±.4°×9°.2W±°, h36km±7km, M3.5/6, MLv3.5/6, Error ellipse: s-maj=9.8km s-min=4.8km az=32.3, confirmed*

*MEX **12** 05:55:58.2±0.8, 14°.48N×92°.36W, h82km±11km, MD4.0, Presumed earthquake*
*GCG **12** 05:55:59.2±1.4, 14°.30N×92°.28W, h36km±5km, MD4.2, Presumed earthquake*
ISC 12 05:55:51.7±1.8, 14.07N±0°.06×92.50W±0°.05, h17km±15km, n28, σ1s60/49, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
THIG		**0.86**	**15**	*i* P	**Pn**	**05 56 10.1**	**+1.1**
THIG				*i* S	**Sg**	**05 56 20.1**	**+0.3**
THIG		**0.86**	**15**	*eP*	**Pn**	**05 56 09.9**	**+0.9**
THIG				*eS*	**Sg**	**05 56 19.7**	**-0.2**
RTAL	**Retalhuleu**	**0.90**	**60**	P	**Pn**	**05 56 12.0**	**+2.4**
RTAL	**Retalhuleu**	**0.90**	**60**	*eP*	**Pn**	**05 56 11.9**	**+2.4**
RTAL				*eS*	**Sn**	**05 56 23.1**	**+0.9**
PATR	**El Naranjo**	**1.07**	**14**	*eP*	**Pn**	**05 56 12.1**	**0.0**
PATR				*eS*	**Sb**	**05 56 23.4**	**-2.3**
CHUJ	**Union Juarez**	**1.08**	**20**	*eP*	**Pb**	**05 56 12.2**	**+0.1**
CHUJ				*eS*	**Sb**	**05 56 23.7**	**-2.4**
PAVE	**Pavencul**	**1.16**	**16**	*eP*	**Pn**	**05 56 13.4**	**0.0**
PAVE				*eS*	**Sb**	**05 56 25.8**	**-2.4**
STG8	**El Palmar, Qui**	**1.17**	**71**	*i* P	**Pb**	**05 56 14.0**	**+0.3**
STG8				*i* S	**Sb**	**05 56 26.3**	**-2.4**
QUEO	**Labor Ovalle**	**1.24**	**50**	*i* P	**Pg**	**05 56 16.4**	**+0.7**
QUEO				*i* S	**Sn**	**05 56 31.0**	**0.0**
HUEH	**Huehuetenango**	**1.57**	**38**	P	**Pg**	**05 56 21.2**	**-0.8**
HUEH				S	**Sn**	**05 56 38.9**	**-0.1**
HUEH	**Huehuetenango**	**1.57**	**38**	*i* P	**Pb**	**05 56 21.0**	**+0.6**
HUEH				*i* S	**Sn**	**05 56 39.1**	**0.0**
HUEH	**Huehuetenango**	**1.57**	**38**	*eP*	**Pb**	**05 56 20.3**	**-0.1**
HUEH				*eS*	**Sn**	**05 56 36.0**	**-3.0**
PCIG		**1.77**	**337**	*eP*	**Pn**	**05 56 22.1**	**+0.7**
PCIG				*eS*	**Sn**	**05 56 40.3**	**-3.3**
FG8	**Yepocapa, Chim**	**1.89**	**84**	*i* P	**Pn**	**05 56 21.3**	**-2.0**
FG8				*i* S	Sn	05 56 38.5	-8.2
FG16	**Alotenango, Sa**	**1.94**	**84**	*i* P	**Pn**	**05 56 22.6**	**-1.4**
PCG5	**San Vicente Pa**	**2.06**	**86**	*eP*	**Pn**	**05 56 25.7**	**0.0**
APG	**El Apazote**	**2.17**	**65**	*i* P	**Pb**	**05 56 30.4**	**-0.4**
CCIG	**Comitan**	**2.22**	**9**	*i* P	**Pb**	**05 56 31.1**	**-0.4**
CCIG				*eS*	**Sn**	**05 56 55.4**	**+0.2**
CCIG	**Comitan**	**2.22**	**9**	*eP*	**Pb**	**05 56 29.9**	**-1.7**
CCIG				*eS*	**Sn**	**05 56 54.1**	**-1.0**
FAME	**Alcaldia de Sa**	**2.42**	**95**	P	**Pb**	**05 56 35.5**	**+0.6**
FAME				S	**Sn**	**05 56 59.2**	**-0.6**
NUBE	**Las Nubes**	**2.64**	**93**	P	**Pb**	**05 56 38.6**	**-0.2**
NUBE				S	**Sn**	**05 57 05.9**	**+0.4**
NUBE	**Las Nubes**	**2.64**	**93**	*eP*	**Pb**	**05 56 38.5**	**-0.2**
TGIG		**2.76**	**347**	*eP*	**Pn**	**05 56 36.5**	**+1.3**
TGIG				*eS*	**Sn**	**05 57 03.8**	**-4.4**
JAYA	**Jayaque - finc**	**2.99**	**98**	P	**Pb**	**05 56 43.6**	**-1.0**
JAYA				S	**Sn**	**05 57 15.8**	**+1.8**
JAYA	**Jayaque - finc**	**2.99**	**98**	*eP*	**Pb**	**05 56 43.5**	**-1.2**
UXUV	**UXUV**	**3.59**	**334**	*eP*	**Pn**	**05 56 49.7**	**+3.0**
UXUV				*eS*	**Sn**	**05 57 26.6**	**-2.2**
CMIG	**Matias Romero**	**3.78**	**323**	*eP*	**Pn**	**05 56 51.5**	**+2.3**
CMIG				*eS*	**Sn**	**05 57 33.1**	**-0.2**
NEUV	**Arroyo Zacate**	**4.82**	**319**	*eP*	**Pn**	**05 57 04.2**	**+0.7**
NEUV				*eS*	**Sn**	**05 57 58.8**	**-0.1**

*AFAD **12** 06:00:29.5, 37°.75N×27°.04E, h13km±2km, ML2.1*
ISK 12 06:00:28.9, 37°.69N×27°.00E, h3km, ML2.6/11, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.19**	**88**	P	Pg	06 00 33.7	+1.2
GCAM				S	Sg	06 00 36.7	+1.7
GCAM				IAML		06 00 38.0	
	comp=N,580nm,0.1s						
KUSD	**Kusadasi-Aydin**	**0.28**	**54**	Pg	Pg	06 00 35.1	+0.7
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.31**	**140**	P	Pb	06 00 36.2	-0.8
DDIM				S	Sb	06 00 41.7	-0.7
DDIM				IAML		06 00 43.0	
	comp=N,285nm,0.6s						
DDIM				IAML		06 00 44.0	
	comp=E,205nm,0.5s						
DGB	**zmir**	**0.37**	**346**	P	Pg	06 00 36.2	+0.2
DGB				S	Sg	06 00 41.0	+0.2
DGB				IAML		06 00 42.0	
	comp=E,242nm,0.4s						
DGB				IAML		06 00 42.0	
	comp=N,138nm,0.4s						
GMLD	**Gumuldur**	**0.39**	**351**	Pg	Pg	06 00 37.1	+0.7
GMLD				AML	AML		
BEYE	**izmir**	**0.54**	**354**	P	Pg	06 00 39.4	+0.2
BEYE				S	Sg	06 00 46.5	+0.4
BEYE				IAML		06 00 48.0	
	comp=N,172nm,0.2s						
BEYE				IAML		06 00 51.0	
	comp=E,192nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.61**	**158**	Pg	Pg	06 00 41.3	+0.7
YKAV				Sg	Sb	06 00 50.9	-0.3
YKAV				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.67**	**325**	P	Pg	06 00 40.7	-1.0
ZEYE				S	Sb	06 00 51.8	-1.1
ZEYE				IAML		06 00 55.0	
	comp=N,92nm,0.2s						
ZEYE				IAML		06 00 55.0	
	comp=E,71nm,0.5s						
BODT	**Bodrum**	**0.68**	**158**	Pg	Pb	06 00 42.9	-0.5
BODT				AML	AML		
BLCB	**Balcova**	**0.69**	**3**	Pg	Pb	06 00 42.9	-0.7
BLCB				AML	AML		
AYDN	**Tasoluk**	**0.70**	**92**	P	Pg	06 00 42.9	+0.6
AYDN				S	Sg	06 00 51.9	+0.5
AYDN				IAML		06 00 57.0	
	comp=N,117nm,0.3s						
AYDN				IAML		06 00 59.0	
	comp=E,124nm,0.4s						
BDRM	**Kayabasi**	**0.72**	**150**	P	Pb	06 00 44.9	+0.7
BDRM				S	Sb	06 00 54.8	+0.4
BDRM				IAML		06 00 58.0	
	comp=E,66nm,0.4s						
BDRM				IAML		06 00 59.0	
	comp=N,133nm,0.2s						
MLSB	**Milas**	**0.74**	**122**	Pg	Pb	06 00 43.9	-0.5
MLSB				Sg	Sb	06 00 54.8	-0.1
MLSB				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**70**	Pg	Pb	06 00 44.5	-0.2
AYDB				AML	AML		
IZMR	**zmir-demi**	**0.88**	**59**	P	Pg	06 00 45.2	-0.5
IZMR				S	Sg	06 00 56.3	-0.8
IZMR				IAML		06 01 02.0	
	comp=E,31nm,0.5s						
IZMR				IAML		06 01 02.0	
	comp=N,29nm,1.1s						
KRBN	**Karaburun**	**0.96**	**339**	Pg	Pb	06 00 48.3	0.0
CHOS	**Chios island**	**1.01**	**313**	Pg	Pb	06 00 49.2	0.0
CHOS				AML	AML		
FOCM	**Foa**	**1.04**	**348**	Pg	Pb	06 00 49.8	+0.3
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.06**	**75**	Pg	Pb	06 00 49.9	0.0
NAZL				AML	AML		
KTTT	**Salihli**	**1.32**	**41**	P	Pg	06 00 53.5	-0.6
KTTT				S	Sn	06 01 13.2	+0.8
KTTT				IAML		06 01 15.0	
	comp=N,38nm,0.6s						

*KRNET **12** 06:29:26.0±0.1, 40°.43N×71°.98E, h12km, mb2.9*
*ISU **12** 06:29:26, 40°.44N×71°.88E, h22km*
*SOME **12** 06:29:28.0, 40°.62N×71°.78E, h10km*
*NNC **12** 06:29:30.1±1.6, 40°.66N×71°.90E, h0km, mb3.1, mpv2.8, Error ellipse: s-maj=12.9km s-min=5.1km az=179.0*
ISC 12 06:29:26.4±0.9, 40°.47N±0°.04×71°.98E±0°.02, h10km±7km, n31, σ1s56/56, 14C-20D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FRG	**Fergana**	**0.17**	**237**	P	**Pb**	**06 29 30.9**	**+0.7**
FRG				S	**Sg**	**06 29 34.5**	**+1.7**
TSTA	**Tashata**	**0.40**	**74**	P	**Pb**	**06 29 35.6**	**0.0**
TSTA				S	**Sb**	**06 29 42.9**	**+1.1**
OHH	**Osh**	**0.62**	**85**	↓*i* P	**Pg**	**06 29 37.6**	**-0.9**
OHH				↓*i* S	**Sg**	**06 29 46.2**	**-0.4**
MINT	**Mingtut**	**0.76**	**270**	P	**Pn**	**06 29 43.5**	**+0.2**
MINT				S	**Sn**	**06 29 53.5**	**-1.4**
ARSB	**Arslanbob**	**1.15**	**41**	↑*eP*	**Pb**	**06 29 47.9**	**-0.5**
ARSB				↑*eS*	**Sb**	**06 30 03.8**	**+0.4**
TRKS	**Terek-Say**	**1.23**	**329**	↑*iP*	**Pn**	**06 29 48.2**	**-1.7**
TRKS				↑*iS*	**Sb**	**06 30 04.1**	**-1.9**
SFK	**Sufi-Kurgan**	**1.26**	**111**	↓*iP*	**Pn**	**06 29 49.1**	**-1.2**
SFK				↓*iS*	**Sb**	**06 30 05.8**	**-0.9**
SALK	**Salom-Alik**	**1.46**	**73**	↑*eP*	**Pb**	**06 29 53.3**	**-0.6**
SALK				↑*eS*	**Sg**	**06 30 13.2**	**-0.3**
MNAS	**Manas**	**2.05**	**11**	↓*iP*	**Pb**	**06 30 02.9**	**-1.0**
MNAS				↓*iS*	**Sb**	**06 30 29.8**	**+0.2**
IUG	**Iuzhnay**	**2.23**	**319**	Pg	**Pb**	**06 30 06.9**	**+0.1**
	45nm,0.2s						
IUG				Lg	Lg	06 30 35.7	
	55nm,0.5s						
IUG	**Iuzhnay**	**2.23**	**319**	*eP*	**Pb**	**06 30 06.9**	**+0.1**
	27nm,0.1s						
IUG				*eS*	**Sb**	**06 30 35.7**	**+1.2**
	55nm,0.6s						
MRKS	**Merke**	**2.46**	**22**	Pg	**Pg**	**06 30 12.5**	**-1.0**
	1.3nm,0.3s						
MRKS				Lg	Lg	06 30 45.1	
	15nm,0.3s						
MRKS	**Merke**	**2.46**	**22**	*eP*	**Pg**	**06 30 12.5**	**-1.0**
	1.3nm,0.3s						
MRKS				*eS*	**Sg**	**06 30 45.1**	**-0.3**
	15nm,0.3s						
EKS2	**Erkin-Say**	**2.57**	**31**	↑*iP*	**Pn**	**06 30 10.0**	**+1.7**
EKS2				↑*iS*	**Sn**	**06 30 42.0**	**+2.2**
UCH	**Uchtor**	**2.59**	**47**	↑*iP*	**Pn**	**06 30 10.4**	**+1.5**
UCH				↑*iS*	**Sn**	**06 30 42.8**	**+2.0**
KK31	**Karatay Array**	**2.85**	**338**	↓Pn	**Pn**	**06 30 14.6**	**+2.6**
	0.2nm,0.3s,baz=167,slow=18,SNR=22						
KK31				↓Pg	**Pb**	**06 30 19.2**	**+1.8**
	0.6nm,0.2s,baz=155,slow=15,SNR=7.8						
KK31				↑Sn	**Sn**	**06 30 46.9**	**+0.5**
	1.3nm,0.3s						
KK31				↑Lg	Lg	06 30 55.2	
	1.3nm,0.2s,baz=156,slow=30,SNR=5.8						
AAK	**Ala-Archa**	**2.87**	**40**	↓Pg	**Pg**	**06 30 22.1**	**+0.5**
	1.8nm,0.8s						
AAK				↓Lg	Lg	06 30 59.0	
	2.7nm,0.5s						
AAK	**Ala-Archa**	**2.87**	**40**	↓*iP*	**Pn**	**06 30 14.1**	**+1.6**
AAK				↓*iS*	**Sn**	**06 30 49.3**	**+2.1**
BRLS	**Borolday**	**3.02**	**329**	Pg	**Pb**	**06 30 19.3**	**-0.9**
	6.4nm,0.3s						
BRLS				Lg	Lg	06 30 57.0	
	9.0nm,0.2s						
BRLS	**Borolday**	**3.02**	**329**	*eP*	**Pb**	**06 30 19.3**	**-0.9**
	6.4nm,0.3s						
BRLS				*eS*	**Sb**	**06 30 57.0**	**-0.2**
	9.0nm,0.2s						
KBK	**Karagaybulak**	**3.12**	**45**	↓*iP*	**Pn**	**06 30 17.6**	**+1.7**
KBK				↓*iS*	**Sn**	**06 30 55.2**	**+1.8**
USP	**Ospenovka**	**3.37**	**33**	↑*iP*	**Pn**	**06 30 21.0**	**+1.8**
USP				↑*iS*	**Sn**	**06 31 01.1**	**+1.8**
BOOM	**Boomskoye usch**	**3.60**	**55**	↓*eP*	**Pn**	**06 30 24.1**	**+1.7**
BOOM				↓*iS*	**Sn**	**06 31 06.5**	**+1.4**
TKM2	**Tokmak 2**	**3.65**	**47**	↓*iP*	**Pn**	**06 30 25.1**	**+1.9**
TKM2				↓*iS*	**Sn**	**06 31 08.0**	**+1.5**
ULHL	**Ulahol**	**3.67**	**60**	↓*iP*	**Pn**	**06 30 25.2**	**+1.7**
ULHL				↓*iS*	**Sn**	**06 31 08.2**	**+1.3**
KST	**Kastek**	**3.94**	**48**	Pg	**Pg**	**06 30 39.6**	**-2.3**
	0.3nm,0.6s						
KST				Lg	Lg	06 31 31.7	
	3.3nm,0.5s						
KST	**Kastek**	**3.94**	**48**	*eP*	**Pg**	**06 30 39.6**	**-2.3**
	0.3nm,0.6s						
KST				*eS*	**Sg**	**06 31 31.7**	**-1.2**
	3.3nm,0.5s						
DGS	**Degeres**	**3.96**	**44**	Pg	**Pg**	**06 30 40.4**	**-2.0**
	1.2nm,0.4s						
DGS				Lg	Lg	06 31 32.9	
	3.3nm,0.5s						
DGS	**Degeres**	**3.96**	**44**	*eP*	**Pg**	**06 30 40.4**	**-2.0**
	1.2nm,0.4s						
DGS				*eS*	**Sg**	**06 31 32.9**	**-0.8**
	3.3nm,0.5s						
KRBS	**Karabastau**	**4.24**	**39**	Pg	**Pg**	**06 30 44.6**	**-3.0**
	0.5nm,0.4s						
KRBS				Lg	Lg	06 31 40.2	
	0.7nm,0.7s						
KRBS	**Karabastau**	**4.24**	**39**	*eP*	**Pg**	**06 30 44.6**	**-3.0**
	0.5nm,0.4s						
KRBS				*eS*	**Sg**	**06 31 40.2**	**-2.3**
	0.7nm,0.7s						

*IDC **12** 06:40:00.1±4.0, 54°.30N×87°.64E, h0km, mbtmp2.8/2, ML2.2/2, Error ellipse: s-maj=30.3km s-min=24.0km az=41.0*
ASRS 12 06:40:03.0±0.2, 54°.19N×87°.18E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.41**	**261**	I	I	06 53 10.0	
	0.1nm,3.0s,baz=78,slow=338,SNR=8.2						
ZALV	**Zalesovo Beam**	**1.41**	**261**	Pg	Pb	06 40 31.0	+0.8
	1.4nm,0.3s,baz=78,slow=14,SNR=12						
ZALV				Lg	Lg	06 40 54.8	
	0.9nm,0.3s,baz=72,slow=24,SNR=5.7						
KURBB	**Kurchatov Arra**	**6.38**	**239**	Pn	Pn	06 41 40.0	+1.8
	0.1nm,0.3s,baz=54,slow=14,SNR=2.1

	2.9nm,0.8s,baz=93,slow=7.4,SNR=29						
ASAR				S	**S**	**07 03 14.1**	**-5.9**
	1.0nm,1.0s,baz=94,slow=15,SNR=4.9						
	2.9nm,0.8s						
WRA	**Warramunga Arr**	**44.95**	**261**	P	**P**	**06 57 20.5**	**-1.1**
	0.7nm,0.3s,baz=98,slow=7.8,SNR=16						
	0.7nm,0.3s						
QSPA	**South Pole Qui**	**70.32**	**180**	P	**P**	**07 00 13.7**	**+0.4**
	0.8nm,0.8s,baz=141,slow=0.9,SNR=2.4						
	0.8nm,0.8s						
TXAR	**Lajitas Array**	**86.44**	**57**	P	**P**	**07 01 40.1**	**+0.2**
	0.5nm,0.7s,baz=215,slow=6.5,SNR=7.0						
	0.5nm,0.7s						
ILAR	**Eielson Array**	**87.52**	**13**	P	**P**	**07 01 42.6**	**-1.5**
	0.3nm,0.7s,baz=219,slow=5.8,SNR=4.4						
	0.3nm,0.7s						
PDAR	**Pinedale Array**	**88.24**	**43**	P	**P**	**07 01 48.0**	**-0.3**
	0.3nm,0.5s,baz=197,slow=4.5,SNR=5.4						
	0.3nm,0.5s						
ARCES	**ARCESS Array B**	**128.22**	**350**	PKP	**PKPdf**	**07 07 56.9**	**-1.4**
	3.7nm,1.0s,baz=69,slow=1.7,SNR=3.9						
FINES	**FINESS Array B**	**135.12**	**344**	PKP	**PKPdf**	**07 08 10.9**	**-0.6**
	1.8nm,0.9s,baz=38,slow=2.5,SNR=2.1						

*IDC **12** 06:50:21.8±0.6, 23°.52S×175°.91W, h0km, mb4.2/12, mbtmp4.3/17, ML4.0/5, MS3.3/6, Error ellipse: s-maj=19.8km s-min=13.2km az=119.0*

ISC 12 06:50:26.8±0.6, 23°.65S±0°.09×176°.0W±0°.1, h33km, n33, σ0.91/24, mb4.3/13, 2C, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
RAO	**Raoul Island**	**5.85**	**197**	Pn		**Pn**	**06 51 50.2**	**-0.9**
	11nm,0.3s,baz=66,slow=20,SNR=1.4							
RAO				Sn		**Sn**	**06 52 55.0**	**-2.0**
	baz=68,slow=19							
	121nm,0.6s							
RAO				AML		AML		
MSVF	**Nonsavu**	**8.11**	**315**	LR		LR	06 55 29.1	
	comp=Z,627nm,19.1s,baz=133,slow=38							
AFI	**Afiamalu**	**10.47**	**23**	Pn		Pn	06 52 46.8	-7.9
	4.3nm,0.3s,baz=158,slow=9.0,SNR=1.7							
AFI				Sn		Sn	06 54 32.2	-19
	baz=257,slow=22							
AFI				LR		LR	06 56 06.6	
	comp=Z,79nm,20.6s,baz=172,slow=33							
	20nm,0.8s							
AFI				AML		AML		
RAR	**Rarotonga**	**15.18**	**84**	Pn		Pn	06 53 47.4	-11
	2.3nm,0.3s,baz=262,slow=21,SNR=3.5							
RAR				Sn		Sn	06 56 17.0	-29
	1.1nm,0.3s,baz=27,slow=18,SNR=1.4							
RAR				LR		LR	06 57 46.5	
	comp=Z,117nm,22.0s,baz=278,slow=30							
	7.3nm,0.4s							
RAR				AML		AML		
URZ	**Urewera**	**15.72**	**200**	Pn		**Pn**	**06 54 06.3**	**+0.6**
	0.5nm,0.3s,baz=6.3,slow=9.2,SNR=1.3							
URZ				Sn		Sn	06 56 49.4	-9.4
	0.7nm,0.3s,baz=10,slow=17,SNR=1.8							
	4.0nm,0.5s							
URZ				AML		AML		
DZM	**Mont Dzumac**	**16.28**	**272**	Pn		**Pn**	**06 54 12.8**	**-0.3**
	0.1nm,0.3s,baz=139,slow=20,SNR=2.3							
DZM				LR		LR	06 59 20.9	
	comp=Z,144nm,19.8s,baz=102,slow=33							
	4.5nm,0.9s							
DZM				AML		AML		
TBI	**Tubuai**	**24.32**	**95**	*e*LR		LR	07 01 04.2	
	976nm,29.0s							
TBI				*e*LR		LR	07 01 10.2	
	614nm,25.8s							
PPT2	**Papeete2**	**25.42**	**81**	*e*LR		LR	07 01 32.3	
	150nm,26.2s							
PPT2				*e*LR		LR	07 01 36.9	
	129nm,23.2s							
PPT	**Papeete**	**25.42**	**81**	LR		LR	07 02 53.4	
	comp=Z,70nm,21.5s,baz=295,slow=30							
CTA	**Charters Tower**	**35.16**	**268**	P		**P**	**06 57 18.6**	**+0.8**
	1.7nm,0.4s,baz=87,slow=8.7,SNR=5.7							
CTA				LR		LR	07 09 50.1	
	comp=Z,43nm,19.2s,baz=45,slow=33							
	1.7nm,0.4s							
ASAR	**Alice Springs**	**45.70**	**259**	P		**P**	**06 58 45.2**	**+0.3**
	2.0nm,0.8s,baz=96,slow=8.0,SNR=11							
ASAR				PcP		**PcP**	**07 00 21.7**	**-0.9**
	0.4nm,0.6s,baz=96,slow=3.4,SNR=2.0							
	2.0nm,0.8s							
WRA	**Warramunga Arr**	**46.10**	**265**	P		**P**	**06 58 47.8**	**-0.3**
	1.5nm,0.6s,baz=103,slow=8.3,SNR=8.9							
	1.5nm,0.6s							
VNDA	**Vanda**	**54.97**	**186**	P		**P**	**06 59 56.1**	**+1.9**
	1.4nm,0.9s,baz=350,slow=5.2,SNR=6.2							
	1.4nm,0.9s							
QSPA	**South Pole Qui**	**66.44**	**180**	P		**P**	**07 01 14.0**	**+1.3**
	4.4nm,0.6s,baz=2.8,slow=0.6,SNR=27							
	4.4nm,0.6s							
PETK	**Petropavlovsk-**	**79.78**	**344**	P		**P**	**07 02 31.5**	**+0.2**
	5.8nm,1.0s,baz=186,slow=6.3,SNR=2.6							
	5.8nm,1.0s							
NVAR	**Mina Array Bea**	**82.06**	**42**	P		**P**	**07 02 42.6**	**-1.5**
	0.4nm,0.8s,baz=235,slow=5.5,SNR=3.1							
	0.4nm,0.8s							
H03S2	**Juan Fernandez**	**82.69**	**124**	T		T	08 34 28.3	
	baz=245,slow=75,SNR=14							
H03S1	**Juan Fernandez**	**82.70**	**124**	T		T	08 34 27.6	
	baz=245,slow=75,SNR=18							
H03S3	**Juan Fernandez**	**82.70**	**124**	T		T	08 34 24.3	
	baz=245,slow=75,SNR=19							
H03N2	**Juan Fernandez**	**82.84**	**123**	T		T	08 34 31.7	
	baz=250,slow=74,SNR=7.3							
H03N1	**Juan Fernandez**	**82.86**	**123**	T		T	08 34 36.3	
	baz=12,slow=74,SNR=12							
TROLL	**Troll, Antarti**	**84.59**	**180**	⇑P		**P**	**07 02 57.4**	**+0.8**
	comp=Z,150nm,0.7s							
SNAA	**Sanae**	**84.82**	**178**	P		**P**	**07 02 58.0**	**+0.3**
	comp=Z,2.4nm,0.8s,baz=207,slow=4.5,SNR=4.1							
	comp=Z,2.4nm,0.8s							
VNA3	**Neumayer Olymp**	**84.89**	**176**	⇑P		**P**	**07 02 58.1**	**+0.2**
	comp=Z,4.5nm,0.7s							
TXAR	**Lajitas Array**	**87.20**	**56**	P		**P**	**07 03 09.8**	**-0.3**
	comp=Z,1.8nm,0.8s,baz=218,slow=8.1,SNR=20							
	comp=Z,1.8nm,0.8s							
PDAR	**Pinedale Array**	**89.98**	**42**	P		**P**	**07 03 23.3**	**+0.2**
	comp=Z,0.2nm,0.6s,baz=238,slow=7.0,SNR=3.6							
	comp=Z,0.2nm,0.6s							
ILAR	**Eielson Array**	**90.97**	**12**	P		**P**	**07 03 26.8**	**-0.1**
	comp=Z,0.3nm,0.9s,baz=204,slow=4.0,SNR=2.1							
	comp=Z,0.3nm,0.9s							
CMAR	**Chiang Mai Arr**	**92.91**	**289**	P		**P**	**07 03 37.5**	**+0.5**
	comp=Z,1.2nm,0.3s,baz=96,slow=3.4,SNR=4.3							
	comp=Z,1.2nm,0.3s							
FINES	**FINESS Array B**	**139.30**	**344**	PKP		**PKiKP**	**07 09 51.4**	**-0.8**
	comp=Z,3.2nm,1.0s,baz=63,slow=6.0,SNR=2.9							
AKASG	**Malin Array Be**	**146.66**	**330**	PKPbc		**PKPbc**	**07 10 04.5**	**-0.4**
	comp=Z,1.4nm,0.5s,baz=44,slow=3.8,SNR=7.8							
EKA	**Eskdalemuir Ar**	**147.91**	**8**	PKPbc		**PKPbc**	**07 10 07.7**	**-0.5**
	comp=Z,3.8nm,0.9s,baz=353,slow=6.2,SNR=3.1							
BRTR	**Keskin Array B**	**150.31**	**310**	PKPbc		**PKPbc**	**07 10 14.6**	**-0.4**
	comp=Z,0.8nm,0.5s,baz=124,slow=4.4,SNR=5.7							
MMAI	**Mount Meron Ar**	**150.93**	**296**	PKPbc		**PKiKP**	**07 10 16.5**	**-0.6**
	comp=Z,1.0nm,0.4s,baz=53,slow=5.6,SNR=1.8							

*IDC **12** 07:03:25.7±1.8, 54°.68N×83°.65E, h0km, mbtmp3.3/3, ML2.8/3, Error ellipse: s-maj=15.2km s-min=11.0km az=170.0*

*ASRS **12** 07:03:26.0±0.8, 54°.65N×83°.61E, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*NNC **12** 07:03:30.0±3.6, 54°.39N×83°.66E, h0km, mb3.2, mpv2.7, Error ellipse: s-maj=34.2km s-min=8.1km az=178.0, Suspected Mining explosion.*

ISC 12 07:03:22.5±2.1, 54°.8N±0°.1×83°.65E±0°.08, h0km, n9, σ2.04/15, 8C-3D, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.12**	**142**	I		I	07 08 52.5	
	baz=317,slow=339,SNR=5.3							
ZAA0	**Zalesovo Array**	**1.12**	**142**	⇓P		**Pb**	**07 03 44.2**	**-0.4**
	4.5nm,0.5s							
ZAA0				⇑S		**Sg**	**07 03 57.9**	**-0.4**
	14nm,0.5s							
ZALV	**Zalesovo Beam**	**1.12**	**142**	Pg		**Pb**	**07 03 44.2**	**-0.4**
	3.5nm,0.3s,baz=318,slow=17,SNR=24							
ZALV				Lg		Lg	07 03 58.3	
	22nm,0.3s,baz=314,slow=30,SNR=17							
KURK	**Kurchatov**	**5.12**	**219**	⇑Pn		**Pn**	**07 04 44.2**	**+3.7**
	0.3nm,0.5s							
KURK				⇑Pg		**Pg**	**07 05 00.1**	**-0.6**
	1.6nm,0.7s							
KURK				⇑Sn		**Sn**	**07 05 38.5**	**-1.8**
	1.1nm,0.5s							
KURK				⇑Lg		Lg	07 06 01.7	
	4.8nm,0.6s							
KURBB	**Kurchatov Arra**	**5.23**	**219**	Pn		**Pn**	**07 04 45.6**	**+3.6**
	0.2nm,0.3s,baz=38,slow=13,SNR=5.1							
KURBB				Pg		**Pg**	**07 05 00.4**	**-2.3**
	0.2nm,0.3s,baz=38,slow=15,SNR=11							
KURBB				Sn		**Sn**	**07 05 43.9**	**+0.9**
	0.4nm,0.3s,baz=22,slow=27,SNR=4.8							
KURBB				Lg		Lg	07 06 09.3	
	0.3nm,0.3s,baz=41,slow=29,SNR=5.1							
	1.0nm,0.3s							
KURBB				AML		AML		
KURBB	**Kurchatov Arra**	**5.23**	**219**	⇑Pn		Pn	07 04 47.1	+5.2
	0.5nm,0.2s,baz=38,slow=13							
KURBB				⇑Pg		**Pg**	**07 05 00.2**	**-2.5**
	0.5nm,0.3s							
KURBB				⇑Sn		**Sn**	**07 05 42.0**	**-0.9**
	14nm,0.6s							
KURBB				⇓Lg		Lg	07 06 05.1	
	25nm,0.7s,baz=40,slow=29							
BVAR	**Borovoye Array**	**8.03**	**262**	Pn		**Pn**	**07 05 20.9**	**+0.5**
	0.1nm,0.3s,baz=69,slow=14,SNR=7.6							
BVAR				Sn		**Sn**	**07 06 52.4**	**+0.5**
	0.1nm,0.3s,baz=78,slow=24,SNR=4.7							
	1.8nm,0.5s							
BVAR				AML		AML		
MK31	**Makanchi Array**	**8.09**	**187**	⇓Lg		Lg	07 07 31.9	
	1.0nm,0.7s							
MKAR	**Makanchi Array**	**8.09**	**187**	Pn		**Pn**	**07 05 23.4**	**+2.2**
	0.3nm,0.3s,baz=12,slow=12,SNR=5.0							
MKAR				Sn		**Sn**	**07 06 53.6**	**+0.3**
	0.2nm,0.3s,baz=12,slow=18,SNR=3.0							
MKAR				Lg		Lg	07 07 33.5	
	0.2nm,0.3s,baz=4.1,slow=22,SNR=1.8							
	0.6nm,0.5s							
MKAR				AML		AML		

IDC 12 07:17:10.4±3.8, 6.76S×148°.33E, h0km, mb2.7/1, mbtmp3.1/2, ML3.4/1, Error ellipse: s-maj=132.6km s-min=48.9km az=117.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.87**	**225**	P		Pn	07 21 33.3	+0.4
	0.1nm,0.3s,baz=51,slow=11,SNR=7.4							
	0.5nm,0.7s							
WRA				AML		AML		
ASAR	**Alice Springs**	**21.79**	**218**	P		P	07 22 04.2	0.0
	0.2nm,0.5s,baz=40,slow=11,SNR=5.6							
	0.2nm,0.5s							
TORD	**Torodi Ar. Bea**	**146.56**	**284**	PKPbc		PKPdf	07 36 53.6	0.0
	0.2nm,0.3s,baz=76,slow=5.9,SNR=2.7							

*MOS **12** 07:18:24.0±1.0, 10°.18N×126°.08E, h49km, mb5.1/54, MS5.0/10, Error ellipse: s-maj=8.2km s-min=4.2km az=114.1*

*MAN **12** 07:18:25.0, 10°.15N×126°.10E, h14km, MS5.3*

MAN INTENSITY V - BURGOS GENERAL LUNA AND SANTA MONICA SURIGAO DEL NORTE; . INTENSITY IV - SOCORRO SURIGAO DEL NORTE; . INTENSITY III - SURIGAO CITY; TUBAJON DINAGAT ISLANDS; SAN RICARDO SAN FRANCISCO AND PINTUYAN SOUTHERN LEYTE; ROSARIO AGUSAN DEL SUR; . INTENSITY II - CARMEN AND TANDAG CITY SURIGAO DEL SUR; BUTUAN CITY; MAGSAYSAY AND GINGOOG CITY MISAMIS ORIENTAL; . INTENSITY I - MEDINA SALAY BALINGASAG JASAAN AND VILLANUEVA MISAMIS ORIENTAL; CAGAYAN DE ORO CITY.

*NEIC **12** 07:18:25.9±1.3, 10°.22N±0°.06×126°.05E±0°.08, h48km±1km, mb5.2/231, Mww5.3/23, Error ellipse: s-maj=11.8km s-min=8.6km az=79.0*

*GCMT **12** 07:18:25.0±0.1, 10°.23N±0°.01×126°.11E±0°.01, h54km, MW5.3/140, Moment Tensor Solution. s128,c224; s140,c235; Duration: 1!1 Moment tensor: Scale 10^17 Nm; Mrr=0.65±.01; Mθθ=0.05±.01; Mϕϕ=0.59±.01; Mrθ=-0.18±.01; Mθϕ=0.31±.01; Mϕr=0.74±.01; Best double couple: Mo=1.02800×10^17 NP1:ϕs=46.00000°, δ=28.00000°, λ=-46.00000°. NP2:ϕs=179.00000°, δ=70.00000°, λ=-110.00000°. Principal axes: T 0.9870, Plg=22.0000°, Azm=284.0000°; N 0.0820, Plg=19.0000°, Azm=186.0000°; P -1.0690, Plg=60.0000°, Azm=59.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*BJI **12** 07:18:26.8, 9°.95N×126°.32E, h92km, mB5.4/41, mb4.8/71*

*NEIC **12** 07:18:26, 10°.22N×126°.05E, h48km*

*NEIC **12** 07:18:26.5, 10°.22N×126°.55E, h46km, Moment Tensor Solution. Duration: 2!2 Moment tensor: Scale 10^17Nm; Mrr=0.84; Mθθ=0.08; Mϕϕ=0.76; Mrθ=-0.17; Mθϕ=0.13; Mϕr=0.70; Fault plane solution: Mo=1.09000×10^17 NP1:ϕs=21.77000°, δ=26.35000°, λ=-66.25000°. NP2:ϕs=175.62000°, δ=66.03000°, λ=-101.28000°. Principal axes: T 1.0281, Plg=20.0000°, Azm=274.0000°; N 0.1097, Plg=10.0000°, Azm=180.0000°; P -1.1378, Plg=67.0000°, Azm=65.0000°;*

*GFZ **12** 07:18:27.5±0.1, 10°.1N×12°.6E, h64km, M5.2/65, mb5.1/65*

*IDC **12** 07:18:28.0±1.1, 10°.18N×126°.02E, h68km±10km, mb4.6/38, mbtmp4.9/43, MS4.7/78, Error ellipse: s-maj=13.7km s-min=6.4km az=81.0*

*DJA **12** 07:18:30.7±0.5, 10°.4N×12°.6E, h65km±4km, M5.4/74, mB5.9/61, mb5.4/74, MLv6.2/2, Mw(mB)5.4/61, MwMwp5.1/26, Mwp5.3/26*

ISC 12 07:18:27.3±0.3, 10°.16N±0°.02×126°.13E±0°.04, h61km±2km, h61km:pP-P, n853, σ1.82/837, mb5.1/269, 7C-8D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
TSSP	**Tandag City**	**1.11**	**176**	*e*P		**Pn**	**07 18 43.7**	**-3.1**
TSSP				*e*S		**Sn**	**07 19 03.6**	**+2.3**
PLP	**Palo**	**1.51**	**312**	*e*P		**Pn**	**07 18 50.5**	**-1.6**
PLP				*e*S		**Sn**	**07 19 10.5**	**-0.3**
BIPH	**Bislig**	**1.97**	**173**	*e*P		**Pn**	**07 18 58.4**	**-0.1**
BIPH				*e*S		**Sn**	**07 19 21.3**	**-0.8**
LLP	**Lapu-Lapu**	**2.13**	**275**	*i* P		**Pn**	**07 19 01.4**	**+0.8**
LLP				*i* S		**Sn**	**07 19 31.2**	**+5.2**
CGP	**Cagayan de Oro**	**2.20**	**220**	*i* P		**Pn**	**07 19 01.8**	**+0.2**
CGP				*i* S		**Sn**	**07 19 28.6**	**+0.9**
TBP	**Tagbilaran**	**2.28**	**258**	*i* P		**Pn**	**07 19 03.4**	**+0.9**
TBP				*i* S		**Sn**	**07 19 31.9**	**+2.4**
SNPH	**Sibulan**	**2.96**	**254**	*i* P		**Pn**	**07 19 13.0**	**+1.0**
SNPH				*i* S		Sn	07 20 01.0	+15
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 14.8**	**+0.8**
	828nm,0.4s,baz=10,slow=3.7,SNR=29							
DAV				S		**Sn**	**07 19 52.3**	**+2.3**
	7μm,0.8s,baz=303,slow=22,SNR=11							
DAV				LR		LR	07 20 48.9	
	comp=Z,39μm,19.9s,baz=19,slow=45							
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 14.4**	**+0.4**
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 16.2**	**+2.2**
DAV				S		**Sn**	**07 19 54.1**	**+4.1**
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 13.6**	**-0.4**
DAV				Sn		**Sn**	**07 19 48.4**	**-1.6**
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 16.0**	**+0.2**
DAV				S		**Sn**	**07 19 52.9**	**+2.9**
DAV				AML		AML		
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 16.0**	**+2.0**
DAV	**Davao City (W)**	**3.11**	**190**	P		**Pn**	**07 19 14.0**	**0.0**
DMPH	**Davao City--Mi**	**3.11**	**191**	*e*P		**Pn**	**07 19 15.8**	**+1.8**
DMPH				*i* S		**Sn**	**07 19 45.0**	**-5.0**
DCPH	**Dipolog City**	**3.15**	**241**	*e*P		**Pn**	**07 19 16.0**	**+1.5**
DCPH				*i* S		**Sn**	**07 19 53.4**	**+2.4**
MMPH	**Masbate**	**3.29**	**312**	*e*P		**Pn**	**07 19 17.6**	**+1.2**
MMPH				*e*S		Sn	07 20 04.4	+10
KCP	**Kidapawan**	**3.29**	**198**	*i* P		**Pn**	**07 19 17.4**	**+1.0**
KCP				*i* S		**Sn**	**07 19 59.4**	**+5.0**
CTBH	**Cotabato--PC H**	**3.46**	**213**	*e*P		**Pn**	**07 19 20.3**	**+1.6**
CTBH				*i* S		**Sn**	**07 20 04.1**	**+5.7**
DDMP	**Don Marcelino,**	**4.05**	**186**	*e*P		**Pn**	**07 19 25.0**	**-1.8**
DDMP				*e*S		**Sn**	**07 20 16.0**	**+3.1**
GSPH	**General Santos**	**4.21**	**196**	*i* P		**Pn**	**07 19 31.7**	**+2.6**
GSPH				*i* S		**Sn**	**07 20 15.3**	**-1.7**
IBAJ	**Ibajay, Aklan**	**4.22**	**293**	*e*P		**Pn**	**07 19 31.7**	**+2.6**
ZCP	**Zamboanga City**	**5.13**	**232**	*e*P		**Pn**	**07 19 45.2**	**+3.6**
LQP	**Lukban**	**5.96**	**312**	*e*P		**Pn**	**07 19 54.9**	**+1.7**
TGY	**Tagaytay City**	**6.41**	**308**	*e*P		**Pn**	**07 20 03.5**	**+4.3**
PPR	**Puerto Princes**	**7.29**	**268**	*e*P		**Pn**	**07 20 11.1**	**-0.2**
GAMI	**Galela, Maluku**	**8.43**	**169**	P		**Pn**	**07 20 31.1**	**+4.3**
	5μm420nm,1.0s							
MNI	**Manado**	**8.75**	**188**	P		**Pn**	**07 20 33.4**	**+2.2**
TNTI	**Ternate**	**9.40**	**172**	P		**Pn**	**07 20 42.3**	**+2.1**
TNTI	**Ternate**	**9.40**	**172**			**Pn**	**07 20 39.5**	**-0.7**
TNTI	**Ternate**	**9.40**	**172**	P		**Pn**	**07 20 40.1**	**-0.1**
	3μm212nm,1.0s							
TNTI	**Ternate**	**9.40**	**172**	P		**Pn**	**07 20 40.8**	**+0.6**
	comp=Z,214nm,1.0s							
KMSI	**Cibinong**	**9.75**	**193**	P		**Pn**	**07 20 48.2**	**+3.3**
GTOI	**Gorontalo**	**9.95**	**198**	P		**Pn**	**07 20 47.0**	**-0.6**
TOLI2	**Tolitoli**	**10.44**	**211**	P		**Pn**	**07 20 57.7**	**+3.4**
TOLI2	**Tolitoli**	**10.44**	**211**			**Pn**	**07 20 51.9**	**-2.4**
TOLI2	**Tolitoli**	**10.44**	**211**	P		**Pn**	**07 20 55.4**	**+1.1**
	comp=Z,47nm,1.2s							
KKM	**Kota Kinabalu**	**10.63**	**248**	P		Pn	07 21 01.9	+4.9
KKM	**Kota Kinabalu**	**10.63**	**248**	Pn		**Pn**	**07 20 54.1**	**-2.9**
KKM	**Kota Kinabalu**	**10.63**	**248**	P		**Pn**	**07 21 00.7**	**+3.7**
	comp=Z,2μmcomp=Z,113nm,1.1s							
KKM	**Kota Kinabalu**	**10.63**	**248**	P		**Pn**	**07 20 59.9**	**+3.0**
	comp=Z,113nm,1.1s							
TARAI	**Tarakan**	**10.87**	**232**	P		Pn	07 21 06.4	+6.2
MPSI	**Mapaga**	**11.55**	**213**	P		Pn	07 21 22.6	+13
LUWI	**Luwuk**	**11.61**	**197**	P		**Pn**	**07 21 14.7**	**+4.3**
LUWI	**Luwuk**	**11.61**	**197**	Pn		**Pn**	**07 21 08.1**	**-2.3**
LUWI	**Luwuk**	**11.61**	**197**	P		**Pn**	**07 21 13.7**	**+3.3**
	comp=Z,3μmcomp=Z,12μmcomp=Z,735nm,1.5s							
APSI	**Ampana**	**11.86**	**202**	P		Pn	07 21 19.8	+6.1
	comp=Z,4μmcomp=Z,456nm,1.1s							
SIJI	**Sorong**	**12.09**	**155**	P		**Pn**	**07 21 17.4**	**+0.6**
	comp=Z,38nm,0.8s,baz=355,slow=6.5,SNR=5.6							
SIJI				S		Sn	07 23 19.5	-11
	comp=Z,18nm,0.7s,baz=270,slow=20,SNR=1.4							
SIJI				LR		LR	07 26 03.7	
	comp=Z,2μm,20.5s,baz=331,slow=38							
SIJI	**Sorong**	**12.09**	**155**	P		**Pn**	**07 21 17.0**	**+0.1**
	comp=Z,4μmcomp=Z,9μmcomp=Z,78nm,0.8s							
SANI	**Sanana**	**12.12**	**181**	P		**Pn**	**07 21 16.9**	**-0.5**
SANI	**Sanana**	**12.12**	**181**	P		**Pn**	**07 21 14.5**	**-2.9**
	comp=Z,3μmcomp=Z,3μmcomp=Z,247nm,1.3s							
PCI	**Palu**	**12.64**	**210**	P		**Pn**		
	comp=Z,170nm,1.0s							
NLAI	**Namlea**	**13.34**	**176**	P		**Pn**	**07 21 32.2**	**-1.7**
	comp=Z,2μmcomp=Z,228nm,0.8s							
TWG	**Pinlang**	**13.49**	**340**	Pn		**Pn**	**07 21 32.0**	**-3.8**
MWPI	**Manokwari, Pap**	**13.54**	**144**	P		**Pn**	**07 21 37.5**	**+0.9**
	comp=Z,8μmcomp=Z,543nm,1.3s							
MSAI	**Masohi**	**13.70**	**168**	P		**Pn**	**07 21 40.5**	**+1.7**
	comp=Z,3μmcomp=Z,10μmcomp=Z,474nm,1.1s							
SMKI	**Samarinda**	**13.77**	**221**	P		**P**	**07 21 43.7**	**-2.6**
YULB	**Yu-li**	**13.95**	**341**	P		**P**	**07 21 50.1**	**+1.9**
YULB	**Yu-li**	**13.95**	**341**	Pn		**Pn**	**07 21 38.9**	**-3.2**
YULB	**Yu-li**	**13.95**	**341**	P		**Pn**	**07 21 42.1**	**+0.1**
	comp=Z,57nm,1.0s							
TPUB	**Ta-pu**	**14.09**	**339**	P		**P**	**07 21 49.4**	**-0.4**
TPUB	**Ta-pu**	**14.09**	**339**	Pn		**Pn**	**07 21 40.4**	**-3.5**
TPUB	**Ta-pu**	**14.09**	**339**	P		**Pn**	**07 21 44.6**	**+0.7**
	comp=Z,139nm,1.0s							
FAKI	**Fak Fak**	**14.35**	**155**	P		**Pn**	**07 21 46.4**	**-1.0**
FAKI	**Fak Fak**	**14.35**	**155**			**Pn**	**07 21 47.1**	**-0.3**
FAKI	**Fak Fak**	**14.35**	**155**	P		**Pn**	**07 21 47.3**	**-0.1**
	comp=Z,4μmcomp=Z,5μmcomp=Z,180nm,0.8s							
FAKI	**Fak Fak**	**14.35**	**155**	P		**Pn**	**07 21 47.6**	**+0.2**
	comp=Z,183nm,1.1s							
SSLB	**Suanglung**	**14.43**	**341**			**Pn**	**07 21 45.2**	**-3.2**
SSLB	**Suanglung**	**14.43**	**341**	P		**Pn**	**07 21 47.1**	**-1.3**
	comp=Z,74nm,1.1s							
KDI	**Kendari**	**14.45**	**194**	P		**P**	**07 21 51.9**	**-1.9**
YOJ	**Yonaguni jima**	**14.53**	**349**	P		**Pn**	**07 21 47.1**	**-2.6**
YOJ	**Yonaguni jima**	**14.53**	**349**	Pn		**Pn**	**07 21 47.1**	**-2.6**
TTSI	**Tana Toraja**	**14.54**	**206**	P		**P**	**07 21 53.4**	**-1.4**
	comp=Z,2μmcomp=Z,4μmcomp=Z,242nm,0.9s							
BKB	**Balikpapan**	**14.59**	**220**	Pn		**Pn**	**07 21 47.9**	**-2.7**
BKB	**Balikpapan**	**14.59**	**220**	P		Pn	07 21 44.2	-6.4
NACB	**Ninganchiao**	**14.60**	**343**	Pn		**Pn**	**07 21 46.8**	**-3.7**
MMSI	**Mamuju**	**14.64**	**210**	P		**P**	**07 21 54.8**	**-1.2**
	comp=Z,58nm,0.7s							
KKSI	**Kolaka, Sulawe**	**14.91**	**198**	P		**Pn**	**07 21 55.5**	**+0.8**
	comp=Z,198nm,0.4s							
**B

JAY **Jayapura** 19.21 130 P **P** 07 22 47.0 +0.4
comp=Z,7μmcomp=Z,4μmcomp=Z,157nm,1.0s
LBFI **Labuhan Bajo,** 19.53 199 P **Pn** 07 22 54.0 +2.3
BATI **Baumata** 20.38 187 P **P** 07 22 59.3 +0.2
comp=Z,143nm,0.7s,baz=9.3,slow=2.2,SNR=3.1
BATI S **S** 07 26 45.0 +0.8
comp=Z,21nm,0.4s,baz=0.0,slow=20,SNR=1.4
BATI LR LR 07 33 17.9
comp=Z,3μm,19.0s,baz=340,slow=44
comp=Z,143nm,0.7s
PLAI **Plampang** 20.61 204 P Pn 07 23 09.4 +5.0
GULI **GuiLin** 21.22 317 P **P** 07 23 12.0 +3.8
GULI S **S** 07 27 02.4 +1.5
GULI pmax pmax
comp=Z,38nm,0.9s
GULI L L
comp=Z,2μm,17.8s
GULI L L
comp=Z,4μm,20.2s
GULI L L
comp=Z,5μm,22.0s
SSE **Sheshan** 21.34 348 P **P** 07 23 09.9 +0.6
SSE S **S** 07 27 05.4 +2.4
SSE pmax pmax
comp=Z,65nm,1.0s
SSE pmax pmax
comp=Z,370nm,10.5s
SSE L L
comp=Z,540nm,22.7s
SSE L L
comp=Z,420nm,22.0s
JSU **Suzuyama** 21.62 10 P **P** 07 23 10.4 -2.0
JSU **Suzuyama** 21.62 10 P **P** 07 23 13.3 +0.9
comp=Z,79nm,1.4s
JAGI **Jajag, Banyuwa** 22.01 213 P **P** 07 23 22.8 +6.1
JAGI **Jajag, Banyuwa** 22.01 213 P **P** 07 23 15.9 -0.7
JAGI IAmb IAmb 07 23 33.6
comp=Z,130nm,1.2s
JAGI **Jajag, Banyuwa** 22.01 213 P **P** 07 23 20.2 +3.6
comp=Z,111nm,1.4s
TPI **Tanjungpandan** 22.42 236 P **P** 07 23 24.3 +3.1
JCJ **Chichijima** 22.66 40 LR LR 07 30 20.8
comp=Z,3μm,21.0s,baz=243,slow=31
NJ2 **Nanjing** 22.80 344 *e*P **P** 07 23 25.2 +0.2
NJ2 S **S** 07 27 30.2 +0.6
NJ2 pmax pmax
comp=Z,24nm,0.6s
NJ2 pmax pmax
comp=Z,780nm,4.2s
NJ2 L L
comp=Z,1μm,17.1s
NJ2 L L
comp=Z,1μm,15.2s
NJ2 L L
comp=Z,4μm,20.6s
DRS **Darwin Rock St** 22.93 168 P **P** 07 23 30.4 +3.9
WHN **Wuhan** 23.06 333 P **P** 07 23 30.5 +2.9
WHN pP **pP** 07 23 43.9 +2.7
WHN sP **sP** 07 23 56.1 +7.3
WHN S **S** 07 27 37.5 +3.7
WHN pmax pmax
comp=Z,98nm,0.9s
WHN L L
comp=Z,3μm,11.8s
WHN L L
comp=Z,7μm,17.6s
WHN L L
comp=Z,10μm,20.8s
SMRI **Semarang** 23.15 223 P P 07 23 36.8 +8.1
SMRI **Semarang** 23.15 223 P **P** 07 23 27.9 -0.8
SMRI **Semarang** 23.15 223 P **P** 07 23 32.5 +3.8
comp=Z,7μmcomp=Z,198nm,1.0s
SMRI **Semarang** 23.15 223 P **P** 07 23 29.5 +0.8
comp=Z,198nm,1.1s
JNU **Nakatsue** 23.27 10 LR LR 07 33 55.3
comp=Z,735nm,19.2s,baz=164,slow=40
MMPI **Merauke** 23.32 142 P **P** 07 23 30.9 +0.7
TPRI **Tanjung Pinang** 23.35 248 P **P** 07 23 34.0 +3.4
MTN **Manton Dam** 23.38 168 P **P** 07 23 30.4 -0.4
MTN IAmb IAmb 07 23 32.4
comp=Z,202nm,1.5s
KDU **Kakadu** 23.55 164 P **P** 07 23 31.7 -0.7
comp=Z,126nm,1.1s
BTDF **Bukit Timah Da** 23.87 250 P **P** 07 23 37.3 +1.9
comp=Z,62nm,0.9s
DSRI **Dabo** 23.90 245 P **P** 07 23 38.5 +2.9
comp=Z,2μmcomp=Z,60nm,1.1s
SLVN **Son La** 24.07 300 P **P** 07 23 34.8 -2.4
MANU **Manus Island** 24.37 119 P **P** 07 23 39.2 -0.8
JTU **Tsushima** 24.44 7 P **P** 07 23 39.8 -0.5
JTU IAmb IAmb 07 23 43.7
comp=Z,132nm,1.4s
JMN **Monobe** 24.52 16 P **P** 07 23 44.7 +3.6
JMN **Monobe** 24.52 16 P **P** 07 23 39.6 -1.5
JMN IAmb IAmb 07 23 45.7
comp=Z,104nm,1.2s
JMN **Monobe** 24.52 16 P **P** 07 23 40.1 -1.0
comp=Z,82nm,1.4s
GYA **Guiyang** 24.52 314 P **P** 07 23 42.6 +1.3
GYA pmax pmax
comp=Z,11nm,0.5s
LEM **Lembang** 24.99 228 P **P** 07 23 45.9 +0.2
comp=Z,16nm,0.3s,baz=19,slow=15,SNR=8.0
LEM LR LR 07 35 12.3
comp=Z,3μm,19.2s,baz=42,slow=40
comp=Z,16nm,0.3s
JMBI **JAMBI** 25.26 244 P **P** 07 23 53.4 +5.4
ENH **Enshi** 25.32 325 P **P** 07 23 46.0 -2.4
ENH IAmb IAmb 07 24 20.0
comp=Z,98nm,1.7s
BBJI **Bungbulang** 25.39 227 P **P** 07 23 48.6 -0.6
BBJI **Bungbulang** 25.39 227 P **P** 07 23 50.4 +1.1
comp=Z,33nm,1.1s
IPM **Ipoh** 25.51 259 P P 07 23 59.5 +9.1
IPM **Ipoh** 25.51 259 P **P** 07 23 49.0 -1.3
IPM **Ipoh** 25.51 259 P **P** 07 23 54.5 +4.1
comp=Z,1μmcomp=Z,52nm,0.9s
IPM **Ipoh** 25.51 259 P **P** 07 23 51.7 +1.3
comp=Z,52nm,0.9s
SBJI **Serang** 25.65 232 P **P** 07 23 55.7 +4.2
KULM **Kulim** 25.69 261 P **P** 07 23 50.4 -1.5
KULM **Kulim** 25.69 261 P **P** 07 23 54.2 +2.3
comp=Z,32nm,1.3s
KNRA **Kununurra** 25.80 174 P **P** 07 23 53.3 +0.5
comp=Z,66nm,0.9s
KNRA **Kununurra** 25.80 174 P **P** 07 23 52.3 -0.5
KNRA IAmb IAmb 07 23 57.0
comp=Z,130nm,1.2s
BLSI **Bandar Lampung** 25.89 234 P **P** 07 23 57.6 +3.9
TJN **Taejon** 26.13 2 P P 07 24 04.2 +8.6
TJN **Taejon** 26.13 2 *e*P **P** 07 23 57.6 +2.0
TJN **Taejon** 26.13 2 P **P** 07 23 54.9 -0.7
TJN **Taejon** 26.13 2 P **P** 07 23 55.4 -0.2
comp=Z,116nm,1.4s
KMI2 **Kunming** 26.74 307 P **P** 07 24 07.7 +6.2
KMI2 pmax pmax
comp=Z,13nm,0.7s
KMI2 pmax pmax
comp=Z,220nm,8.4s
KMI2 L L
comp=Z,3μm,18.5s
KMI2 L L
comp=Z,3μm,17.1s
KMI2 L L
comp=Z,5μm,19.8s
INU **Inuyama** 26.97 20 P **P** 07 24 07.8 +4.6
INU **Inuyama** 26.97 20 P **P** 07 24 01.8 -1.4
INU IAmb IAmb 07 24 08.1
comp=Z,57nm,1.3s
INU **Inuyama** 26.97 20 P **P** 07 24 03.1 -0.1
comp=Z,34nm,1.4s
TIA **Tai'an** 27.20 344 P **P** 07 24 06.9 +1.6
TIA S **S** 07 28 39.8 0.0
TIA SS **SnSn** 07 29 59.9 +6.9
TIA pmax pmax
comp=Z,24nm,0.9s
TIA L L
comp=Z,2μm,14.4s
TIA L L
comp=Z,730nm,13.7s
TIA L L
comp=Z,2μm,17.2s
KSAR **Wonju Array Be** 27.21 3 P **P** 07 24 04.7 -0.7
KSAR **Wonju Array Be** 27.21 3 P **P** 07 24 04.7 -0.7
KSRS **Korea Array** 27.23 3 P **P** 07 24 05.5 0.0
comp=Z,6.9nm,0.8s,baz=181,slow=10,SNR=26
KSRS PcP **PcP** 07 27 25.2 +0.9
comp=Z,1.1nm,0.4s,baz=181,slow=2.4,SNR=4.1
KSRS LR LR 07 36 21.3
comp=Z,410nm,18.9s,baz=185,slow=40
comp=Z,6.9nm,0.8s
KS19 **Wonju Array Si** 27.27 3 P **P** 07 24 04.8 -1.1
LYN **LuoYang** 27.31 335 P **P** 07 24 06.2 -0.1
LYN S **S** 07 28 43.0 +1.4
LYN pmax pmax
comp=Z,19nm,0.7s
LYN pmax pmax
comp=Z,580nm,5.4s
LYN L L
comp=Z,2μm,17.6s
LYN L L
comp=Z,3μm,14.7s
LYN L L
comp=Z,4μm,17.2s
JGF **Kuroka** 27.32 20 P **P** 07 24 05.1 -1.3
JGF IAmb IAmb 07 24 15.4
comp=Z,76nm,1.7s
CM31 **Chiang Mai Arr** 27.57 290 P **P** 07 24 07.6 -1.2
CM31 IAmb IAmb 07 24 19.4
comp=Z,55nm,1.1s
CMAR **Chiang Mai Arr** 27.57 290 P **P** 07 24 08.1 -0.7
comp=Z,7.9nm,0.8s,baz=105,slow=7.2,SNR=23
CMAR LR LR 07 35 18.0
comp=Z,2μm,19.8s,baz=105,slow=37
comp=Z,7.9nm,0.8s
CMAR **Chiang Mai Arr** 27.57 290 *i* P **P** 07 24 09.8 +1.0
CMAR pmax pmax
comp=Z,8.0nm,0.7s
CMAR **Chiang Mai Arr** 27.57 290 P **P** 07 24 07.4 -1.5
CHTO **Chiang Mai** 27.66 291 P **P** 07 24 09.3 -0.3
CHTO S **S** 07 28 46.5 -0.9
CHTO **Chiang Mai** 27.66 291 P **P** 07 24 08.4 -1.2
CHTO pmax pmax
comp=Z,35nm,1.3s
CHTO **Chiang Mai** 27.66 291 P **P** 07 24 08.4 -1.2
CHTO **Chiang Mai** 27.66 291 P **P** 07 24 10.6 +1.0
comp=Z,22nm,1.3s
PSI **Prapat** 27.98 257 LR LR 07 37 23.0
comp=Z,3μm,20.0s,baz=92,slow=41
PSI **Prapat** 27.98 257 P P 07 24 19.0 +6.4
PSI **Prapat** 27.98 257 P **P** 07 24 11.5 -1.1
PSI pmax pmax
comp=Z,82nm,1.6s
RPSI **Rantau Prapat** 28.01 256 P **P** 07 24 11.5 -1.2
RPSI IAmb IAmb 07 24 25.2
comp=Z,82nm,1.6s
RPSI **Rantau Prapat** 28.01 256 P **P** 07 24 13.8 +1.0
comp=Z,34nm,2.3s
FITZ **Fitzroy Crossi** 28.08 181 P **P** 07 24 12.4 -0.8
comp=Z,33nm,0.6s,baz=4.7,slow=12,SNR=11
FITZ S **S** 07 28 50.4 -3.5
comp=Z,1.9nm,0.5s,baz=340,slow=12,SNR=1.2
FITZ LR LR 07 37 08.5
comp=Z,1μm,21.3s,baz=14,slow=40
comp=Z,33nm,0.6s
FITZ **Fitzroy Crossi** 28.08 181 P **P** 07 24 13.0 -0.2
FITZ **Fitzroy Crossi** 28.08 181 P **P** 07 24 13.7 +0.4
comp=Z,22nm,1.1s
MAJO **Matsushiro** 28.46 21 P **P** 07 24 15.4 -1.1
MAJO pmax pmax
comp=Z,38nm,1.6s
MAJO **Matsushiro** 28.46 21 P **P** 07 24 15.4 -1.1
MJAR **Matsushiro Arr** 28.46 21 P **P** 07 24 15.1 -1.5
comp=Z,3.6nm,0.9s,baz=198,slow=8.4,SNR=6.0
MJAR LR LR 07 33 44.2
comp=Z,2μm,21.8s,baz=196,slow=32
comp=Z,3.6nm,0.9s
MJAR **Matsushiro Arr** 28.46 21 P **P** 07 24 15.1 -1.5
MJAR pmax pmax
comp=Z,15nm,1.7s
MJAR **Matsushiro Arr** 28.46 21 P **P** 07 24 15.1 -1.5
MJB9 **Matsu-Tunnel** 28.46 21 P **P** 07 24 15.2 -1.4
XAN **Xi'an** 28.53 329 P **P** 07 24 16.6 -0.6
XAN PcP **PcP** 07 27 21.8 -5.8
XAN S **S** 07 28 59.8 -1.1
XAN pmax pmax
comp=Z,34nm,0.7s
XAN pmax pmax
comp=Z,360nm,4.6s
XAN L L
comp=Z,2μm,17.3s
XAN L L
comp=Z,4μm,17.7s
XAN L L
comp=Z,3μm,20.4s
PMG **Port Moresby** 28.56 132 LR LR 07 36 02.3
comp=Z,940nm,20.5s,baz=251,slow=37
PMG **Port Moresby** 28.56 132 P **P** 07 24 18.6 +0.9
PMG **Port Moresby** 28.56 132 P **P** 07 24 18.4 +0.8
PMG **Port Moresby** 28.56 132 *de*P **P** 07 24 16.7 -0.9
PMG pmax pmax
comp=Z,61nm,1.0s
PMG **Port Moresby** 28.56 132 P **P** 07 24 17.1 -0.6
PMG IAmb IAmb 07 24 19.5
comp=Z,73nm,1.0s
PMG **Port Moresby** 28.56 132 P **P** 07 24 17.3 -0.3
comp=Z,90nm,1.3s
BULU **Kimbe** 28.70 122 P **P** 07 24 22.7 +3.8
DL2 **Dalian** 28.91 353 P **P** 07 24 22.4 +1.9
DL2 pP **pwP** 07 24 39.2 +3.9
DL2 S **S** 07 29 09.0 +2.4
DL2 pmax pmax
comp=Z,65nm,1.6s
DL2 pmax pmax
comp=Z,460nm,3.6s
DL2 L L
comp=Z,1μm,19.1s
DL2 L L
comp=Z,2μm,17.5s
DL2 L L
comp=Z,2μm,19.6s
HNS **HongShan** 29.01 341 ⇑P **P** 07 24 22.0 +0.6
HNS S **S** 07 29 10.5 +2.2
HNS pmax pmax
comp=Z,31nm,0.9s
HNS L L
comp=Z,2μm,19.1s
HNS L L
comp=Z,2μm,17.5s
HNS L L
comp=Z,3μm,19.1s
CD2 **Chengdu** 29.30 318 P **P** 07 24 25.9 +1.8
CD2 S **S** 07 29 18.1 +5.0
CD2 pmax pmax
comp=Z,30nm,0.5s
CD2 L L
comp=Z,3μm,17.8s
CD2 L L
comp=Z,5μm,14.6s
CD2 L L
comp=Z,6μm,16.5s
KRVT **Keravat (AS076** 29.53 118 LR LR 07 36 04.3
comp=Z,2μm,18.1s,baz=288,slow=36
GSI **Gunungsitoli** 29.71 255 P **P** 07 24 26.2 -1.7
GSI IAmb IAmb 07 24 52.0
comp=Z,91nm,1.3s
TIY **Taiyuan** 30.08 338 P **P** 07 24 29.4 -1.6
TIY S **S** 07 29 26.7 +1.4
TIY pmax pmax
comp=Z,350nm,5.1s
TIY L L
comp=Z,2μm,16.5s
TIY L L
comp=Z,820nm,17.2s
TIY L L
comp=Z,2μm,18.6s
NPW **Naypyitaw** 30.46 292 P **P** 07 24 35.0 +0.5
comp=Z,35nm,0.9s
WB0 **Warramunga Arr** 30.83 165 P **P** 07 24 36.3 -1.3
WB0 IAmb IAmb 07 24 59.8
comp=Z,27nm,0.7s
WRAB **Tennant Creek** 30.98 165 P P 07 24 44.5 +5.5
WRAB **Tennant Creek** 30.98 165 *de*P **P** 07 24 37.6 -1.4
WRAB pmax pmax
comp=Z,29nm,1.0s
WRAB **Tennant Creek** 30.98 165 P **P** 07 24 38.4 -0.5
WRAB IAmb IAmb 07 25 23.0
comp=Z,31nm,0.9s
WRAB **Tennant Creek** 30.98 165 P **P** 07 24 36.4 -2.5
comp=Z,31nm,0.9s
WRAB **Tennant Creek** 30.98 165 P **P** 07 24 37.3 -1.6
WRA **Warramunga Arr** 30.98 165 P **P** 07 24 37.6 -1.4
comp=Z,16nm,0.8s,baz=346,slow=9.4,SNR=29
WRA PcP **PcP** 07 27 34.6 +0.5
comp=Z,3.4nm,0.6s,baz=341,slow=2.7,SNR=2.3
WRA S **S** 07 29 35.5 -4.0
comp=Z,19nm,1.2s,baz=341,slow=14,SNR=6.1
WRA ScP **ScP** 07 31 11.1 -0.7
comp=Z,3.3nm,1.0s,baz=334,slow=18,SNR=2.9
WRA LR LR 07 41 34.1
comp=Z,689nm,18.4s,baz=270,slow=45
comp=Z,16nm,0.8s
WRA **Warramunga Arr** 30.98 165 *i* P **P** 07 24 38.4 -0.6
WRA pmax pmax
comp=Z,24nm,1.0s
WRA **Warramunga Arr** 30.98 165 P **P** 07 24 37.1 -1.9
WRA **PcP** 07 27 33.5 -0.6
BJI2 **Beijing** 31.03 345 P **P** 07 24 40.6 +1.4
BJI2 PP **PP** 07 25 44.9 -5.4
BJI2 S **S** 07 29 41.1 +1.2
BJI2 pmax pmax
comp=Z,13nm,1.1s
BJI2 pmax pmax
comp=Z,180nm,3.9s
BJT **Baijiatuau** 31.03 345 P P 07 24 47.2 +8.0
BJT **Baijiatuau** 31.03 345 P **P** 07 24 37.9 -1.3
BJT pmax pmax
comp=Z,12nm,0.6s
BJT **Baijiatuau** 31.03 345 P **P** 07 24 37.9 -1.3
BJT **Baijiatuau** 31.03 345 P **P** 07 24 39.2 0.0
comp=Z,18nm,0.9s
WR8 **Warramunga Arr** 31.04 165 P **P** 07 24 38.4 -1.1
WR8 IAmb IAmb 07 24 40.2
comp=Z,53nm,1.1s
MBWA **Marble Bar** 31.75 191 P **P** 07 24 45.5 -0.2
comp=Z,25nm,0.7s
MBWA **Marble Bar** 31.75 191 P P 07 24 53.4 +7.7
MBWA **Marble Bar** 31.75 191 P **P** 07 24 45.5 -0.2
MBWA IAmb IAmb 07 25 05.5
comp=Z,23nm,0.8s
MBWA **Marble Bar** 31.75 191 P **P** 07 24 44.2 -1.5
comp=Z,25nm,0.7s
MBWA **Marble Bar** 31.75 191 P **P** 07 24 46.3 +0.6
LZDM **Lanzhou Array** 32.78 325 P **P** 07 24 54.4 -0.7
comp=Z,2.1nm,0.3s,baz=152,slow=6.7,SNR=5.4
LZDM ScP **ScP** 07 31 15.6 -2.5
comp=Z,1.6nm,0.3s,baz=160,slow=5.5,SNR=5.4
LZDM LR LR 07 39 01.3
comp=Z,3μm,20.3s,baz=120,slow=38
comp=Z,2.1nm,0.3s
LZH **Lanzhou** 32.79 325 *e*P **P** 07 24 57.1 +2.2
LZH S **S** 07 30 04.4 -3.4
LZH pmax pmax
comp=Z,22nm,1.3s
LZH L L
comp=Z,2μm,14.1s
LZH L L
comp=Z,3μm,14.1s
LZH L L
comp=Z,4μm,14.1s
HHC **Hu-ho-hao-te** 33.17 340 *e*P **P** 07 25 00.6 +2.4
HHC S **S** 07 30 15.6 +2.1
HHC pmax pmax
comp=Z,9.0nm,0.7s
HHC pmax pmax
comp=Z,150nm,4.8s
HHC L L
comp=Z,2μm,16.9s
HHC L L
comp=Z,620nm,16.7s
HHC L L
comp=Z,2μm,16.6s
QIS **Mount Isa** 33.28 157 P **P** 07 24 57.8 -1.3
comp=Z,110nm,1.0s
QIS **Mount Isa** 33.28 157 P **P** 07 24 58.6 -0.5
comp=Z,110nm,1.0s
MTSU **Mount Surprise** 33.36 147 P **P** 07 24 58.1 -1.8
comp=Z,45nm,0.8s
CN2 **Changchun** 33.53 359 ⇑P **P** 07 25 03.3 +2.3
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 L L
comp=Z,300nm,15.0s
CN2 L L
comp=Z,200nm,15.0s
CN2 L L
comp=Z,300nm,15.0s
BTO2 **Baotou** 33.69 337 *e*P **P** 07 25 03.6 +0.9
BTO2 pP **pwP** 07 25 19.6 +1.8
BTO2 S **S** 07 30 22.8 +1.2
BTO2 SS **SnSn** 07 32 32.8 +2.0
BTO2 pmax pmax
comp=Z,14nm,0.7s
BTO2 pmax pmax
comp=Z,560nm,4.8s
BTO2 L L
comp=Z,2μm,17.7s
BTO2 L L
comp=Z,2μm,17.1s
BTO2 L L
comp=Z,2μm,16.2s
USA0B **Ussuriysk Arra** 34.30 7 P **P** 07 25 06.8 -0.9
USA0B pmax pmax
comp=Z,18nm,0.9s
USA0B **Ussuriysk Arra** 34.30 7 P **P** 07 25 06.8 -0.9
USA0B IAmb IAmb 07 25 26.2
comp=Z,18nm,0.8s
USRK **Ussuriysk Ar.** 34.30 7 P **P** 07 25 07.4 -0.3
comp=Z,5.8nm,0.6s,baz=190,slow=8.7,SNR=11
USRK LR LR 07 38 01.9
comp=Z,749nm,21.8s,baz=179,slow=34
comp=Z,5.8nm,0.6s
USRK **Ussuriysk Ar.** 34.30 7 P **P** 07 25 06.6 -1.1
USRK **Ussuriysk Ar.** 34.30 7 P **P** 07 25 06.5 -1.1
AS15 **Alice Springs** 34.44 167 P **P** 07 25 08.5 -0.7
comp=Z,55nm,1.1s
AS31 **Alice Springs** 34.46 167 P **P** 07 25 09.4 0.0
comp=Z,13nm,0.6s
AS31 **Alice Springs** 34.46 167 P **P** 07 25 08.7 -0.7
AS31 IAmb IAmb 07 25 14.8
comp=Z,10nm,0.4s
ASAR **Alice Springs** 34.46 167 P **P** 07 25 08.9 -0.5
comp=Z,9.2nm,0.5s,baz=18,slow=10.0,SNR=55
ASAR PcP **PcP** 07 27 44.2 +0.5
comp=Z,4.8nm,0.8s,baz=4.0,slow=2.4,SNR=4.6
ASAR S **S** 07 30 31.2 -2.4
comp=Z,9.6nm,0.9s,baz=352,slow=19,SNR=13
ASAR ScP **ScP** 07 31 21.9 -1.9
comp=Z,3.8nm,0.9s,baz=349,slow=2.7,SNR=5.0
ASAR LR LR 07 41 47.7
comp=Z,817nm,18.1s,baz=350,slow=41
comp=Z,9.2nm,0.5s
ASAR **Alice Springs** 34.46 167 P **P** 07 25 08.7 -0.7
ASAR 07 27 42.4
ASAR **Alice Springs** 34.46 167 P **P** 07 25 08.7 -0.7
ASAR **PcP** 07 27 42.4 -1.3
MDJ **Mudanjiang** 34.47 4 P P 07 25 15.7 +6.5
MDJ **Mudanjiang** 34.47 4 P **P** 07 25 11.7 +2.5
MDJ PP **PP** 07 26 31.9 +3.6
MDJ S **S** 07 30 35.3 +2.1
MDJ pmax pmax
comp=Z,29nm,1.2s
MDJ pmax pmax
comp=Z,360nm,4.3s
MDJ L L
comp=Z,134μm,21.3s
MDJ L L
comp=Z,210μm,18.6s
MDJ L L
comp=Z,1μm,18.6s
MDJ **Mudanjiang** 34.47 4 P **P** 07 25 09.1 -0.1
comp=Z,23nm,1.1s
AS01 **Alice Springs** 34.47 167 P **P** 07 25 12.3 +2.8
AS17 **Alice Springs** 34.48 167 P **P** 07 25 09.5 -0.1
comp=Z,42nm,1.1s
AS09 **Alice Springs** 34.50 167 P **P** 07 25 09.1 -0.7
comp=Z,45nm,0.9s
XLT **XiLinHaoTe** 34.73 347 *e*P **P** 07 25 11.8 +0.2
XLT pP pwP 07 25 29.4 +1.0
XLT sP sP 07 25 40.6 +7.2
XLT S **S** 07 30 38.2 +0.7
XLT pmax pmax
comp=Z,15nm,0.6s
XLT pmax pmax
comp=Z,270nm,3.8s
XLT L L

comp=Z,77nm,19.6s
XLT L L
comp=Z,580nm,17.7s
XLT L L
comp=Z,1µm,19.5s
WRKA Warakurna 35.04 177 P **P** **07 25 14.7 +0.3**
comp=Z,115nm,0.8s
BRDH Bariadhala 35.24 295 LR LR 07 40 23.3
comp=Z,3µm,21.9s,baz=150,slow=37
BNX BinXian 35.48 2 ⇑P **P** **07 25 18.0 +0.1**
BNX PP **PP** **07 26 41.9 +2.5**
BNX S **S** **07 30 48.7 0.0**
BNX pmax pmax
comp=Z,12nm,0.9s
BNX pmax pmax
comp=Z,320nm,7.6s
BNX L L
comp=Z,880nm,22.2s
BNX L L
comp=Z,650nm,19.5s
BNX L L
comp=Z,1µm,21.0s
SHL Shillong 35.88 300 P **P** **07 25 20.6 -1.2**
SHL Shillong 35.88 300 P **P** **07 25 20.6 -1.2**
CTA Charters Tower 36.00 147 P **P** **07 25 23.4 +0.6**
comp=Z,9.6nm,0.9s
CTA Charters Tower 36.00 147 P **P** **07 25 23.0 +0.4**
comp=Z,8.2nm,0.8s,baz=322,slow=9.4,SNR=11
CTA LR LR 07 42 09.9
comp=Z,691nm,18.3s,baz=334,slow=39
comp=Z,8.2nm,0.8s
CTA Charters Tower 36.00 147 P **P** **07 25 24.3 +1.7**
CTAO Charters Tower 36.00 147 P **P** **07 25 25.4 +2.8**
CTAO Charters Tower 36.00 147 P **P** **07 25 23.3 +0.6**
CTAO pmax pmax
comp=Z,81nm,1.6s
CTAO Charters Tower 36.00 147 P **P** **07 25 23.3 +0.6**
CTAO Charters Tower 36.00 147 P **P** **07 25 22.3 -0.3**
comp=Z,24nm,0.9s
CTAO Charters Tower 36.00 147 P **P** **07 25 23.2 +0.6**
ASAJ Asahikawa 36.72 20 LR LR 07 41 49.9
comp=Z,719nm,18.5s,baz=246,slow=38
ASAJ Asahikawa 36.72 20 P **P** **07 25 27.9 -0.6**
ASAJ pmax pmax
comp=Z,206nm,2.0s
JKA Kamikawa-asahi 36.72 20 P **P** **07 25 27.9 -0.7**
MEEK Meekatharra 37.29 191 P **P** **07 25 33.4 -0.2**
comp=Z,61nm,0.9s
MEEK Meekatharra 37.29 191 P **P** **07 25 33.9 +0.3**
comp=Z,61nm,0.9s
GTA2 Gaotai 37.48 326 *e*P **P** **07 25 35.3 +0.1**
GTA2 S **S** **07 31 20.2 +0.5**
GTA2 SS **SnSn** **07 33 57.6 -4.8**
GTA2 pmax pmax
comp=Z,15nm,0.6s
GTA2 L L
comp=Z,2µm,18.1s
GTA2 L L
comp=Z,3µm,17.1s
GTA2 L L
comp=Z,4µm,19.7s
LSA Lhasa 37.98 306 P **P** **07 25 37.5 -2.5**
LSA pmax pmax
comp=Z,43nm,1.2s
LSA Lhasa 37.98 306 P **P** **07 25 37.5 -2.5**
LSA IAmb IAmb 07 26 13.9
comp=Z,43nm,1.2s
LSA Lhasa 37.98 306 P **P** **07 25 39.9 -0.1**
comp=Z,14nm,0.6s
TATA Tatamba Isabel 38.26 118 P **P** **07 25 43.9 +2.0**
GOMU GeErMu 38.43 317 P **P** **07 25 44.0 +0.5**
GOMU S **S** **07 31 40.2 +5.5**
GOMU pmax pmax
comp=Z,2.0nm,0.5s
GOMU L L
comp=Z,1µm,15.4s
GOMU L L
comp=Z,2µm,15.2s
GOMU L L
comp=Z,3µm,15.0s
HNR Honiara 38.88 119 LR LR 07 43 02.8
comp=Z,549nm,18.1s,baz=14,slow=38
KLR Kul'dur 39.23 6 LR LR 07 43 36.0
comp=Z,562nm,19.3s,baz=192,slow=38
KLR Kul'dur 39.23 6*de*P **P** **07 25 49.7 +0.1**
KLR pmax pmax
comp=Z,10.0nm,1.2s
HILR Hailar Array B 39.63 353 P **P** **07 25 52.6 -0.4**
comp=Z,3.2nm,0.5s,baz=152,slow=9.6,SNR=3.2
HILR LR LR 07 45 51.6
comp=Z,440nm,18.4s,baz=85,slow=42
comp=Z,3.2nm,0.5s
HEH HeiHe 39.99 1 *e*P **P** **07 25 56.4 +0.5**
HEH PcP **PcP** **07 28 00.4 +0.4**
HEH S **S** **07 31 57.1 +0.2**
HEH pmax pmax
comp=Z,23nm,1.3s
HEH pmax pmax
comp=Z,400nm,7.1s
HEH L L
comp=Z,910nm,16.5s
HEH L L
comp=Z,670nm,14.7s
HEH L L
comp=Z,2µm,19.5s
H11S3 WAKE ISLAND Hy 40.09 73 T T 08 08 52.5
baz=261,slow=74,SNR=1674
H11S1 WAKE ISLAND Hy 40.10 73 T T 08 08 59.4
baz=261,slow=74,SNR=751
H11S2 WAKE ISLAND Hy 40.11 73 T T 08 08 56.5
baz=261,slow=74,SNR=1014
MORW Morawa 40.19 194 P **P** **07 25 58.1 +0.3**
comp=Z,28nm,1.1s
MORW Morawa 40.19 194 P P 07 26 05.6 +7.8
MORW Morawa 40.19 194 P **P** **07 25 57.9 +0.1**
MORW Morawa 40.19 194 P **P** **07 25 58.6 +0.8**
comp=Z,28nm,1.1s
INKA Innaminka 40.25 160 P **P** **07 25 57.5 -0.7**
H11N1 WAKE ISLAND Hy 40.43 72 T T 08 09 23.0
baz=265,slow=74,SNR=2932
H11N2 WAKE ISLAND Hy 40.43 72 T T 08 09 22.8
baz=265,slow=74,SNR=2425
H11N3 WAKE ISLAND Hy 40.45 72 T T 08 09 24.3
baz=265,slow=74,SNR=2674
QLP Quilpie 40.54 155 P **P** **07 25 59.9 -0.8**
comp=Z,84nm,1.0s
QLP Quilpie 40.54 155 P **P** **07 26 04.3 +3.6**
QLP Quilpie 40.54 155 P **P** **07 25 59.8 -0.9**
comp=Z,84nm,1.0s
FORT Forrest 40.74 177 P **P** **07 26 02.4 +0.1**
comp=Z,161nm,0.7s
FORT Forrest 40.74 177 P **P** **07 26 02.3 0.0**
AUNRC North Rockhamp 40.98 145 P P 07 26 09.6 +5.2
SONM Songino Array 41.08 340 P **P** **07 26 04.9 -0.1**
comp=Z,7.2nm,0.4s,baz=155,slow=10.0,SNR=27
SONM PcP **PcP** **07 28 03.6 -0.2**
comp=Z,2.8nm,0.5s,baz=162,slow=3.7,SNR=4.1
SONM ScP **ScP** **07 31 47.4 -1.1**
comp=Z,2.8nm,0.9s,baz=166,slow=4.1,SNR=8.0
comp=Z,7.2nm,0.4s
SONM Songino Array 41.08 340 P **P** **07 26 05.0 -0.1**
SONM **PcP** **07 28 02.7 -1.1**
GRNR Gornyy 41.37 10 ⇑*i*P **P** **07 26 09.0 +1.7**
GRNR pmax pmax
comp=Z,10.0nm,1.2s
GRNR MLR MLR
comp=E,370nm,21.0s
GRNR MLR MLR
comp=N,410nm,19.0s
GRNR MLR MLR
comp=Z,560nm,19.0s
KMBL Kambalda 41.48 185 P **P** **07 26 08.9 +0.5**
comp=Z,81nm,1.1s
BLDU Ballidu 41.53 192 P **P** **07 26 10.3 +1.5**
comp=Z,40nm,0.9s
BLDU Ballidu 41.53 192 P P 07 26 15.5 +6.7
BLDU Ballidu 41.53 192 P **P** **07 26 09.7 +0.9**
comp=Z,40nm,0.9s
KLBR Kellerberrin 42.28 191 P **P** **07 26 15.6 +0.8**
comp=Z,86nm,0.7s
KLBR Kellerberrin 42.28 191 P **P** **07 26 14.0 -0.9**
comp=Z,86nm,0.7s
TYV Tymovskoe 42.81 15 *e*P **P** **07 26 20.6 +1.7**
TYV *e*S **S** **07 32 41.1 +2.5**
TYV pmax pmax
comp=Z,10.0nm,1.2s
TYV pmax pmax
comp=Z,200nm,3.3s
TYV smax smax
comp=N,100nm,3.6s
TYV smax smax
comp=E,200nm,3.6s
EIDS Eidsvold 42.87 146 P **P** **07 26 20.3 +0.5**
comp=Z,16nm,1.1s
EIDS Eidsvold 42.87 146 P P 07 26 24.7 +4.9
EIDS Eidsvold 42.87 146 P **P** **07 26 20.2 +0.5**
EIDS Eidsvold 42.87 146 P **P** **07 26 19.8 -0.1**
comp=Z,16nm,1.1s
CIT Chita 42.99 349 *e*P **P** **07 26 20.8 +0.3**
CIT *e* 07 26 30.2
CIT *e* 07 28 01.6
CIT *e* 07 28 39.8
CIT pmax pmax
comp=Z,83nm,1.1s
AUKUL Kulin High Sch 43.26 190 P P 07 26 29.3 +6.5
NWAO Narrogin (SRO) 43.67 191 P **P** **07 26 27.1 +1.0**
comp=Z,142nm,1.1s
NWAO Narrogin (SRO) 43.67 191 P **P** **07 26 27.1 +1.0**
comp=Z,88nm,1.2s
NWAO Narrogin (SRO) 43.67 191 P P 07 26 31.8 +5.7
NWAO Narrogin (SRO) 43.67 191 P **P** **07 26 26.6 +0.4**
NWAO pmax pmax
comp=Z,119nm,1.3s
NWAO Narrogin (SRO) 43.67 191 P **P** **07 26 26.6 +0.4**
NWAO Narrogin (SRO) 43.67 191 P **P** **07 26 27.0 +1.0**
comp=Z,83nm,1.1s
NWAO Narrogin (SRO) 43.67 191 P **P** **07 26 26.8 +0.7**
BBOO Buckleboo 43.76 168 P **P** **07 26 27.2 +0.3**
comp=Z,157nm,0.9s
BBOO Buckleboo 43.76 168 P **P** **07 26 30.2 +3.3**
BBOO Buckleboo 43.76 168 P **P** **07 26 26.4 -0.5**
BBOO Buckleboo 43.76 168 P **P** **07 26 27.1 +0.3**
comp=Z,157nm,0.9s
ZAK Zakamensk 44.32 339 *e*P **P** **07 26 31.3 0.0**
ZAK pmax pmax
comp=Z,11nm,1.1s
STKA Stephens Creek 44.34 161 P **P** **07 26 31.7 +0.2**
comp=Z,220nm,0.9s
STKA Stephens Creek 44.34 161 P **P** **07 26 31.5 0.0**
comp=Z,33nm,0.7s,baz=338,slow=7.6,SNR=29
STKA S **S** **07 32 59.8 -1.6**
comp=Z,6.8nm,1.0s,baz=342,slow=9.6,SNR=3.0
STKA LR LR 07 46 40.5
comp=Z,606nm,21.7s,baz=341,slow=38
comp=Z,33nm,0.7s
STKA Stephens Creek 44.34 161 P P 07 26 37.7 +6.2
STKA Stephens Creek 44.34 161 P **P** **07 26 30.9 -0.6**
STKA Stephens Creek 44.34 161 P **P** **07 26 31.6 +0.2**
comp=Z,220nm,0.9s
AULRC Lightning Ridg 44.64 152 P P 07 26 39.2 +5.2
HTT Hallett 45.02 165 P **P** **07 26 38.6 +1.6**
comp=Z,17nm,1.3s
HTT Hallett 45.02 165 P **P** **07 26 39.3 +2.3**
TW1H Toowoomba 1 Ha 45.08 147 P **P** **07 26 42.0 +4.5**
AUBSH Beerwah State 45.08 145 P **P** **07 26 39.3 +1.9**
AUCAS Cummins Area S 45.10 169 P P 07 26 44.2 +6.7
TLY Talaya 45.29 340 P **P** **07 26 39.2 +0.3**
comp=Z,23nm,0.6s,baz=172,slow=3.1,SNR=8.3
TLY LR LR 07 48 24.1
comp=Z,1µm,18.4s,baz=140,slow=40
comp=Z,23nm,0.6s
TLY Talaya 45.29 340 P **P** **07 26 39.0 +0.1**
TLY S **S** **07 33 15.4 +0.5**
TLY Talaya 45.29 340*de*P **P** **07 26 39.6 +0.7**
TLY pmax pmax
comp=Z,24nm,0.9s
TLY Talaya 45.29 340 P **P** **07 26 38.1 -0.8**
TLY IAmb IAmb 07 26 44.7
comp=Z,25nm,0.7s
TLY Talaya 45.29 340 P **P** **07 26 39.9 +1.0**
comp=Z,38nm,0.8s
TLY Talaya 45.29 340 P **P** **07 26 39.6 +0.7**
TLY PcP **PcP** **07 28 18.6 +0.8**
RKGY Rocky Gully 45.36 191 P **P** **07 26 41.0 +1.4**
comp=Z,42nm,1.4s
CMSA Cobar Meteorol 45.50 156 P **P** **07 26 41.4 +0.7**
comp=Z,50nm,1.0s
CMSA Cobar Meteorol 45.50 156 P P 07 26 45.6 +4.9
CMSA Cobar Meteorol 45.50 156 P **P** **07 26 41.4 +0.7**
comp=Z,50nm,1.0s
MOY Mondy 46.20 339 *e*P **P** **07 26 46.9 +0.7**
MOY pmax pmax
comp=Z,51nm,3.8s
AUMAR Marden Senior 46.34 166 P **P** **07 26 50.2 +2.9**
HYB Hyderabad 46.66 284 *e*P **P** **07 26 47.9 -2.3**
HYB *e*S **S** **07 33 34.8 -0.8**
ARMA Armidale 47.21 150 P P 07 27 03.3 +9.0
ARMA Armidale 47.21 150 P **P** **07 26 57.9 +3.6**
WMQ Urumqi 47.23 322 *e*P **P** **07 26 57.5 +3.2**
WMQ pP sP 07 27 14.1 -3.0
WMQ PcP **PcP** **07 28 25.9 +1.1**
WMQ S **S** **07 33 44.6 +1.7**
WMQ pmax pmax
comp=Z,10.0nm,0.9s
WMQ L L
comp=Z,3µm,18.3s
WMQ L L
comp=Z,3µm,20.7s
WMQ L L
comp=Z,2µm,20.7s
SKR Severo-Kuril's 47.34 26 *e*P **P** **07 26 55.0 +0.1**
SKR pmax pmax
comp=Z,500nm,14.4s
SKR MLR MLR
comp=Z,600nm,18.0s
SANVU Saraoutou 47.99 121 P **P** **07 27 03.4 +3.0**
SANVU Saraoutou 47.99 121 P **P** **07 26 59.9 -0.6**
SANVU Saraoutou 47.99 121 P **P** **07 26 58.1 -2.3**
comp=Z,53nm,1.6s
SANVU Saraoutou 47.99 121 P **P** **07 27 03.1 +2.7**
BOD Bodaibo 48.46 351 *e*P **P** **07 27 03.7 +0.2**
BOD pmax pmax
comp=Z,29nm,1.1s
ARPS Mount Arapiles 48.96 163 P **P** **07 27 08.2 +0.6**
comp=Z,17nm,1.3s
AUMAG Moama Anglican 49.24 160 P P 07 27 15.9 +6.2
PETK Petropavlovsk- 49.80 24 P **P** **07 27 15.0 +1.2**
comp=Z,11nm,0.6s,baz=236,slow=2.9,SNR=21
PETK LR LR 07 46 45.8
comp=Z,785nm,21.4s,baz=225,slow=34
comp=Z,11nm,0.6s
PETK Petropavlovsk- 49.80 24 P **P** **07 27 13.3 -0.5**
PETK Petropavlovsk- 49.80 24 P **P** **07 27 13.3 -0.5**
AUDAR Daramalan Coll 50.13 155 P **P** **07 27 21.1 +4.5**
PET Petropavlovsk 50.13 25 P **P** **07 27 15.1 -1.2**
comp=Z,41nm,1.4s
AUMTS Mt Stromlo 50.14 156 P **P** **07 27 19.0 +2.4**
CAN Canberra 50.14 156 P **P** **07 27 18.4 +1.8**
comp=Z,64nm,1.3s
CAN Canberra 50.14 156 P **P** **07 27 18.8 +2.2**
CAN Canberra 50.14 156 P **P** **07 27 15.9 -0.7**
CAN pmax pmax
comp=Z,82nm,1.2s
CAN Canberra 50.14 156 P **P** **07 27 15.9 -0.7**
CAN Canberra 50.14 156 P **P** **07 27 15.2 -1.4**
comp=Z,64nm,1.3s
CAN Canberra 50.14 156 P **P** **07 27 18.0 +1.3**
CAN pP **pP** **07 27 29.4 -2.3**
CNB Canberra Magne 50.28 155 P **P** **07 27 19.4 +1.6**
comp=Z,72nm,1.2s
BRAT Ballarat 50.30 162 P P 07 27 23.0 +5.3
AUMTC Mt Clear Colle 50.34 162 P P 07 27 23.6 +5.6
NOUC Port Laguerre 50.80 129 P **P** **07 27 24.9 +3.1**
comp=Z,69nm,1.4s
NOUC Port Laguerre 50.80 129 P **P** **07 27 24.0 +2.2**
TOO Toolangi 50.83 160 P **P** **07 27 23.6 +1.8**
comp=Z,21nm,1.4s
TOO Toolangi 50.83 160 P **P** **07 27 21.3 -0.5**
TOO pmax pmax
comp=Z,20nm,1.0s
TOO Toolangi 50.83 160 P **P** **07 27 21.3 -0.5**
TOO IAmb IAmb 07 27 24.6
comp=Z,20nm,1.0s
ZSN Zaisan 50.88 325 *e*P **P** **07 27 22.1 0.0**
ZSN Zaisan 50.88 325 *e*P **P** **07 27 22.2 0.0**
DZM Mont Dzumac 50.89 129 P **P** **07 27 23.7 +1.1**
comp=Z,56nm,0.9s,baz=324,slow=5.3,SNR=19
comp=Z,56nm,0.9s
ONTNC Ouen Toro 51.03 130 P **P** **07 27 21.7 -1.8**
YATNC Mamie plateau, 51.22 129 P **P** **07 27 27.7 +2.7**
OUENC Ouen Island, N 51.39 129 P **P** **07 27 29.5 +3.3**
comp=Z,126nm,1.2s
OUENC Ouen Island, N 51.39 129 P **P** **07 27 25.7 -0.5**
MILA Mila 51.70 156 P P 07 27 34.4 +6.0
YAK Yakutsk 51.85 2 LR LR 07 51 05.7
comp=Z,578nm,20.3s,baz=178,slow=38
YAK Yakutsk 51.85 2 *e*P **P** **07 27 29.5 +0.5**
YAK *e* 07 28 44.4
YAK *e*S **S** **07 34 47.9 +1.2**
YAK *e**SS sS 07 35 04.3 -9.1
YAK *e* 07 37 12.8
YAK *e*SS **SS** **07 38 21.8 -2.3**
YAK *e*SSS SSS 07 39 57.2
YAK pmax pmax
comp=Z,75nm,1.4s
YAK pmax pmax
comp=N,35nm,1.4s
YAK pmax pmax
comp=E,9.0nm,1.0s
YAK pmax pmax
comp=N,209nm,6.2s
YAK pmax pmax
comp=Z,347nm,5.1s
YAK pmax pmax
comp=E,71nm,2.9s
YAK smax smax
comp=E,141nm,2.4s
YAK smax smax
comp=N,102nm,3.5s
YAK MLR MLR
comp=Z,854nm,24.0s
YAK MLR MLR
comp=N,511nm,20.0s
YAK MLR MLR
comp=E,486nm,16.0s
YAK Yakutsk 51.85 2 P **P** **07 27 29.2 +0.2**
YAK Yakutsk 51.85 2 P **P** **07 27 29.6 +0.6**
comp=Z,43nm,0.9s
YAK Yakutsk 51.85 2 P **P** **07 27 29.2 +0.2**
YAK pP **pP** **07 27 40.9 -3.2**
PINNC Pines Island, 51.96 129 P P 07 27 35.9 +5.5
PINNC Pines Island, 51.96 129 P **P** **07 27 29.8 -0.6**
MK31 Makanchi Array 52.03 323 *i* P **P** **07 27 30.1 -0.6**
MK31 pmax pmax
comp=Z,8.0nm,0.6s
MKAR Makanchi Array 52.03 323 P **P** **07 27 30.4 -0.3**
comp=Z,12nm,0.6s,baz=122,slow=7.8,SNR=67
MKAR PcP **PcP** **07 28 42.0 -0.3**
comp=Z,3.7nm,0.5s,baz=109,slow=5.2,SNR=4.9
MKAR ScP **ScP** **07 32 31.3 -2.8**
comp=Z,1.6nm,0.8s,baz=127,slow=4.8,SNR=4.0
MKAR LR LR 07 51 20.7
comp=Z,2µm,21.8s,baz=120,slow=38
comp=Z,12nm,0.6s
MKAR Makanchi Array 52.03 323 *i* P **P** **07 27 30.5 -0.3**
MKAR pmax pmax
comp=Z,13nm,0.6s
MKAR Makanchi Array 52.03 323 **P** **07 27 29.9 -0.8**
MKAR PcP **PcP** **07 28 40.8 -1.5**
SHLS Shalkode 52.13 318 *e*P **P** **07 27 29.4 -2.2**
SHLS Shalkode 52.13 318 *e*P **P** **07 27 29.4 -2.2**
PDGK Podgornoye 52.19 318 P **P** **07 27 30.5 -1.6**
PDGK Podgornoye 52.19 318 **P** **07 27 30.5 -1.6**
MAKZ Makanchi 52.23 323 P **P** **07 27 31.8 -0.3**
MAKZ pmax pmax
comp=Z,14nm,0.8s
MAKZ Makanchi 52.23 323 **P** **07 27 31.8 -0.3**
MAKZ IAmb IAmb 07 27 45.7
comp=Z,14nm,0.8s
MAKZ Makanchi 52.23 323 P **P** **07 27 31.3 -0.8**
comp=Z,20nm,1.2s
MAKZ Makanchi 52.23 323 P **P** **07 27 31.8 -0.3**
MAKZ pP **pP** **07 27 43.3 -4.9**
MAKZ PcP **PcP** **07 28 42.4 -0.5**
UZB Uzynbulak 52.42 317 *e*P **P** **07 27 33.6 -0.2**
UZB Uzynbulak 52.42 317 *e*P **P** **07 27 33.7 -0.2**
MA2 Magadan 52.68 15 LR LR 07 47 56.1
comp=Z,526nm,21.8s,baz=202,slow=34
TARG Taragay, Kyrgy 52.68 315 P **P** **07 27 34.9 -1.2**
TARG pmax pmax
comp=Z,19nm,1.4s
TARG Taragay, Kyrgy 52.68 315 P **P** **07 27 34.9 -1.2**
TARG Taragay, Kyrgy 52.68 315 P **P** **07 27 36.1 0.0**
comp=Z,10nm,1.0s
KPKS Kokpek 52.78 318 *e*P **P** **07 27 36.2 -0.2**
KPKS Kokpek 52.78 318 *e*P **P** **07 27 36.3 -0.2**
SATY Saty 52.80 317 *e*P **P** **07 27 36.3 -0.3**
SATY pmax pmax
comp=Z,5.0nm,0.8s
SATY Saty 52.80 317 *e*P **P** **07 27 36.4 -0.3**
comp=Z,5.1nm,0.8s
KDJ Kajisay 53.27 316 P **P** **07 27 39.6 -0.5**
KDJ pmax pmax
comp=Z,10.0nm,1.0s
KDJ Kajisay 53.27 316 P **P** **07 27 39.6 -0.5**
KDJ Kajisay 53.27 316 P **P** **07 27 40.3 +0.2**
comp=Z,7.7nm,0.7s
ASAI AK-SAY(Kyrgyzs 53.29 314 P **P** **07 27 40.8 +0.3**
comp=Z,9.9nm,1.8s
KSH2 Kashi 53.38 312 P **P** **07 27 42.4 +1.4**
KSH2 pP pP 07 28 00.6 +3.5
KSH2 S **S** **07 35 09.3 +0.5**
KSH2 pmax pmax
comp=Z,4.0nm,1.1s
KSH2 L L
comp=Z,2µm,17.9s
KSH2 L L
comp=Z,2µm,17.2s
KSH2 L L
comp=Z,3µm,20.3s
TDK Taldyqorghan 53.60 319 *e*P **P** **07 27 42.3 0.0**
TDK pmax pmax
comp=Z,6.0nm,0.5s
TDK Taldyqorghan 53.60 319 *e*P **P** **07 27 42.4 0.0**
comp=Z,6.2nm,0.5s
NIL Nilore 53.68 304 P **P** **07 27 42.4 -0.7**
NIL pmax pmax
comp=Z,34nm,0.9s
NIL Nilore 53.68 304 P **P** **07 27 42.4 -0.7**
NIL Nilore 53.68 304 P **P** **07 27 43.5 +0.4**
comp=Z,26nm,0.9s
MDOK Medeo 53.75 317 *e*P **P** **07 27 43.3 -0.3**
MDOK Medeo 53.75 317 *e*P **P** **07 27 43.4 -0.2**
TNSS Tian-Shan 53.77 317 *e*P **P** **07 27 43.6 -0.5**
TNSS Tian-Shan 53.77 317 *e*P **P** **07 27 43.6 -0.5**
NRN Naryn 53.84 314 P **P** **07 27 43.4 -1.1**
NRN pmax pmax
comp=Z,12nm,1.1s
NRN Naryn 53.84 314 **P** **07 27 43.4 -1.1**
AAA Alma-Ata 53.86 317 *e*P **P** **07 27 44.2 -0.1**
AAA Alma-Ata 53.86 317 *e*P **P** **07 27 44.3 -0.1**
BOOM Boomskoye usch 54.26 316 P **P** **07 27 45.3 -2.1**
BOOM PcP **PcP** **07 28 50.1 -0.9**
ZAA0 Zalesovo Array 54.66 331 P **P** **07 27 48.7 -1.1**
ZAA0 PcP **PcP** **07 28 51.8 -0.2**
ZALV Zalesovo Beam 54.66 331 P **P** **07 27 48.9 -0.9**
comp=Z,8.5nm,0.6s,baz=119,slow=7.5,SNR=19
ZALV PcP **PcP** **07 28 51.3 -0.7**
comp=Z,4.0nm,0.5s,baz=134,slow=5.3,SNR=4.7
ZALV LR LR 07 53 36.0
comp=Z,1µm,18.2s,baz=127,slow=39
comp=Z,8.5nm,0.6s
SEM Semipalatinsk 55.02 326 *e*P **P** **07 27 52.7 -0.1**
SEM Semipalatinsk 55.02 326 *e*P **P** **07 27 52.8 -0.1**
AAK Ala-Archa 55.31 315 LR LR 07 54 25.8
comp=Z,2µm,19.5s,baz=92,slow=39
AAK Ala-Archa 55.31 315 *e*P **P** **07 27 55.7 +0.8**
AAK *i* *PP **pP** **07 28 14.2 +3.2**
AAK pmax pmax
comp=Z,2.0nm,0.9s
AAK Ala-Archa 55.31 315 P **P** **07 27 52.9 -2.0**
AAK Ala-Archa 55.31 315 P **P** **07 27 54.7 -0.2**
comp=Z,5.4nm,0.9s
ARSB Arslanbob 55.94 313 P **P** **07 27 57.9 -1.6**
ARSB pmax pmax
comp=Z,39nm,1.6s
ARSB Arslanbob 55.94 313 P **P** **07 27 57.9 -1.6**
ARSB IAmb IAmb 07 28 33.6
comp=Z,38nm,1.6s
SEY Seymchan 55.97 14 LR LR 07 50 27.5
comp=Z,655nm,21.7s,baz=168,slow=34
SEY Seymchan 55.97 14 *e*P **P** **07 27 59.9 +0.8**
SEY pmax pmax
comp=Z,8.0nm,0.9s
KURK Kurchatov 56.08 326 P **P** **07 28 00.3 +0.2**
KURK Kurchatov 56.08 326*de*P **P** **07 27 59.6 -0.5**
KURK pmax pmax

comp=Z,16nm,0.7s
KURK Kurchatov 56.08 326 P 07 27 58.5 -1.6
KURK IAmb IAmb 07 28 28.0
comp=Z,28nm,0.9s
KURK Kurchatov 56.08 326 P P 07 27 59.8 -0.3
comp=Z,37nm,0.9s
KURK Kurchatov 56.08 326 P P 07 27 59.7 -0.3
KURK pP pP 07 28 11.1 -5.1
KURBB Kurchatov Arra 56.09 325 P P 07 27 59.7 -0.4
comp=Z,9.9nm,0.5s,baz=128,slow=6.8,SNR=50
KURBB LR LR 07 54 51.8
comp=Z,1µm,18.1s,baz=152,slow=39
comp=Z,9.9nm,0.5s
KBL Kabul 57.28 305 P P 07 28 07.4 -1.8
KBL S S 07 35 59.0 -2.2
KBL Kabul 57.28 305 P P 07 28 07.1 -2.1
KBL pmax pmax
comp=Z,27nm,1.4s
KBL Kabul 57.28 305 P P 07 28 07.1 -2.1
KBL IAmb IAmb 07 29 13.8
comp=Z,27nm,1.4s
SHEM Shemya Is, Ala 57.32 32 LR LR 07 49 59.4
comp=Z,352nm,20.5s,baz=284,slow=33
DZA Taraz 57.59 315 eP P 07 28 11.0 0.0
DZA Taraz 57.59 315 eP P 07 28 11.1 0.0
KK31 Karatay Array 58.23 315 i P P 07 28 14.9 -0.6
KK31 pmax pmax
comp=Z,5.0nm,0.8s
KK31 Karatay Array 58.23 315 P P 07 28 14.5 -1.0
KK31 IAmb IAmb 07 28 55.9
comp=Z,16nm,1.1s
KKAR Karatay Array 58.23 315 P P 07 28 14.6 -0.9
KKAR Karatay Array 58.23 315 P P 07 28 14.6 -0.9
MSVF Nonsavu 58.29 118 P P 07 28 15.6 -0.7
MSVF pmax pmax
comp=Z,31nm,0.7s
MSVF Nonsavu 58.29 118 P P 07 28 15.6 -0.7
MSVF Nonsavu 58.29 118 P P 07 28 18.4 +2.1
MSVF pP pP 07 28 29.6 -1.6
IUG luzhnay 58.30 313 eP P 07 28 15.9 -0.1
IUG pmax pmax
comp=Z,4.0nm,0.6s
IUG luzhnay 58.30 313 eP P 07 28 15.9 -0.1
comp=Z,4.3nm,0.6s
CHM Chimkent 58.65 314 eP P 07 28 18.3 -0.1
CHM pmax pmax
comp=Z,7.0nm,0.4s
CHM Chimkent 58.65 314 eP P 07 28 18.4 -0.1
comp=Z,6.9nm,0.4s
BRLS Borolday 58.68 314 eP P 07 28 18.8 +0.2
BRLS Borolday 58.68 314 eP P 07 28 18.9 +0.2
TIXI Tiksi 61.47 1 LR LR 07 59 21.9
comp=Z,670nm,18.0s,baz=192,slow=40
TIXI Tiksi 61.47 1 P P 07 28 37.1 0.0
TIXI pmax pmax
comp=Z,25nm,0.9s
TIXI Tiksi 61.47 1 P 07 28 37.1 0.0
TIXI IAmb IAmb 07 28 39.0
comp=Z,25nm,0.8s
TIXI Tiksi 61.47 1 P P 07 28 37.3 +0.2
comp=Z,37nm,1.1s
TIXI Tiksi 61.47 1 P P 07 28 37.3 +0.2
BVA0 Borovoye Array 61.68 325 *i* P P 07 28 45.7 +6.8
BVAR Borovoye Array 61.68 325 P P 07 28 38.5 -0.4
comp=Z,4.4nm,0.5s,baz=121,slow=9.1,SNR=17
comp=Z,4.4nm,0.5s
BORK Borovoye 61.73 325 *de*P P 07 28 38.4 -0.8
BORK pmax pmax
comp=Z,16nm,1.4s
BORK Borovoye 61.73 325 P 07 28 38.8 -0.4
BORK IAmb IAmb 07 28 52.5
comp=Z,13nm,0.9s
BILL Bilibino 63.55 16 *e*P P 07 28 52.3 +1.2
BILL pmax pmax
comp=Z,22nm,1.4s
BILI Bilibino, Chuk 63.61 16 P P 07 28 52.5 +1.0
comp=Z,18nm,1.3s
OUZ Omahuta 63.62 138 P P 07 28 54.7 +2.6
OUZ Omahuta 63.62 138 P P 07 28 50.8 -1.3
comp=Z,46nm,1.8s
ATKA Atka Island 63.64 36 P P 07 28 52.0 0.0
NRIK Noril'sk 64.09 346 P P 07 28 54.0 -0.6
comp=Z,7.9nm,0.7s,baz=156,slow=3.4,SNR=11
NRIK LR LR 08 00 07.4
comp=Z,2µm,19.0s,baz=150,slow=39
comp=Z,7.9nm,0.7s
NRIK Noril'sk 64.09 346 *de*P P 07 28 54.4 -0.2
NRIK pmax pmax
comp=Z,17nm,1.1s
NRIK Noril'sk 64.09 346 P 07 28 54.3 -0.2
NRIK IAmb IAmb 07 29 40.5
comp=Z,16nm,0.8s
JLN Jalan Bani Buh 64.75 290 P P 07 28 59.3 -0.5
WBK Wadi Bani Khal 65.15 290 P P 07 29 04.1 +1.7
BIDO Bidbid 65.92 291 P P 07 29 07.9 +0.6
JMDO Jabal Madar 65.96 290 P P 07 29 06.7 -0.9
SMDO Samad 66.00 291 P P 07 29 08.5 +0.5
AFI Afiamalu 66.08 110 LR LR 07 52 29.9
comp=Z,2µm,21.7s,baz=300,slow=31
MHTO MHTO 66.13 288 P P 07 29 07.7 -1.0
QRZ Quartz Range 66.35 143 P P 07 29 11.9 +2.2
JCZ Jackson Bay 66.39 148 P P 07 29 11.9 +1.9
DSZ Denniston Nort 66.51 144 P P 07 29 12.3 +1.6
DQM DQM 66.57 287 P P 07 29 07.5 -4.1
FOZ Fox Glacier 66.58 147 P P 07 29 11.4 +0.4
RAO Raoul Island 66.64 128 LR LR 07 53 33.5
comp=Z,353nm,21.4s,baz=309,slow=32
HOQ Hoqain 66.66 291 P P 07 29 10.6 -1.6
WVZ Waitaha Valley 66.77 146 P P 07 29 16.7 +4.4
BSY Bisya 66.79 290 P P 07 29 12.3 -0.6
AB31 Akbulak array 66.87 319 i P P 07 29 12.0 -0.9
AB31 pmax pmax
comp=Z,5.0nm,0.7s
AB31 Akbulak array 66.87 319 P 07 29 12.3 -0.6
ABKAR Akbulak array 66.87 319 P 07 29 11.9 -1.0
NNZ Nelson 67.10 143 P P 07 29 16.1 +1.7
THZ Tophouse 67.16 144 P P 07 29 15.5 +0.6
THZ Tophouse 67.16 144 P P 07 29 15.4 +0.5
NGZ Ngauruhoe 67.23 140 P P 07 29 19.8 +4.3
OTVZ Oturere 67.26 140 P P 07 29 19.8 +4.0
LBZ Lake Benmore 67.35 147 P P 07 29 17.5 +1.6
SOHO SOHO 67.36 292 P P 07 29 15.6 -0.9
RPZ Rata Peaks 67.37 146 LR LR 07 59 51.5
comp=Z,84nm,19.5s,baz=254,slow=37
RPZ Rata Peaks 67.37 146 P P 07 29 17.7 +1.6
ARQ Araqi 67.39 291 P P 07 29 15.9 -0.9
LTZ Lake Taylor 67.44 145 P P 07 29 18.2 +1.6
MDH Madha 67.56 293 P P 07 29 17.1 -0.6
UOSS Minazif 67.65 293 P P 07 29 17.8 -0.6
UOSS Minazif 67.65 293 P P 07 29 16.9 -1.5
UOSS Minazif 67.65 293 P P 07 29 18.2 -0.1
UOSS pP pP 07 29 29.7 -5.3
UOSS PcP PcP 07 29 44.0 -1.0
URZ Urewera 67.67 139 LR LR 08 00 14.1
comp=Z,378nm,18.5s,baz=304,slow=37
URZ Urewera 67.67 139 P P 07 29 20.7 +2.5
BHHZ Black Hill Sta 67.70 140 P P 07 29 20.7 +2.3
HATD Hatta, Dubai 67.71 293 P P 07 29 19.0 +0.2
ASHO Ashiyiah 67.78 293 P P 07 29 17.8 -1.5
SNR=7.8
BKZ Black Stump Fm 67.79 140 P P 07 29 20.2 +1.3
HAZ Te Kaha 67.83 138 P P 07 29 21.8 +2.7
MTHZ Maungataniwha 67.83 139 P P 07 29 20.4 +1.2
RUGZ Raukumara Rang 67.88 138 P P 07 29 20.9 +1.3
KWHZ Kaweka Forest 67.89 140 P P 07 29 21.8 +2.2
KHZ Kahutara 67.94 144 P P 07 29 19.7 +0.1
NMHZ Naumai 67.95 139 P P 07 29 22.4 +2.4
KRHZ Kereru 67.99 140 P P 07 29 23.0 +2.9
MWZ Matawai 67.99 138 P P 07 29 22.5 +2.4
PNHZ Pukenui 68.04 141 P P 07 29 21.9 +1.4
ALNE Al Ain 68.08 292 P P 07 29 20.9 -0.2
SVE Sverdlovsk 68.23 327 eP P 07 29 22.9 +1.6
WMGZ Waiomatatini S 68.29 138 P P 07 29 24.0 +2.0
AKTO Aktyubinsk 68.32 320 LR LR 08 01 35.4
comp=Z,2µm,19.8s,baz=82,slow=38
PUZ Puketiti 68.32 138 P P 07 29 26.3 +4.0
ASUD Al Ashush, Dub 68.45 292 P P 07 29 23.4 +0.1
SHAO Shalim 68.49 285 P P 07 29 24.1 +0.4
BFZ Birch Farm 68.51 141 P P 07 29 24.0 +0.7
PXZ Pawanui 68.52 140 P P 07 29 25.2 +1.8
DMTO DMTO 69.16 285 P P 07 29 28.1 +0.2
ARTI Arti 69.33 327 LR LR 08 02 56.5
comp=Z,612nm,19.3s,baz=116,slow=38
ARTI Arti 69.33 327 *c i* P P 07 29 27.1 -1.1
ARTI *PP pP 07 29 46.7 +1.8
ARTI 07 29 55.2
ARTI S S 07 38 27.7 -2.4
ARTI pmax pmax
comp=Z,6.0nm,0.6s
ARTI MLR MLR
comp=Z,758nm,18.0s
ARTI Arti 69.33 327 P P 07 29 27.3 -0.9
ARTI IAmb IAmb 07 29 28.5
comp=Z,20nm,0.5s
ARTI Arti 69.33 327 P P 07 29 26.9 -1.3
DOK Doka 69.87 286 P P 07 29 32.0 -0.2
SNR=12
WHFO Wadi Hawf 70.26 285 P P 07 29 34.3 -0.5
SNR=7.5
JRN Qarnain Island 70.69 293 P P 07 29 36.2 -0.9
ABTO Aybut 70.76 285 P P 07 29 37.7 0.0
K13K Kusilvak Mount 71.36 28 P P 07 29 40.3 -0.2
K13K IAmb IAmb 07 29 43.6
comp=Z,54nm,1.4s
SLWR Sila 71.79 292 P P 07 29 43.8 0.0
MSEY Mahe Island 71.88 262 P P 07 29 44.1 -0.4
F15K North Star Dit 72.31 24 IAmb IAmb 07 29 50.7
comp=Z,47nm,1.4s
J16K Anvik River 73.48 27 P P 07 29 53.2 +0.1
J16K IAmb IAmb 07 29 57.2
comp=Z,80nm,1.6s
I17K Unalakleet 73.55 26 IAmb IAmb 07 29 57.3
comp=Z,28nm,1.2s
K17K Iditarod 74.42 28 IAmb IAmb 07 30 03.1
comp=Z,46nm,1.2s
KIRV Kirov 74.47 328 P P 07 29 57.1 -1.8
comp=Z,20nm,0.6s,baz=110,slow=1.6,SNR=6.2
KIRV LR LR 08 05 01.7
comp=Z,689nm,21.5s,baz=98,slow=38
comp=Z,20nm,0.6s
KIRV Kirov 74.47 328 *eP* P 07 29 58.0 -0.9
N17K Nushagak Hills 74.67 30 IAmb IAmb 07 30 35.4
comp=Z,63nm,1.4s
MAK Makhachkala 74.84 312 *c i* P P 07 29 59.2 -2.2
MAK *e*PP pP 07 30 18.4 +0.2
MAK *e* 07 32 48.8
MAK *e*PPP PPP 07 34 34.7
MAK *e*S S 07 39 31.3 -2.4
MAK *e*SS SKSac 07 40 03.6 -1.4
MAK *e*SSS SSS 07 47 44.2
MAK pmax pmax
comp=Z,119nm,1.2s
MAK MLR MLR
comp=Z,1µm,20.0s
BELG Belogornoye 75.01 322 P P 07 30 01.2 -0.9
comp=Z,8.3nm,0.5s,baz=272,slow=2.0,SNR=4.2
BELG LR LR 08 05 22.7
comp=Z,259nm,18.5s,baz=93,slow=38
comp=Z,8.3nm,0.5s
BELG Belogornoye 75.01 322 *eP* P 07 30 02.6 +0.5
BELG *i* *PP sP 07 30 22.7 -3.1
BELG pmax pmax
comp=Z,2.0nm,0.9s
J18K Innoko River 75.24 27 IAmb IAmb 07 30 06.9
comp=Z,43nm,1.6s
F19K Shaleruckik Mo 75.26 23 IAmb IAmb 07 30 06.7
comp=Z,30nm,1.4s
D19K Kuna River 75.40 22 IAmb IAmb 07 30 09.4
comp=Z,59nm,1.2s
G19K Purcell Mounta 75.43 24 IAmb IAmb 07 30 09.0
comp=Z,57nm,1.7s
E19K Redstone River 75.56 23 IAmb IAmb 07 30 27.5
comp=Z,31nm,1.0s
J19K Poorman 75.78 26 IAmb IAmb 07 30 11.2
comp=Z,64nm,1.8s
L19K White Mountain 75.96 28 IAmb IAmb 07 30 11.5
comp=Z,36nm,1.2s
N19K Bonanza Creek 76.02 30 IAmb IAmb 07 30 12.1
comp=Z,52nm,1.3s
K20K Telida 76.41 27 IAmb IAmb 07 30 14.3
comp=Z,55nm,1.8s
J20K Nowinta River 76.45 26 IAmb IAmb 07 30 15.2
comp=Z,44nm,1.6s
M20K Styx River 76.74 29 IAmb IAmb 07 30 16.0
comp=Z,45nm,1.3s
IMAR Indian Mountai 76.77 24 P P 07 30 12.6 +0.6
KDAK Kodiak Island 76.83 33 LR LR 08 02 15.7
comp=Z,574nm,20.1s,baz=248,slow=34
KDAK Kodiak Island 76.83 33 P P 07 30 12.1 -0.4
KDAK pmax pmax
comp=Z,95nm,1.6s
KDAK Kodiak Island 76.83 33 P P 07 30 12.1 -0.4
E21K Killik River 76.91 22 IAmb IAmb 07 30 16.5
comp=Z,24nm,1.0s
G21K Allakaket 76.91 24 IAmb IAmb 07 30 15.7
comp=Z,21nm,0.9s
GNI Garni 76.96 309 LR LR 08 09 30.3
comp=Z,448nm,21.8s,baz=86,slow=40
CASY Casey 77.09 186 P P 07 30 13.2 -0.3
CASY IAmb IAmb 07 30 15.8
comp=Z,35nm,0.9s
CASY Casey 77.09 186 P P 07 30 13.5 -0.1
comp=Z,48nm,1.8s
CASY Casey 77.09 186 P P 07 30 14.7 +1.2
DRV Dumont d'Urvil 77.29 174 P P 07 30 14.7 0.0
DRV PcP PcP 07 30 25.2 +0.2
I21K Tanana 77.44 25 IAmb IAmb 07 30 19.7
comp=Z,23nm,1.1s
RAYN Ar Rayn 77.48 292 P P 07 30 16.7 -0.1
RAYN Ar Rayn 77.48 292 P P 07 30 15.9 -1.0
RAYN pmax pmax
comp=Z,13nm,0.7s
RAYN Ar Rayn 77.48 292 P 07 30 15.9 -1.0
RAYN IAmb IAmb 07 30 17.9
comp=Z,12nm,0.7s
RAYN Ar Rayn 77.48 292 P P 07 30 16.5 -0.3
comp=Z,20nm,0.7s
RAYN Ar Rayn 77.48 292 P P 07 30 16.8 -0.1
RAYN PcP PcP 07 30 25.9 -1.2
RAYN pP pP 07 30 28.7 -5.1
SKT Skwentna 77.50 29 IAmb IAmb 07 32 31.4
comp=Z,46nm,1.6s
H22K Ishtalitna Cre 77.73 25 IAmb IAmb 07 30 21.7
comp=Z,39nm,1.4s
BRLK Bradley Lake 77.77 31 P P 07 30 17.9 +0.2
BPAW Bear Paw Mtn. 77.82 26 IAmb IAmb 07 30 20.4
comp=Z,22nm,0.9s
SUA Susitna One 77.86 29 P 07 30 17.8 -0.5
HAKT HAKKARI 77.90 306 P P 07 30 19.2 0.0
comp=Z,35nm,0.7s
MLY Manley 77.96 26 IAmb IAmb 07 30 23.3
comp=Z,15nm,0.8s
D23K Nanushuk River 78.14 21 IAmb IAmb 07 30 22.3
comp=Z,22nm,1.0s
KBZ Khabaz 78.18 313 P P 07 30 19.6 -0.6
comp=Z,3.6nm,0.7s,baz=70,slow=4.8,SNR=6.6
KBZ LR LR 08 09 14.1
comp=Z,790nm,18.8s,baz=83,slow=39
comp=Z,3.6nm,0.7s
KBZ Khabaz 78.18 313 *ce*P P 07 30 21.6 +1.3
KBZ *i* *PP pwP 07 30 39.9 +2.7
KBZ pmax pmax
comp=Z,7.0nm,1.1s
G23K Bananza Creek 78.31 24 IAmb IAmb 07 30 50.3
comp=Z,38nm,1.6s
KIV Kislovodsk 78.32 313 *eP* P 07 30 21.1 -0.1
KIV *eS* S 07 40 11.1 -0.9
KIV pmax pmax
comp=Z,18nm,1.0s
KIV MLR MLR
comp=Z,799nm,19.0s
RC01 Rabbit Creek A 78.35 30 P P 07 30 20.7 -0.1
RC01 IAmb IAmb 07 32 13.3
comp=Z,53nm,1.6s
EPOS Posof 78.42 310 P P 07 30 20.8 -1.1
comp=Z,15nm,1.7s
E23K Chandalar 78.50 22 IAmb IAmb 07 30 26.0
comp=Z,27nm,0.9s
I23K Minto, Yukon-K 78.55 25 IAmb IAmb 07 30 34.1
comp=Z,63nm,1.8s
VRH Novokhopyorsk 78.66 320 *eP* P 07 30 21.2 -1.6
VRH pmax pmax
comp=Z,10.0nm,0.7s
NEA2 Nenana 78.67 26 IAmb IAmb 07 30 25.7
comp=Z,30nm,1.5s
MCK McKinley 78.72 27 IAmb IAmb 07 30 24.7
comp=Z,29nm,1.0s
RND Reindeer 78.76 27 IAmb IAmb 07 30 45.4
comp=Z,30nm,1.1s
D24K Happy Valley 78.82 21 IAmb IAmb 07 30 28.2
comp=Z,21nm,0.6s
C24K Franklin Bluff 78.87 21 IAmb IAmb 07 30 27.4
comp=Z,64nm,1.6s
E24K Your Creek 78.93 22 IAmb IAmb 07 30 28.9
comp=Z,58nm,1.7s
SML Sawmill 79.02 29 P 07 30 24.5 -0.1
SML IAmb IAmb 07 30 59.0
comp=Z,30nm,1.0s
F24K Squaw Lake 79.15 23 IAmb IAmb 07 30 30.5
comp=Z,15nm,0.7s
COLA College 79.19 26 *eP* P 07 30 25.8 +0.4
COLA pmax pmax
comp=Z,9.0nm,0.9s
COLA College 79.19 26 P P 07 30 24.7 -0.6
COLA IAmb IAmb 07 31 26.0
comp=Z,56nm,1.8s
KLMR Klimovskoe 79.56 330 *eP* P 07 30 27.7 +0.3
KLMR pmax pmax
comp=Z,25nm,1.5s
KLMR MLR MLR
comp=Z,633nm,16.0s
HDA Harding Lake 79.59 26 P P 07 30 27.2 -0.4
HDA IAmb IAmb 07 30 30.6
comp=Z,15nm,0.7s
IL31 79.61 26 P P 07 30 27.2 -0.4
IL31 IAmb IAmb 07 30 30.9
comp=Z,44nm,1.9s
ILAR Eielson Array 79.61 26 P P 07 30 27.0 -0.7
comp=Z,2.8nm,0.6s,baz=250,slow=5.1,SNR=35
ILAR PKKPbc **PKKPbc 07 49 15.6 -2.2**
comp=Z,0.2nm,0.4s,baz=119,slow=2.6,SNR=4.5
ILAR LR LR 08 04 13.0
comp=Z,381nm,22.0s,baz=253,slow=34
comp=Z,2.8nm,0.6s
ILAR Eielson Array 79.61 26 P P 07 30 27.2 -0.5
ILAR Eielson Array 79.61 26 P P 07 30 27.2 -0.5
D25K Kavik River 79.69 21 IAmb IAmb 07 30 52.9
comp=Z,28nm,1.2s
C26K Camden Bay 80.18 21 IAmb IAmb 07 30 36.1
comp=Z,64nm,1.3s
VORD Divnogorie 80.20 320 *eP* P 07 30 33.0 +1.8
VORD pmax pmax
comp=Z,10.0nm,0.5s
VORR Voronezh 80.21 321 *eP* P 07 30 31.6 +0.4
VORR pmax pmax
comp=Z,60nm,0.4s
VSR Storozhevoye 80.27 320 *eP* P 07 30 30.5 -1.0
VSR pmax pmax
comp=Z,10.0nm,0.6s
LPSR Galich'ya Gora 80.32 322 *eP* P 07 30 30.2 -1.5
LPSR pmax pmax
comp=Z,20nm,0.8s
BMAR Burnt Mountain 80.43 23 P 07 30 32.9 +0.8
SOC Sochi 80.49 313 *eP* P 07 30 31.7 -1.2
SOC *e* 07 33 33.4
SOC *e*PPP PPP 07 35 22.2
SOC *e*S S 07 40 32.5 -2.3
SOC *e*SS SS 07 45 45.1 -2.7
SOC *e*SSS SSS 07 49 10.6
SOC MLR MLR
comp=Z,668nm,18.0s
RIDG Independent Ri 80.54 27 IAmb IAmb 07 30 55.5
comp=Z,30nm,1.2s
F26K Sheenjek River 80.58 23 IAmb IAmb 07 30 37.4
comp=Z,41nm,1.7s
MOS Moscow 80.85 325 *eP* P 07 30 31.3 -3.2
MOS *eS* S 07 40 36.3 -1.7
MOS MLR MLR
comp=Z,800nm,18.0s
DOT Dot Lake 80.90 27 IAmb IAmb 07 30 55.6
comp=Z,38nm,1.7s
SCRK Sand Creek 80.91 27 P P 07 30 35.4 +0.5
MENT Mentasta 81.11 28 IAmb IAmb 07 30 41.4
comp=Z,61nm,1.7s
L26K Log Cabin Wild 81.27 27 IAmb IAmb 07 31 00.7
comp=Z,42nm,1.8s
M26K Nabesna, AK 81.49 28 IAmb IAmb 07 30 51.0
comp=Z,43nm,1.5s
OBN Obninsk 81.50 324 LR LR 08 09 47.4
comp=Z,836nm,18.5s,baz=88,slow=38
D27M Malcolm River 81.61 21 IAmb IAmb 07 31 00.2
comp=Z,19nm,0.9s
APA Apatity 81.73 337 *eP* P 07 30 41.9 +2.9
APA pmax pmax
comp=Z,10.0nm,1.2s
APA MLR MLR
comp=Z,2µm,19.9s
H27K Steamboat Moun 81.73 24 IAmb IAmb 07 30 52.1
comp=Z,38nm,1.7s
K27K Chicken 81.74 26 IAmb IAmb 07 30 43.6
comp=Z,24nm,1.0s
I27K Kandik River 81.77 25 IAmb IAmb 07 30 43.5
comp=Z,41nm,1.0s
KEMA Kemaliye 81.83 308 P P 07 30 41.0 +0.8
comp=Z,16nm,0.7s
L27K Beaver Creek, 81.96 27 IAmb IAmb 07 30 45.1
comp=Z,43nm,1.6s
BCAR Beaver Creek A 81.97 27 P 07 30 40.5 0.0
M27K Edge Creek, AK 82.01 28 IAmb IAmb 07 31 10.3
comp=Z,42nm,1.5s
BARN Barnard Glacie 82.27 29 IAmb IAmb 07 30 46.2
comp=Z,34nm,0.9s
I28M Miner Creek 82.48 25 IAmb IAmb 07 30 49.7
comp=Z,29nm,0.8s
E29M Blow River 82.83 22 IAmb IAmb 07 31 47.1
comp=Z,32nm,1.9s
DAWY Dawson 82.91 26 P P 07 30 45.6 +0.3
DAWY IAmb IAmb 07 31 19.4
comp=Z,18nm,1.1s
ABPO Ambohimpanom 82.96 249 *i* P P 07 30 47.9 +1.4
ABPO Ambohimpanom 82.96 249 P P 07 30 44.9 -1.6
ABPO Ambohimpanom 82.96 249 P P 07 30 47.0 +0.4
comp=Z,18nm,0.9s
ABPO Ambohimpanom 82.96 249 P P 07 30 47.2 +0.7
G29M Pine Creek 83.03 23 IAmb IAmb 07 30 50.7
comp=Z,23nm,0.7s
GAZ Gaziantep 83.09 306 IAmb IAmb 07 30 48.6
comp=Z,16nm,0.6s
I29M Ogilvie Camp, 83.17 25 IAmb IAmb 07 30 51.3
comp=Z,18nm,1.0s
J29N Klondike Camp 83.35 26 IAmb IAmb 07 31 17.1
comp=Z,40nm,1.3s
M29M Somme Creek 83.58 28 IAmb IAmb 07 30 53.4
comp=Z,54nm,1.6s
EPYK Eagle Plains 83.63 24 P 07 30 49.1 +0.2
EPYK IAmb IAmb 07 30 53.2
comp=Z,55nm,1.7s
G30M tAoh Zraii Nji 83.71 23 IAmb IAmb 07 30 52.4
comp=Z,33nm,1.4s
ANDN Andirin 83.72 307 P P 07 30 49.6 -0.5
comp=Z,54nm,1.6s
F30M Barrier River 83.76 22 IAmb IAmb 07 32 10.2
comp=Z,33nm,1.4s
K29M Barlow Dome 83.76 26 IAmb IAmb 07 30 53.0
comp=Z,19nm,1.0s
BNN Bunyan 83.93 308 P P 07 30 50.0 -1.2
I30M Mount Dempster 83.99 25 IAmb IAmb 07 30 54.5
comp=Z,40nm,1.4s
VOI Vohitsoka 84.01 247 P P 07 30 51.5 -0.3
ASF Jabal al Asfar 84.03 302 LR LR 08 13 11.4
comp=Z,691nm,21.1s,baz=70,slow=39
SPITS Spitsbergen Ar 84.10 349 P P 07 30 51.3 +0.2
comp=Z,29nm,0.9s,baz=93,slow=8.4,SNR=15
SPITS LR LR 08 14 57.4
comp=Z,831nm,18.9s,baz=72,slow=40
comp=Z,29nm,0.9s
SPITS Spitsbergen Ar 84.10 349 P P 07 30 51.1 0.0
SPITS pmax pmax
comp=Z,224nm,1.6s
ARCES ARCESS Array B 84.25 340 P P 07 30 52.1 +0.1
comp=Z,2.8nm,0.5s,baz=79,slow=6.8,SNR=35
ARCES LR LR 08 13 57.1
comp=Z,548nm,18.1s,baz=83,slow=40
comp=Z,2.8nm,0.5s
ARCES ARCESS Array B 84.25 340 P P 07 30 51.8 -0.2
ARCES pmax pmax
comp=Z,62nm,1.6s
ARCES ARCESS Array B 84.25 340 P P 07 30 51.8 -0.2
HYT Haines Junctio 84.31 29 P P 07 30 52.0 -0.6
HYT IAmb IAmb 07 30 56.2
comp=Z,20nm,0.9s
M30M Minto, Yukon 84.31 28 IAmb IAmb 07 30 55.4
comp=Z,32nm,1.2s
N30M Aishikik Lake 84.39 29 IAmb IAmb 07 30 57.4
comp=Z,44nm,1.3s
INK Inuvik 84.44 22 LR LR 08 10 30.7
comp=Z,243nm,21.8s,baz=312,slow=37

INK	**Inuvik**	**84.44**	**22**	P	**P**	**07 30 53.0**	**+0.1**		
INK	comp=Z,32nm,1.4s			pmax	pmax				
INK	**Inuvik**	**84.44**	**22**		**P**	**07 30 53.0**	**+0.1**		
INK	comp=Z,32nm,1.4s			IAmb	IAmb	07 30 56.1			
INK	**Inuvik**	**84.44**	**22**	P	**P**	**07 30 53.5**	**+0.6**		
	comp=Z,17nm,1.3s								
F31M	**Tsiigehtchic**	**84.56**	**22**	IAmb	IAmb	07 30 56.5			
	comp=Z,35nm,1.4s								
H31M	**Peel River**	**84.70**	**24**	IAmb	IAmb	07 30 56.6			
	comp=Z,20nm,0.8s								
O30N	**Mendenhall**	**85.00**	**29**	IAmb	IAmb	07 30 58.6			
	comp=Z,24nm,1.1s								
N31M	**Braeburn, Yuko**	**85.00**	**28**		**P**	**07 30 55.5**	**-0.5**		
CCD	**Concordia, Ant**	**85.12**	**181**	P	**P**	**07 30 58.0**	**+1.4**		
MMAI	**Mount Meron Ar**	**85.15**	**303**	P	**P**	**07 30 57.0**	**-0.3**		
	comp=Z,1.8nm,0.5s,baz=73,slow=4.8,SNR=5.2								
MMAI				LR	LR	08 14 55.8			
	comp=Z,427nm,19.6s,baz=70,slow=40								
	comp=Z,1.8nm,0.5s								
MMLI	**Mount Malkishu**	**85.22**	**302**	P	**P**	**07 30 58.6**	**+0.9**		
	comp=Z,19nm,1.7s								
M31M	**Drury Creek, Y**	**85.49**	**28**	IAmb	IAmb	07 31 00.5			
	comp=Z,16nm,1.1s								
BR131	**Keskin Array S**	**85.49**	**309**	P	**P**	**07 30 58.2**	**-0.8**		
	SNR=6.1								
BR131	**Keskin Array S**	**85.49**	**309**	*e*P	**P**	**07 30 57.9**	**-1.1**		
BR131				*i* *PP	**pP**	**07 31 15.8**	**-0.4**		
BR131	**Keskin Array S**	**85.49**	**309**		**P**	**07 30 58.3**	**-0.8**		
BRTR	**Keskin Array B**	**85.49**	**309**	P	**P**	**07 30 58.0**	**-1.0**		
	comp=Z,4.5nm,0.7s,baz=118,slow=4.4,SNR=20								
BRTR				LR	LR	08 14 58.0			
	comp=Z,433nm,20.2s,baz=82,slow=40								
	comp=Z,4.5nm,0.7s								
BRTR	**Keskin Array B**	**85.49**	**309**		**P**	**07 30 57.7**	**-1.3**		
BR104	**Keskin Array S**	**85.49**	**309**	P	**P**	**07 30 58.0**	**-1.0**		
	comp=Z,57nmcomp=Z,6.4nm0.8s								
BR106	**Keskin Array S**	**85.51**	**309**	P	**P**	**07 30 58.3**	**-0.8**		
	comp=Z,54nmcomp=Z,6.6nm,0.7s								
BR105	**Keskin Array S**	**85.51**	**309**	P	**P**	**07 30 58.3**	**-0.8**		
	comp=Z,59nmcomp=Z,7.2nm,0.8s								
WHY	**Whitehorse**	**85.60**	**29**		**P**	**07 30 59.3**	**+0.2**		
SKAG	**Skagway**	**85.65**	**30**		**P**	**07 30 58.5**	**-0.6**		
CY604	**RAF Akrotiri,**	**85.67**	**304**	P	**P**	**07 30 59.0**	**-0.5**		
FIA1	**FINESS Array S**	**85.92**	**332**		**P**	**07 31 00.2**	**-0.3**		
FINES	**FINESS Array B**	**85.92**	**332**	P	**P**	**07 30 59.8**	**-0.7**		
	comp=Z,6.5nm,0.5s,baz=78,slow=4.7,SNR=64								
FINES				LR	LR	08 13 34.9			
	comp=Z,833nm,19.1s,baz=82,slow=38								
	comp=Z,6.5nm,0.5s								
FINES	**FINESS Array B**	**85.92**	**332**	P	**P**	**07 31 00.1**	**-0.4**		
FINES	**FINESS Array B**	**85.92**	**332**		**P**	**07 31 00.1**	**-0.4**		
HRFI	**Mount Harif**	**85.93**	**300**	P	**P**	**07 31 02.0**	**+0.8**		
	comp=Z,21nm,1.6s								
EIL	**Elat**	**86.06**	**299**	LR	LR	08 14 30.4			
	comp=Z,464nm,20.9s,baz=88,slow=39								
EIL	**Elat**	**86.06**	**299**	P	**P**	**07 31 01.5**	**-0.3**		
	comp=Z,16nm,0.8s								
KKUL	**Konya-Kulu**	**86.14**	**309**	P	**P**	**07 31 01.8**	**-0.3**		
	comp=Z,30nm,1.5s								
N32M	**Quiet Lake**	**86.34**	**29**	P	**P**	**07 31 02.0**	**-0.6**		
CSS	**Mathiatis**	**86.53**	**305**	P	**P**	**07 31 03.8**	**-0.3**		
	comp=Z,480nmcomp=Z,51nm,0.7s								
CSS	**Mathiatis**	**86.53**	**305**	P	**P**	**07 31 04.5**	**+0.5**		
	comp=Z,52nm,0.7s								
AK09	**Malin Array Si**	**86.54**	**321**	P	**P**	**07 31 02.8**	**-0.9**		
AK08	**Malin Array Si**	**86.56**	**321**	P	**P**	**07 31 02.8**	**-1.0**		
AK03	**Malin Array Si**	**86.56**	**321**	P	**P**	**07 31 03.1**	**-0.7**		
MNK	**Minsk**	**86.56**	**325**	*i* P	**P**	**07 31 05.9**	**+2.2**		
MNK				*i* *PP	**sP**	**07 31 25.1**	**-2.0**		
MNK				*i*		07 34 28.6			
MNK				*i* PPP	PPP	07 36 23.0			
MNK				*i* S	**SKSac**	**07 41 25.5**	**+0.4**		
MNK				*i* SS	**SS**	**07 47 13.4**	**-3.4**		
MNK				pmax	pmax				
	comp=Z,6.0nm,0.8s								
MNK				pmax	pmax				
	comp=N,19nm,0.9s								
MNK				pmax	pmax				
	comp=E,12nm,0.8s								
MNK				MLR	MLR				
	comp=N,647nm,18.0s								
MNK				MLR	MLR				
	comp=Z,818nm,18.0s								
MNK				MLR	MLR				
	comp=E,438nm,18.0s								
MNK	**Minsk**	**86.56**	**325**	*i* P	**P**	**07 31 06.0**	**+2.2**		
	comp=E,12nm,0.8s								
MNK				*i* P	**P**	**07 31 06.0**	**+2.2**		
	comp=N,19nm,0.9s								
MNK				*i* P	**P**	**07 31 06.0**	**+2.2**		
	comp=Z,6.0nm,0.8s,baz=77								
MNK				*i* pP	**sP**	**07 31 25.2**	**-2.0**		
MNK				*i* sP	pP	07 31 31.3	+11		
MNK				*i* PP	**PP**	**07 34 28.6**	**+2.7**		
MNK				*i* PPP	PPP	07 36 23.1			
MNK				*i* SKS	SKiKP	07 40 07.1	+28		
MNK				*i* S	**SKSac**	**07 41 25.5**	**+0.4**		
MNK				*i* sS	sS	07 42 16.0	+11		
MNK				*i* PS	**PnS**	**07 42 52.1**	**+11**		
MNK				*i* SS	**SS**	**07 47 13.4**	**-3.4**		
MNK				*i* SSS	SSS	07 50 20.9			
MNK				*i* LQ	LQ	08 03 21.8			
MNK				*i* LRM	MLR	08 12 55.1			
	comp=N,647nm,18.0s								
AKASG	**Malin Array Be**	**86.56**	**321**	P	**P**	**07 31 02.7**	**-1.1**		
	comp=N,1.2nm,0.4s,baz=67,slow=4.5,SNR=10.0								
AKASG				LR	LR	08 13 42.9			
	comp=N,500nm,19.4s,baz=84,slow=38								
	comp=N,1.2nm,0.4s								
AKASG	**Malin Array Be**	**86.56**	**321**	*i* P	**P**	**07 31 05.3**	**+1.5**		
AKASG				pmax	pmax				
	comp=Z,2.0nm,0.5s								
AKBB	**Malin Array Si**	**86.56**	**321**	*e*P	**P**	**07 31 02.5**	**-1.3**		
AKBB				pmax	pmax				
	comp=Z,13nm,1.0s								
AK10	**Malin Array Si**	**86.57**	**321**	P	**P**	**07 31 02.9**	**-1.0**		
AK01	**Malin Array Si**	**86.57**	**321**	P	**P**	**07 31 03.1**	**-0.8**		
KIEV	**Kiev**	**86.57**	**321**	P	**P**	**07 31 02.3**	**-1.6**		
KIEV				pmax	pmax				
	comp=Z,10.0nm,0.9s								
KIEV	**Kiev**	**86.57**	**321**		**P**	**07 31 02.2**	**-1.6**		
KIEV				IAmb	IAmb	07 31 17.3			
	comp=Z,10nm,0.9s								
KIEV	**Kiev**	**86.57**	**321**	P	**P**	**07 31 04.2**	**+0.3**		
	comp=Z,14nm,1.1s								
KIEV	**Kiev**	**86.57**	**321**	P	**P**	**07 31 02.3**	**-1.6**		
AK02	**Malin Array Si**	**86.58**	**321**	P	**P**	**07 31 02.7**	**-1.2**		
AK05	**Malin Array Si**	**86.59**	**321**	P	**P**	**07 31 03.4**	**-0.6**		
AK04	**Malin Array Si**	**86.59**	**321**	P	**P**	**07 31 03.7**	**-0.3**		
AK06	**Malin Array Si**	**86.60**	**321**	P	**P**	**07 31 03.3**	**-0.7**		
AK11	**Malin Array Si**	**86.60**	**321**	P	**P**	**07 31 03.5**	**-0.5**		
AK07	**Malin Array Si**	**86.61**	**321**	P	**P**	**07 31 03.2**	**-0.9**		
AK12	**Malin Array Si**	**86.62**	**321**	P	**P**	**07 31 03.7**	**-0.4**		
AK15	**Malin Array Si**	**86.62**	**321**	P	**P**	**07 31 03.5**	**-0.7**		
AK16	**Malin Array Si**	**86.64**	**321**	P	**P**	**07 31 03.1**	**-1.1**		
AK22	**Malin Array Si**	**86.64**	**321**	P	**P**	**07 31 02.9**	**-1.3**		
AK14	**Malin Array Si**	**86.65**	**321**	P	**P**	**07 31 03.2**	**-1.1**		
AK18	**Malin Array Si**	**86.66**	**321**	P	**P**	**07 31 03.2**	**-1.1**		
AK21	**Malin Array Si**	**86.66**	**321**	P	**P**	**07 31 03.0**	**-1.3**		
AK17	**Malin Array Si**	**86.67**	**321**	P	**P**	**07 31 03.1**	**-1.3**		
NOR	**Nord**	**86.68**	**355**	P	**P**	**07 31 04.8**	**+0.9**		
	comp=Z,17nm,1.2s								
NOR	**Nord**	**86.68**	**355**	*i* P	**P**	**07 31 04.2**	**+0.4**		
NOR				IAmb	IAmb	07 31 05.2			
	comp=Z,11nm,1.0s								
AK13	**Malin Array Si**	**86.68**	**321**	P	**P**	**07 31 03.1**	**-1.3**		
AK20	**Malin Array Si**	**86.69**	**321**	P	**P**	**07 31 03.5**	**-1.0**		
C36M	**Paulatuk**	**87.40**	**20**		**P**	**07 31 07.5**	**+0.1**		
LUBAR	**Lubar, Ukraine**	**87.65**	**320**	P	**P**	**07 31 07.7**	**-1.4**		
PPT	**Papeete**	**87.67**	**108**	LR	LR	08 02 53.5			
	comp=Z,894nm,21.9s,baz=274,slow=30								
PPT2	**Papeete2**	**87.67**	**108**	*e*P	**P**	**07 31 11.6**	**+1.7**		
PPT2	comp=Z,165nm,25.8s			*e*PP	PP	07 34 26.2	-10		
	comp=Z,73nm,25.8s								
PPT2				*e*S	**SKSac**	**07 41 38.8**	**+5.5**		
	comp=Z,469nm,25.5s								
PPT2				*e*LQ	LQ	07 55 21.4			
	comp=Z,356nm,26.8s								
PPT2				*e*LR	LR	07 59 01.1			
	comp=Z,2μm,22.2s								
PPT2				*e*LR	LR	07 59 03.1			
	comp=Z,1μm,22.5s								

KIBK	**Kibwezi**	**88.52**	**267**	P	**P**	**07 31 11.7**	**-2.4**		
KIBK				IAmb	IAmb	07 31 42.6			
	comp=Z,21nm,1.5s								
KIBK	**Kibwezi**	**88.52**	**267**	P	**P**	**07 31 14.6**	**+0.5**		
	comp=Z,6.4nm,1.1s								
DLBC	**Dease Lake**	**88.57**	**31**	LR	LR	08 06 32.0			
	comp=Z,203nm,20.5s,baz=256,slow=33								
KMPD	**K-Podol'skiy**	**88.79**	**319**	P	**P**	**07 31 13.5**	**-1.0**		
TBI	**Tubuai**	**88.91**	**114**	*e*P	**P**	**07 31 17.7**	**+2.1**		
	comp=Z,991nm,30.8s								
TBI				*e*S	**S**	**07 41 58.4**	**-0.7**		
	comp=Z,2μm,27.5s								
TBI				*e*SS	**SS**	**07 47 55.9**	**+2.8**		
	comp=Z,922nm,32.0s								
TBI				*e*LQ	LQ	07 55 52.2			
	comp=Z,1μm,34.2s								
TBI				*e*LR	LR	07 59 39.7			
	comp=Z,10μm,23.8s								
TBI				*e*LR	LR	07 59 43.6			
	comp=Z,3μm,25.2s								
ELL	**Elmali**	**88.93**	**307**	P	**P**	**07 31 13.9**	**-1.8**		
ELL				pmax	pmax				
	comp=Z,65nm,2.0s								
ELL	**Elmali**	**88.93**	**307**	P	**P**	**07 31 13.9**	**-1.8**		
KMBO	**Kilima Mbogo**	**89.09**	**269**	P	**P**	**07 31 16.5**	**-0.4**		
	baz=58,slow=9.5								
TESR	**Tescani**	**89.16**	**317**	P	**P**	**07 31 15.8**	**-0.6**		
	comp=Z,16nm,0.7s								
TESR	**Tescani**	**89.16**	**317**	P	**P**	**07 31 15.8**	**-0.6**		
	comp=Z,16nm,0.7s								
AKAS	**Kas**	**89.27**	**307**	P	**P**	**07 31 16.2**	**-1.1**		
MAW	**Mawson**	**89.54**	**200**	P	**P**	**07 31 18.6**	**+1.0**		
MAW	**Mawson**	**89.54**	**200**	P	**P**	**07 31 17.9**	**+0.4**		
	comp=Z,13nm,0.6s,baz=59,slow=4.1,SNR=15								
MAW				LR	LR	08 07 55.9			
	comp=Z,366nm,21.5s,baz=72,slow=33								
	comp=Z,13nm,0.6s								
MAW	**Mawson**	**89.54**	**200**	P	**P**	**07 31 18.3**	**+0.8**		
MAW				pmax	pmax				
	comp=Z,12nm,1.4s								
MAW	**Mawson**	**89.54**	**200**		**P**	**07 31 18.3**	**+0.8**		
MAW				IAmb	IAmb	07 31 19.6			
	comp=Z,12nm,1.4s								
BURAR	**Bucovina Array**	**89.83**	**318**		**P**	**07 31 19.4**	**-0.2**		
BUR08	**Bucovina Ar. S**	**89.83**	**318**	P	**P**	**07 31 19.1**	**-0.5**		
BUR08				IAmb	IAmb	07 31 28.9			
	comp=Z,12nm,1.3s								
VNDA	**Vanda**	**89.83**	**173**	P	**P**	**07 31 18.6**	**-0.2**		
	comp=Z,7.9nm,0.9s,baz=321,slow=5.5,SNR=31								
VNDA				PP	**PP**	**07 34 50.0**	**-2.0**		
	comp=Z,3.2nm,1.1s,baz=322,slow=7.5,SNR=4.4								
VNDA				LR	LR	08 10 58.6			
	comp=Z,339nm,20.7s,baz=348,slow=35								
	comp=Z,7.9nm,0.9s								
VNDA	**Vanda**	**89.83**	**173**	P	**P**	**07 31 19.3**	**+0.5**		
VNDA				pmax	pmax				
	comp=Z,13nm,1.0s								
VNDA	**Vanda**	**89.83**	**173**		**P**	**07 31 19.3**	**+0.5**		
VNDA				IAmb	IAmb	07 31 31.8			
	comp=Z,12nm,1.0s								
VNDA	**Vanda**	**89.83**	**173**	P	**P**	**07 31 19.4**	**+0.7**		
	comp=Z,14nm,0.9s								
VNDA	**Vanda**	**89.83**	**173**	P	**P**	**07 31 19.3**	**+0.5**		
MLR	**Muntele Rosu**	**89.88**	**316**	LR	LR	08 16 44.6			
	comp=Z,1μm,21.6s,baz=22,slow=39								
DAG	**Danmarks Havn**	**90.85**	**352**	P	**P**	**07 31 23.4**	**-0.2**		
	comp=Z,22nm,1.2s								
DAG	**Danmarks Havn**	**90.85**	**352**	*i* P	**P**	**07 31 23.2**	**-0.4**		
DAG				IAmb	IAmb	07 31 23.9			
	comp=Z,6.9nm,0.5s								
KARP	**Karpathos**	**91.36**	**306**	P	**P**	**07 31 26.2**	**-0.7**		
BBB	**Bella Bella**	**91.53**	**36**	LR	LR	08 08 36.2			
	comp=Z,169nm,20.3s,baz=246,slow=33								
RES	**Resolute Bay**	**91.63**	**10**	LR	LR	08 11 34.4			
	comp=Z,134nm,21.8s,baz=344,slow=35								
HFS	**Hagfors**	**92.08**	**332**	P	**P**	**07 31 28.6**	**-1.1**		
	comp=Z,2.4nm,0.5s,baz=76,slow=13,SNR=7.6								
HFS				LR	LR	08 17 13.7			
	comp=Z,575nm,19.2s,baz=66,slow=38								
	comp=Z,2.4nm,0.5s								
NEEM	**North Greenlan**	**92.53**	**359**	*i* P	**P**	**07 31 32.7**	**+0.9**		
NEEM				IAmb	IAmb	07 31 33.5			
	comp=Z,14nm,0.6s								
NC405	**NORSAR Array S**	**92.55**	**334**	P	**P**	**07 31 30.9**	**-0.9**		
NB2	**NORSAR Subarra**	**92.80**	**334**	P	**P**	**07 31 31.6**	**-1.4**		
	comp=Z,1.2nm,0.7s,baz=66,slow=4.4								
NOA	**NORSAR Array B**	**92.80**	**334**	P	**P**	**07 31 31.7**	**-1.3**		
	comp=Z,1.2nm,0.7s,baz=64,slow=4.4,SNR=6.8								
NOA				LR	LR	08 17 38.4			
	comp=Z,526nm,19.1s,baz=50,slow=38								
	comp=Z,1.2nm,0.7s								
TULEG	**Thule**	**93.01**	**3**	P	**P**	**07 31 32.3**	**-1.4**		
NAO01	**NORSAR Array S**	**93.03**	**334**	P	**P**	**07 31 32.7**	**-1.3**		
DBG	**Daneborg**	**93.12**	**351**	P	**P**	**07 31 35.0**	**+0.8**		
	comp=Z,22nm,2.2s								
DBG	**Daneborg**	**93.12**	**351**	*i* P	**P**	**07 31 35.0**	**+0.8**		
DBG				IAmb	IAmb	07 31 36.9			
	comp=Z,9.0nm,0.8s								
IDI	**Anoyia**	**93.22**	**307**	LR	LR	08 20 26.2			
	comp=Z,272nm,19.8s,baz=96,slow=40								
JMIC	**Jan Mayen**	**93.51**	**346**	LR	LR	08 18 10.5			
	comp=Z,310nm,20.7s,baz=50,slow=38								
YKA	**Yellowknife Ar**	**93.92**	**24**	P	**P**	**07 31 38.8**	**+0.7**		
	comp=Z,7.5nm,0.6s,baz=301,slow=4.1,SNR=24								
YKA				LR	LR	08 14 34.3			
	comp=Z,209nm,20.4s,baz=270,slow=36								
	comp=Z,7.5nm,0.6s								
YKA	**Yellowknife Ar**	**93.92**	**24**	*i* P	**P**	**07 31 38.9**	**+0.8**		
YKA				pmax	pmax				
	comp=Z,8.0nm,0.6s								
YKA	**Yellowknife Ar**	**93.92**	**24**	P	**P**	**07 31 36.4**	**-1.7**		
JAVC	**Velka Javorina**	**94.26**	**321**	P	**P**	**07 31 39.7**	**-0.3**		
	comp=Z,10nm,1.3s								
VRAC	**Vranov**	**94.76**	**322**	LR	LR	08 18 17.7			
	comp=Z,295nm,19.4s,baz=86,slow=38								
TAOE	**Nuku Hiva Isla**	**95.17**	**98**	*e*LR	LR	08 02 29.5			
	comp=Z,2μm,23.5s								
CLL	**Collm**	**96.10**	**325**	*e*P	**P**	**07 31 47.0**	**-1.3**		
CLL				*e*Sdif	**S**	**07 43 10.0**	**+7.5**		
CLL				*e*SP	**SP**	**07 44 20.0**	**-1.1**		
CLL				L	L	08 01 00.0			
CLL				L	L	08 08 00.0			
CLL				AMS	AMS	08 20 00.0			
	comp=Z,900nm,19.7s								
CLL				AMS	AMS	08 22 00.0			
	comp=N,400nm,20.8s								
CLL				AMS	AMS	08 22 00.0			
	comp=E,600nm,22.0s								
CLL				AMS	AMS	08 22 00.0			
	comp=Z,800nm,18.9s								
GERES	**GERESS Array B**	**96.69**	**322**	P	**P**	**07 31 50.5**	**-0.7**		
	comp=Z,0.9nm,0.6s,baz=84,slow=5.5,SNR=4.6								
GERES				LR	LR	08 19 35.9			
	comp=Z,412nm,18.9s,baz=69,slow=38								
	comp=Z,0.9nm,0.6s								
GERES	**GERESS Array B**	**96.69**	**322**	P	**P**	**07 31 50.3**	**-0.9**		
GERES	**GERESS Array B**	**96.69**	**322**	P	**P**	**07 31 50.3**	**-0.9**		
MOA	**Molln**	**96.74**	**321**	P	**P**	**07 31 52.1**	**+0.7**		
	comp=Z,12nm,2.1s								
JCC	**Jacoby Creek,**	**98.03**	**46**	P	**P**	**07 31 55.6**	**-1.6**		
YBH	**Yreka Blue Hor**	**98.62**	**45**	LR	LR	08 10 07.0			
	comp=Z,206nm,20.6s,baz=298,slow=31								
O02D	**Mt. Diablo Mer**	**99.14**	**46**	P	**Pdif**	**07 32 00.5**	**-1.8**		
O02D				IAmb	IAmb	07 32 53.0			
	comp=Z,11nm,1.2s								
NEW	**Newport**	**99.54**	**37**	LR	LR	08 12 10.5			
	comp=Z,222nm,21.1s,baz=301,slow=32								
DAVOX	**Davos/Dischmat**	**99.90**	**321**	LR	LR	08 23 04.1			
	comp=Z,544nm,18.6s,baz=64,slow=39								
QSPA	**South Pole Qui**	**100.02**	**180**	P	**Pdif**	**07 32 05.9**	**+0.3**		
	comp=Z,2.4nm,0.9s,baz=300,slow=3.7,SNR=5.6								
QSPA	**South Pole Qui**	**100.02**	**180**		**Pdif**	**07 32 05.8**	**+0.2**		
BORG	**Borgarnes**	**101.41**	**346**	*i* P	**Pdif**	**07 32 10.3**	**-1.4**		
NVAR	**Mina Array Bea**	**103.02**	**47**	PP	**PP**	**07 36 33.6**	**-1.0**		
	comp=Z,0.7nm,0.8s,baz=274,slow=8.0,SNR=4.7								
PDAR	**Pinedale Array**	**106.87**	**39**	PKiKP	**PKiKP**	**07 36 46.6**	**-0.1**		
	comp=Z,0.2nm,0.6s,baz=317,slow=3.3,SNR=1.9								
PDAR				PKKPbc	**PKKPbc**	**07 48 03.8**	**-2.1**		
	comp=Z,0.2nm,0.5s,baz=136,slow=4.1,SNR=4.2								
TPB28		**116.17**	**47**		**PKPdf**	**07 37 03.1**	**-1.3**		
TXAR	**Lajitas Array**	**118.01**	**49**	PKP	**PKiKP**	**07 37 08.3**	**+0.3**		
	comp=Z,1.1nm,0.6s,baz=314,slow=2.3,SNR=20								
U38A	**Gravette**	**120.00**	**37**		**PKiKP**	**07 37 11.9**	**+0.3**		
TORD	**Torodi Ar. Bea**	**120.18**	**292**	PKP	**PKPdf**	**07 37 11.5**	**-0.9**		
	comp=Z,3.7nm,0.5s,baz=48,slow=1.8,SNR=31								
WVT	**Waverly**	**123.94**	**33**	PKiKP	**PKiKP**	**07 37 19.7**	**+0.4**		
WVT	**Waverly**	**123.94**	**33**		**PKiKP**	**07 37 19.7**	**+0.4**		

DBIC	**Dimbokro**	**128.40**	**287**	PKP	**PKiKP**	**07 37 28.4**	**-0.4**		
	comp=Z,3.5nm,0.5s,baz=96,slow=2.0,SNR=9.6								
LCR2	**La Lucha 2**	**144.09**	**58**	PKPdf	PKPbc	07 37 55.2	-0.3		
RAFA	**San Farael, Vo**	**144.13**	**57**	PKPdf	**PKPab**	**07 37 54.9**	**-0.4**		
LL03	**Petrohue**	**145.07**	**155**	PKPbc	**PKPbc**	**07 37 55.3**	**-2.3**		
LL04	**Puerto Octay**	**145.26**	**155**	PKPbc	**PKPbc**	**07 37 57.0**	**-1.1**		
LR04	**Corral**	**145.67**	**153**	PKPdf	**PKPdf**	**07 37 58.8**	**-0.4**		
LR05	**Currie**	**146.00**	**155**	PKPdf	**PKPdf**	**07 37 59.1**	**-0.6**		
PLCA	**Paso Flores**	**146.16**	**157**	PKPbc	**PKPab**	**07 38 01.6**	**-0.2**		
	comp=Z,8.9nm,0.7s,baz=228,slow=2.8,SNR=40								
PLCA	**Paso Flores**	**146.16**	**157**	PKiKP	**PKPdf**	**07 37 58.6**	**-1.5**		
PLCA	**Paso Flores**	**146.16**	**157**	PKPdf	**PKPdf**	**07 37 58.5**	**-1.5**		
SC01	**Santiago de lo**	**146.24**	**29**	PKPdf	**PKPdf**	**07 37 59.3**	**-1.4**		
SDDR	**Presa de Saban**	**146.34**	**31**	PKPdf	**PKPdf**	**07 37 58.7**	**-2.3**		
ROSC	**El Rosal**	**154.77**	**55**	PKP	**PKPdf**	**07 38 15.1**	**+0.5**		
	comp=Z,4.0nm,0.4s,baz=288,slow=14,SNR=2.3								
CPUP	**Villa Florida**	**163.58**	**169**	PKP	**PKPdf**	**07 38 24.6**	**+0.6**		
	comp=Z,1.2nm,0.9s,baz=176,slow=9.2,SNR=2.2								
CPUP				PKPab	**PKPab**	**07 39 16.4**	**+0.9**		
	comp=Z,3.8nm,0.9s,baz=184,slow=7.9,SNR=6.4								
LPAZ	**La Paz**	**164.85**	**115**	PKP	**PKPdf**	**07 38 27.1**	**+1.0**		
	comp=Z,2.5nm,1.0s,baz=26,slow=6.3,SNR=6.5								
LPAZ				PKPab	**PKPab**	**07 39 24.2**	**+1.9**		
	comp=Z,4.0nm,1.0s,baz=174,slow=5.0,SNR=3.8								
BDFB	**Brasilia**	**172.10**	**226**	PKP	**PKPdf**	**07 38 31.2**	**+0.9**		
	comp=Z,1.1nm,0.4s,baz=228,slow=11,SNR=3.2								

IDC ***12*** *07:19:55.2±1.0, 10°.13S×123°.48E, h0km, mb4.1/4, mbtmp4.0/8, ML3.8/3, Error ellipse: s-maj=37.2km s-min=12.8km az=51.0*
DJA ***12*** *07:20:01.4±0.3, 10°.5S±3°.1×12°.4E±°, h10km, M4.3/19, mB5.0/5, mb4.5/6, MLv4.3/19, Mw(mB)4.3/5*
ISC 12 07:19:59.4±0.8, 10°.53S±0°.05×123°.61E±0°.09, h29km, n24, σ2s76/24, mb4.1/4, Timor region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BATI	**Baumata**	**0.33**	**9**	Pn	**Pb**	**07 20 06.0**	**-1.3**
	2μm,0.3s,baz=206,slow=3.4,SNR=248						
BATI				Sn	**Sb**	**07 20 10.3**	**-2.2**
	3μm,0.3s,baz=131,slow=19,SNR=16						
BATI	**Baumata**	**0.33**	**9**	P	**Pb**	**07 20 05.9**	**-1.3**
BATI				S	**Sb**	**07 20 12.1**	**-0.4**
BATI				AML	AML		
SOEI	**Soe**	**1.01**	**40**	P	**Pb**	**07 20 20.0**	**+1.6**
SOEI				AML	AML		
MMRI	**Maumere**	**2.32**	**324**	P	**Pn**	**07 20 38.8**	**+3.1**
MMRI				AML	AML		
EDFI	**Ende, Flores**	**2.59**	**313**	P	**Pn**	**07 20 42.1**	**+2.6**
EDFI				AML	AML		
BASI	**Baing, Sumba**	**3.00**	**276**	P	**Pn**	**07 20 48.1**	**+3.1**
BASI				AML	AML		
WSI	**Waingapu**	**3.37**	**284**	P	**Pn**	**07 20 53.3**	**+3.1**
WSI				AML	AML		
LBFI	**Labuhan Bajo,**	**4.20**	**299**	P	**Pn**	**07 21 04.7**	**+3.2**
LBFI				AML	AML		
BBSI	**Bau Bau**	**5.12**	**348**	P	**Pn**	**07 21 18.4**	**+4.2**
	0.6nm78nm,0.6s						
BBSI				AML	AML		
BSSI	**Bau Bau, Buton**	**5.34**	**324**	P	**

comp=Z,0.5nm,0.6s,baz=262,slow=9.3,SNR=3.6
comp=Z,0.5nm,0.6s
VNDA Vanda 53.05 164 P **P** 07 55 19.5 +0.5
QSPA South Pole Qui 53.60 180 P **P** 07 55 23.7 +0.3
comp=Z,1.1nm,0.8s,baz=315,slow=1.4,SNR=5.0
comp=Z,1.1nm,0.8s
QSPA South Pole Qui 53.60 180 P **P** 07 55 23.1 -0.3
QSPA IAmb IAmb 07 55 34.9
comp=Z,11nm,1.4s
TOLI2 Tolitoli 53.80 55 P **P** 07 55 24.5 -0.8
TOLI2 IAmb IAmb 07 55 26.9
comp=Z,5.9nm,0.9s
CMAR Chiang Mai Arr 57.81 22 LR LR 08 16 45.6
comp=Z,40nm,20.6s,baz=270,slow=32
BELA Belgrano 2 59.28 193 P **P** 07 56 03.7 +0.2
CTA Charters Tower 60.18 94 LR LR 08 19 47.4
comp=Z,203nm,20.7s,baz=228,slow=34
KBL Kabul 71.36 351 P **P** 07 57 22.8 +0.4
KBL IAmb IAmb 07 57 24.8
comp=Z,8.1nm,1.3s
PDGK Podgornoye 79.50 0 P **P** 07 58 09.4 +0.5
KK31 Karatay Array 79.67 354 P **P** 07 58 10.2 +0.6
KK31 IAmb IAmb 07 58 24.2
comp=Z,13nm,1.2s
KKAR Karatay Array 79.67 354 P **P** 07 58 10.1 +0.5
MKAR Makanchi Array 83.02 2 P **P** 07 58 28.2 +0.9
comp=Z,0.7nm,0.9s,baz=171,slow=6.0,SNR=2.7
comp=Z,0.7nm,0.9s
MKAR Makanchi Array 83.02 2 P **P** 07 58 28.0 +0.7
BR131 Keskin Array S 86.70 327 P **P** 07 58 45.8 -0.4
BR131 IAmb IAmb 07 59 20.0
comp=Z,7.0nm,1.4s
KURBB Kurchatov Arra 86.80 360 P **P** 07 58 46.1 -0.1
comp=Z,0.4nm,0.8s,baz=192,slow=4.3,SNR=4.9
comp=Z,0.4nm,0.8s
KURK Kurchatov 86.89 360 P **P** 07 58 46.8 +0.2
KURK IAmb IAmb 07 59 00.8
comp=Z,1.9nm,0.6s
AB31 Akbulak array 87.12 348 P **P** 07 58 48.3 +0.5
ABKAR Akbulak array 87.12 348 P **P** 07 58 48.6 +0.8

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*TAP **12** 07:54:51.7,21.58N×121.85E,h46km,ML4.2,D*
*JMA **12** 07:54:53.7±0.4,22.2N±2.1×121.8E±0.9,h105km,MV3.7/9,*
TAIWAN REGION

ISC 12 07:54:53.7±1.6, 21.72N±0.06×121.83E±0.04, h32km±9km, n103, σ1.71/176, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.36**	**322**	P		**Pb**	**07 55 02.7**	**+0.5**
LYUB				S		**Sn**	**07 55 10.4**	**+1.8**
LAY	**Lan-yu**	**0.41**	**322**	P		**Pb**	**07 55 02.7**	**-0.2**
LAY				S		**Sn**	**07 55 10.2**	**+0.3**
TSEB	**Hengchuen, Pin**	**0.88**	**282**	*eP*		**Pb**	**07 55 12.8**	**+2.3**
TSEB				*eS*		**Sn**	**07 55 23.1**	**+1.7**
SMST	**Manzhou Townsh**	**0.97**	**288**	P		**Pn**	**07 55 09.8**	**-1.2**
SMST				S		**Sn**	**07 55 24.7**	**+1.1**
TWKBT	**Hengchun**	**0.97**	**283**	*eP*		**Pn**	**07 55 09.3**	**-1.7**
TWKBT				S		**Sn**	**07 55 24.4**	**+0.7**
TWK1	**Hengchun**	**0.97**	**284**	P		**Pn**	**07 55 10.8**	**-0.3**
TWK1				S		**Sn**	**07 55 23.9**	**+0.1**
LDUT	**Ludao**	**1.01**	**341**	P		**Pn**	**07 55 11.1**	**-0.5**
LDUT				*eS*		**Sb**	**07 55 26.0**	**+0.4**
HEN	**Hengchun**	**1.05**	**286**	*eS*		**Sn**	**07 55 26.3**	**+0.6**
TAW	**Tawu**	**1.07**	**307**	*eS*		**Sn**	**07 55 27.3**	**+1.1**
SLIU	**Shizi**	**1.07**	**298**	*i P*		**Pn**	**07 55 11.6**	**-0.9**
SLIU				S		**Sn**	**07 55 27.3**	**+1.0**
EAST	**Anshuo**	**1.12**	**306**	*i P*		**Pn**	**07 55 12.5**	**-0.7**
EAST				S		**Sn**	**07 55 27.3**	**-0.3**
ECL	**Taimali**	**1.19**	**317**	*eP*		**Pn**	**07 55 13.9**	**-0.2**
ECL				*eS*		**Sn**	**07 55 29.8**	**+0.7**
SCZT	**Fangliau**	**1.29**	**300**	P		**Pn**	**07 55 15.4**	**-0.1**
TWGBT	**Beinan**	**1.29**	**328**	*eP*		**Pb**	**07 55 17.5**	**0.0**
TWGBT				*eS*		**Sb**	**07 55 34.5**	**+0.7**
TWG	**Pinlang**	**1.30**	**328**	*eS*		**Sb**	**07 55 34.6**	**+0.6**
EDH	**Donghe**	**1.34**	**339**	P		**Pn**	**07 55 13.5**	**-2.6**
EDH				S		**Sb**	**07 55 34.5**	**-0.5**
LONT	**Longtian**	**1.35**	**332**	*eP*		**Pn**	**07 55 16.6**	**+0.3**
LONT				*eS*		**Sb**	**07 55 36.8**	**+1.4**
SSPT	**Xinbi**	**1.39**	**303**	P		**Pn**	**07 55 16.6**	**-0.3**
SSPT				S		**Sn**	**07 55 35.0**	**+0.9**
MASBT	**Mashibuluo**	**1.42**	**309**	*eP*		**Pn**	**07 55 17.4**	**+0.2**
CHKT	**Chengkung**	**1.44**	**343**	S		**Sb**	**07 55 36.5**	**-1.4**
TSMG	**Majia**	**1.47**	**312**	*eP*		**Pn**	**07 55 16.9**	**-1.1**
TSMG				*eS*		**Sn**	**07 55 37.2**	**+1.1**
ECS	**Chishang**	**1.48**	**338**	*eS*		**Sb**	**07 55 41.2**	**+1.8**
SSD	**Sandimen**	**1.51**	**313**	P		**Pb**	**07 55 20.8**	**+0.3**
CHKH	**Chenggong**	**1.52**	**345**	*eP*		**Pn**	**07 55 18.9**	**+0.3**
CHKH				*eS*		**Sn**	**07 55 38.4**	**+1.1**
EHD	**Haiduan**	**1.54**	**338**	*eP*		**Pn**	**07 55 20.7**	**+1.8**
FULB	**Fuli**	**1.55**	**342**	*eP*		**Pn**	**07 55 19.7**	**+0.6**
FULB				*eS*		**Sb**	**07 55 40.5**	**-0.7**
ECBN	**Changbin**	**1.63**	**348**	*eS*		**Sn**	**07 55 40.8**	**+0.8**
ELDTW	**Lidau**	**1.65**	**333**	*eP*		**Pn**	**07 55 22.1**	**+1.6**
SLGT	**Liugui**	**1.67**	**320**	*eP*		**Pn**	**07 55 21.2**	**+0.5**
SLGT				*eS*		**Sb**	**07 55 43.4**	**-1.2**
EYUL	**Yuli**	**1.69**	**344**	*eP*		**Pn**	**07 55 22.1**	**+1.2**
EYUL				*eS*		**Sb**	**07 55 45.2**	**+0.2**
SCST	**Cishan**	**1.69**	**314**	*eP*		**Pn**	**07 55 23.2**	**+2.2**
SCST				*eS*		**Sb**	**07 55 44.8**	**-0.4**
TWF1	**Yuli**	**1.70**	**343**	*eP*		**Pn**	**07 55 22.3**	**+1.2**
TWF1				S		**Sb**	**07 55 44.2**	**-1.2**
TWM1	**Shoushan**	**1.70**	**311**	*eP*		**Pn**	**07 55 24.3**	**-0.1**
TWM1				*eS*		**Sb**	**07 55 46.1**	**+0.6**
YULB	**Yu-li**	**1.74**	**344**	P		**Pn**	**07 55 22.5**	**+0.9**
YULB				S		**Sb**	**07 55 45.0**	**-1.5**
STYH	**Taoyuan**	**1.74**	**326**	*eP*		**Pn**	**07 55 22.3**	**+0.6**
STYH				*eS*		**Sn**	**07 55 44.2**	**+1.5**
SGST	**Jiashian**	**1.78**	**320**	P		**Pn**	**07 55 24.7**	**+2.5**
SGST				*eS*		**Sb**	**07 55 48.6**	**+1.0**
HGSD	**Ruisui**	**1.81**	**348**	*eP*		**Pn**	**07 55 23.2**	**+0.6**
HGSD				*eS*		**Sb**	**07 55 47.8**	**-0.6**
EHYH	**Wanrong**	**1.82**	**346**	*eP*		**Pn**	**07 55 23.9**	**+1.1**
EHYH				S		**Sb**	**07 55 48.3**	**-0.6**
WTP	**Ta-pu**	**1.89**	**324**	*eP*		**Pn**	**07 55 25.6**	**+1.8**
CHN1	**Nanshi**	**1.89**	**321**	*eP*		**Pn**	**07 55 25.7**	**+2.0**
CHN1				*eS*		**Sb**	**07 55 50.6**	**-0.3**
TPUB	**Ta-pu**	**1.93**	**325**	*eP*		**Pn**	**07 55 24.2**	**0.0**
TPUB				*eS*		**Sb**	**07 55 50.8**	**-1.1**
TWK	**Hsinying**	**1.98**	**322**	*eP*		**Pn**	**07 55 26.8**	**+1.8**
TWK				*eS*		**Sb**	**07 55 52.5**	**-1.1**
CHN4	**Tsaushan**	**1.98**	**325**	*eP*		**Pb**	**07 55 28.6**	**-0.6**
CHN4				*eS*		**Sb**	**07 55 53.2**	**-0.3**
ALS	**Alishan**	**2.02**	**332**	*eP*		**Pn**	**07 55 27.6**	**+1.8**
ALS				*eS*		**Sb**	**07 55 52.7**	**-2.1**
WARBT	**Fenglin Townsh**	**2.03**	**349**	P		**Pn**	**07 55 26.5**	**+0.8**
WARBT				*eS*		**Sb**	**07 55 52.2**	**-2.7**
WCKO	**Fanlu**	**2.05**	**327**	*eP*		**Pn**	**07 55 28.0**	**+2.1**
WCKO				*eS*		**Sb**	**07 55 54.2**	**-1.2**
SHUL	**Shoufeng**	**2.08**	**353**	S		**Sb**	**07 55 54.1**	**-2.0**
TSCK	**Chigu Township**	**2.15**	**312**	*eS*		**Sb**	**07 55 58.3**	**+0.1**
CHN5	**Tsauling**	**2.15**	**331**	*eP*		**Pn**	**07 55 29.8**	**+2.4**
CHN5				*eS*		**Sb**	**07 55 57.1**	**-1.3**
WHYT	**Xinyi Township**	**2.16**	**336**	P		**Pb**	**07 55 32.0**	**-0.2**
WHYT				S		**Sb**	**07 55 57.4**	**-1.4**
ICHU	**Yijhu**	**2.17**	**319**	*eP*		**Pn**	**07 55 27.2**	**-0.4**
ICHU				*eS*		**Sn**	**07 55 56.4**	**+3.0**
CHY	**Chiayi**	**2.19**	**324**	*eP*		**Pn**	**07 55 27.9**	**0.0**
CHY				*eS*		**Sn**	**07 55 56.0**	**+2.1**
SSLB	**Suanglung**	**2.21**	**339**	*eP*		**Pn**	**07 55 29.8**	**+1.6**
SSLB				*eS*		**Sb**	**07 55 57.6**	**-2.5**
ETM	**Tongmen**	**2.26**	**352**	*eS*		**Sn**	**07 55 57.5**	**+2.0**
WDLH	**Douliu**	**2.29**	**329**	*eP*		**Pn**	**07 55 29.0**	**-0.3**
WDLH				*eS*		**Sb**	**07 55 59.7**	**-2.7**
OWD	**Renai**	**2.31**	**345**	*eP*		**Pn**	**07 55 31.4**	**+1.8**
OWD				*eS*		**Sb**	**07 55 59.8**	**-3.1**
SMLT	**Sun Moon Lake**	**2.32**	**339**	*eP*		**Pn**	**07 55 32.8**	**+3.1**
SMLT				*eS*		**Sb**	**07 56 02.1**	**-1.1**
LXIB	**Xiulin Townshi**	**2.32**	**351**	*eS*		**Sn**	**07 55 59.1**	**+1.8**
WJS	**Zhushan**	**2.33**	**334**	*eP*		**Pn**	**07 55 30.2**	**+0.5**
WJS				*eS*		**Sb**	**07 56 01.8**	**-1.5**
TYC	**Yuchr**	**2.35**	**338**	*eP*		**Pn**	**07 55 32.6**	**+2.6**
TYC				*eS*		**Sb**	**07 56 02.9**	**-1.2**
WUSB	**Renai**	**2.36**	**344**	*eP*		**Pn**	**07 55 32.7**	**+2.5**
WUSB				*eS*		**Sn**	**07 55 58.5**	**+0.3**
WTK	**Tuku**	**2.37**	**326**	*eS*		**Sb**	**07 56 03.9**	**-0.6**
WNT	**Mingjian**	**2.40**	**334**	*eP*		**Pb**	**07 55 35.3**	**-0.9**
EOS4	**EOS4**	**2.44**	**11**	*eP*		**Pn**	**07 55 32.1**	**+1.2**
EOS4				S		**Sn**	**07 56 01.2**	**+1.8**
ETL	**Fush Village**	**2.44**	**356**	*eS*		**Sn**	**07 56 02.9**	**+2.9**
NACB	**Ninganchiao**	**2.45**	**355**	P		**Pn**	**07 55 31.4**	**0.0**
NACB				S		**Sn**	**07 56 02.1**	**+1.7**
WHF	**Hehuan Shan**	**2.47**	**348**	*eP*		**Pn**	**07 55 34.8**	**+2.7**
WHF				S		**Sn**	**07 56 02.4**	**+1.0**
WCS	**Beigang Elemen**	**2.48**	**340**	*eP*		**Pn**	**07 55 32.6**	**+0.9**
WCS				*eS*		**Sb**	**07 56 06.8**	**-0.8**
ETLH	**Xiulin Townshi**	**2.50**	**353**	*eP*		**Pn**	**07 55 34.1**	**+2.0**
ETLH				*eS*		**Sn**	**07 56 02.4**	**+0.8**
FUSS	**Fushou**	**2.58**	**348**	*eP*		**Pb**	**07 55 37.2**	**-2.1**
EOS3	**EOS3**	**2.60**	**10**	P		**Pn**	**07 55 34.0**	**+0.7**
EOS3				*eS*		**Sn**	**07 56 06.4**	**+2.8**
EAHA	**Aohua**	**2.60**	**358**	*eS*		**Sn**	**07 56 06.0**	**+2.0**
VCHM	**Qimei**	**2.67**	**304**	P		**Pn**	**07 55 35.8**	**+1.4**
VCHM				*eS*		**Sn**	**07 56 05.7**	**+0.1**
WHP	**Taichung City**	**2.67**	**343**	*eP*		**Pn**	**07 55 39.3**	**-1.7**
WHP				*eS*		**Sb**	**07 56 13.6**	**+0.2**
EOS2	**EOS2**	**2.71**	**8**	*eP*		**Pn**	**07 55 34.8**	**-0.1**
EOS2				*eS*		**Sn**	**07 56 07.7**	**+1.1**
EWUT	**Wuta**	**2.72**	**359**	*eS*		**Sn**	**07 56 08.1**	**+1.3**
NNSB	**Datong**	**2.73**	**352**	*eP*		**Pn**	**07 55 36.6**	**+1.2**
NNSB				*eS*		**Sn**	**07 56 09.6**	**+2.3**
NNS	**Nan Shan**	**2.74**	**351**	*eP*		**Pn**	**07 55 37.5**	**+2.0**
NNS				*eS*		**Sb**	**07 56 11.7**	**-3.7**
PHUB	**P'eng-hu**	**2.74**	**311**	*eP*		**Pn**	**07 55 35.1**	**-0.3**
PHUB				*eS*		**Sn**	**07 56 07.3**	**-0.2**
TWQ1	**Liyutan**	**2.79**	**340**	*eS*		**Sb**	**07 56 12.8**	**-3.9**
LATG	**Datong**	**2.82**	**354**	*eS*		**Sb**	**07 56 14.6**	**-2.9**
TWC	**Suao**	**2.88**	**0**	*eP*		**Pn**	**07 55 37.6**	**+0.3**
TWC				S		**Sn**	**07 56 12.5**	**+1.6**
NDT	**Datong Townshi**	**2.89**	**354**	*eS*		**Sn**	**07 56 14.4**	**+3.4**
NDS	**Dongshan**	**2.91**	**358**	*eP*		**Sn**	**07 55 38.6**	**+0.9**
NDS				*eS*		**Sn**	**07 56 13.1**	**+1.6**
ENTT	**Nioudou**	**2.92**	**355**	*eP*		**Pn**	**07 55 39.4**	**+1.5**
ENTT				*eS*		**Sn**	**07 56 12.3**	**+0.4**
YHNB	**Yeheng**	**2.97**	**352**	*eP*		**Pn**	**07 55 41.9**	**+3.3**
YHNB				*eS*		**Sn**	**07 56 15.9**	**+2.8**
NFF	**Wufeng Townshi**	**2.97**	**347**	*eP*		**Pb**	**07 55 43.3**	**-2.8**
NFF				*eS*		**Sb**	**07 56 19.3**	**-2.6**
NSK	**Sanguang**	**2.98**	**352**	*eS*		**Sn**	**07 56 16.5**	**+3.2**
FUSB	**Fushanzhiwuyua**	**3.04**	**356**	*eP*		**Pb**	**07 55 44.0**	**-3.1**
FUSB				*eS*		**Sb**	**07 56 19.3**	**-4.5**
NWLT	**Wulai**	**3.06**	**355**	P		**Pb**	**07 55 44.3**	**-3.2**
NWLT				S		**Sn**	**07 56 19.3**	**+3.9**
JKRS	**Kuro-shima**	**3.22**	**38**	*eP*		**Pn**	**07 55 43.7**	**+1.7**
JKRS				*eS*		**Sn**	**07 56 20.8**	**+1.7**
TIPB	**Shuangxi**	**3.24**	**0**	P		**Pn**	**07 55 45.2**	**+2.9**
TIPB				S		**Sn**	**07 56 23.4**	**+3.6**
SXI1	**Grass Mountain**	**3.36**	**1**	P		**Sn**	**07 56 46.6**	**+2.6**
SXI1				S		**Sn**	**07 56 26.8**	**+3.9**
JIJ	**Ishigaki jima**	**3.39**	**39**	*eP*		**Pn**	**07 55 45.4**	**+1.0**
JIJ				*eS*		**Sn**	**07 56 23.6**	**+0.2**
ZUZH	**Zhuzihu**	**3.44**	**356**	*eS*		**Sn**	**07 56 29.2**	**+4.5**
JISG	**Ishigakijimahi**	**3.66**	**38**	*eP*		**Pn**	**07 55 49.2**	**+1.1**
JISG				*eS*		**Sn**	**07 56 30.7**	**+0.6**
JTJ	**Tarama**	**3.93**	**42**	*eS*		**Sn**	**07 56 37.9**	**+1.0**
KNMB	**Chin-men Tao**	**4.18**	**311**	*eP*		**Pn**	**07 55 55.2**	**0.0**
KNMB				*eS*		**Sn**	**07 56 43.5**	**+0.5**
ZPLA	**Ao Xicun**	**4.36**	**301**	*eP*		**Pn**	**07 55 57.2**	**-0.4**
ZPLA				*eS*		**Sn**	**07 56 47.2**	**-0.1**
JIRJ	**Irabujima**	**4.38**	**44**	*eS*		**Sn**	**07 56 48.5**	**+0.5**
DSXP	**Dongshan**	**4.52**	**297**	*eS*		**Sn**	**07 56 53.5**	**+2.2**
AXDP	**Jialang**	**4.75**	**313**	*eP*		**Pn**	**07 56 03.1**	**0.0**
AXDP				*eS*		**Sn**	**07 56 56.1**	**-1.0**
MHZQ	**Yeshan**	**5.06**	**330**	*eP*		**Pn**	**07 56 08.7**	**+1.4**
MHZQ				*eS*		**Sn**	**07 57 04.6**	**+0.1**

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*IDC **12** 08:25:44.2±0.7, 40.87N×73.52E, h0km, mb3.9/23,*
mbtmp4.0/29, ML3.6/6, MS3.9/17, Error ellipse:
s-maj=10.5km s-min=8.7km az=135.0
*MOS **12** 08:25:46.1±1.2, 40.95N×73.42E, h10km, mb4.7/25, Error*
ellipse: s-maj=5.5km s-min=3.8km az=70.1
*NEIC **12** 08:25:47.4, 40.97N×73.56E, h10km*
*KRNET **12** 08:25:47.1±0.1, 41.01N×73.48E, h24km, mb5.0*
*NNC **12** 08:25:48.5±0.9, 41.04N×73.54E, h0km, mb5.1, mpv4.8,*
Error ellipse: s-maj=7.2km s-min=3.9km az=170.0
*SOME **12** 08:25:48.2, 41.05N×73.65E, h10km*
*BJI **12** 08:25:48.3, 41.02N×73.52E, h17km, mB4.6/7, mb4.0/14,*
ML4.4/3, Ms3.9/4, Ms7 3.7/3
*KNET **12** 08:25:49.5±0.7, 41.11N×73.61E, h15km±4km, ml4.4, Error*
ellipse: s-maj=5.7km s-min=3.9km az=70.0
*GFZ **12** 08:25:50.9±0.2, 41°N±3°×7°4E±°, h16km, M4.9/15,*
mb4.7/15, confirmed
*NEIC **12** 08:25:50.1±1.2, 40.97N±0.04×73.49E±0.06, h28km±2km,*
mb4.5/49, Mwr4.3/18, Error ellipse: s-maj=6.9km
s-min=5.5km az=112.0, Moment Tensor Solution.
Moment tensor: Scale 10^{15}Nm; M_{rr}2.91; $M_{\theta\theta}$-2.71;
$M_{\phi\phi}$-0.20; $M_{r\theta}$-0.79; $M_{\theta\phi}$-1.14; $M_{\phi r}$-0.20; Fault plane
solution: M_o3.15000×10^{15} NP1:ϕ_s66.80000°, δ37.57000°,
λ86.72000°. NP2:ϕ_s250.94000°, δ52.50000°, λ92.52000°.
Principal axes: T 3.0243, Plg82.0000°, Azm174.0000°; N
0.2333, Plg2.0000°, Azm69.0000°; P -3.2576, Plg7.0000°,
Azm339.0000°;

ISC 12 08:25:48.0±0.7, 40.97N±0.02×73.52E±0.02, h17km±4km, n356, σ2.08/412, mb4.5/72, MS3.9/16, 35C-36D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SALK	**Salom-Alik**	**0.25**	**111**	*eP*		**Pg**	**08 25 53.5**	**-0.1**
SALK				*eS*		**Sb**	**08 25 57.7**	**-0.5**
ARSB	**Arslanbob**	**0.54**	**311**	*eP*		**Pg**	**08 25 57.6**	**-1.1**
ARSB				*eS*		**Sg**	**08 26 04.2**	**-1.8**
ARSB	**Arslanbob**	**0.54**	**311**	PG		**Pg**	**08 25 58.5**	**-0.3**
ARSB							08 26 06.5	
ARSB	**Arslanbob**	**0.54**	**311**	Pg		**Pg**	**08 25 58.5**	**-0.3**
ARSB				Sg		**Sb**	**08 26 06.5**	**0.0**
OHH	**Osh**	**0.71**	**231**	*iP*		**Pg**	**08 26 00.9**	**-1.1**
OHH				*iS*		**Sg**	**08 26 10.4**	**-1.1**
OHH	**Osh**	**0.71**	**231**	*i* PG		**Pg**	**08 26 00.3**	**-1.7**
OHH				*i S*		**Sg**	**08 26 10.1**	**-1.4**
SFK	**Sufi-Kurgan**	**0.96**	**181**	↑*iP*		**Pb**	**08 26 05.5**	**-0.8**
SFK				↑*iS*		**Sg**	**08 26 19.1**	**-0.2**
SFK	**Sufi-Kurgan**	**0.96**	**181**	*i* PG		**Pb**	**08 26 05.5**	**-0.8**
SFK				*i S*		**Sg**	**08 26 19.1**	**-0.2**
UCH	**Uchtor**	**1.46**	**30**	↓P		**Pn**	**08 26 14.2**	**+0.2**
	2μm,0.3s,SNR=2784							
UCH				↓S		**Sb**	**08 26 33.5**	**+0.1**
	4μm,0.3s							
UCH	**Uchtor**	**1.46**	**30**	↑*iP*		**Pn**	**08 26 13.2**	**-0.8**
UCH				↑*iS*		**Sn**	**08 26 32.5**	**-0.5**
UCH	**Uchtor**	**1.46**	**30**	*i* PG		**Pn**	**08 26 13.2**	**-0.8**
UCH				*i S*		**Sn**	**08 26 32.5**	**-0.5**
MNAS	**Manas**	**1.69**	**334**	↑*eP*		**Pn**	**08 26 17.0**	**+0.1**
MNAS				↑*iS*		**Sb**	**08 26 39.1**	**-0.8**
MNAS	**Manas**	**1.69**	**334**	*i* PN		**Pn**	**08 26 16.7**	**-0.2**
MNAS				*i S*		**Sn**	**08 26 38.5**	**+0.2**
EKS2	**Erkin-Say**	**1.70**	**6**	↑P		**Pb**	**08 26 18.3**	**-0.5**
	352nm,0.2s,SNR=615							
EKS2				↓S		**Sb**	**08 26 40.0**	**0.0**
	898nm,0.3s							
EKS2	**Erkin-Say**	**1.70**	**6**	↑*iP*		**Pn**	**08 26 17.1**	**+0.1**
EKS2				↑*iS*		**Sn**	**08 26 39.0**	**+0.6**
EKS2	**Erkin-Say**	**1.70**	**6**	*i* PN		**Pn**	**08 26 17.1**	**+0.1**
EKS2				*i S*		**Sn**	**08 26 39.0**	**+0.6**
MRKS	**Merke**	**1.78**	**353**	P		**Pb**	**08 26 20.1**	**-0.2**
	2μm,0.5s							
MRKS				S		**Sb**	**08 26 43.3**	**+0.9**
	3μm,0.6s							
MRKS	**Merke**	**1.78**	**353**	*eP*		**Pb**	**08 26 20.1**	**-0.2**
	2μm,0.5s							
MRKS				*eS*		**Sb**	**08 26 43.3**	**+0.9**
	3μm,0.6s							
AAK	**Ala-Archa**	**1.82**	**23**	Pg		**Pb**	**08 26 21.6**	**+0.7**
	835nm,0.3s,baz=187,slow=7.7,SNR=3037							
AAK				Lg		Lg	08 26 46.3	
	533nm,0.3s,baz=346,slow=17,SNR=24							
AAK				LR		LR	08 27 16.4	
	comp=Z,2μm,19.0s,baz=218,slow=48							
AAK	**Ala-Archa**	**1.82**	**23**	↑P		**Pb**	**08 26 20.6**	**-0.3**
	3μm,0.4s,SNR=1580							
AAK				↓S		**Sb**	**08 26 44.4**	**+1.0**
	3μm,0.3s							
AAK	**Ala-Archa**	**1.82**	**23**	↓P		**Pb**	**08 26 21.0**	**+0.1**
	384nm,0.4s							
AAK				↑S		**Sb**	**08 26 44.8**	**+1.3**
	566nm,0.5s							
AAK	**Ala-Archa**	**1.82**	**23**	↑*iP*		**Pn**	**08 26 19.0**	**+0.4**
AAK				↑*iS*		**Sb**	**08 26 42.5**	**-0.9**
AAK	**Ala-Archa**	**1.82**	**23**	PN		**Pb**	**08 26 20.8**	**-0.1**
AAK				S		**Sb**	**08 26 44.7**	**+1.3**
AAK							08 26 44.9	
AAK				pmax	pmax			
	comp=Z,8μm,0.4s							
AAK				smax	smax			
	comp=Z,11μm,0.6s							
AAK				smax	smax			
	comp=Z,7μm,0.4s							
AAK	**Ala-Archa**	**1.82**	**23**			**Pn**	**08 26 18.6**	**-0.1**
AAK				Sn		**Sb**	**08 26 42.6**	**-0.9**
AAK	**Ala-Archa**	**1.82**	**23**	P		**Pb**	**08 26 20.8**	**-0.1**
TRKS	**Terek-Say**	**1.88**	**288**	↓*iP*		**Pn**	**08 26 19.0**	**-0.5**
TRKS				↓*iS*		**Sn**	**08 26 42.5**	**-0.4**
TRKS	**Terek-Say**	**1.88**	**288**	*i* PN		**Pn**	**08 26 19.0**	**-0.5**
TRKS				*i S*		**Sn**	**08 26 42.5**	**-0.4**
NRN	**Naryn**	**1.93**	**75**	↑*iP*		**Pn**	**08 26 21.1**	**+0.8**
NRN				↑*iS*		**Sb**	**08 26 45.9**	**-0.9**
NRN	**Naryn**	**1.93**	**75**	*i* PN		**Pn**	**08 26 21.1**	**+0.8**
NRN				*i S*		**Sb**	**08 26 45.9**	**-0.9**
DRK	**Karamyk**	**1.99**	**222**	↓*iP*		**Pn**	**08 26 22.2**	**+1.1**
DRK				↓*iS*		**Sb**	**08 26 47.9**	**-0.6**
DRK	**Karamyk**	**1.99**	**222**	PN		**Pb**	**08 26 23.9**	**0.0**
DRK	**Karamyk**	**1.99**	**222**			**Pb**	**08 26 23.9**	**0.0**
DRK	**Karamyk**	**1.99**	**222**	P		**Pb**	**08 26 23.8**	**-0.1**
KBK	**Karagaybulak**	**1.99**	**32**	P		**Pb**	**08 26 23.9**	**0.0**
	comp=Z,10nm,0.1s,SNR=440							
KBK				↑S		**Sb**	**08 26 49.6**	**+1.1**
	comp=Z,4μm,0.4s							
KBK	**Karagaybulak**	**1.99**	**32**	↓*eP*		**Pn**	**08 26 21.8**	**+0.7**
KBK				↓*iS*		**Sn**	**08 26 47.1**	**+1.4**
KBK	**Karagaybulak**	**1.99**	**32**	*i* PN		**Pn**	**08 26 21.8**	**+0.7**
KBK				*i S*		**Sn**	**08 26 47.1**	**+1.4**
FRU1	**Bishkek**	**2.02**	**24**	↓*iP*		**Pn**	**08 26 22.0**	**+0.7**
FRU1				↓*iS*		**Sb**	**08 26 47.7**	**-1.3**
FRU1	**Bishkek**	**2.02**	**24**	PN		**Pb**	**08 26 25.1**	**+0.9**
FRU1	**Bishkek**	**2.02**	**24**	Pn		**Pb**	**08 26 25.1**	**+0.9**
FRU1	**Bishkek**	**2.02**	**24**	P		**Pb**	**08 26 25.1**	**+0.9**
CHMS	**Chumysh**	**2.22**	**24**	↓P		**Pb**	**08 26 27.2**	**-0.5**
	comp=Z,534nm,0.2s,SNR=303							
CHMS				↑S		**Sb**	**08 26 55.7**	**+0.7**
	comp=Z,4μm,0.7s							
CHMS	**Chumysh**	**2.22**	**24**	Pg		Pg	08 26 47.6	+17
	comp=Z,763nm,1.0s							
CHMS				Lg		Lg	08 27 30.8	
	comp=Z,2μm,0.7s							
CHMS	**Chumysh**	**2.22**	**24**	↓*eP*		**Pn**	**08 26 24.7**	**+0.6**
CHMS				↓*eS*		**Sn**	**08 26 52.2**	**+1.0**
CHMS	**Chumysh**	**2.22**	**24**	*i* PN		**Pn**	**08 26 24.7**	**+0.6**
CHMS				*i S*		**Sn**	**08 26 52.2**	**+1.0**
BTK	**Batken**	**2.25**	**247**	PN		**Pb**	**08 26 26.1**	**+1.5**
BTK	**Batken**	**2.25**	**247**	Pn		**Pn**	**08 26 26.1**	**+1.5**
ASAI	**AK-SAY(Kyrgyzs**	**2.27**	**90**	P		**Pb**	**08 26 27.4**	**-1.4**
BOOM	**Boomskoye usch**	**2.36**	**49**	↓*iP*		**Pn**	**08 26 27.2**	**+1.0**
BOOM				↓*eS*		**Sn**	**08 26 56.4**	**+1.5**
BOOM	**Boomskoye usch**	**2.36**	**49**	PN		**Pb**	**

TNSS Tian-Shan 3.28 50 *e*P Pb 08 26 47.5 +1.5
comp=Z,54nm,0.5s
TNSS *e*S Sg 08 27 30.6 -2.9
comp=Z,365nm,1.1s
TARG Taragay, Kyrgy 3.31 75⇑ *e*P Pn 08 26 40.7 +1.2
TARG ⇑ *e*S Sn 08 27 20.0 +1.4
TARG Taragay, Kyrgy 3.31 75 PN Pn 08 26 42.0 +2.6
TARG Taragay, Kyrgy 3.31 75 Pn Pn 08 26 42.0 +2.6
TARG Taragay, Kyrgy 3.31 75 P Pn 08 26 42.2 +2.7
AAA Alma-Ata 3.37 47 Pg Pg 08 26 50.4 -2.2
comp=Z,340nm,0.5s
AAA Lg Lg 08 27 35.2
comp=Z,560nm,0.6s
AAA Alma-Ata 3.37 47 *e*PN Pn 08 26 43.2 +3.3
AAA Alma-Ata 3.37 47 *e*P Pn 08 26 43.2 +3.3
AAA Alma-Ata 3.37 47 *e*P Pg 08 26 50.5 -2.2
comp=Z,340nm,0.5s
AAA *e*S Sg 08 27 35.1 -1.2
comp=Z,560nm,0.6s
KNDC Almaty 3.41 48 ⇑Pg Pb 08 26 50.0 +2.1
comp=Z,290nm,0.5s
KNDC ⇓Lg Lg 08 27 35.1
comp=Z,932nm,0.5s
KNDC Almaty 3.41 48 PN Pb 08 26 49.2 +1.3
KNDC pmax pmax
comp=Z,2μm,0.9s
MDOK Medeo 3.42 49 Pg Pb 08 26 50.0 +1.8
comp=Z,295nm,0.9s
MDOK Lg Lg 08 27 34.1
comp=Z,1μm,0.9s
MDOK Medeo 3.42 49 *e*PN Pn 08 26 43.7 +3.0
MDOK *e*S Sn 08 27 24.3 +3.4
MDOK Medeo 3.42 49 *e*P Pn 08 26 43.7 +3.0
MDOK *e*S Sn 08 27 24.4 +3.4
MDOK Medeo 3.42 49 *e*P Pb 08 26 50.0 +1.8
comp=Z,295nm,0.9s
MDOK *e*S Sg 08 27 34.1 -3.7
comp=Z,1μm,0.9s
BRLS Boroldaу 3.43 308 Pg Pb 08 26 49.7 +1.4
comp=Z,277nm,0.7s
BRLS Lg Lg 08 27 33.9
comp=Z,638nm,0.6s
BRLS Boroldaу 3.43 308 *e*PN Pn 08 26 41.7 +1.0
BRLS Boroldaу 3.43 308 *e*P Pn 08 26 41.7 +1.0
BRLS Boroldaу 3.43 308 *e*P Pb 08 26 49.7 +1.4
comp=Z,277nm,0.7s
BRLS *e*S Sg 08 27 33.9 -4.2
comp=Z,638nm,0.6s
KOTS Kotyrbulak 3.50 49 Pg Pb 08 26 51.8 +2.2
comp=Z,210nm,0.9s
KOTS Lg Lg 08 27 37.9
comp=Z,1μm,0.5s
KOTS Kotyrbulak 3.50 49 *e*P Pb 08 26 51.8 +2.2
comp=Z,210nm,0.9s
KOTS *e*S Sg 08 27 37.9 -2.5
comp=Z,1μm,0.5s
ANVS Anan'yevo 3.59 58⇓ *e*P Pn 08 26 44.2 +1.2
ANVS ⇓ *e*S Sn 08 27 26.1 +1.0
ANVS Anan'yevo 3.59 58 *i* PN Pn 08 26 44.2 +1.2
ANVS *i* S Sn 08 27 26.1 +1.0
KUU Kurty 3.59 35 Pg Pb 08 26 50.7 -0.3
KUU Lg Lg 08 27 35.3
comp=Z,768nm,1.0s
KUU Kurty 3.59 35 *e*P Pb 08 26 50.7 -0.3
KUU *e*S Sb 08 27 35.3 +1.0
comp=Z,768nm,1.0s
KTBS Karatobe 3.60 40 Pg Pb 08 26 52.6 +1.4
comp=Z,2.2nm,0.3s
KTBS Lg Lg 08 27 39.1
comp=Z,869nm,0.9s
KTBS Karatobe 3.60 40 *e*P Pb 08 26 52.6 +1.4
comp=Z,2.2nm,0.3s
KTBS *e*S Sg 08 27 39.1 -4.6
comp=Z,869nm,0.9s
PRZ Przheval'sk 3.95 66⇓ *e*P Pn 08 26 49.5 +1.5
PRZ ⇓ *i*S Sn 08 27 35.2 +1.1
PRZ Przheval'sk 3.95 66 *i* PN Pn 08 26 49.5 +1.5
PRZ *i* S Sn 08 27 35.2 +1.1
BTLS Baital 4.08 5 Pg Pb 08 27 00.1 +0.7
comp=Z,438nm,0.7s
BTLS Lg Lg 08 27 52.4
comp=Z,366nm,0.8s
BTLS Baital 4.08 5 *e*P Pb 08 27 00.1 +0.7
comp=Z,438nm,0.7s
BTLS *e*S Sb 08 27 52.4 +3.9
comp=Z,366nm,0.8s
SATY Saty 4.20 59 Pg Pb 08 27 04.0 +2.6
comp=Z,118nm,1.0s
SATY Lg Lg 08 27 58.7
comp=Z,492nm,0.8s
SATY Saty 4.20 59 *e*PN Pn 08 26 54.8 +3.5
SATY Saty 4.20 59 *e*P Pn 08 26 54.8 +3.5
SATY Saty 4.20 59 *e*P Pb 08 27 04.0 +2.6
comp=Z,118nm,1.0s
SATY *e*S Sg 08 27 58.7 -4.0
comp=Z,492nm,0.8s
WUS Wushi 4.31 85 Pn Pb 08 26 58.3 -5.1
ARXS Arharly 4.54 43 Pg Pb 08 27 09.6 +2.4
comp=Z,114nm,0.8s
ARXS Lg Lg 08 28 08.0
comp=Z,568nm,0.6s
ARXS Arharly 4.54 43 *e*P Pb 08 27 09.6 +2.4
comp=Z,114nm,0.8s
ARXS *e*S Sg 08 28 08.0 -5.7
comp=Z,568nm,0.6s
KPKS Kokpek 4.57 55 Pg Pb 08 27 10.7 +2.9
comp=Z,142nm,0.6s
KPKS Lg Lg 08 28 10.4
comp=Z,400nm,0.7s
KPKS Kokpek 4.57 55 *e*P Pb 08 27 10.7 +2.9
comp=Z,142nm,0.6s
KPKS *e*S Sg 08 28 10.3 -4.4
comp=Z,400nm,0.7s
UZB Uzynbulak 4.64 60 Pg Pb 08 27 11.9 +3.0
comp=Z,73nm,0.5s
UZB Lg Lg 08 28 11.6
comp=Z,216nm,1.0s
UZB Uzynbulak 4.64 60 *e*PN Pn 08 27 00.9 +3.5
UZB Uzynbulak 4.64 60 *e*P Pn 08 27 00.9 +3.5
UZB Uzynbulak 4.64 60 *e*P Pb 08 27 11.9 +3.0
comp=Z,73nm,0.5s
UZB *e*S Sg 08 28 11.6 -5.2
comp=Z,216nm,1.0s
BLB Baldybastay 4.81 48 Pg Pb 08 27 14.2 +2.2
comp=Z,330nm,1.0s
BLB Lg Lg 08 28 16.0
comp=Z,449nm,0.5s
SHLS Shalkode 4.93 62 Pg Pg 08 27 22.4 -0.1
comp=Z,110nm,0.6s
SHLS Lg Lg 08 28 29.6
comp=Z,317nm,0.9s
PDGK Podgornoye 5.02 60 ⇓Pn Pn 08 27 04.8 +2.1
comp=Z,9.1nm,0.6s
PDGK ⇑Pg Pg 08 27 20.1 -4.0
comp=Z,106nm,0.8s
PDGK ⇑Lg Lg 08 28 24.4
comp=Z,547nm,0.8s
PDGK Podgornoye 5.02 60 PN Pn 08 27 04.5 +1.8
PDGK Podgornoye 5.02 60 Pn 08 27 04.5 +1.8
KNOS Konyrlen 5.37 49 Pg Pg 08 27 29.1 -1.7
comp=Z,98nm,1.1s
KNOS Lg Lg 08 28 41.0
comp=Z,324nm,0.7s
TDK Taldyqorghan 5.39 40 Pg Pb 08 27 25.0 +3.3
comp=Z,138nm,0.6s
TDK Lg Lg 08 28 34.9
comp=Z,1μm,0.8s
TDK Taldyqorghan 5.39 40 *e*P Pb 08 27 25.0 +3.3
comp=Z,138nm,0.6s
TDK *e*S Sg 08 28 34.9 -6.0
comp=Z,1μm,0.8s
DJR Jarkent 5.71 52 Pg Pb 08 27 31.7 +4.5
comp=Z,59nm,0.7s
DJR Lg Lg 08 28 45.8
comp=Z,250nm,1.3s
DJR Jarkent 5.71 52 *e*P Pb 08 27 31.7 +4.5
comp=Z,59nm,0.7s
DJR *e*S Sg 08 28 45.8 -5.5
comp=Z,250nm,1.3s
KAPS Kapalarasan 6.07 43 Pg Pb 08 27 35.9 +2.7
comp=Z,30nm,0.7s
KAPS Lg Lg 08 28 52.9
comp=Z,102nm,0.7s
KAPS Kapalarasan 6.07 43 *e*P Pb 08 27 35.9 +2.7
comp=Z,30nm,0.7s
KAPS *e*S Sb 08 28 52.9 +7.3
comp=Z,102nm,0.7s

NIL Nilore 7.31 182 P Pn 08 27 34.0 0.0
NIL Nilore 7.31 182 Pn 08 27 34.0 0.0
NIL Nilore 7.31 182 P Pn 08 27 37.3 +3.3
comp=Z,102nm,1.2s
KBL Kabul 7.33 210 P Pn 08 27 34.5 0.0
KBL Kabul 7.33 210 Pn 08 27 34.5 0.0
KBL Kabul 7.33 210 P Pn 08 27 37.7 +3.2
comp=Z,176nm,0.7s
ALCI Alchi Leh 7.35 156 *i* S Sn 08 28 53.6 -4.4
JMU Jammu 8.24 172 *i* P Pb 08 28 03.7 -6.6
TSSA Tissa 8.39 165 *i* P Pn 08 27 57.5 +8.5
TSSA *i* P Pb 08 27 58.7 -14
MAKZ Makanchi 8.44 43 P Pn 08 27 50.8 +1.3
MAKZ Makanchi 8.44 43 Pn 08 27 50.8 +1.3
MAKZ Makanchi 8.44 43 P Pn 08 27 50.9 +1.4
comp=Z,13nm,0.9s
MK31 Makanchi Array 8.60 44 *de*P Pn 08 27 53.0 +1.4
MK31 Makanchi Array 8.60 44 Pn Pn 08 27 52.9 +1.2
MKAR Makanchi Array 8.60 44 Pn Pn 08 27 53.0 +1.4
comp=Z,0.6nm,0.3s,baz=226,slow=15,SNR=14
MKAR Sn Sn 08 29 31.3 +3.1
comp=Z,0.9nm,0.3s,baz=234,slow=14,SNR=1.9
MKAR Lg Lg 08 30 15.2
comp=Z,3.5nm,0.3s,baz=235,slow=29,SNR=4.9
comp=Z,2.1nm,0.6s
MKAR AML AML
MKAR Makanchi Array 8.60 44 Pn 08 27 53.0 +1.4
HNLY HANLEY 9.27 150 *i* P Pn 08 27 55.0 -6.4
BHK Bhakra 9.83 166 *i* P Pn 08 28 13.6 +5.0
KLP Kalpa 10.16 156 *i* P Pn 08 28 10.7 -2.7
KLP *i* S Sn 08 29 51.3 -16
SMLA Simla 10.26 162 *i* P Pn 08 28 16.7 +2.4
SMLA *i* S Sn 08 30 04.1 -4.8
KURBB Kurchatov Arra 10.26 18 Pn Pn 08 28 13.7 -0.7
comp=Z,0.2nm,0.3s,baz=212,slow=12,SNR=19
KURBB Sn Sn 08 30 13.9 +5.0
comp=Z,0.2nm,0.3s,baz=206,slow=26,SNR=4.7
KURBB Lg Lg 08 31 04.5
comp=Z,1.0nm,0.3s,baz=203,slow=29,SNR=8.2
comp=Z,3.3nm,0.8s
KURBB AML AML
KURK Kurchatov 10.37 18 *i* P Pn 08 28 17.3 +1.5
KURK Kurchatov 10.37 18 Pn 08 28 15.7 -0.1
KURK Kurchatov 10.37 18 P Pn 08 28 15.5 -0.3
comp=Z,12nm,0.8s
WMQ Urumqi 10.86 70 *e*P Pn 08 28 26.8 +4.1
WMQ S Sn 08 30 21.0 -2.9
WMQ pmax pmax
comp=Z,10.0nm,0.7s
WMQ L L
comp=Z,360nm,16.5s
WMQ L L
comp=Z,370nm,17.9s
WMQ L L
comp=Z,210nm,24.1s
UTK UTTARKASHI 10.97 157 *i* P Pn 08 28 20.5 -3.8
UTK *i* S Sn 08 30 11.8 -15
HRA Herat 11.09 237 Pn 08 28 24.1 -1.8
BVAR Borovoye Array 12.24 351 Pn Pn 08 28 39.6 -1.8
comp=Z,0.3nm,0.3s,baz=162,slow=14,SNR=21
BVAR Sn Sn 08 30 51.6 -5.9
comp=Z,0.1nm,0.3s,baz=155,slow=14,SNR=2.7
BVAR Lg Lg 08 32 07.5
comp=Z,0.3nm,0.3s,baz=169,slow=25,SNR=3.8
comp=Z,9.3nm,0.7s
BVAR AML AML
BORK Borovoye 12.27 351 P Pn 08 28 40.4 -1.4
BORK Borovoye 12.27 351 Pn 08 28 40.4 -1.4
AB31 Akbulak array 12.65 315 *i* P Pn 08 28 45.9 -1.2
AB31 pmax pmax
comp=Z,18nm,0.8s
AB31 Akbulak array 12.65 315 Pn 08 28 45.8 -1.2
ABKAR Akbulak array 12.65 315 Pn 08 28 45.8 -1.3
AKTO Aktyubinsk 14.36 316 Pn Pn 08 29 09.1 -1.2
comp=Z,0.9nm,0.3s,baz=125,slow=13,SNR=15
AKTO Sn Sn 08 31 44.2 -4.8
comp=Z,0.6nm,0.3s,baz=132,slow=15,SNR=2.6
AKTO Lg Lg 08 33 24.1
comp=Z,0.3nm,0.3s,baz=53,slow=15,SNR=1.8
AKTO LR LR 08 35 07.9
comp=Z,517nm,18.8s,baz=355,slow=39
comp=Z,12nm,1.0s
AKTO AML AML
AKTO Aktyubinsk 14.36 316 P Pn 08 29 08.5 -1.8
AKTO pmax pmax
comp=Z,14nm,1.0s
AJM Ajmer 14.54 176 IVmB_BB 08 30 03.5
comp=Z,157nm,0.8s
ZAA0 Zalesovo Array 15.04 27 Pn 08 29 20.0 +0.5
ZALV Zalesovo Beam 15.04 27 Pn Pn 08 29 19.3 -0.2
comp=Z,0.6nm,0.3s,baz=220,slow=13,SNR=20
ZALV Sn Sn 08 32 02.9 -2.7
comp=Z,0.3nm,0.3s,baz=219,slow=15,SNR=2.1
ZALV Lg Lg 08 33 34.9
comp=Z,0.2nm,0.3s,baz=218,slow=28,SNR=2.4
comp=Z,4.1nm,0.5s
ZALV AML AML
ZALV Zalesovo Beam 15.04 27 P Pn 08 29 19.8 +0.3
ZALV Zalesovo Beam 15.04 27 Pn 08 29 19.8 +0.3
GOMU GeErMu 17.31 99 P Pn 08 29 49.4 +0.3
GOMU pP pP 08 29 52.9 -2.9
GOMU sP sP 08 29 56.5 -1.8
GOMU pmax pmax
comp=Z,4.0nm,0.6s
SVE Sverdlovsk 17.93 337 *e*P P 08 29 57.9 +1.0
ARTI Arti 18.31 332 P Pn 08 29 59.4 -1.6
comp=Z,0.5nm,0.3s,baz=159,slow=7.0,SNR=7.8
ARTI S Sn 08 33 25.0 +0.1
comp=Z,2.0nm,0.4s,baz=293,slow=23,SNR=1.6
ARTI Lg Lg 08 35 25.5
comp=Z,0.1nm,0.3s,baz=119,slow=13,SNR=2.0
ARTI LR LR 08 37 21.0
comp=Z,429nm,18.5s,baz=126,slow=38
comp=Z,5.5nm,0.7s
ARTI AML AML
ARTI Arti 18.31 332 P Pn 08 29 59.7 -1.3
ARTI S Sn 08 33 18.4 -6.5
ARTI Arti 18.31 332 P Pn 08 30 00.5 -0.5
KNGR Kungurtug, Tuv 19.23 52 *e*P Pn 08 30 14.8 +2.5
KNGR pmax pmax
comp=Z,10.0nm,1.1s
MAK Makhachkala 19.42 284 *e*P P 08 30 11.2 -2.1
MAK *e*S Sn 08 33 46.3 -5.7
MAK pmax pmax
comp=Z,117nm,1.3s
MAK MLR MLR
comp=Z,402nm,14.0s
GTA2 Gaotai 20.07 86 P Pn 08 30 22.5 +0.1
GTA2 pP sP 08 30 28.2 -0.1
GTA2 pmax pmax
comp=Z,10.0nm,1.0s
GTA2 L L
comp=Z,190nm,15.6s
GTA2 L L
comp=Z,190nm,14.6s
GTA2 L L
comp=Z,260nm,14.0s
NGP Nagpur 20.29 165 IVmB_BB 08 29 08.0
comp=Z,128nm,0.3s
BELG Belogornoye 21.00 312 P P 08 30 29.4 -0.9
comp=Z,9.1nm,0.8s,baz=260,slow=1.5,SNR=7.0
comp=Z,9.1nm,0.8s
BELG Belogornoye 21.00 312 *e*P P 08 30 31.4 +1.1
BELG pmax pmax
comp=Z,3.0nm,1.1s
UOSS Minazif 21.54 227 P P 08 30 36.1 -0.3
UOSS IAmb IAmb 08 30 46.9
comp=Z,10nm,0.8s
UOSS Minazif 21.54 227 P P 08 30 38.3 +1.9
comp=Z,19nm,1.1s
GNI Garni 21.84 277 P P 08 30 38.6 -1.1
comp=Z,6.6nm,0.4s,baz=18,slow=23,SNR=1.2
GNI LR LR 08 40 08.2
comp=Z,72nm,21.2s,baz=78,slow=40
comp=Z,6.6nm,0.4s
GNI Garni 21.84 277 P P 08 30 39.5 -0.2
GNI pmax pmax
comp=Z,27nm,0.9s
GNI Garni 21.84 277 P P 08 30 39.5 -0.2
GNI IAmb IAmb 08 30 56.2
comp=Z,27nm,0.9s
GNI Garni 21.84 277 P P 08 30 41.1 +1.4
comp=Z,27nm,0.9s
KBZ Khabaz 22.74 287 P P 08 30 49.0 0.0
comp=Z,1.7nm,0.9s,baz=113,slow=12,SNR=2.1
comp=Z,1.7nm,0.9s

DIGO Kars 22.81 279 P P 08 30 52.3 +2.1
comp=Z,46nm,1.1s
KVAR Kislovodsk Arr 22.87 288 P P 08 30 50.1 -0.5
comp=Z,2.4nm,0.4s,baz=276,slow=18,SNR=1.4
comp=Z,2.4nm,0.4s
KIV Kislovodsk 22.87 288 P P 08 30 50.2 -0.4
KIV Kislovodsk 22.87 288 P P 08 30 54.0 +3.4
comp=Z,20nm,1.0s
EPOS Posof 23.11 282 P P 08 30 54.9 +1.8
comp=Z,25nm,1.4s
TLY Talaya 23.23 52 P P 08 30 54.2 0.0
comp=Z,2.3nm,0.6s,baz=239,slow=17,SNR=1.5
comp=Z,2.3nm,0.6s
TLY Talaya 23.23 52 P P 08 30 53.1 -1.1
KIRV Kirov 23.30 327 P P 08 30 56.4 +1.7
comp=Z,7.8nm,0.7s,baz=135,slow=7.1,SNR=2.0
KIRV LR LR 08 40 39.3
comp=Z,615nm,18.7s,baz=140,slow=38
comp=Z,7.8nm,0.7s
KIRV Kirov 23.30 327 *e*P P 08 30 58.8 +4.1
GEVA Gevas 23.55 274 P P 08 30 57.7 +0.1
GEVA IAmb IAmb 08 31 01.2
comp=Z,15nm,1.0s
VRH Novokhopyorsk 24.13 306 *e*P P 08 31 08.1 +5.3
VRH pmax pmax
comp=Z,21nm,0.7s
SONM Songino Array 24.34 63 P P 08 31 05.4 +0.5
comp=Z,6.6nm,0.4s,baz=268,slow=10,SNR=3.0
comp=Z,0.6nm,0.4s
SONM Songino Array 24.34 63 P P 08 31 03.7 -1.2
SONM pmax pmax
comp=Z,2.0nm,1.0s
SONM Songino Array 24.34 63 P P 08 31 03.7 -1.2
VORD Divnogorie 25.59 305 *e*P P 08 31 20.8 +4.8
VORD pmax pmax
comp=Z,10.0nm,0.5s
VSR Storozhevoye 25.71 305 *e*P P 08 31 21.9 +4.8
VSR pmax pmax
comp=Z,10.0nm,0.5s
VORR Voronezh 25.77 306 *e*P P 08 31 17.7 +0.1
VORR pmax pmax
comp=Z,46nm,0.4s
KELT Kelkit 25.95 280 P P 08 31 24.2 +4.5
comp=Z,67nm,1.6s
LPSR Galich'ya Gora 26.13 308 *e*P P 08 31 27.4 +6.5
LPSR pmax pmax
comp=Z,10.0nm,0.9s
KEMA Kemaliye 26.73 278 P P 08 31 28.6 +1.9
comp=Z,19nm,0.8s
MNGI Mangalore 28.00 177 IAmb IAmb 08 30 37.3
comp=Z,602nm,0.0s
OBN Obninsk 28.08 313 LR LR 08 43 33.4
comp=Z,291nm,19.0s,baz=39,slow=38
HHC Hu-ho-hao-te 28.60 78 *e*P P 08 31 43.3 -0.1
HHC pmax pmax
comp=Z,7.0nm,0.6s
HHC pmax pmax
comp=Z,110nm,5.0s
KLMR Klimovskoe 28.73 325 *e*P P 08 31 45.6 +1.4
KLMR pmax pmax
comp=Z,21nm,1.8s
RAYN Ar Rayn 29.21 242 P P 08 31 49.0 +0.1
RAYN pmax pmax
comp=Z,3.0nm,0.7s
RAYN Ar Rayn 29.21 242 P P 08 31 49.0 +0.1
RAYN Ar Rayn 29.21 242 P P 08 31 48.8 -0.1
comp=Z,6.2nm,1.0s
RAYN pP sP 08 31 57.4 +0.6
NRIK Noril'sk 29.38 10 P P 08 31 49.9 0.0
comp=Z,2.2nm,0.6s,baz=180,slow=8.1,SNR=2.3
NRIK LR LR 08 45 24.7
comp=Z,324nm,18.4s,baz=205,slow=40
comp=Z,2.2nm,0.6s
NRIK Noril'sk 29.38 10 P P 08 31 49.5 -0.3
NRIK pmax pmax
comp=Z,3.0nm,1.1s
NRIK Noril'sk 29.38 10 P P 08 31 49.5 -0.3
BR131 Keskin Array S 30.24 281 P P 08 31 58.1 +0.2
BR131 pmax pmax
comp=Z,4.0nm,0.8s
BR131 Keskin Array S 30.24 281 P P 08 31 58.1 +0.2
BR131 IAmb IAmb 08 32 05.9
comp=Z,4.4nm,0.8s
BRTR Keskin Array B 30.24 281 P P 08 31 56.4 -1.6
comp=Z,0.5nm,0.5s,baz=81,slow=8.0,SNR=13
comp=Z,0.5nm,0.5s
BRTR Keskin Array B 30.24 281 P P 08 31 58.1 +0.2
BRTR Keskin Array B 30.24 281 P P 08 31 58.1 +0.2
BR104 Keskin Array S 30.24 281 P P 08 32 02.7 +4.7
comp=Z,5.5nm,1.0s
BR106 Keskin Array S 30.25 281 P P 08 32 00.7 +2.6
comp=Z,5.0nm,0.9s
BR105 Keskin Array S 30.26 281 P P 08 32 01.2 +3.1
comp=Z,7.2nm,0.9s
KOD Kodaikanal 30.82 172 IAmb IAmb 08 30 52.8
comp=Z,16nm,1.5s
ENH Enshi 30.93 99 P P 08 32 04.3 +0.3
AKASG Malin Array Be 31.92 303 P P 08 32 11.4 -1.1
comp=Z,0.2nm,0.3s,baz=83,slow=7.9,SNR=5.6
AKASG LR LR 08 47 04.6
comp=Z,176nm,18.6s,baz=60,slow=40
comp=Z,0.2nm,0.3s
AKBB Malin Array Si 31.92 303 *e*P P 08 32 17.2 +4.7
AKBB pmax pmax
comp=Z,6.0nm,0.9s
AK03 Malin Array Si 31.93 303 P P 08 32 17.8 +5.3
AK07 Malin Array Si 31.94 303 P P 08 32 15.4 +2.8
AK05 Malin Array Si 31.94 303 P P 08 32 14.9 +2.3
AK04 Malin Array Si 31.96 303 P P 08 32 15.7 +2.9
AK12 Malin Array Si 31.97 303 P P 08 32 16.8 +3.9
AK16 Malin Array Si 32.00 303 P P 08 32 17.3 +4.2
AK17 Malin Array Si 32.03 303 P P 08 32 17.3 +3.9
AK21 Malin Array Si 32.04 303 P P 08 32 17.8 +4.3
AK20 Malin Array Si 32.06 303 P P 08 32 16.5 +2.8
LUBAR Lubar, Ukraine 32.88 301 P P 08 32 24.8 +4.0
TIRR Tirgusor 33.01 291 P P 08 32 21.0 -1.0
TIRR pmax pmax
comp=Z,16nm,1.1s
TIRR Tirgusor 33.01 291 P P 08 32 21.0 -1.0
TIRR Tirgusor 33.01 291 P P 08 32 26.5 +4.5
comp=Z,15nm,1.6s
NACGM Naroch 33.60 311 *e*P P 08 32 31.9 +4.8
comp=Z,16nm,0.8s,baz=95
KMPD K-Podol'skiy 33.81 299 P P 08 32 33.3 +4.3
VRI Vrincioaia 33.95 294 P P 08 32 34.2 +3.9
comp=Z,12nm,2.0s
RNPP5 Staryi Chortor 34.03 304 P P 08 32 35.8 +4.9
RNPP1 Kostyukhnivka 34.10 304 P P 08 32 35.5 +4.0
MLR Muntele Rosu 34.55 294 P P 08 32 35.6 -0.1
MLR pmax pmax
comp=Z,6.0nm,0.8s
MLR Muntele Rosu 34.55 294 P P 08 32 35.6 -0.1
MLR IAmb IAmb 08 32 53.6
comp=Z,6.2nm,0.8s
BURAR Bucovina Array 34.74 298 P P 08 32 36.5 -0.7
BUR08 Bucovina Ar. S 34.74 298 P P 08 32 36.1 -1.1
FIA1 FINESS Array S 35.02 322 P P 08 32 39.2 -0.2
FINES FINESS Array B 35.02 322 P P 08 32 38.9 -0.4
comp=Z,0.7nm,0.4s,baz=117,slow=11,SNR=9.3
comp=Z,0.7nm,0.4s
FINES FINESS Array B 35.02 322 *ce*P P 08 32 45.2 +5.9
FINES pmax pmax
comp=Z,3.0nm,0.6s
FINES FINESS Array B 35.02 322 P P 08 32 39.4 +0.1
ARCES ARCESS Array B 37.85 335 P P 08 33 03.0 -0.4
comp=Z,2.3nm,0.8s,baz=96,slow=9.0,SNR=4.7
ARCES LR LR 08 48 15.5
comp=Z,76nm,18.9s,baz=141,slow=36
comp=Z,2.3nm,0.8s
ARCES ARCESS Array B 37.85 335 P P 08 33 03.0 -0.4
OJC Ojcow 37.96 303 P P 08 33 08.8 +4.2
OJC Ojcow 37.96 303 P P 08 33 10.1 +5.5
comp=Z,9.8nm,1.0s
YAK Yakutsk 39.21 38 *e*P P 08 33 19.3 +4.4
YAK pmax pmax
comp=Z,8.0nm,0.5s
MORC Moravsky Berou 39.47 302 P P 08 33 23.2 +5.9
comp=Z,8.1nm,0.9s
VRAC Vranov 40.16 302 LR LR 08 53 01.6
comp=Z,184nm,18.1s,baz=78,slow=41
SRN Sarande 40.22 287 P P 08 33 28.7 +5.2
comp=Z,7.3nm,1.0s
HFS Hagfors 40.89 319 P P 08 33 28.6 -0.2
comp=Z,1.5nm,0.7s,baz=92,slow=12,SNR=5.6
HFS LR LR 08 50 58.1
comp=Z,243nm,18.8s,baz=86,slow=37

comp=Z,1.5nm,0.7s
TIXI Tiksi 40.89 23 LR LR 08 51 39.0
comp=Z,153nm,19.1s,baz=194,slow=38
TIXI Tiksi 40.89 23 P **P** **08 33 28.8 +0.1**
TIXI pmax pmax
comp=Z,8.0nm,0.8s
TIXI Tiksi 40.89 23 P **P** **08 33 28.8 +0.1**
TIXI lAmb lAmb 08 33 35.5
comp=Z,7.6nm,0.8s
TIXI Tiksi 40.89 23 P P 08 33 34.8 +6.1
comp=Z,13nm,0.8s
NC405 NORSAR Array S 41.86 320 P **P** **08 33 37.3 +0.5**
NC405 lAmb lAmb 08 33 47.1
comp=Z,7.2nm,0.9s
NC602 NORSAR Array S 41.95 320 P **P** **08 33 38.1 +0.6**
CLL Collm 42.06 305 P **P** **08 33 38.8 +0.2**
CLL pmax pmax
comp=Z,6.0nm,1.0s
CLL Collm 42.06 305 P **P** **08 33 38.8 +0.2**
CLL lAmb lAmb 08 33 45.8
comp=Z,6.0nm,1.0s
CLL Collm 42.06 305 P P 08 33 43.6 +5.1
comp=Z,8.1nm,1.3s
CLL Collm 42.06 305 *i* PKPbc P 08 33 44.7 +6.1
NB2 NORSAR Subarra 42.11 320 P P 08 33 44.0 +5.1
comp=Z,1.9nm,0.6s,baz=90,slow=8.6
NOA NORSAR Array B 42.11 320 P **P** **08 33 38.8 0.0**
comp=Z,1.1nm,0.9s,baz=90,slow=8.2,SNR=10
NOA LR LR 08 51 45.4
comp=Z,163nm,20.2s,baz=85,slow=37
comp=Z,1.1nm,0.9s
GEC2 GERESS Array S 42.11 302 P P 08 33 46.0 +6.9
comp=Z,6.9nm,1.4s
GERES GERESS Array B 42.11 302 P **P** **08 33 38.8 -0.4**
comp=Z,0.8nm,0.6s,baz=79,slow=7.1,SNR=16
comp=Z,0.8nm,0.6s
GERES GERESS Array B 42.11 302 P **P** **08 33 39.3 +0.2**
GERES GERESS Array B 42.11 302 P **P** **08 33 39.3 +0.2**
KHC Kasperske Hory 42.13 302 *eP* P 08 33 45.4 +6.2
KHC pmax pmax
comp=Z,2.0nm,0.9s
NAO01 NORSAR Array S 42.27 320 P **P** **08 33 39.2 -1.0**
NC204 NORSAR Array S 42.32 320 P **P** **08 33 40.6 0.0**
NC204 lAmb lAmb 08 33 54.7
comp=Z,9.9nm,1.1s
USRK Ussuriysk Ar. 42.39 65 LR LR 08 52 42.4
comp=Z,116nm,18.6s,baz=289,slow=38
TRI Trieste 42.84 297 P **P** **08 33 45.6 +0.7**
TRI pmax pmax
comp=Z,9.0nm,0.9s
TRI Trieste 42.84 297 P **P** **08 33 45.6 +0.7**
TRI lAmb lAmb 08 33 52.0
comp=Z,9.2nm,0.9s
KULM Kulim 43.04 138 P **P** **08 33 46.1 -0.8**
KULM lAmb lAmb 08 34 01.4
comp=Z,4.3nm,0.7s
SPITS Spitsbergen Ar 43.63 345 LR LR 08 54 33.3
comp=Z,136nm,20.7s,baz=121,slow=40
UBR Ueberruh 44.72 301 P P 08 34 06.0 +5.8
DAVA Damuels 44.98 300 P P 08 34 07.6 +5.3
comp=Z,1.3nm,1.1s
JMIC Jan Mayen 49.34 335 LR LR 08 55 23.9
comp=Z,103nm,18.6s,baz=120,slow=36
MJAR Matsushiro Arr 49.62 73 P **P** **08 34 37.7 -0.8**
comp=Z,1.5nm,0.9s,baz=290,slow=9.2,SNR=6.0
comp=Z,1.5nm,0.9s
MJAR Matsushiro Arr 49.62 73 P **P** **08 34 38.2 -0.2**
MJAR pmax pmax
comp=Z,4.0nm,1.2s
MJAR Matsushiro Arr 49.62 73 P **P** **08 34 38.2 -0.2**
MJAR lAmb lAmb 08 34 43.3
comp=Z,3.7nm,1.2s
ASAJ Asahikawa 49.62 62 LR LR 08 59 12.3
comp=Z,48nm,18.6s,baz=278,slow=40
KIBK Kibwezi 53.87 226 P **P** **08 35 10.8 +0.4**
KIBK lAmb lAmb 08 35 11.6
comp=Z,4.5nm,0.9s
BORG Borgarnes 55.76 329 LR LR 08 59 01.5
comp=Z,111nm,19.7s,baz=87,slow=36
MBAR Mbarara 56.71 234 P **P** **08 35 30.6 -0.4**
MBAR pmax pmax
comp=Z,5.0nm,0.9s
MBAR Mbarara 56.71 234 P **P** **08 35 30.6 -0.4**
MBAR lAmb lAmb 08 35 45.0
comp=Z,4.8nm,0.8s
ESDC Sonseca Array 57.18 296 P **P** **08 35 33.7 -0.3**
comp=Z,0.6nm,0.8s,baz=59,slow=6.5,SNR=7.4
comp=Z,0.6nm,0.8s
ESDC Sonseca Array 57.18 296 P **P** **08 35 33.8 -0.2**
BBJI Bungbulang 57.50 139 P **P** **08 35 36.0 -0.5**
D19K Kuna River 64.29 19 P **P** **08 36 22.5 +0.5**
D19K lAmb lAmb 08 36 37.6
comp=Z,2.0nm,0.8s
E18K Tukpahlearik C 64.46 20 P **P** **08 36 23.8 +0.8**
D22K Ayikyak River 65.24 17 P **P** **08 36 27.9 -0.2**
D22K lAmb lAmb 08 36 36.1
comp=Z,6.8nm,1.1s
D25K Kavik River 66.16 14 P **P** **08 36 34.7 +0.7**
D25K lAmb lAmb 08 36 50.1
comp=Z,3.0nm,1.0s
IMAR Indian Mountai 67.31 19 P **P** **08 36 41.5 +0.1**
TORD Torodi Ar. Bea 67.81 268 P **P** **08 36 44.0 -1.3**
comp=Z,1.2nm,0.8s,baz=52,slow=6.5,SNR=6.1
comp=Z,1.2nm,0.8s
TORD Torodi Ar. Bea 67.81 268 P **P** **08 36 45.5 +0.2**
TORD lAmb lAmb 08 36 48.8
comp=Z,5.5nm,1.1s
BMAR Burnt Mountain 68.13 15 P **P** **08 36 47.3 +0.7**
G24K Hadweenzic Riv 68.16 16 P **P** **08 36 47.9 +1.1**
G24K lAmb lAmb 08 36 54.4
comp=Z,5.5nm,1.2s
J20K Nowinta River 68.66 20 P **P** **08 36 50.8 +0.9**
FAKI Fak Fak 68.93 114 P **P** **08 36 52.1 -0.1**
INK Inuvik 69.17 10 P **P** **08 36 53.7 +0.7**
INK pmax pmax
comp=Z,4.0nm,1.1s
INK Inuvik 69.17 10 P **P** **08 36 53.7 +0.7**
INK lAmb lAmb 08 36 56.4
comp=Z,3.5nm,1.1s
COLA College 69.63 18 *eP* P 08 37 01.5 +5.6
COLA pmax pmax
comp=Z,5.0nm,0.9s
M16K Timber Creek 69.76 24 P **P** **08 36 57.5 +0.7**
ILAR Eielson Array 69.94 17 P **P** **08 36 57.1 -0.7**
comp=Z,0.3nm,0.8s,baz=327,slow=4.3,SNR=12
comp=Z,0.3nm,0.8s
ILAR Eielson Array 69.94 17 P **P** **08 36 58.5 +0.7**
ILAR Eielson Array 69.94 17 P **P** **08 36 58.5 +0.7**
PPLA Purkeypile 70.22 20 P **P** **08 37 00.0 +0.3**
TRF Thorofare Moun 70.25 19 P **P** **08 37 00.1 +0.2**
H29M Whitestone 70.34 13 P **P** **08 37 01.1 +0.8**
BCAR Beaver Creek A 72.53 16 P **P** **08 37 14.3 +0.7**
GLB Gilahina Butte 73.53 18 P **P** **08 37 19.8 +0.3**
GLB lAmb lAmb 08 37 31.7
comp=Z,9.2nm,1.2s
FITZ Fitzroy Crossi 76.08 129 P **P** **08 37 33.6 -1.1**
YKA Yellowknife Ar 76.67 4 P **P** **08 37 36.7 -0.8**
comp=Z,2.3nm,0.8s,baz=352,slow=5.7,SNR=4.4
comp=Z,2.3nm,0.8s
TSUM Tsumeb 79.21 233 P **P** **08 37 52.5 +0.2**
TSUM lAmb lAmb 08 37 52.9
comp=Z,6.3nm,1.1s
LBTB Lobatse 79.30 223 P **P** **08 37 53.2 +0.5**
LBTB pmax pmax
comp=Z,2.0nm,0.8s
LBTB Lobatse 79.30 223 P **P** **08 37 53.2 +0.5**
BOSA Boshof 82.42 221 P **P** **08 38 07.4 -1.9**
comp=Z,3.8nm,1.0s,baz=9.5,slow=6.1,SNR=3.4
comp=Z,3.8nm,1.0s
BOSA Boshof 82.42 221 P **P** **08 38 09.0 -0.3**
BOSA pmax pmax
comp=Z,6.0nm,1.1s
BOSA Boshof 82.42 221 P **P** **08 38 09.0 -0.3**
BOSA lAmb lAmb 08 38 10.8
comp=Z,6.0nm,1.1s
WRA Warramunga Arr 82.77 124 P **P** **08 38 08.9 -2.3**
comp=Z,0.4nm,0.5s,baz=328,slow=5.4,SNR=7.9
comp=Z,0.4nm,0.5s
WRAB Tennant Creek 82.77 124 P **P** **08 38 10.6 -0.6**
WRAB pmax pmax
comp=Z,3.0nm,1.1s
WRAB Tennant Creek 82.77 124 P **P** **08 38 10.6 -0.6**
WRAB lAmb lAmb 08 38 19.6
comp=Z,3.0nm,1.1s
WR8 Warramunga Arr 82.88 124 P **P** **08 38 11.6 -0.2**
WR8 lAmb lAmb 08 38 28.7
comp=Z,4.0nm,1.1s
ASAR Alice Springs 85.28 127 P **P** **08 38 22.1 -1.8**
comp=Z,0.7nm,0.7s,baz=317,slow=4.6,SNR=7.8
comp=Z,0.7nm,0.7s
ASAR Alice Springs 85.28 127 P **P** **08 38 23.6 -0.3**
ASAR Alice Springs 85.28 127 P **P** **08 38 23.6 -0.3**
SUR Sutherland 87.70 222 P **P** **08 38 36.0 +0.2**

MOS **12** *08:27:45.2±2.9, 40.90N×73.64E, h10km, mb4.4/3, Error ellipse: s-maj=7.8km s-min=4.6km az=66.6*
NEIC **12** *08:27:45.0±1.2, 40.94N±0.04×73.73E±0.05, h10km±1km, mb4.6/8, Error ellipse: s-maj=7.7km s-min=6.6km az=327.0*
KRNET **12** *08:27:47.3±0.1, 41.03N×73.46E, h15km, mb4.4*
IDC **12** *08:27:48.8±1.8, 40.96N×74.04E, h0km, mb3.8/5, mbtmp3.9/7, ML3.7/1, Error ellipse: s-maj=31.4km s-min=17.2km az=135.0*
KNET **12** *08:27:49.5±0.4, 41.09N×73.57E, h14km±2km, ml3.8, Error ellipse: s-maj=4.0km s-min=2.9km az=79.0*
ISC 12 08:27:45.6±0.9**, 40.96N**±0.02×**73.60E**±0.02**, h16**km±6km**, n111,σ1$50/138, mb4.1/9, 41C-25D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SALK	**Salom-Alik**	**0.19**	**114**		*eP*		**Pb**	**08 27 53.5**	**+2.7**
SALK				⇑	*eS*		**Sg**	**08 27 57.5**	**+4.0**
ARSB	**Arslanbob**	**0.59**	**308**	⇓	*eP*		**Pg**	**08 27 56.3**	**-1.0**
ARSB				⇓	*eS*		**Sg**	**08 28 03.1**	**-2.1**
ARSB	**Arslanbob**	**0.59**	**308**		PG		**Pb**	**08 27 58.4**	**+0.8**
ARSB	**Arslanbob**	**0.59**	**308**				**Pb**	**08 27 58.4**	**+0.8**
OHH	**Osh**	**0.76**	**235**	⇑	*eP*		**Pb**	**08 28 00.9**	**+0.5**
OHH				⇑	*eS*		**Sb**	**08 28 10.9**	**+0.5**
OHH	**Osh**	**0.76**	**235**		*ePG*		**Pb**	**08 28 00.9**	**+0.5**
SFK	**Sufi-Kurgan**	**0.95**	**184**	⇑	*eP*		**Pn**	**08 28 06.5**	**+2.0**
SFK				⇑	*eS*		**Sn**	**08 28 20.5**	**+2.7**
SFK	**Sufi-Kurgan**	**0.95**	**184**		*ePG*		**Pn**	**08 28 06.5**	**+2.0**
UCH	**Uchtor**	**1.44**	**28**	⇓	P		**Pg**	**08 28 14.7**	**+1.3**
UCH	225nm,0.2s			⇑	S		**Sg**	**08 28 33.8**	**+1.6**
UCH	**Uchtor**	**1.44**	**28**	⇑	*eP*		**Pg**	**08 28 14.1**	**+0.7**
UCH	918nm,0.2s			⇑	*eS*		**Sg**	**08 28 33.6**	**+1.4**
UCH	**Uchtor**	**1.44**	**28**		*ePG*		**Pg**	**08 28 14.1**	**+0.7**
EKS2	**Erkin-Say**	**1.71**	**4**	⇑	P		**Pg**	**08 28 18.6**	**+0.2**
EKS2	155nm,0.2s			⇑	S		**Sg**	**08 28 40.8**	**+0.2**
EKS2	**Erkin-Say**	**1.71**	**4**	⇓	*eP*		**Pb**	**08 28 17.8**	**+1.2**
EKS2	1μm,0.5s			⇑	*eS*		**Sb**	**08 28 39.9**	**+2.0**
EKS2	**Erkin-Say**	**1.71**	**4**		*ePN*		**Pb**	**08 28 17.8**	**+1.2**
MNAS	**Manas**	**1.73**	**332**	⇑	*eP*		**Pb**	**08 28 17.3**	**+0.2**
MNAS				⇑	*eS*		**Sn**	**08 28 39.2**	**+2.3**
MNAS	**Manas**	**1.73**	**332**		*ePN*		**Pb**	**08 28 17.3**	**+0.2**
AAK	**Ala-Archa**	**1.81**	**22**		Pg		**Pg**	**08 28 21.4**	**+1.2**
AAK	150nm,0.3s,baz=186,slow=4.4,SNR=6.5				Lg		Lg	08 28 45.7	
AAK	**Ala-Archa**	**1.81**	**22**	⇑	P		**Pg**	**08 28 21.0**	**+0.7**
AAK	168nm,0.3s,baz=49,slow=17,SNR=7.5 357nm,0.2s			⇓	S		**Sg**	**08 28 45.2**	**+1.4**
AAK	**Ala-Archa**	**1.81**	**22**	⇓	P		**Pg**	**08 28 21.5**	**+1.2**
AAK	557nm,0.2s 214nm,0.5s			⇑	S		**Sg**	**08 28 45.5**	**+1.8**
AAK	**Ala-Archa**	**1.81**	**22**	⇓	*eP*		**Pg**	**08 28 20.2**	**-0.1**
AAK	185nm,0.5s			⇓	*eS*		**Sg**	**08 28 44.0**	**+0.2**
AAK	**Ala-Archa**	**1.81**	**22**		*ePN*		**Pg**	**08 28 21.3**	**+1.0**
AAK	**Ala-Archa**	**1.81**	**22**				**Pn**	**08 28 16.4**	**+0.3**
NRN	**Naryn**	**1.87**	**75**	⇓	*eP*		**Pg**	**08 28 22.7**	**+1.1**
NRN				⇓	*eS*		**Sg**	**08 28 48.4**	**+2.4**
NRN	**Naryn**	**1.87**	**75**		*ePN*		**Pg**	**08 28 22.7**	**+1.1**
NRN	**Naryn**	**1.87**	**75**		Pn		**Pn**	**08 28 16.1**	**-1.2**
TRKS	**Terek-Say**	**1.94**	**288**	⇑	*eP*		**Pb**	**08 28 20.2**	**-0.4**
TRKS				⇑	*eS*		**Sn**	**08 28 44.0**	**+1.9**
TRKS	**Terek-Say**	**1.94**	**288**		*ePN*		**Pb**	**08 28 20.2**	**-0.4**
TRKS					*eS*		**Sn**	**08 28 44.0**	**+1.9**
KBK	**Karagaybulak**	**1.97**	**30**	⇓	P		**Pg**	**08 28 24.5**	**+1.0**
KBK	174nm,0.1s 1μm,0.2s			⇑	S		**Sg**	**08 28 50.9**	**+1.8**
KBK	**Karagaybulak**	**1.97**	**30**	⇓	*eP*		**Pg**	**08 28 23.1**	**-0.4**
KBK				⇓	*eS*		**Sg**	**08 28 49.3**	**+0.2**
KBK	**Karagaybulak**	**1.97**	**30**		*ePN*		**Pg**	**08 28 23.1**	**-0.4**
FRU1	**Bishkek**	**2.00**	**22**	⇑	*eP*		**Pg**	**08 28 23.7**	**-0.7**
FRU1				⇑	*eS*		**Sg**	**08 28 49.8**	**-0.2**
FRU1	**Bishkek**	**2.00**	**22**		PN		**Pn**	**08 28 18.4**	**-0.4**
FRU1	**Bishkek**	**2.00**	**22**		Pn		**Pn**	**08 28 18.4**	**-0.4**
DRK	**Karamyk**	**2.02**	**223**	⇑	*eP*		**Pg**	**08 28 23.7**	**-0.7**
DRK				⇑	*eS*		**Sg**	**08 28 50.2**	**-0.4**
DRK	**Karamyk**	**2.02**	**223**		*ePN*		**Pg**	**08 28 23.7**	**-0.7**
DRK	**Karamyk**	**2.02**	**223**		Pn		**Pn**	**08 28 20.3**	**+1.1**
CHMS	**Chumysh**	**2.21**	**23**	⇓	P		**Pg**	**08 28 27.1**	**-1.0**
CHMS	267nm,0.3s 1μm,0.5s			⇑	S		**Sg**	**08 28 56.5**	**-0.2**
CHMS	**Chumysh**	**2.21**	**23**	⇑	*eP*		**Pb**	**08 28 26.1**	**+0.9**
CHMS				⇑	*eS*		**Sb**	**08 28 54.4**	**+2.1**
CHMS	**Chumysh**	**2.21**	**23**		*ePN*		**Pb**	**08 28 48.1**	**+0.9**
BTK	**Batken**	**2.30**	**248**	⇓	*eP*		**Pb**	**08 28 27.0**	**+0.2**
BTK				⇓	*eS*		**Sb**	**08 28 55.9**	**+0.9**
BTK	**Batken**	**2.30**	**248**		PN		**Pn**	**08 28 23.9**	**+1.0**
BTK	**Batken**	**2.30**	**248**		Pn		**Pn**	**08 28 23.9**	**+1.0**
BOOM	**Boomskoye usch**	**2.33**	**48**	⇑	*eP*		**Pb**	**08 28 28.6**	**+1.4**
BOOM				⇑	*eS*		**Sg**	**08 28 58.7**	**-1.7**
BOOM	**Boomskoye usch**	**2.33**	**48**		PN		**Pn**	**08 28 23.1**	**-0.3**
BOOM	**Boomskoye usch**	**2.33**	**48**		Pn		**Pn**	**08 28 23.1**	**-0.3**
ULHL	**Ulahol**	**2.36**	**56**	⇓	P		**Pg**	**08 28 30.1**	**-0.8**
ULHL	80nm,0.3s			⇑	*eP*		**Pb**	**08 28 29.3**	**+1.4**
ULHL				⇑	*eS*		**Sg**	**08 28 59.9**	**-1.7**
ULHL	**Ulahol**	**2.36**	**56**		*ePN*		**Pb**	**08 28 29.3**	**+1.4**
USP	**Ospenovka**	**2.40**	**16**	⇓	P		**Pb**	**08 28 29.9**	**+1.5**
USP	171nm,0.3s			⇑	S		**Sg**	**08 29 01.1**	**-1.6**
USP	**Ospenovka**	**2.40**	**16**	⇓	*eP*		**Pb**	**08 28 28.6**	**+0.2**
USP	239nm,0.2s			⇓	*eS*		**Sb**	**08 28 58.7**	**+0.9**
USP	**Ospenovka**	**2.40**	**16**		*ePN*		**Pb**	**08 28 28.6**	**+0.2**
TKM2	**Tokmak 2**	**2.46**	**37**	⇑	P		**Pg**	**08 28 31.5**	**-1.3**
TKM2	183nm,0.3s 413nm,0.4s			⇑	S		**Sg**	**08 29 03.5**	**-1.3**
TKM2	**Tokmak 2**	**2.46**	**37**	⇑	*eP*		**Pb**	**08 28 30.2**	**+0.6**
TKM2				⇑	*eS*		**Sb**	**08 29 01.4**	**+1.7**
TKM2	**Tokmak 2**	**2.46**	**37**		*ePN*		**Pb**	**08 28 30.2**	**+0.6**
KDJ	**Kajisay**	**2.93**	**65**	⇑	*eP*		**Pb**	**08 28 37.6**	**0.0**
KDJ				⇑	*eS*		**Sb**	**08 29 14.3**	**+1.1**
KDJ	**Kajisay**	**2.93**	**65**		PN		**Pn**	**08 28 30.2**	**-1.5**
KDJ	**Kajisay**	**2.93**	**65**		Pn		**Pn**	**08 28 30.1**	**-1.5**
KK31	**Karatay Array**	**3.14**	**314**	⇑	Pg		**Pb**	**08 28 43.7**	**+2.7**
KK31	97nm,0.5s,baz=122,slow=16 219nm,0.3s,baz=127,slow=28,SNR=5.1				Lg		Lg	08 29 24.1	
KK31	**Karatay Array**	**3.14**	**314**		PN		**Pn**	**08 28 34.9**	**+0.5**
KK31	**Karatay Array**	**3.14**	**314**		Pn		**Pn**	**08 28 34.9**	**+0.5**
KKAR	**Karatay Array**	**3.14**	**314**		PN		**Pn**	**08 28 35.5**	**+1.1**
KKAR	**Karatay Array**	**3.14**	**314**		Pn		**Pn**	**08 28 35.5**	**+1.1**
TARG	**Taragay, Kyrgy**	**3.26**	**75**	⇓	*eP*		**Pb**	**08 28 42.4**	**-0.9**
TARG				⇓	*eS*		**Sb**	**08 29 22.5**	**-0.4**
TARG	**Taragay, Kyrgy**	**3.26**	**75**		PN		**Pn**	**08 28 34.1**	**-2.3**
TARG	**Taragay, Kyrgy**	**3.26**	**75**		Pn		**Pn**	**08 28 34.1**	**-2.3**
ANVS	**Anan'yevo**	**3.54**	**58**	⇑	*eP*		**Pb**	**08 28 45.7**	**-2.3**
ANVS				⇑	*eS*		**Sb**	**08 29 28.4**	**-2.4**
ANVS	**Anan'yevo**	**3.54**	**58**		*ePN*		**Pb**	**08 28 45.7**	**-2.3**
ANVS					*eS*		**Sb**	**08 29 28.4**	**-2.4**
PRZ	**Przheval'sk**	**3.90**	**65**	⇓	*eP*		**Pb**	**08 28 51.1**	**-3.0**
PRZ				⇓	*eS*		**Sb**	**08 29 37.5**	**-3.7**
PRZ	**Przheval'sk**	**3.90**	**65**		PN		**Pn**	**08 28 44.3**	**-0.8**
PRZ	**Przheval'sk**	**3.90**	**65**		Pn		**Pn**	**08 28 44.3**	**-0.8**
MAKZ	**Makanchi**	**8.41**	**43**		P		**Pn**	**08 29 45.5**	**-1.2**
MAKZ	**Makanchi**	**8.41**	**43**		Pn		**Pn**	**08 29 45.5**	**-1.2**
MKAR	**Makanchi Array**	**8.56**	**44**		Pn		**Pn**	**08 29 53.2**	**+4.3**
MKAR	0.9nm,0.3s,baz=242,slow=15,SNR=2.6 8.4nm,0.7s				AML		AML		
MKAR	**Makanchi Array**	**8.56**	**44**		P		**Pn**	**08 29 47.0**	**-1.9**
MKAR	**Makanchi Array**	**8.56**	**44**		Pn		**Pn**	**08 29 47.0**	**-1.9**
MK31	**Makanchi Array**	**8.57**	**44**		*eP*		Pn	08 29 55.3	+6.4
KURK	**Kurchatov**	**10.36**	**18**		*eP*		Pn	08 30 18.6	+5.2
KURK	comp=Z,16nm,0.9s				pmax		pmax		
KURK	**Kurchatov**	**10.36**	**18**		Pn		**Pn**	**08 30 12.9**	**-0.6**
BORK	**Borovoye**	**12.29**	**351**	⇓	*eP*		**Pn**	**08 30 41.9**	**+2.1**
BORK	comp=Z,12nm,0.8s				pmax		pmax		
BORK	**Borovoye**	**12.29**	**351**		Pn		**Pn**	**08 30 39.8**	**0.0**
AB31	**Akbulak array**	**12.70**	**315**		Pn		**Pn**	**08 30 46.6**	**+1.2**
ABKAR	**Akbulak array**	**12.70**	**315**		Pn		**Pn**	**08 30 46.6**	**+1.2**
ZAA0	**Zalesovo Array**	**15.02**	**26**		Pn		**Pn**	**08 31 16.8**	**-0.2**
ZALV	**Zalesovo Beam**	**15.02**	**26**		Pn		**Pn**	**08 31 18.9**	**+1.9**
	comp=Z,2.4nm,0.6s,baz=212,slow=13,SNR=1.7								
ZALV	**Zalesovo Beam**	**15.02**	**26**		P		**Pn**	**08 31 16.8**	**-0.2**
ZALV	**Zalesovo Beam**	**15.02**	**26**				**Pn**	**08 31 16.8**	**-0.2**
KNGR	**Kungurtug, Tuv**	**19.19**	**52**		*eP*		**Pn**	**08 32 15.1**	**+5.6**
KNGR	comp=Z,7.0nm,1.0s				pmax		pmax		
SONM	**Songino Array**	**24.29**	**63**		P		**P**	**08 33 05.5**	**+3.3**
	comp=Z,0.9nm,0.7s,baz=247,slow=11,SNR=1.8								
	comp=Z,0.9nm,0.7s								
SONM	**Songino Array**	**24.29**	**63**		P		**P**	**08 33 01.9**	**-0.3**
SONM	comp=Z,2.0nm,1.2s				pmax		pmax		
SONM	**Songino Array**	**24.29**	**63**		P		**P**	**08 33 01.9**	**-0.3**
BNN	**Bunyan**	**28.89**	**278**		P		**P**	**08 33 43.2**	**-0.5**
RAYN	**Ar Rayn**	**29.26**	**242**		P		**P**	**08 33 46.1**	**-0.9**
RAYN	comp=Z,6.0nm,1.3s				pmax		pmax		
RAYN	**Ar Rayn**	**29.26**	**242**		P		**P**	**08 33 46.1**	**-0.9**
RAYN	comp=Z,5.8nm,1.2s				lAmb		lAmb	08 33 59.9	
BRTR	**Keskin Array B**	**30.30**	**281**		P		**P**	08 34 05.7	+10
	comp=Z,1.2nm,0.7s,baz=92,slow=7.7,SNR=3.9								
	comp=Z,1.2nm,0.7s								
BRTR	**Keskin Array B**	**30.30**	**281**		P		**P**	**08 33 57.4**	**+1.2**
BRTR	**Keskin Array B**	**30.30**	**281**		P		**P**	**08 33 57.4**	**+1.2**
ENH	**Enshi**	**30.87**	**99**		P		**P**	**08 34 00.6**	**-0.6**
ENH	comp=Z,9.2nm,0.6s				lAmb		lAmb	08 34 09.7	
CMAR	**Chiang Mai Arr**	**31.22**	**128**		P		**P**	**08 34 03.7**	**-0.6**
CMAR	**Chiang Mai Arr**	**31.22**	**128**		P		**P**	**08 34 03.7**	**-0.6**
HFS	**Hagfors**	**40.94**	**319**		P		P	08 35 34.5	+7.6
	comp=Z,3.4nm,0.9s,baz=106,slow=11,SNR=2.9								
	comp=Z,3.4nm,0.9s								
NOA	**NORSAR Array B**	**42.15**	**320**		P		P	08 35 43.5	+6.6
	comp=Z,1.1nm,0.7s,baz=119,slow=5.7,SNR=2.6								
	comp=Z,1.1nm,0.7s								
GERES	**GERESS Array B**	**42.17**	**302**		P		P	08 35 45.0	+7.8
	comp=Z,1.1nm,0.7s,baz=75,slow=7.1,SNR=4.7								
	comp=Z,1.1nm,0.7s								
GERES	**GERESS Array B**	**42.17**	**302**		P		**P**	**08 35 37.4**	**+0.1**
GERES	**GERESS Array B**	**42.17**	**302**		P		**P**	**08 35 37.4**	**+0.1**
NAO01	**NORSAR Array S**	**42.32**	**320**		P		**P**	**08 35 38.6**	**+0.3**
NAO01	comp=Z,18nm,1.2s				lAmb		lAmb	08 35 45.0	
USA0B	**Ussuriysk Arra**	**42.34**	**65**		P		**P**	**08 35 37.6**	**-1.0**
USA0B	comp=Z,13nm,1.4s				pmax		pmax		
USA0B	**Ussuriysk Arra**	**42.34**	**65**		P		**P**	**08 35 37.5**	**-1.0**
USA0B					lAmb		lAmb	08 35 59.7	
USRK	**Ussuriysk Ar.**	**42.34**	**65**		P		**P**	**08 35 37.8**	**-0.8**
USRK	**Ussuriysk Ar.**	**42.34**	**65**		P		**P**	**08 35 37.8**	**-0.8**
NBO00	**NORSAR Array S**	**42.37**	**320**		P		**P**	**08 35 39.9**	**+1.2**
YULB	**Yu-li**	**43.44**	**99**		P		**P**	**08 35 47.5**	**-0.3**

KRNET **12** *08:36:39.9±0.1, 41.01N×73.46E, h27km, mb3.9*
SOME **12** *08:36:40.7, 41.10N×73.52E, h10km*
NNC **12** *08:36:41.3±1.2, 41.06N×73.56E, h0km, mb4.1, mpv3.8, Error ellipse: s-maj=9.5km s-min=4.7km az=175.0*
ISU **12** *08:36:41, 40.96N×73.47E, h9km*
KNET **12** *08:36:42.1±0.4, 41.10N×73.62E, h11km±2km, ml3.3, Error ellipse: s-maj=4.3km s-min=2.6km az=85.0*
ISC 12 08:36:40.6±1.1**, 41.00N**±0.02×**73.54E**±0.02**, h4**km±9km**, n78,**σ1$79/132**, 35C-23D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SALK	**Salom-Alik**	**0.25**	**119**		*eP*		**Pg**	**08 36 46.3**	**+0.9**
SALK				⇑	*eS*		**Sg**	**08 36 51.3**	**+2.6**
ARSB	**Arslanbob**	**0.53**	**308**	⇓	*eP*		**Pg**	**08 36 50.4**	**-0.3**
ARSB				⇓	*eS*		**Sg**	**08 36 57.0**	**-0.6**
OHH	**Osh**	**0.74**	**230**	⇑	*iP*		**Pg**	**08 36 53.6**	**-1.2**
OHH				⇑	*iS*		**Sg**	**08 37 03.4**	**-1.1**
TSTA	**Tashata**	**0.91**	**243**		P		**Pg**	**08 36 57.5**	**-0.5**
TSTA					S		**Sg**	**08 37 09.9**	**+0.1**
SFK	**Sufi-Kurgan**	**0.99**	**181**	⇑	*eP*		**Pg**	**08 36 58.3**	**-1.2**
SFK				⇑	*iS*		**Sb**	**08 37 12.0**	**-1.8**
UCH	**Uchtor**	**1.43**	**31**	⇓	P		**Pn**	**08 37 07.0**	**-0.6**
UCH	179nm,0.3s,SNR=405 267nm,0.2s			⇓	S		**Sn**	**08 37 26.6**	**-0.6**
UCH	**Uchtor**	**1.43**	**31**	⇓	*iP*		**Pn**	**08 37 06.3**	**-1.4**
UCH				⇓	*iS*		**Sn**	**08 37 25.6**	**-1.5**
FRG	**Fergana**	**1.47**	**245**		P		**Pb**	**08 37 08.4**	**-0.1**
FRG					S		**Sb**	**08 37 27.8**	**+0.2**
EKS2	**Erkin-Say**	**1.67**	**6**	⇓	P		**Pn**	**08 37 11.3**	**+0.6**
EKS2	44nm,0.1s,SNR=179 66nm,0.1s			⇓	S		**Sn**	**08 37 33.8**	**+1.2**
EKS2	**Erkin-Say**	**1.67**	**6**	⇑	*iP*		**Pn**	**08 37 09.9**	**-0.8**
EKS2				⇑	*iS*		**Sn**	**08 37 31.7**	**-0.9**
MNAS	**Manas**	**1.67**	**333**	⇑	*iP*		**Pn**	**08 37 09.6**	**-1.2**
MNAS				⇑	*iS*		**Sn**	**08 37 30.9**	**-1.8**
MRKS	**Merke**	**1.76**	**353**		P		**Pn**	**08 37 12.8**	**+0.9**
MRKS	228nm,0.3s 429nm,0.3s				S		**Sn**	**08 37 36.2**	**+1.

TKM2 ⇑*i*S **Sn 08 37 51.5 -0.7**
PSK Pskem 2.55 292 P **Pb 08 37 26.7 -0.2**
PSK S **Sb 08 38 01.0 +2.3**
KST Kastek 2.73 41 Pg **Pb 08 37 29.1 -0.8**
15nm,0.5s
KST Lg Lg 08 38 04.2
106nm,0.6s
KST Kastek 2.73 41 *e*P **Pb 08 37 29.1 -0.8**
15nm,0.5s
KST *e*S **Sb 08 38 04.2 +0.5**
106nm,0.6s
CHRV Charvak 2.77 284 S **Sn 08 38 02.1 +2.3**
DGS Degeres 2.79 36 Pg **Pb 08 37 30.8 -0.2**
52nm,0.6s
DGS Lg Lg 08 38 07.0
74nm,0.8s
DGS Degeres 2.79 36 *e*P **Pb 08 37 30.8 -0.2**
52nm,0.6s
DGS *e*S **Sb 08 38 07.0 +1.4**
74nm,0.8s
IUG luzhnay 2.87 295 Pg **Pb 08 37 33.2 +0.9**
91nm,0.4s
IUG Lg Lg 08 38 11.2
667nm,0.5s
IUG luzhnay 2.87 295 *e*P **Pb 08 37 33.2 +0.9**
91nm,0.4s
IUG *e*S **Sb 08 38 11.2 +3.4**
667nm,0.5s
KDJ Kajisay 2.96 66 ⇑*i*P **Pn 08 37 28.8 +0.3**
KDJ ⇑*i*S **Sn 08 38 04.5 0.0**
TVKS Tavaksay 2.98 282 P **Pb 08 37 35.9 +1.6**
TVKS S **Sg 08 38 15.8 -0.5**
MTBS Maitube 3.03 44 Pg **Pb 08 37 35.5 +0.4**
16nm,0.4s
MTBS Lg Lg 08 38 15.0
64nm,0.6s
MTBS Maitube 3.03 44 *e*P **Pb 08 37 35.5 +0.4**
16nm,0.4s
MTBS *e*S **Sb 08 38 14.9 +2.6**
64nm,0.6s
KK31 Karatay Array 3.08 314 Pn **Pn 08 37 30.4 +0.4**
0.6nm,0.1s,baz=126,slow=13,SNR=132
KK31 Pg **Pb 08 37 35.9 0.0**
9.4nm,0.2s,baz=134,slow=16,SNR=15
KK31 Lg Lg 08 38 15.5
48nm,0.3s,baz=138,slow=30,SNR=13
KRBS Karabastau 3.12 30 Pg **Pb 08 37 37.4 +0.7**
26nm,0.5s
KRBS Lg Lg 08 38 18.1
141nm,0.9s
KRBS Karabastau 3.12 30 *e*P **Pb 08 37 37.4 +0.7**
26nm,0.5s
KRBS *e*S **Sb 08 38 18.1 +2.9**
141nm,0.9s
CHM Chimkent 3.23 295 *e*P **Pb 08 37 39.9 +1.5**
41nm,0.3s
CHM *e*S **Sb 08 38 22.6 +4.5**
331nm,0.4s
TNSS Tian-Shan 3.25 50 Pg **Pb 08 37 40.5 +1.4**
4.2nm,0.6s
TNSS Lg Lg 08 38 23.5
25nm,1.0s
TNSS Tian-Shan 3.25 50 *e*P **Pb 08 37 40.5 +1.4**
4.2nm,0.6s
TNSS *e*S **Sg 08 38 23.5 -1.6**
25nm,1.0s
NZBK Nazarbek 3.34 275 S **Sg 08 38 27.6 -0.4**
MDOK Medeo 3.39 49 Pg **Pb 08 37 41.3 0.0**
18nm,0.4s
MDOK Lg Lg 08 38 25.4
65nm,1.0s
MDOK Medeo 3.39 49 *e*P **Pb 08 37 41.3 0.0**
18nm,0.4s
MDOK *e*S **Sb 08 38 25.4 +2.5**
65nm,1.0s
BRLS Boroldaу 3.42 308 Pg **Pb 08 37 42.5 +0.8**
18nm,0.4s
BRLS Lg Lg 08 38 27.4
54nm,0.5s
BRLS Boroldaу 3.42 308 *e*P **Pb 08 37 42.5 +0.8**
18nm,0.4s
BRLS *e*S **Sb 08 38 27.4 +3.7**
54nm,0.5s
KOTS Kotyrbulak 3.47 49 Pg **Pb 08 37 44.3 +1.6**
20nm,0.9s
KOTS Lg Lg 08 38 30.4
61nm,0.7s
KOTS Kotyrbulak 3.47 49 *e*P **Pb 08 37 44.3 +1.6**
20nm,0.9s
KOTS *e*S **Sg 08 38 30.4 -1.7**
61nm,0.7s
KUU Kurty 3.56 35 Pg **Pb 08 37 42.4 -1.7**
5.6nm,0.3s
KUU Lg Lg 08 38 27.0
40nm,0.6s
KUU Kurty 3.56 35 *e*P **Pb 08 37 42.4 -1.7**
5.6nm,0.3s
KUU *e*S **Sb 08 38 27.0 -0.5**
40nm,0.6s
ANVS Anan'yevo 3.56 59 ⇑*i*P **Pn 08 37 36.7 -0.1**
ANVS ⇑*i*S **Sn 08 38 17.9 -1.5**
KTBS Karatobe 3.57 40 Pg **Pb 08 37 44.7 +0.4**
9.2nm,0.7s
KTBS Lg Lg 08 38 30.5
38nm,0.5s
KTBS Karatobe 3.57 40 *e*P **Pb 08 37 44.7 +0.4**
9.2nm,0.7s
KTBS *e*S **Sb 08 38 30.6 +2.5**
38nm,0.5s
BTLS Baital 4.05 5 Pg **Pb 08 37 52.6 +0.1**
52nm,0.6s
BTLS Lg Lg 08 38 44.7
36nm,0.6s
BTLS Baital 4.05 5 *e*P **Pb 08 37 52.6 +0.1**
52nm,0.6s
BTLS *e*S **Sb 08 38 44.8 +2.9**
36nm,0.6s
SATY Saty 4.17 59 Pg **Pb 08 37 57.2 +2.7**
5.4nm,0.4s
SATY Lg Lg 08 38 52.0
32nm,0.5s
SATY Saty 4.17 59 *e*P **Pb 08 37 57.2 +2.7**
5.4nm,0.4s
SATY *e*S **Sg 08 38 52.0 -2.5**
32nm,0.5s
ARXS Arharly 4.51 43 Pg **Pb 08 38 02.7 +2.4**
8.3nm,0.7s
ARXS Lg Lg 08 39 01.8
25nm,0.6s
ARXS Arharly 4.51 43 *e*P **Pb 08 38 02.7 +2.4**
8.3nm,0.7s
ARXS *e*S **Sg 08 39 01.8 -3.5**
25nm,0.6s
KPKS Kokpek 4.55 56 Pg **Pb 08 38 03.7 +2.7**
0.4nm,0.3s
KPKS Lg Lg 08 39 03.3
29nm,0.6s
KPKS Kokpek 4.55 56 *e*P **Pb 08 38 03.7 +2.7**
0.4nm,0.3s
KPKS *e*S **Sg 08 39 03.3 -3.2**
29nm,0.6s
UZB Uzynbulak 4.61 60 Pg **Pb 08 38 04.9 +2.8**
7.6nm,0.5s
UZB Lg Lg 08 39 05.1
13nm,0.7s
UZB Uzynbulak 4.61 60 *e*P **Pb 08 38 04.9 +2.8**
7.6nm,0.5s
UZB *e*S **Sg 08 39 05.1 -3.6**
13nm,0.7s
SHLS Shalkode 4.91 62 Pg **Pg 08 38 15.5 +0.9**
12nm,0.9s
SHLS Lg Lg 08 39 23.4
28nm,0.6s
PDGK Podgornoye 5.00 60 ⇑Pg **Pb 08 38 12.6 +3.9**
5.1nm,0.6s
PDGK ⇑Lg Lg 08 39 17.7
27nm,0.9s
AGL Agalyk 5.30 256 S **Sn 08 39 01.4 -0.7**
KNOS Konyrlen 5.34 49 Pg **Pg 08 38 21.8 -1.2**
2.9nm,0.8s
KNOS Lg Lg 08 39 34.3
15nm,0.8s
DJR Jarkent 5.69 52 Pg **Pb 08 38 23.6 +3.2**
4.1nm,0.6s
DJR Lg Lg 08 39 37.5
9.7nm,1.2s
DJR Jarkent 5.69 52 *e*P **Pb 08 38 23.6 +3.2**
4.1nm,0.6s
DJR *e*S **Sg 08 39 37.5 -5.7**
9.7nm,1.2s

IDC 12 08:37:30.2±488.0, 54°38N×1°12E, h0km, Error ellipse: s-maj=269.4km s-min=187.3km az=94.0, North Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I26DE	**FREYUNG INFRAS**	**9.58**	**120**	I	I	09 43 20.0	
	baz=309,slow=315,SNR=0.7						
I37NO	**I37NO**	**16.79**	**22**	I	I	10 22 00.0	
	baz=214,slow=315,SNR=0.6						
I43RU	**DUBNA INFRASON**	**20.40**	**69**	I	I	10 42 40.0	
	baz=278,slow=328,SNR=2.5						

*IDC **12** 08:43:02.0±2.1, 4°52S×77°31W, h83km±22km, mb3.5/9, mbtmp4.0/13, Error ellipse: s-maj=21.4km s-min=11.8km az=56.0*
*RSNC **12** 08:43:04.3±0.4, 4°S±3'×7°7W±', h0km, M4.8, mB5.4, mb4.9, ML3.8, Mw(mB)4.8, MwMwp7.2, Mwp6.9*
*VAO **12** 08:43:04.8±0.6, 4°75S×77°16W, h100km, mb4.5, Presumed earthquake*
*NEIC **12** 08:43:05.6±1.4, 4°78S±0°06×77°23W±0°08, h121km±7km, mb4.5/94, Error ellipse: s-maj=12.1km s-min=7.9km az=75.0*
*GFZ **12** 08:43:05.5±0.2, 5°S±4'×7°7W±', h119km, M4.2/14, mb4.2/14, confirmed*
ISC 12 08:43:02.9±0.4, 4°69S±0°04×77°24W±0°05, h100km, n186, σ1s22/167, mb4.5/55, Northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**2.68**	**205**	P	**Pn**	**08 43 46.9**	**+2.0**
	421nm,0.7s,baz=22,slow=9.5,SNR=328						
ATAH				S	**Sn**	**08 44 18.7**	**+1.7**
	163nm,0.4s,baz=191,slow=15,SNR=12						
PIAT	**Ana Tenorio**	**3.81**	**344**	P	Pn	08 44 02.2	+2.2
PIAT				S	**Sn**	**08 44 44.8**	**+0.8**
SLOR	**San Lorenzo -**	**4.13**	**342**	P	Pn	08 44 08.8	+4.4
SLOR				Sn	Sn	08 44 56.1	+4.2
PPLP	**Puerto Lpez**	**4.72**	**311**	P	**Pn**	**08 44 12.4**	**+0.5**
CASC	**Dorado de Casc**	**4.80**	**359**	P	Pn	08 44 14.8	+1.7
FLF1	**Flavio Alfaro-**	**5.03**	**329**	P	Pn	08 44 17.8	+1.7
	13μm236nm,0.9s						
FLF1				S	**Sn**	**08 45 09.8**	**-3.3**
	13μm236nm,0.9s						
FLF1				AML	AML		
OTAV	**Otavalo**	**5.05**	**346**		Pn	08 44 20.1	+3.4
OTAV				Sn	Sn	08 45 20.1	+6.0
OTAV	**Otavalo**	**5.05**	**346**	P	Pn	08 44 19.5	+2.8
OTAV				S	**Sn**	**08 45 15.0**	**+0.9**
OTAV	**Otavalo**	**5.05**	**346**	P	Pn	08 44 20.1	+3.3
	comp=Z,30nm,0.8s						
OTAV	**Otavalo**	**5.05**	**346**	*e*P	Pn	08 44 20.4	+3.7
CUSE	**Cuicocha Este**	**5.10**	**347**	P	Pn	08 44 20.9	+3.5
PAC1	**Pacto, Paraso**	**5.17**	**342**	P	Pn	08 44 21.4	+3.3
PAC1				S	**Sn**	**08 45 20.1**	**+3.6**
PAC1				AML	AML		
TULM	**Tulcn-Chalpat**	**5.40**	**354**	P	Pn	08 44 25.3	+3.7
	comp=Z,1μmcomp=Z,178nm,0.9s						
TULM				AML	AML		
PTLC	**Puerto Leguiza**	**5.41**	**27**	P	**Pn**	**08 44 18.5**	**-2.8**
PTLC				S	Sn	08 45 05.5	-17
CZSB	**Cruzeiro do Su**	**5.42**	**124**		**Pn**	**08 44 22.8**	**+1.3**
CZSB				Sn	**Sn**	**08 45 24.6**	**+2.0**
CZSB	**Cruzeiro do Su**	**5.42**	**124**	P	**Pn**	**08 44 22.7**	**+1.3**
	comp=Z,11μmcomp=Z,815nm,0.6s						
CZSB				AML	AML		
CZSB	**Cruzeiro do Su**	**5.42**	**124**	*e*P	**Pn**	**08 44 22.6**	**+1.2**
CMBC	**Cumbal**	**5.63**	**354**	P	Pn	08 44 28.9	+4.3
CMBC				AML	AML		
CRUC	**La Cruz**	**6.23**	**3**	P	Pn	08 44 35.8	+3.1
CRUC				AML	AML		
BBAC	**Balboa, Cauca**	**6.67**	**360**	P	Pn	08 44 41.7	+3.1
	comp=Z,520nmcomp=Z,59nm,0.8s						
BBAC	**Balboa, Cauca**	**6.67**	**360**	P	Pn	08 44 42.7	+4.1
BBAC	**Balboa, Cauca**	**6.67**	**360**	P	Pn	08 44 42.2	+3.6
BBAC	**Balboa, Cauca**	**6.67**	**360**	P	Pn	08 44 42.3	+3.7
POPC	**Popayan, Colom**	**7.21**	**4**	P	Pn	08 44 48.5	+2.6
	comp=Z,317nmcomp=Z,29nm,1.3s						
NNA	**Nana**	**7.26**	**177**	P	**Pn**	**08 44 47.1**	**+0.7**
	comp=Z,71nm,0.5s,baz=341,slow=12,SNR=51						
NNA				S	Sn	08 46 01.7	-5.7
	comp=Z,43nm,0.2s,baz=71,slow=18,SNR=22						
NNA	**Nana**	**7.26**	**177**	Pn	**Pn**	**08 44 47.6**	**+1.2**
NNA	**Nana**	**7.26**	**177**	P	**Pn**	**08 44 46.8**	**+0.4**
	comp=Z,2μmcomp=Z,117nm,0.6s						
NNA	**Nana**	**7.26**	**177**	P	**Pn**	**08 44 47.2**	**+0.8**
	comp=Z,113nm,0.7s						
BETC	**Betania**	**7.54**	**14**	P	Pn	08 44 52.7	+2.4
MACC	**Macarena, Meta**	**7.59**	**27**	P	**Pn**	**08 44 51.5**	**+0.6**
	comp=Z,1μmcomp=Z,82nm,0.6s						
JAMC	**Jamundi, Valle**	**7.88**	**4**	P	Pn	08 44 56.7	+1.7
	comp=Z,57nm,0.9s						
URMC	**La Uribe, Meta**	**8.39**	**20**	P	**Pn**	**08 45 03.3**	**+1.5**
	comp=Z,896nmcomp=Z,103nm,0.9s						
URMC	**La Uribe, Meta**	**8.39**	**20**	P	**Pn**	**08 45 02.4**	**+0.6**
GUVC	**San Jose del G**	**8.54**	**33**	P	**Pn**	**08 45 04.7**	**+0.9**
YOTC	**Yotoco, Valle**	**8.67**	**6**	P	**Pn**	**08 45 06.8**	**+1.2**
	comp=Z,394nmcomp=Z,23nm,0.9s						
PRAC	**Prado**	**8.68**	**16**	P	**Pn**	**08 45 07.0**	**+1.3**
	comp=Z,30nm,0.6s						
ORTC	**Ortega, Tolima**	**8.77**	**13**	P	**Pn**	**08 45 08.1**	**+1.0**
	comp=Z,468nmcomp=Z,32nm,0.7s						
ROSC	**El Rosal**	**9.91**	**17**	P	**Pn**	**08 45 21.6**	**-1.2**
	comp=Z,3.5nm,0.4s,baz=20,slow=22,SNR=1.1						
ROSC	**El Rosal**	**9.91**	**17**	Pn	Pn	08 45 26.3	+3.5
RUSC	**La Rusia**	**11.30**	**22**	Pn	Pn	08 45 44.1	+2.3
PTBC	**PUERTO BERRIO,**	**11.50**	**14**	P	**Pn**	**08 45 45.4**	**+1.4**
	comp=Z,5.0nm,0.6s						
APAC	**Apartado, Choc**	**12.53**	**3**	P	**P**	**08 46 01.3**	**-4.0**
LCBC	**Los crdobas,**	**13.49**	**4**	Pn	P	08 46 10.6	-5.3
PAYG	**Puerto Ayora**	**13.63**	**287**	Pn	**Pn**	**08 46 12.3**	**+0.2**
LPAZ	**La Paz**	**14.58**	**143**	P	**Pn**	**08 46 22.9**	**-2.2**
	comp=Z,5.0nm,0.8s,baz=330,slow=10.0,SNR=7.8						
LPAZ				S	**Sn**	**08 49 04.6**	**-1.6**
	comp=Z,3.7nm,0.7s,baz=161,slow=6.2,SNR=3.6						
LPAZ	**La Paz**	**14.58**	**143**		**Pn**	**08 46 22.4**	**-2.7**
LPAZ	**La Paz**	**14.58**	**143**	*e*P	**Pn**	**08 46 21.7**	**-3.3**
SJCC	**San Jacinto, C**	**14.64**	**8**	Pn	**P**	**08 46 26.0**	**-2.8**
PB18	**Visviri**	**14.90**	**150**	Pn	**Pn**	**08 46 27.1**	**-1.9**
PB16	**IPOC Station P**	**15.52**	**151**		**Pn**	**08 46 38.0**	**+1.1**
PB16	**IPOC Station P**	**15.52**	**151**	P	**Pn**	**08 46 38.3**	**+1.5**
	comp=Z,8.7nm,0.7s						
LCR2	**La Lucha 2**	**15.85**	**335**	Pn	**P**	**08 46 40.5**	**-1.9**
SMRC	**Santa Marta, M**	**16.04**	**11**	Pn	**P**	**08 46 43.0**	**-1.2**
SMRC				IAmb	IAmb	08 46 47.5	
	comp=Z,26nm,1.1s						
PSGCX	**Pisagua**	**16.36**	**155**		**Pn**	**08 46 46.7**	**-0.1**
PB11	**IPOC Station P**	**16.70**	**154**		**Pn**	**08 46 48.4**	**-2.7**
PB11				IAmb	IAmb	08 47 02.5	
	comp=Z,16nm,0.7s						
GO01	**Chusmiza**	**16.82**	**153**	P	**Pn**	**08 46 51.6**	**-1.4**
GO01	**Chusmiza**	**16.82**	**153**	P	**P**	**08 46 55.3**	**+1.9**
	comp=Z,12nm,0.6s						
URIC	**Uribia, Colomb**	**17.10**	**18**	P	**P**	**08 46 56.2**	**+0.2**
TA01	**Diego Aracena**	**17.21**	**157**	P	**P**	**08 46 55.5**	**-1.6**
PB08	**IPOC Station P**	**17.25**	**154**	P	**P**	**08 46 56.6**	**-1.4**
PB02	**IPOC Station P**	**18.00**	**157**	P	**P**	**08 47 05.4**	**-0.6**
PB02				IAmb	IAmb	08 47 21.2	
	comp=Z,22nm,1.1s						
PB02	**IPOC Station P**	**18.00**	**157**	P	**Pn**	**08 47 08.4**	**+1.6**
	comp=Z,26nm,2.3s						
BOAV	**Boa Vista**	**18.13**	**67**	P	**Pn**	**08 47 07.2**	**-1.1**
BOAV	**Boa Vista**	**18.13**	**67**	*e*P	**Pn**	**08 47 10.3**	**+1.9**
PB09	**IPOC Station P**	**18.69**	**156**	P	**P**	**08 47 12.7**	**-0.9**
PB09				IAmb	IAmb	08 47 27.3	
	comp=Z,17nm,0.7s						
PB03	**IPOC Station P**	**18.71**	**158**	P	**P**	**08 47 13.9**	**0.0**
PB03				IAmb	IAmb	08 47 29.4	
	comp=Z,23nm,0.9s						
VILB	**Vilhena**	**18.72**	**117**		**P**	**08 47 14.2**	**+0.3**
VILB				IAmb	IAmb	08 47 17.1	
	comp=Z,22nm,0.7s						
VILB	**Vilhena**	**18.72**	**117**	*e*P	**P**	**08 47 15.2**	**+1.3**
SIV	**San Ignacio**	**19.45**	**126**	P	**P**	**08 47 22.8**	**+1.0**
	comp=Z,5.0nm,0.6s,baz=304,slow=11,SNR=23						
SIV				S	**Sn**	**08 51 03.3**	**+0.8**
	comp=Z,1.4nm,0.6s,baz=18,slow=16,SNR=1.6						
BBSD	**Serra de San D**	**20.48**	**129**	*e*P	**P**	**08 47 34.1**	**+1.2**
PTLB	**Pontes e Lacer**	**20.76**	**122**		**P**	**08 47 35.7**	**-0.2**
PTLB				IAmb	IAmb	08 47 40.9	
	comp=Z,13nm,0.9s						
PTLB	**Pontes e Lacer**	**20.76**	**122**	*e*P	**P**	**08 47 37.0**	**+1.1**
PDRB	**Porto dos Gac**	**21.42**	**110**	*e*P	**P**	**08 47 43.3**	**+0.3**
ITTB	**Itaituba**	**21.44**	**90**	*e*P	**P**	**08 47 43.5**	**+0.2**
NPGB	**Novo Progresso**	**21.89**	**97**	*e*P	**P**	**08 47 47.9**	**-0.2**
CLDB	**Colider**	**22.11**	**107**	P	**P**	**08 47 50.7**	**+0.4**
	comp=Z,29nm,0.9s						
CLDB	**Colider**	**22.11**	**107**	*e*P	**P**	**08 47 50.3**	**0.0**
AC02	**Maricunga**	**23.34**	**161**	P	**P**	**08 48 01.6**	**-1.4**
SALV	**Santo Antonio**	**23.91**	**119**	*e*P	**P**	**08 48 08.4**	**+0.6**
COIM	**Forte Coimbra**	**24.24**	**130**	*e*P	**P**	**08 48 09.7**	**-1.0**
AOPR	**Arecibo Observ**	**25.12**	**24**	P	**P**	**08 48 19.9**	**+1.2**
ECPR	**Experimental S**	**25.26**	**25**	P	**P**	**08 48 20.7**	**+0.8**
BDQN	**Bodoquena, MS**	**25.34**	**130**	*e*P	**P**	**08 48 21.7**	**+0.9**
MURT	**Porto Murtinho**	**25.43**	**133**	*e*P	**P**	**08 48 21.2**	**-0.3**
SABA	**Saba**	**26.12**	**32**	P	**P**	**08 48 27.7**	**-0.1**
SABA	**Saba**	**26.12**	**32**	P	**P**	**08 48 28.1**	**+0.3**
	comp=Z,152nm,1.0s						
AQDB	**Aquidauana**	**26.17**	**129**	P	**P**	**08 48 26.9**	**-1.3**
SNDB	**Serra Nova Dou**	**26.65**	**107**	*e*P	**P**	**08 48 34.0**	**+1.4**
TEIG	**Tepich**	**27.04**	**337**	P	**P**	**08 48 36.8**	**+0.9**
TEIG				IAmb	IAmb	08 48 39.3	
	comp=Z,20nm,1.4s						
ARAG	**Araguaiana, MT**	**27.27**	**116**	*e*P	**P**	**08 48 39.1**	**+1.0**
C2SB	**Chapadao do Su**	**27.63**	**122**	*e*P	**P**	**08 48 42.6**	**+1.3**
CPUP	**Villa Florida**	**28.73**	**141**	P	**P**	**08 48 55.0**	**+4.0**
	comp=Z,0.3nm,0.3s,baz=312,slow=11,SNR=3.4						
	comp=Z,0.3nm,0.3s						
BO04	**La Punta**	**29.79**	**169**	P	**P**	**08 48 59.5**	**-0.9**
BO02	**Sierra Bellavi**	**30.54**	**170**	P	**P**	**08 49 06.3**	**-0.7**
BO02				IAmb	IAmb	08 49 17.5	
	comp=Z,7.8nm,1.1s						
BI02	**San Fabin de**	**32.28**	**171**	P	**P**	**08 49 20.6**	**-1.8**
SDBA	**SAO DESIDERIO**	**32.85**	**106**	*e*P	**P**	**08 49 27.9**	**+0.4**
DWPF	**Disney Wildern**	**32.86**	**353**	P	**P**	**08 49 27.1**	**-0.2**
CANS	**Sao Roque de M**	**33.77**	**120**	*e*P	**P**	**08 49 36.9**	**+1.4**
152A	**Waverly Hall**	**37.83**	**350**	P	**P**	**08 50 10.4**	**+0.5**
152A				IAmb	IAmb	08 50 10.4	
	comp=Z,5.0nm,0.6s						
LRAL	**Lakeview Retre**	**38.65**	**347**	P	**P**	**08 50 16.9**	**+0.2**
HODGE	**Hodges**	**39.00**	**353**	P	**P**	**08 50 20.4**	**+0.7**
Z47A	**Carrollton**	**39.06**	**346**	P	**P**	**08 50 20.4**	**+0.3**
Z47A				IAmb	IAmb	08 50 20.8	
	comp=Z,10nm,0.8s						
X58A	**Rowland**	**39.09**	**357**	P	**P**	**08 50 21.8**	**+1.4**
Y49A	**Blount Mountai**	**39.31**	**348**	P	**P**	**08 50 22.4**	**+0.2**
Y49A				IAmb	IAmb	08 50 22.7	
	comp=Z,7.0nm,0.7s						
FPAL	**Fort Paine**	**39.81**	**349**	P	**P**	**08 50 26.7**	**+0.2**
FPAL				IAmb	IAmb	08 50 27.1	
	comp=Z,4.5nm,0.7s						
X48A	**Hartselle**	**40.02**	**347**	P	**P**	**08 50 28.1**	**0.0**
X48A				IAmb	IAmb	08 50 28.9	
	comp=Z,6.7nm,1.0s						
Y45A	**Yeager Farm, C**	**40.08**	**344**	P	**P**	**08 50 29.4**	**+0.8**
V58A	**Windy Hill, Pi**	**40.31**	**358**	P	**P**	**08 50 31.3**	**+0.8**
W50A	**Signal Mountai**	**40.40**	**350**	P	**P**	**08 50 31.6**	**+0.3**
V53A	**Saluda**	**40.49**	**353**	P	**P**	**08 50 32.7**	**+0.7**
V53A				IAmb	IAmb	08 50 44.7	
	comp=Z,11nm,1.3s						
CPCT	**Cooper Cave**	**40.51**	**351**	P	**P**	**08 50 32.8**	**+0.6**
CPCT				IAmb	IAmb	08 50 33.8	
	comp=Z,10nm,1.0s						
SWET	**Sewanee**	**40.53**	**349**	P	**P**	**08 50 32.3**	**-0.1**
SWET				IAmb	IAmb	08 50 33.1	
	comp=Z,8.7nm,0.9s						
TKL	**Tuckaleechee C**	**40.60**	**352**	P	**P**	**08 50 32.5**	**-0.4**
U56A	**King**	**40.93**	**356**	P	**P**	**08 50 36.6**	**+1.0**
V48A	**Smith Brothers**	**41.21**	**348**		**P**	**08 50 37.7**	**-0.3**
V48A				IAmb	IAmb	08 50 38.3	
	comp=Z,8.8nm,0.7s						
BRDY	**Brady**	**41.37**	**331**	P	**P**	**08 50 40.2**	**+0.9**
TZTN	**Tazewell**	**41.45**	**352**	P	**P**	**08 50 40.0**	**+0.2**
T59A	**Double "B" Far**	**41.45**	**360**	P	**P**	**08 50 41.0**	**+1.2**
T59A				IAmb	IAmb	08 51 02.0	
	comp=Z,15nm,1.3s						
WVT	**Waverly**	**41.80**	**347**	P	**P**	**08 50 41.4**	**-1.4**
WVT				IAmb	IAmb	08 50 42.3	
	comp=Z,16nm,1.5s						
WVT	**Waverly**	**41.80**	**347**	P	**P**	**08 50 41.2**	**-1.5**
	comp=Z,7.9nm,2.4s						
MIAR	**Mount Ida**	**41.96**	**340**	P	**P**	**08 50 44.5**	**+0.5**
FW06	**Azle**	**42.13**	**334**	P	**P**	**08 50 46.9**	**+1.5**
TXAR	**Lajitas Array**	**42.29**	**325**	P	**P**	**08 50 47.4**	**+0.4**
	comp=Z,0.5nm,0.7s,baz=148,slow=9.6,SNR=8.1						
TXAR				PcP	**PcP**	**08 52 38.8**	**-0.2**
	comp=Z,0.5nm,0.9s,baz=146,slow=4.0,SNR=3.4						
	comp=Z,0.5nm,0.7s						
TXAR	**Lajitas Array**	**42.29**	**325**	P	**P**	**08 50 48.0**	**+1.1**
TXAR					**PcP**	**08 52 39.7**	**+0.7**
TX31	**Lajitas Ar. Si**	**42.29**	**325**	P	**P**	**08 50 48.1**	**+1.1**
Z35A	**Perchaven, San**	**42.30**	**335**	P	**P**	**08 50 48.6**	**+1.7**
PLPT	**Palo Pinto**	**42.33**	**333**	P	**P**	**08 50 48.2**	**+1.2**
PLPT				IAmb	IAmb	08 50 49.2	
	comp=Z,11nm,0.8s						
S51A	**Beattyville**	**42.53**	**353**	P	**P**	**08 50 48.8**	**+0.2**
LCAR	**Lake Charles**	**42.59**	**343**		**P**	**08 50 48.9**	**-0.3**
LCAR				IAmb	IAmb	08 50 49.3	
	comp=Z,8.1nm,0.9s						
FCAR	**Ozark Folk Cen**	**42.72**	**342**	P	**P**	**08 50 49.8**	**-0.3**
APMT	**Aspermont**	**43.58**	**332**		**P**	**08 50 58.4**	**+1.2**
APMT				IAmb	IAmb	08 50 59.1	
	comp=Z,12nm,1.2s						
W35A	**Tecumseh**	**43.73**	**337**		**P**	**08 50 58.3**	**0.0**
W35A				IAmb	IAmb	08 50 59.3	
	comp=Z,9.2nm,0.7s						
DKNS	**Dickens**	**44.24**	**331**		**P**	**08 51 03.4**	**+0.9**
DKNS				IAmb	IAmb	08 51 04.5	
	comp=Z,8.1nm,0.8s						
MNTX	**Cornudas Mount**	**45.04**	**325**	P	**P**	**08 51 09.2**	**+0.3**
	comp=Z,2.5nm,1.4s						
BINY	**Binghamton**	**46.68**	**1**	P	**P**	**08 51 23.1**	**+1.5**
	comp=Z,14nm,0.6s						
ALQ	**Albuquerque**	**48.06**	**327**		**P**	**08 51 33.6**	**+0.9**
ALQ				IAmb	IAmb	08 51 34.9	
	comp=Z,6.8nm,1.2s						
ANMO	**Albuquerque**	**48.07**	**327**		**P**	**08 51 33.8**	**+1.1**
ANMO	**Albuquerque**	**48.07**	**327**	P	**P**	**08 51 33.4**	**+0.7**
ANMO				IAmb	IAmb	08 51 34.5	
	comp=Z,2.9nm,0.8s						
ANMO	**Albuquerque**	**48.07**	**327**	P	**P**	**08 51 33.8**	**+1.1**
	comp=Z,4.7nm,1.1s						
TASM	**ASL Pad, Albuq**	**48.07**	**327**	P	**P**	**08 51 33.6**	**+0.9**
TASM				IAmb	IAmb	08 51 35.0	
	comp=Z,6.6nm,1.2s						
TASM	**ASL Pad, Albuq**	**48.07**	**327**	P	**P**	**08 51 33.7**	**+1.0**
TASM				IAmb	IAmb	08 51 35.0	
	comp=Z,7.9nm,1.3s						
J47A	**Sunmer**	**48.20**	**353**	P	**P**	**08 51 32.6**	**-0.7**
TUC	**Tucson**	**48.69**	**321**	P	**P**	**08 51 38.1**	**+0.7**
	comp=Z,2.5nm,1.4s						
SDCO	**Great Sand Dun**	**49.73**	**331**	IAmb	IAmb	08 51 47.4	
	comp=Z,3.0nm,0.8s						
WUAZ	**Wupatki**	**51.24**	**324**	IAmb	IAmb	08 51 58.9	
	comp=Z,5.8nm,1.1s						
ECSD	**EROS Data Cent**	**51.28**	**342**	P	**P**	**08 51 55.8**	**-0.8**
	comp=Z,7.3nm,1.0s						
ISCO	**Idaho Springs**	**51.41**	**332**	P	**P**	**08 51 58.6**	**+0.6**
PV15	**Paradox Valley**	**51.69**	**329**	IAmb	IAmb	08 52 02.3	
	comp=Z,8.9nm,1.1s						
PV02	**Paradox Valley**	**51.73**	**328**	IAmb	IAmb	08 52 02.1	
	comp=Z,7.2nm,0.9s						
PV13	**Radium Mtn., P**	**51.73**	**328**	P	**P**	**08 52 01.1**	**+0.6**
PV13				IAmb	IAmb	08 52 02.1	
	comp=Z,8.3nm,0.9s	

VES	**Vestal, Richgr**	**56.23**	**319**	P	**P**	**08 52 33.1**	**+0.2**
VES				IAmb	IAmb	08 52 34.7		
	comp=Z,2.8nm,0.8s							
ULM	**Lac du Bonnet**	**57.05**	**346**	P	**P**	**08 52 37.4**	**-0.9**
	comp=Z,4.5nm,0.8s,baz=148,slow=7.2,SNR=4.8							
	comp=Z,4.5nm,0.8s							
ULM	**Lac du Bonnet**	**57.05**	**346**	P	**P**	**08 52 37.7**	**-0.7**
ULM				IAmb	IAmb	08 52 38.1		
	comp=Z,7.8nm,1.0s							
NVAR	**Mina Array Bea**	**57.32**	**322**	P	**P**	**08 52 41.9**	**+1.0**
	comp=Z,0.8nm,0.7s,baz=93,slow=5.6,SNR=6.8							
	comp=Z,0.8nm,0.7s							
NVAR	**Mina Array Bea**	**57.32**	**322**	P	**P**	**08 52 40.9**	**0.0**
KVN	**Kaiserville**	**57.59**	**323**	P	**P**	**08 52 43.6**	**+0.9**
YHL	**Hebgen Lake**	**57.93**	**332**	IAmb	IAmb	08 52 47.8		
	comp=Z,4.5nm,0.9s							
HLID	**Hailey**	**58.57**	**329**	P	**P**	**08 52 50.2**	**+0.8**
MFID	**Camas Ranch**	**59.20**	**328**	IAmb	IAmb	08 52 55.4		
	comp=Z,5.0nm,0.8s							
WVOR	**Wild Horse Val**	**60.08**	**326**	P	**P**	**08 53 00.0**	**+0.3**
	comp=Z,4.6nm,2.2s							
I07A	**Izee**	**61.63**	**327**	P	**P**	**08 53 11.3**	**+1.1**
I07A				IAmb	IAmb	08 53 12.4		
	comp=Z,3.0nm,1.0s							
FFC	**Flin Flon**	**62.68**	**344**	P	**P**	**08 53 16.6**	**-0.3**
	comp=Z,9.3nm,2.0s							
YKA	**Yellowknife Ar**	**72.80**	**343**	P	**P**	**08 54 19.7**	**-0.5**
	comp=Z,1.1nm,0.6s,baz=144,slow=6.1,SNR=6.6							
	comp=Z,1.1nm,0.6s							
ILON	**Igloolik, Nuna**	**73.97**	**358**	P	**P**	**08 54 27.6**	**+0.5**
PFVI	**Vila Bisbo**	**75.86**	**50**	P	**P**	**08 54 37.8**	**-0.8**
ESDC	**Sonseca Array**	**80.23**	**49**	P	**P**	**08 55 02.3**	**-0.5**
	comp=Z,0.2nm,0.4s,baz=259,slow=4.9,SNR=2.7							
	comp=Z,0.2nm,0.4s							
TORD	**Torodi Ar. Bea**	**80.33**	**76**	P	**P**	**08 55 03.0**	**-0.7**
	comp=Z,0.6nm,0.8s,baz=241,slow=3.3,SNR=2.6							
	comp=Z,0.6nm,0.8s							
D27M	**Malcolm River**	**85.33**	**341**	P	**P**	**08 55 29.5**	**+0.9**
QSPA	**South Pole Qui**	**85.39**	**180**	P	**P**	**08 55 28.3**	**-0.7**
QSPA				IAmb	IAmb	08 55 49.3		
	comp=Z,5.2nm,1.4s							
ILAR	**Eielson Array**	**85.69**	**336**	P	**P**	**08 55 30.1**	**-0.3**
	comp=Z,0.8nm,0.9s,baz=118,slow=3.0,SNR=6.7							
	comp=Z,0.8nm,0.9s							
ILAR	**Eielson Array**	**85.69**	**336**	P	**P**	**08 55 30.5**	**+0.1**
BMAR	**Burnt Mountain**	**85.80**	**339**	P	**P**	**08 55 31.6**	**+0.7**
RND	**Reindeer**	**86.05**	**335**	P	**P**	**08 55 33.0**	**+0.7**
RND				IAmb	IAmb	08 55 34.0		
	comp=Z,12nm,1.4s							
SKT	**Skwentna**	**86.80**	**333**	P	**P**	**08 55 36.1**	**+0.2**
SKT				IAmb	IAmb	08 55 53.5		
	comp=Z,11nm,1.4s							
C26K	**Camden Bay**	**86.88**	**341**	P	**P**	**08 55 36.9**	**+0.9**
C26K				IAmb	IAmb	08 55 37.6		
	comp=Z,5.4nm,0.9s							
WMQ	**Urumqi**	**138.83**	**17**	PKP	**PKPdf**	**09 02 16.6**	**-1.3**
WMQ				sPKP	sPKPdf	09 03 06.2	+10	
HHC	**Hu-ho-hao-te**	**143.14**	**349**	*e*P	**PKiKP**	**09 02 27.3**	**-1.8**

TIR **12** *08:43:30.2,41˚.93N×21˚.08E, h7km±4km, ML2.9, ML2.9, Presumed earthquake*
PDG **12** *08:43:30.4±0.2,41˚.37N×20˚.91E, h15km, ML2.6/12, Error ellipse: s-maj=1.9km s-min=2.0km az=0.0*
SKO **12** *08:43:37.7,41˚.59N×20˚.80E, h13km, ML2.2*
BEO **12** *08:43:38.4±0.6,41˚.68N×20˚.80E, h0km±3km, ML1.6/6*

ISC 12 08:43:36.6±1.2**, 41˚.69N**±0˚.02×**20˚.71E**±0˚.02**, h1**km±10km**, n31**, σ1s**66**/59**, 4C-5D, Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PHP	**Peshkopia**	**0.20**	**270**	P		**Pg**	**08 43 40.5**	**0.0**
PHP				S		**Sg**	**08 43 43.6**	**+0.5**
PHP				IAML			08 43 44.0	
	7µm,0.1s							
OHR	**Ohrid**	**0.58**	**173**	*i* Pg		**Pg**	**08 43 47.3**	**-0.4**
OHR				*i* Sg		**Sg**	**08 43 56.3**	**+1.1**
OHR				*e*Lg		Lg	08 43 56.4	
	comp=N,129nm,0.3s							
OHR				*e*Lg		Lg	08 43 56.6	
	comp=E,70nm,0.4s							
SKO	**Skopje**	**0.62**	**62**	*i* Pg		**Pb**	**08 43 49.7**	**-0.6**
SKO				*i* Sg		**Sg**	**08 43 57.9**	**+1.4**
KBN	**Korca**	**1.06**	**177**	S		**Sn**	**08 44 13.9**	**-0.4**
PVY	**Plav**	**1.06**	**329**	⇓ *i* Pg		**Pg**	**08 43 57.0**	**-0.1**
PVY				*i* Sg		**Sn**	**08 44 17.0**	**+2.5**
ULC	**Ulcinj**	**1.13**	**285**	⇓ *i* Pg		**Pg**	**08 43 55.9**	**-2.4**
ULC				*i* Sg		**Sn**	**08 44 17.1**	**+1.3**
DRME	**Dracevica, Mon**	**1.24**	**294**	⇑ *i* Pg		**Pg**	**08 43 58.9**	**-1.5**
DRME				*i* Sg		**Sn**	**08 44 20.1**	**+1.5**
NEST	**Nestorio**	**1.30**	**168**	P		**Pg**	**08 44 00.9**	**-0.5**
NEST				S		**Sn**	**08 44 20.7**	**+0.6**
NEST				IAML			08 44 23.8	
	comp=E,36nm,0.6s							
PDG	**Podgorica**	**1.31**	**305**	*e*Pg		**Pb**	**08 44 03.4**	**+1.3**
PDG				*e*Sg		**Sn**	**08 44 21.8**	**+1.5**
PDG	**Podgorica**	**1.31**	**305**	⇑ *i* Pn		**Pg**	**08 43 58.9**	**-2.9**
PDG				*i* Sn		**Sn**	**08 44 22.9**	**+2.6**
IVA	**Berane**	**1.33**	**333**	*e*Pn		**Pg**	**08 44 00.3**	**-1.9**
IVA				*i* Sn		**Sn**	**08 44 23.4**	**+2.5**
BARS	**Barje**	**1.40**	**36**	*e*Pg		**Pn**	**08 44 02.9**	**-0.5**
BARS				*e*Sg		**Sn**	**08 44 23.1**	**+0.6**
VAY	**Valandovo**	**1.45**	**104**	*i* Pg		**Pn**	**08 44 03.3**	**-0.7**
VAY				*i* Sg		**Sb**	**08 44 22.7**	**-0.6**
VAY				*e*Lg		Lg	08 44 23.3	
	comp=N,23nm,0.5s							
VAY				*e*Lg		Lg	08 44 23.5	
	comp=E,19nm,0.6s							
KOME	**Kolasin**	**1.46**	**323**	⇑ *i* Pn		**Pn**	**08 44 02.1**	**-2.2**
KOME				*i* Sn		**Sn**	**08 44 26.4**	**+2.2**
BUM	**Brajici-Budva**	**1.48**	**295**	⇓ *i* Pn		**Pn**	**08 44 01.7**	**-2.9**
BUM				*i* Sn		**Sg**	**08 44 26.2**	**+1.8**
LSK	**Leskovik**	**1.54**	**183**	P		**Pn**	**08 44 04.1**	**-1.2**
LSK				S		**Sg**	**08 44 29.6**	**+3.7**
BOSS	**Bosilegrad**	**1.55**	**58**	*e*Pg		**Pg**	**08 44 06.6**	**+0.3**
BOSS				*e*Sg		**Sn**	**08 44 24.1**	**-2.1**
SELS	**Selova**	**1.56**	**11**	*e*Pg		**Pb**	**08 44 06.3**	**-0.1**
SELS				*e*Sg		**Sb**	**08 44 26.8**	**+0.1**
CEME	**Cevo**	**1.58**	**303**	*e*Pn		**Pn**	**08 44 03.1**	**-2.9**
CEME				*i* Sn		**Sg**	**08 44 29.6**	**+2.0**
PEHC	**Pehcevo**	**1.64**	**86**	*i* Pg		**Pb**	**08 44 07.7**	**-0.2**
PEHC				*i* Sg		**Sg**	**08 44 29.6**	**+0.1**
SJES	**Sjenica**	**1.67**	**341**	*e*Pn		**Pg**	**08 44 08.9**	**+0.3**
SJES				*e*Sg		**Sg**	**08 44 31.3**	**+1.1**
NKME	**Niksic**	**1.69**	**310**	⇓ *i* Pn		**Pn**	**08 44 05.4**	**-2.0**
NKME				*i* Sn		**Sg**	**08 44 32.3**	**+1.3**
HCY	**Herceg Novi**	**1.81**	**296**	⇓ *i* Pn		**Pn**	**08 44 06.1**	**-3.0**
HCY				*i* Sn		**Sb**	**08 44 33.8**	**-0.2**
GOCS	**Kraljevo Serbi**	**1.88**	**4**	*e*Pn		**Pb**	**08 44 11.5**	**-0.4**
GOCS				*e*Sn		**Sb**	**08 44 36.4**	**+0.5**
IVAS	**Ivanjica**	**1.93**	**348**	*e*Pn		**Pn**	**08 44 10.8**	**0.0**
IVAS				*e*Sn		**Sg**	**08 44 38.7**	**-0.1**
BRY	**Bratogost**	**2.02**	**308**	*e*Pn		**Pn**	**08 44 08.9**	**-3.1**
BRY				*i* Sn		**Sb**	**08 44 39.5**	**-0.4**
UPM	**Unac-Piva**	**2.02**	**319**	⇑ *i* Pn		**Pn**	**08 44 09.8**	**-2.3**
UPM				*i* Sn		**Sb**	**08 44 40.1**	**+0.1**
STON	**Ston**	**2.53**	**299**	*e*Pn		**Pn**	**08 44 20.2**	**+1.3**
STON				Sn		**Sb**	**08 44 52.6**	**-1.8**
LSTV	**Lastovo**	**3.03**	**292**	*e*Pn		**Pn**	**08 44 25.4**	**-0.4**
LSTV				Sn		**Sn**	**08 45 01.0**	**-1.8**
KIJV	**Kijevo**	**3.92**	**308**	*e*Pn		**Pn**	**08 44 40.2**	**+2.2**
DUGI	**Dugi Otok**	**4.75**	**301**	*e*Pn		**Pn**	**08 44 50.0**	**+0.6**

AFAD **12** *08:55:13.1,37˚.86N×26˚.92E, h8km±3km, ML2.2*
ISK **12** *08:55:13.6,37˚.87N×26˚.94E, h8km, ML2.5/17*

ISC 12 08:55:13.6±0.9**, 37.86N**±0˚.02×**26˚.93E**±0˚.03**, h15**km±7km**, n32**, σ0s**56**/50**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DGB	**zmir**	**0.19**	**350**	P		**Pg**	**08 55 17.6**	**-0.5**
DGB				S		**Sg**	**08 55 20.6**	**-0.5**
DGB				IAML			08 55 21.0	
	comp=N,634nm,0.1s							
DGB				IAML			08 55 23.0	
	comp=E,416nm,0.1s							
GMLD	**Gumuldur**	**0.21**	**358**	Pg		**Pg**	**08 55 18.5**	**+0.1**
GMLD				Sg		**Sg**	**08 55 21.8**	**+0.1**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**90**	Pg		**Pg**	**08 55 19.5**	**-0.1**
KUSD				Sg		**Sg**	**08 55 23.7**	**0.0**
KUSD				AML		AML		

GCAM	**G?zelcaml?**	**0.29**	**123**	P		**Pg**	**08 55 19.5**	**-0.3**
GCAM				S		**Sg**	**08 55 23.9**	**0.0**
GCAM				IAML			08 55 24.0	
	comp=N,575nm,0.5s							
GCAM				IAML			08 55 24.0	
	comp=E,346nm,0.2s							
GCAM	**G?zelcaml?**	**0.29**	**123**	Pg		**Pg**	**08 55 19.7**	**0.0**
GCAM				Sg		**Sg**	**08 55 24.3**	**+0.4**
GCAM				AML		AML		
BEYE	**izmir**	**0.36**	**0**	P		**Pg**	**08 55 20.7**	**-0.4**
BEYE				IAML			08 55 26.0	
	comp=E,355nm,0.3s							
BEYE				IAML			08 55 26.0	
	comp=N,395nm,0.2s							
BEYE				S		**Sg**	**08 55 26.2**	**+0.1**
ZEYE	**Izmir, Urla-Ze**	**0.50**	**319**	P		**Pg**	**08 55 22.9**	**-0.7**
ZEYE				IAML			08 55 30.0	
	comp=N,322nm,0.2s							
ZEYE				S		**Sg**	**08 55 30.2**	**-0.1**
ZEYE				IAML			08 55 33.0	
	comp=E,233nm,0.2s							
BLCB	**Balcova**	**0.53**	**10**	Pg		**Pg**	**08 55 23.9**	**-0.2**
BLCB				Sg		**Sb**	**08 55 31.8**	**-0.3**
BLCB				AML		AML		
DUVT	**Torbali**	**0.55**	**49**	P		**Pg**	**08 55 24.2**	**-0.2**
DUVT				S		**Sg**	**08 55 31.3**	**-0.3**
DUVT				IAML			08 55 35.0	
	comp=E,306nm,0.4s							
DAGE	**izmir**	**0.67**	**77**	P		**Pg**	**08 55 26.6**	**0.0**
DAGE				S		**Sg**	**08 55 35.0**	**-0.5**
DAGE				IAML			08 55 36.0	
	comp=E,218nm,0.1s							
CESE	**eme**	**0.68**	**314**	Pg		**Pb**	**08 55 27.2**	**+0.1**
CESE				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.77**	**83**	Pg		**Pb**	**08 55 28.7**	**0.0**
AYDB				AML		AML		
AYDN	**Tasoluk**	**0.78**	**105**	P		**Pg**	**08 55 28.7**	**-0.1**
AYDN				S		**Sg**	**08 55 37.9**	**-1.2**
AYDN				IAML			08 55 42.0	
	comp=N,86nm,0.2s							
AYDN				IAML			08 55 42.0	
	comp=E,100nm,0.2s							
KRBN	**Karaburun**	**0.79**	**338**	Pg		**Pb**	**08 55 29.1**	**+0.1**
KRBN				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**159**	Pg		**Pb**	**08 55 29.3**	**+0.3**
YKAV				AML		AML		
BAGT	**Foa**	**0.79**	**356**	P		**Pb**	**08 55 29.0**	**-0.1**
BAGT				S		**Sg**	**08 55 39.4**	**-0.1**
BAGT				IAML			08 55 42.0	
	comp=E,189nm,0.5s							
BAGT				IAML			08 55 42.0	
	comp=N,161nm,0.9s							
BODT	**Bodrum**	**0.85**	**159**	Pg		**Pb**	**08 55 30.7**	**+0.6**
BODT				AML		AML		
IZMR	**zmir-demi**	**0.85**	**71**	P		**Pg**	**08 55 29.5**	**-0.7**
IZMR				S		**Sg**	**08 55 39.9**	**-1.5**
IZMR				IAML			08 55 41.0	
	comp=N,56nm,0.3s							
IZMR				IAML			08 55 45.0	
	comp=E,35nm,0.6s							
CHOS	**Chios island**	**0.86**	**308**	Pg		**Pb**	**08 55 30.4**	**+0.1**
CHOS				AML		AML		
FOCM	**Foa**	**0.86**	**350**	Pg		**Pb**	**08 55 30.6**	**+0.3**
FOCM				AML		AML		
MLSB	**Milas**	**0.88**	**130**	Pg		**Pb**	**08 55 31.2**	**+0.6**
MLSB				AML		AML		
BDRM	**Kayabasi**	**0.90**	**152**	P		**Pg**	**08 55 29.5**	**-1.4**
BDRM				S		**Sg**	**08 55 42.1**	**-0.6**
BDRM				IAML			08 55 45.0	
	comp=N,46nm,0.5s							
BDRM				IAML			08 55 46.0	
	comp=E,51nm,0.4s							
KARB	**zmir-Karabur**	**0.90**	**333**	P		**Pg**	**08 55 30.5**	**-0.5**
KARB				S		**Sb**	**08 55 43.0**	**+0.3**
KARB				IAML			08 55 45.0	
	comp=N,136nm,0.6s							
KARB				IAML			08 55 46.0	
	comp=E,96nm,0.5s							
CAMT	**Merkez**	**0.94**	**19**	P		**Pb**	**08 55 31.6**	**0.0**
CAMT				S		**Sb**	**08 55 44.7**	**+0.9**
CAMT				IAML			08 55 47.0	
	comp=E,225nm,0.4s							
CAMT				IAML			08 55 47.0	
	comp=N,237nm,0.3s							
NAZL	**Nazilli-Aydin**	**1.08**	**84**	Pg		**Pb**	**08 55 34.5**	**+0.4**
NAZL				AML		AML		
ZEDA	**zmir-Bergama**	**1.11**	**6**	P		**Pg**	**08 55 34.5**	**-0.5**
ZEDA				S		**Sg**	**08 55 48.5**	**-1.0**
ZEDA				IAML			08 55 53.0	
	comp=E,55nm,0.3s							
ZEDA				IAML			08 55 56.0	
	comp=N,24nm,0.1s							
DKL	**Dikili**	**1.21**	**359**	Pn		**Pn**	**08 55 36.8**	**+0.9**
DKL				AML		AML		
AKS	**Akhisar**	**1.23**	**34**	Pn		**Pg**	**08 55 37.6**	**+0.3**
AKHS	**Akhisar**	**1.23**	**34**	P		**Pb**	**08 55 36.1**	**-0.4**
KTTT	**Salihli**	**1.23**	**48**	P		**Pb**	**08 55 36.9**	**+0.3**
KTTT				S		**Sb**	**08 55 51.5**	**-0.9**
KTTT				IAML			08 55 57.0	
	comp=N,33nm,0.2s							
SOMA	**Soma-Manisa**	**1.38**	**20**	Pn		**Pb**	**08 55 39.5**	**+0.5**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.43**	**43**	Pn		**Pg**	**08 55 40.7**	**-0.5**
GORD				AML		AML		

JMA **12** *08:56:55.4±0.1,41˚.4N±0˚.3×141˚.2E±0˚.5, h93km, MV3.2/40, TSUGARU STRAIT REGION*
JMA Felt I J1 at TSUGARU STRAIT REGION .
IDC **12** *08:56:56.2±1.3,41˚.42N×141˚.10E, h110km±11km, mb3.4/12, mbtmp3.7/14, Error ellipse: s-maj=21.5km s-min=10.2km az=114.0*

ISC 12 08:56:54.9±0.7**, 41˚.42N**±0˚.03×**141˚.17E**±0˚.04**, h96**km±5km**, n38**, σ0s**97**/49**, mb3.7**/12**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
JOT	**Ohata**	**0.10**	**249**	*i* P		**Pn**	**08 57 08.5**	**+0.2**
JAHD	**Aomorihigashid**	**0.20**	**140**	*i* P		**Pn**	**08 57 08.6**	**0.0**
JAHD				*e*S		**Sn**	**08 57 18.9**	**+0.2**
JKB	**Kayabe**	**0.48**	**348**	*i* P		**Pn**	**08 57 10.4**	**+0.4**
JKB				*e*S		**Sn**	**08 57 21.7**	**+0.3**
JSR	**Shiriuchi**	**0.58**	**282**	*i* P		**Pn**	**08 57 11.4**	**+0.6**
JSR				*e*S		**Sn**	**08 57 23.0**	**+0.3**
JTM	**Tenmabayashi**	**0.63**	**187**	*i* P		**Pn**	**08 57 11.8**	**+0.5**
JTM				S		**Sn**	**08 57 24.1**	**+0.6**
JOMM	**Oshimamatsumae**	**0.88**	**277**	*i* P		**Pn**	**08 57 14.4**	**+0.8**
JOMM				S		**Sn**	**08 57 28.2**	**+0.4**
JYM2	**Yakumo 2**	**0.92**	**320**	*i* P		**Pn**	**08 57 15.0**	**+0.9**
JYM2				S		**Sn**	**08 57 29.5**	**+0.9**
JNB	**Noboribetsu**	**1.06**	**355**	*i* P		**Pn**	**08 57 15.9**	**+0.3**
JNB				S		**Sn**	**08 57 31.2**	**+0.1**
JANG	**Nango**	**1.07**	**166**	*i* P		**Pn**	**08 57 15.9**	**+0.1**
JANG				S		**Sn**	**08 57 31.4**	**-0.1**
JIW	**Iwasaki**	**1.21**	**227**	*i* P		**Pn**	**08 57 18.3**	**+1.0**
JIW				*e*S		**Sn**	**08 57 35.4**	**+1.2**
JAH	**Hinai**	**1.29**	**198**	*i* P		**Pn**	**08 57 19.6**	**+1.3**
JAH				*e*S		**Sn**	**08 57 38.4**	**+2.3**
JIAM	**Iburiatsuma**	**1.33**	**25**	P		**Pn**	**08 57 19.9**	**+1.2**
JIAM				S		**Sn**	**08 57 38.3**	**+1.5**
JHST	**Hiyamasetana**	**1.39**	**317**	P		**Pn**	**08 57 20.2**	**+0.7**
JHST				*e*S		**Sn**	**08 57 39.5**	**+1.3**
JOSM	**Okushiri--Mats**	**1.43**	**298**	P		**Pn**	**08 57 20.0**	**0.0**
JOSM				S		**Sn**	**08 57 39.5**	**+0.4**
JEW	**Eniwo**	**1.44**	**8**	*i* P		**Pn**	**08 57 20.9**	**+0.8**
JEW				S		**Sn**	**08 57 40.0**	**+0.7**
JNBK	**Urakawa-nobuka**	**1.46**	**53**	P		**Pn**	**08 57 20.8**	**+0.4**
JSH	**Shimam**	**1.48**	**326**	P		**Pn**	**08 57 21.4**	**+0.7**
JSH				*e*S		**Sn**	**08 57 41.3**	**+1.0**
JEM	**Erimo**	**1.60**	**67**	P		**Pn**	**08 57 22.6**	**+0.5**
ASAJ	**Asahikawa**	**2.90**	**21**	P		**Pn**	**08 57 40.9**	**+1.9**
	9.2nm,0.3s,baz=214,slow=11,SNR=40							
ASAJ				S		**Sn**	**08 58 15.9**	**+2.8**
	20nm,0.5s,baz=56,slow=32,SNR=8.8							
MJAR	**Matsushiro Arr**	**5.39**	**206**	P		**Pn**	**08 58 14.4**	**+1.6**
	2.8nm,0.5s,baz=20,slow=15,SNR=12							
MJAR				S		**Sn**	**08 59 15.2**	**+1.7**
	1.5nm,0.7s,baz=38,slow=16,SNR=1.2							
H11N2	**WAKE ISLAND Hy 30.75**	**127**		T		T	09 34 14.1	
	baz=318,slow=76,SNR=10.0							
H11N1	**WAKE ISLAND Hy 30.76**	**127**		T		T	09 34 22.8	
	baz=318,slow=76,SNR=8.3							
H11N3	**WAKE ISLAND Hy 30.76**	**127**		T		T	09 34 35.6	
	baz=318,slow=76,SNR=7.1							
H11S1	**WAKE ISLAND Hy 31.57**	**129**		T		T	09 36 34.9	
	baz=323,slow=76,SNR=8.1							
H11S3	**WAKE ISLAND Hy 31.58**	**129**		T		T	09 36 25.7	
	baz=323,slow=76,SNR=3.2							
H11S2	**WAKE ISLAND Hy 31.59**	**129**		T		T	09 36 24.8	
	baz=323,slow=76,SNR=4.0							
ZALV	**Zalesovo Beam**	**38.93**	**308**	P		**P**	**09 04 10.4**	**-0.6**
	0.9nm,0.6s,baz=90,slow=8.6,SNR=2.6							
	0.9nm,0.6s							
MKAR	**Makanchi Array**	**41.76**	**298**	P		**P**	**09 04 33.6**	**-0.9**
	0.4nm,0.5s,baz=93,slow=11,SNR=4.7							
	0.4nm,0.5s							
KURBB	**Kurchatov Arra**	**43.26**	**304**	P		**P**	**09 04 46.5**	**-0.1**
	1.3nm,0.5s,baz=79,slow=8.7,SNR=8.4							
	1.3nm,0.5s							
ILAR	**Eielson Array**	**45.95**	**35**	P		**P**	**09 05 08.0**	**+0.3**
	0.8nm,0.7s,baz=272,slow=6.7,SNR=7.9							
	0.8nm,0.7s							
BVAR	**Borovoye Array**	**47.56**	**309**	P		**P**	**09 05 19.8**	**-0.7**
	0.9nm,0.5s,baz=72,slow=9.3,SNR=2.8							
	0.9nm,0.5s							
WRA	**Warramunga Arr**	**61.37**	**187**	P		**P**	**09 07 00.2**	**-0.4**
	0.3nm,0.5s,baz=5.7,slow=6.9,SNR=5.4							
	0.3nm,0.5s							
FINES	**FINESS Array B**	**64.87**	**331**	P		**P**	**09 07 22.6**	**-0.7**
	0.4nm,0.3s,baz=18,slow=8.6,SNR=4.9							
	0.4nm,0.3s							
HFS	**Hagfors**	**70.03**	**335**	P		**P**	**09 07 55.6**	**-0.2**
	0.3nm,0.3s,baz=96,slow=2.9,SNR=1.1							
	0.3nm,0.3s							
AKASG	**Malin Array Be**	**70.74**	**321**	P		**P**	**09 07 59.6**	**-0.8**
	0.4nm,0.3s,baz=45,slow=6.6,SNR=2.7							
	0.4nm,0.3s							
PDAR	**Pinedale Array**	**74.75**	**46**	P		**P**	**09 08 24.3**	**-0.2**
	0.2nm,0.5s,baz=135,slow=0.6,SNR=4.0							
	0.2nm,0.5s							
GERES	**GERESS Array B**	**78.90**	**328**	P		**P**	**09 08 47.1**	**-0.5**
	0.4nm,0.2s,baz=35,slow=6.0,SNR=1.8							
	0.4nm,0.2s							
TXAR	**Lajitas Array**	**87.59**	**52**	P		**P**	**09 09 32.6**	**0.0**
	0.2nm,0.7s,baz=323,slow=6.1,SNR=3.2							
	0.2nm,0.7s							

GCG **12** *09:02:01.9±0.9, 15˚.72N×88˚.26W, h12km±4km, MD4.6, Presumed earthquake*
CATAC **12** *09:02:03.5±0.6, 16˚N±3˚×8˚8W±˚, h4km±2km, M3.3/7, MLv3.3/7, Error ellipse: s-maj=8.7km s-min=4.5km az=65.0, confirmed*
SNET **12** *09:02:11.6±5.8, 15˚.23N×88˚.25W, h7km, ML3.3, Presumed earthquake*

ISC 12 09:02:00.8±1.5**, 15˚.70N**±0˚.04×**88˚.21W**±0˚.05**, h13**km±11km**, n21**, σ0s**74**/30**, Honduras**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
IZABA	**Izabal, Puerto**	**0.36**	**276**	P		**Pb**	**09 02 08.8**	**-0.5**
IZABA				S		**Sb**	**09 02 15.2**	**+0.3**
SARH	**Santa Rosa de**	**1.06**	**210**	P		**Pg**	**09 02 21.4**	**+0.1**
SARH				S		**Sn**	**09 02 36.8**	**+0.6**
SARH	**Santa Rosa de**	**1.06**	**210**	*i* P		**Pn**	**09 02 21.5**	**0.0**
ZAFR2	**Estanzuela, Za**	**1.57**	**225**	*i* P		**Pn**	**09 02 28.1**	**-0.4**
ZAFR2				*i* S		**Sn**	**09 02 47.9**	**-0.8**
ESQI	**Esquipulas**	**1.57**	**224**	P		**Pb**	**09 02 30.2**	**+0.3**
ESQI				S		**Sg**	**09 02 51.5**	**-0.1**
ESQI	**Esquipulas**	**1.57**	**224**	*e*P		**Pb**	**09 02 30.2**	**+0.3**
ESQI				*e*S		**Sg**	**09 02 53.6**	**+2.1**
TGUH	**Tegucigalpa,Un**	**1.86**	**151**	P		**Pb**	**09 02 35.0**	**+0.2**
TGUH				S		**Sg**	**09 03 01.5**	**+0.7**
JUAM	**Asuncion Mita**	**1.98**	**227**	*i* P		**Pn**	**09 02 34.7**	**+0.5**
JUAM				*i* S		**Sb**	**09 03 00.8**	**-0.7**
PETF	**Flores**	**2.00**	**308**	P		**Pg**	**09 02 39.1**	**-0.2**
PETF				S		**Sb**	**09 03 01.5**	**-0.6**
PETF	**Flores**	**2.00**	**308**	*i* S		**Sn**	**09 02 60.0**	**+0.5**
SCLA	**Alcaldia de Sa**	**2.04**	**194**	S		**Sg**	**09 03 06.0**	**-0.6**
PAVA	**Las Pavas**	**2.09**	**200**	P		**Pb**	**09 02 39.4**	**+0.6**
PAVA				S		**Sg**	**09 03 06.8**	**-1.4**
UNIC	**Universidad Ca**	**2.14**	**217**	S		**Sb**	**09 03 05.7**	**-0.4**
PACA	**Pacayal**	**2.22**	**183**	S		**Sg**	**09 03 10.7**	**-1.4**

KLV					AML	AML			
KLV	**Kalavryta, Ach**	**0.47**	**93**		P	**Pg**	**09 16 03.1**	**-0.1**	
TEME	**Temeni, Aigial**	**0.47**	**70**		P	**Pb**	**09 16 03.4**	**0.0**	
TEME					S	**Sb**	**09 16 10.1**	**+0.1**	
SERG	**Sergoula**	**0.52**	**49**		P	**Pb**	**09 16 04.4**	**+0.3**	
SERG					S	**Sb**	**09 16 12.8**	**+1.5**	
SERG					AML	AML			
SERG	**Sergoula**	**0.52**	**49**		P	**Pg**	**09 16 04.3**	**+0.2**	
SERG					S	**Sb**	**09 16 12.2**	**+0.8**	
SERG					AML	AML			
AMT	**Artemida-Makis**	**0.55**	**167**		P	**Pb**	**09 16 05.1**	**+0.5**	
AMT					AML	AML			
KALE	**Kalithea**	**0.56**	**55**		P	**Pg**	**09 16 05.1**	**+0.2**	
KALE					S	**Sb**	**09 16 13.9**	**+1.5**	
KALE					AML	AML			
KALE	**Kalithea**	**0.56**	**55**		P	**Pg**	**09 16 04.9**	**+0.1**	
KALE					S	**Sb**	**09 16 12.9**	**+0.5**	
KALE					AML	AML			
ANX	**Ano Chora**	**0.59**	**29**		P	**Pb**	**09 16 05.9**	**+0.4**	
ANX					S	**Sb**	**09 16 15.5**	**+2.0**	
ANX					AML	AML			
ANX	**Ano Chora**	**0.59**	**29**		P	**Pg**	**09 16 05.7**	**+0.2**	
ANX					S	**Sb**	**09 16 15.2**	**+1.7**	
ANX					AML	AML			
AST1	**Astakos**	**0.60**	**322**		P	**Pb**	**09 16 06.4**	**+1.0**	
AST1					S	**Sb**	**09 16 15.2**	**+1.7**	
PDO	**Prodromos**	**0.60**	**331**		P	**Pb**	**09 16 06.4**	**+0.8**	
PDO					S	**Sb**	**09 16 15.9**	**+2.3**	
PDO					AML	AML			
PDO	**Prodromos**	**0.60**	**331**		P	**Pb**	**09 16 06.4**	**+0.8**	
PDO					S	**Sb**	**09 16 15.9**	**+2.3**	
PDO					AML	AML			
RTZL	**Ratzakli, Kefa**	**0.62**	**271**		P	**Pb**	**09 16 06.8**	**+1.0**	
RTZL					S	**Sb**	**09 16 16.0**	**+1.9**	
RTZL					AML	AML			
RTZL	**Ratzakli, Kefa**	**0.62**	**271**		P	**Pb**	**09 16 06.6**	**+0.8**	
RTZL					AML	AML			
KYPS	**Kipseli, Zakin**	**0.63**	**247**		P	**Pb**	**09 16 07.0**	**+1.0**	
GUR	**Goura**	**0.63**	**102**		P	**Pb**	**09 16 06.3**	**+0.2**	
GUR					S	**Sb**	**09 16 15.9**	**+1.2**	
GUR					AML	AML			
GUR	**Goura**	**0.63**	**102**		P	**Pb**	**09 16 06.3**	**+0.2**	
GUR					S	**Sb**	**09 16 15.6**	**+1.0**	
GUR					AML	AML			
LTHK	**Lithakia**	**0.68**	**238**		P	**Pb**	**09 16 07.5**	**+0.7**	
LTHK					AML	AML			
LTHK	**Lithakia**	**0.68**	**238**		P	**Pb**	**09 16 07.3**	**+0.5**	
LTHK					AML	AML			
PSDA	**Pessada-Kefalo**	**0.77**	**274**		P	**Pg**	**09 16 08.7**	**-0.1**	
PSDA					S	**Sn**	**09 16 21.0**	**+0.4**	
PSDA					AML	AML			
PSDA	**Pessada-Kefalo**	**0.77**	**274**		P	**Pg**	**09 16 08.4**	**-0.3**	
PSDA					AML	AML			
VLS	**Valsamata**	**0.77**	**278**		P	**Pg**	**09 16 08.9**	**+0.1**	
VLS					S	**Sn**	**09 16 21.1**	**+0.4**	
VLS					AML	AML			
VLS	**Valsamata**	**0.77**	**278**		P	**Pg**	**09 16 08.6**	**-0.2**	
VLS					S	**Sb**	**09 16 20.5**	**+1.9**	
DLFA	**Delphi**	**0.84**	**61**		P	**Pg**	**09 16 09.7**	**-0.4**	
VSK1	**VASILIKIADES**	**0.85**	**294**		P	**Pg**	**09 16 10.3**	**0.0**	
VSK1					S	**Sn**	**09 16 23.7**	**+1.0**	
EVR	**Evrytania**	**0.87**	**13**		P	**Pb**	**09 16 10.8**	**+0.6**	
EVR					AML	AML			
EVR	**Evrytania**	**0.87**	**13**		P	**Pg**	**09 16 10.5**	**-0.1**	
EVR					S	**Sn**	**09 16 23.4**	**+0.2**	
THAL	**Thalero**	**0.87**	**92**		P	**Pg**	**09 16 10.8**	**+0.1**	
THAL					AML	AML			
THAL	**Thalero**	**0.87**	**92**		P	**Pg**	**09 16 10.5**	**-0.1**	
THAL					S	**Sb**	**09 16 22.6**	**+1.1**	
THAL					AML	AML			
AMPL	**Ampelaki**	**0.89**	**342**		P	**Pb**	**09 16 11.1**	**+0.5**	
AMPL					S	**Sn**	**09 16 24.5**	**+0.9**	
AMPL					AML	AML			
AMPL	**Ampelaki**	**0.89**	**342**		P	**Pb**	**09 16 10.7**	**+0.1**	
AMPL					AML	AML			
EVGI	**Lefkada island**	**0.90**	**308**		P	**Pg**	**09 16 11.3**	**+0.2**	
EVGI					AML	AML			
EVGI	**Lefkada island**	**0.90**	**308**		P	**Pb**	**09 16 11.0**	**+0.4**	
EVGI					AML	AML			
NYDR	**Nydri-Lefkada**	**0.93**	**314**		P	**Pb**	**09 16 11.7**	**+0.5**	
NYDR					S	**Sn**	**09 16 26.0**	**+1.4**	
NYDR					AML	AML			
NYDR	**Nydri-Lefkada**	**0.93**	**314**		P	**Pb**	**09 16 11.4**	**+0.2**	
NYDR					S	**Sg**	**09 16 24.6**	**+0.5**	
ITM	**Ithomi**	**0.94**	**162**		P	**Pn**	**09 16 12.2**	**+0.3**	
ITM					AML	AML			
ITM	**Ithomi**	**0.94**	**162**		P	**Pg**	**09 16 11.6**	**-0.3**	
ITM					AML	AML			
DMLN	**Damoulianata-K**	**0.95**	**281**		P	**Pg**	**09 16 12.4**	**+0.3**	
DMLN					AML	AML			
DMLN	**Damoulianata-K**	**0.95**	**281**		P	**Pb**	**09 16 11.7**	**+0.2**	
DMLN					AML	AML			
VLX	**Vlachokerasia**	**0.95**	**137**		P	**Pn**	**09 16 12.5**	**+0.3**	
VLX					S	**Sn**	**09 16 26.3**	**+1.0**	
VLX					AML	AML			
VALY	**Valyra**	**0.97**	**159**		P	**Pb**	**09 16 11.8**	**+0.1**	
VALY					AML	AML			
DRAG	**Dragano-Lefkad**	**0.99**	**309**		P	**Pb**	**09 16 12.6**	**+0.5**	
DRAG					S	**Sn**	**09 16 27.5**	**+1.5**	
DRAG					AML	AML			
LKD2	**Lefkada island**	**1.01**	**316**		P	**Pb**	**09 16 12.9**	**+0.4**	
LKD2					S	**Sn**	**09 16 28.5**	**+2.0**	
LKD2					AML	AML			
LKD2	**Lefkada island**	**1.01**	**316**		P	**Pb**	**09 16 12.9**	**+0.4**	
LKD2					S	**Sn**	**09 16 29.5**	**+3.0**	
LKD2					IAML		09 16 35.5		
	2µm,0.6s								
TSLK	**Tsoukalades, L**	**1.03**	**317**		P	**Pg**	**09 16 13.8**	**0.0**	
TSLK					AML	AML			
AXAR	**Agios Charalam**	**1.11**	**51**		P	**Pb**	**09 16 14.7**	**+0.4**	
AXAR					S	**Sn**	**09 16 30.3**	**+1.3**	
AXAR					AML	AML			
LTK	**Loutraki**	**1.11**	**92**		P	**Pn**	**09 16 14.9**	**+0.6**	
LTK					AML	AML			
AGG	**Agios Georgios**	**1.13**	**32**		P	**Pn**	**09 16 15.3**	**+0.9**	
THL	**Klokotos Trika**	**1.53**	**13**		P	**Pg**	**09 16 22.9**	**-0.3**	
THL					S	**Sg**	**09 16 48.2**	**+5.0**	
IGT	**Igoumenitsa**	**1.75**	**327**		P	**Pg**	**09 16 27.5**	**+0.3**	
IGT					S	**Sg**	**09 16 53.5**	**+3.6**	
LSK	**Leskovik**	**2.21**	**341**		P	**Pb**	**09 16 34.6**	**+1.6**	
LSK					S	Sg	09 17 06.2	+1.5	
NEST	**Nestorio**	**2.37**	**351**		P	Pg	09 16 38.5	-0.8	
NEST					S	Sg	09 17 11.7	+1.6	
STON	**Ston**	**5.63**	**330**	*e*Pn	**Pn**		**09 17 15.0**	**-1.2**	
STON					Sn	**Sn**	**09 18 13.6**	**-6.7**	
LSTV	**Lastovo**	**5.89**	**324**	*e*Pn	**Pn**		**09 17 19.5**	**-0.4**	
LSTV					Sn	**Sn**	**09 18 19.4**	**-7.5**	
RICI	**Ricice**	**6.37**	**330**	*e*Pn	**Pn**		**09 17 26.4**	**-0.2**	
RICI					Sn	**Sn**	**09 18 31.5**	**-7.3**	
HVAR	**Hvar**	**6.41**	**324**	*e*Pn	**Pn**		**09 17 25.8**	**-1.3**	
HVAR					Sn	Sn	09 18 31.8	-8.0	
KIJV	**Kijevo**	**7.09**	**328**	*e*Pn	**Pn**		**09 17 36.6**	**+0.2**	
KIJV					Sn	**Sn**	**09 18 49.2**	**-7.3**	
MORI	**Morici**	**7.29**	**324**	*e*Pn	**Pn**		**09 17 37.5**	**-1.5**	
MORI					Sn	Sn	09 18 53.4	-7.9	
DUGI	**Dugi Otok**	**7.69**	**322**	*e*Pn	**Pn**		**09 17 43.8**	**-0.8**	
DUGI					Sn	**Sn**	**09 19 03.6**	**-7.5**	

WEL 12 09:54:51.6±1.0,32°S±5°×18°0E±1°3,h351km±14km,M4.5/7, mB4.6/5,ML4.3/7,MLv4.8/7,Mw(mB)3.8/5,Error ellipse: s-maj=17.5km s-min=4.8km az=107.1,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**3.34**	**34**	S	S	09 56 40.1	-4.5
GRZ	**Great Barrier**	**5.59**	**220**	P	Pn	09 56 19.5	+1.7
MXZ	**Matakaoa Point**	**5.66**	**193**	P	Pn	09 56 20.7	+2.3
MXZ				S	S	09 57 30.5	+1.6
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.89**	**192**	P	Pn	09 56 22.7	+1.7
WMGZ				S	S	09 57 35.8	+2.2
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**5.96**	**197**	P	Pn	09 56 23.6	+1.7
HAZ				S	S	09 57 37.0	+1.9
HAZ				AML	AML		
HAZ				AML	AML		
WCZ	**Waipu Caves**	**6.04**	**229**	P	Pn	09 56 23.3	+0.5
OUZ	**Omahuta**	**6.15**	**237**	P	Pn	09 56 23.7	-0.4
PUZ	**Puketiti**	**6.16**	**192**	P	Pn	09 56 25.7	+1.5
PUZ				S	S	09 57 40.2	+0.8
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.18**	**197**	P	Pn	09 56 25.7	+1.1
RUGZ				S	S	09 57 39.7	-0.3
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.32**	**194**	P	Pn	09 56 29.1	+3.1
TWGZ				S	S	09 57 45.5	+2.7
TWGZ				AML	AML		
TWGZ				AML	AML		
OPRZ	**Ohinepanea**	**6.41**	**205**	P	Pn	09 56 28.9	+1.8
OPRZ				AML	AML		
MARZ	**Manawahe**	**6.50**	**203**	P	Pn	09 56 29.9	+1.9
MWZ	**Matawai**	**6.57**	**197**	P	Pn	09 56 28.9	-0.1
MWZ				S	S	09 57 50.2	+2.1
MWZ				AML	AML		
TKGZ	**Te Karaka**	**6.60**	**194**	P	Pn	09 56 29.8	+0.6
TKGZ				S	S	09 57 49.5	+1.0
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	**Urewera**	**6.61**	**200**	P	Pn	09 56 29.3	0.0
URZ				S	S	09 57 48.3	-0.5
URZ				AML	AML		
URZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**6.63**	**220**	P	P	09 56 30.9	-0.1
KARZ	**Kaharoa**	**6.68**	**206**	P	P	09 56 31.9	+0.4
TOZ	**Tahuroa Road**	**6.73**	**211**	P	P	09 56 33.9	+1.7
RAGZ	**Rawiri**	**6.75**	**197**	P	Pn	09 56 31.3	+0.3
RAGZ				S	S	09 57 54.3	+2.4
RAGZ				AML	AML		
TARZ	**Mount Tarawera**	**6.78**	**203**	P	P	09 56 33.4	+0.6
RIGZ	**Rimuhau**	**6.87**	**194**	P	Pn	09 56 32.3	-0.1
RIGZ				S	S	09 57 56.5	+2.0
MUGZ	**Murupara**	**6.91**	**201**	P	Pn	09 56 32.5	-0.3
MUGZ				S	S	09 57 55.9	+0.6
RTZ	**Ruatahuna**	**6.98**	**199**	P	Pn	09 56 33.6	-0.1
HRRZ	**Handcock Road**	**6.99**	**204**	P	P	09 56 35.4	+0.1
PRRZ	**Plateau Road**	**7.05**	**203**	P	P	09 56 35.4	-0.5
PRGZ	**Paritu Road**	**7.06**	**193**	P	P	09 56 36.5	+0.6
PRGZ				AML	AML		
KNZ	**Kokohu**	**7.20**	**194**	P	Pn	09 56 35.9	-0.3
KNZ				S	S	09 58 01.8	+0.6
TLZ	**Tolley Road**	**7.22**	**209**	P	Pn	09 56 36.7	+0.1
RAHZ	**Arahi**	**7.23**	**198**	P	P	09 56 37.3	-0.7
RAHZ				S	S	09 58 04.2	+2.1
MTHZ	**Maungataniwha**	**7.24**	**199**	P	Pn	09 56 35.5	-1.2
MTHZ				S	S	09 58 02.8	+0.5
MHGZ	**Mahia Peninsul**	**7.28**	**192**	P	P	09 56 38.8	+0.3
MHGZ				S	S	09 58 06.4	+3.4
WHHZ	**Waihua**	**7.35**	**197**	P	Pn	09 56 37.6	-0.3
MRHZ	**Matea Rd**	**7.35**	**202**	P	Pn	09 56 37.2	-0.8
MRHZ				S	S	09 58 04.9	+0.2
NMHZ	**Naumai**	**7.48**	**199**	P	Pn	09 56 39.0	-0.6
NMHZ				S	S	09 58 09.3	+1.8
ARHZ	**Aropaoanui**	**7.58**	**197**	P	Pn	09 56 40.7	0.0
ARHZ				S	S	09 58 12.0	+2.4
BKZ	**Black Stump Fm**	**7.63**	**200**	P	Pn	09 56 39.1	-2.2
BKZ				S	S	09 58 07.3	-3.5
HIZ	**Hauiti**	**7.67**	**211**	P	P	09 56 43.2	+0.3
KATZ	**Kakaramea**	**7.72**	**205**	P	Pn	09 56 42.9	+0.4
MCHZ	**McNeill Hill**	**7.83**	**199**	P	Pn	09 56 42.3	-1.3
MCHZ				S	S	09 58 16.5	+1.4
NTVZ	**North Tongarir**	**7.84**	**205**	P	Pn	09 56 42.7	-1.2
NTVZ				S	S	09 58 18.1	+2.7
TMVZ	**Te Maari**	**7.84**	**205**	P	Pn	09 56 43.3	-0.6
KRVZ	**Karewarewa**	**7.85**	**205**	P	Pn	09 56 42.2	-1.8
ETVZ	**East Tongariro**	**7.86**	**205**	P	Pn	09 56 42.5	-1.6
ETVZ				S	S	09 58 18.2	+2.4
WTVZ	**West Tongariro**	**7.89**	**205**	P	Pn	09 56 43.0	-1.4
KWHZ	**Kaweka Forest**	**7.89**	**200**	P	Pn	09 56 42.5	-1.9
KWHZ				S	S	09 58 15.0	-1.4
OTVZ	**Oturere**	**7.90**	**205**	P	Pn	09 56 41.5	-3.1
TWVZ	**Taurewa**	**7.90**	**206**	P	Pn	09 56 43.3	-1.3
SNVZ	**South Ngauruho**	**7.93**	**205**	P	Pn	09 56 42.6	-2.4
SNVZ				S	S	09 58 17.6	+0.2
NGZ	**Ngauruhoe**	**7.94**	**205**	P	Pn	09 56 43.9	-1.1
CKHZ	**Cape Kidnapper**	**7.94**	**196**	P	Pn	09 56 44.6	-0.3
CKHZ				S	S	09 58 17.1	-0.2
COVZ	**Chateau Observ**	**7.98**	**205**	P	Pn	09 56 44.2	-1.3
TUVZ	**Tukino**	**8.00**	**205**	P	Pn	09 56 44.0	-1.8
TUVZ				S	S	09 58 19.6	+0.8
FWVZ	**Far West T-bar**	**8.02**	**205**	P	Pn	09 56 44.5	-1.6
WHVZ	**Whangaehu Hut**	**8.03**	**205**	P	Pn	09 56 44.7	-1.6
BHHZ	**Black Hill Sta**	**8.06**	**202**	P	Pn	09 56 43.7	-2.7
BHHZ				S	S	09 58 17.5	-2.6
TRVZ	**Turoa**	**8.06**	**205**	P	Pn	09 56 44.3	-2.3
WNVZ	**Wahianoa**	**8.07**	**205**	P	Pn	09 56 43.5	-3.1
WNVZ				S	S	09 58 20.4	0.0
MOVZ	**Moawhango**	**8.09**	**204**	P	Pn	09 56 44.4	-2.3
KRHZ	**Kereru**	**8.11**	**200**	P	Pn	09 56 44.3	-2.7
KRHZ				S	S	09 58 18.9	-2.2
KAHZ	**Kahuranaki**	**8.12**	**197**	P	Pn	09 56 46.0	-1.0
PKVZ	**Pokaka**	**8.13**	**206**	P	Pn	09 56 45.2	-2.0
MTVZ	**Mangateitei**	**8.17**	**205**	P	Pn	09 56 46.2	-1.5
VRZ	**Vera Road**	**8.22**	**209**	P	Pn	09 56 47.8	-0.4
PXZ	**Pawanui**	**8.34**	**196**	P	Pn	09 56 47.1	-2.6
PXZ				S	S	09 58 23.6	-2.5
PNHZ	**Pukenui**	**8.41**	**200**	P	Pn	09 56 47.0	-3.5
PNHZ				S	S	09 58 23.3	-4.3
WPHZ	**Waipukurau**	**8.48**	**198**	P	Pn	09 56 49.6	-1.7
TSZ	**Takapari Road**	**8.61**	**201**	P	Pn	09 56 49.4	-3.5
TSZ				S	S	09 58 28.6	-3.4
PRHZ	**Porangahau**	**8.62**	**197**	P	Pn	09 56 51.3	-1.7
PRHZ				S	S	09 58 30.4	-1.8
NEZ	**North Egmont**	**8.62**	**212**	P	Pn	09 56 53.6	+0.4
DVHZ	**Dannevirke**	**8.78**	**199**	P	Pn	09 56 52.0	-2.9
DVHZ				S	S	09 58 32.0	-3.6
ANWZ	**Angora Road**	**8.84**	**197**	P	Pn	09 56 53.6	-2.0
BFZ	**Birch Farm**	**9.11**	**198**	P	Pn	09 56 55.4	-3.5
BFZ				S	S	09 58 39.1	-3.9
MRZ	**Mangatainoka R**	**9.28**	**201**	P	Pn	09 56 56.6	-4.2

*HEL **12** 10:02:09.9±0.2, 67°.42N×23°.40E, h0km, ML1.5, Suspected explosion*
*BER **12** 10:02:10.9±1.6, 67°.41N×23°.65E, h0km, ML1.4, Suspected explosion*
*IDC **12** 10:02:11.6±1.5, 67°.46N×23°.59E, h0km, mbtmp2.7/3, ML1.9/2, Error ellipse: s-maj=25.2km s-min=11.4km az=97.0*
ISC 12 10:02:09.3±0.7, 67°.45N±0°.02×23°.36E±0°.03, h0km, n34, σ1s37/53, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KLF	**Kolari**	**0.32**	**132**	PG	**Pg**	**10 02 15.3**	**-0.1**
	baz=307						
KLF				MSG	**Sg**	**10 02 20.0**	**+0.6**
	comp=Z,11nm,0.2s						
KLF				SG	**Sg**	**10 02 20.0**	**+0.6**
PAJU	**Pajala**	**0.44**	**193**	PG	**Pg**	**10 02 17.4**	**-0.2**
	baz=13						
PAJU				SG	**Sg**	**10 02 21.1**	**-2.2**
LANU	**Lannavaara**	**0.80**	**320**	*e*P	**Pg**	**10 02 24.4**	**-0.1**
LANU	**Lannavaara**	**0.80**	**320**	PG	**Pg**	**10 02 24.5**	**0.0**
LANU				SB	**Sb**	**10 02 38.2**	**+1.0**
HEF	**Hetta**	**0.97**	**7**	*e*P	**Pb**	**10 02 27.8**	**-1.1**
HEF				*e*S	**Sb**	**10 02 42.3**	**0.0**
HEF	**Hetta**	**0.97**	**7**	PG	**Pb**	**10 02 27.9**	**-1.1**
HEF				MSG		10 02 40.2	
	comp=Z,6.7nm,0.2s						
HEF				SB	**Sb**	**10 02 42.4**	**+0.1**
ERTU	**Ertsjaerv**	**1.01**	**208**	PG	**Pg**	**10 02 27.9**	**-0.7**
ERTU				SB	**Sg**	**10 02 42.6**	**+1.0**
RNF	**Rovaniemi**	**1.34**	**128**	PG	**Pg**	**10 02 33.8**	**-1.1**
RNF				SG	**Sg**	**10 02 51.7**	**-0.5**
TOF	**Tornio**	**1.43**	**164**	PG	**Pn**	**10 02 34.5**	**-1.9**
TOF				MSG		10 02 52.1	
	comp=Z,3.3nm,0.2s						
TOF				SG	**Sg**	**10 02 54.2**	**-0.9**
KTK1	**Kautokeino**	**1.57**	**358**	*e*P	**Pb**	**10 02 38.3**	**-0.9**
KTK1				*e*S	**Sg**	**10 02 59.0**	**-0.6**
KTK1				IAML		10 03 03.4	
	comp=Z,5.7nm,0.3s						
KTK1	**Kautokeino**	**1.57**	**358**	PG	**Pb**	**10 02 38.6**	**-0.5**
KTK1				SN	**Sg**	**10 03 00.3**	**+0.6**
SALU	**Saltoluokta**	**1.88**	**270**	*e*P	**Pn**	**10 02 42.8**	**+0.2**
SALU				*e*S	**Sb**	**10 03 08.5**	**+0.2**
RANF	**Ranua**	**1.98**	**135**	PG	**Pn**	**10 02 44.8**	**+0.8**
RANF				SG	**Sn**	**10 03 10.3**	**+0.8**
SJUU	**Sjulsmark**	**2.07**	**201**	*e*P	**Pn**	**10 02 45.9**	**+0.7**
RAJF	**Raja-Jooseppi**	**2.13**	**59**	PG	**Pb**	**10 02 47.1**	**-1.7**
RAJF				SG	**Sg**	**10 03 16.7**	**-1.0**
ARA0	**ARCESS Array S**	**2.24**	**20**	*e*P	**Pn**	**10 02 48.4**	**+0.8**
ARA0				IAML		10 03 22.2	
	comp=Z,3.1nm,0.6s						
ARA0	**ARCESS Array S**	**2.24**	**20**	PB	**Pb**	**10 02 48.6**	**-2.0**
ARA0				SG	**Sb**	**10 03 18.9**	**0.0**
ARCES	**ARCESS Array B**	**2.24**	**20**	Pn	**Pn**	**10 02 48.2**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=197,slow=14,SNR=9.5						
ARCES				Lg	Lg	10 03 19.4	
	comp=Z,0.6nm,0.3s,baz=202,slow=28,SNR=14						
	comp=Z,0.6nm,0.4s						
ARCES				AML	AML		
I37NO	**I37NO**	**2.41**	**315**	I	I	10 20 25.6	
	baz=131,slow=315,SNR=2.8						
VRF	**Varrio**	**2.41**	**80**	PG	**Pb**	**10 02 51.9**	**-1.6**
	baz=269						
VRF				MSG		10 03 20.9	
	comp=Z,2.8nm,0.2s						
VRF				SG	**Sb**	**10 03 24.4**	**+0.6**
OUL	**Oulu**	**2.59**	**155**	PG	**Pn**	**10 02 54.5**	**+2.2**
KU2	**Taivalkoski**	**2.61**	**130**	PG	**Pb**	**10 02 55.7**	**-1.2**
OLKF	**Oulanka, Finla**	**2.64**	**113**	PB	**Pn**	**10 02 54.7**	**+1.6**
OLKF				MSG		10 03 27.1	
	comp=Z,1.2nm,0.2s						
OLKF				SG	**Sb**	**10 03 31.1**	**+0.9**
KEV	**Kevo**	**2.67**	**28**	PN	**Pn**	**10 02 54.9**	**+1.4**
KEV				SG	**Sb**	**10 03 30.9**	**-0.3**
MSF	**Maaselka**	**2.74**	**122**	SG	**Sb**	**10 03 33.5**	**+0.4**
KU6	**Riekki**	**2.96**	**116**	PB	**Pn**	**10 02 59.2**	**+1.7**
KU6				MSG		10 03 36.2	
	comp=Z,0.8nm,0.2s						
KU1	**Kurvinen**	**3.12**	**124**	PB	**Pn**	**10 03 01.5**	**+1.8**
OUF	**Merijarvi**	**3.15**	**169**	PB	**Pn**	**10 03 03.2**	**+3.2**
	baz=354						
OUF				SB	**Sn**	**10 03 41.3**	**+3.1**
OUF				MSG		10 03 41.4	
	comp=Z,0.8nm,0.2s						
UMAU	**Umeaa**	**3.75**	**198**	SB	**Sb**	**10 03 60.0**	**-2.2**
VAF	**Ylistaro**	**4.44**	**184**	*e*P	**Pn**	**10 03 18.9**	**+1.2**
SUF	**Sumiainen**	**4.89**	**165**	*e*P	**Pn**	**10 03 25.8**	**+1.8**
JOF	**Joensuu**	**5.64**	**140**	*e*P	**Pn**	**10 03 36.0**	**+1.7**
FINES	**FINESS Array B**	**6.14**	**168**	Pn	**Pn**	**10 03 42.5**	**+1.3**
	comp=Z,0.1nm,0.3s,baz=356,slow=12,SNR=4.5						
FINES				Sn	**Sn**	**10 04 50.3**	**-1.7**
	comp=Z,0.1nm,0.3s,baz=344,slow=25,SNR=2.2						
FINES				Lg	Lg	10 05 20.0	
	comp=Z,0.1nm,0.3s,baz=345,slow=26,SNR=1.3						
	comp=Z,0.5nm,0.5s						
FINES				AML	AML		
NOA	**NORSAR Array B**	**8.31**	**225**	Pn	**Pn**	**10 04 13.4**	**+2.5**
	comp=Z,0.6nm,0.8s,baz=58,slow=11,SNR=1.7						

*NDI **12** 10:05:00.2±0.9, 23°.04N×94°.70E, h43km±11km, ML3.2, MW3.4, Presumed earthquake*
*IDC **12** 10:05:26.4±6.3, 23°.24N×93°.59E, h94km±50km, mb3.6/8, mbtmp3.9/9, MS3.5/2, Error ellipse: s-maj=163.8km s-min=14.8km az=56.0*
ISC 12 10:05:24.2±0.8, 23°.71N±0°.06×94°.12E±0°.08, h50km, n19, σ2s58/16, mb4.0/8, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMP	**Imphal**	**1.13**	**352**	*i* P	Pn	10 05 36.6	-7.2
IMP				*i* S	**Sn**	**10 06 03.9**	**+5.6**
IMP				IAML		10 06 09.9	
	comp=N,179nm,0.5s						
AZL	**Aizawl**	**1.31**	**272**	*i* P	Pn	10 05 37.1	-9.1
AZL				*i* S	**Sn**	**10 06 04.9**	**+2.2**
AZL				IAML		10 06 21.4	
	comp=N,269nm,0.3s						
SILR	**SILCHAR**	**1.61**	**312**	*i* P	Pn	10 05 44.1	-6.0
KOHI	**KOHIMA**	**2.00**	**360**	*i* P	Pn	10 05 47.7	-8.0
KOHI				*i* S	**Sn**	**10 06 21.7**	**+2.0**
KOHI				IAML		10 06 29.5	
	comp=N,164nm,0.8s						
MOKO	**MOKOCHONG**	**2.63**	**8**	*i* S	**Sn**	**10 06 34.4**	**-0.6**
MOKO				IAML		10 06 52.5	
	comp=N,240nm,0.8s						
TEZP	**TEZPUR**	**3.13**	**338**	*i* P	Pn	10 06 04.9	-6.2
TEZP				*i* S	**Sn**	**10 06 50.1**	**+2.8**
ITAN	**ITANAGAR**	**3.44**	**354**	*i* P	Pn	10 06 07.3	-8.0
ZIRO	**ZIRO**	**3.81**	**356**	*i* P	Pn	10 06 12.4	-8.1
ZIRO				*i* S	**Sn**	**10 07 04.4**	**+0.2**
DHUB	**DHUBRI**	**4.40**	**302**	*i* P	Pn	10 06 21.7	-6.7
CMAR	**Chiang Mai Arr**	**6.89**	**138**	P	**Pn**	**10 07 04.5**	**+1.8**
	comp=N,0.7nm,0.3s,baz=314,slow=14,SNR=4.5						
CMAR				S	**Sn**	**10 08 23.6**	**+3.7**
	comp=N,0.6nm,0.3s,baz=28,slow=33,SNR=2.8						
MKAR	**Makanchi Array**

BEYE					S	Sg	10 11 28.8	-0.2	
BEYE					IAML		10 11 31.0		
	comp=N,676nm,0.3s								
BEYE					IAML		10 11 34.0		
	comp=E,925nm,0.2s								
DDIM	**Aydin, Didim**	**0.43**	**155**		P	**Pg**	**10 11 24.7**	**+0.2**	
DDIM					S	**Sg**	**10 11 30.5**	**+0.3**	
DDIM					IAML		10 11 31.0		
	comp=N,3µm,0.2s								
DDIM					IAML		10 11 31.0		
	comp=E,2µm,0.5s								
DIDI	**Didim-Aydin**	**0.50**	**159**		Pg	**Pg**	**10 11 26.1**	**+0.2**	
DIDI					Sg	**Sb**	**10 11 33.7**	**-0.3**	
DIDI					AML	AML			
DUVT	**Torbali**	**0.51**	**43**		P	**Pg**	**10 11 26.1**	**+0.1**	
DUVT					S	**Sg**	**10 11 32.5**	**-0.2**	
DUVT					IAML		10 11 33.0		
	comp=E,2µm,0.2s								
BLCB	**Balcova**	**0.54**	**2**		P	**Pg**	**10 11 26.5**	**-0.1**	
BLCB					S	**Sg**	**10 11 34.5**	**+0.7**	
BLCB	**Balcova**	**0.54**	**2**		Pg	**Pg**	**10 11 26.5**	**-0.1**	
BLCB					AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.56**	**314**		P	**Pg**	**10 11 26.5**	**-0.5**	
ZEYE					S	**Sg**	**10 11 34.5**	**0.0**	
ZEYE					IAML		10 11 35.0		
	comp=E,1µm,0.2s								
ZEYE					IAML		10 11 35.0		
	comp=N,4µm,0.3s								
DAGE	**izmir**	**0.60**	**75**		P	**Pb**	**10 11 28.3**	**-0.2**	
DAGE					S	**Sg**	**10 11 34.3**	**-1.5**	
DAGE					IAML		10 11 36.0		
	comp=N,2µm,0.3s								
DAGE					IAML		10 11 38.0		
	comp=E,970nm,0.3s								
AYDB	**Zeytinkoy-Aydi**	**0.70**	**82**		Pg	**Pg**	**10 11 30.0**	**+0.3**	
AYDB					AML	AML			
AYDN	**Tasoluk**	**0.71**	**105**		P	**Pg**	**10 11 30.0**	**+0.2**	
AYDN					S	**Sg**	**10 11 38.6**	**-0.6**	
AYDN					IAML		10 11 43.0		
	comp=E,479nm,0.2s								
CESE	**eme**	**0.74**	**311**		Pg	**Pg**	**10 11 30.3**	**-0.1**	
CESE					AML	AML			
YKAV	**Yalikavak-Bodr**	**0.75**	**164**		Pg	**Pg**	**10 11 30.6**	**0.0**	
YKAV					AML	AML			
IZMR	**zmir-demi**	**0.80**	**68**		P	**Pg**	**10 11 31.3**	**-0.1**	
IZMR					P	**Pb**	**10 11 32.3**	**+0.5**	
IZMR					S	**Sg**	**10 11 40.4**	**-1.5**	
IZMR					IAML		10 11 44.0		
	comp=N,322nm,0.5s								
IZMR					IAML		10 11 50.0		
	comp=E,284nm,0.7s								
BAGT	**Foa**	**0.82**	**351**		P	**Pg**	**10 11 32.0**	**+0.1**	
BAGT					S	**Sb**	**10 11 43.2**	**+0.1**	
BAGT					IAML		10 11 44.0		
	comp=E,575nm,0.4s								
BAGT					IAML		10 11 47.0		
	comp=N,600nm,0.5s								
BODT	**Bodrum**	**0.82**	**163**		P	**Pg**	**10 11 31.2**	**-0.7**	
BODT					S	**Sg**	**10 11 42.8**	**+0.3**	
BODT					AML	AML			
BODT	**Bodrum**	**0.82**	**163**		Pg	**Pg**	**10 11 31.6**	**-0.2**	
BODT					Sg	**Sb**	**10 11 43.6**	**+0.5**	
BODT					AML	AML			
MLSB	**Milas**	**0.82**	**132**		Pg	**Pg**	**10 11 32.1**	**+0.2**	
MLSB					AML	AML			
KRBN	**Karaburun**	**0.83**	**334**		Pg	**Pg**	**10 11 32.0**	**-0.1**	
KRBN					AML	AML			
BDRM	**Kayabasi**	**0.85**	**156**		P	**Pg**	**10 11 32.0**	**-0.5**	
BDRM					S	**Sg**	**10 11 43.3**	**-0.3**	
BDRM					IAML		10 11 44.0		
	comp=E,586nm,0.5s								
BDRM					IAML		10 11 45.0		
	comp=N,708nm,0.6s								
BODA	**Bodrum-Mula**	**0.88**	**158**		Pg	**Pb**	**10 11 33.2**	**+0.1**	
KLNA	**Kalymnos**	**0.89**	**182**		P	**Pg**	**10 11 32.4**	**-0.7**	
KLNA					S	**Sb**	**10 11 46.6**	**+1.5**	
KLNA					AML	AML			
FOCM	**Foa**	**0.89**	**346**		Pg	**Pg**	**10 11 33.3**	**0.0**	
FOCM					AML	AML			
CHOS	**Chios island**	**0.93**	**306**		P	**Pg**	**10 11 33.4**	**-0.6**	
CHOS					S	**Sb**	**10 11 47.1**	**+0.8**	
CHOS	**Chios island**	**0.93**	**306**		Pg	**Pg**	**10 11 33.7**	**-0.3**	
CHOS					AML	AML			
CHOS	**Chios island**	**0.93**	**306**		P	**Pg**	**10 11 33.4**	**-0.6**	
CHOS					S	**Sg**	**10 11 46.1**	**0.0**	
CAMT	**Merkez**	**0.93**	**15**		P	**Pg**	**10 11 34.0**	**0.0**	
CAMT					S	**Sb**	**10 11 47.0**	**+0.6**	
CAMT					IAML		10 11 49.0		
	comp=E,993nm,0.4s								
CAMT					IAML		10 11 50.0		
	comp=N,892nm,0.3s								
KARB	**zmir-Karabur**	**0.94**	**330**		P	**Pg**	**10 11 33.8**	**-0.5**	
KARB					S	**Sg**	**10 11 45.9**	**-0.6**	
KARB					IAML		10 11 48.0		
	comp=E,468nm,0.5s								
KARB					IAML		10 11 50.0		
	comp=N,617nm,0.5s								
EAG2	**Marmaro, Chios**	**1.00**	**315**		P	**Pn**	**10 11 36.0**	**+0.3**	
EAG2					S	**Sg**	**10 11 48.2**	**0.0**	
NAZL	**Nazilli-Aydin**	**1.02**	**83**		Pg	**Pb**	**10 11 35.9**	**+0.3**	
NAZL					AML	AML			
ESEN	**Aydn-Nazilli**	**1.06**	**92**		P	**Pb**	**10 11 36.7**	**+0.4**	
ESEN					S	**Sg**	**10 11 49.5**	**-0.7**	
ESEN					IAML		10 11 56.0		
	comp=N,88nm,0.3s								
ESEN					IAML		10 11 56.0		
	comp=E,109nm,0.3s								
GOMA	**Golmarmara-Man**	**1.12**	**39**		Pn	**Pn**	**10 11 37.9**	**+0.5**	
GOMA					AML	AML			
ZEDA	**zmir-Bergama**	**1.12**	**3**		P	**Pg**	**10 11 37.0**	**-0.6**	
ZEDA					S	**Sb**	**10 11 52.2**	**+0.5**	
ZEDA					IAML		10 11 56.0		
	comp=N,329nm,0.5s								
ZEDA					IAML		10 11 56.0		
	comp=E,518nm,0.6s								
KIRA	**zmir-Kiraz**	**1.15**	**72**		P	**Pg**	**10 11 37.8**	**-0.4**	
KIRA					S	**Sg**	**10 11 50.8**	**-2.4**	
KIRA					IAML		10 11 56.0		
	comp=N,264nm,0.8s								
KIRA					IAML		10 11 56.0		
	comp=E,102nm,0.4s								
KTTT	**Salihli**	**1.20**	**45**		P	**Pb**	**10 11 38.6**	**0.0**	
KTTT					S	**Sg**	**10 11 52.8**	**-1.8**	
KTTT					IAML		10 11 57.0		
	comp=N,232nm,0.4s								
MULA	**Mugla, Merkez-**	**1.20**	**119**		P	**Pb**	**10 11 39.0**	**+0.4**	
MULA					S	**Sg**	**10 11 53.9**	**-0.7**	
MULA					IAML		10 11 57.0		
	comp=N,167nm,0.6s								
MULA					IAML		10 11 59.0		
	comp=E,187nm,0.3s								
AKS	**Akhisar**	**1.21**	**31**		Pn	**Pn**	**10 11 39.3**	**+0.6**	
AKS					AML	AML			
AKHS	**Akhisar**	**1.21**	**31**		P	**Pb**	**10 11 38.5**	**-0.3**	
AKHS					S	**Sn**	**10 11 55.8**	**+0.8**	
AKHS					IAML		10 11 58.0		
	comp=N,544nm,0.4s								
YAZI	**Mula-Dat§a-**	**1.22**	**163**		P	**Pb**	**10 11 38.1**	**-0.8**	
DKL	**Dikili**	**1.23**	**356**		Pn	**Pg**	**10 11 39.5**	**-0.1**	
DKL					AML	AML			
DKL	**Dikili**	**1.23**	**356**		P	**Pg**	**10 11 39.4**	**-0.1**	
YER	**Yerkesik**	**1.23**	**125**		P	**Pb**	**10 11 38.8**	**-0.5**	
YER					S	**Sg**	**10 11 56.0**	**+0.2**	
SOMA	**Soma-Manisa**	**1.37**	**17**		Pn	**Pg**	**10 11 42.3**	**-0.1**	
SOMA					AML	AML			
MANT	**Manisa**	**1.38**	**62**		P	**Pg**	**10 11 42.6**	**+0.1**	
MANT					S	**Sb**	**10 11 57.5**	**-2.0**	
MANT					IAML		10 12 03.0		
	comp=E,148nm,0.3s								
MANT					IAML		10 12 05.0		
	comp=N,152nm,0.6s								
GORD	**Gordes-Manisa**	**1.40**	**40**		Pn	**Pg**	**10 11 42.8**	**-0.1**	
GORD					AML	AML			
ASTA	**Astypalaia**	**1.40**	**202**		P	**Pb**	**10 11 42.2**	**+0.2**	
ASTA					AML	AML			
AYVA	**Ayvalik**	**1.48**	**350**		P	**Pb**	**10 11 43.6**	**+0.2**	
AYVA					S	**Sg**	**10 12 03.2**	**-0.5**	
AYVA					IAML		10 12 07.0		
	comp=N,218nm,0.6s								
AYVA					IAML		10 12 10.0		
	comp=E,118nm,0.4s								
PRK	**Paraskevi**	**1.51**	**338**		P	**Pn**	**10 11 42.7**	**-0.2**	
PRK					S	**Sb**	**10 12 03.6**	**+0.4**	
PRK					AML	AML			
PRK	**Paraskevi**	**1.51**	**338**		P	**Pn**	**10 11 43.6**	**+0.8**	
PRK					AML	AML			
STEP	**BALIKESIR_Sava**	**1.62**	**20**		P	**Pn**	**10 11 44.5**	**+0.1**	
BUHA	**Balikesir, Bur**	**1.65**	**2**		P	**Pn**	**10 11 44.8**	**0.0**	
THERA	**Ancient Thera,**	**1.92**	**220**		P	**Pb**	**10 11 50.9**	**-0.1**	
THERA					AML	AML			
THR3	**Thira Island,**	**1.93**	**222**		P	**Pb**	**10 11 51.1**	**0.0**	
THR5	**Thira Island,**	**1.95**	**224**		P	**Pb**	**10 11 51.4**	**-0.1**	
THR6	**Thira Island,**	**1.97**	**221**		P	**Pb**	**10 11 52.4**	**+0.6**	
KARY	**Karystos**	**2.04**	**276**		P	**Pn**	**10 11 49.8**	**-0.4**	
KARP	**Karpathos**	**2.30**	**177**		P	**Pn**	**10 11 53.4**	**-0.3**	
LIA	**Limnos Island**	**2.50**	**326**		P	**Pn**	**10 11 56.6**	**+0.2**	
LIA					AML	AML			
SMTH	**Samothraki Isl**	**2.86**	**337**		P	**Pn**	**10 12 01.6**	**+0.1**	
ALN	**Alexandroupoli**	**3.14**	**346**		P	**Pn**	**10 12 05.5**	**+0.3**	

IDC 12 10:14:04.0±1.4,5°79S×131°79E,h0km,mb3.7/1, mbtmp3.8/5,ML3.7/4,MS3.3/1,Error ellipse: s-maj=47.6km s-min=12.1km az=89.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**4.92**	**354**	Pn	Pn	10 15 20.8	+1.5
	3.9nm,0.3s,baz=183,slow=19,SNR=16						
SIJI				Sn	Sn	10 16 13.1	-3.9
	1.0nm,0.3s,baz=237,slow=23,SNR=1.6 7.5nm,0.3s						
SIJI				AML	AML		
FITZ	**Fitzroy Crossi**	**13.63**	**206**	Pn	Pn	10 17 14.7	-4.0
	0.3nm,0.3s,baz=23,slow=11,SNR=14						
FITZ				Sn	Sn	10 19 36.9	-14
	0.1nm,0.3s,baz=344,slow=18,SNR=1.3 0.7nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.29**	**170**	Pn	Pn	10 17 21.7	-6.1
	0.4nm,0.3s,baz=352,slow=14,SNR=23						
WRA				Sn	Sn	10 19 53.8	-13
	0.3nm,0.3s,baz=346,slow=23,SNR=6.9 1.8nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.89**	**174**	P	Pn	10 18 12.9	-1.6
	0.2nm,0.3s,baz=347,slow=9.7,SNR=21						
ASAR				S	Sn	10 21 21.8	-13
	0.6nm,0.7s,baz=355,slow=26,SNR=5.9 0.8nm,0.6s						
ASAR				AML	AML		
DZM	**Mont Dzumac**	**37.19**	**119**	LR	LR	10 35 41.3	
	comp=Z,39nm,18.3s,baz=37,slow=35						
MKAR	**Makanchi Array**	**68.21**	**326**	P	P	10 25 05.5	-1.1
	0.4nm,0.5s,baz=103,slow=7.6,SNR=4.1 0.4nm,0.5s						

*JSO **12** 10:15:18.5±0.6,30°N±5°×3°6E±°,h24km±5km,M2.5/11, MLv2.5/11*

GII 12 10:15:09.1±0.0,29°797N±0°001×36°246E±0°001,h0km, confirmed,Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HSNJ	**Maan**	**0.67**	**313**	P	Pn	10 15 25.8	-0.2
HSNJ				AML	AML		
AQBJ	**Aqaba**	**1.04**	**266**	P	Pn	10 15 31.1	+0.1
AQBJ				AML	AML		
HRFI	**Mount Harif**	**1.08**	**283**	P	Pn	10 15 31.8	+0.3
HRFI				AML	AML		
HRFI	**Mount Harif**	**1.08**	**283**	P	Pb	10 15 30.4	-0.3
HRFI				S	Sn	10 15 47.2	+0.1
EIL	**Elat**	**1.13**	**264**	P	Pn	10 15 32.6	+0.3
EIL				AML	AML		
EIL	**Elat**	**1.13**	**264**	P	Pb	10 15 31.4	-0.2
EIL				S	Sn	10 15 48.0	-0.6
ZFRI	**Zfri**	**1.19**	**309**	P	Pg	10 15 32.0	0.0
ZFRI				S	Sn	10 15 49.5	-0.5
PRNI	**Paran**	**1.21**	**297**	P	Pb	10 15 33.1	+0.1
PRNI				AML	AML		
HZVA	**Hazeva**	**1.28**	**319**	P	Pn	10 15 34.4	+0.1
HZVA				S	Sn	10 15 52.8	+0.7
IDAN	**Idan**	**1.33**	**321**	P	Pg	10 15 34.8	+0.1
IDAN				S	Sn	10 15 54.6	+1.1
RMNI	**Mount Ramon**	**1.51**	**302**	P	Pn	10 15 37.6	0.0
RMNI				S	Sn	10 15 59.1	+1.1
GHAJ	**Ghor Haditha**	**1.61**	**339**	P	Pb	10 15 39.5	-0.3
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**1.61**	**339**	P	Pn	10 15 38.9	+0.1
GHAJ				S	Sg	10 16 01.2	+0.2
MSBI	**Mazada**	**1.69**	**333**	P	Pn	10 15 40.2	+0.2
MSBI				S	Sg	10 16 03.7	+0.1
KZIT	**Kziot**	**1.94**	**305**	P	Pn	10 15 43.8	+0.4
KZIT				S	Sb	10 16 10.3	0.0
ASF	**Jabal al Asfar**	**2.42**	**12**	P	Pg	10 15 57.0	+1.2
ASF				AML	AML		

*SJA **12** 10:24:43.2±0.7,30°69S×71°49W,h30km±1km, ML4.0, MW4.0*
*GUC **12** 10:24:44.9±0.8,30°72S×71°40W,h51km±2km, ML4.2, Presumed earthquake*
*NEIC **12** 10:24:45.2±2.2,30°68S±0°05×71°57W±0°08,h41km±3km, mb4.3/10,ML4.1(GUC), Error ellipse: s-maj=10.7km s-min=6.9km az=102.0*
*IDC **12** 10:24:46.9±3.0,30°63S×71°48W,h61km±25km,mb3.7/6, mbtmp3.9/10,ML3.9/5,MS3.0/3,Error ellipse: s-maj=22.0km s-min=20.7km az=70.0*
ISC 12 10:24:44.9±0.7,30°70S±0°02×71°51W±0°04,h43km±6km, n127,σ1§81/151,mb4.1/7,1C-6D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CO06	**Fray Jorge**	**0.11**	**282**		**Pn**	**10 24 52.9**	**+0.9**
CO06	**Fray Jorge**	**0.11**	**282**	*i* P	**Pn**	**10 24 52.9**	**+0.9**
CO06				*e*S	**Sn**	**10 24 59.1**	**+2.1**
CO02	**Combarbal**	**0.67**	**139**	*e*P	**Pn**	**10 24 57.0**	**-1.1**
CO02				*e*S	**Sn**	**10 25 06.8**	**-0.8**
CO02				IAML		10 25 07.6	
	comp=Z,12µm,0.1s						
CO02	**Combarbal**	**0.67**	**139**		**Pn**	**10 24 57.6**	**-0.6**
CO02	**Combarbal**	**0.67**	**139**	*i* P	**Pn**	**10 24 57.5**	**-0.7**
CO02				*e*S	**Sn**	**10 25 06.5**	**-1.1**
CO02				IAML		10 25 07.6	
	comp=E,46µm,0.5s						
CO03	**El Pedregal**	**0.72**	**102**	*e*P	**Pn**	**10 24 57.7**	**-1.0**
CO03				*e*S	**Sn**	**10 25 07.0**	**-1.7**
CO03				IAML		10 25 09.3	
	comp=Z,6µm,0.2s						
CO03	**El Pedregal**	**0.72**	**102**		**Pn**	**10 24 57.7**	**-1.0**
CO03	**El Pedregal**	**0.72**	**102**	*i* P	**Pn**	**10 24 57.8**	**-1.0**
CO03				*e*S	**Sn**	**10 25 07.2**	**-1.6**
CO03				IAML		10 25 07.5	
	comp=E,19µm,0.2s						
GO04	**Tololo Observa**	**0.80**	**50**	*e*P	**Pn**	**10 24 59.6**	**-0.4**
GO04				*e*S	**Sn**	**10 25 11.0**	**0.0**
GO04				IAML		10 25 11.9	
	comp=Z,19µm,0.2s						
GO04	**Tololo Observa**	**0.80**	**50**		**Pn**	**10 24 59.7**	**-0.4**
GO04	**Tololo Observa**	**0.80**	**50**	*e*P	**Pn**	**10 24 59.5**	**-0.6**
GO04				*e*S	**Sn**	**10 25 10.5**	**-0.6**
GO04				IAML		10 25 13.1	
	comp=E,28µm,0.4s						
CO05	**La Serena**	**0.81**	**17**		**Pn**	**10 25 00.4**	**+0.4**
CO05	**La Serena**	**0.81**	**17**	*e*P	**Pn**	**10 25 00.2**	**+0.2**
CO05				*e*S	**Sn**	**10 25 11.5**	**+0.7**
CO05				IAML		10 25 19.8	
	comp=E,8µm,0.3s						
CO01	**Juntas del Tor**	**1.42**	**60**	*e*P	**Pn**	**10 25 08.8**	**+0.3**
CO01				*e*S	**Sn**	**10 25 26.8**	**+0.8**
CO01				IAML		10 25 30.7	
	comp=Z,2µm,0.1s						
CO01	**Juntas del Tor**	**1.42**	**60**		**Pn**	**10 25 08.8**	**+0.3**
CO01	**Juntas del Tor**	**1.42**	**60**	*i* P	**Pn**	**10 25 08.8**	**+0.3**
CO01				*e*S	**Sn**	**10 25 26.5**	**+0.5**
CO01				IAML		10 25 28.1	
	comp=E,7µm,0.1s						
CO04	**Los Peladeros**	**1.42**	**161**		**Pn**	**10 25 08.6**	**0.0**
CO04	**Los Peladeros**	**1.42**	**161**	*i* P	**Pn**	**10 25 08.4**	**-0.1**
CO04				*e*S	**Sn**	**10 25 26.1**	**0.0**
CO04				IAML		10 25 29.8	
	comp=N,7µm,0.4s						
LCO	**Las Campanas**	**1.82**	**23**	*e*P	**Pn**	**10 25 14.7**	**+0.6**
LCO				IAML		10 25 44.7	
	comp=Z,2µm,0.3s						
LCO	**Las Campanas**	**1.82**	**23**		**Pn**	**10 25 14.6**	**+0.6**
LCO	**Las Campanas**	**1.82**	**23**	*i* P	**Pn**	**10 25 14.5**	**+0.6**
LCO				*e*S	**Sn**	**10 25 36.9**	**+0.9**
AROD	**Rodeo**	**1.83**	**74**	*e*P	**Pn**	**10 25 16.1**	**+1.9**
AROD				*e*S	**Sn**	**10 25 39.4**	**+3.0**
ACCO	**Cerro Coronel**	**2.11**	**88**	*e*P	**Pn**	**10 25 20.2**	**+2.2**
ACCO				*e*S	**Sn**	**10 25 48.6**	**+5.4**
ACCO				IAML		10 25 54.1	
	comp=Z,397nm,0.5s						
ACDV	**Cuesta del Vie**	**2.13**	**76**	*e*P	**Pn**	**10 25 20.4**	**+2.3**
ACDV				IAML		10 25 51.4	
	comp=Z,363nm,0.3s						
AC05	**El Transito**	**2.14**	**30**	*e*P	**Pn**	**10 25 19.7**	**+1.4**
AC05				IAML		10 25 56.0	
	comp=Z,687nm,0.5s						
AC05	**El Transito**	**2.14**	**30**		**Pn**	**10 25 19.4**	**+1.2**
AC05	**El Transito**	**2.14**	**30**	*i* P	**Pn**	**10 25 19.5**	**+1.2**
RTLS	**Leoncito**	**2.19**	**121**	*e*P	**Pn**	**10 25 21.1**	**+2.0**
RTLS				*e*S	**Sn**	**10 25 49.9**	**+4.8**
RTLS				IAML		10 25 57.1	
	comp=Z,2µm,0.4s						
VA03	**San Esteban**	**2.21**	**159**	*e*P	**Pn**	**10 25 20.1**	**+0.7**
VA03				*e*S	**Sn**	**10 25 48.7**	**+3.2**
VA03				IAML		10 25 57.1	
	comp=Z,965nm,0.2s						
VA03	**San Esteban**	**2.21**	**159**		**Pn**	**10 25 19.9**	**+0.6**
VA03	**San Esteban**	**2.21**	**159**	*e*P	**Pn**	**10 25 20.0**	**+0.7**
VA03				*e*S	**Sn**	**10 25 46.7**	**+1.2**
VA03				IAML		10 25 52.3	
	comp=E,3µm,0.3s						
ROCH	**El Roble**	**2.31**	**170**	*e*P	**Pn**	**10 25 21.2**	**+0.5**
ROCH				*e*P		10 25 21.2	
ROCH				IAML		10 25 54.9	
	comp=N,2µm,0.4s						
VA01	**Torpederas**	**2.32**	**183**		**Pn**	**10 25 20.3**	**-0.4**
VA01	**Torpederas**	**2.32**	**183**	*e*P	**Pn**	**10 25 20.3**	**-0.4**
AC04	**Llanos de Chal**	**2.51**	**9**	*e*P	**Pn**	**10 25 24.4**	**+1.1**
AC04				*e*S	Sn	10 26 02.2	+10
AC04				IAML		10 26 04.3	
	comp=Z,586nm,0.6s						
AC04	**Llanos de Chal**	**2.51**	**9**		**Pn**	**10 25 24.2**	**+0.9**
AC04	**Llanos de Chal**	**2.51**	**9**	*e*P	**Pn**	**10 25 24.2**	**+0.9**
AC04				IAML		10 26 07.4	
	comp=E,958nm,0.6s						
PEL	**Peldehue**	**2.54**	**164**	*e*P	**Pn**	**10 25 24.8**	**+1.1**
PEL				*e*S	**Sn**	**10 25 53.9**	**+0.5**
PEL				IAML		10 26 03.2	
	comp=Z,527nm,1.1s						
PEL	**Peldehue**	**2.54**	**164**		**Pn**	**10 25 24.3**	**+0.6**
PEL	**Peldehue**	**2.54**	**164**	*e*P	**Pn**	**10 25 24.8**	**+1.1**
ZON	**Zonda**	**2.57**	**110**	*e*P	**Pn**	**10 25 26.2**	**+2.1**
ZON				IAML		10 26 15.0	
	comp=Z,585nm,0.7s						
ZON	**Zonda**	**2.57**	**110**		**Pn**	**10 25 26.0**	**+1.9**
MT02	**Curacav**	**2.57**	**173**	*e*P	**Pn**	**10 25 24.4**	**+0.3**
MT02				IAML		10 26 05.9	
	comp=Z,441nm,0.9s						
MT02	**Curacav**	**2.57**	**173**		**Pn**	**10 25 25.6**	**+1.4**
MT02	**Curacav**	**2.57**	**173**	*i* P	**Pn**	**10 25 24.5**	**+0.3**
MT02				IAML		10 26 13.6	
	comp=E,470nm,0.3s						
SJA	**San Juan**	**2.66**	**109**	*e*P	**Pn**	**10 25 27.8**	**+2.4**
SJA				IAML		10 26 18.6	
	comp=Z,470nm,0.6s						
RTLL	**Cerro Villicun**	**2.68**	**104**	*e*P	**Pn**	**10 25 27.0**	**+1.4**
RTLL				*e*S	**Sn**	**10 25 54.9**	**-2.0**
RTLL				IAML		10 26 06.7	
	comp=Z,906nm,0.4s						
MT10	**Hacienda Santa**	**2.70**	**162**	*e*P	**Pn**	**10 25 26.9**	**+0.9**
MT05	**Renca**	**2.77**	**167**	*e*P	**Pn**	**10 25 28.4**	**+1.6**
MT05				*e*S	**Sn**	**10 26 01.3**	**+2.3**
MT05				IAML		10 26 15.4	
	comp=Z,634nm,1.2s						
MT05	**Renca**	**2.77**	**167**		**Pn**	**10 25 27.5**	**+0.7**
MT05	**Renca**	**2.77**	**167**	*e*P	**Pn**	**10 25 28.6**	**+1.7**
MT14	**Cerro Cal¡n**	**2.81**	**163**	*e*P	**Pn**	**10 25 28.4**	**+0.9**
FCH	**Farellones**	**2.82**	**159**	*e*P	**Pn**	**10 25 29.5**	**+1.7**
MT16	**CCHEN**	**2.85**	**163**		**Pn**	**10 25 29.4**	**+1.4**
MT16	**CCHEN**	**2.85**	**163**	*e*P	**Pn**	**10 25 29.2**	**+1.2**
MT03	**Universidad Ad**	**2.91**	**163**	*e*P	**Pn**	**10 25 30.4**	**+1.5**
MT03				*e*S	**Sn**	**10 26 03.4**	**+0.7**
MT03				IAML		10 26 15.8	
	comp=Z,992nm,0.3s						
MT03	**Universidad Ad**	**2.91**	**163**		**Pn**	**10 25 30.3**	**+1.3**
MT03	**Universidad Ad**	**2.91**	**163**	*e*P	**Pn**	**10 25 30.2**	**+1.3**
MT04	**Ro Olivares**	**2.94**	**157**	*e*P	**Pn**	**10 25 32.1**	**+2.7**
MT04				*e*S	**Sn**	**10 26 05.5**	**+2.0**
MT04				IAML		10 26 12.8	
	comp=Z,509nm,0.6s						
MT04	**Ro Olivares**	**2.94**	**157**	*e*P	**Pn**	**10 25 31.5**	**+2.1**
CFA	**Coronel Fontan**	**2.94**	**109**	P	**Pn**	**10 25 30.9**	**+1.7**
	comp=E,68nm,0.3s,baz=295,slow=8.4,SNR=633						
CFA				S	**Sn**	**10 26 07.0**	**+3.6**
	comp=Z,172nm,0.4s,baz=74,slow=21,SNR=7.9						
CFA				AML	AML		
CFA	**Coronel Fontan**	**2.94**	**109**	*e*P	**Pn**	**10 25 30.9**	**+1.7**
CFA				*e*S	**Sn**	**10 26 03.1**	**-0.3**
CFA				IAML		10 26 14.1	
	comp=Z,497nm,0.2s						
VA05	**Santo Domingo**	**2.95**	**182**		**Pn**	**10 25 29.3**	**-0.1**
VA05	**Santo Domingo**	**2.95**	**182**	*e*P	**Pn**	**10 25 31.8**	**+2.5**
VA05				IAML		10 26 22.3	
	comp=N,933nm,0.2s						
MT15	**Las Vizcachas**	**3.02**	**164**	*e*P	**Pn**	**10 25 31.5**	**+1.2**
MT08	**Bocatoma Ro**	**3.02**	**156**	*e*P	**Pn**	**10 25 28.5**	**-1.9**
MT08				*e*S	**Sn**	**10 26 06.3**	**+0.8**
MT08				IAML		10 26 17.5	
	comp=E,385nm,0.4s						
MT08	**Bocatoma Ro**	**3.02**	**156**		**Pn**	**10 25 32.7**	**+2.3**
MT08	**Bocatoma Ro**	**3.02**	**156**	*e*P	**Pn**	**10 25 33.0**	**+2.6**
ARCO	**CERRO ARCO**	**3.06**

AC02					*e*S	**Sn**	**10 26 45.4**	**+6.0**
AC02					IAML		10 27 14.2	
	comp=Z,174nm,0.9s							
AC02	**Maricunga**	**4.38**	**29**			**Pn**	**10 25 50.7**	**+1.3**
AC02	**Maricunga**	**4.38**	**29**	*e*P		**Pn**	**10 25 50.7**	**+1.3**
AC01	**Pan de Azucar**	**4.60**	**10**	*e*P		**Pn**	**10 25 50.8**	**-1.3**
AC01					*e*S	Sn	10 26 54.2	+10
AC01					IAML		10 27 10.7	
	comp=Z,132nm,0.5s							
AC01	**Pan de Azucar**	**4.60**	**10**			**Pn**	**10 25 51.7**	**-0.4**
RFA	**San Rafael**	**4.80**	**149**	*e*P		**Pn**	**10 25 55.7**	**+0.9**
RFA					IAML		10 27 23.4	
	comp=Z,61nm,0.7s							
BI02	**San Fabin de**	**5.95**	**178**			**Pn**	**10 26 10.7**	**+0.1**
TCA	**Tanti**	**5.97**	**98**	*e*P		**Pn**	**10 26 10.2**	**-0.6**
H03N1	**Juan Fernandez**	**6.86**	**245**	T		T	10 33 20.6	
	baz=69,slow=74							
VA04	**Juan Fernndez**	**6.87**	**243**			**Pn**	**10 26 22.4**	**-0.6**
H03N3	**Juan Fernandez**	**6.87**	**244**	T		T	10 33 32.0	
	baz=69							
H03N2	**Juan Fernandez**	**6.87**	**245**	T		T	10 33 21.1	
	baz=69,slow=74							
PLCA	**Paso Flores**	**10.04**	**176**	P		**Pn**	**10 27 07.4**	**+0.7**
	comp=Z,0.1nm,0.3s,baz=323,slow=10,SNR=3.1							
PLCA					LR	LR	10 31 50.1	
	comp=Z,68nm,19.2s,baz=304,slow=42							
	comp=Z,0.9nm,0.9s							
PLCA					AML	AML		
CPUP	**Villa Florida**	**13.20**	**74**	P		**Pn**	**10 27 49.0**	**-0.8**
	comp=Z,0.4nm,0.3s,baz=212,slow=14,SNR=2.9							
CPUP				S		**Sn**	**10 30 13.4**	**-1.8**
	comp=Z,2.3nm,0.6s,baz=8.8,slow=18,SNR=3.3							
CPUP					LR	LR	10 32 57.7	
	comp=Z,32nm,19.2s,baz=256,slow=37							
	comp=Z,0.8nm,0.3s							
CPUP					AML	AML		
LPAZ	**La Paz**	**14.67**	**13**	P		**Pn**	**10 28 10.6**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=200,slow=7.9,SNR=5.5							
	comp=Z,1.6nm,0.7s							
LPAZ					AML	AML		
LPAZ	**La Paz**	**14.67**	**13**			**Pn**	**10 28 11.8**	**+1.4**
SIV	**San Ignacio**	**17.48**	**35**	P		**Pn**	**10 28 45.0**	**-0.6**
	baz=211,slow=9.2,SNR=9.9							
	comp=Z,2.4nm,0.6s							
BDFB	**Brasilia**	**26.21**	**60**	P		**P**	**10 30 14.7**	**-1.2**
	comp=Z,3.9nm,0.7s,baz=229,slow=12,SNR=5.3							
	comp=Z,3.9nm,0.7s							
BDFB	**Brasilia**	**26.21**	**60**	IAmb		IAmb	10 30 15.2	
	comp=Z,4.0nm,0.8s							
BOAV	**Boa Vista**	**34.53**	**20**	P		**P**	**10 31 28.1**	**-1.2**
BOAV				IAmb		IAmb	10 31 50.9	
	comp=Z,5.2nm,1.3s							
RUSC	**La Rusia**	**36.41**	**357**	P		**P**	**10 31 46.6**	**+0.5**
RUSC				IAmb		IAmb	10 31 50.7	
	comp=Z,4.5nm,0.8s							
MDP	**Montagnes des**	**39.91**	**30**	LR		LR	10 49 08.9	
	comp=Z,35nm,19.5s,baz=110,slow=37							
JUD3	**Juan Diaz 3**	**42.81**	**339**	P		**P**	**10 32 37.6**	**-1.2**
MLPR	**Magueyes Islan**	**48.58**	**6**	P		**P**	**10 33 22.9**	**-1.3**
CRPR	**Cabo Rojo, PR**	**48.61**	**6**	P		**P**	**10 33 24.0**	**-0.4**
CELP	**Cerrillos**	**48.72**	**6**	P		**P**	**10 33 25.3**	**+0.1**
QSPA	**South Pole Qui**	**59.53**	**180**	P		**P**	**10 34 43.6**	**-0.1**
	comp=Z,1.0nm,0.7s,baz=259,slow=2.4,SNR=5.1							
	comp=Z,1.0nm,0.7s							
QSPA	**South Pole Qui**	**59.53**	**180**	IAmb		IAmb	10 34 45.1	
	comp=Z,8.8nm,1.5s							
TXAR	**Lajitas Array**	**67.10**	**330**	P		**P**	**10 35 34.9**	**+0.8**
	comp=Z,0.3nm,0.5s,baz=156,slow=8.0,SNR=7.6							
	comp=Z,0.3nm,0.5s							
DBIC	**Dimbokro**	**73.71**	**72**	P		**P**	**10 36 14.2**	**-0.6**
	comp=Z,2.9nm,0.5s,baz=234,slow=6.8,SNR=6.1							
	comp=Z,2.9nm,0.5s							
PDAR	**Pinedale Array**	**81.03**	**333**	P		**P**	**10 36 55.5**	**+0.1**
	comp=Z,0.2nm,0.5s,baz=149,slow=5.1,SNR=2.8							
	comp=Z,0.2nm,0.5s							
TORD	**Torodi Ar. Bea**	**82.66**	**70**	P		**P**	**10 37 03.8**	**-0.5**
	comp=Z,0.6nm,0.4s,baz=286,slow=5.2,SNR=14							
	comp=Z,0.6nm,0.4s							
H11S2	**WAKE ISLAND Hyl**	**26.21**	**271**	T		T	13 02 27.8	
	baz=116,slow=75,SNR=15							
H11S1	**WAKE ISLAND Hyl**	**26.22**	**271**	T		T	13 02 27.9	
	baz=116,slow=75,SNR=14							
H11S3	**WAKE ISLAND Hyl**	**26.23**	**271**	T		T	13 02 31.4	
	baz=116,slow=75,SNR=13							
BVAR	**Borovoye Array**	**144.51**	**40**	PKP		PKPbc	10 44 14.9	+0.1
	comp=Z,1.4nm,0.5s,baz=344,slow=4.7,SNR=3.6							
KURBB	**Kurchatov Arra**	**150.10**	**40**	PKPbc		**PKPbc**	**10 44 30.0**	**-0.5**
	comp=Z,0.3nm,0.3s,baz=286,slow=2.9,SNR=5.4							
KURK	**Kurchatov**	**150.10**	**39**			**PKPbc**	**10 44 30.0**	**-0.5**
ZALV	**Zalesovo Beam**	**151.17**	**29**	PKPbc		**PKPbc**	**10 44 32.5**	**-0.5**
	comp=Z,3.6nm,0.5s,baz=314,slow=3.0,SNR=16							

STR 12 10:58:04.9±0.4, 48°N±3°×°±°, h0km, MLv1.7/8, LOCSAT earthModelID haslach_taup-2.4.5 preliminary, Switzerland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ENDD	**Endenburg**	**0.13**	**71**	Pg	Pg	10 58 07.1	-0.2
ENDD				Sg	Sg	10 58 09.7	+0.7
ILLF	**Illfurth**	**0.20**	**273**	Pg	Pg	10 58 08.8	+0.1
BALST	**Balsthal**	**0.35**	**164**	Pg	Pg	10 58 11.2	-0.4
BALST				Sg	Sg	10 58 16.6	+0.5
BOURR	**Bourrignon**	**0.36**	**219**	Pg	Pg	10 58 11.7	0.0
KIZ	**Kirchzarten**	**0.37**	**40**	Pg	Pg	10 58 11.7	-0.3
KIZ				Sg	Sg	10 58 17.5	+0.6
SLE	**Schleitheim**	**0.64**	**81**	Pg	Pg	10 58 16.9	-0.2

STR 12 10:58:12.8±2.2, 46°N±5°×°±1°2, h0km, MLv0.9/3, LOCSAT earthModelID alpes_taup-2.11 preliminary, France

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OG35	**Corcelles**	**0.25**	**41**	Pg	Pg	10 58 17.8	+0.3
OG35				Sg	Sg	10 58 22.1	+1.4
OGSM	**Saint Maurice**	**0.36**	**135**	Pg	Pg	10 58 20.1	+0.5
OGSM				Sg	Sg	10 58 25.5	+1.3
OGSM	**Saint Maurice**	**0.36**	**135**	Sg	Sg	10 58 25.3	+1.2
OGMY	**Moye**	**0.39**	**87**	Sg	Sg	10 58 25.7	+0.5
OGMY	**Moye**	**0.39**	**87**	Pg	Pg	10 58 19.7	-0.5
OGMY				Sg	Sg	10 58 25.7	+0.5

IDC ***12*** *11:03:07.3±1.4, 1.°69N×126.°52E, h0km, mb3.6/5, mbtmp3.6/6, ML3.5/1, Error ellipse: s-maj=109.7km s-min=18.8km az=71.0*

DJA ***12*** *11:03:11.6±0.3, 2.°N±5.°×12.°7E±.°, h10km, M3.8/13, mb4.4/1, MLv3.5/13*

ISC 12 11:03:13.9±1.0, 1.°72N±0.°09×126.°60E±0.°06, h47km, n13, σ0.°94/12, mb3.6/5, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GAMI	**Galela, Maluku**	**1.20**	**84**	P	**Pn**	**11 03 34.8**	**+0.5**
GAMI				AML	AML		
TNTI	**Ternate**	**1.21**	**141**	P	**Pn**	**11 03 34.4**	**-0.1**
MNI	**Manado**	**1.78**	**261**	P	**Pn**	**11 03 41.6**	**-0.6**
MNI				AML	AML		
KMSI	**Cibinong**	**2.85**	**247**	P	Pn	11 04 03.1	+6.2
GTOI	**Gorontalo**	**3.74**	**253**	P	**Pn**	**11 04 09.8**	**+0.7**
GTOI				AML	AML		
SANI	**Sanana**	**3.79**	**189**	P	**Pn**	**11 04 10.9**	**+1.1**
SANI				AML	AML		
APSI	**Ampana**	**5.59**	**242**	P	**Pn**	**11 04 35.5**	**+0.9**
FITZ	**Fitzroy Crossi**	**19.71**	**183**	P	**P**	**11 07 39.0**	**-0.6**
	0.1nm,0.3s,baz=0.0,slow=9.1,SNR=2.3						
	0.9nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.82**	**161**	P	**P**	**11 08 11.9**	**-1.2**
	1.7nm,0.6s,baz=340,slow=11,SNR=18						
	1.7nm,0.6s						
ASAR	**Alice Springs**	**26.21**	**165**	P	**P**	**11 08 44.0**	**-0.5**
	0.2nm,0.4s,baz=343,slow=8.3,SNR=7.3						
	0.2nm,0.4s						
SONM	**Songino Array**	**49.16**	**342**	P	**P**	**11 11 58.6**	**+1.3**
	0.3nm,0.4s,baz=157,slow=7.8,SNR=2.1						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**59.13**	**326**	P	**P**	**11 13 09.0**	**-0.8**
	0.5nm,0.4s,baz=124,slow=7.3,SNR=5.6						
	0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**63.36**	**328**	P	**P**	**11 13 37.5**	**-0.8**
	0.4nm,0.4s,baz=134,slow=6.5,SNR=4.2						
	0.4nm,0.4s						

PRE ***12*** *11:09:15.3±2.1, 57.°90S×26.°53E, h5km, Presumed earthquake*

IDC ***12*** *11:10:03.8±0.6, 52.°61S×27.°84E, h0km, mb4.5/15, mbtmp4.5/15, MS3.8/33, Error ellipse: s-maj=20.8km s-min=14.8km az=68.0*

NEIC ***12*** *11:10:05.5±1.1, 52.°7S±0.°1×28.°1E±0.°2, h10km±1km, mb4.9/35, Error ellipse: s-maj=20.6km s-min=17.6km az=87.0*

GFZ ***12*** *11:10:06.7±0.3, 53.°S±4.°×2.°8E±.°, h10km, M4.8/14, mb4.8/14, confirmed*

GCMT ***12*** *11:10:08.5±0.3, 52.°65S±0.°02×27.°72E±0.°03, h26km±1km, MW5.0/112, Moment Tensor Solution. s25,c25; s112,c151; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-1.06±.18; Mθθ2.77±.14; Mϕϕ-1.72±.13; Mrθ0.16±.23; Mθϕ2.72±.10; Mϕr-2.10±.29; Best double couple: Mo4.20800×10^16 NP1:ϕs285.00000°, δ61.00000°, λ-18.00000°. NP2:ϕs24.00000°, δ75.00000°, λ-150.00000°. Principal axes: T 4.1710, Plg9.0000°, Azm152.0000°; N 0.0640, Plg56.0000°, Azm48.0000°; P -4.2450, Plg32.0000°, Azm248.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 12 11:10:05.4±0.4, 52.°58S±0.°07×28.°0E±0.°1, h10km, n122, σ1.°16/88, mb4.8/29, MS3.9/33, 4D, South of Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04S2	**CROZET ISLANDS**	**16.43**	**79**	T	T	11 31 10.4	
	baz=241,slow=74,SNR=60						
H04S3	**CROZET ISLANDS**	**16.44**	**79**	T	T	11 31 11.7	
	baz=241,slow=74,SNR=47						
H04S1	**CROZET ISLANDS**	**16.45**	**79**	T	T	11 31 11.3	
	baz=241,slow=74,SNR=62						
CRZF	**Crozet Islands**	**16.62**	**78**	Pn	**Pn**	**11 13 57.6**	**-0.8**
CRZF				IAmb	IAmb	11 14 00.9	
	comp=Z,215nm,1.7s						
H04N3	**CROZET ISLANDS**	**16.71**	**77**	T	T	11 31 23.7	
	baz=242,slow=76,SNR=14						
H04N1	**CROZET ISLANDS**	**16.71**	**77**	T	T	11 31 24.5	
	baz=242,slow=76,SNR=12						
H04N2	**CROZET ISLANDS**	**16.73**	**77**	T	T	11 31 28.3	
	baz=242,slow=76,SNR=21						
GRHM	**Grahamstown, E**	**19.33**	**356**	P	**P**	**11 14 31.1**	**+0.3**
GRHM				IAmb	IAmb	11 14 36.0	
	comp=Z,69nm,1.2s						
SUR	**Sutherland**	**20.85**	**343**	P	**P**	**11 14 48.1**	**+0.7**
	comp=Z,48nm,1.0s,baz=159,slow=11,SNR=18						
SUR				LR	LR	11 21 08.4	
	comp=Z,336nm,21.5s,baz=148,slow=32						
	comp=Z,48nm,1.0s						
SUR	**Sutherland**	**20.85**	**343**		**P**	**11 14 48.1**	**+0.7**
SUR				IAmb	IAmb	11 14 49.5	
	comp=Z,59nm,1.0s						
SUR	**Sutherland**	**20.85**	**343**	P	Pn	11 14 48.9	-1.0
	comp=Z,75nm,1.2s						
TROLL	**Troll, Antarti**	**22.45**	**200**	⇓P	**P**	**11 15 06.7**	**+2.3**
	comp=Z,658nm,0.7s						
MAW	**Mawson**	**22.54**	**145**	P	**P**	**11 15 06.0**	**+1.0**
	comp=Z,14nm,0.8s,baz=290,slow=11,SNR=11						
MAW				LR	LR	11 22 09.9	
	comp=Z,225nm,21.0s,baz=288,slow=32						
	comp=Z,14nm,0.8s						
MAW	**Mawson**	**22.54**	**145**		**P**	**11 15 04.2**	**-0.8**
MAW	**Mawson**	**22.54**	**145**	P	**P**	**11 15 07.4**	**+2.3**
	comp=Z,3.9nm,2.0s						
SNAA	**Sanae**	**23.47**	**204**	⇓P	**P**	**11 15 15.6**	**+0.8**
	comp=Z,496nm,0.8s						
SNAA	**Sanae**	**23.47**	**204**	P	**P**	**11 15 15.2**	**+0.5**
	comp=Z,15nm,0.8s,baz=70,slow=3.9,SNR=18						
SNAA				LR	LR	11 22 00.1	
	comp=Z,257nm,20.5s,baz=20,slow=31						
	comp=Z,15nm,0.8s						
SNAA	**Sanae**	**23.47**	**204**		**P**	**11 15 14.5**	**-0.2**
SNAA				IAmb	IAmb	11 15 28.2	
	comp=Z,22nm,0.8s						
SNAA	**Sanae**	**23.47**	**204**	P	**P**	**11 15 16.4**	**+1.6**
	comp=Z,32nm,0.9s						
BOSA	**Boshof**	**24.03**	**354**	P	**P**	**11 15 20.2**	**-0.3**
	comp=Z,23nm,0.9s,baz=182,slow=10.0,SNR=23						
BOSA				LR	LR	11 22 47.7	
	comp=Z,363nm,21.5s,baz=182,slow=32						
	comp=Z,23nm,0.9s						
BOSA	**Boshof**	**24.03**	**354**		**P**	**11 15 19.6**	**-1.0**
BOSA				IAmb	IAmb	11 15 24.0	
	comp=Z,41nm,1.1s						
BOSA	**Boshof**	**24.03**	**354**	*e*P	**P**	**11 15 18.5**	**-2.1**
BOSA	**Boshof**	**24.03**	**354**	P	**P**	**11 15 20.7**	**+0.1**
	comp=Z,46nm,1.2s						
VNA2	**Neumayer--Watz**	**24.26**	**208**	P	**P**	**11 15 23.3**	**+1.1**
	comp=Z,15nm,0.6s,baz=53,slow=9.9						
VNA2	**Neumayer--Watz**	**24.26**	**208**	P	**P**	**11 15 24.4**	**+2.2**
	comp=Z,33nm,0.8s						
VNA1	**Neumayer--Stat**	**24.37**	**209**	⇓P	**P**	**11 15 24.6**	**+1.4**
	comp=Z,76nm,0.8s						
NWCL	**Newcastle**	**24.86**	**4**	*e*P	**P**	**11 15 26.9**	**-1.2**
VNA3	**Neumayer Olymp**	**25.06**	**208**	⇓P	**P**	**11 15 30.0**	**+0.5**
	comp=Z,12nm,0.8s						
VNA3	**Neumayer Olymp**	**25.06**	**208**	P	**P**	**11 15 31.2**	**+1.7**
	comp=Z,25nm,1.1s						
HRAO	**HartRAO**	**26.66**	**359**	*e*P	**P**	**11 15 42.3**	**-2.1**
TSWA	**Tswaing Meteor**	**27.12**	**0**	*e*P	**P**	**11 15 46.9**	**-1.7**
PHPEN	**Phepeng**	**27.35**	**350**	P	**P**	**11 15 51.8**	**+1.2**
PHPEN				IAmb	IAmb	11 16 22.1	
	comp=Z,38nm,1.4s						
LBTB	**Lobatse**	**27.59**	**355**	LR	LR	11 24 54.6	
	comp=Z,270nm,21.8s,baz=176,slow=32						
LBTB	**Lobatse**	**27.59**	**355**	P	**P**	**11 15 52.4**	**-0.3**
PILG	**Pilgrimsrest,**	**27.68**	**5**	*e*P	**P**	**11 15 52.5**	**-1.2**
LEPH	**Lephalale, Lim**	**28.68**	**360**	*e*P	**P**	**11 15 59.0**	**-3.4**
MOPA	**Mopani**	**29.13**	**6**	*e*P	**P**	**11 16 04.0**	**-2.4**
KDWAN	**Kaudwane**	**29.27**	**354**	P	**P**	**11 16 07.6**	**-0.1**
KDWAN				IAmb	IAmb	11 16 27.8	
	comp=Z,15nm,1.0s						
MPHEP	**Siloam, Limpop**	**29.67**	**4**	*e*P	**P**	**11 16 09.5**	**-1.8**
CRAIL	**Swartwater, Li**	**29.73**	**0**	*e*P	**P**	**11 16 09.1**	**-2.7**
KOOLE	**Kule**	**30.14**	**346**	P	**P**	**11 16 15.2**	**-0.3**
KOOLE				IAmb	IAmb	11 16 16.5	
	comp=Z,19nm,1.1s						
WIN	**Windhoek**	**31.11**	**340**	P	**P**	**11 16 24.0**	**-0.1**
WIN				IAmb	IAmb	11 16 25.6	
	comp=Z,14nm,1.0s						
GRTLG	**Ghanzi**	**31.60**	**348**		**P**	**11 16 28.5**	**+0.2**
GRTLG				IAmb	IAmb	11 16 29.4	
	comp=Z,17nm,0.8s						
BELA	**Belgrano 2**	**33.53**	**200**	P	**P**	**11 16 44.4**	**-0.2**
TSUM	**Tsumeb**	**34.29**	**342**	LR	LR	11 29 07.4	
	comp=Z,325nm,21.3s,baz=152,slow=33						
TSUM	**Tsumeb**	**34.29**	**342**		**P**	**11 16 52.3**	**+0.4**
TSUM				IAmb	IAmb	11 16 53.3	
	comp=Z,16nm,0.9s						
TSUM	**Tsumeb**	**34.29**	**342**	P	**P**	**11 16 52.5**	**+0.6**
	comp=Z,22nm,0.9s						
QSPA	**South Pole Qui**	**37.64**	**180**	P	**P**	**11 17 19.7**	**-0.6**
	comp=Z,7.6nm,0.7s,baz=235,slow=0.7,SNR=50						
QSPA				LR	LR	11 32 08.0	
	comp=Z,147nm,19.5s,baz=244,slow=35						
	comp=Z,7.6nm,0.7s						
QSPA	**South Pole Qui**	**37.64**	**180**		**P**	**11 17 19.5**	**-0.8**
QSPA				IAmb	IAmb	11 17 26.4	
	comp=Z,29nm,0.8s						
QSPA	**South Pole Qui**	**37.64**	**180**	P	**P**	**11 17 20.4**	**+0.2**
	comp=Z,48nm,0.9s						
VNDA	**Vanda**	**47.05**	**168**	P	**P**	**11 18 36.1**	**-0.3**
	comp=Z,1.9nm,0.7s,baz=203,slow=7.7,SNR=11						
VNDA				LR	LR	11 37 33.1	
	comp=Z,178nm,21.1s,baz=208,slow=35						
	comp=Z,1.9nm,0.7s						
VNDA	**Vanda**	**47.05**	**168**		**P**	**11 18 36.6**	**+0.1**
VNDA				IAmb	IAmb	11 18 43.6	
	comp=Z,7.0nm,0.8s						
VNDA	**Vanda**	**47.05**	**168**	P	**P**	**11 18 37.4**	**+0.9**
	comp=Z,12nm,1.1s						
MBAR	**Mbarara**	**51.85**	**3**	LR	LR	11 39 02.8	
	comp=Z,70nm,20.8s,baz=192,slow=34						
LODK	**Lodwar**	**56.14**	**9**	P	**P**	**11 19 46.2**	**+1.1**
H01W2	**Cape Leeuwin H**	**60.98**	**110**	T	T	12 27 25.3	
	baz=224						
H01W3	**Cape Leeuwin H**	**60.99**	**110**	T	T	12 27 22.0	
	baz=224						
H01W1	**Cape Leeuwin H**	**60.99**	**110**	T	T	12 27 28.3	
	baz=224						
PLCA	**Paso Flores**	**63.52**	**237**	P	**P**	**11 20 34.5**	**-1.3**
	comp=Z,3.1nm,0.9s,baz=137,slow=8.3,SNR=8.8						
	comp=Z,3.1nm,0.9s						
PLCA	**Paso Flores**	**63.52**	**237**	P	**P**	**11 20 35.1**	**-0.6**
PLCA				IAmb	IAmb	11 20 42.1	
	comp=Z,6.0nm,0.8s						
PLCA	**Paso Flores**	**63.52**	**237**	P	**P**	**11 20 35.6**	**-0.1**
	comp=Z,11nm,1.0s						
GO06	**Curarrehue**	**64.84**	**237**	P	**P**	**11 20 43.8**	**-0.7**
GO06				IAmb	IAmb	11 20 51.2	
	comp=Z,8.2nm,0.8s						
GO06	**Curarrehue**	**64.84**	**237**	P	**P**	**11 20 43.8**	**-0.7**
	comp=Z,12nm,0.9s						
DBIC	**Dimbokro**	**65.31**	**324**	LR	LR	11 42 36.0	
	comp=Z,70nm,20.3s,baz=192,slow=30						
CPUP	**Villa Florida**	**66.80**	**257**	P	**P**	**11 20 56.2**	**-0.8**
	comp=Z,5.2nm,0.7s,baz=130,slow=7.1,SNR=15						
CPUP				LR	LR	11 43 30.9	
	comp=Z,44nm,19.8s,baz=79,slow=30						
	comp=Z,5.2nm,0.7s						
CPUP	**Villa Florida**	**66.80**	**257**	P	**P**	**11 20 56.5**	**-0.6**
CPUP				IAmb	IAmb	11 20 57.3	
	comp=Z,6.6nm,0.8s						
CPUP	**Villa Florida**	**66.80**	**257**	P	**P**	**11 20 56.4**	**-0.8**
	comp=Z,12nm,0.8s						
MT08	**Bocatoma Ro**	**68.70**	**243**	P	**P**	**11 21 09.6**	**+0.3**
BDFB	**Brasilia**	**69.25**	**271**	P	**P**	**11 21 12.7**	**-0.1**
	comp=Z,6.8nm,0.7s,baz=122,slow=4.6,SNR=8.9						
BDFB				LR	LR	11 46 00.6	
	comp=Z,86nm,20.4s,baz=147,slow=31						
	comp=Z,6.8nm,0.7s						
BDFB	**Brasilia**	**69.25**	**271**		**P**	**11 21 12.9**	**+0.1**
BDFB				IAmb	IAmb	11 21 14.2	
	comp=Z,14nm,1.1s						
TORD	**Torodi Ar. Bea**	**69.28**	**332**	P	**P**	**11 21 12.5**	**-0.2**
	comp=Z,3.0nm,0.8s,baz=172,slow=6.6,SNR=18						
	comp=Z,3.0nm,0.8s						
ZON	**Zonda**	**69.41**	**245**	P	**P**	**11 21 13.0**	**-0.5**
	comp=E,11nm,1.6s						
MT02	**Curacav**	**69.44**	**242**	P	**P**	**11 21 14.0**	**+0.4**
CO01	**Juntas del Tor**	**71.39**	**245**	P	**P**	**11 21 25.6**	**-0.3**
CO01				IAmb	IAmb	11 21 26.9	
	comp=Z,8.7nm,0.8s						
CO01	**Juntas del Tor**	**71.39**	**245**	P	**P**	**11 21 25.6**	**-0.3**
	comp=Z,16nm,0.8s						
AC02	**Maricunga**	**73.27**	**248**	P	**P**	**11 21 37.1**	**-0.3**
AC02				IAmb	IAmb	11 22 06.0	
	comp=Z,30nm,1.6s						
AC02	**Maricunga**	**73.27**	**248**	P	**P**	**11 21 37.3**	**-0.1**
AC04	**Llanos de Chal**	**73.30**	**245**	P	**P**	**11 21 37.5**	**+0.6**
SMTB	**Santa Maria do**	**74.27**	**276**	P	**P**	**11 21 43.0**	**+0.2**
PALK	**Pallekele**	**74.49**	**55**	LR	LR	11 46 00.7	
	comp=Z,91nm,21.7s,baz=208,slow=29						
PTLB	**Pontes e Lacer**	**76.17**	**263**	P	**P**	**11 21 53.2**	**-0.5**
SIV	**San Ignacio**	**76.92**	**261**	P	**P**	**11 21 57.6**	**-0.4**
	comp=Z,3.1nm,0.8s,baz=126,slow=7.6,SNR=14						
	comp=Z,3.1nm,0.8s						
RAYN	**Ar Rayn**	**77.30**	**16**	P	**P**	**11 21 59.2**	**-0.6**
RAYN	**Ar Rayn**	**77.30**	**16**	P	**P**	**11 22 01.9**	**+2.1**
	comp=Z,4.4nm,1.4s						
TAM	**Tamanrasset**	**77.57**	**339**	P	**P**	**11 22 02.9**	**+1.4**
CLDB	**Colider**	**77.70**	**268**	P	**P**	**11 22 02.7**	**+0.3**
	comp=Z,4.1nm,0.9s						
STKA	**Stephens Creek**	**77.96**	**127**	LR	LR	11 47 57.5	
	comp=Z,74nm,20.1s,baz=204,slow=29						
PB02	**IPOC Station P**	**77.99**	**251**	P	**P**	**11 22 03.4**	**-0.7**
	comp=Z,20nm,1.4s						
LEM	**Lembang**	**78.29**	**86**	LR	LR	11 47 37.9	
	comp=Z,65nm,21.1s,baz=198,slow=29						
RPZ	**Rata Peaks**	**78.93**	**154**	LR	LR	11 55 01.4	
	comp=Z,24nm,20.0s,baz=190,slow=34						
PB11	**IPOC Station P**	**79.07**	**252**	P	**P**	**11 22 09.9**	**-0.2**
PB11	**IPOC Station P**	**79.07**	**252**	P	**P**	**11 22 09.7**	**-0.5**
	comp=Z,13nm,0.9s						
FITZ	**Fitzroy Crossi**	**80.35**	**107**	LR	LR	11 51 52.3	
	comp=Z,52nm,20.4s,baz=232,slow=31						
ASAR	**Alice Springs**	**80.62**	**117**	P	**P**	**11 22 18.6**	**+0.3**
	comp=Z,2.4nm,0.7s,baz=209,slow=5.1,SNR=18						
ASAR				LR	LR	11 51 07.4	
	comp=Z,64nm,19.0s,baz=191,slow=30						
	comp=Z,2.4nm,0.7s						
ASAR	**Alice Springs**	**80.62**	**117**	P	**P**	**11 22 18.7**	**+0.4**
AS31	**Alice Springs**	**80.62**	**117**	P	**P**	**11 22 18.4**	**+0.1**
PSI	**Prapat**	**80.74**	**73**	LR	LR	11 50 27.8	
	comp=Z,49nm,18.6s,baz=163,slow=30						
LPAZ	**La Paz**	**80.91**	**255**	P	**P**	**11 22 20.7**	**+0.1**
	comp=Z,0.5nm,0.3s,baz=138,slow=5.8,SNR=3.6						
LPAZ				LR	LR	11 53 28.4	
	comp=Z,37nm,21.7s,baz=102,slow=32						
	comp=Z,0.5nm,0.3s						
WRA	**Warramunga Arr**	**83.84**	**115**	P	**P**	**11 22 35.5**	**+0.2**
	comp=Z,1.7nm,0.8s,baz=214,slow=4.5,SNR=9.8						
	comp=Z,1.7nm,0.8s						
WRA	**Warramunga Arr**	**83.84**	**115**		**P**	**11 22 34.2**	**-1.0**
ASF	**Jabal al Asfar**	**84.75**	**8**	LR	LR	12 00 06.7	
	comp

HURO Huro Makira 5.48 288 P Pn 11 14 41.4 +0.5
NGOA Tingoa Renbel 7.02 274 P Pn 11 15 01.9 +1.7
HNR Honiara 7.64 290 P Pn 11 15 09.3 +1.2
362nm,0.9s,baz=227,slow=0.6,SNR=14
HNR Honiara 7.64 290 P Pn 11 15 08.6 +0.6
HNR Honiara 7.64 290 P Pn 11 15 09.4 +1.4
HNR Honiara 7.64 290 P Pn 11 15 10.0 +1.9
comp=Z,415nm,1.0s
SAVO Savo Central 7.87 292 P Pn 11 15 12.6 +1.6
TATA Tatamba Isabel 8.21 297 P Pn 11 15 16.8 +1.6
KOUNC Koumac, New Ca 8.77 198 P Pn 11 15 24.0 +1.8
KOUNC Koumac, New Ca 8.77 198 Pn Pn 11 15 23.1 +0.9
MARNC Mare, Loyalty 9.27 175 Pn Pn 11 15 28.8 +0.3
DZM Mont Dzumac 9.85 184 P Pn 11 15 37.1 +1.2
comp=Z,7.6nm,0.6s,baz=14,slow=17,SNR=33
DZM S S 11 17 26.3 -0.5
comp=Z,8.3nm,1.0s,baz=321,slow=20,SNR=1.5
PINNC Pines Island, 10.36 179 Pn Pn 11 15 43.3 +1.0
MSVF Nonsavu 11.83 119 P P 11 16 04.1 0.0
comp=Z,21nm,0.9s,baz=289,slow=9.6,SNR=9.1
MSVF Nonsavu 11.83 119 P P 11 16 03.3 -0.8
MSVF Nonsavu 11.83 119 ⇑*i*P P 11 16 05.2 +1.1
MSVF Nonsavu 11.83 119 Pn Pn 11 16 00.7 -0.1
MSVF Nonsavu 11.83 119 P P 11 16 04.5 +0.4
comp=Z,54nm,2.3s
FUNA Funafuti 12.35 74 P P 11 16 09.9 +0.2
FUNA Funafuti 12.35 74 P P 11 16 09.5 -0.2
comp=Z,90nm,1.2s
DGTI Dogotuki 12.81 110 P P 11 16 15.9 +1.0
KRVT Keravat (AS076 16.94 296 P P 11 17 00.7 +0.3
comp=Z,41nm,0.3s,baz=118,slow=11,SNR=4.7
KRVT S S 11 20 06.1 +1.8
comp=Z,66nm,0.5s,baz=76,slow=23,SNR=3.7
GD1S Gladstone Soft 19.13 231 P P 11 17 25.5 +1.5
AUNRC North Rockhamp 19.35 233 P P 11 17 27.6 +1.3
AUBSH Beerwah State 19.80 220 P P 11 17 32.4 +1.3
PMG Port Moresby 19.89 276 P P 11 17 32.5 +0.4
comp=Z,40nm,0.8s,baz=83,slow=6.7,SNR=11
PMG Port Moresby 19.89 276 P P 11 17 32.9 +0.7
PMG Port Moresby 19.89 276 P P 11 17 32.8 +0.6
PMG Port Moresby 19.89 276*d* *i*P P 11 17 32.4 +0.2
PMG pmax pmax
comp=Z,61nm,1.0s
PMG Port Moresby 19.89 276 P 11 17 32.0 -0.2
PMG Port Moresby 19.89 276 P P 11 17 32.6 +0.4
comp=Z,60nm,1.0s
PMG Port Moresby 19.89 276 P P 11 17 33.1 +0.9
comp=Z,61nm,1.0s
EIDS Eidsvold 20.09 227 P P 11 17 35.0 +0.8
EIDS Eidsvold 20.09 227 P 11 17 34.7 +0.5
EIDS Eidsvold 20.09 227 P P 11 17 35.4 +1.1
comp=Z,80nm,0.8s
AUAYR Ayr State High 20.39 246 P P 11 17 38.4 +0.9
AFI Afiamalu 20.54 97 P P 11 17 39.6 +0.3
comp=Z,26nm,0.9s,baz=257,slow=14,SNR=3.5
comp=Z,26nm,0.9s
CTA Charters Tower 21.59 246 P P 11 17 49.6 +0.1
comp=Z,15nm,0.6s,baz=76,slow=11,SNR=28
comp=Z,15nm,0.6s
CTAO Charters Tower 21.59 246 P P 11 17 50.1 +0.6
CTAO Charters Tower 21.59 246 P P 11 17 49.4 -0.1
CTAO pmax pmax
comp=Z,18nm,0.7s
CTAO Charters Tower 21.59 246 P 11 17 49.4 -0.1
CTAO IAmb IAmb 11 17 51.0
comp=Z,18nm,0.7s
CTAO Charters Tower 21.59 246 P P 11 17 50.2 +0.6
comp=Z,38nm,1.1s
MANU Manus Island 22.10 296 P 11 17 54.4 +0.1
MTSU Mount Surprise 22.86 252 P P 11 18 02.2 +1.0
MTSU Mount Surprise 22.86 252 P P 11 18 02.4 +1.2
comp=Z,76nm,0.8s
ARMA Armidale 23.17 216 P P 11 18 05.3 +1.3
ARMA Armidale 23.17 216 P 11 18 03.9 -0.1
ARMA IAmb IAmb 11 18 06.9
comp=Z,22nm,0.9s
ARMA Armidale 23.17 216 P P 11 18 03.6 -0.4
comp=Z,29nm,1.0s
AULRC Lightning Ridg 24.77 223 P P 11 18 18.4 0.0
QLP Quilpie 25.90 233 P P 11 18 29.3 +0.7
QLP Quilpie 25.90 233 P P 11 18 29.0 +0.4
comp=Z,21nm,0.9s
HIZ Hauiti 27.08 167 P P 11 18 38.2 -0.7
MXZ Matakaoa Point 27.14 160 P P 11 18 39.5 0.0
MXZ Matakaoa Point 27.14 160 P P 11 18 39.5 0.0
HAZ Te Kaha 27.15 161 P P 11 18 39.8 +0.3
URZ Urewera 27.42 163 P P 11 18 43.6 +1.7
URZ Urewera 27.42 163 P P 11 18 41.7 -0.2
PUZ Puketiti 27.59 161 P P 11 18 42.9 -0.6
MWZ Matawai 27.61 162 P P 11 18 43.7 0.0
RTZ Ruatahuna 27.71 163 P P 11 18 45.8 +1.2
NGZ Ngauruhoe 27.88 166 P P 11 18 46.6 +3.4
OTVZ Ohurere 27.89 166 P P 11 18 49.0 +2.8
WNVZ Wahianoa 28.03 166 P P 11 18 50.0 +2.5
BKZ Black Stump Fm 28.09 165 P P 11 18 48.6 +0.6
WAZ Wanganui 28.30 167 P P 11 18 51.4 +1.7
PNHZ Pukenui 28.73 166 P P 11 18 53.9 +0.3
TSZ Takapari Road 28.81 166 P P 11 18 54.6 +0.3
QRZ Quartz Range 28.90 172 P P 11 18 57.0 +2.0
QRZ Quartz Range 28.90 172 P P 11 18 57.8 +2.8
PXZ Pawanui 29.00 165 P P 11 18 56.1 +0.1
DVHZ Dannevirke 29.09 166 P P 11 18 57.3 +0.6
DUWZ D'Urville Isla 29.10 169 P P 11 18 59.0 +2.2
INKA Innaminka 29.19 234 P P 11 18 58.0 +0.2
MRZ Mangatainoka R 29.29 167 P P 11 18 58.5 0.0
OGWZ Otaki Gorge 29.36 168 P P 11 18 58.8 -0.3
NNZ Nelson 29.41 170 P P 11 19 01.6 +2.0
BFZ Birch Farm 29.47 166 P P 11 18 59.4 -0.7
HOWZ Holdsworth Sta 29.51 167 P P 11 18 59.9 -0.6
CAW Cannon Point 29.61 168 P P 11 19 00.9 -0.4
DSZ Denniston Nort 29.71 173 P P 11 19 04.4 +2.2
MTW Mount Morrison 29.75 167 P P 11 19 00.5 -2.1
THZ Tophouse 29.87 171 P P 11 19 03.8 +0.1
THZ IAmb IAmb 11 19 06.6
comp=Z,42nm,1.4s
THZ Tophouse 29.87 171 P P 11 19 05.0 +1.3
MSWZ Moikau Station 29.95 168 P P 11 19 03.8 -0.5
SMPI Sarmi 30.00 288 P P 11 19 05.1 0.0
comp=Z,44nm,1.2s
PLWZ Palliser 30.10 168 P P 11 19 05.3 -0.3
KHZ Kahutara 30.61 171 P P 11 19 11.6 +1.6
KHZ Kahutara 30.61 171 P P 11 19 09.0 -1.0
INZ Inchbonnie 30.64 174 P P 11 19 12.0 +1.7
STKA Stephens Creek 30.64 226 P P 11 19 10.4 -0.1
comp=Z,3.7nm,0.6s,baz=49,slow=9.2,SNR=6.5
comp=Z,3.7nm,0.6s
STKA Stephens Creek 30.64 226 ⇑*i*P P 11 19 10.5 0.0
STKA Stephens Creek 30.64 226 IAmb IAmb 11 19 12.0
comp=Z,36nm,1.1s
STKA Stephens Creek 30.64 226 P P 11 19 10.9 +0.4
LTZ Lake Taylor 30.79 173 P P 11 19 12.2 +0.5
WVZ Waitaha Valley 30.91 175 P P 11 19 14.9 +2.2
GVZ Greta Valley S 31.07 172 P P 11 19 14.6 +0.5
OXZ Oxford 31.30 173 P P 11 19 16.6 +0.5
FOZ Fox Glacier 31.30 176 P P 11 19 17.9 +1.8
MQZ McQueen's Vall 31.75 172 P P 11 19 20.5 +0.6
JCZ Jackson Bay 31.79 178 P P 11 19 22.7 +2.2
LBZ Lake Benmore 32.18 176 P P 11 19 25.6 +1.9
TMZ Timaru 32.24 175 P P 11 19 24.8 +0.6
WB0 Warramunga Arr 32.39 252 P P 11 19 25.0 -0.9
WB0 IAmb IAmb 11 19 25.7
comp=Z,32nm,1.6s
WRAB Tennant Creek 32.45 252 ⇓*e*P P 11 19 25.1 -1.4
WRAB pmax pmax
comp=Z,12nm,2.0s
WRAB Tennant Creek 32.45 252 P P 11 19 25.0 -1.4
WRA Warramunga Arr 32.46 252 P P 11 19 25.1 -1.4
comp=Z,5.1nm,0.8s,baz=84,slow=8.8,SNR=7.4
WRA S S 11 24 16.3 -6.4
comp=Z,0.3nm,0.8s,baz=86,slow=14,SNR=1.2
comp=Z,5.1nm,0.8s
WRA Warramunga Arr 32.46 252 P P 11 19 24.9 -1.7
ODZ Otahua Downs 32.87 176 P P 11 19 29.5 -0.2
AS01 Alice Springs 33.55 245 P P 11 19 35.2 -0.7
AS31 Alice Springs 33.59 246 P 11 19 34.8 -1.5
ASAR Alice Springs 33.59 246 P P 11 19 34.7 -1.6
comp=Z,4.7nm,0.7s,baz=68,slow=10,SNR=68
ASAR S S 11 24 34.4 -5.7
comp=Z,0.6nm,0.8s,baz=73,slow=16,SNR=4.1
ASAR ScP ScP 11 25 30.7 -0.6
comp=Z,2.2nm,1.0s,baz=83,slow=3.4,SNR=6.6
comp=Z,4.7nm,0.7s
BBOO Buckleboo 35.13 229 P P 11 19 48.9 -0.5
comp=Z,26nm,1.4s
KNRA Kununurra 37.44 260 P P 11 20 08.6 -0.4
BNDI Bandanaira 37.65 278 P P 11 20 10.5 -0.3
comp=Z,85nm,1.1s
FITZ Fitzroy Crossi 40.48 256 P P 11 20 34.4 +0.2
comp=Z,3.3nm,1.1s
FORT Forrest 40.58 237 P P 11 20 34.3 -0.5
NLAI Namlea 40.68 279 P P 11 20 36.6 +0.8
comp=Z,30nm,1.0s
SANI Sanana 42.06 281 P P 11 20 47.4 +0.4
SANI Sanana 42.06 281 P P 11 20 46.9 -0.1
comp=Z,11nm,0.8s
SANI Sanana 42.06 281 P P 11 20 46.6 -0.5
comp=Z,12nm,0.8s
EDFI Ende, Flores 44.85 270 P P 11 21 09.3 -0.1
comp=Z,12nm,0.9s
TOLI2 Tolitoli 47.95 283 P P 11 21 32.3 -0.9
JGF Kuroka 55.29 330 P P 11 22 26.5 -0.6
JGF Kuroka 55.29 330 P P 11 22 26.9 -0.2
comp=Z,12nm,0.7s
JMN Monobe 55.61 326 P P 11 22 30.0 +0.6
JMN Monobe 55.61 326 P P 11 22 29.8 +0.4
JMN IAmb IAmb 11 22 31.0
comp=Z,42nm,1.0s
MJAR Matsushiro Arr 55.65 332 P P 11 22 28.8 -0.8
comp=Z,10.0nm,0.9s,baz=166,slow=8.3,SNR=22
comp=Z,10.0nm,0.9s
MJAR Matsushiro Arr 55.65 332 P P 11 22 29.0 -0.6
MJAR pmax pmax
comp=Z,8.0nm,0.9s
MJAR Matsushiro Arr 55.65 332 P P 11 22 29.0 -0.6
MAJO Matsushiro 55.65 332 P P 11 22 29.1 -0.6
MAJO Matsushiro 55.65 332 P P 11 22 28.9 -0.7
MAJO pmax pmax
comp=Z,12nm,0.9s
MAJO Matsushiro 55.65 332 P P 11 22 28.9 -0.7
MAJO Matsushiro 55.65 332 P P 11 22 29.0 -0.6
comp=Z,22nm,1.4s
MAJO Matsushiro 55.65 332 P P 11 22 28.8 -0.9
MJB9 Matsu-Tunnel 55.66 332 P P 11 22 29.7 +0.1
JNU Nakatsue 56.85 324 P P 11 22 37.7 -0.4
comp=Z,9.4nm,0.6s,baz=116,slow=1.0,SNR=12
comp=Z,9.4nm,0.6s
YULB Yu-li 57.17 308 P P 11 22 40.9 +0.4
DRV Dumont d'Urvil 57.39 192 P P 11 22 40.4 -0.9
DRV sP sP 11 24 07.0 +3.5
SSLB Suanglung 57.65 308 P P 11 22 43.2 -0.7
JKA Kamikawa-asahi 60.35 340 P P 11 23 02.1 +0.2
JKA Kamikawa-asahi 60.35 340 P P 11 23 02.8 +0.8
comp=Z,26nm,1.1s
ASAJ Asahikawa 60.36 340 P P 11 23 02.1 +0.1
ASAJ pmax pmax
comp=Z,165nm,2.0s
KSRS Korea Array 61.63 325 P P 11 23 10.8 +0.2
comp=Z,3.7nm,0.9s,baz=138,slow=7.0,SNR=12
comp=Z,3.7nm,0.9s
KSAR Wonju Array Be 61.65 325 P P 11 23 10.6 -0.2
KSAR Wonju Array Be 61.65 325 P P 11 23 10.6 -0.2
YSS Yuzhno-Sakhali 62.82 341 P P 11 23 19.1 +0.8
YSS Yuzhno-Sakhali 62.82 341 *e*P P 11 23 19.1 +0.8
YSS pmax pmax
comp=Z,50nm,1.0s
YSS Yuzhno-Sakhali 62.82 341 P P 11 23 19.8 +1.5
comp=Z,53nm,1.2s
YSS Yuzhno-Sakhali 62.82 341 P P 11 23 19.2 +0.8
NJ2 Nanjing 63.84 315 *e*P P 11 23 28.1 +2.8
NJ2 pmax pmax
comp=Z,11nm,0.5s
USA0B Ussuriysk Arra 64.62 333 ⇓*i*P P 11 23 30.5 +0.4
USA0B Ussuriysk Arra 64.62 333 IAmb IAmb 11 23 32.2
comp=Z,27nm,1.2s
USRK Ussuriysk Ar. 64.62 333 P P 11 23 30.8 +0.7
comp=Z,12nm,0.9s,baz=147,slow=5.9,SNR=13
comp=Z,12nm,0.9s
USRK Ussuriysk Ar. 64.62 333 P P 11 23 30.0 -0.1
USRK Ussuriysk Ar. 64.62 333 P P 11 23 30.0 -0.1
VNDA Vanda 65.38 181 P P 11 23 35.2 +0.7
PETK Petropavlovsk- 65.55 354 P P 11 23 36.1 +0.2
comp=Z,7.5nm,0.9s,baz=160,slow=9.0,SNR=4.7
comp=Z,7.5nm,0.9s
SBA Scott Base 65.65 180 P P 11 23 37.6 +1.3
comp=Z,8.8nm,2.6s
SBA Scott Base 65.65 180 P P 11 23 37.3 +1.1
MDJ Mudanjiang 66.04 332 P P 11 23 39.8 +0.6
MDJ pmax pmax
comp=Z,19nm,1.0s
MDJ Mudanjiang 66.04 332 P P 11 23 39.8 +0.6
comp=Z,18nm,1.1s
MDJ Mudanjiang 66.04 332 P P 11 23 39.8 +0.6
DL2 Dalian 66.26 322 P P 11 23 42.0 +1.3
DL2 pmax pmax
comp=Z,65nm,1.3s
TYV Tymovskoe 66.35 343 *e*P P 11 23 41.5 +0.5
TYV pmax pmax
comp=Z,12nm,0.7s
TYV pmax pmax
comp=Z,200nm,4.6s
CCD Concordia, Ant 67.36 191 P P 11 23 46.9 -0.7
CCD PcP PcP 11 24 12.1 -1.1
CN2 Changchun 67.46 329 ⇑P P 11 23 48.7 +0.5
CN2 *ep*P pP 11 24 47.7 +2.5
CN2 *e*S S 11 32 23.7 0.0
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,100nm,5.0s
BNX BinXian 67.90 331 ⇑P P 11 23 50.9 0.0
BNX pmax pmax
comp=Z,9.0nm,0.5s
KLR Kul'dur 68.68 336*c* *i*P P 11 23 56.3 +0.7
KLR pmax pmax
comp=Z,33nm,1.7s
LYN LuoYang 69.67 314 P P 11 24 02.3 +0.3
LYN pmax pmax
comp=Z,32nm,0.7s
HNS HongShan 69.69 318 ⇑P P 11 24 02.5 +0.4
HNS pmax pmax
comp=Z,9.0nm,0.8s
ENH Enshi 69.73 309 P P 11 24 03.0 +0.5
ENH Enshi 69.73 309 P P 11 24 02.3 -0.2
comp=Z,21nm,1.0s
BJI2 Beijing 70.26 321 P P 11 24 06.2 +0.7
BJI2 pmax pmax
comp=Z,7.0nm,0.9s
HEH HeiHe 71.26 334 *e*P P 11 24 10.9 -0.3
HEH pmax pmax
comp=Z,10.0nm,0.8s
XAN Xi'an 71.95 312 P P 11 24 15.9 +0.1
XAN pmax pmax
comp=Z,16nm,1.2s
KMI2 Kunming 72.94 301 P P 11 24 23.0 +0.9
KMI2 pmax pmax
comp=Z,15nm,0.9s
HHC Hu-ho-hao-te 73.63 319 *e*P P 11 24 27.6 +2.0
HHC pmax pmax
comp=Z,18nm,0.6s
HHC pmax pmax
comp=Z,90nm,4.6s
CMAR Chiang Mai Arr 73.88 293 P P 11 24 28.1 +0.8
comp=Z,1.9nm,0.3s,baz=114,slow=4.7,SNR=13
comp=Z,1.9nm,0.3s
CMAR Chiang Mai Arr 73.88 293 *i*P P 11 24 28.6 +1.2
CMAR pmax pmax
comp=Z,2.0nm,0.3s
CMAR Chiang Mai Arr 73.88 293 P P 11 24 27.7 +0.4
ZEA Zeya 73.96 337 *e*P P 11 24 28.3 +1.3
HILR Hailar Array B 74.26 330 P P 11 24 29.1 +0.1
comp=Z,2.1nm,0.4s,baz=123,slow=5.5,SNR=3.8
comp=Z,2.1nm,0.4s
SEY Seymchan 75.78 353 ⇑*i*P P 11 24 37.3 +0.1
SEY pmax pmax
comp=Z,29nm,0.9s
LZH Lanzhou 76.59 312 *e*P P 11 24 44.0 +1.4
LZH pmax pmax
comp=Z,25nm,1.2s
LZDM Lanzhou Array 76.64 312 P P 11 24 43.7 +0.6
comp=Z,1.2nm,0.4s,baz=110,slow=5.7,SNR=1.2
comp=Z,1.2nm,0.4s
KDAK Kodiak Island 77.13 21 P P 11 24 44.6 -0.2
QSPA South Pole Qui 77.81 180 P P 11 24 48.4 -0.5
comp=Z,12nm,0.9s,baz=36,slow=1.0,SNR=21
comp=Z,12nm,0.9s
QSPA South Pole Qui 77.81 180 P 11 24 48.8 0.0
QSPA South Pole Qui 77.81 180 P P 11 24 48.7 -0.2
comp=Z,17nm,1.6s
QSPA South Pole Qui 77.81 180 P P 11 24 48.7 -0.2
QSPA pP pwP 11 25 49.7 +0.2
K17K Iditarod 79.34 15 IAmb IAmb 11 24 58.7
comp=Z,24nm,0.9s
L18K Granite Mounta 79.36 16 IAmb IAmb 11 24 58.9
comp=Z,28nm,0.9s
YAK Yakutsk 79.61 343 *e*P P 11 24 58.5 +0.2
YAK *e* 11 25 05.2
YAK *e* 11 28 02.2
YAK *e*PPP PPP 11 29 54.2
YAK *e*S S 11 34 30.6 -8.1
YAK *e* 11 34 46.0
YAK pmax pmax
comp=Z,30nm,1.3s
YAK pmax pmax
comp=E,5.0nm,1.5s
YAK pmax pmax
comp=N,10.0nm,1.5s
YAK pmax pmax
comp=N,89nm,3.3s
YAK pmax pmax
comp=Z,89nm,3.5s
YAK pmax pmax
comp=E,85nm,4.6s
YAK smax smax
comp=N,54nm,2.7s
YAK smax smax
comp=E,82nm,4.7s
YAK Yakutsk 79.61 343 P P 11 24 58.1 -0.2
YAK IAmb IAmb 11 24 59.0
comp=Z,24nm,0.9s
YAK Yakutsk 79.61 343 P P 11 24 58.2 -0.1
comp=Z,33nm,1.0s
J17K VABM Dome 79.71 15 IAmb IAmb 11 25 00.6
comp=Z,22nm,0.9s
L19K White Mountain 79.84 17 IAmb IAmb 11 27 57.2
comp=Z,34nm,1.5s
BILL Bilibino 80.03 360 P P 11 25 00.3 -0.2
BILL Bilibino 80.03 360 P P 11 25 00.4 -0.2
L20K Farewell, AK 80.36 17 IAmb IAmb 11 25 05.6
comp=Z,27nm,0.9s
J18K Innoko River 80.37 16 IAmb IAmb 11 25 03.5
comp=Z,16nm,0.8s
SONM Songino Array 80.44 323 P P 11 25 03.2 -0.1
comp=Z,2.7nm,0.8s,baz=140,slow=6.8,SNR=15
comp=Z,2.7nm,0.8s
SONM Songino Array 80.44 323 P P 11 25 03.1 -0.2
SONM pmax pmax
comp=Z,8.0nm,1.3s
SONM Songino Array 80.44 323 P P 11 25 03.1 -0.2
G16K Koyuk River 80.66 12 IAmb IAmb 11 25 05.2
comp=Z,20nm,0.8s
GTA2 Gaotai 80.95 314 *e*P P 11 25 06.8 +0.6
GTA2 pmax pmax
comp=Z,7.0nm,1.1s
K20K Telida 81.00 17 IAmb IAmb 11 25 08.6
comp=Z,16nm,1.0s
PMR Palmer 81.15 20 P P 11 25 06.8 +0.3
PMR Palmer 81.15 20 IAmb IAmb 11 25 07.2
comp=Z,30nm,1.1s
KNK Knik Glacier 81.24 20 IAmb IAmb 11 25 08.1
comp=Z,36nm,1.2s
CAST Castle Rocks 81.61 17 P 11 25 08.1 -0.9
CAST IAmb IAmb 11 25 10.4
comp=Z,21nm,0.7s
J20K Nowinta River 81.62 16 IAmb IAmb 11 25 11.5
comp=Z,13nm,0.7s
I20K Naaghedeneel 82.02 16 IAmb IAmb 11 25 14.4
comp=Z,29nm,1.1s
KTH Kantishna Hill 82.05 18 IAmb IAmb 11 25 11.9
comp=Z,14nm,0.8s
TRF Thorofare Moun 82.16 18 IAmb IAmb 11 25 12.4
comp=Z,21nm,1.0s
KMPM Mount Pierce 82.19 46 IAmb IAmb 11 25 16.1
comp=Z,29nm,1.1s
KMRM Mail Ridge 82.40 46 IAmb IAmb 11 25 15.7
comp=Z,34nm,1.0s
BPAW Bear Paw Mtn. 82.45 17 IAmb IAmb 11 25 53.7
comp=Z,57nm,2.0s
G19K Purcell Mounta 82.47 14 IAmb IAmb 11 25 14.8
comp=Z,15nm,0.8s
GDXM Geysers 82.52 48 IAmb IAmb 11 25 16.1
comp=Z,20nm,1.2s
KHMM Horse Mountain 82.64 46 IAmb IAmb 11 25 17.0
comp=Z,21nm,1.0s
E18K Tukpahlearik C 82.77 12 IAmb IAmb 11 25 16.5
comp=Z,22nm,1.0s
MCK McKinley 82.78 18 IAmb IAmb 11 25 15.5
comp=Z,29nm,0.9s
DHY Denali Highway 82.79 19 IAmb IAmb 11 25 17.7
comp=Z,32nm,1.3s
MHC Mount Hamilton 82.82 49 IAmb IAmb 11 25 17.6
comp=Z,15nm,1.1s
VRDI Verde Repeater 82.85 22 P P 11 25 15.4 -0.2
GLB Gilahina Butte 82.86 21 P P 11 25 15.2 -0.3
GLB IAmb IAmb 11 25 16.4
comp=Z,21nm,0.9s
F19K Shaleruckik Mo 82.88 13 IAmb IAmb 11 25 16.6
comp=Z,14nm,0.8s
KSXB Camp Six Broad 82.91 45 P P 11 25 15.7 -0.7
KSXB IAmb IAmb 11 25 18.1
comp=Z,29nm,1.2s
KHBM Hayfork Bally 82.92 46 P P 11 25 15.5 -0.9
O02D Mt. Diablo Mer 83.04 46 P P 11 25 17.4 +0.5
O02D IAmb IAmb 11 25 19.0
comp=Z,29nm,1.0s
HARP HAARP 83.05 20 P P 11 25 16.4 0.0
IMAR Indian Mountai 83.15 15 P P 11 25 17.1 +0.3
MLY Manley 83.22 17 IAmb IAmb 11 25 18.0
comp=Z,31nm,1.4s
PAX Paxson 83.34 20 IAmb IAmb 11 25 19.5
comp=Z,40nm,1.7s
GOMU GeErMu 83.35 309 P P 11 25 19.9 +0.9
GOMU pmax pmax
comp=Z,3.0nm,0.5s
K02D Willamette Mer 83.40 44 P P 11 25 18.5 -0.3
K02D IAmb IAmb 11 25 20.3
comp=Z,26nm,1.0s
SUTB Sutter Butte 83.40 48 IAmb IAmb 11 25 19.7
comp=Z,33nm,1.2s
M02C Callahan 83.45 45 IAmb IAmb 11 25 21.0
comp=Z,23nm,0.9s
ZAK Zakamensk 83.46 325 *e*P P 11 25 17.7 -1.2
ZAK pmax pmax
comp=Z,8.0nm,1.4s
G21K Allakaket 83.63 15 IAmb IAmb 11 25 20.6
comp=Z,9.8nm,0.7s
YBH Yreka Blue Hor 83.68 45 IAmb IAmb 11 25 21.9
comp=Z,20nm,0.9s
I23K Minto, Yukon-K 83.70 17 IAmb IAmb 11 25 21.4
comp=Z,49nm,1.8s
H22K Ishtalitna Cre 83.70 16 IAmb IAmb 11 25 21.4
comp=Z,38nm,1.4s
ORV Oroville 83.73 47 IAmb IAmb 11 25 21.5
comp=Z,18nm,1.1s
M26K Nabesna, AK 83.79 21 IAmb IAmb 11 25 21.3
comp=Z,19nm,0.8s
TLY Talaya 83.87 326*c* *i*P P 11 25 20.5 -0.3
TLY pmax pmax
comp=Z,11nm,0.9s
TLY Talaya 83.87 326 P 11 25 20.6 -0.2
TLY Talaya 83.87 326 P P 11 25 20.9 0.0
comp=Z,14nm,1.1s
TLY Talaya 83.87 326 P P 11 25 20.7 -0.2
AFDM Forest Hills D 83.89 48 IAmb IAmb 11 25 22.4
comp=Z,23nm,1.1s
MENT Mentasta 83.90 20 P P 11 25 21.2 +0.5
MENT Mentasta 83.90 20 IAmb IAmb 11 25 22.0
comp=Z,9.3nm,0.7s
COLA College 83.94 18 P P 11 25 20.3 -0.5
COLA College 83.94 18*c* *i*P P 11 25 19.8 -1.0
COLA pmax pmax
comp=Z,54nm,0.9s
COLA College 83.94 18 P P 11 25 20.5 -0.3
COLA College 83.94 18 P P 11 25 20.3 -0.5
comp=Z,62nm,0.8s
COLA College 83.94 18 P P 11 25 20.1 -0.7
CMB Columbia Colle 84.00 49 P P 11 25 21.5 -0.3
CMB pmax pmax
comp=Z,9.0nm,1.0s
CMB Columbia Colle 84.00 49 P P 11 25 21.5 -0.3
L26K Log Cabin Wild 84.09 20 IAmb IAmb 11 25 22.8
comp=Z,18nm,1.2s
H23K Yukon River 84.15 16 IAmb IAmb 11 25 23.0
comp=Z,23nm,0.9s
ILAR Eielson Array 84.15 18 P P 11 25 21.1 -0.8

	comp=Z,34nm,0.6s,baz=247,slow=5.2,SNR=442							
ILAR	**Eielson Array**	**84.15**	**18**	P	**P**	**11 25 20.7**	**-1.2**	
ILAR	**Eielson Array**	**84.15**	**18**		**P**	**11 25 20.7**	**-1.2**	
M27K	**Edge Creek, AK**	**84.16**	**21**	IAmb	IAmb	11 25 23.1		
	comp=Z,12nm,0.7s							
F21K	**Alatna River**	**84.19**	**14**	IAmb	IAmb	11 25 23.7		
	comp=Z,21nm,1.5s							
MAW	**Mawson**	**84.19**	**202**	P	**P**	**11 25 21.6**	**-0.5**	
	comp=Z,5.1nm,0.8s,baz=107,slow=9.8,SNR=4.2							
	comp=Z,5.1nm,0.8s							
MAW	**Mawson**	**84.19**	**202**	P	**P**	**11 25 21.7**	**-0.5**	
MAW				pmax	pmax			
	comp=Z,13nm,1.8s							
MAW	**Mawson**	**84.19**	**202**	IAmb	IAmb	11 25 27.1		
	comp=Z,13nm,1.8s							
HATC	**Hat Creek Radi**	**84.21**	**46**	P	**P**	**11 25 23.1**	**+0.3**	
COR	**Corvallis**	**84.38**	**42**	P	**P**	**11 25 23.4**	**-0.1**	
SCRK	**Sand Creek**	**84.51**	**19**	IAmb	IAmb	11 25 25.0		
	comp=Z,20nm,0.8s							
TPO	**Tropico Hills**	**84.58**	**53**	IAmb	IAmb	11 25 26.4		
	comp=Z,28nm,1.4s							
BEKR	**Beckworth**	**84.66**	**47**	IAmb	IAmb	11 25 26.5		
	comp=Z,26nm,1.3s							
I04A	**Tendick Farm,**	**84.67**	**43**	IAmb	IAmb	11 25 26.0		
	comp=Z,17nm,1.0s							
D20K	**Etivluk River**	**84.68**	**13**	IAmb	IAmb	11 25 26.4		
	comp=Z,16nm,0.8s							
MPK	**Martis Peak**	**84.70**	**48**	P	**P**	**11 25 25.1**	**-0.5**	
MPK				IAmb	IAmb	11 25 27.1		
	comp=Z,24nm,1.1s							
BFSC	**Mount Baldy Ra**	**84.82**	**54**	IAmb	IAmb	11 25 27.1		
	comp=Z,34nm,1.6s							
MDPB	**Devils Postpil**	**84.83**	**50**	IAmb	IAmb	11 25 27.6		
	comp=Z,16nm,1.0s							
HYT	**Haines Junctio**	**84.85**	**24**	P	**P**	**11 25 25.4**	**-0.3**	
HYT				IAmb	IAmb	11 25 27.0		
	comp=Z,12nm,0.9s							
WAKR	**Walker**	**84.86**	**49**	IAmb	IAmb	11 25 28.0		
	comp=Z,21nm,1.2s							
PNTR	**Pine Nut**	**84.94**	**48**	P	**P**	**11 25 26.4**	**-0.3**	
PNTR				IAmb	IAmb	11 25 28.2		
	comp=Z,17nm,1.0s							
WIFE	**Three Sisters-**	**85.17**	**43**	IAmb	IAmb	11 25 29.1		
	comp=Z,20nm,0.8s							
PAHR	**Pah Rah Range**	**85.31**	**48**	IAmb	IAmb	11 25 29.9		
	comp=Z,18nm,1.1s							
MOD	**Modoc Plateau**	**85.42**	**46**	IAmb	IAmb	11 25 30.2		
	comp=Z,19nm,1.1s							
CCCA	**Chr Cany lake**	**85.46**	**52**	P	**P**	**11 25 29.6**	**+0.5**	
CCCA				IAmb	IAmb	11 25 30.8		
	comp=Z,20nm,1.0s							
LHV	**Little Huntoon**	**85.47**	**49**	IAmb	IAmb	11 25 30.8		
	comp=Z,14nm,1.0s							
BORC	**Borrego Spring**	**85.51**	**55**	IAmb	IAmb	11 25 30.7		
	comp=Z,22nm,1.5s							
PFO	**Pinyon Flats O**	**85.58**	**54**	*i* P	**P**	**11 25 30.2**	**+0.3**	
PFO	**Pinyon Flats O**	**85.58**	**54**	P	**P**	**11 25 29.6**	**-0.3**	
PFO	**Pinyon Flats O**	**85.58**	**54**	P	**P**	**11 25 29.9**	**0.0**	
XPFO	**Pinon Flat**	**85.58**	**54**	P	**P**	**11 25 29.9**	**0.0**	
I05D	**Terrebonne, OR**	**85.59**	**43**	IAmb	IAmb	11 25 30.9		
	comp=Z,16nm,0.8s							
PINE	**Pine Mountain**	**85.66**	**44**	IAmb	IAmb	11 25 31.8		
	comp=Z,22nm,0.9s							
I26K	**Coal Creek Min**	**85.67**	**19**	IAmb	IAmb	11 25 30.4		
	comp=Z,12nm,0.6s							
NVAR	**Mina Array Bea**	**85.68**	**49**	P	**P**	**11 25 30.3**	**-0.1**	
	comp=Z,5.6nm,0.8s,baz=232,slow=8.0,SNR=33							
	comp=Z,5.6nm,0.8s							
NVAR	**Mina Array Bea**	**85.68**	**49**	P	**P**	**11 25 30.0**	**-0.4**	
YUH	**Yuha Desert**	**85.72**	**55**	IAmb	IAmb	11 25 32.2		
	comp=Z,28nm,1.8s							
JRO	**Jston Ridge Ob**	**85.74**	**41**	P	**P**	**11 25 30.7**	**+0.3**	
HOOD	**Mount Hood Mea**	**85.75**	**42**	IAmb	IAmb	11 25 31.6		
	comp=Z,21nm,1.0s							
E23K	**Chandalar**	**85.79**	**15**	IAmb	IAmb	11 25 31.9		
	comp=Z,21nm,1.1s							
GNW	**Green Mountain**	**85.85**	**40**	IAmb	IAmb	11 25 32.1		
	comp=Z,14nm,0.8s							
GRAC	**Grapevine Rang**	**85.92**	**51**	IAmb	IAmb	11 25 33.0		
	comp=Z,11nm,0.9s							
G05A	**Wamic**	**85.94**	**42**	P	**P**	**11 25 30.6**	**-0.6**	
G05A				IAmb	IAmb	11 25 32.5		
	comp=Z,20nm,1.0s							
L29M	**L29M**	**85.98**	**22**	IAmb	IAmb	11 25 32.6		
	comp=Z,16nm,1.2s							
BELC	**Belle Mtn. Jos**	**86.06**	**54**	IAmb	IAmb	11 25 33.7		
	comp=Z,27nm,1.5s							
DAWY	**Dawson**	**86.11**	**21**	IAmb	IAmb	11 25 33.0		
	comp=Z,15nm,1.1s							
FURC	**Furnace Creek,**	**86.14**	**52**	IAmb	IAmb	11 25 33.8		
	comp=Z,15nm,0.9s							
M30M	**Minto, Yukon**	**86.16**	**23**	P	**P**	**11 25 30.7**	**-1.2**	
M30M				IAmb	IAmb	11 25 33.2		
	comp=Z,39nm,1.7s							
LON	**Longmire**	**86.18**	**41**	P	**P**	**11 25 32.0**	**-0.5**	
LON				pmax	pmax			
	comp=Z,7.0nm,1.0s							
LON	**Longmire**	**86.18**	**41**	P	**P**	**11 25 31.9**	**-0.5**	
D05A	**Enumclaw**	**86.23**	**40**	P	**P**	**11 25 32.4**	**-0.2**	
TOLK	**Toolik Lake Re**	**86.23**	**15**	IAmb	IAmb	11 25 33.9		
	comp=Z,17nm,1.0s							
I27K	**Kandik River**	**86.35**	**19**	IAmb	IAmb	11 25 33.4		
	comp=Z,17nm,1.2s							
BC3	**Big Chuckawall**	**86.39**	**55**	P	**P**	**11 25 33.5**	**-0.3**	
BC3				IAmb	IAmb	11 25 35.7		
	comp=Z,28nm,1.7s							
WCT	**Wildcat Mounta**	**86.42**	**51**	IAmb	IAmb	11 25 35.3		
	comp=Z,17nm,1.4s							
F25K	**Christian Rive**	**86.50**	**16**	IAmb	IAmb	11 25 35.6		
	comp=Z,13nm,1.0s							
BMAR	**Burnt Mountain**	**86.68**	**17**		**P**	**11 25 34.9**	**+0.5**	
I07A	**Izee**	**86.73**	**44**	IAmb	IAmb	11 25 36.7		
	comp=Z,18nm,0.9s							
WVOR	**Wild Horse Val**	**86.76**	**46**	IAmb	IAmb	11 25 37.0		
	comp=Z,19nm,1.2s							
WVOR	**Wild Horse Val**	**86.76**	**46**	P	**P**	**11 25 36.0**	**+0.5**	
	comp=Z,16nm,1.6s							
D24K	**Happy Valley**	**86.80**	**14**	IAmb	IAmb	11 25 36.9		
	comp=Z,17nm,0.7s							
F26K	**Sheenjek River**	**86.99**	**17**	IAmb	IAmb	11 25 38.0		
	comp=Z,22nm,1.8s							
SHUK	**Shuksan-Mt. Ba**	**87.06**	**39**	IAmb	IAmb	11 25 38.1		
	comp=Z,21nm,1.4s							
F07A	**Phinny Hill Vi**	**87.08**	**42**	IAmb	IAmb	11 25 38.0		
	comp=Z,14nm,1.0s							
MXC	**Moxie City**	**87.09**	**41**	IAmb	IAmb	11 25 38.1		
	comp=Z,12nm,1.0s							
LTY	**Liberty**	**87.09**	**40**	IAmb	IAmb	11 25 37.8		
	comp=Z,15nm,1.0s							
J08A	**Circle Bar Ran**	**87.19**	**45**	IAmb	IAmb	11 25 38.8		
	comp=Z,19nm,0.8s							
I29M	**Ogilvie Camp,**	**87.28**	**20**	IAmb	IAmb	11 25 38.5		
	comp=Z,11nm,0.8s							
E07A	**Sunnyside**	**87.36**	**41**	IAmb	IAmb	11 25 39.5		
	comp=Z,19nm,0.8s							
SHPR	**Sheep Range**	**87.46**	**52**	IAmb	IAmb	11 25 40.8		
	comp=Z,20nm,1.5s							
TIXI	**Tiksi**	**87.49**	**349**	⇓ *i* P	**P**	**11 25 37.6**	**-0.5**	
TIXI				pmax	pmax			
	comp=Z,19nm,1.5s							
TIXI	**Tiksi**	**87.49**	**349**		**P**	**11 25 36.8**	**-1.2**	
TIXI				IAmb	IAmb	11 25 39.5		
	comp=Z,19nm,1.4s							
TIXI	**Tiksi**	**87.49**	**349**	P	**P**	**11 25 37.7**	**-0.3**	
	comp=Z,11nm,1.3s							
113A	**Mohawk Valley,**	**87.50**	**56**	IAmb	IAmb	11 25 40.8		
	comp=Z,29nm,1.8s							
HAWA	**Hanford**	**87.51**	**42**	IAmb	IAmb	11 25 40.3		
	comp=Z,16nm,0.9s							
D25K	**Kavik River**	**87.53**	**15**	IAmb	IAmb	11 25 39.8		
	comp=Z,15nm,0.8s							
EPH	**Ephrata**	**87.81**	**41**	IAmb	IAmb	11 25 41.4		
	comp=Z,19nm,1.2s							
E08A	**Dider Farm, El**	**87.86**	**42**	IAmb	IAmb	11 25 42.0		
	comp=Z,20nm,0.9s							
W13A	**Hualapai Mount**	**88.05**	**54**	IAmb	IAmb	11 25 43.5		
	comp=Z,15nm,1.3s							
C27K	**Jago River**	**88.42**	**15**	IAmb	IAmb	11 25 44.8		
	comp=Z,19nm,1.2s							
BMO	**Blue Mountains**	**88.47**	**44**	IAmb	IAmb	11 25 44.6		
	comp=Z,17nm,1.4s							
ELK	**Elko**	**88.65**	**48**	IAmb	IAmb	11 25 46.0		
	comp=Z,15nm,1.1s							
D27M	**Malcolm River**	**88.90**	**16**	IAmb	IAmb	11 25 47.5		
	comp=Z,7.3nm,0.7s							
MFID	**Camas Ranch**	**89.03**	**45**	IAmb	IAmb	11 25 47.5		
	comp=Z,13nm,0.9s							
LCMT	**Little Creek M**	**89.08**	**52**	IAmb	IAmb	11 25 48.2		
	comp=Z,14nm,1.1s							
PLID	**Pearl Lake**	**89.42**	**44**	IAmb	IAmb	11 25 48.9		
	comp=Z,13nm,0.9s							
U15A	**North Rim**	**89.66**	**53**	IAmb	IAmb	11 25 51.4		
	comp=Z,16nm,1.0s							
NEW	**Newport**	**89.69**	**40**	IAmb	IAmb	11 25 50.0		
	comp=Z,14nm,0.9s							
NEW	**Newport**	**89.69**	**40**	P	**P**	**11 25 49.1**	**+0.2**	
	comp=Z,18nm,1.0s							
TUC	**Tucson**	**89.80**	**57**	P	**P**	**11 25 51.0**	**+1.0**	
	comp=Z,9.0nm,1.2s							
TUC	**Tucson**	**89.80**	**57**	P	**P**	**11 25 50.7**	**+0.8**	
PKCU	**Pink Cliffs**	**89.91**	**52**	IAmb	IAmb	11 25 53.2		
	comp=Z,25nm,1.2s							
HLID	**Hailey**	**90.06**	**45**	IAmb	IAmb	11 25 52.7		
	comp=Z,11nm,0.9s							
HLID	**Hailey**	**90.06**	**45**	P	**P**	**11 25 51.8**	**+0.8**	
	comp=Z,17nm,1.0s							
TCRU	**Three Creeks R**	**90.12**	**51**	IAmb	IAmb	11 25 53.5		
	comp=Z,11nm,0.9s							
DUG	**Dugway, Tooele**	**90.27**	**49**	IAmb	IAmb	11 25 53.5		
	comp=Z,20nm,1.7s							
DUG	**Dugway, Tooele**	**90.27**	**49**	P	**P**	**11 25 52.4**	**+0.4**	
	comp=Z,6.5nm,1.4s							
319A	**Douglas**	**90.82**	**58**	IAmb	IAmb	11 25 56.7		
	comp=Z,15nm,0.9s							
WMQ	**Urumqi**	**90.92**	**315**	*e*P	**P**	**11 25 55.7**	**+0.9**	
WMQ				pmax	pmax			
	comp=Z,11nm,0.7s							
ELIB	**Princess Elisa**	**92.68**	**191**	*d*P	**P**	**11 26 01.9**	**-0.7**	
PV18	**Skein Mesa, Pa**	**92.72**	**52**	IAmb	IAmb	11 29 37.2		
	comp=Z,31nm,1.9s							
PDAR	**Pinedale Array**	**93.28**	**47**	P	**P**	**11 26 05.1**	**-0.9**	
	comp=Z,1.3nm,0.9s,baz=164,slow=4.2,SNR=8.9							
	comp=Z,1.3nm,0.9s							
ALQ	**Albuquerque**	**93.92**	**55**	IAmb	IAmb	11 26 12.2		
	comp=Z,2.4nm,1.0s							
ANMO	**Albuquerque**	**93.92**	**55**⇑	*e*P	**P**	**11 26 08.4**	**-0.7**	
ANMO				pmax	pmax			
	comp=Z,9.0nm,2.5s							
A36M	**Sachs Harbour**	**94.78**	**17**		**P**	**11 26 11.7**	**-0.2**	
TX31	**Lajitas Ar. Si**	**95.12**	**61**	IAmb	IAmb	11 29 47.8		
	comp=Z,7.2nm,1.6s							
TXAR	**Lajitas Array**	**95.12**	**61**	P	**P**	**11 26 14.1**	**-0.4**	
	comp=Z,1.3nm,0.7s,baz=224,slow=5.9,SNR=22							
	comp=Z,1.3nm,0.7s							
ZALV	**Zalesovo Beam**	**95.32**	**324**	P	**P**	**11 26 13.7**	**-1.0**	
	comp=Z,0.6nm,0.4s,baz=86,slow=6.1,SNR=4.7							
	comp=Z,0.6nm,0.4s							
MK31	**Makanchi Array**	**95.34**	**317**	*c i* P	**P**	**11 26 14.7**	**-0.3**	
MKAR	**Makanchi Array**	**95.34**	**317**	P	**P**	**11 26 14.3**	**-0.7**	
	comp=Z,9.5nm,0.8s,baz=96,slow=6.3,SNR=66							
	comp=Z,9.5nm,0.8s							
MKAR	**Makanchi Array**	**95.34**	**317**	*i* P	**P**	**11 26 14.8**	**-0.2**	
MKAR				pmax	pmax			
	comp=Z,10.0nm,0.8s							
MKAR	**Makanchi Array**	**95.34**	**317**		**P**	**11 26 14.6**	**-0.4**	
YKA	**Yellowknife Ar**	**95.34**	**27**	P	**P**	**11 26 12.9**	**-1.7**	
	comp=Z,2.5nm,0.6s,baz=261,slow=4.8,SNR=8.4							
	comp=Z,2.5nm,0.6s							
TROLL	**Troll, Antarti**	**95.36**	**185**	⇑P	**P**	**11 26 14.2**	**-0.7**	
	comp=Z,149nm,0.7s							
MAKZ	**Makanchi**	**95.55**	**317**	P	**P**	**11 26 16.1**	**+0.1**	
MAKZ				pmax	pmax			
	comp=Z,7.0nm,0.8s							
MAKZ	**Makanchi**	**95.55**	**317**		**P**	**11 26 16.1**	**+0.1**	
MAKZ				IAmb	IAmb	11 26 16.8		
	comp=Z,6.9nm,0.8s							
MAKZ	**Makanchi**	**95.55**	**317**	P	**P**	**11 26 15.9**	**-0.1**	
	comp=Z,10nm,1.0s							
VNA3	**Neumayer Olymp**	**96.73**	**181**	⇑P	**P**	**11 26 20.4**	**-0.5**	
	comp=Z,3.1nm,0.8s							
NRIK	**Noril'sk**	**97.70**	**339**	P	**P**	**11 26 24.2**	**-0.9**	
	comp=Z,6.6nm,1.0s,baz=95,slow=4.8,SNR=4.5							
	comp=Z,3.6nm,1.0s							
NRIK	**Noril'sk**	**97.70**	**339**⇓	*i* P	**P**	**11 26 24.4**	**-0.7**	
NRIK				pmax	pmax			
	comp=Z,7.0nm,1.2s							
NRIK	**Noril'sk**	**97.70**	**339**	IAmb	IAmb	11 26 25.3		
	comp=Z,6.7nm,1.2s							
KURK	**Kurchatov**	**98.44**	**320**⇑	*e*P	Pdif	11 26 29.0	+0.2	
KURK				pmax	pmax			
	comp=Z,5.0nm,1.5s							
FFC	**Flin Flon**	**100.32**	**36**	*i* P	**Pdif**	**11 26 37.7**	**+0.6**	
ARTI	**Arti**	**110.48**	**326**	*i* PKIKP	**PKiKP**	**11 31 23.0**	**+1.5**	
KIRV	**Kirov**	**114.68**	**329**	*i* PKIKP	PKPdf	11 31 29.5	+0.1	
BELG	**Belogornoye**	**117.50**	**323**⇑	*i* PKIKP	**PKPdf**	**11 31 35.2**	**+0.2**	
ARCES	**ARCESS Array B**	**117.80**	**346**	PKP	**PKPdf**	**11 31 34.1**	**-1.1**	
	comp=Z,4.9nm,0.6s,baz=86,slow=1.9,SNR=21							
KBZ	**Khabaz**	**122.96**	**314**	PKP	**PKPdf**	**11 31 46.3**	**+0.4**	
	comp=Z,1.3nm,0.6s,baz=63,slow=2.2,SNR=3.2							
FINES	**FINESS Array B**	**123.36**	**339**	PKP	**PKPdf**	**11 31 45.3**	**-0.7**	
	comp=Z,5.6nm,0.8s,baz=64,slow=4.4,SNR=8.9							
NB2	**NORSAR Subarra**	**128.18**	**345**	PKPdf	**PKPdf**	**11 31 55.4**	**0.0**	
	comp=Z,1.2nm,0.7s,baz=31,slow=1.9							
NOA	**NORSAR Array B**	**128.18**	**345**	PKP	**PKPdf**	**11 31 54.9**	**-0.5**	
	comp=Z,1.6nm,0.7s,baz=33,slow=2.0,SNR=6.7							
HFS	**Hagfors**	**128.30**	**343**	PKP	**PKPdf**	**11 31 54.8**	**-0.8**	
	comp=Z,1.1nm,0.5s,baz=37,slow=2.8,SNR=1.9							
AKASG	**Malin Array Be**	**128.60**	**327**	PKP	**PKPdf**	**11 31 55.9**	**-0.5**	
	comp=Z,0.2nm,0.3s,baz=54,slow=1.6,SNR=6.5							
BRTR	**Keskin Array B**	**130.79**	**312**	PKP	**PKPdf**	**11 32 00.5**	**-0.7**	
	comp=Z,0.5nm,0.5s,baz=83,slow=2.3,SNR=2.2							
BRTR				SKPbc	**SKPab**	**11 35 03.2**	**+1.2**	
	comp=Z,0.8nm,0.7s,baz=62,slow=3.4,SNR=4.8							
CLL	**Collm**	**135.72**	**337**	*e*PKPdf	**PKPdf**	**11 32 11.0**	**+1.1**	
RONA	**Rosalia, Austr**	**137.05**	**331**	*e*PKP	**PKPdf**	**11 32 11.2**	**-1.3**	
	comp=Z,0.7nm,0.3s							
CONA	**Conrad Observa**	**137.09**	**332**	*e*PKiKP	**PKiKP**	**11 32 14.7**	**+0.2**	
	comp=Z,1.4nm,0.5s							
GERES	**GERESS Array B**	**137.36**	**334**	PKP	**PKPdf**	**11 32 12.9**	**-0.3**	
	comp=Z,1.2nm,0.6s,baz=45,slow=0.8,SNR=7.7							
BMRD	**Maredsous**	**139.36**	**343**	*d*PKPdf	**PKPdf**	**11 32 16.1**	**-0.5**	
ABTA	**Albaltersbach**	**139.49**	**333**	*i* PKP	**PKPdf**	**11 32 15.5**	**-1.5**	
	comp=Z,1.3nm,0.4s							
FETA	**Feichten**	**140.04**	**335**	*e*PKP	**PKPdf**	**11 32 16.5**	**-1.7**	
	comp=Z,2.9nm,0.7s							
KEST	**Kesra**	**149.19**	**323**	PKPbc	**PKPbc**	**11 32 38.2**	**-0.4**	
	comp=Z,15nm,0.7s,baz=36,slow=1.6,SNR=15							
PBRG	**Braganca**	**150.03**	**351**	*e*PKPbc	**PKPbc**	**11 32 40.9**	**+0.4**	
PGAV	**Gavieira, Arco**	**150.08**	**353**	*e*PKPbc	**PKPbc**	**11 32 40.5**	**-0.1**	
PCAB	**Cabril**	**150.31**	**353**	*e*PKPbc	**PKPbc**	**11 32 41.3**	**+0.2**	
POLO	**Lamas de Olo**	**150.61**	**352**	*e*PKPbc	**PKPbc**	**11 32 42.2**	**+0.3**	
PVRL	**Vila Real**	**150.69**	**352**	*e*PKPbc	**PKPbc**	**11 32 42.4**	**+0.4**	
PTO	**Porto**	**150.94**	**353**	*e*PKPbc	**PKPbc**	**11 32 42.8**	**+0.3**	
PVIS	**Viseu**	**151.27**	**352**	*e*PKPbc	**PKPbc**	**11 32 43.4**	**0.0**	
MTE	**Manteigas**	**151.53**	**352**	*e*PKPbc	**PKPbc**	**11 32 44.2**	**+0.2**	
ESDC	**Sonseca Array**	**151.54**	**346**	PKP	**PKPdf**	**11 32 37.6**	**-0.1**	
	comp=Z,3.1nm,1.0s,baz=25,slow=1.7,SNR=4.2							
ESDC				PKPbc	**PKPbc**	**11 32 43.8**	**-0.3**	
	comp=Z,4.8nm,0.8s,baz=6.7,slow=2.8,SNR=27							
ESDC				PKPab	**PKPab**	**11 32 53.7**	**+0.3**	
	comp=Z,4.0nm,0.8s,baz=15,slow=3.5,SNR=15							
ESDC	**Sonseca Array**	**151.54**	**346**		**PKPdf**	**11 32 37.8**	**+0.1**	
PCBR	**Castelo Branco**	**152.07**	**351**	*e*PKPbc	**PKPbc**	**11 32 44.8**	**-0.3**	
PSARD	**Sardoal**	**152.40**	**352**	*e*PKPbc	**PKPbc**	**11 32 46.1**	**+0.2**	
PMRV	**Marv??o**	**152.46**	**351**	*e*PKPbc	**PKPbc**	**11 32 46.0**	**0.0**	
PMTG	**Montargil**	**152.93**	**352**	*e*PKPbc	**PKPbc**	**11 32 46.9**	**-0.2**	
PARRA	**Arraiolos**	**153.16**	**352**	*e*PKPbc	**PKPbc**	**11 32 47.6**	**0.0**	
PARRA				*e*PKPab	**PKPab**	**11 33 01.0**	**+0.9**	
PBAR	**Barrancos**	**153.62**	**350**	*e*PKPab	**PKPab**	**11 33 03.0**	**+0.9**	
PBEJ	**Beja**	**153.91**	**351**	*e*PKPbc	**PKPbc**	**11 32 49.6**	**+0.4**	
PBEJ				*e*PKPab	**PKPab**	**11 33 04.4**	**+1.1**	
PCVE	**Castro Verde**	**154.32**	**351**	*e*PKPbc	**PKPbc**	**11 32 49.3**	**-0.8**	
PCVE				*e*PKPab	**PKPab**	**11 33 06.3**	**+1.2**	
TORD	**Torodi Ar. Bea**	**165.83**	**275**	PKP	**PKPdf**	**11 32 53.9**	**-1.1**	
	comp=Z,2.5nm,1.0s,baz=83,slow=2.3,SNR=9.2							
TORD				PKPab	**PKPab**	**11 33 55.6**	**-0.6**	
	comp=Z,1.8nm,1.1s,baz=90,slow=4.0,SNR=7.6							

VAO **12** *11:21:50.5±2.2, 15.67S×74.46W, h30km±16km, mb4.3, Presumed earthquake*

NEIC **12** *11:21:52.8±1.0, 15.71S±0.06×74.57W±0.09, h47km±6km, mb4.3/16, Error ellipse: s-maj=14.3km s-min=6.0km az=63.0*

IDC **12** *11:21:53.8±1.9, 15.61S×74.55W, h60km±19km, mb3.7/7, mbtmp4.1/12, MS3.4/7, Error ellipse: s-maj=24.9km s-min=10.7km az=48.0*

GFZ **12** *11:21:53.8±0.3, 16.S±4.×7.5W±., h63km, M4.8/18, mb4.7/18, confirmed*

ISC 12 11:21:52.5±0.5, 15.66S±0.05×74.50W±0.06, h54km, n129, σ1 s23/118, mb4.1/13, MS3.4/6, 2C, Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**4.30**	**328**	P	**Pn**	**11 22 55.0**	**-0.6**
	34nm,0.3s,baz=174,slow=11,SNR=22						
NNA				S	**Sn**	**11 23 44.8**	**+0.2**
	147nm,0.3s,baz=169,slow=17,SNR=7.0						
NNA	**Nana**	**4.30**	**328**		**Pn**	**11 22 55.6**	**0.0**
NNA	**Nana**	**4.30**	**328**	P	**Pn**	**11 22 58.2**	**+2.6**
AP01	**Chacalluta**	**4.80**	**125**	Pn	**Pn**	**11 23 02.8**	**+0.4**
AP01				Sn	**Sn**	**11 23 58.4**	**+1.7**
PB18	**Visviri**	**5.18**	**112**		**Pn**	**11 23 09.8**	**+1.8**
PB18	**Visviri**	**5.18**	**112**	P	**Pn**	**11 23 12.1**	**+4.1**
	comp=Z,281nm,1.1s						
PB16	**IPOC Station P**	**5.46**	**120**		**Pn**	**11 23 12.9**	**+1.0**
PB16					**Sn**	**11 24 12.5**	**-1.3**
PB16	**IPOC Station P**	**5.46**	**120**	P	**Pn**	**11 23 13.9**	**+2.0**
	comp=Z,146nm,0.8s						
PSGCX	**Pisagua**	**5.72**	**134**		**Pn**	**11 23 14.7**	**-0.4**
PSGCX				Sn	**Sn**	**11 24 16.6**	**-2.9**
PSGCX	**Pisagua**	**5.72**	**134**	P	**Pn**	**11 23 14.9**	**-0.1**
	comp=Z,64nm,0.6s						
LPAZ	**La Paz**	**6.15**	**97**	P	**Pn**	**11 23 24.4**	**+2.9**
	comp=Z,8.7nm,0.4s,baz=294,slow=9.1,SNR=30						
LPAZ				S	**Sn**	**11 24 34.8**	**+3.9**
	comp=Z,7.1nm,0.8s,baz=192,slow=24,SNR=0.8						
LPAZ				LR	LR	11 26 20.6	
	comp=Z,163nm,20.5s,baz=259,slow=43						
PB11	**IPOC Station P**	**6.16**	**132**		**Pn**	**11 23 21.0**	**-0.1**
PB11	**IPOC Station P**	**6.16**	**132**	P	**Pn**	**11 23 21.4**	**+0.3**
	comp=Z,229nm,0.8s						
TA01	**Diego Aracena**	**6.38**	**141**		**Pn**	**11 23 24.0**	**+0.1**
TA01	**Diego Aracena**	**6.38**	**141**	P	**Pn**	**11 23 24.2**	**+0.3**
	comp=Z,80nm,0.8s						
GO01	**Chusmiza**	**6.44**	**129**		**Pn**	**11 23 25.7**	**+0.5**
GO01	**Chusmiza**	**6.44**	**129**	P	**Pn**	**11 23 26.2**	**+1.0**
	comp=Z,244nm,0.8s						
PB08	**IPOC Station P**	**6.76**	**132**		**Pn**	**11 23 29.8**	**+0.2**
PB08	**IPOC Station P**	**6.76**	**132**	P	**Pn**	**11 23 30.5**	**+0.9**
	comp=Z,169nm,0.8s						
PB02	**IPOC Station P**	**7.12**	**143**		**Pn**	**11 23 34.2**	**0.0**
PB02	**IPOC Station P**	**7.12**	**143**	P	**Pn**	**11 23 35.1**	**+0.8**
	comp=Z,65nm,0.5s						
PB07	**IPOC Station P**	**7.45**	**145**		**Pn**	**11 23 38.8**	**0.0**
PB07	**IPOC Station P**	**7.45**	**145**	P	**Pn**	**11 23 39.3**	**+0.5**
	comp=Z,52nm,0.6s						
PB03	**IPOC Station P**	**7.78**	**145**		**Pn**	**11 23 43.3**	**0.0**
PB03	**IPOC Station P**	**7.78**	**145**	P	**Pn**	**11 23 43.9**	**+0.6**
	comp=Z,20nm,0.5s						
PB09	**IPOC Station P**	**7.88**	**142**		**Pn**	**11 23 45.5**	**+0.8**
PB09	**IPOC Station P**	**7.88**	**142**	P	**Pn**	**11 23 46.5**	**+1.9**
	comp=Z,44nm,0.9s						
CZSB	**Cruzeiro do Su**	**8.07**	**13**		**Pn**	**11 23 47.8**	**+0.6**
CZSB	**Cruzeiro do Su**	**8.07**	**13**	*e*P	**Pn**	**11 23 46.1**	**-1.1**
PB05	**IPOC Station P**	**8.22**	**151**		**Pn**	**11 23 48.6**	**-0.7**
**P

comp=Z,34nm,18.8s,baz=220,slow=40
TXAR Lajitas Array 52.86 328 P **P** **11 31 03.3 +0.2**
comp=Z,0.8nm,0.8s,baz=152,slow=10,SNR=4.9
comp=Z,0.8nm,0.8s
WVT Waverly 53.03 346 P **P** **11 31 02.0 -2.1**
WCI Wyandotte Cave 54.73 349 P **P** **11 31 14.7 -1.8**
comp=Z,28nm,0.9s
HWUT Hardware Ranch 66.48 330 P **P** **11 32 36.8 0.0**
comp=Z,4.9nm,2.4s
VNA3 Neumayer Olymp 67.27 161 ⇑P **P** **11 32 41.5 +0.4**
comp=Z,2.0nm,0.8s
NVAR Mina Array Bea 67.67 324 P **P** **11 32 45.1 +0.7**
comp=Z,0.4nm,0.7s,baz=143,slow=7.2,SNR=2.6
comp=Z,0.4nm,0.7s
SNAA Sanae 69.49 161 ⇑P **P** **11 32 56.5 +1.4**
comp=Z,109nm,0.5s
SNAA Sanae 69.49 161 P **P** **11 32 56.1 +1.0**
comp=Z,4.2nm,0.5s,baz=279,slow=7.5,SNR=9.2
comp=Z,4.2nm,0.5s
SNAA Sanae 69.49 161 P **P** **11 32 55.7 +0.6**
SNAA Sanae 69.49 161 P **P** **11 32 56.4 +1.4**
comp=Z,9.7nm,0.8s
TROLL Troll, Antarti 71.21 161 P **P** **11 33 07.5 +1.8**
comp=Z,95nm,0.5s
QSPA South Pole Qui 74.50 180 P **P** **11 33 26.5 +1.3**
comp=Z,2.6nm,0.8s,baz=139,slow=5.8,SNR=13
comp=Z,2.6nm,0.8s
QSPA South Pole Qui 74.50 180 P **P** **11 33 25.8 +0.6**
QSPA IAmb IAmb 11 33 28.0
comp=Z,9.2nm,1.2s
TORD Torodi Ar. Bea 80.60 74 P **P** **11 33 59.6 -0.4**
comp=Z,0.7nm,0.6s,baz=246,slow=5.1,SNR=4.1
comp=Z,0.7nm,0.6s
VNDA Vanda 81.62 191 P **P** **11 34 05.5 +1.1**
comp=Z,0.5nm,0.7s,baz=114,slow=6.5,SNR=3.6
comp=Z,0.5nm,0.7s
EKA Eskdalemuir Ar 92.52 33 LR LR 12 15 08.5
comp=Z,32nm,18.2s,baz=189,slow=34
AFI Afiamalu 93.12 255 LR LR 12 08 49.8
comp=Z,23nm,20.4s,baz=189,slow=30
H11N3 WAKE ISLAND Hy 21.62 284 T T 13 53 30.6
baz=97,slow=74,SNR=3.0
H11N2 WAKE ISLAND Hy 21.64 284 T T 13 53 29.7
baz=97,slow=74,SNR=4.9
H11N1 WAKE ISLAND Hy 21.64 284 T T 13 53 30.3
baz=97,slow=74,SNR=3.8
H11S2 WAKE ISLAND Hy 21.67 282 T T 13 54 01.4
baz=99,slow=75,SNR=12
H11S1 WAKE ISLAND Hy 21.67 282 T T 13 54 03.2
baz=99,slow=75,SNR=16
H11S3 WAKE ISLAND Hy 21.69 282 T T 13 54 24.2
baz=99,slow=75,SNR=11
ASAR Alice Springs 132.06 216 PKP **PKiKP** **11 41 01.2 -0.9**
comp=Z,0.3nm,0.5s,baz=124,slow=1.5,SNR=8.6
WRA Warramunga Arr 134.67 220 PKP **PKiKP** **11 41 06.3 -1.1**
comp=Z,0.5nm,0.6s,baz=135,slow=1.9,SNR=9.4
ZALV Zalesovo Beam 138.51 18 PKP **PKiKP** **11 41 13.2 -1.0**
comp=Z,0.3nm,0.3s,baz=316,slow=4.0,SNR=1.6
SONM Songino Array 147.91 359 PKPbc **PKPbc** **11 41 31.5 -0.4**
comp=Z,0.6nm,0.7s,baz=12,slow=2.6,SNR=3.1
WMQ Urumqi 148.10 25 *e*PKPbc **PKPdf** **11 41 27.5 -1.8**
WMQ pPKP pPKPdf 11 41 44.1 -1.5
WMQ sPKP sPKPdf 11 41 52.8 +1.3
HHC Hu-ho-hao-te 154.35 349 *e*P **PKPdf** **11 41 40.7 +1.7**

*PRE **12** 11:26:06.8±1.0,26°.25S×28°.75E,h0km,ML2.1,Suspected explosion*
*BUL **12** 11:26:09.1±1.3,26°.51S×28°.81E,h12km±15km,MD2.9, Presumed earthquake*
ISC 12 11:26:06.8±0.8,**26°.29S**±0°.03×**28°.75E**±0°.03,**h0**km,**n20,** σ1§**91**/39,**South Africa**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**1.04**	**292**	*e*P	**Pg**	**11 26 25.9**	**-0.7**
HRAO				*e*S	**Sg**	**11 26 39.8**	**-0.2**
TSWA	**Tswaing Meteor**	**1.05**	**325**	*e*P	**Pg**	**11 26 25.9**	**-1.1**
TSWA				*e*S	**Sg**	**11 26 39.5**	**-1.2**
TSWA				IAML		11 26 59.2	
	comp=Z,14nm,0.5s						
TSWA	**Tswaing Meteor**	**1.05**	**325**	*e*P	**Pg**	**11 26 25.9**	**-1.1**
TSWA				*e*S	**Sg**	**11 26 40.5**	**-0.2**
TSWA				IAML		11 26 59.2	
	comp=Z,14nm,0.5s						
CRLN	**Carolina, Mapu**	**1.18**	**76**	*e*P	**Pg**	**11 26 28.8**	**-0.6**
CRLN				*e*S	**Sg**	**11 26 45.4**	**+0.6**
CRLN				IAML		11 26 46.5	
	comp=Z,27nm,0.4s						
NWCL	**Newcastle**	**1.76**	**145**	*e*P	**Pg**	**11 26 40.8**	**+0.2**
NWCL				*e*S	**Sg**	**11 27 04.8**	**+1.3**
NWCL				IAML		11 27 17.3	
	comp=Z,14nm,0.3s						
NWCL	**Newcastle**	**1.76**	**145**	*e*P	**Pb**	**11 26 39.8**	**-0.3**
NWCL				*e*S	**Sg**	**11 27 03.8**	**+0.3**
NWCL				IAML		11 27 17.3	
	comp=Z,14nm,0.3s						
PILG	**Pilgrimsrest,**	**2.23**	**53**	*e*P	**Pn**	**11 26 45.7**	**+0.5**
PILG				*e*S	**Sn**	**11 27 13.8**	**+0.3**
PILG				IAML		11 27 23.4	
	comp=Z,20nm,0.4s						
LEPH	**Lephalale, Lim**	**2.57**	**340**	*e*P	**Pn**	**11 26 50.4**	**+0.6**
LEPH				*e*S	**Sn**	**11 27 21.8**	**-0.1**
LEPH				IAML		11 27 37.4	
	comp=Z,6.0nm,0.6s						
LBTB	**Lobatse**	**3.12**	**293**	*i* P	**Pn**	**11 27 00.1**	**+2.8**
LBTB				*i* S	**Sn**	**11 27 36.5**	**+1.2**
LBTB	**Lobatse**	**3.12**	**293**	*e*P	**Pn**	**11 26 58.4**	**+1.1**
LBTB				*e*S	**Sn**	**11 27 35.7**	**+0.5**
LBTB				IAML		11 27 46.8	
	comp=Z,12nm,0.5s						
CRAIL	**Swartwater, Li**	**3.50**	**352**	*e*P	**Pn**	**11 27 02.1**	**-0.5**
CRAIL				*e*S	**Sn**	**11 27 43.8**	**-1.1**
CRAIL				IAML		11 27 58.6	
	comp=Z,324nm,0.2s						
PMBG	**Pietermaritzbu**	**3.57**	**154**	*e*P	**Pn**	**11 27 07.0**	**+3.5**
PMBG				*e*S	**Sn**	**11 27 39.6**	**-6.8**
PMBG				IAML		11 28 14.0	
	comp=Z,6.9nm,0.4s						
PMBG	**Pietermaritzbu**	**3.57**	**154**	*e*P	**Pn**	**11 27 05.0**	**+1.5**
PMBG				*e*S	**Sn**	**11 27 46.6**	**+0.2**
PMBG				IAML		11 28 14.0	
	comp=Z,6.9nm,0.4s						
MPHEP	**Siloam, Limpop**	**3.61**	**21**	*e*P	**Pn**	**11 27 04.8**	**+0.7**
MPHEP				*e*S	**Sn**	**11 27 46.1**	**-1.4**
MPHEP				IAML		11 28 19.1	
	comp=Z,2.1nm,0.4s						
MOPA	**Mopani**	**3.66**	**42**	*i* P	**Pn**	**11 27 05.7**	**+1.0**
MOPA				*i* S	**Sn**	**11 27 49.7**	**+1.0**
MOPA	**Mopani**	**3.66**	**42**	*e*P	**Pn**	**11 27 05.8**	**+1.0**
MOPA				*e*S	**Sn**	**11 27 47.3**	**-1.3**
MOPA				IAML		11 28 00.8	
	comp=Z,27nm,0.6s						
BOSA	**Boshof**	**3.87**	**233**	*i* P	**Pn**	**11 27 07.5**	**-0.1**
BOSA				*i* S	**Sn**	**11 27 49.2**	**-4.7**
BOSA	**Boshof**	**3.87**	**233**	*e*P	**Pn**	**11 27 09.9**	**+2.2**
BOSA				*e*S	**Sn**	**11 27 54.6**	**+0.6**
BOSA				IAML		11 28 07.7	
	comp=Z,10nm,0.5s						
BOSA	**Boshof**	**3.87**	**233**	*e*P	**Pn**	**11 27 08.9**	**+1.2**
BOSA				*e*S	**Sn**	**11 27 54.6**	**+0.6**
BOSA				IAML		11 28 07.7	
	comp=Z,10nm,0.5s						
BLWY	**Bulawayo**	**6.12**	**359**	*i* P	**Pn**	**11 27 42.4**	**+3.7**

*UPP **12** 11:29:38.0±3.3,64°.32N×31°.79E,h0km,ML1.9, Presumed earthquake*
*HEL **12** 11:29:44.9±0.2,64°.69N×30°.66E,h0km,ML1.9, Explosion*
*KOLA **12** 11:29:45.2,64°.54N×30°.37E,h0km,ML2.3, Error ellipse: s-maj=16.4km s-min=12.7km az=10.0, Karelia,Finland, Oulu area*
*IDC **12** 11:29:45.1±3.3,64°.69N×31°.29E,h0km,mbtmp2.5/2, ML1.8/2, Error ellipse: s-maj=43.9km s-min=12.7km az=98.0*
ISC 12 11:29:44.6±0.9,**64°.75N**±0°.03×**30°.84E**±0°.04,**h0**km,**n43,** σ1§**40**/55,**Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RMF	**Romuvaara**	**0.66**	**217**	PG	**Pg**	**11 29 55.4**	**-1.9**
	baz=37						
RMF				MSG		11 30 03.1	
	comp=Z,18nm,0.2s						
KU1	**Kurvinen**	**0.98**	**327**	PG	**Pg**	**11 30 03.0**	**-0.4**
	baz=154						
KU6	**Riekki**	**1.34**	**343**	PG	**Pg**	**11 30 09.9**	**-0.4**
	baz=164						
KU6				MSG		11 30 26.6	
	comp=Z,12nm,0.2s						
KU6				SN	**Sn**	**11 30 29.7**	**+0.6**
MSF	**Maaselka**	**1.39**	**328**	PG	**Pg**	**11 30 10.1**	**-1.1**
	baz=153						
MSF				SN	**Sn**	**11 30 32.0**	**+1.7**
KU2	**Taivalkoski**	**1.46**	**312**	PG	**Pn**	**11 30 11.1**	**-1.2**
OLKF	**Oulanka, Finla**	**1.69**	**340**	PG	**Pn**	**11 30 15.7**	**+0.4**
OLKF				MSG		11 30 36.2	
	comp=Z,9.3nm,0.2s						
JOF	**Joensuu**	**1.85**	**173**	*e*P	**Pn**	**11 30 18.2**	**+0.6**
JOF	**Joensuu**	**1.85**	**173**	PG	**Pn**	**11 30 16.8**	**-0.8**
	baz=349						
JOF				SN	**Sn**	**11 30 42.0**	**+0.3**
NIF	**Nilsia**	**1.91**	**226**	PG	**Pn**	**11 30 17.6**	**-0.7**
	baz=42						
NIF				MSG		11 30 38.8	
	comp=Z,9.4nm,0.2s						
RANF	**Ranua**	**2.12**	**309**	PG	**Pn**	**11 30 22.0**	**+0.7**
	baz=129						
RANF				SG	**Sb**	**11 30 50.0**	**-0.7**
KVDA	**Kovda**	**2.12**	**22**	P	**Pg**	**11 30 24.6**	**-0.7**
KVDA				S	**Sg**	**11 30 54.7**	**+1.9**
OUL	**Oulu**	**2.13**	**281**	PG	**Pn**	**11 30 21.7**	**+0.3**
OUL				SG	**Sn**	**11 30 48.6**	**0.0**
OBF4	**Vikkela, Lumij**	**2.46**	**274**	PG	**Pn**	**11 30 26.8**	**+0.9**
	baz=95						
OBF4				MSG		11 30 55.4	
	comp=Z,9.8nm,0.2s						
OUF	**Merijarvi**	**2.66**	**264**	PG	**Pn**	**11 30 29.6**	**+0.9**
OUF				MSG		11 31 01.1	
	comp=Z,8.7nm,0.2s						
OUF				SG	**Sn**	**11 31 04.3**	**+2.6**
RNF	**Rovaniemi**	**2.73**	**315**	PB	**Pn**	**11 30 31.5**	**+1.8**
SUF	**Sumiainen**	**2.92**	**228**	*e*P	**Pn**	**11 30 33.2**	**+1.0**
SUF	**Sumiainen**	**2.92**	**228**	PB	**Pn**	**11 30 33.5**	**+1.3**
SUF				MSG		11 31 07.8	
	comp=Z,2.7nm,0.2s						
APA0	**Apatity Array**	**3.00**	**16**	P	**Pb**	**11 30 38.1**	**-0.7**
APA0				S	**Sb**	**11 31 14.4**	**-1.5**
TOF	**Tornio**	**3.03**	**299**	PG	**Pb**	**11 30 37.5**	**-1.9**
TOF				MSG		11 31 13.0	
	comp=Z,2.7nm,0.2s						
TOF				SG	**Sb**	**11 31 17.8**	**+0.9**
VRF	**Varrio**	**3.05**	**351**	PN	**Pn**	**11 30 35.5**	**+1.4**
VRF				MSG		11 31 16.1	
	comp=Z,3.1nm,0.2s						
LVZ	**Lovozero**	**3.52**	**24**	S	**Sb**	**11 31 29.1**	**-1.8**
KEF	**Keuruu**	**3.73**	**229**	*e*P	**Pn**	**11 30 44.4**	**+1.0**
KEF	**Keuruu**	**3.73**	**229**	PB	**Pn**	**11 30 45.7**	**+2.4**
KLF	**Kolari**	**3.75**	**315**	PN	**Pn**	**11 30 42.6**	**-1.1**
RAJF	**Raja-Jooseppi**	**3.87**	**346**	PN	**Pn**	**11 30 46.9**	**+1.5**
PAJU	**Pajala**	**3.91**	**309**	P	**Pn**	**11 30 46.6**	**+0.8**
PAJU	**Pajala**	**3.91**	**309**	PN	**Pn**	**11 30 47.4**	**+1.5**
FIA0	**FINESS Array S**	**3.96**	**215**	PG	**Pb**	**11 30 55.3**	**+0.1**
	baz=30						
FIA0				SG	**Sb**	**11 31 45.3**	**+1.7**
FINES	**FINESS Array B**	**3.96**	**215**	Pn	**Pn**	**11 30 47.8**	**+1.3**
	comp=Z,0.1nm,0.3s,baz=34,slow=15,SNR=1.5						
FINES				Lg	Lg	11 31 49.0	
	comp=Z,1.0nm,0.3s,baz=37,slow=26,SNR=9.4						
	comp=Z,0.3nm,0.3s						
FINES				AML	AML		
SJUU	**Sjulsmark**	**3.97**	**285**	P	**Pn**	**11 30 46.7**	**0.0**
SJUU	**Sjulsmark**	**3.97**	**285**	*e*P	**Pn**	**11 30 47.3**	**+0.6**
VAF	**Ylistaro**	**3.99**	**248**	*e*P	**Pn**	**11 30 47.7**	**+0.7**
VAF	**Ylistaro**	**3.99**	**248**	PB	**Pn**	**11 30 51.4**	**+4.4**
ERTU	**Ertsjaerv**	**4.01**	**301**	P	**Pn**	**11 30 48.1**	**+0.9**
ERTU	**Ertsjaerv**	**4.01**	**301**	PN	**Pn**	**11 30 48.2**	**+1.0**
BURU	**Burvik**	**4.07**	**272**	P	**Pn**	**11 30 46.8**	**-1.2**
UMAU	**Umeaa**	**4.51**	**263**	PN	**Pn**	**11 30 52.0**	**-2.0**
UMAU				SN	**Sn**	**11 31 45.0**	**-2.1**
LANU	**Lannavaara**	**4.85**	**317**	*e*P	**Pn**	**11 31 00.8**	**+2.0**
ARCES	**ARCESS Array B**	**5.23**	**339**	Pn	**Pn**	**11 31 04.5**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=148,slow=12,SNR=10						
ARCES				Sn	**Sn**	**11 32 05.0**	**0.0**
	comp=Z,0.2nm,0.3s,baz=154,slow=21,SNR=5.4						
ARCES				Lg	Lg	11 32 25.2	
	comp=Z,0.2nm,0.3s,baz=147,slow=27,SNR=5.5						
	comp=Z,0.7nm,0.6s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.23**	**339**	P	**Pn**	**11 31 05.1**	**+1.0**
ARCES				S	**Sn**	**11 32 04.6**	**-0.4**
VADS	**Vadso**	**5.42**	**355**	S	**Sn**	**11 32 10.8**	**+1.2**
RAF	**Rauma**	**5.58**	**232**	*e*P	**Pn**	**11 31 10.0**	**+1.2**
I43RU	**DUBNA INFRASON**	**8.63**	**156**	I	I	12 22 30.0	
	baz=345,slow=324,SNR=6.5						

*IDC **12** 11:39:37.9±2.8,8°.31N×126°.19E,h46km±32km,mb3.1/4, mbtmp3.7/6,ML4.6/2, Error ellipse: s-maj=32.4km s-min=20.0km az=92.0*
*MAN **12** 11:39:39.0,8°.26N×125°.78E,h55km,MS3.6*
ISC 12 11:39:39.5±0.8,**8°.25N**±0°.03×**125°.85E**±0°.04,**h67**km±9km, **n20,** σ1§**88**/34,**mb3.2**/4,**Mindanao**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BIPH	**Bislig**	**0.51**	**97**	*i* P	**Pn**	**11 39 52.6**	**+0.4**
BIPH				*i* S	**Sn**	**11 40 02.3**	**+0.8**
TSSP	**Tandag City**	**0.86**	**23**	*e*P	**Pn**	**11 39 56.4**	**+0.1**
TSSP				*e*S	**Sn**	**11 40 10.6**	**+2.0**
CGP	**Cagayan de Oro**	**1.16**	**280**	*i* P	**Pn**	**11 39 59.0**	**-1.0**
CGP				*i* S	**Sn**	**11 40 13.0**	**-2.3**
DAV	**Davao City (W)**	**1.20**	**193**	P	**Pn**	**11 40 01.9**	**+1.5**
	841nm,0.3s,baz=34,slow=7.3,SNR=14						
DAV				LR	LR	11 40 14.2	
	comp=Z,118nm,18.7s,baz=337,slow=26						
DAV				S	**Sn**	**11 40 17.7**	**+1.6**
	472nm,0.4s,baz=325,slow=22,SNR=20						
DMPH	**Davao City--Mi**	**1.20**	**196**	*i* P	**Pn**	**11 40 01.9**	**+1.3**
DMPH				*i* S	**Sn**	**11 40 17.1**	**+0.9**
KCP	**Kidapawan**	**1.44**	**212**	*i* P	**Pn**	**11 40 03.9**	**+0.2**
KCP				*i* S	**Sn**	**11 40 21.8**	**0.0**
CTBH	**Cotabato--PC H**	**1.89**	**238**	*i* P	**Pn**	**11 40 11.5**	**+1.9**
CTBH				*i* S	**Sn**	**11 40 35.2**	**+2.7**
DDMP	**Don Marcelino,**	**2.13**	**184**	*e*P	**Pn**	**11 40 12.8**	**-0.2**
DDMP				*e*S	**Sn**	**11 40 34.6**	**-3.8**
GSPH	**General Santos**	**2.32**	**203**	*i* P	**Pn**	**11 40 17.1**	**+1.4**
GSPH				*i* S	**Sn**	**11 40 45.3**	**+2.0**
TBP	**Tagbilaran**	**2.43**	**306**	*e*P	**Pn**	**11 40 16.7**	**-0.3**
TBP				*i* S	**Sn**	**11 40 44.6**	**-1.2**
DCPH	**Dipolog City**	**2.50**	**278**	*i* P	**Pn**	**11 40 18.7**	**+0.8**
DCPH				*i* S	**Sn**	**11 40 50.1**	**+2.9**
LLP	**Lapu-Lapu**	**2.77**	**318**	*i* P	**Pn**	**11 40 22.1**	**+0.4**
LLP				*i* S	**Sn**	**11 40 56.4**	**+2.3**
SNPH	**Sibulan**	**2.81**	**293**	*i* P	**Pn**	**11 40 20.9**	**-1.2**
SNPH				*i* S	**Sn**	**11 40 53.2**	**-1.7**
PLP	**Palo**	**3.03**	**344**	*e*P	**Pn**	**11 40 25.5**	**+0.4**
PLP				*e*S	**Sn**	**11 41 04.2**	**+4.0**
SIJI	**Sorong**	**10.54**	**149**	P	**Pn**	**11 42 04.8**	**-3.1**
	1.9nm,0.3s,baz=332,slow=17,SNR=2.6						
	3.8nm,0.4s						
SIJI				AML	AML		
JOW	**Kunigami**	**18.63**	**7**	P	**P**	**11 43 49.8**	**-2.0**
	5.2nm,0.3s,baz=183,slow=14,SNR=4.4						
	14nm,0.4s						
JOW				AML	AML		
WRA	**Warramunga Arr**	**29.23**	**163**	P	**P**	**11 45 35.8**	**+0.6**
	0.3nm,0.9s,baz=344,slow=9.1,SNR=1.6						
	0.3nm,0.9s						
ASAR	**Alice Springs**	**32.68**	**166**	P	**P**	**11 46 05.9**	**+0.3**
	0.2nm,0.6s,baz=345,slow=7.3,SNR=7.2						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**53.39**	**324**	P	**P**	**11 48 54.4**	**+2.0**
	0.4nm,0.6s,baz=123,slow=8.8,SNR=5.5						
	0.4nm,0.6s						
ILAR	**Eielson Array**	**81.43**	**26**	P	**P**	**11 51 48.3**	**-0.8**
	0.2nm,0.5s,baz=252,slow=4.9,SNR=5.2						
	0.2nm,0.5s						

*NEIC **12** 11:39:40.1±1.8,54°.35N±0°.03×159°.80W±0°.09,h23km±8km, ML3.7/26,ML3.6(AEIC), Error ellipse: s-maj=7.8km s-min=3.5km az=105.0*
*IDC **12** 11:39:42.8±1.7,55°.01N×159°.61W,h0km,mb3.5/3, mbtmp3.6/7,ML3.6/4, Error ellipse: s-maj=38.7km s-min=16.9km az=160.0*
*AEIC **12** 11:39:42.1±1.8,54°.41N±0°.05×159°.79W±0°.08,h20km±5km, Error ellipse: s-maj=7.9km s-min=6.3km az=157.0*
ISC 12 11:39:40.2±1.5,**54°.38N**±0°.06×**159°.62W**±0°.04, **h27**km±12km,**n101,**σ1§**43**/102,**mb3.6**/3,**South of Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**0.44**	**2**		**Pb**	**11 39 50.1**	**+0.6**
CNBA	**Chernabura Isl**	**0.44**	**2**		**Sn**	**11 39 57.4**	**-0.5**
CHNA	**Chernabura Isl**	**0.45**	**2**	P	**Pb**	**11 39 50.0**	**+0.3**
CHNA	**Chernabura Isl**	**0.45**	**2**	S	**Sn**	**11 39 57.3**	**-0.9**
SDPT	**Sand Point**	**1.09**	**333**	P	**Pn**	**11 39 58.9**	**-0.8**
SDPT	**Sand Point**	**1.09**	**333**	S	**Sn**	**11 40 11.5**	**-2.4**
SDPT	**Sand Point**	**1.09**	**333**		**Pn**	**11 39 58.9**	**-0.8**
SDPT	**Sand Point**	**1.09**	**333**		**Sn**	**11 40 12.1**	**-1.8**
SDPT	**Sand Point**	**1.09**	**333**	IAML		11 40 15.3	
	comp=N,2μm,1.1s						
SDPT				IAML		11 40 21.2	
	comp=E,2μm,1.0s						
DOL	**Dolgoi Island**	**1.51**	**301**		**Pn**	**11 40 04.5**	**-1.1**
DOL					**Sn**	**11 40 22.0**	**-2.4**
PVV	**Pavlof Volcano**	**1.60**	**309**		**Pn**	**11 40 06.4**	**-0.3**
PS1A	**Pavlof South-1**	**1.61**	**311**		**Pn**	**11 40 06.8**	**-0.1**
PS1A					**Sn**	**11 40 24.6**	**-2.2**
PS4A	**Pavlof South-4**	**1.61**	**308**		**Pn**	**11 40 06.7**	**-0.3**
DT1	**Dutton Round H**	**1.71**	**296**		**Pn**	**11 40 07.1**	**-1.1**
DTNA	**Dutton South F**	**1.71**	**298**		**Pn**	**11 40 07.6**	**-0.7**
DTNA					**Sn**	**11 40 28.0**	**-1.2**
PN7A	**Pavlof North-7**	**1.73**	**308**		**Pn**	**11 40 08.5**	**-0.1**
PN7A					**Sb**	**11 40 30.6**	**-2.0**
VNHG	**Veniaminof 1**	**1.86**	**8**		**Pn**	**11 40 11.6**	**+1.2**
VNFG	**Fog Glacier, M**	**1.91**	**1**		**Pb**	**11 40 15.2**	**+0.8**
S12K	**Black Hills**	**1.93**	**314**		**Pn**	**11 40 11.4**	**0.0**
S12K	**Black Hills**	**1.93**	**314**		**Sn**	**11 40 33.5**	**-1.3**
CHGN	**Chignik**	**2.04**	**19**		**Pn**	**11 40 13.3**	**+0.5**
CHGN				IAML		11 40 49.0	
	comp=N,459nm,0.6s						
CHGN				IAML		11 40 51.0	
	comp=E,697nm,0.8s						
ISLZ	**Isanotski Laza**	**2.41**	**280**		**Pn**	**11 40 17.9**	**-0.1**
ISLZ					**Sn**	**11 40 45.2**	**-1.3**
SSLS	**Shishaldin Sou**	**2.57**	**279**		**Pn**	**11 40 20.6**	**+0.5**
CHIR	**Chirikof Islan**	**2.71**	**56**	P	**Pn**	**11 40 23.7**	**+1.7**
CHIR	**Chirikof Islan**	**2.71**	**56**	Pn	**Pb**	**11 40 27.3**	**-0.7**
CHIR				IAML		11 41 18.3	
	comp=E,250nm,1.3s						
CHIR				IAML		11 41 18.7	
	comp=N,177nm,0.9s						
WTUG	**Tugumak**	**2.81**	**281**		**Pn**	**11 40 23.7**	**+0.3**
WESN	**West Dahl Nort**	**2.90**	**276**		**Pn**	**11 40 24.3**	**-0.4**
WESN					**Sn**	**11 40 58.4**	**-0.3**
WESP	**Westdahl Peak**	**2.98**	**274**		**Pn**	**11 40 26.0**	**+0.2**
WECS	**Westdahl Cape**	**3.02**	**275**	Pn	**Pn**	**11 40 23.9**	**-2.3**
WECS				IAML		11 40 54.8	
	comp=E,278nm,1.4s						
AKUT	**Akutan**	**3.62**	**269**	Pn	**Pn**	**11 40 34.7**	**+0.3**
AKUT				IAML		11 41 35.4	
	comp=E,95nm,1.4s						
AKUT				IAML		11 41 55.3	
	comp=N,89nm,1.4s						
AHB	**Akutan Harbor**	**3.65**	**268**		**Pn**	**11 40 34.9**	**0.0**
AHB					**Sn**	**11 41 13.6**	**-3.4**
R17L	**Mt. Peulik Vol**	**3.73**	**28**		**Pn**	**11 40 37.6**	**+1.5**
ZRO	**Akutan Zero**	**3.74**	**268**		**Pn**	**11 40 36.4**	**+0.1**
SII	**Sitkinak Islan**	**3.78**	**53**	Pn	**Pn**	**11 40 37.8**	**+1.1**
SII				IAML		11 41 12.6	
	comp=E,155nm,1.2s						
UNV	**Unalaska Valle**	**4.09**	**265**	P	**Pn**	**11 40 40.0**	**-0.9**
UNV	**Unalaska Valle**	**4.09**	**265**	S	**Sn**	**11 41 25.4**	**-2.4**
UNV	**Unalaska Valle**	**4.09**	**265**	Pn	**Pn**	**11 40 40.0**	**-0.9**
MNAT	**Makushin Natee**	**4.19**	**266**		**Pn**	**11 40 42.0**	**-0.3**
MNAT					**Sn**	**11 41 27.4**	**-2.9**
MGOD	**Makushin Gods**	**4.31**	**265**		**Pn**	**11 40 44.2**	**+0.2**
MGOD					**Sn**	**11 41 30.8**	**-2.7**
ANCK	**Angle Creek**	**4.46**	**29**		**Pn**	**11 40 47.1**	**+1.0**
ACHA	**Angle Creek He**	**4.52**	**30**	Pn	**Pn**	**11 40 47.7**	**+0.8**
OHAK	**Old Harbor**	**4.57**	**49**	Pn	**Pn**	**11 40 47.4**	**-0.1**
KAWH	**Katmai**	**4.82**	**32**		**Pn**	**11 40 51.2**	**+0.2**
KARR	**Katmai Rainbow**	**4.94**	**31**		**Pn**	**11 40 53.3**	**+0.6**
O14K	**Tigyukauivet M**	**4.97**	**350**	Pn	**Pn**	**11 40 54.7**	**+1.7**
O14K				IAML		11 42 22.1	
	comp=N,51nm,0.8s						
O14K				IAML		11 42 30.8	
	comp=E,67nm,1.4s						
KAHG	**Katmai Hook Gl**	**4.99**	**32**		**Pn**	**11 40 53.9**	**+0.6**
KDAK	**Kodiak Island**	**5.21**	**46**	Pn	**Pn**	**11 40 55.6**	**-0.7**
	comp=E,1.9nm,0.3s,baz=255,slow=20,SNR=30						
KDAK				Sn	**Sn**	**11 41 50.7**	**-4.7**
	comp=E,2.1nm,0.3s,baz=30,slow=19,SNR=7.4						
	comp=E,4.3nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.21**	**46**	Pn	**Pn**	**11 40 56.5**	**+0.2**
KDAK				IAML		11 42 00.1	
	comp=E,23nm,1.4s						
KDAK				IAML		11 43 36.7	
	comp=E,27nm,1.5s						
O17K	**Koliganek Bris**	**5.58**	**13**		**Pn**	**11 41 01.8**	**+0.4**
Q19K	**Cape Douglas,**	**5.62**	**33**	Pn	**Pn**	**11 41 03.4**	**+1.4**
AUI	**Augustine Isla**	**6.01**	**32**		**Pn**	**11 41 07.7**	**+0.4**
M15K	**Kasigluk River**	**6.36**	**355**		**Pn**	**11 41 12.5**	**+0.5**
ILSW	**Iliamna Southw**	**6.62**	**29**	Pn	**Pn**	**11 41 16.6**	**+0.7**
M16K	**Timber Creek**	**6.67**	**3**		**Pn**	**11 41 17.0**	**+0.7**
ILW	**Iliamna West**	**6.69**	**29**		**Pn**	**11 41 17.3**	**+0.5**
ILIM	**Iliamna**	**6.76**	**30

TXAR	**Lajitas Array**	**47.05**	**99**	P		P	11 48 16.2	+6.7
	comp=E,0.3nm,0.9s,baz=312,slow=5.3,SNR=2.2							
	comp=E,0.3nm,0.9s							
SONM	**Songino Array**	**55.12**	**305**	P		P	11 49 15.3	+5.5
	comp=E,0.4nm,0.7s,baz=64,slow=6.6,SNR=2.7							
	comp=E,0.4nm,0.7s							

IDC ***12*** *11:58:13.2±1.6, 15°.93N×95°.09W, h0km, mb3.6/5, mbtmp3.7/8, ML3.6/3, MS3.1/6, Error ellipse: s-maj=25.8km s-min=12.8km az=45.0*

MEX ***12*** *11:58:16.9±0.5, 15°.83N×95°.06W, h41km±26km, MD4.2, Presumed earthquake*

NEIC ***12*** *11:58:16.5±2.3, 15°.88N±0°.06×95°.03W±0°.04, h26km±11km, mb4.4/31, Md4.2/74(MEX), Error ellipse: s-maj=9.1km s-min=5.1km az=192.0*

ISC 12 11:58:13.1±1.9, 15°.81N±0°.04×95°.02W±0°.02, h9km±13km, n121, σ2s05/163, mb4.0/7, MS3.2/5, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**1.05**	**268**		**Pb**	**11 58 32.6**	**-0.8**
HUIG	**Huatulco**	**1.05**	**268**	*e*P	**Pb**	**11 58 32.6**	**-0.8**
HUIG				*e*S	**Sg**	**11 58 45.7**	**-1.4**
CMIG	**Matias Romero**	**1.28**	**6**	Pg	**Pn**	**11 58 36.2**	**-0.9**
	155nm,0.3s,baz=186,slow=14,SNR=3585						
CMIG				Lg	Lg	11 58 51.3	
	261nm,0.3s,baz=33,slow=23,SNR=5.8						
CMIG	**Matias Romero**	**1.28**	**6**		**Pn**	**11 58 36.4**	**-0.7**
CMIG					**Sb**	**11 58 51.7**	**-2.1**
CMIG	**Matias Romero**	**1.28**	**6**	*e*P	**Pn**	**11 58 36.4**	**-0.7**
CMIG				*e*S	**Sb**	**11 58 51.7**	**-2.1**
UXUV	**UXUV**	**1.71**	**29**		**Pn**	**11 58 43.3**	**+0.2**
UXUV					**Sn**	**11 59 02.4**	**-2.7**
UXUV	**UXUV**	**1.71**	**29**	*e*P	**Pn**	**11 58 43.3**	**+0.2**
UXUV				*e*S	**Sn**	**11 59 02.4**	**-2.7**
PCIG		**1.73**	**93**		**Pn**	**11 58 43.6**	**+0.2**
PCIG					**Sn**	**11 59 04.5**	**-1.2**
PCIG		**1.73**	**93**	*e*P	**Pn**	**11 58 43.6**	**+0.2**
PCIG				*e*S	**Sn**	**11 59 04.5**	**-1.2**
NEUV	**Arroyo Zacate**	**2.03**	**338**		**Pn**	**11 58 47.2**	**-0.3**
NEUV					**Sn**	**11 59 09.6**	**-3.4**
NEUV	**Arroyo Zacate**	**2.03**	**338**	*e*P	**Pn**	**11 58 47.2**	**-0.3**
NEUV				*e*S	**Sn**	**11 59 09.6**	**-3.4**
OXLC	**Oaxaca**	**2.04**	**308**		**Pn**	**11 58 47.4**	**-0.5**
OXLC					**Sn**	**11 59 13.1**	**-0.4**
OXLC	**Oaxaca**	**2.04**	**308**	*e*P	**Pn**	**11 58 47.4**	**-0.5**
OXLC				*e*S	**Sn**	**11 59 13.1**	**-0.4**
TGIG		**2.06**	**62**		**Pn**	**11 58 48.1**	**+0.2**
TGIG					**Sn**	**11 59 12.1**	**-1.6**
TGIG		**2.06**	**62**	*e*P	**Pn**	**11 58 48.1**	**+0.2**
TGIG				*e*S	**Sn**	**11 59 12.1**	**-1.6**
OXBJ	**Oaxaca**	**2.06**	**307**		**Pn**	**11 58 48.7**	**+0.6**
OXBJ					**Sn**	**11 59 11.5**	**-2.4**
OXBJ	**Oaxaca**	**2.06**	**307**	*e*P	**Pn**	**11 58 48.7**	**+0.6**
OXBJ				*e*S	**Sn**	**11 59 11.5**	**-2.4**
PEIG	**Puerto Escondi**	**2.06**	**275**		**Pn**	**11 58 46.6**	**-1.3**
PEIG	**Puerto Escondi**	**2.06**	**275**	*e*P	**Pn**	**11 58 46.6**	**-1.3**
PEIG				*e*S	**Sn**	**11 59 08.8**	**-4.9**
OXIG	**Oaxaca**	**2.07**	**307**		**Pn**	**11 58 48.3**	**+0.1**
OXIG					**Sn**	**11 59 10.7**	**-3.5**
VHO	**Vista Hermosa**	**2.07**	**307**	*e*P	**Pn**	**11 58 48.3**	**+0.1**
VHO				*e*S	**Sn**	**11 59 10.7**	**-3.5**
TUIG	**Tuzandepetl**	**2.28**	**14**		**Pn**	**11 58 51.6**	**+0.7**
TUIG					**Sn**	**11 59 17.0**	**-2.1**
TUIG	**Tuzandepetl**	**2.28**	**14**	*e*P	**Pn**	**11 58 51.6**	**+0.7**
TUIG				*e*S	**Sn**	**11 59 17.0**	**-2.1**
YOIG	**Yosondua**	**2.64**	**293**		**Pn**	**11 58 57.5**	**+1.4**
YOIG					**Sn**	**11 59 27.7**	**-0.8**
YOIG	**Yosondua**	**2.64**	**293**	*e*P	**Pn**	**11 58 57.5**	**+1.4**
YOIG				*e*S	**Sn**	**11 59 27.7**	**-0.8**
PATR	**El Naranjo**	**2.77**	**104**		**Pn**	**11 58 58.2**	**+0.3**
PATR					**Sn**	**11 59 30.0**	**-1.6**
PATR	**El Naranjo**	**2.77**	**104**	*e*P	**Pn**	**11 58 58.2**	**+0.3**
PATR				*e*S	**Sn**	**11 59 30.0**	**-1.6**
PAVE	**Pavencul**	**2.81**	**102**		**Pn**	**11 58 59.5**	**+1.2**
PAVE					**Sn**	**11 59 31.6**	**-0.9**
PAVE	**Pavencul**	**2.81**	**102**	*e*P	**Pn**	**11 58 59.5**	**+1.2**
PAVE				*e*S	**Sn**	**11 59 31.6**	**-0.9**
CCIG	**Comitan**	**2.81**	**80**		**Pn**	**11 58 59.4**	**+1.1**
CCIG	**Comitan**	**2.81**	**80**		**Sn**	**11 59 31.2**	**-1.2**
CCIG	**Comitan**	**2.81**	**80**	*e*P	**Pn**	**11 58 59.5**	**+1.2**
CCIG				*e*S	**Sn**	**11 59 31.2**	**-1.2**
CHUJ	**Union Juarez**	**2.89**	**104**	*e*P	**Pn**	**11 59 00.3**	**+0.7**
CHUJ				*e*S	**Sn**	**11 59 33.2**	**-1.4**
TOIG	**Toxpalan**	**3.00**	**319**		**Pn**	**11 59 04.0**	**+3.1**
TOIG					**Sn**	**11 59 38.4**	**+1.4**
TOIG	**Toxpalan**	**3.00**	**319**	*e*P	**Pn**	**11 59 04.0**	**+3.1**
TOIG				*e*S	**Sn**	**11 59 38.4**	**+1.4**
TXIG	**Tlaxiaco**	**3.00**	**299**		**Pn**	**11 59 02.5**	**+1.4**
TXIG	**Tlaxiaco**	**3.00**	**299**	*e*P	**Pn**	**11 59 02.5**	**+1.4**
TXIG				*e*S	**Sn**	**11 59 32.9**	**-4.5**
PNIG	**Pinotepa**	**3.04**	**281**		**Pn**	**11 59 00.7**	**-0.8**
PNIG	**Pinotepa**	**3.04**	**281**	*e*P	**Pn**	**11 59 00.7**	**-0.8**
PNIG				*e*S	**Sn**	**11 59 32.6**	**-5.5**
HLIG	**Huajuapan de L**	**3.34**	**307**		**Pn**	**11 59 07.4**	**+1.7**
HLIG					**Sn**	**11 59 36.3**	**+0.7**
HLIG	**Huajuapan de L**	**3.34**	**307**	*e*P	**Pn**	**11 59 07.4**	**+1.7**
HLIG				*e*S	**Sn**	**11 59 46.3**	**+0.7**
HUEH	**Huehuetenango**	**3.42**	**98**		**Pn**	**11 59 06.7**	**-0.1**
HUEH	**Huehuetenango**	**3.42**	**98**		**Sn**	**11 59 46.3**	**-1.3**
HUEH	**Huehuetenango**	**3.42**	**98**	*e*P	**Pn**	**11 59 08.3**	**+1.4**
HUEH				*e*S	**Sn**	**11 59 46.3**	**-1.3**
RTAL	**Retalhuleu**	**3.45**	**111**		**Pn**	**11 59 07.6**	**+0.5**
RTAL	**Retalhuleu**	**3.45**	**111**	*e*P	**Pn**	**11 59 07.0**	**0.0**
RTAL				*e*S	**Sn**	**11 59 48.2**	**+0.1**
TLIG	**Tlapa**	**3.82**	**298**	Pn	**Pn**	**11 59 13.5**	**+1.3**
APG	**El Apazote**	**4.46**	**100**	Pn	**Pn**	**11 59 23.9**	**+2.7**
	0.7nm,0.3s,baz=227,slow=20,SNR=23						
APG				Sn	**Sn**	**12 00 17.8**	**+4.4**
	1.3nm,0.3s,baz=74,slow=19,SNR=7.4						
	2.3nm,0.2s						
APG				AML	AML		
PPAX	**Atlixo**	**4.49**	**314**		**Pn**	**11 59 25.1**	**+3.6**
PPAX					**Sn**	**12 00 15.3**	**+1.4**
PPAX	**Atlixo**	**4.49**	**314**	*e*P	**Pn**	**11 59 25.1**	**+3.6**
PPAX				*e*S	**Sn**	**12 00 15.3**	**+1.4**
PPCL	**Tochimilco**	**4.62**	**312**		**Sn**	**12 00 17.9**	**+0.7**
PPCL	**Tochimilco**	**4.62**	**312**	*e*P	Pn	11 59 28.8	+5.5
PPCL				*e*S	**Sn**	**12 00 17.9**	**+0.7**
PPPT	**Popocatepetl**	**4.66**	**313**		**Pn**	**11 59 27.4**	**+3.2**
PPPT					**Sn**	**12 00 20.0**	**+1.3**
PPPT	**Popocatepetl**	**4.66**	**313**	*e*P	**Pn**	**11 59 27.4**	**+3.2**
PPPT				*e*S	**Sn**	**12 00 20.0**	**+1.3**
PPCU	**Popocatapetl**	**4.68**	**313**		**Pn**	**11 59 27.2**	**+2.8**
PPCU	**Popocatapetl**	**4.68**	**313**	*e*P	**Pn**	**11 59 27.2**	**+2.8**
PPCU				*e*S	**Sn**	**12 00 21.6**	**+2.4**
PBPN	**Popocatepetl**	**4.71**	**313**	*e*P	**Pn**	**11 59 28.0**	**+3.2**
PBPN				*e*S	**Sn**	**12 00 21.5**	**+1.6**
PPM	**Popocatepetl**	**4.73**	**314**	*e*P	**Pn**	**11 59 28.6**	**+3.5**
PPM				*e*S	**Sb**	**12 00 33.2**	**-0.5**
PPIG	**Popocatepetl**	**4.73**	**314**		**Pn**	**11 59 28.6**	**+3.5**
PPIG					**Sb**	**12 00 33.2**	**-0.6**
SCIG	**Sabancuy**	**4.82**	**49**		**Pn**	**11 59 25.0**	**-0.8**
SCIG	**Sabancuy**	**4.82**	**49**	*e*P	**Pn**	**11 59 25.0**	**-0.8**
SCIG				*e*S	**Sn**	**12 00 14.7**	**-7.0**
PETF	**Flores**	**5.06**	**77**		**Pn**	**11 59 30.5**	**+1.3**
PETF	**Flores**	**5.06**	**77**	*e*P	**Pn**	**11 59 30.1**	**+0.9**
PETF				*e*S	**Sn**	**12 00 24.3**	**-3.5**
MPVM	**San Francisco**	**5.09**	**312**	*e*P	**Pn**	**11 59 34.5**	**+4.7**
THVM	**De Xico**	**5.13**	**313**		**Pn**	**11 59 33.4**	**+3.0**
THVM	**De Xico**	**5.13**	**313**	*e*P	**Pn**	**11 59 33.4**	**+3.0**
TLVM	**San Miguel Top**	**5.20**	**311**		**Pn**	**11 59 32.7**	**+1.4**
TLVM	**San Miguel Top**	**5.20**	**311**	*e*P	**Pn**	**11 59 32.7**	**+1.4**
MAVM	**Malinalco, Edo**	**5.30**	**307**		**Sn**	**12 00 30.8**	**-3.1**
MAVM	**Malinalco, Edo**	**5.30**	**307**	*e*S	**Sn**	**12 00 30.8**	**-3.1**
PBVM	**Pinon**	**5.30**	**314**	*e*S	**Sn**	**12 00 38.9**	**+5.4**
VTVM	**Tizayuca**	**5.32**	**318**	*e*P	Pn	11 59 38.4	+5.4
VTVM				*e*S	**Sn**	**12 00 41.1**	**+6.5**
AOVM	**Tlapan**	**5.35**	**311**		**Pn**	**11 59 36.8**	**+3.2**
AOVM	**Tlapan**	**5.35**	**311**	*e*P	**Pn**	**11 59 36.8**	**+3.2**
INVM	**La Marquesa**	**5.41**	**310**		**Sn**	**12 00 35.8**	**-1.2**
INVM	**La Marquesa**	**5.41**	**310**	*e*S	**Sn**	**12 00 35.8**	**-1.2**
PTVM	**Pico Tres Padr**	**5.42**	**315**		**Sn**	**12 00 38.6**	**+1.6**
PTVM	**Pico Tres Padr**	**5.42**	**315**	*e*S	**Sn**	**12 00 38.6**	**+1.6**
AZVM	**Cuida Lopez Ma**	**5.53**	**313**		**Sn**	**12 00 40.2**	**+0.4**
AZVM	**Cuida Lopez Ma**	**5.53**	**313**	*e*S	**Sn**	**12 00 40.2**	**+0.4**
ESQI	**Esquipulas**	**5.62**	**102**	Pn	**Pn**	**11 59 37.9**	**+1.0**
TOVM	**TOLUCA**	**5.63**	**308**		**Sn**	**12 00 39.6**	**-2.7**
TOVM	**TOLUCA**	**5.63**	**308**	*e*S	**Sn**	**12 00 39.6**	**-2.7**
TEIG	**Tepich**	**7.77**	**55**		**Pn**	**12 00 05.8**	**-0.6**
ZAIG	**Zacatecas**	**9.93**	**315**	Pn	**Pn**	**12 00 36.6**	**+0.3**
JTS	**Las Juntas de**	**11.23**	**118**	Pn	Pn	12 00 59.7	+5.7
	1.5nm,0.3s,baz=303,slow=12,SNR=4.8						
	3.7nm,0.4s						
JTS				AML	AML		
JTS	**Las Juntas de**	**11.23**	**118**	Pn	**Pn**	**12 00 56.7**	**+2.7**
833A	**Chaparral WMA,**	**13.09**	**343**		**Pn**	**12 01 20.9**	**+1.6**
MLDN	**Muldoon**	**14.03**	**353**	Pn	**Pn**	**12 01 32.6**	**+0.5**
HNDO	**Hondo**	**14.20**	**345**	Pn	**Pn**	**12 01 35.9**	**+1.4**
LCCY	**Blossom Villag**	**14.73**	**73**	Pn	**Pn**	**12 01 41.7**	**0.0**
435B	**Jarrell**	**15.09**	**351**	Pn	**Pn**	**12 01 47.5**	**+1.0**
JCT	**Junction City**	**15.24**	**344**	Pn	**Pn**	**12 01 49.2**	**+0.6**
JCT				IAmb	IAmb	12 01 58.5	
	comp=Z,12nm,0.6s						
TXAR	**Lajitas Array**	**15.64**	**331**	Pn	**Pn**	**12 01 54.7**	**+0.8**
	baz=148,slow=12,SNR=5.2						
	comp=Z,0.5nm,0.9s						
BRDY	**Brady**	**15.83**	**347**	Pn	**Pn**	**12 01 56.9**	**+0.7**
OZNA	**Ozona**	**16.05**	**341**	Pn	**Pn**	**12 02 00.4**	**+1.3**
OZNA				IAmb	IAmb	12 02 08.2	
	comp=Z,15nm,0.8s						
WHTX	**Lake Whitney,**	**16.26**	**353**	Pn	**Pn**	**12 02 02.3**	**+0.6**
WHTX				IAmb	IAmb	12 02 11.3	
	comp=Z,18nm,0.6s						
LPIG	**La Paz**	**16.56**	**302**	LR	LR	12 08 09.8	
	comp=Z,73nm,21.1s,baz=96,slow=36						
MNHN	**Monahans**	**17.00**	**337**	Pn	**Pn**	**12 02 11.3**	**+0.2**
PLPT	**Palo Pinto**	**17.19**	**351**		**Pn**	**12 02 13.9**	**+0.4**
ABTX	**Abilene, Hawle**	**17.25**	**347**	Pn	**Pn**	**12 02 14.2**	**-0.2**
WTFS	**Witchita Falls**	**18.14**	**351**	P	**P**	**12 02 26.8**	**+1.1**
WTFS				IAmb	IAmb	12 02 37.2	
	comp=Z,16nm,0.9s						
LOOK	**Love County**	**18.21**	**354**	P	**P**	**12 02 27.5**	**+1.2**
LOOK				IAmb	IAmb	12 02 47.3	
	comp=Z,22nm,0.8s						
X34A	**Smith Ranch, M**	**18.88**	**353**		**Pn**	**12 02 35.3**	**+1.0**
X34A				IAmb	IAmb	12 02 47.5	
	comp=Z,23nm,0.8s						
WMOK	**Wichita Mounta**	**19.15**	**351**	P	**Pn**	**12 02 38.5**	**+1.0**
W35A	**Tecumseh**	**19.33**	**355**		**P**	**12 02 38.7**	**0.0**
FCAR	**Ozark Folk Cen**	**20.16**	**7**	P	**P**	**12 02 47.9**	**+0.2**
FCAR				IAmb	IAmb	12 03 02.1	
	comp=Z,12nm,1.2s						
OK052	**Battle Ridge R**	**20.16**	**356**	P	**P**	**12 02 47.6**	**-0.1**
121A	**Cookes Peak, D**	**20.28**	**327**	P	**P**	**12 02 49.6**	**+0.3**
QUOK	**Quay**	**20.33**	**356**	P	**P**	**12 02 49.4**	**-0.2**
OK048	**Pawnee Station**	**20.59**	**356**		**P**	**12 02 52.4**	**0.0**
OK048				IAmb	IAmb	12 03 00.7	
	comp=Z,17nm,0.7s						
T35A	**Sooner Cattle**	**21.06**	**357**		**P**	**12 02 57.5**	**0.0**
T35A				IAmb	IAmb	12 03 05.7	
	comp=Z,20nm,0.9s						
ANMO	**Albuquerque**	**21.64**	**334**	P	**P**	**12 03 05.4**	**+1.4**
	comp=E,0.8nm,0.7s,baz=147,slow=11,SNR=5.8						
	comp=E,0.8nm,0.7s						
TKL	**Tuckaleechee C**	**22.17**	**25**	P	**P**	**12 03 11.7**	**+2.2**
	comp=Z,6.8nm,0.9s,baz=188,slow=9.6,SNR=4.9						
TKL				LR	LR	12 14 25.3	
	comp=Z,25nm,18.8s,baz=172,slow=44						
	comp=Z,6.8nm,0.9s						
PV05	**Paradox Valley**	**25.42**	**333**	P	**P**	**12 03 42.9**	**+1.5**
PV05				IAmb	IAmb	12 03 50.8	
	comp=Z,5.4nm,0.8s						
PDAR	**Pinedale Array**	**29.61**	**338**	P	**P**	**12 04 18.6**	**-0.3**
	comp=Z,0.1nm,0.6s,baz=157,slow=11,SNR=1.6						
	comp=Z,0.1nm,0.6s						
NVAR	**Mina Array Bea**	**30.45**	**322**	P	**P**	**12 04 26.9**	**+0.6**
	comp=Z,0.6nm,0.7s,baz=146,slow=10.0,SNR=4.7						
NVAR				LR	LR	12 16 22.5	
	comp=Z,60nm,21.6s,baz=328,slow=36						
	comp=Z,0.6nm,0.7s						
ULM	**Lac du Bonnet**	**34.35**	**359**	P	**P**	**12 04 58.8**	**-1.3**
	comp=Z,1.0nm,0.5s,baz=160,slow=15,SNR=1.4						
	comp=Z,1.0nm,0.5s						
SFJD	**Kangerlussuaq**	**58.71**	**19**	LR	LR	12 34 34.8	
	comp=Z,13nm,20.6s,baz=110,slow=37						
BORG	**Borgarnes**	**68.86**	**26**	LR	LR	12 40 00.9	
	comp=Z,19nm,18.3s,baz=350,slow=36						
NOA	**NORSAR Array B**	**83.94**	**28**	LR	LR	12 48 04.5	
	comp=Z,13nm,18.4s,baz=285,slow=36						

BER 12 12:10:24.3±1.5, 59°.60N×9°.00E, h0km, ML1.1, Suspected explosion, Southern Norway

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KONO	**Kongsberg**	**0.31**	**81**	*e*P	Pg	12 10 29.2	-1.0
KONO				*e*S	Sg	12 10 33.3	-0.9
KONO				IAML		12 10 35.4	
	comp=Z,21nm,0.7s						
SKAR	**Skarslia**	**1.14**	**342**	*e*P	Pg	12 10 44.3	-1.8
SKAR				*e*S	Sg	12 10 59.0	-1.8
SKAR				IAML		12 11 03.1	
	comp=Z,4.1nm,0.4s						
STRU	**Stroemstad**	**1.26**	**116**	*e*P	Pg	12 10 46.3	-2.1
STRU				*e*S	Sg	12 11 03.4	-1.1
HOMB	**Homborsund**	**1.36**	**191**	*e*P	Pg	12 10 49.4	-0.9
HOMB				*e*S	Sg	12 11 06.1	-1.8
HOMB				IAML		12 11 15.8	
	comp=Z,7.0nm,1.0s						
NC602	**NORSAR Array S**	**1.71**	**47**	*e*P	Pn	12 10 53.3	-1.9
NB201	**NORSAR Array S**	**1.85**	**37**	*e*P	Pn	12 10 55.6	-1.6
NB201				*e*S	Sn	12 11 19.6	-1.7
NB201				IAML		12 11 22.2	
	comp=Z,2.2nm,0.6s						

PRU 12 12:11:00.1, 51°.33N×16°.22E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.49**	**175**	*e*Pg	Pg	12 11 09.2	-0.3
KSP				*e*Sg	Sg	12 11 16.7	+0.9
CHVC	**Chvalec**	**0.75**	**188**	*e*PG	Pg	12 11 13.6	-0.8
CHVC				*e*SG	Sg	12 11 23.8	-0.4
	comp=Z,5.9nm,0.4s						
CHVC				AML	AML		
OSTC	**Ostas**	**0.78**	**180**	*e*PG	Pg	12 11 14.2	-0.7
OSTC				*e*SG	Sg	12 11 24.6	-0.3
	comp=Z,5.0nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**0.83**	**189**	*e*PG	Pg	12 11 15.7	-0.4
UPC				*e*SG	Sg	12 11 27.3	+0.5
	comp=Z,22nm,0.4s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**0.98**	**176**	*e*PG	Pg	12 11 18.4	-0.5
DPC				*e*SG	Sg	12 11 31.8	+0.2
	comp=Z,6.3nm,0.6s						
DPC				AML	AML		
KRLC	**Kraliky**	**1.31**	**164**	*e*PG	Pg	12 11 23.2	-1.9
KRLC				*e*SG	Sg	12 11 41.8	-0.2
	comp=Z,7.4nm,0.3s						
KRLC				AML	AML		
PVCC	**Panska Ves**	**1.32**	**233**	*e*PG	Pg	12 11 24.1	-1.2
PVCC				*e*SG	Sg	12 11 42.6	+0.2
	comp=Z,30nm,0.3s						
PVCC				AML	AML		
RICC	**Richard**	**1.56**	**240**	*e*SG	Sn	12 11 48.8	-1.1
	comp=Z,11nm,0.4s						
RICC				AML	AML		
STEB	**Steborice**	**1.71**	**144**	*e*PG	Pn	12 11 31.3	+0.1
STEB				*e*SG	Sn	12 11 53.6	-0.1
	comp=Z,7.3nm,0.3s						
STEB				AML	AML		
PRU	**Pruhonice**	**1.72**	**219**	*e*PG	Pn	12 11 31.0	-0.2
PRU				*e*SG	Sb	12 11 54.6	0.0
	comp=Z,6.2nm,0.3s						
PRU				AML	AML		
MORC	**Moravsky Berou**	**1.77**	**151**	*e*PN	Pn	12 11 30.4	-1.6
MORC				*e*SG	Sn	12 11 53.8	-1.4
HSKC	**Hora Svate Kat**	**1.91**	**249**	*e*PG	Pn	12 11 33.7	-0.2
HSKC				*e*SG	Sb	12 12 00.1	0.0
	comp=Z,4.0nm,0.3s						
HSKC				AML	AML		
VRAC	**Vranov**	**2.04**	**173**	*e*SG	Sb	12 12 03.5	-0.4
KRUC	**Moravsky**	**2.27**	**177**	*e*SG	Sg	12 12 11.9	-1.2
ZVC	**Zvikov**	**2.29**	**215**	*e*PG	Pb	12 12 42.0	-0.4
ZVC				*e*SG	Sb	12 12 12.4	+1.1
	comp=Z,2.7nm,0.3s						
ZVC				AML	AML		
NKC	**Novy Kostel**	**2.63**	**247**	*e*SG	Sg	12 12 24.4	-0.3
	comp=Z,6.7nm,0.3s						
NKC				AML	AML		
KHC	**Kasperske Hory**	**2.78**	**219**	*e*SG	Sg	12 12 27.7	-1.6
	comp=Z,2.7nm,0.5s						
KHC				AML	AML		
CKRC	**Cesky Krumlov**	**2.80**	**207**	*e*SG	Sg	12 12 29.4	-0.5
	comp=Z,3.6nm,0.3s						
CKRC				AML	AML		

KRSC 12 12:18:07.2±1.7, 49°.18N×156°.91E, h48km±33km, MI3.9, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**1.59**	**341**	*e*P	Pn	12 18 34.4	+1.5
SKR				*e*S	Sn	12 18 53.2	+0.9
PAU	**Pauzhetka**	**2.29**	**358**	*e*P	Pn	12 18 45.1	+2.6
PAU				*e*S	Sn	12 19 11.5	+2.0
KDTR	**Khodutka, Kamc**	**2.74**	**15**	*e*P	Pn	12 18 53.1	+4.6
KDTR				*e*S	Sn	12 19 25.3	+4.9
MTVR	**Mutnovka**	**3.41**	**13**	*e*S	Sn	12 19 41.4	+4.3
RUS	**Russkaya**	**3.42**	**17**	*e*S	Sn	12 19 40.6	+3.5
KRMR	**Karymshinskiy**	**3.74**	**11**	*e*S	Sn	12 19 51.0	+6.0
DALK	**Dalny**	**4.03**	**16**	*e*S	Sn	12 19 56.4	+4.2
SMAR	**Somma**	**4.26**	**15**	*e*P	Pn	12 19 12.9	+3.2
KRX	**Arik**	**4.33**	**14**	*e*P	Pn	12 19 14.9	+4.3
MKZ	**Mys Kozlova**	**6.16**	**27**	*e*P	Pn	12 19 39.3	+3.9

MAN ***12*** *12:41:49.0, 13°.62N×120°.48E, h20km, MS4.2*
MAN INTENSITY I - LAUREL BATANGAS.

NEIC ***12*** *12:41:59.3±1.3, 13°.54N±0°.08×120°.7E±0°.2, h88km±11km, mb4.3/12, Error ellipse: s-maj=24.9km s-min=12.0km az=88.0*

IDC ***12*** *12:42:05.0±6.3, 13°.47N×120°.58E, h153km±65km, mb3.4/9, mbtmp3.9/10, MS3.5/17, Error ellipse: s-maj=29.6km s-min=12.7km az=66.0*

ISC 12 12:41:50.6±0.6, 13°.64N±0°.04×120°.46E±0°.05, h10km, n51, σ2s01/35, mb4.0/14, MS3.4/15, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	**Tagaytay City**	**0.65**	**45**	*e*P	**Pg**	**12 42 03.1**	**-0.1**
TGY				*e*S	**Sb**	**12 42 14.5**	**+1.3**
LQP	**Lukban**	**1.15**	**66**	*e*P	Pb	12 42 09.9	-2.8
LQP				*e*S	**Sg**	**12 42 25.6**	**-2.0**
GQP	**Guinayangan**	**1.94**	**82**	*e*P	**Pn**	**12 42 22.2**	**-1.5**
GQP				*e*S	**Sn**	**12 42 48.3**	**+0.1**
JAP	**San Jose, Anti**	**3.22**	**153**	*e*P	**Pn**	**12 42 39.6**	**-1.6**
SZP	**Santa**	**3.89**	**360**	Pn	**Pb**	**12 42 57.8**	**-1.5**
PPR	**Puerto Princes**	**4.20**	**204**	*e*P	**Pn**	**12 42 54.1**	**-0.6**
PPR				*e*S	**Sn**	**12 43 40.3**	**-3.5**
PIP	**Pasuquin**	**4.66**	**2**	*e*P	**Pn**	**12 42 59.2**	**-1.8**
PIP				*e*S	**Sn**	**12 43 51.3**	**-4.0**
LLP	**Lapu-Lapu**	**4.76**	**134**	*e*P	**Pn**	**12 43 03.1**	**+0.7**
LLP				*e*S	**Sn**	**12 44 00.4**	**+2.7**
PLP	**Palo**	**5.05**	**119**	*e*P	**Pn**	**12 43 05.3**	**-1.1**
SNPH	**Sibulan**	**5.06**	**147**	*e*P	**Pn**	**12 43 06.3**	**-0.3**
DAV	**Davao City (W)**	**8.24**	**142**	LR	LR	12 47 29.6	
	comp=Z,406nm,18.5s,baz=342,slow=40						
KKM	**Kota Kinabalu**	**8.63**	**209**	Pn	Pn	12 44 01.9	+6.2
YULB	**Yu-li**	**9.73**	**5**	Pn	Pn	12 44 18.4	+7.6
JOW	**Kunigami**	**15.03**	**28**	P	**P**	**12 45 31.8**	**+3.3**
	27nm,0.9s,baz=213,slow=17,SNR=1.8						
SIJI	**Sorong**	**17.96**	**143**	LR	LR	12 52 41.6	
	comp=Z,34nm,20.9s,baz=82,slow=36						
CMAR	**Chiang Mai Arr**	**21.22**	**286**	P	**P**	**12 46 40.8**	**+4.0**
	3.4nm,0.8s,baz=99,slow=8.8,SNR=20						
	3.4nm,0.8s						
CMAR	**Chiang Mai Arr**	**21.22**	**286**	P	**P**	**12 46 40.5**	**+3.7**
PSI	**Prapat**	**23.85**	**245**	LR	LR	12 56 09.7	
	comp=Z,46nm,19.9s,baz=65,slow=35						
KSRS	**Korea Array**	**24.63**	**14**	P	**P**	**12

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TGY	**Tagaytay City**	**0.58**	**25**	*eS*	**Sn**	**12 55 54.6**	**-0.3**
LQP	**Lukban**	**0.99**	**57**	*eP*	**Pn**	**12 55 50.8**	**-0.3**
LQP				*eS*	**Sg**	**12 56 02.3**	**-0.6**
GQP	**Guinayangan**	**1.75**	**79**	*eP*	**Pb**	**12 56 03.0**	**-0.1**
GQP				*eS*	**Sg**	**12 56 28.9**	**+1.7**
IBAJ	**Ibajay, Aklan**	**2.27**	**140**	*i* P	**Pb**	**12 56 11.2**	**-0.9**
IBAJ				*eS*	**Sb**	**12 56 40.8**	**+0.4**
JAP	**San Jose, Anti**	**3.07**	**156**	*eP*	**Pn**	**12 56 20.6**	**+1.0**
JOW	**Kunigami**	**14.98**	**27**	LR	LR	13 04 15.2	
	comp=Z,121nm,19.0s,baz=12,slow=35						
SIJI	**Sorong**	**17.78**	**143**	P	**Pn**	**12 59 38.2**	**-0.6**
	0.8nm,0.3s,baz=5.1,slow=22,SNR=1.7 6.3nm,0.8s						
SIJI				AML	AML		
CMAR	**Chiang Mai Arr**	**21.44**	**286**	P	**P**	**13 00 19.1**	**-0.5**
	1.4nm,0.8s,baz=97,slow=8.4,SNR=8.4 1.4nm,0.8s						
HILR	**Hailar Array B**	**35.88**	**359**	P	**P**	**13 02 31.4**	**+0.2**
	1.1nm,0.4s,baz=265,slow=16,SNR=4.2 1.1nm,0.4s						
WRA	**Warramunga Arr**	**35.92**	**158**	P	**P**	**13 02 30.4**	**-1.3**
	0.8nm,0.5s,baz=329,slow=10,SNR=14 0.8nm,0.5s						
SONM	**Songino Array**	**36.17**	**344**	P	**P**	**13 02 33.1**	**-0.6**
	0.4nm,0.5s,baz=161,slow=8.1,SNR=4.4 0.4nm,0.5s						
ASAR	**Alice Springs**	**39.21**	**161**	P	**P**	**13 02 59.0**	**-0.6**
	1.2nm,0.6s,baz=338,slow=6.9,SNR=20 1.2nm,0.6s						
MKAR	**Makanchi Array**	**46.12**	**324**	P	**P**	**13 03 56.0**	**+0.4**
	0.2nm,0.5s,baz=123,slow=8.8,SNR=3.7 0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**50.28**	**326**	P	**P**	**13 04 29.1**	**+1.6**
	0.3nm,0.3s,baz=122,slow=8.8,SNR=2.7 0.3nm,0.3s						
BVAR	**Borovoye Array**	**55.86**	**326**	P	**P**	**13 05 10.2**	**+1.5**
	0.5nm,0.5s,baz=115,slow=8.1,SNR=2.7 0.5nm,0.5s						

MAN ***12*** *13:01:27.0, 9.°31N×127.°63E, h34km, MS4.0*
IDC ***12*** *13:01:45.3±2.1, 9.°07N×126.°50E, h113km±20km, mb3.7/16, mbtmp4.1/17, MS3.1/7, Error ellipse: s-maj=26.7km s-min=13.0km az=74.0*
ISC 12 13:01:33.3±1.8, 9°26N±0.°04×127°03E±0.°06, h10km±11km**, n36,** σ1°**71**/43**, mb4.1**/16**, MS3.1**/4**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSSP	**Tandag City**	**0.84**	**255**	*eP*	**Pg**	**13 01 49.2**	**-0.4**
TSSP				*i* S	**Sg**	**13 02 00.2**	**-0.4**
BIPH	**Bislig**	**1.26**	**212**	*i* P	**Pn**	**13 01 56.1**	**-0.9**
BIPH				*i* S	**Sg**	**13 02 11.7**	**-2.1**
CGP	**Cagayan de Oro**	**2.44**	**251**	*i* P	**Pn**	**13 02 13.5**	**+0.2**
CGP				*i* S	**Sb**	**13 02 48.3**	**+0.8**
DAV	**Davao City (W)**	**2.61**	**213**	P	**Pb**	**13 02 20.1**	**-0.1**
	235nm,0.4s,baz=26,slow=1.0,SNR=4.4						
DAV				S	**Sn**	**13 02 49.1**	**+1.8**
	218nm,0.3s,baz=328,slow=15,SNR=5.5						
DAV				LR	LR	13 03 26.2	
	comp=Z,920nm,22.0s,baz=48,slow=46						
DMPH	**Davao City--Mi**	**2.63**	**215**	*eP*	**Pb**	**13 02 20.6**	**0.0**
DMPH				*i* S	**Sg**	**13 02 57.9**	**-0.2**
PLP	**Palo**	**2.77**	**313**	*eP*	**Pn**	**13 02 17.5**	**-0.2**
PLP				*eS*	**Sn**	**13 02 52.3**	**+1.1**
KCP	**Kidapawan**	**2.95**	**221**	*eP*	**Pb**	**13 02 24.5**	**-1.5**
KCP				*i* S	**Sg**	**13 03 10.0**	**+2.0**
TBP	**Tagbilaran**	**3.15**	**278**	*eP*	**Pn**	**13 02 23.6**	**+0.6**
TBP				*eS*	**Sn**	**13 03 02.8**	**+2.0**
LLP	**Lapu-Lapu**	**3.19**	**289**	*eP*	**Pn**	**13 02 24.6**	**+0.9**
LLP				*i* S	**Sb**	**13 03 09.1**	**-0.1**
DDMP	**Don Marcelino,**	**3.40**	**203**	*eP*	**Pn**	**13 02 25.2**	**-1.2**
DDMP				*eS*	**Sn**	**13 03 07.0**	**+0.2**
CTBH	**Cotabato--PC H**	**3.42**	**234**	*i* P	**Pn**	**13 02 28.8**	**+2.0**
DCPH	**Dipolog City**	**3.69**	**260**	*i* P	**Pn**	**13 02 31.7**	**+1.2**
DCPH				*i* S	**Sn**	**13 03 18.0**	**+3.9**
SNPH	**Sibulan**	**3.74**	**272**	*eP*	**Pn**	**13 02 32.9**	**+1.6**
SNPH				*eS*	**Sg**	**13 03 31.6**	**-2.0**
GSPH	**General Santos**	**3.77**	**213**	*i* P	**Pg**	**13 02 49.0**	**+3.5**
GSPH				*i* S	**Sn**	**13 03 15.9**	**-0.2**
SIJI	**Sorong**	**10.91**	**157**	LR	LR	13 08 36.4	
	comp=Z,126nm,20.4s,baz=340,slow=38						
KAPI	**Kappang**	**15.93**	**207**	LR	LR	13 11 35.7	
	comp=Z,43nm,21.7s,baz=17,slow=38						
FITZ	**Fitzroy Crossi**	**27.22**	**183**	P	**P**	**13 07 16.9**	**-0.7**
	3.0nm,0.8s,baz=350,slow=8.3,SNR=6.5 3.0nm,0.8s						
KSRS	**Korea Array**	**28.08**	**2**	P	**P**	**13 07 26.9**	**+1.8**
	1.2nm,0.8s,baz=172,slow=10,SNR=4.1 1.2nm,0.8s						
PSI	**Prapat**	**28.66**	**259**	P	**P**	**13 07 27.8**	**-3.0**
	2.0nm,0.3s,baz=74,slow=7.4,SNR=3.8 2.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**28.72**	**292**	P	**P**	**13 07 27.2**	**-3.9**
	0.4nm,0.3s,baz=105,slow=8.6,SNR=4.1 0.4nm,0.3s						
MJAR	**Matsushiro Arr**	**29.00**	**19**	LR	LR	13 18 50.4	
	comp=Z,67nm,19.4s,baz=198,slow=35						
WRA	**Warramunga Arr**	**29.90**	**166**	P	**P**	**13 07 41.3**	**-0.2**
	0.7nm,0.5s,baz=347,slow=9.3,SNR=10 0.7nm,0.5s						
ASAR	**Alice Springs**	**33.41**	**168**	P	**P**	**13 08 12.3**	**-0.1**
	0.6nm,0.4s,baz=352,slow=7.0,SNR=24 0.6nm,0.4s						
CTA	**Charters Tower**	**34.77**	**147**	LR	LR	13 24 03.8	
	comp=Z,20nm,20.6s,baz=18,slow=38						
USRK	**Ussuriysk Ar.**	**35.07**	**6**	P	**P**	**13 08 29.4**	**+2.8**
	3.5nm,0.8s,baz=188,slow=8.7,SNR=4.1 3.5nm,0.8s						
BRDH	**Bariadhala**	**36.43**	**296**	LR	LR	13 24 25.5	
	comp=Z,29nm,18.6s,baz=142,slow=38						
HNR	**Honiara**	**37.67**	**119**	LR	LR	13 23 37.3	
	comp=Z,31nm,21.1s,baz=14,slow=34						
SONM	**Songino Array**	**42.22**	**339**	P	**P**	**13 09 27.0**	**+0.3**
	0.7nm,0.5s,baz=160,slow=11,SNR=4.1 0.7nm,0.5s						
MKAR	**Makanchi Array**	**53.28**	**323**	P	**P**	**13 10 51.3**	**-1.1**
	2.4nm,0.8s,baz=126,slow=8.3,SNR=23 2.4nm,0.8s						
ZALV	**Zalesovo Beam**	**55.86**	**331**	P	**P**	**13 11 09.6**	**-1.4**
	0.7nm,0.4s,baz=118,slow=5.9,SNR=4.1 0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**57.32**	**325**	P	**P**	**13 11 20.1**	**-1.3**
	2.3nm,0.6s,baz=124,slow=6.9,SNR=15 2.3nm,0.6s						
BVAR	**Borovoye Array**	**62.91**	**325**	P	**P**	**13 11 59.0**	**-0.8**
	1.6nm,0.5s,baz=124,slow=7.9,SNR=8.3 1.6nm,0.5s						
NRIK	**Noril'sk**	**65.17**	**346**	P	**P**	**13 12 15.1**	**+0.7**
	3.5nm,0.6s,baz=116,slow=7.7,SNR=7.1 3.5nm,0.6s						
ILAR	**Eielson Array**	**80.02**	**26**	P	**P**	**13 13 45.5**	**+2.7**
	0.4nm,0.6s,baz=256,slow=5.7,SNR=3.3 0.4nm,0.6s						
ARCES	**ARCESS Array B**	**85.39**	**340**	P	**P**	**13 14 10.1**	**-0.5**
	1.8nm,0.6s,baz=78,slow=6.6,SNR=9.6 1.8nm,0.6s						
FINES	**FINESS Array B**	**87.13**	**332**	P	**P**	**13 14 18.7**	**-0.6**
	0.8nm,0.5s,baz=86,slow=6.3,SNR=5.6 0.8nm,0.5s						

IDC ***12*** *13:04:36.2±0.8, 1.°84N×126.°52E, h0km, mb4.0/8, mbtmp3.9/11, ML3.5/3, Error ellipse: s-maj=32.0km s-min=11.6km az=64.0*
DJA ***12*** *13:04:42.0±0.4, 2.°N±4.°×12.°7E±.°, h10km, M4.2/20, mB4.7/2, mb4.3/7, MLv4.1/20, Mw(mB)3.9/2*
NEIC ***12*** *13:04:42.4±2.2, 2.°0N±0.°1×126.°59E±0.°06, h36km±8km, mb4.2/12, Error ellipse: s-maj=15.4km s-min=8.4km az=194.0*
ISC 12 13:04:42.8±0.6, 2°04N±0.°05×126°69E±0.°04, h47km**, n37,** σ1°**67**/41**, mb4.1**/13**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GAMI	**Galela, Maluku**	**1.11**	**100**	P	**Pn**	**13 05 02.9**	**+0.9**
GAMI				S	**Sn**	**13 05 17.6**	**+1.4**
GAMI				AML	AML		
TNTI	**Ternate**	**1.43**	**152**		**Pn**	**13 05 06.1**	**-0.2**
TNTI	**Ternate**	**1.43**	**152**	P	**Pn**	**13 05 06.1**	**-0.2**
MNI	**Manado**	**1.94**	**252**	P	**Pn**	**13 05 15.0**	**+1.7**
MNI				S	**Sn**	**13 05 37.5**	**+0.9**
MNI				AML	AML		
KMSI	**Cibinong**	**3.08**	**242**	P	**Pn**	**13 05 31.1**	**+2.2**
GTOI	**Gorontalo**	**3.93**	**249**	P	**Pn**	**13 05 43.4**	**+2.7**
GTOI				AML	AML		
SANI	**Sanana**	**4.12**	**190**	P	**Pn**	**13 05 43.3**	**+0.1**
DDMP	**Don Marcelino,**	**4.16**	**346**	*eP*	**Pn**	**13 05 45.2**	**+1.5**
DDMP				*eS*	**Sn**	**13 06 27.6**	**-3.5**
LUWI	**Luwuk**	**4.97**	**232**	Pn	**Pn**	**13 05 50.5**	**-4.4**
NLAI	**Namlea**	**5.26**	**176**	P	**Pn**	**13 06 00.1**	**+1.2**
	0.1nm615nm26nm,0.6s						
NLAI				AML	AML		
SIJI	**Sorong**	**5.41**	**122**	Pn	**Pn**	**13 06 00.7**	**-0.3**
	0.4nm,0.3s,baz=305,slow=19,SNR=1.1 2.5nm,0.3s						
SIJI				AML	AML		
APSI	**Ampana**	**5.83**	**240**	P	Pn	13 06 11.9	+5.2
APSI				AML	AML		
TOLI2	**Tolitoli**	**5.98**	**261**		**Pn**	**13 06 08.4**	**-0.3**
JAY	**Jayapura**	**14.72**	**108**	Pn	**Pn**	**13 08 09.3**	**+1.1**
	0.3nm,0.3s,baz=102,slow=16,SNR=1.4 1.6nm,0.5s						
JAY				AML	AML		
KNRA	**Kununurra**	**17.72**	**173**		**Pn**	**13 08 45.5**	**-0.7**
FITZ	**Fitzroy Crossi**	**20.04**	**183**	P	**P**	**13 09 10.5**	**-1.5**
	0.3nm,0.3s,baz=25,slow=3.8,SNR=7.0 1.3nm,0.5s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**20.04**	**183**	P	**P**	**13 09 11.8**	**-0.2**
TPUB	**Ta-pu**	**21.94**	**345**	P	**P**	**13 09 33.1**	**+0.6**
WB0	**Warramunga Arr**	**22.95**	**161**	P	**P**	**13 09 42.6**	**-0.6**
WB0				IAmb	IAmb	13 09 49.8	
	comp=Z,9.2nm,0.9s						
WRAB	**Tennant Creek**	**23.09**	**161**	P	**P**	**13 09 44.0**	**-0.7**
WRAB				IAmb	IAmb	13 09 48.1	
	comp=Z,11nm,1.1s						
WRA	**Warramunga Arr**	**23.10**	**161**	P	**P**	**13 09 41.5**	**-3.2**
	comp=Z,4.1nm,0.5s,baz=339,slow=11,SNR=20						
WRA				S	**S**	**13 13 53.6**	**+1.0**
	comp=Z,0.5nm,0.7s,baz=333,slow=20,SNR=2.7 comp=Z,4.1nm,0.5s						
WRA	**Warramunga Arr**	**23.10**	**161**	P	**P**	**13 09 40.6**	**-4.1**
WR8	**Warramunga Arr**	**23.16**	**161**	P	**P**	**13 09 44.6**	**-0.8**
WR8				IAmb	IAmb	13 09 49.2	
	comp=Z,6.2nm,0.8s						
AS31	**Alice Springs**	**26.50**	**165**	P	**P**	**13 10 16.1**	**+0.2**
AS31				IAmb	IAmb	13 10 27.6	
	comp=Z,1.4nm,0.5s						
ASAR	**Alice Springs**	**26.50**	**165**	P	**P**	**13 10 15.4**	**-0.5**
	comp=Z,0.7nm,0.3s,baz=343,slow=7.9,SNR=15						
ASAR				S	**S**	**13 14 49.0**	**+2.1**
	comp=Z,0.1nm,0.7s,baz=339,slow=15,SNR=1.6 comp=Z,0.7nm,0.3s						
ASAR	**Alice Springs**	**26.50**	**165**	P	**P**	**13 10 14.3**	**-1.6**
FORT	**Forrest**	**32.66**	**178**	P	**P**	**13 11 08.1**	**-2.4**
BBOO	**Buckleboo**	**35.77**	**166**	P	**P**	**13 11 37.7**	**+0.2**
STKA	**Stephens Creek**	**36.58**	**158**	P	**P**	**13 11 43.0**	**-1.3**
	comp=Z,1.9nm,0.6s,baz=329,slow=12,SNR=3.0 comp=Z,1.9nm,0.6s						
SONM	**Songino Array**	**48.88**	**342**	P	**P**	**13 13 24.4**	**+0.4**
	comp=Z,0.3nm,0.4s,baz=155,slow=11,SNR=1.7 comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	**58.92**	**326**	P	**P**	**13 14 37.5**	**+0.2**
	comp=Z,0.6nm,0.3s,baz=119,slow=7.3,SNR=17 comp=Z,0.6nm,0.3s						
MKAR	**Makanchi Array**	**58.92**	**326**	P	**P**	**13 14 37.0**	**-0.2**
KURBB	**Kurchatov Arra**	**63.14**	**328**	P	**P**	**13 15 05.5**	**-0.2**
	comp=Z,0.7nm,0.3s,baz=127,slow=6.2,SNR=7.7 comp=Z,0.7nm,0.3s						
KURK	**Kurchatov**	**63.14**	**328**	P	**P**	**13 15 05.2**	**-0.5**
KURK				IAmb	IAmb	13 15 11.5	
	comp=Z,2.9nm,0.5s						
BVAR	**Borovoye Array**	**68.71**	**327**	P	**P**	**13 15 42.9**	**+1.4**
	comp=Z,0.4nm,0.4s,baz=69,slow=8.2,SNR=1.9 comp=Z,0.4nm,0.4s						
VNDA	**Vanda**	**81.76**	**173**	P	**P**	**13 16 56.5**	**+0.4**
	comp=Z,1.0nm,0.7s,baz=307,slow=5.5,SNR=7.9 comp=Z,1.0nm,0.7s						
VNDA	**Vanda**	**81.76**	**173**	P	**P**	**13 16 57.0**	**+0.9**
VNDA				IAmb	IAmb	13 17 00.1	
	comp=Z,1.9nm,0.9s						

IDC ***12*** *13:19:48.1±0.6, 5.°31N×126.°44E, h0km, mb4.0/13, mbtmp4.0/14, ML3.5/1, MS2.9/4, Error ellipse: s-maj=55.9km s-min=10.7km az=67.0*
MAN ***12*** *13:19:53.0, 5.°32N×126.°32E, h1km, MS4.0*
DJA ***12*** *13:19:55.5±3.3, 5.°N±30.°×12.°6E±.°, h121km±36km, M4.2/8, mB4.9/1, mb4.2/6, MLv4.3/8, Mw(mB)4.2/1*
ISC 12 13:19:57.2±0.6, 5°13N±0.°06×126°29E±0.°09, h71km**, n33,** σ2°**66**/33**, mb4.1**/13**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**1.12**	**329**	*eP*	**Pn**	**13 20 13.9**	**-3.5**
DDMP				*eS*	**Sn**	**13 20 28.8**	**-3.6**
GSPH	**General Santos**	**1.64**	**306**	*i* P	**Pn**	**13 20 20.7**	**-3.4**
GSPH				*i* S	**Sn**	**13 20 39.8**	**-4.7**
DAV	**Davao City (W)**	**2.05**	**340**	Pn	Pn	13 20 21.4	-8.2
	30nm,0.3s,baz=63,slow=22,SNR=1.5						
DAV				Lg	Lg	13 20 51.3	
	49nm,0.3s,baz=271,slow=18,SNR=3.8						
DAV				LR	LR	13 21 13.8	
	comp=Z,219nm,18.1s,baz=171,slow=44						
DAV	**Davao City (W)**	**2.05**	**340**	P	**Sn**	**13 21 01.9**	**+7.6**
DMPH	**Davao City--Mi**	**2.09**	**338**	*eP*	**Pn**	**13 20 29.1**	**-1.0**
DMPH				*i* S	**Sn**	**13 20 57.5**	**+2.3**
KCP	**Kidapawan**	**2.21**	**327**	*eP*	**Pn**	**13 20 31.6**	**-0.2**
KCP				*i* S	Sn	13 21 08.8	+11
CTBH	**Cotabato--PC H**	**2.91**	**316**	*i* P	**Pn**	**13 20 41.9**	**+0.8**
BIPH	**Bislig**	**3.03**	**1**	*i* P	**Pn**	**13 20 41.8**	**-1.1**
BIPH				*i* S	**Sn**	**13 21 15.9**	**-2.2**
GAMI	**Galela, Maluku**	**3.60**	**155**	P	**Pn**	**13 20 52.4**	**+1.8**
GAMI				AML	AML		
CGP	**Cagayan de Oro**	**3.66**	**334**	*eP*	Pn	13 20 58.5	+7.0
CGP				*eS*	**Sn**	**13 21 40.7**	**+7.2**
GTOI	**Gorontalo**	**5.54**	**216**	P	**Pn**	**13 21 18.9**	**+1.8**
	0.1nm17nm,0.6s						
GTOI				AML	AML		
PLP	**Palo**	**6.13**	**348**	*eP*	**Pn**	**13 21 26.4**	**+1.1**
SANI	**Sanana**	**7.14**	**182**	P	**Pn**	**13 21 39.3**	**+0.3**
SANI				AML	AML		
SIJI	**Sorong**	**7.76**	**140**	Pn	**Pn**	**13 21 44.0**	**-3.6**
	0.7nm,0.3s,baz=223,slow=23,SNR=3.1						
SIJI				LR	LR	13 23 46.0	
	comp=Z,40nm,21.0s,baz=58,slow=30 8.7nm,0.8s						
SIJI				AML	AML		
LEM	**Lembang**	**22.10**	**238**	LR	LR	13 35 31.7	
	comp=Z,53nm,18.6s,baz=257,slow=42						
FITZ	**Fitzroy Crossi**	**23.09**	**182**	P	**P**	**13 24 57.9**	**+0.7**
	3.1nm,0.7s,baz=8.0,slow=10,SNR=5.6 3.1nm,0.7s						
WRA	**Warramunga Arr**	**26.14**	**163**	P	**P**	**13 25 25.5**	**+0.5**
	1.3nm,0.7s,baz=343,slow=10,SNR=7.6 1.3nm,0.7s						
ASAR	**Alice Springs**	**29.57**	**166**	P	**P**	**13 25 56.4**	**+0.9**
	0.4nm,0.5s,baz=344,slow=6.5,SNR=6.7						
ASAR				PcP	**PcP**	**13 29 00.8**	**+1.7**
	0.4nm,0.5s,baz=0.0,slow=1.9,SNR=5.0 0.4nm,0.5s						
KSRS	**Korea Array**	**32.21**	**2**	LR	LR	13 40 59.0	
	comp=Z,13nm,18.3s,baz=175,slow=40						
STKA	**Stephens Creek**	**39.59**	**159**	P	**P**	**13 27 23.3**	**+1.5**
	2.6nm,0.7s,baz=338,slow=9.4,SNR=4.6 2.6nm,0.7s						
H11N1	**WAKE ISLAND Hy**	**42.08**	**66**	T	T	14 12 13.5	
	baz=254,slow=75,SNR=12						
H11N2	**WAKE ISLAND Hy**	**42.09**	**66**	T	T	14 12 10.5	
	baz=254,slow=75,SNR=9.0						
H11N3	**WAKE ISLAND Hy**	**42.09**	**66**	T	T	14 12 11.3	
	baz=254,slow=75,SNR=7.0						
KLR	**Kul'dur**	**44.19**	**5**	LR	LR	13 45 56.6	
	comp=Z,18nm,19.6s,baz=117,slow=36						
SONM	**Songino Array**	**45.84**	**341**	P	**P**	**13 28 12.3**	**0.0**
	0.4nm,0.5s,baz=152,slow=8.2,SNR=2.7						
SONM				PcP	**PcP**	**13 29 48.5**	**-0.1**
	0.3nm,0.4s,baz=156,slow=3.4,SNR=1.8 0.4nm,0.5s						
MKAR	**Makanchi Array**	**56.16**	**325**	P	**P**	**13 29 29.5**	**-0.2**
	1.0nm,0.5s,baz=125,slow=8.2,SNR=14						
MKAR				PcP	**PcP**	**13 30 26.6**	**-0.2**
	0.7nm,0.8s,baz=108,slow=4.7,SNR=4.0 1.0nm,0.5s						
ZALV	**Zalesovo Beam**	**59.15**	**333**	P	**P**	**13 29 49.3**	**-1.2**
	0.5nm,0.3s,baz=116,slow=6.6,SNR=2.4 0.5nm,0.3s						
KURBB	**Kurchatov Arra**	**60.33**	**327**	P	**P**	**13 29 58.2**	**-0.5**
	1.1nm,0.6s,baz=125,slow=6.3,SNR=11 1.1nm,0.6s						
BVAR	**Borovoye Array**	**65.91**	**327**	P	**P**	**13 30 34.9**	**-0.7**
	1.0nm,0.7s,baz=105,slow=3.4,SNR=3.9 1.0nm,0.7s						
TIXI	**Tiksi**	**66.46**	**1**	P	**P**	**13 30 37.7**	**-1.0**
	3.2nm,0.5s,baz=180,slow=6.1,SNR=4.8 3.2nm,0.5s						
NRIK	**Noril'sk**	**68.97**	**346**	P	**P**	**13 30 54.5**	**-0.1**
	1.5nm,0.5s,baz=136,slow=7.1,SNR=3.5 1.5nm,0.5s						
VNDA	**Vanda**	**84.86**	**173**	P	**P**	**13 32 23.8**	**+0.2**
	0.4nm,0.7s,baz=330,slow=3.0,SNR=3.6 0.4nm,0.7s						
FINES	**FINESS Array B**	**90.40**	**332**	P	**P**	**13 32 50.5**	**-0.1**
	1.2nm,0.8s,baz=75,slow=5.1,SNR=3.5 1.2nm,0.8s						

NOU 12 13:28:52.8, 16.°92S×167.°75E, h6km**, MLv4.2**/14**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DVP	**Devils Point**	**0.90**	**153**	P	Pb	13 29 10.8	-0.1
RTV	**Rentapao**	**1.08**	**143**	P	Pb	13 29 13.8	-0.1
SANVU	**Saraoutou**	**1.56**	**340**	P	Pn	13 29 20.0	-1.0
KOUNC	**Koumac, New Ca**	**4.88**	**222**	P	Pn	13 30 07.7	+0.9
YATNC	**Mamie plateau,**	**5.18**	**189**	P	Pn	13 30 10.2	-0.7
ONTNC	**Ouen Toro**	**5.50**	**193**	P	Pn	13 30 15.7	+0.4
PINNC	**Pines Island,**	**5.67**	**183**	P	Pn	13 30 18.2	+0.6

IDC ***12*** *13:31:50.5±2.6, 65.°73N×22.°27E, h0km, mbtmp2.8/1, ML1.9/1, Error ellipse: s-maj=42.1km s-min=11.5km az=86.0*
HEL ***12*** *13:31:50.1±0.1, 65.°70N×22.°12E, h0km, ML1.5, Explosion*
ISC 12 13:31:49.4±0.8, 65°73N±0.°02×22°09E±0.°04, h0km**, n31,** σ1°**12**/48**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ERTU	**Ertsjaerv**	**0.83**	**3**	PG	**Pg**	**13 32 05.2**	**0.0**
ERTU				SB	**Sg**	**13 32 17.0**	**+1.1**
TOF	**Tornio**	**0.98**	**68**	PG	**Pg**	**13 32 07.6**	**-0.5**
TOF				SG	**Sg**	**13 32 19.6**	**-1.2**
TOF				MSG		13 32 20.2	
	comp=Z,2.0nm,0.2s						
BURU	**Burvik**	**1.19**	**195**	PG	**Pg**	**13 32 10.9**	**-1.3**
	baz=15						
BURU				SB	**Sg**	**13 32 26.1**	**-1.5**
PAJU	**Pajala**	**1.36**	**17**	PG	**Pg**	**13 32 14.7**	**-0.7**
	baz=201						
PAJU				SG	**Sb**	**13 32 33.8**	**+0.1**
OBF8	**Ulkokalla**	**1.52**	**157**	MSG		13 32 34.7	
	comp=Z,5.4nm,0.2s						
OBF8				SN	**Sn**	**13 32 38.1**	**-0.1**
OBF0	**Syolatti, Pyha**	**1.54**	**143**	PG	**Pn**	**13 32 17.2**	**-0.8**
	baz=329						
OBF0				MSG		13 32 35.2	
	comp=Z,5.4nm,0.2s						
OBF0				SN	**Sn**	**13 32 40.1**	**+1.5**
OBF4	**Vikkela, Lumij**	**1.57**	**125**	PG	**Pn**	**13 32 17.7**	**-0.7**
OBF4				MSG		13 32 36.2	
	comp=Z,2.6nm,0.2s						
OBF4				SN	**Sg**	**13 32 39.7**	**0.0**
KLF	**Kolari**	**1.69**	**26**	PG	**Pn**	**13 32 20.4**	**+0.3**
KLF				MSG		13 32 41.2	
	comp=Z,6.0nm,0.2s						
KLF				SG	**Sg**	**13 32 44.2**	**+0.7**
OUL	**Oulu**	**1.72**	**111**	PG	**Pn**	**13 32 19.9**	**-0.6**
OUL				SN	**Sb**	**13 32 44.0**	**+0.1**
OUF	**Merijarvi**	**1.77**	**140**	PG	**Pn**	**13 32 20.3**	**-0.9**
	baz=324						
OUF				MSG		13 32 41.9	
	comp=Z,2.7nm,0.2s						
OUF				SN	**Sg**	**13 32 45.6**	**-0.5**
RNF	**Rovaniemi**	**1.82**	**59**	PG	**Pn**	**13 32 22.5**	**+0.6**
RNF				SG	**Sb**	**13 32 46.9**	**+0.1**
UMAU	**Umeaa**	**1.95**	**199**	PG	**Pn**	**13 32 24.4**	**+0.6**
UMAU				SG	**Sn**	**13 32 48.8**	**-0.1**
LANU	**Lannavaara**	**2.33**	**359**	PG	**Pn**	**13 32 30.4**	**+1.5**
	baz=177						
LANU				SG	**Sb**	**13 33 00.6**	**-0.8**
KU2	**Taivalkoski**	**2.54**	**88**	SG	**Sb**	**13 33 08.4**	**+1.0**
VAF	**Ylistaro**	**2.71**	**174**	PB	**Pn**	**13 32 35.1**	**+1.0**
	baz=358						
VAF				SB	**Sn**	**13 33 07.6**	**0.0**
VAF				MSG		13 33 08.9	
	comp=Z,2.0nm,0.2s						
HEF	**Hetta**	**2.76**	**12**	PG	**Pb**	**13 32 38.4**	**-1.1**
HEF				SN	**Sn**	**13 33 09.8**	**+1.0**
HEF				MSG		13 33 12.0	
	comp=Z,0.9nm,0.2s						
MSF	**Maaselka**	**2.87**	**83**	SN	**Sn**	**13 33 12.2**	**+0.7**
OLKF	**Oulanka, Finla**	**3.04**	**75**	PN	**Pn**	**13 32 39.2**	**+0.5**
OLKF				SN	**Sn**	**13 33 16.8**	**+1.0**
OLKF				MSG		13 33 19.2	
	comp=Z,0.8nm,0.2s						
KU1	**Kurvinen**	**3.10**	**90**	PN	**Pn**	**13 32 40.2**	**+0.7**
KU6	**Riekki**	**3.21**	**81**	PN	**Pn**	**13 32 41.3**	**+0.2**
	baz=270						
KU6				SN	**Sn**	**13 33 20.8**	**+0.8**
KTK1	**Kautokeino**	**3.32**	**7**	SN	**Sn**	**13 33 25.1**	**+2.4**
VRF	**Varrio**	**3.60**	**52**	SN	**Sn**	**13 33 29.9**	**+0.3**
I37NO	**I37NO**	**3.62**	**340**	I	I	13 57 10.0	
	baz

ASAJ				AML	AML			
SONM	**Songino Array**	**30.95**	**310**	P	**P**	**14 02 44.8**	**+1.3**	
	0.4nm,0.7s,baz=107,slow=8.9,SNR=1.5							
	0.4nm,0.7s							
MKAR	**Makanchi Array**	**47.09**	**306**	P	**P**	**14 04 59.1**	**+1.0**	
	0.2nm,0.4s,baz=86,slow=9.0,SNR=2.4							
	0.2nm,0.4s							
KURBB	**Kurchatov Arra**	**49.31**	**311**	P	**P**	**14 05 15.3**	**+0.2**	
	0.2nm,0.4s,baz=91,slow=8.1,SNR=4.9							
	0.2nm,0.4s							
WRA	**Warramunga Arr**	**52.57**	**189**	P	**P**	**14 05 38.4**	**-1.4**	
	0.3nm,0.4s,baz=7.1,slow=7.4,SNR=2.5							
	0.3nm,0.4s							
ILAR	**Eielson Array**	**53.19**	**30**	P	P	14 05 36.6	-7.4	
	0.3nm,1.0s,baz=279,slow=7.2,SNR=1.7							
	0.3nm,1.0s							
ASAR	**Alice Springs**	**56.29**	**189**	P	**P**	**14 06 05.3**	**-1.6**	
	0.3nm,0.9s,baz=10,slow=6.8,SNR=6.6							
	0.3nm,0.9s							

*IDC **12** 14:05:21.1±2.4,28°.14N×84°.49E,h0km,mb3.5/5, mbtmp3.5/7,Error ellipse: s-maj=82.4km s-min=20.8km az=68.0*

ISC 12 14:05:29.7±0.9,**28°.29N**±0°.08×**85°.15E**±0°.07,**h35**km,**n13,** σ3$**11/14,mb3.4/5,Nepal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHBG	**Sahibganj**	**3.77**	**143**	*i* P	**Pn**	**14 06 28.8**	**+3.5**
SHBG				IAmb	IAmb	14 06 36.3	
	comp=Z,22nm,0.7s						
SHBG				*i* S	**Sn**	**14 07 10.7**	**+2.3**
PTH	**Pithoragarh**	**4.53**	**288**	*i* P	Pn	14 06 42.3	+6.4
PTH				IAmb	IAmb	14 06 55.7	
	comp=Z,15nm,1.1s						
PTH				*i* S	**Sn**	**14 07 33.0**	**+5.6**
PTH				IAML		14 07 39.8	
	comp=N,42nm,0.4s						
SONA	**Sohna**	**7.13**	**272**	*i* S	**Sn**	**14 08 33.2**	**+1.8**
KUDL	**Kundal**	**7.64**	**271**	*i* S	**Sn**	**14 08 44.9**	**+1.0**
NGP	**Nagpur**	**9.00**	**219**	*i* P	**Pn**	**14 07 38.6**	**+1.4**
RAGD	**RAYAGADA**	**9.13**	**190**	*i* S	**Sn**	**14 09 15.7**	**-5.0**
CMAR	**Chiang Mai Arr**	**15.99**	**125**	Pn	**Pn**	**14 09 12.0**	**0.0**
	comp=N,0.3nm,0.3s,baz=320,slow=12,SNR=4.2						
MKAR	**Makanchi Array**	**18.61**	**354**	P	**P**	**14 09 41.7**	**-2.3**
	comp=N,1.1nm,0.6s,baz=171,slow=11,SNR=7.5						
KURBB	**Kurchatov Arra**	**22.86**	**349**	P	**P**	**14 10 26.3**	**-3.6**
	comp=N,0.7nm,0.5s,baz=170,slow=10,SNR=4.7						
	comp=N,0.7nm,0.5s						
SONM	**Songino Array**	**25.55**	**34**	P	**P**	**14 10 55.6**	**+0.3**
	comp=N,0.6nm,0.8s,baz=231,slow=8.1,SNR=2.4						
	comp=N,0.6nm,0.8s						
ZALV	**Zalesovo Beam**	**25.64**	**360**	P	**P**	**14 10 53.3**	**-2.5**
	comp=N,0.6nm,0.5s,baz=183,slow=8.9,SNR=3.6						
	comp=N,0.6nm,0.5s						
WRA	**Warramunga Arr**	**67.52**	**130**	P	**P**	**14 16 22.2**	**-0.3**
	comp=N,0.2nm,0.3s,baz=331,slow=5.6,SNR=2.5						
	comp=N,0.2nm,0.3s						
ASAR	**Alice Springs**	**69.82**	**133**	P	**P**	**14 16 35.5**	**-1.4**
	comp=N,0.2nm,0.5s,baz=318,slow=6.2,SNR=6.6						
	comp=N,0.2nm,0.5s						

ISC 12 14:17:06.7±0.9,**44°.15N**±0°.02×**15°.28E**±0°.03,**h10**km,**n17,** σ0$**70/30,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUGI	**Dugi Otok**	**0.23**	**224**	*e*Pg	**Pg**	**14 17 10.6**	**-0.7**
DUGI				Sg	**Sg**	**14 17 14.7**	**+0.2**
MORI	**Morici**	**0.42**	**133**	*e*Pg	**Pg**	**14 17 14.3**	**-0.7**
MORI				Sg	**Sg**	**14 17 21.0**	**+0.5**
UDBI	**Udbina**	**0.51**	**43**	*i* Pg	**Pg**	**14 17 16.2**	**-0.4**
UDBI				Sg	**Sg**	**14 17 24.0**	**+0.6**
RABC	**Rab**	**0.69**	**329**	*e*Pg	**Pg**	**14 17 19.1**	**-1.0**
RABC				Sg	**Sg**	**14 17 29.2**	**+0.1**
PLIT	**Plitvice**	**0.77**	**19**	*e*Pg	**Pg**	**14 17 21.2**	**-0.2**
PLIT				Sg	**Sg**	**14 17 31.2**	**-0.3**
KIJV	**Kijevo**	**0.83**	**100**	*e*Pg	**Pg**	**14 17 22.5**	**0.0**
KIJV				Sg	**Sg**	**14 17 32.9**	**-0.4**
HVAR	**Hvar**	**1.29**	**139**	*i* Pg	**Pg**	**14 17 31.8**	**+0.3**
HVAR				Sg	**Sg**	**14 17 49.4**	**+1.1**
GBRS	**Gornja Briga**	**1.42**	**347**	*e*Pn	**Pg**	**14 17 35.7**	**+1.9**
OZLJ	**Ozalj**	**1.47**	**5**	*i* Pn	**Pg**	**14 17 34.6**	**-0.2**
OZLJ				Sg	**Sg**	**14 17 53.7**	**-0.1**
RICI	**Ricice**	**1.50**	**116**	*e*Pn	**Pb**	**14 17 34.2**	**-0.3**
RICI				Sn	**Sg**	**14 17 55.0**	**+0.3**
KNDS	**Knezji Dol**	**1.52**	**335**	*i* Pn	**Pb**	**14 17 35.3**	**+0.4**
MAKA	**Makarska**	**1.53**	**124**	*e*Pn	**Pb**	**14 17 35.1**	**0.0**
MAKA				Sn	**Sg**	**14 17 56.3**	**+0.4**
SKDS	**Skadanscina**	**1.66**	**328**	*i* Pn	**Pb**	**14 17 36.9**	**-0.4**
VISS	**Visnje**	**1.68**	**349**	*i* Pn	**Pg**	**14 17 38.4**	**-0.5**
VISS				IAML		14 18 03.9	
	comp=Z,4.8nm,0.2s						
MOSL	**Moslavina**	**1.80**	**35**	*i* Pn	**Pb**	**14 17 39.0**	**-0.7**
MOSL				Sn	**Sb**	**14 18 01.7**	**-0.5**
LSTV	**Lastovo**	**1.82**	**139**	*i* Pn	**Pn**	**14 17 39.0**	**+1.0**
LSTV				Sn	**Sb**	**14 18 02.6**	**-0.1**
STON	**Ston**	**2.18**	**125**	*e*Pn	**Pb**	**14 17 44.8**	**-1.3**
STON				Sn	**Sb**	**14 18 12.3**	**-0.8**

*RSNC **12** 14:27:37.7±0.0, 11°.1×1°.7×3W±°, h101km±2km, M3.0, mb3.3, ML2.5*
*FUNV **12** 14:27:38.2, 10°.45N×73°.24W, h18km, MW3.7, Presumed earthquake*

ISC 12 14:27:36.6±1.5,**10°.52N**±0°.05×**73°.27W**±0°.04, **h114**km±16km,**n30,**σ1$**95/55,Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRJC	**Cerrejon, Guaj**	**0.63**	**38**	P	**Pn**	**14 27 54.8**	**-0.2**
CRJC				S	**Sn**	**14 28 07.6**	**-1.2**
SMRC	**Santa Marta, M**	**1.13**	**305**	P	**Pn**	**14 27 59.7**	**+0.2**
SMRC				S	**Sn**	**14 28 16.1**	**-0.8**
ARGC	**Ariguani, Magd**	**1.16**	**236**	P	**Pn**	**14 28 00.4**	**+0.6**
ARGC				S	**Sn**	**14 28 17.4**	**0.0**
URIC	**Uribia, Colomb**	**1.72**	**47**	P	**Pn**	**14 28 06.8**	**+0.5**
URIC				S	**Sn**	**14 28 29.3**	**+0.3**
URIC	**Uribia, Colomb**	**1.72**	**47**	*e*P	**Pn**	**14 28 07.5**	**+1.1**
URIC				*e*S	**Sn**	**14 28 28.4**	**-0.6**
SJCC	**San Jacinto, C**	**1.98**	**252**	P	**Pn**	**14 28 10.3**	**+0.8**
SJCC				S	**Sn**	**14 28 35.5**	**+0.8**
SJCC	**San Jacinto, C**	**1.98**	**252**	*e*P	**Pn**	**14 28 10.2**	**+0.6**
SJCC				*e*S	**Sn**	**14 28 34.6**	**-0.1**
OCAC	**Ocana**	**2.27**	**181**	P	**Pn**	**14 28 13.2**	**-0.2**
OCAC				S	**Sn**	**14 28 41.0**	**-0.5**
CAPV	**Capacho**	**2.80**	**160**	*e*P	**Pn**	**14 28 21.4**	**+1.0**
CAPV				*e*S	**Sn**	**14 28 52.3**	**-1.7**
SOCV	**Socops**	**3.26**	**133**	*e*S	**Sn**	**14 29 01.5**	**-3.0**
UREC	**San Jos de Ur**	**3.54**	**219**	P	**Pn**	**14 28 28.7**	**-1.3**
UREC				S	**Sn**	**14 29 09.1**	**-2.1**
BRJC	**Barrancabermej**	**3.55**	**188**	P	**Pn**	**14 28 31.4**	**+1.3**
BRJC				S	**Sn**	**14 29 12.2**	**+0.7**
BARC	**Barichara**	**3.90**	**179**	P	**Pn**	**14 28 36.5**	**+1.5**
BARC				S	**Sn**	**14 29 21.5**	**+1.3**
TEPV	**Terepaima**	**4.05**	**97**	*e*P	**Pn**	**14 28 37.5**	**+0.7**
TEPV				*e*S	**Sn**	**14 29 21.6**	**-1.9**
PTBC	**PUERTO BERRIO,**	**4.12**	**197**	P	**Pn**	**14 28 39.0**	**+1.2**
PTBC				S	**Sn**	**14 29 24.6**	**-0.6**
APAC	**Apartado, Choc**	**4.17**	**232**	P	**Pn**	**14 28 40.7**	**+2.3**
APAC				S	**Sn**	**14 29 23.9**	**-2.5**
RUSC	**La Rusia**	**4.60**	**178**	P	**Pn**	**14 28 44.2**	**-0.4**
RUSC				S	**Sn**	**14 29 33.2**	**-4.1**
RUSC	**La Rusia**	**4.60**	**178**	*e*P	**Pn**	**14 28 44.4**	**-0.2**
RUSC				*e*S	**Sn**	**14 29 33.4**	**-3.9**
MAPV	**Macapo**	**4.79**	**98**	*e*P	**Pn**	**14 28 47.1**	**+0.4**
MAPV				*e*S	**Sn**	**14 29 39.0**	**-2.2**
HELC	**Santa Helena**	**4.84**	**208**	P	**Pn**	**14 28 50.3**	**+2.5**
HELC				S	**Sn**	**14 29 45.1**	**+2.1**
HELC	**Santa Helena**	**4.84**	**208**	*e*S	**Sn**	**14 29 39.7**	**-3.4**
NORC	**Norcasia**	**5.17**	**198**	P	**Pn**	**14 28 52.2**	**+0.3**
	3.8nm,1.3s						
NORC				S	**Sn**	**14 29 52.1**	**+1.6**
	3.8nm,1.3s						
NORC				AML	AML		
TURV	**Turiamo**	**5.34**	**90**	*e*P	**Pn**	**14 28 54.8**	**+0.6**
TURV				*e*S	**Sn**	**14 29 51.9**	**-2.7**
CBOC	**Ciudad Bolivar**	**5.36**	**211**	P	**Pn**	**14 28 55.4**	**+0.8**
	2.6nm,0.9s						
CBOC				S	**Sn**	**14 29 55.3**	**+0.1**
	2.6nm,0.9s						
CBOC				AML	AML		
BENV	**Belo**	**5.61**	**95**	*e*P	**Pn**	**14 28 59.0**	**+1.1**
BENV				*e*S	**Sn**	**14 29 58.8**	**-2.4**
GUY2C	**Guyana, Caldas**	**5.65**	**202**	P	**Pn**	**14 29 01.1**	**+2.3**
	4.2nm,0.8s						
GUY2C				S	**Sn**	**14 30 03.0**	**+0.2**
	4.2nm,0.8s						
GUY2C				AML	AML		
TACV	**Tcata**	**6.16**	**93**	*e*P	**Pn**	**14 29 06.0**	**+0.8**
BCIP	**Isla Barro Col**	**6.61**	**259**	P	**Pn**	**14 29 12.0**	**+0.8**
BCIP				S	**Sn**	**14 30 21.6**	**-3.6**
CACV	**CAICARA DEL OR**	**7.27**	**113**	*e*P	**Pn**	14 29 26.9	+6.7
CACV				*e*S	**Sn**	**14 30 48.2**	**+6.9**
PCRV	**Puerto La Cruz**	**8.51**	**92**	*e*P	**Pn**	**14 29 38.0**	**+1.0**

IDC 12 14:32:12.4±3.4,**34°.91N**×**84°.73E,h0km,mb3.1/2, mbtmp3.2/4,ML2.6/2,Error ellipse: s-maj=80.9km s-min=25.9km az=65.0,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**12.02**	**352**	Pn	Pn	14 35 05.3	+0.3
	0.1nm,0.3s,baz=167,slow=13,SNR=6.9						
	0.7nm,0.7s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**16.34**	**346**	Pn	Pn	14 36 01.0	-2.1
	baz=165,slow=12,SNR=2.5						
	0.1nm,0.5s						
SONM	**Songino Array**	**20.68**	**45**	P	P	14 36 54.3	+0.3
	0.5nm,0.7s,baz=237,slow=10,SNR=4.8						
	0.5nm,0.7s						
CMAR	**Chiang Mai Arr**	**20.69**	**139**	P	P	14 36 54.1	-0.1
	0.4nm,0.3s,baz=331,slow=14,SNR=5.0						
	0.4nm,0.3s						

*MOS **12** 14:34:19.8±1.6, 18°.51S×177°.84W, h567km, mb4.7/15, Error ellipse: s-maj=11.0km s-min=9.4km az=18.6*
*NEIC **12** 14:34:19.5±1.4, 18°.62S±0°.09×177°.77W±0°.10, h563km±4km, mb4.6/238, Error ellipse: s-maj=14.7km s-min=11.8km az=220.0*
*GFZ **12** 14:34:20.6±0.3, 19°.5S×17°.8W±°, h580km±5km, M5.1/23, mb5.4/23*
*NOU **12** 14:34:20.3, 18°.68S×177°.73W, h580km, mb5.2/110, Fiji Islands Region*
*IDC **12** 14:34:20.2±0.4, 18°.72S×177°.79W, h574km±4km, mb4.1/29, mbtmp5.1/33, Error ellipse: s-maj=8.6km s-min=6.7km az=148.0*
*BGR **12** 14:34:23.1, 18°.44S×177°.88W, h600km*

ISC 12 14:34:20.4±0.3,**18°.70S**±0°.05×**177°.74W**±0°.04, **h580**km±3km,**h581**km:**pP-P,n731,**σ1$**03/663,mb4.7/245, 39C-36D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	**Tubou, Lakemba**	**1.12**	**294**	P	**P**	**14 35 29.7**	**-0.3**
LKBA	**Tubou, Lakemba**	**1.12**	**294**	S	**S**	**14 36 26.8**	**+0.4**
TAVE	**Taveuni**	**2.86**	**313**	P	**P**	**14 35 37.3**	**+0.1**
TAVE	**Taveuni**	**2.86**	**313**	S	**S**	**14 36 40.3**	**+0.7**
DGTI	**Dogotuki**	**3.39**	**314**	P	**P**	**14 35 39.9**	**-0.5**
DGTI	**Dogotuki**	**3.39**	**314**	S	**S**	**14 36 45.6**	**+0.2**
MSVF	**Nonsavu**	**4.12**	**283**	P	**P**	**14 35 45.4**	**0.0**
	1µm,0.8s,baz=101,slow=7.5,SNR=533						
MSVF				S	**S**	**14 36 55.2**	**+0.6**
	59nm,0.8s,baz=138,slow=20,SNR=0.6						
MSVF	**Nonsavu**	**4.12**	**283**	P	**P**	**14 35 45.8**	**+0.4**
MSVF	**Nonsavu**	**4.12**	**283**	S	**S**	**14 36 54.7**	**+0.1**
MSVF	**Nonsavu**	**4.12**	**283**	*d* iP	**P**	**14 35 44.9**	**-0.5**
MSVF	**Nonsavu**	**4.12**	**283**		**P**	**14 35 45.5**	**+0.2**
MSVF	**Nonsavu**	**4.12**	**283**	P	**P**	**14 35 45.4**	**0.0**
MSVF				AML	AML		
MSVF	**Nonsavu**	**4.12**	**283**		**P**	**14 35 46.0**	**+0.6**
FUTU	**Fugatoga**	**4.38**	**355**	P	**P**	**14 35 46.3**	**-1.0**
FUTU	**Fugatoga**	**4.38**	**355**		**P**	**14 35 45.4**	**-1.9**
FUTU	**Fugatoga**	**4.38**	**355**	P	**P**	**14 35 46.6**	**-0.7**
FUTU				AML	AML		
FUTU	**Fugatoga**	**4.38**	**355**	P	**P**	**14 35 47.2**	**0.0**
NIUE	**Niue**	**7.41**	**94**	P	**P**	**14 36 12.3**	**-1.0**
	comp=Z,560nm,0.9s						
NIUE	**Niue**	**7.41**	**94**	P	**P**	**14 36 12.2**	**-1.1**
NIUE	**Niue**	**7.41**	**94**		**P**	**14 36 12.1**	**-1.3**
NIUE	**Niue**	**7.41**	**94**	P	**P**	**14 36 12.2**	**-1.1**
NIUE				S	**S**	**14 37 53.5**	**+7.6**
NIUE				AML	AML		
NIUE	**Niue**	**7.41**	**94**	P	**P**	**14 36 12.5**	**-0.9**
	comp=Z,560nm,0.9s						
AFI	**Afiulu**	**7.44**	**51**	P	**P**	**14 36 10.6**	**-3.3**
	comp=Z,462nm,0.4s,baz=229,slow=9.0,SNR=114						
AFI				S	**S**	**14 37 39.4**	**-7.3**
	comp=Z,66nm,0.5s,baz=242,slow=18,SNR=1.1						
GLKZ	**Green Lake**	**10.52**	**181**	P	**P**	**14 36 41.6**	**-2.3**
GLKZ				S	**S**	**14 38 40.4**	**-1.4**
FUNA	**Funafuti**	**10.54**	**343**		**P**	**14 36 43.2**	**-1.1**
FUNA	**Funafuti**	**10.54**	**343**	P	**P**	**14 36 44.8**	**+0.5**
	comp=Z,866nm,0.9s						
RTV	**Rentapao**	**13.18**	**272**	P	**P**	**14 37 11.0**	**-0.1**
DVP	**Devils Point**	**13.41**	**272**	P	**P**	**14 37 15.0**	**+1.5**
MARNC	**Mare, Loyalty**	**13.65**	**256**	P	**P**	**14 37 14.7**	**-1.3**
MARNC	**Mare, Loyalty**	**13.65**	**256**	S	**S**	**14 39 39.7**	**-0.5**
MARNC	**Mare, Loyalty**	**13.65**	**256**		**P**	**14 37 14.4**	**-1.6**
PINNC	**Pines Island,**	**14.40**	**252**		**P**	**14 37 21.9**	**-1.6**
SANVU	**Saraoutou**	**14.76**	**280**		**P**	**14 37 25.8**	**-1.1**
SANVU	**Saraoutou**	**14.76**	**280**	P	**P**	**14 37 27.4**	**+0.5**
	comp=Z,167nm,1.1s						
OUENC	**Ouen Island, N**	**14.91**	**253**	P	**P**	**14 37 28.1**	**-0.2**
OUENC	**Ouen Island, N**	**14.91**	**253**	P	**P**	**14 37 24.3**	**-4.0**
DZM	**Mont Dzumac**	**15.21**	**255**	P	**P**	**14 37 30.0**	**-1.2**
	comp=Z,63nm,0.6s,baz=86,slow=18,SNR=52						
DZM				S	**S**	**14 40 06.4**	**-1.0**
	comp=Z,19nm,1.1s,baz=80,slow=18,SNR=1.7						
ONTNC	**Ouen Toro**	**15.24**	**254**		**P**	**14 37 30.3**	**-1.1**
NFK	**Norfolk Island**	**16.65**	**229**	P	**P**	**14 37 46.6**	**+2.1**
	comp=Z,156nm,1.4s						
NFK	**Norfolk Island**	**16.65**	**229**	P	**P**	**14 37 46.4**	**+1.9**
	comp=Z,156nm,1.4s						
KOUNC	**Koumac, New Ca**	**17.04**	**261**		**P**	**14 37 47.5**	**-0.6**
RAR	**Rarotonga**	**17.07**	**101**	P	**P**	**14 37 48.1**	**-0.4**
	comp=Z,92nm,0.8s,baz=273,slow=9.3,SNR=15						
RAR	**Rarotonga**	**17.07**	**101**	P	**P**	**14 37 49.7**	**+1.3**
RAR	**Rarotonga**	**17.07**	**101**	P	**P**	**14 37 47.9**	**-0.5**
RAR				pmax	pmax		
	comp=Z,122nm,0.9s						
RAR	**Rarotonga**	**17.07**	**101**	P	**P**	**14 37 47.9**	**-0.5**
RAR	**Rarotonga**	**17.07**	**101**	P	**P**	**14 37 49.1**	**+0.7**
	comp=Z,175nm,0.9s						
OUZ	**Omahuta**	**18.17**	**203**	P	**P**	**14 37 59.5**	**+1.3**
OUZ	**Omahuta**	**18.17**	**203**	P	**P**	**14 38 00.6**	**+2.4**
OUZ	**Omahuta**	**18.17**	**203**	P	**P**	**14 38 00.8**	**+2.6**
	comp=Z,109nm,0.6s						
MXZ	**Matakaoa Point**	**19.11**	**190**	P	**P**	**14 38 06.4**	**-0.4**
MXZ	**Matakaoa Point**	**19.11**	**190**	P	**P**	**14 38 05.6**	**-1.2**
MYRZ	**Mayor Island**	**19.25**	**195**	P	**P**	**14 38 10.0**	**+1.9**
WMGZ	**Waiomatatini S**	**19.35**	**189**	P	**P**	**14 38 08.3**	**-0.6**
HAZ	**Te Kaha**	**19.39**	**191**	P	**P**	**14 38 08.5**	**-0.8**
RUGZ	**Raukumara Rang**	**19.61**	**191**	P	**P**	**14 38 09.8**	**-1.6**
PUZ	**Puketiti**	**19.62**	**189**	P	**P**	**14 38 11.3**	**-0.1**
TGRZ	**Tauranga**	**19.68**	**194**	P	**P**	**14 38 13.3**	**+1.4**
OPRZ	**Ohinepanea**	**19.72**	**193**	P	**P**	**14 38 12.7**	**+0.4**
TWGZ	**Tauwhareparae**	**19.77**	**190**	P	**P**	**14 38 12.0**	**-0.7**
MARZ	**Manawahe**	**19.83**	**193**	P	**P**	**14 38 13.0**	**-0.3**
KMRZ	**Kaimai**	**19.86**	**195**	P	**P**	**14 38 15.4**	**+1.7**
TOZ	**Tahuroa Road**	**19.87**	**196**	P	**P**	**14 38 13.8**	**+0.2**
MWZ	**Matawai**	**20.00**	**191**	P	**P**	**14 38 12.9**	**-2.0**
MWZ				S	**S**	**14 41 23.6**	**-1.0**
URZ	**Urewera**	**20.00**	**192**	P	**P**	**14 38 12.9**	**-2.0**
	comp=Z,36nm,0.5s,baz=4.8,slow=4.8,SNR=36						
URZ				S	**S**	**14 41 17.9**	**-6.6**
	comp=Z,18nm,0.8s,baz=197,slow=18,SNR=13						
URZ	**Urewera**	**20.00**	**192**	P	**P**	**14 38 13.5**	**-1.3**
URZ	**Urewera**	**20.00**	**192**	P	**P**	**14 38 12.3**	**-2.5**
URZ				S	**S**	**14 41 18.6**	**-5.9**
URZ	**Urewera**	**20.00**	**192**	P	**P**	**14 38 13.3**	**-1.6**
	comp=Z,61nm,0.7s						
CNGZ	**Carnagh Statio**	**20.03**	**189**	P	**P**	**14 38 15.0**	**-0.1**
TKGZ	**Te Karaka**	**20.05**	**190**	P	**P**	**14 38 15.3**	**+0.1**
TKGZ				S	**S**	**14 41 26.3**	**+1.1**
TARZ	**Mount Tarawera**	**20.11**	**193**	P	**P**	**14 38 15.4**	**-0.5**
RAGZ	**Rawiri**	**20.18**	**191**	P	**P**	**14 38 15.6**	**-0.9**
HIZ	**Hauiti**	**20.77**	**197**	P	**P**	**14 38 22.0**	**+0.2**
BKZ	**Black Stump Fm**	**21.00**	**193**	P	**P**	**14 38 23.5**	**-0.4**
TSZ	**Takapari Road**	**21.97**	**193**	P	**P**	**14 38 31.2**	**-1.4**
TSZ				S	**S**	**14 41 53.8**	**-1.9**
BFZ	**Birch Farm**	**22.52**	**192**	P	**P**	**14 38 37.4**	**+0.1**
BFZ	**Birch Farm**	**22.52**	**192**	P	**P**	**14 38 36.0**	**-1.4**
BFZ				IAmb	IAmb	14 38 38.1	
	comp=Z,44nm,1.3s						
BFZ	**Birch Farm**	**22.52**	**192**	P	**P**	**14 38 35.9**	**-1.4**
MRZ	**Mangatainoka R**	**22.63**	**193**	P	**P**	**14 38 36.4**	**-2.0**
SNZO	**South Karori**	**23.45**	**194**	P	**P**	**14 38 45.3**	**-0.3**
SNZO	**South Karori**	**23.45**	**194**	P	**P**	**14 38 44.3**	**-1.3**
TCW	**Tory Channel**	**23.46**	**195**	P	**P**	**14 38 44.1**	**-1.6**
QRZ	**Quartz Range**	**23.59**	**199**	P	**P**	**14 38 46.5**	**-0.4**
QRZ	**Quartz Range**	**23.59**	**199**	P	**P**	**14 38 46.8**	**-0.1**
QRZ	**Quartz Range**	**23.59**	**199**	P	**P**	**14 38 46.8**	**-0.1**
NNZ	**Nelson**	**23.70**	**197**	IAmb	IAmb	14 38 51.0	
	comp=Z,16nm,0.6s						
NNZ	**Nelson**	**23.70**	**197**	P	**P**	**14 38 46.8**	**-1.0**
TATA	**Tatamba Isabel**	**24.09**	**292**	P	**P**	**14 38 52.0**	**+0.3**
THZ	**Tophouse**	**24.34**	**197**	P	**P**	**14 38 52.6**	**-1.0**
LHI	**Lord Howe Isla**	**24.52**	**234**	P	**P**	**14 38 56.8**	**+1.5**
	comp=Z,58nm,1.1s						
LHI	**Lord Howe Isla**	**24.52**	**234**	P	**P**	**14 38 56.3**	**+1.1**
	comp=Z,58nm,1.1s						
DSZ	**Denniston Nort**	**24.65**	**199**	P	**P**	**14 38 55.7**	**-0.6**
KHZ	**Kahutara**	**24.78**	**196**	P	**P**	**14 38 56.5**	**-0.9**
KHZ	**Kahutara**	**24.78**	**196**	P	**P**	**14 38 56.0**	**-1.4**
KHZ	**Kahutara**	**24.78**	**196**	P	**P**	**14 38 56.2**	**-1.1**
	comp=Z,79nm,0.8s						
CTZ	**Chatham Island**	**24.98**	**178**	P	**P**	**14 39 02.0**	**+2.9**
GVZ	**Greta Valley S**	**25.43**	**196**	P	**P**	**14 39 01.6**	**-1.5**
LTZ	**Lake Taylor**	**25.46**	**197**	P	**P**	**14 39 01.5**	**-2.0**
INZ	**Inchbonnie**	**25.65**	**199**	P	**P**	**14 39 03.6**	**-1.4**
OXZ	**Oxford**	**26.03**	**197**	P	**P**	**14 39 06.5**	**-1.9**
WVZ	**Waitaha Valley**	**26.19**	**199**	P	**P**	**14 39 09.2**	**-0.6**
MQZ	**McQueen's Vall**	**26.22**	**196**	P	**P**	**14 39 08.5**	**-1.5**
RPZ	**Rata Peaks**	**26.67**	**198**	P	**P**	**14 39 13.5**	**-0.5**
	comp=Z,5.1nm,0.5s,baz=22,slow=3.9,SNR=47						
RPZ				S	**S**	**14 43 06.5**	**-2.8**
	comp=Z,2.2nm,0.8s,baz=52,slow=22,SNR=3.4						
RPZ				ScP	**ScP**	**14 45 04.2**	**+0.5**
	comp=Z,1.0nm,0.5s,baz=26,slow=3.3,SNR=2.6						
	comp=Z,5.1nm,0.5s						
RPZ	**Rata Peaks**	**26.67**	**198**	P	**P**	**14 39 14.9**	**+0.9**
RPZ	**Rata Peaks**	**26.67**	**198**	IAmb	IAmb	14 39 16.2	
	comp=Z,22nm,0.5s						
PAE	**Paea**	**26.76**	**92**	*e*P	**P**	**14 39 12.9**	**-2.3**
	comp=Z,112nm,1.1s						
PPT2	**Papeete2**	**26.77**	**92**	*e*P	**P**	**14 39 15.3**	**-0.1**
	comp=Z,126nm,1.3s						
PPT2				*es*S	sS	14 45 52.6	-10
	comp=Z,79nm,27.5s						
PPT2				*es*S	SS	14 45 55.0	-20
	comp=Z,251nm,24.2s						
TBI	**Tubuai**	**26.78**	**105**	*e*P	**P**	**14 39 15.0**	**-0.2**
	comp=Z,150nm,0.8s						
PPT	**Papeete**	**26.78**	**92**	P	**P**	**14 39 15.2**	**-0.1**
	comp=Z,44nm,0.4s,baz=265,slow=8.2,SNR=24						
	comp=Z,44nm,0.4s						
PPTF	**Pamatai, Papee**	**26.79**	**92**	P	**P**	**14 39 16.1**	**+0.6**
PPTF	**Pamatai, Papee**	**26.79**	**92**	P	**P**	**14 39 15.2**	**-0.3**
TIAR	**Tiarei**	**27.00**	**92**	*e*P	**P**	**14 39 17.1**	**-0.2**
	comp=Z,433nm,0.7s						
TVO	**Taravao**	**27.06**	**93**	*e*P	**P**	**14 39 17.7**	**-0.2**
	comp=Z,51nm,0.7s						
JCZ	**Jackson Bay**	**27.72**	**201**	P	**P**	**14 39 23.2**	**-0.1**
ODZ	**Otahua Downs**	**28.00**	**198**	P	**P**	**14 39 25.4**	**-0.2**
PMOR	**Pomariorio Ree**	**28.78**	**87**	*e*P	**P**	**14 39 31.8**	**-1.0**
	comp=Z,68nm,0.9s						
VAH	**Vaihoa**	**28.99**	**88**	*e*P	**P**	**14 39 33.8**	**-0.8**
	comp=Z,74nm,0.9s						
MLZ	**Mavora Lakes**	**29.08**	**201**

MOO	Moorlands	37.96	224	P		P		14 40 50.7	+1.2
	comp=Z,98nm,2.0s								
MOO	Moorlands	37.96	224	P		P		14 40 49.6	+0.1
MANU	Manus Island	37.98	292	P		P		14 40 49.7	-0.3
TAU	Tasmania Unive	38.09	223	P		P		14 40 50.3	-0.2
BRAT	Ballarat	38.34	233	P		P		14 40 53.0	+0.4
STKA	Stephens Creek	38.82	242	P		P		14 40 57.6	+1.0
	comp=Z,765nm,1.0s								
STKA	Stephens Creek	38.82	242	P		P		14 40 57.5	+0.9
	comp=Z,765nm,1.0s								
STKA	Stephens Creek	38.82	242	P		P		14 40 57.3	+0.7
	comp=Z,112nm,0.7s,baz=91,slow=9.1,SNR=128								
STKA				ScP		ScP		14 45 48.0	+1.7
	comp=Z,11nm,1.1s,baz=77,slow=4.4,SNR=3.7								
	comp=Z,112nm,0.7s								
STKA	Stephens Creek	38.82	242	P		P		14 40 56.9	+0.3
STKA	Stephens Creek	38.82	242	*d* iP		P		14 40 57.5	+0.9
STKA	Stephens Creek	38.82	242	P		P		14 40 57.6	+1.0
	comp=Z,765nm,1.0s								
ARPS	Mount Arapiles	39.71	235	P		P		14 41 01.2	-2.5
	comp=Z,24nm,1.4s								
ARPS	Mount Arapiles	39.71	235	P		P		14 41 01.1	-2.5
	comp=Z,24nm,1.4s								
QIS	Mount Isa	40.14	260	P		P		14 41 07.0	-0.4
	comp=Z,39nm,0.7s								
QIS	Mount Isa	40.14	260	P		P		14 41 06.9	-0.4
	comp=Z,39nm,0.7s								
QIS	Mount Isa	40.14	260	P		P		14 41 06.8	-0.6
QIS	Mount Isa	40.14	260	P		P		14 41 06.9	-0.4
	comp=Z,39nm,0.7s								
HTT	Hallett	41.30	240	P		P		14 41 17.1	+0.7
	comp=Z,60nm,0.9s								
HTT	Hallett	41.30	240	P		P		14 41 16.7	+0.2
PTPS	Port Pirie	42.03	241	P		P		14 41 21.6	-0.5
BBOO	Buckleboo	43.59	242	P		P		14 41 34.7	+0.4
	comp=Z,198nm,1.0s								
BBOO	Buckleboo	43.59	242	P		P		14 41 34.4	+0.1
BBOO	Buckleboo	43.59	242	P		P		14 41 34.2	-0.1
BBOO	Buckleboo	43.59	242	P		P		14 41 34.7	+0.4
	comp=Z,198nm,1.0s								
JAY	Jayapura	43.74	287	P		P		14 41 35.8	+0.1
	comp=Z,2µmcomp=Z,221nm,0.8s								
GENI	Genyem	44.19	286	P		P		14 41 39.5	+0.3
GENI	Genyem	44.19	286	P		P		14 41 40.0	+0.8
	comp=Z,3µmcomp=Z,260nm,1.1s								
GENI	Genyem	44.19	286	P		P		14 41 39.7	+0.5
	comp=Z,259nm,1.1s								
WRAB	Tennant Creek	45.11	260	P		P		14 41 45.3	-0.9
WRAB	Tennant Creek	45.11	260	*d* iP		P		14 41 45.5	-0.7
WRAB				pmax		pmax			
	comp=Z,112nm,0.8s								
WRAB	Tennant Creek	45.11	260	P		P		14 41 45.4	-0.7
WRAB	Tennant Creek	45.11	260	P		P		14 41 45.6	-0.5
	comp=Z,206nm,1.2s								
AS17	Alice Springs	45.12	255	P		P		14 41 46.4	+0.2
	comp=Z,368nm,0.8s								
WRA	Warramunga Arr	45.12	260	P		P		14 41 45.7	-0.6
	comp=Z,96nm,0.6s,baz=96,slow=8.3,SNR=32								
WRA				PcP		PcP		14 43 14.3	+0.1
	comp=Z,8.9nm,0.7s,baz=92,slow=3.1,SNR=4.8								
WRA				ScP		ScP		14 46 12.5	+0.5
	comp=Z,2.9nm,1.0s,baz=95,slow=4.5,SNR=3.2								
WRA				S		S		14 47 41.6	-2.6
	comp=Z,1.9nm,0.8s,baz=96,slow=14,SNR=6.0								
	comp=Z,96nm,0.6s								
AS01	Alice Springs	45.15	255	P		P		14 41 45.9	-0.6
AS09	Alice Springs	45.16	255	P		P		14 41 46.6	+0.1
	comp=Z,265nm,1.0s								
AS15	Alice Springs	45.19	255	P		P		14 41 46.9	+0.1
	comp=Z,353nm,0.9s								
AS31	Alice Springs	45.20	255	P		P		14 41 46.9	+0.1
	comp=Z,77nm,0.9s								
ASAR	Alice Springs	45.20	255	P		P		14 41 46.8	0.0
	comp=Z,191nm,0.7s,baz=90,slow=8.3,SNR=2520								
ASAR				PcP		PcP		14 43 14.4	-0.1
	comp=Z,11nm,0.5s,baz=101,slow=3.9,SNR=5.6								
ASAR				ScP		ScP		14 46 13.7	+1.3
	comp=Z,4.2nm,0.8s,baz=102,slow=3.8,SNR=7.1								
ASAR				S		S		14 47 44.3	-1.0
	comp=Z,3.9nm,0.7s,baz=90,slow=16,SNR=10.0								
	comp=Z,191nm,0.7s								
ASAR	Alice Springs	45.20	255	P		P		14 41 46.6	-0.2
ASAR	Alice Springs	45.20	255	P		P		14 41 46.6	-0.2
ASAR						ScP		14 46 15.8	+3.5
SMPI	Sarmi	45.77	286	P		P		14 41 51.1	-0.1
	comp=Z,105nm,0.9s								
BAKI	Biak	48.47	286	P		P		14 42 12.9	+1.5
	comp=Z,1µmcomp=Z,154nm,1.0s								
GUMO	Guam	48.86	308	P		P		14 42 14.3	+0.1
	comp=Z,182nm,0.8s,baz=125,slow=7.1,SNR=6.9								
	comp=Z,182nm,0.8s								
GUMO	Guam	48.86	308	P		P		14 42 13.6	-0.7
GUMO				pmax		pmax			
	comp=Z,180nm,0.8s								
GUMO	Guam	48.86	308	P		P		14 42 13.6	-0.7
MTN	Manton Dam	49.42	269	P		P		14 42 17.9	-0.5
	comp=Z,67nm,0.7s								
MTN	Manton Dam	49.42	269	P		P		14 42 17.9	-0.5
DRS	Darwin Rock St	49.74	269	P		P		14 42 20.3	-0.5
WRKA	Warakurna	50.21	253	P		P		14 42 24.3	+0.1
	comp=Z,96nm,1.0s								
FORT	Forrest	50.25	245	P		P		14 42 23.9	-0.4
	comp=Z,110nm,0.7s								
FORT	Forrest	50.25	245	P		P		14 42 23.4	-0.9
MWPI	Manokwari, Pap	50.46	285	P		P		14 42 26.9	+0.8
	comp=Z,162nm,0.8s								
SAUI	Saumlaki	50.56	275	P		P		14 42 25.7	-1.1
	comp=Z,181nm,0.8s								
KNRA	Kununurra	51.05	265	P		P		14 42 30.2	-0.1
	comp=Z,91nm,0.7s								
FAKI	Fak Fak	51.36	282	P		P		14 42 32.4	-0.2
FAKI	Fak Fak	51.36	282	P		P		14 42 31.7	-0.8
FAKI				IAmb		IAmb		14 42 39.4	
	comp=Z,79nm,1.3s								
BNDI	Bandanaira	52.98	279	P		P		14 42 45.2	+1.0
BNDI	Bandanaira	52.98	279	P		P		14 42 43.7	-0.5
	comp=Z,125nm,1.0s								
BNDI	Bandanaira	52.98	279	P		P		14 42 44.1	-0.1
	comp=Z,133nm,0.9s								
SIJI	Sorong	53.04	283	P		P		14 42 44.7	+0.1
FITZ	Fitzroy Crossi	53.53	261	P		P		14 42 48.3	+0.3
FITZ	Fitzroy Crossi	53.53	261	IAmb		IAmb		14 42 48.5	
	comp=Z,10nm,0.5s								
KMBL	Kambalda	55.54	244	P		P		14 43 01.6	-0.3
	comp=Z,25nm,0.8s								
NLAI	Namlea	56.05	279	P		P		14 43 05.2	-0.4
	comp=Z,2µmcomp=Z,172nm,0.7s								
SOEI	Soe	56.71	270	P		P		14 43 11.5	+1.2
SOEI	Soe	56.71	270	P		P		14 43 11.5	+1.2
SOEI	Soe	56.71	270	P		P		14 43 11.8	+1.5
	comp=Z,398nm,0.8s								
BATI	Baumata	57.16	270	P		P		14 43 14.4	+1.1
	comp=Z,144nm,0.7s								
TNTI	Ternate	57.26	283	P		P		14 43 13.3	-0.6
TNTI	Ternate	57.26	283	P		P		14 43 13.9	0.0
	comp=Z,1µmcomp=Z,138nm,0.9s								
TNTI	Ternate	57.26	283	P		P		14 43 14.0	+0.1
	comp=Z,139nm,0.9s								
SANI	Sanana	57.50	280	P		P		14 43 15.1	-0.5
SANI	Sanana	57.50	280	P		P		14 43 14.8	-0.8
	comp=Z,1µmcomp=Z,150nm,0.8s								
SANI	Sanana	57.50	280	P		P		14 43 15.1	-0.5
	comp=Z,148nm,0.8s								
MBWA	Marble Bar	58.50	256	P		P		14 43 22.0	-0.2
	comp=Z,94nm,1.1s								
MBWA	Marble Bar	58.50	256	P		P		14 43 21.8	-0.4
MBWA	Marble Bar	58.50	256	P		P		14 43 21.8	-0.4
MEEK	Meekatharra	58.76	250	P		P		14 43 23.5	-0.4
	comp=Z,127nm,0.9s								
MEEK	Meekatharra	58.76	250	P		P		14 43 23.1	-0.8
MEEK	Meekatharra	58.76	250	P		P		14 43 23.5	-0.4
	comp=Z,127nm,0.9s								
MMRI	Maumere	58.95	271	P		P		14 43 24.9	-0.4
MMRI	Maumere	58.95	271	P		P		14 43 24.7	-0.6
	comp=Z,2µmcomp=Z,198nm,0.7s								
MMRI	Maumere	58.95	271	P		P		14 43 25.0	-0.4
	comp=Z,165nm,0.7s								
KLBR	Kellerberrin	59.05	244	P		P		14 43 25.7	-0.1
	comp=Z,410nm,0.7s								
KLBR	Kellerberrin	59.05	244	P		P		14 43 25.3	-0.5
KLBR	Kellerberrin	59.05	244	P		P		14 43 25.3	-0.5
	comp=Z,410nm,0.7s								
NWAO	Narrogin (SRO)	59.41	242	P		P		14 43 27.2	-0.9
	comp=Z,56nm,1.1s								
NWAO	Narrogin (SRO)	59.41	242	P		P		14 43 27.2	-0.9
	comp=Z,35nm,1.1s								
NWAO	Narrogin (SRO)	59.41	242	P		P		14 43 27.9	-0.1
NWAO	Narrogin (SRO)	59.41	242	P		P		14 43 27.7	-0.4
NWAO	Narrogin (SRO)	59.41	242	P		P		14 43 28.0	-0.1
NWAO				pmax		pmax			
	comp=Z,24nm,0.8s								
NWAO	Narrogin (SRO)	59.41	242	P		P		14 43 28.0	-0.1
NWAO				IAmb		IAmb		14 43 28.6	
	comp=Z,24nm,0.8s								
EDFI	Ende, Flores	59.43	271	P		P		14 43 27.8	-0.9
	comp=Z,2µmcomp=Z,158nm,1.3s								
SBA	Scott Base	59.68	184	P		P		14 43 31.8	+2.7
SBA				pmax		pmax			
	comp=Z,7.0nm,1.0s								
SBA	Scott Base	59.68	184	P		P		14 43 31.8	+2.7
SBA	Scott Base	59.68	184	P		P		14 43 32.4	+3.3
	comp=Z,8.1nm,0.9s								
VNDA	Vanda	59.72	185	P		P		14 43 31.1	+1.7
	comp=Z,1.9nm,0.5s,baz=359,slow=7.8,SNR=26								
VNDA				ScP		ScP		14 47 13.9	-0.4
	comp=Z,1.3nm,1.0s,baz=20,slow=2.1,SNR=3.1								
	comp=Z,1.9nm,0.5s								
VNDA	Vanda	59.72	185	P		P		14 43 30.9	+1.5
VNDA				pmax		pmax			
	comp=Z,2.0nm,0.7s								
VNDA	Vanda	59.72	185	P		P		14 43 30.9	+1.5
KDI	Kendari	60.02	276	P		P		14 43 32.2	-0.2
	comp=Z,41nm,0.8s								
BLDU	Ballidu	60.02	245	P		P		14 43 32.1	-0.2
	comp=Z,131nm,0.7s								
BLDU	Ballidu	60.02	245	P		P		14 43 31.6	-0.6
BLDU	Ballidu	60.02	245	P		P		14 43 32.1	-0.2
	comp=Z,131nm,0.7s								
KMSI	Cibinong	60.32	282	P		P		14 43 34.0	-0.4
	comp=Z,2µmcomp=Z,314nm,0.8s								
WSI	Waingapu	60.50	269	P		P		14 43 35.7	+0.1
MORW	Morawa	60.75	247	P		P		14 43 36.9	-0.1
	comp=Z,51nm,0.9s								
MORW	Morawa	60.75	247	P		P		14 43 36.4	-0.7
MORW	Morawa	60.75	247	P		P		14 43 36.3	-0.7
MORW				IAmb		IAmb		14 43 37.6	
	comp=Z,32nm,0.8s								
LUWI	Luwuk	60.86	280	P		P		14 43 38.0	0.0
LBFI	Labuhan Bajo,	61.22	270	P		P		14 43 39.3	-1.0
BKSI	Bulukumba	61.94	274	P		P		14 43 44.3	-0.7
APSI	Ampana	61.96	279	P		P		14 43 46.1	+1.0
	comp=Z,1µmcomp=Z,139nm,0.8s								
KAPI	Kappang	62.38	274	*d* iP		P		14 43 47.8	-0.1
KAPI				pmax		pmax			
	comp=Z,20nm,0.6s								
KAPI	Kappang	62.38	274	P		P		14 43 47.0	-0.9
KAPI				IAmb		IAmb		14 43 48.2	
	comp=Z,18nm,0.7s								
KAPI	Kappang	62.38	274	P		P		14 43 47.8	-0.1
DBNI	Kabupaten Domp	62.71	270	P		P		14 43 49.1	-0.9
TTSI	Tana Toraja	62.95	276	P		P		14 43 51.6	+0.1
PLAI	Plampang	63.12	269	P		P		14 43 52.4	-0.2
PLAI	Plampang	63.12	269	P		P		14 43 52.2	-0.4
	comp=Z,2µmcomp=Z,210nm,0.9s								
GIRL	Giralia	63.28	254	P		P		14 43 55.0	+1.5
	comp=Z,132nm,1.0s								
TOLI2	Tolitoli	63.49	281	P		P		14 43 54.6	-0.4
TOLI2	Tolitoli	63.49	281	P		P		14 43 53.8	-1.1
TOLI2				IAmb		IAmb		14 43 55.6	
	comp=Z,36nm,0.7s								
PMSI	Majene	63.66	275	P		P		14 43 56.8	+0.7
	comp=Z,2µmcomp=Z,208nm,0.8s								
PCI	Palu	63.66	279	P		P		14 43 57.5	+1.4
	comp=Z,2µmcomp=Z,212nm,1.0s								
TWSI	Taliwang, Sumb	63.99	269	P		P		14 43 57.7	-0.5
	comp=Z,2µmcomp=Z,239nm,0.8s								
KHKI	Kahang-Kahang	65.31	269	P		P		14 44 05.7	-0.7
	comp=Z,78nm,0.7s								
IGBI	Denpasar	65.62	269	P		P		14 44 08.3	-0.1
SRBI	Singaraja	65.76	269	P		P		14 44 08.6	-0.7
	comp=Z,2µmcomp=Z,174nm,1.0s								
JAGI	Jajag, Banyuwa	66.66	269	P		P		14 44 13.8	-1.1
JAGI	Jajag, Banyuwa	66.66	269	P		P		14 44 13.2	-1.7
JAGI	Jajag, Banyuwa	66.66	269	P		P		14 44 13.6	-1.2
ABJI	Asem Bagus	66.77	269	P		P		14 44 14.7	-0.8
	comp=Z,144nm,1.1s								
KMMI	Kalianget	67.25	270	P		P		14 44 18.9	+0.5
	comp=Z,119nm,1.1s								
BLJI	Banyuglugur	67.39	269	P		P		14 44 19.0	-0.3
	comp=Z,232nm,0.7s								
JGF	Kuka	68.75	322	P		P		14 44 27.1	0.0
MJAR	Matsushiro Arr	68.91	323	P		P		14 44 27.5	-0.6
	comp=Z,13nm,0.7s,baz=218,slow=6.3,SNR=4.4								
	comp=Z,13nm,0.7s								
MJAR	Matsushiro Arr	68.91	323	P		P		14 44 27.0	-1.1
MJAR				pmax		pmax			
	comp=Z,9.0nm,0.8s								
MJAR	Matsushiro Arr	68.91	323	P		P		14 44 27.0	-1.1
MJAR				IAmb		IAmb		14 44 28.4	
	comp=Z,9.2nm,0.8s								
MAJO	Matsushiro	68.92	323	P		P		14 44 28.0	-0.1
MAJO	Matsushiro	68.92	323	*d* iP		P		14 44 27.7	-0.4
MAJO				pmax		pmax			
	comp=Z,19nm,0.8s								
MAJO	Matsushiro	68.92	323	P		P		14 44 27.6	-0.4
MAJO				IAmb		IAmb		14 44 28.7	
	comp=Z,18nm,0.8s								
MJB9	Matsu-Tunnel	68.92	323	P		P		14 44 28.1	0.0
MJB9				IAmb		IAmb		14 44 29.6	
	comp=Z,18nm,0.8s								
PWJI	Pagerwojo	69.01	268	P		P		14 44 28.9	-0.2
SNJI	Sawahan-Nganju	69.12	269	P		P		14 44 31.1	+1.1
	comp=Z,174nm,0.9s								
SJI	Sawahan	69.13	269	P		P		14 44 30.1	+0.1
KKM	Kota Kinabalu	69.55	284	P		P		14 44 32.4	-0.1
KKM	Kota Kinabalu	69.55	284	P		P		14 44 32.4	-0.1
	comp=Z,918nmcomp=Z,112nm,0.6s								
JMN	Monobe	69.60	318	P		P		14 44 32.5	+0.2
WOJI	Wonogiri, Jawa	69.90	268	P		P		14 44 34.5	+0.1
UGM	Wanagama	70.26	268	P		P		14 44 36.3	-0.3
ADK	Adak	70.28	1	P		P		14 44 34.8	-1.0
SMRI	Semarang	70.59	269	P		P		14 44 39.0	+0.5
QSPA	South Pole Qui	71.36	180	P		P		14 44 43.3	+1.1
	comp=Z,11nm,0.8s,baz=45,slow=2.1,SNR=63								
	comp=Z,11nm,0.8s								
QSPA	South Pole Qui	71.36	180	P		P		14 44 43.1	+0.8
QSPA				IAmb		IAmb		14 44 46.2	
	comp=Z,14nm,0.9s								
STKI	Sintang	71.84	276	P		P		14 44 46.8	+0.9
	comp=Z,75nm,0.8s								
YOJ	Yonaguni jima	71.91	305	P		P		14 44 45.8	-0.2
KPJI	Karang Pucung	71.93	268	P		P		14 44 45.8	-0.6
	comp=Z,87nm,0.8s								
TWGBT	Beinan	72.62	302	P		P		14 44 49.5	-0.6
YULB	Yu-li	72.73	303	P		P		14 44 50.5	-0.2
YULB	Yu-li	72.73	303	IAmb		IAmb		14 44 50.7	
	comp=Z,32nm,0.6s								
NACB	Ninganchiao	72.88	304	P		P		14 44 51.4	-0.2
UNV	Unalaska Valle	72.89	7	P		P		14 44 50.6	-0.3
JTU	Tsushima	72.98	316	P		P		14 44 51.8	-0.1
BBJI	Bungbulang	73.11	268	P		P		14 44 52.8	-0.4
BBJI	Bungbulang	73.11	268	P		P		14 44 52.3	-0.9
	comp=Z,81nm,0.8s								
SSLB	Suanglung	73.20	303	P		P		14 44 52.7	-0.7
TPUB	Ta-pu	73.22	302	P		P		14 44 52.9	-0.6
YHNB	Yeheng	73.30	304	P		P		14 44 54.0	-0.1
CBJI	Citeko	74.18	268	P		P		14 44 58.1	-1.1
	comp=Z,164nm,0.5s								
SKJI	Sukabumi	74.28	268	P		P		14 44 59.4	-0.4
PET	Petropavlovsk	74.29	345	*c* iP		P		14 45 00.1	+1.2
PET				pmax		pmax			
	comp=Z,84nm,1.3s								
PET	Petropavlovsk	74.29	345	P		P		14 44 58.6	-0.3
	comp=Z,56nm,1.3s								
YSS	Yuzhno-Sakhali	74.40	333	*e*P		P		14 45 00.4	+0.8
YSS				pmax		pmax			
	comp=Z,20nm,1.1s								
TPI	Tanjungpandan	74.54	272	P		P		14 45 01.5	+0.3
	comp=Z,62nm,0.8s								
PETK	Petropavlovsk-	74.60	345	P		P		14 45 00.3	-0.3
	comp=Z,14nm,0.6s,baz=152,slow=5.5,SNR=30								
	comp=Z,14nm,0.6s								
CGJI	Cibinong	75.22	268	P		P		14 45 04.2	-0.8
KSRS	Korea Array	75.71	318	P		P		14 45 07.6	+0.5
	comp=Z,3.9nm,0.6s,baz=128,slow=6.2,SNR=17								
	comp=Z,3.9nm,0.6s								
KSAR	Wonju Array Be	75.73	318	P		P		14 45 07.4	+0.1
KSAR	Wonju Array Be	75.73	318	P		P		14 45 07.4	+0.1
KASI	Kota Agung	76.68	269	P		P		14 45 12.2	-0.8
	comp=Z,110nm,1.0s								
MDSI	Maura Dua	77.30	270	P		P		14 45 15.0	-1.4
	comp=Z,53nm,0.8s								
MWC	Mount Wilson	77.40	47	IAmb		IAmb		14 45 18.2	
	comp=Z,8.9nm,0.7s								
TYV	Tymovskoe	77.50	336	*e*P		P		14 45 16.6	0.0
TYV				pmax		pmax			
	comp=Z,200nm,2.8s								
TYV				pmax		pmax			
	comp=Z,18nm,0.8s								
DPP	Dos Picos Cty	77.53	49	IAmb		IAmb		14 45 18.9	
	comp=Z,10nm,0.8s								
USA0B	Ussuriysk Arra	77.62	326	⇑*e*P		P		14 45 18.8	+1.4
USRK	Ussuriysk Ar.	77.62	326	P		P		14 45 18.3	+0.9
	comp=Z,4.4nm,0.7s,baz=159,slow=4.1,SNR=7.7								
	comp=Z,4.4nm,0.7s								
ESJX	Sierra Juarez	77.72	50	P		P		14 45 19.3	+0.8
DSRI	Dabo	78.18	274	P		P		14 45 21.7	+0.5
PFO	Pinyon Flats O	78.19	48	P		P		14 45 21.8	+0.8
	comp=Z,4.2nm,1.0s,baz=237,slow=5.2,SNR=4.0								
	comp=Z,4.2nm,1.0s								
PFO	Pinyon Flats O	78.19	48	*i* P		P		14 45 22.5	+1.5
PFO	Pinyon Flats O	78.19	48	P		P		14 45 20.9	0.0
MNAI	Manna	78.50	269	P		P		14 45 22.6	-0.3
YBH	Yreka Blue Hor	78.73	39	P		P		14 45 24.3	+0.7
	comp=Z,4.0nm,0.6s,baz=231,slow=4.9,SNR=16								
	comp=Z,4.0nm,0.6s								
NJ2	Nanjing	78.93	309	*e*P		P		14 45 25.8	+1.1
NJ2				pmax		pmax			
	comp=Z,20nm,0.7s								
MPK	Martis Peak	78.93	42	IAmb		IAmb		14 45 26.7	
	comp=Z,12nm,1.1s								
KSI	Kapahiang	79.06	270	P		P		14 45 25.3	-0.6
	comp=Z,152nm,0.7s								
GLA	Glamis	79.07	50	IAmb		IAmb		14 45 28.0	
	comp=Z,9.6nm,0.9s								
PNTR	Pine Nut	79.09	42	IAmb		IAmb		14 45 27.6	
	comp=Z,16nm,0.8s								
MDJ	Mudanjiang	79.19	325	P		P		14 45 27.2	+1.4
MDJ				pmax		pmax			
	comp=Z,38nm,0.9s								
MDJ	Mudanjiang	79.19	325	IAmb		IAmb		14 45 27.9	
	comp=Z,28nm,0.9s								
NVAR	Mina Array Bea	79.55	43	P		P		14 45 29.0	+0.8
	comp=Z,4.2nm,0.7s,baz=224,slow=8.9,SNR=34								
NVAR				pP		pP		14 47 29.6	-0.2
	comp=Z,0.4nm,0.4s,baz=242,slow=10,SNR=4.7								
	comp=Z,4.2nm,0.7s								
NVAR	Mina Array Bea	79.55	43	P		P		14 45 28.8	+0.6
J04A	Umpqua Nationa	80.00	38	IAmb		IAmb		14 45 32.2	
	comp=Z,23nm,0.6s								
SMAI	San Martin Ant	80.20	159	IAmb		IAmb		14 45 33.0	
	comp=Z,6.7nm,0.6s								
K05A	Summer Lake	80.41	39	IAmb		IAmb		14 45 34.6	
	comp=Z,15nm,1.0s								
DL2	Dalian	80.59	316	*e*P		P		14 45 34.3	+1.0
DL2				pP		pP		14 47 38.0	+2.0
DL2				S		S		14 54 53.5	+0.2
DL2				pmax		pmax			
	comp=Z,60nm,1.4s								
DL2				pmax		pmax			
	comp=Z,100nm,4.0s								
S11A	Rachel	80.82	45	IAmb		IAmb		14 45 36.5	
	comp=Z,9.9nm,0.9s								
O19K	Port Alsworth	80.88	12	IAmb		IAmb		14 45 34.5	
	comp=Z,22nm,0.6s								
PINE	Pine Mountain	81.02	38	IAmb		IAmb		14 45 38.2	
	comp=Z,12nm,1.0s								
BNX	BinXian	81.10	325	⇑P		P		14 45 36.3	+0.6
BNX				pmax		pmax			
	comp=Z,30nm,1.1s								
KLR	Kul'dur	81.11	329	⇑*e*P		P		14 45 35.8	+0.1
KLR				pmax		pmax			
	comp=Z,8.0nm,1.8s								
PRN	Pahroc Range	81.16	46	IAmb		IAmb		14 45 38.7	
	comp=Z,9.1nm,0.9s								
BELA	Belgrano 2	81.31	173	P		P		14 45 36.6	+0.2
BELA				IAmb		IAmb		14 45 37.8	
	comp=Z,10nm,1.0s								
BMN	Battle Mountai	81.36	42	IAmb		IAmb		14 45 39.1	
	comp=Z,11nm,1.1s								
HOOD	Mount Hood Mea	81.53	36	IAmb		IAmb		14 45 50.2	
	comp=Z,8.7nm,0.9s								
WHN	Wuhan	81.58	306	P		P		14 45 38.5	0.0
TUC	Tucson	81.68	52	P		P		14 45 39.5	+0.4
TUC				p

ENH Enshi 85.24 304 P P 14 45 58.0 +1.3
VHRN Van Horn 85.44 56 IAmb IAmb 14 46 00.4
comp=Z,12nm,0.9s
MNTX Cornudas Mount 85.51 55 IAmb IAmb 14 46 00.4
comp=Z,6.9nm,1.1s
PV05 Paradox Valley 85.60 47 IAmb IAmb 14 46 00.5
comp=Z,11nm,0.8s
PV10 Paradox Valley 85.78 47 IAmb IAmb 14 46 00.5
comp=Z,9.4nm,0.8s
PV14 Lion Creek, Pa 85.78 47 IAmb IAmb 14 46 01.3
comp=Z,5.7nm,0.8s
PV17 East Wray Mesa 85.79 47 IAmb IAmb 14 46 04.0
comp=Z,4.8nm,0.8s
PV18 Skein Mesa, Pa 85.81 47 IAmb IAmb 14 46 03.5
comp=Z,4.8nm,0.8s
PV13 Radium Mtn., P 85.83 48 IAmb IAmb 14 46 05.1
comp=Z,6.3nm,0.9s
PV23 Carpenter Ridg 85.83 47 IAmb IAmb 14 46 01.2
comp=Z,10nm,0.7s
TX31 Lajitas Ar. Si 85.88 57 IAmb IAmb 14 46 02.8
comp=Z,18nm,0.9s
TXAR Lajitas Array 85.88 57 P P 14 46 01.7 +1.8
comp=Z,12nm,0.8s,baz=218,slow=6.5,SNR=133
comp=Z,12nm,0.8s
PV21 Cone Mtn., Par 85.91 47 IAmb IAmb 14 46 01.6
comp=Z,9.2nm,0.8s
PV12 Saucer Basin, 85.91 47 IAmb IAmb 14 46 03.9
comp=Z,5.8nm,0.9s
PV01 Paradox Valley 85.99 48 IAmb IAmb 14 46 01.6
comp=Z,6.1nm,0.9s
WRH Wood River Hil 86.00 12 IAmb IAmb 14 45 59.9
comp=Z,11nm,1.0s
TASM ASL Pad, Albuq 86.08 51 IAmb IAmb 14 46 02.6
comp=Z,4.3nm,0.9s
ALQ Albuquerque 86.09 51 IAmb IAmb 14 46 03.6
comp=Z,4.3nm,0.9s
ANMO Albuquerque 86.09 51 P P 14 46 01.6 +0.7
comp=Z,4.9nm,0.9s,baz=227,slow=5.7,SNR=8.7
ANMO pP pP 14 48 06.4 +1.3
comp=Z,0.7nm,0.3s,baz=261,slow=4.0,SNR=1.8
comp=Z,4.9nm,0.9s
ANMO Albuquerque 86.09 51 ⇑*i*P P 14 46 01.6 +0.7
ANMO pmax pmax
comp=Z,6.0nm,1.1s
ANMO Albuquerque 86.09 51 P P 14 46 01.0 +0.1
PV15 Paradox Valley 86.15 47 IAmb IAmb 14 46 15.7
comp=Z,17nm,1.5s
HDA Harding Lake 86.18 13 IAmb IAmb 14 46 00.6
comp=Z,8.2nm,0.6s
TPB28 86.18 55 IAmb IAmb 14 46 03.9
comp=Z,5.7nm,1.1s
CCB Clear Creek Bu 86.21 12 P P 14 45 59.6 -0.9
CCB IAmb IAmb 14 46 00.5
comp=Z,11nm,0.5s
ALPN Alpine 86.32 56 IAmb IAmb 14 46 04.4
comp=Z,15nm,0.7s
TPTI 86.38 275 P P 14 46 02.5 0.0
comp=Z,47nm,1.0s
COLA College 86.40 12 P P 14 46 01.0 -0.4
COLA College 86.40 12*d i*P P 14 46 00.5 -0.9
COLA pmax pmax
comp=Z,9.0nm,0.6s
COLA College 86.40 12 P P 14 46 00.7 -0.6
COLA IAmb IAmb 14 46 01.4
comp=Z,14nm,0.7s
TPB01 Permian Basin 86.44 56 IAmb IAmb 14 46 04.8
comp=Z,13nm,0.9s
ILAR Eielson Array 86.51 13 P P 14 46 01.2 -0.7
comp=Z,2.7nm,0.4s,baz=217,slow=4.9,SNR=91
ILAR pP pP 14 48 06.1 -0.3
comp=Z,1.6nm,1.0s,baz=257,slow=5.9,SNR=5.4
comp=Z,2.7nm,0.4s
ILAR Eielson Array 86.51 13 P P 14 46 01.1 -0.8
ILAR Eielson Array 86.51 13 P P 14 46 01.1 -0.8
F19K Shaleruckik Mo 86.57 8 IAmb IAmb 14 46 02.9
comp=Z,4.7nm,0.7s
H22K Ishtalitna Cre 86.66 11 P P 14 46 02.4 -0.2
H22K IAmb IAmb 14 46 03.3
comp=Z,5.8nm,0.8s
J25K Salcha River, 86.69 13 IAmb IAmb 14 46 03.4
comp=Z,6.3nm,0.6s
XLT XiLinHaoTe 86.76 319 *e*P P 14 46 04.3 +0.6
XLT pmax pmax
comp=Z,18nm,1.0s
TPB05 Hovey Rd 86.79 56 IAmb IAmb 14 46 06.8
comp=Z,17nm,1.0s
DLMT Dillon 86.85 40 IAmb IAmb 14 46 05.9
comp=Z,6.2nm,0.8s
LDM Libby Dam 86.88 36 IAmb IAmb 14 46 05.4
comp=Z,6.5nm,0.7s
E19K Redstone River 87.23 8 IAmb IAmb 14 46 06.0
comp=Z,6.2nm,0.6s
L29M L29M 87.23 17 IAmb IAmb 14 46 07.2
comp=Z,13nm,1.2s
XAN Xi'an 87.24 307 P P 14 46 07.4 +1.2
XAN pmax pmax
comp=Z,40nm,0.9s
BILL Bilibino 87.28 354 P P 14 46 05.3 -0.1
BILL IAmb IAmb 14 46 07.9
comp=Z,3.8nm,0.6s
SAND Sanderson 87.36 57 IAmb IAmb 14 46 09.2
comp=Z,11nm,0.9s
MNHN Monahans 87.40 56 IAmb IAmb 14 46 08.8
comp=Z,6.6nm,0.8s
YHB Horse Butte 87.40 41 IAmb IAmb 14 46 09.2
comp=Z,6.5nm,1.1s
MLSI Meulaboh, Aceh 87.44 275 P P 14 46 07.2 -0.3
comp=Z,150nm,0.9s
PRP Porcupine Dome 87.44 13 IAmb IAmb 14 46 08.0
comp=Z,3.0nm,0.6s
YHL Hebgen Lake 87.46 41 IAmb IAmb 14 46 09.8
comp=Z,8.3nm,0.8s
YFT Old Faithful 87.48 41 IAmb IAmb 14 46 10.4
comp=Z,5.6nm,0.8s
PDAR Pinedale Array 87.48 43 P P 14 46 07.8 +0.5
comp=Z,2.1nm,0.6s,baz=202,slow=3.0,SNR=26
PDAR pP pP 14 48 10.8 -1.2
comp=Z,0.3nm,0.4s,baz=267,slow=5.7,SNR=4.4
comp=Z,2.1nm,0.6s
PDAR Pinedale Array 87.48 43 P P 14 46 07.1 -0.2
HILR Hailar Array B 87.53 325 P P 14 46 07.8 +0.6
comp=Z,2.6nm,0.5s,baz=120,slow=4.6,SNR=4.0
comp=Z,2.6nm,0.5s
K29M Barlow Dome 87.98 17 IAmb IAmb 14 46 10.4
comp=Z,12nm,1.2s
128A Castleberry Fa 88.13 55 IAmb IAmb 14 46 12.1
comp=Z,8.2nm,0.8s
YNE Yellowstone No 88.27 41 IAmb IAmb 14 46 13.0
comp=Z,8.2nm,1.0s
HHC Hu-ho-hao-te 88.28 314 *e*P P 14 46 14.4 +3.5
HHC pmax pmax
comp=Z,8.0nm,0.7s
HHC pmax pmax
comp=Z,74nm,5.2s
J29N Klondike Camp 88.28 16 IAmb IAmb 14 46 12.9
comp=Z,7.2nm,0.7s
LL02 Futaleuf 88.43 135 P P 14 46 11.9 +0.3
LL02 IAmb IAmb 14 46 14.3
comp=Z,22nm,1.0s
MSTX Muleshoe 88.44 53 IAmb IAmb 14 46 13.3
comp=Z,13nm,1.0s
ELIB Princess Elisa 88.45 186 *d*P P 14 46 11.8 +0.5
OZNA Ozona 88.53 57 IAmb IAmb 14 46 14.0
comp=Z,8.4nm,0.8s
I28M Miner Creek 88.66 15 IAmb IAmb 14 46 12.4
comp=Z,4.6nm,0.9s
F24K Squaw Lake 88.73 11 IAmb IAmb 14 46 13.5
comp=Z,6.5nm,0.7s
KMI2 Kunming 88.76 297 P P 14 46 15.2 +1.5
KMI2 pmax pmax
comp=Z,19nm,1.1s
E23K Chandalar 88.91 10 IAmb IAmb 14 46 14.1
comp=Z,6.0nm,0.8s
G26K Porcupine Rive 89.04 13 IAmb IAmb 14 46 15.7
comp=Z,5.4nm,0.9s
POST Post 89.06 55 IAmb IAmb 14 46 15.9
comp=Z,10nm,0.8s
E24K Your Creek 89.12 11 IAmb IAmb 14 46 15.1
comp=Z,2.6nm,0.6s
I30M Mount Dempster 89.38 16 IAmb IAmb 14 46 16.1
comp=Z,5.3nm,0.9s
TROLL Troll, Antarti 89.53 180 ⇑P P 14 46 16.4 +0.1
comp=Z,115nm,0.3s
SN07 Snyder 07 89.54 55 IAmb IAmb 14 46 18.0
comp=Z,5.7nm,0.8s
CMAR Chiang Mai Arr 89.75 289 P P 14 46 19.4 +1.3
comp=Z,13nm,0.9s,baz=114,slow=3.0,SNR=68
CMAR pP pP 14 48 24.4 +1.1
comp=Z,0.5nm,0.3s,baz=99,slow=2.3,SNR=2.8
comp=Z,13nm,0.9s
CMAR Chiang Mai Arr 89.75 289 *i* P P 14 46 19.3 +1.2
CMAR pmax pmax
comp=Z,13nm,0.9s
CMAR Chiang Mai Arr 89.75 289 P P 14 46 17.6 -0.5
CHTO Chiang Mai 89.86 290 P P 14 46 19.3 +0.7
CHTO Chiang Mai 89.86 290 P P 14 46 19.0 +0.3
CHTO pmax pmax
comp=Z,16nm,0.7s
CHTO Chiang Mai 89.86 290 P P 14 46 19.0 +0.3
CHTO Chiang Mai 89.86 290 P P 14 46 19.4 +0.8
VNA3 Neumayer Olymp 89.92 176 ⇓P P 14 46 18.5 +0.6
comp=Z,3.7nm,0.4s
GO06 Curarrehue 90.17 132 P P 14 46 20.5 +0.6
GO06 IAmb IAmb 14 46 22.2
comp=Z,16nm,1.0s
APMT Aspermont 90.23 55 IAmb IAmb 14 46 21.4
comp=Z,13nm,0.9s
PLCA Paso Flores 90.33 133 P P 14 46 22.1 +1.5
comp=Z,4.8nm,0.6s,baz=226,slow=5.0,SNR=21
comp=Z,4.8nm,0.6s
PLCA Paso Flores 90.33 133 P P 14 46 20.3 -0.2
PLCA pmax pmax
comp=Z,16nm,1.3s
PLCA Paso Flores 90.33 133 P P 14 46 20.3 -0.2
PLCA IAmb IAmb 14 46 22.9
comp=Z,16nm,1.3s
ABTX Abilene, Hawle 90.34 56 IAmb IAmb 14 46 22.0
comp=Z,16nm,0.9s
YAK Yakutsk 90.54 338 *e*P P 14 46 19.6 -1.1
YAK pmax pmax
comp=Z,6.0nm,0.8s
YAK pmax pmax
comp=N,2.0nm,1.4s
YAK pmax pmax
comp=E,2.0nm,1.9s
G30M tAoh Zrail Nji 90.79 15 IAmb IAmb 14 46 22.6
comp=Z,14nm,1.0s
E28M Babbage River 91.32 13 IAmb IAmb 14 46 25.3
comp=Z,3.3nm,0.8s
LAO LASA Array 91.39 41 IAmb IAmb 14 46 27.8
comp=Z,11nm,1.1s
PLPT Palo Pinto 91.45 56 IAmb IAmb 14 46 27.3
comp=Z,14nm,0.8s
RSSD Black Hills 91.69 44 P P 14 46 26.8 0.0
RSSD pmax pmax
comp=Z,3.0nm,0.7s
RSSD Black Hills 91.69 44 P P 14 46 26.8 0.0
RSSD IAmb IAmb 14 46 27.4
comp=Z,3.1nm,0.7s
F31M Tsiigehtchic 91.77 16 IAmb IAmb 14 46 27.0
comp=Z,9.1nm,0.7s
LZH Lanzhou 91.87 307 *e*P P 14 46 28.9 +1.2
LZH pmax pmax
comp=Z,18nm,1.5s
LZDM Lanzhou Array 91.94 307 P P 14 46 29.3 +1.1
comp=Z,0.8nm,0.3s,baz=106,slow=5.0,SNR=4.4
comp=Z,0.8nm,0.3s
ULN Ulaanbaatar 94.16 319 P P 14 46 38.6 +0.7
ULN pmax pmax
comp=Z,4.0nm,0.9s
ULN Ulaanbaatar 94.16 319 P P 14 46 38.6 +0.7
ULN IAmb IAmb 14 46 38.8
comp=Z,4.3nm,0.9s
SONM Songino Array 94.56 319 P P 14 46 39.8 +0.1
comp=Z,0.9nm,0.3s,baz=131,slow=3.9,SNR=7.6
comp=Z,0.9nm,0.3s
YKA Yellowknife Ar 94.78 25 P P 14 46 40.0 -0.1
comp=Z,1.6nm,0.7s,baz=238,slow=4.1,SNR=1.9
comp=Z,1.6nm,0.7s
GTA2 Gaotai 96.09 310 *e*P P 14 46 47.3 +0.5
GTA2 pmax pmax
comp=Z,5.0nm,1.0s
TIXI Tiksi 97.07 345⇑*e*P Pdif 14 46 49.4 -0.8
TIXI pmax pmax
comp=Z,6.0nm,2.2s
LPAZ La Paz 102.51 112 P Pdif 14 47 20.1 +3.5
comp=Z,1.4nm,0.7s,baz=271,slow=4.6,SNR=5.4
ZALV Zalesovo Beam 109.24 322 PKiKP PKiKP 14 51 43.6 -1.1
comp=Z,1.3nm,0.5s,baz=177,slow=2.5,SNR=5.8
MKAR Makanchi Array 110.14 314 Pdiff Pdif 14 47 50.9 +1.9
comp=Z,0.3nm,0.5s,baz=86,slow=3.8,SNR=3.8
MKAR PKiKP PKiKP 14 51 45.7 -1.0
comp=Z,1.5nm,0.4s,baz=203,slow=0.9,SNR=31
MKAR PKKPbc PKKPbc 15 02 49.9 -1.2
comp=Z,0.6nm,0.8s,baz=274,slow=4.7,SNR=5.5
KURK Kurchatov 112.83 318⇑*i*PKiKP PKiKP 14 51 50.0 -1.7
KURBB Kurchatov Arra 112.89 318 PKiKP PKiKP 14 51 50.8 -1.1
comp=Z,1.7nm,0.7s,baz=104,slow=1.8,SNR=16
KURBB SKP SKPdf 14 54 34.3 +1.5
comp=Z,0.9nm,0.8s,baz=98,slow=2.2,SNR=6.8
KURBB PKKPbc PKKPbc 15 02 41.4 -0.7
comp=Z,0.2nm,0.7s,baz=272,slow=3.9,SNR=5.2
AAK Ala-Archa 115.37 309⇓*i*PKiKP PKPdf 14 51 55.5 -1.6
BVAR Borovoye Array 117.85 321 PKP PKPdf 14 52 00.6 -0.7
comp=Z,2.9nm,0.3s,baz=112,slow=1.7,SNR=22
BVAR SKP SKPdf 14 54 44.3 +2.1
comp=Z,1.4nm,0.8s,baz=169,slow=2.3,SNR=4.5
BVAR PKKPbc PKKPbc 15 02 25.2 -0.1
comp=Z,0.6nm,0.6s,baz=310,slow=5.3,SNR=4.4
BORK Borovoye 117.89 321⇓*i*PKiKP PKPdf 14 52 00.7 -0.7
KKAR Karatay Array 118.31 309 PKiKP PKPdf 14 52 01.9 -0.6
KKAR Karatay Array 118.31 309 PKPdf 14 52 01.9 -0.6
SPITS Spitsbergen Ar 120.09 357 PKP PKPdf 14 52 04.4 -0.6
comp=Z,16nm,0.9s,baz=29,slow=2.9,SNR=4.7
ARTI Arti 123.96 326*e i*PKiKP PKPdf 14 52 12.6 -0.3
ARTI Arti 123.96 326 PKPdf 14 52 12.8 -0.2
ARCES ARCESS Array B 127.20 350 PKP PKPdf 14 52 18.6 -0.2
comp=Z,3.2nm,0.4s,baz=15,slow=1.1,SNR=39
KIRV Kirov 127.52 331⇓*e*PKiKP PKPdf 14 52 19.7 +0.1
BOSA Boshof 127.98 206 PKP PKPdf 14 52 21.5 -0.2
comp=Z,1.6nm,0.7s,baz=144,slow=1.9,SNR=3.6
FINES FINESS Array B 134.11 344 PKhKP PKPpre 14 52 22.7
comp=Z,1.2nm,0.3s,baz=70,slow=6.3,SNR=6.3
FINES PKP PKPdf 14 52 32.5 +0.4
comp=Z,2.8nm,0.4s,baz=74,slow=3.4,SNR=5.8
FINES SKPbc SKPbc 14 55 07.7 0.0
comp=Z,2.4nm,0.7s,baz=50,slow=6.0,SNR=5.5
NB2 NORSAR Subarra 137.22 354 PKP PKPpre 14 52 27.7
comp=Z,1.2nm,0.7s,baz=17,slow=2.6
NOA NORSAR Array B 137.22 354 PKP PKiKP 14 52 39.1 -0.8
comp=Z,1.0nm,0.6s,baz=19,slow=4.1,SNR=5.9
NCK Nalchik 137.43 315⇑*e*PKiKP PKPpre 14 52 35.4
HFS Hagfors 137.80 352 PKhKP PKPpre 14 52 27.9
comp=Z,1.3nm,0.4s,baz=60,slow=8.8,SNR=2.3
HFS PKP PKPdf 14 52 37.1 -1.8
comp=Z,1.4nm,0.4s,baz=30,slow=2.3,SNR=11
KIV Kislovodsk 137.86 316 *e*PKiKP PKPdf 14 52 39.9 +0.2
KIV pmax pmax
comp=Z,4.0nm,1.0s
AKASG Malin Array Be 141.55 332 PKhKP PKPpre 14 52 40.8
comp=Z,3.4nm,0.4s,baz=45,slow=4.2,SNR=27
KIEV Kiev 141.56 332 ⇓PKHKP PKPpre 14 52 41.2
KIEV Kiev 141.56 332 ⇓P PKPpre 14 52 41.2
INVG Invergeldie, C 142.03 6 *e*P PKPpre 14 52 42.6
LAWE Loch Awe, Argy 142.05 7 *e*P PKPpre 14 52 43.0
EKA Eskdalemuir Ar 143.19 5 PKhKP PKPpre 14 52 45.8
comp=Z,4.1nm,0.5s,baz=324,slow=2.6,SNR=14
EKA Eskdalemuir Ar 143.19 5 PKHKP PKPpre 14 52 46.2
NEWG New Galloway 143.31 6 *e*P PKPab 14 52 46.1 -1.1
GAL1 Galloway 143.50 7 *e*P PKPab 14 52 46.8 -1.1
EDMD Edmundbyers 143.78 4 *e*P PKPbc 14 52 48.4 -0.6
SORM Soroca 143.78 330 ⇑PKiKP PKPbc 14 52 48.7 -0.5
SORM Soroca 143.78 330 ⇑P PKPbc 14 52 48.7 -0.5
BEL Belsk 143.85 340 *e*PKP PKPdf 14 52 49.7 -0.3
PURM Purcari 144.13 327 ⇑P PKPbc 14 52 49.9 -0.5
BSEG Bad Segeberg 144.28 352 *e*PKPbc PKPab 14 52 50.7 -0.2
baz=15,slow=2.7
KWP Kalwaria Pacla 145.04 337 *e*PKP PKPbc 14 52 53.1 +0.1
GORT1 Trebel 145.05 350 *e*PKPbc PKPab 14 52 53.4 -0.5
baz=15,slow=2.7
RUE Rudersdorf 145.10 348 *e*PKPbc PKPbc 14 52 53.2 +0.1
baz=15,slow=2.7
MNTR Muntenesti 145.15 329 ⇑P PKPbc 14 52 53.7 +0.3
LBWR Ladybower, Pea 145.22 4 *e*P PKPdf 14 52 52.5 +0.2
GIRR Girov 145.51 330 ⇓P PKPbc 14 52 54.9 +0.5
OJC Ojcow 145.57 340 *e*PKP PKPbc 14 52 54.7 +0.1
RETH Rethem/Aller, 145.57 352 *e*PKPbc PKPbc 14 52 54.7 +0.3
baz=15,slow=2.7
TLCR 145.58 326 ⇑PKiKP PKPbc 14 52 55.2 +0.5
TLCR 145.58 326 ⇑P PKPbc 14 52 55.2 +0.5
BURAR Bucovina Array 145.60 332 ⇑PKP2 PKPbc 14 52 55.5 +0.7
BURAR Bucovina Array 145.60 332 PKPab 14 52 56.0 -0.5
BURAR Bucovina Array 145.60 332 ⇑P PKPbc 14 52 55.5 +0.7
FOEL Foel Wylfa 145.61 6 *e*P PKPdf 14 52 52.2 -0.8
BIZ Bicaz 145.70 331 ⇓P PKPbc 14 52 55.8 +0.8
FLTG Flechtingen 145.70 350 *e*PKPbc PKPbc 14 52 54.4 -0.4
baz=15,slow=2.7
TESR Tescani 145.76 330 ⇑P PKPbc 14 52 54.9 -0.3
KOLS Kolonicke sedl 145.78 336 *e*PKP PKPab 14 52 56.3 -0.7
BR131 Keskin Array S 145.78 314 PKiKP PKPbc 14 52 55.4 -0.3
BR131 Keskin Array S 145.78 314 PKPbc 14 52 55.4 -0.3
BRTR Keskin Array B 145.78 314 PKPbc PKPbc 14 52 55.4 -0.3
comp=Z,8.9nm,0.7s,baz=48,slow=3.4,SNR=37
BRTR pPKP pPKPdf 14 55 08.7 -0.1
comp=Z,1.8nm,0.9s,baz=145,slow=2.5,SNR=4.6
BRTR SKPbc SKiKP 14 55 41.2 +1.3
comp=Z,2.2nm,0.8s,baz=75,slow=2.2,SNR=5.9
BRTR Keskin Array B 145.78 314 PKiKP PKPbc 14 52 55.6 -0.1
BRTR Keskin Array B 145.78 314 PKPbc 14 52 55.6 -0.1
KIRS Kirsehir-Merke 145.87 313 ⇓P PKPbc 14 52 56.2 +0.3
CFR Carcaliu 145.94 327 ⇑PKP2 PKPbc 14 52 56.2 +0.5
CFR Carcaliu 145.94 327 ⇑P PKPbc 14 52 56.2 +0.5
ASSE Asse, Remlinge 145.99 351 *e*PKPbc PKPbc 14 52 55.8 +0.3
baz=15,slow=2.7
ONER Baraj Valea Uz 146.00 330 ⇓P PKPbc 14 52 56.4 +0.5
TPGR Topolog 146.00 326 ⇑P PKPbc 14 52 56.1 +0.2
HLM1 Long Mynd 146.01 6 *e*P PKPdf 14 52 53.3 -0.4
KSP Ksiaz 146.04 344 *e*PKP PKPbc 14 52 56.5 +0.6
MBAR Mbarara 146.08 239⇓*e*PKiKP PKPdf 14 52 55.5 +0.3
NIE Niedzica 146.09 339 *e*PKP PKPbc 14 52 56.8 +0.7
ASF Jabal al Asfar 146.12 300 P PKPbc 14 52 57.5 +0.7
ASF AML AML
VRI Vrincioaia 146.18 329 ⇓PKiKP PKPbc 14 52 56.4 0.0
VRI Vrincioaia 146.18 329 ⇓P PKPbc 14 52 56.4 0.0
IBBN Ibbenburen 146.18 354 *e*PKPbc PKPbc 14 52 56.3 +0.1
baz=15,slow=2.7
PLOR Plostina 146.23 329 ⇑PKiKP PKPbc 14 52 56.6 0.0
PLOR Plostina 146.23 329 ⇑P PKPbc 14 52 56.6 0.0
CLZ Clausthal 146.31 351 *e*PKPbc PKPbc 14 52 56.9 +0.3
baz=15,slow=2.7
OSTC Ostas 146.32 344 *e*PKP2 PKPbc 14 52 57.3 +0.6
OSTC Ostas 146.32 344 *e*PKP PKPbc 14 52 57.3 +0.6
CHVC Chvalec 146.33 344 *e*PKP2 PKPbc 14 52 57.2 +0.5
CHVC Chvalec 146.33 344 *e*PKP PKPbc 14 52 57.2 +0.5
CLL Collm 146.36 348 *i* PKiKP PKPbc 14 52 57.0 +0.3
CLL pmax pmax
comp=Z,27nm,0.7s
CLL Collm 146.36 348 *e*PKPbc PKPbc 14 52 56.7 0.0
baz=15,slow=2.7
CLL Collm 146.36 348 *i* PKPbc PKPbc 14 52 57.0 +0.3
comp=Z,27nm,0.7s
CLL *i* PKPab PKPab 14 52 59.3 +0.1
comp=Z,13nm,1.0s
TURR Turia 146.39 330 ⇑P PKiKP 14 52 58.2 -1.0
UPC Upice 146.42 344 *e*PKP2 PKPbc 14 52 57.3 +0.4
UPC Upice 146.42 344 *e*PKP PKPbc 14 52 57.3 +0.4
OKC Ostrava-Krasne 146.42 341 *e*PKiKP PKPbc 14 52 57.3 +0.4
OKC Ostrava-Krasne 146.42 341 *e*PKP PKPbc 14 52 57.3 +0.4
STEB Steborice 146.44 342 *e*PKP PKPbc 14 52 57.2 +0.2
OZUR 146.47 330 ⇑P PKPbc 14 52 57.5 +0.3
DPC Dobruska-Polom 146.48 344 *e*PKP2 PKPbc 14 52 57.6 +0.5
DPC Dobruska-Polom 146.48 344 *e*PKP PKPbc 14 52 57.6 +0.5
LANS Liptovska Anna 146.60 339 *e*PKP PKPab 14 53 01.7 +1.4
KRLC Kraliky 146.60 343 *e*PKiKP PKPbc 14 52 57.6 +0.1
KRLC Kraliky 146.60 343 *e*PKP PKPbc 14 52 57.6 +0.1
MORC Moravsky Berou 146.65 342 ⇑PKiKP PKPbc 14 52 57.7 +0.1
MORC Moravsky Berou 146.65 342 *e*PKP PKPbc 14 52 57.9 +0.3
MORC Moravsky Berou 146.65 342 ⇑P PKPbc 14 52 57.7 +0.1
GTTG Gottingen 146.66 351 *e*PKPbc PKPbc 14 52 57.7 +0.2
baz=15,slow=2.7
MONM Monmouth 146.69 6 *e*P PKPdf 14 52 54.5 -0.3
NEUB Neuenburg 146.69 349 *e*PKPbc PKPbc 14 52 57.9 +0.3
baz=15,slow=2.7
DOPR Dopca 146.75 330 ⇑P PKPbc 14 52 58.2 +0.2
PVCC Panska Ves 146.76 346 *e*PKP2 PKPbc 14 52 58.6 +0.8
PVCC Panska Ves 146.76 346 *e*PKP PKPbc 14 52 58.6 +0.8
MLR Muntele Rosu 146.83 329 ⇓PKP2 PKPbc 14 52 58.8 +0.5
MLR Muntele Rosu 146.83 329 PKPbc 14 52 58.2 -0.1
MLR Muntele Rosu 146.83 329 ⇓P PKPbc 14 52 58.8 +0.5
GEM Giv'at Ha'Em 146.83 302 P PKiKP 14 52 59.6 -0.9
GEM AML AML
HSKC Hora Svate Kat 146.94 347 *e*PKP PKPbc 14 52 58.8 +0.5
BUG Bochum–Univer 147.09 354 *e*PKPbc PKPbc 14 52 58.9 +0.3
baz=15,slow=2.7
MMAI Mount Meron Ar 147.10 302 PKPbc PKPbc 14 52 60.0 +0.6
comp=Z,14nm,0.6s,baz=73,slow=3.0,SNR=16
MMAI SKPbc SKiKP 14 55 43.1 +0.4
comp=Z,0.8nm,0.5s,baz=50,slow=2.2,SNR=3.6
QRNJ Al-Qirein 147.16 301 P PKiKP 14 53 00.6 -0.5
QRNJ AML AML
KASTN Kahler Asten 147.20 353 *e*PKPbc PKPbc 14 52 59.0 0.0
baz=15,slow=2.7
MARR Marisel-Cluj 147.24 333 ⇑P PKPbc 14 52 59.3 -0.1
MOX Moxa 147.26 349 *e*PKPbc PKPbc 14 52 59.6 +0.5
baz=15,slow=2.7
PRU Pruhonice 147.26 345 *e*PKP2 PKPbc 14 52 59.6 +0.4
PRU Pruhonice 147.26 345 *e*PKP PKPbc 14 52 59.6 +0.4
VOIR 147.30 330 ⇑PKiKP PKPbc 14 52 58.7 -0.8
VOIR 147.30 330 ⇑P PKPbc 14 52 58.7 -0.8
PLN Plauen 147.31 348 *e*PKPbc PKPbc 14 52 59.4 +0.2
baz=15,slow=2.7
TANN Tannenbergstha 147.32 348 *e*PKPbc PKPbc 14 52 59.8 +0.4
baz=15,slow=2.7
VRAC Vranov 147.35 343 *e*PKP PKPbc 14 52 59.6 +0.2
VYHS Vyhne 147.38 339 *e*PKP PKiKP 14 53 00.3 -0.8
CY604 RAF Akrotiri, 147.38 305 PKPbc 14 53 00.0 +0.4
JAVC Velka Javorina 147.43 341 *e*PKP PKiKP 14 53 00.9 -0.4
GHAJ Ghor Haditha 147.44 299 P PKiKP 14 53 01.0 -0.7
GHAJ AML AML
NKC Novy Kostel 147.50 348 *e*PKiKP PKPbc 14 52 59.5 -0.3
NKC Novy Kostel 147.50 348 *e*PKP PKPbc 14 52 59.5 -0.3
PSZ Piszkesteto 147.50 338 ⇑PKiKP PKPbc 14 52 59.7 -0.2
PSZ Piszkesteto 147.50 338 ⇑P PKPbc 14 52 59.7 -0.2
LISJ El Lisan 147.53 299 P PKiKP 14 53 01.6 -0.3
LISJ AML AML
SALP Salfit 147.54 301 P PKiKP 14 53 01.7 -0.3
SALP AML AML
ARR Arges 147.55 330 ⇑P PKPbc 14 53 00.7 +0.6
HSNJ Maan 147.59 297 P PKiKP 14 53 02.6 +0.3
HSNJ AML AML
KRUC Moravsky 147.63 343 *e*PKP PKPbc 14 53 00.3 +0.2
TREC Trest 147.66 344 *e*PKiKP PKPbc 14 53 00.5 +0.2
TREC Trest 147.66 344 *e*PKP PKPbc 14 53 00.5 +0.2
ZVC Zvikov 147.86 345 *e*PKP PKPdf 14 52 57.7 +0.8
MODS Modra-Piesok 147.98 341 *e*PKP PKPbc 14 53 01.5 +0.4
CSS Mathiatis 148.06 307 P PKPbc 14 53 01.9 +0.2
CSS AML AML
PRNI Paran 148.14 298 P PKiKP 14 53 02.8 -0.5
PRNI AML AML
TNS Taunus Mts 148.16 352 *e*PKPbc PKPbc 14 53 01.7 +0.2
baz=15,slow=2.7
SIRR Siria 148.18 334 ⇓P PKPbc 14 53 02.1 +0.5
HRFI Mount Harif 148.19 297 P PKiKP 14 53 02.8 -0.6
HRFI AML AML
GRF Grafenberg Arr 148.25 349 *e*PKPbc PKPbc 14 53 01.8 +0.1
baz=15,slow=2.7
ABNA Allensteig Bun 148.25 343 *i* PKiKP PKiKP 14 53 02.5 -0.5
comp=Z,9.5nm,0.7s
BCLA Clavier 148.25 356 *d*PKP PKPbc 14 53 01.2 -0.5
KHC Kasperske Hory 148.29 346 *e*PKP PKPbc 14 53 01.6 -0.3
KHC *ex* x 14 53 08.1
EIL Elat 148.34 296 P PKiKP 14 53 03.3 -0.4
GZR Gura Zlata 148.39 332 ⇑P PKPbc 14 53 01.9 -0.4
SURR Surduc 148.39 333 ⇑P PKPbc 14 53 01.8 -0.3
BMRD Maredsous 148.40 357 *d*PKP PKiKP 14 53 02.7 -0.4
CKRC Cesky Krumlov 148.41 345 *e*PKP PKPbc 14 53 02.2 +0.1
WET Wettzell 148.44 347 *e*PKPbc PKiKP 14 53 03.5 +0.2
baz=15,slow=2.7
KZIT Kziot 148.51 299 P PKiKP 14 53 03.6 -0.4
KZIT AML AML
KEPZ Antalya-Kepez 148.52 311 ⇓P PKPbc 14 53 01.2 -1.6
GEC2 GERESS Array S 148.53 345 *e*PKPbc PKPbc 14 53 02.5 -0.1
baz=15,slow=2.7
GERES GERESS Array B 148.53 345 PKPbc PKPbc 14 53 02.2 -0.3
comp=Z,7.2nm,0.8s,baz=29,slow=3.0,SNR=40
WINA Alland / Wiene 148.58 342 *e*PKiKP PKiKP 14 53 03.6 0.0
comp=Z,12nm,1.2s
BZS Buzias 148.72 333 ⇓P PKPbc 14 53 03.0 0.0
CONA Conrad Observa 148.80 342 *i* PKiKP PKiKP 14 53 03.7 -0.5
comp=Z,12nm,0.8s,SNR=9.5
RONA Rosalia, Austr 148.88 342 *i* PKiKP PKiKP 14 53 04.0 -0.3
comp=Z,13nm,0.8s,SNR=6.8
WLF Walferdange 148.94 355 *d*PKiKP PKiKP 14 53 04.5 +0.1
WLF Walferdange 148.94 355 *e*PKPbc PKiKP 14 53 04.4 +0.1
baz=15,slow=2.7

HERR	**Herculane**	**148.95**	**332**	⇓P		**PKPbc**	**14 53 03.2**	**-0.3**
MOA	**Molln**	**149.31**	**344**	*i* PKP		**PKPbc**	**14 53 04.4**	**+0.1**
	comp=Z,7.7nm,1.1s							
STU	**Stuttgart**	**149.48**	**351**	*e*PKPbc		**PKiKP**	**14 53 05.6**	**+0.1**
	baz=15,slow=2.7							
ARSA	**Arzberg**	**149.51**	**342**	*i* PKiKP		**PKiKP**	**14 53 05.5**	**-0.1**
	comp=Z,7.4nm,0.9s							
BIOA	**Bad Ischl, Aus**	**149.62**	**345**	*i* PKP		**PKPbc**	**14 53 04.9**	**-0.2**
	comp=Z,11nm,1.2s							
FUR	**Furstenfeldbru**	**149.70**	**348**	*e*PKPbc		**PKiKP**	**14 53 05.9**	**-0.1**
	baz=15,slow=2.7							
BLKB	**Belogradchik**	**149.79**	**330**	⇓P		**PKPbc**	**14 53 05.5**	**-0.1**
SESA	**Seetaler Alpe,**	**149.91**	**343**	*i* PKP		**PKPbc**	**14 53 05.7**	**-0.3**
	comp=Z,23nm,0.6s,SNR=13							
BFO	**Black Forest**	**150.03**	**352**	*e*PKPbc		**PKPbc**	**14 53 06.1**	**0.0**
	baz=15,slow=2.7							
LESA	**Schwarzleotal**	**150.10**	**346**	*i* PKiKP		**PKiKP**	**14 53 06.7**	**-0.2**
	comp=Z,8.4nm,0.5s,SNR=5.5							
TAVA	**DENIZLI_Tavas**	**150.12**	**314**	⇑P		**PKiKP**	**14 53 06.9**	**-0.3**
SOKA	**Soboth**	**150.18**	**342**	*i* PKP		**PKPbc**	**14 53 06.2**	**-0.4**
	comp=Z,4.1nm,0.7s							
BOVS	**Bovan**	**150.23**	**331**	⇓P		**PKPbc**	**14 53 06.3**	**-0.3**
KBA	**Koelnbreinsper**	**150.26**	**345**	*i* PKP		**PKPbc**	**14 53 06.7**	**-0.1**
	comp=Z,7.2nm,0.5s,SNR=7.9							
UBR	**Ueberruh**	**150.39**	**349**	*e*PKPbc		**PKiKP**	**14 53 07.2**	**-0.2**
	baz=15,slow=2.7							
EZN	**Ezine**	**150.43**	**320**	⇓PKIKP		**PKPbc**	**14 53 06.5**	**-0.7**
EZN	**Ezine**	**150.43**	**320**	⇓P		**PKPbc**	**14 53 06.5**	**-0.7**
WATA	**Walderalm**	**150.43**	**347**	*e*PKiKP		**PKPbc**	**14 53 07.3**	**+0.1**
	comp=Z,8.4nm,0.5s							
WTTA	**Wattenberg**	**150.49**	**347**	*i* PKiKP		**PKPbc**	**14 53 07.3**	**0.0**
	comp=Z,23nm,0.5s,SNR=15							
MOTA	**Moosalm**	**150.52**	**348**	*i* PKP		**PKPbc**	**14 53 07.3**	**-0.1**
	comp=Z,12nm,0.9s							
MYKA	**Terra Mystica**	**150.60**	**344**	*i* PKP		**PKPbc**	**14 53 06.8**	**-0.7**
	comp=Z,13nm,0.5s,SNR=10.0							
SQTA	**Sankt Quirin**	**150.62**	**348**	*i* PKP		**PKPbc**	**14 53 07.6**	**0.0**
	comp=Z,9.3nm,0.6s,SNR=5.2							
LEGS	**Legarje**	**150.75**	**341**	*i* PKPbc		**PKPbc**	**14 53 07.5**	**-0.2**
LEGS				*i* PKPab		**PKPab**	**14 53 17.3**	**-0.2**
ABTA	**Abfaltersbach**	**150.78**	**345**	*i* PKP		**PKPbc**	**14 53 07.4**	**-0.5**
	comp=Z,24nm,0.5s,SNR=17							
DAVA	**Damuels**	**150.81**	**349**	*i* PKiKP		**PKiKP**	**14 53 08.4**	**0.0**
	comp=Z,9.2nm,0.5s							
CRES	**Cresnjevec Ost**	**150.82**	**341**	*i* PKPbc		**PKPbc**	**14 53 07.8**	**-0.1**
FETA	**Feichten**	**150.91**	**348**	*e*PKiKP		**PKiKP**	**14 53 08.5**	**-0.2**
	comp=Z,5.3nm,0.6s,SNR=9.7							
VOJS	**Vojsko**	**151.09**	**343**	*i* PKPbc		**PKPbc**	**14 53 08.1**	**-0.6**
BOJS	**Bojanci**	**151.17**	**341**	*i* PKPbc		**PKiKP**	**14 53 09.0**	**0.0**
STAL	**STALIGIAL**	**151.19**	**345**			**PKPbc**	**14 53 08.3**	**-0.5**
FUORN	**Ofenpass-Fuorn**	**151.38**	**348**			**PKiKP**	**14 53 09.9**	**+0.2**
TUE	**Stuetta**	**151.69**	**350**			**PKiKP**	**14 53 10.2**	**-0.1**
ESDC	**Sonseca Array**	**158.41**	**13**	PKPab		**PKPab**	**14 53 50.8**	**+0.3**
	comp=Z,0.5nm,0.7s,baz=339,slow=6.1,SNR=5.4							
TORD	**Torodi Ar. Bea**	**174.46**	**174**	PKP		**PKPdf**	**14 53 23.7**	**-1.2**
	comp=Z,0.7nm,0.7s,baz=207,slow=1.3,SNR=4.8							
TORD				PKPab		**PKPab**	**14 55 01.9**	**+0.1**
	comp=Z,0.5nm,0.6s,baz=202,slow=2.3,SNR=2.7							

UPP ***12*** *14:52:51.1±0.1, 67.15N×20.66E, h0km, ML2.5, Presumed earthquake*
HEL ***12*** *14:52:53.1±0.6, 67.13N×20.98E, h0km, ML1.2, Suspected explosion*

ISC 12 14:52:51.1±0.9**, 67.18N**±0.03×**20.64E**±0.04**, h0**km**, n20,** σ**0**s**97**/**27, Sweden**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
DUNU	**Dundret**	**0.07**	**203**	P		**Pg**	**14 52 52.2**	**-0.2**
DUNU				S		**Sg**	**14 52 53.5**	**+0.3**
MASU	**Masugnsbyn**	**0.60**	**62**	P		**Pg**	**14 53 02.6**	**+0.1**
SALU	**Saltoluokta**	**0.85**	**285**	*e*P		**Pg**	**14 53 06.3**	**-1.1**
ERTU	**Ertsjaerv**	**0.88**	**135**	P		**Pg**	**14 53 06.8**	**-1.2**
ERTU	**Ertsjaerv**	**0.88**	**135**	PB		**Pg**	**14 53 07.0**	**-0.9**
	baz=318							
ERTU				SB		**Sb**	**14 53 20.8**	**-0.7**
PAJU	**Pajala**	**0.98**	**98**	PB		**Pg**	**14 53 09.3**	**-0.6**
LANU	**Lannavaara**	**1.01**	**30**	PG		**Pb**	**14 53 11.2**	**-0.4**
LANU				SN		**Sn**	**14 53 29.8**	**+2.3**
HARU	**Harads**	**1.03**	**172**	P		**Pg**	**14 53 10.3**	**-0.6**
KLF	**Kolari**	**1.30**	**86**	PG		**Pg**	**14 53 14.4**	**-1.6**
KLF				MSG			14 53 28.6	
	comp=Z,1.2nm,0.2s							
KLF				SN		**Sg**	**14 53 32.8**	**0.0**
HEF	**Hetta**	**1.69**	**42**	*e*P		**Pn**	**14 53 20.8**	**-1.0**
HEF	**Hetta**	**1.69**	**42**	PG		**Pn**	**14 53 22.1**	**+0.2**
	baz=217							
HEF				MSG			14 53 42.1	
	comp=Z,1.1nm,0.2s							
HEF				SG		**Sb**	**14 53 44.8**	**+0.1**
TOF	**Tornio**	**1.84**	**125**	PG		**Pn**	**14 53 24.1**	**+0.2**
TOF				MSG			14 53 43.9	
	comp=Z,1.6nm,0.2s							
KTK1	**Kautokeino**	**2.08**	**27**	PG		**Pg**	**14 53 30.7**	**-0.2**
KTK1				SG		**Sb**	**14 53 56.5**	**+0.4**
RNF	**Rovaniemi**	**2.20**	**103**	PG		**Pn**	**14 53 30.0**	**+1.2**
RNF				SG		**Sb**	**14 53 59.8**	**+0.4**
RANF	**Ranua**	**2.72**	**113**	SG		**Sb**	**14 54 14.8**	**+0.3**
ARA0	**ARCESS Array S**	**2.97**	**35**	SB		**Sb**	**14 54 20.2**	**-1.5**
OBF4	**Vikkela, Lumij**	**3.00**	**140**	MSG			14 54 17.6	
	comp=Z,0.5nm,0.2s							
OBF4				SG		**Sb**	**14 54 21.8**	**-0.7**
OBF8	**Ulkokalla**	**3.09**	**157**	PN		**Pn**	**14 53 41.0**	**-0.1**
OBF8				MSG			14 54 20.9	
	comp=Z,1.3nm,0.2s							
UMAU	**Umeaa**	**3.31**	**180**	SB		**Sn**	**14 54 26.1**	**+2.0**
MSF	**Maaselka**	**3.59**	**107**	PN		**Pn**	**14 53 47.4**	**-0.6**

IDC ***12*** *14:57:56.6±1.2, 2°.16S×138°.46E, h0km, mb3.6/4, mbtmp3.6/6, ML3.7/2, MS2.9/3, Error ellipse: s-maj=25.2km s-min=17.7km az=7.0*
DJA ***12*** *14:57:59.5±0.6, 2°.5S×13°.9E±°, h19km±3km, M3.8/7, MLv3.8/7*

ISC 12 14:58:00.1±0.8**, 2°.37S**±0.07×**138°.41E**±0.05**, h32**km**, n14,** σ**28**s**81**/**17, mb3.6/4, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
SMPI	**Sarmi**	**0.48**	**39**	P		Pb	14 58 06.3	-4.0
SMPI				S		**Sb**	**14 58 13.0**	**-4.4**
SMPI				AML		AML		
GENI	**Genyem**	**1.77**	**97**	P		**Pn**	**14 58 30.6**	**+2.0**
GENI				AML		AML		
JAY	**Jayapura**	**2.30**	**94**	Pn		**Pn**	**14 58 35.4**	**-0.5**
	7.1nm,0.3s,baz=240,slow=10,SNR=67							
JAY				Sn		**Sn**	**14 59 03.8**	**+0.6**
	4.8nm,0.3s,baz=290,slow=23,SNR=10 14nm,0.2s							
JAY				AML		AML		
JAY	**Jayapura**	**2.30**	**94**	P		**Pn**	**14 58 36.3**	**+0.4**
JAY				S		**Sn**	**14 59 03.7**	**+0.6**
BAKI	**Biak**	**2.58**	**297**	P		**Pn**	**14 58 40.4**	**+0.7**
BAKI				S		**Sn**	**14 59 10.0**	**0.0**
BAKI				AML		AML		
SIJI	**Sorong**	**7.29**	**282**	LR		LR	15 02 34.0	
	comp=Z,79nm,19.7s,baz=111,slow=38							
WRA	**Warramunga Arr**	**17.92**	**193**	P		**P**	**15 02 09.9**	**+2.5**
	0.4nm,0.3s,baz=16,slow=13,SNR=8.8							
WRA				S		**Sn**	**15 05 21.5**	**-4.5**
	1.3nm,1.0s,baz=11,slow=23,SNR=3.7 0.5nm,0.3s							
WRA				AML		AML		
FITZ	**Fitzroy Crossi**	**20.03**	**218**	P		**Pn**	**15 02 35.5**	**+3.0**
	2.8nm,1.0s,baz=62,slow=14,SNR=2.1							
FITZ				S		**S**	**15 06 07.7**	**-6.5**
	3.0nm,0.8s,baz=156,slow=20,SNR=2.9 2.8nm,1.0s							
ASAR	**Alice Springs**	**21.62**	**191**	P		**P**	**15 02 50.1**	**+2.4**
	1.5nm,0.7s,baz=21,slow=11,SNR=25							
ASAR				S		**S**	**15 06 45.2**	**-0.5**
	0.9nm,0.9s,baz=14,slow=24,SNR=4.5 1.5nm,0.7s							
HNR	**Honiara**	**22.53**	**109**	P		**P**	**15 02 57.1**	**-0.5**
	111nm,0.5s,baz=270,slow=7.7,SNR=4.8							
PALK	**Pallekele**	**58.37**	**280**	LR		LR	15 33 46.2	
	comp=Z,12nm,21.2s,baz=88,slow=37							
YAK	**Yakutsk**	**64.57**	**355**	LR		LR	15 37 42.5	
	comp=Z,8.4nm,18.1s,baz=136,slow=37							
MKAR	**Makanchi Array**	**69.33**	**322**	P		**P**	**15 09 04.7**	**0.0**
	0.4nm,0.9s,baz=110,slow=6.3,SNR=2.4 0.4nm,0.9s							
BVAR	**Borovoye Array**	**78.86**	**325**	P		**P**	**15 10 01.3**	**+1.2**
	0.4nm,0.4s,baz=136,slow=8.7,SNR=2.9							

IDC 12 15:22:09.2±2.8**, 6°.33S**×**130°.06E, h86**km±37km**, mb3.2/1, mbtmp3.4/5, Error ellipse: s-maj=56.4km s-min=20.4km az=95.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
SIJI	**Sorong**	**5.55**	**13**	P		Pn	15 23 29.4	0.0
	2.3nm,0.2s,baz=156,slow=22,SNR=10							
SIJI				S		Sn	15 24 26.1	-5.8
	35nm,0.2s,baz=161,slow=23,SNR=30							
FITZ	**Fitzroy Crossi**	**12.47**	**200**	P		Pn	15 25 04.9	+1.4
	1.4nm,0.8s,baz=34,slow=11,SNR=19							
FITZ				S		Sn	15 27 17.9	-2.6
	3.5nm,0.6s,baz=300,slow=19,SNR=8.1							
WRA	**Warramunga Arr**	**14.16**	**163**	P		Pn	15 25 24.0	-1.8
	0.5nm,0.7s,baz=344,slow=14,SNR=5.1							
WRA				S		Sn	15 27 52.2	-10
	0.5nm,0.4s,baz=333,slow=23,SNR=7.4							
ASAR	**Alice Springs**	**17.63**	**168**	P		Pn	15 26 10.5	+1.1
	0.3nm,0.6s,baz=339,slow=9.8,SNR=15							
ASAR				S		Sn	15 29 15.7	-10
	0.3nm,0.6s,baz=346,slow=25,SNR=5.2							
MKAR	**Makanchi Array**	**67.70**	**327**	P		P	15 32 57.3	-0.1
	0.3nm,0.5s,baz=118,slow=8.9,SNR=4.5 0.3nm,0.5s							

RSNC ***12*** *15:38:04.4±0.0, 7°.1N±3°×7°.3W±°, h145km±6km, M3.0, mB4.5, mb3.6, ML2.7, Mw(mB)3.7*
FUNV ***12*** *15:38:05.3, 6°.84N×73°.09W, h160km, MW3.6, Presumed earthquake*

ISC 12 15:38:03.5±1.3**, 6°.89N**±0°.03×**73°.10W**±0°.04**, h157**km±8**km,** **n38,** σ**1**s**21**/**66, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
BARC	**Barichara**	**0.31**	**195**	P		**Pn**	**15 38 25.5**	**+0.3**
BARC				S		**Sn**	**15 38 40.6**	**-1.2**
BRJC	**Barrancabermej**	**0.64**	**277**	P		**Pn**	**15 38 27.1**	**+0.7**
BRJC				S		**Sn**	**15 38 44.0**	**+0.1**
RUSC	**La Rusia**	**0.99**	**179**	P		**Pn**	**15 38 29.4**	**-0.1**
RUSC				S		**Sn**	**15 38 47.6**	**-1.7**
RUSC	**La Rusia**	**0.99**	**179**	*e*P		**Pn**	**15 38 29.7**	**+0.2**
RUSC				*e*S		**Sn**	**15 38 48.4**	**-0.9**
CAPV	**Capacho**	**1.24**	**39**	*e*P		**Pn**	**15 38 33.0**	**+1.7**
CAPV				*e*S		**Sn**	**15 38 53.5**	**+0.8**
OCAC	**Ocana**	**1.36**	**351**	P		**Pn**	**15 38 33.0**	**+0.6**
OCAC				S		**Sn**	**15 38 55.0**	**+0.4**
TAMC	**Tame, Arauca**	**1.38**	**109**	P		**Pn**	**15 38 33.8**	**+1.4**
TAMC				S		**Sn**	**15 38 55.4**	**+0.8**
PTBC	**PUERTO BERRIO,**	**1.39**	**256**	P		**Pn**	**15 38 32.1**	**-0.4**
PTBC				S		**Sn**	**15 38 53.2**	**-1.6**
SPBC	**San Pablo de B**	**1.56**	**218**	P		**Pn**	**15 38 34.4**	**0.0**
SPBC				S		**Sn**	**15 38 57.0**	**-1.1**
NORC	**Norcasia**	**2.20**	**233**	P		**Pn**	**15 38 41.4**	**-0.1**
NORC				S		**Sn**	**15 39 09.5**	**-1.2**
CHIC	**Chingaza**	**2.33**	**196**	P		**Pn**	**15 38 43.9**	**+0.5**
CHIC				S		**Sn**	**15 39 13.3**	**-0.9**
ROSC	**El Rosal**	**2.37**	**211**	P		**Pn**	**15 38 45.6**	**+1.7**
ROSC				S		**Sn**	**15 39 16.7**	**+1.8**
HELC	**Santa Helena**	**2.51**	**254**	P		**Pn**	**15 38 47.0**	**+1.5**
HELC				S		**Sn**	**15 39 19.2**	**+1.4**
HELC	**Santa Helena**	**2.51**	**254**	*e*P		**Pn**	**15 38 46.6**	**+1.1**
HELC				*e*S		**Sn**	**15 39 17.6**	**-0.2**
CVER	**Cruz Verde, Cu**	**2.54**	**202**	P		**Pn**	**15 38 47.2**	**+1.2**
CVER				S		**Sn**	**15 39 18.7**	**-0.1**
UREC	**San Jos de Ur**	**2.56**	**290**	P		**Pn**	**15 38 45.8**	**+0.1**
UREC				S		**Sn**	**15 39 16.3**	**-2.0**
SOCV	**Socops**	**2.62**	**58**	*e*P		**Pn**	**15 38 47.6**	**+1.1**
GUY2C	**Guyana, Caldas**	**2.79**	**234**	P		**Pn**	**15 38 50.0**	**+0.9**
GUY2C				S		**Sn**	**15 39 26.1**	**+1.8**
PTGC	**Puerto Gaitan,**	**2.84**	**160**	P		**Pn**	**15 38 48.8**	**-0.4**
PTGC				S		**Sn**	**15 39 22.8**	**-1.8**
CBOC	**Ciudad Bolivar**	**3.07**	**251**	P		**Pn**	**15 38 54.2**	**+2.0**
CBOC				S		**Sn**	**15 39 29.9**	**0.0**
ARGC	**Ariguani, Magd**	**3.16**	**339**	P		**Pn**	**15 38 55.2**	**+2.0**
ARGC				S		**Sn**	**15 39 35.0**	**+3.2**
APAC	**Apartado, Choc**	**3.59**	**286**	P		**Pn**	**15 38 59.2**	**+0.5**
APAC				S		**Sn**	**15 39 41.3**	**-0.3**
PRAC	**Prado**	**3.62**	**209**	P		**Pn**	**15 38 59.2**	**0.0**
PRAC				S		**Sn**	**15 39 42.1**	**-0.3**
SJCC	**San Jacinto, C**	**3.63**	**326**	P		**Pn**	**15 38 58.8**	**-0.4**
SJCC				S		**Sn**	**15 39 40.8**	**-1.7**
SJCC	**San Jacinto, C**	**3.63**	**326**	*e*P		**Pn**	**15 38 59.8**	**+0.5**
SJCC				*e*S		**Sn**	**15 39 41.2**	**-1.4**
ORTC	**Ortega, Tolima**	**3.65**	**216**	P		**Pn**	**15 39 00.0**	**+0.5**
ORTC				S		**Sn**	**15 39 44.0**	**+0.9**
URMC	**La Uribe, Meta**	**3.84**	**199**	P		**Pn**	**15 39 02.7**	**+0.7**
URMC				S		**Sn**	**15 39 46.8**	**-0.6**
YOTC	**Yotoco, Valle**	**4.33**	**228**	P		**Pn**	**15 39 06.6**	**-1.9**
SMRC	**Santa Marta, M**	**4.39**	**345**	P		**Pn**	**15 39 09.6**	**+0.5**
SMRC				S		**Sn**	**15 39 58.6**	**-1.6**
URIC	**Uribia, Colomb**	**4.91**	**13**	P		**Pn**	**15 39 15.8**	**0.0**
URIC				S		**Sn**	**15 40 10.4**	**-1.9**
URIC	**Uribia, Colomb**	**4.91**	**13**	*e*P		**Pn**	**15 39 15.7**	**-0.2**
URIC				*e*S		**Sn**	**15 40 09.4**	**-2.9**
TEPV	**Terepaima**	**4.93**	**51**	*e*P		**Pn**	**15 39 16.6**	**+0.4**
JAMC	**Jamundi, Valle**	**5.10**	**224**	P		**Pn**	**15 39 18.7**	**+0.1**
	669nm4.6nm,0.5s							
JAMC				AML		AML		
MAPV	**Macapo**	**5.45**	**57**	*e*P		**Pn**	**15 39 23.4**	**+0.4**
BENV	**Beln**	**6.24**	**60**	*e*P		**Pn**	**15 39 33.4**	**-0.2**
TURV	**Turiamo**	**6.29**	**55**	*e*P		**Pn**	**15 39 34.2**	**0.0**
CACV	**CAICARA DEL OR**	**6.54**	**84**	*e*P		**Pn**	**15 39 44.2**	**+6.7**
TACV	**Tcata**	**6.82**	**61**	*e*P		**Pn**	**15 39 40.8**	**-0.6**

PDG ***12*** *15:44:49.9±0.2, 41°.61N×20°.74E, h1km, ML2.6/12, Error ellipse: s-maj=0.8km s-min=0.9km az=0.0*
SKO ***12*** *15:44:51.4, 41°.58N×20°.85E, h13km, ML2.5*
BEO ***12*** *15:44:52.3±0.4, 41°.73N×20°.76E, h9km±2km, ML2.1/14*
TIR ***12*** *15:44:53.1, 41°.65N×20°.61E, h2km±3km, ML2.4, ML2.4, Presumed earthquake*

ISC 12 15:44:50.7±1.0**, 41°.64N**±0°.03×**20°.72E**±0°.02**, h8**km±8**km,** **n47,** σ**1**s**44**/**89, 5C-9D, Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op		ISC	h m s	ISC
PHP	**Peshkopia**	**0.21**	**282**	P		**Pg**	**15 44 54.1**	**-0.9**
PHP				Sg		**Sg**	**15 44 57.1**	**-0.9**
PHP				IAML			15 44 57.5	
	12μm,0.2s							
OHR	**Ohrid**	**0.53**	**174**	⇓*i* Pg		**Pg**	**15 45 00.9**	**-0.1**
OHR				*i* Sg		**Sb**	**15 45 09.7**	**-0.5**
OHR				*e*Lg		Lg	15 45 10.0	
	comp=N,309nm,0.4s							
OHR				*e*Lg		Lg	15 45 10.8	
	comp=E,170nm,0.5s							
SKO	**Skopje**	**0.63**	**58**	*i* Pg		**Pg**	**15 45 03.1**	**+0.2**
SKO				*i* Sg		**Sg**	**15 45 11.7**	**+0.6**
TIR	**Tirane**	**0.71**	**246**	Pg		**Pn**	**15 45 07.5**	**+0.4**
TIR				Sg		**Sb**	**15 45 14.6**	**-0.6**
TIR				IAML			15 45 15.1	
	comp=E,71nm,0.3s							
SDA	**Shkodra**	**1.00**	**295**	Pg		**Pn**	**15 45 11.0**	**0.0**
SDA				Sg		**Sn**	**15 45 26.1**	**+0.7**
SDA				IAML			15 45 33.1	
	comp=E,250nm,0.3s							
BERA	**Berati**	**1.10**	**212**	Pg		**Pn**	**15 45 14.3**	**+1.8**
BERA				Sg		**Sn**	**15 45 30.2**	**+2.3**
BERA				IAML			15 45 34.1	
	comp=E,71nm,0.4s							
PVY	**Plav**	**1.11**	**329**	⇓*i* Pg		**Pg**	**15 45 10.7**	**-1.3**
PVY				*i* Sg		**Sn**	**15 45 28.9**	**+0.6**
ULC	**Ulcinj**	**1.15**	**287**	⇓*i* Pg		**Pg**	**15 45 10.7**	**-2.1**
ULC				*i* Sg		**Sn**	**15 45 29.9**	**+0.8**
DRME	**Dracevica, Mon**	**1.27**	**296**	⇓*i* Pg		**Pn**	**15 45 13.9**	**-0.9**
DRME				*i* Sg		**Sn**	**15 45 34.0**	**+2.0**
PDG	**Podgorica**	**1.35**	**306**	*e*Pg		**Pg**	**15 45 17.2**	**+0.7**
PDG				*e*Sg		**Sg**	**15 45 35.6**	**+1.6**
PDG	**Podgorica**	**1.35**	**306**	⇑*i* Pg		**Pn**	**15 45 15.4**	**-0.4**
PDG				*i* Sg		**Sg**	**15 45 36.5**	**+2.5**
IVA	**Berane**	**1.38**	**334**	⇓*i* Pg		**Pn**	**15 45 15.7**	**-0.6**
IVA				*i* Sg		**Sg**	**15 45 37.9**	**+3.0**
VAY	**Valandovo**	**1.43**	**102**	⇓*i* Pg		**Pn**	**15 45 16.7**	**-0.2**
VAY				*i* Sg		**Sg**	**15 45 36.5**	**+0.1**
VAY				*e*Lg		Lg	15 45 36.7	
	comp=E,38nm,0.5s							
VAY				*e*Lg		Lg	15 45 37.2	
	comp=N,49nm,0.4s							
BARS	**Barje**	**1.43**	**34**	*e*Pg		**Pn**	**15 45 17.2**	**+0.2**
BARS				*e*Sg		**Sn**	**15 45 35.5**	**-0.5**
KOME	**Kolasin**	**1.50**	**324**	⇑*i* Pg		**Pn**	**15 45 18.3**	**+0.2**
KOME				*i* Sg		**Sg**	**15 45 42.0**	**+2.9**
BUM	**Brajici-Budva**	**1.52**	**296**	⇓*i* Pg		**Pn**	**15 45 17.6**	**-0.6**
BUM				*i* Sg		**Sg**	**15 45 42.4**	**+3.0**
BOSS	**Bosilegrad**	**1.56**	**56**	*e*Pg		**Pb**	**15 45 19.8**	**-0.1**
BOSS				*e*Sg		**Sn**	**15 45 38.9**	**-0.4**
SELS	**Selova**	**1.60**	**10**	*e*Pg		**Pn**	**15 45 19.0**	**-0.4**
SELS				*e*Sg		**Sn**	**15 45 40.6**	**+0.3**
CEME	**Cevo**	**1.62**	**305**	⇓*i* Pn		**Pn**	**15 45 20.2**	**+0.6**
CEME				*i* Sn		**Sg**	**15 45 45.8**	**+3.1**
PEHC	**Pehcevo**	**1.64**	**84**	*i* Pg		**Pg**	**15 45 22.4**	**+0.3**
PEHC				*i* Sg		**Sg**	**15 45 42.5**	**-0.8**
SJES	**Sjenica**	**1.71**	**341**	*e*Pg		**Pn**	**15 45 21.7**	**+0.8**
SJES				*e*Sg		**Sn**	**15 45 43.9**	**+0.8**
NKME	**Niksic**	**1.73**	**311**	⇑*i* Pn		**Pb**	**15 45 22.6**	**-0.2**
NKME				*i* Sn		**Sg**	**15 45 48.5**	**+2.2**
HCY	**Herceg Novi**	**1.84**	**297**	⇑*i* Pn		**Pn**	**15 45 22.9**	**+0.2**
HCY				*i* Sn		**Sg**	**15 45 50.8**	**+0.8**
GOCS	**Kraljevo Serbi**	**1.92**	**3**	*e*Pn		**Pn**	**15 45 22.9**	**-1.0**
GOCS				*e*Sn		**Sn**	**15 45 47.5**	**-0.8**
IVAS	**Ivanjica**	**1.98**	**348**	*e*Pn		**Pn**	**15 45 23.7**	**-0.9**
IVAS				*e*Sn		**Sn**	**15 45 48.7**	**-0.9**
BRY	**Bratogost**	**2.05**	**309**	⇑*i* Pn		**Pn**	**15 45 26.9**	**+1.2**
BRY				*i* Sn		**Sg**	**15 45 56.1**	**-0.5**
UPM	**Unac-Piva**	**2.06**	**320**	⇓*i* Pn		**Pn**	**15 45 27.1**	**+1.3**
UPM				*i* Sn		**Sg**	**15 45 56.4**	**-0.5**
TREB	**Trebinje**	**2.06**	**302**	*e*Pn		**Pn**	**15 45 27.5**	**-0.9**
TREB				*e*Sn		**Sb**	**15 45 54.8**	**+0.5**
VTS	**Vitosha**	**2.11**	**62**	*e*Pn		**Pn**	**15 45 26.2**	**-0.2**
IGT	**Igoumenitsa**	**2.13**	**188**	*e*Pn		**Pb**	**15 45 28.6**	**-0.9**
ZAPS	**Zavoj**	**2.16**	**40**	*e*Pn		**Pn**	**15 45 27.6**	**+0.6**
ZAPS				*e*Sn		**Sn**	**15 45 54.0**	**0.0**
DBRK	**Dubrovnik**	**2.17**	**299**	*e*Pn		**Pn**	**15 45 28.9**	**+1.8**
DBRK				Sn		**Sb**	**15 45 56.8**	**-0.5**
GRUS	**Gruza**	**2.25**	**360**	*e*Pn		**Pn**	**15 45 29.1**	**+0.9**
GRUS				*e*Sn		**Sn**	**15 45 55.4**	**-0.7**
BBLS	**Lazi&#263i**	**2.43**	**337**	*e*Pn		**Pn**	**15 45 31.1**	**+0.4**
BBLS				*e*Sn		**Sn**	**15 45 59.6**	**-1.1**
ZAGS	**Zajecar**	**2.44**	**27**	*e*Sn		**Sn**	**15 46 01.7**	**+0.8**
BLKB	**Belogradchik**	**2.45**	**35**	*e*Pn		**Pn**	**15 45 32.4**	**+1.4**
DIVS	**Divibare**	**2.51**	**348**	*e*Pn		**Pn**	**15 45 31.4**	**-0.6**
DIVS				*e*Sn		**Sn**	**15 46 01.0**	**-1.9**
STON	**Ston**	**2.56**	**300**	*e*Pn		**Pn**	**15 45 32.3**	**-0.2**
STON				Sn		**Sn**	**15 46 04.8**	**+1.0**
STON	**Ston**	**2.56**	**300**	*e*Pn		**Pn**	**15 45 33.3**	**+0.9**
LSTV	**Lastovo**	**3.06**	**293**	*e*Pn		**Pn**	**15 45 37.3**	**-2.1**
LSTV				Sn		**Sn**	**15 46 11.0**	**-5.1**
MAKA	**Makarska**	**3.20**	**302**	*e*Pn		**Pn**	**15 45 42.1**	**+0.9**
MAKA				Sn		**Sn**	**15 46 19.0**	**-0.5**
RICI	**Ricice**	**3.23**	**306**	*i* Pn		**Pn**	**15 45 43.7**	**+1.9**
RICI				Sn		**Sn**	**15 46 22.7**	**+2.2**
HVAR

*DRS **12** 16:21:19.6, 42°.49N×46°.69E, h9km*
*NORS **12** 16:21:20.5, 42°.49N×46°.71E, h2km, MPVA4.2*
ISC 12 16:21:19.9±0.8, 42°.48N±0°.01×46°.68E±0°.01, h8km±6km, n87, σ1§26/167, 1C-1D, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XNZR	**Khunzakh**	**0.07**	**14**	*i* Pg	**Pg**	**16 21 22.0**	**0.0**
XNZR				*e*Sg	**Sg**	**16 21 23.6**	**0.0**
HNZR	**Khunzah**	**0.09**	**17**	*i* Pg	**Pg**	**16 21 22.0**	**-0.3**
GNBR	**Gunib**	**0.23**	**112**	*i* Pg	**Pg**	**16 21 24.8**	**+0.4**
GNBR				*e*Sg	**Sg**	**16 21 28.7**	**+1.2**
GNBR	**Gunib**	**0.23**	**112**	⇑*i*PG	**Pg**	**16 21 24.9**	**+0.4**
GNBR				*e*S	**Sg**	**16 21 28.7**	**+1.2**
UNCR	**Uncukul**	**0.25**	**19**	*i* Pg	**Pg**	**16 21 25.0**	**0.0**
UNCR				*e*Sg	**Sg**	**16 21 28.9**	**+0.6**
UNCR	**Uncukul**	**0.25**	**19**	*i* PG	**Pg**	**16 21 25.0**	**0.0**
UNCR				*e*S	**Sg**	**16 21 29.0**	**+0.6**
ARKR	**Arakani**	**0.26**	**61**	*i* Pg	**Pg**	**16 21 25.4**	**+0.2**
ARKR				*e*Sg	**Sg**	**16 21 29.1**	**+0.4**
ARKR	**Arakani**	**0.26**	**61**	*i* PG	**Pg**	**16 21 25.4**	**+0.2**
ARKR				*e*S	**Sg**	**16 21 29.1**	**+0.4**
BTLR	**Botlikh**	**0.39**	**299**	*i* Pg	**Pg**	**16 21 27.9**	**+0.4**
BTLR				*e*Sg	**Sb**	**16 21 34.2**	**-1.1**
BTLR	**Botlikh**	**0.39**	**299**	*i* PG	**Pg**	**16 21 27.9**	**+0.4**
BTLR				*e*S	**Sb**	**16 21 34.2**	**-1.1**
KRNR	**Karanay**	**0.39**	**25**	*i* Pg	**Pg**	**16 21 27.5**	**0.0**
KRNR				*e*Sg	**Sg**	**16 21 33.0**	**+0.3**
KRNR	**Karanay**	**0.39**	**25**	*i* PG	**Pg**	**16 21 27.5**	**0.0**
KRNR				*e*S	**Sg**	**16 21 33.0**	**+0.3**
TLTR	**Tlyarata**	**0.44**	**214**	*i* Pg	**Pg**	**16 21 29.1**	**+0.6**
TLTR				*e*Sg	**Sg**	**16 21 35.8**	**+1.4**
TLTR	**Tlyarata**	**0.44**	**214**	*i* PG	**Pg**	**16 21 29.1**	**+0.6**
TLTR				*e*S	**Sg**	**16 21 35.8**	**+1.4**
KMKR	**Kumukh**	**0.46**	**138**	*i* Pg	**Pb**	**16 21 29.6**	**-0.8**
KMKR				*e*Sg	**Sb**	**16 21 36.5**	**-1.0**
KMKR	**Kumukh**	**0.46**	**138**	*i* PG	**Pb**	**16 21 29.6**	**-0.8**
KMKR				*e*S	**Sb**	**16 21 36.5**	**-1.0**
BUJR	**Buynaksk**	**0.47**	**42**	*e*Pg	**Pb**	**16 21 29.7**	**-0.8**
BUJR				*e*Sg	**Sb**	**16 21 37.3**	**-0.3**
BUJR	**Buynaksk**	**0.47**	**42**	*e*PG	**Pb**	**16 21 29.7**	**-0.8**
BUJR				*e*S	**Sb**	**16 21 37.3**	**-0.3**
DBC	**Dubki**	**0.56**	**11**	*e*Pg	**Pg**	**16 21 30.5**	**-0.2**
DBC				*e*Sg	**Sb**	**16 21 38.7**	**-1.4**
DBC	**Dubki**	**0.56**	**11**	*e*PG	**Pb**	**16 21 30.7**	**-1.3**
DBC				*e*S	**Sb**	**16 21 38.7**	**-1.4**
DLMR	**Dylym**	**0.60**	**356**	*e*Pg	**Pb**	**16 21 32.3**	**-0.3**
DLMR				*e*Sg	**Sb**	**16 21 40.6**	**-0.6**
DLMR	**Dylym**	**0.60**	**356**	*e*PG	**Pb**	**16 21 32.3**	**-0.3**
DLMR				*e*S	**Sb**	**16 21 40.7**	**-0.6**
DVE	**Vedeno**	**0.63**	**320**	*e*Pg	**Pg**	**16 21 32.4**	**+0.2**
DVE				*e*Sg	**Sb**	**16 21 42.0**	**-0.3**
DVE	**Vedeno**	**0.63**	**320**	*e*PG	**Pg**	**16 21 32.3**	**+0.2**
DVE				*e*S	**Sb**	**16 21 42.0**	**-0.3**
LGD	**Lagodekhi**	**0.72**	**207**	P	**Pg**	**16 21 34.2**	**+0.5**
LGD				S	**Sb**	**16 21 44.5**	**-0.2**
LGD	**Lagodekhi**	**0.72**	**207**	PG	**Pg**	**16 21 34.2**	**+0.5**
LGD				S	**Sb**	**16 21 44.5**	**-0.2**
SGKR	**Sergokala**	**0.72**	**91**	*e*Pg	**Pb**	**16 21 34.4**	**-0.4**
SGKR				*e*Sg	**Sb**	**16 21 45.1**	**+0.2**
SGKR	**Sergokala**	**0.72**	**91**	*e*PG	**Pb**	**16 21 34.4**	**-0.4**
SGKR				*e*S	**Sb**	**16 21 45.1**	**+0.2**
URKR	**Urkarakh**	**0.77**	**113**	*e*PG	**Pb**	**16 21 35.3**	**-0.3**
URKR				*e*S	**Sb**	**16 21 46.3**	**0.0**
MAK	**Makhachkala**	**0.78**	**51**	*e*Pg	**Pn**	**16 21 36.2**	**-1.0**
MAK				*e*Sg	**Sn**	**16 21 47.9**	**-1.1**
MAK	**Makhachkala**	**0.78**	**51**	*e*PG	**Pn**	**16 21 36.2**	**-1.0**
MAK				*e*S	**Sn**	**16 21 47.9**	**-1.1**
GROC	**Groznyy**	**0.98**	**318**	*e*Pg	**Pn**	**16 21 40.1**	**+0.2**
GROC				*e*Sg	**Sn**	**16 21 54.7**	**+0.7**
GROC	**Groznyy**	**0.98**	**318**	*e*PG	**Pn**	**16 21 40.7**	**+0.8**
GROC				*e*S	**Sn**	**16 21 54.7**	**+0.7**
DDFL	**Dedoflistskaro**	**1.11**	**202**	P	**Pn**	**16 21 42.1**	**+0.3**
DDFL	**Dedoflistskaro**	**1.11**	**202**	PG	**Pn**	**16 21 42.1**	**+0.3**
SHTL	**Shatili**	**1.14**	**280**	P	**Pg**	**16 21 41.0**	**-0.9**
SHTL				S	**Sg**	**16 21 56.9**	**+0.2**
SHTL	**Shatili**	**1.14**	**280**	PG	**Pg**	**16 21 41.0**	**-0.9**
SHTL				S	**Sg**	**16 21 56.9**	**+0.2**
AKT	**Akhty**	**1.26**	**142**	*i* Pg	**Pb**	**16 21 43.7**	**-0.4**
AKT				*e*Sg	**Sb**	**16 21 60.0**	**-0.6**
AKT	**Akhty**	**1.26**	**142**	*i* PG	**Pb**	**16 21 43.7**	**-0.4**
AKT				*e*S	**Sb**	**16 21 59.9**	**-0.6**
DRN	**Derbent**	**1.30**	**109**	*e*Pg	**Pg**	**16 21 45.6**	**+0.8**
DRN				*e*Sg	**Sn**	**16 22 02.4**	**+0.4**
DRN	**Derbent**	**1.30**	**109**	*e*PG	**Pg**	**16 21 45.8**	**+0.9**
DRN				*e*S	**Sn**	**16 22 04.5**	**+2.6**
KSMR	**Kasumkent**	**1.39**	**129**	*i* Pg	**Pg**	**16 21 46.5**	**0.0**
KSMR				*e*Sg	**Sg**	**16 22 05.6**	**+1.2**
KSMR	**Kasumkent**	**1.39**	**129**	*i* PG	**Pg**	**16 21 46.5**	**0.0**
KSMR				*e*S	**Sg**	**16 22 05.6**	**+1.2**
KMGR	**Komgaron**	**1.46**	**294**	*e*Pg	**Pg**	**16 21 48.6**	**+0.7**
KMGR				*e*Sg	**Sg**	**16 22 11.1**	**+4.3**
KMGR	**Komgaron**	**1.46**	**294**	*e*PG	**Pg**	**16 21 48.8**	**+0.9**
KMGR				*e*S	**Sg**	**16 22 11.1**	**+4.3**
VLKR	**Vladikavkaz**	**1.58**	**292**	*e*Pg	**Pg**	**16 21 51.4**	**+1.1**
VLKR				*e*Sg	**Sg**	**16 22 14.6**	**+3.8**
VLKR	**Vladikavkaz**	**1.58**	**292**	*e*PN	**Pg**	**16 21 51.8**	**+1.5**
VLKR				*e*S	**Sg**	**16 22 14.6**	**+3.8**
TBLG	**Delisi**	**1.63**	**243**	P	**Pg**	**16 21 51.0**	**-0.1**
TBLG				S	**Sg**	**16 22 12.9**	**+0.7**
TBLG	**Delisi**	**1.63**	**243**	*e*Pg	**Pg**	**16 21 50.7**	**-0.4**
TBLG				*e*Sg	**Sg**	**16 22 13.3**	**+1.1**
TBLG	**Delisi**	**1.63**	**243**	PN	**Pg**	**16 21 51.0**	**-0.1**
TBLG				S	**Sg**	**16 22 12.9**	**+0.7**
LACR	**Lac**	**1.79**	**282**	*e*Pg	**Pb**	**16 21 52.1**	**-1.0**
LACR				*e*Sg	**Sg**	**16 22 17.2**	**-0.4**
LACR	**Lac**	**1.79**	**282**	*e*PN	**Pb**	**16 21 53.4**	**+0.3**
TRKR	**Terskaya**	**1.90**	**312**	*e*Pg	**Pb**	**16 21 55.1**	**+0.3**
TRKR				*e*Sg	**Sg**	**16 22 21.4**	**+0.6**
TRKR	**Terskaya**	**1.90**	**312**	*e*PN	**Pb**	**16 21 55.1**	**+0.3**
TRKR				*e*S	**Sg**	**16 22 21.4**	**+0.6**
ARNR	**Ardon**	**1.90**	**293**	*e*PG	**Pg**	**16 21 55.9**	**-0.4**
ARNR				*e*S	**Sg**	**16 22 22.4**	**+1.5**
KORR	**Kora**	**2.02**	**288**	*e*Pg	**Pg**	**16 21 57.9**	**-0.7**
KORR				*e*Sg	**Sg**	**16 22 25.7**	**+0.9**
KORR	**Kora**	**2.02**	**288**	*e*PN	**Pg**	**16 21 58.3**	**-0.3**
KORR				*e*S	**Sg**	**16 22 25.7**	**+0.9**
KZRT	**Kazreti**	**2.02**	**238**	P	**Pn**	**16 21 51.1**	**-3.3**
KZRT				S	**Sn**	**16 22 17.8**	**-2.0**
KZRT	**Kazreti**	**2.02**	**238**	*e*Pg	**Pn**	**16 21 50.9**	**-3.5**
KZRT				*e*Sg	**Sn**	**16 22 17.6**	**-2.3**
KZRT	**Kazreti**	**2.02**	**238**	PN	**Pn**	**16 21 51.1**	**-3.3**
STDR	**Stavd-Durt**	**2.12**	**296**	*e*Pg	**Pb**	**16 21 58.8**	**+0.2**
STDR				*e*Sg	**Sg**	**16 22 27.6**	**-0.4**
STDR	**Stavd-Durt**	**2.12**	**296**	*e*PN	**Pg**	**16 22 00.1**	**-0.5**
STDR				*e*S	**Sg**	**16 22 26.6**	**-1.4**
TRLG	**Trialeti**	**2.14**	**245**	P	**Pb**	**16 21 58.9**	**-0.1**
TRLG				S	**Sg**	**16 22 28.5**	**-0.1**
TRLG	**Trialeti**	**2.14**	**245**	*e*Pg	**Pb**	**16 21 58.7**	**-0.3**
TRLG				*e*Sg	**Sg**	**16 22 28.1**	**-0.5**
TRLG	**Trialeti**	**2.14**	**245**	PN	**Pb**	**16 21 58.9**	**-0.1**
TRLG				S	**Sg**	**16 22 28.5**	**-0.1**
PRTR	**Priterechnaya**	**2.17**	**307**	*e*Pg	**Pn**	**16 21 57.4**	**+1.0**
PRTR				*e*Sg	**Sb**	**16 22 27.6**	**+1.1**
PRTR	**Priterechnaya**	**2.17**	**307**	*e*PN	**Pb**	**16 21 59.0**	**-0.5**
PRTR				*e*S	**Sg**	**16 22 29.3**	**-0.4**
LSNR	**Lesken**	**2.25**	**292**	*e*Pn	**Pg**	**16 22 01.7**	**-1.2**
LSNR				*e*Sn	**Sg**	**16 22 32.1**	**-0.1**
LSNR	**Lesken**	**2.25**	**292**	*e*PN	**Pg**	**16 22 02.1**	**-0.9**
LSNR				*e*S	**Sg**	**16 22 33.3**	**+1.2**
DIGR	**Digorskoe uzhe**	**2.33**	**282**	*e*Pn	**Pb**	**16 22 01.2**	**-1.0**
DIGR				*e*Sn	**Sb**	**16 22 31.9**	**+0.8**
DIGR	**Digorskoe uzhe**	**2.33**	**282**	*e*PN	**Pb**	**16 22 01.4**	**-0.8**
DIGR				*e*S	**Sb**	**16 22 32.0**	**+0.8**
NCK	**Nalchik**	**2.48**	**295**	⇓*e*PN	**Pn**	**16 22 00.5**	**-0.2**
NCK				pmax	pmax		
	comp=Z,38nm,0.6s						
BGD	**Bogdanovka**	**2.60**	**243**	*e*Pn	**Pb**	**16 22 06.9**	**0.0**
BGD				*e*Sn	**Sb**	**16 22 39.6**	**+0.5**
BGD	**Bogdanovka**	**2.60**	**243**	*e*PN	**Pb**	**16 22 06.9**	**0.0**
BGD				*e*S	**Sb**	**16 22 39.6**	**+0.5**
AKH	**Akhalkalaki**	**2.61**	**247**	P	**Pb**	**16 22 05.9**	**-1.1**
AKH				S	**Sb**	**16 22 39.7**	**+0.5**
AKH	**Akhalkalaki**	**2.61**	**247**	PN	**Pb**	**16 22 05.9**	**-1.1**
AKH				S	**Sb**	**16 22 39.7**	**+0.5**
TKB	**Tkibuli**	**2.73**	**269**	P	**Pb**	**16 22 09.4**	**+0.3**
TKB				S	**Sg**	**16 22 45.7**	**-2.0**
TKB	**Tkibuli**	**2.73**	**269**	PN	**Pb**	**16 22 09.4**	**+0.3**
TKB				S	**Sg**	**16 22 45.7**	**-2.0**
GNI	**Garni**	**2.75**	**213**	*e*Pn	**Pb**	**16 22 08.7**	**-0.6**
GNI				*e*Sn	**Sb**	**16 22 44.4**	**+1.2**
GNI	**Garni**	**2.75**	**213**	*e*PN	**Pb**	**16 22 08.7**	**-0.6**
GNI				*e*S	**Sb**	**16 22 44.4**	**+1.2**
NEUR	**Neytrino**	**3.03**	**286**	*e*Pn	**Pb**	**16 22 11.4**	**-2.8**
NEUR				*e*Sn	**Sb**	**16 22 49.4**	**-2.0**
NEUR	**Neytrino**	**3.03**	**286**	*e*PN	**Pb**	**16 22 11.4**	**-2.8**
NEUR				*e*S	**Sb**	**16 22 49.4**	**-2.0**
KBZ	**Khabaz**	**3.04**	**296**	*e*PN	**Pn**	**16 22 08.9**	**+0.6**
KBZ				*e*S	**Sb**	**16 22 49.4**	**-2.1**
KIV	**Kislovodsk**	**3.27**	**298**	*e*PN	**Pn**	**16 22 11.3**	**-0.3**
KIV				*e*S	**Sn**	**16 22 53.5**	**+2.7**
ALER	**Alexandrovskoy**	**3.57**	**311**	*e*Pn	**Pn**	**16 22 18.3**	**+2.7**
ALER				*e*Sn	**Sn**	**16 23 00.4**	**+2.5**
ALER	**Alexandrovskoy**	**3.57**	**311**	*e*PN	**Pn**	**16 22 18.3**	**+2.7**
ALER				*e*S	**Sn**	**16 23 00.4**	**+2.5**
SOC	**Sochi**	**5.22**	**285**	*e*PN	**Pn**	**16 22 37.7**	**-0.6**
SOC				*e*PPP	PPP	16 22 52.4	
SOC				*e*		16 23 38.4	
SOC				MLR	MLR		
	comp=Z,18nm,7.0s						

*IDC **12** 16:33:43.0±0.8, 14°.01N×120°.72E, h105km±8km, mb3.5/9, mbtmp3.8/9, MS2.7/2, Error ellipse: s-maj=50.0km s-min=13.4km az=63.0*
*MAN **12** 16:33:42.0, 14°.05N×120°.42E, h83km, MS3.8*
*NEIC **12** 16:33:43.2±1.4, 14°.02N±0°.08×120°.6E±0°.2, h104km±8km, mb4.3/23, Error ellipse: s-maj=23.5km s-min=10.5km az=74.0*
ISC 12 16:33:43.8±0.5, 14°.07N±0°.07×120°.61E±0°.09, h120km, n52, σ1§70/55, mb4.2/20, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LQP	**Lukban**	**0.90**	**87**	*e*P	**Pn**	**16 34 04.4**	**-0.7**
LQP				*e*S	**Sn**	**16 34 19.3**	**-1.8**
GQP	**Guinayangan**	**1.79**	**95**	*i* P	**Pn**	**16 34 16.2**	**+1.6**
GQP				*i* S	**Sn**	**16 34 42.8**	**+4.7**
IBAJ	**Ibajay, Aklan**	**2.70**	**146**	*e*P	**Pn**	**16 34 28.5**	**+2.3**
SZP	**Santa**	**3.47**	**358**	Pn	**Pn**	**16 34 34.8**	**-1.5**
SZP				Sn	**Sn**	**16 35 15.6**	**-1.2**
PIP	**Pasuquin**	**4.23**	**0**	*e*P	**Pn**	**16 34 47.5**	**+1.1**
DAV	**Davao City (W)**	**8.49**	**144**	Pn	**Pn**	**16 35 41.0**	**-3.0**
KKM	**Kota Kinabalu**	**9.07**	**209**	Pn	Pn	16 35 46.4	-5.5
SSLB	**Suanglung**	**9.67**	**2**	Pn	**Pn**	**16 35 58.8**	**-1.1**
YHNB	**Yeheng**	**10.57**	**4**	Pn	**Pn**	**16 36 08.9**	**-3.1**
CMAR	**Chiang Mai Arr**	**21.25**	**285**	P	**P**	**16 38 21.7**	**+1.2**
	0.6nm,0.6s,baz=98,slow=8.3,SNR=4.7						
	0.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**21.25**	**285**	P	**P**	**16 38 19.6**	**-1.0**
JMN	**Monobe**	**22.98**	**29**	P	**P**	**16 38 36.4**	**-1.8**
JMN				IAmb	IAmb	16 38 39.2	
	comp=Z,29nm,1.2s						
KSRS	**Korea Array**	**24.18**	**14**	LR	LR	16 48 42.1	
	comp=Z,9.9nm,18.1s,baz=200,slow=37						
ULN	**Ulaanbaatar**	**35.53**	**344**	P	**P**	**16 40 30.3**	**+0.9**
ULN				IAmb	IAmb	16 40 31.2	
	comp=Z,3.1nm,0.7s						
SONM	**Songino Array**	**35.68**	**344**	P	**P**	**16 40 31.9**	**+1.3**
	comp=Z,4.0nm,0.6s,baz=156,slow=9.5,SNR=32						
	comp=Z,4.0nm,0.6s						
SONM	**Songino Array**	**35.68**	**344**	P	**P**	**16 40 31.2**	**+0.6**
SONM				IAmb	IAmb	16 40 32.8	
	comp=Z,3.1nm,0.7s						
WB0	**Warramunga Arr**	**36.25**	**158**	P	**P**	**16 40 35.0**	**-0.6**
WB0				IAmb	IAmb	16 41 00.1	
	comp=Z,3.5nm,1.0s						
WRA	**Warramunga Arr**	**36.40**	**158**	P	**P**	**16 40 35.9**	**-0.9**
	comp=Z,0.2nm,0.4s,baz=333,slow=9.2,SNR=2.5						
WRA				pP	**pP**	**16 40 59.7**	**-4.2**
	comp=Z,1.5nm,0.7s,baz=335,slow=9.6,SNR=7.3						
	comp=Z,0.2nm,0.4s						
WRA	**Warramunga Arr**	**36.40**	**158**	P	**P**	**16 40 36.5**	**-0.3**
ASAR	**Alice Springs**	**39.69**	**161**	P	**P**	**16 41 05.5**	**+1.0**
	comp=Z,0.2nm,0.6s,baz=337,slow=6.7,SNR=6.0						
ASAR				pP	**pP**	**16 41 28.1**	**-3.6**
	comp=Z,0.6nm,0.6s,baz=336,slow=6.7,SNR=11						
	comp=Z,0.2nm,0.6s						
ASAR	**Alice Springs**	**39.69**	**161**	P	**P**	**16 41 05.0**	**+0.6**
PDGK	**Podgornoye**	**45.69**	**318**	P	**P**	**16 41 54.1**	**+1.3**
MKAR	**Makanchi Array**	**45.69**	**323**	P	**P**	**16 41 54.3**	**+1.6**
	comp=Z,0.9nm,0.7s,baz=128,slow=8.6,SNR=10						
MKAR				pP	**pP**	**16 42 19.0**	**-1.3**
	comp=Z,0.3nm,0.8s,baz=130,slow=7.8,SNR=1.5						
	comp=Z,0.9nm,0.7s						
MKAR	**Makanchi Array**	**45.69**	**323**	P	**P**	**16 41 53.6**	**+0.9**
MAKZ	**Makanchi**	**45.88**	**323**	P	**P**	**16 41 54.8**	**+0.7**
ZALV	**Zalesovo Beam**	**48.69**	**333**	P	**P**	**16 42 16.5**	**+0.7**
	comp=Z,0.8nm,0.3s,baz=120,slow=8.5,SNR=1.8						
	comp=Z,0.8nm,0.3s						
AAK	**Ala-Archa**	**48.75**	**315**	LR	LR	17 06 47.1	
	comp=Z,14nm,18.1s,baz=60,slow=41						
BBOO	**Buckleboo**	**48.90**	**163**	P	**P**	**16 42 17.9**	**+0.3**
KURBB	**Kurchatov Arra**	**49.84**	**326**	P	**P**	**16 42 26.1**	**+1.5**
	comp=Z,1.0nm,0.5s,baz=124,slow=7.9,SNR=12						
KURBB				pP	**pP**	**16 42 51.7**	**-0.8**
	comp=Z,0.8nm,1.0s,baz=116,slow=8.5,SNR=2.4						
	comp=Z,1.0nm,0.5s						
KURK	**Kurchatov**	**49.84**	**326**	P	**P**	**16 42 25.6**	**+1.0**
KURK	**Kurchatov**	**49.84**	**326**		pP	16 42 51.7	-0.8
KK31	**Karatay Array**	**51.66**	**314**	P	**P**	**16 42 39.3**	**+0.9**
KKAR	**Karatay Array**	**51.66**	**314**	P	**P**	**16 42 39.0**	**+0.7**
BVAR	**Borovoye Array**	**55.42**	**326**	P	**P**	**16 43 07.1**	**+1.5**
	comp=Z,2.6nm,0.5s,baz=110,slow=7.8,SNR=22						
	comp=Z,2.6nm,0.5s						
BORK	**Borovoye**	**55.47**	**326**	P	**P**	**16 43 07.3**	**+1.3**
AB31	**Akbulak array**	**60.40**	**319**	P	**P**	**16 43 41.5**	**+1.0**
ABKAR	**Akbulak array**	**60.40**	**319**	P	**P**	**16 43 41.2**	**+0.8**
M16K	**Timber Creek**	**73.17**	**30**	P	**P**	**16 45 02.3**	**+1.1**
J17K	**VABM Dome**	**73.19**	**28**	P	**P**	**16 45 03.0**	**+1.7**
F20K	**Avaraart Lake**	**74.68**	**24**	P	**P**	**16 45 11.8**	**+1.9**
F20K				IAmb	IAmb	16 45 38.8	
	comp=Z,6.8nm,1.4s						
IMAR	**Indian Mountai**	**75.49**	**25**	P	**P**	**16 45 16.1**	**+1.5**
F21K	**Alatna River**	**75.55**	**24**	P	**P**	**16 45 16.7**	**+1.7**
F21K				IAmb	IAmb	16 45 21.4	
	comp=Z,5.0nm,1.2s						
D22K	**Ayikyak River**	**75.80**	**22**	P	**P**	**16 45 16.6**	**+0.4**
D22K				IAmb	IAmb	16 45 47.7	
	comp=Z,9.2nm,1.4s						
CAST	**Castle Rocks**	**76.33**	**28**	P	**P**	**16 45 21.1**	**+1.6**
CAST				IAmb	IAmb	16 45 44.2	
	comp=Z,12nm,1.5s						
MCK	**McKinley**	**77.71**	**27**	P	**P**	**16 45 26.4**	**-0.7**
MCK				IAmb	IAmb	16 45 40.1	
	comp=Z,8.4nm,1.2s						
ARCES	**ARCESS Array B**	**78.71**	**339**	P	**P**	**16 45 33.5**	**+1.0**
BMAR	**Burnt Mountain**	**78.96**	**23**	P	**P**	**16 45 36.0**	**+2.0**
FINES	**FINESS Array B**	**79.92**	**331**	P	**P**	**16 45 39.8**	**+0.6**
	comp=Z,2.4nm,1.1s,baz=57,slow=6.2,SNR=5.5						
	comp=Z,2.4nm,1.1s						
H29M	**Whitestone**	**81.63**	**24**	P	**P**	**16 45 50.0**	**+1.8**
H29M				IAmb	IAmb	16 45 57.9	
	comp=Z,6.5nm,1.4s						
F30M	**Barrier River**	**82.20**	**22**	P	**P**	**16 45 53.7**	**+2.5**
F30M				IAmb	IAmb	16 46 01.3	
	comp=Z,9.2nm,1.4s						
BURAR	**Bucovina Array**	**83.33**	**317**	P	**P**	**16 45 58.1**	**+0.5**
BUR08	**Bucovina Ar. S**	**83.34**	**317**	P	**P**	**16 45 57.8**	**+0.2**
BUR08				IAmb	IAmb	16 46 33.4	
	comp=Z,5.1nm,1.4s						

*ATH **12** 16:45:24.3, 34°.69N×24°.88E, h16km±2km, ML3.1/16, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*THE **12** 16:45:25.4, 35°.N±4°×2°.5E±°, h29km±1km, M2.8/8, MLh2.8/8*
*GII **12** 16:45:32.3±0.0, 34°.543N±0°.005×25°.788E±0°.001, h0km, Mws3.0, confirmed*
ISC 12 16:45:22.3±1.3, 34°.63N±0°.05×24°.94E±0°.03, h34km±3km, n52, σ1§97/76, Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIVA	**Sivas**	**0.40**	**344**	P	**Pb**	**16 45 31.4**	**0.0**
SIVA				S	**Sb**	**16 45 36.5**	**-1.2**
SIVA				AML	AML		
SIVA	**Sivas**	**0.40**	**344**	P	**Pb**	**16 45 31.5**	**0.0**
SIVA				S	**Sb**	**16 45 35.8**	**-2.0**
SIVA				AML	AML		
IDI	**Anoyia**	**0.66**	**356**	P	**Pb**	**16 45 35.0**	**-0.6**
IDI				S	**Sb**	**16 45 42.8**	**-1.7**
IDI				AML	AML		
IDI	**Anoyia**	**0.66**	**356**	P	**Pb**	**16 45 35.0**	**-0.6**
IDI				S	**Sb**	**16 45 43.4**	**-1.2**
IDI				AML	AML		
IACM	**Heraklion**	**0.68**	**9**	P	**Pn**	**16 45 37.0**	**+1.4**
IACM				S	**Sb**	**16 45 45.1**	**0.0**
GVD	**Gavdhos**	**0.73**	**287**	P	**Pn**	**16 45 37.4**	**+1.1**
GVD	**Gavdhos**	**0.73**	**287**	P	**Pn**	**16 45 37.4**	**+1.1**
GVD				S	**Sn**	**16 45 46.5**	**+0.2**
GVDS	**Gavdos**	**0.76**	**286**	P	**Pn**	**16 45 37.7**	**+1.1**
GVDS				S	**Sb**	**16 45 46.4**	**-0.8**
GVDS				AML	AML		
RTHF	**Rethymno-Limin**	**0.82**	**333**	P	**Pb**	**16 45 37.8**	**-0.4**
RTHF				S	**Sn**	**16 45 48.8**	**+0.3**
RTHF				AML	AML		
NPS	**Neapolis**	**0.84**	**41**	P	**Pn**	**16 45 40.3**	**+2.5**
NPS				S	**Sn**	**16 45 51.8**	**+3.0**
NPS				AML	AML		
NPS	**Neapolis**	**0.84**	**41**	P	**Pn**	**16 45 40.1**	**+2.4**
AGNA	**Agios Nikolaos**	**0.85**	**49**	P	**Pn**	**16 45 40.9**	**+3.1**
VAM	**Vamos**	**0.98**	**322**	P	**Pn**	**16 45 40.1**	**+0.3**
VAM				AML	AML		
VAM	**Vamos**	**0.98**	**322**	P	**Pb**	**16 45 41.0**	**0.0**
VAM				S	**Sn**	**16 45 53.5**	**+1.0**
CHNB	**Souda**	**1.11**	**320**	P	**Pb**	**16 45 43.8**	**+0.7**
CHNB				S	**Sb**	**16 45 57.9**	**+0.5**
IMMV	**Iera Moni Meta**	**1.14**	**317**	P	**Pn**	**16 45 42.8**	**+0.9**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.14**	**317**	P	**Pb**	**16 45 43.8**	**+0.2**
IMMV				S	**Sb**	**16 45 58.2**	**+0.1**
IMMV				AML	AML		
CHAN	**Chania**	**1.15**	**320**	P	**Pb**	**16 45 43.9**	**+0.1**
CHAN				S	**Sb**	**16 45 58.4**	**0.0**
CHAN				AML	AML		
ZKR	**Zakros**	**1.15**	**65**	P	**Pb**	**16 45 46.1**	**+2.4**
ZKR	**Zakros**	**1.15**	**65**	P	**Pb**	**16 45 46.0**	**+2.2**
ZKR				AML	AML		
KNDR	**Palaiochora Ch**	**1.24**	**299**	P	**Pn**	**16 45 44.5**	**+1.2**
KNDR				S	**Sn**	**16 45 59.4**	**+0.7**
KNDR				AML	AML		
KNDR	**Palaiochora Ch**	**1.24**	**299**	P	**Pb**	**16 45 45.3**	**+0.1**
KNDR				S	**Sb**	**16 46 01.1**	**+0.3**
KNDR				AML	AML		
RODP	**Rodopos**	**1.34**	**314**	P	**Pb**	**16 45 47.3**	**+0.3**
RODP				AML	AML		
THERA	**Ancient Thera,**	**1.79**	**14**	P	**Pn**	**16 45 51.5**	**+0.7**
THERA	**Ancient Thera,**	**1.79**	**14**	P	**Pn**	**16 45 52.9**	**+2.1**
ANKY	**Antikythira Is**	**1.82**	**313**	P	**Pn**	**16 45 52.9**	**+1.6**
ANKY				AML	AML		
ANKY	**Antikythira Is**	**1.82**	**313**	P	**Pb**	**16 45 54.4**	**-0.6**
ANKY				AML	AML		
SAP3	**Santorini-Thir**	**1.83**	**10**	P	**Pb**	**16 45 54.8**	**-0.4**
CMBO	**Columbo, Santo**	**1.87**	**11**	P	**Pn**	**16 45 54.6**	**+2.6**
KARP	**Karpathos**	**2.04**	**63**	P	**Pb**	**16 45 58.3**	**-0.3**
KARP	**Karpathos**	**2.04**	**63**	P	**Pb**	**16 45 58.3**	**-0.3**
KARP				AML	AML		
MHLO	**Agia Marina, M**	**2.10**	**348**	P	**Pn**	**16

EDH	**Donghe**	**1.44**	**338**	*e*P	**Pb**	17 21 28.3	-1.0
EDH				eS	**Sb**	17 21 46.8	-0.7
LONT	**Longtian**	**1.45**	**331**	*e*P	**Pb**	17 21 29.0	-0.5
LONT				eS	**Sb**	17 21 47.6	-0.3
SSPT	**Xinbi**	**1.48**	**305**	*e*P	**Pg**	17 21 30.7	-0.4
MASBT	**Mashibuluo**	**1.52**	**310**	*e*P	**Pb**	17 21 29.7	-0.9
MASBT				eS	**Sn**	17 21 48.5	-0.7
CHKT	**Chengkung**	**1.54**	**342**	*e*P	**Pn**	17 21 29.3	-0.5
CHKT				eS	**Sn**	17 21 48.3	-1.4
TSMG	**Majia**	**1.57**	**313**	*e*P	**Pb**	17 21 30.2	-1.3
TSMG				eS	**Sn**	17 21 49.9	-0.6
ECS	**Chishang**	**1.58**	**337**	P	**Pb**	17 21 31.5	-0.2
ECS				eS	**Sb**	17 21 51.9	+0.1
SSD	**Sandimen**	**1.60**	**314**	*e*P	**Pb**	17 21 31.7	-0.5
CHKH	**Chenggong**	**1.61**	**344**	*e*P	**Pn**	17 21 30.7	-0.2
CHKH				eS	**Sn**	17 21 50.6	-1.0
EHD	**Haiduan**	**1.63**	**338**	*e*P	**Pb**	17 21 31.7	-1.0
EHD				eS	**Sn**	17 21 51.1	-1.1
FULB	**Fuli**	**1.65**	**341**	*e*P	**Pn**	17 21 31.5	+0.1
FULB				eS	**Sn**	17 21 51.4	-1.2
TSPT	**Pingtung City**	**1.65**	**309**	*e*P	**Pg**	17 21 34.4	0.0
TSPT				eS	**Sb**	17 21 53.3	-0.5
SGLT	**Jiouru**	**1.69**	**310**	*e*P	**Pb**	17 21 33.5	-0.1
ELDTW	**Lidau**	**1.74**	**333**	*e*P	**Pn**	17 21 33.0	+0.2
EYUL	**Yuli**	**1.78**	**343**	*e*P	**Pb**	17 21 33.7	-1.5
EYUL				eS	**Sn**	17 21 55.9	0.0
SCST	**Cishan**	**1.79**	**314**	*e*P	**Pb**	17 21 35.3	-0.1
TWF1	**Yuli**	**1.79**	**343**	*e*P	**Pn**	17 21 33.5	+0.1
TWF1				eS	**Sn**	17 21 56.0	-0.2
TWM1	**Shoushan**	**1.80**	**311**	*e*P	**Pb**	17 21 35.5	0.0
WSSB	**Gushan**	**1.81**	**304**	*e*P	**Pb**	17 21 35.7	+0.1
YULB	**Yu-li**	**1.83**	**343**	*e*P	**Pn**	17 21 34.2	+0.3
YULB				S	**Sn**	17 21 57.0	-0.1
STYH	**Taoyuan**	**1.84**	**326**	*e*P	**Pb**	17 21 35.4	-0.8
STYT	**Tauyuan**	**1.84**	**326**	*e*P	**Pb**	17 21 35.7	-0.7
SGST	**Jiashian**	**1.88**	**320**	*e*P	**Pb**	17 21 36.6	-0.2
SGST				eS	**Sb**	17 22 00.7	+0.4
HGSD	**Ruisui**	**1.90**	**347**	*e*P	**Pn**	17 21 34.3	-0.5
HGSD				eS	**Sn**	17 21 58.8	+0.1
EHYH	**Wanrong**	**1.92**	**345**	*e*P	**Pb**	17 21 36.0	-1.5
EHYH				eS	**Sn**	17 21 59.2	+0.1
EHY	**Hungye**	**1.94**	**345**	*e*P	**Pb**	17 21 36.2	-1.6
EHY				eS	**Sn**	17 21 58.8	-0.8
SHHT	**Tainan City**	**1.98**	**314**	*e*P	**Pg**	17 21 39.5	-1.2
WTP	**Ta-pu**	**1.99**	**324**	*e*P	**Pb**	17 21 39.1	+0.3
CHN3	**Shinhua**	**2.01**	**316**	P	**Pb**	17 21 39.1	+0.1
CHN3				eS	**Sb**	17 22 02.9	-1.2
TPUB	**Ta-pu**	**2.02**	**325**	*e*P	**Pb**	17 21 38.9	-0.5
SNST	**Tainan City**	**2.03**	**321**	*e*P	**Pb**	17 21 39.5	+0.3
SNST				eS	**Sn**	17 22 01.5	-0.5
EGFH	**Guangfu**	**2.07**	**348**	*e*P	**Pb**	17 21 39.4	-0.7
EGFH				S	**Sn**	17 22 03.6	+0.8
TWK	**Hsinying**	**2.08**	**322**	*e*P	**Pb**	17 21 39.8	-0.5
CHN4	**Tsaushan**	**2.08**	**325**	*e*P	**Pb**	17 21 40.1	-0.3
ALS	**Alishan**	**2.12**	**332**	*e*P	**Pb**	17 21 40.0	-1.1
WARBT	**Fenglin Townsh**	**2.12**	**348**	*e*P	**Pn**	17 21 38.7	+0.8
WARBT				S	**Sn**	17 22 03.9	-0.4
WCKO	**Fanlu**	**2.15**	**327**	*e*P	**Pb**	17 21 40.6	-1.0
SHUL	**Shoufeng**	**2.16**	**352**	*e*P	**Pn**	17 21 38.7	+0.3
SHUL				eS	**Sn**	17 22 05.0	-0.2
SCLT	**Jiali**	**2.19**	**315**	*e*P	**Pb**	17 21 40.9	-1.3
SCLT				eS	**Sn**	17 22 06.4	+0.5
ESL	**Shilin**	**2.21**	**349**	*e*P	**Pn**	17 21 40.1	+1.0
ESL				eS	**Sn**	17 22 06.8	+0.4
VWDT	**VWDT**	**2.22**	**342**	*e*P	**Pn**	17 21 40.2	+1.0
VWDT				eS	**Sn**	17 22 06.8	+0.3
WHT	**Xinyi Township**	**2.26**	**335**	*e*P	**Pb**	17 21 41.6	-1.8
ICHU	**Yijhu**	**2.27**	**319**	*e*P	**Pb**	17 21 41.4	-2.2
CHY	**Chiayi**	**2.29**	**324**	*e*P	**Pb**	17 21 42.2	-1.7
CHN8	**Yiju**	**2.30**	**318**	*e*P	**Pb**	17 21 41.6	-2.5
CHN8				eS	**Sn**	17 22 07.9	-0.7
SSLB	**Suanglung**	**2.31**	**338**	*e*P	**Pb**	17 21 41.8	-2.4
SSLB				eS	**Sn**	17 22 09.1	+0.2
ETM	**Tongmen**	**2.35**	**351**	*e*P	**Pn**	17 21 41.6	+0.6
ETM				S	**Sn**	17 22 10.1	+0.3
WGK	**Gukeng**	**2.38**	**329**	*e*P	**Pb**	17 21 43.9	-1.5
OWD	**Renai**	**2.40**	**344**	*e*P	**Pn**	17 21 42.9	+1.0
OWD				eS	**Sn**	17 22 10.7	-0.5
WDL	**Douliou City**	**2.42**	**329**	*e*P	**Pn**	17 21 42.5	+0.6
WDL				eS	**Sn**	17 22 12.6	+1.2
LXIB	**Xiulin Townshi**	**2.42**	**350**	*e*P	**Pn**	17 21 42.6	+0.5
LXIB				eS	**Sn**	17 22 11.7	0.0
SMLT	**Sun Moon Lake**	**2.42**	**338**	*e*P	**Pb**	17 21 44.7	-1.4
SMLT				eS	**Sb**	17 22 14.2	-1.6
WSL	**Shuilin Townsh**	**2.42**	**321**	*e*P	**Pn**	17 21 42.5	+0.5
WSL				S	**Sn**	17 22 11.4	-0.3
WJS	**Zhushan**	**2.42**	**334**	*e*P	**Pn**	17 21 44.7	-1.5
TWD	**Chiawan**	**2.45**	**354**	*e*P	**Pn**	17 21 42.8	+0.4
TYC	**Yuchr**	**2.45**	**337**	*e*P	**Pn**	17 21 45.0	-1.6
TYC				eS	**Sn**	17 22 13.5	+1.2
WUSB	**Renai**	**2.45**	**343**	*e*P	**Pb**	17 21 44.1	-2.6
WUSB				S	**Sn**	17 22 13.0	+0.5
WTK	**Tuku**	**2.47**	**326**	*e*P	**Pn**	17 21 43.9	+1.2
WTK				eS	**Sb**	17 22 15.9	-1.3
WNT	**Mingjian**	**2.49**	**334**	*e*P	**Pb**	17 21 46.0	-1.3
EOS4	**EOS4**	**2.51**	**9**	*e*P	**Pn**	17 21 43.8	+0.9
EOS4				eS	**Sn**	17 22 12.4	-0.8
WNT1	**Nantou City**	**2.52**	**334**	*e*P	**Pb**	17 21 46.2	-1.6
WNT1				eS	**Sb**	17 22 17.2	-1.6
NACB	**Ninganchiao**	**2.54**	**354**	*e*P	**Pn**	17 21 43.6	-0.1
NACB				eS	**Sn**	17 22 13.4	-1.2
DPDB	**Guoxing**	**2.55**	**340**	*e*P	**Pn**	17 21 46.5	-1.8
WHF	**Hehuan Shan**	**2.56**	**347**	*e*P	**Pn**	17 21 45.3	+0.9
WHF				eS	**Sn**	17 22 15.8	+0.1
WCS	**Beigang Elemen**	**2.57**	**340**	*e*P	**Pb**	17 21 46.6	-2.1
ETLH	**Xiulin Townshi**	**2.59**	**352**	*e*P	**Pn**	17 21 44.9	+0.5
ETLH				eS	**Sn**	17 22 15.3	-0.5
WWF	**Wufeng**	**2.64**	**336**	*e*P	**Pb**	17 21 47.5	-2.2
WMLT	**Mailiao**	**2.65**	**325**	*e*P	**Pb**	17 21 47.2	-2.8
WMLT				eS	**Sn**	17 22 17.5	+0.3
FUSS	**Fushou**	**2.67**	**347**	*e*P	**Pn**	17 21 46.9	+1.3
FUSS				eS	**Sn**	17 22 17.6	-0.5
EOS3	**EOS3**	**2.67**	**9**	*e*P	**Pn**	17 21 46.6	+1.3
EOS3				eS	**Sn**	17 22 17.6	+0.1
TWT	**Tachien**	**2.69**	**346**	*e*P	**Pn**	17 21 47.6	+1.7
VCHM	**Qimei**	**2.76**	**305**	*e*P	**Pn**	17 21 46.6	0.0
WHP	**Taichung City**	**2.77**	**342**	*e*P	**Pb**	17 21 50.5	-1.7
ENA	**Nanau**	**2.79**	**357**	*e*P	**Pn**	17 21 48.2	+1.2
ENA				eS	**Sn**	17 22 19.4	-1.1
NNSB	**Datong**	**2.82**	**351**	*e*P	**Pn**	17 21 49.2	+1.6
NNS	**Nan Shan**	**2.83**	**351**	*e*P	**Pn**	17 21 49.5	+1.7
PHUB	**P'eng-hu**	**2.84**	**312**	*e*P	**Pn**	17 21 48.9	+1.1
TWQ1	**Liyutan**	**2.89**	**339**	*e*P	**Pb**	17 21 51.7	-2.4
LATG	**Datong**	**2.91**	**354**	*e*P	**Pn**	17 21 50.1	+1.4
TWC	**Suao**	**2.96**	**359**	*e*P	**Pn**	17 21 50.7	+1.2
TWC				eS	**Sn**	17 22 24.7	-0.2
JYNG	**Yonagunijimaku**	**2.97**	**19**	eS	**Sn**	17 22 25.2	+0.1
HATJ	**Hateruma jima**	**2.99**	**36**	eS	**Sn**	17 22 26.3	+0.7
YOJ	**Yonaguni jima**	**3.00**	**20**	*e*P	**Pn**	17 21 51.0	+1.1
YOJ				eS	**Sn**	17 22 24.4	-1.4
ENTT	**Nioudou**	**3.01**	**354**	*e*P	**Pn**	17 21 51.9	+1.8
YHNB	**Yeheng**	**3.06**	**351**	*e*P	**Pn**	17 21 52.4	+1.5
YHNB				eS	**Sn**	17 22 27.6	+0.1
NFF	**Wufeng Townshi**	**3.07**	**347**	*e*P	**Pb**	17 21 54.2	-2.9
NFF				eS	**Sn**	17 22 30.0	+2.4
NSK	**Sanguang**	**3.07**	**351**	*e*P	**Pn**	17 21 52.9	+2.0
TWE	**Neicheng**	**3.08**	**356**	*e*P	**Pn**	17 21 53.0	+2.0
NSTT	**Nanjuang**	**3.09**	**345**	*e*P	**Pb**	17 21 54.8	-2.8
NSTT				eS	**Sn**	17 22 29.8	+1.6
LIOB	**Emei**	**3.10**	**345**	*e*P	**Pb**	17 21 54.2	-3.5
FUSB	**Fushanzhiwuyua**	**3.12**	**355**	P	**Pn**	17 21 53.8	+2.0
FUSB				S	**Sn**	17 22 29.4	+0.4
NWLT	**Wulai**	**3.15**	**354**	*e*P	**Pn**	17 21 54.1	+2.1
NJD	**Zhudong**	**3.17**	**347**	P	**Pn**	17 21 54.7	+2.3
NJD				S	**Sn**	17 22 30.4	+0.3
IRIF	**Iriomote-Funau**	**3.18**	**32**	*e*P	**Pn**	17 21 54.3	+1.8
IRIF				eS	**Sn**	17 22 31.1	+0.8
KSHI	**Guanxi Townshi**	**3.20**	**348**	*e*P	**Pb**	17 21 56.3	-3.0
JKRS	**Kuro-shima**	**3.25**	**37**	*e*P	**Pn**	17 21 55.1	+1.7
JKRS				eS	**Sn**	17 22 32.5	+0.5
TIPB	**Shuangxi**	**3.32**	**359**	*e*P	**Pn**	17 21 56.4	+2.0
TATO	**Taipei**	**3.35**	**354**	P	**Pn**	17 21 56.9	+2.1
TATO				S	**Sn**	17 22 34.4	0.0
JIJ	**Ishigaki jima**	**3.42**	**37**	P	**Pn**	17 21 57.5	+1.7
JIJ				eS	**Sn**	17 22 35.1	-1.2
SXI1	**Grass Mountain**	**3.44**	**360**	P	**Pb**	17 21 59.9	-3.7
SXI1				eS	**Sn**	17 22 37.5	+0.5
PIP	**Pasuquin**	**3.50**	**200**	*e*P	**Pn**	17 21 56.0	-0.9
ZUZH	**Zhuzihu**	**3.53**	**355**	*e*P	**Pn**	17 21 59.3	+2.1
YM08	**YM08**	**3.55**	**356**	eS	**Sn**	17 22 39.9	+0.4
JISG	**Ishigakijimahi**	**3.69**	**37**	*e*P	**Pn**	17 22 00.9	+1.5
JISG				eS	**Sn**	17 22 42.1	-0.9
JTJ	**Tarama**	**3.96**	**40**	*e*P	**Pn**	17 22 05.2	+2.1
JTJ				eS	**Sn**	17 22 49.9	+0.3
PTMZ	**Houxiangcun**	**4.24**	**324**	*e*P	**Pn**	17 22 09.3	+2.4
PTMZ				eS	**Sn**	17 22 55.7	-0.6
KNMB	**Chin-men Tao**	**4.28**	**312**	*e*P	**Pn**	17 22 09.0	+1.5
JMJ	**Miyako jima 2**	**4.46**	**44**	*e*P	**Pn**	17 22 11.5	+1.5
JMJ				eS	**Sn**	17 22 59.8	-2.0
DSXP	**Dongshan**	**4.61**	**297**	*e*P	**Pn**	17 22 13.2	+1.1
MATB	**Ma-tsu**	**4.83**	**339**	P	**Pn**	17 22 16.1	+0.9
MATB				eS	**Sn**	17 23 09.9	-1.2
AXDP	**Jialang**	**4.85**	**313**	*e*P	**Pn**	17 22 17.3	+1.9
AXDP				eS	**Sn**	17 23 10.4	-1.1
XPSS	**Dashiqiu**	**5.50**	**344**	*e*P	**Pn**	17 22 26.7	+2.4
XPSS				eS	**Sn**	17 23 25.7	-1.7
KSRS	**Korea Array**	**16.61**	**17**	Pn	**P**	17 24 57.0	-0.7
	0.2nm,0.3s,baz=197,slow=11,SNR=5.2						
KSRS				LR	LR	17 30 38.9	
	comp=Z,34nm,20.1s,baz=185,slow=34 0.4nm,0.4s						
KSRS				AML	AML		
MJAR	**Matsushiro Arr**	**20.55**	**40**	P	Pn	17 25 45.2	+1.9
	1.5nm,0.7s,baz=226,slow=11,SNR=4.3 1.5nm,0.7s						
CMAR	**Chiang Mai Arr**	**21.78**	**266**	P	**P**	**17 25 56.3**	**+1.8**
	0.3nm,0.3s,baz=63,slow=9.3,SNR=4.0						
CMAR				LR	LR	17 35 33.2	
	comp=Z,22nm,18.3s,baz=110,slow=40 0.3nm,0.3s						
GUMO	**Guam**	**23.30**	**106**	LR	LR	17 33 18.1	
	comp=Z,17nm,20.8s,baz=173,slow=32						
KLR	**Kul'dur**	**28.64**	**14**	LR	LR	17 39 22.3	
	comp=Z,29nm,18.4s,baz=232,slow=38						
MKAR	**Makanchi Array**	**40.63**	**318**	P	**P**	**17 28 45.2**	**+2.8**
	0.9nm,0.9s,baz=105,slow=9.3,SNR=5.3 0.9nm,0.9s						
H11N1	**WAKE ISLAND Hy**	**42.04**	**84**	T	T	18 13 58.3	
	baz=282,slow=75,SNR=13						
H11N2	**WAKE ISLAND Hy**	**42.05**	**84**	T	T	18 14 00.9	
	baz=282,slow=75,SNR=26						
H11N3	**WAKE ISLAND Hy**	**42.06**	**84**	T	T	18 14 09.0	
	baz=282,slow=75,SNR=18						
H11S3	**WAKE ISLAND Hy**	**42.09**	**86**	T	T	18 14 01.4	
	baz=282,slow=75,SNR=37						
H11S1	**WAKE ISLAND Hy**	**42.10**	**86**	T	T	18 14 00.7	
	baz=282,slow=75,SNR=27						
H11S2	**WAKE ISLAND Hy**	**42.11**	**86**	T	T	18 14 01.3	
	baz=282,slow=75,SNR=32						
ZALV	**Zalesovo Beam**	**42.74**	**328**	P	**P**	**17 29 01.1**	**+1.5**
	0.7nm,0.3s,baz=140,slow=10,SNR=1.5 0.7nm,0.3s						
WRA	**Warramunga Arr**	**43.08**	**163**	P	**P**	**17 29 01.4**	**-1.3**
	0.5nm,0.7s,baz=342,slow=8.1,SNR=3.3 0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**44.48**	**321**	P	**P**	**17 29 14.9**	**+1.2**
	0.2nm,0.3s,baz=99,slow=6.0,SNR=1.5 0.2nm,0.3s						
BVAR	**Borovoye Array**	**50.06**	**322**	P	**P**	**17 30 00.4**	**+3.3**
	0.2nm,0.4s,baz=97,slow=6.1,SNR=2.2 0.2nm,0.4s						
TIXI	**Tiksi**	**50.20**	**3**	LR	LR	17 51 31.6	
	comp=Z,9.6nm,18.5s,baz=211,slow=36						
STKA	**Stephens Creek**	**56.46**	**160**	LR	LR	17 58 08.6	
	comp=Z,19nm,19.9s,baz=28,slow=40						

*PDG **12** 17:47:46.7±0.2, 41°.61N×20°.80E, h4km, ML2.7/12, Error ellipse: s-maj=0.8km s-min=1.1km az=0.0*
*SKO **12** 17:47:48.6, 41°.60N×20°.88E, h13km, ML2.2*
*BEO **12** 17:47:50.2±0.4, 41°.74N×20°.82E, h7km±3km, ML1.8/10*
*TIR **12** 17:47:52.2, 41°.61N×20°.66E, h10km±2km, ML2.2, ML2.2, Presumed earthquake*

ISC 12 17:47:48.9±1.2, 41°.68N±0°.02×20°.80E±0°.02, h2km±10km, n45, σ1$47/82, 7C-7D, Albania

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.27**	**271**	Pg	**Pg**	**17 47 52.1**	**-1.9**
PHP				Sg	**Sg**	**17 47 55.5**	**-1.9**
PHP				IAML		17 47 56.0	
	4μm,0.2s						
SKO	**Skopje**	**0.56**	**58**	*i* Pg	**Pg**	**17 47 59.5**	**-0.1**
SKO				*i* Sg	**Sg**	**17 48 07.7**	**+0.7**
OHR	**Ohrid**	**0.57**	**180**	⇓*i*Pg	**Pg**	**17 47 58.5**	**-1.3**
OHR				*i* Sg	**Sg**	**17 48 07.3**	**+0.2**
OHR				*e*Lg	Lg	17 48 07.8	
	comp=E,278nm,0.8s						
OHR				*e*Lg	Lg	17 48 07.8	
	comp=N,84nm,0.5s						
TIR	**Tirane**	**0.77**	**245**	Pg	**Pg**	**17 48 02.5**	**-1.2**
TIR				Sg	**Sg**	**17 48 14.3**	**+0.7**
TIR				IAML		17 48 15.5	
	comp=N,36nm,0.4s						
SDA	**Shkodra**	**1.04**	**291**	Pg	**Pn**	**17 48 11.4**	**+1.0**
SDA				S	**Sb**	**17 48 25.4**	**+1.8**
SDA				IAML		17 48 32.0	
	comp=N,179nm,0.3s						
KBN	**Korca**	**1.05**	**180**	Pg	**Pn**	**17 48 11.0**	**+0.3**
KBN				Sg	**Sn**	**17 48 25.2**	**-0.7**
PVY	**Plav**	**1.11**	**326**	⇑*i*Pg	Pb	17 48 07.4	-3.4
PVY				*i* Sg	**Sb**	**17 48 26.4**	**+0.7**
BERA	**Berati**	**1.17**	**214**	P	**Pn**	**17 48 12.4**	**+0.3**
BERA				S	**Sn**	**17 48 28.5**	**-0.1**
BERA				IAML		17 48 33.1	
	comp=N,36nm,0.6s						
ULC	**Ulcinj**	**1.19**	**284**	⇑*i*Pg	**Pn**	**17 48 08.8**	**-3.8**
ULC				*i* Sg	**Sb**	**17 48 28.0**	**-0.1**
DRME	**Dracevica, Mon**	**1.30**	**293**	⇑*i*Pg	**Pn**	**17 48 11.9**	**-2.2**
DRME				*i* Sg	**Sb**	**17 48 32.4**	**+1.1**
BARS	**Barje**	**1.37**	**33**	*e*Pg	**Pn**	**17 48 14.0**	**-0.9**
BARS				eSg	**Sn**	**17 48 33.0**	**-0.6**
IVA	**Berane**	**1.37**	**331**	⇑*i*Pg	**Pn**	**17 48 13.4**	**-1.6**
IVA				*i* Sg	**Sn**	**17 48 35.2**	**+1.4**
PDG	**Podgorica**	**1.37**	**304**	*e*Pg	**Pn**	**17 48 15.3**	**+0.3**
PDG				eSg	**Sn**	**17 48 33.9**	**+0.2**
PDG	**Podgorica**	**1.37**	**304**	⇓*i*Pg	**Pn**	**17 48 12.3**	**-2.7**
PDG				*i* Sg	**Sn**	**17 48 34.8**	**+1.1**
VAY	**Valandovo**	**1.38**	**104**	⇓*i*Pg	**Pn**	**17 48 13.6**	**-1.5**
VAY				*i* Sg	**Sb**	**17 48 32.9**	**-0.5**
VAY				*e*Lg	Lg	17 48 33.1	
	comp=E,27nm,0.5s						
VAY				*e*Lg	Lg	17 48 34.0	
	comp=N,39nm,0.5s						
BOSS	**Bosilegrad**	**1.50**	**56**	*e*Pg	**Pn**	**17 48 15.3**	**-1.4**
BOSS				eSg	**Sn**	**17 48 37.3**	**+0.5**
KOME	**Kolasin**	**1.51**	**321**	⇑*i*Pg	**Pn**	**17 48 15.5**	**-1.5**
KOME				*i* Sg	**Sb**	**17 48 39.8**	**+2.6**
LSK	**Leskovik**	**1.54**	**186**	Pn	**Pg**	**17 48 19.7**	**+1.4**
LSK				Sn	**Sg**	**17 48 40.6**	**+2.5**
BUM	**Brajici-Budva**	**1.55**	**294**	⇓*i*Pn	**Pn**	**17 48 15.9**	**-1.6**
BUM				*i* Sn	**Sg**	**17 48 40.7**	**+2.1**
SELS	**Selova**	**1.56**	**9**	*e*Pg	**Pn**	**17 48 16.2**	**-1.4**
SELS				eSg	**Sn**	**17 48 37.2**	**-1.2**
PEHC	**Pehcevo**	**1.58**	**86**	*i* Pg	**Pn**	**17 48 16.9**	**-1.0**
PEHC				*i* Sg	**Sb**	**17 48 39.4**	**+0.2**
CEME	**Cevo**	**1.65**	**302**	⇑*i*Pn	**Pn**	**17 48 18.0**	**-0.8**
CEME				*i* Sn	**Sg**	**17 48 43.8**	**+2.1**
SJES	**Sjenica**	**1.69**	**339**	*e*Pg	**Pn**	**17 48 19.6**	**0.0**
SJES				eSg	**Sn**	**17 48 42.0**	**+0.1**
NKME	**Niksic**	**1.75**	**309**	⇓*i*Pn	**Pn**	**17 48 20.1**	**-0.1**
NKME				*i* Sn	**Sb**	**17 48 46.7**	**+2.6**
HCY	**Herceg Novi**	**1.88**	**295**	⇓*i*Pn	**Pn**	**17 48 21.7**	**-0.3**
HCY				*i* Sn	**Sb**	**17 48 49.3**	**+1.5**
GOCS	**Kraljevo Serbi**	**1.88**	**2**	*e*Pn	**Pn**	**17 48 20.7**	**-1.4**
GOCS				eSn	**Sn**	**17 48 44.6**	**-1.9**
IVAS	**Ivanjica**	**1.96**	**346**	*e*Pn	**Pn**	**17 48 22.2**	**-0.9**
IVAS				eSn	**Sn**	**17 48 47.5**	**-0.7**
VTS	**Vitosha**	**2.04**	**62**	*e*Pn	**Pn**	**17 48 24.6**	**+0.2**
UPM	**Unac-Piva**	**2.07**	**318**	⇑*i*Pn	**Pn**	**17 48 24.3**	**-0.5**
UPM				*i* Sn	**Sb**	**17 48 54.3**	**+0.9**
BRY	**Bratogost**	**2.07**	**307**	⇓*i*Pn	**Pn**	**17 48 24.7**	**-0.1**
BRY				*i* Sn	**Sb**	**17 48 54.2**	**+0.7**
TREB	**Trebinje**	**2.09**	**301**	*e*Pn	**Pn**	**17 48 25.5**	**+0.6**
TREB				eSn	**Sn**	**17 48 52.7**	**+1.2**
ZAPS	**Zavoj**	**2.10**	**40**	*e*Pn	**Pn**	**17 48 24.8**	**-0.2**
IGT	**Igoumenitsa**	**2.17**	**189**	*e*Pn	**Pb**	**17 48 28.7**	**-0.2**
SRS	**Serrai**	**2.18**	**104**	*e*Pn	**Pn**	**17 48 25.4**	**-0.7**
DBRK	**Dubrovnik**	**2.20**	**298**	*e*Pn	**Pn**	**17 48 27.0**	**+0.6**
DBRK				Sn	**Sn**	**17 48 54.6**	**+0.3**
ZAGS	**Zajecar**	**2.38**	**26**	*e*Pn	**Pn**	**17 48 29.0**	**+0.1**
BBLS	**Lazi&#263i**	**2.41**	**335**	*e*Pn	**Pn**	**17 48 29.8**	**+0.4**
STON	**Ston**	**2.59**	**298**	*e*Pn	**Pn**	**17 48 32.2**	**+0.5**
STON				Sn	**Sn**	**17 49 02.6**	**-1.1**
STON	**Ston**	**2.59**	**298**	*e*Pn	**Pn**	**17 48 31.9**	**+0.2**
LSTV	**Lastovo**	**3.10**	**292**	*e*Pn	**Pn**	**17 48 37.0**	**-1.7**
LSTV				Sn	**Sn**	**17 49 11.1**	**-5.2**
MAKA	**Makarska**	**3.22**	**301**	*e*Pn	**Pn**	**17 48 41.7**	**+1.3**
MAKA				Sn	**Sn**	**17 49 18.2**	**-1.1**
RICI	**Ricice**	**3.26**	**305**	*e*Pn	**Pn**	**17 48 42.7**	**+1.8**
RICI				Sn	**Sn**	**17 49 20.8**	**+0.5**
HVAR	**Hvar**	**3.55**	**296**	*e*Pn	**Pn**	**17 48 43.6**	**-1.4**
HVAR				Sn	**Sn**	**17 49 23.8**	**-3.6**
KIJV	**Kijevo**	**3.98**	**307**	*i* Pn	**Pn**	**17 48 52.3**	**+1.4**
KIJV				Sn	**Sn**	**17 49 38.5**	**+0.5**
MORI	**Morici**	**4.34**	**302**	*e*Pn	**Pn**	**17 48 55.4**	**-0.3**
MORI				Sn	**Sn**	**17 49 45.2**	**-1.6**

*NNC **12** 17:52:28.8±10.0, 38°.37N×71°.48E, h0km, mb4.3, mpv4.2, Error ellipse: s-maj=72.6km s-min=47.8km az=178.0*
*IDC **12** 17:52:33.7±7.9, 37°.61N×71°.94E, h152km±49km, mb3.4/5, mbtmp3.9/11, MS3.1/1, Error ellipse: s-maj=72.1km s-min=34.0km az=173.0*

ISC 12 17:52:23.5±1.9, 38°.0N±0°.1×71°.65E±0°.09, h10km, n28, σ2$06/21, mb3.9/5, 2C, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**4.34**	**344**	Pg	**Pg**	**17 53 43.6**	**-3.0**
	12nm,0.2s						
IUG				Lg	Lg	17 54 37.3	
	132nm,0.4s						
UCH	**Uchtor**	**4.77**	**27**	P	**Pb**	**17 53 48.2**	**+0.6**
	SNR=38						
MRKS	**Merke**	**4.91**	**14**	Pg	**Pb**	**17 53 50.2**	**+0.7**
	23nm,0.3s						
MRKS				Lg	Lg	17 54 49.2	
	98nm,0.4s						
EKS2	**Erkin-Say**	**4.95**	**19**	P	**Pb**	**17 53 50.7**	**+0.4**
	SNR=14						
AAK	**Ala-Archa**	**5.13**	**24**	P	**Pb**	**17 53 53.0**	**-0.4**
	18nm,0.3s,baz=171,slow=6.4,SNR=66						
AAK				S	**Sb**	**17 54 54.7**	**-0.6**
	5.8nm,0.3s,baz=141,slow=23,SNR=13						
AAK	**Ala-Archa**	**5.13**	**24**	P	**Pb**	**17 53 53.0**	**-0.4**
	SNR=13						
AAK	**Ala-Archa**	**5.13**	**24**	⇑Pg	**Pb**	**17 53 57.1**	**+3.6**
	3.8nm,0.4s						
AAK				⇑Lg	Lg	17 55 01.4	
	5.8nm,0.5s						
KK31	**Karatay Array**	**5.19**	**351**	Pg	**Pb**	**17 53 55.0**	**+0.7**
	3.3nm,0.3s,baz=177,slow=13,SNR=73						
KK31				Lg	Lg	17 55 00.4

DDIM	**Aydin, Didim**	**0.62**	**133**	P	**Pb**	**17 56 54.0**	**+0.5**
DDIM				S	**Sb**	**17 57 02.2**	**-0.1**
DDIM				IAML		17 57 05.0	
	comp=E,359nm,0.7s						
DDIM				IAML		17 57 10.0	
	comp=N,174nm,0.5s						
DIDI	**Didim-Aydin**	**0.68**	**138**	Pg	**Pb**	**17 56 55.0**	**+0.4**
DIDI				AML	AML		
CHOS	**Chios island**	**0.69**	**316**	P	**Pg**	**17 56 53.5**	**-0.7**
CHOS				S	**Sg**	**17 57 04.0**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.69**	**316**	Pg	**Pg**	**17 56 54.6**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.69**	**316**	P	**Pg**	**17 56 53.7**	**-0.6**
CHOS				S	**Sg**	**17 57 04.0**	**+0.6**
CHOS				AML	AML		
DUVT	**Torbali**	**0.70**	**62**	P	**Pg**	**17 56 54.4**	**+0.2**
DUVT				S	**Sg**	**17 57 03.1**	**-0.3**
DUVT				IAML		17 57 06.0	
	comp=E,144nm,0.2s						
KRBN	**Karaburun**	**0.71**	**353**	Pg	**Pb**	**17 56 55.6**	**+0.6**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**10**	P	**Pb**	**17 56 56.5**	**+0.3**
BAGT				S	**Sb**	**17 57 06.6**	**-0.1**
BAGT				IAML		17 57 08.0	
	comp=N,189nm,0.9s						
BAGT				IAML		17 57 09.0	
	comp=E,233nm,0.4s						
EAG2	**Marmaro, Chios**	**0.79**	**326**	P	**Pg**	**17 56 55.5**	**-0.5**
EAG2				S	**Sb**	**17 57 06.8**	**-0.2**
KARB	**zmir-Karabur**	**0.80**	**345**	P	**Pg**	**17 56 56.3**	**+0.1**
KARB				S	**Sb**	**17 57 07.1**	**-0.2**
KARB				IAML		17 57 09.0	
	comp=N,122nm,0.6s						
KARB				IAML		17 57 10.0	
	comp=E,147nm,0.6s						
FOCM	**Foa**	**0.82**	**3**	Pg	**Pb**	**17 56 57.5**	**+0.5**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.90**	**147**	Pg	**Pb**	**17 56 58.6**	**+0.3**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.97**	**86**	Pg	**Pn**	**17 57 00.5**	**+0.3**
AYDB				AML	AML		
BODT	**Bodrum**	**0.97**	**148**	P	**Pg**	**17 56 59.6**	**+0.2**
BODT				S	**Sb**	**17 57 12.7**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.97**	**148**	Pg	**Pn**	**17 57 00.4**	**+0.2**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.98**	**103**	P	**Pg**	**17 56 56.6**	**-3.1**
AYDN				IAML		17 57 17.0	
	comp=E,121nm,0.4s						
AYDN				IAML		17 57 18.0	
	comp=N,116nm,0.3s						
CAMT	**Merkez**	**0.99**	**30**	P	**Pn**	**17 57 00.8**	**+0.2**
CAMT				S	**Sn**	**17 57 14.1**	**-0.4**
BDRM	**Kayabasi**	**1.03**	**143**	P	**Pn**	**17 57 01.1**	**+0.1**
BDRM				S	**Sn**	**17 57 15.3**	**0.0**
BDRM				IAML		17 57 16.0	
	comp=E,57nm,0.6s						
BDRM				IAML		17 57 17.0	
	comp=N,74nm,0.5s						
IZMR	**zmir-demi**	**1.04**	**76**	P	**Pn**	**17 57 01.1**	**0.0**
IZMR				S	**Sg**	**17 57 13.1**	**-1.3**
IZMR				IAML		17 57 17.0	
	comp=N,55nm,0.8s						
MLSB	**Milas**	**1.06**	**124**	Pg	**Pb**	**17 57 00.9**	**-0.1**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**16**	P	**Pg**	**17 57 02.2**	**-0.1**
ZEDA				S	**Sn**	**17 57 17.9**	**+0.3**
ZEDA				IAML		17 57 20.0	
	comp=E,56nm,0.2s						
ZEDA				IAML		17 57 21.0	
	comp=N,61nm,0.2s						
DKL	**Dikili**	**1.19**	**9**	Pn	**Pg**	**17 57 04.4**	**+0.7**
DKL				AML	AML		
DKL	**Dikili**	**1.19**	**9**	P	**Pg**	**17 57 03.9**	**+0.1**
GOMA	**Golmarmara-Man**	**1.28**	**50**	Pn	**Pg**	**17 57 05.9**	**+0.6**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.28**	**86**	Pn	**Pg**	**17 57 06.4**	**+1.0**
NAZL				AML	AML		
AKS	**Akhisar**	**1.33**	**42**	Pn	**Pg**	**17 57 07.4**	**+1.0**
AKS				AML	AML		
DAT	**Datca**	**1.37**	**148**	Pn	**Pg**	**17 57 07.4**	**+0.4**
DAT				AML	AML		
PRK	**Paraskevi**	**1.39**	**347**	P	**Pn**	**17 57 06.1**	**+0.2**
PRK				S	**Sn**	**17 57 24.2**	**0.0**
PRK	**Paraskevi**	**1.39**	**347**	P	**Pb**	**17 57 06.6**	**-0.1**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**28**	Pn	**Pg**	**17 57 08.5**	**+0.2**
SOMA				AML	AML		
YER	**Yerkesik**	**1.49**	**120**	P	**Pn**	**17 57 07.3**	**0.0**
YER	**Yerkesik**	**1.49**	**120**	Pn	**Pg**	**17 57 09.4**	**+0.1**
YER				AML	AML		
GORD	**Gordes-Manisa**	**1.56**	**49**	Pn	**Pg**	**17 57 10.3**	**-0.4**
GORD				AML	AML		
TURN	**Turunc**	**1.68**	**131**	Pn	**Pb**	**17 57 11.9**	**+0.4**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.75**	**10**	Pn	**Pb**	**17 57 13.2**	**+0.5**
YAYO				AML	AML		
KARY	**Karystos**	**1.77**	**275**	P	**Pn**	**17 57 10.2**	**-1.0**
BALB	**Balikesir**	**1.99**	**28**	Pn	**Pb**	**17 57 16.4**	**-0.4**
BALB				AML	AML		

IDC ***12*** *18:10:21.3±1.7,5.°87S×146.°21E,h107km±16km,mb3.2/3, mbtmp3.7/8,Error ellipse: s-maj=24.7km s-min=12.9km az=54.0*

ISC 12 18:10:21.2±0.9,**5.°94S**±0.°08×**146.°15E**±0.°09,**h100**km,**n9, σ1°40/12,mb3.4/3,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.59**	**164**	P	**Pn**	**18 11 14.5**	**-0.3**
	95nm,0.3s,baz=344,slow=6.5,SNR=167						
PMG				S	**Sn**	**18 11 58.4**	**+2.1**
	22nm,0.3s,baz=24,slow=21,SNR=6.7						
KRVT	**Keravat (AS076**	**6.07**	**75**	P	**Pn**	**18 11 48.5**	**0.0**
	53nm,0.6s,baz=269,slow=18,SNR=8.4						
JAY	**Jayapura**	**6.41**	**302**	P	**Pn**	**18 11 53.4**	**+0.3**
	1.6nm,0.3s,baz=260,slow=6.5,SNR=2.3						
JAY				S	**Sn**	**18 13 06.6**	**+1.7**
	4.4nm,0.7s,baz=165,slow=20,SNR=2.3						
CTA	**Charters Tower**	**14.06**	**180**	P	**P**	**18 13 40.4**	**-0.2**
	5.9nm,0.4s,baz=357,slow=14,SNR=15						
SIJI	**Sorong**	**15.68**	**288**	P	**Pn**	**18 13 55.2**	**-1.4**
	1.5nm,0.4s,baz=256,slow=8.8,SNR=4.3						
WRA	**Warramunga Ar**	**18.04**	**218**	P	**P**	**18 14 25.5**	**+0.8**
	0.2nm,0.4s,baz=40,slow=12,SNR=6.4						
WRA				S	**S**	**18 17 44.9**	**-1.6**
	0.2nm,0.5s,baz=6.8,slow=20,SNR=1.2						
ASAR	**Alice Springs**	**21.20**	**213**	P	**P**	**18 15 00.2**	**+1.3**
	0.7nm,0.7s,baz=36,slow=10,SNR=15						
	0.7nm,0.7s						
VNDA	**Vanda**	**72.02**	**176**	P	**P**	**18 21 34.3**	**+0.5**
	0.3nm,0.5s,baz=331,slow=4.4,SNR=2.1						
	0.3nm,0.5s						
QSPA	**South Pole Qui**	**84.03**	**180**	P	**P**	**18 22 38.8**	**-1.7**
	0.6nm,0.7s,baz=297,slow=4.5,SNR=2.0						
	0.6nm,0.7s						

IDC ***12*** *18:23:34.4±3.8,47.°58N×92.°65W,h0km,mb2.7/1, mbtmp2.9/3,ML0.7/1, Error ellipse: s-maj=50.3km s-min=19.3km az=80.0*

NEIC ***12*** *18:23:34.1±2.6,47.°57N±0.°02×92.°68W±0.°01,h0km±1km, mb_Lg3.0/23,ML3.0/12,Error ellipse: s-maj=2.9km s-min=2.8km az=346.0*

ISC 12 18:23:33.1±0.7,**47.°58N**±0.°03×**92.°66W**±0.°03,**h0**km,**n23, σ1°35/24,Minnesota**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
EYMN	**Ely**	**0.87**	**65**	**Pg**	**18 23 50.0**	**+0.3**
EYMN				Sg	**Sb**	**18 24 03.7**	**+0.5**
E38A	**The Farm, Brul**	**1.23**	**142**	**Pg**	**18 23 56.5**	**-0.2**
E38A				**Sg**	**18 24 10.3**	**-2.4**
E38A				IAML	18 24 16.7		
	298nm,0.7s						
E38A				IAML	18 24 18.8		
	288nm,0.7s						
EPLO	**Experimental L**	**2.21**	**342**	**Pn**	**18 24 12.6**	**+1.6**
EPLO				**Sb**	**18 24 42.3**	**+0.5**
EPLO				IAmb_Lg	18 24 48.1		
	comp=Z,40nm,1.3s						
EPLO				IAML	18 24 48.5		
	comp=E,81nm,1.3s						
AGMN	**Agassiz Nation**	**2.27**	**290**	**Pn**	**18 24 12.7**	**+0.8**
AGMN				**Sn**	**18 24 41.1**	**+0.6**
AGMN				IAmb_Lg	18 24 46.2		
	comp=Z,69nm,0.8s						
SPMN	**Marine on St.**	**2.36**	**182**	**Pn**	**18 24 13.9**	**+0.9**
SPMN				**Sn**	**18 24 42.4**	**-0.3**
SPMN				IAML	18 24 47.6		
	comp=Z,125nm,0.6s						
TBO	**Thunder Bay**	**2.43**	**63**	**Pb**	**18 24 16.6**	**-1.0**
TBO				**Sn**	**18 24 45.6**	**+1.2**
TBO				IAML	18 24 55.3		
	comp=N,76nm,1.3s						
TBO				IAmb_Lg	18 24 56.1		
	comp=Z,50nm,1.2s						
TBO				IAML	18 25 01.6		
	comp=E,99nm,1.3s						
G40A	**Rib Lake**	**2.87**	**143**	**Pn**	**18 24 21.7**	**+1.6**
F33A	**5 Mile Ranch,**	**3.05**	**236**	**Pn**	**18 24 24.3**	**+1.8**
F33A				IAmb_Lg	18 25 08.7		
	comp=Z,37nm,0.8s						
ULM	**Lac du Bonnet**	**3.41**	**323**	Pn	**Pn**	**18 24 28.9**	**+1.4**
	comp=Z,0.1nm,0.3s,baz=138,slow=16,SNR=2.1						
ULM				Pg	**Pg**	**18 24 37.6**	**-0.8**
	comp=Z,0.5nm,0.3s,baz=136,slow=13,SNR=5.5						
ULM				Sn	**Sn**	**18 25 05.5**	**-3.1**
	comp=Z,0.3nm,0.3s,baz=180,slow=19,SNR=3.0						
ULM				Lg	Lg	18 25 20.4	
	comp=Z,0.5nm,0.3s,baz=124,slow=16,SNR=3.4						
	comp=Z,2.1nm,0.7s						
ULM				AML	AML		
I10CA	**LAC DU BONNET**	**3.44**	**321**	I	I	18 48 20.0	
	baz=138,slow=342,SNR=0.4						
I37A	**Lemond, Waseca**	**3.60**	**189**	**Pn**	**18 24 31.6**	**+1.4**
F42A	**Maple Grove Fa**	**3.61**	**119**	Pn	**Pn**	**18 24 32.0**	**+1.7**
I40A	**Norwalk**	**3.96**	**158**	Pn	**Pn**	**18 24 35.7**	**+0.7**
I40A				IAmb_Lg	18 25 38.9		
	comp=Z,25nm,0.8s						
I42A	**Draeger Farm,**	**4.53**	**143**	IAmb_Lg		18 26 05.7	
	comp=Z,36nm,1.0s						
H43A	**Windswept, Lux**	**4.61**	**131**	IAmb_Lg		18 26 05.5	
	comp=Z,28nm,0.8s						
MDND	**Maddock**	**4.70**	**276**	IAmb_Lg		18 26 10.2	
	comp=Z,29nm,0.7s						
ECSD	**EROS Data Cent**	**4.74**	**217**	**Pb**	**18 24 56.8**	**-0.3**
JFWS	**Jewell Farm**	**4.97**	**159**	IAmb_Lg		18 26 08.1	
	comp=Z,24nm,0.8s						
E28A	**Huff**	**5.58**	**263**	Pg	**Pb**	**18 25 12.3**	**+1.0**
E28A				IAmb_Lg		18 26 32.3	
	comp=Z,33nm,0.8s						
BGNE	**Belgrade**	**7.31**	**214**	IAmb_Lg		18 27 27.6	
	comp=Z,26nm,0.8s						
OGNE	**Ogallala**	**9.44**	**229**	IAmb_Lg		18 28 41.7	
	comp=Z,13nm,0.9s						
PDAR	**Pinedale Array**	**12.85**	**254**	Pn	**Pn**	**18 26 36.6**	**-0.6**
	comp=Z,0.3nm,0.5s,baz=73,slow=12,SNR=4.2						
PDAR				Lg	Lg	18 30 09.1	
	baz=68,slow=33,SNR=2.3						
TXAR	**Lajitas Array**	**20.12**	**209**	P	**P**	**18 28 08.6**	**0.0**
	comp=Z,0.4nm,0.9s,baz=18,slow=10.0,SNR=2.4						
	comp=Z,0.4nm,0.9s						

AFAD ***12*** *18:31:08.8,37.°83N×26.°74E,h7km±5km,ML2.5*

ATH ***12*** *18:31:08.8,37.°82N×26.°73E,h5km±1km,ML2.6/6,Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

THE ***12*** *18:31:10.5,38.°N×2.°7E±.°,h3km,1km,M2.8/5,MLh2.8/5*

ISK ***12*** *18:31:10.4,37.°84N×26.°88E,h5km,ML2.6/32*

ISC 12 18:31:09.2±0.8,**37.°83N**±0.°02×**26.°74E**±0.°02,**h8**km±6km, **n61,σ0°77/84,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAM2	**Drakei, Karlov**	**0.12**	**237**	P	**Pg**	**18 31 10.8**	**-1.2**
SAM2				S	**Sg**	**18 31 13.0**	**-0.8**
SAM2				AML	AML		
SMG	**Samos**	**0.14**	**146**	P	**Pg**	**18 31 14.6**	**+2.3**
SMG				S	**Sg**	**18 31 17.2**	**+2.8**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**146**	P	**Pg**	**18 31 11.8**	**-0.4**
SMG				S	**Sg**	**18 31 13.4**	**-0.9**
DGB	**zmir**	**0.25**	**27**	P	**Pg**	**18 31 13.7**	**-0.6**
DGB				S	**Sg**	**18 31 17.4**	**-0.3**
DGB				IAML		18 31 20.0	
	comp=N,755nm,0.2s						
DGB				IAML		18 31 20.0	
	comp=E,976nm,0.3s						
GMLD	**Gumuldur**	**0.29**	**29**	Pg	**Pb**	**18 31 16.1**	**-0.5**
GMLD				Sg	**Sb**	**18 31 20.4**	**-1.2**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.41**	**107**	P	**Pg**	**18 31 16.7**	**-0.5**
GCAM				S	**Sb**	**18 31 24.3**	**-0.8**
GCAM				IAML		18 31 27.0	
	comp=N,303nm,0.2s						
GCAM				IAML		18 31 28.0	
	comp=E,308nm,0.4s						
GCAM	**G?zelcaml?**	**0.41**	**107**	Pg	**Pg**	**18 31 16.8**	**-0.5**
GCAM				Sg	**Sg**	**18 31 23.2**	**+0.5**
GCAM				AML	AML		
BEYE	**izmir**	**0.43**	**20**	P	**Pg**	**18 31 16.7**	**-0.9**
BEYE				S	**Sg**	**18 31 23.0**	**-0.2**
BEYE				IAML		18 31 26.0	
	comp=E,427nm,0.5s						
BEYE				IAML		18 31 27.0	
	comp=N,294nm,0.4s						
KUSD	**Kusadasi-Aydin**	**0.44**	**85**	Pg	**Pg**	**18 31 17.8**	**+0.1**
ZEYE	**Izmir, Urla-Ze**	**0.45**	**336**	P	**Pg**	**18 31 16.6**	**-1.4**
ZEYE				S	**Sg**	**18 31 24.8**	**+0.8**
ZEYE				IAML		18 31 29.0	
	comp=N,473nm,0.4s						
ZEYE				IAML		18 31 32.0	
	comp=E,266nm,0.4s						
DDIM	**Aydin, Didim**	**0.54**	**132**	P	**Pb**	**18 31 21.8**	**+0.8**
DDIM				S	**Sb**	**18 31 27.6**	**-1.3**
DDIM				IAML		18 31 31.0	
	comp=N,424nm,0.5s						
DDIM				IAML		18 31 31.0	
	comp=E,471nm,0.7s						
DIDI	**Didim-Aydin**	**0.60**	**138**	Pg	**Pb**	**18 31 21.9**	**0.0**
DIDI				Sg	**Sb**	**18 31 31.0**	**+0.5**
DIDI				AML	AML		
BLCB	**Balcova**	**0.61**	**23**	P	**Pg**	**18 31 21.3**	**+0.3**
BLCB				S	**Sg**	**18 31 28.9**	**0.0**
BLCB	**Balcova**	**0.61**	**23**	Pg	**Pg**	**18 31 21.3**	**+0.3**
BLCB				AML	AML		
CESE	**eme**	**0.61**	**326**	Pg	**Pn**	**18 31 24.2**	**0.0**
CESE				AML	AML		
DUVT	**Torbali**	**0.69**	**55**	P	**Pg**	**18 31 21.8**	**-0.7**
DUVT				IAML		18 31 38.0	
	comp=E,184nm,0.4s						
CHOS	**Chios island**	**0.78**	**316**	P	**Pg**	**18 31 23.6**	**-0.6**
CHOS				S	**Sg**	**18 31 35.0**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.78**	**316**	P	**Pg**	**18 31 24.7**	**+0.5**
CHOS				S	**Sg**	**18 31 34.1**	**-0.2**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.78**	**349**	Pg	**Pn**	**18 31 26.9**	**+0.4**
KRBN				Sg	**Sn**	**18 31 38.3**	**-0.1**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**148**	Pg	**Pn**	**18 31 26.6**	**-0.5**
YKAV				Sg	**Sn**	**18 31 38.1**	**-1.3**
YKAV				AML	AML		
BAGT	**Foa**	**0.83**	**6**	P	**Pb**	**18 31 26.1**	**+0.1**
BAGT				S	**Sb**	**18 31 38.2**	**+0.9**
BAGT				IAML		18 31 41.0	
	comp=E,246nm,0.6s						
BAGT				IAML		18 31 42.0	
	comp=N,370nm,0.6s						
EAG2	**Marmaro, Chios**	**0.87**	**326**	P	**Pg**	**18 31 25.7**	**-0.3**
EAG2				S	**Sg**	**18 31 37.5**	**+0.1**
KARB	**zmir-Karabur**	**0.88**	**343**	P	**Pg**	**18 31 26.2**	**+0.1**
KARB				S	**Sg**	**18 31 38.5**	**+1.0**
KARB				IAML		18 31 42.0	
	comp=N,424nm,0.4s						
KARB				IAML		18 31 43.0	
	comp=E,249nm,0.2s						
KLNA	**Kalymnos**	**0.89**	**168**	P	**Pg**	**18 31 25.8**	**-0.4**
KLNA				S	**Sg**	**18 31 37.5**	**-0.2**
FOCM	**Foa**	**0.89**	**360**	Pg	**Pn**	**18 31 28.7**	**+0.7**
FOCM				AML	AML		
BODT	**Bodrum**	**0.89**	**149**	P	**Pn**	**18 31 28.0**	**0.0**
BODT				S	**Sn**	**18 31 41.0**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**149**	Pg	**Pn**	**18 31 28.1**	**0.0**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.92**	**82**	Pg	**Pb**	**18 31 27.2**	**-0.3**
AYDB				AML	AML		
BODA	**Bodrum-Mula**	**0.96**	**145**	Pg	**Pn**	**18 31 29.3**	**+0.3**
MLSB	**Milas**	**0.98**	**122**	Pg	**Pb**	**18 31 28.4**	**-0.1**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.24**	**83**	Pn	**Pn**	**18 31 33.0**	**+0.2**
NAZL				AML	AML		
DKL	**Dikili**	**1.25**	**6**	Pn	**Pg**	**18 31 35.0**	**+1.7**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**6**	P	**Pn**	**18 31 32.8**	**-0.2**
DKL				S	**Sb**	**18 31 49.4**	**0.0**
GOMA	**Golmarmara-Man**	**1.28**	**46**	Pn	**Pg**	**18 31 34.3**	**+0.5**
GOMA				AML	AML		
TNSA	**Tinos**	**1.28**	**258**	P	**Pn**	**18 31 32.8**	**-0.6**
DAT	**Datca**	**1.28**	**148**	Pn	**Pg**	**18 31 35.0**	**+1.1**
DAT				AML	AML		
AKS	**Akhisar**	**1.35**	**38**	Pn	**Pg**	**18 31 35.9**	**+0.8**
AKS				AML	AML		
YER	**Yerkesik**	**1.41**	**119**	P	**Pg**	**18 31 36.6**	**+0.3**
YER	**Yerkesik**	**1.41**	**119**	Pn	**Pg**	**18 31 36.9**	**+0.6**
YER				AML	AML		
PRK	**Paraskevi**	**1.47**	**346**	P	**Pn**	**18 31 35.8**	**-0.1**
PRK				S	**Sg**	**18 31 57.1**	**+0.7**
PRK	**Paraskevi**	**1.47**	**346**	P	**Pn**	**18 31 35.3**	**-0.7**
PRK				AML	AML		
SOMA	**Soma-Manisa**	**1.47**	**25**	Pn	**Pg**	**18 31 38.3**	**+0.9**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.57**	**46**	Pn	**Pg**	**18 31 39.2**	**-0.1**
GORD				AML	AML		
TURN	**Turunc**	**1.59**	**131**	Pn	**Pg**	**18 31 40.5**	**+0.7**
TURN				AML	AML		
THERA	**Ancient Thera,**	**1.77**	**215**	P	**Pn**	**18 31 40.1**	**0.0**
THERA				AML	AML		
SAP3	**Santorini-Thir**	**1.78**	**219**	P	**Pn**	**18 31 40.3**	**+0.1**
YAYO	**Edremit-Balk**	**1.80**	**8**	Pn	**Pg**	**18 31 43.9**	**+0.1**
YAYO				AML	AML		
DALY	**Dalyan (Mula)**	**1.83**	**123**	Pn	**Pg**	**18 31 43.5**	**-0.8**
DALY				AML	AML		
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**18 31 41.2**	**+0.3**
ARG	**Arkhangelos**	**1.95**	**145**	Pn	**Pb**	**18 31 45.5**	**+0.5**
ARG				AML	AML		
BALB	**Balikesir**	**2.02**	**26**	Pn	**Pb**	**18 31 46.5**	**+0.3**
BALB				AML	AML		
EZN	**Ezine**	**2.02**	**351**	Pn	**Pb**	**18 31 47.2**	**+1.0**
EZN				AML	AML		
APMY	**Acipayam-Deniz**	**2.07**	**99**	Pn	**Pb**	**18 31 46.6**	**-0.4**
BOZC	**Bozcaada**	**2.08**	**345**	Pn	**Pb**	**18 31 48.3**	**+1.0**
BOZC				AML	AML		
SIMA	**Simav-Kutahya**	**2.16**	**54**	Pn	**Pb**	**18 31 48.2**	**-0.5**
SIMA				AML	AML		
CANM	**Can-anakkale**	**2.20**	**6**	Pn	**Pb**	**18 31 49.6**	**+0.4**
CANM				AML	AML		
CAME	**Cameli-Denizli**	**2.22**	**113**	Pn	**Pb**	**18 31 48.6**	**-1.2**
DION	**Dionisos Attik**	**2.23**	**277**	P	**Pn**	**18 31 47.1**	**+0.6**
COMU	**Canakkale**	**2.28**	**355**	Pn	**Pb**	**18 31 50.9**	**+0.3**
COMU				AML	AML		
VLY	**Voula,Athens**	**2.33**	**272**	P	**Pn**	**18 31 48.8**	**+1.0**
SUSR	**Susurluk-Balik**	**2.38**	**26**	Pn	**Pb**	**18 31 51.5**	**-0.8**
SUSR				AML	AML		

IDC 12 19:04:21.4±2.2,**18.°24S**×**178.°93E,h492**km±22km,**mb2.7**/3, **mbtmp3.6**/3,**Error ellipse: s-maj=73.0km s-min=32.1km az=33.0,Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**0.97**	**301**	P	P	19 05 21.9	0.0
	6.1nm,0.7s,baz=123,slow=10,SNR=5.5						
WRA	**Warramunga Arr**	**42.08**	**260**	P	P	19 11 29.3	-0.5
	0.2nm,0.4s,baz=94,slow=6.9,SNR=9.6						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**42.26**	**255**	P	P	19 11 31.2	+0.1
	1.8nm,0.6s,baz=88,slow=8.3,SNR=38						
	1.8nm,0.6s						
VNDA	**Vanda**	**59.91**	**184**	P	P	19 13 38.7	0.0
	0.3nm,0.4s,baz=21,slow=8.0,SNR=5.6						
	0.3nm,0.4s						

IDC ***12*** *19:18:10.7±0.5,28.°16N×104.°71E,h0km,mb4.5/30, mbtmp4.4/33,ML4.2/3,MS3.5/30,Error ellipse: s-maj=14.3km s-min=10.1km az=70.0*

MOS ***12*** *19:18:10.6±0.8,28.°16N×104.°77E,h10km,mb5.0/43,Error ellipse: s-maj=8.1km s-min=4.0km az=124.9*

BJI ***12*** *19:18:12.3,28.°18N×104.°72E,h7km,mB5.0/12,mb4.5/41, ML4.6/22,Ms4.3/36,Ms7 4.1/33*

NEIC ***12*** *19:18:12.5±1.4,28.°15N±0.°06×104.°75E±0.°08,h10km±1km, mb4.7/38,Error ellipse: s-maj=11.9km s-min=10.7km az=86.0*

GFZ ***12*** *19:18:13.9±0.2,28.°N±3.°×10.°5E±.°,h10km,M4.8/49, mb4.8/49,confirmed*

ISC 12 19:18:12.6±0.3,**28.°21N**±0.°03×**104.°75E**±0.°03,**h10**km,**n418, σ1°27/420,mb4.7/145,MS3.5/30,45C-35D,Sichuan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GYA	**Guiyang**	**2.44**	**135**	Pn	**Pn**	**19 18 53.3**	**+0.7**
GYA				Pg	**Pg**	**19 19 00.1**	**+0.8**
GYA				Sn	**Sb**	**19 19 24.6**	**-2.2**
GYA				Sg	**Sg**	**19 19 34.7**	**+3.8**
GYA				AML	AML		
	4μm,0.7s						
GYA				AML	AML		
	3μm,0.8s						
CD2	**Chengdu**	**2.83**	**343**	⇑Pn	**Pn**	**19 19 00.2**	**+2.3**
CD2				Pg	**Pg**	**19 19 06.2**	**-0.6**
CD2				Sn	**Sn**	**19 19 32.5**	**+0.4**
CD2				Sg	**Sg**	**19 19 42.7**	**-0.8**
CD2				AML	AML		
	5μm,1.1s						
CD2				AML	AML		
	10μm,1.5s						
PZH	**PanZhiHua**	**3.17**	**238**	Pn	**Pn**	**19 19 04.6**	**+2.0**
PZH				Sg	**Sg**	**19 19 56.6**	**+2.3**
PZH				AML	AML		
	590nm,1.1s						
PZH				AML	AML		
	360nm,0.8s						
KMI2	**Kunming**	**3.53**	**211**	⇓Pn	**Pb**	**19 19 11.3**	**-4.1**
KMI2				Sn	**Sb**	**19 19 53.5**	**-4.9**
KMI2				AML	AML		
	160nm,1.2s						
KMI2				AML	AML		
	170nm,1.7s						
KMI2				L	L		
	comp=N,1μm,5.5s						
KMI2				L	L		
	comp=E,2μm,5.5s						
KMI2				L	L		
	comp=Z,780nm,7.1s						
ENH	**Enshi**	**4.62**	**62**		**Pn**	**19 19 25.2**	**+2.6**
GULI	**GuiLin**	**5.80**	**119**	P

CNSH	**ChangSha**	**7.22**	**88**	Pn	**Pn**	**19 19 59.6 +1.4**	WMQ			L	L	
CNSH				Sn	**Sn**	**19 21 15.1 -5.2**		comp=Z,280nm,20.9s				
CNSH				AML	AML		WMQ			L	L	
	comp=Z,540nm,1.0s							comp=Z,280nm,18.3s				
CNSH				AML	AML		WMQ			L	L	
	comp=Z,370nm,1.0s							comp=Z,180nm,20.3s				
LZDM	**Lanzhou Array**	**7.78**	**354**	Pn	**Pn**	**19 20 06.9 +0.7**	**TJN**	**Taejon**	**20.75**	**61**⇑*e*P	Pn	19 22 54.9 -1.0
	baz=163,slow=11						**TJN**	**Taejon**	**20.75**	**61**	P	**19 22 54.3 +0.8**
LZDM				Sn	**Sn**	**19 21 33.4 -1.1**	**TJN**	**Taejon**	**20.75**	**61**	P	Pn 19 22 55.7 -0.2
	baz=168,slow=16							comp=Z,99nm,0.8s				
LZDM				Lg	Lg	19 22 18.1	**KSAR**	**Wonju Array Be**	**21.47**	**59**	P	**P** **19 23 01.3 +0.1**
	baz=174,slow=33						**KSAR**	**Wonju Array Be**	**21.47**	**59**	P	**P** **19 23 01.3 +0.1**
	comp=Z,14nm,0.4s						**KS19**	**Wonju Array Si**	**21.48**	**59**	P	**P** **19 23 01.8 +0.4**
LZH	**Lanzhou**	**7.89**	**355**	P	**Pn**	**19 20 11.2 +3.6**	**KSRS**	**Korea Array**	**21.50**	**59**	P	**P** **19 23 01.8 +0.2**
LZH				AML	AML			comp=Z,5.8nm,0.6s,baz=244,slow=9.7,SNR=26				
	comp=Z,260nm,1.3s							comp=Z,5.8nm,0.6s				
LZH				AML	AML		**ZAK**	**Zakamensk**	**22.17**	**358**	*e*P	**P** **19 23 09.5 +0.7**
	comp=Z,310nm,1.2s						ZAK				*e*	19 27 42.2
LZH				L	L		ZAK				pmax	pmax
	comp=Z,1μm,8.4s							comp=Z,17nm,1.2s				
LZH				L	L		ZAK				pmax	pmax
	comp=Z,310nm,8.5s							comp=Z,7.0nm,1.0s				
LZH				L	L		**JSU**	**Suzuyama**	**22.52**	**75**	P	**P** **19 23 16.5 +3.9**
	comp=Z,1μm,9.5s							comp=Z,22nm,1.2s				
WHN	**Wuhan**	**8.70**	**72**	⇓P	**Pn**	**19 20 20.2 +1.8**	**KNGR**	**Kungurtug, Tuv**	**23.03**	**348***d*	*i*P	**P** **19 23 20.1 +2.2**
WHN				sP	Pg	19 20 27.5 -32	KNGR				pmax	pmax
WHN				S	**Sn**	**19 21 52.6 -4.0**		comp=Z,26nm,0.9s				
WHN				L	L		**TLY**	**Talaya**	**23.46**	**358**	LR	LR 19 33 40.9
	comp=Z,4μm,6.2s							comp=Z,82nm,21.6s,baz=160,slow=40				
WHN				L	L		**MOY**	**Mondy**	**23.60**	**354**	*e*P	**P** **19 23 24.6 +1.0**
	comp=Z,3μm,7.4s						MOY				pmax	pmax
WHN				L	L			comp=Z,30nm,3.2s				
	comp=Z,5μm,8.0s						**IRK**	**Irkutsk**	**24.01**	**359**	*e*P	**P** **19 23 26.5 -0.9**
LYN	**LuoYang**	**9.14**	**44**	P	**Pn**	**19 20 24.4 -0.1**	IRK				pmax	pmax
LYN				PP	**PnPn**	**19 20 34.3 +2.1**		comp=Z,60nm,2.2s				
LYN				S	**Sn**	**19 22 06.3 -1.1**	**HILR**	**Hailar Array B**	**24.22**	**24**	P	**P** **19 23 29.2 -0.3**
LYN				pmax	pmax			comp=Z,2.5nm,0.5s,baz=198,slow=8.9,SNR=4.2				
	comp=Z,61nm,0.6s							comp=Z,2.5nm,0.5s				
LYN				SMN			**WUS**	**Wushi**	**24.56**	**309**		**P** **19 23 32.8 0.0**
	comp=Z,230nm,1.2s						WUS				IAmb	IAmb 19 23 38.3
LYN				SME				comp=Z,11nm,0.8s				
	comp=Z,240nm,1.5s						**ZSN**	**Zaisan**	**24.69**	**326**	*e*P	**P** **19 23 34.8 +1.1**
LYN				L	L		**ZSN**	**Zaisan**	**24.69**	**326**	*e*P	**P** **19 23 34.8 +1.1**
	comp=Z,840nm,5.5s						**BNX**	**BinXian**	**25.04**	**40**	⇓P	**P** **19 23 37.4 +0.6**
LYN				L	L		BNX				pmax	pmax
	comp=Z,1μm,3.7s							comp=Z,9.0nm,0.7s				
LYN				L	L		**SHLS**	**Shalkode**	**25.25**	**313**	*e*P	**P** **19 23 37.7 -1.3**
	comp=Z,1μm,7.2s						SHLS				pmax	pmax
GZH2	**Guangzhou**	**9.21**	**117**	P	**Pn**	**19 20 25.8 +0.3**		comp=Z,8.0nm,0.6s				
GZH2				S	**Sn**	**19 22 11.8 +2.5**	**SHLS**	**Shalkode**	**25.25**	**313**	*e*P	**P** **19 23 37.8 -1.3**
GZH2				SMN				comp=Z,7.6nm,0.6s				
	comp=Z,410nm,0.9s						**PDGK**	**Podgornoye**	**25.32**	**313**	P	**P** **19 23 40.1 +0.5**
GZH2				SME			**PDGK**	**Podgornoye**	**25.32**	**313**		**P** **19 23 40.1 +0.5**
	comp=Z,300nm,1.0s						**UZB**	**Uzynbulak**	**25.54**	**313**	*e*P	**P** **19 23 42.6 +1.1**
MORE	**Moreh**	**10.18**	**250**		**Pn**	**19 20 40.8 +2.0**	**UZB**	**Uzynbulak**	**25.54**	**313**	*e*P	**P** **19 23 42.7 +1.1**
QIZ	**Qiongzhong**	**10.26**	**152**	Pn	**Pn**	**19 20 38.7 -1.2**	**MK31**	**Makanchi Array**	**25.57**	**323***c*	*i*P	**P** **19 23 42.1 +0.4**
CMAR	**Chiang Mai Arr**	**11.07**	**210**	Pn	**Pn**	**19 20 52.4 +1.3**	**MKAR**	**Makanchi Array**	**25.57**	**323**	P	**P** **19 23 42.2 +0.5**
	comp=Z,0.1nm,0.3s,baz=20,slow=12,SNR=15							comp=Z,8.2nm,0.6s,baz=122,slow=12,SNR=56				
CMAR				Lg	Lg	19 23 59.2	MKAR				LR	LR 19 33 24.2
	comp=Z,0.4nm,0.3s,baz=29,slow=30,SNR=1.5							comp=Z,46nm,19.9s,baz=118,slow=36				
CMAR				LR	LR	19 25 32.8		comp=Z,8.2nm,0.6s				
	comp=Z,165nm,18.6s,baz=50,slow=40						**MKAR**	**Makanchi Array**	**25.57**	**323**		**P** **19 23 42.0 +0.3**
CMAR				ScP	**ScP**	**19 30 20.9 -0.6**	**TARG**	**Taragay, Kyrgy**	**25.75**	**309**	P	**P** **19 23 43.8 -0.1**
	comp=Z,0.8nm,0.5s,baz=49,slow=1.1,SNR=4.5						TARG				pmax	pmax
	comp=Z,2.5nm,0.9s							comp=Z,15nm,1.0s				
CMAR				AML	AML		**TARG**	**Taragay, Kyrgy**	**25.75**	**309**		**P** **19 23 43.8 -0.1**
CMAR	**Chiang Mai Arr**	**11.07**	**210**	*i* P	Pn	19 20 55.5 +4.4	TARG				IAmb	IAmb 19 23 49.5
CMAR				pmax	pmax			comp=Z,15nm,1.0s				
	comp=Z,2.0nm,0.7s						**MAKZ**	**Makanchi**	**25.75**	**322**	P	**P** **19 23 43.5 +0.2**
CMAR	**Chiang Mai Arr**	**11.07**	**210**		**Pn**	**19 20 50.9 -0.2**	MAKZ				pmax	pmax
CMAR					**ScP**	**19 30 20.7 -0.9**		comp=Z,17nm,0.8s				
GTA2	**Gaotai**	**11.99**	**341**	*e*P	**Pn**	**19 21 05.2 +1.6**	**MAKZ**	**Makanchi**	**25.75**	**322**		**P** **19 23 43.5 +0.2**
GTA2				pmax	pmax		MAKZ				IAmb	IAmb 19 23 47.9
	comp=Z,6.0nm,1.2s							comp=Z,17nm,0.8s				
GTA2				L	L		**MAKZ**	**Makanchi**	**25.75**	**322**	P	**P** **19 23 43.9 +0.6**
	comp=Z,560nm,14.6s							comp=Z,25nm,0.8s				
GTA2				L	L		**SATY**	**Saty**	**25.90**	**312**	*e*P	**P** **19 23 45.4 +0.6**
	comp=Z,830nm,15.9s						**SATY**	**Saty**	**25.90**	**312**	*e*P	**P** **19 23 45.5 +0.6**
GTA2				L	L		**KPKS**	**Kokpek**	**25.90**	**313**	*e*P	**P** **19 23 45.6 +0.8**
	comp=Z,720nm,16.5s						**KPKS**	**Kokpek**	**25.90**	**313**	*e*P	**P** **19 23 45.7 +0.8**
LSA	**Lhasa**	**12.00**	**280**	P	Pn	19 21 09.4 +5.2	**HYB**	**Hyderabad**	**26.37**	**252**	*e*P	**P** **19 23 46.0 -3.3**
LSA	**Lhasa**	**12.00**	**280**	P	**Pn**	**19 21 06.2 +2.0**	HYB				*e*S	**S** **19 28 32.4 +10**
LSA	**Lhasa**	**12.00**	**280**		**Pn**	**19 21 06.2 +2.0**	**KSH2**	**Kashi**	**26.51**	**302**	P	**P** **19 23 51.9 +1.4**
HNS	**HongShan**	**12.41**	**40**	⇑P	Pn	19 21 15.1 +5.8	KSH2				pmax	pmax
NJ2	**Nanjing**	**12.80**	**69**	*e*P	**Pn**	**19 21 16.8 +2.2**		comp=Z,4.0nm,1.3s				
NJ2				pmax	pmax		**ARXS**	**Arharly**	**26.80**	**314**	*e*P	**P** **19 23 53.9 +1.0**
	comp=Z,5.0nm,0.6s						**TDK**	**Taldyqorghan**	**26.81**	**316**	*e*P	**P** **19 23 53.9 +1.0**
NJ2				L	L		TDK				pmax	pmax
	comp=Z,1μm,7.6s							comp=Z,24nm,1.1s				
NJ2				L	L		**TDK**	**Taldyqorghan**	**26.81**	**316**	*e*P	**P** **19 23 54.0 +1.0**
	comp=Z,780nm,7.1s							comp=Z,24nm,1.1s				
NJ2				L	L		**MDOK**	**Medeo**	**26.84**	**311**	*e*P	**P** **19 23 54.2 +0.8**
	comp=Z,990nm,8.9s						**MDOK**	**Medeo**	**26.84**	**311**	*e*P	**P** **19 23 54.2 +0.8**
TIA	**Tai'an**	**13.16**	**50**	P	Pn	19 21 24.7 +5.1	**TNSS**	**Tian-Shan**	**26.86**	**311**	*e*P	**P** **19 23 54.4 +0.6**
TIA				pmax	pmax		**TNSS**	**Tian-Shan**	**26.86**	**311**	*e*P	**P** **19 23 54.4 +0.6**
	comp=Z,8.0nm,0.7s						**NRN**	**Naryn**	**26.90**	**307**	P	**P** **19 23 54.7 +0.5**
BTO2	**Baotou**	**13.20**	**17**	*e*P	**Pn**	**19 21 19.5 -0.7**	NRN				pmax	pmax
BTO2				S	**Sn**	**19 23 42.9 -4.2**		comp=Z,9.0nm,1.0s				
BTO2				pmax	pmax		**NRN**	**Naryn**	**26.90**	**307**		**P** **19 23 54.7 +0.5**
	comp=Z,38nm,0.5s						**AAA**	**Alma-Ata**	**26.95**	**311**	*e*P	**P** **19 23 55.2 +1.0**
BTO2				pmax	pmax		AAA				pmax	pmax
	comp=Z,500nm,5.1s							comp=Z,35nm,1.3s				
BTO2				L	L		**AAA**	**Alma-Ata**	**26.95**	**311**	*e*P	**P** **19 23 55.3 +1.0**
	comp=Z,720nm,4.1s							comp=Z,35nm,1.3s				
BTO2				L	L		**USA0B**	**Ussuriysk Arra**	**27.00**	**46***ce*	P	**P** **19 23 55.2 +0.6**
	comp=Z,410nm,3.6s						**USA0B**	**Ussuriysk Arra**	**27.00**	**46**	P	**P** **19 23 54.1 -0.4**
HHC	**Hu-ho-hao-te**	**13.80**	**22**	*e*P	**Pn**	**19 21 31.5 +3.1**	USA0B				IAmb	IAmb 19 23 55.4
HHC				pmax	pmax			comp=Z,14nm,0.7s				
	comp=Z,13nm,0.6s						**USRK**	**Ussuriysk Ar.**	**27.00**	**46**	P	**P** **19 23 54.8 +0.2**
HHC				pmax	pmax			comp=Z,11nm,0.7s,baz=248,slow=7.8,SNR=15				
	comp=Z,97nm,4.2s						USRK				LR	LR 19 33 55.1
HHC				L	L			comp=Z,51nm,20.3s,baz=209,slow=35				
	comp=Z,360nm,4.2s							comp=Z,11nm,0.7s				
HHC				L	L		**USRK**	**Ussuriysk Ar.**	**27.00**	**46**	P	**P** **19 23 54.1 -0.5**
	comp=Z,440nm,4.7s						**USRK**	**Ussuriysk Ar.**	**27.00**	**46**		**P** **19 23 54.1 -0.5**
HHC				L	L		**HEH**	**HeiHe**	**27.95**	**32**	*e*P	**P** **19 24 03.0 -0.1**
	comp=Z,200nm,4.4s						HEH				pmax	pmax
BJI2	**Beijing**	**15.09**	**36**	P	**Pn**	**19 21 47.2 +1.3**		comp=Z,6.0nm,0.9s				
BJI2				pP	**P**	**19 21 51.6 +0.4**	**AAK**	**Ala-Archa**	**28.37**	**309**	LR	LR 19 37 25.3
BJI2				sP	**sP**	**19 21 55.6 0.0**		comp=Z,157nm,20.8s,baz=78,slow=41				
BJI2				S	**Sn**	**19 24 34.6 +1.5**	**DAV**	**Davao City (W)**	**28.82**	**133**	LR	LR 19 36 18.7
BJI2				pmax	pmax			comp=Z,111nm,19.1s,baz=327,slow=38				
	comp=Z,6.0nm,0.7s						**SEM**	**Semipalatinsk**	**28.93**	**327**	*e*P	**P** **19 24 12.7 +0.7**
BJI2				pmax	pmax		**SEM**	**Semipalatinsk**	**28.93**	**327**	*e*P	**P** **19 24 12.7 +0.7**
	comp=Z,83nm,6.2s						**MAJO**	**Matsushiro**	**29.34**	**65**⇑*e*P		**P** **19 24 16.5 +0.8**
BJI2				L	L		MAJO				pmax	pmax
	comp=Z,220nm,9.6s							comp=Z,12nm,1.8s				
BJI2				L	L		**MJAR**	**Matsushiro Arr**	**29.34**	**65**	LR	LR 19 36 52.6
	comp=Z,210nm,8.8s							comp=Z,43nm,19.6s,baz=144,slow=38				
BJI2				L	L		**KLR**	**Kul'dur**	**29.48**	**37**⇑*i*P		**P** **19 24 16.5 -0.2**
	comp=Z,170nm,11.7s						KLR				pmax	pmax
SSLB	**Suanglung**	**15.22**	**103**		**Pn**	**19 21 48.3 +0.6**		comp=Z,14nm,2.0s				
YULB	**Yu-li**	**15.65**	**104**	P	**P**	**19 21 57.7 +0.2**	**ZAA0**	**Zalesovo Array**	**29.58**	**336**		**P** **19 24 17.4 -0.1**
YULB				IAmb	IAmb	19 22 03.0	**ZALV**	**Zalesovo Beam**	**29.58**	**336**	P	**P** **19 24 17.9 +0.4**
	comp=Z,45nm,1.2s							comp=Z,5.7nm,0.6s,baz=134,slow=8.0,SNR=16				
YULB	**Yu-li**	**15.65**	**104**	P	**P**	**19 21 57.6 +0.1**	ZALV				LR	LR 19 36 49.5
	comp=Z,39nm,3.0s							comp=Z,133nm,20.1s,baz=106,slow=38				
DL2	**Dalian**	**17.63**	**48**	P	**P**	**19 22 21.8 +2.5**		comp=Z,5.7nm,0.6s				
DL2				pmax	pmax		**ZALV**	**Zalesovo Beam**	**29.58**	**336**		**P** **19 24 17.2 -0.3**
	comp=Z,53nm,1.7s						**KURBB**	**Kurchatov Arra**	**29.91**	**326**	P	**P** **19 24 20.8 +0.3**
XLT	**XiLinHaoTe**	**18.11**	**27**	*e*P	**P**	**19 22 26.5 +1.8**		comp=Z,12nm,0.7s,baz=133,slow=9.3,SNR=117				
XLT				pP	sP	19 22 36.8 +7.7	KURBB				PcP	**PcP** **19 27 21.7 -1.4**
XLT				pmax	pmax			comp=Z,1.5nm,0.7s,baz=116,slow=2.3,SNR=5.6				
	comp=Z,12nm,0.7s						KURBB				LR	LR 19 37 48.5
SONM	**Songino Array**	**19.64**	**3**	P	**P**	**19 22 42.6 +1.2**		comp=Z,194nm,20.0s,baz=236,slow=39				
	comp=Z,1.5nm,0.3s,baz=188,slow=11,SNR=38							comp=Z,12nm,0.7s				
SONM				LR	LR	19 31 23.0	**KURBB**	**Kurchatov Arra**	**29.91**	**326**	P	**P** **19 24 20.6 +0.1**
	comp=Z,86nm,21.1s,baz=183,slow=40						KURBB				pmax	pmax
	comp=Z,6.8nm,0.6s							comp=Z,20nm,0.9s				
SONM				AML	AML		**KURK**	**Kurchatov**	**29.92**	**326**⇓*i*P		**P** **19 24 21.2 +0.6**
SONM	**Songino Array**	**19.64**	**3**	P	**P**	**19 22 41.9 +0.4**	KURK				pmax	pmax
SONM				pmax	pmax			comp=Z,23nm,0.9s				
	comp=Z,9.0nm,0.7s						**KURK**	**Kurchatov**	**29.92**	**326**		**P** **19 24 20.4 -0.2**
SONM	**Songino Array**	**19.64**	**3**		**P**	**19 22 41.9 +0.4**	**KURK**	**Kurchatov**	**29.92**	**326**		**PcP** **19 27 21.7 -1.4**
ULN	**Ulaanbaatar**	**19.71**	**5***c*	*i*P	**P**	**19 22 43.5 +1.2**	**KURK**	**Kurchatov**	**29.92**	**326**	P	**P** **19 24 21.4 +0.8**
ULN				pmax	pmax			comp=Z,27nm,0.8s				
	comp=Z,10.0nm,1.0s						**BTK**	**Batken**	**30.29**	**302**	P	**P** **19 24 25.6 +1.5**
ULN	**Ulaanbaatar**	**19.71**	**5**	P	**P**	**19 22 42.1 -0.2**		comp=Z,5.1nm,1.8s				
ULN	**Ulaanbaatar**	**19.71**	**5**	P	**Pn**	**19 22 43.7 0.0**	**ZEA**	**Zeya**	**30.39**	**27**	*e*P	**P** **19 24 25.9 +1.2**
	comp=Z,9.6nm,0.8s						**DZA**	**Taraz**	**30.66**	**307**	*e*P	**P** **19 24 28.2 +1.0**
INCN	**Inchon**	**20.55**	**58**	P	**P**	**19 22 50.5 -0.8**	**DZA**	**Taraz**	**30.66**	**307**	*e*P	**P** **19 24 28.3 +1.0**
	comp=Z,28nm,0.8s						**KK31**	**Karatay Array**	**31.29**	**308**	*i*P	**P** **19 24 33.5 +0.7**
WMQ	**Urumqi**	**20.75**	**323**	*e*P	**P**	**19 22 54.2 +0.7**	**KK31**	**Karatay Array**	**31.29**	**308**	P	**P** **19 24 32.4 -0.5**
WMQ				S	Sn	19 26 49.2 -0.8	**KKAR**	**Karatay Array**	**31.29**	**308**	P	**P** **19 24 32.7 -0.1**
WMQ				pmax	pmax		**KKAR**	**Karatay Array**	**31.29**	**308**		**P** **19 24 32.7 -0.1**
	comp=Z,9.0nm,0.9s											

IUG	**Iuzhnay**	**31.37**	**306**	*e*P	**P**	**19 24 34.6 +1.0**
IUG	**Iuzhnay**	**31.37**	**306**	*e*P	**P**	**19 24 34.6 +1.0**
CHM	**Chimkent**	**31.72**	**306**	*e*P	**P**	**19 24 37.5 +0.9**
CHM	**Chimkent**	**31.72**	**306**	*e*P	**P**	**19 24 37.5 +0.9**
JCJ	**Chichijima**	**33.10**	**83**	LR	LR	19 36 52.3
	comp=Z,68nm,21.2s,baz=95,slow=34					
BVAR	**Borovoye Array**	**35.43**	**324**	P	**P**	**19 25 09.1 +0.4**
	comp=Z,2.9nm,0.6s,baz=119,slow=9.5,SNR=21					
BVAR				PcP	**PcP**	**19 27 37.3 -1.0**
	comp=Z,1.6nm,0.5s,baz=137,slow=3.7,SNR=6.6					
	comp=Z,2.9nm,0.6s					
BORK	**Borovoye**	**35.48**	**324***c*	*i*P	**P**	**19 25 09.6 +0.5**
BORK				pmax	pmax	
	comp=Z,6.0nm,0.8s					
BORK	**Borovoye**	**35.48**	**324**		**P**	**19 25 08.9 -0.2**
BORK				IAmb	IAmb	19 25 12.2
	comp=Z,5.2nm,0.7s					
YAK	**Yakutsk**	**37.63**	**19**	LR	LR	19 42 17.3
	comp=Z,61nm,18.1s,baz=196,slow=38					
YAK	**Yakutsk**	**37.63**	**19**	*e*P	**P**	**19 25 27.5 +0.2**
YAK				*e*		19 26 54.3
YAK				*e*		19 27 44.1
YAK				*e*S	**S**	**19 31 13.0 -3.8**
YAK				*e*SS	**SnSn**	**19 33 57.6 +2.2**
YAK				*e*		19 35 34.5
YAK				pmax	pmax	
	comp=Z,16nm,0.9s					
YAK				pmax	pmax	
	comp=N,6.0nm,1.4s					
YAK				pmax	pmax	
	comp=E,2.0nm,1.0s					
YAK				pmax	pmax	
	comp=N,117nm,4.2s					
YAK				pmax	pmax	
	comp=E,86nm,4.8s					
YAK				pmax	pmax	
	comp=Z,116nm,4.6s					
YAK				smax	smax	
	comp=E,127nm,5.4s					
YAK				smax	smax	
	comp=N,49nm,2.7s					
YAK	**Yakutsk**	**37.63**	**19**		**P**	**19 25 26.9 -0.5**
YAK	**Yakutsk**	**37.63**	**19**	P	**P**	**19 25 27.2 -0.1**
	comp=Z,31nm,0.7s					
SIJI	**Sorong**	**38.51**	**134**	LR	LR	19 40 52.5
	comp=Z,34nm,18.2s,baz=336,slow=35					
GUMO	**Guam**	**40.00**	**103**	LR	LR	19 42 41.8
	comp=Z,43nm,20.2s,baz=244,slow=37					
AB31	**Akbulak array**	**40.05**	**314**	*i* P	**P**	**19 25 48.5 +0.7**
AB31				pmax	pmax	
	comp=Z,3.0nm,0.6s					
AB31	**Akbulak array**	**40.05**	**314**		**P**	**19 25 48.3 +0.4**
ABKAR	**Akbulak array**	**40.05**	**314**		**P**	**19 25 48.0 +0.1**
SVE	**Sverdlovsk**	**42.17**	**325**	*e*P	**P**	**19 26 05.9 +0.7**
SVE				pmax	pmax	
	comp=Z,13nm,1.2s					
NRIK	**Noril'sk**	**42.37**	**351**	P	**P**	**19 26 07.4 +0.7**
	comp=Z,10nm,0.5s,baz=135,slow=6.4,SNR=14					
NRIK				LR	LR	19 45 52.3
	comp=Z,26nm,18.3s,baz=216,slow=39					
	comp=Z,10nm,0.5s					
NRIK	**Noril'sk**	**42.37**	**351***c*	*i*P	**P**	**19 26 07.3 +0.7**
NRIK				pmax	pmax	
	comp=Z,11nm,0.6s					
NRIK	**Noril'sk**	**42.37**	**351**		**P**	**19 26 06.2 -0.4**
NRIK				IAmb	IAmb	19 26 07.8
	comp=Z,13nm,0.6s					
ARTI	**Arti**	**43.16**	**324**	LR	LR	19 45 34.1
	comp=Z,81nm,19.9s,baz=78,slow=38					
ARTI	**Arti**	**43.16**	**324**	P	**P**	**19 26 13.0 -0.2**
ARTI				pmax	pmax	
	comp=Z,9.0nm,0.7s					
ARTI	**Arti**	**43.16**	**324**		**P**	**19 26 13.0 -0.2**
ARTI				IAmb	IAmb	19 26 16.5
	comp=Z,9.2nm,0.7s					
TIXI	**Tiksi**	**45.48**	**10**	LR	LR	19 48 04.9
	comp=Z,46nm,19.4s,baz=208,slow=39					
TIXI	**Tiksi**	**45.48**	**10**⇑*i*P		**P**	**19 26 31.1 -0.5**
TIXI				pmax	pmax	
	comp=Z,10.0nm,0.6s					
TIXI	**Tiksi**	**45.48**	**10**		**P**	**19 26 30.3 -1.3**
TIXI	**Tiksi**	**45.48**	**10**	P	**P**	**19 26 31.3 -0.3**
	comp=Z,27nm,0.7s					
PEA0B	**Petropavlovsk-**	**45.92**	**42**⇓*e*P		**P**	**19 26 36.5 +1.2**
PETK	**Petropavlovsk-**	**45.92**	**42**	P	**P**	**19 26 36.6 +1.3**
	comp=Z,2.3nm,0.9s,baz=299,slow=4.5,SNR=1.8					
PETK				LR	LR	19 49 41.1
	comp=Z,18nm,18.6s,baz=152,slow=41					
	comp=Z,2.3nm,0.9s					
PETK	**Petropavlovsk-**	**45.92**	**42**	P	**P**	**19 26 36.3 +1.0**
PETK	**Petropavlovsk-**	**45.92**	**42**	P	**P**	**19 26 36.3 +1.0**
JAY	**Jayapura**	**46.11**	**126**	P	**P**	**19 26 37.1 -0.2**
	comp=Z,4.3nm,0.7s,baz=57,slow=15,SNR=2.1					
	comp=Z,4.3nm,0.7s					
SEY	**Seymchan**	**46.36**	**28**⇑*e*P		**P**	**19 26 38.7 +0.1**
SEY				pmax	pmax	
	comp=Z,19nm,1.7s					
BELG	**Belogornoye**	**48.31**	**316**	P	**P**	**19 26 54.5 +0.6**
	comp=Z,18nm,0.8s,baz=74,slow=5.4,SNR=3.6					
	comp=Z,18nm,0.8s					
BELG	**Belogornoye**	**48.31**	**316**⇓*e*P		**P**	**19 26 55.2 +1.3**
BELG				pmax	pmax	
	comp=Z,4.0nm,1.0s					
KIRV	**Kirov**	**48.43**	**325***c*	*i*P	**P**	**19 26 55.2 +0.4**
KNRA	**Kununurra**	**49.44**	**149**	P	**P**	**19 27 01.5 -1.5**
KNRA				IAmb	IAmb	19 27 14.8
	comp=Z,10nm,1.1s					
GNI	**Garni**	**50.20**	**300***c*	*i*P	**P**	**19 27 09.9 +1.1**
GNI				pmax	pmax	
	comp=Z,15nm,0.9s					
GNI	**Garni**	**50.20**	**300**	P	**P**	**19 27 09.1 +0.3**
FITZ	**Fitzroy Crossi**	**50.28**	**154**	P	**P**	**19 27 08.8 -0.5**
	comp=Z,3.4nm,0.6s,baz=352,slow=7.0,SNR=2.3					
	comp=Z,3.4nm,0.6s					
FITZ	**Fitzroy Crossi**	**50.28**	**154**	P	**P**	**19 27 07.7 -1.7**
NCK	**Nalchik**	**50.77**	**305**⇑*e*P		**P**	**19 27 13.0 0.0**
NCK				pmax	pmax	
	comp=Z,70nm,4.0s					
MBWA	**Marble Bar**	**51.17**	**162**	P	**P**	**19 27 15.2 -0.8**
MBWA				IAmb	IAmb	19 27 46.4
	comp=Z,9.2nm,0.9s					
MBWA	**Marble Bar**	**51.17**	**162**	P	**P**	**19 27 15.9 -0.1**
	comp=Z,18nm,0.8s					
DIGO	**Kars**	**51.21**	**301**	P	**P**	**19 27 17.9 +1.3**
	comp=Z,38nm,0.8s					
KBZ	**Khabaz**	**51.26**	**305**	P	**P**	**19 27 16.4 -0.2**
	comp=Z,3.2nm,0.8s,baz=183,slow=1.5,SNR=8.9					
KBZ				LR	LR	19 52 17.3
	comp=Z,57nm,18.2s,baz=54,slow=40					
	comp=Z,3.2nm,0.8s					
KBZ	**Khabaz**	**51.26**	**305**⇑*e*P		**P**	**19 27 17.8 +1.2**
KBZ				pmax	pmax	
	comp=Z,5.0nm,0.9s					
HAKT	**HAKKARI**	**51.32**	**297**	P	**P**	**19 27 18.4 +1.0**
	comp=Z,33nm,1.1s					
KIV	**Kislovodsk**	**51.40**	**305**	*e*P	**P**	**19 27 18.4 +0.6**
KIV				pmax	pmax	
	comp=Z,28nm,1.1s					
KIV				MLR	MLR	
	comp=Z,37nm,17.0s					
KIV	**Kislovodsk**	**51.40**	**305**		**P**	**19 27 18.1 +0.3**
KIV	**Kislovodsk**	**51.40**	**305**	⇓P	**P**	**19 27 19.2 +1.4**
KIV	**Kislovodsk**	**51.40**	**305**	P	**P**	**19 27 18.8 +1.0**
	comp=Z,32nm,1.1s					
NEUR	**Neytrino**	**51.44**	**304**⇓*e*P		**P**	**19 27 20.0 +1.8**
NEUR				pmax	pmax	
	comp=Z,8.0nm,1.3s					
EPOS	**Posof**	**51.58**	**302**	P	**P**	**19 27 20.8 +1.6**
	comp=Z,13nm,0.8s					
VRH	**Novokhopyorsk**	**51.88**	**315**	*e*P	**P**	**19 27 20.6 -0.5**
VRH				pmax	pmax	
	comp=Z,10.0nm,0.6s					
HOMI	**Horasan**	**52.37**	**300**	⇓P	**P**	**19 27 26.9 +1.6**
GURO	**Guroymak-BITLI**	**52.48**	**299**		**P**	**19 27 25.6 -0.3**
RAYN	**Ar Rayn**	**53.07**	**279**	⇓P	**P**	**19 27 31.0 +0.6**
RAYN	**Ar Rayn**	**53.07**	**279**		**P**	**19 27 29.8 -0.6**
RAYN	**Ar Rayn**	**53.07**	**279**	P	**P**	**19 27 29.8 -0.6**
	comp=Z,

	comp=Z,30nm,0.5s						
VSR	**Storozhevoye**	**53.48**	**315**	*e*P	**P**	**19 27 31.3**	**-1.7**
VSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
LPSR	**Galich'ya Gora**	**53.62**	**316**	*e*P	**P**	**19 27 32.6**	**-1.3**
LPSR				pmax	pmax		
	comp=Z,20nm,0.9s						
KLMR	**Klimovskoe**	**53.77**	**327**	*e*P	**P**	**19 27 33.3**	**-1.6**
KLMR				pmax	pmax		
	comp=Z,28nm,1.3s						
KELT	**Kelkit**	**54.37**	**301**	P	**P**	**19 27 40.5**	**+0.7**
	comp=Z,17nm,0.8s						
MOS	**Moscow**	**54.42**	**320**	*e*P	**P**	**19 27 39.6**	**-0.1**
OBN	**Obninsk**	**55.02**	**319**	LR	LR	19 52 45.6	
	comp=Z,109nm,19.4s,baz=134,slow=38						
OBN	**Obninsk**	**55.02**	**319**	*de*P	**P**	**19 27 44.6**	**+0.6**
OBN				*e*		19 28 47.3	
OBN				*e*		19 29 45.2	
OBN				*e*PPP	PPP	19 30 59.1	
OBN				pmax	pmax		
	comp=Z,54nm,2.2s						
OBN				MLR	MLR		
	comp=Z,86nm,17.0s						
KEMA	**Kemaliye**	**55.09**	**300**	P	**P**	**19 27 45.9**	**+0.9**
	comp=Z,24nm,0.8s						
PMG	**Port Moresby**	**55.48**	**126**	*de*P	**P**	**19 27 48.5**	**+0.6**
PMG				pmax	pmax		
	comp=Z,16nm,0.8s						
PMG	**Port Moresby**	**55.48**	**126**	P	**P**	**19 27 48.7**	**+0.7**
	comp=Z,19nm,0.9s						
WRAB	**Tennant Creek**	**55.76**	**146**	*ce*P	**P**	**19 27 50.3**	**+0.5**
WRAB				pmax	pmax		
	comp=Z,23nm,1.3s						
WRAB	**Tennant Creek**	**55.76**	**146**	P	**P**	**19 27 50.3**	**+0.5**
	comp=Z,23nm,1.1s						
WRA	**Warramunga Arr**	**55.77**	**146**	P	**P**	**19 27 49.0**	**-0.8**
	comp=Z,4.4nm,0.5s,baz=330,slow=7.5,SNR=7.8						
	comp=Z,4.4nm,0.5s						
WRA	**Warramunga Arr**	**55.77**	**146**	P	**P**	**19 27 46.3**	**-3.6**
WRA	**Warramunga Arr**	**55.77**	**146**	P	**P**	**19 27 46.3**	**-3.6**
ANDN	**Andirin**	**57.07**	**298**	P	**P**	**19 28 00.0**	**+0.8**
	comp=Z,92nm,1.1s						
APA	**Apatity**	**57.14**	**334**	*e*P	P	19 27 54.1	-5.0
APA				*e*		19 28 52.8	
APA				*e*		19 30 04.5	
APA				pmax	pmax		
	comp=Z,7.0nm,1.4s						
APA				MLR	MLR		
	comp=Z,1μm,5.0s						
BNN	**Bunyan**	**57.19**	**300**		**P**	**19 27 59.1**	**-1.0**
BNN				IAmb	IAmb	19 28 03.2	
	comp=Z,11nm,1.3s						
SIM	**Simferopol'**	**57.39**	**307**	*e*P	**P**	**19 28 01.7**	**+0.5**
SIM				pmax	pmax		
	comp=Z,18nm,0.8s						
ASF	**Jabal al Asfar**	**57.90**	**292**	LR	LR	19 55 53.7	
	comp=Z,63nm,21.3s,baz=101,slow=39						
ASF	**Jabal al Asfar**	**57.90**	**292**	P	**P**	**19 28 06.2**	**+1.1**
ILGA	**Ilgaz**	**58.36**	**303**		**P**	**19 28 08.3**	**-0.1**
KIRS	**Kirsehir-Merke**	**58.60**	**301**	⇑P	**P**	**19 28 10.0**	**+0.1**
BR131	**Keskin Array S**	**58.69**	**301**	*d*P	**P**	**19 28 10.6**	**0.0**
BR131	**Keskin Array S**	**58.69**	**301**		**P**	**19 28 09.9**	**-0.7**
BR131				IAmb	IAmb	19 28 11.3	
	comp=Z,5.2nm,0.8s						
BRTR	**Keskin Array B**	**58.69**	**301**	P	**P**	**19 28 10.6**	**0.0**
	comp=Z,4.0nm,0.8s,baz=120,slow=8.5,SNR=21						
	comp=Z,4.0nm,0.8s						
BRTR	**Keskin Array B**	**58.69**	**301**		**P**	**19 28 09.7**	**-0.9**
ASAR	**Alice Springs**	**58.73**	**148**	P	**P**	**19 28 10.9**	**+0.1**
	comp=Z,4.3nm,0.6s,baz=332,slow=7.1,SNR=5.3						
	comp=Z,4.3nm,0.6s						
ASAR	**Alice Springs**	**58.73**	**148**	P	**P**	**19 28 10.6**	**-0.2**
CY604	**RAF Akrotiri,**	**59.27**	**295**	P	**P**	**19 28 14.2**	**0.0**
KKUL	**Konya-Kulu**	**59.35**	**301**	P	**P**	**19 28 15.1**	**-0.1**
	comp=Z,18nm,1.0s						
KEV	**Kevo**	**59.60**	**337**	P	**P**	**19 28 16.0**	**-0.2**
KEV	**Kevo**	**59.60**	**337**	P	**P**	**19 28 16.0**	**-0.2**
SGF	**Sodankyl**	**59.78**	**334**	P	**P**	**19 28 17.4**	**-0.1**
	comp=Z,25nm,2.9s						
AK03	**Malin Array Si**	**59.79**	**315**	P	**P**	**19 28 17.3**	**-0.5**
AKASG	**Malin Array Be**	**59.79**	**315**	P	**P**	**19 28 17.5**	**-0.3**
	comp=Z,3.1nm,0.6s,baz=76,slow=6.1,SNR=12						
	comp=Z,3.1nm,0.6s						
AKBB	**Malin Array Si**	**59.79**	**315**	⇑*i*P	**P**	**19 28 17.4**	**-0.4**
AKBB				pmax	pmax		
	comp=Z,6.0nm,0.6s						
KIEV	**Kiev**	**59.80**	**315**	⇓P	**P**	**19 28 17.6**	**-0.3**
KIEV	**Kiev**	**59.80**	**315**	P	**P**	**19 28 17.2**	**-0.7**
KIEV				IAmb	IAmb	19 28 17.9	
	comp=Z,5.3nm,0.6s						
KIEV	**Kiev**	**59.80**	**315**	⇓P	**P**	**19 28 17.6**	**-0.3**
KIEV	**Kiev**	**59.80**	**315**	P	**P**	**19 28 17.6**	**-0.3**
	comp=Z,11nm,1.0s						
MTSU	**Mount Surprise**	**59.90**	**136**	P	**P**	**19 28 20.5**	**+1.5**
	comp=Z,4.6nm,0.7s						
PRNI	**Paran**	**59.96**	**290**	P	**P**	**19 28 20.2**	**+0.8**
RNF	**Rovaniemi**	**60.00**	**333**	P	**P**	**19 28 18.8**	**-0.2**
	comp=Z,21nm,2.2s						
HRFI	**Mount Harif**	**60.03**	**290**	P	**P**	**19 28 21.3**	**+1.4**
HRFI	**Mount Harif**	**60.03**	**290**	P	**P**	**19 28 19.6**	**-0.2**
	comp=Z,15nm,0.9s						
CSS	**Mathiatis**	**60.05**	**296**		**P**	**19 28 18.0**	**-2.0**
CSS	**Mathiatis**	**60.05**	**296**	P	**P**	**19 28 20.5**	**+0.6**
CSS	**Mathiatis**	**60.05**	**296**	P	**P**	**19 28 19.7**	**-0.3**
	comp=Z,9.1nm,0.9s						
OUL	**Oulu**	**60.12**	**331**	P	**P**	**19 28 19.6**	**-0.2**
	comp=Z,10.0nm,1.6s						
ARCES	**ARCESS Array B**	**60.13**	**337**	P	**P**	**19 28 19.8**	**0.0**
	comp=Z,3.0nm,0.7s,baz=83,slow=7.7,SNR=10						
ARCES				LR	LR	19 56 50.0	
	comp=Z,70nm,18.1s,baz=162,slow=39						
	comp=Z,3.0nm,0.7s						
ARCES	**ARCESS Array B**	**60.13**	**337**	P	**P**	**19 28 19.7**	**-0.2**
ARCES	**ARCESS Array B**	**60.13**	**337**	P	**P**	**19 28 19.7**	**-0.2**
EIL	**Elat**	**60.21**	**290**	LR	LR	19 57 28.7	
	comp=Z,79nm,18.7s,baz=77,slow=39						
EIL	**Elat**	**60.21**	**290**	P	**P**	**19 28 21.5**	**+0.4**
EIL	**Elat**	**60.21**	**290**	P	**P**	**19 28 20.8**	**-0.3**
	comp=Z,12nm,1.1s						
VSU	**Vasula**	**60.24**	**324**	⇓*e*P	**P**	**19 28 19.5**	**-1.3**
VSU				pmax	pmax		
	comp=Z,82nm,3.5s						
VSU	**Vasula**	**60.24**	**324**	P	**P**	**19 28 19.8**	**-1.0**
	comp=Z,26nm,1.9s						
FINES	**FINESS Array B**	**60.29**	**327**	P	**P**	**19 28 20.9**	**-0.1**
	comp=Z,2.4nm,0.6s,baz=77,slow=8.3,SNR=15						
FINES				LR	LR	19 56 18.9	
	comp=Z,73nm,18.4s,baz=78,slow=38						
	comp=Z,2.4nm,0.6s						
FINES	**FINESS Array B**	**60.29**	**327**	*i* P	**P**	**19 28 20.8**	**-0.2**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	**FINESS Array B**	**60.29**	**327**	P	**P**	**19 28 20.4**	**-0.6**
KZIT	**Kziot**	**60.30**	**291**	P	**P**	**19 28 22.4**	**+0.7**
KZIT	**Kziot**	**60.30**	**291**	P	**P**	**19 28 22.0**	**+0.3**
	comp=Z,29nm,0.8s						
ARBE	**Arbavere**	**60.52**	**325**	P	**P**	**19 28 23.1**	**+0.4**
	comp=Z,78nm,1.1s						
SORM	**Soroca**	**60.78**	**312**	⇓P	**P**	**19 28 24.4**	**-0.2**
SORM	**Soroca**	**60.78**	**312**	⇓P	**P**	**19 28 24.4**	**-0.2**
KEPZ	**Antalya-Kepez**	**60.91**	**299**	⇑P	**P**	**19 28 25.8**	**0.0**
TLCR		**61.04**	**308**	⇓P	**P**	**19 28 26.9**	**+0.4**
TLCR		**61.04**	**308**	⇓P	**P**	**19 28 26.9**	**+0.4**
TPGR	**Topolog**	**61.39**	**308**	⇑P	**P**	**19 28 29.7**	**+0.9**
TIRR	**Tirgusor**	**61.48**	**308**	P	**P**	**19 28 29.6**	**+0.2**
	comp=Z,22nm,1.7s						
ADK	**Adak**	**61.48**	**44**	P	**P**	**19 28 29.4**	**0.0**
	comp=Z,73nm,2.7s						
DMBR	**Dumbraveni**	**61.72**	**310**	⇑P	**P**	**19 28 30.9**	**-0.1**
PABE	**Paberze**	**62.15**	**321**	P	**P**	**19 28 33.5**	**-0.3**
	comp=Z,21nm,0.8s						
TESR	**Tescani**	**62.24**	**310**	⇓P	**P**	**19 28 35.5**	**+0.9**
TESR	**Tescani**	**62.24**	**310**	P	**P**	**19 28 34.6**	**0.0**
	comp=Z,9.2nm,2.3s						
SPITS	**Spitsbergen Ar**	**62.27**	**347**	P	**P**	**19 28 34.0**	**-0.3**
	comp=Z,20nm,0.9s,baz=67,slow=15,SNR=2.5						
	comp=Z,20nm,0.9s						
VRI	**Vrincioaia**	**62.33**	**309**	⇓P	**P**	**19 28 36.5**	**+1.3**
VRI	**Vrincioaia**	**62.33**	**309**	⇓P	**P**	**19 28 36.5**	**+1.3**
VRI	**Vrincioaia**	**62.33**	**309**	P	**P**	**19 28 36.5**	**+1.3**
	comp=Z,29nm,1.3s						
PLOR	**Plostina**	**62.39**	**309**	⇑P	**P**	**19 28 37.0**	**+1.4**
PLOR	**Plostina**	**62.39**	**309**	⇑P	**P**	**19 28 37.0**	**+1.4**
SAHR	**Sahastru**	**62.39**	**309**	⇓P	**P**	**19 28 36.7**	**+1.0**
ONER	**Baraj Valea Uz**	**62.45**	**310**	⇓P	**P**	**19 28 36.8**	**+0.8**
BIZ	**Bicaz**	**62.51**	**311**	⇑P	**P**	**19 28 36.8**	**+0.4**
CTA	**Charters Tower**	**62.57**	**135**	P	**P**	**19 28 37.0**	**-0.1**
	comp=Z,5.4nm,0.8s,baz=343,slow=5.4,SNR=3.6						
	comp=Z,5.4nm,0.8s						
CTA	**Charters Tower**	**62.57**	**135**	P	**P**	**19 28 37.0**	**-0.1**
AKAS	**Kas**	**62.63**	**298**	P	**P**	**19 28 36.0**	**-1.5**
TURR	**Turia**	**62.77**	**310**	⇑P	**P**	**19 28 38.8**	**+0.7**
SUW	**Suwalki**	**62.87**	**319**	*e*P	**P**	**19 28 38.4**	**-0.3**
OZUR		**62.92**	**310**	⇓P	**P**	**19 28 39.3**	**+0.1**
MLR	**Muntele Rosu**	**62.95**	**309**	⇑P	**P**	**19 28 40.2**	**+0.7**
MLR	**Muntele Rosu**	**62.95**	**309**		**P**	**19 28 39.8**	**+0.3**
MLR				IAmb	IAmb	19 28 44.0	
	comp=Z,5.7nm,0.8s						
MLR	**Muntele Rosu**	**62.95**	**309**	⇑P	**P**	**19 28 40.2**	**+0.7**
MLR	**Muntele Rosu**	**62.95**	**309**	P	**P**	**19 28 40.9**	**+1.4**
	comp=Z,8.2nm,1.1s						
BURAR	**Bucovina Array**	**62.95**	**312**	⇑P	**P**	**19 28 39.7**	**+0.3**
BURAR	**Bucovina Array**	**62.95**	**312**	⇑P	**P**	**19 28 39.7**	**+0.3**
BUR08	**Bucovina Ar. S**	**62.96**	**312**		**P**	**19 28 39.1**	**-0.4**
BUR08				IAmb	IAmb	19 28 43.3	
	comp=Z,8.8nm,1.4s						
BOSR	**Bodos**	**63.01**	**310**	⇓P	**P**	**19 28 40.9**	**+1.1**
BALB	**Balikesir**	**63.02**	**302**		**P**	**19 28 38.5**	**-1.4**
DOPR	**Dopca**	**63.22**	**310**	⇑P	**P**	**19 28 41.9**	**+0.8**
VOIR		**63.58**	**309**	⇑P	**P**	**19 28 43.9**	**+0.3**
VOIR		**63.58**	**309**	⇑P	**P**	**19 28 43.9**	**+0.3**
ARCR	**ARCALIA**	**63.65**	**311**	⇑P	**P**	**19 28 44.9**	**+1.0**
ARR	**Arges**	**63.88**	**309**	⇑P	**P**	**19 28 46.1**	**+0.5**
ARR	**Arges**	**63.88**	**309**	P	**P**	**19 28 45.7**	**+0.1**
	comp=Z,4.4nm,1.0s						
KWP	**Kalwaria Pacla**	**64.11**	**314**	*e*P	**P**	**19 28 47.4**	**+0.5**
LOT	**Lotru**	**64.44**	**310**	⇓P	**P**	**19 28 50.0**	**+0.6**
LOT	**Lotru**	**64.44**	**310**	P	**P**	**19 28 49.7**	**+0.3**
	comp=Z,7.9nm,0.8s						
MARR	**Marisel-Cluj**	**64.57**	**311**	⇓P	**P**	**19 28 50.6**	**+0.5**
TRPA	**Tarpa**	**64.58**	**313**	P	**P**	**19 28 50.2**	**+0.2**
	comp=Z,11nm,2.8s						
KARP	**Karpathos**	**64.73**	**298**		**P**	**19 28 49.9**	**-1.4**
CHOS	**Chios island**	**64.74**	**302**	P	**P**	**19 28 51.2**	**-0.2**
	comp=Z,28nm,1.9s						
DRGR		**64.81**	**311**	⇑P	**P**	**19 28 52.1**	**+0.5**
DRGR		**64.81**	**311**	⇑P	**P**	**19 28 52.1**	**+0.5**
DRGR		**64.81**	**311**	P	**P**	**19 28 52.3**	**+0.7**
	comp=Z,6.9nm,1.1s						
GZR	**Gura Zlata**	**65.13**	**310**	⇓P	**P**	**19 28 54.4**	**+0.6**
GZR	**Gura Zlata**	**65.13**	**310**	⇓P	**P**	**19 28 54.4**	**+0.6**
SURR	**Surduc**	**65.48**	**310**	⇑P	**P**	**19 28 56.2**	**+0.3**
HERR	**Herculane**	**65.52**	**309**	⇑P	**P**	**19 28 56.7**	**+0.5**
SIRR	**Siria**	**65.65**	**311**	⇑P	**P**	**19 28 57.6**	**+0.6**
BLKB	**Belogradchik**	**65.69**	**308**	⇑P	**P**	**19 28 57.7**	**+0.3**
OJC	**Ojcow**	**65.78**	**315**	*e*P	**P**	**19 28 57.9**	**+0.1**
OJC	**Ojcow**	**65.78**	**315**	P	**P**	**19 28 58.0**	**+0.2**
	comp=Z,12nm,1.4s						
MDVR	**Moldovita**	**66.03**	**309**	⇑P	**P**	**19 29 00.1**	**+0.5**
KNT	**Kendrikon**	**66.25**	**305**	P	**P**	**19 29 00.3**	**-0.7**
	comp=Z,5.8nm,1.1s						
GKP	**Gorka Klasztor**	**66.49**	**319**	*e*P	**P**	**19 29 02.2**	**-0.1**
HFS	**Hagfors**	**66.49**	**327**	P	**P**	**19 29 01.6**	**-0.5**
	comp=Z,2.7nm,0.7s,baz=78,slow=7.9,SNR=4.6						
	comp=Z,2.7nm,0.7s						
GRG	**Griva**	**66.67**	**305**	P	**P**	**19 29 03.3**	**-0.4**
	comp=Z,25nm,1.1s						
OKC	**Ostrava-Krasne**	**66.91**	**315**	*e*P	**P**	**19 29 05.7**	**+0.7**
OKC	**Ostrava-Krasne**	**66.91**	**315**	*e*P	**P**	**19 29 05.7**	**+0.7**
D20K	**Etivluk River**	**67.09**	**23**	P	**P**	**19 29 04.8**	**-1.1**
STEB	**Steborice**	**67.11**	**316**	*e*P	**P**	**19 29 06.0**	**-0.3**
FRGS	**Fruska Gora**	**67.21**	**310**	P	**P**	**19 29 07.0**	**0.0**
	comp=Z,10.0nm,0.8s						
MORC	**Moravsky Berou**	**67.30**	**315**	*e*P	**P**	**19 29 07.5**	**-0.1**
MORC	**Moravsky Berou**	**67.30**	**315**	P	**P**	**19 29 07.6**	**+0.1**
	comp=Z,5.9nm,0.8s						
NB2	**NORSAR Subarra**	**67.40**	**328**	P	**P**	**19 29 07.1**	**-0.9**
	comp=Z,7.0nm,0.8s,baz=74,slow=6.9						
NOA	**NORSAR Array B**	**67.40**	**328**	P	**P**	**19 29 07.1**	**-0.9**
	comp=Z,2.4nm,0.7s,baz=74,slow=6.3,SNR=9.8						
NOA				LR	LR	20 00 19.9	
	comp=Z,29nm,18.2s,baz=80,slow=38						
	comp=Z,2.4nm,0.7s						
JAVC	**Velka Javorina**	**67.49**	**314**	*e*P	**P**	**19 29 10.1**	**+1.3**
MORH	**Mrgy, Hungar**	**67.67**	**312**	⇑P	**P**	**19 29 10.0**	**+0.1**
MORH	**Mrgy, Hungar**	**67.67**	**312**	P	**P**	**19 29 10.0**	**+0.1**
	comp=Z,7.8nm,0.9s						
KRLC	**Kraliky**	**67.68**	**316**	*e*P	**P**	**19 29 09.3**	**-0.7**
KRLC	**Kraliky**	**67.68**	**316**	*e*P	**P**	**19 29 09.3**	**-0.7**
KRLC	**Kraliky**	**67.68**	**316**	P	**P**	**19 29 10.5**	**+0.5**
	comp=Z,5.7nm,1.0s						
DPC	**Dobruska-Polom**	**67.88**	**316**	*e*P	**P**	**19 29 11.9**	**+0.7**
DPC	**Dobruska-Polom**	**67.88**	**316**	*e*P	**P**	**19 29 11.9**	**+0.7**
DPC	**Dobruska-Polom**	**67.88**	**316**	P	**P**	**19 29 11.6**	**+0.4**
	comp=Z,5.3nm,0.9s						
CHVC	**Chvalec**	**67.97**	**317**	*e*P	**P**	**19 29 11.3**	**-0.5**
CHVC	**Chvalec**	**67.97**	**317**	*e*P	**P**	**19 29 11.3**	**-0.5**
UPC	**Upice**	**68.02**	**316**	*e*P	**P**	**19 29 12.5**	**+0.5**
UPC	**Upice**	**68.02**	**316**	*e*P	**P**	**19 29 12.5**	**+0.5**
VRAC	**Vranov**	**68.03**	**315**	LR	LR	20 00 52.0	
	comp=Z,63nm,20.4s,baz=9.5,slow=38						
VRAC	**Vranov**	**68.03**	**315**	⇑P	**P**	**19 29 12.7**	**+0.5**
VRAC	**Vranov**	**68.03**	**315**	*e*P	**P**	**19 29 12.4**	**+0.2**
VRAC	**Vranov**	**68.03**	**315**	⇑P	**P**	**19 29 12.7**	**+0.5**
VRAC	**Vranov**	**68.03**	**315**	P	**P**	**19 29 12.5**	**+0.4**
	comp=Z,2.4nm,0.8s						
PDG	**Podgorica**	**68.44**	**307**	P	**P**	**19 29 14.3**	**-0.5**
	comp=Z,9.1nm,0.8s						
TREC	**Trest**	**68.72**	**315**	*e*P	**P**	**19 29 15.4**	**-1.1**
TREC	**Trest**	**68.72**	**315**	*e*P	**P**	**19 29 15.4**	**-1.1**
RONA	**Rosalia, Austr**	**68.73**	**314**	*i* P	**P**	**19 29 16.7**	**+0.1**
	comp=Z,3.5nm,0.9s						
WINA	**Alland / Wiene**	**68.74**	**314**	*e*P	**P**	**19 29 17.3**	**+0.7**
	comp=Z,2.0nm,0.6s						
CONA	**Conrad Observa**	**68.93**	**314**	*i* P	**P**	**19 29 18.3**	**+0.4**
	comp=Z,5.5nm,1.0s						
ABNA	**Allensteig Bun**	**68.96**	**315**	*i* P	**P**	**19 29 18.6**	**+0.6**
	comp=Z,5.8nm,0.5s						
PRU	**Pruhonice**	**69.08**	**316**	*e*P	**P**	**19 29 18.4**	**-0.3**
PRU	**Pruhonice**	**69.08**	**316**	*e*P	**P**	**19 29 18.4**	**-0.3**
PRU	**Pruhonice**	**69.08**	**316**	P	**P**	**19 29 19.2**	**+0.5**
	comp=Z,6.4nm,0.7s						
PRA	**Prague**	**69.12**	**316**	*e*P	**P**	**19 29 23.5**	**+4.6**
PRA	**Prague**	**69.12**	**316**	*e*P	**P**	**19 29 23.5**	**+4.6**
STKA	**Stephens Creek**	**69.28**	**147**	P	**P**	**19 29 20.4**	**+0.4**
	comp=Z,2.7nm,0.6s,baz=335,slow=5.6,SNR=2.1						
	comp=Z,2.7nm,0.6s						
STKA	**Stephens Creek**	**69.28**	**147**	P	**P**	**19 29 19.4**	**-0.6**
STKA	**Stephens Creek**	**69.28**	**147**	P	**P**	**19 29 19.4**	**-0.6**
ARSA	**Arzberg**	**69.37**	**313**	P	**P**	**19 29 19.4**	**-1.1**
ARSA				IAmb	IAmb	19 29 23.3	
	comp=Z,8.0nm,1.5s						
ARSA	**Arzberg**	**69.37**	**313**	*e*P	**P**	**19 29 21.1**	**+0.6**
	comp=Z,2.4nm,0.6s						
ARSA	**Arzberg**	**69.37**	**313**	P	**P**	**19 29 20.4**	**-0.2**
	comp=Z,7.0nm,2.6s						
ZVC	**Zvikov**	**69.47**	**316**	*e*P	**P**	**19 29 21.6**	**+0.5**
HSKC	**Hora Svate Kat**	**69.55**	**317**	*e*P	**P**	**19 29 21.4**	**-0.2**
CLL	**Collm**	**69.56**	**318**	*i* P	**P**	**19 29 21.4**	**-0.2**
CLL				pmax	pmax		
	comp=Z,6.0nm,1.2s						
CLL	**Collm**	**69.56**	**318**	*i* P	**P**	**19 29 21.4**	**-0.2**
	comp=Z,6.0nm,1.2s						
CLL				LV		20 01 00.0	
CKRC	**Cesky Krumlov**	**69.61**	**315**	*e*P	**P**	**19 29 22.9**	**+0.9**
CKRC	**Cesky Krumlov**	**69.61**	**315**	*e*P	**P**	**19 29 22.9**	**+0.9**
SOKA	**Soboth**	**69.88**	**313**	*e*P	**P**	**19 29 23.6**	**-0.2**
	comp=Z,3.1nm,0.6s						
KHC	**Kasperske Hory**	**69.96**	**316**	*e*P	**P**	**19 29 24.3**	**+0.1**
KHC	**Kasperske Hory**	**69.96**	**316**	*e*P	**P**	**19 29 24.3**	**+0.1**
GEC2	**GERESS Array S**	**69.98**	**315**		**P**	**19 29 24.0**	**-0.4**
GEC2				IAmb	IAmb	19 29 25.5	
	comp=Z,5.0nm,1.0s						
GERES	**GERESS Array B**	**69.98**	**315**	P	**P**	**19 29 24.8**	**+0.4**
	comp=Z,2.4nm,0.5s,baz=70,slow=5.4,SNR=32						
GERES				LR	LR	20 02 01.6	
	comp=Z,65nm,19.4s,baz=50,slow=38						
	comp=Z,2.4nm,0.5s						
GERES	**GERESS Array B**	**69.98**	**315**	P	**P**	**19 29 23.0**	**-1.4**
GERES	**GERESS Array B**	**69.98**	**315**	P	**P**	**19 29 23.0**	**-1.4**
SESA	**Seetaler Alpe,**	**70.03**	**313**	*i* P	**P**	**19 29 25.0**	**+0.2**
	comp=Z,3.5nm,1.1s						
LODK	**Lodwar**	**70.24**	**263**	P	**P**	**19 29 25.7**	**-0.8**
LODK	**Lodwar**	**70.24**	**263**	P	**P**	**19 29 26.6**	**+0.1**
	comp=Z,3.9nm,0.8s						
OBKA	**Obir**	**70.25**	**313**	*i* P	**P**	**19 29 25.6**	**-0.5**
	comp=Z,4.0nm,1.0s						
BIOA	**Bad Ischl, Aus**	**70.42**	**314**	*e*P	**P**	**19 29 27.3**	**+0.2**
	comp=Z,1.6nm,0.5s						
JMIC	**Jan Mayen**	**70.73**	**341**	LR	LR	20 04 37.0	
	comp=Z,36nm,18.0s,baz=96,slow=39						
KBA	**Koelnbreinsper**	**70.82**	**314**	*i* P	**P**	**19 29 29.6**	**-0.1**
	comp=Z,2.8nm,0.5s						
C27K	**Jago River**	**70.92**	**20**	IAmb	IAmb	19 29 41.2	
	comp=Z,6.0nm,1.0s						
LESA	**Schwarzleotal**	**71.12**	**314**	*i* P	**P**	**19 29 31.5**	**+0.2**
	comp=Z,3.1nm,0.5s						
ABTA	**Abfaltersbach**	**71.47**	**314**	*i* P	**P**	**19 29 32.0**	**-1.5**
	comp=Z,2.7nm,1.2s						
WTTA	**Wattenberg**	**71.84**	**314**	*i* P	**P**	**19 29 35.2**	**-0.6**
	comp=Z,5.3nm,0.5s						
WATA	**Walderalm**	**71.85**	**314**	*i* P	**P**	**19 29 35.3**	**-0.6**
	comp=Z,2.2nm,0.5s						
SQTA	**Sankt Quirin**	**72.13**	**314**	*i* P	**P**	**19 29 36.9**	**-0.6**
	comp=Z,3.6nm,0.5s						
MOTA	**Moosalm**	**72.15**	**315**	*i* P	**P**	**19 29 36.9**	**-0.8**
	comp=Z,3.8nm,0.6s						
ILAR	**Eielson Array**	**72.20**	**25**	P	**P**	**19 29 35.9**	**-1.6**
	comp=Z,0.5nm,0.6s,baz=295,slow=3.8,SNR=6.9						
	comp=Z,0.5nm,0.6s						
ILAR	**Eielson Array**	**72.20**	**25**	P	**P**	**19 29 35.7**	**-1.8**
ILAR	**Eielson Array**	**72.20**	**25**	P	**P**	**19 29 35.7**	**-1.8**
RETA	**Reutte**	**72.31**	**315**	*i* P	**P**	**19 29 38.4**	**-0.1**
	comp=Z,2.1nm,0.5s						
PRP	**Porcupine Dome**	**72.35**	**24**		**P**	**19 29 38.2**	**-0.2**
PRP				IAmb	IAmb	19 29 39.3	
	comp=Z,4.7nm,0.8s						
FDMO	**Fiordimonte**	**72.48**	**310**	IAmb	IAmb	19 29 40.7	
	comp=Z,4.5nm,0.8s						
FETA	**Feichten**	**72.51**	**314**	*e*P	**P**	**19 29 39.0**	**-0.8**
	comp=Z,2.2nm,0.5s						
DAVA	**Damuels**	**72.94**	**315**	*e*P	**P**	**19 29 41.8**	**-0.5**
	comp=Z,5.5nm,1.1s						
H27K	**Steamboat Moun**	**73.39**	**23**	IAmb	IAmb	19 30 07.6	
	comp=Z,6.7nm,1.2s						
TUE	**Stuetta**	**73.59**	**314**		**P**	**19 29 44.9**	**-1.4**
TUE				IAmb	IAmb	19 29 53.9	
	comp=Z,5.5nm,1.0s						
WLF	**Walferdange**	**74.23**	**318**	*d*P	**P**	**19 29 50.4**	**+0.6**
	comp=Z,2.8nm,0.8s						
A36M	**Sachs Harbour**	**74.31**	**14**		**P**	**19 29 49.9**	**+0.1**
A36M				IAmb	IAmb	19 30 02.2	
	comp=Z,8.6nm,0.8s						
BMRD	**Maredsous**	**74.77**	**319**	*d*P	**P**	**19 29 52.6**	**-0.2**
C36M	**Paulatuk**	**76.50**	**16**		**P**	**19 30 01.7**	**-0.6**
C36M				IAmb	IAmb	19 30 12.8	
	comp=Z,12nm,1.3s						
EKA	**Eskdalemuir Ar**	**76.65**	**326**	P	**P**	**19 30 02.8**	**-0.7**
	comp=Z,2.8nm,0.8s,baz=38,slow=2.8,SNR=2.4						
	comp=Z,2.8nm,0.8s						
KEST	**Kesra**	**78.12**	**304**	P	**P**	**19 30 11.5**	**-0.7**
	comp=Z,1.8nm,0.7s,baz=184,slow=4.3,SNR=4.1						
	comp=Z,1.8nm,0.7s						
YKA	**Yellowknife Ar**	**84.28**	**17**	P	**P**	**19 30 44.6**	**+0.3**
	comp=Z,3.6nm,0.8s,baz=327,slow=5.2,SNR=5.1						
	comp=Z,3.6nm,0.

PCI AML AML
TSSP Tandag City 6.00 35 *e*P **P** **19 21 27.8 -0.5**
TSSP *e*S **S** **19 22 48.2 -1.9**
LLP Lapu-Lapu 6.30 11 *i* P **P** **19 21 30.9 -0.2**
LLP *i* S **S** **19 22 53.9 -1.2**
KKM Kota Kinabalu 6.79 287 P **P** **19 21 35.7 +0.1**
KKM Kota Kinabalu 6.79 287 P **P** **19 21 35.5 -0.1**
KKM Kota Kinabalu 6.79 287 P **P** **19 21 35.8 +0.1**
comp=Z,14µmcomp=Z,1µm,1.0s
KKM Kota Kinabalu 6.79 287 P **P** **19 21 35.9 +0.3**
comp=Z,1µm,1.0s
SANI Sanana 6.90 152 P **P** **19 21 34.3 -2.3**
comp=Z,3.8nmcomp=Z,3µmcomp=Z,266nm,0.9s
SANI AML AML
SANI Sanana 6.90 152 P **P** **19 21 34.3 -2.3**
comp=Z,267nm,0.9s
PLP Palo 7.37 17 *e*P **P** **19 21 40.4 -0.5**
TTSI Tana Toraja 7.67 203 P **P** **19 21 43.9 +0.2**
comp=Z,1.6nmcomp=Z,5µmcomp=Z,527nm,1.3s
TTSI AML AML
MMSI Mamuju 7.75 210 P **P** **19 21 43.6 -1.0**
comp=Z,1.5nmcomp=Z,4µmcomp=Z,584nm,0.9s
MMSI AML AML
BKB Balikpapan 7.90 228 P **P** **19 21 45.7 -0.3**
BKB Balikpapan 7.90 228 P **P** **19 21 46.9 +0.9**
BKB Balikpapan 7.90 228 P **P** **19 21 47.6 +1.6**
BKB Balikpapan 7.90 228 P **P** **19 21 47.9 +1.9**
comp=Z,2µm,0.9s
KDI Kendari 8.00 181 P **P** **19 21 46.6 -0.3**
KDI AML AML
KKSI Kolaka, Sulawe 8.28 188 P **P** **19 21 50.4 +0.8**
comp=Z,1µmcomp=Z,137nm,0.9s
PMSI Majene 8.46 207 P **P** **19 21 52.0 +0.6**
comp=Z,2µmcomp=Z,232nm,0.9s
NLAI Namlea 8.48 149 P **P** **19 21 53.2 +1.6**
comp=Z,4µmcomp=Z,388nm,0.8s
BBSI Bau Bau 9.52 181 P **P** **19 22 03.2 +1.4**
comp=Z,105nm,0.9s
KAPI Kappang 9.53 198 P **P** **19 22 01.7 -0.3**
comp=Z,49nm,0.7s,baz=352,slow=6.6,SNR=23
KAPI S **S** **19 23 47.2 -4.5**
comp=Z,23nm,0.8s,baz=151,slow=23,SNR=7.7
KAPI Kappang 9.53 198 P **P** **19 22 03.2 +1.3**
KAPI Kappang 9.53 198 S **S** **19 23 52.5 +0.9**
KAPI Kappang 9.53 198 P **P** **19 22 01.4 -0.5**
KAPI Kappang 9.53 198 **P** **19 22 01.4 -0.5**
KAPI Kappang 9.53 198 P **P** **19 22 01.6 -0.3**
KAPI Kappang 9.53 198 P **P** **19 22 02.1 +0.2**
comp=Z,95nm,1.0s
BKSI Bulukumba 9.71 196 P **P** **19 22 03.3 -0.5**
MKS Makassar 9.81 200 P **P** **19 22 05.6 +0.8**
comp=Z,2µmcomp=Z,126nm,0.7s
SIJI Sorong 9.83 120 P **P** **19 22 05.4 +0.4**
comp=Z,25nm,0.4s,baz=310,slow=8.8,SNR=33
SIJI S **S** **19 23 56.6 -0.7**
comp=Z,6.8nm,0.7s,baz=172,slow=22,SNR=1.1
SIJI ScP **ScP** **19 29 55.0 -0.4**
comp=Z,7.0nm,0.9s,baz=21,slow=2.6,SNR=4.9
SIJI Sorong 9.83 120 P **P** **19 22 05.5 +0.4**
BSSI Bau Bau, Buton 10.41 193 P **P** **19 22 09.6 -1.2**
PKKI Palangkaraya 10.79 235 P **P** **19 22 14.9 +0.2**
BNDI Bandanaira 11.15 140 P **P** **19 22 19.1 +0.8**
BNDI Bandanaira 11.15 140 S **S** **19 24 22.3 +0.7**
BNDI Bandanaira 11.15 140 P **P** **19 22 18.6 +0.3**
comp=Z,3µmcomp=Z,256nm,0.7s
BNDI Bandanaira 11.15 140 P **P** **19 22 18.8 +0.6**
comp=Z,255nm,0.7s
FAKI Fak Fak 11.77 126 P **P** **19 22 25.0 +0.4**
FAKI Fak Fak 11.77 126 S **S** **19 24 33.6 +0.3**
FAKI Fak Fak 11.77 126 P **P** **19 22 22.7 -2.0**
FAKI Fak Fak 11.77 126 P **P** **19 22 25.0 +0.4**
comp=Z,920nmcomp=Z,83nm,0.9s
MMRI Maumere 12.65 182 P **P** **19 22 35.0 +1.4**
MMRI Maumere 12.65 182 S **S** **19 24 51.9 +2.2**
MMRI Maumere 12.65 182 **P** **19 22 31.7 -1.9**
MMRI Maumere 12.65 182 P **P** **19 22 34.1 +0.5**
comp=Z,70nm,0.9s
MMRI Maumere 12.65 182 P **P** **19 22 34.0 +0.5**
comp=Z,69nm,0.9s
EDFI Ende, Flores 12.80 185 P **P** **19 22 35.1 -0.1**
comp=Z,1µmcomp=Z,119nm,1.0s
LBFI Labuhan Bajo, 12.81 193 P **P** **19 22 35.4 +0.2**
DBNI Kabupaten Domp 13.27 199 P **P** **19 22 41.0 +1.0**
PLAI Plampang 13.76 201 P **P** **19 22 45.3 +0.3**
PLAI Plampang 13.76 201 S **S** **19 25 12.5 +2.5**
PLAI Plampang 13.76 201 P **P** **19 22 44.8 -0.2**
comp=Z,3µmcomp=Z,264nm,0.8s
PLAI Plampang 13.76 201 P **P** **19 22 45.6 +0.7**
comp=Z,264nm,0.9s
SOEI Soe 13.84 174 P **P** **19 22 46.6 +0.7**
SOEI Soe 13.84 174 S **S** **19 25 13.5 +1.9**
SOEI Soe 13.84 174 P **P** **19 22 45.6 -0.3**
SOEI Soe 13.84 174 P **P** **19 22 46.0 +0.1**
SOEI Soe 13.84 174 P **P** **19 22 46.2 +0.3**
comp=Z,37nm,0.8s
WSI Waingapu 13.88 190 P **P** **19 22 44.2 -2.0**
comp=Z,2µmcomp=Z,217nm,0.6s
TWSI Taliwang, Sumb 14.02 205 P **P** **19 22 47.2 -0.4**
comp=Z,2µmcomp=Z,148nm,1.2s
BATI Baumata 14.23 176 P **P** **19 22 50.0 +0.3**
comp=Z,182nm,0.4s,baz=356,slow=0.7,SNR=46
BATI S **S** **19 25 18.2 -0.3**
comp=Z,34nm,0.4s,baz=83,slow=20,SNR=12
BATI ScP **ScP** **19 30 03.2 +1.1**
comp=Z,6.4nm,0.4s,baz=86,slow=18,SNR=2.7
BATI Baumata 14.23 176 P **P** **19 22 49.6 -0.1**
comp=Z,3µmcomp=Z,249nm,0.6s
SRBI Singaraja 14.24 212 P **P** **19 22 49.3 -0.5**
comp=Z,123nm,1.1s
KHKI Kahang-Kahang 14.28 210 P **P** **19 22 50.4 +0.3**
comp=Z,155nm,1.1s
BAKI Biak 14.34 111 P **P** **19 22 51.9 +1.1**
comp=Z,5µmcomp=Z,496nm,1.1s
ABJI Asem Bagus 14.55 216 P P 19 22 59.4 +6.7
comp=Z,3µmcomp=Z,214nm,1.0s
SAUI Saumlaki 14.72 145 **P** **19 22 53.1 -1.2**
SAUI Saumlaki 14.72 145 P **P** **19 22 54.2 -0.2**
comp=Z,154nm,1.1s
DNP Denpasar 14.74 211 P **P** **19 22 57.6 +3.0**
comp=Z,423nm,1.1s
IGBI Denpasar 14.90 211 P **P** **19 22 55.7 -0.4**
comp=Z,4µmcomp=Z,428nm,0.9s
JAGI Jajag, Banyuwa 15.14 214 P **P** **19 23 00.0 +1.6**
JAGI Jajag, Banyuwa 15.14 214 S **S** **19 25 37.6 +3.5**
JAGI Jajag, Banyuwa 15.14 214 **P** **19 22 57.5 -0.9**
JAGI Jajag, Banyuwa 15.14 214 P **P** **19 22 58.1 -0.3**
comp=Z,4µmcomp=Z,326nm,0.8s
JAGI Jajag, Banyuwa 15.14 214 P **P** **19 22 59.1 +0.7**
comp=Z,329nm,0.8s
SJI Sawahan 16.07 223 P **P** **19 23 07.9 +0.6**
comp=Z,111nm,1.0s
SNJI Sawahan-Nganju 16.10 223 P **P** **19 23 09.3 +1.6**
DLV Lat 16.13 300 P **P** **19 23 09.3 +1.3**
DLV Lat 16.13 300 P **P** **19 23 08.2 +0.2**
DLV Lat 16.13 300 P **P** **19 23 08.9 +0.9**
comp=Z,161nm,1.3s
TPI Tanjungpandan 16.55 246 P **P** **19 23 12.1 +0.5**
comp=Z,1µmcomp=Z,101nm,1.3s
WOJI Wonogiri, Jawa 16.72 225 P **P** **19 23 13.7 +0.5**
comp=Z,256nm,1.0s
SMPI Sarmi 17.05 110 P **P** **19 23 17.3 +1.1**
comp=Z,3µmcomp=Z,248nm,0.7s
UGM Wanagama 17.06 226 P **P** **19 23 18.4 +2.1**
comp=Z,209nm,2.1s
KPJI Karang Pucung 17.86 231 P **P** **19 23 24.8 +1.3**
comp=Z,97nm,1.1s
DRS Darwin Rock St 18.30 154 P **P** **19 23 29.3 +1.8**
DRS Darwin Rock St 18.30 154 S **S** **19 26 28.5 +2.8**
TPRI Tanjung Pinang 18.48 261 P **P** **19 23 30.4 +1.2**
comp=Z,1µmcomp=Z,159nm,1.1s
LEM Lembang 18.59 234 P **P** **19 23 31.0 +0.6**
comp=Z,112nm,0.8s,baz=58,slow=7.9,SNR=26
LEM S **S** **19 26 31.4 +0.5**
comp=Z,22nm,0.9s,baz=247,slow=17,SNR=4.0
LEM Lembang 18.59 234 P **P** **19 23 32.5 +2.1**
comp=Z,154nm,0.9s
GENI Genyem 18.63 111 P **P** **19 23 31.9 +1.3**
GENI Genyem 18.63 111 P **P** **19 23 32.4 +1.8**
comp=Z,2µmcomp=Z,106nm,1.0s
GENI Genyem 18.63 111 P **P** **19 23 32.3 +1.7**
comp=Z,106nm,1.1s
TWG Pinlang 18.69 355 P **P** **19 23 29.8 -1.2**
TWG IAmb IAmb 19 23 44.3
comp=Z,72nm,1.3s
DSRI Dabo 18.72 256 P **P** **19 23 32.6 +1.2**
comp=Z,1µmcomp=Z,97nm,1.1s
MTN Manton Dam 18.77 154 P **P** **19 23 31.8 0.0**
comp=Z,21nm,0.7s,comp=Z,0.0nm
MTN Manton Dam 18.77 154 **P** **19 23 31.7 -0.1**
MTN IAmb IAmb 19 23 38.7
comp=Z,14nm,0.4s
BBJI Bungbulang 18.94 233 P **P** **19 23 34.5 +1.0**
BBJI Bungbulang 18.94 233 **P** **19 23 32.4 -1.1**
BBJI IAmb IAmb 19 23 35.6
comp=Z,89nm,1.5s
BBJI Bungbulang 18.94 233 P **P** **19 23 33.1 -0.4**
comp=Z,43nm,1.2s
BBJI Bungbulang 18.94 233 P **P** **19 23 33.5 0.0**
comp=Z,42nm,1.2s
CBJI Citeko 19.00 237 P **P** **19 23 36.1 +2.2**
comp=Z,378nm,1.2s
JAY Jayapura 19.10 110 P **P** **19 23 35.5 +0.5**
comp=Z,51nm,0.7s,baz=216,slow=5.9,SNR=27
JAY ScP **ScP** **19 30 11.2 -0.9**
comp=Z,6.1nm,0.8s,baz=337,slow=4.1,SNR=5.6
JAY Jayapura 19.10 110 P **P** **19 23 35.6 +0.7**
comp=Z,648nmcomp=Z,71nm,0.8s
BTDF Bukit Timah Da 19.15 262 P **P** **19 23 36.8 +1.5**
BTDF Bukit Timah Da 19.15 262 P **P** **19 23 36.6 +1.3**
comp=Z,743nmcomp=Z,67nm,1.1s
TPUB Ta-pu 19.21 354 P **P** **19 23 35.1 -0.6**
YULB Yu-li 19.24 356 P **P** **19 23 36.7 +0.7**
YULB IAmb IAmb 19 23 38.6
comp=Z,26nm,0.9s
KDU Kakadu 19.27 150 P **P** **19 23 35.8 -0.5**
comp=Z,28nm,0.9s
SBJI Serang 19.45 239 P **P** **19 23 39.5 +1.5**
comp=Z,6µmcomp=Z,488nm,1.3s
QIZ Qiongzhong 19.48 321 P **P** **19 23 38.3 +0.1**
QIZ sP **sP** **19 26 02.0 -0.5**
QIZ S **S** **19 26 46.4 +1.8**
QIZ pmax pmax
comp=Z,850nm,6.5s
SSLB Suanglung 19.66 355 P **P** **19 23 39.5 -0.3**
SSLB IAmb IAmb 19 23 44.2
comp=Z,31nm,1.0s
BLSI Bandar Lampung 19.85 242 P **P** **19 23 43.6 +1.9**
comp=Z,2µmcomp=Z,257nm,0.7s
HKPS Hong Kong Po S 19.91 336 P **P** **19 23 42.8 +0.7**
HKPS Hong Kong Po S 19.91 336 P **P** **19 23 42.1 0.0**
HKPS Hong Kong Po S 19.91 336 P **P** **19 23 47.5 +5.4**
comp=Z,196nm,1.2s
CGJI Cibinong 20.08 238 P **P** **19 23 43.4 -0.3**
MDSI Maura Dua 20.42 246 P **P** **19 23 47.2 +0.4**
comp=Z,34nm,0.9s
YHNB Yeheng 20.50 356 P **P** **19 23 47.2 -0.2**
KNRA Kununurra 20.52 163 P **P** **19 23 47.6 -0.1**
KNRA IAmb IAmb 19 23 54.6
comp=Z,42nm,1.9s
KASI Kota Agung 20.58 242 P **P** **19 23 48.5 +0.3**
comp=Z,1µmcomp=Z,190nm,0.9s
MNAI Manna 21.48 247 P **P** **19 23 56.7 +0.3**
IPM Ipoh 21.67 272 P **P** **19 23 58.4 +0.3**
IPM Ipoh 21.67 272 IAmb IAmb 19 23 59.4
comp=Z,37nm,0.8s
IPM Ipoh 21.67 272 P **P** **19 23 58.2 +0.1**
comp=Z,62nm,1.1s
BKNI Bangkinang 22.01 261 P **P** **19 24 02.8 -1.0**
BKNI Bangkinang 22.01 261 **P** **19 24 02.2 +1.2**
BKNI Bangkinang 22.01 261 P **P** **19 24 02.3 +1.2**
comp=Z,272nm,1.2s
FITZ Fitzroy Crossi 22.23 173 P **P** **19 24 02.5 -0.4**
comp=Z,28nm,1.4s
FITZ Fitzroy Crossi 22.23 173 P **P** **19 24 02.9 0.0**
comp=Z,4.8nm,0.5s,baz=355,slow=6.6,SNR=43
FITZ ScP **ScP** **19 30 19.0 -0.5**
comp=Z,8.5nm,0.7s,baz=358,slow=4.0,SNR=9.4
comp=Z,4.8nm,0.5s
FITZ Fitzroy Crossi 22.23 173 P **P** **19 24 02.9 0.0**
FITZ **ScP** **19 30 18.9 -0.5**
JOW Kunigami 23.22 13 P **P** **19 24 12.6 +0.9**
comp=Z,20nm,0.6s,baz=146,slow=6.5,SNR=1.9
comp=Z,20nm,0.6s
JOW Kunigami 23.22 13 P **P** **19 24 11.3 -0.3**
GUMO Guam 23.78 65 P **P** **19 24 16.2 -0.5**
comp=Z,41nm,0.5s,baz=348,slow=22,SNR=4.4
comp=Z,41nm,0.5s
GUMO Guam 23.78 65 P **P** **19 24 16.3 -0.5**
GUMO pmax pmax
comp=Z,321nm,1.5s
GUMO Guam 23.78 65 P **P** **19 24 16.2 -0.5**
PSI Prapat 23.82 268 P **P** **19 24 18.1 +0.8**
PSI Prapat 23.82 268 P **P** **19 24 17.0 -0.3**
PSI pmax pmax
comp=Z,48nm,0.7s
RPSI Rantau Prapat 23.82 267 P **P** **19 24 17.0 -0.2**
RPSI Rantau Prapat 23.82 267 P **P** **19 24 17.8 +0.5**
comp=Z,71nm,1.2s
MBWA Marble Bar 25.27 187 P **P** **19 24 29.8 -0.1**
comp=Z,28nm,0.9s
MBWA Marble Bar 25.27 187 P **P** **19 24 28.7 -1.1**
MBWA Marble Bar 25.27 187 P **P** **19 24 28.7 -1.1**
MBWA IAmb IAmb 19 24 30.7
comp=Z,19nm,0.8s
MANU Manus Island 25.34 103 P **P** **19 24 31.3 +0.6**
MANU IAmb IAmb 19 24 32.4
comp=Z,18nm,0.7s
LHMI Lhok Sumawe 25.74 274 P **P** **19 24 35.9 +1.8**
WB0 Warramunga Arr 26.33 155 IAmb IAmb 19 24 40.4
comp=Z,35nm,1.1s
WRAB Tennant Creek 26.46 155 P **P** **19 24 39.8 -0.6**
WRAB Tennant Creek 26.46 155 *d* iP **P** **19 24 39.8 -0.6**
WRAB pmax pmax
comp=Z,22nm,0.7s
WRAB Tennant Creek 26.46 155 P **P** **19 24 39.4 -0.9**
WRAB IAmb IAmb 19 24 41.1
comp=Z,34nm,1.1s
WRAB Tennant Creek 26.46 155 P **P** **19 24 39.7 -0.6**
comp=Z,34nm,0.7s
WRA Warramunga Arr 26.46 155 P **P** **19 24 39.8 -0.6**
comp=Z,9.3nm,0.4s,baz=335,slow=9.5,SNR=211
WRA S **S** **19 28 28.8 -5.7**
comp=Z,9.3nm,0.7s,baz=335,slow=16,SNR=9.1
WRA ScP **ScP** **19 30 30.2 -1.2**
comp=Z,3.6nm,0.4s,baz=338,slow=3.0,SNR=17
comp=Z,9.3nm,0.4s
WRA Warramunga Arr 26.46 155 P **P** **19 24 36.1 -4.2**
WRA **ScP** **19 30 30.3 -1.1**
CM31 Chiang Mai Arr 27.31 303 P **P** **19 24 50.0 +2.1**
SNR=8.6
CM31 Chiang Mai Arr 27.31 303 P **P** **19 24 48.0 +0.1**
CM31 IAmb IAmb 19 24 50.2
comp=Z,52nm,1.0s
CMAR Chiang Mai Arr 27.31 303 P **P** **19 24 48.0 +0.2**
comp=Z,26nm,0.9s,baz=124,slow=7.1,SNR=77
CMAR PcP **PcP** **19 27 48.8 +0.9**
comp=Z,4.2nm,0.9s,baz=123,slow=2.4,SNR=8.8
CMAR ScP **ScP** **19 30 34.2 +0.1**
comp=Z,4.3nm,0.9s,baz=155,slow=1.8,SNR=14
comp=Z,26nm,0.9s
CMAR Chiang Mai Arr 27.31 303 *i* P **P** **19 24 49.0 +1.1**
CMAR pmax pmax
comp=Z,26nm,0.9s
CMAR Chiang Mai Arr 27.31 303 P **P** **19 24 47.8 -0.1**
CMAR **PcP** **19 27 48.1 +0.2**
CMAR **ScP** **19 30 34.1 0.0**
CHTO Chiang Mai 27.48 304 P **P** **19 24 50.6 +1.3**
CHTO Chiang Mai 27.48 304 P **P** **19 24 50.3 +0.9**
CHTO Chiang Mai 27.48 304 P **P** **19 24 50.0 +0.6**
CHTO pmax pmax
comp=Z,57nm,0.9s
CHTO Chiang Mai 27.48 304 P **P** **19 24 50.0 +0.6**
CHTO Chiang Mai 27.48 304 P **P** **19 24 50.5 +1.1**
comp=Z,82nm,0.9s
WHN Wuhan 27.48 344 P **P** **19 24 48.2 -0.9**
PMG Port Moresby 27.78 119 P **P** **19 24 52.1 +0.1**
PMG Port Moresby 27.78 119 *de*P **P** **19 24 51.6 -0.4**
PMG pmax pmax
comp=Z,57nm,1.0s
PMG Port Moresby 27.78 119 P **P** **19 24 50.6 -1.3**
NJ2 Nanjing 28.05 353 *e*P **P** **19 24 56.6 +2.5**
NJ2 pmax pmax
comp=Z,17nm,0.8s
KMI2 Kunming 28.43 319 ⇑P **P** **19 25 00.0 +2.3**
KMI2 S **S** **19 29 09.9 +4.5**
KMI2 ScP **ScP** **19 30 38.5 +0.7**
KMI2 pmax pmax
comp=Z,36nm,1.2s
WRKA Warakurna 29.45 170 P **P** **19 25 07.0 +0.7**
comp=Z,4.4nm,1.3s
QIS Mount Isa 29.56 147 P **P** **19 25 08.1 +0.7**
comp=Z,101nm,1.0s,comp=Z,0.0nm
QIS Mount Isa 29.56 147 P **P** **19 25 07.6 +0.2**
QIS Mount Isa 29.56 147 P **P** **19 25 08.1 +0.7**
comp=Z,101nm,1.0s
AS15 Alice Springs 29.63 159 P **P** **19 25 08.0 +0.1**
comp=Z,13nm,0.8s
AS31 Alice Springs 29.65 159 P **P** **19 25 08.4 +0.2**
comp=Z,5.0nm,0.5s,comp=Z,0.0nm
ASAR Alice Springs 29.65 159 P **P** **19 25 08.3 +0.1**
comp=Z,5.2nm,0.3s,baz=337,slow=8.5,SNR=198
ASAR PcP **PcP** **19 27 54.0 +0.1**
comp=Z,2.2nm,0.4s,baz=346,slow=2.6,SNR=8.8
ASAR S **S** **19 29 22.6 -1.4**
comp=Z,25nm,0.8s,baz=352,slow=21,SNR=27
ASAR ScP **ScP** **19 30 40.4 -1.1**
comp=Z,6.3nm,0.4s,baz=340,slow=3.2,SNR=24
comp=Z,5.2nm,0.3s
ASAR Alice Springs 29.65 159 P **P** **19 25 08.0 -0.2**
ASAR Alice Springs 29.65 159 **ScP** **19 30 39.9 -1.6**
AUALC St Philip's Co 29.67 159 P **P** **19 25 09.5 +1.2**
AS01 Alice Springs 29.67 159 P **P** **19 25 08.9 +0.6**
NPW Naypyitaw 30.27 303 P **P** **19 25 14.9 +1.5**
comp=Z,96nm,1.0s
RABL Rabaul 30.52 105 P **P** **19 25 16.0 +0.3**
MTSU Mount Surprise 30.66 137 P **P** **19 25 17.5 +0.6**
comp=Z,12nm,1.1s
MTSU Mount Surprise 30.66 137 P **P** **19 25 17.5 +0.9**
MTSU Mount Surprise 30.66 137 P **P** **19 25 17.4 +0.6**
comp=Z,12nm,1.1s
MEEK Meekatharra 30.81 187 P **P** **19 25 18.1 +0.1**
comp=Z,61nm,1.0s
MEEK Meekatharra 30.81 187 P **P** **19 25 18.1 +0.1**
MEEK Meekatharra 30.81 187 P **P** **19 25 18.1 +0.1**
comp=Z,61nm,1.0s
TNCH TengChong 31.24 314 ⇓ *i* P **P** **19 25 22.7 +0.8**
TNCH pmax pmax
comp=Z,62nm,1.1s
JMN Monobe 31.26 18 P **P** **19 25 22.3 +0.5**
JMN IAmb IAmb 19 25 23.1
comp=Z,37nm,0.8s
CD2 Chengdu 32.13 328 P **P** **19 25 29.8 +0.6**
CD2 pmax pmax
comp=Z,50nm,0.9s
XAN Xi'an 32.46 338 P **P** **19 25 31.7 -0.2**
XAN pmax pmax
comp=Z,43nm,0.8s
XAN Xi'an 32.46 338 P **P** **19 25 31.8 -0.2**
XAN ScP **ScP** **19 30 50.8 0.0**
CTA Charters Tower 33.33 137 P **P** **19 25 40.3 +0.9**
comp=Z,7.1nm,0.5s,baz=315,slow=11,SNR=11
comp=Z,7.1nm,0.5s
CTAO Charters Tower 33.33 137 P **P** **19 25 41.1 +1.7**
CTAO Charters Tower 33.33 137 P **P** **19 25 40.3 +0.9**
CTAO pmax pmax
comp=Z,30nm,1.2s
CTAO Charters Tower 33.33 137 P **P** **19 25 40.3 +0.9**
CTAO IAmb IAmb 19 25 41.9
comp=Z,30nm,1.1s
CTAO Charters Tower 33.33 137 P **P** **19 25 40.4 +0.9**
CTAO ScP **ScP** **19 30 54.6 +0.5**
KSAR Wonju Array Be 33.53 7 P **P** **19 25 40.8 0.0**
KSAR Wonju Array Be 33.53 7 P **P** **19 25 40.8 0.0**
KSRS Korea Array 33.54 7 P **P** **19 25 41.8 +0.8**
comp=Z,5.9nm,0.8s,baz=185,slow=11,SNR=16
KSRS ScP **ScP** **19 30 53.0 -1.4**
comp=Z,2.6nm,0.8s,baz=183,slow=3.6,SNR=8.5
comp=Z,5.9nm,0.8s
MORW Morawa 33.59 191 P **P** **19 25 41.7 +0.2**
comp=Z,44nm,0.9s
MORW Morawa 33.59 191 P **P** **19 25 42.0 +0.5**
MORW Morawa 33.59 191 P **P** **19 25 41.4 -0.1**
MORW IAmb IAmb 19 25 42.9
comp=Z,29nm,0.8s
INU Inuyama 33.79 21 P **P** **19 25 43.8 +0.7**
INU Inuyama 33.79 21 IAmb IAmb 19 25 43.4
comp=Z,30nm,1.1s
INU Inuyama 33.79 21 P **P** **19 25 42.9 -0.2**
MORE Moreh 33.95 309 IAmb IAmb 19 25 45.5
comp=Z,40nm,1.0s
HNS HongShan 33.96 348 ⇓ P **P** **19 25 46.1 +1.7**
DL2 Dalian 34.67 358 P **P** **19 25 50.9 +0.6**
DL2 pP **PP** **19 27 33.0 -1.1**
DL2 sP **sP** **19 28 34.5 +1.0**
DL2 S **S** **19 30 41.6 +1.8**
DL2 pmax pmax
comp=Z,33nm,0.7s
DL2 pmax pmax
comp=Z,180nm,4.7s
BLDU Ballidu 34.99 189 P **P** **19 25 53.8 +0.7**
comp=Z,34nm,0.9s
BLDU Ballidu 34.99 189 P **P** **19 25 54.9 +1.8**
FORT Forrest 35.04 172 P **P** **19 25 54.2 +0.7**
comp=Z,24nm,1.0s
KMBL Kambalda 35.27 181 P **P** **19 25 56.2 +0.8**
comp=Z,37nm,1.5s
MAJO Matsushiro 35.29 22 P **P** **19 25 54.9 -0.7**
MAJO Matsushiro 35.29 22 *c* iP **P** **19 25 54.8 -0.8**
MAJO pmax pmax
comp=Z,43nm,1.6s
MAJO Matsushiro 35.29 22 P **P** **19 25 54.3 -1.3**
MAJO IAmb IAmb 19 25 55.8
comp=Z,79nm,1.7s
MAJO Matsushiro 35.29 22 P **P** **19 25 54.6 -0.9**
MJAR Matsushiro Arr 35.29 22 P **P** **19 25 54.7 -0.9**
comp=Z,21nm,0.9s,baz=188,slow=9.8,SNR=43
MJAR ScP **ScP** **19 31 00.7 -0.2**
comp=Z,5.4nm,1.0s,baz=213,slow=4.1,SNR=12
comp=Z,21nm,0.9s
MJB9 Matsu-Tunnel 35.29 22 IAmb IAmb 19 25 56.7
comp=Z,72nm,1.6s
KLBR Kellerberrin 35.80 187 P **P** **19 25 59.8 -0.1**
comp=Z,69nm,0.7s
KLBR Kellerberrin 35.80 187 P **P** **19 26 01.3 +1.5**
LZDM Lanzhou Array 36.26 333 P **P** **19 26 03.0 -0.9**
comp=Z,1.6nm,0.3s,baz=350,slow=41,SNR=2.6
LZDM ScP **S** **19 31 03.5 -0.7**
comp=Z,3.3nm,0.4s,baz=172,slow=3.0,SNR=4.1
comp=Z,1.6nm,0.3s
BJI2 Beijing 36.26 351 P **P** **19 26 03.8 +0.3**
BJI2 pmax pmax
comp=Z,8.0nm,0.8s
LZH Lanzhou 36.30 334 *e*P **P** **19 26 06.3 +2.2**
LZH pmax pmax
comp=Z,89nm,1.3s
SHL Shillong 36.51 309 P **P** **19 26 06.8 +0.7**
QLP Quilpie 36.90 147 P **P** **19 26 09.8 +0.8**
comp=Z,34nm,1.6s
QLP Quilpie 36.90 147 P **P** **19 26 10.3 +1.3**
NWAO Narrogin (SRO) 37.18 188 P **P** **19 26 11.9 +0.8**
comp=Z,86nm,1.1s
NWAO Narrogin (SRO) 37.18 188 P **P** **19 26 12.2 +1.0**
NWAO Narrogin (SRO) 37.18 188 P **P** **19 26 10.8 -0.4**
NWAO Narrogin (SRO) 37.18 188 P **P** **19 26 12.1 +0.9**
NWAO pmax pmax
comp=Z,66nm,0.9s
NWAO Narrogin (SRO) 37.18 188 P **P** **19 26 12.1 +0.9**
NWAO Narrogin (SRO) 37.18 188 P **P** **19 26 11.6 +0.5**
HHC Hu-ho-hao-te 37.96 346 *e*P **P** **19 26 19.1 +1.6**
HHC pmax pmax
comp=Z,11nm,0.9s
HHC pmax pmax
comp=Z,210nm,5.1s
BTO2 Baotou 38.29 344 *e*P **P** **19 26 20.0 -0.2**
BTO2 pP **pP** **19 28 02.5 +3.9**
BTO2 S **S** **19 31 36.7 +3.0**
BTO2 pmax pmax
comp=Z,35nm,0.7s
BTO2 pmax pmax
comp=Z,290nm,3.8s
AUNRC North Rockhamp 38.45 136 P **P** **19 26 23.4 +1.8**
BBOO Buckleboo 38.81 162 P **P** **19 26 24.8 +0.4**
comp=Z,14nm,0.6s
TATA Tatamba Isabel 38.98 109 P **P** **19 26 27.4 +1.4**
LSA Lhasa 39.28 314 P **P** **19 26 30.6 +1.9**
LSA Lhasa 39.28 314 P **P** **19 26 30.5 +1.7**
LSA Lhasa 39.28 314 P **P** **19 26 30.6 +1.9**
LSA PcP **PcP** **19 28 23.7 +0.9**
HNR Honiara 39.43 110 P **P** **19 26 29.5 -0.1**
comp=Z,45nm,0.5s,baz=125,slow=8.6,SNR=1.7
comp=Z,45nm,0.5s
CN2 Changchun 39.62 3 *e*P **P** **19 26 33.9 +3.2**
CN2 *e*pP pP 19 28 13.9 +3.3
CN2 *e*S **S** **19 31 59.9 +7.1**
CN2 pmax pmax
comp=Z,10.0nm,0.6s

CN2 pmax pmax
comp=Z,100nm,4.0s
STKA Stephens Creek 40.01 155 P P 19 26 34.9 +1.0
STKA Stephens Creek 40.01 155 P P 19 26 34.6 +0.6
comp=Z,5.0nm,0.3s,baz=339,slow=7.1,SNR=36
STKA ScP **ScP 19 31 17.7 -1.2**
comp=Z,5.9nm,0.8s,baz=300,slow=3.5,SNR=4.4
STKA S **S 19 31 59.0 +0.1**
comp=Z,6.3nm,0.9s,baz=66,slow=22,SNR=9.8
comp=Z,5.0nm,0.3s
STKA Stephens Creek 40.01 155 P P 19 26 35.0 +1.0
STKA Stephens Creek 40.01 155 *de*P **P 19 26 34.8 +0.8**
STKA Stephens Creek 40.01 155 P P 19 26 34.0 0.0
STKA **ScP 19 31 18.4 -0.6**
JTM Tenmabayashi 40.08 22 P P 19 26 34.9 +0.5
EIDS Eidsvold 40.17 138 P P 19 26 35.4 +0.1
comp=Z,20nm,0.5s
EIDS Eidsvold 40.17 138 P P 19 26 36.0 +0.6
EIDS Eidsvold 40.17 138 P P 19 26 34.8 -0.6
EIDS IAmb IAmb 19 26 37.0
comp=Z,23nm,0.9s
USA0B Ussuriysk Arra 40.77 10 *c*iP **P 19 26 40.2 +0.5**
USA0B Ussuriysk Arra 40.77 10 P P 19 26 40.3 +0.5
USRK Ussuriysk Ar. 40.77 10 P P 19 26 40.3 +0.5
comp=Z,13nm,0.7s,baz=196,slow=7.6,SNR=19
comp=Z,13nm,0.7s
USRK Ussuriysk Ar. 40.77 10 P P 19 26 39.5 -0.3
USRK Ussuriysk Ar. 40.77 10 P P 19 26 39.5 -0.3
MDJ Mudanjiang 40.81 7 P P 19 26 41.0 +0.9
MDJ Mudanjiang 40.81 7 P P 19 26 41.1 +0.9
MDJ pmax pmax
comp=Z,35nm,0.9s
MDJ Mudanjiang 40.81 7 IAmb IAmb 19 26 41.8
comp=Z,22nm,0.8s
MDJ Mudanjiang 40.81 7 P P 19 26 40.9 +0.8
GTA2 Gaotai 40.93 333 P P 19 26 42.6 +1.2
GTA2 PcP **PcP 19 28 28.5 +0.9**
GTA2 ScP **ScP 19 31 22.4 -0.3**
GTA2 S **S 19 32 12.6 +0.3**
GTA2 ScS **SS 19 35 37.7 -0.3**
GTA2 pmax pmax
comp=Z,58nm,0.8s
GOMU GeErMu 41.02 325 P P 19 26 43.1 +0.7
GOMU pmax pmax
comp=Z,22nm,1.2s
AULRC Lightning Ridg 41.19 146 P P 19 26 44.5 +1.1
CMSA Cobar Meteorol 41.63 150 P P 19 26 48.0 +1.2
comp=Z,25nm,0.9s
CMSA Cobar Meteorol 41.63 150 P P 19 26 48.6 +1.8
BNX BinXian 41.68 5 ⇑P **P 19 26 47.4 +0.4**
BNX S **S 19 32 21.6 -1.0**
BNX pmax pmax
comp=Z,7.0nm,0.8s
PALK Pallekele 41.95 276 P P 19 26 50.1 +0.4
PALK Pallekele 41.95 276 P P 19 26 49.2 -0.5
PALK Pallekele 41.95 276 *i*P **P 19 26 50.8 +1.1**
PALK Pallekele 41.95 276 P P 19 26 48.9 -0.8
PALK Pallekele 41.95 276 P P 19 26 50.3 +0.6
PALK PcP **pP 19 28 31.8 +0.6**
AUBSH Beerwah State 42.41 138 P P 19 26 54.1 +1.1
ARMA Armidale 44.04 143 P P 19 27 06.3 +0.5
comp=Z,46nm,1.2s
ARMA Armidale 44.04 143 P P 19 27 07.7 +1.9
ARMA Armidale 44.04 143 P P 19 27 07.2 +1.4
ARMA IAmb IAmb 19 27 09.5
comp=Z,44nm,1.0s
HIA Hailar 45.09 357 P P 19 27 13.9 +0.5
HILR Hailar Array B 45.38 357 P P 19 27 16.6 +1.0
comp=Z,12nm,0.4s,baz=184,slow=9.8,SNR=16
comp=Z,12nm,0.4s
KLR Kul'dur 45.63 8*ce*P **P 19 27 17.3 -0.1**
KLR pmax pmax
comp=Z,15nm,2.7s
ULN Ulaanbaatar 45.65 345 P P 19 27 18.9 +1.0
ULN Ulaanbaatar 45.65 345 *d*iP **P 19 27 18.3 +0.4**
ULN pmax pmax
comp=Z,19nm,0.9s
ULN Ulaanbaatar 45.65 345 P P 19 27 17.4 -0.5
ULN Ulaanbaatar 45.65 345 P P 19 27 18.4 +0.6
ULN ScP **ScP 19 31 42.1 +0.3**
SONM Songino Array 45.80 345 P P 19 27 19.7 +0.8
comp=Z,16nm,0.7s,baz=159,slow=10.0,SNR=53
SONM PcP **PcP 19 28 44.0 -0.1**
comp=Z,2.0nm,0.4s,baz=167,slow=4.8,SNR=4.9
SONM PP **PP 19 29 16.8 +1.1**
comp=Z,1.3nm,0.8s,baz=156,slow=8.6,SNR=2.0
SONM ScP **ScP 19 31 41.8 -0.6**
comp=Z,2.7nm,0.7s,baz=165,slow=5.2,SNR=8.0
comp=Z,16nm,0.7s
SONM Songino Array 45.80 345 P P 19 27 18.7 -0.2
SONM 19 28 43.8
SONM 19 29 16.8
SONM pmax pmax
comp=Z,17nm,0.9s
SONM Songino Array 45.80 345 P P 19 27 18.7 -0.2
SONM **PcP 19 28 43.8 -0.4**
HEH HeiHe 46.17 4 *e*P **P 19 27 21.1 -0.4**
HEH pmax pmax
comp=Z,15nm,0.7s
AUMTS Mt Stromlo 46.31 150 P P 19 27 24.8 +1.9
CAN Canberra 46.31 150 P P 19 27 22.8 -0.1
comp=Z,41nm,1.4s
CAN Canberra 46.31 150 P P 19 27 24.7 +1.8
CAN Canberra 46.31 150 P P 19 27 24.3 +1.4
CAN pmax pmax
comp=Z,38nm,1.0s
CAN Canberra 46.31 150 P P 19 27 24.3 +1.4
CAN IAmb IAmb 19 27 26.0
comp=Z,38nm,1.0s
CAN Canberra 46.31 150 P P 19 27 24.2 +1.4
CAN PcP **PcP 19 28 46.8 +0.8**
SANVU Saraoutou 48.10 115 P P 19 27 38.6 +2.1
SANVU Saraoutou 48.10 115 P P 19 27 36.3 -0.2
SANVU Saraoutou 48.10 115 P P 19 27 37.8 +1.2
HMDM Hanimaadhoo 49.40 275 P P 19 27 46.3 +0.1
TLY Talaya 50.04 345⇓ *e*P **P 19 27 50.2 -0.1**
TLY pmax pmax
comp=Z,14nm,1.0s
WMQ Urumqi 50.21 327 *e*P **P 19 27 52.9 +1.1**
WMQ pP pwP 19 29 46.2 +3.2
WMQ ScP **ScP 19 32 01.8 +0.6**
WMQ pmax pmax
comp=Z,11nm,1.1s
WMQ pmax pmax
comp=Z,180nm,3.8s
YATNC Mamie plateau, 50.39 123 P P 19 27 55.1 +1.8
MOY Mondy 50.77 343 *e*P **P 19 27 56.0 +0.3**
MOY pmax pmax
comp=Z,21nm,2.6s
KNGR Kungurtug, Tuv 50.98 340⇑ *i*P **P 19 27 59.7 +2.4**
KNGR pmax pmax
comp=Z,9.0nm,0.9s
WUS Wushi 53.69 320 IAmb IAmb 19 28 19.1
comp=Z,79nm,1.4s
ZSN Zaisan 54.10 329 *e*P **P 19 28 20.0 +0.6**
ZSN Zaisan 54.10 329 *e*P **P 19 28 20.1 +0.6**
SHLS Shalkode 54.58 322 *e*P **P 19 28 22.0 -1.0**
SHLS pmax pmax
comp=Z,27nm,0.9s
SHLS Shalkode 54.58 322 *e*P **P 19 28 22.0 -1.0**
comp=Z,27nm,0.9s
NIL Nilore 54.59 309 P P 19 28 23.4 +0.2
NIL Nilore 54.59 309 P P 19 28 23.4 +0.2
NIL pmax pmax
comp=Z,117nm,1.5s
NIL Nilore 54.59 309 P P 19 28 23.4 +0.2
NIL IAmb IAmb 19 28 24.9
comp=Z,117nm,1.5s
PDGK Podgornoye 54.65 322 P P 19 28 23.8 +0.3
PDGK pmax pmax
comp=Z,47nm,0.9s
UZB Uzynbulak 54.84 322 *d*iP **P 19 28 25.6 +0.7**
UZB Uzynbulak 54.84 322⇓ *i*P **P 19 28 25.7 +0.7**
TARG Taragay, Kyrgy 54.87 320 IAmb IAmb 19 28 28.4
comp=Z,149nm,1.9s
MK31 Makanchi Array 55.05 327 *d*iP **P 19 28 26.6 +0.5**
MKAR Makanchi Array 55.05 327 P P 19 28 26.6 +0.5
comp=Z,32nm,0.3s,baz=125,slow=7.6,SNR=400
MKAR PcP **PcP 19 29 18.5 -0.2**
comp=Z,15nm,0.6s,baz=126,slow=4.5,SNR=12
MKAR ScP **ScP 19 32 21.4 -0.8**
comp=Z,9.1nm,0.8s,baz=116,slow=5.5,SNR=12
MKAR S **S 19 35 28.1 +2.8**
comp=Z,1.3nm,0.9s,baz=128,slow=14,SNR=3.8
MKAR P4KPbc 20 05 34.6
comp=Z,0.5nm,0.6s,baz=109,slow=4.4,SNR=3.7
comp=Z,32nm,0.3s
MKAR Makanchi Array 55.05 327 P P 19 28 26.1 0.0
MKAR **PcP 19 29 18.3 -0.3**
MKAR **ScP 19 32 21.1 -1.1**
KSH2 Kashi 55.13 316 P P 19 28 27.8 +0.8
KSH2 pmax pmax
comp=Z,27nm,0.8s
SATY Saty 55.18 321 *d*iP **P 19 28 27.8 +0.6**
SATY pmax pmax
comp=Z,35nm,0.8s
SATY Saty 55.18 321⇓ *i*P **P 19 28 27.9 +0.6**
comp=Z,35nm,0.8s
KPKS Kokpek 55.22 322 *e*P **P 19 28 28.1 +0.7**
KPKS Kokpek 55.22 322 *e*P **P 19 28 28.2 +0.7**
MAKZ Makanchi 55.23 327 P P 19 28 26.7 -0.6
MAKZ pmax pmax
comp=Z,72nm,1.3s
MAKZ Makanchi 55.23 327 P P 19 28 26.3 -1.0
MAKZ IAmb IAmb 19 28 28.8
comp=Z,87nm,1.2s
MAKZ Makanchi 55.23 327 P P 19 28 27.7 +0.4
MAKZ PcP **PcP 19 29 18.8 -0.5**
MAKZ ScP **ScP 19 32 21.8 -1.2**
MDOK Medeo 56.08 321 *e*P **P 19 28 34.2 +0.7**
MDOK Medeo 56.08 321 *e*P **P 19 28 34.2 +0.7**
TNSS Tian-Shan 56.08 321 *e*P **P 19 28 34.2 +0.5**
TNSS Tian-Shan 56.08 321 *e*P **P 19 28 34.3 +0.5**
ULHL Ulahol 56.14 320 P P 19 28 35.2 +1.3
SNR=7.0
AAA Alma-Ata 56.19 321 *e*P **P 19 28 34.9 +0.8**
AAA pmax pmax
comp=Z,48nm,0.9s
AAA Alma-Ata 56.19 321 *e*P **P 19 28 34.9 +0.8**
comp=Z,48nm,0.9s
TDK Taldyqorghan 56.22 323 *d*iP **P 19 28 35.1 +0.9**
TDK pmax pmax
comp=Z,45nm,0.7s
TDK Taldyqorghan 56.22 323⇓ *i*P **P 19 28 35.1 +0.9**
comp=Z,45nm,0.7s
PEA0B Petropavlovsk- 56.67 24⇓ *e*P **P 19 28 37.3 +0.2**
PETK Petropavlovsk- 56.67 24 P P 19 28 38.0 +0.8
comp=Z,3.5nm,0.4s,baz=216,slow=7.9,SNR=32
comp=Z,3.5nm,0.4s
PETK Petropavlovsk- 56.67 24 P P 19 28 37.9 +0.8
PETK Petropavlovsk- 56.67 24 P P 19 28 37.9 +0.8
TKM2 Tokmak 2 56.88 320 P P 19 28 40.0 +1.0
SNR=29
KUU Kurty 56.90 321 *e*P **P 19 28 39.6 +0.7**
KUU Kurty 56.90 321 *e*P **P 19 28 39.6 +0.7**
KBK Karagaybulak 57.17 319 P P 19 28 42.3 +1.3
SNR=13
UCH Uchtor 57.26 319 P P 19 28 43.3 +1.4
SNR=37
AAK Ala-Archa 57.46 319 P P 19 28 44.4 +1.4
SNR=8.8
AAK Ala-Archa 57.46 319 *i*P **P 19 28 44.3 +1.4**
SNR=5.3
AAK Ala-Archa 57.46 319 *d*iP **P 19 28 43.6 +0.7**
AAK pmax pmax
comp=Z,30nm,1.0s
AAK Ala-Archa 57.46 319 P P 19 28 44.1 +1.2
AAK Ala-Archa 57.46 319 P P 19 28 44.1 +1.2
AAK PcP **PcP 19 29 28.9 +0.5**
CHMS Chumysh 57.46 320 P P 19 28 43.5 +0.7
SNR=6.1
USP Ospenovka 57.75 320 P P 19 28 45.5 +0.7
SNR=43
ARSB Arslanbob 57.87 317 IAmb IAmb 19 28 47.6
comp=Z,52nm,1.0s
DRK Karamyk 57.91 315 IAmb IAmb 19 28 48.2
comp=Z,62nm,0.9s
EKS2 Erkin-Say 57.94 319 P P 19 28 47.3 +1.2
SNR=23
YAK Yakutsk 58.04 4 *e*P **P 19 28 46.3 +0.1**
YAK *e* 19 29 29.0
YAK *e**PP **pP 19 30 37.1 -1.0**
YAK *e* 19 31 03.7
YAK *e*S **S 19 36 03.7 +0.6**
YAK *e* 19 37 33.0
YAK *e*SS **SS 19 40 08.8 +1.2**
YAK pmax pmax
comp=Z,21nm,0.8s
YAK pmax pmax
comp=N,4.0nm,1.1s
YAK pmax pmax
comp=E,2.0nm,1.0s
YAK pmax pmax
comp=N,90nm,4.4s
YAK pmax pmax
comp=E,15nm,1.9s
YAK pmax pmax
comp=Z,115nm,6.1s
YAK smax smax
comp=N,120nm,3.1s
YAK smax smax
comp=E,43nm,2.3s
YAK Yakutsk 58.04 4 P P 19 28 46.2 +0.1
KBL Kabul 58.17 308 P P 19 28 48.3 +0.3
SNR=20
KBL Kabul 58.17 308 P P 19 28 47.7 -0.3
KBL pmax pmax
comp=Z,48nm,0.7s
KBL Kabul 58.17 308 P P 19 28 47.7 -0.3
KBL IAmb IAmb 19 28 49.2
comp=Z,48nm,0.7s
ZALV Zalesovo Beam 58.52 335 P P 19 28 49.1 -0.5
comp=Z,9.9nm,0.5s,baz=124,slow=5.6,SNR=33
ZALV PcP **PcP 19 29 30.6 -1.6**
comp=Z,2.0nm,0.4s,baz=127,slow=3.9,SNR=3.9
ZALV PP **PP 19 31 07.4 -1.2**
comp=Z,0.6nm,0.3s,baz=113,slow=11,SNR=1.6
ZALV ScP **ScP 19 32 36.0 -1.3**
comp=Z,0.7nm,0.4s,baz=188,slow=2.9,SNR=1.5
ZALV S **S 19 36 07.3 -2.1**
comp=Z,6.6nm,1.0s,baz=129,slow=12,SNR=11
comp=Z,9.9nm,0.5s
ZALV Zalesovo Beam 58.52 335 *i*P **P 19 28 49.0 -0.6**
ZALV pmax pmax
comp=Z,10.0nm,0.5s
ZALV Zalesovo Beam 58.52 335 P P 19 28 48.3 -1.3
ZALV **PcP 19 29 30.4 -1.9**
KURBB Kurchatov Arra 59.34 329 P P 19 28 55.2 +0.1
comp=Z,39nm,0.7s,baz=133,slow=6.6,SNR=165
KURBB PcP **PcP 19 29 35.1 -0.5**
comp=Z,1.9nm,0.5s,baz=129,slow=4.6,SNR=4.1
KURBB S **S 19 36 17.4 -2.5**
comp=Z,1.8nm,0.9s,baz=142,slow=11,SNR=8.9
comp=Z,39nm,0.7s
KURBB Kurchatov Arra 59.34 329 P P 19 28 54.6 -0.6
KURBB pmax pmax
comp=Z,87nm,1.2s
KURK Kurchatov 59.35 329 *d*iP **P 19 28 55.3 +0.1**
KURK pmax pmax
comp=Z,98nm,0.9s
KURK Kurchatov 59.35 329 P P 19 28 55.4 +0.2
KURK IAmb IAmb 19 28 56.3
comp=Z,75nm,0.8s
KURK Kurchatov 59.35 329 P P 19 28 55.5 +0.2
MA2 Magadan 59.39 16⇑ *e*P **P 19 28 55.3 0.0**
MA2 pmax pmax
comp=Z,65nm,1.8s
DGTI Dogotuki 59.86 111 P P 19 29 00.5 +1.3
IUG Iuzhnay 60.22 317 *d*iP **P 19 29 02.0 +0.7**
IUG pmax pmax
comp=Z,31nm,0.5s
IUG Iuzhnay 60.22 317⇓ *i*P **P 19 29 02.1 +0.7**
comp=Z,31nm,0.5s
KK31 Karatay Array 60.29 318 P P 19 29 01.9 +0.2
KK31 IAmb IAmb 19 29 03.1
comp=Z,36nm,0.8s
KKAR Karatay Array 60.29 318 P P 19 29 01.5 -0.2
KKAR Karatay Array 60.29 318 P P 19 29 01.5 -0.2
CHM Chimkent 60.58 317 *e*P **P 19 29 04.4 +0.8**
CHM pmax pmax
comp=Z,22nm,0.5s
CHM Chimkent 60.58 317 *e*P **P 19 29 04.5 +0.8**
comp=Z,22nm,0.5s
NGCH Negor - Chabah 62.66 296 P P 19 29 17.9 +0.5
JLN Jalan Bani Buh 63.80 293 P P 19 29 24.1 -0.6
WBK Wadi Bani Khal 64.26 293 P P 19 29 27.0 -0.7
WSAR Wadi Sarin 64.64 294 P P 19 29 29.8 -0.3
BVAR Borovoye Array 64.89 328 P P 19 29 30.9 -0.2
comp=Z,16nm,0.6s,baz=137,slow=7.4,SNR=59
comp=Z,16nm,0.6s
BORK Borovoye 64.93 328 *d*iP **P 19 29 30.9 -0.4**
BORK pmax pmax
comp=Z,48nm,0.9s
BORK Borovoye 64.93 328 P 19 29 31.2 -0.1
BORK IAmb IAmb 19 29 32.3
comp=Z,47nm,1.0s
JMDO Jabal Madar 65.03 293 P P 19 29 32.2 -0.4
BIDO Bidbid 65.13 294 P P 19 29 33.3 +0.1
SMDO Samad 65.15 293 P P 19 29 32.8 -0.6
BKZ Black Stump Fm 65.54 136 P P 19 29 36.2 +0.8
RTZ Ruatahuna 65.62 136 P 19 29 35.8 -0.2
RTZ IAmb IAmb 19 29 37.9
comp=Z,39nm,0.9s
JASK Jask - Hormozg 65.66 296 P P 19 29 36.9 +0.5
HOQ Hoqain 65.89 294 P P 19 29 38.3 +0.5
BSY Bisya 65.90 293 P P 19 29 37.8 -0.2
ARQ Araqi 66.58 294 P P 19 29 42.0 -0.2
SOHO SOHO 66.65 294 P P 19 29 42.1 -0.4
SOHO SOHO 66.65 294 P P 19 29 42.2 -0.4
MDH Madha 66.99 296 P P 19 29 43.3 -1.4
MDH Madha 66.99 296 P P 19 29 43.2 -1.4
UOSS Minazif 67.04 295 P P 19 29 44.3 -0.6
UOSS Minazif 67.04 295 P P 19 29 44.5 -0.5
BANOM Banah 67.06 296 P P 19 29 45.3 +0.2
HATD Hatta, Dubai 67.09 295 *i*P **P 19 29 45.3 -0.1**
SNR=5.4
HATD Hatta, Dubai 67.09 295 P P 19 29 45.2 -0.1
MASF Masafi 67.13 296 P P 19 29 45.5 0.0
ASHO Ashiyiah 67.14 295 *i*P **P 19 29 45.4 -0.3**
SNR=6.4
ASHO Ashiyiah 67.14 295 P P 19 29 45.6 -0.1
SHME Shamm 67.22 296 P P 19 29 46.0 -0.1
ALNE Al Ain 67.36 294 *i*P **P 19 29 47.1 +0.2**
SNR=14
ALNE Al Ain 67.36 294 P P 19 29 46.9 0.0
SNR=8.5
NAZ Nazwa, Dubai 67.53 295 P P 19 29 47.8 -0.2
NAZ Nazwa, Dubai 67.53 295 P P 19 29 47.7 -0.2
FAQ Al Faqa, Dubai 67.57 295 P P 19 29 47.8 -0.4
TIXI Tiksi 67.58 2 P P 19 29 46.8 -0.5
TIXI pmax pmax
comp=Z,12nm,0.5s
TIXI Tiksi 67.58 2 P 19 29 46.8 -0.5
TIXI Tiksi 67.58 2 P P 19 29 46.8 -0.5
ASUD Al Ashush, Dub 67.80 295 P P 19 29 49.4 -0.1
ASUD Al Ashush, Dub 67.80 295 P P 19 29 50.1 +0.5
AJN Ajban 68.10 295 *i*P **P 19 29 51.5 +0.1**
SNR=6.8
AJN Ajban 68.10 295 P P 19 29 51.5 +0.1
WHFO Wadi Hawf 68.76 288 P P 19 29 54.6 -0.9
MZWR Madinat Zayed 69.03 294 P P 19 29 56.9 -0.1
NRIK Noril'sk 69.17 347 P P 19 29 56.9 -0.1
comp=Z,13nm,0.5s,baz=136,slow=6.4,SNR=17
comp=Z,13nm,0.5s
NRIK Noril'sk 69.17 347 *d*iP **P 19 29 56.9 -0.1**
NRIK pmax pmax
comp=Z,16nm,0.6s
ABTO Aybut 69.19 287 P P 19 29 57.2 -1.0
MZR Muzera 69.34 293 *i*P **P 19 29 59.1 +0.2**
SNR=28
MZR Muzera 69.34 293 P P 19 29 59.4 +0.5
SNR=6.1
AB31 Akbulak array 69.38 321 *i*P **P 19 29 58.0 -0.6**
AB31 pmax pmax
comp=Z,30nm,0.9s
AB31 Akbulak array 69.38 321 IAmb IAmb 19 29 59.5
comp=Z,26nm,0.8s
ABKAR Akbulak array 69.38 321 P 19 29 58.4 -0.2
JRN Qarnain Island 70.07 295 P P 19 30 03.2 0.0
AKTO Aktyubinsk 70.93 322 P P 19 30 07.8 +0.1
comp=Z,19nm,0.3s,baz=105,slow=3.8,SNR=94
comp=Z,19nm,0.3s
AKTO Aktyubinsk 70.93 322 P P 19 30 07.7 -0.1
AKTO pmax pmax
comp=Z,15nm,0.5s
SVE Sverdlovsk 71.60 329*ce*P **P 19 30 11.2 -0.3**
SVE *e*S **S 19 38 41.4 -3.6**
SVE pmax pmax
comp=Z,35nm,0.7s
DRV Dumont d'Urvil 71.67 173 P P 19 30 11.8 +0.2
ARTI Arti 72.61 328 P P 19 30 16.8 -0.5
comp=Z,16nm,0.7s,baz=115,slow=3.2,SNR=26
comp=Z,16nm,0.7s
ARTI Arti 72.61 328 *d*iP **P 19 30 16.2 -1.2**
ARTI S **S 19 38 55.2 -1.0**
ARTI pmax pmax
comp=Z,51nm,1.4s
ARTI Arti 72.61 328 P 19 30 16.4 -1.0
ARTI IAmb IAmb 19 30 17.4
comp=Z,90nm,1.5s
ARTI Arti 72.61 328 P P 19 30 16.4 -1.0
RAYN Ar Rayn 76.69 293 *i*P **P 19 30 40.4 -0.5**
SNR=38
RAYN Ar Rayn 76.69 293 P P 19 30 41.1 +0.1
RAYN Ar Rayn 76.69 293 ⇑P **P 19 30 41.2 +0.2**
RAYN Ar Rayn 76.69 293 P 19 30 40.6 -0.4
RAYN IAmb IAmb 19 30 42.0
comp=Z,34nm,0.9s
RAYN Ar Rayn 76.69 293 P P 19 30 40.6 -0.4
RAYN PcP **PcP 19 30 48.4 -1.0**
ABPO Ambohimpanom 77.70 250 *i*P **P 19 30 47.1 +0.4**
ABPO Ambohimpanom 77.70 250 P 19 30 46.3 -0.3
ABPO Ambohimpanom 77.70 250 P P 19 30 46.2 -0.5
BELG Belogornoye 77.71 323 P P 19 30 45.6 -0.2
comp=Z,78nm,0.9s,baz=3.4,slow=0.4,SNR=17
comp=Z,78nm,0.9s
BELG Belogornoye 77.71 323 *d*iP **P 19 30 44.8 -1.0**
BELG pmax pmax
comp=Z,14nm,0.9s
KIRV Kirov 77.87 329 P P 19 30 46.2 -0.3
comp=Z,26nm,0.6s,baz=114,slow=2.3,SNR=12
KIRV S **S 19 39 46.7 -5.9**
comp=Z,3.0nm,0.6s,baz=84,slow=20,SNR=9.2
comp=Z,26nm,0.6s
KIRV Kirov 77.87 329 *d*iP **P 19 30 45.8 -0.7**
GNI Garni 78.21 310 P P 19 30 49.3 +0.3
comp=Z,8.9nm,0.9s,baz=4.0,slow=22,SNR=4.5
comp=Z,8.9nm,0.9s
GNI Garni 78.21 310 *d*iP **P 19 30 49.4 +0.4**
GNI pmax pmax
comp=Z,26nm,1.0s
VOI Vohitsoka 78.55 247 P 19 30 50.5 -0.7
VOI IAmb IAmb 19 30 51.5
comp=Z,39nm,0.8s
OZAP Van, Ozalp-Mer 78.68 308 ⇑P **P 19 30 52.8 +1.2**
ATD Arta Tunnel 79.31 281 IAmb IAmb 19 30 57.3
comp=Z,29nm,0.8s
ATD Arta Tunnel 79.31 281 P P 19 30 56.3 +1.1
NCK Nalchik 79.33 313⇓ *i*P **P 19 30 54.6 -0.1**
NCK pmax pmax
comp=Z,26nm,1.1s
GEVA Gevas 79.39 308 IAmb IAmb 19 30 56.9
comp=Z,54nm,0.8s
KBZ Khabaz 79.85 314 P P 19 30 57.4 0.0
comp=Z,10nm,0.9s,baz=108,slow=2.6,SNR=14
KBZ S **S 19 40 09.2 -4.5**
comp=Z,0.7nm,0.9s,baz=358,slow=15,SNR=3.6
comp=Z,10nm,0.9s
KBZ Khabaz 79.85 314 *d*iP **P 19 30 57.0 -0.3**
NEUR Neytrino 79.96 313 *d*iP **P 19 30 58.4 +0.2**
NEUR pmax pmax
comp=Z,11nm,1.1s
KVAR Kislovodsk Arr 80.01 314 P P 19 30 59.4 +1.1
comp=Z,3.6nm,0.8s,baz=283,slow=21,SNR=3.0
comp=Z,3.6nm,0.8s
KIV Kislovodsk 80.02 314 *i*P **P 19 30 58.7 +0.3**
SNR=6.0
KIV Kislovodsk 80.02 314 ⇓P **P 19 30 59.2 +0.8**
KIV Kislovodsk 80.02 314 P 19 30 57.5 -0.9
KIV Kislovodsk 80.02 314 ⇓P **P 19 30 59.2 +0.8**
KIV Kislovodsk 80.02 314 P P 19 30 58.2 -0.2
comp=Z,16nm,1.3s
KIV Kislovodsk 80.02 314 P P 19 30 59.5 +1.1
comp=Z,16nm,1.3s
KIV Kislovodsk 80.02 314 P P 19 30 58.0 -0.3
GURO Guroymak-BITLI 80.20 308 IAmb IAmb 19 31 01.5
comp=Z,67nm,1.0s
HOMI Horasan 80.37 310 ⇑P **P 19 31 01.6 +1.1**
VRH Novokhopyorsk 81.20 321 *d*iP **P 19 31 03.4 -0.8**
VRH pmax pmax
comp=Z,40nm,0.6s
KOPT Kop Dagi 81.45 310 IAmb IAmb 19 31 08.4
comp=Z,43nm,1.4s
G19K Purcell Mounta 82.30 24 IAmb IAmb 19 31 11.5
comp=Z,60nm,1.8s

E19K	Redstone River	82.41	23		P		19 31 11.6	+1.5
H19K	Roundabout Mou	82.48	25		P		19 31 11.3	+1.0
VORD	Divnogorie	82.72	321	⇑*i*P	P		19 31 11.2	-0.7
VORD				pmax	pmax			
	comp=Z,30nm,0.7s							
MAW	Mawson	82.74	200	P	P		19 31 12.6	+1.0
	comp=Z,4.4nm,2.2s							
MAW	Mawson	82.74	200	P	P		19 31 12.1	+0.5
	comp=Z,12nm,0.9s,baz=58,slow=4.9,SNR=8.4							
	comp=Z,12nm,0.9s							
MAW	Mawson	82.74	200	P	P		19 31 11.9	+0.3
MAW				pmax	pmax			
	comp=Z,4.0nm,1.1s							
MAW	Mawson	82.74	200	P	P		19 31 11.9	+0.3
VORR	Voronezh	82.80	321	*e*P	P		19 31 11.7	-0.6
VORR				pmax	pmax			
	comp=Z,80nm,0.6s							
VSR	Storozhevoye	82.81	321	*e*P	P		19 31 11.5	-0.8
VSR				pmax	pmax			
	comp=Z,50nm,0.9s							
LPSR	Galich'ya Gora	83.02	322	*d i*P	P		19 31 12.9	-0.4
LPSR				pmax	pmax			
	comp=Z,90nm,0.8s							
KLMR	Klimovskoe	83.15	331	*e*P	P		19 31 11.6	-2.2
KLMR				pmax	pmax			
	comp=Z,76nm,1.0s							
ANN	Anapa	83.82	314	*e*P	P		19 31 16.3	-1.2
MOS	Moscow	83.89	325	*e*P	P		19 31 16.5	-1.1
MOS				*e**PP	pP		19 33 19.9	-1.7
MOS				*e*S	SKSac		19 40 47.6	+2.0
MOS				pmax	pmax			
	comp=Z,68nm,1.1s							
GAZ	Gaziantep	84.00	307	IAmb	IAmb		19 31 20.1	
	comp=Z,54nm,1.1s							
VNDA	Vanda	84.31	172	P	P		19 31 19.5	+0.3
	comp=Z,2.7nm,0.7s,baz=326,slow=5.6,SNR=22							
VNDA				SKKPbc	SKKPbc		19 52 10.1	-4.9
	comp=Z,0.7nm,0.8s,baz=74,slow=7.2,SNR=5.2							
	comp=Z,2.7nm,0.7s							
VNDA	Vanda	84.31	172	P	P		19 31 19.3	+0.1
VNDA				pmax	pmax			
	comp=Z,4.0nm,1.1s							
VNDA	Vanda	84.31	172		P		19 31 19.3	+0.1
VNDA	Vanda	84.31	172	P	P		19 31 19.5	+0.3
ASF	Jabal al Asfar	84.33	302	P	P		19 31 20.9	+0.5
	comp=Z,40nm,0.9s,baz=90,slow=1.6,SNR=45							
	comp=Z,40nm,0.9s							
ASF	Jabal al Asfar	84.33	302	P	P		19 31 21.7	+1.2
ASF				AML	AML			
OBN	Obninsk	84.48	325	P	P		19 31 19.7	-0.7
	comp=Z,16nm,0.3s,baz=179,slow=3.7,SNR=10							
	comp=Z,16nm,0.3s							
OBN	Obninsk	84.48	325	*d i*P	P		19 31 19.8	-0.7
OBN				*e**PP	pP		19 33 24.2	-0.5
OBN				*e**SP	sP		19 34 23.1	-0.2
OBN				*e*			19 34 45.4	
OBN				pmax	pmax			
	comp=Z,59nm,1.0s							
OBN	Obninsk	84.48	325		P		19 31 20.0	-0.5
OBN	Obninsk	84.48	325	P	P		19 31 19.8	-0.7
	comp=Z,58nm,1.1s							
TOKA	Tokat	84.53	310	IAmb	IAmb		19 31 22.4	
	comp=Z,36nm,1.0s							
KIBK	Kibwezi	84.89	267	P	P		19 31 24.5	+1.0
	SNR=7.6							
KIBK	Kibwezi	84.89	267	IAmb	IAmb		19 31 25.4	
	comp=Z,37nm,1.1s							
HSUJ	Al Zarqa	84.93	302	P	P		19 31 24.8	+1.5
HSUJ				AML	AML			
SWQJ	Karak	85.03	301	P	P		19 31 26.0	+1.9
SWQJ				AML	AML			
BNN	Bunyan	85.05	308	IAmb	IAmb		19 31 24.9	
	comp=Z,22nm,1.0s							
GEM	Giv'at Ha'Em	85.35	303	P	P		19 31 26.8	+1.6
GEM				AML	AML			
HSNJ	Maan	85.43	300	P	P		19 31 27.5	+1.7
HSNJ				AML	AML			
QRNJ	Al-Qirein	85.45	302	P	P		19 31 27.0	+1.3
QRNJ				AML	AML			
GHAJ	Ghor Haditha	85.49	301	P	P		19 31 26.8	+0.9
GHAJ				AML	AML			
LISJ	El Lisan	85.57	301	P	P		19 31 28.0	+1.8
LISJ				AML	AML			
MMAI	Mount Meron Ar	85.57	303	P	P		19 31 27.5	+1.1
	comp=Z,5.0nm,0.5s,baz=48,slow=12,SNR=13							
	comp=Z,5.0nm,0.5s							
KMBO	Kilima Mbogo	85.59	269	*i*P	P		19 31 27.8	+0.7
	SNR=22							
KMBO	Kilima Mbogo	85.59	269	P	P		19 31 27.9	+0.7
SALP	Salfit	85.78	302	P	P		19 31 28.7	+1.3
SALP				AML	AML			
HRFI	Mount Harif	86.00	300	P	P		19 31 29.3	+0.9
HRFI				AML	AML			
AQBJ	Aqaba	86.00	299	P	P		19 31 29.8	+1.4
AQBJ				AML	AML			
PRNI	Paran	86.01	300	P	P		19 31 29.5	+1.0
PRNI				AML	AML			
EIL	Elat	86.09	299	P	P		19 31 29.7	+0.9
EIL				AML	AML			
SIM	Simferopol'	86.17	315	*e*P	P		19 31 29.8	+0.9
SIM				pmax	pmax			
	comp=Z,24nm,0.7s							
ILAR	Eielson Array	86.48	25	P	P		19 31 29.0	-0.9
	comp=Z,0.4nm,0.5s,baz=248,slow=4.7,SNR=5.8							
ILAR	Eielson Array	86.48	25	P	P		19 31 28.8	-1.1
ILAR	Eielson Array	86.48	25	P	P		19 31 28.8	-1.1
KZIT	Kziot	86.51	301	P	P		19 31 31.7	+0.9
BR104	Keskin Array S	86.73	309	P	P		19 31 30.5	-1.3
	comp=Z,4.6nm,0.9s							
BR131	Keskin Array S	86.73	309	*c i*P	P		19 31 30.9	-0.9
BRTR	Keskin Array B	86.73	309	P	P		19 31 30.8	-1.1
	comp=Z,3.5nm,0.9s,baz=111,slow=5.4,SNR=14							
BRTR				PP	PP		19 35 07.4	+2.3
	comp=Z,1.3nm,0.9s,baz=123,slow=6.1,SNR=5.0							
	comp=Z,3.5nm,0.9s							
BRTR	Keskin Array B	86.73	309	*i*P	P		19 31 30.7	-1.1
BRTR				pmax	pmax			
	comp=Z,3.0nm,0.8s							
BR106	Keskin Array S	86.75	309	P	P		19 31 29.9	-2.0
	comp=Z,5.2nm,0.8s							
BR105	Keskin Array S	86.75	309	P	P		19 31 30.5	-1.4
	comp=Z,7.0nm,0.9s							
LODK	Lodwar	87.16	273	P	P		19 31 34.6	+0.3
	SNR=6.2							
CSS	Mathiatis	87.21	305	IAmb	IAmb		19 31 34.5	
	comp=Z,14nm,0.8s							
CSS	Mathiatis	87.21	305	P	P		19 31 33.4	-0.6
	comp=Z,20nm,1.2s							
PUL	Pulkovo	87.72	330	⇓*e*P	P		19 31 35.7	-0.1
PUL				pmax	pmax			
	comp=Z,48nm,0.8s							
KEPZ	Antalya-Kepez	88.49	307	⇑P	P		19 31 38.9	-1.1
ARCES	ARCESS Array B	88.73	340	P	P		19 31 39.1	-1.2
	comp=Z,4.2nm,0.7s,baz=87,slow=5.4,SNR=16							
	comp=Z,4.2nm,0.7s							
ARCES	ARCESS Array B	88.73	340	P	P		19 31 39.0	-1.3
ARCES				pmax	pmax			
	comp=Z,116nm,2.0s							
ARCES	ARCESS Array B	88.73	340	P	P		19 31 39.0	-1.3
PPT2	Papeete2	89.01	108	*e*S	S		19 41 45.5	+2.2
	comp=Z,38nm,26.8s							
PPT2				*e*sS	sS		19 45 19.1	-6.6
	comp=Z,65nm,26.0s							
PPT2				*e*LR	LR		20 00 58.4	
	comp=Z,43nm,23.8s							
AK09	Malin Array Si	89.07	321	P	P		19 31 40.6	-1.7
AK08	Malin Array Si	89.09	321	P	P		19 31 40.7	-1.7
AK10	Malin Array Si	89.09	320	P	P		19 31 40.8	-1.6
AK03	Malin Array Si	89.10	321	P	P		19 31 40.8	-1.6
AKASG	Malin Array Be	89.10	321	P	P		19 31 41.2	-1.2
	comp=Z,4.4nm,0.7s,baz=74,slow=4.1,SNR=14							
AKASG				PP	PP		19 35 22.7	-0.6
	comp=Z,0.2nm,0.2s,baz=77,slow=6.3,SNR=2.0							
	comp=Z,4.4nm,0.7s							
AKBB	Malin Array Si	89.10	321	⇓*i*P	P		19 31 41.0	-1.4
AKBB				pmax	pmax			
	comp=Z,10.0nm,1.0s							
AK01	Malin Array Si	89.11	321	P	P		19 31 40.7	-1.8
KIEV	Kiev	89.11	321	⇓P	P		19 31 41.8	-0.7
KIEV	Kiev	89.11	321		P		19 31 40.7	-1.8
KIEV	Kiev	89.11	321	⇓P	P		19 31 41.8	-0.7
AK02	Malin Array Si	89.12	321	P	P		19 31 40.7	-1.8
AK05	Malin Array Si	89.12	321	P	P		19 31 41.1	-1.4
AK06	Malin Array Si	89.13	320	P	P		19 31 41.1	-1.5
AK07	Malin Array Si	89.13	320	P	P		19 31 41.1	-1.4
AK11	Malin Array Si	89.14	321	P	P		19 31 41.2	-1.4
AK12	Malin Array Si	89.15	321	P	P		19 31 40.9	-1.8
AK16	Malin Array Si	89.18	321	P	P		19 31 41.3	-1.5
SPITS	Spitsbergen Ar	89.35	349	P	P		19 31 42.7	-0.4
	comp=Z,7.8nm,0.4s,baz=96,slow=7.6,SNR=27							
	comp=Z,7.8nm,0.4s							
MNK	Minsk	89.53	324	*i*P	P		19 31 43.3	-1.0
MNK				*i* *PP	pP		19 33 49.1	-1.2
MNK				*i*			19 35 22.8	
MNK				*i* PPP	PPP		19 37 28.2	
MNK				*i* S	SKSac		19 41 17.9	-1.6
MNK				*i* PS			19 41 46.5	
MNK				pmax	pmax			
	comp=Z,32nm,0.9s							
MNK				pmax	pmax			
	comp=N,8.0nm,0.9s							
MNK				pmax	pmax			
	comp=E,12nm,0.9s							
MNK	Minsk	89.53	324	*i*P	P		19 31 43.3	-1.0
	comp=E,12nm,0.9s							
MNK				*i*P	P		19 31 43.3	-1.0
	comp=N,8.0nm,0.9s							
MNK				*i*P	P		19 31 43.3	-1.0
	comp=Z,32nm,0.9s,baz=84							
MNK				*i* pP	pP		19 33 49.2	-1.2
MNK				*i* sP	sP		19 34 43.8	-4.7
MNK				*i* PP	PP		19 35 22.8	-3.6
MNK				*i* PPP	PPP		19 37 28.3	
MNK				*i* SKS	SKiKP		19 39 54.1	+36
MNK				*i* S	SKSac		19 41 17.9	-1.6
MNK				*i* PS			19 41 46.5	
MNK				*i* sS	sS		19 45 16.8	-14
MNK				*i* SS	sS		19 48 50.1	+50
FINES	FINESS Array B	89.63	331	P	P		19 31 43.6	-1.0
	comp=Z,8.4nm,0.6s,baz=55,slow=5.7,SNR=35							
	comp=Z,8.4nm,0.6s							
FINES	FINESS Array B	89.63	331	P	P		19 31 43.5	-1.2
VSU	Vasula	89.69	328	⇑*e*P	P		19 31 46.0	+1.0
VSU				pmax	pmax			
	comp=Z,63nm,3.0s							
TLCR		89.90	315	⇓P	P		19 31 45.9	-0.3
TLCR		89.90	315	⇓P	P		19 31 45.9	-0.3
SORM	Soroca	89.92	318	⇓P	P		19 31 45.3	-1.0
SORM	Soroca	89.92	318	⇓P	P		19 31 45.3	-1.0
SORM	Soroca	89.92	318	P	P		19 31 44.8	-1.5
	comp=Z,21nm,1.0s							
LUBAR	Lubar, Ukraine	90.12	320	P	P		19 31 45.7	-1.5
CFR	Carcaliu	90.38	315	⇑P	P		19 31 47.8	-0.7
CFR	Carcaliu	90.38	315	⇑P	P		19 31 47.8	-0.7
RNPP9	Sopachiv	91.11	322	P	P		19 31 51.0	-0.7
KMPD	K-Podol'skiy	91.13	319	P	P		19 31 50.5	-1.3
RNPP8	Varash	91.14	321	P	P		19 31 50.8	-1.0
TESR	Tescani	91.26	317	⇑P	P		19 31 52.0	-0.5
TESR	Tescani	91.26	317	P	P		19 31 51.8	-0.7
	comp=Z,33nm,1.2s							
INK	Inuvik	91.27	21	PKKP			19 49 08.8	
	comp=Z,0.6nm,0.9s,baz=149,slow=2.3,SNR=3.8							
VRI	Vrincioaia	91.29	316	⇑P	P		19 31 52.8	+0.1
VRI	Vrincioaia	91.29	316	⇑P	P		19 31 52.8	+0.1
SAHR	Sahastru	91.33	316	⇑P	P		19 31 53.0	0.0
PLOR	Plostina	91.34	316	⇓P	P		19 31 53.1	+0.2
ONER	Baraj Valea Uz	91.46	316	⇑P	P		19 31 53.1	-0.3
BIZ	Bicaz	91.58	317	⇑P	P		19 31 53.9	-0.1
TURR	Turia	91.75	316	⇑P	P		19 31 53.6	-1.2
MLR	Muntele Rosu	91.88	316	P	P		19 31 54.0	-1.6
	comp=Z,8.2nm,0.9s,baz=253,slow=3.9,SNR=9.3							
	comp=Z,8.2nm,0.9s							
MLR	Muntele Rosu	91.88	316	⇑P	P		19 31 54.7	-0.9
MLR	Muntele Rosu	91.88	316	IAmb	IAmb		19 31 55.9	
	comp=Z,8.9nm,0.8s							
MLR	Muntele Rosu	91.88	316	⇑P	P		19 31 54.7	-0.9
MLR	Muntele Rosu	91.88	316	P	P		19 31 54.9	-0.7
	comp=Z,15nm,1.2s							
BURAR	Bucovina Array	92.08	318	⇑P	P		19 31 56.6	+0.2
BURAR	Bucovina Array	92.08	318		P		19 31 55.9	-0.5
BURAR				IAmb	IAmb		19 31 57.5	
	comp=Z,19nm,0.9s							
BURAR	Bucovina Array	92.08	318	⇑P	P		19 31 56.6	+0.2
BUR08	Bucovina Ar. S	92.09	318	IAmb	IAmb		19 31 57.2	
	comp=Z,14nm,0.8s							
DOPR	Dopca	92.20	316	⇑P	P		19 31 55.7	-1.2
ELND	Elena	92.27	313	⇑P	P		19 31 56.6	-0.7
SUW	Suwalki	92.33	324	*e*P	P		19 31 56.2	-1.0
POGA	Pongola	92.78	243		P		19 31 59.1	-0.8
ARR	Arges	92.81	316	⇓P	P		19 31 58.6	-1.1
KWP	Kalwaria Pacla	93.40	320	P	P		19 32 01.8	-0.5
	comp=Z,28nm,1.1s							
LOT	Lotru	93.40	316	⇓P	P		19 32 01.8	-0.7
MARR	Marisel-Cluj	93.64	317	⇓P	P		19 32 02.9	-0.7
DRGR		93.90	317	⇑P	P		19 32 04.0	-0.7
DRGR		93.90	317	⇑P	P		19 32 04.0	-0.7
QSPA	South Pole Qui	94.00	180	P	P		19 32 04.8	+0.1
	comp=Z,1.4nm,0.6s,baz=270,slow=0.8,SNR=10							
	comp=Z,1.4nm,0.6s							
QSPA	South Pole Qui	94.00	180	P	P		19 32 04.4	-0.3
QSPA				IAmb	IAmb		19 32 08.2	
	comp=Z,28nm,1.9s							
BLKB	Belogradchik	94.47	314	⇑P	P		19 32 06.5	-0.9
SIRR	Siria	94.71	317	⇑P	P		19 32 07.8	-0.6
BZS	Buzias	94.86	316	⇑P	P		19 32 07.9	-1.1
BZS	Buzias	94.86	316	⇑P	P		19 32 07.9	-1.1
NIE	Niedzica	94.98	320	P	P		19 32 09.3	-0.2
	comp=Z,347nmcomp=Z,4.1nm,1.3s							
OJC	Ojcow	95.12	321	*e*P	P		19 32 09.6	-0.5
OJC	Ojcow	95.12	321	P	P		19 32 09.8	-0.3
PSZ	Piszkesteto	95.56	319	IAmb	IAmb		19 32 12.5	
	comp=Z,13nm,1.3s							
HFS	Hagfors	95.83	332	P	P		19 32 11.4	-1.7
	comp=Z,1.9nm,0.4s,baz=104,slow=6.3,SNR=11							
	comp=Z,1.9nm,0.4s							
MORC	Moravsky Berou	96.64	321	IAmb	IAmb		19 32 17.8	
	comp=Z,7.0nm,1.0s							
NB2	NORSAR Subarra	96.68	333	P	P		19 32 14.9	-2.0
	comp=Z,1.0nm,0.6s,baz=66,slow=4.8							
NOA	NORSAR Array B	96.68	333	P	P		19 32 15.3	-1.6
	comp=Z,3.1nm,0.9s,baz=69,slow=4.5,SNR=4.8							
	comp=Z,3.1nm,0.9s							
MORH	Mrgy, Hungar	96.77	317	⇓P	P		19 32 16.6	-0.9
ELIB	Princess Elisa	96.78	198	*d*P	P		19 32 18.6	+1.4
	comp=Z,3.8nm,1.2s							
TAOE	Nuku Hiva Isla	97.62	98	*e*LR	LR		20 04 57.2	
	comp=Z,180nm,28.1s							
GERES	GERESS Array B	99.32	321	P	Pdif		19 32 28.3	-0.6
	comp=Z,1.2nm,0.7s,baz=73,slow=4.5,SNR=7.3							
GERES				PP	PP		19 36 42.0	+0.6
	comp=Z,0.5nm,0.8s,baz=76,slow=6.8,SNR=2.2							
	comp=Z,1.2nm,0.7s							
GERES	GERESS Array B	99.32	321	P	Pdif		19 32 27.9	-1.1
GERES	GERESS Array B	99.32	321		Pdif		19 32 27.9	-1.1
DOU	Dourbes	104.42	324	*d*PKP	PP		19 37 18.9	+0.1
KEST	Kesra	106.33	309	PP	PP		19 37 33.0	-0.3
	comp=Z,6.0nm,1.1s,baz=357,slow=6.5,SNR=4.3							
NVAR	Mina Array Bea	109.59	47	PP	PP		19 37 57.2	+0.5
	comp=Z,0.1nm,0.3s,baz=306,slow=6.7,SNR=1.5							
NVAR				PKKPbc	PKKPbc		19 48 19.8	-1.7
	comp=Z,0.7nm,0.7s,baz=149,slow=3.4,SNR=5.2							
NVAR				PKKP	PKKPab		19 48 33.8	-1.5
	comp=Z,0.1nm,0.3s,baz=79,slow=8.0,SNR=4.2							
PDAR	Pinedale Array	113.65	40	PKiKP	PKiKP		19 37 22.0	0.0
	comp=Z,0.2nm,0.3s,baz=304,slow=3.1,SNR=2.6							
PDAR				PKKPbc	PKKPbc		19 48 05.7	-2.9
	comp=Z,0.4nm,0.5s,baz=112,slow=7.4,SNR=6.0							
PDAR				PKKPab	PKKPab		19 48 15.1	-2.2
	comp=Z,1.6nm,0.8s,baz=123,slow=5.9,SNR=14							
ESDC	Sonseca Array	114.53	317	PKP	PKiKP		19 37 23.6	+0.1
	comp=Z,0.2nm,0.3s,baz=68,slow=2.3,SNR=2.4							
ESDC				PP	PP		19 38 30.5	-0.5
	comp=Z,0.9nm,0.9s,baz=61,slow=7.0,SNR=5.2							
ESDC	Sonseca Array	114.53	317		PKiKP		19 37 23.3	-0.2
TORD	Torodi Ar. Bea	119.03	287	PKP	PKPdf		19 37 31.9	-0.8
	comp=Z,3.0nm,0.4s,baz=53,slow=1.6,SNR=9.7							
TORD				SKP	SKPdf		19 40 12.6	-1.2
	comp=Z,1.5nm,0.6s,baz=205,slow=9.8,SNR=3.6							
SCHQ	Schefferville	120.75	6	PKP	PKiKP		19 37 34.9	-0.2
	comp=Z,3.9nm,0.8s,baz=259,slow=2.4,SNR=4.3							
TXAR	Lajitas Array	124.47	50	PKP	PKiKP		19 37 43.5	+0.2
	comp=Z,0.3nm,0.7s,baz=305,slow=4.0,SNR=2.6							
TXAR				SKP	SKPdf		19 40 23.2	-0.7
	comp=Z,0.4nm,0.7s,baz=70,slow=0.5,SNR=4.0							
TXAR				PKKPbc	PKKPbc		19 47 28.7	-0.6
	comp=Z,0.7nm,0.8s,baz=120,slow=7.4,SNR=6.1							
TXAR	Lajitas Array	124.47	50	PKiKP	PKPdf		19 37 42.7	-0.3
TXAR	Lajitas Array	124.47	50		PKPdf		19 37 42.7	-0.3
S39A	Bolivar	126.62	36		PKPdf		19 37 44.2	-2.5
DBIC	Dimbokro	126.62	281	PKP	PKPdf		19 37 46.9	-0.4
	comp=Z,8.4nm,0.8s,baz=111,slow=4.3,SNR=11							
DBIC				SKP	SKPdf		19 40 27.6	-0.7
	comp=Z,1.5nm,0.6s,baz=123,slow=4.6,SNR=3.3							
DBIC	Dimbokro	126.62	281	PKiKP	PKPdf		19 37 46.2	-1.1
DBIC	Dimbokro	126.62	281		PKPdf		19 37 46.2	-1.1
PLCA	Paso Flores	141.60	164	PKhKP	PKPpre		19 38 11.2	
	comp=Z,2.2nm,0.8s,baz=289,slow=8.1,SNR=3.3							
BI02	San Fabin de	145.11	160		PKPdf		19 38 20.4	-0.5
BO02	Sierra Bellavi	146.97	159		PKPbc		19 38 27.4	+0.4
BO01	Tunca	147.22	159		PKPbc		19 38 26.1	-1.5
MT02	Curacav	148.21	158		PKPdf		19 38 25.9	-0.2
CFA	Coronel Fontan	150.75	161	PKPbc	PKiKP		19 38 36.4	-0.4
	comp=Z,5.2nm,0.4s,baz=224,slow=2.4,SNR=14							
LPAZ	La Paz	163.84	139	PKP	PKPdf		19 38 47.7	+0.5
	comp=Z,2.6nm,0.9s,baz=70,slow=2.1,SNR=6.7							
BDFB	Brasilia	165.36	218	PKP	PKPdf		19 38 47.8	-0.1
	comp=Z,1.7nm,0.4s,baz=241,slow=6.6,SNR=2.3							
BDFB	Brasilia	165.36	218	PKiKP	PKPdf		19 38 46.3	-1.6
BDFB							19 39 49.4	
BDFB	Brasilia	165.36	218		PKPdf		19 38 46.3	-1.6
BDFB					PKPab		19 39 49.4	-0.4
SIV	San Ignacio	167.59	163	PKP	PKPdf		19 38 49.1	-0.4
	comp=Z,2.7nm,0.8s,baz=26,slow=1.3,SNR=8.8							
SMTB	Santa Maria do	169.30	243		PKPab		19 40 06.5	-0.9

IDC ***12*** *19:54:10.4±0.8,21°.43N×121°.91E,h0km,mb3.8/14, mbtmp3.9/17,ML3.8/3,MS3.5/32,Error ellipse: s-maj=19.5km s-min=17.0km az=104.0*

JMA ***12*** *19:54:11.3±0.4,22°.2N×121°.9E±0°.6,h8km,MV4.4/20, TAIWAN REGION*

NIED ***12*** *19:54:11.3,21°.72N×121°.86E,h8km,MW4.4,Moment Tensor Solution. s2 Moment tensor: Scale 10^15Nm; Mrr-0.11; Mθθ2.75; Mφφ-2.64; Mrθ3.29; Mθφ-2.10; Mφr-1.07; Fault plane solution: M0 4.47000×10^15 NP1: φs159.00000°,δ67.00000°,λ22.00000°. NP2:φs60.00000°, δ70.00000°,λ155.00000°.*

NEIC ***12*** *19:54:12.1±2.2,21°.61N±0°.05×121°.96E±0°.05,h10km±1km, mb4.1/10 Error ellipse: s-maj=11.1km s-min=2.9km az=138.0*

TAP ***12*** *19:54:12.1,21°.51N×121°.84E,h23km,ML4.5,D*

MAN ***12*** *19:54:14.0,21°.24N×121°.98E,h1km,MS4.0*

ISC 12 19:54:10.6±1.6,21°.59N±0°.04×121°.91E±0°.04,h1km±10km, n191,σ1°$36°/177,mb3.9/17,MS3.5/30,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
LYUB	Lan-yu	0.51	323	*e*P		Pb	19 54 23.4	+0.9
LYUB				S		Sb	19 54 31.0	+0.6
LAY	Lan-yu	0.56	323	*e*P		Pb	19 54 23.1	-0.1
LAY				*e*S		Sb	19 54 30.8	-1.0
SMST	Manzhou Townsh	1.09	293	*e*P		Pg	19 54 30.8	-0.7
SMST				*e*S		Sg	19 54 45.3	-0.4
HEN	Hengchun	1.17	291	*e*P		Pg	19 54 32.8	-0.3
TAW	Tawu	1.22	309	*e*P		Pb	19 54 33.3	-1.1
TAW				S		Sg	19 54 48.7	-1.0
EAST	Anshuo	1.27	309	*e*P		Pn	19 54 33.6	-2.0
EAST				S		Sb	19 54 51.0	-1.1
ECL	Taimali	1.34	319	*e*P		Pn	19 54 35.3	-1.2
TTN	Taitung	1.36	329	*e*P		Pg	19 54 37.6	+0.9
SCZT	Fangliau	1.43	303	*e*P		Pn	19 54 36.2	-1.6
TWGBT	Beinan	1.45	328	*e*P		Pn	19 54 37.1	-0.9
TWG	Pinlang	1.45	328			Pn	19 54 36.5	-1.5
TWG	Pinlang	1.45	328	*e*P		Pn	19 54 36.9	-1.1
SSPT	Xinbi	1.53	306	*e*P		Pb	19 54 40.0	+0.1
MASBT	Mashibuluo	1.56	311	*e*P		Pn	19 54 38.6	-1.0
CHKT	Chengkung	1.59	341	P		Pn	19 54 37.8	-2.1
ECS	Chishang	1.63	337	*e*P		Pn	19 54 40.3	-0.2
SSD	Sandimen	1.66	314	*e*P		Pb	19 54 41.7	-0.2
CHKH	Chenggong	1.67	343	*e*P		Pn	19 54 39.2	-1.8
EHD	Haiduan	1.69	337	*e*P		Pn	19 54 40.2	-1.0
FULB	Fuli	1.70	340	*e*P		Pn	19 54 41.8	+0.3
ELDTW	Lidau	1.80	333	P		Pn	19 54 42.5	-0.3
SLGT	Liugui	1.82	320	*e*P		Pb	19 54 44.6	-0.2
TWF1	Yuli	1.84	342	*e*P		Pn	19 54 43.7	+0.3
TWM1	Shoushan	1.85	312	*e*P		Pb	19 54 45.5	+0.3
YULB	Yu-li	1.88	343			Pn	19 54 42.5	-1.5
YULB	Yu-li	1.88

JJJ	**Ishigaki jima**	**3.44**	**36**	P		**Pn**	**19 55 05.8**	**+0.4**
JJJ				S		**Sn**	**19 55 44.4**	**-2.4**
PIP	**Pasuquin**	**3.47**	**201**	*eP*		**Pn**	**19 55 05.3**	**-0.4**
PIP				*eS*		**Sn**	**19 55 46.2**	**-1.2**
SXI1	**Grass Mountain**	**3.49**	**359**	*eP*		**Pn**	**19 55 07.7**	**+1.6**
YM01	**YM01**	**3.56**	**355**	*eP*		**Pn**	**19 55 10.3**	**+3.3**
ZUZH	**Zhuzihu**	**3.57**	**355**	*eP*		**Pn**	**19 55 09.8**	**+2.5**
ANP	**Anpu**	**3.60**	**354**	*eP*		**Pn**	**19 55 08.6**	**+0.9**
JISG	**Ishigakijimahi**	**3.71**	**36**	P		**Pn**	**19 55 09.3**	**+0.2**
JISG				*eS*		**Sn**	**19 55 52.2**	**-1.3**
JTJ	**Tarama**	**3.98**	**40**	P		**Pn**	**19 55 13.5**	**+0.8**
JTJ				*eS*		**Sn**	**19 55 58.8**	**-1.2**
VWUC	**VWUC**	**4.07**	**327**	*eP*		**Pn**	**19 55 15.4**	**+1.4**
SZP	**Santa**	**4.25**	**199**	Pn		**Pn**	**19 55 17.7**	**+1.3**
PTMZ	**Houxiangcun**	**4.29**	**324**	*eP*		**Pn**	**19 55 19.6**	**+2.6**
KNMB	**Chin-men Tao**	**4.33**	**312**	Pn		**Pn**	**19 55 17.7**	**+0.1**
KNMB	**Chin-men Tao**	**4.33**	**312**	*eP*		**Pn**	**19 55 19.3**	**+1.8**
JIRJ	**Irabujima**	**4.42**	**42**	*eP*		**Pn**	**19 55 19.0**	**+0.2**
JIRJ				S		**Sn**	**19 56 09.4**	**-1.5**
JMJ2	**Miyako jima3**	**4.44**	**44**	*eP*		**Pn**	**19 55 19.3**	**+0.2**
JMJ2				S		**Sn**	**19 56 09.9**	**-1.5**
ZPLA	**Ao Xicun**	**4.49**	**302**	*eP*		**Pn**	**19 55 19.2**	**-0.6**
JOGS	**Gusukube**	**4.50**	**45**	*eP*		**Pn**	**19 55 19.8**	**-0.2**
JOGS				*eS*		**Sn**	**19 56 12.3**	**-0.7**
JIKM	**Ikemajima**	**4.52**	**42**	*eP*		**Pn**	**19 55 20.5**	**+0.3**
JIKM				*eS*		**Sn**	**19 56 12.6**	**-0.7**
MATB	**Ma-tsu**	**4.89**	**339**	*eP*		**Pn**	**19 55 26.5**	**+1.3**
AXDP	**Jialang**	**4.90**	**313**	*eP*		**Pn**	**19 55 26.2**	**+0.8**
LYJJ	**Jianjiangzhen**	**5.32**	**339**	*eP*		**Pn**	**19 55 31.1**	**-0.1**
HKPS	**Hong Kong Po S**	**7.25**	**277**	Pn		**Pn**	**19 55 57.7**	**0.0**
LQP	**Lukban**	**7.45**	**183**	*eP*		**Pn**	**19 56 04.7**	**+4.1**
GQP	**Guinayangan**	**7.66**	**176**	*eP*		**Pn**	**19 56 05.9**	**+2.5**
GQP				*eS*		**Sn**	**19 57 26.4**	**-4.4**
JOW	**Kunigami**	**7.81**	**47**	Pn		**Pn**	**19 56 05.2**	**-0.2**
	3.5nm,0.3s,baz=130,slow=27,SNR=1.2 12nm,0.5s							
JOW				AML	AML			
JOW	**Kunigami**	**7.81**	**47**			**Pn**	**19 56 04.3**	**-1.0**
JNU	**Nakatsue**	**13.97**	**33**	Pn		**Pn**	**19 57 30.9**	**+1.1**
	0.4nm,0.3s,baz=232,slow=20,SNR=1.6							
JNU				LR	LR		20 03 10.4	
	comp=Z,243nm,18.4s,baz=194,slow=38 3.6nm,0.8s							
JNU				AML	AML			
KSRS	**Korea Array**	**16.65**	**17**	Pn		**Pn**	**19 58 06.8**	**+1.7**
	0.2nm,0.3s,baz=201,slow=12,SNR=8.4							
KSRS				LR	LR		20 05 05.1	
	comp=Z,176nm,18.1s,baz=200,slow=39 2.7nm,0.8s							
KSRS				AML	AML			
MAJO	**Matsushiro**	**20.57**	**40**	P		**P**	**19 58 50.3**	**-0.5**
MAJO				IAmb	IAmb		19 58 56.2	
	comp=Z,6.7nm,0.8s							
MJAR	**Matsushiro Arr**	**20.57**	**40**	P		Pn	19 58 54.0	+0.9
	comp=Z,6.8nm,0.8s,baz=228,slow=10,SNR=18							
MJAR				LR	LR		20 07 46.1	
	comp=Z,84nm,18.4s,baz=200,slow=39 comp=Z,6.8nm,0.8s							
MJAR	**Matsushiro Arr**	**20.57**	**40**	P		**P**	**19 58 50.3**	**-0.6**
MJAR				IAmb	IAmb		19 58 55.7	
	comp=Z,11nm,1.3s							
CM31	**Chiang Mai Arr**	**21.80**	**266**	P		**P**	**19 59 03.4**	**-0.9**
CM31				IAmb	IAmb		19 59 08.2	
	comp=Z,5.9nm,1.1s							
CMAR	**Chiang Mai Arr**	**21.80**	**266**	P		**P**	**19 59 05.7**	**+1.4**
	comp=Z,0.9nm,0.8s,baz=71,slow=9.2,SNR=9.0							
CMAR				LR	LR		20 07 41.8	
	comp=Z,77nm,18.4s,baz=90,slow=37 comp=Z,0.9nm,0.8s							
CMAR	**Chiang Mai Arr**	**21.80**	**266**	P		**P**	**19 59 04.4**	**+0.1**
GUMO	**Guam**	**23.26**	**106**	LR	LR		20 08 00.1	
	comp=Z,70nm,18.9s,baz=304,slow=36							
USRK	**Ussuriysk Ar.**	**24.05**	**18**	P		**P**	**19 59 28.8**	**+1.6**
	comp=Z,3.5nm,0.8s,baz=204,slow=10,SNR=4.8 comp=Z,3.5nm,0.8s							
SIJI	**Sorong**	**24.12**	**157**	LR	LR		20 11 15.7	
	comp=Z,29nm,18.1s,baz=38,slow=43							
MORE	**Moreh**	**25.55**	**281**	P		**P**	**19 59 41.8**	**+0.6**
MORE				IAmb	IAmb		19 59 46.7	
	comp=Z,5.0nm,1.3s							
KAPI	**Kappang**	**26.52**	**185**	LR	LR		20 11 39.2	
	comp=Z,91nm,18.6s,baz=0.5,slow=40							
ASAJ	**Asahikawa**	**28.25**	**33**	LR	LR		20 11 53.7	
	comp=Z,105nm,19.2s,baz=251,slow=38							
KLR	**Kul'dur**	**28.67**	**13**	LR	LR		20 11 52.2	
	comp=Z,120nm,21.5s,baz=192,slow=37							
SONM	**Songino Array**	**29.01**	**338**	P		**P**	**20 00 11.5**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=145,slow=10,SNR=6.0							
SONM				LR	LR		20 12 53.7	
	comp=Z,111nm,18.4s,baz=97,slow=38 comp=Z,0.7nm,0.8s							
SONM	**Songino Array**	**29.01**	**338**	P		**P**	**20 00 11.0**	**-1.1**
TLY	**Talaya**	**33.23**	**339**	LR	LR		20 17 04.1	
	comp=Z,99nm,18.1s,baz=148,slow=41							
KRVT	**Keravat (AS076**	**39.15**	**128**	LR	LR		20 14 29.4	
	comp=Z,46nm,20.0s,baz=285,slow=31							
MKAR	**Makanchi Array**	**40.68**	**318**	P		**P**	**20 01 53.6**	**+1.0**
	comp=Z,2.5nm,0.8s,baz=116,slow=9.8,SNR=12							
MKAR				PcP		**PcP**	**20 03 55.3**	**+1.0**
	comp=Z,0.5nm,0.8s,baz=111,slow=3.2,SNR=1.9							
MKAR				LR	LR		20 20 12.4	
	comp=Z,61nm,18.6s,baz=148,slow=38 comp=Z,2.5nm,0.8s							
MKAR	**Makanchi Array**	**40.68**	**318**	P		**P**	**20 01 52.4**	**-0.2**
YAK	**Yakutsk**	**40.77**	**6**	LR	LR		20 19 18.0	
	comp=Z,72nm,19.4s,baz=186,slow=37							
PETK	**Petropavlovsk-**	**41.67**	**32**	LR	LR		20 18 07.5	
	comp=Z,58nm,21.7s,baz=232,slow=34							
H11N1	**WAKE ISLAND Hy**	**42.02**	**84**	T	T		20 47 14.0	
	baz=282,slow=75,SNR=60							
H11N2	**WAKE ISLAND Hy**	**42.02**	**84**	T	T		20 47 14.4	
	baz=282,slow=75,SNR=82							
H11N3	**WAKE ISLAND Hy**	**42.04**	**84**	T	T		20 47 16.1	
	baz=282,slow=75,SNR=53							
H11S3	**WAKE ISLAND Hy**	**42.07**	**86**	T	T		20 47 17.4	
	baz=282,slow=75,SNR=158							
H11S1	**WAKE ISLAND Hy**	**42.08**	**86**	T	T		20 47 10.4	
	baz=282,slow=75,SNR=139							
H11S2	**WAKE ISLAND Hy**	**42.09**	**86**	T	T		20 47 11.4	
	baz=282,slow=75,SNR=125							
PALK	**Pallekele**	**42.22**	**257**	LR	LR		20 20 50.4	
	comp=Z,34nm,19.1s,baz=66,slow=38							
ZALV	**Zalesovo Beam**	**42.79**	**328**	P		**P**	**20 02 09.8**	**+0.1**
	comp=Z,1.9nm,0.5s,baz=106,slow=11,SNR=7.5 comp=Z,1.9nm,0.5s							
ZALV	**Zalesovo Beam**	**42.79**	**328**	P		**P**	**20 02 08.6**	**-1.1**
WRAB	**Tennant Creek**	**43.02**	**163**	P		**P**	**20 02 09.8**	**-2.1**
WRA	**Warramunga Arr**	**43.03**	**163**	P		**P**	**20 02 09.9**	**-2.0**
	comp=Z,1.4nm,0.8s,baz=345,slow=8.5,SNR=5.9 comp=Z,1.4nm,0.8s							
WRA	**Warramunga Arr**	**43.03**	**163**	IAmb	IAmb		20 02 10.8	
	comp=Z,0.2nm,1.1s							
MA2	**Magadan**	**43.13**	**21**	LR	LR		20 21 24.4	
	comp=Z,68nm,18.3s,baz=208,slow=38							
KURK	**Kurchatov**	**44.52**	**322**	P		**P**	**20 02 25.1**	**+1.4**
KURBB	**Kurchatov Arra**	**44.53**	**321**	P		**P**	**20 02 24.8**	**+1.0**
	comp=Z,1.7nm,0.9s,baz=117,slow=7.3,SNR=10.0 comp=Z,1.7nm,0.9s							
AAK	**Ala-Archa**	**44.64**	**309**	LR	LR		20 24 07.3	
	comp=Z,116nm,18.7s,baz=104,slow=40							
ASAR	**Alice Springs**	**46.47**	**165**	P		**P**	**20 02 37.9**	**-1.5**
	comp=Z,0.8nm,0.8s,baz=343,slow=7.9,SNR=5.7 comp=Z,0.8nm,0.8s							
KK31	**Karatay Array**	**47.60**	**309**	P		**P**	**20 02 48.6**	**+0.5**
KK31				IAmb	IAmb		20 02 55.0	
	comp=Z,3.1nm,1.3s							
KKAR	**Karatay Array**	**47.60**	**309**	P		**P**	**20 02 48.7**	**+0.6**
CTA	**Charters Tower**	**47.77**	**148**	LR	LR		20 21 00.8	
	comp=Z,65nm,21.6s,baz=38,slow=34							
BVAR	**Borovoye Array**	**50.11**	**322**	P		**P**	**20 03 07.9**	**+0.6**
	comp=Z,0.7nm,0.6s,baz=83,slow=6.0,SNR=1.9 comp=Z,0.7nm,0.6s							
TIXI	**Tiksi**	**50.24**	**3**	LR	LR		20 26 55.8	
	comp=Z,97nm,18.2s,baz=199,slow=39							
NRIK	**Noril'sk**	**52.07**	**345**	LR	LR		20 25 42.6	
	comp=Z,56nm,19.0s,baz=148,slow=36							
NRIK	**Noril'sk**	**52.07**	**345**	P		**P**	**20 03 22.6**	**+0.9**
NRIK				IAmb	IAmb		20 03 34.2	
	comp=Z,3.6nm,0.9s							
STKA	**Stephens Creek**	**56.41**	**160**	LR	LR		20 28 44.6	
	comp=Z,25nm,21.6s,baz=25,slow=37							
ARTI	**Arti**	**57.67**	**324**	LR	LR		20 29 39.1	
	comp=Z,58nm,20.9s,baz=92,slow=37							
KIRV	**Kirov**	**62.73**	**326**	LR	LR		20 36 00.5	
	comp=Z,48nm,18.4s,baz=93,slow=40							
GNI	**Garni**	**66.84**	**306**	LR	LR		20 38 29.7	
	comp=Z,30nm,20.2s,baz=63,slow=40							
MSVF	**Nonsavu**	**67.45**	**121**	LR	LR		20 29 53.8	
	comp=Z,40nm,21.4s,baz=354,slow=32							
FINES	**FINESS Array B**	**74.02**	**330**	P		**P**	**20 05 47.1**	**-0.6**
	comp=Z,1.7nm,0.8s,baz=57,slow=7.0,SNR=3.5 comp=Z,1.7nm,0.8s							
BRTR	**Keskin Array B**	**75.26**	**307**	P		**P**	**20 05 57.3**	**+1.7**
	comp=Z,0.5nm,0.8s,baz=35,slow=4.5,SNR=3.5 comp=Z,0.5nm,0.8s							
EIL	**Elat**	**77.11**	**297**	LR	LR		20 43 27.3	
	comp=Z,39nm,19.6s,baz=282,slow=38							
URZ	**Urewera**	**78.90**	**139**	LR	LR		20 35 11.3	
	comp=Z,18nm,21.5s,baz=306,slow=31							
HFS	**Hagfors**	**80.15**	**331**	P		**P**	**20 06 23.3**	**+1.1**
	comp=Z,1.7nm,0.9s,baz=195,slow=2.8,SNR=1.5 comp=Z,1.7nm,0.9s							
NOA	**NORSAR Array B**	**80.83**	**333**	LR	LR		20 46 29.7	
	comp=Z,53nm,19.7s,baz=65,slow=39							
VRAC	**Vranov**	**83.36**	**321**	LR	LR		20 48 20.2	
	comp=Z,32nm,18.3s,baz=14,slow=39							
GERES	**GERESS Array B**	**85.27**	**321**	P		**P**	**20 06 50.0**	**+0.7**
	comp=Z,0.2nm,0.6s,baz=0.0,slow=5.3,SNR=4.4 comp=Z,0.2nm,0.6s							
GERES	**GERESS Array B**	**85.27**	**321**	P		**P**	**20 06 48.2**	**-1.1**
DAVOX	**Davos/Dischmat**	**88.52**	**320**	LR	LR		20 48 47.0	
	comp=Z,54nm,20.4s,baz=68,slow=37							
EKA	**Eskdalemuir Ar**	**90.31**	**332**	LR	LR		20 53 42.6	
	comp=Z,66nm,18.2s,baz=186,slow=40							

KRSC 12 20:00:56.0±1.7, 49.62N×157.04E, h48km±25km, MI3.5, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.22**	**331**	*eP*		Pn	20 01 17.0	+0.3
SKR				*eS*		Sn	20 01 32.5	+0.5
PAU	**Pauzhetka**	**1.86**	**355**	*eP*		Pn	20 01 27.5	+2.1
PAU				*eS*		Sn	20 01 51.0	+3.5
KDTR	**Khodutka, Kamc**	**2.29**	**16**	*eP*		Pn	20 01 34.0	+2.8
KDTR				*eS*		Sn	20 02 02.4	+4.2
ASAK	**Asacha**	**2.82**	**11**	*eP*		Pn	20 01 42.7	+4.0
MTVR	**Mutnovka**	**2.96**	**14**	*eP*		Pn	20 01 44.1	+3.6
RUS	**Russkaya**	**2.97**	**18**	*eP*		Pn	20 01 42.9	+2.4
RUS				*eS*		Sn	20 02 18.3	+3.4
GRL	**Gorelyy**	**3.01**	**12**	*eP*		Pn	20 01 45.1	+3.8
KRMR	**Karymshinskiy**	**3.29**	**12**	*eP*		Pn	20 01 48.6	+3.6
AVH	**Avacha**	**3.80**	**16**	*eP*		Pn	20 01 56.7	+4.6
SMAR	**Somma**	**3.81**	**16**	*eP*		Pn	20 01 57.1	+4.8
SDLR	**Sedlovina**	**3.84**	**17**	*eP*		Pn	20 01 56.0	+3.3
KRX	**Arik**	**3.88**	**14**	*eP*		Pn	20 01 57.5	+4.3
MKZ	**Mys Kozlova**	**5.72**	**28**	*eP*		Pn	20 02 21.7	+3.3

*NEIC **12** 20:02:05.9±1.3, 17.23S±0.08×168.6E±0.1, h209km±6km, mb4.2/11, Error ellipse: s-maj=20.3km s-min=11.1km az=78.0*
*NOU **12** 20:02:07.9, 17.35S×168.52E, h204km, mb4.7/14, Vanuatu Islands*
*IDC **12** 20:02:08.4±1.9, 17.28S×168.45E, h228km±19km, mb3.5/13, mbtmp4.1/15, Error ellipse: s-maj=16.7km s-min=16.0km az=6.0*

ISC 12 20:02:05.7±0.5, 17.31S±0.04×168.48E±0.08, h200km, n93, σ2°21/89, mb3.9/17, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	**0.49**	**186**	P		**Pn**	**20 02 35.8**	**+3.0**
RTV	**Rentapao**	**0.49**	**186**	S		**Sn**	**20 02 58.1**	**+4.2**
RTV	**Rentapao**	**0.49**	**186**	P		**Pn**	**20 02 36.1**	**+3.3**
RTV	**Rentapao**	**0.49**	**186**	S		**Sn**	**20 02 58.8**	**+4.9**
DVP	**Devils Point**	**0.50**	**214**	P		**Pn**	**20 02 36.4**	**+3.6**
DVP	**Devils Point**	**0.50**	**214**	S		**Sn**	**20 02 58.7**	**+4.8**
DVP	**Devils Point**	**0.50**	**214**	P		**Pn**	**20 02 36.5**	**+3.6**
DVP	**Devils Point**	**0.50**	**214**	S		**Sn**	**20 02 59.3**	**+5.4**
SANVU	**Saraoutou**	**2.22**	**326**	P		**Pn**	**20 02 49.2**	**+2.6**
SANVU	**Saraoutou**	**2.22**	**326**	P		**Pn**	**20 02 48.8**	**+2.2**
SANVU	**Saraoutou**	**2.22**	**326**	P		**Sn**	**20 03 23.5**	**+5.1**
SANVU	**Saraoutou**	**2.22**	**326**			**Pn**	**20 02 47.7**	**+1.1**
MARNC	**Mare, Loyalty**	**4.17**	**186**	P		**Pn**	**20 03 10.6**	**+0.9**
MARNC	**Mare, Loyalty**	**4.17**	**186**			**Pn**	**20 03 10.0**	**+0.4**
MARNC						**Sn**	**20 03 54.0**	**-6.0**
YATNC	**Mamie plateau,**	**4.96**	**197**	P		**Pn**	**20 03 20.9**	**+1.3**
YATNC	**Mamie plateau,**	**4.96**	**197**	P		**Pn**	**20 03 20.7**	**+1.1**
YATNC	**Mamie plateau,**	**4.96**	**197**	S		**Sn**	**20 04 20.9**	**+2.9**
DZM	**Mont Dzumac**	**5.11**	**202**	P		**Pn**	**20 03 24.5**	**+2.8**
	41nm,0.5s,baz=19,slow=11,SNR=87							
DZM				S		**Sn**	**20 04 27.2**	**+5.6**
	baz=135,slow=19							
NOUC	**Port Laguerre**	**5.19**	**203**	P		**Pn**	**20 03 25.2**	**+2.6**
OUENC	**Ouen Island, N**	**5.31**	**197**	P		**Pn**	**20 03 26.4**	**+2.3**
OUENC	**Ouen Island, N**	**5.31**	**197**	S		**Sn**	**20 04 28.9**	**+2.8**
OUENC	**Ouen Island, N**	**5.31**	**197**			**Pn**	**20 03 26.1**	**+1.9**
ONTNC	**Ouen Toro**	**5.33**	**201**	P		**Pn**	**20 03 26.6**	**+2.2**
ONTNC	**Ouen Toro**	**5.33**	**201**	P		**Pn**	**20 03 26.5**	**+2.2**
ONTNC	**Ouen Toro**	**5.33**	**201**	S		**Sn**	**20 04 29.4**	**+2.9**
ONTNC	**Ouen Toro**	**5.33**	**201**			**Pn**	**20 03 26.0**	**+1.7**
PINNC	**Pines Island,**	**5.37**	**190**			**Pn**	**20 03 25.9**	**+1.1**
MSVF	**Nonsavu**	**9.14**	**94**	P		**Pn**	**20 04 17.0**	**+3.1**
	22nm,0.8s,baz=262,slow=5.5,SNR=19							
MSVF	**Nonsavu**	**9.14**	**94**			Pn	20 04 17.9	+4.0
OUZ	**Omahuta**	**18.41**	**167**	P		**Pn**	**20 06 08.7**	**+0.2**
WCZ	**Waipu Caves**	**19.27**	**165**	P		**Pn**	**20 06 18.0**	**-0.7**
HAZ	**Te Kaha**	**21.95**	**160**	P		**P**	**20 06 44.5**	**+1.2**
MXZ	**Matakaoa Point**	**21.95**	**159**	P		**P**	**20 06 42.4**	**-1.0**
URZ	**Urewera**	**22.20**	**162**	P		**P**	**20 06 46.9**	**+1.2**
	8.0nm,0.4s,baz=220,slow=0.6,SNR=11 8.0nm,0.4s							
URZ	**Urewera**	**22.20**	**162**	P		**P**	**20 06 47.0**	**+1.2**
MWZ	**Matawai**	**22.40**	**161**	P		**P**	**20 06 48.9**	**+1.2**
OTVZ	**Oturere**	**22.66**	**165**	P		**P**	**20 06 52.9**	**+2.7**
MTHZ	**Maungataniwha**	**22.68**	**163**	P		**P**	**20 06 52.1**	**+2.0**
WNVZ	**Wahianoa**	**22.80**	**166**	P		**P**	**20 06 55.1**	**+3.6**
BKZ	**Black Stump Fm**	**22.87**	**164**	P		**P**	**20 06 53.1**	**+1.2**
MOVZ	**Moawhango**	**22.91**	**165**	P		**P**	**20 06 54.9**	**+2.6**
BHHZ	**Black Hill Sta**	**23.07**	**165**	P		**P**	**20 06 55.1**	**+1.4**
KRHZ	**Kereru**	**23.29**	**164**	P		**P**	**20 06 56.6**	**+1.0**
PNHZ	**Pukenui**	**23.50**	**165**	P		**P**	**20 06 58.9**	**+1.3**
KAHZ	**Kahuranaki**	**23.56**	**164**	P		**P**	**20 06 59.5**	**+1.3**
BFZ	**Birch Farm**	**24.24**	**166**	P		**P**	**20 07 04.1**	**-0.2**
BFZ				IAmb	IAmb		20 07 33.3	
	comp=Z,15nm,1.0s							
BFZ	**Birch Farm**	**24.24**	**166**	P		**P**	**20 07 04.1**	**-0.2**
WRA	**Warramunga Arr**	**32.43**	**260**	P		**P**	**20 08 16.1**	**-1.1**
	comp=Z,0.3nm,0.8s,baz=83,slow=8.2,SNR=5.2 comp=Z,0.3nm,0.8s							
WRA	**Warramunga Arr**	**32.43**	**260**	P		**P**	**20 08 15.8**	**-1.5**
AS31	**Alice Springs**	**32.94**	**253**	P		**P**	**20 08 21.1**	**-0.7**
AS31				IAmb	IAmb		20 08 22.9	
	comp=Z,1.9nm,0.5s							
ASAR	**Alice Springs**	**32.95**	**253**	P		**P**	**20 08 21.3**	**-0.4**
	comp=Z,3.0nm,0.5s,baz=79,slow=9.2,SNR=67 comp=Z,3.0nm,0.5s							
ASAR	**Alice Springs**	**32.95**	**253**	P		**P**	**20 08 20.9**	**-0.8**
BBOO	**Buckleboo**	**33.02**	**236**	P		**P**	**20 08 22.9**	**+0.8**
KNRA	**Kununurra**	**38.08**	**267**	P		**P**	**20 09 04.7**	**-0.7**
KNRA				IAmb	IAmb		20 09 12.1	
	comp=Z,18nm,1.5s							
FAKI	**Fak Fak**	**38.32**	**288**	P		**P**	**20 09 06.3**	**-1.2**
FAKI				IAmb	IAmb		20 09 25.0	
	comp=Z,14nm,1.1s							
FITZ	**Fitzroy Crossi**	**40.75**	**262**	P		**P**	**20 09 27.4**	**-0.1**
	comp=Z,2.7nm,0.9s,baz=78,slow=8.0,SNR=2.2 comp=Z,2.7nm,0.9s							
FITZ	**Fitzroy Crossi**	**40.75**	**262**	P		**P**	**20 09 27.9**	**+0.4**
FITZ				IAmb	IAmb		20 09 54.4	
	comp=Z,4.2nm,1.5s							
VNDA	**Vanda**	**60.33**	**182**	P		**P**	**20 11 52.7**	**-0.3**
	comp=Z,0.3nm,0.7s,baz=1.0,slow=4.5,SNR=2.4 comp=Z,0.3nm,0.7s							
VNDA	**Vanda**	**60.33**	**182**	P		**P**	**20 11 52.6**	**-0.4**
USRK	**Ussuriysk Ar.**	**69.70**	**333**	P		**P**	**20 12 53.8**	**+0.1**
	comp=Z,1.1nm,0.4s,baz=150,slow=5.1,SNR=4.6 comp=Z,1.1nm,0.4s							
PETK	**Petropavlovsk-**	**70.74**	**353**	P		**P**	**20 12 59.2**	**-0.7**
	comp=Z,2.1nm,0.6s,baz=162,slow=5.7,SNR=2.4 comp=Z,2.1nm,0.6s							
PETK	**Petropavlovsk-**	**70.74**	**353**	P		**P**	**20 12 57.4**	**-2.4**
QSPA	**South Pole Qui**	**72.73**	**180**	P		**P**	**20 13 11.5**	**-0.4**
	comp=Z,1.4nm,0.7s,baz=16,slow=1.0,SNR=7.6 comp=Z,1.4nm,0.7s							
QSPA	**South Pole Qui**	**72.73**	**180**	P		**P**	**20 13 11.7**	**-0.2**
QSPA				IAmb	IAmb		20 13 48.7	
	comp=Z,4.5nm,1.4s							
CMAR	**Chiang Mai Arr**	**77.06**	**294**	P		**P**	**20 13 38.1**	**+0.8**
	comp=Z,0.4nm,0.3s,baz=133,slow=4.9,SNR=6.2 comp=Z,0.4nm,0.3s							
CMAR	**Chiang Mai Arr**	**77.06**	**294**	P		**P**	**20 13 35.9**	**-1.4**
SONM	**Songino Array**	**85.25**	**323**	P		**P**	**20 14 18.9**	**-1.0**
	comp=Z,0.9nm,0.4s,baz=156,slow=6.9,SNR=11 comp=Z,0.9nm,0.4s							
SONM	**Songino Array**	**85.25**	**323**	P		**P**	**20 14 18.6**	**-1.4**
SONM				IAmb	IAmb		20 14 20.4	
	comp=Z,1.6nm,0.9s							
GTA2	**Gaotai**	**85.35**	**314**	P		**P**	**20 14 20.9**	**+0.2**
GTA2				pmax	pmax			
	comp=Z,5.0nm,0.8s							
NVAR	**Mina Array Bea**	**88.07**	**49**	P		**P**	**20 14 32.8**	**-1.1**
	comp=Z,0.4nm,0.7s,baz=244,slow=6.0,SNR=3.6 comp=Z,0.4nm,0.7s							
NVAR	**Mina Array Bea**	**88.07**	**49**	P		**P**	**20 14 32.7**	**-1.3**
ILAR	**Eielson Array**	**88.61**	**18**	P		**P**	**20 14 33.6**	**-1.9**
	comp=Z,0.3nm,0.7s,baz=233,slow=5.4,SNR=2.2 comp=Z,0.3nm,0.7s							
ILAR	**Eielson Array**	**88.61**	**18**	P		**P**	**20 14 33.5**	**-2.1**
MKAR	**Makanchi Array**	**99.86**	**316**	P		**Pdif**	**20 15 27.7**	**+0.2**
	comp=Z,0.3nm,0.4s,baz=86,slow=6.8,SNR=5.8 comp=Z,0.3nm,0.4s							
MKAR	**Makanchi Array**	**99.86**	**316**			**Pdif**	**20 15 27.4**	**0.0**
SESA	**Seetaler Alpe,**	**143.32**	**330**	*i* PKP		PKPab	20 21 13.3	+0.4
	comp=Z,2.9nm,0.6s							
SOKA	**Soboth**	**143.40**	**329**	*i* PKP		PKPab	20 21 12.8	-0.2
	comp=Z,2.1nm,0.9s							
KBA	**Koelnbreinsper**	**143.92**	**331**	*i* PKP		PKPab	20 21 14.5	-0.7
	comp=Z,2.7nm,0.8s							
LESA	**Schwarzleotal**	**143.97**	**332**	*e*PKP		PKPab	20 21 14.9	-0.3
	comp=Z,2.6nm,0.5s							
MYKA	**Terra Mystica**	**144.11**	**330**	*e*PKP		**PKPab**	**20 21 14.5**	**-1.3**
	comp=Z,1.6nm,0.5s							
ITM	**Ithomi**	**144.54**	**311**	PKPdf		**PKPab**	**20 21 16.7**	**-1.0**
ABTA	**Abfaltersbach**	**144.55**	**331**	*i* PKP		**PKPab**	**20 21 16.0**	**-1.5**
	comp=Z,5.4nm,0.6s							
WTTA	**Wattenberg**	**144.56**	**332**	*i* PKP		**PKPab**	**20 21 17.0**	**-0.6**
	comp=Z,2.4nm,0.7s							
SABO	**M.te Sabotino**	**144.59**	**329**			**PKPab**	**20 21 14.4**	**-3.2**
WLF	**Walferdange**	**144.71**	**340**	PKPdf		**PKPab**	**20 21 17.4**	**-0.5**
MOTA	**Moosalm**	**144.73**	**333**	*i* PKP		**PKPab**	**20 21 17.5**	**-0.7**
	comp=Z,5.6nm,0.8s							
RETA	**Reutte**	**144.77**	**334**	*e*PKP		**PKPab**	**20 21 17.6**	**-0.6**
	comp=Z,1.6nm,0.5s							
SQTA	**Sankt Quirin**	**144.78**	**333**	*e*PKP		**PKPab**	**20 21 17.7**	**-0.7**
	comp=Z,6.7nm,0.6s							
STAL	**STALIGIAL**	**144.82**	**330**			PKPbc	20 21 15.6	-2.8
BFO	**Black Forest**	**145.07**	**337**			**PKPbc**	**20 21 17.6**	**-1.5**
FETA	**Feichten**	**145.14**	**333**	*i* PKP		**PKPbc**	**20 21 18.7**	**-0.8**
	comp=Z,9.0nm,1.0

KURK	**Kurchatov**	**14.71**	**19**	⇑P		**Pn**	**20 22 31.1**	**+1.0**
	comp=N,1.4nm,0.8s								
KURK	**Kurchatov**	**14.71**	**19**			**Pn**	**20 22 27.6**	**-2.5**
AB31	**Akbulak array**	**14.76**	**330**	P		**Pn**	**20 22 29.1**	**-1.8**
	comp=N,3.0nm,0.4s,baz=137,slow=13,SNR=190								
AB31	**Akbulak array**	**14.76**	**330**			**Pn**	**20 22 28.5**	**-2.4**
ABKAR	**Akbulak array**	**14.76**	**330**			**Pn**	**20 22 28.5**	**-2.4**
BVAR	**Borovoye Array**	**16.05**	**358**	P		**Pn**	**20 22 46.3**	**-0.7**
	comp=N,3.8nm,0.5s,baz=162,slow=11,SNR=19								
BORK	**Borovoye**	**16.07**	**358**			**Pn**	**20 22 45.5**	**-1.8**
AKTO	**Aktyubinsk**	**16.46**	**329**	P		**Pn**	**20 22 52.5**	**+0.3**
	comp=N,14nm,0.7s,baz=105,slow=10,SNR=17								
AKTO	**Aktyubinsk**	**16.46**	**329**	⇑P		**P**	**20 22 53.8**	**+0.7**
	comp=N,6.5nm,0.6s								
UOSS	**Minazif**	**17.60**	**231**	P		**P**	**20 23 04.4**	**-1.4**
UOSS				IAmb	IAmb		20 23 23.3		
	comp=Z,4.8nm,0.8s								
LSA	**Lhasa**	**18.13**	**108**	P		**P**	**20 23 12.4**	**+0.3**
LSA				IAmb	IAmb		20 23 17.7		
	comp=Z,5.9nm,0.8s								
ZAA0	**Zalesovo Array**	**19.39**	**25**	P		**P**	**20 23 25.7**	**+0.6**
ZAA0				IAmb	IAmb		20 24 02.2		
	comp=Z,5.7nm,0.8s								
ZALV	**Zalesovo Beam**	**19.39**	**25**	P		**P**	**20 23 25.1**	**-0.1**
	comp=Z,7.7nm,0.7s,baz=220,slow=9.5,SNR=14								
ZALV	**Zalesovo Beam**	**19.39**	**25**			**P**	**20 23 25.4**	**+0.2**
ARTI	**Arti**	**21.25**	**340**	P		**P**	**20 23 46.8**	**+1.6**
	comp=Z,1.9nm,0.5s,baz=165,slow=12,SNR=4.5								
	comp=Z,1.9nm,0.5s								
ARTI	**Arti**	**21.25**	**340**	P		**P**	**20 23 45.8**	**+0.6**
ARTI				IAmb	IAmb		20 24 25.4		
	comp=Z,7.0nm,0.7s								
GURO	**Guroymak-BITLI**	**23.11**	**283**	P		**P**	**20 24 01.5**	**-3.3**
MORE	**Moreh**	**23.49**	**116**			**P**	**20 24 09.6**	**+1.4**
MORE				IAmb	IAmb		20 24 11.3		
	comp=Z,5.0nm,0.7s								
RAYN	**Ar Rayn**	**25.88**	**246**	P		**P**	**20 24 28.0**	**-2.0**
SONM	**Songino Array**	**27.89**	**56**	P		**P**	**20 24 48.8**	**+1.0**
	comp=Z,2.1nm,1.0s,baz=258,slow=8.6,SNR=14								
	comp=Z,2.1nm,1.0s								
SONM	**Songino Array**	**27.89**	**56**	P		**P**	**20 24 46.5**	**-1.3**
CMAR	**Chiang Mai Arr**	**30.52**	**120**	P		**P**	**20 25 12.9**	**+1.8**
	comp=Z,0.9nm,0.7s,baz=297,slow=7.9,SNR=7.2								
	comp=Z,0.9nm,0.7s								
CMAR	**Chiang Mai Arr**	**30.52**	**120**	P		**P**	**20 25 10.8**	**-0.4**
FIA1	**FINESS Array S**	**37.19**	**326**	P		**P**	**20 26 08.7**	**+0.2**
FINES	**FINESS Array B**	**37.19**	**326**	P		**P**	**20 26 10.3**	**+1.9**
	comp=Z,3.0nm,1.0s,baz=111,slow=10,SNR=8.4								
	comp=Z,3.0nm,1.0s								
ARCES	**ARCESS Array B**	**40.77**	**337**	P		**P**	**20 26 39.9**	**+1.7**
	comp=Z,1.5nm,0.6s,baz=110,slow=9.2,SNR=8.9								
	comp=Z,1.5nm,0.6s								
ARCES	**ARCESS Array B**	**40.77**	**337**	P		**P**	**20 26 39.4**	**+1.2**
HEH	**HeiHe**	**41.79**	**53**	*e*P		**P**	**20 26 48.0**	**+1.2**
HEH				pmax	pmax				
	comp=Z,8.0nm,0.7s								
HFS	**Hagfors**	**42.81**	**322**	P		**P**	**20 26 56.8**	**+1.9**
	comp=Z,2.1nm,0.7s,baz=108,slow=9.3,SNR=5.6								
	comp=Z,2.1nm,0.7s								
NB2	**NORSAR Subarra**	**44.11**	**323**	P		**P**	**20 27 06.8**	**+1.4**
	comp=Z,12nm,1.2s,baz=99,slow=7.9								
NOA	**NORSAR Array B**	**44.11**	**323**	P		**P**	**20 27 06.5**	**+1.1**
	comp=Z,1.1nm,0.7s,baz=103,slow=7.5,SNR=4.4								
	comp=Z,1.1nm,0.7s								
TIXI	**Tiksi**	**45.25**	**22**			**P**	**20 27 14.9**	**+0.7**
TIXI				IAmb	IAmb		20 27 16.0		
	comp=Z,4.2nm,0.8s								
ESDC	**Sonseca Array**	**57.41**	**298**	P		**P**	**20 28 47.1**	**+1.6**
	comp=Z,0.2nm,0.5s,baz=49,slow=8.0,SNR=4.4								
	comp=Z,0.2nm,0.5s								
TORD	**Torodi Ar. Bea**	**65.93**	**269**	P		**P**	**20 29 43.3**	**+0.3**
	comp=Z,0.8nm,0.6s,baz=40,slow=5.8,SNR=4.0								
	comp=Z,0.8nm,0.6s								
INK	**Inuvik**	**73.39**	**9**	P		**P**	**20 30 28.9**	**+0.9**
	comp=Z,1.8nm,0.6s,baz=36,slow=6.9,SNR=5.6								
	comp=Z,1.8nm,0.6s								
INK	**Inuvik**	**73.39**	**9**	P		**P**	**20 30 28.7**	**+0.7**
INK				IAmb	IAmb		20 30 30.5		
	comp=Z,2.1nm,0.7s								
ILAR	**Eielson Array**	**74.26**	**16**	P		**P**	**20 30 33.5**	**+0.4**
	comp=Z,0.4nm,0.7s,baz=308,slow=6.1,SNR=5.5								
	comp=Z,0.4nm,0.7s								
YKA	**Yellowknife Ar**	**80.75**	**3**	P		**P**	**20 31 10.8**	**+1.6**
	comp=Z,3.1nm,0.7s,baz=357,slow=5.4,SNR=5.7								
	comp=Z,3.1nm,0.7s								
YKA	**Yellowknife Ar**	**80.75**	**3**	P		**P**	**20 31 10.7**	**+1.4**
WRA	**Warramunga Arr**	**82.08**	**122**	P		**P**	**20 31 16.2**	**-0.6**
	comp=Z,1.2nm,0.7s,baz=323,slow=4.8,SNR=16								
	comp=Z,1.2nm,0.7s								
WRA	**Warramunga Arr**	**82.08**	**122**	P		**P**	**20 31 15.9**	**-1.0**
ASAR	**Alice Springs**	**84.37**	**125**	P		**P**	**20 31 27.9**	**-0.6**
	comp=Z,1.2nm,0.6s,baz=216,slow=9.2,SNR=4.4								
	comp=Z,1.2nm,0.6s								
ASAR	**Alice Springs**	**84.37**	**125**	P		**P**	**20 31 28.3**	**-0.3**

NEIC ***12*** *20:56:22.9±1.4,28.°70S±0.°07×67.°79W±0.°03,h184km±8km, mb4.4/7, ML4.2(GUC), Error ellipse: s-maj=10.0km s-min=3.5km az=171.0*

SJA ***12*** *20:56:23.1±0.7,28.°62S×67.°54W,h142km±5km, ML4.1, MW3.8*

IDC ***12*** *20:56:23.5±1.6,28.°89S×67.°30W,h136km±15km, mb3.5/5, mbtmp3.9/8, MS3.2/2, Error ellipse: s-maj=28.9km s-min=14.9km az=121.0*

GUC ***12*** *20:56:24.4±0.7,28.°60S×68.°00W,h198km±14km, ML4.2, Presumed earthquake*

ISC 12 20:56:21.7±0.7, 28.°72S±0.°04×67.°51W±0.°05, h148km±7km, n82,σ1°52/94, mb4.2/6, 8C-2D, La Rioja Province

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
TINO	**Tinogasta**	**0.65**	**356**	*e*P		**Pn**	**20 56 44.4**	**+0.4**
TINO				*e*S		**Sn**	**20 57 00.4**	**-0.4**
TINO				IAML			20 57 01.7	
	comp=Z,2μm,0.7s							
AC02	**Maricunga**	**2.36**	**322**	*e*P		**Pn**	**20 57 03.2**	**+1.6**
AC02				*e*S		**Sn**	**20 57 34.9**	**+2.8**
AC02	**Maricunga**	**2.36**	**322**			**Pn**	**20 57 03.2**	**+1.6**
AC02					Sn	**Sn**	**20 57 33.3**	**+1.2**
AC02	**Maricunga**	**2.36**	**322**	*i*P		**Pn**	**20 57 03.2**	**+1.6**
AC05	**El Transito**	**2.43**	**266**	*e*P		**Pn**	**20 57 03.8**	**+1.8**
AC05				*e*S		**Sn**	**20 57 34.2**	**+1.2**
AC05				IAML			20 57 35.2	
	comp=Z,288nm,0.3s							
AC05	**El Transito**	**2.43**	**266**			**Pn**	**20 57 03.6**	**+1.7**
AC05	**El Transito**	**2.43**	**266**	⇑*i*P		**Pn**	**20 57 03.6**	**+1.7**
AC05				*i*S		**Sn**	**20 57 33.7**	**+0.8**
AC05				IAML			20 57 35.3	
	comp=N,1μm,0.3s							
CO01	**Juntas del Tor**	**2.58**	**240**	*e*P		**Pn**	**20 57 06.3**	**+2.3**
CO01	**Juntas del Tor**	**2.58**	**240**			**Pn**	**20 57 06.2**	**+2.3**
CO01	**Juntas del Tor**	**2.58**	**240**	⇑*i*P		**Pn**	**20 57 06.2**	**+2.3**
CO01				*i*S		**Sn**	**20 57 39.4**	**+2.8**
CO01				IAML			20 57 40.5	
	comp=E,337nm,0.6s							
GO03	**Copiapo**	**2.65**	**294**	*e*P		**Pn**	**20 57 05.7**	**+1.0**
GO03				*e*S		**Sn**	**20 57 37.2**	**-0.6**
GO03				IAML			20 57 38.0	
	comp=Z,512nm,0.2s							
GO03	**Copiapo**	**2.65**	**294**			**Pn**	**20 57 05.3**	**+0.6**
GO03					Sn	**Sn**	**20 57 36.2**	**-1.6**
GO03	**Copiapo**	**2.65**	**294**	*i*P		**Pn**	**20 57 05.3**	**+0.6**
GO03				*i*S		**Sn**	**20 57 36.5**	**-1.4**
GO03				IAML			20 57 38.0	
	comp=E,947nm,0.2s							
LCO	**Las Campanas**	**2.81**	**263**	*e*P		**Pn**	**20 57 07.8**	**+0.9**
LCO				*e*S		**Sn**	**20 57 42.7**	**+1.0**
LCO				IAML			20 57 44.3	
	comp=Z,2μm,0.2s							
LCO	**Las Campanas**	**2.81**	**263**			**Pn**	**20 57 07.6**	**+0.7**
LCO					Sn	**Sn**	**20 57 41.1**	**-0.6**
LCO	**Las Campanas**	**2.81**	**263**	⇑*e*P		**Pn**	**20 57 07.7**	**+0.9**
AC06	**Mina Casimiro**	**2.85**	**298**			**Pn**	**20 57 07.5**	**+0.3**
AC06	**Mina Casimiro**	**2.85**	**298**	*e*P		**Pn**	**20 57 07.7**	**+0.5**
FSA	**Cafayete**	**2.93**	**28**	*e*P		**Pn**	**20 57 10.1**	**+1.7**
CFA	**Coronel Fontan**	**2.95**	**192**	P		**Pn**	**20 57 09.2**	**+0.8**
	comp=Z,46nm,0.3s,baz=17,slow=14,SNR=514							
CFA				S		**Sn**	**20 57 42.8**	**-1.7**
	comp=Z,205nm,0.3s,baz=16,slow=13,SNR=35							
ZON	**Zonda**	**3.00**	**199**			**Pn**	**20 57 09.9**	**+0.9**
AC04	**Llanos de Chal**	**3.18**	**278**	*e*P		**Pn**	**20 57 11.7**	**+0.4**
AC04				*e*S		**Sn**	**20 57 47.7**	**-1.9**
AC04				IAML			20 57 48.3	
	comp=Z,211nm,0.3s							
AC04	**Llanos de Chal**	**3.18**	**278**			**Pn**	**20 57 11.1**	**-0.1**
AC04	**Llanos de Chal**	**3.18**	**278**	⇑*e*P		**Pn**	**20 57 11.3**	**+0.1**
AC04				*e*S		**Sn**	**20 57 46.8**	**-2.8**
AC04				IAML			20 57 47.3	
	comp=E,546nm,0.3s							
GO04	**Tololo Observa**	**3.21**	**242**	*e*P		**Pn**	**20 57 12.8**	**+0.8**
GO04				*e*S		**Sn**	**20 57 52.8**	**+2.0**
GO04				IAML			20 57 55.9	
	comp=Z,641nm,0.2s							
GO04	**Tololo Observa**	**3.21**	**242**			**Pn**	**20 57 12.7**	**+0.8**
GO04	**Tololo Observa**	**3.21**	**242**	⇑*i*P		**Pn**	**20 57 12.7**	**+0.8**
GO04				*i*S		**Sn**	**20 57 50.7**	**-0.1**
CO05	**La Serena**	**3.47**	**249**			**Pn**	**20 57 14.6**	**-0.3**
CO05	**La Serena**	**3.47**	**249**	*i*P		**Pn**	**20 57 14.8**	**-0.2**
CO05				*i*S		**Sn**	**20 57 54.8**	**-1.5**
CO05				IAML			20 57 58.3	
	comp=N,440nm,0.2s							
CO03	**El Pedregal**	**3.48**	**232**	*e*P		**Pn**	**20 57 16.3**	**+1.1**
CO03				*e*S		**Sn**	**20 57 58.9**	**+2.2**
CO03				IAML			20 57 59.8	
	comp=Z,249nm,0.2s							
CO03	**El Pedregal**	**3.48**	**232**			**Pn**	**20 57 16.0**	**+0.8**
CO03	**El Pedregal**	**3.48**	**232**	⇑*e*P		**Pn**	**20 57 16.1**	**+0.8**
TCA	**Tanti**	**3.64**	**137**	⇓*e*P		**Pn**	**20 57 17.5**	**+0.3**
AC01	**Pan de Azucar**	**3.75**	**312**			**Pn**	**20 57 18.8**	**+0.1**
AC01	**Pan de Azucar**	**3.75**	**312**	*e*P		**Pn**	**20 57 18.8**	**+0.1**
CO02	**Combarbal**	**3.91**	**230**			**Pn**	**20 57 20.8**	**-0.1**
CO02	**Combarbal**	**3.91**	**230**	⇑*i*P		**Pn**	**20 57 20.8**	**-0.1**
CO06	**Fray Jorge**	**4.08**	**240**			**Pn**	**20 57 21.6**	**-1.3**
CO06	**Fray Jorge**	**4.08**	**240**	⇑*e*P		**Pn**	**20 57 21.8**	**-1.3**
CO04	**Los Peladeros**	**4.47**	**221**			**Pn**	**20 57 27.9**	**-0.4**
CO04	**Los Peladeros**	**4.47**	**221**	*e*P		**Pn**	**20 57 27.9**	**-0.4**
VA03	**San Esteban**	**4.81**	**212**			**Pn**	**20 57 33.2**	**+0.6**
PB14	**IPOC Station P**	**4.83**	**327**			**Pn**	**20 57 33.3**	**+0.1**
MT08	**Bocatoma Ro**	**5.18**	**204**			**Pn**	**20 57 37.9**	**+0.2**
PEL	**Peldehue**	**5.19**	**211**			**Pn**	**20 57 37.5**	**-0.1**
MT02	**Curacav**	**5.50**	**214**			**Pn**	**20 57 40.2**	**-1.4**
VA01	**Torpederas**	**5.57**	**219**	Pn		**Pn**	**20 57 40.9**	**-1.8**
PB10	**IPOC Station P**	**5.86**	**331**	Pn		**Pn**	**20 57 46.0**	**-0.5**
MT01	**Popeta**	**6.05**	**211**			**Pn**	**20 57 47.2**	**-1.8**
PB06	**IPOC Station P**	**6.27**	**342**			**Pn**	**20 57 52.1**	**-0.1**
BI02	**San Fabin de**	**8.53**	**201**			**Pn**	**20 58 20.6**	**-1.7**
CPUP	**Villa Florida**	**9.35**	**78**	P		**Pn**	**20 58 32.0**	**-1.1**
	comp=Z,1.0nm,0.4s,baz=261,slow=16,SNR=3.9							
CPUP	**Villa Florida**	**9.35**	**78**			**Pn**	**20 58 32.7**	**-0.4**
LPAZ	**La Paz**	**12.38**	**357**	P		**P**	**20 59 19.4**	**-0.3**
	comp=Z,3.3nm,0.4s,baz=184,slow=8.1,SNR=13							
LPAZ	**La Paz**	**12.38**	**357**			**Pn**	**20 59 11.6**	**-2.0**
LL03	**Petrohue**	**13.02**	**197**			**Pn**	**20 59 20.4**	**-0.7**
AQDB	**Aquidauana**	**13.51**	**55**	Pn		**Pn**	**20 59 25.8**	**-1.8**
SIV	**San Ignacio**	**13.99**	**27**	P		**Pn**	**20 59 33.3**	**-0.3**
	comp=Z,1.3nm,0.6s,baz=201,slow=10,SNR=7.2							
VILB	**Vilhena**	**17.10**	**25**	P		**P**	**21 00 09.0**	**-2.3**
VILB				IAmb	IAmb		21 00 12.9	
	comp=Z,8.4nm,0.8s							
BDFB	**Brasilia**	**22.21**	**58**	P		**P**	**21 01 07.0**	**+0.6**
	comp=Z,3.3nm,0.4s,baz=194,slow=6.8,SNR=6.7							
	comp=Z,3.3nm,0.4s							
BDFB	**Brasilia**	**22.21**	**58**	P		**P**	**21 01 04.6**	**-1.8**
BDFB				IAmb	IAmb		21 01 07.7	
	comp=Z,6.5nm,1.0s							
RUSC	**La Rusia**	**34.82**	**350**	P		P	21 02 53.7	-5.4
RUSC				IAmb	IAmb		21 03 02.6	
	comp=Z,6.9nm,0.7s							
MDP	**Montagnes des**	**36.54**	**25**	LR		LR	21 20 35.6	
	comp=Z,23nm,21.4s,baz=182,slow=40							
QSPA	**South Pole Qui**	**61.51**	**180**	P		**P**	**21 06 24.1**	**+1.5**
	comp=Z,1.0nm,0.8s,baz=277,slow=12,SNR=2.6							
	comp=Z,1.0nm,0.8s							
257A	**Skidaway Islan**	**61.71**	**347**	P		**P**	**21 06 21.2**	**-2.9**
TXAR	**Lajitas Array**	**67.28**	**326**	P		**P**	**21 07 03.7**	**+3.2**
	comp=Z,0.3nm,0.5s,baz=140,slow=7.9,SNR=2.0							
TXAR				LR		LR	21 33 39.8	
	comp=Z,24nm,18.4s,baz=340,slow=33							
	comp=Z,0.3nm,0.5s							
TXAR	**Lajitas Array**	**67.28**	**326**	P		P	21 06 55.4	-5.1
DBIC	**Dimbokro**	**69.78**	**70**	P		**P**	**21 07 18.4**	**+2.1**
	comp=Z,1.5nm,0.6s,baz=201,slow=6.2,SNR=1.8							
	comp=Z,1.5nm,0.6s							
DBIC	**Dimbokro**	**69.78**	**70**	P		**P**	**21 07 14.5**	**-1.8**
DBIC				IAmb	IAmb		21 07 15.7	
	comp=Z,12nm,1.4s							
L44A	**Lake County Fo**	**73.01**	**344**	P		P	21 07 28.6	-6.4
L44A				IAmb	IAmb		21 07 30.2	
	comp=Z,98nm,0.9s							
TORD	**Torodi Ar. Bea**	**78.71**	**68**	P		**P**	**21 08 11.4**	**+3.4**
	comp=Z,0.5nm,0.5s,baz=277,slow=7.2,SNR=12							
	comp=Z,0.5nm,0.5s							
ASAR	**Alice Springs**	**123.98**	**204**	PKP		**PKiKP**	**21 15 05.5**	**+2.2**
	comp=Z,0.3nm,0.4s,baz=126,slow=1.6,SNR=5.7							
WRA	**Warramunga Arr**	**127.22**	**206**	PKP		**PKiKP**	**21 15 11.4**	**+1.7**
	comp=Z,0.5nm,0.5s,baz=150,slow=2.0,SNR=15							
WRA	**Warramunga Arr**	**127.22**	**206**			**PKPdf**	**21 15 06.0**	**-3.2**
KKAR	**Karatay Array**	**143.49**	**55**	PKPpre		PKPpre	21 15 29.8	
KURBB	**Kurchatov Arra**	**146.36**	**40**	PKPbc		**PKiKP**	**21 15 48.5**	**+0.9**
	comp=Z,0.2nm,0.3s,baz=300,slow=3.6,SNR=4.4							
KURK	**Kurchatov**	**146.37**	**40**			**PKPdf**	**21 15 40.7**	**-2.6**
ZALV	**Zalesovo Beam**	**147.71**	**31**	PKPbc		**PKPab**	**21 15 52.3**	**+1.2**
	comp=Z,1.4nm,0.4s,baz=308,slow=3.4,SNR=5.4							
ZALV	**Zalesovo Beam**	**147.71**	**31**			**PKiKP**	**21 15 50.0**	**-0.3**
MKAR	**Makanchi Array**	**150.33**	**44**	PKPbc		**PKiKP**	**21 15 58.5**	**+2.5**
	comp=Z,0.7nm,0.7s,baz=55,slow=4.6,SNR=5.4							
MKAR	**Makanchi Array**	**150.33**	**44**			**PKiKP**	**21 15 57.9**	**+1.9**
TOLI2	**Tolitoli**	**151.43**	**198**	PKPdf		PKPdf	21 15 45.1	-7.4

SOF ***12*** *21:02:37.6,41.°40N±0.°01×20.°98E±0.°01, h13km±2km, MD3.0/6*

TIR ***12*** *21:02:38.2,41.°67N×20.°76E, h10km±2km, ML3.1, ML3.1, Presumed earthquake*

SKO ***12*** *21:02:39.9,41.°60N×20.°86E, h7km, ML2.9*

PDG ***12*** *21:02:39.3±0.3,41.°64N×20.°68E, h8km, ML3.0/12, Error ellipse: s-maj=1.1km s-min=1.4km az=0.0*

BEO ***12*** *21:02:40.4±0.4,41.°69N×20.°75E, h6km±2km, ML2.6/19*

THE ***12*** *21:02:41.0,42.°N±2.°×2.°1E±.°, h0km±1km, M2.5/18, MLh2.5/18*

ISC 12 21:02:39.2±1.1, 41.°63N±0.°02×20.°76E±0.°01, h3km±9km, n113,σ1°21/170, 6C-9D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.25**	**282**	Pg		**Pg**	**21 02 43.2**	**-0.7**
PHP				Sg		**Sg**	**21 02 46.2**	**-1.0**
PHP				IAML			21 02 46.9	
	14μm,0.2s							
OHR	**Ohrid**	**0.52**	**177**	⇓*i*Pg		**Pg**	**21 02 49.5**	**+0.4**
OHR				*i*Sg		**Sb**	**21 02 57.8**	**-1.2**
OHR				*e*Lg	Lg		21 02 58.0	
	comp=N,524nm,0.3s							
OHR				*e*Lg	Lg		21 02 58.7	
	comp=E,1μm,0.8s							
SKO	**Skopje**	**0.61**	**56**	⇓*i*Pg		**Pg**	**21 02 51.0**	**+0.1**
SKO				*i*Sg		**Sg**	**21 02 59.9**	**+1.2**
TIR	**Tirane**	**0.73**	**247**	P		**Pg**	**21 02 52.8**	**-0.4**
TIR				Sg		**Sg**	**21 03 03.3**	**+0.6**
TIR				IAML			21 03 04.8	
	comp=E,321nm,0.4s							
KBN	**Korca**	**1.01**	**179**	P		**Pg**	**21 02 57.9**	**-0.6**
KBN				S		**Sg**	**21 03 11.6**	**0.0**
KBN				AML		AML		
KBN	**Korca**	**1.01**	**179**	P		**Pg**	**21 02 58.5**	**0.0**
KBN				Sg		**Sn**	**21 03 14.4**	**-0.6**
SDA	**Shkodra**	**1.03**	**294**	P		**Pg**	**21 02 57.7**	**-1.3**
SDA				Sg		**Sg**	**21 03 13.1**	**+0.7**
SDA				IAML			21 03 15.9	
	comp=E,643nm,0.3s							
BERA	**Berati**	**1.11**	**214**	Pg		**Pg**	**21 03 00.2**	**-0.3**
BERA				S		**Sn**	**21 03 17.4**	**-0.1**
BERA				IAML			21 03 23.5	
	comp=E,321nm,0.4s							
PVY	**Plav**	**1.13**	**328**	⇓*i*Pg		**Pg**	**21 02 59.5**	**-1.4**
PVY				*i*Sg		**Sb**	**21 03 16.7**	**0.0**
ULC	**Ulcinj**	**1.18**	**287**	⇓*i*Pg		**Pg**	**21 03 00.2**	**-1.6**
ULC				*i*Sg		**Sb**	**21 03 17.8**	**-0.2**
DRME	**Dracevica, Mon**	**1.30**	**296**	*e*Pn		**Pn**	**21 03 03.1**	**-1.2**
DRME	**Dracevica, Mon**	**1.30**	**296**	⇓*i*Pg		**Pn**	**21 03 02.7**	**-1.6**
DRME				*i*Sg		**Sb**	**21 03 21.7**	**+0.3**
PDG	**Podgorica**	**1.38**	**306**	*e*Pg		**Pn**	**21 03 03.5**	**-1.7**
PDG	**Podgorica**	**1.38**	**306**	*e*Pg		**Pb**	**21 03 05.7**	**+0.1**
PDG				*e*Sg		**Sn**	**21 03 24.2**	**+0.2**
PDG	**Podgorica**	**1.38**	**306**	*e*Pn		**Pn**	**21 03 03.6**	**-1.7**
PDG	**Podgorica**	**1.38**	**306**	⇑*i*Pg		**Pn**	**21 03 03.5**	**-1.8**
PDG				*i*Sg		**Sn**	**21 03 24.9**	**+0.9**
VAY	**Valandovo**	**1.39**	**102**	⇓*i*Pg		**Pn**	**21 03 05.3**	**-0.2**
VAY				*e*Lg	Lg		21 03 25.2	
	comp=E,93nm,0.4s							
VAY				*i*Sg		**Sn**	**21 03 25.2**	**+0.8**
VAY				*e*Lg	Lg		21 03 25.7	
	comp=N,157nm,0.6s							
IVA	**Berane**	**1.40**	**333**	⇑*i*Pg		**Pn**	**21 03 04.8**	**-0.9**
IVA				*i*Sg		**Sn**	**21 03 25.8**	**+1.1**
GRG	**Griva**	**1.41**	**118**	P		**Pn**	**21 03 05.3**	**-0.4**
GRG				S		**Sb**	**21 03 23.6**	**-0.9**
GRG				AML		AML		
BARS	**Barje**	**1.42**	**33**	*e*Pg		**Pn**	**21 03 05.4**	**-0.5**
BARS				*e*Sg		**Sb**	**21 03 24.1**	**-0.6**
PENT	**Pentalofos**	**1.46**	**169**	P		**Pn**	**21 03 06.6**	**+0.1**
LSK	**Leskovik**	**1.49**	**185**	P		**Pn**	**21 03 06.9**	**0.0**
LSK					Sn	**Sg**	**21 03 28.6**	**+1.6**
VLO	**Vlora**	**1.51**	**220**	Pg		**Pb**	**21 03 07.9**	**+0.1**
VLO				S		**Sg**	**21 03 28.0**	**+0.4**
VLO				IAML			21 03 34.9	
	comp=N,643nm,0.4s							
KZN	**Kozani**	**1.53**	**150**	P		**Pn**	**21 03 07.5**	**+0.1**
KZN				AML		AML		
KOME	**Kolasin**	**1.53**	**323**	⇓*i*Pg		**Pn**	**21 03 06.8**	**-0.7**
KOME				*i*Sg		**Sg**	**21 03 30.5**	**+2.2**
BOSS	**Bosilegrad**	**1.54**	**55**	*e*Pg		**Pn**	**21 03 07.4**	**-0.2**
BOSS				*e*Sg		**Sg**	**21 03 29.2**	**+0.5**
BUM	**Brajici-Budva**	**1.55**	**296**	⇑*i*Pg		**Pn**	**21 03 07.0**	**-0.7**
BUM				*i*Sg		**Sg**	**21 03 30.3**	**+1.5**
PEHC	**Pehcevo**	**1.61**	**84**	*i*Pg		**Pb**	**21 03 09.3**	**-0.2**
PEHC				*i*Sg		**Sg**	**21 03 31.5**	**+0.7**
SELS	**Selova**	**1.61**	**9**	*e*Pg		**Pn**	**21 03 08.1**	**-0.4**
SELS				*e*Sg		**Sn**	**21 03 28.9**	**-0.9**
CEME	**Cevo**	**1.65**	**304**	⇑*i*Pn		**Pn**	**21 03 08.8**	**-0.3**
CEME				*i*Sn		**Sg**	**21 03 33.3**	**+1.1**
KNT	**Kendrikon**	**1.67**	**106**	P		**Pn**	**21 03 10.0**	**+0.6**
KNT				S		**Sn**	**21 03 31.6**	**+0.2**
KNT				AML		AML		
SJES	**Sjenica**	**1.73**	**340**	*e*Pg		**Pb**	**21 03 11.0**	**-0.6**
SJES				*e*Sg		**Sb**	**21 03 33.3**	**-0.5**
SJES	**Sjenica**	**1.73**	**340**	*e*Pn		**Pb**	**21 03 11.1**	**-0.6**
KPRO	**Kipourio**	**1.74**	**165**	P		**Pn**	**21 03 10.8**	**+0.5**
KPRO				AML		AML		
NKME	**Niksic**	**1.76**	**311**	⇓*i*Pn		**Pn**	**21 03 11.3**	**+0.7**
NKME				*i*Sn		**Sg**	**21 03 36.4**	**+0.7**
KKB	**Krupnik**	**1.78**	**83**	P		**Pb**	**21 03 12.0**	**-0.5**
KKB				S		**Sb**	**21 03 35.6**	**+0.4**
KKB				AML		AML		
KKB	**Krupnik**	**1.78**	**83**	P		**Pn**	**21 03 11.0**	**+0.1**
KKB				S		**Sn**	**21 03 32.7**	**-1.3**
SRN	**Sarande**	**1.84**	**199**	P		**Pb**	**21 03 13.1**	**-0.4**
SRN				S		**Sb**	**21 03 36.5**

KBA	**Koelnbreinsper** comp=N,0.6nm,0.3s	**7.61**	**318**	*e*Pn	**Pn**	**21 04 33.8 +2.8**
ABTA	**Abfaltersbach** comp=N,1.6nm,0.5s	**7.83**	**314**	*i* Pn	**Pn**	**21 04 36.0 +2.0**
LESA	**Schwarzleotal** comp=N,2.4nm,0.5s	**8.18**	**318**	*e*Pn	**Pn**	**21 04 41.9 +3.1**
WTTA	**Wattenberg** comp=N,0.6nm,0.2s	**8.62**	**314**	*i* Pn	**Pn**	**21 04 47.6 +2.7**
WATA	**Walderalm** comp=N,0.5nm,0.3s	**8.69**	**314**	*i* Pn	**Pn**	**21 04 49.0 +3.1**
SQTA	**Sankt Quirin** comp=N,1.0nm,0.3s	**8.82**	**312**	*e*Pn	**Pn**	**21 04 49.7 +2.1**
MOTA	**Moosalm** comp=N,0.4nm,0.3s	**8.96**	**313**	*e*Pn	**Pn**	**21 04 51.5 +2.0**

*ISK **12** 21:11:12.5, 37.84N×26.91E, h11km, ML3.3/26*
*THE **12** 21:11:12.4, 37.8N±0.6×26.9E±0.8, h11km, M3.1/13, MLh3.1/13*
*AFAD **12** 21:11:12.6, 37.85N×26.92E, h7km±2km, MW3.3*
*ATH **12** 21:11:12.3, 37.83N×26.91E, h12km, ML3.3/10, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 12 21:11:12.7±0.8, 37.84N±0.01×26.91E±0.02, h13km±5km, n138, σ0.45/176, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.14**	**203**	P	**Pg**	**21 11 16.0**	**-0.2**
SMG				S	**Sg**	**21 11 18.7**	**0.0**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**203**	P	**Pg**	**21 11 16.0**	**-0.2**
SMG				S	**Sg**	**21 11 18.4**	**-0.3**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.16**	**256**	P	**Pg**	**21 11 16.4**	**-0.1**
KRL1				S	**Sg**	**21 11 19.6**	**+0.4**
KRL1				AML	AML		
DGB	**zmir**	**0.22**	**355**	P	**Pg**	**21 11 17.1**	**-0.3**
DGB				S	**Sg**	**21 11 19.9**	**-0.8**
GMLD	**Gumuldur**	**0.24**	**2**	Pg	**Pg**	**21 11 17.7**	**-0.1**
GMLD				Sg	**Sg**	**21 11 21.4**	**+0.1**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.25**	**252**	P	**Pg**	**21 11 17.6**	**-0.3**
SAM2				S	**Sg**	**21 11 21.3**	**-0.2**
SAM2				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**117**	P	**Pg**	**21 11 18.9**	**+0.2**
GCAM				S	**Sg**	**21 11 23.2**	**+0.4**
GCAM	**G?zelcaml?**	**0.29**	**117**	Pg	**Pg**	**21 11 18.8**	**+0.1**
GCAM				Sg	**Sb**	**21 11 23.6**	**-0.9**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**85**	Pg	**Pg**	**21 11 18.9**	**0.0**
KUSD				Sg	**Sg**	**21 11 23.5**	**+0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**2**	P	**Pg**	**21 11 20.2**	**-0.4**
BEYE				S	**Sg**	**21 11 25.4**	**-0.5**
DDIM	**Aydin, Didim**	**0.46**	**145**	P	**Pb**	**21 11 22.2**	**-0.5**
DDIM				S	**Sb**	**21 11 28.9**	**-0.5**
ZEYE	**Izmir, Urla-Ze**	**0.51**	**322**	P	**Pg**	**21 11 22.6**	**-0.2**
ZEYE				S	**Sb**	**21 11 30.2**	**-0.7**
DIDI	**Didim-Aydin**	**0.53**	**150**	Pg	**Pg**	**21 11 23.2**	**+0.1**
DIDI				Sg	**Sb**	**21 11 31.7**	**+0.3**
DIDI				AML	AML		
BLCB	**Balcova**	**0.56**	**11**	P	**Pg**	**21 11 23.3**	**-0.3**
BLCB				S	**Sg**	**21 11 30.9**	**-0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**11**	Pg	**Pg**	**21 11 23.5**	**-0.2**
BLCB				Sg	**Sb**	**21 11 31.9**	**-0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.58**	**48**	P	**Pg**	**21 11 23.6**	**-0.3**
DUVT				S	**Sg**	**21 11 31.1**	**-0.5**
CESE	**eme**	**0.69**	**316**	Pg	**Pb**	**21 11 26.3**	**-0.2**
CESE				Sg	**Sb**	**21 11 36.3**	**+0.4**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.77**	**157**	Pg	**Pb**	**21 11 27.9**	**0.0**
YKAV				Sg	**Sb**	**21 11 38.7**	**+0.4**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**82**	Pg	**Pb**	**21 11 28.2**	**-0.1**
AYDB				Sg	**Sb**	**21 11 39.5**	**+0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.79**	**102**	P	**Pb**	**21 11 28.0**	**-0.3**
AYDN				S	**Sg**	**21 11 37.7**	**-0.7**
KRBN	**Karaburun**	**0.81**	**340**	Pg	**Pb**	**21 11 28.3**	**-0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**357**	P	**Pb**	**21 11 28.9**	**+0.1**
BAGT				S	**Sb**	**21 11 39.6**	**-0.1**
BODT	**Bodrum**	**0.84**	**157**	P	**Pg**	**21 11 28.4**	**-0.4**
BODT				S	**Sb**	**21 11 40.4**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**157**	Pg	**Pb**	**21 11 29.0**	**-0.1**
BODT				AML	AML		
CHOS	**Chios island**	**0.87**	**310**	P	**Pg**	**21 11 29.0**	**-0.6**
CHOS				S	**Sb**	**21 11 41.4**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**310**	Pg	**Pb**	**21 11 29.9**	**+0.2**
CHOS				Sg	**Sb**	**21 11 42.3**	**+1.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**310**	P	**Pg**	**21 11 28.9**	**-0.6**
CHOS				S	**Sb**	**21 11 41.2**	**0.0**
CHOS				AML	AML		
MLSB	**Milas**	**0.88**	**128**	Pg	**Pb**	**21 11 29.9**	**+0.1**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.88**	**176**	P	**Pg**	**21 11 29.3**	**-0.3**
KLNA				S	**Sb**	**21 11 41.6**	**+0.2**
BDRM	**Kayabasi**	**0.88**	**151**	P	**Pg**	**21 11 28.9**	**-0.8**
BDRM				S	**Sb**	**21 11 41.7**	**+0.2**
IZMR	**zmir-demi**	**0.88**	**70**	P	**Pg**	**21 11 29.2**	**-0.5**
IZMR				S	**Sg**	**21 11 39.8**	**-1.4**
FOCM	**Foa**	**0.89**	**351**	Pg	**Pb**	**21 11 29.7**	**-0.2**
FOCM				AML	AML		
BODA	**Bodrum-Mula**	**0.90**	**152**	Pg	**Pn**	**21 11 30.6**	**-0.4**
KARB	**zmir-Karabur**	**0.91**	**335**	P	**Pg**	**21 11 29.9**	**-0.5**
KARB				S	**Sb**	**21 11 42.5**	**+0.1**
EAG2	**Marmaro, Chios**	**0.95**	**319**	P	**Pg**	**21 11 30.4**	**-0.6**
EAG2				S	**Sb**	**21 11 43.6**	**+0.2**
CAMT	**Merkez**	**0.97**	**19**	P	**Pb**	**21 11 31.2**	**-0.1**
CAMT				S	**Sb**	**21 11 44.6**	**+0.6**
NAZL	**Nazilli-Aydin**	**1.10**	**83**	Pn	**Pn**	**21 11 34.3**	**+0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.14**	**91**	P	**Pn**	**21 11 34.2**	**-0.2**
ESEN				S	**Sb**	**21 11 48.8**	**-0.3**
GOMA	**Golmarmara-Man**	**1.18**	**42**	Pn	**Pg**	**21 11 35.3**	**-0.1**
GOMA				AML	AML		
DAT	**Datca**	**1.23**	**154**	Pn	**Pn**	**21 11 35.5**	**-0.1**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.23**	**159**	P	**Pn**	**21 11 35.4**	**-0.2**
YAZI				S	**Sn**	**21 11 52.4**	**+0.3**
DKL	**Dikili**	**1.23**	**360**	Pn	**Pg**	**21 11 36.1**	**-0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.23**	**360**	P	**Pn**	**21 11 35.5**	**-0.2**
DKL				S	**Sn**	**21 11 52.1**	**0.0**
KIRA	**zmir-Kiraz**	**1.23**	**73**	P	**Pn**	**21 11 35.6**	**-0.2**
KIRA				S	**Sb**	**21 11 51.4**	**-0.4**
AKS	**Akhisar**	**1.26**	**34**	Pn	**Pg**	**21 11 36.6**	**-0.4**
AKS				AML	AML		
YER	**Yerkesik**	**1.30**	**122**	P	**Pn**	**21 11 36.7**	**0.0**
YER				S	**Sg**	**21 11 54.6**	**0.0**
YER				AML	AML		
YER	**Yerkesik**	**1.30**	**122**	Pn	**Pn**	**21 11 36.6**	**0.0**
YER				AML	AML		
APE	**Apeiranthos**	**1.33**	**235**	Pn	**Pb**	**21 11 37.6**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.33**	**235**	P	**Pn**	**21 11 36.2**	**-0.9**
APE				AML	AML		
ASTA	**Astypalaia**	**1.36**	**199**	P	**Pn**	**21 11 37.1**	**-0.3**
ASTA				AML	AML		
SOMA	**Soma-Manisa**	**1.41**	**20**	Pn	**Pb**	**21 11 38.8**	**0.0**
SOMA				AML	AML		
TNSA	**Tinos**	**1.41**	**258**	P	**Pn**	**21 11 37.0**	**-1.0**
GORD	**Gordes-Manisa**	**1.47**	**43**	Pn	**Pb**	**21 11 39.9**	**+0.1**
GORD				AML	AML		
PRK	**Paraskevi**	**1.49**	**341**	P	**Pn**	**21 11 38.8**	**-0.4**
PRK				S	**Sb**	**21 11 59.0**	**-0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.49**	**341**	P	**Pn**	**21 11 38.6**	**-0.6**
PRK				AML	AML		
TURN	**Turunc**	**1.50**	**134**	Pn	**Pb**	**21 11 40.1**	**-0.3**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.73**	**126**	Pn	**Pn**	**21 11 42.9**	**+0.5**
DALY				AML	AML		
CMBO	**Columbo, Santo**	**1.81**	**222**	P	**Pn**	**21 11 43.5**	**-0.1**
THR2	**Thira island,**	**1.82**	**221**	P	**Pn**	**21 11 44.0**	**+0.4**
THR8	**Santorini-Mono**	**1.83**	**219**	P	**Pn**	**21 11 44.2**	**+0.4**
THERA	**Ancient Thera,**	**1.86**	**218**	P	**Pn**	**21 11 43.6**	**-0.6**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**218**	P	**Pn**	**21 11 43.0**	**-1.2**
THERA				AML	AML		
THR3	**Thira Island,**	**1.86**	**221**	P	**Pn**	**21 11 44.6**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.87**	**221**	P	**Pn**	**21 11 44.3**	**-0.1**
SAP3	**Santorini-Thir**	**1.87**	**222**	P	**Pn**	**21 11 44.4**	**0.0**
THR5	**Thira Island,**	**1.89**	**222**	P	**Pn**	**21 11 45.1**	**+0.5**
ARG	**Arkhangelos**	**1.89**	**148**	P	**Pn**	**21 11 45.0**	**+0.4**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.89**	**148**	Pn	**Pn**	**21 11 45.3**	**+0.7**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.89**	**148**	P	**Pn**	**21 11 44.9**	**+0.2**
ARG				AML	AML		
THR6	**Thira Island,**	**1.91**	**220**	P	**Pn**	**21 11 45.2**	**+0.3**
APMY	**Acipayam-Deniz**	**1.94**	**100**	Pn	**Pn**	**21 11 46.3**	**+0.9**
APMY				AML	AML		
KARY	**Karystos**	**1.96**	**276**	P	**Pn**	**21 11 45.6**	**0.0**
KARY	**Karystos**	**1.96**	**276**	P	**Pn**	**21 11 45.4**	**-0.3**
KARP	**Karpathos**	**2.29**	**175**	P	**Pn**	**21 11 49.8**	**-0.4**
KARP	**Karpathos**	**2.29**	**175**	P	**Pn**	**21 11 50.0**	**-0.3**
KYMI	**Kymi, Euboea I**	**2.35**	**291**	P	**Pn**	**21 11 50.7**	**-0.3**
KYMI	**Kymi, Euboea I**	**2.35**	**291**	P	**Pn**	**21 11 50.6**	**-0.3**
DION	**Dionisos Attik**	**2.36**	**277**	P	**Pn**	**21 11 51.2**	**0.0**
DION	**Dionisos Attik**	**2.36**	**277**	P	**Pn**	**21 11 50.6**	**-0.6**
PTL	**Penteli**	**2.41**	**276**	P	**Pn**	**21 11 52.0**	**+0.1**
PTL	**Penteli**	**2.41**	**276**	P	**Pn**	**21 11 51.5**	**-0.4**
LIA	**Limnos Island**	**2.46**	**327**	P	**Pn**	**21 11 52.5**	**+0.1**
LIA	**Limnos Island**	**2.46**	**327**	P	**Pn**	**21 11 52.3**	**-0.1**
VLY	**Voula,Athens**	**2.46**	**271**	P	**Pn**	**21 11 52.5**	**0.0**
VLY	**Voula,Athens**	**2.46**	**271**	P	**Pn**	**21 11 52.3**	**-0.2**
ATHU	**Athens Univers**	**2.47**	**274**	P	**Pn**	**21 11 52.6**	**0.0**
ATHU	**Athens Univers**	**2.47**	**274**	P	**Pn**	**21 11 52.2**	**-0.4**
GADA	**Gvkgeada**	**2.48**	**342**	P	**Pn**	**21 11 52.7**	**-0.1**
GADA				S	**Sn**	**21 12 24.9**	**+2.0**
STFN	**Stefani**	**2.68**	**278**	P	**Pn**	**21 11 56.0**	**+0.5**
STFN	**Stefani**	**2.68**	**278**	P	**Pn**	**21 11 55.6**	**+0.1**
AOS2	**Alonissos-2**	**2.74**	**300**	P	**Pn**	**21 11 56.8**	**+0.6**
NPS	**Neapolis**	**2.77**	**202**	P	**Pn**	**21 11 56.5**	**-0.3**
NPS				AML	AML		
NPS	**Neapolis**	**2.77**	**202**	P	**Pn**	**21 11 56.4**	**-0.3**
ZKR	**Zakros**	**2.77**	**192**	P	**Pn**	**21 11 57.2**	**+0.4**
MET5	**Makryloggos,Me**	**2.82**	**267**	P	**Pn**	**21 11 57.8**	**+0.3**
MET6	**Megalochori,Me**	**2.83**	**266**	P	**Pn**	**21 11 57.8**	**+0.3**
SMTH	**Samothraki Isl**	**2.84**	**338**	P	**Pn**	**21 11 57.5**	**-0.2**
SMTH	**Samothraki Isl**	**2.84**	**338**	P	**Pn**	**21 11 57.5**	**-0.2**
MET2	**Kameni Chora,**	**2.84**	**267**	P	**Pn**	**21 11 58.0**	**+0.3**
VILL	**Villia**	**2.86**	**278**	P	**Pn**	**21 11 57.9**	**-0.1**
VIL2	**Platees**	**2.90**	**279**	P	**Pn**	**21 11 58.0**	**-0.5**
MET3	**Ano Fanari,Met**	**2.93**	**266**	P	**Pn**	**21 11 58.5**	**-0.5**
ENEZ	**Enez**	**2.96**	**349**	P	**Pn**	**21 11 59.9**	**+0.6**
EPID	**Epidavros**	**3.01**	**267**	P	**Pn**	**21 11 59.6**	**-0.5**
IDI	**Anoyia**	**3.02**	**213**	P	**Pn**	**21 11 59.9**	**-0.3**
IDI	**Anoyia**	**3.02**	**213**	P	**Pn**	**21 11 59.6**	**-0.6**
LOUT	**Loutraki**	**3.11**	**274**	P	**Pn**	**21 12 01.2**	**-0.3**
LTK	**Loutraki**	**3.12**	**275**	P	**Pn**	**21 12 01.7**	**+0.1**
LTK				AML	AML		
LTK	**Loutraki**	**3.12**	**275**	P	**Pn**	**21 12 01.1**	**-0.5**
ALN	**Alexandroupoli**	**3.13**	**348**	P	**Pn**	**21 12 01.6**	**-0.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**3.13**	**348**	P	**Pn**	**21 12 01.6**	**-0.1**
ATAL	**Atalanti**	**3.17**	**287**	P	**Pn**	**21 12 02.6**	**+0.3**
ATAL	**Atalanti**	**3.17**	**287**	P	**Pn**	**21 12 02.3**	**0.0**
ACOR	**Acrocorinthos**	**3.19**	**272**	P	**Pn**	**21 12 02.7**	**+0.1**
NEO	**Neokhori**	**3.24**	**298**	P	**Pn**	**21 12 03.4**	**+0.2**
NEO	**Neokhori**	**3.24**	**298**	P	**Pn**	**21 12 03.4**	**+0.2**
THAS	**Thassos island**	**3.25**	**329**	P	**Pn**	**21 12 03.2**	**-0.1**
PAIG	**Paliouri**	**3.27**	**311**	P	**Pn**	**21 12 03.9**	**+0.3**
VLI	**Veliai**	**3.36**	**252**	P	**Pn**	**21 12 04.7**	**-0.1**
OUR	**Ouranopolis**	**3.38**	**319**	P	**Pn**	**21 12 05.4**	**+0.3**
AXAR	**Agios Charalam**	**3.47**	**287**	P	**Pn**	**21 12 06.6**	**+0.2**
GUR	**Goura**	**3.61**	**273**	P	**Pn**	**21 12 08.9**	**+0.4**
GUR	**Goura**	**3.61**	**273**	P	**Pn**	**21 12 08.3**	**-0.1**
KLV	**Kalavryta, Ach**	**3.77**	**275**	P	**Pn**	**21 12 11.2**	**+0.7**
AGG	**Agios Georgios**	**3.78**	**290**	P	**Pn**	**21 12 11.6**	**+0.9**
KALE	**Kalithea**	**3.80**	**280**	P	**Pn**	**21 12 12.0**	**+1.1**
KALE	**Kalithea**	**3.80**	**280**	P	**Pn**	**21 12 10.9**	**-0.1**
LAKA	**Lakka**	**3.91**	**277**	P	**Pn**	**21 12 12.3**	**-0.1**
KDZ	**Kurdzhali**	**3.98**	**343**	P	**Pn**	**21 12 13.7**	**+0.3**
ITM	**Ithomi**	**4.01**	**262**	P	**Pn**	**21 12 14.0**	**+0.2**
VVK	**Vomvokou**	**4.06**	**280**	P	**Pn**	**21 12 15.5**	**+0.9**
TYRN	**Tyrnavos**	**4.10**	**299**	P	**Pn**	**21 12 15.8**	**+0.7**
DRO	**Drossia**	**4.11**	**273**	P	**Pn**	**21 12 16.0**	**+0.8**
SRS	**Serrai**	**4.16**	**323**	P	**Pn**	**21 12 16.5**	**+0.6**
SRS	**Serrai**	**4.16**	**323**	P	**Pn**	**21 12 15.9**	**0.0**
RZN	**Rozhen**	**4.20**	**337**	P	**Pn**	**21 12 16.9**	**+0.4**
NVR	**Nevrokopi**	**4.22**	**327**	P	**Pn**	**21 12 17.2**	**+0.4**
NVR	**Nevrokopi**	**4.22**	**327**	P	**Pn**	**21 12 16.3**	**-0.5**

*IDC **12** 21:13:30.6±2.3, 28.82S×177.53W, h45km±19km, mb3.4/4, mbtmp3.7/4, Error ellipse: s-maj=38.4km s-min=31.8km az=158.0*

ISC 12 21:13:31.9±1.1, 28.9S±0.2×177.6W±0.2, h57km, n12, σ0.40/8, mb3.6/4, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**0.50**	**218**	P	**Pn**	**21 13 43.1**	**-0.5**
	2µm,0.2s,baz=79,slow=7.6,SNR=44						
RAO				S	**Sn**	**21 13 52.6**	**+0.5**
	3µm,0.3s,baz=74,slow=21,SNR=14						
URZ	**Urewera**	**10.37**	**204**	S	Sn	21 17 43.0	-10
	4.1nm,0.5s,baz=167,slow=22,SNR=9.4						
ASAR	**Alice Springs**	**43.59**	**265**	P	**P**	**21 21 30.6**	**-0.1**
	0.4nm,0.5s,baz=96,slow=6.6,SNR=7.3						
	0.4nm,0.5s						
WRA	**Warramunga Arr**	**44.44**	**270**	P	**P**	**21 21 37.6**	**+0.1**
	0.5nm,0.7s,baz=110,slow=7.9,SNR=5.1						
	0.5nm,0.7s						
QSPA	**South Pole Qui**	**61.25**	**180**	P	**P**	**21 23 41.0**	**+0.1**
	1.7nm,0.9s,baz=331,slow=1.3,SNR=5.0						
	1.7nm,0.9s						
H03S2	**Juan Fernandez**	**81.00**	**124**	T	T	22 55 38.5	
	baz=242,slow=74,SNR=6.3						
H03S1	**Juan Fernandez**	**81.01**	**124**	T	T	22 55 41.3	
	baz=242,slow=74,SNR=5.0						
H03S3	**Juan Fernandez**	**81.02**	**124**	T	T	22 55 38.2	
	baz=242,slow=74,SNR=4.4						
NVAR	**Mina Arroy Bea**	**86.85**	**43**	P	**P**	**21 26 10.5**	**-0.1**
	0.4nm,0.7s,baz=238,slow=4.4,SNR=3.5						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**120.29**	**314**	PKP	**PKPdf**	**21 32 16.1**	**-0.1**
	0.2nm,0.5s,baz=108,slow=2.1,SNR=4.6						
FINES	**FINESS Array B**	**143.82**	**341**	PKP	PKPab	21 32 57.9	+0.9
	0.6nm,0.6s,baz=5.7,slow=5.6,SNR=4.4						
AKASG	**Malin Array Be**	**150.28**	**325**	PKPbc	**PKPbc**	**21 33 16.8**	**+0.5**
	0.8nm,0.6s,baz=45,slow=2.7,SNR=4.5						

*IDC **12** 21:14:45.1±1.1, 2.17S×119.34E, h0km, mb3.3/5, mbtmp3.4/6, ML3.6/1, MS2.7/2, Error ellipse: s-maj=69.2km s-min=14.9km az=72.0*

ISC 12 21:14:51.0±1.1, 2.12S±0.1×119.4E±0.4, h45km, n7, σ1.03/7, mb3.5/5, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KAPI	**Kappang**	**2.80**	**172**	Pn	**Pn**	**21 15 33.0**	**-0.4**
	8.8nm,0.3s,baz=332,slow=14,SNR=8.7						
KAPI				Sn	**Sn**	**21 16 06.3**	**+0.3**
	12nm,0.3s,baz=219,slow=21,SNR=4.1						
KAPI				LR	LR	21 16 51.2	
	comp=Z,116nm,19.2s,baz=14,slow=44						
	19nm,0.3s						
KAPI				AML	AML		
DAV	**Davao City (W)**	**11.13**	**34**	LR	LR	21 21 54.3	
	comp=Z,47nm,20.0s,baz=316,slow=39						
WRA	**Warramunga Arr**	**22.91**	**141**	P	**P**	**21 19 50.3**	**-0.9**
	0.8nm,0.7s,baz=320,slow=11,SNR=5.3						
	0.8nm,0.7s						
ASAR	**Alice Springs**	**25.55**	**148**	P	**P**	**21 20 17.1**	**+1.3**
	0.2nm,0.5s,baz=334,slow=8.2,SNR=3.0						
	0.2nm,0.5s						
SONM	**Songino Array**	**51.12**	**349**	P	**P**	**21 23 49.9**	**+0.4**
	0.4nm,0.7s,baz=170,slow=9.0,SNR=3.7						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	**58.68**	**331**	P	**P**	**21 24 42.9**	**-1.1**
	0.4nm,0.9s,baz=141,slow=9.3,SNR=2.1						
	0.4nm,0.9s						
KURBB	**Kurchatov Arra**	**63.13**	**332**	P	**P**	**21 25 14.5**	**+0.5**
	0.2nm,0.5s,baz=135,slow=6.3,SNR=6.0						
	0.2nm,0.5s						

*IDC **12** 21:21:19.2±1.0, 27.90N×87.52E, h0km, mb3.7/11, mbtmp3.6/13, ML3.6/2, MS2.7/2, Error ellipse: s-maj=40.9km s-min=15.7km az=54.0*
*DMN **12** 21:21:31.4±1.2, 25.96N×86.68E, h60km, Ml4.4/9, Error ellipse: s-maj=28.1km s-min=13.1km az=7.0*

ISC 12 21:21:27.9±0.8, 27.56N±0.06×87.82E±0.03, h107km±10km, n32, σ2.82/43, mb3.5/11, Nepal

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ODAN	**Odare**	**0.80**	**209**	Pg	Pn	21 21 51.5	+4.4
	baz=35,slow=0.0						
ODAN				Sg	**Sn**	**21 22 07.5**	**+6.1**
	1µm,0.3s,baz=35,slow=0.0						
ODAN				AML	AML		
RAMN	**Ramite**	**1.25**	**241**	Pg	**Pn**	**21 21 54.6**	**+2.8**
	baz=356,slow=0.0						
RAMN				Sg	**Sn**	**21 22 04.1**	**-5.7**
	768nm,0.3s,baz=356,slow=0.0						
RAMN				AML	AML		
PKI	**Pulchoki**	**2.14**	**271**	Pg	**Pn**	**21 22 03.9**	**+1.0**
	baz=325,slow=0.0						
PKI				Sg	**Sn**	**21 22 26.4**	**-3.2**
	202nm,0.2s,baz=325,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**2.15**	**271**	Pg	**Pn**	**21 22 03.8**	**+0.9**
	baz=325,slow=0.0						
PKIN				Sg	**Sn**	**21 22 26.5**	**-3.2**
	255nm,0.2s,baz=325,slow=0.0						
PKIN				AML	AML		
KKN	**Kakani**	**2.27**	**276**	Pg	**Pn**	**21 22 04.5**	**+0.2**
	baz=326,slow=0.0						
KKN				Sg	**Sn**	**21 22 32.9**	**+0.6**
	378nm,0.2s,baz=326,slow=0.0						
KKN				AML	AML		
SHBG	**Sahibganj**	**2.32**	**184**	*i* P	**Pn**	**21 22 01.2**	**-3.7**
DMN	**Daman**	**2.41**	**272**	Pg	**Pn**	**21 22 07.5**	**+1.2**
	baz=320,slow=0.0						
DMN				Sg	**Sn**	**21 22 30.4**	**-5.3**
	211nm,0.3s,baz=320,slow=0.0						
DMN				AML	AML		
DHUB	**DHUBRI**	**2.48**	**128**	*i* P	**Pn**	**21 22 04.3**	**-2.5**
GKN	**Gorkha**	**2.86**	**280**	Pg	**Pn**	**21 22 11.3**	**-0.7**
	baz=319,slow=0.0						
GKN				Sg	**Sn**	**21 22 43.3**	**-2.7**
	207nm,0.2s,baz=319,slow=0.0						
GKN				AML	AML		
GAYA	**Gaya**	**3.60**	**221**	*i* P	**Pn**	**21 22 19.2**	**-2.5**
GAYA				IAmb	IAmb	21 22 28.7	
	comp=Z,4.6nm,0.5s						
GAYA				*i* S	**Sn**	**21 23 06.8**	**+3.4**
GAYA				IAML		21 23 11.8	
	comp=N,852nm,0.1s						
DANN	**Dangsing**	**3.68**	**283**	Pg	**Pn**	**21 22 20.4**	**-2.7**
	baz=313,slow=0.0						
DANN				Sg	**Sn**	**21 23 02.3**	**-3.5**
	comp=N,178nm,0.2s,baz=313,slow=0.0						
DANN				AML	AML		
KOLN	**Koldanda**	**3.75**	**274**	Pg	**Pn**	**21 22 23.5**	**-0.5**
	baz=304,slow=0.0						
KOLN				Sg	Sn	21 22 55.7	-12
	comp=N,250nm,0.2s,baz=304,slow=0.0						
KOLN				AML	AML		
BOK	**Bokaro**	**4.13**	**205**	*i* P	**Pn**	**21 22 24.3**	**-4.7**
BOK				*i* S	**Sn**	**21 23 15.8**	**-0.6**
SHL	**Shillong**	**4.14**	**118**	*i* P	**Pn**	**21 22 27.2**	**-2.0**
TEZP	**TEZPUR**	**4.54**	**101**	*i* P	**Pn**	**21 22 31.6**	**-2.8**
TEZP				*i* S	**Sn**	**21 23 26.7**	**+0.7**
TEZP				IAML		21 23 28.8	
	comp=N,159nm,0.2s						
ZIRO	**ZIRO**	**5.35**	**89**	*i* P	**Pn**	**21 22 40.9**	**-4.7**
ZIRO				IAmb	IAmb	21 22 47.9	
	comp=Z,31nm,0.6s						
ZIRO				*i* S	**Sn**	**21 23 45.3**	**-0.8**
AZL	**Aizawl**	**5.81**	**130**	*i* P	**Pn**	**21 22 50.9**	**-0.8**
AZL				*i* S	**Sn**	**21 24 01.9**	**+4.7**
KOHI	**KOHIMA**	**5.92**	**107**	*i* P	**Pn**	**21 22 50.9**	**-2.3**
KOHI				*i* S	**Sn**	**21 24 02.2**	**+2.4**
IMP	**Imphal**	**6.14**	**115**	*i* P	**Pn**	**21 22 54.6**	**-1.6**
CMAR	**Chiang Mai Arr**	**13.66**	**129**	Pn	**P**	**21 24 41.5**	**-0.9**
	comp=Z,0.1nm,0.3s,baz=309,slow=14,SNR=6.1						
CMAR				LR	LR	21 31 03.6	
	comp=Z,31nm,19.4s,baz=250,slow=42						
	comp=Z,0.4nm,0.8s						
CMAR				AML	AML		
MKAR	**Makanchi Array**	**19.69**	**349**	P	**P**	**21 25 46.8**	**-1.8**
	comp=Z,0.

BODT				AML	AML			
CAME	**Cameli-Denizli**	**0.84**	**94**	Pg	Pb	21 42 53.4	-0.6	
APMY	**Acipayam-Denizli**	**0.95**	**61**	Pg	Pb	21 42 55.9	0.0	
NAZL	**Nazilli-Aydin**	**0.96**	**2**	Pg	Pb	21 42 55.6	-0.3	
NAZL				AML	AML			
AKAS	**Kas**	**1.33**	**125**	Pn	Pb	21 43 02.9	+0.5	

AFAD 12 21:43:09.2, 37.88N×26.48E, h7km±2km, ML1.4, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZEYE	**Izmir, Urla-Ze**	**0.36**	**3**	P	Pg	21 43 16.5	+0.3
ZEYE				S	Sg	21 43 21.5	+0.6
ZEYE				IAML		21 43 22.0	
	comp=N,74nm,0.2s						
ZEYE				IAML		21 43 24.0	
	comp=E,58nm,0.1s						
DGB	**zmir**	**0.36**	**61**	P	Pg	21 43 16.8	+0.6
DGB				S	Sg	21 43 21.9	+1.0
DGB				IAML		21 43 22.0	
	comp=N,40nm,0.4s						
DGB				IAML		21 43 23.0	
	comp=E,37nm,0.4s						
BEYE	**izmir**	**0.49**	**45**	P	Pg	21 43 19.2	+0.5
BEYE				S	Sg	21 43 25.9	+0.7
BEYE				IAML		21 43 27.0	
	comp=E,20nm,0.2s						
GCAM	**G?zelcaml?**	**0.62**	**107**	P	Pg	21 43 21.3	+0.2
GCAM				S	Sb	21 43 30.3	-1.0
GCAM				IAML		21 43 31.0	
	comp=E,22nm,0.2s						
GCAM				IAML		21 43 35.0	
	comp=N,32nm,0.5s						

NEIC 12 21:43:55.0±1.6, 55.95S±0.09×28.1W±0.2, h106km±7km, mb4.3/19, Error ellipse: s-maj=15.1km s-min=12.3km az=47.0
IDC 12 21:43:57.9±8.1, 55.95S×27.87W, h136km±74km, mb3.6/5, mbtmp4.1/6, Error ellipse: s-maj=36.1km s-min=21.9km az=61.0

ISC 12 21:43:56.1±0.6, 55.9S±0.1×28.2W±0.1, h121km, n35, σ0.72/36, mb4.2/12, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**5.06**	**286**	Pn	**Pn**	**21 45 10.0**	**+0.2**
HOPE				Sn	**Sn**	**21 46 05.5**	**-1.6**
SNAA	**Sanae**	**19.07**	**156**	P	**P**	**21 48 07.7**	**-0.9**
	10nm,0.4s,baz=310,slow=11,SNR=33						
SNAA	**Sanae**	**19.07**	**156**	P	**P**	**21 48 07.8**	**-0.9**
SNAA				IAmb	IAmb	21 48 08.7	
	comp=Z,9.7nm,0.5s						
BELA	**Belgrano 2**	**22.15**	**184**	P	**P**	**21 48 40.9**	**-0.6**
MG02	**Cerro Sombrero**	**23.88**	**260**	P	**P**	**21 48 58.2**	**+0.1**
GO08	**Villa O'Higgin**	**27.80**	**267**	P	**P**	**21 49 33.9**	**+0.4**
GO08				IAmb	IAmb	21 49 36.4	
	comp=Z,7.9nm,1.0s						
QSPA	**South Pole Qui**	**34.31**	**180**	P	**P**	**21 50 30.7**	**+0.1**
	comp=Z,2.2nm,0.6s,baz=196,slow=2.5,SNR=25						
	comp=Z,2.2nm,0.6s						
QSPA	**South Pole Qui**	**34.31**	**180**	P	**P**	**21 50 31.3**	**+0.7**
QSPA				IAmb	IAmb	21 50 32.6	
	comp=Z,2.2nm,0.7s						
MT09	**Talagante**	**36.76**	**289**	P	**P**	**21 50 51.0**	**-0.8**
MT09				IAmb	IAmb	21 50 54.3	
	comp=Z,6.6nm,0.9s						
MT02	**Curacav**	**37.24**	**289**	P	**P**	**21 50 55.7**	**0.0**
MT02				IAmb	IAmb	21 50 56.0	
	comp=Z,9.1nm,1.1s						
CO02	**Combarbal**	**38.77**	**291**	P	**P**	**21 51 09.4**	**+0.7**
CO02				IAmb	IAmb	21 51 14.0	
	comp=Z,4.8nm,0.9s						
CO01	**Juntas del Tor**	**39.27**	**294**	P	**P**	**21 51 14.4**	**+1.3**
AC05	**El Transito**	**40.28**	**294**	P	**P**	**21 51 22.0**	**+0.7**
AC05				IAmb	IAmb	21 51 33.5	
	comp=Z,7.4nm,1.1s						
LCO	**Las Campanas**	**40.36**	**294**	P	**P**	**21 51 22.3**	**+0.2**
LCO				IAmb	IAmb	21 51 31.1	
	comp=Z,7.2nm,1.0s						
MAW	**Mawson**	**40.56**	**144**	P	**P**	**21 51 23.3**	**+0.4**
	comp=Z,1.5nm,0.6s,baz=219,slow=13,SNR=1.5						
	comp=Z,1.5nm,0.6s						
MAW	**Mawson**	**40.56**	**144**	P	**P**	**21 51 22.9**	**0.0**
AC01	**Pan de Azucar**	**42.65**	**296**	P	**P**	**21 51 41.5**	**+1.1**
VNDA	**Vanda**	**46.66**	**183**	P	**P**	**21 52 12.1**	**+0.5**
	comp=Z,0.7nm,0.7s,baz=188,slow=7.2,SNR=8.8						
	comp=Z,0.7nm,0.7s						
VNDA	**Vanda**	**46.66**	**183**	P	**P**	**21 52 12.6**	**+1.0**
LPAZ	**La Paz**	**49.87**	**306**	P	**P**	**21 52 38.9**	**+1.3**
	comp=Z,1.4nm,0.3s,baz=146,slow=1.7,SNR=10.0						
	comp=Z,1.4nm,0.3s						
LPAZ	**La Paz**	**49.87**	**306**	P	**P**	**21 52 38.8**	**+1.1**
LPAZ				IAmb	IAmb	21 52 39.7	
	comp=Z,1.4nm,0.5s						
BOAV	**Boa Vista**	**63.87**	**323**	P	**P**	**21 54 15.2**	**-0.4**
BOAV				IAmb	IAmb	21 54 15.9	
	comp=Z,1.4nm,0.8s						
SACV	**Santiago Islan**	**70.74**	**5**	P	**P**	**21 54 58.8**	**-0.1**
TORD	**Torodi Ar. Bea**	**73.23**	**30**	P	**P**	**21 55 13.6**	**-0.1**
	comp=Z,0.6nm,0.4s,baz=201,slow=7.6,SNR=4.3						
	comp=Z,0.6nm,0.4s						
SJCC	**San Jacinto, C**	**76.31**	**312**	P	**P**	**21 55 31.0**	**-0.5**
SJCC				IAmb	IAmb	21 55 40.1	
	comp=Z,5.4nm,1.1s						
ILAR	**Eielson Array**	**149.64**	**312**	PKPbc	**PKPbc**	**22 03 29.4**	**-0.4**
	comp=Z,1.1nm,0.8s,baz=96,slow=1.5,SNR=11						
F25K	**Christian Rive**	**149.67**	**318**	PKPbc	**PKiKP**	**22 03 30.4**	**-0.4**
C26K	**Camden Bay**	**149.69**	**322**	PKPbc	**PKiKP**	**22 03 30.9**	**+0.2**
TOLK	**Toolik Lake Re**	**151.24**	**319**	PKPbc	**PKiKP**	**22 03 33.7**	**-0.3**
BPAW	**Bear Paw Mtn.**	**151.24**	**310**	PKPbc	**PKiKP**	**22 03 33.9**	**-0.3**
ILSW	**Iliamna Southw**	**151.26**	**301**	PKPbc	**PKiKP**	**22 03 34.1**	**-0.3**
SONM	**Songino Array**	**151.26**	**87**	PKPbc	**PKPbc**	**22 03 33.0**	**-1.3**
	comp=Z,0.3nm,0.4s,baz=235,slow=4.0,SNR=4.4						
H21K	**Melozitna Rive**	**152.24**	**313**	PKPbc	**PKiKP**	**22 03 36.6**	**+0.5**
D22K	**Ayikyak River**	**152.38**	**320**	PKPbc	**PKiKP**	**22 03 36.5**	**+0.1**
IMAR	**Indian Mountai**	**152.66**	**314**	PKPbc	**PKiKP**	**22 03 37.1**	**+0.2**

RSNC 12 22:06:09.2±0.0, 7°N±3°×7°3W±°, h143km±8km, M2.3, ML2.0
FUNV 12 22:06:14.1, 7.08N×73.33W, h5km, MW2.9, Presumed earthquake

ISC 12 22:06:10.6±1.4, 6.85N±0.03×73.17W±0.04, h142km±9km, n24, σ1.963/44, 1D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.26**	**183**	P	**Pn**	**22 06 28.1**	**-2.3**
BARC				S	**Sn**	**22 06 46.5**	**+1.1**
BRJC	**Barrancabermej**	**0.58**	**282**	P	**Pn**	**22 06 32.8**	**+1.3**
BRJC				S	**Sn**	**22 06 49.7**	**+2.4**
RUSC	**La Rusia**	**0.96**	**175**	P	**Pn**	**22 06 32.4**	**-2.4**
RUSC				S	**Sn**	**22 06 54.3**	**+1.1**
RUSC	**La Rusia**	**0.96**	**175**	eP	**Pn**	**22 06 35.9**	**+1.0**
RUSC				eS	**Sn**	**22 06 52.5**	**-0.7**
CAPV	**Capacho**	**1.32**	**40**	eP	**Pn**	**22 06 36.8**	**-1.1**
CAPV				eS	**Sn**	**22 06 56.1**	**-2.6**
PTBC	**PUERTO BERRIO,**	**1.32**	**256**	P	**Pn**	**22 06 35.3**	**-2.4**
PTBC				S	**Sn**	**22 06 59.0**	**+0.7**
OCAC	**Ocana**	**1.39**	**354**	P	**Pn**	**22 06 39.3**	**+0.7**
OCAC				S	**Sn**	**22 07 01.4**	**+1.5**
TAMC	**Tame, Arauca**	**1.43**	**107**	P	**Pn**	**22 06 39.4**	**+0.5**
TAMC				S	**Sn**	**22 07 00.9**	**+0.5**
SPBC	**San Pablo de B**	**1.49**	**217**	P	Pn	22 06 33.9	-5.7
SPBC				S	**Sn**	**22 07 01.7**	**0.0**
NORC	**Norcasia**	**2.12**	**233**	P	**Pn**	**22 06 45.0**	**-1.8**
NORC				S	**Sn**	**22 07 15.6**	**+1.1**
CHIC	**Chingaza**	**2.28**	**194**	P	**Pn**	**22 06 49.3**	**+0.2**
CHIC				S	**Sn**	**22 07 18.8**	**+0.3**
ROSC	**El Rosal**	**2.30**	**210**	P	**Pn**	**22 06 49.3**	**0.0**
ROSC				S	**Sn**	**22 07 21.0**	**+2.0**
HELC	**Santa Helena**	**2.44**	**255**	P	**Pn**	**22 06 53.0**	**+2.1**
HELC				S	**Sn**	**22 07 21.6**	**-0.2**
HELC	**Santa Helena**	**2.44**	**255**	eP	**Pn**	**22 06 53.2**	**+2.3**
HELC				eS	**Sn**	**22 07 22.4**	**+0.6**
CVER	**Cruz Verde, Cu**	**2.48**	**201**	P	**Pn**	**22 06 52.4**	**+0.8**
UREC	**San Jos de Ur**	**2.51**	**291**	P	**Pn**	**22 06 48.7**	**-2.8**
UREC				S	**Sn**	**22 07 23.5**	**+0.5**
GUY2C	**Guyana, Caldas**	**2.72**	**234**	P	**Pn**	**22 06 55.0**	**+0.4**
GUY2C				S	**Sn**	**22 07 27.4**	**-0.9**
PTGC	**Puerto Gaitan,**	**2.83**	**159**	P	**Pn**	**22 06 53.9**	**-1.6**
PRAC	**Prado**	**3.56**	**209**	P	**Pn**	**22 07 04.2**	**-0.7**
PRAC				S	**Sn**	**22 07 46.1**	**-0.9**
ORTC	**Ortega, Tolima**	**3.58**	**215**	P	**Pn**	**22 07 03.1**	**-2.2**
ORTC				S	**Sn**	**22 07 49.6**	**+2.0**
SJCC	**San Jacinto, C**	**3.62**	**327**	P	**Pn**	**22 07 05.0**	**-0.8**
SJCC				S	**Sn**	**22 07 48.3**	**-0.3**
SJCC	**San Jacinto, C**	**3.62**	**327**	eP	**Pn**	**22 07 05.0**	**-0.8**
SJCC				⇓eS	**Sn**	**22 07 44.7**	**-3.9**
URMC	**La Uribe, Meta**	**3.78**	**199**	P	**Pn**	**22 07 08.5**	**+0.6**
CRJC	**Cerrejon, Guaj**	**4.15**	**4**	P	**Pn**	**22 07 15.1**	**+2.3**
CRJC				S	**Sn**	**22 08 03.0**	**+1.9**

ATH 12 22:06:26.5, 37.74N×26.87E, h11km, ML2.7/5, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
THE 12 22:06:27.2, 37.8N±0.8×26.2E±°, h5km±1km, M2.8/6, MLh2.8/6
AFAD 12 22:06:27.1, 37.78N×26.85E, h7km±3km, ML2.6
ISK 12 22:06:27.1, 37.79N×26.90E, h8km, ML2.5/16

ISC 12 22:06:27.1±0.8, 37.77N±0.02×26.87E±0.02, h8km±5km, n49, σ0.950/73, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.06**	**200**	P	**Pg**	**22 06 29.0**	**0.0**
SMG				S	**Sg**	**22 06 30.6**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.06**	**200**	P	**Pg**	**22 06 28.9**	**-0.2**
SMG				S	**Sg**	**22 06 30.6**	**+0.2**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.20**	**267**	P	**Pg**	**22 06 31.0**	**-0.2**
SAM2				S	**Sg**	**22 06 34.4**	**+0.4**
DGB	**zmir**	**0.28**	**3**	P	**Pg**	**22 06 32.5**	**-0.3**
DGB				S	**Sg**	**22 06 36.2**	**-0.3**
GCAM	**G?zelcaml?**	**0.30**	**103**	P	**Pg**	**22 06 32.8**	**-0.2**
GCAM				S	**Sb**	**22 06 38.7**	**-1.1**
GCAM	**G?zelcaml?**	**0.30**	**103**	Pg	**Pg**	**22 06 33.2**	**+0.2**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.31**	**7**	Pg	**Pg**	**22 06 33.1**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**75**	Pg	**Pg**	**22 06 34.1**	**+0.2**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.43**	**136**	P	**Pg**	**22 06 36.0**	**+0.5**
DDIM				S	**Sb**	**22 06 43.3**	**-0.2**
DDIM				IAML		22 06 48.0	
	comp=E,448nm,0.7s						
BEYE	**izmir**	**0.46**	**6**	P	**Pg**	**22 06 36.1**	**+0.1**
BEYE				S	**Sg**	**22 06 42.8**	**+0.7**
DIDI	**Didim-Aydin**	**0.49**	**143**	Pg	**Pg**	**22 06 37.0**	**+0.4**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.55**	**329**	P	**Pg**	**22 06 37.6**	**-0.1**
ZEYE				S	**Sg**	**22 06 45.7**	**+0.8**
ZEYE				IAML		22 06 47.0	
	comp=N,358nm,0.4s						
BLCB	**Balcova**	**0.63**	**13**	P	**Pg**	**22 06 39.0**	**-0.2**
BLCB				S	**Sb**	**22 06 48.5**	**-0.8**
BLCB	**Balcova**	**0.63**	**13**	Pg	**Pg**	**22 06 38.9**	**-0.4**
BLCB				Sg	**Sb**	**22 06 48.2**	**-1.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.65**	**46**	P	**Pg**	**22 06 39.4**	**-0.1**
DUVT				S	**Sb**	**22 06 51.1**	**+1.4**
DUVT				IAML		22 06 53.0	
	comp=E,498nm,0.4s						
BODT	**Bodrum**	**0.79**	**153**	P	**Pg**	**22 06 42.4**	**+0.1**
BODT				S	**Sb**	**22 06 54.4**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**153**	Pg	**Pg**	**22 06 42.5**	**+0.2**
BODT				AML	AML		
AYDN	**Tasoluk**	**0.81**	**97**	P	**Pb**	**22 06 43.1**	**-0.3**
AYDN				S	**Sn**	**22 06 57.2**	**+0.2**
AYDN				IAML		22 07 00.0	
	comp=E,161nm,0.4s						
AYDN				IAML		22 07 02.0	
	comp=N,157nm,1.0s						
KLNA	**Kalymnos**	**0.81**	**174**	P	**Pg**	**22 06 42.1**	**-0.6**
KLNA				S	**Sg**	**22 06 52.5**	**-0.9**
KLNA				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**77**	Pg	**Pg**	**22 06 43.1**	**0.0**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.84**	**147**	P	**Pg**	**22 06 43.2**	**0.0**
BDRM				S	**Sb**	**22 06 56.3**	**+1.0**
BDRM				IAML		22 07 00.0	
	comp=N,222nm,0.7s						
BDRM				IAML		22 07 01.0	
	comp=E,209nm,0.8s						
KRBN	**Karaburun**	**0.86**	**343**	Pg	**Pb**	**22 06 43.9**	**-0.3**
KRBN				AML	AML		
BODA	**Bodrum-Mula**	**0.86**	**148**	Pg	**Pb**	**22 06 44.3**	**+0.1**
MLSB	**Milas**	**0.87**	**123**	Pg	**Pg**	**22 06 43.3**	**-0.4**
MLSB				AML	AML		
BADT	**Foa**	**0.89**	**359**	P	**Pb**	**22 06 44.4**	**-0.3**
BAGT				S	**Sb**	**22 06 56.9**	**+0.3**
BAGT				IAML		22 06 59.0	
	comp=E,244nm,0.5s						
BAGT				IAML		22 07 17.0	
	comp=N,238nm,0.8s						
CHOS	**Chios island**	**0.89**	**314**	P	**Pg**	**22 06 43.9**	**-0.3**
CHOS				S	**Sb**	**22 06 57.3**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**314**	Pg	**Pb**	**22 06 44.8**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**314**	P	**Pg**	**22 06 44.3**	**+0.1**
CHOS				S	**Sb**	**22 06 57.3**	**+0.5**
CHOS				AML	AML		
IZMR	**zmir-demi**	**0.94**	**67**	P	**Pg**	**22 06 44.9**	**-0.2**
IZMR				S	**Sg**	**22 06 57.2**	**0.0**
FOCM	**Foa**	**0.95**	**354**	Pg	**Pg**	**22 06 45.3**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**338**	P	**Pg**	**22 06 45.5**	**0.0**
KARB				S	**Sn**	**22 07 00.3**	**-0.4**
KARB				IAML		22 07 01.0	
	comp=N,280nm,0.8s						
KARB				IAML		22 07 03.0	
	comp=E,329nm,0.5s						
EAG2	**Marmaro, Chios**	**0.98**	**323**	P	**Pb**	**22 06 46.4**	**+0.2**
EAG2				S	**Sb**	**22 06 59.7**	**+0.5**
CAMT	**Merkez**	**1.04**	**20**	P	**Pb**	**22 06 47.2**	**-0.1**
CAMT				S	**Sn**	**22 07 02.6**	**0.0**
CAMT				IAML		22 07 10.0	
	comp=E,199nm,0.4s						
CAMT				IAML		22 07 11.0	
	comp=N,262nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.15**	**80**	Pn	**Pg**	**22 06 48.8**	**-0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.18**	**151**	P	**Pg**	**22 06 49.8**	**0.0**
DAT				S	**Sn**	**22 07 07.0**	**+0.7**
DAT				AML	AML		
ZEDA	**zmir-Bergama**	**1.21**	**8**	P	**Pb**	**22 06 49.9**	**-0.3**
ZEDA				S	**Sn**	**22 07 08.1**	**+1.3**
GOMA	**Golmarmara-Man**	**1.25**	**41**	Pn	**Pg**	**22 06 50.9**	**-0.2**
GOMA				AML	AML		
YER	**Yerkesik**	**1.29**	**119**	P	**Pn**	**22 06 51.4**	**-0.1**
DKL	**Dikili**	**1.30**	**1**	Pn	**Pg**	**22 06 51.9**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.30**	**1**	P	**Pn**	**22 06 50.9**	**-0.6**
SOMA	**Soma-Manisa**	**1.48**	**21**	Pn	**Pn**	**22 06 54.3**	**+0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.54**	**42**	Pn	**Pn**	**22 06 55.1**	**+0.3**
GORD				AML	AML		
PRK	**Paraskevi**	**1.55**	**343**	P	**Pn**	**22 06 54.1**	**-0.8**
PRK	**Paraskevi**	**1.55**	**343**	P	**Pn**	**22 06 55.1**	**+0.2**
ARG	**Arkhangelos**	**1.85**	**147**	P	**Pn**	**22 06 59.2**	**+0.2**
ARG	**Arkhangelos**	**1.85**	**147**	P	**Pn**	**22 06 57.8**	**-1.2**
KARY	**Karystos**	**1.94**	**279**	P	**Pn**	**22 06 59.8**	**-0.5**
KARY	**Karystos**	**1.94**	**279**	P	**Pn**	**22 06 59.5**	**-0.7**
DION	**Dionisos Attik**	**2.34**	**278**	P	**Pn**	**22 07 05.6**	**-0.2**

IDC 12 22:14:08.5±1.2, 4.55S×130.81E, h0km, mb3.4/1, mbtmp3.7/5, ML3.8/4, MS3.7/1, Error ellipse: s-maj=51.6km s-min=12.7km az=95.0
DJA 12 22:14:14.8±0.4, 5°S±3°×13°1E±°, h108km±11km, M4.1/13, mb4.1/2, MLv4.1/13

ISC 12 22:14:13.9±1.0, 4.59S±0.06×130.98E±0.07, h100km, n13, σ3.929/13, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**1.08**	**274**	P	**Pn**	**22 14 35.8**	**+0.6**
BNDI				AML	AML		
FAKI	**Fak Fak**	**2.09**	**37**	P	**Pn**	**22 14 47.7**	**0.0**
FAKI				AML	AML		
KMPI	**Kaimana, Papua**	**2.87**	**71**	P	**Pn**	**22 14 58.7**	**+0.8**
KMPI				AML	AML		
SAUI	**Saumlaki**	**3.38**	**175**	P	**Pn**	**22 15 06.5**	**+1.7**
SAUI				AML	AML		
SIJI	**Sorong**	**3.71**	**4**	Pn	**Pn**	**22 15 08.0**	**-1.3**
	15nm,0.3s,baz=56,slow=7.5,SNR=51						
SIJI				Sn	**Sn**	**22 15 48.6**	**-3.5**
	42nm,0.3s,baz=44,slow=23,SNR=33						
	40nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**3.71**	**4**	P	**Pn**	**22 15 09.2**	**-0.1**
SIJI				AML	AML		
MWPI	**Manokwari, Pap**	**4.75**	**40**	P	**Pn**	**22 15 25.6**	**+2.3**
SANI	**Sanana**	**5.59**	**297**	P	**Pn**	**22 15 34.8**	**+0.1**
	0.1nm9.1nm,0.8s						
SANI				AML	AML		
FITZ	**Fitzroy Crossi**	**14.40**	**201**	Pn	Pn	22 17 29.4	-3.7
	0.4nm,0.3s,baz=24,slow=10.0,SNR=9.5						
FITZ				Sn	Sn	22 19 59.9	-12
	0.6nm,0.3s,baz=108,slow=22,SNR=5.9						
	1.1nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**15.60**	**168**	Pn	**Pn**	**22 17 45.4**	**-2.9**
	0.3nm,0.3s,baz=351,slow=14,SNR=20						
WRA				Sn	Sn	22 20 29.3	-12
	0.7nm,0.3s,baz=349,slow=24,SNR=8.4						
	1.0nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.17**	**172**	P	**Pn**	**22 18 32.9**	**+1.2**
	0.2nm,0.3s,baz=355,slow=11,SNR=15						
ASAR				S	**S**	**22 21 54.5**	**-7.3**
	0.6nm,0.6s,baz=360,slow=27,SNR=5.8						
	1.2nm,0.6s						
ASAR				AML	AML		
MSVF	**Nonsavu**	**47.84**	**110**	LR	LR	22 42 05.1	
	comp=Z,80nm,18.8s,baz=171,slow=35						
MKAR	**Makanchi Array**	**66.78**	**326**	P	**P**	**22 24 59.4**	**+4.6**
	0.3nm,0.7s,baz=134,slow=6.2,SNR=1.9						
	0.3nm,0.7s						

IDC 12 22:55:24.2±1.7, 1.75S×138.49E, h0km, mb3.1/2, mbtmp3.1/4, ML3.0/2, Error ellipse: s-maj=33.9km s-min=21.4km az=19.0, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**2.34**	**109**	Pn	Pn	22 56 03.1	-0.9
	1.2nm,0.3s,baz=242,slow=11,SNR=7.3						
JAY				Sn	Sn	22 56 31.7	-1.8
	2.8nm,0.3s,baz=115,slow=20,SNR=8.4						
	2.6nm,0.3s						
JAY				AML	AML		
WRA	**Warramunga Arr**	**18.53**	**192**	P	Pn	22 59 43.4	+0.8
	0.1nm,0.3s,baz=17,slow=12,SNR=2.6						
	0.4nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**22.24**	**191**	P	P	23 00 22.4	-0.4
	0.2nm,0.4s,baz=19,slow=9.2,SNR=4.8						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**68.90**	**322**	P	P	23 06 30.8	-0.2
	0.2nm,0.7s,baz=118,slow=5.5,SNR=1.7						
	0.2nm,0.7s						

RSNC 12 23:19:31.1±0.0, 7°N±2°×7°3W±°, h147km±5km, M3.1, mB4.4, mb3.7, ML2.8, Mw(mB)3.5
FUNV 12 23:19:31.8, 6.82N×73.09W, h167km, MW3.7, Presumed earthquake

ISC 12 23:19:30.3±1.3, 6.86N±0.03×73.11W±0.04, h160km±8km, n42, σ1.940/75, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.27**	**195**	P	**Pn**	**23 19 52.5**	**+0.2**
BARC				S	**Sn**	**23 20 07.8**	**-1.3**
BRJC	**Barrancabermej**	**0.64**	**280**	P	**Pn**	**23 19 54.1**	**+0.6**
BRJC				S	**Sn**	**23 20 11.5**	**+0.3**
RUSC	**La Rusia**	**0.96**	**178**	P	**Pn**	**23 19 56.4**	**+0.1**
RUSC				S	**Sn**	**23 20 15.5**	**-0.7**
RUSC	**La Rusia**	**0.96**	**178**	eP	**Pn**	**23 19 56.6**	**-0.4**
RUSC				eS	**Sn**	**23 20 15.6**	**-0.7**
CAPV	**Capacho**	**1.28**	**38**	eP	**Pn**	**23 20 00.4**	**+1.7**
CAPV				eS	**Sn**	**23 20 22.1**	**+1.5**
PTBC	**PUERTO BERRIO,**	**1.37**	**257**	P	**Pn**	**23 19 59.2**	**-0.2**
PTBC				S	**Sn**	**23 20 20.3**	**-1.4**
TAMC	**Tame, Arauca**	**1.38**	**108**	P	**Pn**	**23 20 00.9**	**+1.5**
TAMC				S	**Sn**	**23 20 22.7**	**+0.9**
OCAC	**Ocana**	**1.39**	**352**	P	**Pn**	**23 20 00.5**	**+0.8**
OCAC				S	**Sn**	**23 20 22.7**	**+0.3**
SPBC	**San Pablo de B**	**1.53**	**219**	P	**Pn**	**23 20 01.4**	**+0.4**
SPBC				S	**Sn**	**23 20 23.7**	**-1.0**
NORC	**Norcasia**	**2.17**	**234**	P	**Pn**	**23 20 08.3**	**+0.3**
NORC				S	**Sn**	**23 20 35.8**	**-1.4**
CHIC	**Chingaza**	**2.30**	**196**	P	**Pn**	**23 20 10.6**	**+0.7**
CHIC				S	**Sn**	**23 20 39.7**	**-0.8**
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**23 20 12.0**	**+1.6**
ROSC				S	**Sn**	**23 20 41.9**	**+0.6**
HELC	**Santa Helena**	**2.49**	**255**	P	**Pn**	**23 20 13.7**	**+1.6**
HELC				S	**Sn**	**23 20 44.5**	**+0.1**
HELC	**Santa Helena**	**2.49**	**255**	eP	**Pn**	**23 20 15.0**	**+2.9**
HELC				eS	**Sn**	**23 20 43.9**	**-0.6**
CVER	**Cruz Verde, Cu**	**2.51**	**202**	P	**Pn**	**23 20 14.0**	**+1.5**
CVER				S	**Sn**	**23 20 45.1**	**0.0**
UREC	**San Jos de Ur**	**2.56**	**290**	P	**Pn**	**23 20 12.2**	**-0.4**
UREC				S	**Sn**	**23 20 44.2**	**-1.2**
GUY2C	**Guyana, Caldas**	**2.77**	**234**	P	**Pn**	**23 20 16.5**	**+0.9**
GUY2C				S	**Sn**	**23 20 52.7**	**+2.0**
PTGC	**Puerto Gaitan,**	**2.81**	**160**	P	**Pn**	**23 20 15.6**	**-0.2**
PTGC				S	**Sn**	**23 20 48.9**	**-2.2**
NIZA	**Niza - Manizal**	**2.95**	**233**	P	**Pn**	**23 20 19.4**	**+1.7**
NIZA				S	**Sn**	**23 20 51.4**	**-3.0**
CBOC	**Ciudad Bol

AZER 12 23:27:05.8, 41°.45N × 44°.13E, h25km, ml2.4
AFAD 12 23:27:06.7, 41°.47N × 43°.75E, h7km ± 6km, ML2.0
ISC 12 23:27:04.4 ± 1.1, 41°.42N ± 0°.02 × 43°.97E ± 0°.02, h2km ± 11km, n38, σ1°37/66, Turkey-Georgia-Armenia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TBLG	**Delisi**	**0.65**	**61**	Pg	**Pg**	**23 27 16.7**	**-0.2**
TBLG				AML	AML		
EPOS	**Posof**	**0.94**	**275**	P	**Pg**	**23 27 22.9**	**+0.5**
KARS	**Kars**	**1.04**	**221**	Pg	**Pg**	**23 27 24.5**	**+0.2**
KARS				AML	AML		
AHAN	**Ardahan-Merkez**	**1.05**	**256**	P	Pg	23 27 17.8	-6.6
AHAN				S	**Sg**	**23 27 32.0**	**-6.0**
AHAN				IAML		23 27 36.0	
	comp=E,42nm,0.4s						
QZX	**Qazax, Azerbai**	**1.12**	**108**	P	**Pg**	**23 27 24.6**	**-1.1**
QZX				S	**Sg**	**23 27 39.6**	**-0.6**
GOLE	**Ardahan-G¶le**	**1.19**	**241**	P	**Pg**	**23 27 27.3**	**+0.1**
GOLE				S	**Sb**	**23 27 44.0**	**+0.2**
GOLE				IAML		23 27 45.0	
	comp=N,41nm,0.2s						
GOLE				IAML		23 27 47.0	
	comp=E,40nm,0.4s						
GNI	**Garni**	**1.40**	**155**	*e*Pg	**Pn**	**23 27 31.1**	**+0.1**
GNI				*e*Sg	**Sg**	**23 27 50.8**	**+1.6**
GNI	**Garni**	**1.40**	**155**	Pn	**Pn**	**23 27 30.7**	**-0.3**
GNI				Sn	**Sg**	**23 27 50.7**	**+1.4**
GNI				AML	AML		
LACR	**Lac**	**1.43**	**10**	*e*Pg	**Pn**	**23 27 30.8**	**-0.6**
LACR				*e*Sg	**Sg**	**23 27 50.0**	**-0.3**
TASB	**TASBURUN-IGDIR**	**1.45**	**172**	Pn	**Pn**	**23 27 31.3**	**-0.3**
TASB				Sn	**Sg**	**23 27 52.2**	**+1.3**
SENK	**Senkaya-Erzuru**	**1.50**	**236**	Pn	**Pn**	**23 27 32.6**	**+0.2**
SENK				Sn	**Sg**	**23 27 53.9**	**+1.4**
SENK				AML	AML		
DIGR	**Digorskoe uzhe**	**1.51**	**349**	*e*Pg	**Pb**	**23 27 32.9**	**-0.3**
DIGR				*e*Sg	**Sg**	**23 27 53.3**	**+0.5**
GDB	**GEDABAY**	**1.52**	**117**	Pn	**Pn**	**23 27 31.6**	**-1.0**
GDB				Sn	**Sn**	**23 27 50.6**	**-2.4**
DAGI	**Agillar**	**1.59**	**258**	P	**Pn**	**23 27 32.8**	**-0.8**
DAGI				S	**Sn**	**23 27 54.5**	**-0.3**
KORR	**Kora**	**1.67**	**2**	*e*Pg	**Pg**	**23 27 36.2**	**-0.2**
KORR				*e*Sg	**Sg**	**23 28 00.3**	**+2.4**
VLKR	**Vladikavkaz**	**1.71**	**18**	*e*Pg	**Pg**	**23 27 36.5**	**-0.6**
VLKR				*e*Sg	**Sg**	**23 28 00.8**	**+1.5**
BATM	**Batumi**	**1.72**	**277**	Pn	**Pn**	**23 27 35.7**	**+0.4**
BATM				AML	AML		
DBOC	**Borcka**	**1.74**	**268**	P	**Pb**	**23 27 36.8**	**-0.1**
DBOC				S	**Sb**	**23 27 58.8**	**-0.5**
DBOC				IAML		23 28 04.0	
	comp=E,17nm,0.3s						
DDEM	**Demirkent**	**1.76**	**253**	P	**Pb**	**23 27 37.2**	**-0.1**
DDEM				S	**Sb**	**23 28 00.1**	**+0.2**
DDEM				IAML		23 28 02.0	
	comp=N,33nm,0.3s						
DDEM				IAML		23 28 07.0	
	comp=E,27nm,0.3s						
DBAD	**Bademkaya**	**1.76**	**258**	P	**Pn**	**23 27 36.6**	**+0.6**
DBAD				S	**Sn**	**23 27 59.3**	**+0.2**
DBAD				IAML		23 28 01.0	
	comp=N,31nm,0.8s						
DBAD				IAML		23 28 01.0	
	comp=E,26nm,0.6s						
KMGR	**Komgaron**	**1.77**	**22**	*e*Pg	**Pg**	**23 27 37.8**	**-0.4**
KMGR				*e*Sg	**Sg**	**23 28 02.9**	**+1.8**
ARNR	**Ardon**	**1.77**	**7**	*e*Pg	**Pg**	**23 27 37.8**	**-0.6**
ARNR				*e*Sg	**Sg**	**23 28 03.8**	**+2.4**
LSNR	**Lesken**	**1.86**	**357**	*e*Pg	**Pb**	**23 27 39.2**	**+0.1**
LSNR				*e*Sg	**Sg**	**23 28 04.8**	**+0.7**
GANJ	**Ganja**	**1.94**	**113**	Pn	**Pn**	**23 27 38.1**	**-0.3**
GANJ				Sn	**Sn**	**23 28 03.0**	**-0.3**
STDR	**Stavd-Durt**	**1.95**	**2**	*e*Pg	**Pg**	**23 27 41.5**	**-0.3**
STDR				*e*Sg	**Sg**	**23 28 07.0**	**0.0**
AGRB	**Hanur-Agry**	**1.99**	**202**	Pn	**Pn**	**23 27 39.2**	**0.0**
ZKTA	**Zakatala**	**2.00**	**83**	Pg	Pn	**23 27 39.7**	**+0.5**
ZKTA				Sg	**Sb**	**23 28 06.9**	**0.0**
SBZ	**Shahbuz**	**2.35**	**149**	Pg	**Pb**	**23 27 47.7**	**+0.1**
SBZ				Sg	**Sb**	**23 28 19.4**	**+2.3**
GNBR	**Gunib**	**2.43**	**66**	*e*Pn	**Pb**	**23 27 47.7**	**-1.1**
GNBR				*e*Sn	**Sb**	**23 28 20.4**	**+1.1**
SEKA	**Sheki**	**2.44**	**94**	Pg	**Pn**	**23 27 46.5**	**+1.2**
SEKA				Sg	**Sb**	**23 28 18.8**	**-0.7**
MNGR	**Mingechevir, A**	**2.44**	**104**	Sg	**Sb**	**23 28 20.5**	**+1.1**
BRDA	**Brd**	**2.69**	**114**	Sg	**Sg**	**23 28 30.4**	**-0.5**
AGDM	**Agdam**	**2.72**	**118**	Pg	**Pb**	**23 27 53.7**	**0.0**
AGDM				Sg	**Sb**	**23 28 28.2**	**+0.7**
ORD	**Ordubad**	**2.93**	**147**	Pg	**Pb**	**23 27 58.1**	**+0.7**
ORD				Sg	**Sb**	**23 28 36.5**	**+2.8**
QBL	**Gabala**	**2.96**	**98**	Sg	**Sb**	**23 28 34.4**	**0.0**
ZRD	**Zardab**	**3.04**	**111**	Sg	**Sg**	**23 28 40.1**	**-1.8**
XNQ	**Khinaliq**	**3.15**	**93**	Pg	**Pb**	**23 27 58.9**	**-2.3**
XNQ				Sg	**Sb**	**23 28 42.6**	**+2.5**
IML	**Ismayilli**	**3.24**	**100**	Pg	**Pb**	**23 28 01.8**	**-0.8**
IML				Sg	**Sb**	**23 28 45.0**	**+2.4**

SOF 12 23:28:22.8, 41°.58N ± 0°.02 × 23°.61E ± 0°.02, h14km ± 1km, MD2.7/6
BEO 12 23:28:23.8 ± 0.3, 41°.57N × 23°.51E, h13km ± 3km, ML2.0/7
SKO 12 23:28:24.4, 41°.60N × 23°.57E, h0km, ML1.6
ISC 12 23:28:23.3 ± 0.9, 41°.59N ± 0°.03 × 23°.58E ± 0°.04, h11km ± 8km, n18, σ0°69/32, Greece-Bulgaria border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MMB	**Musomishta**	**0.13**	**108**	P	**Pg**	**23 28 26.3**	**-0.2**
MMB				S	**Sg**	**23 28 28.3**	**-0.4**
KKB	**Krupnik**	**0.42**	**307**	P	**Pg**	**23 28 32.0**	**+0.3**
KKB				S	**Sg**	**23 28 37.8**	**+0.5**
SRS	**Serrai**	**0.47**	**179**	*e*Pg	**Pg**	**23 28 32.6**	**+0.1**
SRS				*e*Sg	**Sg**	**23 28 39.8**	**+1.1**
PEHC	**Pehcevo**	**0.55**	**291**	*i* Pg	**Pg**	**23 28 33.9**	**0.0**
PEHC				*i* Sg	**Sb**	**23 28 41.6**	**+0.5**
VAY	**Valandovo**	**0.81**	**251**	*i* Pg	**Pn**	**23 28 40.4**	**-0.2**
VAY				*i* Sg	**Sb**	**23 28 50.0**	**-0.2**
VAY				*e*Lg	Lg	23 28 51.6	
	comp=E,10nm,0.3s						
VAY				*e*Lg	Lg	23 28 52.2	
	comp=N,20nm,0.3s						
PLNA	**Plana**	**0.90**	**353**	P	**Pg**	**23 28 41.0**	**+0.4**
PLNA				S	**Sg**	**23 28 52.7**	**+0.4**
PLD	**Plovdiv**	**1.03**	**57**	*e*Sg	**Sb**	**23 28 57.4**	**+0.6**
VTS	**Vitosha**	**1.06**	**346**	P	**Pb**	**23 28 42.9**	**-0.9**
VTS				S	**Sb**	**23 28 56.5**	**-1.2**
VTS	**Vitosha**	**1.06**	**346**	*e*Pg	**Pb**	**23 28 42.6**	**-1.2**
VTS				*e*Sg	**Sb**	**23 28 56.2**	**-1.5**
BOSS	**Bosilegrad**	**1.22**	**318**	*e*Pg	**Pn**	**23 28 46.2**	**-0.2**
BOSS				*e*Sg	**Sb**	**23 29 02.6**	**+0.3**
BLSH	**Balsha**	**1.29**	**350**	P	**Pb**	**23 28 48.3**	**+0.7**
BLSH				S	**Sn**	**23 29 04.7**	**+0.1**
TRAN	**Tran**	**1.43**	**331**	P	**Pb**	**23 28 50.2**	**+0.3**
TRAN				S	**Sg**	**23 29 09.1**	**0.0**
BARS	**Barje**	**1.80**	**314**	*e*Pg	**Pb**	**23 28 56.1**	**-0.1**
BARS				*e*Sg	**Sg**	**23 29 20.8**	**-0.3**
ZAPS	**Zavoj**	**1.82**	**338**	*e*Pg	**Pb**	**23 28 56.8**	**+0.1**
ZAPS				*e*Sg	**Sb**	**23 29 21.0**	**+1.4**
BLKB	**Belogradchik**	**2.14**	**342**	*e*Pn	**Pn**	**23 28 59.4**	**+0.4**
ZAGS	**Zajecar**	**2.44**	**336**	*e*Pn	**Pn**	**23 29 03.5**	**+0.5**
SELS	**Selova**	**2.45**	**313**	*e*Pn	**Pn**	**23 29 03.7**	**+0.5**
SELS				*e*Sn	**Sn**	**23 29 32.3**	**-0.8**
GOCS	**Kraljevo Serbi**	**2.81**	**315**	*e*Pn	**Pn**	**23 29 07.7**	**-0.6**

CATAC 12 23:40:08.6 ± 0.6, 11°.N ± 3° × 8°.6W ± °, h13km ± 5km, M3.2/13, MLv3.2/13, Error ellipse: s-maj=6.9km s-min=4.2km az=48.6, confirmed
UCR 12 23:40:09.4 ± 0.5, 11°.04N × 86°.39W, h3km ± 32km, MW3.5, Presumed earthquake
ISC 12 23:40:08.3 ± 1.7, 10°.97N ± 0°.05 × 86°.48W ± 0°.07, h7km ± 11km, n32, σ0°66/46, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LCRUZ	**La Cruz**	**0.84**	**83**	*e*P	**Pb**	**23 40 25.0**	**-0.3**
NADN	**Granada**	**0.89**	**30**	P	**Pg**	**23 40 25.7**	**+0.2**
NADN				S	**Sn**	**23 40 40.0**	**-0.4**
CARN	**Rivas**	**0.97**	**77**	P	**Pb**	**23 40 27.4**	**+0.1**
CARN				S	**Sn**	**23 40 41.5**	**-0.7**
CARN	**Rivas**	**0.97**	**77**	*e*P	**Pg**	**23 40 27.0**	**+0.1**
ALIBA	**Liberia Airpor**	**0.99**	**112**	*e*P	**Pb**	**23 40 28.1**	**+0.3**
OMEN	**Al SSO del Vol**	**1.00**	**57**	P	**Pg**	**23 40 27.7**	**+0.2**
MORN	**Al O del Volca**	**1.00**	**55**	P	**Pb**	**23 40 28.1**	**+0.2**
MORN				S	**Sn**	**23 40 42.4**	**-0.7**
NANN	**Nandasmo**	**1.03**	**20**	P	**Pn**	**23 40 30.4**	**+1.3**
NANN				S	**Sn**	**23 40 44.1**	**+0.3**
CONN	**Concepcion**	**1.03**	**55**	P	**Pg**	**23 40 28.1**	**+0.1**
CONN				S	**Sn**	**23 40 43.9**	**+0.1**
LAPC	**Finca la Perla**	**1.05**	**101**	*e*P	**Pg**	**23 40 28.1**	**-0.4**
MASN	**Masaya**	**1.06**	**18**	S	**Sn**	**23 40 45.3**	**+0.7**
MAS3	**Al N del Volca**	**1.09**	**16**	P	**Pg**	**23 40 27.4**	**-1.8**
MAS3				S	**Sn**	**23 40 45.7**	**+0.4**
VRLE	**La Escondida,**	**1.11**	**99**	*e*P	**Pg**	**23 40 29.7**	**0.0**
VRLE				*e*S	**Sb**	**23 40 44.6**	**0.0**
GPS2	**Hotel Rincn d**	**1.13**	**101**	*e*P	**Pg**	**23 40 29.7**	**-0.4**
BUAI	**Buenos Aires**	**1.13**	**95**	*e*P	**Pg**	**23 40 30.0**	**-0.1**
MGAN	**Managua**	**1.19**	**11**	P	**Pb**	**23 40 30.8**	**-0.4**
MGAN				S	**Sn**	**23 40 47.7**	**-0.2**
SAPS	**Ciudad Sandino**	**1.20**	**4**	P	**Pg**	**23 40 31.9**	**+0.5**
SAPS				S	**Sn**	**23 40 49.0**	**+1.1**
WILN	**Americas 2**	**1.22**	**14**	P	**Pb**	**23 40 31.0**	**-0.6**
WILN				S	**Sn**	**23 40 48.8**	**+0.4**
APQ2	**Apoyeque**	**1.23**	**7**	P	**Pb**	**23 40 31.5**	**-0.4**
APQ2				S	**Sn**	**23 40 49.2**	**+0.5**
APQN	**BB Volcan Apoy**	**1.26**	**8**	S	**Sn**	**23 40 49.8**	**+0.3**
CUI	**Cuipilapa**	**1.33**	**103**	*e*P	**Pn**	**23 40 32.7**	**-0.6**
CUI				*e*S	**Sb**	**23 40 50.2**	**-0.7**
VMAR	**Armenia, Volca**	**1.35**	**97**	*e*P	**Pn**	**23 40 33.4**	**-0.2**
CMARA	**Lajas Hojancha**	**1.41**	**132**	P	Pn	**23 40 34.2**	**-0.2**
CMARA				S	**Sg**	**23 40 55.6**	**+2.1**
UPAL	**Upala**	**1.45**	**93**	S	**Sg**	**23 40 54.4**	**-0.5**
MOM2	**El Cardon**	**1.46**	**360**	P	**Pn**	**23 40 34.4**	**-0.6**
MOM2				S	**Sb**	**23 40 55.1**	**+0.6**
INDI	**Puntia indio, G**	**1.46**	**139**	S	**Sg**	**23 40 55.7**	**+0.4**
TIMP	**Tierras Morena**	**1.49**	**105**	*e*P	**Pn**	**23 40 35.4**	**-0.2**
TENO	**El Achiote**	**1.50**	**100**	*e*P	**Pn**	**23 40 35.4**	**-0.2**
COTE	**Lago Cote**	**1.59**	**104**	*e*P	**Pn**	**23 40 37.4**	**+0.5**
QUEB	**Quebradon, Cot**	**1.60**	**102**	*e*P	**Pn**	**23 40 37.6**	**+0.6**
VARE2	**V. Arenal**	**1.81**	**106**	*e*P	**Pb**	**23 40 41.1**	**-0.6**
CEDE	**Laguna Cedeo**	**1.81**	**105**	*e*P	**Pb**	**23 40 41.1**	**-0.7**

SOME 12 23:53:54.8, 39°.27N × 71°.58E, h10km
KRNET 12 23:53:56.7 ± 0.1, 39°.03N × 71°.37E, h22km, mb3.5
NNC 12 23:53:58.6 ± 3.2, 39°.35N × 71°.56E, h0km, mb4.0, mpv3.5, Error ellipse: s-maj=23.5km s-min=13.9km az=3.0
ISC 12 23:53:56.3 ± 2.4, 39°.0N ± 0°.1 × 71°.55E ± 0°.05, h11km ± 10km, n23, σ1°98/32, 6C-13D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DRK	**Karamyk**	**0.50**	**23**	*i* P	**Pn**	**23 54 07.9**	**-1.7**
DRK				⇓ *i* S	**Sn**	**23 54 15.5**	**+2.7**
BTK	**Batken**	**1.18**	**332**	⇑ *i* P	**Pb**	**23 54 17.1**	**-1.6**
BTK				⇑ *i* S	**Sb**	**23 54 32.6**	**-1.4**
OHH	**Osh**	**1.78**	**32**	⇓ *i* P	**Pg**	**23 54 29.6**	**-0.8**
OHH				⇓ *i* S	**Sg**	**23 54 54.3**	**+0.9**
SFK	**Sufi-Kurgan**	**1.81**	**56**	⇓ *i* P	**Pg**	**23 54 31.3**	**+0.3**
SFK				⇓ *i* S	**Sg**	**23 54 55.8**	**+1.4**
TRKS	**Terek-Say**	**2.52**	**353**	⇑ *i* P	**Pn**	**23 54 37.4**	**+0.1**
TRKS				⇑ *i* S	**Sn**	**23 55 08.9**	**+0.8**
ARSB	**Arslanbob**	**2.55**	**25**	⇓ *e*P	**Pb**	**23 54 40.2**	**-1.9**
ARSB				⇓ *e*S	**Sb**	**23 55 12.7**	**-0.8**
SALK	**Salom-Alik**	**2.55**	**43**	⇑ *e*P	**Pb**	**23 54 40.8**	**-1.3**
SALK				⇑ *e*S	**Sb**	**23 55 13.7**	**+0.1**
IUG	**Iuzhnay**	**3.33**	**340**	Pg	**Pb**	**23 54 54.7**	**-0.6**
	39nm,0.3s						
IUG				Lg	Lg	23 55 37.1	
	72nm,0.5s						
IUG	**Iuzhnay**	**3.33**	**340**	*e*P	**Pb**	**23 54 53.6**	**-1.7**
	39nm,0.6s						
IUG				*e*S	**Sb**	**23 55 37.1**	**+1.3**
	72nm,0.5s						
MNAS	**Manas**	**3.54**	**12**	⇓ *i* P	**Pn**	**23 54 54.0**	**+2.8**
MNAS				⇓ *i* S	**Sn**	**23 55 35.7**	**+2.6**
UCH	**Uchtor**	**3.92**	**34**	P	**Pb**	**23 55 04.9**	**-0.7**
	SNR=7.1						
MRKS	**Merke**	**3.93**	**18**	Pg	**Pb**	**23 55 04.4**	**-1.2**
	3.8nm,0.2s						
MRKS				Lg	Lg	23 55 54.1	
	20nm,0.4s						
MRKS	**Merke**	**3.93**	**18**	*e*P	**Pb**	**23 55 03.1**	**-2.5**
	4.4nm,0.3s						
MRKS				*e*S	**Sb**	**23 55 52.7**	**-0.4**
	30nm,0.4s						
KK31	**Karatay Array**	**4.15**	**349**	Pg	**Pb**	**23 55 07.0**	**-2.4**
	3.7nm,0.2s,baz=175,slow=14,SNR=20						
KK31				⇓ Lg	Lg	23 55 57.0	
	8.0nm,0.4s,baz=176,slow=23,SNR=5.6						
AAK	**Ala-Archa**	**4.25**	**31**	P	**Pb**	**23 55 09.3**	**-1.7**
	SNR=11						
AAK	**Ala-Archa**	**4.25**	**31**	⇓ Pg	**Pb**	**23 55 09.8**	**-1.2**
	2.8nm,0.4s						
AAK				⇓ Lg	Lg	23 56 04.1	
	3.9nm,0.5s						
KBK	**Karagaybulak**	**4.45**	**34**	P	**Pb**	**23 55 13.2**	**-1.3**
	SNR=6.8						
CHMS	**Chumysh**	**4.65**	**30**	P	**Pb**	**23 55 14.8**	**-3.0**
	SNR=6.9						
USP	**Ospenovka**	**4.79**	**27**	P	**Pb**	**23 55 16.0**	**-4.2**
	SNR=20						
TKM2	**Tokmak 2**	**4.96**	**37**	P	**Pb**	**23 55 19.1**	**-4.0**
	SNR=5.1						
DGS	**Degeres**	**5.29**	**36**	Pg	**Pb**	**23 55 30.0**	**+1.3**
	3.3nm,0.7s						
DGS				Lg	Lg	23 56 39.3	
	11nm,0.7s						
KTBS	**Karatobe**	**6.07**	**38**	Pg	Pb	23 55 46.5	+4.4
	0.1nm,0.1s						
KTBS				Lg	Lg	23 57 06.4	
	4.2nm,0.5s						
AB31	**Akbulak array**	**13.18**	**325**	P	**Pn**	**23 57 04.3**	**+1.1**
	0.4nm,0.2s,baz=171,slow=11,SNR=11						

GCG 12 23:56:16.8 ± 2.0, 15°.60N × 90°.18W, h5km ± 11km, MD4.1, MW3.5, Presumed earthquake
SNET 12 23:56:17.3 ± 1.9, 15°.66N × 90°.19W, h4km, ML3.9, Presumed earthquake
CATAC 12 23:56:17.7 ± 0.3, 16°.N ± 2° × 9°.0W ± °, h4km ± 2km, M3.9/14, MLv3.9/14, Error ellipse: s-maj=3.6km s-min=2.9km az=16.2, confirmed
ISC 12 23:56:16.7 ± 0.9, 15°.64N ± 0°.03 × 90°.19W ± 0°.03, h10km, n43, σ1°09/61, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APG	**El Apazote**	**0.69**	**202**	*i* P	**Pg**	**23 56 28.4**	**-1.6**
APG				*i* S	**Sg**	**23 56 36.9**	**-2.2**
HUEH	**Huehuetenango**	**1.30**	**256**	P	**Pb**	**23 56 41.7**	**+0.2**
HUEH	**Huehuetenango**	**1.30**	**256**	*i* P	**Pn**	**23 56 40.8**	**-0.4**
HUEH				*i* S	**Sn**	**23 57 00.6**	**+1.9**
HUEH	**Huehuetenango**	**1.30**	**256**	*e*P	**Pn**	**23 56 41.0**	**-0.1**
HUEH				*e*S	**Sn**	**23 57 01.7**	**+2.9**
PETF	**Flores**	**1.31**	**14**	P	**Pn**	**23 56 39.5**	**-1.6**
PETF	**Flores**	**1.31**	**14**	*i* P	**Pn**	**23 56 40.7**	**-0.4**
PETF				*i* S	**Sg**	**23 56 59.3**	**+0.5**
ESQI	**Esquipulas**	**1.35**	**142**	S	**Sn**	**23 57 00.1**	**+0.3**
FG16	**Alotenango, Sa**	**1.39**	**193**	*i* P	**Pn**	**23 56 41.4**	**-1.1**
FG8	**Yepocapa, Chim**	**1.42**	**195**	*i* P	**Pn**	**23 56 42.0**	**-0.7**
IZABA	**Izabal, Puerto**	**1.55**	**87**	S	**Sg**	**23 57 06.8**	**+0.1**
STG8	**El Palmar, Qui**	**1.63**	**223**	*i* P	**Pn**	**23 56 45.7**	**0.0**
SARH	**Santa Rosa de**	**1.63**	**122**	P	**Pb**	**23 56 46.4**	**-0.5**
SARH				S	**Sg**	**23 57 09.8**	**+0.7**
SARH	**Santa Rosa de**	**1.63**	**122**	*i* P	**Pn**	**23 56 45.7**	**+0.2**
SARH				*i* S	**Sb**	**23 57 07.6**	**0.0**
SLOZ	**Alcaldia de Sa**	**1.65**	**166**	P	**Pn**	**23 56 46.3**	**+0.4**
SLOZ	**Alcaldia de Sa**	**1.65**	**166**	*e*P	**Pn**	**23 56 46.3**	**+0.4**
LOAL	**Lomas de Alarc**	**1.68**	**166**	P	**Pb**	**23 56 48.1**	**+0.3**
LOAL				S	**Sg**	**23 57 10.5**	**-0.3**
UNIC	**Universidad Ca**	**1.76**	**159**	P	**Pn**	**23 56 48.1**	**+0.7**
UNIC				S	**Sb**	**23 57 12.5**	**+1.1**
NUBE	**Las Nubes**	**1.77**	**167**	P	**Pn**	**23 56 48.2**	**+0.6**
NUBE				S	**Sb**	**23 57 12.7**	**+0.9**
NUBE	**Las Nubes**	**1.77**	**167**	*i* P	**Pn**	**23 56 48.3**	**+0.7**
NUBE	**Las Nubes**	**1.77**	**167**	*e*P	**Pn**	**23 56 48.2**	**+0.6**
FAME	**Alcaldia de Sa**	**1.80**	**174**	P	**Pb**	**23 56 49.1**	**-0.6**
FAME				S	**Sb**	**23 57 13.1**	**+0.8**
RTR	**El Retiro**	**1.81**	**163**	*e*P	**Pb**	**23 56 49.4**	**-0.7**
RTAL	**Retalhuleu**	**1.83**	**233**	P	**Pb**	**23 56 50.1**	**-0.2**
RTAL				S	**Sg**	**23 57 15.1**	**-0.4**
RTAL	**Retalhuleu**	**1.83**	**233**	*e*P	**Pb**	**23 56 49.5**	**-0.8**
SNJE	**San Jose**	**1.85**	**162**	*e*P	**Pn**	**23 56 49.8**	**+1.0**
SBLS	**San Blas**	**1.88**	**163**	*e*P	**Pn**	**23 56 50.1**	**+1.1**
CEVE	**Cerro Verde**	**1.89**	**163**	P	**Pn**	**23 56 50.2**	**+1.1**
CEVE	**Cerro Verde**	**1.89**	**163**	*e*P	**Pn**	**23 56 50.3**	**+1.1**
LLGN	**La Laguna**	**1.90**	**140**	P	**Pn**	**23 56 50.4**	**+1.0**
LLGN				S	**Sb**	**23 57 16.1**	**+0.6**
CCIG	**Comitan**	**1.97**	**289**	*i* S	**Sb**	**23 57 18.7**	**+1.1**
BOQS	**Boqueron**	**2.09**	**155**	*e*P	**Pb**	**23 56 53.8**	**-1.1**
PIC2	**El Picacho**	**2.09**	**154**	*e*P	**Pb**	**23 56 54.1**	**-0.9**
PMON	**Piamonte**	**2.10**	**156**	P	**Pb**	**23 56 54.2**	**-0.7**
PMON				S	**Sb**	**23 57 22.5**	**+1.4**
JAYA	**Jayaque - finc**	**2.10**	**160**	P	**Pb**	**23 56 53.7**	**-1.3**
JAYA				S	**Sb**	**23 57 22.9**	**+1.6**
JAYA	**Jayaque - finc**	**2.10**	**160**	*e*P	**Pb**	**23 56 54.0**	**-1.0**
UEES	**Universidad Ev**	**2.12**	**154**	S	**Sg**	**23 57 23.7**	**-1.3**
P5NO	**Presa 5 de nov**	**2.15**	**140**	P	**Pb**	**23 56 54.6**	**-1.2**
P5NO				S	**Sb**	**23 57 22.9**	**+0.3**
LOMA	**Loma Larga**	**2.22**	**153**	P	**Pn**	**23 56 55.1**	**+1.4**
LOMA				S	**Sb**	**23 57 24.7**	**+0.1**
LOMA	**Loma Larga**	**2.22**	**153**	*e*P	**Pn**	**23 56 55.4**	**+1.7**
LOMA				*e*S	**Sb**	**23 57 26.5**	**+1.9**
PAVA	**Las Pavas**	**2.27**	**147**	P	**Pn**	**23 56 55.9**	**+1.5**
PAVA				S	**Sb**	**23 57 26.7**	**+0.6**
SCLA	**Alcaldia de Sa**	**2.39**	**143**	S	**Sb**	**23 57 31.5**	**+1.9**
TECO	**Alcaldia de Te**	**2.50**	**147**	S	**Sb**	**23 57 32.0**	**-0.6**
TECA	**Tecapa**	**2.69**	**142**	*e*P	**Pb**	**23 57 03.9**	**-1.2**

IDC 13 00:10:02.2 ± 0.8, 12°.06N × 123°.96E, h0km, mb3.6/10, mbtmp3.6/10, MS3.1/12, Error ellipse: s-maj=37.3km s-min=16.7km az=69.0
MAN 13 00:10:04.0, 12°.18N × 123°.94E, h13km, MS4.0
MAN INTENSITY III - CATAINGAN MASBATE; MASBATE CITY.
ISC 13 00:10:04.4 ± 1.3, 12°.10N ± 0°.04 × 123°.93E ± 0°.07, h13km ± 8km, n28, σ1°00/27, mb3.7/10, MS3.0/11, Luzon

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MMPH	**Masbate**	**0.39**	**310**	*i* P	**Pg**	**00 10 11.5**	**-0.8**
MMPH				*i* S	**Sg**	**00 10 17.3**	**-0.2**
PLP	**Palo**	**1.39**	**132**	*e*P	**Pn**	**00 10 29.1**	**-0.3**
PLP				*e*S	**Sg**	**00 10 50.7**	**+1.6**
LLP	**Lapu-Lapu**	**1.78**	**179**	*e*P	**Pn**	**00 10 34.6**	**-0.2**
LLP				*e*S	**Sg**	**00 11 01.2**	**-0.4**
GQP	**Guinayangan**	**2.30**	**321**	*e*P	**Pn**	**00 10 43.1**	**+1.0**
GQP				*e*S	**Sb**	**00 11 15.2**	**+1.0**
JAP	**San Jose, Anti**	**2.37**	**235**	*e*P	**Pb**	**00 10 46.5**	**-0.5**
TBP	**Tagbilaran**	**2.40**	**182**	*e*P	**Pn**	**00 10 43.2**	**-0.2**
TBP				*i* S	**Sg**	**00 11 24.6**	**+3.0**
SNPH	**Sibulan**	**2.83**	**194**	*e*P	**Pn**	**00 10 49.7**	**+0.4**
LQP	**Lukban**	**3.07**	**311**	*e*P	**Pn**	**00 10 53.2**	**+0.4**
DCPH	**Dipolog City**	**3.55**	**189**	*i* P	**Pn**	**00 10 59.2**	**+0.1**
DCPH				*i* S	**Sn**	**00 11 41.5**	**+0.6**
KAPI	**Kappang**		**17.51**	**194**	LR	LR	00 21 00.5
	comp=Z,56nm,20.5s,baz=5.0,slow=38						
GUMO	**Guam**		**20.47**	**84**	LR	LR	00 23 28.0
	comp=Z,20nm,18.8s,baz=160,slow=39						
BATI	**Baumata**		**22.17**	**181**	LR	LR	00 25 27.8
	comp=Z,53nm,18.6s,baz=7.0,slow=42						
CMAR	**Chiang Mai Arr**		**24.90**	**288**	P	**P**	**00 15 28.1**	**+0.8**
	1.0nm,0.3s,baz=96,slow=11,SNR=6.3						
CMAR					LR	LR	00 24 38.0
	comp=Z,22nm,20.0s,baz=285,slow=35						
	1.0nm,0.3s						
KSRS	**Korea Array**		**25.50**	**7**	P	**P**	**00 15 33.7**	**+1.3**

*VAO **13** 00:28:56.3±0.5, 8.99S×74.75W, h10km, mb4.6, Presumed earthquake*
*OSUNB **13** 00:29:01.4±0.6, 9.01S×74.73W, h52km, mb4.6/16, Error ellipse: s-maj=4.7km s-min=6.9km az=0.0*
ISC 13 00:28:55.6±0.3, 8.92S±0.04×74.80W±0.04, h10km, n266, σ1s35/229, mb4.7/94, MS3.6/6, Peru-Brazil border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CZSB	**Cruzeiro do Su**	**2.39**	**60**		**Pn**	**00 29 38.1**	**+3.2**
CZSB	**Cruzeiro do Su**	**2.39**	**60**	P	**Pn**	**00 29 38.3**	**+3.4**
CZSB	**Cruzeiro do Su**	**2.39**	**60**	*e*P	**Pn**	**00 29 35.3**	**+0.5**
CZSB				*e*S	**Sn**	**00 30 05.8**	**+1.6**
NNA	**Nana**	**3.65**	**213**	Pn	**Pn**	**00 29 53.6**	**+1.3**
	13nm,0.3s,baz=41,slow=6.2,SNR=18						
NNA				Pg	**Pb**	**00 29 59.5**	**-0.8**
	119nm,0.3s,baz=14,slow=13,SNR=46						
NNA				Sn	**Sn**	**00 30 37.7**	**+2.3**
	188nm,0.3s,baz=306,slow=19,SNR=9.1						
	40nm,0.3s						
NNA				AML	AML		
NNA	**Nana**	**3.65**	**213**	Pn	**Pn**	**00 29 53.2**	**+0.9**
NNA	**Nana**	**3.65**	**213**	P	**Pn**	**00 29 53.8**	**+1.5**
ATAH	**Atahualpa**	**3.98**	**296**	Pn	**Pn**	**00 29 57.7**	**+0.6**
	8.9nm,0.3s,baz=95,slow=3.9,SNR=42						
ATAH				Pg	**Pb**	**00 30 05.8**	**-0.3**
	19nm,0.3s,baz=42,slow=13,SNR=14						
ATAH				Sn	**Sn**	**00 30 44.6**	**+0.5**
	23nm,0.3s,baz=65,slow=20,SNR=4.6						
ATAH				Lg	Lg	00 30 55.1	
	29nm,0.3s,baz=265,slow=19,SNR=5.5						
ATAH				LR	LR	00 31 38.7	
	comp=Z,499nm,21.6s,baz=122,slow=42						
	22nm,0.3s						
ATAH				AML	AML		
PIAT	**Ana Tenorio**	**8.59**	**336**	P	**Pn**	**00 31 00.1**	**-0.4**
	2μm154nm,0.7s						
SLOR	**San Lorenzo -**	**8.93**	**335**	Pn	**Pn**	**00 31 05.1**	**-0.1**
PTLC	**Puerto Leguiza**	**9.03**	**0**	P	**Pn**	**00 31 03.7**	**-2.5**
CASC	**Dorado de Casc**	**9.35**	**344**	P	**Pn**	**00 31 10.4**	**-0.2**
	2μm177nm,0.9s						
PPLP	**Puerto Lpez**	**9.44**	**321**	P	**Pn**	**00 31 13.3**	**+1.5**
LPAZ	**La Paz**	**9.79**	**139**	Pn	**Pn**	**00 31 18.9**	**+1.7**
	0.9nm,0.3s,baz=310,slow=8.7,SNR=22						
LPAZ				Lg	Lg	00 34 00.3	
	3.1nm,0.3s,baz=182,slow=18,SNR=5.1						
LPAZ				LR	LR	00 35 27.0	
	comp=Z,107nm,18.3s,baz=304,slow=40						
	4.0nm,0.5s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**9.79**	**139**	Pn	**Pn**	**00 31 19.1**	**+1.8**
LPAZ	**La Paz**	**9.79**	**139**	P	**Pn**	**00 31 19.2**	**+1.9**
LPAZ	**La Paz**	**9.79**	**139**	P	**Pn**	**00 31 17.9**	**+0.7**
	comp=Z,11nm,0.6s						
LPAZ	**La Paz**	**9.79**	**139**	*e*P	**Pn**	**00 31 16.2**	**-1.1**
LPAZ				*e*S	**Sn**	**00 33 07.8**	**+0.1**
OTAV	**Otavalo**	**9.80**	**338**	Pn	**Pn**	**00 31 17.1**	**0.0**
OTAV	**Otavalo**	**9.80**	**338**	P	**Pn**	**00 31 21.0**	**+3.9**
	comp=Z,312nmcomp=Z,26nm,0.8s						
OTAV	**Otavalo**	**9.80**	**338**	P	**Pn**	**00 31 20.8**	**+3.7**
OTAV	**Otavalo**	**9.80**	**338**	P	**Pn**	**00 31 19.3**	**+2.2**
	comp=Z,26nm,1.1s						
OTAV	**Otavalo**	**9.80**	**338**	*e*P	**Pn**	**00 31 18.5**	**+1.4**
FLF1	**Flavio Alfaro-**	**9.88**	**329**	P	**Pn**	**00 31 21.3**	**+3.4**
	comp=Z,81nm,0.4s						
TULM	**Tulcn-Chalpat**	**10.03**	**343**	P	**Pn**	**00 31 23.1**	**+2.8**
	comp=Z,864nmcomp=Z,106nm,0.9s						
PB12	**IPOC Station P**	**10.57**	**156**	Pn	**Pn**	**00 31 28.0**	**+0.6**
CRUC	**La Cruz**	**10.64**	**348**	P	**Pn**	**00 31 31.4**	**+2.8**
PB16	**IPOC Station P**	**10.68**	**152**	Pn	**Pn**	**00 31 30.6**	**+1.4**
PB16	**IPOC Station P**	**10.68**	**152**	P	**Pn**	**00 31 30.9**	**+1.6**
	comp=Z,13nm,0.8s						
MACC	**Macarena, Meta**	**11.03**	**5**	P	**Pn**	**00 31 34.6**	**+0.9**
	comp=Z,568nmcomp=Z,46nm,0.5s						
BBAC	**Balboa, Cauca**	**11.14**	**347**	P	**Pn**	**00 31 36.9**	**+1.6**
	comp=Z,440nmcomp=Z,42nm,0.7s						
POPC	**Popayan, Colom**	**11.54**	**351**	P	**Pn**	**00 31 44.1**	**+3.3**
	comp=Z,26nm,1.1s						
PSGCX	**Pisagua**	**11.54**	**157**	Pn	**Pn**	**00 31 39.5**	**-1.2**
PSGCX	**Pisagua**	**11.54**	**157**	P	**Pn**	**00 31 41.9**	**+1.2**
	comp=Z,11nm,1.6s						
PB11	**IPOC Station P**	**11.87**	**156**	P	**Pn**	**00 31 44.3**	**-0.9**
	comp=Z,14nm,0.9s						
GO01	**Chusmiza**	**11.98**	**154**	Pn	**Pn**	**00 31 47.1**	**+0.1**
GO01	**Chusmiza**	**11.98**	**154**	P	**Pn**	**00 31 47.2**	**+0.1**
	comp=Z,11nm,0.9s						
URMC	**La Uribe, Meta**	**12.10**	**2**	P	**Pn**	**00 31 48.0**	**-0.3**
	comp=Z,749nmcomp=Z,55nm,0.8s						
JAMC	**Jamundi, Valle**	**12.20**	**351**	P	**Pn**	**00 31 54.4**	**+4.6**
	comp=Z,16nm,0.8s						
PB08	**IPOC Station P**	**12.42**	**155**	Pn	**Pn**	**00 31 52.1**	**-0.9**
PB08	**IPOC Station P**	**12.42**	**155**	P	**Pn**	**00 31 52.2**	**-0.7**
	comp=Z,5.8nm,2.8s						
PRAC	**Prado**	**12.55**	**360**	P	**Pn**	**00 31 57.8**	**+3.3**
	comp=Z,37nm,0.8s						
ORTC	**Ortega, Tolima**	**12.75**	**358**	P	**Pn**	**00 31 57.8**	**+0.6**
	comp=Z,570nmcomp=Z,42nm,0.9s						
YOTC	**Yotoco, Valle**	**12.91**	**353**	P	**Pn**	**00 32 02.4**	**+2.9**
	comp=Z,13nm,0.9s						
CVER	**Cruz Verde, Cu**	**13.37**	**3**	P	**Pn**	**00 32 09.9**	**+3.8**
CHIC	**Chingaza**	**13.50**	**5**	P	**Pn**	**00 32 09.4**	**+1.6**
	comp=Z,24nm,1.0s						
ROSC	**El Rosal**	**13.68**	**2**	Pn	Pn	00 32 06.3	-3.9
	comp=Z,3.2nm,0.4s,baz=202,slow=20,SNR=1.3						
ROSC				Lg	Lg	00 36 02.5	
	comp=Z,0.3nm,0.3s,baz=49,slow=20,SNR=1.7						
ROSC	**El Rosal**	**13.68**	**2**	P	**P**	**00 32 22.7**	**+3.6**
	comp=Z,29nm,0.7s						
PB09	**IPOC Station P**	**13.87**	**158**		**P**	**00 32 21.1**	**0.0**
PB03	**IPOC Station P**	**13.93**	**160**		**P**	**00 32 22.7**	**+1.1**
GUY2C	**Guyana, Caldas**	**14.06**	**358**	P	**Pn**	**00 32 19.8**	**+4.3**
	comp=Z,16nm,0.8s						
NORC	**Norcasia**	**14.39**	**360**	P	**P**	**00 32 28.7**	**+2.1**
	comp=Z,11nm,0.8s						
SPBC	**San Pablo de B**	**14.49**	**3**	P	**P**	**00 32 26.7**	**-1.2**
	comp=Z,14nm,1.0s						
PB05	**IPOC Station P**	**14.54**	**163**	P	**P**	**00 32 29.5**	**+1.2**
PB06	**IPOC Station P**	**14.60**	**160**	P	**P**	**00 32 28.6**	**-0.4**
CBOC	**Ciudad Bolivar**	**14.74**	**355**	P	**P**	**00 32 32.4**	**+1.8**
	comp=Z,22nm,0.9s						
RUSC	**La Rusia**	**14.81**	**7**	Pn	**Pn**	**00 32 27.9**	**+2.1**
RUSC	**La Rusia**	**14.81**	**7**	P	**Pn**	**00 32 29.2**	**+3.4**
VILB	**Vilhena**	**14.88**	**107**	Pn	**Pn**	**00 32 25.6**	**-0.8**
VILB	**Vilhena**	**14.88**	**107**	P	**Pn**	**00 32 25.4**	**-1.0**
VILB	**Vilhena**	**14.88**	**107**	*e*P	**Pn**	**00 32 24.7**	**-1.6**
PB10	**IPOC Station P**	**15.07**	**165**	Pn	**Pn**	**00 32 31.0**	**+2.2**
PB10				IAmb	IAmb	00 32 36.6	
	comp=Z,34nm,0.9s						
SIV	**San Ignacio**	**15.13**	**119**	Pn	**Pn**	**00 32 28.2**	**-1.5**
	comp=Z,0.5nm,0.3s,baz=291,slow=10,SNR=85						
SIV				Lg	Lg	00 36 46.8	
	comp=Z,0.5nm,0.3s,baz=211,slow=21,SNR=8.6						
	comp=Z,14nm,0.5s						
SIV				AML	AML		
BBSD	**Serra de San D**	**16.07**	**122**	*e*P	**Pn**	**00 32 41.1**	**-0.8**
PB14	**IPOC Station P**	**16.17**	**165**	Pn	**Pn**	**00 32 43.6**	**+0.2**
PTLB	**Pontes e Lacer**	**16.62**	**114**	Pn	**Pn**	**00 32 47.5**	**-1.5**
PTLB	**Pontes e Lacer**	**16.62**	**114**	P	**Pn**	**00 32 47.2**	**-1.7**
PTLB	**Pontes e Lacer**	**16.62**	**114**	*e*P	**Pn**	**00 32 48.3**	**-0.7**
AC01	**Pan de Azucar**	**17.59**	**167**	Pn	**Pn**	**00 33 01.2**	**+0.2**
PDRB	**Porto dos Gac**	**17.98**	**100**	P	**Pn**	**00 33 05.6**	**-0.4**
PDRB	**Porto dos Gac**	**17.98**	**100**	*e*P	**Pn**	**00 33 05.5**	**-0.5**
BOAV	**Boa Vista**	**18.14**	**52**	P	**Pn**	**00 33 08.3**	**+0.4**
BOAV	**Boa Vista**	**18.14**	**52**	P	**Pn**	**00 33 08.8**	**+1.0**
BOAV	**Boa Vista**	**18.14**	**52**	*e*P	**Pn**	**00 33 08.6**	**+0.8**
AC02	**Maricunga**	**18.61**	**164**	P	**P**	**00 33 14.4**	**+0.6**
AC02	**Maricunga**	**18.61**	**164**	P	**Pn**	**00 33 16.1**	**+2.0**
	comp=Z,18nm,1.0s						
SJCC	**San Jacinto, C**	**18.70**	**359**	P	**Pn**	**00 33 15.7**	**+0.9**
AC06	**Mina Casimiro**	**18.81**	**168**	P	**P**	**00 33 16.1**	**+0.5**
CLDB	**Colider**	**18.82**	**97**	P	**P**	**00 33 16.3**	**+0.6**
CLDB	**Colider**	**18.82**	**97**	P	**P**	**00 33 17.4**	**+1.6**
	comp=Z,12nm,1.2s						
CLDB	**Colider**	**18.82**	**97**	*e*P	**P**	**00 33 15.1**	**-0.6**
NPGB	**Novo Progresso**	**19.34**	**86**	P	**P**	**00 33 21.7**	**+0.2**
NPGB	**Novo Progresso**	**19.34**	**86**	*e*P	**P**	**00 33 21.4**	**-0.1**
ITTB	**Itaituba**	**19.47**	**78**	P	**P**	**00 33 23.5**	**+0.6**
ITTB	**Itaituba**	**19.47**	**78**	*e*P	**P**	**00 33 23.3**	**+0.5**
AC04	**Llanos de Chal**	**19.50**	**170**	P	**P**	**00 33 23.5**	**+0.5**
COIM	**Forte Coimbra**	**19.75**	**125**	*e*P	**P**	**00 33 25.6**	**-0.2**
SALV	**Santo Antonio**	**19.90**	**112**	P	**P**	**00 33 27.8**	**+0.3**
SALV	**Santo Antonio**	**19.90**	**112**	*e*P	**P**	**00 33 27.9**	**+0.3**
SMRC	**Santa Marta, M**	**19.96**	**2**	P	**Pn**	**00 33 30.5**	**+0.6**
AC05	**El Transito**	**20.26**	**168**	P	**P**	**00 33 32.2**	**+0.7**
AC05	**El Transito**	**20.26**	**168**	P	**P**	**00 33 33.2**	**+1.7**
	comp=Z,12nm,1.0s						
LCO	**Las Campanas**	**20.35**	**170**	P	**P**	**00 33 33.1**	**+0.5**
URIC	**Uribia, Colomb**	**20.68**	**8**	P	**P**	**00 33 33.5**	**-2.4**
LCR2	**La Lucha 2**	**20.68**	**333**	P	**P**	**00 33 36.6**	**+0.4**
RAFA	**San Farael, Vo**	**20.79**	**334**	P	**P**	**00 33 38.4**	**+0.8**
BDQN	**Bodoquena, MS**	**20.86**	**125**	*e*P	**P**	**00 33 37.8**	**-0.1**
PP1B	**Ponte de Pedra**	**21.20**	**116**	P	**P**	**00 33 42.4**	**+0.7**
PP1B	**Ponte de Pedra**	**21.20**	**116**	*e*P	**P**	**00 33 42.2**	**+0.5**
CO01	**Juntas del Tor**	**21.41**	**169**	P	**P**	**00 33 45.0**	**+1.0**
CO01	**Juntas del Tor**	**21.41**	**169**	P	**P**	**00 33 45.2**	**+1.2**
	comp=Z,11nm,0.9s						
JTS	**Las Juntas de**	**21.59**	**332**	P	**P**	**00 33 44.8**	**-1.1**
	comp=Z,1.0nm,0.4s,baz=170,slow=6.1,SNR=2.6						
JTS				LR	LR	00 42 22.7	
	comp=Z,69nm,18.5s,baz=153,slow=38						
	comp=Z,1.0nm,0.4s						
MAL2	**Monte Alegre,**	**21.63**	**73**	P	**P**	**00 33 49.1**	**+2.8**
AQDB	**Aquidauana**	**21.73**	**124**	P	**P**	**00 33 48.3**	**+1.0**
AQDB	**Aquidauana**	**21.73**	**124**	P	**P**	**00 33 47.7**	**+0.4**
AQDB	**Aquidauana**	**21.73**	**124**	P	**P**	**00 33 50.0**	**+2.7**
	comp=Z,18nm,0.9s						
AQDB	**Aquidauana**	**21.73**	**124**	*e*P	**P**	**00 33 47.4**	**+0.1**
CO06	**Fray Jorge**	**21.84**	**173**	P	**P**	**00 33 48.2**	**-0.3**
CO03	**El Pedregal**	**22.14**	**171**	P	**P**	**00 33 51.8**	**0.0**
CO03	**El Pedregal**	**22.14**	**171**	P	**P**	**00 33 52.4**	**+0.7**
	comp=Z,20nm,2.0s						
CO02	**Combarbal**	**22.45**	**171**	P	**P**	**00 33 55.4**	**+0.3**
CO02	**Combarbal**	**22.45**	**171**	P	**P**	**00 33 55.7**	**+0.6**
	comp=Z,20nm,1.3s						
ATM1	**UHE Belo Monte**	**23.12**	**77**	P	**P**	**00 34 02.4**	**+0.1**
CO04	**Los Peladeros**	**23.28**	**172**	P	**P**	**00 34 04.1**	**+0.1**
CO04				IAmb	IAmb	00 34 28.5	
	comp=Z,30nm,1.6s						
CO04	**Los Peladeros**	**23.28**	**172**	P	**P**	**00 34 04.2**	**+0.3**
SNDB	**Serra Nova Dou**	**23.31**	**100**	P	**P**	**00 34 04.1**	**0.0**
SNDB	**Serra Nova Dou**	**23.31**	**100**	*e*P	**P**	**00 34 03.9**	**-0.2**
BMO1	**UHE Belo Monte**	**23.61**	**77**	P	**P**	**00 34 07.0**	**0.0**
CPUP	**Villa Florida**	**23.97**	**138**	P	**P**	**00 34 09.2**	**-1.2**
	comp=Z,2.7nm,1.0s,baz=318,slow=10.0,SNR=5.3						
	comp=Z,2.7nm,1.0s						
CPUP	**Villa Florida**	**23.97**	**138**	P	**P**	**00 34 09.8**	**-0.6**
CPUP	**Villa Florida**	**23.97**	**138**	P	**P**	**00 34 09.1**	**-1.2**
PEL	**Peldehue**	**24.40**	**172**	P	**P**	**00 34 14.8**	**+0.4**
	comp=Z,16nm,1.0s						
MT02	**Curacav**	**24.46**	**173**	P	**P**	**00 34 15.1**	**+0.2**
MT02				IAmb	IAmb	00 34 44.9	
	comp=Z,31nm,1.6s						
MT09	**Talagante**	**24.98**	**172**	P	**P**	**00 34 19.5**	**-0.3**
MT01	**Popeta**	**25.04**	**173**	P	**P**	**00 34 19.6**	**-0.5**
MT01				IAmb	IAmb	00 34 42.5	
	comp=Z,22nm,1.4s						
PCMB	**Pacaembu**	**25.93**	**122**	P	**P**	**00 34 28.2**	**-0.1**
PCMB	**Pacaembu**	**25.93**	**122**	P	**P**	**00 34 28.2**	**-0.1**
	comp=Z,11nm,1.4s						
MDP	**Montagnes des**	**26.12**	**59**	LR	LR	00 44 50.7	
	comp=Z,80nm,20.0s,baz=258,slow=37						
CAN3	**Cana Brava**	**26.34**	**101**	P	**P**	**00 34 33.7**	**+1.6**
ITQB	**Itaqui**	**26.76**	**143**	P	**P**	**00 34 35.7**	**0.0**
ITQB	**Itaqui**	**26.76**	**143**	*e*P	**P**	**00 34 35.5**	**-0.3**
LDASE	**Londrina, Braz**	**26.85**	**125**	*e*P	**P**	**00 34 36.3**	**-0.4**
SMTB	**Santa Maria do**	**26.88**	**92**	P	**P**	**00 34 36.4**	**-0.6**
SMTB				IAmb	IAmb	00 35 03.2	
	comp=Z,22nm,1.3s						
BDFB	**Brasilia**	**26.99**	**107**	P	**P**	**00 34 37.1**	**-1.1**
	comp=Z,1.3nm,0.4s,baz=242,slow=5.3,SNR=3.9						
BDFB				LR	LR	00 45 50.7	
	comp=Z,294nm,19.2s,baz=315,slow=38						
	comp=Z,1.3nm,0.4s						
BDFB	**Brasilia**	**26.99**	**107**	P	**P**	**00 34 37.5**	**-0.6**
BDFB				IAmb	IAmb	00 35 12.7	
	comp=Z,24nm,1.6s						
BI02	**San Fabin de**	**27.80**	**174**	P	**P**	**00 34 45.1**	**0.0**
	comp=Z,4.9nm,2.1s						
CELP	**Cerrillos**	**28.02**	**17**	P	**P**	**00 34 46.5**	**-0.6**
ITAB	**Concordia**	**28.13**	**133**	P	**P**	**00 34 48.7**	**+0.7**
ITAB				IAmb	IAmb	00 34 50.7	
	comp=Z,24nm,1.4s						
ECPR	**Experimental S**	**28.32**	**17**	P	**P**	**00 34 48.9**	**-0.9**
PLCA	**Paso Flores**	**31.91**	**174**	P	**P**	**00 35 20.6**	**-0.8**
	comp=Z,3.3nm,0.9s,baz=322,slow=9.8,SNR=5.5						
	comp=Z,3.3nm,0.9s						
PLCA	**Paso Flores**	**31.91**	**174**	P	**P**	**00 35 21.8**	**+0.4**
PLCA	**Paso Flores**	**31.91**	**174**	P	**P**	**00 35 20.9**	**-0.5**
	comp=Z,7.2nm,2.3s						
LL02	**Futaleuf**	**34.23**	**176**	P	**P**	**00 35 40.5**	**-1.1**
	comp=Z,9.1nm,2.5s						
BSFB	**Barra de Sao F**	**34.34**	**110**	P	**P**	**00 35 43.1**	**+0.2**
	comp=Z,15nm,2.4s						
RPN	**Rapa Nui**	**37.32**	**236**	LR	LR	00 48 46.6	
	comp=Z,59nm,19.1s,baz=158,slow=32						
BRDY	**Brady**	**46.21**	**331**	P	**P**	**00 37 20.7**	**-0.4**
SAND	**Sanderson**	**46.74**	**327**	P	**P**	**00 37 25.9**	**+0.6**
SAND				IAmb	IAmb	00 37 31.1	
	comp=Z,7.3nm,1.0s						
OZNA	**Ozona**	**46.98**	**329**	P	**P**	**00 37 26.9**	**-0.2**
OZNA				IAmb	IAmb	00 37 31.9	
	comp=Z,5.5nm,0.7s						
TX31	**Lajitas Ar. Si**	**47.12**	**325**	P	**P**	**00 37 28.3**	**-0.1**
TX31				IAmb	IAmb	00 37 33.7	
	comp=Z,5.3nm,0.8s						
TXAR	**Lajitas Array**	**47.12**	**325**	P	**P**	**00 37 27.7**	**-0.7**
	comp=Z,1.4nm,0.5s,baz=152,slow=8.5,SNR=26						
	comp=Z,1.4nm,0.5s						
TXAR	**Lajitas Array**	**47.12**	**325**	P	**P**	**00 37 28.1**	**-0.2**
PLPT	**Palo Pinto**	**47.17**	**333**	P	**P**	**00 37 28.9**	**+0.4**
FCAR	**Ozark Folk Cen**	**47.47**	**341**	IAmb	IAmb	00 37 34.3	
	comp=Z,9.1nm,0.9s						
SGCY	**Sterling City**	**47.77**	**329**	IAmb	IAmb	00 37 38.2	
	comp=Z,12nm,0.7s						
ALPN	**Alpine**	**47.90**	**326**	IAmb	IAmb	00 37 39.4	
	comp=Z,7.8nm,1.0s						
MNHN	**Monahans**	**48.16**	**327**	P	**P**	**00 37 36.2**	**-0.1**
MNHN				IAmb	IAmb	00 37 41.4	
	comp=Z,12nm,0.7s						
TPB01	**Permian Basin**	**48.41**	**326**	P	**P**	**00 37 38.5**	**+0.2**
TPB01				IAmb	IAmb	00 37 43.5	
	comp=Z,8.7nm,0.8s						
APMT	**Aspermont**	**48.43**	**331**	P	**P**	**00 37 38.5**	**+0.2**
HHAR	**Hobbs**	**48.44**	**339**	IAmb	IAmb	00 37 42.4	
	comp=Z,9.6nm,0.8s						
W35A	**Tecumseh**	**48.55**	**336**	IAmb	IAmb	00 37 43.6	
	comp=Z,16nm,0.8s						
POST	**Post**	**48.89**	**330**	P	**P**	**00 37 41.5**	**-0.4**
VHRN	**Van Horn**	**48.96**	**325**	IAmb	IAmb	00 37 47.6	
	comp=Z,9.3nm,0.7s						
DKNS	**Dickens**	**49.09**	**331**	IAmb	IAmb	00 37 48.6	
	comp=Z,14nm,0.7s						
CCM	**Cathedral Cave**	**49.19**	**343**	P	**P**	**00 37 43.8**	**-0.3**
	comp=Z,8.1nm,1.9s						
TPB28		**49.36**	**326**	P	**P**	**00 37 45.6**	**0.0**
TPB28				IAmb	IAmb	00 37 51.1	
	comp=Z,7.9nm,0.8s						
MNTX	**Cornudas Mount**	**49.87**	**325**	P	**P**	**00 37 49.2**	**-0.2**
MNTX				IAmb	IAmb	00 37 54.1	
	comp=Z,13nm,1.6s						
MNTX	**Cornudas Mount**	**49.87**	**325**	P	**P**	**00 37 49.3**	**-0.1**
	comp=Z,5.2nm,1.0s						
MNTX				pP	**sP**	**00 37 53.8**	**-0.1**
SMWD	**Samnorwood**	**49.96**	**333**	P	**P**	**00 37 49.7**	**-0.3**
BINY	**Binghamton**	**50.88**	**359**	P	**P**	**00 37 57.0**	**+0.2**
BINY	**Binghamton**	**50.88**	**359**	P	**P**	**00 37 57.1**	**+0.2**
	comp=Z,65nm,3.0s						
121A	**Cookes Peak, D**	**51.85**	**324**	IAmb	IAmb	00 38 10.1	
	comp=Z,7.6nm,0.8s						
KSU1	**Kansas State U**	**51.90**	**338**	IAmb	IAmb	00 38 09.4	
	comp=Z,23nm,1.2s						
R32A	**Long Quarter,**	**52.11**	**336**	P	**P**	**00 38 08.2**	**+2.1**
CBKS	**Cedar Bluff**	**52.86**	**336**	P	**P**	**00 38 10.9**	**-0.8**
CBKS				IAmb	IAmb	00 38 16.8	
	comp=Z,15nm,0.9s						
ALQ	**Albuquerque**	**52.91**	**327**		**P**	**00 38 12.0**	**-0.3**
ALQ	**Albuquerque**	**52.91**	**327**		**P**	**00 38 10.9**	**-1.4**
ALQ				IAmb	IAmb	00 38 17.9	
	comp=Z,5.0nm,1.0s						
ANMO	**Albuquerque**	**52.91**	**327**	P	**P**	**00 38 11.2**	**-1.2**
ANMO	**Albuquerque**	**52.91**	**327**	P	**P**	**00 38 13.3**	**+1.0**
ANMO				IAmb	IAmb	00 38 17.9	
	comp=Z,3.0nm,0.8s						
ANMO	**Albuquerque**	**52.91**	**327**	P	**P**	**00 38 12.5**	**+0.1**
	comp=Z,6.0nm,1.2s						
TASM	**ASL Pad, Albuq**	**52.91**	**327**	P	**P**	**00 38 11.8**	**-0.6**
TASM	**ASL Pad, Albuq**	**52.91**	**327**	P	**P**	**00 38 11.9**	**-0.5**
TASM				IAmb	IAmb	00 38 17.9	
	comp=Z,3.8nm,0.9s						
TUC	**Tucson**	**53.48**	**322**	P	**P**	**00 38 15.9**	**-0.5**
	comp=Z,5.5nm,1.2s						
TUC				P	**pP**	**00 38 20.5**	**+0.8**
T25A	**Trinidad**	**53.57**	**331**	IAmb	IAmb	00 38 22.6	
	comp=Z,12nm,0.8s						
SDCO	**Great Sand Dun**	**54.58**	**330**	P	**P**	**00 38 25.2**	**+0.6**
SDCO				IAmb	IAmb	00 38 29.9	
	comp=Z,13nm,0.7s						
X16A	**Lo Mia Camp, P**	**55.34**	**323**	IAmb	IAmb	00 38 35.6	
	comp=Z,7.0nm,0.8s						
MVCO	**Mesa Verde**	**55.70**	**328**	pP	pP	00 38 36.4	+0.4
	comp=Z,4.8nm,1.6s						
WUAZ	**Wupatki**	**56.07**	**324**	IAmb	IAmb	00 38 40.8	
	comp=Z,11nm,0.8s						
ISCO	**Idaho Springs**	**56.25**	**332**	P	**P**	**00 38 40.8**	**+4.1**
PV03	**Paradox Valley**	**56.66**	**328**	IAmb	IAmb	00 38 44.5	
	comp=Z,10nm,0.9s						
PV05	**Paradox Valley**	**56.66**	**328**	IAmb	IAmb	00 38 44.3	
	comp=Z,15nm,0.7s						
PV12	**Saucer Basin,**	**56.69**	**328**	IAmb	IAmb	00 38 45.5	
	comp=Z,8.6nm,0.8s						
PV18	**Skein Mesa, Pa**	**56.69**	**328**	IAmb	IAmb	00 38 44.6	
	comp=Z,12nm,0.9s						
PV22	**Blue Mesa, Par**	**56.84**	**328**	IAmb	IAmb	00 38 45.8	
	comp=Z,8.2nm,0.8s						
IRM	**Iron Mountain**	**57.43**	**320**	IAmb	IAmb	00 38 50.3	
	comp=Z,13nm,0.9s						
HMU	**Henry Mountain**	**57.44**	**327**	IAmb	IAmb	00 38 52.1	
	comp=Z,8.4nm,1.0s						
KNB	**Kanab**	**57.95**	**324**	IAmb	IAmb	00 38 54.3	
	comp=Z,9.2nm,0.7s						
SRU	**San Rafael Swe**	**58.18**	**328**	IAmb	IAmb	00 38 55.6	
	comp=Z,27nm,1.7s						
LCMT	**Little Creek M**	**58.19**	**324**	IAmb	IAmb	00 38 55.7	
	comp=Z,6.0nm,0.9s						
BSUT	**Blindstream Ca**	**59.35**	**329**	IAmb	IAmb	00 39 03.7	
	comp=Z,5.7nm,1.1s						
PSUT	**Pine Spring**	**59.59**	**325**	IAmb	IAmb	00 39 08.5	
	comp=Z,6.4nm,0.8s						
TPNV	**Topopah Spring**	**59.93**	**322**	IAmb	IAmb	00 39 08.1	
	comp=Z,8.0nm,1.0s						
WCT	**Wildcat Mounta**	**60.05**	**322**	P	**P**	**00 39 02.1**	**-1.1**
WCT				IAmb	IAmb	00 39 08.8	
	comp=Z,6.0nm,0.9s						
TCUT	**Toone Canyon**	**60.11**	**329**	P	**P**	**00 39 03.0**	**-0.6**
DUG	**Dugway, Tooele**	**60.18**	**327**	IAmb	IAmb	00 39 09.4	
	comp=Z,7.9nm,0.8s						
DUG	**Dugway, Tooele**	**60.18**	**327**	P	**P**	**00 39 04.5**	**+0.5**
	comp=Z,13nm,1.1s						
DUG				pP	**sP**	**00 39 08.6**	**+0.1**
PD31	**Pinedale Array**	**60.43**	**331**	IAmb	IAmb	00 39 10.8	
	comp=Z,10nm,1.5s						
PDAR	**Pinedale Array**	**60.43**	**331**	P	**P**	**00 39 04.8**	**-0.9**
	comp=Z,1.8nm,0.8s,baz=116,slow=6.8,SNR=4.6						
	comp=Z,1.8nm,0.8s						
HWUT	**Hardware Ranch**	**60.55**	**329**	P	**P**	**00 39 05.7**	**-0.8**
	comp=Z,17nm,0.7s						
GMN	**Gold Mountain**	**60.77**	**322**	IAmb	IAmb	00 39 13.5	
	comp=Z,4

KURK	**Kurchatov**	**132.90**	**23**			**PKPdf**	**00 48 10.9**	**-0.3**
KURBB	**Kurchatov Arra**	**132.94**	**23**	PKP		**PKPdf**	**00 48 10.9**	**-0.4**
	comp=Z,0.7nm,0.5s,baz=309,slow=2.6,SNR=9.6							
ASAR	**Alice Springs**	**137.15**	**220**	PKP		**PKPdf**	**00 48 19.2**	**-0.9**
	comp=Z,1.2nm,0.6s,baz=122,slow=1.6,SNR=12							
MKAR	**Makanchi Array**	**137.50**	**23**	PKP		**PKPdf**	**00 48 19.3**	**-0.7**
	comp=Z,0.9nm,0.7s,baz=342,slow=1.5,SNR=7.4							
WRA	**Warramunga Arr**	**139.43**	**225**	PKP		**PKPdf**	**00 48 23.8**	**-0.6**
	comp=Z,1.9nm,0.6s,baz=130,slow=1.9,SNR=9.0							
KSRS	**Korea Array**	**144.94**	**328**	PKP		**PKPab**	**00 48 32.1**	**-0.6**
	comp=Z,0.7nm,0.3s,baz=62,slow=1.1,SNR=5.8							
HHC	**Hu-ho-hao-te**	**147.70**	**351**	*eP*		**PKPdf**	**00 48 39.0**	**+0.7**
GTA2	**Gaotai**	**149.18**	**8**	PKPbc		**PKPbc**	**00 48 44.6**	**-0.4**
NJ2	**Nanjing**	**153.72**	**333**	*eP*		**PKPdf**	**00 48 47.6**	**-0.1**
NJ2				pmax	pmax			
	comp=Z,8.0nm,0.5s							

IDC ***13*** *00:42:08.9±0.7,25.78N×125.00E, h0km, mb4.0/21, mbtmp4.0/24, ML3.3/3, MS3.0/6, Error ellipse: s-maj=16.1km s-min=12.6km az=171.0*
NIED ***13*** *00:42:09.7, 24.82N×125.38E, h49km, MW4.0, Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁵Nm; Mrr0.49; Mθθ-0.20; Mφφ-0.29; Mrθ0.94; Mθφ-0.43; Mφr0.69; Fault plane solution: M₀1.31000×10¹⁵ NP1: φs205.00000°, δ15.00000°, λ62.00000°. NP2:φs53.00000°, δ77.00000°, λ97.00000°.*
JMA ***13*** *00:42:09.7±0.1, 24.8N±0.7×125.4E±0.6, h49km, MD4.0/10, MV4.1/10, NEAR MIYAKOJIMA ISLAND*
JMA Felt II J1 at NEAR MIYAKOJIMA ISLAND .
NEIC ***13*** *00:42:10.9±2.1, 25.72N±0.09×124.99E±0.08, h10km±1km, mb4.7/55, Error ellipse: s-maj=16.9km s-min=9.8km az=151.0*

ISC 13 00:42:09.6±0.6, 25°02N±0.06×125°33E±0.05, h35km, n116, σ1s62/103, mb4.4/48, MS3.1/5, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JIKM	**Ikemajima**	**0.12**	**219**	*i* P		**Pn**	**00 42 17.7**	**+1.9**
JIKM				A		A	00 42 17.7	
	comp=N,72nm,0.5s,comp=E,35nm,0.8s							
JIKM				S		**Sn**	**00 42 23.6**	**+3.5**
JMJ	**Miyako jima 2**	**0.20**	**190**	P		**Pn**	**00 42 16.9**	**+0.4**
JIRJ	**Irabujima**	**0.22**	**214**	*i* P		**Pn**	**00 42 17.6**	**+0.9**
JIRJ				A		A	00 42 17.6	
	comp=N,57nm,1.0s,comp=E,58nm,3.3s							
JIRJ				*eS*		**Sn**	**00 42 23.2**	**+1.7**
JOGS	**Gusukube**	**0.27**	**165**	*i* P		**Pn**	**00 42 17.3**	**+0.1**
JOGS				A		A	00 42 17.3	
	comp=N,40nm,0.6s,comp=E,50nm,2.1s							
JOGS				S		**Sn**	**00 42 22.9**	**+0.6**
JMJ2	**Miyako jima3**	**0.28**	**181**	*i* P		**Pn**	**00 42 17.3**	**0.0**
JMJ2				A		A	00 42 17.3	
	comp=N,43nm,1.1s,comp=E,48nm,0.7s							
JMJ2				S		**Sn**	**00 42 23.0**	**+0.5**
JTJ	**Tarama**	**0.68**	**237**	*i* P		**Pn**	**00 42 23.0**	**+0.1**
JTJ				A		A	00 42 23.0	
	comp=N,36nm,0.8s,comp=E,27nm,0.5s							
JTJ				S		**Sn**	**00 42 32.4**	**+0.2**
JISG	**Ishigakijimahi**	**1.02**	**245**	*i* P		**Pn**	**00 42 27.2**	**-0.2**
JIJ	**Ishigaki jima**	**1.26**	**239**	*i* P		**Pn**	**00 42 30.8**	**0.0**
JKRS	**Kuro-shima**	**1.43**	**237**	*eP*		**Pn**	**00 42 33.2**	**+0.1**
IRIF	**Iriomote-Funau**	**1.61**	**245**	*eP*		**Pn**	**00 42 35.6**	**+0.1**
YOJ	**Yonaguni jima**	**2.18**	**256**	P		**Pn**	**00 42 43.6**	**+0.2**
YOJ	**Yonaguni jima**	**2.18**	**256**	Pn		**Pn**	**00 42 43.8**	**+0.4**
JOW	**Kunigami**	**3.21**	**55**	Pn		**Pn**	**00 42 58.7**	**+1.1**
	comp=E,6.8nm,0.3s,baz=161,slow=19,SNR=7.4							
JOW				Sn		**Sn**	**00 43 32.4**	**-2.2**
	comp=E,18nm,0.3s,baz=208,slow=10.0,SNR=6.3							
JOW				Lg		Lg	00 43 50.3	
	comp=E,12nm,0.3s,baz=128,slow=26,SNR=1.5							
	comp=E,18nm,0.3s							
JOW				AML		AML		
JOW	**Kunigami**	**3.21**	**55**			**Pn**	**00 42 59.7**	**+2.2**
TATO	**Taipei**	**3.49**	**270**			**Pn**	**00 43 03.7**	**+2.3**
NACB	**Ninganchiao**	**3.50**	**257**	P		**Pn**	**00 43 01.9**	**+0.3**
NACB	**Ninganchiao**	**3.50**	**257**	Pn		**Pn**	**00 43 02.0**	**+0.4**
YHNB	**Yeheng**	**3.61**	**265**	P		**Pn**	**00 43 06.4**	**+3.2**
YHNB	**Yeheng**	**3.61**	**265**			**Pn**	**00 43 05.5**	**+2.3**
YULB	**Yu-li**	**4.02**	**247**	P		**Pn**	**00 43 07.0**	**-1.8**
SSLB	**Suanglung**	**4.17**	**254**	P		**Pn**	**00 43 11.7**	**+0.8**
KSRS	**Korea Array**	**12.59**	**9**	Pn		Pn	00 45 00.5	-5.7
KSRS				LR		LR	00 49 42.2	
	comp=E,31nm,19.1s,baz=150,slow=38							
	comp=E,0.3nm,0.2s							
KSRS				AML		AML		
MJAR	**Matsushiro Arr**	**15.93**	**41**	Pn		**Pn**	**00 45 50.9**	**-0.3**
	comp=E,0.1nm,0.3s,baz=232,slow=7.2,SNR=1.5							
	comp=E,0.9nm,0.3s							
MJAR				AML		AML		
LZDM	**Lanzhou Array**	**21.55**	**305**	P		**P**	**00 46 52.9**	**-3.4**
	comp=E,1.8nm,0.3s,baz=88,slow=11,SNR=2.1							
	comp=E,1.8nm,0.3s							
GUMO	**Guam**	**21.63**	**118**	LR		LR	00 54 58.0	
	comp=E,12nm,19.6s,baz=48,slow=35							
HILR	**Hailar Array**	**24.88**	**351**	P		**P**	**00 47 25.8**	**-3.2**
	comp=E,1.0nm,0.3s,baz=178,slow=11,SNR=1.7							
	comp=E,1.0nm,0.3s							
CMAR	**Chiang Mai Arr**	**25.34**	**260**	P		**P**	**00 47 36.6**	**+3.2**
	comp=E,1.0nm,0.3s,baz=63,slow=9.2,SNR=4.1							
CMAR				LR		LR	00 57 02.2	
	comp=E,31nm,18.6s,baz=120,slow=36							
	comp=E,1.0nm,0.3s							
GTA2	**Gaotai**	**25.88**	**310**	*eP*		**P**	**00 47 38.5**	**+0.2**
GTA2				pmax		pmax		
	comp=Z,7.0nm,0.8s							
ULN	**Ulaanbaatar**	**27.00**	**332**	P		**P**	**00 47 45.9**	**-2.4**
SONM	**Songino Array**	**27.26**	**331**	LR		LR	00 59 35.4	
	comp=Z,53nm,19.3s,baz=132,slow=40							
H11N1	**WAKE ISLAND Hy**	**38.69**	**89**	T		T	01 30 18.7	
	baz=283							
H11N2	**WAKE ISLAND Hy**	**38.69**	**89**	T		T	01 30 20.7	
	baz=283							
H11N3	**WAKE ISLAND Hy**	**38.70**	**89**	T		T	01 30 28.8	
	baz=283							
H11S3	**WAKE ISLAND Hy**	**38.84**	**91**	T		T	01 30 26.5	
	baz=289							
H11S1	**WAKE ISLAND Hy**	**38.85**	**91**	T		T	01 30 28.1	
	baz=289							
H11S2	**WAKE ISLAND Hy**	**38.86**	**91**	T		T	01 30 27.9	
	baz=289							
MKAR	**Makanchi Array**	**40.43**	**314**	P		**P**	**00 49 44.4**	**-0.2**
	comp=Z,2.1nm,0.5s,baz=100,slow=9.9,SNR=26							
	comp=Z,2.1nm,0.5s							
ZALV	**Zalesovo Beam**	**41.67**	**325**	P		**P**	**00 49 53.5**	**-1.1**
	comp=Z,2.1nm,0.5s,baz=113,slow=8.1,SNR=7.6							
	comp=Z,2.1nm,0.5s							
ZALV	**Zalesovo Beam**	**41.67**	**325**	P		**P**	**00 49 52.9**	**-1.7**
KURK	**Kurchatov**	**43.94**	**318**	P		**P**	**00 50 12.7**	**-0.3**
KURK	**Kurchatov**	**43.94**	**318**	IAmb		IAmb	00 50 13.9	
	comp=Z,1.1nm,0.7s							
KURBB	**Kurchatov Arra**	**43.96**	**318**	P		**P**	**00 50 12.7**	**-0.5**
	comp=Z,0.6nm,0.6s,baz=109,slow=8.8,SNR=6.6							
	comp=Z,0.6nm,0.6s							
WB0	**Warramunga Arr**	**45.38**	**168**	P		P	00 50 34.7	+10
WB0				IAmb		IAmb	00 50 36.5	
	comp=Z,11nm,1.2s							
WRA	**Warramunga Arr**	**45.54**	**168**	P		P	00 50 36.4	+10
	comp=Z,2.9nm,0.8s,baz=349,slow=8.4,SNR=12							
	comp=Z,2.9nm,0.8s							
WRA	**Warramunga Arr**	**45.54**	**168**	P		P	00 50 33.6	+7.5
WR8	**Warramunga Arr**	**45.59**	**168**	P		P	00 50 37.2	+11
WR8				IAmb		IAmb	00 50 38.7	
	comp=Z,7.5nm,1.0s							
ASAR	**Alice Springs**	**49.10**	**170**	P		P	00 51 04.9	+11
	comp=Z,0.8nm,0.5s,baz=357,slow=7.9,SNR=11							
	comp=Z,0.8nm,0.5s							
ASAR	**Alice Springs**	**49.10**	**170**	P		P	00 51 04.5	+11
BVAR	**Borovoye Array**	**49.46**	**319**	P		**P**	**00 50 56.5**	**+0.3**
	comp=Z,0.5nm,0.4s,baz=100,slow=9.8,SNR=2.0							
	comp=Z,0.5nm,0.4s							
C24K	**Franklin Bluff**	**65.39**	**22**	P		**P**	**00 52 49.8**	**+1.5**
D24K	**Happy Valley**	**65.40**	**23**	P		**P**	**00 52 49.4**	**+1.1**
NEA2	**Nenana**	**65.83**	**28**	P		**P**	**00 52 53.4**	**+2.2**
NEA2				IAmb		IAmb	00 52 55.7	
	comp=Z,4.3nm,0.7s							
F24K	**Squaw Lake**	**65.93**	**25**	P		**P**	**00 52 53.6**	**+1.8**
F24K				IAmb		IAmb	00 52 55.4	
	comp=Z,4.9nm,0.8s							
RND	**Reindeer**	**66.09**	**29**	P		**P**	**00 52 55.1**	**+2.2**
RND				IAmb		IAmb	00 52 57.3	
	comp=Z,4.8nm,0.8s							
H24K	**Noodor Dome**	**66.16**	**27**	P		**P**	**00 52 55.8**	**+2.5**
H24K				IAmb		IAmb	00 53 18.0	
	comp=Z,7.0nm,1.4s							
ILAR	**Eielson Array**	**66.73**	**28**	P		**P**	**00 52 58.1**	**+1.2**
	comp=Z,0.5nm,0.6s,baz=298,slow=9.6,SNR=14							
	comp=Z,0.5nm,0.6s							
ILAR	**Eielson Array**	**66.73**	**28**	P		**P**	**00 52 58.8**	**+1.9**
F25K	**Christian Rive**	**66.77**	**25**	P		**P**	**00 52 58.8**	**+1.5**
F25K				IAmb		IAmb	00 53 01.2	
	comp=Z,5.0nm,0.8s							
C27K	**Jago River**	**67.13**	**22**	P		**P**	**00 53 00.9**	**+1.5**
C27K				IAmb		IAmb	00 53 02.9	
	comp=Z,3.1nm,0.7s							
PRP	**Porcupine Dome**	**67.17**	**27**	P		**P**	**00 53 02.6**	**+2.7**
BMAR	**Burnt Mountain**	**67.20**	**25**	P		**P**	**00 53 02.6**	**+2.6**
F26K	**Sheenjek River**	**67.32**	**24**	P		**P**	**00 53 03.0**	**+2.3**
F26K				IAmb		IAmb	00 53 04.7	
	comp=Z,4.8nm,0.8s							
J25K	**Salcha River,**	**67.40**	**28**	P		**P**	**00 53 02.4**	**+1.1**
G26K	**Porcupine Rive**	**67.60**	**25**	P		**P**	**00 53 05.2**	**+2.9**
G26K				IAmb		IAmb	00 53 06.8	
	comp=Z,2.8nm,0.7s							
KLU	**Klutina**	**67.76**	**31**	P		**P**	**00 53 03.8**	**+0.2**
RIDG	**Independent Ri**	**67.80**	**29**	P		**P**	**00 53 04.3**	**+0.5**
RIDG				IAmb		IAmb	00 53 05.8	
	comp=Z,6.2nm,1.0s							
KBZ	**Khabaz**	**67.90**	**309**	P		**P**	**00 53 04.9**	**+0.3**
	comp=Z,2.4nm,0.7s,baz=90,slow=1.0,SNR=10							
	comp=Z,2.4nm,0.7s							
KIV	**Kislovodsk**	**67.99**	**309**	P		**P**	**00 53 05.7**	**+0.3**
DOT	**Dot Lake**	**68.16**	**29**	P		**P**	**00 53 08.6**	**+2.6**
DOT				IAmb		IAmb	00 53 18.0	
	comp=Z,11nm,1.5s							
D27M	**Malcolm River**	**68.16**	**23**	P		**P**	**00 53 07.6**	**+1.6**
D27M				IAmb		IAmb	00 53 09.3	
	comp=Z,2.6nm,0.6s							
E27K	**Coleen River**	**68.17**	**24**	P		**P**	**00 53 07.6**	**+1.6**
E27K				IAmb		IAmb	00 53 09.4	
	comp=Z,2.7nm,0.7s							
I26K	**Coal Creek Min**	**68.19**	**27**	P		**P**	**00 53 08.0**	**+1.9**
H27K	**Steamboat Moun**	**68.63**	**26**	P		**P**	**00 53 11.0**	**+2.0**
I27K	**Kandik River**	**68.75**	**26**	P		**P**	**00 53 12.2**	**+2.5**
I27K				IAmb		IAmb	00 53 14.3	
	comp=Z,3.0nm,0.8s							
GLB	**Gilahina Butte**	**68.76**	**31**	P		**P**	**00 53 10.6**	**+0.8**
E28M	**Babbage River**	**68.81**	**23**	P		**P**	**00 53 12.4**	**+2.4**
E28M				IAmb		IAmb	00 53 13.3	
	comp=Z,4.7nm,0.7s							
M26K	**Nabesna, AK**	**68.91**	**30**	P		**P**	**00 53 12.0**	**+1.3**
K27K	**Chicken**	**68.93**	**28**	P		**P**	**00 53 14.5**	**+3.7**
F28M	**Old Crow**	**68.93**	**24**	P		**P**	**00 53 13.2**	**+2.4**
F28M				IAmb		IAmb	00 53 14.8	
	comp=Z,4.5nm,0.9s							
L27K	**Beaver Creek,**	**69.27**	**29**	P		**P**	**00 53 14.9**	**+2.0**
L27K				IAmb		IAmb	00 53 47.8	
	comp=Z,8.0nm,1.5s							
BCAR	**Beaver Creek A**	**69.29**	**29**	P		**P**	**00 53 15.1**	**+1.9**
H29M	**Whitestone**	**69.88**	**25**	P		**P**	**00 53 18.5**	**+1.9**
H29M				IAmb		IAmb	00 53 46.6	
	comp=Z,6.8nm,1.4s							
ARCES	**ARCESS Array B**	**70.17**	**338**	P		**P**	**00 53 17.4**	**-1.0**
	comp=Z,2.3nm,0.8s,baz=73,slow=5.9,SNR=1.6							
	comp=Z,2.3nm,0.8s							
ARCES	**ARCESS Array B**	**70.17**	**338**	P		**P**	**00 53 17.5**	**-0.8**
ARCES				IAmb		IAmb	00 53 38.9	
	comp=Z,7.7nm,1.3s							
F30M	**Barrier River**	**70.44**	**24**	P		**P**	**00 53 22.0**	**+2.0**
F30M				IAmb		IAmb	00 53 27.8	
	comp=Z,7.4nm,1.2s							
EPYK	**Eagle Plains**	**70.47**	**25**	P		**P**	**00 53 21.8**	**+1.5**
KOPT	**Kop Dagi**	**70.60**	**306**	P		**P**	**00 53 23.2**	**+1.3**
KOPT				IAmb		IAmb	00 53 26.5	
	comp=Z,4.7nm,0.9s							
K29M	**Barlow Dome**	**70.92**	**28**	P		**P**	**00 53 24.8**	**+1.6**
M29M	**Somme Creek**	**70.93**	**29**	P		**P**	**00 53 25.2**	**+1.9**
I30M	**Mount Dempster**	**70.96**	**26**	P		**P**	**00 53 24.8**	**+1.4**
I30M				IAmb		IAmb	00 53 54.9	
	comp=Z,6.4nm,1.4s							
INK	**Inuvik**	**71.02**	**23**	P		**P**	**00 53 24.6**	**+1.1**
	comp=Z,2.0nm,0.7s,baz=320,slow=8.4,SNR=14							
INK				LR		LR	01 28 36.9	
	comp=Z,20nm,18.1s,baz=346,slow=40							
	comp=Z,2.0nm,0.7s							
INK	**Inuvik**	**71.02**	**23**	P		**P**	**00 53 25.1**	**+1.6**
INK				IAmb		IAmb	00 53 49.8	
	comp=Z,7.8nm,1.4s							
J30M	**Hart River**	**71.18**	**27**	P		**P**	**00 53 25.4**	**+0.6**
H31M	**Peel River**	**71.57**	**25**	P		**P**	**00 53 29.0**	**+2.0**
H31M				IAmb		IAmb	00 53 58.2	
	comp=Z,10nm,1.5s							
ARPR	**Arapgir-MALATY**	**72.47**	**305**	P		**P**	**00 53 32.9**	**-0.1**
FINES	**FINESS Array B**	**72.62**	**330**	P		**P**	**00 53 32.6**	**-0.6**
	comp=Z,0.8nm,0.5s,baz=67,slow=5.0,SNR=7.2							
	comp=Z,0.8nm,0.5s							
FINES	**FINESS Array B**	**72.62**	**330**	P		**P**	**00 53 32.8**	**-0.5**
M31M	**Drury Creek, Y**	**72.81**	**29**	P		**P**	**00 53 35.5**	**+1.1**
M31M				IAmb		IAmb	00 54 12.3	
	comp=Z,12nm,1.5s							
WHY	**Whitehorse**	**73.14**	**30**	P		**P**	**00 53 37.8**	**+1.3**
AKASG	**Malin Array Be**	**74.74**	**319**	P		**P**	**00 53 45.4**	**-0.5**
	comp=Z,1.0nm,0.3s,baz=57,slow=7.0,SNR=4.7							
	comp=Z,1.0nm,0.3s							
BRTR	**Keskin Array B**	**75.70**	**307**	P		**P**	**00 53 52.1**	**+0.3**
	comp=Z,2.5nm,0.8s,baz=92,slow=6.7,SNR=15							
	comp=Z,2.5nm,0.8s							
BRTR	**Keskin Array B**	**75.70**	**307**	P		**P**	**00 53 51.9**	**+0.1**
PABE	**Paberze**	**75.87**	**325**	P		**P**	**00 53 51.6**	**-0.6**
PABE				IAmb		IAmb	00 53 53.2	
	comp=Z,7.2nm,0.7s							
RES	**Resolute Bay**	**77.21**	**10**	P		**P**	**00 53 58.9**	**-0.7**
	comp=Z,2.7nm,1.0s,baz=3.7,slow=3.0,SNR=4.2							
	comp=Z,2.7nm,1.0s							
RES	**Resolute Bay**	**77.21**	**10**	P		**P**	**00 53 59.2**	**-0.4**
RES				IAmb		IAmb	00 54 37.5	
	comp=Z,4.8nm,1.1s							
EIL	**Elat**	**78.35**	**297**	LR		LR	01 34 37.0	
	comp=Z,29nm,19.0s,baz=277,slow=40							
HFS	**Hagfors**	**78.66**	**332**	P		**P**	**00 54 07.3**	**-0.5**
	comp=Z,1.0nm,0.7s,baz=104,slow=1.8,SNR=1.4							
	comp=Z,1.0nm,0.7s							
MLR	**Muntele Rosu**	**78.76**	**315**	P		**P**	**00 54 07.8**	**-1.1**
NC405	**NORSAR Array S**	**78.98**	**333**	P		**P**	**00 54 09.2**	**-0.4**
NOA	**NORSAR Array B**	**79.22**	**333**	P		**P**	**00 54 10.8**	**-0.2**
	comp=Z,0.3nm,0.4s,baz=57,slow=5.7,SNR=1.9							
	comp=Z,0.3nm,0.4s							
NC204	**NORSAR Array S**	**79.28**	**333**	P		**P**	**00 54 10.3**	**-1.0**
YKA	**Yellowknife Ar**	**80.71**	**24**	P		**P**	**00 54 20.4**	**+1.5**
	comp=Z,1.3nm,0.8s,baz=299,slow=5.7,SNR=2.1							
	comp=Z,1.3nm,0.8s							
CLL	**Collm**	**83.62**	**324**	*i* (pP)		P	00 54 39.7	+5.3
CLL				*ex*		x	00 54 51.0	
GERES	**GERESS Array B**	**84.56**	**322**	P		**P**	**00 54 39.2**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=36,slow=5.3,SNR=5.7							
	comp=Z,0.5nm,0.7s							
ITM	**Ithomi**	**85.12**	**309**	P		**P**	**00 54 41.1**	**-1.2**
ITM				IAmb		IAmb	00 54 47.9	
	comp=Z,7.4nm,1.0s							
TMUT	**Trail Mountain**	**97.06**	**41**	P		Pdif	00 55 41.7	+3.0

IDC ***13*** *00:47:31.7±6.9, 20.06S×176.82W, h175km±53km, mb3.0/3, mbtmp3.8/6, MS2.8/1, Error ellipse: s-maj=127.7km s-min=20.6km az=157.0*

ISC 13 00:47:34.5±1.6, 19.6S±0.3×177.0W±0.2, h200km, n7, σ1s11/7, mb3.2/3, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.05**	**291**	P		**Pn**	**00 48 49.8**	**+0.1**
	3.7nm,0.7s,baz=138,slow=20,SNR=4.1							
AFI	**Afiamalu**	**7.59**	**42**	P		**Pn**	**00 49 22.9**	**+0.4**
	13nm,0.2s,baz=172,slow=7.1,SNR=2.1							
AFI				LR		LR	00 51 51.6	
	comp=Z,69nm,18.5s,baz=130,slow=33							
DZM	**Mont Dzumac**	**15.65**	**258**	P		**Pn**	**00 51 05.5**	**+0.7**
	11nm,1.0s,baz=107,slow=17,SNR=3.6							
ASAR	**Alice Springs**	**45.62**	**256**	P		**P**	**00 55 36.3**	**+1.0**
	1.2nm,0.9s,baz=95,slow=7.7,SNR=9.6							
	1.2nm,0.9s							
WRA	**Warramunga Arr**	**45.65**	**261**	P		**P**	**00 55 33.9**	**-1.5**
	0.4nm,0.9s,baz=99,slow=9.2,SNR=2.5							
	0.4nm,0.9s							
TXAR	**Lajitas Array**	**85.81**	**57**	P		**P**	**00 59 51.7**	**-0.1**
	0.4nm,0.9s,baz=186,slow=10,SNR=4.3							
	0.4nm,0.9s							
BRTR	**Keskin Array B**	**146.93**	**314**	PKPbc		**PKPab**	**01 06 54.7**	**-0.9**
	0.7nm,0.8s,baz=123,slow=5.3,SNR=2.9							

IDC ***13*** *00:58:49.0±2.4, 67.79N×33.07E, h0km, mbtmp3.4/5, ML2.2/4, Error ellipse: s-maj=25.8km s-min=11.9km az=91.0*
KOLA ***13*** *00:58:50.0, 67.81N×32.76E, h0km, ML2.8, Error ellipse: s-maj=3.0km s-min=2.2km az=60.0, Murmansk region, Monchegorsk district*
UPP ***13*** *00:58:51.0±2.9, 67.78N×32.26E, h0km, ML2.3, Presumed earthquake*
HEL ***13*** *00:58:51.3±0.1, 67.84N×32.80E, h24km, ML2.5, ML2.5(BER), Confirmed Earthquake*
BER ***13*** *00:58:52.9±1.8, 67.94N×32.44E, h0km, ML2.5, Suspected explosion*

ISC 13 00:58:48.0±0.7, 67.87N±0.02×32.52E±0.02, h0km, n44, σ1s39/84, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
APA0	**Apatity Array**	**0.32**	**145**	P		**Pb**	**00 58 56.2**	**-0.4**
APA0				S		**Sg**	**00 58 59.7**	**+1.5**
APA	**Apatity**	**0.45**	**131**	P		**Pb**	**00 58 57.7**	**-1.1**
APA				S		**Sg**	**00 59 02.4**	**-0.1**
LVZ	**Lovozero**	**0.81**	**87**	P		**Pg**	**00 59 03.7**	**+0.2**
LVZ				S		**Sg**	**00 59 13.0**	**-1.0**
LVZ	**Lovozero**	**0.81**	**87**	*i* P		**Pg**	**00 59 04.1**	**+0.6**
LVZ				*i* S		**Sg**	**00 59 13.2**	**-0.7**
VRF	**Varrio**	**1.11**	**265**	*i* P		**Pn**	**00 59 12.8**	**+1.9**
VRF				*i* S		**Sn**	**00 59 27.8**	**+1.0**
KVDA	**Kovda**	**1.19**	**173**	P		**Pg**	**00 59 10.9**	**+0.2**
KVDA				S		**Sg**	**00 59 24.8**	**-1.2**
TERR	**Teriberka**	**1.65**	**34**	P		**Pb**	**00 59 19.3**	**+0.1**
TERR				S		**Sn**	**00 59 39.9**	**-0.1**
RAJF	**Raja-Jooseppi**	**1.69**	**293**	*eP*		**Pg**	**00 59 21.0**	**+0.7**
RAJF				*eS*		**Sg**	**00 59 43.0**	**+0.9**
OLKF	**Oulanka, Finla**	**1.97**	**220**	*eP*		**Pb**	**00 59 24.5**	**-0.3**
OLKF				*eS*		**Sn**	**00 59 48.9**	**+0.9**
KU6	**Riekki**	**2.12**	**210**	*eP*		**Pb**	**00 59 26.5**	**-0.7**
KU6				*eSB*		**Sb**	**00 59 54.4**	**+0.3**
SGF	**Sodankyl**	**2.33**	**262**	*ePB*		**Pg**	**00 59 33.0**	**+0.4**
SGF				*eS*		**Sn**	**00 59 58.1**	**+1.3**
SGF				MSG			01 00 08.7	
	comp=Z,9.1nm,0.1s							
MSF	**Maaselka**	**2.40**	**217**	*eP*		**Pn**	**00 59 30.1**	**+1.7**
MSF				*eS*		**Sn**	**00 59 59.5**	**+1.1**
MSF				MSG			01 00 08.9	
	comp=Z,19nm,0.2s							
VADS	**Vadso**	**2.54**	**335**	*eP*		**Pn**	**00 59 32.2**	**+1.9**
VADS				*ePg*		**Pg**	**00 59 36.0**	**-0.5**
VADS				*eS*		**Sn**	**01 00 02.4**	**+0.5**
VADS				*eSg*		**Sg**	**01 00 08.8**	**-0.5**
VADS				IAML			01 00 17.2	
	comp=Z,54nm,0.2s							
VADS	**Vadso**	**2.54**	**335**	P		**Pn**	**00 59 32.0**	**+1.6**
VADS				S		**Sn**	**01 00 02.3**	**+0.5**
VADS	**Vadso**	**2.54**	**335**	*eP*		**Pn**	**00 59 32.2**	**+1.9**
VADS				*ePB*		**Pg**	**00 59 36.0**	**-0.5**
VADS				*eS*		**Sn**	**01 00 02.4**	**+0.5**
VADS				*eSB*		**Sg**	**01 00 08.8**	**-0.5**
VADS				IAML			01 00 17.2	
	comp=Z,54nm,0.2s							
KU1	**Kurvinen**	**2.59**	**208**	*eP*		**Pn**	**00 59 33.3**	**+2.2**
KU1				*eS*		**Sn**	**01 00 04.4**	**+1.1**
KEV	**Kevo**	**2.76**	**316**	*eP*		**Pb**	**00 59 36.3**	**-1.8**
KEV				*eS*		**Sn**	**01 00 08.7**	**+1.3**
KEV				MSG			01 00 21.0	
	comp=Z,49nm,0.2s							
RNF	**Rovaniemi**	**2.83**	**247**	*eP*		**Pn**	**00 59 36.3**	**+1.9**
RNF				*eS*		**Sn**	**01 00 09.8**	**+0.7**
RNF				MSG			01 00 21.8	
	comp=Z,15nm,0.2s							
RANF	**Ranua**	**2.92**	**233**	*eP*		**Pn**	**00 59 37.1**	**+1.4**
RANF				*eS*		**Sn**	**01 00 10.4**	**-1.0**
ARA0	**ARCESS Array S**	**3.06**	**306**	*eP*		**Pn**	**00 59 39.9**	**+2.3**
ARA0				*eS*		**Sn**	**01 00 15.4**	**+0.6**
ARCES	**ARCESS Array B**	**3.06**	**306**	Pn		**Pn**	**00 59 40.0**	**+2.3**
	comp=Z,0.3nm,0.3s,baz=122,slow=15,SNR=56							
ARCES				Pg		**Pg**	**00 59 47.4**	**+0.8**
	comp=Z,1.3nm,0.3s,baz=123,slow=15,SNR=6.2							
ARCES				Sn		**Sn**	**01 00 14.4**	**-0.4**
	comp=Z,2.1nm,0.3

WCZ				AML	AML			
WMGZ	**Waiomatatini S**	**6.02**	**189**	P	**P**	**01 16 22.3**	**+2.8**
WMGZ				S	**S**	**01 17 36.2**	**-0.1**
WMGZ				AML	AML		
WMGZ				AML	AML		
OUZ	**Omahuta**	**6.05**	**235**	P	**P**	**01 16 23.9**	**+4.1**
OUZ				AML	AML		
HAZ	**Te Kaha**	**6.07**	**194**	P	**P**	**01 16 21.3**	**+1.4**
HAZ				S	**S**	**01 17 34.9**	**-2.4**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**6.29**	**190**	P	**P**	**01 16 24.2**	**+1.9**
PUZ				S	**S**	**01 17 39.5**	**-2.1**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.29**	**194**	P	**P**	**01 16 24.0**	**+1.6**
RUGZ				S	**S**	**01 17 38.8**	**-3.0**
RUGZ				AML	AML		
RUGZ				AML	AML		
WHRZ	**Whale Island**	**6.36**	**199**	P	**P**	**01 16 25.1**	**+2.1**
WHRZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.44**	**192**	P	**P**	**01 16 26.3**	**+2.4**
TWGZ				S	**S**	**01 17 43.2**	**-1.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
OPRZ	**Ohinepanea**	**6.48**	**202**	P	**P**	**01 16 27.6**	**+3.4**
EDRZ	**Edgecumbe**	**6.66**	**200**	P	**P**	**01 16 29.8**	**+3.4**
MWZ	**Matawai**	**6.68**	**194**	P	**P**	**01 16 28.0**	**+1.5**
MWZ				S	**S**	**01 17 47.7**	**-1.3**
MWZ				AML	AML		
MWZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.70**	**190**	P	**P**	**01 16 29.4**	**+2.7**
CNGZ				S	**S**	**01 17 50.2**	**+0.8**
CNGZ				AML	AML		
CNGZ				AML	AML		
URZ	**Urewera**	**6.70**	**197**	P	**P**	**01 16 27.1**	**+0.4**
	98nm,0.3s,baz=358,slow=7.6,SNR=174						
URZ				S	**S**	**01 17 46.6**	**-2.8**
	26nm,0.4s,baz=346,slow=19,SNR=12						
URZ	**Urewera**	**6.70**	**197**	P	**P**	**01 16 27.2**	**+0.4**
URZ				S	**S**	**01 17 46.7**	**-2.8**
URZ				AML	AML		
URZ				AML	AML		
TKGZ	**Te Karaka**	**6.72**	**192**	P	**P**	**01 16 28.2**	**+1.4**
TKGZ				S	**S**	**01 17 49.6**	**-0.2**
TKGZ				AML	AML		
TKGZ				AML	AML		
RAGZ	**Rawiri**	**6.86**	**195**	P	**P**	**01 16 30.3**	**+1.9**
RAGZ				S	**S**	**01 17 51.5**	**-1.1**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**6.99**	**192**	P	**P**	**01 16 31.2**	**+1.3**
RIGZ				S	**S**	**01 17 54.2**	**-1.0**
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	**7.00**	**199**	P	**P**	**01 16 30.7**	**+0.8**
MUGZ				S	**S**	**01 17 51.9**	**-3.4**
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**7.33**	**197**	P	**P**	**01 16 35.5**	**+2.0**
MTHZ				S	**S**	**01 17 59.2**	**-2.8**
MTHZ				AML	AML		
MTHZ				AML	AML		
MRHZ	**Matea Rd**	**7.43**	**200**	P	**P**	**01 16 36.2**	**+1.7**
MRHZ				AML	AML		
MRHZ				AML	AML		
NMHZ	**Naumai**	**7.57**	**197**	P	**P**	**01 16 37.7**	**+1.6**
NMHZ				AML	AML		
NMHZ				AML	AML		
ARHZ	**Aropaoanui**	**7.69**	**196**	P	**P**	**01 16 39.3**	**+2.0**
ARHZ				S	**S**	**01 18 07.2**	**-1.6**
ARHZ				AML	AML		
ARHZ				AML	AML		
MSVF	**Nonsavu**	**14.15**	**354**	P	**P**	**01 17 46.5**	**-1.4**
	3.3nm,0.6s,baz=277,slow=22,SNR=5.5						
STKA	**Stephens Creek**	**32.20**	**260**	P	**P**	**01 20 36.8**	**+1.2**
	1.8nm,0.4s,baz=95,slow=11,SNR=4.1						
	1.8nm,0.4s						
ASAR	**Alice Springs**	**41.04**	**270**	P	**P**	**01 21 48.6**	**-0.6**
	2.7nm,0.6s,baz=105,slow=7.5,SNR=30						
	2.7nm,0.6s						
WRA	**Warramunga Arr**	**42.16**	**275**	P	**P**	**01 21 57.2**	**-1.0**
	3.8nm,0.5s,baz=114,slow=7.6,SNR=40						
	3.8nm,0.5s						
QSPA	**South Pole Qui**	**58.24**	**180**	P	**P**	**01 23 56.5**	**+0.3**
	2.8nm,0.9s,baz=31,slow=1.4,SNR=12						
	2.8nm,0.9s						
FINES	**FINESS Array B**	**145.78**	**338**	PKPbc	**PKPdf**	**01 33 31.9**	**-0.3**
	1.6nm,0.8s,baz=48,slow=4.1,SNR=6.2						

IDC ***13*** *01:37:16.9±0.9, 32.°60N×138.°25E, h0km, mb3.8/9, mbtmp3.8/10, ML2.5/1, Error ellipse: s-maj=29.3km s-min=15.3km az=89.0*

NIED ***13*** *01:37:18.3, 32.°62N×138.°01E, h60km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr-4.79; Mθθ0.13; Mϕϕ4.66; Mrθ-4.04; Mθϕ-1.19; Mϕr-0.28; Fault plane solution: M₀6.07000×10¹⁴ NP1:ϕs10.00000°, δ47.00000°, λ-48.00000°. NP2:ϕs137.00000°, δ57.00000°, λ-126.00000°.*

JMA ***13*** *01:37:18.3±0.1, 32.°6N±0.°5×138.°0E±0.°3, h60km±2km, MV3.5/33, FAR S OFF TOKAI DISTRICT*

ISC 13 01:37:21.1±1.1, 32.°63N±0.°07×138.°01E±0.°04, h50km, n35, σ1s76/39, mb3.6/9, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TTO3	**TONANKAI O.B.S**	**1.33**	**337**	*eP*	**Pn**	**01 37 41.5**	**-1.7**
TTO3				*eS*	**Sn**	**01 37 59.4**	**-0.4**
TTO2	**TONANKAI O.B.S**	**1.38**	**323**	*eP*	**Pn**	**01 37 42.2**	**-1.4**
TTO2				*eS*	**Sn**	**01 38 01.4**	**+0.8**
TTO1	**TONANKAI O.B.S**	**1.43**	**314**	*eP*	**Pn**	**01 37 42.7**	**-1.7**
TTO1				*eS*	**Sn**	**01 38 01.5**	**-0.4**
TTO4	**TONANKAI O.B.S**	**1.43**	**344**	*eP*	**Pn**	**01 37 42.6**	**-1.8**
TTO4				*eS*	**Sn**	**01 38 01.4**	**-0.5**
JHCJ	**Hachijojimakas**	**1.56**	**73**	*eP*	**Pn**	**01 37 44.5**	**-2.0**
JHCJ				*eS*	**Sn**	**01 38 03.4**	**-2.3**
JHJ2	**Mitsune**	**1.59**	**72**	P	**Pn**	**01 37 44.5**	**-2.3**
JHJ2				*eS*	**Sn**	**01 38 04.4**	**-1.8**
TTO5	**TONANKAI O.B.S**	**1.64**	**351**	*eP*	**Pn**	**01 37 45.5**	**-1.8**
TTO5				*eS*	**Sn**	**01 38 06.2**	**-0.9**
JMKN	**Mikurajimanish**	**1.82**	**46**	*eS*	**Sn**	**01 38 09.7**	**-2.2**
JIE	**Ise**	**2.07**	**328**	P	**Pn**	**01 37 51.7**	**-1.7**
JIE				*eS*	**Sn**	**01 38 16.4**	**-1.5**
JKN2	**Miekihoku**	**2.16**	**318**	P	**Pn**	**01 37 52.7**	**-2.0**
JKN2				*eS*	**Sn**	**01 38 17.2**	**-3.1**
JIZS	**Izushimoda**	**2.20**	**19**	*eP*	**Pn**	**01 37 53.7**	**-1.5**
JIZS				*eS*	**Sn**	**01 38 20.1**	**-1.2**
JTNC	**Tanabenakahech**	**2.34**	**301**	P	**Pn**	**01 37 55.1**	**-2.0**
JTNC				*eS*	**Sn**	**01 38 21.5**	**-3.0**
JIM2	**Oshima 3**	**2.39**	**29**	*eP*	**Pn**	**01 37 56.7**	**-1.2**
SHZ3	**Shizuoka 3**	**2.43**	**4**	*eP*	**Pn**	**01 37 57.0**	**-1.5**
SHZ3				*eS*	**Sn**	**01 38 25.9**	**-1.1**
TSUJ	**Tsu 2**	**2.46**	**328**	*eP*	**Pn**	**01 37 57.0**	**-1.7**
TSUJ				*eS*	**Sn**	**01 38 26.5**	**-1.1**
JWY	**Kouya**	**2.57**	**309**	*eP*	**Pn**	**01 37 58.7**	**-1.6**
JWY				*eS*	**Sn**	**01 38 28.7**	**-1.7**
JOD2	**Odawara 2**	**2.77**	**19**	*eP*	**Pn**	**01 38 02.3**	**-0.8**
JYN	**Shimob**	**2.89**	**9**	*eP*	**Pn**	**01 38 04.0**	**-0.8**
JYN				*eS*	**Sn**	**01 38 37.7**	**-0.7**
JAI	**Aioi**	**3.20**	**292**	*eP*	**Pn**	**01 38 07.6**	**-1.4**
MJAR	**Matsushiro Arr**	**3.90**	**2**	Pn	**Pn**	**01 38 18.9**	**+0.4**
	0.4nm,0.3s,baz=180,slow=12,SNR=9.1						
MJAR				Sn	**Sn**	**01 39 02.8**	**-0.3**
	0.4nm,0.3s,baz=189,slow=24,SNR=14						
	13nm,1.0s						
MJAR				AML	AML		
PETK	**Petropavlovsk-**	**24.89**	**29**	P	**P**	**01 42 42.6**	**+3.5**
	3.4nm,1.0s,baz=203,slow=11,SNR=1.9						
	3.4nm,1.0s						
SONM	**Songino Array**	**28.27**	**312**	P	P	01 43 14.3	+4.6
	0.3nm,0.7s,baz=115,slow=9.7,SNR=3.6						
	0.3nm,0.7s						
H11N2	**WAKE ISLAND Hy**	**28.83**	**109**	T	T	02 13 28.5	
	baz=302						
H11N1	**WAKE ISLAND Hy**	**28.83**	**109**	T	T	02 13 25.4	
	baz=302						
H11N3	**WAKE ISLAND Hy**	**28.84**	**109**	T	T	02 13 29.6	
	baz=302						
H11S3	**WAKE ISLAND Hy**	**29.34**	**112**	T	T	02 14 06.8	
	baz=305,slow=74,SNR=5.3						
H11S1	**WAKE ISLAND Hy**	**29.34**	**112**	T	T	02 14 09.7	
	baz=305,slow=74,SNR=4.1						
H11S2	**WAKE ISLAND Hy**	**29.35**	**112**	T	T	02 14 08.0	
	baz=305						
MKAR	**Makanchi Array**	**44.24**	**306**	P	P	01 45 30.0	+4.5
	0.5nm,0.7s,baz=84,slow=12,SNR=4.3						
	0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**46.63**	**311**	P	P	01 45 49.3	+5.0
	1.7nm,0.2s,baz=83,slow=7.6,SNR=4.3						
	1.7nm,0.2s						
WRA	**Warramunga Arr**	**52.40**	**184**	P	**P**	**01 46 30.1**	**+1.7**
	2.5nm,0.8s,baz=3.0,slow=7.8,SNR=16						
	2.5nm,0.8s						
ASAR	**Alice Springs**	**56.12**	**185**	P	**P**	**01 46 57.2**	**+1.7**
	0.2nm,0.3s,baz=16,slow=10.0,SNR=4.7						
	0.2nm,0.3s						
BRTR	**Keskin Array B**	**79.63**	**311**	P	P	01 49 26.6	+3.2
	0.3nm,0.4s,baz=53,slow=5.6,SNR=4.0						
	0.3nm,0.4s						
NVAR	**Mina Array Bea**	**79.90**	**51**	P	P	01 49 27.6	+2.6
	0.5nm,0.8s,baz=294,slow=4.8,SNR=2.9						
	0.5nm,0.8s						
TXAR	**Lajitas Array**	**95.05**	**51**	P	P	01 50 42.3	+3.4
	0.5nm,0.9s,baz=283,slow=2.0,SNR=5.2						
	0.5nm,0.9s						

RSNC ***13*** *01:39:03.4±0.0, 11.°N±2.°×7.°2W±.°, h2km±4km, M2.1, ML2.0*
FUNV ***13*** *01:39:10.1, 11.°08N×72.°14W, h9km, MW3.1, Presumed earthquake*

ISC 13 01:39:01.3±0.9, 10.°87N±0.°04×71.°97W±0.°04, h10km, n9, σ1s81/17, Lake Maracaibo

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URIC	**Uribia, Colomb**	**0.83**	**358**	P	**Pn**	**01 39 21.1**	**+2.0**
URIC				S	**Sn**	**01 39 34.9**	**+3.5**
URIC	**Uribia, Colomb**	**0.83**	**358**	*eP*	**Pn**	**01 39 21.1**	**+2.0**
URIC				*eS*	**Sn**	**01 39 31.3**	**-0.1**
CRJC	**Cerrejon, Guaj**	**0.91**	**280**	P	**Pg**	**01 39 18.2**	**-0.7**
CRJC				S	**Sg**	**01 39 28.5**	**-2.3**
SMRC	**Santa Marta, M**	**2.23**	**278**	P	**Pb**	**01 39 40.0**	**-1.8**
SMRC				S	**Sn**	**01 40 06.8**	**+0.7**
OCAC	**Ocana**	**2.93**	**207**	P	**Pb**	**01 39 53.9**	**+0.1**
OCAC				S	**Sb**	**01 40 29.9**	**+0.1**
CAPV	**Capacho**	**3.00**	**187**	*eP*	**Pg**	**01 40 00.3**	**+1.4**
CAPV				*eS*	**Sg**	**01 40 36.1**	**-1.8**
SJCC	**San Jacinto, C**	**3.30**	**253**	P	**Pn**	**01 39 54.1**	**+0.9**
SJCC				S	**Sn**	**01 40 33.8**	**+1.2**
MAPV	**Macapo**	**3.60**	**106**	*eP*	**Pg**	**01 40 08.2**	**-2.2**
MAPV				*eS*	**Sb**	**01 40 50.4**	**+1.3**
TURV	**Turiamo**	**4.08**	**95**	*eS*	**Sb**	**01 41 01.2**	**-1.5**

SOME ***13*** *01:55:48.6, 39.°02N×69.°57E, h5km*
ISU ***13*** *01:56:01, 39.°67N×67.°96E, h4km*

NNC 13 01:56:02.8±4.9, 40.°02N×67.°78E, h10km±17km, mb3.4, mpv3.0,7C-3D, Error ellipse: s-maj=35.8km s-min=14.5km az=14.0, Southeastern Uzbekistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGL	**Agalyk**	**0.86**	**235**	P	Pg	01 56 17.9	-1.4
AGL				S	Sg	01 56 30.2	-0.2
NZBK	**Nazarbek**	**1.57**	**40**	P	Pg	01 56 33.3	+0.3
NZBK				S	Sg	01 56 56.9	+3.5
PKMR	**Pachkamar**	**1.83**	**217**	P	Pn	01 56 33.2	-1.1
PKMR				S	Sn	01 56 55.6	-1.9
TVKS	**Tavaksay**	**2.11**	**42**	P	Pn	01 56 39.0	+0.8
TVKS				S	Sb	01 57 07.9	+0.5
CHMG	**Chimgan**	**2.28**	**47**	P	Pn	01 56 41.3	+0.6
CHRV	**Charvak**	**2.31**	**45**	P	Pb	01 56 43.8	-0.8
CHRV				S	Sb	01 57 13.8	+0.5
IUG	**Iuzhnay**	**2.72**	**38**	*eP*	Pn	01 56 47.4	+0.7
	14nm,0.2s						
IUG				*eS*	Sg	01 57 30.8	+0.5
	103nm,0.6s						
PSK	**Pskem**	**2.74**	**45**	P	Pn	01 56 47.9	+1.0
PSK				S	Sn	01 57 21.7	+1.6
TMD	**Tamdy-Bulak**	**2.95**	**307**	S	Sg	01 57 45.2	+7.8
FRG	**Fergana**	**3.08**	**82**	S	Sb	01 57 36.1	+0.6
TSTA	**Tashata**	**3.63**	**80**	S	Sn	01 57 40.9	-1.2
KK31	**Karatay Array**	**3.70**	**33**	⇑Pn	Pn	01 57 00.8	+0.7
	0.7nm,0.2s,baz=206,slow=12,SNR=45						
KK31				⇓Pg	Pb	01 57 10.4	+2.1
	4.3nm,0.3s,baz=216,slow=16,SNR=24						
KK31				⇑Lg	Lg	01 58 00.0	
	9.4nm,0.3s,baz=214,slow=28,SNR=11						
MRKS	**Merke**	**4.92**	**55**	*eP*	Pn	01 57 13.7	-3.2
	1.2nm,0.3s						
MRKS				*eS*	Sn	01 58 15.5	+1.6
	13nm,0.6s						
AAK	**Ala-Archa**	**5.69**	**60**	⇑Pn	Pn	01 57 26.1	-1.5
	0.5nm,0.4s						
AAK				⇓Sn	Sn	01 58 34.6	+1.6
	1.3nm,0.6s						
AAK				⇑Lg	Lg	01 59 01.0	
	3.7nm,0.9s						
AB31	**Akbulak array**	**10.79**	**331**	⇓Pn	Pn	01 58 37.4	+0.2
	0.2nm,0.3s,baz=160,slow=13,SNR=33						
AB31				⇑Sn	Sn	02 00 36.8	-1.2
	0.7nm,0.4s,baz=157,slow=24,SNR=5.2						
AKTO	**Aktyubinsk**	**12.47**	**330**	⇑Pn	Pn	01 59 02.0	+1.7
	0.5nm,0.8s						
AKTO				⇑Sn	Sn	02 01 18.7	-0.6
	1.5nm,0.8s						

SJA ***13*** *01:59:56.5±0.8, 31.°71S×68.°79W, h109km±2km, ML3.9, MW3.9*
IDC ***13*** *01:59:56.6±0.7, 31.°66S×68.°81W, h104km±4km, mb3.7/8, mbtmp4.0/11, Error ellipse: s-maj=16.7km s-min=15.3km az=100.0*
NEIC ***13*** *01:59:57.4±2.2, 31.°71S±0.°05×68.°84W±0.°07, h107km±4km, mb4.4/14, Error ellipse: s-maj=8.6km s-min=7.7km az=81.0*

ISC 13 01:59:57.2±0.5, 31.°68S±0.°03×68.°80W±0.°03, h110km±4km, n95, σ1s50/120, mb4.2/12, 2D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZON	**Zonda**	**0.16**	**39**	*eP*	**Pn**	**02 00 12.5**	**-0.1**
ZON				*eS*	**Sn**	**02 00 24.4**	**+0.3**
ZON				IAML		02 00 25.3	
	comp=Z,3μm,0.4s						
ZON	**Zonda**	**0.16**	**39**		**Pn**	**02 00 12.5**	**-0.1**
ZON				Sn	**Sn**	**02 00 23.7**	**-0.5**
SJA	**San Juan**	**0.25**	**54**	*eP*	**Pn**	**02 00 13.1**	**+0.2**
SJA				*eS*	**Sn**	**02 00 24.4**	**-0.2**
SJA				IAML		02 00 26.7	
	comp=Z,4μm,0.3s						
RTLL	**Cerro Villicun**	**0.44**	**39**	*eP*	**Pn**	**02 00 13.8**	**0.0**
RTLL				*eS*	**Sn**	**02 00 26.7**	**+0.5**
RTLL				IAML		02 00 26.8	
	comp=Z,7μm,0.3s						
RTLS	**Leoncito**	**0.44**	**254**	*eP*	**Pn**	**02 00 14.0**	**-0.1**
RTLS				*eS*	**Sn**	**02 00 26.9**	**+0.2**
RTLS				IAML		02 00 27.1	
	comp=Z,11μm,0.2s						
CFA	**Coronel Fontan**	**0.48**	**82**	P	**Pn**	**02 00 14.2**	**+0.1**
	comp=Z,613nm,0.4s,baz=280,slow=10,SNR=5316						
CFA				S	**Sn**	**02 00 26.5**	**-0.2**
	comp=Z,3μm,0.3s,baz=167,slow=23,SNR=68						
CFA	**Coronel Fontan**	**0.48**	**82**	*eP*	**Pn**	**02 00 14.2**	**+0.1**
CFA				IAML		02 00 28.3	
	comp=Z,4μm,0.2s						
ACCO	**Cerro Coronel**	**1.11**	**348**	*eP*	**Pn**	**02 00 20.5**	**+0.6**
ACCO				*eS*	**Sn**	**02 00 39.2**	**+2.1**
ACCO				IAML		02 00 39.6	
	comp=Z,3μm,0.6s						
ACAN	**Cantantal**	**1.49**	**114**	*eP*	**Pn**	**02 00 25.0**	**+1.0**
ACDV	**Cuesta del Vie**	**1.52**	**349**	*eP*	**Pn**	**02 00 25.6**	**+1.1**
ACDV				IAML		02 00 50.5	
	comp=Z,678nm,0.4s						
AROD	**Rodeo**	**1.61**	**339**	*eP*	**Pn**	**02 00 26.6**	**+0.9**
AROD				*eP*		02 00 26.7	
AROD				*eS*	**Sn**	**02 00 48.8**	**+1.5**
AVIZ	**Vizcacheras**	**1.81**	**173**	*eP*	Pn	02 00 10.2	-18
AVIZ				*eS*	**Sn**	**02 00 51.2**	**-0.1**
CO03	**El Pedregal**	**1.82**	**297**	*eP*	**Pn**	**02 00 28.6**	**+0.6**
CO03				*eS*	**Sn**	**02 00 53.5**	**+1.9**
CO03				IAML		02 00 55.6	
	comp=Z,2μm,0.3s						
CO03	**El Pedregal**	**1.82**	**297**		**Pn**	**02 00 28.6**	**+0.6**

VA03	**San Esteban**	**1.84**	**233**	*eP*	**Pn**	**02 00 28.7**	**+0.4**
VA03				*eS*	**Sn**	**02 00 53.9**	**+1.9**
VA03				IAML		02 00 57.1	
	comp=Z,1μm,0.2s						
VA03	**San Esteban**	**1.84**	**233**		**Pn**	**02 00 28.7**	**+0.4**
CO04	**Los Peladeros**	**1.89**	**258**		**Pn**	**02 00 28.5**	**-0.6**
CO02	**Combarbal**	**1.94**	**283**	*eP*	**Pn**	**02 00 29.8**	**+0.2**
CO02				*eS*	**Sn**	**02 00 56.3**	**+2.1**
CO02				IAML		02 00 59.1	
	comp=Z,1μm,0.3s						
CO02	**Combarbal**	**1.94**	**283**		**Pn**	**02 00 29.6**	**+0.1**
CO01	**Juntas del Tor**	**2.03**	**326**	*eP*	**Pn**	**02 00 32.5**	**+1.7**
CO01				IAML		02 00 59.8	
	comp=Z,433nm,0.5s						
CO01				*eS*	**Sn**	**02 00 59.8**	**+3.4**
CO01	**Juntas del Tor**	**2.03**	**326**		**Pn**	**02 00 32.4**	**+1.7**
MT08	**Bocatoma Ro**	**2.04**	**210**	*eP*	**Pn**	**02 00 32.2**	**+1.2**
MT08				*eS*	**Sn**	**02 01 00.5**	**+3.7**
MT08	**Bocatoma Ro**	**2.04**	**210**		**Pn**	**02 00 31.8**	**+0.8**
MT04	**Ro Olivares**	**2.06**	**213**	*eP*	**Pn**	**02 00 32.8**	**+1.6**
MT04				*eS*	**Sn**	**02 00 55.3**	**-1.9**
PEL	**Peldehue**	**2.17**	**227**		**Pn**	**02 00 32.2**	**-0.2**
MT16	**CCHEN**	**2.28**	**219**		**Pn**	**02 00 34.3**	**+0.5**
GO04	**Tololo Observa**	**2.28**	**311**	*eP*	**Pn**	**02 00 34.0**	**0.0**
GO04				*eS*	**Sn**	**02 01 03.4**	**+1.2**
GO04				*eS*		02 01 03.8	
GO04				IAML		02 01 04.6	
	comp=Z,1μm,0.7s						
GO04	**Tololo Observa**	**2.28**	**311**		**Pn**	**02 00 33.9**	**-0.1**
MT03	**Universidad Ad**	**2.32**	**218**	*eP*	**Pn**	**02 00 34.9**	**+0.4**
MT03				*eP*		02 00 35.2	
MT03				*eS*	**Sn**	**02 01 04.8**	**+1.9**
MT03				IAML		02 01 08.1	
	comp=Z,741nm,0.4s						
MT03	**Universidad Ad**	**2.32**	**218**		**Pn**	**02 00 34.8**	**+0.4**
MT05	**Renca**	**2.37**	**223**	*eP*	**Pn**	**02 00 35.2**	**+0.1**
MT05				IAML		02 01 08.0	
	comp=Z,794nm,0.2s						
MT05	**Renca**	**2.37**	**223**		**Pn**	**02 00 35.1**	**0.0**
MT13	**San Alfonso**	**2.42**	**211**	*eP*	**Pn**	**02 00 36.5**	**+0.9**
MT13				*eS*	**Sn**	**02 01 09.6**	**+4.4**
MT13				IAML		02 01 14.8	
	comp=Z,326nm,0.2s						
MT13	**San Alfonso**	**2.42**	**211**		**Pn**	**02 00 36.2**	**+0.6**
MT02	**Curacav**	**2.53**	**231**	*eP*	**Pn**	**02 00 36.1**	**-1.0**
MT02				*eS*	**Sn**	**02 01 07.5**	**-0.1**
MT02				IAML		02 01 10.4	
	comp=Z,287nm,0.8s						
MT02	**Curacav**	**2.53**	**231**		**Pn**	**02 00 35.9**	**-1.1**
CO06	**Fray Jorge**	**2.63**	**292**		**Pn**	**02 00 36.6**	**-1.7**
CO05	**La Serena**	**2.73**	**309**		**Pn**	**02 00 38.9**	**-0.9**
VA01	**Torpederas**	**2.76**	**240**	*eP*	**Pn**	**02 00 38.8**	**-1.2**
VA01				*eS*	Sn	02 01 03.8	-9.2
VA01				IAML		02 01 12.2	
	comp=Z,244nm,0.5s						
VA01	**Torpederas**	**2.76**	**240**		**Pn**	**02 00 38.2**	**-1.8**
MT09	**Talagante**	**2.79**	**221**		**Pn**	**02 00 39.8**	**-0.8**
MT01	**Popeta**	**3.01**	**223**	*eP*	**Pn**	**02 00 41.9**	**-1.4**
MT01				*eS*	**Sn**	**02 01 17.4**	**-1.4**
MT01				IAML		02 01 21.3	
	comp=Z,299nm,0.3s						
RFA	**San Rafael**	**3.10**	**175**	*eP*	**Pn**	**02 00 44.2**	**-0.5**
RFA				*eS*	**Sn**	**02 01 20.2**	**-0.9**
RFA				IAML		02 01 21.6	
	comp=Z,304nm,0.3s						
AC05	**El Transito**	**3.10**	**335**	*eP*	**Pn**	**02 00 46.0**	**+1.2**
AC05				*eS*	**Sn**	**02 01 13.3**	**-8.1**
AC05				*eS*		02 01 25.1	
AC05				IAML		02 01 28.1	
	comp=Z,205nm,0.3s						
AC05	**El Transito**	**3.10**	**335**		**Pn**	**02 00 46.0**	**+1.2**
LCO	**Las Campanas**	**3.12**	**328**	*eP*	Pn	02 00 39.8	-5.3
LCO				*eP*		02 00 45.4	
LCO				*eS*	**Sn**	**02 01 22.1**	**+0.1**
LCO				IAML		02 01 24.8	
	comp=Z,651nm,0.2s						
LCO	**Las Campanas**	**3.12**	**328**		**Pn**	**02 00 45.0**	**-0.2**
BO01	**Tunca**	**3.32**	**215**	*eP*	**Pn**	**02 00 46.3**	**-1.1**
BO01				*eS*	**Sn**	**02 01 25.7**	**-0.6**
BO01				IAML		02 01 29.6	
	comp=Z,141nm,0.4s						
BO01	**Tunca**	**3.32**	**215**		**Pn**	**02 00 46.1**	**-1.4**
BO02	**Sierra Bellavi**	**3.53**	**208**	*eP*	**Pn**	**02 00 50.2**	**0.0**
BO02				*eS*	**Sn**	**02 01 33.1**	**+1.8**
BO02				*eS*		02 01 34.9	
BO02				IAML		02 01 40.9	
	comp=Z,258nm,0.2s						
TCA	**Tanti**	**3.60**	**86**	*eP*	**Pn**	**02 00 51.4**	**0.0**
TCA				*eS*	Sn	02 01 13.3	-20
TCA				IAML		02 01 50.7	
	comp=Z,206nm,0.7s						
TINO	**Tinogasta**	**3.75**	**17**	*eP*	**Pn**	**02 00 54.6**	**+1.2**
TINO				*eS*	Sn	02 01 19.8	-17
TINO				IAML		02 01 45.5	
	comp=Z,178nm,1.0s						
AC04	**Llanos de Chal**	**3.98**	**330**	*eP*	**Pn**	**02 00 55.7**	**-0.7**
AC04				*eS*	**Sn**	**02 01 39.8**	**-2.4**
AC04				IAML		02 02 07.0	
	comp=Z,157nm,1.2s						
CYA	**Choya**	**4.14**	**40**	*eP*	**Pn**	**02 00 58.2**	**-0.3**
CYA				*eS*	**Sn**	**02 01 45.7**	**-0.3**
CYA				IAML		02 02 24.5	
	comp=Z,117nm,0.5s						
GO05	**Hualane**	**4.23**	**217**	*eP*	**Pn**	**02 00 57.0**	**-2.7**
GO05				*eS*	Sn	02 01 39.3	-8.9
GO05				IAML		02 01 54.9	
	comp=Z,100nm,1.6s						
GO03	**Copiapo**	**4.25**	**343**	*eP*	**Pn**	**02 01 00.2**	**+0.1**

comp=Z,0.2nm,0.6s,baz=146,slow=6.1,SNR=2.7
comp=Z,0.3nm,0.6s

TXAR	**Lajitas Array**	**69.14**	**328**	P		**P**	**02 10 52.2**	**+0.5**
OZNA	**Ozona**	**69.39**	**331**	P		**P**	**02 10 52.8**	**-0.5**
OZNA				IAmb		IAmb	02 11 22.7	
	comp=Z,2.2nm,0.7s							
WVT	**Waverly**	**69.77**	**344**	P		**P**	**02 10 55.3**	**-0.1**
DBIC	**Dimbokro**	**71.84**	**70**	P		**P**	**02 11 08.8**	**+0.4**
	comp=Z,4.9nm,1.0s,baz=246,slow=8.1,SNR=3.2							
	comp=Z,4.9nm,1.0s							
DBIC	**Dimbokro**	**71.84**	**70**	IAmb		IAmb	02 11 45.9	
	comp=Z,13nm,1.4s							
BOSA	**Boshof**	**78.70**	**117**	P		**P**	**02 11 47.9**	**+0.1**
	comp=Z,3.5nm,0.8s,baz=287,slow=2.5,SNR=5.7							
	comp=Z,3.5nm,0.8s							
BOSA	**Boshof**	**78.70**	**117**	IAmb		IAmb	02 12 29.2	
	comp=Z,13nm,1.3s							
TORD	**Torodi Ar. Bea**	**80.84**	**68**	P		**P**	**02 11 59.6**	**+0.4**
	comp=Z,1.5nm,0.6s,baz=294,slow=3.1,SNR=7.5							
	comp=Z,1.5nm,0.6s							
PDAR	**Pinedale Array**	**82.99**	**331**	P		**P**	**02 12 09.4**	**-0.8**
	comp=Z,0.4nm,0.8s,baz=162,slow=4.1,SNR=3.6							
PDAR				pP		**pP**	**02 12 37.6**	**-1.6**
	comp=Z,0.3nm,0.7s,baz=107,slow=4.2,SNR=2.0							
	comp=Z,0.4nm,0.8s							
ASAR	**Alice Springs**	**120.84**	**204**	PKP		**PKPdf**	**02 18 36.0**	**-1.1**
	comp=Z,0.4nm,0.5s,baz=144,slow=1.9,SNR=5.2							
WRA	**Warramunga Arr**	**124.08**	**207**	PKP		**PKPdf**	**02 18 42.2**	**-1.2**
	comp=Z,1.3nm,0.6s,baz=164,slow=1.7,SNR=20							
KURBB	**Kurchatov Arra**	**149.31**	**42**	PKPbc		**PKPbc**	**02 19 32.9**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=301,slow=3.1,SNR=6.0							
KURK	**Kurchatov**	**149.33**	**42**			**PKPbc**	**02 19 32.9**	**+0.1**
ZALV	**Zalesovo Beam**	**150.81**	**33**	PKPbc		**PKPbc**	**02 19 36.4**	**+0.2**
	comp=Z,3.8nm,0.7s,baz=301,slow=2.8,SNR=15							
ZALV	**Zalesovo Beam**	**150.81**	**33**			**PKPbc**	**02 19 36.8**	**+0.6**

*ATH **13** 02:13:24.7,37.°82N×26.°85E,h15km±1km,ML2.4/7,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
*AFAD **13** 02:13:25.3,37.°87N×26.°85E,h7km±3km,ML2.0*
*THE **13** 02:13:25.4,37.°8N±0.°7×26.°9E±0.°5,h8km±1km,M2.3/11,*
MLh2.3/11
*ISK **13** 02:13:25.5,37.°87N×26.°87E,h7km,ML2.6/16*

ISC 13 02:13:25.3±0.8,37.°85N±0.°02×26.°84E±0.°02,h10km±6km, n44,σ0°52/69,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.12**	**242**	P	**Pg**	**02 13 28.1**	**0.0**
KRL1				S	**Sg**	**02 13 30.6**	**+0.5**
KRL1				AML	AML		
SMG	**Samos**	**0.14**	**181**	P	**Pg**	**02 13 28.3**	**-0.2**
SMG				S	**Sg**	**02 13 30.8**	**+0.1**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**181**	P	**Pg**	**02 13 28.3**	**-0.2**
SMG				S	**Sg**	**02 13 30.6**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**10**	P	**Pg**	**02 13 29.4**	**-0.1**
DGB				S	**Sg**	**02 13 32.0**	**-0.4**
DGB				IAML		02 13 33.0	
	comp=N,244nm,0.2s						
DGB				IAML		02 13 33.0	
	comp=E,290nm,0.4s						
SAM2	**Drakei, Karlov**	**0.20**	**243**	P	**Pg**	**02 13 29.3**	**-0.2**
SAM2				S	**Sg**	**02 13 32.5**	**+0.2**
SAM2				AML	AML		
GMLD	**Gumuldur**	**0.23**	**15**	Pg	**Pg**	**02 13 30.1**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**116**	P	**Pg**	**02 13 32.3**	**+0.1**
GCAM				S	**Sg**	**02 13 37.7**	**+0.9**
GCAM				IAML		02 13 38.0	
	comp=E,595nm,0.3s						
GCAM				IAML		02 13 39.0	
	comp=N,417nm,0.6s						
GCAM	**G?zelcaml?**	**0.35**	**116**	Pg	**Pg**	**02 13 32.2**	**+0.1**
GCAM				Sg	**Sb**	**02 13 38.0**	**-1.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**88**	Pg	**Pg**	**02 13 32.4**	**+0.1**
KUSD				Sg	**Sg**	**02 13 37.2**	**+0.2**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**10**	P	**Pg**	**02 13 33.1**	**+0.3**
BEYE				S	**Sb**	**02 13 38.8**	**-1.4**
BEYE				IAML		02 13 39.0	
	comp=N,155nm,0.2s						
BEYE				IAML		02 13 43.0	
	comp=E,146nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**326**	P	**Pg**	**02 13 34.4**	**0.0**
ZEYE				S	**Sg**	**02 13 41.2**	**+0.6**
ZEYE				IAML		02 13 42.0	
	comp=N,176nm,0.6s						
ZEYE				IAML		02 13 44.0	
	comp=E,110nm,0.6s						
BLCB	**Balcova**	**0.56**	**17**	P	**Pg**	**02 13 36.3**	**+0.2**
BLCB				S	**Sb**	**02 13 44.3**	**-0.8**
BLCB	**Balcova**	**0.56**	**17**	Pg	**Pg**	**02 13 36.2**	**+0.2**
BLCB				Sg	**Sb**	**02 13 44.4**	**-0.8**
BLCB				AML	AML		
DUVT	**Torbali**	**0.61**	**52**	P	**Pg**	**02 13 37.0**	**0.0**
DUVT				S	**Sg**	**02 13 44.7**	**-0.3**
DUVT				IAML		02 13 49.0	
	comp=E,205nm,0.5s						
KRBN	**Karaburun**	**0.77**	**343**	Pg	**Pb**	**02 13 40.7**	**-0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.80**	**1**	P	**Pb**	**02 13 41.6**	**+0.3**
BAGT				IAML		02 13 57.0	
	comp=E,117nm,0.6s						
YKAV	**Yalikavak-Bodr**	**0.81**	**154**	Pg	**Pb**	**02 13 41.7**	**+0.3**
YKAV				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	P	**Pg**	**02 13 40.8**	**-0.2**
CHOS				S	**Sb**	**02 13 53.7**	**+1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	Pg	**Pb**	**02 13 41.9**	**+0.3**
CHOS				Sg	**Sb**	**02 13 53.6**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	P	**Pg**	**02 13 40.5**	**-0.5**
CHOS				S	**Sb**	**02 13 52.5**	**-0.3**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**83**	Pg	**Pb**	**02 13 41.7**	**-0.3**
AYDB				Sg	**Sb**	**02 13 53.6**	**+0.2**
AYDB				AML	AML		
FOCM	**Foa**	**0.86**	**354**	Pg	**Pb**	**02 13 42.5**	**+0.1**
FOCM				AML	AML		
BODT	**Bodrum**	**0.87**	**154**	Pg	**Pg**	**02 13 41.5**	**-0.6**
BODT				S	**Sg**	**02 13 54.2**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**154**	Pg	**Pb**	**02 13 42.8**	**+0.3**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.90**	**173**	P	**Pg**	**02 13 42.2**	**-0.3**
KLNA				S	**Sg**	**02 13 53.6**	**-0.6**
EAG2	**Marmaro, Chios**	**0.90**	**320**	P	**Pg**	**02 13 42.6**	**0.0**
MLSB	**Milas**	**0.93**	**126**	Pg	**Pb**	**02 13 43.9**	**+0.4**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.94**	**150**	Pg	**Pb**	**02 13 44.1**	**+0.4**
NAZL	**Nazilli-Aydin**	**1.16**	**84**	Pn	**Pn**	**02 13 47.8**	**+0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**44**	Pn	**Pn**	**02 13 48.5**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**2**	Pn	**Pg**	**02 13 49.1**	**+0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.22**	**2**	P	**Pb**	**02 13 47.9**	**-0.6**
DAT	**Datca**	**1.27**	**152**	P	**Pn**	**02 13 48.6**	**-0.6**
DAT				S	**Sb**	**02 14 06.0**	**+0.3**
DAT				AML	AML		
APE	**Apeiranthos**	**1.30**	**234**	P	**Pn**	**02 13 49.0**	**-0.6**
APE				S	**Sb**	**02 14 07.2**	**+0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.30**	**234**	P	**Pn**	**02 13 48.2**	**-1.4**
YER	**Yerkesik**	**1.35**	**121**	P	**Pn**	**02 13 50.0**	**-0.3**
YER				S	**Sb**	**02 14 07.7**	**-0.4**
SOMA	**Soma-Manisa**	**1.41**	**22**	Pn	**Pb**	**02 13 51.9**	**+0.2**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.46**	**342**	P	**Pn**	**02 13 52.0**	**+0.3**
PRK				S	**Sg**	**02 14 11.8**	**-0.5**
PRK				AML	AML		
PRK	**Paraskevi**	**1.46**	**342**	P	**Pn**	**02 13 51.5**	**-0.3**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.49**	**44**	Pn	**Pb**	**02 13 52.9**	**-0.2**
GORD				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**217**	P	**Pn**	**02 13 56.8**	**-0.1**
THERA				S	**Sn**	**02 14 21.3**	**+1.0**
THERA				AML	AML		
EZN	**Ezine**	**2.01**	**349**	P	**Pn**	**02 13 60.0**	**+0.7**
EZN				S	**Sb**	**02 14 26.3**	**-0.7**
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**02 14 03.2**	**-0.2**
SMTH	**Samothraki Isl**	**2.81**	**339**	P	**Pn**	**02 14 09.8**	**-0.5**

*IDC **13** 02:20:23.0±0.9,26.°10S×70.°85E,h0km,mb4.2/10,*
mbtmp4.2/10,MS3.8/30, Error ellipse: s-maj=34.8km
s-min=18.8km az=81.0
*NEIC **13** 02:20:24.5±0.9,26.°11S±0.°06×70.°5E±0.°1,h10km±1km,*
mb4.6/13,Error ellipse: s-maj=18.2km s-min=9.2km
az=111.0

ISC 13 02:20:24.1±0.7,26.°1S±0.°1×70.°5E±0.°1,h10km,n60, σ0°89/28,mb4.4/14,MS3.8/30,Indian Ocean Triple Junction

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROCAM	**Rodrigues Isla**	**9.13**	**312**	Pn	**Pn**	**02 22 34.5**	**-1.5**
H08S1	**Diego Carcia H**	**18.45**	**6**	T	T	02 43 33.7	
	baz=186,slow=75,SNR=19						
H08S2	**Diego Garcia H**	**18.45**	**6**	T	T	02 43 31.3	
	baz=186,slow=75,SNR=24						
H08S3	**Diego Garcia H**	**18.47**	**6**	T	T	02 43 43.9	
	baz=186,slow=75,SNR=66						
H04N2	**CROZET ISLANDS**	**24.98**	**212**	T	T	02 51 58.6	
	baz=44,slow=75,SNR=4863						
H04N1	**CROZET ISLANDS**	**24.99**	**212**	T	T	02 52 02.4	
	baz=44,slow=75,SNR=981						
H04N3	**CROZET ISLANDS**	**25.00**	**212**	T	T	02 52 01.8	
	baz=44,slow=75,SNR=716						
KAAM	**Kaadhehdhoo**	**26.55**	**6**	P	**P**	**02 26 01.4**	**-0.9**
COCO	**West Island**	**28.36**	**66**	P	**P**	**02 26 19.0**	**+0.4**
PALK	**Pallekele**	**34.62**	**18**	LR	LR	02 37 36.5	
	comp=Z,263nm,21.3s,baz=198,slow=30						
H01W2	**Cape Leeuwin H**	**38.33**	**114**	T	T	03 08 01.0	
	baz=271,slow=75,SNR=23						
H01W3	**Cape Leeuwin H**	**38.34**	**114**	T	T	03 07 60.0	
	baz=271,slow=75,SNR=22						
H01W1	**Cape Leeuwin H**	**38.35**	**114**	T	T	03 08 00.9	
	baz=271,slow=75,SNR=26						
MATP	**Matopo**	**38.90**	**269**	LR	LR	02 42 24.5	
	comp=Z,525nm,18.1s,baz=61,slow=34						
PSI	**Prapat**	**39.75**	**48**	LR	LR	02 40 55.8	
	comp=Z,140nm,18.2s,baz=234,slow=31						
BOSA	**Boshof**	**40.11**	**256**	LR	LR	02 42 54.9	
	comp=Z,192nm,18.2s,baz=110,slow=34						
LBTB	**Lobatse**	**40.40**	**261**	LR	LR	02 42 29.6	
	comp=Z,262nm,18.5s,baz=108,slow=33						
KDWAN	**Kaudwane**	**41.59**	**264**	P	**P**	**02 28 12.0**	**-0.5**
MAW	**Mawson**	**41.78**	**184**	LR	LR	02 42 09.9	
	comp=Z,253nm,18.9s,baz=360,slow=31						
SUR	**Sutherland**	**43.52**	**250**	LR	LR	02 43 06.5	
	comp=Z,265nm,21.0s,baz=106,slow=31						
MBAR	**Mbarara**	**45.94**	**297**	LR	LR	02 44 20.7	
	comp=Z,27nm,20.1s,baz=135,slow=31						
TSUM	**Tsumeb**	**49.07**	**267**	LR	LR	02 48 28.8	
	comp=Z,40nm,18.1s,baz=153,slow=34						
KAPI	**Kapanga**	**51.46**	**75**	LR	LR	02 49 56.4	
	comp=Z,28nm,19.5s,baz=242,slow=35						
CMAR	**Chiang Mai Arr**	**52.19**	**35**	P	**P**	**02 29 34.5**	**-0.7**
	1.4nm,0.3s,baz=221,slow=7.4,SNR=12						
CMAR				LR	LR	02 49 33.0	
	comp=Z,51nm,18.4s,baz=225,slow=34						
	1.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**52.19**	**35**	P	**P**	**02 29 35.4**	**+0.1**
CHTO	**Chiang Mai**	**52.49**	**35**	P	**P**	**02 29 37.2**	**-0.3**
CHTO				IAmb	IAmb	02 29 44.3	
	comp=Z,15nm,1.5s						
ASAR	**Alice Springs**	**57.03**	**102**	P	**P**	**02 30 09.2**	**-1.4**
	comp=Z,1.4nm,0.7s,baz=254,slow=6.0,SNR=12						
ASAR				LR	LR	02 51 24.7	
	comp=Z,59nm,20.8s,baz=276,slow=33						
	comp=Z,1.4nm,0.7s						
ASAR	**Alice Springs**	**57.03**	**102**	P	**P**	**02 30 10.0**	**-0.6**
WRA	**Warramunga Arr**	**58.55**	**98**	P	**P**	**02 30 19.9**	**-1.4**
	comp=Z,1.0nm,0.7s,baz=253,slow=7.3,SNR=7.2						
	comp=Z,1.0nm,0.7s						
WR8	**Warramunga Arr**	**58.69**	**98**	P	**P**	**02 30 20.7**	**-1.6**
WR8				IAmb	IAmb	02 30 40.1	
	comp=Z,7.9nm,1.4s						
SNAA	**Sanae**	**60.23**	**200**	LR	LR	02 53 23.9	
	comp=Z,36nm,18.4s,baz=12,slow=33						
KBL	**Kabul**	**60.33**	**359**	P	**P**	**02 30 34.3**	**+0.9**
KBL				IAmb	IAmb	02 30 43.7	
	comp=Z,8.2nm,1.2s						
STKA	**Stephens Creek**	**61.43**	**114**	LR	LR	02 54 09.1	
	comp=Z,48nm,19.8s,baz=205,slow=33						
DAV	**Davao City (W)**	**62.76**	**66**	LR	LR	02 55 01.9	
	comp=Z,64nm,20.7s,baz=317,slow=33						
QSPA	**South Pole Qui**	**64.03**	**180**	P	**P**	**02 30 58.2**	**+0.4**
	comp=Z,1.9nm,0.8s,baz=290,slow=4.1,SNR=8.0						
QSPA				LR	LR	02 56 08.8	
	comp=Z,48nm,19.0s,baz=284,slow=34						
	comp=Z,1.9nm,0.8s						
QSPA	**South Pole Qui**	**64.03**	**180**	P	**P**	**02 30 58.0**	**+0.2**
QSPA				IAmb	IAmb	02 31 08.4	
	comp=Z,5.1nm,1.1s						
VNDA	**Vanda**	**65.00**	**166**	P	**P**	**02 31 03.8**	**0.0**
	comp=Z,3.5nm,1.0s,baz=268,slow=8.0,SNR=9.8						
VNDA				LR	LR	02 56 12.2	
	comp=Z,44nm,18.4s,baz=278,slow=33						
	comp=Z,3.5nm,1.0s						
VNDA	**Vanda**	**65.00**	**166**	P	**P**	**02 31 03.9**	**0.0**
VNDA				IAmb	IAmb	02 31 05.5	
	comp=Z,5.3nm,1.1s						
EIL	**Elat**	**65.10**	**326**	LR	LR	02 56 03.6	
	comp=Z,36nm,18.3s,baz=279,slow=33						
SBA	**Scott Base**	**65.98**	**167**	P	**P**	**02 31 10.7**	**+0.5**
AAK	**Ala-Archa**	**68.49**	**3**	LR	LR	02 59 26.2	
	comp=Z,92nm,18.6s,baz=188,slow=34						
KK31	**Karatay Array**	**68.86**	**360**	P	**P**	**02 31 29.0**	**+0.3**
KK31				IAmb	IAmb	02 31 32.0	
	comp=Z,3.2nm,1.0s						
KKAR	**Karatay Array**	**68.86**	**360**	P	**P**	**02 31 28.6**	**-0.1**
CTA	**Charters Tower**	**69.03**	**103**	LR	LR	02 58 39.0	
	comp=Z,51nm,20.2s,baz=225,slow=33						
MKAR	**Makanchi Array**	**73.33**	**8**	P	**P**	**02 31 55.4**	**-0.4**
	comp=Z,2.6nm,0.6s,baz=191,slow=5.9,SNR=9.4						
MKAR				LR	LR	03 03 16.5	
	comp=Z,84nm,18.2s,baz=204,slow=35						
	comp=Z,2.6nm,0.6s						
PMG	**Port Moresby**	**73.97**	**93**	LR	LR	03 02 31.5	
	comp=Z,53nm,20.7s,baz=236,slow=34						
KBZ	**Khabaz**	**73.97**	**340**	LR	LR	03 02 02.7	
	comp=Z,94nm,18.5s,baz=304,slow=34						
BRTR	**Keskin Array B**	**73.97**	**331**	P	**P**	**02 32 02.3**	**+2.5**
	comp=Z,0.6nm,0.8s,baz=179,slow=6.8,SNR=3.6						
BRTR				LR	LR	03 00 48.0	
	comp=Z,45nm,21.6s,baz=324,slow=33						
	comp=Z,0.6nm,0.8s						
ABKAR	**Akbulak array**	**75.61**	**353**	P	**P**	**02 32 09.4**	**+0.6**
KURBB	**Kurchatov Arra**	**76.71**	**5**	P	**P**	**02 32 15.7**	**+0.6**
	comp=Z,2.0nm,0.8s,baz=201,slow=6.3,SNR=13						
	comp=Z,2.0nm,0.8s						
KURK	**Kurchatov**	**76.81**	**5**	P	**P**	**02 32 15.3**	**-0.4**
SONM	**Songino Array**	**80.35**	**24**	P	**P**	**02 32 35.9**	**+0.4**
	comp=Z,1.7nm,0.9s,baz=199,slow=5.3,SNR=8.3						
SONM				LR	LR	03 10 33.4	
	comp=Z,34nm,18.5s,baz=197,slow=38						
	comp=Z,1.7nm,0.9s						
SONM	**Songino Array**	**80.35**	**24**	P	**P**	**02 32 35.8**	**+0.4**
ZALV	**Zalesovo Beam**	**80.67**	**9**	P	**P**	**02 32 36.3**	**-0.5**
	comp=Z,3.0nm,0.8s,baz=184,slow=4.5,SNR=10						
	comp=Z,3.0nm,0.8s						
ZALV	**Zalesovo Beam**	**80.67**	**9**	P	**P**	**02 32 36.9**	**+0.1**
TLY	**Talaya**	**82.73**	**20**	LR	LR	03 09 14.5	
	comp=Z,47nm,19.5s,baz=176,slow=36						
KSRS	**Korea Array**	**83.07**	**42**	LR	LR	03 07 55.4	
	comp=Z,53nm,20.2s,baz=235,slow=34						
MJAR	**Matsushiro Arr**	**89.11**	**48**	LR	LR	03 13 17.0	
	comp=Z,40nm,18.7s,baz=232,slow=36						
KLR	**Kul'dur**	**92.67**	**35**	LR	LR	03 14 00.2	
	comp=Z,42nm,20.3s,baz=262,slow=35						
NRIK	**Noril'sk**	**95.97**	**6**	LR	LR	03 17 51.3	
	comp=Z,86nm,18.9s,baz=210,slow=36						

*IDC **13** 02:22:33.8±2.1,54.°98N×160.°63W,h0km,mb3.9/6,*
mbtmp3.8/9,ML3.2/3,Error ellipse: s-maj=56.1km
s-min=16.6km az=156.0
*NEIC **13** 02:22:39.1±1.6,54.°79N±0.°07×160.°25W±0.°05,h38km±7km,*
mb3.7/12,ML3.6/8,ML3.4(AEIC),Error ellipse:
s-maj=10.9km s-min=3.6km az=168.0
*AEIC **13** 02:22:39.2±2.0,54.°85N±0.°05×160.°32W±0.°05,h23km±5km,*
Error ellipse: s-maj=7.0km s-min=3.2km az=160.0

ISC 13 02:22:38.9±1.0,54.°84N±0.°06×160.°27W±0.°03,h42km±9km, n67,σ1°18/75,mb4.0/6,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.40**	**92**		**Pn**	**02 22 48.5**	**+0.1**
CNBA				Sn	**Sn**	**02 22 54.7**	**-0.3**
SDPT	**Sand Point**	**0.53**	**347**		**Pn**	**02 22 49.8**	**-0.2**
SDPT				Sn	**Sn**	**02 22 57.3**	**-0.6**
SDPT				IAML		02 22 57.7	
	comp=E,2μm,0.6s						
DOL	**Dolgoi Island**	**0.97**	**289**		**Pn**	**02 22 56.0**	**-0.1**
DOL					**Sn**	**02 23 08.6**	**-0.1**
PVV	**Pavlof Volcano**	**1.02**	**302**		**Pn**	**02 22 57.0**	**+0.2**
PS1A	**Pavlof South-1**	**1.03**	**305**		**Pn**	**02 22 57.0**	**+0.2**
PS1A					**Sn**	**02 23 10.0**	**-0.1**
PS4A	**Pavlof South-4**	**1.04**	**300**		**Pn**	**02 22 57.5**	**+0.4**
PS4A					**Sn**	**02 23 12.2**	**+1.7**
PN7A	**Pavlof North-7**	**1.16**	**302**		**Pn**	**02 22 59.5**	**+0.8**
PN7A					**Sn**	**02 23 14.3**	**+1.0**
DTNA	**Dutton South F**	**1.18**	**286**		**Pn**	**02 22 59.4**	**+0.4**
DT1	**Dutton Round H**	**1.19**	**284**		**Pn**	**02 22 59.2**	**+0.2**
VNKR	**Veniaminof 5**	**1.30**	**23**		**Pn**	**02 23 01.7**	**+1.1**
S12K	**Black Hills**	**1.34**	**311**		**Pn**	**02 23 01.9**	**+0.7**
S12K				IAML		02 23 21.2	
	comp=N,787nm,0.5s						
VNWF	**Veniaminof 8**	**1.38**	**17**		**Pn**	**02 23 03.0**	**+1.3**
VNSS	**Veniaminof 8**	**1.47**	**18**		**Pn**	**02 23 04.4**	**+1.4**
VNFG	**Fog Glacier, M**	**1.51**	**15**		**Pn**	**02 23 05.2**	**+1.7**
VNFG	**Fog Glacier, M**	**1.51**	**15**		**Sn**	**02 23 23.0**	**+1.0**
VNFG	**Fog Glacier, M**	**1.51**	**15**		**Pn**	**02 23 04.8**	**+1.3**
VNNF	**Veniaminof 3**	**1.55**	**20**		**Pn**	**02 23 06.3**	**+2.3**
CHGN	**Chignik**	**1.81**	**35**		**Pn**	**02 23 09.2**	**+1.8**
CHGN				IAML		02 23 34.3	
	comp=N,436nm,0.3s						
CHGN				IAML		02 23 36.3	
	comp=E,616nm,0.4s						
ISLZ	**Isanotski Laza**	**2.00**	**268**		**Pn**	**02 23 11.2**	**+1.0**
ISLZ					**Sn**	**02 23 35.2**	**+1.3**
ISNN	**Isanotski Nort**	**2.03**	**271**		**Pn**	**02 23 12.3**	**+1.8**
SSLS	**Shishaldin Sou**	**2.16**	**268**		**Pn**	**02 23 14.1**	**+1.6**
SSBA	**Shishaldin**	**2.23**	**270**		**Pn**	**02 23 15.2**	**+1.8**
WTUG	**Tugumak**	**2.38**	**272**		**Pn**	**02 23 16.9**	**+1.5**
WESN	**West Dahl Nort**	**2.52**	**266**		**Pn**	**02 23 19.3**	**+2.0**
O14K	**Tigyukauivet M**	**4.46**	**353**	Pn	**Pn**	**02 23 44.7**	**+0.9**
OHAK	**Old Harbor**	**4.59**	**56**	Pn	**Pn**	**02 23 46.0**	**+0.3**
KAHG	**Katmai Hook Gl**	**4.84**	**38**		**Pn**	**02 23 53.3**	**+4.1**
O16K	**Kokwok River B**	**4.91**	**13**	Pn	**Pn**	**02 23 51.5**	**+1.4**
N14K	**Kuskokwak Cree**	**5.16**	**352**		**Pn**	**02 23 54.4**	**+1.0**
KDAK	**Kodiak Island**	**5.20**	**52**	Pn	**Pn**	**02 23 54.9**	**+1.0**
	comp=E,1.0nm,0.3s,baz=231,slow=3.9,SNR=5.5						
KDAK				Sn	**Sn**	**02 24 52.4**	**-0.1**
	comp=E,1.0nm,0.3s,baz=300,slow=20,SNR=1.6						
	comp=E,9.7nm,0.8s						
KDAK				AML	AML		
O17K	**Koliganek Bris**	**5.24**	**18**		**Pn**	**02 23 55.6**	**+1.1**
M13K	**Dall Lake**	**5.83**	**345**	Pn	**Pn**	**02 24 03.8**	**+1.1**
M16K	**Timber Creek**	**6.24**	**6**	Pn	**Pn**	**02 24 09.3**	**+1.0**
N18K	**Kilae Creek**	**6.31**	**20**	Pn	**Pn**	**02 24 10.7**	**+1.4**
L14K	**Kuka Creek**	**6.65**	**350**	Pn	**Pn**	**02 24 14.3**	**+0.5**
M17K	**Holitna River**	**6.75**	**12**	Pn	**Pn**	**02 24 16.2**	**+0.9**
K13K	**Kusilvak Mount**	**7.48**	**344**	Pn	**Pn**	**02 24 26.1**	**+0.9**
K15K	**Wolf Creek Mou**	**7.51**	**355**	Pn	**Pn**	**02 24 26.7**	**+1.1**
L18K	**Granite Mounta**	**7.63**	**13**	Pn	**Pn**	**02 24 28.4**	**+1.0**
M19K	**Big River Lodg**	**7.73**	**21**	Pn	**Pn**	**02 24 30.6**	**+1.9**
L19K	**White Mountain**	**7.89**	**19**	Pn	**Pn**	**02 24 32.2**	**+1.3**
J14K	**Nanvaranak Lak**	**8.12**	**349**	Pn	**Pn**	**02 24 34.4**	**+0.4**
ILAR	**Eielson Array**	**11.99**	**29**	Pn	**Pn**	**02 25 24.3**	**-2.7**
	baz=222,slow=13,SNR=1.8						
	comp=E,0.2nm,0.8s						
H29M	**Whitestone**	**15.58**	**34**		**P**	**02 26 18.6**	**-0.3**
H29M				IAmb	IAmb	02 26 31.4	
	comp=Z,7.2nm,1.2s						
I30M	**Mount Dempster**	**15.71**	**39**		**Pn**	**02 26 18.5**	**+1.4**
I30M				IAmb	IAmb	02 26 38.8	
	comp=Z,6.4nm,0.7s						
C24K	**Franklin Bluff**	**15.82**	**15**	Pn	**Pn**	**02 26 18.3**	**0.0**
C24K				IAmb	IAmb	02 26 50.6	
	comp=Z,6.4nm,1.3s						
D25K	**Kavik River**	**15.85**	**18**	Pn	**P**	**02 26 20.6**	**-1.3**
G29M	**Pine Creek**	**16.11**	**33**	Pn	**Pn**	**02 26 22.7**	**+0.7**
G29M				IAmb	IAmb	02 26 40.8	
	comp=Z,6.7nm,1.0s						
EPYK	**Eagle Plains**	**16.21**	**35**	P	**P**	**02 26 26.6**	**+0.7**
C26K	**Camden Bay**	**16.63**	**19**	Pn	**Pn**	**02 26 28.7**	**+0.2**
H31M	**Peel River**	**16.74**	**39**		**P**	**02 26 31.9**	**

0.3nm,0.2s,baz=202,slow=6.4,SNR=4.1
0.3nm,0.2s
SONM Songino Array 80.25 23 P **P** **02 40 01.2 +0.5**
0.3nm,0.5s,baz=197,slow=4.5,SNR=2.4
0.3nm,0.5s
ZALV Zalesovo Beam 80.63 8 P **P** **02 40 01.8 -0.6**
0.8nm,0.5s,baz=132,slow=2.2,SNR=4.4
0.8nm,0.5s

IDC ***13*** *02:38:06.9±0.8,34˚.30N×26˚.18E,h0km,mb4.0/13, mbtmp4.0/22,ML3.2/6,MS3.1/3,Error ellipse: s-maj=16.9km s-min=8.7km az=18.0*
NEIC ***13*** *02:38:07.6±2.1,34˚.17N±0˚.07×26˚.18E±0˚.06,h10km±1km, mb4.1/25,Error ellipse: s-maj=11.9km s-min=8.8km az=186.0*
GII ***13*** *02:38:08.3±0.0,33˚.97N×26˚.40E,h0km,Mws3.9, confirmed*
ISK ***13*** *02:38:09.1,34˚.23N×26˚.24E,h12km,ML3.6/26*
ATH ***13*** *02:38:10.7,34˚.28N×26˚.32E,h27km±11km,ML3.8/30, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
THE ***13*** *02:38:11.9,34˚N±3˚×2˚6E±˚,h5km±6km,M3.5/13, MLh3.5/13*
AFAD ***13*** *02:38:12.2,34˚.46N×26˚.17E,h7km±4km,MW3.7*
ISC 13 02:38:06.4±1.4,**34˚.10N**±0˚.04×**26˚.26E**±0˚.03,**h8km**±8km, **n315,σ1§52/377,mb4.1**/18,**Crete**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ZKR	**Zakros**	**1.01**	**358**	P		**Pn**		**02 38 26.8**	**-0.1**
ZKR				S		**Sg**		**02 38 38.5**	**-0.5**
ZKR	**Zakros**	**1.01**	**358**	Pg		**Pb**		**02 38 26.5**	**+0.3**
ZKR				Sg		**Sg**		**02 38 39.2**	**+0.2**
ZKR				AML		AML			
ZKR	**Zakros**	**1.01**	**358**	P		**Pb**		**02 38 26.4**	**+0.2**
ZKR				S		**Sg**		**02 38 37.5**	**-1.4**
SIT2	**Siteia**	**1.11**	**354**	P		**Pg**		**02 38 27.6**	**-0.1**
SIT2				S		**Sg**		**02 38 40.6**	**-1.4**
SIT2				AML		AML			
AGNA	**Agios Nikolaos**	**1.17**	**338**	P		**Pg**		**02 38 29.0**	**+0.1**
AGNA				S		**Sg**		**02 38 43.3**	**-0.8**
AGNA				AML		AML			
NPS	**Neapolis**	**1.27**	**336**	P		**Pg**		**02 38 31.1**	**+0.2**
NPS				S		**Sb**		**02 38 46.3**	**-0.9**
NPS				AML		AML			
NPS	**Neapolis**	**1.27**	**336**	P		**Pb**		**02 38 30.7**	**+0.1**
NPS				S		**Sb**		**02 38 45.9**	**-1.3**
SIVA	**Sivas**	**1.50**	**308**	P		**Pg**		**02 38 35.9**	**+0.7**
SIVA				S		**Sb**		**02 38 53.8**	**+0.1**
SIVA				AML		AML			
SIVA	**Sivas**	**1.50**	**308**	P		**Pg**		**02 38 35.4**	**+0.2**
SIVA				S		**Sn**		**02 38 53.3**	**-0.2**
SIVA				AML		AML			
IACM	**Heraklion**	**1.55**	**321**	P		**Pg**		**02 38 36.7**	**+0.7**
IACM				S		**Sb**		**02 38 54.8**	**-0.2**
IACM				AML		AML			
KARP	**Karpathos**	**1.62**	**27**	P		**Pg**		**02 38 38.3**	**+0.8**
KARP				S		**Sg**		**02 38 59.8**	**+1.3**
KARP				AML		AML			
KARP	**Karpathos**	**1.62**	**27**			**Pg**		**02 38 38.4**	**+0.9**
KARP	**Karpathos**	**1.62**	**27**	P		**Pg**		**02 38 38.3**	**+0.8**
KARP	**Karpathos**	**1.62**	**27**	P		**Pg**		**02 38 38.6**	**+1.1**
KARP				AML		AML			
KARP	**Karpathos**	**1.62**	**27**	Pn		**Pb**		**02 38 37.0**	**+0.4**
KARP				AML		AML			
IDI	**Anoyia**	**1.63**	**317**	Pg		**Pg**		**02 38 37.3**	**-0.4**
	14nm,0.3s,baz=169,slow=7.9,SNR=144								
IDI				Lg		Lg		02 38 58.8	
	49nm,0.3s,baz=305,slow=17,SNR=18								
IDI	**Anoyia**	**1.63**	**317**	P		**Pg**		**02 38 37.8**	**+0.1**
IDI				S		**Sn**		**02 38 57.0**	**+0.2**
IDI				AML		AML			
IDI	**Anoyia**	**1.63**	**317**	Pn		**Pb**		**02 38 37.1**	**+0.3**
IDI				Sn		**Sb**		**02 38 57.6**	**0.0**
IDI				AML		AML			
IDI	**Anoyia**	**1.63**	**317**	P		**Pb**		**02 38 37.0**	**+0.3**
RTHF	**Rethymno-Limin**	**1.93**	**311**	P		**Pb**		**02 38 41.3**	**-0.5**
GVD	**Gavdhos**	**1.94**	**293**	P		**Pb**		**02 38 41.9**	**0.0**
GVD				S		**Sb**		**02 39 05.6**	**-0.6**
GVD				AML		AML			
GVD	**Gavdhos**	**1.94**	**293**	Pn		**Pb**		**02 38 42.0**	**0.0**
GVD				AML		AML			
GVD	**Gavdhos**	**1.94**	**293**	P		**Pb**		**02 38 41.4**	**-0.6**
GVDS	**Gavdos**	**1.96**	**293**	P		**Pb**		**02 38 42.1**	**-0.2**
GVDS				S		**Sb**		**02 39 06.1**	**-0.8**
GVDS				AML		AML			
GVDS	**Gavdos**	**1.96**	**293**	P		**Pb**		**02 38 41.4**	**-0.9**
GVDS				AML		AML			
VAM	**Vamos**	**2.13**	**308**	P		**Pb**		**02 38 44.8**	**-0.6**
VAM				S		**Sn**		**02 39 10.4**	**+1.4**
VAM				AML		AML			
VAM	**Vamos**	**2.13**	**308**	P		**Pb**		**02 38 44.0**	**-1.3**
CHAN	**Chania**	**2.31**	**308**	P		**Pb**		**02 38 46.6**	**-1.6**
IMMV	**Iera Moni Meta**	**2.31**	**307**	P		**Pb**		**02 38 47.2**	**-1.1**
IMMV				S		**Sn**		**02 39 13.9**	**+0.5**
IMMV				AML		AML			
IMMV	**Iera Moni Meta**	**2.31**	**307**	Pn		**Pb**		**02 38 46.9**	**-1.4**
IMMV				AML		AML			
IMMV	**Iera Moni Meta**	**2.31**	**307**	P		**Pb**		**02 38 46.7**	**-1.7**
IMMV				AML		AML			
THERA	**Ancient Thera,**	**2.35**	**344**	P		**Pn**		**02 38 45.5**	**+0.3**
THR6	**Thira Island,**	**2.36**	**343**	P		**Pn**		**02 38 45.8**	**+0.4**
THR9	**Santorini-Faro**	**2.37**	**342**	P		**Pn**		**02 38 46.4**	**+0.9**
THR8	**Santorini-Mono**	**2.39**	**345**	P		**Pn**		**02 38 45.5**	**-0.2**
SNT5	**Nea Kammeni, S**	**2.40**	**343**	P		**Pn**		**02 38 46.3**	**+0.2**
THR3	**Thira Island,**	**2.41**	**343**	P		**Pn**		**02 38 46.6**	**+0.6**
THR5	**Thira Island,**	**2.43**	**342**	P		**Pn**		**02 38 46.9**	**+0.6**
THR2	**Thira island,**	**2.43**	**344**	P		**Pn**		**02 38 46.5**	**+0.1**
SAP3	**Santorini-Thir**	**2.44**	**343**	P		**Pn**		**02 38 46.9**	**+0.2**
KNDR	**Palaiochora Ch**	**2.44**	**298**	P		**Pb**		**02 38 49.2**	**-1.4**
KNDR				S		**Sn**		**02 39 18.4**	**+1.7**
KNDR				AML		AML			
KNDR	**Palaiochora Ch**	**2.44**	**298**	P		**Pn**		**02 38 47.9**	**+1.3**
CMBO	**Columbo, Santo**	**2.46**	**344**	P		**Pn**		**02 38 46.5**	**-0.4**
RODP	**Rodopos**	**2.52**	**306**	P		**Pn**		**02 38 49.4**	**+1.8**
RODP				AML		AML			
ARG	**Arkhangelos**	**2.61**	**35**	P		**Pb**		**02 38 52.4**	**-1.0**
ARG				S		**Sb**		**02 39 24.7**	**-0.9**
ARG				AML		AML			
ARG	**Arkhangelos**	**2.61**	**35**			**Pb**		**02 38 52.4**	**-1.0**
ARG	**Arkhangelos**	**2.61**	**35**	Pn		**Pb**		**02 38 52.1**	**-1.3**
ARG				AML		AML			
YAZI	**Mula-Dat§a-**	**2.75**	**20**	P		**Pn**		**02 38 52.3**	**+1.4**
YAZI				S		**Sn**		**02 39 22.6**	**-1.7**
YAZI				IAML				02 39 26.0	
	comp=N,44nm,0.6s								
YAZI				IAML				02 39 26.0	
	comp=E,41nm,0.6s								
DAT	**Datca**	**2.83**	**22**	Pn		**Pn**		**02 38 53.9**	**+1.8**
DAT				AML		AML			
DATC	**Datca-Mugla**	**2.89**	**23**	Pn		**Pn**		**02 38 54.7**	**+2.0**
DATC				AML		AML			
KLNA	**Kalymnos**	**2.91**	**11**	P		**Pn**		**02 38 53.0**	**+0.1**
MHLO	**Agia Marina, M**	**2.99**	**330**	P		**Pn**		**02 38 55.6**	**+1.5**
MHLO				S		**Sn**		**02 39 28.8**	**-1.4**
MHLO				AML		AML			
MHLO	**Agia Marina, M**	**2.99**	**330**			**Pn**		**02 38 54.7**	**+0.6**
ANKY	**Antikythira Is**	**3.00**	**307**	P		**Pn**		**02 38 56.7**	**+2.5**
ANKY				S		**Sn**		**02 39 31.9**	**+1.6**
ANKY	**Antikythira Is**	**3.00**	**307**	P		**Pn**		**02 38 55.8**	**+1.6**
ANKY				AML		AML			
APE	**Apeiranthos**	**3.02**	**349**	Pn		**Pn**		**02 38 55.4**	**+0.9**
APE				AML		AML			
APE	**Apeiranthos**	**3.02**	**349**	P		**Pn**		**02 38 55.0**	**+0.4**
MILOS	**Milos**	**3.03**	**331**	P		**Pn**		**02 38 54.8**	**+0.2**
BODT	**Bodrum**	**3.08**	**16**	Pn		**Pn**		**02 38 57.1**	**+1.8**
BODT				AML		AML			
BDRM	**Kayabasi**	**3.11**	**18**	P		**Pn**		**02 38 56.8**	**+1.0**
BDRM				S		**Sn**		**02 39 31.3**	**-1.9**
BDRM				IAML				02 39 34.0	
	comp=N,74nm,0.4s								
BDRM				IAML				02 39 34.0	
	comp=E,36nm,0.4s								
TURN	**Turunc**	**3.12**	**31**	P		**Pn**		**02 38 58.5**	**+2.6**
TURN				S		**Sn**		**02 39 32.2**	**-1.1**
TURN				IAML				02 39 37.0	
	comp=E,55nm,0.2s								
TURN				IAML				02 39 42.0	
	comp=N,58nm,0.2s								
TURN	**Turunc**	**3.12**	**31**	Pn		**Pn**		**02 38 58.0**	**+2.1**
TURN				AML		AML			
YKAV	**Yalikavak-Bodr**	**3.13**	**15**	Pn		**Pn**		**02 38 57.8**	**+1.8**
YKAV				AML		AML			
DALY	**Dalyan (Mula)**	**3.34**	**35**	P		**Pn**		**02 39 01.9**	**+2.9**
DALY				S		**Sn**		**02 39 38.9**	**+0.1**
DALY				IAML				02 39 43.0	
	comp=E,62nm,0.6s								
DALY				IAML				02 39 44.0	
	comp=N,62nm,0.3s								
DALY	**Dalyan (Mula)**	**3.34**	**35**	Pn		**Pn**		**02 39 01.6**	**+2.7**
DALY				AML		AML			
IZZE	**Mula-Seydike**	**3.37**	**45**	P		**Pn**		**02 39 01.9**	**+2.6**
IZZE				S		**Sn**		**02 39 38.9**	**-0.6**
IZZE				IAML				02 39 46.0	
	comp=E,167nm,0.3s								
IZZE				IAML				02 39 47.0	
	comp=N,170nm,0.3s								
KTHA	**Kythira Island**	**3.38**	**310**	Pn		**Pn**		**02 39 01.2**	**+1.6**
KTHA				AML		AML			
KTHA	**Kythira Island**	**3.38**	**310**	P		**Pn**		**02 39 00.2**	**+0.7**
KTHA				AML		AML			
MLSB	**Milas**	**3.42**	**21**	Pn		**Pn**		**02 39 02.1**	**+2.1**
MLSB				AML		AML			
FETY	**Fethiye**	**3.42**	**42**	Pn		**Pn**		**02 39 02.4**	**+2.3**
FETY				AML		AML			
YER	**Yerkesik**	**3.45**	**28**	Pn		**Pn**		**02 39 02.7**	**+2.2**
YER				AML		AML			
AKAS	**Kas**	**3.47**	**51**			**Pn**		**02 39 03.3**	**+2.5**
AKAS	**Kas**	**3.47**	**51**	Pn		**Pn**		**02 39 03.5**	**+2.7**
AKAS				AML		AML			
SABU	**Mula-Dalaman**	**3.50**	**38**	P		**Pn**		**02 39 03.5**	**+2.3**
SABU				S		**Sn**		**02 39 40.5**	**-2.3**
SABU				IAML				02 39 47.0	
	comp=N,57nm,0.3s								
SABU				IAML				02 39 47.0	
	comp=E,74nm,0.7s								
NPS1	**Neapolis Lacon**	**3.55**	**314**	P		**Pn**		**02 39 02.4**	**+0.7**
MULA	**Mugla, Merkez-**	**3.57**	**28**	P		**Pn**		**02 39 04.6**	**+2.5**
MULA				S		**Sn**		**02 39 42.5**	**-2.1**
MULA				IAML				02 39 51.0	
	comp=N,34nm,0.5s								
MULA				IAML				02 39 56.0	
	comp=E,54nm,0.6s								
SMG	**Samos**	**3.63**	**7**	P		**Pn**		**02 39 03.0**	**0.0**
SAM2	**Drakei, Karlov**	**3.66**	**4**	P		**Pn**		**02 39 03.3**	**0.0**
GCAM	**G?zelcaml?**	**3.68**	**12**	Pn		**Pn**		**02 39 05.6**	**+2.1**
GCAM				AML		AML			
VLI	**Veliai**	**3.76**	**315**	P		**Pn**		**02 39 05.0**	**+0.3**
VLI				AML		AML			
CAME	**Cameli-Denizli**	**3.77**	**40**	Pn		**Pn**		**02 39 07.6**	**+2.6**
CAME				AML		AML			
AYDN	**Tasoluk**	**3.79**	**20**	P		**Pn**		**02 39 07.4**	**+2.2**
AYDN				IAML				02 39 58.0	
	comp=E,30nm,0.5s								
AYDN				IAML				02 41 07.0	
	comp=N,23nm,4.3s								
DNZT	**Denizli-Tavas-**	**3.89**	**35**	P		**Pn**		**02 39 09.6**	**+3.0**
DNZT				S		**Sn**		**02 39 53.2**	**+0.8**
DNZT				IAML				02 39 56.0	
	comp=E,46nm,0.4s								
DNZT				IAML				02 40 00.0	
	comp=N,42nm,0.4s								
CAEL	**Denizli, Camel**	**3.91**	**39**	P		**Pn**		**02 39 10.1**	**+3.2**
CAEL				S		**Sn**		**02 39 53.5**	**+0.4**
CAEL				IAML				02 40 03.0	
	comp=N,112nm,0.5s								
CAEL				IAML				02 40 03.0	
	comp=E,152nm,0.7s								
YDRA	**Hydra**	**3.96**	**326**	P		**Pn**		**02 39 08.1**	**+0.8**
YDRA				AML		AML			
ELL	**Elmali**	**3.98**	**47**			**Pn**		**02 39 11.3**	**+3.4**
ELL	**Elmali**	**3.98**	**47**	Pn		**Pn**		**02 39 10.7**	**+2.8**
ELL				AML		AML			
TAVA	**DENIZLI_Tavas**	**3.99**	**32**	P		**Pn**		**02 39 09.6**	**+1.6**
TAVA				S		**Sn**		**02 39 54.3**	**-0.7**
TAVA				IAML				02 40 00.0	
	comp=E,44nm,0.6s								
TAVA				IAML				02 40 03.0	
	comp=N,35nm,0.5s								
AYDB	**Zeytinkoy-Aydi**	**4.06**	**19**	Pn		**Pn**		**02 39 11.2**	**+2.3**
AYDB				AML		AML			
ESEN	**Aydn-Nazilli**	**4.06**	**24**	P		**Pn**		**02 39 11.0**	**+2.2**
ESEN				S		**Sn**		**02 39 53.5**	**-3.0**
ESEN				IAML				02 40 00.0	
	comp=E,24nm,0.5s								
ESEN				IAML				02 40 02.0	
	comp=N,22nm,0.8s								
BEYE	**izmir**	**4.15**	**7**	P		**Pn**		**02 39 11.0**	**+0.9**
BEYE				S		Sn		02 39 46.1	-13
BEYE				IAML				02 40 01.0	
	comp=N,12nm,1.1s								
BEYE				IAML				02 40 08.0	
	comp=E,11nm,0.5s								
APMY	**Acipayam-Deniz**	**4.18**	**36**	Pn		**Pn**		**02 39 12.6**	**+2.1**
APMY				AML		AML			
MET1	**Methana Town,**	**4.18**	**327**	P		**Pn**		**02 39 11.1**	**+0.7**
KARY	**Karystos**	**4.19**	**340**	P		**Pn**		**02 39 11.3**	**+0.7**
NAZL	**Nazilli-Aydin**	**4.19**	**23**	Pn		**Pn**		**02 39 12.9**	**+2.2**
NAZL				AML		AML			
MET6	**Megalochori,Me**	**4.20**	**327**	P		**Pn**		**02 39 11.4**	**+0.6**
MET5	**Makryloggos,Me**	**4.23**	**327**	P		**Pn**		**02 39 11.6**	**+0.5**
MET4	**Kameni Chora,**	**4.23**	**327**	P		**Pn**		**02 39 11.6**	**+0.5**
MET2				AML		AML			
VLY	**Voula,Athens**	**4.24**	**333**	P		**Pn**		**02 39 11.8**	**+0.5**
MET3	**Ano Fanari,Met**	**4.25**	**326**	P		**Pn**		**02 39 11.6**	**+0.1**
CHOS	**Chios island**	**4.28**	**358**	Pn		**Pn**		**02 39 12.9**	**+1.0**
CHOS				AML		AML			
CHOS	**Chios island**	**4.28**	**358**	P		**Pn**		**02 39 11.8**	**-0.1**
BLCB	**Balcova**	**4.32**	**8**	Pn		**Pn**		**02 39 13.9**	**+1.5**
EPID	**Epidavros**	**4.33**	**325**	P		**Pn**		**02 39 13.2**	**+0.6**
EPID				AML		AML			
ATHU	**Athens Univers**	**4.34**	**333**	P		**Pn**		**02 39 13.2**	**+0.5**
ATH	**Athens Observa**	**4.38**	**333**	P		**Pn**		**02 39 14.2**	**+1.1**
ATHP	**Athens-Neo Psi**	**4.38**	**333**	P		**Pn**		**02 39 14.1**	**+0.9**
PTL	**Penteli**	**4.39**	**335**	P		**Pn**		**02 39 14.1**	**+0.8**
DION	**Dionisos Attik**	**4.39**	**335**	P		**Pn**		**02 39 14.5**	**+1.1**
EAG2	**Marmaro, Chios**	**4.43**	**359**	P		**Pn**		**02 39 14.2**	**+0.3**
STFN	**Stefani**	**4.62**	**332**	P		**Pn**		**02 39 17.5**	**+0.9**
STFN				AML		AML			
VALY	**Valyra**	**4.63**	**313**	P		**Pn**		**02 39 17.9**	**+1.2**
ACOR	**Acrocorinthos**	**4.67**	**325**	P		**Pn**		**02 39 18.3**	**+1.1**
ACOR				AML		AML			
ITM	**Ithomi**	**4.67**	**312**			**Pn**		**02 39 18.2**	**+1.0**
ITM	**Ithomi**	**4.67**	**312**	P		**Pn**		**02 39 18.1**	**+0.8**
LOUT	**Loutraki**	**4.70**	**327**	P		**Pn**		**02 39 18.5**	**+0.9**
LTK	**Loutraki**	**4.73**	**327**	P		**Pn**		**02 39 18.6**	**+0.5**
MANT	**Manisa**	**4.76**	**22**			**Pn**		**02 39 20.5**	**+1.9**
VIL2	**Platees**	**4.76**	**330**	P		**Pn**		**02 39 18.4**	**-0.1**
KYMI	**Kymi, Euboea I**	**4.84**	**340**	P		**Pn**		**02 39 19.9**	**+0.4**
THAL	**Thalero**	**4.89**	**324**	P		**Pn**		**02 39 20.7**	**+0.6**
GUR	**Goura**	**4.97**	**321**	P		**Pn**		**02 39 21.5**	**+0.1**
ISP	**Isparta**	**5.08**	**42**	P		**Pn**		**02 39 23.0**	**+0.1**
AKMS	**Akamas**	**5.10**	**78**	P		**Pn**		**02 39 24.1**	**+0.9**
AKMS				AML		AML			
PRK	**Paraskevi**	**5.13**	**0**	P		**Pn**		**02 39 23.3**	**-0.3**
KLV	**Kalavryta, Ach**	**5.15**	**321**	P		**Pn**		**02 39 24.1**	**+0.2**
KLV				AML		AML			
NATA	**Nata**	**5.26**	**81**	P		**Pn**		**02 39 26.6**	**+1.2**
ATAL	**Atalanti**	**5.27**	**331**	P		**Pn**		**02 39 25.8**	**+0.3**
TEME	**Temeni, Aigial**	**5.31**	**322**	P		**Pn**		**02 39 26.6**	**+0.7**
DRO	**Drossia**	**5.32**	**318**	P		**Pn**		**02 39 27.5**	**+1.3**
DRO				AML		AML			
ALFC	**Alefka**	**5.33**	**77**	P		**Pn**		**02 39 27.1**	**+0.8**
ALFC				AML		AML			
LAKA	**Lakka**	**5.39**	**321**	P		**Pn**		**02 39 27.4**	**+0.4**
AOS2	**Alonissos-2**	**5.40**	**340**	P		**Pn**		**02 39 27.8**	**+0.6**
KALE	**Kalithea**	**5.42**	**323**	P		**Pn**		**02 39 28.2**	**+0.7**
AXAR	**Agios Charalam**	**5.48**	**329**	P		**Pn**		**02 39 28.5**	**+0.1**
PYRG	**Pyrgos, Dorida**	**5.50**	**323**	P		**Pn**		**02 39 28.8**	**+0.2**
RLS	**Riolos of Patr**	**5.53**	**317**	P		**Pn**		**02 39 30.0**	**+1.0**
RLS				AML		AML			
MG00	**Magoula, Dorid**	**5.54**	**322**	P		**Pn**		**02 39 29.4**	**+0.3**
EFP	**Efpalio**	**5.56**	**322**	P		**Pn**		**02 39 29.9**	**+0.5**
EFP				AML		AML			
VVK	**Vomvokou**	**5.61**	**321**	P		**Pn**		**02 39 30.6**	**+0.4**
VVK				AML		AML			
CLEM	**Kyllini,Ilia,G**	**5.62**	**314**	P		**Pn**		**02 39 30.6**	**+0.4**
AGRP	**Agrapidokambos**	**5.64**	**321**	P		**Pn**		**02 39 31.4**	**+1.0**
AGRP				AML		AML			
AXS	**Araxos**	**5.68**	**317**	P		**Pn**		**02 39 31.9**	**+0.9**
ANX	**Ano Chora**	**5.69**	**323**	P		**Pn**		**02 39 31.7**	**+0.5**
KYPS	**Kipseli, Zakin**	**5.76**	**312**	P		**Pn**		**02 39 32.2**	**0.0**
XOR	**Xorichti**	**5.80**	**336**	P		**Pn**		**02 39 33.1**	**+0.3**
PLEV	**Plevrona-Mesol**	**5.82**	**319**	P		**Pn**		**02 39 34.0**	**+1.0**
PLEV				AML		AML			
ASGA	**Asgata**	**5.82**	**81**	P		**Pn**		**02 39 33.9**	**+0.9**
AGG	**Agios Georgios**	**5.84**	**328**	P		**Pn**		**02 39 33.7**	**+0.4**
CSS	**Mathiatis**	**5.90**	**80**			**Pn**		**02 39 35.4**	**+1.2**
CSS	**Mathiatis**	**5.90**	**80**	P		**Pn**		**02 39 36.1**	**+1.9**
	0.1nm912nm24nm,0.8s								
CSS				AML		AML			
CSS	**Mathiatis**	**5.90**	**80**	P		**Pn**		**02 39 34.8**	**+0.7**
CSS				S		**Sn**		**02 40 41.8**	**-0.2**
CSS	**Mathiatis**	**5.90**	**80**	P		**Pn**		**02 39 35.2**	**+1.0**
CSS				AML		AML			
PVO	**Paravola**	**5.90**	**321**	P		**Pn**		**02 39 35.6**	**+1.5**
PVO				AML		AML			
EVR	**Evrytania**	**5.99**	**325**	P		**Pn**		**02 39 36.3**	**+0.8**
EVR				AML		AML			
PDO	**Prodromos**	**6.07**	**319**	P		**Pn**		**02 39 37.6**	**+1.2**
VLS	**Valsamata**	**6.13**	**313**	P		**Pn**		**02 39 36.7**	**-0.5**
MVOU	**Mavrovouni**	**6.16**	**79**	P		**Pn**		**02 39 38.9**	**+1.3**
AMPL	**Ampelaki**	**6.29**	**321**	P		**Pn**		**02 39 39.6**	**+0.1**
TETR	**Tetrakomo, Epi**	**6.58**	**324**	P		**Pn**		**02 39 43.8**	**+0.2**
PRMD	**Pramanda**	**6.81**	**324**	P		**Pn**		**02 39 46.7**	**0.0**
CY604	**RAF Akrotiri,**	**6.84**	**86**			**Pn**		**02 39 49.0**	**+2.2**
OFRI	**˙Ofer**	**7.45**	**99**	P		**Pn**		**02 39 55.0**	**-0.4**
OFRI				S		**Sn**		**02 41 18.6**	**-1.6**
HNTI	**Hanita**	**7.51**	**95**	P		**Pn**		**02 39 56.3**	**+0.1**
HNTI				S		**Sn**		**02 41 19.9**	**-1.8**
KZIT	**Kziot**	**7.58**	**113**	P		**Pn**		**02 39 58.3**	**+1.1**
	0.4nm3µm53nm,0.5s								
KZIT				AML		AML			
KZIT	**Kziot**	**7.58**	**113**	P		**Sn**		**02 41 20.7**	**-2.6**
KZIT	**Kziot**	**7.58**	**113**	P		**Pn**		**02 39 56.8**	**-0.3**
KZIT				S		**Sn**		**02 41 21.4**	**-1.9**
SLTI	**Sal'it**	**7.60**	**102**	P		**Pn**		**02 39 57.3**	**-0.1**
SLTI				S		**Sn**		**02 41 21.9**	**-1.8**
ZRT	**Zar'it**	**7.60**	**95**	P		**Pn**		**02 39 57.8**	**+0.2**
ZRT				S		**Sn**		**02 41 22.4**	**-1.6**
MMA0B	**Mount Meron ar**	**7.71**	**96**	P		**Pn**		**02 39 59.2**	**+0.1**
MMA0B				S		**Sn**		**02 41 25.6**	**-1.1**
MMAI	**Mount Meron Ar**	**7.71**	**96**	Pn		**Pn**		**02 40 00.1**	**+1.1**
	3.0nm,0.2s,baz=289,slow=10,SNR=39								
MMAI				Sn		**Sn**		**02 41 25.5**	**-1.1**
	8.5nm,0.3s,baz=298,slow=23,SNR=5.9								
AMAZ	**Amatzia**	**7.73**	**107**	P		**Pn**		**02 40 00.7**	**+1.5**
AMAZ				AML		AML			
AMAZ	**Amatzia**	**7.73**	**107**	P		**Sn**		**02 41 26.7**	**-0.2**
	0.5nm3µm91nm,0.8s								
AMAZ	**Amatzia**	**7.73**	**107**	P		**Pn**		**02 39 59.0**	**-0.2**
AMAZ				S		**Sn**		**02 41 25.4**	**-1.6**
SALP	**Salfit**	**7.77**	**103**	P		**Pn**		**02 40 01.1**	**+1.3**
SALP				AML		AML			
SALP	**Salfit**	**7.77**	**103**	P		**Sn**		**02 41 26.9**	**-1.1**
	1µm67nm,0.8s,0.3nm								
ARIL	**Ariel Universi**	**7.77**	**102**	P		**Pn**		**02 39 59.8**	**-0.1**
ARIL				S		**Sn**		**02 41 26.4**	**-1.8**
ZEFT	**Zefat**	**7.80**	**96**	P		**Pn**		**02 40 00.0**	**-0.2**
ZEFT				S		**Sn**		**02 41 27.6**	**-1.1**
KIRY	**Kiryat Shemona**	**7.82**	**94**	P		**Pn**		**02 40 00.5**	**+0.1**
KIRY				S		**Sn**		**02 41 28.1**	**-1.0**
MMLI	**Mount Malkishu**	**7.85**	**100**	P		**Pn**		**02 40 00.5**	**-0.4**
MMLI				S		**Sn**		**02 41 27.9**	**-2.2**
JER	**Jerusalem**	**7.87**	**105**	P		**Pn**		**02 40 00.8**	**-0.4**
JER				S		**Sn**		**02 41 28.9**	**-1.6**
KNHM	**Kefar Nahum**	**7.88**	**96**	P		**Pn**		**02 40 01.3**	**0.0**
KNHM				S		**Sn**		**02 41 28.9**	**-1.9**
GEM	**Giv'at Ha'Em**	**7.89**	**94**	P		**Pn**		**02 40 02.9**	**+1.4**
GEM				AML		AML			
GEM	**Giv'at Ha'Em**	**7.89**	**94**	P		**Pn**		**02 40 01.3**	**-0.2**
GEM				S		**Sn**		**02 41 29.6**	**-1.4**
NATI	**Neve Ativ**	**7.95**	**93**	P		**Pn**		**02 40 02.5**	**+0.4**
NATI				S		**Sn**		**02 41 31.1**	**-1.2**
ROII	**Roi**	**7.96**	**101**	P		**Pn**		**02 40 02.8**	**+0.4**
ROII				S		**

BNN	Bunyan	9.06	56			Pn	Pn	02 40 20.9 +3.3
ASF	Jabal al Asfar	9.09	99	Pn		Pn	Pn	02 40 19.6 +1.0
	0.7nm,0.3s,baz=280,slow=4.0,SNR=13							
ASF				Sn		Sn	Sn	02 42 00.1 -1.5
	0.9nm,0.3s,baz=10.0,slow=16,SNR=2.6							
	2.1nm,0.5s							
ASF				AML		AML		
ASF	Jabal al Asfar	9.09	99	P		Pn	Pn	02 40 20.3 +1.8
	0.3nm41nm,0.8s							
ASF				AML		AML		
TIP	Timpagrande	9.16	306			Pn	Pn	02 40 17.6 -1.3
CEL	Celeste	9.35	299			Pn	Pn	02 40 21.7 +0.2
GAZ	Gaziantep	9.43	68	Pn		Pn	Pn	02 40 23.2 +0.6
DRME	Dracevica, Mon	9.80	327	*e*Pn		Pn	Pn	02 40 24.3 -3.3
PDG	Podgorica	9.97	329	*e*Pn		Pn	Pn	02 40 26.1 -3.8
RAFF	Raffo Rosso	10.16	291			Pn	Pn	02 40 32.9 +0.3
VAE	Valguarnera	10.19	293	Pn		Pn	Pn	02 40 33.9 +0.8
	2.1nm,0.3s,baz=153,slow=10,SNR=20							
VAE				Sn		Sn	Sn	02 42 15.1 -12
	0.5nm,0.3s,baz=3.6,slow=16,SNR=1.7							
	6.0nm,0.4s							
VAE				AML		AML		
CUC	Castrocucco	10.20	308			Pn	Pn	02 40 32.5 -0.7
HCY	Herceg Novi	10.32	326	*e*Pn		Pn	Pn	02 40 29.5 -5.2
SJES	Sjenica	10.38	334	*e*Pn		Pn	Pn	02 40 34.0 -1.6
TREB	Trebinje	10.60	327	*e*Pn		Pn	Pn	02 40 34.0 -4.5
BRY	Bratogost	10.66	328	*e*Pn		Pn	Pn	02 40 36.2 -3.3
UPM	Unac-Piva	10.75	330	*e*Pn		Pn	Pn	02 40 37.2 -3.5
KLINJ	Klinje	10.85	329	*e*Pn		Pn	Pn	02 40 33.1 -9.0
BBLS	Lazi&#263i	11.11	333	*e*Pn		Pn	Pn	02 40 42.8 -2.7
TEKS	Tekeris	11.65	336	*e*Pn		Pn	Pn	02 40 49.9 -3.1
INTR	Introdacqua	12.52	313	Pn		Pn	Pn	02 41 04.3 -0.6
BLY	Banja Luka	12.73	329	*e*Pn		Pn	Pn	02 41 03.9 -3.7
NRCA	Norcia	13.48	314			Pn	Pn	02 41 17.5 -0.4
FDMO	Fiordimonte	13.61	315	Pn		Pn	Pn	02 41 19.6 -0.2
SOKA	Soboth	15.17	329	*e*Pn		Pn	Pn	02 41 41.5 +0.4
	0.4nm,0.2s							
OBKA	Obir	15.25	328	*e*Pn		Pn	Pn	02 41 42.7 +0.6
	1.2nm,0.6s							
SABO	M.te Sabotino	15.29	325	Pn		Pn	Pn	02 41 38.8 -3.8
SABO				IAmb		IAmb	IAmb	02 41 48.4
	comp=Z,3.9nm,0.6s							
STAL	STALIGIAL	15.93	324	P		P	P	02 41 53.7 -0.8
KBZ	Khabaz	16.10	48	Pn		Pn	Pn	02 41 54.7 +1.7
	comp=Z,0.2nm,0.3s,baz=245,slow=13,SNR=6.1							
	comp=Z,1.7nm,0.9s							
KBZ				AML		AML		
KBA	Koelnbreinsper	16.22	327	*e*Pn		Pn	Pn	02 41 55.3 +0.6
	comp=Z,1.9nm,0.6s							
CTI	Castel Tesino	16.32	321	P		P	P	02 41 58.4 -0.5
ABTA	Abfaltersbach	16.37	325	*i* Pn		Pn	Pn	02 41 57.6 +1.0
	comp=Z,2.9nm,0.6s							
MOA	Molln	16.42	330	*e*Pn		P	P	02 41 58.8 -1.1
	comp=Z,0.4nm,0.3s							
BIOA	Bad Ischl, Aus	16.56	329	*e*Pn		P	P	02 42 00.5 -1.0
	comp=Z,0.9nm,0.3s							
KIEV	Kiev	16.72	7	P		P	P	02 42 02.5 -0.7
KIEV				IAmb		IAmb	IAmb	02 42 06.6
	comp=Z,9.9nm,1.2s							
AKASG	Malin Array Be	16.73	7	Pn		Pn	P	02 42 00.4 -0.6
	comp=Z,1.3nm,0.5s,baz=199,slow=11,SNR=12							
LESA	Schwarzleotal	16.79	326	*e*Pn		Pn	P	02 42 02.7 +0.9
	comp=Z,0.5nm,0.3s							
VRAC	Vranov	16.80	338	LR		LR	LR	02 48 21.6
	comp=Z,117nm,18.5s,baz=306,slow=37							
WTTA	Wattenberg	17.16	324	*e*Pn		P	P	02 42 08.4 +0.1
	comp=Z,0.7nm,0.3s							
WATA	Walderalm	17.24	324	*e*Pn		P	P	02 42 08.8 -0.4
	comp=Z,1.5nm,0.3s							
SQTA	Sankt Quirin	17.34	324	*i* Pn		Pn	P	02 42 09.3 +0.5
	comp=Z,1.4nm,0.3s							
FUORN	Ofenpass-Fuorn	17.42	321	P		Pn	P	02 42 09.9 -0.1
FUORN				IAmb		IAmb	IAmb	02 42 14.0
	comp=Z,5.0nm,0.6s							
GERES	GERESS Array B	17.44	331	P		Pn	P	02 42 09.4 -0.6
	baz=144,slow=12,SNR=5.8							
	comp=Z,0.3nm,0.5s							
FETA	Feichten	17.44	322	*i* Pn		P	P	02 42 11.9 +0.5
	comp=Z,1.4nm,0.6s							
MOTA	Moosalm	17.48	324	*e*Pn		P	P	02 42 11.4 -0.4
	comp=Z,0.8nm,0.4s							
KHC	Kasperske Hory	17.72	332	*e*P		Pn	P	02 42 13.5 +0.1
	comp=Z,0.3nm,0.3s							
DAVOX	Davos/Dischmat	17.72	320	P		Pn	P	02 42 13.9 +0.2
	comp=Z,0.3nm,0.3s,baz=117,slow=9.0,SNR=6.0							
	comp=Z,1.3nm,0.4s							
DAVOX				AML		AML		
RETA	Reutte	17.74	324	*e*Pn		P	P	02 42 15.4 +0.8
	comp=Z,1.0nm,0.4s							
DPC	Dobruska-Polom	17.80	339	*e*P		Pn	P	02 42 13.6 -0.8
TUE	Stuetta	17.82	319	P		Pn	P	02 42 14.1 -0.7
SENIN	Lac Senin/Sane	18.90	316	P		P	P	02 42 24.8 -2.7
CLL	Collm	19.71	335	*e*P		P	P	02 42 36.0 -0.1
CLL				*ex*		x	P	02 42 43.0
TAM	Tamanrasset	21.39	244	P		P	P	02 42 55.2 +0.5
TAM				IAmb		IAmb	IAmb	02 43 03.1
	comp=Z,6.3nm,0.4s							
BSD	Bornholm Skovb	22.45	343	*i* P		P	P	02 43 03.4 -2.3
LUNU	Lund	23.29	341	*i* P		P	P	02 43 12.2 -2.2
BLEU	Blekinge	23.34	345	*i* P		P	P	02 43 10.4 -4.5
COP	Copenhagen	23.61	340	*i* P		P	P	02 43 16.6 -0.9
DEL	Delary	23.93	343	*i* P		P	P	02 43 17.5 -3.2
ESBB	Sonseca Array	24.73	292	P		P	P	02 43 28.3 0.0
ESBB				IAmb		IAmb	IAmb	02 43 38.0
	comp=Z,4.5nm,1.3s							
ESDC	Sonseca Array	24.73	292	P		P	P	02 43 28.8 +0.5
	comp=Z,1.1nm,0.5s,baz=78,slow=9.3,SNR=34							
	comp=Z,1.1nm,0.5s							
ESDC	Sonseca Array	24.73	292	P		P	P	02 43 28.6 +0.3
PAB	San Pablo	25.02	291	P		P	P	02 43 31.2 +0.2
PAB				IAmb		IAmb	IAmb	02 43 43.8
	comp=Z,4.6nm,1.3s							
HFS	Hagfors	27.31	346	P		P	P	02 43 50.1 -1.3
	comp=Z,1.2nm,0.6s,baz=128,slow=9.6,SNR=6.6							
	comp=Z,1.2nm,0.6s							
FINES	FINESS Array B	27.36	360	P		P	P	02 43 50.5 -1.3
	comp=Z,0.9nm,0.4s,baz=169,slow=11,SNR=12							
	comp=Z,0.9nm,0.4s							
FIA1	FINESS Array S	27.36	360	P		P	P	02 43 50.4 -1.3
KONO	Kongsberg	27.81	342	P		P	P	02 43 54.0 -1.8
NC602	NORSAR Array S	28.31	345	P		P	P	02 43 58.5 -1.7
NOA	NORSAR Array B	28.65	345	P		P	P	02 44 02.6 -0.8
	comp=Z,0.2nm,0.4s,baz=154,slow=9.1,SNR=3.9							
	comp=Z,0.2nm,0.4s							
NC303	NORSAR Array S	28.79	345	P		P	P	02 44 02.7 -1.8
AB31	Akbulak array	29.07	48	P		P	P	02 44 07.2 0.0
ABKAR	Akbulak array	29.07	48	P		P	P	02 44 07.2 0.0
EKA	Eskdalemuir Ar	29.42	325	P		P	P	02 44 10.3 +0.1
	comp=Z,2.5nm,0.8s,baz=122,slow=9.1,SNR=4.8							
	comp=Z,2.5nm,0.8s							
TORD	Torodi Ar. Bea	30.54	233	P		P	P	02 44 22.5 +2.1
	comp=Z,0.9nm,0.7s,baz=38,slow=9.0,SNR=3.5							
	comp=Z,0.9nm,0.7s							
KK31	Karatay Array	35.39	62	P		P	P	02 45 03.1 +0.5
KK31				IAmb		IAmb	IAmb	02 45 05.7
	comp=Z,6.1nm,1.3s							
KKAR	Karatay Array	35.39	62	P		P	P	02 45 02.9 +0.2
ARCES	ARCESS Array B	35.49	360	P		P	P	02 45 02.1 -1.0
	comp=Z,0.6nm,0.4s,baz=178,slow=8.3,SNR=9.8							
	comp=Z,0.6nm,0.4s							
BORK	Borovoye	36.40	45	P		P	P	02 45 11.5 +0.3
BORK				IAmb		IAmb	IAmb	02 45 13.5
	comp=Z,2.0nm,0.6s							
BVAR	Borovoye Array	36.44	45	P		P	P	02 45 12.4 +1.0
	comp=Z,3.8nm,0.8s,baz=256,slow=5.8,SNR=9.9							
	comp=Z,3.8nm,0.8s							
KURBB	Kurchatov Arra	41.09	50	P		P	P	02 45 52.2 +1.7
	comp=Z,4.1nm,0.8s,baz=276,slow=8.7,SNR=28							
	comp=Z,4.1nm,0.8s							
KURK	Kurchatov	41.16	50	P		P	P	02 45 52.6 +1.6
KURK				IAmb		IAmb	IAmb	02 45 53.4
	comp=Z,8.6nm,1.2s							
MKAR	Makanchi Array	43.61	56	P		P	P	02 46 12.8 +1.6
	comp=Z,2.1nm,0.6s,baz=276,slow=6.9,SNR=19							
	comp=Z,2.1nm,0.6s							
MKAR	Makanchi Array	43.61	56	P		P	P	02 46 11.8 +0.7
ZAA0	Zalesovo Array	45.09	45			P	P	02 46 23.0 +0.1
ZALV	Zalesovo Beam	45.09	45	P		P	P	02 46 23.8 +1.0
	comp=Z,2.2nm,0.4s,baz=264,slow=8.7,SNR=14							
	comp=Z,2.2nm,0.4s							
ZALV	Zalesovo Beam	45.09	45			P	P	02 46 23.2 +0.4
IVI	Ivigtut	53.40	324	P		P	P	02 47 25.1 -1.2
SONM	Songino Array	59.46	50	P		P	P	02 48 10.7 +0.9
	comp=Z,0.4nm,0.6s,baz=289,slow=9.0,SNR=2.7							
	comp=Z,0.4nm,0.6s							
SONM	Songino Array	59.46	50	IAmb		IAmb	IAmb	02 48 15.1
	comp=Z,2.5nm,1.4s							
SCHQ	Schefferville	64.58	320	P		P	P	02 48 44.4 +0.4
	comp=Z,3.4nm,0.6s,baz=54,slow=6.6,SNR=3.8							
	comp=Z,3.4nm,0.6s							
SCHQ	Schefferville	64.58	320	IAmb		IAmb		02 48 51.3
	comp=Z,11nm,1.2s							
D22K	Ayikyak River	77.32	360	P		P	P	02 50 01.8 +0.6
MDP	Montagnes des	77.97	268	LR		LR	LR	03 26 12.3
	comp=Z,29nm,18.2s,baz=96,slow=37							
IMAR	Indian Mountai	80.24	0	P		P	P	02 50 17.8 +0.7

IDC **13** *02:46:50.0±0.9, 12.°53N×143.°46E, h0km, mb3.7/7, mbtmp3.7/7, Error ellipse: s-maj=30.1km s-min=15.6km az=122.0*

ISC 13 02:46:53.8±0.9, 12.°5N±0.°1×143.°7E±0.°2, h27km, n14, σ0s74/9, mb3.6/7, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	1.54	47	Pn	Pn	02 47 19.3	-0.2
	101nm,0.3s,baz=205,slow=11,SNR=11						
GUMO				Sn	Sn	02 47 37.7	-0.8
	95nm,0.3s,baz=338,slow=21,SNR=7.1						
GUMO				LR	LR	02 48 05.3	
	comp=Z,537nm,19.7s,baz=194,slow=44						
H11S3	WAKE ISLAND Hy 22.90	72	T	T		03 15 44.2	
	baz=258,slow=75,SNR=22						
H11S1	WAKE ISLAND Hy 22.92	72	T	T		03 15 47.0	
	baz=258,slow=75,SNR=14						
H11S2	WAKE ISLAND Hy 22.92	72	T	T		03 15 47.1	
	baz=258,slow=75,SNR=18						
H11N1	WAKE ISLAND Hy 23.36	69	T	T		03 16 21.2	
	baz=255,slow=75,SNR=30						
H11N2	WAKE ISLAND Hy 23.37	69	T	T		03 16 20.4	
	baz=255,slow=75,SNR=17						
H11N3	WAKE ISLAND Hy 23.38	69	T	T		03 16 23.4	
	baz=255,slow=75,SNR=20						
WRA	Warramunga Arr	33.57	196	P	P	02 53 31.4	-0.3
	2.6nm,0.7s,baz=20,slow=9.7,SNR=33						
	2.6nm,0.7s						
ASAR	Alice Springs	37.24	195	P	P	02 54 03.1	-0.2
	0.5nm,0.5s,baz=21,slow=12,SNR=17						
	0.5nm,0.5s						
STKA	Stephens Creek	44.21	183	P	P	02 55 00.4	-0.3
	1.2nm,0.5s,baz=321,slow=6.5,SNR=3.1						
	1.2nm,0.5s						
MKAR	Makanchi Array	61.47	317	P	P	02 57 07.6	-0.5
	0.2nm,0.5s,baz=96,slow=8.5,SNR=2.0						
	0.2nm,0.5s						
KURBB	Kurchatov Arra	64.70	320	P	P	02 57 29.0	-0.4
	0.3nm,0.5s,baz=105,slow=6.9,SNR=2.9						
	0.3nm,0.5s						
ILAR	Eielson Array	70.00	25	P	P	02 58 03.4	+0.7
	0.2nm,0.5s,baz=261,slow=5.8,SNR=1.8						
	0.2nm,0.5s						
NVAR	Mina Array Bea	88.45	51	P	P	02 59 45.4	+1.2
	0.5nm,0.7s,baz=284,slow=6.0,SNR=4.2						
	0.5nm,0.7s						

ATH **13** *02:58:59.5, 37.°80N×21.°30E, h26km, ML3.1/30, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
THE **13** *02:59:00.5, 37.°8N±0.°7×21.°3E±0.°4, h15km, M3.1/29, MLh3.1/29*
IDC **13** *02:59:04.6±16.0, 38.°71N×22.°28E, h0km, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=302.5km s-min=39.9km az=39.0*

ISC 13 02:58:59.9±0.8, 37.°80N±0.°02×21.°29E±0.°02, h24km±5km, n85, σ0s80/124, mb3.7/5, Southern Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LCHA	Lechaina	0.14	351	P	Pb	02 59 05.2	+0.5
LCHA				S	Sb	02 59 08.6	+0.7
CLEM	Kyllini,Ilia,G	0.16	306	P	Pb	02 59 04.9	0.0
CLEM				S	Sb	02 59 08.5	+0.3
RLS	Riolos of Patr	0.29	28	P	Pb	02 59 06.9	+0.2
RLS				S	Sb	02 59 11.1	-0.2
RLS				AML	AML		
RLS	Riolos of Patr	0.29	28	P	Pb	02 59 06.6	-0.1
RLS				S	Sb	02 59 11.2	-0.2
RLS				AML	AML		
DRO	Drossia	0.36	65	P	Pb	02 59 07.9	+0.1
DRO				S	Sn	02 59 14.2	-2.0
DRO				AML	AML		
DRO	Drossia	0.36	65	P	Pb	02 59 07.6	-0.2
DRO				S	Sb	02 59 12.8	-0.4
DRO				AML	AML		
KYPS	Kipseli, Zakin	0.37	273	P	Pb	02 59 08.1	+0.2
KYPS				S	Sb	02 59 14.0	+0.6
LTHK	Lithakia	0.37	256	P	Pb	02 59 07.8	-0.1
LTHK				S	Sb	02 59 13.2	-0.1
LTHK				AML	AML		
LTHK	Lithakia	0.37	256	P	Pb	02 59 07.6	-0.2
LTHK				S	Sb	02 59 13.5	+0.1
LTHK				AML	AML		
AXS	Araxos	0.40	9	P	Pb	02 59 08.6	+0.1
AXS				S	Sb	02 59 14.1	-0.1
AXS				AML	AML		
AXS	Araxos	0.40	9	P	Pb	02 59 08.2	-0.2
ZARO	Zacharo	0.42	138	P	Pb	02 59 08.5	-0.2
ZARO				AML	AML		
AMT	Artemida-Makis	0.42	129	P	Pb	02 59 08.7	0.0
AMT				S	Sb	02 59 16.2	+1.4
AMT				AML	AML		
AMT	Artemida-Makis	0.42	129	P	Pb	02 59 08.4	-0.3
AMT				AML	AML		
RTZL	Ratzakli, Kefa	0.50	304	P	Pb	02 59 09.9	-0.1
RTZL				S	Sb	02 59 17.0	+0.2
RTZL				AML	AML		
RTZL	Ratzakli, Kefa	0.50	304	P	Pb	02 59 09.7	-0.3
PATG	Patra B	0.56	38	P	Pn	02 59 11.6	-0.8
MSL1	Messolongi	0.58	10	P	Pb	02 59 11.6	+0.2
PATC	Patra C	0.60	38	P	Pn	02 59 11.9	-0.9
PLEV	Plevrona-Mesol	0.62	8	P	Pb	02 59 12.3	+0.2
PLEV				S	Sn	02 59 21.3	-1.1
PLEV				AML	AML		
PLEV	Plevrona-Mesol	0.62	8	P	Pb	02 59 11.9	-0.1
PLEV				AML	AML		
RIOA	Rio	0.63	38	P	Pn	02 59 13.0	-0.4
RIOA				AML	AML		
PSDA	Pessada-Kefalo	0.64	300	P	Pb	02 59 12.2	-0.2
PSDA				S	Sb	02 59 21.2	+0.2
PSDA				AML	AML		
PSDA	Pessada-Kefalo	0.64	300	P	Pb	02 59 12.7	+0.2
PSDA				AML	AML		
VLS	Valsamata	0.67	304	P	Pb	02 59 13.2	+0.3
VLS				S	Sb	02 59 22.7	+0.8
VLS				AML	AML		
VLS	Valsamata	0.67	304	P	Pb	02 59 12.6	-0.4
AGRP	Agrapidokambos	0.69	29	P	Pb	02 59 12.8	-0.4
AGRP				AML	AML		
KLV1	Kalavrita	0.69	70	P	Pb	02 59 13.0	-0.2
KLV1				AML	AML		
LAKA	Lakka	0.70	51	P	Pn	02 59 13.4	-0.9
LAKA				S	Sn	02 59 24.8	+0.4
LAKA				AML	AML		
LAKA	Lakka	0.70	51	P	Pb	02 59 13.2	-0.2
LAKA				AML	AML		
KLV	Kalavryta, Ach	0.72	70	P	Pn	02 59 14.4	-0.3
KLV				S	Sn	02 59 25.3	+0.3
KLV				AML	AML		
KLV	Kalavryta, Ach	0.72	70	P	Pb	02 59 13.5	-0.3
VVK	Vomvokou	0.74	33	P	Pn	02 59 14.3	-0.6
VVK				S	Sn	02 59 25.9	+0.3
VVK				AML	AML		
VVK	Vomvokou	0.74	33	P	Pb	02 59 14.0	-0.2
VVK				AML	AML		
AST1	Astakos	0.76	348	P	Pn	02 59 14.7	-0.4
AST1				S	Sn	02 59 25.6	-0.2
AGEO	AgiosGiorgios,	0.77	52	P	Pn	02 59 14.6	-0.6
TEME	Temeni, Aigial	0.78	56	P	Pn	02 59 15.0	-0.4
LXR1	Lixouri, Cepha	0.79	301	P	Pb	02 59 15.5	+0.7
LXR1				S	Sn	02 59 26.6	+0.1
EFP	Efpalio	0.79	37	P	Pn	02 59 14.9	-0.6
EFP				S	Sn	02 59 27.3	+0.6
EFP				AML	AML		
EFP	Efpalio	0.79	37	P	Pb	02 59 14.7	-0.3
EFP				AML	AML		
ITM	Ithomi	0.80	141	P	Pb	02 59 15.3	+0.3
ITM				S	Sn	02 59 28.1	+1.3
ITM				AML	AML		
ITM	Ithomi	0.80	141	P	Pb	02 59 14.8	-0.3
ITM				AML	AML		
MG00	Magoula, Dorid	0.80	40	P	Pb	02 59 14.9	-0.3
MG00				AML	AML		
PDO	Prodromos	0.80	354	P	Pn	02 59 15.6	-0.2
PDO				S	Sn	02 59 27.1	+0.1
PDO				AML	AML		
PDO	Prodromos	0.80	354	P	Pn	02 59 15.3	-0.5
PYRG	Pyrgos, Dorida	0.84	43	P	Pn	02 59 15.5	-0.7
PYRG				AML	AML		
PVO	Paravola	0.84	13	P	Pn	02 59 16.2	0.0
PVO				S	Sn	02 59 28.2	+0.4
PVO				AML	AML		
PVO	Paravola	0.84	13	P	Pn	02 59 15.9	-0.3
PVO				AML	AML		
VALY	Valyra	0.84	139	P	Pb	02 59 15.8	+0.1
VALY				AML	AML		
VSK1	VASILIKIADES	0.84	317	P	Pn	02 59 16.3	+0.1
VSK1				S	Sn	02 59 28.0	+0.2
GUR	Goura	0.84	80	P	Pb	02 59 15.7	-0.2
GUR				S	Sn	02 59 29.5	+1.5
GUR	Goura	0.84	80	P	Pb	02 59 15.3	-0.6
GUR				AML	AML		
DMLN	Damoulianata-K	0.85	301	P	Pb	02 59 16.1	+0.2
DMLN				S	Sn	02 59 28.2	+0.2
DMLN				AML	AML		
DMLN	Damoulianata-K	0.85	301	P	Pb	02 59 15.3	-0.6
SERG	Sergoula	0.86	44	P	Pn	02 59 16.2	-0.3
SERG				S	Sn	02 59 29.6	+1.2
SERG				AML	AML		
SERG	Sergoula	0.86	44	P	Pb	02 59 15.6	-0.5
SERG				AML	AML		
KALE	Kalithea	0.89	48	P	Pn	02 59 16.9	-0.2
KALE				S	Sn	02 59 30.6	+1.3
KALE				AML	AML		
KALE	Kalithea	0.89	48	P	Pb	02 59 16.2	-0.5
KALE				AML	AML		
ANX	Ano Chora	0.94	32	P	Pn	02 59 17.5	-0.2
ANX				S	Sn	02 59 31.5	+1.2
ANX				AML	AML		
ANX	Ano Chora	0.94	32	P	Pb	02 59 17.1	-0.4
ANX				AML	AML		
PYL1	Pylos	0.94	160	P	Pn	02 59 17.2	-0.4
PYL1				AML	AML		
EVGI	Lefkada island	0.96	329	P	Pn	02 59 17.9	-0.1
EVGI				S	Sn	02 59 32.0	+1.1
EVGI				AML	AML		
EVGI	Lefkada island	0.96	329	P	Pn	02 59 17.5	-0.5
EVGI				AML	AML		
VLX	Vlachokerasia	0.96	116	P	Pb	02 59 19.2	+1.2
VLX				S	Sn	02 59 33.1	+2.1
VLX				AML	AML		
NYDR	Nydri-Lefkada	1.03	333	P	Pn	02 59 18.8	0.0
NYDR				S	Sn	02 59 33.7	+1.3
NYDR				AML	AML		
NYDR	Nydri-Lefkada	1.03	333	P	Pn	02 59 18.3	-0.4
DRAG	Dragano-Lefkad	1.05	328	P	Pb	02 59 19.7	+0.3
DRAG				S	Sb	02 59 35.0	+2.3
DRAG				AML	AML		
DRAG	Dragano-Lefkad	1.05	328	P	Pn	02 59 18.7	-0.5
LKD2	Lefkada island	1.11	333	P	Pb	02 59 20.5	+0.1
LKD2				S	Sb	02 59 36.0	+1.6
LKD2				AML	AML		
LKD2	Lefkada island	1.11	333	P	Pn	02 59 19.9	-0.1
LKD2				AML	AML		
THAL	Thalero	1.11	77	P	Pb	02 59 21.3	+0.9
THAL				S	Sb	02 59 36.4	+2.0
THAL				AML	AML		
AMPL	Ampelaki	1.12	357	P	Pb	02 59 20.8	+0.2
AMPL				S	Sb	02 59 36.3	+1.5
AMPL				AML	AML		
AMPL	Ampelaki	1.12	357	P	Pb	02 59 20.3	-0.3
AMPL				AML	AML		
TSLK	Tsoukalades, L	1.14	334	P	Pb	02 59 21.3	+0.4
TSLK				S	Sb	02 59 36.7	+1.4
TSLK				AML	AML		
TSLK	Tsoukalades, L	1.14	334	P	Pb	02 59 20.6	-0.3
EVR	Evrytania	1.19	20	P	Pb	02 59 22.0	+0.2
EVR				S	Sb	02 59 38.2	+1.4
EVR	Evrytania	1.19	20	P	Pb	02 59 21.5	-0.2
EVR				AML	AML		
KEK	Kerkira	2.24	329	P	Pn	02 59 34.8	-0.7
KEK				AML	AML		
OHR	Ohrid	3.33	354	*i* Pn	Pn	02 59 53.8	+3.3
VAY	Valandovo	3.65	15	*i* Pn	Pn	02 59 56.7	+1.8
HFS	Hagfors	22.87	350	P	P	03 04 01.2	-0.2
	2.2nm,0.9s,baz=150,slow=12,SNR=4.3						
	2.2nm,0.9s						
FINES	FINESS Array B	23.86	6	P	P	03 04 09.6	-1.5
	0.7nm,0.4s,baz=179,slow=9.2,SNR=11						
	0.7nm,0.4s						
KURBB	Kurchatov Arra	41.97	53	P	P	03 06 47.3	-1.4
	0.4nm,0.4s,baz=276,slow=8.3,SNR=4.9						
	0.4nm,0.4s						
MKAR	Makanchi Array	44.98	58	P	P	03 07 12.3	-0.8
	0.4nm,0.4s,baz=281,slow=7.5,SNR=6.3						
	0.4nm,0.4s						
ZALV	Zalesovo Beam	45.49	48	P	P	03 07 15.9	-1.1
	1.1nm,0.4s,baz=274,slow=9.4,SNR=5.6						
	1.1nm,0.4s						

IDC **13** *03:15:22.6±1.1, 11.°34N×92.°73E, h0km, mb3.9/8, mbtmp3.9/9, ML4.6/1, MS3.4/1, Error ellipse: s-maj=33.5km s-min=17.6km az=63.0*
NDI **13** *03:15:25.5±1.3, 12.°81N×92.°38E, h80km, MW4.1, Presumed earthquake*
DJA **13** *03:17:09.0±0.8, 5.°N±9.°×9.°6E±1.°0, h34km±11km, M2.5/7, MLv2.5/7*

**ISC 13 03:15:25.4±1.0, 11.°1N±0.

LAY				eS	Sb	03 25 48.7	-1.5	**EOS4**	**EOS4**	**2.74**	**13**	eP	Pn	03 26 11.0	-1.0	**CNCH**	**Conchagua**	**1.20**	**3** ⇑P	**Pb**	**03 43 15.5**	**-0.5**
TSEB	**Hengchuen, Pin**	**0.83**	**303**	P	Pn	03 25 46.8	+0.6	**ETLH**	**Xiulin Townshi**	**2.76**	**357**	P	Pn	03 26 13.8	+1.1	CNCH			S	**Sb**	**03 43 31.7**	**+0.6**
TWKBT	**Hengchun**	**0.93**	**303**	P	Pb	03 25 48.3	+0.8	**FUSS**	**Fushou**	**2.82**	**352**	P	Pn	03 26 14.9	+1.2	**CNCH**	**Conchagua**	**1.20**	**3** eP	**Pb**	**03 43 15.8**	**-0.3**
TWKBT				S	Sn	03 26 00.5	+0.7	FUSS				eS	Sn	03 26 46.1	-0.8	**PLRN**	**Geotermica Pol**	**1.21**	**65** ⇑P	**Pn**	**03 43 15.1**	**-0.5**
TWK1	**Hengchun**	**0.93**	**303**	P	Pb	03 25 47.9	+0.2	**PHUB**	**P'eng-hu**	**2.82**	**317**	eP	Pn	03 26 14.6	+1.2	PLRN			S	**Sb**	**03 43 31.2**	**-0.2**
TWK1				S	Sn	03 26 00.1	+0.1	PHUB				eS	Sn	03 26 50.2	+3.6	**LCND**	**La Caada**	**1.23**	**0** P	**Pn**	**03 43 15.6**	**-0.2**
SMST	**Manzhou Townsh**	**0.95**	**307**	eP	Pb	03 25 48.9	+0.9	**PNG**	**Penghu**	**2.87**	**318**	eP	Pn	03 26 16.4	+2.3	**LCND**	**La Caada**	**1.23**	**0** eP	**Pn**	**03 43 15.7**	**-0.2**
SMST				S	Sn	03 26 01.5	+1.0	**EOS3**	**EOS3**	**2.90**	**12**	*i* P	Pn	03 26 16.0	+1.6	LCND			eP	**Pb**	**03 43 16.4**	**-0.1**
SNW	**Nanwan**	**0.98**	**302**	P	Pb	03 25 48.8	+0.3	EOS3				eS	Sn	03 26 51.9	+3.6	**CNGA**	**Al SSO del Vol**	**1.24**	**70** P	**Pb**	**03 43 15.9**	**-0.7**
SNW				S	Sn	03 26 02.0	+0.7	**WHP**	**Taichung City**	**2.90**	**347**	eP	Pb	03 26 18.1	-3.0	CNGA			S	**Sb**	**03 43 32.3**	**+0.1**
HEN	**Hengchun**	**1.02**	**304**	P	Pn	03 25 48.7	0.0	WHP				eS	Sn	03 26 52.0	+3.3	**CNGN**	**Cerro Negro**	**1.24**	**70** ⇑P	**Pn**	**03 43 15.8**	**-0.3**
HEN				S	Sn	03 26 02.7	+0.6	**NNSB**	**Datong**	**2.98**	**355**	eP	Pn	03 26 17.4	+1.5	CNGN			S	**Sb**	**03 43 34.4**	**+2.1**
SLIU	**Shizi**	**1.10**	**314**	P	Pb	03 25 50.5	-0.1	NNSB				eS	Sn	03 26 51.4	+0.6	**LEVN**	**Ruinas Leon Vi**	**1.29**	**75** ⇑P	**Pb**	**03 43 17.8**	**+0.3**
SLIU				S	Sb	03 26 05.2	+0.6	**NNSH**	**Datong**	**2.98**	**355**	eP	Pn	03 26 17.6	+1.8	LEVN			S	**Sb**	**03 43 35.3**	**+1.6**
TAWH	**Dawu Township**	**1.14**	**322**	P	Pn	03 25 50.4	0.0	NNSH				eS	Sn	03 26 51.6	+0.8	**RANC**	**El Ranchito**	**1.41**	**344**	S	**Sb**	**03 43 37.3**	**+0.2**
TAWH				S	Sn	03 26 04.5	-0.7	**NNS**	**Nan Shan**	**3.00**	**355**	P	Pn	03 26 17.4	+1.4	**RANC**	**El Ranchito**	**1.41**	**344**	eP	**Pn**	**03 43 15.4**	**-3.0**
TAW	**Tawu**	**1.15**	**323**	P	Pn	03 25 50.3	-0.2	NNS				eS	Sn	03 26 51.3	+0.1	**MOM3**	**MOM3**	**1.41**	**72** ⇓P	**Pn**	**03 43 18.2**	**-0.1**
TAW				S	Sb	03 26 06.3	+0.4	**EOS2**	**EOS2**	**3.01**	**10**	eP	Pn	03 26 16.3	+0.3	MOM3			S	**Sb**	**03 43 37.3**	**+0.1**
EAST	**Anshuo**	**1.20**	**322**	eP	Pn	03 25 51.5	+0.3	EOS2				eS	Sn	03 26 50.0	-1.2	**MOM2**	**El Cardon**	**1.42**	**75** ⇑P	**Pn**	**03 43 18.5**	**0.0**
EAST				S	Sb	03 26 07.0	-0.3	**LATG**	**Datong**	**3.08**	**358**	P	Pn	03 26 17.9	+0.7	MOM2			S	**Sb**	**03 43 37.4**	**-0.2**
LDUT	**Ludao**	**1.24**	**352**	eP	Pn	03 25 49.4	-2.3	LATG				eS	Sn	03 26 51.3	-2.0	**PACA**	**Pacayal**	**1.45**	**343** ⇓P	**Pn**	**03 43 19.1**	**+0.1**
ECL	**Taimali**	**1.32**	**331**	P	Pn	03 25 52.9	+0.1	**NDS**	**Dongshan**	**3.18**	**1**	P	Pn	03 26 19.6	+1.2	PACA			S	**Sb**	**03 43 39.6**	**+1.2**
ECL				eS	Sb	03 26 10.4	-0.3	NDS				eS	Sn	03 26 53.4	-2.0	**PACA**	**Pacayal**	**1.45**	**343** eP	**Pn**	**03 43 18.9**	**0.0**
SCZT	**Fangliau**	**1.33**	**314**	eP	Pb	03 25 54.6	+0.2	**ENTT**	**Nioudou**	**3.18**	**359**	eP	Pn	03 26 21.4	+2.9	**TECA**	**Tecapa**	**1.53**	**337** eP	**Pb**	**03 43 21.0**	**-0.8**
SCZT				S	Sb	03 26 10.6	-0.5	ENTT				eS	Sn	03 26 55.1	-0.5	TECA			eP	**Pn**	**03 43 21.2**	**+1.1**
TTN	**Taitung**	**1.39**	**340**	eP	Pb	03 25 56.1	+0.7	**NFF**	**Wufeng Townshi**	**3.21**	**351**	eP	Pn	03 26 22.6	+3.6	**APQ2**	**Apoyeque**	**1.54**	**85** P	**Pn**	**03 43 20.2**	**+0.2**
TWGBT	**Beinan**	**1.47**	**339**	eP	Pn	03 25 55.8	+0.9	**YHNB**	**Yeheng**	**3.22**	**356**	P	Pn	03 26 20.0	+0.9	APQ2			S	**Sb**	**03 43 40.0**	**-0.8**
TWGBT				eS	Sb	03 26 14.4	-0.7	YHNB				S	Sn	03 26 57.7	+1.0	APQ2			S	**Sn**	**03 43 40.9**	**+1.5**
TWG	**Pinlang**	**1.47**	**339**	eP	Pn	03 25 55.8	+0.8	**NSK**	**Sanguang**	**3.23**	**355**	eP	Pn	03 26 19.9	+0.7	**TISN**	**Laguna Tiscapa**	**1.59**	**87** P	**Pn**	**03 43 20.7**	**-0.1**
TWG				eS	Sb	03 26 14.6	-0.6	NSK				S	Sn	03 26 57.8	+0.9	**MGAN**	**Managua**	**1.61**	**87** P	**Pn**	**03 43 21.0**	**-0.1**
WLCH	**Liuqiu**	**1.49**	**308**	P	Pn	03 25 55.6	+0.4	**YOJ**	**Yonaguni jima**	**3.26**	**22**	eP	Pn	03 26 19.8	+0.3	MGAN			S	**Sb**	**03 43 41.9**	**-1.0**
WLCH				eS	Sn	03 26 13.9	+0.2	YOJ				eS	Sn	03 26 56.0	-1.4	**NIC**	**Americas 2**	**1.67**	**87** P	**Pn**	**03 43 22.5**	**+0.3**
TWP	**Hsiaoliuchiu**	**1.50**	**307**	P	Pn	03 25 55.6	+0.3	**FUSB**	**Fushanzhiwuyua**	**3.30**	**359**	P	Pn	03 26 21.7	+1.5	WILN			S	**Sb**	**03 43 42.8**	**-1.8**
TWP				eS	Sn	03 26 14.1	+0.2	FUSB				eS	Sn	03 26 58.1	-0.5	**MAS3**	**Al N del Volca**	**1.68**	**92** P	**Pn**	**03 43 22.4**	**+0.3**
MASBT	**Mashibuluo**	**1.50**	**321**	eP	Pb	03 25 58.4	+1.1	**NWLT**	**Wulai**	**3.32**	**358**	P	Pn	03 26 22.2	+1.8	MAS3			S	**Sn**	**03 43 42.1**	**-0.9**
MASBT				S	Sn	03 26 14.4	+0.3	NWLT				eS	Sn	03 27 00.3	+1.2	**MASN**	**Masaya**	**1.71**	**93** S	**Sn**	**03 43 43.3**	**-0.4**
LONT	**Longtian**	**1.54**	**342**	P	Pn	03 25 56.4	+0.6	**EGS**		**3.40**	**4**	P	Pn	03 26 23.1	+1.7	**NANN**	**Nandasmo**	**1.74**	**94** P	**Pb**	**03 43 24.5**	**-0.8**
LONT				S	Sb	03 26 16.2	-0.8	EGS				eS	Sn	03 27 01.6	+0.8	NANN			S	**Sb**	**03 43 46.9**	**+0.3**
EDH	**Donghe**	**1.56**	**348**	eP	Pn	03 25 54.7	-1.4	**TIPB**	**Shuangxi**	**3.52**	**3**	eP	Pn	03 26 24.4	+1.3	**JAYA**	**Jayaque - finc**	**2.18**	**316** eP	**Pn**	**03 43 29.4**	**+0.3**
TSMG	**Majia**	**1.57**	**324**	eP	Pn	03 25 55.2	-1.0	TIPB				eS	Sn	03 27 04.2	+0.3	**RCVN**	**Varillal2**	**2.24**	**48** ⇓P	**Pn**	**03 43 30.4**	**+0.6**
TSMG				eS	Sb	03 26 17.6	-0.2	**WFSB**	**Wu-fen Shan**	**3.61**	**2**	eP	Pn	03 26 27.4	+2.9	RCVN			S	**Sn**	**03 43 57.2**	**+0.4**
SSD	**Sandimen**	**1.61**	**324**	eP	Pb	03 25 59.5	+0.4	WFSB				eS	Sn	03 27 09.4	+3.2	**MORN**	**Al O del Volca**	**2.26**	**103** ⇑P	**Pn**	**03 43 30.9**	**+0.9**
SSD				eS	Sb	03 26 17.9	-1.1	**SXI1**	**Grass Mountain**	**3.64**	**3**	eP	Pn	03 26 25.5	+0.6	**RCPN**	**Sur Rio San Ju**	**2.27**	**50** P	**Pn**	**03 43 31.0**	**+0.7**
TSPT	**Pingtung City**	**1.63**	**319**	P	Pn	03 25 58.1	+1.0	SXI1				eS	Sn	03 27 07.2	+0.2	**CONN**	**Concepcion**	**2.28**	**103** ⇓P	**Pn**	**03 43 30.9**	**+0.6**
TSPT				eS	Sn	03 26 17.9	+0.6	**JMJ**	**Miyako jima 2**	**4.74**	**44**	P	Pn	03 26 41.6	+1.7	**OMEN**	**Al SSO del Vol**	**2.29**	**104** ⇓P	**Pn**	**03 43 31.0**	**+0.6**
SGLT	**Jiouru**	**1.67**	**320**	P	Pn	03 25 58.8	+1.2	**MATB**	**Ma-tsu**	**4.94**	**342**	eP	Pn	03 26 42.4	-0.3	**NUBE**	**Las Nubes**	**2.58**	**315** P	**Pn**	**03 43 35.7**	**+1.1**
SGLT				S	Sn	03 26 19.3	+1.1	MATB				eS	Sn	03 27 40.5	+1.5	NUBE			S	**Sn**	**03 44 05.6**	**+0.1**
CHKT	**Chengkung**	**1.67**	**351**	eP	Pn	03 25 56.2	-1.5															
ECS	**Chishang**	**1.69**	**346**	P	Pn	03 25 59.3	+1.3															
ECS				S	Sn	03 26 20.2	+1.3															
EHD	**Haiduan**	**1.75**	**346**	P	Pn	03 25 59.4	+0.7															
EHD				S	Sn	03 26 20.9	+0.7															
CHKH	**Chenggong**	**1.76**	**352**	P	Pn	03 25 59.2	+0.3															
WSSB	**Gushan**	**1.76**	**313**	P	Pn	03 25 59.8	+0.9															
WSSB				eS	Sn	03 26 21.1	+0.7															
FULB	**Fuli**	**1.78**	**349**	P	Pn	03 26 00.1	+0.9															
FULB				eS	Sn	03 26 19.7	-1.3															
TWM1	**Shoushan**	**1.79**	**321**	eP	Pn	03 25 59.7	+0.4															
SNJT	**Kaohsiung City**	**1.79**	**317**	eP	Pn	03 25 59.9	+0.6															
SNJT				eS	Sn	03 26 22.3	+1.2															
SCST	**Cishan**	**1.79**	**323**	eS	Sn	03 26 22.0	+0.7															
SLGT	**Liugui**	**1.80**	**329**	eP	Pb	03 26 02.7	+0.2															
SLGT				eS	Sb	03 26 23.5	-1.1															
ELDTW	**Lidau**	**1.83**	**341**	eP	Pn	03 26 00.7	+0.7															
ELDTW				eS	Sn	03 26 22.7	+0.2															
ECBN	**Changbin**	**1.88**	**354**	P	Pn	03 26 01.2	+0.8															
STYH	**Taoyuan**	**1.90**	**335**	eP	Pb	03 26 02.8	-1.3															
STYH				S	Sn	03 26 24.9	+0.9															
STYT	**Tauyuan**	**1.90**	**334**	eP	Pb	03 26 02.9	-1.3															
STYT				S	Sn	03 26 24.8	+0.7															
SGST	**Jiashian**	**1.91**	**329**	eP	Pb	03 26 03.3	-1.0															
SGST				S	Sn	03 26 25.0	+0.8															
EYUL	**Yuli**	**1.92**	**351**	P	Pn	03 26 01.7	+0.6															
EYUL				S	Sn	03 26 25.0	+0.5															
TWF1	**Yuli**	**1.93**	**350**	eP	Pn	03 26 00.0	-1.2															
TWF1				S	Sn	03 26 25.5	+0.8															
YULB	**Yu-li**	**1.97**	**350**	eP	Pn	03 26 01.4	-0.4															
YULB				S	Sn	03 26 26.1	+0.4															
SHHT	**Tainan City**	**1.98**	**323**	P	Pn	03 26 03.3	+1.3															
SHHT				eS	Sn	03 26 27.2	+1.2															
CHN3	**Shinhua**	**2.02**	**324**	eP	Pn	03 26 02.9	+0.5															
CHN3				eS	Sn	03 26 28.2	+1.5															
CHN1	**Nanshi**	**2.02**	**329**	eP	Pb	03 26 05.9	-0.3															
WTP	**Ta-pu**	**2.04**	**332**	eP	Pb	03 26 05.5	-1.0															
WTP				S	Sn	03 26 28.5	+1.2															
HGSD	**Ruisui**	**2.05**	**354**	eP	Pb	03 26 04.4	+1.4															
HGSD				S	Sn	03 26 28.6	+1.0															
TAI	**Tainan**	**2.05**	**319**	P	Pn	03 26 04.0	+1.1															
TAI				S	Sn	03 26 29.3	+1.7															
EHYH	**Wanrong**	**2.06**	**352**	eP	Pn	03 26 02.4	-0.6															
EHYH				eS	Sn	03 26 26.4	-1.5															
SNST	**Tainan City**	**2.07**	**329**	P	Pn	03 26 04.7	+1.6															
SNST				S	Sn	03 26 29.6	+1.5															
EHY	**Hungye**	**2.08**	**352**	P	Pn	03 26 03.6	+0.4															
EHY				S	Sn	03 26 28.6	+0.3															
TPUB	**Ta-pu**	**2.08**	**333**	P	Pn	03 26 04.4	+1.1															
SSHA	**Shanhua**	**2.11**	**323**	P	Pn	03 26 04.7	+1.1															
SSHA				S	Sn	03 26 30.4	+1.4															
TWK	**Hsinying**	**2.11**	**330**	eS	Sb	03 26 32.5	-1.1															
CHN4	**Tsaushan**	**2.14**	**333**	eP	Pb	03 26 07.6	-0.6															
YUS	**Yu-Shan**	**2.14**	**343**	P	Pn	03 26 05.2	+0.7															
YUS				S	Sn	03 26 30.8	+0.3															
ALS	**Alishan**	**2.20**	**339**	eP	Pb	03 26 08.8	-0.7															
WCKO	**Fanlu**	**2.21**	**334**	P	Pn	03 26 06.1	+0.9															
WCKO				S	Sn	03 26 32.6	+1.0															
TSCK	**Chigu Township**	**2.23**	**320**	eP	Pn	03 26 06.7	+1.3															
TSCK				S	Sn	03 26 32.7	+0.6															
TEGC	**Jichi Village**	**2.26**	**357**	P	Pn	03 26 06.3	+0.5															
TEGC				S	Sn	03 26 33.8	+1.0															
WARBT	**Fenglin Townsh**	**2.28**	**354**	eP	Pn	03 26 06.2	+0.1															
WARBT				eS	Sn	03 26 35.2	+1.9															
ICHU	**Yijhu**	**2.29**	**327**	P	Pn	03 26 07.3	+1.0															
ICHU				S	Sn	03 26 34.1	+0.5															
CHN8	**Yiju**	**2.32**	**325**	P	Pn	03 26 07.5	+1.0															
CHN8				S	Sn	03 26 34.4	+0.2															
CHN5	**Tsauling**	**2.33**	**337**	eP	Pb	03 26 10.3	-1.2															
SHUL	**Shoufeng**	**2.34**	**358**	P	Pn	03 26 07.9	+1.1															
SHUL				eS	Sn	03 26 33.1	-1.6															
VWDT	**VWDT**	**2.35**	**349**	P	Pn	03 26 08.5	+1.5															
VWT				eS	Sn	03 26 36.8	+1.9															
WHYT	**Xinyi Township**	**2.36**	**342**	eP	Pn	03 26 10.2	-1.8															
WHYT				S	Sn	03 26 36.4	+1.0															
ESL	**Shilin**	**2.37**	**355**	eP	Pn	03 26 07.0	-0.3															
ESL				S	Sn	03 26 36.0	+0.4															
WSL	**Shuilin Townsh**	**2.45**	**328**	P	Pn	03 26 09.6	+1.1															
WSL				eS	Sn	03 26 39.1	+1.5															
WDLH	**Douliu**	**2.46**	**335**	eP	Pn	03 26 09.7	+1.1															
WDLH				eS	Sn	03 26 39.6	+1.8															
ETM	**Tongmen**	**2.52**	**357**	eP	Pn	03 26 11.2	+1.8															
ETM				*i* S	Sn	03 26 40.0	+0.8															
WJS	**Zhushan**	**2.52**	**340**	P	Pn	03 26 10.5	+1.2															
WJS				eS	Sn	03 26 40.5	+1.4															
WTK	**Tuku**	**2.52**	**333**	P	Pn	03 26 10.0	+0.7															
WTK				S	Sn	03 26 39.5	+0.2															
HWA	**Hwalien**	**2.52**	**359**	P	Pn	03 26 10.5	+1.1															
HWA				eS	Sn	03 26 40.0	+0.7															
SMLT	**Sun Moon Lake**	**2.53**	**344**	P	Pn	03 26 11.5	+1.9															
SMLT				eS	Sn	03 26 40.7	+1.1															
OWD	**Renai**	**2.54**	**350**	eP	Pn	03 26 10.6	+0.8															
OWD				eS	Sn	03 26 39.0	-0.9															
TYC	**Yuchr**	**2.56**	**343**	eP	Pb	03 26 12.7	-2.6															
TYC				eS	Sb	03 26 43.6	-2.8															
LXIB	**Xiulin Townshi**	**2.58**	**355**	eP	Pn	03 26 09.8	-0.5															
WNT	**Mingjian**	**2.58**	**340**	P	Pn	03 26 11.4	+1.1															
WNT				S	Sn	03 26 41.9	+1.1															
WUSB	**Renai**	**2.58**	**349**	eP	Pn	03 26 11.8	+1.4															
WUSB				eS	Sn	03 26 40.9	-0.1															
TWD	**Chiawan**	**2.63**	**359**	P	Pn	03 26 12.1	+1.3															
TWD				S	Sn	03 26 42.2	+0.4															
DPDB	**Guoxing**	**2.67**	**346**	P	Pn	03 26 13.5	+2.1															
DPDB				eS	Sn	03 26 44.6	+1.7															
WCS	**Beigang Elemen**	**2.69**	**345**	eP	Pn	03 26 14.2	+2.4															
WCS				eS	Sb	03 26 47.2	-3.0															
ETL	**Fush Village**	**2.70**	**359**	P	Pn	03 26 13.4	+1.5															
WHF	**Hehuan Shan**	**2.71**	**353**	eP	Pn	03 26 12.3	-0.1															
WHF				eS	Sn	03 26 43.2	-1.4															
NACB	**Ninganchiao**	**2.72**	**359**	eP	Pn	03 26 11.5	-0.6															
WTCT	**Ta-ch'eng**	**2.72**	**333**	eP	Pn	03 26 13.7	+1.5															
WTCT				eS	Sn	03 26 47.1	+2.9															

SSNC ***13*** *03:30:28.4±1.4, 19°.22N×79°.36W, h25km±8km, MD3.5, ML2.9, Presumed earthquake*
JSN ***13*** *03:30:31.1±0.7, 19°.44N×79°.00W, h39km±12km, MD3.4, Presumed earthquake*

ISC 13 03:30:22.8±1.4, 19°.27N±0°.04×79°.26W±0°.03, h8km±11km, n18, σ2§13/38, 1C-9D, Cuba region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBCY	**The Bluff, Cay**	**0.67**	**315**	eP	**Pn**	**03 30 39.9**	**+1.3**
CBCY				⇓eS	**Sb**	**03 30 47.4**	**+1.3**
CBCY				IAML		03 30 47.9	
	comp=N,932nm,0.2s						
CBCY				IAML		03 30 47.9	
	comp=E,730nm,0.3s						
LCCY	**Blossom Villag**	**0.88**	**297**	eP	**Pn**	**03 30 42.9**	**+1.5**
LCCY				eS	**Sb**	**03 30 52.0**	**-0.1**
LCCY				IAML		03 30 52.1	
	comp=E,115nm,0.2s						
LCCY				IAML		03 30 52.2	
	comp=N,97nm,0.1s						
FSCY	**Frank Sound, G**	**1.82**	**272**	⇓eP	**Pn**	**03 30 55.6**	**+1.2**
FSCY				eS	**Sn**	**03 31 14.6**	**-3.1**
FSCY				IAML		03 31 15.1	
	comp=N,438nm,0.3s						
FSCY				IAML		03 31 15.2	
	comp=E,261nm,0.2s						
PILO	**Pilon**	**1.86**	**70**	⇓eP	**Pg**	**03 30 58.1**	**-0.4**
PILO				eS	**Sb**	**03 31 20.6**	**+0.1**
PILO				IAML		03 31 21.5	
	comp=E,594nm,0.3s						
PILO				IAML		03 31 21.5	
	comp=N,706nm,0.3s						
PILO				eSg	**Sg**	**03 31 23.0**	**+0.5**
CVJ	**Coleyville**	**1.93**	**122**	⇓*i*P	**Pg**	**03 31 00.2**	**+0.3**
CVJ				*i* S	**Sb**	**03 31 21.6**	**-1.0**
MCJ	**Malvern**	**2.00**	**132**	⇓*i*P	**Pg**	**03 31 01.4**	**+0.2**
MCJ				*i* S	**Sb**	**03 31 24.8**	**+0.3**
LMGC	**Las Mercedes**	**2.27**	**69**	eP	**Pb**	**03 31 04.2**	**+0.2**
LMGC				⇓eS	**Sb**	**03 31 30.5**	**-1.6**
LMGC				IAML		03 31 31.1	
	comp=E,38nm,0.1s						
LMGC				IAML		03 31 31.6	
	comp=N,42nm,0.2s						
CCCC	**Cccc**	**2.38**	**36**	⇓eP	**Pg**	**03 31 09.2**	**+0.8**
CCCC				⇓eS	**Sg**	**03 31 39.7**	**+0.4**
CCCC				IAML		03 31 40.3	
	comp=E,10nm,0.3s						
CCCC				IAML		03 31 40.4	
	comp=N,11nm,0.2s						
PCJ	**Portland Cotta**	**2.50**	**127**	*i* P	**Pb**	**03 31 08.0**	**0.0**
STH	**Stony Hill**	**2.60**	**117**	*i* P	**Pb**	**03 31 08.8**	**-0.9**
STH				⇓*i*P	**Pb**	**03 31 08.8**	**-0.9**
STH				*i* S	**Sn**	**03 31 37.5**	**+0.4**
STH				*i* S	**Sb**	**03 31 37.7**	**-4.3**
GWJ	**Greenwich**	**2.67**	**116**	⇓*i*P	**Pb**	**03 31 10.3**	**-0.7**
GWJ				*i* S	**Sn**	**03 31 38.6**	**-0.4**
CHIV	**Chivirico**	**2.77**	**75**	eP	**Pb**	**03 31 10.9**	**-1.7**
CHIV				eS	**Sn**	**03 31 40.7**	**-0.4**
CHIV				IAML		03 31 41.3	
	comp=E,9.1nm,0.1s						
CHIV				IAML		03 31 41.4	
	comp=N,19nm,0.1s						
MARVS	**Santiago de Cu**	**3.25**	**76**	eP	**Pb**	**03 31 17.4**	**-3.3**
MARVS				eS	**Sn**	**03 31 53.0**	**+0.1**
MARVS				IAML		03 31 57.8	
	comp=E,14nm,0.1s						
MARVS				IAML		03 31 57.9	
	comp=N,26nm,0.1s						
HLGC	**Holguin**	**3.41**	**61**	eP	**Pb**	**03 31 22.4**	**-1.1**
HLGC				eS	**Sb**	**03 32 00.8**	**-4.4**
PINC	**Pinares de May**	**3.48**	**69**	eP	**Pb**	**03 31 22.4**	**-2.3**
PINC				eS	**Sb**	**03 32 02.9**	**-4.2**
PINC				IAML		03 32 03.0	
	comp=E,7.4nm,0.1s						
PINC				IAML		03 32 03.1	
	comp=N,4.8nm,0.1s						
SABCS	**La Quijada**	**3.87**	**73**	eP	**Pn**	**03 31 26.2**	**+3.6**
SABCS				eS	**Sn**	**03 32 11.9**	**+3.6**
SABCS				IAML		03 32 14.6	
	comp=N,12nm,0.2s						
SABCS				IAML		03 32 21.7	
	comp=Z,9.5nm,0.1s						
GTBY	**Guantanamo Bay**	**3.96**	**80**	eP	**Pb**	**03 31 29.4**	**-3.5**
GTBY				eS	**Sn**	**03 32 11.3**	**+0.7**
QMBU	**Quimbuelo**	**4.29**	**77**	eP	**Pn**	**03 31 32.3**	**+3.9**
QMBU				eS	**Sn**	**03 32 19.3**	**+0.6**
QMBU				IAML		03 32 21.6	
	comp=N,10nm,0.3s						

SNET ***13*** *03:42:54.3±6.6, 12°.14N×87°.83W, h33km, ML3.5, Presumed earthquake*
CATAC ***13*** *03:42:54.2±0.6, 12°.N±2°×8°.8W±°, h20km±4km, M3.6/25, MLv3.6/25, Error ellipse: s-maj=5.4km s-min=2.7km az=32.6, confirmed*

ISC 13 03:42:53.9±1.4, 12°.08N±0°.06×87°.89W±0°.05, h22km±7km, n36, σ0§87/58, 7C-10D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CSGN	**Cosiguina Volc**	**0.95**	**20**	⇑P	**Pb**	**03 43 11.9**	**0.0**
CSGN				S	**Sn**	**03 43 26.0**	**+0.9**
POTN	**Potosi Cosigui**	**0.99**	**22**	⇓P	**Pb**	**03 43 12.2**	**-0.3**
POTN				S	**Sn**	**03 43 26.1**	**+0.2**
CRIN	**San Cristobal**	**1.03**	**53**	⇓P	**Pb**	**03 43 13.4**	**+0.2**
INTP	**Intipuca**	**1.13**	**352**	eP	Pn	03 43

TWKBT				eS	Sb	04 12 15.0	+1.3	NNS				eS	Sn	04 13 12.2	+0.5	DNZT				S	Sn	04 14 37.0	+1.3
TWK1	**Hengchun**		0.60 304	*i* P	Pg	04 12 05.6	-0.3	**ENA**	**Nanau**		2.83 7	*e*P	Pn	04 12 39.0	+0.7	**YAZI**	**Mula-Dat§a-**		0.71 257	P	Pn	04 14 25.4	+0.6
TWK1				*i* S	Sb	04 12 15.5	+1.6	ENA				eS	Sn	04 13 12.0	+0.1	YAZI				S	Sn	04 14 35.3	-0.3
SMST	**Manzhou Townsh**		0.62 311	*i* P	Pg	04 12 06.1	-0.3	**EOS2**	**EOS2**		2.91 16	*e*P	Pn	04 12 39.3	0.0	**BDRM**	**Kayabasi**		0.73 288	P	Pn	04 14 25.5	+0.4
SMST				eS	Sb	04 12 15.7	+1.2	EOS2				eS	Sn	04 13 12.8	-0.9	BDRM				S	Sn	04 14 33.9	-2.2
SNW	**Nanwan**		0.65 302	*e*P	Pb	04 12 07.4	+0.6	**LATG**	**Datong**		2.92 3	*i* P	Pn	04 12 39.2	-0.4	**BODA**	**Bodrum-Mula**		0.74 285	Pg	Pn	04 14 25.5	+0.4
SNW				eS	Sb	04 12 16.8	+1.4	LATG				eS	Sn	04 13 13.8	-0.4	**TAVA**	**DENIZLI_Tavas**		0.78 37	P	Pn	04 14 26.9	+1.2
HEN	**Hengchun**		0.68 305	*i* P	Pb	04 12 07.5	+0.2	**NFF**	**Wufeng Townshi**		3.02 356	*e*P	Pn	04 12 42.9	+2.1	TAVA				S	Sn	04 14 37.9	+0.7
HEN				*i* S	Sn	04 12 18.0	-0.9	NFF				eS	Sn	04 13 16.8	+0.3	TAVA				IAML		04 14 39.0	
SLIU	**Shizi**		0.79 320	*e*P	Pg	04 12 08.2	-1.2	**TWC**	**Suao**		3.02 9	*e*P	Sn	04 12 42.1	+1.2		comp=N,268nm,0.2s						
TAWH	**Dawu Township**		0.84 330	*i* P	Pb	04 12 08.8	-1.2	TWC				eS	Sn	04 13 17.4	+0.8	TAVA				IAML		04 14 39.0	
TAWH				eS	Sb	04 12 20.0	-0.9	**ENTT**	**Nioudou**		3.02 4	*i* P	Pn	04 12 41.0	+0.1		comp=E,289nm,0.4s						
TAW	**Tawu**		0.85 331	*i* P	Pb	04 12 08.9	-1.3	ENTT				eS	Sn	04 13 16.5	-0.2	**CAME**	**Cameli-Denizli**		0.79 83	Pg	Pn	04 14 27.0	+1.1
TAW				eS	Sb	04 12 20.4	-0.9	**NDS**	**Dongshan**		3.03 6	*e*P	Pn	04 12 42.9	+1.9	CAME				AML	AML		
EAST	**Anshuo**		0.90 329	*i* P	Pb	04 12 09.6	-1.4	NDS				eS	Sn	04 13 16.1	-0.7	**IZZE**	**Mula-Seydike**		0.83 119	P	Pn	04 14 28.0	+1.7
SCZT	**Fangliau**		1.01 319	*i* P	Pb	04 12 12.2	-0.7	**LIOB**	**Emei**		3.04 354	*e*P	Pn	04 12 42.6	+1.4	IZZE				S	Sn	04 14 40.8	+2.6
SCZT				*i* S	Sn	04 12 27.8	+0.8	LIOB				eS	Sn	04 13 15.7	-1.3	IZZE				IAML		04 14 41.0	
ECL	**Taimali**		1.05 340	*i* P	Pb	04 12 11.2	-2.3	**YHNB**	**Yeheng**		3.05 1	P	Pn	04 12 42.6	+1.3		comp=E,982nm,0.2s						
ECL				eS	Sb	04 12 24.6	-2.4	**YHNB**	**Yeheng**		3.05 1	*e*P	Pn	04 12 40.5	-0.8	**BODT**	**Bodrum**		0.84 285	P	Pn	04 14 26.7	+0.4
LDUT	**Ludao**		1.06 6	*i* P	Pb	04 12 11.7	-2.2	YHNB				eS	Sn	04 13 18.6	+1.3	BODT				S	Sn	04 14 38.6	+0.3
LDUT				*i* S	Sb	04 12 28.0	+0.5	**NSK**	**Sanguang**		3.05 0	*e*P	Pn	04 12 43.3	+1.9	BODT				AML	AML		
TTN	**Taitung**		1.15 351	*e*P	Pn	04 12 13.2	-2.0	NSK				eS	Sn	04 13 19.6	+2.1	**BODT**	**Bodrum**		0.84 285	Pg	Pn	04 14 26.7	+0.4
TTN				S	Sb	04 12 30.6	+0.7	**FUSB**	**Fushanzhiwuyua**		3.14 4	*e*P	Pn	04 12 43.5	+0.9	BODT				AML	AML		
MASBT	**Mashibuluo**		1.19 327	*i* P	Pn	04 12 14.6	-1.1	FUSB				eS	Sn	04 13 20.2	+0.4	**CAEL**	**Denizli, Camel**		0.85 71	P	Pn	04 14 28.4	+1.8
MASBT				eS	Sb	04 12 30.9	-0.3	**NWLT**	**Wulai**		3.16 3	*e*P	Pn	04 12 44.1	+1.4	CAEL				IAML		04 14 52.0	
TWGBT	**Beinan**		1.23 349	P	Pn	04 12 14.0	-2.2	NWLT				eS	Sn	04 13 19.5	-0.5		comp=E,255nm,0.7s						
TWGBT	**Beinan**		1.23 349	*i* P	Pn	04 12 13.9	-2.2	**JYNG**	**Yonagunijimaku**		3.19 27	*e*P	Pn	04 12 43.5	+0.3	**YKAV**	**Yalikavak-Bodr**		0.88 289	Pg	Pn	04 14 26.8	0.0
TWGBT				S	Sb	04 12 30.3	-1.8	JYNG				eS	Sn	04 13 19.3	-1.5	YKAV				AML	AML		
TWG	**Pinlang**		1.23 348	*i* P	Pn	04 12 13.9	-2.4	**YOJ**	**Yonaguni jima**		3.23 28	*e*P	Pn	04 12 44.1	+0.4	**AYDN**	**Tasoluk**		0.89 337	P	Pn	04 14 27.9	+0.9
TWG				eS	Sb	04 12 31.0	-1.3	YOJ				eS	Sn	04 13 19.6	-2.1	AYDN				S	Sn	04 14 39.7	+0.2
TSMG	**Majia**		1.27 330	*e*P	Pn	04 12 17.1	+0.4	**YOJ**	**Yonaguni jima**		3.23 28	*e*P	Pn	04 12 44.4	+0.7	AYDN				IAML		04 14 40.0	
TSMG				eS	Sb	04 12 32.9	-0.3	YOJ				eS	Sn	04 13 20.7	+1.1		comp=N,516nm,0.2s						
LONT	**Longtian**		1.30 351	*i* P	Pn	04 12 15.2	-2.1	**HATJ**	**Hateruma jima**		3.33 43	*e*P	Pn	04 12 45.9	+0.8	**DNIZ**	**Denizli-Tavas-**		0.97 36	P	Pn	04 14 29.3	+1.3
LONT				*i* S	Sb	04 12 32.7	-1.7	**TIPB**	**Shuangxi**		3.38 7	*e*P	Pn	04 12 47.5	+1.7	DNIZ				S	Sn	04 14 41.3	0.0
SSD	**Sandimen**		1.31 330	*e*P	Pn	04 12 17.8	+0.5	TIPB				*i* S	Sn	04 13 25.0	-0.4	DNIZ				IAML		04 14 43.0	
SSD				S	Sb	04 12 34.3	-0.1	**IRIF**	**Iriomote-Funau**		3.49 39	*e*P	Pn	04 12 47.7	+0.3		comp=N,443nm,0.2s						
EDH	**Donghe**		1.36 359	*i* P	Pn	04 12 15.9	-2.1	IRIF				S	Sn	04 13 27.1	-1.1	DNIZ				IAML		04 14 44.0	
EDH				*i* S	Sn	04 12 34.4	-1.1	**SXI1**	**Grass Mountain**		3.50 8	*e*P	Pn	04 12 50.4	+2.8		comp=E,483nm,0.4s						
TWM1	**Shoushan**		1.48 325	*e*P	Pb	04 12 21.6	+0.7	SXI1				eS	Sn	04 13 30.9	+2.3	**APMY**	**Acipayam-Deniz**		1.00 51	Pg	Pn	04 14 29.9	+1.4
TWM1				eS	Sg	04 12 41.7	0.0	**JKRS**	**Kuro-shima**		3.59 43	S	Sn	04 13 30.8	+0.2	APMY				AML	AML		
CHKT	**Chengkung**		1.48 1	*e*P	Pn	04 12 19.7	0.0	**JIJ**	**Ishigaki jima**		3.77 43	P	Pn	04 12 51.1	0.0	**DIDI**	**Didim-Aydin**		1.01 302	Pg	Pn	04 14 29.1	+0.6
CHKT				eS	Sn	04 12 37.3	-1.4	JIJ				S	Sn	04 13 33.8	-1.2	DIDI				AML	AML		
ECS	**Chishang**		1.48 356	*i* P	Pn	04 12 17.9	-1.8	**KNMB**	**Chin-men Tao**		3.93 317	*i* P	Pn	04 12 52.5	-0.9	**DDIM**	**Aydin, Didim**		1.05 306	P	Pn	04 14 29.7	+0.7
ECS				S	Sn	04 12 37.6	-1.1	KNMB				eS	Sn	04 13 37.2	-1.9	DDIM				S	Sn	04 14 42.8	-0.3
SCST	**Cishan**		1.49 328	*i* P	Pn	04 12 20.1	+0.3	**PTMZ**	**Houxiangcun**		3.98 330	*i* P	Pn	04 12 53.3	-0.7	DDIM				IAML		04 14 51.0	
SCST				eS	Sb	04 12 40.8	+1.0	PTMZ				eS	Sn	04 13 37.7	-2.5		comp=N,205nm,0.5s						
SLGT	**Liugui**		1.52 335	*e*P	Pn	04 12 21.0	+0.8	**JISG**	**Ishigakijimahi**		4.03 42	*e*P	Pn	04 12 55.0	+0.2	**KLNA**	**Kalymnos**		1.08 276	P	Pn	04 14 30.1	+0.7
SLGT				eS	Sb	04 12 41.6	+1.0	JISG				eS	Sn	04 13 38.9	-2.7	KLNA				AML	AML		
EHD	**Haiduan**		1.54 355	*i* P	Pn	04 12 18.2	-2.3	**DSXP**	**Dongshan**		4.17 301	P	Pn	04 12 56.2	-0.6	**NAZL**	**Nazilli-Aydin**		1.12 359	Pn	Pn	04 14 30.4	+0.5
EHD				eS	Sn	04 12 37.3	-2.7	DSXP				S	Sn	04 13 42.5	-2.6	NAZL				AML	AML		
CHKH	**Chenggong**		1.57 2	*i* P	Pn	04 12 19.8	-1.2	**JTJ**	**Tarama**		4.32 45	*e*P	Pn	04 12 59.0	+0.3	**AYDB**	**Zeytinkoy-Aydi**		1.15 343	Pn	Pn	04 14 30.5	+0.1
CHKH				*i* S	Sn	04 12 40.2	-0.7	JTJ				eS	Sn	04 13 46.9	-1.8	AYDB				AML	AML		
FULB	**Fuli**		1.58 358	*i* P	Pn	04 12 19.8	-1.3	**AXDP**	**Jialang**		4.51 317	*i* P	Pn	04 13 00.5	-0.8	**AKAS**	**Kas**		1.20 120	Pn	Pn	04 14 32.9	+1.8
FULB				*i* S	Sn	04 12 40.6	-0.6	AXDP				eS	Sn	04 13 50.6	-2.7	AKAS				AML	AML		
ELDTW	**Lidau**		1.60 349	*i* P	Pn	04 12 19.6	-1.9	**JNU**	**Nakatsue**		14.25 34	Pn	Pn	04 15 15.8	+0.9	**GCAM**	**G?zelcaml?**		1.22 315	Pn	Pn	04 14 31.8	+0.7
ELDTW				*i* S	Sn	04 12 39.1	-2.6		0.6nm,0.3s,baz=214,slow=15,SNR=4.1							GCAM				AML	AML		
SGST	**Jiashian**		1.62 335	*i* P	Pn	04 12 21.4	-0.3		5.1nm,0.9s							**ELL**	**Elmali**		1.28 94	Pn	Pn	04 14 34.5	+2.4
SGST				*i* S	Sb	04 12 44.4	+0.8	JNU				AML	AML			ELL				AML	AML		
STYT	**Tauyuan**		1.64 341	*i* P	Pn	04 12 21.1	-0.8	**KSRS**	**Korea Array**		16.79 18	Pn	**P**	04 15 51.7	+1.5	**ELL**	**Elmali**		1.28 94	P	Pn	04 14 33.9	+1.8
STYT				S	Sn	04 12 42.2	-0.3		0.2nm,0.3s,baz=194,slow=12,SNR=5.2							**KUSD**	**Kusadasi-Aydin**		1.30 321	Pn	Pn	04 14 33.1	+0.8
STYH	**Taoyuan**		1.64 342	*i* P	Pn	04 12 20.3	-1.6		1.6nm,0.7s							KUSD				AML	AML		
STYH				eS	Sn	04 12 42.9	+0.5	KSRS				AML	AML			**SMG**	**Samos**		1.46 306	P	Pn	04 14 34.8	+0.4
ECBN	**Changbin**		1.70 3	*e*P	Pn	04 12 21.9	-0.8	**SONM**	**Songino Array**		28.80 339	P	**P**	04 17 52.1	+1.1	SMG				S	Sn	04 14 52.6	-0.2
ECBN				eS	Sn	04 12 44.0	0.0		0.3nm,0.3s,baz=159,slow=11,SNR=3.5							SMG				AML	AML		
EYUL	**Yuli**		1.73 359	*i* P	Pn	04 12 22.1	-1.1		0.3nm,0.3s							**SMG**	**Samos**		1.46 306	P	Pn	04 14 34.3	-0.1
EYUL				eS	Sn	04 12 44.1	-0.6	**MKAR**	**Makanchi Array**		40.31 318	P	**P**	04 19 31.4	+1.1	SMG				AML	AML		
TWF1	**Yuli**		1.73 359	*i* P	Pn	04 12 21.6	-1.6		0.8nm,0.6s,baz=108,slow=9.9,SNR=5.6							**KRL1**	**Karlovasi Samo**		1.60 307	P	Pn	04 14 36.5	+0.3
TWF1				eS	Sn	04 12 43.4	-1.5		0.8nm,0.6s							KRL1				AML	AML		
CHN1	**Nanshi**		1.74 335	*i* P	Pn	04 12 24.0	+0.7	**ZALV**	**Zalesovo Beam**		42.49 329	P	**P**	04 19 47.8	-0.1	**KARP**	**Karpathos**		1.60 216	P	Pn	04 14 37.1	+0.8
CHN1				eS	Sb	04 12 47.6	+0.7		0.6nm,0.3s,baz=114,slow=8.1,SNR=4.0							KARP				S	Sn	04 14 57.3	+1.2
WTP	**Ta-pu**		1.76 338	*i* P	Pn	04 12 24.6	+0.9	**H11S3**	**WAKE ISLAND Hy**		42.60 86	T	T	05 05 04.4			0.6nm,0.3s					AML		
WTP				eS	Sb	04 12 48.7	+1.2		baz=283,slow=75,SNR=5.2							**KARP**	**Karpathos**		1.60 216	P	Pn	04 14 36.9	+0.6
YULB	**Yu-li**		1.77 359	P	Pn	04 12 23.3	-0.5	**H11S1**	**WAKE ISLAND Hy**		42.61 86	T	T	05 05 00.9		KARP				AML	AML		
YULB	**Yu-li**		1.77 359	*i* P	Pn	04 12 21.7	-2.1		baz=283,slow=75,SNR=5.9							**SAM2**	**Drakei, Karlov**		1.64 304	P	Pn	04 14 36.8	0.0
YULB				eS	Sn	04 12 44.1	-1.7	**H11S2**	**WAKE ISLAND Hy**		42.62 86	T	T	05 05 02.6		SAM2				AML	AML		
SNST	**Tainan City**		1.78 334	*i* P	Pn	04 12 24.6	+0.8		baz=283,slow=75,SNR=4.4							**BLCB**	**Balcova**		1.84 327	P	Pn	04 14 39.9	+0.4
TPUB	**Ta-pu**		1.81 339	P	Pn	04 12 25.3	+1.1	**WRA**	**Warramunga Arr**		43.21 162	P	**P**	04 19 51.5	-2.7	BLCB				S	Sn	04 15 02.4	+0.7
TPUB	**Ta-pu**		1.81 339	*i* P	Pn	04 12 24.6	+0.4		0.3nm,0.3s,baz=344,slow=8.6,SNR=11							BLCB				AML	AML		
TPUB				S	Sn	04 12 47.4	+0.7		0.3nm,0.3s							**APE**	**Apeiranthos**		2.25 277	P	Pn	04 14 45.8	+0.7
TWK	**Hsinying**		1.83 335	*i* P	Pn	04 12 25.0	+0.4	**KURBB**	**Kurchatov Arra**		44.18 322	P	**P**	04 20 03.1	+1.4	APE				S	Sn	04 15 11.2	-0.5
TWK				eS	Sn	04 12 48.1	+0.9		0.5nm,0.3s,baz=120,slow=7.4,SNR=5.3							APE				AML	AML		
CHN4	**Tsaushan**		1.86 338	*i* P	Pn	04 12 26.3	+1.3		0.5nm,0.3s							**APE**	**Apeiranthos**		2.25 277	P	Pn	04 14 45.7	+0.7
CHN4				eS	Sn	04 12 49.3	+1.2	**ASAR**	**Alice Springs**		46.64 164	P	**P**	04 20 20.5	-0.9	**THR8**	**Santorini-Mono**		2.33 260	P	Pn	04 14 47.9	+1.8
EHYH	**Wanrong**		1.88 0	*e*P	Pn	04 12 24.5	-0.6		0.3nm,0.3s,baz=346,slow=8.1,SNR=6.9							**THERA**	**Ancient Thera,**		2.34 259	P	Pn	04 14 48.0	+1.7
EHYH				S	Sn	04 12 47.1	-1.3		0.3nm,0.3s							THERA				AML	AML		
HGSD	**Ruisui**		1.88 2	*i* P	Pn	04 12 24.5	-0.6	**GERES**	**GERESS Array B**		84.92 321	P	**P**	04 24 28.3	+0.3	**CHOS**	**Chios island**		2.37 311	P	Pn	04 14 47.4	+0.7
HGSD				eS	Sn	04 12 49.7	+1.4		1.0nm,0.9s,baz=54,slow=6.8,SNR=4.9							CHOS				S	Sn	04 15 14.1	-0.5
EHY	**Hungye**		1.89 359	*e*P	Pn	04 12 25.2	-0.1		1.0nm,0.9s							CHOS				AML	AML		
EHY				eS	Sn	04 12 48.4	-0.3									**CHOS**	**Chios island**		2.37 311	P	Pn	04 14 47.2	+0.5
YUS	**Yu-Shan**		1.90 349	*i* P	Pn	04 12 25.3	-0.7									CHOS				AML	AML		
WCKO	**Fanlu**		1.94 340	*i* P	Pn	04 12 26.9	+0.8									**THR3**	**Thira Island,**		2.39 260	P	Pn	04 14 48.8	+1.9
WCKO				eS	Sb	04 12 51.9	-0.9									**SNT5**	**Nea Kammeni, S**		2.39 260	P	Pn	04 14 49.1	+2.1
ALS	**Alishan**		1.96 345	*i* P	Pn	04 12 26.4	-0.1									SNT5				AML	AML		
ALS				*i* S	Sb	04 12 52.7	-0.7									**SNT5**	**Nea Kammeni, S**		2.39 260	P	Pn	04 14 49.0	+2.1
ICHU	**Yijhu**		2.00 331	*e*P	Pn	04 12 25.1	-1.7									**THR6**	**Thira Island,**		2.40 259	P	Pn	04 14 49.2	+2.1
ICHU				eS	Sn	04 12 51.6	+0.2									**THR6**	**Thira Island,**		2.40 259	P	Pn	04 14 48.7	+1.6
CHY	**Chiayi**		2.06 336	P	Pn	04 12 28.0	+0.3									**ZKR**	**Zakros**		2.43 225	P	Pn	04 14 49.0	+1.5
CHY				S	Sn	04 12 53.8	+0.9									ZKR				S	Sn	04 15 17.4	+1.3
CHN5	**Tsauling**		2.07 343	*e*P	Pn	04 12 28.9	+1.0									**ZKR**	**Zakros**		2.43 225	P	Pn	04 14 49.3	+1.9
CHN5				eS	Sn	04 12 54.8	+1.5									**THR5**	**Thira Island,**		2.43 261	P	Pn	04 14 48.9	+1.4
WARBT	**Fenglin Townsh**		2.10 1	*e*P	Pn	04 12 28.4	+0.1									**EAG2**	**Marmaro, Chios**		2.44 315	P	Pn	04 14 48.7	+1.1
WARBT				S	Sn	04 12 51.7	-2.1									**DKL**	**Dikili**		2.49 334	P	Pn	04 14 48.8	+0.6
WHYT	**Xinyi Township**		2.12 348	*i* P	Pn	04 12 29.6	+0.9									**NPS**	**Neapolis**		2.70 235	P	Pn	04 14 51.7	+0.4
WHYT				*i* S	Sn	04 12 56.2	+1.6									NPS				S	Sn	04 15 23.3	+0.4
VWDT	**VWDT**		2.14 355	*i* P	Pn	04 12 27.8	-1.0									NPS				AML	AML		
VWDT				S	Sn	04 12 55.5	+0.6									**NPS**	**Neapolis**		2.70 235	P	Pn	04 14 52.1	+0.8
WSL	**Shuilin Township**		2.16 332	*i* P	Pn	04 12 28.7	-0.4									NPS				AML	AML		
WSL				S	Sn	04 12 55.8	+0.4									**PRK**	**Paraskevi**		2.89 327	P	Pn	04 14 54.5	+0.8
SHUL	**Shoufeng**		2.18 5	*e*P	Pn	04 12 29.8	+0.5									PRK				AML	AML		
SHUL				eS	Sn	04 12 57.9	+2.1									**PRK**	**Paraskevi**		2.89 327	P	Pn	04 14 54.5	+0.8
SSLB	**Suanglung**		2.20 351	P	Pn	04 12 30.2	+0.6									PRK				AML	AML		
SSLB	**Suanglung**		2.20 351	*i* P	Pn	04 12 30.0	+0.4									**IDI**	**Anoyia**		3.18 242	P	Pn	04 14 58.7	+0.8
SSLB				eS	Sn	04 12 56.6	+0.2									IDI				AML	AML		
WDLH	**Douliu**		2.20 340	*i* P	Pn	04 12 28.5	-1.1									**KARY**	**Karystos**		3.31 292	P	Pn	04 15 00.6	+1.1
WDLH				eS	Sn	04 12 56.7	+0.4									KARY				S	Sn	04 15 36.7	-0.9
WJS	**Zhushan**		2.27 346	*i* P	Pn	04 12 30.9	+0.3									KARY				AML	AML		
WJS				eS	Sn	04 12 59.3	+1.2									**EZN**	**Ezine**		3.36 333	P	Pn	04 15 01.1	+0.9
SMLT	**Sun Moon Lake**		2.30 350	*i* P	Pn	04 12 31.7	+0.7									**CSS**	**Mathiatis**		4.48 113	P	Pn	04 15 11.0	-4.5
SMLT				eS	Sn	04 13 01.3	+2.3									CSS				S	Sn	04 16 02.5	-3.8
TYC	**Yuchr**		2.33 349	*i* P	Pn	04 12 32.5	+1.1									**MMA0B**	**Mount Meron ar**		6.96 121	P	Pn	04 15 45.5	-4.0
TYC				S	Sn	04 12 59.1	+1.7									MMA0B				S	Sn	04 17 03.6	-3.7
WNT	**Mingjian**		2.34 345	*e*P	Pn	04 12 32.7	+1.2									**GEM**	**Giv'at Ha'Em**		7.03 119	P	Pn	04 15 46.5	-3.9
WNT				eS	Sn	04 13 01.1	+1.4									GEM				S	Sn	04 17 05.8	-3.1
OWD	**Renai**		2.34 356	*i* P	Pn	04 12 32.1	+0.4									**NATI**	**Neve Ativ**		7.05 118	P	Pn	04 15 47.0	-3.7
OWD				eS	Sn	04 12 59.1	-0.9									NATI				S	Sn	04 17 06.1	-3.4
ETM	**Tongmen**		2.35 3	*e*P	Pn	04 12 31.9	+0.2									**MMLI**	**Mount Malkishu**		7.32 125	P	Pn	04 15 50.0	-4.4
ETM				eS	Sn	04 12 57.3	-2.7									MMLI				S	Sn	04 17 12.6	-3.4
VCHM	**Qimei**		2.38 312	*e*P	Pn	04 12 32.1	0.0									**KZIT**	**Kziot**		7.79 138	P	Pn	04 15 56.3	-4.5
VCHM				*i* S	Sn	04 12 59.3	-1.4									KZIT				S	Sn	04 17 23.6	-3.8
WUSB	**Renai**		2.38 355	*i* P	Pn	04 12 33.4	+1.2									**MSBI**	**Mazada**		8.03 131	P	Pn	04 16 00.3	-3.8
WUSB				S	Sn	04 13 01.2	+0.2									MSBI				S	Sn	04 17 30.1	-3.3
LXIB	**Xiulin Townshi**		2.40 2	*e*P	Pn	04 12 32.8	+0.3									**GHAJ**	**Ghor Haditha**		8.16 131	P	Pn	04 16 01.8	-4.1
LXIB				eS	Sn	04 13 01.9	+0.3									GHAJ				S	Sn	04 17 32.9	-3.8
WCS	**Beigang Elemen**		2.47 351	*i* P	Pn	04 12 34.0	+0.7									**RMNI**	**Mount Ramon**		8.22 137	P	Pn	04 16 02.5	-4.3
WCS				S	Sn	04 13 03.3	+0.4									RMNI				S	Sn	04 17 35.6	-2.6
TWD	**Chiawan**		2.47 5	*e*P	Pn	04 12 33.8	+0.5									**HRFI**	**Mount Harif**		8.81 139	P	Pn	04 16 10.8	-4.0
TWD				eS	Sn	04 13 00.9	-2.1									HRFI				S	Sn	04 17 49.1	-3.4
PHUB	**P'eng-hu**		2.50 320	*i* P	Pn	04 12 32.2	-1.6									**EIL**	**Elat**		9.05 140	P	Pn	04 16 14.3	-3.8
PHUB				eS	Sn	04 13 02.3	-1.5									EIL				S	Sn	04 17 55.1	-3.4
WHF	**Hehuan Shan**		2.52 358	*i* P	Pn	04 12 34.0	-0.4																
WHF				S	Sn	04 13 05.4	+0.4																
NACB	**Ninganchiao**		2.56 5	P	Pn	04 12 34.7	+0.1																
NACB	**Ninganchiao**		2.56 5	*i* P	Pn	04 12 33.6	-0.9																
NACB				eS	Sn	04 13 03.9	-1.4																
ETLH	**Xiulin Townshi**		2.59 3	*i* P	Pn	04 12 33.9	-1.1																
ETLH				eS	Sn	04 13 06.0	-0.1																
TWT	**Tachien**		2.63 357	*e*P	Pn	04 12 34.6	-1.1																
TWT				eS	Sn	04 13 08.0	+0.7																
TDCB	**Techi**		2.64 356	P	Pn	04 12 36.0	+0.2																
TDCB				eS	Sn	04 13 07.5	+0.2																
EOS4	**EOS4**		2.66 20	*e*P	Pn	04 12 36.0	+0.4																
EOS4				eS	Sn	04 13 07.4	+0.3																
WHP	**Taichung City**		2.68 352	*i* P	Pn	04 12 37.1	+0.9																
WHP				eS	Sn	04 13 11.4	+3.1																
NNSB	**Datong**		2.81 1	*e*P	Pn	04 12 39.4	+1.4																
NNSB				eS	Sn	04 13 11.5	0.0																
EOS3	**EOS3**		2.81 18	*e*P	Pn	04 12 38.7	+0.8																
EOS3				S	Sn	04 13 10.7	-0.6																
NNS	**Nan Shan**		2.82 1	*e*P	Pn	04 12 40.0	+1.8																

*GII **13** 04:14:04.8±0.0,36°.775N±0°.004×28°.335E±0°.001,h0km, Mws3.5, confirmed*
*ISK **13** 04:14:10.7,36°.88N×28°.28E,h58km, ML3.2/19*
*AFAD **13** 04:14:11.7,36°.83N×28°.26E,h56km±1km, ML3.0*
*THE **13** 04:14:11.5,37°N±2°×2°8E±°,h62km±3km, M2.9/16, MLh2.9/16*
*ATH **13** 04:14:11.5,36°.92N×28°.28E,h34km±3km, ML3.1/12, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 13 04:14:10.1±1.2,36.85N±0.03×28.32E±0.03,h64km±6km, n83,σ1°51/112, Dodecanese Islands

| Code | Station Name | Δ° | AZ° | Phase |

λ-111.00000°. Principal axes: T 6.0170, Plg4.0000°, Azm31.0000°; N 0.5910, Plg17.0000°, Azm300.0000°; P -6.5980, Plg73.0000°, Azm135.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 13 04:35:44.3±0.3,**49.63S**±0.06×**117.38E**±0.09,**h12**km,**n263,** σ1f**30**/221,**mb4.8**/82,**MS4.4**/44,**3D,Western**

Indian-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**14.92**	**350**	T	T	04 54 25.3	
	baz=171,slow=74,SNR=474						
H01W1	**Cape Leeuwin H**	**14.92**	**350**	T	T	04 54 28.3	
	baz=171,slow=74,SNR=406						
H01W3	**Cape Leeuwin H**	**14.93**	**350**	T	T	04 54 29.2	
	baz=171,slow=74,SNR=363						
RKGY	**Rocky Gully**	**15.02**	**359**	P	**Pn**	**04 39 14.3**	**-2.0**
RKGY	**Rocky Gully**	**15.02**	**359**	P	**Pn**	**04 39 14.6**	**-1.7**
	comp=Z,38nm,1.2s						
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 39.1**	**-1.2**
	comp=Z,73nm,1.1s						
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 39.5**	**-0.9**
	comp=Z,118nm,1.1s						
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 42.1**	**+1.8**
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 40.3**	**0.0**
	comp=Z,72nm,1.1s						
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 40.3**	**0.0**
	comp=Z,118nm,1.1s						
NWAO	**Narrogin (SRO)**	**16.69**	**360**	Pn	**P**	**04 39 39.4**	**-1.0**
	comp=Z,2.8nm,0.3s,baz=177,slow=11,SNR=16						
NWAO				LR	LR	04 44 40.8	
	comp=Z,2μm,18.8s,baz=166,slow=32						
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 40.5**	**+0.2**
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**P**	**04 39 40.1**	**-0.2**
NWAO	**Narrogin (SRO)**	**16.69**	**360**		**P**	**04 39 39.4**	**-0.9**
NWAO	**Narrogin (SRO)**	**16.69**	**360**	P	**Pn**	**04 39 36.7**	**-1.3**
	comp=Z,68nm,1.1s						
AUKUL	**Kulin High Sch**	**16.96**	**2**	P	**P**	**04 39 44.0**	**+0.7**
CASY	**Casey**	**17.06**	**189**	P	**Pn**	**04 39 40.8**	**-1.7**
	comp=Z,59nm,1.3s						
KLBR	**Kellerberrin**	**18.03**	**1**	P	**P**	**04 39 56.9**	**+1.8**
	comp=Z,33nm,1.1s						
KLBR	**Kellerberrin**	**18.03**	**1**	P	**P**	**04 39 54.7**	**-0.4**
	comp=Z,33nm,1.1s						
KLBR	**Kellerberrin**	**18.03**	**1**	P	**P**	**04 39 55.1**	**0.0**
	comp=Z,33nm,1.1s						
KMBL	**Kambalda**	**18.56**	**12**	P	**Pn**	**04 40 03.0**	**+1.9**
	comp=Z,15nm,2.1s						
KMBL	**Kambalda**	**18.56**	**12**	P	**Pn**	**04 40 00.8**	**-0.4**
	comp=Z,15nm,2.1s						
BLDU	**Ballidu**	**19.00**	**358**	P	**Pn**	**04 40 06.5**	**-0.1**
BLDU	**Ballidu**	**19.00**	**358**	P	**P**	**04 40 05.4**	**-0.4**
FORT	**Forrest**	**20.48**	**27**	P	Pn	04 40 23.5	-0.6
	comp=Z,17nm,1.6s						
FORT	**Forrest**	**20.48**	**27**	P	Pn	04 40 23.5	-0.6
	comp=Z,17nm,1.6s						
FORT	**Forrest**	**20.48**	**27**		**P**	**04 40 22.1**	**+0.1**
MORW	**Morawa**	**20.57**	**357**	P	**P**	**04 40 22.9**	**0.0**
	comp=Z,66nm,1.9s						
MORW	**Morawa**	**20.57**	**357**	P	**P**	**04 40 22.9**	**0.0**
	comp=Z,66nm,1.9s						
MORW	**Morawa**	**20.57**	**357**	P	Pn	04 40 23.7	-1.4
MORW	**Morawa**	**20.57**	**357**		**P**	**04 40 22.6**	**-0.2**
MORW				IAmb	IAmb	04 40 32.4	
	comp=Z,129nm,1.4s						
MORW	**Morawa**	**20.57**	**357**	P	**P**	**04 40 23.1**	**+0.2**
	comp=Z,66nm,1.9s						
AUMAR	**Marden Senior**	**21.45**	**55**	P	**P**	**04 40 36.1**	**+3.8**
BBOO	**Buckleboo**	**21.81**	**47**	P	**P**	**04 40 37.6**	**+1.3**
	comp=Z,56nm,1.3s						
BBOO	**Buckleboo**	**21.81**	**47**	P	**P**	**04 40 37.1**	**+0.9**
	comp=Z,56nm,1.3s						
BBOO	**Buckleboo**	**21.81**	**47**	P	**P**	**04 40 37.3**	**+1.1**
BBOO	**Buckleboo**	**21.81**	**47**		**P**	**04 40 36.7**	**+0.5**
BBOO				IAmb	IAmb	04 40 45.3	
	comp=Z,100nm,1.4s						
BBOO	**Buckleboo**	**21.81**	**47**	P	**P**	**04 40 35.0**	**-1.2**
	comp=Z,56nm,1.3s						
ARPS	**Mount Arapiles**	**21.86**	**63**	P	**P**	**04 40 38.4**	**+1.7**
	comp=Z,19nm,1.6s						
ARPS	**Mount Arapiles**	**21.86**	**63**	P	**P**	**04 40 38.6**	**+1.8**
	comp=Z,19nm,1.6s						
BRAT	**Ballarat**	**22.58**	**68**	P	**P**	**04 40 47.5**	**+3.1**
HTT	**Hallett**	**22.73**	**53**	P	**P**	**04 40 46.5**	**+0.4**
	comp=Z,15nm,1.4s						
HTT	**Hallett**	**22.73**	**53**	P	**P**	**04 40 46.2**	**+0.1**
	comp=Z,15nm,1.4s						
HTT	**Hallett**	**22.73**	**53**	P	**P**	**04 40 51.0**	**+4.9**
HTT	**Hallett**	**22.73**	**53**	P	**P**	**04 40 49.1**	**+3.0**
MEEK	**Meekatharra**	**22.98**	**3**	P	**P**	**04 40 48.0**	**-0.7**
	comp=Z,56nm,1.3s						
MEEK	**Meekatharra**	**22.98**	**3**	P	**P**	**04 40 48.1**	**-0.7**
	comp=Z,56nm,1.3s						
MEEK	**Meekatharra**	**22.98**	**3**	P	**P**	**04 40 48.1**	**-0.7**
MEEK	**Meekatharra**	**22.98**	**3**	P	**P**	**04 40 46.4**	**-2.4**
	comp=Z,55nm,1.3s						
TOO	**Toolangi**	**23.51**	**70**	P	**P**	**04 40 57.5**	**+3.4**
TOO	**Toolangi**	**23.51**	**70**	P	**P**	**04 40 58.1**	**+4.0**
	comp=Z,11nm,1.4s						
STKA	**Stephens Creek**	**25.34**	**55**	P	**P**	**04 41 11.7**	**+0.7**
STKA	**Stephens Creek**	**25.34**	**55**	P	**P**	**04 41 11.3**	**+0.3**
	comp=Z,7.5nm,1.0s,baz=208,slow=9.2,SNR=5.5						
STKA				LR	LR	04 49 14.9	
	comp=Z,1μm,21.2s,baz=215,slow=32						
	comp=Z,7.5nm,1.0s						
STKA	**Stephens Creek**	**25.34**	**55**		**P**	**04 41 11.5**	**+0.5**
STKA	**Stephens Creek**	**25.34**	**55**	P	**P**	**04 41 11.9**	**+0.9**
	comp=Z,107nm,2.9s						
WRKA	**Warakurna**	**25.99**	**23**	P	**P**	**04 41 16.8**	**-0.1**
	comp=Z,8.0nm,1.3s						
WRKA	**Warakurna**	**25.99**	**23**	P	**P**	**04 41 16.5**	**-0.4**
	comp=Z,8.0nm,1.3s						
CMSA	**Cobar Meteorol**	**27.84**	**60**	P	**P**	**04 41 34.4**	**+0.9**
	comp=Z,23nm,2.2s						
CMSA	**Cobar Meteorol**	**27.84**	**60**	P	**P**	**04 41 34.5**	**+1.0**
	comp=Z,23nm,2.2s						
CMSA	**Cobar Meteorol**	**27.84**	**60**	P	**P**	**04 41 34.9**	**+1.3**
CMSA	**Cobar Meteorol**	**27.84**	**60**	P	**P**	**04 41 32.6**	**-1.0**
	comp=Z,23nm,2.2s						
INKA	**Innaminka**	**28.26**	**48**		**P**	**04 41 36.2**	**-1.0**
INKA				IAmb	IAmb	04 41 45.4	
	comp=Z,35nm,1.6s						
MBWA	**Marble Bar**	**28.48**	**5**	P	**P**	**04 41 36.8**	**-2.4**
	comp=Z,17nm,1.6s						
AS09	**Alice Springs**	**28.96**	**33**	P	**P**	**04 41 43.3**	**-0.3**
	comp=Z,11nm,0.9s						
AS09	**Alice Springs**	**28.96**	**33**	P	**P**	**04 41 43.4**	**-0.3**
	comp=Z,11nm,0.9s						
ASAR	**Alice Springs**	**28.98**	**33**	P	**P**	**04 41 43.0**	**-0.8**
	comp=Z,3.7nm,0.7s,baz=206,slow=8.3,SNR=38						
ASAR				LR	LR	04 52 05.0	
	comp=Z,2μm,19.5s,baz=193,slow=34						
	comp=Z,3.7nm,0.7s						
ASAR	**Alice Springs**	**28.98**	**33**	P	**P**	**04 41 42.1**	**-1.6**
AS31	**Alice Springs**	**28.98**	**33**	P	**P**	**04 41 43.1**	**-0.7**
	comp=Z,5.1nm,0.8s						
AS31	**Alice Springs**	**28.98**	**33**	P	**P**	**04 41 43.1**	**-0.7**
	comp=Z,5.1nm,0.8s						
AS31	**Alice Springs**	**28.98**	**33**		**P**	**04 41 42.7**	**-1.1**
AS01	**Alice Springs**	**29.00**	**33**	P	**P**	**04 41 44.0**	**+0.1**
	comp=Z,12nm,0.8s						
AS01	**Alice Springs**	**29.00**	**33**	P	**P**	**04 41 43.1**	**-0.8**
	comp=Z,12nm,0.8s						
AS01	**Alice Springs**	**29.00**	**33**	P	**P**	**04 41 43.4**	**-0.5**
AS15	**Alice Springs**	**29.01**	**33**	P	**P**	**04 41 43.2**	**-0.8**
	comp=Z,17nm,0.8s						
AS15	**Alice Springs**	**29.01**	**33**	P	**P**	**04 41 43.2**	**-0.8**
	comp=Z,17nm,0.8s						
AS17	**Alice Springs**	**29.01**	**33**	P	**P**	**04 41 43.6**	**-0.5**
	comp=Z,11nm,1.0s						
AS17	**Alice Springs**	**29.01**	**33**	P	**P**	**04 41 43.3**	**-0.8**
	comp=Z,11nm,1.0s						
QLP	**Quilpie**	**30.95**	**52**	P	**P**	**04 42 02.6**	**+1.4**
	comp=Z,53nm,1.4s						
QLP	**Quilpie**	**30.95**	**52**	P	**P**	**04 42 02.2**	**+1.0**
	comp=Z,53nm,1.4s						
QLP	**Quilpie**	**30.95**	**52**	P	**P**	**04 42 02.4**	**+1.2**
	comp=Z,53nm,1.4s						
ARMA	**Armidale**	**32.11**	**66**	P	**P**	**04 42 14.1**	**+2.6**
	comp=Z,20nm,1.8s						
ARMA	**Armidale**	**32.11**	**66**	P	**P**	**04 42 12.5**	**+1.0**
	comp=Z,21nm,1.8s						
FITZ	**Fitzroy Crossi**	**32.16**	**15**	P	**P**	**04 42 11.2**	**-0.6**
	comp=Z,4.1nm,2.2s						
FITZ	**Fitzroy Crossi**	**32.16**	**15**	P	**P**	**04 42 12.2**	**+0.5**
	comp=Z,4.8nm,1.4s						
FITZ	**Fitzroy Crossi**	**32.16**	**15**	LR	LR	04 54 12.3	
	comp=Z,1μm,19.9s,baz=196,slow=35						
FITZ	**Fitzroy Crossi**	**32.16**	**15**	P	**P**	**04 42 12.3**	**+0.5**
FITZ	**Fitzroy Crossi**	**32.16**	**15**	P	**P**	**04 42 11.9**	**+0.2**
FITZ	**Fitzroy Crossi**	**32.16**	**15**	P	**P**	**04 42 12.0**	**+0.2**
	comp=Z,4.8nm,1.4s						
MAW	**Mawson**	**32.17**	**216**	P	**P**	**04 42 13.0**	**+1.6**
	comp=Z,2.9nm,2.3s						
MAW	**Mawson**	**32.17**	**216**	P	**P**	**04 42 13.4**	**+1.9**
	comp=Z,8.9nm,0.9s,baz=70,slow=7.0,SNR=7.1						
MAW				LR	LR	04 53 17.0	
	comp=Z,1μm,18.8s,baz=94,slow=33						
	comp=Z,8.9nm,0.9s						
WRA	**Warramunga Arr**	**32.58**	**31**	P	**P**	**04 42 14.6**	**-0.9**
	comp=Z,4.3nm,0.5s,baz=199,slow=11,SNR=30						
WRA				LR	LR	04 54 10.1	
	comp=Z,1μm,21.3s,baz=270,slow=34						
	comp=Z,4.3nm,0.5s						
WRAB	**Tennant Creek**	**32.59**	**31**	P	**P**	**04 42 14.8**	**-0.8**
WRAB	**Tennant Creek**	**32.59**	**31**	P	**P**	**04 42 15.2**	**-0.4**
	comp=Z,21nm,1.1s						
VNDA	**Vanda**	**32.59**	**164**	P	**P**	**04 42 16.2**	**+1.1**
	comp=Z,3.5nm,0.8s,baz=303,slow=8.2,SNR=15						
VNDA				LR	LR	04 54 37.1	
	comp=Z,550nm,18.7s,baz=318,slow=35						
	comp=Z,3.5nm,0.8s						
VNDA	**Vanda**	**32.59**	**164**		**P**	**04 42 14.1**	**-1.0**
VNDA	**Vanda**	**32.59**	**164**	P	**P**	**04 42 16.3**	**+1.1**
	comp=Z,12nm,0.8s						
WR8	**Warramunga Arr**	**32.62**	**31**	P	**P**	**04 42 14.9**	**-0.9**
WR8				IAmb	IAmb	04 42 22.6	
	comp=Z,15nm,0.9s						
WB0	**Warramunga Arr**	**32.76**	**31**	P	**P**	**04 42 16.4**	**-0.7**
WB0				IAmb	IAmb	04 42 23.7	
	comp=Z,18nm,1.0s						
QIS	**Mount Isa**	**33.98**	**39**	P	**P**	**04 42 27.2**	**-0.6**
	comp=Z,15nm,1.1s						
QIS	**Mount Isa**	**33.98**	**39**	P	**P**	**04 42 27.4**	**-0.4**
	comp=Z,15nm,1.1s						
QIS	**Mount Isa**	**33.98**	**39**	P	**P**	**04 42 27.7**	**-0.1**
QIS	**Mount Isa**	**33.98**	**39**	P	**P**	**04 42 27.9**	**+0.2**
	comp=Z,15nm,1.1s						
EIDS	**Eidsvold**	**35.60**	**60**	P	**P**	**04 42 42.3**	**+0.6**
	comp=Z,14nm,1.5s						
EIDS	**Eidsvold**	**35.60**	**60**	P	**P**	**04 42 42.4**	**+0.6**
	comp=Z,14nm,1.5s						
EIDS	**Eidsvold**	**35.60**	**60**	P	**P**	**04 42 43.0**	**+1.3**
EIDS	**Eidsvold**	**35.60**	**60**	P	**P**	**04 42 40.5**	**-1.2**
	comp=Z,14nm,1.5s						
RPZ	**Rata Peaks**	**36.63**	**102**	LR	LR	04 55 03.8	
	comp=Z,145nm,19.5s,baz=20,slow=32						
CTA	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 58.6**	**+1.6**
	comp=Z,0.7nm,1.4s						
CTA	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 57.4**	**+0.4**
	comp=Z,9.3nm,1.4s						
CTA	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 56.6**	**-0.3**
	comp=Z,9.4nm,1.1s,baz=217,slow=9.2,SNR=5.7						
CTA				LR	LR	04 57 30.3	
	comp=Z,1μm,20.1s,baz=210,slow=35						
	comp=Z,9.4nm,1.1s						
CTA	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 57.2**	**+0.2**
CTAO	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 57.4**	**+0.4**
CTAO	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 56.1**	**-0.9**
CTAO				IAmb	IAmb	04 43 04.8	
	comp=Z,17nm,1.0s						
CTAO	**Charters Tower**	**37.39**	**48**	P	**P**	**04 42 54.0**	**-3.0**
	comp=Z,24nm,1.4s						
MTSU	**Mount Surprise**	**38.16**	**44**	P	**P**	**04 43 05.1**	**+1.6**
	comp=Z,8.8nm,1.6s						
MTSU	**Mount Surprise**	**38.16**	**44**	P	**P**	**04 43 04.5**	**+0.9**
	comp=Z,8.8nm,1.6s						
MTSU	**Mount Surprise**	**38.16**	**44**	P	**P**	**04 43 04.4**	**+0.8**
MTSU	**Mount Surprise**	**38.16**	**44**	P	**P**	**04 43 03.3**	**-0.3**
	comp=Z,8.8nm,1.6s						
KHZ	**Kahutara**	**38.86**	**101**	P	**P**	**04 43 11.8**	**+2.7**
QRZ	**Quartz Range**	**39.04**	**99**	P	**P**	**04 43 11.6**	**+0.9**
BATI	**Baumata**	**39.55**	**10**	LR	LR	05 00 10.4	
	comp=Z,1μm,18.4s,baz=214,slow=37						
QSPA	**South Pole Qui**	**40.49**	**180**	P	**P**	**04 43 23.4**	**+0.7**
	comp=Z,3.6nm,0.7s,baz=258,slow=1.1,SNR=18						
QSPA				LR	LR	04 59 13.3	
	comp=Z,557nm,19.2s,baz=338,slow=35						
	comp=Z,3.6nm,0.7s						
QSPA	**South Pole Qui**	**40.49**	**180**	P	**P**	**04 43 23.4**	**+0.7**
QSPA	**South Pole Qui**	**40.49**	**180**	P	**P**	**04 43 21.3**	**-1.4**
	comp=Z,15nm,2.3s						
EDFI	**Ende, Flores**	**40.91**	**7**	P	**P**	**04 43 26.4**	**-0.2**
	comp=Z,14nm,1.3s						
EDFI	**Ende, Flores**	**40.91**	**7**	P	**P**	**04 43 25.4**	**-1.2**
	comp=Z,14nm,1.3s						
LBFI	**Labuhan Bajo,**	**41.07**	**4**	P	**P**	**04 43 26.8**	**-1.0**
	comp=Z,22nm,1.3s						
SJI	**Sawahan**	**42.03**	**352**	P	**P**	**04 43 34.9**	**-0.8**
	comp=Z,44nm,1.6s						
BBJI	**Bungbulang**	**42.82**	**346**	P	**P**	**04 43 40.4**	**-1.7**
	comp=Z,22nm,1.8s						
RTZ	**Ruatahuna**	**43.12**	**99**	P	**P**	**04 43 44.3**	**-0.1**
RTZ				IAmb	IAmb	04 43 52.0	
	comp=Z,25nm,0.9s						
URZ	**Urewera**	**43.41**	**98**	LR	LR	04 59 19.3	
	comp=Z,216nm,20.5s,baz=229,slow=33						
LEM	**Lembang**	**43.45**	**346**	P	**P**	**04 43 48.8**	**+1.5**
	comp=Z,11nm,0.4s,baz=180,slow=12,SNR=5.8						
LEM				LR	LR	04 57 52.8	
	comp=Z,209nm,19.9s,baz=191,slow=31						
	comp=Z,11nm,0.4s						
CGJI	**Cibinong**	**43.99**	**343**	P	**P**	**04 43 48.9**	**-2.6**
	comp=Z,24nm,1.9s						
KAPI	**Kappang**	**44.51**	**3**	LR	LR	05 01 00.6	
	comp=Z,398nm,21.6s,baz=174,slow=34						
KAPI	**Kappang**	**44.51**	**3**	P	**P**	**04 43 54.0**	**-1.7**
KAPI				IAmb	IAmb	04 43 58.2	
	comp=Z,22nm,1.3s						
KAPI	**Kappang**	**44.51**	**3**	P	**P**	**04 43 53.4**	**-2.3**
	comp=Z,7.1nm,1.3s						
ELIB	**Princess Elisa**	**44.96**	**206**	*d*P	**P**	**04 43 59.1**	**+0.3**
KASI	**Kota Agung**	**45.29**	**342**	P	**P**	**04 44 00.2**	**-1.6**
	comp=Z,23nm,1.8s						
SPSI	**Sidrap Palu**	**45.55**	**3**	P	**P**	**04 44 03.9**	**0.0**
	comp=Z,34nm,1.9s						
PMSI	**Majene**	**45.99**	**2**	P	**P**	**04 44 07.2**	**-0.2**
	comp=Z,43nm,1.6s						
BBKI	**Banjar Baru**	**46.06**	**356**	P	**P**	**04 44 08.4**	**+0.5**
MDSI	**Maura Dua**	**46.36**	**342**	P	**P**	**04 44 11.2**	**+0.9**
	comp=Z,24nm,1.3s						
MMSI	**Mamuju**	**46.79**	**2**	P	**P**	**04 44 14.5**	**+0.8**
	comp=Z,23nm,1.5s						
MMSI	**Mamuju**	**46.79**	**2**	P	**P**	**04 44 12.5**	**-1.2**
	comp=Z,306nm,1.5s						
NLAI	**Namlea**	**46.96**	**13**	P	**P**	**04 44 14.5**	**-0.5**
	comp=Z,9.4nm,1.0s						
PMG	**Port Moresby**	**47.14**	**42**	P	**P**	**04 44 16.0**	**-0.5**
	comp=Z,6.7nm,0.5s,baz=229,slow=5.2,SNR=4.9						
PMG				LR	LR	05 03 40.0	
	comp=Z,766nm,18.1s,baz=233,slow=36						
	comp=Z,6.7nm,0.5s						
PMG	**Port Moresby**	**47.14**	**42**	IAmb	IAmb	04 44 25.0	
	comp=Z,23nm,1.1s						
PMG	**Port Moresby**	**47.14**	**42**	P	**P**	**04 44 14.9**	**-1.5**
	comp=Z,14nm,1.3s						
TPI	**Tanjungpandan**	**47.44**	**347**	P	**P**	**04 44 18.9**	**+0.2**
	comp=Z,29nm,1.3s						
SANI	**Sanana**	**47.98**	**12**	P	**P**	**04 44 23.2**	**+0.3**
	comp=Z,16nm,1.1s						
MASI	**Maura Aman, Be**	**48.08**	**339**	P	**P**	**04 44 25.0**	**+1.2**
	comp=Z,40nm,1.1s						
FAKI	**Fak Fak**	**48.24**	**20**	P	**P**	**04 44 25.8**	**+0.8**
	comp=Z,22nm,1.5s						
FAKI	**Fak Fak**	**48.24**	**20**	P	**P**	**04 44 26.1**	**+1.1**
	comp=Z,21nm,1.5s						
LUWI	**Luwuk**	**48.63**	**7**	P	**P**	**04 44 28.4**	**+0.4**
	comp=Z,28nm,1.1s						
APSI	**Ampana**	**48.68**	**6**	P	**P**	**04 44 28.1**	**-0.2**
	comp=Z,27nm,1.3s						
STKI	**Sintang**	**49.77**	**352**	P	**P**	**04 44 37.4**	**+0.7**
	comp=Z,34nm,0.5s						
MPSI	**Mapaga**	**49.83**	**3**	P	**P**	**04 44 37.1**	**0.0**
	comp=Z,6.8nm,1.6s						
SIJI	**Sorong**	**50.02**	**18**	LR	LR	05 08 53.7	
	comp=Z,229nm,18.2s,baz=195,slow=40						
SIJI	**Sorong**	**50.02**	**18**	P	**P**	**04 44 39.7**	**+1.1**
	comp=Z,4.8nm,0.9s						
SDSI	**Sungai Dareh**	**50.41**	**339**	P	**P**	**04 44 41.3**	**-0.2**
	comp=Z,23nm,1.1s						
TOLI2	**Tolitoli**	**50.63**	**4**	P	**P**	**04 44 42.9**	**-0.3**
TOLI2	**Tolitoli**	**50.63**	**4**	P	**P**	**04 44 41.8**	**-1.5**
TOLI2				IAmb	IAmb	04 44 55.8	
	comp=Z,38nm,1.4s						
TOLI2	**Tolitoli**	**50.63**	**4**	P	**P**	**04 44 41.3**	**-1.9**
	comp=Z,21nm,1.9s						
PDSI	**Padang**	**50.66**	**338**	P	**P**	**04 44 43.0**	**-0.4**
	comp=Z,32nm,1.2s						
JAY	**Jayapura**	**50.98**	**31**	LR	LR	05 05 31.3	
	comp=Z,1μm,22.0s,baz=192,slow=35						
PPI	**Padang Panjang**	**51.11**	**338**	P	**P**	**04 44 48.0**	**+1.2**
	comp=Z,31nm,1.1s						
BELA	**Belgrano 2**	**51.59**	**187**	P	**P**	**04 44 49.3**	**-0.5**
BELA				IAmb	IAmb	04 46 32.5	
	comp=Z,7.5nm,0.7s						
BKNI	**Bangkinang**	**51.71**	**339**	P	**P**	**04 44 50.2**	**-1.1**
	comp=Z,61nm,0.4s						
SNAA	**Sanae**	**51.89**	**200**	P	**P**	**04 44 52.4**	**+0.3**
	comp=Z,3.0nm,0.7s,baz=137,slow=9.0,SNR=7.6						
SNAA				LR	LR	05 05 57.8	
	comp=Z,2μm,18.5s,baz=192,slow=35						
	comp=Z,3.0nm,0.7s						
SNAA	**Sanae**	**51.89**	**200**	P	**P**	**04 44 52.0**	**-0.1**
SNAA				IAmb	IAmb	04 45 07.2	
	comp=Z,37nm,1.7s						
SNAA	**Sanae**	**51.89**	**200**	P	**P**	**04 44 51.0**	**-1.1**
	comp=Z,9.3nm,1.4s						
MNSI	**Mandailing Nat**	**52.52**	**337**	P	**P**	**04 44 57.5**	**+0.2**
	comp=Z,25nm,1.0s						
HNR	**Honiara**	**53.41**	**56**	LR	LR	05 06 38.0	
	comp=Z,608nm,18.2s,baz=300,slow=35						
VNA2	**Neumayer--Watz**	**53.44**	**200**	P	**P**	**04 45 04.3**	**+0.8**
	comp=Z,13nm,2.4s						
VNA3	**Neumayer Olymp**	**53.69**	**199**	P	**P**	**04 45 04.5**	**-0.8**
	comp=Z,7.1nm,1.7s						
KRVT	**Keravat (AS076**	**53.84**	**45**	LR	LR	05 07 35.2	
	comp=Z,579nm,19.3s,baz=225,slow=36						
RPSI	**Rantau Prapat**	**54.51**	**337**	P	**P**	**04 45 11.2**	**-0.8**
RPSI				IAmb	IAmb	04 45 13.2	
	comp=Z,25nm,1.3s						
RPSI	**Rantau Prapat**	**54.51**	**337**	P	**P**	**04 45 12.5**	**+0.6**
	comp=Z,15nm,1.4s						
RPSI	**Rantau Prapat**	**54.51**	**337**	P	**P**	**04 45 11.8**	**-0.2**
	comp=Z,9.6nm,1.4s						
PSI	**Prapat**	**54.61**	**337**	P	**P**	**04 45 12.1**	**-0.8**
	comp=Z,3.1nm,0.3s,baz=176,slow=9.2,SNR=7.5						
PSI				LR	LR	05 04 02.4	
	comp=Z,227nm,21.1s,baz=174,slow=31						
	comp=Z,3.1nm,0.3s						
PSI	**Prapat**	**54.61**	**337**	P	**P**	**04 45 12.5**	**-0.3**
PSI	**Prapat**	**54.61**	**337**	P	**P**	**04 45 11.8**	**-1.0**
	comp=Z,15nm,1.4s,comp=Z,13nm,1.4s						
PSI				P	**P**	**04 45 12.0**	**-0.8**
	comp=Z,15nm,1.4s,comp=Z,13nm,1.4s						
KCSI	**Kotacane, Aceh**	**55.60**	**336**	P	**P**	**04 45 20.2**	**+0.4**
	comp=Z,705nmcomp=Z,18nm,0.8s						
IPM	**Ipoh**	**55.73**	**340**	P	**P**	**04 45 21.0**	**+0.2**
IPM	**Ipoh**	**55.73**	**340**	P	**P**	**04 45 17.6**	**-3.2**
IPM	**Ipoh**	**55.73**	**340**	P	**P**	**04 45 20.8**	**0.0**
	comp=Z,45nm,1.0s						
IPM	**Ipoh**	**55.73**	**340**	P	**P**	**04 45 21.2**	**+0.4**
	comp=Z,45nm,1.0s						
H08S2	**Diego Garcia H**	**56.15**	**303**	T	T	05 45 51.3	
	baz=147,slow=76,SNR=38						
H08S1	**Diego Carcia H**	**56.16**	**303**	T	T	05 45 50.5	
	baz=147,slow=76,SNR=24						
H08S3	**Diego Garcia H**	**56.17**	**303**	T	T	05 45 52.2	
	baz=147,slow=76,SNR=50						
KULM	**Kulim**	**56.60**	**340**	P	**P**	**04 45 27.3**	**+0.3**
KULM	**Kulim**	**56.60**	**340**	P	**P**	**04 45 25.2**	**-1.8**
KULM	**Kulim**	**56.60**	**340**	P	**P**	**04 45 26.6**	**-0.4**
	comp=Z,32nm,1.6s						
KULM	**Kulim**	**56.60**	**340**	P	**P**	**04 45 26.9**	**-0.1**
	comp=Z,32nm,1.6s						
DAV	**Davao City (W)**	**56.92**	**10**	LR	LR	05 10 19.8	
	comp=Z,134nm,19.4s,baz=164,slow=36						
MSVF	**Nonsavu**	**57.76**	**79**	LR	LR	05 05 39.8	
	comp=Z,230nm,21.6s,baz=9.9,slow=31						
BSI	**Banda Aceh**	**58.17**	**334**	P	**P**	**04 45 38.1**	**+0.1**
PALK	**Pallekele**	**65.05**	**319**	P	**P**	**04 46 25.2**	**+0.6**
	comp=Z,7.8nm,1.0s,baz=172,slow=7.8,SNR=3.9						
PALK				LR	LR	05 08 43.8	
	comp=Z,196nm,21

TAOE	**Nuku Hiva Isla**	**91.29**	**105**	*e*LR		LR	05 17 45.2	
	comp=Z,199nm,24.2s							
CN2	**Changchun**	**93.32**	**6**	*e*P		**P**	**04 49 00.5**	**+2.1**
CN2				pmax	pmax			
	comp=Z,10.0nm,0.5s							
KSH2	**Kashi**	**95.79**	**329**	P		**P**	**04 49 10.6**	**+0.5**
ASAJ	**Asahikawa**	**95.93**	**18**	LR		LR	05 34 28.4	
	comp=Z,51nm,18.9s,baz=62,slow=37							
WMQ	**Urumqi**	**96.62**	**339**	*e*P		**P**	**04 49 15.4**	**+1.8**
SONM	**Songino Array**	**97.55**	**353**	LR		LR	05 35 48.2	
	comp=Z,54nm,18.7s,baz=170,slow=37							
HILR	**Hailar Array B**	**98.83**	**2**	LR		LR	05 36 06.7	
	comp=Z,40nm,19.5s,baz=125,slow=37							
AAK	**Ala-Archa**	**99.28**	**329**	LR		LR	05 29 01.0	
	comp=Z,98nm,21.7s,baz=154,slow=32							
H10S2	**ASCENSION HYDR**	**108.21**	**231**	T		T	06 52 12.6	
	baz=146,slow=74,SNR=6.4							
H10S3	**ASCENSION HYDR**	**108.22**	**231**	T		T	06 52 15.1	
	baz=74,slow=74,SNR=6.3							
GERES	**GERESS Array B**	**132.22**	**300**	PKP		**PKPdf**	**04 54 56.1**	**-1.2**
	comp=Z,0.1nm,0.4s,baz=346,slow=0.6,SNR=4.3							
ILAR	**Eielson Array**	**135.59**	**38**	PKP		**PKPdf**	**04 55 03.3**	**+0.2**
	comp=Z,0.9nm,1.0s,baz=246,slow=3.8,SNR=4.6							
BMRD	**Maredsous**	**138.01**	**298**	*d*PKP		**PKiKP**	**04 55 10.0**	**0.0**
ESDC	**Sonseca Array**	**138.09**	**279**	PKP		**PKPdf**	**04 55 08.9**	**+0.3**
	comp=Z,0.8nm,0.9s,baz=48,slow=2.2,SNR=5.6							
NVAR	**Mina Array Bea**	**139.31**	**84**	PKP		**PKPdf**	**04 55 10.2**	**-0.8**
	comp=Z,0.9nm,0.9s,baz=209,slow=2.4,SNR=6.4							
TXAR	**Lajitas Array**	**142.99**	**108**	PKP		**PKPdf**	**04 55 16.3**	**-1.5**
	comp=Z,3.6nm,1.2s,baz=204,slow=2.7,SNR=11							
C09A	**Chrisman Ranch**	**143.94**	**71**			PKPbc	04 55 17.2	+0.5
EKA	**Eskdalemuir Ar**	**144.32**	**302**	PKP		**PKPab**	**04 55 17.4**	**+0.2**
	comp=Z,3.2nm,0.9s,baz=204,slow=1.6,SNR=3.7							
A36M	**Sachs Harbour**	**144.59**	**28**			**PKPab**	**04 55 17.4**	**-0.4**
NEW	**Newport**	**144.84**	**71**	PKP		**PKPab**	**04 55 19.3**	**-0.1**
	comp=Z,5.4nm,1.0s,baz=219,slow=3.1,SNR=6.7							
NOR	**Nord**	**144.89**	**349**	*i* P		**PKPab**	**04 55 18.1**	**-0.6**
ANMO	**Albuquerque**	**144.94**	**98**	PKP		**PKPab**	**04 55 20.5**	**0.0**
	comp=Z,10nm,1.2s,baz=211,slow=4.5,SNR=13							
ANMO	**Albuquerque**	**144.94**	**98**			**PKPab**	**04 55 19.9**	**-0.5**
C36M	**Paulatuk**	**145.15**	**33**			**PKPbc**	**04 55 18.9**	**-0.9**
RDMU	**Red Mountain**	**146.13**	**87**			**PKPbc**	**04 55 23.9**	**-0.2**
PDAR	**Pinedale Array**	**147.24**	**84**	PKPbc		**PKPbc**	**04 55 26.9**	**-0.4**
	comp=Z,3.3nm,0.9s,baz=222,slow=2.0,SNR=22							
PDAR	**Pinedale Array**	**147.24**	**84**			**PKPbc**	**04 55 26.7**	**-0.5**
DAG	**Danmarks Havn**	**147.90**	**342**	*i* P		**PKPdf**	**04 55 25.6**	**+1.0**
YKA	**Yellowknife Ar**	**149.19**	**46**	PKPbc		**PKPbc**	**04 55 31.0**	**-0.3**
	comp=Z,3.3nm,0.9s,baz=279,slow=2.2,SNR=7.0							
YKA	**Yellowknife Ar**	**149.19**	**46**			**PKPbc**	**04 55 29.9**	**-1.4**
DBG	**Daneborg**	**149.52**	**339**	*i* P		**PKPdf**	**04 55 27.5**	**+0.2**
NEEM	**North Greenlan**	**151.73**	**355**	*i* P		**PKPbc**	**04 55 36.8**	**-0.7**

NEIC 13 04:38:15.3±1.1, 15°.77S±0°.09×74°.5W±0°.1, h68km±4km, mb4.0/5, Error ellipse: s-maj=19.2km s-min=10.0km az=58.0, Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NNA	**Nana**	**4.37**	**329**		Pn	04 39 18.7	-0.6
PB12	**IPOC Station P**	**4.92**	**126**		Pn	04 39 26.2	-0.6
PB18	**Visviri**	**5.18**	**111**		Pn	04 39 30.6	-0.2
PB16	**IPOC Station P**	**5.45**	**119**		Pn	04 39 35.2	+0.7
PSGCX	**Pisagua**	**5.68**	**133**		Pn	04 39 36.6	-0.5
PB11	**IPOC Station P**	**6.12**	**131**		Pn	04 39 43.1	-0.2
LPAZ	**La Paz**	**6.19**	**96**		Pn	04 39 47.9	+3.3
TA01	**Diego Aracena**	**6.32**	**140**		Pn	04 39 45.8	-0.1
GO01	**Chusmiza**	**6.41**	**128**		Pn	04 39 48.0	+0.5
PB08	**IPOC Station P**	**6.72**	**131**		Pn	04 39 51.8	+0.1
PB02	**IPOC Station P**	**7.06**	**142**		Pn	04 39 55.9	-0.2
PB07	**IPOC Station P**	**7.39**	**144**		Pn	04 39 59.1	-1.5
PB03	**IPOC Station P**	**7.72**	**145**		Pn	04 40 04.8	-0.3
PB09	**IPOC Station P**	**7.82**	**141**		Pn	04 40 00.9	-5.6
PB05	**IPOC Station P**	**8.15**	**150**	Pn	Pn	04 40 09.1	-1.9
CZSB	**Cruzeiro do Su**	**8.19**	**13**		Pn	04 40 10.3	-1.2
PB14	**IPOC Station P**	**9.63**	**157**		Pn	04 40 30.2	-1.2
AC02	**Maricunga**	**12.11**	**156**	Pn	Pn	04 41 06.9	+1.4
AC06	**Mina Casimiro**	**12.17**	**162**		Pn	04 41 05.6	-0.2
CO02	**Combarbal**	**15.70**	**169**	P	P	04 41 54.5	-0.7
CO02				IAmb	IAmb	04 41 60.0	
	comp=Z,11nm,0.9s						
CO04	**Los Peladeros**	**16.52**	**169**	Pn	Pn	04 42 02.4	-0.6
CO04				IAmb	IAmb	04 42 11.5	
	comp=Z,16nm,1.2s						
MT09	**Talagante**	**18.21**	**170**	Pn	Pn	04 42 26.0	+2.4
MT09				IAmb	IAmb	04 42 30.0	
	comp=Z,15nm,1.4s						
RUSC	**La Rusia**	**21.57**	**4**	P	P	04 42 59.6	-0.4
BOAV	**Boa Vista**	**22.76**	**39**	P	P	04 43 11.6	-0.6
TXAR	**Lajitas Array**	**52.93**	**328**	P	P	04 47 23.8	-1.2

WEL 13 04:40:22.7±1.0, 38°.S±10°×18°.0W±°, h33km, M3.5/13, ML3.5/12, MLv3.5/13, Error ellipse: s-maj=12.7km s-min=6.7km az=8.9

ISC 13 04:40:22.2±3.4, 37°.7S±0°.1×179°.9W±0°.1, h27km±24km, n19, σ0$/45/29, East of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WMGZ	**Waiomatatini S**	**1.36**	**264**	P	**Pn**	**04 40 45.4**	**0.0**
WMGZ				S	**Sn**	**04 41 01.9**	**-0.7**
WMGZ				AML	AML		
WMGZ				AML	AML		
TDHS	**Te Araroa Dist**	**1.40**	**272**	S	**Sb**	**04 41 05.2**	**+0.1**
MXZ	**Matakaoa Point**	**1.45**	**275**	P	**Pn**	**04 40 46.4**	**-0.3**
MXZ				S	**Sn**	**04 41 04.7**	**-0.2**
MXZ				AML	AML		
MXZ				AML	AML		
PUZ	**Puketiti**	**1.53**	**255**	P	**Pn**	**04 40 47.5**	**-0.3**
PUZ				S	**Sn**	**04 41 06.9**	**+0.2**
PUZ				AML	AML		
PUZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.71**	**242**	P	**Pn**	**04 40 50.4**	**+0.2**
CNGZ				AML	AML		
CNGZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.77**	**254**	P	**Pn**	**04 40 51.1**	**0.0**
TWGZ				S	**Sn**	**04 41 12.8**	**+0.1**
TWGZ				AML	AML		
TWGZ				AML	AML		
HAZ	**Te Kaha**	**1.86**	**267**	P	**Pn**	**04 40 52.4**	**+0.1**
HAZ				S	**Sn**	**04 41 15.0**	**+0.1**
HAZ				AML	AML		
HAZ				AML	AML		
TKGZ	**Te Karaka**	**1.95**	**247**	P	**Pn**	**04 40 53.4**	**-0.1**
TKGZ				S	**Sn**	**04 41 17.8**	**+0.8**
TKGZ				AML	AML		
TKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.96**	**261**	P	**Pn**	**04 40 53.6**	**-0.2**
RUGZ				S	**Sn**	**04 41 17.4**	**-0.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
RIGZ	**Rimuhau**	**2.12**	**241**	P	**Pn**	**04 40 55.8**	**-0.2**
RIGZ				S	**Sn**	**04 41 22.2**	**+0.8**
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**2.15**	**235**	P	**Pn**	**04 40 56.3**	**-0.1**
PRGZ				AML	AML		
PRGZ				AML	AML		
MWZ	**Matawai**	**2.15**	**252**	P	**Pn**	**04 40 55.8**	**-0.5**
MWZ				S	**Sn**	**04 41 22.1**	**0.0**
MWZ				AML	AML		
MWZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.27**	**229**	P	**Pn**	**04 40 57.8**	**-0.2**
MHGZ				AML	AML		
MHGZ				AML	AML		
RAGZ	**Rawiri**	**2.29**	**249**	P	**Pn**	**04 40 58.6**	**+0.4**
RAGZ				S	**Sn**	**04 41 25.4**	**-0.1**
RAGZ				AML	AML		
RAGZ				AML	AML		
KNZ	**Kokohu**	**2.34**	**235**	P	**Pn**	**04 40 58.5**	**-0.4**
KNZ				AML	AML		
URZ	**Urewera**	**2.45**	**256**	P	**Pn**	**04 41 01.0**	**+0.6**
URZ				AML	AML		
URZ				AML	AML		
WHRZ	**Whale Island**	**2.50**	**265**	P	**Pn**	**04 41 01.7**	**+0.6**
WHRZ				AML	AML		
WHRZ				AML	AML		
CTZ	**Chatham Island**	**6.52**	**159**	P	**Pn**	**04 41 56.3**	**0.0**
ODZ	**Otahua Downs**	**10.23**	**221**	P	**Pn**	**04 42 45.9**	**-1.2**

IDC 13 04:47:36.7±2.1, 31°.16S×178°.69W, h0km, mb3.8/3, mbtmp3.8/4, ML3.9/1, Error ellipse: s-maj=50.4km s-min=33.8km az=60.0
WEL 13 04:47:52.5±1.4, 32°S±14°×17°8W±2°5, h259km±42km, M4.4/3, mB4.5/1, MLv4.4/3, Mw(mB)3.7/1, Error ellipse: s-maj=35.3km s-min=13.4km az=114.0

ISC 13 04:47:44.3±1.5, 31°.63S±0°.09×179°.1W±0°.2, h35km, n20, σ1$94/29, mb3.6/3, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HAZ	**Te Kaha**	**6.62**	**202**	P	**Pn**	**04 49 20.7**	**+1.7**
HAZ				S	**Sn**	**04 50 34.9**	**+1.7**
HAZ				AML	AML		
PUZ	**Puketiti**	**6.77**	**198**	P	**Pn**	**04 49 20.5**	**-0.7**
WCZ	**Waipu Caves**	**6.92**	**230**	P	Pn	04 49 33.3	+10
TWGZ	**Tauwhareparae**	**6.95**	**199**	P	Pn	04 49 28.8	+5.2
TWGZ				S	**Sn**	**04 50 41.4**	**0.0**
TWGZ				AML	AML		
MWZ	**Matawai**	**7.22**	**201**	P	**Pn**	**04 49 29.1**	**+1.7**
MWZ				S	**Sn**	**04 50 48.9**	**+0.6**
URZ	**Urewera**	**7.29**	**204**	Pn	Pn	04 49 33.4	+5.0
	1.5nm,0.3s,baz=152,slow=15,SNR=9.4						
URZ				Sn	**Sn**	**04 50 50.0**	**+0.1**
	1.8nm,0.3s,baz=85,slow=21,SNR=8.0 3.3nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**7.29**	**204**	P	**Pn**	**04 49 28.4**	**0.0**
URZ				S	**Sn**	**04 50 49.9**	**0.0**
RIGZ	**Rimuhau**	**7.50**	**199**	P	**Pn**	**04 49 34.2**	**+2.9**
RIGZ				S	**Sn**	**04 50 52.9**	**-2.2**
KNZ	**Kokohu**	**7.82**	**199**	P	**Pn**	**04 49 39.1**	**+3.6**
NMHZ	**Naumai**	**8.15**	**203**	P	**Pn**	**04 49 40.9**	**+0.7**
NMHZ				S	**Sn**	**04 51 09.9**	**-1.2**
NMHZ				AML	AML		
ARHZ	**Aropaoanui**	**8.24**	**201**	P	**Pn**	**04 49 44.8**	**+3.4**
ARHZ				S	**Sn**	**04 51 12.6**	**-0.6**
BKZ	**Black Stump Fm**	**8.32**	**204**	P	**Pn**	**04 49 45.0**	**+2.5**
BKZ				S	**Sn**	**04 51 13.5**	**-1.7**
KWHZ	**Kaweka Forest**	**8.57**	**204**	P	**Pn**	**04 49 46.5**	**+0.5**
KWHZ				S	**Sn**	**04 51 20.0**	**-1.5**
KAHZ	**Kahuranaki**	**8.76**	**201**	P	**Pn**	**04 49 50.0**	**+1.4**
KAHZ				S	**Sn**	**04 51 24.8**	**-1.4**
PNHZ	**Pukenui**	**9.09**	**203**	P	**Pn**	**04 49 53.6**	**+0.5**
PNHZ				S	**Sn**	**04 51 29.0**	**-5.1**
CTZ	**Chatham Island**	**12.24**	**171**	P	**Pn**	**04 50 36.8**	**+0.7**
ASAR	**Alice Springs**	**42.09**	**269**	P	**P**	**04 55 33.6**	**+0.5**
	0.5nm,0.5s,baz=106,slow=7.7,SNR=7.1 0.5nm,0.5s						
WRA	**Warramunga Arr**	**43.19**	**274**	P	**P**	**04 55 42.2**	**+0.1**
	0.4nm,0.3s,baz=111,slow=8.0,SNR=16 0.4nm,0.3s						
QSPA	**South Pole Qui**	**58.48**	**180**	P	**P**	**04 57 37.0**	**+0.3**
	1.0nm,0.7s,baz=312,slow=0.7,SNR=6.1 1.0nm,0.7s						
FINES	**FINESS Array B**	**145.95**	**339**	PKPbc	**PKPdf**	**05 07 16.5**	**-2.2**
	4.6nm,1.1s,baz=23,slow=4.5,SNR=4.7						

THE 13 04:53:19.8, 37°.8N±0°.8×27°.0E±0°.7, h6km±1km, M3.4/13, MLh3.4/13
AFAD 13 04:53:19.0, 37°.81N×26°.94E, h7km±2km, MW3.4
ISK 13 04:53:19.1, 37°.83N×26°.98E, h14km, ML3.7/15
ATH 13 04:53:19.9, 37°.76N×26°.89E, h15km±4km, ML3.0/12, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km

ISC 13 04:53:19.4±0.8, 37°.81N±0°.01×26°.97E±0°.02, h12km±6km, n71, σ0$61/110, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**224**	P	**Pg**	**04 53 23.0**	**0.0**
SMG				S	**Sg**	**04 53 25.4**	**0.0**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.24**	**118**	P	**Pg**	**04 53 24.7**	**+0.2**
GCAM				S	**Sg**	**04 53 28.5**	**+0.7**
GCAM				IAML		04 53 29.0	
	comp=N,9μm,0.3s						
GCAM				IAML		04 53 29.0	
	comp=E,8μm,0.4s						
GCAM	**G?zelcaml?**	**0.24**	**118**	Pg	**Pg**	**04 53 24.7**	**+0.2**
GCAM				Sg	**Sg**	**04 53 28.8**	**+0.9**
GCAM				AML	AML		
DGB	**zmir**	**0.25**	**345**	P	**Pg**	**04 53 24.4**	**-0.2**
DGB				S	**Sg**	**04 53 27.4**	**-0.7**
DGB				IAML		04 53 30.0	
	comp=N,2μm,0.5s						
DGB				IAML		04 53 30.0	
	comp=E,2μm,0.2s						
KUSD	**Kusadasi-Aydin**	**0.26**	**79**	Pg	**Pg**	**04 53 24.7**	**-0.1**
KUSD				Sg	**Sg**	**04 53 28.8**	**+0.3**
GMLD	**Gumuldur**	**0.27**	**352**	Pg	**Pg**	**04 53 24.9**	**-0.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.41**	**356**	P	**Pg**	**04 53 27.6**	**-0.1**
BEYE				S	**Sg**	**04 53 33.1**	**-0.1**
DDIM	**Aydin, Didim**	**0.42**	**148**	P	**Pg**	**04 53 28.0**	**+0.3**
DDIM				S	**Sg**	**04 53 33.8**	**+0.6**
DDIM				IAML		04 53 34.0	
	comp=N,3μm,0.3s						
DDIM				IAML		04 53 34.0	
	comp=E,3μm,0.6s						
DIDI	**Didim-Aydin**	**0.49**	**153**	Pg	**Pg**	**04 53 29.2**	**+0.2**
DIDI				Sg	**Sb**	**04 53 36.9**	**-0.1**
DIDI				AML	AML		
DUVT	**Torbali**	**0.56**	**43**	P	**Pg**	**04 53 30.2**	**-0.1**
DUVT				S	**Sg**	**04 53 36.6**	**-1.1**
DUVT				IAML		04 53 42.0	
	comp=E,1μm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.56**	**320**	P	**Pg**	**04 53 29.9**	**-0.5**
ZEYE				IAML		04 53 38.0	
	comp=N,1μm,0.4s						
ZEYE				IAML		04 53 38.0	
	comp=E,3μm,0.2s						
ZEYE				S	**Sg**	**04 53 38.3**	**+0.5**
BLCB	**Balcova**	**0.57**	**6**	P	**Pg**	**04 53 30.4**	**-0.3**
BLCB				S	**Sg**	**04 53 38.5**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**6**	Pg	**Pg**	**04 53 30.4**	**-0.3**
YKAV	**Yalikavak-Bodr**	**0.73**	**160**	Pg	**Pb**	**04 53 34.0**	**-0.1**
CESE	**eme**	**0.74**	**315**	Pg	**Pg**	**04 53 33.8**	**+0.1**
CESE				Sg	**Sb**	**04 53 44.5**	**+0.2**
CESE				AML	AML		
AYDN	**Tasoluk**	**0.74**	**102**	P	**Pg**	**04 53 33.9**	**+0.1**
AYDN				IAML		04 53 47.0	
	comp=N,497nm,0.5s						
AYDN				IAML		04 53 48.0	
	comp=E,1μm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.74**	**79**	Pg	**Pg**	**04 53 33.8**	**-0.1**
AYDB				Sg	**Sb**	**04 53 44.3**	**-0.3**
AYDB				AML	AML		
BODT	**Bodrum**	**0.80**	**160**	P	**Pg**	**04 53 34.8**	**-0.1**
BODT				S	**Sb**	**04 53 46.6**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**160**	Pg	**Pg**	**04 53 34.7**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.83**	**128**	Pg	**Pb**	**04 53 35.6**	**-0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.84**	**153**	P	**Pg**	**04 53 35.2**	**-0.4**
BDRM				S	**Sg**	**04 53 46.4**	**-0.2**
BDRM				IAML		04 53 50.0	
	comp=N,1μm,0.3s						
BDRM				IAML		04 53 50.0	
	comp=E,946nm,0.4s						
IZMR	**zmir-demi**	**0.84**	**67**	P	**Pb**	**04 53 36.3**	**+0.2**
IZMR				S	**Sg**	**04 53 45.3**	**-1.5**
IZMR				IAML		04 53 50.0	
	comp=N,244nm,0.4s						
IZMR				IAML		04 53 51.0	
	comp=E,317nm,0.5s						
KRBN	**Karaburun**	**0.84**	**338**	Pg	**Pb**	**04 53 36.0**	**-0.1**
BAGT	**Foa**	**0.85**	**354**	P	**Pb**	**04 53 35.9**	**-0.1**
BAGT				S	**Sb**	**04 53 47.3**	**-0.1**
BAGT				IAML		04 53 50.0	
	comp=N,2μm,0.6s						
BAGT				IAML		04 53 51.0	
	comp=E,1μm,0.3s						
KLNA	**Kalymnos**	**0.85**	**180**	P	**Pg**	**04 53 35.5**	**-0.4**
KLNA				S	**Sg**	**04 53 47.0**	**-0.1**
BODA	**Bodrum-Mula**	**0.86**	**154**	Pg	**Pg**	**04 53 35.9**	**-0.2**
FOCM	**Foa**	**0.92**	**348**	Pg	**Pg**	**04 53 36.9**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.92**	**309**	P	**Pb**	**04 53 37.4**	**0.0**
CHOS				S	**Sb**	**04 53 50.3**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**309**	Pg	**Pb**	**04 53 37.4**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**309**	P	**Pg**	**04 53 37.1**	**-0.1**
CHOS				S	**Sb**	**04 53 50.1**	**+0.5**
KARB	**zmir-Karabur**	**0.95**	**333**	P	**Pg**	**04 53 37.0**	**-0.9**
KARB				S	**Sg**	**04 53 50.4**	**+0.1**
KARB				IAML		04 53 52.0	
	comp=N,1μm,0.3s						
KARB				IAML		04 53 53.0	
	comp=E,991nm,0.3s						
CAMT	**Merkez**	**0.97**	**16**	P	**Pb**	**04 53 38.3**	**0.0**
CAMT				S	**Sb**	**04 53 51.8**	**+0.7**
CAMT				IAML		04 53 54.0	
	comp=E,840nm,0.5s						
CAMT				IAML		04 53 58.0	
	comp=N,907nm,0.7s						
NAZL	**Nazilli-Aydin**	**1.06**	**81**	Pg	**Pg**	**04 53 39.2**	**-0.7**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.10**	**90**	P	**Pn**	**04 53 40.7**	**+0.1**
ESEN				S	**Sb**	**04 53 54.9**	**+0.4**
ESEN				IAML		04 53 58.0	
	comp=N,129nm,0.3s						
ESEN				IAML		04 53 59.0	
	comp=E,145nm,0.3s						
ZEDA	**zmir-Bergama**	**1.16**	**4**	P	**Pb**	**04 53 41.4**	**0.0**
ZEDA				S	**Sn**	**04 53 57.3**	**+0.1**
ZEDA				IAML		04 54 00.0	
	comp=N,522nm,0.5s						
ZEDA				IAML		04 54 00.0	
	comp=E,711nm,0.5s						
GOMA	**Golmarmara-Man**	**1.17**	**40**	Pn	**Pn**	**04 53 41.6**	**0.0**
GOMA				AML	AML		
DAT	**Datca**	**1.19**	**156**	P	**Pb**	**04 53 41.6**	**-0.3**
DAT				S	**Sn**	**04 53 59.0**	**+0.8**
DAT				AML	AML		
DAT	**Datca**	**1.19**	**156**	Pn	**Pb**	**04 53 41.8**	**-0.2**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.19**	**152**	Pn	**Pb**	**04 53 41.9**	**0.0**
DATC				AML	AML		
YAZI	**Mula-Dat§a-**	**1.20**	**161**	P	**Pb**	**04 53 41.2**	**-0.8**
YAZI				S	**Sg**	**04 53 58.0**	**0.0**
YAZI				IAML		04 54 03.0	
	comp=N,182nm,0.6s						
YAZI				IAML		04 54 04.0	
	comp=E,188nm,0.4s						
KIRA	**zmir-Kiraz**	**1.20**	**71**	P	**Pb**	**04 53 41.9**	**-0.2**
KIRA				S	**Sb**	**04 53 56.0**	**-1.6**
KIRA				IAML		04 53 59.0	
	comp=N,164nm,0.5s						
KIRA				IAML		04 53 59.0	
	comp=E,138nm,0.2s						
MULA	**Mugla, Merkez-**	**1.21**	**117**	P	**Pb**	**04 53 41.6**	**-0.8**
MULA				S	**Sb**	**04 53 57.2**	**-0.9**
MULA				IAML		04 54 00.0	
	comp=N,184nm,0.9s						
MULA				IAML		04 54 04.0	
	comp=E,273nm,0.5s						
KTTT	**Salihli**	**1.25**	**45**	P	**Pn**	**04 53 42.5**	**-0.2**
KTTT				S	**Sb**	**04 53 58.2**	**-0.8**
KTTT				IAML		04 54 02.0	
	comp=N,425nm,0.5s						
KTTT				IAML		04 54 29.0	
	comp=E,1.9nm,1.3s						
YER	**Yerkesik**	**1.25**	**122**	P	**Pb**	**04 53 42.9**	**0.0**
YER				S	**Sn**	**04 54 00.8**	**+1.3**
YER	**Yerkesik**	**1.25**	**122**	Pn	**Pn**	**04 53 42.6**	**-0.2**
YER				AML	AML		
AKHS	**Akhisar**	**1.26**	**32**	P	**Pn**	**04 53 42.7**	**-0.1**
AKHS				S	**Sb**	**04 53 59.1**	**-0.1**
AKHS				IAML		04 54 09.0	
	comp=N,401nm,0.5s						
AKHS				IAML		04 54 30.0	
	comp=E,0.3nm,1.2s						
AKS	**Akhisar**	**1.26**	**32**	Pn	**Pn**	**04 53 41.8**	**-1.1**
DKL	**Dikili**	**1.26**	**358**	P	**Pn**	**04 53 42.5**	**-0.3**
DKL				S	**Sn**	**04 54 01.4**	**+1.7**
ASTA	**Astypalaia**	**1.36**	**201**	P	**Pn**	**04 53 44.0**	**-0.2**
ASTA				AML	AML		
APE	**Apeiranthos**	**1.36**	**237**	P	**Pg**	**04 53 45.7**	**0.0**
APE				S	**Sg**	**04 54 05.1**	**+1.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.36**	**237**	P	**Pn**	**04 53 43.4**	**-0.9**
APE				S	**Sb**	**04 54 00.4**	**-1.9**
MANT	**Manisa**	**1.43**	**61**	P	**Pg**	**04 53 47.6**	**+0.8**
MANT				IAML		04 54 14.0	
	comp=N,109nm,0.7s						
MANT				IAML		04 54 14.0	
	comp=E,90nm,0.7s						
TURN	**Turunc**	**1.45**	**135**	Pn	**Pn**	**04 53 44.9**	**-0.6**
TURN				AML	AML		
TNSA	**Tinos**	**1.46**	**260**	P	**Pn**	**04 53 44.8**	**-0.7**
TNSA				AML	AML		
AYVA	**Ayvalik**	**1.51**	**352**	P	**Pg**	**04 53 48.1**	**-0.3**
AYVA				S	**Sg**	**04 54 08.1**	**+0.1**
AYVA				IAML		04 54 11.0	
	comp=N,397nm,0.8s						
AYVA				IAML		04 54 12.0	
	comp=E,296nm,0.3s						
PRK	**Paraskevi**	**1.53**	**339**	P	**Pb**	**04 53 47.4**	**-0.4**
PRK				S	**Sb**	**04 54 07.9**	**+0.7**
PRK				AML	AML		
PRK	**Paraskevi**	**1.53**	**339**	P	**Pb**	**04 53 47.4**	**-0.4**
ARG	**Arkhangelos**	**1.84**	**149**	P	**Pn**	**04 53 51.0**	**+0.1**
ARG				S	**Sb**	**04 54 16.4**	**+0.2**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.84**	**149**	P	**Pn**	**04 53 50.9**	**0.0**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.87**	**220**	P	**Pn**	**04 53 50.2**	**-1.1**
SAP3	**Santorini-Thir**	**1.89**	**224**	P	**Pb**	**04 53 53.1**	**-0.7**
SAP3				S	**Sb**	**04 54 18.0**	**+0.6**
SAP3				AML	AML		
KARY	**Karystos**	**2.01**	**277**	P	**Pn**	**04 53 52.7**	**-0.5**
EZN	**Ezine**	**2.07**	**346**	P	**Pn**	**04 53 55.4**	**+1.4**
EZN				S	**Sb**	**04 54 22.3**	**-0.3**
KARP	**Karpathos**	**2.27**	**176**	P	**Pn**	**04 53 56.3**	**-0.4**
KARP				AML	AML		

ROSC	**El Rosal**	**2.35**	**209**	P	**Pn**	**05 07 32.0**	**+1.4**
ROSC				S	**Sn**	**05 08 00.9**	**0.0**
UREC	**San Jos de Ur**	**2.50**	**290**	P	**Pn**	**05 07 30.4**	**-1.6**
UREC				S	**Sn**	**05 08 02.1**	**-1.5**
GUY2C	**Guyana, Caldas**	**2.75**	**233**	P	**Pn**	**05 07 37.2**	**+1.6**
GUY2C				S	**Sn**	**05 08 10.2**	**+0.2**
SJCC	**San Jacinto, C**	**3.58**	**326**	P	**Pn**	**05 07 46.0**	**+0.1**
SJCC				S	**Sn**	**05 08 27.8**	**-0.6**
PRAC	**Prado**	**3.60**	**209**	P	**Pn**	**05 07 45.6**	**-0.5**
PRAC				S	**Sn**	**05 08 28.8**	**0.0**
ORTC	**Ortega, Tolima**	**3.63**	**215**	P	**Pn**	**05 07 46.1**	**-0.3**
ORTC				S	**Sn**	**05 08 32.0**	**+2.7**

KRSC ***13*** *05:09:50.1±0.5, 55°.64N×162°.16E, h80km±9km, Mc4.4, Ml4.7*
MOS ***13*** *05:09:51.6±0.8, 55°.69N×162°.00E, h79km, mb4.8/19, Error ellipse: s-maj=7.4km s-min=3.7km az=78.1*
NEIC ***13*** *05:09:53.5±1.2, 55°.77N±0°.10×161°.6E±0°.2, h76km±7km, mb4.4/55, Error ellipse: s-maj=16.6km s-min=12.0km az=128.0*
IDC ***13*** *05:09:54.3±1.9, 55°.73N×161°.76E, h84km±17km, mb4.1/30, mbtmp4.4/31, MS3.6/5, Error ellipse: s-maj=12.1km s-min=9.7km az=131.0*
GFZ ***13*** *05:09:54.3±1.2, 56°N±11°×16°2E±°, h78km±14km, M4.7/32, mb4.7/32, Error ellipse: s-maj=24.6km s-min=11.8km az=10.2, confirmed*
ISC 13 05:09:53.0±0.5,**55°.64N**±0°.02×**162°.12E**±0°.03,**h76**km±4km**, n349,**σ1**1**5**/394,**mb4.5**/118,**6C-1D,Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBTR	**Krutoberegovo**	**0.69**	**34**	PN	**Pn**	**05 10 06.7**	**-1.5**
KBTR	**Krutoberegovo**	**0.69**	**34**	*eP*	**Pn**	**05 10 06.7**	**-1.5**
KBG	**Krutoberegovo**	**0.70**	**28**	PN	**Pn**	**05 10 06.6**	**-1.7**
KBG				S	**Sn**	**05 10 18.9**	**-0.7**
KBG	**Krutoberegovo**	**0.70**	**28**	*i* P	**Pn**	**05 10 06.7**	**-1.7**
KBG				*eS*	**Sn**	**05 10 18.9**	**-0.7**
ZLN	**Zelenaya**	**0.83**	**298**	PN	**Pn**	**05 10 09.1**	**-0.8**
ZLN	**Zelenaya**	**0.83**	**298**	*eP*	**Pn**	**05 10 09.1**	**-0.8**
BZGR	**Bezymyannyi-Gr**	**0.86**	**291**	PN	**Pn**	**05 10 08.8**	**-1.4**
BZGR				S	**Sn**	**05 10 21.5**	**-1.5**
BZGR	**Bezymyannyi-Gr**	**0.86**	**291**	*eP*	**Pn**	**05 10 08.8**	**-1.4**
BZGR				*eS*	**Sn**	**05 10 21.5**	**-1.5**
CIRR	**Tsirk**	**0.91**	**302**	PN	**Pn**	**05 10 09.6**	**-1.2**
CIRR	**Tsirk**	**0.91**	**302**	*eP*	**Pn**	**05 10 09.6**	**-1.2**
LGNR	**Loginova**	**0.92**	**299**	PN	**Pn**	**05 10 10.0**	**-1.1**
LGNR	**Loginova**	**0.92**	**299**	*eP*	**Pn**	**05 10 10.0**	**-1.1**
BZP	**Bezymyannyi-Pe**	**0.94**	**288**	PN	**Pn**	**05 10 10.1**	**-1.1**
BZP	**Bezymyannyi-Pe**	**0.94**	**288**	*eP*	**Pn**	**05 10 10.1**	**-1.1**
BZMR	**Bezymyannaya**	**0.97**	**289**	PN	**Pn**	**05 10 10.5**	**-1.0**
BZMR	**Bezymyannaya**	**0.97**	**289**	*eP*	**Pn**	**05 10 10.6**	**-1.0**
BZWR	**Bezymyannyi-We**	**0.97**	**290**	PN	**Pn**	**05 10 10.8**	**-0.8**
BZWR				S	**Sn**	**05 10 25.0**	**-0.5**
BZWR	**Bezymyannyi-We**	**0.97**	**290**	*eP*	**Pn**	**05 10 10.8**	**-0.8**
BZWR				*eS*	**Sn**	**05 10 25.1**	**-0.5**
SMKR	**Semkarok**	**1.01**	**339**	PN	**Pn**	**05 10 11.0**	**-1.0**
SMKR	**Semkarok**	**1.01**	**339**	*i* P	**Pn**	**05 10 11.0**	**-1.0**
KRSR	**Krestovskiy**	**1.05**	**304**	PN	**Pn**	**05 10 11.0**	**-1.5**
KRSR				S	**Sn**	**05 10 25.1**	**-1.9**
KRSR	**Krestovskiy**	**1.05**	**304**	*eP*	**Pn**	**05 10 11.0**	**-1.5**
KRSR				*eS*	**Sn**	**05 10 25.1**	**-1.9**
KIRR	**Kirishev**	**1.05**	**288**	PN	**Pn**	**05 10 11.6**	**-1.0**
KIRR	**Kirishev**	**1.05**	**288**	*eP*	**Pn**	**05 10 11.6**	**-1.0**
BDR	**Baidarnaya**	**1.06**	**332**	PN	**Pn**	**05 10 11.8**	**-0.8**
BDR	**Baidarnaya**	**1.06**	**332**	*eP*	**Pn**	**05 10 11.9**	**-0.8**
KLY	**Klyuchi**	**1.07**	**310**	PN	**Pn**	**05 10 10.1**	**-2.5**
KLY				S	**Sn**	**05 10 24.4**	**-2.8**
KLY	**Klyuchi**	**1.07**	**310**	*eP*	**Pn**	**05 10 10.2**	**-2.5**
KLY				*eS*	**Sn**	**05 10 24.4**	**-2.8**
KMNR	**Kamenistaya**	**1.07**	**277**	PN	**Pn**	**05 10 11.5**	**-1.3**
KMNR	**Kamenistaya**	**1.07**	**277**	*eP*	**Pn**	**05 10 11.5**	**-1.3**
TUMD	**Tumrok D**	**1.07**	**247**	PN	**Pn**	**05 10 11.1**	**-1.6**
TUMD				S	**Sn**	**05 10 25.6**	**-1.8**
TUMD	**Tumrok D**	**1.07**	**247**	*eP*	**Pn**	**05 10 11.1**	**-1.6**
TUMD				*eS*	**Sn**	**05 10 25.7**	**-1.8**
MKZ	**Mys Kozlova**	**1.11**	**192**	PN	**Pn**	**05 10 11.4**	**-1.7**
MKZ				S	**Sn**	**05 10 26.4**	**-1.7**
MKZ	**Mys Kozlova**	**1.11**	**192**	*eP*	**Pn**	**05 10 11.4**	**-1.7**
MKZ				*eS*	**Sn**	**05 10 26.5**	**-1.7**
KPT	**Kopyto**	**1.12**	**288**	PN	**Pn**	**05 10 12.3**	**-1.1**
KPT	**Kopyto**	**1.12**	**288**	*eP*	**Pn**	**05 10 12.3**	**-1.1**
SRKR	**Sorokina**	**1.15**	**333**	PN	**Pn**	**05 10 12.9**	**-0.8**
SRKR	**Sorokina**	**1.15**	**333**	*eP*	**Pn**	**05 10 12.9**	**-0.8**
KZV	**Kizimen**	**1.17**	**244**	PN	**Pn**	**05 10 12.6**	**-1.4**
KZV	**Kizimen**	**1.17**	**244**	*eP*	**Pn**	**05 10 12.6**	**-1.4**
TUMR	**Tumrok**	**1.18**	**253**	PN	**Pn**	**05 10 13.4**	**-0.7**
TUMR				S	**Sn**	**05 10 29.5**	**-0.5**
TUMR	**Tumrok**	**1.18**	**253**	*eP*	**Pn**	**05 10 13.4**	**-0.7**
TUMR				*eS*	**Sn**	**05 10 29.5**	**-0.5**
KOZ	**Kozyrevsk**	**1.33**	**289**	PN	**Pn**	**05 10 15.4**	**-0.6**
KOZ				S	**Sn**	**05 10 34.0**	**+0.7**
KOZ	**Kozyrevsk**	**1.33**	**289**	*eP*	**Pn**	**05 10 15.4**	**-0.6**
KOZ				*eS*	**Sn**	**05 10 34.1**	**+0.7**
SRDR	**Sredinnyy**	**1.51**	**298**	PN	**Pn**	**05 10 17.0**	**-1.3**
SRDR				S	**Sn**	**05 10 37.4**	**-0.1**
SRDR	**Sredinnyy**	**1.51**	**298**	*eP*	**Pn**	**05 10 17.1**	**-1.3**
SRDR				*eS*	**Sn**	**05 10 37.5**	**-0.1**
ESO	**Esso**	**1.95**	**280**	PN	**Pn**	**05 10 22.4**	**-1.7**
ESO	**Esso**	**1.95**	**280**	*eP*	**Pn**	**05 10 22.5**	**-1.7**
KII	**Karymskiy**	**2.23**	**225**	PN	**Pn**	**05 10 27.5**	**-0.4**
KII	**Karymskiy**	**2.23**	**225**	*eP*	**Pn**	**05 10 27.6**	**-0.4**
BKI	**Bering**	**2.24**	**100**	PN	**Pn**	**05 10 26.7**	**-1.2**
BKI				S	**Sn**	**05 10 52.7**	**-1.9**
BKI	**Bering**	**2.24**	**100**	*eP*	**Pn**	**05 10 26.8**	**-1.2**
BKI				*eS*	**Sn**	**05 10 52.8**	**-1.9**
SPN	**Mys Shipunski**	**2.83**	**207**	PN	**Pn**	**05 10 34.5**	**-1.3**
SPN				S	**Sn**	**05 11 07.8**	**-1.1**
SPN	**Mys Shipunski**	**2.83**	**207**	*eP*	**Pn**	**05 10 34.6**	**-1.3**
SPN				*eS*	**Sn**	**05 11 07.8**	**-1.1**
TIGL	**Tigil**	**2.86**	**320**	PN	**Pn**	**05 10 35.4**	**-0.8**
TIGL	**Tigil**	**2.86**	**320**	*eP*	**Pn**	**05 10 35.4**	**-0.8**
NLC	**Nalytchevo**	**2.96**	**214**	PN	**Pn**	**05 10 37.2**	**-0.4**
NLC				S	**Sn**	**05 11 11.5**	**-0.5**
NLC	**Nalytchevo**	**2.96**	**214**	*eP*	**Pn**	**05 10 37.2**	**-0.4**
NLC				*eS*	**Sn**	**05 11 11.5**	**-0.5**
SDLR	**Sedlovina**	**3.03**	**220**	PN	**Pn**	**05 10 38.4**	**-0.3**
SDLR	**Sedlovina**	**3.03**	**220**	*eP*	**Pn**	**05 10 38.5**	**-0.3**
KRX	**Arik**	**3.05**	**223**	PN	**Pn**	**05 10 39.3**	**+0.2**
KRX	**Arik**	**3.05**	**223**	*eP*	**Pn**	**05 10 39.4**	**+0.2**
KRER	**Koryakskii**	**3.06**	**221**	PN	**Pn**	**05 10 39.4**	**+0.2**
KRER	**Koryakskii**	**3.06**	**221**	*eP*	**Pn**	**05 10 39.5**	**+0.2**
SMAR	**Somma**	**3.07**	**220**	PN	**Pn**	**05 10 39.3**	**-0.1**
SMAR	**Somma**	**3.07**	**220**	*eP*	**Pn**	**05 10 39.4**	**-0.1**
AVH	**Avacha**	**3.09**	**221**	PN	**Pn**	**05 10 39.7**	**+0.2**
AVH	**Avacha**	**3.09**	**221**	*eP*	**Pn**	**05 10 39.7**	**+0.2**
UGLR	**Uglovaya**	**3.10**	**220**	PN	**Pn**	**05 10 40.0**	**+0.3**
UGLR	**Uglovaya**	**3.10**	**220**	*eP*	**Pn**	**05 10 40.1**	**+0.3**
KOK	**Koryaka**	**3.11**	**222**	PN	**Pn**	**05 10 40.2**	**+0.4**
KOK	**Koryaka**	**3.11**	**222**	*eP*	**Pn**	**05 10 40.3**	**+0.4**
GNL	**Ganaly**	**3.11**	**233**	PN	**Pn**	**05 10 40.1**	**+0.2**
GNL	**Ganaly**	**3.11**	**233**	*eP*	**Pn**	**05 10 40.1**	**+0.2**
DALK	**Dalny**	**3.27**	**218**	PN	**Pn**	**05 10 41.8**	**-0.1**
DALK				S	**Sn**	**05 11 19.6**	**-0.1**
DALK	**Dalny**	**3.27**	**218**	*eP*	**Pn**	**05 10 41.8**	**-0.1**
DALK				*eS*	**Sn**	**05 11 19.6**	**-0.1**
INSR	**Institute**	**3.30**	**220**	PN	**Pn**	**05 10 40.8**	**-1.5**
INSR	**Institute**	**3.30**	**220**	*eP*	**Pn**	**05 10 40.8**	**-1.5**
PET	**Petropavlovsk**	**3.31**	**219**	*e*PN	**Pn**	**05 10 42.3**	**-0.2**
PET				*e*S	**Sn**	**05 11 20.6**	**-0.1**
PET				pmax	pmax		
	comp=Z,155nm,0.5s						
PET				smax	smax		
	comp=E,576nm,0.4s						
PET				smax	smax		
	comp=N,907nm,0.5s						
PET				MLR	MLR		
	comp=Z,200nm,13.0s						
PET				MLR	MLR		
	comp=Z,400nm,12.0s						
PET	**Petropavlovsk**	**3.31**	**219**		**Pn**	**05 10 42.3**	**-0.2**
PET	**Petropavlovsk**	**3.31**	**219**	*eP*	**Pn**	**05 10 42.3**	**-0.2**
PET				*eS*	**Sn**	**05 11 20.0**	**-0.7**
PET	**Petropavlovsk**	**3.31**	**219**	P	**Pn**	**05 10 43.9**	**+1.4**
PET	**Petropavlovsk**	**3.31**	**219**	P	**Pn**	**05 10 42.9**	**+0.4**
PEA0B	**Petropavlovsk-**	**3.62**	**227**	PN	**Pn**	**05 10 46.9**	**+0.2**
PEA0B	**Petropavlovsk-**	**3.62**	**227**		**Pn**	**05 10 47.1**	**+0.4**
PETK	**Petropavlovsk-**	**3.62**	**227**	P	**Pn**	**05 10 47.0**	**+0.3**
	comp=Z,32nm,0.5s,baz=56,slow=15,SNR=59						
PETK				S	**Sn**	**05 11 28.2**	**0.0**
	comp=Z,27nm,0.5s,baz=73,slow=22,SNR=4.7						
PETK				LR	LR	05 12 30.8	
	comp=Z,221nm,19.6s,baz=49,slow=44						
PETK	**Petropavlovsk-**	**3.62**	**227**	PN	**Pn**	**05 10 46.5**	**-0.2**
PETK	**Petropavlovsk-**	**3.62**	**227**		**Pn**	**05 10 46.5**	**-0.2**
PALN	**Palana**	**3.65**	**342**	PN	**Pn**	**05 10 47.3**	**+0.3**
PALN	**Palana**	**3.65**	**342**	*eP*	**Pn**	**05 10 47.3**	**+0.3**
OSSR	**Ossora**	**3.66**	**8**	PN	**Pn**	**05 10 45.8**	**-1.2**
OSSR				S	**Sn**	**05 11 27.3**	**-1.6**
OSSR	**Ossora**	**3.66**	**8**	*eP*	**Pn**	**05 10 45.9**	**-1.2**
OSSR				*eS*	**Sn**	**05 11 27.3**	**-1.6**
KRMR	**Karymshinskiy**	**3.66**	**221**	PN	**Pn**	**05 10 47.6**	**+0.4**
KRMR				S	**Sn**	**05 11 30.8**	**+1.7**
KRMR	**Karymshinskiy**	**3.66**	**221**	*eP*	**Pn**	**05 10 47.7**	**+0.4**
KRMR				*eS*	**Sn**	**05 11 30.8**	**+1.7**
RUS	**Russkaya**	**3.85**	**215**	PN	**Pn**	**05 10 49.4**	**-0.4**
RUS				S	**Sn**	**05 11 32.7**	**-1.1**
RUS	**Russkaya**	**3.85**	**215**	*eP*	**Pn**	**05 10 49.5**	**-0.4**
RUS				*eS*	**Sn**	**05 11 32.8**	**-1.1**
GRL	**Gorelyy**	**3.90**	**219**	PN	**Pn**	**05 10 52.1**	**+1.5**
GRL	**Gorelyy**	**3.90**	**219**	*eP*	**Pn**	**05 10 52.2**	**+1.5**
MTVR	**Mutnovka**	**3.92**	**218**	PN	**Pn**	**05 10 51.5**	**+0.6**
MTVR	**Mutnovka**	**3.92**	**218**	*eP*	**Pn**	**05 10 51.5**	**+0.6**
APC	**Apacha**	**3.98**	**229**	PN	**Pn**	**05 10 52.4**	**+0.9**
APC	**Apacha**	**3.98**	**229**	*eP*	**Pn**	**05 10 52.5**	**+0.9**
ASAK	**Asacha**	**4.10**	**219**	PN	**Pn**	**05 10 54.2**	**+0.9**
ASAK	**Asacha**	**4.10**	**219**	*eP*	**Pn**	**05 10 54.3**	**+0.9**
KDTR	**Khodutka, Kamc**	**4.53**	**214**	PN	**Pn**	**05 10 58.1**	**-0.8**
KDTR	**Khodutka, Kamc**	**4.53**	**214**	*eP*	**Pn**	**05 10 58.2**	**-0.8**
PAU	**Pauzhetka**	**5.24**	**219**	PN	**Pn**	**05 11 09.9**	**+1.2**
PAU	**Pauzhetka**	**5.24**	**219**	*eP*	**Pn**	**05 11 09.9**	**+1.2**
TILK	**Tilichiki**	**5.27**	**22**	PN	**Pn**	**05 11 09.3**	**+0.2**
TILK	**Tilichiki**	**5.27**	**22**	*eP*	**Pn**	**05 11 09.4**	**+0.2**
MA2	**Magadan**	**7.26**	**308**	PN	Pn	05 11 30.4	-5.8
MA2	**Magadan**	**7.26**	**308**	Pn	Pn	05 11 30.4	-5.8
YAK	**Yakutsk**	**17.82**	**304**	*eP*	**P**	**05 13 53.9**	**-1.3**
YAK				*eS*	**Sn**	**05 17 13.4**	**+0.1**
YAK				pmax	pmax		
	comp=Z,20nm,1.0s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.2s						
YAK				smax	smax		
	comp=E,39nm,2.3s						
YAK				smax	smax		
	comp=N,50nm,3.0s						
ERM	**Erimo**	**18.40**	**230**	P	**P**	**05 14 01.7**	**-0.1**
ERM				pmax	pmax		
	comp=Z,73nm,1.3s						
ERM	**Erimo**	**18.40**	**230**	P	**P**	**05 14 01.7**	**-0.1**
L14K	**Kuka Creek**	**19.08**	**58**	P	**Pn**	**05 14 10.8**	**+0.2**
L14K				IAmb	IAmb	05 14 33.0	
	comp=Z,38nm,1.4s						
KLR	**Kul'dur**	**19.49**	**264**	P	**P**	**05 14 11.5**	**-2.1**
	comp=Z,1.5nm,0.5s,baz=61,slow=11,SNR=3.1						
KLR	**Kul'dur**	**19.49**	**264**	*eP*	**P**	**05 14 13.2**	**-0.4**
K15K	**Wolf Creek Mou**	**19.67**	**55**	P	**Pn**	**05 14 17.5**	**0.0**
K15K				IAmb	IAmb	05 14 46.7	
	comp=Z,25nm,1.3s						
JTM	**Tenmabayashi**	**20.31**	**232**	P	**P**	**05 14 22.3**	**-0.4**
N15K	**Kwethluk River**	**20.38**	**62**	P	Pn	05 14 25.3	-0.6
N15K				IAmb	IAmb	05 14 29.3	
	comp=Z,25nm,1.0s						
F17K	**Baldwin Pennin**	**20.42**	**43**	P	Pn	05 14 25.1	-1.2
F17K				IAmb	IAmb	05 14 48.5	
	comp=Z,41nm,1.5s						
H17K	**Granite Mounta**	**20.66**	**48**	P	**P**	**05 14 27.1**	**+0.9**
TIXI	**Tiksi**	**21.33**	**331**	P	**P**	**05 14 33.0**	**-0.3**
	comp=Z,10nm,0.4s,baz=123,slow=11,SNR=44						
TIXI				LR	LR	05 22 48.6	
	comp=Z,69nm,18.7s,baz=189,slow=37						
	comp=Z,10nm,0.4s						
TIXI	**Tiksi**	**21.33**	**331**	*eP*	**P**	**05 14 34.0**	**+0.7**
TIXI				pmax	pmax		
	comp=Z,29nm,0.9s						
TIXI	**Tiksi**	**21.33**	**331**	P	**P**	**05 14 33.5**	**+0.3**
TIXI				IAmb	IAmb	05 14 36.1	
	comp=Z,27nm,1.0s						
TIXI	**Tiksi**	**21.33**	**331**	P	**P**	**05 14 34.3**	**+1.0**
	comp=Z,39nm,1.1s						
HEH	**HeiHe**	**21.44**	**270**	*eP*	**P**	**05 14 32.6**	**-2.0**
HEH				pmax	pmax		
	comp=Z,9.0nm,0.6s						
J19K	**Poorman**	**22.43**	**51**	P	**P**	**05 14 45.7**	**+0.6**
J20K	**Nowinta River**	**23.08**	**51**	P	**P**	**05 14 52.6**	**+0.8**
J20K				IAmb	IAmb	05 14 53.6	
	comp=Z,13nm,1.0s						
IMAR	**Indian Mountai**	**23.34**	**46**	P	**P**	**05 14 54.5**	**+0.2**
F21K	**Alatna River**	**23.59**	**43**	P	**P**	**05 14 57.8**	**+1.3**
F21K				IAmb	IAmb	05 14 58.6	
	comp=Z,10nm,0.8s						
CAST	**Castle Rocks**	**24.00**	**52**		**P**	**05 15 01.0**	**+0.7**
CAST				IAmb	IAmb	05 15 03.3	
	comp=Z,11nm,1.0s						
I21K	**Tanana**	**24.03**	**48**	P	**P**	**05 15 01.4**	**+0.9**
D22K	**Ayikyak River**	**24.14**	**39**		**P**	**05 15 02.1**	**+0.7**
D22K				IAmb	IAmb	05 15 04.7	
	comp=Z,9.6nm,0.9s						
STLK	**Strandline Lak**	**24.28**	**57**	P	**P**	**05 15 04.5**	**+1.7**
STLK				IAmb	IAmb	05 15 05.7	
	comp=Z,11nm,1.0s						
H22K	**Ishtalitna Cre**	**24.31**	**46**		**P**	**05 15 04.1**	**+1.2**
H22K				IAmb	IAmb	05 15 07.5	
	comp=Z,13nm,1.2s						
BPAW	**Bear Paw Mtn.**	**24.47**	**51**		**P**	**05 15 05.5**	**+1.0**
MLY	**Manley**	**24.56**	**48**		**P**	**05 15 05.9**	**+0.6**
TRF	**Thorofare Moun**	**24.81**	**52**	P	**P**	**05 15 08.6**	**+0.9**
TRF				IAmb	IAmb	05 15 32.0	
	comp=Z,13nm,1.2s						
MJA0	**Matsu Arr-Jizo**	**25.06**	**230**	*eP*	**P**	**05 15 10.1**	**0.0**
MJA0				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MJB9	**Matsu-Tunnel**	**25.07**	**230**	P	**P**	**05 15 10.0**	**-0.2**
MJB9				IAmb	IAmb	05 15 11.7	
	comp=Z,12nm,0.8s						
MAJO	**Matsushiro**	**25.08**	**230**	P	**P**	**05 15 09.5**	**-0.7**
MAJO				pmax	pmax		
	comp=Z,12nm,0.7s						
MAJO	**Matsushiro**	**25.08**	**230**	P	**P**	**05 15 09.5**	**-0.7**
MAJO				IAmb	IAmb	05 15 10.8	
	comp=Z,12nm,0.7s						
MJAR	**Matsushiro Arr**	**25.08**	**230**	P	**P**	**05 15 09.7**	**-0.5**
	comp=Z,7.4nm,0.8s,baz=29,slow=8.9,SNR=7.5						
	comp=Z,7.4nm,0.8s						
I23K	**Minto, Yukon-K**	**25.14**	**48**	P	**P**	**05 15 11.3**	**+0.8**
I23K				IAmb	IAmb	05 15 14.2	
	comp=Z,7.7nm,0.8s						
NEA2	**Nenana**	**25.28**	**49**	P	**P**	**05 15 12.3**	**+0.5**
E24K	**Your Creek**	**25.57**	**41**		**P**	**05 15 15.0**	**+0.5**
WRH	**Wood River Hil**	**25.71**	**50**	P	**P**	**05 15 16.7**	**+1.0**
WRH				IAmb	IAmb	05 15 17.9	
	comp=Z,11nm,0.9s						
COLA	**College**	**25.79**	**49**[1]	*eP*	**P**	**05 15 17.5**	**+1.1**
COLA				pmax	pmax		
	comp=Z,19nm,1.8s						
COLA	**College**	**25.79**	**49**	P	**P**	**05 15 17.0**	**+0.7**
	comp=Z,13nm,1.3s						
CCB	**Clear Creek Bu**	**25.82**	**49**		**P**	**05 15 17.2**	**+0.5**
SML	**Sawmill**	**25.89**	**56**	P	**P**	**05 15 18.7**	**+1.3**
SML				IAmb	IAmb	05 15 31.9	
	comp=Z,24nm,1.3s						
G24K	**Hadweenzic Riv**	**25.91**	**45**		**P**	**05 15 18.5**	**+1.1**
G24K				IAmb	IAmb	05 15 19.4	
	comp=Z,9.6nm,0.7s						
IL31		**26.21**	**49**	P	**P**	**05 15 21.0**	**+0.9**
ILAR	**Eielson Array**	**26.21**	**49**	P	**P**	**05 15 20.5**	**+0.4**
	comp=Z,3.1nm,0.8s,baz=270,slow=8.1,SNR=31						
	comp=Z,3.1nm,0.8s						
ILAR	**Eielson Array**	**26.21**	**49**	*eP*	**P**	**05 15 20.4**	**+0.2**
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
JGF	**Kuroka**	**26.24**	**231**	P	**P**	**05 15 19.9**	**-0.8**
JGF				IAmb	IAmb	05 15 30.5	
	comp=Z,13nm,1.1s						
C27K	**Jago River**	**27.40**	**38**	P	**P**	**05 15 31.5**	**+0.7**
CRQM	**Cirque**	**28.56**	**57**	P	**P**	**05 15 43.2**	**+1.8**
KSRS	**Korea Array**	**29.31**	**246**	PcP	**PcP**	**05 18 53.6**	**+0.9**
	comp=Z,0.8nm,0.4s,baz=11,slow=1.3,SNR=5.7						
KSAR	**Wonju Array Be**	**29.34**	**246**	P	**P**	**05 15 46.7**	**-1.6**
KSAR	**Wonju Array Be**	**29.34**	**246**	P	**P**	**05 15 46.7**	**-1.6**
I30M	**Mount Dempster**	**30.57**	**47**		**P**	**05 15 59.7**	**+0.6**
I30M				IAmb	IAmb	05 16 00.9	
	comp=Z,4.2nm,0.8s						
TLY	**Talaya**	**33.99**	**288**	LR	LR	05 32 43.4	
	comp=Z,79nm,20.2s,baz=156,slow=40						
SONM	**Songino Array**	**34.53**	**281**	P	**P**	**05 16 32.9**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=66,slow=7.0,SNR=5.3						
SONM				PcP	**PcP**	**05 19 06.6**	**-0.4**
	comp=Z,1.2nm,0.6s,baz=88,slow=2.0,SNR=8.8						
	comp=Z,0.6nm,0.5s						
SONM	**Songino Array**	**34.53**	**281**	*eP*	**P**	**05 16 33.0**	**-0.9**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	**34.53**	**281**	P	**P**	**05 16 32.1**	**-1.8**
HHC	**Hu-ho-hao-te**	**35.91**	**267**	*eP*	**P**	**05 16 46.0**	**+0.3**
HHC				pmax	pmax		
	comp=Z,15nm,0.5s						
HHC				pmax	pmax		
	comp=Z,210nm,5.9s						
H11N2	**WAKE ISLAND Hy**	**36.03**	**172**	T	T	05 55 37.1	
	baz=356,slow=76,SNR=135						
H11N3	**WAKE ISLAND Hy**	**36.05**	**172**	T	T	05 55 35.8	
	baz=356,slow=76,SNR=23						
H11N1	**WAKE ISLAND Hy**	**36.05**	**172**	T	T	05 55 57.3	
	baz=356,slow=76,SNR=122						
YKA	**Yellowknife Ar**	**40.50**	**45**	P	**P**	**05 17 24.8**	**+0.9**
	comp=Z,3.2nm,0.7s,baz=301,slow=8.2,SNR=6.7						
	comp=Z,3.2nm,0.7s						
YKA	**Yellowknife Ar**	**40.50**	**45**	*eP*	**P**	**05 17 25.0**	**+1.1**
YKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ZALV	**Zalesovo Beam**	**42.43**	**301**	P	**P**	**05 17 38.2**	**-1.5**
	comp=Z,0.4nm,0.4s,baz=50,slow=9.6,SNR=2.3						
ZALV				PcP	**PcP**	**05 19 30.1**	**-1.2**
	comp=Z,0.8nm,0.5s,baz=66,slow=4.9,SNR=4.0						
ZALV				LR	LR	05 35 14.0	
	comp=Z,98nm,19.8s,baz=142,slow=36						
	comp=Z,0.4nm,0.4s						
GTA2	**Gaotai**	**43.51**	**275**	*eP*	**P**	**05 17 50.0**	**+1.2**
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
SPITS	**Spitsbergen Ar**	**44.81**	**351**	P	**P**	**05 17 58.6**	**0.0**
	comp=Z,3.6nm,0.4s,baz=58,slow=9.4,SNR=18						
	comp=Z,3.6nm,0.4s						
WMQ	**Urumqi**	**47.27**	**288**	*eP*	**P**	**05 18 17.3**	**-1.1**
WMQ				pmax	pmax		
	comp=Z,21nm,0.7s						
KURK	**Kurchatov**	**47.42**	**301**	*ce*P	**P**	**05 18 17.1**	**-2.2**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KURBB	**Kurchatov Arra**	**47.52**	**301**	P	**P**	**05 18 18.5**	**-1.6**
	comp=Z,3.2nm,0.4s,baz=55,slow=7.7,SNR=11						
	comp=Z,3.2nm,0.4s						
MK31	**Makanchi Array**	**48.14**	**295**[1]	*eP*	**P**	**05 18 23.4**	**-1.6**
MKAR	**Makanchi Array**	**48.14**	**295**	P	**P**	**05 18 23.3**	**-1.7**
	comp=Z,1.6nm,0.5s,baz=55,slow=7.2,SNR=14						
	comp=Z,1.6nm,0.5s						
MKAR	**Makanchi Array**	**48.14**	**295**	P	**P**	**05 18 22.7**	**-2.4**
BVAR	**Borovoye Array**	**49.75**	**308**	P	**P**	**05 18 35.5**	**-1.7**
	comp=Z,7.8nm,0.5s,baz=57,slow=8.4,SNR=28						
	comp=Z,7.8nm,0.5s						
BORK	**Borovoye**	**49.77**	**308**	*de*P	**P**	**05 18 35.8**	**-1.5**
BORK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
**BORK

MNK	**Minsk**	64.00	332	*i* P		**P**	05 20 18.6 +0.7
	comp=E,7.0nm,1.3s						
MNK				*i* P		**P**	05 20 18.6 +0.7
	comp=N,7.0nm,0.8s						
MNK				*i* P		**P**	05 20 18.6 +0.7
	comp=Z,10.0nm,0.8s,baz=27						
MNK				*i* pP		**pP**	05 20 39.6 +2.0
MNK				*i* PP		**PP**	05 22 39.9 +1.2
MNK				*i* PPP		PPP	05 24 10.2
MNK				*i* S		**S**	05 28 50.0 +2.3
MNK				*i* sS		**sS**	05 29 25.9 +4.2
MNK				*i* SS		**SS**	05 33 01.2 +4.8
MNK				*i* SSS		SSS	05 36 04.1
MNK				*i* LQ		LQ	05 43 40.1
MNK				*i* LR		LR	05 48 42.5
MNK				*i* LRM		MLR	05 50 49.8
	comp=E,156nm,21.4s						
MNK				*i* LRM		MLR	05 50 49.8
	comp=N,56nm,14.2s						
MNK				*i* LRM		MLR	05 51 08.7
	comp=Z,92nm,16.7s						
PABE	**Paberze**	64.08	335	P		**P**	05 20 18.4 +0.1
	comp=Z,49nm,1.1s						
AKASG	**Malin Array Be**	67.03	330	P		**P**	05 20 36.5 -0.9
	comp=Z,2.4nm,0.3s,baz=29,slow=6.8,SNR=13						
	comp=Z,2.4nm,0.3s						
AKASG	**Malin Array Be**	67.03	330	*e*P		**P**	05 20 36.5 -0.9
AKASG				pmax		pmax	
	comp=Z,3.0nm,0.3s						
AKBB	**Malin Array Si**	67.03	330	*e*P		**P**	05 20 35.9 -1.5
AKBB				pmax		pmax	
	comp=Z,5.0nm,0.8s						
KBZ	**Khabaz**	68.49	317	P		**P**	05 20 46.0 -0.7
	comp=Z,1.7nm,0.7s,baz=5.7,slow=2.7,SNR=5.0						
	comp=Z,1.7nm,0.7s						
KBZ	**Khabaz**	68.49	317	*e*P		**P**	05 20 47.4 +0.7
KBZ				pmax		pmax	
	comp=Z,2.0nm,0.7s						
TXAR	**Lajitas Array**	68.58	69	P		**P**	05 20 49.3 +1.6
	comp=Z,1.4nm,0.7s,baz=291,slow=5.1,SNR=19						
	comp=Z,1.4nm,0.7s						
EKA	**Eskdalemuir Ar**	68.73	351	P		**P**	05 20 47.8 -0.3
	comp=Z,2.5nm,0.5s,baz=16,slow=4.9,SNR=18						
	comp=Z,2.5nm,0.5s						
OJC	**Ojcow**	69.94	335	P		**P**	05 20 55.9 +0.3
	comp=Z,14nm,1.0s						
CLZ	**Clausthal**	70.36	342	P		**P**	05 20 58.7 +0.6
	comp=Z,11nm,1.0s						
CLL	**Collm**	70.38	340⇑	*i* P		**P**	05 20 57.7 -0.5
CLL				pmax		pmax	
	comp=Z,6.0nm,0.6s						
CLL	**Collm**	70.38	340	P		**P**	05 20 57.4 -0.8
CLL	**Collm**	70.38	340	P		**P**	05 20 57.8 -0.4
	comp=Z,9.3nm,1.0s						
CLL	**Collm**	70.38	340⇑	*i* P		**P**	05 20 57.7 -0.5
	comp=Z,6.0nm,0.6s						
OSTC	**Ostas**	70.43	338	*e*P		**P**	05 20 58.0 -0.6
OSTC	**Ostas**	70.43	338	*e*P		**P**	05 20 58.0 -0.6
CHVC	**Chvalec**	70.44	338	*e*P		**P**	05 20 57.8 -0.9
CHVC	**Chvalec**	70.44	338	*e*P		**P**	05 20 57.8 -0.9
WIMM	**Wimmelburg**	70.46	341	P		**P**	05 20 58.8 +0.1
	comp=Z,22nm,0.9s						
KOLS	**Kolonicke sedl**	70.52	333	*e*P		**P**	05 20 59.1 -0.1
KOLS	**Kolonicke sedl**	70.52	333	*e*P		**P**	05 20 59.1 -0.1
UPC	**Upice**	70.52	338	*e*P		**P**	05 20 59.1 -0.1
UPC	**Upice**	70.52	338	*e*P		**P**	05 20 59.1 -0.1
UPC	**Upice**	70.52	338	P		**P**	05 20 59.6 +0.5
	comp=Z,13nm,0.9s						
DPC	**Dobruska-Polom**	70.60	338	*e*P		**P**	05 21 00.1 +0.4
DPC	**Dobruska-Polom**	70.60	338	*e*P		**P**	05 21 00.1 +0.4
DPC	**Dobruska-Polom**	70.60	338	P		**P**	05 20 59.7 -0.1
	comp=Z,11nm,1.0s						
STEB	**Steborice**	70.67	336	*e*P		**P**	05 20 57.8 -2.3
KRLC	**Kraliky**	70.76	337	*e*P		**P**	05 21 00.1 -0.6
KRLC	**Kraliky**	70.76	337	*e*P		**P**	05 21 00.1 -0.6
KRLC	**Kraliky**	70.76	337	P		**P**	05 21 01.1 +0.4
	comp=Z,11nm,0.8s						
MORC	**Moravsky Berou**	70.87	337	P		**P**	05 21 01.3 -0.1
MORC				pmax		pmax	
	comp=Z,7.0nm,0.8s						
MORC	**Moravsky Berou**	70.87	337			**P**	05 21 01.3 -0.1
MORC				IAmb		IAmb	05 21 02.5
	comp=Z,6.7nm,0.8s						
MORC	**Moravsky Berou**	70.87	337	*e*P		**P**	05 21 01.3 -0.1
MORC	**Moravsky Berou**	70.87	337	P		**P**	05 21 01.6 +0.3
	comp=Z,9.9nm,0.8s						
BUR08	**Bucovina Ar. S**	70.92	331			**P**	05 21 01.2 -0.6
BUR08				IAmb		IAmb	05 21 02.1
	comp=Z,3.1nm,0.8s						
HSKC	**Hora Svate Kat**	70.96	339	*e*P		**P**	05 21 00.8 -1.1
HSKC	**Hora Svate Kat**	70.96	339	P		**P**	05 21 01.5 -0.3
	comp=Z,14nm,0.8s						
LANS	**Liptovska Anna**	71.01	335	*e*P		**P**	05 21 03.6 +1.4
LANS	**Liptovska Anna**	71.01	335	*e*P		**P**	05 21 03.6 +1.4
TRPA	**Tarpa**	71.19	333	P		**P**	05 21 03.8 +0.6
	comp=Z,13nm,2.0s						
PRU	**Pruhonice**	71.32	339	*e*P		**P**	05 21 04.1 +0.1
PRU				pmax		pmax	
	comp=Z,5.0nm,0.6s						
PRU	**Pruhonice**	71.32	339	*e*P		**P**	05 21 04.1 +0.1
	comp=Z,5.0nm,0.6s						
PRU	**Pruhonice**	71.32	339	P		**P**	05 21 04.3 +0.3
	comp=Z,12nm,1.0s						
TANN	**Tannenbergstha**	71.33	340	P		**P**	05 21 03.8 -0.4
	comp=Z,11nm,1.0s						
NKC	**Novy Kostel**	71.51	340	P		**P**	05 21 05.3 +0.2
	comp=Z,9.8nm,0.9s						
VRAC	**Vranov**	71.53	337	*e*P		**P**	05 21 05.2 -0.1
VRAC	**Vranov**	71.53	337	P		**P**	05 21 05.0 -0.3
	comp=Z,3.2nm,0.8s						
JAVC	**Velka Javorina**	71.71	336	*e*P		**P**	05 21 07.3 +0.9
JAVC	**Velka Javorina**	71.71	336	P		**P**	05 21 07.6 +1.1
	comp=Z,12nm,0.9s						
VYHS	**Vyhne**	71.78	335	*e*P		**P**	05 21 07.1 +0.3
VYHS	**Vyhne**	71.78	335	*e*P		**P**	05 21 07.1 +0.3
KRUC	**Moravsky**	71.80	337	*e*P		**P**	05 21 07.2 +0.3
KRUC	**Moravsky**	71.80	337	P		**P**	05 21 07.3 +0.4
	comp=Z,7.2nm,1.1s						
ZVC	**Zvikov**	71.92	339	*e*P		**P**	05 21 05.8 -1.8
PSZ	**Piszkesteto**	72.06	334	P		**P**	05 21 09.3 +0.8
	comp=Z,7.6nm,0.9s						
MODS	**Modra-Piesok**	72.25	336	*e*P		**P**	05 21 10.7 +1.1
MODS	**Modra-Piesok**	72.25	336	*e*P		**P**	05 21 10.7 +1.1
MEM	**Membach**	72.27	344	P		**P**	05 21 09.6 -0.1
	comp=Z,16nm,0.8s						
KHC	**Kasperske Hory**	72.34	339	*e*P		**P**	05 21 09.0 -1.1
KHC				pmax		pmax	
	comp=Z,1.0nm,0.4s						
KHC	**Kasperske Hory**	72.34	339	*e*P		**P**	05 21 09.0 -1.1
	comp=Z,1.0nm,0.4s						
KHC	**Kasperske Hory**	72.34	339	P		**P**	05 21 11.0 +0.8
	comp=Z,7.7nm,1.1s						
ABNA	**Allensteig Bun**	72.38	338	*i* P		**P**	05 21 10.8 +0.4
	comp=Z,5.4nm,0.6s						
WET	**Wettzell**	72.47	339	P		**P**	05 21 11.7 +0.8
	comp=Z,8.5nm,2.4s						
GEC2	**GERESS Array S**	72.58	339			**P**	05 21 11.4 -0.3
GEC2				IAmb		IAmb	05 21 12.4
	comp=Z,8.3nm,1.1s						
GEC2	**GERESS Array S**	72.58	339	P		**P**	05 21 11.6 -0.1
	comp=Z,9.3nm,2.9s						
GERES	**GERESS Array B**	72.58	339	P		**P**	05 21 11.6 -0.1
	comp=Z,2.8nm,0.5s,baz=27,slow=5.5,SNR=26						
	comp=Z,2.8nm,0.5s						
GERES	**GERESS Array B**	72.58	339	*e*P		**P**	05 21 11.8 +0.1
GERES				pmax		pmax	
	comp=Z,3.0nm,0.5s						
WINA	**Alland / Wiene**	72.78	337	*e*P		**P**	05 21 13.1 +0.3
	comp=Z,4.6nm,0.8s						
RCHB	**Rochefort**	72.83	345	P		**P**	05 21 12.5 -0.5
CONA	**Conrad Observa**	72.99	337	*e*P		**P**	05 21 14.7 +0.6
	comp=Z,4.2nm,0.6s						
RONA	**Rosalia, Austr**	73.11	337	*e*P		**P**	05 21 15.7 +0.9
	comp=Z,2.0nm,0.6s						
ARR	**Arges**	73.17	330	P		**P**	05 21 16.0 +0.8
	comp=Z,4.5nm,0.8s						
MPLH	**Magyarpolny**	73.32	336	P		**P**	05 21 17.2 +1.2
	comp=Z,10.0nm,1.6s						
BIOA	**Bad Ischl, Aus**	73.69	338	*e*P		**P**	05 21 18.3 +0.2
	comp=Z,1.7nm,0.4s						
ARSA	**Arzberg**	73.71	337	*i* P		**P**	05 21 18.9 +0.7
	comp=Z,2.4nm,0.6s						
BZS	**Buzias**	73.76	332	P		**P**	05 21 18.1 -0.4
	comp=Z,7.3nm,0.9s						
SESA	**Seetaler Alpe,**	74.05	338	*i* P		**P**	05 21 21.3 +0.8
	comp=Z,4.9nm,0.5s						

BFO	**Black Forest**	74.10	342	P		**P**	05 21 20.2 -0.3
LESA	**Schwarzleotal**	74.15	339	*e*P		**P**	05 21 21.6 +0.7
	comp=Z,2.7nm,0.7s						
KBA	**Koelnbreinsper**	74.34	338	*i* P		**P**	05 21 23.0 +0.9
	comp=Z,16nm,1.1s,SNR=12						
KBA	**Koelnbreinsper**	74.34	338	P		**P**	05 21 23.2 +1.1
	comp=Z,19nm,0.8s						
WATA	**Walderalm**	74.45	340	*i* P		**P**	05 21 23.2 +0.4
	comp=Z,8.1nm,1.3s						
RETA	**Reutte**	74.46	340	*i* P		**P**	05 21 22.8 0.0
	comp=Z,2.9nm,0.6s						
WTTA	**Wattenberg**	74.51	340	*e*P		**P**	05 21 23.6 +0.4
	comp=Z,6.3nm,0.8s						
MOTA	**Moosalm**	74.53	340	*e*P		**P**	05 21 23.7 +0.4
	comp=Z,9.8nm,1.0s						
OBKA	**Obir**	74.62	337	*i* P		**P**	05 21 24.2 +0.5
	comp=Z,11nm,1.1s,SNR=8.1						
OBKA	**Obir**	74.62	337	P		**P**	05 21 24.5 +0.8
	comp=Z,12nm,1.3s						
SQTA	**Sankt Quirin**	74.63	340	*i* P		**P**	05 21 24.4 +0.7
	comp=Z,12nm,0.9s,SNR=4.6						
FRGS	**Fruska Gora**	74.65	333	P		**P**	05 21 23.3 -0.5
	comp=Z,11nm,1.0s						
MYKA	**Terra Mystica**	74.70	338	*e*P		**P**	05 21 24.2 +0.1
	comp=Z,3.1nm,0.5s						
ABTA	**Abfaltersbach**	74.83	339	*i* P		**P**	05 21 25.2 +0.4
	comp=Z,6.8nm,0.8s						
PRED	**Cave del Predi**	74.90	338			**P**	05 21 24.7 -0.6
FETA	**Feichten**	74.92	340	*i* P		**P**	05 21 26.0 +0.6
	comp=Z,6.6nm,0.8s,SNR=9.3						
DRE	**Drenchia**	75.14	338	P		**P**	05 21 27.0 +0.4
	comp=Z,8.9nm,0.7s						
DAVOX	**Davos/Dischmat**	75.31	341	LR		LR	06 00 10.8
	comp=Z,204nm,18.4s,baz=256,slow=40						
BRTR	**Keskin Array B**	75.39	321	P		**P**	05 21 27.6 -0.7
	comp=Z,0.8nm,0.6s,baz=78,slow=3.2,SNR=4.5						
	comp=Z,0.8nm,0.6s						
BRTR	**Keskin Array B**	75.39	321	*e*P		**P**	05 21 27.7 -0.6
BRTR				pmax		pmax	
	comp=Z,1.0nm,0.6s						
TUE	**Stuetta**	75.71	341			**P**	05 21 30.2 +0.1
TUE				IAmb		IAmb	05 21 31.2
	comp=Z,6.0nm,0.7s						
TUE	**Stuetta**	75.71	341	P		**P**	05 21 30.4 +0.4
	comp=Z,12nm,2.7s						
CGRP	**Cima Grappa**	75.80	339	P		**P**	05 21 29.8 -0.7
	comp=Z,8.3nm,0.8s						
KIJV	**Kijevo**	76.57	335	P		**P**	05 21 34.4 -0.4
	comp=Z,14nm,1.1s						
CTA	**Charters Tower**	76.62	195	P		**P**	05 21 35.7 +0.6
	comp=Z,2.2nm,0.7s,baz=19,slow=8.0,SNR=1.8						
	comp=Z,2.2nm,0.7s						
PDG	**Podgorica**	77.34	333	P		**P**	05 21 38.0 -1.1
SSB	**Saint Sauveur**	77.68	344	P		**P**	05 21 41.3 +0.3
	comp=Z,6.3nm,1.2s						
FDMO	**Fiordimonte**	78.25	337	P		**P**	05 21 44.3 +0.2
ISO	**Isola**	78.33	342	P		**P**	05 21 44.7 +0.1
	comp=Z,6.1nm,1.1s						
NRCA	**Norcia**	78.44	337	P		**P**	05 21 45.5 +0.3
WRAB	**Tennant Creek**	78.88	207	P		**P**	05 21 48.1 +0.4
WRAB				pmax		pmax	
	comp=Z,7.0nm,1.3s						
WRAB	**Tennant Creek**	78.88	207	P		**P**	05 21 48.0 +0.4
WRAB				IAmb		IAmb	05 21 48.2
	comp=Z,6.8nm,1.2s						
WRA	**Warramunga Arr**	78.89	207	P		**P**	05 21 47.8 +0.1
	comp=Z,8.9nm,0.7s,baz=27,slow=6.1,SNR=9.1						
	comp=Z,0.8nm,0.7s						
WRA	**Warramunga Arr**	78.89	207	*e*P		**P**	05 21 48.9 +1.1
WRA				pmax		pmax	
	comp=Z,1.0nm,0.5s						
WRA	**Warramunga Arr**	78.89	207	P		**P**	05 21 48.2 +0.4
FITZ	**Fitzroy Crossi**	79.67	215	P		**P**	05 21 52.0 +0.1
	comp=Z,1.5nm,0.6s,baz=8.1,slow=7.1,SNR=6.6						
	comp=Z,1.5nm,0.6s						
FITZ	**Fitzroy Crossi**	79.67	215	P		**P**	05 21 52.4 +0.4
TIP	**Timpagrande**	81.04	333	P		**P**	05 21 59.4 0.0
	comp=Z,5.0nm,1.0s						
ASAR	**Alice Springs**	82.57	206	P		**P**	05 22 07.8 +0.4
	comp=Z,1.6nm,0.8s,baz=10,slow=5.2,SNR=14						
	comp=Z,1.6nm,0.8s						
ASAR	**Alice Springs**	82.57	206	P		**P**	05 22 08.1 +0.8
ESDC	**Sonseca Array**	84.32	349	P		**P**	05 22 16.4 +0.1
	comp=Z,3.4nm,0.9s,baz=357,slow=5.6,SNR=19						
	comp=Z,3.4nm,0.9s						
RAYN	**Ar Rayn**	84.62	304	P		**P**	05 22 16.5 -1.6
RAYN				pmax		pmax	
	comp=Z,7.0nm,0.6s						
RAYN	**Ar Rayn**	84.62	304			**P**	05 22 16.5 -1.6
VNDA	**Vanda**	132.90	180	PKP		**PKiKP**	05 28 58.1 -0.5
	comp=Z,0.3nm,0.5s,baz=276,slow=0.9,SNR=1.2						
QSPA	**South Pole Qui**	145.39	180	PKPbc		**PKPdf**	05 29 20.3 -0.2
	comp=Z,6.3nm,0.9s,baz=345,slow=2.1,SNR=20						

*IDC **13** 05:09:59.7±1.1, 18°.81S×177°.74W, h620km±14km, mb3.0/8, mbtmp4.1/12, Error ellipse: s-maj=20.5km s-min=12.6km az=139.0*

ISC 13 05:09:58.8±0.7,**18°.9S**±0°.2×**177°.8W**±0°.1,**h600**km,**n14,** σ2ᵉ**11/19, mb3.6/8, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.10**	**285**	P	**P**	**05 11 29.0**	**+3.9**
	62nm,0.6s,baz=126,slow=7.4,SNR=30						
AFI	**Afiamalu**	**7.59**	**50**	P	**P**	**05 11 55.1**	**+0.7**
	7.9nm,0.3s,baz=296,slow=4.2,SNR=4.6						
AFI				S	**S**	**05 13 28.9**	**-0.1**
	16nm,0.8s,baz=240,slow=20,SNR=1.9						
DZM	**Mont Dzumac**	**15.11**	**255**	P	**P**	**05 13 10.2**	**+2.2**
	4.0nm,0.7s,baz=78,slow=20,SNR=1.8						
URZ	**Urewera**	**19.83**	**192**	P	**P**	**05 13 50.7**	**0.0**
	7.3nm,0.3s,baz=334,slow=7.2,SNR=20						
STKA	**Stephens Creek**	**38.69**	**242**	P	**P**	**05 16 33.9**	**+1.0**
	2.0nm,0.5s,baz=72,slow=9.1,SNR=3.5						
	2.0nm,0.5s						
WRA	**Warramunga Arr**	**45.04**	**260**	P	**P**	**05 17 22.4**	**-0.3**
	0.6nm,0.4s,baz=98,slow=6.7,SNR=19						
WRA				PcP	**PcP**	**05 18 49.4**	**-1.1**
	0.5nm,0.7s,baz=92,slow=3.3,SNR=3.3						
WRA				S	**S**	**05 23 15.4**	**-3.8**
	0.2nm,0.7s,baz=95,slow=10,SNR=1.5						
	0.6nm,0.4s						
ASAR	**Alice Springs**	**45.10**	**255**	P	**P**	**05 17 23.0**	**-0.1**
	1.5nm,0.6s,baz=88,slow=8.4,SNR=19						
ASAR				PcP	**PcP**	**05 18 49.7**	**-1.0**
	0.5nm,0.5s,baz=106,slow=3.4,SNR=5.4						
ASAR				S	**S**	**05 23 16.2**	**-3.8**
	0.2nm,0.4s,baz=91,slow=15,SNR=4.6						
	1.5nm,0.6s						
QSPA	**South Pole Qui**	**71.19**	**180**	P	**P**	**05 20 18.2**	**+0.1**
	1.0nm,0.5s,baz=90,slow=0.0,SNR=12						
	1.0nm,0.5s						
NVAR	**Mina Array Bea**	**79.71**	**43**	P	**P**	**05 21 05.5**	**-0.3**
	0.4nm,0.7s,baz=240,slow=4.2,SNR=2.4						
	0.4nm,0.7s						
TXAR	**Lajitas Array**	**86.02**	**57**	P	**P**	**05 21 37.3**	**+0.1**
	1.7nm,0.9s,baz=217,slow=7.5,SNR=9.0						
	1.7nm,0.9s						
ILAR	**Eielson Array**	**86.69**	**13**	P	**P**	**05 21 37.1**	**-2.3**
	0.2nm,0.5s,baz=205,slow=4.3,SNR=5.8						
	0.2nm,0.5s						
PDAR	**Pinedale Array**	**87.64**	**43**	P	**P**	**05 21 43.1**	**-1.7**
	0.5nm,0.6s,baz=214,slow=3.9,SNR=3.9						
	0.5nm,0.6s						
ARCES	**ARCESS Array B**	**127.35**	**350**	PKP	**PKPdf**	**05 27 54.1**	**-1.5**
	0.6nm,0.4s,baz=38,slow=2.2,SNR=6.5						
GERES	**GERESS Array B**	**148.68**	**345**	PKPbc	**PKPdf**	**05 28 37.7**	**+2.9**
	0.6nm,0.8s,baz=9.2,slow=2.6,SNR=4.6						

*IDC **13** 05:18:58.7±1.1, 18°.37N×145°.79E, h0km, mb3.8/9, mbtmp3.8/9, Error ellipse: s-maj=33.5km s-min=28.0km az=121.0*
*NEIC **13** 05:19:20.5±1.0, 18°.35N±0°.04×145°.6E±0°.2, h178km±8km, mb4.3/12, Error ellipse: s-maj=32.1km s-min=5.2km az=84.0*

ISC 13 05:19:17.9±0.7,**18°.46N**±0°.07×**145°.7E**±0°.2,**h150**km,**n25,** σ1ᵉ**44/26, mb4.0**/15,**Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DPSS	**Saipan**	**3.20**	**178**	Pn	**Pn**	**05 20 10.3**	**+2.4**
DPSS				Sn	**Sn**	**05 20 48.3**	**+1.8**
JCJ	**Chichijima**	**9.18**	**340**	Pn	**Pn**	**05 21 29.3**	**+2.3**
JYT	**Yasato**	**18.35**	**346**	P	**P**	**05 23 21.6**	**+0.7**
WB0	**Warramunga Arr**	**39.56**	**197**	P	**P**	**05 26 32.4**	**-2.2**
WRA	**Warramunga Arr**	**39.75**	**197**	P	**P**	**05 26 32.9**	**-3.2**
	0.3nm,0.3s,baz=14,slow=8.2,SNR=5.0						
	0.3nm,0.3s						
WRA	**Warramunga Arr**	**39.75**	**197**	P	**P**	**05 26 33.6**	**-2.5**
FITZ	**Fitzroy Crossi**	**41.32**	**210**	P	**P**	**05 26 47.2**	**-1.8**
ANM	**Nome**	**56.43**	**23**	P	**P**	**05 28 43.9**	**+0.3**
N15K	**Kwethluk River**	**56.64**	**29**	P	**P**	**05 28 45.2**	**0.0**
J16K	**Anvik River**	**57.69**	**26**	P	**P**	**05 28 54.0**	**+1.6**
J16K				IAmb	IAmb	05 29 34.1	
	comp=Z,7.3nm,1.1s						
N17K	**Nushagak Hills**	**58.12**	**29**	P	**P**	**05 28 56.4**	**+0.9**
K17K	**Iditarod**	**58.42**	**27**	P	**P**	**05 28 58.5**	**+1.0**
K17K				IAmb	IAmb	05 29 34.2	
	comp=Z,6.0nm,1.1s						
MKAR	**Makanchi Array**	**58.60**	**314**	P	**P**	**05 28 59.0**	**-0.1**
	comp=Z,0.3nm,0.4s,baz=95,slow=6.2,SNR=2.5						
	comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	**58.60**	**314**	P	**P**	**05 28 58.9**	**-0.3**
H18K	**Honhosa River**	**59.36**	**24**	P	**P**	**05 29 04.0**	**-0.1**
H18K				IAmb	IAmb	05 29 20.0	
	comp=Z,5.8nm,1.1s						
KURBB	**Kurchatov Arra**	**61.48**	**318**	P	**P**	**05 29 18.1**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=96,slow=7.9,SNR=7.1						
	comp=Z,0.8nm,0.4s						
MLY	**Manley**	**62.35**	**25**	P	**P**	**05 29 24.2**	**-0.1**
MLY				IAmb	IAmb	05 29 33.4	
	comp=Z,2.6nm,1.2s						
D22K	**Ayikyak River**	**62.83**	**21**	P	**P**	**05 29 27.8**	**+0.5**
D22K				IAmb	IAmb	05 29 29.0	
	comp=Z,2.4nm,0.6s						
ILAR	**Eielson Array**	**63.88**	**26**	P	**P**	**05 29 33.1**	**-1.1**
	comp=Z,0.3nm,0.5s,baz=252,slow=5.9,SNR=7.3						
	comp=Z,0.3nm,0.5s						
BVAR	**Borovoye Array**	**66.64**	**320**	P	**P**	**05 29 51.6**	**-0.6**
	comp=Z,1.4nm,0.5s,baz=75,slow=5.8,SNR=4.9						
	comp=Z,1.4nm,0.5s						
BTK	**Batken**	**66.91**	**306**	P	**P**	**05 29 54.1**	**-0.2**
BTK				IAmb	IAmb	05 30 07.4	
	comp=Z,2.6nm,0.5s						
INK	**Inuvik**	**69.61**	**23**	P	**P**	**05 30 10.0**	**-0.4**
	comp=Z,1.2nm,0.7s,baz=245,slow=5.0,SNR=3.6						
	comp=Z,1.2nm,0.7s						
YKA	**Yellowknife Ar**	**78.22**	**28**	P	**P**	**05 30 60.0**	**-0.7**
	comp=Z,0.8nm,0.6s,baz=292,slow=5.2,SNR=2.1						
	comp=Z,0.8nm,0.6s						
NVAR	**Mina Array Bea**	**83.31**	**52**	P	**P**	**05 31 28.1**	**-0.4**
	comp=Z,0.4nm,0.4s,baz=272,slow=6.5,SNR=5.3						
	comp=Z,0.4nm,0.4s						
PDAR	**Pinedale Array**	**88.02**	**45**	P	**P**	**05 31 50.6**	**-1.0**
	comp=Z,0.2nm,0.4s,baz=288,slow=2.2,SNR=2.6						
	comp=Z,0.2nm,0.4s						

*PRU **13** 05:23:13.4, 49°.82N×18°.52E, h0km, Mining Induced Event Darkov, E=2.4e+04*

IPEC 13 05:23:12.5±0.3,**49°.83N**×**18°.53E, h1**km,**ML1.1**/6,**Error ellipse: s-maj=1.8km s-min=1.4km az=71.0, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OKC	**Ostrava-Krasne**	**0.25**	**272**	*e*PG	Pg	05 23 17.5	+0.3
OKC				*e*SG	Sg	05 23 22.3	+1.9
	comp=Z,8.8nm,0.3s						
OKC				AML	AML		
STEB	**Steborice**	**0.50**	**282**	*e*PG	Pg	05 23 22.4	+0.3
STEB				*e*SG	Sg	05 23 29.8	+1.3
MORC	**Moravsky Berou**	**0.64**	**266**	*e*Pg	Pg	05 23 24.8	0.0
	baz=85						
MORC				*e*Sg	Sg	05 23 32.6	-0.5
	3.9nm,0.3s,baz=85						
MORC				AML	AML		
LOSC	**Losov**	**0.78**	**255**	*e*Pg	Pg	05 23 27.6	+0.2
	baz=74						
LOSC				*e*Sg	Sg	05 23 37.1	-0.4
	5.7nm,0.3s,baz=74						
LOSC				AML	AML		
ANAC	**Anensky vrch**	**0.78**	**289**	*e*Pg	Pg	05 23 27.2	-0.3
	baz=108						
ANAC				*e*Sg	Sg	05 23 36.9	-0.7
	5.2nm,0.2s,baz=108						
ANAC				AML	AML		
OJC	**Ojcow**	**0.91**	**64**	*e*Pg	Pg	05 23 29.2	-0.7
OJC				*e*Sg	Sg	05 23 42.2	+0.6
LANS

HAG	**Hague Volcano**	**1.72**	**314**			**Pn**		**05 30 36.0**	**-0.4**
PS1A	**Pavlof South-1**	**1.73**	**318**			**Pn**		**05 30 36.2**	**-0.3**
PS1A						**Sn**		**05 30 58.6**	**+0.3**
DT1	**Dutton Round H**	**1.77**	**304**			Pn		05 30 35.8	-1.3
DT1						**Sn**		**05 30 57.1**	**-2.1**
DT1						Sg		05 30 58.3	-5.6
DTNA	**Dutton South F**	**1.78**	**305**			Pn		05 30 36.2	-1.0
PN7A	**Pavlof North-7**	**1.84**	**315**			**Pn**		**05 30 38.1**	**0.0**
VNKR	**Veniaminof 5**	**1.90**	**6**			**Pn**		**05 30 39.5**	**+0.6**
S12K	**Black Hills**	**2.06**	**320**			**Pn**		**05 30 41.2**	**+0.2**
S12K					IAML			05 31 09.2	
	comp=E,1μm,0.4s								
S12K					IAML			05 31 28.2	
	comp=N,811nm,0.7s								
S12K	**Black Hills**	**2.06**	**320**			**Sn**		**05 31 07.9**	**+1.5**
VNHG	**Veniaminof 1**	**2.10**	**9**			**Pn**		**05 30 42.4**	**+0.7**
VNFG	**Fog Glacier, M**	**2.15**	**3**			Pn		05 30 41.5	-0.8
CHGN	**Chignik**	**2.29**	**19**			Pn		05 30 42.9	-1.3
CHGN					IAML			05 31 28.0	
	comp=E,939nm,0.8s								
ISLZ	**Isanotski Laza**	**2.40**	**286**			Pn		05 30 44.5	-1.2
ISLZ						**Sn**		**05 31 12.7**	**-2.0**
ISNN	**Isanotski Nort**	**2.46**	**288**			**Pn**		**05 30 46.6**	**0.0**
SSLS	**Shishaldin Sou**	**2.56**	**285**			**Pn**		**05 30 47.8**	**-0.2**
SSLN	**Shishaldin Nor**	**2.58**	**287**			**Pn**		**05 30 48.6**	**+0.4**
SSBA	**Shishaldin**	**2.64**	**286**			**Pn**		**05 30 48.8**	**-0.3**
WTUG	**Tugumak**	**2.80**	**286**			**Pn**		**05 30 51.2**	**-0.1**
WESN	**West Dahl Nort**	**2.87**	**280**			Pn		05 30 51.5	-0.7
CHIR	**Chirikof Islan**	**2.90**	**53**	P		**Pn**		**05 30 51.5**	**-1.1**
CHIR	**Chirikof Islan**	**2.90**	**53**	Pn		Pn		05 30 50.7	-1.9
WESP	**Westdahl Peak**	**2.94**	**279**			Pn		05 30 52.3	-1.0
WECS	**Westdahl Cape**	**2.98**	**279**	Pn		Pn		05 30 53.0	-0.7
WECS					IAML			05 31 36.3	
	comp=E,399nm,0.5s								
AKUT	**Akutan**	**3.55**	**272**	P		Pn		05 31 00.7	-0.8
AKUT	**Akutan**	**3.55**	**272**	S		**Sn**		**05 31 40.5**	**-2.7**
AKUT	**Akutan**	**3.55**	**272**	Pn		**Pn**		**05 31 00.9**	**-0.6**
AKUT					IAML			05 31 42.6	
	comp=N,246nm,0.4s								
AKUT					IAML			05 31 42.8	
	comp=E,209nm,0.3s								
AHB	**Akutan Harbor**	**3.58**	**272**			**Pn**		**05 31 01.2**	**-0.7**
AKBBA	**Akutan Broad B**	**3.65**	**272**			**Pn**		**05 31 02.2**	**-0.7**
LVA	**Lava Point**	**3.71**	**273**	Pn		Pn		05 31 02.8	-0.8
LVA					IAML			05 31 45.2	
	comp=E,207nm,1.2s								
LVA					IAML			05 31 53.6	
	comp=N,290nm,0.9s								
SII	**Sitkinak Islan**	**3.98**	**50**	P		**Pn**		**05 31 06.5**	**-1.0**
SII	**Sitkinak Islan**	**3.98**	**50**			Pn		05 31 05.9	-1.6
SII					IAML			05 31 54.0	
	comp=N,229nm,1.0s								
SII					IAML			05 32 52.8	
	comp=E,259nm,1.3s								
UNV	**Unalaska Valle**	**4.01**	**268**	P		Pn		05 31 06.5	-1.3
UNV	**Unalaska Valle**	**4.01**	**268**	S		**Sn**		**05 31 50.9**	**-3.5**
UNV	**Unalaska Valle**	**4.01**	**268**	Pn		Pn		05 31 06.3	-1.5
MNAT	**Makushin Natee**	**4.11**	**269**			Pn		05 31 08.1	-1.2
MSW	**Makushin Switc**	**4.16**	**270**			Pn		05 31 08.9	-1.1
MGOD	**Makushin Gods**	**4.23**	**268**			Pn		05 31 10.1	-0.9
ANCK	**Angle Creek**	**4.70**	**29**			**Pn**		**05 31 17.5**	**+0.1**
OHAK	**Old Harbor**	**4.77**	**47**	P		**Pn**		**05 31 17.0**	**-1.3**
OHAK	**Old Harbor**	**4.77**	**47**	S		**Sn**		**05 32 12.8**	**-0.5**
OHAK	**Old Harbor**	**4.77**	**47**			**Pn**		**05 31 17.0**	**-1.3**
OHAK					IAML			05 33 49.0	
	comp=E,104nm,1.0s								
P16K	**Nushagak River**	**4.99**	**10**	Pn		**Pn**		**05 31 20.5**	**-0.8**
OKNC	**Okmok New Cone**	**5.02**	**265**	Pn		**Pn**		**05 31 22.0**	**+0.2**
OKNC					IAML			05 32 27.1	
	comp=N,99nm,1.3s								
OKNC					IAML			05 33 55.3	
	comp=E,86nm,1.5s								
KDAK	**Kodiak Island**	**5.42**	**45**	Pn		**Pn**		**05 31 25.7**	**-1.4**
	comp=E,3.7nm,0.3s,baz=234,slow=8.7,SNR=48								
KDAK					Sn	**Sn**		**05 32 24.6**	**-4.6**
	comp=E,1.8nm,0.3s,baz=218,slow=18,SNR=1.8								
	comp=E,8.6nm,0.3s								
KDAK					AML	AML			
KDAK	**Kodiak Island**	**5.42**	**45**	Pn		Pn		05 31 25.3	-1.9
O16K	**Kokwok River B**	**5.53**	**9**	Pn		**Pn**		**05 31 28.6**	**-0.2**
N15K	**Kwethluk River**	**6.04**	**358**			**Pn**		**05 31 36.2**	**+0.5**
CLES	**Cleveland East**	**6.21**	**262**	Pn		**Pn**		**05 31 38.5**	**+0.5**
M16K	**Timber Creek**	**6.91**	**3**	Pn		**Pn**		**05 31 48.0**	**+0.4**
CNPM	**China Poot**	**7.12**	**37**			**Pn**		**05 31 49.4**	**-1.2**
L14K	**Kuka Creek**	**7.38**	**349**	Pn		**Pn**		**05 31 54.0**	**-0.1**
BRSE	**Bradley Lake S**	**7.45**	**38**			Pn		05 31 53.6	-1.5
RDT	**Redoubt**	**7.56**	**29**			**Pn**		**05 31 56.5**	**-0.1**
SEW	**Seward**	**8.17**	**39**	Pn		**Pn**		**05 32 04.0**	**-0.9**
SLKM	**Skilak Lake**	**8.19**	**35**			**Pn**		**05 32 04.0**	**-1.2**
K13K	**Kusilvak Mount**	**8.23**	**344**	Pn		**Pn**		**05 32 05.8**	**+0.1**
O22K	**Cooper Landing**	**8.34**	**36**	Pn		**Pn**		**05 32 06.8**	**-0.4**
SUA	**Susitna One**	**8.76**	**30**	Pn		Pn		05 32 11.7	-1.4
RC01	**Rabbit Creek A**	**8.78**	**34**			Pn		05 32 11.8	-1.5
ATKA	**Atka Island**	**8.90**	**263**	P		**Pn**		**05 32 14.5**	**-0.5**
SKT	**Skwentna**	**8.97**	**26**	Pn		**Pn**		**05 32 15.8**	**-0.1**
J16K	**Anvik River**	**9.18**	**358**	Pn		**Pn**		**05 32 18.8**	**+0.1**
PMR	**Palmer**	**9.35**	**33**	P		**Pn**		**05 32 20.1**	**-0.9**
PMR	**Palmer**	**9.35**	**33**	Pn		Pn		05 32 19.4	-1.6
J18K	**Innoko River**	**9.47**	**8**	Pn		**Pn**		**05 32 22.8**	**0.0**
HIN	**Hinchinbrook I**	**9.51**	**43**			Pn		05 32 21.1	-2.1
GHO	**Glory Hole Cre**	**9.55**	**33**			**Pn**		**05 32 23.5**	**-0.3**
FID	**Port Fidalgo**	**9.72**	**42**			Pn		05 32 23.3	-2.9
SML	**Sawmill**	**9.77**	**34**	Pn		**Pn**		**05 32 25.8**	**-1.0**
EYAK	**Cordova Ski Ar**	**9.90**	**44**	P		Pn		05 32 26.5	-2.0
EYAK	**Cordova Ski Ar**	**9.90**	**44**			**Pn**		**05 32 27.5**	**-1.0**
CAST	**Castle Rocks**	**10.10**	**20**	Pn		**Pn**		**05 32 32.4**	**+1.0**
SCM	**Sheep Creek Mo**	**10.12**	**35**			**Pn**		**05 32 30.9**	**-0.8**
KLU	**Klutina**	**10.39**	**39**			**Pn**		**05 32 34.9**	**-0.6**
ADK	**Adak**	**10.46**	**264**	P		**Pn**		**05 32 36.8**	**+0.5**
BMRM	**Bremner River**	**10.60**	**44**			**Pn**		**05 32 37.6**	**-0.6**
DHY	**Denali Highway**	**11.01**	**31**			**Pn**		**05 32 42.7**	**-1.2**
GRNC	**Granite Creek**	**11.69**	**48**			**Pn**		**05 32 51.7**	**-1.6**
BARN	**Barnard Glacie**	**11.88**	**47**			**Pn**		**05 32 55.7**	**-0.1**
K24K	**Donnelly Dome**	**12.03**	**31**			**Pn**		**05 32 57.5**	**-0.2**
LOGN	**Logan Glacier**	**12.06**	**49**			**Pn**		**05 32 58.1**	**-0.2**
PNL	**Peninsula**	**12.38**	**55**	P		**Pn**		**05 33 01.2**	**-1.4**
ILAR	**Eielson Airpay**	**12.46**	**26**	Pn		Pn		05 32 60.0	-3.6
	comp=E,0.3nm,0.3s,baz=218,slow=14,SNR=14								
ILAR					Sn	Sn		05 35 14.2	-7.7
	comp=E,0.2nm,0.3s,baz=219,slow=21,SNR=4.2								
	comp=E,0.8nm,0.5s								
ILAR					AML	AML			
SIT	**Sitka**	**14.07**	**68**	P		Pn		05 33 23.4	-2.2
SKAG	**Skagway**	**14.34**	**58**	P		**Pn**		**05 33 29.4**	**+0.2**
JIS	**Juneau Island**	**14.66**	**63**	P		**Pn**		**05 33 33.1**	**-0.4**
I28M	**Miner Creek**	**14.99**	**33**	Pn		**Pn**		**05 33 36.2**	**-2.0**
F25K	**Christian Rive**	**15.07**	**21**	Pn		**Pn**		**05 33 36.6**	**-2.6**
BMAR	**Burnt Mountain**	**15.17**	**23**	Pn		**Pn**		**05 33 39.7**	**-0.7**
P32M	**Atlin**	**15.17**	**58**	Pn		**Pn**		**05 33 39.9**	**-0.6**
P32M					IAmb	IAmb		05 34 12.5	
	comp=Z,13nm,1.1s								
I29M	**Ogilvie Camp,**	**15.48**	**35**	Pn		**Pn**		**05 33 43.3**	**-1.2**
I29M					IAmb	IAmb		05 34 03.1	
	comp=Z,11nm,0.7s								
P33M	**Teslin, Yukon**	**15.73**	**56**	Pn		**Pn**		**05 33 47.7**	**-0.1**
P33M					IAmb	IAmb		05 33 55.4	
	comp=Z,20nm,1.1s								
J30M	**Hart River**	**15.74**	**39**	Pn		**Pn**		**05 33 47.5**	**-0.6**
J30M					IAmb	IAmb		05 34 07.6	
	comp=Z,5.6nm,0.7s								
DLBC	**Dease Lake**	**16.96**	**63**	Pn		**P**		**05 34 04.9**	**-0.5**
	comp=Z,0.5nm,0.3s,baz=205,slow=13,SNR=8.9								
C26K	**Camden Bay**	**17.19**	**17**			**Pn**		**05 34 06.2**	**-0.1**
F31M	**Tsiigehtchic**	**18.18**	**33**			**Pn**		**05 34 16.4**	**-2.1**
F31M					IAmb	IAmb		05 34 33.8	
	comp=Z,14nm,1.2s								
INK	**Inuvik**	**18.75**	**31**	P		**P**		**05 34 24.2**	**-0.8**
	comp=Z,0.4nm,0.3s,baz=210,slow=13,SNR=16								
	comp=Z,3.2nm,0.6s								
INK					AML	AML			
INK	**Inuvik**	**18.75**	**31**	P		**P**		**05 34 24.0**	**-1.0**
A36M	**Sachs Harbour**	**23.16**	**27**	P		**P**		**05 35 12.1**	**-0.3**
A36M					IAmb	IAmb		05 35 15.2	
	comp=Z,6.2nm,0.8s								
YKA	**Yellowknife Ar**	**24.64**	**52**	P		**P**		**05 35 27.1**	**+0.6**
	comp=Z,0.9nm,0.7s,baz=272,slow=9.6,SNR=4.5								
	comp=Z,0.9nm,0.7s								
PEA0B	**Petropavlovsk-**	**24.99**	**285**	P		**P**		**05 35 29.9**	**0.0**
PETK	**Petropavlovsk-**	**24.99**	**285**	P		**P**		**05 35 29.5**	**-0.3**
	comp=Z,3.4nm,0.6s,baz=71,slow=12,SNR=27								
	comp=Z,3.4nm,0.6s								
PETK	**Petropavlovsk-**	**24.99**	**285**	P		**P**		**05 35 30.0**	**+0.1**
SEY	**Seymchan**	**25.90**	**309**	P		**P**		**05 35 36.9**	**-1.0**
	comp=Z,1.7nm,0.3s,baz=18,slow=20,SNR=2.5								
	comp=Z,1.7nm,0.3s								
KRMB	**Red Mountain**	**26.85**	**103**	P		**P**		**05 35 46.0**	**-0.9**
KRMB					IAmb	IAmb		05 36 20.9	
	comp=Z,23nm,1.5s								
NVAR	**Mina Array Bea**	**32.12**	**102**	P		**P**		**05 36 35.9**	**+2.2**
	comp=Z,0.3nm,0.6s,baz=324,slow=11,SNR=2.1								
	comp=Z,0.3nm,0.6s								
PDAR	**Pinedale Array**	**34.46**	**88**	P		**P**		**05 36 55.0**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=290,slow=4.3,SNR=3.6								
	comp=Z,0.2nm,0.5s								
ULM	**Lac du Bonnet**	**38.15**	**69**	P		**P**		**05 37 25.9**	**+0.6**
	comp=Z,1.7nm,0.7s,baz=320,slow=8.2,SNR=5.1								
	comp=Z,1.7nm,0.7s								
H11N2	**WAKE ISLAND Hy**	**42.76**	**230**	T		T		06 24 06.5	
	baz=28,slow=76,SNR=47								
H11N3	**WAKE ISLAND Hy**	**42.77**	**230**	T		T		06 24 07.0	
	baz=28,slow=76,SNR=50								
H11N1	**WAKE ISLAND Hy**	**42.78**	**230**	T		T		06 23 56.0	
	baz=28,slow=76,SNR=21								
H11S1	**WAKE ISLAND Hy**	**43.92**	**229**	T		T		06 25 18.5	
	baz=28,slow=76,SNR=11								
H11S2	**WAKE ISLAND Hy**	**43.94**	**229**	T		T		06 25 28.3	
	baz=28,slow=76,SNR=17								
H11S3	**WAKE ISLAND Hy**	**43.94**	**229**	T		T		06 25 20.5	
	baz=28,slow=76,SNR=11								
MAJO	**Matsushiro**	**45.46**	**274**	P		**P**		**05 38 25.5**	**+0.3**
MJB9	**Matsu-Tunnel**	**45.46**	**274**	P		**P**		**05 38 26.8**	**+1.5**
TXAR	**Lajitas Array**	**47.09**	**98**	P		**P**		**05 38 39.4**	**+1.2**
	comp=Z,0.2nm,0.6s,baz=312,slow=4.1,SNR=5.2								
	comp=Z,0.2nm,0.6s								
NRIK	**Noril'sk**	**47.52**	**334**	P		**P**		**05 38 40.3**	**-0.6**
	comp=Z,3.4nm,0.6s,baz=62,slow=9.8,SNR=4.3								
	comp=Z,3.4nm,0.6s								
KSRS	**Korea Array**	**50.83**	**282**	P		**P**		**05 39 08.1**	**+1.5**
	comp=Z,1.9nm,0.6s,baz=44,slow=8.0,SNR=6.8								
	comp=Z,1.9nm,0.6s								
SONM	**Songino Array**	**55.20**	**305**	P		**P**		**05 39 38.6**	**-0.3**
	comp=Z,2.4nm,0.6s,baz=46,slow=7.4,SNR=5.4								
	comp=Z,2.4nm,0.6s								
SONM	**Songino Array**	**55.20**	**305**	P		**P**		**05 39 38.5**	**-0.5**
SONM					IAmb	IAmb		05 39 39.0	
	comp=Z,1.9nm,0.7s								
ARCES	**ARCESS Array B**	**56.57**	**358**	P		**P**		**05 39 47.7**	**-0.6**
	comp=Z,2.3nm,0.9s,baz=10,slow=5.5,SNR=3.8								
	comp=Z,2.3nm,0.9s								
BORG	**Borgarnes**	**57.20**	**20**	LR		LR		06 09 24.7	
	comp=Z,78nm,18.6s,baz=144,slow=41								
GUMO	**Guam**	**59.09**	**249**	LR		LR		06 02 49.9	
	comp=Z,12nm,19.0s,baz=74,slow=33								
ZALV	**Zalesovo Beam**	**59.81**	**322**	P		**P**		**05 40 10.8**	**-0.4**
	comp=Z,0.4nm,0.3s,baz=62,slow=7.0,SNR=2.4								
	comp=Z,0.4nm,0.3s								
FINES	**FINESS Array B**	**64.66**	**357**	P		**P**		**05 40 43.5**	**0.0**
	comp=Z,1.1nm,0.5s,baz=0.0,slow=7.6,SNR=10.0								
	comp=Z,1.1nm,0.5s								
KURBB	**Kurchatov Arra**	**64.77**	**323**	P		**P**		**05 40 44.2**	**-0.2**
	comp=Z,0.5nm,0.5s,baz=18,slow=6.8,SNR=5.2								
	comp=Z,0.5nm,0.5s								
NOA	**NORSAR Array B**	**64.93**	**5**	P		**P**		**05 40 45.5**	**+0.1**
	comp=Z,0.4nm,0.6s,baz=356,slow=6.6,SNR=3.3								
	comp=Z,0.4nm,0.6s								
BVAR	**Borovoye Array**	**65.38**	**329**	P		**P**		**05 40 48.4**	**+0.1**
	comp=Z,2.9nm,0.6s,baz=47,slow=9.1,SNR=6.8								
	comp=Z,2.9nm,0.6s								
HFS	**Hagfors**	**65.95**	**4**	P		**P**		**05 40 52.4**	**+0.5**
	comp=Z,1.1nm,0.7s,baz=318,slow=4.2,SNR=5.8								
	comp=Z,1.1nm,0.7s								
HNR	**Honiara**	**71.89**	**222**	LR		LR		06 06 13.0	
	comp=Z,33nm,21.3s,baz=292,slow=30								
AKASG	**Malin Array Be**	**75.25**	**354**	P		**P**		**05 41 48.5**	**-0.2**
	comp=Z,0.8nm,0.5s,baz=12,slow=6.3,SNR=4.3								
	comp=Z,0.8nm,0.5s								
GERES	**GERESS Array B**	**77.23**	**4**	P		**P**		**05 42 00.6**	**+0.5**
	comp=Z,0.1nm,0.2s,baz=332,slow=5.6,SNR=1.3								
	comp=Z,0.1nm,0.2s								
KBZ	**Khabaz**	**80.60**	**344**	P		**P**		**05 42 19.6**	**+1.0**
	comp=Z,1.0nm,0.7s,baz=30,slow=8.1,SNR=2.1								
	comp=Z,1.0nm,0.7s								
ESDC	**Sonseca Array**	**84.25**	**19**	P		**P**		**05 42 38.4**	**+0.6**
	comp=Z,0.3nm,0.9s,baz=343,slow=8.4,SNR=0.8								
	comp=Z,0.3nm,0.9s								

*TRN **13** 05:39:15.0, 11.86N×61.16W, h72km, MD3.2, South-east of Grenada.*
*FUNV **13** 05:39:31.5, 11.77N×62.59W, h36km, MW3.8, Presumed earthquake*
ISC 13 05:39:36.4±3.6, 11.88N±0.06×61.2W±0.5, h83km±57km, n9, σ0.80/17, Windward Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
GRGR	**Grenville**	**0.48**	**301**	*eP*		**Pn**	**05 39 49.1**	**-1.3**
GRGR				*eS*		**Sn**	**05 40 00.8**	**+0.2**
GRGR	**Grenville**	**0.48**	**301**	*eP*		**Pn**	**05 39 49.9**	**-0.4**
GRGR				*eS*		**Sn**	**05 40 00.9**	**+0.2**
GRW	**Mount Saint Ca**	**0.50**	**304**	*eP*		**Pn**	**05 39 50.5**	**-0.2**
GRW				*eS*		**Sn**	**05 40 02.2**	**+1.1**
GRSS	**Sisters**	**0.56**	**318**	*eP*		**Pn**	**05 39 50.6**	**-0.3**
GRSS				*eS*		**Sn**	**05 40 02.7**	**+0.9**
DMDM	**Guralp CMG5TDE**	**1.22**	**195**	*eP*		**Pn**	**05 39 58.8**	**+0.4**
DMDM				*eS*		**Sn**	**05 40 14.1**	**-0.6**
PSMG	**Mucurapo Girls**	**1.24**	**194**	*eP*		**Pn**	**05 39 59.1**	**+0.5**
PSMG				*eS*		**Sn**	**05 40 15.0**	**-0.2**
TRN	**Trinidad (W)**	**1.24**	**188**	*eP*		**Pn**	**05 39 57.1**	**-1.5**
TRN				*eS*		**Sn**	**05 40 15.8**	**+0.6**
TRN	**Trinidad (W)**	**1.24**	**188**	*eP*		**Pn**	**05 39 59.4**	**+0.8**
TRN				*eS*		**Sn**	**05 40 15.2**	**0.0**
SVB	**Belmont**	**1.38**	**359**	*eS*		**Sn**	**05 40 18.8**	**+0.3**

*JMA **13** 05:46:45.2±0.2, 25.1N±0.8×123.7E±0.3, h6km, MV3.4/11, NW OFF ISHIGAKIJIMA IS*
*IDC **13** 05:46:46.8±1.2, 24.78N×122.88E, h0km, mb3.6/4, mbtmp3.7/5, ML3.4/1, MS3.4/15, Error ellipse: s-maj=43.1km s-min=20.4km az=76.0*
ISC 13 05:46:45.5±1.9, 25.08N±0.08×123.65E±0.04, h7km±12km, n27, σ0.79/19, mb3.6/4, MS3.3/12, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.75**	**174**	*eP*		**Pg**	**05 47 00.1**	**+0.2**
JISG	**Ishigakijimahi**	**0.78**	**129**	P		**Pg**	**05 47 00.5**	**0.0**
JISG				*eS*		**Sg**	**05 47 11.3**	**+0.7**
JIJ	**Ishigaki jima**	**0.85**	**148**	P		**Pb**	**05 47 01.4**	**-1.1**
YONJ	**Yonaguni jima**	**0.85**	**223**	*eP*		**Pb**	**05 47 01.6**	**-0.9**
YONJ				*eS*		**Sg**	**05 47 13.1**	**+0.4**
JYNG	**Yonagunijimaku**	**0.90**	**226**	*eP*		**Pb**	**05 47 02.9**	**-0.4**
JYNG				*eS*		**Sb**	**05 47 14.5**	**-0.9**
JKRS	**Kuro-shima**	**0.90**	**159**	*eP*		**Pb**	**05 47 02.9**	**-0.6**
JKRS				*eS*		**Sb**	**05 47 15.4**	**-0.3**
HATJ	**Hateruma jima**	**1.03**	**172**	*eP*		**Pb**	**05 47 05.3**	**-0.3**
HATJ				*eS*		**Sb**	**05 47 19.5**	**+0.2**
JTJ	**Tarama**	**1.05**	**114**	P		**Pb**	**05 47 05.8**	**-0.2**
JIRJ	**Irabujima**	**1.43**	**100**	*eP*		**Pn**	**05 47 10.8**	**-0.9**
JIRJ				*eS*		**Sn**	**05 47 29.9**	**-0.8**
KSRS	**Korea Array**	**12.86**	**15**	Pn			05 50 00.7	
	0.2nm,0.3s,baz=191,slow=13,SNR=6.5							
KSRS					LR	LR	05 54 48.9	
	comp=Z,104nm,19.3s,baz=205,slow=36							
	1.5nm,0.7s							
KSRS					AML	AML		
MJAR	**Matsushiro Arr**	**16.91**	**44**	LR		LR	05 57 38.1	
	comp=Z,54nm,18.6s,baz=237,slow=37							
DAV	**Davao City (W)**	**18.01**	**174**	LR		LR	05 57 50.5	
	comp=Z,59nm,21.4s,baz=344,slow=37							
USRK	**Ussuriysk Ar.**	**20.25**	**18**	LR		LR	05 59 32.0	
	comp=Z,65nm,19.1s,baz=189,slow=37							
KLR	**Kul'dur**	**24.92**	**13**	LR		LR	06 02 16.6	
	comp=Z,88nm,19.0s,baz=196,slow=37							
SIJI	**Sorong**	**26.83**	**163**	LR		LR	06 00 54.6	
	comp=Z,52nm,21.8s,baz=224,slow=32							
KAPI	**Kappang**	**30.16**	**188**	LR		LR	06 06 12.1	
	comp=Z,23nm,18.0s,baz=4.5,slow=39							
TLY	**Talaya**	**30.64**	**335**	LR		LR	06 06 10.0	
	comp=Z,68nm,19.7s,baz=86,slow=38							
YAK	**Yakutsk**	**37.16**	**5**	LR		LR	06 09 56.1	
	comp=Z,32nm,21.9s,baz=208,slow=37							
PETK	**Petropavlovsk-**	**37.88**	**33**	LR		LR	06 09 39.2	
	comp=Z,26nm,19.3s,baz=277,slow=36							
MKAR	**Makanchi Array**	**39.29**	**314**	P		**P**	**05 54 15.2**	**+0.2**
	2.3nm,0.9s,baz=104,slow=10,SNR=12							
MKAR					LR	LR	06 11 16.0	
	comp=Z,85nm,18.1s,baz=15,slow=38							
	2.3nm,0.9s							

KURBB	**Kurchatov Arra**	**42.90**	**318**	P		**P**		**05 54 44.6**	**+0.1**
	0.9nm,0.8s,baz=111,slow=8.6,SNR=5.3								
	0.9nm,0.8s								
WRA	**Warramunga Arr**	**45.95**	**166**	P		**P**		**05 55 10.2**	**+1.0**
	0.6nm,0.7s,baz=346,slow=7.9,SNR=5.1								
	0.6nm,0.7s								
NRIK	**Noril'sk**	**49.14**	**344**	LR		LR		06 18 43.2	
	comp=Z,118nm,18.7s,baz=290,slow=39								
ASAR	**Alice Springs**	**49.47**	**168**	P		**P**		**05 55 38.1**	**+1.6**
	0.3nm,0.6s,baz=344,slow=8.4,SNR=4.4								
	0.3nm,0.6s								
ARTI	**Arti**	**55.85**	**322**	LR		LR		06 20 31.1	
	comp=Z,89nm,20.2s,baz=354,slow=36								
ARCES	**ARCESS Array B**	**69.54**	**338**	LR		LR		06 36 50.6	
	comp=Z,38nm,19.9s,baz=296,slow=43								
NOA	**NORSAR Array B**	**78.47**	**333**	LR		LR		06 37 53.5	
	comp=Z,36nm,20.8s,baz=280,slow=39								

*IDC **13** 06:05:38.2±3.7, 2.02N×127.92E, h157km±41km, mb3.4/9, mbtmp3.9/10, Error ellipse: s-maj=68.4km s-min=13.6km az=73.0*
*DJA **13** 06:05:43.1±6.1, 2.7N±26.1×12.8E±1.6, h126km±53km, M3.4/5, MLv3.4/5*
ISC 13 06:05:37.4±0.9, 2.0N±0.2×127.8E±0.3, h150km, n11, σ0.58/10, mb3.7/8, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
GAMI	**Galela, Maluku**	**0.18**	**188**	P		Pn	06 06 02.3	+4.6
GAMI					AML	AML		
SIJI	**Sorong**	**4.49**	**130**	P		**Pn**	**06 06 44.4**	**+0.3**
	8.0nm,0.3s,baz=322,slow=10,SNR=4.5							
FITZ	**Fitzroy Crossi**	**20.11**	**186**	P		**P**	**06 09 59.4**	**-0.2**
	2.4nm,0.8s,baz=19,slow=9.3,SNR=7.3							
	2.4nm,0.8s							
WRA	**Warramunga Arr**	**22.75**	**164**	P		**P**	**06 10 26.9**	**0.0**
	1.8nm,0.4s,baz=344,slow=10,SNR=49							
	1.8nm,0.4s							
ASAR	**Alice Springs**	**26.21**	**167**	P		**P**	**06 10 58.9**	**+0.5**
	0.6nm,0.4s,baz=353,slow=7.9,SNR=15							
	0.6nm,0.4s							
STKA	**Stephens Creek**	**36.16**	**160**	P		**P**	**06 12 24.9**	**-0.6**
	1.3nm,0.3s,baz=328,slow=8.8,SNR=5.7							
	1.3nm,0.3s							
SONM	**Songino Array**	**49.25**	**341**	P		**P**	**06 14 10.3**	**-0.6**
	0.3nm,0.5s,baz=146,slow=8.0,SNR=5.4							
	0.3nm,0.5s							
**

comp=N,168nm,0.4s
GOMA Golmarmara-Man 1.17 42 Pn **Pb** **06 06 34.8 +0.2**
GOMA AML AML
DKL Dikili 1.23 360 Pn **Pn** **06 06 36.6 +1.1**
DKL AML AML
DAT Datca 1.23 154 P **Pg** **06 06 35.1 -1.0**
DAT S **Sb** **06 06 52.0 +0.4**
DAT AML AML
AKS Akhisar 1.25 34 Pn **Pb** **06 06 35.6 -0.5**
AKS AML AML
YER Yerkesik 1.30 123 P **Pn** **06 06 36.4 -0.1**
YER S **Sn** **06 06 54.3 +0.5**
YER Yerkesik 1.30 123 Pn **Pn** **06 06 36.8 +0.3**
YER AML AML
APE Apeiranthos 1.35 235 P **Pn** **06 06 36.3 -0.9**
APE S **Sb** **06 06 54.1 -0.8**
APE AML AML
APE Apeiranthos 1.35 235 Pn **Pn** **06 06 37.5 +0.3**
APE AML AML
SOMA Soma-Manisa 1.40 20 Pn **Pb** **06 06 38.8 +0.2**
SOMA AML AML
GORD Gordes-Manisa 1.46 43 Pn **Pg** **06 06 39.9 -0.5**
GORD AML AML
PRK Paraskevi 1.49 340 P **Pn** **06 06 38.1 -1.0**
PRK S **Sn** **06 06 58.5 0.0**
PRK AML AML
YAYO Edremit-Balk 1.77 4 Pn **Pb** **06 06 45.1 +0.2**
YAYO AML AML
ARG Arkhangelos 1.89 149 P **Pn** **06 06 44.7 +0.1**
BALB Balikesir 1.95 22 Pn **Pb** **06 06 47.0 -0.9**
BALB AML AML
KARY Karystos 1.97 276 P **Pn** **06 06 45.1 -0.6**
KARY S **Sn** **06 07 11.0 +0.6**
KARY AML AML
EZN Ezine 2.03 347 P **Pn** **06 06 46.4 -0.2**
EZN S **Sn** **06 07 12.8 +0.9**
BOZC Bozcaada 2.11 342 Pn **Pb** **06 06 49.7 -0.9**
BOZC AML AML

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*BJI **13** 06:35:58.3,25˙01N×123˙62E,h10km,mB4.6/8,mb4.2/17, ML4.2/1,Ms4.5/9,Ms7 4.3/9*
*IDC **13** 06:35:58.8±0.8,25˙00N×123˙22E,h0km,mb3.9/10, mbtmp3.9/13,ML3.3/3,MS3.3/1,Error ellipse: s-maj=20.2km s-min=16.6km az=76.0*
*NIED **13** 06:35:59.9,25˙06N×123˙68E,h18km,MW4.5,Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-4.39; $M_{\theta\theta}$4.12; $M_{\phi\phi}$0.27; $M_{r\theta}$-3.69; $M_{\theta\phi}$0.55; $M_{\phi r}$-1.36; Fault plane solution: $M_0$5.83000×10^{15} NP1: ϕ_s269.00000°,δ24.00000°,λ-76.00000°. NP2:ϕ_s74.00000°, δ66.00000°,λ-96.00000°.*
*NEIC **13** 06:35:59.2±1.2,24˙98N±0˙06×123˙57E±0˙07,h10km±1km, mb4.3/21 Error ellipse: s-maj=12.6km s-min=8.6km az=132.0*
*JMA **13** 06:35:59.9±0.2,25˙1N±0˙8×123˙7E±0˙4,h18km,MD4.5/9, MV3.7/9,NW OFF ISHIGAKIJIMA IS*

ISC 13 06:36:02.0±0.5,24°88N±0˙04×123°60E±0˙03,h32km,n66, σ1♀58/74,mb4.1/23,1C,Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.56**	**167**	*eP*	**Pn**	**06 36 13.5**	**-0.2**
IRIF				A	A	06 36 13.5	
	comp=N,30nm,2.8s,comp=E,14nm,1.1s						
IRIF				*eS*	**Sn**	**06 36 23.3**	**+1.4**
YOJ	**Yonaguni jima**	**0.68**	**232**	Pn	**Pb**	**06 36 15.3**	**-0.1**
YOJ					**Sb**	**06 36 22.4**	**-2.2**
YOJ	**Yonaguni jima**	**0.68**	**232**	P	**Pb**	**06 36 15.9**	**+0.4**
YOJ				A	A	06 36 15.9	
	comp=N,17nm,9.5s,comp=E,14nm,5.1s						
JISG	**Ishigakijimahi**	**0.71**	**114**	P	**Pn**	**06 36 14.1**	**-1.8**
JISG				A	A	06 36 14.1	
	comp=N,10.0nm,7.8s,comp=E,11nm,0.9s						
JISG				*eS*	**Sb**	**06 36 24.1**	**-1.5**
JIJ	**Ishigaki jima**	**0.72**	**136**	P	**Pn**	**06 36 14.9**	**-1.0**
JIJ				A	A	06 36 14.9	
	comp=N,7.0nm,7.2s,comp=E,6.0nm,6.1s						
JIJ				*eS*	**Sn**	**06 36 26.3**	**+0.4**
JYNG	**Yonagunijimaku**	**0.73**	**234**	P	**Pb**	**06 36 16.7**	**+0.3**
JYNG				A	A	06 36 16.7	
	comp=N,20nm,4.8s,comp=E,18nm,4.8s						
JKRS	**Kuro-shima**	**0.74**	**149**	*eP*	**Pb**	**06 36 16.3**	**-0.3**
JKRS				A	A	06 36 16.3	
	comp=N,30nm,2.1s,comp=E,23nm,3.2s						
HATJ	**Hateruma jima**	**0.84**	**167**	A	A	06 36 18.4	
	comp=N,55nm,3.8s,comp=E,26nm,2.5s						
JTJ	**Tarama**	**1.03**	**103**	*eP*	**Pn**	**06 36 19.1**	**-1.2**
JTJ				A	A	06 36 19.1	
	comp=N,17nm,1.4s,comp=E,16nm,1.8s						
JIRJ	**Irabujima**	**1.45**	**92**	*eP*	**Pn**	**06 36 23.9**	**-2.2**
TATO	**Taipei**	**1.92**	**273**	Pn	**Pn**	**06 36 31.6**	**-0.9**
NACB	**Ninganchiao**	**1.95**	**249**	Pn	**Pn**	**06 36 32.2**	**-0.8**
YHNB	**Yeheng**	**2.03**	**265**	Pn	**Pn**	**06 36 33.5**	**-0.6**
YULB	**Yu-li**	**2.57**	**235**	Pn	**Pn**	**06 36 41.3**	**-0.1**
SSLB	**Suanglung**	**2.64**	**246**	Pn	**Pn**	**06 36 41.3**	**-1.2**
TWG	**Pinlang**	**3.09**	**229**	Pn	**Pn**	**06 36 47.8**	**-0.8**
TPUB	**Ta-pu**	**3.13**	**240**	Pn	**Pn**	**06 36 48.2**	**-1.1**
JOW	**Kunigami**	**4.64**	**64**	Pn	**Pn**	**06 37 14.1**	**+4.1**
	comp=E,2.4nm,0.3s,baz=257,slow=9.6,SNR=4.1						
JOW				LR	LR	06 38 55.3	
	comp=E,344nm,18.9s,baz=12,slow=36						
	comp=E,34nm,0.8s						
JOW				AML	AML		
JOW	**Kunigami**	**4.64**	**64**	Pn	**Pn**	**06 37 08.6**	**-1.3**
KSAR	**Wonju Array Be**	**13.05**	**15**	Pn	**Pn**	**06 39 02.0**	**-3.1**
KSRS	**Korea Array**	**13.07**	**15**	Pn	**Pn**	**06 39 09.1**	**+3.7**
	comp=E,0.2nm,0.3s,baz=192,slow=11,SNR=11						
	comp=E,0.6nm,0.4s						
KSRS				AML	AML		
MAJO	**Matsushiro**	**17.09**	**44**	Pn	**Pn**	**06 39 57.0**	**-1.5**
MJAR	**Matsushiro Arr**	**17.09**	**44**	P	**P**	**06 40 01.1**	**+1.0**
	comp=E,0.1nm,0.3s,baz=226,slow=11,SNR=2.4						
	comp=E,0.9nm,0.3s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**17.09**	**44**		**Pn**	**06 39 58.0**	**-0.6**
MJB9	**Matsu-Tunnel**	**17.09**	**44**	Pn	**Pn**	**06 39 57.5**	**-1.1**
HHC	**Hu-ho-hao-te**	**18.83**	**331**	*eP*	**Pn**	**06 40 19.8**	**-0.1**
HHC				*eS*	**Sn**	**06 43 47.3**	**-2.4**
HHC				pmax	pmax		
	comp=E,18nm,0.5s						
HHC				pmax	pmax		
	comp=E,140nm,5.0s						
HHC				L	L		
	comp=E,460nm,12.2s						
HHC				L	L		
	comp=E,310nm,13.0s						
HHC				L	L		
	comp=E,520nm,13.0s						
XLT	**XiLinHaoTe**	**19.94**	**344**	*eP*	**Pn**	**06 40 35.9**	**+2.7**
XLT				pP	pwP	06 40 40.3	-1.7
XLT				S	**Sn**	**06 44 17.9**	**+1.4**
XLT				pmax	pmax		
	comp=E,140nm,4.3s						
XLT				L	L		
	comp=E,59nm,13.2s						
XLT				L	L		
	comp=E,450nm,9.8s						
XLT				L	L		
	comp=E,760nm,14.0s						
USRK	**Ussuriysk Ar.**	**20.45**	**17**	P	**P**	**06 40 37.0**	**+0.2**
	comp=E,6.7nm,1.0s,baz=201,slow=10,SNR=4.2						
	comp=E,6.7nm,1.0s						
USRK	**Ussuriysk Ar.**	**20.45**	**17**	P	**P**	**06 40 36.0**	**-0.8**
BNX	**BinXian**	**21.04**	**7**	⇑P	**P**	**06 40 42.9**	**-0.2**
BNX				pP	**pP**	**06 40 45.9**	**-5.2**
BNX				S	**S**	**06 44 37.8**	**+2.2**
BNX				sS	Sn	06 44 43.4	+0.7
BNX				pmax	pmax		
	comp=E,12nm,0.9s						
BNX				L	L		
	comp=E,190nm,6.2s						
BNX				L	L		
	comp=E,320nm,6.5s						
BNX				L	L		
	comp=E,230nm,5.1s						
CMAR	**Chiang Mai Arr**	**23.77**	**259**	P	**P**	**06 41 13.1**	**+1.2**
	comp=E,1.4nm,0.3s,baz=63,slow=5.9,SNR=5.2						
GTA2	**Gaotai**	**24.78**	**312**	*eP*	**P**	**06 41 21.3**	**+0.2**
GTA2				sP	pP	06 41 27.8	-1.9
GTA2				pmax	pmax		
	comp=E,5.0nm,1.0s						
GTA2				L	L		
	comp=E,310nm,14.3s						
GTA2				L	L		
	comp=E,270nm,16.5s						
GTA2				L	L		
	comp=E,740nm,14.6s						
KLR	**Kul'dur**	**25.13**	**13**	P	**P**	**06 41 23.2**	**-0.8**
	comp=E,3.3nm,0.9s,baz=223,slow=8.6,SNR=5.2						
	comp=E,3.3nm,0.9s						
HEH	**HeiHe**	**25.50**	**6**	*eP*	**P**	**06 41 27.8**	**+0.5**
HEH				pmax	pmax		
	comp=E,8.0nm,0.8s						
ULN	**Ulaanbaatar**	**26.41**	**334**	P	**P**	**06 41 35.6**	**-0.3**
ULN				IAmb	IAmb	06 41 53.6	
	comp=E,8.2nm,1.1s						
SONM	**Songino Array**	**26.65**	**334**	P	**P**	**06 41 37.2**	**-0.8**
	comp=Z,1.1nm,0.9s,baz=146,slow=10,SNR=5.4						
SONM				PcP	**PcP**	**06 45 02.8**	**+1.5**
	comp=Z,0.3nm,0.4s,baz=149,slow=3.0,SNR=2.0						
	comp=Z,1.1nm,0.9s						
WMQ	**Urumqi**	**34.79**	**312**	*eP*	**P**	**06 42 52.1**	**+2.3**
WMQ				L	L		
	comp=Z,1μm,18.5s						
WMQ				L	L		
	comp=Z,680nm,10.7s						
WMQ				L	L		
	comp=Z,390nm,15.3s						
MKAR	**Makanchi Array**	**39.39**	**314**	P	**P**	**06 43 28.0**	**-0.7**
	comp=Z,5.4nm,1.0s,baz=106,slow=11,SNR=21						
	comp=Z,5.4nm,1.0s						
MKAR	**Makanchi Array**	**39.39**	**314**		**P**	**06 43 28.4**	**-0.4**
MAKZ	**Makanchi**	**39.60**	**314**		**P**	**06 43 29.8**	**-0.8**
MAKZ				IAmb	IAmb	06 43 31.9	
	comp=Z,7.6nm,1.1s						
PDGK	**Podgornoye**	**40.36**	**308**	P	**P**	**06 43 36.3**	**-0.6**
ZAA0	**Zalesovo Array**	**40.88**	**326**	P	**P**	**06 43 39.9**	**-1.1**
ZALV	**Zalesovo Beam**	**40.88**	**326**	P	**P**	**06 43 40.0**	**-1.0**
	comp=Z,1.5nm,0.7s,baz=112,slow=8.7,SNR=7.9						
	comp=Z,1.5nm,0.7s						
ZALV	**Zalesovo Beam**	**40.88**	**326**		**P**	**06 43 39.6**	**-1.3**
KURK	**Kurchatov**	**42.99**	**319**		**P**	**06 43 57.6**	**-0.6**
KURK				IAmb	IAmb	06 43 59.1	
	comp=Z,7.6nm,1.1s						
KURBB	**Kurchatov Arra**	**43.02**	**319**	P	**P**	**06 43 57.6**	**-0.8**
	comp=Z,3.9nm,1.0s,baz=109,slow=7.6,SNR=11						
	comp=Z,3.9nm,1.0s						
WB0	**Warramunga Arr**	**45.61**	**166**	P	**P**	**06 44 21.7**	**+2.2**
WB0				IAmb	IAmb	06 44 56.8	
	comp=Z,5.9nm,1.1s						
WRA	**Warramunga Array**	**45.77**	**166**	P	**P**	**06 44 23.5**	**+2.8**
	comp=Z,1.3nm,0.9s,baz=347,slow=8.8,SNR=8.9						
	comp=Z,1.3nm,0.9s						
WR8	**Warramunga Arr**	**45.81**	**166**	P	**P**	**06 44 23.2**	**+2.1**
KBL	**Kabul**	**47.86**	**295**	P	**P**	**06 44 37.2**	**-0.1**
BORK	**Borovoye**	**48.59**	**320**	P	**P**	**06 44 41.8**	**-0.6**
BORK				IAmb	IAmb	06 44 48.4	
	comp=Z,1.8nm,0.5s						
AS31	**Alice Springs**	**49.28**	**167**	P	**P**	**06 44 50.1**	**+2.1**
ASAR	**Alice Springs**	**49.28**	**167**	P	**P**	**06 44 51.0**	**+3.0**
	comp=Z,0.3nm,0.4s,baz=351,slow=7.0,SNR=8.2						
	comp=Z,0.3nm,0.4s						
ASAR	**Alice Springs**	**49.28**	**167**	P	**P**	**06 44 50.1**	**+2.1**
AB31	**Akbulak array**	**54.53**	**314**	P	**P**	**06 45 26.1**	**-0.8**
AB31				IAmb	IAmb	06 45 39.0	
	comp=Z,2.2nm,1.1s						
ABKAR	**Akbulak array**	**54.53**	**314**	P	**P**	**06 45 26.6**	**-0.3**
J20K	**Nowinta River**	**64.55**	**29**	P	**P**	**06 46 35.5**	**-0.1**
D22K	**Ayikyak River**	**64.79**	**23**	P	**P**	**06 46 36.2**	**-1.0**
D23K	**Nanushuk River**	**65.50**	**23**	P	**P**	**06 46 41.3**	**-0.5**
D23K				IAmb	IAmb	06 46 56.6	
	comp=Z,1.6nm,1.1s						
H22K	**Ishtalitna Cre**	**65.55**	**27**	P	**P**	**06 46 42.4**	**+0.2**
H22K				IAmb	IAmb	06 46 50.7	
	comp=Z,1.8nm,1.0s						
F24K	**Squaw Lake**	**66.72**	**25**	P	**P**	**06 46 48.8**	**-0.9**
F24K				IAmb	IAmb	06 47 01.2	
	comp=Z,1.8nm,1.0s						
SLKM	**Skilak Lake**	**66.83**	**32**	P	**P**	**06 46 50.0**	**-0.5**
F25K	**Christian Rive**	**67.55**	**25**	P	**P**	**06 46 54.5**	**-0.6**
F25K				IAmb	IAmb	06 47 32.5	
	comp=Z,1.9nm,1.1s						
BMAR	**Burnt Mountain**	**67.99**	**25**	P	**P**	**06 46 57.2**	**-0.5**
FINES	**FINESS Array B**	**71.95**	**330**	P	**P**	**06 47 21.4**	**-0.6**
	comp=Z,1.7nm,0.8s,baz=49,slow=4.2,SNR=4.3						
	comp=Z,1.7nm,0.8s						
BRTR	**Keskin Array B**	**74.52**	**307**	P	**P**	**06 47 37.9**	**0.0**
	comp=Z,1.3nm,1.1s,baz=46,slow=6.2,SNR=4.1						
	comp=Z,1.3nm,1.1s						

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*IDC **13** 06:41:37.9±0.6,25˙05N×123˙40E,h0km,mb4.1/21, mbtmp4.1/24,ML3.1/3,MS4.3/73,Error ellipse: s-maj=16.9km s-min=13.6km az=65.0*
*NIED **13** 06:41:38.1,25˙09N×123˙66E,h13km,MW4.9,Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.04; $M_{\theta\theta}$1.93; $M_{\phi\phi}$0.11; $M_{r\theta}$-1.39; $M_{\theta\phi}$0.22; $M_{\phi r}$-0.62; Fault plane solution: $M_0$2.51000×10^{16} NP1: ϕ_s272.00000°,δ28.00000°,λ-73.00000°. NP2:ϕ_s73.00000°, δ64.00000°,λ-98.00000°.*
*JMA **13** 06:41:38.1±0.3,25˙1N±1˙1×123˙7E±0˙5,h13km,MD5.1/11, MW4.9/11,NW OFF ISHIGAKIJIMA IS*
*NEIC **13** 06:41:39.6±1.9,24˙99N±0˙04×123˙46E±0˙06,h10km±1km, mb4.9/38,Mww4.8/20,Error ellipse: s-maj=9.7km s-min=5.4km az=121.0*
*BJI **13** 06:41:40.2,25˙19N×123˙43E,h10km,mB5.0/25,mb4.5/50, ML4.8/2,Ms4.9/53,Ms7 4.7/52*
*GFZ **13** 06:41:40.2,25˙25N×123˙60E,h10km,Mw4.8/53,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-1.93; $M_{\theta\theta}$1.92; $M_{\phi\phi}$0.02; $M_{r\theta}$0.40; $M_{\theta\phi}$0.32; $M_{\phi r}$0.26; Fault plane solution: $M_0$2.00987×10^{16} NP1:ϕ_s86.14067°, δ38.89030°,λ-81.53614°. NP2:ϕ_s255.31738°,δ51.61128°, λ-96.77061°. Principal axes: T 2.0196, Plg6.3884°, Azm350.1293°; N -0.0196, Plg5.3021°, Azm259.5339°; P -2.0000, Plg81.6838°, Azm130.1217°;*
*GFZ **13** 06:41:40.2±0.2,25˚N±3˚×12˚4E±˚,h10km,M5.0/26, mb4.7/26*
*GCMT **13** 06:41:40.6±0.2,25˙07N±0˙01×123˙47E±0˙02,h12km, MW4.9/119,Moment Tensor Solution. s45,c53; s119,c189; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.64±.06; $M_{\theta\theta}$2.81±.05; $M_{\phi\phi}$-0.17±.06; $M_{r\theta}$0.21±.17; $M_{\theta\phi}$0.21±.05; $M_{\phi r}$0.79±.23; Best double couple: $M_0$2.85500×10^{16} NP1:ϕ_s101.00000°,δ44.00000°, λ-67.00000°. NP2:ϕ_s251.00000°,δ50.00000°, λ-111.00000°. Principal axes: T 2.8380, Plg3.0000°, Azm355.0000°; N 0.0330, Plg16.0000°, Azm264.0000°; P -2.8730, Plg74.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 06:41:39.7±0.6,25°03N±0˙03×123°56E±0˙03,h10km±3km, n232,σ1♀97/177,mb4.7/80,MS4.3/77,1D,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.71**	**168**	*eP*	**Pg**	**06 41 52.6**	**-0.9**
IRIF				A	A	06 41 52.6	
	comp=N,93nm,8.4s,comp=E,34nm,2.9s						
IRIF				*eS*	**Sg**	**06 42 01.8**	**-0.9**
YOJ	**Yonaguni jima**	**0.76**	**222**	Pg	**Pg**	**06 41 52.5**	**-1.9**
YOJ				Sg	**Sg**	**06 42 00.1**	**-4.2**
YOJ	**Yonaguni jima**	**0.76**	**222**	P	**Pn**	**06 41 57.0**	**+0.5**
YOJ	**Yonaguni jima**	**0.76**	**222**	*eP*	**Pg**	**06 41 54.3**	**-0.1**
YOJ				A	A	06 41 54.3	
	comp=N,74nm,7.4s,comp=E,54nm,6.4s						
YOJ				*eS*	**Sb**	**06 42 06.2**	**+0.9**
JYNG	**Yonagunijimaku**	**0.81**	**224**	*eP*	**Pg**	**06 41 54.9**	**-0.4**
JYNG				A	A	06 41 54.9	
	comp=N,83nm,4.9s,comp=E,77nm,4.4s						
JYNG				*eS*	**Sb**	**06 42 08.0**	**+1.3**
JISG	**Ishigakijimahi**	**0.81**	**123**	P	**Pg**	**06 41 53.1**	**-2.3**
JISG				A	A	06 41 53.1	
	comp=N,30nm,10.0s,comp=E,29nm,4.7s						
JISG				*eS*	**Sg**	**06 42 03.9**	**-2.1**
JIJ	**Ishigaki jima**	**0.85**	**141**	*eP*	**Pg**	**06 41 53.7**	**-2.4**
JIJ				A	A	06 41 53.7	
	comp=N,30nm,7.2s,comp=E,24nm,3.2s						
JKRS	**Kuro-shima**	**0.89**	**153**	*eP*	**Pg**	**06 41 54.7**	**-2.1**
JKRS				A	A	06 41 54.7	
	comp=N,156nm,2.5s,comp=E,99nm,2.8s						
HATJ	**Hateruma jima**	**0.99**	**167**	*eP*	**Pg**	**06 41 58.1**	**-0.8**
HATJ				A	A	06 41 58.1	
	comp=N,198nm,4.1s,comp=E,77nm,2.8s						
JTJ	**Tarama**	**1.11**	**110**	*eP*	**Pn**	**06 41 57.5**	**-3.8**
JTJ				A	A	06 41 57.5	
	comp=N,46nm,5.3s,comp=E,40nm,7.3s						
JIRJ	**Irabujima**	**1.49**	**97**	*eP*	**Pn**	**06 42 03.5**	**-3.1**
JIRJ				A	A	06 42 03.5	
	comp=N,34nm,4.4s,comp=E,34nm,4.5s						
JIKM	**Ikemajima**	**1.53**	**94**	A	A	06 42 04.0	
	comp=N,43nm,10.6s,comp=E,41nm,4.2s						
JMJ2	**Miyako jima3**	**1.63**	**100**	A	A	06 42 05.5	
	comp=N,43nm,7.9s,comp=E,39nm,8.9s						
JOGS	**Gusukube**	**1.70**	**99**	A	A	06 42 06.5	
	comp=N,59nm,9.2s,comp=E,42nm,6.1s						
TATO	**Taipei**	**1.88**	**269**	Pn	**Pn**	**06 42 11.1**	**-0.9**
TATO	**Taipei**	**1.88**	**269**	P	**Pb**	**06 42 12.9**	**-1.3**
NACB	**Ninganchiao**	**1.98**	**245**	Pn	**Pn**	**06 42 12.6**	**-0.7**
NACB	**Ninganchiao**	**1.98**	**245**	P	**Pg**	**06 42 16.7**	**-1.1**
YHNB	**Yeheng**	**2.02**	**260**	Pn	**Pn**	**06 42 12.7**	**-1.2**
YHNB	**Yeheng**	**2.02**	**260**	P	**Pb**	**06 42 14.7**	**-1.8**
YULB	**Yu-li**	**2.63**	**232**	P	**Pb**	**06 42 27.0**	**0.0**
SSLB	**Suanglung**	**2.68**	**243**	P	**Pb**	**06 42 26.2**	**-1.6**
TWG	**Pinlang**	**3.17**	**227**	Pn	**Pn**	**06 42 28.9**	**-0.8**
TWG	**Pinlang**	**3.17**	**227**	P	**Pn**	**06 42 31.6**	**+2.0**
TPUB	**Ta-pu**	**3.19**	**238**	P	**Pb**	**06 42 33.2**	**-3.2**
JOW	**Kunigami**	**4.61**	**66**	Pn	**Pn**	**06 42 50.1**	**+0.8**
	comp=E,1.4nm,0.3s,baz=254,slow=15,SNR=3.8						
	comp=E,45nm,1.0s						
JOW				AML	AML		
JOW	**Kunigami**	**4.61**	**66**	Pn	**Pn**	**06 42 51.0**	**+1.6**
JOW	**Kunigami**	**4.61**	**66**	P	**Pn**	**06 42 50.0**	**+0.7**
SSE	**Sheshan**	**6.39**	**341**	Pn	**Pn**	**06 43 12.3**	**-1.7**
SSE				Sn	**Sn**	**06 44 26.4**	**-0.6**
SSE				AML	AML		
	comp=E,320nm,1.1s						
SSE				AML	AML		
	comp=E,320nm,1.5s						
SSE				L	L		
	comp=E,4μm,14.4s						
SSE				L	L		
	comp=E,4μm,14.6s						
NJ2	**Nanjing**	**8.13**	**330**	*eP*	**Pn**	**06 43 37.1**	**-0.6**
NJ2				pmax	pmax		
	comp=E,13nm,0.7s						
NJ2				L	L		
	comp=E,4μm,8.5s						
NJ2				L	L		
	comp=E,4μm,7.1s						
NJ2				L	L		
	comp=E,4μm,7.1s						
WHN	**Wuhan**	**9.83**	**306**	P	**Pn**	**06 44 00.3**	**-0.8**
WHN				S	**Sn**	**06 45 53.3**	**+1.8**
WHN				L	L		
	comp=E,12μm,11.4s						
WHN				L	L		
	comp=E,11μm,8.8s						
WHN				L	L		
	comp=E,7μm,7.5s						
JNU	**Nakatsue**	**10.29**	**37**	Pn	**Pn**	**06 44 10.6**	**+3.2**
	comp=E,0.2nm,0.3s,baz=219,slow=14,SNR=2.0						
JNU				LR	LR	06 48 39.4	
	comp=E,1μm,18.2s,baz=216,slow=41						
	comp=E,5.6nm,0.8s						
JNU				AML	AML		
JTU	**Tsushima**	**10.73**	**27**	Pn	**Pn**	**06 44 14.2**	**+0.8**
INCN	**Inchon**	**12.69**	**11**	Pn	**Pn**	**06 44 39.7**	**-0.5**
KSAR	**Wonju Array Be**	**12.91**	**16**	Pn	**Pn**	**06 44 42.9**	**-0.3**
KSRS	**Korea Array**	**12.93**	**16**	Pn	**Pn**	**06 44 52.2**	**+8.7**
	comp=E,0.4nm,0.3s,baz=189,slow=12,SNR=8.2						
KSRS				LR	LR	06 50 13.5	
	comp=E,1μm,19.9s,baz=205,slow=40						
KS19	**Wonju Array Si**	**12.96**	**15**		**Pn**	**06 44 43.0**	**-1.0**
DL2	**Dalian**	**13.93**	**354**	P	Pn	06 44 42.6	-15
DL2				S	Sn	06 47 09.3	-23
DL2				pmax	pmax		
	comp=Z,24nm,1.2s						
DL2				pmax	pmax		
	comp=Z,560nm,10.2s						
DL2				LR	LR		
	comp=N,3μm,13.9s						
DL2				LR	LR		
	comp=E,1μm,12.5s						
DL2				LR	LR		
	comp=E,4μm,14.0s						
QIZ	**Qiongzhong**	**14.05**	**248**	P	**Pn**	**06 44 56.9**	**-2.0**
QIZ				S	**Sn**	**06 47 34.1**	**-0.9**
QIZ				L	L		
	comp=Z,1μm,10.0s						
QIZ				L	L		
	comp=Z,1μm,5.7s						
QIZ				L	L		
	comp=Z,1μm,8.0s						
TIY	**Taiyuan**	**15.80**	**326**	P	**P**	**06 45 32.8**	**+6.6**
TIY				S	**Sn**	**06 48 19.8**	**+2.3**
TIY				pmax	pmax		
	comp=Z,440nm,5.9s						
TIY				LR	LR		
	comp=N,2μm,9.7s						
TIY				LR	LR		
	comp=E,2μm,10.3s						
TIY				LR	LR		
	comp=Z,2μm,9.7s						
MJAR	**Matsushiro Arr**	**17.00**	**44**	P	**P**	**06 45 39.6**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=229,slow=10,SNR=6.3						
MJAR				LR	LR	06 52 12.7	
	comp=Z,770nm,19.9s,baz=223,slow=37						
	comp=Z,2.4nm,0.6s						
MJAR				AML	AML		
DAV	**Davao City (W)**	**17.96**	**173**	LR	LR	06 52 33.4	
	comp=Z,1μm,21.4s,baz=350,slow=36						
CD2	**Chengdu**	**18.44**	**293**	P	**Pn**	**06 45 54.6**	**-0.9**
CD2				sP	sP	06 45 58.9	0.0
CD2				S	**Sn**	**06 49 21.8**	**+0.2**
CD2				pmax	pmax		
	comp=Z,20nm,0.6s						
CD2				pmax	pmax		
	comp=Z,390nm,4.9s						
CD2				L	L		
	comp=Z,6μm,12.4s						
CD2				L	L		
	comp=Z,3μm,8.6s						
CD2				L	L		
	comp=Z,3μm,8.6s						
SLVN	**Son La**	**18.44**	**262**		**Pn**	**06 45 52.6**	**-3.0**
SLVN	**Son La**	**18.44**	**262**	P	**Pn**	**06 45 54.9**	**-0.7**
	comp=Z,20nm,1.4s						
HHC	**Hu-ho-hao-te**	**18.68**	**331**	*eP*	**P**	**06 45 57.0**	**-1.1**
HHC				sP	pwP	06 46 04.8	+1.6
HHC				*eS*	**Sn**	**06 49 27.3**	**-0.1**
HHC				SS	**SnSn**	**06 49 45.8**	**+4.3**
HHC				pmax	pmax		
	comp=Z,16nm,0.6s						
HHC				pmax	pmax		
	comp=Z,220nm,4.6s						
HHC				L	L		
	comp=Z,2μm,14.5s						
HHC				L	L		
	comp=Z,1μm,13.8s						
HHC				L	L		
	comp=Z,2μm,13.7s						
KMI2	**Kunming**	**18.86**	**275**	P	**Pn**	**06 46 05.3**	**+4.5**
KMI2				pmax	pmax		
	comp=Z,14nm,0.8s						
KMI2				L	L		
	comp=Z,2μm,10.0s						
KMI2				L	L		
	comp=Z,2μm,7.8s						
KMI2				L	L		

PZH L L
comp=Z,770nm,7.7s
PZH L L
comp=Z,3μm,8.4s
PZH L L
comp=Z,2μm,8.2s
MDJ Mudanjiang 20.14 13 P Pn 06 46 15.8 0.0
MDJ pmax pmax
comp=Z,13nm,1.4s
MDJ pmax pmax
comp=Z,530nm,11.0s
MDJ L L
comp=Z,4μm,14.4s
KKM Kota Kinabalu 20.15 202 P 06 46 12.2 -2.1
KKM IAmb IAmb 06 46 22.5
comp=Z,71nm,1.9s
LZH Lanzhou 20.20 308 *e*P Pn 06 46 18.9 +2.1
LZH sP pwP 06 46 25.6 +5.6
LZH pmax pmax
comp=Z,40nm,1.1s
LZH pmax pmax
comp=Z,610nm,4.5s
LZH L L
comp=Z,2μm,11.2s
LZH L L
comp=Z,1μm,10.7s
LZH L L
comp=Z,2μm,13.4s
LZDM Lanzhou Array 20.25 307 P Pn 06 46 18.9 +1.4
comp=Z,3.4nm,0.3s,baz=75,slow=18,SNR=1.5
LZDM LR LR 06 54 44.4
comp=Z,1μm,18.9s,baz=95,slow=39
USRK Ussuriysk Ar. 20.32 18 P **P 06 46 15.8 0.0**
comp=Z,8.6nm,1.1s,baz=152,slow=8.6,SNR=7.4
USRK LR LR 06 54 05.2
comp=Z,812nm,18.5s,baz=193,slow=37
comp=Z,8.6nm,1.1s
BNX BinXian 20.89 8 ⇓P **P 06 46 22.5 +0.5**
BNX pP **sP 06 46 25.4 -0.1**
BNX S **S 06 50 14.3 -0.6**
BNX sS **sS 06 50 18.8 +0.1**
BNX pmax pmax
comp=Z,30nm,1.1s
BNX pmax pmax
comp=Z,340nm,3.8s
BNX L L
comp=Z,2μm,12.7s
BNX L L
comp=Z,2μm,13.0s
BNX L L
comp=Z,2μm,14.5s
GUMO Guam 23.07 116 LR LR 06 53 50.4
comp=Z,182nm,20.7s,baz=304,slow=32
CHTO Chiang Mai 23.64 260 P **P 06 46 48.8 -2.5**
CHTO Chiang Mai 23.64 260 P **P 06 46 55.3 +4.0**
CHTO Chiang Mai 23.64 260 P **P 06 46 53.6 +2.2**
comp=Z,20nm,1.4s
CMAR Chiang Mai Arr 23.76 259 P **P 06 46 54.0 +1.5**
comp=Z,1.1nm,0.3s,baz=58,slow=8.0,SNR=12
CMAR LR LR 06 56 54.0
comp=Z,330nm,18.2s,baz=50,slow=39
CMAR Chiang Mai Arr 23.76 259 P **P 06 46 49.1 -3.4**
TOLI2 Tolitoli 23.93 187 P **P 06 46 52.9 -1.1**
GTOI Gorontalo 24.26 181 P **P 06 46 59.6 +2.5**
comp=Z,762nmcomp=Z,21nm,1.5s
TNTI Ternate 24.40 171 P **P 06 46 57.0 -1.4**
TNTI IAmb IAmb 06 47 24.3
comp=Z,76nm,1.4s
TNTI Ternate 24.40 171 P **P 06 47 04.7 +6.3**
GTA2 Gaotai 24.66 312 P **P 06 47 00.3 -0.5**
GTA2 pmax pmax
comp=Z,111nm,1.3s
GTA2 L L
comp=Z,2μm,14.0s
GTA2 L L
comp=Z,1μm,15.9s
GTA2 L L
comp=Z,1μm,18.7s
HILR Hailar Array B 24.66 354 P **P 06 47 00.2 -0.3**
comp=Z,2.0nm,0.5s,baz=185,slow=8.7,SNR=2.2
HILR LR LR 06 57 38.3
comp=Z,570nm,18.9s,baz=135,slow=39
comp=Z,2.0nm,0.5s
KLR Kul'dur 24.99 13 P **P 06 47 03.3 -0.1**
comp=Z,2.5nm,0.7s,baz=235,slow=8.8,SNR=7.1
KLR LR LR 06 57 09.1
comp=Z,1μm,18.4s,baz=204,slow=37
comp=Z,2.5nm,0.7s
NPW Naypyitaw 25.86 264 P **P 06 47 13.8 +2.1**
comp=Z,25nm,0.8s
LUWI Luwuk 25.93 182 P **P 06 47 11.6 -0.7**
ULN Ulaanbaatar 26.27 334 P **P 06 47 15.7 +0.4**
ULN IAmb IAmb 06 47 33.9
comp=Z,25nm,1.1s
ULN Ulaanbaatar 26.27 334 P **P 06 47 16.5 +1.3**
comp=Z,2μmcomp=Z,91nm,1.2s
ULN Ulaanbaatar 26.27 334 P **P 06 47 13.4 -1.9**
comp=Z,23nm,1.2s
SONM Songino Array 26.50 334 P **P 06 47 17.2 -0.1**
comp=Z,1.7nm,0.7s,baz=153,slow=9.6,SNR=5.7
SONM LR LR 06 59 00.5
comp=Z,1μm,18.3s,baz=146,slow=40
comp=Z,1.7nm,0.7s
SONM Songino Array 26.50 334 P **P 06 47 18.4 +1.1**
MORE Moreh 26.59 275 P **P 06 47 16.4 -1.8**
MORE IAmb IAmb 06 47 52.4
comp=Z,69nm,1.6s
SIJI Sorong 26.81 163 LR LR 06 55 47.6
comp=Z,558nm,21.6s,baz=350,slow=32
SANI Sanana 27.02 175 P **P 06 47 27.9 +5.8**
comp=Z,21nm,1.2s
GOMU GeErMu 27.03 301 P **P 06 47 23.4 +0.8**
GOMU pP pwP 06 47 26.8 -1.0
GOMU sP sP 06 47 31.5 +5.4
GOMU S **S 06 51 57.8 -2.7**
GOMU pmax pmax
comp=Z,10.0nm,1.1s
GOMU L L
comp=Z,490nm,10.0s
GOMU L L
comp=Z,480nm,10.0s
GOMU L L
comp=Z,710nm,10.2s
MMSI Mamuju 27.92 190 P P 06 47 38.6 +8.4
comp=Z,44nm,1.4s
TTSI Tana Toraja 28.14 188 P P 06 47 38.5 +6.3
NLAI Namlea 28.31 173 P P 06 47 40.1 +6.5
comp=Z,29nm,0.8s
MSAI Masohi 28.69 169 P P 06 47 42.2 +5.2
comp=Z,22nm,0.6s
PMSI Majene 28.72 190 P P 06 47 42.4 +5.1
comp=Z,38nm,1.0s
KDI Kendari 28.83 182 P P 06 47 44.9 +6.6
comp=Z,7μmcomp=Z,20nm,0.5s
SPSI Sidrap Palu 29.06 188 P P 06 47 49.3 +9.0
comp=Z,12nm,0.5s
KULM Kulim 29.47 232 P P 06 47 49.8 +5.8
comp=Z,15nm,1.5s
BBKI Banjar Baru 29.56 198 P **P 06 47 48.3 +3.5**
comp=Z,12μmcomp=Z,29nm,0.4s
IPM Ipoh 29.77 230 P **P 06 47 44.1 -2.6**
IPM IAmb IAmb 06 47 56.0
comp=Z,62nm,1.7s
IPM Ipoh 29.77 230 P P 06 47 55.5 +8.8
comp=Z,19nm,1.6s
IPM Ipoh 29.77 230 P **P 06 47 48.4 +1.6**
comp=Z,19nm,1.6s
KAPI Kappang 30.09 188 LR LR 07 00 56.4
comp=Z,371nm,19.8s,baz=356,slow=38
BTDF Bukit Timah Da 30.31 222 P P 06 47 56.6 +5.1
comp=Z,13nm,1.2s
TLY Talaya 30.65 335 LR LR 07 00 52.0
comp=Z,536nm,20.2s,baz=134,slow=38
JAY Jayapura 32.04 146 LR LR 06 58 35.9
comp=Z,611nm,21.3s,baz=358,slow=32
PSI Prapat 32.43 231 LR LR 07 00 19.2
comp=Z,312nm,22.0s,baz=62,slow=35
PSI Prapat 32.43 231 P **P 06 48 11.8 +1.5**
comp=Z,16nm,1.4s,comp=Z,19nm,1.4s
PSI P **pP 06 48 13.0 +0.1**
comp=Z,16nm,1.4s,comp=Z,19nm,1.4s
RPSI Rantau Prapat 32.51 231 **P 06 48 09.9 -0.9**
RPSI IAmb IAmb 06 48 20.0
comp=Z,34nm,1.4s
RPSI Rantau Prapat 32.51 231 P **P 06 48 12.2 +1.4**
comp=Z,19nm,1.4s
JMBI JAMBI 32.79 219 P **P 06 48 16.9 +3.6**

EVN Everest 32.94 283 P **P 06 48 13.8 -1.4**
comp=Z,6.9nm,1.2s
BSI Banda Aceh 33.34 239 P **P 06 48 18.1 -0.1**
comp=Z,37nm,1.4s
MNSI Mandailing Nat 33.43 228 P **P 06 48 20.1 +1.2**
LBFI Labuhan Bajo, 33.50 187 P **P 06 48 22.2 +2.8**
EDFI Ende, Flores 33.63 183 P **P 06 48 22.4 +1.8**
comp=Z,14nm,1.2s
PPI Padang Panjang 33.83 225 P **P 06 48 26.5 +4.1**
WMQ Urumqi 34.67 312 *e*P **P 06 48 31.3 +1.8**
WMQ sP pwP 06 48 36.8 +2.0
WMQ pmax pmax
comp=Z,16nm,0.7s
WMQ L L
comp=Z,1μm,18.3s
WMQ L L
comp=Z,670nm,10.1s
WMQ L L
comp=Z,280nm,17.3s
MASI Maura Aman, Be 34.83 219 P **P 06 48 35.7 +4.7**
MDSI Maura Dua 34.87 215 P P 06 48 37.6 +6.3
comp=Z,809nmcomp=Z,15nm,1.2s
BATI Baumata 35.02 180 LR LR 07 04 58.3
comp=Z,188nm,19.2s,baz=320,slow=40
YAK Yakutsk 37.22 5 LR LR 07 04 17.6
comp=Z,414nm,19.2s,baz=198,slow=36
PETK Petropavlovsk- 37.96 33 LR LR 07 04 51.9
comp=Z,464nm,19.1s,baz=235,slow=37
MKAR Makanchi Array 39.27 314 P **P 06 49 07.7 -0.8**
comp=Z,6.4nm,1.0s,baz=104,slow=10,SNR=28
MKAR LR LR 07 05 58.5
comp=Z,389nm,19.4s,baz=100,slow=37
comp=Z,6.4nm,1.0s
MA2 Magadan 39.39 22 LR LR 07 06 39.8
comp=Z,592nm,18.5s,baz=219,slow=38
MAKZ Makanchi 39.48 314 **P 06 49 09.9 -0.4**
MAKZ IAmb IAmb 06 49 17.9
comp=Z,30nm,1.1s
MAKZ Makanchi 39.48 314 P **P 06 49 10.0 -0.3**
comp=Z,31nm,1.5s
WUS Wushi 40.03 305 P **P 06 49 16.4 +1.3**
comp=Z,5.6nm,1.5s
KRVT Keravat (AS076 40.19 133 LR LR 07 02 34.8
comp=Z,152nm,21.6s,baz=134,slow=31
PDGK Podgornoye 40.24 308 **P 06 49 16.3 -0.5**
ZAA0 Zalesovo Array 40.74 325 **P 06 49 19.9 -0.7**
ZALV Zalesovo Beam 40.74 325 P **P 06 49 18.9 -1.7**
comp=Z,3.1nm,0.6s,baz=116,slow=8.0,SNR=14
ZALV LR LR 07 07 25.5
comp=Z,725nm,19.1s,baz=126,slow=38
comp=Z,3.1nm,0.6s
ZALV Zalesovo Beam 40.74 325 **P 06 49 19.2 -1.4**
TARG Taragay, Kyrgy 41.17 305 P **P 06 49 23.0 -1.8**
TARG Taragay, Kyrgy 41.17 305 P **P 06 49 21.6 -3.2**
comp=Z,12nm,1.8s
PMG Port Moresby 41.24 143 LR LR 07 05 29.0
comp=Z,218nm,19.8s,baz=274,slow=35
ASAI AKSAY(Kyrgyzs 42.01 304 P **P 06 49 28.5 -3.2**
comp=Z,6.5nm,1.4s
NRN Naryn 42.47 305 P **P 06 49 35.4 0.0**
NRN IAmb IAmb 06 49 43.9
comp=Z,30nm,1.2s
KSH2 Kashi 42.56 301 P **P 06 49 36.1 +0.2**
KSH2 pmax pmax
comp=Z,11nm,1.5s
KSH2 L L
comp=Z,690nm,14.4s
KSH2 L L
comp=Z,540nm,14.4s
KSH2 L L
comp=Z,830nm,15.8s
KURK Kurchatov 42.86 319 **P 06 49 37.1 -0.8**
KURK IAmb IAmb 06 49 45.0
comp=Z,16nm,0.9s
KURK Kurchatov 42.86 319 P **P 06 49 37.3 -0.7**
comp=Z,24nm,1.4s
KURBB Kurchatov Arra 42.88 319 P **P 06 49 37.2 -0.9**
comp=Z,1.8nm,0.6s,baz=110,slow=8.0,SNR=25
KURBB LR LR 07 08 50.2
comp=Z,328nm,18.2s,baz=178,slow=38
comp=Z,1.8nm,0.6s
FITZ Fitzroy Crossi 42.92 177 LR LR 07 08 21.5
comp=Z,50nm,20.1s,baz=353,slow=37
AAK Ala-Archa 43.73 306 LR LR 07 08 18.1
comp=Z,308nm,18.5s,baz=94,slow=37
AAK Ala-Archa 43.73 306 P **P 06 49 44.9 -0.5**
PALK Pallekele 44.55 254 LR LR 07 08 57.4
comp=Z,136nm,19.9s,baz=54,slow=37
OHH Osh 44.80 303 P **P 06 49 53.0 -0.9**
DRK Karamyk 45.49 302 P **P 06 49 58.3 -1.3**
DRK IAmb IAmb 06 51 17.6
comp=Z,15nm,0.8s
WRAB Tennant Creek 45.91 166 P **P 06 50 04.5 +1.9**
comp=Z,8.1nm,0.7s
WRA Warramunga Arr 45.92 166 P **P 06 50 02.6 -0.1**
comp=Z,3.4nm,0.8s,baz=348,slow=8.7,SNR=13
comp=Z,3.4nm,0.8s
WRA Warramunga Arr 45.92 166 **P 06 50 01.4 -1.4**
WR8 Warramunga Arr 45.97 166 **P 06 50 02.3 -0.8**
WR8 IAmb IAmb 06 50 38.8
comp=Z,12nm,1.1s
BTK Batken 46.27 302 P **P 06 50 06.1 +0.6**
comp=Z,7.9nm,1.6s
KK31 Karatay Array 46.70 306 P **P 06 50 07.6 -1.1**
KK31 IAmb IAmb 06 50 11.9
comp=Z,40nm,2.0s
KKAR Karatay Array 46.70 306 **P 06 50 08.2 -0.5**
TIXI Tiksi 46.75 2 LR LR 07 12 27.8
comp=Z,1μm,18.7s,baz=195,slow=40
TIXI Tiksi 46.75 2 P **P 06 50 07.9 -0.8**
comp=Z,23nm,1.2s
SHEM Shemya Is, Ala 46.79 40 LR LR 07 08 44.3
comp=Z,115nm,21.6s,baz=270,slow=35
MTSU Mount Surprise 47.43 153 P **P 06 50 16.4 +1.8**
comp=Z,5.5nm,1.1s
KBL Kabul 47.77 295 P **P 06 50 16.1 -1.3**
KBL Kabul 47.77 295 P **P 06 50 18.2 +0.7**
comp=Z,29nm,1.3s
QIS Mount Isa 47.93 160 P **P 06 50 18.2 -0.2**
comp=Z,7.4nm,2.0s
BVAR Borovoye Array 48.41 320 P **P 06 50 21.2 -0.7**
comp=Z,2.3nm,0.6s,baz=100,slow=8.1,SNR=9.1
comp=Z,2.3nm,0.6s
BORK Borovoye 48.46 320 P **P 06 50 21.0 -1.2**
BORK IAmb IAmb 06 50 29.3
comp=Z,7.2nm,0.9s
NRIK Noril'sk 49.17 344 P **P 06 50 25.7 -1.7**
comp=Z,2.9nm,0.8s,baz=115,slow=6.4,SNR=5.6
NRIK LR LR 07 13 27.5
comp=Z,1μm,18.5s,baz=136,slow=39
comp=Z,2.9nm,0.8s
HNR Honiara 49.30 129 LR LR 07 08 46.5
comp=Z,130nm,21.9s,baz=23,slow=33
AS31 Alice Springs 49.44 167 **P 06 50 31.2 +1.1**
ASAR Alice Springs 49.44 167 P **P 06 50 30.2 +0.2**
comp=Z,1.2nm,0.5s,baz=352,slow=7.6,SNR=28
ASAR LR LR 07 12 17.7
comp=Z,74nm,20.2s,baz=330,slow=37
comp=Z,1.2nm,0.5s
ASAR Alice Springs 49.44 167 **P 06 50 29.9 -0.1**
CTA Charters Tower 49.99 152 LR LR 07 13 07.6
comp=Z,172nm,18.1s,baz=28,slow=38
AB31 Akbulak array 54.41 314 **P 06 51 06.2 -0.7**
AB31 IAmb IAmb 06 51 25.9
comp=Z,10.0nm,1.1s
ABKAR Akbulak array 54.41 314 **P 06 51 06.2 -0.7**
FORT Forrest 55.66 175 P **P 06 51 15.7 -0.3**
FORT IAmb IAmb 06 53 06.1
comp=Z,8.8nm,1.1s
AKTO Aktyubinsk 55.69 315 LR LR 07 16 55.5
comp=Z,375nm,18.6s,baz=68,slow=38
ARTI Arti 55.84 322 LR LR 07 15 51.3
comp=Z,346nm,21.2s,baz=99,slow=37
NWAO Narrogin (SRO) 57.95 186 LR LR 07 15 57.9
comp=Z,101nm,21.4s,baz=20,slow=36
BBOO Buckleboo 58.74 168 P **P 06 51 36.7 -1.0**
STKA Stephens Creek 59.15 162 P **P 06 51 41.0 +0.4**
comp=Z,3.3nm,0.8s,baz=344,slow=10,SNR=4.4
STKA LR LR 07 18 46.5
comp=Z,192nm,19.2s,baz=9.2,slow=38
comp=Z,3.3nm,0.8s
CMSA Cobar Meteorol 60.10 158 P **P 06 51 50.0 +2.9**
comp=Z,13nm,0.4s
KIRV Kirov 60.77 325 LR LR 07 20 37.7
comp=Z,1μm,18.8s,baz=96,slow=38
D23K Nanushuk River 65.38 23 P **P 06 52 21.6 -0.4**
CAST Castle Rocks 65.42 29 P **P 06 52 21.5 -0.9**

CAST IAmb IAmb 06 53 30.4
comp=Z,24nm,1.7s
H22K Ishtalitna Cre 65.43 27 P **P 06 52 21.6 -0.8**
PPLA Purkeypile 65.44 30 P **P 06 52 22.0 -0.7**
TOLK Toolik Lake Re 65.81 24 P **P 06 52 23.8 -1.0**
TOLK IAmb IAmb 06 53 06.1
comp=Z,23nm,1.5s
BPAW Bear Paw Mtn. 65.82 29 P **P 06 52 24.3 -0.6**
KDAK Kodiak Island 65.96 36 LR LR 07 20 46.4
comp=Z,111nm,21.8s,baz=284,slow=36
GNI Garni 66.11 305 LR LR 07 25 06.1
comp=Z,164nm,18.8s,baz=80,slow=40
E24K Your Creek 66.29 24 P **P 06 52 27.4 -0.5**
E24K IAmb IAmb 06 53 12.3
comp=Z,28nm,1.9s
KBZ Khabaz 66.64 309 P **P 06 52 29.2 -1.3**
comp=Z,3.0nm,0.9s,baz=123,slow=5.7,SNR=7.2
KBZ LR LR 07 26 20.3
comp=Z,235nm,18.2s,baz=58,slow=40
comp=Z,3.0nm,0.9s
KIV Kislovodsk 66.74 309 P **P 06 52 30.6 -0.6**
comp=Z,24nm,1.3s
ILAR Eielson Array 67.47 28 P **P 06 52 35.5 +0.1**
comp=Z,0.8nm,0.9s,baz=298,slow=9.8,SNR=5.5
ILAR LR LR 07 24 36.8
comp=Z,110nm,18.1s,baz=271,slow=38
comp=Z,0.8nm,0.9s
MSVF Nonsavu 67.99 123 LR LR 07 20 39.7
comp=Z,57nm,18.9s,baz=226,slow=34
OBN Obninsk 68.18 322 LR LR 07 25 48.9
comp=Z,320nm,18.9s,baz=16,slow=39
SPITS Spitsbergen Ar 69.12 348 LR LR 07 27 25.6
comp=Z,397nm,18.5s,baz=62,slow=40
ARCES ARCESS Array B 69.56 338 LR LR 07 30 51.5
comp=Z,241nm,18.4s,baz=90,slow=42
OUL Oulu 70.74 334 P **P 06 52 53.3 -2.4**
comp=Z,29nm,1.4s
INK Inuvik 71.62 22 LR LR 07 28 11.0
comp=Z,195nm,18.0s,baz=333,slow=39
FINES FINESS Array B 71.81 330 P **P 06 53 01.2 -1.0**
comp=Z,3.5nm,0.9s,baz=67,slow=6.4,SNR=7.4
FINES LR LR 07 27 34.3
comp=Z,779nm,18.8s,baz=76,slow=38
comp=Z,3.5nm,0.9s
AKASG Malin Array Be 73.67 319 P **P 06 53 12.4 -1.1**
comp=Z,0.3nm,0.4s,baz=63,slow=4.9,SNR=4.5
AKASG LR LR 07 28 10.0
comp=Z,168nm,18.4s,baz=56,slow=38
comp=Z,0.3nm,0.4s
WHY Whitehorse 73.94 30 P **P 06 53 14.8 -0.3**
BRTR Keskin Array B 74.41 307 P **P 06 53 17.8 -0.4**
comp=Z,0.3nm,0.4s,baz=116,slow=5.6,SNR=3.7
BRTR LR LR 07 29 57.3
comp=Z,84nm,20.9s,baz=324,slow=39
comp=Z,0.3nm,0.4s
BRTR Keskin Array B 74.41 307 P **P 06 53 16.0 -2.3**
ASF Jabal al Asfar 74.47 299 LR LR 07 32 43.4
comp=Z,38nm,19.0s,baz=49,slow=41
PABE Paberze 74.93 324 P **P 06 53 20.2 -0.4**
comp=Z,25nm,1.3s
MMAI Mount Meron Ar 75.36 300 LR LR 07 32 14.1
comp=Z,129nm,18.8s,baz=50,slow=40
EIL Elat 76.92 297 LR LR 07 32 08.1
comp=Z,124nm,19.5s,baz=68,slow=40
DLBC Dease Lake 77.11 31 LR LR 07 30 09.4
comp=Z,94nm,18.8s,baz=258,slow=38
RES Resolute Bay 77.47 10 LR LR 07 29 56.6
comp=Z,199nm,21.4s,baz=9.0,slow=37
HFS Hagfors 77.88 331 LR LR 07 31 41.3
comp=Z,627nm,18.9s,baz=66,slow=39
NB2 NORSAR Subarra 78.48 333 P **P 06 53 39.0 -1.8**
comp=Z,13nm,1.2s,baz=54,slow=6.2
NOA NORSAR Array B 78.48 333 P **P 06 53 40.1 -0.7**
comp=Z,1.1nm,0.8s,baz=58,slow=5.7,SNR=3.5
NOA LR LR 07 31 54.2
comp=Z,445nm,18.7s,baz=65,slow=38
comp=Z,1.1nm,0.8s
JMIC Jan Mayen 78.56 346 LR LR 07 33 23.5
comp=Z,196nm,18.6s,baz=74,slow=40
OJC Ojcow 79.41 321 P **P 06 53 46.2 +0.2**
comp=Z,13nm,1.7s
VYHS Vyhne 80.75 319 *e*P **P 06 53 52.3 -1.0**
VYHS Vyhne 80.75 319 P **P 06 53 52.3 -1.0**
comp=Z,3.9nm,1.3s
RPZ Rata Peaks 81.10 147 LR LR 07 27 25.4
comp=Z,28nm,21.7s,baz=152,slow=34
YKA Yellowknife Ar 81.34 24 LR LR 07 33 24.2
comp=Z,111nm,18.1s,baz=292,slow=38
VRAC Vranov 81.67 321 LR LR 07 35 07.7
comp=Z,249nm,19.2s,baz=52,slow=39
CLL Collm 82.67 324 LH 07 22 00.0
CLL LV 07 25 00.0
CLL AMS AMS 07 35 00.0
comp=Z,400nm,16.7s
GERES GERESS Array B 83.55 321 P **P 06 54 07.4 -0.7**
comp=Z,0.3nm,0.2s,baz=66,slow=4.5,SNR=4.6
GERES LR LR 07 33 10.6
comp=Z,235nm,20.4s,baz=48,slow=37
comp=Z,0.3nm,0.2s
KIJV Kijevo 84.36 316 P **P 06 54 10.3 -1.9**
comp=Z,19nm,1.0s
BORG Borgarnes 86.46 346 LR LR 07 37 42.8
comp=Z,305nm,18.3s,baz=22,slow=39
TIP Timpagrande 86.51 312 P **P 06 54 25.9 +2.8**
comp=Z,8.5nm,1.7s
DAVOX Davos/Dischmat 86.83 321 LR LR 07 35 16.8
comp=Z,285nm,21.6s,baz=36,slow=37
KMBO Kilima Mbogo 87.12 267 P **P 06 54 26.4 -0.4**
comp=Z,5.2nm,1.8s
TUE Stuetta 87.31 321 P **P 06 54 28.2 +1.1**
comp=Z,9.7nm,1.6s
EKA Eskdalemuir Ar 87.97 333 LR LR 07 37 59.9
comp=Z,398nm,18.1s,baz=9.0,slow=38
SFJD Kangerlussuaq 88.15 358 LR LR 07 34 23.5
comp=Z,117nm,20.6s,baz=360,slow=36
NEW Newport 89.07 36 P **P 06 54 35.5 +0.4**
comp=Z,2.9nm,0.7s,baz=302,slow=3.2,SNR=10
comp=Z,2.9nm,0.7s
NEW Newport 89.07 36 P **P 06 54 34.6 -0.6**
NEW IAmb IAmb 06 54 37.3
comp=Z,26nm,1.9s
YBH Yreka Blue Hor 89.67 43 LR LR 07 30 43.2
comp=Z,33nm,20.6s,baz=336,slow=33
FRB Frobisher Bay 91.01 5 LR LR 07 39 55.7
comp=Z,117nm,18.6s,baz=330,slow=38
KEST Kesra 93.33 312 LR LR 07 41 56.5
comp=Z,121nm,18.7s,baz=358,slow=39
HLID Hailey 93.48 38 P **P 06 54 54.0 -2.0**
comp=Z,7.3nm,2.6s
NVAR Mina Array Bea 94.33 44 P **P 06 55 00.8 +0.7**
comp=Z,0.5nm,0.7s,baz=283,slow=5.8,SNR=4.5
comp=Z,0.5nm,0.7s
PPT2 Papeete2 94.53 107 *e*LR LR 07 25 20.1
comp=Z,159nm,31.5s
PPT2 *e*LR LR 07 25 25.7
comp=Z,137nm,34.0s
ULM Lac du Bonnet 97.31 24 LR LR 07 42 41.1
comp=Z,138nm,19.5s,baz=355,slow=38
ESDC Sonseca Array 99.14 322 LR LR 07 44 29.5
comp=Z,168nm,18.4s,baz=36,slow=38
TAOE Nuku Hiva Isla 99.36 95 *e*LR LR 07 27 44.3
comp=Z,150nm,25.6s
SCHQ Schefferville 99.96 6 LR LR 07 44 35.3
comp=Z,137nm,18.3s,baz=318,slow=38
QSPA South Pole Qui 114.82 180 PKP **PKiKP 07 00 19.1 -0.8**
comp=Z,1.1nm,0.9s,baz=153,slow=1.8,SNR=2.2
ROSC EI Rosal 145.59 33 PKPbc **PKPdf 07 01 19.6 0.0**
comp=Z,4.5nm,0.4s,baz=332,slow=4.3,SNR=5.8

NIED ***13*** *06:43:36.9,25˚.07N×123˚.68E,h15km,MW4.4,Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁵Nm; Mrr-2.45; Mθθ2.18; Mφφ0.28; Mrθ-1.13; Mθφ0.36; Mφr-3.08; Fault plane solution: M₀3.87000×10¹⁵ NP1: φs267.00000°,δ25.00000°,λ-42.00000°. NP2:φs37.00000°, δ74.00000°,λ-109.00000°.*

JMA 13 06:43:36.9±0.3,25˚N±1˚×123˚7E±0˚4,h15km,MV3.6/10, NW OFF ISHIGAKIJIMA IS,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	**0.74**	**177**	*e*P		Pg	06 43 50.9	-0.4
JISG	**Ishigakijimahi**	**0.75**	**130**	*e*P		Pg	06 43 51.1	-0.4
JISG				*e*S		Sb	06 44 01.7	0.0
JIJ	**Ishigaki jima**	**0.82**	**149**	*e*P		Pg	06 43 52.0	-0.9
JIJ				*e*S		Sg	06 44 03.2	-0.5
YOJ	**Yonaguni jima**	**0.86**	**225**	*e*S		Sb	06 44 04.2	-0.7

JKRS	**Kuro-shima**	**0.88**	**160**	*eP*	Pb	06 43 53.6	-0.3
JYNG	**Yonagunijimaku**	**0.91**	**227**	*eS*	Sb	06 44 06.1	-0.2
HATJ	**Hateruma jima**	**1.02**	**174**	*eP*	Pb	06 43 55.5	-0.7
JTJ	**Tarama**	**1.02**	**115**	*eS*	Sg	06 44 09.9	-0.1

JMA ***13*** *06:56:02.9±0.3,25°N×123°7E±0°.5, h37km, MV2.8/9, NW OFF ISHIGAKIJIMA IS*
IDC ***13*** *06:56:03.9±6.1,24°66N×122°75E, h0km, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=430.3km s-min=24.4km az=61.0*
ISC 13 06:56:05.0±1.1,**25°01N**±0°09×**123°71E**±0°05,**h32**km,**n11**, σ1s**62**/14,**mb3.4/4**,**Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.67**	**178**	*eP*	**Pb**	**06 56 17.5**	**-0.9**
JISG	**Ishigakijimahi**	**0.69**	**127**	*eP*	**Pb**	**06 56 17.5**	**-1.2**
JISG				*eS*	**Sn**	**06 56 27.9**	**-0.3**
JIJ	**Ishigaki jima**	**0.76**	**148**	P	**Pb**	**06 56 18.6**	**-1.2**
JIJ				*eS*	**Sn**	**06 56 29.6**	**-0.2**
JKRS	**Kuro-shima**	**0.82**	**160**	*eP*	**Pb**	**06 56 20.2**	**-0.6**
YOJ	**Yonaguni jima**	**0.83**	**229**	*eP*	**Pb**	**06 56 19.6**	**-1.5**
YOJ				*eS*	**Sn**	**06 56 30.5**	**-1.3**
JYNG	**Yonagunijimaku**	**0.89**	**231**	*eP*	**Pn**	**06 56 20.0**	**-1.3**
JTJ	**Tarama**	**0.98**	**112**	*eP*	**Pb**	**06 56 20.9**	**-2.5**
MKAR	**Makanchi Array**	**39.38**	**314**	P	**P**	**07 03 32.4**	**+0.8**
	1.2nm,0.7s,baz=100,slow=11,SNR=6.7 1.2nm,0.7s						
KURBB	**Kurchatov Arra**	**42.99**	**318**	P	**P**	**07 04 01.5**	**+0.3**
	0.3nm,0.4s,baz=112,slow=7.3,SNR=2.5 0.3nm,0.4s						
WRA	**Warramunga Arr**	**45.86**	**166**	P	**P**	**07 04 26.7**	**+2.3**
	0.4nm,0.7s,baz=344,slow=8.2,SNR=3.1 0.4nm,0.7s						
ASAR	**Alice Springs**	**49.39**	**168**	P	**P**	**07 04 54.4**	**+2.6**
	0.1nm,0.5s,baz=349,slow=6.9,SNR=4.3 0.1nm,0.5s						

THE ***13*** *06:58:50.4,37°.8N±0°.6×26°.8E±0°.5, h11km, M2.5/8, MLh2.5/8*
AFAD ***13*** *06:58:50.6,37°.84N×26°.84E, h7km±3km, ML2.7*
ISK ***13*** *06:58:50.6,37°.85N×26°.88E, h3km, ML2.6/24*
ISC 13 06:58:50.6±0.9,**37°83N**±0°.02×**26°82E**±0°.02,**h11**km±6km, **n45**, σ0s**57**/71,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.12**	**175**	P	**Pg**	**06 58 53.4**	**-0.2**
SMG				S	**Sg**	**06 58 55.7**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**12**	P	**Pg**	**06 58 55.3**	**-0.1**
DGB				S	**Sg**	**06 58 58.5**	**-0.2**
GMLD	**Gumuldur**	**0.26**	**16**	Pg	**Pg**	**06 58 55.9**	**0.0**
GMLD				Sg	**Sg**	**06 59 00.4**	**+0.9**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**111**	P	**Pg**	**06 58 57.4**	**-0.1**
GCAM				IAML		06 59 03.0	
	comp=N,804nm,0.2s						
GCAM				IAML		06 59 03.0	
	comp=E,1μm,0.5s						
GCAM				S	**Sb**	**06 59 03.5**	**-0.8**
GCAM	**G?zelcaml?**	**0.35**	**111**	Pg	**Pg**	**06 58 57.5**	**-0.1**
GCAM				Sg	**Sg**	**06 59 03.2**	**+1.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**85**	Pg	**Pg**	**06 58 57.9**	**0.0**
KUSD				Sg	**Sg**	**06 59 02.8**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**12**	P	**Pg**	**06 58 58.3**	**-0.3**
BEYE				S	**Sg**	**06 59 04.5**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**328**	P	**Pg**	**06 58 59.7**	**-0.4**
ZEYE				IAML		06 59 07.0	
	comp=N,772nm,0.3s						
ZEYE				S	**Sg**	**06 59 07.2**	**+0.7**
DIDI	**Didim-Aydin**	**0.56**	**144**	Pg	**Pb**	**06 59 02.6**	**+0.2**
DIDI				Sg	**Sb**	**06 59 10.4**	**0.0**
DIDI				AML	AML		
BLCB	**Balcova**	**0.58**	**17**	P	**Pg**	**06 59 01.9**	**-0.1**
BLCB				S	**Sb**	**06 59 10.6**	**-0.5**
BLCB	**Balcova**	**0.58**	**17**	Pg	**Pg**	**06 59 01.9**	**-0.1**
BLCB				Sg	**Sb**	**06 59 10.2**	**-0.9**
BLCB				AML	AML		
DUVT	**Torbali**	**0.63**	**51**	P	**Pg**	**06 59 02.6**	**-0.3**
DUVT				S	**Sg**	**06 59 11.0**	**-0.1**
DUVT				IAML		06 59 15.0	
	comp=E,410nm,0.5s						
CESE	**eme**	**0.65**	**321**	Pg	**Pb**	**06 59 03.9**	**-0.1**
CESE				AML	AML		
DAGE	**izmir**	**0.75**	**76**	P	**Pg**	**06 59 05.3**	**+0.1**
DAGE				S	**Sg**	**06 59 15.3**	**+0.3**
DAGE				IAML		06 59 17.0	
	comp=N,273nm,0.2s						
DAGE				IAML		06 59 19.0	
	comp=E,360nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.79**	**153**	Pg	**Pb**	**06 59 07.0**	**+0.7**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**345**	Pg	**Pb**	**06 59 06.2**	**-0.2**
KRBN				Sg	**Sb**	**06 59 17.9**	**+0.7**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**06 59 06.3**	**-0.2**
CHOS				S	**Sb**	**06 59 18.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pb**	**06 59 07.2**	**+0.2**
CHOS				AML	AML		
BAGT	**Foa**	**0.83**	**2**	P	**Pg**	**06 59 06.7**	**+0.1**
BAGT				S	**Sn**	**06 59 20.5**	**+0.1**
BAGT				IAML		06 59 21.0	
	comp=N,216nm,1.0s						
BAGT				IAML		06 59 23.0	
	comp=E,206nm,0.7s						
AYDB	**Zeytinkoy-Aydi**	**0.85**	**82**	Pg	**Pg**	**06 59 07.0**	**-0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.86**	**153**	P	**Pg**	**06 59 06.8**	**-0.3**
BODT				S	**Sb**	**06 59 19.3**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**153**	Pg	**Pb**	**06 59 07.9**	**+0.4**
BODT				AML	AML		
FOCM	**Foa**	**0.89**	**355**	Pg	**Pb**	**06 59 07.9**	**-0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**339**	P	**Pg**	**06 59 07.7**	**-0.2**
KARB				S	**Sb**	**06 59 21.2**	**+1.1**
KARB				IAML		06 59 22.0	
	comp=N,241nm,0.5s						
KARB				IAML		06 59 24.0	
	comp=E,196nm,0.4s						
BDRM	**Kayabasi**	**0.91**	**147**	P	**Pg**	**06 59 08.1**	**0.0**
BDRM				S	**Sb**	**06 59 21.2**	**+0.8**
MLSB	**Milas**	**0.93**	**125**	Pg	**Pg**	**06 59 08.3**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**148**	Pg	**Pb**	**06 59 09.3**	**+0.6**
IZMR	**zmir-demi**	**0.94**	**71**	P	**Pg**	**06 59 08.3**	**-0.4**
IZMR				S	**Sg**	**06 59 20.2**	**-0.9**
CAMT	**Merkez**	**1.00**	**23**	P	**Pb**	**06 59 09.8**	**0.0**
CAMT				S	**Sn**	**06 59 25.2**	**+0.6**
CAMT				IAML		06 59 27.0	
	comp=E,273nm,0.2s						
CAMT				IAML		06 59 28.0	
	comp=N,229nm,0.3s						
ZEDA	**zmir-Bergama**	**1.15**	**10**	P	**Pg**	**06 59 11.7**	**-1.1**
ZEDA				S	**Sn**	**06 59 29.5**	**+1.0**
NAZL	**Nazilli-Aydin**	**1.17**	**83**	Pn	**Pb**	**06 59 12.9**	**+0.1**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn	**Pn**	**06 59 14.1**	**+0.4**
GOMA				AML	AML		
DAT	**Datca**	**1.25**	**151**	P	**Pb**	**06 59 13.0**	**-1.3**
DAT				S	**Sg**	**06 59 30.2**	**-0.7**
DAT				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	P	**Pn**	**06 59 13.3**	**-1.1**
APE				S	**Sb**	**06 59 31.5**	**+0.4**
APE				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	Pn	**Pn**	**06 59 15.1**	**+0.7**
APE				AML	AML		
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pg**	**06 59 15.6**	**-0.1**
YER	**Yerkesik**	**1.35**	**120**	P	**Pn**	**06 59 14.7**	**-0.8**
YER				S	**Sb**	**06 59 32.8**	**-0.5**
YER	**Yerkesik**	**1.35**	**120**	Pn	**Pg**	**06 59 16.6**	**+0.1**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pg**	**06 59 17.9**	**-0.3**
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**06 59 16.5**	**-0.7**
PRK				S	**Sn**	**06 59 36.6**	**0.0**
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pb**	**06 59 18.8**	**0.0**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn	**Pb**	**06 59 22.9**	**-0.5**
YAYO				AML	AML		
BALB	**Balikesir**	**1.99**	**24**	Pn	**Pn**	**06 59 25.5**	**+1.3**
BALB				AML	AML		
EZN	**Ezine**	**2.03**	**349**	Pn	**Pb**	**06 59 26.9**	**-0.6**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.10**	**344**	Pn	**Pb**	**06 59 27.6**	**-1.1**
BOZC				AML	AML		

IDC ***13*** *06:59:05.0±1.3, 13°74N×120°85E, h0km, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=200.2km s-min=21.6km az=68.0*
MAN ***13*** *06:59:12.0, 13°59N×120°35E, h40km, MS2.9*
ISC 13 06:59:13.5±1.2,**13°6N**±0°.1×**120°4E**±0°.1,**h70**km,**n6**, σ1s**73**/8,**mb3.9**/4,**Mindoro**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LQP	**Lukban**	**1.23**	**63**	*eP*	**Pn**	**06 59 35.3**	**+0.1**
LQP				*eS*	**Sn**	**06 59 50.6**	**-0.9**
GQP	**Guinayangan**	**2.02**	**80**	*eP*	**Pn**	**06 59 43.3**	**-2.1**
GQP				*i* S	**Sn**	**07 00 12.5**	**+2.8**
WRA	**Warramunga Arr**	**36.00**	**157**	P	**P**	**07 06 07.7**	**-0.3**
	0.7nm,0.4s,baz=336,slow=8.9,SNR=11 0.7nm,0.4s						
SONM	**Songino Array**	**36.12**	**344**	P	**P**	**07 06 08.2**	**-0.7**
	0.9nm,0.6s,baz=172,slow=11,SNR=4.4 0.9nm,0.6s						
ASAR	**Alice Springs**	**39.28**	**160**	P	**P**	**07 06 36.2**	**+0.5**
	0.7nm,0.4s,baz=340,slow=7.9,SNR=24 0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**50.15**	**326**	P	**P**	**07 08 02.8**	**+1.0**
	0.3nm,0.3s,baz=129,slow=7.3,SNR=2.0 0.3nm,0.3s						

IDC ***13*** *07:14:56.6±3.9,25°.56N×123°.63E, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=270.7km s-min=30.8km az=62.0*
JMA ***13*** *07:14:57.6±0.2,25°.0N±0°.8×123°.7E±0°.3, h18km, MV2.8/9, NW OFF ISHIGAKIJIMA IS*
ISC 13 07:14:55.2±1.4,**25°12N**±0°.08×**123°66E**±0°.05,**h10**km,**n10**, σ0s**77**/11,**mb3.5/3**,**Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.79**	**175**	*eP*	**Pg**	**07 15 10.8**	**+0.3**
JISG	**Ishigakijimahi**	**0.80**	**132**	*eP*	**Pg**	**07 15 11.3**	**+0.7**
JISG				*eS*	**Sg**	**07 15 21.6**	**+0.6**
JIJ	**Ishigaki jima**	**0.88**	**150**	*eP*	**Pg**	**07 15 12.4**	**+0.3**
JIJ				*eS*	**Sg**	**07 15 22.8**	**-0.7**
YOJ	**Yonaguni jima**	**0.89**	**222**	*eS*	**Sg**	**07 15 23.9**	**+0.1**
JYNG	**Yonagunijimaku**	**0.93**	**224**	*eS*	**Sg**	**07 15 25.2**	**-0.2**
JKRS	**Kuro-shima**	**0.94**	**160**	*eS*	**Sg**	**07 15 24.8**	**-0.7**
JTJ	**Tarama**	**1.06**	**117**	*eS*	**Sg**	**07 15 28.9**	**-0.6**
MKAR	**Makanchi Array**	**39.27**	**314**	P	**P**	**07 22 24.9**	**+0.9**
	1.0nm,0.9s,baz=112,slow=8.4,SNR=5.1 1.0nm,0.9s						
ZALV	**Zalesovo Beam**	**40.72**	**325**	P	**P**	**07 22 34.7**	**-1.3**
	0.5nm,0.4s,baz=102,slow=6.1,SNR=2.3 0.5nm,0.4s						
WRA	**Warramunga Arr**	**45.98**	**166**	P	P	07 23 24.9	+6.1
	0.4nm,0.8s,baz=345,slow=8.3,SNR=1.9 0.4nm,0.8s						

IDC ***13*** *07:15:32.1±2.4, 16°47S×174°31W, h83km±22km, mb3.7/9, mbtmp4.1/10, Error ellipse: s-maj=30.8km s-min=15.1km az=133.0*
NEIC ***13*** *07:15:35.3±0.6, 16°.5S±0°.1×174°24W±0°.08, h110km±8km, mb4.3/13, Error ellipse: s-maj=20.8km s-min=5.8km az=210.0*
ISC 13 07:15:34.1±0.6,**16°45S**±0°09×**174°27W**±0°.10,**h100**km, **n32**, σ0s**91**/31,**mb4.1**/14,**Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.49**	**44**	P	**Pn**	**07 16 26.6**	**+0.1**
	82nm,0.3s,baz=229,slow=2.9,SNR=57						
AFI				S	**Sn**	**07 17 05.3**	**-1.8**
	227nm,0.3s,baz=65,slow=21,SNR=22						
FUTU	**Fugatoga**	**4.28**	**299**	Pn	Pn	07 16 45.2	+8.1
NIUE	**Niue**	**4.90**	**123**		**Pn**	**07 16 45.8**	**+0.3**
MSVF	**Nonsavu**	**7.45**	**259**	Pn	Pn	07 17 29.0	+8.7
MARNC	**Mare, Loyalty**	**17.46**	**251**	P	**P**	**07 19 29.3**	**-1.9**
STKA	**Stephens Creek**	**42.79**	**241**	P	**P**	**07 23 22.1**	**-0.1**
	2.2nm,0.7s,baz=53,slow=3.7,SNR=3.7 2.2nm,0.7s						
WR8	**Warramunga Arr**	**48.64**	**258**	P	**P**	**07 24 07.5**	**-0.9**
WR8				IAmb	IAmb	07 24 35.3	
	comp=Z,10.0nm,1.4s						
WRA	**Warramunga Arr**	**48.79**	**258**	P	**P**	**07 24 08.5**	**-1.0**
	comp=Z,0.7nm,0.7s,baz=92,slow=7.7,SNR=5.1 comp=Z,0.7nm,0.7s						
WRA	**Warramunga Arr**	**48.79**	**258**	P	**P**	**07 24 09.0**	**-0.5**
AS31	**Alice Springs**	**48.99**	**253**	P	**P**	**07 24 10.4**	**-0.6**
ASAR	**Alice Springs**	**48.99**	**253**	P	**P**	**07 24 09.9**	**-1.1**
	comp=Z,5.0nm,0.7s,baz=87,slow=8.3,SNR=44 comp=Z,5.0nm,0.7s						
ASAR	**Alice Springs**	**48.99**	**253**	P	**P**	**07 24 09.8**	**-1.3**
FORT	**Forrest**	**54.20**	**244**	P	**P**	**07 24 49.2**	**-0.4**
SOEI	**Soe**	**60.05**	**268**	P	**P**	**07 25 33.2**	**+1.9**
VNDA	**Vanda**	**62.25**	**186**	P	**P**	**07 25 44.2**	**-0.8**
	comp=Z,0.7nm,0.7s,baz=42,slow=6.2,SNR=2.2 comp=Z,0.7nm,0.7s						
VNDA	**Vanda**	**62.25**	**186**	P	**P**	**07 25 44.7**	**-0.2**
VNDA				IAmb	IAmb	07 25 58.1	
	comp=Z,3.4nm,1.3s						
PETK	**Petropavlovsk-**	**73.37**	**343**	P	**P**	**07 26 54.5**	**-0.5**
	comp=Z,2.0nm,0.8s,baz=95,slow=7.2,SNR=2.0 comp=Z,2.0nm,0.8s						
PETK	**Petropavlovsk-**	**73.37**	**343**	P	**P**	**07 26 55.1**	**+0.1**
QSPA	**South Pole Qui**	**73.60**	**180**	P	**P**	**07 26 56.1**	**-0.3**
	comp=Z,2.1nm,0.9s,baz=78,slow=1.3,SNR=7.5 comp=Z,2.1nm,0.9s						
QSPA	**South Pole Qui**	**73.60**	**180**	P	**P**	**07 26 56.1**	**-0.3**
QSPA				IAmb	IAmb	07 26 57.7	
	comp=Z,6.5nm,1.3s						
NVAR	**Mina Array Bea**	**75.67**	**42**	P	**P**	**07 27 09.4**	**+0.6**
	comp=Z,0.7nm,0.8s,baz=227,slow=10,SNR=5.5 comp=Z,0.7nm,0.8s						
PDAR	**Pinedale Array**	**83.60**	**42**	P	**P**	**07 27 51.8**	**+0.1**
	comp=Z,0.8nm,0.6s,baz=218,slow=3.4,SNR=9.8 comp=Z,0.8nm,0.6s						
PDAR	**Pinedale Array**	**83.60**	**42**	P	**P**	**07 27 51.7**	**-0.1**
IMAR	**Indian Mountai**	**83.62**	**8**	P	**P**	**07 27 51.7**	**+0.7**
IL31		**83.63**	**11**	P	**P**	**07 27 51.5**	**+0.5**
ILAR	**Eielson Array**	**83.63**	**11**	P	**P**	**07 27 50.8**	**-0.3**
	comp=Z,1.2nm,0.5s,baz=226,slow=5.7,SNR=35 comp=Z,1.2nm,0.5s						
J25K	**Salcha River,**	**83.79**	**12**	P	**P**	**07 27 52.0**	**0.0**
J25K				IAmb	IAmb	07 27 53.1	
	comp=Z,6.8nm,1.2s						
H22K	**Ishtalitna Cre**	**83.89**	**9**	P	**P**	**07 27 52.7**	**+0.4**
H22K				IAmb	IAmb	07 27 53.3	
	comp=Z,3.1nm,1.0s						
M30M	**Minto, Yukon**	**84.08**	**16**	P	**P**	**07 27 53.5**	**0.0**
M30M				IAmb	IAmb	07 28 07.5	
	comp=Z,7.0nm,1.5s						
F20K	**Avaraart Lake**	**84.38**	**7**	P	**P**	**07 27 55.1**	**+0.3**
F20K				IAmb	IAmb	07 27 58.8	
	comp=Z,6.0nm,1.4s						
BRTR	**Keskin Array B**	**146.42**	**319**	PKPbc	**PKPdf**	**07 35 04.3**	**+1.7**
	comp=Z,1.5nm,0.7s,baz=107,slow=4.3,SNR=7.4						
GERES	**GERESS Array B**	**147.04**	**350**	PKPbc	**PKPdf**	**07 35 04.7**	**+1.4**
	comp=Z,0.3nm,0.2s,baz=329,slow=4.7,SNR=4.8						

NOU ***13*** *07:16:48.5,38°.72S×175°.33E, h260km, MLv4.0/20, North Island, New Zealand*
WEL ***13*** *07:16:51.9±1.0,39°.5±13°×17°.5E±1°.5, h234km±7km, M2.8/25, ML2.7/8, MLv2.8/25, Error ellipse: s-maj=19.7km s-min=17.1km az=101.0*
ISC 13 07:16:46.2±2.1,**38°62S**±0°.08×**175°33E**±0°.06, **h276**km±11km,**n177**, σ1s**47**/189,**North Island**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TLZ	**Tolley Road**	**0.33**	**30**	P	**Pn**	**07 17 22.8**	**+0.9**
TLZ				AML	AML		
WATZ	**Wairara**	**0.33**	**106**	P	**Pn**	**07 17 23.2**	**+1.4**
WATZ					AML	AML	
WATZ					AML	AML	
HIZ	**Hauiti**	**0.38**	**286**	P	**Pn**	**07 17 23.0**	**+1.2**
HIZ	**Hauiti**	**0.38**	**286**	S	**S**	**07 17 49.5**	**-0.5**
HIZ	**Hauiti**	**0.38**	**286**	P	**Pn**	**07 17 23.2**	**+1.4**
HIZ				S	**S**	**07 17 49.1**	**-0.8**
HIZ				AML	AML		
KUTZ	**Kaahu Road**	**0.41**	**72**	P	**Pn**	**07 17 23.1**	**+1.2**
KUTZ				AML	AML		
RATZ	**Rangitukua**	**0.43**	**126**	P	**Pn**	**07 17 23.1**	**+1.1**
RATZ				S	**S**	**07 17 48.6**	**-1.7**
RATZ				AML	AML		
KATZ	**Kakaramea**	**0.46**	**141**	P	**Pn**	**07 17 23.5**	**+1.4**
KATZ				AML	AML		
KATZ				AML	AML		
TWVZ	**Taurewa**	**0.46**	**169**	P	**Pn**	**07 17 23.4**	**+1.4**
TWVZ				S	**S**	**07 17 48.5**	**-2.0**
TWVZ				AML	AML		
TWVZ				AML	AML		
WHTZ	**Whakaora**	**0.50**	**96**	P	**Pn**	**07 17 23.6**	**+1.5**
WHTZ				AML	AML		
KRVZ	**Karewarewa**	**0.54**	**153**	P	**Pn**	**07 17 23.8**	**+1.5**
KRVZ				S	**S**	**07 17 47.8**	**-3.1**
WTVZ	**West Tongariro**	**0.54**	**158**	P	**Pn**	**07 17 23.8**	**+1.5**
WTVZ				S	**S**	**07 17 49.9**	**-1.0**
RITZ	**Rihia Road**	**0.55**	**131**	P	**Pn**	**07 17 23.8**	**+1.6**
RITZ				S	**S**	**07 17 49.0**	**-1.8**
RITZ				AML	AML		
NTVZ	**North Tongarir**	**0.55**	**150**	P	**Pn**	**07 17 24.0**	**+1.6**
TMVZ	**Te Maari**	**0.58**	**149**	P	**Pn**	**07 17 24.0**	**+1.6**
TMVZ				S	**S**	**07 17 49.2**	**-1.9**
TMVZ				AML	AML		
TMVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.60**	**159**	P	**Pn**	**07 17 24.1**	**+1.6**
NGZ				S	**S**	**07 17 49.9**	**-1.4**
NGZ				AML	AML		
ETVZ	**East Tongariro**	**0.60**	**150**	P	**Pn**	**07 17 24.1**	**+1.6**
ETVZ				S	**S**	**07 17 49.3**	**-1.9**
ETVZ				AML	AML		
ETVZ				AML	AML		
COVZ	**Chateau Observ**	**0.61**	**164**	P	**Pn**	**07 17 24.0**	**+1.5**
COVZ				S	**S**	**07 17 48.8**	**-2.4**
OTVZ	**Oturere**	**0.61**	**154**	P	**Pn**	**07 17 24.2**	**+1.7**
OTVZ				S	**S**	**07 17 49.7**	**-1.7**
SNVZ	**South Ngauruho**	**0.62**	**157**	P	**Pn**	**07 17 24.4**	**+1.8**
SNVZ				S	**S**	**07 17 50.3**	**-1.2**
SNVZ				AML	AML		
FWVZ	**Far West T-bar**	**0.66**	**164**	P	**Pn**	**07 17 24.5**	**+1.6**
FWVZ				AML	AML		
WPRZ	**Whakapapatarin**	**0.66**	**82**	P	**Pn**	**07 17 23.5**	**+0.9**
WPRZ				AML	AML		
GRRZ	**Galatos Road**	**0.67**	**67**	P	**Pn**	**07 17 23.6**	**+0.9**
GRRZ				AML	AML		
GRRZ				AML	AML		
PKVZ	**Pokaka**	**0.67**	**179**	P	**Pn**	**07 17 24.3**	**+1.6**
PKVZ				AML	AML		
VRZ	**Vera Road**	**0.67**	**221**	P	**Pn**	**07 17 24.2**	**+1.6**
VRZ				AML	AML		
MAVZ	**Matarangi**	**0.68**	**164**	P	**Pn**	**07 17 25.0**	**+2.0**
WHVZ	**Whangaehu Hut**	**0.70**	**163**	P	**Pn**	**07 17 24.9**	**+1.9**
TUVZ	**Tukino**	**0.70**	**159**	P	**Pn**	**07 17 24.7**	**+1.8**
TRVZ	**Turoa**	**0.70**	**166**	P	**Pn**	**07 17 24.7**	**+1.7**
TRVZ				AML	AML		
WNVZ	**Wahianoa**	**0.74**	**163**	P	**Pn**	**07 17 24.7**	**+1.7**
WNVZ				AML	AML		
MTVZ	**Mangateitei**	**0.78**	**172**	P	**Pn**	**07 17 24.7**	**+1.6**
MTVZ				AML	AML		
HRRZ	**Handcock Road**	**0.79**	**74**	P	**Pn**	**07 17 24.0**	**+0.9**
HRRZ				AML	AML		
ALRZ	**Allen Road**	**0.80**	**86**	P	**Pn**	**07 17 24.1**	**+0.9**
ALRZ				AML	AML		
ALRZ				AML	AML		
PRRZ	**Plateau Road**	**0.84**	**82**	P	**Pn**	**07 17 24.0**	**+0.6**
PRRZ				AML	AML		
PRRZ				AML	AML		
MOVZ	**Moawhango**	**0.86**	**157**	P	**Pn**	**07 17 24.7**	**+1.3**
MOVZ				AML	AML		
MRHZ	**Matea Rd**	**0.88**	**105**	P	**Pn**	**07 17 24.3**	**+0.8**
MRHZ				AML	AML		
MRHZ				AML	AML		
HLRZ	**Highlands Stat**	**0.89**	**66**	P	**Pn**	**07 17 24.9**	**+1.4**
HLRZ				AML	AML		
TOZ	**Tahuroa Road**	**0.90**	**9**	P	**Pn**	**07 17 24.5**	**+0.9**
TOZ				AML	AML		
KMRZ	**Kaimai**	**0.91**	**32**	P	**Pn**	**07 17 24.4**	**+0.6**
KMRZ				AML	AML		
KARZ	**Kaharoa**	**0.94**	**51**	P	**Pn**	**07 17 24.3**	**+0.6**
KARZ				AML	AML		
RRRZ	**Republican Roa**	**0.97**	**74**	P	**Pn**	**07 17 24.7**	**+0.7**
RRRZ				AML	AML		
RRRZ				AML	AML		
TARZ	**Mount Tarawera**	**1.00**	**68**	P	**Pn**	**07 17 25.0**	**+0.8**
TARZ				AML	AML		
MKRZ	**Makatiti**	**1.02**	**62**	P	**Pn**	**07 17 25.5**	**+1.3**
MKRZ				AML	AML		
BHHZ	**Black Hill Sta**	**1.04**	**147**	P	**Pn**	**07 17 25.7**	**+1.4**
DREZ	**Durham Road**	**1.05**	**237**	P	**Pn**	**07 17 26.2**	**+2.0**
BKZ	**Black Stump Fm**	**1.06**	**121**	P	**Pn**	**07 17 25.5**	**+1.1**
BKZ	**Black Stump Fm**	**1.06**	**121**	S	**S**	**07 17 52.5**	**-2.1**
BKZ	**Black Stump Fm**	**1.06**	**121**	P	**Pn**	**07 17 25.7**	**+1.3**
LREZ	**Lake Rotokare**	**1.11**	**220**	P	**Pn**	**07 17 26.7**	**+2.2**
MUGZ	**Murupara**	**1.14**	**83**	P	**Pn**	**07 17 25.3**	**+0.5**
TGRZ	**Tauranga**	**1.15**	**40**	P	**Pn**	**07 17 25.3**	**+0.4**
NEZ	**North Egmont**	**1.16**	**235**	P	**Pn**	**07 17 27.2**	**+2.3**
PREZ	**Palmer Road**	**1.16**	**231**	P	**Pn**	**07 17 27.0**	**+2.1**
WAZ	**Wanganui**	**1.17**	**193**	P	**Pn**	**07 17 26.9**	**+2.0**
KWHZ	**Kaweka Forest**	**1.18**	**134**	P	**Pn**	**07 17 26.8**	**+1.8**
PKE	**Pukeiti**	**1.19**	**241**	P	**Pn**	**07 17 27.2**	**+2.1**
MTHZ	**Maungataniwha**	**1.21**	**102**	P	**Pn**	**07 17 26.3**	**+1.1**
EDRZ	**Edgecumbe**	**1.22**	**66**	P	**Pn**	**07 17 25.7**	**+0.4**
KHEZ	**Kahui Hut**	**1.23**	**236**	P	**

BFZ	**Birch Farm**	**2.18**	**161**	P	**Pn**	07 17 33.8 +1.4
BFZ	**Birch Farm**	**2.18**	**161**	S	**S**	07 18 07.8 -1.3
BFZ	**Birch Farm**	**2.18**	**161**	P	**Pn**	07 17 33.9 +1.6
TIWZ	**Tintock**	**2.20**	**169**	P	**Pn**	07 17 34.2 +1.6
OGWZ	**Otaki Gorge**	**2.20**	**183**	P	**Pn**	07 17 34.3 +1.8
CNGZ	**Carnagh Statio**	**2.26**	**88**	P	**Pn**	07 17 34.7 +1.5
KIW	**Kapiti Island**	**2.26**	**188**	P	**Pn**	07 17 34.6 +1.5
HOWZ	**Holdsworth Sta**	**2.28**	**176**	P	**Pn**	07 17 34.7 +1.4
GRZ	**Great Barrier**	**2.36**	**3**	P	**Pn**	07 17 35.1 +0.9
PUZ	**Puketiti**	**2.37**	**78**	P	**Pn**	07 17 34.7 +0.5
CPWZ	**Castlepoint**	**2.39**	**164**	P	**Pn**	07 17 36.4 +2.2
DUWZ	**D'Urville Isla**	**2.44**	**206**	P	**Pn**	07 17 36.4 +1.7
CAW	**Cannon Point**	**2.50**	**184**	P	**Pn**	07 17 36.8 +1.6
TMWZ	**Te Maipa**	**2.52**	**170**	P	**Pn**	07 17 37.1 +1.5
MTW	**Mount Morrison**	**2.54**	**177**	P	**Pn**	07 17 37.0 +1.3
WMGZ	**Waiomatatini S**	**2.56**	**73**	P	**Pn**	07 17 36.6 +0.6
MXZ	**Matakaoa Point**	**2.58**	**67**	P	**Pn**	07 17 36.5 +0.4
MXZ	**Matakaoa Point**	**2.58**	**67**	P	**Pn**	07 17 36.6 +0.5
WEL	**Wellington**	**2.70**	**189**	P	**Pn**	07 17 38.7 +1.5
TCW	**Tory Channel**	**2.71**	**197**	P	**Pn**	07 17 39.1 +1.7
SNZO	**South Karori**	**2.73**	**190**	P	**Pn**	07 17 38.8 +1.3
SNZO	**South Karori**	**2.73**	**190**	P	**S**	07 18 17.2 -1.2
PAWZ	**Paruwai Farm**	**2.76**	**178**	P	**Pn**	07 17 39.3 +1.4
TRWZ	**Traveller**	**2.79**	**174**	P	**Pn**	07 17 39.7 +1.5
MSWZ	**Moikau Station**	**2.80**	**181**	P	**Pn**	07 17 39.6 +1.4
BHW	**Baring Head**	**2.81**	**187**	P	**Pn**	07 17 39.7 +1.4
PLWZ	**Palliser**	**2.95**	**181**	P	**Pn**	07 17 41.1 +1.3
NNZ	**Nelson**	**3.00**	**209**	P	**Pn**	07 17 41.7 +1.5
TUWZ	**Tuamarina**	**3.00**	**200**	P	**Pn**	07 17 43.0 +2.8
TKNZ	**Takaka Hill**	**3.02**	**216**	P	**Pn**	07 17 41.5 +1.0
QRZ	**Quartz Range**	**3.08**	**223**	P	**Pn**	07 17 41.7 +0.6
QRZ	**Quartz Range**	**3.08**	**223**	S	**S**	07 18 23.0 -1.9
QRZ	**Quartz Range**	**3.08**	**223**	P	**Pn**	07 17 42.0 +0.8
BSWZ	**Blackbirch Sta**	**3.29**	**199**	P	**Pn**	07 17 45.2 +1.9
MRNZ	**Matariki Terra**	**3.41**	**215**	P	**Pn**	07 17 45.6 +1.0
THZ	**Tophouse**	**3.65**	**210**	P	**Pn**	07 17 48.5 +1.3
KHZ	**Kahutara**	**4.03**	**199**	P	**Pn**	07 17 53.0 +1.6
KHZ	**Kahutara**	**4.03**	**199**	S	**S**	07 18 43.2 -0.4
KHZ	**Kahutara**	**4.03**	**199**	P	**Pn**	07 17 53.2 +1.8
DSZ	**Denniston Nort**	**4.13**	**220**	P	**Pn**	07 17 53.4 +0.8
GVZ	**Greta Valley S**	**4.68**	**201**	P	**Pn**	07 18 00.4 +1.4
LTZ	**Lake Taylor**	**4.76**	**208**	P	**Pn**	07 18 01.3 +1.3
AMCZ	**Amberley**	**4.99**	**203**	P	**Pn**	07 18 04.0 +1.4
INZ	**Inchbonnie**	**5.05**	**214**	P	**Pn**	07 18 04.1 +0.7
OXZ	**Oxford**	**5.32**	**207**	P	**Pn**	07 18 07.4 +0.8
OKCZ	**Okains Bay**	**5.38**	**198**	P	**Pn**	07 18 08.7 +1.4
MQZ	**McQueen's Vall**	**5.47**	**201**	P	**Pn**	07 18 09.0 +0.7
AKCZ	**Akaroa Harbour**	**5.56**	**198**	P	**Pn**	07 18 10.7 +1.3
RACZ	**Rakaia**	**5.64**	**204**	P	**Pn**	07 18 11.4 +1.0
WVZ	**Waitaha Valley**	**5.65**	**217**	P	**Pn**	07 18 10.6 +0.1
MHCZ	**Mount Hutt**	**5.67**	**209**	P	**Pn**	07 18 11.8 +1.0
WACZ	**Wakanui South**	**5.93**	**205**	P	**Pn**	07 18 15.1 +1.1
RPZ	**Rata Peaks**	**6.03**	**211**	P	**Pn**	07 18 16.4 +1.3
RPZ	**Rata Peaks**	**6.03**	**211**	P	**Pn**	07 18 16.1 +1.0
ARCZ	**Arundel**	**6.17**	**209**	P	**Pn**	07 18 17.7 +0.8
FOZ	**Fox Glacier**	**6.44**	**219**	P	**Pn**	07 18 19.9 -0.2
TMZ	**Timaru**	**6.61**	**208**	P	**Pn**	07 18 23.7 +1.4
LBZ	**Lake Benmore**	**6.94**	**212**	P	**Pn**	07 18 26.9 +0.6
ODZ	**Otahua Downs**	**7.31**	**207**	P	**Pn**	07 18 32.7 +1.8
ODZ	**Otahua Downs**	**7.31**	**207**	S	**S**	07 19 53.7 -1.7
ODZ	**Otahua Downs**	**7.31**	**207**	P	**Pn**	07 18 32.5 +1.6
JCZ	**Jackson Bay**	**7.34**	**220**	P	**Pn**	07 18 31.1 -0.3
JCZ	**Jackson Bay**	**7.34**	**220**	P	**Pn**	07 18 31.1 -0.3
WKZ	**Wanaka**	**7.79**	**215**	P	**Pn**	07 18 36.5 -0.4
EAZ	**Earnscleugh**	**7.99**	**212**	P	**Pn**	07 18 39.3 +0.1
HHSZ	**Highcliff Hill**	**8.06**	**204**	P	**Pn**	07 18 43.6 +3.4
MSZ	**Milford Sound**	**8.20**	**220**	P	**Pn**	07 18 42.2 +1.2
MLZ	**Mavora Lakes**	**8.62**	**216**	P	**Pn**	07 18 48.5 +1.3
WHZ	**Wether Hill Ro**	**9.10**	**215**	P	**Pn**	07 18 52.7 -0.4
APZ	**The Paps**	**9.82**	**211**	P	**Pn**	07 19 02.9 +0.7

*THE **13** 07:16:50.0, 37°.8N±0°.7×26°.8E±0°.6, h7km±1km, M2.9/9, MLh2.9/9*
*ATH **13** 07:16:49.4, 37°.81N×26°.82E, h14km, ML2.9/10, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*AFAD **13** 07:16:50.0, 37°.83N×26°.83E, h7km±3km, ML2.9*
*ISK **13** 07:16:50.3, 37°.85N×26°.87E, h6km, ML3.1/25*
ISC 13 07:16:50.0±0.8,**37°.83N**±0°.01×**26°.83E**±0°.02,**h10**km±5km, **n62**,σ0**60**/95,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.10**	**251**	P	**Pg**	**07 16 52.5**	**0.0**
KRL1				S	**Sg**	**07 16 54.5**	**+0.2**
SMG	**Samos**	**0.12**	**175**	P	**Pg**	**07 16 52.7**	**-0.1**
SMG				S	**Sg**	**07 16 55.0**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**175**	P	**Pg**	**07 16 52.7**	**-0.1**
SMG				S	**Sg**	**07 16 55.0**	**+0.2**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.18**	**248**	P	**Pg**	**07 16 53.7**	**-0.2**
SAM2				S	**Sg**	**07 16 56.5**	**-0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.23**	**12**	P	**Pg**	**07 16 54.6**	**-0.1**
DGB				S	**Sg**	**07 16 58.4**	**+0.5**
GMLD	**Gumuldur**	**0.26**	**16**	Pg	**Pg**	**07 16 55.2**	**0.0**
GMLD				Sg	**Sg**	**07 16 59.1**	**+0.3**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**111**	P	**Pg**	**07 16 56.9**	**0.0**
GCAM				IAML		07 17 03.0	
	comp=N,2μm,0.2s						
GCAM				IAML		07 17 03.0	
	comp=E,2μm,0.5s						
GCAM				S	**Sb**	**07 17 03.1**	**-0.8**
GCAM	**G?zelcaml?**	**0.35**	**111**	Pg	**Pg**	**07 16 56.9**	**0.0**
GCAM				Sg	**Sg**	**07 17 02.4**	**+0.9**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**85**	Pg	**Pg**	**07 16 57.1**	**-0.2**
KUSD				Sg	**Sg**	**07 17 02.1**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**11**	P	**Pg**	**07 16 58.0**	**0.0**
BEYE				S	**Sg**	**07 17 04.3**	**+0.9**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**328**	P	**Pg**	**07 16 59.2**	**-0.2**
ZEYE				S	**Sg**	**07 17 06.6**	**+0.8**
ZEYE				IAML		07 17 07.0	
	comp=N,2μm,0.3s						
ZEYE				IAML		07 17 11.0	
	comp=E,583nm,0.2s						
DDIM	**Aydin, Didim**	**0.50**	**138**	P	**Pg**	**07 16 59.8**	**+0.1**
DDIM				IAML		07 17 07.0	
	comp=E,519nm,0.3s						
DDIM				S	**Sb**	**07 17 07.8**	**-0.3**
DDIM				IAML		07 17 08.0	
	comp=N,482nm,0.2s						
DIDI	**Didim-Aydin**	**0.56**	**144**	Pg	**Pb**	**07 17 01.5**	**-0.4**
DIDI				Sg	**Sb**	**07 17 09.9**	**0.0**
DIDI				AML	AML		
BLCB	**Balcova**	**0.58**	**17**	P	**Pg**	**07 17 01.2**	**-0.1**
BLCB				S	**Sg**	**07 17 09.5**	**+0.5**
BLCB	**Balcova**	**0.58**	**17**	Pg	**Pg**	**07 17 01.3**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.63**	**51**	P	**Pg**	**07 17 01.8**	**-0.4**
DUVT				S	**Sg**	**07 17 10.6**	**+0.1**
DUVT				IAML		07 17 14.0	
	comp=E,1μm,0.4s						
CESE	**eme**	**0.65**	**321**	Pg	**Pb**	**07 17 03.5**	**0.0**
CESE				AML	AML		
DAGE	**izmir**	**0.75**	**76**	P	**Pg**	**07 17 04.8**	**+0.3**
DAGE				S	**Sb**	**07 17 14.9**	**-0.7**
DAGE				IAML		07 17 16.0	
	comp=N,553nm,0.2s						
DAGE				IAML		07 17 19.0	
	comp=E,751nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.79**	**153**	Pg	**Pb**	**07 17 06.0**	**+0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**344**	Pg	**Pb**	**07 17 05.7**	**-0.2**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**07 17 06.1**	**+0.2**
CHOS				S	**Sb**	**07 17 17.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pb**	**07 17 06.8**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**07 17 05.2**	**-0.7**
CHOS				S	**Sb**	**07 17 17.6**	**-0.1**
CHOS				AML	AML		
BAGT	**Foa**	**0.83**	**1**	P	**Pg**	**07 17 04.2**	**-1.7**
BAGT				S	**Sn**	**07 17 19.6**	**-0.5**
BAGT				IAML		07 17 20.0	
	comp=N,514nm,1.0s						
BAGT				IAML		07 17 23.0	
	comp=E,521nm,0.7s						
AYDB	**Zeytinkoy-Aydi**	**0.85**	**82**	Pg	**Pg**	**07 17 06.2**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.85**	**101**	P	**Pb**	**07 17 06.9**	**0.0**
AYDN				S	**Sg**	**07 17 17.8**	**+0.2**
AYDN				IAML		07 17 21.0	
	comp=N,337nm,0.3s						
AYDN				IAML		07 17 21.0	
	comp=E,311nm,0.3s						
BODT	**Bodrum**	**0.86**	**153**	P	**Pg**	**07 17 06.7**	**+0.2**
BODT				S	**Sb**	**07 17 19.0**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**153**	Pg	**Pb**	**07 17 07.2**	**+0.2**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.88**	**172**	P	**Pg**	**07 17 06.3**	**-0.6**
KLNA				S	**Sg**	**07 17 18.2**	**-0.1**
KLNA				AML	AML		
FOCM	**Foa**	**0.89**	**355**	Pg	**Pb**	**07 17 07.3**	**-0.2**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**339**	P	**Pg**	**07 17 07.5**	**+0.2**
KARB				S	**Sb**	**07 17 20.0**	**+0.3**
KARB				IAML		07 17 21.0	
	comp=N,493nm,0.5s						
KARB				IAML		07 17 23.0	
	comp=E,493nm,0.4s						
BDRM	**Kayabasi**	**0.91**	**147**	P	**Pg**	**07 17 07.6**	**+0.2**
BDRM				S	**Sb**	**07 17 20.5**	**+0.5**
EAG2	**Marmaro, Chios**	**0.91**	**322**	P	**Pg**	**07 17 06.9**	**-0.7**
EAG2				S	**Sg**	**07 17 19.6**	**+0.2**
MLSB	**Milas**	**0.92**	**125**	Pg	**Pb**	**07 17 08.2**	**0.0**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**148**	Pg	**Pb**	**07 17 08.9**	**+0.7**
IZMR	**zmir-demi**	**0.94**	**71**	P	**Pg**	**07 17 08.0**	**-0.1**
IZMR				S	**Sg**	**07 17 19.4**	**-1.0**
CAMT	**Merkez**	**1.00**	**23**	P	**Pg**	**07 17 09.2**	**0.0**
CAMT				S	**Sn**	**07 17 24.6**	**+0.3**
CAMT				IAML		07 17 26.0	
	comp=E,620nm,0.3s						
CAMT				IAML		07 17 28.0	
	comp=N,608nm,0.3s						
ZEDA	**zmir-Bergama**	**1.15**	**10**	P	**Pg**	**07 17 11.3**	**-0.9**
ZEDA				S	**Sb**	**07 17 27.8**	**+0.7**
ZEDA				IAML		07 17 30.0	
	comp=N,205nm,0.3s						
ZEDA				IAML		07 17 30.0	
	comp=E,256nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.17**	**83**	Pn	**Pg**	**07 17 11.2**	**-1.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn	**Pn**	**07 17 13.6**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.24**	**3**	Pn	**Pg**	**07 17 13.9**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**3**	P	**Pb**	**07 17 13.3**	**-0.3**
DAT	**Datca**	**1.25**	**151**	P	**Pb**	**07 17 13.4**	**-0.4**
DAT				S	**Sb**	**07 17 30.7**	**+0.7**
DAT				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	P	**Pn**	**07 17 14.1**	**+0.1**
APE				S	**Sn**	**07 17 31.9**	**+0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	Pn	**Pg**	**07 17 15.8**	**+1.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	P	**Pn**	**07 17 13.5**	**-0.5**
APE				AML	AML		
AKHS	**Akhisar**	**1.31**	**36**	P	**Pb**	**07 17 14.8**	**+0.1**
AKHS				S	**Sn**	**07 17 33.6**	**+1.7**
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pg**	**07 17 14.9**	**-0.2**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.33**	**197**	P	**Pn**	**07 17 14.1**	**-0.6**
ASTA				AML	AML		
TNSA	**Tinos**	**1.35**	**258**	P	**Pn**	**07 17 13.1**	**-1.8**
TNSA				AML	AML		
YER	**Yerkesik**	**1.35**	**120**	P	**Pn**	**07 17 14.7**	**-0.3**
YER				S	**Sg**	**07 17 33.2**	**-0.2**
YER	**Yerkesik**	**1.35**	**120**	Pn	**Pg**	**07 17 15.9**	**0.0**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pb**	**07 17 16.8**	**-0.1**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**07 17 16.9**	**+0.1**
PRK				S	**Sb**	**07 17 36.7**	**+0.1**
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**07 17 16.5**	**-0.2**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pb**	**07 17 18.2**	**-0.1**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn	**Pb**	**07 17 22.2**	**-0.7**
YAYO				AML	AML		
BALB	**Balikesir**	**1.99**	**24**	Pn	**Pn**	**07 17 24.8**	**+1.1**
BALB				AML	AML		
EZN	**Ezine**	**2.03**	**349**	Pn	**Pn**	**07 17 25.6**	**+1.3**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.10**	**344**	Pn	**Pb**	**07 17 27.3**	**-0.9**
BOZC				AML	AML		
KARP	**Karpathos**	**2.29**	**173**	P	**Pn**	**07 17 26.6**	**-1.3**
SMTH	**Samothraki Isl**	**2.83**	**340**	P	**Pn**	**07 17 33.9**	**-1.3**

*AFAD **13** 07:18:23.9, 37°.83N×26°.80E, h7km±3km, ML3.0*
*ISK **13** 07:18:23.4, 37°.79N×26°.82E, h6km, ML3.2/24*
*ATH **13** 07:18:23.4, 37°.80N×26°.82E, h15km, ML3.0/10, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*THE **13** 07:18:24.2, 37°.8N±0°.6×26°.8E±0°.7, h8km±1km, M2.9/7, MLh2.9/7*
ISC 13 07:18:23.9±0.8,**37°.81N**±0°.02×**26°.82E**±0°.02,**h12**km±5km, **n56**,σ0**63**/86,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.09**	**259**	P	**Pg**	**07 18 26.7**	**0.0**
KRL1				S	**Sg**	**07 18 28.6**	**0.0**
SMG	**Samos**	**0.10**	**172**	P	**Pg**	**07 18 26.9**	**0.0**
SMG				S	**Sg**	**07 18 29.1**	**+0.1**
SMG				AML	AML		
SMG	**Samos**	**0.10**	**172**	P	**Pg**	**07 18 26.8**	**0.0**
SMG				S	**Sg**	**07 18 28.7**	**-0.3**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.17**	**252**	P	**Pg**	**07 18 27.8**	**-0.1**
SAM2				S	**Sg**	**07 18 30.6**	**0.0**
SAM2				AML	AML		
DGB	**zmir**	**0.24**	**12**	P	**Pg**	**07 18 28.8**	**-0.3**
DGB				IAML		07 18 32.0	
	comp=E,1μm,0.5s						
DGB				S	**Sg**	**07 18 32.0**	**-0.5**
GMLD	**Gumuldur**	**0.27**	**16**	Pg	**Pg**	**07 18 29.4**	**-0.2**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**109**	P	**Pg**	**07 18 30.9**	**-0.1**
GCAM				IAML		07 18 37.0	
	comp=N,3μm,0.2s						
GCAM				IAML		07 18 37.0	
	comp=E,3μm,0.3s						
GCAM				S	**Sb**	**07 18 37.1**	**-0.4**
GCAM	**G?zelcaml?**	**0.35**	**109**	Pg	**Pg**	**07 18 30.6**	**-0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**83**	Pg	**Pg**	**07 18 31.3**	**-0.1**
KUSD				Sg	**Sg**	**07 18 36.5**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**12**	P	**Pg**	**07 18 32.0**	**-0.3**
BEYE				S	**Sg**	**07 18 38.3**	**+0.3**
DDIM	**Aydin, Didim**	**0.49**	**136**	P	**Pg**	**07 18 34.0**	**+0.5**
DDIM				IAML		07 18 41.0	
	comp=E,582nm,0.3s						
DDIM				S	**Sb**	**07 18 41.9**	**+0.3**
DDIM				IAML		07 18 44.0	
	comp=N,631nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**330**	P	**Pg**	**07 18 33.0**	**-0.7**
ZEYE				S	**Sg**	**07 18 40.7**	**+0.5**
ZEYE				IAML		07 18 41.0	
	comp=N,2μm,0.4s						
ZEYE				IAML		07 18 46.0	
	comp=E,856nm,0.2s						
BLCB	**Balcova**	**0.60**	**17**	P	**Pg**	**07 18 35.4**	**-0.3**
BLCB				S	**Sg**	**07 18 43.9**	**+0.4**
BLCB	**Balcova**	**0.60**	**17**	Pg	**Pg**	**07 18 35.3**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.64**	**51**	P	**Pg**	**07 18 36.0**	**-0.5**
DUVT				S	**Sb**	**07 18 45.7**	**-0.3**
DUVT				IAML		07 18 48.0	
	comp=E,1μm,0.3s						
CESE	**eme**	**0.66**	**322**	Pg	**Pg**	**07 18 36.9**	**+0.1**
CESE				AML	AML		
DAGE	**izmir**	**0.76**	**75**	P	**Pb**	**07 18 39.0**	**-0.1**
DAGE				S	**Sg**	**07 18 47.8**	**-0.9**
DAGE				IAML		07 18 50.0	
	comp=N,448nm,0.2s						
DAGE				IAML		07 18 52.0	
	comp=E,963nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.78**	**152**	Pg	**Pg**	**07 18 38.4**	**-0.6**
YKAV				Sg	**Sb**	**07 18 50.1**	**+0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.81**	**345**	Pg	**Pb**	**07 18 39.8**	**-0.1**
KRBN				Sg	**Sb**	**07 18 51.7**	**+0.9**
KRBN				AML	AML		
CHOS	**Chios island**	**0.83**	**314**	P	**Pg**	**07 18 40.1**	**0.0**
CHOS				S	**Sb**	**07 18 52.3**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**314**	Pg	**Pg**	**07 18 40.1**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**314**	P	**Pg**	**07 18 39.5**	**-0.6**
CHOS				S	**Sb**	**07 18 51.3**	**-0.3**
CHOS				AML	AML		
BAGT	**Foa**	**0.84**	**2**	P	**Pb**	**07 18 40.6**	**+0.1**
BAGT				S	**Sb**	**07 18 52.4**	**+0.6**
BAGT				IAML		07 18 54.0	
	comp=N,726nm,0.8s						
BAGT				IAML		07 18 57.0	
	comp=E,539nm,0.7s						
BODT	**Bodrum**	**0.85**	**152**	P	**Pg**	**07 18 40.3**	**0.0**
BODT				S	**Sb**	**07 18 52.3**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**152**	Pg	**Pg**	**07 18 39.8**	**-0.5**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.86**	**81**	Pg	**Pg**	**07 18 40.4**	**-0.2**
AYDB				AML	AML		
KLNA	**Kalymnos**	**0.86**	**172**	P	**Pg**	**07 18 40.4**	**-0.2**
KLNA				AML	AML		
FOCM	**Foa**	**0.90**	**356**	Pg	**Pb**	**07 18 41.8**	**+0.3**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**339**	P	**Pg**	**07 18 40.6**	**-0.9**
KARB				S	**Sb**	**07 18 54.1**	**+0.4**
KARB				IAML		07 18 56.0	
	comp=N,678nm,0.6s						
KARB				IAML		07 18 59.0	
	comp=E,366nm,0.8s						
BODA	**Bodrum-Mula**	**0.92**	**148**	Pg	**Pg**	**07 18 40.8**	**-0.8**
EAG2	**Marmaro, Chios**	**0.92**	**323**	P	**Pg**	**07 18 41.0**	**-0.7**
EAG2				S	**Sg**	**07 18 53.7**	**0.0**
MLSB	**Milas**	**0.92**	**124**	Pg	**Pg**	**07 18 40.7**	**-1.0**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.95**	**70**	P	**Pg**	**07 18 41.5**	**-0.8**
IZMR				S	**Sg**	**07 18 53.5**	**-1.3**
IZMR				IAML		07 18 58.0	
	comp=E,213nm,0.6s						
CAMT	**Merkez**	**1.01**	**22**	P	**Pg**	**07 18 43.0**	**-0.4**
CAMT				S	**Sn**	**07 18 58.5**	**+0.3**
CAMT				IAML		07 19 00.0	
	comp=E,616nm,0.2s						
CAMT				IAML		07 19 05.0	
	comp=N,728nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.18**	**82**	Pn	**Pg**	**07 18 46.3**	**-0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.24**	**151**	P	**Pb**	**07 18 47.4**	**0.0**
DAT				S	**Sn**	**07 19 05.2**	**+1.4**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.24**	**44**	Pn	**Pg**	**07 18 48.2**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.26**	**3**	Pn	**Pg**	**07 18 48.2**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.26**	**3**	P	**Pn**	**07 18 46.8**	**-0.5**
DKL				S	**Sb**	**07 19 03.3**	**-0.5**
APE	**Apeiranthos**	**1.27**	**234**	P	**Pn**	**07 18 48.5**	**+0.5**
APE				S	**Sn**	**07 19 06.6**	**+2.2**
APE	**Apeiranthos**	**1.27**	**234**	Pn	**Pn**	**07 18 47.6**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.27**	**234**	P	**Pn**	**07 18 45.9**	**-1.6**
APE				S	**Sb**	**07 19 02.9**	**-1.1**
APE				AML	AML		
AKS	**Akhisar**	**1.32**	**36**	Pn	**Pg**	**07 18 49.2**	**-0.1**
AKS				AML	AML		
YER	**Yerkesik**	**1.35**	**120**	P	**Pn**	**07 18 48.9**	**+0.2**
YER				S	**Sg**	**07 19 07.4**	**0.0**
YER	**Yerkesik**	**1.35**	**120**	Pn	**Pn**	**07 18 48.8**	**+0.2**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**22**	Pn	**Pb**	**07 18 51.1**	**+0.1**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.49**	**343**	P	**Pn**	**07 18 50.9**	**+0.3**
PRK				S	**Sg**	**07 19 11.4**	**-0.7**
PRK	**Paraskevi**	**1.49**	**343**	P	**Pn**	**07 18 50.2**	**-0.3**
PRK				S	**Sn**	**07 19 09.4**	**-0.6**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.53**	**44**	Pn	**Pb**	**07 18 52.1**	**-0.2**
GORD				AML	AML		
THERA	**Ancient Thera,**	**1.80**	**217**	P	**Pn**	**07 18 53.6**	**-1.2**
THERA				AML	AML		
YAYO	**Edremit-Balk**	**1.81**	**6**	Pn	**Pb**	**07 18 56.2**	**-0.8**
YAYO				AML	AML		
KARY	**Karystos**	**1.90**	**277**	P	**Pn**	**07 18 55.5**	**-0.6**
BALB	**Balikesir**	**2.00**	**24**	Pn	**Pn**	**07 18 59.0**	**+1.4**
BALB				AML	AML		
EZN	**Ezine**	**2.05**	**349**	Pn	**Pb**	**07 19 00.1**	**-0.9**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.11**	**344**	Pn	**Pn**	**07 19 00.5**	**+1.4**
BOZC				AML	AML		
LIA	**Limnos Island**	**2.44**	**329**	P	**Pn**	**07 19 03.6**	**0.0**
LIA				AML	AML		

*IDC **13** 07:18:28.0±3.6, 25°.08N×123°.54E, h0km, mb3.

mb4.9/38,Mww4.9/21,Error ellipse: s-maj=12.6km s-min=7.0km az=138.0

GFZ ***13*** *07:31:56.5±0.2,25°N×3°×12°4E±°,h10km,M5.2/19, mb4.7/19*

GFZ ***13*** *07:31:56.8,25°.14N×123°.66E,h10km,Mw4.8/56,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=1.90; Mθθ1.82; Mφφ0.08; Mrθ0.60; Mθφ0.14; Mrφ0.23; Fault plane solution: M₀1.97520×10¹⁶ NP1:φ₁90.25169°, δ36.13229°,λ-81.87676°. NP2:φ₂260.22946°,δ54.28630°, λ-95.88990°. Principal axes: T 1.9306, Plg9.1104°, Azm354.4438°; N 0.0864, Plg4.7794°, Azm263.6756°; P -2.0170, Plg79.6931°, Azm146.3039°;*

GCMT ***13*** *07:31:58.1±0.2,25°.08N±0°.01×123°.55E±0°.02,h12km, MW4.9/118,Moment Tensor Solution. s34,c41; s118,c185; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=2.59±.06; Mθθ2.59±.05; Mφφ0.00±.05; Mrθ0.02±.18; Mθφ0.13±.04; Mrφ0.41±.23; Best double couple: M₀2.62500×10¹⁶ NP1:φ₁96.00000°,δ45.00000°, λ-78.00000°. NP2:φ₂258.00000°,δ46.00000°, λ-102.00000°. Principal axes: T 2.5960, Plg0.0000°, Azm357.0000°; N 0.0540, Plg9.0000°, Azm267.0000°; P -2.6540, Plg81.0000°, Azm90.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 07:31:57.8±0.6,25.01N±0.03×123.65E±0.03,h26km±4km, n226,σ1§79/197,mb4.7/57,MS4.3/74,1C-2D,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.67**	**174**	*e*P	**Pb**	**07 32 09.7**	**-1.4**
IRIF				A	A	07 32 09.7	
	comp=N,132nm,6.9s,comp=E,60nm,1.6s						
JISG	**Ishigakijimahi**	**0.73**	**125**	P	**Pb**	**07 32 09.7**	**-2.3**
JISG				A	A	07 32 09.7	
	comp=N,53nm,3.0s,comp=E,55nm,2.5s						
JISG				*e*S	**Sb**	**07 32 19.4**	**-2.2**
JIJ	**Ishigaki jima**	**0.78**	**145**	P	**Pb**	**07 32 10.5**	**-2.4**
JIJ				A	A	07 32 10.5	
	comp=N,44nm,10.1s,comp=E,41nm,4.0s						
JIJ				*e*S	**Sb**	**07 32 21.9**	**-1.2**
YOJ	**Yonaguni jima**	**0.80**	**227**	P	**Pb**	**07 32 10.6**	**-2.5**
YOJ	**Yonaguni jima**	**0.80**	**227**	S	**Sb**	**07 32 18.8**	**-4.6**
YOJ	**Yonaguni jima**	**0.80**	**227**		**Pb**	**07 32 10.9**	**-2.2**
YOJ	**Yonaguni jima**	**0.80**	**227**	P	**Pb**	**07 32 11.5**	**-1.6**
YOJ	**Yonaguni jima**	**0.80**	**227**	*e*P	**Pb**	**07 32 11.4**	**-1.7**
YOJ				A	A	07 32 11.4	
	comp=N,67nm,3.9s,comp=E,58nm,5.8s						
YOJ				*e*S	**Sb**	**07 32 22.2**	**-1.3**
JKRS	**Kuro-shima**	**0.83**	**157**	*e*P	**Pb**	**07 32 11.7**	**-2.0**
JKRS				A	A	07 32 11.7	
	comp=N,225nm,2.8s,comp=E,180nm,3.9s						
JYNG	**Yonagunijimaku**	**0.85**	**229**	*e*P	**Pb**	**07 32 12.4**	**-1.5**
JYNG				A	A	07 32 12.4	
	comp=N,78nm,5.9s,comp=E,74nm,5.2s						
JYNG				*e*S	**Sb**	**07 32 25.0**	**+0.1**
HATJ	**Hateruma jima**	**0.96**	**171**	*e*P	**Pn**	**07 32 14.2**	**-1.4**
HATJ				A	A	07 32 14.2	
	comp=N,338nm,2.8s,comp=E,161nm,2.4s						
HATJ				*e*S	**Sb**	**07 32 27.0**	**-1.0**
JTJ	**Tarama**	**1.02**	**111**	*e*P	**Pn**	**07 32 14.6**	**-1.9**
JTJ				A	A	07 32 14.6	
	comp=N,103nm,1.7s,comp=E,79nm,1.6s						
JIRJ	**Irabujima**	**1.41**	**97**	*e*P	**Pn**	**07 32 19.7**	**-2.2**
JIRJ				A	A	07 32 19.7	
	comp=N,58nm,4.2s,comp=E,68nm,3.7s						
JIKM	**Ikemajima**	**1.45**	**93**	*e*P	**Pn**	**07 32 20.7**	**-1.7**
JIKM				A	A	07 32 20.7	
	comp=N,73nm,10.7s,comp=E,81nm,4.7s						
JMJ	**Miyako jima 2**	**1.50**	**97**	P	Pb	07 32 30.5	+5.4
JMJ2	**Miyako jima3**	**1.55**	**100**	*e*P	**Pn**	**07 32 23.2**	**-0.5**
JMJ2				A	A	07 32 23.2	
	comp=N,80nm,5.9s,comp=E,66nm,4.7s						
JOGS	**Gusukube**	**1.61**	**98**	A	A	07 32 23.2	
	comp=N,78nm,4.8s,comp=E,74nm,3.0s						
TATO	**Taipei**	**1.96**	**270**	P	**Pn**	**07 32 28.7**	**-0.7**
TATO	**Taipei**	**1.96**	**270**		**Pn**	**07 32 28.3**	**-1.2**
NACB	**Ninganchiao**	**2.05**	**247**	P	**Pn**	**07 32 30.1**	**+0.5**
NACB	**Ninganchiao**	**2.05**	**247**		**Pn**	**07 32 30.5**	**-0.1**
NACB	**Ninganchiao**	**2.05**	**247**	P	**Pn**	**07 32 32.5**	**+1.9**
YHNB	**Yeheng**	**2.09**	**261**	P	**Pn**	**07 32 31.0**	**-0.3**
YHNB	**Yeheng**	**2.09**	**261**		**Pn**	**07 32 30.8**	**-0.5**
YHNB	**Yeheng**	**2.09**	**261**	P	**Pn**	**07 32 31.7**	**+0.4**
YULB	**Yu-li**	**2.68**	**234**	P	**Pn**	**07 32 39.9**	**+0.5**
YULB	**Yu-li**	**2.68**	**234**		**Pn**	**07 32 38.0**	**-1.4**
YULB	**Yu-li**	**2.68**	**234**	P	**Pb**	**07 32 44.4**	**-0.8**
SSLB	**Suanglung**	**2.74**	**244**	P	**Pn**	**07 32 41.8**	**+1.6**
SSLB	**Suanglung**	**2.74**	**244**		**Pn**	**07 32 39.3**	**-0.9**
JKE	**Kume jima 2**	**3.12**	**64**	A	A	07 32 44.6	
	comp=N,4.0nm,10.4s,comp=E,4.0nm,11.9s						
TWG	**Pinlang**	**3.21**	**228**		**Pn**	**07 32 44.3**	**-2.3**
TWG	**Pinlang**	**3.21**	**228**	P	**Pn**	**07 32 48.6**	**+2.0**
TPUB	**Ta-pu**	**3.24**	**239**	P	**Pn**	**07 32 49.5**	**+2.5**
TPUB	**Ta-pu**	**3.24**	**239**		**Pn**	**07 32 46.4**	**-0.7**
TPUB	**Ta-pu**	**3.24**	**239**	P	**Pn**	**07 32 49.8**	**+2.8**
JOW	**Kunigami**	**4.54**	**65**	Pn	**Pn**	**07 33 05.0**	**+0.1**
	comp=E,1.8nm,0.3s,baz=243,slow=10,SNR=6.0 comp=E,87nm,1.0s						
JOW				AML	AML		
JOW	**Kunigami**	**4.54**	**65**	P	**Pb**	**07 33 14.8**	**-2.1**
JOW	**Kunigami**	**4.54**	**65**	Pn	**Pn**	**07 33 05.6**	**+0.7**
JOW	**Kunigami**	**4.54**	**65**	P	**Pn**	**07 33 05.0**	**+0.1**
QZH2	**Quanzhou**	**4.58**	**270**	Pg	Pb	07 33 12.3	-5.3
QZH2				Sg	**Sb**	**07 34 09.1**	**-3.3**
QZH2				AML	AML		
	comp=E,330nm,1.1s						
QZH2				AML	AML		
	comp=E,260nm,1.0s						
QZH2				L	L		
	comp=E,5μm,10.1s						
QZH2				L	L		
	comp=E,6μm,8.3s						
QZH2				L	L		
	comp=E,6μm,8.9s						
KNMB	**Chin-men Tao**	**4.81**	**265**	Pn	**Pn**	**07 33 06.4**	**-2.3**
SSE	**Sheshan**	**6.44**	**341**	Pn	**Pn**	**07 33 28.8**	**-2.2**
SSE				Sn	**Sn**	**07 34 42.4**	**-1.3**
SSE				AML	AML		
	comp=E,180nm,1.2s						
SSE				AML	AML		
	comp=E,250nm,1.1s						
SSE				L	L		
	comp=E,4μm,13.8s						
SSE				L	L		
	comp=E,3μm,13.7s						
NJ2	**Nanjing**	**8.19**	**330**	*e*P	**Pn**	**07 33 54.8**	**-0.2**
NJ2				pmax	pmax		
	comp=E,8.0nm,0.6s						
NJ2				L	L		
	comp=E,5μm,10.9s						
NJ2				L	L		
	comp=E,7μm,11.8s						
NJ2				L	L		
	comp=E,6μm,14.7s						
JSU	**Suzuyama**	**8.82**	**41**		**Pn**	**07 34 05.6**	**+1.8**
GZH2	**Guangzhou**	**9.21**	**264**	P	**Pn**	**07 34 08.9**	**-0.2**
GZH2				S	**Sn**	**07 35 53.8**	**+1.8**
GZH2				L	L		
	comp=E,2μm,6.8s						
GZH2				L	L		
	comp=E,3μm,5.6s						
WHN	**Wuhan**	**9.91**	**306**	P	**Pn**	**07 34 17.3**	**-1.3**
WHN				S	**Sn**	**07 36 07.1**	**-1.9**
WHN				L	L		
	comp=E,14μm,7.7s						
WHN				L	L		
	comp=E,8μm,5.1s						
WHN				L	L		
	comp=E,8μm,6.0s						
JNU	**Nakatsue**	**10.26**	**36**	Pn	**Pn**	**07 34 26.6**	**+3.2**
	comp=E,0.2nm,0.3s,baz=195,slow=6.8,SNR=5.1						
JNU				LR	LR	07 38 20.3	
	comp=E,895nm,19.2s,baz=216,slow=38 comp=E,12nm,1.0s						
JNU				AML	AML		
JMN	**Monobe**	**12.45**	**43**	Pn	**Pn**	**07 34 55.7**	**+2.3**
KSRS	**Korea Array**	**12.93**	**15**	Pn	**Pn**	**07 35 03.1**	**+3.2**
	comp=E,0.3nm,0.3s,baz=195,slow=13,SNR=18						
KSRS				LR	LR	07 40 29.2	
	comp=E,2μm,19.6s,baz=200,slow=40 comp=E,2.8nm,0.9s						
KSRS				AML	AML		
QIZ	**Qiongzhong**	**14.11**	**248**	P	**Pn**	**07 35 15.4**	**-0.8**
QIZ				S	**Sn**	**07 37 52.5**	**+0.5**
QIZ				L	L		
	comp=E,1μm,9.0s						
QIZ				L	L		
	comp=E,660nm,7.8s						
QIZ				L	L		
	comp=E,2μm,9.2s						
HNS	**HongShan**	**14.52**	**330**	⇓P	**Pn**	**07 35 22.8**	**+1.2**
HNS				S	**Sn**	**07 38 07.9**	**+6.2**
HNS				pmax	pmax		
	comp=E,14nm,2.3s						
HNS				L	L		
	comp=E,3μm,14.3s						
HNS				L	L		
	comp=E,3μm,13.5s						
HNS				L	L		
	comp=E,4μm,14.3s						
GYA	**Guiyang**	**15.38**	**279**	P	**P**	**07 35 40.5**	**+2.8**
GYA				S	**Sn**	**07 38 17.4**	**-5.5**
GYA				pmax	pmax		
	comp=Z,18nm,0.8s						
GYA				pmax	pmax		
	comp=Z,600nm,4.2s						
GYA				LR	LR		
	comp=N,2μm,10.7s						
GYA				LR	LR		
	comp=E,2μm,9.5s						
GYA				LR	LR		
	comp=Z,2μm,8.6s						
XAN	**Xi'an**	**15.65**	**308**	P	**Pn**	**07 35 34.9**	**-1.8**
XAN				S	**Sn**	**07 38 29.0**	**-0.3**
XAN				pmax	pmax		
	comp=Z,12nm,1.2s						
XAN				L	L		
	comp=Z,2μm,8.4s						
XAN				L	L		
	comp=Z,3μm,8.6s						
XAN				L	L		
	comp=Z,3μm,8.6s						
TIY	**Taiyuan**	**15.86**	**326**	P	**P**	**07 35 42.3**	**-0.7**
TIY				S	**S**	**07 38 43.0**	**-5.4**
TIY				pmax	pmax		
	comp=Z,530nm,7.8s						
TIY				L	L		
	comp=Z,2μm,9.7s						
TIY				L	L		
	comp=Z,2μm,8.5s						
TIY				L	L		
	comp=Z,2μm,9.7s						
BJI2	**Beijing**	**16.23**	**339**	P	**Pn**	**07 35 43.4**	**-0.7**
BJI2				sP	**P**	**07 35 50.1**	**+3.1**
BJI2				PP	**pwP**	**07 35 56.3**	**+0.3**
BJI2				S	**Sn**	**07 38 43.3**	**0.0**
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BJI2				pmax	pmax		
	comp=Z,210nm,7.8s						
BJI2				L	L		
	comp=Z,1μm,15.7s						
BJI2				L	L		
	comp=Z,1μm,15.7s						
BJI2				L	L		
	comp=Z,3μm,14.7s						
MJAR	**Matsushiro Arr**	**16.97**	**44**	P	**Pn**	**07 35 53.1**	**-0.3**
	baz=229,slow=9.5,SNR=8.6						
MJAR				LR	LR	07 42 28.0	
	comp=Z,896nm,20.0s,baz=222,slow=37 comp=Z,3.0nm,0.7s						
DAV	**Davao City (W)**	**17.93**	**174**	LR	LR	07 42 48.9	
	comp=Z,1μm,21.4s,baz=354,slow=36						
SLVN	**Son La**	**18.52**	**263**	P	**Pn**	**07 36 14.9**	**+2.2**
	comp=Z,13nm,1.2s						
CD2	**Chengdu**	**18.52**	**293**	P	**Pn**	**07 36 13.5**	**+0.8**
CD2				S	**S**	**07 39 43.3**	**+1.0**
CD2				pmax	pmax		
	comp=Z,40nm,1.1s						
CD2				pmax	pmax		
	comp=Z,710nm,8.3s						
CD2				L	L		
	comp=Z,5μm,11.8s						
CD2				L	L		
	comp=Z,3μm,12.1s						
CD2				L	L		
	comp=Z,2μm,8.8s						
HHC	**Hu-ho-hao-te**	**18.74**	**330**	*e*P	**Pn**	**07 36 15.6**	**+0.2**
HHC				S	**Sn**	**07 39 43.4**	**-0.9**
HHC				SS	**SnSn**	**07 40 01.1**	**+2.6**
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,390nm,4.7s						
HHC				L	L		
	comp=Z,2μm,14.5s						
HHC				L	L		
	comp=Z,1μm,14.5s						
HHC				L	L		
	comp=Z,2μm,13.8s						
KMI2	**Kunming**	**18.94**	**275**	P	**Pn**	**07 36 20.3**	**+2.4**
KMI2				pmax	pmax		
	comp=Z,17nm,1.5s						
KMI2				L	L		
	comp=Z,2μm,11.1s						
KMI2				L	L		
	comp=Z,1μm,8.8s						
KMI2				L	L		
	comp=Z,2μm,9.3s						
BTO2	**Baotou**	**19.45**	**327**	*e*P	**Pn**	**07 36 26.9**	**+3.0**
BTO2				pP	**pwP**	**07 36 30.8**	**-1.1**
BTO2				sP	**sP**	**07 36 34.0**	**+1.7**
BTO2				PP	**PnPn**	**07 36 44.5**	**+7.1**
BTO2				S	**Sn**	**07 40 01.4**	**-0.1**
BTO2				pmax	pmax		
	comp=Z,47nm,1.8s						
BTO2				pmax	pmax		
	comp=Z,2μm,8.6s						
BTO2				LR	LR		
	comp=N,6μm,12.9s						
BTO2				LR	LR		
	comp=E,4μm,16.3s						
BTO2				LR	LR		
	comp=Z,4μm,20.3s						
PZH	**PanZhiHua**	**19.79**	**279**	P	**Pn**	**07 36 28.0**	**0.0**
PZH				pmax	pmax		
	comp=Z,10.0nm,1.5s						
PZH				L	L		
	comp=Z,840nm,8.0s						
PZH				L	L		
	comp=Z,3μm,8.3s						
PZH				L	L		
	comp=Z,2μm,8.5s						
XLT	**XiLinHaoTe**	**19.84**	**344**	*e*P	**P**	**07 36 26.4**	**-0.3**
XLT				pP	Pn	07 36 30.6	+2.2
XLT				sP	pP	07 36 33.0	-0.3
XLT				PP	**PnPn**	**07 36 41.5**	**-1.1**
XLT				S	**S**	**07 40 06.8**	**-2.0**
XLT				SS	**SnSn**	**07 40 31.1**	**+5.9**
XLT				pmax	pmax		
	comp=Z,29nm,1.0s						
XLT				L	L		
	comp=Z,250nm,14.5s						
XLT				L	L		
	comp=Z,2μm,14.0s						
XLT				L	L		
	comp=Z,4μm,14.9s						
MDJ	**Mudanjiang**	**20.15**	**12**	P	**P**	**07 36 30.1**	**+0.1**
MDJ				pmax	pmax		
	comp=Z,21nm,2.0s						
MDJ				pmax	pmax		
	comp=Z,640nm,8.6s						
MDJ				L	L		
	comp=Z,5μm,13.1s						
KKM	**Kota Kinabalu**	**20.16**	**202**	P	Pn	07 36 32.4	0.0
KKM	**Kota Kinabalu**	**20.16**	**202**	P	Pn	07 36 33.4	+1.0
	comp=Z,19nm,1.4s						
LZH	**Lanzhou**	**20.28**	**308**	*e*P	Pn	07 36 33.0	-0.8
LZH				sP	sP	07 36 41.5	+0.1
LZH				S	Sn	07 40 22.6	+1.0
LZH				pmax	pmax		
	comp=Z,30nm,1.1s						
LZH				pmax	pmax		
	comp=Z,430nm,4.6s						
LZH				L	L		
	comp=Z,2μm,12.9s						
LZH				L	L		
	comp=Z,1μm,13.7s						
LZH				L	L		
	comp=Z,2μm,14.1s						
USRK	**Ussuriysk Ar.**	**20.32**	**17**	P	**P**	**07 36 32.9**	**+1.1**
	comp=Z,15nm,1.0s,baz=193,slow=7.8,SNR=18						
USRK				LR	LR	07 44 40.9	
	comp=Z,970nm,19.4s,baz=192,slow=38 comp=Z,15nm,1.0s						
USRK	**Ussuriysk Ar.**	**20.32**	**17**	P	**P**	**07 36 32.1**	**+0.3**
LZDM	**Lanzhou Array**	**20.33**	**307**	P	**P**	**07 36 31.9**	**-0.5**
	comp=Z,2.0nm,0.4s,baz=96,slow=13,SNR=2.1						
LZDM				LR	LR	07 44 51.2	
	comp=Z,981nm,18.6s,baz=80,slow=38 comp=Z,2.0nm,0.4s						
BNX	**BinXian**	**20.91**	**7**	⇑P	**P**	**07 36 37.5**	**-0.7**
BNX				pP	Pn	07 36 40.1	-0.7
BNX				S	**S**	**07 40 31.3**	**+1.4**
BNX				sS	Sn	07 40 36.6	+0.4
BNX				pmax	pmax		
	comp=Z,42nm,1.3s						
BNX				pmax	pmax		
	comp=Z,420nm,3.8s						
BNX				L	L		
	comp=Z,2μm,13.0s						
BNX				L	L		
	comp=Z,2μm,12.0s						
BNX				L	L		
	comp=Z,3μm,13.0s						
TNCH	**TengChong**	**22.77**	**275**	P	P	07 36 50.3	-8.3
TNCH				S	**S**	**07 41 00.8**	**-5.3**
TNCH				LR	LR		
	comp=N,2μm,8.5s						
TNCH				LR	LR		
	comp=E,2μm,9.0s						
TNCH				LR	LR		
	comp=Z,3μm,8.3s						
GUMO	**Guam**	**22.99**	**116**	P	**P**	**07 37 02.2**	**+1.5**
	comp=Z,149nm,1.2s,baz=250,slow=4.1,SNR=4.1						
GUMO				LR	LR	07 44 05.9	
	comp=Z,196nm,21.2s,baz=306,slow=32						
GUMO	**Guam**	**22.99**	**116**	P	**P**	**07 37 02.4**	**+1.7**
GUMO	**Guam**	**22.99**	**116**	P	**P**	**07 37 02.7**	**+2.0**
	comp=Z,243nm,1.4s						
CHTO	**Chiang Mai**	**23.72**	**260**		**P**	**07 37 06.7**	**-1.2**
CHTO	**Chiang Mai**	**23.72**	**260**	P	**P**	**07 37 07.6**	**-0.3**
CHTO	**Chiang Mai**	**23.72**	**260**	P	**P**	**07 37 08.7**	**+0.7**
	comp=Z,11nm,1.3s						
CMAR	**Chiang Mai Arr**	**23.84**	**259**	P	**P**	**07 37 09.3**	**+0.2**
	comp=Z,1.0nm,0.3s,baz=60,slow=8.4,SNR=11						
CMAR				LR	LR	07 47 00.6	
	comp=Z,374nm,18.8s,baz=75,slow=38 comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**23.84**	**259**	P	**P**	**07 37 08.3**	**-0.8**
TOLI2	**Tolitoli**	**23.92**	**187**	P	**P**	**07 37 09.1**	**-0.6**
TOLI2				IAmb	IAmb	07 37 36.5	
	comp=Z,28nm,1.1s						
GTOI	**Gorontalo**	**24.24**	**182**	P	**P**	**07 37 13.7**	**+1.0**
TNTI	**Ternate**	**24.36**	**171**	P	**P**	**07 37 17.9**	**+4.0**
	comp=Z,μmcomp=Z,63nm,1.2s						
HILR	**Hailar Array B**	**24.69**	**354**	LR	LR	07 48 15.3	
	comp=Z,571nm,19.8s,baz=185,slow=40						
GTA2	**Gaotai**	**24.73**	**311**	P	**P**	**07 37 16.0**	**-1.3**
GTA2				sP	pP	07 37 22.8	-1.6
GTA2				S	**S**	**07 41 40.3**	**+2.4**
GTA2				pmax	pmax		
	comp=Z,16nm,1.7s						
GTA2				pmax	pmax		
	comp=Z,380nm,5.7s						
GTA2				L	L		
	comp=Z,1μm,16.8s						
GTA2				L	L		
	comp=Z,1μm,19.0s						
GTA2				L	L		
	comp=Z,920nm,20.0s						
KLR	**Kul'dur**	**25.00**	**13**	LR	LR	07 47 24.9	
	comp=Z,1μm,18.9s,baz=198,slow=37						
APSI	**Ampana**	**25.84**	**185**	P	**P**	**07 37 28.4**	**+1.1**
	comp=Z,71nm,1.6s						
LUWI	**Luwuk**	**25.91**	**182**	P	**P**	**07 37 30.7**	**+2.8**
ULN	**Ulaanbaatar**	**26.32**	**334**	P	**P**	**07 37 31.7**	**+0.1**
ULN				IAmb	IAmb	07 37 53.1	
	comp=Z,19nm,1.1s						
ULN	**Ulaanbaatar**	**26.32**	**334**	P	**P**	**07 37 30.6**	**-1.0**
	comp=Z,67nm,1.1s						
ULN	**Ulaanbaatar**	**26.32**	**334**	P	**P**	**07 37 30.9**	**-0.7**
	comp=Z,17nm,1.1s						
SONM	**Songino Array**	**26.56**	**333**	P	**P**	**07 37 33.8**	**+0.1**
	comp=Z,2.6nm,0.7s,baz=154,slow=12,SNR=12						
SONM				LR	LR	07 48 22.5	
	comp=Z,829nm,21.7s,baz=147,slow=37 comp=Z,2.6nm,0.7s						
SONM	**Songino Array**	**26.56**	**333**		**P**	**07 37 34.7**	**+1.0**
GOMU	**GeErMu**	**27.11**	**301**	P	**P**	**07 37 39.0**	**-0.1**
GOMU				pP	pP	07 37 42.3	-3.9
GOMU				sP	pwP	07 37 46.4	-2.5
GOMU				S	**S**	**07 42 11.1**	**-5.1**
GOMU				L	L		
	comp=Z,350nm,9.0s						
GOMU				L	L		
	comp=Z,390nm,9.2s						
SHL	**Shillong**	**28.70**	**278**	P	**P**	**07 37 52.3**	**-0.8**
KAPI	**Kappang**	**30.08**	**188**	LR	LR	07 51 02.4	
	comp=Z,453nm,19.8s,baz=354,slow=38						
TLY	**Talaya**	**30.70**	**335**	LR	LR	07 51 07.9	
	comp=Z,498nm,20.5s,baz=138,slow=38						
JAY	**Jayapura**	**31.97**	**146**	LR	LR	07 48 40.5	
	comp=Z,699nm,21.9s,baz=317,slow=31						
PSI	**Prapat**	**32.48**	**231**	LR	LR	07 50 57.0	
	comp=Z,242nm,21.5s,baz=62,slow=35						
PSI	**Prapat**	**32.48**	**231**	P	**P**	**07 38 28.4**	**+1.9**
	comp=Z,818nmcomp=Z,14nm,1.1s,comp=Z,17nm,1.1s						
PSI				P	**P**	**07 38 28.5**	**+1.9**
	comp=Z,818nmcomp=Z,14nm,1.1s,comp=Z,17nm,1.1s						
RPSI	**Rantau Prapat**	**32.55**	**231**	P	**P**	**07 38 26.8**	**-0.3**
RPSI				IAmb	IAmb	07 38 34.5	
	comp=Z,15nm,1.0s						
RPSI	**Rantau Prapat**	**32.55**	**231**	P	**P**	**07 38 28.6**	**+1.5**
	comp=Z,17nm,1.1s						
EVN	**Everest**	**33.02**	**283**	P	**P**	**07 38 31.3**	**-0.6**
EVN				IAmb	IAmb	07 39 14.3	
	comp=Z,13nm,1.4s						
EVN	**Everest**	**33.02**	**283**	P	**P**	**07 38 32.5**	**+0.6**
	comp=Z,6.7nm,1.1s						
BSI	**Banda Aceh**	**33.40**	**239**	P	**P**	**07 38 36.1**	**+1.6**
	comp=Z,870nmcomp=Z,19nm,1.3s						
EDFI	**Ende, Flores**	**33.61**	**184**	P	**P**	**07 38 36.8**	**+0.5**
	comp=Z,12nm,0.9s						
PPI	**Padang Panjang**	**33.87**	**225**	P	**P**	**07 38 40.2**	**+1.6**
WMQ	**Urumqi**	**34.74**	**312**	*e*P	**P**	**07 38 47.3**	**+1.3**
WMQ				pmax	pmax		
	comp=Z,20nm,1.5s						
WMQ				pmax	pmax		
	comp=Z,170nm,3.7s						
WMQ				L	L		
	comp=Z,1μm,13.7s						
WMQ				L	L		
	comp=Z,560nm,14.5s						
WMQ				L	L		
	comp=Z,290nm,15.3s						
BATI	**Baumata**	**35.00**	**180**	LR	LR	07 55 13.1	
	comp=Z,197nm,19.0s,baz=298,slow=40						
YAK	**Yakutsk**	**37.24**	**5**	LR	LR	07 54 33.5	
	comp=Z,454nm,19.2s,baz=195,slow=37						
MKAR	**Makanchi Array**	**39.34**	**314**	P	**P**	**07 39 24.0**	**-0.9**
	comp=Z,4.8nm,0.7s,baz=101,slow=9.5,SNR=27						
MKAR				LR	LR	07 56 14.3	
	comp=Z,390nm,18.4s,baz=98,slow=37 comp=Z,4.8nm,0.7s						
MKAR	**Makanchi Array**	**39.34**	**314**	P	**P**	**07 39 24.3**	**-0.6**
MA2	**Magadan**	**39.38**	**21**	LR	LR	07 56 46.1	
	comp=Z,755nm,18.1s,baz=214,slow=38						
MAKZ	**Makanchi**	**39.55**	**314**		**P**	**07 39 26.0**	**-0.7**
MAKZ				IAmb	IAmb	07 39 33.0	
	comp=Z,20nm,0.9s						
MAKZ	**Makanchi**	**39.55**	**314**	P	**P**	**07 39 26.0**	**-0.7**
	comp=Z,28nm,1.1s						
KRVT	**Keravat (AS076**	**40.12**	**133**	LR	LR	07 53 11.9	
	comp=Z,146nm,20.3s,baz=255,slow=32						
PDGK	**Podgornoye**	**40.32**	**308**	P	**P**	**07 39 32.5**	**-0.8**
ZAA0	**Zalesovo Array**	**40.81**	**325**	P	**P**	**07 39 35.9**	**-1.1**
ZALV	**Zalesovo Beam**	**40.81**	**325**	P	**P**	**07 39 35.1**	**-1.9**
	comp=Z,3.3nm,0.6s,baz=108,slow=8.1,SNR=17						
ZALV				LR	LR	07 57 41.6	
	comp=Z,671nm,20.0s,baz=125,slow=38 comp=Z,3.3nm,0.6s						
TARG	**Taragay, Kyrgy**	**41.25**	**305**	P	**P**	**07 39 41.2**	**-0.1**
TARG	**Taragay, Kyrgy**	**41.25**	**305**	P	**P**	**07 39 42.7**	**+1.5**

comp=Z,14nm,1.6s
ASAI AK-SAY(Kyrgyzs 42.09 304 P **P** 07 39 49.4 +1.4
comp=Z,7.5nm,1.9s
SEY Seymchan 42.45 19 LR LR 07 58 25.9
comp=Z,385nm,18.8s,baz=182,slow=38
NRN Naryn 42.54 305 P **P** 07 39 51.9 +0.1
NRN IAmb IAmb 07 39 54.4
comp=Z,36nm,1.5s
KSH2 Kashi 42.64 301 P **P** 07 39 52.4 +0.1
KSH2 pmax pmax
comp=Z,14nm,1.7s
KSH2 L L
comp=Z,690nm,18.9s
KSH2 L L
comp=Z,520nm,15.5s
KSH2 L L
comp=Z,690nm,16.5s
FITZ Fitzroy Crossi 42.89 177 LR LR 07 58 27.1
comp=Z,97nm,20.8s,baz=353,slow=37
KURK Kurchatov 42.93 319 P **P** 07 39 53.4 -1.0
KURK IAmb IAmb 07 40 00.2
comp=Z,25nm,1.1s
KURK Kurchatov 42.93 319 P **P** 07 39 53.0 -1.3
comp=Z,25nm,1.6s
KURBB Kurchatov Arra 42.95 319 P **P** 07 39 53.4 -1.1
comp=Z,14nm,1.2s,baz=110,slow=7.7,SNR=39
KURBB LR LR 07 59 07.0
comp=Z,226nm,20.4s,baz=202,slow=38
comp=Z,14nm,1.2s
AAK Ala-Archa 43.81 306 LR LR 07 59 48.2
comp=Z,330nm,20.2s,baz=94,slow=38
NIL Nilore 44.41 293 P **P** 07 40 05.3 -1.2
NIL IAmb IAmb 07 40 24.1
comp=Z,15nm,1.0s
NIL Nilore 44.41 293 P **P** 07 40 06.8 +0.3
comp=Z,18nm,1.0s
PALK Pallekele 44.62 254 LR LR 07 59 33.7
comp=Z,170nm,19.5s,baz=58,slow=37
OHH Osh 44.88 303 P **P** 07 40 09.6 -0.6
comp=Z,38nm,0.8s
WRAB Tennant Creek 45.87 166 P **P** 07 40 18.8 +0.7
WRAB IAmb IAmb 07 40 56.9
comp=Z,27nm,1.3s
WRAB Tennant Creek 45.87 166 P **P** 07 40 19.5 +1.4
comp=Z,17nm,1.4s
WRA Warramunga Arr 45.87 166 P **P** 07 40 18.4 +0.3
comp=Z,4.5nm,0.8s,baz=349,slow=8.5,SNR=5.0
comp=Z,4.5nm,0.8s
WRA Warramunga Arr 45.87 166 P **P** 07 40 18.3 +0.2
WR8 Warramunga Arr 45.92 166 P **P** 07 40 19.2 +0.6
WR8 IAmb IAmb 07 40 54.0
comp=Z,37nm,1.5s
SHEM Shemya Is, Ala 46.76 40 LR LR 07 58 59.8
comp=Z,143nm,21.0s,baz=289,slow=35
TIXI Tiksi 46.77 2 LR LR 08 02 34.1
comp=Z,1μm,18.1s,baz=196,slow=39
TIXI Tiksi 46.77 2 P **P** 07 40 23.1 -1.5
TIXI Tiksi 46.77 2 P **P** 07 40 22.9 -1.6
comp=Z,15nm,1.4s
KK31 Karatay Array 46.77 306 P **P** 07 40 24.9 -0.2
KKAR Karatay Array 46.77 306 P **P** 07 40 25.1 0.0
MTSU Mount Surprise 47.37 153 P **P** 07 40 32.2 +2.3
comp=Z,8.0nm,1.3s
KBL Kabul 47.85 295 P **P** 07 40 33.6 -0.3
comp=Z,26nm,1.3s
QIS Mount Isa 47.88 160 P **P** 07 40 35.1 +1.3
comp=Z,16nm,1.7s
BVAR Borovoye Array 48.48 320 P **P** 07 40 37.6 -0.5
comp=Z,1.9nm,0.6s,baz=109,slow=9.0,SNR=7.2
comp=Z,1.9nm,0.6s
BORK Borovoye 48.53 320 P **P** 07 40 37.5 -1.0
BORK IAmb IAmb 07 40 44.5
comp=Z,8.8nm,1.0s
NRIK Noril'sk 49.21 344 P **P** 07 40 42.3 -1.2
comp=Z,5.8nm,0.8s,baz=135,slow=7.3,SNR=11
NRIK LR LR 08 03 43.4
comp=Z,1μm,18.3s,baz=142,slow=39
comp=Z,5.8nm,0.8s
NRIK Noril'sk 49.21 344 P **P** 07 40 42.4 -1.2
NRIK IAmb IAmb 07 40 48.8
comp=Z,26nm,1.3s
HNR Honiara 49.23 130 LR LR 07 59 02.2
comp=Z,104nm,22.0s,baz=18,slow=33
AS31 Alice Springs 49.40 168 P **P** 07 40 46.5 +1.1
ASAR Alice Springs 49.40 168 P **P** 07 40 46.6 +1.2
comp=Z,2.3nm,0.7s,baz=350,slow=6.3,SNR=23
ASAR LR LR 08 01 53.8
comp=Z,92nm,21.1s,baz=336,slow=36
comp=Z,2.3nm,0.7s
ASAR Alice Springs 49.40 168 P **P** 07 40 46.3 +0.8
CTA Charters Tower 49.93 152 LR LR 08 03 22.9
comp=Z,197nm,18.1s,baz=17,slow=38
AB31 Akbulak array 54.48 314 P **P** 07 41 22.4 -0.7
AB31 IAmb IAmb 07 41 24.8
comp=Z,17nm,1.4s
ABKAR Akbulak array 54.48 314 P **P** 07 41 22.3 -0.8
INKA Innaminka 54.97 161 P **P** 07 41 27.4 +0.6
AKTO Aktyubinsk 55.77 315 LR LR 08 07 01.1
comp=Z,344nm,18.8s,baz=41,slow=38
ARTI Arti 55.91 322 LR LR 08 06 07.3
comp=Z,348nm,21.3s,baz=96,slow=37
NWAO Narrogin (SRO) 57.94 186 LR LR 08 06 36.8
comp=Z,59nm,21.2s,baz=270,slow=36
STKA Stephens Creek 59.11 162 P **P** 07 41 56.6 +0.6
comp=Z,3.7nm,0.8s,baz=320,slow=11,SNR=6.1
STKA LR LR 08 09 02.1
comp=Z,178nm,19.3s,baz=6.7,slow=38
comp=Z,3.7nm,0.8s
STKA Stephens Creek 59.11 162 P **P** 07 41 56.7 +0.6
CMSA Cobar Meteorol 60.05 158 P **P** 07 42 04.1 +1.5
comp=Z,21nm,1.8s
KIRV Kirov 60.84 325 LR LR 08 10 53.4
comp=Z,1μm,18.2s,baz=94,slow=38
DZM Mont Dzumac 62.58 135 LR LR 08 05 31.7
comp=Z,157nm,21.5s,baz=306,slow=32
E21K Killik River 64.21 24 P **P** 07 42 29.3 -0.8
E21K IAmb IAmb 07 44 06.4
comp=Z,17nm,1.4s
Q19K Cape Douglas, 65.22 35 P **P** 07 42 36.4 -0.5
D23K Nanushuk River 65.37 23 P **P** 07 42 37.3 -0.3
CAST Castle Rocks 65.40 29 P **P** 07 42 37.3 -0.7
PPLA Purkeypile 65.42 30 P **P** 07 42 37.3 -0.9
H22K Ishtalitna Cre 65.42 27 P **P** 07 42 37.9 -0.1
H22K IAmb IAmb 07 42 44.3
comp=Z,15nm,1.3s
TOLK Toolik Lake Re 65.80 24 P **P** 07 42 39.7 -0.8
TOLK IAmb IAmb 07 43 02.6
comp=Z,12nm,1.4s
GNI Garni 66.18 305 LR LR 08 15 22.0
comp=Z,148nm,19.4s,baz=64,slow=40
E24K Your Creek 66.28 24 P **P** 07 42 42.8 -0.7
E24K IAmb IAmb 07 43 07.7
comp=Z,13nm,1.5s
KBZ Khabaz 66.72 309 P **P** 07 42 46.7 0.0
comp=Z,2.3nm,0.8s,baz=131,slow=5.6,SNR=5.4
KBZ LR LR 08 16 35.2
comp=Z,225nm,18.3s,baz=66,slow=40
comp=Z,2.3nm,0.8s
ILAR Eielson Array 67.45 28 P **P** 07 42 49.6 -1.3
comp=Z,0.3nm,0.7s,baz=299,slow=8.2,SNR=4.6
ILAR LR LR 08 14 16.9
comp=Z,114nm,18.6s,baz=268,slow=38
comp=Z,0.3nm,0.7s
BMAR Burnt Mountain 67.85 25 P **P** 07 42 53.1 -0.4
SPITS Spitsbergen Ar 69.16 348 LR LR 08 17 41.2
comp=Z,487nm,18.0s,baz=62,slow=40
ARCES ARCESS Array B 69.61 338 LR LR 08 20 41.3
comp=Z,362nm,18.1s,baz=78,slow=42
INK Inuvik 71.62 22 LR LR 08 18 26.0
comp=Z,205nm,18.2s,baz=338,slow=39
FINES FINESS Array B 71.87 330 P **P** 07 43 17.1 -1.2
comp=Z,1.8nm,0.7s,baz=72,slow=6.8,SNR=5.5
FINES LR LR 08 18 18.6
comp=Z,660nm,18.8s,baz=76,slow=39
comp=Z,1.8nm,0.7s
AKASG Malin Array Be 73.74 319 P **P** 07 43 27.8 -1.8
comp=Z,0.3nm,0.3s,baz=58,slow=6.1,SNR=5.0
comp=Z,0.3nm,0.3s
AFI Afiamalu 73.87 114 LR LR 08 09 41.6
comp=Z,60nm,19.6s,baz=296,slow=31
BRTR Keskin Array B 74.49 307 P **P** 07 43 32.4 -2.0
comp=Z,0.5nm,0.6s,baz=119,slow=4.4,SNR=4.1
BRTR LR LR 08 20 01.8
comp=Z,90nm,21.1s,baz=52,slow=39
comp=Z,0.5nm,0.6s
ASF Jabal al Asfar 74.55 299 LR LR 08 23 08.9
comp=Z,56nm,18.6s,baz=52,slow=41
MMAI Mount Meron Ar 75.44 300 LR LR 08 22 29.8
comp=Z,124nm,19.6s,baz=52,slow=40
EIL Elat 77.00 297 LR LR 08 22 14.8
comp=Z,105nm,19.6s,baz=90,slow=39
DLBC Dease Lake 77.09 31 LR LR 08 17 48.3
comp=Z,106nm,21.5s,baz=271,slow=36
RES Resolute Bay 77.48 10 LR LR 08 21 43.9
comp=Z,232nm,19.2s,baz=10.0,slow=39
MLR Muntele Rosu 77.69 314 LR LR 08 22 11.9
comp=Z,175nm,20.6s,baz=0.0,slow=39
HFS Hagfors 77.94 331 P **P** 07 43 51.5 -1.8
comp=Z,1.7nm,0.8s,baz=76,slow=12,SNR=2.3
HFS LR LR 08 21 47.8
comp=Z,795nm,18.2s,baz=62,slow=38
comp=Z,1.7nm,0.8s
NB2 NORSAR Subarra 78.54 333 P **P** 07 43 55.7 -1.0
comp=Z,6.8nm,1.0s,baz=55,slow=5.6
NOA NORSAR Array B 78.54 333 P **P** 07 43 56.5 -0.3
comp=Z,1.5nm,0.8s,baz=58,slow=5.8,SNR=3.5
NOA LR LR 08 22 28.0
comp=Z,496nm,18.0s,baz=65,slow=39
comp=Z,1.5nm,0.8s
JMIC Jan Mayen 78.60 346 LR LR 08 24 08.3
comp=Z,260nm,18.5s,baz=40,slow=40
URZ Urewera 80.44 140 LR LR 08 17 48.3
comp=Z,114nm,20.5s,baz=313,slow=34
RPZ Rata Peaks 81.04 147 LR LR 08 17 52.3
comp=Z,34nm,21.4s,baz=253,slow=34
YKA Yellowknife Ar 81.33 24 LR LR 08 24 20.3
comp=Z,101nm,18.6s,baz=290,slow=39
VRAC Vranov 81.74 321 LR LR 08 23 57.5
comp=Z,293nm,19.3s,baz=49,slow=38
CLL Collm 82.74 324 LH 08 13 00.0
CLL LV 08 15 00.0
CLL AMS AMS 08 24 00.0
comp=N,300nm,17.6s
CLL AMS AMS 08 24 00.0
comp=E,400nm,18.5s
CLL AMS AMS 08 24 00.0
comp=Z,400nm,18.0s
GERES GERESS Array B 83.62 321 P **P** 07 44 23.3 -0.8
comp=Z,0.3nm,0.2s,baz=355,slow=1.5,SNR=6.3
GERES LR LR 08 24 27.1
comp=Z,375nm,19.2s,baz=79,slow=38
comp=Z,0.3nm,0.2s
BORG Borgarnes 86.50 346 LR LR 08 27 60.0
comp=Z,210nm,18.8s,baz=35,slow=39
DAVOX Davos/Dischmat 86.90 321 LR LR 08 27 16.1
comp=Z,286nm,18.5s,baz=41,slow=38
KMBO Kilima Mbogo 87.20 267 P **P** 07 44 44.1 +1.3
comp=Z,6.5nm,1.5s
WLF Walferdange 87.29 325 *dP* **P** 07 44 42.6 +0.4
RAR Rarotonga 87.40 115 LR LR 08 15 11.8
comp=Z,25nm,20.4s,baz=251,slow=30
EDM Edmonton 87.78 30 P **P** 07 44 44.6 0.0
EKA Eskdalemuir Ar 88.03 333 LR LR 08 30 59.3
comp=Z,311nm,18.9s,baz=7.0,slow=40
C09A Chrisman Ranch 88.70 37 P **P** 07 44 49.6 +0.6
C09A IAmb IAmb 07 44 55.9
comp=Z,17nm,1.4s
VAE Valguarnera 89.03 311 LR LR 08 28 50.5
comp=Z,102nm,19.3s,baz=338,slow=38
NEW Newport 89.04 36 P **P** 07 44 51.3 +0.6
comp=Z,12nm,1.1s
E08A Dief Farm, El 89.05 38 P **P** 07 44 51.5 +0.8
FRB Frobisher Bay 91.02 5 LR LR 08 26 38.5
comp=Z,124nm,22.0s,baz=334,slow=36
J08A Circle Bar Ran 91.25 40 P **P** 07 45 00.9 -0.2
J08A IAmb IAmb 07 45 02.9
comp=Z,11nm,1.3s
DLMT Dillon 93.28 36 P **P** 07 45 10.8 +0.2
NVAR Mina Array Bea 94.29 44 P **P** 07 45 15.2 -0.3
comp=Z,0.2nm,0.5s,baz=290,slow=5.2,SNR=4.5
comp=Z,0.2nm,0.5s
PPT Papeete 94.44 107 LR LR 08 18 05.2
comp=Z,35nm,19.9s,baz=303,slow=29
PPT2 Papeete2 94.45 107 *e*LR LR 08 15 42.2
comp=Z,140nm,28.0s
ULM Lac du Bonnet 97.30 24 LR LR 08 35 47.1
comp=Z,191nm,18.5s,baz=1.5,slow=39
ESDC Sonseca Array 99.21 322 LR LR 08 34 36.1
comp=Z,126nm,19.2s,baz=39,slow=38
SCHQ Schefferville 99.98 6 LR LR 08 34 50.6
comp=Z,170nm,18.4s,baz=322,slow=38
QSPA South Pole Qui 114.79 180 PKP PKPdf 07 50 36.1 +0.7
comp=Z,1.4nm,0.9s,baz=45,slow=1.8,SNR=5.3

*ASRS **13** 07:33:50.0± 1.1, 49.67N× 81.68E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*NNC **13** 07:33:53.7± 1.2, 49.67N× 81.84E, h0km, mb2.9, mpv2.5, Error ellipse: s-maj=16.8km s-min=3.0km az=54.0, Suspected Mining explosion.*
*IDC **13** 07:33:54.8± 1.5, 49.75N× 81.57E, h0km, mbtmp2.6/1, ML2.7/1, Error ellipse: s-maj=15.8km s-min=11.2km az=79.0*
ISC 13 07:33:51.5±1.3, 49.67N±0.05× 81.70E±0.07, h0km, n8, σ0s 72/9, 5C-3D, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.24**	**299**	⇑Pn	**Pb**	**07 34 32.8**	**0.0**
KURK	2.9nm,0.9s						
				⇑Sn	**Sg**	**07 35 03.1**	**-0.4**
KURK	9.1nm,0.7s						
KURBB	**Kurchatov Arra**	**2.25**	**296**	Pg	**Pg**	**07 34 34.5**	**-0.2**
KURBB	0.2nm,0.3s,baz=112,slow=18,SNR=28						
				Lg	Lg	07 35 04.1	
KURBB	0.9nm,0.3s,baz=112,slow=29,SNR=21						
KURBB	**Kurchatov Arra**	**2.25**	**296**	⇑Pn	**Pb**	**07 34 33.9**	**+0.9**
KURBB	8.1nm,0.8s						
				⇓Sn	**Sg**	**07 35 03.9**	**0.0**
	21nm,0.6s						
MAKZ	**Makanchi**	**2.87**	**176**	⇓Pg	**Pg**	**07 34 45.7**	**-0.8**
	0.8nm,0.4s						
MAKZ				⇓Lg	Lg	07 35 25.1	
	5.2nm,0.6s						
MK31	**Makanchi Array**	**2.90**	**172**	⇑Pg	**Pg**	**07 34 46.5**	**-0.6**
	0.4nm,0.3s,baz=351,slow=13,SNR=24						
MK31				⇑Lg	Lg	07 35 26.1	
	3.4nm,0.6s,baz=0.8,slow=23,SNR=12						
MKAR	**Makanchi Array**	**2.90**	**172**	Pn	**Pb**	**07 34 45.1**	**+1.0**
	0.9nm,0.3s,baz=354,slow=10,SNR=27						
MKAR				Lg	Lg	07 35 28.4	
	1.4nm,0.3s,baz=355,slow=31,SNR=16						
	1.7nm,0.3s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**4.71**	**23**	I	I	08 01 00.0	
	baz=201,slow=325,SNR=0.8						
ZALV	**Zalesovo Beam**	**4.71**	**23**	Pg	**Pg**	**07 35 21.3**	**-0.4**
	baz=207,slow=18						
ZALV				Lg	Lg	07 36 22.0	
	0.3nm,0.3s,baz=211,slow=22,SNR=8.8						

*IDC **13** 07:43:13.3± 7.3, 25.15N× 123.63E, h0km, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=454.5km s-min=28.6km az=60.0*
*JMA **13** 07:43:18.0± 0.2, 25.1N± 0.6× 123.7E± 0.2, h23km± 3km, MV2.8/10, NW OFF ISHIGAKIJIMA IS*
ISC 13 07:43:17.7±1.3, 25.09N±0.09× 123.66E±0.06, h32km, n11, σ0s 77/12, mb3.2/3, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.75**	**175**	*eP*	**Pn**	**07 43 32.0**	**-0.1**
JISG	**Ishigakijimahi**	**0.77**	**130**	*eP*	**Pn**	**07 43 32.3**	**0.0**
JIJ	**Ishigaki jima**	**0.84**	**149**	*eP*	**Pn**	**07 43 33.3**	**0.0**
YOJ	**Yonaguni jima**	**0.86**	**224**	*eP*	**Pb**	**07 43 34.0**	**-0.2**
YOJ				*eS*	**Sb**	**07 43 45.3**	**-0.1**
JKRS	**Kuro-shima**	**0.91**	**159**	*eS*	**Sn**	**07 43 45.9**	**-0.3**
JYNG	**Yonagunijimaku**	**0.91**	**226**	*eP*	**Pb**	**07 43 34.7**	**-0.3**
HATJ	**Hateruma jima**	**1.04**	**173**	*eS*	**Sb**	**07 43 50.4**	**0.0**
JTJ	**Tarama**	**1.05**	**115**	*eP*	**Pb**	**07 43 36.9**	**-0.4**
MKAR	**Makanchi Array**	**39.29**	**314**	P	**P**	**07 50 43.3**	**-0.3**
	1.1nm,0.9s,baz=114,slow=8.5,SNR=6.0						
	1.1nm,0.9s						
WRA	**Warramunga Arr**	**45.95**	**166**	P	**P**	**07 51 37.2**	**-0.6**
	0.2nm,0.7s,baz=347,slow=8.0,SNR=1.6						
	0.2nm,0.7s						
ASAR	**Alice Springs**	**49.47**	**168**	P	**P**	**07 52 07.2**	**+2.1**
	0.2nm,0.8s,baz=349,slow=7.6,SNR=5.1						
	0.2nm,0.8s						

*UPA **13** 07:47:25.8± 1.1, 4.95N× 82.64W, h10km, MW4.3, Presumed earthquake*
*IDC **13** 07:47:26.6± 0.7, 5.00N× 82.57W, h0km, mb4.0/11, mbtmp4.0/15, ML3.0/3, MS3.6/14, Error ellipse: s-maj=25.9km s-min=10.7km az=59.0*
*RSNC **13** 07:47:27.6± 0.3, 5°N± 2°× 8°3W± °, h10km, M4.7, mb4.7, mB5.3, ML3.6, Mw(mB)4.8, MwMwp4.4, Mwp4.8*
*GFZ **13** 07:47:28.1± 0.2, 5°N± 2°× 8°3W± °, h10km, M4.9/25, mb4.6/25*
*NEIC **13** 07:47:29.1± 1.9, 5.06N± 0.07× 82.76W± 0.09, h10km± 1km, mb4.5/32, Error ellipse: s-maj=16.3km s-min=10.3km az=244.0*
*CATAC **13** 07:47:32.0± 0.4, 5°N± 4°× 8°3W± °, h11km± 4km, M5.1/35, mb5.4/31, mB5.5/35, MLv5.2/24, Mw(mB)5.0/35, Error ellipse: s-maj=8.8km s-min=2.8km az=17.8, Moment Tensor Solution. Moment tensor: Scale 10^16 Nm; Mrr 0.74; Mθθ 0.06; Mϕϕ -0.80; Mrθ 0.37; Mrϕ 1.73; Mθϕ -0.67; Fault plane solution: M0 2.04474×10^16 NP1: ϕs 275.68096°, δ 71.08529°, λ -0.72604°. NP2: ϕs 5.91633°, δ 89.31316°, λ -161.08388°. Principal axes: T 1.4453, Plg 12.7525°, Azm 139.2178°; N 0.8942, Plg 71.0719°, Azm 7.9197°; P -2.3395, Plg 13.7504°, Azm 232.3926°; confirmed*
*GCMT **13** 07:47:33.1± 0.3, 5.00N± 0.02× 82.60W± 0.03, h23km± 2km, MW4.7/84, Moment Tensor Solution. s6,c6; s84,c102; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr 0.00± 0.12; Mθθ 0.14± 0.09; Mϕϕ -0.14± 0.11; Mrθ -0.27± 0.12; Mrϕ 1.53± 0.07; Mθϕ 0.19± 0.12; Best double couple: M0 1.57100×10^16 NP1: ϕs 183.00000°, δ 80.00000°, λ -174.00000°. NP2: ϕs 92.00000°, δ 84.00000°, λ -10.00000°. Principal axes: T 1.5410, Plg 3.0000°, Azm 138.0000°; N 0.0610, Plg 78.0000°, Azm 241.0000°; P -1.6020, Plg 12.0000°, Azm 47.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 07:47:28.0±0.4, 4.97N±0.04× 82.62W±0.05, h12km, n291, σ1s 84/346, mb4.4/43, MS3.7/11, 5C-11D, South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CACAO	**El Cacao, Vera**	**2.93**	**36**	P	**Pn**	**07 48 12.3**	**-2.1**
CACAO				S	**Sn**	**07 48 46.1**	**-3.5**
CACAO	**El Cacao, Vera**	**2.93**	**36**	⇓*i*P	**Pn**	**07 48 12.3**	**-2.1**
CACAO				*e*S	**Sn**	**07 48 47.8**	**-1.8**
GMAL	**Guarumal, Vera**	**3.09**	**26**	*e*P	**Pn**	**07 48 15.6**	**-1.1**
GMAL				*e*S	**Sn**	**07 48 52.5**	**-1.1**
MARI3	**Mariato, Verag**	**3.11**	**31**	*e*P	**Pn**	**07 48 16.0**	**-1.0**
MARI3				*e*S	**Sn**	**07 48 52.0**	**-2.1**
LIMO3	**Limones**	**3.12**	**355**	*e*P	**Pn**	**07 48 14.6**	**-2.5**
PTPM	**Petroterminale**	**3.22**	**355**	*e*P	**Pn**	**07 48 15.5**	**-3.0**
PTPM				*e*S	**Sn**	**07 48 54.6**	**-2.2**
TOSI3	**Tonosi**	**3.24**	**42**	*e*P	**Pn**	**07 48 17.0**	**-1.8**
TOSI3				*e*S	**Sn**	**07 48 55.5**	**-1.8**
RSUS3	**Rio de Jesus,**	**3.32**	**26**	*e*P	**Pn**	**07 48 18.0**	**-1.8**
RSUS3				*e*S	**Sn**	**07 48 57.5**	**-1.8**
REME3	**Remedios, Chir**	**3.33**	**13**	*e*P	**Pn**	**07 48 17.8**	**-2.1**
REME3				*e*S	**Sn**	**07 48 58.3**	**-1.1**
PDCAN	**Manzana , Fuen**	**3.42**	**15**	*e*P	**Pn**	**07 48 19.5**	**-1.8**
LOMA3	**Las Lomas, Chi**	**3.44**	**4**	*e*P	**Pn**	**07 48 19.2**	**-2.3**
LOMA3				*e*S	**Sn**	**07 49 00.0**	**-2.3**
DVD	**David**	**3.44**	**3**	*e*P	**Pn**	**07 48 19.0**	**-2.5**
DVD				*e*S	**Sn**	**07 49 00.4**	**-1.9**
BAGA3	**Bagala, Chiriq**	**3.47**	**1**	*e*P	**Pn**	**07 48 20.0**	**-1.9**
BAGA3				*e*S	**Sn**	**07 49 01.3**	**-1.7**
PIRO	**Carate, Puerto**	**3.48**	**348**		**Pn**	**07 48 19.5**	**-2.5**
PIRO				Sn	**Sn**	**07 48 59.4**	**-3.9**
STIA3	**Santiago, Vera**	**3.51**	**28**	*e*P	**Pn**	**07 48 20.9**	**-1.5**
STIA3				*e*S	**Sn**	**07 49 01.9**	**-2.1**
BGUAL	**Bijagual, Pana**	**3.52**	**5**	*e*P	**Pn**	**07 48 20.6**	**-2.1**
CDITO	**Canoas**	**3.59**	**356**	⇓P	**Pn**	**07 48 20.7**	**-2.8**
CDITO	**Canoas**	**3.59**	**356**	*e*P	**Pn**	**07 48 20.5**	**-3.0**
CDITO				*e*S	**Sn**	**07 49 03.2**	**-2.6**
AZU	**Azuero**	**3.64**	**40**	P	**Pn**	**07 48 22.7**	**-1.5**
AZU				S	**Sn**	**07 49 04.8**	**-2.3**
AZU	**Azuero**	**3.64**	**40**	*e*P	**Pn**	**07 48 22.4**	**-1.8**
AZU				*e*S	**Sn**	**07 49 04.9**	**-2.2**
NELY	**Ciudad Neily**	**3.67**	**355**	*e*P	**Pn**	**07 48 21.7**	**-2.9**
CHIT3	**Chitre**	**3.68**	**36**	*e*S	**Sn**	**07 49 05.9**	**-2.2**
PTAR3	**Potrerillos Ar**	**3.70**	**2**	*e*P	**Pn**	**07 48 23.1**	**-2.1**
PTAR3				*e*S	**Sn**	**07 49 07.0**	**-1.7**
PSOM3	**Paja de Sombre**	**3.70**	**5**	*e*P	**Pn**	**07 48 22.8**	**-2.3**
PSOM3				*e*S	**Sn**	**07 49 07.6**	**-1.1**
CLLRA	**Cordillera,**	**3.75**	**0**	*e*P	**Pn**	**07 48 24.0**	**-1.8**
BQSF3	**Alto Boquete,**	**3.75**	**3**	*e*P	**Pn**	**07 48 23.6**	**-2.3**
BQSF3				*e*S	**Sn**	**07 49 08.9**	**-1.1**
BQTLY	**Boquete Panama**	**3.76**	**2**	*e*P	**Pn**	**07 48 23.7**	**-2.4**
BRU2	**Volcan**	**3.80**	**359**	⇓P	**Pn**	**07 48 24.2**	**-2.3**
BRU2				S	**Sn**	**07 49 08.6**	**-2.6**
BRU2	**Volcan**	**3.80**	**359**		**Pn**	**07 48 24.5**	**-2.0**
BRU2				Sn	**Sn**	**07 49 07.2**	**-4.0**
BRU2	**Volcan**	**3.80**	**359**	P	**Pn**	**07 48 24.3**	**-2.3**
BRU2	**Volcan**	**3.80**	**359**	⇓*e*P	**Pn**	**07 48 24.2**	**-2.3**
BRU2				*e*S	**Sn**	**07 49 09.8**	**-1.4**
LNBQ3	**Los Naranjos,**	**3.80**	**3**	*e*P	**Pn**	**07 48 24.1**	**-2.5**
LNBQ3				*e*S	**Sn**	**07 49 09.5**	**-1.8**
MLIR3	**Monte Lirio, C**	**3.80**	**357**	*e*P	**Pn**	**07 48 25.1**	**-1.5**
MLIR3				*e*S	**Sn**	**07 49 09.5**	**-1.7**
VITO	**San Vito**	**3.84**	**355**	*e*P	**Pn**	**07 48 25.8**	**-1.3**
SAFE3	**Santa Fe, Vera**	**3.84**	**23**	*e*P	**Pn**	**07 48 25.9**	**-1.1**
SAFE3				*e*S	**Sn**	**07 49 10.9**	**-1.2**
SCLRA	**Santa Clara, W**	**3.84**	**358**	*i* P	**Pn**	**07 48 25.8**	**-1.7**
CTCR	**Cotoan**	**3.90**	**358**	*e*P	**Pn**	**07 48 25.8**	**-2.2**
CTCR				*e*S	**Sn**	**07 49 11.9**	**-2.0**
RBALA	**Bur**	**3.91**	**7**	*e*P	**Pn**	**07 48 26.5**	**-1.4**
CHGR2	**Aguacate**	**3.97**	**7**	*e*P	**Pn**	**07 48 27.2**	**-1.6**
CHGR2				*e*S	**Sn**	**07 49 12.7**	**-2.6**
PNME	**Penonome**	**4.17**	**33**	P	**Pn**	**07 48 31.3**	**-0.1**
PNME				S	**Sn**	**07 49 22.4**	**+2.3**
PNME	**Penonome**	**4.17**	**33**	*e*P	**Pn**	**07 48 30.6**	**-0.8**
PNME				*e*S	**Sn**	**07 49 17.7**	**-2.4**
CNI2	**El Empalme, Bo**	**4.42**	**2**	*e*P	**Pn**	**07 48 33.8**	**-1.2**
CNI2				*e*S	**Sn**	**07 49 23.7**	**-2.8**
RGM0	**Gandoca**	**4.59**	**0**		**Pn**	**07 48 37.2**	**0.0**
RGM0	**Gandoca**	**4.59**	**0**	*e*P	**Pn**	**07 48 37.2**	**0.0**
QUEP	**Quepos**	**4.69**	**341**	⇓P	**Pn**	**07 48 36.0**	**-2.6**
QUEP				S	**Sn**	**07 49 29.8**	**-3.2**
ZANG	**Zanguenga, Cho**	**4.81**	**34**	*e*P	**Pn**	**07 48 41.1**	**+0.9**
ZANG				*e*P	**Pn**	**07 48 41.2**	**+0.9**
ZANG				*e*S	**Sn**	**07 49 32.0**	**-4.0**
LCR2	**La Lucha 2**	**4.93**	**344**	⇑P	**Pn**	**07 48 39.7**	**-2.5**
LCR2				S	**Sn**	**07 49 37.2**	**-2.2**
LCR2	**La Lucha 2**	**4.93**	**344**		**Pn**	**07 48 39.8**	**-2.4**
LCR2				Sn	**Sn**	**07 49 35.7**	**-3.7**
BCIP	**Isla Barro Col**	**5.00**	**33**	P	**Pn**	**07 48 43.0**	**+0.1**
BCIP				S	**Sn**	**07 49 40.3**	**-0.3**
BCIP	**Isla Barro Col**	**5.00**	**33**	P	**Pn**	**07 48 42.5**	**-0.4**
BCIP				S	**Sn**	**07 49 39.8**	**-0.8**
BCIP	**Isla Barro Col**	**5.00**	**33**	P	**Pn**	**07 48 43.3**	**+0.4**
	comp=Z,168nm,0.6s						
BCIP	**Isla Barro Col**	**5.00**	**33**	*e*P	**Pn**	**07 48 42.4**	**-0.5**
BCIP				*e*S	**Sn**	**07 49 37.3**	**-3.3**
UPA	**Univ. de Panam**	**5.02**	**37**	P	**Pn**	**07 48 43.1**	**-0.1**
UPA				S	**Sn**	**07 49 39.8**	**-1.4**
GAMB1	**Gamboa**	**5.03**	**35**	*e*P	**Pn**	**07 48 43.7**	**+0.4**
GAMB1				*e*P	**Pn**	**07 48 43.8**	**+0.5**
GAMB1				*e*S	**Sn**	**07 49 38.2**	**-3.2**
FRIJ	**El Hiral**	**5.10**	**34**	*e*P	**Pn**	**07 48 44.6**	**+0.3**
FRIJ				*e*S	**Sn**	**07 49 41.1**	**-2.1**
HDC	**Heredia**	**5.21**	**344**		**Pn**	**07 48 44.6**	**-1.3**
HDC	**Heredia**	**5.21**	**344**	P	**Pn**	**07 48 44.1**	**-1.8**
	comp=Z,2μm,0.7s						
HDC	**Heredia**	**5.21**	**344**	*e*P	**Pn**	**07 48 44.0**	**-2.0**
HDC				*e*S	**Sn**	**07 49 43.1**	**-3.0**
EGUB	**Earth Gu;pi**	**5.29**	**350**		**Pn**	**07 48 46.6**	**-0.4**
TCS1	**Tacares**	**5.31**	**342**	⇓P	**Pn**	**07 48 45.5**	**-1.7**
SOLC	**Bahia Solano**	**5.33**	**76**	P	Pn	07 48 40.7	-6.8
SOLC	

JTS S Sn 07 49 58.0 -1.7
JTS Las Juntas de 5.77 336 P Pn 07 48 51.2 -2.3
JTS S Sn 07 49 56.5 -3.2
JTS Las Juntas de 5.77 336 P Pn 07 48 51.3 -2.3
comp=Z,238nm,0.7s
UPD2 Meteti 5.79 52 P Pn 07 48 56.0 +2.3
UPD2 S Sn 07 49 59.5 -0.6
COVE Coope Vega, Sa 5.98 343 ⇑P Pn 07 48 54.3 -2.1
COVE S Sn 07 50 04.8 0.0
PAC1 Pacto, Paraso 6.04 141 P Pn 07 48 56.2 -1.1
PAC1 S Sn 07 50 03.6 -2.9
PAC1 AML AML
BBAC Balboa, Cauca 6.11 118 P Pn 07 48 57.1 -1.3
comp=Z,1µmcomp=Z,28nm,0.7s
BBAC S Sn 07 50 06.1 -2.3
comp=Z,1µmcomp=Z,28nm,0.7s
BBAC AML AML
JAMC Jamundi, Valle 6.18 106 P Pn 07 48 59.9 +0.6
comp=Z,761nmcomp=Z,27nm,0.6s
JAMC S Sn 07 50 06.4 -3.7
comp=Z,761nmcomp=Z,27nm,0.6s
JAMC AML AML
CMBC Cumbal 6.24 130 P Pn 07 48 59.9 -0.5
CUSE Cuicocha Este 6.26 138 P Pn 07 49 01.1 +0.4
OTAV Otavalo 6.28 138 P Pn 07 49 00.1 -0.8
comp=Z,2µmcomp=Z,9.5nm,0.7s
OTAV Otavalo 6.28 138 P Pn 07 49 00.2 -0.8
comp=Z,14nm,0.8s
OTAV Otavalo 6.28 138 eP Pn 07 48 59.6 -1.4
YOTC Yotoco, Valle 6.33 99 P Pn 07 49 01.7 +0.4
comp=Z,620nmcomp=Z,45nm,1.1s
YOTC S Sn 07 50 12.2 -1.5
comp=Z,620nmcomp=Z,45nm,1.1s
UPAL Upala 6.35 338 P Pn 07 49 00.9 -0.6
UPAL S Sn 07 50 12.0 -1.9
POPC Popayan, Colom 6.40 112 P Pn 07 49 01.7 -0.7
comp=Z,489nmcomp=Z,28nm,0.7s
POPC S Sn 07 50 09.0 -6.6
comp=Z,489nmcomp=Z,28nm,0.7s
TULM Tulcn-Chalpat 6.41 131 P Pn 07 49 03.7 +0.9
comp=Z,33nm,1.1s
CRUC La Cruz 6.59 121 P Pn 07 49 06.4 +1.3
CRUC S Sn 07 50 20.9 +0.5
CBOC Ciudad Bolivar 6.63 82 P Pn 07 49 06.7 +1.1
comp=Z,19nm,0.8s
APAC Apartado, Choc 6.67 64 P Pn 07 49 09.2 +3.4
APAC S Sn 07 50 25.7 +3.9
APAC Apartado, Choc 6.67 64 P Pg 07 50 12.8 +37
APAC Apartado, Choc 6.67 64 AML AML
APAC Apartado, Choc 6.67 64 AML AML
CARN Rivas 6.81 335 P Pn 07 49 07.0 -0.9
CARN S Sn 07 50 24.9 -0.5
CARN Rivas 6.81 335 P Pn 07 49 06.3 -1.5
ARMEC Armenia, Quind 6.94 93 P Pn 07 49 10.5 +0.7
SLOR San Lorenzo - 7.00 144 P Pn 07 49 12.6 +1.7
BLUN Bluefields 7.08 351 P Pn 07 49 09.7 -1.8
comp=Z,9µmcomp=Z,39nm,0.5s
OMEN Al SSO del Vol 7.14 336 P Pn 07 49 13.7 +1.2
MORN Al O del Volca 7.19 336 ⇓P Pn 07 49 14.1 +1.1
MORN S Sn 07 50 33.5 -1.2
CONN Concepcion 7.19 336 ⇑P Pn 07 49 14.5 +1.4
GUY2C Guyana, Caldas 7.23 88 P Pn 07 49 16.4 +2.4
GUY2C S Sn 07 50 38.2 +1.9
LCBC Los crdobas, 7.30 58 P Pn 07 49 16.6 +2.0
LCBC Los crdobas, 7.30 58 P Pn 07 49 17.9 +3.3
ACON Acoyapa 7.40 340 P Pn 07 49 14.7 -1.2
ACON S Sn 07 50 37.5 -2.3
BETC Betania 7.51 107 P Pn 07 49 20.3 +2.8
NADN Granada 7.53 334 P Pn 07 49 18.8 +1.1
NADN S Sn 07 50 42.2 -0.9
UREC San Jos de Ur 7.56 68 P Pn 07 49 20.5 +2.3
NORC Norcasia 7.74 85 P Pn 07 49 23.7 +3.1
NANN Nandasmo 7.74 334 ⇓P Pn 07 49 21.7 +1.1
PRAC Prado 7.81 99 P Pn 07 49 23.6 +2.0
PRAC S Sn 07 50 53.1 +3.1
PRAC Prado 7.81 99 P Pn 07 49 23.8 +2.2
comp=Z,2µmcomp=Z,50nm,1.1s
MGAN Managua 7.98 334 P Pn 07 49 26.1 +2.2
MGAN Managua 7.98 334 P Pn 07 49 24.2 +0.3
comp=Z,87nm,0.4s
TISN Laguna Tiscapa 7.99 333 P Pn 07 49 25.0 +1.0
BOAB BOACO BROADBAN 8.02 338 P Pn 07 49 23.0 -1.4
BOAB S Sn 07 50 54.4 -0.7
BOAB BOACO BROADBAN 8.02 338 Pn 07 49 22.9 -1.4
BOAB BOACO BROADBAN 8.02 338 P Pn 07 49 23.7 -0.7
comp=Z,156nm,0.6s
APQ2 Apoyeque 8.06 333 P Pn 07 49 24.9 0.0
PTBC PUERTO BERRIO, 8.27 79 P Pn 07 49 30.2 +2.4
ROSC El Rosal 8.27 91 Pn Pn 07 49 28.4 +0.3
comp=Z,3.2nm,0.3s,baz=283,slow=18,SNR=6.4
ROSC LR LR 07 52 22.1
comp=Z,181nm,21.8s,baz=33,slow=36
comp=Z,3.1nm,0.4s
ROSC AML AML
ROSC El Rosal 8.27 91 Pn 07 49 31.1 +2.9
ROSC El Rosal 8.27 91 P Pn 07 49 33.3 +5.1
MOM2 El Cardon 8.34 333 P Pn 07 49 29.6 +0.7
MOM2 S Sn 07 51 01.1 -2.0
LEVN Ruinas Leon Vi 8.37 332 P Pn 07 49 30.2 +0.9
LEVN S Sn 07 51 02.4 -1.4
URMC La Uribe, Meta 8.39 101 P Pn 07 49 31.2 +1.6
comp=Z,35nm,1.1s
MOM3 MOM3 8.42 333 P Pn 07 49 30.3 +0.3
MOM3 S Sn 07 51 04.2 -0.9
CNGA Al SSO del Vol 8.49 332 P Pn 07 49 30.6 -0.4
CNGA S Sn 07 51 06.1 -0.7
CNGN Cerro Negro 8.50 332 P Pn 07 49 30.9 -0.2
CNGN Cerro Negro 8.50 332 P Pn 07 49 29.9 -1.1
comp=Z,2µmcomp=Z,78nm,0.7s
CNGN Cerro Negro 8.50 332 P Pn 07 49 30.8 -0.2
comp=Z,124nm,0.5s
PLRN Geotermica Pol 8.60 332 P Pn 07 49 33.6 +1.1
PLRN S Sn 07 51 08.0 -1.5
QUEN Al S del Volca 8.65 331 P Pn 07 49 34.3 +1.1
HERN Volcan Telica 8.65 332 P Pn 07 49 34.7 +1.5
CRIN San Cristobal 8.84 331 P Pn 07 49 37.1 +1.3
CRIN San Cristobal 8.84 331 Pn 07 49 34.2 -1.6
CRIN San Cristobal 8.84 331 P Pn 07 49 35.8 0.0
comp=Z,5µmcomp=Z,230nm,0.5s
CRIN San Cristobal 8.84 331 P Pn 07 49 34.2 -1.6
comp=Z,376nm,0.7s
SJCC San Jacinto, C 8.85 56 ⇓P Pn 07 49 38.1 +2.3
SJCC S Sn 07 51 19.9 +4.3
SJCC San Jacinto, C 8.85 56 Pn 07 49 38.3 +2.4
SJCC San Jacinto, C 8.85 56 P Pn 07 49 38.5 +2.6
SJCC San Jacinto, C 8.85 56 P Pn 07 49 38.8 +2.9
SJCC S 07 49 42.0
SJCC AML AML
SJCC AML AML
CHIC Chingaza 8.86 92 P Pn 07 49 39.4 +3.1
SIUN Universidad Ur 8.95 346 Pn 07 49 36.0 -1.1
RCPN Sur Rio San Ju 9.16 338 P Pn 07 49 40.9 +0.7
RCVN Varillal2 9.26 338 P Pn 07 49 40.7 -0.9
PAYG Puerto Ayora 9.50 234 P Pn 07 49 45.6 +0.9
comp=Z,51nm,1.2s
ARGC Ariguani, Magd 9.61 59 P Pn 07 49 50.8 +4.5
ARGC Ariguani, Magd 9.61 59 P Pn 07 49 51.2 +4.9
ARGC AML AML
ARGC AML AML
CNCH Conchagua 9.72 328 P Pn 07 49 49.2 +1.2
CNCH S Sn 07 51 36.1 -1.2
INTP Intipuca 9.78 327 eP Pn 07 49 49.5 +0.9
LCND La Caada 9.78 328 P Pn 07 49 49.4 +0.8
OCAC Ocana 9.79 70 P Pn 07 49 50.9 +2.1
JUCU Jucuar¡n 9.93 326 eP Pn 07 49 51.5 +0.7
RANC El Ranchito 10.10 327 P Pn 07 49 54.8 +1.7
TGUH Tegucigalpa,Un 10.13 333 Pn 07 49 52.9 -0.6
TGUH Tegucigalpa,Un 10.13 333 P Pn 07 49 54.7 +1.2
TGUH Tegucigalpa,Un 10.13 333 P Pn 07 49 51.9 -1.5
comp=Z,64nm,0.6s
PACA Pacayal 10.15 327 P Pn 07 49 55.3 +1.6
ALJI Alcalda de J 10.17 325 ⇑P Pn 07 49 55.4 +1.5
ALJI Alcalda de J 10.17 325 eP Pn 07 49 55.4 +1.5
SMRC Santa Marta, M 10.34 53 Pn Pn 07 49 58.4 +2.2
SMRC Santa Marta, M 10.34 53 P Pn 07 49 57.8 +1.6
comp=Z,30nm,1.5s
TECO Alcaldia de Te 10.46 325 P Pn 07 49 59.5 +1.6
TECO Alcaldia de Te 10.46 325 eP Pn 07 49 59.3 +1.3
PAVA Las Pavas 10.69 325 P Pn 07 50 03.7 +2.5
PAVA S Sn 07 52 00.1 -0.8
LOMA Loma Larga 10.77 324 P Pn 07 50 04.6 +2.3
LOMA S Sn 07 52 02.0 -1.0

UEES Universidad Ev 10.87 324 P Pn 07 50 07.1 +3.5
UEES S Sn 07 52 04.8 -0.5
UEES Universidad Ev 10.87 324 eP Pn 07 50 06.2 +2.6
PMON Piamonte 10.91 323 P Pn 07 50 06.5 +2.3
PMON S Sn 07 52 05.8 -0.6
JAYA Jayaque - finc 10.95 322 P Pn 07 50 07.5 +2.8
JAYA Jayaque - finc 10.95 322 eP Pn 07 50 07.2 +2.5
SBLS San Blas 11.20 322 eP Pn 07 50 11.0 +2.8
NUBE Las Nubes 11.34 322 P Pn 07 50 12.8 +2.6
CRJC Cerrejon, Guaj 11.36 57 P Pn 07 50 12.0 +1.7
CRJC Cerrejon, Guaj 11.36 57 P Pn 07 50 13.2 +2.9
SLOZ Alcaldia de Sa 11.44 322 P Pn 07 50 14.7 +3.3
SLOZ Alcaldia de Sa 11.44 322 eP Pn 07 50 14.5 +3.2
FAME Alcaldia de Sa 11.44 321 P Pn 07 50 14.2 +2.8
ESQI Esquipulas 11.60 326 Pn Pn 07 50 15.5 +1.9
URIC Uribia, Colomb 12.45 57 Pn 07 50 27.1 +1.9
URIC Uribia, Colomb 12.45 57 P Pn 07 50 26.6 +1.4
URI Uribia 12.45 57 ⇓P Pn 07 50 26.9 +1.6
URI S Sn 07 52 49.4 +5.4
APG El Apazote 12.61 323 Pn Pn 07 50 28.6 +1.0
comp=Z,0.2nm,0.3s,baz=122,slow=13,SNR=9.9
APG LR LR 07 54 39.3
comp=Z,35nm,21.7s,baz=240,slow=34
comp=Z,0.7nm,0.5s
APG AML AML
ATAH Atahualpa 12.74 161 Pn Pn 07 50 31.2 +1.6
baz=153,slow=7.9,SNR=4.1
ATAH LR LR 07 55 05.9
comp=Z,428nm,20.2s,baz=335,slow=36
comp=Z,2.0nm,0.6s
CZSB Cruzeiro do Su 16.03 142 eP Pn 07 51 12.2 -1.3
CHIV Chivirico 16.09 22 Pn Pn 07 51 15.1 +0.9
CHIV IAmb IAmb 07 51 16.9
comp=Z,52nm,1.3s
GTBY Guantanamo Bay 16.56 26 P Pn 07 51 18.4 -1.8
comp=Z,52nm,1.5s
CMIG Matias Romero 17.02 316 Pn P 07 51 28.1 +0.3
comp=Z,2.0nm,0.3s,baz=124,slow=10,SNR=9.8
SOR Soroa 17.72 359 P Pn 07 51 35.0 +0.3
SDDR Presa de Saban 17.78 38 P P 07 51 36.4 0.0
comp=Z,36nm,1.1s
BANI BANI 17.93 41 P P 07 51 39.2 +1.2
CRPR Cabo Rojo, PR 19.94 48 P P 07 52 00.8 +0.8
CRPR IAmb IAmb 07 52 02.1
comp=Z,33nm,0.9s
BOAV Boa Vista 22.19 96 eP P 07 52 23.0 -1.4
BIM Bigot 23.23 64 P P 07 52 35.6 +0.2
comp=Z,88nm,1.4s
LPAZ La Paz 25.53 146 P P 07 52 58.2 +0.8
comp=Z,3.6nm,1.1s,baz=338,slow=13,SNR=5.5
LPAZ LR LR 08 04 04.9
comp=Z,288nm,19.9s,baz=317,slow=39
comp=Z,3.6nm,1.1s
LPAZ La Paz 25.53 146 P P 07 52 58.4 +1.0
LPAZ IAmb IAmb 07 53 01.3
comp=Z,10nm,1.3s
LPAZ La Paz 25.53 146 P P 07 52 58.5 +1.1
comp=Z,5.0nm,1.2s
LPAZ La Paz 25.53 146 eP P 07 52 55.7 -1.7
PB18 Visviri 25.90 150 P P 07 53 02.0 +1.3
comp=Z,26nm,1.6s
ZAIG Zacatecas 26.17 314 P P 07 53 03.4 +0.5
comp=Z,4.2nm,1.0s
PB16 IPOC Station P 26.52 151 P P 07 53 07.4 +1.0
PB16 IPOC Station P 26.52 151 P P 07 53 07.6 +1.3
comp=Z,11nm,1.7s
PB11 IPOC Station P 27.69 153 P P 07 53 17.2 +0.8
comp=Z,12nm,1.3s
GO01 Chusmiza 27.82 152 P P 07 53 18.9 +1.0
comp=Z,8.3nm,2.4s
LRAL Lakeview Retre 28.22 352 P P 07 53 20.8 0.0
GOGA Godfrey 28.31 358 P P 07 53 19.5 -2.1
ITTB Itaituba 28.41 109 eP P 07 53 19.7 -3.1
VILB Vilhena 28.51 129 P P 07 53 24.9 +1.2
VILB Vilhena 28.51 129 eP P 07 53 23.9 +0.2
Z47A Carrollton 28.54 350 P P 07 53 23.9 +0.2
NPGB Novo Progresso 29.71 113 eP P 07 53 32.7 -1.6
TKL Tuckaleechee C 30.55 358 LR LR 08 05 25.3
comp=Z,16nm,19.4s,baz=178,slow=35
PDRB Porto dos Gac 30.57 123 eP P 07 53 39.5 -2.4
PTLB Pontes e Lacer 30.86 131 eP P 07 53 43.6 -0.8
BBSD Serra de San D 30.94 136 eP P 07 53 44.8 -0.4
CLDB Colider 30.99 121 P P 07 53 45.2 -0.5
comp=Z,4.4nm,1.8s
CLDB Colider 30.99 121 eP P 07 53 45.2 -0.5
MIAR Mount Ida 31.13 342 P P 07 53 44.9 -1.7
TXAR Lajitas Array 31.37 323 P P 07 53 47.9 -1.1
comp=Z,0.2nm,0.7s,baz=146,slow=9.1,SNR=5.3
comp=Z,0.2nm,0.7s
WVT Waverly 31.38 352 P P 07 53 47.2 -1.6
LCAR Lake Charles 31.93 347 P P 07 53 52.7 -0.9
LCAR IAmb IAmb 07 54 07.4
comp=Z,8.4nm,1.1s
LPIG La Paz 32.74 308 LR LR 08 04 51.6
comp=Z,72nm,19.4s,baz=52,slow=32
VHRN Van Horn 33.20 323 P P 07 54 04.8 -0.2
VHRN IAmb IAmb 07 54 08.2
comp=Z,8.7nm,1.1s
WCI Wyandotte Cave 33.27 355 P P 07 54 03.7 -1.7
comp=Z,24nm,2.5s
SALV Santo Antonio 33.77 128 eP P 07 54 10.1 +0.1
CCM Cathedral Cave 33.86 348 P P 07 54 10.2 -0.2
CCM Cathedral Cave 33.86 348 P P 07 54 08.9 -1.6
comp=Z,15nm,2.1s
MNTX Cornudas Mount 34.10 324 P P 07 54 11.1 -1.6
comp=Z,6.5nm,2.6s
AC02 Maricunga 34.21 158 P P 07 54 15.5 +1.3
comp=Z,8.7nm,1.9s
GO03 Copiapo 34.51 160 P P 07 54 17.9 +1.5
comp=Z,12nm,2.4s
COIM Forte Coimbra 34.75 136 eP P 07 54 17.1 -1.2
BDQN Bodoquena, MS 35.83 136 eP P 07 54 26.9 -0.8
CRNM Carthage 36.51 325 P P 07 54 32.9 -0.8
AQDB Aquidauana 36.59 135 P P 07 54 34.6 +0.4
comp=Z,8.1nm,1.5s
AQDB Aquidauana 36.59 135 eP P 07 54 34.6 +0.4
Y22A Socorro 36.63 325 P P 07 54 35.4 +0.7
Y22A IAmb IAmb 07 54 39.0
comp=Z,9.1nm,1.2s
ANMO Albuquerque 37.09 327 LR LR 08 10 59.6
comp=Z,114nm,18.1s,baz=123,slow=38
ANMO Albuquerque 37.09 327 P P 07 54 39.1 +0.6
comp=Z,4.4nm,1.4s
TASM ASL Pad, Albuq 37.09 327 P P 07 54 38.7 +0.1
SMTB Santa Maria do 37.53 111 eP P 07 54 41.0 -1.4
TUC Tucson 37.86 319 P P 07 54 44.8 -0.3
comp=Z,3.1nm,0.9s
H03N2 Juan Fernandez 38.36 175 T T 08 35 35.8
baz=352,slow=74,SNR=12
H03N1 Juan Fernandez 38.37 175 T T 08 35 36.8
baz=270,slow=74,SNR=18
X18A Snowflake 38.80 323 P P 07 54 52.0 -1.1
CFA Coronel Fontan 38.87 160 P P 07 54 54.2 +0.8
comp=Z,6.6nm,0.5s,baz=338,slow=7.1,SNR=3.9
comp=Z,0.6nm,0.5s
SJPY San Joaquin 39.40 140 eP P 07 54 57.1 -0.8
CPUP Villa Florida 39.61 143 LR LR 08 12 34.2
comp=Z,68nm,18.8s,baz=301,slow=38
X16A Lo Mia Camp, P 39.64 321 P P 07 54 59.9 -0.2
MVCO Mesa Verde 39.87 327 P P 07 55 01.4 -0.6
comp=Z,6.9nm,1.6s
MT08 Bocatoma Ro 40.03 164 P P 07 55 04.8 +1.5
MT08 IAmb IAmb 07 55 06.3
comp=Z,11nm,1.1s
WUAZ Wupatki 40.33 323 P P 07 55 06.3 +0.5
PV02 Paradox Valley 40.73 328 P P 07 55 09.0 -0.1
PV02 IAmb IAmb 07 55 13.5
comp=Z,7.3nm,0.9s
PV13 Radium Mtn., P 40.74 328 P P 07 55 09.9 +0.7
PV13 IAmb IAmb 07 55 20.6
comp=Z,9.2nm,0.9s
PV03 Paradox Valley 40.83 328 P P 07 55 09.8 -0.1
PV03 IAmb IAmb 07 55 14.1
comp=Z,8.3nm,0.9s
PV18 Skein Mesa, Pa 40.85 328 P P 07 55 10.7 +0.6
PV18 IAmb IAmb 07 55 14.2
comp=Z,8.7nm,1.0s
RPN Rapa Nui 41.06 218 LR LR 08 07 23.4
comp=Z,130nm,20.8s,baz=46,slow=29
SDBA SAO DESIDERIO 41.27 115 eP P 07 55 11.8 -1.9
SZCU Shurtz Canyon 42.75 324 P P 07 55 25.5 -0.1
BI02 San Fabin de 42.76 167 P P 07 55 26.2 +0.7
comp=Z,6.4nm,1.8s
PSAL Palomas, Salto 43.08 148 eP P 07 55 27.8 -0.2
FURC Furnace Creek, 44.37 320 P P 07 55 39.0 +0.6

FURC IAmb IAmb 07 55 44.1
comp=Z,9.7nm,1.3s
WCT Wildcat Mounta 44.41 320 P P 07 55 39.4 +0.4
PDAR Pinedale Array 44.58 332 P P 07 55 41.1 +0.8
comp=Z,0.6nm,0.7s,baz=119,slow=12,SNR=8.3
comp=Z,0.6nm,0.7s
ELK Elko 46.09 325 LR LR 08 18 01.6
comp=Z,54nm,18.4s,baz=112,slow=40
NVAR Mina Array Bea 46.46 321 P P 07 55 56.6 +1.3
comp=Z,3.1nm,0.8s,baz=128,slow=7.0,SNR=19
NVAR LR LR 08 15 24.4
comp=Z,153nm,18.1s,baz=192,slow=36
comp=Z,3.1nm,0.8s
LHV Little Huntoon 46.48 320 P P 07 55 56.0 +0.9
LHV IAmb IAmb 07 55 59.9
comp=Z,7.6nm,1.2s
MDPB Devils Postpil 46.49 319 P P 07 55 56.0 +0.4
MDPB IAmb IAmb 07 56 01.4
comp=Z,4.4nm,0.9s
PLCA Paso Flores 46.81 167 P P 07 55 58.5 +0.8
comp=Z,3.0nm,1.0s,baz=284,slow=5.9,SNR=4.1
comp=Z,3.0nm,1.0s
PLCA Paso Flores 46.81 167 eP P 07 55 58.0 +0.2
BMN Battle Mountai 47.03 324 P P 07 55 59.5 -0.2
BMN IAmb IAmb 07 56 03.5
comp=Z,5.3nm,1.0s
SJMB Sao Joao De Ma 47.11 121 eP P 07 55 59.2 -1.2
NBIT Itapeh - BA 47.14 116 eP P 07 55 59.8 -0.8
CMC01 Camacan, BA 47.22 116 eP P 07 55 60.0 -1.3
WVOR Wild Horse Val 49.12 325 P P 07 56 15.9 +0.1
comp=Z,9.2nm,1.7s
SCHQ Schefferville 51.32 12 P P 07 56 31.9 -0.2
comp=Z,8.5nm,1.0s,baz=164,slow=9.2,SNR=3.7
comp=Z,8.5nm,1.0s
YKA Yellowknife Ar 62.06 344 P P 07 57 49.0 +0.8
comp=Z,2.1nm,0.9s,baz=142,slow=6.3,SNR=5.4
comp=Z,2.1nm,0.9s
INK Inuvik 71.73 342 P P 07 58 50.7 +1.0
comp=Z,7.1nm,1.3s
ILAR Eielson Array 74.74 336 P P 07 59 08.8 +1.1
comp=Z,1.9nm,0.9s,baz=116,slow=4.2,SNR=13
comp=Z,1.9nm,0.9s
ESDC Sonseca Array 78.11 51 P P 07 59 27.5 +0.2
comp=Z,1.3nm,0.9s,baz=289,slow=6.2,SNR=7.2
comp=Z,1.3nm,0.9s
ESDC Sonseca Array 78.11 51 P P 07 59 28.1 +0.8
RAR Rarotonga 79.88 248 LR LR 08 27 59.4
comp=Z,54nm,19.3s,baz=228,slow=30
AFI Afiamalu 90.37 256 LR LR 08 32 26.1
comp=Z,35nm,19.4s,baz=108,slow=30
KBA Koelnbreinsper 90.45 43 P P 08 00 28.6 -1.3
comp=Z,13nm,0.5s
SNAA Sanae 91.47 162 LR LR 08 40 48.6
comp=Z,29nm,19.4s,baz=192,slow=35
QSPA South Pole Qui 94.99 180 P P 08 00 50.3 -0.1
comp=Z,1.7nm,1.0s,baz=313,slow=1.5,SNR=3.7
comp=Z,1.7nm,1.0s
QSPA South Pole Qui 94.99 180 P P 08 00 50.2 -0.2
H11N3 WAKE ISLAND Hy 107.42 292 T T 10 01 50.1
baz=78,slow=75,SNR=13
H11N2 WAKE ISLAND Hy 107.43 292 T T 10 01 50.6
baz=78,slow=75,SNR=14
H11N1 WAKE ISLAND Hy 107.44 292 T T 10 01 53.1
baz=78,slow=75,SNR=12
H11S2 WAKE ISLAND Hy 107.86 291 T T 10 02 23.4
baz=77,slow=74,SNR=5.5
H11S1 WAKE ISLAND Hy 107.86 291 T T 10 02 23.7
baz=77,slow=74,SNR=6.6
H11S3 WAKE ISLAND Hy 107.88 291 T T 10 02 27.5
baz=77,slow=74,SNR=6.1
HHC Hu-ho-hao-te 132.58 345 eP PKPdf 08 06 39.1 -4.1
NJ2 Nanjing 137.89 332 eP PKPdf 08 06 53.5 +0.3
NJ2 pmax pmax
comp=Z,10.0nm,0.7s
ASAR Alice Springs 140.22 239 PKP PKPdf 08 06 57.4 -0.3
comp=Z,0.3nm,1.0s,baz=95,slow=2.7,SNR=2.1
WRA Warramunga Arr 141.09 244 PKP PKPdf 08 06 59.5 +0.1
comp=Z,0.3nm,0.7s,baz=107,slow=2.5,SNR=2.2

IDC ***13*** *08:19:24.6± 1.3, 54˚.42N × 159˚.89W, h0km, mb3.7/6, mbtmp3.7/9, ML3.8/3, MS3.5/1, Error ellipse: s-maj=24.6km s-min=18.8km az=160.0*
NEIC ***13*** *08:19:28.0± 1.6, 54˚.25N ± 0˚.08 × 159˚.63W ± 0˚.09, h30km ± 13km, ML3.5/34, ML3.2(AEIC), Error ellipse: s-maj=12.2km s-min=6.2km az=154.0*
AEIC ***13*** *08:19:28.6± 1.6, 54˚.30N ± 0˚.06 × 159˚.79W ± 0˚.09, h26km ± 8km, Error ellipse: s-maj=9.4km s-min=6.8km az=155.0*

ISC 13 08:19:28.0±1.7, 54˚29N±0˚.07 × 159˚.63W±0˚.04, h26km±12km, n94, o0˚95/93, mb3.8/6, South of Alaska

Code	Station Name	Δ°	Az°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**0.53**	**3**		**Pb**	**08 19 39.1**	**+0.3**
CNBA	**Chernabura Isl**	**0.53**	**3**		**Sn**	**08 19 48.1**	**+0.1**
CNBA	**Chernabura Isl**	**0.53**	**3**	IAML		08 19 49.5	
	comp=E,2µm,0.6s						
CHNA	**Chernabura Isl**	**0.54**	**3**	P	**Pb**	**08 19 39.2**	**+0.2**
CHNA	**Chernabura Isl**	**0.54**	**3**	S	**Sn**	**08 19 48.4**	**+0.1**
SDPT	**Sand Point**	**1.17**	**336**	P	**Pn**	**08 19 48.0**	**-0.7**
SDPT	**Sand Point**	**1.17**	**336**	S	**Sb**	**08 20 03.7**	**-0.6**
SDPT	**Sand Point**	**1.17**	**336**		**Pn**	**08 19 47.9**	**-0.7**
SDPT					**Sn**	**08 20 03.1**	**-0.6**
SDPT				IAML		08 20 20.7	
	comp=E,754nm,1.0s						
SDPT				IAML		08 20 22.5	
	comp=N,681nm,0.9s						
DOL	**Dolgoi Island**	**1.56**	**305**		**Pn**	**08 19 53.0**	**-1.0**
DOL					**Sn**	**08 20 11.2**	**-2.1**
PVV	**Pavlof Volcano**	**1.66**	**312**		**Pn**	**08 19 54.9**	**-0.4**
PS1A	**Pavlof South-1**	**1.67**	**314**		**Pn**	**08 19 55.3**	**-0.2**
PS1A					**Sn**	**08 20 14.9**	**-1.1**
PS4A	**Pavlof South-4**	**1.67**	**310**		**Pn**	**08 19 55.1**	**-0.4**
PS4A					**Sn**	**08 20 15.3**	**-0.7**
HAG	**Hague Volcano**	**1.67**	**309**		**Pn**	**08 19 55.4**	**-0.2**
DT1	**Dutton Round H**	**1.74**	**299**		**Pn**	**08 19 55.4**	**-1.1**
DT1					**Sn**	**08 20 16.0**	**-1.9**
DTNA	**Dutton South F**	**1.75**	**301**		**Pn**	**08 19 55.8**	**-0.8**
PN7A	**Pavlof North-7**	**1.78**	**311**		**Pn**	**08 19 57.2**	**0.0**
VNWF	**Veniaminof 8**	**1.87**	**1**		**Pn**	**08 19 59.6**	**+1.2**
VNHG	**Veniaminof 1**	**1.96**	**8**		**Pn**	**08 20 00.7**	**+1.1**
S12K	**Black Hills**	**1.99**	**316**		**Pn**	**08 20 00.3**	**+0.3**
S12K				IAML		08 20 27.5	
	comp=E,608nm,0.3s						
S12K				IAML		08 20 27.5	
	comp=N,415nm,0.3s						
S12K	**Black Hills**	**1.99**	**316**		**Sn**	**08 20 24.8**	**+0.8**
VNFG	**Fog Glacier, M**	**2.00**	**1**	Pn	**Pn**	**08 19 59.5**	**-0.7**
VNFG				IAML		08 20 43.3	
	comp=N,733nm,0.9s						
CHGN	**Chignik**	**2.13**	**19**	Pn	**Pn**	**08 20 01.3**	**-0.6**
CHGN				IAML		08 20 41.6	
	comp=E,290nm,0.3s						
ISLZ	**Isanotski Laza**	**2.42**	**282**		**Pn**	**08 20 05.6**	**-0.3**
SSLN	**Shishaldin Nor**	**2.59**	**283**		**Pn**	**08 20 08.6**	**+0.3**
SSBA	**Shishaldin**	**2.66**	**282**		**Pn**	**08 20 09.2**	**0.0**
CHIR	**Chirikof Islan**	**2.77**	**55**	P	**Pn**	**08 20 10.4**	**-0.2**
CHIR	**Chirikof Islan**	**2.77**	**55**	Pn	**Pn**	**08 20 10.1**	**-0.6**
CHIR				IAML		08 20 42.2	
	comp=E,177nm,1.5s						
CHIR				IAML		08 20 44.8	
	comp=N,149nm,1.2s						
WTUG	**Tugumak**	**2.82**	**283**		**Pn**	**08 20 11.4**	**0.0**
WESN	**West Dahl Nort**	**2.91**	**278**		**Pn**	**08 20 12.8**	**+0.3**
R16K	**Pilot Point**	**3.48**	**19**	Pn	**Pn**	**08 20 19.7**	**-0.7**
AKUT	**Akutan**	**3.61**	**270**	P	**Pn**	**08 20 21.7**	**-0.4**
AKUT	**Akutan**	**3.61**	**270**	Pn	**Pn**	**08 20 21.6**	**-0.5**
AKUT				IAML		08 21 21.6	
	comp=N,61nm,1.4s						
AKUT				IAML		08 22 06.3	
	comp=E,72nm,1.4s						
AHB	**Akutan Harbor**	**3.63**	**270**		**Pn**	**08 20 22.4**	**-0.1**
AKBBA	**Akutan Broad B**	**3.71**	**270**		**Pn**	**08 20 23.1**	**-0.3**
LVA	**Lava Point**	**3.76**	**271**	Pn	**Pn**	**08 20 23.2**	**-1.0**
SII	**Sitkinak Islan**	**3.85**	**52**	P	**Pn**	**08 20 25.4**	**-0.1**
SII	**Sitkinak Islan**	**3.85**	**52**	Pn	**Pn**	**08 20 25.1**	**-0.3**
SII				IAML		08 22 20.0	
	comp=E,150nm,1.5s						
UNV	**Unalaska Valle**	**4.07**	**267**	P	**Pn**	**08 20 27.4**	**-1.1**
UNV	**Unalaska Valle**	**4.07**	**267**		**Pn**	**08 20 27.5**	**-1.1**
MNAT	**Makushin Natee**	**4.17**	**267**		**Pn**	**08 20 29.1**	**-0.8**
MSW	**Makushin Switc**	**4.22**	**268**		**Pn**	**08 20 29.7**	**-0.9**
MGOD	**Makushin Gods**	**4.30**	**266**		**Pn**	**08 20 31.2**	**-0.4**
ANCK	**Angle Creek**	**4.55**	**29**		**Pn**	**08 20 36.0**	**+0.9**

ACHA	Angle Creek He	4.61	30	Pn		Pn	08 20 36.4	+0.5	
OHAK	Old Harbor	4.64	48	P		Pn	08 20 35.8	-0.4	
OHAK	Old Harbor	4.64	48			Pn	08 20 36.0	-0.3	
OHAK				IAML			08 21 43.7		
	comp=N,53nm,0.3s								
OHAK				IAML			08 23 35.6		
	comp=E,60nm,0.9s								
O15K	Ungalikthiuk R	4.90	359	Pn		Pn	08 20 40.4	+0.5	
O14K	Tigyukauivet M	5.06	350	Pn		Pn	08 20 42.5	+0.5	
O14K				IAML			08 22 24.9		
	comp=E,35nm,1.3s								
O14K				IAML			08 22 27.0		
	comp=N,29nm,1.4s								
OKTU	Okmok Mt. Tuli	5.06	263			Pn	08 20 41.7	-0.4	
OKNC	Okmok New Cone	5.09	264	Pn		Pn	08 20 42.0	-0.5	
KDAK	Kodiak Island	5.28	46	Pn		Pn	08 20 44.8	-0.3	
	comp=N,3.6nm,0.3s,baz=222,slow=2.0,SNR=77								
KDAK				Sn		Sn	08 21 40.8	-4.2	
	comp=N,1.1nm,0.3s,baz=259,slow=13,SNR=1.7								
	comp=N,8.6nm,0.3s								
KDAK				AML	AML				
KDAK	Kodiak Island	5.28	46	Pn		Pn	08 20 44.2	-0.8	
KDAK				IAML			08 21 48.8		
	comp=N,28nm,1.5s								
KDAK				IAML			08 22 43.0		
	comp=N,22nm,1.5s								
O16K	Kokwok River B	5.39	8	Pn		Pn	08 20 46.3	-0.2	
N14K	Kuskokwak Cree	5.76	350	Pn		Pn	08 20 51.8	+0.2	
N17K	Nushagak Hills	6.39	11	Pn		Pn	08 21 01.0	+0.6	
N18K	Kilae Creek	6.72	16	Pn		Pn	08 21 06.3	+1.5	
M16K	Timber Creek	6.76	3	Pn		Pn	08 21 06.1	+0.7	
CNPM	China Poot	6.97	38			Pn	08 21 08.5	+0.1	
N19K	Bonanza Creek	7.10	21	Pn		Pn	08 21 10.9	+0.8	
M17K	Holitna River	7.23	8	Pn		Pn	08 21 11.0	-0.8	
L14K	Kuka Creek	7.26	348	Pn		Pn	08 21 12.7	+0.5	
BRLK	Bradley Lake	7.27	37	Pn		Pn	08 21 11.0	-1.4	
SEW	Seward	8.03	39			Pn	08 21 23.6	+0.8	
SLKM	Skilak Lake	8.04	35			Pn	08 21 23.3	+0.4	
K13K	Kusilvak Mount	8.11	343	Pn		Pn	08 21 24.4	+0.5	
L19K	White Mountain	8.30	16	Pn		Pn	08 21 27.4	+0.8	
RC01	Rabbit Creek A	8.63	34			Pn	08 21 31.4	+0.4	
P23K	Montague Islan	8.76	44	Pn		Pn	08 21 32.4	-0.4	
PWL	Port Wells	8.95	38			Pn	08 21 35.5	+0.1	
ATKA	Atka Island	8.98	262	P		Pn	08 21 35.5	-0.3	
PMR	Palmer	9.20	33	P		Pn	08 21 39.0	+0.2	
PMR	Palmer	9.20	33			Pn	08 21 39.3	+0.5	
KNK	Knik Glacier	9.29	35			Pn	08 21 40.6	+0.5	
EYAK	Cordova Ski Ar	9.76	44	P		Pn	08 21 46.2	-0.2	
ADK	Adak	10.54	264	P		Pn	08 21 56.3	-0.8	
PNL	Peninsula	12.26	56	P		Pn	08 22 20.8	+0.1	
ILAR	Eielson Array	12.31	26	Pn		Pn	08 22 18.6	-2.8	
	comp=N,0.2nm,0.3s,baz=214,slow=13,SNR=12								
	comp=N,0.4nm,0.4s								
ILAR				AML	AML				
SIT	Sitka	13.97	69	P		Pn	08 22 43.6	-0.4	
SKAG	Skagway	14.22	59	P		Pn	08 22 47.5	+0.2	
JIS	Juneau Island	14.54	64	P		Pn	08 22 51.9	+0.1	
DLBC	Dease Lake	16.84	64	Pn		P	08 23 24.7	+1.0	
	comp=N,0.3nm,0.3s,baz=238,slow=7.6,SNR=16								
INK	Inuvik	18.60	31	P		P	08 23 42.8	-0.1	
	comp=N,0.4nm,0.3s,baz=212,slow=8.6,SNR=22								
	comp=N,1.4nm,0.4s								
INK				AML	AML				
YKA	Yellowknife Ar	24.51	52	P		P	08 24 45.9	+1.1	
	comp=N,0.5nm,0.4s,baz=266,slow=8.2,SNR=7.6								
	comp=N,0.5nm,0.4s								
PETK	Petropavlovsk-	25.01	285	P		P	08 24 48.8	-0.6	
	comp=N,1.3nm,0.4s,baz=81,slow=13,SNR=15								
	comp=N,1.3nm,0.4s								
NVAR	Mina Array Bea	32.09	102	P		P	08 25 55.3	+2.4	
	comp=N,0.7nm,0.6s,baz=298,slow=8.3,SNR=7.8								
NVAR				LR		LR	08 35 37.2		
	comp=N,80nm,18.5s,baz=276,slow=30								
	comp=N,0.7nm,0.6s								
PDAR	Pinedale Array	34.40	89	P		P	08 26 14.1	+1.1	
	comp=N,0.3nm,0.6s,baz=308,slow=3.6,SNR=3.9								
	comp=N,0.3nm,0.6s								
H11N2	WAKE ISLAND Hy	42.90	230	T		T	09 13 21.0		
	baz=28,slow=76,SNR=56								
H11N3	WAKE ISLAND Hy	42.90	230	T		T	09 13 20.4		
	baz=28,slow=76,SNR=96								
H11N1	WAKE ISLAND Hy	42.91	230	T		T	09 13 31.3		
	baz=28,slow=76,SNR=56								
H11S1	WAKE ISLAND Hy	44.06	229	T		T	09 15 01.7		
	baz=28,slow=76,SNR=33								
H11S2	WAKE ISLAND Hy	44.07	229	T		T	09 15 00.1		
	baz=28,slow=76,SNR=32								
H11S3	WAKE ISLAND Hy	44.08	229	T		T	09 14 58.2		
	baz=28,slow=76,SNR=22								
TXAR	Lajitas Array	47.05	99	P		P	08 27 58.8	+1.5	
	comp=N,0.9nm,0.7s,baz=302,slow=7.2,SNR=13								
	comp=N,0.9nm,0.7s								
FINES	FINESS Array B	64.52	357	P		P	08 29 59.8	-2.1	
	comp=N,1.7nm,0.9s,baz=9.7,slow=6.7,SNR=1.4								
	comp=N,1.7nm,0.9s								

NOU ***13*** *08:19:48.2, 17°.63S×176°.34W, h567km, mb4.3/20, Fiji Islands Region*
NEIC ***13*** *08:20:05.0±1.2, 18°.8S±0°.1×177°.8W±0°.2, h626km±11km, mb4.1/21, Error ellipse: s-maj=24.1km s-min=15.4km az=118.0*
IDC ***13*** *08:20:04.2±1.0, 18°.79S×177°.83W, h620km±13km, mb3.3/9, mbtmp4.3/13, Error ellipse: s-maj=19.3km s-min=10.6km az=148.0*
ISC 13 08:20:05.9±0.5,**18°.6S**±0°.1×**177°.81W**±0°.09,**h650**km,**n105,**
σ1§**58**/107,**mb4.0**/18,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.04	282	P	P	08 21 33.0	-2.4
	122nm,0.6s,baz=125,slow=8.3,SNR=128						
FUTU	Fugatoga	4.31	356	P	P	08 21 34.8	-2.4
AFI	Afiamalu	7.45	52	P	P	08 21 59.5	-2.8
	21nm,0.5s,baz=288,slow=2.9,SNR=8.6						
AFI				S	S	08 23 33.3	-4.1
	20nm,0.6s,baz=83,slow=22,SNR=4.3						
RAO	Raoul Island	10.57	181	P	P	08 22 18.0	-13
MARNC	Mare, Loyalty	13.61	256	P	P	08 22 57.8	-1.5
SANVU	Saraoutou	14.68	280	P	P	08 23 09.1	-0.2
OUENC	Ouen Island, N	14.87	253	P	P	08 23 10.3	-0.7
DZM	Mont Dzumac	15.16	254	P	P	08 23 13.7	-0.1
	4.9nm,0.6s,baz=131,slow=14,SNR=5.8						
OUZ	Omahuta	18.20	203	P	P	08 23 42.9	+1.8
GRZ	Great Barrier	18.53	197	P	P	08 23 44.6	+0.5
WCZ	Waipu Caves	18.59	200	P	P	08 23 45.9	+1.3
ABAZ	Army Bay	19.04	198	P	P	08 23 49.8	+1.1
WIAZ	Waiheke Island	19.13	198	P	P	08 23 50.3	+0.8
MXZ	Matakaoa Point	19.17	189	P	P	08 23 47.9	-1.9
MXZ	Matakaoa Point	19.17	189	P	P	08 23 47.9	-1.9
MXZ	Matakaoa Point	19.17	189	P	P	08 23 47.5	-2.3
MBAZ	Motutapu North	19.18	198	P	P	08 23 51.2	+1.3
ECLS	East Cape Ligh	19.25	189	P	P	08 23 50.4	-0.2
ETAZ	East Tamaki Re	19.34	198	P	P	08 23 52.5	+1.1
WMGZ	Waiomatatini S	19.40	189	P	P	08 23 50.3	-1.6
MKAZ	Moumakai	19.41	197	P	P	08 23 52.6	+0.6
HAZ	Te Kaha	19.44	191	P	P	08 23 50.7	-1.6
RUGZ	Raukumara Rang	19.66	191	P	P	08 23 52.1	-2.3
PUZ	Puketiti	19.67	189	P	P	08 23 53.6	-0.8
TGRZ	Tauranga	19.72	194	P	P	08 23 55.5	+0.7
TWGZ	Tauwhareparae	19.82	190	P	P	08 23 54.4	-1.3
TOZ	Tahuroa Road	19.91	196	P	P	08 23 55.2	-1.3
TOZ				IAmb	IAmb	08 23 57.7	
	comp=Z,6.9nm,0.6s						
TOZ	Tahuroa Road	19.91	196	P	P	08 23 56.9	+0.4
MWZ	Matawai	20.05	191	P	P	08 23 55.7	-2.1
URZ	Urewera	20.05	192	P	P	08 23 54.3	-3.4
	comp=Z,15nm,0.3s,baz=257,slow=2.6,SNR=45						
URZ	Urewera	20.05	192	P	P	08 23 54.2	-3.6
URZ	Urewera	20.05	192	P	P	08 23 54.3	-3.4
CNGZ	Carnagh Statio	20.09	189	P	P	08 23 57.9	-0.2
MUGZ	Murupara	20.33	192	P	P	08 23 58.3	-2.0
TLZ	Tolley Road	20.47	195	P	P	08 24 00.7	-0.8
BKZ	Black Stump Fm	21.05	192	P	P	08 24 03.3	-3.4
BKZ	Black Stump Fm	21.05	192	P	P	08 24 03.4	-3.4
NGZ	Ngauruhoe	21.26	194	P	P	08 24 06.8	-1.9
VRZ	Vera Road	21.42	196	P	P	08 24 10.7	+0.8
PXZ	Pawanui	21.82	191	P	P	08 24 11.6	-1.9
TSZ	Takapari Road	22.02	193	P	P	08 24 13.7	-1.6
BFZ	Birch Farm	22.57	192	P	P	08 24 18.2	-1.9
BFZ	Birch Farm	22.57	192	P	P	08 24 18.9	-1.2
MRZ	Mangatainoka R	22.68	193	P	P	08 24 17.9	-3.2
SNZO	South Karori	23.50	194	P	P	08 24 26.3	-2.0

QRZ	Quartz Range	23.63	199	P		P	08 24 28.7	-0.8	
QRZ	Quartz Range	23.63	199	P		P	08 24 28.8	-0.8	
NNZ	Nelson	23.75	197	P		P	08 24 28.6	-1.9	
THZ	Tophouse	24.38	197	P		P	08 24 35.1	-1.1	
DSZ	Denniston Nort	24.69	199	P		P	08 24 37.6	-1.2	
KHZ	Kahutara	24.82	195	P		P	08 24 37.8	-2.2	
KHZ	Kahutara	24.82	195	P		P	08 24 37.8	-2.2	
GVZ	Greta Valley S	25.47	196	P		P	08 24 43.6	-2.1	
LTZ	Lake Taylor	25.50	197	P		P	08 24 43.6	-2.4	
INZ	Inchbonnie	25.69	198	P		P	08 24 45.5	-2.1	
FOZ	Fox Glacier	26.93	200	P		P	08 24 56.9	-1.5	
JCZ	Jackson Bay	27.75	201	P		P	08 25 04.4	-1.3	
ODZ	Otahua Downs	28.04	198	P		P	08 25 06.5	-1.5	
ARMA	Armidale	30.09	241	P		P	08 25 26.5	+0.5	
CAN	Canberra	33.73	234	P		P	08 25 57.1	+0.6	
CAN	Canberra	33.73	234	P		P	08 25 56.8	+0.3	
CTAO	Charters Tower	33.90	262	P		P	08 25 58.1	0.0	
CMSA	Cobar Meteorol	35.30	242	P		P	08 26 09.8	+0.3	
QLP	Quilpie	35.82	250	P		P	08 26 14.3	+0.5	
TOO	Toolangi	37.17	232	P		P	08 26 24.7	0.0	
TOO				IAmb	IAmb	08 26 33.4			
	comp=Z,12nm,1.5s								
STKA	Stephens Creek	38.79	242	P		P	08 26 38.5	+0.7	
	comp=Z,2.3nm,0.3s,baz=87,slow=7.1,SNR=8.8								
	comp=Z,2.3nm,0.3s								
STKA	Stephens Creek	38.79	242	P		P	08 26 38.7	+0.9	
INKA	Innaminka	39.01	249	P		P	08 26 39.7	+0.1	
INKA				IAmb	IAmb	08 26 41.5			
	comp=Z,3.5nm,0.9s								
HTT	Hallett	41.28	240	P		P	08 26 58.2	+0.7	
BBOO	Buckleboo	43.56	242	P		P	08 27 14.9	-0.3	
BBOO	Buckleboo	43.56	242	P		P	08 27 15.1	-0.1	
WB0	Warramunga Arr	45.04	260	P		P	08 27 26.3	-0.4	
WB0				IAmb	IAmb	08 27 27.0			
	comp=Z,3.8nm,0.5s								
WRAB	Tennant Creek	45.06	260	P		P	08 27 26.4	-0.4	
WRA	Warramunga Arr	45.07	260	P		P	08 27 26.7	-0.1	
	comp=Z,2.0nm,0.4s,baz=98,slow=7.1,SNR=36								
	comp=Z,2.0nm,0.4s								
WRA	Warramunga Arr	45.07	260	P		P	08 27 26.2	-0.7	
AS31	Alice Springs	45.15	255	P		P	08 27 27.6	+0.1	
ASAR	Alice Springs	45.15	255	P		P	08 27 27.6	+0.1	
	comp=Z,3.7nm,0.5s,baz=87,slow=8.2,SNR=88								
ASAR				PcP		PcP	08 28 53.8	+0.4	
	comp=Z,0.4nm,0.4s,baz=111,slow=3.3,SNR=4.1								
ASAR				S		S	08 33 21.4	-0.7	
	comp=Z,0.9nm,0.7s,baz=87,slow=18,SNR=8.4								
	comp=Z,3.7nm,0.5s								
ASAR	Alice Springs	45.15	255	P		P	08 27 27.3	-0.2	
FORT	Forrest	50.22	245	P		P	08 28 04.1	-0.8	
FORT				IAmb	IAmb	08 28 04.6			
	comp=Z,4.3nm,0.9s								
QSPA	South Pole Qui	71.43	180	P		P	08 30 23.6	+1.1	
	comp=Z,0.8nm,0.5s,baz=73,slow=0.8,SNR=7.7								
	comp=Z,0.8nm,0.5s								
QSPA	South Pole Qui	71.43	180	P		P	08 30 23.2	+0.7	
DPP	Dos Picos Cty	77.53	49	P		P	08 30 59.1	+2.1	
DPP				IAmb	IAmb	08 30 59.7			
	comp=Z,3.5nm,0.8s								
NVAR	Mina Array Bea	79.55	43	P		P	08 31 09.8	+2.0	
	comp=Z,1.1nm,0.7s,baz=228,slow=7.6,SNR=7.3								
	comp=Z,1.1nm,0.7s								
KVN	Kaiserville	80.03	43	P		P	08 31 11.0	+0.8	
BELA	Belgrano 2	81.38	173	P		P	08 31 16.6	+0.4	
TX31	Lajitas Ar. Si	85.90	57	P		P	08 31 40.5	+1.0	
TX31				IAmb	IAmb	08 31 43.2			
	comp=Z,3.8nm,0.9s								
TXAR	Lajitas Array	85.90	57	P		P	08 31 42.2	+2.8	
	comp=Z,2.2nm,0.8s,baz=218,slow=6.4,SNR=37								
	comp=Z,2.5nm,0.8s								
TXAR	Lajitas Array	85.90	57	P		P	08 31 41.0	+1.6	
ILAR	Eielson Array	86.46	13	P		P	08 31 41.5	+0.5	
	comp=Z,0.5nm,0.8s,baz=223,slow=4.9,SNR=9.5								
	comp=Z,0.5nm,0.8s								
M29M	Somme Creek	86.56	17	P		P	08 31 44.5	+2.8	
M29M				IAmb	IAmb	08 32 06.9			
	comp=Z,11nm,1.5s								
J25K	Salcha River,	86.65	13	P		P	08 31 43.0	+0.9	
J25K				IAmb	IAmb	08 32 15.4			
	comp=Z,3.9nm,1.4s								
M30M	Minto, Yukon	87.14	18	P		P	08 31 45.9	+1.4	
M30M				IAmb	IAmb	08 32 17.3			
	comp=Z,7.3nm,1.4s								
PDAR	Pinedale Array	87.48	43	P		P	08 31 48.4	+1.6	
	comp=Z,0.7nm,0.6s,baz=221,slow=1.4,SNR=8.3								
	comp=Z,0.7nm,0.6s								
PDAR	Pinedale Array	87.48	43	P		P	08 31 48.0	+1.2	
PLCA	Paso Flores	90.42	133	P		P	08 32 01.0	+0.7	
	comp=Z,2.2nm,0.9s,baz=259,slow=7.0,SNR=3.8								
	comp=Z,2.2nm,0.9s								
ARCES	ARCESS Array B	127.12	350	PKP		PKiKP	08 37 58.4	+0.4	
	comp=Z,3.2nm,0.8s,baz=11,slow=1.2,SNR=7.0								
CLL	Collm	146.29	348	*i* PKPbc		PKiKP	08 38 36.6	-0.9	
GERES	GERESS Array B	148.45	345	PKPbc		PKiKP	08 38 41.9	-0.3	
	comp=Z,0.5nm,0.4s,baz=354,slow=2.7,SNR=6.6								
SESA	Seetaler Alpe,	149.83	343	*e*PKP		PKiKP	08 38 45.4	+0.1	
	comp=Z,5.3nm,0.6s								
LESA	Schwarzleotal	150.03	346	*e*PKP		PKiKP	08 38 46.3	+0.8	
	comp=Z,2.2nm,0.5s								
SOKA	Soboth	150.09	342	*e*PKP		PKiKP	08 38 45.9	+0.3	
	comp=Z,1.3nm,0.5s								
KBA	Koelnbreinsper	150.19	345	*e*PKP		PKiKP	08 38 46.2	+0.3	
	comp=Z,3.1nm,0.7s								
MYKA	Terra Mystica	150.53	344	*e*PKP		PKiKP	08 38 46.8	+0.3	
	comp=Z,1.1nm,0.5s								
ABTA	Abfaltersbach	150.70	345	*i* PKP		PKiKP	08 38 46.9	+0.1	
	comp=Z,5.5nm,0.5s								
FETA	Feichten	150.83	348	*e*PKP		PKiKP	08 38 48.0	+0.7	
	comp=Z,2.5nm,0.6s								

JMA ***13*** *08:27:47.3±0.4, 46°.1N×142°.2E, h10km±3km, MV3.0/28, SOUTH SAKHALIN*
SKHL ***13*** *08:27:49.6±0.4, 46°.20N×142°.00E, h10km±2km, mb4.3/4*
ISC 13 08:27:49.2±1.6,**46°.20N**±0°.04×**142°.00E**±0°.08,**h6**km±14km,
n11, σ0§**58**/19,**Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRS4	Mayak Korsakov	0.69	53	*e*Pg	Pb	08 28 04.0	+0.3
KRS4				AMB	AMB	08 28 04.4	
	170nm,0.4s						
KRS4				*e*Sg	Sb	08 28 13.7	+0.2
KRS4				A	A	08 28 15.1	
	730nm,0.3s						
KRS4				A	A	08 28 15.1	
	580nm,0.3s						
KHLM	Kholmsk	0.86	3	*e*Pg	Pn	08 28 07.6	-0.2
KHLM				AMB	AMB	08 28 07.7	
	160nm,0.2s						
KHLM				*e*Sg	Sn	08 28 20.3	-0.4
KHLM				A	A	08 28 21.9	
	2μm,0.3s						
KHLM				A	A	08 28 21.9	
	2μm,0.3s						
OJD4	Ozhidaevo	0.88	18	*i* Pg	Pb	08 28 07.4	+0.6
OJD4				*e*Sg	Sn	08 28 21.1	0.0
JWK2	Keihoku	0.88	184	*e*P	Pb	08 28 07.0	+0.2
JWK2				S	Sn	08 28 20.8	-0.4
YSS	Yuzhno-Sakhali	0.92	34	*e*Pg	Pb	08 28 07.8	+0.3
YSS				AMB	AMB	08 28 08.5	
	220nm,0.3s						
YSS				*e*Sg	Sn	08 28 20.8	-1.4
YSS				A	A	08 28 22.9	
	570nm,0.5s						
YSS				A	A	08 28 22.9	
	550nm,0.5s						
JRBN	Rebuntou	1.01	220	*e*P	Pg	08 28 08.0	-0.5
JRBN				S	Sg	08 28 22.1	+0.5
LSN4	Lesnoe	1.04	43	*i* Pg	Pb	08 28 09.9	+0.3
LSN4				*e*Sg	Sn	08 28 25.6	+0.4
MLK4	Malkovo	1.10	58	*i* Pg	Pn	08 28 10.9	-0.2
MLK4				*e*Sg	Sn	08 28 26.7	+0.1
JRR	Rishiri	1.16	205	*e*S	Sn	08 28 28.1	+0.1
JSE	Soyaes	1.30	161	P	Pn	08 28 13.3	-0.6
JSS	Shosan	1.80	183	*e*S	Sb	08 28 46.3	+1.0

IDC ***13*** *08:34:47.9±2.4, 63°.97N×28°.42E, h0km, mbtmp2.8/2, ML1.5/1, Error ellipse: s-maj=47.9km s-min=14.8km az=96.0*
HEL ***13*** *08:34:47.1±0.1, 63°.97N×28°.09E, h0km, ML1.6, Suspected explosion*
ISC 13 08:34:46.6±0.8,**63°.99N**±0°.02×**28°.18E**±0°.03,**h0**km,**n35,**
σ1§**46**/55,**Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIF	Nilsia	0.63	195	PG	Pg	08 34 58.0	-0.6
NIF				SG	Sg	08 35 04.9	-1.8
NIF				MSG		08 35 06.0	
	comp=Z,7.5nm,0.2s						
RMF	Romuvaara	0.80	73	PG	Pb	08 35 02.8	-0.6
RMF				MSG		08 35 13.3	
	comp=Z,4.3nm,0.2s						
RMF				SG	Sb	08 35 13.7	-1.1
OUL	Oulu	1.48	319	PN	Pn	08 35 14.2	-0.2
OUL				SN	Sg	08 35 34.2	+0.2
OUF	Merijarvi	1.56	286	PN	Pn	08 35 14.9	-0.6
OUF				MSG		08 35 32.7	
	comp=Z,7.8nm,0.2s						
OUF				SN	Sn	08 35 35.7	-0.7
OBF4	Vikkela, Lumij	1.57	303	PN	Pn	08 35 15.6	-0.1
OBF4				MSG		08 35 33.5	
	comp=Z,6.8nm,0.2s						
OBF4				SN	Sn	08 35 36.9	+0.2
SUF	Sumiainen	1.57	217	*e*P	Pn	08 35 15.0	-0.7
SUF	Sumiainen	1.57	217	PN	Pn	08 35 15.0	-0.7
SUF				MSG		08 35 33.0	
	comp=Z,2.7nm,0.2s						
KU1	Kurvinen	1.69	20	PG	Pb	08 35 18.1	-0.4
	baz=207						
KU2	Taivalkoski	1.73	1	PG	Pb	08 35 18.5	-0.7
JOF	Joensuu	1.77	126	*e*P	Pb	08 35 19.6	-0.3
JOF	Joensuu	1.77	126	PG	Pb	08 35 19.1	-0.8
	baz=311						
JOF				SG	Sb	08 35 42.5	-0.2
OBF0	Syolatti, Pyha	1.80	288	PG	Pn	08 35 19.2	+0.4
OBF0				MSG		08 35 39.7	
	comp=Z,8.8nm,0.2s						
OBF0				SG	Sn	08 35 42.5	+0.3
MSF	Maaselka	1.96	10	PG	Pb	08 35 22.6	-0.6
	baz=195						
MSF				SG	Sg	08 35 49.3	-0.3
KAF	Kangasniemi	2.07	205	PG	Pn	08 35 23.4	+0.9
	baz=19						
KAF				MSG		08 35 47.5	
	comp=Z,4.8nm,0.2s						
KAF				SG	Sb	08 35 51.2	-0.1
OBF8	Ulkokalla	2.10	281	PG	Pn	08 35 24.7	+1.7
OBF8				MSG		08 35 48.3	
	comp=Z,3.0nm,0.2s						
RANF	Ranua	2.12	344	PG	Pb	08 35 25.1	-0.7
	baz=168						
RANF				SG	Sb	08 35 52.5	0.0
KU6	Riekki	2.17	19	PG	Pb	08 35 26.1	-0.6
KU6				MSG		08 35 52.4	
	comp=Z,1.4nm,0.2s						
KU6				SG	Sg	08 35 54.9	-1.3
KEF	Keuruu	2.37	221	*e*P	Pb	08 35 29.2	-1.0
KEF	Keuruu	2.37	221	PG	Pn	08 35 28.6	+1.9
KEF				MSG		08 35 56.0	
	comp=Z,4.0nm,0.2s						
KEF				SG	Sb	08 35 59.4	-0.5
OLKF	Oulanka, Finla	2.40	12	PG	Pb	08 35 30.0	-0.6
OLKF				MSG		08 35 58.6	
	comp=Z,2.0nm,0.2s						
OLKF				SG	Sg	08 36 01.6	-1.9
RUF	Ruokolahti	2.60	172	PG	Pb	08 35 32.5	-1.6
RUF				MSG		08 36 03.3	
	comp=Z,2.4nm,0.2s						
RUF				SG	Sb	08 36 06.2	-0.3
VAF	Ylistaro	2.65	251	*e*P	Pn	08 35 32.9	+2.5
VAF	Ylistaro	2.65	251	PG	Pn	08 35 33.0	+2.5
	baz=71						
VAF				MSG		08 36 03.8	
	comp=Z,1.9nm,0.2s						
VAF				SG	Sn	08 36 06.6	+3.5
TOF	Tornio	2.66	324	MSG		08 36 05.1	
	comp=Z,1.4nm,0.2s						
TOF				SG	Sb	08 36 08.0	-0.2
FIA0	FINESS Array S	2.73	202	PG	Pn	08 35 34.5	+2.8
	baz=16						
FIA0				MSG		08 36 06.7	
	comp=Z,1.4nm,0.2s						
FIA0				SG	Sb	08 36 10.5	+0.2
FINES	FINESS Array B	2.73	202	Pn	Pn	08 35 34.2	+2.5
	comp=Z,0.3nm,0.3s,baz=23,slow=14,SNR=10						
FINES				Sn	Sn	08 36 08.6	+3.2
	comp=Z,0.7nm,0.3s,baz=21,slow=27,SNR=12						
	comp=Z,2.0nm,0.7s						
FINES				AML	AML		
RNF	Rovaniemi	2.78	342	PG	Pb	08 35 36.3	-0.8
RNF				SG	Sb	08 36 12.8	+1.2
SJUU	Sjulsmark	3.20	301	*e*P	Pn	08 35 39.9	+1.8
UMAU	Umeaa	3.31	271	PN	Pn	08 35 40.4	+0.8
UMAU				SB	Sn	08 36 21.0	+1.3
KPF	Kankaanpaa	3.

GRZ	**Great Barrier**	**7.35 219**	P	**Pn**	**08 42 04.4**	**+2.9**		
GRZ			AML	AML				
GRZ			AML	AML				
WMGZ	**Waiomatatini S**	**7.52 197**	P	**Pn**	**08 42 06.2**	**+2.6**		
WMGZ			S	**S**	**08 43 31.9**	**+0.1**		
WMGZ			AML	AML				
HAZ	**Te Kaha**	**7.64 200**	P	**Pn**	**08 42 06.6**	**+1.7**		
HAZ			S	**S**	**08 43 32.6**	**-1.6**		
HAZ			AML	AML				
HAZ			AML	AML				
WCZ	**Waipu Caves**	**7.77 225**	P	**Pn**	**08 42 08.4**	**+1.9**		
WCZ			AML	AML				
PUZ	**Puketiti**	**7.80 197**	P	**Pn**	**08 42 08.9**	**+2.1**		
PUZ			S	**S**	**08 43 37.2**	**-0.6**		
PUZ			AML	AML				
PUZ			AML	AML				
OUZ	**Omahuta**	**7.82 232**	P	**Pn**	**08 42 07.1**	**0.0**		
RUGZ	**Raukumara Rang**	**7.86 200**	P	**Pn**	**08 42 08.8**	**+1.1**		
RUGZ			AML	AML				
RUGZ			AML	AML				
WIAZ	**Waiheke Island**	**7.93 218**	P	**Pn**	**08 42 11.7**	**+3.4**		
WIAZ			AML	AML				
WIAZ			AML	AML				
TWGZ	**Tauwhareparae**	**7.97 198**	P	**Pn**	**08 42 11.0**	**+2.1**		
TWGZ			S	**S**	**08 43 41.9**	**+0.3**		
TWGZ			AML	AML				
TWGZ			AML	AML				
MBAZ	**Motutapu North**	**8.03 219**	P	**Pn**	**08 42 12.8**	**+3.2**		
MBAZ			AML	AML				
MBAZ			AML	AML				
OPRZ	**Ohinepanea**	**8.14 207**	P	**P**	**08 42 14.9**	**+1.1**		
CNGZ	**Carnagh Statio**	**8.20 196**	P	**P**	**08 42 14.3**	**-0.1**		
CNGZ			S	**S**	**08 43 50.1**	**+3.6**		
CNGZ			AML	AML				
CNGZ			AML	AML				
RVAZ	**Riverhead Bore**	**8.21 220**	P	**P**	**08 42 14.5**	**0.0**		
RVAZ			AML	AML				
RVAZ			AML	AML				
MWZ	**Matawai**	**8.25 200**	P	**Pn**	**08 42 13.1**	**+0.9**		
MWZ			S	**S**	**08 43 46.6**	**-1.0**		
MWZ			AML	AML				
MWZ			AML	AML				
TKGZ	**Te Karaka**	**8.25 198**	P	**Pn**	**08 42 13.3**	**+1.1**		
TKGZ			S	**S**	**08 43 47.4**	**-0.2**		
TKGZ			AML	AML				
TKGZ			AML	AML				
URZ	**Urewera**	**8.31 202**	P	**Pn**	**08 42 14.3**	**+1.5**		
	15nm,0.4s,baz=250,slow=5.1,SNR=27							
URZ			S	**S**	**08 43 47.5**	**-1.4**		
	59nm,0.6s,baz=65,slow=21,SNR=15							
URZ	**Urewera**	**8.31 202**	P	**Pn**	**08 42 11.3**	**-1.5**		
URZ			S	**S**	**08 43 47.7**	**-1.2**		
TOZ	**Tahuroa Road**	**8.48 212**		**P**	**08 42 16.9**	**-0.7**		
TOZ	**Tahuroa Road**	**8.48 212**	P	**P**	**08 42 20.0**	**+2.4**		
RIGZ	**Rimuhau**	**8.53 198**	P	**Pn**	**08 42 15.8**	**+0.4**		
RIGZ			S	**S**	**08 43 52.6**	**-1.1**		
RIGZ			AML	AML				
RIGZ			AML	AML				
MUGZ	**Murupara**	**8.62 204**	P	**Pn**	**08 42 16.8**	**+0.3**		
MUGZ			S	**S**	**08 43 54.6**	**-1.2**		
MUGZ			AML	AML				
MUGZ			AML	AML				
RTZ	**Ruatahuna**	**8.67 202**		**Pn**	**08 42 17.9**	**+0.6**		
RTZ	**Ruatahuna**	**8.67 202**	P	**Pn**	**08 42 18.5**	**+1.2**		
RTZ			S	**S**	**08 43 55.2**	**-1.8**		
RTZ			AML	AML				
PRGZ	**Paritu Road**	**8.70 197**	P	**P**	**08 42 21.1**	**+1.1**		
HRRZ	**Handcock Road**	**8.72 206**	P	**P**	**08 42 21.0**	**+0.7**		
KNZ	**Kokohu**	**8.85 198**	P	**Pn**	**08 42 19.3**	**+0.1**		
KNZ			S	**S**	**08 43 59.4**	**-1.2**		
KNZ			AML	AML				
MHGZ	**Mahia Peninsul**	**8.91 196**	P	**P**	**08 42 21.5**	**-0.9**		
MHGZ			S	**S**	**08 44 02.8**	**+0.8**		
MHGZ			AML	AML				
MHGZ			AML	AML				
RAHZ	**Arahi**	**8.92 201**	P	**Pn**	**08 42 20.2**	**+0.1**		
RAHZ			S	**S**	**08 44 01.2**	**-1.1**		
RAHZ			AML	AML				
RAHZ			AML	AML				
MTHZ	**Maungataniwha**	**8.94 202**	P	**Pn**	**08 42 20.7**	**+0.3**		
MTHZ			S	**S**	**08 44 02.1**	**-0.5**		
MTHZ			AML	AML				
MTHZ			AML	AML				
TLZ	**Tolley Road**	**8.97 210**	P	**P**	**08 42 22.1**	**-1.0**		
TLZ			AML	AML				
TLZ			AML	AML				
WHHZ	**Waihua**	**9.02 200**	P	**P**	**08 42 23.3**	**-0.3**		
WHHZ			S	**S**	**08 44 04.5**	**0.0**		
WHHZ			AML	AML				
NMHZ	**Naumai**	**9.17 202**	P	**Pn**	**08 42 23.7**	**+0.5**		
NMHZ			S	**S**	**08 44 07.2**	**-0.6**		
NMHZ			AML	AML				
NMHZ			AML	AML				
ARHZ	**Aropaoanui**	**9.26 200**	P	**Pn**	**08 42 24.2**	**+0.1**		
ARHZ			S	**S**	**08 44 08.7**	**-1.1**		
BKZ	**Black Stump Fm**	**9.33 203**	P	**Pn**	**08 42 25.1**	**0.0**		
BKZ			S	**S**	**08 44 10.6**	**-0.8**		
MCHZ	**McNeill Hill**	**9.52 201**	P	**Pn**	**08 42 28.0**	**+0.7**		
MCHZ			S	**S**	**08 44 14.6**	**-0.8**		
NTVZ	**North Tongarir**	**9.57 206**	P	**P**	**08 42 29.4**	**-0.4**		
TMVZ	**Te Maari**	**9.57 206**	P	**Pn**	**08 42 28.9**	**+0.9**		
ETVZ	**East Tongariro**	**9.59 206**	P	**P**	**08 42 29.5**	**-0.5**		
KWHZ	**Kaweka Forest**	**9.59 202**	P	**Pn**	**08 42 28.6**	**+0.4**		
CKHZ	**Cape Kidnapper**	**9.60 199**	P	**P**	**08 42 30.3**	**+0.2**		
WTVZ	**West Tongariro**	**9.62 207**	P	**P**	**08 42 29.8**	**-0.5**		
FWVZ	**Far West T-bar**	**9.75 207**	P	**Pn**	**08 42 29.8**	**-0.4**		
BHHZ	**Black Hill Sta**	**9.77 204**	P	**Pn**	**08 42 29.5**	**-0.8**		
KAHZ	**Kahuranaki**	**9.79 200**	P	**Pn**	**08 42 30.7**	**+0.3**		
KRHZ	**Kereru**	**9.80 202**	P	**P**	**08 42 31.8**	**-0.5**		
PKVZ	**Pokaka**	**9.86 207**	P	**Pn**	**08 42 32.3**	**+0.9**		
PXZ	**Pawanui**	**10.01 199**	P	**P**	**08 42 34.1**	**-0.5**		
PNHZ	**Pukenui**	**10.11 202**	P	**Pn**	**08 42 32.6**	**-1.7**		
MSVF	**Nonsavu**	**13.14 347**	P	P	08 43 01.4	-8.2		
	10nm,0.8s,baz=215,slow=21,SNR=8.5							
MSVF	**Nonsavu**	**13.14 347**		P	08 43 02.0	-7.6		
SANVU	**Saraoutou**	**19.79 317**	P	P	08 44 11.3	-10		
EIDS	**Eidsvold**	**27.01 274**	P	P	08 45 18.0	-8.4		
EIDS			IAmb	IAmb	08 45 19.5			
	comp=Z,4.5nm,0.7s							
CTA	**Charters Tower**	**33.10 280**	P	P	08 46 10.1	-10		
	comp=Z,4.8nm,0.4s,baz=98,slow=10,SNR=14							
	comp=Z,4.8nm,0.4s							
CTAO	**Charters Tower**	**33.10 280**	P	P	08 46 10.9	-8.8		
CTAO			IAmb	IAmb	08 46 12.3			
	comp=Z,6.7nm,0.7s							
STKA	**Stephens Creek**	**33.70 257**	P	P	08 46 17.3	-7.4		
	comp=Z,1.3nm,0.3s,baz=105,slow=10,SNR=8.0							
	comp=Z,1.3nm,0.3s							
AS31	**Alice Springs**	**42.35 268**	P	P	08 47 27.6	-8.8		
ASAR	**Alice Springs**	**42.35 268**	P	P	08 47 27.4	-9.0		
	comp=Z,1.0nm,0.4s,baz=104,slow=7.0,SNR=32							
	comp=Z,1.0nm,0.4s							
ASAR	**Alice Springs**	**42.35 268**	P	P	08 47 27.0	-9.4		
WR8	**Warramunga Arr**	**43.22 273**		P	08 47 34.0	-9.3		
WR8			IAmb	IAmb	08 47 35.2			
	comp=Z,6.9nm,0.8s							
WRA	**Warramunga Arr**	**43.36 273**	P	P	08 47 33.9	-11		
	comp=Z,8.6nm,0.7s,baz=111,slow=7.5,SNR=4.9							
	comp=Z,8.6nm,0.7s							
WRA	**Warramunga Arr**	**43.36 273**		P	08 47 34.7	-10		
KNRA	**Kununurra**	**49.98 275**	P	P	08 48 26.1	-9.1		
MORW	**Morawa**	**55.75 254**	P	P	08 49 08.9	-8.0		
MORW			IAmb	IAmb	08 49 37.7			
	comp=Z,11nm,1.2s							
QSPA	**South Pole Qui**	**59.48 180**	P	**P**	**08 49 42.8**	**+0.6**		
	comp=Z,1.9nm,0.8s,baz=56,slow=0.9,SNR=14							
	comp=Z,1.9nm,0.8s							
QSPA	**South Pole Qui**	**59.48 180**	P	**P**	**08 49 42.8**	**+0.6**		
QSPA			IAmb	IAmb	08 49 53.8			
	comp=Z,7.2nm,1.5s							
BELA	**Belgrano 2**	**69.66 172**	P	**P**	**08 50 46.9**	**-0.2**		
BELA			IAmb	IAmb	08 50 58.5			
	comp=Z,1.2nm,1.0s							
FINES	**FINESS Array B**	**145.10 339**	PKP	**PKPdf**	**08 59 04.2**	**-6.3**		
	comp=Z,5.7nm,0.6s,baz=58,slow=3.7,SNR=31							
NB2	**NORSAR Subarra148.86 351**		PKP	**PKPdf**	**08 59 15.0**	**-1.8**		
	comp=Z,0.9nm,0.5s,baz=20,slow=4.1							
NOA	**NORSAR Array B148.86 351**		PKPbc	**PKPdf**	**08 59 17.6**	**+0.8**		
	comp=Z,1.1nm,0.7s,baz=24,slow=4.1,SNR=4.5							
AKASG	**Malin Array Be**	**151.02 322**	PKPbc	**PKPdf**	**08 59 20.1**	**-0.3**		
	comp=Z,2.9nm,0.8s,baz=56,slow=2.4,SNR=5.4							

2020 NOV

NEIC ***13*** *09:12:43.9±0.9,53.16°S±0.06°,160.1°E±0.2,h10km±1km, mb5.3/58,Ms_20 5.2/62,Mwb5.7/35,Mww5.7/16,Error ellipse: s-maj=18.4km s-min=9.1km az=109.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr1.09; Mθθ2.35; Mϕϕ-3.44; Mrθ0.32; Mθϕ2.23; Mϕr-0.03; Fault plane solution: M₀3.79000×10¹⁷ NP1: ϕs116.50000°,δ85.33000°,λ6.69000°. NP2:ϕs25.95000°, δ83.33000°,λ175.30000°. Principal axes: T 3.1549, Plg8.0000°, Azm341.0000°; N 1.0506, Plg82.0000°, Azm151.0000°; P -4.2055, Plg1.0000°, Azm251.0000°;*

ISC-PP ***13*** *09:12:43,53.16°S×160.05E,h23km,Mwppsm6.2,Moment Tensor Solution. s30 Moment tensor: Scale 10¹⁸Nm; Mrr-0.06±.11; Mθθ0.63±.24; Mϕϕ-0.59±.17; Mrθ0.08±.30; Mθϕ-0.22±.13; Mϕr0.26±.14; Fault plane solution: M₀2.66000×10¹⁸ NP1:ϕs35.20000°,δ74.20000°, λ192.20000°. NP2:ϕs301.80000°,δ78.30000°, λ-16.10000°.*

IDC ***13*** *09:12:44.7±0.4,52.99S×159.85E,h0km,mb5.0/13, mbtmp5.0/15,ML4.8/2,MS4.9/34 Error ellipse: s-maj=19.0km s-min=13.2km az=87.0*

NEIC ***13*** *09:12:46.4,53.12S×159.75E,h10km*

BJI ***13*** *09:12:46.8,52.89S×160.17E,h11km,mb5.5/10,Ms5.6/13, Ms7 5.2/12*

MOS ***13*** *09:12:46.7±1.8,53.16S×159.35E,h16km,mb5.6/17,Error ellipse: s-maj=28.2km s-min=8.5km az=97.8*

NEIC ***13*** *09:12:46.6,53.22S×159.92E,h22km,Moment Tensor Solution. Duration: 39 Moment tensor: Scale 10¹⁷Nm; Mrr-0.48; Mθθ4.20; Mϕϕ-3.71; Mrθ-0.20; Mθϕ1.72; Mϕr-1.60; Fault plane solution: M₀4.62000×10¹⁷ NP1: ϕs301.57000°,δ71.25000°,λ-10.32000°. NP2:ϕs34.92000°, δ80.24000°,λ-160.97000°. Principal axes: T 4.6092, Plg6.0000°, Azm167.0000°; N 0.0242, Plg69.0000°, Azm61.0000°; P -4.6334, Plg20.0000°, Azm259.0000°;*

NEIC ***13*** *09:12:46.4,53.11S×159.79E,h10km*

GFZ ***13*** *09:12:47.1±0.1,53°S±2°×16°E±°,h10km,M5.4/54, mb5.3/54*

GFZ ***13*** *09:12:47.1,52.96S×159.92E,h17km,Mw5.6/76,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-0.07; Mθθ2.71; Mϕϕ-2.64; Mrθ0.45; Mθϕ1.99; Mϕr-0.28; Fault plane solution: M₀3.37291×10¹⁷ NP1: ϕs296.60359°,δ89.00443°,λ-9.03414°. NP2:ϕs26.76187°, δ80.96723°,λ-178.99192°. Principal axes: T 3.4019, Plg5.6660°, Azm342.0349°; N -0.0587, Plg80.9116°, Azm110.3670°; P -3.3432, Plg7.0827°, Azm251.3286°;*

GCMT ***13*** *09:12:48.8±0.1,52.99S×159.67E,h17km,MW5.7/157, Moment Tensor Solution. s149,c279; s157,c335; Duration: 1s7 Moment tensor: Scale 10¹⁷Nm; Mrr-0.05±.04; Mθθ3.70±.04; Mϕϕ-3.65±.04; Mrθ-0.03±.09; Mθϕ2.05±.03; Mϕr-0.36±.10; Best double couple: M₀4.22400×10¹⁷ NP1:ϕs300.00000°,δ86.00000°, λ-2.00000°. NP2:ϕs31.00000°,δ88.00000°,λ-176.00000°. Principal axes: T 4.2360, Plg2.0000°, Azm165.0000°; N -0.0220, Plg85.0000°, Azm57.0000°; P -4.2110, Plg5.0000°, Azm255.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 09:12:45.5±0.2,53.17S±0.04×159.97E±0.05,h10km,n703, σ2s08/630,mb5.2/90,MS5.1/61,7C-3D,Macquarie Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCQ	**Macquarie Isla**	**1.46**	**204**	P	**Pn**	**09 13 09.8**	**-2.1**
MCQ	**Macquarie Isla**	**1.46**	**204**	P	**Pn**	**09 13 09.7**	**-2.1**
MCQ				S	**Sn**	**09 13 26.3**	**-4.7**
MCQ	**Macquarie Isla**	**1.46**	**204**	P	**Pn**	**09 13 09.7**	**-2.1**
MCQ						09 13 26.7	
MCQ	**Macquarie Isla**	**1.46**	**204**		**Pn**	**09 13 09.7**	**-2.1**
MCQ				Sn	**Sn**	**09 13 26.7**	**-4.3**
MCQ	**Macquarie Isla**	**1.46**	**204**	P	**Pn**	**09 13 09.3**	**-2.5**
MCQ				S	**Sn**	**09 13 26.5**	**-4.5**
MCQ				AML	AML		
MCQ				AML	AML		
APZ	**The Paps**	**8.18**	**42**	P	**Pn**	**09 14 40.1**	**-4.1**
PYZ	**Puysegur Point**	**8.25**	**34**	P	**Pn**	**09 14 42.1**	**-3.0**
PYZ	**Puysegur Point**	**8.25**	**34**		**Pn**	**09 14 41.2**	**-3.9**
PYZ	**Puysegur Point**	**8.25**	**34**	P	**Pn**	**09 14 41.1**	**-4.0**
RRKS	**Rarakau**	**8.54**	**38**	P	**Pn**	**09 14 45.9**	**-3.2**
SYZ	**Scrubby Hill**	**8.89**	**45**	P	**Pn**	**09 14 50.5**	**-3.4**
SYZ	**Scrubby Hill**	**8.89**	**45**	P	**Pn**	**09 14 50.5**	**-3.4**
WHZ	**Wether Hill Ro**	**8.94**	**39**		**Pn**	**09 14 51.0**	**-3.5**
WHZ	**Wether Hill Ro**	**8.94**	**39**	P	**Pn**	**09 14 51.2**	**-3.3**
DCZ	**Deep Cove**	**9.02**	**34**	Pn	**Pn**	**09 14 52.4**	**-3.2**
DCZ	**Deep Cove**	**9.02**	**34**	P	**Pn**	**09 14 52.5**	**-3.2**
MOSS	**Mossburn Schoo**	**9.24**	**39**	P	**Pn**	**09 14 56.0**	**-2.6**
BDCS	**Balclutha Dist**	**9.37**	**46**	P	**Pn**	**09 14 57.8**	**-2.6**
MLZ	**Mavora Lakes**	**9.45**	**38**		**Pn**	**09 14 58.6**	**-2.9**
MLZ	**Mavora Lakes**	**9.45**	**38**	P	**Pn**	**09 14 59.1**	**-2.4**
TUZ	**Tuapeka**	**9.56**	**45**	P	**Pn**	**09 14 59.7**	**-3.4**
TMBS	**Taieri Mouth B**	**9.71**	**47**	P	**Pn**	**09 15 02.8**	**-2.3**
DUNS	**Dunedin Corsto**	**9.96**	**47**	P	**Pn**	**09 15 06.0**	**-2.6**
MSZ	**Milford Sound**	**9.98**	**35**	P	**Pn**	**09 15 05.8**	**-3.0**
EAZ	**Earnscleugh**	**10.02**	**41**	P	**Pn**	**09 15 05.1**	**-4.2**
WKZ	**Wanaka**	**10.24**	**39**		**Pn**	**09 15 09.9**	**-2.5**
WKZ	**Wanaka**	**10.24**	**39**	P	**Pn**	**09 15 09.4**	**-3.0**
ODZ	**Otahua Downs**	**10.72**	**45**	P	**Pn**	**09 15 15.4**	**-3.5**
ODZ	**Otahua Downs**	**10.72**	**45**	S	**Sn**	**09 17 21.2**	**+2.4**
ODZ	**Otahua Downs**	**10.72**	**45**		**Pn**	**09 15 15.0**	**-3.9**
ODZ	**Otahua Downs**	**10.72**	**45**	P	**Pn**	**09 15 14.8**	**-4.1**
ODZ	**Otahua Downs**	**10.72**	**45**	P	**Pn**	**09 15 15.5**	**-3.5**
	comp=Z,332nm,0.6s						
JCZ	**Jackson Bay**	**10.80**	**36**	P	**Pn**	**09 15 19.4**	**-0.8**
JCZ	**Jackson Bay**	**10.80**	**36**	S	**Sn**	**09 17 20.8**	**-0.3**
JCZ	**Jackson Bay**	**10.80**	**36**	P	**Pn**	**09 15 18.1**	**-2.1**
LBZ	**Lake Benmore**	**11.06**	**41**		Pn	09 15 18.8	-4.9
LBZ	**Lake Benmore**	**11.06**	**41**	P	Pn	09 15 18.0	-5.7
TMZ	**Timaru**	**11.40**	**44**	P	**Pn**	**09 15 23.9**	**-4.4**
FOZ	**Fox Glacier**	**11.64**	**38**	P	**Pn**	**09 15 29.0**	**-2.6**
ARCZ	**Arundel**	**11.83**	**43**	P	Pn	09 15 29.0	-5.1
RPZ	**Rata Peaks**	**11.97**	**42**	Pn	**Pn**	**09 15 33.5**	**-2.6**
	comp=Z,4.3nm,0.3s,baz=226,slow=3.7,SNR=20						
RPZ				LR	LR	09 19 32.2	
	comp=Z,4µm,18.2s,baz=346,slow=34						
	comp=Z,14nm,0.5s						
RPZ				AML	AML		
RPZ	**Rata Peaks**	**11.97**	**42**		**Pn**	**09 15 32.2**	**-3.9**
RPZ	**Rata Peaks**	**11.97**	**42**	P	Pn	09 15 29.9	-6.2
WACZ	**Wakanui South**	**12.11**	**45**	P	**Pn**	**09 15 34.1**	**-3.8**
MHCZ	**Mount Hutt**	**12.33**	**43**	P	**Pn**	**09 15 38.0**	**-3.0**
WVZ	**Waitaha Valley**	**12.38**	**40**	P	**Pn**	**09 15 39.1**	**-2.5**
RACZ	**Rakaia**	**12.41**	**45**	P	**Pn**	**09 15 38.2**	**-3.9**
AKCZ	**Akaroa Harbour**	**12.63**	**48**	P	**Pn**	**09 15 42.3**	**-2.8**
MQZ	**McQueen's Vall**	**12.65**	**47**		**Pn**	**09 15 42.5**	**-2.8**
MQZ	**McQueen's Vall**	**12.65**	**47**	P	**Pn**	**09 15 41.6**	**-3.7**
OXZ	**Oxford**	**12.70**	**44**		**Pn**	**09 15 42.0**	**-4.0**
OXZ	**Oxford**	**12.70**	**44**	P	**Pn**	**09 15 42.2**	**-3.8**
OKCZ	**Okains Bay**	**12.82**	**48**	P	**Pn**	**09 15 45.4**	**-2.2**
INZ	**Inchbonnie**	**12.96**	**41**	P	**Pn**	**09 15 46.4**	**-3.1**
AMCZ	**Amberley**	**13.08**	**45**	P	**Pn**	**09 15 47.8**	**-3.3**
LTZ	**Lake Taylor**	**13.24**	**43**	P	**Pn**	**09 15 49.4**	**-4.0**
TAU	**Tasmania Unive**	**13.28**	**316**	P	**Pn**	**09 15 51.2**	**-2.7**
TAU	**Tasmania Unive**	**13.28**	**316**	P	**Pn**	**09 15 50.0**	**-3.9**
	comp=Z,281nm,1.1s						
GVZ	**Greta Valley S**	**13.41**	**46**	P	**Pn**	**09 15 53.6**	**-2.2**
MOO	**Moorlands**	**13.72**	**316**	P	**Pn**	**09 15 57.7**	**-2.2**
	comp=Z,196nm,0.9s,comp=Z,0.0nm						
MOO	**Moorlands**	**13.72**	**316**	P	**Pn**	**09 15 56.6**	**-3.3**
MOO	**Moorlands**	**13.72**	**316**	P	**Pn**	**09 15 57.6**	**-2.3**
	comp=Z,196nm,0.9s,comp=Z,0.0nm						
MOO	**Moorlands**	**13.72**	**316**	P	**Pn**	**09 15 57.6**	**-2.3**
MOO	**Moorlands**	**13.72**	**316**	P	**Pn**	**09 15 57.7**	**-2.2**
	comp=Z,196nm,0.9s						
DSZ	**Denniston Nort**	**13.93**	**40**		**Pn**	**09 15 59.4**	**-3.4**
DSZ	**Denniston Nort**	**13.93**	**40**	P	**Pn**	**09 15 59.1**	**-3.8**
KHZ	**Kahutara**	**14.08**	**46**	P	**Pn**	**09 16 02.3**	**-2.5**
KHZ	**Kahutara**	**14.08**	**46**		**Pn**	**09 16 02.2**	**-2.5**
KHZ	**Kahutara**	**14.08**	**46**	P	**Pn**	**09 16 01.3**	**-3.5**
KHZ	**Kahutara**	**14.08**	**46**	P	**Pn**	**09 16 03.1**	**-1.7**
	comp=Z,352nm,1.2s						
THZ	**Tophouse**	**14.35**	**43**	P	**Pn**	**09 16 05.1**	**-3.5**
MRNZ	**Matariki Terra**	**14.60**	**41**	P	**Pn**	**09 16 08.7**	**-3.3**
GLAD	**Gladstone**	**14.63**	**322**	P	**Pn**	**09 16 11.8**	**-0.6**
BSWZ	**Blackbirch Sta**	**14.79**	**45**	P	**Pn**	**09 16 12.7**	**-1.9**

TKNZ	**Takaka Hill**	**14.99**	**41**	P	**Pn**	**09 16 15.5**	**-1.8**	
QRZ	**Quartz Range**	**15.00**	**40**	P	**Pn**	**09 16 13.7**	**-3.7**	
QRZ	**Quartz Range**	**15.00**	**40**	P	**Pn**	**09 16 13.5**	**-3.9**	
NNZ	**Nelson**	**15.00**	**43**	P	**Pn**	**09 16 16.6**	**-0.8**	
TUWZ	**Tuamarina**	**15.06**	**44**	P	**Pn**	**09 16 13.9**	**-4.2**	
TCW	**Tory Channel**	**15.38**	**45**	P	**Pn**	**09 16 21.4**	**-1.0**	
AUBRN	**Burnie High Sc**	**15.43**	**316**	P	**Pn**	**09 16 21.4**	**-1.7**	
SNZO	**South Karori**	**15.48**	**46**	P	**Pn**	**09 16 22.5**	**-1.2**	
SNZO	**South Karori**	**15.48**	**46**	P	**P**	**09 16 24.2**	**-3.9**	
	comp=Z,358nm,1.1s							
PLWZ	**Palliser**	**15.51**	**48**	P	**Pn**	**09 16 20.9**	**-3.3**	
WELZ	**Wellington**	**15.53**	**46**	P	**Pn**	**09 16 23.8**	**-0.6**	
DUWZ	**D'Urville Isla**	**15.57**	**43**	P	**Pn**	**09 16 26.1**	**-3.2**	
MSWZ	**Moikau Station**	**15.63**	**47**	P	**Pn**	**09 16 25.2**	**-0.5**	
PAWZ	**Paruwai Farm**	**15.74**	**48**	P	**Pn**	**09 16 26.5**	**-0.6**	
CAW	**Cannon Point**	**15.80**	**46**	P	**Pn**	**09 16 26.6**	**-1.3**	
TRWZ	**Traveller**	**15.84**	**48**	P	**Pn**	**09 16 26.8**	**-1.6**	
KIW	**Kapiti Island**	**15.94**	**45**	P	**Pn**	**09 16 29.1**	**-0.6**	
MTW	**Mount Morrison**	**15.95**	**47**	P	**Pn**	**09 16 28.3**	**-1.5**	
OGWZ	**Otaki Gorge**	**16.09**	**46**	P	**Pn**	**09 16 29.2**	**-2.3**	
TMWZ	**Te Maipa**	**16.17**	**48**	P	**Pn**	**09 16 31.1**	**-1.6**	
HOWZ	**Holdsworth Sta**	**16.17**	**47**	P	**Pn**	**09 16 32.0**	**-0.7**	
MRZ	**Mangatainoka R**	**16.39**	**46**		**Pn**	**09 16 34.6**	**-0.9**	
MRZ				IAmb	IAmb	09 16 39.7		
	comp=Z,144nm,0.7s							
MRZ	**Mangatainoka R**	**16.39**	**46**	P	**Pn**	**09 16 34.3**	**-1.2**	
PRWZ	**Pori Road**	**16.65**	**47**	P	**Pn**	**09 16 39.5**	**-1.7**	
BFZ	**Birch Farm**	**16.67**	**48**	P	**Pn**	**09 16 37.6**	**-1.4**	
BFZ	**Birch Farm**	**16.67**	**48**	P	**Pn**	**09 16 38.1**	**-1.0**	
BFZ	**Birch Farm**	**16.67**	**48**	P	**Pn**	**09 16 38.0**	**-1.0**	
	comp=Z,284nm,1.0s							
POWZ	**Post Office Ro**	**16.70**	**46**	P	**P**	**09 16 40.0**	**-1.7**	
NMEZ	**Namu Road**	**16.74**	**40**	P	**P**	**09 16 40.3**	**-1.9**	
WAZ	**Wanganui**	**16.89**	**43**	P	**P**	**09 16 44.9**	**+1.1**	
KHEZ	**Kahui Hut**	**16.89**	**40**	P	**Pn**	**09 16 40.7**	**-1.3**	
KHEZ	**Kahui Hut**	**16.89**	**40**	P	**Pn**	**09 16 40.6**	**-1.3**	
PREZ	**Palmer Road**	**16.91**	**41**	P	**P**	**09 16 41.6**	**-2.5**	
DVHZ	**Dannevirke**	**16.95**	**47**	P	**P**	**09 16 43.5**	**-1.0**	
NEZ	**North Egmont**	**16.95**	**41**	P	**P**	**09 16 44.4**	**-0.1**	
PKE	**Pukeiti**	**16.97**	**40**		**Pn**	**09 16 41.3**	**-1.5**	
TSZ	**Takapari Road**	**17.05**	**46**	P	**P**	**09 16 44.2**	**-1.5**	
PRHZ	**Porangahau**	**17.18**	**48**	P	**P**	**09 16 50.3**	**+3.3**	
WPHZ	**Waipukurau**	**17.26**	**47**	P	**P**	**09 16 47.1**	**-0.8**	
PNHZ	**Pukenui**	**17.28**	**46**	P	**P**	**09 16 46.1**	**-1.7**	
VRZ	**Vera Road**	**17.34**	**42**	P	**P**	**09 16 47.6**	**-1.2**	
PKVZ	**Pokaka**	**17.43**	**43**	P	**P**	**09 16 52.3**	**+2.4**	
PXZ	**Pawanui**	**17.47**	**48**	P	**P**	**09 16 48.7**	**-1.6**	
MOVZ	**Moawhango**	**17.51**	**44**	P	**P**	**09 16 51.5**	**+0.7**	
WNVZ	**Wahianoa**	**17.51**	**44**	P	**P**	**09 16 50.6**	**-0.2**	
AUSSC	**Sale College,**	**17.52**	**324**	P	**P**	**09 16 49.1**	**-1.6**	
WHVZ	**Whangaehu Hut**	**17.54**	**44**	P	**P**	**09 16 53.1**	**+1.8**	
FWVZ	**Far West T-bar**	**17.55**	**44**	P	**P**	**09 16 53.0**	**+1.6**	
BHHZ	**Black Hill Sta**	**17.57**	**45**	P	**P**	**09 16 51.4**	**0.0**	
KRHZ	**Kereru**	**17.57**	**46**	P	**P**	**09 16 52.0**	**+0.5**	
COVZ	**Chateau Observ**	**17.59**	**44**	P	**P**	**09 16 54.0**	**+2.3**	
NGZ	**Ngauruhoe**	**17.64**	**44**	P	**P**	**09 16 54.4**	**+2.1**	
SNVZ	**South Ngauruho**	**17.64**	**44**	P	**P**	**09 16 54.7**	**+2.3**	
TWVZ	**Taurewa**	**17.66**	**43**	P	**P**	**09 16 53.9**	**+1.5**	
KAHZ	**Kahuranaki**	**17.67**	**48**	P	**P**	**09 16 51.2**	**-1.3**	
OTVZ	**Oturere**	**17.67**	**44**	P	**P**	**09 16 52.1**	**-0.6**	
WTVZ	**West

OUZ Omahuta 20.37 34 P Pn 09 17 23.6 -0.5
OUZ Omahuta 20.37 34 P Pn 09 17 23.8 -0.3
comp=Z,120nm,1.2s
SYDH Sydney Hard Ro 20.49 338 P Pn 09 17 23.3 -2.2
AUKHS Kincumber High 20.64 339 P Pn 09 17 25.5 -1.7
ARPS Mount Arapiles 20.72 315 P Pn 09 17 26.5 -1.7
comp=Z,57nm,1.2s
ARPS Mount Arapiles 20.72 315 P Pn 09 17 25.9 -2.3
comp=Z,57nm,1.2s
ARPS Mount Arapiles 20.72 315 P Pn 09 17 26.3 -1.9
comp=Z,57nm,1.2s
MGCD Mangrove Creek 20.94 339 P Pn 09 17 28.8 -2.0
comp=Z,193nm,0.9s
MGCD Mangrove Creek 20.94 339 P Pn 09 17 28.2 -2.5
comp=Z,192nm,0.9s
MGCD Mangrove Creek 20.94 339 P Pn 09 17 28.6 -2.1
comp=Z,193nm,0.9s
MGCD Mangrove Creek 20.94 339 P Pn 09 17 28.8 -2.0
MGCD Mangrove Creek 20.94 339 P Pn 09 17 28.8 -2.0
comp=Z,192nm,0.9s
NTLH Newcastle Hard 21.11 340 P **P 09 17 30.2 +0.1**
LHI Lord Howe Isla 21.65 358 P **P 09 17 36.2 +0.4**
comp=Z,128nm,0.7s,comp=Z,0.0nm
LHI Lord Howe Isla 21.65 358 P **P 09 17 36.0 +0.2**
comp=Z,128nm,0.7s,comp=Z,0.0nm
LHI Lord Howe Isla 21.65 358 P **P 09 17 36.1 +0.3**
comp=Z,128nm,0.7s,comp=Z,0.0nm
LHI Lord Howe Isla 21.65 358 P **P 09 17 33.7 -2.1**
LHI IAmb IAmb 09 17 50.7
comp=Z,83nm,0.6s
AUDCS Dubbo College 22.47 334 P **P 09 17 44.7 0.0**
AUPHS Peel High Scho 23.02 340 P **P 09 17 50.6 +0.1**
AUMBR Murray Bridge 23.21 313 P **P 09 17 53.6 +1.3**
ARMA Armidale 23.54 342 P **P 09 17 55.4 -0.4**
comp=Z,45nm,2.0s,comp=Z,0.0nm
ARMA Armidale 23.54 342 P **P 09 17 55.1 -0.7**
comp=Z,45nm,2.0s,comp=Z,0.0nm
ARMA Armidale 23.54 342 P **P 09 17 55.2 -0.6**
comp=Z,45nm,2.0s,comp=Z,0.0nm
ARMA Armidale 23.54 342 P **P 09 17 54.4 -1.4**
ARMA Armidale 23.54 342 **P 09 17 53.8 -2.0**
ARMA IAmb IAmb 09 18 02.7
comp=Z,206nm,1.8s
ARMA Armidale 23.54 342 P **P 09 17 55.4 -0.4**
comp=Z,45nm,2.0s
AUMAR Marden Senior 23.70 312 P **P 09 17 58.4 +1.2**
CMSA Cobar Meteorol 23.97 329 P **P 09 17 59.8 0.0**
comp=Z,124nm,1.2s,comp=Z,0.0nm
CMSA Cobar Meteorol 23.97 329 P **P 09 17 59.2 -0.6**
comp=Z,124nm,1.2s,comp=Z,0.0nm
CMSA Cobar Meteorol 23.97 329 P **P 09 17 59.1 -0.8**
comp=Z,124nm,1.2s,comp=Z,0.0nm
CMSA Cobar Meteorol 23.97 329 P **P 09 17 59.0 -0.8**
CMSA Cobar Meteorol 23.97 329 P **P 09 17 59.2 -0.6**
comp=Z,124nm,1.2s
VNDA Vanda 24.46 179 P **P 09 18 05.5 +1.5**
comp=Z,35nm,1.0s,baz=345,slow=9.4,SNR=83
VNDA LR LR 09 26 13.1
comp=Z,1µm,21.7s,baz=1.5,slow=33
comp=Z,35nm,1.0s
VNDA Vanda 24.46 179 P **P 09 18 02.6 -1.4**
VNDA IAmb IAmb 09 18 07.8
comp=Z,75nm,1.1s
VNDA Vanda 24.46 179 P **P 09 18 06.6 +2.5**
comp=Z,68nm,1.2s
HTT Hallett 24.81 314 P **P 09 18 07.8 +0.2**
comp=Z,25nm,1.1s
HTT Hallett 24.81 314 P **P 09 18 07.5 -0.1**
comp=Z,25nm,1.1s
HTT Hallett 24.81 314 P **P 09 18 07.7 0.0**
comp=Z,25nm,1.1s
HTT Hallett 24.81 314 P **P 09 18 07.5 -0.1**
SBA Scott Base 24.91 177 P **P 09 18 06.8 -1.2**
SBA pmax pmax
comp=Z,273nm,1.6s
SBA Scott Base 24.91 177 P **P 09 18 06.8 -1.2**
SBA Scott Base 24.91 177 P **P 09 18 11.9 +3.9**
comp=Z,89nm,1.4s
STKA Stephens Creek 25.08 321 P **P 09 18 10.4 +0.4**
comp=Z,576nm,1.1s,comp=Z,0.0nm
STKA Stephens Creek 25.08 321 P **P 09 18 10.1 +0.2**
comp=Z,576nm,1.1s,comp=Z,0.0nm
STKA Stephens Creek 25.08 321 P **P 09 18 10.2 +0.2**
comp=Z,576nm,1.1s,comp=Z,0.0nm
STKA Stephens Creek 25.08 321 P **P 09 18 09.6 -0.4**
comp=Z,111nm,1.0s,baz=147,slow=11,SNR=37
STKA LR LR 09 25 44.6
comp=Z,3µm,21.8s,baz=155,slow=31
comp=Z,111nm,1.0s
STKA Stephens Creek 25.08 321 P **P 09 18 09.8 -0.2**
STKA Stephens Creek 25.08 321 *i* P **P 09 18 10.2 +0.2**
STKA Stephens Creek 25.08 321 **P 09 18 08.3 -1.7**
STKA Stephens Creek 25.08 321 P **P 09 18 10.4 +0.4**
comp=Z,576nm,1.1s
AULRC Lightning Ridg 25.30 335 P **P 09 18 12.1 +0.1**
AUCAS Cummins Area S 25.57 308 P **P 09 18 15.2 +0.8**
TW1H Toowoomba 1 Ha 26.28 344 P **P 09 18 20.6 -0.4**
BBOO Buckleboo 26.61 310 P **P 09 18 22.7 -1.1**
comp=Z,28nm,0.8s
BBOO Buckleboo 26.61 310 P **P 09 18 22.4 -1.4**
BBOO Buckleboo 26.61 310 P **P 09 18 24.9 +1.1**
comp=Z,42nm,1.3s
BBOO Buckleboo 26.61 310 P **P 09 18 25.0 +1.1**
BBOO Buckleboo 26.61 310 P **P 09 18 21.2 -2.6**
BBOO IAmb IAmb 09 18 49.3
comp=Z,119nm,1.6s
BBOO Buckleboo 26.61 310 P **P 09 18 25.1 +1.2**
comp=Z,42nm,1.3s
AUBSH Beerwah State 26.80 346 P **P 09 18 26.2 +0.7**
RMQ Roma 27.94 338 P **P 09 18 34.6 -1.3**
comp=Z,34nm,1.6s
EIDS Eidsvold 28.56 343 P **P 09 18 40.6 -0.7**
comp=Z,25nm,1.1s,comp=Z,0.0nm
EIDS Eidsvold 28.56 343 P **P 09 18 40.4 -0.9**
comp=Z,25nm,1.1s,comp=Z,0.0nm
EIDS Eidsvold 28.56 343 P **P 09 18 40.1 -1.3**
EIDS Eidsvold 28.56 343 P **P 09 18 40.0 -1.3**
EIDS Eidsvold 28.56 343 P **P 09 18 40.6 -0.7**
comp=Z,25nm,1.1s
RAO Raoul Island 28.89 43 IAms_20 IAms_20 09 30 22.4
comp=Z,7µm,18.0s
QLP Quilpie 29.04 330 P **P 09 18 45.4 -0.1**
comp=Z,173nm,1.0s
QLP Quilpie 29.04 330 P **P 09 18 45.2 -0.4**
comp=Z,173nm,1.0s
QLP Quilpie 29.04 330 P **P 09 18 45.2 -0.4**
comp=Z,173nm,1.0s
QLP Quilpie 29.04 330 P **P 09 18 45.2 -0.4**
QLP Quilpie 29.04 330 P **P 09 18 45.3 -0.2**
comp=Z,173nm,1.0s
INKA Innaminka 29.12 323 **P 09 18 44.7 -1.6**
PINNC Pines Island, 31.04 13 P **P 09 19 05.0 +1.7**
PINNC Pines Island, 31.04 13 P **P 09 19 01.1 -2.2**
ONTNC Ouen Toro 31.21 12 P **P 09 19 05.1 +0.3**
ONTNC Ouen Toro 31.21 12 P **P 09 19 02.4 -2.4**
NOUC Port Laguerre 31.39 11 P **P 09 19 07.1 +0.7**
YATNC Mamie plateau, 31.51 12 P **P 09 19 07.8 +0.3**
FORT Forrest 32.18 301 P **P 09 19 14.4 +1.2**
comp=Z,21nm,0.7s
FORT Forrest 32.18 301 P **P 09 19 13.9 +0.6**
comp=Z,21nm,0.7s
FORT Forrest 32.18 301 P **P 09 19 14.2 +1.0**
comp=Z,21nm,0.7s
FORT Forrest 32.18 301 P **P 09 19 11.7 -1.6**
KOUNC Koumac, New Ca 32.73 7 P **P 09 19 18.5 +0.3**
KOUNC Koumac, New Ca 32.73 7 **P 09 19 15.6 -2.6**
CTA Charters Tower 34.68 337 P **P 09 19 34.4 -0.8**
CTA Charters Tower 34.68 337 LR LR 09 31 54.4
comp=Z,2µm,19.0s,baz=151,slow=33
CTA Charters Tower 34.68 337 P **P 09 19 34.3 -0.8**
CTAO Charters Tower 34.68 337 P **P 09 19 34.4 -0.8**
CTAO Charters Tower 34.68 337 P **P 09 19 33.1 -2.1**
CTAO pmax pmax
comp=Z,96nm,1.3s
CTAO MLR MLR
comp=Z,3µm,18.0s
CTAO Charters Tower 34.68 337 P **P 09 19 33.1 -2.1**
CTAO IAmb IAmb 09 19 39.2
comp=Z,96nm,1.3s
CTAO Charters Tower 34.68 337 IAMs_20 IAMs_20 09 34 32.2
comp=Z,3µm,18.0s
CTAO Charters Tower 34.68 337 P **P 09 19 34.4 -0.8**
comp=Z,68nm,1.2s
KMBL Kambalda 35.02 293 P **P 09 19 38.2 +0.1**
comp=Z,11nm,1.3s
KMBL Kambalda 35.02 293 P **P 09 19 38.0 -0.1**
comp=Z,11nm,1.3s
KMBL Kambalda 35.02 293 P **P 09 19 38.1 +0.1**
comp=Z,11nm,1.3s
AS09 Alice Springs 35.41 316 P **P 09 19 41.0 -0.5**
comp=Z,40nm,0.8s
AS09 Alice Springs 35.41 316 P **P 09 19 40.7 -0.8**
comp=Z,40nm,0.8s
AS09 Alice Springs 35.41 316 P **P 09 19 40.8 -0.8**
comp=Z,40nm,0.8s
AS17 Alice Springs 35.42 316 P **P 09 19 41.0 -0.5**
comp=Z,46nm,1.3s
AS17 Alice Springs 35.42 316 P **P 09 19 40.8 -0.8**
comp=Z,46nm,1.3s
AS01 Alice Springs 35.44 316 P **P 09 19 40.7 -1.0**
AUALC St Philip's Co 35.44 316 P **P 09 19 40.9 -0.9**
RKGY Rocky Gully 35.45 284 P **P 09 19 42.7 +1.1**
comp=Z,24nm,1.6s
RKGY Rocky Gully 35.45 284 P **P 09 19 42.5 +0.9**
comp=Z,24nm,1.6s
ASAR Alice Springs 35.45 316 P **P 09 19 40.8 -1.1**
comp=Z,29nm,0.9s,baz=151,slow=8.3,SNR=145
ASAR LR LR 09 32 53.3
comp=Z,2µm,18.9s,baz=150,slow=34
comp=Z,29nm,0.9s
ASAR Alice Springs 35.45 316 **P 09 19 40.0 -1.9**
AS31 Alice Springs 35.46 316 P **P 09 19 41.3 -0.6**
comp=Z,17nm,1.0s
AS31 Alice Springs 35.46 316 P **P 09 19 41.1 -0.7**
comp=Z,17nm,1.0s
AS31 Alice Springs 35.46 316 **P 09 19 40.8 -1.1**
AS15 Alice Springs 35.48 316 P **P 09 19 41.6 -0.5**
comp=Z,54nm,0.9s
AS15 Alice Springs 35.48 316 P **P 09 19 41.3 -0.7**
comp=Z,54nm,0.9s
AS15 Alice Springs 35.48 316 P **P 09 19 41.4 -0.7**
comp=Z,54nm,0.9s
QIS Mount Isa 36.13 326 P **P 09 19 46.7 -1.0**
comp=Z,53nm,1.1s
QIS Mount Isa 36.13 326 P **P 09 19 46.4 -1.3**
comp=Z,53nm,1.1s
QIS Mount Isa 36.13 326 P **P 09 19 46.4 -1.3**
comp=Z,53nm,1.1s
QIS Mount Isa 36.13 326 P **P 09 19 46.2 -1.5**
QIS Mount Isa 36.13 326 P **P 09 19 46.5 -1.3**
comp=Z,53nm,1.1s
NWAO Narrogin (SRO) 36.50 286 P **P 09 19 49.0 -1.7**
NWAO Narrogin (SRO) 36.50 286 P **P 09 19 49.0 -1.7**
NWAO Narrogin (SRO) 36.50 286 P **P 09 19 52.2 +1.4**
comp=Z,27nm,1.7s
NWAO Narrogin (SRO) 36.50 286 P **P 09 19 51.8 +1.1**
comp=Z,45nm,1.7s
NWAO Narrogin (SRO) 36.50 286 LR LR 09 31 08.9
comp=Z,1µm,19.7s,baz=146,slow=30
WRKA Warakurna 36.79 307 P **P 09 19 52.4 -1.0**
comp=Z,21nm,1.1s
WRKA Warakurna 36.79 307 P **P 09 19 52.1 -1.2**
comp=Z,21nm,1.1s
WRKA Warakurna 36.79 307 P **P 09 19 52.5 -0.8**
comp=Z,21nm,1.1s
H01W1 Cape Leeuwin H 36.91 281 T T 09 58 54.2
baz=133,slow=75
H01W2 Cape Leeuwin H 36.91 281 T T 09 58 54.3
baz=133,slow=75
H01W3 Cape Leeuwin H 36.92 281 T T 09 58 53.7
baz=133,slow=75
QSPA South Pole Qui 36.95 180 P **P 09 19 57.4 +3.0**
comp=Z,158nm,1.0s,baz=8.3,slow=3.3,SNR=228
QSPA LR LR 09 32 36.8
comp=Z,3µm,21.6s,baz=20,slow=32
comp=Z,158nm,1.0s
QSPA South Pole Qui 36.95 180 **P 09 19 52.4 -2.0**
QSPA South Pole Qui 36.95 180 IAMs_20 IAMs_20 09 32 26.2
comp=Z,3µm,21.0s
QSPA South Pole Qui 36.95 180 P P 09 19 57.7 +3.3
comp=Z,284nm,1.2s
MTSU Mount Surprise 37.03 335 P **P 09 19 54.9 -0.5**
comp=Z,37nm,0.9s
MTSU Mount Surprise 37.03 335 P **P 09 19 54.7 -0.7**
comp=Z,37nm,0.9s
MTSU Mount Surprise 37.03 335 P **P 09 19 54.8 -0.6**
comp=Z,37nm,0.9s
MTSU Mount Surprise 37.03 335 P **P 09 19 54.3 -1.1**
MTSU Mount Surprise 37.03 335 P **P 09 19 54.9 -0.5**
comp=Z,37nm,0.9s
KLBR Kellerberrin 37.18 288 P **P 09 19 56.7 +0.2**
comp=Z,69nm,0.9s
KLBR Kellerberrin 37.18 288 P **P 09 19 56.5 0.0**
comp=Z,69nm,0.9s
KLBR Kellerberrin 37.18 288 P **P 09 19 56.5 0.0**
comp=Z,69nm,0.9s
KLBR Kellerberrin 37.18 288 P **P 09 19 57.0 +0.5**
KLBR Kellerberrin 37.18 288 P **P 09 19 56.7 +0.2**
comp=Z,70nm,0.9s
SANVU Saraoutou 38.07 11 P **P 09 20 03.5 -0.6**
SANVU Saroutou 38.07 11 **P 09 20 01.6 -2.5**
SANVU Saraoutou 38.07 11 P **P 09 20 03.0 -1.1**
comp=Z,106nm,0.9s
MSVF Nonsavu 38.08 29 LR LR 09 34 02.5
comp=Z,3µm,18.3s,baz=198,slow=34
MSVF Nonsavu 38.08 29 P **P 09 20 05.9 +1.7**
MSVF Nonsavu 38.08 29 *i* P **P 09 20 06.0 +1.7**
MSVF pmax pmax
comp=Z,23nm,1.1s
MSVF Nonsavu 38.08 29 P **P 09 20 01.8 -2.5**
MSVF IAmb IAmb 09 20 42.0
comp=Z,37nm,1.2s
MSVF Nonsavu 38.08 29 IAMs_20 IAMs_20 09 33 10.1
comp=Z,4µm,18.0s
MSVF Nonsavu 38.08 29 P **P 09 20 06.7 +2.4**
comp=Z,39nm,1.2s
BLDU Ballidu 38.50 288 P **P 09 20 07.7 0.0**
comp=Z,17nm,0.4s
LKBA Tubou, Lakemba 38.58 33 P **P 09 20 10.2 +1.8**
WRA Warramunga Arr 38.61 319 P **P 09 20 06.7 -2.1**
comp=Z,29nm,0.9s,baz=148,slow=5.4,SNR=13
WRA PcP **PcP 09 22 19.8 -1.1**
comp=Z,6.1nm,0.9s,baz=151,slow=2.6,SNR=4.5
WRA LR LR 09 34 51.8
comp=Z,2µm,18.5s,baz=106,slow=34
comp=Z,29nm,0.9s
WRAB Tennant Creek 38.62 319 P **P 09 20 06.6 -2.2**
WRAB Tennant Creek 38.62 319 *i* P **P 09 20 07.6 -1.2**
WRAB pmax pmax
comp=Z,38nm,0.9s
WRAB Tennant Creek 38.62 319 P **P 09 20 06.6 -2.2**
WRAB IAmb IAmb 09 20 10.8
comp=Z,39nm,1.0s
WRAB Tennant Creek 38.62 319 IAMs_20 IAMs_20 09 36 27.6
comp=Z,3µm,18.0s
WRAB Tennant Creek 38.62 319 P **P 09 20 06.9 -1.9**
comp=Z,50nm,0.9s
WB0 Warramunga Arr 38.75 319 P **P 09 20 07.6 -2.2**
TAVE Taveuni 39.66 31 P **P 09 20 19.3 +1.9**
DGTI Dogotuki 39.93 30 P **P 09 20 21.3 +1.6**
MORW Morawa 40.05 289 P **P 09 20 21.4 +0.7**
comp=Z,31nm,0.9s
MORW Morawa 40.05 289 P **P 09 20 21.1 +0.5**
comp=Z,31nm,0.9s
MORW Morawa 40.05 289 P **P 09 20 20.7 0.0**
comp=Z,31nm,1.0s
MORW Morawa 40.05 289 P **P 09 20 20.9 +0.3**
MORW Morawa 40.05 289 P **P 09 20 20.9 +0.3**
comp=Z,31nm,0.9s
MEEK Meekatharra 40.49 294 P **P 09 20 24.5 +0.1**
comp=Z,22nm,2.5s
MEEK Meekatharra 40.49 294 P **P 09 20 24.2 -0.1**
comp=Z,26nm,1.9s
MEEK Meekatharra 40.49 294 P **P 09 20 24.3 -0.1**
comp=Z,22nm,2.5s
MEEK Meekatharra 40.49 294 P **P 09 20 24.7 +0.4**
MEEK Meekatharra 40.49 294 P **P 09 20 24.4 +0.1**
comp=Z,22nm,2.5s
COEN Coen 41.33 335 P **P 09 20 30.7 -0.6**
COEN Coen 41.33 335 P **P 09 20 29.0 -2.2**
COEN IAmb IAmb 09 20 48.4
comp=Z,45nm,0.9s
COEN Coen 41.33 335 P **P 09 20 30.3 -1.0**
comp=Z,59nm,1.0s
FUTU Fugatoga 42.48 32 P **P 09 20 43.3 +2.6**
FUTU Fugatoga 42.48 32 P **P 09 20 38.0 -2.7**
FUTU IAmb IAmb 09 20 44.7
comp=Z,166nm,1.3s
FUTU Fugatoga 42.48 32 P P 09 20 43.6 +3.0
comp=Z,112nm,1.2s
HURO Huro Makira 42.62 3 P **P 09 20 43.0 +1.2**
HNR Honiara 43.62 360 LR LR 09 35 49.7
comp=Z,2µm,19.7s,baz=276,slow=32
HNR Honiara 43.62 360 P **P 09 20 49.6 -0.2**
HNR Honiara 43.62 360 P **P 09 20 47.4 -2.4**
HNR pmax pmax
comp=Z,168nm,0.9s
HNR Honiara 43.62 360 P **P 09 20 47.4 -2.4**
HNR Honiara 43.62 360 IAMs_20 IAMs_20 09 34 33.1
comp=Z,3µm,21.0s
HNR Honiara 43.62 360 P **P 09 20 48.9 -0.9**
comp=Z,193nm,0.9s
FITZ Fitzroy Crossi 43.99 309 LR LR 09 37 59.0
comp=Z,2µm,18.5s,baz=155,slow=35
FITZ Fitzroy Crossi 43.99 309 **P 09 20 50.9 -2.0**
FITZ Fitzroy Crossi 43.99 309 P **P 09 20 52.8 -0.1**
comp=Z,13nm,1.0s
RAR Rarotonga 44.28 60 LR LR 09 37 28.5
comp=Z,1µm,19.2s,baz=212,slow=34
RAR Rarotonga 44.28 60 P **P 09 20 57.9 +2.7**
RAR Rarotonga 44.28 60 P **P 09 20 52.1 -3.1**
RAR pmax pmax
comp=Z,89nm,1.0s
RAR Rarotonga 44.28 60 **P 09 20 52.1 -3.1**
RAR IAmb IAmb 09 21 00.9
comp=Z,89nm,1.0s
RAR Rarotonga 44.28 60 P **P 09 20 57.3 +2.1**
comp=Z,105nm,1.3s
MBWA Marble Bar 44.32 300 P **P 09 20 54.1 -1.3**
MBWA Marble Bar 44.32 300 P **P 09 20 55.9 +0.5**
comp=Z,53nm,0.9s
MBWA Marble Bar 44.32 300 P **P 09 20 54.9 -0.6**
MBWA Marble Bar 44.32 300 **P 09 20 53.0 -2.5**
MBWA IAmb IAmb 09 21 05.4
comp=Z,41nm,0.8s
MBWA Marble Bar 44.32 300 P **P 09 20 55.3 -0.1**
comp=Z,54nm,0.9s
TATA Tatamba Isabel 44.65 360 P **P 09 20 59.1 +0.9**
KNRA Kununurra 44.73 315 P **P 09 20 56.9 -1.9**
KNRA Kununurra 44.73 315 P **P 09 20 55.1 -3.7**
KNRA Kununurra 44.73 315 **P 09 20 56.5 -2.3**
MAW Mawson 44.84 213 P **P 09 21 01.5 +2.4**
comp=Z,4.6nm,1.1s
MAW Mawson 44.84 213 P **P 09 21 01.0 +1.8**
comp=Z,4.6nm,1.1s
MAW Mawson 44.84 213 P **P 09 21 01.9 +2.7**
comp=Z,24nm,1.0s,baz=124,slow=9.2,SNR=11
MAW LR LR 09 37 29.3
comp=Z,1µm,19.2s,baz=111,slow=33
comp=Z,24nm,1.0s
MAW Mawson 44.84 213 P **P 09 20 57.1 -2.0**
MAW Mawson 44.84 213 P **P 09 21 01.6 +2.4**
comp=Z,4.6nm,1.1s
PMG Port Moresby 44.85 342 LR LR 09 36 48.7
comp=Z,1µm,20.1s,baz=161,slow=32
PMG Port Moresby 44.85 342 P **P 09 20 59.6 -0.2**
PMG Port Moresby 44.85 342 *i* P **P 09 21 00.1 +0.3**
PMG pmax pmax
comp=Z,28nm,0.9s
PMG Port Moresby 44.85 342 **P 09 20 57.3 -2.5**
PMG IAmb IAmb 09 21 11.3
comp=Z,38nm,1.0s
PMG Port Moresby 44.85 342 IAMs_20 IAMs_20 09 40 45.7
comp=Z,2µm,19.0s
PMG Port Moresby 44.85 342 P **P 09 20 59.3 -0.5**
comp=Z,927ncomp=Z,31nm,0.9s
PMG Port Moresby 44.85 342 P **P 09 20 59.5 -0.2**
comp=Z,32nm,0.9s
KDU Kakadu 45.94 321 P **P 09 21 07.0 -1.4**
comp=Z,21nm,1.1s
KDU Kakadu 45.94 321 P **P 09 21 06.8 -1.6**
comp=Z,21nm,1.1s
MTN Manton Dam 46.31 319 P **P 09 21 11.4 +0.1**
comp=Z,21nm,1.2s
MTN Manton Dam 46.31 319 P **P 09 21 11.1 -0.2**
comp=Z,21nm,1.2s
MTN Manton Dam 46.31 319 **P 09 21 09.2 -2.1**
DRS Darwin Rock St 46.78 319 P **P 09 21 17.2 +2.2**
TBI Tubuai 48.23 72 *e*S **S 09 28 24.2 -1.4**
comp=Z,8µm,28.2s
TBI *e*SS **SS 09 31 49.9 -4.9**
comp=Z,2µm,23.5s
TBI *e*LQ LQ 09 33 01.6
comp=Z,7µm,26.0s
TBI *e*LR LR 09 34 55.1
comp=Z,31µm,31.0s
TBI *e*LR LR 09 34 59.4
comp=Z,6µm,30.2s
BELA Belgrano 2 48.91 176 P **P 09 21 30.0 -0.8**
KRVT Keravat (AS076 49.14 350 LR LR 09 38 56.4
comp=Z,116nm,20.4s,baz=94,slow=32
RABL Rabaul 49.24 350 P **P 09 21 31.9 -2.1**
SYO Syowa Base 50.57 204 ⇑*i* P **P 09 21 45.3 +1.8**
ELIB Princess Elisa 51.52 196 *d*P **P 09 21 52.8 +2.0**
comp=Z,42nm,1.1s
ELIB *d*S **S 09 29 15.7 +4.9**
BATI Baumata 51.82 312 LR LR 09 44 12.8
comp=Z,2µm,18.6s,baz=194,slow=37
SOEI Soe 51.95 313 P **P 09 21 56.7 +2.0**
SOEI Soe 51.95 313 P **P 09 21 52.2 -2.5**
SOEI IAmb IAmb 09 22 30.1
comp=Z,72nm,1.0s
SOEI IAMs_20 IAMs_20 09 40 10.1
comp=Z,3µm,21.0s
SOEI Soe 51.95 313 P **P 09 21 56.4 +1.7**
comp=Z,60nm,0.8s
MANU Manus Island 52.02 344 P **P 09 21 52.8 -2.2**
PPT2 Papeete2 52.74 68 *e*P P 09 21 50.4 -10
comp=Z,184nm,27.5s
PPT2 *e*PP PP 09 23 51.2 -8.5
comp=Z,74nm,25.2s
PPT2 *e*S **S 09 29 23.2 -5.3**
comp=Z,2µm,28.8s
PPT2 *e*SS **SS 09 33 05.2 -1.7**
comp=Z,1µm,26.0s
PPT2 *e*LQ LQ 09 34 57.7
comp=Z,1µm,27.8s
PPT2 *e*LR LR 09 36 54.9
comp=Z,5µm,35.2s
PPT2 *e*LR LR 09 37 04.8
comp=Z,3µm,36.8s
PPT Papeete 52.76 68 LR LR 09 40 46.9
comp=Z,828nm,21.1s,baz=246,slow=32
JAY Jayapura 52.95 336 LR LR 09 43 24.9
comp=Z,1µm,19.1s,baz=166,slow=35
MMRI Maumere 53.85 311 IAMs_20 IAMs_20 09 41 09.4
comp=Z,1µm,20.0s
TROLL Troll, Antarti 54.11 188 ⇑P **P 09 22 11.4 +1.4**
comp=Z,1µm,0.9s
NVL N'lazarevskaya 54.27 192 *e*P **P 09 22 10.2 -0.8**
NVL *e*S **S 09 29 40.4 -7.6**
NVL pmax pmax
comp=Z,53nm,0.8s
NVL MLR MLR
comp=Z,969nm,15.0s
BNDI Bandanaira 54.41 322 P **P 09 22 15.2 +2.6**
BNDI Bandanaira 54.41 322 P **P 09 22 15.3 +2.7**
comp=Z,173nm,0.6s
SNAA Sanae 54.87 187 ⇑P **P 09 22 16.9 +1.4**
comp=Z,810nm,1.1s
SNAA Sanae 54.87 187 P **P 09 22 17.1 +1.7**
comp=Z,61nm,1.1s,baz=178,slow=7.8,SNR=59
SNAA LR LR 09 44 22.4
comp=Z,2µm,21.4s,baz=183,slow=34
comp=Z,61nm,1.1s
SNAA Sanae 54.87 187 *i* P **P 09 22 16.7 +1.3**
SNAA pmax pmax
comp=Z,90nm,1.3s
SNAA Sanae 54.87 187 P **P 09 22 14.6 -0.7**
SNAA Sanae 54.87 187 P **P 09 22 16.8 +1.4**
comp=Z,86nm,1.4s
FAKI Fak Fak 55.06 325 P **P 09 22 16.2 -1.2**
FAKI Fak Fak 55.06 325 P **P 09 22 15.3 -2.1**
FAKI IAmb IAmb 09 22 18.0
comp=Z,36nm,0.8s
FAKI IAMs_20 IAMs_20 09 43 57.5
comp=Z,2µm,19.0s
FAKI Fak Fak 55.06 325 P **P 09 22 16.0 -1.4**
comp=Z,48nm,0.8s
VNA3 Neumayer Olymp 55.67 184 ⇑P **P 09 22 22.5 +1.3**
comp=Z,42nm,0.9s
VNA3 Neumayer Olymp 55.67 184 P **P 09 22 22.8 +1.6**
comp=Z,87nm,1.1s
VNA2 Neumayer--Watz 55.88 185 ⇑P **P 09 22 24.1 +1.5**
comp=Z,28nm,0.8s,baz=157,slow=6.6
VNA2 Neumayer--Watz 55.88 185 P **P 09 22 24.1 +1.5**
comp=Z,78nm,1.1s
VNA1 Neumayer--Stat 56.20 185 ⇑P **P 09 22 26.7 +1.9**
comp=Z,97nm,1.0s
RKT Rikitea 56.94 85 *e*LQ LQ 09 36 34.6

comp=Z,7μm,25.0s
RKT eLR LR 09 38 58.4
comp=Z,12μm,33.5s
SIJI Sorong 57.31 325 LR LR 09 48 15.0
comp=Z,1μm,18.3s,baz=155,slow=37
PMSA Palmer Station 57.59 159 LR LR 09 44 16.2
comp=Z,431nm,18.5s,baz=216,slow=33
KAPI Kappang 58.18 311 LR LR 09 48 26.5
comp=Z,2μm,18.1s,baz=140,slow=37
KAPI Kappang 58.18 311 IAMs_20 IAMs_20 09 48 24.1
comp=Z,1μm,18.0s
SANI Sanana 58.18 319 P **P** **09 22 38.0 -1.5**
TNTI Ternate 60.23 322 P **P** **09 22 51.7 -2.1**
TNTI IAmb IAmb 09 24 14.8
comp=Z,30nm,1.1s
LUWI Luwuk 60.40 316 P **P** **09 22 56.6 +1.7**
LUWI Luwuk 60.40 316 **P** **09 22 53.1 -1.8**
LUWI Luwuk 60.40 316 P **P** **09 22 55.9 +0.9**
comp=Z,102nm,0.8s
LEM Lembang 62.65 298 LR LR 09 46 16.6
comp=Z,723nm,21.7s,baz=142,slow=32
H04S2 CROZET ISLANDS 63.09 227 T T 10 32 51.5
baz=139,slow=76,SNR=3685
H04S1 CROZET ISLANDS 63.09 227 T T 10 32 53.4
baz=139,slow=76,SNR=441
H04S3 CROZET ISLANDS 63.11 227 T T 10 32 48.4
baz=139,slow=76,SNR=3576
TOLI2 Tolitoli 63.18 315 P **P** **09 23 15.9 +2.3**
TOLI2 Tolitoli 63.18 315 **P** **09 23 11.9 -1.7**
TOLI2 IAmb IAmb 09 23 26.2
comp=Z,26nm,0.9s
TOLI2 Tolitoli 63.18 315 P **P** **09 23 14.8 +1.2**
comp=Z,38nm,1.4s
TAOE Nuku Hiva Isla 65.12 70 eLR LR 09 42 41.8
comp=Z,3μm,25.6s
KKM Kota Kinabalu 69.58 313 P **P** **09 23 57.7 +3.0**
KKM Kota Kinabalu 69.58 313 **P** **09 23 52.9 -1.8**
KKM IAmb IAmb 09 23 59.1
comp=Z,25nm,1.1s
KKM Kota Kinabalu 69.58 313 P **P** **09 23 57.2 +2.5**
comp=Z,24nm,1.1s
H11S2 WAKE ISLAND Hy 71.60 7 T T 10 42 03.6
baz=188,slow=76,SNR=7.1
H11S3 WAKE ISLAND Hy 71.60 7 T T 10 41 58.1
baz=188,slow=76,SNR=8.6
H11S1 WAKE ISLAND Hy 71.61 7 T T 10 42 02.7
baz=188,slow=76,SNR=8.3
H11N1 WAKE ISLAND Hy 72.82 7 T T 10 43 36.1
baz=188,slow=76,SNR=5.9
H11N3 WAKE ISLAND Hy 72.83 7 T T 10 43 31.9
baz=188,slow=76,SNR=7.0
H11N2 WAKE ISLAND Hy 72.84 7 T T 10 43 33.4
baz=188,slow=76,SNR=5.5
LL02 Futaleuf 74.20 143 P **P** **09 24 20.6 -1.4**
LL06 Loncomilla 74.39 142 P **P** **09 24 21.3 -1.9**
RPSI Rantau Prapat 75.30 295 P **P** **09 24 27.1 -1.6**
RPSI IAmb IAmb 09 24 36.0
comp=Z,20nm,1.2s
RPSI Rantau Prapat 75.30 295 P **P** **09 24 32.0 +3.3**
comp=Z,14nm,0.9s
PSI Prapat 75.38 295 P **P** **09 24 32.0 +2.6**
PSI Prapat 75.38 295 P **P** **09 24 27.1 -2.3**
PSI pmax pmax
comp=Z,20nm,1.2s
IPM Ipoh 75.66 298 P **P** **09 24 28.8 -2.1**
IPM IAmb IAmb 09 24 43.7
comp=Z,28nm,1.3s
KULM Kulim 76.54 298 P **P** **09 24 38.2 +2.4**
KULM Kulim 76.54 298 P **P** **09 24 35.5 -0.3**
comp=Z,19nm,1.5s
LR05 Currie 76.72 142 **P** **09 24 35.0 -1.6**
LR05 IAmb IAmb 09 24 40.7
comp=Z,89nm,1.6s
LR05 IAMs_20 IAMs_20 09 49 38.3
comp=Z,947nm,21.0s
PLCA Paso Flores 76.81 143 P **P** **09 24 38.4 +1.2**
comp=Z,13nm,1.3s,baz=203,slow=11,SNR=5.8
PLCA LR LR 09 50 52.5
comp=Z,549nm,19.3s,baz=212,slow=30
comp=Z,13nm,1.3s
PLCA Paso Flores 76.81 143 P **P** **09 24 35.3 -1.9**
PLCA IAmb IAmb 09 24 52.2
comp=Z,35nm,1.6s
PLCA Paso Flores 76.81 143 P **P** **09 24 39.9 +2.7**
comp=Z,16nm,1.5s
GO06 Curarrehue 77.48 142 P **P** **09 24 38.8 -2.2**
GO06 IAMs_20 IAMs_20 09 50 36.5
comp=Z,1μm,21.0s
GO06 Curarrehue 77.48 142 P **P** **09 24 43.3 +2.3**
comp=Z,14nm,1.4s
H03S2 Juan Fernandez 79.42 134 T T 10 53 01.5
baz=210,slow=74,SNR=1200
H03S1 Juan Fernandez 79.42 134 T T 10 52 59.0
baz=210,slow=74,SNR=1471
H03S3 Juan Fernandez 79.43 134 T T 10 52 58.4
baz=210,slow=74,SNR=1340
H03N2 Juan Fernandez 79.75 133 T T 10 53 23.0
baz=227,slow=74,SNR=662
H03N1 Juan Fernandez 79.76 133 T T 10 53 23.2
baz=35,slow=74,SNR=409
BI02 San Fabin de 80.11 140 P **P** **09 24 57.6 +2.1**
comp=Z,8.2nm,1.4s
BO02 Sierra Bellavi 81.95 140 **P** **09 25 02.4 -2.9**
BO02 IAmb IAmb 09 25 21.6
comp=Z,26nm,0.8s
BO02 Sierra Bellavi 81.95 140 P **P** **09 25 07.3 +2.0**
comp=Z,36nm,1.2s
BO01 Tunca 82.18 140 P **P** **09 25 07.4 +1.0**
comp=Z,12nm,1.5s
H08S2 Diego Garcia H 82.42 267 T T 10 55 51.4
baz=142,slow=76,SNR=3001
H08S1 Diego Carcia H 82.44 267 T T 10 55 49.8
baz=142,slow=76,SNR=2815
H08S3 Diego Garcia H 82.44 267 T T 10 55 52.9
baz=142,slow=76,SNR=3757
VA01 Torpederas 83.16 138 IAMs_20 IAMs_20 09 55 31.1
comp=Z,1μm,21.0s
PEL Peldehue 83.44 139 P **P** **09 25 15.6 +2.5**
comp=Z,12nm,1.2s
VA03 San Esteban 83.83 139 P P 09 25 21.7 +6.6
comp=Z,17nm,2.2s
QIZ Qiongzhong 83.89 313 P **P** **09 25 16.9 +1.6**
QIZ S **S** **09 35 40.8 +2.0**
QIZ L L
comp=Z,1μm,12.3s
QIZ L L
comp=Z,850nm,10.8s
QIZ L L
comp=Z,1μm,5.9s
CO04 Los Peladeros 84.29 138 P **P** **09 25 20.3 +2.6**
comp=Z,21nm,1.8s
YHNB Yeheng 84.45 325 P **P** **09 25 17.2 -0.8**
GRHM Grahamstown, E 84.93 218 P **P** **09 25 19.4 -1.2**
GRHM IAmb IAmb 09 27 04.6
comp=Z,46nm,1.2s
CO03 El Pedregal 85.47 138 P **P** **09 25 25.0 +1.6**
comp=Z,26nm,2.1s
VOI Vohitsoka 85.63 239 P P 09 25 29.7 +5.3
comp=Z,31nm,1.4s
ZON Zonda 85.64 140 P **P** **09 25 22.2 -2.0**
ZON pmax pmax
comp=Z,15nm,0.9s
ZON Zonda 85.64 140 P **P** **09 25 22.2 -2.0**
ZON IAmb IAmb 09 26 26.3
comp=Z,15nm,0.9s
CFA Coronel Fontan 85.75 140 LR LR 09 56 02.7
comp=Z,161nm,21.5s,baz=296,slow=30
CO01 Juntas del Tor 86.47 138 P **P** **09 25 30.6 +2.1**
comp=Z,18nm,1.6s
AC05 El Transito 87.40 138 IAMs_20 IAMs_20 09 54 29.3
comp=Z,1μm,20.0s
AC05 El Transito 87.40 138 P P 09 25 36.4 +3.4
comp=Z,22nm,1.0s
SUR Sutherland 87.70 214 LR LR 10 00 09.3
comp=Z,301nm,21.7s,baz=160,slow=32
GO03 Copiapo 88.52 137 P **P** **09 25 40.3 +2.0**
comp=Z,20nm,1.1s
CMAR Chiang Mai Arr 88.54 304 P **P** **09 25 38.5 +0.3**
comp=Z,3.9nm,0.6s,baz=172,slow=4.2,SNR=11
comp=Z,3.9nm,0.6s
CMAR Chiang Mai Arr 88.54 304 eP **P** **09 25 39.6 +1.4**
CMAR pmax pmax
comp=Z,9.0nm,0.8s
CMAR Chiang Mai Arr 88.54 304 P **P** **09 25 36.8 -1.4**
SLVN Son La 88.59 309 P **P** **09 25 41.2 +2.8**
CHTO Chiang Mai 88.84 304 P **P** **09 25 41.3 +1.7**
CHTO Chiang Mai 88.84 304 P **P** **09 25 38.1 -1.5**
CHTO pmax pmax
comp=Z,31nm,1.2s
CHTO Chiang Mai 88.84 304 P **P** **09 25 38.0 -1.5**
CHTO IAmb IAmb 09 25 47.3
comp=Z,31nm,1.2s
CHTO Chiang Mai 88.84 304 P **P** **09 25 40.9 +1.4**
comp=Z,22nm,1.0s
PALK Pallekele 89.38 283 LR LR 09 57 03.1
comp=Z,580nm,21.6s,baz=136,slow=30
BOSA Boshof 89.54 219 P **P** **09 25 43.8 +0.6**
comp=Z,6.8nm,0.9s,baz=160,slow=5.6,SNR=7.7
BOSA LR LR 09 59 42.6
comp=Z,449nm,19.5s,baz=160,slow=31
comp=Z,6.8nm,0.9s
BOSA Boshof 89.54 219 P **P** **09 25 40.6 -2.5**
AC02 Maricunga 89.64 138 P **P** **09 25 47.1 +3.0**
comp=Z,19nm,1.7s
PB14 IPOC Station P 91.06 135 P **P** **09 25 47.8 -2.8**
PB14 IAmb IAmb 09 25 54.9
comp=Z,28nm,1.3s
MJAR Matsushiro Arr 91.32 343 P **P** **09 25 50.3 -0.5**
comp=Z,2.2nm,0.8s,baz=140,slow=2.7,SNR=8.1
comp=Z,2.2nm,0.8s
MJAR Matsushiro Arr 91.32 343 P **P** **09 25 49.6 -1.2**
MJAR IAmb IAmb 09 25 55.5
comp=Z,20nm,1.4s
MAJO Matsushiro 91.32 343 P **P** **09 25 52.3 +1.5**
MAJO Matsushiro 91.32 343 *i* P **P** **09 25 52.3 +1.5**
MAJO pmax pmax
comp=Z,13nm,1.0s
MAJO Matsushiro 91.32 343 P **P** **09 25 49.7 -1.0**
MAJO IAmb IAmb 09 26 13.7
comp=Z,19nm,0.9s
MAJO Matsushiro 91.32 343 P P 09 25 54.6 +3.8
comp=Z,26nm,1.0s
CPSB Cacapava Do Su 91.84 152 P **P** **09 25 56.4 +2.8**
comp=Z,17nm,1.2s
NJ2 Nanjing 92.09 326 *e*P **P** **09 25 57.6 +3.2**
NJ2 pmax pmax
comp=Z,10.0nm,0.6s
LBTB Lobatse 92.65 220 LR LR 10 00 36.8
comp=Z,471nm,21.8s,baz=160,slow=31
SALTA 93.09 139 P **P** **09 25 58.9 -1.2**
comp=Z,8.1nm,1.4s
KSRS Korea Array 94.44 335 P **P** **09 26 04.8 -0.3**
comp=Z,0.6nm,0.6s,baz=156,slow=5.2,SNR=4.2
KSRS PP **PP** **09 29 53.6 +0.5**
comp=Z,2.2nm,0.9s,baz=177,slow=8.8,SNR=5.0
comp=Z,0.6nm,0.6s
CPUP Villa Florida 94.45 147 P **P** **09 26 07.3 +1.6**
comp=Z,0.6nm,0.3s,baz=202,slow=8.4,SNR=3.7
CPUP LR LR 10 02 57.1
comp=Z,542nm,20.2s,baz=226,slow=32
comp=Z,0.6nm,0.3s
INCN Inchon 94.80 334 IAMs_20 IAMs_20 10 08 56.1
comp=Z,788nm,18.0s
MSEY Mahe Island 94.91 256 IAMs_20 IAMs_20 09 59 45.1
comp=Z,689nm,20.0s
MATP Matopo 95.56 225 LR LR 10 02 49.1
comp=Z,2μm,20.6s,baz=152,slow=31
CD2 Chengdu 96.91 314 *e*P **P** **09 26 15.8 -0.8**
XAN Xi'an 97.50 319 P Pdif 09 26 24.6 +5.3
XAN pmax pmax
comp=Z,14nm,1.1s
XAN L L
comp=Z,1μm,16.7s
XAN L L
comp=Z,2μm,15.8s
DL2 Dalian 97.53 331 S **S** **09 37 35.5 -7.9**
DL2 pmax pmax
comp=Z,39nm,1.2s
DL2 pmax pmax
comp=Z,300nm,5.9s
DL2 LR LR
comp=N,740nm,16.7s
DL2 LR LR
comp=E,760nm,17.1s
DL2 LR LR
comp=Z,890nm,23.5s
DL2 Dalian 97.53 331 P Pdif 09 26 22.8 +3.6
DL2 S **S** **09 37 49.4 +6.0**
DL2 pmax pmax
comp=Z,46nm,1.8s
DL2 L L
comp=Z,710nm,16.0s
DL2 L L
comp=Z,710nm,17.0s
ASAJ Asahikawa 98.05 347 LR LR 10 06 56.5
comp=Z,437nm,20.3s,baz=164,slow=33
NNA Nana 99.07 124 LR LR 10 02 32.2
comp=Z,348nm,20.1s,baz=208,slow=30
USRK Ussuriysk Ar. 99.92 340 LR LR 10 10 44.0
comp=Z,616nm,18.6s,baz=137,slow=35
YSS Yuzhno-Sakhali 100.82 348 *e*P **Pdif** **09 26 36.4 +2.8**
YSS *e* 09 30 51.0
YSS *e*S 09 38 13.0
YSS *e*SS SS 09 45 23.3 +14
YSS pmax pmax
comp=Z,20nm,1.3s
CN2 Changchun 101.05 335 *e*P **Pdif** **09 26 37.5 +2.8**
CN2 *e*sP pwP 09 26 43.0 +2.2
CN2 *e*S 09 38 12.5
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 L L
comp=Z,100nm,14.0s
CN2 L L
comp=Z,200nm,14.0s
HHC Hu-ho-hao-te 102.54 324 *e*P **Pdif** **09 26 44.0 +2.4**
HHC SKS **SKSac** **09 37 22.3 +1.5**
HHC SS **SS** **09 45 36.5 +2.5**
HHC pmax pmax
comp=Z,13nm,0.6s
HHC L L
comp=Z,700nm,16.0s
HHC L L
comp=Z,490nm,18.3s
HHC L L
comp=Z,610nm,16.8s
SONM Songino Array 110.44 325 PP **PP** **09 31 54.8 +1.4**
comp=Z,0.6nm,0.8s,baz=140,slow=9.4,SNR=4.0
MBAR Mbarara 111.86 237 IAMs_20 IAMs_20 10 11 13.1
comp=Z,420nm,18.0s
JRSC Jasper Ridge 112.43 57 IAMs_20 IAMs_20 10 15 06.2
comp=Z,755nm,20.0s
WMQ Urumqi 114.72 311 *e*PKP **PKiKP** **09 31 27.6 +2.3**
WMQ L L
comp=Z,510nm,24.2s
WMQ L L
comp=Z,880nm,22.3s
KNGR Kungurtug, Tuv 115.97 321 *i* PKiKP **PKiKP** **09 31 29.6 +2.0**
TXAR Lajitas Array 116.58 76 PKKPbc PKKPbc 09 41 58.4 +3.1
comp=Z,0.4nm,0.9s,baz=64,slow=2.9,SNR=4.1
KSH2 Kashi 117.15 300 PKP **PKiKP** **09 31 33.0 +2.7**
KSH2 L L
comp=Z,260nm,13.4s
KSH2 L L
comp=Z,190nm,13.4s
KSH2 L L
comp=Z,530nm,16.5s
SHLS Shalkode 118.13 305 *e*PKiKP **PKiKP** **09 31 33.4 +1.4**
SHLS Shalkode 118.13 305 *e*PKP **PKiKP** **09 31 33.5 +1.4**
UZB Uzynbulak 118.34 305 *e*PKiKP **PKiKP** **09 31 34.3 +1.9**
UZB Uzynbulak 118.34 305 *e*PKP **PKiKP** **09 31 34.3 +1.9**
SATY Saty 118.58 304 *e*PKiKP **PKiKP** **09 31 34.7 +1.8**
SATY *e* 09 32 50.6
SATY Saty 118.58 304 *e*PKP **PKiKP** **09 31 34.7 +1.8**
SATY *e*PP **PP** **09 32 50.7 -0.4**
KPKS Kokpek 118.75 305 *e*PKiKP **PKiKP** **09 31 35.1 +1.9**
KPKS Kokpek 118.75 305 *e*PKP **PKiKP** **09 31 35.1 +1.9**
ZSN Zaisan 118.78 312 *e*PKiKP **PKiKP** **09 31 35.2 +2.2**
ZSN Zaisan 118.78 312 *e*PKP **PKiKP** **09 31 35.2 +2.2**
TNSS Tian-Shan 119.30 303 *e*PKiKP **PKiKP** **09 31 36.1 +1.5**
TNSS Tian-Shan 119.30 303 *e*PKP **PKiKP** **09 31 36.2 +1.5**
MDOK Medeo 119.34 304 *e*PKiKP **PKiKP** **09 31 36.2 +1.8**
MDOK Medeo 119.34 304 *e*PKP **PKiKP** **09 31 36.3 +1.8**
AAA Alma-Ata 119.44 304 *e*PKiKP **PKiKP** **09 31 36.4 +1.9**
AAA Alma-Ata 119.44 304 *e*PKP **PKiKP** **09 31 36.5 +1.9**
MK31 Makanchi Array 119.47 310 *i* PKiKP **PKiKP** **09 31 36.3 +1.9**
MKAR Makanchi Array 119.47 310 PKP **PKiKP** **09 31 34.5 +0.2**
comp=Z,4.3nm,1.1s,baz=151,slow=2.8,SNR=9.9
MKAR Makanchi Array 119.47 310 **PKiKP** **09 31 35.6 +1.2**
TDK Taldyqorghan 120.00 306 *e*PKiKP **PKiKP** **09 31 37.5 +2.1**
TDK Taldyqorghan 120.00 306 *e*PKP **PKiKP** **09 31 37.5 +2.1**
AAK Ala-Archa 120.25 302 *i* PKiKP **PKiKP** **09 31 38.4 +2.2**
IUG Iuzhnay 122.23 298 *e*PKiKP **PKiKP** **09 31 41.9 +1.9**
IUG Iuzhnay 122.23 298 *e*PKP **PKiKP** **09 31 41.9 +1.9**
CHM Chimkent 122.58 298 *e*PKiKP **PKiKP** **09 31 42.4 +1.8**
CHM Chimkent 122.58 298 *e*PKP **PKiKP** **09 31 42.4 +1.8**
BRLS Borolday 122.95 299 *e*PKiKP **PKiKP** **09 31 42.8 +1.5**
BRLS Borolday 122.95 299 *e*PKP **PKiKP** **09 31 42.8 +1.5**
NEW Newport 122.98 52 PKP **PKiKP** **09 31 41.5 +0.3**
comp=Z,3.4nm,0.9s,baz=310,slow=2.8,SNR=5.3
RAYN Ar Rayn 123.08 266 IAMs_20 IAMs_20 10 14 58.0
comp=Z,569nm,20.0s
ZALV Zalesovo Beam 123.56 317 PKP **PKiKP** **09 31 41.4 -0.7**
comp=Z,0.5nm,0.4s,baz=180,slow=3.0,SNR=4.1
KURBB Kurchatov Arra 123.95 311 PKP **PKiKP** **09 31 42.4 -0.6**
comp=Z,4.4nm,1.0s,baz=147,slow=1.6,SNR=6.8
KURK Kurchatov 123.97 311 PKiKP **PKiKP** **09 31 42.4 -0.6**
KURK Kurchatov 123.97 311 **PKiKP** **09 31 47.0 +3.9**
ILAR Eielson Array 124.52 25 PKP **PKiKP** **09 31 43.8 +0.1**
comp=Z,3.2nm,0.9s,baz=258,slow=2.9,SNR=17
ILAR PP **PP** **09 33 30.9 -0.1**
comp=Z,4.0nm,1.2s,baz=218,slow=6.5,SNR=4.5
ILAR PKKPbc **PKKPbc** **09 41 27.4 +1.3**
comp=Z,0.6nm,0.9s,baz=33,slow=1.5,SNR=4.6
ILAR Eielson Array 124.52 25 **PKiKP** **09 31 46.9 +3.2**
OK052 Battle Ridge R 125.37 76 IAMs_20 IAMs_20 10 13 10.3
comp=Z,740nm,20.0s
BVAR Borovoye Array 129.32 309 PKP **PKiKP** **09 31 53.1 -0.6**
comp=Z,7.5nm,1.1s,baz=127,slow=3.9,SNR=9.6
BORK Borovoye 129.37 309 *i* PKiKP **PKiKP** **09 31 56.4 +2.7**
SMRT St. Maarten 131.65 120 IAMs_20 IAMs_20 10 14 12.8
comp=Z,333nm,21.0s
DBIC Dimbokro 132.01 200 PKP **PKiKP** **09 31 59.9 -0.5**
comp=Z,4.7nm,0.8s,baz=215,slow=5.0,SNR=4.4
NRIK Noril'sk 133.00 332 PKP **PKiKP** **09 31 59.6 -0.9**
comp=Z,3.1nm,0.7s,baz=274,slow=3.3,SNR=4.3
YKA Yellowknife Ar 133.23 39 PKP **PKiKP** **09 32 01.8 +0.6**
comp=Z,0.7nm,0.9s,baz=257,slow=1.7,SNR=1.9
YKA PP **PP** **09 34 29.6 +1.6**
comp=Z,3.6nm,1.2s,baz=232,slow=5.3,SNR=5.0
TORD Torodi Ar. Bea 136.49 212 PKP **PKiKP** **09 32 07.0 -2.4**
comp=Z,3.1nm,0.7s,baz=190,slow=2.7,SNR=4.2
ARTI Arti 136.96 307 *i* PKiKP **PKiKP** **09 32 11.0 +2.0**
ARPR Arapgir-MALATY 138.35 275 IAMs_20 IAMs_20 10 23 44.5
comp=Z,417nm,20.0s
KBZ Khabaz 138.47 283 *i* PKiKP **PKiKP** **09 32 12.9 +0.4**
KIV Kislovodsk 138.73 283 *e*PKiKP **PKiKP** **09 32 13.0 -0.2**
KIV pmax pmax
comp=Z,9.0nm,1.0s
MMNY Mt. Morris Dam 140.87 81 IAMs_20 IAMs_20 10 14 55.1
comp=Z,427nm,20.0s
BRTR Keskin Array B 141.57 272 PKP **PKiKP** **09 32 16.9 -2.3**
comp=Z,2.0nm,0.9s,baz=129,slow=4.0,SNR=6.4
VRH Novokhopyorsk 143.12 293 *e*PKiKP **PKiKP** **09 32 21.4 -0.3**
VRH pmax pmax
comp=Z,8.0nm,0.4s
IDI Anoyia 143.90 259 PKP **PKiKP** **09 32 21.3 -2.7**
comp=Z,12nm,0.9s,baz=128,slow=3.2,SNR=4.6
TAM Tamanrasset 143.98 223 PKiKP **PKPdf** **09 32 19.5 -1.7**
TAM Tamanrasset 143.98 223 PKPdf **PKPdf** **09 32 19.4 -1.7**
RES Resolute Bay 144.25 26 PKiKP **PKPdf** **09 32 18.0 -1.8**
RES Resolute Bay 144.25 26 PKPdf **PKPdf** **09 32 18.0 -1.8**
VORD Divnogorie 144.37 291 *e*PKiKP **PKiKP** **09 32 22.1 -2.2**
VORD pmax pmax
comp=Z,10.0nm,1.1s
VSR Storozhevoye 144.56 291 *e*PKiKP **PKiKP** **09 32 23.1 -1.6**
VSR pmax pmax
comp=Z,10.0nm,0.9s
VORR Voronezh 144.74 292 *e*PKiKP **PKiKP** **09 32 24.4 -0.6**
VORR pmax pmax
comp=Z,30nm,0.4s
TRQ Mont Tremblant 144.81 79 PKPdf **PKPdf** **09 32 20.9 -0.9**
LPSR Galich'ya Gora 145.29 293 *e*PKiKP **PKiKP** **09 32 25.9 -0.3**
LPSR pmax pmax
comp=Z,50nm,0.9s
I63A Otisfield 146.00 85 PKPdf **PKPdf** **09 32 22.4 -1.3**
EZN Ezine 146.03 266 PKP **PKiKP** **09 32 25.6 -2.5**
ITM Ithomi 146.93 258 PKPdf **PKPdf** **09 32 24.9 -0.7**
MOS Moscow 147.21 298 *e*PKP2 **PKiKP** **09 32 33.1 +3.1**
MOS pmax pmax
comp=Z,51nm,0.9s
PKME Peaks-Kenny Pk 147.44 84 PKPdf **PKPdf** **09 32 24.2 -1.9**
OBN Obninsk 147.56 297 *e*PKP2 **PKPbc** **09 32 27.8 -0.8**
OBN *e* 09 35 58.9
OBN *e*SS SS 09 54 52.2 -7.2
OBN pmax pmax
comp=Z,68nm,1.1s
OBN MLR MLR
comp=Z,253nm,19.0s
KLMR Klimovskoe 147.74 308 *e*PKP2 **PKPbc** **09 32 27.9 -1.1**
KLMR pmax pmax
comp=Z,83nm,1.2s
AGG Agios Georgios 147.91 261 PKHKP PKPpre 09 32 24.9
AGG Agios Georgios 147.91 261 PKPdf **PKPdf** **09 32 24.9 -2.3**
MLR Muntele Rosu 149.52 274 PKPbc **PKiKP** **09 32 35.0 -0.3**
comp=Z,7.3nm,0.8s,baz=273,slow=23,SNR=7.8
MLR Muntele Rosu 149.52 274 **PKiKP** **09 32 34.9 -0.5**
AKASG Malin Array Be 150.01 285 PKPbc **PKiKP** **09 32 34.4 -1.5**
comp=Z,3.0nm,0.5s,baz=91,slow=2.3,SNR=11
AKBB Malin Array Si 150.01 285 *i* PKHKP PKPpre 09 32 32.3
AK16 Malin Array Si 150.06 285 PKP **PKPbc** **09 32 32.6 -2.6**
LVZ Lovozero 150.55 321 *i* PKiKP **PKPbc** **09 32 32.6 -3.3**
LVZ pmax pmax
comp=Z,33nm,1.0s
SPITS Spitsbergen Ar 151.79 345 PKPbc **PKiKP** **09 32 38.0 -1.0**
comp=Z,30nm,0.8s,baz=96,slow=5.1,SNR=7.3
SPITS Spitsbergen Ar 151.79 345 PKiKP **PKiKP** **09 32 38.0 -1.0**
MNK Minsk 152.12 292 *i* PKiKP **PKiKP** **09 32 42.5 +2.4**
MNK *i* 09 36 22.6
MNK *i* 09 39 43.2
MNK *i* SS SS 09 55 49.8 -0.6
MNK *i* SSS SSS 10 01 35.9
MNK pmax pmax
comp=N,23nm,0.9s
MNK pmax pmax
comp=E,22nm,0.7s
MNK pmax pmax
comp=Z,24nm,0.9s
MNK Minsk 152.12 292 *i* PKiKP **PKiKP** **09 32 42.6 +2.4**
comp=E,22nm,0.7s
MNK *i* PKiKP **PKiKP** **09 32 42.6 +2.4**
comp=N,23nm,0.9s
MNK *i* PKiKP **PKiKP** **09 32 42.6 +2.4**
comp=Z,24nm,0.9s
MNK *i* PP **PP** **09 36 22.6 +0.2**
MNK *i* PP **PP** **09 36 22.6 +0.2**
MNK *i* PP **PP** **09 36 22.6 +0.2**
MNK *i* SKS **SKSdf** **09 39 43.2 +3.2**
MNK *i* SKKS **SKKSdf** **09 48 30.1 +4.3**
MNK *i* SS **SS** **09 55 49.8 -0.6**
MNK *i* SSS SSS 10 01 35.9
MNK *i* LQ LQ 10 33 37.2
MNK *i* LR LR 10 44 32.0
SCHQ Schefferville 152.83 67 PKPab **PKPab** **09 32 53.3 +0.6**
comp=Z,26nm,1.0s,baz=240,slow=5.8,SNR=8.9
SCHQ Schefferville 152.83 67 **PKPab** **09 32 53.0 +0.3**
KEST Kesra 153.01 242 PKPbc **PKiKP** **09 32 44.4 +1.6**
comp=Z,5.8nm,0.6s,baz=313,slow=12,SNR=3.8
KOLS Kolonicke sedl 153.36 278 *e*PKiKP **PKiKP** **09 32 46.5 +3.5**
KOLS *e* 09 32 55.7
KOLS Kolonicke sedl 153.36 278 *e*PKP **PKiKP** **09 32 46.5 +3.5**
KOLS *e* 09 32 55.7
ARCES ARCESS Array B 153.61 326 PKPbc **PKiKP** **09 32 42.3 -0.5**
comp=Z,9.7nm,0.9s,baz=56,slow=0.4,SNR=9.1
FINES FINESS Array B 154.26 307 PKPbc **PKiKP** **09 32 45.1 +0.7**
comp=Z,5.0nm,0.7s,baz=113,slow=4.4,SNR=7.1
VYHS Vyhne 155.23 275 *e*PKP2 **PKPab** **09 33 07.1 +4.0**
VYHS Vyhne 155.23 275 *e*PKP **PKPab** **09 33 07.1 +4.0**
JAVC Velka Javorina 156.09 275 *e*PKP **PKPdf** **09 32 42.6 +3.5**
RONA Rosalia, Austr 156.41 271 *e*PKP **PKPab** **09 33 07.6 -0.6**
comp=Z,6.7nm,0.9s
MORC Moravsky Berou 156.53 277 *e*PKP **PKPdf** **09 32 40.7 +1.0**
ARSA Arzberg 156.66 270 *e*PKP **PKPab** **09 33 12.0 +2.7**
comp=Z,13nm,1.0s
SOKA Soboth 156.69 268 *e*PKP **PKPab** **09 33 11.7 +2.2**
comp=Z,5.6nm,0.8s
WINA Alland / Wiene 156.72 272 *e*PKP **PKPab** **09 33 11.1 +1.6**
comp=Z,3.9nm,0.9s
CONA Conrad Observa 156.77 272 *i* PKP **PKPab** **09 33 11.3 +1.5**
comp=Z,4.5nm,1.1s
OBKA Obir 156.89 267 *e*PKP **PKPab** **09 33 11.7 +1.3**
comp=Z,2.3nm,0.8s
KRUC Moravsky 156.93 275 *e*PKP **PKPdf** **09 32 44.2 +4.1**
KRLC Kraliky 157.10 277 *e*PKP2 **PKPab** **09 33 12.6 +1.5**
KRLC Kraliky 157.10 277 *e*PKPAB **PKPab** **09 33 12.6 +1.5**
SESA Seetaler Alpe, 157.17 269 *e*PKP **PKPab** **09 33 12.7 +1.0**
comp=Z,4.6nm,0.8s
DPC Dobruska-Polom 157.48 278 *e*PKP2 **PKPab** **09 33 17.6 +4.9**

DPC	**Dobruska-Polom**	**157.48**	**278**	*e*PKPAB	**PKPab**	**09**	**33**	**17.6 +4.9**
MYKA	**Terra Mystica**	**157.50**	**267**	*e*PKP	**PKPab**	**09**	**33**	**15.3 +2.4**
	comp=Z,2.5nm,0.5s							
MOA	**Molln**	**157.69**	**270**	*e*PKP	**PKPab**	**09**	**33**	**15.1 +1.4**
	comp=Z,1.2nm,0.4s							
KBA	**Koelnbreinsper**	**157.89**	**268**	*e*PKP	**PKPab**	**09**	**33**	**15.5 +0.8**
	comp=Z,6.8nm,1.3s							
BIOA	**Bad Ischl, Aus**	**158.00**	**269**	*e*PKP	**PKPab**	**09**	**33**	**16.4 +1.3**
	comp=Z,1.4nm,0.3s							
ABTA	**Abfaltersbach**	**158.23**	**266**	*i* PKP	**PKPab**	**09**	**33**	**17.2 +1.1**
	comp=Z,7.5nm,1.0s							
LESA	**Schwarzleotal**	**158.46**	**268**	*e*PKP	**PKPab**	**09**	**33**	**18.3 +1.2**
	comp=Z,4.9nm,0.9s							
GERES	**GERESS Array B**	**158.46**	**272**	PKPab	**PKPab**	**09**	**33**	**18.6 +1.5**
	comp=Z,1.8nm,0.8s,baz=134,slow=3.9,SNR=6.3							
KHC	**Kasperske Hory**	**158.66**	**273**	*e*PKP2	**PKPab**	**09**	**33**	**20.5 +2.6**
KHC	**Kasperske Hory**	**158.66**	**273**	*e*PKPAB	**PKPab**	**09**	**33**	**20.5 +2.6**
WTTA	**Wattenberg**	**159.01**	**266**	*e*PKP	**PKPab**	**09**	**33**	**21.9 +2.3**
	comp=Z,1.1nm,1.0s							
SQTA	**Sankt Quirin**	**159.24**	**266**	*e*PKP	**PKPab**	**09**	**33**	**21.3 +0.8**
	comp=Z,8.5nm,1.0s							
MOTA	**Moosalm**	**159.37**	**266**	*i* PKP	**PKPab**	**09**	**33**	**22.1 +1.0**
	comp=Z,9.3nm,1.5s							
FETA	**Feichten**	**159.44**	**265**	*i* PKP	**PKPab**	**09**	**33**	**22.6 +1.1**
	comp=Z,7.1nm,0.8s							
RETA	**Reutte**	**159.64**	**266**	*i* PKP	**PKPab**	**09**	**33**	**23.4 +1.2**
	comp=Z,9.5nm,1.0s							
CLL	**Collm**	**159.78**	**278**	*i* PKIKP	**PKPdf**	**09**	**32**	**47.4 +3.9**
CLL				*i*		09	33	25.5
CLL				pmax	pmax			
	comp=Z,5.0nm,0.9s							
CLL				pmax	pmax			
	comp=Z,16nm,1.4s							
CLL				MLR	MLR			
	comp=Z,400nm,21.5s							
CLL	**Collm**	**159.78**	**278**	*i* PKPdf	**PKPdf**	**09**	**32**	**47.4 +3.9**
	comp=Z,5.0nm,0.9s							
CLL				*i* PKPab	**sPKPab**	**09**	**33**	**25.5 +0.5**
	comp=Z,16nm,1.4s							
CLL				*e*PP	**PP**	**09**	**37**	**11.0 +5.9**
CLL				LH		10	17	00.0
CLL				LV		10	31	00.0
CLL				AMS	AMS	10	49	00.0
	comp=N,300nm,21.5s							
CLL				AMS	AMS	10	49	00.0
	comp=E,300nm,23.8s							
CLL				AMS	AMS	10	54	00.0
	comp=Z,400nm,21.5s							
DAVOX	**Davos/Dischmat**	**159.83**	**264**	PKPab	**PKPab**	**09**	**33**	**25.4 +2.1**
	comp=Z,11nm,0.9s,baz=259,slow=5.2,SNR=9.8							
DAVA	**Damuels**	**160.07**	**265**	*i* PKP	**PKPab**	**09**	**33**	**25.5 +1.2**
	comp=Z,13nm,0.9s							
HFS	**Hagfors**	**160.37**	**304**	PKPab	**PKPab**	**09**	**33**	**26.0 +1.1**
	comp=Z,4.9nm,0.8s,baz=165,slow=6.0,SNR=6.3							
HFS	**Hagfors**	**160.37**	**304**	PKP2	**PKPab**	**09**	**33**	**26.0 +1.1**
NOA	**NORSAR Array B**	**161.45**	**307**	PKPab	**PKPab**	**09**	**33**	**29.9 +0.3**
	comp=Z,2.1nm,1.0s,baz=74,slow=4.6,SNR=3.2							
NOA	**NORSAR Array B**	**161.45**	**307**	PKP2	**PKPab**	**09**	**33**	**30.0 +0.3**
ESDC	**Sonseca Array**	**162.60**	**226**	PKP	**PKPdf**	**09**	**32**	**48.9 +1.9**
	comp=Z,1.5nm,1.0s,baz=358,slow=1.3,SNR=6.7							
ESDC				PKPab	**sPKPab**	**09**	**33**	**37.0 -0.8**
	comp=Z,1.9nm,1.0s,baz=156,slow=3.7,SNR=5.1							
ESDC	**Sonseca Array**	**162.60**	**226**		**PKPdf**	**09**	**32**	**51.8 +4.8**
BMRD	**Maredsous**	**164.40**	**269**	*d*PKPdf	**PKPdf**	**09**	**32**	**46.8 -1.4**

REN ***13*** *09:13:51.9±1.9,38.˚17N±0.˚05×117.˚85W±0.˚05,h5km±3km, Error ellipse: s-maj=9.1km s-min=2.2km az=212.0*

NEIC ***13*** *09:13:51.4±1.2,38.˚19N±0.˚02×117.˚82W±0.˚05,h11km±3km, mb5.1/131,ML5.3/140,Ms_20 5.0/376,Mwr5.3/175, Mww5.4/73,ML5.3/13(REN),Error ellipse: s-maj=5.6km s-min=2.7km az=70.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.16; $M_{\theta\theta}$-0.36; $M_{\phi\phi}$0.53; $M_{r\theta}$-0.31; $M_{\theta\phi}$0.89; $M_{\phi r}$0.21; Fault plane solution: $M_0$1.07000×10^{17} NP1:ϕ_s74.52000°,δ73.75000°, λ-15.64000°. NP2:ϕ_s169.00000°,δ75.00000°, λ-163.16000°. Principal axes: T 1.0773, Plg1.0000°, Azm302.0000°; N -0.0070, Plg68.0000°, Azm210.0000°; P -1.0703, Plg22.0000°, Azm32.0000°;*

NEIC ***13*** *09:13:51.3,38.˚18N×117.˚85W,h1km*

NEIC ***13*** *09:13:51.3,38.˚18N×117.˚84W,h8km*

MOS ***13*** *09:13:52.3±1.1,38.˚18N×117.˚79W,h14km,mb5.3/24, MS4.9/10,Error ellipse: s-maj=7.1km s-min=4.6km az=95.3*

IDC ***13*** *09:13:52.2±0.5,38.˚20N×117.˚81W,h0km,mb4.5/20, mbtmp4.5/29,ML4.3/7,MS4.9/65,Error ellipse: s-maj=9.5km s-min=6.9km az=54.0*

GFZ ***13*** *09:13:55.9,38.˚24N×117.˚76W,h10km,Mw5.3/59, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.25; $M_{\theta\theta}$-0.32; $M_{\phi\phi}$0.58; $M_{r\theta}$-0.13; $M_{\theta\phi}$0.88; $M_{\phi r}$-0.13; Fault plane solution: $M_0$1.02659×10^{17} NP1: ϕ_s166.13047°,δ81.56645°,λ177.97243°. NP2: ϕ_s256.42795°,δ87.99437°,λ8.43876°. Principal axes: T 1.1357, Plg7.3802°, Azm121.5746°; N -0.2738, Plg81.3279°, Azm269.7014°; P -0.8620, Plg4.5287°, Azm30.9868°;*

GCMT ***13*** *09:13:56.4±0.1,38.˚22N±0.˚01×117.˚78W±0.˚01,h15km, MW5.4/158,Moment Tensor Solution. s107,c173; s158,c308; Duration: 1τ2 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.37±.02; $M_{\theta\theta}$-0.47±.02; $M_{\phi\phi}$0.84±.02; $M_{r\theta}$-0.54±.06; $M_{\theta\phi}$1.38±.02; $M_{\phi r}$-0.09±.06; Best double couple: $M_0$1.63500×10^{17} NP1:ϕ_s168.00000°,δ68.00000°, λ-172.00000°. NP2:ϕ_s75.00000°,δ83.00000°, λ-22.00000°. Principal axes: T 1.7740, Plg10.0000°, Azm124.0000°; N -0.2790, Plg67.0000°, Azm237.0000°; P -1.4960, Plg21.0000°, Azm30.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***13*** *09:13:57.1±0.4,38.˚N±3.˚×11.˚8W±.˚,h10km,M5.0/21, mb4.9/21*

NEIC ***13*** *09:14:00,38.˚18N×117.˚84W,h12km,Moment Tensor Solution. Duration: 2τ5 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.34; $M_{\theta\theta}$-0.43; $M_{\phi\phi}$0.77; $M_{r\theta}$-0.13; $M_{\theta\phi}$1.21; $M_{\phi r}$0.12; Fault plane solution: $M_0$1.39000×10^{17} NP1:ϕ_s76.28000°, δ81.46000°,λ-7.09000°. NP2:ϕ_s167.34000°,δ82.99000°, λ-171.39000°. Principal axes: T 1.5222, Plg1.0000°, Azm302.0000°; N -0.3065, Plg79.0000°, Azm206.0000°; P -1.2157, Plg11.0000°, Azm32.0000°;*

ISC 13 09:13:52.4±0.8,38.17N±0.02,117.85W±0.02,h9km±4km, n644,σ1$\mathfrak{g}$65/417,mb5.0/124,MS5.0/250,6C-6D,Nevada

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
COLR	**Columbus**	**0.17**	**261**		**Pg**	**09 13 55.5**	**-0.6**
NV11	**Mina Array Sit**	**0.36**	**317**		**Pg**	**09 13 59.0**	**-0.5**
NV06	**Mina Array Sit**	**0.42**	**307**		**Pg**	**09 14 00.4**	**-0.3**
NV07	**Mina Array Sit**	**0.43**	**304**		**Pg**	**09 14 00.6**	**-0.3**
NV03	**Mina Array Sit**	**0.44**	**306**		**Pg**	**09 14 00.7**	**-0.4**
NV08	**Mina Array Sit**	**0.44**	**302**		**Pg**	**09 14 00.8**	**-0.3**
NV04	**Mina Array Sit**	**0.44**	**305**		**Pg**	**09 14 00.9**	**-0.3**
NV01	**Mina Array Sit**	**0.44**	**306**		**Pg**	**09 14 00.9**	**-0.3**
NVAR	**Mina Array Bea**	**0.44**	**306**	Pg	**Pg**	**09 14 00.8**	**-0.4**
	8µm,0.3s,baz=120,slow=18						
NVAR				Lg	Lg	09 14 05.6	
	8µm,0.3s,baz=182,slow=30,SNR=20						
NV05	**Mina Array Sit**	**0.45**	**308**		**Pg**	**09 14 00.8**	**-0.3**
NV02	**Mina Array Sit**	**0.45**	**306**		**Pg**	**09 14 01.0**	**-0.3**
NV09	**Mina Array Sit**	**0.47**	**305**		**Pg**	**09 14 01.2**	**-0.3**
TPH	**Tonopah**	**0.50**	**101**	P	**Pg**	**09 14 02.0**	**-0.2**
TPH						09 14 07.4	
TPH	**Tonopah**	**0.50**	**101**		**Pg**	**09 14 02.0**	**-0.2**
TPH				Sg	**Sg**	**09 14 07.4**	**-1.4**
TPH				IAML		09 14 10.4	
	comp=N,161µm,0.5s						
TPH				IAML		09 14 10.4	
	comp=E,145µm,1.0s						
LHV	**Little Huntoon**	**0.53**	**279**		**Pg**	**09 14 02.3**	**-0.3**
LHV				IAML		09 14 12.7	
	comp=E,142µm,0.6s						
MZP	**Montezuma Peak**	**0.59**	**142**		**Pg**	**09 14 03.5**	**-0.5**
MZP				Sg	**Sg**	**09 14 11.7**	**-0.2**
MZP				IAML		09 14 13.9	
	comp=E,123µm,0.7s						
RYN	**Ryan**	**0.70**	**311**		**Pg**	**09 14 05.5**	**-0.5**
Q09A	**Carvers**	**0.84**	**38**		**Pg**	**09 14 08.2**	**-0.5**
KVN	**Kaiserville**	**0.90**	**347**	P	**Pg**	**09 14 08.9**	**-0.9**
KVN						09 14 20.1	
KVN	**Kaiserville**	**0.90**	**347**		**Pg**	**09 14 08.9**	**-0.9**
KVN					**Sg**	**09 14 20.1**	**-1.5**
KVN				IAML		09 14 26.4	
	comp=E,131µm,0.7s						
KVN				IAML		09 14 28.2	
	comp=N,84µm,0.9s						
LCH	**Last Change Ra**	**0.95**	**170**		**Pg**	**09 14 10.1**	**-0.6**
MCBM	**Casa Benchmark**	**0.98**	**238**		**Pg**	**09 14 10.8**	**-0.5**
GMN	**Gold Mountain**	**0.99**	**152**		**Pg**	**09 14 10.9**	**-0.5**
GMN				IAML		09 14 29.9	
	comp=E,108µm,1.2s						
GMN				IAML		09 14 30.3	
	comp=N,127µm,0.8s						
MDYM	**Dry Creek**	**1.06**	**241**		**Pg**	**09 14 12.2**	**-0.5**
MDPB	**Devils Postpil**	**1.11**	**242**		**Pg**	**09 14 12.9**	**-0.9**
TIN	**Tinemaha, Big**	**1.16**	**195**	P	**Pg**	**09 14 14.1**	**-0.5**
TIN	**Tinemaha, Big**	**1.16**	**195**		**Pg**	**09 14 14.1**	**-0.5**
TIN				IAML		09 14 37.4	
	comp=E,98µm,0.8s						
TIN				IAML		09 14 38.7	
	comp=N,94µm,0.8s						
GRAC	**Grapevine Rang**	**1.23**	**162**		**Pb**	**09 14 15.5**	**-0.4**
GRAC				IAML		09 14 39.0	
	comp=E,94µm,0.5s						
WAKR	**Walker**	**1.29**	**285**		**Pn**	**09 14 15.7**	**-1.1**
SGV	**South Grapevin**	**1.35**	**151**		**Pn**	**09 14 17.2**	**-0.3**
YERR	**Yerington**	**1.36**	**307**		**Pn**	**09 14 17.0**	**-0.8**
YERR				IAML		09 14 39.3	
	comp=N,50µm,0.7s						
YERR				IAML		09 14 40.6	
	comp=E,57µm,0.5s						
NTA	**Nevada Test Si**	**1.43**	**128**		**Pn**	**09 14 18.6**	**-0.1**
EHN	**Echo Peak**	**1.54**	**128**		**Pn**	**09 14 20.1**	**-0.1**
PNTR	**Pine Nut**	**1.65**	**304**		**Pn**	**09 14 21.2**	**-0.5**
PNTR				IAML		09 14 50.7	
	comp=E,48µm,0.9s						
PNTR				IAML		09 14 54.5	
	comp=N,46µm,1.0s						
WCT	**Wildcat Mounta**	**1.68**	**144**		**Pn**	**09 14 21.9**	**-0.1**
WCT				IAML		09 14 48.5	
	comp=N,32µm,0.6s						
WCT				IAML		09 14 48.9	
	comp=E,43µm,1.2s						
CWC	**Cottonwood Cre**	**1.74**	**186**		**Pn**	**09 14 22.9**	**+0.1**
S11A	**Rachel**	**1.74**	**107**		**Pn**	**09 14 22.7**	**-0.2**
TPNV	**Topopah Spring**	**1.76**	**133**	P	**Pn**	**09 14 23.1**	**-0.1**
TPNV	**Topopah Spring**	**1.76**	**133**		**Pn**	**09 14 23.1**	**-0.1**
VCNR	**Virginia City**	**1.80**	**309**		**Pn**	**09 14 23.5**	**-0.4**
FURC	**Furnace Creek,**	**1.87**	**155**		**Pn**	**09 14 24.8**	**+0.3**
CPY	**CP-1**	**1.89**	**130**		**Pn**	**09 14 24.7**	**-0.2**
SDH	**Striped Hills**	**1.94**	**141**		**Pn**	**09 14 25.8**	**+0.2**
NSP	**Numbskull Pass**	**1.94**	**137**		**Pn**	**09 14 25.7**	**0.0**
PAHR	**Pah Rah Range**	**1.95**	**322**		**Pn**	**09 14 25.2**	**-0.5**
PAHR				IAML		09 14 57.0	
	comp=N,15µm,0.8s						
PAHR				IAML		09 14 59.0	
	comp=E,22µm,1.1s						
CMB	**Columbia Colle**	**2.01**	**267**	P	**Pn**	**09 14 25.8**	**-0.7**
CMB	**Columbia Colle**	**2.01**	**267**		**Pn**	**09 14 25.8**	**-0.7**
MPK	**Martis Peak**	**2.04**	**304**		**Pn**	**09 14 26.8**	**-0.4**
MPK				IAML		09 15 08.2	
	comp=N,22µm,1.7s						
MPK				IAML		09 15 13.9	
	comp=E,22µm,1.0s						
KARE	**Kearney REC, C**	**2.05**	**221**	Pn	**Pn**	**09 14 27.6**	**+0.6**
KARE				IAML		09 15 01.6	
	comp=E,18µm,0.9s						
KARE				IAML		09 15 19.1	
	comp=N,16µm,1.1s						
AMDNV	**Amargosa**	**2.12**	**144**		**Pn**	**09 14 28.7**	**+0.7**
MPMC	**Manual Prospec**	**2.13**	**172**		**Pn**	**09 14 27.7**	**-0.5**
JRC2	**Joshua Ridge**	**2.19**	**179**		**Pn**	**09 14 30.1**	**+1.1**
PEAR	**Peavine Mounta**	**2.19**	**312**		**Pn**	**09 14 29.8**	**+0.7**
GWY	**Greenwater Val**	**2.19**	**154**		**Pn**	**09 14 29.3**	**+0.2**
GWY				IAML		09 15 07.9	
	comp=N,24µm,0.6s						
GWY				IAML		09 15 15.1	
	comp=E,27µm,1.1s						
DONR	**Donner Summit**	**2.27**	**302**		**Pn**	**09 14 30.9**	**+0.7**
BMN	**Battle Mountai**	**2.31**	**12**	P	**Pn**	**09 14 30.2**	**-0.5**
BMN	**Battle Mountai**	**2.31**	**12**		**Pn**	**09 14 30.2**	**-0.5**
BMN				IAML		09 15 07.0	
	comp=E,11µm,1.4s						
PRN	**Pahroc Range**	**2.34**	**108**		**Pn**	**09 14 30.8**	**-0.4**
CLC	**China Lake**	**2.36**	**175**	P	**Pn**	**09 14 31.6**	**+0.3**
CLC	**China Lake**	**2.36**	**175**	Pn	**Pn**	**09 14 31.6**	**+0.3**
CLC				IAML		09 15 13.4	
	comp=E,11µm,1.8s						
ISA	**Isabella, Lake**	**2.55**	**192**	P	**Pn**	**09 14 34.6**	**+0.6**
ISA	**Isabella, Lake**	**2.55**	**192**		**Pn**	**09 14 34.6**	**+0.6**
AFDM	**Forest Hills D**	**2.57**	**289**		**Pn**	**09 14 34.4**	**+0.2**
BEKR	**Beckworth**	**2.59**	**312**		**Pn**	**09 14 34.8**	**+0.2**
SHOC	**Shoshone, Teco**	**2.59**	**151**		**Pn**	**09 14 34.7**	**+0.2**
CCCA	**Chr Cany lake**	**2.67**	**172**		**Pn**	**09 14 35.6**	**+0.1**
LRMC	**Laurel Mtn Rad**	**2.69**	**177**		**Pn**	**09 14 35.7**	**-0.2**
LRMC				IAML		09 15 27.3	
	comp=E,12µm,1.2s						
SHPR	**Sheep Range**	**2.71**	**127**		**Pn**	**09 14 36.1**	**-0.1**
SHPR				IAML		09 15 29.6	
	comp=N,19µm,1.3s						
SHPR				IAML		09 15 43.1	
	comp=E,12µm,1.1s						
GSC	**Goldstone, Bar**	**2.98**	**163**	P	**Pn**	**09 14 39.8**	**-0.1**
GSC	**Goldstone, Bar**	**2.98**	**163**		**Pn**	**09 14 39.8**	**-0.1**
GSC				IAML		09 15 37.3	
	comp=E,12µm,1.1s						
GSC				IAML		09 15 43.5	
	comp=N,10µm,1.6s						
LVN	**Las Vegas**	**2.98**	**133**		**Pn**	**09 14 40.0**	**+0.1**
PKD	**Bear Valley Ra**	**3.10**	**225**		**Pn**	**09 14 42.2**	**+0.8**
PKD				IAML		09 15 38.0	
	comp=E,6µm,1.3s						
MHC	**Mount Hamilton**	**3.12**	**256**	P	**Pn**	**09 14 42.9**	**+1.0**
MHC	**Mount Hamilton**	**3.12**	**256**		**Pn**	**09 14 42.9**	**+1.0**
MHC				IAML		09 15 37.2	
	comp=E,7µm,1.3s						
MHC				IAML		09 15 37.4	
	comp=N,11µm,1.5s						
PSUT	**Pine Spring**	**3.16**	**82**		**Pn**	**09 14 42.4**	**-0.1**
ORV	**Oroville**	**3.17**	**297**	P	**Pn**	**09 14 43.1**	**+0.7**
ORV	**Oroville**	**3.17**	**297**		**Pn**	**09 14 43.1**	**+0.7**
SAO	**San Andreas Ge**	**3.19**	**245**	P	**Pn**	**09 14 44.0**	**+1.3**
SAO	**San Andreas Ge**	**3.19**	**245**		**Pn**	**09 14 44.0**	**+1.3**
MTPC	**Mountain Pass**	**3.25**	**145**		**Pn**	**09 14 44.3**	**+0.6**
MTPC				IAML		09 15 42.3	
	comp=N,7µm,0.9s						
MTPC				IAML		09 15 43.6	
	comp=E,11µm,2.1s						
SUTB	**Sutter Butte**	**3.26**	**290**		**Pn**	**09 14 43.9**	**+0.3**
SUTB				IAML		09 15 49.4	
	comp=N,7µm,0.6s						
SUTB				IAML		09 15 49.8	
	comp=E,7µm,0.5s						
ELK	**Elko**	**3.27**	**37**	Pn	**Pn**	**09 14 44.0**	**0.0**
	comp=E,133nm,0.3s,baz=230,slow=11,SNR=1018						
ELK				Pg	**Pg**	**09 14 53.0**	**-2.0**
	comp=E,478nm,0.3s,baz=237,slow=11,SNR=22						
ELK				Lg	Lg	09 15 32.3	
	comp=E,384nm,0.3s,baz=192,slow=13,SNR=3.6						
ELK				LR	LR	09 16 23.5	
	comp=E,22µm,20.1s,baz=256,slow=47						
	comp=E,337nm,0.3s						
ELK				AML	AML		
ELK	**Elko**	**3.27**	**37**	P	**Pn**	**09 14 44.0**	**0.0**
ELK	**Elko**	**3.27**	**37**		**Pn**	**09 14 43.7**	**-0.3**
ICU	**Indian Springs**	**3.27**	**107**		**Pn**	**09 14 43.6**	**-0.4**
TPO	**Tropico Hills**	**3.30**	**185**		**Pn**	**09 14 45.5**	**+1.2**
TPO				IAML		09 15 56.4	
	comp=N,6µm,1.4s						
TPO				IAML		09 15 59.2	
	comp=E,7µm,1.4s						
CCUT	**Cedar City**	**3.60**	**99**		**Pn**	**09 14 49.0**	**+0.4**
CCUT				IAML		09 15 52.8	
	comp=N,10µm,1.2s						
CCUT				IAML		09 16 02.0	
	comp=E,6µm,1.5s						
CVS	**Carmenet Viney**	**3.63**	**274**		**Pn**	**09 14 49.4**	**+0.5**
CVS				IAML		09 16 00.7	
	comp=E,4µm,1.9s						
SZCU	**Shurtz Canyon**	**3.81**	**97**		**Pn**	**09 14 51.6**	**+0.2**
LCMT	**Little Creek M**	**3.83**	**106**		**Pn**	**09 14 51.7**	**0.0**
LCMT				IAML		09 15 57.4	
	comp=N,7µm,1.2s						
LCMT				IAML		09 16 07.0	
	comp=E,6µm,1.9s						
HATC	**Hat Creek Radi**	**3.85**	**314**		**Pn**	**09 14 52.8**	**+1.0**
HATC				IAML		09 16 08.8	
	comp=N,7µm,3.0s						
HATC				IAML		09 16 33.3	
	comp=E,8µm,2.1s						
BFSC	**Mount Baldy Ra**	**3.93**	**178**		**Pn**	**09 14 54.1**	**+1.2**
GDXM	**Geysers**	**3.94**	**281**		**Pn**	**09 14 53.4**	**+0.4**
MWC	**Mount Wilson**	**3.94**	**183**	P	**Pn**	**09 14 54.9**	**+1.6**
MWC	**Mount Wilson**	**3.94**	**183**		**Pn**	**09 14 54.9**	**+1.6**
MWC				IAML		09 16 12.9	
	comp=N,4µm,1.8s						
MWC				IAML		09 16 14.3	
	comp=E,4µm,1.5s						
MCCM	**Marconi Confer**	**3.97**	**271**		**Pn**	**09 14 53.7**	**+0.3**
MCCM				IAML		09 15 59.1	
	comp=E,5µm,2.1s						
MCCM				IAML		09 16 09.1	
	comp=N,3µm,2.4s						
PASC	**Pasadena Art C**	**4.00**	**184**		**Pn**	**09 14 55.7**	**+1.9**
PASC				IAML		09 16 09.6	
	comp=E,3µm,2.1s						
DANC	**Danby, Needles**	**4.05**	**150**		**Pn**	**09 14 56.2**	**+1.7**
KNB	**Kanab**	**4.15**	**105**	P	**Pn**	**09 14 56.5**	**+0.4**
KNB	**Kanab**	**4.15**	**105**		**Pn**	**09 14 56.5**	**+0.4**
TCRU	**Three Creeks R**	**4.26**	**82**		**Pn**	**09 14 58.2**	**+0.5**
WVOR	**Wild Horse Val**	**4.30**	**352**	P	**Pn**	**09 14 58.8**	**+0.7**
WVOR	**Wild Horse Val**	**4.30**	**352**		**Pn**	**09 14 58.8**	**+0.7**
WVOR				IAML		09 16 11.4	
	comp=E,4µm,1.3s						
WVOR				IAML		09 16 11.8	
	comp=E,3µm,1.8s						
WVOR	**Wild Horse Val**	**4.30**	**352**	P	**Pn**	**09 15 01.8**	**+3.7**
DUG	**Dugway, Tooele**	**4.40**	**61**	P	**Pn**	**09 15 00.2**	**+0.7**
DUG	**Dugway, Tooele**	**4.40**	**61**		**Pn**	**09 15 00.2**	**+0.7**
DUG	**Dugway, Tooele**	**4.40**	**61**	P	**Pn**	**09 15 00.6**	**+1.1**
W13A	**Hualapai Mount**	**4.42**	**133**		**Pn**	**09 15 00.1**	**+0.3**
BELC	**Belle Mtn. Jos**	**4.42**	**160**		**Pn**	**09 14 59.8**	**0.0**
PKCU	**Pink Cliffs**	**4.44**	**98**		**Pn**	**09 15 00.9**	**+0.6**
DCMP	**DeCamp, Califo**	**4.48**	**289**		**Pn**	**09 15 01.1**	**+0.7**
ELS	**Elsinore Mount**	**4.53**	**176**		**Pn**	**09 15 02.3**	**+1.2**
ELS				IAML		09 16 24.8	
	comp=E,3µm,3.0s						
IRM	**Iron Mountain**	**4.56**	**151**		**Pn**	**09 15 02.2**	**+0.6**
BGU	**Big Grassy Mou**	**4.63**	**52**		**Pn**	**09 15 02.8**	**+0.2**
PFO	**Pinyon Flats O**	**4.69**	**166**	Pn	**Pn**	**09 15 04.3**	**+0.9**
	comp=E,11nm,0.3s,baz=353,slow=12,SNR=108						
PFO				Pg	**Pb**	**09 15 17.7**	**+2.9**
	comp=E,28nm,0.3s,baz=330,slow=11,SNR=16						
PFO				Lg	Lg	09 16 21.6	
	comp=E,61nm,0.3s,baz=72,slow=22,SNR=11						
	comp=E,54nm,0.5s						
PFO				AML	AML		
PFO	**Pinyon Flats O**	**4.69**	**166**		**Pn**	**09 15 03.6**	**+0.2**
PFO				IAML		09 16 34.6	
	comp=E,3µm,2.8s						
PFO				IAML		09 16 35.8	
	comp=E,2µm,2.1s						
I57US	**PINON FLAT INF**	**4.69**	**166**	I	I	09 41 40.0	
	baz=349,slow=322,SNR=2.5						
DNR	**Dunn Ranch,Anz**	**4.70**	**168**		**Pn**	**09 15 04.7**	**+1.1**
U15A	**North Rim**	**4.76**	**110**		**Pn**	**09 15 05.2**	**+0.7**
KHBM	**Hayfork Bally**	**4.85**	**303**		**Pn**	**09 15 06.0**	**+0.4**
BORC	**Borrego Spring**	**5.03**	**166**		**Pn**	**09 15 08.6**	**+0.6**
YBH	**Yreka Blue Hor**	**5.16**	**315**	Pn	**Pn**	**09 15 12.5**	**+2.7**
	comp=E,3.7nm,0.3s,baz=156,slow=8.2,SNR=50						
YBH				Lg	Lg	09 16 36.3	
	comp=E,4.3nm,0.3s,baz=222,slow=13,SNR=3.0						
YBH				LR	LR	09 17 25.2	
	comp=E,22µm,19.2s,baz=149,slow=41						
	comp=E,51nm,0.7s						
YBH				AML	AML		
SPUT	**South Promonto**	**5.21**	**51**		**Pn**	**09 15 11.2**	**+0.7**
YUH	**Yuha Desert**	**5.73**	**164**		**Pn**	**09 15 18.0**	**+0.4**
HWUT	**Hardware Ranch**	**5.92**	**53**	P	**Pn**	**09 15 23.8**	**+3.3**
	comp=Z,2µm,0.9s						
HLID	**Hailey**	**5.98**	**25**	P	**Pn**	**09 15 24.3**	**+3.1**
	comp=Z,2µm,0.9s						
CPBX	**Cerro Prieto**	**6.10**	**159**	Pn	**Pn**	**09 15 22.5**	**-0.2**
113A	**Mohawk Valley,**	**6.33**	**147**		**Pn**	**09 15 26.3**	**+0.4**
ESJX	**Sierra Juarez**	**6.35**	**165**		**Pn**	**09 15 27.8**	**+1.6**
AHID	**Auburn Hatcher**	**6.89**	**46**	P	**Pn**	**09 15 36.5**	**+2.8**
	comp=Z,761nm,0.9s						
MVCO	**Mesa Verde**	**7.47**	**95**	P	**Pn**	**09 15 43.6**	**+1.8**
	comp=Z,375nm,0.9s						
PIX	**Pinacate**	**7.51**	**150**	Pn	**Pn**	**09 15 42.9**	**+0.8**
COR	**Corvallis**	**7.61**	**329**	P	**Pn**	09 15 49.5	+6.2
	comp=Z,164nm,1.2s						

comp=Z,75nm,0.8s
N38A Joes South For 19.16 74 IAmb IAmb 09 18 24.8
comp=Z,93nm,0.9s
ULM Lac du Bonnet 19.76 45 P **P** **09 18 21.6 -0.9**
comp=Z,26nm,0.9s,baz=237,slow=9.6,SNR=17
ULM LR LR 09 25 34.0
comp=Z,1µm,18.5s,baz=236,slow=36
ULM Lac du Bonnet 19.76 45*de* P **P** **09 18 22.4 0.0**
ULM Lac du Bonnet 19.76 45 IAmb IAmb 09 18 27.0
comp=Z,216nm,1.7s
FFC Flin Flon 19.76 28 *i* P **Pn** **09 18 24.6 +0.7**
FFC Flin Flon 19.76 28 P **Pn** **09 18 23.5 -0.5**
comp=Z,77nm,0.9s
MIAR Mount Ida 19.86 93 P **Pn** **09 18 26.9 +1.6**
comp=Z,122nm,1.4s
HKT Hockley 19.96 108⇑ *e* P **Pn** **09 18 26.3 -0.1**
HKT pmax pmax
comp=Z,139nm,1.8s
HKT Hockley 19.96 108 P **Pn** **09 18 27.2 +0.8**
comp=Z,79nm,1.9s
ZAIG Zacatecas 20.18 135 P Pn 09 18 31.5 +2.1
comp=Z,31nm,1.4s
U33K Whale Pass 20.66 335 IAMs_20 IAMs_20 09 26 29.7
comp=Z,4µm,18.0s
L40A Anamosa 20.70 71 P **P** **09 18 32.0 -0.7**
L40A IAmb IAmb 09 18 44.6
comp=Z,155nm,1.1s
EPLO Experimental L 20.74 49 P **P** **09 18 32.4 -0.7**
Z41A Richland Creek 20.89 96 P **P** **09 18 34.6 -0.3**
N41A Harden Midland 20.97 75 P **P** **09 18 34.8 -0.9**
E38A The Farm, Brul 21.09 58 P **P** **09 18 34.9 -2.1**
E38A IAmb IAmb 09 18 39.8
comp=Z,83nm,0.8s
T42A Van Buren 21.21 85 P **P** **09 18 37.0 -1.3**
T42A IAmb IAmb 09 18 45.5
comp=Z,122nm,1.0s
LCAR Lake Charles 21.36 87 P **P** **09 18 37.7 -2.3**
LCAR IAmb IAmb 09 18 47.4
comp=Z,141nm,1.1s
EYMN Ely 21.50 55 P **P** **09 18 40.6 -0.8**
EYMN IAmb IAmb 09 18 46.1
comp=Z,70nm,1.4s
EYMN Ely 21.50 55 P **P** **09 18 41.8 +0.4**
comp=Z,49nm,2.3s
DLBC Dease Lake 21.77 343 P **P** **09 18 44.2 0.0**
comp=Z,1.8nm,0.8s,baz=146,slow=6.6,SNR=9.0
DLBC LR LR 09 27 51.8
comp=Z,7µm,18.2s,baz=128,slow=39
comp=Z,1.8nm,0.8s
PBMO Poplar Bluff 21.78 85 P **P** **09 18 43.1 -1.3**
P43A Skaggs, Pawnee 22.06 77 IAMs_20 IAMs_20 09 27 11.5
comp=Z,4µm,18.0s
143A Socs Landing, 22.19 96 IAMs_20 IAMs_20 09 28 29.1
comp=Z,5µm,18.0s
S32K Killisnoo 22.22 336 IAMs_20 IAMs_20 09 27 25.2
comp=Z,5µm,18.0s
I42A Draeger Farm, 22.50 66 P **P** **09 18 50.5 -1.5**
I42A IAmb IAmb 09 19 12.6
comp=Z,48nm,1.0s
I42A IAMs_20 IAMs_20 09 28 07.0
comp=Z,6µm,20.0s
S44A Carbondale 22.52 82 P **P** **09 18 50.3 -2.1**
S44A IAmb IAmb 09 19 10.3
comp=Z,49nm,1.0s
Q44A Meyer Farm, Va 22.53 79 P **P** **09 18 50.8 -1.6**
Q44A IAmb IAmb 09 19 10.3
comp=Z,118nm,1.1s
HICK Hickman 22.77 85 P **P** **09 18 53.3 -1.8**
HICK IAmb IAmb 09 19 00.7
comp=Z,129nm,1.3s
Q32M Nakina River 22.79 341 IAMs_20 IAMs_20 09 27 29.1
comp=Z,6µm,18.0s
R33M Jennings River 22.85 343 IAMs_20 IAMs_20 09 27 08.6
comp=Z,6µm,18.0s
K43A Burlington 22.86 69 P **P** **09 18 54.6 -1.3**
R32K Eaglecrest 22.86 337 IAMs_20 IAMs_20 09 27 40.9
comp=Z,4µm,19.0s
TBO Thunder Bay 23.03 54 P **P** **09 18 56.0 -1.7**
TBO IAmb IAmb 09 19 04.5
comp=Z,81nm,1.0s
VBMS Vicksburg 23.06 97 IAMs_20 IAMs_20 09 28 53.3
comp=Z,6µm,19.0s
M44A Midewin, Midew 23.07 73 P **P** **09 18 56.2 -1.9**
M44A IAmb IAmb 09 19 05.7
comp=Z,81nm,1.0s
UTMT University of 23.10 86 P **P** **09 18 57.6 -0.9**
T45A Paducah 23.13 84 P **P** **09 18 57.5 -1.2**
OXF Oxford 23.16 90 P **P** **09 18 57.8 -1.2**
OXF pmax pmax
comp=Z,303nm,1.1s
OXF MLR MLR
comp=Z,4µm,21.0s
OXF Oxford 23.16 90 P **P** **09 18 57.8 -1.2**
OXF IAMs_20 IAMs_20 09 27 40.7
comp=Z,4µm,21.0s
S31K Pelican 23.16 335 IAMs_20 IAMs_20 09 27 28.9
comp=Z,5µm,19.0s
BESE Bessie Mountai 23.21 337 IAMs_20 IAMs_20 09 27 41.2
comp=Z,4µm,19.0s
OLIL Olney 23.26 79 P **P** **09 18 58.4 -1.6**
F42A Maple Grove Fa 23.26 61 P **P** **09 18 58.6 -1.4**
H43A Windswept, Lux 23.36 65 P **P** **09 18 59.1 -2.0**
H43A IAMs_20 IAMs_20 09 28 35.0
comp=Z,5µm,20.0s
P32M Atlin 23.72 340 P **P** **09 19 02.8 -1.7**
P32M IAMs_20 IAMs_20 09 27 58.6
comp=Z,5µm,18.0s
P46A Rosedale 23.84 77 P **P** **09 19 04.6 -1.2**
P46A IAmb IAmb 09 19 23.5
comp=Z,76nm,1.2s
SFIN Lafayette 23.85 75 IAMs_20 IAMs_20 09 28 51.9
comp=Z,5µm,18.0s
WVT Waverly 23.96 86 P **P** **09 19 05.7 -1.3**
WVT pmax pmax
comp=Z,122nm,1.7s
WVT Waverly 23.96 86 P **P** **09 19 05.7 -1.3**
WVT IAmb IAmb 09 19 13.8
comp=Z,122nm,1.6s
WVT Waverly 23.96 86 P **P** **09 19 10.1 +3.2**
P33M Teslin, Yukon 24.02 342 P **P** **09 19 06.5 -0.8**
346A Big Creek Wild 24.21 98 P **P** **09 19 07.2 -2.1**
346A IAmb IAmb 09 19 27.6
comp=Z,78nm,1.1s
346A IAMs_20 IAMs_20 09 27 43.8
comp=Z,3µm,19.0s
T47A Sharon Grove 24.34 83 P **P** **09 19 08.8 -1.6**
YKAW1 Yellowknife Wh 24.43 4 P **P** **09 19 09.7 -1.2**
YKAW1 IAmb IAmb 09 19 17.4
comp=Z,53nm,1.1s
YKA Yellowknife Ar 24.43 4 P **P** **09 19 11.3 +0.3**
comp=Z,3.4nm,0.6s,baz=185,slow=9.3,SNR=20
YKA LR LR 09 30 35.2
comp=Z,2µm,20.0s,baz=186,slow=41
comp=Z,3.4nm,0.6s
YKA Yellowknife Ar 24.43 4 P **P** **09 19 10.6 -0.4**
Z47A Carrollton 24.63 93 IAMs_20 IAMs_20 09 29 45.8
comp=Z,7µm,22.0s
WCI Wyandotte Cave 24.74 80 P **P** **09 19 13.5 -0.6**
WCI pmax pmax
comp=Z,72nm,1.1s
WCI MLR MLR
comp=Z,3µm,21.0s
WCI Wyandotte Cave 24.74 80 P **P** **09 19 13.5 -0.6**
WCI IAmb IAmb 09 19 31.8
comp=Z,72nm,1.1s
WCI Wyandotte Cave 24.74 80 P **P** **09 19 17.8 +3.8**
comp=Z,66nm,1.1s
V48A Smith Brothers 24.85 86 P **P** **09 19 13.7 -1.5**
V48A IAmb IAmb 09 19 30.2
comp=Z,44nm,1.3s
N47A Urbana 24.87 74 IAMs_20 IAMs_20 09 29 14.0
comp=Z,5µm,19.0s
N32M Quiet Lake 24.90 342 IAMs_20 IAMs_20 09 27 59.8
comp=Z,4µm,18.0s
P48A Milroy 25.22 77 IAMs_20 IAMs_20 09 29 08.3
comp=Z,6µm,18.0s
O30N Mendenhall 25.36 339 IAMs_20 IAMs_20 09 29 02.1
comp=Z,5µm,18.0s
GLMI Grayling 25.64 64 P **P** **09 19 20.2 -1.9**
FCC Fort Churchill 25.68 29 P **P** **09 19 20.8 -1.5**
FCC pmax pmax
comp=Z,93nm,1.1s
FCC Fort Churchill 25.68 29 P **P** **09 19 20.8 -1.5**
N31M Braeburn, Yuko 25.87 340 IAMs_20 IAMs_20 09 28 57.5
comp=Z,4µm,20.0s
O49A Covington 25.97 75 P **P** **09 19 23.3 -1.9**
O49A IAmb IAmb 09 19 42.7
comp=Z,57nm,1.1s
E46A Sault Ste Mari 25.98 61 P **P** **09 19 23.0 -2.3**
E46A IAMs_20 IAMs_20 09 28 38.2
comp=Z,4µm,18.0s
N49A Columbus Grove 26.01 73 P **P** **09 19 23.8 -1.8**
N49A IAmb IAmb 09 19 54.9
comp=Z,54nm,1.1s
M31M Drury Creek, Y 26.13 342 IAMs_20 IAMs_20 09 29 24.3
comp=Z,5µm,21.0s
FPAL Fort Paine 26.14 88 P **P** **09 19 25.6 -1.3**
PCA Pinnacle 26.14 334 IAMs_20 IAMs_20 09 28 48.7
comp=Z,3µm,20.0s
W50A Signal Mountai 26.19 86 P **P** **09 19 26.0 -1.3**
W50A IAmb IAmb 09 19 43.5
comp=Z,39nm,1.0s
W50A IAMs_20 IAMs_20 09 30 01.8
comp=Z,4µm,19.0s
BRAL Brewton 26.19 96 IAMs_20 IAMs_20 09 29 17.1
comp=Z,5µm,20.0s
N30M Aishikik Lake 26.21 339 IAMs_20 IAMs_20 09 29 44.4
comp=Z,5µm,18.0s
R50A Paris 26.25 79 P **P** **09 19 26.0 -1.8**
R50A IAmb IAmb 09 19 56.7
comp=Z,30nm,1.0s
O28M Mount Upton 26.62 335 IAMs_20 IAMs_20 09 29 16.4
comp=Z,3µm,20.0s
CPCT Cooper Cave 26.74 86 P **P** **09 19 30.6 -1.6**
CPCT IAmb IAmb 09 19 52.8
comp=Z,37nm,1.1s
M50A Fremont 26.83 72 IAMs_20 IAMs_20 09 30 24.7
comp=Z,4µm,19.0s
Q51A Peebles 26.89 77 IAMs_20 IAMs_20 09 30 08.2
comp=Z,5µm,18.0s
LOGN Logan Glacier 26.93 335 IAMs_20 IAMs_20 09 29 15.6
comp=Z,4µm,19.0s
S51A Beattyville 26.95 80 P **P** **09 19 32.1 -1.9**
S51A IAmb IAmb 09 20 13.8
comp=Z,54nm,1.2s
S51A IAMs_20 IAMs_20 09 29 47.9
comp=Z,3µm,18.0s
TZTN Tazewell 27.22 83 P **P** **09 19 35.2 -1.4**
TZTN IAmb IAmb 09 20 08.6
comp=Z,56nm,1.2s
TZTN IAMs_20 IAMs_20 09 29 55.2
comp=Z,3µm,18.0s
TKL Tuckaleechee C 27.27 85 LR LR 09 31 16.3
comp=Z,2µm,19.9s,baz=284,slow=38
TKL Tuckaleechee C 27.27 85 P **P** **09 19 34.6 -2.4**
TKL pmax pmax
comp=Z,130nm,1.8s
TKL Tuckaleechee C 27.27 85 P **P** **09 19 34.6 -2.4**
BARN Barnard Glacie 27.32 335 IAMs_20 IAMs_20 09 29 25.9
comp=Z,3µm,21.0s
N51A Ashland 27.38 73 IAMs_20 IAMs_20 09 30 07.2
comp=Z,4µm,19.0s
M29M Somme Creek 27.39 339 P **P** **09 19 37.2 -0.7**
451A Vernon 27.44 96 IAMs_20 IAMs_20 09 29 58.2
comp=Z,4µm,18.0s
152A Waverly Hall 27.46 91 IAMs_20 IAMs_20 09 30 16.6
comp=Z,4µm,22.0s
TGL Tana Glacier 27.51 333 IAMs_20 IAMs_20 09 30 31.9
comp=Z,3µm,19.0s
CRQM Cirque 27.62 333 IAMs_20 IAMs_20 09 30 35.3
comp=Z,3µm,18.0s
Q52A Bidwell 27.73 77 IAMs_20 IAMs_20 09 30 36.5
comp=Z,5µm,18.0s
352A Blakely 27.74 94 IAMs_20 IAMs_20 09 30 36.0
comp=Z,5µm,19.0s
V53A Saluda 28.02 84 P **P** **09 19 42.2 -1.6**
VRDI Verde Repeater 28.05 334 IAMs_20 IAMs_20 09 31 10.4
comp=Z,3µm,19.0s
M52A Chesterland 28.08 72 IAMs_20 IAMs_20 09 29 57.8
comp=Z,3µm,18.0s
GOGA Godfrey 28.19 89 P **P** **09 19 42.7 -2.5**
GOGA pmax pmax
comp=Z,76nm,1.7s
GOGA Godfrey 28.19 89 P **P** **09 19 42.7 -2.5**
GOGA IAmb IAmb 09 19 55.7
comp=Z,76nm,1.7s
K29M Barlow Dome 28.28 342 P **P** **09 19 44.0 -1.9**
K29M IAmb IAmb 09 20 34.4
comp=Z,29nm,1.4s
K29M IAMs_20 IAMs_20 09 31 01.2
comp=Z,3µm,19.0s
BMRM Bremner River 28.29 332 IAMs_20 IAMs_20 09 30 39.6
comp=Z,3µm,19.0s
P53A Whipple 28.31 76 IAMs_20 IAMs_20 09 29 36.0
comp=Z,2µm,18.0s
M27K Edge Creek, AK 28.34 336 IAMs_20 IAMs_20 09 30 25.9
comp=Z,3µm,19.0s
EYAK Cordova Ski Ar 28.45 331 IAMs_20 IAMs_20 09 31 47.8
comp=Z,3µm,22.0s
N53A Lisbon 28.55 73 IAMs_20 IAMs_20 09 31 41.2
comp=Z,3µm,20.0s
J30M Hart River 28.62 343 IAMs_20 IAMs_20 09 30 05.1
comp=Z,4µm,18.0s
HIN Hinchinbrook I 28.64 330 IAMs_20 IAMs_20 09 32 38.0
comp=Z,3µm,19.0s
S54A Dingess, Beckl 28.68 79 IAMs_20 IAMs_20 09 30 50.8
comp=Z,4µm,18.0s
M26K Nabesna, AK 28.73 336 IAMs_20 IAMs_20 09 30 24.2
comp=Z,3µm,19.0s
154A Montrose 28.75 90 IAMs_20 IAMs_20 09 31 43.7
comp=Z,4µm,18.0s
P23K Montague Islan 28.76 329 IAMs_20 IAMs_20 09 30 13.1
comp=Z,3µm,19.0s
Q54A Coxs Mills 28.82 77 P **P** **09 19 48.0 -2.8**
DIV Divide 28.83 332 IAMs_20 IAMs_20 09 30 45.8
comp=Z,3µm,19.0s
L27K Beaver Creek, 28.85 337 IAMs_20 IAMs_20 09 30 57.3
comp=Z,3µm,20.0s
ERPA Erie 29.05 70 IAMs_20 IAMs_20 09 31 59.4
comp=Z,4µm,19.0s
CMIG Matias Romero 29.09 130 LR LR 09 33 29.3
comp=Z,3µm,18.8s,baz=286,slow=40
GLI Glacier Island 29.17 331 IAMs_20 IAMs_20 09 33 28.9
comp=Z,2µm,18.0s
I30M Mount Dempster 29.18 344 IAMs_20 IAMs_20 09 31 38.1
comp=Z,5µm,20.0s
BLKN Baker Lake 29.22 19 P **P** **09 19 51.7 -2.3**
L26K Log Cabin Wild 29.29 336 IAMs_20 IAMs_20 09 30 55.0
comp=Z,3µm,19.0s
KMSC Kings Mountain 29.33 85 IAMs_20 IAMs_20 09 32 22.0
comp=Z,5µm,22.0s
MCWV Mont Chateau 29.46 75 P **P** **09 19 55.1 -1.3**
BLA Blacksburg 29.50 80 IAMs_20 IAMs_20 09 30 54.6
comp=Z,2µm,19.0s
R55A Marlinton 29.50 78 P **P** **09 19 55.3 -1.7**
R55A IAmb IAmb 09 20 05.3
comp=Z,28nm,1.0s
SADO Sadowa 29.53 65 LR LR 09 30 58.8
comp=Z,1µm,18.7s,baz=295,slow=35
K27K Chicken 29.65 339 IAMs_20 IAMs_20 09 31 21.5
comp=Z,3µm,21.0s
KDAK Kodiak Island 29.93 322 LR LR 09 30 28.0
comp=Z,3µm,19.9s,baz=107,slow=33
KDAK Kodiak Island 29.93 322 IAMs_20 IAMs_20 09 29 55.1
comp=Z,3µm,20.0s
DOT Dot Lake 29.97 337 IAMs_20 IAMs_20 09 31 16.9
comp=Z,3µm,20.0s
CNPM China Poot 30.13 326 IAMs_20 IAMs_20 09 30 44.3
comp=Z,3µm,20.0s
SCRK Sand Creek 30.18 337 IAMs_20 IAMs_20 09 31 36.5
comp=Z,3µm,19.0s
I28M Miner Creek 30.20 342 IAMs_20 IAMs_20 09 32 54.9
comp=Z,5µm,20.0s
SML Sawmill 30.21 331 IAMs_20 IAMs_20 09 32 43.4
comp=Z,2µm,18.0s
SII Sitkinak Islan 30.23 319 IAMs_20 IAMs_20 09 29 43.1
comp=Z,4µm,22.0s
EPYK Eagle Plains 30.25 345 IAMs_20 IAMs_20 09 30 59.2
comp=Z,4µm,20.0s
RIDG Independent Ri 30.28 336 IAMs_20 IAMs_20 09 31 25.1
comp=Z,3µm,20.0s
MMNY Mt. Morris Dam 30.53 69 IAMs_20 IAMs_20 09 33 18.6
comp=Z,3µm,18.0s
J55A Hilton 30.55 68 IAMs_20 IAMs_20 09 32 19.2
comp=Z,3µm,18.0s
K24K Donnelly Dome 30.62 336 IAMs_20 IAMs_20 09 31 33.1
comp=Z,3µm,19.0s
DHY Denali Highway 30.66 334 IAMs_20 IAMs_20 09 32 35.3
comp=Z,2µm,18.0s
G30M tAoh Zrali Nji 30.68 346 IAMs_20 IAMs_20 09 32 59.6
comp=Z,4µm,19.0s
I27K Kandik River 30.75 341 IAMs_20 IAMs_20 09 34 05.4
comp=Z,2µm,19.0s
SSPA Standing Stone 30.79 73 IAMs_20 IAMs_20 09 33 22.6
comp=Z,3µm,18.0s
M22K Willow 30.87 330 IAMs_20 IAMs_20 09 33 26.7
comp=Z,2µm,18.0s
V58A Windy Hill, Pi 30.88 82 IAMs_20 IAMs_20 09 32 01.1
comp=Z,4µm,18.0s
J25K Salcha River, 31.06 337 IAMs_20 IAMs_20 09 32 01.7
comp=Z,3µm,21.0s
F30M Barrier River 31.16 347 IAMs_20 IAMs_20 09 33 08.2
comp=Z,4µm,19.0s
M57A Sunshine Farm, 31.26 71 IAMs_20 IAMs_20 09 31 59.0
comp=Z,3µm,20.0s
R58B Mineral 31.30 78 IAMs_20 IAMs_20 09 31 40.1
comp=Z,3µm,18.0s
RND Reindeer 31.39 334 P **P** **09 20 11.9 -1.5**
RND pmax pmax
comp=Z,25nm,0.9s
RND MLR MLR
comp=Z,2µm,22.0s
RND Reindeer 31.39 334 P **P** **09 20 11.9 -1.5**
RND IAmb IAmb 09 21 22.8
comp=Z,25nm,0.9s
HDA Harding Lake 31.41 336 IAMs_20 IAMs_20 09 31 58.0
comp=Z,2µm,20.0s
INK Inuvik 31.41 349 LR LR 09 33 26.5
comp=Z,5µm,19.5s,baz=156,slow=37
INK Inuvik 31.41 349 P **P** **09 20 16.2 +2.9**
comp=Z,14nm,2.2s
C36M Paulatuk 31.42 356 IAMs_20 IAMs_20 09 32 11.9
comp=Z,2µm,19.0s
K57A Scipio Center 31.55 68 IAMs_20 IAMs_20 09 34 05.6
comp=Z,3µm,18.0s
MCK McKinley 31.62 334 P **P** **09 20 15.8 +0.4**
MCK pmax pmax
comp=Z,19nm,1.0s
MCK MLR MLR
comp=Z,2µm,22.0s
MCK McKinley 31.62 334 P **P** **09 20 15.8 +0.4**
MCK IAmb IAmb 09 20 22.5
comp=Z,19nm,1.0s
CBN Corbin Frederi 31.63 77 IAMs_20 IAMs_20 09 34 51.9
comp=Z,2µm,18.0s
IL31 31.64 337 P **P** **09 20 14.6 -0.8**
ILAR Eielson Array 31.64 337 P **P** **09 20 18.4 +2.9**
comp=Z,4.1nm,0.9s,baz=151,slow=6.4,SNR=30
ILAR LR LR 09 32 27.7
comp=Z,3µm,21.0s,baz=122,slow=35
comp=Z,4.1nm,0.9s
G27K Doyon Strip 31.71 342 P **P** **09 20 15.4 -0.6**
PRP Porcupine Dome 31.75 338 IAMs_20 IAMs_20 09 32 36.0
comp=Z,3µm,20.0s
T59A Double "B" Far 31.79 79 IAMs_20 IAMs_20 09 31 09.0
comp=Z,2µm,18.0s
O19K Port Alsworth 31.81 326 IAMs_20 IAMs_20 09 31 57.9
comp=Z,2µm,19.0s
WRH Wood River Hil 31.82 336 IAMs_20 IAMs_20 09 34 47.9
comp=Z,3µm,18.0s
CCB Clear Creek Bu 31.84 336 IAMs_20 IAMs_20 09 32 01.5
comp=Z,2µm,21.0s
TRF Thorofare Moun 31.93 333 IAMs_20 IAMs_20 09 34 21.8
comp=Z,2µm,18.0s
F28M Old Crow 31.96 344 P **P** **09 20 17.7 -0.6**
F28M IAMs_20 IAMs_20 09 31 52.5
comp=Z,3µm,21.0s
BINY Binghamton 32.00 69 IAMs_20 IAMs_20 09 31 51.5
comp=Z,3µm,18.0s
COLA College 32.01 336⇑ *e* P **P** **09 20 21.7 +3.1**
COLA pmax pmax
comp=Z,12nm,1.1s
COLA College 32.01 336 P **P** **09 20 22.4 +3.8**
comp=Z,17nm,1.1s
POKR Poker Plat Res 32.05 337 IAMs_20 IAMs_20 09 32 17.8
comp=Z,3µm,21.0s
WCNY West Carthage 32.06 66 P **P** **09 20 18.0 -1.4**
WCNY IAMs_20 IAMs_20 09 32 04.2
comp=Z,2µm,20.0s
BWN Browne 32.09 334 IAMs_20 IAMs_20 09 34 58.4
comp=Z,3µm,19.0s
M20K Styx River 32.13 329 IAMs_20 IAMs_20 09 33 58.3
comp=Z,2µm,19.0s
NEA2 Nenana 32.22 335 IAMs_20 IAMs_20 09 33 09.5
comp=Z,2µm,18.0s
WBO Williamsburg 32.27 64 P **P** **09 20 19.9 -1.3**
PPLA Purkeypile 32.31 331 IAMs_20 IAMs_20 09 33 37.9
comp=Z,2µm,19.0s
G26K Porcupine Rive 32.35 341 P **P** **09 20 20.0 -1.6**
G26K IAmb IAmb 09 20 31.7
comp=Z,32nm,1.1s
CNBA Chernabura Isl 32.62 314 IAMs_20 IAMs_20 09 30 45.6
comp=Z,2µm,21.0s
M19K Big River Lodg 32.66 329 IAMs_20 IAMs_20 09 34 44.2
comp=Z,2µm,19.0s
E28M Babbage River 32.73 345 P **P** **09 20 25.3 +0.3**
N18K Kilae Creek 32.73 326 IAMs_20 IAMs_20 09 32 36.1
comp=Z,2µm,18.0s
L20K Farewell, AK 32.74 330 IAMs_20 IAMs_20 09 33 58.4
comp=Z,2µm,19.0s
E27K Coleen River 32.81 344 IAMs_20 IAMs_20 09 32 14.9
comp=Z,3µm,20.0s
J59A Piesco 32.94 67 P **P** **09 20 25.8 -1.3**
J59A IAmb IAmb 09 20 57.6
comp=Z,47nm,1.4s
P16K Nushagak River 33.04 322 IAMs_20 IAMs_20 09 32 06.3
comp=Z,3µm,20.0s
G24K Hadweenzic Riv 33.16 339 IAMs_20 IAMs_20 09 34 58.1
comp=Z,3µm,19.0s
H23K Yukon River 33.17 337 IAMs_20 IAMs_20 09 33 04.7
comp=Z,3µm,22.0s
P61A Hammonton 33.30 74 IAMs_20 IAMs_20 09 33 24.9
comp=Z,3µm,18.0s
APG El Apazote 33.42 126 LR LR 09 34 24.4
comp=Z,279nm,21.2s,baz=266,slow=37
M17K Holitna River 33.72 326 IAMs_20 IAMs_20 09 33 17.3
comp=Z,2µm,18.0s
J20K Nowinta River 33.75 332 IAMs_20 IAMs_20 09 35 59.9
comp=Z,2µm,19.0s
L18K Granite Mounta 33.76 328 IAMs_20 IAMs_20 09 35 26.4
comp=Z,2µm,18.0s
H22K Ishtalitna Cre 33.80 336 IAMs_20 IAMs_20 09 33 20.2
comp=Z,3µm,18.0s
KSCT Kent School, K 33.91 70 IAMs_20 IAMs_20 09 32 52.1
comp=Z,3µm,19.0s
O15K Ungalikthiuk R 33.97 322 IAMs_20 IAMs_20 09 32 46.1
comp=Z,2µm,20.0s
MCVT Middlebury Col 33.98 66 IAMs_20 IAMs_20 09 35 06.9
comp=Z,3µm,21.0s
WSPT Westport, CT 34.12 71 IAMs_20 IAMs_20 09 32 43.6
comp=Z,3µm,18.0s
M16K Timber Creek 34.24 325 IAMs_20 IAMs_20 09 33 24.0
comp=Z,2µm,19.0s
J18K Innoko River 34.36 330 IAMs_20 IAMs_20 09 35 13.1
comp=Z,2µm,18.0s
L61B Northampton 34.39 68 IAMs_20 IAMs_20 09 33 29.9
comp=Z,2µm,20.0s
E23K Chandalar 34.70 340 IAMs_20 IAMs_20 09 33 38.9
comp=Z,3µm,21.0s
O14K Tigyukauivet M 34.70 322 IAMs_20 IAMs_20 09 33 09.3
comp=Z,2µm,19.0s
LBNH Lisbon 34.72 65 IAMs_20 IAMs_20 09 32 49.3
comp=Z,2µm,20.0s
TOLK Toolik Lake Re 35.09 340 IAMs_20 IAMs_20 09 34 14.2
comp=Z,3µm,18.0s
N14K Kuskokwak Cree 35.11 323 IAMs_20 IAMs_20 09 33 23.2
comp=Z,2µm,21.0s
I62A Tamworth 35.18 66 IAMs_20 IAMs_20 09 35 53.6
comp=Z,3µm,20.0s
HRV Adam Dziewonsk 35.21 68 IAMs_20 IAMs_20 09 33 54.4
comp=Z,3µm,18.0s
H62A Milan 35.23 64 IAMs_20 IAMs_20 09 33 38.9
comp=Z,3µm,20.0s
F21K Alatna River 35.28 337 IAMs_20 IAMs_20 09 36 44.4
comp=Z,3µm,18.0s
WES Weston 35.40 68 IAMs_20 IAMs_20 09 33 56.4
comp=Z,3µm,19.0s
G62A West of Eustis 35.60 63 IAMs_20 IAMs_20 09 34 11.8
comp=Z,2µm,18.0s
F20K Avaraart Lake 35.89 336 IAMs_20 IAMs_20 09 34 23.5
comp=Z,2µm,21.0s
D22K Ayikyak River 36.09 339 IAMs_20 IAMs_20 09 34 21.7
comp=Z,3µm,20.0s
I17K Unalakleet 36.14 329 IAMs_20 IAMs_20 09 35 14.1
comp=Z,2µm,19.0s
E21K Killik River 36.18 338 IAMs_20 IAMs_20 09 35 14.1
comp=Z,3µm,20.0s
E62A Clayton Lake 36.18 61 IAMs_20 IAMs_20 09 34 31.1
comp=Z,3µm,20.0s
TGUH Tegucigalpa,Un 36.19 123 IAMs_20 IAMs_20 09 37 28.4
comp=Z,3µm,20.0s

TGUH Tegucigalpa,Un 36.19 123 P **P** **09 20 59.6 +4.1**
comp=Z,22nm,1.1s
PKME Peaks-Kenny Pk 36.47 63 IAMs_20 IAMs_20 09 33 41.7
comp=Z,3µm,19.0s
J14K Nanvaranak Lak 36.90 327 IAMs_20 IAMs_20 09 35 10.2
comp=Z,2µm,18.0s
F64A Sherman 37.06 62 IAMs_20 IAMs_20 09 34 59.4
comp=Z,3µm,18.0s
G16K Koyuk River 37.42 331 IAMs_20 IAMs_20 09 35 43.9
comp=Z,2µm,18.0s
D19K Kuna River 37.45 337 IAMs_20 IAMs_20 09 36 06.8
comp=Z,2µm,21.0s
F17K Baldwin Pennin 37.47 333 IAMs_20 IAMs_20 09 35 55.2
comp=Z,2µm,21.0s
EMMW East Machias 37.83 64 IAMs_20 IAMs_20 09 34 10.7
comp=Z,2µm,19.0s
SCHQ Schefferville 37.92 47 P **P** **09 21 10.4 +0.7**
comp=Z,14nm,0.8s,baz=281,slow=9.4,SNR=7.0
SCHQ LR LR 09 37 41.7
comp=Z,1µm,21.1s,baz=264,slow=38
comp=Z,14nm,0.8s
SCHQ Schefferville 37.92 47 P **P** **09 21 08.8 -1.0**
SCHQ IAmb IAmb 09 21 29.1
comp=Z,31nm,1.0s
RES Resolute Bay 38.17 10 LR LR 09 36 39.8
comp=Z,2µm,19.8s,baz=210,slow=36
RES Resolute Bay 38.17 10 P **P** **09 21 14.1 +2.5**
comp=Z,18nm,1.8s
GGN Saint George 38.21 63 P **P** **09 21 11.4 -0.9**
ANM Nome 38.29 329 IAMs_20 IAMs_20 09 39 06.9
comp=Z,2µm,18.0s
BATG Bathurst New B 38.49 59 P **P** **09 21 13.3 -1.4**
BATG IAmb IAmb 09 21 17.3
comp=Z,29nm,1.0s
FRB Frobisher Bay 38.76 33 LR LR 09 36 58.3
comp=Z,2µm,20.8s,baz=263,slow=36
FRB Frobisher Bay 38.76 33 P **P** **09 21 17.6 +0.9**
comp=Z,78nm,1.1s
RDOG Red Dog Mine 38.78 335 IAMs_20 IAMs_20 09 37 26.8
comp=Z,2µm,21.0s
LMN Caledonia Moun 39.52 61 P **P** **09 21 22.1 -1.3**
LMN IAmb IAmb 09 21 32.5
comp=Z,56nm,1.4s
POIN Pond Inlet 39.81 17 P **P** **09 21 24.9 -0.5**
POIN IAmb IAmb 09 21 28.6
comp=Z,58nm,1.0s
MTDJ Mount Denham 40.31 108 IAMs_20 IAMs_20 09 38 55.3
comp=Z,2µm,20.0s
JTS Las Juntas de 40.49 125 LR LR 09 39 30.2
comp=Z,2µm,18.3s,baz=319,slow=38
JTS Las Juntas de 40.49 125 IAMs_20 IAMs_20 09 39 19.4
comp=Z,2µm,18.0s
GTBY Guantanamo Bay 41.13 104 IAMs_20 IAMs_20 09 38 52.0
comp=Z,2µm,18.0s
HDC Heredia 41.25 124 IAMs_20 IAMs_20 09 40 37.6
comp=Z,2µm,20.0s
DRLN Deer Lake 43.91 55 P **P** **09 21 58.6 -0.6**
TULEG Thule 43.99 15 IAMs_20 IAMs_20 09 37 49.1
comp=Z,2µm,20.0s
SFJD Kangerlussuaq 46.70 30 LR LR 09 42 48.5
comp=Z,2µm,18.4s,baz=275,slow=37
SFJD Kangerlussuaq 46.70 30 P **P** **09 22 20.1 -0.9**
SFJD pmax pmax
comp=Z,52nm,1.0s
SFJD MLR MLR
comp=Z,3µm,18.0s
SFJD Kangerlussuaq 46.70 30 P **P** **09 22 20.1 -0.9**
SFJD Kangerlussuaq 46.70 30 *i* P **P** **09 22 22.6 +1.6**
SFJD IAmb IAmb 09 22 23.8
comp=Z,54nm,1.0s
IVI Ivigtut 47.85 38 *i* P **P** **09 22 32.1 +2.1**
IVI IAmb IAmb 09 22 34.4
comp=Z,56nm,1.4s
SHEM Shemya Is, Ala 48.11 311 LR LR 09 39 16.6
comp=Z,221nm,20.4s,baz=103,slow=32
URIC Uribia, Colomb 48.57 110 P **P** **09 22 35.6 -0.7**
URIC IAmb IAmb 09 22 42.8
comp=Z,21nm,1.3s
BILL Bilibino 50.02 332 IAMs_20 IAMs_20 09 45 33.0
comp=Z,1µm,19.0s
SUMG Summit 50.91 22 P **P** **09 22 53.2 -0.6**
SUMG pmax pmax
comp=Z,52nm,1.3s
SUMG MLR MLR
comp=Z,2µm,22.0s
SUMG Summit 50.91 22 P **P** **09 22 53.2 -0.6**
SUMG Summit 50.91 22 *i* P **P** **09 22 54.2 +0.4**
SUMG IAmb IAmb 09 22 55.8
comp=Z,43nm,1.2s
TAOE Nuku Hiva Isla 51.21 209 *e*LR LR 09 37 38.2
comp=Z,2µm,29.4s
ISOG Isortoq, Green 51.47 31 *i* P **P** **09 22 58.8 +1.3**
ISOG IAmb IAmb 09 23 05.8
comp=Z,59nm,1.1s
ROSC El Rosal 51.61 119 P **P** **09 23 02.0 +2.2**
comp=Z,3.0nm,0.3s,baz=45,slow=12,SNR=4.1
ROSC LR LR 09 47 05.6
comp=Z,1µm,22.0s,baz=335,slow=39
comp=Z,3.0nm,0.3s
ROSC El Rosal 51.61 119 P **P** **09 23 02.0 +2.2**
ROSC El Rosal 51.61 119 P **P** **09 22 57.6 -2.1**
ROSC IAmb IAmb 09 24 48.9
comp=Z,67nm,2.0s
SABA Saba 51.64 98 IAMs_20 IAMs_20 09 44 32.3
comp=Z,2µm,21.0s
SEUS St. Eustatius 51.92 97 IAMs_20 IAMs_20 09 44 49.7
comp=Z,2µm,19.0s
GDSD La Dsirade Is 54.09 97 IAMs_20 IAMs_20 09 46 48.3
comp=Z,1µm,20.0s
SVN Savane Anatole 54.87 99 IAMs_20 IAMs_20 09 45 31.1
comp=Z,2µm,22.0s
BIM Bigot 55.14 99 IAMs_20 IAMs_20 09 45 38.2
comp=Z,1µm,21.0s
DAG Danmarks Havn 55.26 16 *i* P **P** **09 23 25.8 +0.5**
DAG IAmb IAmb 09 23 26.3
comp=Z,4.6nm,0.8s
MPOM Morne Pois Mar 55.35 99 IAMs_20 IAMs_20 09 45 53.5
comp=Z,1µm,20.0s
GRGR Grenville 56.12 102 IAMs_20 IAMs_20 09 46 37.2
comp=Z,2µm,20.0s
SEY Seymchan 56.72 327⇑ *e*P **P** **09 23 38.9 +2.9**
SEY pmax pmax
comp=Z,5.0nm,0.9s
PET Petropavlovsk 57.02 314 *e*P **P** **09 23 40.2 +2.0**
PET *e*S **S** **09 31 35.2 +2.7**
PET pmax pmax
comp=Z,100nm,14.0s
PETK Petropavlovsk- 57.52 315 P **P** **09 23 42.0 +0.2**
comp=Z,4.5nm,1.0s,baz=79,slow=11,SNR=5.4
comp=Z,4.5nm,1.0s
PETK Petropavlovsk- 57.52 315 P **P** **09 23 40.4 -1.4**
ATAH Atahualpa 58.13 132 LR LR 09 46 11.2
comp=Z,523nm,20.8s,baz=297,slow=33
MA2 Magadan 58.66 323 IAMs_20 IAMs_20 09 53 13.7
comp=Z,887nm,20.0s
BORG Borgarnes 58.83 30 LR LR 09 49 37.0
comp=Z,2µm,18.0s,baz=290,slow=36
JMIC Jan Mayen 60.27 21 LR LR 09 50 46.3
comp=Z,1µm,18.3s,baz=302,slow=37
SPITS Spitsbergen Ar 60.73 10 LR LR 09 49 49.3
comp=Z,1µm,19.3s,baz=320,slow=36
TIXI Tiksi 60.98 341 LR LR 09 53 07.6
comp=Z,2µm,19.4s,baz=84,slow=39
TIXI Tiksi 60.98 341⇓ *e*P **P** **09 24 07.5 +2.1**
TIXI pmax pmax
comp=Z,7.0nm,1.2s
TIXI Tiksi 60.98 341 P **P** **09 24 04.3 -1.1**
TIXI IAmb IAmb 09 24 08.9
comp=Z,14nm,1.2s
TIXI Tiksi 60.98 341 IAMs_20 IAMs_20 09 53 01.6
comp=Z,1µm,19.0s
CZSB Cruzeiro do Su 62.05 127 P **P** **09 24 11.6 -1.8**
NNA Nana 62.94 134 LR LR 09 48 17.8
comp=Z,681nm,20.5s,baz=242,slow=33
NNA Nana 62.94 134 *i* P **P** **09 24 22.5 +3.2**
PPT2 Papeete2 62.96 214 *e*LR LR 09 42 54.2
comp=Z,1µm,29.2s
PPT2 *e*LR LR 09 43 02.2
comp=Z,2µm,27.8s
BOAV Boa Vista 63.21 110 P **P** **09 24 18.8 -2.5**
YAK Yakutsk 66.38 332 LR LR 09 57 12.6
comp=Z,1µm,18.1s,baz=54,slow=39
YAK Yakutsk 66.38 332 *e*P **P** **09 24 43.0 +1.9**
YAK pmax pmax
comp=Z,8.0nm,0.8s
MDP Montagnes des 67.44 102 LR LR 09 56 28.3
comp=Z,535nm,21.6s,baz=282,slow=38

TBI Tubuai 68.02 211 *e*LR LR 09 45 14.2
comp=Z,7µm,30.8s
TBI *e*LR LR 09 45 18.8
comp=Z,1µm,30.5s
ARCES ARCESS Array B 69.28 13 LR LR 09 55 27.8
comp=Z,897nm,20.6s,baz=343,slow=36
NRIK Noril'sk 71.17 351 P **P** **09 25 10.6 -0.3**
comp=Z,2.5nm,0.8s,baz=16,slow=9.1,SNR=5.6
comp=Z,2.5nm,0.8s
NRIK Noril'sk 71.17 351⇑ *e*P **P** **09 25 12.5 +1.6**
NRIK pmax pmax
comp=Z,11nm,1.1s
NRIK Noril'sk 71.17 351 P **P** **09 25 09.5 -1.5**
LPAZ La Paz 71.47 129 P **P** **09 25 15.5 +1.4**
comp=Z,3.1nm,0.8s,baz=311,slow=6.5,SNR=5.8
comp=Z,3.1nm,0.8s
LPAZ La Paz 71.47 129 P **P** **09 25 11.8 -2.3**
EKA Eskdalemuir Ar 71.52 33 P **P** **09 25 15.4 +2.1**
comp=Z,3.0nm,0.8s,baz=293,slow=6.1,SNR=3.5
EKA LR LR 09 56 27.3
comp=Z,844nm,18.2s,baz=334,slow=36
comp=Z,3.0nm,0.8s
PB18 Visviri 71.66 131 IAMs_20 IAMs_20 09 51 30.7
comp=Z,852nm,21.0s
AP01 Chacalluta 71.77 133 IAMs_20 IAMs_20 09 57 33.5
comp=Z,675nm,22.0s
PB16 IPOC Station P 72.23 132 P **P** **09 25 16.5 -2.1**
PB16 IAmb IAmb 09 25 30.4
comp=Z,50nm,2.0s
PB16 IAMs_20 IAMs_20 10 02 24.7
comp=Z,652nm,20.0s
APA Apatity 72.35 11 *e*P P 09 25 07.8 -10
APA pmax pmax
comp=Z,9.0nm,1.3s
NOA NORSAR Array B 72.79 23 P **P** **09 25 23.0 +2.2**
comp=Z,1.5nm,0.8s,baz=317,slow=6.0,SNR=2.8
NOA LR LR 09 56 42.2
comp=Z,613nm,20.5s,baz=320,slow=35
comp=Z,1.5nm,0.8s
NOA NORSAR Array B 72.79 23 P **P** **09 25 23.0 +2.2**
NB201 NORSAR Array S 72.81 23 P **P** **09 25 18.9 -2.1**
PB11 IPOC Station P 73.26 133 P **P** **09 25 21.6 -2.6**
PB11 IAmb IAmb 09 25 34.6
comp=Z,28nm,1.1s
PB08 IPOC Station P 73.85 133 P **P** **09 25 25.7 -2.2**
PB08 IAmb IAmb 09 25 38.8
comp=Z,15nm,1.0s
HFS Hagfors 74.26 23 LR LR 09 57 26.9
comp=Z,829nm,18.8s,baz=314,slow=35
HEH HeiHe 74.92 323 *e*P **P** **09 25 35.4 +2.0**
HEH pmax pmax
comp=Z,6.0nm,0.8s
FINES FINESS Array B 76.49 17 P **P** **09 25 43.5 +1.3**
comp=Z,1.8nm,0.7s,baz=327,slow=3.2,SNR=4.5
FINES LR LR 10 00 55.9
comp=Z,870nm,18.4s,baz=336,slow=37
comp=Z,1.8nm,0.7s
FINES FINESS Array B 76.49 17 P **P** **09 25 40.8 -1.4**
USA0B Ussuriysk Arra 76.58 316 P **P** **09 25 41.7 -1.3**
USA0B pmax pmax
comp=Z,35nm,1.6s
USA0B Ussuriysk Arra 76.58 316 P **P** **09 25 41.7 -1.3**
USA0B IAmb IAmb 09 26 45.8
comp=Z,35nm,1.6s
USRK Ussuriysk Ar. 76.58 316 P **P** **09 25 40.9 -2.1**
USRK Ussuriysk Ar. 76.58 316 P **P** **09 25 40.9 -2.1**
AF01 San Pedro de A 76.61 134 P **P** **09 25 41.8 -2.0**
AF01 IAmb IAmb 09 25 52.6
comp=Z,22nm,0.8s
JYT Yasato 76.70 306 P **P** **09 25 42.8 -1.0**
MDJ Mudanjiang 77.60 318 IAMs_20 IAMs_20 10 03 10.8
comp=Z,652nm,18.0s
MAJO Matsushiro 77.77 307 IAMs_20 IAMs_20 10 05 20.2
comp=Z,632nm,20.0s
AC01 Pan de Azucar 77.81 138 P **P** **09 25 48.0 -2.0**
AC01 IAmb IAmb 09 26 00.8
comp=Z,14nm,1.0s
BNX BinXian 77.98 319 ⇓P **P** **09 25 50.0 -0.9**
BNX pP **pP** **09 25 53.8 -0.8**
BNX S **S** **09 35 41.6 -2.8**
BNX pmax pmax
comp=Z,170nm,4.9s
BNX L L
comp=Z,480nm,16.3s
BNX L L
comp=Z,640nm,19.0s
BNX L L
comp=Z,620nm,19.5s
PVIS Viseu 78.73 47 *e*P **P** **09 25 56.1 +0.9**
HIA Hailar 79.15 326 IAMs_20 IAMs_20 10 03 46.3
comp=Z,783nm,18.0s
INU Inuyama 79.27 307 IAMs_20 IAMs_20 09 57 15.7
comp=Z,537nm,22.0s
PSARD Sardoal 79.30 48 *e*P **P** **09 25 59.4 +1.1**
PCBR Castelo Branco 79.54 47 *e*P **P** **09 26 00.3 +0.7**
PCBR IAmb IAmb 09 26 11.8
comp=Z,25nm,1.5s
KLMR Klimovskoe 79.60 11 *e*P **P** **09 25 59.6 +0.1**
KLMR pmax pmax
comp=Z,25nm,1.3s
PMRV Marv??o 79.86 47 *e*P **P** **09 26 02.0 +0.6**
PMRV IAmb IAmb 09 26 05.5
comp=Z,24nm,1.2s
PARRA Arraiolos 79.89 48 *e*P **P** **09 26 01.9 +0.5**
EVO Evora 80.09 48 *e*P **P** **09 26 03.2 +0.7**
PLOUS Minas do Lousa 80.18 49 *e*P **P** **09 26 07.3 +4.3**
CN2 Changchun 80.33 319 *e*P **P** **09 26 02.1 -1.7**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
MORF Marmelete 80.52 50 *e*P **P** **09 26 06.6 +1.7**
CLL Collm 81.05 29 *e*P **P** **09 26 07.0 -0.5**
CLL MLR MLR
comp=Z,800nm,18.4s
CLL Collm 81.05 29 *e*P **P** **09 26 07.0 -0.5**
CLL *ex* x 09 26 39.0
CLL *e*PP **PP** **09 29 12.0 +0.4**
CLL *e*SS SS 09 41 54.0 +24
CLL *e*SSS SSS 09 44 48.0
CLL *ex* x 09 45 48.0
CLL L L 09 52 00.0
CLL AMS AMS 09 57 00.0
comp=N,1µm,28.3s
CLL AMS AMS 09 57 00.0
comp=E,600nm,22.5s
CLL AMS AMS 09 57 00.0
comp=Z,900nm,26.9s
CLL AMS AMS 10 04 00.0
comp=Z,800nm,18.4s
CO01 Juntas del Tor 81.15 139 IAMs_20 IAMs_20 09 56 55.1
comp=Z,455nm,18.0s
ESDC Sonseca Array 81.66 46 P **P** **09 26 11.2 +0.2**
comp=Z,2.0nm,0.7s,baz=310,slow=5.4,SNR=17
ESDC LR LR 09 59 42.5
comp=Z,520nm,18.7s,baz=301,slow=34
comp=Z,2.0nm,0.7s
ESDC Sonseca Array 81.66 46 P **P** **09 26 09.9 -1.1**
ESDC IAmb IAmb 09 26 13.6
comp=Z,49nm,1.8s
MSVF Nonsavu 81.85 240 LR LR 09 55 00.9
comp=Z,372nm,19.0s,baz=52,slow=30
NACGM Naroch 82.46 20 *e*P **P** **09 26 17.3 +2.5**
comp=Z,10.0nm,0.9s,baz=332
DAVA Damuels 82.97 33 *e*pP **P** **09 26 17.3 -0.6**
comp=Z,8.2nm,1.1s
KIRV Kirov 83.02 7 LR LR 10 07 24.7
comp=Z,798nm,18.8s,baz=353,slow=39
KIRV Kirov 83.02 7 *e*P **P** **09 26 19.8 +2.2**
MNK Minsk 83.11 19 *i* P **P** **09 26 20.0 +1.8**
MNK *i* 09 29 30.4
MNK *i* PPP PPP 09 31 19.6
MNK *i* S **S** **09 36 40.2 +2.5**
MNK *i* SS **SS** **09 42 04.9 +4.7**
MNK *i* SSS SSS 09 45 33.0
MNK pmax pmax
comp=E,39nm,0.9s
MNK pmax pmax
comp=N,24nm,1.0s
MNK pmax pmax
comp=Z,16nm,0.7s
MNK MLR MLR
comp=E,694nm,23.0s
MNK Minsk 83.11 19 *i* LRM MLR 10 05 53.0
comp=E,694nm,23.1s
MNK Minsk 83.11 19 *i* P **P** **09 26 20.0 +1.8**
comp=E,39nm,0.9s
MNK Minsk 83.11 19 *i* P **P** **09 26 20.0 +1.8**
comp=N,24nm,1.0s
MNK Minsk 83.11 19 *i* P **P** **09 26 20.0 +1.8**
comp=Z,16nm,0.7s,baz=334
MNK Minsk 83.11 19 *i* PP PP 09 29 30.4 +2.1
MNK Minsk 83.11 19 *i* PPP PPP 09 31 19.7
MNK Minsk 83.11 19 *i* S **S** **09 36 40.3 +2.5**
MNK Minsk 83.11 19 *i* SS SS 09 42 05.0 +4.8
MNK Minsk 83.11 19 *i* SSS SSS 09 45 33.1
RETA Reutte 83.18 32 *e*pP **P** **09 26 19.2 +0.4**
comp=Z,11nm,1.4s
GERES GERESS Array B 83.30 30 LR LR 10 03 44.4
comp=Z,816nm,18.2s,baz=318,slow=36
GERES GERESS Array B 83.30 30 P **P** **09 26 18.5 -1.0**
GERES GERESS Array B 83.30 30 P **P** **09 26 18.5 -1.0**
DAVOX Davos/Dischmat 83.36 33 LR LR 10 04 28.1
comp=Z,913nm,20.0s,baz=303,slow=36
KSAR Wonju Array Be 83.41 313 P **P** **09 26 18.6 -1.5**
KSAR Wonju Array Be 83.41 313 P **P** **09 26 18.6 -1.5**
MOTA Moosalm 83.44 32 *i* pP **P** **09 26 20.3 +0.1**
comp=Z,6.9nm,1.1s
TLY Talaya 83.45 335 P **P** **09 26 22.6 +2.5**
comp=Z,5.7nm,0.8s,baz=223,slow=0.9,SNR=5.7
TLY LR LR 10 08 25.5
comp=Z,670nm,18.5s,baz=28,slow=39
comp=Z,5.7nm,0.8s
TLY Talaya 83.45 335 P **P** **09 26 18.7 -1.4**
TLY IAmb IAmb 09 26 24.5
comp=Z,10nm,1.0s
FETA Feichten 83.53 33 *i* pP **P** **09 26 21.0 +0.2**
comp=Z,9.7nm,1.5s
SQTA Sankt Quirin 83.58 32 *i* pP **P** **09 26 21.2 +0.2**
comp=Z,8.0nm,0.9s
MT05 Renca 83.59 142 IAMs_20 IAMs_20 10 02 11.7
comp=Z,776nm,22.0s
WATA Walderalm 83.64 32 *e*pP **P** **09 26 21.5 +0.1**
comp=Z,5.8nm,1.2s
FUORN Ofenpass-Fuorn 83.65 33 P **P** **09 26 19.5 -2.0**
FUORN IAmb IAmb 09 26 47.3
comp=Z,16nm,1.1s
WTTA Wattenberg 83.72 32 *e*pP **P** **09 26 21.8 0.0**
comp=Z,6.4nm,1.3s
MT01 Popeta 83.72 143 P **P** **09 26 20.1 -1.4**
MT08 Bocatoma Ro 83.98 141 P **P** **09 26 20.8 -2.3**
VRAC Vranov 84.02 28 LR LR 10 06 41.0
comp=Z,899nm,18.5s,baz=320,slow=38
LESA Schwarzleotal 84.03 31 *e*pP **P** **09 26 23.4 +0.1**
comp=Z,7.1nm,1.3s
BO01 Tunca 84.23 143 P **P** **09 26 22.5 -1.5**
BO01 IAmb IAmb 09 26 31.5
comp=Z,15nm,0.9s
MOY Mondy 84.31 337 *e*P **P** **09 26 28.1 +3.5**
MOY pmax pmax
comp=Z,25nm,1.4s
MOA Molln 84.32 30 *e*pP **P** **09 26 24.7 0.0**
comp=Z,3.1nm,0.9s
BDFB Brasilia 84.44 115 LR LR 10 05 31.0
comp=Z,649nm,21.9s,baz=323,slow=37
ABTA Abfaltersbach 84.50 32 *e*pP **P** **09 26 25.9 +0.2**
comp=Z,2.4nm,0.6s
OBN Obninsk 84.53 14 LR LR 10 04 48.3
comp=Z,442nm,18.4s,baz=358,slow=36
OBN Obninsk 84.53 14⇓ *e*P **P** **09 26 27.1 +1.7**
OBN *e* 09 26 31.7
OBN *e* 09 29 43.9
OBN *e*PPP PPP 09 31 32.3
OBN *e*S **SKSac** **09 36 43.2 -6.1**
OBN pmax pmax
comp=Z,22nm,1.5s
OBN MLR MLR
comp=Z,564nm,15.0s
KBA Koelnbreinsper 84.58 31 *e*pP **P** **09 26 26.1 0.0**
comp=Z,13nm,1.9s
ZAK Zakamensk 84.68 335 *e*P **P** **09 26 29.0 +2.5**
ZAK pmax pmax
comp=Z,7.0nm,1.6s
WINA Alland / Wiene 84.82 29 *e*pP **P** **09 26 27.5 +0.4**
comp=Z,18nm,1.6s
CONA Conrad Observa 84.88 29 *i* pP **P** **09 26 27.7 +0.2**
comp=Z,7.2nm,1.3s
SESA Seetaler Alpe, 85.04 30 *e*pP **P** **09 26 28.3 -0.2**
comp=Z,7.8nm,1.1s
MODS Modra-Piesok 85.05 28 *e*P **P** **09 26 29.7 +1.4**
MODS Modra-Piesok 85.05 28 *e*P **P** **09 26 29.7 +1.4**
MYKA Terra Mystica 85.06 31 *e*pP **P** **09 26 28.4 0.0**
comp=Z,2.2nm,0.8s
LANS Liptovska Anna 85.19 27 *e*P **P** **09 26 32.2 +3.2**
LANS Liptovska Anna 85.19 27 *e*P **P** **09 26 32.2 +3.2**
RONA Rosalia, Austr 85.24 29 *e*pP **P** **09 26 29.3 +0.1**
comp=Z,4.4nm,0.8s
ARSA Arzberg 85.31 30 *i* pP **P** **09 26 29.9 +0.3**
comp=Z,3.2nm,0.7s
RNPP9 Sopachiv 85.31 22 P **P** **09 26 31.4 +1.9**
ULN Ulaanbaatar 85.47 332⇓ *e*P **P** **09 26 33.7 +3.1**
ULN pmax pmax
comp=Z,3.0nm,1.3s
RNPP5 Staryi Chortor 85.47 22 P **P** **09 26 32.3 +2.0**
VYHS Vyhne 85.52 27 *e*P **P** **09 26 34.0 +3.4**
VYHS Vyhne 85.52 27 *e*P **P** **09 26 34.0 +3.4**
OBKA Obir 85.52 31 *e*pP **P** **09 26 31.4 +0.6**
comp=Z,9.2nm,1.0s
SOKA Soboth 85.58 30 *i* pP **P** **09 26 31.5 +0.5**
comp=Z,1.9nm,0.4s
SONM Songino Array 85.74 332 P **P** **09 26 33.4 +1.6**
comp=Z,1.8nm,0.8s,baz=68,slow=4.3,SNR=9.4
SONM LR LR 10 05 56.1
comp=Z,728nm,21.1s,baz=31,slow=36
comp=Z,1.8nm,0.8s
SONM Songino Array 85.74 332 P **P** **09 26 29.3 -2.5**
SONM IAmb IAmb 09 26 36.5
comp=Z,36nm,2.0s
ARTI Arti 85.75 2 P **P** **09 26 32.9 +1.3**
comp=Z,5.0nm,0.7s,baz=64,slow=3.6,SNR=5.3
ARTI LR LR 10 06 16.5
comp=Z,621nm,21.7s,baz=354,slow=37
comp=Z,5.0nm,0.7s
ARTI Arti 85.75 2 P **P** **09 26 29.2 -2.4**
ARTI pmax pmax
comp=Z,59nm,1.8s
ARTI MLR MLR
comp=Z,800nm,20.0s
ARTI Arti 85.75 2 P **P** **09 26 29.2 -2.4**
MD01 Midelt array s 85.85 51 P **P** **09 26 30.1 -2.6**
MD31 MD31 85.85 51 P **P** **09 26 30.4 -2.3**
BI02 San Fabin de 86.00 144 P **P** **09 26 31.6 -1.4**
BI02 IAmb IAmb 09 26 41.2
comp=Z,16nm,0.9s
ZALV Zalesovo Beam 86.19 347 LR LR 10 08 22.8
comp=Z,487nm,21.7s,baz=7.0,slow=38
AK21 Malin Array Si 86.77 20 P **P** **09 26 37.7 +1.0**
AK20 Malin Array Si 86.79 20 P **P** **09 26 37.7 +0.9**
AKASG Malin Array Be 86.89 20 P **P** **09 26 37.8 +0.5**
comp=Z,0.4nm,0.3s,baz=324,slow=4.1,SNR=13
AKASG LR LR 10 06 15.6
comp=Z,903nm,19.7s,baz=326,slow=36
comp=Z,0.4nm,0.3s
AKASG Malin Array Be 86.89 20 *i* P **P** **09 26 37.7 +0.5**
AKASG pmax pmax
comp=Z,3.0nm,0.8s
AKBB Malin Array Si 86.89 20 *e*P **P** **09 26 36.2 -1.1**
AKBB pmax pmax
comp=Z,6.0nm,1.2s
LUBAR Lubar, Ukraine 87.18 21 P **P** **09 26 39.8 +1.1**
RCBR Riachuelo 87.26 100 IAMs_20 IAMs_20 10 09 30.3
comp=Z,724nm,20.0s
LPSR Galich'ya Gora 87.37 14 *e*P **P** **09 26 40.7 +1.1**
LPSR pmax pmax
comp=Z,20nm,1.1s
RAO Raoul Island 87.45 229 LR LR 10 04 50.5
comp=Z,296nm,18.3s,baz=116,slow=35
BJT Baijiatuau 87.79 322 IAMs_20 IAMs_20 10 08 30.4
comp=Z,674nm,20.0s
CESX Cesi 87.83 34 P **P** **09 26 39.4 -2.7**
CESX IAmb IAmb 09 28 57.7
comp=Z,5.0nm,0.6s
VORR Voronezh 88.31 14 *e*P **P** **09 26 43.5 -0.6**
VORR pmax pmax
comp=Z,80nm,0.5s
VSR Storozhevoye 88.73 14 *e*P **P** **09 26 46.7 +0.6**
VSR pmax pmax
comp=Z,9.0nm,0.6s
BORK Borovoye 88.88 355 *de*P **P** **09 26 47.9 +1.1**
BORK pmax pmax
comp=Z,13nm,0.9s
BVAR Borovoye Array 88.89 355 P **P** **09 26 47.7 +0.8**
comp=Z,9.8nm,0.8s,baz=0.7,slow=4.2,SNR=9.4
comp=Z,9.8nm,0.8s

VORD	**Divnogorie**	**89.00**	**14**	*e*P		**P**		**09 26 47.4**	**+0.1**
VORD				pmax		pmax			
	comp=Z,6.0nm,0.5s								
VRH	**Novokhopyorsk**	**89.21**	**13**	*e*P		**P**		**09 26 49.2**	**+0.9**
VRH				pmax		pmax			
	comp=Z,10.0nm,0.8s								
HHC	**Hu-ho-hao-te**	**89.31**	**325**	*e*P		**P**		**09 26 46.8**	**-2.4**
HHC				S		**S**		**09 37 31.1**	**-8.0**
HHC				pmax		pmax			
	comp=Z,12nm,0.5s								
HHC				pmax		pmax			
	comp=Z,170nm,4.6s								
HHC				L		L			
	comp=Z,600nm,16.8s								
HHC				L		L			
	comp=Z,640nm,17.6s								
HHC				L		L			
	comp=Z,510nm,18.3s								
HNR	**Honiara**	**89.70**	**258**	LR		LR		10 02 12.1	
	comp=Z,384nm,18.6s,baz=126,slow=32								
SPB	**Sao Paulo**	**90.14**	**120**	IAMs_20		IAMs_20		10 12 22.3	
	comp=Z,799nm,18.0s								
KURK	**Kurchatov**	**90.31**	**350**	*e*P		**P**		**09 26 55.1**	**+1.6**
KURK				pmax		pmax			
	comp=Z,25nm,1.9s								
KURK	**Kurchatov**	**90.31**	**350**	P		**P**		**09 26 51.5**	**-2.0**
KURK				IAmb		IAmb		09 27 31.1	
	comp=Z,8.2nm,1.0s								
KURK	**Kurchatov**	**90.31**	**350**	IAMs_20		IAMs_20		10 09 55.4	
	comp=Z,723nm,21.0s								
KURBB	**Kurchatov Arra**	**90.42**	**350**	P		**P**		**09 26 54.9**	**+0.9**
	comp=Z,3.6nm,0.8s,baz=13,slow=4.7,SNR=6.7								
KURBB				LR		LR		10 13 24.8	
	comp=Z,426nm,18.2s,baz=316,slow=40								
	comp=Z,3.6nm,0.8s								
HNS	**HongShan**	**90.54**	**321**	*e*P		**P**		**09 26 53.0**	**-1.8**
HNS				S		**S**		**09 37 52.3**	**+2.0**
HNS				L		L			
	comp=Z,540nm,19.1s								
HNS				L		L			
	comp=Z,990nm,18.3s								
MLR	**Muntele Rosu**	**90.57**	**25**	LR		LR		10 08 16.7	
	comp=Z,1μm,21.4s,baz=1.0,slow=36								
MARNC	**Mare, Loyalty**	**91.33**	**244**	P		**P**		**09 26 56.3**	**-2.3**
AKTO	**Aktyubinsk**	**91.69**	**3**	LR		LR		10 13 10.2	
	comp=Z,480nm,18.4s,baz=22,slow=39								
NJ2	**Nanjing**	**92.43**	**315**	*e*P		**P**		**09 27 03.1**	**-0.6**
NJ2				pmax		pmax			
	comp=Z,14nm,0.6s								
KRVT	**Keravat (AS076**	**92.73**	**267**	LR		LR		10 03 55.0	
	comp=Z,395nm,18.6s,baz=57,slow=32								
VAE	**Valguarnera**	**92.80**	**36**	LR		LR		10 09 29.8	
	comp=Z,464nm,18.0s,baz=162,slow=36								
CEL	**Celeste**	**92.83**	**35**	IAMs_20		IAMs_20		10 13 00.9	
	comp=Z,643nm,19.0s								
DZM	**Mont Dzumac**	**92.84**	**244**	LR		LR		10 00 47.0	
	comp=Z,559nm,20.2s,baz=111,slow=30								
KOUNC	**Koumac, New Ca**	**93.41**	**247**	P		**P**		**09 27 06.1**	**-2.1**
MKAR	**Makanchi Array**	**93.51**	**346**	P		**P**		**09 27 09.8**	**+1.4**
	comp=Z,2.2nm,0.9s,baz=359,slow=4.9,SNR=4.0								
MKAR				LR		LR		10 13 47.3	
	comp=Z,450nm,19.9s,baz=351,slow=38								
	comp=Z,2.2nm,0.9s								
MKAR	**Makanchi Array**	**93.51**	**346**	P		**P**		**09 27 06.9**	**-1.5**
ERBR	**Yeremizino-Bor**	**94.25**	**15**	*e*P		**P**		**09 27 13.4**	**+1.6**
ERBR				*e*S		**SKSac**		**09 37 47.9**	**+0.9**
ERBR				pmax		pmax			
	comp=Z,23nm,0.8s								
WMQ	**Urumqi**	**95.17**	**342**	*e*P		**P**		**09 27 17.8**	**+1.6**
WMQ				L		L			
	comp=Z,590nm,20.1s								
WMQ				L		L			
	comp=Z,580nm,20.1s								
KIV	**Kislovodsk**	**96.37**	**14**	*e*P		**P**		**09 27 23.1**	**+1.4**
KIV				pmax		pmax			
	comp=Z,6.0nm,1.0s								
KIV				MLR		MLR			
	comp=Z,457nm,20.0s								
KIV	**Kislovodsk**	**96.37**	**14**	IAMs_20		IAMs_20		10 12 54.6	
	comp=Z,551nm,18.0s								
KVAR	**Kislovodsk Arr**	**96.37**	**14**	LR		LR		10 13 01.9	
	comp=Z,527nm,18.1s,slow=37								
KBZ	**Khabaz**	**96.63**	**14**	P		**P**		**09 27 24.6**	**+1.9**
	comp=Z,4.5nm,0.8s,baz=343,slow=5.9,SNR=7.8								
KBZ				LR		LR		10 15 00.9	
	comp=Z,503nm,18.7s,baz=333,slow=38								
	comp=Z,4.5nm,0.8s								
KBZ	**Khabaz**	**96.63**	**14**	*e*P		**P**		**09 27 24.4**	**+1.7**
KBZ				pmax		pmax			
	comp=Z,5.0nm,0.9s								
URZ	**Urewera**	**96.76**	**226**	LR		LR		10 07 40.5	
	comp=Z,113nm,18.1s,baz=36,slow=33								
LZDM	**Lanzhou Array**	**96.83**	**327**	LR		LR		10 13 32.7	
	comp=Z,943nm,20.4s,baz=320,slow=37								
MAK	**Makhachkala**	**98.16**	**11**	*e*P		**P**		**09 27 27.4**	**-2.2**
MAK				*e*				09 31 25.8	
MAK				*e*				09 38 02.7	
MAK				*e*SSS		SSS		09 49 26.2	
MAK				pmax		pmax			
	comp=Z,94nm,1.1s								
BRTR	**Keskin Array B**	**98.18**	**22**	LR		LR		10 12 40.3	
	comp=Z,393nm,20.7s,baz=320,slow=36								
AAK	**Ala-Archa**	**98.79**	**351**	LR		LR		10 16 10.9	
	comp=Z,511nm,20.9s,baz=13,slow=38								
IDI	**Anoyia**	**99.16**	**30**	LR		LR		10 14 31.7	
	comp=Z,251nm,19.0s,baz=354,slow=37								
TAM	**Tamanrasset**	**99.38**	**51**	IAMs_20		IAMs_20		10 09 35.6	
	comp=Z,587nm,22.0s								
WUS	**Wushi**	**99.48**	**347**	IAMs_20		IAMs_20		10 15 52.1	
	comp=Z,714nm,22.0s								
GNI	**Garni**	**100.44**	**13**	IAMs_20		IAMs_20		10 13 20.2	
	comp=Z,426nm,21.0s								
CD2	**Chengdu**	**101.07**	**324**	*e*P		**Pdif**		**09 27 40.4**	**-2.5**
CSS	**Mathiatis**	**102.48**	**24**	IAMs_20		IAMs_20		10 15 56.6	
	comp=Z,531nm,21.0s								
GHAJ	**Ghor Haditha**	**106.56**	**24**	IAMs_20		IAMs_20		10 24 13.8	
	comp=Z,377nm,19.0s								
NIL	**Nilore**	**107.80**	**350**	IAMs_20		IAMs_20		10 21 29.2	
	comp=Z,668nm,20.0s								
KKM	**Kota Kinabalu**	**113.31**	**299**	IAMs_20		IAMs_20		10 14 57.4	
	comp=Z,392nm,22.0s								
EDA	**Edea**	**116.35**	**61**	IAMs_20		IAMs_20		10 21 43.1	
	comp=Z,789nm,19.0s								
UOSS	**Minazif**	**116.97**	**6**	IAMs_20		IAMs_20		10 28 54.8	
	comp=Z,389nm,21.0s								
ASAR	**Alice Springs**	**118.16**	**261**	PKP		**PKPdf**		**09 32 39.0**	**-1.1**
	comp=Z,0.7nm,0.7s,baz=71,slow=2.5,SNR=5.9								
QSPA	**South Pole Qui**	**127.99**	**180**	PKP		**PKiKP**		**09 32 59.6**	**+1.4**
	comp=Z,1.1nm,0.9s,baz=196,slow=2.3,SNR=4.0								
KDWAN	**Kaudwane**	**144.83**	**76**	PKPdf		**PKPab**		**09 33 26.9**	**-2.2**
SUR	**Sutherland**	**145.97**	**93**	PKPdf		**PKPdf**		**09 33 29.3**	**-2.6**
SYO	**Syowa Base**	**146.76**	**165**	⇑*iP*		**PKiKP**		**09 33 40.6**	**+4.3**
BOSA	**Boshof**	**147.93**	**84**	PKPbc		**PKPbc**		**09 33 38.9**	**+0.6**
	comp=Z,5.6nm,0.8s,baz=344,slow=3.8,SNR=7.3								
BOSA	**Boshof**	**147.93**	**84**	PKHKP		PKPpre		09 33 33.3	
BOSA	**Boshof**	**147.93**	**84**	PKPdf		**PKPdf**		**09 33 33.3**	**-1.9**
MAW	**Mawson**	**150.51**	**181**	P		**PKPab**		**09 33 47.5**	**-2.5**

REN ***13*** *09:15:32.1±0.9,38.°16N±0.°01×117.°86W±0.°01,h6km±3km, Error ellipse: s-maj=2.2km s-min=1.1km az=202.0*

NEIC 13 09:15:31.7±1.5,38.°18N±0.°01×117.°85W±0.°02,h9km±6km, ML4.0/18,**ML4.3**/6(REN),**Error ellipse: s-maj=3.0km s-min=1.0km az=58.0,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COLR	**Columbus**	**0.16**	**258**		Pg	09 15 35.8	+0.4
COLR					Sg	09 15 38.3	+0.5
NV11	**Mina Array Sit**	**0.35**	**317**		Pg	09 15 39.2	+0.5
NV06	**Mina Array Sit**	**0.41**	**306**		Pg	09 15 40.6	+0.7
NV07	**Mina Array Sit**	**0.42**	**304**		Pb	09 15 40.8	-0.6
NV03	**Mina Array Sit**	**0.43**	**306**		Pg	09 15 40.8	+0.6
NV08	**Mina Array Sit**	**0.43**	**302**		Pb	09 15 41.0	-0.6
NV01	**Mina Array Sit**	**0.43**	**305**		Pg	09 15 41.0	+0.7
NVAR	**Mina Array Bea**	**0.43**	**305**	Pg	Pg	09 15 40.6	+0.3
NV05	**Mina Array Sit**	**0.43**	**308**		Pg	09 15 41.0	+0.7
NV02	**Mina Array Sit**	**0.44**	**306**		Pg	09 15 40.9	+0.5
NV09	**Mina Array Sit**	**0.46**	**304**		Pg	09 15 41.4	+0.7
TPH	**Tonopah**	**0.51**	**102**	Pg	Pg	09 15 42.2	+0.5
TPH				IAML		09 15 49.6	
	comp=N,14μm,1.1s						
TPH				IAML		09 15 51.1	
	comp=E,10μm,1.1s						
LHV	**Little Huntoon**	**0.52**	**278**	Pg	Pb	09 15 42.6	-0.4
LHV				IAML		09 15 45.7	
	comp=E,14μm,0.8s						
LHV				IAML		09 15 48.7	
	comp=N,14μm,1.4s						
MZP	**Montezuma Peak**	**0.60**	**142**		Pg	09 15 43.8	+0.3
MZP				IAML		09 15 47.4	
	comp=E,6μm,1.3s						
MZP				IAML		09 15 53.6	
	comp=N,6μm,1.0s						
RYN	**Ryan**	**0.69**	**311**		Pb	09 15 45.7	-0.4
RYN				IAML		09 15 55.6	
	comp=E,7μm,0.4s						
RYN				IAML		09 15 56.3	
	comp=N,6μm,0.2s						
Q09A	**Carvers**	**0.84**	**39**	Pg	Pg	09 15 48.3	+0.3
KVN	**Kaiserville**	**0.89**	**348**	Pg	Pg	09 15 49.2	+0.2
KVN				IAML		09 15 52.5	
	comp=N,4μm,1.1s						
KVN				IAML		09 16 05.7	
	comp=E,5μm,0.7s						
GMN	**Gold Mountain**	**0.99**	**152**	Pg	Pb	09 15 51.2	-0.1
MDPB	**Devils Postpil**	**1.11**	**241**	Pg	Pg	09 15 52.4	-0.7
TIN	**Tinemaha, Big**	**1.16**	**195**	Pg	Pg	09 15 53.9	-0.2
WAKR	**Walker**	**1.29**	**285**	Pn	Pn	09 15 55.7	-0.4
YERR	**Yerington**	**1.35**	**307**	Pn	Pb	09 15 57.3	0.0
CWC	**Cottonwood Cre**	**1.75**	**186**	Pn	Pn	09 16 02.0	-0.4
S11A	**Rachel**	**1.75**	**107**	Pn	Pn	09 16 02.9	+0.4
TPNV	**Topopah Spring**	**1.77**	**133**	Pn	Pn	09 16 03.3	+0.6
FURC	**Furnace Creek,**	**1.88**	**155**	Pn	Pn	09 16 04.3	+0.3
CMB	**Columbia Colle**	**2.00**	**267**	Pn	Pn	09 16 05.8	0.0
MPK	**Martis Peak**	**2.03**	**304**	Pn	Pn	09 16 06.3	-0.1
KARE	**Kearney REC, C**	**2.05**	**220**	Pn	Pn	09 16 06.6	+0.2
BMN	**Battle Mountai**	**2.30**	**12**	Pn	Pn	09 16 10.0	0.0
CCCA	**Chr Cany lake**	**2.68**	**171**	Pn	Pn	09 16 14.8	-0.3
LRMC	**Laurel Mtn Rad**	**2.70**	**177**	Pn	Pn	09 16 14.1	-1.3
GSC	**Goldstone, Bar**	**2.99**	**163**	Pn	Pn	09 16 18.7	-0.8
LVN	**Las Vegas**	**3.00**	**133**	Pn	Pn	09 16 20.1	+0.7

IDC ***13*** *09:16:41.1±0.7,39.°52N×74.°58E,h0km,mb4.2/17, mbtmp4.2/24,ML3.8/6,MS4.1/12,Error ellipse: s-maj=14.3km s-min=12.1km az=99.0*

SOME ***13*** *09:16:41.1,39.°77N×74.°47E,h10km*

BJI ***13*** *09:16:42.0,39.°53N×74.°44E,h8km,mB4.5/2,mb4.5/18, ML4.2/7,Ms3.8/7,Ms7 3.7/6*

KRNET ***13*** *09:16:43.4±0.1,39.°76N×74.°50E,h22km,mb4.8*

MOS ***13*** *09:16:43.9±1.1,39.°62N×74.°40E,h19km,mb4.7/19,Error ellipse: s-maj=5.5km s-min=3.5km az=91.6*

NEIC ***13*** *09:16:43.5±0.8,39.°62N±0.°06×74.°56E±0.°08,h10km±1km, mb4.6/49,Error ellipse: s-maj=12.8km s-min=8.1km az=138.0*

NNC ***13*** *09:16:46.0±1.5,39.°95N×74.°65E,h0km,mb4.7,mpv4.4, Error ellipse: s-maj=11.3km s-min=6.6km az=174.0*

BGR ***13*** *09:16:48.0,39.°48N×74.°53E,h33km,mb4.5*

ISC 13 09:16:43.3±1.1,39.°61N±0.°03×74.°50E±0.°02,h13km±7km, n304,σ2°12/352,mb4.5/63,MS4.8/9,46C-23D,Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**0.87**	**298**	⇑*iP*	**Pg**	**09 16 58.8**	**-1.3**
SFK				⇑*iS*	**Sg**	**09 17 10.3**	**-1.2**
SFK	**Sufi-Kurgan**	**0.87**	**298**	*i* PG	**Pg**	**09 16 58.8**	**-1.3**
SFK				*i* S	**Sg**	**09 17 10.3**	**-1.2**
KSH2	**Kashi**	**0.95**	**119**	Pg	**Pg**	**09 16 59.8**	**-1.8**
KSH2				Sg	**Sb**	**09 17 14.6**	**+0.4**
KSH2				AML	AML		
	5μm,0.7s						
KSH2				AML	AML		
	4μm,0.8s						
SALK	**Salom-Alik**	**1.38**	**338**	⇑*iP*	**Pn**	**09 17 06.5**	**-1.9**
SALK				⇑*eS*	**Sb**	**09 17 23.0**	**-3.7**
SALK	**Salom-Alik**	**1.38**	**338**	*i* PG	**Pn**	**09 17 06.5**	**-1.9**
OHH	**Osh**	**1.60**	**305**	⇑*iP*	**Pn**	**09 17 10.9**	**-0.6**
OHH				⇑*iS*	**Sn**	**09 17 31.6**	**-0.5**
OHH	**Osh**	**1.60**	**305**	*i* P*	**Pn**	**09 17 10.9**	**-0.6**
OHH				*i* S	**Sn**	**09 17 31.6**	**-0.5**
ARSB	**Arslanbob**	**2.07**	**326**	⇓*iP*	**Pn**	**09 17 18.6**	**+0.7**
ARSB				⇓*iS*	**Sn**	**09 17 44.1**	**+0.4**
ARSB	**Arslanbob**	**2.07**	**326**	PN	**Pn**	**09 17 18.4**	**+0.4**
ARSB	**Arslanbob**	**2.07**	**326**	Pn	**Pn**	**09 17 18.4**	**+0.4**
DRK	**Karamyk**	**2.09**	**267**	⇑*eP*	**Pb**	**09 17 20.8**	**-0.5**
DRK				⇑*eS*	**Sb**	**09 17 47.9**	**+0.6**
DRK	**Karamyk**	**2.09**	**267**	PN	**Pn**	**09 17 19.0**	**+0.7**
DRK	**Karamyk**	**2.09**	**267**	Pn	**Pn**	**09 17 19.0**	**+0.7**
NRN	**Naryn**	**2.15**	**32**	⇓*eP*	**Pn**	**09 17 19.4**	**+0.2**
NRN				⇓*iS*	**Sn**	**09 17 45.4**	**-0.6**
NRN	**Naryn**	**2.15**	**32**	PN	**Pn**	**09 17 19.2**	**0.0**
NRN	**Naryn**	**2.15**	**32**	Pn	**Pn**	**09 17 19.2**	**0.0**
UCH	**Uchtor**	**2.62**	**0**	P	**Pb**	**09 17 29.5**	**-0.9**
	SNR=344						
UCH	**Uchtor**	**2.62**	**0**	⇑*iP*	**Pn**	**09 17 26.0**	**+0.2**
UCH				⇑*iS*	**Sn**	**09 17 57.0**	**-0.7**
UCH	**Uchtor**	**2.62**	**0**	*i* PN	**Pn**	**09 17 26.0**	**+0.2**
UCH				*i* S	**Sn**	**09 17 57.0**	**-0.7**
BTK	**Batken**	**2.87**	**280**	⇑*eP*	**Pn**	**09 17 30.9**	**+2.0**
BTK				⇑*iS*	**Sn**	**09 18 05.6**	**+2.3**
BTK	**Batken**	**2.87**	**280**	PN	**Pn**	**09 17 29.6**	**+0.7**
BTK	**Batken**	**2.87**	**280**	Pn	**Pn**	**09 17 29.6**	**+0.7**
ULHL	**Ulahol**	**2.95**	**26**	P	**Pb**	**09 17 34.0**	**-1.9**
	SNR=15						
ULHL	**Ulahol**	**2.95**	**26**	⇑*iP*	**Pn**	**09 17 30.6**	**+0.5**
ULHL				⇑*iS*	**Sn**	**09 18 04.9**	**-0.6**
ULHL	**Ulahol**	**2.95**	**26**	*i* PN	**Pn**	**09 17 30.6**	**+0.5**
ULHL				*i* S	**Sn**	**09 18 04.9**	**-0.6**
AAK	**Ala-Archa**	**3.03**	**360**	Pn	**Pb**	**09 17 35.3**	**-1.8**
	39nm,0.3s,baz=180,slow=7.6,SNR=204						
AAK				Sn	**Sb**	**09 18 14.4**	**+0.2**
	64nm,0.3s,baz=275,slow=22,SNR=9.0						
AAK				LR	LR	09 18 56.5	
	comp=Z,1μm,20.0s,baz=156,slow=44						
	203nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**3.03**	**360**	P	**Pb**	**09 17 35.4**	**-1.8**
	SNR=130						
AAK	**Ala-Archa**	**3.03**	**360**	⇑Pn	**Pn**	**09 17 33.4**	**+2.3**
	84nm,0.5s						
AAK				⇓Lg	Lg	09 18 13.3	
	606nm,1.1s						
AAK	**Ala-Archa**	**3.03**	**360**	⇑*eP*	**Pn**	**09 17 31.5**	**+0.4**
AAK				⇑*iS*	**Sn**	**09 18 06.3**	**-1.1**
AAK	**Ala-Archa**	**3.03**	**360**	*de*PN	**Pb**	**09 17 35.2**	**-2.0**
AAK				pmax	pmax		
	comp=Z,169nm,0.4s						
AAK	**Ala-Archa**	**3.03**	**360**		**Pb**	**09 17 34.9**	**-2.3**
KBK	**Karagaybulak**	**3.07**	**6**	P	**Pb**	**09 17 36.2**	**-1.7**
	SNR=341						
KBK	**Karagaybulak**	**3.07**	**6**	⇓*iP*	**Pn**	**09 17 31.8**	**+0.1**
KBK				⇓*iS*	**Sn**	**09 18 07.3**	**-1.0**
KBK	**Karagaybulak**	**3.07**	**6**	*i* PN	**Pn**	**09 17 31.8**	**+0.1**
KBK				*i* S	**Sn**	**09 18 07.3**	**-1.0**
BOOM	**Boomskoye usch**	**3.08**	**20**	⇑*eP*	**Pn**	**09 17 32.4**	**+0.6**
BOOM				⇑*iS*	**Sn**	**09 18 07.9**	**-0.8**
BOOM	**Boomskoye usch**	**3.08**	**20**	PN	**Pb**	**09 17 35.4**	**-2.7**
BOOM	**Boomskoye usch**	**3.08**	**20**		**Pb**	**09 17 35.4**	**-2.7**
EKS2	**Erkin-Say**	**3.10**	**350**	P	**Pb**	**09 17 36.0**	**-2.4**
	SNR=92						
EKS2	**Erkin-Say**	**3.10**	**350**	⇓*eP*	**Pn**	**09 17 32.4**	**+0.3**
EKS2				⇓*eS*	**Sn**	**09 18 08.3**	**-0.8**
TRKS	**Terek-Say**	**3.20**	**308**	⇓*eP*	**Pn**	**09 17 33.7**	**+0.2**
TRKS				⇓*iS*	**Sn**	**09 18 10.6**	**-1.0**
TRKS	**Terek-Say**	**3.20**	**308**	*i* PN	**Pn**	**09 17 33.7**	**+0.2**
TRKS				*i* S	**Sn**	**09 18 10.6**	**-1.0**
FRU1	**Bishkek**	**3.20**	**2**	⇑*iP*	**Pn**	**09 17 34.0**	**+0.6**
FRU1				⇑*iS*	**Sn**	**09 18 10.9**	**-0.6**
FRU1	**Bishkek**	**3.20**	**2**	PN	**Pn**	**09 17 36.4**	**+3.0**
FRU1	**Bishkek**	**3.20**	**2**		**Pn**	**09 17 36.4**	**+3.0**
KDJ	**Kajisay**	**3.24**	**38**	⇑*iP*	**Pn**	**09 17 34.8**	**+0.8**
KDJ				⇑*iS*	**Sn**	**09 18 12.3**	**-0.3**
KDJ	**Kajisay**	**3.24**	**38**	PN	**Pn**	**09 17 37.1**	**+3.1**
KDJ	**Kajisay**	**3.24**	**38**		**Pn**	**09 17 37.0**	**+3.1**
MNAS	**Manas**	**3.25**	**333**	⇓*iP*	**Pn**	**09 17 34.8**	**+0.7**
MNAS				⇓*iS*	**Sn**	**09 18 12.3**	**-0.5**
MNAS	**Manas**	**3.25**	**333**	*i* PN	**Pn**	**09 17 34.8**	**+0.7**
MNAS				*i* S	**Sn**	**09 18 12.3**	**-0.5**
MRKS	**Merke**	**3.28**	**343**	Pg	**Pb**	**09 17 38.8**	**-2.6**
	comp=Z,112nm,0.4s						
MRKS				Lg	Lg	09 18 20.9	
	comp=Z,283nm,0.5s						
MRKS	**Merke**	**3.28**	**343**	*e*P	**Pb**	**09 17 38.8**	**-2.6**
	comp=Z,112nm,0.4s						
MRKS				*e*S	**Sb**	**09 18 20.9**	**-0.4**
	comp=Z,283nm,0.5s						
TARG	**Taragay, Kyrgy**	**3.29**	**49**	⇓*iP*	**Pn**	**09 17 35.6**	**+0.7**
TARG				⇓*iS*	**Sn**	**09 18 13.9**	**-0.2**
TARG	**Taragay, Kyrgy**	**3.29**	**49**	PN	**Pn**	**09 17 38.2**	**+3.3**
TARG	**Taragay, Kyrgy**	**3.29**	**49**		**Pn**	**09 17 38.2**	**+3.3**
CHMS	**Chumysh**	**3.40**	**3**	P	**Pb**	**09 17 40.3**	**-3.0**
	SNR=65						
CHMS	**Chumysh**	**3.40**	**3**	⇑*iP*	**Pn**	**09 17 36.3**	**+0.3**
CHMS				⇑*iS*	**Sn**	**09 18 14.8**	**-1.4**
CHMS	**Chumysh**	**3.40**	**3**	*i* PN	**Pn**	**09 17 36.3**	**+0.3**
TKM2	**Tokmak 2**	**3.41**	**14**	P	**Pb**	**09 17 40.8**	**-3.0**
	SNR=86						
TKM2	**Tokmak 2**	**3.41**	**14**	⇑*eP*	**Pn**	**09 17 36.8**	**+0.3**
TKM2				⇑*iS*	**Sn**	**09 18 15.8**	**-1.1**
TKM2	**Tokmak 2**	**3.41**	**14**	*e*PN	**Pn**	**09 17 36.8**	**+0.3**
TKM2				*i* S	**Sn**	**09 18 15.8**	**-1.1**
KST	**Kastek**	**3.61**	**17**	Pg	**Pb**	**09 17 43.7**	**-3.3**
	comp=Z,82nm,0.6s						
KST				Lg	Lg	09 18 29.6	
	comp=Z,961nm,0.6s						
KST	**Kastek**	**3.61**	**17**	*e*P	**Pb**	**09 17 43.7**	**-3.3**
	comp=Z,82nm,0.6s						
KST				*e*S	**Sb**	**09 18 29.6**	**-1.2**
	comp=Z,961nm,0.6s						
USP	**Ospenovka**	**3.66**	**0**	P	**Pn**	**09 17 43.8**	**+4.1**
	SNR=8.8						
USP	**Ospenovka**	**3.66**	**0**	⇑*iP*	**Pn**	**09 17 40.1**	**+0.4**
USP				⇑*iS*	**Sn**	**09 18 21.2**	**-1.5**
USP	**Ospenovka**	**3.66**	**0**	*i* PN	**Pn**	**09 17 40.1**	**+0.4**
DGS	**Degeres**	**3.76**	**14**	Pg	**Pb**	**09 17 45.7**	**-3.9**
	comp=Z,259nm,0.7s						
DGS				Lg	Lg	09 18 32.9	
	comp=Z,535nm,0.7s						
DGS	**Degeres**	**3.76**	**14**	*e*P	**Pb**	**09 17 45.7**	**-3.9**
	comp=Z,259nm,0.7s						
DGS				*e*S	**Sb**	**09 18 32.9**	**-2.1**
	comp=Z,535nm,0.7s						
MTBS	**Maitube**	**3.81**	**22**	Pg	**Pb**	**09 17 48.2**	**-2.2**
	comp=Z,125nm,0.4s						
MTBS				Lg	Lg	09 18 37.0	
	comp=Z,357nm,0.5s						
MTBS	**Maitube**	**3.81**	**22**	*e*P	**Pb**	**09 17 48.2**	**-2.2**
	comp=Z,125nm,0.4s						
MTBS				*e*S	**Sb**	**09 18 37.0**	**+0.5**
	comp=Z,357nm,0.5s						
TNSS	**Tian-Shan**	**3.89**	**27**	Pg	**Pb**	**09 17 49.9**	**-2.2**
	comp=Z,50nm,0.6s						
TNSS				Lg	Lg	09 18 39.2	
	comp=Z,122nm,1.0s						
TNSS	**Tian-Shan**	**3.89**	**27**	*e*PN	**Pn**	**09 17 46.3**	**+3.1**
TNSS	**Tian-Shan**	**3.89**	**27**	*e*P	**Pn**	**09 17 46.4**	**+3.1**
TNSS	**Tian-Shan**	**3.89**	**27**	*e*P	**Pb**	**09 17 49.9**	**-2.2**
	comp=Z,50nm,0.6s						
TNSS				*e*S	**Sb**	**09 18 39.2**	**0.0**
	comp=Z,122nm,1.0s						
WUS	**Wushi**	**3.94**	**65**		**Pn**	**09 17 47.0**	**+3.4**
ANVS	**Anan'yevo**	**3.97**	**36**	⇑*eP*	**Pn**	**09 17 45.5**	**+1.4**
ANVS				⇑*eS*	**Sn**	**09 18 30.3**	**-0.4**
AAA	**Alma-Ata**	**4.03**	**26**	*e*PN	**Pn**	**09 17 48.2**	**+3.4**
AAA	**Alma-Ata**	**4.03**	**26**	*e*P	**Pn**	**09 17 48.2**	**+3.4**
MDOK	**Medeo**	**4.04**	**28**	Pg	**Pb**	**09 17 53.3**	**-1.1**
	comp=Z,117nm,0.5s						
MDOK				Lg	Lg	09 18 45.2	
	comp=Z,754nm,0.8s						
MDOK	**Medeo**	**4.04**	**28**	*e*PN	**Pn**	**09 17 48.3**	**+3.3**
MDOK	**Medeo**	**4.04**	**28**	*e*P	**Pn**	**09 17 48.3**	**+3.3**
MDOK	**Medeo**	**4.04**	**28**	*e*P	**Pb**	**09 17 53.2**	**-1.1**
	comp=Z,117nm,0.5s						
MDOK				*e*S	**Sb**	**09 18 45.2**	**+2.0**
	comp=Z,754nm,0.8s						
KNDC	**Almaty**	**4.06**	**26**	⇑Pg	**Pb**	**09 17 55.7**	**+1.1**
	comp=Z,583nm,0.7s						
KNDC				⇑Lg	Lg	09 18 45.0	
	comp=Z,2μm,1.1s			

UZB Uzynbulak 4.91 42 *e*PN **Pn 09 18 00.4 +3.5**
UZB Uzynbulak 4.91 42 *e*P **Pn 09 18 00.5 +3.5**
UZB Uzynbulak 4.91 42 *e*P **Pb 09 18 09.7 +0.5**
comp=Z,20nm,0.5s
UZB *e*S **Sb 09 19 13.2 +5.0**
comp=Z,168nm,1.1s
KPKS Kokpek 4.97 38 Pg **Pb 09 18 10.0 -0.3**
comp=Z,0.4nm,0.3s
KPKS Lg Lg 09 19 13.9
comp=Z,273nm,0.6s
KPKS Kokpek 4.97 38 *e*P **Pb 09 18 10.0 -0.3**
comp=Z,0.4nm,0.3s
KPKS *e*S **Sb 09 19 13.9 +3.9**
comp=Z,273nm,0.6s
SHLS Shalkode 5.15 45 Pg **Pb 09 18 16.4 +3.1**
comp=Z,71nm,0.9s
SHLS Lg Lg 09 19 24.9
comp=Z,206nm,1.2s
SHLS Shalkode 5.15 45 *e*PN Pb 09 18 07.2 -6.1
SHLS Shalkode 5.15 45 *e*P Pb 09 18 07.2 -6.1
ARXS Arharly 5.23 27 Pg **Pb 09 18 12.6 -2.0**
comp=Z,94nm,0.6s
ARXS Lg Lg 09 19 19.1
comp=Z,217nm,0.8s
ARXS Arharly 5.23 27 *e*P **Pb 09 18 15.2 +0.6**
comp=Z,94nm,0.6s
ARXS *e*S **Sb 09 19 22.7 +5.3**
comp=Z,217nm,0.8s
PDGK Podgornoye 5.28 44 ⇑Pn **Pn 09 18 03.0 +1.0**
comp=Z,21nm,0.8s
PDGK ⇑Pg **Pb 09 18 18.0 +2.5**
comp=Z,133nm,0.9s
PDGK ⇑Lg Lg 09 19 23.9
comp=Z,339nm,0.8s
PDGK Podgornoye 5.28 44 PN **Pn 09 18 05.0 +3.0**
PDGK pmax pmax
comp=Z,16nm,0.5s
PDGK Podgornoye 5.28 44 Pn 09 18 05.0 +3.0
BLB Baldybastay 5.38 32 Pg **Pb 09 18 15.5 -1.8**
comp=Z,140nm,0.5s
BLB Lg Lg 09 19 23.9
comp=Z,155nm,0.9s
BTLS Baital 5.44 357 Pg **Pb 09 18 17.8 -0.4**
comp=Z,13nm,0.9s
BTLS Lg Lg 09 19 27.2
comp=Z,101nm,0.6s
BTLS Baital 5.44 357 *e*P **Pb 09 18 17.8 -0.4**
comp=Z,13nm,0.9s
BTLS *e*S **Sb 09 19 27.2 +3.8**
comp=Z,101nm,0.6s
ALCI Alchi Leh 5.79 157 IAML 09 19 33.4
comp=N,56nm,0.8s
NIL Nilore 6.03 190 PN Pn 09 18 17.5 +5.3
NIL Nilore 6.03 190 Pn 09 18 17.5 +5.3
TDK Taldyqorghan 6.12 27 Pg **Pb 09 18 31.4 +1.7**
comp=N,88nm,0.4s
TDK Lg Lg 09 19 50.4
comp=N,274nm,0.7s
TDK Taldyqorghan 6.12 27 *e*P **Pb 09 18 31.4 +1.7**
comp=N,88nm,0.4s
TDK *e*S **Sb 09 19 50.4 +7.5**
comp=N,274nm,0.7s
KBL Kabul 6.68 222 PN **Pn 09 18 26.0 +4.7**
KBL Kabul 6.68 222 Pn 09 18 26.0 +4.7
JMU Jammu 6.82 178 *i* P **Pn 09 18 26.6 +3.6**
JMU *i* S **Sn 09 19 38.4 -2.2**
JMU IAML 09 19 51.7
comp=N,316nm,0.6s
JMU Jammu 6.82 178 *i* P **Pn 09 18 25.6 +2.6**
JMU *i* S **Sn 09 19 36.1 -4.4**
JMU IAML 09 19 51.7
comp=N,316nm,0.6s
HNLY HANLEY 7.71 151 *i* P **Pn 09 18 31.9 -3.9**
HNLY *i* S Sn 09 19 41.4 -22
HNLY IAML 09 20 15.1
comp=N,9.9nm,1.3s
HNLY HANLEY 7.71 151 *i* P **Pn 09 18 32.7 -3.1**
HNLY *i* S Sn 09 19 42.2 -21
HNLY IAML 09 20 15.1
comp=N,9.9nm,1.3s
BHK Bhakra 8.34 169 *i* P **Pn 09 18 45.0 +1.1**
SMLA Simla 8.73 165 *i* P **Pn 09 18 48.9 -0.4**
SMLA *i* S Sn 09 20 13.0 -15
SMLA Simla 8.73 165 *i* P **Pn 09 18 48.9 -0.4**
SMLA *i* S Sn 09 20 17.9 -10
MAKZ Makanchi 9.03 35 ⇓Pn **Pn 09 18 53.6 +0.3**
comp=N,2.4nm,0.6s
MAKZ ⇓Pg 09 19 24.8
comp=N,11nm,0.8s
MAKZ ⇓Lg Lg 09 21 22.5
comp=N,36nm,1.4s
MAKZ Makanchi 9.03 35 P **Pn 09 18 55.8 +2.4**
MAKZ Makanchi 9.03 35 Pn 09 18 55.8 +2.4
MK31 Makanchi Array 9.16 36 Pn **Pn 09 18 55.8 +0.6**
comp=N,1.4nm,0.6s,baz=206,slow=11,SNR=16
MK31 ⇓Pg 09 19 29.4
comp=N,3.9nm,0.6s,baz=218,slow=15,SNR=5.6
MK31 ⇑Lg Lg 09 21 29.7
comp=N,15nm,1.0s,baz=214,slow=26,SNR=4.5
MK31 Makanchi Array 9.16 36 *de*P **Pn 09 18 58.8 +3.7**
MKAR Makanchi Array 9.16 36 Pn **Pn 09 18 58.3 +3.1**
comp=N,0.4nm,0.3s,baz=217,slow=9.9,SNR=14
MKAR LR LR 09 22 50.4
comp=N,370nm,21.5s,baz=212,slow=40
comp=N,3.2nm,0.8s
MKAR AML AML
MKAR Makanchi Array 9.16 36 *ce*P **Pn 09 18 58.2 +3.1**
MKAR pmax pmax
comp=Z,2.0nm,0.7s
MKAR Makanchi Array 9.16 36 Pn 09 18 57.9 +2.7
JOSI Joshimath 9.93 154 *i* P **Pn 09 19 02.1 -3.9**
JOSI *i* S Sn 09 20 33.5 -24
JOSI Joshimath 9.93 154 *i* P **Pn 09 19 04.0 -2.0**
JOSI *i* S Sn 09 20 33.5 -24
WMQ Urumqi 10.72 63 *e*P Pn 09 19 23.3 +6.7
WMQ L L
comp=Z,430nm,8.3s
WMQ L L
comp=Z,450nm,8.3s
ZSN Zaisan 10.86 40 *e*P **Pn 09 19 22.1 +3.7**
ZSN Zaisan 10.86 40 *e*P **Pn 09 19 22.2 +3.7**
HRA Herat 11.10 246 Pn 09 19 22.2 +0.3
AYAN Aya Nagar 11.31 168 *i* P **Pn 09 19 22.7 -1.8**
AYAN *i* S Sn 09 21 14.5 -16
AYAN Aya Nagar 11.31 168 *i* P **Pn 09 19 26.5 +1.9**
AYAN *i* S Sn 09 21 09.9 -21
KURBB Kurchatov Arra 11.38 13 Pn **Pn 09 19 26.6 +1.2**
comp=Z,1.6nm,0.2s,baz=201,slow=12,SNR=5.6
KURBB Lg Lg 09 22 33.5
comp=Z,0.1nm,0.3s,baz=199,slow=27,SNR=4.1
KURBB LR LR 09 23 56.2
comp=Z,448nm,18.6s,baz=179,slow=38
KURK Kurchatov 11.48 13⇑ *e*P Pn 09 19 31.7 +4.8
KURK pmax pmax
comp=Z,3.0nm,0.9s
KURK Kurchatov 11.48 13 Pn **Pn 09 19 27.5 +0.6**
BKNR BIKANER 11.60 185 *i* S **Sn 09 21 31.2 -6.9**
AJM Ajmer 13.15 179 *i* P **Pn 09 19 53.3 +3.6**
AJM *i* S **Sn 09 22 08.3 -7.6**
AJM Ajmer 13.15 179 *i* P **Pn 09 19 51.0 +1.3**
AJM *i* S Sn 09 21 59.9 -16
BVAR Borovoye Array 13.72 349 Pn **Pn 09 19 57.1 -0.2**
comp=Z,0.1nm,0.3s,baz=167,slow=14,SNR=11
BVAR Lg Lg 09 23 48.0
comp=Z,0.1nm,0.3s,baz=130,slow=26,SNR=5.6
comp=Z,1.7nm,0.4s
BVAR AML AML
BORK Borovoye 13.75 349 P **Pn 09 19 57.5 -0.3**
BORK Borovoye 13.75 349 Pn 09 19 57.5 -0.3
AB31 Akbulak array 14.16 318 *e*P **Pn 09 20 02.7 -0.8**
AB31 pmax pmax
comp=Z,14nm,0.6s
AB31 Akbulak array 14.16 318 Pn 09 20 03.2 -0.3
ABKAR Akbulak array 14.16 318 Pn 09 20 03.1 -0.4
GUNA GUNA 15.10 170 *i* P **Pn 09 20 14.0 -2.5**
GUNA *i* S **Sn 09 22 55.6 -8.0**
GUNA GUNA 15.10 170 *i* P **Pn 09 20 17.7 +1.3**
GUNA *i* S **Sn 09 22 55.6 -8.0**
AKTO Aktyubinsk 15.87 318 Pn **Pn 09 20 26.5 +0.2**
comp=Z,1.6nm,0.3s,baz=130,slow=14,SNR=22
AKTO LR LR 09 26 10.6
comp=Z,89nm,21.4s,baz=219,slow=36
comp=Z,8.1nm,0.6s
AKTO AML AML
ZAA0 Zalesovo Array 15.97 23 Pn **Pn 09 20 26.8 -0.7**
ZALV Zalesovo Beam 15.97 23 Pn **Pn 09 20 26.4 -1.0**
comp=Z,0.4nm,0.3s,baz=215,slow=12,SNR=8.1
ZALV LR LR 09 26 52.9
comp=Z,208nm,21.2s,baz=222,slow=38
comp=Z,1.5nm,0.5s
ZALV AML AML
ZALV Zalesovo Beam 15.97 23 P **Pn 09 20 27.8 +0.3**
ZALV Zalesovo Beam 15.97 23 Pn 09 20 27.8 +0.3
GOMU GeErMu 16.39 96 P **Pn 09 20 30.8 -2.6**
GOMU sP P 09 20 37.9 +1.7
GOMU pmax pmax
comp=Z,6.0nm,0.4s
BHPL Bhopal 16.50 170 *i* P **Pn 09 20 33.9 -0.7**
BHPL *i* S Sn 09 23 25.7 -12
BHPL Bhopal 16.50 170 *i* P **P 09 20 37.2 0.0**
BHPL *i* S **Sn 09 23 29.3 -8.4**
LSA Lhasa 16.87 121 P **Pn 09 20 40.7 +1.1**
LSA pmax pmax
comp=Z,8.0nm,1.0s
LSA Lhasa 16.87 121 Pn 09 20 40.7 +1.1
GTA2 Gaotai 19.47 82 P **Pn 09 21 12.1 +1.0**
GTA2 pP sP 09 21 16.8 +0.5
GTA2 pmax pmax
comp=Z,4.0nm,0.5s
GTA2 L L
comp=Z,290nm,14.3s
GTA2 L L
comp=Z,200nm,16.5s
GTA2 L L
comp=Z,200nm,16.2s
KNGR Kungurtug, Tuv 19.54 48⇑ *e*P **Pn 09 21 13.8 +2.0**
KNGR pmax pmax
comp=Z,8.0nm,1.0s
ARTI Arti 19.87 333 P **P 09 21 13.7 -0.3**
comp=Z,0.7nm,0.3s,baz=147,slow=7.4,SNR=8.9
ARTI LR LR 09 29 12.7
comp=Z,151nm,18.8s,baz=226,slow=38
comp=Z,6.3nm,0.7s
ARTI AML AML
ARTI Arti 19.87 333 *e*P **Pn 09 21 16.3 +0.7**
ARTI pmax pmax
comp=Z,14nm,1.4s
ARTI Arti 19.87 333 Pn 09 21 15.9 +0.3
MOY Mondy 21.97 48 *e*P **P 09 21 38.8 +1.9**
MOY pmax pmax
comp=Z,22nm,2.0s
BELG Belogornoye 22.47 314 *i* P **P 09 21 42.0 -0.1**
BELG pmax pmax
comp=Z,12nm,1.5s
GNI Garni 22.80 281 *ce*P **P 09 21 47.4 +1.5**
GNI pmax pmax
comp=Z,29nm,1.5s
GNI Garni 22.80 281 P 09 21 45.4 -0.4
GNI IAmb IAmb 09 22 09.8
comp=Z,25nm,0.8s
ZAK Zakamensk 22.89 52 *e*P **P 09 21 47.7 +1.0**
ZAK pmax pmax
comp=Z,4.0nm,1.3s
LZH Lanzhou 23.39 89 *e*P **P 09 21 51.3 -0.7**
LZH pP sP 09 22 03.5 +5.0
LZH pmax pmax
comp=Z,17nm,1.0s
LZH L L
comp=Z,670nm,21.0s
LZH L L
comp=Z,530nm,18.2s
LZH L L
comp=Z,480nm,17.9s
KBZ Khabaz 23.88 290 P **P 09 21 57.5 +1.0**
comp=Z,1.6nm,0.7s,baz=100,slow=8.0,SNR=4.4
comp=Z,1.6nm,0.7s
KIV Kislovodsk 24.03 291 *e*P **P 09 22 00.8 +2.7**
KIV pmax pmax
comp=Z,8.0nm,1.1s
KIV Kislovodsk 24.03 291 P **P 09 21 58.8 +0.8**
NEUR Neytrino 24.04 289⇑ *e*P **P 09 22 01.1 +2.9**
NEUR pmax pmax
comp=Z,12nm,1.5s
SONM Songino Array 24.34 60 P **P 09 21 59.4 -1.5**
comp=Z,0.8nm,0.7s,baz=261,slow=11,SNR=4.5
SONM LR LR 09 32 19.3
comp=Z,107nm,20.0s,baz=224,slow=39
comp=Z,0.8nm,0.7s
SONM Songino Array 24.34 60 P **P 09 22 00.6 -0.3**
SONM pmax pmax
comp=Z,2.0nm,1.0s
SONM Songino Array 24.34 60 P **P 09 22 00.6 -0.3**
GEVA Gevas 24.42 277 P **P 09 22 02.0 +0.2**
GEVA IAmb IAmb 09 22 06.4
comp=Z,20nm,1.4s
ULN Ulaanbaatar 24.78 60 P **P 09 22 03.5 -1.5**
ULN pmax pmax
comp=Z,3.0nm,0.9s
ULN Ulaanbaatar 24.78 60 P **P 09 22 03.5 -1.5**
KIRV Kirov 24.86 328 *e*P **P 09 22 06.2 +1.0**
GURO Guroymak-BITLI 25.16 278 P **P 09 22 08.5 +0.2**
LABN Labinsk 25.44 292 *e*P **P 09 22 13.8 +3.1**
LABN *e**PP sP 09 22 25.8 +8.4
LABN pmax pmax
comp=Z,58nm,0.7s
VRH Novokhopyorsk 25.55 308 *e*P **P 09 22 13.3 +1.7**
VRH pmax pmax
comp=Z,20nm,1.4s
ERBR Yeremizino-Bor 25.62 295 *e*P **P 09 22 14.2 +1.9**
ERBR pmax pmax
comp=Z,18nm,0.9s
ERBR MLR MLR
comp=Z,130nm,11.0s
VORD Divnogorie 27.00 307 *e*P **P 09 22 24.6 -0.1**
VORD pmax pmax
comp=Z,10.0nm,0.8s
VSR Storozhevoye 27.12 307 *e*P **P 09 22 26.6 +0.8**
VSR pmax pmax
comp=Z,20nm,1.2s
VORR Voronezh 27.19 308 *e*P **P 09 22 27.3 +0.9**
VORR pmax pmax
comp=Z,20nm,0.4s
LPSR Galich'ya Gora 27.57 310 *e*P **P 09 22 30.1 +0.3**
LPSR pmax pmax
comp=Z,7.0nm,0.6s
HHC Hu-ho-hao-te 28.19 75 *e*P **P 09 22 36.3 +0.6**
HHC pmax pmax
comp=Z,11nm,0.6s
RAYN Ar Rayn 29.28 245 P **P 09 22 46.0 +0.6**
RAYN pmax pmax
comp=Z,5.0nm,0.6s
RAYN Ar Rayn 29.28 245 P 09 22 46.0 +0.6
RAYN IAmb IAmb 09 22 47.2
comp=Z,4.7nm,0.6s
OBN Obninsk 29.57 314⇑ *e*P **P 09 22 47.4 -0.1**
OBN *e* 09 23 48.8
OBN *e*S **S 09 27 35.7 -6.3**
OBN pmax pmax
comp=Z,9.0nm,0.4s
OBN MLR MLR
comp=Z,106nm,15.0s
OBN Obninsk 29.57 314 P **P 09 22 47.7 +0.2**
KLMR Klimovskoe 30.28 326 *e*P **P 09 22 52.2 -1.7**
KLMR *e* 09 23 52.4
KLMR pmax pmax
comp=Z,22nm,1.5s
BR131 Keskin Array S 31.26 284 *e*P **P 09 23 02.8 -0.1**
BR131 Keskin Array S 31.26 284 P 09 23 02.8 -0.1
BR131 IAmb IAmb 09 23 05.1
comp=Z,4.2nm,0.6s
BRTR Keskin Array B 31.26 284 P **P 09 23 03.9 +0.9**
comp=Z,2.5nm,0.6s,baz=85,slow=7.3,SNR=18
comp=Z,2.5nm,0.6s
BRTR Keskin Array B 31.26 284 P 09 23 03.5 +0.6
AKASG Malin Array Be 33.31 305 P **P 09 23 20.6 +0.1**
comp=Z,0.7nm,0.5s,baz=77,slow=7.9,SNR=7.0
comp=Z,0.7nm,0.5s
AKBB Malin Array Si 33.31 305 *e*P **P 09 23 20.8 +0.3**
AKBB pmax pmax
comp=Z,15nm,1.9s
KIEV Kiev 33.32 305 P **P 09 23 20.8 +0.2**
KIEV pmax pmax
comp=Z,4.0nm,0.9s
KIEV Kiev 33.32 305 P **P 09 23 20.8 +0.2**
WHN Wuhan 33.62 93 P P 09 23 17.0 -6.5
NACGM Naroch 35.06 312 *e*P **P 09 23 36.5 +0.8**
comp=Z,17nm,0.8s,baz=96
MANT Manisa 35.40 283 P **P 09 23 39.9 +0.8**
MANT IAmb IAmb 09 23 42.7
comp=Z,5.8nm,1.0s
MLR Muntele Rosu 35.80 296 P **P 09 23 43.3 +0.9**
MLR pmax pmax
comp=Z,17nm,1.4s
MLR Muntele Rosu 35.80 296 P **P 09 23 43.2 +0.9**
MLR IAmb IAmb 09 23 45.9
comp=Z,17nm,1.4s
NJ2 Nanjing 36.45 88 *e*P **P 09 23 48.8 +1.0**
NJ2 pmax pmax
comp=Z,14nm,0.6s
FINES FINESS Array B 36.56 323 P **P 09 23 49.4 +0.9**
comp=Z,4.4nm,0.5s,baz=105,slow=8.8,SNR=45
comp=Z,4.4nm,0.5s
FINES FINESS Array B 36.56 323 P **P 09 23 49.1 +0.6**
PABE Paberze 36.72 313 P **P 09 23 51.1 +1.2**
KEV Kevo 39.02 336 P **P 09 24 09.7 +0.6**
KEV pmax pmax
comp=Z,46nm,1.4s
KEV Kevo 39.02 336 P **P 09 24 09.7 +0.6**
IDI Anoyia 39.22 280 P **P 09 24 11.9 +0.5**
IDI IAmb IAmb 09 24 48.4
comp=Z,17nm,1.2s
ARCES ARCESS Array B 39.41 335 P **P 09 24 13.1 +0.7**
comp=Z,6.0nm,0.5s,baz=109,slow=8.7,SNR=78
comp=Z,6.0nm,0.5s
ARCES ARCESS Array B 39.41 335 P 09 24 13.1 +0.7
ARCES IAmb IAmb 09 24 40.9
comp=Z,18nm,1.2s
KULM Kulim 41.52 139 P **P 09 24 31.6 +1.1**
KULM IAmb IAmb 09 24 41.5
comp=Z,21nm,1.1s
TIXI Tiksi 41.86 23 P **P 09 24 32.7 +0.1**
TIXI pmax pmax
comp=Z,12nm,1.2s
TIXI Tiksi 41.86 23 P **P 09 24 32.7 +0.1**
TIXI IAmb IAmb 09 25 05.6
comp=Z,12nm,1.1s
HFS Hagfors 42.41 320 P **P 09 24 37.9 +0.7**
comp=Z,4.1nm,0.5s,baz=94,slow=9.2,SNR=14
comp=Z,4.1nm,0.5s
NC405 NORSAR Array S 43.40 321 P **P 09 24 45.8 +0.6**
CLL Collm 43.47 307 *i* P **P 09 24 46.8 +0.8**
CLL Collm 43.47 307 *i* P **P 09 24 46.8 +0.8**
GEC2 GERESS Array S 43.48 303 P **P 09 24 46.8 +0.7**
GERES GERESS Array B 43.48 303 P **P 09 24 47.0 +0.9**
comp=Z,2.2nm,0.7s,baz=64,slow=6.1,SNR=15
comp=Z,2.2nm,0.7s
GERES GERESS Array B 43.48 303 P **P 09 24 46.3 +0.1**
KHC Kasperske Hory 43.50 303 *e*P **P 09 24 47.8 +1.5**
KHC pmax pmax
comp=Z,7.0nm,1.1s
NC303 NORSAR Array S 43.56 321 P 09 24 47.5 +0.9
NB2 NORSAR Subarra 43.64 321 P **P 09 24 47.4 +0.1**
comp=Z,5.5nm,0.6s,baz=90,slow=7.9
NOA NORSAR Array B 43.64 321 P **P 09 24 47.4 +0.1**
comp=Z,3.3nm,0.6s,baz=90,slow=8.0,SNR=16
comp=Z,3.3nm,0.6s
NAO01 NORSAR Array S 43.80 321 P **P 09 24 49.2 +0.7**
NC204 NORSAR Array S 43.85 321 P **P 09 24 49.3 +0.3**
TRI Trieste 44.14 299 P **P 09 24 51.9 +0.5**
TRI pmax pmax
comp=Z,8.0nm,0.8s
TRI Trieste 44.14 299 P **P 09 24 51.9 +0.5**
TRI IAmb IAmb 09 24 53.0
comp=Z,8.3nm,0.8s
SABO M.te Sabotino 44.18 299 P **P 09 24 51.8 -0.1**
SABO IAmb IAmb 09 24 58.8
comp=Z,6.8nm,0.9s
CUC Castrocucco 44.36 290 P **P 09 24 55.0 +1.7**
CUC IAmb IAmb 09 25 06.7
comp=Z,6.8nm,1.0s
GRF Grafenberg Arr 44.89 305 *e*P **P 09 24 59.2 +1.8**
comp=Z,4.9nm,0.9s,baz=83,slow=7.5
MURB Monte Urbino 45.67 296 P **P 09 25 04.3 +0.5**
CESX Cesi 45.83 295 P **P 09 25 05.9 +0.9**
MA2 Magadan 50.22 40 LR LR 09 48 54.1
comp=Z,839nm,19.1s,baz=61,slow=38
EKA Eskdalemuir Ar 52.02 315 P **P 09 25 52.5 +0.3**
comp=Z,1.2nm,0.6s,baz=90,slow=8.0,SNR=5.0
comp=Z,1.2nm,0.6s
MBAR Mbarara 56.54 236 *ce*P **P 09 26 27.1 +1.2**
MBAR pmax pmax
comp=Z,6.0nm,1.3s
ESDC Sonseca Array 58.47 297 P **P 09 26 39.3 +0.3**
comp=Z,1.6nm,0.8s,baz=53,slow=6.6,SNR=8.8
comp=Z,1.6nm,0.8s
TORD Torodi Ar. Bea 68.53 269 P **P 09 27 45.2 -0.7**
comp=Z,3.0nm,0.6s,baz=46,slow=4.9,SNR=12
comp=Z,3.0nm,0.6s
CCB Clear Creek Bu 70.91 18 P **P 09 27 59.9 +0.2**
CCB IAmb IAmb 09 28 36.9
comp=Z,5.2nm,1.5s
G29M Pine Creek 70.94 13 P **P 09 28 00.5 +0.5**
G29M IAmb IAmb 09 28 01.1
comp=Z,11nm,1.4s
ILAR Eielson Array 71.02 17 P **P 09 27 59.5 -0.9**
comp=Z,0.4nm,0.5s,baz=321,slow=4.4,SNR=6.1
comp=Z,0.4nm,0.5s
ILAR Eielson Array 71.02 17 P **P 09 28 00.2 -0.2**
ILAR Eielson Array 71.02 17 P **P 09 28 00.2 -0.2**
L20K Farewell, AK 71.10 22 P **P 09 28 01.6 +0.7**
L20K IAmb IAmb 09 28 34.8
comp=Z,9.5nm,1.3s
F31M Tsiigehtchic 71.14 11 P **P 09 28 01.0 -0.1**
F31M IAmb IAmb 09 28 02.5
comp=Z,9.9nm,1.4s
PPLA Purkeypile 71.23 21 P **P 09 28 02.0 +0.1**
H29M Whitestone 71.50 13 P **P 09 28 04.0 +0.7**
H29M IAmb IAmb 09 28 04.6
comp=Z,4.4nm,1.0s
I28M Miner Creek 71.90 14 P **P 09 28 05.8 0.0**
I28M IAmb IAmb 09 28 38.8
comp=Z,5.0nm,1.4s
SCRK Sand Creek 72.36 17 P **P 09 28 08.9 +0.2**
SCRK IAmb IAmb 09 28 13.5
comp=Z,3.0nm,0.8s
DAWY Dawson 73.25 15 P **P 09 28 14.3 +0.5**
DAWY IAmb IAmb 09 28 29.0
comp=Z,4.8nm,1.4s
BCAR Beaver Creek A 73.64 16 P **P 09 28 16.2 +0.1**
YKA Yellowknife Ar 77.98 4 P **P 09 28 40.8 -0.1**
comp=Z,1.3nm,0.6s,baz=349,slow=5.6,SNR=10.0
comp=Z,1.3nm,0.6s
YKA Yellowknife Ar 77.98 4 P **P 09 28 40.9 0.0**
YKA Yellowknife Ar 77.98 4 P **P 09 28 40.9 0.0**
LBTB Lobatse 78.83 224 P **P 09 28 47.6 +1.5**
LBTB pmax pmax
comp=Z,8.0nm,1.1s
LBTB Lobatse 78.83 224 P **P 09 28 47.6 +1.5**
LBTB IAmb IAmb 09 28 58.8
comp=Z,8.2nm,1.1s
TSUM Tsumeb 78.99 234 LR LR 10 07 37.9
comp=Z,603nm,18.9s,baz=156,slow=39
WB0 Warramunga Arr 81.29 124 P **P 09 28 59.4 -0.1**
WB0 IAmb IAmb 09 29 00.2
comp=Z,10nm,1.2s
WRA Warramunga Arr 81.38 125 P **P 09 28 59.6 -0.3**
comp=Z,3.5nm,0.5s,baz=324,slow=4.8,SNR=21
comp=Z,3.5nm,0.5s
WRA Warramunga Arr 81.38 125 P **P 09 28 59.9 0.0**
WRAB Tennant Creek 81.38 125 *e*P **P 09 29 00.5 +0.6**
WRAB pmax pmax
comp=Z,19nm,1.4s
WRAB Tennant Creek 81.38 125 P **P 09 29 00.1 +0.2**
BOSA Boshof 81.90 222 P **P 09 29 03.6 +1.1**
comp=Z,3.8nm,0.9s,baz=98,slow=0.7,SNR=3.9
comp=Z,3.8nm,0.9s
BOSA Boshof 81.90 222 P **P 09 29 03.1 +0.5**
BOSA pmax pmax
comp=Z,13nm,1.5s
BOSA Boshof 81.90 222 P **P 09 29 03.1 +0.5**
BOSA IAmb IAmb 09 29 46.1
comp=Z,13nm,1.4s
AS31 Alice Springs 83.85 127 P **P 09 29 12.7 -0.1**
ASAR Alice Springs 83.85 127 P **P 09 29 12.6 -0.2**
comp=Z,2.4nm,0.7s,baz=316,slow=5.0,SNR=30
comp=Z,2.4nm,0.7s
NEW Newport 91.90 8 LR LR 10 15 01.7
comp=Z,439nm,21.1s,baz=212,slow=38
STKA Stephens Creek 94.47 128 LR LR 10 17 33.4
comp=Z,300nm,18.4s,baz=29,slow=39
PDAR Pinedale Array 97.93 3 LR LR 10 20 47.9
comp=Z,372nm,18.1s,baz=224,slow=39

IDC ***13*** *09:29:23.9±0.9, 38.°17N×117.°75W, h0km, mbtmp3.4/5, ML3.6/5, Error ellipse: s-maj=9.6km s-min=8.1km*

az=100.0
*NEIC **13** 09:29:23.4±1.3,38°.16N±0°.02×117°.82W±0°.01,h11km±3km, ML3.9/124,ML4.3/15(REN),Error ellipse: s-maj=2.5km s-min=0.4km az=205.0*
*REN **13** 09:29:24.4±1.4,38°.17N±0°.01×117°.80W±0°.02,h10km±4km, Error ellipse: s-maj=2.4km s-min=1.6km az=57.0*

ISC 13 09:29:24.8±0.9,38°.17N±0°.02×117°.82W±0°.02,h12km±8km, n84,σ0s70/87,Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COLR	**Columbus**	**0.18**	**263**		**Sg**	**09 29 32.4**	**+0.5**
NV11	**Mina Array Sit**	**0.37**	**315**		**Pg**	**09 29 32.4**	**+0.1**
NV11					**Sg**	**09 29 37.3**	**0.0**
NV06	**Mina Array Sit**	**0.44**	**306**		**Pg**	**09 29 33.6**	**+0.2**
NV07	**Mina Array Sit**	**0.44**	**303**		**Pb**	**09 29 33.8**	**-0.8**
NV07					**Sb**	**09 29 40.3**	**-1.1**
NV03	**Mina Array Sit**	**0.45**	**305**		**Pg**	**09 29 33.9**	**+0.2**
NV08	**Mina Array Sit**	**0.46**	**301**		**Pg**	**09 29 34.0**	**+0.2**
NV08					**Sb**	**09 29 40.6**	**-1.1**
NV04	**Mina Array Sit**	**0.46**	**304**		**Pb**	**09 29 34.1**	**-0.8**
NV01	**Mina Array Sit**	**0.46**	**305**		**Pg**	**09 29 34.1**	**+0.2**
NVAR	**Mina Array Bea** 3µm,0.3s,baz=115,slow=17,SNR=697	**0.46**	**305**	Pg	**Pg**	**09 29 33.6**	**-0.3**
NVAR				Lg	Lg	09 29 40.5	
	3µm,0.3s,baz=125,slow=25,SNR=18						
NV05	**Mina Array Sit**	**0.46**	**307**		**Pg**	**09 29 34.0**	**+0.1**
NV02	**Mina Array Sit**	**0.46**	**306**		**Pg**	**09 29 34.1**	**+0.1**
NV02					**Sb**	**09 29 41.0**	**-1.0**
NV09	**Mina Array Sit**	**0.48**	**304**		**Pb**	**09 29 34.5**	**-0.8**
TPH	**Tonopah**	**0.48**	**101**		**Pg**	**09 29 33.6**	**-0.8**
TPH				Sg	**Sg**	**09 29 40.2**	**-0.6**
TPH				IAML		09 29 40.9	
	comp=E,12µm,0.5s						
LHV	**Little Huntoon**	**0.54**	**279**		**Pb**	**09 29 35.7**	**-0.5**
LHV				Sg	**Sb**	**09 29 43.5**	**-0.4**
LHV				IAML		09 29 46.1	
	comp=N,12µm,0.7s						
LHV				IAML		09 29 47.4	
	comp=E,12µm,0.5s						
MZP	**Montezuma Peak**	**0.58**	**143**		**Pg**	**09 29 35.7**	**-0.5**
MZP				Sg	**Sg**	**09 29 43.2**	**-0.7**
MZP				IAML		09 29 43.9	
	comp=E,10µm,0.4s						
MZP				IAML		09 29 44.0	
	comp=N,8µm,0.4s						
RYN	**Ryan**	**0.72**	**310**		**Pg**	**09 29 38.5**	**-0.3**
RYN				Sg	**Sg**	**09 29 48.2**	**+0.1**
RYN				IAML		09 29 53.3	
	comp=N,6µm,0.4s						
RYN				IAML		09 29 54.5	
	comp=E,5µm,0.3s						
Q09A	**Carvers**	**0.83**	**37**		**Pg**	**09 29 40.4**	**-0.6**
Q09A					**Sb**	**09 29 52.1**	**-0.5**
Q09A				IAML		09 29 52.7	
	comp=E,7µm,0.6s						
KVN	**Kaiserville**	**0.91**	**346**		**Pg**	**09 29 41.6**	**-0.7**
KVN				IAML		09 29 58.5	
	comp=N,7µm,0.5s						
LCH	**Last Change Ra**	**0.94**	**171**		**Pb**	**09 29 42.5**	**-0.6**
LCH					**Sb**	**09 29 55.1**	**-0.6**
GMN	**Gold Mountain**	**0.97**	**153**	Pg	**Pb**	**09 29 43.0**	**-0.7**
GMN					**Sb**	**09 29 56.1**	**-0.6**
GMN				IAML		09 29 56.6	
	comp=E,5µm,0.5s						
MCBM	**Casa Benchmark**	**1.00**	**239**		**Pb**	**09 29 44.0**	**-0.2**
MDYM	**Dry Creek**	**1.07**	**242**		**Pg**	**09 29 45.3**	**-0.1**
MDPB	**Devils Postpil**	**1.13**	**242**		**Pb**	**09 29 46.2**	**-0.2**
MDPB					**Sb**	**09 30 00.4**	**-0.7**
TIN	**Tinemaha, Big**	**1.16**	**196**	Pn	**Pg**	**09 29 46.9**	**-0.2**
TIN				IAML		09 30 06.5	
	comp=N,5µm,0.6s						
GRAC	**Grapevine Rang**	**1.23**	**163**		**Pb**	**09 29 47.5**	**-0.5**
WAKR	**Walker**	**1.31**	**285**		**Pb**	**09 29 48.9**	**-0.6**
SGV	**South Grapevin**	**1.34**	**152**		**Pn**	**09 29 49.1**	**-0.4**
YERR	**Yerington**	**1.38**	**307**		**Pn**	**09 29 49.6**	**-0.5**
YERR				IAML		09 30 10.5	
	comp=E,3µm,0.6s						
YERR				IAML		09 30 11.8	
	comp=N,3µm,0.6s						
NTA	**Nevada Test Si**	**1.41**	**129**		**Pn**	**09 29 50.0**	**-0.6**
EHN	**Echo Peak**	**1.52**	**128**		**Pn**	**09 29 51.5**	**-0.6**
PNTR	**Pine Nut**	**1.67**	**304**		**Pn**	**09 29 53.7**	**-0.3**
PNTR				IAML		09 30 19.7	
	comp=N,1µm,0.9s						
PNTR				IAML		09 30 24.4	
	comp=E,2µm,0.8s						
WCT	**Wildcat Mounta**	**1.67**	**145**		**Pn**	**09 29 53.3**	**-0.7**
WCT				IAML		09 30 19.2	
	comp=N,1µm,0.4s						
WCT				IAML		09 30 24.3	
	comp=E,1µm,0.5s						
S11A	**Rachel**	**1.72**	**107**		**Pn**	**09 29 54.1**	**-0.6**
CWC	**Cottonwood Cre**	**1.74**	**187**		**Pn**	**09 29 54.9**	**-0.1**
TPNV	**Topopah Spring**	**1.75**	**134**		**Pn**	**09 29 54.5**	**-0.5**
TPNV				IAML		09 30 03.0	
	comp=E,1µm,0.8s						
TPNV				IAML		09 30 31.6	
	comp=E,1µm,0.6s						
VCNR	**Virginia City**	**1.82**	**309**		**Pn**	**09 29 56.0**	**-0.1**
FURC	**Furnace Creek,**	**1.86**	**155**		**Pn**	**09 29 56.7**	**+0.2**
CPY	**CP-1**	**1.87**	**131**		**Pn**	**09 29 56.2**	**-0.6**
NSP	**Numbskull Pass**	**1.93**	**138**		**Pn**	**09 29 57.2**	**-0.3**
SDH	**Striped Hills**	**1.93**	**142**		**Pn**	**09 29 57.4**	**-0.1**
PAHR	**Pah Rah Range**	**1.96**	**322**		**Pn**	**09 29 57.9**	**-0.1**
PAHR				IAML		09 30 27.8	
	comp=N,726nm,0.7s						
PAHR				IAML		09 30 30.2	
	comp=E,743nm,0.7s						
CMB	**Columbia Colle**	**2.03**	**267**	Pn	**Pn**	**09 29 58.6**	**-0.2**
MPK	**Martis Peak**	**2.06**	**304**	Pn	**Pn**	**09 30 00.1**	**+0.6**
MPK				IAML		09 30 34.8	
	comp=N,1µm,0.8s						
KARE	**Kearney REC, C**	**2.06**	**221**	Pn	**Pn**	**09 29 59.9**	**+0.7**
KARE				IAML		09 30 31.2	
	comp=E,1µm,0.6s						
KARE				IAML		09 30 31.9	
	comp=N,883nm,0.6s						
AMDNV	**Amargosa**	**2.11**	**144**		**Pn**	**09 30 00.1**	**+0.3**
MPMC	**Manual Prospec**	**2.12**	**173**		**Pn**	**09 30 00.0**	**-0.2**
MPMC				IAML		09 30 34.1	
	comp=E,608nm,0.6s						
JRC2	**Joshua Ridge**	**2.18**	**180**		**Pn**	**09 30 01.4**	**+0.4**
GWY	**Greenwater Val**	**2.18**	**155**		**Pn**	**09 30 00.8**	**-0.3**
GWY				IAML		09 30 37.7	
	comp=E,1µm,0.4s						
PEAR	**Peavine Mounta**	**2.20**	**311**		**Pn**	**09 30 01.7**	**+0.3**
DONR	**Donner Summit**	**2.28**	**302**		**Pg**	**09 30 07.0**	**-1.6**
BMN	**Battle Mountai**	**2.31**	**11**		**Pn**	**09 30 02.4**	**-0.4**
BMN				IAML		09 30 37.4	
	comp=E,1µm,0.7s						
BMN				IAML		09 30 37.8	
	comp=N,1µm,0.3s						
PRN	**Pahroc Range**	**2.33**	**108**		**Pn**	**09 30 02.3**	**-0.7**
CLC	**China Lake**	**2.35**	**176**		**Pn**	**09 30 03.3**	**0.0**
CLC				IAML		09 30 41.1	
	comp=E,466nm,0.9s						
VES	**Vestal, Richgr**	**2.53**	**204**		**Pn**	**09 30 05.3**	**-0.4**
ISA	**Isabella, Lake**	**2.56**	**192**	Pn	**Pn**	**09 30 06.2**	**+0.1**
ISA				IAML		09 30 51.7	
	comp=E,332nm,0.3s						
SHOC	**Shoshone, Teco**	**2.58**	**151**		**Pn**	**09 30 05.9**	**-0.5**
AFDM	**Forest Hills D**	**2.59**	**288**		**Pn**	**09 30 06.7**	**+0.2**
AFDM				IAML		09 30 51.2	
	comp=E,431nm,0.6s						
BEKR	**Beckworth**	**2.60**	**311**		**Pn**	**09 30 06.8**	**-0.1**
CCCA	**Chr Cany lake**	**2.66**	**172**		**Pn**	**09 30 07.6**	**0.0**
LRMC	**Laurel Mtn Rad**	**2.69**	**178**		**Pn**	**09 30 07.9**	**-0.1**
LRMC				IAML		09 30 57.6	
	comp=E,359nm,1.2s						
SHPR	**Sheep Range**	**2.69**	**127**		**Pn**	**09 30 07.8**	**-0.3**
LVN	**Las Vegas**	**2.97**	**133**	Pn	**Pn**	**09 30 10.8**	**-1.0**
GSC	**Goldstone, Bar**	**2.98**	**164**		**Pn**	**09 30 11.3**	**-0.6**
GSC				IAML		09 31 05.0	
	comp=E,382nm,0.9s						
GSC				IAML		09 31 09.8	
	comp=N,322nm,0.9s						
PKD	**Bear Valley Ra**	**3.11**	**225**	IAML		09 31 13.0	
	comp=E,223nm,0.8s						
MHC	**Mount Hamilton**	**3.14**	**256**	IAML		09 31 07.7	
	comp=E,354nm,1.2s						
MHC				IAML		09 31 07.8	
	comp=N,329nm,1.4s						
ICU	**Indian Springs**	**3.26**	**107**		**Pn**	**09 30 14.9**	**-0.9**
ELK	**Elko**	**3.26**	**37**	Pn	**Pn**	**09 30 15.5**	**-0.5**
	comp=N,12nm,0.3s,baz=224,slow=13,SNR=66						
ELK				Pg	**Pb**	**09 30 24.1**	**+1.4**
	comp=N,24nm,0.3s,baz=220,slow=15,SNR=6.6						
ELK				Lg	Lg	09 31 06.1	
	comp=N,78nm,0.3s,baz=286,slow=8.9,SNR=17						
	comp=N,25nm,0.3s						
ELK				AML	AML		
ELK	**Elko**	**3.26**	**37**	IAML		09 31 10.4	
	comp=N,181nm,0.3s						
SUTB	**Sutter Butte**	**3.28**	**290**	IAML		09 31 14.1	
	comp=N,421nm,0.5s						
SUTB				IAML		09 31 22.4	
	comp=E,428nm,0.5s						
O03E	**Paynes Creek**	**3.75**	**306**		**Pn**	**09 30 22.7**	**+0.2**
O03E				IAML		09 31 27.9	
	comp=E,149nm,0.8s						
LCMT	**Little Creek M**	**3.82**	**106**		**Pn**	**09 30 23.0**	**-0.5**
HATC	**Hat Creek Radi**	**3.86**	**314**	IAML		09 31 40.8	
	comp=E,144nm,1.5s						
HATC				IAML		09 31 45.5	
	comp=N,126nm,1.9s						
MWC	**Mount Wilson**	**3.94**	**183**	IAML		09 31 37.7	
	comp=E,122nm,1.5s						
MWC				IAML		09 31 42.7	
	comp=N,107nm,1.1s						
MCCM	**Marconi Confer**	**3.98**	**271**	IAML		09 31 30.0	
	comp=N,123nm,1.1s						
MCCM				IAML		09 31 33.6	
	comp=E,142nm,1.5s						
KNB	**Kanab**	**4.14**	**105**		**Pn**	**09 30 27.9**	**0.0**
MOD	**Modoc Plateau**	**4.19**	**334**	IAML		09 31 45.7	
	comp=E,130nm,0.8s						
MOD				IAML		09 31 46.7	
	comp=N,131nm,0.7s						
WVOR	**Wild Horse Val**	**4.31**	**352**	IAML		09 31 43.2	
	comp=N,151nm,0.8s						
WVOR				IAML		09 31 45.9	
	comp=N,113nm,0.5s						
DUG	**Dugway, Tooele**	**4.39**	**61**		**Pn**	**09 30 31.5**	**+0.2**
DUG				IAML		09 31 47.9	
	comp=N,203nm,0.7s						
PFO	**Pinyon Flats O**	**4.68**	**166**	Pn	**Pn**	**09 30 35.8**	**+0.4**
	comp=N,1.5nm,0.3s,baz=357,slow=13,SNR=27						
PFO				Pg	**Pb**	**09 30 49.3**	**+2.4**
	comp=N,2.1nm,0.3s,baz=340,slow=12,SNR=21						
PFO				Lg	Lg	09 31 53.8	
	comp=N,2.9nm,0.3s,baz=250,slow=22,SNR=9.5						
	comp=N,3.4nm,0.3s						
PFO				AML	AML		
BLYC	**Blythe**	**5.16**	**148**	IAML		09 32 08.7	
	comp=E,96nm,1.0s						
BLYC				IAML		09 32 10.2	
	comp=N,89nm,0.7s						
YBH	**Yreka Blue Hor**	**5.17**	**315**	Pn	**Pn**	**09 30 43.9**	**+1.9**
	comp=N,0.6nm,0.3s,baz=163,slow=8.7,SNR=14						
	comp=N,2.6nm,0.5s						
YBH				AML	AML		
PDAR	**Pinedale Array**	**7.80**	**51**	Pn	**Pn**	**09 31 20.4**	**+2.2**
	comp=N,0.2nm,0.3s,baz=222,slow=12,SNR=11						
PDAR				Lg	Lg	09 33 28.2	
	comp=N,0.5nm,0.3s,baz=223,slow=28,SNR=2.6						
	comp=N,1.0nm,0.6s						
PDAR				AML	AML		
ANMO	**Albuquerque**	**9.69**	**106**	Pg	Pn	09 32 23.2	+39
	comp=N,0.2nm,0.3s,baz=288,slow=14,SNR=8.2						
ANMO				Lg	Lg	09 34 25.9	
	comp=N,0.1nm,0.3s,baz=45,slow=18,SNR=5.1						
TXAR	**Lajitas Array**	**14.69**	**123**	Pn	**Pn**	**09 32 54.2**	**+1.7**
	baz=319,slow=17,SNR=2.6						
	comp=N,0.6nm,1.0s						

*SJA **13** 09:29:45.4±0.7,31°.02S×69°.96W,h128km±3km,ML3.4, MW3.5*
*GUC **13** 09:29:46.7±0.9,31°.08S×70°.20W,h124km±5km,ML3.6, Presumed earthquake*

ISC 13 09:29:44.5±1.3,31°.02S±0°.02×70°.00W±0°.03,h142km±7km, n59,σ1s41/107,6C-11D,San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO03	**El Pedregal**	**0.62**	**287**	*eP*	**Pn**	**09 30 05.8**	**0.0**
CO03				*eS*	**Sn**	**09 30 20.7**	**-1.2**
CO03				IAML		09 30 21.1	
	comp=Z,1µm,0.3s						
CO03	**El Pedregal**	**0.62**	**287**	*i*P	**Pn**	**09 30 06.0**	**+0.2**
CO03				*eS*	**Sn**	**09 30 20.1**	**-1.8**
CO03				IAML		09 30 21.3	
	comp=N,4µm,0.2s						
CO02	**Combarbal**	**0.88**	**258**	*eP*	**Pn**	**09 30 07.8**	**+0.2**
CO02				*eS*	**Sn**	**09 30 24.6**	**-0.6**
CO02				IAML		09 30 25.5	
	comp=Z,1µm,0.2s						
CO02	**Combarbal**	**0.88**	**258**	*i*P	**Pn**	**09 30 07.9**	**+0.2**
CO02				*eS*	**Sn**	**09 30 24.1**	**-1.1**
ACCO	**Cerro Coronel**	**0.91**	**62**	*eP*	**Pn**	**09 30 08.8**	**+0.6**
ACCO				*eS*	**Sn**	**09 30 26.0**	**-0.1**
ACCO				IAML		09 30 26.4	
	comp=Z,1µm,0.4s						
AROD	**Rodeo**	**0.96**	**28**	*eP*	**Pn**	**09 30 09.5**	**+0.9**
AROD				*eS*	**Sn**	**09 30 26.8**	**-0.1**
RTLS	**Leoncito**	**0.98**	**143**	*eP*	**Pn**	**09 30 09.1**	**+0.4**
RTLS				*eS*	**Sn**	**09 30 25.9**	**-1.2**
RTLS				IAML		09 30 29.7	
	comp=Z,813nm,0.2s						
CO01	**Juntas del Tor**	**1.04**	**355**	*eP*	**Pn**	**09 30 11.1**	**+1.9**
CO01				*eS*	**Sn**	**09 30 28.6**	**+0.6**
CO01				IAML		09 30 31.3	
	comp=Z,381nm,0.5s						
CO01	**Juntas del Tor**	**1.04**	**355**	*i*P	**Pn**	**09 30 11.0**	**+1.7**
CO01				*eS*	**Sn**	**09 30 28.4**	**+0.4**
CO01				IAML		09 30 30.2	
	comp=E,650nm,0.2s						
GO04	**Tololo Observa**	**1.09**	**320**	*eP*	**Pn**	**09 30 10.3**	**+0.6**
GO04				*eS*	**Sn**	**09 30 28.3**	**-0.5**
GO04				IAML		09 30 28.9	
	comp=Z,949nm,0.1s						
GO04	**Tololo Observa**	**1.09**	**320**	*eP*	**Pn**	**09 30 10.2**	**+0.5**
GO04				*eS*	**Sn**	**09 30 27.7**	**-1.1**
ACDV	**Cuesta del Vie**	**1.14**	**42**	*eP*	**Pn**	**09 30 10.9**	**+0.9**
ACDV				*eS*	Sn	09 30 11.0	-18
ACDV				IAML		09 30 11.2	
	comp=Z,371nm,0.2s						
ZON	**Zonda**	**1.24**	**115**	*eS*	**Sn**	**09 30 29.7**	**-1.2**
ZON				IAML		09 30 30.4	
	comp=Z,313nm,0.6s						
CO04	**Los Peladeros**	**1.32**	**219**	*eP*	**Pn**	**09 30 12.1**	**+0.2**
CO04				*eS*	**Sn**	**09 30 31.5**	**-1.3**
CO04				IAML		09 30 34.5	
	comp=N,2µm,0.5s						
SJA	**San Juan**	**1.33**	**113**	*eP*	**Pn**	**09 30 13.0**	**+1.3**
SJA				*eS*	**Sn**	**09 30 31.3**	**-1.2**
SJA				IAML		09 30 33.0	
	comp=Z,463nm,0.2s						
RTLL	**Cerro Villicun**	**1.34**	**104**	*eP*	**Pn**	**09 30 11.8**	**-0.1**
RTLL				*eS*	**Sn**	**09 30 30.1**	**-2.6**
CO06	**Fray Jorge**	**1.45**	**283**	*i*P	**Pn**	**09 30 13.2**	**+0.2**
CO06				*eS*	**Sn**	**09 30 33.1**	**-1.6**
CO06				IAML		09 30 38.3	
	comp=E,748nm,0.4s						
CFA	**Coronel Fontan**	**1.61**	**112**	*eP*	**Pn**	**09 30 15.4**	**+0.7**
CFA				*eS*	**Sn**	**09 30 37.1**	**-0.8**
CFA				IAML		09 30 37.5	
	comp=Z,880nm,0.5s						
VA03	**San Esteban**	**1.80**	**195**	*eP*	**Pn**	**09 30 18.1**	**+1.2**
VA03				*eS*	**Sn**	**09 30 43.0**	**+1.1**
VA03				IAML		09 30 45.4	
	comp=Z,272nm,0.4s						
VA03	**San Esteban**	**1.80**	**195**	*i*P	**Pn**	**09 30 18.1**	**+1.2**
VA03				*eS*	**Sn**	**09 30 42.2**	**+0.4**
VA03				IAML		09 30 44.1	
	comp=E,1µm,0.2s						
LCO	**Las Campanas**	**2.09**	**343**	*eP*	**Pn**	**09 30 22.0**	**+1.4**
LCO				*eS*	**Sn**	**09 30 48.4**	**+0.2**
ROCH	**El Roble**	**2.13**	**204**	*eP*		09 30 21.6	
ROCH				*i*P	**Pn**	**09 30 21.5**	**+0.6**
ROCH				*eS*	**Sn**	**09 30 48.0**	**-0.8**
ROCH				IAML		09 30 49.8	
	comp=N,490nm,0.2s						
ROCH				IAML		09 30 49.8	
	comp=N,220nm,0.2s						
AC05	**El Transito**	**2.19**	**354**	*eP*	Pn	09 30 11.2	-10
AC05				*eS*	**Sn**	**09 30 51.6**	**+1.6**
AC05				IAML		09 30 53.3	
	comp=Z,148nm,0.5s						
AC05	**El Transito**	**2.19**	**354**	*eP*	**Pn**	**09 30 22.4**	**+0.8**
PEL	**Peldehue**	**2.20**	**195**	*eP*	**Pn**	**09 30 22.4**	**+0.8**
PEL				*eS*	**Sn**	**09 30 50.4**	**+0.3**
PEL				IAML		09 30 55.9	
	comp=Z,110nm,0.3s						
PEL	**Peldehue**	**2.20**	**195**	*eP*	**Pn**	**09 30 22.4**	**+0.8**
PEL				*eS*	**Sn**	**09 30 49.8**	**-0.3**
AVFE	**Valle Fertil**	**2.21**	**81**	*eP*	**Pn**	**09 30 22.7**	**+0.8**
AVFE				*eS*	**Sn**	**09 30 49.6**	**-0.9**
AVFE				IAML		09 30 50.6	
	comp=Z,278nm,0.4s						
MT10	**Hacienda Santa**	**2.29**	**191**	*i*P	**Pn**	**09 30 24.2**	**+1.4**
MT10				*eS*	**Sn**	**09 30 52.9**	**+0.6**
FCH	**Farellones**	**2.31**	**186**	*i*P	**Pn**	**09 30 25.3**	**+2.1**
FCH				*eS*	**Sn**	**09 30 54.7**	**+1.6**
FCH				IAML		09 30 56.1	
	comp=E,343nm,0.2s						
MT04	**Ro Olivares**	**2.38**	**183**	*eP*	**Pn**	**09 30 24.4**	**+0.4**
MT04				*eS*	**Sn**	**09 30 57.2**	**+2.8**
MT04				IAML		09 31 01.5	
	comp=Z,95nm,0.1s						
MT04	**Ro Olivares**	**2.38**	**183**	*i*P	**Pn**	**09 30 26.1**	**+2.1**
MT04				*eS*	**Sn**	**09 30 55.7**	**+1.3**
MT04				IAML		09 31 02.2	
	comp=E,182nm,0.2s						
MT14	**Cerro Cal¡n**	**2.41**	**191**	*i*P	**Pn**	**09 30 25.8**	**+1.6**
MT14				IAML		09 31 00.4	
	comp=E,342nm,0.3s						
MT08	**Bocatoma Ro**	**2.42**	**180**	*eP*	Pn	09 30 12.6	-12
MT08				*eS*	**Sn**	**09 30 55.9**	**+0.7**
MT08	**Bocatoma Ro**	**2.42**	**180**	*i*P	**Pn**	**09 30 26.9**	**+2.4**
MT08				*eS*	**Sn**	**09 30 56.8**	**+1.6**
MT08				IAML		09 31 04.7	
	comp=E,87nm,0.4s						
MT02	**Curacav**	**2.43**	**203**	*eP*	**Pn**	**09 30 24.7**	**+0.3**
MT02				*eS*	**Sn**	**09 30 54.8**	**-0.4**
MT02				IAML		09 30 58.2	
	comp=Z,121nm,0.2s						
MT02	**Curacav**	**2.43**	**203**	*i*P	**Pn**	**09 30 24.5**	**+0.1**
MT02				*eS*	**Sn**	**09 30 54.0**	**-1.2**
MT02				IAML		09 30 58.2	
	comp=E,134nm,0.5s						
VA01	**Torpederas**	**2.44**	**215**	*eP*	**Pn**	**09 30 24.7**	**+0.2**
VA01				*eS*	**Sn**	**09 30 53.2**	**-2.1**
VA01				IAML		09 31 00.2	
	comp=Z,66nm,0.5s						
VA01	**Torpederas**	**2.44**	**215**	*eP*	**Pn**	**09 30 24.4**	**-0.1**
VA01				*eS*	**Sn**	**09 30 53.6**	**-1.6**
MT05	**Renca**	**2.45**	**195**	*eP*	**Pn**	**09 30 25.8**	**+1.1**
MT05				*eS*	**Sn**	**09 30 56.3**	**+0.7**
MT05				IAML		09 30 58.3	
	comp=Z,246nm,0.1s						
MT05	**Renca**	**2.45**	**195**	*i*P	**Pn**	**09 30 25.6**	**+0.9**
MT05				*eS*	**Sn**	**09 30 55.3**	**-0.3**
MT05				IAML		09 30 57.3	
	comp=E,868nm,0.3s						
MT03	**Universidad Ad**	**2.50**	**190**	*eP*	**Pn**	**09 30 26.9**	**+1.5**
MT03				*eS*	**Sn**	**09 30 57.9**	**+1.0**
MT03				IAML		09 31 01.7	
	comp=Z,435nm,0.2s						
MT03	**Universidad Ad**	**2.50**	**190**	*i*P	**Pn**	**09 30 26.8**	**+1.4**
MT03				*eS*	**Sn**	**09 30 57.3**	**+0.4**
MT03				IAML		09 30 59.4	
	comp=E,608nm,0.2s						
MT15	**Las Vizcachas**	**2.61**	**189**	*i*P	**Pn**	**09 30 28.0**	**+1.3**
MT15				*eS*	**Sn**	**09 30 59.3**	**+0.2**
MT15				IAML		09 31 02.6	
	comp=E,455nm,0.2s						
ACAN	**Cantantal**	**2.70**	**118**	*eP*	**Pn**	**09 30 29.1**	**+1.3**
ACAN				IAML		09 31 11.8	
	comp=Z,282nm,0.4s						
MT13	**San Alfonso**	**2.73**	**185**	*eP*	**Pn**	**09 30 30.1**	**+1.9**
MT13				*eS*	**Sn**	**09 31 03.2**	**+1.3**
MT13				IAML		09 31 05.7	
	comp=Z,156nm,0.2s						
MT13	**San Alfonso**	**2.73**	**185**	*i*P	**Pn**	**09 30 29.9**	**+1.7**
MT13				*eS*	**Sn**	**09 31 02.6**	**+0.7**
MT13				IAML		09 31 06.4	
	comp=N,349nm,0.2s						
AC04	**Llanos de Chal**	**2.96**	**341**	*eS*	**Sn**	**09 31 04.9**	**-2.1**
AC04				IAML		09 31 18.7	
	comp=Z,76nm,0.9s						
AC04	**Llanos de Chal**	**2.96**	**341**	*eP*	**Pn**	**09 30 32.5**	**+1.4**
AC04				IAML		09 31 17.8	
	comp=Z,238nm,0.8s						
MT01	**Popeta**	**3.03**	**200**	*eP*	**Pn**	**09 30 32.2**	**+0.3**
MT01				*eS*	**Sn**	**09 31 07.4**	**-1.2**
MT01				IAML		09 31 08.7	
	comp=Z,87nm,0.1s						
ACLC	**CERRO LA CRUZ**	**3.08**	**60**	*eP*	**Pn**	**09 30 33.8**	**+1.1**
ACLC				*eS*	**Sn**	**09 31 10.4**	**+0.5**
ACLC				IAML		09 31 11.4	
	comp=Z,96nm,0.5s						
GO03	**Copiapo**	**3.42**	**356**	*eS*	**Sn**	**09 31 14.9**	**-2.9**
GO03				IAML		09 31 19.9	
	comp=Z,95nm,0.3s						
BO01	**Tunca**	**3.48**	**195**	*eP*	**Pn**	**09 30 37.9**	**+0.1**
BO01				*eS*	**Sn**	**09 31 17.4**	**-1.8**
BO01				IAML		09 31 19.0	
	comp=Z,61nm,0.3s						
TINO	**Tinogasta**	**3.63**	**36**	*eP*	**Pn**	**09 30 41.1**	**+1.3**
TINO				*eS*	**Sn**	**09 31 24.2**	**+1.6**
TINO				IAML		09 31 25.4	
	comp=Z,33nm,0.4s						
BO02	**Sierra Bellavi**	**3.82**	**190**	*eP*	**Pn**	**09 30 43.1**	**+0.9**
BO02				*eS*	**Sn**	**09 31 26.5**	**-0.6**
BO02				IAML		09 31 30.3	
	comp=Z,139nm,0.1s						
MRA	**San Martin**	**3.90**	**112**	*eP*	Pn	09 30 37.9	-5.5
MRA				*eP*		09 30 38.2	
MRA				*eS*	**Sn**	**09 31 21.8**	**-7.2**
MRA				IAML		09 31 21.9	
	comp=Z,46nm,0.3s						
RFA	**San Rafael**	**3.96**	**161**	*eP*	**Pn**	**09 30 44.9**	**+0.9**
RFA				*eS*	**Sn**	**09 31 29.8**	**-0.5**
RFA				IAML		09 31 58.0	
	comp=Z,20nm,0.3s						
GO05

*SOME **13** 09:36:39.1,43˚.63N×69˚.72E*
NNC 13 09:36:39.5±1.1,43˚.68N×69˚.71E,h0km,s8km,mb3.7, mpv3.3,3C-1D,Error ellipse: s-maj=6.9km s-min=3.9km az=130.0,Suspected Mining explosion.,Central Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BRLS	**Borolday**	**0.65**	**172**	P	Pn	09 36 55.8	-0.3
	2.6nm,0.1s						
BRLS				S	Sn	09 37 08.0	+0.9
	10nm,0.3s						
KK31	**Karatay Array**	**0.82**	**134**	⇓P	Pg	09 36 55.4	+0.2
	2.0nm,0.3s,baz=317,slow=17,SNR=109						
KK31				⇑S	Sg	09 37 06.8	+1.1
	35nm,0.5s,baz=318,slow=32,SNR=80						
IUG	**Iuzhnay**	**1.55**	**171**	P	Pn	09 37 08.1	-0.3
	49nm,0.4s						
IUG				S	Sg	09 37 28.6	-0.5
	41nm,0.3s						
MRKS	**Merke**	**2.73**	**109**	Pg	Pb	09 37 30.3	+1.0
	5.8nm,0.4s						
MRKS				Lg	Lg	09 38 06.9	
	7.5nm,0.4s						
BTLS	**Baital**	**3.39**	**65**	Pg	Pb	09 37 42.3	+1.9
	2.2nm,0.2s						
BTLS				Lg	Lg	09 38 27.4	
	5.0nm,0.4s						
AAK	**Ala-Archa**	**3.65**	**105**	⇑Pg	Pb	09 37 45.9	+1.0
	2.9nm,0.5s						
AAK				⇑Lg	Lg	09 38 35.9	
	3.8nm,0.6s						
KRBS	**Karabastau**	**4.33**	**88**	Pg	Pb	09 37 59.2	+2.9
	4.1nm,0.5s						
KRBS				Lg	Lg	09 38 56.4	
	3.7nm,0.2s						
DGS	**Degeres**	**4.43**	**94**	Pg	Pg	09 38 02.1	-2.3
	4.0nm,0.4s						
DGS				Lg	Lg	09 39 01.4	
	11nm,0.5s						
KST	**Kastek**	**4.60**	**96**	Pg	Pg	09 38 04.6	-3.1
	2.3nm,0.3s						
KST				Lg	Lg	09 39 05.8	
	8.3nm,0.4s						

*IDC **13** 09:50:54.2±0.6,8˚.33N×137˚.71E,h0km,mb4.3/18, mbtmp4.3/20,ML4.3/2,MS3.9/3,Error ellipse: s-maj=19.6km s-min=12.2km az=91.0*
*NEIC **13** 09:50:56.6±1.5,8˚.30N±0˚.07×137˚.66E±0˚.10,h10km±1km, mb4.7/43,Error ellipse: s-maj=16.7km s-min=11.0km az=288.0*
*DJA **13** 09:51:02.8±1.3,8˚N±10˚×13˚8E±˚,h65km±11km,M5.0/18, mb4.7/18,mB6.5/3,Mw(mB)6.3/3*
ISC 13 09:50:59.2±0.4,8˚.25N±0˚.05×137˚.70E±0˚.07,h35km,n81, σ1°15/60,mb4.6/40,Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**8.81**	**52**	Pn	**Pn**	**09 53 03.7**	**-0.5**
	8.7nm,0.3s,baz=352,slow=12,SNR=5.2						
GUMO				Sn	**Sn**	**09 54 42.6**	**+0.2**
	3.7nm,0.3s,baz=194,slow=20,SNR=1.1						
	21nm,0.3s						
GUMO				AML	AML		
SMPI	**Sarmi**	**10.22**	**174**	P	**Pn**	**09 53 24.4**	**+0.9**
GENI	**Genyem**	**11.04**	**167**	P	**Pn**	**09 53 37.0**	**+2.2**
	229nm,0.7s						
SIJI	**Sorong**	**11.10**	**216**	Pn	**Pn**	**09 53 35.1**	**-0.5**
	0.8nm,0.3s,baz=20,slow=17,SNR=4.3						
	4.8nm,0.5s						
SIJI				AML	AML		
SIJI	**Sorong**	**11.10**	**216**	P	**Pn**	**09 53 39.3**	**+3.7**
	9.5nm,0.7s						
JAY	**Jayapura**	**11.10**	**164**	Pn	**Pn**	**09 53 36.1**	**+0.4**
	5.8nm,0.3s,baz=287,slow=4.8,SNR=14						
JAY				Sn	**Sn**	**09 55 37.4**	**-1.3**
	3.4nm,0.3s,baz=128,slow=15,SNR=5.0						
JAY				LR	LR	09 56 34.6	
	comp=Z,471nm,18.4s,baz=36,slow=30						
JAY	**Jayapura**	**11.10**	**164**	P	**Pn**	**09 53 36.8**	**+1.1**
	28nm,1.0s						
FAKI	**Fak Fak**	**12.35**	**206**		**Pn**	**09 53 53.1**	**+0.4**
MANU	**Manus Island**	**14.05**	**136**		**P**	**09 54 20.9**	**-2.4**
SANI	**Sanana**	**15.53**	**229**	P	**Pn**	**09 54 35.9**	**+0.2**
	10.0nm,0.8s						
TTSI	**Tana Toraja**	**21.07**	**239**	P	**P**	**09 55 41.0**	**+0.4**
	24nm,0.9s						
KKM	**Kota Kinabalu**	**21.43**	**266**		**P**	**09 55 43.0**	**-1.6**
KKM				IAmb	IAmb	09 55 52.1	
	comp=Z,26nm,0.8s						
KKM	**Kota Kinabalu**	**21.43**	**266**	P	**P**	**09 55 47.4**	**+2.8**
	comp=Z,41nm,0.9s						
EDFI	**Ende, Flores**	**23.23**	**224**	P	**P**	**09 56 01.6**	**-2.0**
	comp=Z,18nm,0.8s						
LBFI	**Labuhan Bajo,**	**24.31**	**227**	P	**P**	**09 56 12.5**	**-1.3**
KNRA	**Kununurra**	**25.36**	**200**	P	**P**	**09 56 22.2**	**-1.1**
JMN	**Monobe**	**25.60**	**353**	P	**P**	**09 56 25.4**	**0.0**
JMN				IAmb	IAmb	09 57 05.5	
	comp=Z,24nm,1.1s						
WB0	**Warramunga Arr**	**28.03**	**187**	P	**P**	**09 56 48.4**	**+1.1**
MJAR	**Matsushiro Arr**	**28.17**	**1**	P	**P**	**09 56 46.0**	**-2.4**
	comp=Z,1.3nm,0.7s,baz=178,slow=9.9,SNR=4.9						
	comp=Z,1.3nm,0.7s						
WRAB	**Tennant Creek**	**28.20**	**187**	P	**P**	**09 56 49.2**	**+0.4**
WR8	**Warramunga Arr**	**28.20**	**186**	P	**P**	**09 56 50.4**	**+1.5**
WRA	**Warramunga Arr**	**28.21**	**187**	P	**P**	**09 56 49.7**	**+0.8**
	comp=Z,2.1nm,0.9s,baz=5.9,slow=9.6,SNR=12						
WRA				PcP	**PcP**	**10 00 01.5**	**-0.7**
	comp=Z,0.6nm,0.7s,baz=352,slow=2.2,SNR=4.6						
	comp=Z,2.1nm,0.9s						
WRA	**Warramunga Arr**	**28.21**	**187**	IAmb	IAmb	09 56 55.3	
	comp=Z,0.3nm,1.1s						
H11S3	**WAKE ISLAND Hy**	**29.94**	**67**	T	T	10 28 43.8	
	baz=254,slow=75,SNR=131						
H11S2	**WAKE ISLAND Hy**	**29.95**	**67**	T	T	10 28 44.6	
	baz=254,slow=75,SNR=98						
H11S1	**WAKE ISLAND Hy**	**29.95**	**67**	T	T	10 28 40.0	
	baz=254,slow=75,SNR=70						
KSRS	**Korea Array**	**30.40**	**345**	P	**P**	**09 57 07.7**	**-0.4**
	comp=Z,1.0nm,0.8s,baz=162,slow=12,SNR=2.9						
	comp=Z,1.0nm,0.8s						
H11N1	**WAKE ISLAND Hy**	**30.48**	**65**	T	T	10 29 28.9	
	baz=252,slow=75,SNR=20						
H11N2	**WAKE ISLAND Hy**	**30.48**	**65**	T	T	10 29 40.1	
	baz=252,slow=75,SNR=6.7						
H11N3	**WAKE ISLAND Hy**	**30.49**	**65**	T	T	10 29 29.0	
	baz=252,slow=75,SNR=18						
AS31	**Alice Springs**	**31.93**	**187**		**P**	**09 57 22.8**	**+0.9**
ASAR	**Alice Springs**	**31.93**	**187**	P	**P**	**09 57 22.2**	**+0.4**
	comp=Z,0.9nm,0.6s,baz=22,slow=10,SNR=16						
ASAR				PcP	**PcP**	**10 00 11.5**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=17,slow=2.7,SNR=5.2						
	comp=Z,0.9nm,0.6s						
JKA	**Kamikawa-asahi**	**35.99**	**6**	P	**P**	**09 57 57.6**	**+0.8**
CMAR	**Chiang Mai Arr**	**38.97**	**289**	P	**P**	**09 58 21.8**	**-0.7**
	comp=Z,0.9nm,0.4s,baz=83,slow=7.2,SNR=7.3						
	comp=Z,0.9nm,0.4s						
STKA	**Stephens Creek**	**40.07**	**175**	P	**P**	**09 58 32.0**	**+0.7**
	comp=Z,2.3nm,0.6s,baz=334,slow=11,SNR=4.5						
	comp=Z,2.3nm,0.6s						
STKA	**Stephens Creek**	**40.07**	**175**	IAmb	IAmb	09 58 35.5	
	comp=Z,16nm,0.8s						
DZM	**Mont Dzumac**	**41.26**	**137**	LR	LR	10 12 39.7	
	comp=Z,229nm,19.3s,baz=294,slow=32						
LZDM	**Lanzhou Array**	**41.49**	**317**	P	**P**	**09 58 43.2**	**-0.3**
	comp=Z,2.3nm,0.3s,baz=126,slow=7.5,SNR=6.4						
	comp=Z,2.3nm,0.3s						
ULN	**Ulaanbaatar**	**47.26**	**332**	P	**P**	**09 59 29.5**	**+0.3**
ULN				IAmb	IAmb	09 59 31.3	
	comp=Z,3.5nm,0.8s						
SONM	**Songino Array**	**47.54**	**332**	P	**P**	**09 59 31.3**	**-0.1**
	comp=Z,3.4nm,0.9s,baz=143,slow=9.3,SNR=16						
SONM				PcP	**PcP**	**10 01 00.7**	**-0.3**
	comp=Z,1.6nm,0.7s,baz=132,slow=4.3,SNR=3.9						
	comp=Z,3.4nm,0.9s						
SONM	**Songino Array**	**47.54**	**332**		**P**	**09 59 32.3**	**+0.9**
SONM				IAmb	IAmb	09 59 33.6	
	comp=Z,5.3nm,1.0s						
PEA0B	**Petropavlovsk-**	**47.59**	**16**	P	**P**	**09 59 31.1**	**-0.4**
PETK	**Petropavlovsk-**	**47.59**	**16**	P	**P**	**09 59 31.0**	**-0.5**
	comp=Z,3.2nm,0.8s,baz=86,slow=4.9,SNR=4.6						
	comp=Z,3.2nm,0.8s						
EVN	**Everest**	**51.77**	**299**	P	**P**	**10 00 03.2**	**-1.3**
MKAR	**Makanchi Array**	**60.69**	**320**	P	**P**	**10 01 07.6**	**+0.5**
	comp=Z,7.4nm,0.6s,baz=105,slow=8.6,SNR=61						
	comp=Z,7.4nm,0.6s						
MAKZ	**Makanchi**	**60.89**	**319**		**P**	**10 01 09.0**	**+0.5**
MAKZ				IAmb	IAmb	10 01 09.5	
	comp=Z,6.9nm,0.8s						
ZALV	**Zalesovo Beam**	**62.10**	**328**	P	**P**	**10 01 15.7**	**-0.8**
	comp=Z,1.3nm,0.6s,baz=83,slow=12,SNR=1.5						
	comp=Z,1.3nm,0.6s						
BOOM	**Boomskoye usch**	**63.75**	**313**	P	**P**	**10 01 27.8**	**-0.2**
BOOM				IAmb	IAmb	10 01 38.7	
	comp=Z,4.5nm,0.9s						
NIL	**Nilore**	**64.23**	**303**		**P**	**10 01 30.7**	**-0.4**
KURK	**Kurchatov**	**64.32**	**323**		**P**	**10 01 31.0**	**-0.3**
KURBB	**Kurchatov Arra**	**64.34**	**323**	P	**P**	**10 01 31.7**	**+0.3**
	comp=Z,8.1nm,0.7s,baz=113,slow=5.6,SNR=33						
	comp=Z,8.1nm,0.7s						
ARSB	**Arslanbob**	**65.66**	**312**	IAmb	IAmb	10 01 41.5	
	comp=Z,4.5nm,0.9s						
RAR	**Rarotonga**	**67.99**	**117**	LR	LR	10 26 43.0	
	comp=Z,67nm,20.6s,baz=306,slow=32						
BVAR	**Borovoye Array**	**69.87**	**324**	P	**P**	**10 02 06.7**	**+0.2**
	comp=Z,10nm,0.5s,baz=110,slow=7.6,SNR=44						
	comp=Z,10nm,0.5s						
BORK	**Borovoye**	**69.92**	**324**		**P**	**10 02 07.1**	**+0.3**
O16K	**Kokwok River B**	**70.02**	**29**	P	**P**	**10 02 08.6**	**+1.4**
K17K	**Iditarod**	**70.95**	**26**	P	**P**	**10 02 14.1**	**+1.2**
H19K	**Roundabout Mou**	**72.65**	**23**	IAmb	IAmb	10 02 27.1	
	comp=Z,15nm,1.1s						
E19K	**Redstone River**	**73.00**	**21**	IAmb	IAmb	10 02 31.6	
	comp=Z,9.7nm,1.0s						
I21K	**Tanana**	**74.34**	**24**	IAmb	IAmb	10 02 36.4	
	comp=Z,10nm,1.1s						
G23K	**Bananza Creek**	**75.49**	**23**	IAmb	IAmb	10 02 42.5	
	comp=Z,3.5nm,0.8s						
AB31	**Akbulak array**	**75.81**	**319**	IAmb	IAmb	10 02 42.0	
	comp=Z,3.8nm,0.7s						
ABKAR	**Akbulak array**	**75.81**	**319**		**P**	**10 02 41.5**	**-0.3**
E23K	**Chandalar**	**75.95**	**22**	IAmb	IAmb	10 02 48.8	
	comp=Z,7.3nm,1.1s						
IL31		**76.37**	**25**	IAmb	IAmb	10 03 06.6	
	comp=Z,9.2nm,1.5s						
ILAR	**Eielson Array**	**76.37**	**25**	P	**P**	**10 02 44.6**	**-0.1**
	comp=Z,1.9nm,0.8s,baz=251,slow=6.4,SNR=20						
	comp=Z,1.9nm,0.8s						
F25K	**Christian Rive**	**77.34**	**22**	IAmb	IAmb	10 02 53.2	
	comp=Z,5.4nm,0.8s						
DOT	**Dot Lake**	**77.43**	**27**	IAmb	IAmb	10 02 53.1	
	comp=Z,7.1nm,1.1s						
F26K	**Sheenjek River**	**77.92**	**22**	IAmb	IAmb	10 02 56.5	
	comp=Z,6.0nm,0.8s						
E28M	**Babbage River**	**79.73**	**22**		**P**	**10 03 04.9**	**+1.6**
E28M				IAmb	IAmb	10 03 06.1	
	comp=Z,9.2nm,1.4s						
M29M	**Somme Creek**	**79.89**	**28**	IAmb	IAmb	10 03 07.6	
	comp=Z,7.0nm,0.8s						
G29M	**Pine Creek**	**80.22**	**23**	IAmb	IAmb	10 03 18.3	
	comp=Z,7.6nm,1.4s						
INK	**Inuvik**	**81.94**	**22**	IAmb	IAmb	10 03 21.4	
	comp=Z,7.0nm,1.4s						
A36M	**Sachs Harbour**	**84.40**	**18**		**P**	**10 03 28.8**	**+1.2**
A36M				IAmb	IAmb	10 03 29.7	
	comp=Z,7.5nm,0.8s						
VNDA	**Vanda**	**86.71**	**175**	P	**P**	**10 03 39.5**	**+0.6**
	comp=Z,1.2nm,0.7s,baz=327,slow=6.1,SNR=5.4						
	comp=Z,1.2nm,0.7s						
VNDA	**Vanda**	**86.71**	**175**	IAmb	IAmb	10 03 48.7	
	comp=Z,3.3nm,1.4s						
KBZ	**Khabaz**	**87.82**	**314**	P	**P**	**10 03 45.7**	**+0.6**
	comp=Z,1.7nm,0.9s,baz=37,slow=6.4,SNR=4.4						
	comp=Z,1.7nm,0.9s						
YKA	**Yellowknife Ar**	**90.77**	**26**	P	**P**	**10 03 59.7**	**+1.2**
	comp=Z,2.9nm,0.8s,baz=293,slow=5.0,SNR=8.0						
	comp=Z,2.9nm,0.8s						
QSPA	**South Pole Qui**	**98.12**	**180**	P	Pdif	10 04 33.4	+1.1
	comp=Z,1.7nm,0.9s,baz=16,slow=1.3,SNR=4.8						
	comp=Z,1.7nm,0.9s						
TORD	**Torodi Ar. Bea**	**131.41**	**296**	PKP	**PKPdf**	**10 10 08.4**	**-0.6**
	comp=Z,0.6nm,0.7s,baz=64,slow=3.2,SNR=4.7						
LPAZ	**La Paz**	**153.55**	**110**	PKPbc	**PKiKP**	**10 10 56.7**	**+0.6**
	comp=Z,0.8nm,0.6s,baz=159,slow=1.3,SNR=3.9						

*NEIC **13** 09:53:19.5±2.3,28˚.31N±0˚.05×100˚.44W±0˚.04,h5km±1km, mb_Lg3.4/105,Error ellipse: s-maj=9.6km s-min=4.0km az=328.0*
*IDC **13** 09:53:25.1±2.9,28˚.59N×100˚.38W,h0km,mb3.1/1, mbtmp3.3/3,ML4.2/2,MS4.0/1,Error ellipse: s-maj=32.1km s-min=23.2km az=1.0*
*MEX **13** 09:53:26.3±0.4,28˚.42N×100˚.29W,h5km,MD3.4, Presumed earthquake*
ISC 13 09:53:21.8±1.5,28˚.42N±0˚.04×100˚.32W±0˚.03,h2km±11km, n75,σ0°98/64,Texas-Mexico border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
833A	**Chaparral WMA,**	**0.82**	**97**		**Pg**	**09 53 38.4**	**+0.9**
833A				Sg	**Sg**	**09 53 49.9**	**+1.7**
MCIG	**Muzquiz**	**1.16**	**242**	*eP*	**Pn**	**09 53 45.7**	**+0.6**
MCIG				*eS*	**Sn**	**09 54 02.0**	**+0.4**
HNDO	**Hondo**	**1.43**	**39**		**Pn**	**09 53 48.6**	**-0.2**
HNDO					**Sg**	**09 54 08.2**	**+0.4**
EF02	**Christine**	**1.61**	**77**		**Pn**	**09 53 51.5**	**+0.3**
EF02					**Sn**	**09 54 12.8**	**+0.2**
EF02				IAmb_Lg		09 54 18.6	
	comp=Z,128nm,0.8s						
JCT	**Junction City**	**2.10**	**12**		**Pn**	**09 53 58.5**	**+0.5**
JCT	**Junction City**	**2.10**	**12**	*eP*	**Pn**	**09 53 58.4**	**+0.5**
JCT				*eS*	**Sn**	**09 54 23.9**	**-0.8**
SAND	**Sanderson**	**2.19**	**314**		**Pn**	**09 53 59.1**	**-0.2**
SAND				IAmb_Lg		09 54 33.2	
	comp=Z,133nm,0.8s						
735A	**Kenedy**	**2.25**	**78**		**Pn**	**09 54 00.2**	**+0.2**
KVTX	**Kingsville**	**2.32**	**112**	Pn	**Pn**	**09 54 00.9**	**-0.1**
OZNA	**Ozona**	**2.59**	**344**		**Pn**	**09 54 05.5**	**+0.7**
OZNA				IAmb_Lg		09 54 50.8	
	comp=Z,174nm,0.7s						
TXAR	**Lajitas Array**	**3.07**	**288**	Pn	**Pn**	**09 54 12.4**	**+1.0**
	comp=Z,12nm,0.3s,baz=109,slow=13,SNR=676						
TXAR				Pg	**Pg**	**09 54 19.9**	**-0.7**
	comp=Z,12nm,0.3s,baz=105,slow=15,SNR=16						
TXAR				Lg	Lg	09 55 01.4	
	comp=Z,27nm,0.3s,baz=108,slow=27,SNR=15						
	comp=Z,15nm,0.3s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**3.07**	**288**		**Pn**	**09 54 12.1**	**+0.7**
TX31	**Lajitas Ar. Si**	**3.07**	**288**		**Pn**	**09 54 12.4**	**+0.9**
BRDY	**Brady**	**3.08**	**22**		**Pn**	**09 54 12.1**	**+0.7**
MLDN	**Muldoon**	**3.15**	**64**	Pn	**Pn**	**09 54 14.0**	**+1.5**
MLDN				IAmb_Lg		09 55 10.9	
	comp=Z,142nm,0.9s						
435B	**Jarrell**	**3.35**	**45**	Pn	**Pn**	**09 54 15.8**	**+0.7**
ALPN	**Alpine**	**3.49**	**305**		**Pn**	**09 54 17.8**	**+0.5**
ALPN				IAmb_Lg		09 55 19.1	
	comp=Z,88nm,0.8s						
SGCY	**Sterling City**	**3.55**	**349**		**Pn**	**09 54 19.1**	**+1.2**
TMB01	**Midkiff**	**3.58**	**335**		**Pn**	**09 54 19.2**	**+0.8**
TMB01				IAmb_Lg		09 55 19.4	
	comp=Z,92nm,1.3s						
LNIG	**Linares**	**3.59**	**168**	*eP*	**Pn**	**09 54 19.1**	**+0.6**
LNIG				*eS*	**Sn**	**09 55 02.4**	**+0.8**
MNHN	**Monahans**	**3.60**	**324**		**Pn**	**09 54 18.5**	**-0.1**
MNHN				IAmb_Lg		09 55 21.1	
	comp=Z,76nm,0.8s						
TPB05	**Hovey Rd**	**3.61**	**314**		**Pn**	**09 54 19.0**	**+0.1**
TPB01	**Permian Basin**	**3.92**	**311**		**Pn**	**09 54 23.6**	**+0.4**
TPB01				IAmb_Lg		09 55 28.9	
	comp=Z,91nm,0.8s						
TPB06	**Permian Basin**	**4.08**	**323**	IAmb_Lg		09 55 39.2	
	comp=Z,94nm,0.9s						
ODSA	**Odessa**	**4.16**	**333**	Pn	**Pn**	**09 54 26.8**	**+0.4**
ABTX	**Abilene, Hawle**	**4.23**	**8**		**Pn**	**09 54 27.7**	**+0.5**
PECS	**Pecos**	**4.26**	**315**	IAmb_Lg		09 55 44.8	
	comp=Z,81nm,1.1s						
TPB07	**Mentone**	**4.28**	**318**		**Pn**	**09 54 29.0**	**+0.9**
TPB07				IAmb_Lg		09 55 45.6	
	comp=Z,90nm,0.7s						
WHTX	**Lake Whitney,**	**4.33**	**34**		**Pn**	**09 54 29.4**	**+0.7**
WHTX				IAmb_Lg		09 55 47.8	
	comp=Z,87nm,0.9s						
128A	**Castleberry Fa**	**4.58**	**336**	IAmb_Lg		09 56 00.7	
	comp=Z,56nm,1.2s						
FW13	**Cleburne**	**4.64**	**32**		**Pn**	**09 54 33.0**	**+0.1**
SN07	**Snyder 07**	**4.68**	**354**		**Pn**	**09 54 33.7**	**+0.2**
VHRN	**Van Horn**	**4.70**	**301**		**Pn**	**09 54 34.7**	**+0.9**
PLPT	**Palo Pinto**	**4.70**	**21**		**Pn**	**09 54 34.5**	**+0.7**
PLPT				IAmb_Lg		09 55 55.5	
	comp=Z,84nm,0.7s						
POST	**Post**	**4.74**	**348**		**Pn**	**09 54 34.6**	**+0.3**
TPB11	**China Draw**	**4.75**	**318**		**Pn**	**09 54 33.9**	**-0.6**
HNVL	**Huntsville, TX**	**4.82**	**60**	Pn	**Pn**	**09 54 35.9**	**+0.5**
TPB28		**4.86**	**313**		**Pn**	**09 54 36.1**	**+0.1**
TPB28				IAmb_Lg		09 56 07.4	
	comp=Z,30nm,0.8s						
APMT	**Aspermont**	**4.89**	**2**		**Pn**	**09 54 36.0**	**-0.4**
CLNB	**Carlsbad**	**4.91**	**322**		**Pn**	**09 54 36.7**	**-0.1**
HPIG		**4.97**	**254**	Pn	**Pn**	**09 54 35.8**	**-1.8**
HPIG				IAmb_Lg		09 56 06.9	
	comp=Z,44nm,0.9s						
FW06	**Azle**	**5.12**	**27**		**Pn**	**09 54 39.0**	**-0.5**
FW06				IAmb_Lg		09 56 18.2	
	comp=Z,54nm,0.8s						
DKNS	**Dickens**	**5.25**	**354**		**Pn**	**09 54 41.2**	**-0.2**
GTIG	**Gomez Farias**	**5.43**	**169**	*eP*	**Pn**	**09 54 44.5**	**+0.7**
GTIG				*eS*	**Sn**	**09 55 47.2**	**+0.2**
MNTX	**Cornudas Mount**	**5.47**	**308**		**Pn**	**09 54 44.6**	**+0.3**
MNTX	**Cornudas Mount**	**5.47**	**308**	*eP*	**Pn**	**09 54 45.3**	**+1.0**
MNTX				*eS*	**Sn**	**09 55 49.0**	**+1.1**
WTFS	**Witchita Falls**	**5.56**	**16**		**Pn**	**09 54 45.9**	**+0.3**
WTFS				IAmb_Lg		09 56 30.9	
	comp=Z,70nm,0.7s						
TREL	**Terrell**	**5.63**	**39**	IAmb_Lg		09 56 29.0	
	comp=Z,74nm,0.8s						
MSTX	**Muleshoe**	**5.92**	**340**		**Pn**	**09 54 50.6**	**+0.1**
MSTX				IAmb_Lg		09 56 34.4	
	comp=Z,51nm,0.9s						
ZAIG	**Zacatecas**	**5.98**	**200**		**Pn**	**09 54 49.5**	**-2.1**
WMOK	**Wichita Mounta**	**6.43**	**11**	IAmb_Lg		09 56 47.9	
	comp=Z,63nm,0.9s						
AMTX	**Amarillo**	**6.54**	**350**		**Pn**	**09 54 59.5**	**+0.3**
PH02	**Texas Public H**	**7.08**	**349**		**Pn**	**09 55 06.2**	**-0.4**
PH02				IAmb_Lg		09 57 21.4	
	comp=Z,57nm,0.8s						
FNO	**Franklin**	**7.25**	**19**	IAmb_Lg		09 57 25.0	
	comp=Z,46nm,0.7s						
W35A	**Tecumseh**	**7.32**	**23**	IAmb_Lg		09 57 38.2	
	comp=Z,40nm,0.9s						
121A	**Cookes Peak, D**	**7.63**	**304**		**Pn**	**09 55 14.1**	**-0.1**
ELIS	**Ellis County**	**7.66**	**5**	Pn	**Pn**	**09 55 14.2**	**-0.2**
OK029	**Liberty Lake**	**7.74**	**18**	IAmb_Lg		09 57 45.0	
	comp=Z,33nm,0.8s						
DEOK	**Depew**	**8.07**	**23**	IAmb_Lg		09 58 00.4	
	comp=Z,23nm,0.9s						
OK038	**West end E0370**	**8.14**	**9**	IAmb_Lg		09 57 52.4	
	comp=Z,32nm,0.8s						
319A	**Douglas**	**8.32**	**293**	IAmb_Lg		09 58 05.9	
	comp=Z,26nm,1.2s						
ALQ	**Albuquerque**	**8.34**	**323**	IAmb_Lg		09 58 00.4	
	comp=Z,22nm,1.1s						
ALQ				IAmb_Lg		09 58 00.4	
	comp=Z,22nm,1.1s						
ANMO	**Albuquerque**	**8.34**	**323**	Pg	Pb	09 55 52.9	+5.9
	comp=Z,0.3nm,0.3s,baz=115,slow=18,SNR=8.6						
ANMO				Lg	Lg	09 57 40.0	
	comp=Z,0.7nm,0.3s,baz=7.5,slow=5.4,SNR=8.2						
TASM	**ASL Pad, Albuq**	**8.34**	**323**	IAmb_Lg		09 58 00.5	
	comp=Z,12nm,0.7s						
TASM				IAmb_Lg		09 58 00.5	
	comp=Z,13nm,0.7s						
TUL3	**Leonard**	**8.39**	**26**	IAmb_Lg		09 57 55.1	
	comp=Z,46nm,1.2s						
T25A	**Trinidad**	**9.35**	**339**	IAmb_Lg		09 58 36.3	
	comp=Z,32nm,0.8s						
U38A	**Gravette**	**9.43**	**31**	IAmb_Lg		09 58 17.5	
	comp=Z,20nm,1.1s						
HHAR	**Hobbs**	**9.51**	**33**	IAmb_Lg		09 58 44.7	
	comp=Z,34nm,1.3s						
WHAR	**Wooly Hollow**	**9.67**	**43**	Pn	**Pn**	**09 55 41.7**	**-0.2**
LRAL	**Lakeview Retre**	**12.35**	**65**	Pn	**Pn**	**09 56 15.4**	**-3.2**
250A	**Grady**	**12.66**	**70**	Pn	Pn	09 56 17.2	-5.7
TEIG	**Tepich**	**13.57**	**124**	Pn	**Pn**	**09 56 33.6**	**-2.9**
PDAR	**Pinedale Array**	**16.15**	**335**	Pn	**P**	**09 57 13.6**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=142,slow=9.5,SNR=4.4						
	comp=Z,0.3nm,0.5s						
PDAR				AML	AML		
JTS	**Las Juntas de**	**23.09**	**138**	LR	LR	10 09 26.2	
	comp=Z,366nm,18.5s,baz=216,slow=41						
ILAR	**Eielson Array**	**46.58**	**335**	P	**P**	**10 01 53.5**	**+2.7**
	comp=Z,0.2nm,0.6s,baz=117,slow=7.6,SNR=6.9						
	comp=Z,0.2nm,0.6s						

*SOME **13** 09:55:05.5,44˚.58N×82˚.12E,h20km*
*NNC **13** 09:55:07.9±1.2,44˚.72N×81˚.91E,h0km,mb3.5,mpv3.5, Error ellipse: s-maj=14.5km s-min=3.9km az=124.0, Suspected Mining explosion.*
ISC 13 09:55:04.9±1.9,44˚.66N±0˚.06×82˚.12E±0˚.09,h0km,n16, σ0°54/26,2C-4D,Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DJR	**Jarkent**	**1.70**	**260**	P	**Pb**	**09 55

The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

ISC 13 10:00:58.5±0.9, 64°80N±0°03×30°46E±0°04, h0km, n34, σ1s35/56, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
RMF	**Romuvaara**	**0.63**	**201**	*eP*		**Pg**	**10 01 10.4**	**-0.1**
RMF				*eS*		**Sg**	**10 01 19.3**	**+0.7**
KU1	**Kurvinen**	**0.86**	**334**	*eP*		**Pg**	**10 01 15.3**	**+0.4**
KU1				*eS*		**Sb**	**10 01 28.1**	**-0.2**
KU6	**Riekki**	**1.25**	**349**	*eP*		**Pg**	**10 01 21.9**	**-0.6**
KU6				*eS*		**Sb**	**10 01 39.9**	**+0.1**
MSF	**Maaselka**	**1.27**	**333**	*eP*		**Pg**	**10 01 22.6**	**-0.2**
MSF				*eS*		**Sn**	**10 01 41.1**	**-0.1**
KU2	**Taivalkoski**	**1.31**	**315**	*eP*		**Pb**	**10 01 23.8**	**-0.2**
KU2				*eS*		**Sn**	**10 01 44.0**	**+1.7**
OLKF	**Oulanka, Finla**	**1.59**	**344**	*eP*		**Pn**	**10 01 27.9**	**0.0**
OLKF				*eS*		**Sg**	**10 01 50.0**	**+0.4**
NIF	**Nilsia**	**1.83**	**221**	*ePN*		**Pn**	**10 01 31.6**	**+0.4**
NIF				*eSG*		**Sb**	**10 01 56.4**	**+0.1**
JOF	**Joensuu**	**1.93**	**168**	*eP*		**Pn**	**10 01 32.1**	**-0.4**
RANF	**Ranua**	**1.96**	**310**	*ePG*		**Pb**	**10 01 35.1**	**0.0**
RANF				*eSG*		**Sg**	**10 02 01.9**	**+0.4**
OUL	**Oulu**	**1.96**	**280**	*ePG*		**Pb**	**10 01 35.3**	**+0.2**
OUL				*eSG*		**Sg**	**10 02 02.9**	**+1.4**
OUL				MSG			10 02 04.9	
	comp=Z,27nm,0.2s							
KVDA	**Kovda**	**2.15**	**27**	P		**Pn**	**10 01 36.1**	**+0.6**
KVDA				S		**Sn**	**10 02 02.1**	**-0.7**
OBF4	**Vikkela, Lumij**	**2.29**	**273**	*ePB*		**Pb**	**10 01 40.1**	**-0.6**
OBF4				*eSB*		**Sb**	**10 02 10.4**	**+0.9**
OBF4				MSG			10 02 13.7	
	comp=Z,20nm,0.2s							
OUF	**Merijarvi**	**2.51**	**263**	*ePB*		**Pb**	**10 01 42.8**	**-1.6**
OUF				*eSG*		**Sg**	**10 02 17.6**	**-1.4**
OUF				MSG			10 02 19.7	
	comp=Z,35nm,0.2s							
RNF	**Rovaniemi**	**2.58**	**317**	*ePG*		**Pb**	**10 01 46.0**	**+0.3**
RNF				*eSG*		**Sg**	**10 02 20.2**	**-1.2**
RNF				MSG			10 02 21.1	
	comp=Z,7.1nm,0.2s							
SUF	**Sumiainen**	**2.83**	**224**	*eP*		**Pn**	**10 01 47.3**	**+2.4**
TOF	**Tornio**	**2.87**	**299**	*ePG*		**Pb**	**10 01 51.2**	**+0.7**
TOF				*eS*		**Sb**	**10 02 24.2**	**-1.9**
APA0	**Apatity Array**	**3.00**	**19**	P		**Pn**	**10 01 47.8**	**+0.5**
APA0				S		**Sn**	**10 02 22.4**	**-1.5**
APA	**Apatity**	**3.03**	**22**	S		**Sn**	**10 02 25.0**	**+0.4**
LVZ	**Lovozero**	**3.54**	**27**	S		**Sn**	**10 02 34.9**	**-2.4**
KEF	**Keuruu**	**3.64**	**226**	*eP*		**Pn**	**10 01 58.5**	**+2.4**
SJUU	**Sjulsmark**	**3.80**	**285**	*eP*		**Pn**	**10 02 00.5**	**+2.2**
VAF	**Ylistaro**	**3.86**	**246**	*eP*		**Pn**	**10 02 00.9**	**+1.8**
FINES	**FINESS Array B**	**3.91**	**213**	Pn		**Pn**	**10 02 02.4**	**+2.6**
	comp=Z,0.3nm,0.3s,baz=33,slow=13,SNR=21							
FINES				Pg		**Pb**	**10 02 08.3**	**+0.1**
	comp=Z,0.7nm,0.3s,baz=30,slow=16,SNR=12							
FINES				Lg		Lg	10 03 00.8	
	comp=Z,4.8nm,0.3s,baz=36,slow=29,SNR=10 comp=Z,0.8nm,0.3s							
FINES				AML		AML		
HEF	**Hetta**	**4.52**	**326**	*eP*		**Pn**	**10 02 09.3**	**+1.1**
LANU	**Lannavaara**	**4.71**	**318**	*eP*		**Pn**	**10 02 12.3**	**+1.6**
TERR	**Teriberka**	**4.78**	**20**	P		**Pn**	**10 02 12.3**	**+0.6**
TERR				S		**Sn**	**10 03 06.3**	**-1.4**
ARA0	**ARCESS Array S**	**5.13**	**340**	*eP*		**Pn**	**10 02 16.3**	**-0.2**
ARCES	**ARCESS Array B**	**5.13**	**340**	Pn		**Pn**	**10 02 16.4**	**-0.2**
	comp=Z,1.0nm,0.3s,baz=155,slow=14,SNR=47							
ARCES				Sn		**Sn**	**10 03 16.1**	**-0.3**
	comp=Z,1.2nm,0.3s,baz=156,slow=24,SNR=9.4							
ARCES				Lg		Lg	10 03 39.1	
	comp=Z,2.0nm,0.3s,baz=156,slow=27,SNR=12 comp=Z,2.2nm,0.3s							
ARCES				AML		AML		
ARCES	**ARCESS Array B**	**5.13**	**340**	P		**Pn**	**10 02 16.7**	**+0.1**
ARCES				S		**Sn**	**10 03 15.9**	**-0.5**
VADS	**Vadso**	**5.36**	**356**	P		**Pn**	**10 02 19.7**	**0.0**
VADS				S		**Sn**	**10 03 22.3**	**+0.3**
FAUS	**Fauske**	**6.68**	**300**	P		**Pn**	**10 02 40.8**	**+3.0**
FAUS				S		**Sn**	**10 03 53.8**	**-0.7**
I43RU	**DUBNA INFRASON**	**8.75**	**155**	I		I	10 51 20.0	
	baz=348,slow=325,SNR=4.4							
HFS	**Hagfors**	**9.05**	**247**	Pn		**Pn**	**10 03 11.4**	**+1.2**
	comp=Z,0.5nm,0.3s,baz=59,slow=20,SNR=10							
HFS				Sn		**Sn**	**10 04 48.5**	**-4.1**
	comp=Z,0.5nm,0.3s,baz=51,slow=21,SNR=2.0							
HFS				Lg		Lg	10 05 39.0	
	comp=Z,1.3nm,0.3s,baz=59,slow=31,SNR=5.9 comp=Z,0.9nm,0.3s							
HFS				AML		AML		
NOA	**NORSAR Array B**	**9.53**	**256**	Pn		**Pn**	**10 03 17.9**	**+1.0**
	baz=64,slow=12,SNR=12							
NOA				Sn		**Sn**	**10 05 02.0**	**-2.6**
	baz=54,slow=24,SNR=3.4							
NOA				Lg		Lg	10 05 53.3	
	comp=Z,0.1nm,0.3s,baz=144,slow=21,SNR=6.4 comp=Z,0.5nm,0.4s							

*SOME **13** 10:01:05.5, 42°50N×83°35E, h0km*

NNC 13 10:01:15.1±6.5, 44°23N×83°73E, h0km, mb2.5, mpv2.2, 5C-1D, Error ellipse: s-maj=55.7km s-min=22.6km az=118.0, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
MK31	**Makanchi Array**	**2.76**	**339**	⇑*P*g		Pg	10 02 07.3	-0.7
	0.1nm,0.3s,baz=159,slow=12,SNR=4.9							
MK31				⇑Lg		Lg	10 02 40.4	
	0.7nm,0.5s,baz=152,slow=24,SNR=4.6							
DJR	**Jarkent**	**2.83**	**274**	*eP*		Pb	10 02 04.8	-1.8
	1.7nm,0.2s							
DJR				*eS*		Sg	10 02 47.2	+1.1
	4.6nm,0.4s							
MAKZ	**Makanchi**	**2.86**	**335**	⇑*P*g		Pb	10 02 07.2	+0.1
	0.8nm,0.4s							
MAKZ				⇑Lg		Lg	10 02 45.2	
	1.0nm,0.5s							
PDGK	**Podgornoye**	**3.20**	**255**	⇑*P*g		Pb	10 02 12.9	0.0
	0.6nm,0.5s							
PDGK				⇓Lg		Lg	10 02 55.8	
	4.0nm,0.5s							
UZB	**Uzynbulak**	**3.58**	**254**	*eP*		Pn	10 02 06.0	-6.0
	2.0nm,0.2s							
UZB				*eS*		Sn	10 02 49.5	-5.6
	1.2nm,0.3s							
KPKS	**Kokpek**	**3.73**	**260**	*eP*		Pn	10 02 11.7	-2.3
	0.1nm,0.1s							
KPKS				*eS*		Sn	10 02 59.5	+0.9
	3.6nm,0.3s							

*IDC **13** 10:01:37.6±1.2, 24°72N×122°96E, h0km, mb3.8/4, mbtmp3.7/5, Error ellipse: s-maj=46.2km s-min=20.9km az=76.0*

*JMA **13** 10:01:37.8±0.2, 25°1N±0°8×123°6E±0°3, h15km, MV3.1/10, NW OFF ISHIGAKIJIMA IS*

ISC 13 10:01:37.5±2.5, 25°04N±0°08×123°6E±0°1, h11km±17km, n13, σ0s48/15, mb3.6/4, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	**0.71**	**171**	P		**Pb**	**10 01 51.9**	**0.0**
IRIF				*eS*		**Sb**	**10 02 01.2**	**-0.3**
JISG	**Ishigakijimahi**	**0.78**	**125**	P		**Pg**	**10 01 52.0**	**-0.6**
JISG				*eS*		**Sg**	**10 02 03.0**	**+0.2**
YOJ	**Yonaguni jima**	**0.79**	**224**	*eS*		**Sn**	**10 02 05.7**	**-0.6**
JIJ	**Ishigaki jima**	**0.83**	**144**	P		**Pg**	**10 01 53.1**	**-0.4**
JIJ				*eS*		**Sg**	**10 02 04.3**	**0.0**
JYNG	**Yonagunijimaku**	**0.84**	**226**	*eP*		**Pn**	**10 01 55.1**	**-0.1**
JYNG				*eS*		**Sn**	**10 02 07.1**	**-0.4**
JKRS	**Kuro-shima**	**0.87**	**155**	*eP*		**Pg**	**10 01 54.5**	**+0.1**
JKRS				*eS*		**Sg**	**10 02 06.6**	**+0.9**
JTJ	**Tarama**	**1.07**	**111**	*eP*		Pn	10 01 56.8	-1.7
JTJ				*eS*		Sb	10 02 09.0	-3.0
JIRJ	**Irabujima**	**1.45**	**98**	*eS*		Sn	10 02 20.5	-2.3
KSRS	**Korea Array**	**12.92**	**16**	Pn		P	10 04 51.8	0.0
	0.5nm,0.4s,baz=185,slow=12,SNR=4.1							
MKAR	**Makanchi Array**	**39.30**	**314**	P		**P**	**10 09 06.9**	**+0.5**
	1.1nm,0.9s,baz=98,slow=9.1,SNR=5.8 1.1nm,0.9s							
KURBB	**Kurchatov Arra**	**42.91**	**319**	P		**P**	**10 09 35.9**	**-0.2**
	1.7nm,0.2s,baz=121,slow=11,SNR=2.4 1.7nm,0.2s							
WRA	**Warramunga Arr**	**45.91**	**166**	P		**P**	**10 10 00.7**	**+0.3**
	0.6nm,0.7s,baz=346,slow=8.2,SNR=4.4 0.6nm,0.7s							
ASAR	**Alice Springs**	**49.43**	**168**	P		**P**	**10 10 28.1**	**+0.5**
	0.2nm,0.5s,baz=345,slow=7.7,SNR=6.3 0.2nm,0.5s							

*IDC **13** 10:12:11.7±0.8, 39°28N×73°78E, h0km, mb4.0/15, mbtmp4.0/21, ML3.3/7, MS4.1/3, Error ellipse: s-maj=15.4km s-min=11.9km az=126.0*

*KRNET **13** 10:12:14.2±0.1, 39°49N×73°71E, h22km, mb4.4*

*SOME **13** 10:12:14.0, 39°47N×73°88E, h10km*

*NNC **13** 10:12:17.0±1.5, 39°51N×73°94E, h0km, mb4.6, mpv4.2, Error ellipse: s-maj=12.2km s-min=5.8km az=175.0*

ISC 13 10:12:13.0±1.4, 39°41N±0°04×73°65E±0°02, h2km±9km, n101, σ2s60/133, mb3.9/15, MS3.9/3, 36C-20D, Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**0.61**	**350**	⇑*iP*		**Pb**	**10 12 25.0**	**-1.6**
SFK				⇑*iS*		**Sb**	**10 12 32.8**	**-3.1**
OHH	**Osh**	**1.30**	**330**	⇑*iP*		**Pn**	**10 12 37.1**	**-1.2**
OHH				⇑*iS*		**Sn**	**10 12 54.0**	**-2.3**
DRK	**Karamyk**	**1.43**	**274**	⇑*eP*		**Pn**	**10 12 41.2**	**+0.9**
DRK				⇑*iS*		**Sb**	**10 13 01.2**	**+1.8**
SALK	**Salom-Alik**	**1.48**	**5**	⇑*iP*		**Pn**	**10 12 39.6**	**-1.3**
SALK				⇑*iS*		**Sn**	**10 12 58.3**	**-2.6**
KSH2	**Kashi**	**1.51**	**99**	Pg		**Pn**	**10 12 39.0**	**-2.3**
KSH2				Sg		**Sn**	**10 12 59.3**	**-2.4**
KSH2				smax		smax		
	comp=N,1μm,0.5s							
KSH2				smax		smax		
	comp=E,1μm,0.9s							
ARSB	**Arslanbob**	**1.98**	**345**	⇑*iP*		**Pn**	**10 12 48.2**	**+0.5**
ARSB				⇑*iS*		**Sn**	**10 13 13.5**	**+0.3**
BTK	**Batken**	**2.27**	**288**	⇓*iP*		**Pn**	**10 12 53.8**	**+2.1**
BTK				⇓*iS*		**Sb**	**10 13 22.6**	**-0.9**
NRN	**Naryn**	**2.71**	**41**	⇑*eP*		**Pn**	**10 12 57.7**	**-0.2**
NRN				⇑*iS*		**Sn**	**10 13 29.6**	**-1.8**
TRKS	**Terek-Say**	**2.85**	**319**	⇑*eP*		**Pn**	**10 13 00.3**	**+0.6**
TRKS				⇑*iS*		**Sn**	**10 13 34.0**	**-0.8**
UCH	**Uchtor**	**2.89**	**13**	P		**Pn**	**10 13 03.7**	**+3.2**
	SNR=374							
UCH	**Uchtor**	**2.89**	**13**	⇓*iP*		**Pn**	**10 13 00.9**	**+0.4**
UCH				⇓*iS*		**Sn**	**10 13 35.1**	**-1.1**
MNAS	**Manas**	**3.20**	**345**	⇑*iP*		**Pn**	**10 13 05.4**	**+1.0**
MNAS				⇑*iS*		**Sn**	**10 13 42.6**	**-0.6**
EKS2	**Erkin-Say**	**3.25**	**2**	P		**Pb**	**10 13 09.5**	**-2.0**
	SNR=72							
EKS2	**Erkin-Say**	**3.25**	**2**	⇑*eP*		**Pn**	**10 13 05.8**	**+0.6**
EKS2				⇑*eS*		**Sn**	**10 13 43.5**	**-1.1**
AAK	**Ala-Archa**	**3.29**	**11**	Pn		**Pn**	**10 13 09.4**	**+3.6**
	comp=E,12nm,0.3s,baz=167,slow=7.2,SNR=50							
AAK				Lg		Lg	10 13 57.7	
	comp=E,16nm,0.3s,baz=15,slow=23,SNR=3.8 comp=E,102nm,0.6s							
AAK				AML		AML		
AAK	**Ala-Archa**	**3.29**	**11**	P		**Pn**	**10 13 09.5**	**+3.8**
	SNR=31							
AAK	**Ala-Archa**	**3.29**	**11**	⇑Pn		Pn	10 13 09.6	+3.9
	comp=E,51nm,0.6s							
AAK				⇑Lg		Lg	10 13 57.6	
	comp=E,86nm,0.6s							
AAK	**Ala-Archa**	**3.29**	**11**	⇓*eP*		**Pn**	**10 13 06.1**	**+0.4**
AAK				⇓*iS*		**Sn**	**10 13 44.3**	**-1.3**
MRKS	**Merke**	**3.35**	**355**	Pg		**Pb**	**10 13 11.0**	**-2.2**
	comp=E,56nm,0.4s							
MRKS				Lg		Lg	10 13 52.1	
	comp=E,452nm,0.4s							
MRKS	**Merke**	**3.35**	**355**	*eP*		**Pb**	**10 13 15.4**	**+2.2**
	comp=E,191nm,0.5s							
MRKS				*eS*		**Sg**	**10 13 58.8**	**-1.8**
	comp=E,452nm,0.4s							
KBK	**Karagaybulak**	**3.39**	**16**	P		**Pb**	**10 13 11.6**	**-2.3**
	SNR=47							
KBK	**Karagaybulak**	**3.39**	**16**	⇑*eP*		**Pn**	**10 13 07.5**	**+0.3**
KBK				⇑*iS*		**Sn**	**10 13 46.6**	**-1.5**
ULHL	**Ulahol**	**3.45**	**34**	P		**Pb**	**10 13 16.4**	**+1.4**
	SNR=7.0							
ULHL	**Ulahol**	**3.45**	**34**	⇑*iP*		**Pn**	**10 13 08.4**	**+0.4**
ULHL				⇑*iS*		**Sn**	**10 13 48.1**	**-1.5**
FRU1	**Bishkek**	**3.48**	**12**	⇑*eP*		**Pn**	**10 13 09.2**	**+0.9**
FRU1				⇑*iS*		**Sn**	**10 13 49.2**	**-0.9**
BOOM	**Boomskoye usch**	**3.54**	**29**	⇓*iP*		**Pn**	**10 13 09.6**	**+0.5**
BOOM				⇓*iS*		**Sn**	**10 13 50.0**	**-1.6**
CHMS	**Chumysh**	**3.68**	**13**	P		**Pn**	**10 13 14.5**	**+3.5**
	SNR=6.5							
CHMS	**Chumysh**	**3.68**	**13**	⇓*iP*		**Pn**	**10 13 11.6**	**+0.6**
CHMS				⇓*iS*		**Sn**	**10 13 53.4**	**-1.7**
TKM2	**Tokmak 2**	**3.81**	**22**	P		Pn	10 13 16.7	+3.8
	SNR=7.2							
TKM2	**Tokmak 2**	**3.81**	**22**	⇓*eP*		**Pn**	**10 13 13.4**	**+0.5**
TKM2				⇓*iS*		**Sn**	**10 13 56.6**	**-1.8**
KDJ	**Kajisay**	**3.82**	**43**	⇑*iP*		**Pn**	**10 13 13.6**	**+0.6**
KDJ				⇑*iS*		**Sn**	**10 13 57.1**	**-1.6**
IUG	**Iuzhnay**	**3.88**	**316**	Pg		**Pg**	**10 13 27.9**	**+0.7**
	comp=E,300nm,0.5s							
IUG				Lg		Lg	10 14 20.7	
	comp=E,525nm,0.6s							
IUG	**Iuzhnay**	**3.88**	**316**	*eP*		**Pg**	**10 13 27.9**	**+0.7**
	comp=E,300nm,0.5s							
IUG				*eS*		**Sg**	**10 14 20.7**	**+3.2**
	comp=E,525nm,0.6s							
USP	**Ospenovka**	**3.91**	**9**	P		**Pn**	**10 13 17.7**	**+3.6**
	SNR=6.5							
USP	**Ospenovka**	**3.91**	**9**	⇓*iP*		**Pn**	**10 13 14.8**	**+0.7**
USP				⇓*iS*		**Sn**	**10 13 59.1**	**-1.6**
TARG	**Taragay, Kyrgy**	**3.93**	**52**	⇓*iP*		**Pn**	**10 13 15.2**	**+0.5**
TARG				⇓*iS*		**Sn**	**10 13 59.8**	**-1.8**
KST	**Kastek**	**4.03**	**25**	Pg		**Pb**	**10 13 25.5**	**+0.7**
	comp=E,17nm,0.3s							
KST				Lg		Lg	10 14 16.3	
	comp=E,196nm,0.9s							
KST	**Kastek**	**4.03**	**25**	*eP*		**Pb**	**10 13 25.5**	**+0.7**
	comp=E,17nm,0.3s							
KST				*eS*		**Sb**	**10 14 16.3**	**+2.2**
	comp=E,196nm,0.9s							
DGS	**Degeres**	**4.15**	**22**	Pg		**Pb**	**10 13 29.7**	**+2.9**
	comp=E,111nm,0.4s							
DGS				Lg		Lg	10 14 23.9	
	comp=E,122nm,0.5s							
DGS	**Degeres**	**4.15**	**22**	*eP*		**Pb**	**10 13 29.7**	**+2.9**
	comp=E,111nm,0.4s							
DGS				*eS*		**Sg**	**10 14 23.9**	**-2.4**
	comp=E,122nm,0.5s							
KK31	**Karatay Array**	**4.38**	**328**	Pn		**Pn**	**10 13 24.2**	**+3.6**
	comp=E,8.2nm,0.5s,baz=136,slow=13,SNR=212							
KK31				⇓Pg		**Pb**	**10 13 34.2**	**+3.4**
	comp=E,53nm,0.7s,baz=145,slow=17,SNR=32							
KK31				⇑Sn		**Sb**	**10 14 21.4**	**-2.7**
	comp=E,27nm,0.3s,baz=150,slow=24,SNR=3.8							
KK31				⇓Lg		Lg	10 14 36.9	
	comp=E,28nm,0.3s,baz=151,slow=28,SNR=4.2							
TNSS	**Tian-Shan**	**4.40**	**33**	Pg		**Pb**	**10 13 33.2**	**+2.0**
	comp=E,14nm,0.5s							
TNSS				Lg		Lg	10 14 30.5	
	comp=E,40nm,0.5s							
TNSS	**Tian-Shan**	**4.40**	**33**	*eP*		**Pb**	**10 13 33.2**	**+2.0**
	comp=E,14nm,0.5s							
TNSS				*eS*		**Sb**	**10 14 30.5**	**+5.6**
	comp=E,40nm,0.5s							
ANVS	**Anan'yevo**	**4.54**	**41**	⇑*iP*		**Pn**	**10 13 23.6**	**+0.7**
ANVS				⇑*eS*		**Sn**	**10 14 14.2**	**-2.2**
MDOK	**Medeo**	**4.54**	**33**	Pg		**Pb**	**10 13 34.9**	**+1.4**
	comp=E,43nm,0.4s							
MDOK				Lg		Lg	10 14 32.5	
	comp=E,142nm,0.5s							
MDOK	**Medeo**	**4.54**	**33**	*eP*		**Pb**	**10 13 34.9**	**+1.4**
	comp=E,43nm,0.4s							
MDOK				*eS*		**Sb**	**10 14 32.5**	**+3.7**
	comp=E,142nm,0.5s							
KRBS	**Karabastau**	**4.55**	**19**	Pg		**Pb**	**10 13 36.3**	**+2.7**
	comp=E,47nm,0.4s							
KRBS				Lg		Lg	10 14 35.2	
	comp=E,67nm,0.8s							
KRBS	**Karabastau**	**4.55**	**19**	*eP*		**Pb**	**10 13 36.3**	**+2.7**
	comp=E,47nm,0.4s							
KRBS				*eS*		**Sg**	**10 14 35.2**	**-3.9**
	comp=E,67nm,0.8s							
KNDC	**Almaty**	**4.55**	**32**	⇓Pg		**Pb**	**10 13 35.4**	**+1.7**
	comp=E,120nm,0.6s							
KNDC				⇑Lg		Lg	10 14 36.6	
	comp=E,483nm,1.0s							
BRLS	**Borolday**	**4.62**	**323**	Pg		Pb	10 13 39.6	+4.8
	comp=E,22nm,0.3s							
BRLS				Lg		Lg	10 14 40.5	
	comp=E,152nm,0.6s							
BRLS	**Boroldaу**	**4.62**	**323**	*eP*		Pb	10 13 39.6	+4.8
	comp=E,22nm,0.3s							
BRLS				*eS*		**Sg**	**10 14 40.5**	**-0.9**
	comp=E,152nm,0.6s							
KOTS	**Kotyrbulak**	**4.63**	**33**	Pg		**Pb**	**10 13 37.2**	**+2.2**
	comp=E,48nm,0.5s							
KOTS				Lg		Lg	10 14 37.1	
	comp=E,258nm,0.6s							
KOTS	**Kotyrbulak**	**4.63**	**33**	*eP*		**Pb**	**10 13 37.2**	**+2.2**
	comp=E,48nm,0.5s							
KOTS				*eS*		**Sb**	**10 14 37.1**	**+5.8**
	comp=E,258nm,0.6s							
PRZ	**Przheval'sk**	**4.73**	**48**	⇑*eP*		**Pn**	**10 13 26.3**	**+0.7**
PRZ				⇑*iS*		**Sn**	**10 14 18.9**	**-2.3**
KTBS	**Karatobe**	**4.87**	**27**	Pg		**Pb**	**10 13 42.2**	**+3.2**
	comp=E,0.2nm,0.2s							
KTBS				Lg		Lg	10 14 44.8	
	comp=E,129nm,0.7s							
KTBS	**Karatobe**	**4.87**	**27**	*eP*		**Pb**	**10 13 42.2**	**+3.2**
	comp=E,0.2nm,0.2s							
KTBS				*eS*		**Sg**	**10 14 44.8**	**-4.5**
	comp=E,129nm,0.7s							
SATY	**Saty**	**5.12**	**43**	Pg		**Pb**	**10 13 46.0**	**+2.7**
	comp=E,38nm,0.5s							
SATY				Lg		Lg	10 14 52.5	
	comp=E,64nm,0.6s							
SATY	**Saty**	**5.12**	**43**	*eP*		**Pb**	**10 13 46.0**	**+2.7**
	comp=E,38nm,0.5s							
SATY				*eS*		**Sb**	**10 14 52.5**	**+7.2**
	comp=E,64nm,0.6s							
KURS	**Kuram**	**5.31**	**38**	Pg		**Pb**	**10 13 49.8**	**+3.3**
	comp=E,20nm,0.6s							
KURS				Lg		Lg	10 14 58.2	
	comp=E,40nm,0.6s							
KURS	**Kuram**	**5.31**	**38**	*eP*		**Pb**	**10 13 49.8**	**+3.3**
	comp=E,20nm,0.6s							
KURS				*eS*		**Sb**	**10 14 58.2**	**+7.4**
	comp=E,40nm,0.6s							
UZB	**Uzynbulak**	**5.51**	**46**	Pg		**Pb**	**10 13 53.0**	**+3.0**
	comp=E,16nm,0.4s							
UZB				Lg		Lg	10 15 03.9	
	comp=E,37nm,0.8s							
UZB	**Uzynbulak**	**5.51**	**46**	*eP*		**Pb**	**10 13 53.0**	**+3.0**
	comp=E,16nm,0.4s							
UZB				*eS*		**Sb**	**10 15 03.9**	**+7.2**
	comp=E,37nm,0.8s							
KPKS	**Kokpek**	**5.55**	**41**	Pg		**Pb**	**10 13 54.3**	**+3.7**
	comp=E,0.1nm,0.3s							
KPKS				Lg		Lg	10 15 06.0	
	comp=E,73nm,0.4s							
KPKS	**Kokpek**	**5.55**	**41**	*eP*		**Pb**	**10 13 54.3**	**+3.7**
	comp=E,0.1nm,0.3s							
KPKS				*eS*		**Sg**	**10 15 06.0**	**-5.2**
	comp=E,73nm,0.4s							
ARXS	**Arharly**	**5.73**	**32**	Pg		**Pb**	**10 13 57.5**	**+3.8**
	comp=E,21nm,0.5s							
ARXS				Lg		Lg	10 15 10.0	
	comp=E,65nm,0.7s							
ARXS	**Arharly**	**5.73**	**32**	*eP*		**Pb**	**10 13 57.5**	**+3.8**
	comp=E,21nm,0.5s							
ARXS				*eS*		**Sg**	**10 15 11.0**	**-5.9**
	comp=E,65nm,0.7s							
SHLS	**Shalkode**	**5.76**	**48**	Pg		**Pg**	**10 14 02.4**	**-1.1**
	comp=E,27nm,0.7s							
SHLS				Lg		Lg	10 15 20.5	
	comp=E,60nm,0.7s							
PDGK	**Podgornoye**	**5.89**	**46**	⇑Pn		**Pn**	**10 13 43.1**	**+1.7**
	comp=E,7.1nm,0.8s							
PDGK				⇓Pg		Pg	10 14 03.1	-2.7
	comp=E,26nm,0.7s							
PDGK				⇑Lg		Lg	10 15 19.3	
	comp=E,98nm,1.0s							
ALCI	**Alchi Leh**	**5.91**	**150**	IAmb		IAmb	10 11 18.2	
	comp=Z,3.0nm,0.4s							
ALCI				*i* P		**Pn**	**10 13 42.5**	**+0.6**
ALCI				*i* S		**Sb**	**10 15 05.5**	**-2.8**
ALCI	**Alchi Leh**	**5.91**	**150**	*i* P		Pn	10 13 46.7	+4.8
ALCI				*i* S		**Sb**	**10 15 15.0**	**+6.6**
ALCI				IAML			10 15 17.8	
	comp=E,78nm,0.2s							
BLB	**Baldybastay**	**5.92**	**36**	Pg		**Pb**	**10 14 00.5**	**+3.6**
	comp=E,16nm,0.3s							
BLB				Lg		Lg	10 15 16.6	
	comp=E,39nm,0.8s							
DJR	**Jarkent**	**6.72**	**41**	Pg		Pb	10 14 15.3	+4.6
	comp=E,6.2nm,0.5s							
DJR				Lg		Lg	10 15 41.9	
	comp=E,12nm,0.7s							
DJR	**Jarkent**	**6.72**	**41**	*eP*		Pb	10 14 15.3	+4.6
	comp=E,6.2nm,0.5s							
DJR				*eS*		Sg	10 15 41.9	-7.0
	comp=E,12nm,0.7s							
MKAR	**Makanchi Array**	**9.71**	**38**	Pn

comp=Z,2.0nm,0.5s,baz=44,slow=5.1,SNR=12
comp=Z,2.0nm,0.5s
ILAR Eielson Array 71.40 17 P **P 10 23 32.6 -1.6**
comp=Z,0.6nm,0.7s,baz=324,slow=4.5,SNR=6.1
comp=Z,0.6nm,0.7s
YKA Yellowknife Ar 78.23 4 P **P 10 24 11.8 -2.0**
comp=Z,0.7nm,0.6s,baz=350,slow=5.8,SNR=4.3
comp=Z,0.7nm,0.6s
WRA Warramunga Arr 81.81 124 P **P 10 24 32.1 -1.6**
comp=Z,0.5nm,0.6s,baz=321,slow=5.2,SNR=5.6
comp=Z,0.5nm,0.6s
ASAR Alice Springs 84.26 127 P **P 10 24 44.3 -2.1**
comp=Z,0.6nm,0.7s,baz=319,slow=5.0,SNR=6.3
comp=Z,0.6nm,0.7s

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*IDC **13** 10:16:57.0±1.8,0°.43N×126°.31E,h0km,mb3.7/3, mbtmp3.9/4,ML4.1/1,Error ellipse: s-maj=37.4km s-min=27.8km az=61.0*
*DJA **13** 10:17:00.2±0.2,1°.N±4°×12°.6E±°,h10km,M4.3/18,mb4.8/7, mB6.1/3,MLv3.9/18,Mw(mB)5.7/3*
ISC 13 10:17:01.7±1.2,0°.53N±0°.08×126°.32E±0°.08,h35km,n14, σ1s52/14,mb3.7/3,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.07**	**77**	P		**Pn**	**10 17 20.8**	**+0.5**
TNTI					AML	AML		
MNI	**Manado**	**1.74**	**302**	P		**Pn**	**10 17 27.6**	**-1.9**
MNI					AML	AML		
GAMI	**Galela, Maluku**	**1.96**	**48**	P		**Pn**	**10 17 35.3**	**+2.8**
GAMI					AML	AML		
KMSI	**Cibinong**	**2.34**	**271**	P		**Pn**	**10 17 35.7**	**-2.1**
KMSI					AML	AML		
SANI	**Sanana**	**2.58**	**187**	P		**Pn**	**10 17 39.9**	**-1.2**
GTOI	**Gorontalo**	**3.31**	**272**	P		**Pn**	**10 17 52.1**	**+1.0**
GTOI					AML	AML		
LUWI	**Luwuk**	**3.88**	**246**	P		**Pn**	**10 17 59.0**	**+0.1**
LUWI					AML	AML		
APSI	**Ampana**	**4.89**	**253**	P		**Pn**	**10 18 12.5**	**-0.3**
APSI					AML	AML		
KDI	**Kendari**	**5.79**	**220**	P		**Pn**	**10 18 25.2**	**0.0**
	0.1nm36nm,0.7s							
KDI					AML	AML		
TTSI	**Tana Toraja**	**7.41**	**241**	P		**Pn**	**10 18 48.3**	**+0.9**
	0.1nm18nm,1.0s							
TTSI					AML	AML		
KAPI	**Kappang**	**8.57**	**230**	Pn		**Pn**	**10 19 04.4**	**+1.1**
	2.4nm,0.3s,baz=23,slow=7.7,SNR=6.2							
	5.6nm,0.3s							
KAPI					AML	AML		
WRA	**Warramunga Arr**	**21.81**	**159**	P		**P**	**10 21 49.0**	**-2.0**
	0.7nm,0.3s,baz=338,slow=11,SNR=20							
	0.7nm,0.3s							
ASAR	**Alice Springs**	**25.15**	**163**	P		**P**	**10 22 24.1**	**+0.2**
	0.8nm,0.4s,baz=347,slow=12,SNR=46							
	0.8nm,0.4s							
MKAR	**Makanchi Array**	**59.96**	**327**	P		**P**	**10 27 05.6**	**+1.0**
	0.6nm,0.4s,baz=131,slow=7.4,SNR=2.9							
	0.6nm,0.4s							

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*TAP **13** 10:17:05.8,21°.56N×122°.04E,h21km±3km,ML3.6,D*
ISC 13 10:17:12.6±3.5,21°.9N±0°.1×121°.8E±0°.1,h35km,n56, σ2s11/48,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.24**	**303**	P		**Pn**	**10 17 18.9**	**-1.0**
LYUB					S	**Sn**	**10 17 26.8**	**+2.0**
LAY	**Lan-yu**	**0.29**	**306**	*i* P		**Pn**	**10 17 18.7**	**-1.8**
LAY					S	**Sn**	**10 17 26.4**	**+0.6**
LDUT	**Ludao**	**0.86**	**339**	*e*P		**Pn**	**10 17 26.9**	**-1.3**
SMST	**Manzhou Townsh**	**0.91**	**280**	*e*P		**Pn**	**10 17 28.6**	**-0.3**
SLIU	**Shizi**	**0.99**	**291**	*e*P		**Pn**	**10 17 29.0**	**-1.1**
EAST	**Anshuo**	**1.02**	**300**	*e*P		**Pn**	**10 17 31.0**	**+0.5**
ECL	**Taimali**	**1.07**	**313**	*e*P		**Pn**	**10 17 31.5**	**+0.4**
TWGBT	**Beinan**	**1.16**	**325**	P		**Pn**	**10 17 32.9**	**+0.6**
TWGBT	**Beinan**	**1.16**	**325**	*e*P		**Pn**	**10 17 32.7**	**+0.3**
TWG	**Pinlang**	**1.17**	**325**	*e*P		**Pn**	**10 17 32.7**	**+0.3**
EDH	**Donghe**	**1.19**	**337**	*e*P		**Pn**	**10 17 32.7**	**-0.1**
SCZT	**Fangliau**	**1.21**	**295**	*e*P		**Pn**	**10 17 33.7**	**+0.7**
LONT	**Longtian**	**1.21**	**329**	*e*P		**Pn**	**10 17 33.6**	**+0.6**
CHKT	**Chengkung**	**1.29**	**342**	P		**Pn**	**10 17 33.5**	**-0.7**
ECS	**Chishang**	**1.34**	**336**	*e*P		**Pn**	**10 17 37.0**	**+2.2**
CHKH	**Chenggong**	**1.37**	**344**	*e*P		**Pn**	**10 17 34.8**	**-0.5**
EHD	**Haiduan**	**1.39**	**337**	*e*P		**Pn**	**10 17 35.8**	**+0.3**
SSD	**Sandimen**	**1.39**	**309**	*e*P		**Pn**	**10 17 36.6**	**+1.0**
FULB	**Fuli**	**1.41**	**341**	*e*P		**Pn**	**10 17 34.6**	**-1.2**
ELDTW	**Lidau**	**1.50**	**331**	*e*P		**Pn**	**10 17 37.7**	**+0.5**
EYUL	**Yuli**	**1.54**	**343**	*e*P		**Pn**	**10 17 37.5**	**-0.1**
TWF1	**Yuli**	**1.55**	**343**	*e*P		**Pn**	**10 17 37.2**	**-0.5**
SCZ	**Cishan**	**1.58**	**310**	*e*P		Pn	10 17 41.4	+3.3
YULB	**Yu-li**	**1.59**	**343**	P		Sn	10 17 47.8	-10
YULB	**Yu-li**	**1.59**	**343**	S		Sn	10 17 47.8	-10
YULB	**Yu-li**	**1.59**	**343**	*e*P		**Pn**	**10 17 38.6**	**+0.3**
STYH	**Taoyuan**	**1.61**	**324**	*e*P		**Pn**	**10 17 40.0**	**+1.5**
SGST	**Jiashian**	**1.65**	**317**	*e*P		**Pn**	**10 17 40.8**	**+1.7**
HGSD	**Ruisui**	**1.66**	**348**	*e*P		**Pn**	**10 17 38.8**	**-0.3**
EHYH	**Wanrong**	**1.67**	**345**	*e*P		**Pn**	**10 17 40.5**	**+1.0**
EHY	**Hungye**	**1.69**	**345**	*e*P		**Pn**	**10 17 40.2**	**+0.5**
WTP	**Ta-pu**	**1.76**	**322**	*e*P		Pn	10 17 44.1	+3.4
CHN1	**Nanshi**	**1.76**	**318**	*e*P		Pn	10 17 44.2	+3.5
TPUB	**Ta-pu**	**1.79**	**323**	P		**Pn**	**10 17 43.7**	**+2.6**
TPUB	**Ta-pu**	**1.79**	**323**	S		**Sn**	**10 17 57.0**	**-5.6**
TPUB	**Ta-pu**	**1.79**	**323**	*e*P		**Pn**	**10 17 43.8**	**+2.6**
TWK	**Hsinying**	**1.85**	**319**	*e*P		**Pn**	**10 17 45.0**	**+3.1**
CHN4	**Tsaushan**	**1.85**	**323**	*e*P		**Pn**	**10 17 44.9**	**+3.0**
ALS	**Alishan**	**1.88**	**331**	*e*P		Pn	10 17 45.8	+3.3
WARBT	**Fenglin Townsh**	**1.88**	**348**	*e*P		**Pn**	**10 17 43.4**	**+1.1**
ESL	**Shilin**	**1.97**	**350**	*e*P		**Pn**	**10 17 43.6**	**+0.2**
VWDT	**VWDT**	**1.97**	**342**	*e*P		**Pn**	**10 17 44.1**	**+0.6**
CHN5	**Tsauling**	**2.01**	**329**	*e*P		Pn	10 17 47.7	+3.5
WHYT	**Xinyi Township**	**2.02**	**334**	*e*P		Pn	10 17 47.7	+3.4
SSLB	**Suanglung**	**2.06**	**338**	P		Pn	10 17 48.0	+3.1
SSLB	**Suanglung**	**2.06**	**338**	S		**Sn**	**10 18 03.5**	**-5.9**
SSLB	**Suanglung**	**2.06**	**338**	*e*P		**Pn**	**10 17 47.5**	**+2.6**
ETM	**Tongmen**	**2.11**	**352**	*e*P		**Pn**	**10 17 46.4**	**+1.0**
OWD	**Renai**	**2.16**	**345**	*e*P		**Pn**	**10 17 47.1**	**+0.9**
TYC	**Yuchr**	**2.21**	**337**	*e*P		Pn	10 17 50.0	+3.3
WUSB	**Renai**	**2.21**	**344**	*e*P		**Pn**	**10 17 49.5**	**+2.6**
WUSB					S	**Sn**	**10 18 19.6**	**+6.6**
NACB	**Ninganchiao**	**2.30**	**355**	P		Pn	10 17 52.0	+3.9
WCS	**Beigang Elemen**	**2.33**	**340**	*e*P		**Pn**	**10 17 51.0**	**+2.6**
ETLH	**Xiulin Townshi**	**2.35**	**353**	*e*P		**Pn**	**10 17 49.4**	**+0.6**
YHNB	**Yeheng**	**2.82**	**352**	P		Pn	10 17 59.7	+4.5
YHNB	**Yeheng**	**2.82**	**352**	S		**Sn**	**10 18 25.7**	**-2.3**

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*IDC **13** 10:28:58.0±1.0,25°.09N×123°.02E,h0km,mb3.7/5, mbtmp3.7/6,ML3.4/1,MS3.5/2,Error ellipse: s-maj=47.9km s-min=18.5km az=74.0*
*JMA **13** 10:29:01.3±0.3,25°.N±1°×123°.7E±0°.6,h13km,MV3.4/10, NW OFF ISHIGAKIJIMA IS*
ISC 13 10:29:01.2±1.6,25°.00N±0°.06×123°.68E±0°.04,h15km±11km, n16,σ1s51/19,mb3.8/5,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	**0.67**	**176**	*e*P		**Pg**	**10 29 14.7**	**+0.4**
IRIF					*e*S	**Sg**	**10 29 22.1**	**-1.0**
JISG	**Ishigakijimahi**	**0.71**	**125**	P		**Pg**	**10 29 14.6**	**-0.4**
JIJ	**Ishigaki jima**	**0.77**	**146**	P		**Pg**	**10 29 15.7**	**-0.4**
JIJ					*e*S	**Sb**	**10 29 27.0**	**+0.6**
YOJ	**Yonaguni jima**	**0.81**	**228**	*e*P		**Pg**	**10 29 17.0**	**+0.1**
YOJ					*e*S	**Sb**	**10 29 29.0**	**+1.3**
JKRS	**Kuro-shima**	**0.82**	**158**	*e*P		**Pg**	**10 29 17.4**	**+0.3**
JKRS					*e*S	**Sg**	**10 29 28.0**	**+0.1**
JYNG	**Yonagunijimaku**	**0.86**	**231**	*e*P		**Pg**	**10 29 17.8**	**-0.1**
HATJ	**Hateruma jima**	**0.95**	**173**	*e*P		**Pb**	**10 29 19.0**	**-0.4**
HATJ					*e*S	**Sb**	**10 29 31.2**	**-0.5**
JTJ	**Tarama**	**1.00**	**111**	*e*P		**Pb**	**10 29 20.1**	**-0.1**
JTJ					*e*S	**Sb**	**10 29 33.1**	**-0.1**
JNU	**Nakatsue**	**10.25**	**36**	LR		LR	10 36 00.0	
	comp=Z,144nm,21.4s,baz=210,slow=40							
KSRS	**Korea Array**	**12.93**	**15**	Pn		**Pn**	**10 32 07.3**	**+2.9**
	0.2nm,0.3s,baz=191,slow=11,SNR=1.8							
	0.3nm,0.5s							
KSRS					AML	AML		
MKAR	**Makanchi Array**	**39.36**	**314**	P		P	10 36 25.1	-5.0
	1.1nm,0.8s,baz=107,slow=10,SNR=6.7							
	1.1nm,0.8s							
ZALV	**Zalesovo Beam**	**40.83**	**325**	P		**P**	**10 36 37.6**	**-4.4**
	0.6nm,0.6s,baz=101,slow=7.5,SNR=4.1							
	0.6nm,0.6s							
WRA	**Warramunga Arr**	**45.86**	**166**	P		**P**	**10 37 23.6**	**+0.5**
	0.9nm,0.8s,baz=347,slow=8.8,SNR=8.4							
	0.9nm,0.8s							
ASAR	**Alice Springs**	**49.39**	**168**	P		**P**	**10 37 51.8**	**+1.4**
	0.5nm,0.5s,baz=350,slow=7.3,SNR=13							
	0.5nm,0.5s							
STKA	**Stephens Creek**	**59.09**	**162**	P		**P**	**10 39 01.5**	**+0.6**
	1.1nm,0.6s,baz=335,slow=16,SNR=2.1							
	1.1nm,0.6s							
DLBC	**Dease Lake**	**77.08**	**31**	LR		LR	11 16 27.9	
	comp=Z,63nm,19.8s,baz=45,slow=37							

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*SJA **13** 10:35:20.1±0.6,22°.12S×68°.93W,h120km±6km,ML3.4, MW3.6*
*GUC **13** 10:35:21.2±0.6,22°.15S×68°.87W,h113km±2km,ML3.5, Presumed earthquake*
ISC 13 10:35:20.4±1.4,22°.13S±0°.03×68°.97W±0°.05,h123km±8km, n34,σ2s17/55,7C-1D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.42**	**323**	*e*P		Pn	10 35 32.8	-5.8
PB09					IAML		10 35 51.4	
	comp=Z,2μm,0.4s							
PB09	**IPOC Station P**	**0.42**	**323**	⇑*e*P		**Pn**	**10 35 38.2**	**-0.4**
PB09					*e*S	**Sn**	**10 35 50.9**	**-1.2**
PB09					IAML		10 35 52.7	
	comp=E,2μm,0.3s							
PB03	**IPOC Station P**	**0.73**	**276**	*e*P		**Pn**	**10 35 41.0**	**+0.4**
PB03					*e*S	**Sn**	**10 35 56.2**	**+0.5**
PB03					IAML		10 35 56.8	
	comp=Z,2μm,0.1s							
PB03	**IPOC Station P**	**0.73**	**276**	⇑*e*P		**Pn**	**10 35 40.8**	**+0.2**
PB03					*e*S	**Sn**	**10 35 55.8**	**+0.1**
PB03					IAML		10 35 56.6	
	comp=E,2μm,0.1s							
PB06	**IPOC Station P**	**0.80**	**224**	*e*P		**Pn**	**10 35 41.2**	**+0.1**
PB06					*e*S	**Sn**	**10 35 57.1**	**+0.4**
PB06					IAML		10 35 58.3	
	comp=Z,1μm,0.2s							
PB06	**IPOC Station P**	**0.80**	**224**	⇑*e*P		**Pn**	**10 35 41.1**	**0.0**
PB06					*e*S	**Sn**	**10 35 56.2**	**-0.5**
PB06					IAML		10 35 56.6	
	comp=N,3μm,0.3s							
PB07	**IPOC Station P**	**0.94**	**295**	*e*P		**Pn**	**10 35 42.9**	**+0.6**
PB07					*e*S	**Sn**	**10 36 00.5**	**+1.5**
PB07					IAML		10 36 00.6	
	comp=Z,2μm,0.4s							
PB07	**IPOC Station P**	**0.94**	**295**	⇓*e*P		**Pn**	**10 35 43.0**	**+0.6**
PB07					*e*S	**Sn**	**10 35 59.5**	**+0.5**
PB07					IAML		10 36 00.1	
	comp=E,3μm,0.3s							
AF01	**San Pedro de A**	**1.09**	**138**	*e*P		**Pn**	**10 35 46.0**	**+2.0**
AF01					IAML		10 36 20.0	
	comp=Z,1μm,0.5s							
AF01	**San Pedro de A**	**1.09**	**138**	*e*P		**Pn**	**10 35 42.7**	**-1.3**
AF01					*e*S	**Sn**	**10 35 59.5**	**-2.4**
AF01					IAML		10 36 08.3	
	comp=E,2μm,0.5s							
PB02	**IPOC Station P**	**1.18**	**313**	*e*P		**Pn**	**10 35 40.2**	**-4.5**
PB02					*e*S	**Sn**	**10 36 04.0**	**+1.0**
PB02					IAML		10 36 07.6	
	comp=Z,1μm,0.3s							
PB02	**IPOC Station P**	**1.18**	**313**	⇑*e*P		**Pn**	**10 35 45.5**	**+0.8**
PB02					*e*S	**Sn**	**10 36 03.6**	**+0.6**
PB02					IAML		10 36 05.2	
	comp=N,1μm,0.2s							
PB05	**IPOC Station P**	**1.35**	**238**	*e*P		**Pn**	**10 35 47.1**	**+0.6**
PB05					*e*S	**Sn**	**10 36 08.3**	**+2.0**
PB05					IAML		10 36 11.2	
	comp=Z,288nm,0.3s							
PB05	**IPOC Station P**	**1.35**	**238**	⇑*e*P		**Pn**	**10 35 47.1**	**+0.6**
PB05					*e*S	**Sn**	**10 36 07.2**	**+0.9**
PB05					IAML		10 36 11.4	
	comp=E,416nm,0.7s							
TA01	**Diego Aracena**	**1.93**	**324**	*e*P		**Pn**	**10 35 54.0**	**+0.9**
TA01					*e*S	**Sn**	**10 36 20.2**	**+2.2**
TA01					IAML		10 36 23.1	
	comp=Z,171nm,0.4s							
TA01	**Diego Aracena**	**1.93**	**324**	*e*P		**Pn**	**10 35 54.1**	**+1.0**
TA01					*e*S	**Sn**	**10 36 19.2**	**+1.1**
TA01					IAML		10 36 24.9	
	comp=N,250nm,0.5s							
PB08	**IPOC Station P**	**1.99**	**355**	*e*P		**Pn**	**10 35 55.8**	**+1.4**
PB08					*e*S	**Sn**	**10 36 16.4**	**-3.8**
PB08					IAML		10 36 28.9	
	comp=Z,72nm,0.5s							
PB08	**IPOC Station P**	**1.99**	**355**	⇑*e*P		**Pn**	**10 35 55.6**	**+1.3**
PB08					*e*S	**Sn**	**10 36 22.3**	**+2.2**
PB10	**IPOC Station P**	**2.01**	**226**	*e*P		**Pn**	**10 35 55.5**	**+1.3**
PB10					IAML		10 36 30.4	
	comp=Z,97nm,0.2s							
PB10	**IPOC Station P**	**2.01**	**226**	*e*P		**Pn**	**10 35 54.8**	**+0.6**
PB10					IAML		10 36 28.2	
	comp=E,163nm,0.5s							
TA02	**Huaiquique**	**2.15**	**329**	*e*P		**Pn**	**10 35 58.2**	**+2.3**
TA02					*e*S	**Sn**	**10 36 15.8**	**-7.2**
TA02					IAML		10 36 36.7	
	comp=Z,142nm,0.1s							
TA02	**Huaiquique**	**2.15**	**329**	*e*P		**Pn**	**10 35 57.4**	**+1.5**
PB11	**IPOC Station P**	**2.44**	**345**	*e*P		**Pn**	**10 36 00.2**	**+0.4**
PB11					*e*S	Sn	10 36 20.9	-9.2
PB11					IAML		10 37 03.5	
	comp=Z,100nm,0.5s							
PB11	**IPOC Station P**	**2.44**	**345**	⇑*e*P		**Pn**	**10 36 00.2**	**+0.4**
PB11					*e*S	**Sn**	**10 36 29.9**	**-0.1**
PB11					IAML		10 36 38.1	
	comp=N,224nm,0.6s							
GO01	**Chusmiza**	**2.46**	**355**	*e*P		**Pn**	**10 36 01.9**	**+1.6**
GO01					*e*S	**Sn**	**10 36 30.1**	**-0.8**
GO01					IAML		10 36 33.2	
	comp=Z,78nm,0.7s							
GO01	**Chusmiza**	**2.46**	**355**	*e*P		**Pn**	**10 36 01.5**	**+1.1**
GO01					IAML		10 36 48.5	
	comp=E,235nm,0.3s							
PSGCX	**Pisagua**	**2.74**	**337**	*e*P		**Pn**	**10 36 03.5**	**-0.2**
PSGCX					*e*S	**Sn**	**10 36 31.4**	**-5.4**
PSGCX					IAML		10 36 33.3	
	comp=Z,106nm,0.4s							
PSGCX	**Pisagua**	**2.74**	**337**	*e*P		**Pn**	**10 36 03.4**	**-0.2**
PB14	**IPOC Station P**	**2.81**	**208**	*e*P		**Pn**	**10 36 32.9**	**-5.9**
PB14					IAML		10 36 49.0	
	comp=Z,100nm,0.3s							
PB14	**IPOC Station P**	**2.81**	**208**	*e*P		**Pn**	**10 36 05.3**	**+0.6**
PB14					IAML		10 36 45.6	
	comp=E,69nm,0.3s							
SALTA		**3.19**	**131**	*e*P		**Pn**	**10 36 10.7**	**+0.8**
SALTA					*e*P		10 36 10.9	
SALTA					*e*P		10 36 12.8	
PB16	**IPOC Station P**	**3.81**	**352**	*e*P		**Pn**	**10 36 20.8**	**+2.6**
PB16					*e*S	Sn	10 36 44.8	-18
PB16					IAML		10 37 12.1	
	comp=Z,20nm,1.3s							
AC01	**Pan de Azucar**	**4.27**	**200**	*e*P		**Pn**	**10 36 22.0**	**-1.6**
AC01					*e*S	**Sn**	**10 37 10.6**	**-2.1**
AC01					IAML		10 37 45.8	
	comp=Z,32nm,0.8s							
AC02	**Maricunga**	**4.69**	**182**	*e*P		**Pn**	**10 36 30.4**	**+0.8**
AC02					*e*S	**Sn**	**10 37 27.8**	**+4.4**
AC02					IAML		10 38 01.8	
	comp=Z,29nm,0.7s							

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*NOU **13** 10:50:53.5,38°.52S×176°.17E,h154km,MLv3.5/17,North Island, New Zealand*
*WEL **13** 10:50:56.2±1.0,38°.S±8°×17°6E±°,h125km±7km,M2.7/18, MLv2.7/18,Error ellipse: s-maj=11.0km s-min=6.3km az=176.2*
ISC 13 10:50:52.4±1.5,38°.42S±0°.04×176°.12E±0°.04,h161km±7km, n148,σ1s18/165,North Island

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
GRRZ	**Galatos Road**	**0.07**	**351**	P		**Pn**	**10 51 14.6**	**+0.7**
GRRZ					S	**Sn**	**10 51 29.9**	**-0.2**
GRRZ					AML	AML		
WPRZ	**Whakapapatarin**	**0.10**	**163**	P		**Pn**	**10 51 14.6**	**+0.7**
WPRZ					AML	AML		
HRRZ	**Handcock Road**	**0.13**	**76**	P		**Pn**	**10 51 14.6**	**+0.7**
HRRZ					AML	AML		
ALRZ	**Allen Road**	**0.22**	**129**	P		**Pn**	**10 51 13.6**	**-0.5**
ALRZ					S	**Sn**	**10 51 29.3**	**-1.3**
PRRZ	**Plateau Road**	**0.23**	**110**	P		**Pn**	**10 51 15.0**	**+0.9**
PRRZ					S	**Sn**	**10 51 28.6**	**-1.9**
PRRZ					AML	AML		
HLRZ	**Highlands Stat**	**0.25**	**47**	P		**Pn**	**10 51 14.9**	**+0.8**
HLRZ					AML	AML		
KUTZ	**Kaahu Road**	**0.25**	**254**	P		**Pn**	**10 51 14.9**	**+0.8**
UTU	**Utuhina**	**0.25**	**13**	P		**Pn**	**10 51 14.8**	**+0.7**
RRRZ	**Republican Roa**	**0.32**	**75**	P		**Pn**	**10 51 14.8**	**+0.5**
RRRZ					S	**Sn**	**10 51 29.8**	**-1.2**
NGRZ	**Ngongotaha**	**0.32**	**9**	P		**Pn**	**10 51 14.9**	**+0.5**
NGRZ					AML	AML		
TARZ	**Mount Tarawera**	**0.35**	**58**	P		**Pn**	**10 51 15.0**	**+0.5**
KARZ	**Kaharoa**	**0.41**	**13**	P		**Pn**	**10 51 14.9**	**+0.3**
KARZ					AML	AML		
WATZ	**Wairara**	**0.42**	**227**	P		**Pn**	**10 51 15.5**	**+0.8**
WATZ					S	**Sn**	**10 51 31.5**	**-0.3**
WATZ					AML	AML		
LIRZ	**Lichensteins R**	**0.47**	**26**	P		**Pn**	**10 51 15.2**	**+0.4**
TLZ	**Tolley Road**	**0.47**	**281**	P		**Pn**	**10 51 15.7**	**+0.9**
TLZ					S	**Sn**	**10 51 31.2**	**-0.8**
TLZ					AML	AML		
MRHZ	**Matea Rd**	**0.47**	**151**	P		**Pn**	**10 51 15.6**	**+0.7**
MRHZ					S	**Sn**	**10 51 29.9**	**-2.2**
MRHZ					AML	AML		
MUGZ	**Murupara**	**0.51**	**96**	P		**Pn**	**10 51 15.4**	**+0.4**
MUGZ					S	**Sn**	**10 51 30.3**	**-2.0**
MUGZ					AML	AML		
RATZ	**Rangitukua**	**0.52**	**212**	P		**Pn**	**10 51 16.0**	**+0.9**
EDRZ	**Edgecumbe**	**0.58**	**57**	P		**Pn**	**10 51 15.6**	**+0.2**
EDRZ					AML	AML		
KMRZ	**Kaimai**	**0.59**	**346**	P		**Pn**	**10 51 15.9**	**+0.4**
KMRZ					AML	AML		
RITZ	**Rihia Road**	**0.59**	**200**	P		**Pn**	**10 51 16.8**	**+1.4**
RITZ					AML	AML		
MARZ	**Manawahe**	**0.61**	**45**	P		**Pn**	**10 51 16.1**	**+0.5**
MARZ					AML	AML		
KATZ	**Kakaramea**	**0.65**	**211**	P		**Pn**	**10 51 17.0**	**+1.1**
OPRZ	**Ohinepanea**	**0.67**	**31**	P		**Pn**	**10 51 16.0**	**+0.2**
OPRZ					AML	AML		
RTZ	**Ruatahuna**	**0.70**	**106**	P		**Pn**	**10 51 17.0**	**+0.9**
RTZ					S	**Sn**	**10 51 33.3**	**-1.0**
RTZ					AML	AML		
TGRZ	**Tauranga**	**0.70**	**9**	P		**Pn**	**10 51 16.3**	**+0.3**
TGRZ					AML	AML		
MTHZ	**Maungataniwha**	**0.71**	**128**	P		**Pn**	**10 51 17.2**	**+1.1**
MTHZ					S	**Sn**	**10 51 33.4**	**-1.0**
MTHZ					AML	AML		
NTVZ	**North Tongarir**	**0.76**	**207**	P		**Pn**	**10 51 17.9**	**+1.3**
TMVZ	**Te Maari**	**0.77**	**205**	P		**Pn**	**10 51 17.8**	**+1.2**
KRVZ	**Karewarewa**	**0.77**	**209**	P		**Pn**	**10 51 17.7**	**+1.0**
ETVZ	**East Tongariro**	**0.78**	**204**	P		**Pn**	**10 51 18.0**	**+1.2**
URZ	**Urewera**	**0.79**	**79**	P		**Pn**	**10 51 16.6**	**0.0**
URZ	**Urewera**	**0.79**	**79**	P		**Pn**	**10 51 16.7**	**+0.1**
URZ					S	**Sn**	**10 51 32.8**	**-2.3**
URZ					AML	AML		
BKZ	**Black Stump Fm**	**0.80**	**159**	P		**Pn**	**10 51 17.5**	**+0.8**
BKZ	**Black Stump Fm**	**0.80**	**159**	S		**Sn**	**10 51 34.8**	**-0.7**
BKZ	**Black Stump Fm**	**0.80**	**159**	P		**Pn**	**10 51 17.8**	**+1.1**
BKZ					S	**Sn**	**10 51 34.2**	**-1.2**
BKZ					AML	AML		
WTVZ	**West Tongariro**	**0.81**	**211**	P		**Pn**	**10 51 18.0**	**+1.1**
OTVZ	**Oturere**	**0.82**	**206**	P		**Pn**	**10 51 18.5**	**+1.5**
TWVZ	**Taurewa**	**0.84**	**219**	P		**Pn**	**10 51 18.2**	**+1.1**
TOZ	**Tahuroa Road**	**0.85**	**324**	P		**Pn**	**10 51 17.6**	**+0.6**
SNGZ	**South Ngauruho**	**0.85**	**206**	P		**Pn**	**10 51 18.4**	**+1.2**
NGZ	**Ngauruhoe**	**0.86**	**208**	P		**Pn**	**10 51 18.4**	**+1.1**
NMHZ	**Naumai**	**0.86**	**142**	P		**Pn**	**10 51 19.3**	**+2.1**
NMHZ					S	**Sn**	**10 51 37.1**	**+0.8**
WHRZ	**Whale Island**	**0.88**	**50**	P		**Pn**	**10 51 18.1**	**+0.8**
COVZ	**Chateau Observ**	**0.90**	**210**	P		**Pn**	**10 51 18.5**	**+1.0**
RAHZ	**Arahi**	**0.90**	**124**	P		**Pn**	**10 51 19.3**	**+1.9**
RAHZ					S	**Sn**	**10 51 36.9**	**+0.2**
TUVZ	**Tukino**	**0.92**	**203**	P		**Pn**	**10 51 19.2**	**+1.5**
FWVZ	**Far West T-bar**	**0.94**	**208**	P		**Pn**	**10 51 19.1**	**+1.1**
MAVZ	**Matarangi**	**0.95**	**207**	P		**Pn**	**10 51 19.3**	**+1.1**
WHVZ	**Whangaehu Hut**	**0.96**	**206**	P		**Pn**	**10 51 19.3**	**+1.2**
TRVZ	**Turoa**	**0.98**	**207**	P		**Pn**	**10 51 19.7**	**+1.3**
WNVZ	**Wahianoa**	**0.99**	**204**	P		**Pn**	**10 51 19.6**	**+1.3**
**HIZ

WCZ	Waipu Caves	2.86	330	P		Pn	10 51 40.2	+1.7
DUWZ	D'Urville Isla	2.92	215	P		Pn	10 51 39.6	+0.4
TRWZ	Traveller	2.99	186	P		Pn	10 51 40.2	+0.2
WEL	Wellington	3.04	200	P		Pn	10 51 40.7	+0.1
MSWZ	Moikau Station	3.07	192	P		Pn	10 51 40.7	-0.3
SNZO	South Karori	3.08	200	P		Pn	10 51 41.0	-0.2
SNZO	South Karori	3.08	200	S		Sn	10 52 17.9	-1.2
TCW	Tory Channel	3.13	206	P		Pn	10 51 41.5	-0.2
BHW	Baring Head	3.13	198	P		Pn	10 51 41.6	-0.2
PLWZ	Palliser	3.21	192	P		Pn	10 51 42.6	-0.3
NNZ	Nelson	3.50	216	P		Pn	10 51 46.3	-0.1
TKNZ	Takaka Hill	3.57	222	P		Pn	10 51 47.2	-0.2
QRZ	Quartz Range	3.67	228	P		Pn	10 51 48.2	-0.4
QRZ	Quartz Range	3.67	228	S		Sn	10 52 32.0	-0.4
QRZ	Quartz Range	3.67	228	P		Pn	10 51 48.2	-0.4
BSWZ	Blackbirch Sta	3.71	207	P		Pn	10 51 48.9	-0.3
MRNZ	Matariki Terra	3.94	220	P		Pn	10 51 51.7	-0.4
THZ	Tophouse	4.15	215	P		Pn	10 51 54.6	-0.3
KHZ	Kahutara	4.45	205	P		Pn	10 51 58.0	-0.7
KHZ	Kahutara	4.45	205	S		Sn	10 52 49.4	-1.1
KHZ	Kahutara	4.45	205	P		Pn	10 51 58.0	-0.7
DSZ	Denniston Nort	4.69	224	P		Pn	10 52 01.1	-0.8
GVZ	Greta Valley S	5.11	206	P		Pn	10 52 06.4	-1.0

*NEIC **13** 10:54:31.7±2.1,44.37N±0.02×115.19W±0.05,h10km±1km, mb4.2/34,ML4.3/113,Mwr4.1/111,ML4.7/34(BUT),Error ellipse: s-maj=7.1km s-min=2.9km az=244.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=0.58; Mθθ1.28; Mφφ-0.70; Mrθ0.31; Mrφ-1.30; Mθφ1.18; Fault plane solution: Mo2.10000×10¹⁵ NP1: ϕs155.82000°,δ70.21000°,λ-32.11000°. NP2: ϕs257.81000°,δ59.99000°,λ-156.99000°. Principal axes: T 1.9476, Plg7.0000°, Azm209.0000°; N 0.2703, Plg53.0000°, Azm307.0000°; P -2.2179, Plg36.0000°, Azm114.0000°;*

*IDC **13** 10:54:32.1±0.7,44.35N×115.30W,h0km,mb3.9/4, mbtmp3.8/12,ML3.7/7,MS3.3/5 Error ellipse: s-maj=10.2km s-min=8.5km az=74.0*

*NEIC **13** 10:54:32.8,44.36N×115.18W,h18km*

*BUT **13** 10:54:33.0±1.4,44.36N±0.02×115.19W±0.04,h11km±5km, Error ellipse: s-maj=5.5km s-min=1.5km az=54.0*

ISC 13 10:54:32.2±0.5, 44.35N±0.03×115.19W±0.03, h11km, n135,σ1§19/126, mb4.2/12, Western Idaho

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
PLID	**Pearl Lake**	**0.94**	**322**	Pg		**Pb**	**10 54 50.6**	**0.0**
PLID				Sg		**Sb**	**10 55 02.9**	**-0.3**
PLID				IAML			10 55 07.4	
	8μm,0.4s							
HLID	**Hailey**	**0.97**	**144**	Pg		**Pb**	**10 54 51.2**	**+0.1**
HLID				Sg		**Sb**	**10 55 03.9**	**-0.1**
MFID	**Camas Ranch**	**1.04**	**206**			**Pn**	**10 54 52.6**	**-0.2**
MFID				Sg		**Sn**	**10 55 07.4**	**-0.1**
MFID				IAML			10 55 10.4	
	12μm,0.3s							
BCYI	**Bear Canyon**	**1.28**	**91**			**Pg**	**10 54 56.9**	**0.0**
BMO	**Blue Mountains**	**1.59**	**289**			**Pb**	**10 55 01.0**	**-0.7**
MCMT	**McKenzie Canyo**	**1.74**	**73**	Pn		**Pb**	**10 55 03.5**	**-0.8**
MOMT	**Monida**	**2.02**	**82**			**Pb**	**10 55 08.0**	**-1.0**
DLMT	**Dillon**	**2.10**	**60**			**Pn**	**10 55 08.5**	**+0.9**
F10A	**Beach Ranch, E**	**2.17**	**319**			**Pn**	**10 55 09.7**	**+1.4**
F10A				IAML			10 55 41.7	
	comp=E,3μm,0.3s							
VCMT	**Victor**	**2.21**	**18**			**Pn**	**10 55 09.7**	**+0.8**
HBMT	**Mount Humbug**	**2.33**	**51**			**Pn**	**10 55 11.5**	**+0.7**
BGMT	**Barton Gulch**	**2.41**	**67**			**Pn**	**10 55 12.8**	**+1.0**
BPMT	**Black Pine Rid**	**2.42**	**30**			**Pn**	**10 55 12.5**	**+0.5**
LRM	**Limekiln Ridge**	**2.44**	**52**			**Pn**	**10 55 12.8**	**+0.6**
BUT	**Butte**	**2.50**	**47**			**Pn**	**10 55 13.3**	**+0.5**
BUT				IAML			10 55 55.0	
	comp=E,2μm,1.3s							
BUT				IAML			10 55 56.5	
	comp=N,2μm,0.7s							
TPMT	**Tepee Creek**	**2.55**	**80**			**Pn**	**10 55 15.6**	**+1.9**
CMI	**Centennial Mou**	**2.56**	**85**			**Pn**	**10 55 15.5**	**+1.6**
J08A	**Circle Bar Ran**	**2.57**	**248**			**Pn**	**10 55 15.0**	**+1.1**
J08A				IAML			10 56 03.6	
	comp=N,2μm,0.9s							
J08A				IAML			10 56 13.0	
	comp=E,2μm,1.1s							
MSO	**Missoula**	**2.63**	**19**			**Pn**	**10 55 15.7**	**+1.0**
MSO				IAML			10 56 03.0	
	comp=E,2μm,0.9s							
LNOR	**Lincton Mounta**	**2.67**	**306**			**Pn**	**10 55 16.6**	**+1.4**
QLMT	**Earthquake Lak**	**2.73**	**79**			**Pn**	**10 55 17.2**	**+1.0**
MKMT	**Mink Peak**	**2.75**	**1**			**Pn**	**10 55 17.3**	**+0.7**
BOZ	**Bozeman (W)**	**2.82**	**62**			**Pn**	**10 55 18.1**	**+0.7**
G08A	**Pilot Rock**	**2.84**	**291**			**Pn**	**10 55 18.6**	**+1.0**
MCID	**Moose Creek**	**2.88**	**92**			**Pn**	**10 55 20.5**	**+2.2**
ELMT	**Elliston**	**2.88**	**40**			**Pn**	**10 55 18.7**	**+0.4**
YHB	**Horse Butte**	**2.88**	**81**			**Pn**	**10 55 20.1**	**+1.8**
YHB				IAML			10 56 05.2	
	comp=N,1μm,0.7s							
YHB				IAML			10 56 07.5	
	comp=E,998nm,0.7s							
CHMT	**Chamberlain Mo**	**2.90**	**27**			**Pn**	**10 55 18.9**	**+0.3**
YHL	**Hebgen Lake**	**2.91**	**79**			**Pn**	**10 55 19.6**	**+0.9**
PCMT	**Pistol Creek**	**2.98**	**15**			**Pn**	**10 55 20.2**	**+0.6**
E09A	**Wood Farm, Sta**	**3.00**	**317**	Pn		**Pn**	**10 55 21.3**	**+1.6**
E09A				IAML			10 56 10.4	
	comp=N,1μm,0.9s							
YMR	**Madison River**	**3.04**	**82**			**Pn**	**10 55 21.4**	**+1.0**
FBMT	**Ferry Basin**	**3.10**	**10**			**Pn**	**10 55 22.1**	**+0.8**
I07A	**Izee**	**3.11**	**267**			**Pn**	**10 55 22.7**	**+1.4**
I07A				IAML			10 56 18.8	
	comp=E,794nm,1.1s							
I07A				IAML			10 56 21.8	
	comp=N,664nm,1.2s							
OVMT	**Ovando**	**3.12**	**29**			**Pn**	**10 55 21.7**	**+0.2**
YFT	**Old Faithful**	**3.12**	**87**			**Pn**	**10 55 22.8**	**+1.2**
YFT				IAML			10 56 13.7	
	comp=N,1μm,1.0s							
YFT				IAML			10 56 23.4	
	comp=E,999nm,0.9s							
SLMT	**Seeley Lake**	**3.13**	**22**			**Pn**	**10 55 21.8**	**+0.2**
YHH	**Holmes Hill**	**3.13**	**80**			**Pn**	**10 55 23.6**	**+1.8**
YPP	**Pitchstone Pla**	**3.15**	**90**			**Pn**	**10 55 23.3**	**+1.3**
YPP				IAML			10 56 13.6	
	comp=E,772nm,1.0s							
YPP				IAML			10 56 21.2	
	comp=N,882nm,0.9s							
HRF	**Holter Researc**	**3.15**	**43**			**Pn**	**10 55 22.5**	**+0.7**
WVOR	**Wild Horse Val**	**3.16**	**234**			**Pn**	**10 55 23.1**	**+1.1**
WVOR				IAML			10 56 22.2	
	comp=N,622nm,1.6s							
WVOR				IAML			10 56 27.6	
	comp=N,689nm,1.5s							
GBMT	**Granite Butte,**	**3.16**	**36**			**Pn**	**10 55 22.7**	**+0.6**
YPT	**Yellepit**	**3.16**	**304**			**Pn**	**10 55 22.9**	**+1.1**
BHMT	**Big Hole Peak**	**3.24**	**2**			**Pn**	**10 55 24.1**	**+1.0**
YNR	**Norris Junctio**	**3.25**	**82**	Pn		**Pn**	**10 55 22.8**	**-0.5**
YNR				IAML			10 56 21.6	
	comp=E,1μm,1.1s							
SWMT	**Swartz Lake**	**3.27**	**14**			**Pn**	**10 55 24.2**	**+0.7**
H17A	**Grant Village**	**3.31**	**88**	Pn		**Pn**	**10 55 24.6**	**+0.4**
LYMT	**Lyon Mountain**	**3.32**	**37**			**Pn**	**10 55 24.8**	**+0.6**
SNOW	**Snow King Moun**	**3.33**	**104**			**Pn**	**10 55 25.9**	**+1.5**
SNOW				IAML			10 56 42.8	
	comp=E,623nm,1.7s							
SXM	**Sixmile**	**3.34**	**56**			**Pn**	**10 55 25.2**	**+0.7**
AHID	**Auburn Hatcher**	**3.37**	**117**			**Pn**	**10 55 26.6**	**+1.6**
AHID				IAML			10 56 24.1	
	comp=E,588nm,0.6s							
AHID				IAML			10 56 25.1	
	comp=E,652nm,0.9s							
JTMT	**Jette**	**3.46**	**10**			**Pn**	**10 55 26.9**	**+0.8**
E08A	**Dider Farm, El**	**3.46**	**310**			**Pn**	**10 55 27.5**	**+1.5**
E08A				IAML			10 56 29.0	
	comp=N,493nm,1.3s							
BSMT	**Bassoo Peak**	**3.51**	**4**			**Pn**	**10 55 28.1**	**+1.2**
ELK	**Elko**	**3.60**	**181**	Pn		**Pn**	**10 55 30.7**	**+2.5**
	comp=N,16nm,0.3s,baz=350,slow=15,SNR=74							
ELK				Pg		**Pb**	**10 55 34.7**	**-1.3**
	comp=N,19nm,0.3s,baz=353,slow=15,SNR=64							
ELK				Lg		Lg	10 56 22.2	
	comp=N,41nm,0.3s,baz=208,slow=16,SNR=9.3							
	comp=N,71nm,0.5s							
ELK				AML		AML		
ELK	**Elko**	**3.60**	**181**	Pn		**Pn**	**10 55 29.7**	**+1.5**
YBMT	**Yellow Bay**	**3.61**	**13**			**Pn**	**10 55 29.2**	**+1.0**
YMP	**Mirror Lake Pl**	**3.62**	**82**	Pn		**Pn**	**10 55 29.4**	**+0.9**
YMP				IAML			10 56 38.8	
	comp=N,561nm,0.8s							
YMP				IAML			10 56 48.9	
	comp=E,540nm,0.9s							
SPUT	**South Promonto**	**3.65**	**145**	Pn		**Pn**	**10 55 29.3**	**+0.6**
SPUT				IAML			10 56 31.2	
	comp=E,544nm,2.0s							
SPUT				IAML			10 56 35.0	
	comp=N,391nm,0.7s							
HAWA	**Hanford**	**3.68**	**305**			**Pn**	**10 55 29.9**	**+0.9**
F07A	**Phinny Hill Vi**	**3.69**	**296**			**Pn**	**10 55 30.4**	**+1.2**
F07A				IAML			10 56 39.0	
	comp=N,700nm,1.3s							
F07A				IAML			10 56 40.7	
	comp=E,809nm,1.0s							
YNE	**Yellowstone No**	**3.75**	**78**	Pn		**Pn**	**10 55 30.4**	**+0.1**
YNE				IAML			10 56 34.2	
	comp=E,636nm,0.6s							
YNE				IAML			10 56 38.7	
	comp=N,778nm,0.6s							
D08A	**Wollman Farm,**	**3.76**	**317**			**Pn**	**10 55 30.7**	**+0.6**
D08A				IAML			10 56 34.8	
	comp=N,430nm,1.1s							
D08A				IAML			10 56 39.5	
	comp=E,437nm,1.2s							
C15A	**Salmond Ranch,**	**3.87**	**27**			**Pn**	**10 55 32.3**	**+0.6**
OD2	**Odessa Site #2**	**3.91**	**322**			**Pn**	**10 55 33.5**	**+1.3**
E07A	**Sunnyside**	**3.96**	**306**	IAML			10 56 44.3	
	comp=N,555nm,1.2s							
E07A				IAML			10 57 13.0	
	comp=E,361nm,0.8s							
G06A	**Carlson Farm,**	**3.98**	**285**	IAML			10 56 43.6	
	comp=N,455nm,1.5s							
C09A	**Chrisman Ranch**	**4.06**	**329**			**Pn**	**10 55 35.8**	**+1.4**
LDM	**Libby Dam**	**4.11**	**359**			**Pn**	**10 55 36.1**	**+1.2**
NEW	**Newport**	**4.14**	**342**	Pn		**Pn**	**10 55 36.6**	**+1.3**
	comp=N,5.4nm,0.3s,baz=163,slow=13,SNR=24							
NEW				Pg		**Pb**	**10 55 47.7**	**+2.6**
	comp=N,14nm,0.3s,baz=155,slow=14,SNR=13							
NEW				Lg		Lg	10 56 39.8	
	comp=N,114nm,0.3s,baz=84,slow=24,SNR=25							
	comp=N,14nm,0.3s							
NEW				AML		AML		
NEW	**Newport**	**4.14**	**342**			**Pn**	**10 55 36.4**	**+1.1**
NEW				IAML			10 56 52.1	
	comp=N,472nm,1.0s							
GCMT	**Greycliff**	**4.17**	**68**			**Pn**	**10 55 38.2**	**+2.3**
PINE	**Pine Mountain**	**4.18**	**264**	IAML			10 56 58.4	
	comp=E,343nm,1.0s							
MXC	**Moxie City**	**4.22**	**304**	IAML			10 56 54.9	
	comp=N,290nm,1.2s							
EPH	**Ephrata**	**4.30**	**316**	IAML			10 56 58.9	
	comp=E,367nm,1.6s							
EPH				IAML			10 57 07.6	
	comp=N,302nm,1.1s							
PDAR	**Pinedale Array**	**4.39**	**109**	Pn		**Pn**	**10 55 43.5**	**+4.5**
	comp=N,0.8nm,0.3s,baz=291,slow=11,SNR=30							
PDAR				Pg		**Pb**	**10 55 51.0**	**+1.6**
	comp=N,3.8nm,0.3s,baz=299,slow=18,SNR=47							
PDAR				Lg		Lg	10 56 55.0	
	comp=N,3.4nm,0.3s,baz=275,slow=27,SNR=5.6							
PDAR				LR		LR	10 57 51.7	
	comp=N,368nm,20.7s,baz=296,slow=45							
	comp=N,3.9nm,0.6s							
PDAR				AML		AML		
I05D	**Terrebonne, OR**	**4.41**	**272**	IAML			10 56 55.5	
	comp=E,408nm,0.8s							
I05D				IAML			10 56 56.2	
	comp=N,416nm,1.0s							
G05A	**Wamic**	**4.45**	**284**	IAML			10 57 05.7	
	comp=N,393nm,1.1s							
K05A	**Summer Lake**	**4.45**	**251**	IAML			10 57 24.6	
	comp=N,257nm,2.2s							
MOD	**Modoc Plateau**	**4.47**	**239**	IAML			10 56 59.8	
	comp=N,245nm,1.1s							
MOD				IAML			10 57 13.1	
	comp=E,313nm,1.2s							
J05D	**Fort Rock, OR**	**4.50**	**258**	IAML			10 56 57.1	
	comp=E,269nm,1.8s							
J05D				IAML			10 57 06.4	
	comp=N,259nm,1.4s							
WIFE	**Three Sisters-**	**4.77**	**269**	IAML			10 57 13.3	
	comp=E,206nm,0.7s							
WIFE				IAML			10 57 15.2	
	comp=N,199nm,1.4s							
LTY	**Liberty**	**4.81**	**309**	IAML			10 57 14.8	
	comp=E,217nm,1.4s							
LTY				IAML			10 57 17.1	
	comp=N,300nm,1.3s							
F04A	**Amboy**	**5.35**	**290**	IAML			10 57 33.9	
	comp=N,135nm,1.2s							
YBH	**Yreka Blue Hor**	**6.10**	**247**	Pn		**Pn**	**10 56 04.1**	**+1.8**
	comp=N,0.7nm,0.3s,baz=69,slow=11,SNR=13							
YBH				Lg		Lg	10 57 47.0	
	comp=N,0.7nm,0.3s,baz=116,slow=24,SNR=3.7							
YBH				LR		LR	10 58 29.1	
	comp=N,141nm,20.5s,baz=31,slow=39							
	comp=N,1.6nm,0.3s							
YBH				AML		AML		
NVAR	**Mina Array Bea**	**6.36**	**203**	Pn		**Pn**	**10 56 08.9**	**+2.8**
	comp=N,2.1nm,0.3s,baz=15,slow=12,SNR=9.6							
NVAR				LR		LR	10 59 05.6	
	comp=N,208nm,20.3s,baz=334,slow=44							
	comp=N,4.8nm,0.7s							
NVAR				AML		AML		
PFO	**Pinyon Flats O**	**10.77**	**186**	LR		LR	11 01 04.6	
	comp=N,141nm,21.3s,baz=36,slow=36							
ANMO	**Albuquerque**	**11.55**	**141**	Lg		Lg	11 00 35.4	
	baz=249,slow=13,SNR=3.2							
ULM	**Lac du Bonnet**	**14.36**	**59**	Pn		**Pn**	**10 57 55.3**	**0.0**
	comp=N,2.4nm,0.8s,baz=263,slow=12,SNR=6.8							
ULM				Lg		Lg	11 02 00.0	
	comp=N,0.6nm,0.3s,baz=177,slow=17,SNR=6.8							
ULM				LR		LR	11 03 07.6	
	comp=N,215nm,18.0s,baz=16,slow=36							
SPMN	**Marine on St.**	**15.91**	**79**	Pn		**Pn**	**10 58 14.6**	**-1.4**
SPMN				IAmb		IAmb	10 58 22.0	
	comp=Z,16nm,1.0s							
CRAG	**Craig**	**15.98**	**320**	Pn		**Pn**	**10 58 16.2**	**-0.6**
T35A	**Sooner Cattle**	**15.99**	**111**	Pn		**Pn**	**10 58 17.4**	**+0.4**
T35A				IAmb		IAmb	10 58 24.1	
	comp=Z,36nm,1.1s							
EYMN	**Ely**	**16.79**	**69**	Pn		**Pn**	**10 58 26.1**	**-1.1**
ABTX	**Abilene, Hawle**	**16.86**	**129**	Pn		**Pn**	**10 58 28.4**	**+0.3**
ABTX				IAmb		IAmb	10 58 31.7	
	comp=Z,23nm,1.3s							
TUL3	**Leonard**	**17.03**	**113**	Pn		**Pn**	**10 58 29.0**	**-1.3**
TUL3				IAmb		IAmb	10 58 35.6	
	comp=Z,13nm,0.9s							
SRIG	**Santa Rosalia**	**17.16**	**171**			**Pn**	**10 58 32.4**	**+0.5**
TXAR	**Lajitas Array**	**17.57**	**145**	P		**P**	**10 58 40.0**	**+1.8**
	baz=338,slow=9.3,SNR=12							
	comp=Z,1.6nm,1.0s							
TXAR	**Lajitas Array**	**17.57**	**145**	P		**Pn**	**10 58 37.0**	**-0.2**
L40A	**Anamosa**	**17.61**	**89**			**Pn**	**10 58 37.3**	**-0.1**
L40A				IAmb		IAmb	10 58 50.7	
	comp=Z,35nm,1.2s							
S32K	**Killisnoo**	**17.85**	**324**	Pn		**Pn**	**10 58 38.8**	**-1.4**
S32K				IAmb		IAmb	10 58 59.0	
	comp=Z,33nm,1.4s							
R33M	**Jennings River**	**17.86**	**333**	Pn		**Pn**	**10 58 38.8**	**-1.8**
YKAW1	**Yellowknife Wh**	**18.17**	**1**			**Pn**	**10 58 43.7**	**-0.5**
YKA	**Yellowknife Ar**	**18.18**	**1**	P		**P**	**10 58 45.7**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=186,slow=12,SNR=9.1							
YKA				Lg		Lg	11 04 03.8	
	comp=Z,0.1nm,0.3s,baz=174,slow=27,SNR=4.7							
	comp=Z,3.0nm,0.8s							
YKA				AML		AML		
YKA	**Yellowknife Ar**	**18.18**	**1**			**P**	**10 58 44.6**	**0.0**
BRDY	**Brady**	**18.22**	**130**	Pn		**Pn**	**10 58 43.6**	**-1.5**
BRDY				IAmb		IAmb	10 58 48.6	
	comp=Z,15nm,1.0s							
R40A	**Maddies Statio**	**18.22**	**101**			**Pn**	**10 58 43.6**	**-1.5**
JCT	**Junction City**	**18.43**	**134**	P		**P**	**10 58 46.3**	**-1.3**
I42A	**Draeger Farm,**	**18.85**	**82**	P		**P**	**10 58 51.2**	**-0.9**
I42A				IAmb		IAmb	10 58 55.1	
	comp=Z,21nm,0.8s							
MIAR	**Mount Ida**	**19.30**	**113**	P		**P**	**10 58 56.1**	**-1.0**
FCAR	**Ozark Folk Cen**	**19.51**	**108**	P		**P**	**10 58 59.5**	**+0.1**
FCAR				IAmb		IAmb	10 59 03.0	
	comp=Z,18nm,1.0s							
WHAR	**Wooly Hollow**	**19.73**	**109**	P		**P**	**10 59 01.2**	**-0.6**
WHAR				IAmb		IAmb	10 59 12.1	
	comp=Z,27nm,1.5s							
BLKN	**Baker Lake**	**22.74**	**22**	P		**P**	**10 59 32.8**	**-1.2**
BLKN				IAmb		IAmb	10 59 41.5	
	comp=Z,4.0nm,0.8s							
TGL	**Tana Glacier**	**23.23**	**325**	P		**P**	**10 59 38.2**	**-1.0**
K29M	**Barlow Dome**	**23.28**	**335**	P		**P**	**10 59 39.9**	**+0.3**
K29M				IAmb		IAmb	10 59 48.7	
	comp=Z,9.8nm,1.1s							
VRDI	**Verde Repeater**	**23.74**	**325**	P		**P**	**10 59 44.7**	**+0.4**
I30M	**Mount Dempster**	**23.98**	**338**	P		**P**	**10 59 45.7**	**-0.9**
I30M				IAmb		IAmb	11 00 00.0	
	comp=Z,7.9nm,1.1s							
TZTN	**Tazewell**	**25.20**	**97**	P		**P**	**10 59 58.6**	**+0.9**
G29M	**Pine Creek**	**25.72**	**339**	P		**P**	**11 00 01.8**	**-0.4**
G29M				IAmb		IAmb	11 00 25.3	
	comp=Z,9.1nm,1.1s							
SLKM	**Skilak Lake**	**26.36**	**320**	P		**P**	**11 00 07.7**	**-0.3**
ILAR	**Eielson Array**	**27.00**	**330**	P		**P**	**11 00 15.8**	**+2.1**
	comp=Z,0.4nm,0.9s,baz=123,slow=5.9,SNR=12							
	comp=Z,0.4nm,0.9s							
ILAR	**Eielson Array**	**27.00**	**330**	P		**P**	**11 00 13.9**	**+0.1**
H24K	**Noodor Dome**	**27.94**	**332**	P		**P**	**11 00 22.6**	**+0.3**
H24K				IAmb		IAmb	11 00 30.1	
	comp=Z,6.2nm,1.2s							
M20K	**Styx River**	**28.17**	**322**	P		**P**	**11 00 24.3**	**-0.1**
M20K				IAmb		IAmb	11 00 52.9	
	comp=Z,5.5nm,1.1s							
CFNY	**Clifton-Fine,**	**28.55**	**76**	P		**P**	**11 00 27.4**	**-0.4**
J19K	**Poorman**	**30.00**	**325**	P		**P**	**11 00 40.8**	**+0.3**
FINES	**FINESS Array B**	**70.00**	**19**	P		**P**	**11 05 46.1**	**+2.8**
	comp=Z,3.4nm,1.0s,baz=344,slow=6.2,SNR=5.3							
	comp=Z,3.4nm,1.0s							
FINES	**FINESS Array B**	**70.00**	**19**	P		**P**	**11 05 43.1**	**-0.2**
LPAZ	**La Paz**	**74.03**	**133**	P		**P**	**11 06 09.6**	**+0.8**
	comp=Z,0.6nm,0.5s,baz=254,slow=4.8,SNR=4.7							
	comp=Z,0.6nm,0.5s							
LPAZ	**La Paz**	**74.03**	**133**	P		**P**	**11 06 07.4**	**-1.4**
ESDC	**Sonseca Array**	**75.97**	**48**	P		**P**	**11 06 20.1**	**+0.9**
	comp=Z,0.9nm,0.7s,baz=306,slow=6.4,SNR=6.2							
	comp=Z,0.9nm,0.7s							
ESDC	**Sonseca Array**	**75.97**	**48**	P		**P**	**11 06 18.2**	**-0.9**
HHC	**Hu-ho-hao-te**	**85.35**	**326**	eP		**P**	**11 07 08.3**	**-1.2**
HHC				pmax		pmax		
	comp=Z,15nm,0.5s							
HHC				pmax		pmax		
	comp=Z,160nm,4.9s							
MSVF	**Nonsavu**	**86.62**	**241**	P		**P**	**11 07 16.7**	**+0.8**
AB31	**Akbulak array**	**86.68**	**3**	P		**P**	**11 07 15.5**	**-0.2**
AB31				IAmb		IAmb	11 07 16.2	
	comp=Z,1.4nm,0.9s							
ABKAR	**Akbulak array**	**86.68**	**3**	P		**P**	**11 07 15.4**	**-0.4**

*THE **13** 11:02:54.9,37.9N±0.8×26.8E±0.7,h9km±1km,M2.4/8, MLh2.4/8*

*ISK **13** 11:02:54.9,37.89N×26.82E,h5km,ML2.4/22*

*AFAD **13** 11:02:55.0,37.86N×26.78E,h7km±4km,ML2.5*

ISC 13 11:02:55.0±0.9, 37.87N±0.02×26.77E±0.02, h10km±7km, n52,σ0§64/85, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
SMG	**Samos**	**0.17**	**162**	P		**Pg**	**11 02 58.6**	**-0.1**
SMG				S		**Sg**	**11 03 01.7**	**+0.4**
SMG				AML		AML		
DGB	**zmir**	**0.20**	**26**	P		**Pg**	**11 02 59.2**	**-0.1**
DGB				S		**Sg**	**11 03 02.6**	**+0.4**
GMLD	**Gumuldur**	**0.24**	**29**	Pg		**Pg**	**11 02 59.8**	**-0.1**
GMLD				AML		AML		
BEYE	**izmir**	**0.38**	**19**	P		**Pg**	**11 03 02.3**	**-0.2**
BEYE				S		**Sb**	**11 03 08.6**	**-1.1**
GCAM	**G?zelcaml?**	**0.40**	**115**	P		**Pg**	**11 03 03.0**	**0.0**
GCAM				S		**Sb**	**11 03 09.6**	**-0.8**
GCAM	**G?zelcaml?**	**0.40**	**115**	Pg		**Pg**	**11 03 02.8**	**-0.2**
GCAM				Sg		**Sg**	**11 03 08.9**	**+0.6**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.41**	**91**	Pg		**Pg**	**11 03 02.5**	**-0.6**
ZEYE	**Izmir, Urla-Ze**	**0.42**	**330**	P		**Pg**	**11 03 02.8**	**-0.5**
ZEYE				S		**Sg**	**11 03 09.8**	**+0.8**
ZEYE				IAML			11 03 11.0	
	comp=N,364nm,0.2s							
DDIM	**Aydin, Didim**	**0.56**	**138**	P		**Pg**	**11 03 05.7**	**-0.1**
DDIM				S		**Sb**	**11 03 14.5**	**-0.2**
DDIM				IAML			11 03 17.0	
	comp=N,190nm,0.5s							
BLCB	**Balcova**	**0.56**	**23**	P		**Pg**	**11 03 05.7**	**-0.2**
BLCB				S		**Sg**	**11 03 13.4**	**+0.1**
BLCB	**Balcova**	**0.56**	**23**	Pg		**Pg**	**11 03 05.7**	**-0.2**
BLCB				AML		AML		
CESE	**eme**	**0.59**	**321**	Pg		**Pb**	**11 03 07.1**	**-0.3**
CESE				AML		AML		
DIDI	**Didim-Aydin**	**0.62**	**143**	Pg		**Pb**	**11 03 07.4**	**-0.4**
DIDI				AML		AML		
DUVT	**Torbali**	**0.64**	**57**	P		**Pg**	**11 03

AKHS				IAML		11 03 39.0	
	comp=N,100nm,0.6s						
AKS	**Akhisar**	**1.30**	**39**	Pn	**Pg**	**11 03 19.9**	**0.0**
AKS				AML	AML		
YAZI	**Mula-Dat§a-**	**1.30**	**155**	P	**Pn**	**11 03 17.2**	**-2.1**
YAZI				S	**Sn**	**11 03 39.2**	**+2.6**
DAT	**Datca**	**1.31**	**150**	P	**Pn**	**11 03 18.8**	**-0.6**
DAT				S	**Sn**	**11 03 37.4**	**+0.5**
DAT				AML	AML		
DAT	**Datca**	**1.31**	**150**	P	**Pg**	**11 03 20.0**	**-0.1**
DAT				S	**Sb**	**11 03 36.8**	**+0.2**
KTTT	**Salihli**	**1.32**	**51**	P	**Pb**	**11 03 20.9**	**+0.5**
KTTT				S	**Sn**	**11 03 37.8**	**+0.6**
KIRA	**zmir-Kiraz**	**1.33**	**75**	P	**Pg**	**11 03 20.5**	**0.0**
KIRA				S	**Sn**	**11 03 38.4**	**+1.0**
YER	**Yerkesik**	**1.41**	**121**	P	**Pn**	**11 03 20.4**	**-0.3**
YER				S	**Sb**	**11 03 39.3**	**-0.1**
YER	**Yerkesik**	**1.41**	**121**	Pn	**Pb**	**11 03 21.6**	**+0.2**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.42**	**25**	Pn	**Pb**	**11 03 21.5**	**0.0**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.43**	**344**	P	**Pn**	**11 03 20.5**	**-0.5**
PRK				S	**Sb**	**11 03 39.8**	**-0.1**
GORD	**Gordes-Manisa**	**1.52**	**46**	Pn	**Pb**	**11 03 23.3**	**+0.1**
GORD				AML	AML		
MANT	**Manisa**	**1.54**	**66**	P	**Pg**	**11 03 24.8**	**+0.3**
MANT				S	**Sb**	**11 03 43.7**	**+0.4**
STEP	**BALIKESIR_Sava**	**1.68**	**26**	P	**Pb**	**11 03 26.1**	**+0.1**
STEP				S	**Sg**	**11 03 49.4**	**+0.4**
STEP				IAML		11 03 54.0	
	comp=E,74nm,0.4s						
STEP				IAML		11 03 58.0	
	comp=N,56nm,0.6s						
YAYO	**Edremit-Balk**	**1.75**	**8**	Pn	**Pb**	**11 03 26.8**	**-0.4**
YAYO				AML	AML		
KARY	**Karystos**	**1.85**	**276**	P	**Pn**	**11 03 26.8**	**0.0**
BALB	**Balikesir**	**1.97**	**26**	Pn	**Pb**	**11 03 30.5**	**-0.4**

*IDC **13** 11:14:59.8±0.6, 21.°40N×121.°98E, h0km, mb4.2/23, mbtmp4.2/26, ML4.0/3, MS3.9/52, Error ellipse: s-maj=15.8km s-min=13.2km az=86.0*
*GFZ **13** 11:15:01.5±0.3, 22.°N±3.°×12.°2E±.°, h10km, M4.6/13, mb4.6/13, confirmed*
*TAP **13** 11:15:02.9, 21.°71N×122.°04E, h21km, ML4.8, D*
*NEIC **13** 11:15:03.1±1.8, 21.°70N±0.°08×121.°95E±0.°07, h10km±1km, mb4.5/36, Error ellipse: s-maj=14.0km s-min=11.4km az=161.0*
*JMA **13** 11:15:04.2±0.4, 22.°N±2.°×121.°8E±0.°6, h70km, MV4.7/23, TAIWAN REGION*
*BJI **13** 11:15:04.4, 21.°87N×121.°74E, h6km, mB4.9/11, mb4.4/38, ML4.5/4, Ms4.4/30, Ms7 4.2/31*
*NIED **13** 11:15:04.2, 21.°72N×121.°80E, h70km, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; Mrr0.55; Mθθ0.66; Mφφ-1.20; Mrθ0.70; Mrφ-0.67; Mθφ0.30; Fault plane solution: M0 1.44000×10^{16} NP1: φs158.00000°, δ52.00000°, λ20.00000°. NP2: φs55.00000°, δ74.00000°, λ140.00000°.*
*MAN **13** 11:15:07.0, 20.°99N×121.°82E, h1km, MS3.7*
ISC 13 11:15:02.9±0.7, **21.°68N**±0.°03×**122.°01E**±0.°03, **h15**km±4km, **n316**, σ1§81/325, **mb4.5**/55, **MS3.9**/52, **3C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.51**	**309**	⇑*i* P	**Pb**	**11 15 13.5**	**-0.1**
LYUB				S	**Sb**	**11 15 21.0**	**+0.2**
LAY	**Lan-yu**	**0.56**	**310**	⇑P	**Pg**	**11 15 13.2**	**-0.7**
LAY				*i* S	**Sg**	**11 15 21.1**	**-0.3**
LDUT	**Ludao**	**1.11**	**333**	P	**Pb**	**11 15 21.6**	**-2.2**
LDUT				S	**Sb**	**11 15 36.4**	**-1.7**
HEN	**Hengchun**	**1.22**	**286**	*e*P	**Pn**	**11 15 24.2**	**-1.4**
TTN	**Taitung**	**1.33**	**323**	P	**Pn**	**11 15 27.0**	**0.0**
ECL	**Taimali**	**1.34**	**313**	*e*P	**Pn**	**11 15 25.0**	**-2.1**
TWGBT	**Beinan**	**1.42**	**323**	P	**Pn**	**11 15 26.4**	**-1.9**
TWGBT	**Beinan**	**1.42**	**323**	*e*P	**Pn**	**11 15 26.7**	**-1.6**
TWG	**Pinlang**	**1.43**	**323**		**Pn**	**11 15 26.8**	**-1.5**
TWG	**Pinlang**	**1.43**	**323**	P	**Pn**	**11 15 26.7**	**-1.7**
TWG	**Pinlang**	**1.43**	**323**	*e*P	**Pn**	**11 15 27.0**	**-1.4**
EDH	**Donghe**	**1.44**	**333**	*i* P	**Pn**	**11 15 26.7**	**-1.9**
EDH				*e*S	**Sn**	**11 15 44.6**	**-2.6**
LONT	**Longtian**	**1.47**	**327**	*i* P	**Pn**	**11 15 27.8**	**-1.1**
LONT				*e*S	**Sn**	**11 15 47.3**	**-0.6**
CHKT	**Chengkung**	**1.54**	**337**	*i* P	**Pn**	**11 15 27.9**	**-1.9**
CHKT				*i* S	**Sn**	**11 15 46.6**	**-2.9**
SSPT	**Xinbi**	**1.56**	**301**	P	**Pn**	**11 15 29.5**	**-0.6**
SSPT				*e*S	**Sb**	**11 15 51.4**	**+0.4**
MASBT	**Mashibuluo**	**1.58**	**306**	*e*P	**Pn**	**11 15 29.4**	**-1.0**
MASBT				*e*S	**Sn**	**11 15 49.0**	**-1.6**
ECS	**Chishang**	**1.59**	**333**	*e*P	**Pn**	**11 15 30.0**	**-0.6**
CHKH	**Chenggong**	**1.61**	**340**	P	**Pn**	**11 15 29.0**	**-1.8**
CHKH				S	**Sn**	**11 15 47.5**	**-3.8**
EHD	**Haiduan**	**1.64**	**333**	*e*P	**Pn**	**11 15 30.3**	**-1.0**
EHD				*i* S	**Sn**	**11 15 51.7**	**-0.5**
FULB	**Fuli**	**1.65**	**337**	*e*P	**Pn**	**11 15 30.0**	**-1.5**
FULB				S	**Sn**	**11 15 51.0**	**-1.4**
WLCH	**Liuqiu**	**1.65**	**294**	*e*P	**Pb**	**11 15 33.0**	**-0.1**
ECBN	**Changbin**	**1.71**	**343**	*e*P	**Pn**	**11 15 29.9**	**-2.3**
ECBN				*e*S	**Sn**	**11 15 50.5**	**-3.4**
SGLT	**Jiouru**	**1.75**	**307**	*e*P	**Pb**	**11 15 34.7**	**0.0**
ELDTW	**Lidau**	**1.76**	**329**	*e*P	**Pn**	**11 15 31.7**	**-1.4**
EYUL	**Yuli**	**1.78**	**339**	*e*P	**Pn**	**11 15 32.2**	**-1.0**
TWF1	**Yuli**	**1.79**	**339**	*e*P	**Pn**	**11 15 32.0**	**-1.3**
TWF1				*e*S	**Sn**	**11 15 53.5**	**-2.3**
SLGT	**Liugui**	**1.82**	**316**	*e*P	**Pn**	**11 15 34.6**	**+0.9**
YULB	**Yu-li**	**1.83**	**339**	P	**Pn**	**11 15 32.3**	**-1.6**
YULB	**Yu-li**	**1.83**	**339**		**Pn**	**11 15 32.5**	**-1.3**
YULB	**Yu-li**	**1.83**	**339**	P	**Pn**	**11 15 32.8**	**-1.1**
YULB	**Yu-li**	**1.83**	**339**	*e*P	**Pn**	**11 15 32.6**	**-1.3**
STYH	**Taoyuan**	**1.87**	**323**	*e*P	**Pn**	**11 15 34.2**	**-0.2**
WSSB	**Gushan**	**1.88**	**301**	*e*P	**Pb**	**11 15 37.0**	**0.0**
HGSD	**Ruisui**	**1.89**	**343**	*e*P	**Pn**	**11 15 33.1**	**-1.5**
EHYH	**Wanrong**	**1.91**	**341**	*e*P	**Pn**	**11 15 34.4**	**-0.5**
SGST	**Jiashian**	**1.92**	**317**	*e*P	**Pn**	**11 15 35.5**	**+0.3**
SGST				*e*S	**Sb**	**11 16 00.9**	**-0.7**
EHY	**Hungye**	**1.93**	**341**	*e*P	**Pn**	**11 15 34.6**	**-0.6**
CHN1	**Nanshi**	**2.03**	**318**	P	**Pb**	**11 15 38.4**	**-1.2**
YUS	**Yu-Shan**	**2.05**	**332**	*e*P	**Pn**	**11 15 37.2**	**-0.2**
TPUB	**Ta-pu**	**2.06**	**322**		**Pn**	**11 15 37.9**	**+0.9**
TPUB	**Ta-pu**	**2.06**	**322**		**Pn**	**11 15 38.0**	**+0.9**
TPUB	**Ta-pu**	**2.06**	**322**	P	**Pn**	**11 15 38.3**	**+1.2**
TPUB	**Ta-pu**	**2.06**	**322**	*i* P	**Pn**	**11 15 38.4**	**+1.3**
TPUB				S	**Sb**	**11 16 05.8**	**+0.3**
CHN3	**Shinhua**	**2.06**	**313**	*e*P	**Pb**	**11 15 40.2**	**+0.1**
TEGC	**Jichi Village**	**2.07**	**348**	*e*S	**Sn**	**11 16 02.2**	**-0.4**
CHN4	**Tsaushan**	**2.12**	**322**	*e*P	**Pn**	**11 15 39.5**	**+1.7**
CHN4				*e*S	**Sb**	**11 16 07.3**	**+0.1**
SHUL	**Shoufeng**	**2.14**	**349**	P	**Pn**	**11 15 37.5**	**-0.7**
SHUL				*e*S	**Sn**	**11 16 04.2**	**-0.3**
WCKO	**Fanlu**	**2.18**	**324**	*e*P	**Pn**	**11 15 40.4**	**+1.7**
WCKO				*e*S	**Sb**	**11 16 08.7**	**-0.3**
ESL	**Shilin**	**2.19**	**346**	P	**Pn**	**11 15 38.2**	**-0.7**
ESL				*i* S	**Sn**	**11 16 05.5**	**-0.3**
TEYL	**Yanliau Villag**	**2.21**	**350**	*e*P	**Pn**	**11 15 39.1**	**0.0**
SCLT	**Jiali**	**2.24**	**312**	*e*S	**Sb**	**11 16 10.3**	**-0.4**
CHN5	**Tsauling**	**2.27**	**328**	*i* P	**Pb**	**11 15 42.2**	**-1.5**
WHYT	**Xinyi Township**	**2.27**	**332**	*i* P	**Pn**	**11 15 41.2**	**+1.2**
SSLB	**Suanglung**	**2.31**	**335**	P	**Pn**	**11 15 41.0**	**+0.4**
SSLB	**Suanglung**	**2.31**	**335**	S	**Sn**	**11 16 04.8**	**-4.0**
SSLB	**Suanglung**	**2.31**	**335**		**Pn**	**11 15 40.6**	**0.0**
SSLB	**Suanglung**	**2.31**	**335**	P	**Pn**	**11 15 41.2**	**+0.6**
ICHU	**Yijhu**	**2.31**	**317**	*e*P	**Pn**	**11 15 41.2**	**+0.7**
CHN2	**Minshiung**	**2.33**	**323**	*e*S	**Sb**	**11 16 13.5**	**+0.4**
ETM	**Tongmen**	**2.33**	**348**	*e*P	**Pn**	**11 15 40.2**	**-0.5**
ETM				*e*S	**Sn**	**11 16 08.7**	**-0.4**
CHY	**Chiayi**	**2.33**	**321**	*e*P	**Pn**	**11 15 42.3**	**+1.6**
CHY				S	**Sb**	**11 16 12.4**	**-0.8**
OWD	**Renai**	**2.39**	**341**	*e*P	**Pn**	**11 15 41.5**	**-0.2**
OWD				*e*S	**Sn**	**11 16 11.3**	**+0.4**
WGK	**Gukeng**	**2.40**	**327**	*e*P	**Pb**	**11 15 45.0**	**-1.0**
WGK				*e*S	**Sb**	**11 16 14.0**	**-1.4**
WDLH	**Douliu**	**2.42**	**326**	*e*P	**Pb**	**11 15 44.7**	**-1.5**
WDLH				*e*S	**Sb**	**11 16 15.5**	**-0.3**
SMLT	**Sun Moon Lake**	**2.42**	**335**	*e*P	**Pn**	**11 15 43.5**	**+1.4**
WDL	**Douliou City**	**2.44**	**327**	*e*S	**Sb**	**11 16 14.4**	**-2.0**
WJS	**Zhushan**	**2.44**	**331**	*e*P	**Pb**	**11 15 44.6**	**-2.0**
WUSB	**Renai**	**2.44**	**341**	*e*P	**Pn**	**11 15 43.2**	**+0.7**
WUSB				*e*S	**Sn**	**11 16 13.8**	**+1.7**
EOS4	**EOS4**	**2.45**	**7**	*e*P	**Pn**	**11 15 42.6**	**+0.6**
EOS4				S	**Sn**	**11 16 11.3**	**-0.2**
TYC	**Yuchr**	**2.46**	**335**	*i* P	**Pn**	**11 15 44.4**	**+1.9**
TYC				*e*S	**Sb**	**11 16 15.2**	**-1.7**
WSL	**Shuilin Townsh**	**2.46**	**318**	*e*P	**Pn**	**11 15 43.0**	**+0.4**
WSL				*e*S	**Sn**	**11 16 13.9**	**+1.4**
WTK	**Tuku**	**2.50**	**324**	*e*P	**Pn**	**11 15 44.1**	**+1.0**
WTK				S	**Sn**	**11 16 15.7**	**+2.5**
WNT	**Mingjian**	**2.51**	**331**	*e*P	**Pn**	**11 15 45.5**	**+2.3**
NACB	**Ninganchiao**	**2.51**	**351**	P	**Pn**	**11 15 42.4**	**-0.8**
NACB	**Ninganchiao**	**2.51**	**351**	S	**Sn**	**11 16 11.0**	**-2.7**
NACB	**Ninganchiao**	**2.51**	**351**		**Pn**	**11 15 42.2**	**-1.1**
NACB	**Ninganchiao**	**2.51**	**351**	P	**Pn**	**11 15 42.4**	**-0.8**
NACB	**Ninganchiao**	**2.51**	**351**	*e*P	**Pn**	**11 15 42.5**	**-0.8**
WHF	**Hehuan Shan**	**2.55**	**345**	*e*P	**Pn**	**11 15 45.0**	**+0.8**
ETLH	**Xiulin Townshi**	**2.56**	**349**	*e*P	**Pn**	**11 15 44.2**	**+0.1**
WCS	**Beigang Elemen**	**2.58**	**337**	*e*P	**Pn**	**11 15 45.7**	**+1.6**
FUSS	**Fushou**	**2.65**	**345**	*e*P	**Pn**	**11 15 45.7**	**+0.3**
TWT	**Tachien**	**2.68**	**344**	*e*P	**Pn**	**11 15 48.2**	**+2.5**
RLNB	**Erlin**	**2.68**	**326**	*e*P	**Pn**	**11 15 46.2**	**+0.7**
TDCB	**Techi**	**2.68**	**343**	*e*P	**Pn**	**11 15 46.7**	**+1.0**
WCHH	**Zhanghua**	**2.74**	**331**	*e*P	**Pn**	**11 15 48.5**	**+2.1**
ENA	**Nanau**	**2.75**	**355**	*e*P	**Pn**	**11 15 46.4**	**-0.1**
TCU	**Taichung**	**2.75**	**334**	*e*P	**Pn**	**11 15 48.7**	**+2.2**
WHP	**Taichung City**	**2.77**	**339**	*e*P	**Pn**	**11 15 49.2**	**+2.4**
NNSB	**Datong**	**2.80**	**348**	*e*P	**Pn**	**11 15 49.2**	**+1.9**
NNS	**Nan Shan**	**2.81**	**348**	*e*P	**Pn**	**11 15 48.6**	**+1.2**
VCHM	**Qimei**	**2.83**	**303**	*e*P	**Pn**	**11 15 47.7**	**+0.1**
VCHM				*e*S	**Sn**	**11 16 20.6**	**-0.9**
LATG	**Datong**	**2.88**	**351**	*e*P	**Pn**	**11 15 48.7**	**+0.3**
HATJ	**Hateruma jima**	**2.89**	**35**	P	**Pn**	**11 15 50.4**	**+2.0**
HATJ				*e*S	**Sn**	**11 16 24.9**	**+1.9**
TWQ1	**Liyutan**	**2.89**	**337**	*e*P	**Pn**	**11 15 50.9**	**+2.4**
TWQ1				*i* S	**Sb**	**11 16 27.4**	**-2.0**
JYNG	**Yonagunijimaku**	**2.89**	**17**	P	**Pn**	**11 15 49.4**	**+0.9**
JYNG				S	**Sn**	**11 16 23.9**	**+0.9**
PHUB	**P'eng-hu**	**2.90**	**310**	*e*P	**Pn**	**11 15 48.6**	**0.0**
PHUB				S	**Sn**	**11 16 23.1**	**-0.1**
YOJ	**Yonaguni jima**	**2.92**	**18**	P	**Pn**	**11 15 51.1**	**+2.2**
YOJ	**Yonaguni jima**	**2.92**	**18**		**Pn**	**11 15 50.6**	**+1.7**
YOJ	**Yonaguni jima**	**2.92**	**18**	P	**Pn**	**11 15 50.6**	**+1.7**
YOJ	**Yonaguni jima**	**2.92**	**18**	*e*P	**Pn**	**11 15 49.8**	**+0.9**
YOJ	**Yonaguni jima**	**2.92**	**18**	P	**Pn**	**11 15 50.3**	**+1.4**
YOJ				S	**Sn**	**11 16 25.4**	**+1.7**
TWC	**Suao**	**2.92**	**357**	*e*P	**Pn**	**11 15 50.0**	**+1.1**
TWC				S	**Sn**	**11 16 23.7**	**0.0**
PNG	**Penghu**	**2.94**	**310**	*e*P	**Pn**	**11 15 48.3**	**-0.9**
PNG				*i* S	**Sn**	**11 16 24.2**	**-0.1**
ENTT	**Nioudou**	**2.98**	**352**	*e*P	**Pn**	**11 15 51.0**	**+1.3**
YHNB	**Yeheng**	**3.03**	**349**	P	**Pn**	**11 15 51.5**	**+1.0**
YHNB	**Yeheng**	**3.03**	**349**	S	**Sn**	**11 16 23.6**	**-3.0**
YHNB	**Yeheng**	**3.03**	**349**		**Pn**	**11 15 51.3**	**+0.8**
YHNB	**Yeheng**	**3.03**	**349**	P	**Pn**	**11 15 52.0**	**+1.5**
NSK	**Sanguang**	**3.04**	**349**	*e*P	**Pn**	**11 15 52.3**	**+1.7**
TWE	**Neicheng**	**3.04**	**354**	*e*P	**Pn**	**11 15 52.5**	**+1.9**
NSTT	**Nanjuang**	**3.08**	**343**	*e*P	**Pn**	**11 15 54.3**	**+3.2**
IRIF	**Iriomote-Funau**	**3.08**	**31**	P	**Pn**	**11 15 52.8**	**+1.7**
IRIF				S	**Sn**	**11 16 29.9**	**+2.1**
LIOB	**Emei**	**3.09**	**343**	*e*P	**Pn**	**11 15 54.0**	**+2.7**
JKRS	**Kuro-shima**	**3.15**	**36**	P	**Pn**	**11 15 54.0**	**+2.0**
JKRS				S	**Sn**	**11 16 31.1**	**+1.9**
KSHI	**Guanxi Townshi**	**3.18**	**346**	P	**Pn**	**11 15 55.8**	**+3.4**
HSN	**Hsinchu**	**3.25**	**343**	*e*P	**Pb**	**11 15 57.1**	**-3.3**
HSN				*e*S	**Sb**	**11 16 36.8**	**-3.1**
PACPP	**Pamplona Cagay**	**3.26**	**191**	*i* P	**Pn**	**11 15 50.5**	**-3.0**
PACPP				*i* S	**Sn**	**11 16 24.7**	**-7.4**
TIPB	**Shuangxi**	**3.28**	**357**	*e*P	**Pn**	**11 15 55.8**	**+1.9**
TATO	**Taipei**	**3.32**	**352**	P	**Pn**	**11 15 56.0**	**+1.7**
TATO	**Taipei**	**3.32**	**352**	S	**Sn**	**11 16 30.8**	**-2.7**
TATO	**Taipei**	**3.32**	**352**		**Pn**	**11 15 54.3**	**0.0**
TATO	**Taipei**	**3.32**	**352**	P	**Pn**	**11 15 56.2**	**+1.8**
JIJ	**Ishigaki jima**	**3.32**	**36**	P	**Pn**	**11 15 55.9**	**+1.5**
JIJ				S	**Sn**	**11 16 34.0**	**+0.4**
NWF	**Wu-fen Shan**	**3.38**	**357**	*e*P	**Pn**	**11 15 57.5**	**+2.2**
SXI1	**Grass Mountain**	**3.40**	**358**	*e*P	**Pn**	**11 15 57.3**	**+1.7**
TWS1	**Kuangyinshan**	**3.45**	**351**	*e*P	**Pn**	**11 15 58.9**	**+2.8**
YM01	**YM01**	**3.48**	**353**	*e*P	**Pn**	**11 15 59.6**	**+3.0**
ZUZH	**Zhuzihu**	**3.49**	**353**	*e*P	**Pn**	**11 15 59.3**	**+2.5**
ANP	**Anpu**	**3.52**	**353**	*e*P	**Pn**	**11 15 59.3**	**+2.1**
PIP	**Pasuquin**	**3.58**	**202**	*e*P	Pn	11 15 49.9	-8.1
PIP				*e*S	Sn	11 16 29.0	-11
JISG	**Ishigakijimahi**	**3.59**	**36**	*i* P	**Pn**	**11 15 59.3**	**+1.3**
JISG				S	**Sn**	**11 16 41.0**	**+0.8**
JTJ	**Tarama**	**3.85**	**40**	P	**Pn**	**11 16 03.4**	**+1.7**
JTJ				S	**Sn**	**11 16 48.2**	**+1.4**
VWUC	**VWUC**	**4.05**	**325**	*e*P	**Pn**	**11 16 03.8**	**-0.7**
KNM	**Kinmen**	**4.27**	**310**	*e*P	**Pn**	**11 16 09.4**	**+1.9**
JIRJ	**Irabujima**	**4.29**	**42**	P	**Pn**	**11 16 09.7**	**+1.9**
JIRJ				S	**Sn**	**11 16 59.2**	**+1.6**
JMJ2	**Miyako jima3**	**4.32**	**44**	P	**Pn**	**11 16 09.6**	**+1.5**
JMJ2				S	**Sn**	**11 17 00.0**	**+1.9**
KNMB	**Chin-men Tao**	**4.33**	**310**	P	**Pn**	**11 16 06.8**	**-1.5**
KNMB	**Chin-men Tao**	**4.33**	**310**	P	**Pn**	**11 16 08.6**	**+0.2**
JMJ	**Miyako jima 2**	**4.34**	**43**	P	**Pb**	**11 16 14.8**	**-4.2**
JOGS	**Gusukube**	**4.38**	**45**	S	**Sn**	**11 17 02.0**	**+2.3**
JIKM	**Ikemajima**	**4.39**	**42**	S	**Sn**	**11 17 02.2**	**+2.1**
PALP	**Palanan**	**4.61**	**175**	*i* P	**Pn**	**11 16 11.9**	**-0.2**
PALP				*i* S	**Sn**	**11 17 03.3**	**-2.1**
AXDP	**Jialang**	**4.91**	**312**	*e*P	**Pn**	**11 16 15.9**	**-0.2**
LYJJ	**Jianjiangzhen**	**5.27**	**338**	*e*P	**Pn**	**11 16 22.2**	**+1.0**
JKE	**Kume jima 2**	**6.36**	**42**	*e*P	**Pn**	**11 16 38.5**	**+2.3**
JKE				*e*S	**Sn**	**11 17 48.8**	**+0.2**
JNTH	**Nagotoyohara**	**7.31**	**48**	*e*P	**Pn**	**11 16 51.3**	**+2.2**
JNTH				*e*S	**Sn**	**11 18 09.3**	**-2.5**
HKPS	**Hong Kong Po S**	**7.33**	**276**		**Pn**	**11 16 50.2**	**+0.8**
HKPS	**Hong Kong Po S**	**7.33**	**276**	P	**Pn**	**11 16 50.4**	**+0.9**
	comp=Z,152nm,0.9s						
LQP	**Lukban**	**7.54**	**183**	*e*P	**Pn**	**11 16 52.0**	**-0.6**
JIH	**Iheya**	**7.61**	**44**	*e*S	**Sn**	**11 18 16.8**	**-2.6**
JOW	**Kunigami**	**7.68**	**47**	Pn	**Pn**	**11 16 54.0**	**-0.4**
	comp=Z,5.4nm,0.3s,baz=128,slow=26,SNR=11						
JOW				Sn	**Sn**	**11 18 18.6**	**-2.5**
	comp=Z,3.6nm,0.3s,baz=76,slow=25,SNR=1.7						
JOW				LR	LR	11 19 44.3	
	comp=Z,684nm,20.2s,baz=220,slow=36						
	comp=Z,19nm,0.5s						
JOW				AML	AML		
JOW	**Kunigami**	**7.68**	**47**	Pn	**Pn**	**11 16 55.3**	**+0.9**
JYRO	**Yoronjima**	**7.93**	**47**	*e*S	**Sn**	**11 18 23.9**	**-3.2**
GZH2	**Guangzhou**	**7.96**	**286**	Pn	**Pn**	**11 16 57.3**	**-0.9**
GZH2				Sn	**Sn**	**11 18 26.1**	**-1.9**
GZH2				AML	AML		
	comp=Z,240nm,0.8s						
GZH2				AML	AML		
	comp=Z,120nm,0.8s						
NJ2	**Nanjing**	**10.71**	**345**	*e*P	**Pn**	**11 17 36.3**	**+0.5**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
NJ2				L	L		
	comp=Z,970nm,10.4s						
NJ2				L	L		
	comp=Z,2µm,12.8s						
NJ2				L	L		
	comp=Z,2µm,11.8s						
PLP	**Palo**	**10.83**	**164**	*e*P	**Pn**	**11 17 38.2**	**+0.6**
QIZ	**Qiongzhong**	**11.71**	**259**	P	**Pn**	**11 17 50.0**	**+0.4**
QIZ				S	**Sn**	**11 20 01.1**	**+1.0**
QIZ				L	L		
	comp=Z,900nm,9.4s						
QIZ				L	L		
	comp=Z,530nm,7.8s						
QIZ				L	L		
	comp=Z,860nm,6.5s						
JSU	**Suzuyama**	**12.36**	**36**	Pn	**Pn**	**11 17 57.1**	**-1.3**
JNU	**Nakatsue**	**13.85**	**33**	Pn	**Pn**	**11 18 19.5**	**+0.7**
	comp=Z,0.5nm,0.3s,baz=344,slow=3.7,SNR=4.8						
JNU				LR	LR	11 24 18.7	
	comp=Z,575nm,18.5s,baz=202,slow=40						
	comp=Z,13nm,1.1s						
JNU				AML	AML		
DAV	**Davao City (W)**	**14.93**	**166**	LR	LR	11 24 28.9	
	comp=Z,658nm,18.9s,baz=356,slow=39						
DLV	**Lat**	**16.15**	**235**		**P**	**11 18 52.9**	**0.0**
DLV				IAmb	IAmb	11 19 07.2	
	comp=Z,70nm,1.5s						
INCN	**Inchon**	**16.25**	**13**	Pn	**Pn**	**11 18 50.9**	**+0.1**
INCN				IAmb	IAmb	11 18 59.0	
	comp=Z,58nm,1.2s						
KSAR	**Wonju Array Be**	**16.51**	**17**		**Pn**	**11 18 54.4**	**+0.4**
KKM	**Kota Kinabalu**	**16.52**	**201**	P	**Pn**	**11 18 51.8**	**-2.6**
	comp=Z,32nm,0.9s						
KKM	**Kota Kinabalu**	**16.52**	**201**	P	**Pn**	**11 18 53.2**	**-1.2**
	comp=Z,32nm,0.9s						
KSRS	**Korea Array**	**16.54**	**17**	Pn	**Pn**	**11 18 55.5**	**+1.2**
	comp=Z,0.3nm,0.3s,baz=199,slow=12,SNR=21						
KSRS				LR	LR	11 25 55.1	
	comp=Z,373nm,18.1s,baz=205,slow=39						
	comp=Z,7.3nm,0.9s						
KSRS				AML	AML		
KS19	**Wonju Array Si**	**16.57**	**17**		**Pn**	**11 18 55.0**	**+0.3**
SLVN	**Son La**	**16.85**	**272**	P	**P**	**11 19 02.3**	**+1.8**
	comp=Z,11nm,2.7s						
XAN	**Xi'an**	**16.88**	**320**	P	**P**	**11 19 02.5**	**+1.8**
XAN				pmax	pmax		
	comp=Z,23nm,1.1s						
HNS	**HongShan**	**16.89**	**340**	⇑P	**P**	**11 19 04.1**	**+3.3**
HNS				pmax	pmax		
	comp=Z,55nm,1.0s						
HNS				L	L		
	comp=Z,870nm,13.5s						
HNS				L	L		
	comp=Z,630nm,12.7s						
HNS				L	L		
	comp=Z,970nm,15.1s						
KMI2	**Kunming**	**18.01**	**285**	P	**P**	**11 19 15.8**	**+2.3**
KMI2				pmax	pmax		
	comp=Z,11nm,0.7s						
KMI2				L	L		
	comp=Z,750nm,13.5s						
KMI2				L	L		
	comp=Z,480nm,15.1s						
KMI2				L	L		
	comp=Z,700nm,12.9s						
CD2	**Chengdu**	**18.75**	**303**	P	**Pn**	**11 19 22.8**	**+0.9**
CD2				S	**Sn**	**11 22 45.3**	**-6.1**
CD2				pmax	pmax		
	comp=Z,30nm,0.9s						
CD2				pmax	pmax		
	comp=Z,470nm,4.9s						
CD2				L	L		
	comp=Z,2µm,15.2s						
CD2				L	L		
	comp=Z,1µm,13.7s						
CD2				L	L		
	comp=Z,2µm,12.2s						
BJI2	**Beijing**	**18.95**	**346**	P	**P**	**11 19 23.3**	**-0.2**
BJI2				pP	**pP**	**11 19 26.8**	**+0.3**
BJI2				S	**Sn**	**11 22 49.3**	**-6.7**
BJI2				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BJI2				L	L		
	comp=Z,310nm,13.7s						
BJI2				L	L		
	comp=Z,310nm,12.7s						
BJI2				L	L		
	comp=Z,440nm,12.6s						
JGF	**Kuroka**	**19.30**	**41**	P	**Pn**	**11 19 30.5**	**+2.0**
MAJO	**Matsushiro**	**20.44**	**40**	P	Pn	11 19 41.4	-0.6
MAJO				IAmb	IAmb	11 19 47.9	
	comp=Z,26nm,1.2s						
MJAR	**Matsushiro Arr**	**20.44**	**40**	P	Pn	11 19 42.5	+0.5
	comp=Z,15nm,1.0s,baz=228,slow=10,SNR=27						
	comp=Z,15nm,1.0s						
MJAR	**Matsushiro Arr**	**20.44**	**40**	P	**P**	**11 19 39.1**	**-0.8**
MJB9	**Matsu-Tunnel**	**20.44**	**40**		Pn	11 19 43.3	+1.3
MJB9				IAmb	IAmb	11 19 48.9	
	comp=Z,28nm,1.2s						
GTOI	**Gorontalo**	**20.94**	**177**	P	**P**	**11 19 41.8**	**-3.5**
	comp=Z,30nm,0.8s						
HHC	**Hu-ho-hao-te**	**21.06**	**338**	*e*P	**P**	**11 19 48.3**	**+1.7**
HHC				S	**S**	**11 23 42.1**	**+1.3**
HHC				SS	**SnSn**	**11 24 05.6**	**+3.3**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,86nm,4.3s						
HHC				L	L		
	comp=Z,490nm,15.7s						
HHC				L	L		
	comp=Z,630nm,13.4s						
HHC				L	L		
	comp=Z,370nm,14.8s						
LZH	**Lanzhou**	**21.37**	**316**	*e*P	**P**	**11 19 53.0**	**+2.9**
LZH				sP	pwP	11 20 01.5	+3.3
LZH				pmax	pmax		
	comp=Z,29nm,1.0s						
LZH				pmax	pmax		
	comp=Z,300nm,4.8s						
LZH				L	L		
	comp=Z,740nm,16.0s						
LZH				L	L		
	comp=Z,420nm,14.8s						
LZH				L	L		
	comp=Z,700nm,13.6s						
LZDM	**Lanzhou Array**	**21.39**	**316**	P	**P**	**11 19 52.5**	**+2.1**
	comp=Z,1.7nm,0.3s,baz=141,slow=7.6,SNR=5.2						
LZDM				LR	LR	11 28 34.3	
	comp=Z,306nm,21.5s,baz=95,slow=38						
	comp=Z,1.7nm,0.3s						
BTO2	**Baotou**	**21.61**	**334**	*e*P	**P**	**11 19 53.8**	**+1.2**
BTO2				pP	**sP**	**11 19 58.0**	**+1.0**
BTO2				sP	**pwP**	**11 20 00.9**	**-0.5**
BTO2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,380nm,5.3s						
BTO2				L	L		
	comp=Z,2µm,14.6s						
BTO2				L	L		
	comp=Z,2µm,17.1s						
BTO2				L	L		
	comp=Z,2µm,14.0s						
CHTO	**Chiang Mai**	**21.82**	**267**		**P**	**11 19 54.5**	**-0.3**
CHTO	**Chiang Mai**	**21.82**	**267**	P	**P**	**11 19 56.7**	**+1.8**
CHTO	**Chiang Mai**	**21.82**	**267**	P	**P**	**11 19 56.2**	**+1.3**
	comp=Z,11nm,1.5s						
CM31	**Chiang Mai Arr**	**21.90**	**266**	P	**P**	**11 19 57.4**	**+1.7**
CMAR	**Chiang Mai Arr**	**21.90**	**266**	P	**P**	**11 19 55.8**	**+0.1**
	comp=Z,6.5nm,0.9s,baz=71,slow=9.2,SNR=28						
CMAR				PcP	**PcP**	**11 23 55.0**	**0.0**
	comp=Z,0.9nm,0.5s,baz=83,slow=1.3,SNR=6.4						
CMAR				LR	LR	11 29 05.5	
	comp=Z,218nm,19.5s,baz=70,slow=39						
	comp=Z,6.5nm,0.9s						
APSI	**Ampana**	**22.45**	**181**	P	**P**	**11 20 00.0**	**-1.6**
	comp=Z,72nm,1.1s						
XLT	**XiLinHaoTe**	**22.70**	**349**	*e*P	**P**	**11 20 04.0**	**-0.1**
XLT				pP	sP	11 20 08.9	+0.3
XLT				PP	**PnPn**	**11 20 27.9**	**-0.2**
XLT				pmax	pmax		
	comp=Z,12nm,0.8s						
XLT				L	L		
	comp=Z,430nm,15.3s						
XLT				L	L		
	comp=Z,350nm,13.2s						
GUMO	**Guam**	**23.20**	**106**	LR	LR	11 27 15.9	
	comp=Z,168nm,21.1s,baz=288,slow=32						
MDJ	**Mudanjiang**	**23.72**	**14**	P	**P**	**11 20 16.9**	**+2.6**
MDJ				pmax	pmax		
	comp=Z,33nm,1.4s						
MDJ	**Mudanjiang**	**23.72**	**14**		**P**	**11 20 14.2**	**-0.1**
SANI	**Sanana**	**23.90**	**170**	P	**P**	**11 20 12.4**	**-3.9**
	comp=Z,1µmcomp=Z,18nm,0.6s						
SANI	**Sanana**	**23.90**	**170**	P	**P**	**11 20 12.0**	**-4.3**
	comp=Z,18nm,0.7s						
USRK	**Ussuriysk Ar.**	**23.93**	**18**	P	**P**	**11 20 19.5**	**+3.1**
	comp=Z,6.8nm,0.8s,baz=202,slow=8.7,SNR=10						
USRK				LR	LR	11 30 43.5	
	comp=Z,197nm,18.7s,baz=208,slow=39						
	comp=Z,6.8nm,0.8s						
USRK	**Ussuriysk Ar.**	**23.93**	**18**	P	**P**	**11 20 16.4**	**0.0**
SIJI	**Sorong**	**24.16**	**157**	LR	LR	11 32 41.5	
	comp=Z,56nm,18.0s,baz=306,slow=44						
BNX	**BinXian**	**24.41**	**9**	⇓P	**P**	**11 20 24.4**	**+3.7**
BNX				pmax	pmax		
	comp=Z,14nm,1.0s						
MMSI	**Mamuju**	**24.41**	**188**	P	**P**	**11 20 20.7**	**-0.3**
	comp=Z,45nm,0.8s						
TTSI	**Tana Toraja**	**24.66**	**185**	P	**P**	**11 20 23.3**	**0.0**
	comp=Z,30nm,0.7s						
PMSI	**Majene**	**25.21**	**187**	P	**P**	**11 20 30.0**	**+1.8**
NLAI	**Namlea**	**25.26**	**168**	P	**P**	**11 20 26.9**	**-1.8**
	comp=Z,37nm,1.0s						
MORE	**Moreh**	**25.62**	**281**	P	**P**	**11 20 32.9**	**+0.8**
MORE				IAmb	IAmb	11 20 51.9	
	comp=Z,8.3nm,0.7s						
BBKI	**Banjar Baru**	**25.95**	**197**	P	**P**	**11 20 40.8**	**+5.8**
KAPI	**Kappang**	**26.62**	**185**	LR	LR	11 31 57.3	

	comp=Z,177nm,19.3s,baz=1.0,slow=39						
KAPI	**Kappang**	**26.62**	**185**	P	**P**	**11 20 39.9**	**-1.1**
SHL	**Shillong**	**27.84**	**284**	P	**P**	**11 20 51.7**	**-0.5**
BRDH	**Bariadhala**	**28.11**	**278**	LR	LR	11 34 51.9	
	comp=Z,156nm,18.8s,baz=146,slow=42						
JKA	**Kamikawa-asahi**	**28.13**	**33**		**P**	**11 20 54.1**	**-0.3**
KLR	**Kul'dur**	**28.57**	**13**	P	**P**	**11 21 00.5**	**+2.4**
	comp=Z,4.0nm,0.7s,baz=216,slow=7.2,SNR=11						
KLR				LR	LR	11 33 40.4	
	comp=Z,280nm,19.4s,baz=190,slow=39						
	comp=Z,4.0nm,0.7s						
ULN	**Ulaanbaatar**	**28.77**	**339**	P	**P**	**11 20 59.5**	**-0.7**
ULN				IAmb	IAmb	11 21 11.8	
	comp=Z,7.2nm,1.0s						
ULN	**Ulaanbaatar**	**28.77**	**339**	P	**P**	**11 20 59.1**	**-1.1**
	comp=Z,37nm,1.4s						
ULN	**Ulaanbaatar**	**28.77**	**339**	P	**P**	**11 21 00.6**	**+0.4**
	comp=Z,9.3nm,1.4s						
HEH	**HeiHe**	**28.84**	**7**	*e*P	P	11 21 05.8	+5.2
HEH				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SONM	**Songino Array**	**28.96**	**338**	P	**P**	**11 21 01.8**	**-0.2**
	comp=Z,2.3nm,1.0s,baz=158,slow=12,SNR=9.2						
SONM				LR	LR	11 33 36.2	
	comp=Z,294nm,19.1s,baz=96,slow=38						
	comp=Z,2.3nm,1.0s						
SONM	**Songino Array**	**28.96**	**338**	P	**P**	**11 21 01.7**	**-0.2**
PSI	**Prapat**	**29.25**	**233**	LR	LR	11 32 08.7	
	comp=Z,140nm,18.5s,baz=31,slow=35						
LHMI	**Lhok Sumawe**	**29.27**	**240**	P	**P**	**11 21 04.7**	**-0.1**
MMRI	**Maumere**	**30.13**	**180**	P	P	11 21 17.6	+5.3
JAY	**Jayapura**	**30.21**	**140**	LR	LR	11 31 21.9	
	comp=Z,255nm,19.9s,baz=16,slow=33						
EDFI	**Ende, Flores**	**30.24**	**181**	P	**P**	**11 21 10.9**	**-2.5**
BATI	**Baumata**	**31.73**	**177**	LR	LR	11 33 37.1	
	comp=Z,132nm,21.4s,baz=7.0,slow=36						
EVN	**Everest**	**32.47**	**288**		**P**	**11 21 32.6**	**-1.1**
EVN	**Everest**	**32.47**	**288**	P	**P**	**11 21 35.5**	**+1.8**
	comp=Z,12nm,0.9s						
TLY	**Talaya**	**33.18**	**339**	LR	LR	11 36 52.9	
	comp=Z,218nm,18.5s,baz=306,slow=39						
WMQ	**Urumqi**	**35.95**	**316**	*e*P	**P**	**11 22 06.6**	**+3.5**
KRVT	**Keravat (AS076**	**39.13**	**128**	LR	LR	11 34 55.8	
	comp=Z,154nm,21.8s,baz=164,slow=31						
YAK	**Yakutsk**	**40.67**	**6**	LR	LR	11 40 08.2	
	comp=Z,106nm,21.3s,baz=176,slow=37						
MKAR	**Makanchi Array**	**40.68**	**318**	P	**P**	**11 22 43.6**	**+0.9**
	comp=Z,8.2nm,0.8s,baz=110,slow=9.2,SNR=33						
MKAR				LR	LR	11 40 54.4	
	comp=Z,126nm,19.7s,baz=102,slow=38						
	comp=Z,8.2nm,0.8s						
MKAR	**Makanchi Array**	**40.68**	**318**		**P**	**11 22 43.3**	**+0.6**
MAKZ	**Makanchi**	**40.88**	**318**	P	**P**	**11 22 44.8**	**+0.4**
MAKZ				IAmb	IAmb	11 22 50.0	
	comp=Z,7.4nm,0.8s						
MAKZ	**Makanchi**	**40.88**	**318**	P	**P**	**11 22 45.3**	**+0.9**
	comp=Z,11nm,0.8s						
PDGK	**Podgornoye**	**41.29**	**312**	P	**P**	**11 22 48.4**	**+0.4**
PETK	**Petropavlovsk-**	**41.55**	**32**	LR	LR	11 40 57.5	
	comp=Z,93nm,18.4s,baz=254,slow=37						
H11N1	**WAKE ISLAND Hy**	**41.92**	**84**	T	T	12 08 03.0	
	baz=282,slow=75,SNR=58						
H11N2	**WAKE ISLAND Hy**	**41.93**	**84**	T	T	12 08 06.0	
	baz=282,slow=75,SNR=98						
H11N3	**WAKE ISLAND Hy**	**41.94**	**84**	T	T	12 08 09.7	
	baz=282,slow=75,SNR=77						
H11S3	**WAKE ISLAND Hy**	**41.98**	**86**	T	T	12 08 01.1	
	baz=282,slow=75,SNR=132						
H11S1	**WAKE ISLAND Hy**	**41.98**	**86**	T	T	12 07 57.7	
	baz=282,slow=75,SNR=105						
H11S2	**WAKE ISLAND Hy**	**41.99**	**86**	T	T	12 07 58.9	
	baz=282,slow=75,SNR=97						
TARG	**Taragay, Kyrgy**	**42.04**	**309**	P	**P**	**11 22 55.6**	**+1.1**
TARG	**Taragay, Kyrgy**	**42.04**	**309**	P	**P**	**11 22 56.6**	**+2.1**
	comp=Z,5.6nm,1.2s						
ZAA0	**Zalesovo Array**	**42.76**	**328**	P	**P**	**11 22 59.5**	**-0.1**
ZAA0				IAmb	IAmb	11 23 13.8	
	comp=Z,11nm,0.9s						
ZALV	**Zalesovo Beam**	**42.76**	**328**	P	**P**	**11 22 59.4**	**-0.2**
	comp=Z,5.8nm,0.6s,baz=111,slow=8.1,SNR=22						
	comp=Z,5.8nm,0.6s						
ASAI	**AK-SAY(Kyrgyzs**	**42.80**	**307**	P	**P**	**11 23 02.6**	**+2.0**
	comp=Z,3.6nm,1.2s						
WB0	**Warramunga Arr**	**42.93**	**163**	P	**P**	**11 22 57.8**	**-3.6**
MA2	**Magadan**	**43.02**	**21**	LR	LR	11 43 35.4	
	comp=Z,161nm,18.3s,baz=222,slow=40						
WRAB	**Tennant Creek**	**43.08**	**163**	P	**P**	**11 22 59.4**	**-3.2**
WRAB				IAmb	IAmb	11 22 60.0	
	comp=Z,6.3nm,0.8s						
WRAB	**Tennant Creek**	**43.08**	**163**	P	**P**	**11 22 58.6**	**-4.0**
	comp=Z,12nm,0.8s						
WRA	**Warramunga Arr**	**43.09**	**163**	P	**P**	**11 22 58.6**	**-4.0**
	comp=Z,5.9nm,0.7s,baz=344,slow=9.0,SNR=18						
	comp=Z,5.9nm,0.7s						
WRA	**Warramunga Arr**	**43.09**	**163**	P	**P**	**11 22 58.2**	**-4.4**
WR8	**Warramunga Arr**	**43.14**	**163**	P	**P**	**11 22 59.9**	**-3.2**
WR8				IAmb	IAmb	11 23 00.5	
	comp=Z,9.5nm,0.8s						
KSH2	**Kashi**	**43.17**	**305**	P	**P**	**11 23 05.0**	**+1.6**
KSH2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
NRN	**Naryn**	**43.29**	**308**	IAmb	IAmb	11 23 21.1	
	comp=Z,11nm,0.9s						
KURK	**Kurchatov**	**44.50**	**321**		**P**	**11 23 14.1**	**+0.3**
KURK				IAmb	IAmb	11 23 23.8	
	comp=Z,9.2nm,1.0s						
KURK	**Kurchatov**	**44.50**	**321**	P	**P**	**11 23 14.6**	**+0.8**
	comp=Z,10.0nm,1.1s						
KURBB	**Kurchatov Arra**	**44.52**	**321**	P	**P**	**11 23 14.5**	**+0.7**
	comp=Z,5.7nm,0.8s,baz=119,slow=7.5,SNR=25						
	comp=Z,5.7nm,0.8s						
AAK	**Ala-Archa**	**44.65**	**309**	LR	LR	11 45 07.6	
	comp=Z,348nm,18.7s,baz=104,slow=40						
MTSU	**Mount Surprise**	**45.20**	**149**	P	**P**	**11 23 19.1**	**-0.5**
	comp=Z,5.9nm,0.8s						
QIS	**Mount Isa**	**45.36**	**157**	P	**P**	**11 23 18.5**	**-2.4**
	comp=Z,9.5nm,0.7s						
SEY	**Seymchan**	**46.08**	**19**	LR	LR	11 44 04.8	
	comp=Z,197nm,19.1s,baz=151,slow=38						
AS31	**Alice Springs**	**46.53**	**165**	P	**P**	**11 23 27.4**	**-2.6**
ASAR	**Alice Springs**	**46.53**	**165**	P	**P**	**11 23 27.4**	**-2.8**
	comp=Z,2.9nm,0.8s,baz=352,slow=15,SNR=38						
	comp=Z,2.9nm,0.8s						
BTK	**Batken**	**46.93**	**305**	P	**P**	**11 23 33.5**	**+0.2**
BTK				IAmb	IAmb	11 23 48.4	
	comp=Z,4.2nm,0.8s						
KK31	**Karatay Array**	**47.61**	**309**	P	**P**	**11 23 37.8**	**-0.6**
KK31				IAmb	IAmb	11 23 51.7	
	comp=Z,5.5nm,1.1s						
KKAR	**Karatay Array**	**47.61**	**309**	P	**P**	**11 23 37.4**	**-1.0**
CTA	**Charters Tower**	**47.80**	**149**	LR	LR	11 42 22.5	
	comp=Z,115nm,21.2s,baz=299,slow=34						
KBL	**Kabul**	**47.95**	**297**	P	**P**	**11 23 41.9**	**+0.5**
KBL	**Kabul**	**47.95**	**297**	P	**P**	**11 23 43.6**	**+2.2**
	comp=Z,11nm,1.1s						
BVAR	**Borovoye Array**	**50.09**	**322**	P	**P**	**11 23 57.6**	**+0.3**
	comp=Z,2.1nm,0.5s,baz=104,slow=8.4,SNR=8.2						
	comp=Z,2.1nm,0.5s						
BORK	**Borovoye**	**50.14**	**322**	P	**P**	**11 23 58.5**	**+0.9**
TIXI	**Tiksi**	**50.15**	**3**	LR	LR	11 47 25.2	
	comp=Z,296nm,18.5s,baz=194,slow=39						
TIXI	**Tiksi**	**50.15**	**3**	P	**P**	**11 23 58.2**	**+0.9**
TIXI				IAmb	IAmb	11 24 22.7	
	comp=Z,7.8nm,1.4s						
NRIK	**Noril'sk**	**52.01**	**345**	P	**P**	**11 24 13.5**	**+2.1**
	comp=Z,4.0nm,0.7s,baz=183,slow=1.3,SNR=7.0						
NRIK				LR	LR	11 47 44.5	
	comp=Z,168nm,18.4s,baz=150,slow=38						
	comp=Z,4.0nm,0.7s						
NRIK	**Noril'sk**	**52.01**	**345**	P	**P**	**11 24 13.2**	**+1.8**
NRIK				IAmb	IAmb	11 24 19.7	
	comp=Z,6.2nm,0.8s						
AB31	**Akbulak array**	**55.74**	**316**	P	**P**	**11 24 39.8**	**+0.8**
AB31				IAmb	IAmb	11 24 48.5	
	comp=Z,4.5nm,0.8s						
ABKAR	**Akbulak array**	**55.74**	**316**	P	**P**	**11 24 39.5**	**+0.4**
STKA	**Stephens Creek**	**56.46**	**160**	P	**P**	**11 24 42.0**	**-2.3**
	comp=Z,1.4nm,0.8s,baz=283,slow=2.7,SNR=5.0						
	comp=Z,1.4nm,0.8s						
AKTO	**Aktyubinsk**	**57.10**	**317**	LR	LR	11 48 55.8	
	comp=Z,177nm,20.5s,baz=134,slow=36						
ARTI	**Arti**	**57.65**	**324**	LR	LR	11 51 45.2	
	comp=Z,94nm,19.2s,baz=216,slow=38						
DZM	**Mont Dzumac**	**61.39**	**132**	LR	LR	11 49 01.6	
	comp=Z,99nm,18.8s,baz=256,slow=33						
KIRV	**Kirov**	**62.70**	**326**	LR	LR	11 57 08.7	
	comp=Z,121nm,18.8s,baz=93,slow=40						

GNI	**Garni**	**66.86**	**306**	LR	LR	11 59 19.3	
	comp=Z,84nm,19.4s,baz=74,slow=40						
MSVF	**Nonsavu**	**67.42**	**121**	LR	LR	11 50 11.3	
	comp=Z,106nm,21.7s,baz=332,slow=31						
KBZ	**Khabaz**	**67.64**	**310**	P	**P**	**11 25 59.5**	**+0.1**
	comp=Z,2.2nm,0.7s,baz=94,slow=9.6,SNR=6.8						
KBZ				LR	LR	11 59 38.5	
	comp=Z,86nm,19.2s,baz=54,slow=40						
	comp=Z,2.2nm,0.7s						
ILAR	**Eielson Array**	**71.09**	**27**	P	**P**	**11 26 21.6**	**+1.2**
	comp=Z,0.6nm,0.9s,baz=291,slow=6.4,SNR=5.7						
ILAR				LR	LR	11 58 55.3	
	comp=Z,39nm,18.0s,baz=272,slow=37						
	comp=Z,0.6nm,0.9s						
ILAR	**Eielson Array**	**71.09**	**27**	P	**P**	**11 26 21.1**	**+0.8**
SPITS	**Spitsbergen Ar**	**72.08**	**348**	LR	LR	12 03 06.9	
	comp=Z,61nm,19.0s,baz=54,slow=40						
ARCES	**ARCESS Array B**	**72.14**	**338**	P	**P**	**11 26 27.5**	**+0.9**
	comp=Z,6.1nm,1.1s,baz=46,slow=7.1,SNR=2.3						
ARCES				LR	LR	12 04 16.9	
	comp=Z,58nm,19.1s,baz=60,slow=41						
	comp=Z,6.1nm,1.1s						
AFI	**Afiamalu**	**73.95**	**112**	LR	LR	11 53 50.6	
	comp=Z,64nm,20.4s,baz=284,slow=32						
FINES	**FINESS Array B**	**73.98**	**330**	P	**P**	**11 26 37.0**	**-0.6**
	comp=Z,3.2nm,0.8s,baz=30,slow=4.6,SNR=7.3						
FINES				LR	LR	12 02 49.4	
	comp=Z,114nm,18.8s,baz=72,slow=39						
	comp=Z,3.2nm,0.8s						
FINES	**FINESS Array B**	**73.98**	**330**	P	**P**	**11 26 37.3**	**-0.3**
ASF	**Jabal al Asfar**	**74.82**	**299**	LR	LR	12 05 22.8	
	comp=Z,54nm,18.9s,baz=94,slow=40						
AKASG	**Malin Array Be**	**75.24**	**319**	P	**P**	**11 26 45.1**	**0.0**
	comp=Z,0.3nm,0.3s,baz=63,slow=6.0,SNR=4.8						
	comp=Z,0.3nm,0.3s						
INK	**Inuvik**	**75.25**	**22**	LR	LR	12 02 20.9	
	comp=Z,51nm,19.2s,baz=22,slow=38						
BRTR	**Keskin Array B**	**75.27**	**307**	P	**P**	**11 26 46.0**	**+0.3**
	comp=Z,0.8nm,0.6s,baz=85,slow=5.2,SNR=3.6						
	comp=Z,0.8nm,0.6s						
BRTR	**Keskin Array B**	**75.27**	**307**	P	**P**	**11 26 45.5**	**-0.3**
MMAI	**Mount Meron Ar**	**75.79**	**300**	LR	LR	12 05 32.4	
	comp=Z,73nm,19.5s,baz=64,slow=40						
EIL	**Elat**	**77.15**	**297**	LR	LR	12 03 47.0	
	comp=Z,62nm,20.5s,baz=96,slow=38						
HFS	**Hagfors**	**80.11**	**331**	LR	LR	12 06 57.5	
	comp=Z,184nm,18.8s,baz=64,slow=39						
DLBC	**Dease Lake**	**80.71**	**30**	LR	LR	12 04 36.1	
	comp=Z,30nm,18.4s,baz=254,slow=37						
NOA	**NORSAR Array B**	**80.79**	**333**	P	**P**	**11 27 16.3**	**+0.5**
	comp=Z,0.9nm,0.7s,baz=63,slow=5.3,SNR=2.5						
NOA				LR	LR	12 07 19.5	
	comp=Z,148nm,18.8s,baz=270,slow=39						
	comp=Z,0.9nm,0.7s						
VYHS	**Vyhne**	**82.34**	**319**	*e*P	P	11 27 33.3	+9.0
CLL	**Collm**	**84.50**	**323**	*e*(sP)	sP	11 27 43.0	+2.6
	comp=Z,7.0nm,1.0s						
YKA	**Yellowknife Ar**	**84.97**	**23**	P	**P**	**11 27 37.9**	**+0.4**
	comp=Z,1.0nm,0.9s,baz=312,slow=4.3,SNR=6.2						
	comp=Z,1.0nm,0.9s						
YKA	**Yellowknife Ar**	**84.97**	**23**	P	**P**	**11 27 36.9**	**-0.5**
GERES	**GERESS Array B**	**85.25**	**321**	P	**P**	**11 27 40.4**	**+1.1**
	comp=Z,0.3nm,0.3s,baz=70,slow=1.6,SNR=4.6						
	comp=Z,0.3nm,0.3s						
GERES	**GERESS Array B**	**85.25**	**321**	P	**P**	**11 27 38.6**	**-0.6**
DAVOX	**Davos/Dischmat**	**88.51**	**320**	LR	LR	12 09 38.6	
	comp=Z,140nm,18.6s,baz=78,slow=37						
BORG	**Borgarnes**	**89.33**	**345**	LR	LR	12 10 54.8	
	comp=Z,105nm,19.7s,baz=72,slow=37						
EKA	**Eskdalemuir Ar**	**90.27**	**332**	LR	LR	12 13 23.6	
	comp=Z,370nm,18.0s,baz=8.5,slow=39						
MBAR	**Mbarara**	**91.40**	**270**	LR	LR	12 09 11.9	
	comp=Z,37nm,21.2s,baz=104,slow=36						
FRB	**Frobisher Bay**	**94.46**	**5**	LR	LR	12 14 41.5	
	comp=Z,38nm,18.4s,baz=60,slow=38						
MAW	**Mawson**	**99.00**	**199**	LR	LR	12 10 08.9	
	comp=Z,45nm,18.6s,baz=42,slow=34						

*IDC **13** 11:20:35.8±1.2, 53.39N×160.64W, h0km, mb3.8/7, mbtmp3.7/10, ML3.5/3, MS3.7/3, Error ellipse: s-maj=27.3km s-min=16.8km az=161.0*
*NEIC **13** 11:20:35.7±1.5, 53.35N±0.07×160.48W±0.08, h10km±1km, mb3.9/25, ML3.5/18, ML3.3(AEIC), Error ellipse: s-maj=12.1km s-min=6.7km az=153.0*
*AEIC **13** 11:20:38.5±1.8, 53.46N±0.07×160.62W±0.08, h27km±4km, Error ellipse: s-maj=11.1km s-min=5.4km az=151.0*

ISC 13 11:20:36.3±3.1, 53.43N±0.07×160.46W±0.05, h13km±19km, n126, σ1s13/134, mb4.0/9, MS3.8/3, South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**1.48**	**20**		**Pn**	**11 21 03.3**	**+0.6**
CNBA					**Sb**	**11 21 22.4**	**+0.1**
CHNA	**Chernabura Isl**	**1.49**	**20**	P	**Pb**	**11 21 03.5**	**-0.3**
DOL	**Dolgoi Island**	**1.91**	**335**		**Pn**	**11 21 08.5**	**0.0**
DOL					**Sn**	**11 21 31.9**	**-0.4**
SDPT	**Sand Point**	**1.92**	**360**	P	**Pn**	**11 21 09.7**	**+1.0**
SDPT	**Sand Point**	**1.92**	**360**	S	**Sn**	**11 21 33.2**	**+0.6**
SDPT	**Sand Point**	**1.92**	**360**		**Pb**	**11 21 11.0**	**-0.2**
SDPT					**Sn**	**11 21 32.6**	**-0.1**
DT1	**Dutton Round H**	**1.99**	**328**		**Pn**	**11 21 09.6**	**0.0**
DT1					**Sn**	**11 21 33.5**	**-0.9**
DTNA	**Dutton South F**	**2.02**	**329**		**Pn**	**11 21 10.1**	**+0.1**
DTNA					**Pb**	**11 21 10.4**	**-2.4**
DTNA					**Sn**	**11 21 34.7**	**-0.3**
PS4A	**Pavlof South-4**	**2.08**	**337**		**Pn**	**11 21 11.3**	**+0.4**
PS4A					**Sn**	**11 21 37.7**	**+1.0**
PS1A	**Pavlof South-1**	**2.13**	**340**		**Pn**	**11 21 12.2**	**+0.7**
ISLZ	**Isanotski Laza**	**2.31**	**305**		**Pn**	**11 21 13.8**	**-0.3**
ISLZ					**Sn**	**11 21 40.5**	**-2.0**
ISNN	**Isanotski Nort**	**2.41**	**307**		**Pn**	**11 21 15.8**	**+0.4**
ISNN					**Sn**	**11 21 44.4**	**-0.3**
SSLS	**Shishaldin Sou**	**2.45**	**303**		**Pn**	**11 21 16.3**	**+0.3**
S12K	**Black Hills**	**2.46**	**338**	Pn	**Pn**	**11 21 17.4**	**+1.3**
S12K	**Black Hills**	**2.46**	**338**		**Sn**	**11 21 46.8**	**+0.8**
SSLN	**Shishaldin Nor**	**2.50**	**305**		**Pn**	**11 21 17.2**	**+0.5**
SSBA	**Shishaldin**	**2.54**	**303**		**Pn**	**11 21 17.4**	**+0.1**
VNKR	**Veniaminof 5**	**2.68**	**13**		**Pn**	**11 21 20.4**	**+1.3**
WESN	**West Dahl Nort**	**2.69**	**297**		**Pn**	**11 21 19.3**	**0.0**
WESN					Pb	11 21 19.5	-4.7
WESN					**Sn**	**11 21 49.7**	**-1.9**
WTUG	**Tugumak**	**2.71**	**303**		**Pn**	**11 21 19.7**	**+0.1**
WTUG					Pb	11 21 20.0	-4.6
WECS	**Westdahl Cape**	**2.78**	**295**	Pn	**Pn**	**11 21 20.3**	**-0.2**
WECS				IAML		11 21 59.5	
	comp=E,280nm,0.6s						
VNHG	**Veniaminof 1**	**2.89**	**14**		**Pn**	**11 21 23.7**	**+1.6**
VNFG	**Fog Glacier, M**	**2.91**	**10**	Pn	**Pn**	**11 21 24.3**	**+2.0**
CHGN	**Chignik**	**3.11**	**22**	Pn	**Pn**	**11 21 26.1**	**+1.1**
CHGN				IAML		11 22 06.6	
	comp=N,117nm,0.3s						
AKUT	**Akutan**	**3.23**	**285**	P	**Pn**	**11 21 26.8**	**+0.2**
AKUT	**Akutan**	**3.23**	**285**	Pn	**Pn**	**11 21 27.5**	**+0.9**
AKUT				IAML		11 22 05.0	
	comp=E,119nm,1.1s						
AKUT				IAML		11 22 05.8	
	comp=N,113nm,0.6s						
ZRO	**Akutan Zero**	**3.34**	**284**		**Pn**	**11 21 28.0**	**-0.2**
ZRO					**Sn**	**11 22 05.6**	**-2.2**
UNV	**Unalaska Valle**	**3.62**	**279**	P	**Pn**	**11 21 32.2**	**+0.2**
UNV	**Unalaska Valle**	**3.62**	**279**	S	**Sn**	**11 22 15.0**	**+0.4**
UNV	**Unalaska Valle**	**3.62**	**279**	Pn	**Pn**	**11 21 32.1**	**+0.1**
UNV				IAML		11 22 14.8	
	comp=E,59nm,0.5s						
UNV				IAML		11 22 15.1	
	comp=N,65nm,0.5s						
CHIR	**Chirikof Islan**	**3.69**	**48**		**Pn**	**11 21 33.1**	**+0.1**
CHIR	**Chirikof Islan**	**3.69**	**48**	IAML		11 22 12.6	
	comp=E,93nm,1.0s						
CHIR				IAML		11 22 48.4	
	comp=N,67nm,1.1s						
MNAT	**Makushin Natee**	**3.73**	**279**		**Pn**	**11 21 33.3**	**-0.3**
MGOD	**Makushin Gods**	**3.84**	**278**		**Pn**	**11 21 35.1**	**0.0**
OKTU	**Okmok Mt. Tuli**	**4.54**	**272**		**Pn**	**11 21 44.8**	**+0.1**
OKNC	**Okmok New Cone**	**4.58**	**273**	Pn	**Pn**	**11 21 46.3**	**+1.0**
OKNC				IAML		11 22 55.9	
	comp=E,28nm,1.2s						
OKNC				IAML		11 23 02.8	
	comp=N,60nm,1.1s						
R17L	**Mt. Peulik Vol**	**4.81**	**27**		**Pn**	**11 21 50.2**	**+1.9**
Q17K	**Contact Creek**	**5.48**	**26**		**Pn**	**11 21 59.0**	**+1.3**
ANCK	**Angle Creek**	**5.54**	**28**		**Pn**	**11 21 59.6**	**+1.2**

ACHA	**Angle Creek He**	**5.59**	**29**		**Pn**	**11 22 00.1**	**+0.9**
O15K	**Ungalikthiuk R**	**5.77**	**3**	Pn	**Pn**	**11 22 02.6**	**+1.1**
O14K	**Tigyukauivet M**	**5.85**	**356**	Pn	**Pn**	**11 22 04.4**	**+1.7**
KDAK	**Kodiak Island**	**6.24**	**43**	Pn	**Pn**	**11 22 07.8**	**-0.1**
	comp=N,0.8nm,0.3s,baz=180,slow=0.5,SNR=16						
KDAK				Sn	**Sn**	**11 23 16.1**	**-2.8**
	comp=N,0.8nm,0.3s,baz=29,slow=15,SNR=4.0						
	comp=N,4.3nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**6.24**	**43**	Pn	**Pn**	**11 22 08.0**	**+0.1**
O16K	**Kokwok River B**	**6.31**	**11**	Pn	**Pn**	**11 22 10.2**	**+1.2**
N14K	**Kuskokwak Cree**	**6.54**	**355**	Pn	**Pn**	**11 22 13.7**	**+1.6**
N15K	**Kwethluk River**	**6.76**	**2**	Pn	**Pn**	**11 22 16.7**	**+1.6**
N17K	**Nushagak Hills**	**7.33**	**13**	Pn	**Pn**	**11 22 24.6**	**+1.7**
M16K	**Timber Creek**	**7.65**	**5**	Pn	**Pn**	**11 22 28.4**	**+1.1**
N18K	**Kilae Creek**	**7.68**	**17**	Pn	**Pn**	**11 22 28.5**	**+0.8**
L14K	**Kuka Creek**	**8.02**	**352**	Pn	**Pn**	**11 22 33.5**	**+1.2**
N19K	**Bonanza Creek**	**8.08**	**21**	Pn	**Pn**	**11 22 35.0**	**+1.7**
BRLK	**Bradley Lake**	**8.25**	**36**	Pn	**Pn**	**11 22 34.2**	**-1.3**
ATKA	**Atka Island**	**8.41**	**267**	P	**Pn**	**11 22 39.3**	**+1.5**
K13K	**Kusilvak Mount**	**8.81**	**347**	Pn	**Pn**	**11 22 44.4**	**+1.2**
K15K	**Wolf Creek Mou**	**8.90**	**357**	Pn	**Pn**	**11 22 45.9**	**+1.4**
SEW	**Seward**	**9.00**	**38**	Pn	**Pn**	**11 22 46.5**	**+0.7**
SLKM	**Skilak Lake**	**9.02**	**34**	Pn	**Pn**	**11 22 47.5**	**+1.4**
L18K	**Granite Mounta**	**9.04**	**11**	Pn	**Pn**	**11 22 47.8**	**+1.6**
L19K	**White Mountain**	**9.26**	**17**	Pn	**Pn**	**11 22 51.1**	**+1.6**
M20K	**Styx River**	**9.33**	**22**	Pn	**Pn**	**11 22 52.2**	**+1.7**
RC01	**Rabbit Creek A**	**9.61**	**33**	Pn	**Pn**	**11 22 54.4**	**+0.2**
SKT	**Skwentna**	**9.80**	**25**	Pn	**Pn**	**11 22 57.6**	**+0.8**
PWL	**Port Wells**	**9.93**	**37**	Pn	**Pn**	**11 22 59.1**	**+0.6**
ADK	**Adak**	**9.98**	**268**	P	**Pn**	**11 23 00.7**	**+1.4**
ADK	**Adak**	**9.98**	**268**	S	**Sn**	**11 24 52.3**	**+1.3**
PMR	**Palmer**	**10.18**	**32**	P	**Pn**	**11 23 04.5**	**+2.5**
KNK	**Knik Glacier**	**10.27**	**34**	Pn	**Pn**	**11 23 02.4**	**-0.8**
HIN	**Hinchinbrook I**	**10.32**	**42**	Pn	**Pn**	**11 23 04.0**	**+0.1**
GHO	**Glory Hole Cre**	**10.38**	**32**	Pn	**Pn**	**11 23 05.1**	**+0.3**
K20K	**Telida**	**10.49**	**16**	Pn	**Pn**	**11 23 07.7**	**+1.4**
FID	**Port Fidalgo**	**10.55**	**40**	Pn	**Pn**	**11 23 06.2**	**-0.8**
EYAK	**Cordova Ski Ar**	**10.71**	**42**	P	**Pn**	**11 23 10.2**	**+1.0**
EYAK	**Cordova Ski Ar**	**10.71**	**42**	Pn	**Pn**	**11 23 09.0**	**-0.3**
J19K	**Poorman**	**10.88**	**11**	Pn	**Pn**	**11 23 12.6**	**+1.0**
CAST	**Castle Rocks**	**10.92**	**20**	Pn	**Pn**	**11 23 13.2**	**+1.1**
SCM	**Sheep Creek Mo**	**10.95**	**35**	Pn	**Pn**	**11 23 13.4**	**+0.8**
KLU	**Klutina**	**11.22**	**38**	Pn	**Pn**	**11 23 16.4**	**+0.2**
TRF	**Thorofare Moun**	**11.35**	**24**	Pn	**Pn**	**11 23 17.7**	**-0.4**
GRNC	**Granite Creek**	**12.49**	**47**	Pn	**Pn**	**11 23 35.1**	**+1.3**
ILAR	**Eielson Array**	**13.29**	**26**	Pn	**Pn**	**11 23 42.0**	**-2.4**
	comp=N,0.1nm,0.3s,baz=216,slow=14,SNR=9.4						
	comp=N,0.4nm,0.6s						
ILAR				AML	AML		
M29M	**Somme Creek**	**14.69**	**43**		**Pn**	**11 24 04.7**	**+1.1**
L29M	**L29M**	**15.14**	**41**		**Pn**	**11 24 10.3**	**+0.7**
I27K	**Kandik River**	**15.41**	**30**		**Pn**	**11 24 13.3**	**+0.1**
I27K				IAmb	IAmb	11 24 24.0	
	comp=Z,5.3nm,0.8s						
M30M	**Minto, Yukon**	**15.44**	**44**	Pn	**Pn**	**11

EDFI	**Ende, Flores**	**3.34**	**60**	P	**Pn**	**11 43 13.9**	**+0.6**
EDFI				AML	AML		
BKSI	**Bulukumba**	**5.24**	**15**	P	**Pn**	**11 43 39.1**	**-0.3**
	0.3nm866nm33nm,0.4s						
BKSI				AML	AML		
KAPI	**Kappang**	**5.46**	**11**	Pn	**Pn**	**11 43 42.4**	**0.0**
	2.5nm,0.3s,baz=65,slow=14,SNR=2.0						
KAPI				Sn	Sn	11 44 37.4	-7.9
	3.0nm,0.3s,baz=76,slow=23,SNR=9.7						
	8.0nm,0.3s						
KAPI				AML	AML		
MMSI	**Mamuju**	**7.68**	**1**	P	**Pn**	**11 44 13.8**	**+0.9**
FITZ	**Fitzroy Crossi**	**10.14**	**140**	Pn	Pn	11 44 51.2	+4.6
	0.4nm,0.3s,baz=327,slow=12,SNR=12						
FITZ				Sn	Sn	11 46 39.7	-0.8
	0.4nm,0.3s,baz=1.9,slow=19,SNR=7.0						
	1.3nm,0.4s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**17.76**	**124**	P	P	11 46 32.9	+3.6
	0.1nm,0.3s,baz=296,slow=13,SNR=3.1						
	0.4nm,0.9s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.55**	**134**	P	Pn	11 46 54.5	+4.2
	0.1nm,0.3s,baz=307,slow=11,SNR=9.2						
	0.3nm,0.5s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**65.61**	**333**	P	P	11 53 04.0	-1.1
	0.5nm,0.6s,baz=156,slow=7.3,SNR=5.5						
	0.5nm,0.6s						
KURBB	**Kurchatov Arra**	**70.13**	**334**	P	P	11 53 32.0	-1.4
	0.2nm,0.3s,baz=144,slow=5.5,SNR=1.7						
	0.2nm,0.3s						

NOU 13 11:51:42.9, 15.88S×167.14E, h42km, MLv4.4/13, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.43**	**8**	P	Pn	11 51 54.3	+1.4
DVP	**Devils Point**	**2.09**	**151**	P	Pn	11 52 16.2	+0.7
DVP	**Devils Point**	**2.09**	**151**	S	Sn	11 52 41.2	+0.9
RTV	**Rentapao**	**2.27**	**147**	P	Pn	11 52 19.0	+1.1
RTV	**Rentapao**	**2.27**	**147**	S	Sn	11 52 45.5	+0.9
YATNC	**Mamie plateau,**	**6.15**	**182**	P	Pn	11 53 10.1	-1.2

*SJA **13** 12:07:30.8±0.7, 20.23S×70.96W, h27km±3km, ML3.6, MW3.9*
*GUC **13** 12:07:33.5±0.5, 20.24S×70.94W, h33km±2km, ML3.6, Presumed earthquake*
*IDC **13** 12:07:43.9±4.9, 20.37S×69.91W, h84km±38km, mb3.5/2, mbtmp3.6/4, MS2.7/1, Error ellipse: s-maj=73.0km s-min=42.3km az=110.0*

ISC 13 12:07:34.8±1.4, 20.23S±0.02×70.81W±0.06, h25km±11km, n38, σ2$15/53, 6C-4D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TA02	**Huaiquique**	**0.64**	**94**	*e*P	**Pb**	**12 07 45.4**	**-1.9**
TA02				IAML		12 07 57.0	
	comp=Z,4μm,0.4s						
TA02	**Huaiquique**	**0.64**	**94**	⇓*i*P	**Pb**	**12 07 46.6**	**-0.7**
TA02				*i* S	**Sb**	**12 07 56.7**	**+0.8**
TA02				IAML		12 07 56.9	
	comp=E,8μm,0.2s						
TA01	**Diego Aracena**	**0.68**	**119**	*e*P	Pb	12 07 41.9	-6.0
TA01				*e*P	**Pn**	**12 07 47.4**	**-1.4**
TA01				IAML		12 07 59.0	
	comp=Z,3μm,0.3s						
TA01	**Diego Aracena**	**0.68**	**119**	⇓*i*P	**Pb**	**12 07 47.2**	**-0.7**
TA01				*i* S	**Sb**	**12 07 58.1**	**+1.1**
TA01				IAML		12 07 59.4	
	comp=E,4μm,0.3s						
PSGCX	**Pisagua**	**0.90**	**46**	*e*P	**Pb**	**12 07 50.2**	**-1.6**
PSGCX				*e*S	**Sb**	**12 08 04.7**	**+1.2**
PSGCX				IAML		12 08 07.5	
	comp=Z,619nm,0.7s						
PSGCX	**Pisagua**	**0.90**	**46**	⇓*i*P	**Pb**	**12 07 50.2**	**-1.6**
PSGCX				*i* S	**Sb**	**12 08 03.4**	**-0.1**
PB11	**IPOC Station P**	**1.18**	**67**	*e*P	**Pn**	**12 07 55.2**	**-0.7**
PB11				*e*S	**Sn**	**12 08 15.9**	**+4.6**
PB11				IAML		12 08 18.6	
	comp=Z,737nm,0.7s						
PB11	**IPOC Station P**	**1.18**	**67**	⇓*i*P	**Pn**	**12 07 55.1**	**-0.8**
PB11				*i* S	**Sb**	**12 08 11.9**	**+0.3**
PB11				IAML		12 08 16.8	
	comp=N,1μm,0.4s						
PB02	**IPOC Station P**	**1.38**	**142**	*e*P	**Pn**	**12 07 58.2**	**-0.4**
PB02				*e*S	**Sb**	**12 08 17.8**	**+0.5**
PB02				IAML		12 08 22.1	
	comp=Z,2μm,0.4s						
PB02	**IPOC Station P**	**1.38**	**142**	⇑*i*P	**Pn**	**12 07 58.2**	**-0.4**
PB02				*i* S	**Sn**	**12 08 16.1**	**0.0**
PB02				IAML		12 08 22.6	
	comp=E,2μm,0.3s						
PB08	**IPOC Station P**	**1.56**	**87**	*e*P	**Pn**	**12 08 01.4**	**+0.1**
PB08				*e*S	**Sb**	**12 08 23.9**	**+1.2**
PB08				IAML		12 08 27.6	
	comp=Z,424nm,0.4s						
PB08	**IPOC Station P**	**1.56**	**87**	⇑*i*P	**Pn**	**12 08 01.4**	**+0.1**
PB08				*i* S	**Sn**	**12 08 22.5**	**+1.6**
PB08				IAML		12 08 26.4	
	comp=N,524nm,0.7s						
GO01	**Chusmiza**	**1.62**	**70**	*e*P	**Pn**	**12 08 02.5**	**+0.3**
GO01				*e*S	**Sb**	**12 08 25.1**	**+0.6**
GO01				IAML		12 08 25.4	
	comp=Z,865nm,0.3s						
GO01	**Chusmiza**	**1.62**	**70**	⇑*i*P	**Pn**	**12 08 02.2**	**0.0**
GO01				*i* S	**Sb**	**12 08 25.1**	**+0.6**
GO01				IAML		12 08 27.2	
	comp=N,2μm,0.1s						
PB12	**IPOC Station P**	**1.67**	**16**	*e*P	**Pn**	**12 08 01.3**	**-1.3**
PB12				*e*S	**Sb**	**12 08 32.8**	**+7.2**
PB12				IAML		12 08 34.5	
	comp=Z,246nm,0.7s						
PB12	**IPOC Station P**	**1.67**	**16**	*e*P	**Pn**	**12 08 01.1**	**-1.5**
PB12				*i* S	**Sb**	**12 08 24.7**	**-0.9**
PB12				IAML		12 08 35.4	
	comp=E,498nm,0.5s						
PB07	**IPOC Station P**	**1.72**	**150**	*e*P	**Pn**	**12 08 02.5**	**-0.8**
PB07				*e*S	**Sb**	**12 08 28.9**	**+1.9**
PB07				IAML		12 08 32.3	
	comp=Z,342nm,0.9s						
AP01	**Chacalluta**	**1.90**	**14**	*e*P	**Pb**	**12 08 07.9**	**-0.9**
AP01				*e*S	**Sb**	**12 08 36.8**	**+4.7**
AP01				IAML		12 08 44.6	
	comp=Z,542nm,1.2s						
AP01	**Chacalluta**	**1.90**	**14**	IAML		12 08 42.6	
	comp=N,1μm,0.8s						
PB03	**IPOC Station P**	**2.06**	**152**	*e*P	**Pn**	**12 08 07.4**	**-0.6**
PB03				*e*S	**Sb**	**12 08 45.1**	**+8.2**
PB03				IAML		12 08 49.1	
	comp=Z,345nm,0.5s						
PB03	**IPOC Station P**	**2.06**	**152**	⇑*i*P	**Pn**	**12 08 07.3**	**-0.6**
PB03				IAML		12 08 46.9	
	comp=E,324nm,0.3s						
PB09	**IPOC Station P**	**2.14**	**137**	*e*P	**Pn**	**12 08 10.0**	**+1.0**
PB09				*e*S	**Sb**	**12 08 38.8**	**-0.3**
PB09				IAML		12 08 48.4	
	comp=Z,582nm,0.6s						
PB09	**IPOC Station P**	**2.14**	**137**	IAML		12 08 49.8	
	comp=E,744nm,0.5s						
PB16	**IPOC Station P**	**2.25**	**33**	*e*P	**Pn**	**12 08 10.6**	**-0.4**
PB16				*e*S	**Sn**	**12 08 38.2**	**-0.1**
PB16				IAML		12 08 53.0	
	comp=Z,291nm,0.6s						
PB16	**IPOC Station P**	**2.25**	**33**	IAML		12 08 50.6	
	comp=E,264nm,0.6s						
PB05	**IPOC Station P**	**2.67**	**168**	*e*P	**Pn**	**12 08 14.8**	**-1.5**
PB05				*e*S	**Sb**	**12 08 54.5**	**+0.1**
PB05				IAML		12 09 12.6	
	comp=Z,124nm,0.5s						
PB05	**IPOC Station P**	**2.67**	**168**	⇑*i*P	**Pn**	**12 08 14.6**	**-1.8**
PB05				IAML		12 09 08.0	
	comp=N,208nm,0.3s						
PB06	**IPOC Station P**	**2.72**	**155**	*e*P	**Pn**	**12 08 16.1**	**-0.9**
PB06				*e*S	**Sn**	**12 08 51.9**	**+2.6**
PB06				IAML		12 09 05.8	
	comp=Z,214nm,0.7s						
PB06	**IPOC Station P**	**2.72**	**155**	⇑*i*P	**Pn**	**12 08 16.0**	**-1.0**
PB06				*i* S	**Sn**	**12 08 47.8**	**-1.5**
PB06				IAML		12 09 05.0	
	comp=N,261nm,0.7s						
PB18	**Visviri**	**2.92**	**26**	IAML		12 09 20.0	
	comp=E,348nm,0.6s						
PB10	**IPOC Station P**	**3.27**	**176**	*e*P	**Pn**	**12 08 22.7**	**-1.9**
LPAZ	**La Paz**	**4.68**	**33**	P	Pn	12 08 48.9	+4.5
	comp=E,1.5nm,0.3s,baz=218,slow=10,SNR=12						
LPAZ				LR	LR	12 11 00.8	
	comp=E,90nm,20.9s,baz=230,slow=45						
SIV	**San Ignacio**	**10.17**	**67**	P	**Pn**	**12 09 57.4**	**-2.0**
	comp=E,0.8nm,0.4s,baz=259,slow=13,SNR=7.7						
H03N1	**Juan Fernandez**	**15.00**	**207**	T	T	12 26 22.7	
	baz=33,slow=74,SNR=32						
H03N2	**Juan Fernandez**	**15.01**	**207**	T	T	12 26 23.3	
	baz=228,slow=74,SNR=38						
QSPA	**South Pole Qui**	**69.95**	**180**	P	**P**	**12 18 45.3**	**+1.4**
	comp=E,0.9nm,1.0s,baz=244,slow=5.1,SNR=2.5						
	comp=E,0.9nm,1.0s						
TORD	**Torodi Ar. Bea**	**78.62**	**71**	P	**P**	**12 19 32.9**	**-2.1**
	comp=E,0.6nm,0.5s,baz=241,slow=5.4,SNR=4.0						
	comp=E,0.6nm,0.5s						
MKAR	**Makanchi Array**	**145.61**	**33**	PKPbc	**PKPbc**	**12 27 10.9**	**-0.3**
	comp=E,0.9nm,0.7s,baz=326,slow=2.5,SNR=6.1						

*IDC **13** 12:41:06.4±0.9, 25.51N×142.87E, h0km, mb3.8/10, mbtmp3.8/10, MS2.8/7, Error ellipse: s-maj=38.2km s-min=15.9km az=78.0*
*NEIC **13** 12:41:06.5±0.7, 25.3N±0.1×142.6E±0.2, h10km±1km, mb4.3/8, Error ellipse: s-maj=32.6km s-min=17.0km az=81.0*
*NIED **13** 12:41:07.2, 25.19N×142.52E, h127km, MW4.8, Moment Tensor Solution. s1 Moment tensor: Scale 1016Nm; Mrr0.95; Mθθ0.57; Mφφ-1.52; Mrθ0.62; Mθφ-0.09; Mφr-0.38; Fault plane solution: M0 1.52000×10 16 NP1 φ 34.00000°, δ 47.00000°, λ 141.00000°. NP2 φ 152.00000°, δ 62.00000°, λ 50.00000°.*

ISC 13 12:41:10.9±0.7, 25.36N±0.09×142.7E±0.2, h38km, n43, σ1$67/31, mb4.1/14, MS2.9/4, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**1.77**	**347**	Pn	**Pn**	**12 41 36.1**	**-3.0**
	99nm,0.3s,baz=125,slow=17,SNR=59						
JCJ				Sn	**Sn**	**12 42 02.2**	**+1.8**
	125nm,0.3s,baz=123,slow=23,SNR=18						
JCJ	**Chichijima**	**1.77**	**347**	Pn	**Pn**	**12 41 39.4**	**+0.3**
MJAR	**Matsushiro Arr**	**11.77**	**342**	LR	LR	12 48 18.2	
	comp=Z,56nm,21.4s,baz=178,slow=37						
GUMO	**Guam**	**11.90**	**169**	LR	LR	12 47 38.8	
	comp=Z,26nm,21.8s,baz=24,slow=33						
KSRS	**Korea Array**	**17.39**	**317**	LR	LR	12 51 02.1	
	comp=Z,20nm,20.7s,baz=45,slow=34						
USRK	**Ussuriysk Ar.**	**20.70**	**338**	LR	LR	12 53 41.1	
	comp=Z,37nm,18.9s,baz=171,slow=37						
H11N1	**WAKE ISLAND Hy**	**23.07**	**99**	T	T	13 10 07.7	
	baz=284,slow=74,SNR=4.8						
H11N2	**WAKE ISLAND Hy**	**23.07**	**99**	T	T	13 10 09.0	
	baz=284						
H11N3	**WAKE ISLAND Hy**	**23.09**	**99**	T	T	13 10 07.1	
	baz=284,slow=74,SNR=4.9						
H11S3	**WAKE ISLAND Hy**	**23.30**	**102**	T	T	13 10 15.3	
	baz=292,slow=74,SNR=5.2						
H11S1	**WAKE ISLAND Hy**	**23.31**	**102**	T	T	13 10 19.5	
	baz=292,slow=74,SNR=5.4						
H11S2	**WAKE ISLAND Hy**	**23.32**	**102**	T	T	13 10 16.4	
	baz=292,slow=74,SNR=3.9						
KLR	**Kul'dur**	**25.30**	**343**	LR	LR	12 55 25.8	
	comp=Z,37nm,18.5s,baz=194,slow=34						
KAPI	**Kappang**	**37.50**	**220**	LR	LR	13 06 01.3	
	comp=Z,14nm,18.1s,baz=339,slow=40						
WR8	**Warramunga Arr**	**45.74**	**191**	P	**P**	**12 49 26.6**	**-2.0**
WRAB	**Tennant Creek**	**45.74**	**191**	P	**P**	**12 49 26.5**	**-2.2**
WRAB				IAmb	IAmb	12 49 37.6	
	comp=Z,3.0nm,0.7s						
WRA	**Warramunga Arr**	**45.75**	**191**	P	**P**	**12 49 31.1**	**+2.3**
	comp=Z,1.1nm,0.4s,baz=8.0,slow=8.6,SNR=18						
	comp=Z,1.1nm,0.4s						
WRA	**Warramunga Arr**	**45.75**	**191**	P	**P**	**12 49 26.2**	**-2.5**
TIXI	**Tiksi**	**46.97**	**354**	LR	LR	13 13 24.3	
	comp=Z,14nm,18.6s,baz=106,slow=41						
AS31	**Alice Springs**	**49.47**	**191**	P	**P**	**12 49 55.3**	**-2.3**
ASAR	**Alice Springs**	**49.47**	**191**	P	**P**	**12 50 00.3**	**+2.7**
	comp=Z,0.2nm,0.5s,baz=17,slow=14,SNR=10						
	comp=Z,0.2nm,0.5s						
ASAR	**Alice Springs**	**49.47**	**191**	P	**P**	**12 49 55.7**	**-1.9**
ZALV	**Zalesovo Beam**	**51.07**	**320**	P	**P**	**12 50 09.4**	**+0.1**
	comp=Z,0.3nm,0.4s,baz=87,slow=6.2,SNR=3.5						
	comp=Z,0.3nm,0.4s						
ZALV	**Zalesovo Beam**	**51.07**	**320**	P	**P**	**12 50 08.8**	**-0.6**
MKAR	**Makanchi Array**	**51.90**	**311**	P	**P**	**12 50 16.2**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=83,slow=11,SNR=4.3						
	comp=Z,0.1nm,0.3s						
MKAR	**Makanchi Array**	**51.90**	**311**	P	**P**	**12 50 13.8**	**-1.9**
PDGK	**Podgornoye**	**53.88**	**306**	P	**P**	**12 50 30.0**	**-0.6**
KURK	**Kurchatov**	**54.50**	**315**	P	**P**	**12 50 35.9**	**+1.2**
KURK				IAmb	IAmb	12 50 43.6	
	comp=Z,3.0nm,1.1s						
KURBB	**Kurchatov Arra**	**54.55**	**315**	P	**P**	**12 50 35.5**	**+0.4**
	comp=Z,0.7nm,0.4s,baz=91,slow=7.9,SNR=10						
	comp=Z,0.7nm,0.4s						
STKA	**Stephens Creek**	**56.93**	**181**	P	**P**	**12 50 53.8**	**+1.5**
	comp=Z,1.4nm,0.6s,baz=346,slow=5.9,SNR=3.8						
	comp=Z,1.4nm,0.6s						
ILAR	**Eielson Array**	**59.03**	**28**	P	**P**	**12 51 05.2**	**-1.5**
	comp=Z,0.3nm,0.6s,baz=269,slow=6.3,SNR=4.8						
	comp=Z,0.3nm,0.6s						
BVAR	**Borovoye Array**	**59.60**	**318**	P	**P**	**12 51 12.0**	**+1.2**
	comp=Z,1.4nm,0.5s,baz=83,slow=7.4,SNR=8.3						
	comp=Z,1.4nm,0.5s						
BMAR	**Burnt Mountain**	**60.24**	**25**	P	**P**	**12 51 14.5**	**-0.5**
KK31	**Karatay Array**	**60.44**	**307**	P	**P**	**12 51 15.3**	**-1.5**
KK31				IAmb	IAmb	12 51 24.0	
	comp=Z,4.0nm,1.5s						
KKAR	**Karatay Array**	**60.44**	**307**	P	**P**	**12 51 15.1**	**-1.7**
N32M	**Quiet Lake**	**65.40**	**32**	P	**P**	**12 51 49.8**	**+0.3**
AB31	**Akbulak array**	**66.60**	**315**	P	**P**	**12 51 56.6**	**-0.8**
AB31				IAmb	IAmb	12 52 03.5	
	comp=Z,2.8nm,1.3s						
ABKAR	**Akbulak array**	**66.60**	**315**	P	**P**	**12 51 57.0**	**-0.3**
KSXB	**Camp Six Broad**	**75.99**	**50**	P	**P**	**12 52 54.3**	**-0.1**
KBZ	**Khabaz**	**79.49**	**313**	P	**P**	**12 53 16.6**	**+3.0**
	comp=Z,1.5nm,0.8s,baz=113,slow=2.9,SNR=3.7						
	comp=Z,1.5nm,0.8s						
FINES	**FINESS Array B**	**79.68**	**334**	P	**P**	**12 53 15.5**	**+1.2**
	comp=Z,1.8nm,0.5s,baz=63,slow=5.3,SNR=21						
	comp=Z,1.8nm,0.5s						
FINES	**FINESS Array B**	**79.68**	**334**	P	**P**	**12 53 14.2**	**0.0**
LPAZ	**La Paz**	**149.91**	**79**	PKPbc	**PKiKP**	**13 00 59.9**	**+0.3**
	comp=Z,1.1nm,0.5s,baz=343,slow=5.1,SNR=4.7						

IDC 13 13:01:38.0±3.1, 29.35N×141.48E, h0km, mb4.0/5, mbtmp4.0/5, MS3.2/3, Error ellipse: s-maj=151.3km s-min=25.3km az=76.0, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAJ	**Asahikawa**	**14.76**	**3**	LR	LR	13 12 21.8	
	comp=Z,28nm,18.3s,baz=81,slow=44						
SONM	**Songino Array**	**32.68**	**314**	LR	LR	13 23 07.9	
	comp=Z,53nm,18.5s,baz=327,slow=40						
WRA	**Warramunga Arr**	**49.49**	**189**	P	P	13 10 30.3	0.0
	0.2nm,0.3s,baz=1.5,slow=7.2,SNR=2.9						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**51.04**	**313**	P	P	13 10 42.2	+0.3
	1.6nm,0.2s,baz=96,slow=8.0,SNR=1.6						
	1.6nm,0.2s						
ASAR	**Alice Springs**	**53.22**	**189**	P	P	13 10 58.0	-0.2
	0.2nm,0.3s,baz=0.3,slow=7.0,SNR=5.9						
	0.2nm,0.3s						
BVAR	**Borovoye Array**	**55.98**	**316**	P	P	13 11 18.1	0.0
	1.1nm,0.5s,baz=84,slow=7.2,SNR=5.0						
	1.1nm,0.5s						
FINES	**FINESS Array B**	**75.66**	**333**	P	P	13 13 24.5	-0.2
	3.0nm,0.9s,baz=46,slow=5.5,SNR=6.9						
	3.0nm,0.9s						
TXAR	**Lajitas Array**	**94.74**	**53**	LR	LR	13 55 11.1	
	comp=Z,30nm,20.5s,baz=44,slow=34						

WEL 13 13:06:18.1±1.2, 32.S±12×18.0E±2.3, h367km±21km, M4.0/7, mB4.3/4, ML3.9/7, MLv4.2/7, Mw(mB)3.4/4, Error ellipse: s-maj=32.1km s-min=10.9km az=111.2, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**5.52**	**191**	P	Pn	13 07 44.9	+0.9
MXZ				S	S	13 08 54.4	+0.6
WMGZ	**Waiomatatini S**	**5.75**	**190**	P	Pn	13 07 47.0	+0.4
WMGZ				S	S	13 09 00.6	+2.1
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**5.81**	**195**	P	Pn	13 07 47.3	+0.1
HAZ				S	S	13 09 01.2	+1.7
HAZ				AML	AML		
WCZ	**Waipu Caves**	**5.81**	**228**	P	Pn	13 07 47.6	+0.4
WCZ				AML	AML		
PUZ	**Puketiti**	**6.03**	**191**	P	Pn	13 07 50.4	+0.8
PUZ				S	S	13 09 04.0	-0.1
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.03**	**195**	P	Pn	13 07 50.2	+0.4
RUGZ				S	S	13 09 03.6	-0.8
RUGZ				AML	AML		
RUGZ				AML	AML		
MWZ	**Matawai**	**6.42**	**195**	P	Pn	13 07 53.1	-1.0
MWZ				AML	AML		
MWZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.44**	**190**	P	Pn	13 07 54.8	+0.6
CNGZ				AML	AML		
CNGZ				AML	AML		
URZ	**Urewera**	**6.45**	**198**	P	Pn	13 07 54.0	-0.3
URZ				AML	AML		
TKGZ	**Te Karaka**	**6.45**	**193**	P	Pn	13 07 54.0	-0.4
TKGZ				AML	AML		
MUGZ	**Murupara**	**6.74**	**200**	P	Pn	13 07 56.2	-1.6
MUGZ				AML	AML		
KNZ	**Kokohu**	**7.05**	**193**	P	Pn	13 08 01.7	+0.4
ARHZ	**Aropaoanui**	**7.43**	**196**	P	Pn	13 08 05.1	-0.5
ARHZ				S	S	13 09 33.8	+0.4
BKZ	**Black Stump Fm**	**7.46**	**199**	P	Pn	13 08 06.4	+0.2
BKZ				S	S	13 09 35.0	+0.6
PXZ	**Pawanui**	**8.19**	**195**	P	Pn	13 08 13.3	-1.2
TSZ	**Takapari Road**	**8.44**	**200**	P	Pn	13 08 17.8	+0.2
TSZ				S	S	13 09 53.3	-2.1
THZ	**Tophouse**	**11.01**	**207**	P	P	13 08 48.0	+0.1
THZ				S	S	13 10 52.3	+1.6

*IDC **13** 13:20:00.5±1.3, 10.34S×123.27E, h0km, mb3.7/2, mbtmp3.4/5, ML3.2/3, Error ellipse: s-maj=16.5km s-min=14.9km az=70.0*

ISC 13 13:20:00.8±1.3, 10.57S±0.08×123.5E±0.2, h10km, n6, σ1$47/6, Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BATI	**Baumata**	**0.40**	**26**	Pg	**Pg**	**13 20 08.8**	**+0.2**
	355nm,0.3s,baz=222,slow=3.1,SNR=90						
BATI				Lg	Lg	13 20 17.6	
	486nm,0.3s,baz=29,slow=20,SNR=14						
FITZ	**Fitzroy Crossi**	**7.77**	**165**	Pn	**Pn**	**13 21 55.9**	**+1.8**
	0.3nm,0.3s,baz=353,slow=9.2,SNR=5.8						
FITZ				Sn	**Sn**	**13 23 20.7**	**-1.5**
	1.6nm,0.3s,baz=184,slow=18,SNR=14						
	0.5nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.01**	**133**	Pn	Pn	13 23 17.6	-2.0
	0.1nm,0.3s,baz=308,slow=15,SNR=2.7						
WRA				Sn	Sn	13 25 46.3	-9.0
	0.4nm,0.3s,baz=315,slow=22,SNR=10						
	0.3nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**16.38**	**144**	Pn	**Pn**	**13 23 50.2**	**-0.8**
	0.1nm,0.3s,baz=315,slow=11,SNR=6.4						
ASAR				Sn	Sn	13 26 44.2	-8.8
	0.1nm,0.3s,baz=318,slow=23,SNR=6.2						
	0.2nm,0.3s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.92**	**331**	P	**P**	**13 30 59.5**	**-0.3**
	0.3nm,0.6s,baz=134,slow=7.9,SNR=4.9						
	0.3nm,0.6s						
ZALV	**Zalesovo Beam**	**72.13**	**337**	P	**P**	**13 31 24.8**	**-0.6**
	0.5nm,0.6s,baz=150,slow=6.3,SNR=3.5						
	0.5nm,0.6s						

*IDC **13** 13:45:29.9±1.9, 21.48S×66.68W, h214km±18km, mb3.0/2, mbtmp3.8/5, Error ellipse: s-maj=24.5km s-min=19.6km az=92.0*
*SCB **13** 13:45:30.7±1.4, 21.53S×66.75W, h227km±10km, ML4.0/2, Error ellipse: s-maj=5.5km s-min=4.2km az=0.0*
*SJA **13** 13:45:31.4±0.8, 21.42S×66.73W, h218km±7km, ML3.5, MW3.6*

ISC 13 13:45:30.8±0.8, 21.46S±0.05×66.75W±0.04, h226km±7km, n39, σ1$29/55, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MOCB	**Mochara**	**1.06**	**79**	P	**Pn**	**13 46 04.4**	**+0.2**
MOCB				S	**S**	**13 46 30.0**	**-0.1**
YJA	**Yavi**	**1.36**	**122**	*e*P	**Pn**	**13 46 07.0**	**+0.7**
YJA				*e*S	**S**	**13 46 33.3**	**-0.5**
YJA	**Yavi**	**1.36**	**122**	P	**Pn**	**13 46 06.5**	**+0.3**
PB09	**IPOC Station P**	**2.34**	**261**	*e*P	**Pn**	**13 46 16.1**	**+1.2**
PB09				*e*S	**S**	**13 46 51.8**	**+2.5**
PB09	**IPOC Station P**	**2.34**	**261**	P	**Pn**	**13 46 15.3**	**+0.4**
PB08	**IPOC Station P**	**2.60**	**300**	*e*P	**Pn**	**13 46 19.6**	**+1.7**
PB08				*e*S	**S**	**13 46 52.5**	**-2.0**
PB08				IAML		13 46 57.9	
	comp=Z,50nm,0.1s						
PB08	**IPOC Station P**	**2.60**	**300**	P	**Pn**	**13 46 19.4**	**+1.5**
SALTA		**2.78**	**172**	*e*P	**Pn**	**13 46 21.9**	**+1.9**
PB03	**IPOC Station P**	**2.85**	**257**	*e*P	**Pn**	**13 46 20.9**	**+0.6**
PB03				*e*S	S	13 46 52.5	-6.5
PB03				*e*S	S	13 46 58.6	-0.4
PB03				IAML		13 46 59.4	
	comp=Z,164nm,0.2s						
PB06	**IPOC Station P**	**2.90**	**244**	*e*P	**Pn**	**13 46 21.7**	**+0.8**
PB06				*e*S	**S**	**13 47 00.2**	**+0.2**
PB06				IAML		13 47 02.7	
	comp=Z,74nm,0.1s						
PB06	**IPOC Station P**	**2.90**	**244**	P	**Pn**	**13 46 21.3**	**+0.4**
GO01	**Chusmiza**	**2.90**	**307**	P	**Pn**	**13 46 22.5**	**+1.2**
PB07	**IPOC Station P**	**2.93**	**264**	*e*P	**Pn**	**13

LPAZ	La Paz	5.30	346	eP	Pn	13 46 52.4	+2.0	
LPAZ	La Paz	5.30	346	P	Pn	13 46 51.5	+1.1	
BBOB	La Paz, Bander	5.45	346	P	Pn	13 46 52.7	+0.6	
SIV	San Ignacio	7.65	46	P	Pn	13 47 18.1	-1.6	
	comp=Z,6.6nm,0.4s,baz=247,slow=9.7,SNR=30							
SIV				S	S	13 48 47.0	+0.2	
	comp=Z,1.6nm,0.4s,baz=314,slow=21,SNR=3.7							
SIV	San Ignacio	7.65	46	P	Pn	13 47 18.9	-0.8	
CFA	Coronel Fontan	10.20	187	P	Pn	13 47 50.9	-1.3	
	comp=Z,1.4nm,0.3s,baz=15,slow=11,SNR=14							
PDAR	Pinedale Array	75.09	329	P	P	13 56 49.6	+1.4	
	comp=Z,0.1nm,0.5s,baz=115,slow=6.2,SNR=1.4							
	comp=Z,0.1nm,0.5s							
TORD	Torodi Ar. Bea	75.45	69	P	P	13 56 49.9	-0.7	
	comp=Z,0.6nm,0.5s,baz=261,slow=4.3,SNR=3.7							
	comp=Z,0.6nm,0.5s							
ASAR	Alice Springs	130.85	205	PKP	PKiKP	14 04 16.4	-0.5	
	comp=Z,0.3nm,0.9s,baz=129,slow=1.6,SNR=4.5							
MKAR	Makanchi Array	144.40	37	PKP	PKPdf	14 04 40.2	+0.1	
	comp=Z,0.7nm,0.6s,baz=320,slow=4.2,SNR=8.4							

IDC ***13*** *14:16:46.0±1.4,5.4°S×129.92E,h181km±18km,mb3.2/4, mbtmp4.1/9,Error ellipse: s-maj=26.5km s-min=12.4km az=88.0*

DJA ***13*** *14:16:47.8±0.3,5.5°S×13.0E±°,h222km±5km,M4.4/18, mB4.9/5,mb4.2/9,MLv4.5/18,Mw(mB)4.2/5*

ISC 13 14:16:47.4±0.8,5.50S±0.06×129.89E±0.09,h200km,n17, σ2s93/21,mb3.3/4,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	0.97	1	P	Pn	14 17 19.0	+2.0
BNDI				S	Sn	14 17 44.8	+4.8
SAUI	Saumlaki	2.84	150	P	Pn	14 17 38.0	+2.9
SAUI				AML	AML		
FAKI	Fak Fak	3.48	43	P	Pn	14 17 43.1	+0.3
FAKI				AML	AML		
NLAI	Namlea	3.58	309	P	Pn	14 17 46.2	+2.2
NLAI				AML	AML		
SIJI	Sorong	4.80	17	P	Pn	14 17 58.2	-1.1
	48nm,0.2s,baz=239,slow=23,SNR=128						
SIJI				S	Sn	14 18 51.1	-5.0
	19nm,0.3s,baz=224,slow=2.8,SNR=6.4						
SIJI	Sorong	4.80	17	P	Pn	14 17 59.0	-0.4
SIJI				AML	AML		
SANI	Sanana	5.19	311	P	Pn	14 18 03.7	-0.5
	0.6nm2µm192nm,0.8s						
SANI				AML	AML		
MWPI	Manokwari, Pap	6.15	43	P	Pn	14 18 18.3	+1.7
BAKI	Biak	7.54	56	P	Pn	14 18 37.9	+3.2
	0.3nm1µm70nm,0.5s						
BAKI				AML	AML		
BATI	Baumata	7.74	232	P	Pn	14 18 37.3	0.0
	11nm,0.4s,baz=83,slow=4.6,SNR=4.8						
FITZ	Fitzroy Crossi	13.19	198	P	Pn	14 19 47.7	+0.4
	1.9nm,0.3s,baz=43,slow=11,SNR=12						
FITZ				S	S	14 22 03.7	-11
	8.7nm,0.6s,baz=86,slow=17,SNR=12						
WRA	Warramunga Arr	14.99	164	P	Pn	14 20 08.2	-1.4
	4.2nm,0.3s,baz=343,slow=13,SNR=29						
WRA				S	S	14 22 48.4	-7.8
	0.7nm,0.3s,baz=70,slow=8.2,SNR=5.6						
ASAR	Alice Springs	18.47	168	P	P	14 20 49.6	+1.2
	21nm,0.5s,baz=347,slow=10,SNR=420						
ASAR				S	S	14 24 06.1	-2.7
	2.7nm,0.8s,baz=348,slow=19,SNR=13						
STKA	Stephens Creek	28.44	159	P	P	14 22 24.1	+0.5
	1.0nm,0.4s,baz=343,slow=6.3,SNR=5.4						
	1.0nm,0.4s						
CMAR	Chiang Mai Arr	38.70	309	P	P	14 23 51.9	-0.4
	0.8nm,0.5s,baz=130,slow=7.2,SNR=7.4						
	0.8nm,0.5s						
MKAR	Makanchi Array	66.92	327	P	P	14 27 17.9	-0.4
	0.2nm,0.7s,baz=113,slow=6.6,SNR=4.1						
	0.2nm,0.7s						
KURBB	Kurchatov Arra	71.18	328	P	P	14 27 46.2	+1.8
	0.1nm,0.3s,baz=120,slow=5.9,SNR=4.6						
	0.1nm,0.3s						

SNET ***13*** *14:32:57.9±1.4,13.4°41N×90.77W,h29km,ML3.1, Presumed earthquake*

CATAC ***13*** *14:32:57.1±0.8,14°N±6°×9°1W±°,h31km±9km,M3.5/9, MLv3.5/9,Error ellipse: s-maj=14.2km s-min=3.5km az=18.6,confirmed*

GCG ***13*** *14:32:57.5±0.9,13.84N×90.81W,h70km±12km,MD3.9, Presumed earthquake*

ISC 13 14:32:54.6±1.9,13.49N±0.08×90.89W±0.05,h13km±10km, n28,σ0s99/43,Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG8	Yepocapa, Chim	0.83	23	iP	Pn	14 33 12.1	0.0
FG16	Alotenango, Sa	0.86	25	iP	Pb	14 33 12.2	+0.6
FG16				iS	Sg	14 33 23.9	+1.2
PCG5	San Vicente Pa	0.88	35	iP	Pg	14 33 11.4	-0.3
PCG5				iS	Sg	14 33 22.9	-0.3
FAME	Alcaldia de Sa	0.92	68	P	Pn	14 33 13.3	0.0
STG8	El Palmar, Qui	1.05	335	iP	Pn	14 33 18.5	+3.2
NUBE	Las Nubes	1.16	69	P	Pb	14 33 16.5	0.0
NUBE	Las Nubes	1.16	69	iP	Pb	14 33 16.6	0.0
NUBE				iS	Sb	14 33 30.6	-0.8
NUBE	Las Nubes	1.16	69	iP	Pg	14 33 16.7	-0.2
NUBE				eS	Sb	14 33 31.6	+0.1
LOAL	Lomas de Alarc	1.19	65	P	Pn	14 33 16.9	-0.1
LOAL				S	Sb	14 33 32.9	+0.5
SLOZ	Alcaldia de Sa	1.20	64	P	Pb	14 33 17.4	+0.2
SLOZ				S	Sb	14 33 33.4	+0.7
CEVE	Cerro Verde	1.28	75	P	Pg	14 33 18.9	-0.3
CEVE	Cerro Verde	1.28	75	iP	Pg	14 33 19.0	-0.3
CEVE				eS	Sg	14 33 36.1	+0.2
SBLS	San Blas	1.28	74	iP	Pg	14 33 19.2	0.0
SBLS				eS	Sb	14 33 35.7	+0.6
RTAL	Retalhuleu	1.29	323	P	Pg	14 33 19.2	-0.2
RTAL				S	Sb	14 33 32.3	-2.9
SNJE	San Jose	1.31	73	iP	Pg	14 33 19.6	-0.2
SNJE				eS	Sb	14 33 36.4	+0.5
UNIC	Universidad Ca	1.40	69	S	Sn	14 33 37.8	-0.3
JAYA	Jayaque - finc	1.41	83	P	Pb	14 33 20.5	-0.4
JAYA	Jayaque - finc	1.41	83	iP	Pb	14 33 20.6	-0.4
JAYA				iS	Sn	14 33 38.4	-0.3
JAYA	Jayaque - finc	1.41	83	iP	Pb	14 33 20.9	0.0
JAYA				eS	Sb	14 33 39.3	+0.4
PMON	Piamonte	1.55	82	P	Pb	14 33 22.4	-0.8
PMON				S	Sn	14 33 42.1	+0.1
APG	El Apazote	1.56	15	iP	Pn	14 33 19.6	-2.6
PANCS	Alcalda de	1.67	86	S	Sn	14 33 44.6	-0.3
LOMA	Loma Larga	1.68	85	P	Pb	14 33 25.0	-0.4
LOMA				S	Sn	14 33 45.9	+0.7
LOMA	Loma Larga	1.68	85	eS	Sn	14 33 45.3	+0.1
TECO	Alcaldia de Te	2.05	88	P	Pn	14 33 28.8	0.0
TECO				S	Sn	14 33 53.9	-0.5
PACA	Pacayal	2.50	90	S	Sn	14 34 07.1	+1.7
CNCH	Conchagua	2.98	94	S	Sn	14 34 18.7	+1.3
CSGN	Cosiguina Volc	3.29	99	S	Sn	14 34 23.8	-1.1

MEX ***13*** *15:28:16.1±0.7,14.36N×92.77W,h60km±25km,MD3.9, Presumed earthquake*

GCG ***13*** *15:28:16.7±1.7,14.33N×92.64W,h38km±162km,MD4.2, Presumed earthquake*

ISC 13 15:28:13.0±2.0,14.27N±0.07×92.73W±0.06,h26km±15km, n18,σ2s15/33,2D,Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THIG		0.77	35	‖iP	Pn	15 28 29.2	+1.0
THIG		0.77	35	eP	Pn	15 28 29.2	+1.0
THIG				eS	Sn	15 28 38.9	-0.1
PATR	El Naranjo	0.96	30	eP	Pn	15 28 31.6	+0.5
PATR				eS	Sn	15 28 43.5	-0.6
CHUJ	Union Juarez	1.01	36	eP	Pn	15 28 32.4	+0.7
CHUJ				eS	Sn	15 28 45.6	+0.3
RTAL	Retalhuleu	1.03	76	eP	Pb	15 28 33.6	+1.4
RTAL				eS	Sn	15 28 47.0	+1.6
PAVE	Pavencul	1.06	30	eP	Pn	15 28 33.0	+0.6
PAVE				eS	Sn	15 28 46.3	-0.1
STG8	El Palmar, Qui	1.34	82	‖eP	Pn	15 28 35.5	-0.8
PCIG		1.50	342	eP	Pn	15 28 38.7	+0.4
PCIG				eS	Sn	15 28 55.1	-1.8
HUEH	Huehuetenango	1.58	49	eP	Pb	15 28 41.9	+0.3
HUEH				eS	Sb	15 28 59.7	-1.6
CCIG	Comitan	2.08	16	eP	Pb	15 28 49.9	-0.3
CCIG				eS	Sb	15 29 16.1	+0.5
FG16	Alotenango, Sa	2.15	90	eP	Pn	15 28 44.9	-2.5
FG16				eS	Sn	15 29 06.8	-6.5
APG	El Apazote	2.31	71	eP	Pn	15 28 52.8	+3.3
TGIG		2.52	351	eP	Pn	15 28 54.6	+2.3
TGIG				iS	Sn	15 29 23.5	+1.3
TGIG		2.52	351	eP	Pn	15 28 54.7	+2.3
TGIG				eS	Sb	15 29 24.4	-3.9
NUBE	Las Nubes	2.88	97	eP	Pn	15 29 00.4	+3.0
NUBE				eS	Sn	15 29 30.8	-0.6
JAYA	Jayaque - finc	3.24	101	eP	Pn	15 29 04.7	+2.3
JAYA				iS	Sn	15 29 40.1	-0.1
UXUV	UXUV	3.32	336	eP	Pn	15 29 06.3	+3.0
UXUV				eS	Sn	15 29 40.8	-1.2
CMIG	Matias Romero	3.49	324	eP	Pn	15 29 06.7	+1.1
CMIG				eS	Sn	15 29 43.4	-2.7

IDC ***13*** *15:30:39.8±0.9,47.78N×116.73E,h0km,mb3.4/7, mbtmp3.6/10,ML3.9/3,MS2.9/6,Error ellipse: s-maj=22.1km s-min=9.0km az=171.0*

ISC 13 15:30:40.6±0.9,47.8N±0.1×116.69E±0.06,h10km,n16, σ1s76/14,mb3.6/6,Mongolia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HILR	Hailar Array B	2.71	47	Pn	Pn	15 31 24.1	-0.2
	baz=226,slow=14						
HILR				Lg	Lg	15 32 04.1	
	baz=188,slow=20						
	44nm,0.4s						
SONM	Songino Array	6.94	274	Pn	Pn	15 32 23.3	+1.0
	2.7nm,0.3s,baz=90,slow=13,SNR=46						
SONM				Pg	Pg	15 32 49.3	-4.1
	2.7nm,0.3s,baz=95,slow=16,SNR=6.9						
SONM				Sn	Sn	15 33 42.6	+1.2
	4.4nm,0.3s,baz=88,slow=24,SNR=8.5						
SONM				Lg	Lg	15 34 18.1	
	11nm,0.3s,baz=91,slow=26,SNR=9.2						
SONM				LR	LR	15 35 34.9	
	comp=Z,92nm,19.5s,baz=40,slow=42						
	5.5nm,0.2s						
SONM				AML	AML		
TLY	Talaya	9.32	300	Sn	Sn	15 34 40.3	+0.5
	0.2nm,0.3s,baz=245,slow=19,SNR=1.2						
TLY				Lg	Lg	15 35 30.1	
	0.3nm,0.3s,baz=72,slow=19,SNR=3.1						
KLR	Kul'dur	10.11	76	Pn	Pn	15 33 04.7	-0.9
	0.4nm,0.3s,baz=288,slow=15,SNR=9.0						
KLR				Sn	Sn	15 34 56.5	-2.4
	0.2nm,0.3s,baz=306,slow=19,SNR=5.1						
KLR				Lg	Lg	15 35 53.7	
	0.8nm,0.3s,baz=222,slow=6.4,SNR=8.1						
KLR				LR	LR	15 37 35.1	
	comp=Z,40nm,21.8s,baz=276,slow=41						
	2.0nm,0.6s						
KLR				AML	AML		
USRK	Ussuriysk Ar.	11.22	103	Lg	Lg	15 36 27.3	
	0.3nm,0.3s,baz=146,slow=42,SNR=4.3						
USRK				LR	LR	15 38 07.6	
	comp=Z,55nm,20.9s,baz=344,slow=40						
KSRS	Korea Array	13.19	137	Lg	Lg	15 37 32.9	
	0.2nm,0.3s,baz=322,slow=28,SNR=5.8						
YAK	Yakutsk	16.09	22	Lg	Lg	15 38 53.9	
	0.4nm,0.3s,baz=292,slow=19,SNR=1.3						
YAK				LR	LR	15 40 58.0	
	comp=Z,44nm,19.4s,baz=276,slow=38						
ASAJ	Asahikawa	18.35	92	LR	LR	15 42 49.6	
	comp=Z,36nm,18.5s,baz=66,slow=40						
ZALV	Zalesovo Beam	20.93	299	P	P	15 35 23.7	+0.6
	0.5nm,0.6s,baz=93,slow=11,SNR=2.2						
	0.5nm,0.6s						
MKAR	Makanchi Array	23.25	280	P	P	15 35 48.4	+0.4
	0.2nm,0.5s,baz=84,slow=11,SNR=4.8						
	0.2nm,0.5s						
TIXI	Tiksi	24.64	9	LR	LR	15 46 42.0	
	comp=Z,72nm,19.5s,baz=192,slow=39						
KURBB	Kurchatov Arra	24.92	291	P	P	15 36 03.6	0.0
	0.4nm,0.3s,baz=82,slow=11,SNR=1.3						
	0.4nm,0.3s						
FINES	FINESS Array B	49.93	321	P	P	15 39 35.5	+1.6
	5.5nm,1.1s,baz=58,slow=8.2,SNR=2.1						
	5.5nm,1.1s						
ILAR	Eielson Array	50.62	33	P	P	15 39 40.4	+1.2
	0.8nm,0.7s,baz=299,slow=8.6,SNR=10						
	0.8nm,0.7s						
WRA	Warramunga Arr	69.22	162	P	P	15 41 49.3	+1.8
	0.3nm,0.7s,baz=345,slow=6.6,SNR=3.2						
	0.3nm,0.7s						
ASAR	Alice Springs	72.76	163	P	P	15 42 08.9	+0.1
	0.2nm,0.7s,baz=348,slow=7.4,SNR=2.0						
	0.2nm,0.7s						

IDC ***13*** *15:31:53.0±1.6,7.61S×128.53E,h147km±19km,mb3.2/3, mbtmp3.8/8,Error ellipse: s-maj=22.9km s-min=13.4km az=118.0*

ISC 13 15:31:53.0±0.8,7.74S±0.06×128.64E±0.10,h151km,n8, σ2s45/12,mb3.5/3,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BATI	Baumata	5.49	243	P	Pn	15 33 14.4	+1.4
	30nm,0.4s,baz=129,slow=1.4,SNR=15						
BATI				S	Sn	15 34 14.3	-1.2
	32nm,0.5s,baz=212,slow=24,SNR=7.9						
SIJI	Sorong	7.31	21	P	Pn	15 33 36.8	-0.5
	2.3nm,0.3s,baz=207,slow=18,SNR=40						
SIJI				S	Sn	15 34 57.1	-2.0
	3.0nm,0.2s,baz=249,slow=23,SNR=6.4						
FITZ	Fitzroy Crossi	10.70	196	P	Pn	15 34 22.3	0.0
	2.5nm,0.5s,baz=17,slow=8.1,SNR=18						
FITZ				S	Sn	15 36 15.8	-4.9
	3.2nm,0.4s,baz=240,slow=22,SNR=6.7						
WRA	Warramunga Arr	13.33	156	P	Pn	15 34 57.5	+1.0
	0.7nm,0.4s,baz=340,slow=14,SNR=12						
WRA				S	Sn	15 37 19.2	-4.8
	1.1nm,0.6s,baz=330,slow=22,SNR=8.9						
ASAR	Alice Springs	16.62	163	P	Pn	15 35 40.2	+2.9
	0.8nm,0.5s,baz=341,slow=11,SNR=46						
ASAR				S	S	15 38 40.0	-2.1
	0.2nm,0.4s,baz=344,slow=26,SNR=5.4						
STKA	Stephens Creek	26.88	155	P	P	15 37 22.0	+2.2
	0.7nm,0.4s,baz=333,slow=16,SNR=2.1						
	0.7nm,0.4s						
MKAR	Makanchi Array	68.11	328	P	P	15 42 35.5	-1.1
	0.1nm,0.4s,baz=139,slow=4.8,SNR=1.5						
	0.1nm,0.4s						
QSPA	South Pole Qui	82.24	180	P	P	15 43 58.6	+1.3
	0.7nm,0.8s,baz=326,slow=7.3,SNR=3.1						
	0.7nm,0.8s						

MOS ***13*** *16:00:35.5±1.3,46.48N×153.03E,h41km,mb4.1/1,Error ellipse: s-maj=17.0km s-min=11.7km az=45.2*

SKHL ***13*** *16:00:37.1±0.2,46.20N×153.20E,h68km±9km,mb4.6/5*

IDC ***13*** *16:00:38.7±3.3,46.49N×153.00E,h50km±29km,mb3.4/13, mbtmp3.7/15,ML3.2/2,MS3.8/1,Error ellipse: s-maj=27.3km s-min=18.5km az=153.0*

JMA ***13*** *16:00:38.9±1.2,46°N±5.1°×15°3E±°,h30km,MV3.9/17, KURILE ISLANDS REGION*

ISC 13 16:00:35.7±0.8,46.1N±0.1×153.28E±0.09,h35km,n45, σ1s89/44,mb3.6/12,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	3.90	259	ePN	Pn	16 01 35.0	+2.0
KUR				iS	Sn	16 02 19.2	+1.7
KUR				pmax	pmax		
	comp=Z,143nm,0.4s						
KUR				pmax	pmax		
	comp=N,35nm,0.2s						
KUR				pmax	pmax		
	comp=E,19nm,0.3s						
KUR				smax	smax		
	comp=E,103nm,0.6s						
KUR				smax	smax		
	comp=N,69nm,0.7s						
KUR	Kuril'sk	3.90	259	eP	Pn	16 01 34.5	+1.5
KUR				AMB	AMB	16 01 35.3	
	comp=N,120nm,0.7s						
KUR				iS	Sn	16 02 17.7	+0.2
KUR				A	A	16 02 34.0	
	comp=N,110nm,0.5s						
KUR				A	A	16 02 34.0	
	comp=N,110nm,0.5s						
SKR	Severo-Kuril's	4.93	22	eP	Pn	16 01 47.9	+0.7
SKR				AMB	AMB	16 01 49.9	
	comp=N,40nm,0.4s						
SKR				eS	Sn	16 02 40.9	-2.0
SKR				A	A	16 02 50.5	
	comp=N,30nm,0.3s						
SKR				A	A	16 02 50.5	
	comp=N,50nm,0.3s						
YUK	Yuzh-Kuril'sk	5.66	251	ePN	Pn	16 01 58.8	+1.6
YUK				pmax	pmax		
	comp=N,58nm,0.2s						
YUK				pmax	pmax		
	comp=Z,62nm,0.2s						
YUK	Yuzh-Kuril'sk	5.66	251	eP	Pn	16 01 59.5	+2.3
YUK				AMB	AMB	16 02 02.7	
	comp=Z,160nm,0.7s						
YUK				eS	Sn	16 03 00.7	-0.1
YUK				A	A	16 03 03.0	
	comp=Z,230nm,0.8s						
YUK				A	A	16 03 03.0	
	comp=Z,180nm,0.8s						
RUSJ	Misakicho	6.03	253	ePN	Pn	16 02 04.6	+2.2
RUSJ				eS	Sn	16 03 12.4	+2.2
NEM2	Nemuro 2	6.04	245	P	Pn	16 02 01.6	-0.9
NMR	Nemuro--Hokkai	6.04	245	ePN	Pn	16 02 01.4	-1.1
NMR	Nemuro--Hokkai	6.04	245	eP	Pn	16 02 01.6	-0.9
NMR				eS	Sn	16 03 07.5	-2.9
JRA	Rausu	6.18	252	eP	Pn	16 02 05.8	+1.4
JNK	Nakash	6.59	250	eP	Pn	16 02 11.0	+0.9
JAK	Akkeshi	6.88	246	eP	Pn	16 02 13.1	-0.9
JTKR	Abashiri--Toko	6.98	255	eP	Pn	16 02 17.1	+1.8
JAR	Ashoroduto	7.34	251	eP	Pn	16 02 21.3	+1.0
JOB	Onbets	7.48	248	eP	Pn	16 02 23.1	+0.8
PETK	Petropavlovsk-	7.54	21	P	Pn	16 02 21.9	-1.2
	comp=Z,0.4nm,0.3s,baz=180,slow=12,SNR=13						
	comp=Z,1.5nm,0.5s						
PETK				AML	AML		
JKK2	Kamakawa 2	7.80	257	eP	Pn	16 02 28.8	+2.2
JKA	Kamikawa-asahi	7.82	259	eP	Pn	16 02 28.7	+1.8
ASAJ	Asahikawa	7.82	259	P	Pn	16 02 28.7	+1.8
	comp=Z,0.8nm,0.3s,baz=147,slow=31,SNR=5.3						
	comp=Z,1nm,1.1s						
ASAJ				AML	AML		
JCH	Churui	7.93	247	eP	Pn	16 02 28.2	-0.2
JCH				eS	Sn	16 03 51.0	-5.8
TYV	Tymovskoe	8.49	308	eP	Pn	16 02 39.1	+3.1
KBG	Krutoberegovo	11.72	27	eP	Pn	16 03 21.5	+1.3
KSRS	Korea Array	20.73	254	P	Pn	16 05 15.5	0.0
	comp=Z,0.7nm,0.7s,baz=55,slow=9.9,SNR=4.1						
	comp=Z,0.7nm,0.7s						
TIXI	Tiksi	28.09	344	LR	LR	16 17 53.9	
	comp=Z,202nm,20.5s,baz=6.0,slow=37						
H11N2	WAKE ISLAND Hy	28.62	152	T	T	16 38 07.5	
	baz=340,slow=76,SNR=6.6						
H11N1	WAKE ISLAND Hy	28.64	152	T	T	16 38 11.3	
	baz=340,slow=76,SNR=5.3						
H11N3	WAKE ISLAND Hy	28.64	152	T	T	16 38 10.7	
	baz=340,slow=76,SNR=7.1						
H11S1	WAKE ISLAND Hy	29.71	154	T	T	16 39 31.5	
	baz=340,slow=76,SNR=10.0						
H11S3	WAKE ISLAND Hy	29.72	154	T	T	16 39 40.0	
	baz=340,slow=76,SNR=5.9						
H11S2	WAKE ISLAND Hy	29.73	154	T	T	16 39 36.3	
	baz=340,slow=76,SNR=8.1						
ILAR	Eielson Array	36.96	38	P	P	16 07 40.6	-0.5
	comp=Z,0.2nm,0.7s,baz=278,slow=7.9,SNR=1.6						
	comp=Z,0.2nm,0.7s						
ZALV	Zalesovo Beam	43.06	306	P	P	16 08 30.0	-1.8
	comp=Z,0.5nm,0.5s,baz=76,slow=9.1,SNR=2.0						
	comp=Z,0.5nm,0.5s						
MKAR	Makanchi Array	47.33	298	P	P	16 09 04.0	-1.7
	comp=Z,0.5nm,0.6s,baz=72,slow=7.9,SNR=5.3						
	comp=Z,0.5nm,0.6s						
KURK	Kurchatov	47.80	304	P	P	16 09 08.4	-0.9
KURK	Kurchatov	47.80	304	eP	P	16 09 08.4	-0.9
KURBB	Kurchatov Arra	47.89	304	P	P	16 09 08.4	-1.7
	comp=Z,0.8nm,0.8s,baz=70,slow=8.2,SNR=5.0						
	comp=Z,0.8nm,0.8s						
BVAR	Borovoye Array	51.34	310	P	P	16 09 34.3	-2.0
	comp=Z,0.3nm,0.4s,baz=59,slow=5.6,SNR=2.2						
	comp=Z,0.3nm,0.4s						
FINES	FINESS Array B	64.64	335	P	P	16 11 08.7	-0.6
	comp=Z,1.5nm,0.8s,baz=28,slow=8.9,SNR=4.6						
	comp=Z,1.5nm,0.8s						
PDAR	Pinedale Array	65.02	54	P	P	16 11 14.0	+1.7
	comp=Z,0.3nm,0.8s,baz=317,slow=8.3,SNR=2.4						
	comp=Z,0.3nm,0.8s						
NOA	NORSAR Array B	68.84	341	P	P	16 11 36.1	-0.1
	comp=Z,0.5nm,0.7s,baz=28,slow=6.5,SNR=2.2						
	comp=Z,0.5nm,0.7s						
HFS	Hagfors	69.07	340	P	P	16 11 34.7	-2.8
	comp=Z,2.7nm,1.0s,baz=23,slow=7.8,SNR=2.4						
	comp=Z,2.7nm,1.0s						
ASAR	Alice Springs	71.66	199	P	P	16 11 56.0	+2.3
	comp=Z,0.5nm,1.0s,baz=12,slow=7.2,SNR=4.2						
	comp=Z,0.5nm,1.0s						
ASAR	Alice Springs	71.66	199	P	P	16 11 56.0	+2.3
AKASG	Malin Array Be	72.12	326	P	P	16 11 55.6	-0.6
	comp=Z,1.2nm,0.5s,baz=35,slow=6.0,SNR=5.8						
	comp=Z,1.2nm,0.5s						
TXAR	Lajitas Array	77.70	61	P	P	16 12 30.5	+1.5
	comp=Z,0.3nm,0.5s,baz=304,slow=6.4,SNR=4.2						
	comp=Z,0.3nm,0.5s						

IDC 13 16:13:20.8±1.6,24.59S×68.80E,h0km,mb3.5/5, mbtmp3.5/5,Error ellipse: s-maj=56.0km s-min=34.5km az=78.0,Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H08S1	Diego Carcia H	17.21	12	T	T	16 35 10.9	
	baz=188,slow=76,SNR=17						
H08S2	Diego Garcia H	17.21	12	T	T	16 35 17.7	
	baz=188,slow=76,SNR=21						
H08S3	Diego Garcia H	17.23	12	T	T	16 35 14.4	
	baz=188,slow=76,SNR=19						
H04N2	CROZET ISLANDS	25.50	208	T	T	16 45 50.7	
	baz=40,slow=74,SNR=164						
H04N1	CROZET ISLANDS	25.51	208	T	T	16 45 56.8	
	baz=40,slow=74,SNR=27						
H04N3	CROZET ISLANDS	25.52	208	T	T	16 45 55.4	
	baz=40,slow=74,SNR=34						
H01W2	Cape Leeuwin H	40.39	116	T	T	17 02 58.8

HNR	**Honiara**	**6.12**	**282**	P	**Pn**	**16 37 15.7**	**+0.7**
	58nm,0.6s,baz=251,slow=0.4,SNR=10.0						
HNR				S	**Sn**	**16 38 26.8**	**+2.7**
	19nm,0.5s,baz=118,slow=21,SNR=1.4						
HNR				LR	LR	16 39 47.3	
	comp=Z,172nm,18.1s,baz=176,slow=39						
HNR	**Honiara**	**6.12**	**282**	P	**Pn**	**16 37 15.9**	**+0.9**
TATA	**Tatamba Isabel**	**6.57**	**291**	P	**Pn**	**16 37 20.8**	**-0.2**
DVP	**Devils Point**	**7.19**	**163**	P	**Pn**	**16 37 29.9**	**+0.7**
KOUNC	**Koumac, New Ca**	**9.82**	**189**	P	**Pn**	**16 38 07.1**	**+2.8**
MARNC	**Mare, Loyalty**	**10.78**	**170**	P	**Pn**	**16 38 16.9**	**-0.1**
DZM	**Mont Dzumac**	**11.20**	**178**	P	**Pn**	**16 38 24.0**	**+1.4**
	62nm,0.4s,baz=31,slow=17,SNR=183						
DZM				S	**Sn**	**16 40 25.1**	**-1.5**
YATNC	**Mamie plateau,**	**11.21**	**176**	P	**Pn**	**16 38 23.8**	**+1.1**
NOUC	**Port Laguerre**	**11.23**	**179**	P	**Pn**	**16 38 26.2**	**+3.3**
NOUC	**Port Laguerre**	**11.23**	**179**	P	**Pn**	**16 38 25.9**	**+3.0**
ONTNC	**Ouen Toro**	**11.44**	**178**	P	**P**	**16 38 29.1**	**-4.2**
OUENC	**Ouen Island, N**	**11.57**	**176**	P	**Pn**	**16 38 30.0**	**+2.7**
PINNC	**Pines Island,**	**11.81**	**173**	P	**Pn**	**16 38 32.8**	**+2.3**
MSVF	**Nonsavu**	**13.55**	**122**	P	**P**	**16 38 58.2**	**+1.3**
	17nm,0.8s,baz=0.0,slow=3.0,SNR=17						
MSVF	**Nonsavu**	**13.55**	**122**	P	**P**	**16 38 59.3**	**+2.4**
PMG	**Port Moresby**	**18.61**	**273**	P	**P**	**16 39 53.2**	**+0.5**
	29nm,0.9s,baz=77,slow=4.2,SNR=9.0						
PMG				S	**S**	**16 43 19.4**	**+2.4**
	6.3nm,0.7s,baz=63,slow=4.5,SNR=0.8						
PMG	**Port Moresby**	**18.61**	**273**	P	**Pn**	**16 39 54.3**	**-0.4**
	39nm,1.0s						
CTA	**Charters Tower**	**21.13**	**242**	P	**P**	**16 40 20.9**	**+1.1**
	20nm,0.8s,baz=66,slow=11,SNR=23						
	20nm,0.8s						
OUZ	**Omahuta**	**25.26**	**165**	P	**P**	**16 41 00.3**	**+1.4**
HIZ	**Hauiti**	**28.70**	**165**	P	**P**	**16 41 31.6**	**+1.9**
HAZ	**Te Kaha**	**28.84**	**160**	P	**P**	**16 41 32.3**	**+1.5**
MXZ	**Matakaoa Point**	**28.84**	**159**	P	**P**	**16 41 31.0**	**+0.1**
RUGZ	**Raukumara Rang**	**29.00**	**161**	P	**P**	**16 41 32.9**	**+0.5**
URZ	**Urewera**	**29.09**	**162**	P	**P**	**16 41 33.8**	**+0.7**
WMGZ	**Waiomatatini S**	**29.11**	**160**	P	**P**	**16 41 33.3**	**0.0**
H11S2	**WAKE ISLAND Hy**	**29.13**	**1**	T	T	17 12 21.4	
	baz=181,slow=76,SNR=21						
H11S3	**WAKE ISLAND Hy**	**29.13**	**1**	T	T	17 12 19.8	
	baz=181,slow=76,SNR=13						
H11S1	**WAKE ISLAND Hy**	**29.14**	**1**	T	T	17 12 19.9	
	baz=181,slow=76,SNR=11						
MUGZ	**Murupara**	**29.18**	**162**	P	**P**	**16 41 35.5**	**+1.6**
MRHZ	**Matea Rd**	**29.41**	**163**	P	**P**	**16 41 37.7**	**+1.7**
WTVZ	**West Tongariro**	**29.45**	**165**	P	**P**	**16 41 39.9**	**+3.5**
TMVZ	**Te Maari**	**29.48**	**165**	P	**P**	**16 41 40.5**	**+3.8**
NGZ	**Ngauruhoe**	**29.51**	**165**	P	P	16 41 40.9	+3.9
OTVZ	**Oturere**	**29.52**	**165**	P	**P**	**16 41 40.2**	**+3.1**
MTHZ	**Maungataniwha**	**29.55**	**163**	P	**P**	**16 41 38.6**	**+1.3**
RAHZ	**Arahi**	**29.68**	**162**	P	**P**	**16 41 39.2**	**+0.8**
RIGZ	**Rimuhau**	**29.70**	**161**	P	**P**	**16 41 38.6**	**+0.1**
BKZ	**Black Stump Fm**	**29.74**	**163**	P	**P**	**16 41 39.9**	**+0.9**
MOVZ	**Moawhango**	**29.77**	**165**	P	**P**	**16 41 41.3**	**+2.1**
KRHZ	**Kereru**	**30.16**	**164**	P	**P**	**16 41 43.6**	**+1.1**
H11N1	**WAKE ISLAND Hy**	**30.35**	**2**	T	T	17 13 48.3	
	baz=186,slow=74						
H11N3	**WAKE ISLAND Hy**	**30.35**	**2**	T	T	17 13 49.8	
	baz=186						
H11N2	**WAKE ISLAND Hy**	**30.37**	**2**	T	T	17 13 50.6	
	baz=186,slow=74						
STKA	**Stephens Creek**	**30.78**	**223**	P	**P**	**16 41 49.2**	**+1.1**
	2.7nm,0.6s,baz=55,slow=8.5,SNR=7.4						
	2.7nm,0.6s						
WRA	**Warramunga Arr**	**31.80**	**250**	P	**P**	**16 41 57.0**	**-0.3**
	5.8nm,0.8s,baz=79,slow=9.1,SNR=30						
WRA				ScP	**ScP**	**16 48 17.0**	**+2.5**
	0.8nm,1.0s,baz=92,slow=3.9,SNR=2.8						
	5.8nm,0.8s						
ASAR	**Alice Springs**	**33.12**	**243**	P	**P**	**16 42 08.4**	**-0.4**
	5.0nm,0.8s,baz=66,slow=10,SNR=65						
ASAR				ScP	**ScP**	**16 48 21.1**	**+2.1**
	1.1nm,1.0s,baz=51,slow=5.1,SNR=3.0						
	5.0nm,0.8s						
SIJI	**Sorong**	**35.90**	**284**	P	**P**	**16 42 32.1**	**-0.6**
	4.6nm,0.6s,baz=107,slow=8.4,SNR=7.3						
	4.6nm,0.6s						
SIJI	**Sorong**	**35.90**	**284**	P	**P**	**16 42 32.4**	**-0.3**
FITZ	**Fitzroy Crossi**	**39.68**	**255**	P	**P**	**16 43 04.3**	**-0.1**
	16nm,0.8s,baz=99,slow=6.8,SNR=24						
	16nm,0.8s						
EDFI	**Ende, Flores**	**43.69**	**269**	P	**P**	**16 43 34.5**	**-2.7**
MJAR	**Matsushiro Arr**	**53.88**	**332**	P	**P**	**16 44 53.0**	**-1.5**
	1.6nm,0.8s,baz=135,slow=3.3,SNR=4.5						
	1.6nm,0.6s						
KSRS	**Korea Array**	**59.83**	**325**	P	**P**	**16 45 36.0**	**-0.3**
	1.0nm,0.8s,baz=142,slow=9.5,SNR=4.1						
	1.0nm,0.8s						
USRK	**Ussuriysk Ar.**	**62.86**	**333**	P	**P**	**16 45 56.8**	**+0.3**
	3.0nm,1.0s,baz=160,slow=4.6,SNR=2.8						
	3.0nm,1.0s						
VNDA	**Vanda**	**66.73**	**181**	P	**P**	**16 46 21.4**	**+0.2**
	1.3nm,1.0s,baz=4.1,slow=3.4,SNR=4.1						
	1.3nm,1.0s						
CMAR	**Chiang Mai Arr**	**72.25**	**293**	P	**P**	**16 46 56.6**	**+0.5**
	2.4nm,0.8s,baz=117,slow=4.6,SNR=20						
	2.4nm,0.8s						
SONM	**Songino Array**	**78.63**	**324**	P	**P**	**16 47 31.0**	**-1.0**
	1.1nm,0.7s,baz=127,slow=6.1,SNR=4.7						
	1.1nm,0.7s						
QSPA	**South Pole Qui**	**79.19**	**180**	P	**P**	**16 47 34.4**	**-0.4**
	3.0nm,0.8s,baz=21,slow=5.9,SNR=15						
	3.0nm,0.8s						
ILAR	**Eielson Array**	**83.22**	**18**	P	**P**	**16 47 55.5**	**-0.3**
	0.6nm,0.6s,baz=238,slow=5.3,SNR=14						
	0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**93.52**	**324**	P	**P**	**16 48 44.6**	**-0.6**
	0.5nm,0.4s,baz=100,slow=5.2,SNR=2.2						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**93.53**	**317**	P	**P**	**16 48 45.2**	**-0.4**
	1.5nm,0.8s,baz=96,slow=6.3,SNR=11						
	1.5nm,0.8s						

*IDC **13** 16:35:49.2±2.1,0.°02N×123.°31E,h179km±22km,mb3.2/8, mbtmp3.7/11,Error ellipse: s-maj=20.1km s-min=12.9km az=62.0*

*DJA **13** 16:35:49.1±0.3,0.°5S×123.°3E±.°,h153km±3km,M4.1/29, mB4.5/3,mb4.0/6,MLv4.1/29,Mw(mB)3.7/3*

ISC 13 16:35:47.9±0.7,0.°06S±0.°06×123.°22E±0.°06,h162km,n25, σ1°47/29,mb3.5/8,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
				ID			h m s	ISC
KMSI	**Cibinong**	**0.99**	**51**	P	**Pn**		**16 36 15.5**	**+1.8**
LUWI	**Luwuk**	**1.07**	**204**	P	**Pn**		**16 36 14.8**	**+0.4**
LUWI				AML	AML			
APSI	**Ampana**	**1.78**	**242**	P	**Pn**		**16 36 22.1**	**+0.8**
APSI				S	**Sn**		**16 36 46.0**	**-1.1**
APSI				AML	AML			
MNI	**Manado**	**2.20**	**47**	P	**Pn**		**16 36 28.3**	**+2.2**
SANI	**Sanana**	**3.41**	**126**	P	**Pn**		**16 36 40.0**	**-0.8**
SANI				AML	AML			
PCI	**Palu**	**3.48**	**256**	P	**Pn**		**16 36 43.4**	**+1.6**
PCI				AML	AML			
TNTI	**Ternate**	**4.23**	**79**	P	**Pn**		**16 36 51.9**	**+0.4**
TNTI				AML	AML			
KKSI	**Kolaka, Sulawe**	**4.38**	**201**	P	**Pn**		**16 36 54.3**	**+0.9**
KKSI				AML	AML			
TTSI	**Tana Toraja**	**4.51**	**229**	P	**Pn**		**16 36 56.4**	**+1.3**
TTSI				AML	AML			
GAMI	**Galela, Maluku**	**4.94**	**68**	P	**Pn**		**16 37 00.9**	**+0.1**
GAMI				AML	AML			
NLAI	**Namlea**	**5.01**	**129**	P	**Pn**		**16 37 03.7**	**+2.1**
BBSI	**Bau Bau**	**5.43**	**187**	P	**Pn**		**16 37 08.1**	**+0.8**
	0.1nm32nm,1.1s							
BBSI				AML	AML			
KAPI	**Kappang**	**6.02**	**215**	P	**Pn**		**16 37 17.3**	**+2.3**
	8.4nm,0.3s,baz=20,slow=18,SNR=7.7							
KAPI	**Kappang**	**6.02**	**215**	P	**Pn**		**16 37 18.3**	**+3.3**
KAPI				AML	AML			
BKSI	**Bulukumba**	**6.08**	**211**	P	**Pn**		**16 37 17.9**	**+2.2**
BKSI				AML	AML			
SIJI	**Sorong**	**8.09**	**96**	P	**Pn**		**16 37 42.7**	**+0.2**
	1.8nm,0.3s,baz=337,slow=23,SNR=4.3							
SIJI				S	**Sn**		**16 39 13.7**	**+0.8**
	1.4nm,0.3s,baz=160,slow=23,SNR=1.3							
FITZ	**Fitzroy Crossi**	**18.09**	**173**	P	**P**		**16 39 48.1**	**+0.8**
	1.9nm,0.8s,baz=351,slow=12,SNR=6.0							
WRA	**Warramunga Arr**	**22.57**	**152**	P	**P**		**16 40 34.4**	**-0.4**
	0.9nm,0.5s,baz=331,slow=10,SNR=11							
	0.9nm,0.5s							
ASAR	**Alice Springs**	**25.66**	**157**	P	**P**		**16 41 02.9**	**0.0**
	0.2nm,0.3s,baz=332,slow=9.2,SNR=8.7							
ASAR				PcP	**PcP**		**16 44 29.1**	**-0.1**
	0.4nm,0.5s,baz=342,slow=2.2,SNR=7.6							
	0.2nm,0.3s							
CMAR	**Chiang Mai Arr**	**30.12**	**309**	P	**P**		**16 41 44.1**	**+1.5**
	0.5nm,0.5s,baz=131,slow=7.0,SNR=7.2							
	0.5nm,0.5s							
STKA	**Stephens Creek**	**36.11**	**153**	P	**P**		**16 42 34.6**	**+0.3**
	1.0nm,0.4s,baz=336,slow=7.7,SNR=4.9							
	1.0nm,0.4s							
MJAR	**Matsushiro Arr**	**38.98**	**19**	P	**P**		**16 42 56.9**	**-1.5**
	1.1nm,0.8s,baz=202,slow=10,SNR=2.9							
	1.1nm,0.8s							
SONM	**Songino Array**	**49.90**	**345**	P	**P**		**16 44 25.0**	**0.0**
	0.7nm,0.7s,baz=160,slow=4.6,SNR=4.0							
	0.7nm,0.7s							
MKAR	**Makanchi Array**	**58.77**	**328**	P	**P**		**16 45 28.1**	**-1.0**
	0.2nm,0.4s,baz=125,slow=7.4,SNR=8.1							
MKAR				PcP	**PcP**		**16 46 14.9**	**-2.1**
	0.3nm,0.5s,baz=127,slow=4.0,SNR=2.6							
	0.2nm,0.4s							
KURBB	**Kurchatov Arra**	**63.12**	**330**	P	**P**		**16 45 56.6**	**-1.6**
	0.3nm,0.6s,baz=133,slow=7.1,SNR=4.8							
	0.3nm,0.6s							

*NEIC **13** 16:39:22.8±2.1,3.°47S×0.°06×146.°96E±0.°07,h10km±1km, mb4.5/28,Error ellipse: s-maj=12.9km s-min=9.3km az=230.0*

*GCMT **13** 16:39:28.8±0.3,3.°36S±0.°01×146.°67E±0.°02,h19km±1km, MW4.8/97,Moment Tensor Solution. s24,c27; s97,c148; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr-0.30±. 10; Mθθ0.34±.08; Mϕϕ-0.04±.09; Mrθ-0.13±.16; Mθϕ1.83±.06; Mϕr0.03±.16; Best double couple: M0 1.84500×10^16^ NP1:ϕs183.00000°,δ86.00000°,λ-178.00000°. NP2: ϕs93.00000°,δ88.00000°,λ-4.00000°. Principal axes: T 1.9940, Plg2.0000°, Azm138.0000°; N -0.2970, Plg85.0000°, Azm252.0000°; P -1.6970, Plg4.0000°, Azm48.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **13** 16:39:29.9±2.3,3.°40S×146.°49E,h51km±22km,mb3.8/20, mbtmp4.1/26,ML3.9/5,MS3.8/18 Error ellipse: s-maj=15.9km s-min=12.6km az=66.0*

*DJA **13** 16:39:31.5±1.2,4.°5S×147.°7E±1.°0,h41km±8km,M4.7/15, mb4.7/15,mB5.2/6,MLv4.6/6,Mw(mB)4.6/6*

ISC 13 16:39:26.1±0.4,3.°42S±0.°06×146.°81E±0.°07,h25km,n90, σ2°22/69,mb4.4/35,MS3.8/16,1D,Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
				ID			h m s	ISC
MANU	**Manus Island**	**1.48**	**22**	Pn	Pn		16 39 46.7	-4.5
MANU				Sn	**Sn**		**16 40 08.9**	**-0.9**
KRVT	**Keravat (AS076**	**5.28**	**100**	P	Pn		16 40 50.4	+6.8
	5.0nm,0.3s,baz=279,slow=13,SNR=1.7							
	13nm,0.3s							
KRVT				AML	AML			
RABL	**Rabaul**	**5.40**	**98**	Pn	Pn		16 40 38.6	-6.6
PMG	**Port Moresby**	**5.96**	**177**	P	**Pn**		**16 40 54.5**	**+1.7**
	68nm,0.6s,baz=345,slow=7.3,SNR=53							
PMG	**Port Moresby**	**5.96**	**177**		**Pn**		**16 40 52.5**	**-0.3**
PMG	**Port Moresby**	**5.96**	**177**	P	**Pn**		**16 40 53.5**	**+0.7**
	0.3nm111nm,0.8s							
PMG				AML	AML			
JAY	**Jayapura**	**6.16**	**278**	P	**Pn**		**16 40 54.0**	**-1.6**
	1.0nm,0.3s,baz=90,slow=4.0,SNR=9.0							
	5.9nm,0.8s							
JAY				AML	AML			
JAY	**Jayapura**	**6.16**	**278**	P	Pb		16 41 03.3	-9.5
	17nm,1.0s							
JAY	**Jayapura**	**6.16**	**278**	P	Pn		16 41 01.1	+5.5
	17nm,1.0s							
GENI	**Genyem**	**6.68**	**277**	P	Pn		16 41 08.4	+5.7
GENI				AML	AML			
GENI	**Genyem**	**6.68**	**277**	P	Pn		16 41 06.7	+4.0
	1μm51nm,1.4s							
SMPI	**Sarmi**	**8.21**	**280**	P	**Pn**		**16 41 24.9**	**+1.1**
	28nm,1.3s							
HNR	**Honiara**	**14.35**	**115**	P	**P**		**16 42 54.8**	**+0.1**
	1.4nm,0.3s,baz=283,slow=2.7,SNR=4.7							
	21nm,0.8s							
HNR				AML	AML			
SIJI	**Sorong**	**15.73**	**279**	P	**Pn**		**16 43 04.8**	**-1.5**
	0.2nm,0.3s,baz=87,slow=11,SNR=4.8							
	1.6nm,0.6s							
SIJI				AML	AML			
SIJI	**Sorong**	**15.73**	**279**	P	**P**		**16 43 15.6**	**+5.5**
	480nm8.9nm,0.9s							
CTA	**Charters Tower**	**16.57**	**182**	P	**P**		**16 43 21.1**	**+1.8**
	0.5nm,0.3s,baz=356,slow=13,SNR=11							
CTA				LR	LR		16 50 15.7	
	comp=Z,450nm,18.6s,baz=2.0,slow=39							
	4.7nm,0.6s							
CTA				AML	AML			
CTAO	**Charters Tower**	**16.57**	**182**	P	**Pn**		**16 43 17.2**	**+0.2**
GUMO	**Guam**	**17.01**	**354**	LR	LR		16 49 05.6	
	comp=Z,181nm,19.1s,baz=178,slow=34							
GUMO	**Guam**	**17.01**	**354**	Pn	**Pn**		**16 43 17.5**	**-5.0**
NLAI	**Namlea**	**19.67**	**270**	P	**Pn**		**16 43 59.9**	**+4.8**
	22nm,0.7s							
TNTI	**Ternate**	**19.87**	**282**	P	**P**		**16 43 54.3**	**-1.4**
WB0	**Warramunga Arr**	**20.27**	**216**	P	**P**		**16 43 59.3**	**-0.7**
WB0				IAmb	IAmb		16 44 08.6	
	comp=Z,16nm,1.0s							
WR8	**Warramunga Arr**	**20.35**	**215**		**P**		**16 44 00.3**	**-0.6**
WR8				IAmb	IAmb		16 44 08.0	
	comp=Z,20nm,0.8s							
WRAB	**Tennant Creek**	**20.42**	**216**	P	**P**		**16 43 59.7**	**-2.0**
WRAB				IAmb	IAmb		16 44 10.3	
	comp=Z,21nm,0.8s							
WB2	**Warramunga Arr**	**20.43**	**216**	P	**P**		**16 44 00.2**	**-1.5**
WB2				IAmb	IAmb		16 44 07.3	
	comp=Z,21nm,0.7s							
WRA	**Warramunga Arr**	**20.43**	**216**	P	**P**		**16 44 00.7**	**-1.1**
	comp=Z,7.4nm,0.7s,baz=40,slow=12,SNR=9.9							
	comp=Z,7.4nm,0.7s							
WRA	**Warramunga Arr**	**20.43**	**216**		**P**		**16 43 58.3**	**-3.5**
KNRA	**Kununurra**	**21.53**	**234**		**P**		**16 44 12.2**	**-1.5**
KNRA				IAmb	IAmb		16 44 17.9	
	comp=Z,14nm,0.8s							
EIDS	**Eidsvold**	**22.20**	**170**		**P**		**16 44 16.9**	**-3.9**
EIDS				IAmb	IAmb		16 44 32.3	
	comp=Z,11nm,0.8s							
SOEI	**Soe**	**23.25**	**253**	P	P		16 44 39.7	+7.7
	comp=Z,50nm,0.8s							
SANVU	**Saraoutou**	**23.37**	**122**	P	**P**		**16 44 29.9**	**-3.2**
AS31	**Alice Springs**	**23.67**	**211**		**P**		**16 44 33.9**	**-2.1**
ASAR	**Alice Springs**	**23.68**	**211**	P	**P**		**16 44 35.6**	**-0.4**
	comp=Z,6.7nm,0.7s,baz=44,slow=7.1,SNR=30							
ASAR				LR	LR		16 54 16.6	
	comp=Z,521nm,19.1s,baz=44,slow=38							
	comp=Z,6.7nm,0.7s							
ASAR	**Alice Springs**	**23.68**	**211**		**P**		**16 44 35.0**	**-1.0**
BATI	**Baumata**	**23.93**	**252**	P	**P**		**16 44 37.0**	**-1.6**
	comp=Z,6.7nm,0.3s,baz=63,slow=9.0,SNR=6.4							
	comp=Z,6.7nm,0.3s							
BATI	**Baumata**	**23.93**	**252**	P	**P**		**16 44 44.1**	**+5.5**
	comp=Z,45nm,1.2s							
GTOI	**Gorontalo**	**24.12**	**279**	P	P		16 44 50.1	+10
	comp=Z,30nm,0.9s							
INKA	**Innaminka**	**24.86**	**193**		**P**		**16 44 46.0**	**-0.8**
INKA				IAmb	IAmb		16 44 52.9	
	comp=Z,6.2nm,0.7s							
MMRI	**Maumere**	**24.97**	**257**	P	**P**		**16 44 45.4**	**-2.6**
MMRI				IAmb	IAmb		16 44 55.9	
	comp=Z,11nm,0.7s							
FITZ	**Fitzroy Crossi**	**25.35**	**233**	P	**P**		**16 44 49.8**	**-1.5**
	comp=Z,12nm,0.9s,baz=50,slow=13,SNR=15							
FITZ				LR	LR		16 55 35.6	
	comp=Z,427nm,18.9s,baz=54,slow=38							
	comp=Z,12nm,0.9s							
FITZ	**Fitzroy Crossi**	**25.35**	**233**		**P**		**16 44 50.1**	**-1.3**
DZM	**Mont Dzumac**	**26.59**	**136**	P	**P**		**16 45 06.3**	**+3.6**
	comp=Z,7.3nm,0.6s,baz=329,slow=5.9							
	comp=Z,7.3nm,0.6s							
KAPI	**Kappang**	**27.02**	**266**	LR	LR		16 58 14.7	
	comp=Z,74nm,18.3s,baz=90,slow=42							
ARMA	**Armidale**	**27.24**	**171**	P	**P**		**16 45 05.2**	**-3.2**
ARMA				IAmb	IAmb		16 45 16.5	
	comp=Z,12nm,0.9s							
STKA	**Stephens Creek**	**28.73**	**189**	P	**P**		**16 45 23.5**	**+1.9**
	comp=Z,2.7nm,1.0s,baz=0.0,slow=3.0,SNR=6.1							
STKA				LR	LR		16 57 34.3	
	comp=Z,269nm,20.4s,baz=8.2,slow=38							
	comp=Z,2.7nm,1.0s							

STKA	**Stephens Creek**	**28.73**	**189**	P	**P**	**16 45 18.5**	**-3.1**
JCJ	**Chichijima**	**30.67**	**352**	LR	LR	16 56 01.7	
	comp=Z,80nm,20.8s,baz=114,slow=32						
BBOO	**Buckleboo**	**30.92**	**198**	P	**P**	**16 45 37.0**	**-4.0**
BBOO				IAmb	IAmb	16 46 02.0	
	comp=Z,8.8nm,1.0s						
FORT	**Forrest**	**32.46**	**211**	P	**P**	**16 45 52.5**	**-2.1**
FORT				IAmb	IAmb	16 46 03.9	
	comp=Z,6.6nm,0.8s						
MSVF	**Nonsavu**	**33.76**	**117**	P	**P**	**16 46 10.5**	**+4.2**
	comp=Z,3.1nm,0.7s,baz=292,slow=8.6,SNR=3.6						
MSVF				LR	LR	16 59 58.0	
	comp=Z,76nm,18.5s,baz=2.4,slow=36						
	comp=Z,3.1nm,0.7s						
JOW	**Kunigami**	**35.01**	**330**	LR	LR	16 57 24.0	
	comp=Z,261nm,21.8s,baz=216,slow=31						
JNU	**Nakatsue**	**39.35**	**339**	LR	LR	16 59 42.1	
	comp=Z,164nm,21.4s,baz=102,slow=31						
AFI	**Afiamalu**	**42.18**	**107**	LR	LR	17 03 37.1	
	comp=Z,127nm,18.4s,baz=249,slow=34						
NJ2	**Nanjing**	**44.15**	**325**	*eP*	**P**	**16 47 34.0**	**+1.1**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KSRS	**Korea Array**	**44.30**	**338**	P	**P**	**16 47 33.4**	**-0.6**
	comp=Z,1.4nm,0.9s,baz=161,slow=8.0,SNR=5.2						
KSRS				LR	LR	17 04 33.6	
	comp=Z,117nm,18.9s,baz=150,slow=34						
	comp=Z,1.4nm,0.9s						
URZ	**Urewera**	**44.35**	**145**	LR	LR	17 03 30.6	
	comp=Z,182nm,21.3s,baz=306,slow=32						
RPZ	**Rata Peaks**	**45.51**	**155**	LR	LR	17 04 25.9	
	comp=Z,48nm,21.6s,baz=233,slow=33						
USRK	**Ussuriysk Ar.**	**49.24**	**346**	P	**P**	**16 48 14.1**	**+1.6**
	comp=Z,0.6nm,0.4s,baz=181,slow=6.6,SNR=2.3						
	comp=Z,0.6nm,0.4s						
MDJ	**Mudanjiang**	**50.25**	**344**	P	**P**	**16 48 21.9**	**+1.7**
MDJ				pmax	pmax		
	comp=Z,8.0nm,2.3s						
HNS	**HongShan**	**50.39**	**327**	‖P	P	16 48 26.4	+5.0
HNS				pmax	pmax		
	comp=Z,12nm,1.4s						
CM31	**Chiang Mai Arr**	**51.90**	**297**	P	**P**	**16 48 37.1**	**+4.0**
CM31				IAmb	IAmb	16 48 39.6	
	comp=Z,6.8nm,0.8s						
CMAR	**Chiang Mai Arr**	**51.90**	**297**	P	**P**	**16 48 32.6**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=119,slow=6.1,SNR=11						
CMAR				LR	LR	17 11 51.8	
	comp=Z,45nm,18.1s,baz=110,slow=38						
	comp=Z,0.5nm,0.4s						
CHTO	**Chiang Mai**	**52.02**	**297**	P	P	16 48 40.7	+6.7
CD2	**Chengdu**	**53.37**	**313**	P	**P**	**16 48 43.8**	**-0.1**
KLR	**Kul'dur**	**54.05**	**348**	LR	LR	17 08 00.9	
	comp=Z,69nm,20.0s,slow=32						
HHC	**Hu-ho-hao-te**	**54.56**	**328**	*eP*	**P**	**16 48 52.5**	**0.0**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,150nm,4.1s						
LZDM	**Lanzhou Array**	**56.18**	**318**	LR	LR	17 12 40.5	
	comp=Z,99nm,19.2s,baz=240,slow=36						
PETK	**Petropavlovsk-**	**57.07**	**8**	P	**P**	**16 49 10.8**	**+0.7**
	comp=Z,2.6nm,0.9s,baz=192,slow=6.7,SNR=2.0						
	comp=Z,2.6nm,0.9s						
HILR	**Hailar Array B**	**57.73**	**339**	P	**P**	**16 49 15.5**	**+0.6**
	comp=Z,1.8nm,0.5s,baz=147,slow=30,SNR=2.2						
	comp=Z,1.8nm,0.5s						
GTA2	**Gaotai**	**60.74**	**320**	*eP*	P	16 49 42.1	+6.1
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
SONM	**Songino Array**	**62.08**	**330**	P	**P**	**16 49 45.3**	**+0.4**
	comp=Z,0.4nm,0.6s,baz=150,slow=7.3,SNR=5.6						
SONM				LR	LR	17 16 03.4	
	comp=Z,146nm,19.9s,baz=128,slow=35						
	comp=Z,0.4nm,0.6s						
SONM	**Songino Array**	**62.08**	**330**	P	**P**	**16 49 44.2**	**-0.7**
SONM				IAmb	IAmb	16 49 52.6	
	comp=Z,2.2nm,1.0s						
VNDA	**Vanda**	**74.48**	**177**	P	**P**	**16 51 02.4**	**+0.5**
	comp=Z,0.8nm,0.9s,baz=332,slow=8.0,SNR=7.6						
	comp=Z,0.8nm,0.9s						
VNDA	**Vanda**	**74.48**	**177**	P	**P**	**16 51 00.8**	**-1.1**
MKAR	**Makanchi Array**	**75.40**	**320**	P	**P**	**16 51 07.0**	**-0.9**
	comp=Z,1.7nm,0.9s,baz=96,slow=7.9,SNR=9.6						
	comp=Z,1.7nm,0.9s				

0.7nm,0.8s,baz=261,slow=5.3,SNR=5.5
0.7nm,0.8s
BVAR Borovoye Array 84.70 324 P **P** **16 57 59.9 -0.3**
0.9nm,0.5s,baz=122,slow=5.4,SNR=4.1
0.9nm,0.5s

IDC ***13*** *16:48:31.9±1.6,3.35S×146.83E,h0km,mb3.5/6, mbtmp3.6/7,ML1.4/1,Error ellipse: s-maj=44.4km s-min=22.0km az=93.0*

ISC 13 16:48:35.8±1.3,3.4S±0.1×146.9E±0.3,h25km,n7,σ1§65/7, mb3.7/5,Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**6.01**	**177**	Pn	**Pn**	**16 50 04.4**	**+1.2**
	0.6nm,0.3s,baz=359,slow=14,SNR=2.2						
	6.8nm,0.8s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**20.52**	**216**	P	**P**	**16 53 10.3**	**-2.1**
	1.5nm,0.6s,baz=41,slow=11,SNR=8.5						
	1.5nm,0.6s						
ASAR	**Alice Springs**	**23.76**	**211**	P	**P**	**16 53 45.4**	**-1.1**
	0.5nm,0.8s,baz=40,slow=7.4,SNR=6.1						
	0.5nm,0.8s						
FITZ	**Fitzroy Crossi**	**25.43**	**233**	P	**P**	**16 54 00.9**	**-0.8**
	2.0nm,0.8s,baz=58,slow=9.2,SNR=1.8						
	2.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**51.92**	**296**	P	**P**	**16 57 43.8**	**+0.8**
	0.2nm,0.4s,baz=116,slow=7.8,SNR=2.1						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**75.39**	**320**	P	**P**	**17 00 18.4**	**+1.0**
	0.8nm,1.1s,baz=118,slow=6.7,SNR=2.3						
	0.8nm,1.1s						
ILAR	**Eielson Array**	**83.12**	**23**	P	**P**	**17 00 58.0**	**-1.2**
	0.6nm,1.0s,baz=249,slow=4.4,SNR=2.9						
	0.6nm,1.0s						

NEIC ***13*** *17:08:00.1±2.0,3.46S±0.05×146.91E±0.08,h10km±1km, mb4.7/57,Error ellipse: s-maj=13.4km s-min=7.5km az=103.0*

BJI ***13*** *17:08:02.0,3.60S×146.90E,h5km,mB5.4/7,mb4.7/28, Ms4.8/12,Ms7.4,6/13*

IDC ***13*** *17:08:03.3±0.5,3.35S×146.48E,h0km,mb4.4/18, mbtmp4.4/23,ML3.9/4,MS4.2/29,Error ellipse: s-maj=15.8km s-min=10.8km az=73.0*

GFZ ***13*** *17:08:04.4±0.2,3.3S×14.7E±,h10km,M4.8/34, mb4.6/34*

GCMT ***13*** *17:08:07.1±0.1,3.33S±0.01×146.67E±0.01,h15km, MW5.0/134,Moment Tensor Solution. s64,c87; s134,c227; Duration: 0 Moment tensor: Scale 1016Nm; Mrr0.29±.09; Mθθ0.08±.09; Mϕϕ-0.37±.09; Mrθ-0.07±.28; Mθϕ4.50±.06; Mϕr-0.17±.26; Best double couple: Mo4.51000×1016 NP1:ϕs271.00000°,δ88.00000°, λ1.00000°. NP2:ϕs181.00000°,δ89.00000°,λ178.00000°. Principal axes: T 4.3690, Plg2.0000°, Azm136.0000°; N 0.2820, Plg87.0000°, Azm336.0000°; P -4.6510, Plg1.0000°, Azm226.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

DJA ***13*** *17:08:12.8±1.4,4.7S±7.7×14.7E±1.0,h37km±7km,M4.6/37, mb4.5/37,mB5.2/12,MLv4.6/4,Mw(mB)4.6/12*

ISC 13 17:08:02.8±0.3,3.58S±0.05×147.07E±0.05,h25km,n188, σ2§31/152,mb4.7/65,MS4.2/29,2C,Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MANU	**Manus Island**	**1.56**	**11**	Pn	**Pn**	**17 08 26.2**	**-2.7**
MANU				Sn	**Sn**	**17 08 47.5**	**-0.8**
KRVT	**Keravat (AS076**	**5.00**	**98**	Pn	**Pb**	**17 09 29.5**	**-0.1**
	5.1nm,0.3s,baz=175,slow=23,SNR=4.5						
	15nm,0.4s						
KRVT				AML	AML		
RABL	**Rabaul**	**5.12**	**97**		**Pn**	**17 09 15.6**	**-2.3**
PMG	**Port Moresby**	**5.79**	**179**	Pn	Pn	17 09 33.8	+6.7
	45nm,0.9s,baz=32,slow=5.5,SNR=9.5						
PMG				Sn	Sb	17 10 42.9	-9.1
	baz=28,slow=15						
PMG	**Port Moresby**	**5.79**	**179**		**Pn**	**17 09 23.6**	**-3.5**
PMG	**Port Moresby**	**5.79**	**179**	P	Pn	17 09 32.7	+5.6
	0.3nm106nm,0.8s						
PMG				AML	AML		
PMG	**Port Moresby**	**5.79**	**179**	P	Pn	17 09 33.0	+5.9
	comp=Z,108nm,0.8s						
JAY	**Jayapura**	**6.45**	**279**	Pn	Pn	17 09 32.0	-4.2
	comp=Z,0.5nm,0.3s,baz=94,slow=2.3,SNR=4.1						
JAY				LR	LR	17 11 39.7	
	comp=Z,2μm,18.2s,baz=95,slow=37						
	comp=Z,7.9nm,0.8s						
JAY				AML	AML		
JAY	**Jayapura**	**6.45**	**279**	P	**Pn**	**17 09 37.2**	**+1.0**
	comp=Z,0.1nmcomp=Z,28nm,1.0s						
JAY				AML	AML		
JAY	**Jayapura**	**6.45**	**279**	P	**Pn**	**17 09 36.3**	**+0.1**
	comp=Z,28nm,1.0s						
GENI	**Genyem**	**6.96**	**278**	P	**Pn**	**17 09 46.1**	**+2.8**
	comp=Z,0.3nmcomp=Z,1μmcomp=Z,52nm,1.0s						
GENI				AML	AML		
GENI	**Genyem**	**6.96**	**278**	P	**Pn**	**17 09 43.2**	**-0.1**
	comp=Z,48nm,1.1s						
SMPI	**Sarmi**	**8.50**	**281**	P	**Pn**	**17 10 07.1**	**+2.7**
	comp=Z,65nm,1.2s						
SMPI	**Sarmi**	**8.50**	**281**	P	**Pn**	**17 10 05.2**	**+0.8**
	comp=Z,61nm,1.2s						
BAKI	**Biak**	**11.21**	**282**	P	Pn	17 10 46.9	+5.3
	comp=Z,23nm,1.1s						
HNR	**Honiara**	**14.05**	**115**	Pn	**P**	**17 11 31.1**	**+3.1**
	comp=Z,1.1nm,0.3s,baz=298,slow=17,SNR=2.1						
HNR				LR	LR	17 16 34.1	
	comp=Z,674nm,18.6s,baz=7.5,slow=35						
	comp=Z,17nm,0.9s						
HNR				AML	AML		
HNR	**Honiara**	**14.05**	**115**	Pn	**Pn**	**17 11 20.2**	**-0.2**
HNR	**Honiara**	**14.05**	**115**	P	**P**	**17 11 28.4**	**+0.5**
	comp=Z,46nm,1.1s						
MTSU	**Mount Surprise**	**14.71**	**190**	P	**P**	**17 11 34.9**	**-0.5**
	comp=Z,12nm,0.9s						
FAKI	**Fak Fak**	**14.81**	**272**	Pn	Pn	17 11 25.2	-5.7
FAKI	**Fak Fak**	**14.81**	**272**	P	**Pn**	**17 11 31.3**	**+0.5**
	comp=Z,19nm,1.6s						
FAKI	**Fak Fak**	**14.81**	**272**	P	**Pn**	**17 11 29.7**	**-1.1**
	comp=Z,19nm,1.6s						
SIJI	**Sorong**	**16.02**	**279**	Pn	**Pn**	**17 11 47.0**	**+0.4**
	comp=Z,0.3nm,0.3s,baz=95,slow=11,SNR=8.7						
SIJI				LR	LR	17 16 50.8	
	comp=Z,952nm,21.4s,baz=116,slow=34						
SIJI	**Sorong**	**16.02**	**279**	P	**Pn**	**17 11 47.0**	**+0.4**
	comp=Z,15nm,1.1s						
SIJI	**Sorong**	**16.02**	**279**	P	**Pn**	**17 11 47.0**	**+0.4**
	comp=Z,14nm,1.0s						
CTA	**Charters Tower**	**16.43**	**183**	Pn	**P**	**17 11 59.5**	**+5.1**
	comp=Z,0.6nm,0.3s,baz=349,slow=12,SNR=9.8						
CTA				LR	LR	17 18 54.9	
	comp=Z,1μm,18.1s,baz=359,slow=39						
	comp=Z,5.5nm,1.0s						
CTA				AML	AML		
CTAO	**Charters Tower**	**16.43**	**183**		**Pn**	**17 11 51.5**	**-0.3**
CTAO	**Charters Tower**	**16.43**	**183**	P	**P**	**17 11 56.3**	**+1.9**
	comp=Z,19nm,1.1s						
BNDI	**Bandanaira**	**17.15**	**266**	P	**P**	**17 12 05.4**	**+3.0**
BNDI	**Bandanaira**	**17.15**	**266**	P	**Pn**	**17 12 02.2**	**+1.3**
	comp=Z,97nm,0.9s						
GUMO	**Guam**	**17.20**	**353**	LR	LR	17 17 45.1	
	comp=Z,450nm,18.3s,baz=176,slow=34						
MTN	**Manton Dam**	**18.25**	**239**	P	**P**	**17 12 11.7**	**-2.9**
AAI	**Ambon**	**18.84**	**269**	P	**P**	**17 12 21.4**	**+0.3**
	comp=Z,19nm,0.4s						
NLAI	**Namlea**	**19.94**	**270**	P	**Pn**	**17 12 36.6**	**+1.7**
	comp=Z,34nm,0.9s						
NLAI	**Namlea**	**19.94**	**270**	P	**P**	**17 12 33.0**	**-0.1**
	comp=Z,19nm,0.9s						
GAMI	**Galela, Maluku**	**20.01**	**285**	P	Pn	17 12 39.4	+3.6
	comp=Z,74nm,1.4s						
TNTI	**Ternate**	**20.16**	**282**		P	17 12 28.4	-7.2
TNTI	**Ternate**	**20.16**	**282**	P	Pn	17 12 42.0	+4.5
	comp=Z,418nmcomp=Z,25nm,1.2s						
TNTI	**Ternate**	**20.16**	**282**	P	Pn	17 12 37.5	-0.1
	comp=Z,25nm,1.2s						
WB0	**Warramunga Arr**	**20.29**	**217**	P	**P**	**17 12 33.0**	**-4.0**
WB0				IAmb	IAmb	17 12 53.2	
	comp=Z,37nm,1.3s						
WR8	**Warramunga Arr**	**20.38**	**216**		**P**	**17 12 34.8**	**-3.1**
WR8				IAmb	IAmb	17 12 43.1	
	comp=Z,27nm,1.0s						
WRAB	**Tennant Creek**	**20.45**	**216**	P	**P**	**17 12 34.7**	**-3.9**
WRAB				IAmb	IAmb	17 12 57.4	
	comp=Z,28nm,0.9s						
WRAB	**Tennant Creek**	**20.45**	**216**	P	**P**	**17 12 40.2**	**+1.6**
	comp=Z,39nm,1.1s						
WRA	**Warramunga Arr**	**20.46**	**216**	P	**P**	**17 12 36.7**	**-2.1**
	comp=Z,1.1nm,0.9s,baz=40,slow=10,SNR=8.5						
WRA	**Warramunga Arr**	**20.46**	**216**		**P**	**17 12 36.0**	**-2.7**
SANI	**Sanana**	**21.11**	**274**	P	**P**	**17 12 45.2**	**-0.7**
	comp=Z,18nm,1.5s						
SANI	**Sanana**	**21.11**	**274**	P	**P**	**17 12 47.0**	**+1.2**
	comp=Z,18nm,1.5s						
KNRA	**Kununurra**	**21.66**	**235**		**P**	**17 12 50.2**	**-1.5**
KNRA				IAmb	IAmb	17 12 58.2	
	comp=Z,22nm,0.9s						
EIDS	**Eidsvold**	**22.00**	**170**	P	**P**	**17 12 55.7**	**+0.4**
EIDS				IAmb	IAmb	17 13 17.6	
	comp=Z,49nm,1.4s						
EIDS	**Eidsvold**	**22.00**	**170**	P	**P**	**17 13 00.7**	**+5.4**
	comp=Z,19nm,1.9s						
MNI	**Manado**	**22.77**	**282**	P	**P**	**17 12 59.7**	**-4.0**
QLP	**Quilpie**	**23.03**	**187**	P	**P**	**17 13 11.0**	**+4.8**
	comp=Z,56nm,1.2s						
KMSI	**Cibinong**	**23.44**	**280**	P	**P**	**17 13 12.6**	**+2.1**
SOEI	**Soe**	**23.45**	**254**		**P**	**17 13 07.9**	**-2.8**
SOEI	**Soe**	**23.45**	**254**	P	**P**	**17 13 14.4**	**+3.7**
SOEI	**Soe**	**23.45**	**254**	P	**P**	**17 13 12.4**	**+1.7**
	comp=Z,65nm,0.9s						
AS31	**Alice Springs**	**23.68**	**211**		**P**	**17 13 13.0**	**+0.3**
ASAR	**Alice Springs**	**23.68**	**211**	P	**P**	**17 13 15.0**	**+2.3**
	comp=Z,17nm,1.1s,baz=42,slow=8.5,SNR=58						
ASAR				LR	LR	17 22 55.8	
	comp=Z,2μm,18.4s,baz=44,slow=38						
	comp=Z,17nm,1.1s						
ASAR	**Alice Springs**	**23.68**	**211**		**P**	**17 13 12.2**	**-0.4**
KOUNC	**Koumac, New Ca**	**23.78**	**137**	P	**P**	**17 13 15.4**	**+1.7**
DAV	**Davao City (W)**	**23.92**	**296**	LR	LR	17 22 16.0	
	comp=Z,541nm,18.6s,baz=104,slow=37						
BATI	**Baumata**	**24.14**	**253**	P	**P**	**17 13 18.1**	**+1.0**
	comp=Z,22nm,0.7s,baz=228,slow=1.7,SNR=8.5						
BATI				LR	LR	17 24 19.7	
	comp=Z,479nm,20.1s,baz=86,slow=41						
	comp=Z,22nm,0.7s						
BATI	**Baumata**	**24.14**	**253**	P	**P**	**17 13 20.8**	**+3.7**
	comp=Z,44nm,1.0s						
BATI	**Baumata**	**24.14**	**253**	P	**P**	**17 13 18.3**	**+1.2**
	comp=Z,44nm,0.8s						
LUWI	**Luwuk**	**24.41**	**275**		**P**	**17 13 15.2**	**-4.4**
LUWI	**Luwuk**	**24.41**	**275**	P	**P**	**17 13 20.9**	**+1.3**
LUWI	**Luwuk**	**24.41**	**275**	P	**P**	**17 13 19.7**	**+0.1**
	comp=Z,86nm,1.2s						
GTOI	**Gorontalo**	**24.41**	**279**	P	**P**	**17 13 22.1**	**+2.5**
	comp=Z,736nmcomp=Z,44nm,1.6s						
INKA	**Innaminka**	**24.77**	**193**		**P**	**17 13 22.4**	**-0.3**
INKA				IAmb	IAmb	17 13 37.1	
	comp=Z,19nm,0.9s						
MMRI	**Maumere**	**25.19**	**257**	P	**P**	**17 13 24.5**	**-2.2**
MMRI				IAmb	IAmb	17 13 30.6	
	comp=Z,21nm,1.1s						
MMRI	**Maumere**	**25.19**	**257**	P	**P**	**17 13 30.9**	**+4.2**
	comp=Z,18nm,1.3s						
FITZ	**Fitzroy Crossi**	**25.47**	**234**	LR	LR	17 24 15.4	
	comp=Z,2μm,18.1s,baz=54,slow=39						
FITZ	**Fitzroy Crossi**	**25.47**	**234**		**P**	**17 13 26.9**	**-2.2**
FITZ	**Fitzroy Crossi**	**25.47**	**234**	P	**P**	**17 13 30.3**	**+1.2**
	comp=Z,5.5nm,1.0s						
EDFI	**Ende, Flores**	**25.74**	**257**	P	**P**	**17 13 35.9**	**+4.1**
	comp=Z,9.3nm,1.0s						
EDFI	**Ende, Flores**	**25.74**	**257**	P	**P**	**17 13 32.1**	**+0.4**
	comp=Z,9.3nm,1.0s						
DZM	**Mont Dzumac**	**26.29**	**136**	LR	LR	17 23 04.4	
	comp=Z,1μm,19.9s,baz=299,slow=34						
TOLI2	**Tolitoli**	**26.69**	**280**	P	**P**	**17 13 42.2**	**+2.0**
	comp=Z,12nm,1.0s						
BKSI	**Bulukumba**	**26.92**	**265**	P	**P**	**17 13 42.7**	**+0.3**
	comp=Z,9.8nm,0.9s						
ARMA	**Armidale**	**27.04**	**171**	P	**P**	**17 13 44.5**	**+1.2**
ARMA				IAmb	IAmb	17 13 58.5	
	comp=Z,19nm,1.1s						
KAPI	**Kappang**	**27.28**	**266**	LR	LR	17 25 55.0	
	comp=Z,190nm,19.6s,baz=86,slow=40						
PINNC	**Pines Island,**	**27.34**	**136**	P	**P**	**17 13 47.9**	**+1.9**
CMSA	**Cobar Meteorol**	**27.84**	**183**	P	**P**	**17 13 55.9**	**+5.6**
	comp=Z,14nm,2.5s						
STKA	**Stephens Creek**	**28.61**	**190**	P	P	17 14 04.0	+6.8
	comp=Z,2.3nm,0.8s,baz=14,slow=12,SNR=3.4						
STKA				LR	LR	17 26 34.1	
	comp=Z,672nm,18.8s,baz=5.2,slow=39						
	comp=Z,2.3nm,0.8s						
STKA	**Stephens Creek**	**28.61**	**190**	P	**P**	**17 13 57.9**	**+0.6**
JCJ	**Chichijima**	**30.86**	**351**	LR	LR	17 24 30.9	
	comp=Z,162nm,21.4s,baz=150,slow=32						
JCJ	**Chichijima**	**30.86**	**351**	P	**P**	**17 14 15.3**	**-1.9**
JCJ	**Chichijima**	**30.86**	**351**	P	**P**	**17 14 18.8**	**+1.6**
	comp=Z,239nm,1.2s						
KKM	**Kota Kinabalu**	**32.26**	**287**	P	**P**	**17 14 30.5**	**+0.6**
	comp=Z,12nm,1.3s						
FORT	**Forrest**	**32.46**	**211**	P	**P**	**17 14 29.8**	**-1.5**
FORT				IAmb	IAmb	17 14 41.2	
	comp=Z,7.9nm,0.8s						
ABJI	**Asem Bagus**	**32.93**	**261**	P	**P**	**17 14 36.5**	**+0.9**
	comp=Z,75nm,1.0s						
MSVF	**Nonsavu**	**33.45**	**117**	LR	LR	17 28 36.6	
	comp=Z,268nm,18.2s,baz=310,slow=36						
JOW	**Kunigami**	**35.27**	**330**	LR	LR	17 26 03.3	
	comp=Z,742nm,22.0s,baz=202,slow=31						
MEEK	**Meekatharra**	**35.60**	**227**	P	**P**	**17 15 00.5**	**+1.8**
	comp=Z,15nm,1.7s						
JHJ	**Hachijo jima 2**	**37.15**	**350**	LR	LR	17 30 10.4	
	comp=Z,32nm,18.5s,baz=168,slow=36						
JMN	**Monobe**	**39.15**	**342**	P	**P**	**17 15 30.6**	**+2.0**
	comp=Z,36nm,1.4s						
BBJI	**Bungbulang**	**39.41**	**263**	P	**P**	**17 15 28.2**	**-3.0**
BBJI				IAmb	IAmb	17 15 35.0	
	comp=Z,13nm,0.9s						
JNU	**Nakatsue**	**39.59**	**338**	LR	LR	17 28 43.9	
	comp=Z,281nm,21.9s,baz=143,slow=32						
JGF	**Kuroka**	**40.03**	**348**	P	**P**	**17 15 38.6**	**+2.7**
	comp=Z,15nm,1.1s						
NWAO	**Narrogin (SRO)**	**40.38**	**220**	LR	LR	17 33 09.8	
	comp=Z,549nm,20.9s,baz=116,slow=38						
JHS	**Saijyo**	**40.56**	**342**	P	**P**	**17 15 43.2**	**+3.0**
	comp=Z,0.2nm,0.8s						
MJAR	**Matsushiro Arr**	**40.77**	**349**	P	**P**	**17 15 43.3**	**+1.3**
	comp=Z,1.2nm,0.8s,baz=166,slow=7.1,SNR=4.1						
MJAR				LR	LR	17 31 43.3	
	comp=Z,177nm,18.3s,baz=149,slow=35						
	comp=Z,1.2nm,0.8s						
MJAR	**Matsushiro Arr**	**40.77**	**349**	P	**P**	**17 15 40.6**	**-1.4**
MAJO	**Matsushiro**	**40.77**	**349**	P	**P**	**17 15 40.6**	**-1.3**
MAJO				IAmb	IAmb	17 16 09.3	
	comp=Z,20nm,1.4s						
MAJO	**Matsushiro**	**40.77**	**349**	P	**P**	**17 15 44.5**	**+2.5**
	comp=Z,10nm,1.2s						
JTU	**Tsushima**	**41.40**	**338**	P	**P**	**17 15 45.3**	**-1.9**
AFI	**Afiamalu**	**41.88**	**107**	LR	LR	17 32 16.7	
	comp=Z,257nm,19.3s,baz=265,slow=34						
URZ	**Urewera**	**44.07**	**145**	LR	LR	17 32 09.9	
	comp=Z,502nm,21.6s,baz=310,slow=32						
NJ2	**Nanjing**	**44.44**	**325**	*e*P	**P**	**17 16 14.3**	**+2.5**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KSRS	**Korea Array**	**44.54**	**338**	P	**P**	**17 16 12.8**	**+0.2**
	comp=Z,3.3nm,0.9s,baz=151,slow=9.0,SNR=9.6						
KSRS				LR	LR	17 33 12.4	
	comp=Z,284nm,18.7s,baz=150,slow=34						
	comp=Z,3.3nm,0.9s						
KSAR	**Wonju Array Be**	**44.55**	**338**	P	**P**	**17 16 10.3**	**-2.3**
RPZ	**Rata Peaks**	**45.25**	**155**	LR	LR	17 32 29.8	
	comp=Z,78nm,20.5s,baz=304,slow=32						
RPSI	**Rantau Prapat**	**48.52**	**277**	P	**P**	**17 16 41.5**	**-2.8**
RPSI				IAmb	IAmb	17 16 49.3	
	comp=Z,15nm,1.2s						
SLVN	**Son La**	**48.99**	**302**	P	**P**	**17 16 45.9**	**-1.9**
SLVN				IAmb	IAmb	17 17 03.7	
	comp=Z,8.8nm,1.2s						
ENH	**Enshi**	**49.22**	**316**	P	**P**	**17 16 47.8**	**-1.6**
ENH				IAmb	IAmb	17 16 56.9	
	comp=Z,13nm,1.2s						
USRK	**Ussuriysk Ar.**	**49.46**	**346**	P	**P**	**17 16 52.3**	**+1.5**
	comp=Z,3.8nm,0.8s,baz=161,slow=8.4,SNR=6.5						
USRK				LR	LR	17 35 36.7	
	comp=Z,92nm,19.2s,baz=156,slow=34						
	comp=Z,3.8nm,0.8s						
HNS	**HongShan**	**50.66**	**327**	⇑P	**P**	**17 17 02.8**	**+2.6**
HNS				S	**S**	**17 24 21.1**	**+7.3**
HNS				pmax	pmax		
	comp=Z,13nm,1.3s						
HNS				L	L		
	comp=Z,550nm,15.9s						
HNS				L	L		
	comp=Z,560nm,19.1s						
BNX	**BinXian**	**52.13**	**343**	⇑P	P	17 17 16.0	+5.0
BNX				pmax	pmax		
	comp=Z,13nm,0.8s						
CMAR	**Chiang Mai Arr**	**52.21**	**297**	P	**P**	**17 17 12.8**	**+0.7**
	comp=Z,2.9nm,0.9s,baz=119,slow=5.9,SNR=17						
	comp=Z,2.9nm,0.9s						
CMAR	**Chiang Mai Arr**	**52.21**	**297**		**P**	**17 17 10.2**	**-1.9**
CHTO	**Chiang Mai**	**52.33**	**297**		**P**	**17 17 10.4**	**-2.6**
CHTO				IAmb	IAmb	17 17 20.2	
	comp=Z,18nm,1.4s						
CD2	**Chengdu**	**53.67**	**313**	*e*P	**P**	**17 17 20.9**	**-1.8**
KLR	**Kul'dur**	**54.26**	**348**	LR	LR	17 36 51.0	
	comp=Z,89nm,20.1s,baz=163,slow=32						
HHC	**Hu-ho-hao-te**	**54.84**	**327**	*e*P	**P**	**17 17 33.0**	**+1.9**
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,140nm,4.4s						
HHC				L	L		
	comp=Z,310nm,17.6s						
HHC				L	L		
	comp=Z,360nm,18.3s						
HHC				L	L		
	comp=Z,410nm,16.8s						
NPW	**Naypyitaw**	**55.15**	**297**	P	**P**	**17 17 35.0**	**+1.4**
	comp=Z,12nm,1.0s						
PETK	**Petropavlovsk-**	**57.19**	**8**	P	P	17 17 52.8	+5.3
	comp=Z,4.0nm,0.8s,baz=179,slow=7.2,SNR=4.4						
	comp=Z,4.0nm,0.8s						
PETK	**Petropavlovsk-**	**57.19**	**8**	P	**P**	**17 17 46.9**	**-0.6**
HILR	**Hailar Array B**	**57.97**	**339**	P	**P**	**17 17 54.8**	**+1.6**
	comp=Z,2.6nm,0.6s,baz=127,slow=11,SNR=4.3						
	comp=Z,2.6nm,0.6s						
MORE	**Moreh**	**58.27**	**301**	P	**P**	**17 17 52.9**	**-2.9**
HON	**Honolulu**	**59.18**	**63**	P	**P**	**17 18 02.5**	**+0.4**
GTA2	**Gaotai**	**61.03**	**319**	*e*P	**P**	**17 18 14.8**	**+0.1**
GTA2				sP	pP	17 18 21.6	-0.3
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GTA2				L	L		
	comp=Z,200nm,16.2s						
GTA2				L	L		
	comp=Z,160nm,15.6s						
GTA2				L	L		
	comp=Z,280nm,20.3s						
ULN	**Ulaanbaatar**	**62.04**	**331**	P	**P**	**17 18 21.4**	**+0.1**
ULN				IAmb	IAmb	17 18 29.5	
	comp=Z,8.9nm,1.1s						
ULN	**Ulaanbaatar**	**62.04**	**331**	P	**P**	**17 18 22.9**	**+1.5**
	comp=Z,7.8nm,1.2s						
SONM	**Songino Array**	**62.35**	**330**	P	**P**	**17 18 24.6**	**+1.3**
	comp=Z,0.7nm,0.4s,baz=144,slow=7.1,SNR=7.8						
	comp=Z,0.7nm,0.4s						
SONM	**Songino Array**	**62.35**	**330**	P	**P**	**17 18 23.2**	**-0.1**
PPT2	**Papeete2**	**63.54**	**108**	*e*LR	LR	17 37 31.0	
	comp=Z,121nm,23.2s						
PPT2				*e*LR	LR	17 37 34.6	
	comp=Z,170nm,28.5s						
TBI	**Tubuai**	**64.27**	**114**	*e*LR	LR	17 37 47.2	
	comp=Z,3μm,34.5s						
EVN	**Everest**	**65.85**	**303**	P	**P**	**17 18 45.0**	**-2.4**
EVN				IAmb	IAmb	17 19 00.1	
	comp=Z,11nm,1.3s						
TLY	**Talaya**	**66.25**	**332**	LR	LR	17 47 29.0	
	comp=Z,179nm,19.6s,baz=120,slow=36						
PALK	**Pallekele**	**67.10**	**279**	LR	LR	17 53 04.7	
	comp=Z,39nm,18.1s,baz=96,slow=41						
WMQ	**Urumqi**	**71.02**	**319**	*e*P	**P**	**17 19 21.1**	**+2.3**
WMQ				pP	pP	17 19 26.5	+0.4
WMQ				L	L		
	comp=Z,130nm,24.1s						
TAOE	**Nuku Hiva Isla**	**72.45**	**98**	*e*LR	LR	17 41 38.7	
	comp=Z,226nm,24.7s						
VNDA	**Vanda**	**74.31**	**177**	P	P	17 19 43.5	+6.0
	comp=Z,0.4nm,0.5s,baz=348,slow=5.4,SNR=2.1						
	comp=Z,0.4nm,0.5s						
VNDA	**Vanda**	**74.31**	**177**	P	**P**	**17 19 37.5**	**-0.1**
O15K	**Ungalikthiuk R**	**75.21**	**25**	P	**P**	**17 19 42.4**	**-0.7**
L14K	**Kuka Creek**	**75.33**	**23**	P	**P**	**17 19 41.8**	**-1.8**
MKAR	**Makanchi Array**	**75.69**	**320**	P	**P**	**17 19 47.4**	**+1.2**
	comp=Z,2.9nm,1.0s,baz=101,slow=6.3,SNR=23						
	comp=Z,5.2nm,1.0s						
MKAR	**Makanchi Array**	**75.69**	**320**		**P**	**17 19 43.2**	**-3.0**
MAKZ	**Makanchi**	**75.90**	**320**		**P**	**17 19 45.0**	**-2.4**
MAKZ	**Makanchi**	**75.90**	**320**	P	**P**	**17 19 50.8**	**+3.5**
	comp=Z,13nm,1.3s						
TIXI	**Tiksi**	**76.03**	**354**	P	**P**	**17 19 48.2**	**+0.7**
PDGK	**Podgornoye**	**76.39**	**316**		**P**	**17 19 48.0**	**-2.4**
PRZ	**Przheval'sk**	**76.89**	**315**	P	**P**	**17 19 51.1**	**-2.3**
ZAA0	**Zalesovo Array**	**77.02**	**328**	P	**P**	**17 19 51.9**	**-1.6**
ZALV	**Zalesovo Beam**	**77.02**	**328**	P	**P**	**17 19 54.2**	**+0.7**
	comp=Z,3.7nm,0.8s,baz=103,slow=6.5,SNR=12						
	comp=Z,3.7nm,0.8s						
ZALV	**Zalesovo Beam**	**77.02**	**328**		**P**	**17 19 52.1**	**-1.4**
TARG	**Taragay, Kyrgy**	**77.10**	**314**	P	**P**	**17 19 52.5**	**-2.2**
TARG	**Taragay, Kyrgy**	**77.10**	**314**	P	**P**	**17 19 57.3**	**+2.6**
K17K	**Iditarod**	**77.81**	**23**	P	**P**	**17 19 56.6**	**-1.1**
J17K	**VABM Dome**

comp=Z,2.1nm,1.0s,baz=64,slow=4.3,SNR=5.6
DBIC Dimbokro 151.88 277 PKPbc PKiKP 17 28 01.4 +4.4
comp=Z,3.0nm,0.7s,baz=123,slow=8.8,SNR=3.7
DBIC Dimbokro 151.88 277 PKPdf 17 27 45.4 -4.8

*ISK **13** 17:14:54.9, 37.81N×26.56E, h11km, ML1.7/12*
AFAD 13 17:14:55.9, 37.87N×26.60E, h7km±2km, ML1.7, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.29**	**51**	P	Pg	17 15 01.7	+0.1
DGB				IAML		17 15 06.0	
	comp=E,100nm,0.2s						
DGB				S	Sg	17 15 06.0	+0.7
DGB	**zmir**	**0.29**	**51**	P	Pg	17 15 01.9	+0.3
DGB				S	Sg	17 15 06.0	+0.7
DGB				IAML		17 15 07.0	
	comp=N,60nm,0.2s						
GMLD	**Gumuldur**	**0.32**	**50**	Pg	Pg	17 15 02.7	+0.5
GMLD				Sg	Sg	17 15 07.9	+1.4
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.38**	**348**	P	Pg	17 15 03.0	-0.2
ZEYE				S	Sg	17 15 09.5	+1.3
ZEYE				IAML		17 15 10.0	
	comp=N,70nm,0.2s						
ZEYE				IAML		17 15 10.0	
	comp=E,109nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.38**	**348**	P	Pg	17 15 03.8	+0.6
ZEYE				S	Sg	17 15 09.4	+1.3
ZEYE				IAML		17 15 10.0	
	comp=N,70nm,0.2s						
BEYE	**izmir**	**0.44**	**36**	P	Pg	17 15 04.5	+0.1
BEYE				S	Sg	17 15 10.6	+0.4
BEYE	**izmir**	**0.44**	**36**	P	Pg	17 15 04.6	+0.2
BEYE				S	Sg	17 15 10.7	+0.5
BEYE				IAML		17 15 11.0	
	comp=N,34nm,0.6s						
GCAM	**G?zelcaml?**	**0.53**	**109**	P	Pg	17 15 05.2	-0.9
GCAM	**G?zelcaml?**	**0.53**	**109**	P	Pg	17 15 05.5	-0.7
GCAM	**G?zelcaml?**	**0.53**	**109**	Pg	Pg	17 15 06.1	0.0
GCAM				Sg	Sb	17 15 14.5	-0.9
GCAM				AML	AML		
BLCB	**Balcova**	**0.62**	**34**	Pg	Pb	17 15 09.0	-0.1
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.66**	**129**	P	Pg	17 15 08.7	+0.2
CHOS	**Chios island**	**0.67**	**320**	Pg	Pg	17 15 08.9	+0.1
CHOS				Sg	Sb	17 15 19.7	+0.2
CHOS				AML	AML		
KRBN	**Karaburun**	**0.72**	**357**	Pg	Pb	17 15 10.5	-0.3
DUVT	**Torbali**	**0.76**	**62**	P	Pg	17 15 10.7	+0.3
DUVT	**Torbali**	**0.76**	**62**	P	Pg	17 15 10.6	+0.2
KARB	**zmir-Karabur**	**0.81**	**349**	P	Pg	17 15 11.1	-0.3
DAGE	**izmir**	**0.92**	**81**	P	Pb	17 15 14.2	0.0
DAGE				S	Sg	17 15 25.0	-0.5
DAGE				IAML		17 15 26.0	
	comp=N,24nm,0.4s						
DAGE	**izmir**	**0.92**	**81**	P	Pg	17 15 13.6	0.0
DAGE				S	Sg	17 15 24.1	-1.4
DAGE				IAML		17 15 26.0	
	comp=N,24nm,0.4s						
BODT	**Bodrum**	**0.99**	**145**	Pg	Pg	17 15 13.7	-1.1
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.02**	**85**	Pg	Pn	17 15 16.5	-0.3
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.03**	**101**	P	Pg	17 15 15.4	-0.4
AYDN	**Tasoluk**	**1.03**	**101**	P	Pg	17 15 15.4	-0.3
CAMT	**Merkez**	**1.04**	**32**	P	Pn	17 15 16.6	-0.3
CAMT				S	Sn	17 15 30.9	-0.8
CAMT				IAML		17 15 34.0	
	comp=N,26nm,0.5s						
CAMT	**Merkez**	**1.04**	**32**	P	Pn	17 15 17.2	+0.3
CAMT				S	Sb	17 15 30.1	0.0
CAMT				IAML		17 15 34.0	
	comp=E,27nm,0.6s						
MLSB	**Milas**	**1.10**	**121**	Pn	Pg	17 15 16.2	-0.8
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.10**	**76**	P	Pb	17 15 17.3	0.0
IZMR				S	Sg	17 15 30.0	-1.3
IZMR	**zmir-demi**	**1.10**	**76**	P	Pb	17 15 17.2	-0.1
IZMR				S	Sg	17 15 30.3	-1.0
APE	**Apeiranthos**	**1.17**	**227**	Pn	Pg	17 15 15.9	-2.4
DKL	**Dikili**	**1.22**	**11**	Pn	Pb	17 15 19.2	-0.1
NAZL	**Nazilli-Aydin**	**1.34**	**86**	Pn	Pn	17 15 20.6	-0.5
NAZL				AML	AML		
KTTT	**Salihli**	**1.43**	**55**	P	Pg	17 15 23.2	-0.2
KTTT	**Salihli**	**1.43**	**55**	P	Pg	17 15 23.5	+0.1
KIRA	**zmir-Kiraz**	**1.46**	**77**	P	Pn	17 15 22.9	+0.2
GORD	**Gordes-Manisa**	**1.61**	**50**	Pn	Pb	17 15 25.5	-0.6

*IDC **13** 17:28:25.6±0.6, 3.30S×146.65E, h0km, mb4.0/15, mbtmp4.1/21, ML3.6/4, MS4.2/51, Error ellipse: s-maj=15.8km s-min=11.6km az=61.0*
*NEIC **13** 17:28:26.5±1.5, 3.26S±0.05×146.78E±0.07, h10km±1km, mb4.7/50, Error ellipse: s-maj=11.8km s-min=8.5km az=109.0*
*GCMT **13** 17:28:31.5±0.1, 3.34S±0.01×146.70E±0.01, h14km±1km, MW5.0/133, Moment Tensor Solution. s62,c81; s133,c228; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr0.11±.08; Mθθ-0.16±.07; Mϕϕ0.05±.08; Mrθ-0.30±.17; Mθϕ4.12±.08; Mϕr0.03±.17; Best double couple: Mo4.13300×10^16 NP1:ϕs179.00000°, δ86.00000°, λ-180.00000°. NP2:ϕs89.00000°, δ90.00000°, λ-4.00000°. Principal axes: T 4.0770, Plg3.0000°, Azm134.0000°; N 0.1110, Plg86.0000°, Azm266.0000°; P -4.1880, Plg3.0000°, Azm44.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*DJA **13** 17:28:41.7±0.8, 4.5S±6.1×147.6E±.4, h10km, M4.5/25, mb4.5/25, mB5.0/7, MLv4.6/5, Mw(mB)4.3/7*

ISC 13 17:28:26.2±0.4, 3.29S±0.05×146.71E±0.06, h10km, n140, σ0.93/94, mb4.6/34, MS4.3/47, Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MANU	**Manus Island**	**1.40**	**28**		**Pn**	**17 28 50.3**	**-1.6**
MANU					Sn	**17 29 09.3**	**-1.1**
KRVT	**Keravat (AS076**	**5.40**	**101**		**Pn**	**17 29 50.0**	**+3.2**
	2.6nm,0.3s,baz=300,slow=20,SNR=1.7						
	12nm,0.4s						
KRVT				AML	AML		
RABL	**Rabaul**	**5.51**	**100**	Pn	**Pn**	**17 29 47.4**	**-1.0**
JAY	**Jayapura**	**6.05**	**277**	Pn	**Pn**	**17 29 57.1**	**+1.3**
	0.6nm,0.3s,baz=15,slow=8.0,SNR=6.9						
JAY				LR	LR	17 32 03.5	
	comp=Z,2μm,18.6s,baz=93,slow=36						
	6.4nm,0.8s						
JAY				AML	AML		
JAY	**Jayapura**	**6.05**	**277**	P	**Pn**	**17 29 58.2**	**+2.4**
PMG	**Port Moresby**	**6.09**	**176**	Pn	**Pn**	**17 29 57.2**	**+0.8**
	14nm,0.4s,baz=42,slow=6.4,SNR=22						
PMG	**Port Moresby**	**6.09**	**176**		**Pn**	**17 29 56.8**	**+0.4**
PMG	**Port Moresby**	**6.09**	**176**	P	**Pn**	**17 29 56.7**	**+0.4**
	0.3nm995nm68nm,0.8s						
PMG				AML	AML		
GENI	**Genyem**	**6.57**	**276**	P	Pb	17 30 14.2	-6.5
	0.4nm91nm,1.3s						
GENI				AML	AML		
SMPI	**Sarmi**	**8.10**	**279**	P	Pn	17 30 30.2	+6.3
	76nm,1.4s						
BAKI	**Biak**	**10.80**	**281**	P	Pn	17 31 09.4	+8.4
	26nm,1.2s						
COEN	**Coen**	**11.16**	**198**	Pn	**Pn**	**17 31 05.2**	**-0.7**
FAKI	**Fak Fak**	**14.45**	**271**	Pn	**Pn**	**17 31 51.2**	**+0.2**
HNR	**Honiara**	**14.49**	**116**	Pn	**Pn**	**17 31 52.7**	**+1.2**
	7.2nm,0.4s,baz=272,slow=11,SNR=1.8						
HNR				LR	LR	17 36 58.3	
	comp=Z,693nm,19.3s,baz=9.0,slow=35						
HNR	**Honiara**	**14.49**	**116**	Pn	**Pn**	**17 31 50.9**	**-0.6**
SIJI	**Sorong**	**15.62**	**279**	Pn	**Pn**	**17 32 07.7**	**+1.0**
	0.3nm,0.3s,baz=86,slow=7.7,SNR=8.6						
SIJI				LR	LR	17 37 25.2	
	comp=Z,904nm,20.6s,baz=121,slow=35						
	1.6nm,0.5s						
SIJI				AML	AML		
SIJI	**Sorong**	**15.62**	**279**	P	**P**	**17 32 10.8**	**-0.1**
	12nm,1.0s						
CTA	**Charters Tower**	**16.70**	**182**	Pn	**P**	**17 32 23.7**	**+0.9**
	0.3nm,0.3s,baz=355,slow=13,SNR=6.6						
CTA				LR	LR	17 39 10.1	
	comp=Z,1μm,21.4s,baz=359,slow=39						
	4.4nm,0.9s						
CTA				AML	AML		
CTAO	**Charters Tower**	**16.70**	**182**		**Pn**	**17 32 18.6**	**-1.9**
BNDI	**Bandanaira**	**16.81**	**265**	P	P	17 32 41.9	+18
GUMO	**Guam**	**16.87**	**354**	LR	LR	17 38 01.1	
	comp=Z,368nm,19.4s,baz=177,slow=34						
NLAI	**Namlea**	**19.58**	**270**	P	Pn	17 33 06.8	+11
	28nm,1.1s						
TNTI	**Ternate**	**19.75**	**281**	P	**P**	**17 32 55.6**	**-1.0**
TNTI				IAmb	IAmb	17 33 15.2	
	comp=Z,47nm,1.4s						
TNTI	**Ternate**	**19.75**	**281**	P	Pn	17 33 05.5	+7.5
	comp=Z,842nmcomp=Z,29nm,1.6s						
WB0	**Warramunga Arr**	**20.32**	**215**	P	**P**	**17 33 01.8**	**-0.9**
WB0				IAmb	IAmb	17 33 14.6	
	comp=Z,40nm,1.4s						
WR8	**Warramunga Arr**	**20.41**	**215**		**P**	**17 33 03.0**	**-0.6**
WR8				IAmb	IAmb	17 33 14.9	
	comp=Z,21nm,0.8s						
WRAB	**Tennant Creek**	**20.47**	**215**	P	**P**	**17 33 03.3**	**-1.0**
WRAB				IAmb	IAmb	17 33 19.0	
	comp=Z,41nm,1.1s						
WRA	**Warramunga Arr**	**20.49**	**215**	P	**P**	**17 33 04.0**	**-0.4**
	comp=Z,11nm,0.8s,baz=38,slow=11,SNR=5.1						
WRA				LR	LR	17 41 43.6	
	comp=Z,2μm,18.7s,baz=90,slow=39						
	comp=Z,11nm,0.8s						
WRA	**Warramunga Arr**	**20.49**	**215**		**P**	**17 33 04.1**	**-0.4**
SANI	**Sanana**	**20.74**	**273**	P	Pn	17 33 11.2	+1.6
	comp=Z,437nmcomp=Z,15nm,1.2s						
KNRA	**Kununurra**	**21.53**	**234**		**P**	**17 33 14.9**	**-0.9**
KNRA				IAmb	IAmb	17 33 35.4	
	comp=Z,41nm,1.4s						
EIDS	**Eidsvold**	**22.35**	**170**	P	**P**	**17 33 22.9**	**-1.6**
KMSI	**Cibinong**	**23.04**	**279**	P	P	17 33 45.6	+14
SOEI	**Soe**	**23.20**	**253**		**P**	**17 33 31.8**	**-1.9**
SOEI	**Soe**	**23.20**	**253**	P	**P**	**17 33 35.5**	**+1.9**
	comp=Z,45nm,1.2s						
DAV	**Davao City (W)**	**23.47**	**296**	LR	LR	17 42 40.1	
	comp=Z,524nm,18.8s,baz=101,slow=36						
SANVU	**Saraoutou**	**23.52**	**122**	P	**P**	**17 33 36.0**	**-0.6**
SANVU				IAmb	IAmb	17 34 06.8	
	comp=Z,17nm,0.7s						
AS31	**Alice Springs**	**23.74**	**210**		**P**	**17 33 38.5**	**-0.3**
ASAR	**Alice Springs**	**23.74**	**210**	P	**P**	**17 33 38.9**	**0.0**
	comp=Z,8.6nm,1.1s,baz=43,slow=6.8,SNR=50						
ASAR				PcP	**PcP**	**17 37 24.9**	**+2.0**
	comp=Z,0.3nm,0.8s,baz=19,slow=3.6,SNR=1.6						
ASAR				LR	LR	17 43 20.1	
	comp=Z,2μm,18.5s,baz=41,slow=38						
	comp=Z,8.6nm,1.1s						
ASAR	**Alice Springs**	**23.74**	**210**		**P**	**17 33 38.0**	**-0.8**
BATI	**Baumata**	**23.89**	**252**	LR	LR	17 45 42.0	
	comp=Z,544nm,18.2s,baz=89,slow=44						
BATI	**Baumata**	**23.89**	**252**	P	**P**	**17 33 40.1**	**-0.2**
LUWI	**Luwuk**	**24.03**	**275**	P	**P**	**17 33 40.9**	**-0.7**
LUWI	**Luwuk**	**24.03**	**275**	P	P	17 33 51.9	+10
INKA	**Innaminka**	**24.97**	**193**		**P**	**17 33 49.8**	**-0.3**
INKA				IAmb	IAmb	17 34 07.0	
	comp=Z,16nm,1.1s						
FITZ	**Fitzroy Crossi**	**25.35**	**233**	LR	LR	17 44 30.7	
	comp=Z,1μm,21.4s,baz=54,slow=38						
FITZ	**Fitzroy Crossi**	**25.35**	**233**		**P**	**17 33 53.1**	**-0.6**
TOLI2	**Tolitoli**	**26.29**	**279**	P	**P**	**17 34 01.1**	**-1.1**
TOLI2				IAmb	IAmb	17 34 21.6	
	comp=Z,17nm,1.2s						
DZM	**Mont Dzumac**	**26.75**	**136**	P	**P**	**17 34 07.1**	**+0.7**
	comp=Z,2.8nm,0.8s,baz=12,slow=9.2,SNR=4.7						
	comp=Z,2.8nm,0.8s						
PCI	**Palu**	**26.96**	**274**	P	P	17 34 32.8	+25
ARMA	**Armidale**	**27.38**	**171**	P	**P**	**17 34 11.7**	**-0.3**
ARMA				IAmb	IAmb	17 34 18.5	
	comp=Z,17nm,1.2s						
PINNC	**Pines Island,**	**27.80**	**135**	P	**P**	**17 34 14.9**	**-0.8**
STKA	**Stephens Creek**	**28.84**	**189**	P	**P**	**17 34 25.0**	**+0.1**
	comp=Z,0.8nm,0.4s,baz=16,slow=9.8,SNR=4.0						
STKA				LR	LR	17 46 38.2	
	comp=Z,715nm,19.6s,baz=6.2,slow=38						
	comp=Z,0.8nm,0.4s						
BBOO	**Buckleboo**	**31.02**	**198**	P	**P**	**17 34 43.8**	**-0.4**
FORT	**Forrest**	**32.53**	**211**	P	**P**	**17 34 57.1**	**-0.3**
FORT				IAmb	IAmb	17 35 18.1	
	comp=Z,15nm,1.4s						
JMZ	**Minamidaito 2**	**32.60**	**333**	P	**P**	**17 34 56.4**	**-1.6**
MSVF	**Nonsavu**	**33.90**	**117**	LR	LR	17 47 44.4	
	comp=Z,245nm,21.6s,baz=304,slow=34						
JOW	**Kunigami**	**34.84**	**330**	LR	LR	17 46 38.4	
	comp=Z,658nm,20.7s,baz=190,slow=31						
MORW	**Morawa**	**38.81**	**225**	P	**P**	**17 35 51.3**	**-0.1**
MORW				IAmb	IAmb	17 36 21.1	
	comp=Z,21nm,1.4s						
BBJI	**Bungbulang**	**39.10**	**262**	P	**P**	**17 35 53.2**	**-0.9**
BBJI				IAmb	IAmb	17 36 10.6	
	comp=Z,16nm,1.0s						
JNU	**Nakatsue**	**39.19**	**339**	LR	LR	17 50 38.1	
	comp=Z,217nm,19.6s,baz=136,slow=34						
NWAO	**Narrogin (SRO)**	**40.38**	**220**	LR	LR	17 53 24.6	
	comp=Z,729nm,19.4s,baz=52,slow=37						
MJAR	**Matsushiro Arr**	**40.41**	**349**	P	**P**	**17 36 05.2**	**+0.5**
	comp=Z,0.5nm,0.5s,baz=165,slow=9.9,SNR=1.7						
	comp=Z,0.5nm,0.5s						
MJAR	**Matsushiro Arr**	**40.41**	**349**	P	**P**	**17 36 03.4**	**-1.3**
AFI	**Afiamalu**	**42.30**	**107**	LR	LR	17 52 48.0	
	comp=Z,257nm,18.4s,baz=279,slow=34						
KSRS	**Korea Array**	**44.14**	**338**	P	**P**	**17 36 36.0**	**+1.0**
	comp=Z,1.1nm,0.8s,baz=152,slow=8.5,SNR=4.5						
KSRS				LR	LR	17 53 46.3	
	comp=Z,277nm,18.8s,baz=150,slow=34						
	comp=Z,1.1nm,0.8s						
KSAR	**Wonju Array Be**	**44.14**	**338**	P	**P**	**17 36 34.5**	**-0.5**
URZ	**Urewera**	**44.52**	**145**	LR	LR	17 52 34.0	
	comp=Z,491nm,21.8s,baz=309,slow=32						
TCW	**Tory Channel**	**45.16**	**151**	P	**P**	**17 36 42.6**	**-0.5**
BSWZ	**Blackbirch Sta**	**45.35**	**151**	P	**P**	**17 36 45.0**	**+0.3**
MRZ	**Mangatainoka R**	**45.40**	**149**	P	**P**	**17 36 45.0**	**-0.1**
RPZ	**Rata Peaks**	**45.67**	**155**	LR	LR	17 53 05.9	
	comp=Z,98nm,19.4s,baz=68,slow=32						
USRK	**Ussuriysk Ar.**	**49.09**	**346**	LR	LR	17 56 01.7	
	comp=Z,114nm,18.6s,baz=159,slow=34						
CM31	**Chiang Mai Arr**	**51.76**	**297**	P	**P**	**17 37 33.8**	**-0.7**
CM31				IAmb	IAmb	17 37 50.3	
	comp=Z,9.4nm,1.1s						
CMAR	**Chiang Mai Arr**	**51.76**	**297**	P	**P**	**17 37 35.5**	**+1.1**
	comp=Z,0.6nm,0.4s,baz=123,slow=5.9,SNR=8.7						
CMAR				ScP	**ScP**	**17 42 47.2**	**+2.3**
	comp=Z,1.1nm,1.0s,baz=115,slow=2.7,SNR=4.7						
CMAR				LR	LR	18 01 05.7	
	comp=Z,95nm,18.1s,baz=120,slow=38						
	comp=Z,0.6nm,0.4s						
CMAR	**Chiang Mai Arr**	**51.76**	**297**		**P**	**17 37 34.0**	**-0.4**
CHTO	**Chiang Mai**	**51.88**	**297**	P	**P**	**17 37 35.1**	**-0.2**
KLR	**Kul'dur**	**53.90**	**348**	LR	LR	17 57 05.1	
	comp=Z,158nm,21.4s,baz=164,slow=32						
RAR	**Rarotonga**	**54.94**	**114**	LR	LR	18 00 30.9	
	comp=Z,73nm,18.6s,baz=283,slow=35						
LZDM	**Lanzhou Array**	**56.02**	**318**	LR	LR	18 01 34.9	
	comp=Z,268nm,19.0s,baz=85,slow=36						
PETK	**Petropavlovsk-**	**56.95**	**8**	P	**P**	**17 38 12.4**	**+0.8**
	comp=Z,2.6nm,0.9s,baz=198,slow=4.2,SNR=4.3						
PETK				LR	LR	17 58 52.1	
	comp=Z,98nm,21.5s,baz=183,slow=32						
	comp=Z,2.6nm,0.9s						
PETK	**Petropavlovsk-**	**56.95**	**8**	P	**P**	**17 38 12.0**	**+0.4**
HILR	**Hailar Array B**	**57.57**	**340**	LR	LR	18 01 27.0	
	comp=Z,124nm,19.1s,baz=245,slow=34						
MORE	**Moreh**	**57.81**	**301**	P	**P**	**17 38 18.2**	**0.0**
BRDH	**Bariadhala**	**59.59**	**299**	LR	LR	18 02 01.8	
	comp=Z,118nm,21.9s,baz=128,slow=34						
SHEM	**Shemya Is, Ala**	**60.41**	**19**	LR	LR	17 59 51.4	
	comp=Z,169nm,21.4s,baz=262,slow=31						
ULN	**Ulaanbaatar**	**61.62**	**331**	P	**P**	**17 38 44.2**	**0.0**
ULN				IAmb	IAmb	17 38 57.7	
	comp=Z,7.1nm,1.2s						
SONM	**Songino Array**	**61.92**	**330**	P	**P**	**17 38 47.0**	**+0.8**
	comp=Z,1.1nm,0.9s,baz=143,slow=5.2,SNR=5.3						
SONM				LR	LR	18 04 57.0	
	comp=Z,369nm,19.9s,baz=139,slow=35						
	comp=Z,1.1nm,0.9s						
SONM	**Songino Array**	**61.92**	**330**	P	**P**	**17 38 45.9**	**-0.3**
SONM				IAmb	IAmb	17 38 52.2	
	comp=Z,5.0nm,1.3s						
MA2	**Magadan**	**62.76**	**2**	LR	LR	18 01 20.1	
	comp=Z,73nm,21.9s,baz=191,slow=32						
PPT	**Papeete**	**63.97**	**108**	LR	LR	18 04 47.8	
	comp=Z,77nm,18.2s,baz=272,slow=34						
PPT2	**Papeete2**	**63.97**	**108**	*e*LR	LR	17 57 31.9	
	comp=Z,120nm,23.2s						
PPT2				*e*LR	LR	17 57 37.7	
	comp=Z,146nm,26.2s						
TBI	**Tubuai**	**64.71**	**114**	*e*LR	LR	17 57 42.6	
	comp=Z,4μm,34.5s						
EVN	**Everest**	**65.39**	**303**	P	**P**	**17 39 09.4**	**-0.8**
EVN				IAmb	IAmb	17 39 45.5	
	comp=Z,6.0nm,1.1s						
TLY	**Talaya**	**65.83**	**332**	LR	LR	18 07 53.5	
	comp=Z,186nm,19.5s,baz=122,slow=36						
YAK	**Yakutsk**	**66.44**	**351**	P	**P**	**17 39 16.1**	**+0.7**
TAOE	**Nuku Hiva Isla**	**72.85**	**98**	*e*LR	LR	18 01 36.7	
	comp=Z,260nm,27.5s						
VNDA	**Vanda**	**74.62**	**177**	P	**P**	**17 40 04.8**	**-0.4**
	comp=Z,1.3nm,1.2s,baz=336,slow=5.7,SNR=2.0						
VNDA				LR	LR	18 11 08.6	
	comp=Z,151nm,18.8s,baz=346,slow=34						
	comp=Z,1.3nm,1.2s						
VNDA	**Vanda**	**74.62**	**177**	P	**P**	**17 40 05.5**	**+0.3**
MKAR	**Makanchi Array**	**75.24**	**320**	P	**P**	**17 40 10.7**	**+1.3**
	comp=Z,1.6nm,0.9s,baz=108,slow=7.0,SNR=9.5						
MKAR				LR	LR	18 12 57.2	
	comp=Z,146nm,19.5s,baz=72,slow=36						
	comp=Z,1.6nm,0.9s						
MKAR	**Makanchi Array**	**75.24**	**320**	P	**P**	**17 40 09.2**	**-0.2**
MAKZ	**Makanchi**	**75.45**	**320**	P	**P**	**17 40 10.8**	**+0.2**
MAKZ				IAmb	IAmb	17 40 19.5	
	comp=Z,8.6nm,1.1s						
WUS	**Wushi**	**75.47**	**314**	P	**P**	**17 40 10.4**	**-0.5**
WUS				IAmb	IAmb	17 40 30.5	
	comp=Z,7.6nm,1.3s						
PDGK	**Podgornoye**	**75.93**	**316**	P	**P**	**17 40 13.9**	**+0.4**
PRZ	**Przheval'sk**	**76.44**	**315**	P	**P**	**17 40 16.6**	**+0.1**
ZAA0	**Zalesovo Array**	**76.58**	**328**	P	**P**	**17 40 15.6**	**-1.2**
ZALV	**Zalesovo Beam**	**76.58**	**328**	P	**P**	**17 40 16.8**	**0.0**
	comp=Z,1.0nm,0.7s,baz=116,slow=4.9,SNR=4.3						
ZALV				LR	LR	18 12 34.2	
	comp=Z,259nm,21.7s,baz=130,slow=35						
	comp=Z,1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**76.58**	**328**	P	**P**	**17 40 16.4**	**-0.4**
KDAK	**Kodiak Island**	**77.67**	**29**	LR	LR	18 08 57.6	
	comp=Z,118nm,21.0s,baz=241,slow=31						
J18K	**Innoko River**	**78.69**	**22**	P	**P**	**17 40 28.7**	**+0.3**
J18K				IAmb	IAmb	17 41 05.6	
	comp=Z,10nm,1.5s						
L19K	**White Mountain**	**78.76**	**24**	P	**P**	**17 40 29.1**	**+0.2**
F17K	**Baldwin Pennin**	**78.78**	**19**	P	**P**	**17 40 29.2**	**+0.4**
KURK	**Kurchatov**	**78.88**	**323**		**P**	**17 40 29.7**	**0.0**
KURBB	**Kurchatov Arra**	**78.91**	**323**	P	**P**	**17 40 30.3**	**+0.5**
	comp=Z,1.1nm,1.0s,baz=115,slow=4.7,SNR=6.8						
KURBB				LR	LR	18 14 28.7	
	comp=Z,218nm,21.2s,baz=181,slow=35						
	comp=Z,1.1nm,1.0s						
AAK	**Ala-Archa**	**79.25**	**314**	LR	LR	18 15 36.5	
	comp=Z,305nm,20.6s,baz=100,slow=36						
L20K	**Farewell, AK**	**79.31**	**24**	P	**P**	**17 40 31.9**	**0.0**
L20K				IAmb	IAmb	17 40 45.9	
	comp=Z,12nm,1.4s						
G18K	**Tagagawik**	**79.32**	**20**	P	**P**	**17 40 32.2**	**+0.3**
G18K				IAmb	IAmb	17 40 37.5	
	comp=Z,11nm,1.3s						
M20K	**Styx River**	**79.33**	**25**	P	**P**	**17 40 32.5**	**+0.4**
E19K	**Redstone River**	**80.66**	**19**	P	**P**	**17 40 39.4**	**+0.4**
E19K				IAmb	IAmb	17 40 51.3	
	comp=Z,10nm,1.2s						
I21K	**Tanana**	**81.33**	**22**	P	**P**	**17 40 43.1**	**+0.5**
WRH	**Wood River Hil**	**82.52**	**23**	P	**P**	**17 40 49.6**	**+0.7**
WRH				IAmb	IAmb	17 40 59.6	
	comp=Z,5.5nm,1.0s						
NRIK	**Noril'sk**	**82.62**	**342**	LR	LR	18 15 33.2	
	comp=Z,97nm,21.7s,baz=120,slow=34						
IL31		**83.12**	**23**	P	**P**	**17 40 51.2**	**-0.8**
IL31				IAmb	IAmb	17 41 01.7	
	comp=Z,4.5nm,1.0s						
ILAR	**Eielson Array**	**83.12**	**23**	P	**P**	**17 40 52.3**	**+0.3**
	comp=Z,1.4nm,0.7s,baz=254,slow=5.2,SNR=16						
ILAR				LR	LR	18 15 03.9	
	comp=Z,144nm,19.2s,baz=260,slow=34						
	comp=Z,1.4nm,0.7s						
ILAR	**Eielson Array**	**83.12**	**23**	P	**P**	**17 40 51.8**	**-0.2**
J25K	**Salcha River,**	**83.66**	**24**	P	**P**	**17 40 55.0**	**0.0**
BVAR	**Borovoye Array**	**84.42**	**324**	P	**P**	**17 40 59.8**	**+0.9**
	comp=Z,2.3nm,0.6s,baz=106,slow=8.2,SNR=8.3						
	comp=Z,2.3nm,0.6s						
MAW	**Mawson**	**84.62**	**202**	LR	LR	18 17 15.4	
	comp=Z,88nm,18.8s,baz=82,slow=35						
QSPA	**South Pole Qui**	**86.66**	**180**	LR	LR	18 20 41.8	
	comp=Z,160nm,18.0s,baz=6.0,slow=36						
DLBC	**Dease Lake**	**89.25**	**31**	LR	LR	18 14 03.9	
	comp=Z,189nm,19.7s,baz=245,slow=31						
INK	**Inuvik**	**89.25**	**21**	LR	LR	18 17 02.9	
	comp=Z,256nm,20.3s,baz=302,slow=33						
AKTO	**Aktyubinsk**	**91.68**	**320**	LR	LR	18 22 02.7	
	comp=Z,227nm,21.8s,baz=66,slow=35						
ARTI	**Arti**	**91.79**	**326**	LR	LR	18 22 20.3	
	comp=Z,164nm,22.0s,baz=85

WHZ	**Wether Hill Ro**	**22.53 200**	P	**P**	**17 35 08.8**	**-0.1**		
TATA	**Tatamba Isabel**	**24.50 309**	P	**P**	**17 35 26.3**	**-0.5**		
ARMA	**Armidale**	**24.54 251**	P	**P**	**17 35 27.8**	**+0.7**		
ARMA			IAmb	IAmb	17 36 09.9			
	comp=Z,13nm,1.1s							
EIDS	**Eidsvold**	**25.00 263**	P	**P**	**17 35 31.4**	**+0.3**		
EIDS			IAmb	IAmb	17 36 04.1			
	comp=Z,12nm,1.3s							
CAN	**Canberra**	**27.57 241**	P	**P**	**17 35 53.8**	**+0.3**		
CAN			IAmb	IAmb	17 36 33.6			
	comp=Z,18nm,1.3s							
CTA	**Charters Tower**	**30.34 273**	P	**P**	**17 36 17.8**	**+0.1**		
	comp=Z,4.2nm,0.5s,baz=88,slow=10,SNR=17							
	comp=Z,4.2nm,0.5s							
CTAO	**Charters Tower**	**30.34 273**	P	**P**	**17 36 17.7**	**+0.1**		
TOO	**Toolangi**	**30.85 238**	P	**P**	**17 36 21.8**	**0.0**		
TOO			IAmb	IAmb	17 36 41.8			
	comp=Z,7.2nm,1.4s							
QLP	**Quilpie**	**31.03 260**	P	**P**	**17 36 22.8**	**-0.6**		
STKA	**Stephens Creek**	**33.22 250**	P	**P**	**17 36 41.7**	**-0.2**		
	comp=Z,1.1nm,0.4s,baz=71,slow=8.7,SNR=2.8							
	comp=Z,1.1nm,0.4s							
STKA	**Stephens Creek**	**33.22 250**	P	**P**	**17 36 41.9**	**+0.1**		
PMG	**Port Moresby**	**33.80 292**	P	**P**	**17 36 46.8**	**-0.1**		
	comp=Z,8.5nm,0.7s,baz=127,slow=5.1,SNR=3.3							
	comp=Z,8.5nm,0.7s							
PMG	**Port Moresby**	**33.80 292**	P	**P**	**17 36 47.1**	**+0.1**		
PMG			IAmb	IAmb	17 36 47.9			
	comp=Z,11nm,0.8s							
BBOO	**Buckleboo**	**37.93 248**	P	**P**	**17 37 19.7**	**-0.9**		
BBOO			IAmb	IAmb	17 38 01.6			
	comp=Z,26nm,1.4s							
AS31	**Alice Springs**	**40.71 262**	P	**P**	**17 37 43.1**	**0.0**		
ASAR	**Alice Springs**	**40.71 262**	P	**P**	**17 37 43.0**	**-0.1**		
	comp=Z,1.0nm,0.3s,baz=91,slow=6.6,SNR=44							
ASAR			PcP	**PcP**	**17 39 30.0**	**+0.3**		
	comp=Z,0.3nm,0.7s,baz=83,slow=3.4,SNR=2.3							
	comp=Z,1.0nm,0.3s							
ASAR	**Alice Springs**	**40.71 262**	P	**P**	**17 37 42.8**	**-0.3**		
WR8	**Warramunga Arr**	**41.03 268**	P	**P**	**17 37 45.0**	**-0.7**		
WRAB	**Tennant Creek**	**41.18 268**	P	**P**	**17 37 46.0**	**-0.7**		
WRAB			IAmb	IAmb	17 37 47.0			
	comp=Z,7.5nm,1.1s							
WRA	**Warramunga Arr**	**41.19 268**	P	**P**	**17 37 45.9**	**-0.9**		
	comp=Z,3.0nm,0.4s,baz=99,slow=6.7,SNR=47							
	comp=Z,3.0nm,0.4s							
MTN	**Manton Dam**	**46.40 276**	P	**P**	**17 38 26.5**	**-0.5**		
MTN			IAmb	IAmb	17 38 35.5			
	comp=Z,9.8nm,1.3s							
KNRA	**Kununurra**	**47.53 271**	P	**P**	**17 38 35.4**	**-0.2**		
KNRA			IAmb	IAmb	17 39 19.5			
	comp=Z,12nm,1.1s							
FITZ	**Fitzroy Crossi**	**49.59 267**	P	**P**	**17 38 51.2**	**+0.5**		
	comp=Z,4.0nm,0.6s,baz=98,slow=6.4,SNR=12							
	comp=Z,4.0nm,0.6s							
FITZ	**Fitzroy Crossi**	**49.59 267**	P	**P**	**17 38 50.9**	**+0.2**		
FAKI	**Fak Fak**	**49.82 289**	P	**P**	**17 38 52.6**	**+0.1**		
FAKI			IAmb	IAmb	17 39 02.2			
	comp=Z,5.9nm,0.9s							
SIJI	**Sorong**	**51.72 290**	P	**P**	**17 39 06.2**	**0.0**		
	comp=Z,9.5nm,0.6s,baz=99,slow=5.0,SNR=10							
	comp=Z,9.5nm,0.6s							
VNDA	**Vanda**	**53.14 185**	P	**P**	**17 39 16.1**	**+0.9**		
	comp=Z,0.3nm,0.6s,baz=15,slow=6.1,SNR=1.9							
	comp=Z,0.3nm,0.6s							
VNDA	**Vanda**	**53.14 185**	P	**P**	**17 39 15.8**	**+0.5**		
SOEI	**Soe**	**53.80 276**	P	**P**	**17 39 21.8**	**+0.7**		
SOEI			IAmb	IAmb	17 39 26.9			
	comp=Z,9.3nm,0.8s							
BATI	**Baumata**	**54.16 276**	P	**P**	**17 39 25.2**	**+1.7**		
	comp=Z,14nm,0.5s,baz=114,slow=21,SNR=3.9							
	comp=Z,14nm,0.5s							
TOLI2	**Tolitoli**	**61.76 286**	P	**P**	**17 40 15.1**	**+0.4**		
TOLI2			IAmb	IAmb	17 40 36.2			
	comp=Z,6.4nm,0.9s							
JAGI	**Jajag, Banyuwa**	**63.46 273**	P	**P**	**17 40 24.9**	**-0.7**		
JAGI			IAmb	IAmb	17 40 28.6			
	comp=Z,44nm,1.3s							
QSPA	**South Pole Qui**	**65.04 180**	P	**P**	**17 40 36.3**	**+1.4**		
	comp=Z,1.4nm,0.6s,baz=284,slow=0.6,SNR=8.2							
	comp=Z,1.4nm,0.6s							
QSPA	**South Pole Qui**	**65.04 180**	P	**P**	**17 40 36.3**	**+1.4**		
TPUB	**Ta-pu**	**74.03 306**	P	**P**	**17 41 30.1**	**+1.2**		
BELA	**Belgrano 2**	**75.44 173**	P	**P**	**17 41 36.5**	**+0.6**		
SHEM	**Shemya Is, Ala**	**77.55 357**	P	**P**	**17 41 47.9**	**+0.4**		
SMY	**Shemya**	**77.55 357**	P	**P**	**17 41 47.9**	**+0.4**		
KSRS	**Korea Array**	**78.39 321**	P	**P**	**17 41 54.5**	**+2.1**		
	comp=Z,1.0nm,0.7s,baz=131,slow=6.2,SNR=4.3							
	comp=Z,1.0nm,0.7s							
JO5D	**Fort Rock, OR**	**87.53 39**	P	**P**	**17 42 38.6**	**+0.5**		
FINES	**FINESS Array B**	**139.15 340**	PKP	**PKPdf**	**17 49 13.1**	**+1.4**		
	comp=Z,1.4nm,0.7s,baz=80,slow=1.6,SNR=5.5							
NB2	**NORSAR Subarra**	**143.02 350**	PKP	PKPbc	17 49 18.5	+1.5		
	comp=Z,1.8nm,0.7s,baz=18,slow=3.1							
NOA	**NORSAR Array B**	**143.02 350**	PKP	PKPab	17 49 18.0	+1.5		
	comp=Z,2.5nm,0.8s,baz=22,slow=3.8,SNR=8.9							
NBO00	**NORSAR Array S**	**143.10 350**	PKPdf	PKPab	17 49 17.9	+1.0		
NC602	**NORSAR Array S**	**143.25 350**	PKPdf	PKPab	17 49 18.4	+1.0		
NAO01	**NORSAR Array S**	**143.26 350**	PKPdf	PKPbc	17 49 18.9	+1.2		
HFS	**Hagfors**	**143.43 347**	PKP	PKPab	17 49 19.2	+1.2		
	comp=Z,3.2nm,0.5s,baz=65,slow=3.9,SNR=17							
AKASG	**Malin Array Be**	**145.28 325**	PKPbc	**PKPbc**	**17 49 25.2**	**+1.1**		
	comp=Z,0.3nm,0.3s,baz=44,slow=3.6,SNR=5.8							
MMAI	**Mount Meron Ar**	**147.09 293**	PKPbc	**PKiKP**	**17 49 32.2**	**+0.7**		
	comp=Z,0.9nm,0.4s,baz=57,slow=5.5,SNR=2.7							
BRTR	**Keskin Array B**	**147.31 305**	PKPbc	**PKPbc**	**17 49 31.4**	**+1.2**		
	comp=Z,0.7nm,0.6s,baz=120,slow=7.3,SNR=4.6							

IDC 13 17:37:09.8±2.8, 3°29S×146°76E, h0km, mb3.3/3, mbtmp3.5/4, ML1.2/1, Error ellipse: s-maj=78.3km s-min=28.2km az=83.0, Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**6.09**	**176**	Pn	Pn	17 38 42.3	+1.1
	0.4nm,0.3s,baz=0.0,slow=20,SNR=1.6						
	4.1nm,0.5s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**20.51**	**215**	P	P	17 41 49.3	-0.5
	1.7nm,0.7s,baz=39,slow=11,SNR=5.2						
	1.7nm,0.7s						
ASAR	**Alice Springs**	**23.77**	**210**	P	P	17 42 24.0	-0.3
	0.7nm,0.7s,baz=44,slow=8.3,SNR=9.3						
	0.7nm,0.7s						
MKAR	**Makanchi Array**	**75.27**	**320**	P	P	17 48 54.9	+0.1
	0.1nm,0.5s,baz=98,slow=6.0,SNR=1.5						
	0.1nm,0.5s						

IDC 13 17:39:02.7±2.3, 6°32S×128°74E, h186km±29km, mb2.7/1, mbtmp3.6/5, Error ellipse: s-maj=39.9km s-min=14.9km az=85.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**5.97**	**25**	P	Pn	17 40 31.2	+1.7
	6.0nm,0.3s,baz=201,slow=15,SNR=24						
SIJI				S	Sn	17 41 36.9	-1.0
	1.6nm,0.3s,baz=223,slow=22,SNR=5.9						
FITZ	**Fitzroy Crossi**	**12.09**	**194**	P	Pn	17 41 49.4	+0.3
	1.6nm,0.4s,baz=16,slow=15,SNR=14						
FITZ				S	Sn	17 43 58.6	-5.1
	2.3nm,0.9s,baz=112,slow=16,SNR=1.4						
WRA	**Warramunga Arr**	**14.60**	**159**	P	Pn	17 42 19.4	-1.3
	0.2nm,0.3s,baz=341,slow=13,SNR=5.7						
WRA				S	Sn	17 44 51.7	-12
	0.2nm,0.4s,baz=331,slow=22,SNR=1.2						
ASAR	**Alice Springs**	**17.95**	**164**	P	P	17 42 58.6	-0.4
	0.5nm,0.4s,baz=347,slow=11,SNR=17						
ASAR				S	S	17 46 16.4	+0.8
	0.4nm,0.8s,baz=343,slow=18,SNR=3.8						
MKAR	**Makanchi Array**	**66.97**	**327**	P	P	17 49 35.4	0.0
	0.1nm,0.4s,baz=111,slow=7.4,SNR=1.8						
	0.1nm,0.4s						

TAP ***13*** *17:53:39.9,24.87N×119.52E, h20km, ML4.0, C*
ISC 13 17:53:40.4±0.9, 24°83N±0.02×119°53E±0.02, h17km±7km, n134, g078/220, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VWUC	**VWUC**	**0.17**	**336**	*i* P	**Pb**	**17 53 44.6**	**-0.6**
VWUC				*i* S	**Sg**	**17 53 47.8**	**0.0**
PTMZ	**Houxiangcun**	**0.42**	**299**	*i* P	**Pg**	**17 53 48.7**	**-0.3**
PTMZ				*i* S	**Sg**	**17 53 54.7**	**-0.1**
WWCA	**Taichung City**	**1.07**	**122**	*eP*	**Pb**	17 54 00.5	0.0
WWCA				*eS*	**Sn**	17 54 15.4	+0.3
KNM	**Kinmen**	**1.08**	**248**	P	**Pg**	17 54 02.0	+0.7
KNM				S	**Sg**	17 54 17.4	+2.0
KNMB	**Chin-men Tao**	**1.10**	**251**	*i* P	**Pn**	17 54 00.0	-1.0
KNMB				S	**Sb**	17 54 14.0	-1.0
WDJ	**Dajia District**	**1.12**	**115**	P	**Pn**	17 54 01.1	-0.3
WDJ				S	**Sn**	17 54 16.7	+0.4
WTCT	**Ta-ch'eng**	**1.18**	**144**	P	**Pn**	17 54 01.2	-0.9
WTCT				S	**Sb**	17 54 16.9	-0.5
NMLH	**Miaoli**	**1.19**	**104**	P	**Pn**	17 54 02.3	+0.1
NMLH				S	**Sn**	17 54 18.1	+0.2
NSY	**Sanyi**	**1.20**	**110**	*i* P	**Pn**	17 54 02.4	0.0
NSY				S	**Sb**	17 54 17.5	-0.3
WCH1	**Changhua City**	**1.20**	**129**	P	**Pn**	17 54 01.7	-0.7
WCH1					**Sg**	17 54 19.2	0.0
WCHH	**Zhanghua**	**1.20**	**128**	*eP*	**Pn**	17 54 01.8	-0.6
WCHH				*eS*	**Sn**	17 54 18.8	+0.5
WMLT	**Mailiao**	**1.20**	**148**	S	**Sn**	17 54 18.7	+0.3
RLNB	**Erlin**	**1.20**	**141**	P	**Pn**	17 54 01.9	-0.6
RLNB				S	**Sn**	17 54 19.1	+0.7
TWQ1	**Liyutan**	**1.23**	**113**	P	**Pn**	17 54 02.1	-0.7
TWQ1				*eS*	**Sn**	17 54 19.6	+0.5
TCU	**Taichung**	**1.25**	**123**	*eP*	**Pn**	17 54 02.5	-0.5
TCU				*eS*	**Sn**	17 54 19.9	+0.4
PNG	**Penghu**	**1.26**	**179**	P	**Pn**	17 54 02.2	-1.0
PNG				S	**Sb**	17 54 18.4	-1.2
HSN	**Hsinchu**	**1.31**	**91**	*eS*	**Sg**	17 54 23.8	+1.1
PHUB	**P'eng-hu**	**1.31**	**178**	P	**Pn**	17 54 03.2	-0.7
PHUB				S	**Sn**	17 54 20.4	-0.7
SBCB	**Hsinchu**	**1.32**	**91**	P	**Pb**	17 54 04.9	+0.1
SBCB				*eS*	**Sg**	17 54 23.1	-0.2
MHZQ	**Yeshan**	**1.34**	**340**	*i* P	**Pb**	17 54 04.9	+0.1
MHZQ				*eS*	**Sb**	17 54 21.8	-0.2
WSF	**Szhu**	**1.35**	**152**	P	**Pn**	17 54 04.1	-0.3
WSF				S	**Sn**	17 54 21.6	-0.2
NSTT	**Nanjuang**	**1.35**	**98**	P	**Pn**	17 54 04.8	+0.2
NSTT				S	**Sn**	17 54 21.2	-1.0
LIOB	**Emei**	**1.36**	**97**	*eP*	**Pn**	17 54 04.2	-0.5
LIOB				S	**Sb**	17 54 23.3	+0.6
MATB	**Ma-tsu**	**1.37**	**16**	P	**Pn**	17 54 05.0	+0.3
MATB				S	**Sb**	17 54 22.9	+0.2
MSUT	**Lienchiang**	**1.38**	**15**	P	**Pb**	17 54 05.4	-0.3
MSUT				*eS*	**Sn**	17 54 21.9	-0.8
WTK	**Tuku**	**1.38**	**145**	*eP*	**Pn**	17 54 03.6	-1.3
WTK				S	**Sn**	17 54 22.6	-0.2
WHP	**Taichung City**	**1.40**	**113**	P	**Pn**	17 54 04.2	-1.1
WHP				*eS*	**Sn**	17 54 22.9	-0.6
AXDP	**Jialang**	**1.42**	**273**	P	**Pn**	17 54 06.1	+0.7
AXDP				S	**Sb**	17 54 24.9	+0.7
WNT	**Mingjian**	**1.42**	**132**	*eP*	**Pn**	17 54 04.6	-0.8
WNT				*eS*	**Sn**	17 54 23.1	-0.5
WDL	**Douliou City**	**1.44**	**140**	S	**Sb**	17 54 25.8	+0.9
WSL	**Shuilin Townsh**	**1.45**	**154**	*eP*	**Pn**	17 54 05.8	0.0
WSL				*eS*	**Sn**	17 54 24.7	+0.2
NFF	**Wufeng Townshi**	**1.46**	**97**	*eP*	**Pn**	17 54 05.2	-0.8
NFF				*eS*	**Sb**	17 54 25.8	+0.4
WDLH	**Douliu**	**1.46**	**141**	*eP*	**Pn**	17 54 06.4	+0.4
WDLH				*eS*	**Sn**	17 54 24.4	-0.4
WCS	**Beigang Elemen**	**1.48**	**121**	*eP*	**Pn**	17 54 05.0	-1.3
WCS				S	**Sn**	17 54 25.5	+0.3
WGK	**Gukeng**	**1.48**	**140**	P	**Pn**	17 54 05.4	-0.9
WGK				S	**Sb**	17 54 27.3	+1.4
WJS	**Zhushan**	**1.49**	**132**	*eP*	**Pn**	17 54 04.9	-1.4
WJS				*eS*	**Sn**	17 54 25.8	+0.4
KSHI	**Guanxi Townshi**	**1.50**	**92**	*eP*	**Pn**	17 54 06.0	-0.5
KSHI				*eS*	**Sb**	17 54 27.4	+0.9
NCU	**National Centr**	**1.51**	**84**	*eS*	**Sb**	17 54 27.8	+0.8
TYC	**Yuchr**	**1.52**	**127**	*eP*	**Pn**	17 54 05.7	-1.1
TYC				*eS*	**Sb**	17 54 28.1	+0.9
CHN2	**Minshiung**	**1.56**	**146**	P	**Pn**	17 54 08.0	+0.7
CHN2				*eS*	**Sn**	17 54 27.4	+0.4
CHY	**Chiayi**	**1.56**	**148**	*eP*	**Pn**	17 54 06.6	-0.7
CHY				*i* S	**Sb**	17 54 28.3	+0.1
SMLT	**Sun Moon Lake**	**1.57**	**127**	*eP*	**Pn**	17 54 06.4	-1.1
SMLT				*eS*	**Sb**	17 54 29.1	+0.6
WDGT	**Dungji**	**1.57**	**176**	*eP*	**Pn**	17 54 06.6	-0.9
WDGT				*eS*	**Sn**	17 54 27.8	+0.4
TDCB	**Techi**	**1.59**	**111**	P	**Pn**	17 54 06.7	-1.3
TDCB				*eS*	**Sn**	17 54 26.0	-2.2
CHN8	**Yiju**	**1.60**	**157**	*eP*	**Pn**	17 54 05.9	-2.1
CHN8				S	**Sb**	17 54 30.3	+0.8
TWT	**Tachien**	**1.61**	**111**	*eP*	**Pn**	17 54 07.1	-1.1
CHN5	**Tsauling**	**1.62**	**139**	*eP*	**Pn**	17 54 07.0	-1.3
CHN5				*eS*	**Sn**	17 54 26.6	-0.1
ICHU	**Yijhu**	**1.62**	**155**	*eP*	**Pn**	17 54 08.5	+0.4
ICHU				*eS*	**Sn**	17 54 28.6	0.0
VCHM	**Qimei**	**1.62**	**183**	P	**Pn**	17 54 08.2	0.0
VCHM				*eS*	**Sn**	17 54 28.7	0.0
WHYT	**Xinyi Township**	**1.66**	**133**	*eP*	**Pn**	17 54 07.5	-1.2
WHYT				*eS*	**Sn**	17 54 30.4	+0.7
SSLB	**Suanglung**	**1.67**	**128**	P	**Pn**	17 54 08.4	-0.4
SSLB	**Suanglung**	**1.67**	**128**	*eP*	**Pn**	17 54 07.3	-1.5
SSLB				*eS*	**Sn**	17 54 28.1	-1.8
FUSS	**Fushou**	**1.67**	**110**	*eP*	**Pn**	17 54 08.9	-0.1
FUSS				*eS*	**Sn**	17 54 29.6	-0.6
NSK	**Sanguang**	**1.67**	**95**	*eP*	**Pn**	17 54 08.0	-1.0
NSK				*eS*	**Sn**	17 54 30.1	+0.1
WUSB	**Renai**	**1.67**	**120**	*eP*	**Pn**	17 54 08.0	-1.0
WUSB				*eS*	**Sn**	17 54 28.9	-1.3
YHNB	**Yeheng**	**1.69**	**95**	P	**Pn**	17 54 09.1	-0.1
YHNB	**Yeheng**	**1.69**	**95**	S	**Sb**	17 54 32.6	+0.6
YHNB	**Yeheng**	**1.69**	**95**	*eP*	**Pn**	17 54 08.0	-1.2
YHNB				*eS*	**Sn**	17 54 31.2	+0.7
WCKO	**Fanlu**	**1.70**	**144**	*eP*	**Pn**	17 54 10.0	+0.7
WCKO				*eS*	**Sb**	17 54 32.0	-0.3
NNS	**Nan Shan**	**1.72**	**103**	*eP*	**Pn**	17 54 08.8	-0.9
WHF	**Hehuan Shan**	**1.72**	**113**	*eP*	**Pn**	17 54 09.5	-0.5
LYJJ	**Jianjiangzhen**	**1.72**	**7**	*eP*	**Pn**	17 54 09.3	-0.3
LYJJ				*eS*	**Sn**	17 54 30.3	-0.9
NNSB	**Datong**	**1.73**	**103**	*eP*	**Pn**	17 54 08.7	-1.1
NNSB				*eS*	**Sn**	17 54 32.1	+0.4
TWS1	**Kuangyinshan**	**1.74**	**81**	*eP*	**Pn**	17 54 09.6	-0.2
TWS1				*eS*	**Sn**	17 54 31.9	+0.3
OWD	**Renai**	**1.74**	**120**	*eP*	**Pn**	17 54 08.9	-1.0
TSCK	**Chigu Township**	**1.75**	**163**	*eP*	**Pn**	17 54 11.0	+1.0
TSCK				*eS*	**Sb**	17 54 34.1	+0.3
ALS	**Alishan**	**1.76**	**138**	*eP*	**Pn**	17 54 09.5	-0.8
ALS				*eS*	**Sb**	17 54 34.7	+0.4
SCLT	**Jiali**	**1.76**	**160**	*eP*	**Pn**	17 54 11.3	+1.4
SCLT				*eS*	**Sb**	17 54 34.9	+0.9
CHN4	**Tsaushan**	**1.77**	**146**	*eP*	**Pn**	17 54 09.6	-0.6
CHN4				*eS*	**Sn**	17 54 32.0	-0.3
NTST	**Danshui**	**1.77**	**79**	*eP*	**Pn**	17 54 10.6	+0.3
NTST				*eS*	**Sb**	17 54 35.3	+0.9
TATO	**Taipei**	**1.79**	**85**	P	**Pn**	17 54 11.5	+1.1
TATO	**Taipei**	**1.79**	**85**	S	**Sb**	17 54 35.6	+0.8
TWK	**Hsinying**	**1.79**	**150**	*eP*	**Pn**	17 54 09.7	-0.8
TWK				*eS*	**Sn**	17 54 32.6	-0.3
NWLT	**Wulai**	**1.79**	**91**	*eP*	**Pn**	17 54 10.1	-0.5
NWLT				*eS*	**Sb**	17 54 34.9	-0.2
TAP	**Taipei**	**1.81**	**83**	*eS*	**Sb**	17 54 35.4	0.0
NDT	**Datong Townshi**	**1.82**	**97**	*eP*	**Pn**	17 54 09.8	-1.2
VWDT	**VWDT**	**1.82**	**126**	*eP*	**Pn**	17 54 11.1	+0.1
VWDT				*eS*	**Sn**	17 54 33.3	-0.4
TPUB	**Ta-pu**	**1.83**	**146**	P	**Pn**	17 54 10.6	-0.5
TPUB	**Ta-pu**	**1.83**	**146**	S	**Sn**	17 54 34.5	+0.7
TPUB	**Ta-pu**	**1.83**	**146**	*eP*	**Pn**	17 54 09.7	-1.4
ANP	**Anpu**	**1.84**	**79**	*eP*	**Pb**	17 54 12.8	-0.8
ANP				*eS*	**Sn**	17 54 35.0	+0.8
LATG	**Datong**	**1.84**	**99**	*eP*	**Pn**	17 54 11.6	+0.2
ZPLA	**Ao Xicun**	**1.85**	**241**	*eP*	**Pn**	17 54 10.8	-0.5
ZPLA				*eS*	**Sb**	17 54 36.9	+0.2
ZUZH	**Zhuzihu**	**1.86**	**79**	*eP*	**Pn**	17 54 11.0	-0.5
ZUZH				*eS*	**Sn**	17 54 33.3	-1.3
ENTT	**Nioudou**	**1.86**	**95**	*eP*	**Pn**	17 54 11.0	-0.6
ENTT				*eS*	**Sn**	17 54 34.2	-0.5
WTP	**Ta-pu**	**1.86**	**148**	*eP*	**Pn**	17 54 10.9	-0.7
WTP				*eS*	**Sn**	17 54 33.6	-1.2
YUS	**Yu-Shan**	**1.86**	**135**	*eP*	**Pn**	17 54 13.4	+1.4
YUS				*eS*	**Sb**	17 54 37.4	+0.1
TWA	**Mucha**	**1.87**	**85**	*eP*	**Pn**	17 54 11.3	-0.4
TWA				S	**Sb**	17 54 37.7	+0.5
FUSB	**Fushanzhiwuyua**	**1.87**	**92**	*eP*	**Pn**	17 54 10.5	-1.2
FUSB				*eS*	**Sb**	17 54 37.5	+0.2
CHN1	**Nanshi**	**1.88**	**151**	*eP*	**Pn**	17 54 11.0	-0.8
CHN1				*eS*	**Sn**	17 54 34.9	-0.2
YM01	**YM01**	**1.88**	**80**	P	**Pn**	17 54 11.5	-0.3
YM01				*eS*	**Sn**	17 54 35.1	0.0
ETLH	**Xiulin Townshi**	**1.89**	**109**	*eP*	**Pn**	17 54 11.8	-0.1
YM08	**YM08**	**1.90**	**79**	*eP*	**Pn**	17 54 13.3	+1.2
YM08				*eS*	**Sn**	17 54 36.4	+0.7
TWY	**Chenhua**	**1.93**	**76**	*eS*	**Sb**	17 54 40.4	+1.4
TWE	**Neicheng**	**1.95**	**93**	*eP*	**Pn**	17 54 11.7	-1.0
TWE				*eS*	**Sb**	17 54 40.0	+0.5
ETM	**Tongmen**	**1.99**	**115**	*eP*	**Pn**	17 54 12.7	-0.6
SGST	**Jiashian**	**1.99**	**151**	*eP*	**Pn**	17 54 12.1	-1.2
NACB	**Ninganchiao**	**1.99**	**109**	P	**Pn**	17 54 14.5	+1.2
NACB	**Ninganchiao**	**1.99**	**109**	S	**Sb**	17 54 39.7	-1.0
NACB	**Ninganchiao**	**1.99**	**109**	*eP*	**Pn**	17 54 14.2	+0.9
STYH	**Taoyuan**	**2.01**	**145**	*eP*	**Pn**	17 54 13.4	-0.1
STYH				S	**Sb**	17 54 40.8	-0.4
ESL	**Shilin**	**2.01**	**120**	*eP*	**Pn**	17 54 13.2	-0.3
ENA	**Nanau**	**2.05**	**101**	P	**Pn**	17 54 15.3	+1.2
ENA				*eS*	**Sn**	17 54 40.7	+1.4
NWF	**Wu-fen Shan**	**2.06**	**83**	P	**Pb**	17 54 16.3	-1.1
NWF				S	**Sb**	17 54 41.8	-1.0
WFSB	**Wu-fen Shan**	**2.06**	**83**	*eP*	**Pb**	17 54 16.2	-1.1
EWUT	**Wuta**	**2.08**	**100**	*eP*	**Pn**	17 54 16.0	+1.4
TIPB	**Shuangxi**	**2.09**	**86**	*eP*	**Pn**	17 54 15.0	+0.3
EHY	**Hungye**	**2.10**	**128**	P	**Pn**	17 54 15.5	+0.7
EHY				*eS*	**Sn**	17 54 40.7	+0.1
EHYH	**Wanrong**	**2.13**	**128**	P	**Pn**	17 54 15.7	+0.5
EHYH				*eS*	**Sn**	17 54 41.3	+0.1
ELDTW	**Lidau**	**2.13**	**140**	*eP*	**Pn**	17 54 15.0	-0.3
SCST	**Cishan**	**2.13**	**155**	*eP*	**Pb**	17 54 17.6	-0.9
SCST				*eS*	**Sb**	17 54 44.7	0.0
SXI1	**Grass Mountain**	**2.15**	**83**	*eP*	**Pb**	17 54 17.8	-1.1
TWM1	**Shoushan**	**2.16**	**158**	*eP*	**Pn**	17 54 16.3	+0.6
YULB	**Yu-li**	**2.16**	**131**	P	**Pn**	17 54 15.7	+0.1
YULB	**Yu-li**	**2.16**	**131**	S	**Sn**	17 54 43.2	+1.1
YULB	**Yu-li**	**2.16**	**131**	*eP*	**Pn**	17 54 15.9	+0.2
YULB				*eS*	**Sn**	17 54 41.5	-0.6
XPSS	**Dashiqiu**	**2.17**	**16**	*eP*	**Pn**	17 54 15.4	-0.4
XPSS				*eS*	**Sn**	17 54 42.9	+0.6
HGSD	**Ruisui**	**2.19**	**127**	*eP*	**Pn**	17 54 16.6	+0.7
TWF1	**Yuli**	**2.19**	**132**	*eP*	**Pn**	17 54 16.5	+0.5
EYUL	**Yuli**	**2.21**	**132**	*eP*	**Pn**	17 54 16.4	+0.2
DSXP	**Dongshan**	**2.22**	**240**	*eP*	**Pn**	17 54 15.5	-1.0
DSXP				*eS*	**Sn**	17 54 45.4	+1.8
TWB1	**Santiao Chiao**	**2.24**	**85**	*eP*	**Pn**	17 54 16.6	-0.2
TWB1				*eS*	**Sn**	17 54 44.3	+0.3
FULB	**Fuli**	**2.29**	**135**	*eP*	**Pn**	17 54 18.4	+1.0
SXFK	**Yanhouchang**	**2.31**	**313**	*eP*	**Pn**	17 54 17.2	-0.5
SXFK				*eS*	**Sn**	17 54 45.4	-

WVOR	Wild Horse Val	3.13	235			Pn	17 57 51.6	+2.7
YFT	Old Faithful	3.13	86			Pn	17 57 50.8	+1.8
YHH	Holmes Hill	3.14	80			Pn	17 57 51.4	+2.1
YHH	comp=N,94nm,0.7s				IAML		17 58 40.4	
YHH	comp=E,88nm,0.7s				IAML		17 58 43.4	
YPP	Pitchstone Pla	3.15	89			Pn	17 57 50.4	+1.0
YPP	comp=E,47nm,0.5s				IAML		17 58 42.5	
SLMT	Seeley Lake	3.17	21			Pn	17 57 50.8	+1.2
YPT	Yellepit	3.19	305	Pn		Pn	17 57 51.2	+1.6
GBMT	Granite Butte,	3.20	36			Pn	17 57 50.4	+0.4
GBMT	comp=N,73nm,0.5s				IAML		17 58 43.3	
GBMT	comp=E,63nm,0.6s				IAML		17 58 48.0	
YNR	Norris Junctio	3.26	81			Pn	17 57 53.0	+2.2
YNR	comp=N,58nm,0.7s				IAML		17 58 45.3	
YNR	comp=E,56nm,0.6s				IAML		17 58 46.3	
H17A	Grant Village	3.31	87			Pn	17 57 54.2	+2.6
SNOW	Snow King Moun	3.32	103			Pn	17 57 53.5	+1.8
SNOW	comp=E,64nm,0.6s				IAML		17 58 48.5	
SNOW	comp=E,48nm,1.4s				IAML		17 58 54.9	
AHID	Auburn Hatcher	3.35	116			Pn	17 57 53.1	+1.1
AHID	comp=E,64nm,0.7s				IAML		17 58 49.0	
AHID	comp=E,41nm,1.2s				IAML		17 58 59.2	
E08A	Dider Farm, El	3.50	310			Pn	17 57 54.8	+0.9
JTMT	Jette	3.51	10			Pn	17 57 54.6	+0.5
JTMT	Jette	3.51	10			Pn	17 57 55.5	+1.3
ELK	Elko	3.55	181			Pn	17 57 56.9	+2.0
SPUT	South Promonto	3.61	145			Pn	17 57 57.5	+1.9
SPUT	comp=E,59nm,1.3s				IAML		17 58 57.9	
SPUT	comp=N,32nm,0.6s				IAML		17 58 59.4	
HAWA	Hanford	3.71	306			Pn	17 57 58.1	+1.3
HAWA	comp=N,41nm,4.7s				IAML		17 59 20.3	
F07A	Phinny Hill Vi	3.71	297			Pn	17 57 58.1	+1.2
F07A	comp=E,35nm,0.5s				IAML		17 58 59.4	
F07A	comp=N,42nm,2.3s				IAML		17 59 11.8	
BGU	Big Grassy Mou	3.73	154			Pn	17 57 59.7	+2.4
BGU	comp=E,36nm,0.6s				IAML		17 58 59.5	
BGU	comp=N,30nm,1.0s				IAML		17 58 59.6	
HWUT	Hardware Ranch	3.79	134			Pn	17 57 59.5	+1.5
D08A	Wollman Farm,	3.80	318			Pn	17 57 58.7	+0.7
D08A	comp=N,30nm,3.6s				IAML		17 58 42.8	
D08A	comp=E,28nm,4.0s				IAML		17 58 58.0	
WAH2	Wahluke Slope	3.93	310			Pn	17 58 00.8	+0.9
WAH2	comp=E,60nm,0.5s				IAML		17 59 10.3	
WAH2	comp=N,48nm,1.3s				IAML		17 59 15.0	
E07A	Sunnyside	3.98	306			Pn	17 58 01.6	+1.1
E07A	comp=E,38nm,0.5s				IAML		17 58 51.9	
G06A	Carlson Farm,	3.99	285	Pn	Pn	Pn	17 58 02.0	+1.4
G06A	comp=N,50nm,3.8s				IAML		17 58 42.0	
G06A	comp=E,45nm,4.1s				IAML		17 59 47.1	
C09A	Chrisman Ranch	4.11	330			Pn	17 58 02.7	+0.4
BMN	Battle Mountai	4.15	202			Pn	17 58 04.9	+2.0
BMN	comp=E,19nm,0.9s				IAML		17 59 08.3	
BMN	comp=N,22nm,1.9s				IAML		17 59 09.8	
LDM	Libby Dam	4.16	359			Pn	17 58 03.7	+0.7
LDM	comp=N,40nm,0.6s				IAML		17 59 18.1	
LDM	comp=E,39nm,0.7s				IAML		17 59 19.2	
PINE	Pine Mountain	4.17	265			Pn	17 58 04.5	+1.2
NEW	Newport	4.18	342			Pn	17 58 04.1	+0.7
NEW	comp=E,46nm,0.8s				IAML		17 59 11.7	
NEW	comp=E,27nm,1.7s				IAML		17 59 15.1	
GCMT	Greycliff	4.19	67			Pn	17 58 05.1	+1.5
TCUT	Toone Canyon	4.23	137	Pn	Pn	Pn	17 58 05.7	+1.5
TCUT	comp=E,43nm,0.7s				IAML		17 59 30.6	
MXC	Moxie City	4.25	304	Pn	Pn	Pn	17 58 04.9	+0.7
MXC	comp=N,49nm,4.1s				IAML		17 59 25.9	
MXC	comp=E,34nm,4.1s				IAML		17 59 30.1	
RLMT	Red Lodge	4.30	77	Pn	Pn	Pn	17 58 06.0	+0.9
RLMT	comp=E,38nm,0.5s				IAML		17 59 19.9	
RLMT	comp=E,38nm,0.6s				IAML		17 59 21.2	
EPH	Ephrata	4.33	316			Pn	17 58 05.0	-0.4
EPH	comp=E,26nm,4.4s				IAML		17 59 47.0	
EPH	comp=N,29nm,4.2s				IAML		18 00 39.9	
BW06	Boulder Array	4.38	109			Pn	17 58 06.5	+0.4
PD31	Pinedale Array	4.38	109			Pn	17 58 06.9	+0.7
PDAR	Pinedale Array	4.38	109			Pn	17 58 06.9	+0.7
I05D	Terrebonne, OR	4.41	273	Pn		Pn	17 58 08.2	+1.7
CTU	Camp Tracy	4.41	144	Pn		Pn	17 58 08.4	+1.8
K05A	Summer Lake	4.43	251	Pn		Pn	17 58 09.3	+2.3
MOD	Modoc Plateau	4.44	239	Pn		Pn	17 58 09.7	+2.6
MOD	comp=N,24nm,4.0s				IAML		17 59 16.4	
MOD	comp=E,34nm,4.2s				IAML		17 59 58.0	
G05A	Wamic	4.46	284	Pn	Pn	Pn	17 58 08.1	+0.9
DUG	Dugway, Tooele	4.47	156			Pn	17 58 08.8	+1.4
DUG	comp=E,21nm,1.1s				IAML		17 59 26.2	
DUG	comp=E,21nm,1.0s				IAML		17 59 26.8	
J05D	Fort Rock, OR	4.49	259	Pn	Pn	Pn	17 58 09.0	+1.3
WIFE	Three Sisters-	4.77	269	Pn		Pn	17 58 12.8	+1.2
LTY	Liberty	4.84	310			Pn	17 58 14.2	+1.8
LTY	comp=E,31nm,4.1s				IAML		17 59 56.8	
LTY	comp=N,30nm,4.9s				IAML		18 00 47.1	
NLU	North Lily Min	4.92	151			Pn	17 58 15.0	+1.3
NLU	comp=N,11nm,4.9s				IAML		17 59 27.0	
BSUT	Blindstream Ca	4.99	137			Pn	17 58 13.8	-0.9
BSUT	comp=E,13nm,4.6s				IAML		17 58 54.9	
I04A	Tendick Farm,	5.23	267	Pn	Pn	Pn	17 58 18.6	+0.9
LON	Longmire	5.25	300	Pn	Pn	Pn	17 58 17.4	-0.7
EGMT	Eagleton	5.30	43	Pn	Pn	Pn	17 58 18.6	-0.2
RDMU	Red Mountain	5.58	130			Pn	17 58 21.3	-1.5
KVN	Kaiserville	5.68	204	Pn	Pn	Pn	17 58 23.6	-0.5
P18A	Preston Nutter	5.95	140	Pn	Pn	Pn	17 58 25.8	-2.0

NEIC ***13*** *18:10:25.6±1.9, 36°.66N±0°.07×71°.2E±0°.1, h214km±9km, mb4.4/16, Error ellipse: s-maj=13.5km s-min=9.3km az=102.0*

NNC ***13*** *18:10:29.6±3.6, 37°.00N×70°.99E, h192km±39km, mb2.8, mpv3.6, Error ellipse: s-maj=34.1km s-min=24.7km az=45.0*

IDC ***13*** *18:10:37.3±7.7, 37°.71N×70°.96E, h252km±50km, mb3.4/4, mbtmp3.9/7, Error ellipse: s-maj=88.1km s-min=48.3km az=165.0*

ISC 13 18:10:24.3±0.7, 36°.69N±0°.06×71°.21E±0°.07, h200km, n64, σ1§79/68, mb4.3/9, 6C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBL	Kabul	2.78	220		Pn	18 11 13.0	+1.4
KBL					Sn	18 11 46.8	-1.6
DRK	Karamyk	2.83	9		Pn	18 11 15.1	+2.9
DRK					Sn	18 11 49.5	-0.2
BTK	Batken	3.38	355		Pn	18 11 21.7	+3.2
BTK					Sn	18 12 02.1	+1.0
NIL	Nilore	3.46	151		Pn	18 11 22.3	+2.8
NIL					Sn	18 12 02.3	-0.5
ARSB	Arslanbob	4.83	16		Pn	18 11 38.6	+2.0
ARSB					Sn	18 12 30.7	-3.0
JMU	Jammu	4.91	142	*i* P	Pn	18 11 29.7	-7.9
JMU				*i* S	Sn	18 12 22.8	-13
JMU	comp=N,201nm,0.4s			IAML		18 12 38.0	
ALCI	Alchi Leh	5.46	115	*i* P	Pn	18 11 39.6	-5.4
ALCI				*i* S	Sn	18 12 36.7	-12
ALCI	comp=N,80nm,0.8s			IAML		18 12 50.4	
NRN	Naryn	6.03	37		Pn	18 11 52.8	+0.7
NRN					Sn	18 12 59.7	-1.9
UCH	Uchtor SNR=21	6.09	24	P	Pn	18 11 55.7	+2.6
DHRM	DHARAMSHALA	6.10	135	*i* S	Sn	18 12 53.2	-10
DHRM	comp=E,416nm,0.3s			IAML		18 13 06.0	
EKS2	Erkin-Say SNR=23	6.29	18	P	Pn	18 11 57.8	+2.5
KK31	Karatay Array comp=E,5.0nm,0.5s,baz=174,slow=12,SNR=56	6.43	355	⇑P	Pn	18 11 58.3	+1.2
KK31	comp=E,12nm,0.3s,baz=164,slow=15,SNR=15			⇑S	Sn	18 13 08.1	-2.5
KK31	Karatay Array	6.43	355		Pn	18 11 58.0	+1.0
KK31					Sn	18 13 06.0	-4.6
KKAR	Karatay Array	6.43	355		Pn	18 11 58.2	+1.2
AAK	Ala-Archa comp=E,6.1nm,0.3s,baz=207,slow=9.0,SNR=34	6.46	22	P	Pn	18 12 00.3	+2.7
AAK	comp=E,8.8nm,0.5s,baz=189,slow=3.1,SNR=5.5			S	Sn	18 13 08.0	-3.5
AAK	Ala-Archa SNR=9.8	6.46	22	P	Pn	18 12 00.4	+2.9
AAK	Ala-Archa comp=E,1.3nm,0.4s	6.46	22	⇑P	Pn	18 11 59.7	+2.2
AAK	comp=E,5.5nm,0.5s			⇑S	Sn	18 13 12.2	+0.7
AAK	Ala-Archa	6.46	22	Pn	Pn	18 11 59.4	+1.8
AAK				Sn	Sn	18 13 09.9	-1.6
KBK	Karagaybulak SNR=5.0	6.62	25	P	Pn	18 12 02.9	+3.2
ULHL	Ulahol SNR=8.4	6.78	33	P	Pn	18 12 04.1	+2.3
BHK	Bhakra	6.80	139	*i* P	Pn	18 11 55.9	-6.1
BHK				*i* S	Sn	18 13 06.1	-13
BHK	comp=N,94nm,0.5s			IAML		18 13 23.9	
BOOM	Boomskoye usch	6.85	31	Pn	Pn	18 12 04.5	+1.9
USP	Ospenovka SNR=7.2	7.04	20	P	Pn	18 12 06.9	+1.9
TKM2	Tokmak 2 SNR=5.7	7.08	27	P	Pn	18 12 08.3	+2.6
KDJ	Kajisay	7.13	39	Pn	Pn	18 12 06.8	+0.4
TARG	Taragay, Kyrgy	7.18	43		Pn	18 12 08.1	+0.9
WUS	Wushi	7.69	52	Pn	Pn	18 12 13.9	+0.2
KLP	Kalpa	7.78	129	*i* P	Pn	18 12 05.9	-9.1
KLP				*i* S	Sn	18 13 33.2	-10
KLP	comp=N,74nm,0.4s			IAML		18 13 41.4	
UTK	UTTARKASHI	8.46	133	*i* P	Pn	18 12 14.5	-9.3
UTK				*i* S	Sn	18 13 46.6	-12
PDGK	Podgornoye	9.18	41	Pn	Pn	18 12 34.6	+1.7
JOSI	Joshimath	9.26	129	*i* P	Pn	18 12 27.2	-7.0
JOSI				*i* S	Sn	18 14 04.7	-13
KUDL	Kundal	9.62	151	*i* P	Pn	18 12 28.4	-10
KUDL				*e*S	Sn	18 14 11.6	-15
PTH	Pithoragarh	10.34	131	*i* P	Pn	18 12 39.5	-8.7
PTH				*i* S	Sn	18 14 32.2	-12
MAKZ	Makanchi	12.90	35		Pn	18 13 21.7	+1.3
MKAR	Makanchi Array comp=N,0.3nm,0.3s,baz=210,slow=12,SNR=7.3	13.04	36	P	Pn	18 13 25.1	+2.9
MKAR	Makanchi Array	13.04	36	Pn	Pn	18 13 23.2	+1.1
AB31	Akbulak array comp=N,1.8nm,0.5s,baz=148,slow=12,SNR=44	15.00	330	⇓P	P	18 13 48.4	+1.4
AB31	comp=N,0.5nm,0.5s,baz=157,slow=22,SNR=3.3			⇓S	S	18 16 33.0	+0.2
AB31	Akbulak array	15.00	330		Pn	18 13 45.5	-0.8
ABKAR	Akbulak array	15.00	330	Pn	Pn	18 13 44.8	-1.5
EVN	Everest	15.79	119		P	18 13 54.4	-2.2
EVN	comp=Z,7.8nm,0.5s			IAmb	IAmb	18 13 58.7	
BVAR	Borovoye Array comp=Z,1.0nm,0.5s,baz=167,slow=13,SNR=3.6	16.34	358	P	Pn	18 14 04.7	+2.1
AKTO	Aktyubinsk comp=Z,1.4nm,0.6s	16.70	329	⇑P	P	18 14 07.0	+1.3
AKTO	comp=Z,0.6nm,0.8s			⇑S	S	18 17 08.3	-1.6
ZALV	Zalesovo Beam comp=Z,0.4nm,0.3s,baz=212,slow=11,SNR=4.8	19.67	24	P	P	18 14 39.6	+1.7
RAYN	Ar Rayn	25.73	247	P	P	18 15 35.8	-0.7
FIA1	FINESS Array S	37.42	326	P	P	18 17 16.6	-1.2
FINES	FINESS Array B comp=Z,0.9nm,0.4s,baz=123,slow=10,SNR=10	37.42	326	P	P	18 17 18.6	+0.8
FINES	comp=Z,0.9nm,0.4s FINESS Array B	37.42	326	P	P	18 17 16.7	-1.1
ARCES	ARCESS Array B comp=Z,2.2nm,0.7s,baz=115,slow=8.7,SNR=7.2	41.03	337	P	P	18 17 47.3	-0.3
ARCES	comp=Z,2.2nm,0.7s ARCESS Array B	41.03	337	P	P	18 17 47.7	+0.1
HFS	Hagfors comp=Z,2.3nm,0.5s,baz=108,slow=8.0,SNR=13	43.02	322	P	P	18 18 04.0	+0.2
NC405	comp=Z,2.3nm,0.5s NORSAR Array S	44.10	323	P	P	18 18 12.7	+0.4
NC602	NORSAR Array S	44.15	322	P	P	18 18 12.6	-0.1
NC602	comp=Z,28nm,1.4s			IAmb	IAmb	18 18 29.7	
NC303	NORSAR Array S	44.27	323	P	P	18 18 13.9	+0.1
TATO	Taipei	44.27	91	P	P	18 18 14.5	+0.3
NB2	NORSAR Subarra comp=Z,0.7nm,0.5s,baz=96,slow=7.9	44.33	323	P	P	18 18 14.2	0.0
NOA	NORSAR Array B comp=Z,1.0nm,0.6s,baz=86,slow=7.6,SNR=7.1	44.33	323	P	P	18 18 13.9	-0.3
SSLB	comp=Z,1.0nm,0.6s Suanglung	44.41	92	P	P	18 18 15.5	+0.2
TEOL	Teolo	44.83	300	P	P	18 18 17.4	-1.0
TEOL	comp=Z,8.1nm,0.6s			IAmb	IAmb	18 18 58.2	
SHEM	Shemya Is, Ala	68.70	40	P	P	18 21 05.1	-0.8
SMY	Shemya	68.70	40	P	P	18 21 05.0	-0.9
D19K	Kuna River	68.91	17	P	P	18 21 07.8	+0.8
D19K	comp=Z,8.6nm,1.1s			IAmb	IAmb	18 21 29.4	
TOLK	Toolik Lake Re comp=Z,10nm,1.4s	70.70	15	P	P	18 21 18.2	+0.3
TOLK				IAmb	IAmb	18 21 33.9	
C27K	Jago River	70.95	12	P	P	18 21 19.1	-0.3
G19K	Purcell Mounta comp=Z,9.9nm,1.5s	70.98	19	P	P	18 21 20.5	+0.9
G19K				IAmb	IAmb	18 21 57.9	

NEIC ***13*** *18:15:32.2±1.8, 13°.75N±0°.07×120°.9E±0°.1, h117km±6km, mb4.3/69, Error ellipse: s-maj=15.5km s-min=9.9km az=91.0*

MAN ***13*** *18:15:34.0, 13°.73N×120°.60E, h119km, MS3.9*

IDC ***13*** *18:15:36.8±5.1, 13°.70N×120°.94E, h170km±50km, mb3.7/17, mbtmp4.1/17, Error ellipse: s-maj=29.2km s-min=10.4km az=65.0*

ISC 13 18:15:35.0±0.4, 13°.84N±0°.04×120°.72E±0°.06, h150km, n110, σ1§60/119, mb4.2/49, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TGY	Tagaytay City	0.33	39	*i* P	Pn	18 15 54.6	-1.2
TGY				*e*S	Sn	18 16 08.1	-3.5
LQP	Lukban	0.84	71	*i* P	Pn	18 15 58.3	-0.4
LQP				*i* S	Sn	18 16 15.8	-1.0
GQP	Guinayangan	1.68	88	*i* P	Pn	18 16 07.0	+0.5
GQP				*i* S	Sn	18 16 30.7	+0.2
BOLP	Bolinao	2.64	343	*e*P	Pn	18 16 18.3	+0.4
BOLP				*i* S	Sn	18 16 46.9	-4.1
JAP	San Jose, Anti	3.30	159	*e*P	Pn	18 16 25.9	-0.3
PALP	Palanan	3.60	27	*i* P	Pn	18 16 31.5	+1.4
GUIM	Jordan	3.68	150	*i* P	Pn	18 16 31.6	+0.4
GUIM				*i* S	Sn	18 17 16.6	+1.8
SZP	Santa	3.69	356	Pn	Pn	18 16 27.8	-3.5
SZP				Sn	Sn	18 17 11.4	-3.7

PPR	Puerto Princes	4.49	206	*e*P		Pn	18 16 40.5	-1.2
PLP	Palo	4.94	122	*e*P		Pn	18 16 48.2	+0.6
KKM	Kota Kinabalu	8.93	210	Pn		Pn	18 17 39.5	-1.5
TWG	Pinlang	8.94	2	Pn		Pn	18 17 37.8	-3.1
QIZ	Qiongzhong	11.64	298	Pn		Pn	18 18 15.9	-0.7
JOW	Kunigami	14.73	28	P		P	18 18 57.2	-1.0
CM31	Chiang Mai Arr	21.41	285	P		P	18 20 12.5	+1.3
CM31	comp=Z,7.4nm,0.7s			IAmb	IAmb		18 20 14.7	
CMAR	Chiang Mai Arr comp=Z,4.6nm,0.8s,baz=95,slow=7.9,SNR=34	21.41	285	P		P	18 20 13.4	+2.2
CMAR	comp=Z,4.6nm,0.8s Chiang Mai Arr	21.41	285	P		P	18 20 12.5	+1.3
CHTO	Chiang Mai	21.47	286			P	18 20 13.3	+1.5
KULM	Kulim	21.52	249	P		P	18 20 13.6	+1.2
KULM	comp=Z,20nm,1.4s			IAmb	IAmb		18 20 25.7	
RPSI	Rantau Prapat	24.21	245	P		P	18 20 38.3	+0.3
RPSI	comp=Z,11nm,1.1s			IAmb	IAmb		18 20 39.7	
KSAR	Wonju Array Be	24.36	14	P		P	18 20 39.3	+0.3
KSRS	Korea Array comp=Z,1.5nm,0.8s,baz=121,slow=39,SNR=5.1	24.38	14	P		P	18 20 39.5	+0.2
KS19	comp=Z,1.5nm,0.8s Wonju Array Si	24.41	14	P		P	18 20 39.8	+0.3
KS19	comp=Z,24nm,1.5s			IAmb	IAmb		18 21 09.2	
JSG	Sagara	26.07	34	P		P	18 20 53.3	-1.2
LZDM	Lanzhou Array comp=Z,1.1nm,0.3s,baz=125,slow=12,SNR=1.6	26.81	328	P		P	18 21 04.1	+2.5
LSA	comp=Z,1.1nm,0.3s Lhasa	31.54	305	P		P	18 21 45.8	+2.0
LSA	comp=Z,3.5nm,0.6s			IAmb	IAmb		18 21 47.4	
EVN	Everest	34.51	299			P	18 22 11.1	+1.3
MBWA	Marble Bar	34.80	182	P		P	18 22 09.7	-1.8
SONM	Songino Array comp=Z,1.7nm,0.6s,baz=163,slow=10,SNR=14	35.93	343	P		P	18 22 22.3	+1.3
SONM	comp=Z,1.7nm,0.6s Songino Array	35.93	343	P		P	18 22 22.1	+1.0
WB0	Warramunga Arr	36.01	158	P		P	18 22 19.1	-2.7
WB0	comp=Z,5.2nm,1.1s			IAmb	IAmb		18 22 58.9	
WRA	Warramunga Arr comp=Z,1.0nm,0.6s,baz=331,slow=9.8,SNR=17	36.15	158	P		P	18 22 20.8	-2.3
WR8	comp=Z,1.0nm,0.6s Warramunga Arr	36.22	158	P		P	18 22 20.8	-2.8
WR8	comp=Z,9.8nm,1.4s			IAmb	IAmb		18 22 52.6	
AS31	Alice Springs	39.45	161	P		P	18 22 48.5	-2.2
ASAR	Alice Springs comp=Z,0.6nm,0.4s,baz=333,slow=7.7,SNR=40	39.45	161	P		P	18 22 49.0	-1.7
ASAR	comp=Z,0.3nm,0.8s,baz=343,slow=3.0,SNR=2.3			PcP	PcP		18 24 54.4	-1.3
ASAR	comp=Z,0.6nm,0.4s Alice Springs	39.45	161	P		P	18 22 48.6	-2.1
MORW	Morawa	42.90	186	P		P	18 23 17.1	-1.7
FORT	Forrest	44.92	171	P		P	18 23 33.0	-1.9
FORT	comp=Z,9.4nm,1.1s			IAmb	IAmb		18 24 00.4	
INKA	Innaminka	45.67	155	P		P	18 23 39.9	-1.0
PDGK	Podgornoye	45.92	318			P	18 23 44.7	+1.8
MKAR	Makanchi Array comp=Z,1.6nm,0.3s,baz=116,slow=7.8,SNR=38	45.93	324	P		P	18 23 44.7	+2.0
MKAR	comp=Z,1.6nm,0.3s Makanchi Array	45.93	324			P	18 23 44.5	+1.8
MAKZ	Makanchi	46.12	323	PcP	PcP	P	18 25 17.4	+0.2
MAKZ	comp=Z,3.9nm,0.6s			IAmb	IAmb		18 23 46.1	+1.9
MAKZ				PcP	PcP	P	18 23 46.9	
TARG	Taragay, Kyrgy	46.36	315	P		P	18 25 18.3	+0.4
KDJ	Kajisay	46.95	315	P		P	18 23 48.7	+2.0
KDJ	comp=Z,4.5nm,0.7s			IAmb	IAmb		18 23 52.8	+1.9
NIL	Nilore	47.25	303	P		P	18 23 54.1	
NIL	comp=Z,6.0nm,0.7s			IAmb	IAmb		18 23 53.8	+0.5
NRN	Naryn	47.49	314			P	18 23 55.1	
NRN	comp=Z,2.9nm,0.7s			IAmb	IAmb		18 23 57.2	+1.8
BOOM	Boomskoye usch	47.94	315	P		P	18 23 57.9	
YAK	Yakutsk	48.55	6	P		P	18 23 59.9	+1.4
YAK	comp=Z,13nm,1.5s			IAmb	IAmb		18 24 03.6	+1.0
BBOO	Buckleboo	48.65	163	P		P	18 24 21.3	
BBOO				PcP	PcP	P	18 24 01.7	-2.2
PETK	Petropavlovsk-	48.89	29	P		P	18 25 25.4	-1.5
ZAA0	Zalesovo Array	48.94	333	P		P	18 24 04.1	-1.4
ZALV	Zalesovo Beam comp=Z,4.4nm,0.4s,baz=122,slow=6.8,SNR=32	48.94	333	P		P	18 24 06.9	+1.1
STKA	comp=Z,4.4nm,0.4s Stephens Creek comp=Z,0.6nm,0.3s,baz=349,slow=5.2,SNR=2.0	49.67	157	P		P	18 24 06.9	+1.1
KURBB	comp=Z,0.6nm,0.3s Kurchatov Arra	50.08	326	P		P	18 24 09.8	-1.8
KURK	comp=Z,6.1nm,0.6s,baz=132,slow=7.6,SNR=48 Kurchatov	50.08	326			P	18 24 09.9	-1.7
KBL	comp=Z,6.1nm,0.6s Kabul	50.85	303			P	18 24 16.4	+1.9
KK31	Karatay Array	51.89	314			P	18 24 22.4	+1.6
KK31	comp=Z,2.1nm,0.6s			IAmb	IAmb		18 24 29.4	+1.2
KKAR	Karatay Array	51.89	314	P		P	18 24 30.1	
BVAR	Borovoye Array comp=Z,1.1nm,0.4s,baz=130,slow=9.1,SNR=8.3	55.67	326	P		P	18 24 29.3	+1.1
BORK	comp=Z,1.1nm,0.4s Borovoye	55.71	326			P	18 24 57.1	+1.7
BORK	comp=Z,3.8nm,0.9s			IAmb	IAmb		18 24 56.5	+0.8
CAN	Canberra	55.76	152	P		P	18 24 58.2	
HRA	Herat	56.38	302	P		P	18 24 53.2	-3.1
HRA	comp=Z,2.4nm,0.8s			IAmb	IAmb		18 25 02.5	+1.4
TIXI	Tiksi	57.99	3			P	18 25 03.1	
TIXI	comp=Z,4.0nm,0.8s			IAmb	IAmb		18 25 11.5	0.0
NRIK	Noril'sk comp=Z,2.2nm,0.5s,baz=135,slow=7.7,SNR=2.6	59.28	347	P		P	18 25 12.7	
NRIK	comp=Z,2.2nm,0.5s Noril'sk	59.28	347	IAmb	IAmb		18 25 21.3	+0.9
AB31	comp=Z,12nm,1.5s Akbulak array	60.64	319			P	18 25 22.4	
AB31	comp=Z,3.6nm,0.7s			IAmb	IAmb		18 25 31.2	+1.1
ABKAR	Akbulak array	60.64	319			P	18 25 32.0	
LVA	Lava Point	69.09	37	P		P	18 25 31.1	+1.0
RAYN	Ar Rayn	71.22	290	P		P	18 26 24.2	-0.5
RAYN	comp=Z,5.9nm,0.9s			IAmb	IAmb		18 26 39.3	+1.0
M16K	Timber Creek	73.31	30	P		P	18 26 40.0	
J17K	VABM Dome	73.34	28	P		P	18 26 51.1	+1.2
D19K	Kuna River	73.98	22	P		P	18 26 52.4	+2.3
D19K	comp=Z,15nm,1.4s			IAmb	IAmb		18 26 55.3	+1.5
MQZ	McQueen's Vall	74.30	144	P		P	18 27 36.7	
D20K	Etivluk River	74.54	22	P		P	18 26 55.5	-0.3
F20K	Avaraart Lake	74.84	24	P		P	18 26 58.0	+1.1
J20K	Nowinta River	75.53	27	P		P	18 27 00.1	+1.5
J20K	comp=Z,8.0nm,1.5s			IAmb	IAmb		18 27 04.7	+2.0
IMAR	Indian Mountai	75.65	25	P		P	18 27 32.4	
D22K	Ayikyak River	75.97	22	P		P	18 27 04.9	+1.6
D22K	comp=Z,7.2nm,1.3s			IAmb	IAmb		18 27 06.4	+1.2
CAST	Castle Rocks	76.48	28	P		P	18 27 45.0	
CAST	comp=Z,3.2nm,0.7s			IAmb	IAmb		18 27 09.5	+1.4
BPAW	Bear Paw Mtn.	76.92	27	P		P	18 27 10.9	
MLY	Manley	76.95	26	P		P	18 27 12.2	+1.6
H23K	Yukon River	77.38	25	P		P	18 27 12.2	+1.4
F24K	Squaw Lake	77.86	23	P		P	18 27 15.2	+2.1
F24K	comp=Z,6.7nm,1.4s			IAmb	IAmb		18 27 17.7	+2.0
C26K	Camden Bay	78.61	21	P		P	18 27 34.5	
C26K	comp=Z,5.0nm,1.2s			IAmb	IAmb		18 27 21.1	+

ARCES	**ARCESS Array B**	**78.96**	**339**	P	**P**	**18 27 22.2**	**+0.6**
	comp=Z,0.9nm,0.4s,baz=68,slow=6.6,SNR=10							
	comp=Z,0.9nm,0.4s							
ARCES	**ARCESS Array B**	**78.96**	**339**	P	**P**	**18 27 22.4**	**+0.7**
BMAR	**Burnt Mountain**	**79.13**	**23**	P	**P**	**18 27 24.7**	**+2.0**
SCRK	**Sand Creek**	**79.99**	**26**	P	**P**	**18 27 28.8**	**+1.3**
I26K	**Coal Creek Min**	**80.08**	**25**	P	**P**	**18 27 28.9**	**+1.1**
I26K				IAmb	IAmb	18 28 07.0		
	comp=Z,6.7nm,1.4s							
FIA1	**FINESS Array S**	**80.17**	**331**	P	**P**	**18 27 29.6**	**+1.2**
FINES	**FINESS Array B**	**80.17**	**331**	P	**P**	**18 27 28.8**	**+0.4**
	comp=Z,1.6nm,0.8s,baz=68,slow=5.9,SNR=6.1							
	comp=Z,1.6nm,0.8s							
I27K	**Kandik River**	**80.65**	**25**	P	**P**	**18 27 32.2**	**+1.2**
I27K				IAmb	IAmb	18 27 37.2		
	comp=Z,6.8nm,1.4s							
F28M	**Old Crow**	**80.86**	**23**	P	**P**	**18 27 33.4**	**+1.4**
BCAR	**Beaver Creek A**	**81.14**	**27**	P	**P**	**18 27 35.6**	**+2.0**
I28M	**Miner Creek**	**81.37**	**25**	P	**P**	**18 27 36.5**	**+1.7**
G29M	**Pine Creek**	**81.74**	**23**	P	**P**	**18 27 38.2**	**+1.6**
G29M				IAmb	IAmb	18 27 39.2		
	comp=Z,3.5nm,0.9s							
H29M	**Whitestone**	**81.79**	**24**	P	**P**	**18 27 38.5**	**+1.6**
H29M				IAmb	IAmb	18 28 11.7		
	comp=Z,9.2nm,1.4s							
K29M	**Barlow Dome**	**82.80**	**26**	P	**P**	**18 27 44.2**	**+1.9**
K29M				IAmb	IAmb	18 28 27.4		
	comp=Z,3.8nm,1.3s							
MLR	**Muntele Rosu**	**83.56**	**315**	P	**P**	**18 27 47.2**	**+0.5**
MLR				IAmb	IAmb	18 28 20.0		
	comp=Z,5.7nm,1.4s							
BURAR	**Bucovina Array**	**83.57**	**317**	P	**P**	**18 27 47.2**	**+0.6**
HFS	**Hagfors**	**86.36**	**331**	P	**P**	**18 27 59.9**	**-0.2**
	comp=Z,2.8nm,0.9s,baz=74,slow=15,SNR=4.3							
	comp=Z,2.8nm,0.9s							
NC405	**NORSAR Array S**	**86.89**	**333**	P	**P**	**18 28 02.8**	**+0.1**
NOA	**NORSAR Array B**	**87.14**	**333**	P	**P**	**18 28 03.5**	**-0.4**
	comp=Z,1.2nm,0.8s,baz=68,slow=4.7,SNR=3.6							
	comp=Z,1.2nm,0.8s							
NC204	**NORSAR Array S**	**87.25**	**333**	P	**P**	**18 28 04.4**	**-0.1**
YKA	**Yellowknife Ar**	**92.64**	**22**	P	**P**	**18 28 28.4**	**-1.1**

GEN ***13*** *18:18:05.0, 44.31N×10.27E, h58km±1km, Ml1.7*
ROM 13 18:18:04.5±0.2, 44.32N±0.02×10.28E±0.02, h68km±1km, ML2.1/26, 2C-7D, Error ellipse: s-maj=1.9km s-min=1.1km az=225.0, Northern Italy

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
FIVI	**Fivizzano**	**0.14**	**235**	P		P	Pn	18 18 15.0	+0.2
FIVI				S		S	Sn	18 18 21.1	-1.1
FIVI	**Fivizzano**	**0.14**	**235**	P		P	Pn	18 18 14.9	+0.2
FIVI				S		S	Sn	18 18 22.1	0.0
SARO	**Sassorosso**	**0.16**	**147**	P		P	Pn	18 18 15.4	+0.5
SARO				S		S	Sn	18 18 21.5	-1.0
SARO	**Sassorosso**	**0.16**	**147**	⇓P		P	Pn	18 18 15.4	+0.5
SARO				S		S	Sn	18 18 22.7	+0.2
VLC	**Villacollemand**	**0.17**	**154**	P		P	Pn	18 18 15.4	+0.4
VLC				S		S	Sn	18 18 22.3	-0.2
VLC	**Villacollemand**	**0.17**	**154**	⇓P		P	Pn	18 18 15.3	+0.4
VLC				S		S	Sn	18 18 22.6	+0.1
VLC					AML	AML			
	comp=E,126μm,1.6s								
VLC					AML	AML			
	comp=N,128μm,1.3s								
VLC					AML	AML			
	comp=E,125μm,1.6s								
VLC					AML	AML			
	comp=E,72μm,1.4s								
VLC					AML	AML			
	comp=N,61μm,0.4s								
VLC					AML	AML			
	comp=E,125μm,0.4s								
EQUI	**Equi**	**0.18**	**211**	P		P	Pn	18 18 14.7	-0.2
EQUI				S		S	Sn	18 18 21.6	-0.8
EQUI	**Equi**	**0.18**	**211**	⇑P		P	Pn	18 18 14.7	-0.2
EQUI				S		S	Sn	18 18 21.5	-0.9
GSCL	**Gusciola**	**0.22**	**81**	P		P	Pn	18 18 15.9	+0.7
GSCL				S		S	Sn	18 18 23.8	+0.8
GSCL	**Gusciola**	**0.22**	**81**	⇑P		P	Pn	18 18 15.9	+0.7
GSCL				S		S	Sn	18 18 23.7	+0.8
GSCL					AML	AML			
	comp=E,163μm,0.3s								
GSCL					AML	AML			
	comp=E,163μm,0.3s								
GSCL					AML	AML			
	comp=E,163μm,0.3s								
GSCL					AML	AML			
	comp=E,163μm,1.7s								
GSCL					AML	AML			
	comp=N,98μm,0.4s								
GRAM	**Graiana**	**0.23**	**319**	P		P	Pn	18 18 15.2	-0.1
GRAM				S		S	Sn	18 18 23.2	+0.2
GRAM	**Graiana**	**0.23**	**319**	P		P	Pn	18 18 15.2	-0.1
GRAM				S		S	Sn	18 18 23.1	0.0
GRAM					AML	AML			
	comp=E,440μm,0.2s								
GRAM					AML	AML			
	comp=E,440μm,0.2s								
GRAM					AML	AML			
	comp=E,440μm,1.8s								
GRAM					AML	AML			
	comp=N,424μm,0.3s								
CARD	**Cardoso**	**0.33**	**153**	P		P	Pn	18 18 15.8	0.0
CARD				S		S	Sn	18 18 23.4	-0.6
CARD	**Cardoso**	**0.33**	**153**	⇓P		P	Pn	18 18 15.8	0.0
CARD				S		S	Sn	18 18 23.3	-0.6
BDI	**Bagni Di Lucca**	**0.34**	**138**	P		P	Pn	18 18 16.9	+0.9
BDI				S		S	Sn	18 18 24.7	+0.4
BDI	**Bagni Di Lucca**	**0.34**	**138**	⇓P		P	Pn	18 18 16.9	+0.9
BDI				S		S	Sn	18 18 24.7	+0.4
BDI					AML	AML			
	comp=E,258μm,1.2s								
BDI					AML	AML			
	comp=E,258μm,0.8s								
BDI					AML	AML			
	comp=N,268μm,0.2s								
PLMA	**Palmaria, Port**	**0.41**	**229**	P		P	Pn	18 18 16.1	-0.3
PLMA				S		S	Sn	18 18 24.0	-1.0
PLMA	**Palmaria, Port**	**0.41**	**229**	⇓P		P	Pn	18 18 16.1	-0.3
PLMA					AML	AML			
	comp=N,54μm,1.6s								
PLMA					AML	AML			
	comp=E,53μm,0.8s								
PLMA					AML	AML			
	comp=N,54μm,0.4s								
MAIM	**Mastiano**	**0.43**	**159**	P		P	Pn	18 18 16.6	0.0
MAIM				S		S	Sn	18 18 24.7	-0.6
MAIM	**Mastiano**	**0.43**	**159**	P		P	Pn	18 18 16.7	+0.1
MAIM				S		S	Sn	18 18 24.7	-0.7
POPM	**Popiglio**	**0.44**	**128**	P		P	Pn	18 18 17.1	+0.4
POPM				S		S	Sn	18 18 25.8	+0.2
POPM	**Popiglio**	**0.44**	**128**	P		P	Pn	18 18 17.1	+0.4
POPM				S		S	Sn	18 18 25.8	+0.3
POPM					AML	AML			
	comp=E,127μm,0.7s								
POPM					AML	AML			
	comp=N,144μm,0.2s								
POPM					AML	AML			
	comp=E,127μm,1.3s								
ZCCA	**Zocca**	**0.50**	**86**	P		P	Pn	18 18 19.3	+2.0
MSSA	**Maissana**	**0.55**	**270**	P		P	Pn	18 18 18.0	+0.2
MSSA				S		S	Sn	18 18 27.4	-0.2
MSSA	**Maissana**	**0.55**	**270**	⇓P		P	Pn	18 18 18.0	+0.2
MSSA				S		S	Sn	18 18 27.2	-0.3
PII	**Pisa**	**0.62**	**163**	P		P	Pn	18 18 18.8	+0.4
PII				S		S	Sn	18 18 28.4	-0.3
PII	**Pisa**	**0.62**	**163**	⇓P		P	Pn	18 18 18.8	+0.4
PII				S		S	Sn	18 18 28.2	-0.4
PII					AML	AML			
	comp=E,324μm,0.3s								
PII					AML	AML			
	comp=N,216μm,0.2s								
FNVD	**Fontana Vidola**	**0.62**	**104**	P		P	Pn	18 18 20.4	+1.8
BOB	**Bobbio (Coli)**	**0.75**	**307**	P		P	Pn	18 18 21.3	+1.3
BOB				S		S	Sn	18 18 33.4	+2.1
BOB	**Bobbio (Coli)**	**0.75**	**307**	P		P	Pn	18 18 21.2	+1.2
BOB				S		S	Sn	18 18 32.9	+1.5
GORR	**Gorreto**	**0.76**	**293**	P		P	Pn	18 18 21.6	+1.5
GORR				S		S	Sn	18 18 33.2	+1.5
GORR	**Gorreto**	**0.76**	**293**	P		P	Pn	18 18 21.6	+1.5
GORR				S		S	Sn	18 18 33.0	+1.4
GORR					AML	AML			
	comp=E,99μm,0.5s								
GORR					AML	AML			
	comp=N,78μm,0.2s								
CRE	**Caprese Michel**	**1.39**	**119**	P		P	Pn	18 18 29.4	+1.2
ZONE	**Zone**	**1.45**	**355**	AML		AML			
	comp=N,55μm,1.0s								
ZONE					AML	AML			
	comp=E,68μm,0.1s								
CANO	**Canova, Maglio**	**1.47**	**266**	P		P	Pn	18 18 29.1	-0.1
MAGA	**Magasa**	**1.48**	**9**	P		P	Pn	18 18 28.7	-0.6
MDI	**Monti di Nese**	**1.52**	**345**	P		P	Pn	18 18 29.1	-0.6
CELB	**S.Piero in Cam**	**1.57**	**182**	P		P	Pn	18 18 31.0	+0.5
CELB					AML	AML			
	comp=E,52μm,1.5s								
CELB					AML	AML			
	comp=N,31μm,1.1s								
CELB					AML	AML			
	comp=E,52μm,0.5s								
VARA	**Varagna**	**1.57**	**16**	P		P	Pn	18 18 30.0	-0.6
CASP	**Castiglione de**	**1.58**	**164**	P		P	Pn	18 18 31.5	+0.9
CASP				S		S	Sn	18 18 50.3	0.0
CASP					AML	AML			
	comp=E,20μm,0.5s								
CASP					AML	AML			
	comp=N,27μm,0.6s								
RONC	**Roncone**	**1.68**	**8**	P		P	Pn	18 18 31.4	-0.6
RONC					AML	AML			
	comp=N,164μm,0.2s								
RONC					AML	AML			
	comp=E,110μm,0.1s								
DOSS	**Dosso del Somm**	**1.69**	**22**	P		P	Pn	18 18 31.2	-0.9
LUSI	**Trento, Gardas**	**1.71**	**16**	P		P	Pn	18 18 31.4	-0.9
LUSI					AML	AML			
	comp=E,41μm,0.8s								
LUSI					AML	AML			
	comp=N,114μm,0.2s								
LUSI					AML	AML			
	comp=E,41μm,1.2s								
MABI	**Malga Bissina**	**1.75**	**5**	AML		AML			
	comp=E,33μm,0.1s								
MABI					AML	AML			
	comp=N,30μm,0.1s								
CRTC	**Cartoceto**	**1.96**	**105**	AML		AML			
	comp=N,92μm,1.5s								
CRTC					AML	AML			
	comp=E,111μm,0.2s								
ZIAN	**Ziano**	**2.16**	**24**	P		P	Pn	18 18 38.2	-0.2
BRES	**Bressanone**	**2.59**	**23**	P		P	Pn	18 18 44.8	+0.4
SABO	**M.te Sabotino**	**2.88**	**54**	P		P	Pn	18 18 47.5	-0.6
SABO					AML	AML			
	comp=E,426μm,1.6s								
SABO					AML	AML			
	comp=N,438μm,1.6s								
ABTA	**Abfaltersbach**	**2.89**	**32**	*e*Sn		Sn		18 19 21.6	-0.4
	comp=N,1.0nm,0.2s								
DAVA	**Damuels**	**2.98**	**355**	*i* Sn		Sn		18 19 25.0	+0.6
	comp=N,1.3nm,0.2s								
MOTA	**Moosalm**	**3.08**	**10**	*i* Pn		Pn		18 18 52.5	+1.6
	comp=N,0.4nm,0.1s								
MOTA				*i* Sn		Sn		18 19 28.9	+2.2
	comp=N,0.7nm,0.2s								
WTTA	**Wattenberg**	**3.10**	**17**	*i* Pn		Pn		18 18 53.2	+2.1
	comp=N,0.5nm,0.1s								
WTTA				*i* Sn		Sn		18 19 28.2	+1.1
	comp=N,1.9nm,0.3s								

ATH ***13*** *18:18:24.5, 39.20N×21.69E, h6km±1km, ML3.4/37, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
THE ***13*** *18:18:25.2, 39.2N±0.5×21.7E±0.6, h0km±2km, M3.2/64, MLh3.2/64*
TIR ***13*** *18:18:25.7, 39.19N×21.66E, h8km±1km, ML3.5, ML3.5, Presumed earthquake*
PDG ***13*** *18:18:25.6±0.4, 39.19N×21.70E, h10km, ML3.4/13, Error ellipse: s-maj=0.4km s-min=0.5km az=0.0*
IDC ***13*** *18:18:31.4±1.6, 39.22N×21.70E, h58km±20km, mb3.5/7, mbtmp3.6/14, ML3.3/6, Error ellipse: s-maj=17.8km s-min=12.5km az=63.0*
ISC 13 18:18:25.4±0.9, 39.18N±0.01×21.69E±0.01, h11km±6km, n225, σ1s27/338, mb3.8/7, 6C-7D, Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
EVR	**Evrytania**	**0.28**	**160**	P		P	**Pg**	**18 18 31.2**	**+0.1**
EVR				S		S	**Sb**	**18 18 36.3**	**-1.1**
EVR					AML	AML			
EVR	**Evrytania**	**0.28**	**160**	P		P	**Pg**	**18 18 31.3**	**+0.1**
EVR				S		S	**Sg**	**18 18 34.9**	**-0.2**
EVR					AML	AML			
SOFA	**Sofades**	**0.35**	**64**	P		P	**Pg**	**18 18 32.0**	**-0.4**
SOFA				S		S	**Sg**	**18 18 36.4**	**-0.8**
TETR	**Tetrakomo, Epi**	**0.36**	**297**	P		P	**Pg**	**18 18 32.1**	**-0.5**
TETR				S		S	**Sg**	**18 18 37.8**	**+0.4**
TETR					AML	AML			
TETR	**Tetrakomo, Epi**	**0.36**	**297**	P		P	**Pg**	**18 18 32.2**	**-0.5**
TETR				S		S	**Sg**	**18 18 36.8**	**-0.6**
TETR					AML	AML			
TRKA	**Trikala**	**0.38**	**9**	P		P	**Pg**	**18 18 32.7**	**-0.2**
TRKA				S		S	**Sg**	**18 18 37.7**	**-0.2**
TRKA					AML	AML			
AMPL	**Ampelaki**	**0.45**	**235**	P		P	**Pg**	**18 18 33.8**	**-0.5**
AMPL				S		S	**Sg**	**18 18 40.6**	**+0.3**
AMPL					AML	AML			
AMPL	**Ampelaki**	**0.45**	**235**	P		P	**Pg**	**18 18 33.8**	**-0.5**
AMPL				S		S	**Sg**	**18 18 39.6**	**-0.6**
AMPL					AML	AML			
THL	**Klokotos Trika**	**0.46**	**34**	P		P	**Pb**	**18 18 34.7**	**-0.9**
THL				S		S	**Sb**	**18 18 41.1**	**-1.3**
THL					AML	AML			
THL	**Klokotos Trika**	**0.46**	**34**	P		P	**Pb**	**18 18 34.6**	**-0.9**
THL				S		S	**Sb**	**18 18 42.1**	**-0.3**
THL	**Klokotos Trika**	**0.46**	**34**	P		P	**Pg**	**18 18 34.3**	**-0.1**
THL				S		S	**Sg**	**18 18 40.2**	**-0.3**
AGG	**Agios Georgios**	**0.53**	**108**	P		P	**Pb**	**18 18 36.0**	**-0.7**
AGG				S		S	**Sb**	**18 18 44.2**	**-0.2**
AGG					AML	AML			
AGG	**Agios Georgios**	**0.53**	**108**	P		P	**Pb**	**18 18 35.8**	**-0.9**
AGG				S		S	**Sg**	**18 18 41.7**	**-0.9**
ART2	**Arta**	**0.54**	**266**	P		P	**Pg**	**18 18 35.1**	**-0.9**
ART2				S		S	**Sg**	**18 18 42.3**	**-0.8**
ARTB	**Arta**	**0.55**	**268**	P		P	**Pg**	**18 18 35.5**	**-0.7**
ARTB				S		S	**Sg**	**18 18 42.4**	**-1.1**
PRMD	**Pramanda**	**0.57**	**307**	P		P	**Pg**	**18 18 36.4**	**-0.3**
PRMD				S		S	**Sb**	**18 18 45.2**	**-0.7**
PRMD					AML	AML			
PRMD	**Pramanda**	**0.57**	**307**	P		P	**Pg**	**18 18 36.3**	**-0.3**
PRMD				S		S	**Sg**	**18 18 42.6**	**-1.6**
PRMD					AML	AML			
PVO	**Paravola**	**0.58**	**193**	P		P	**Pg**	**18 18 36.4**	**-0.3**
PVO				S		S	**Sb**	**18 18 45.9**	**0.0**
PVO					AML	AML			
PVO	**Paravola**	**0.58**	**193**	P		P	**Pg**	**18 18 36.1**	**-0.6**
PVO				S		S	**Sg**	**18 18 44.2**	**-0.1**
PVO					AML	AML			
ANX	**Ano Chora**	**0.62**	**163**	P		P	**Pg**	**18 18 37.0**	**-0.4**
ANX				S		S	**Sb**	**18 18 47.2**	**+0.2**
ANX					AML	AML			
ANX	**Ano Chora**	**0.62**	**163**	P		P	**Pg**	**18 18 37.0**	**-0.4**
ANX				S		S	**Sb**	**18 18 46.5**	**-0.6**
TYRN	**Tyrnavos**	**0.68**	**38**	P		P	**Pg**	**18 18 38.3**	**-0.2**
TYRN				S		S	**Sb**	**18 18 48.8**	**+0.1**
TYRN					AML	AML			
TYRN	**Tyrnavos**	**0.68**	**38**	P		P	**Pg**	**18 18 38.1**	**-0.4**
TYRN				S		S	**Sg**	**18 18 45.7**	**-1.7**
TYRN					AML	AML			
PDO	**Prodromos**	**0.70**	**214**	P		P	**Pg**	**18 18 38.6**	**-0.4**
PDO				S		S	**Sn**	**18 18 50.4**	**-1.9**
PDO	**Prodromos**	**0.70**	**214**	P		P	**Pg**	**18 18 38.3**	**-0.7**
PDO				S		S	**Sb**	**18 18 49.0**	**-0.4**
MSVA	**Metsovo**	**0.70**	**327**	P		P	**Pg**	**18 18 38.0**	**-1.1**
MSVA				S		S	**Sg**	**18 18 47.6**	**-0.8**
MSVA					AML	AML			
GINA	**Giannouli**	**0.73**	**48**	P		P	**Pg**	**18 18 38.9**	**-0.7**
GINA				S		S	**Sg**	**18 18 49.1**	**0.0**
VVK	**Vomvokou**	**0.77**	**173**	P		P	**Pg**	**18 18 39.8**	**-0.4**
VVK				S		S	**Sn**	**18 18 52.5**	**-1.3**
VVK					AML	AML			
VVK	**Vomvokou**	**0.77**	**173**	P		P	**Pg**	**18 18 39.5**	**-0.8**
VVK				S		S	**Sg**	**18 18 49.7**	**-0.5**
VVK					AML	AML			
EFP	**Efpalio**	**0.77**	**167**	P		P	**Pg**	**18 18 39.9**	**-0.4**
EFP				S		S	**Sb**	**18 18 52.1**	**+0.6**
EFP					AML	AML			
EFP	**Efpalio**	**0.77**	**167**	P		P	**Pg**	**18 18 39.7**	**-0.7**
EFP				S		S	**Sb**	**18 18 51.1**	**-0.4**
AGRP	**Agrapidokambos**	**0.79**	**178**	P		P	**Pg**	**18 18 39.8**	**-0.9**
AGRP				S		S	**Sb**	**18 18 51.0**	**-0.9**
AGRP					AML	AML			
AST1	**Astakos**	**0.79**	**216**	P		P	**Pb**	**18 18 40.7**	**-0.6**
AST1				S		S	**Sn**	**18 18 53.3**	**-1.1**
MG00	**Magoula, Dorid**	**0.79**	**165**	P		P	**Pg**	**18 18 40.1**	**-0.7**
MG00				S		S	**Sg**	**18 18 50.7**	**-0.4**
PLEV	**Plevrona-Mesol**	**0.80**	**196**	P		P	**Pg**	**18 18 40.3**	**-0.6**
PLEV				S		S	**Sn**	**18 18 53.6**	**-1.0**
PLEV					AML	AML			
PLEV	**Plevrona-Mesol**	**0.80**	**196**	P		P	**Pg**	**18 18 39.9**	**-1.0**
PLEV				S		S	**Sb**	**18 18 51.5**	**-0.7**
PLEV					AML	AML			
JAN	**Janina**	**0.80**	**306**	P		P	**Pg**	**18 18 40.5**	**-0.4**
JAN					AML	AML			
JAN	**Janina**	**0.80**	**306**	P		P	**Pg**	**18 18 40.2**	**-0.8**
JAN				S		S	**Sb**	**18 18 51.5**	**-0.8**
JAN					AML	AML			
KPRO	**Kipourio**	**0.81**	**342**	P		P	**Pg**	**18 18 40.4**	**-0.7**
KPRO				S		S	**Sb**	**18 18 53.0**	**+0.4**
KPRO					AML	AML			
KPRO	**Kipourio**	**0.81**	**342**	P		P	**Pg**	**18 18 40.2**	**-0.9**
KPRO				S		S	**Sg**	**18 18 49.9**	**-1.8**
KPRO					AML	AML			
PYRG	**Pyrgos, Dorida**	**0.81**	**161**	P		P	**Pg**	**18 18 40.5**	**-0.6**
PYRG				S		S	**Sb**	**18 18 52.2**	**-0.5**
PYRG					AML	AML			
SERG	**Sergoula**	**0.82**	**159**	P		P	**Pg**	**18 18 41.0**	**-0.3**
SERG				S		S	**Sb**	**18 18 52.9**	**0.0**
SERG					AML	AML			
SERG	**Sergoula**	**0.82**	**159**	P		P	**Pg**	**18 18 40.4**	**-0.9**
SERG				S		S	**Sb**	**18 18 52.5**	**-0.4**
SERG					AML	AML			
MSL1	**Messolongi**	**0.83**	**194**	P		P	**Pb**	**18 18 41.7**	**-0.3**
MSL1				S		S	**Sb**	**18 18 53.0**	**-0.2**
AXAR	**Agios Charalam**	**0.86**	**118**	P		P	**Pb**	**18 18 42.0**	**-0.5**
AXAR					AML	AML			
AXAR	**Agios Charalam**	**0.86**	**118**	P		P	**Pg**	**18 18 41.7**	**-0.4**
AXAR				S		S	**Sb**	**18 18 53.5**	**-0.6**
AXAR					AML	AML			
KALE	**Kalithea**	**0.87**	**156**	P		P	**Pg**	**18 18 41.7**	**-0.4**
KALE				S		S	**Sn**	**18 18 55.5**	**-0.9**
KALE					AML	AML			
KALE	**Kalithea**	**0.87**	**156**	P		P	**Pg**	**18 18 41.0**	**-1.1**
KALE				S		S	**Sb**	**18 18 53.6**	**-0.6**
KALE					AML	AML			
TSLK	**Tsoukalades, L**	**0.88**	**246**	P		P	**Pb**	**18 18 42.4**	**-0.3**
TSLK				S		S	**Sn**	**18 18 55.9**	**-0.7**
TSLK					AML	AML			
TSLK	**Tsoukalades, L**	**0.88**	**246**	P		P	**Pb**	**18 18 42.1**	**-0.6**
TSLK				S		S	**Sb**	**18 18 53.9**	**-0.7**
RIOA	**Rio**	**0.89**	**175**	P		P	**Pb**	**18 18 42.8**	**-0.1**
RIOA				S		S	**Sb**	**18 18 55.0**	**+0.2**
LKD2	**Lefkada island**	**0.89**	**244**	P		P	**Pb**	**18 18 42.5**	**-0.6**
LKD2				S		S	**Sn**	**18 18 56.4**	**-0.5**
LKD2					AML	AML			
LKD2	**Lefkada island**	**0.89**	**244**	P		P	**Pb**	**18 18 42.4**	**-0.6**
LKD2				S		S	**Sn**	**18 18 56.5**	**-0.5**
LKD2					IAML			18 19 00.3	
	5μm,0.5s								
LKD2	**Lefkada island**	**0.89**	**244**	P		P	**Pb**	**18 18 42.3**	**-0.7**
LKD2				S		S	**Sb**	**18 18 54.7**	**-0.3**
NYDR	**Nydri-Lefkada**	**0.90**	**239**	P		P	**Pb**	**18 18 42.6**	**-0.5**
NYDR				S		S	**Sn**	**18 18 56.6**	**-0.5**
NYDR					AML	AML			
NYDR	**Nydri-Lefkada**	**0.90**	**239**	P		P	**Pg**	**18 18 42.4**	**-0.5**
NYDR				S		S	**Sb**	**18 18 55.1**	**0.0**
PATC	**Patra C**	**0.91**	**176**	P		P	**Pn**	**18 18 43.9**	**-0.4**
PATC				S		S	**Sb**	**18 18 54.8**	**-0.7**
PATG	**Patra B**	**0.94**	**178**	P		P	**Pg**	**18 18 42.6**	**-1.0**
PATG				S		S	**Sb**	**18 18 56.3**	**-0.1**
DLFA	**Delphi**	**0.94**	**138**	P		P	**Pg**	**18 18 42.8**	**-0.8**
DLFA				S		S	**Sg**	**18 18 55.2**	**-0.7**
AGEO	**AgiosGiorgios,**	**0.96**	**162**	P		P	**Pg**	**18 18 43.4**	**-0.6**
AGEO				S		S	**Sn**	**18 18 57.4**	**-1.2**
LAKA	**Lakka**	**0.97**	**166**	P		P	**Pg**	**18 18 43.3**	**-0.8**
LAKA					AML	AML			
LAKA	**Lakka**	**0.97**	**166**	P		P	**Pg**	**18 18 43.0**	**-1.1**
LAKA				S		S	**Sb**	**18 18 57.2**	**+0.1**
EVGI	**Lefkada island**	**0.98**	**235**	P		P	**Pg**	**18 18 43.7**	**-0.6**
EVGI				S		S	**Sn**	**18 18 59.2**	**+0.1**
EVGI					AML	AML			
EVGI	**Lefkada island**	**0.98**	**235**	P		P	**Pg**	**18 18 43.6**	**-0.7**
EVGI				S		S	**Sn**	**18 18 58.3**	**-0.8**
EVGI					AML	AML			
DRAG	**Dragano-Lefkad**	**1.00**	**240**	P		P	**Pg**	**18 18 44.0**	**-0.7**
DRAG				S		S	**Sn**	**18 18 59.6**	**0.0**
DRAG	**Dragano-Lefkad**	**1.00**	**240**	P		P	**Pg**	**18 18 43.9**	**-0.8**
DRAG				S		S	**Sb**	**18 18 58.1**	**+0.1**
PRGA	**Parga**	**1.00**	**276**	P		P	**Pb**	**18 18 44.5**	**-0.4**
TEME	**Temeni, Aigial**	**1.01**	**160**	P		P	**Pg**	**18 18 44.4**	**-0.5**
TEME				S		S	**Sg**	**18 18 57.3**	**-0.7**
AXS	**Araxos**	**1.01**	**194**	P		P	**Pn**	**18 18 45.0**	**-0.7**
AXS				S		S	**Sn**	**18 19 00.7**	**+0.8**
AXS					AML	AML			
AXS	**Araxos**	**1.01**	**194**	P		P	**Pb**	**18 18 44.6**	**-0.4**
AXS				S		S	**Sb**	**18 18 58.6**	**+0.2**
AXS					AML	AML			
PENT	**Pentalofos**	**1.10**	**337**	P		P	**Pg**	**18 18 45.2**	**-1.3**
PENT					AML	AML			
PENT	**Pentalofos**	**1.10**	**337**	P		P	**Pg**	**18 18 45.2**	**-1.3**
IGT	**Igoumenitsa**	**1.11**	**289**	P		P	**Pg**	**18 18 46.2**	**-0.5**
IGT				S		S	**Sn**	**18 19 02.8**	**+0.6**
IGT					AML	AML			
IGT	**Igoumenitsa**	**1.11**	**289**	P		P	**Pb**	**18 18 46.1

VLS Valsamata 1.32 221 P **Pn** 18 18 49.3 -0.6
VLS AML AML
NEST Nestorio 1.32 338 P **Pg** 18 18 50.5 -0.5
NEST AML AML
NEST Nestorio 1.32 338 P **Pb** 18 18 50.0 -0.4
NEST S **Sg** 18 19 09.8 +1.6
NEST IAML 18 19 13.3
1µm,0.7s
NEST Nestorio 1.32 338 P **Pb** 18 18 49.8 -0.6
NEST AML AML
GUR Goura 1.35 157 P **Pb** 18 18 50.1 -0.6
GUR AML AML
GUR Goura 1.35 157 P **Pn** 18 18 49.8 -0.5
GUR AML AML
CLEM Kyllini,Ilia,G 1.36 199 P **Pg** 18 18 51.2 -0.3
PSDA Pessada-Kefalo 1.37 219 P **Pn** 18 18 50.2 -0.3
PSDA AML AML
PSDA Pessada-Kefalo 1.37 219 P **Pn** 18 18 50.0 -0.5
PSDA AML AML
THAL Thalero 1.38 146 P **Pb** 18 18 50.9 -0.3
THAL AML AML
THAL Thalero 1.38 146 P **Pb** 18 18 51.0 -0.3
THAL AML AML
DMLN Damoulianata-K 1.40 228 P **Pn** 18 18 50.7 -0.2
DMLN Damoulianata-K 1.40 228 P **Pn** 18 18 50.5 -0.4
NASA Naoussa 1.48 11 P **Pn** 18 18 52.0 0.0
SRN Sarande 1.48 299 P **Pb** 18 18 52.8 -0.2
SRN AML AML
SRN Sarande 1.48 299 P **Pg** 18 18 53.9 +0.1
SRN S **Sg** 18 19 13.6 +0.5
LTK Loutraki 1.53 139 P **Pb** 18 18 53.7 -0.1
LTK AML AML
LTK Loutraki 1.53 139 P **Pb** 18 18 53.3 -0.6
KEK Kerkira 1.56 290 P **Pb** 18 18 53.5 -0.8
KEK AML AML
KEK Kerkira 1.56 290 P **Pb** 18 18 53.9 -0.4
KEK S **Sg** 18 19 16.4 +1.0
KEK Kerkira 1.56 290 P **Pn** 18 18 52.5 -0.6
KEK AML AML
LOUT Loutraki 1.56 139 P **Pb** 18 18 54.1 -0.3
LOUT AML AML
VIL2 Platees 1.57 128 P **Pg** 18 18 55.5 -0.1
VIL2 AML AML
ACOR Acrocorinthos 1.59 144 P **Pb** 18 18 54.6 -0.3
ACOR AML AML
KBN Korca 1.60 335 P **Pg** 18 18 56.5 +0.4
KBN S **Sg** 18 19 17.3 +0.5
KBN IAML 18 19 22.6
643nm,0.7s
LTHK Lithakia 1.62 205 P **Pb** 18 18 55.2 -0.1
LTHK AML AML
LTHK Lithakia 1.62 205 P **Pb** 18 18 54.9 -0.4
VILL Villia 1.63 128 P **Pb** 18 18 55.2 -0.4
VILL AML AML
AMT Artemida-Makis 1.65 179 P **Pb** 18 18 55.4 -0.5
AMT AML AML
AMT Artemida-Makis 1.65 179 P **Pg** 18 18 56.0 -1.1
AOS2 Alonissos-2 1.68 91 P **Pn** 18 18 54.5 -0.3
LMS2 Laimos Florina 1.70 346 P **Pn** 18 18 55.4 +0.1
LMS2 AML AML
AOS Alonnisos 1.70 90 P **Pn** 18 18 54.4 -0.7
AOS AML AML
PAIG Paliouri 1.71 64 P **Pn** 18 18 54.4 -0.8
THE Thessaloniki 1.75 34 P **Pn** 18 18 55.0 -0.7
THE AML AML
THE Thessaloniki 1.75 34 P **Pn** 18 18 55.0 -0.7
STFN Stefani 1.77 124 P **Pb** 18 18 56.9 -1.0
PLG Polygyros 1.80 48 P **Pn** 18 18 55.8 -0.7
PLG AML AML
PLG Polygyros 1.80 48 P **Pn** 18 18 55.7 -0.9
GRG Griva 1.85 17 P **Pn** 18 18 57.1 -0.2
GRG AML AML
GRG Griva 1.85 17 P **Pn** 18 18 56.9 -0.4
EPID Epidavros 1.93 144 P **Pb** 18 18 59.5 -1.2
EPID AML AML
EPID Epidavros 1.93 144 P **Pb** 18 18 59.9 -0.7
KYMI Kymi, Euboea I 1.96 106 P **Pn** 18 18 58.7 0.0
KYMI Kymi, Euboea I 1.96 106 P **Pn** 18 18 58.6 -0.1
ATH Athens Observa 2.00 127 P **Pn** 18 18 59.6 +0.4
ATH AML AML
ITM Ithomi 2.01 175 P **Pg** 18 19 03.3 -0.7
MET3 Ano Fanari,Met 2.01 142 P **Pn** 18 19 00.2 +0.8
BERA Berati 2.02 319 P **Pg** 18 19 03.4 -0.8
OHR Ohrid 2.04 341 *i* Pn **Pb** 18 19 02.7 +0.1
DION Dionisos Attik 2.08 121 P **Pn** 18 19 01.1 +0.8
DION AML AML
SOH Sokhos 2.08 37 P **Pn** 18 19 00.3 -0.1
SOH AML AML
OUR Ouranopolis 2.11 56 P **Pn** 18 19 00.6 -0.1
OUR AML AML
VLY Voula,Athens 2.12 128 P **Pn** 18 19 01.9 +1.1
VLY AML AML
VLO Vlora 2.12 308 P **Pb** 18 19 02.8 -1.1
KNT Kendrikon 2.18 25 P **Pn** 18 19 02.2 +0.4
KNT AML AML
VAY Valandovo 2.24 17 *i* Pn **Pn** 18 19 03.4 +0.8
SRS Serrai 2.42 36 P **Pn** 18 19 04.8 -0.2
SRS AML AML
KARY Karystos 2.44 117 P **Pn** 18 19 05.9 +0.6
VLI Veliai 2.65 158 P **Pn** 18 19 09.6 +1.4
VLI AML AML
PHP Peshkopia 2.67 340 P **Pn** 18 19 10.3 +1.7
NVR Nevrokopi 2.73 37 P **Pn** 18 19 09.4 +0.1
NVR AML AML
THAS Thassos island 2.73 58 P **Pn** 18 19 08.5 -0.7
THAS AML AML
PEHC Pehcevo 2.75 19 *i* Pn **Pg** 18 19 19.4 +1.2
LIA Limnos Island 2.80 74 P **Pn** 18 19 09.9 -0.2
LIA AML AML
KAVA Kavala 2.83 49 P **Pn** 18 19 10.1 -0.5
KAVA AML AML
MMB Musomishta 2.84 33 P **Pn** 18 19 11.0 +0.2
MMB AML AML
KKB Krupnik 2.87 22 P **Pn** 18 19 11.7 +0.5
KKB AML AML
KTHR Kythira 3.11 160 P **Pn** 18 19 16.3 +1.8
KTHR AML AML
SDA Shkodra 3.31 331 P **Pn** 18 19 20.1 +2.8
ULC Ulcinj 3.34 327⇑ *i* Pn **Pn** 18 19 19.3 +1.6
ULC *i* Sn **Sn** 18 19 59.0 +1.6
RZN Rozhen 3.42 42 P **Pn** 18 19 19.1 +0.1
RZN AML AML
CHOS Chios island 3.50 102 P **Pn** 18 19 20.4 +0.5
DRME Dracevica, Mon 3.55 328 *e* Pn **Pn** 18 19 22.6 +2.0
DRME Dracevica, Mon 3.55 328⇓ *i* Pn **Pn** 18 19 21.5 +0.9
DRME *i* Sn **Sn** 18 20 04.2 +1.6
PVY Plav 3.65 340⇑ *i* Pn **Pn** 18 19 23.3 +1.3
PVY *i* Sn **Sn** 18 20 07.6 +2.4
PDG Podgorica 3.73 331 *e* Pn **Pn** 18 19 24.8 +1.7
PDG Podgorica 3.73 331⇓ *i* Pn **Pn** 18 19 24.7 +1.7
PDG *i* Sn **Sn** 18 20 08.4 +1.4
BUM Brajici-Budva 3.77 327⇑ *i* Pn **Pn** 18 19 24.5 +0.9
BUM *i* Sn **Sn** 18 20 09.5 +1.5
IVA Berane 3.93 340⇑ *i* Pn **Pn** 18 19 26.7 +0.9
IVA *i* Sn **Sn** 18 20 13.3 +1.4
CEME Cevo 3.96 329⇓ *i* Pn **Pn** 18 19 27.0 +0.7
CEME *i* Sn **Sn** 18 20 13.9 +1.1
KOME Kolasin 4.01 337⇓ *i* Pn **Pn** 18 19 28.2 +1.2
KOME *i* Sn **Sn** 18 20 16.3 +2.2
HCY Herceg Novi 4.06 324 *e* Pn **Pn** 18 19 28.0 +0.4
HCY Herceg Novi 4.06 324⇓ *i* Pn **Pn** 18 19 29.3 +1.7
HCY *i* Sn **Sn** 18 20 16.2 +1.0
NKME Niksic 4.14 331⇑ *i* Pn **Pn** 18 19 29.2 +0.6
NKME *i* Sn **Sn** 18 20 17.9 +0.9
SJES Sjenica 4.28 343 *e* Pn **Pn** 18 19 34.9 +4.3
TREB Trebinje 4.34 325 *e* Pn **Pn** 18 19 31.8 +0.4
DBRK Dubrovnik 4.39 324 *e* Pn **Pn** 18 19 32.9 +0.8
DBRK Sn **Sn** 18 20 19.4 -4.0
BRY Bratogost 4.41 328 *e* Pn Pn 18 19 34.5 +0.9
BRY Bratogost 4.41 328⇓ *i* Pn **Pn** 18 19 34.2 +1.7
BRY *i* Sn **Sn** 18 20 25.1 +1.1
PLE Pljevlja 4.49 338⇑ *i* Pn **Pn** 18 19 33.8 +0.2
PLE *i* Sn **Sn** 18 20 26.8 +0.9
UPM Unac-Piva 4.53 333 *e* Pn Pn 18 19 37.1 +0.9
UPM Unac-Piva 4.53 333⇓ *i* Pn **Pn** 18 19 35.7 +1.5
UPM *i* Sn **Sn** 18 20 27.5 +0.5
KLINJ Klinje 4.62 331 *e* Pn **Pn** 18 19 35.7 +0.4
IDI Anoyia 4.65 146 P **Pn** 18 19 39.4 +3.6
1.8nm,0.4s,baz=304,slow=16,SNR=1.8
IDI S **Sn** 18 20 33.5 +3.7
5.8nm,0.4s,baz=318,slow=18,SNR=6.2
STON Ston 4.76 322 *e* Pn **Pn** 18 19 37.3 +0.2
STON Sn **Sn** 18 20 27.9 -4.4
BBLS Lazi&#263i 4.98 341 *e* Pn **Pn** 18 19 42.3 +2.0
LSTV Lastovo 5.10 316 *e* Pn **Pn** 18 19 41.4 -0.4
LSTV Sn **Sn** 18 20 36.2 -4.5
MAKA Makarska 5.40 321 *e* Pn **Pn** 18 19 46.3 +0.4
MAKA Sn **Sn** 18 20 43.4 -4.8
RICI Ricice 5.50 323 *e* Pn **Pn** 18 19 47.8 +0.4
RICI Sn **Sn** 18 20 46.9 -3.8
TEKS Tekeris 5.60 344 *e* Pn **Pn** 18 19 49.1 +0.4
HVAR Hvar 5.62 317 *e* Pn **Pn** 18 19 49.2 +0.3
HVAR Sn **Sn** 18 20 48.8 -4.7
FRGS Fruska Gora 6.13 347 *e* Pn **Pn** 18 19 55.6 -0.4
KIJV Kijevo 6.24 322 *i* Pn **Pn** 18 19 58.0 +0.5
KIJV Sn **Sn** 18 21 05.7 -3.0
MORI Morici 6.48 318 *e* Pn **Pn** 18 20 01.0 +0.2
MORI Sn **Sn** 18 21 09.6 -5.1
BLY Banja Luka 6.50 330 *e* Pn **Pn** 18 20 02.0 +1.0
DUGI Dugi Otok 6.91 316 *e* Pn **Pn** 18 20 07.6 +0.9
DUGI Sn **Sn** 18 21 20.8 -4.5
UDBI Udbina 6.93 322 *e* Pn **Pn** 18 20 07.2 +0.2
UDBI Sn **Sn** 18 21 21.6 -4.3
MLR Muntele Rosu 7.05 25 P **Pn** 18 20 10.7 +2.0
0.9nm,0.3s,baz=285,slow=4.2,SNR=6.4
MLR S **Sn** 18 21 31.4 +2.6
1.0nm,0.4s,baz=198,slow=19,SNR=0.9
3.5nm,0.5s
MLR AML AML
PLIT Plitvice 7.26 324 *e* Pn **Pn** 18 20 11.3 -0.2
PLIT Sn **Sn** 18 21 30.6 -3.4
MORH Mrgy, Hungar 7.38 343 *e* Pn **Pn** 18 20 12.9 -0.1
MOSL Moslavina 7.39 332 *e* Pn **Pn** 18 20 13.5 +0.2
MOSL Sn **Sn** 18 21 33.1 -4.0
OBKA Obir 9.00 327 *i* Pn **Pn** 18 20 35.1 -0.3
1.4nm,0.4s
OBKA *i* Sn **Sn** 18 22 15.5 -1.3
5.4nm,0.8s
BRTR Keskin Array B 9.26 83 P **Pn** 18 20 41.0 +1.9
0.1nm,0.3s,baz=261,slow=12,SNR=4.6
BRTR S **Sn** 18 22 19.2 -4.1
0.2nm,0.4s,baz=12,slow=33,SNR=1.4
0.3nm,0.3s
BRTR AML AML
VYHS Vyhne 9.53 348 *e* PN **Pn** 18 20 43.9 +1.3
ABTA Abfaltersbach 10.11 321 *e* Pn **Pn** 18 20 50.7 0.0
0.6nm,0.2s
ABTA *i* Sn **Sn** 18 22 41.9 -2.2
5.0nm,0.8s
MOA Molln 10.20 331 *e* Pn **Pn** 18 20 53.1 +1.3
0.4nm,0.2s
KEST Kesra 10.40 254 P **Pn** 18 20 58.5 +4.0
0.1nm,0.3s,baz=315,slow=19,SNR=2.1
1.9nm,0.7s
KEST AML AML
GERES GERESS Array B 11.23 332 P **Pn** 18 21 07.9 +1.9
baz=155,slow=16,SNR=2.8
0.4nm,0.6s
DAVOX Davos/Dischmat 11.50 315 S **Sn** 18 23 15.5 -2.7
1.8nm,0.7s,baz=311,slow=20,SNR=2.7
KBZ Khabaz 16.53 67 P **P** 18 22 20.1 +0.4
0.1nm,0.3s,baz=252,slow=10,SNR=3.7
0.9nm,0.6s
KBZ AML AML
ESDC Sonseca Array 19.80 280 P **Pn** 18 22 58.2 +0.7
baz=82,slow=11,SNR=4.5
0.3nm,0.5s
HFS Hagfors 21.57 349 P **P** 18 23 15.5 +0.7
2.9nm,0.9s,baz=101,slow=24,SNR=2.4
2.9nm,0.9s
FINES FINESS Array B 22.45 6 P **P** 18 23 26.2 +1.9
2.2nm,0.8s,baz=179,slow=11,SNR=4.7
2.2nm,0.8s
NOA NORR Array B 22.83 347 P **P** 18 23 29.5 +1.1
0.9nm,0.8s,baz=157,slow=10,SNR=1.7
0.9nm,0.8s
EKA Eskdalemuir Ar 23.16 322 P **P** 18 23 31.0 -0.8
2.4nm,0.9s,baz=127,slow=11,SNR=2.4
2.4nm,0.9s
ARCES ARCESS Array B 30.48 3 P **P** 18 24 37.0 -1.0
1.6nm,0.8s,baz=187,slow=9.7,SNR=1.5
1.6nm,0.8s
MKAR Makanchi Array 44.00 60 P **P** 18 26 32.8 -0.1
0.8nm,0.5s,baz=273,slow=8.0,SNR=12
0.8nm,0.5s
ZALV Zalesovo Beam 44.34 49 P **P** 18 26 35.0 -0.4
1.3nm,0.4s,baz=275,slow=8.5,SNR=6.9
1.3nm,0.4s
ASAR Alice Springs 121.37 96 PKP **PKPdf** 18 37 17.9 -1.2
0.1nm,0.5s,baz=320,slow=1.3,SNR=4.5

*JMA **13** 18:26:11.3±0.2,30°N±1°×14°0E±°, h406km, MV3.5/17, NEAR TORISHIMA IS*
*NEIC **13** 18:26:12.3±2.1,29°.95N±0°.07×139°.2E±0°.1, h381km±7km, mb4.0/62, Error ellipse: s-maj=13.4km s-min=9.8km az=65.0*
*IDC **13** 18:26:13.1±1.4,29°.97N×139°.13E, h391km±13km, mb3.2/18, mbtmp3.9/23, Error ellipse: s-maj=19.0km s-min=13.7km az=84.0*
ISC 13 18:26:12.3±0.5, 29°.96N±0°.06×139°.40E±0°.07, h400km, n113, σ1°78/86, mb3.9/46, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**3.16**	**6**	Pn	**Pn**	**18 27 12.9**	**-3.9**
JHJ	**Hachijo jima 2**	**3.17**	**6**	P	**Pn**	**18 27 18.0**	**+1.2**
	18nm,0.8s,baz=234,slow=23,SNR=1.2						
JHJ				S	**S**	**18 28 04.5**	**-4.6**
	12nm,0.4s,baz=213,slow=21,SNR=2.1						
CBIJ	**Chichi jima**	**3.76**	**139**	*e*P	**Pn**	**18 27 21.2**	**-1.0**
CBIJ				*e*S	**S**	**18 28 15.7**	**-3.0**
JCJ	**Chichijima**	**3.76**	**139**	P	**Pn**	**18 27 18.6**	**-3.5**
	250nm,0.4s,baz=10,slow=12,SNR=41						
JCJ				S	**S**	**18 28 12.1**	**-6.6**
	307nm,0.4s,baz=274,slow=21,SNR=15						
JCJ	**Chichijima**	**3.76**	**139**		**Pn**	**18 27 20.9**	**-1.3**
JCJ					**S**	**18 28 16.0**	**-2.7**
BSO1	**Boso 1**	**4.87**	**15**	*e*S	**S**	**18 28 35.4**	**-2.0**
JIE	**Ise**	**4.98**	**333**	*e*P	**Pn**	**18 27 34.4**	**+0.5**
BSO4	**Boso 4**	**5.08**	**9**	*e*P	**Pn**	**18 27 34.5**	**-0.4**
INU	**Inuyama**	**5.74**	**340**	Pn	**Pn**	**18 27 41.8**	**-0.1**
JHU2	**Hanno**	**5.87**	**359**	*e*P	**Pn**	**18 27 42.2**	**-1.1**
JGF	**Kuroka**	**5.88**	**344**	Pn	**Pn**	**18 27 40.7**	**-2.8**
JMN	**Monobe**	**6.02**	**310**		**Pn**	**18 27 44.7**	**-0.3**
JAG	**Ashikaga**	**6.45**	**0**	P	**Pn**	**18 27 47.8**	**-1.9**
MJAR	**Matsushiro Arr**	**6.64**	**352**	P	**P**	**18 27 50.5**	**-1.9**
	2.1nm,0.4s,baz=169,slow=11,SNR=14						
MJAR				S	**S**	**18 29 09.0**	**-4.1**
	2.3nm,0.7s,baz=188,slow=30,SNR=4.8						
MJAR	**Matsushiro Arr**	**6.64**	**352**		**Pn**	**18 27 48.6**	**-3.3**
MAJO	**Matsushiro**	**6.64**	**352**	Pn	**Pn**	**18 27 47.6**	**-4.2**
MJB9	**Matsu-Tunnel**	**6.65**	**352**	Pn	**Pn**	**18 27 48.9**	**-3.0**
JHS	**Saijyo**	**7.31**	**315**	*e*P	**Pn**	**18 27 59.8**	**+0.4**
JSU	**Suzuyama**	**7.86**	**284**	Pn	**Pn**	**18 28 03.0**	**-2.6**
JNU	**Nakatsue**	**7.93**	**296**	P	**Pn**	**18 28 04.3**	**-2.2**
	8.5nm,1.0s,baz=329,slow=22,SNR=2.1						
JTU	**Tsushima**	**9.62**	**301**	P	**P**	**18 28 24.4**	**-1.1**
KSRS	**Korea Array**	**12.13**	**311**	P	**P**	**18 28 52.5**	**-0.7**
	3.6nm,0.8s,baz=120,slow=11,SNR=14						
KSAR	**Wonju Array Be**	**12.15**	**311**	P	**P**	**18 28 52.9**	**-0.6**
USRK	**Ussuriysk Ar.**	**15.39**	**340**	P	**P**	**18 29 29.2**	**+0.5**
	2.7nm,0.7s,baz=172,slow=11,SNR=4.2						
USRK	**Ussuriysk Ar.**	**15.39**	**340**	P	**P**	**18 29 28.4**	**-0.3**
SSLB	**Suanglung**	**17.56**	**254**	P	**P**	**18 29 51.0**	**-1.2**
KLR	**Kul'dur**	**20.11**	**345**	P	**P**	**18 30 18.9**	**+1.4**
	3.1nm,0.6s,baz=157,slow=12,SNR=11						
	3.1nm,0.6s						
ULN	**Ulaanbaatar**	**30.57**	**315**	P	**P**	**18 31 50.0**	**-1.0**
SONM	**Songino Array**	**30.96**	**314**	P	**P**	**18 31 54.3**	**-0.1**
	1.0nm,0.5s,baz=128,slow=8.6,SNR=8.0						
	1.0nm,0.5s						
SONM	**Songino Array**	**30.96**	**314**	P	**P**	**18 31 54.0**	**-0.4**
CMAR	**Chiang Mai Arr**	**38.45**	**262**	P	**P**	**18 32 56.9**	**-0.9**
	0.5nm,0.3s,baz=82,slow=7.0,SNR=4.5						
	0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**38.45**	**262**	P	**P**	**18 32 56.4**	**-1.4**
KULM	**Kulim**	**43.99**	**244**	P	**P**	**18 33 41.6**	**-0.8**
ZALV	**Zalesovo Beam**	**45.73**	**318**	P	**P**	**18 33 54.5**	**-0.8**
	0.8nm,0.3s,baz=101,slow=7.4,SNR=6.8						
	0.8nm,0.3s						
ZALV	**Zalesovo Beam**	**45.73**	**318**	P	**P**	**18 33 54.6**	**-0.7**
MKAR	**Makanchi Array**	**46.78**	**308**	P	**P**	**18 34 03.4**	**-0.1**
	2.0nm,0.6s,baz=92,slow=8.7,SNR=20						
MKAR				PcP	**PcP**	**18 35 29.8**	**+0.6**
	0.5nm,0.8s,baz=71,slow=6.6,SNR=2.6						
MKAR				ScP	**ScP**	**18 38 45.0**	**+1.0**
	0.4nm,0.7s,baz=96,slow=3.9,SNR=4.5						
	2.0nm,0.6s						
MKAR	**Makanchi Array**	**46.78**	**308**	P	**P**	**18 34 03.1**	**-0.4**
MAKZ	**Makanchi**	**47.00**	**308**		**P**	**18 34 05.2**	**+0.1**
PDGK	**Podgornoye**	**48.91**	**303**		**P**	**18 34 19.5**	**-0.4**
SDPT	**Sand Point**	**49.10**	**41**	P	P	18 34 23.8	+3.0
F15K	**North Star Dit**	**49.20**	**27**	P	P	**18 34 23.5**	**+2.1**
KURK	**Kurchatov**	**49.24**	**313**		**P**	**18 34 21.7**	**-0.3**
KURK				IAmb	IAmb	18 34 22.6	
	comp=Z,6.4nm,1.1s						
KURBB	**Kurchatov Arra**	**49.30**	**313**	P	**P**	**18 34 22.5**	**+0.1**
	comp=Z,4.2nm,0.7s,baz=91,slow=7.8,SNR=40						
	comp=Z,4.2nm,0.7s						
K15K	**Wolf Creek Mou**	**49.63**	**32**	P	P	18 34 27.7	+3.0
PRZ	**Przheval'sk**	**49.80**	**302**	P	**P**	**18 34 26.7**	**+0.2**
PRZ				IAmb	IAmb	18 34 28.2	
	comp=Z,11nm,0.7s						
WRAB	**Tennant Creek**	**49.84**	**186**	P	**P**	**18 34 27.8**	**+1.0**
WRAB				IAmb	IAmb	18 34 47.5	
	comp=Z,8.1nm,1.5s						
WRA	**Warramunga Arr**	**49.85**	**186**	P	**P**	**18 34 27.6**	**+0.7**
	comp=Z,0.2nm,0.4s,baz=6.3,slow=7.4,SNR=5.2						
	comp=Z,0.2nm,0.4s						
O15K	**Ungalikthiuk R**	**49.90**	**36**	P	P	18 34 29.5	+2.8
N15K	**Kwethluk River**	**49.92**	**35**	P	P	18 34 29.7	+2.9
M16K	**Timber Creek**	**50.60**	**34**	P	**P**	**18 34 33.1**	**+1.2**
M16K				IAmb	IAmb	18 34 47.8	
	comp=Z,15nm,1.2s						
KDJ	**Kajisay**	**50.73**	**302**	P	**P**	**18 34 32.0**	**-1.5**
KDJ				IAmb	IAmb	18 35 01.6	
	comp=Z,5.7nm,0.8s						
F17K	**Baldwin Pennin**	**50.74**	**27**	P	P	18 34 35.2	+2.4
J17K	**VABM Dome**	**50.95**	**31**	P	P	18 34 37.8	+3.4
J17K				IAmb	IAmb	18 34 44.8	
	comp=Z,19nm,1.4s						
K17K	**Iditarod**	**51.18**	**32**	P	P	18 34 39.2	+3.1
E18K	**Tukpahlearik C**	**51.25**	**25**	P	**P**	**18 34 38.4**	**+1.8**
E18K				IAmb	IAmb	18 35 00.3	
	comp=Z,15nm,1.3s						
BOOM	**Boomskoye usch**	**51.60**	**302**	P	**P**	**18 34 39.8**	**0.0**
BOOM				IAmb	IAmb	18 34 47.1	
	comp=Z,14nm,1.4s						
H18K	**Honhosa River**	**51.60**	**28**	P	P	18 34 42.3	+3.1
G18K	**Tagagawik**	**51.64**	**28**	P	P	18 34 42.4	+3.0
G18K				IAmb	IAmb	18 35 17.9	
	comp=Z,15nm,1.4s						
L18K	**Granite Mounta**	**51.85**	**32**	P	P	18 34 44.3	+3.2
L18K				IAmb	IAmb	18 35 18.4	
	comp=Z,10nm,1.4s						
D19K	**Kuna River**	**52.43**	**24**	P	**P**	**18 34 47.3**	**+2.1**
D19K				IAmb	IAmb	18 35 30.4	
	comp=Z,18nm,1.4s						
E19K	**Redstone River**	**52.52**	**26**	P	P	18 34 48.7	+2.8
E19K				IAmb	IAmb	18 34 50.5	
	comp=Z,6.8nm,1.0s						
J19K	**Poorman**	**52.57**	**30**	P	P	18 34 49.1	+2.9
J19K				IAmb	IAmb	18 35 20.1	
	comp=Z,7.8nm,1.4s						
AAK	**Ala-Archa**	**52.64**	**303**	P	**P**	**18 34 47.4**	**+0.1**
D20K	**Etivluk River**	**53.02**	**24**	P	P	18 34 52.3	+2.8
D20K				IAmb	IAmb	18 35 27.5	
	comp=Z,6.5nm,1.3s						
K20K	**Telida**	**53.18**	**31**	P	P	18 34 53.9	+3.2
K20K				IAmb	IAmb	18 35 12.2	
	comp=Z,11nm,1.5s						
OHAK	**Old Harbor**	**53.20**	**39**	P	P	18 34 53.1	+2.2
J20K	**Nowinta River**	**53.24**	**30**	P	P	18 34 53.9	+2.9
J20K				IAmb	IAmb	18 35 30.6	
	comp=Z,6.8nm,1.3s						
ASAR	**Alice Springs**	**53.58**	**186**	P	**P**	**18 34 56.1**	**+2.1**
	comp=Z,0.1nm,0.7s,baz=356,slow=3.6,SNR=4.7						
	comp=Z,0.1nm,0.7s						
ASAR	**Alice Springs**	**53.58**	**186**	P	**P**	**18 34 54.7**	**+0.7**
ARSB	**Arslanbob**	**53.96**	**301**	P	**P**	**18 34 57.1**	**+0.2**
ARSB				IAmb	IAmb	18 34 58.2	
	comp=Z,2.5nm,0.4s						
H21K	**Melozitna River**	**53.98**	**28**	P	P	18 34 59.5	+3.2
PPLA	**Purkeypile**	**53.99**	**32**	P	P	18 34 59.7	+3.1
PPLA				IAmb	IAmb	18 35 37.8	
	comp=Z,14nm,1.3s						
CAST	**Castle Rocks**	**54.07**	**31**	P	P	18 35 00.9	+3.8
CAST				IAmb	IAmb	18 35 29.2	
	comp=Z,8.7nm,1.5s						
SKT	**Skwentna**	**54.24**	**33**	P	P	18 35 01.3	+3.0
SKT				IAmb	IAmb	18 35 38.3	
	comp=Z,21nm,1.5s						
BVAR	**Borovoye Array**	**54.29**	**316**	P	**P**	**18 34 59.3**	**+0.5**
	comp=Z,3.2nm,0.5s,baz=95,slow=7.6,SNR=18						
	comp=Z,3.2nm,0.5s						
BORK	**Borovoye**	**54.33**	**316**		**P**	**18 34 59.3**	**+0.3**
D22K	**Ayikyak River**	**54.46**	**24**	P	P	18 35 02.9	+3.2
D22K				IAmb	IAmb	18 35 45.8	
	comp=Z,11nm,1.4s						
H22K	**Ishtalitna Cre**	**54.59**	**28**	P	P	18 35 03.7	+3.0
H22K				IAmb	IAmb	18 35 04.4	
	comp=Z,8.4nm,1.4s						
BPAW	**Bear Paw Mtn.**	**54.61**	**30**	P	P	18 35 04.7	+3.8
BPAW				IAmb	IAmb	18 35 08.6	
	comp=Z,8.0nm,1.5s						
D23K	**Nanushuk River**	**55.19**	**24**	P	P	18 35 07.9	+3.1
G23K	**Bananza Creek**	**55.20**	**27**	P	P	18 35 08.4	+3.3
KK31	**Karatay Array**	**55.45**	**304**		**P**	**18 35 06.9**	**-0.2**
KK31				IAmb	IAmb	18 35 08.2	
	comp=Z,5.2nm,0.8s						
KKAR	**Karatay Array**	**55.45**	**304**		**P**	**18 35 06.8**	**-0.3**
KNK	**Knik Glacier**	**55.69**	**34**	P	P	18 35 11.2	+2.7
KNK				IAmb	IAmb	18 35 39.3	
	comp=Z,16nm,1.3s						
PWL	**Port Wells**	**55.76**	**34**	P	P	18 35 12.2	+3.2
E24K	**Your Creek**	**55.90**	**26**	P	P	18 35 13.5	+3.5
F24K	**Squaw Lake**	**56.09**	**26**	P	P	18 35 15.1	+3.8
ILAR	**Eielson Array**	**56.41**	**30**	P	**P**	**18 35 15.1**	**+1.6**
	comp=Z,0.5nm,0.8s,baz=262,slow=5.1,SNR=4.9						
	comp=Z,0.5nm,0.8s						
BMAR	**Burnt Mountain**	**57.37**	**26**	P	P	18 35 24.4	+4.3
C27K	**Jago River**	**57.70**	**24**	P	P	18 35 25.8	+3.4
E28M	**Babbage River**	**59.23**	**25**	P	P	18 35 36.4	+3.7
ARTI	**Arti**	**60.77**	**321**	P	**P**	**18 35 43.0**	**-0.2**
I30M	**Mount Dempster**	**60.83**	**29**	P	P	18 35 47.0	+3.2
I30M				IAmb	IAmb	18 36 15.2	
	comp=Z,5.8nm,1.4s						
AB31	**Akbulak array**	**61.36**	**313**		**P**	**18 35 47.5**	**+0.2**
AB31				IAmb	IAmb	18 35 48.4	
	comp=Z,3.8nm,0.7s						
ABKAR	**Akbulak array**	**61.36**	**313**	P	**P**	**18 35 47.5**	**+0.2**
NIUE	**Niue**	**68.97**	**128**	P	**P**	**18 36 38.7**	**+2.7**
ARCES	**ARCESS Array B**	**70.03**	**340**	P	**P**	**18 36 43.1**	**+1.4**
	comp=Z,1.1nm,0.6s,baz=52,slow=6.3,SNR=6.8						
	comp=Z,1.1nm,0.6s						
ARCES	**ARCESS Array B**	**70.03**	**340**	P	**P**	**18 36 43.5**	**+1.8**
YKA	**Yellowknife Ar**	**70.79**	**28**	P	P	18 36 48.9	+2.6
	comp=Z,0.5nm,0.6s,baz=299,slow=6.2,SNR=1.5						
	comp=Z,0.5nm,0.6s						
KBZ	**Khabaz**	**74.28**	**312**	P	**P**	**18 37 08.1**	**+1.2**
	comp=Z,2.4nm,0.8s,baz=77,slow=6.0,SNR=7.7						
	comp=Z,2.4nm,0.8s						
FIA1	**FINESS Array S**	**74.30**	**333**	P	**P**	**18 37 07.4**	**+0.7**
FINES	**FINESS Array B**	**74.30**	**333**	P	**P**	**18 37 07.8**	**+1.1**
	comp=Z,0.9nm,0.5s,baz=59,slow=4.5,SNR=13						
	comp=Z,0.9nm,0.5s						
FINES	**FINESS Array B**	**74.30**	**333**	P	**P**		
KRMB	**

THE ***13*** *18:28:42.1,36°N±1°×2°6E±°, h9km±2km, M2.4/9, MLh2.4/9*
ATH 13 18:28:41.4,36°25N×25°62E,h16km±1km,ML2.3/6,
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
THERA	**Ancient Thera,**	**0.16**	**316**	P	Pg	18 28 45.2	-0.5
THERA				S	Sg	18 28 47.8	-0.6
THERA				AML	AML		
THERA	**Ancient Thera,**	**0.16**	**316**	P	Pg	18 28 45.2	-0.5
THERA				S	Sg	18 28 47.8	-0.7
THERA				AML	AML		
THR8	**Santorini-Mono**	**0.19**	**325**	P	Pg	18 28 45.7	-0.3
THR8	**Santorini-Mono**	**0.19**	**325**	P	Pg	18 28 45.8	-0.2
THR6	**Thira Island,**	**0.21**	**301**	P	Pg	18 28 46.2	0.0
THR6	**Thira Island,**	**0.21**	**301**	P	Pg	18 28 46.3	+0.1
THRA	**Thira**	**0.22**	**318**	P	Pg	18 28 46.4	-0.1
THRA				S	Sg	18 28 49.8	-0.2
THRA				AML	AML		
THRA	**Thira**	**0.22**	**318**	P	Pg	18 28 46.6	+0.1
THRA				S	Sg	18 28 49.8	-0.2
SFIR	**Foira Santorin**	**0.23**	**319**	P	Pg	18 28 46.7	+0.1
SFIR				S	Sg	18 28 50.0	-0.2
SNT5	**Nea Kammeni, S**	**0.24**	**311**	P	Pg	18 28 46.7	0.0
SNT5				S	Sg	18 28 50.2	-0.1
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**0.24**	**311**	P	Pg	18 28 46.7	0.0
SNT5				S	Sg	18 28 50.0	-0.3
THR3	**Thira Island,**	**0.24**	**313**	P	Pg	18 28 46.6	-0.1
THR3	**Thira Island,**	**0.24**	**313**	P	Pg	18 28 46.7	0.0
THR9	**Santorini-Faro**	**0.24**	**298**	P	Pg	18 28 46.7	0.0
THR9	**Santorini-Faro**	**0.24**	**298**	P	Pg	18 28 46.7	0.0
THR2	**Thira island,**	**0.25**	**324**	P	Pg	18 28 46.9	0.0
THR2	**Thira island,**	**0.25**	**324**	P	Pg	18 28 47.1	+0.2
THR5	**Thira Island,**	**0.27**	**308**	P	Pg	18 28 47.3	-0.1
THR5	**Thira Island,**	**0.27**	**308**	P	Pg	18 28 47.4	+0.1
CMBO	**Columbo, Santo**	**0.28**	**323**	P	Pg	18 28 47.6	+0.2
CMBO				S	Sg	18 28 51.6	0.0
CMBO	**Columbo, Santo**	**0.28**	**323**	P	Pg	18 28 47.6	+0.2
SAP3	**Santorini-Thir**	**0.29**	**311**	P	Pg	18 28 47.6	0.0
SAP3				S	Sg	18 28 51.5	-0.3
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**0.29**	**311**	P	Pg	18 28 47.6	0.0
SAP3				S	Sg	18 28 51.9	+0.1
APE	**Apeiranthos**	**0.82**	**355**	P	Pb	18 28 57.1	-0.3
APE				S	Sn	18 29 09.3	-0.9
APE	**Apeiranthos**	**0.82**	**355**	P	Pb	18 28 57.0	-0.3
APE				S	Sb	18 29 08.2	-0.1
NPS	**Neapolis**	**0.98**	**180**	P	Pb	18 29 00.2	+0.1
NPS				S	Sn	18 29 14.5	+0.4
NPS				AML	AML		
NPS	**Neapolis**	**0.98**	**180**	P	Pb	18 28 59.6	-0.5
NPS				S	Sb	18 29 12.9	+0.1
NPS				AML	AML		
IDI	**Anoyia**	**1.12**	**212**	P	Pb	18 29 01.4	-1.1
IDI				S	Sg	18 29 18.1	+0.2
IDI	**Anoyia**	**1.12**	**212**	P	Pb	18 29 01.4	-1.2
IDI				S	Sb	18 29 15.9	-1.0
IDI				AML	AML		
ZKR	**Zakros**	**1.23**	**156**	P	Pn	18 29 03.6	-0.4
SIVA	**Sivas**	**1.39**	**208**	P	Pb	18 29 07.0	0.0
SIVA				S	Sg	18 29 25.9	-0.5
SIVA				AML	AML		
SIVA	**Sivas**	**1.39**	**208**	P	Pb	18 29 06.8	-0.2
SIVA				S	Sn	18 29 24.0	-0.2
VAM	**Vamos**	**1.42**	**234**	P	Pn	18 29 06.6	0.0
KARP	**Karpathos**	**1.44**	**119**	P	Pn	18 29 06.8	0.0
KARP	**Karpathos**	**1.44**	**119**	P	Pn	18 29 06.8	0.0
KARP				AML	AML		
IMMV	**Iera Moni Meta**	**1.54**	**240**	P	Pn	18 29 07.5	-0.8
IMMV				S	Sn	18 29 27.2	-0.7
RODP	**Rodopos**	**1.66**	**246**	P	Pn	18 29 10.1	+0.3
ANKY	**Antikythira Is**	**1.91**	**259**	P	Pn	18 29 13.2	-0.2
ANKY	**Antikythira Is**	**1.91**	**259**	P	Pn	18 29 13.1	-0.2
KTHA	**Kythira Island**	**2.06**	**271**	P	Pn	18 29 15.4	0.0
KTHA				AML	AML		
KTHA	**Kythira Island**	**2.06**	**271**	P	Pn	18 29 15.5	+0.1
KTHR	**Kythira**	**2.12**	**271**	P	Pn	18 29 16.3	+0.1
KTHR				AML	AML		
VLI	**Veliai**	**2.21**	**283**	P	Pn	18 29 17.4	0.0
VLI	**Veliai**	**2.21**	**283**	P	Pn	18 29 17.3	-0.1

ISK ***13*** *18:29:35.1,37°.80N×26°.40E, h5km, ML2.3/18*
AFAD 13 18:29:35.5,37°.86N×26°.44E,h7km±2km,ML2.0,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZEYE	**Izmir, Urla-Ze**	**0.38**	**8**	P	Pg	18 29 43.0	+0.1
ZEYE				S	Sg	18 29 48.8	+0.8
ZEYE				IAML		18 29 50.0	
	comp=N,219nm,0.2s						
DGB	**zmir**	**0.40**	**61**	P	Pg	18 29 43.8	+0.5
GMLD	**Gumuldur**	**0.43**	**60**	Pg	Pb	18 29 44.7	-0.8
GMLD				Sg	Sb	18 29 51.4	-0.8
GMLD				AML	AML		
BEYE	**izmir**	**0.53**	**46**	P	Pg	18 29 46.0	+0.2
BEYE				S	Sg	18 29 53.3	+0.6
BEYE				IAML		18 29 57.0	
	comp=N,88nm,0.2s						
CHOS	**Chios island**	**0.60**	**330**	Pg	Pb	18 29 48.0	-0.5
CHOS				Sg	Sb	18 29 57.2	-0.1
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.65**	**104**	P	Pg	18 29 47.7	-0.3
GCAM	**G?zelcaml?**	**0.65**	**104**	Pg	Pg	18 29 48.4	+0.4
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.67**	**90**	Pg	Pb	18 29 49.2	-0.3
KUSD				AML	AML		
BLCB	**Balcova**	**0.71**	**42**	Pg	Pb	18 29 50.5	+0.4
BLCB				AML	AML		
KRBN	**Karaburun**	**0.74**	**7**	Pg	Pb	18 29 50.9	+0.2
KRBN				AML	AML		
DDIM	**Aydin, Didim**	**0.75**	**122**	P	Pg	18 29 50.1	+0.1
KARB	**zmir-Karabur**	**0.80**	**358**	P	Pg	18 29 48.9	-2.0
BAGT	**Foa**	**0.86**	**22**	P	Pg	18 29 51.1	-0.9
DUVT	**Torbali**	**0.87**	**66**	P	Pg	18 29 52.4	+0.1
FOCM	**Foa**	**0.88**	**15**	Pg	Pg	18 29 53.7	+0.6
BODT	**Bodrum**	**1.06**	**139**	Pg	Pg	18 29 55.3	-0.5
BODT				AML	AML		
APE	**Apeiranthos**	**1.07**	**223**	Pg	Pg	18 29 54.8	-1.3
APE				AML	AML		
BDRM	**Kayabasi**	**1.13**	**135**	P	Pg	18 29 55.3	-1.8
AYDB	**Zeytinkoy-Aydi**	**1.15**	**85**	Pn	Pn	18 29 58.6	+0.4
AYDB				AML	AML		
AYDN	**Tasoluk**	**1.16**	**100**	P	Pg	18 29 57.5	-0.2
MLSB	**Milas**	**1.20**	**118**	Pn	Pg	18 29 58.4	-0.2
MLSB				AML	AML		
DKL	**Dikili**	**1.26**	**17**	Pn	Pg	18 30 00.8	+1.1
DKL				AML	AML		
DAT	**Datca**	**1.45**	**141**	Pn	Pn	18 30 02.3	+0.1
NAZL	**Nazilli-Aydin**	**1.47**	**85**	Pn	Pb	18 30 03.4	+0.2
NAZL				AML	AML		
YER	**Yerkesik**	**1.64**	**116**	Pn	Pb	18 30 05.4	-0.6
GORD	**Gordes-Manisa**	**1.72**	**52**	Pn	Pb	18 30 07.6	+0.1
GORD				AML	AML		
TURN	**Turunc**	**1.80**	**126**	Pn	Pn	18 30 07.5	+0.5
YAYO	**Edremit-Balk**	**1.82**	**16**	Pn	Pb	18 30 08.8	-0.3
YAYO				AML	AML		

MOS ***13*** *18:33:04.8±0.9,5°.65N×95°.69E, h16km, mb5.1/44, MS4.8/4, Error ellipse: s-maj=8.4km s-min=4.9km az=112.0*
NEIC ***13*** *18:33:07.1±2.2,5°.79N±0°.07×95°.56E±0°.07, h10km±1km, mb5.0/141, Mww5.1/17, Error ellipse: s-maj=13.7km s-min=8.9km az=219.0*
IDC ***13*** *18:33:09.1±2.5,5°.41N×95°.43E, h22km±15km, mb4.2/28, mbtmp4.3/31, ML4.2/3, MS4.3/56, Error ellipse: s-maj=15.1km s-min=8.8km az=50.0*
GFZ ***13*** *18:33:09.9±0.2,5°N±2°×9°5E±°, h30km±1km, M5.0/72, mb5.0/72, Error ellipse: s-maj=6.0km s-min=3.6km az=42.4, confirmed*
DJA ***13*** *18:33:09.0±0.3,6°N±3°×9°6E±°, h10km, M5.1/45, mB5.5/30, mb5.3/45, MLv5.5/24, Mw5.1/31, Mw(mB)5.0/30, MwMwp4.8/3, Mwp5.1/3*

BJI ***13*** *18:33:11.1,5°.59N×95°.16E, h34km, mB5.2/16, mb4.7/44, Ms4.9/47, Ms7 4.6/45*
BKK ***13*** *18:33:11.4±1.0,6°N±5°×9°6E±1°0, h10km, M5.1/13, mB5.3/5, mb5.0/6, Mjma5.2/13, MLv5.4/3, Mw(mB)4.8/5*
GCMT ***13*** *18:33:13.1±0.2,5°.55N±0°.01×95°.57E±0°.01, h22km±1km, MW5.1/130, Moment Tensor Solution. s50,c61; s130,c212; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=0.57±.13; Mθθ=4.47±.10; Mϕϕ5.04±.11; Mrθ-1.81±.19; Mθϕ0.76±.08; Mϕr-0.87±.17; Best double couple: M=5.24100×10¹⁶ NP1:ϕs141.00000°, δ68.00000°, λ-172.00000°. NP2:ϕs48.00000°, δ83.00000°, λ-23.00000°. Principal axes: T 5.2850, Plg10.0000°, Azm96.0000°; N -0.0920, Plg66.0000°, Azm211.0000°; P -5.1960, Plg21.0000°, Azm2.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 13 18:33:08.8±0.4,5°.57N±0°.03×95°.57E±0°.03,h24km±2km,
h25km:pP-P,n655,σ1ꝝ75/611,mb4.9/225,MS4.4/80,
36C-3D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BSI	**Banda Aceh**	**0.28**	**255**	P	**Pb**	**18 33 15.3**	**-0.3**
BSI				S	**Sb**	**18 33 19.5**	**-0.8**
LHMI	**Lhok Sumawe**	**1.41**	**104**	P	**Pb**	**18 33 34.0**	**-0.5**
LHMI	**Lhok Sumawe**	**1.41**	**104**		**Pb**	**18 33 33.8**	**-0.6**
LHMI				Sn	**Sb**	**18 33 54.7**	**+2.7**
LHMI	**Lhok Sumawe**	**1.41**	**104**	P	**Pb**	**18 33 34.3**	**-0.2**
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**1.41**	**104**	P	**Pb**	**18 33 34.6**	**+0.1**
MLSI	**Meulaboh, Aceh**	**1.54**	**147**	P	**Pb**	**18 33 37.0**	**+0.3**
MLSI				AML	AML		
TPTI		**2.80**	**145**	P	**Pn**	**18 33 53.8**	**+1.7**
KCSI	**Kotacane, Aceh**	**2.99**	**133**	P	**Pn**	**18 33 57.3**	**+2.5**
KCSI				AML	AML		
SNSI	**Sinabang, Aceh**	**3.23**	**167**	P	**Pn**	**18 33 59.8**	**+1.8**
PKDT	**Phuket**	**3.58**	**50**	P	**Pn**	**18 34 04.0**	**+1.1**
TSI	**Tuntungan**	**3.62**	**124**	P	Pb	18 34 18.3	+6.1
PSI	**Prapat**	**4.33**	**129**	Pn	**Pn**	**18 34 16.0**	**+2.8**
	18nm,0.3s,baz=292,slow=10,SNR=24						
PSI				Lg	Lg	18 35 29.2	
	22nm,0.3s,baz=348,slow=19,SNR=6.6						
PSI				LR	LR	18 36 20.7	
	comp=Z,2μm,21.2s,baz=282,slow=44						
	132nm,0.4s						
PSI				AML	AML		
PSI	**Prapat**	**4.33**	**129**	P	**Pn**	**18 34 16.1**	**+2.8**
PSI	**Prapat**	**4.33**	**129**	P	**Pn**	**18 34 15.8**	**+2.5**
PSI				P	Pb	18 34 16.0	-8.3
PSI				AML	AML		
RPSI	**Rantau Prapat**	**4.40**	**130**		**Pn**	**18 34 15.5**	**+1.5**
RPSI	**Rantau Prapat**	**4.40**	**130**		**Pn**	**18 34 16.0**	**+2.0**
RPSI	**Rantau Prapat**	**4.40**	**130**	P	**Pn**	**18 34 16.1**	**+2.0**
RNTT	**Ranong**	**4.76**	**37**	P	**Pn**	**18 34 20.6**	**+1.4**
TRSI	**Tarutung**	**4.88**	**136**	P	**Pn**	**18 34 24.6**	**+3.7**
KULM	**Kulim**	**5.06**	**93**	P	**Pn**	**18 34 23.9**	**+0.7**
KULM	**Kulim**	**5.06**	**93**		**Pn**	**18 34 23.8**	**+0.5**
KULM	**Kulim**	**5.06**	**93**	P	**Pn**	**18 34 24.5**	**+1.2**
	2.9nm6μm7μm748nm,1.0s						
KULM				AML	AML		
KULM	**Kulim**	**5.06**	**93**	P	**Pn**	**18 34 24.4**	**+1.1**
	comp=Z,748nm,1.0s						
IPM	**Ipoh**	**5.54**	**101**	P	**Pn**	**18 34 29.9**	**+0.1**
IPM	**Ipoh**	**5.54**	**101**		**Pn**	**18 34 29.6**	**-0.2**
IPM				Sn	Sn	18 35 23.2	-10
IPM	**Ipoh**	**5.54**	**101**	P	**Pn**	**18 34 30.2**	**+0.4**
	comp=Z,2.0nmcomp=Z,6μmcomp=Z,6μmcomp=Z,281nm,0.7s						
IPM				AML	AML		
IPM	**Ipoh**	**5.54**	**101**	P	**Pn**	**18 34 30.2**	**+0.4**
	comp=Z,281nm,0.7s						
PBSI	**Pulau Batu**	**6.21**	**154**	P	**Pn**	**18 34 41.0**	**+2.0**
	comp=Z,1.6nmcomp=Z,237nm,0.6s						
PBSI				AML	AML		
PBA	**Port Blair**	**6.66**	**335**	Pn	**Pn**	**18 34 42.5**	**-2.7**
BKNI	**Bangkinang**	**7.54**	**133**		**Pn**	**18 34 58.4**	**+1.0**
BKNI	**Bangkinang**	**7.54**	**133**	P	Pn	18 35 07.1	+10
BKNI	**Bangkinang**	**7.54**	**133**	P	**Pn**	**18 34 58.6**	**+1.3**
	comp=Z,192nm,1.1s						
PPI	**Padang Panjang**	**7.68**	**141**	P	**Pn**	**18 35 02.9**	**+3.6**
	comp=Z,123nm,0.8s						
BTDF	**Bukit Timah Da**	**9.19**	**117**	P	**Pn**	**18 35 20.0**	**0.0**
BTDF	**Bukit Timah Da**	**9.19**	**117**	P	**Pn**	**18 35 20.4**	**+0.4**
KRJI	**Kerinci**	**9.62**	**142**	P	**Pn**	**18 35 28.0**	**+2.1**
TPRI	**Tanjung Pinang**	**10.06**	**117**	P	**Pn**	**18 35 31.8**	**-0.1**
	comp=Z,2μmcomp=Z,119nm,0.5s						
MASI	**Maura Aman, Be**	**10.92**	**142**	P	**Pn**	**18 35 46.0**	**+2.3**
	comp=Z,155nm,1.1s						
LHSI	**Lahat**	**12.26**	**139**	P	**Pn**	**18 36 02.8**	**+0.8**
	comp=Z,2μmcomp=Z,115nm,0.8s						
MNAI	**Manna**	**12.31**	**143**	P	**Pn**	**18 36 03.7**	**+0.9**
MNAI	**Manna**	**12.31**	**143**		**Pn**	**18 36 02.8**	**0.0**
MNAI	**Manna**	**12.31**	**143**	P	**Pn**	**18 36 03.8**	**+0.9**
MDSI	**Maura Dua**	**13.18**	**139**	P	**Pn**	**18 36 13.9**	**-0.7**
	comp=Z,82nm,0.8s						
CM31	**Chiang Mai Arr**	**13.22**	**14**		**Pn**	**18 36 14.8**	**-0.4**
CMAR	**Chiang Mai Arr**	**13.22**	**14**	Pn	**Pn**	**18 36 19.5**	**+4.3**
	comp=Z,0.3nm,0.3s,baz=191,slow=14,SNR=13						
CMAR				Lg	Lg	18 40 06.7	
	comp=Z,0.5nm,0.3s,baz=194,slow=32,SNR=7.0						
CMAR				LR	LR	18 41 49.6	
	comp=Z,1μm,18.4s,baz=200,slow=39						
	comp=Z,1.3nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**13.22**	**14**	P	**Pn**	**18 36 14.2**	**-1.0**
CMAR	**Chiang Mai Arr**	**13.22**	**14**		**Pn**	**18 36 14.2**	**-1.0**
CHTO	**Chiang Mai**	**13.57**	**14**	P	**P**	**18 36 31.3**	**+2.6**
CHTO	**Chiang Mai**	**13.57**	**14**	P	**Pn**	**18 36 19.5**	**-0.4**
CHTO	**Chiang Mai**	**13.57**	**14**		**Pn**	**18 36 19.5**	**-0.4**
CHTO	**Chiang Mai**	**13.57**	**14**	P	**Pn**	**18 36 22.4**	**+2.5**
	comp=Z,42nm,0.9s						
NPW	**Naypyitaw**	**14.13**	**2**	P	**Pn**	**18 36 30.8**	**+3.2**
	comp=Z,70nm,1.1s						
DLV	**Lat**	**14.24**	**63**	P	**P**	**18 36 34.9**	**-1.5**
DLV	**Lat**	**14.24**	**63**	Pn	**Pn**	**18 36 25.6**	**-3.7**
TPI	**Tanjungpandan**	**14.63**	**124**	P	**Pn**	**18 36 36.8**	**+2.4**
CMAI	**Chiengmai2**	**14.67**	**13**	P	**P**	**18 36 37.8**	**-3.3**
PALK	**Pallekele**	**14.87**	**277**	Pn	**Pn**	**18 36 36.9**	**-0.9**
	comp=Z,1.1nm,0.3s,baz=96,slow=16,SNR=8.4						
PALK				Sn	Sn	18 39 02.8	-19
	comp=Z,0.5nm,0.3s,baz=68,slow=11,SNR=1.4						
PALK				LR	LR	18 42 05.7	
	comp=Z,792nm,20.7s,baz=80,slow=36						
	comp=Z,8.7nm,0.8s						
PALK				AML	AML		
PALK	**Pallekele**	**14.87**	**277**	P	**Pn**	**18 36 38.7**	**+0.9**
PALK	**Pallekele**	**14.87**	**277**	Pn	**Pn**	**18 36 38.7**	**+0.9**
PALK	**Pallekele**	**14.87**	**277**	P	**Pn**	**18 36 40.1**	**+2.3**
MALK	**Mahakanadarawa**	**15.18**	**282**	P	**Pn**	**18 36 41.3**	**-0.5**
	comp=Z,35nm,0.9s						
CGJI	**Cibinong**	**15.76**	**140**	P	**P**	**18 36 51.6**	**-1.5**
	comp=Z,81nm,0.8s						
STKI	**Sintang**	**16.79**	**108**	P	**P**	**18 37 05.5**	**+0.9**
MDRS	**Chennai**	**16.85**	**297**	*i* P	**P**	**18 37 06.6**	**+1.4**
MDRS				IAmb	IAmb	18 37 14.5	
	comp=Z,53nm,1.1s						
LEM	**Lembang**	**17.21**	**136**	LR	LR	18 43 39.3	
	comp=Z,3μm,18.1s,baz=282,slow=37						
BWNR	**Bhubaneshwar**	**17.40**	**328**	*i* P	**P**	**18 37 15.6**	**+4.3**
BWNR				IAMs_20	IAMs_20	18 43 42.8	
	comp=Z,2μm,19.4s						
BRDH	**Bariadhala**	**17.43**	**348**	LR	LR	18 45 23.6	
	comp=Z,1μm,20.7s,baz=168,slow=42						
SLVN	**Son La**	**17.63**	**26**		**Pn**	**18 37 10.7**	**-2.4**
SLVN	**Son La**	**17.63**	**26**	P	**P**	**18 37 16.5**	**+2.7**
	comp=Z,24nm,1.1s						
BBJI	**Bungbulang**	**17.69**	**137**	P	**Pn**	**18 37 12.5**	**-1.3**
BBJI	**Bungbulang**	**17.69**	**137**	Pn	**Pn**	**18 37 10.7**	**-3.1**
COCO	**West Island**	**17.69**	**176**	P	**Pn**	**18 37 13.4**	**-0.3**
COCO				pmax	pmax		
	comp=Z,750nm,1.8s						
COCO	**West Island**	**17.69**	**176**	P	**Pn**	**18 37 13.4**	**-0.3**
COCO	**West Island**	**17.69**	**176**	P	**Pn**	**18 37 13.0**	**-0.7**
	comp=Z,246nm,1.1s						
RAGD	**RAYAGADA**	**18.00**	**320**	*i* P	**P**	**18 37 21.0**	**+3.0**
RAGD				IAmb	IAmb	18 37 33.7	
	comp=Z,22nm,0.9s						
RAGD				IAMs_20	IAMs_20	18 44 52.9	
	comp=Z,2μm,18.1s						
SALM	**Salem**	**18.24**	**291**	*i* P	**P**	**18 37 20.5**	**-0.2**
AZL	**Aizawl**	**18.28**	**352**	*i* P	**Pn**	**18 37 20.2**	**-0.8**
AZL				IAmb	IAmb	18 37 37.4	
	comp=Z,38nm,1.1s						
KOD	**Kodaikanal**	**18.52**	**286**	*i* P	**P**	**18 37 22.0**	**-2.0**
MORE	**Moreh**	**18.60**	**356**	P	**P**	**18 37 21.9**	**-2.6**
IMP	**Imphal**	**19.21**	**356**	*i* P	**P**	**18 37 30.1**	**-1.2**
IMP				*i* S	S	18 41 30.4	+23
QIZ	**Qiongzhong**	**19.30**	**45**	P	**P**	**18 37 31.4**	**-0.8**
QIZ				S	**Sn**	**18 41 05.8**	**-3.4**
QIZ				LR	LR		
	comp=N,6μm,11.6s						
QIZ				LR	LR		
	comp=E,3μm,10.6s						
QIZ				LR	LR		
	comp=Z,1μm,10.0s						
TNCH	**TengChong**	**19.55**	**8**	P	**Pn**	**18 37 39.0**	**+2.5**
TNCH				pmax	pmax		
	comp=Z,24nm,0.8s						
TNCH				L	L		
	comp=Z,1μm,10.7s						
TNCH				L	L		
	comp=Z,3μm,9.3s						
TNCH				L	L		
	comp=Z,2μm,11.4s						
KOHI	**KOHIMA**	**20.09**	**356**	*i* P	**P**	**18 37 38.5**	**-2.4**
KOHI				IAmb	IAmb	18 37 54.5	
	comp=Z,52nm,0.6s						
SHL	**Shillong**	**20.20**	**350**	P	**P**	**18 37 39.8**	**-2.3**
SHL				pmax	pmax		
	comp=Z,29nm,1.0s						
SHL	**Shillong**	**20.20**	**350**		**P**	**18 37 39.8**	**-2.3**
SHL	**Shillong**	**20.20**	**350**	*i* P	**P**	**18 37 40.8**	**-1.3**
SHL				IAmb	IAmb	18 37 51.3	
	comp=Z,16nm,0.7s						
BOK	**Bokaro**	**20.38**	**334**	*i* P	Pn	18 37 45.7	-0.4
HYB	**Hyderabad**	**20.39**	**307**	*e*P	Pn	18 37 47.4	+1.1
HYB				IVmB_BB		18 37 57.3	
	comp=Z,391nm,0.9s						
HYB				*e*S	Sn	18 41 33.1	-2.5
HYB				IVMs_BB	IVMs_BB	18 46 09.8	
	comp=Z,366nm,18.1s						
HYB	**Hyderabad**	**20.39**	**307**	*i* P	Pn	18 37 45.1	-1.3
KKM	**Kota Kinabalu**	**20.54**	**88**	P	Pn	18 37 49.9	+1.7
KKM	**Kota Kinabalu**	**20.54**	**88**		**P**	**18 37 42.5**	**-3.4**
KKM				IAmb	IAmb	18 37 51.9	
	comp=Z,93nm,0.8s						
KKM	**Kota Kinabalu**	**20.54**	**88**	P	Pn	18 37 49.2	+1.0
	comp=Z,2μmcomp=Z,173nm,1.0s						
KKM	**Kota Kinabalu**	**20.54**	**88**	P	Pn	18 37 47.7	-0.5
	comp=Z,173nm,1.0s						
KMI2	**Kunming**	**20.65**	**19**	P	Pn	18 37 52.4	+3.0
KMI2				S	Sn	18 41 41.8	-0.1
KMI2				SS	**SnSn**	**18 42 04.1**	**+7.0**
KMI2				pmax	pmax		
	comp=Z,17nm,1.1s						
KMI2				L	L		
	comp=Z,2μm,14.4s						
KMI2				L	L		
	comp=Z,5μm,14.5s						
KMI2				L	L		
	comp=Z,2μm,17.5s						
SNJI	**Sawahan-Nganju**	**20.89**	**129**	P	Pn	18 37 52.7	+0.3
PWJI	**Pagerwojo**	**21.08**	**130**	P	**P**	**18 37 54.4**	**+2.8**
ITAN	**ITANAGAR**	**21.53**	**356**	*i* P	**P**	**18 37 53.3**	**-2.9**
ITAN				IAmb	IAmb	18 38 03.2	
	comp=Z,102nm,0.8s						
GAYA	**Gaya**	**21.55**	**334**	*i* P	**P**	**18 37 55.9**	**-0.6**
GAYA				IAMs_20	IAMs_20	18 45 50.0	
	comp=Z,1μm,23.3s						
PZH	**PanZhiHua**	**21.63**	**15**	P	**P**	**18 38 03.4**	**+5.8**
PZH				pmax	pmax		
	comp=Z,30nm,1.1s						
PZH				L	L		
	comp=Z,2μm,14.9s						
PZH				L	L		
	comp=Z,3μm,12.9s						
PZH				L	L		
	comp=Z,1μm,11.8s						
NGP	**Nagpur**	**22.30**	**316**	*i* P	**P**	**18 38 04.2**	**-0.4**
BLJI	**Banyuglugur**	**22.32**	**126**	P	**P**	**18 38 07.0**	**+2.1**
	comp=Z,1μmcomp=Z,122nm,1.0s						
BKB	**Balikpapan**	**22.35**	**107**	P	**P**	**18 38 03.6**	**-1.7**
BKB	**Balikpapan**	**22.35**	**107**	P	**P**	**18 38 05.4**	**+0.2**
	comp=Z,110nm,1.7s						
JAGI	**Jajag, Banyuwa**	**23.19**	**127**	P	**P**	**18 38 16.0**	**+1.9**
JAGI	**Jajag, Banyuwa**	**23.19**	**127**	P	**P**	**18 38 13.3**	**-0.8**
JAGI				IAmb	IAmb	18 38 33.1	
	comp=Z,36nm,1.0s						
GYA	**Guiyang**	**23.32**	**26**	⇑P	**P**	**18 38 20.5**	**+5.2**
GYA				S	**S**	**18 42 22.8**	**-3.9**
GYA				pmax	pmax		
	comp=Z,13nm,0.8s						
GYA				pmax	pmax		
	comp=Z,950nm,4.7s						
GYA				L	L		
	comp=Z,2μm,12.7s						
GYA				L	L		
	comp=Z,3μm,15.0s						
GYA				L	L		
	comp=Z,1μm,13.1s						
AKL	**Akola**	**23.47**	**312**	*i* P	**P**	**18 38 15.3**	**-1.5**
AKL				IAmb	IAmb	18 38 27.6	
	comp=Z,43nm,1.1s						
AKL				*i* S	Sn	18 42 48.6	-0.7
AKL				IAMs_20	IAMs_20	18 49 29.7	
	comp=Z,1μm,14.0s						
EVN	**Everest**	**23.77**	**340**		**P**	**18 38 18.7**	**-1.6**
EVN	**Everest**	**23.77**	**340**	P	**P**	**18 38 19.9**	**-0.4**
	comp=Z,9.4nm,0.7s						
RTBI	**Rangdo, Negare**	**23.82**	**126**	P	**P**	**18 38 21.9**	**+1.7**
SRBI	**Singaraja**	**23.83**	**125**	P	**P**	**18 38 22.2**	**+2.0**
KHKI	**Kahang-Kahang**	**24.31**	**125**	P	**P**	**18 38 26.7**	**+2.0**

PLAI Plampang 26.36 123 P P 18 38 44.2 +0.9
H08S2 Diego Garcia H 26.50 241 T T 19 05 45.4
baz=60,slow=75,SNR=1438
H08S3 Diego Garcia H 26.50 241 T T 19 05 53.0
baz=60,slow=75,SNR=2814
H08S1 Diego Garcia H 26.52 241 T T 19 05 54.3
baz=60,slow=75,SNR=448
ENH Enshi 27.85 26 P P 18 38 55.0 -1.6
ENH IAmb IAmb 18 39 16.8
comp=Z,60nm,1.8s
ENH Enshi 27.85 26 P P 18 38 58.9 +2.2
comp=Z,21nm,0.8s
LUWI Luwuk 27.95 103 P 18 38 56.3 -1.4
LUWI Luwuk 27.95 103 P P 18 38 58.7 +1.1
comp=Z,73nm,1.2s
PTH Pithoragarh 27.95 330 *i* P P 18 38 54.4 -3.3
PTH IAmb IAmb 18 39 24.5
comp=Z,23nm,1.1s
PTH IAMs_20 IAMs_20 18 52 23.8
comp=Z,835nm,18.5s
UDPR Udaipur 28.25 314 *i* P P 18 38 57.9 -2.3
DAV Davao City (W) 29.86 86 LR LR 18 53 14.8
comp=Z,699nm,19.0s,baz=268,slow=40
MMRI Maumere 30.10 118 P P 18 39 14.2 -2.5
MMRI IAmb IAmb 18 39 16.3
comp=Z,17nm,1.0s
WHN Wuhan 30.48 33 P P 18 39 19.0 -1.0
GOMU GeErMu 30.49 359 P P 18 39 23.6 +3.2
SMLA Simla 30.74 328 *i* P P 18 39 19.1 -3.1
XAN Xi'an 30.92 22 P P 18 39 26.5 +2.7
XAN S S 18 44 30.8 +4.0
XAN pmax pmax
comp=Z,23nm,0.9s
XAN pmax pmax
comp=Z,680nm,4.6s
XAN L L
comp=Z,3μm,12.2s
XAN L L
comp=Z,2μm,14.4s
LZDM Lanzhou Array 31.15 13 P P 18 39 29.3 +3.1
comp=Z,3.6nm,0.5s,baz=177,slow=9.9,SNR=5.1
comp=Z,3.6nm,0.5s
SANI Sanana 31.31 103 P P 18 39 27.5 +0.1
comp=Z,10nm,1.0s
TNTI Ternate 32.09 97 P P 18 39 32.1 -2.2
SOEI Soe 32.39 118 P P 18 39 37.5 +0.4
SOEI Soe 32.39 118 P P 18 39 34.4 -2.7
SOEI Soe 32.39 118 P P 18 39 35.1 -2.0
comp=Z,29nm,0.8s
ALCI Alchi Leh 33.21 331 *i* P P 18 39 40.4 -4.0
ALCI IAmb IAmb 18 40 23.7
comp=Z,7.6nm,0.6s
GIRL Giralia 33.46 148 P P 18 39 46.5 +0.3
GTA2 Gaotai 33.98 6 *e*P P 18 39 52.8 +2.1
GTA2 S S 18 45 20.8 +6.3
GTA2 pmax pmax
comp=Z,5.0nm,0.9s
GTA2 L L
comp=Z,450nm,14.3s
GTA2 L L
comp=Z,980nm,14.3s
GTA2 L L
comp=Z,490nm,14.6s
NJ2 Nanjing 34.18 37 *e*P P 18 39 53.3 +1.0
NJ2 pmax pmax
comp=Z,9.0nm,0.7s
NJ2 pmax pmax
comp=Z,610nm,6.2s
NJ2 L L
comp=Z,3μm,16.6s
NJ2 L L
comp=Z,1μm,14.2s
NIL Nilore 34.79 326 P P 18 39 57.5 -0.2
NIL pmax pmax
comp=Z,28nm,0.8s
NIL Nilore 34.79 326 P P 18 39 57.5 -0.2
NIL Nilore 34.79 326 P P 18 39 57.9 +0.2
comp=Z,44nm,0.8s
NIL pP sP 18 40 07.3 -0.8
SSE Sheshan 34.97 40 P P 18 39 58.5 -0.7
SSE S S 18 45 28.3 -1.4
SSE pmax pmax
comp=Z,6.0nm,0.8s
SSE pmax pmax
comp=Z,210nm,4.1s
SSE LR LR
comp=N,1μm,15.8s
SSE LR LR
comp=E,930nm,16.0s
MBWA Marble Bar 35.60 139 P P 18 40 04.3 -0.4
HNS HongShan 36.18 26 ⇑P P 18 40 14.5 +5.0
HNS S S 18 45 57.3 +9.2
HNS pmax pmax
comp=E,37nm,1.0s
HNS L L
comp=E,440nm,15.9s
HNS L L
comp=E,1μm,15.9s
HNS L L
comp=E,870nm,16.7s
SIJI Sorong 36.21 99 LR LR 18 56 28.4
comp=E,251nm,20.4s,baz=40,slow=38
BTO2 Baotou 37.30 18 *e*P P 18 40 22.3 +3.1
BTO2 pP sP 18 40 31.8 +2.6
BTO2 sP pP 18 40 36.3 +10
BTO2 pmax pmax
comp=E,27nm,0.8s
BTO2 pmax pmax
comp=E,260nm,4.2s
BTO2 L L
comp=E,3μm,14.4s
FAKI Fak Fak 37.59 102 P P 18 40 22.2 +0.3
FAKI Fak Fak 37.59 102 P P 18 40 19.2 -2.7
FAKI IAmb IAmb 18 40 31.8
comp=Z,47nm,1.7s
FAKI Fak Fak 37.59 102 P P 18 40 22.3 +0.4
comp=Z,12nm,0.9s
JOW Kunigami 37.66 52 LR LR 18 56 11.6
comp=Z,450nm,19.2s,baz=246,slow=36
JOW Kunigami 37.66 52 P P 18 40 20.1 -2.2
FITZ Fitzroy Crossi 37.86 129 P P 18 40 24.0 0.0
FITZ Fitzroy Crossi 37.86 129 LR LR 18 56 37.0
comp=Z,814nm,20.3s,baz=308,slow=37
FITZ Fitzroy Crossi 37.86 129 P P 18 40 22.7 -1.3
FITZ Fitzroy Crossi 37.86 129 P P 18 40 23.0 -1.0
comp=Z,4.7nm,0.7s
KBL Kabul 37.86 323 P P 18 40 23.2 -0.9
KBL pmax pmax
comp=Z,7.0nm,1.1s
KBL Kabul 37.86 323 P P 18 40 23.2 -0.9
HHC Hu-ho-hao-te 37.94 20 *e*P P 18 40 28.5 +3.9
HHC S S 18 46 18.6 +3.5
HHC pmax pmax
comp=Z,8.0nm,1.0s
HHC pmax pmax
comp=Z,140nm,3.7s
HHC L L
comp=Z,1μm,12.2s
HHC L L
comp=Z,1μm,12.2s
HHC L L
comp=Z,820nm,13.0s
KSH2 Kashi 38.01 334 P P 18 40 25.5 +0.2
KSH2 L L
comp=Z,330nm,16.1s
KSH2 L L
comp=Z,660nm,19.2s
KSH2 L L
comp=Z,700nm,19.9s
WUS Wushi 38.37 340 P P 18 40 28.4 +0.1
WUS IAmb IAmb 18 40 55.7
comp=Z,12nm,0.7s
WUS Wushi 38.37 340 P P 18 40 28.9 +0.6
comp=Z,17nm,1.1s
WMQ Urumqi 38.72 351 *e*P P 18 40 33.4 +2.3
WMQ L L
comp=Z,340nm,16.7s
WMQ L L
comp=Z,510nm,23.7s
BJT Baijiatuan 38.99 25 P P 18 40 31.8 -1.5
BJT pmax pmax
comp=Z,28nm,0.9s
BJT Baijiatuan 38.99 25 P P 18 40 31.8 -1.5
BJT IAmb IAmb 18 40 48.0
comp=Z,28nm,0.9s
BJT Baijiatuan 38.99 25 P P 18 40 34.9 +1.7
comp=Z,41nm,1.0s
BJI2 Beijing 38.99 25 P P 18 40 35.4 +2.1
BJI2 S S 18 46 30.0 -0.8
BJI2 pmax pmax
comp=Z,9.0nm,0.7s
BJI2 L L
comp=Z,540nm,18.1s
BJI2 L L
comp=Z,810nm,18.0s
BJI2 L L
comp=Z,750nm,16.9s
MEEK Meekatharra 39.03 146 P P 18 40 32.2 -1.7
comp=Z,9.6nm,1.5s
KNRA Kununurra 39.06 123 P P 18 40 32.9 -1.2
KNRA IAmb IAmb 18 40 40.0
comp=Z,57nm,1.9s
ASAI AK-SAY(Kyrgyzs 39.12 337 P P 18 40 35.4 +0.6
comp=Z,6.0nm,0.8s
TARG Taragay, Kyrgy 39.34 339 P P 18 40 35.9 -0.8
TARG pmax pmax
comp=Z,8.0nm,0.7s
TARG Taragay, Kyrgy 39.34 339 P P 18 40 35.9 -0.8
TARG Taragay, Kyrgy 39.34 339 P P 18 40 37.5 +0.8
comp=Z,8.4nm,0.9s
MORW Morawa 39.67 151 P P 18 40 38.6 -0.5
comp=Z,17nm,1.0s
MORW Morawa 39.67 151 P P 18 40 41.0 +1.9
MORW Morawa 39.67 151 P P 18 40 41.0 +1.9
NRN Naryn 39.76 337 P P 18 40 39.4 -0.7
NRN pmax pmax
comp=Z,15nm,1.4s
NRN Naryn 39.76 337 P P 18 40 39.4 -0.7
MTN Manton Dam 39.79 118 P P 18 40 39.7 -0.6
comp=Z,11nm,0.6s
MTN Manton Dam 39.79 118 P P 18 40 39.4 -0.9
comp=Z,11nm,0.6s
MTN Manton Dam 39.79 118 P P 18 40 39.5 -0.8
comp=Z,11nm,0.6s
MTN Manton Dam 39.79 118 P P 18 40 38.6 -1.6
DRK Karamyk 40.00 331 P P 18 40 42.1 0.0
DRK pmax pmax
comp=Z,68nm,0.6s
DRK Karamyk 40.00 331 P 18 40 42.0 0.0
DRK Karamyk 40.00 331 P P 18 40 43.3 +1.1
comp=Z,101nm,0.7s
PDGK Podgornoye 40.20 342 P P 18 40 42.9 -0.6
PDGK Podgornoye 40.20 342 P P 18 40 42.9 -0.6
OHH Osh 40.37 333 P P 18 40 44.0 -0.9
comp=Z,17nm,0.8s
BOOM Boomskoye usch 40.69 338 P P 18 40 48.2 +0.6
BOOM pmax pmax
comp=Z,9.0nm,0.8s
BOOM Boomskoye usch 40.69 338 P P 18 40 48.2 +0.6
DL2 Dalian 40.71 32 P P 18 40 49.8 +2.2
DL2 S S 18 47 00.0 +3.4
DL2 pmax pmax
comp=Z,49nm,1.3s
DL2 pmax pmax
comp=Z,240nm,11.0s
DL2 L L
comp=Z,1μm,17.2s
DL2 L L
comp=Z,2μm,15.7s
DL2 L L
comp=Z,1μm,14.7s
ARSB Arslanbob 40.92 334 P P 18 40 48.1 -1.4
ARSB pmax pmax
comp=Z,35nm,1.1s
ARSB Arslanbob 40.92 334 P P 18 40 48.1 -1.4
ARSB IAmb IAmb 18 41 38.3
comp=Z,35nm,1.1s
BTK Batken 40.93 331 P P 18 40 48.6 -0.9
BTK pmax pmax
comp=Z,26nm,1.0s
BTK Batken 40.93 331 P 18 40 48.6 -0.9
BTK IAmb IAmb 18 41 03.4
comp=Z,26nm,1.0s
BTK Batken 40.93 331 P P 18 40 51.1 +1.5
comp=Z,25nm,0.8s
BLDU Ballidu 41.28 152 P P 18 40 54.3 +1.9
AAK Ala-Archa 41.38 336 LR LR 18 59 27.6
comp=Z,848nm,21.9s,baz=158,slow=38
AAK Ala-Archa 41.38 336 *ce*P P 18 40 51.5 -1.7
AAK pmax pmax
comp=Z,9.0nm,1.3s
AAK Ala-Archa 41.38 336 P P 18 40 52.5 -0.7
AAK Ala-Archa 41.38 336 P P 18 40 55.0 +1.8
comp=Z,11nm,1.2s
XLT XiLinHaoTe 42.22 22 *e*P P 18 41 07.4 +7.3
XLT pmax pmax
comp=Z,21nm,1.1s
XLT L L
comp=Z,2μm,22.5s
XLT L L
comp=Z,1μm,13.4s
TJN Taejon 42.29 39 P P 18 40 58.8 -1.8
TJN pmax pmax
comp=Z,427nm,2.0s
TJN Taejon 42.29 39 P P 18 40 58.8 -1.8
JTU Tsushima 42.52 43 P P 18 41 00.4 -2.0
KLBR Kellerberrin 42.59 152 P P 18 41 03.9 +0.8
comp=Z,45nm,0.8s
KLBR Kellerberrin 42.59 152 P P 18 41 03.5 +0.5
comp=Z,45nm,0.8s
KLBR Kellerberrin 42.59 152 P P 18 41 04.7 +1.6
KLBR Kellerberrin 42.59 152 P P 18 41 03.0 -0.1
comp=Z,45nm,0.8s
KLBR pP pP 18 41 12.0 +1.3
MK31 Makanchi Array 42.64 347 *ce*P P 18 41 01.9 -1.4
MKAR Makanchi Array 42.64 347 P P 18 41 06.8 +3.4
comp=Z,3.0nm,0.7s,baz=165,slow=7.8,SNR=15
MKAR LR LR 19 03 49.8
comp=Z,203nm,18.2s,baz=161,slow=43
comp=Z,3.0nm,0.7s
MKAR Makanchi Array 42.64 347 P P 18 41 01.8 -1.5
MKAR Makanchi Array 42.64 347 P P 18 41 01.8 -1.5
MAKZ Makanchi 42.73 346 P P 18 41 02.4 -1.6
MAKZ pmax pmax
comp=Z,8.0nm,1.1s
MAKZ Makanchi 42.73 346 P P 18 41 02.4 -1.6
MAKZ Makanchi 42.73 346 P P 18 41 03.7 -0.3
comp=Z,6.8nm,0.7s
JNU Nakatsue 42.77 46 LR LR 18 59 50.2
comp=Z,679nm,20.1s,baz=238,slow=37
SONM Songino Array 43.12 11 P P 18 41 08.8 +1.5
comp=Z,1.9nm,0.8s,baz=182,slow=8.7,SNR=15
SONM PcP PcP 18 42 58.2 +1.4
comp=Z,0.8nm,0.6s,baz=178,slow=4.6,SNR=1.1
SONM LR LR 19 00 27.4
comp=Z,513nm,18.4s,baz=186,slow=38
comp=Z,1.9nm,0.8s
SONM Songino Array 43.12 11 P P 18 41 05.0 -2.4
ULN Ulaanbaatar 43.27 11 P P 18 41 06.3 -2.3
ULN *PP pP 18 41 07.4 -8.4
ULN Ulaanbaatar 43.27 11 P P 18 41 06.3 -2.3
ULN pP 18 41 07.4 -8.4
KSAR Wonju Array Be 43.29 38 P P 18 41 06.3 -2.4
KSAR Wonju Array Be 43.29 38 P P 18 41 06.3 -2.4
KS19 Wonju Array Si 43.31 38 P P 18 41 06.7 -2.2
KS19 IAmb IAmb 18 41 06.8
comp=Z,65nm,2.0s
KSRS Korea Array 43.32 38 P P 18 41 10.8 +1.9
comp=Z,2.8nm,0.9s,baz=221,slow=7.5,SNR=9.8
KSRS LR LR 18 59 30.4
comp=Z,382nm,18.8s,baz=205,slow=36
comp=Z,2.8nm,0.9s
KK31 Karatay Array 43.45 333 P P 18 41 08.8 -1.2
KK31 pmax pmax
comp=Z,8.0nm,0.7s
KK31 Karatay Array 43.45 333 P 18 41 08.8 -1.2
KKAR Karatay Array 43.45 333 P P 18 41 09.1 -0.8
KKAR Karatay Array 43.45 333 P P 18 41 09.1 -0.8
NWAO Narrogin (SRO) 43.46 153 P P 18 41 18.9 +8.8
NWAO Narrogin (SRO) 43.46 153 LR LR 18 58 09.6
comp=Z,393nm,20.8s,baz=288,slow=35
NWAO Narrogin (SRO) 43.46 153 P P 18 41 11.6 +1.5
NWAO Narrogin (SRO) 43.46 153 P P 18 41 08.3 -1.8
NWAO pmax pmax
comp=Z,26nm,1.0s
NWAO Narrogin (SRO) 43.46 153 P P 18 41 08.3 -1.8
NWAO IAmb IAmb 18 41 19.4
comp=Z,26nm,1.0s
SNY Shenyang 43.88 30 P P 18 41 20.1 +6.8
SNY S S 18 47 50.6 +7.4
SNY pmax pmax
comp=Z,16nm,0.7s
SNY pmax pmax
comp=Z,120nm,3.6s
SNY L L
comp=Z,880nm,17.1s
SNY L L
comp=Z,750nm,18.0s
SNY L L
comp=Z,600nm,16.4s
WRKA Warakurna 44.03 135 P P 18 41 15.8 +0.9
comp=Z,5.8nm,1.8s
WRKA Warakurna 44.03 135 P P 18 41 15.1 +0.2
comp=Z,5.7nm,1.8s
KNGR Kungurtug, Tuv 44.91 2 *i* P P 18 41 19.3 -2.4
KNGR pmax pmax
comp=Z,5.0nm,0.9s
JMN Monobe 45.23 47 P P 18 41 21.1 -3.3
WRA Warramunga Arr 45.78 125 P P 18 41 29.6 +0.7
comp=Z,19nm,0.8s,baz=303,slow=9.2,SNR=24
WRA PcP PcP 18 43 07.7 +1.3
comp=Z,2.1nm,0.7s,baz=302,slow=3.4,SNR=2.1
WRA ScP ScP 18 46 58.6 +0.5
comp=Z,0.9nm,0.9s,baz=297,slow=3.2,SNR=3.9
comp=Z,19nm,0.8s
WRA Warramunga Arr 45.78 125 *i* P P 18 41 27.6 -1.3
WRA pmax pmax
comp=Z,21nm,0.7s
WRA Warramunga Arr 45.78 125 P P 18 41 26.4 -2.5
WRAB Tennant Creek 45.78 125 P P 18 41 29.4 +0.5
WRAB Tennant Creek 45.78 125 *i* P P 18 41 29.1 +0.2
WRAB pmax pmax
comp=Z,29nm,0.9s
WRAB Tennant Creek 45.78 125 P P 18 41 29.0 +0.1
WRAB Tennant Creek 45.78 125 P P 18 41 28.8 -0.2
comp=Z,42nm,0.8s
WRAB pP pP 18 41 37.1 +0.6
WR8 Warramunga Arr 45.92 125 P 18 41 29.9 0.0
CN2 Changchun 46.26 30 *e*P P 18 41 33.6 +1.3
CN2 *es*P sP 18 41 48.8 +6.0
CN2 *e*S S 18 48 15.9 -1.7
CN2 pmax pmax
comp=Z,10.0nm,0.6s
CN2 pmax pmax
comp=Z,100nm,4.0s
CN2 L L
comp=Z,200nm,13.0s
CN2 L L
comp=Z,200nm,13.0s
CN2 L L
comp=Z,300nm,12.0s
TLY Talaya 46.45 7 *i* P P 18 41 31.0 -2.7
TLY pmax pmax
comp=Z,7.0nm,0.8s
KURBB Kurchatov Arra 47.12 345 P P 18 41 39.8 +1.0
comp=Z,1.6nm,1.0s,baz=169,slow=6.7,SNR=9.2
KURBB LR LR 19 04 23.3
comp=Z,298nm,21.6s,baz=182,slow=40
comp=Z,1.6nm,1.0s
KURK Kurchatov 47.18 345 P P 18 41 39.3 -0.1
KURK pmax pmax
comp=Z,6.0nm,0.6s
KURK Kurchatov 47.18 345 P P 18 41 39.3 -0.1
KURK IAmb IAmb 18 42 08.8
comp=Z,5.5nm,0.6s
KURK Kurchatov 47.18 345 P P 18 41 41.0 +1.6
comp=Z,8.5nm,0.7s
RER Riviere de l'E 47.24 235 P P 18 41 42.5 +2.1
AS15 Alice Springs 47.35 129 P P 18 41 42.3 +1.1
comp=Z,76nm,0.7s
AS15 Alice Springs 47.35 129 P P 18 41 42.1 +0.9
comp=Z,76nm,0.7s
AS31 Alice Springs 47.36 129 P P 18 41 42.4 +1.1
AS31 Alice Springs 47.36 129 P P 18 41 42.0 +0.8
AS31 Alice Springs 47.36 129 P 18 41 41.4 +0.1
ASAR Alice Springs 47.36 129 P P 18 41 42.3 +1.1
comp=Z,50nm,0.6s,baz=299,slow=7.6,SNR=1022
ASAR PcP PcP 18 43 12.8 +0.9
comp=Z,4.4nm,0.8s,baz=296,slow=3.3,SNR=4.5
ASAR ScP ScP 18 47 05.2 +0.5
comp=Z,0.9nm,1.0s,baz=261,slow=4.2,SNR=4.7
ASAR LR LR 19 03 38.7
comp=Z,521nm,19.9s,baz=295,slow=39
ASAR Alice Springs 47.36 129 P P 18 41 41.5 +0.2
ASAR 18 43 12.8
ASAR Alice Springs 47.36 129 P P 18 41 41.5 +0.2
AS01 Alice Springs 47.39 129 P P 18 41 42.4 +0.9
AS09 Alice Springs 47.41 129 P P 18 41 42.8 +1.2
comp=Z,84nm,0.7s
AS17 Alice Springs 47.42 129 P P 18 41 42.9 +1.1
comp=Z,92nm,0.7s
FORT Forrest 47.66 141 P P 18 41 45.4 +2.0
comp=Z,23nm,0.8s
FORT Forrest 47.66 141 P P 18 41 44.8 +1.3
comp=Z,23nm,0.8s
FORT Forrest 47.66 141 P P 18 41 44.1 +0.7
HIA Hailar 48.11 21 P P 18 41 45.3 -1.4
HIA pmax pmax
comp=Z,13nm,1.0s
HIA Hailar 48.11 21 P P 18 41 45.2 -1.4
HIA IAmb IAmb 18 42 06.5
comp=Z,12nm,1.0s
HILR Hailar Array B 48.36 21 P P 18 41 51.8 +3.3
comp=Z,0.7nm,0.3s,baz=202,slow=7.5,SNR=4.7
comp=Z,0.7nm,0.3s
MDJ Mudanjiang 48.95 32 P P 18 41 50.5 -2.7
MDJ IAmb IAmb 18 42 07.4
comp=Z,17nm,1.0s
MDJ Mudanjiang 48.95 32 P P 18 41 56.0 +2.8
comp=Z,18nm,1.0s
ZAA0 Zalesovo Array 49.02 352 P 18 41 52.8 -0.8
ZAA0 IAmb IAmb 18 42 16.7
comp=Z,10nm,0.8s
ZALV Zalesovo Beam 49.02 352 P P 18 41 54.7 +1.1
comp=Z,1.6nm,0.8s,baz=174,slow=4.5,SNR=7.0
ZALV LR LR 19 05 34.0
comp=Z,192nm,19.2s,baz=184,slow=40
comp=Z,1.6nm,0.8s
ZALV Zalesovo Beam 49.02 352 P P 18 41 52.2 -1.4
GUMO Guam 49.18 77 LR LR 19 06 43.7
comp=Z,79nm,18.1s,baz=252,slow=41
JCJ Chichijima 49.22 59 LR LR 19 03 30.3
comp=Z,145nm,18.1s,baz=10,slow=37
JHJ Hachijo jima 2 49.37 50 LR LR 19 04 05.5
comp=Z,21nm,18.1s,baz=182,slow=37
MAJO Matsushiro 49.69 46 P P 18 41 56.7 -2.4
MAJO pmax pmax
comp=Z,23nm,1.5s
MAJO Matsushiro 49.69 46 P P 18 41 56.7 -2.4
MAJO IAmb IAmb 18 42 03.1
comp=Z,23nm,1.5s
MJAR Matsushiro Arr 49.70 46 P P 18 42 02.0 +2.9
comp=Z,1.3nm,0.8s,baz=237,slow=9.2,SNR=5.1
MJAR LR LR 19 04 12.1
comp=Z,628nm,20.0s,baz=236,slow=37
comp=Z,1.3nm,0.8s
MJAR Matsushiro Arr 49.70 46 P P 18 41 56.8 -2.3
MJAR pmax pmax
comp=Z,16nm,1.8s
MJAR Matsushiro Arr 49.70 46 P P 18 41 56.8 -2.3
USA0B Ussuriysk Arra 49.98 34 P P 18 41 58.3 -2.7
USA0B pmax pmax
comp=Z,62nm,1.9s
USA0B Ussuriysk Arra 49.98 34 P P 18 41 58.3 -2.7
USRK Ussuriysk Ar. 49.98 34 P P 18 42 04.3 +3.3
comp=Z,1.9nm,0.7s,baz=266,slow=2.7,SNR=6.5
comp=Z,1.9nm,0.7s
USRK Ussuriysk Ar. 49.98 34 P P 18 41 58.6 -2.4
USRK Ussuriysk Ar. 49.98 34 P P 18 41 58.5 -2.4
QIS Mount Isa 50.44 122 P P 18 42 05.7 +0.7
comp=Z,39nm,0.9s
QIS Mount Isa 50.44 122 P P 18 42 05.5 +0.7
comp=Z,39nm,0.9s
QIS Mount Isa 50.44 122 P P 18 42 05.6 +0.7
QIS Mount Isa 50.44 122 P P 18 42 05.6 +0.7
comp=Z,39nm,0.9s
RAYN Ar Rayn 51.34 296 P P 18 42 11.4 -0.4
RAYN pmax pmax
comp=Z,15nm,0.8s
RAYN Ar Rayn 51.34 296 P P 18 42 11.4 -0.4
RAYN IAmb IAmb 18 42 20.9
comp=Z,15nm,0.8s
RAYN Ar Rayn 51.34 296 P P 18 42 11.9 +0.2
comp=Z,26nm,0.9s
RAYN pP pP 18 42 19.7 +0.3
BVAR Borovoye Array 51.62 341 P P 18 42 13.5 +0.3
comp=Z,3.0nm,0.9s,baz=147,slow=8.3,SNR=8.8
comp=Z,3.0nm,0.9s

BORK Borovoye 51.66 341 P **P** 18 42 12.7 -0.9
BORK pmax pmax
comp=Z,7.0nm,0.7s
BORK Borovoye 51.66 341 P **P** 18 42 12.7 -0.9
ATD Arta Tunnel 52.41 280 LR LR 19 01 33.2
comp=Z,6.3nm,21.2s,baz=94,slow=33
AB31 Akbulak array 52.92 331 **P** 18 42 22.6 -0.4
AB31 IAmb IAmb 18 42 32.9
comp=Z,17nm,1.0s
ABKAR Akbulak array 52.92 331 P **P** 18 42 23.1 +0.1
KLR Kul'dur 53.17 29 LR LR 19 06 34.9
comp=Z,490nm,18.3s,baz=222,slow=38
KLR Kul'dur 53.17 29 *i* P **P** 18 42 23.6 -1.2
KLR pmax pmax
comp=Z,8.0nm,1.0s
ABPO Ambohimpanom 53.51 242 P **P** 18 42 29.4 +1.4
ABPO pmax pmax
comp=Z,12nm,1.2s
ABPO Ambohimpanom 53.51 242 P **P** 18 42 29.4 +1.4
ABPO IAmb IAmb 18 43 11.8
comp=Z,12nm,1.1s
PMG Port Moresby 53.52 106 LR LR 19 10 45.2
comp=Z,246nm,18.6s,baz=146,slow=42
PMG Port Moresby 53.52 106 P **P** 18 42 26.9 -1.0
PMG pmax pmax
comp=Z,14nm,1.0s
PMG Port Moresby 53.52 106 P **P** 18 42 26.9 -1.0
PMG IAmb IAmb 18 42 28.7
comp=Z,14nm,1.0s
MTSU Mount Surprise 53.53 117 P **P** 18 42 29.0 +0.9
comp=Z,9.4nm,0.8s
MTSU Mount Surprise 53.53 117 P **P** 18 42 28.3 +0.3
comp=Z,9.4nm,0.8s
MTSU Mount Surprise 53.53 117 P **P** 18 42 28.6 +0.6
comp=Z,9.4nm,0.8s
MTSU pP **sP** 18 42 38.3 -0.4
BBOO Buckleboo 54.16 138 P P 18 42 40.4 +8.0
BBOO Buckleboo 54.16 138 P **P** 18 42 33.0 +0.6
BBOO Buckleboo 54.16 138 P **P** 18 42 32.0 -0.3
BBOO IAmb IAmb 18 42 40.4
comp=Z,25nm,1.2s
INKA Innaminka 54.74 130 **P** 18 42 35.9 -0.7
INKA IAmb IAmb 18 42 47.2
comp=Z,15nm,0.9s
VOI Vohitsoka 55.02 238 P **P** 18 42 39.9 +1.0
CTA Charters Tower 55.95 119 P **P** 18 42 46.5 +1.0
comp=Z,5.7nm,0.9s
CTA Charters Tower 55.95 119 LR LR 19 08 44.6
comp=Z,263nm,20.0s,baz=277,slow=38
CTAO Charters Tower 55.95 119 P **P** 18 42 44.4 -1.1
CTAO pmax pmax
comp=Z,11nm,0.9s
CTAO Charters Tower 55.95 119 P **P** 18 42 44.4 -1.1
CTAO IAmb IAmb 18 42 47.0
comp=Z,11nm,0.8s
ASAJ Asahikawa 56.25 39 LR LR 19 06 18.9
comp=Z,307nm,21.4s,baz=254,slow=35
ASAJ Asahikawa 56.25 39 P **P** 18 42 45.1 -2.1
ASAJ pmax pmax
comp=Z,137nm,1.6s
JKA Kamikawa-asahi 56.25 39 P **P** 18 42 45.1 -2.1
MAK Makhachkala 56.38 319 *c i* P **P** 18 42 43.5 -4.7
MAK *e* PPP PPP 18 46 10.7
MAK *e* S **S** 18 50 32.1 -5.3
MAK *e* SSS SSS 18 56 39.4
MAK pmax pmax
comp=Z,172nm,1.4s
HTT Hallett 56.47 136 P P 18 42 57.2 +8.2
HTT Hallett 56.47 136 P **P** 18 42 50.3 +1.3
HAKT HAKKARI 56.84 312 P **P** 18 42 52.3 +0.4
comp=Z,19nm,1.1s
QLP Quilpie 56.92 127 P **P** 18 42 53.7 +1.4
comp=Z,47nm,0.9s
QLP Quilpie 56.92 127 P **P** 18 42 53.3 +1.0
comp=Z,47nm,0.9s
QLP Quilpie 56.92 127 P **P** 18 42 53.7 +1.4
QLP Quilpie 56.92 127 P **P** 18 42 52.4 +0.1
comp=Z,47nm,0.9s
GNI Garni 57.06 315 LR LR 19 12 02.8
comp=Z,211nm,18.3s,baz=104,slow=41
GNI Garni 57.06 315 *i* P **P** 18 42 53.5 +0.2
GNI pmax pmax
comp=Z,9.0nm,1.0s
KRVT Keravat (AS076 57.23 99 LR LR 19 08 24.7
comp=Z,96nm,20.6s,baz=276,slow=37
STKA Stephens Creek 57.50 133 P **P** 18 42 57.2 +0.9
comp=Z,76nm,1.0s
STKA Stephens Creek 57.50 133 P **P** 18 42 56.7 +0.4
comp=Z,76nm,1.0s
STKA Stephens Creek 57.50 133 P **P** 18 42 56.5 +0.1
comp=Z,8.3nm,0.6s,baz=314,slow=5.1,SNR=34
STKA LR LR 19 10 30.4
comp=Z,407nm,19.9s,baz=302,slow=39
comp=Z,8.3nm,0.6s
STKA Stephens Creek 57.50 133 P **P** 18 42 55.5 -0.8
STKA pmax pmax
comp=Z,63nm,1.0s
STKA Stephens Creek 57.50 133 **P** 18 42 55.5 -0.8
STKA Stephens Creek 57.50 133 P **P** 18 42 55.9 -0.5
comp=Z,77nm,1.0s
YSS Yuzhno-Sakhali 57.75 36 *e* P P 18 43 08.1 +10
YSS pmax pmax
comp=Z,20nm,1.0s
YSS MLR MLR
comp=Z,1μm,13.0s
KIBK Kibwezi 57.99 264 P **P** 18 42 60.0 -0.3
SVE Sverdlovsk 58.05 338 *e* P **P** 18 43 01.2 +1.4
SVE pmax pmax
comp=Z,16nm,1.0s
SVE MLR MLR
comp=Z,1μm,23.0s
GURO Guroymak-BITLI 58.42 312 P **P** 18 43 02.0 -0.9
GURO IAmb IAmb 18 43 20.0
comp=Z,6.7nm,0.8s
ARTI Arti 58.59 337 LR LR 19 10 37.3
comp=Z,612nm,18.9s,baz=143,slow=38
ARTI Arti 58.59 337 *c i* P **P** 18 43 01.9 -1.6
ARTI S **S** 18 51 07.9 +1.8
ARTI SS **SS** 18 54 53.6 -5.5
ARTI pmax pmax
comp=Z,7.0nm,1.2s
ARTI MLR MLR
comp=Z,688nm,21.0s
ARTI Arti 58.59 337 P **P** 18 43 02.9 -0.6
ARTI IAmb IAmb 18 43 39.4
comp=Z,6.8nm,0.7s
KMBO Kilima Mbogo 58.62 265 LR LR 19 04 45.3
comp=Z,239nm,20.4s,baz=106,slow=32
KMBO Kilima Mbogo 58.62 265 P **P** 18 43 04.6 -0.2
KMBO pmax pmax
comp=Z,7.0nm,1.1s
KMBO Kilima Mbogo 58.62 265 P **P** 18 43 04.6 -0.2
KMBO Kilima Mbogo 58.62 265 P **P** 18 43 02.6 -2.1
comp=Z,7.4nm,1.0s
HOMI Horasan 59.04 314 ⇑P **P** 18 43 07.4 +0.1
KBZ Khabaz 59.74 318 P **P** 18 43 12.2 +0.5
comp=Z,6.3nm,0.9s,baz=150,slow=5.2,SNR=13
KBZ LR LR 19 12 50.6
comp=Z,136nm,18.7s,baz=124,slow=40
comp=Z,6.3nm,0.9s
KBZ Khabaz 59.74 318 *i* P **P** 18 43 10.2 -1.5
KBZ pmax pmax
comp=Z,7.0nm,1.0s
SHA1 Shidzhatmaz 59.90 318 *i* P **P** 18 43 11.4 -1.8
KVAR Kislovodsk Arr 59.97 318 LR LR 19 12 37.6
comp=Z,147nm,18.7s,baz=116,slow=40
KIV Kislovodsk 59.97 318 *e* P **P** 18 43 13.0 -0.5
KIV pmax pmax
comp=Z,13nm,1.0s
KIV MLR MLR
comp=Z,95nm,17.0s
KIV Kislovodsk 59.97 318 P **P** 18 43 12.5 -1.0
KIV Kislovodsk 59.97 318 ⇑P **P** 18 43 13.4 -0.1
KIV Kislovodsk 59.97 318 P **P** 18 43 13.7 +0.2
comp=Z,16nm,1.0s
KOPT Kop Dagi 60.04 313 P **P** 18 43 13.4 -0.9
KOPT IAmb IAmb 18 43 27.9
comp=Z,33nm,2.0s
LODK Lodwar 60.04 271 P **P** 18 43 14.4 -0.1
LODK Lodwar 60.04 271 P **P** 18 43 13.3 -1.1
comp=Z,4.9nm,1.4s
CMSA Cobar Meteorol 60.35 131 P **P** 18 43 17.4 +1.3
comp=Z,37nm,1.3s
CMSA Cobar Meteorol 60.35 131 P **P** 18 43 16.0 -0.1
comp=Z,37nm,1.3s
ASF Jabal al Asfar 60.66 304 LR LR 19 11 29.8
comp=Z,85nm,22.0s,baz=88,slow=38
BELG Belogornoye 61.01 329 *i* P **P** 18 43 17.6 -2.6
BELG pmax pmax
comp=Z,3.0nm,0.9s
KEMA Kemaliye 61.27 312 P **P** 18 43 23.3 +0.9
comp=Z,38nm,0.9s
GHAJ Ghor Haditha 61.59 303 P **P** 18 43 23.8 -0.8
GAZ Gaziantep 61.64 309 P **P** 18 43 24.4 -0.5
GAZ IAmb IAmb 18 43 40.0
comp=Z,11nm,1.1s
YAK Yakutsk 61.73 17 LR LR 19 11 00.1
comp=Z,489nm,18.2s,baz=214,slow=37
YAK Yakutsk 61.73 17 *e* P P 18 43 29.7 +4.8
YAK *e* *PP sP 18 43 38.5 +2.9
YAK *e* 18 44 07.3
YAK *e* 18 45 45.5
YAK *e* S **S** 18 51 50.2 +4.0
YAK *e* *SS sS 18 52 07.8 +9.5
YAK *e* 18 53 17.1
YAK pmax pmax
comp=Z,13nm,1.3s
YAK pmax pmax
comp=N,6.0nm,1.1s
YAK pmax pmax
comp=E,14nm,1.6s
YAK pmax pmax
comp=Z,156nm,4.7s
YAK pmax pmax
comp=N,167nm,3.8s
YAK pmax pmax
comp=E,132nm,5.0s
YAK smax smax
comp=E,274nm,4.4s
YAK smax smax
comp=N,198nm,5.0s
YAK MLR MLR
comp=Z,709nm,24.0s
YAK MLR MLR
comp=N,294nm,13.0s
YAK MLR MLR
comp=E,292nm,14.0s
YAK Yakutsk 61.73 17 P **P** 18 43 23.8 -1.1
YAK IAmb IAmb 18 44 07.5
comp=Z,13nm,0.8s
YAK Yakutsk 61.73 17 P **P** 18 43 26.4 +1.5
comp=Z,9.9nm,0.8s
EIL Elat 61.81 301 LR LR 19 12 45.5
comp=Z,218nm,18.1s,baz=82,slow=38
SOC Sochi 61.82 317 *e* P **P** 18 43 24.7 -1.2
SOC *e* 18 45 39.2
SOC *e* PPP PPP 18 47 06.1
SOC *e* S **S** 18 51 48.4 +0.4
SOC *e* SS **SS** 18 55 52.1 +1.9
SOC MLR MLR
comp=Z,111nm,20.0s
MMAI Mount Meron Ar 62.08 304 LR LR 19 15 04.7
comp=Z,113nm,18.1s,baz=74,slow=40
ANDN Andirin 62.41 310 P **P** 18 43 30.8 +0.7
comp=Z,22nm,1.0s
TOKA Tokat 63.06 313 P **P** 18 43 33.5 -0.9
CY604 RAF Akrotiri, 63.09 306 P **P** 18 43 34.1 -0.1
CY604 IAmb IAmb 18 43 46.3
comp=Z,12nm,0.7s
BNN Bunyan 63.13 311 P **P** 18 43 33.9 -1.1
TOO Toolangi 63.21 137 P **P** 18 43 35.0 -0.4
TOO pmax pmax
comp=Z,21nm,1.5s
TOO Toolangi 63.21 137 P **P** 18 43 35.0 -0.4
TOO IAmb IAmb 18 43 47.1
comp=Z,21nm,1.5s
VRH Novokhopyorsk 63.62 325 *e* P **P** 18 43 42.1 +4.4
VRH pmax pmax
comp=Z,20nm,0.8s
KIRV Kirov 63.69 335 LR LR 19 14 29.0
comp=Z,238nm,18.9s,baz=135,slow=39
NRIK Noril'sk 63.90 357 P **P** 18 43 42.1 +2.9
comp=Z,1.2nm,0.2s,baz=157,slow=7.6,SNR=1.8
NRIK LR LR 19 16 32.1
comp=Z,258nm,18.3s,baz=187,slow=41
comp=Z,1.2nm,0.2s
NRIK Noril'sk 63.90 357 P **P** 18 43 38.7 -0.6
NRIK Noril'sk 63.90 357 P **P** 18 43 38.7 -0.6
NRIK IAmb IAmb 18 44 16.4
comp=Z,4.5nm,0.8s
CSS Mathiatis 64.17 306 P **P** 18 43 40.8 -0.9
CSS IAmb IAmb 18 44 12.1
comp=Z,11nm,1.0s
H04N2 CROZET ISLANDS 64.52 212 T T 19 53 19.6
baz=50,slow=76,SNR=1048
H04N1 CROZET ISLANDS 64.53 212 T T 19 53 20.3
baz=50,slow=76,SNR=1137
H04N3 CROZET ISLANDS 64.54 212 T T 19 53 18.9
baz=50,slow=76,SNR=1197
CAN Canberra 64.56 133 P **P** 18 43 46.1 +1.8
KIRS Kirsehir-Merke 64.65 311 ⇑P **P** 18 43 44.9 0.0
H04S1 CROZET ISLANDS 64.90 212 T T 19 53 30.9
baz=47,slow=76,SNR=59
VORD Divnogorie 64.91 324 *e* P **P** 18 43 45.6 -0.6
VORD pmax pmax
comp=Z,9.0nm,0.9s
H04S3 CROZET ISLANDS 64.91 212 T T 19 53 43.9
baz=47,slow=76,SNR=147
H04S2 CROZET ISLANDS 64.92 212 T T 19 53 45.0
baz=47,slow=76,SNR=82
BR104 Keskin Array S 65.00 311 P P 18 43 52.0 +4.8
comp=Z,35nmcomp=Z,3.9nm,1.1s
BR131 Keskin Array S 65.00 311 P **P** 18 43 46.2 -1.1
BR131 pmax pmax
comp=Z,4.0nm,0.9s
BR131 Keskin Array S 65.00 311 **P** 18 43 46.2 -1.1
BRTR Keskin Array B 65.00 311 P **P** 18 43 47.1 -0.2
comp=Z,1.7nm,0.9s,baz=127,slow=7.9,SNR=7.3
BRTR LR LR 19 14 32.6
comp=Z,135nm,20.4s,baz=115,slow=38
comp=Z,1.7nm,0.9s
BRTR Keskin Array B 65.00 311 *i* P **P** 18 43 47.0 -0.2
BRTR pmax pmax
comp=Z,1.0nm,0.8s
BRTR Keskin Array B 65.00 311 **P** 18 43 46.1 -1.2
BR105 Keskin Array S 65.02 311 P P 18 43 51.9 +4.5
comp=Z,45nmcomp=Z,4.4nm,1.1s
BR106 Keskin Array S 65.02 311 P P 18 43 52.5 +5.1
comp=Z,39nmcomp=Z,4.3nm,0.7s
MBAR Mbarara 65.03 267 LR LR 19 08 39.9
comp=Z,334nm,20.7s,baz=77,slow=33
MBAR Mbarara 65.03 267 P **P** 18 43 47.3 -0.6
MBAR pmax pmax
comp=Z,11nm,1.4s
MBAR Mbarara 65.03 267 P **P** 18 43 47.3 -0.6
MBAR IAmb IAmb 18 44 02.5
comp=Z,10nm,1.4s
MBAR Mbarara 65.03 267 P **P** 18 43 47.1 -0.7
comp=Z,4.6nm,1.5s
VSR Storozhevoye 65.08 325 *e* P **P** 18 43 50.5 +3.2
VSR pmax pmax
comp=Z,10.0nm,0.8s
VORR Voronezh 65.24 325 *e* P **P** 18 43 47.7 -0.7
VORR pmax pmax
comp=Z,22nm,0.4s
ILGA Ilgaz 65.28 313 P **P** 18 43 48.5 -0.6
ILGA IAmb IAmb 18 44 11.8
comp=Z,14nm,1.0s
LPSR Galich'ya Gora 65.78 326 *e* P **P** 18 43 56.2 +4.4
LPSR pmax pmax
comp=Z,10.0nm,0.8s
HNR Honiara 65.86 103 LR LR 19 17 12.0
comp=Z,77nm,18.2s,baz=352,slow=40
KEPZ Antalya-Kepez 65.93 308 ⇑P **P** 18 43 53.1 -0.1
MDUB Mudurnu 67.00 312 P **P** 18 43 59.0 -1.1
MDUB IAmb IAmb 18 44 18.7
comp=Z,18nm,1.1s
ELL Elmali 67.24 307 P **P** 18 44 01.2 -0.5
ELL pmax pmax
comp=Z,19nm,0.8s
ELL Elmali 67.24 307 P **P** 18 44 01.2 -0.5
OBN Obninsk 68.07 328 LR LR 19 18 01.3
comp=Z,319nm,19.0s,baz=162,slow=40
OBN Obninsk 68.07 328 *c e* P **P** 18 44 05.8 -0.5
OBN *e* 18 44 30.2
OBN *e* 18 46 38.1
OBN *e* PPP PPP 18 48 14.2
OBN *e* S SKiKP 18 53 35.1 -26
OBN pmax pmax
comp=Z,8.0nm,0.7s
PETK Petropavlovsk- 69.05 35 LR LR 19 16 26.2
comp=Z,270nm,18.3s,baz=253,slow=38
KLMR Klimovskoe 69.14 334 *e* P **P** 18 44 09.1 -3.8
KLMR pmax pmax
comp=Z,18nm,1.8s
TIXI Tiksi 69.21 11 *i* P **P** 18 44 13.6 +0.5
TIXI pmax pmax
comp=Z,3.0nm,1.0s
TIXI Tiksi 69.21 11 P **P** 18 44 14.0 +0.9
TIXI IAmb IAmb 18 44 45.2
comp=Z,8.8nm,0.8s
TIXI Tiksi 69.21 11 P **P** 18 44 15.0 +1.9
comp=Z,14nm,0.9s
KARP Karpathos 69.24 306 P **P** 18 44 15.1 +1.0
BALB Balikesir 69.33 310 P **P** 18 44 14.7 +0.1
TIRR Tirgusor 69.88 315 P **P** 18 44 17.5 -0.3
TIRR pmax pmax
comp=Z,36nm,1.2s
TIRR Tirgusor 69.88 315 P **P** 18 44 17.5 -0.3
ICOR Ion Corvin 70.24 315 ⇑P **P** 18 44 19.1 -0.9
HARR Harsova 70.27 316 ⇑P **P** 18 44 19.1 -1.0
EZN Ezine 70.54 310 P **P** 18 44 27.7 +5.7
comp=Z,11nm,1.1s
MATP Matopo 70.72 246 LR LR 19 12 11.5
comp=Z,1μm,19.2s,baz=72,slow=33
SORM Soroca 70.75 319 ⇑P **P** 18 44 23.2 +0.1
AK08 Malin Array Si 70.80 322 P P 18 44 28.3 +5.0
AK05 Malin Array Si 70.82 322 P P 18 44 28.5 +5.0
AKASG Malin Array Be 70.83 322 P **P** 18 44 23.3 -0.2
comp=Z,1.0nm,0.6s,baz=93,slow=4.5,SNR=5.6
AKASG LR LR 19 21 08.0
comp=Z,114nm,18.3s,baz=104,slow=41
comp=Z,1.0nm,0.6s
AKASG Malin Array Be 70.83 322 *i* P **P** 18 44 23.2 -0.3
AKASG pmax pmax
comp=Z,2.0nm,0.6s
AKBB Malin Array Si 70.83 322 *i* P **P** 18 44 22.4 -1.1
AKBB pmax pmax
comp=Z,4.0nm,0.9s
AKBB Malin Array Si 70.83 322 P P 18 44 28.1 +4.6
KIEV Kiev 70.84 322 P **P** 18 44 27.9 +4.4
comp=Z,24nm,0.7s
ALN Alexandroupoli 70.93 311 P **P** 18 44 23.6 -0.7
ALN pmax pmax
comp=Z,14nm,1.5s
ALN Alexandroupoli 70.93 311 P **P** 18 44 23.6 -0.7
ALN IAmb IAmb 18 44 24.4
comp=Z,14nm,1.5s
AK17 Malin Array Si 70.93 322 P **P** 18 44 28.4 +4.3
AK22 Malin Array Si 70.94 322 P **P** 18 44 28.0 +3.8
LOZB Loznitsa 70.95 314 ⇑P **P** 18 44 24.6 +0.2
AK21 Malin Array Si 70.96 322 P **P** 18 44 28.7 +4.4
PDRR Padureni 71.05 318 ⇑P **P** 18 44 24.4 -0.5
IDI Anoyia 71.05 305 LR LR 19 20 13.5
comp=Z,70nm,21.8s,baz=100,slow=40
IDI Anoyia 71.05 305 **P** 18 44 24.2 -1.0
IDI IAmb IAmb 18 44 35.3
comp=Z,8.2nm,0.6s
BISRR Bisoca 71.29 316 ⇑P **P** 18 44 26.8 +0.3
VRI Vrincioaia 71.34 317 ⇑P **P** 18 44 25.4 -1.3
VRI Vrincioaia 71.34 317 P **P** 18 44 27.2 +0.4
comp=Z,14nm,0.6s
SAHR Sahastru 71.34 316 ⇑P **P** 18 44 26.3 -0.5
PLOR Plostina 71.39 317 ⇑P **P** 18 44 26.6 -0.5
ELND Elena 71.39 313 ⇑P **P** 18 44 27.0 -0.1
TESR Tescani 71.52 317 ⇑P **P** 18 44 28.2 +0.3
TESR Tescani 71.52 317 P **P** 18 44 28.1 +0.3
comp=Z,22nm,0.9s
ONER Baraj Valea Uz 71.66 317 ⇑P **P** 18 44 27.9 -0.8
MLR Muntele Rosu 71.81 316 LR LR 19 21 16.3
comp=Z,162nm,19.5s,baz=76,slow=40
MLR Muntele Rosu 71.81 316 P **P** 18 44 28.8 -0.9
MLR pmax pmax
comp=Z,17nm,1.0s
MLR Muntele Rosu 71.81 316 **P** 18 44 28.8 -0.9
MLR IAmb IAmb 18 44 36.9
comp=Z,17nm,1.0s
MLR Muntele Rosu 71.81 316 ⇑P **P** 18 44 29.2 -0.5
MLR Muntele Rosu 71.81 316 P **P** 18 44 29.8 +0.1
comp=Z,18nm,1.2s
TURR Turia 71.86 317 ⇑P **P** 18 44 29.5 -0.4
BIZ Bicaz 71.98 318 ⇓P **P** 18 44 30.3 -0.2
KMPD K-Podol'skiy 72.07 319 P P 18 44 35.6 +4.6
DOPR Dopca 72.28 316 ⇑P **P** 18 44 31.9 -0.5
VOIR 72.41 316 ⇑P **P** 18 44 32.8 -0.4
VOIR 72.41 316 P P 18 44 38.0 +4.7
comp=Z,4.3nm,0.8s
KTHA Kythira Island 72.63 306 P **P** 18 44 34.9 +0.2
comp=Z,26nm,0.9s
ARR Arges 72.69 316 ⇑P **P** 18 44 33.9 -1.0
ARR Arges 72.69 316 P **P** 18 44 34.8 -0.1
comp=Z,7.7nm,1.0s
BURAR Bucovina Array 72.70 318 **P** 18 44 34.8 -0.2
BURAR Bucovina Array 72.70 318 ⇑P **P** 18 44 34.5 -0.5
BUR08 Bucovina Ar. S 72.72 318 **P** 18 44 34.9 -0.2
BUR08 IAmb IAmb 18 45 05.7
comp=Z,19nm,1.6s
SOH Sokhos 72.94 311 P **P** 18 44 36.9 +0.5
comp=Z,7.1nm,1.6s
RNPP5 Staryi Chortor 73.01 322 P P 18 44 41.4 +4.8
ARCR ARCALIA 73.18 317 ⇑P **P** 18 44 36.7 -1.0
KNT Kendrikon 73.32 311 P **P** 18 44 39.1 +0.5
comp=Z,7.8nm,1.0s
GRG Griva 73.67 311 P **P** 18 44 40.2 -0.6
comp=Z,36nm,1.0s
BLKB Belogradchik 73.81 314 ⇑P **P** 18 44 41.5 0.0
MARR Marisel-Cluj 73.95 317 ⇑P **P** 18 44 42.9 +0.5
GZR Gura Zlata 73.99 316 ⇑P **P** 18 44 42.0 -0.6
HERR Herculane 74.17 315 ⇑P **P** 18 44 43.8 +0.3
LBTB Lobatse 74.42 242 LR LR 19 12 19.6
comp=Z,174nm,21.4s,baz=70,slow=32
SURR Surduc 74.49 316 ⇓P **P** 18 44 43.9 -1.5
BOVS Bovan 74.51 314 ⇓P **P** 18 44 45.3 -0.3
DZM Mont Dzumac 74.54 115 P **P** 18 44 46.9 +0.7
comp=Z,4.7nm,1.0s,baz=266,slow=19,SNR=2.3
comp=Z,4.7nm,1.0s
TRPA Tarpa 74.56 318 P **P** 18 44 45.7 -0.1
comp=Z,10.0nm,1.0s
MDVR Moldovita 74.65 315 ⇑P **P** 18 44 45.6 -0.9
LKD2 Lefkada island 74.78 309 P **P** 18 44 47.3 0.0
comp=Z,33nm,0.7s
LKD2 pP **pP** 18 44 55.6 +0.5
UZHM Uzhgorod 74.81 319 P **P** 18 44 51.4 +4.3
BZS Buzias 74.83 316 P **P** 18 44 48.0 +0.7
comp=Z,4.7nm,1.1s
KOLS Kolonicke sedl 74.86 319 *e* P **P** 18 44 47.9 +0.4
KOLS Kolonicke sedl 74.86 319 *e* P **P** 18 44 47.9 +0.4
KOLS Kolonicke sedl 74.86 319 P **P** 18 44 48.0 +0.5
comp=Z,7.4nm,0.7s
SIRR Siria 74.88 316 ⇑P **P** 18 44 47.7 0.0
PABE Paberze 75.05 326 P **P** 18 44 47.5 -0.9
PABE IAmb IAmb 18 45 15.9
comp=Z,20nm,1.0s
FIA1 FINESS Array S 75.40 332 P **P** 18 44 48.9 -1.4
FINES FINESS Array B 75.40 332 P **P** 18 44 50.2 -0.1
comp=Z,1.3nm,0.4s,baz=101,slow=5.0,SNR=14
comp=Z,1.3nm,0.4s
FINES FINESS Array B 75.40 332 *i* P **P** 18 44 50.4 +0.1
FINES pmax pmax
comp=Z,1.0nm,0.4s
FINES FINESS Array B 75.40 332 P **P** 18 44 49.4 -0.9
ABAH Abaujker 75.45 318 P **P** 18 44 51.7 +0.8
comp=Z,7.9nm,1.0s
BOSA Boshof 75.59 239 P **P** 18 44 52.2 -0.1
comp=Z,4.3nm,1.0s,baz=101,slow=3.3,SNR=3.9
BOSA LR LR 19 17 01.4
comp=Z,111nm,18.3s,baz=78,slow=35
comp=Z,4.3nm,1.0s
BOSA Boshof 75.59 239 P **P** 18 44 52.9 +0.7
BOSA pmax pmax
comp=Z,62nm,1.9s
BOSA Boshof 75.59 239 P **P** 18 44 52.9 +0.7
PDG Podgorica 76.17 312 **P** 18 44 53.6 -1.5
PDG IAmb IAmb 18 45 01.0
comp=Z,11nm,0.6s
PDG Podgorica 76.17 312 P **P** 18 44 55.1 0.0
comp=Z,16nm,0.8s
PSZ Piszkesteto 76.29 318 P **P** 18 44 53.9 -1.9
PSZ pmax pmax
comp=Z,37nm,1.7s
PSZ Piszkesteto 76.29 318 P **P** 18 44 53.9 -1.9
PSZ IAmb IAmb 18 45 19.8
comp=Z,37nm,1.7s
PSZ Piszkesteto 76.29 318 P **P** 18 44 56.7 +0.9
comp=Z,9.4nm,1.4s
MAW Mawson 76.59 192 LR LR 19 14 24.1
comp=Z,111nm,18.4s,baz=31,slow=32

MAW	**Mawson**	**76.59 192**	P	**P**	**18 44 57.4**	**+0.5**
MAW			pmax	pmax		
	comp=Z,4.0nm,1.6s					
MAW	**Mawson**	**76.59 192**	P	**P**	**18 44 57.4**	**+0.5**
OJC	**Ojcow**	**76.64 320**	P	**P**	**18 44 56.6**	**-1.0**
OJC	**Ojcow**	**76.64 320**		**P**	**18 44 56.6**	**-1.0**
OJC	**Ojcow**	**76.64 320**	P	**P**	**18 44 58.3**	**+0.7**
	comp=Z,14nm,0.8s					
MORH	**Mrgy, Hungar**	**76.96 316**	P	**P**	**18 45 00.0**	**+0.5**
	comp=Z,7.0nm,0.8s					
VYHS	**Vyhne**	**77.06 318**	*e*P	**P**	**18 45 02.1**	**+2.0**
VYHS	**Vyhne**	**77.06 318**	*e*P	**P**	**18 45 02.1**	**+2.0**
MPLH	**Magyarpolny**	**77.80 317**	P	**P**	**18 45 05.6**	**+1.4**
	comp=Z,30nm,0.8s					
TIP	**Timpagrande**	**77.83 309**		**P**	**18 45 02.5**	**-2.2**
TIP	**Timpagrande**	**77.83 309**	P	**P**	**18 45 05.7**	**+1.0**
	comp=Z,5.9nm,1.2s					
BLY	**Banja Luka**	**77.86 314**		**P**	**18 45 02.8**	**-1.7**
BLY			IAmb	IAmb	18 45 14.5	
	comp=Z,14nm,1.1s					
BLY	**Banja Luka**	**77.86 314**	P	**P**	**18 45 05.5**	**+1.0**
	comp=Z,14nm,0.9s					
ARCES	**ARCESS Array B**	**77.90 340**	P	**P**	**18 45 04.2**	**-0.1**
	comp=Z,3.2nm,0.8s,baz=65,slow=5.8,SNR=6.9					
ARCES			LR	LR	19 22 25.5	
	comp=Z,611nm,20.2s,baz=114,slow=38					
	comp=Z,3.2nm,0.8s					
ARCES	**ARCESS Array B**	**77.90 340**	P	**P**	**18 45 03.6**	**-0.7**
ARCES			pmax	pmax		
	comp=Z,97nm,2.0s					
ARCES	**ARCESS Array B**	**77.90 340**	P	**P**	**18 45 03.6**	**-0.7**
STEB	**Steborice**	**77.91 320**	*e*P	P	18 45 09.6	+4.9
MORC	**Moravsky Berou**	**78.04 320**	P	**P**	**18 45 04.1**	**-1.4**
MORC			pmax	pmax		
	comp=Z,25nm,1.9s					
MORC	**Moravsky Berou**	**78.04 320**	P	**P**	**18 45 04.1**	**-1.4**
MORC			IAmb	IAmb	18 45 29.1	
	comp=Z,25nm,1.9s					
CEL	**Celeste**	**78.47 308**		**P**	**18 45 06.8**	**-1.4**
CEL			IAmb	IAmb	18 45 19.8	
	comp=Z,16nm,1.0s					
CEL	**Celeste**	**78.47 308**	P	**P**	**18 45 09.2**	**+1.0**
	comp=Z,16nm,1.0s					
ACER	**Acerenza**	**78.53 310**		**P**	**18 45 07.2**	**-1.3**
ACER			IAmb	IAmb	18 45 15.2	
	comp=Z,14nm,0.8s					
KRLC	**Kraliky**	**78.56 320**	*e*P	**P**	**18 45 12.1**	**+3.7**
KRLC	**Kraliky**	**78.56 320**	*e*P	**P**	**18 45 12.1**	**+3.7**
KRLC	**Kraliky**	**78.56 320**	P	**P**	**18 45 09.4**	**+1.0**
	comp=Z,9.7nm,1.2s					
CUC	**Castrocucco**	**78.60 310**	P	**P**	**18 45 06.7**	**-2.2**
CUC	**Castrocucco**	**78.60 310**	P	**P**	**18 45 09.5**	**+0.7**
	comp=Z,5.9nm,0.7s					
VRAC	**Vranov**	**78.61 319**	LR	LR	19 24 33.6	
	comp=Z,98nm,19.0s,baz=93,slow=39					
MARCO	**Tramutola**	**78.62 310**	P	**P**	**18 45 08.9**	**-0.1**
	comp=Z,14nm,1.1s					
KOGS	**Kog**	**78.63 316**	*i* P	**P**	**18 45 10.2**	**+1.4**
RONA	**Rosalia, Austr**	**78.69 317**	*e*P	**P**	**18 45 09.1**	**0.0**
	comp=Z,2.8nm,0.8s					
DPC	**Dobruska-Polom**	**78.87 320**	*e*P	**P**	**18 45 11.6**	**+1.5**
DPC	**Dobruska-Polom**	**78.87 320**	*e*P	**P**	**18 45 11.6**	**+1.5**
CONA	**Conrad Observa**	**78.99 318**	*i* P	**P**	**18 45 11.8**	**+0.9**
	comp=Z,5.5nm,1.4s					
ARSA	**Arzberg**	**79.18 317**	*i* P	**P**	**18 45 12.4**	**+0.5**
	comp=Z,5.5nm,0.9s					
ABNA	**Allensteig Bun**	**79.33 318**	*i* P	**P**	**18 45 14.1**	**+1.5**
	comp=Z,3.3nm,0.7s					
PERS	**Pernice**	**79.42 316**	*i* P	**P**	**18 45 14.7**	**+1.5**
SOKA	**Soboth**	**79.48 316**	*i* P	**P**	**18 45 14.2**	**+0.6**
	comp=Z,9.8nm,1.1s					
OBKA	**Obir**	**79.81 316**	*i* P	**P**	**18 45 16.8**	**+1.4**
	comp=Z,4.2nm,0.7s					
OBKA	**Obir**	**79.81 316**	P	**P**	**18 45 15.5**	**+0.1**
	comp=Z,9.4nm,2.1s					
SESA	**Seetaler Alpe,**	**79.82 317**	*i* P	**P**	**18 45 17.0**	**+1.4**
	comp=Z,7.4nm,0.7s					
MOA	**Molln**	**80.06 317**	*i* P	**P**	**18 45 17.0**	**+0.3**
	comp=Z,8.8nm,1.8s					
CKRC	**Cesky Krumlov**	**80.08 318**	*e*P	**P**	**18 45 19.3**	**+2.6**
CKRC	**Cesky Krumlov**	**80.08 318**	*e*P	**P**	**18 45 19.3**	**+2.6**
INTR	**Introdacqua**	**80.11 312**	P	**P**	**18 45 15.8**	**-1.3**
INTR			IAmb	IAmb	18 45 34.5	
	comp=Z,10nm,1.0s					
ZVC	**Zvikov**	**80.19 319**	*e*P	P	18 45 22.9	+5.6
SUR	**Sutherland**	**80.21 236**	LR	LR	19 14 40.8	
	comp=Z,134nm,20.4s,baz=58,slow=31					
TRI	**Trieste**	**80.32 315**	P	**P**	**18 45 16.5**	**-1.5**
TRI			pmax	pmax		
	comp=Z,5.0nm,0.7s					
TRI	**Trieste**	**80.32 315**	P	**P**	**18 45 16.5**	**-1.5**
CADS	**Cadrg**	**80.36 316**	*i* P	**P**	**18 45 19.2**	**+1.0**
DRE	**Drenchia**	**80.42 316**	P	**P**	**18 45 18.9**	**+0.2**
	comp=Z,11nm,0.8s					
MYKA	**Terra Mystica**	**80.44 316**	*i* P	**P**	**18 45 17.1**	**-1.6**
	comp=Z,2.3nm,0.5s					
SABO	**M.te Sabotino**	**80.44 316**	P	**P**	**18 45 16.9**	**-1.8**
SABO			IAmb	IAmb	18 45 24.8	
	comp=Z,7.5nm,0.7s					
BIOA	**Bad Ischl, Aus**	**80.48 317**	*i* P	**P**	**18 45 17.9**	**-1.0**
	comp=Z,3.4nm,0.6s					
GEC2	**GERESS Array S**	**80.48 318**		**P**	**18 45 17.7**	**-1.3**
GEC2			IAmb	IAmb	18 45 42.3	
	comp=Z,38nm,1.8s					
GEC2	**GERESS Array S**	**80.48 318**	P	**P**	**18 45 19.4**	**+0.5**
	comp=Z,12nm,1.6s					
GERES	**GERESS Array B**	**80.48 318**	P	**P**	**18 45 19.6**	**+0.6**
	comp=Z,1.9nm,0.7s,baz=116,slow=4.6,SNR=12					
GERES			LR	LR	19 25 13.2	
	comp=Z,80nm,19.1s,baz=34,slow=39					
	comp=Z,1.9nm,0.7s					
GERES	**GERESS Array B**	**80.48 318**	P	**P**	**18 45 17.2**	**-1.8**
GERES	**GERESS Array B**	**80.48 318**	P	**P**	**18 45 17.2**	**-1.8**
PRED	**Cave del Predi**	**80.48 316**		**P**	**18 45 17.6**	**-1.4**
PRED			IAmb	IAmb	18 45 28.0	
	comp=Z,6.9nm,0.7s					
PRED	**Cave del Predi**	**80.48 316**	P	**P**	**18 45 19.4**	**+0.4**
	comp=Z,10nm,0.8s					
AQU	**L'Aquila**	**80.49 312**	P	**P**	**18 45 17.7**	**-1.4**
AQU			pmax	pmax		
	comp=Z,14nm,0.7s					
AQU	**L'Aquila**	**80.49 312**	P	**P**	**18 45 17.7**	**-1.4**
AQU			IAmb	IAmb	18 45 34.4	
	comp=Z,13nm,0.7s					
ACOM	**Acomizza, Ital**	**80.52 316**	P	**P**	**18 45 20.1**	**+0.7**
	comp=Z,17nm,1.1s					
GUMA	**Gualdo di Mace**	**80.55 313**	P	**P**	**18 45 17.8**	**-1.6**
KHC	**Kasperske Hory**	**80.58 319**	*e*P	**P**	**18 45 21.7**	**+2.3**
KHC	**Kasperske Hory**	**80.58 319**	*e*P	**P**	**18 45 21.7**	**+2.3**
KBA	**Koelnbreinsper**	**80.66 317**	*i* P	**P**	**18 45 18.5**	**-1.5**
	comp=Z,1.2nm,0.5s					
NRCA	**Norcia**	**80.71 312**	P	**P**	**18 45 19.3**	**-1.0**
FDMO	**Fiordimonte**	**80.73 313**		**P**	**18 45 19.2**	**-1.2**
FDMO			IAmb	IAmb	18 45 27.2	
	comp=Z,12nm,0.9s					
CLL	**Collm**	**81.03 321**	*e*P	**P**	**18 45 22.0**	**+0.3**
CLL			*e*PP	**PcP**	**18 45 23.0**	**-5.1**
CLL	**Collm**	**81.03 321**	*e*P	**P**	**18 45 22.0**	**+0.3**
CLL			*ep*P	**PcP**	**18 45 23.0**	**-5.1**
CLL			*e*PP	**PP**	**18 48 27.0**	**+0.4**
RJOB	**Jochberg**	**81.05 317**	P	**P**	**18 45 22.6**	**+0.6**
	comp=Z,8.5nm,0.8s					
STAL	**STALIGIAL**	**81.07 316**	P	**P**	**18 45 21.4**	**-0.7**
STAL			IAmb	IAmb	18 45 28.2	
	comp=Z,9.4nm,0.9s					
LESA	**Schwarzleotal**	**81.12 317**	*i* P	**P**	**18 45 22.5**	**+0.1**
	comp=Z,2.6nm,0.5s					
HFS	**Hagfors**	**81.15 330**	P	**P**	**18 45 22.6**	**+0.5**
	comp=Z,2.2nm,0.8s,baz=102,slow=6.2,SNR=7.5					
	comp=Z,2.2nm,0.8s					
MURB	**Monte Urbino**	**81.15 313**	P	**P**	**18 45 22.0**	**-0.7**
MURB			IAmb	IAmb	18 45 47.6	
	comp=Z,16nm,1.0s					
ABTA	**Abfaltersbach**	**81.22 316**	*i* P	**P**	**18 45 22.0**	**-1.0**
	comp=Z,4.7nm,1.6s					
CTI	**Castel Tesino**	**81.80 316**	P	**P**	**18 45 25.1**	**-1.0**
CTI			pmax	pmax		
	comp=Z,9.0nm,0.7s					
CTI	**Castel Tesino**	**81.80 316**		**P**	**18 45 25.1**	**-1.0**
CTI			IAmb	IAmb	18 45 34.6	
	comp=Z,8.7nm,0.7s					
WTTA	**Wattenberg**	**81.83 317**	*i* P	**P**	**18 45 26.6**	**+0.4**
	comp=Z,7.1nm,1.1s					
WTTA	**Wattenberg**	**81.83 317**	P	**P**	**18 45 26.8**	**+0.5**
	comp=Z,5.1nm,1.2s					
WATA	**Walderalm**	**81.87 317**	*i* P	**P**	**18 45 26.2**	**-0.2**
	comp=Z,8.8nm,1.1s					
SQTA	**Sankt Quirin**	**82.12 317**	*i* P	**P**	**18 45 28.0**	**+0.2**
	comp=Z,8.6nm,0.6s					
MOTA	**Moosalm**	**82.19 317**	*i* P	**P**	**18 45 28.3**	**+0.2**
	comp=Z,12nm,1.5s					
ZCCA	**Zocca**	**82.28 314**	P	**P**	**18 45 27.4**	**-1.1**
ZCCA			IAmb	IAmb	18 46 00.3	
	comp=Z,21nm,1.1s					
RETA	**Reutte**	**82.42 317**	*i* P	**P**	**18 45 29.8**	**+0.5**
	comp=Z,8.1nm,0.7s					
NOA	**NORSAR Array B**	**82.42 331**	P	**P**	**18 45 31.2**	**+2.2**
	comp=Z,1.5nm,0.8s,baz=92,slow=6.4,SNR=3.9					
	comp=Z,1.5nm,0.8s					
FETA	**Feichten**	**82.44 317**	*i* P	**P**	**18 45 30.3**	**+0.8**
	comp=Z,4.7nm,0.8s					
SALO	**Salr**	**82.59 315**	P	**P**	**18 45 29.5**	**-0.6**
FUORN	**Ofenpass-Fuorn**	**82.76 316**	P	**P**	**18 45 30.4**	**-0.9**
FUORN			IAmb	IAmb	18 45 46.8	
	comp=Z,8.6nm,1.1s					
FUORN	**Ofenpass-Fuorn**	**82.76 316**	P	**P**	**18 45 32.2**	**+0.9**
DAVA	**Damuels**	**83.02 317**	*e*P	**P**	**18 45 33.1**	**+0.7**
	comp=Z,6.8nm,1.1s					
TUE	**Stuetta**	**83.40 316**	P	**P**	**18 45 33.2**	**-1.3**
TUE			IAmb	IAmb	18 46 16.8	
	comp=Z,4.8nm,0.8s					
TUE	**Stuetta**	**83.40 316**	P	P	18 45 39.3	+4.8
	comp=Z,38nm,0.9s					
TUE	**Stuetta**	**83.40 316**	P	**P**	**18 45 34.8**	**+0.2**
	comp=Z,9.6nm,0.9s					
INZ	**Inchbonnie**	**83.46 134**	P	**P**	**18 45 33.8**	**-0.8**
VSL	**Villasalto**	**83.56 309**	P	**P**	**18 45 34.1**	**-1.1**
VSL			IAmb	IAmb	18 45 49.4	
	comp=Z,12nm,0.9s					
KEST	**Kesra**	**83.72 305**	P	**P**	**18 45 37.1**	**+0.8**
	comp=Z,7.0nm,0.8s,baz=13,slow=2.0,SNR=7.6					
	comp=Z,7.0nm,0.8s					
KEST	**Kesra**	**83.72 305**		**P**	**18 45 35.3**	**-0.9**
KEST			IAmb	IAmb	18 45 43.8	
	comp=Z,9.1nm,0.9s					
NNZ	**Nelson**	**84.53 132**	P	**P**	**18 45 39.5**	**-0.6**
SENIN	**Lac Senin/Sane**	**84.82 316**		**P**	**18 45 39.7**	**-2.1**
SENIN			IAmb	IAmb	18 45 50.9	
	comp=Z,5.5nm,0.8s					
KHZ	**Kahutara**	**84.90 133**	P	**P**	**18 45 40.8**	**-1.1**
TUWZ	**Tuamarina**	**84.99 132**	P	**P**	**18 45 40.7**	**-1.7**
TCW	**Tory Channel**	**85.19 132**	P	**P**	**18 45 42.2**	**-1.2**
BNI	**Bardonecchia**	**85.32 315**	P	**P**	**18 45 44.5**	**+0.3**
	comp=Z,7.2nm,0.8s					
TOZ	**Tahuroa Road**	**85.45 128**		**P**	**18 45 43.3**	**-1.5**
TOZ			IAmb	IAmb	18 45 49.4	
	comp=Z,7.7nm,0.7s					
MRZ	**Mangatainoka R**	**86.05 131**	P	**P**	**18 45 47.1**	**-0.6**
RTZ	**Ruatahuna**	**86.76 129**		**P**	**18 45 50.6**	**-0.7**
URZ	**Urewera**	**86.80 129**	P	**P**	**18 45 51.6**	**+0.2**
	comp=Z,12nm,0.6s,baz=40,slow=1.1,SNR=9.9					
	comp=Z,12nm,0.6s					
URZ	**Urewera**	**86.80 129**	P	**P**	**18 45 52.0**	**+0.6**
	comp=Z,32nm,1.4s					
TAM	**Tamanrasset**	**87.92 293**	P	**P**	**18 45 56.2**	**-1.2**
	comp=Z,4.6nm,1.1s					
VNDA	**Vanda**	**90.40 169**	LR	LR	19 24 25.0	
	comp=Z,143nm,18.1s,baz=288,slow=34					
EKA	**Eskdalemuir Ar**	**90.41 326**	P	**P**	**18 46 08.8**	**+0.6**
	comp=Z,1.1nm,0.7s,baz=73,slow=6.4,SNR=3.8					
	comp=Z,1.1nm,0.7s					
TORD	**Torodi Ar. Bea**	**92.51 283**	P	**P**	**18 46 20.5**	**+1.7**
	comp=Z,0.9nm,0.5s,baz=88,slow=4.2,SNR=1.7					
	comp=Z,0.9nm,0.5s					
ESDC	**Sonseca Array**	**93.78 310**	P	**P**	**18 46 25.8**	**+1.6**
	comp=Z,0.9nm,0.8s,baz=41,slow=3.2,SNR=7.6					
	comp=Z,0.9nm,0.8s					
ESDC	**Sonseca Array**	**93.78 310**	P	**P**	**18 46 23.7**	**-0.5**
ESDC			IAmb	IAmb	18 46 45.8	
	comp=Z,7.0nm,1.2s					
PDAR	**Pinedale Array**	**126.75 23**	PKP	**PKPdf**	**18 52 10.6**	**-0.5**
	comp=Z,0.4nm,0.6s,baz=75,slow=1.7,SNR=4.0					
TXAR	**Lajitas Array**	**140.68 27**	PKP	**PKPdf**	**18 52 36.6**	**-0.7**
	comp=Z,0.6nm,0.6s,baz=169,slow=1.3,SNR=4.1					
CPUP	**Villa Florida**	**146.90 228**	PKPbc	**PKPbc**	**18 52 49.4**	**-0.6**
	comp=Z,2.5nm,0.8s,baz=129,slow=1.8,SNR=7.8					
CPUP	**Villa Florida**	**146.90 228**	PKP2	**PKPdf**	**18 52 48.7**	**+0.6**
CPUP	**Villa Florida**	**146.90 228**		**PKPdf**	**18 52 48.7**	**+0.6**

SDD ***13*** *18:34:17.1±2.7, 18.˚19N×71.˚89W, h15km±9km, MD2.5, ML2.2, MW2.6, Presumed earthquake*
OSPL ***13*** *18:34:20.8±1.7, 18.˚39N×71.˚69W, h4km±106km, ML1.9, Presumed earthquake*

ISC 13 18:34:19.2±1.0, 18.˚31N±0.˚03×71.˚70W±0.˚04, h14km±7km, n12, σ0.95, 95/22, 13C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
LODU1	**El Espartillar**	**0.22**	**78**	*i* P		**Pg**	**18 34 23.5**		**-0.6**
LODU1				*e*S		**Sg**	**18 34 27.3**		**-0.1**
LODU1				IAML			18 34 28.8		
	comp=Z,274nm,0.5s								
JIDR	**Jimani**	**0.23**	**321**	⇑*i* P		**Pg**	**18 34 23.8**		**-0.5**
JIDR				⇑*i* S		**Sg**	**18 34 29.2**		**+1.4**
NEDR	**Neiba UASD**	**0.32**	**57**	⇑*i* P		**Pg**	**18 34 26.8**		**+1.0**
NEDR				⇑*i* S		**Sb**	**18 34 32.8**		**+1.1**
NEDR				IAML			18 34 33.6		
	comp=N,183nm,0.3s								
LONE3	**El Aguacate, B**	**0.37**	**38**	*i* P		**Pg**	**18 34 26.5**		**-0.3**
LONE3				*e*S		**Sg**	**18 34 31.3**		**-0.7**
LONE3				IAML			18 34 34.8		
	comp=Z,140nm,0.3s								
PODR	**Polo**	**0.42**	**110**	⇑*i* P		**Pg**	**18 34 26.8**		**-0.9**
PODR				⇑*i* S		**Sb**	**18 34 35.2**		**+0.4**
PODR				IAML			18 34 41.8		
	comp=N,109nm,0.1s								
PODR	**Polo**	**0.42**	**110**	*e*S		**Sg**	**18 34 34.5**		**+1.0**
LOBH	**Bahia de las A**	**0.45**	**173**	*i* P		**Pb**	**18 34 29.5**		**+0.6**
LOBH				*e*S		**Sn**	**18 34 37.7**		**-1.3**
LOBH				IAML			18 34 43.1		
	comp=Z,65nm,1.5s								
LOVI	**El Cajuil, Ovi**	**0.60**	**148**	*i* P		**Pn**	**18 34 32.9**		**-0.3**
LOVI				*e*S		**Sn**	**18 34 42.5**		**-0.1**
LOVI				IAML			18 34 48.4		
	comp=Z,99nm,0.7s								
SDDR	**Presa de Saban**	**0.78**	**30**	⇑*i* P		**Pg**	**18 34 33.8**		**-0.5**
SDDR				⇑*i* S		**Sg**	**18 34 45.1**		**+0.6**
REDR	**Restauracion**	**0.90**	**19**	⇑*i* P		**Pb**	**18 34 35.2**		**-1.3**
REDR				⇑*i* S		**Sb**	**18 34 49.7**		**+1.3**
REDR				IAML			18 34 50.3		
	comp=N,48nm,0.2s								
ABDR	**Alto Bandera**	**1.13**	**64**	⇑*i* P		**Pb**	**18 34 39.8**		**-0.9**
ABDR				⇑*i* S		**Sn**	**18 34 57.8**		**+1.3**
BANI	**BANI**	**1.27**	**86**	⇑*i* S		**Sg**	**18 35 00.9**		**+0.5**

AFAD 13 18:35:52.7, 37.˚89N×26.˚90E, h7km±5km, ML1.1, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
DGB	**zmir**	**0.16**	**355**	P		Pg	18 35 56.5		+0.4
GCAM	**G?zelcaml?**	**0.32**	**125**	P		Pg	18 35 58.5		-0.5
BEYE	**izmir**	**0.34**	**3**	P		Pg	18 35 59.6		+0.2
BEYE				S		Sg	18 36 04.0		+0.2
BEYE				IAML			18 36 06.0		
	comp=N,20nm,0.1s								
DUVT	**Torbali**	**0.54**	**52**	P		Pg	18 35 59.9		-3.3
AYDN	**Tasoluk**	**0.81**	**106**	P		Pb	18 36 09.2		+0.1
CAMT	**Merkez**	**0.92**	**21**	P		Pb	18 36 10.9		0.0

ISK 13 18:36:33.7, 37.˚89N×26.˚95E, h13km±2km, ML1.7/6, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
GMLD	**Gumuldur**	**0.19**	**353**	Pg		Pg	Pb	18 36 38.5	-0.5
GMLD				Sg		Sb	18 36 41.9		-0.6
GMLD				AML		AML			
GCAM	**G?zelcaml?**	**0.30**	**130**	Pg		Pg	18 36 39.9		+0.1
GCAM				Sg		Sb	18 36 45.2		-0.5
GCAM				AML		AML			
BLCB	**Balcova**	**0.50**	**9**	Pg		Pb	18 36 44.0		-0.3
BLCB				Sg		Sb	18 36 51.5		0.0
BLCB				AML		AML			
CHOS	**Chios island**	**0.86**	**305**	Pg		Pb	18 36 50.9		+0.4
CHOS				AML		AML			
BODT	**Bodrum**	**0.88**	**161**	Pg		Pb	18 36 51.2		+0.4
BODT				AML		AML			

MLSB	**Milas**	**0.89 132**	Pg	Pb	18 36 51.4	+0.4

IDC ***13*** *19:04:10.9±0.6, 22.˚22N×107.˚88W, h0km, mb4.5/16, mbtmp4.6/23, ML4.0/7, MS4.8/69, Error ellipse: s-maj=15.2km s-min=8.8km az=52.0*
MEX ***13*** *19:04:12.9±0.8, 22.˚32N×108.˚00W, h10km, MD4.9, Presumed earthquake*
MOS ***13*** *19:04:12.1±1.2, 22.˚43N×107.˚72W, h10km, mb5.1/20, MS4.8/8, Error ellipse: s-maj=9.0km s-min=5.8km az=94.8*
NEIC ***13*** *19:04:13.5±1.7, 22.˚38N±0.˚09×107.˚8W±0.˚1, h12km±4km, mb5.0/444, Ms_20 4.9/345, Mww5.3/45, Md4.9/22(MEX), Error ellipse: s-maj=16.0km s-min=10.1km az=47.0*
GFZ ***13*** *19:04:15.0±0.6, 22.˚2N±6.˚×10.˚8W±.˚, h10km, M4.8/23, mb4.8/23*
GCMT ***13*** *19:04:16.1±0.1, 22.˚44N±0.˚01×107.˚95W±0.˚01, h13km, MW5.3/156, Moment Tensor Solution. s110,c172; s156,c303; Duration: 1ſ1 Moment tensor: Scale 10^17 Nm; Mrr~0.20±.01; Mθθ~0.45±.01; Mϕϕ0.64±.02; Mrθ~0.02±.03; Mrϕ~1.17±.02; Mθr~0.13±.03; Best double couple: M0 1.29800×10^17 NP1:ϕs103.00000°, δ84.00000°, λ-179.00000°. NP2:ϕs12.00000°, δ89.00000°, λ-6.00000°. Principal axes: T 1.3980, Plg4.0000°, Azm58.0000°; N -0.1990, Plg84.0000°, Azm182.0000°; P -1.1990, Plg5.0000°, Azm327.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 19:04:13.0±0.3, 22.˚39N±0.˚04×107.˚85W±0.˚04, h10km, n678, σ1ſ50/348, mb5.0/190, MS4.9/240, 3C, Off coast of central Mexico

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
SSIG	**Sanalona**	**2.51**	**15**			**Pn**	**19 04 52.0**		**-1.9**
SSIG						Sn	19 05 20.2		-4.4
SSIG	**Sanalona**	**2.51**	**15**	⇑*i* P		**Pn**	**19 04 52.0**		**-1.9**
	baz=194,slow=18								
SSIG				*e*S		**Sn**	**19 05 20.2**		**-4.4**
LPIG	**La Paz**	**2.83**	**308**	Pn		**Pn**	**19 04 55.8**		**-2.5**
	24nm,0.3s,baz=360,slow=3.0,SNR=22								
LPIG				Sn		**Sn**	**19 05 30.6**		**-2.0**
	40nm,0.3s,baz=195,slow=18,SNR=4.3								
LPIG				Lg		Lg	19 05 43.9		
	52nm,0.3s,baz=148,slow=15,SNR=8.9								
	258nm,0.9s								
LPIG				AML		AML			
LPIG	**La Paz**	**2.83**	**308**			Pn	19 04 54.0		-4.3
LPIG						**Sn**	**19 05 26.8**		**-5.7**
LPIG	**La Paz**	**2.83**	**308**	*e*P		Pn	19 04 54.0		-4.3
LPIG				*e*S		**Sn**	**19 05 26.8**		**-5.7**
TSIG	**Topolobambo**	**3.38**	**341**	*e*P		**Pn**	**19 05 04.1**		**-1.8**
PDIG	**Papasquiaro**	**3.47**	**40**			**Pn**	**19 05 07.5**		**+0.2**
PDIG						**Sn**	**19 05 48.5**		**0.0**
PDIG	**Papasquiaro**	**3.47**	**40**	*e*P		**Pn**	**19 05 07.5**		**+0.2**
PDIG				*e*S		**Sn**	**19 05 48.5**		**0.0**
CJM	**Chamela**	**3.89**	**137**	*i* P		**Pn**	**19 05 10.7**		**-2.3**
CJM				*e*S		Sn	19 05 47.4		-11
CSIG	**Choix**	**4.45**	**354**			**Pn**	**19 05 19.4**		**-1.2**
CSIG						**Sn**	**19 06 10.1**		**-2.3**
CSIG	**Choix**	**4.45**	**354**	*e*P		**Pn**	**19 05 19.4**		**-1.2**
CSIG				*i* S		**Sn**	**19 06 10.1**		**-2.3**
ZAIG	**Zacatecas**	**4.90**	**85**			**Pn**	**19 05 24.9**		**-2.1**
ZAIG	**Zacatecas**	**4.90**	**85**	P		**Pn**	**19 05 26.8**		**-0.2**
HPIG		**4.94**	**23**			**Pn**	**19 05 27.9**		**+0.3**
HPIG		**4.94**	**23**	*e*P		**Pn**	**19 05 28.8**		**+1.2**
HPIG		**4.94**	**23**	P		**Pn**	**19 05 28.2**		**+0.6**
	comp=Z,210nm,0.7s								
GUYB	**Guaymas**	**6.13**	**334**	*e*P		**Pn**	**19 05 43.5**		**-0.2**
SRIG	**Santa Rosalia**	**6.33**	**322**			**Pn**	**19 05 45.0**		**-1.4**
SRIG	**Santa Rosalia**	**6.33**	**322**	*e*P		**Pn**	**19 05 44.0**		**-2.4**
SRIG	**Santa Rosalia**	**6.33**	**322**	P		**Pn**	**19 05 46.9**		**+0.5**
	comp=Z,103nm,1.1s								
MOIG	**Morelia**	**6.78**	**112**	Pn		Pn	19 05 47.4		-5.5
HSIG		**7.17**	**338**			**Pn**	**19 05 57.8**		**-0.2**
HSIG		**7.17**	**338**	*e*P		Pn	19 05 53.3		-4.7
TX31	**Lajitas Ar. Si**	**7.88**	**28**			**Pn**	**19 06 08.7**		**+0.9**
TXAR	**Lajitas Array**	**7.88**	**28**	Pn		**Pn**	**19 06 08.8**		**+1.1**
	comp=Z,2.8nm,0.3s,baz=206,slow=13,SNR=145								
TXAR				Sn		**Sn**	**19 07 38.0**		**+0.9**
	comp=Z,1.1nm,0.3s,baz=203,slow=19,SNR=4.2								
TXAR				Lg		Lg	19 08 23.6		
	comp=Z,2.3nm,0.3s,baz=202,slow=23,SNR=7.4								
TXAR				LR		LR	19 09 19.4		
	comp=Z,18μm,18.8s,baz=206,slow=38								
	comp=Z,72nm,0.8s								
TXAR				AML		AML			
TXAR	**Lajitas Array**	**7.88**	**28**			**Pn**	**19 06

ANMO Albuquerque 12.57 5 P Pn 19 07 17.5 +5.3
comp=Z,20nm,1.6s
CBX Cerro Bola 12.61 324 Pn 19 07 14.2 +1.6
CBX Cerro Bola 12.61 324 *i* P Pn 19 07 14.7 +2.1
BLYC Blythe 12.76 334 Pn 19 07 17.1 +2.6
W18A Petrified Fore 12.79 353 Pn Pn 19 07 15.4 +0.2
APMT Aspermont 12.86 30 Pn 19 07 14.6 -1.3
BAR Barrett 12.89 325 Pn 19 07 18.1 +1.7
BC3 Big Chuckawall 13.07 331 Pn 19 07 20.4 +1.4
HKT Hockley 13.15 53 Pn Pn 19 07 18.7 -1.2
HKT Hockley 13.15 53 P Pn 19 07 22.1 +2.3
comp=Z,35nm,2.0s
BORC Borrego Spring 13.22 327 Pn 19 07 22.6 +1.7
DPP Dos Picos Cty 13.28 325 Pn 19 07 22.9 +1.2
CMIG Matias Romero 13.29 111 Pn Pn 19 07 21.4 -0.5
comp=Z,1.6nm,0.3s,baz=301,slow=12,SNR=18
CMIG Lg Lg 19 11 08.4
comp=Z,0.2nm,0.3s,baz=18,slow=20,SNR=4.6
CMIG LR LR 19 12 36.7
comp=Z,4µm,21.0s,baz=240,slow=38
comp=Z,9.8nm,0.6s
CMIG AML AML
IRM Iron Mountain 13.37 333 Pn 19 07 24.5 +1.6
WUAZ Wupatki 13.44 348 Pn 19 07 25.5 +1.5
PFO Pinyon Flats O 13.51 328 Pn Pn 19 07 27.4 +2.4
comp=Z,0.5nm,0.3s,baz=149,slow=12,SNR=48
PFO Lg Lg 19 11 18.1
comp=Z,0.2nm,0.3s,baz=222,slow=16,SNR=1.2
PFO LR LR 19 12 25.2
comp=Z,6µm,19.5s,baz=166,slow=36
comp=Z,98nm,1.1s
PFO AML AML
PFO Pinyon Flats O 13.51 328 P Pn 19 07 27.8 +2.8
comp=Z,137nm,1.3s
FW13 Cleburne 13.56 41 Pn 19 07 24.2 -1.3
DNR Dunn Ranch,Anz 13.56 327 Pn 19 07 27.5 +1.8
AMTX Amarillo 13.57 22 Pn 19 07 25.4 -0.4
W13A Hualapai Mount 13.72 339 Pn 19 07 29.8 +1.9
HNVL Huntsville, TX 13.86 50 Pn Pn 19 07 28.1 -1.4
PH02 Texas Public H 13.94 20 Pn 19 07 29.4 -1.5
WTFS Witchita Falls 14.03 34 Pn 19 07 31.4 -0.6
ELS Elsinore Mount 14.04 325 Pn 19 07 32.8 +0.7
Z35A Perchaven, San 14.36 38 Pn 19 07 36.6 +0.1
U15A North Rim 14.51 346 Pn 19 07 40.4 +1.5
WMOK Wichita Mounta 14.65 31 P Pn 19 07 39.4 -1.0
WMOK Wichita Mounta 14.65 31 Pn 19 07 39.4 -1.0
WMOK Wichita Mounta 14.65 31 P Pn 19 07 40.5 +0.1
comp=Z,41nm,0.8s
MTPC Mountain Pass 14.68 334 Pn 19 07 42.7 +1.7
RTBA Rita Blanca 14.69 16 Pn 19 07 40.9 -0.2
MVCO Mesa Verde 14.78 358 Pn 19 07 42.9 +0.5
MVCO Mesa Verde 14.78 358 P P 19 07 46.6 -1.9
comp=Z,61nm,1.1s
PASC Pasadena Art C 14.84 325 Pn 19 07 44.2 +1.1
LOOK Love County 14.89 37 Pn 19 07 42.3 -1.4
T25A Trinidad 15.00 11 Pn 19 07 44.7 -0.6
X34A Smith Ranch, M 15.01 34 Pn 19 07 43.9 -1.4
GSC Goldstone, Bar 15.06 331 P Pn 19 07 47.2 +1.2
GSC pmax pmax
comp=Z,97nm,1.2s
GSC Goldstone, Bar 15.06 331 Pn 19 07 47.2 +1.2
GSC IAmb IAmb 19 07 51.6
comp=Z,96nm,1.2s
SNAG San Augustine 15.20 50 Pn 19 07 45.5 -2.3
SNAG IAmb IAmb 19 07 48.6
comp=Z,189nm,1.9s
KNB Kanab 15.20 345 P Pn 19 07 47.1 -0.9
KNB pmax pmax
comp=Z,20nm,1.0s
KNB Kanab 15.20 345 Pn 19 07 47.1 -0.9
LCMT Little Creek M 15.30 343 Pn 19 07 51.0 +1.7
SHOC Shoshone, Teco 15.33 333 Pn 19 07 49.4 -0.2
SHOC IAmb IAmb 19 07 57.1
comp=Z,93nm,1.1s
TPO Tropico Hills 15.41 326 Pn 19 07 50.2 -0.4
TPO IAmb IAmb 19 07 58.3
comp=Z,125nm,1.3s
SDCO Great Sand Dun 15.44 7 Pn 19 07 50.6 -0.7
OSI Osito Audit: C 15.47 324 IAmb IAmb 19 07 55.3
comp=Z,148nm,1.4s
ELIS Ellis County 15.48 26 Pn 19 07 50.2 -1.3
PKCU Pink Cliffs 15.49 347 Pn 19 07 51.7 -0.2
CCCA Chr Cany lake 15.50 330 IAmb IAmb 19 07 57.6
comp=Z,119nm,1.4s
441A DeRidder 15.52 54 Pn 19 07 51.4 -0.7
Z38A Mt. Pleasant 15.69 44 Pn 19 07 53.6 -0.6
CLC China Lake 15.85 330 P Pn 19 07 56.2 -0.1
CLC pmax pmax
comp=Z,37nm,1.1s
CLC China Lake 15.85 330 Pn 19 07 56.2 -0.1
W35A Tecumseh 15.93 35 Pn 19 07 57.1 -0.2
W35A IAmb IAmb 19 08 04.0
comp=Z,137nm,0.9s
PV10 Paradox Valley 15.97 357 IAmb IAmb 19 08 03.9
comp=Z,102nm,1.1s
MPMC Manual Prospec 16.00 331 P Pn 19 07 59.3 +0.9
CCIG Comitan 16.02 110 Pn Pn 19 07 56.5 -2.3
OK038 West end E0370 16.11 27 Pn 19 07 57.7 -2.0
OK029 Liberty Lake 16.14 32 IAmb IAmb 19 08 06.7
comp=Z,105nm,0.9s
ISA Isabella, Lake 16.15 327 P Pn 19 08 00.1 -0.1
ISA pmax pmax
comp=Z,34nm,1.2s
ISA Isabella, Lake 16.15 327 Pn 19 08 00.1 -0.1
NOKA Waynoka 16.17 27 IAmb IAmb 19 08 07.5
comp=Z,174nm,1.6s
CROK Carrier 16.47 29 IAmb IAmb 19 08 11.2
comp=Z,123nm,0.8s
GRAC Grapevine Rang 16.73 333 P Pn 19 08 09.2 +1.7
OK048 Pawnee Station 16.88 32 IAmb IAmb 19 08 15.1
comp=Z,146nm,0.9s
PSUT Pine Spring 16.90 344 IAmb IAmb 19 08 17.1
comp=Z,85nm,1.0s
OK051 E0350 and S346 17.01 32 IAmb IAmb 19 08 17.0
comp=Z,126nm,0.8s
TUL3 Leonard 17.08 35 P Pn 19 08 11.5 -0.5
KAN01 Argonia South 17.11 28 P Pn 19 08 11.7 -0.6
KAN01 IAmb IAmb 19 08 20.6
comp=Z,133nm,1.2s
Z41A Richland Creek 17.14 48 IAmb IAmb 19 08 18.9
comp=Z,128nm,0.9s
KSCO Kaye Shedlock' 17.16 14 P Pn 19 08 13.1 0.0
KSCO IAmb IAmb 19 08 17.7
comp=Z,185nm,1.5s
RTAL Retalhuleu 17.20 114 P Pn 19 08 12.9 -0.7
RTAL IAmb IAmb 19 08 22.9
comp=Z,97nm,1.1s
MIAR Mount Ida 17.42 43 P Pn 19 08 15.0 -1.2
MIAR pmax pmax
comp=Z,114nm,1.6s
MIAR Mount Ida 17.42 43 Pn 19 08 15.0 -1.2
MIAR Mount Ida 17.42 43 P P 19 08 16.9 -0.5
comp=Z,57nm,1.7s
ISCO Idaho Springs 17.46 6 P P 19 08 21.5 +3.2
comp=Z,58nm,1.1s
CBKS Cedar Bluff 17.79 21 P Pn 19 08 20.7 -0.1
CBKS pmax pmax
comp=Z,102nm,1.4s
CBKS Cedar Bluff 17.79 21 P Pn 19 08 20.7 -0.1
PETF Flores 17.79 105 P Pn 19 08 19.9 -0.9
APG El Apazote 18.02 111 Pn Pn 19 08 23.2 -0.8
baz=203,slow=12
APG Lg Lg 19 13 36.5
baz=162,slow=20,SNR=1.4
APG LR LR 19 15 33.4
comp=Z,516nm,18.9s,baz=280,slow=38
HAYD Hayden 18.08 1 P P 19 08 25.8 +0.7
RDMU Red Mountain 18.19 356 P Pn 19 08 25.6 -0.3
VBMS Vicksburg 18.23 54 P Pn 19 08 23.8 -2.4
VBMS IAmb IAmb 19 08 34.1
comp=Z,163nm,1.0s
U38A Gravette 18.24 37 IAmb IAmb 19 08 30.0
comp=Z,131nm,1.0s
DUG Dugway, Tooele 18.25 348 P P 19 08 29.5 +2.8
comp=Z,29nm,1.0s
BSUT Blindstream Ca 18.26 353 IAmb IAmb 19 08 36.2
comp=Z,132nm,1.8s
NVAR Mina Array Bea 18.33 333 P P 19 08 29.6 +1.8
comp=Z,0.3nm,0.3s,baz=150,slow=11,SNR=39
NVAR LR LR 19 15 34.9
comp=Z,2µm,20.2s,baz=158,slow=37
comp=Z,28nm,0.9s
NVAR AML AML
NVAR Mina Array Bea 18.33 333 P Pn 19 08 26.1 -1.6
TEIG Tepich 18.36 93 P Pn 19 08 25.7 -2.3

TEIG Tepich 18.36 93 P Pn 19 08 24.8 -3.2
comp=Z,34nm,0.9s
HHAR Hobbs 18.37 38 IAmb IAmb 19 08 30.9
comp=Z,73nm,0.9s
CTU Camp Tracy 18.55 351 P 19 08 30.0 0.0
346A Big Creek Wild 18.67 57 P P 19 08 30.2 -1.0
WHAR Wooly Hollow 18.70 43 IAmb IAmb 19 08 36.7
comp=Z,153nm,1.3s
TCUT Toone Canyon 18.91 352 IAmb IAmb 19 08 45.4
comp=Z,107nm,1.1s
ESQI Esquipulas 19.19 111 P P 19 08 35.6 -1.6
FCAR Ozark Folk Cen 19.19 42 IAmb IAmb 19 08 42.2
comp=Z,72nm,1.1s
SPUT South Promonto 19.26 349 IAmb IAmb 19 08 47.1
comp=Z,139nm,1.9s
ELK Elko 19.34 343 P Pn 19 08 41.1 +1.2
comp=Z,0.1nm,0.3s,baz=170,slow=8.6,SNR=14
ELK LR LR 19 16 07.0
comp=Z,4µm,18.4s,baz=168,slow=37
comp=Z,5.2nm,1.0s
ELK AML AML
HWUT Hardware Ranch 19.42 352 IAmb IAmb 19 08 50.0
comp=Z,94nm,1.2s
HWUT Hardware Ranch 19.42 352 P Pn 19 08 43.4 +2.6
comp=Z,64nm,1.8s
PNTR Pine Nut 19.44 332 IAmb IAmb 19 08 48.2
comp=Z,72nm,1.1s
BMN Battle Mountai 19.66 338 P P 19 08 43.3 +1.0
BMN pmax pmax
comp=Z,40nm,1.1s
BMN Battle Mountai 19.66 338 P P 19 08 43.3 +1.0
S39A Bolivar 19.73 36 IAmb IAmb 19 08 46.5
comp=Z,87nm,1.0s
Y45A Yeager Farm, C 19.75 51 P P 19 08 42.5 -0.7
MPK Martis Peak 19.80 331 P P 19 08 45.1 +1.1
MPK IAmb IAmb 19 08 57.3
comp=Z,105nm,1.1s
LCAR Lake Charles 19.91 43 P P 19 08 45.2 +0.3
AFDM Forest Hills D 19.96 329 P 19 08 45.5 +0.1
OXF Oxford 20.18 49 P P 19 08 47.7 -0.1
OXF pmax pmax
comp=Z,154nm,1.6s
OXF MLR MLR
comp=Z,3µm,19.0s
OXF Oxford 20.18 49 P 19 08 47.7 -0.1
OXF IAmb IAmb 19 09 01.8
comp=Z,154nm,1.6s
CVS Carmenet Viney 20.25 325 P 19 08 48.4 -0.2
CVS IAmb IAmb 19 09 01.6
comp=Z,77nm,1.1s
MCCM Marconi Confer 20.33 324 IAMs_20 IAMs_20 19 15 12.7
comp=Z,4µm,22.0s
BW06 Boulder Array 20.37 356 P P 19 08 49.6 -0.5
PD31 Pinedale Array 20.37 356 P 19 08 50.1 0.0
PDAR Pinedale Array 20.37 356 P Pn 19 08 52.0 -0.1
comp=Z,8.4nm,0.9s,baz=171,slow=10,SNR=11
PDAR LR LR 19 16 44.4
comp=Z,2µm,19.3s,baz=174,slow=37
comp=Z,8.4nm,0.9s
PDAR Pinedale Array 20.37 356 P 19 08 49.8 -0.3
BEKR Bekworth 20.41 331 P 19 08 50.4 -0.1
BRAL Brewton 20.50 60 P P 19 08 51.2 -0.1
AHID Auburn Hatcher 20.50 353 P Pn 19 08 54.6 +1.0
comp=Z,41nm,1.0s
Z47A Carrollton 20.51 54 P P 19 08 51.5 0.0
T42A Van Buren 20.56 41 P P 19 08 52.3 +0.4
T42A IAmb IAmb 19 08 57.3
comp=Z,176nm,1.7s
SUTB Sutter Butte 20.57 328 P P 19 08 51.9 -0.2
SUTB IAmb IAmb 19 09 04.1
comp=Z,48nm,1.1s
R40A Madies Statio 20.74 37 IAmb IAmb 19 08 59.5
comp=Z,89nm,0.9s
PBMO Poplar Bluff 20.81 43 IAmb IAmb 19 09 02.6
comp=Z,215nm,1.9s
CCM Cathedral Cave 21.15 39 P P 19 08 58.3 0.0
CCM pmax pmax
comp=Z,212nm,1.8s
CCM MLR MLR
comp=Z,10µm,22.0s
CCM Cathedral Cave 21.15 39 P P 19 08 58.3 0.0
CCM Cathedral Cave 21.15 39 P P 19 09 00.2 +1.9
comp=Z,42nm,1.1s
ELFS Eagle Lake Fie 21.19 332 IAMs_20 IAMs_20 19 17 56.4
comp=Z,4µm,19.0s
TGUH Tegucigalpa,Un 21.21 109 P P 19 08 59.3 0.0
TGUH IAMs_20 IAMs_20 19 17 26.2
comp=Z,5µm,18.0s
451A Vernon 21.38 63 P P 19 09 00.1 -0.7
250A Grady 21.41 59 P P 19 09 01.2 +0.1
FVM French Village 21.59 40 IAmb IAmb 19 09 08.7
comp=Z,54nm,0.8s
HATC Hat Creek Radi 21.68 331 P P 19 09 04.5 +0.5
L34A Svendsen Farm, 21.76 24 IAMs_20 IAMs_20 19 17 11.3
comp=Z,3µm,18.0s
HLID Hailey 21.81 347 IAMs_20 IAMs_20 19 17 30.3
comp=Z,3µm,18.0s
HLID Hailey 21.81 347 P P 19 09 08.2 +2.6
comp=Z,40nm,1.1s
KCPM Cahto Peak 21.83 326 IAMs_20 IAMs_20 19 16 35.3
comp=Z,4µm,22.0s
RSSD Black Hills 21.90 7 P P 19 09 06.3 -0.3
RSSD pmax pmax
comp=Z,32nm,1.0s
RSSD MLR MLR
comp=Z,5µm,21.0s
RSSD Black Hills 21.90 7 P P 19 09 06.3 -0.3
RSSD Black Hills 21.90 7 IAMs_20 IAMs_20 19 17 43.2
comp=Z,5µm,21.0s
RSSD Black Hills 21.90 7 P P 19 09 08.7 +2.1
comp=Z,36nm,1.0s
WVOR Wild Horse Val 21.93 338 IAmb IAmb 19 09 25.5
comp=Z,39nm,0.9s
WVOR Wild Horse Val 21.93 338 P P 19 09 10.5 +3.8
comp=Z,45nm,1.0s
MFID Camas Ranch 21.99 344 IAMs_20 IAMs_20 19 17 42.2
comp=Z,3µm,18.0s
Y49A Blount Mountai 22.04 54 IAMs_20 IAMs_20 19 18 59.3
comp=Z,6µm,18.0s
MOD Modoc Plateau 22.09 335 IAmb IAmb 19 09 21.8
comp=Z,47nm,1.1s
MOD IAMs_20 IAMs_20 19 18 28.9
comp=Z,3µm,18.0s
S44A Carbondale 22.11 42 IAmb IAmb 19 09 18.2
comp=Z,175nm,1.8s
S44A IAMs_20 IAMs_20 19 18 07.2
comp=Z,7µm,20.0s
N38A Joes South For 22.12 31 IAmb IAmb 19 09 16.3
comp=Z,91nm,1.1s
SLM Saint Louis 22.13 39 IAmb IAmb 19 09 17.6
comp=Z,66nm,1.1s
WVT Waverly 22.13 47 P P 19 09 07.9 -1.0
WVT pmax pmax
comp=Z,32nm,0.8s
WVT MLR MLR
comp=Z,6µm,19.0s
WVT Waverly 22.13 47 P 19 09 07.8 -1.0
WVT IAmb IAmb 19 09 18.9
comp=Z,32nm,0.8s
WVT Waverly 22.13 47 IAMs_20 IAMs_20 19 18 22.8
comp=Z,6µm,19.0s
WVT Waverly 22.13 47 P P 19 09 10.3 +1.4
comp=Z,59nm,0.9s
M03C McCloud 22.34 331 P P 19 09 12.8 +1.7
M03C IAmb IAmb 19 09 21.1
comp=Z,42nm,1.1s
KHBM Hayfork Bally 22.38 328 IAMs_20 IAMs_20 19 17 25.8
comp=Z,5µm,20.0s
YNR Norris Junctio 22.39 355 IAmb IAmb 19 09 34.3
comp=Z,49nm,1.2s
YHH Holmes Hill 22.48 354 IAmb IAmb 19 09 27.7
comp=Z,43nm,1.1s
V48A Smith Brothers 22.63 49 IAMs_20 IAMs_20 19 18 40.8
comp=Z,3µm,21.0s
J08A Circle Bar Ran 22.70 340 IAmb IAmb 19 09 24.4
comp=Z,89nm,1.3s
KHMM Horse Mountain 22.79 328 IAMs_20 IAMs_20 19 17 23.8
comp=Z,4µm,21.0s
JCC Jacoby Creek, 22.90 327 IAMs_20 IAMs_20 19 16 58.6
comp=Z,4µm,22.0s
SOR Soroa 22.93 84 P P 19 09 16.7 -0.9
SOR pmax pmax
comp=Z,42nm,1.2s
SOR Soroa 22.93 84 P P 19 09 16.6 -0.9
SOR IAmb IAmb 19 09 36.1
comp=Z,42nm,1.2s
SOR Soroa 22.93 84 P P 19 09 20.5 +2.9

comp=Z,35nm,1.8s
FPAL Fort Paine 22.94 53 IAmb IAmb 19 09 21.4
comp=Z,47nm,0.9s
YBH Yreka Blue Hor 22.97 331 LR LR 19 18 15.4
comp=Z,1µm,18.9s,baz=164,slow=37
SCIA State Center 23.01 29 IAmb IAmb 19 09 29.6
comp=Z,90nm,1.2s
SCIA IAMs_20 IAMs_20 19 17 49.1
comp=Z,4µm,18.0s
T47A Sharon Grove 23.09 46 IAMs_20 IAMs_20 19 18 53.1
comp=Z,5µm,20.0s
CLTN Cedars of Leba 23.15 49 IAmb IAmb 19 09 27.7
comp=Z,60nm,1.3s
SUSD Miller 23.19 16 IAmb IAmb 19 09 37.5
comp=Z,48nm,0.9s
P43A Skaggs, Pawnee 23.21 38 IAmb IAmb 19 09 34.8
comp=Z,70nm,1.1s
ECSD EROS Data Cent 23.23 21 IAmb IAmb 19 09 40.0
comp=Z,39nm,1.1s
ECSD EROS Data Cent 23.23 21 P P 19 09 22.3 +1.9
comp=Z,34nm,1.0s
DLMT Dillon 23.24 351 P P 19 09 20.8 +0.1
DLMT IAmb IAmb 19 09 37.9
comp=Z,38nm,1.2s
DLMT IAMs_20 IAMs_20 19 18 26.2
comp=Z,3µm,18.0s
TIGA Tifton 23.39 62 IAmb IAmb 19 09 33.8
comp=Z,75nm,1.1s
KSXB Camp Six Broad 23.59 329 P P 19 09 24.0 -0.1
KSXB IAMs_20 IAMs_20 19 18 14.9
comp=Z,3µm,20.0s
J05D Fort Rock, OR 23.62 335 IAmb IAmb 19 09 30.7
comp=Z,97nm,1.6s
BMO Blue Mountains 23.72 343 IAmb IAmb 19 09 38.8
comp=Z,28nm,0.9s
U49A Red Boiling Sp 23.75 49 IAMs_20 IAMs_20 19 19 25.4
comp=Z,5µm,19.0s
Y52A Lilburn 23.83 56 IAMs_20 IAMs_20 19 20 08.7
comp=Z,5µm,19.0s
L40A Anamosa 24.06 32 IAmb IAmb 19 09 49.4
comp=Z,51nm,1.1s
GOGA Godfrey 24.13 58 IAmb IAmb 19 09 44.5
comp=Z,64nm,1.3s
GOGA Godfrey 24.13 58 P P 19 09 30.7 +1.5
comp=Z,35nm,1.3s
LAO LASA Array 24.28 3 IAmb IAmb 19 09 54.7
comp=Z,60nm,1.2s
LAO IAMs_20 IAMs_20 19 19 25.5
comp=Z,4µm,18.0s
WCI Wyandotte Cave 24.32 45 P P 19 09 30.4 -0.5
WCI pmax pmax
comp=Z,49nm,1.0s
WCI MLR MLR
comp=Z,2µm,22.0s
WCI Wyandotte Cave 24.32 45 P 19 09 30.4 -0.5
WCI IAmb IAmb 19 09 37.0
comp=Z,49nm,1.0s
WCI Wyandotte Cave 24.32 45 P P 19 09 32.3 +1.4
comp=Z,64nm,1.6s
WIFE Three Sisters- 24.50 335 P P 19 09 34.2 +1.4
DWPF Disney Wildern 24.54 71 P P 19 09 32.3 -0.7
DWPF Disney Wildern 24.54 71 P P 19 09 35.1 +2.1
comp=Z,142nm,2.8s
P46A Rosedale 24.56 41 IAmb IAmb 19 09 55.4
comp=Z,38nm,0.8s
I37A Lemond, Wasseca 24.65 26 IAmb IAmb 19 09 44.1
comp=Z,54nm,1.1s
T50A Nancy 24.65 49 IAMs_20 IAMs_20 19 19 53.4
comp=Z,4µm,20.0s
GBMT Granite Butte, 24.70 352 IAmb IAmb 19 10 04.3
comp=Z,41nm,1.2s
F10A Beach Ranch, E 24.74 344 IAmb IAmb 19 10 03.5
comp=Z,44nm,1.1s
TKL Tuckaleechee C 24.78 52 LR LR 19 20 11.9
comp=Z,2µm,20.0s,baz=247,slow=39
E28A Huff 24.82 12 IAmb IAmb 19 09 53.5
comp=Z,51nm,0.9s
E28A IAMs_20 IAMs_20 19 19 07.0
comp=Z,3µm,18.0s
MSO Missoula 24.88 350 IAmb IAmb 19 09 49.1
comp=Z,55nm,1.0s
MSO IAMs_20 IAMs_20 19 19 28.5
comp=Z,4µm,20.0s
JTS Las Juntas de 25.00 115 LR LR 19 19 26.4
comp=Z,2µm,21.6s,baz=311,slow=37
JTS Las Juntas de 25.00 115 *i* P P 19 09 39.6 +2.3
JTS pmax pmax
comp=Z,13nm,1.0s
R49A Shelbyville 25.09 46 IAmb IAmb 19 09 41.0
comp=Z,41nm,1.2s
SFIN Lafayette 25.11 40 IAmb IAmb 19 10 05.8
comp=Z,64nm,1.1s
F33A 5 Mile Ranch, 25.22 19 IAMs_20 IAMs_20 19 19 24.9
comp=Z,3µm,19.0s
YPT Yellepit 25.28 342 IAmb IAmb 19 09 49.4
comp=Z,29nm,0.8s
TZTN Tazewell 25.34 51 IAMs_20 IAMs_20 19 20 17.5
comp=Z,4µm,22.0s
TZTN Tazewell 25.34 51 P P 19 09 42.6 +2.4
comp=Z,64nm,1.0s
HODGE Hodges 25.36 57 IAmb IAmb 19 09 47.3
comp=Z,39nm,1.1s
E09A Wood Farm, Sta 25.48 343 IAmb IAmb 19 09 46.9
comp=Z,31nm,1.2s
V53A Saluda 25.49 53 IAMs_20 IAMs_20 19 21 12.7
comp=Z,3µm,20.0s
EGMT Eagleton 25.62 357 IAmb IAmb 19 10 08.5
comp=Z,53nm,1.2s
R50A Paris 25.64 47 IAMs_20 IAMs_20 19 20 21.7
comp=Z,3µm,18.0s
I40A Norwalk 25.75 30 IAMs_20 IAMs_20 19 19 22.6
comp=Z,4µm,22.0s
HAWA Hanford 25.76 341 IAMs_20 IAMs_20 19 21 32.9
comp=Z,3µm,18.0s
S51A Beattyville 25.82 48 IAmb IAmb 19 10 18.8
comp=Z,39nm,1.1s
SPMN Marine on St. 25.90 25 IAMs_20 IAMs_20 19 20 10.6
comp=Z,5µm,18.0s
PAULI Pauline 25.91 56 IAmb IAmb 19 09 57.4
comp=Z,63nm,1.2s
E07A Sunnyside 26.00 341 IAmb IAmb 19 10 03.7
comp=Z,24nm,1.1s
JSC Jenkinsville 26.15 57 P P 19 09 47.8 +0.2
JSC pmax pmax
comp=Z,62nm,1.4s
JSC Jenkinsville 26.15 57 P P 19 09 47.8 +0.2
JSC IAmb IAmb 19 09 52.3
comp=Z,62nm,1.4s
DGMT Dagmar 26.19 6 IAMs_20 IAMs_20 19 20 28.0
comp=Z,5µm,22.0s
MDND Maddock 26.25 13 IAmb IAmb 19 10 06.8
comp=Z,28nm,0.9s
MDND IAMs_20 IAMs_20 19 20 00.3
comp=Z,3µm,20.0s
N47A Urbana 26.25 40 IAmb IAmb 19 09 53.2
comp=Z,41nm,1.1s
KMSC Kings Mountain 26.40 55 IAMs_20 IAMs_20 19 21 23.6
comp=Z,3µm,18.0s
U54A Nelsons Funny 26.58 52 IAMs_20 IAMs_20 19 21 09.4
comp=Z,3µm,22.0s
O49A Covington 26.68 43 IAmb IAmb 19 10 14.9
comp=Z,69nm,1.4s
O49A IAMs_20 IAMs_20 19 20 50.0
comp=Z,4µm,22.0s
LDM Libby Dam 26.68 349 IAmb IAmb 19 10 03.3
comp=Z,30nm,1.1s
V55A Taylorsville 26.76 54 IAMs_20 IAMs_20 19 21 37.1
comp=Z,4µm,22.0s
LON Longmire 26.80 338 IAmb IAmb 19 10 06.1
comp=Z,33nm,1.0s
NEW Newport 26.86 346 LR LR 19 20 58.7
comp=Z,2µm,19.2s,baz=176,slow=37
NEW Newport 26.86 346 IAmb IAmb 19 10 02.7
comp=Z,39nm,1.4s
NEW Newport 26.86 346 IAMs_20 IAMs_20 19 20 47.1
comp=Z,2µm,18.0s
LTY Liberty 26.88 340 IAmb IAmb 19 10 01.1
comp=Z,40nm,1.2s
Q52A Bidwell 27.38 47 IAMs_20 IAMs_20 19 21 17.6
comp=Z,2µm,21.0s
H43A Windswept, Lux 27.53 32 IAMs_20 IAMs_20 19 21 46.8
comp=Z,4µm,20.0s
U56A King 27.57 54 IAMs_20 IAMs_20 19 22 27.6
comp=Z,2µm,18.0s
AGMN Agassiz Nation 27.57 17 P P 19 10 01.2 +1.0
comp=Z,17nm,1.3s
GNW Green Mountain 27.86 338 IAmb IAmb 19 10 11.7
comp=Z,36nm,1.2s

BLA Blacksburg 27.89 52 IAMs_20 IAMs_20 19 21 59.0
comp=Z,4µm,18.0s
I45A Fountain 28.01 34 IAMs_20 IAMs_20 19 20 54.3
comp=Z,3µm,22.0s
M50A Fremont 28.18 42 IAMs_20 IAMs_20 19 21 22.7
comp=Z,3µm,20.0s
P53A Whipple 28.23 47 IAmb IAmb 19 10 11.2
comp=Z,29nm,1.0s
P53A IAMs_20 IAMs_20 19 22 02.1
comp=Z,3µm,18.0s
O52A Adamsville 28.25 45 IAMs_20 IAMs_20 19 21 11.6
comp=Z,3µm,22.0s
V58A Windy Hill, Pi 28.32 55 IAMs_20 IAMs_20 19 22 43.6
comp=Z,4µm,20.0s
Q54A Coxs Mills 28.37 48 IAMs_20 IAMs_20 19 21 59.8
comp=Z,4µm,22.0s
R55A Marlinton 28.55 50 IAMs_20 IAMs_20 19 22 17.7
comp=Z,4µm,21.0s
EYMN Ely 28.67 23 P **P** **19 10 09.5 -0.5**
EYMN IAmb IAmb 19 10 11.8
comp=Z,38nm,0.8s
EYMN Ely 28.67 23 IAMs_20 IAMs_20 19 22 15.0
comp=Z,4µm,20.0s
EYMN Ely 28.67 23 P **P** **19 10 10.4 +0.4**
comp=Z,52nm,0.9s
S57A Dark Hollow, R 29.18 52 IAMs_20 IAMs_20 19 22 39.1
comp=Z,4µm,21.0s
O54A Avella 29.25 46 IAMs_20 IAMs_20 19 22 42.1
comp=Z,3µm,18.0s
ULM Lac du Bonnet 29.36 16 P **P** **19 10 16.0 0.0**
comp=Z,12nm,0.9s,baz=201,slow=8.7,SNR=10
ULM LR LR 19 22 22.8
comp=Z,2µm,18.8s,baz=198,slow=37
comp=Z,12nm,0.9s
ULM Lac du Bonnet 29.36 16 P **P** **19 10 15.6 -0.5**
ULM pmax pmax
comp=Z,15nm,0.9s
ULM Lac du Bonnet 29.36 16 **P** **19 10 15.6 -0.5**
MCWV Mont Chateau 29.36 48 IAMs_20 IAMs_20 19 23 04.1
comp=Z,4µm,19.0s
EPLO Experimental L 29.43 19 **P** **19 10 16.0 -0.7**
EPLO IAmb IAmb 19 10 19.4
comp=Z,18nm,0.7s
Q56A Snyder Ridge, 29.54 49 IAMs_20 IAMs_20 19 22 47.8
comp=Z,4µm,22.0s
T59A Double "B" Far 29.91 54 IAMs_20 IAMs_20 19 23 22.7
comp=Z,4µm,21.0s
TBO Thunder Bay 30.04 25 **P** **19 10 21.5 -0.6**
TBO IAmb IAmb 19 10 42.9
comp=Z,43nm,1.4s
R58B Mineral 30.04 52 IAMs_20 IAMs_20 19 23 16.0
comp=Z,4µm,19.0s
V61A Roper 30.27 57 IAMs_20 IAMs_20 19 24 05.2
comp=Z,3µm,18.0s
ERPA Erie 30.48 43 IAMs_20 IAMs_20 19 22 43.7
comp=Z,2µm,19.0s
CBN Corbin Frederi 30.50 52 IAMs_20 IAMs_20 19 23 30.1
comp=Z,4µm,20.0s
P57A Homestead Farm 30.55 49 IAMs_20 IAMs_20 19 23 18.6
comp=Z,4µm,21.0s
E46A Sault Ste Mari 30.60 33 IAMs_20 IAMs_20 19 21 43.9
comp=Z,2µm,18.0s
EDM Edmonton 31.07 354 IAmb IAmb 19 10 42.5
comp=Z,20nm,0.9s
SSPA Standing Stone 31.14 47 IAMs_20 IAMs_20 19 24 00.2
comp=Z,3µm,18.0s
M57A Sunshine Farm, 31.97 47 IAMs_20 IAMs_20 19 23 37.1
comp=Z,3µm,22.0s
N58A Sunbury 32.03 48 IAMs_20 IAMs_20 19 24 27.7
comp=Z,3µm,18.0s
MMNY Mt. Morris Dam 32.12 44 IAMs_20 IAMs_20 19 23 45.0
comp=Z,2µm,20.0s
SADO Sadowa 32.43 40 LR LR 19 24 40.8
comp=Z,3µm,18.4s,baz=258,slow=38
J55A Hilton 32.44 43 IAMs_20 IAMs_20 19 26 13.6
comp=Z,2µm,22.0s
FFC Flin Flon 32.59 6 *i* P **P** **19 10 45.6 +1.1**
FFC Flin Flon 32.59 6 P **P** **19 10 44.0 -0.5**
FFC IAmb IAmb 19 11 09.0
comp=Z,26nm,1.5s
FFC Flin Flon 32.59 6 P **P** **19 10 44.0 -0.5**
comp=Z,12nm,1.1s
P61A Hammonton 32.91 51 IAMs_20 IAMs_20 19 24 54.1
comp=Z,4µm,22.0s
KSPA Keystone Colle 32.99 47 IAMs_20 IAMs_20 19 24 09.0
comp=Z,2µm,20.0s
K57A Scipio Center 33.02 45 IAMs_20 IAMs_20 19 24 23.8
comp=Z,2µm,18.0s
BINY Binghamton 33.12 46 IAMs_20 IAMs_20 19 25 02.6
comp=Z,2µm,18.0s
BBB Bella Bella 33.59 337 LR LR 19 25 48.8
comp=Z,2µm,18.2s,baz=167,slow=38
SJCC San Jacinto, C 33.66 106 **P** **19 10 53.9 -0.6**
SJCC IAmb IAmb 19 11 11.6
comp=Z,22nm,1.0s
J57A Williamstown 33.67 44 IAMs_20 IAMs_20 19 23 54.1
comp=Z,2µm,22.0s
L59A Walton 33.75 46 IAMs_20 IAMs_20 19 24 54.1
comp=Z,2µm,21.0s
N62A Caumsett State 34.32 49 IAMs_20 IAMs_20 19 25 35.4
comp=Z,4µm,22.0s
KSCT Kent School, K 34.62 48 IAMs_20 IAMs_20 19 26 18.1
comp=Z,3µm,18.0s
CFNY Clifton-Fine, 34.63 43 IAmb IAmb 19 11 06.7
comp=Z,35nm,1.1s
J59A Piesco 34.66 45 IAMs_20 IAMs_20 19 25 59.3
comp=Z,2µm,19.0s
TRY Troy 34.90 46 IAMs_20 IAMs_20 19 25 10.6
comp=Z,2µm,22.0s
LONY Lake Ozonia 35.14 43 IAMs_20 IAMs_20 19 24 38.0
comp=Z,2µm,22.0s
M63A Gales Ferry 35.49 49 IAMs_20 IAMs_20 19 25 56.9
comp=Z,3µm,21.0s
K62A Royalston 35.84 47 IAMs_20 IAMs_20 19 26 10.5
comp=Z,2µm,21.0s
MCVT Middlebury Col 35.86 45 IAMs_20 IAMs_20 19 25 36.1
comp=Z,2µm,21.0s
J61A Chester 35.90 46 IAMs_20 IAMs_20 19 26 49.0
comp=Z,2µm,20.0s
OTAV Otavalo 36.11 124 P **P** **19 11 15.7 -0.3**
OTAV pmax pmax
comp=Z,16nm,1.1s
OTAV MLR MLR
comp=Z,800nm,20.0s
OTAV Otavalo 36.11 124 **P** **19 11 15.7 -0.3**
OTAV IAmb IAmb 19 11 41.6
comp=Z,16nm,1.1s
OTAV Otavalo 36.11 124 P **P** **19 11 18.5 +2.5**
comp=Z,14nm,1.1s
OTAV Otavalo 36.11 124 *eP* **P** **19 11 14.8 -1.2**
MNTQ Montreal, Queb 36.16 42 IAmb IAmb 19 11 17.3
comp=Z,26nm,0.8s
VT1 Waterbury 36.18 44 IAmb IAmb 19 12 14.2
comp=Z,44nm,1.3s
VT1 IAMs_20 IAMs_20 19 25 44.4
comp=Z,2µm,21.0s
HNH Hanover 36.22 46 IAMs_20 IAMs_20 19 26 57.6
comp=Z,2µm,20.0s
LBNH Lisbon 36.68 45 IAMs_20 IAMs_20 19 26 09.7
comp=Z,2µm,22.0s
ROSC El Rosal 36.82 113 LR LR 19 27 27.2
comp=Z,884nm,21.1s,baz=334,slow=38
I62A Tamworth 36.92 46 IAMs_20 IAMs_20 19 27 28.1
comp=Z,2µm,20.0s
H62A Milan 37.32 45 IAmb IAmb 19 11 35.6
comp=Z,47nm,1.2s
H62A IAMs_20 IAMs_20 19 26 05.7
comp=Z,2µm,21.0s
RUSC La Rusia 37.35 111 **P** **19 11 26.0 -0.6**
RUSC IAmb IAmb 19 11 58.2
comp=Z,31nm,1.2s
I63A Otisfield 37.49 46 IAMs_20 IAMs_20 19 27 00.1
comp=Z,2µm,21.0s
G62A West of Eustis 37.99 44 IAmb IAmb 19 12 37.3
comp=Z,47nm,1.8s
G62A IAMs_20 IAMs_20 19 27 42.4
comp=Z,3µm,19.0s
SDV Santo Domingo 38.15 105 IAMs_20 IAMs_20 19 27 44.0
comp=Z,2µm,22.0s
T35M Bob Quinn 38.24 340 IAmb IAmb 19 11 42.3
comp=Z,20nm,1.0s
WVL Waterville 38.30 45 IAMs_20 IAMs_20 19 29 03.5
comp=Z,2µm,20.0s
LMQ La Malbaie 39.12 41 IAmb IAmb 19 11 41.6
comp=Z,79nm,1.8s
E62A Clayton Lake 39.21 43 IAMs_20 IAMs_20 19 27 01.7
comp=Z,2µm,22.0s
SJG San Juan 39.26 88 LR LR 19 28 46.2
comp=Z,526nm,21.2s,baz=282,slow=38
DLBC Dease Lake 39.39 342 LR LR 19 29 07.5
comp=Z,2µm,18.6s,baz=132,slow=38
D62A Allapoint, All 39.70 42 IAmb IAmb 19 11 50.2
comp=Z,51nm,1.3s
EMMW East Machias 39.81 46 IAmb IAmb 19 11 48.6
comp=Z,30nm,0.9s
EMMW IAMs_20 IAMs_20 19 28 06.6
comp=Z,2µm,22.0s
G65A Princeton 39.92 45 IAMs_20 IAMs_20 19 29 10.4
comp=Z,2µm,19.0s
YKA Yellowknife Ar 40.35 355 P **P** **19 11 52.3 +1.7**
comp=Z,4.1nm,0.8s,baz=171,slow=7.8,SNR=12
YKA LR LR 19 29 11.2
comp=Z,1µm,19.6s,baz=176,slow=37
comp=Z,4.1nm,0.8s
R33M Jennings River 40.46 342 IAmb IAmb 19 11 57.8
comp=Z,32nm,1.3s
WTLY Watson Lake, Y 40.48 344 IAmb IAmb 19 11 57.2
comp=Z,49nm,1.1s
ATAH Atahualpa 41.15 132 LR LR 19 25 52.1
comp=Z,479nm,18.2s,baz=340,slow=32
BATG Bathurst New B 41.65 43 **P** **19 12 01.5 0.0**
LMN Caledonia Moun 41.96 46 **P** **19 12 04.4 +0.3**
LMN IAmb IAmb 19 12 06.2
comp=Z,41nm,0.9s
N32M Quiet Lake 42.51 342 IAmb IAmb 19 12 26.3
comp=Z,21nm,0.9s
O30N Mendenhall 43.10 340 IAMs_20 IAMs_20 19 30 43.7
comp=Z,2µm,18.0s
N31M Braeburn, Yuko 43.56 341 IAmb IAmb 19 12 33.9
comp=Z,25nm,1.1s
M31M Drury Creek, Y 43.73 342 IAmb IAmb 19 12 29.2
comp=Z,23nm,1.4s
CBE Ff, Capester 43.98 90 IAMs_20 IAMs_20 19 30 55.3
comp=Z,1µm,20.0s
GBN Guysborough 44.03 47 **P** **19 12 20.8 -0.1**
TAOE Nuku Hiva Isla 44.34 229 *e*S **S** **19 18 58.7 +0.3**
TAOE *e*SS **ScS** **19 22 21.7 -1.3**
comp=Z,396nm,25.3s
comp=Z,222nm,24.3s
TAOE *e*LR LR 19 24 41.2
comp=Z,3µm,23.7s
O28M Mount Upton 44.46 338 IAmb IAmb 19 12 42.8
comp=Z,17nm,1.0s
SCHQ Schefferville 44.53 33 P **P** **19 12 24.9 +0.1**
comp=Z,12nm,0.8s,baz=242,slow=6.4,SNR=9.8
SCHQ LR LR 19 33 06.4
comp=Z,686nm,18.5s,baz=242,slow=39
comp=Z,12nm,0.8s
SCHQ Schefferville 44.53 33 IAmb IAmb 19 12 25.8
comp=Z,22nm,1.0s
M30M Minto, Yukon 44.71 341 IAmb IAmb 19 12 40.2
comp=Z,19nm,1.4s
M29M Somme Creek 45.12 340 IAmb IAmb 19 12 38.0
comp=Z,28nm,1.5s
TGL Tana Glacier 45.39 337 IAMs_20 IAMs_20 19 28 14.3
comp=Z,1µm,21.0s
L29M L29M 45.52 341 IAmb IAmb 19 12 50.2
comp=Z,28nm,1.1s
L29M IAMs_20 IAMs_20 19 32 53.5
comp=Z,2µm,18.0s
CZSB Cruzeiro do Su 45.62 127 **P** **19 12 33.7 -0.2**
CZSB Cruzeiro do Su 45.62 127 *eP* **P** **19 12 32.6 -1.3**
NNA Nana 45.73 135 *i* P **P** **19 12 36.3 +1.5**
NNA pmax pmax
comp=Z,27nm,1.0s
K29M Barlow Dome 45.90 342 IAmb IAmb 19 12 52.7
comp=Z,30nm,1.1s
J30M Hart River 46.15 343 IAmb IAmb 19 12 55.1
comp=Z,17nm,1.2s
J30M IAMs_20 IAMs_20 19 33 11.2
comp=Z,1µm,19.0s
M27K Edge Creek, AK 46.15 339 IAmb IAmb 19 13 01.5
comp=Z,17nm,1.0s
GLB Gilahina Butte 46.20 337 **P** **19 12 40.5 +2.4**
GLB IAmb IAmb 19 12 43.9
comp=Z,13nm,1.0s
M26K Nabesna, AK 46.56 338 IAmb IAmb 19 12 59.3
comp=Z,15nm,1.3s
M26K IAMs_20 IAMs_20 19 30 08.2
comp=Z,1µm,21.0s
DAWY Dawson 46.61 342 IAmb IAmb 19 13 08.1
comp=Z,22nm,1.0s
L27K Beaver Creek, 46.63 340 IAMs_20 IAMs_20 19 33 22.0
comp=Z,965nm,18.0s
H31M Peel River 46.65 345 IAmb IAmb 19 12 57.7
comp=Z,14nm,1.0s
H31M IAMs_20 IAMs_20 19 33 07.4
comp=Z,1µm,18.0s
I30M Mount Dempster 46.68 344 IAmb IAmb 19 13 05.3
comp=Z,9.6nm,1.0s
L26K Big Salmon Wild 47.11 339 IAMs_20 IAMs_20 19 30 49.6
comp=Z,1µm,20.0s
I29M Ogilvie Camp, 47.29 343 IAmb IAmb 19 13 02.9
comp=Z,22nm,1.5s
I29M IAMs_20 IAMs_20 19 34 50.3
comp=Z,2µm,18.0s
HARP HAARP 47.31 337 P **P** **19 12 47.5 +0.9**
K27K Chicken 47.40 340 IAmb IAmb 19 13 04.9
comp=Z,18nm,1.0s
K27K IAMs_20 IAMs_20 19 33 31.2
comp=Z,1µm,19.0s
EPYK Eagle Plains 47.68 345 IAmb IAmb 19 13 02.4
comp=Z,15nm,0.9s
EPYK IAMs_20 IAMs_20 19 34 53.6
comp=Z,1µm,20.0s
DOT Dot Lake 47.77 339 IAmb IAmb 19 12 55.4
comp=Z,12nm,1.0s
I28M Miner Creek 47.80 343 IAmb IAmb 19 13 00.3
comp=Z,11nm,1.1s
I28M IAMs_20 IAMs_20 19 31 03.8
comp=Z,1µm,21.0s
F31M Tsiigehtchic 47.88 347 IAmb IAmb 19 13 01.8
comp=Z,21nm,1.2s
SCRK Sand Creek 47.97 339 IAmb IAmb 19 12 58.6
comp=Z,15nm,1.3s
SCRK IAMs_20 IAMs_20 19 34 06.3
comp=Z,1µm,19.0s
H29M Whitestone 47.97 344 IAmb IAmb 19 13 07.3
comp=Z,18nm,1.1s
G30M tAoh Zraii Nji 48.05 345 IAMs_20 IAMs_20 19 35 20.4
comp=Z,2µm,21.0s
RIDG Independent Ri 48.09 339 IAMs_20 IAMs_20 19 31 18.5
comp=Z,1µm,21.0s
SML Sawmill 48.12 336 **P** **19 12 55.6 +2.6**
SML IAmb IAmb 19 12 57.8
comp=Z,24nm,1.1s
SLKM Skilak Lake 48.13 333 IAmb IAmb 19 12 58.0
comp=Z,21nm,1.0s
GHO Glory Hole Cre 48.33 335 IAmb IAmb 19 12 59.5
comp=Z,21nm,1.0s
I27K Kandik River 48.39 342 IAmb IAmb 19 13 11.1
comp=Z,14nm,1.1s
G29M Pine Creek 48.43 345 IAmb IAmb 19 13 11.4
comp=Z,16nm,0.9s
F30M Barrier River 48.47 346 IAMs_20 IAMs_20 19 33 29.3
comp=Z,2µm,20.0s
DHY Denali Highway 48.53 337 IAmb IAmb 19 13 01.5
comp=Z,11nm,1.1s
INK Inuvik 48.57 348 IAmb IAmb 19 13 07.5
comp=Z,11nm,0.9s
I26K Coal Creek Min 48.63 341 IAmb IAmb 19 13 05.8
comp=Z,8.1nm,0.8s
I26K IAMs_20 IAMs_20 19 34 48.7
comp=Z,1µm,18.0s
H27K Steamboat Moun 48.82 343 IAmb IAmb 19 13 24.4
comp=Z,16nm,1.3s
H27K IAMs_20 IAMs_20 19 31 35.9
comp=Z,1µm,20.0s
J25K Salcha River, 48.84 340 IAmb IAmb 19 13 06.3
comp=Z,18nm,1.3s
J25K IAMs_20 IAMs_20 19 34 35.4
comp=Z,1µm,18.0s
FRB Frobisher Bay 48.88 22 LR LR 19 32 44.9
comp=Z,1µm,19.3s,baz=234,slow=35
HDA Harding Lake 49.23 339 IAMs_20 IAMs_20 19 36 22.6
comp=Z,821nm,18.0s
RPN Rapa Nui 49.24 182 LR LR 19 28 34.7
comp=Z,653nm,19.5s,baz=35,slow=30
G27K Doyon Strip 49.28 343 IAMs_20 IAMs_20 19 36 02.0
comp=Z,2µm,18.0s
F28M Old Crow 49.43 344 IAMs_20 IAMs_20 19 34 51.8
comp=Z,982nm,21.0s
IL31 49.44 339 IAmb IAmb 19 13 22.9
comp=Z,18nm,1.1s
ILAR Eielson Array 49.44 339 P **P** **19 13 04.0 +1.0**
comp=Z,5.9nm,0.9s,baz=151,slow=6.5,SNR=36
ILAR LR LR 19 34 52.7
comp=Z,687nm,18.0s,baz=121,slow=37
comp=Z,5.9nm,0.9s
ILAR Eielson Array 49.44 339 *eP* **P** **19 13 04.5 +1.5**
ILAR pmax pmax
comp=Z,8.0nm,1.0s
ILAR Eielson Array 49.44 339 **P** **19 13 03.5 +0.5**
SKT Skwentna 49.47 335 IAmb IAmb 19 13 08.1
comp=Z,21nm,1.0s
SKT IAMs_20 IAMs_20 19 35 03.1
comp=Z,886nm,19.0s
MCK McKinley 49.49 337 IAmb IAmb 19 13 08.3
comp=Z,17nm,1.0s
PRP Porcupine Dome 49.49 340 IAmb IAmb 19 13 20.6
comp=Z,14nm,1.0s
PRP IAMs_20 IAMs_20 19 32 57.7
comp=Z,981nm,21.0s
E29M Blow River 49.57 346 IAmb IAmb 19 13 20.6
comp=Z,22nm,1.0s
E29M IAMs_20 IAMs_20 19 33 05.4
comp=Z,1µm,21.0s
CCB Clear Creek Bu 49.66 339 IAMs_20 IAMs_20 19 32 03.2
comp=Z,900nm,20.0s
COLA College 49.82 339 IAMs_20 IAMs_20 19 32 08.5
comp=Z,1µm,22.0s
POKR Poker Plat Res 49.84 339 IAMs_20 IAMs_20 19 31 05.8
comp=Z,1µm,22.0s
BWN Browne 49.94 338 IAMs_20 IAMs_20 19 31 04.1
comp=Z,1µm,22.0s
G26K Porcupine Rive 49.97 342 IAmb IAmb 19 13 24.0
comp=Z,23nm,0.9s
BOAV Boa Vista 50.02 107 **P** **19 13 07.3 -0.9**
BOAV Boa Vista 50.02 107 *eP* **P** **19 13 07.9 -0.2**
M20K Styx River 50.06 334 IAmb IAmb 19 13 12.5
comp=Z,18nm,1.1s
NEA2 Nenana 50.06 338 IAmb IAmb 19 13 24.7
comp=Z,15nm,1.0s
NEA2 IAMs_20 IAMs_20 19 31 37.7
comp=Z,990nm,22.0s
N19K Bonanza Creek 50.09 332 IAmb IAmb 19 13 16.1
comp=Z,15nm,0.9s
KTH Kantishna Hill 50.11 337 IAmb IAmb 19 13 27.9
comp=Z,22nm,1.1s
KTH IAMs_20 IAMs_20 19 36 48.0
comp=Z,1µm,18.0s
E28M Babbage River 50.11 345 IAmb IAmb 19 13 24.2
comp=Z,16nm,1.1s
FYU Fort Yukon 50.12 342 IAMs_20 IAMs_20 19 34 15.1
comp=Z,884nm,19.0s
PPLA Purkeypile 50.22 335 IAmb IAmb 19 13 31.4
comp=Z,27nm,0.9s
E27K Coleen River 50.29 344 IAmb IAmb 19 13 26.1
comp=Z,22nm,1.0s
E27K IAMs_20 IAMs_20 19 35 19.6
comp=Z,1µm,19.0s
H24K Noodor Dome 50.44 340 IAmb IAmb 19 13 15.7
comp=Z,13nm,1.1s
H24K IAMs_20 IAMs_20 19 35 33.7
comp=Z,1µm,18.0s
BPAW Bear Paw Mtn. 50.44 337 IAmb IAmb 19 14 02.3
comp=Z,35nm,1.7s
CAST Castle Rocks 50.47 336 IAmb IAmb 19 13 26.7
comp=Z,33nm,1.5s
I23K Minto, Yukon-K 50.50 339 IAmb IAmb 19 13 42.8
comp=Z,21nm,1.4s
BMAR Burnt Mountain 50.53 343 **P** **19 13 12.2 +0.9**
F26K Sheenjek River 50.60 343 IAMs_20 IAMs_20 19 36 28.7
comp=Z,1µm,20.0s
A36M Sachs Harbour 50.60 353 IAmb IAmb 19 13 22.1
comp=Z,17nm,0.8s
L20K Farewell, AK 50.67 334 IAMs_20 IAMs_20 19 31 28.8
comp=Z,856nm,21.0s
G24K Hadweenzic Riv 50.88 341 IAMs_20 IAMs_20 19 34 01.1
comp=Z,1µm,21.0s
L19K White Mountain 50.91 334 IAmb IAmb 19 13 36.3
comp=Z,22nm,1.2s
L19K IAMs_20 IAMs_20 19 31 14.3
comp=Z,814nm,20.0s
D27M Malcolm River 50.94 345 IAmb IAmb 19 13 29.8
comp=Z,25nm,0.9s
F25K Christian Rive 50.94 342 IAmb IAmb 19 13 31.2
comp=Z,12nm,0.9s
F25K IAMs_20 IAMs_20 19 36 17.8
comp=Z,1µm,19.0s
H23K Yukon River 50.97 339 IAMs_20 IAMs_20 19 35 11.7
comp=Z,1µm,18.0s
K20K Telida 51.19 335 IAmb IAmb 19 13 38.1
comp=Z,17nm,1.0s
I21K Tanana 51.41 338 IAmb IAmb 19 13 22.6
comp=Z,20nm,1.2s
F24K Squaw Lake 51.53 342 IAMs_20 IAMs_20 19 35 12.5
comp=Z,1µm,18.0s
H22K Ishtalitna Cre 51.62 339 IAMs_20 IAMs_20 19 37 25.9
comp=Z,904nm,18.0s
M17K Holitna River 51.63 332 IAmb IAmb 19 13 35.2
comp=Z,37nm,1.2s
J20K Nowinta River 51.65 336 IAmb IAmb 19 13 39.1
comp=Z,20nm,1.0s
J20K IAMs_20 IAMs_20 19 38 07.7
comp=Z,819nm,18.0s
G23K Bananza Creek 51.67 340 IAMs_20 IAMs_20 19 36 47.1
comp=Z,1µm,19.0s
L18K Granite Mounta 51.69 333 IAmb IAmb 19 13 24.2
comp=Z,34nm,1.4s
C27K Jago River 51.87 345 IAmb IAmb 19 13 37.8
comp=Z,27nm,1.0s
C27K IAMs_20 IAMs_20 19 33 55.4
comp=Z,1µm,21.0s
H21K Melozitna Rive 51.97 338 IAmb IAmb 19 13 39.4
comp=Z,15nm,1.0s
H21K IAMs_20 IAMs_20 19 38 23.1
comp=Z,812nm,18.0s
E24K Your Creek 52.07 342 P **P** **19 13 23.9 +1.1**
E24K IAMs_20 IAMs_20 19 36 53.6
comp=Z,1µm,19.0s
J19K Poorman 52.11 336 IAmb IAmb 19 13 42.9
comp=Z,13nm,0.9s
J18K Innoko River 52.28 335 IAmb IAmb 19 13 44.2
comp=Z,14nm,1.0s
D25K Kavik River 52.33 344 IAmb IAmb 19 13 41.0
comp=Z,19nm,1.2s
C26K Camden Bay 52.38 345 IAmb IAmb 19 13 41.6
comp=Z,12nm,0.9s
C26K IAMs_20 IAMs_20 19 36 37.3
comp=Z,778nm,18.0s
E23K Chandalar 52.38 342 IAmb IAmb 19 13 42.0
comp=Z,30nm,1.1s
E23K IAMs_20 IAMs_20 19 35 13.0
comp=Z,750nm,19.0s
IMAR Indian Mountai 52.47 338 P **P** **19 13 26.3 +0.5**
G21K Allakaket 52.68 339 IAMs_20 IAMs_20 19 37 06.0
comp=Z,896nm,18.0s
TOLK Toolik Lake Re 52.74 342 IAmb IAmb 19 13 44.5
comp=Z,12nm,0.9s
RES Resolute Bay 52.79 4 LR LR 19 37 17.8
comp=Z,775nm,21.3s,baz=188,slow=38
POIN Pond Inlet 53.03 11 **P** **19 13 29.4 -0.4**
POIN IAmb IAmb 19 13 41.3
comp=Z,16nm,0.9s
F21K Alatna River 53.07 340 IAMs_20 IAMs_20 19 37 42.3
comp=Z,1µm,18.0s
H19K Roundabout Mou 53.19 337 IAMs_20 IAMs_20 19 39 03.3
comp=Z,919nm,18.0s
C24K Franklin Bluff 53.20 343 IAmb IAmb 19 14 02.4
comp=Z,13nm,0.9s
C24K IAMs_20 IAMs_20 19 33 40.5
comp=Z,1µm,21.0s
D23K Nanushuk River 53.26 342 IAmb IAmb 19 13 56.8
comp=Z,22nm,1.2s
D23K IAMs_20 IAMs_20 19 35 26.1
comp=Z,1µm,21.0s
H18K Honhosa River 53.71 336 IAMs_20 IAMs_20 19 38 08.2
comp=Z,787nm,18.0s
F20K Avaraart Lake 53.71 339 IAMs_20 IAMs_20 19 38 50.2
comp=Z,1µm,18.0s
D22K Ayikyak River 53.78 342 IAMs_20 IAMs_20 19 34 04.0
comp=Z,918nm,20.0s
F19K Shaleruckik Mo 54.30 338 IAmb IAmb 19 13 58.7
comp=Z,16nm,1.1s
F19K IAMs_20 IAMs_20 19 33 41.7
comp=Z,804nm,19.0s
E19K Redstone River 54.43 339 IAMs_20 IAMs_20 19 39 34.1
comp=Z,936nm,19.0s
LPAZ La Paz 54.68 131 P **P** **19 13 42.5 -0.8**
comp=Z,6.5nm,1.0s,baz=336,slow=7.2,SNR=14
LPAZ LR LR 19 35 47.5
comp=Z,384nm,22.0s,baz=313,slow=35
comp=Z,6.5nm,1.0s

LPAZ	**La Paz**	**54.68**	**131**	*e*P	**P**	**19 13 45.6**	**+2.3**	
LPAZ				pmax	pmax			
	comp=Z,7.0nm,1.0s							
LPAZ	**La Paz**	**54.68**	**131**	*e*P	**P**	**19 13 40.2**	**-3.2**	
D20K	**Etivluk River**	**54.88**	**340**	IAMs_20	IAMs_20	19 38 43.9		
	comp=Z,862nm,18.0s							
PB16	**IPOC Station P**	**55.17**	**134**		**P**	**19 13 45.4**	**-1.5**	
PB16				IAmb	IAmb	19 13 51.9		
	comp=Z,26nm,1.4s							
D19K	**Kuna River**	**55.24**	**340**	IAMs_20	IAMs_20	19 39 24.5		
	comp=Z,963nm,20.0s							
MDP	**Montagnes des**	**55.98**	**99**	LR	LR	19 40 37.1		
	comp=Z,380nm,19.6s,baz=305,slow=39							
PB11	**IPOC Station P**	**56.10**	**135**	IAmb	IAmb	19 13 56.5		
	comp=Z,22nm,0.9s							
IVI	**Ivigtut**	**56.11**	**30**	*i* P	**P**	**19 13 52.2**	**-0.1**	
IVI				IAmb	IAmb	19 13 52.7		
	comp=Z,59nm,1.4s							
C18K	**Utukok River**	**56.31**	**339**	IAMs_20	IAMs_20	19 39 49.8		
	comp=Z,1µm,19.0s							
GO01	**Chusmiza**	**56.33**	**135**	P	**P**	**19 13 54.2**	**-0.8**	
GO01				IAmb	IAmb	19 13 59.9		
	comp=Z,29nm,1.4s							
PB08	**IPOC Station P**	**56.70**	**135**	IAmb	IAmb	19 14 01.6		
	comp=Z,17nm,1.1s							
PPT	**Papeete**	**56.95**	**229**	LR	LR	19 31 56.5		
	comp=Z,1µm,19.3s,baz=18,slow=29							
SFJD	**Kangerlussuaq**	**56.97**	**23**	LR	LR	19 38 39.3		
	comp=Z,2µm,19.2s,baz=248,slow=36							
PPT2	**Papeete2**	**56.97**	**229**	*e*P	P	19 13 50.7	-8.4	
	comp=Z,84nm,36.0s							
PPT2				*e*SS	**SS**	**19 25 43.8**	**+1.3**	
	comp=Z,619nm,27.8s							
PPT2				*e*SS	**SS**	**19 25 43.8**	**+1.3**	
	comp=Z,234nm,26.5s							
PPT2				*e*LQ	LQ	19 28 12.2		
	comp=Z,269nm,23.5s							
PPT2				*e*LR	LR	19 30 32.5		
	comp=Z,3µm,24.2s							
PPT2				*e*LR	LR	19 30 33.2		
	comp=Z,3µm,26.0s							
PB07	**IPOC Station P**	**57.38**	**137**	IAmb	IAmb	19 14 06.1		
	comp=Z,12nm,0.8s							
ITTB	**Itaituba**	**57.45**	**111**	*e*P	**P**	**19 14 02.2**	**-0.4**	
PB03	**IPOC Station P**	**57.70**	**137**	IAmb	IAmb	19 14 08.5		
	comp=Z,15nm,0.9s							
NPGB	**Novo Progresso**	**59.12**	**113**	*e*P	**P**	**19 14 13.5**	**-0.8**	
BBSD	**Serra de San D**	**60.70**	**126**	*e*P	**P**	**19 14 23.7**	**-1.3**	
PTLB	**Pontes e Lacer**	**60.75**	**124**		**P**	**19 14 24.0**	**-1.4**	
PTLB	**Pontes e Lacer**	**60.75**	**124**	*e*P	**P**	**19 14 23.9**	**-1.4**	
CLDB	**Colider**	**60.79**	**117**	*e*P	**P**	**19 14 23.7**	**-1.9**	
TBI	**Tubuai**	**60.87**	**224**	*e*S	**S**	**19 22 48.1**	**+4.1**	
	comp=Z,3µm,29.5s							
TBI				*e*SS	**SS**	**19 26 41.9**	**-1.7**	
	comp=Z,1µm,28.8s							
TBI				*e*LQ	LQ	19 29 50.9		
	comp=Z,3µm,53.2s							
TBI				*e*LR	LR	19 32 18.0		
	comp=Z,2µm,26.2s							
TBI				*e*LR	LR	19 32 23.4		
	comp=Z,9µm,26.0s							
AC06	**Mina Casimiro**	**61.31**	**142**	P	**P**	**19 14 28.3**	**-0.7**	
AC06				IAmb	IAmb	19 14 33.1		
	comp=Z,11nm,0.9s							
AC02	**Maricunga**	**61.63**	**141**		**P**	**19 14 31.0**	**-0.7**	
AC02				IAmb	IAmb	19 14 36.6		
	comp=Z,16nm,0.9s							
AC02				IAMs_20	IAMs_20	19 34 30.7		
	comp=Z,675nm,18.0s							
LCO	**Las Campanas**	**62.39**	**143**	P	**P**	**19 14 35.7**	**-0.8**	
LCO				pmax	pmax			
	comp=Z,18nm,1.1s							
LCO	**Las Campanas**	**62.39**	**143**		**P**	**19 14 35.7**	**-0.8**	
LCO				IAmb	IAmb	19 14 40.6		
	comp=Z,18nm,1.1s							
AC05	**El Transito**	**62.49**	**143**		**P**	**19 14 36.0**	**-1.1**	
SUMG	**Summit**	**62.66**	**19**	P	**P**	**19 14 37.2**	**-0.8**	
SUMG				pmax	pmax			
	comp=Z,42nm,1.4s							
SUMG				MLR	MLR			
	comp=Z,3µm,19.0s							
SUMG	**Summit**	**62.66**	**19**		**P**	**19 14 37.1**	**-0.8**	
SUMG	**Summit**	**62.66**	**19**	*i* P	**P**	**19 14 38.0**	**0.0**	
SUMG				IAmb	IAmb	19 14 42.9		
	comp=Z,234nm,2.4s							
GO04	**Tololo Observa**	**63.24**	**144**		**P**	**19 14 41.3**	**-0.9**	
COIM	**Forte Coimbra**	**64.48**	**127**	*e*P	**P**	**19 14 49.2**	**-0.9**	
CO04	**Los Peladeros**	**64.61**	**146**	IAmb	IAmb	19 14 54.7		
	comp=Z,18nm,1.1s							
PP1B	**Ponte de Pedra**	**65.30**	**123**	*e*P	**P**	**19 14 55.7**	**0.0**	
SHEM	**Shemya Is, Ala**	**65.34**	**319**	LR	LR	19 37 07.9		
	comp=Z,269nm,21.9s,baz=90,slow=30							
ZON	**Zonda**	**65.45**	**144**	IAmb	IAmb	19 15 00.7		
	comp=Z,17nm,1.0s							
BDQN	**Bodoquena, MS**	**65.58**	**127**	*e*P	**P**	**19 14 57.0**	**-0.3**	
MT01	**Popeta**	**65.91**	**147**	P	**P**	**19 14 58.2**	**-1.1**	
MT01				IAmb	IAmb	19 15 02.3		
	comp=Z,14nm,1.1s							
MT09	**Talagante**	**65.97**	**147**	P	**P**	**19 14 58.0**	**-1.8**	
AQDB	**Aquidauana**	**66.37**	**126**	IAmb	IAmb	19 15 06.0		
	comp=Z,14nm,1.2s							
AQDB	**Aquidauana**	**66.37**	**126**	*e*P	**P**	**19 15 02.2**	**-0.2**	
GO05	**Hualane**	**66.49**	**148**	IAmb	IAmb	19 15 06.7		
	comp=Z,14nm,0.9s							
RAR	**Rarotonga**	**66.65**	**233**	LR	LR	19 35 24.0		
	comp=Z,1µm,21.6s,baz=100,slow=28							
ARAG	**Araguaiana, MT**	**66.67**	**120**	*e*P	**P**	**19 15 04.4**	**-0.1**	
SMTB	**Santa Maria do**	**66.69**	**111**		**P**	**19 15 03.5**	**-1.2**	
SMTB	**Santa Maria do**	**66.69**	**111**	*e*P	**P**	**19 15 05.8**	**+1.1**	
BO02	**Sierra Bellavi**	**66.88**	**147**	IAmb	IAmb	19 15 09.1		
	comp=Z,13nm,0.9s							
NOR	**Nord**	**68.17**	**9**	*i* P	**P**	**19 15 13.8**	**+0.7**	
NOR				IAmb	IAmb	19 15 19.8		
	comp=Z,7.8nm,1.0s							
DAG	**Danmarks Havn**	**68.19**	**14**	*i* P	**P**	**19 15 12.0**	**-1.2**	
DAG				IAmb	IAmb	19 15 19.5		
	comp=Z,44nm,1.8s							
BORG	**Borgarnes**	**68.52**	**27**	LR	LR	19 45 06.4		
	comp=Z,3µm,18.3s,baz=275,slow=36							
CPUP	**Villa Florida**	**68.84**	**132**	P	**P**	**19 15 16.9**	**-1.0**	
	comp=Z,13nm,1.2s,baz=324,slow=8.6,SNR=12							
CPUP				LR	LR	19 44 42.9		
	comp=Z,276nm,19.6s,baz=338,slow=35							
	comp=Z,13nm,1.2s							
CPUP	**Villa Florida**	**68.84**	**132**	IAmb	IAmb	19 15 21.1		
	comp=Z,11nm,1.1s							
SJPY	**San Joaquin**	**68.85**	**130**	*e*P	**P**	**19 15 17.9**	**-0.2**	
BDFB	**Brasilia**	**69.72**	**117**	P	**P**	**19 15 22.7**	**-1.1**	
BDFB				LR	LR	19 47 25.3		
	comp=Z,6.9nm,0.8s,baz=300,slow=5.2,SNR=4.0							
	comp=Z,490nm,19.8s,baz=315,slow=37							
	comp=Z,6.9nm,0.8s							
BDFB	**Brasilia**	**69.72**	**117**		**P**	**19 15 22.3**	**-1.4**	
BDFB				IAmb	IAmb	19 15 27.3		
	comp=Z,12nm,1.1s							
GO06	**Curarrehue**	**70.40**	**151**	IAmb	IAmb	19 15 34.1		
	comp=Z,12nm,1.2s							
ITQB	**Itaqui**	**71.46**	**134**	*e*P	**P**	**19 15 33.7**	**-0.3**	
PLCA	**Paso Flores**	**71.74**	**151**	P	**P**	**19 15 34.5**	**-1.1**	
	comp=Z,12nm,0.9s,baz=340,slow=7.2,SNR=11							
PLCA				LR	LR	19 40 35.0		
	comp=Z,379nm,19.1s,baz=339,slow=30							
	comp=Z,12nm,0.9s							
PLCA	**Paso Flores**	**71.74**	**151**	*e*P	**P**	**19 15 35.9**	**+0.4**	
PLCA				pmax	pmax			
	comp=Z,12nm,0.9s							
PLCA	**Paso Flores**	**71.74**	**151**	IAmb	IAmb	19 15 39.4		
	comp=Z,18nm,1.1s							
PLCA	**Paso Flores**	**71.74**	**151**	*e*P	**P**	**19 15 35.7**	**+0.2**	
PSAL	**Palomas, Salto**	**71.74**	**136**	*e*P	**P**	**19 15 35.6**	**0.0**	
JMIC	**Jan Mayen**	**72.03**	**20**	LR	LR	19 47 43.3		
	comp=Z,2µm,18.1s,baz=276,slow=36							
BB19B	**Bebedouro**	**72.20**	**122**	*e*P	**P**	**19 15 39.4**	**+0.8**	
AFI	**Afiamalu**	**72.27**	**246**	LR	LR	19 41 31.9		
	comp=Z,434nm,18.2s,baz=85,slow=31							
ITAB	**Concordia**	**73.03**	**130**	IAmb	IAmb	19 15 47.3		
	comp=Z,29nm,1.3s							
SEY	**Seymchan**	**74.64**	**332**	LR	LR	19 50 13.1		
	comp=Z,255nm,18.1s,baz=88,slow=37							
SEY	**Seymchan**	**74.64**	**332**	*i* P	**P**	**19 15 55.8**	**+3.5**	
SEY				pmax	pmax			
	comp=Z,24nm,2.0s							
DIAM	**Diamantina, MG**	**74.64**	**118**	*e*P	**P**	**19 15 54.3**	**+1.1**	
SPITS	**Spitsbergen Ar**	**74.74**	**10**	LR	LR	19 50 20.1		
	comp=Z,1µm,18.4s,baz=304,slow=37							
PETK	**Petropavlovsk-**	**75.00**	**322**	LR	LR	19 46 05.9		
	comp=Z,76nm,19.0s,baz=71,slow=34							
RCBR	**Riachuelo**	**75.69**	**103**	LR	LR	19 51 37.2		
	comp=Z,163nm,19.1s,baz=272,slow=38							
RCBR	**Riachuelo**	**75.69**	**103**	IAMs_20	IAMs_20	19 50 07.1		
	comp=Z,456nm,20.0s							
SJMB	**Sao Joao De Ma**	**76.89**	**117**	*e*P	**P**	**19 16 06.5**	**+0.5**	
TIXI	**Tiksi**	**78.56**	**344**	LR	LR	19 54 09.1		
	comp=Z,308nm,18.6s,baz=46,slow=38							
TIXI	**Tiksi**	**78.56**	**344**	*i* P	**P**	**19 16 15.0**	**+0.6**	
TIXI				pmax	pmax			
	comp=Z,10.0nm,1.1s							
TIXI	**Tiksi**	**78.56**	**344**		**P**	**19 16 13.2**	**-1.2**	
TIXI				IAMs_20	IAMs_20	19 55 14.8		
	comp=Z,444nm,18.0s							
EKA	**Eskdalemuir Ar**	**79.82**	**34**	P	**P**	**19 16 21.0**	**-0.6**	
	comp=Z,4.2nm,1.0s,baz=304,slow=4.9,SNR=3.5							
	comp=Z,4.2nm,1.0s							
EKA	**Eskdalemuir Ar**	**79.82**	**34**	P	**P**	**19 16 21.0**	**-0.6**	
ARCES	**ARCESS Array B**	**82.47**	**15**	P	**P**	**19 16 35.3**	**-0.1**	
	comp=Z,5.1nm,1.0s,baz=347,slow=5.0,SNR=5.1							
ARCES				LR	LR	19 54 01.5		
	comp=Z,1µm,19.8s,baz=318,slow=36							
	comp=Z,5.1nm,1.0s							
ARCES	**ARCESS Array B**	**82.47**	**15**	*e*P	**P**	**19 16 36.1**	**+0.7**	
ARCES				pmax	pmax			
	comp=Z,5.0nm,0.9s							
MSVF	**Nonsavu**	**82.70**	**248**	LR	LR	19 47 00.3		
	comp=Z,438nm,18.0s,baz=27,slow=31							
NB2	**NORSAR Subarra**	**83.57**	**25**	P	**P**	**19 16 42.3**	**+1.0**	
	comp=Z,5.3nm,1.0s,baz=304,slow=5.1							
NOA	**NORSAR Array B**	**83.57**	**25**	P	**P**	**19 16 42.5**	**+1.1**	
	comp=Z,3.6nm,0.9s,baz=305,slow=5.0,SNR=9.3							
NOA				LR	LR	19 54 21.9		
	comp=Z,1µm,18.8s,baz=305,slow=36							
	comp=Z,3.6nm,0.9s							
YAK	**Yakutsk**	**84.28**	**336**	LR	LR	19 55 55.7		
	comp=Z,287nm,20.3s,baz=36,slow=37							
YAK	**Yakutsk**	**84.28**	**336**	*e*P	**P**	**19 16 45.9**	**+1.1**	
YAK				*e**PP	**pwP**	**19 16 53.3**	**+2.2**	
YAK				*e*		19 19 59.7		
YAK				*e*S	**SKSac**	**19 27 05.7**	**-2.6**	
YAK				pmax	pmax			
	comp=Z,15nm,1.0s							
YAK				pmax	pmax			
	comp=N,2.0nm,1.3s							
YAK				pmax	pmax			
	comp=E,4.0nm,1.4s							
YAK				pmax	pmax			
	comp=Z,296nm,5.5s							
YAK				pmax	pmax			
	comp=N,236nm,4.8s							
YAK				pmax	pmax			
	comp=E,275nm,5.7s							
YAK				smax	smax			
	comp=N,240nm,4.7s							
YAK				smax	smax			
	comp=E,242nm,4.6s							
YAK	**Yakutsk**	**84.28**	**336**		**P**	**19 16 43.9**	**-0.9**	
YAK				IAmb	IAmb	19 17 02.6		
	comp=Z,16nm,1.0s							
YAK	**Yakutsk**	**84.28**	**336**	IAMs_20	IAMs_20	19 55 28.4		
	comp=Z,409nm,22.0s							
RAO	**Raoul Island**	**84.74**	**236**	LR	LR	19 50 09.0		
	comp=Z,279nm,18.1s,baz=121,slow=33							
HFS	**Hagfors**	**85.09**	**25**	LR	LR	19 55 28.9		
	comp=Z,1µm,18.9s,baz=303,slow=36							
ESDC	**Sonseca Array**	**86.02**	**49**	P	**P**	**19 16 56.1**	**+2.0**	
	comp=Z,0.9nm,0.9s,baz=294,slow=5.0,SNR=4.3							
ESDC				LR	LR	19 53 11.5		
	comp=Z,686nm,21.1s,baz=299,slow=34							
	comp=Z,0.9nm,0.9s							
ESDC	**Sonseca Array**	**86.02**	**49**	P	**P**	**19 16 53.5**	**-0.7**	
ESDC				IAmb	IAmb	19 17 49.7		
	comp=Z,19nm,1.6s							
ASAJ	**Asahikawa**	**87.73**	**317**	LR	LR	19 55 36.2		
	comp=Z,148nm,18.2s,baz=70,slow=35							
NRIK	**Noril'sk**	**87.86**	**355**	P	**P**	**19 17 02.9**	**+0.5**	
	comp=Z,2.2nm,0.4s,baz=44,slow=4.3,SNR=3.7							
NRIK				LR	LR	19 58 37.4		
	comp=Z,392nm,19.4s,baz=18,slow=37							
	comp=Z,2.2nm,0.4s							
NRIK	**Noril'sk**	**87.86**	**355**	*i* P	**P**	**19 17 02.0**	**-0.4**	
NRIK				pmax	pmax			
	comp=Z,6.0nm,1.1s							
NRIK	**Noril'sk**	**87.86**	**355**	IAmb	IAmb	19 17 23.4		
	comp=Z,9.3nm,1.1s							
MDT	**Midelt**	**88.53**	**55**	LR	LR	19 55 54.7		
	comp=Z,214nm,19.5s,baz=325,slow=35							
FINES	**FINESS Array B**	**88.65**	**20**	P	**P**	**19 17 08.1**	**+1.8**	
	comp=Z,3.2nm,1.0s,baz=138,slow=38,SNR=1.3							
FINES				LR	LR	19 57 21.4		
	comp=Z,992nm,18.0s,baz=316,slow=36							
	comp=Z,3.2nm,1.0s							
FINES	**FINESS Array B**	**88.65**	**20**	P	**P**	**19 17 06.9**	**+0.7**	
FINES	**FINESS Array B**	**88.65**	**20**	P	**P**	**19 17 06.9**	**+0.7**	
CLL	**Collm**	**90.18**	**33**	L	L	19 48 00.0		
CLL				AMS	AMS	19 59 00.0		
	comp=N,400nm,18.2s							
CLL				AMS	AMS	19 59 00.0		
	comp=E,800nm,17.2s							
CLL				AMS	AMS	19 59 00.0		
	comp=Z,900nm,19.0s							
CLL				AMS	AMS	20 01 00.0		
	comp=N,300nm,18.2s							
CLL				AMS	AMS	20 01 00.0		
	comp=E,1µm,18.6s							
DAVOX	**Davos/Dischmat**	**91.19**	**37**	LR	LR	19 58 12.8		
	comp=E,2µm,18.4s,baz=302,slow=36							
KLR	**Kul'dur**	**91.21**	**326**	LR	LR	19 53 01.1		
	comp=E,129nm,21.7s,baz=36,slow=32							
GERES	**GERESS Array B**	**92.04**	**34**	LR	LR	19 57 41.2		
	comp=E,871nm,19.9s,baz=292,slow=35							
URZ	**Urewera**	**92.60**	**230**	LR	LR	19 49 18.3		
	comp=E,1µm,21.8s,baz=96,slow=29							
KLMR	**Klimovskoe**	**92.94**	**15**	*e*P	**P**	**19 17 26.8**	**+0.5**	
KLMR				pmax	pmax			
	comp=Z,11nm,1.5s							
KLMR				MLR	MLR			
	comp=Z,850nm,20.0s							
PMSA	**Palmer Station**	**93.20**	**163**	LR	LR	19 49 54.2		
	comp=Z,296nm,19.8s,baz=300,slow=30							
VRAC	**Vranov**	**93.23**	**3**	LR	LR	20 00 01.9		
	comp=Z,1µm,19.1s,baz=302,slow=36							
MJAR	**Matsushiro Arr**	**94.47**	**312**	P	**P**	**19 17 32.9**	**-1.0**	
	comp=Z,0.7nm,0.6s,baz=308,slow=34,SNR=2.4							
MJAR				LR	LR	19 55 46.4		
	comp=Z,268nm,18.7s,baz=60,slow=33							
	comp=Z,0.7nm,0.6s							
MJAR	**Matsushiro Arr**	**94.47**	**312**	IAmb	IAmb	19 18 07.6		
	comp=Z,18nm,1.9s							
VSL	**Villasalto**	**95.03**	**44**	IAMs_20	IAMs_20	20 02 14.6		
	comp=Z,458nm,18.0s							
JHJ	**Hachijo jima 2**	**95.14**	**309**	LR	LR	19 58 37.1		
	comp=Z,19nm,18.6s,baz=229,slow=34							
HNR	**Honiara**	**95.55**	**262**	LR	LR	19 51 33.7		
	comp=Z,454nm,21.0s,baz=152,slow=30							
JCJ	**Chichijima**	**96.33**	**303**	LR	LR	19 52 41.9		
	comp=Z,285nm,21.7s,baz=86,slow=30							
OBN	**Obninsk**	**97.04**	**20**	LR	LR	20 01 18.1		
	comp=Z,736nm,20.9s,baz=350,slow=35							
OBN	**Obninsk**	**97.04**	**20**	*e*P	Pdif	19 17 47.3	+2.2	
OBN				*e*		19 21 38.1		
OBN				*e*S	**SKSac**	**19 28 17.5**	**-4.7**	
OBN				*e*SSS	SSS	19 39 27.9		
OBN				pmax	pmax			
	comp=Z,4.0nm,1.0s							
OBN				MLR	MLR			
	comp=Z,799nm,21.0s							
KEST	**Kesra**	**97.12**	**47**	LR	LR	20 01 27.9		
	comp=Z,695nm,19.0s,baz=306,slow=35							
KIRV	**Kirov**	**97.15**	**12**	LR	LR	20 06 03.4		
	comp=Z,756nm,18.1s,baz=338,slow=38							
AKASG	**Malin Array Be**	**97.97**	**26**	LR	LR	20 02 10.6		
	comp=Z,1µm,21.0s,baz=318,slow=36							
CN2	**Changchun**	**98.01**	**324**	*e*P	Pdif	19 17 51.5	+1.7	
CN2				pmax	pmax			
	comp=Z,10.0nm,0.6s							
RPZ	**Rata Peaks**	**99.03**	**226**	LR	LR	19 54 33.6		
	comp=Z,166nm,19.8s,baz=242,slow=31							
DBIC	**Dimbokro**	**99.38**	**79**	LR	LR	19 58 50.8		
	comp=Z,233nm,21.6s,baz=305,slow=33							
VAE	**Valguarnera**	**99.41**	**43**	LR	LR	20 02 07.8		
	comp=Z,306nm,18.9s,baz=282,slow=35							
ARTI	**Arti**	**100.67**	**8**	*i* P	**Pdif**	**19 18 03.1**	**+1.7**	
ARTI				pmax	pmax			
	comp=Z,4.0nm,1.3s							
BELG	**Belogornoye**	**102.52**	**15**	*i* P	**Pdif**	**19 18 11.7**	**+2.1**	
BELG				pmax	pmax			
	comp=Z,2.0nm,0.9s							
ULN	**Ulaanbaatar**	**103.36**	**337**	IAMs_20	IAMs_20	20 13 14.8		
	comp=Z,385nm,18.0s							
MAKZ	**Makanchi**	**110.56**	**353**	IAMs_20	IAMs_20	20 18 11.0		
	comp=Z,454nm,19.0s							
MAK	**Makhachkala**	**111.12**	**19**	*ce*P	**Pdif**	**19 18 48.3**	**+0.2**	
MAK				*e*PPP	PPP	19 25 44.0		
MAK				*e*		19 29 19.9		
MAK				pmax	pmax			
	comp=Z,181nm,1.1s							
ARPR	**Arapgir-MALATY**	**111.14**	**28**	IAMs_20	IAMs_20	20 15 17.6		
	comp=Z,421nm,19.0s							
WMQ	**Urumqi**	**112.59**	**348**	*e*PKP	**PKiKP**	**19 22 52.8**	**+2.8**	
WMQ				LR	LR			
	comp=N,450nm,17.9s							
WMQ				LR	LR			
	comp=E,640nm,19.5s							
WMQ				LR	LR			
	comp=Z,380nm,22.5s							
EDA	**Edea**	**114.13**	**75**	IAMs_20	IAMs_20	20 13 49.9		
	comp=Z,259nm,21.0s							
SNAA	**Sanae**	**115.79**	**160**	*i* PKIKP	**PKPdf**	**19 22 57.9**	**+2.7**	
KSH2	**Kashi**	**118.71**	**357**	PKP	**PKiKP**	**19 23 05.6**	**+3.6**	
KSH2				LR	LR			
	comp=N,390nm,15.1s							
KSH2				LR	LR			
	comp=E,730nm,16.5s							
KSH2				LR	LR			
	comp=Z,800nm,16.8s							
WRA	**Warramunga Arr**	**122.32**	**260**	PKP	**PKPdf**	**19 23 07.6**	**-1.6**	
	comp=Z,0.7nm,0.6s,baz=75,slow=2.2,SNR=9.8							
ASAR	**Alice Springs**	**123.56**	**256**	PKP	**PKPdf**	**19 23 09.6**	**-1.9**	
	comp=Z,0.7nm,0.6s,baz=74,slow=2.2,SNR=8.9							
LSA	**Lhasa**	**125.08**	**340**	IAMs_20	IAMs_20	20 19 06.5		
	comp=Z,235nm,20.0s							
RAYN	**Ar Rayn**	**127.52**	**31**	IAMs_20	IAMs_20	20 20 22.7		
	comp=Z,242nm,20.0s							
UOSS	**Minazif**	**130.47**	**19**	IAMs_20	IAMs_20	20 27 36.1		
	comp=Z,288nm,20.0s							
CMAR	**Chiang Mai Arr**	**131.68**	**325**	PKP	**PKPdf**	**19 23 26.4**	**-0.7**	
	comp=Z,0.5nm,0.7s,baz=320,slow=1.8,SNR=4.7							
FURI	**Furi**	**134.80**	**50**	IAMs_20	IAMs_20	20 24 22.7		
	comp=Z,248nm,22.0s							
LODK	**Lodwar**	**135.84**	**59**	IAMs_20	IAMs_20	20 28 21.2		
	comp=Z,240nm,19.0s							
KMBO	**Kilima Mbogo**	**140.03**	**63**	IAMs_20	IAMs_20	20 27 57.4		
	comp=Z,328nm,21.0s							

SDD 13 19:26:52.5±2.5, 20.13N×71.08W, h4km±9km, MD2.5, ML2.1, MW2.5, 15C-3D, Presumed earthquake, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
LUDR	**Luperon**	**0.26**	**152**	⇓ *i*P		Pg	19 26 56.5	-1.1
LUDR				⇑ *i*S		Sg	19 26 59.6	-1.5
LUDR	**Luperon**	**0.26**	**152**	⇓ *e*Pg		Pg	19 26 56.5	-1.1
LUDR				⇑ *e*Sg		Sg	19 26 59.9	-1.1
LUDR				IAML			19 27 00.6	
	comp=E,1µm,0.3s							
SODR	**Sosua Marina B**	**0.61**	**128**	⇑ *i*S		Sg	19 27 12.6	+0.5
SODR				IAML			19 27 21.8	
	comp=N,176nm,1.6s							
SC01	**Santiago de lo**	**0.77**	**154**	⇑ *i*S		Sg	19 27 17.5	+0.1
SC01				IAML			19 27 20.7	
	comp=N,53nm,0.3s							
REDR	**Restauracion**	**1.00**	**197**	⇑ *i*P		Pg	19 27 11.9	+0.2
REDR				⇑ *i*S		Sg	19 27 25.0	+0.3
REDR				IAML			19 27 27.6	
	comp=N,50nm,0.6s							
REDR	**Restauracion**	**1.00**	**197**	*e*Pg		Pg	19 27 11.9	+0.2
REDR				*e*Sg		Sb	19 27 26.4	+0.4
REDR				IAML			19 27 27.6	
	comp=N,50nm,0.6s							
REDR				IAML			19 27 28.6	
	comp=E,39nm,0.2s							
SDDR	**Presa de Saban**	**1.16**	**190**	⇑ *i*P		Pg	19 27 12.6	-2.1
SDDR				⇑ *i*S		Sg	19 27 28.2	-1.5
SDDR				IAML			19 27 29.5	
	comp=N,37nm,0.7s							
SDDR	**Presa de Saban**	**1.16**	**190**	⇑ *e*Pg		Pg	19 27 13.0	-1.7
SDDR				⇓ *e*Sg		Sg	19 27 28.7	-1.1
SDDR				IAML			19 27 29.5	
	comp=N,37nm,0.7s							
ABDR	**Alto Bandera**	**1.38**	**162**	⇑ *i*P		Pn	19 27 16.4	-2.5
ABDR				⇑ *i*S		Sg	19 27 33.7	-3.2
ABDR				IAML			19 27 46.8	
	comp=N,29nm,1.8s							
ABDR	**Alto Bandera**	**1.38**	**162**	*e*Pg		Pn	19 27 15.7	-3.2
ABDR				*e*Sg		Sg	19 27 33.0	-3.9
JIDR	**Jimani**	**1.78**	**204**	⇑ *i*P		Pn	19 27 20.7	-3.5
JIDR				⇑ *i*S		Sn	19 27 45.7	-1.6
JIDR	**Jimani**	**1.78**	**204**	*e

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**7.51**	**216**	Pn	Pn	20 11 54.5	-1.8
	0.2nm,0.3s,baz=100,slow=20,SNR=1.3						
URZ				Sn	Sn	20 13 15.9	-6.3
	0.8nm,0.3s,baz=161,slow=23,SNR=8.5						
	3.2nm,0.8s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.62**	**269**	P	P	20 18 12.5	+0.6
	0.3nm,0.6s,baz=108,slow=7.1,SNR=5.7						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**44.77**	**274**	P	P	20 18 20.8	-0.4
	0.6nm,0.4s,baz=112,slow=8.0,SNR=21						
	0.6nm,0.4s						
FINES	**FINESS Array B**	**147.09**	**339**	PKPbc	PKPbc	20 29 49.0	-0.7
	0.6nm,0.5s,baz=20,slow=4.4,SNR=5.1						

*DNK **13** 20:18:43.1±2.5, 72°.74N×5°.16E, h18km, ML1.9, Presumed earthquake*
*IDC **13** 20:18:45.5±0.9, 72°.93N×4°.78E, h0km, mb3.6/7, mbtmp3.6/12, ML2.9/4, MS3.5/17, Error ellipse: s-maj=19.1km s-min=12.1km az=72.0*
*FCIAR **13** 20:18:45.0, 73°.01N×4°.81E, h10km*
*NAO **13** 20:18:45.0±0.7, 72°.91N×4°.67E, h10km, ML3.2*
*BER **13** 20:18:46.7±3.9, 72°.87N×4°.73E, h10km, Mw4.2, ML3.2(NAO), Confirmed Earthquake*
*KOLA **13** 20:18:51.6, 72°.36N×5°.70E, h0km, ML1.8, Norwegian sea*
ISC 13 20:18:45.4±0.7, 72°.88N±0°.05×5°.32E±0°.07, h11km, n70, σ3°04/79, mb3.6/7, MS3.4/13, Norwegian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BJO1	**Bjornoya**	**4.18**	**61**	Pn	**Pn**	**20 19 49.4**	**+0.4**
BJO1	**Bjornoya**	**4.18**	**61**	*eP*	**Pn**	20 19 48.4	-0.6
BJO1	**Bjornoya**	**4.18**	**61**	*eP*	**Pn**	**20 19 49.2**	**+0.2**
BEAR	**Bear Island, N**	**4.18**	**61**	Pn	**Pn**	**20 19 49.4**	**+0.3**
	baz=254,slow=18						
TRO	**Tromso**	**5.46**	**120**	Pn	**Pn**	**20 20 08.2**	**+1.6**
TRO	**Tromso**	**5.46**	**120**	*eP*	**Pn**	**20 20 07.8**	**+1.3**
TRO				IAML		20 21 10.2	
	comp=Z,7.3nm,0.4s						
LOF	**Lofoten**	**5.51**	**146**	*eP*	**Pn**	**20 20 09.2**	**+2.0**
LOF				*eS*	**Sn**	**20 21 05.2**	**-5.1**
LOF				IAML		20 21 13.9	
	comp=Z,8.1nm,0.6s						
BRBA	**Barentsburg A**	**5.66**	**19**	*eP*	**Pn**	**20 20 10.7**	**+1.4**
BRBB	**Barentsburg B**	**5.69**	**19**	*eP*	**Pn**	**20 20 11.0**	**+1.3**
JETT	**Jettan, Norway**	**5.90**	**117**	Pn	**Pn**	**20 20 14.5**	**+1.9**
JETT				Sn	**Sn**	**20 21 17.7**	**-2.4**
JETT	**Jettan, Norway**	**5.90**	**117**	Pn	**Pn**	**20 20 14.5**	**+1.9**
JETT				Sn	**Sn**	**20 21 17.7**	**-2.4**
STEI	**Steigen**	**5.98**	**141**	*eP*	**Pn**	**20 20 15.0**	**+1.3**
STEI				*eS*	**Sn**	**20 21 17.7**	**-4.4**
SPA0	**Spitsbergen Ar**	**5.99**	**22**	Pn	**Pn**	**20 20 14.5**	**+0.8**
	baz=216,slow=16						
SPA0	**Spitsbergen Ar**	**5.99**	**22**	*eP*	**Pn**	**20 20 13.0**	**-0.8**
SPA0				*eS*	**Sn**	**20 21 19.0**	**-3.1**
SPA0	**Spitsbergen Ar**	**5.99**	**22**	Pn	**Pn**	**20 20 14.5**	**+0.8**
SPITS	**Spitsbergen Ar**	**5.99**	**22**	Pn	**Pn**	**20 20 14.5**	**+0.8**
	comp=Z,5.5nm,0.4s,baz=204,slow=16,SNR=30						
SPITS				Sn	**Sn**	**20 21 17.7**	**-4.4**
	baz=204,slow=25						
HAMF	**Hammerfest**	**6.18**	**102**	Pn	**Pn**	**20 20 17.0**	**+0.7**
HAMF				Sn	**Sn**	**20 21 24.1**	**-2.7**
HAMF	**Hammerfest**	**6.18**	**102**	*eP*	**Pn**	**20 20 16.6**	**+0.3**
HAMF				IAML		20 21 19.6	
	comp=Z,4.6nm,0.6s						
HAMF				*eS*	**Sn**	**20 21 23.7**	**-3.1**
KBS	**Kingsbay**	**6.28**	**12**	Pn	**Pn**	**20 20 16.9**	**-0.9**
KBS	**Kingsbay**	**6.28**	**12**	*i* P	**Pn**	**20 20 16.3**	**-1.5**
KBS				*i* S	**Sn**	**20 21 23.1**	**-6.3**
KBS	**Kingsbay**	**6.28**	**12**	*i* P	**Pn**	**20 20 16.3**	**-1.5**
KBS				*i* S	**Sn**	**20 21 23.1**	**-6.3**
FAUS	**Fauske**	**6.48**	**144**	*eP*	**Pn**	**20 20 20.6**	**+0.1**
FAUS				*eS*	**Sn**	**20 21 28.0**	**-6.3**
FAUS				IAML		20 21 40.4	
	comp=Z,4.6nm,0.6s						
FAUS	**Fauske**	**6.48**	**144**	P	**Pn**	**20 20 20.9**	**+0.4**
FAUS				S	**Sn**	**20 21 27.8**	**-6.5**
VAGH	**Vaagaholmen**	**6.76**	**152**	*eP*	**Pn**	**20 20 25.9**	**+1.6**
VAGH				*eS*	**Sn**	**20 21 33.5**	**-7.7**
VAGH				IAML		20 21 43.6	
	comp=Z,5.7nm,0.7s						
KONS	**Konsvik**	**6.96**	**153**	*eP*	**Pn**	**20 20 27.6**	**+0.5**
KONS				*eS*	**Sn**	**20 21 38.9**	**-7.1**
KONS				IAML		20 21 44.8	
	comp=Z,6.0nm,0.3s						
KTK1	**Kautokeino**	**7.01**	**115**	Pn	**Pn**	**20 20 30.2**	**+2.3**
KTK1	**Kautokeino**	**7.01**	**115**	*eP*	**Pn**	**20 20 29.8**	**+2.0**
KTK1				*eS*	**Sn**	**20 21 45.0**	**-2.4**
KTK1				IAML		20 21 52.7	
	comp=Z,2.6nm,0.7s						
STOK	**Stokkvaagen**	**7.10**	**154**	*eP*	**Pn**	**20 20 29.9**	**+0.8**
STOK				*eS*	Sn	20 21 41.1	-8.5
STOK				IAML		20 21 48.0	
	comp=Z,6.5nm,0.6s						
SALU	**Saltoluokta**	**7.11**	**134**	*eP*	**Pn**	**20 20 31.2**	**+2.1**
SALU				*eS*	**Sn**	**20 21 44.7**	**-5.1**
RAUS	**Rausandaksla**	**7.14**	**151**	*eP*	**Pn**	**20 20 31.3**	**+1.7**
RAUS				*eS*	**Sn**	**20 21 44.6**	**-6.1**
RAUS				IAML		20 21 52.6	
	comp=Z,8.3nm,0.6s						
ARA0	**ARCESS Array S**	**7.31**	**107**	*e*	**Pn**	**20 20 33.0**	**+1.0**
ARA0				Pn	**Pn**	**20 20 33.5**	**+1.5**
ARA0				Sn	**Sn**	**20 21 52.2**	**-2.5**
ARA0				IAML		20 22 07.3	
	comp=Z,3.0nm,0.7s						
ARCES	**ARCESS Array B**	**7.31**	**107**	Pn	**Pn**	**20 20 33.3**	**+1.4**
	comp=Z,0.4nm,0.3s,baz=320,slow=10,SNR=15						
ARCES				Sn	**Sn**	**20 21 51.0**	**-3.7**
	comp=Z,0.3nm,0.3s,baz=311,slow=19,SNR=2.4						
	comp=Z,0.8nm,0.3s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**7.31**	**107**	P	**Pn**	**20 20 32.6**	**+0.7**
ARCES				S	**Sn**	**20 21 51.3**	**-3.4**
LEIR	**Leirfjorden**	**7.33**	**154**	*eP*	**Pn**	**20 20 34.1**	**+2.0**
LEIR				*eS*	Sn	20 21 46.9	-8.2
LEIR				IAML		20 21 58.3	
	comp=Z,8.0nm,0.6s						
DBG	**Daneborg**	**7.34**	**293**	Pn	Pn	20 20 27.6	-4.7
DBG	**Daneborg**	**7.34**	**293**	*eP*	Pn	20 20 27.3	-4.9
DBG				*eS*	Sn	20 21 42.0	-13
DAG	**Danmarks Havn**	**7.35**	**313**	*i* P	Pn	20 20 27.0	-5.4
DAG				IAML		20 21 44.8	
	comp=Z,4.0nm,0.4s						
DAG	**Danmarks Havn**	**7.35**	**313**	*i* P	Pn	20 20 27.0	-5.4
DAG				IAML		20 21 44.8	
	comp=Z,4.0nm,0.4s						
MOR8	**Moi Rana**	**7.45**	**150**	*eP*	**Pn**	**20 20 35.9**	**+2.0**
MOR8				*eS*	**Sn**	**20 21 52.5**	**-5.7**
MOR8				IAML		20 21 57.6	
	comp=Z,7.3nm,0.7s						
HEF	**Hetta**	**7.54**	**117**	*eP*	**Pn**	**20 20 36.6**	**+1.4**
HEF				*eS*	**Sn**	**20 21 56.2**	**-4.2**
VADS	**Vadso**	**8.10**	**98**	*eP*	**Pn**	**20 20 44.2**	**+1.5**
VADS				*eS*	**Sn**	**20 22 10.7**	**-3.3**
VADS				IAML		20 22 12.9	
	comp=Z,4.8nm,0.7s						
VADS	**Vadso**	**8.10**	**98**	P	**Pn**	**20 20 45.0**	**+2.3**
VADS				S	**Sn**	**20 22 09.2**	**-4.8**
NOR	**Nord**	**9.89**	**341**	*eP*	**Pn**	**20 21 04.8**	**-2.4**
NOR				*eS*	Sn	20 22 45.3	-13
NOR	**Nord**	**9.89**	**341**	*i* P	**Pn**	**20 21 04.2**	**-3.0**
NOR				*i* S	Sn	20 22 46.5	-11
NOR				IAML		20 22 51.8	
	comp=Z,2.7nm,0.2s						
NOR	**Nord**	**9.89**	**341**	*i* P	**Pn**	**20 21 04.2**	**-3.0**
NOR				*i* S	Sn	20 22 46.5	-11
NOR				IAML		20 22 51.8	
	comp=Z,2.7nm,0.2s						
NOA	**NORSAR Array B**	**12.11**	**166**	Pn	**Pn**	**20 21 39.1**	**+1.4**
	baz=287,slow=16,SNR=1.1						
NOA				LR	LR	20 25 52.5	
	comp=Z,82nm,21.7s,baz=315,slow=35						
	comp=Z,1.1nm,1.1s						
HFS	**Hagfors**	**13.21**	**161**	Pn	**Pn**	**20 21 53.4**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=1.7,slow=15,SNR=4.8						
HFS				LR	LR	20 25 59.8	
	comp=Z,142nm,18.7s,baz=348,slow=33						
	comp=Z,2.0nm,0.8s						
HFS				AML	AML		
FINES	**FINESS Array B**	**13.90**	**135**	Pn	**Pn**	**20 22 02.9**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=343,slow=11,SNR=12						
FINES				LR	LR	20 27 05.5	
	comp=Z,217nm,18.2s,baz=260,slow=36						
	comp=Z,2.1nm,0.6s						
FINES				AML	AML		
LSH	**Leshukonskoye**	**16.26**	**99**	P	**Pn**	**20 22 32.6**	**-0.7**
	comp=Z,31nm,1.6s						
KLMR	**Klimovskoe**	**17.68**	**115**	*eP*	**P**	**20 22 52.2**	**+0.1**
	comp=Z,13nm,1.4s						
SFJD	**Kangerlussuaq**	**19.36**	**281**	LR	LR	20 29 32.2	
	comp=Z,83nm,20.2s,baz=25,slow=34						
OBN	**Obninsk**	**22.00**	**127**	LR	LR	20 30 52.7	
	comp=Z,171nm,19.0s,baz=188,slow=33						
VRAC	**Vranov**	**24.18**	**162**	LR	LR	20 32 52.8	
	comp=Z,94nm,18.9s,baz=360,slow=35						
GERES	**GERESS Array B**	**24.41**	**167**	P	**P**	**20 24 06.8**	**+3.2**
	comp=Z,0.7nm,0.8s,baz=7.8,slow=11,SNR=7.0						
	comp=Z,0.7nm,0.8s						
AKASG	**Malin Array Be**	**24.59**	**142**	P	**P**	**20 24 06.8**	**+1.7**
	comp=Z,1.7nm,0.7s,baz=343,slow=9.6,SNR=4.1						
AKASG				LR	LR	20 33 25.9	
	comp=Z,165nm,19.2s,baz=348,slow=36						
	comp=Z,1.7nm,0.7s						
RES	**Resolute Bay**	**24.93**	**322**	LR	LR	20 33 50.6	
	comp=Z,69nm,18.9s,baz=20,slow=36						
DAVOX	**Davos/Dischmat**	**26.27**	**173**	LR	LR	20 36 18.4	
	comp=Z,135nm,18.0s,baz=262,slow=40						
FRB	**Frobisher Bay**	**26.86**	**289**	LR	LR	20 34 45.1	
	comp=Z,39nm,18.4s,baz=120,slow=36						
AKTO	**Aktyubinsk**	**31.89**	**106**	P	**P**	**20 25 14.8**	**+4.6**
	comp=Z,0.8nm,0.4s,baz=331,slow=8.4,SNR=3.9						
AKTO				LR	LR	20 38 29.5	
	comp=Z,84nm,19.8s,baz=282,slow=37						
	comp=Z,0.8nm,0.4s						
SCHQ	**Schefferville**	**33.74**	**277**	LR	LR	20 37 34.5	
	comp=Z,60nm,19.5s,baz=28,slow=34						
BRTR	**Keskin Array B**	**36.00**	**141**	P	**P**	**20 25 47.5**	**+1.4**
	comp=Z,0.6nm,0.6s,baz=355,slow=6.2,SNR=3.7						
	comp=Z,0.6nm,0.6s						
GNI	**Garni**	**37.93**	**128**	LR	LR	20 40 16.6	
	comp=Z,66nm,20.7s,baz=26,slow=34						
YKA	**Yellowknife Ar**	**38.98**	**320**	LR	LR	20 41 26.8	
	comp=Z,122nm,18.5s,baz=290,slow=35						
ILAR	**Eielson Array**	**41.35**	**342**	P	**P**	**20 26 32.3**	**+1.7**
	comp=Z,1.0nm,0.7s,baz=0.9,slow=6.7,SNR=14						
	comp=Z,1.0nm,0.7s						
MMAI	**Mount Meron Ar**	**42.84**	**142**	LR	LR	20 44 46.8	
	comp=Z,52nm,19.3s,baz=81,slow=36						
DLBC	**Dease Lake**	**45.45**	**329**	LR	LR	20 45 36.0	
	comp=Z,87nm,18.2s,baz=16,slow=36						
SONM	**Songino Array**	**48.13**	**63**	P	**P**	**20 27 26.2**	**+1.2**
	comp=Z,0.5nm,0.9s,baz=88,slow=8.6,SNR=2.5						
	comp=Z,0.5nm,0.9s						
PDAR	**Pinedale Array**	**56.33**	**307**	LR	LR	20 52 17.3	
	comp=Z,57nm,19.2s,baz=3.0,slow=36						
TXAR	**Lajitas Array**	**67.58**	**297**	P	**P**	**20 29 41.6**	**-0.1**
	comp=Z,0.2nm,0.7s,baz=32,slow=6.0,SNR=3.9						
	comp=Z,0.2nm,0.7s						
ASAR	**Alice Springs**	**123.41**	**59**	PKP	**PKPdf**	**20 37 42.3**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=8.1,slow=1.3,SNR=3.3						

*KOLA **13** 20:18:43.2, 67°.65N×33°.75E, h0km, ML1.3, Error ellipse: s-maj=2.5km s-min=1.4km az=140.0, Khibiny, mines Kirovsk, Yukspor*
HEL 13 20:18:47.2±0.3, 67°.64N×33°.29E, h0km, ML1.1, Explosion, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APA	**Apatity**	**0.08**	**147**	P	Pg	20 18 45.9	-2.8
APA0	**Apatity Array**	**0.12**	**254**	P	Pg	20 18 48.3	-1.1
APA0				S	Sg	20 18 52.2	+1.3
LVZ	**Lovozero**	**0.58**	**63**	P	Pg	20 18 50.6	-7.7
LVZ				S	Sg	20 18 56.7	-9.1
LVZ	**Lovozero**	**0.58**	**63**	PG	Pg	20 18 57.0	-1.3
KVDA	**Kovda**	**0.96**	**190**	P	Pg	20 19 01.5	-4.1
KVDA				S	Sg	20 19 14.9	-3.2
VRF	**Varrio**	**1.41**	**276**	PN	Pn	20 19 12.1	-1.9
VRF				MSG		20 19 29.4	
	comp=Z,2.1nm,0.2s						
VRF				SG	Sg	20 19 31.6	-0.8
TERR	**Teriberka**	**1.71**	**22**	P	Pn	20 19 12.3	-5.9
TERR				S	Sn	20 19 33.1	-7.6
OLKF	**Oulanka, Finla**	**2.02**	**231**	PG	Pn	20 19 22.3	-0.2
OLKF				MSG		20 19 47.3	
	comp=Z,0.9nm,0.2s						
OLKF				SG	Sb	20 19 50.6	+0.2
RAJF	**Raja-Jooseppi**	**2.05**	**297**	PG	Pn	20 19 22.6	-0.3
RAJF				SG	Sn	20 19 49.2	+0.1
KU6	**Riekki**	**2.10**	**221**	PG	Pn	20 19 23.2	-0.4
	baz=39						
KU6				MSG		20 19 49.7	
	comp=Z,0.6nm,0.2s						
KU6				SG	Sb	20 19 52.4	-0.4
MSF	**Maaselka**	**2.42**	**226**	SG	Sb	20 20 03.1	+1.3
VADS	**Vadso**	**2.87**	**332**	S	Sn	20 20 06.2	-3.1
RNF	**Rovaniemi**	**3.02**	**253**	PN	Pn	20 19 34.7	-1.5
RNF				SN	Sn	20 20 13.6	+0.6
RANF	**Ranua**	**3.04**	**241**	PG	Pn	20 19 38.8	+2.3
	baz=59						
RANF				SG	Sg	20 20 23.0	-1.8
KEV	**Kevo**	**3.13**	**316**	PN	Pn	20 19 36.0	-1.6
KEV				SG	Sb	20 20 22.4	+0.2
ARA0	**ARCESS Array S**	**3.43**	**307**	PN	Pn	20 19 39.6	-2.2
	baz=121						
ARCES	**ARCESS Array B**	**3.43**	**307**	P	Pn	20 19 39.4	-2.5
ARCES				S	Sn	20 20 21.0	-2.2
KLF	**Kolari**	**3.62**	**268**	SG	Sg	20 20 41.2	-2.0
HEF	**Hetta**	**3.70**	**286**	SB	Sb	20 20 37.4	-1.3
TOF	**Tornio**	**3.87**	**250**	PG	Pb	20 19 56.2	+0.1
KTK1	**Kautokeino**	**3.98**	**295**	SN	Sn	20 20 32.1	-4.5
PAJU	**Pajala**	**3.99**	**266**	SN	Sn	20 20 36.7	-0.2
LANU	**Lannavaara**	**4.30**	**281**	SN	Sn	20 20 43.5	-1.0
ERTU	**Ertsjaerv**	**4.47**	**261**	SN	Sn	20 20 48.5	-0.3

*ISK **13** 20:22:42.9, 37°.84N×26°.86E, h11km, ML2.5/26*
*THE **13** 20:22:42.7, 38°N±1°×2°.7E±°, h10km±2km, M2.6/9, MLh2.6/9*
*AFAD **13** 20:22:42.2, 37°.83N×26°.82E, h7km±2km, ML2.5*
ISC 13 20:22:42.7±0.9, 37°.83N±0°.02×26°.82E±0°.02, h12km±7km, n51, σ0°52/70, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.12**	**173**	P	**Pg**	**20 22 45.5**	**-0.2**
SMG				S	**Sg**	**20 22 47.5**	**-0.4**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**13**	P	**Pg**	**20 22 47.3**	**-0.3**
GMLD	**Gumuldur**	**0.26**	**17**	Pg	**Pg**	**20 22 48.3**	**+0.2**
GMLD				Sg	**Sg**	**20 22 52.4**	**+0.7**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**111**	P	**Pg**	**20 22 49.3**	**-0.5**
GCAM				S	**Sg**	**20 22 55.1**	**+0.7**
GCAM				IAML		20 22 56.0	
	comp=N,540nm,0.6s						
GCAM	**G?zelcaml?**	**0.35**	**111**	Pg	**Pg**	**20 22 49.7**	**0.0**
GCAM				Sg	**Sg**	**20 22 55.4**	**+1.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**85**	Pg	**Pg**	**20 22 49.4**	**-0.7**
KUSD				Sg	**Sg**	**20 22 55.4**	**+0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**12**	P	**Pg**	**20 22 50.1**	**-0.7**
BEYE				S	**Sg**	**20 22 55.5**	**-0.8**
BEYE				IAML		20 23 01.0	
	comp=N,223nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**329**	P	**Pg**	**20 22 52.2**	**+0.1**
ZEYE				S	**Sg**	**20 22 58.8**	**+0.3**
ZEYE				IAML		20 23 03.0	
	comp=N,553nm,0.3s						
DDIM	**Aydin, Didim**	**0.50**	**137**	P	**Pg**	**20 22 52.1**	**-0.3**
DDIM				S	**Sg**	**20 22 59.2**	**+0.2**
DIDI	**Didim-Aydin**	**0.56**	**143**	Pg	**Pb**	**20 22 54.1**	**-0.3**
DIDI				AML	AML		
BLCB	**Balcova**	**0.59**	**17**	P	**Pg**	**20 22 54.0**	**-0.1**
BLCB				S	**Sg**	**20 23 02.1**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**17**	Pg	**Pg**	**20 22 53.9**	**-0.2**
BLCB				Sg	**Sb**	**20 23 02.5**	**-0.7**
BLCB				AML	AML		
DUVT	**Torbali**	**0.64**	**51**	P	**Pg**	**20 22 54.2**	**-0.8**
CESE	**eme**	**0.65**	**321**	Pg	**Pb**	**20 22 56.5**	**+0.5**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.79**	**152**	Pg	**Pb**	**20 22 58.3**	**-0.1**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**345**	Pg	**Pb**	**20 22 59.0**	**+0.6**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**20 22 58.2**	**-0.4**
CHOS				S	**Sb**	**20 23 10.4**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pn**	**20 22 59.9**	**-0.3**
CHOS				AML	AML		
BAGT	**Foa**	**0.83**	**2**	P	**Pn**	**20 22 59.8**	**-0.4**
BAGT				S	**Sg**	**20 23 09.6**	**+0.1**
BAGT				IAML		20 23 15.0	
	comp=E,205nm,0.7s						
AYDB	**Zeytinkoy-Aydi**	**0.86**	**82**	Pg	**Pg**	**20 22 59.4**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.86**	**101**	P	**Pg**	**20 22 58.8**	**-0.4**
BODT	**Bodrum**	**0.86**	**153**	P	**Pg**	**20 22 59.0**	**-0.2**
BODT				S	**Sb**	**20 23 11.5**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**153**	Pg	**Pb**	**20 22 59.8**	**+0.3**
BODT				AML	AML		
FOCM	**Foa**	**0.89**	**356**	Pg	**Pn**	**20 23 01.0**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**339**	P	**Pg**	**20 22 59.5**	**-0.4**
KARB				S	**Sg**	**20 23 11.6**	**0.0**
KARB				IAML		20 23 14.0	
	comp=N,184nm,0.5s						
KARB				IAML		20 23 16.0	
	comp=E,142nm,0.4s						
BDRM	**Kayabasi**	**0.91**	**147**	P	**Pb**	**20 23 00.4**	**0.0**
BDRM				S	**Sb**	**20 23 13.2**	**+0.8**
BDRM				IAML		20 23 15.0	
	comp=N,114nm,0.2s						
BODA	**Bodrum-Mula**	**0.93**	**148**	Pg	**Pn**	**20 23 01.4**	**-0.1**
MLSB	**Milas**	**0.93**	**125**	Pg	**Pn**	**20 23 01.5**	**-0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.95**	**71**	P	**Pg**	**20 23 00.7**	**-0.3**
IZMR				S	**Sg**	**20 23 11.3**	**-2.0**
CAMT	**Merkez**	**1.00**	**23**	P	**Pg**	**20 23 01.7**	**-0.3**
CAMT				S	**Sb**	**20 23 15.3**	**+0.2**
CAMT				IAML		20 23 18.0	
	comp=N,184nm,0.3s						
ZEDA	**zmir-Bergama**	**1.16**	**10**	P	**Pn**	**20 23 05.1**	**+0.4**
NAZL	**Nazilli-Aydin**	**1.17**	**83**	Pn	**Pb**	**20 23 05.1**	**+0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn	**Pg**	**20 23 06.2**	**-0.2**
GOMA				AML	AML		
DKL	**Dikili**	**1.25**	**3**	Pn	**Pg**	**20 23 06.8**	**+0.2**
DKL				AML	AML		
DAT	**Datca**	**1.25**	**151**	Pn	**Pn**	**20 23 05.8**	**-0.3**
DAT				AML	AML		
APE	**Apeiranthos**	**1.27**	**234**	P	**Pn**	**20 23 05.2**	**-1.1**
APE				S	**Sg**	**20 23 23.7**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.27**	**234**	Pn	**Pg**	**20 23 07.4**	**+0.3**
APE				AML	AML		
AKHS	**Akhisar**	**1.31**	**36**	P	**Pb**	**20 23 07.4**	**+0.1**
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pb**	**20 23 07.5**	**+0.2**
AKS				AML	AML		
YER	**Yerkesik**	**1.35**	**120**	P	**Pn**	**20 23 07.6**	**+0.1**
YER	**Yerkesik**	**1.35**	**120**	Pn	**Pb**	**20 23 08.1**	**+0.1**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pn**	**20 23 09.1**	**+0.4**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.48**	**343**	P	**Pb**	**20 23 10.2**	**+0.1**
PRK				S	**Sn**	**20 23 28.3**	**-0.2**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pb**	**20 23 10.5**	**-0.4**
GORD				AML	AML		
TURN	**Turunc**	**1.55**	**132**	Pn	**Pn**	**20 23 09.9**	**-0.2**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.78**	**124**	Pn	**Pn**	**20 23 14.0**	**+0.8**
THERA	**Ancient Thera,**	**1.81**	**217**	P	**Pn**	**20 23 12.4**	**-1.3**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.92**	**147**	Pn	**Pn**	**20 23 16.2**	**+1.0**
APMY	**Acipayam-Deniz**	**2.00**	**99**	Pn	**Pn**	**20 23 16.7**	**+0.3**
DION	**Dionisos Attik**	**2.29**	**277**	P	**Pn**	**20 23 20.3**	**-0.1**
DION				AML	AML		
VLY	**Voula,Athens**	**2.39**	**272**	P	**Pn**	**20 23 21.9**	**+0.1**

*NNC **13** 20:25:03.2±11.0, 37°.45N×69°.72E, h9km±208km, mb4.7, mpv4.5, Error ellipse: s-maj=218.5km s-min=43.3km az=3.0*
*IDC **13** 20:25:15.6±1.4, 38°.68N×70°.53E, h0km, mb3.7/8, mbtmp3.9/15, ML3.7/7, Error ellipse: s-maj=21.6km s-min=12.2km az=147.0*
*KRNET **13** 20:25:23.7±0.1, 39°.07N×70°.69E, mb4.1*
ISC 13 20:25:18.8±2.4, 38°.85N±0°.07×70°.57E±0°.05, h16km±14km, n48, σ2°43/66, mb3.7/7, 25C-24D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**1.14**	**56**	⇓*i* P	**Pb**	**20 25 41.5**	**+1.1**
DRK				⇓*i* S	**Sb**	**20 25 54.8**	**-0.4**
BTK	**Batken**	**1.22**	**9**	⇓*eP*	**Pb**	**20 25 42.3**	**+0.7**
BTK				⇓*eS*	**Sb**	**20 25 55.6**	**-1.5**
OHH	**Osh**	**2.39**	**45**	⇓*eP*	**Pn**	**20 26 00.2**	**+2.8**
OHH				⇓*i* S	**Sn**	**20 26 27.0**	**+0.6**
SFK	**Sufi-Kurgan**	**2.55**	**62**	⇑*eP*	**Pb**	**20 26 03.2**	**-1.2**
SFK				⇑*eS

TKM2				⇓	*iS*		**Sn**	**20 27 43.2**	**-1.8**
KDJ	**Kajisay**	**6.01**	**55**	⇑	*eP*		**Pn**	**20 26 51.1**	**+3.9**
KDJ				⇑	*eS*		**Sn**	**20 27 54.6**	**-1.2**
TARG	**Taragay, Kyrgy**	**6.23**	**60**	⇑	*eP*		**Pn**	**20 26 54.1**	**+3.6**
TARG				⇑	*iS*		**Sn**	**20 27 59.8**	**-1.9**
MKAR	**Makanchi Array**	**11.70**	**44**		Pn		**Pn**	**20 28 08.3**	**+3.3**
	0.2nm,0.3s,baz=229,slow=14,SNR=9.0								
MKAR					Lg		Lg	20 31 28.4	
	0.1nm,0.3s,baz=212,slow=27,SNR=2.0								
	0.9nm,0.7s								
MKAR					AML		AML		
AB31	**Akbulak array**	**12.89**	**327**	⇑	**P**		**Pn**	**20 28 19.7**	**-1.5**
	4.4nm,0.4s,baz=135,slow=14,SNR=213								
AB31				⇑	**S**		**Sn**	**20 30 48.7**	**+4.4**
	3.1nm,0.7s,baz=148,slow=24,SNR=3.9								
KURBB	**Kurchatov Array**	**13.05**	**23**		Pn		**Pn**	**20 28 23.7**	**+0.3**
	0.3nm,0.3s,baz=214,slow=12,SNR=4.2								
KURBB					Lg		Lg	20 32 08.1	
	0.1nm,0.3s,baz=355,slow=16,SNR=5.2								
	1.9nm,0.2s								
KURBB					AML		AML		
BVAR	**Borovoye Array**	**14.17**	**360**		Pn		**Pn**	**20 28 38.1**	**-0.7**
	0.1nm,0.3s,baz=185,slow=10,SNR=5.1								
BVAR					Lg		Lg	20 32 38.7	
	baz=162,slow=15,SNR=1.9								
	1.2nm,0.3s								
BVAR					AML		AML		
AKTO	**Aktyubinsk**	**14.60**	**327**		Pn		**Pn**	**20 28 44.1**	**-0.5**
	1.0nm,0.3s,baz=130,slow=13,SNR=9.5								
AKTO					Sn		**Sn**	**20 31 19.9**	**-6.1**
	0.2nm,0.3s,baz=2.4,slow=15,SNR=1.7								
	2.5nm,0.3s								
AKTO					AML		AML		
AKTO	**Aktyubinsk**	**14.60**	**327**	⇓	P		Pn	20 28 40.8	-3.9
	3.8nm,0.5s								
AKTO				⇑	**S**		**Sn**	**20 31 31.3**	**+5.3**
	3.3nm,1.1s								
ZALV	**Zalesovo Beam**	**17.96**	**28**		P		**Pn**	**20 29 27.2**	**-0.5**
	0.3nm,0.3s,baz=223,slow=11,SNR=5.6								
	0.6nm,0.3s								
ZALV					AML		AML		
ARTI	**Arti**	**19.32**	**339**		P		**P**	**20 29 43.3**	**+0.3**
	0.2nm,0.3s,baz=159,slow=4.4,SNR=7.0								
	2.8nm,0.6s								
ARTI					AML		AML		
BELG	**Belogornoye**	**20.88**	**318**		P		**P**	**20 29 59.7**	**-0.4**
	6.7nm,0.6s,baz=204,slow=6.2,SNR=4.3								
	6.7nm,0.6s								
KBZ	**Khabaz**	**21.31**	**292**		P		**P**	**20 30 04.4**	**-0.3**
	0.3nm,0.3s,baz=105,slow=6.4,SNR=3.9								
	0.3nm,0.3s								
FINES	**FINESS Array B**	**35.36**	**324**		P		**P**	**20 32 13.3**	**0.0**
	1.1nm,0.5s,baz=119,slow=9.0,SNR=8.2								
	1.1nm,0.5s								
ARCES	**ARCESS Array B**	**38.85**	**337**		P		**P**	**20 32 42.6**	**-0.2**
	2.8nm,0.9s,baz=116,slow=8.4,SNR=5.4								
	2.8nm,0.9s								
HFS	**Hagfors**	**41.02**	**320**		P		**P**	**20 33 01.4**	**+0.4**
	1.2nm,0.4s,baz=92,slow=10,SNR=8.1								
	1.2nm,0.4s								
NB2	**NORSAR Subarra**	**42.31**	**322**		P		**P**	**20 33 11.4**	**-0.2**
	comp=Z,1.2nm,0.6s,baz=92,slow=8.6								
NOA	**NORSAR Array B**	**42.31**	**322**		P		**P**	**20 33 10.2**	**-1.4**
	comp=Z,1.3nm,1.0s,baz=106,slow=8.3,SNR=1.4								
	comp=Z,1.3nm,1.0s								
ESDC	**Sonseca Array**	**56.08**	**296**		P		**P**	**20 34 56.9**	**-0.3**
	comp=Z,0.3nm,0.6s,baz=52,slow=7.0,SNR=4.4								
	comp=Z,0.3nm,0.6s								
WRA	**Warramunga Arr**	**83.52**	**122**		P		**P**	**20 37 44.5**	**-1.7**
	comp=Z,0.1nm,0.7s,baz=336,slow=5.9,SNR=1.3								
	comp=Z,0.1nm,0.7s								

TRN ***13*** *20:35:10.5, 18˚.13N×63˚.23W, h103km, MD4.5, Near West of St. Martin. Felt in St. Martin MMI IV; St. Maarten, MMI IV, V; St. Kitts MMI IV; St. Barthelemy MMI V.*

NEIC ***13*** *20:35:11.6±1.9, 17˚.86N±0˚.08×63˚.37W±0˚.05, h103km±3km, mb4.6/96, Mwr4.3/24, Error ellipse: s-maj=11.7km s-min=6.4km az=198.0, Moment Tensor Solution. Moment tensor: Scale 10^15 Nm; Mrr0.83; Mθθ1.80; Mϕϕ-2.63; Mrθ-1.03; Mθϕ2.24; Mϕr-2.29; Fault plane solution: Mo4.09000×10^15 NP1:ϕs198.28000°, δ81.83000°, λ139.89000°. NP2:ϕs295.11000°, δ50.38000°, λ10.64000°. Principal axes: T 3.9562, Plg33.0000°, Azm149.0000°; N 0.2556, Plg49.0000°, Azm9.0000°; P -4.2118, Plg21.0000°, Azm253.0000°;*

IDC ***13*** *20:35:11.6±0.9, 17˚.85N×63˚.34W, h101km±7km, mb3.9/20, mbtmp4.3/23, MS3.5/4 Error ellipse: s-maj=12.8km s-min=9.8km az=24.0*

NEIC ***13*** *20:35:11.5, 17˚.93N×63˚.34W, h107km*

CATAC ***13*** *20:35:13.1±1.0, 18˚N±13˚×6˚3W±˚, h81km±8km, M4.9/5, mb5.0/3, mB5.5/3, MLv4.9/5, Mw(mB)5.0/3, Error ellipse: s-maj=27.9km s-min=11.3km az=11.4, confirmed*

RSNC ***13*** *20:35:19.8±1.4, 18˚N±7˚×6˚4W±˚, h78km±20km, M4.6, mb4.7, mB5.2, mBc6.3, Mjma4.7, Ms(BB)4.3, Mw(mB)4.6*

ISC 13 20:35:11.1±0.5, 17˚.99N±0˚.04×63˚.35W±0˚.03, h103km±4km, n222, σ1ϟ43/223, mb4.5/48, Leeward Islands

Code	Station Name	Δ°	Az°	Phase	ID	ISC	Time h m s	Res ISC
SMRT	**St. Maarten**	**0.27**	**77**	Op		**Pn**	**20 35 27.0**	**+1.2**
SMRT				Sn		**Sn**	**20 35 37.5**	**+0.5**
SMRT	**St. Maarten**	**0.27**	**77**	*eP*		**Pn**	**20 35 27.1**	**+1.2**
SMRT				*eS*		**Sn**	**20 35 37.8**	**+0.8**
SABA	**Saba**	**0.38**	**164**	P		**Pn**	**20 35 27.8**	**+1.3**
SABA	**Saba**	**0.38**	**164**			**Pn**	**20 35 27.7**	**+1.2**
SABA				Sn		**Sn**	**20 35 38.5**	**+0.5**
SABA	**Saba**	**0.38**	**164**	*eP*		**Pn**	**20 35 27.7**	**+1.2**
SABA				*eS*		**Sn**	**20 35 39.9**	**+1.9**
SEUS	**St. Eustatius**	**0.60**	**145**	P		**Pn**	**20 35 29.2**	**+1.2**
SEUS	**St. Eustatius**	**0.60**	**145**	Pn		**Pn**	**20 35 29.0**	**+1.0**
SEUS				Sn		**Sn**	**20 35 40.8**	**+0.2**
SEUS	**St. Eustatius**	**0.60**	**145**	*eP*		**Pn**	**20 35 29.0**	**+1.0**
SEUS				*eS*		**Sn**	**20 35 42.5**	**+1.8**
SKI	**Saint Kitts**	**0.87**	**138**	*eP*		**Pn**	**20 35 31.7**	**+1.2**
SKI				*eS*		**Sn**	**20 35 46.3**	**+1.3**
ANWB	**Willy Bob**	**1.52**	**102**	P		**Pn**	**20 35 38.2**	**+0.4**
ANWB	**Willy Bob**	**1.52**	**102**			**Pn**	**20 35 38.0**	**+0.3**
ANWB				Sn		**Sn**	**20 35 56.9**	**-1.1**
ANWB	**Willy Bob**	**1.52**	**102**	*eP*		**Pn**	**20 35 38.2**	**+0.4**
ANWB				*eS*		**Sn**	**20 35 57.3**	**-0.8**
DHSZ	**Broadband at M**	**2.28**	**138**	*eP*		**Pn**	**20 35 48.5**	**+1.0**
DHSZ				*eS*		**Sn**	**20 36 16.3**	**+1.0**
GDHS	**Morne Mazeau,**	**2.28**	**138**			**Pn**	**20 35 48.1**	**+0.5**
GDHS				Sn		**Sn**	**20 36 14.1**	**-1.3**
ABD	**La Joyeuse, An**	**2.33**	**130**			**Pn**	**20 35 48.3**	**+0.2**
ABD				Sn		**Sn**	**20 36 14.6**	**-1.9**
HUMP	**Col San Antoni**	**2.38**	**274**			**Pn**	**20 35 50.2**	**+1.4**
HUMP				Sn		**Sn**	**20 36 17.6**	**0.0**
CBE	**Ff, Capester**	**2.53**	**139**	P		**Pn**	**20 35 52.6**	**+1.8**
CBE	**Ff, Capester**	**2.53**	**139**			**Pn**	**20 35 51.9**	**+1.0**
CBE				Sn		**Sn**	**20 36 19.8**	**-1.5**
PDPR	**Patillas Dam,**	**2.54**	**271**			**Pn**	**20 35 52.5**	**+1.6**
PDPR				Sn		**Sn**	**20 36 21.7**	**+0.2**
GCPR	**Guaynabo City**	**2.62**	**277**			**Pn**	**20 35 52.7**	**+0.8**
SJG	**San Juan**	**2.67**	**273**	P		**Pn**	**20 35 54.5**	**+2.0**
	1000nm,0.3s,baz=103,slow=14,SNR=453							
SJG				S		**Sn**	**20 36 26.1**	**+1.7**
	2µm,0.8s,baz=334,slow=12,SNR=47							
SJG	**San Juan**	**2.67**	**273**	P		**Pn**	**20 35 54.6**	**+2.1**
SJG	**San Juan**	**2.67**	**273**	Pn		**Pn**	**20 35 53.8**	**+1.3**
SJG	**San Juan**	**2.67**	**273**	*eP*		**Pn**	**20 35 54.8**	**+2.2**
SJG				*eS*		**Sn**	**20 36 27.9**	**+3.5**
TDBA	**Terre de Bas,**	**2.69**	**142**			**Pn**	**20 35 52.8**	**0.0**
DSDZ	**La Diserade, G**	**2.75**	**127**	*eP*		**Pn**	**20 35 53.8**	**+0.3**
DSDZ				*eS*		**Sn**	**20 36 25.8**	**-0.5**
GDSD	**La Dsirade Is**	**2.75**	**127**			**Pn**	**20 35 53.4**	**-0.2**
H05N1	**Guadeloupe/Mar**	**2.75**	**127**	P		**Pn**	**20 35 53.6**	**-0.1**
H05N1				S		**Sn**	**20 36 24.4**	**-2.0**
	SNR=4153							
MAGL	**Barre de l'ile**	**2.83**	**135**			**Pn**	**20 35 55.2**	**+0.4**
MAGL	**Barre de l'ile**	**2.83**	**135**	*eP*		**Pn**	**20 35 56.0**	**+1.2**
MAGL				*eS*		**Sn**	**20 36 29.2**	**+0.8**
ECPR	**Experimental S**	**2.88**	**277**			**Pn**	**20 35 56.4**	**+1.0**
CELP	**Cerrillos**	**3.07**	**272**			**Pn**	**20 35 59.1**	**+1.2**
DWS	**Wesley**	**3.10**	**141**	*eP*		**Pn**	**20 35 59.7**	**+1.4**
DWS				*eS*		**Sn**	**20 36 35.5**	**+0.8**
OBIP	**Obispado Ponce**	**3.10**	**271**			**Pn**	**20 35 58.8**	**+0.5**
DSLB	**Salisbury**	**3.14**	**144**	*eP*		**Pn**	**20 35 59.9**	**+1.0**
DSLB				*eS*		**Sn**	**20 36 37.4**	**+1.8**
AOPR	**Arecibo Observ**	**3.26**	**277**			**Pn**	**20 36 01.4**	**+1.0**
DLPL	**La Plaine**	**3.32**	**142**	*eP*		**Pn**	**20 36 02.9**	**+1.6**
DLPL				*eS*		**Sn**	**20 36 41.7**	**+1.6**
MLPR	**Magueyes Islan**	**3.52**	**270**			**Pn**	**20 36 04.4**	**+0.6**
CRPR	**Cabo Rojo, PR**	**3.58**	**271**			**Pn**	**20 36 05.6**	**+0.9**
AGPR	**Aguadilla, PR**	**3.61**	**278**			**Pn**	**20 36 05.7**	**+0.6**
PRSN	**Puerto Rico Se**	**3.62**	**274**			**Pn**	**20 36 06.1**	**+0.9**
SVN	**Savane Anatole**	**3.77**	**146**			**Pn**	**20 36 06.8**	**-0.5**
SVN	**Savane Anatole**	**3.77**	**146**	*eP*		**Pn**	**20 36 09.1**	**+1.8**
CXM	**Morne La Croix**	**3.79**	**146**	Pn		**Pn**	**20 36 06.9**	**-0.8**
FDFM	**Morne la Roset**	**3.86**	**147**			**Pn**	**20 36 07.6**	**-0.9**
ILAM	**Ilet Lapin Mar**	**3.98**	**143**	Pn		**Pn**	**20 36 08.5**	**-1.6**
ILAM	**Ilet Lapin Mar**	**3.98**	**143**	*eP*		**Pn**	**20 36 10.8**	**+0.7**
BIM	**Bigot**	**4.09**	**147**	Pn		**Pn**	**20 36 10.6**	**-1.0**
BIM	**Bigot**	**4.09**	**147**	*eP*		**Pn**	**20 36 12.5**	**+0.9**
BIM				*eS*		**Sn**	**20 36 59.4**	**+0.9**
MPOM	**Morne Pois Mar**	**4.26**	**145**			**Pn**	**20 36 12.9**	**-1.0**
H05S1	**Guadeloupe/Mar**	**4.29**	**145**	P		**Pn**	**20 36 15.3**	**+1.1**
H05S1				S		**Sn**	**20 37 02.0**	**-1.2**
	SNR=223							
SLBI	**Saint Lucia, B**	**4.56**	**150**	*eP*		**Pn**	**20 36 18.8**	**+0.9**
SLBI				*eS*		**Sn**	**20 37 10.7**	**+0.9**
PCDR	**Punta Cana, DR**	**4.81**	**277**			**Pn**	**20 36 21.1**	**-0.2**
MCLT	**Moule a Chique**	**4.84**	**151**	*eP*		**Pn**	**20 36 23.2**	**+1.3**
MCLT				*eS*		**Sn**	**20 37 17.9**	**+1.1**
SVB	**Belmont**	**5.11**	**156**	*eP*		**Pn**	**20 36 26.4**	**+1.1**
GRW	**Mount Saint Ca**	**6.02**	**164**	*eP*		**Pn**	**20 36 40.0**	**+2.2**
BBGH	**Gun Hill**	**6.04**	**142**	Pn		**Pn**	**20 36 35.9**	**-2.2**
GRGR	**Grenville**	**6.05**	**164**	*eP*		**Pn**	**20 36 40.2**	**+2.0**
SDD	**Santo Domingo**	**6.26**	**275**	Pn		**Pn**	**20 36 39.5**	**-1.4**
BANI	**BANI**	**6.67**	**275**	Pn		**Pn**	**20 36 46.5**	**-0.3**
SC01	**Santiago de lo**	**7.14**	**283**			**Pn**	**20 36 51.6**	**-1.3**
TRN	**Trinidad (W)**	**7.54**	**165**	*eP*		**Pn**	**20 37 00.1**	**+1.7**
PODR	**Polo**	**7.55**	**273**	Pn		**Pn**	**20 36 57.9**	**-0.8**
SDDR	**Presa de Saban**	**7.60**	**279**			**Pn**	**20 36 59.0**	**-0.2**
SDDR	**Presa de Saban**	**7.60**	**279**	*eP*		**Pn**	**20 37 00.9**	**+1.7**
SDDR	**Presa de Saban**	**7.60**	**279**	*eP*		**Pn**	**20 36 59.7**	**+0.5**
SDDR				*eS*		**Sn**	**20 38 20.0**	**-3.8**
LODA1	**ITESIL, Dajabo**	**8.06**	**282**	Pn		**Pn**	**20 37 03.5**	**-2.0**
GRTK	**Grand Turk**	**8.12**	**297**	*eP*		**Pn**	**20 37 04.3**	**-2.0**
GRTK				*eS*		Sn	20 38 27.2	-9.3
URIC	**Uribia, Colomb**	**10.43**	**234**			Pn	20 37 32.5	-5.3
QMBU	**Quimbuelo**	**11.06**	**283**	*eP*		Pn	20 37 41.1	-5.1
QMBU				*eS*		Sn	20 39 34.6	-13
MOAC	**Moa**	**11.28**	**285**	*eP*		Pn	20 37 44.1	-5.1
MOAC				*eS*		Sn	20 39 42.2	-11
NMDO	**Nuevo Mundo**	**11.28**	**285**	Pn		Pn	20 37 43.8	-5.4
NMDO	**Nuevo Mundo**	**11.28**	**285**	*eP*		Pn	20 37 43.7	-5.5
NMDO				*eS*		Sn	20 39 40.5	-13
GTBY	**Guantanamo Bay**	**11.29**	**282**	P		Pn	20 37 44.8	-4.6
	71nm,1.8s							
GTBY				S		Sn	20 39 42.9	-11
	71nm,1.8s							
GTBY	**Guantanamo Bay**	**11.29**	**282**	*eP*		Pn	20 37 44.4	-5.0
CRJC	**Cerrejon, Guaj**	**11.54**	**234**	P		**Pn**	**20 37 51.5**	**-1.3**
SABCS	**La Quijada**	**11.55**	**284**	*eP*		Pn	20 37 48.3	-4.5
PINC	**Pinares de May**	**12.01**	**284**	*eP*		Pn	20 37 53.3	-5.6
MARVS	**Santiago de Cu**	**12.04**	**282**	*eP*		Pn	20 37 54.6	-4.7
HLGC	**Holguin**	**12.33**	**286**	*eP*		Pn	20 37 57.0	-6.2
HLGC				*eP*		P	20 38 00.4	-11
CHIV	**Chivirico**	**12.52**	**281**	Pn		Pn	20 38 00.9	-4.8
CHIV	**Chivirico**	**12.52**	**281**	*eP*		Pn	20 38 00.6	-5.0
SMRC	**Santa Marta, M**	**12.52**	**239**	Pn		Pn	20 38 00.6	-5.1
LMGC	**Las Mercedes**	**13.08**	**281**	*eP*		Pn	20 38 08.0	-5.0
OCAC	**Ocana**	**13.71**	**226**	P		**Pn**	**20 38 21.0**	**-0.5**
	7µm596nm,0.7s							
SJCC	**San Jacinto, C**	**14.01**	**237**	P		**P**	**20 38 31.2**	**+1.3**
SJCC	**San Jacinto, C**	**14.01**	**237**	Pn		Pn	20 38 21.5	-3.8
BBSR	**BB Station**	**14.37**	**355**	Pn		**Pn**	**20 38 27.3**	**-2.4**
BARC	**Barichara**	**14.84**	**221**	P		**Pn**	**20 38 37.9**	**+1.8**
	1µm76nm,1.0s							
RUSC	**La Rusia**	**15.33**	**220**	P		**Pn**	**20 38 44.0**	**+1.6**
RUSC	**La Rusia**	**15.33**	**220**			**Pn**	**20 38 39.0**	**-3.4**
RUSC						IAmb	IAmb	20 38 48.1	
	comp=Z,42nm,1.2s								
RUSC	**La Rusia**	**15.33**	**220**	P		**Pn**	**20 38 44.0**	**+1.6**
LCBC	**Los cerabas,**	**15.57**	**236**	Pn		**Pn**	**20 38 42.6**	**-2.5**
PTBC	**PUERTO BERRIO,**	**15.71**	**225**	P		**P**	**20 38 49.1**	**+0.4**
	comp=Z,11nm,0.5s								
BOAV	**Boa Vista**	**15.74**	**170**			**Pn**	**20 38 43.6**	**-3.6**
BOAV						IAmb	IAmb	20 38 49.9	
	comp=Z,25nm,1.0s								
BOAV	**Boa Vista**	**15.74**	**170**	*eP*		**Pn**	**20 38 46.1**	**-1.0**
CAIB	**Caibarien**	**15.78**	**289**			**Pn**	**20 38 46.0**	**-1.5**
CAIB						IAmb	IAmb	20 38 52.7	
	comp=Z,41nm,1.0s								
LCCY	**Blossom Villag**	**15.93**	**279**	P		**Pn**	**20 38 46.7**	**-2.8**
MDP	**Montagnes des**	**16.54**	**139**	P		**Pn**	**20 38 55.2**	**-1.9**
	comp=Z,6.4nm,0.5s,baz=314,slow=15,SNR=14								
MDP						S	Sn	20 41 44.5	-16
	comp=Z,10.0nm,0.6s,baz=238,slow=21,SNR=12								
HELC	**Santa Helena**	**16.70**	**227**			**Pn**	**20 38 57.8**	**-1.5**
HELC						IAmb	IAmb	20 39 03.1	
	comp=Z,26nm,0.9s								
HELC	**Santa Helena**	**16.70**	**227**	P		**P**	**20 39 00.6**	**+0.6**
	comp=Z,30nm,1.5s								
NORC	**Norcasia**	**16.71**	**224**	P		**Pn**	**20 39 00.0**	**+0.8**
	comp=Z,405nmcomp=Z,27nm,0.6s								
ROSC	**El Rosal**	**16.91**	**221**	P		**P**	**20 39 03.1**	**+0.8**
	comp=Z,24nm,0.9s,baz=4.6,slow=13,SNR=5.0								
ROSC						LR	LR	20 45 37.5	
	comp=Z,126nm,19.5s,baz=34,slow=37								
ROSC	**El Rosal**	**16.91**	**221**			IAmb	IAmb	20 39 07.9	
	comp=Z,41nm,1.2s								
GUY2C	**Guyana, Caldas**	**17.29**	**224**	P		**Pn**	**20 39 07.7**	**+1.0**
	comp=Z,575nmcomp=Z,26nm,0.6s								
CAMR	**Camarioca**	**17.61**	**290**	P		**P**	**20 39 08.3**	**-1.3**
SOR	**Soroa**	**19.03**	**288**	P		**P**	**20 39 23.9**	**-1.3**
SOR						IAmb	IAmb	20 39 35.9	
	comp=Z,32nm,1.4s								
Y60A	**Bolivia**	**20.77**	**323**	P		**P**	**20 39 43.4**	**-0.4**
RGRS	**Roger Stewart**	**21.22**	**318**	P		**P**	**20 39 47.2**	**-1.4**
V61A	**Roper**	**21.26**	**329**	P		**P**	**20 39 47.7**	**-1.4**
LCR2	**La Lucha 2**	**21.65**	**250**			**P**	**20 39 51.6**	**-2.1**
LCR2						IAmb	IAmb	20 39 58.0	
	comp=Z,30nm,0.7s								
BOAB	**BOACO BROADBAND**	**22.22**	**259**	P		**P**	**20 39 57.7**	**-1.7**
BOAB						IAmb	IAmb	20 40 03.0	
	comp=Z,35nm,0.9s								
JTS	**Las Juntas de**	**22.29**	**253**	P		**P**	**20 39 59.6**	**-0.6**
	comp=Z,2.4nm,0.3s,baz=48,slow=17,SNR=4.3								
	comp=Z,2.4nm,0.3s								
JTS	**Las Juntas de**	**22.29**	**253**	P		**P**	**20 39 58.3**	**-1.9**
S61A	**Accomac**	**22.40**	**334**	P		**P**	**20 40 01.3**	**+0.2**
OTAV	**Otavalo**	**23.06**	**222**	P		**P**	**20 40 06.7**	**-1.8**
HODGE	**Hodges**	**23.39**	**317**	P		**P**	**20 40 10.1**	**-0.7**
KMSC	**Kings Mountain**	**23.40**	**320**	P		**P**	**20 40 10.1**	**-0.8**
ITTB	**Itaituba**	**23.45**	**161**	*eP*		**P**	**20 40 12.4**	**+0.9**
PAULI	**Pauline**	**23.48**	**319**	P		**P**	**20 40 11.5**	**-0.2**
R58B	**Mineral**	**23.62**	**330**	P		**P**	**20 40 12.1**	**-0.7**
TEIG	**Tepich**	**23.65**	**279**	P		**P**	**20 40 12.9**	**-0.4**
TEIG						IAmb	IAmb	20 40 15.7	
	comp=Z,20nm,0.7s								
GOGA	**Godfrey**	**23.69**	**314**	P		**P**	**20 40 12.8**	**-0.8**
V55A	**Taylorsville**	**23.81**	**322**	P		**P**	**20 40 14.5**	**-0.1**
V55A						IAmb	IAmb	20 40 37.2	
	comp=Z,28nm,1.4s								
BG3	**Lake Jocassee**	**24.30**	**318**	P		**P**	**20 40 17.5**	**-1.5**
BG3						IAmb	IAmb	20 40 24.0	
	comp=Z,16nm,0.8s								
BLA	**Blacksburg**	**24.33**	**325**	P		**P**	**20 40 17.6**	**-1.7**
BLA						IAmb	IAmb	20 40 24.2	
	comp=Z,29nm,0.8s								
V53A	**Saluda**	**24.65**	**319**	P		**P**	**20 40 20.0**	**-2.3**
Q56A	**Snyder Ridge,**	**25.10**	**330**	P		**P**	**20 40 24.6**	**-1.7**
Q56A						IAmb	IAmb	20 40 29.8	
	comp=Z,20nm,1.3s								
TKL	**Tuckaleechee C**	**25.25**	**318**	P		**P**	**20 40 29.3**	**+1.7**
	comp=Z,1.5nm,0.3s,baz=129,slow=5.1,SNR=3.9								
	comp=Z,1.5nm,0.3s								
CPCT	**Cooper Cave**	**25.60**	**317**	P		**P**	**20 40 28.8**	**-2.0**
FPAL	**Fort Paine**	**25.80**	**314**	P		**P**	**20 40 30.1**	**-2.6**
NPGB	**Novo Progresso**	**26.10**	**162**	*eP*		**P**	**20 40 36.8**	**+1.3**
APG	**El Apazote**	**26.16**	**268**	P		**P**	**20 40 38.1**	**+1.8**
	comp=Z,0.5nm,0.7s,baz=117,slow=9.9,SNR=8.9								
	comp=Z,0.5nm,0.7s								
K57A	**Scipio Center**	**27.08**	**338**	P		**P**	**20 40 41.9**	**-2.2**
K57A						IAmb	IAmb	20 40 55.8	
	comp=Z,28nm,1.4s								
LBNH	**Lisbon**	**27.15**	**346**	P		**P**	**20 40 42.8**	**-1.9**
LBNH						IAmb	IAmb	20 40 46.9	
	comp=Z,28nm,1.4s								
OXF	**Oxford**	**28.46**	**310**	P		**P**	**20 40 56.8**	**+0.3**
CLDB	**Colider**	**29.63**	**165**	*eP*		**P**	**20 41 07.6**	**+0.6**
SMTB	**Santa Maria do**	**30.89**	**148**	P		**P**	**20 41 18.7**	**+0.6**
SMTB	**Santa Maria do**	**30.89**	**148**	*eP*		**P**	**20 41 19.8**	**+1.7**
T42A	**Van Buren**	**30.89**	**313**	P		**P**	**20 41 17.6**	**-0.3**
WHAR	**Wooly Hollow**	**30.92**	**310**	P		**P**	**20 41 18.2**	**0.0**
WHAR						IAmb	IAmb	20 41 21.6	
	comp=Z,12nm,1.3s								
FVM	**French Village**	**30.94**	**316**	P		**P**	**20 41 18.5**	**+0.2**
FVM						IAmb	IAmb	20 41 21.2	
	comp=Z,6.7nm,0.6s								
NBPS	**Pedro II - PI**	**31.01**	**134**	*eP*		**P**	**20 41 21.1**	**+1.8**
FCAR	**Ozark Folk Cen**	**31.07**	**311**	P		**P**	**20 41 20.0**	**+0.5**
FCAR						IAmb	IAmb	20 41 22.1	
	comp=Z,8.0nm,0.7s								
CCM	**Cathedral Cave**	**31.52**	**315**	P		**P**	**20 41 23.8**	**+0.3**
CCM						IAmb	IAmb	20 41 25.9	
	comp=Z,11nm,0.6s								
P40A	**Paris**	**32.84**	**317**	IAmb		IAmb	IAmb	20 41 37.3	
	comp=Z,10nm,0.9s								
LPAZ	**La Paz**	**34.38**	**188**	P		**P**	**20 41 47.8**	**-1.4**
	comp=Z,5.8nm,0.9s,baz=0.4,slow=8.2,SNR=11								
	comp=Z,5.8nm,0.9s								
LPAZ	**La Paz**	**34.38**	**188**			**P**	**20 41 46.9**	**-2.4**
LPAZ						IAmb	IAmb	20 41 53.1	
	comp=Z,4.3nm,0.8s								
LPAZ	**La Paz**	**34.38**	**188**	*eP*		**P**	**20 41 48.5**	**-0.8**
BRDY	**Brady**	**34.84**	**299**			**P**	**20 41 53.2**	**+0.7**
BRDY						IAmb	IAmb	20 41 54.3	
	comp=Z,11nm,0.9s								
JCT	**Junction City**	**35.34**	**298**	P		**P**	**20 41 55.2**	**-1.5**
WMOK	**Wichita Mounta**	**35.63**	**305**	IAmb		IAmb	IAmb	20 42 01.8	
	comp=Z,3.9nm,0.5s								
PB18	**Visviri**	**35.87**	**190**	P		**P**	**20 41 59.0**	**-2.9**
BDFB	**Brasilia**	**36.67**	**155**	P		**P**	**20 42 09.1**	**+0.8**
	comp=Z,6.0nm,0.6s,baz=340,slow=11,SNR=9.2								
	comp=Z,6.0nm,0.6s								
BDFB	**Brasilia**	**36.67**	**155**	P		**P**	**20 42 08.4**	**+0.1**
BDFB						IAmb	IAmb	20 42 10.8	
	comp=Z,8.5nm,0.8s								
SCHQ	**Schefferville**	**36.87**	**357**	P		**P**	**20 42 12.2**	**+2.7**
	comp=Z,6.8nm,0.9s,baz=170,slow=7.8,SNR=4.0								
	comp=Z,6.8nm,0.9s								
SCHQ	**Schefferville**	**36.87**	**357**	P		**P**	**20 42 10.3**	**+0.8**
POST	**Post**	**37.33**	**301**	P		**P**	**20 42 13.2**	**-

DBIC	**Dimbokro**	**58.03**	**93**	P	**P**	**20 44 55.0**	**+1.2**		
DBIC				IAmb	IAmb	20 44 56.8			
	comp=Z,6.0nm,0.9s								
ESK	**Eskdalemuir**	**58.49**	**36**	P	**P**	**20 44 56.4**	**0.0**		
GERES	**GERESS Array B**	**68.20**	**44**	P	**P**	**20 46 02.2**	**+1.4**		
	comp=Z,0.2nm,0.5s,baz=301,slow=6.7,SNR=2.4								
	comp=Z,0.2nm,0.5s								
GERES	**GERESS Array B**	**68.20**	**44**	P	**P**	**20 46 01.5**	**+0.8**		
IL31		**71.14**	**333**	P	**P**	**20 46 18.8**	**+0.6**		
ILAR	**Eielson Array**	**71.14**	**333**	P	**P**	**20 46 19.6**	**+1.3**		
	comp=Z,0.9nm,0.4s,baz=91,slow=4.0,SNR=16								
	comp=Z,0.9nm,0.4s								
ILAR	**Eielson Array**	**71.14**	**333**	P	**P**	**20 46 19.2**	**+0.9**		
BRTR	**Keskin Array B**	**83.91**	**50**	P	**P**	**20 47 31.9**	**+1.8**		
	comp=Z,0.8nm,0.8s,baz=224,slow=5.2,SNR=4.8								
	comp=Z,0.8nm,0.8s								
BRTR	**Keskin Array B**	**83.91**	**50**	P	**P**	**20 47 31.0**	**+0.9**		
ARTI	**Arti**	**91.33**	**28**	LR	LR	21 29 23.6			
	comp=Z,64nm,18.3s,baz=306,slow=36								
NJ2	**Nanjing**	**130.20**	**358**	*e*P	**PKiKP**	**20 54 10.3**	**-0.3**		
NJ2				pmax	pmax				
	comp=Z,5.0nm,0.6s								
ASAR	**Alice Springs**	**162.92**	**248**	PKPab	**PKPab**	**20 55 51.2**	**-0.7**		
	comp=Z,0.2nm,0.3s,baz=101,slow=4.1,SNR=4.1								

*REN **13** 21:01:45.0±2.2,38.16N±0.02×117.86W±0.03,h5km±4km, Error ellipse: s-maj=4.3km s-min=1.0km az=119.0*
NEIC 13 21:01:44.6±2.1,38.14N±0.04×117.83W±0.04,h3km±4km, ML3.3/120,**ML3.5**/13(REN),**Error ellipse: s-maj=6.1km s-min=4.2km az=217.0,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COLR	**Columbus**	**0.18**	**273**		Pg	21 01 48.7	+0.5
NV11	**Mina Array Sit**	**0.39**	**319**		Pg	21 01 52.2	0.0
NV06	**Mina Array Sit**	**0.45**	**309**		Pg	21 01 53.6	+0.2
NV07	**Mina Array Sit**	**0.46**	**307**		Pg	21 01 53.7	+0.2
NV03	**Mina Array Sit**	**0.47**	**309**		Pg	21 01 53.8	+0.2
NV08	**Mina Array Sit**	**0.47**	**305**		Pg	21 01 53.8	+0.2
NV04	**Mina Array Sit**	**0.47**	**308**		Pg	21 01 54.0	+0.3
NV01	**Mina Array Sit**	**0.47**	**308**		Pg	21 01 53.9	+0.2
NV05	**Mina Array Sit**	**0.48**	**311**		Pg	21 01 53.9	+0.1
NV02	**Mina Array Sit**	**0.48**	**309**		Pg	21 01 54.1	+0.2
TPH	**Tonopah**	**0.48**	**97**		Pb	21 01 55.2	-0.6
TPH					Sb	21 02 02.2	-1.1
TPH				IAML		21 02 02.8	
	comp=E,2μm,0.5s						
NV09	**Mina Array Sit**	**0.50**	**307**		Pg	21 01 54.4	+0.2
LHV	**Little Huntoon**	**0.54**	**282**		Pg	21 01 55.4	+0.4
LHV				IAML		21 02 03.7	
	comp=N,2μm,0.7s						
LHV				IAML		21 02 12.8	
	comp=E,2μm,0.6s						
MZP	**Montezuma Peak**	**0.56**	**141**		Pb	21 01 56.6	-0.6
MZP					Sb	21 02 05.1	-0.5
MZP				IAML		21 02 05.7	
	comp=E,1μm,0.6s						
MZP				IAML		21 02 07.1	
	comp=N,1μm,0.7s						
RYN	**Ryan**	**0.73**	**312**		Pg	21 01 58.3	-0.4
RYN					Sg	21 02 08.1	-0.1
RYN				IAML		21 02 08.7	
	comp=E,2μm,0.6s						
RYN				IAML		21 02 14.5	
	comp=N,715nm,0.3s						
Q09A	**Carvers**	**0.86**	**36**		Pg	21 02 01.2	+0.1
Q09A				IAML		21 02 15.1	
	comp=N,1μm,0.5s						
Q09A				IAML		21 02 18.1	
	comp=E,1μm,0.9s						
LCH	**Last Change Ra**	**0.91**	**171**		Pb	21 02 03.3	+0.2
KVN	**Kaiserville**	**0.94**	**347**		Pg	21 02 02.0	-0.6
KVN					Sg	21 02 14.4	-0.4
KVN	**Kaiserville**	**0.94**	**347**	IAML		21 02 19.2	
	comp=N,741nm,0.5s						
MDPB	**Devils Postpil**	**1.11**	**243**		Pg	21 02 06.1	+0.2
MDPB					Sg	21 02 20.6	+0.4
TIN	**Tinemaha, Big**	**1.13**	**197**		Pn	21 02 07.3	-0.1
TIN				IAML		21 02 31.9	
	comp=N,930nm,0.6s						
TIN				IAML		21 02 33.5	
	comp=E,1μm,0.7s						
GRAC	**Grapevine Rang**	**1.20**	**162**		Pg	21 02 07.3	-0.2
GRAC				IAML		21 02 28.8	
	comp=E,786nm,0.7s						
GRAC				IAML		21 02 34.4	
	comp=N,729nm,1.1s						
SGV	**South Grapevin**	**1.31**	**151**		Pb	21 02 10.5	+0.5
WAKR	**Walker**	**1.32**	**287**		Pg	21 02 09.2	-0.6
YERR	**Yerington**	**1.39**	**308**		Pn	21 02 10.6	-0.5
YERR	**Yerington**	**1.39**	**308**	IAML		21 02 31.1	
	comp=N,545nm,0.7s						
NTA	**Nevada Test Si**	**1.40**	**127**		Pb	21 02 12.4	+1.0
EHN	**Echo Peak**	**1.51**	**127**		Pb	21 02 13.4	0.0
WCT	**Wildcat Mounta**	**1.65**	**144**		Pb	21 02 15.2	-0.4
WCT	**Wildcat Mounta**	**1.65**	**144**	IAML		21 02 42.1	
	comp=N,357nm,0.4s						
WCT				IAML		21 02 42.3	
	comp=E,386nm,0.5s						
PNTR	**Pine Nut**	**1.68**	**305**		Pn	21 02 14.8	-0.2
PNTR				Sg	Sg	21 02 38.7	0.0
CWC	**Cottonwood Cre**	**1.71**	**187**		Pg	21 02 17.1	-0.2
S11A	**Rachel**	**1.72**	**106**		Pb	21 02 16.5	-0.4
TPNV	**Topopah Spring**	**1.73**	**133**		Pb	21 02 16.5	-0.5
TPNV				IAML		21 02 48.8	
	comp=E,411nm,0.7s						
TPNV				IAML		21 02 55.6	
	comp=E,252nm,0.6s						
VCNR	**Virginia City**	**1.84**	**310**		Pn	21 02 16.7	-0.5
SDH	**Striped Hills**	**1.90**	**141**		Pb	21 02 19.0	-1.0
NSP	**Numbskull Pass**	**1.91**	**137**		Pn	21 02 18.9	+0.9
PAHR	**Pah Rah Range**	**1.98**	**323**		Pn	21 02 19.3	+0.1
PAHR				Sg	Sb	21 02 46.7	+0.1
PAHR				IAML		21 02 47.7	
	comp=N,180nm,0.5s						
PAHR				IAML		21 02 48.0	
	comp=E,200nm,0.8s						
CMB	**Columbia Colle**	**2.02**	**268**		Pn	21 02 20.4	+0.8
CMB					Sb	21 02 46.8	-0.7
CMB				IAML		21 02 50.3	
	comp=N,114nm,1.1s						
MPK	**Martis Peak**	**2.08**	**305**		Pn	21 02 20.3	-0.2
MPK				IAML		21 02 53.2	
	comp=E,265nm,0.7s						
MPK				IAML		21 02 54.7	
	comp=N,328nm,0.8s						
AMDNV	**Amargosa**	**2.08**	**143**		Pb	21 02 21.8	-1.2
MPMC	**Manual Prospec**	**2.09**	**172**		Pn	21 02 21.6	+0.9
MPMC				IAML		21 02 57.8	
	comp=E,113nm,1.1s						
JRC2	**Joshua Ridge**	**2.15**	**180**		Pg	21 02 26.8	+1.0
GWY	**Greenwater Val**	**2.15**	**154**		Pn	21 02 21.9	+0.4
GWY				IAML		21 03 01.0	
	comp=N,189nm,0.6s						
GWY				IAML		21 03 06.7	
	comp=E,156nm,0.5s						
PEAR	**Peavine Mounta**	**2.22**	**312**		Pb	21 02 25.0	-0.5
DONR	**Donner Summit**	**2.30**	**303**		Pb	21 02 27.0	+0.3
PRN	**Pahroc Range**	**2.32**	**107**		Pn	21 02 24.1	+0.4
CLC	**China Lake**	**2.32**	**175**		Pn	21 02 24.6	+0.9
BMN	**Battle Mountai**	**2.34**	**11**		Pn	21 02 23.4	-0.7
BMN				IAML		21 03 00.4	
	comp=N,228nm,0.3s						
BMN				IAML		21 03 00.8	
	comp=E,123nm,0.5s						
VES	**Vestal, Richgr**	**2.50**	**204**		Pg	21 02 31.4	-1.1
ISA	**Isabella, Lake**	**2.52**	**192**		Pg	21 02 32.0	-0.9
SHOC	**Shoshone, Teco**	**2.56**	**150**		Pg	21 02 33.7	+0.1
SHOC				IAML		21 03 34.4	
	comp=N,233nm,1.0s						
AFDM	**Forest Hills D**	**2.59**	**289**		Pn	21 02 27.6	+0.2
BEKR	**Beckworth**	**2.62**	**312**		Pn	21 02 28.1	+0.2
CCCA	**Chr Cany lake**	**2.63**	**172**		Pn	21 02 28.5	+0.5
CCCA				IAML		21 03 19.2	
	comp=E,136nm,1.0s						
CCCA				IAML		21 03 22.5	
	comp=N,150nm,1.1s						
LRMC	**Laurel Mtn Rad**	**2.65**	**177**	Pg	Pg	21 02 35.1	-0.3
LRMC				IAML		21 02 48.3	
	comp=N,84nm,0.1s						
GSC	**Goldstone, Bar**	**2.94**	**163**		Pn	21 02 33.5	+1.2
GSC				IAML		21 03 24.3	
	comp=E,67nm,0.9s						
GSC				IAML		21 03 28.9	
	comp=N,63nm,0.8s						
BBGB	**Big Mountain B**	**2.99**	**240**		Pn	21 02 33.8	+0.8
PMPB	**Monarch Peak**	**3.05**	**232**		Pb	21 02 39.3	-0.3
PKD	**Bear Valley Ra**	**3.08**	**226**		Pn	21 02 34.5	+0.4
PKD				IAML		21 03 28.8	
	comp=N,43nm,1.1s						
PKD				IAML		21 03 28.9	
	comp=E,45nm,0.8s						
MHC	**Mount Hamilton**	**3.12**	**256**		Pb	21 02 42.1	+1.3
MHC				IAML		21 03 25.7	
	comp=N,82nm,0.7s						
MHC				IAML		21 03 32.2	
	comp=E,61nm,1.2s						
PSUT	**Pine Spring**	**3.15**	**82**		Pg	21 02 44.3	-0.7
PSUT				IAML		21 03 28.4	
	comp=E,126nm,0.6s						
SAO	**San Andreas Ge**	**3.19**	**246**		Pg	21 02 46.1	+0.4
MTPC	**Mountain Pass**	**3.21**	**145**		Pg	21 02 46.4	+0.1
SUTB	**Sutter Butte**	**3.28**	**291**	IAML		21 03 36.6	
	comp=E,96nm,0.5s						
SUTB				IAML		21 03 50.2	
	comp=N,76nm,0.6s						
ELK	**Elko**	**3.29**	**37**		Pn	21 02 37.2	0.0
HULI	**Fort Hunter Li**	**3.45**	**233**	IAML		21 03 39.5	
	comp=N,47nm,1.2s						
HULI				IAML		21 03 48.6	
	comp=E,39nm,3.6s						
O03E	**Paynes Creek**	**3.76**	**306**	IAML		21 03 26.8	
	comp=N,34nm,4.7s						
O03E				IAML		21 03 54.8	
	comp=E,45nm,2.8s						
MWC	**Mount Wilson**	**3.91**	**183**	IAML		21 04 00.3	
	comp=N,25nm,3.5s						
MOD	**Modoc Plateau**	**4.21**	**334**		Pg	21 03 06.5	+1.1
MOD				IAML		21 03 59.7	
	comp=E,41nm,0.6s						
MOD				IAML		21 04 00.1	
	comp=N,39nm,0.8s						
WVOR	**Wild Horse Val**	**4.34**	**352**		Pg	21 03 12.0	+4.3
WVOR				IAML		21 04 03.4	
	comp=N,28nm,0.6s						
WVOR				IAML		21 04 23.5	
	comp=N,30nm,2.2s						
DUG	**Dugway, Tooele**	**4.41**	**61**		Pg	21 03 08.3	-0.7
DUG				IAML		21 04 06.7	
	comp=N,40nm,0.9s						
BGU	**Big Grassy Mou**	**4.64**	**52**		Pb	21 03 05.1	-1.6
BLYC	**Blythe**	**5.13**	**148**	IAML		21 04 33.4	
	comp=E,21nm,0.9s						
BLYC				IAML		21 04 36.2	
	comp=N,18nm,1.1s						
HLID	**Hailey**	**6.01**	**24**		Pb	21 03 28.1	-1.8

IDC 13 21:35:57.0±9.0,4.63S×127.21E,h516km±120km,mb2.4/1, mbtmp3.6/4,Error ellipse: s-maj=125.6km s-min=34.5km az=55.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**13.47**	**186**	P	P	21 38 51.5	+0.4
	0.8nm,0.3s,baz=17,slow=9.3,SNR=6.3						
WRA	**Warramunga Arr**	**16.73**	**156**	P	P	21 39 24.5	-0.3
	2.6nm,0.7s,baz=334,slow=11,SNR=16						
ASAR	**Alice Springs**	**20.00**	**162**	P	P	21 39 54.9	0.0
	0.5nm,0.6s,baz=341,slow=6.9,SNR=11						
MKAR	**Makanchi Array**	**64.74**	**328**	P	P	21 45 44.2	0.0
	0.2nm,0.8s,baz=134,slow=6.2,SNR=5.3						
	0.2nm,0.8s						

*NAO **13** 21:37:58.4,37.23N×23.52E,h33km,MB3.6*
*IDC **13** 21:38:13.9±0.6,39.16N×21.82E,h0km,mb4.0/17, mbtmp3.9/27,ML3.5/7,MS3.3/8,Error ellipse: s-maj=10.5km s-min=9.1km az=30.0*
*PDG **13** 21:38:15.7±0.8,39.18N×21.74E,h16km±1km,ML3.9/12, Error ellipse: s-maj=0.7km s-min=0.9km az=0.0*
*ATH **13** 21:38:15.1,39.19N×21.68E,h8km±2km,ML3.8/72, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **13** 21:38:15.5,39.2N±0.6×21.7E±0.8,h5km±1km,M3.6/74, MLh3.6/74*
*TIR **13** 21:38:15.4,39.17N×21.68E,h29km±2km,ML4.2,ML4.2, Presumed earthquake*
*BEO **13** 21:38:16.0±0.6,39.25N×22.10E,h0km,ML3.7/9*
*SOF **13** 21:38:16.6,39.1N±0.3×21.8E±0.2,h45km±1km,MD4.3/5*
*NEIC **13** 21:38:16.6±2.3,39.20N±0.06×21.73E±0.07,h10km±1km, mb4.2/19,Error ellipse: s-maj=10.2km s-min=8.5km az=184.0*
*GFZ **13** 21:38:17.5±0.2,39°N±2'×2°2E±°,h10km,M4.3/19, mb4.3/19*
ISC 13 21:38:16.1±0.8,39.18N±0.01×21.70E±0.01,h14km±5km, n470,σ1°28/590,mb4.1/24,MS3.5/4,35C-14D,Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EVR	**Evrytania**	**0.28**	**162**	P	**Pg**	**21 38 21.4**	**-0.6**
EVR				S	**Sg**	**21 38 26.0**	**-0.1**
EVR				AML	AML		
EVR	**Evrytania**	**0.28**	**162**	P	**Pg**	**21 38 21.4**	**-0.6**
EVR				S	**Sg**	**21 38 25.5**	**-0.6**
EVR				AML	AML		
SOFA	**Sofades**	**0.35**	**64**	P	**Pg**	**21 38 23.3**	**+0.1**
SOFA				S	**Sg**	**21 38 27.4**	**-0.5**
TETR	**Tetrakomo, Epi**	**0.36**	**296**	P	**Pg**	**21 38 22.3**	**-1.2**
TETR				S	**Sg**	**21 38 27.9**	**-0.7**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**0.36**	**296**	P	**Pg**	**21 38 22.4**	**-1.2**
TETR				S	**Sg**	**21 38 27.7**	**-0.8**
TETR				AML	AML		
TRKA	**Trikala**	**0.37**	**8**	P	**Pg**	**21 38 23.1**	**-0.5**
TRKA				S	**Sg**	**21 38 28.6**	**-0.2**
TRKA				AML	AML		
THL	**Klokotos Trika**	**0.45**	**33**	P	**Pg**	**21 38 24.7**	**-0.4**
THL				S	**Sg**	**21 38 31.6**	**+0.4**
THL				AML	AML		
THL	**Klokotos Trika**	**0.45**	**33**	P	**Pg**	**21 38 24.8**	**-0.3**
THL				S	**Sb**	**21 38 32.4**	**-0.1**
THL	**Klokotos Trika**	**0.45**	**33**	P	**Pg**	**21 38 24.7**	**-0.4**
THL				S	**Sg**	**21 38 30.8**	**-0.4**
THL				AML	AML		
AMPL	**Ampelaki**	**0.46**	**235**	P	**Pg**	**21 38 23.6**	**-1.5**
AMPL				S	**Sg**	**21 38 30.7**	**-0.6**
AMPL				AML	AML		
AGG	**Agios Georgios**	**0.52**	**108**	P	**Pg**	**21 38 26.1**	**-0.2**
AGG				S	**Sb**	**21 38 34.4**	**-0.1**
AGG				AML	AML		
AGG	**Agios Georgios**	**0.52**	**108**	P	**Pg**	**21 38 26.1**	**-0.2**
AGG	**Agios Georgios**	**0.52**	**108**	P	**Pg**	**21 38 26.2**	**-0.2**
AGG				S	**Sg**	**21 38 32.5**	**-0.8**
AGG				AML	AML		
ART2	**Arta**	**0.55**	**266**	P	**Pg**	**21 38 25.3**	**-1.6**
ARTB	**Arta**	**0.56**	**267**	P	**Pg**	**21 38 25.6**	**-1.5**
ARTB				S	**Sg**	**21 38 33.5**	**-1.0**
PRMD	**Pramanda**	**0.58**	**307**	P	**Pg**	**21 38 26.6**	**-0.9**
PRMD				S	**Sg**	**21 38 35.1**	**-0.1**
PRMD				AML	AML		
PVO	**Paravola**	**0.58**	**193**	P	**Pg**	**21 38 26.3**	**-1.2**
PVO				S	**Sb**	**21 38 36.0**	**-0.2**
PVO				AML	AML		
PVO	**Paravola**	**0.58**	**193**	P	**Pg**	**21 38 26.3**	**-1.2**
PVO				S	**Sg**	**21 38 35.1**	**-0.1**
PVO				AML	AML		
ANX	**Ano Chora**	**0.61**	**163**	P	**Pg**	**21 38 27.2**	**-1.0**
ANX				S	**Sb**	**21 38 37.2**	**-0.1**
ANX				AML	AML		
ANX	**Ano Chora**	**0.61**	**163**	P	**Pg**	**21 38 27.3**	**-0.8**
ANX				S	**Sg**	**21 38 36.7**	**+0.3**
ANX				AML	AML		
TYRN	**Tyrnavos**	**0.67**	**38**	P	**Pg**	**21 38 28.5**	**-0.7**
TYRN				S	**Sb**	**21 38 39.0**	**+0.1**
TYRN	**Tyrnavos**	**0.67**	**38**	P	**Pg**	**21 38 28.5**	**-0.7**
TYRN				S	**Sg**	**21 38 37.1**	**-1.0**
PDO	**Prodromos**	**0.71**	**215**	P	**Pg**	**21 38 28.7**	**-1.2**
PDO				S	**Sb**	**21 38 40.2**	**+0.4**
PDO				AML	AML		
PDO	**Prodromos**	**0.71**	**215**	P	**Pg**	**21 38 28.7**	**-1.2**
PDO				S	**Sg**	**21 38 39.6**	**+0.4**
PDO				AML	AML		
GINA	**Giannouli**	**0.72**	**48**	P	**Pg**	**21 38 29.6**	**-0.5**
VVK	**Vomvokou**	**0.77**	**173**	P	**Pg**	**21 38 29.7**	**-1.3**
VVK				S	**Sg**	**21 38 41.2**	**+0.2**
VVK				AML	AML		
EFP	**Efpalio**	**0.77**	**168**	P	**Pg**	**21 38 30.1**	**-1.0**
EFP				S	**Sb**	**21 38 42.0**	**+0.3**
EFP				AML	AML		
EFP	**Efpalio**	**0.77**	**168**	P	**Pg**	**21 38 29.8**	**-1.3**
EFP				S	**Sg**	**21 38 40.5**	**-0.8**
EFP				AML	AML		
AGRP	**Agrapidokambos**	**0.79**	**178**	P	**Pg**	**21 38 29.9**	**-1.5**
AGRP				S	**Sg**	**21 38 41.1**	**-0.6**
AGRP				AML	AML		
MG00	**Magoula, Dorid**	**0.79**	**166**	P	**Pg**	**21 38 30.5**	**-0.9**
MG00				AML	AML		
AST1	**Astakos**	**0.80**	**217**	P	**Pg**	**21 38 31.3**	**-0.2**
PLEV	**Plevrona-Mesol**	**0.80**	**196**	P	**Pg**	**21 38 30.3**	**-1.4**
PLEV				S	**Sb**	**21 38 43.1**	**+0.6**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**0.80**	**196**	P	**Pg**	**21 38 30.2**	**-1.5**
PLEV				AML	AML		
JAN	**Janina**	**0.81**	**306**	P	**Pg**	**21 38 30.9**	**-0.9**
JAN				S	**Sg**	**21 38 42.0**	**-0.4**
JAN				AML	AML		
JAN	**Janina**	**0.81**	**306**	P	**Pg**	**21 38 30.8**	**-1.0**
JAN				AML	AML		
KPRO	**Kipourio**	**0.81**	**342**	P	**Pg**	**21 38 30.6**	**-1.2**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.81**	**342**	P	**Pg**	**21 38 30.8**	**-1.1**
KPRO				AML	AML		
PYRG	**Pyrgos, Dorida**	**0.81**	**162**	P	**Pg**	**21 38 30.8**	**-1.1**
PYRG				S	**Sg**	**21 38 41.8**	**-0.7**
PYRG				AML	AML		
SERG	**Sergoula**	**0.82**	**160**	P	**Pg**	**21 38 30.6**	**-1.4**
SERG				S	**Sg**	**21 38 42.7**	**0.0**
SERG				AML	AML		
SERG	**Sergoula**	**0.82**	**160**	P	**Pg**	**21 38 30.9**	**-1.0**
SERG				S	**Sg**	**21 38 42.5**	**-0.2**
SERG				AML	AML		
MSL1	**Messolongi**	**0.84**	**195**	P	**Pg**	**21 38 31.7**	**-0.6**
MSL1				AML	AML		
AXAR	**Agios Charalam**	**0.86**	**119**	P	**Pg**	**21 38 31.9**	**-0.8**
AXAR				S	**Sg**	**21 38 43.7**	**-0.3**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**0.86**	**119**	P	**Pg**	**21 38 31.9**	**-0.8**
AXAR				AML	AML		
KALE	**Kalithea**	**0.86**	**156**	P	**Pg**	**21 38 31.5**	**-1.3**
KALE				S	**Sb**	**21 38 44.6**	**+0.2**
KALE				AML	AML		
KALE	**Kalithea**	**0.86**	**156**	P	**Pg**	**21 38 31.5**	**-1.3**
KALE				S	**Sb**	**21 38 44.5**	**+0.2**
KALE				AML	AML		
TSLK	**Tsoukalades, L**	**0.89**	**246**	P	**Pb**	**21 38 32.5**	**-0.7**
TSLK				S	**Sn**	**21 38 46.9**	**+0.1**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**0.89**	**246**	P	**Pb**	**21 38 32.2**	**-1.0**
TSLK				S	**Sb**	**21 38 45.3**	**+0.4**
TSLK				AML	AML		
RIOA	**Rio**	**0.89**	**175**	P	**Pb**	**21 38 32.6**	**-0.8**
RIOA				AML	AML		
LKD2	**Lefkada island**	**0.90**	**244**	P	**Pb**	**21 38 32.6**	**-0.9**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.90**	**244**	P	**Pb**	**21 38 32.6**	**-0.9**
LKD2				S	**Sb**	**21 38 45.2**	**-0.1**
LKD2	**Lefkada island**	**0.90**	**244**	P	**Pb**	**21 38 32.4**	**-1.2**
LKD2				S	**Sb**	**21 38 45.3**	**-0.1**
LKD2				AML	AML		
NYDR	**Nydri-Lefkada**	**0.91**	**239**	P	**Pb**	**21 38 32.4**	**-1.1**
NYDR				S	**Sg**	**21 38 46.5**	**+0.9**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.91**	**239**	P	**Pb**	**21 38 32.5**	**-1.1**
NYDR				S	**Sb**	**21 38 45.2**	**-0.4**
PATC	**Patra C**	**0.92**	**177**	P	**Pb**	**21 38 33.4**	**-0.4**
PATC				AML	AML		
DLFA	**Delphi**	**0.94**	**138**	P	**Pb**	**21 38 33.0**	**-1.3**
DLFA				S	**Sb**	**21 38 45.8**	**-0.8**
DLFA				AML	AML		
AGEO	**AgiosGiorgios,**	**0.96**	**162**	P	**Pb**	**21 38 33.1**	**-1.4**
LAKA	**Lakka**	**0.97**	**167**	P	**Pb**	**21 38 33.2**	**-1.5**
LAKA				AML	AML		
EVGI	**Lefkada island**	**0.99**	**236**	P	**Pb**	**21 38 33.8**	**-1.2**
EVGI				AML	AML		
EVGI	**Lefkada island**	**0.99**	**236**	P	**Pb**	**21 38 33.7**	**-1.3**
EVGI				AML	AML		
VOL2	**Volos**	**0.99**	**79**	P	**Pb**	**21 38 34.5**	**-0.5**
DRAG	**Dragano-Lefkad**	**1.01**	**241**	P	**Pb**	**21 38 34.0**	**-1.3**
DRAG				S	**Sn**	**21 38 50.3**	**+0.5**
DRAG				AML	AML		
DRAG	**Dragano-Lefkad**	**1.01**	**241**	P	**Pb**	**21 38 33.9**	**-1.5**
DRAG				AML	AML		
TEME	**Temeni, Aigial**	**1.01**	**161**	P	**Pb**	**21 38 34.5**	**-0.8**
PRGA	**Parga**	**1.01**	**276**	P	**Pb**	**21 38 35.4**	**0.0**
PRGA				AML	AML		
AXS	**Araxos**	**1.02**	**194**	P	**Pb**	**21 38 34.7**	**-0.8**
AXS				S	**Sn**	**21 38 50.4**	**+0.4**
AXS				AML	AML		
AXS	**Araxos**	**1.02**	**194**	P	**Pb**	**21 38 34.5**	**-1.0**
AXS				AML	AML		
AIOA	**Agios Ioannis,**	**1.03**	**164**	P	**Pb**	**21 38 34.4**	**-1.3**
PENT	**Pentalofos**	**1.10**	**337**	P	**Pb**	**21 38 35.4**	**-1.6**
PENT				AML	AML		
PENT	**Pentalofos**	**1.10**	**337**	P	**Pb**	**21 38 35.2**	**-1.7**
IGT	**Igoumenitsa**	**1.11**	**289**	P	**Pb**	**21 38 36.3**	**-0.9**
IGT	**Igoumenitsa**	**1.11**	**289**	P	**Pb**	**21 38 36.1**	**-1.1**
KZN	**Kozani**	**1.12**	**3**	P	**Pb**	**21 38 36.3**	**-1.1**
KZN				S	**Sn**	**21 38 52.9**	**+0.1**
KZN				AML	AML		
KZN	**Kozani**	**1.12**	**3**	P	**Pb**	**21 38 35.9**	**-1.5**
KZN				AML	AML		
RLS	**Riolos of Patr**	**1.14**	**189**	P	**Pb**	**21 38 37.1**	**-0.5**
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.14**	**189**	P	**Pb**	**21 38 36.9**	**-0.7**
RLS				AML	AML		
VSK1	**VASILIKIADES**	**1.18**	**229**	P	**Pn**	**21 38 36.7**	**-1.4**
XOR	**Xorichti**	**1.18**	**81**	P	**Pn**	**21 38 37.5**	**-0.7**
XOR				AML	AML		
XOR	**Xorichti**	**1.18**	**81**	P	**Pn**	**21 38 37.4**	**-0.7**
XOR	**Xorichti**	**1.18**	**81**	P	**Pn**	**21 38 37.5**	**-0.7**
KLV	**Kalavryta, Ach**	**1.19**	**162**	P	**Pn**	**21 38 37.5**	**-0.9**
KLV				S	**Sg**	**21 38 55.6**	**+1.0**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**1.19**	**162**	P	**Pn**	**21 38 37.6**	**-0.9**
KLV				S	**Sn**	**21 38 54.3**	**-0.2**
KLV	**Kalavryta, Ach**	**1.19**	**162**	P	**Pn**	**21 38 37.2**	**-1.2**
KLV				AML	AML		
NEO	**Neokhori**	**1.19**	**84**	P	**Pn**

PSDA	Pessada-Kefalo	1.38	220	P	Pn	21 38 40.0	-0.9
PSDA				AML	AML		
LXR1	Lixouri, Cepha	1.39	225	P	Pn	21 38 40.7	-0.4
DMLN	Damoulianata-K	1.40	228	P	Pn	21 38 40.4	-0.8
KIAA	Kiato	1.43	144	P	Pn	21 38 41.9	+0.2
NASA	Naoussa	1.47	11	P	Pn	21 38 42.3	+0.1
SRN	Sarande	1.48	298	P	Pb	21 38 43.1	-0.4
SRN				S	Sb	21 39 02.9	+0.7
SRN	Sarande	1.48	298	P	Pn	21 38 43.0	+0.6
SRN	Sarande	1.48	298	P	Pg	21 38 45.5	+0.9
LTK	Loutraki	1.53	139	P	Pn	21 38 43.3	+0.3
LTK				AML	AML		
LTK	Loutraki	1.53	139	P	Pn	21 38 43.4	+0.4
LTK				AML	AML		
LOUT	Loutraki	1.56	140	P	Pn	21 38 43.8	+0.4
LOUT				AML	AML		
KEK	Kerkira	1.56	290		Pn	21 38 43.5	+0.1
KEK	Kerkira	1.56	290	P	Pn	21 38 43.2	-0.3
KEK	Kerkira	1.56	290	P	Pn	21 38 43.9	+0.5
VIL2	Platees	1.57	128	P	Pb	21 38 44.9	0.0
VIL2				AML	AML		
ACOR	Acrocorinthos	1.59	144	P	Pn	21 38 44.2	+0.4
ACOR				AML	AML		
KBN	Korca	1.60	334	P	Pb	21 38 45.8	+0.3
KBN	Korca	1.60	334	P	Pb	21 38 45.7	+0.2
LTHK	Lithakia	1.62	205	P	Pn	21 38 44.8	+0.5
LTHK				AML	AML		
LTHK	Lithakia	1.62	205	P	Pn	21 38 44.7	+0.5
LTHK				AML	AML		
VILL	Villia	1.62	128	P	Pn	21 38 44.4	0.0
VILL				AML	AML		
AMT	Artemida-Makis	1.65	180	P	Pn	21 38 45.4	+0.7
AMT				AML	AML		
AMT	Artemida-Makis	1.65	180	P	Pb	21 38 45.7	-0.6
AMT				AML	AML		
AOS2	Alonissos-2	1.67	91	P	Pn	21 38 44.5	-0.5
AOS2				AML	AML		
AOS	Alonnisos	1.70	90	P	Pn	21 38 44.6	-0.8
AOS				S	Sn	21 39 05.8	-1.1
AOS				AML	AML		
PAIG	Paliouri	1.70	64	P	Pn	21 38 44.5	-0.9
PAIG				S	Sn	21 39 06.7	-0.3
PAIG	Paliouri	1.70	64	P	Pn	21 38 44.7	-0.7
THE	Thessaloniki	1.75	34	P	Pn	21 38 44.9	-1.1
THE				S	Sn	21 39 07.7	-0.3
THE				AML	AML		
THE	Thessaloniki	1.75	34	P	Pn	21 38 45.1	-0.9
THE	Thessaloniki	1.75	34	P	Pn	21 38 45.3	-0.7
THE	Thessaloniki	1.75	34	P	Pn	21 38 45.0	-1.0
THE				AML	AML		
STFN	Stefani	1.76	124	P	Pn	21 38 46.7	+0.4
STFN				S	Sn	21 39 09.0	+0.5
STFN				AML	AML		
STFN	Stefani	1.76	124	P	Pn	21 38 46.7	+0.4
STFN				AML	AML		
PLG	Polygyros	1.80	48	P	Pn	21 38 45.9	-0.9
PLG				S	Sn	21 39 09.2	-0.2
PLG				AML	AML		
PLG	Polygyros	1.80	48	P	Pn	21 38 45.9	-0.9
GRG	Griva	1.85	17	P	Pn	21 38 46.9	-0.6
GRG				AML	AML		
GRG	Griva	1.85	17	P	Pn	21 38 47.1	-0.4
GRG	Griva	1.85	17	P	Pn	21 38 47.2	-0.3
VLX	Vlachokerasia	1.89	163	P	Pb	21 38 49.5	-0.9
VLX				AML	AML		
EPID	Epidavros	1.93	144	P	Pn	21 38 48.9	+0.5
EPID				AML	AML		
EPID	Epidavros	1.93	144	P	Pn	21 38 49.0	+0.5
EPID				AML	AML		
KYMI	Kymi, Euboea I	1.96	106	P	Pn	21 38 48.8	-0.1
KYMI				S	Sn	21 39 13.4	+0.1
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.96	106	P	Pn	21 38 48.7	-0.1
KYMI				AML	AML		
ATH	Athens Observa	1.99	127	P	Pn	21 38 50.0	+0.6
ATH				S	Sn	21 39 14.3	+0.2
ATH				AML	AML		
ATH	Athens Observa	1.99	127	P	Pn	21 38 49.3	0.0
ATH				AML	AML		
MET3	Ano Fanari,Met	2.01	143	P	Pn	21 38 50.0	+0.4
ITM	Ithomi	2.01	175		Pb	21 38 51.6	-0.8
ITM	Ithomi	2.01	175	P	Pb	21 38 52.8	+0.3
ITM	Ithomi	2.01	175	P	Pn	21 38 51.1	+1.5
ITM				AML	AML		
MET2	Kameni Chora,	2.03	140	P	Pn	21 38 50.3	+0.4
MET2				AML	AML		
MET5	Makryloggos,Me	2.03	140	P	Pn	21 38 50.5	+0.5
ATHU	Athens Univers	2.04	126	P	Pn	21 38 50.5	+0.4
ATHU				S	Sn	21 39 15.5	+2.2
ATHU	Athens Univers	2.04	126	P	Pn	21 38 50.4	+0.4
PTL	Penteli	2.04	123	P	Pn	21 38 50.7	+0.6
PTL				AML	AML		
PTL	Penteli	2.04	123	P	Pn	21 38 50.3	+0.2
PTL				AML	AML		
OHR	Ohrid	2.04	341	i Pn	Pb	21 38 52.1	-1.0
MET6	Megalochori,Me	2.06	140	P	Pn	21 38 50.7	+0.5
DION	Dionisos Attik	2.07	122	P	Pn	21 38 50.9	+0.4
DION				S	Sn	21 39 16.3	+0.2
DION				AML	AML		
DION	Dionisos Attik	2.07	122	P	Pn	21 38 50.8	+0.4
DION				AML	AML		
SOH	Sokhos	2.07	37	P	Pn	21 38 50.3	-0.2
SOH				S	Sn	21 39 16.7	+0.5
SOH				AML	AML		
SOH	Sokhos	2.07	37	P	Pn	21 38 50.4	-0.2
SOH	Sokhos	2.07	37	P	Pn	21 38 50.1	-0.5
SOH				AML	AML		
OUR	Ouranopolis	2.10	56	P	Pn	21 38 50.6	-0.3
OUR				S	Sn	21 39 17.1	+0.3
OUR				AML	AML		
OUR	Ouranopolis	2.10	56	P	Pn	21 38 50.4	-0.5
OUR				AML	AML		
VLY	Voula,Athens	2.12	128	P	Pn	21 38 51.5	+0.5
VLY				AML	AML		
VLY	Voula,Athens	2.12	128	P	Pn	21 38 51.6	+0.5
VLY				AML	AML		
VLO	Vlora	2.12	308	P	Pb	21 38 55.0	+0.6
KNT	Kendrikon	2.18	25	P	Pn	21 38 52.0	0.0
KNT				S	Sn	21 39 19.8	+1.0
KNT				AML	AML		
KNT	Kendrikon	2.18	25	P	Pn	21 38 52.1	+0.2
KNT	Kendrikon	2.18	25	P	Pn	21 38 51.8	-0.2
KNT				AML	AML		
VAY	Valandovo	2.24	17	i Pn	Pn	21 38 52.6	-0.2
SKY	Skiros Island	2.24	97	S	Sn	21 39 20.0	-0.4
SKY				AML	AML		
SKY	Skiros Island	2.24	97	P	Pn	21 38 52.8	-0.1
SKY				AML	AML		
SRS	Serrai	2.42	36	P	Pn	21 38 55.0	-0.3
SRS				S	Sn	21 39 24.7	+0.1
SRS				AML	AML		
SRS	Serrai	2.42	36	ePn	Pn	21 38 54.7	-0.5
SRS				eSg	Sn	21 39 24.6	-0.1
SRS	Serrai	2.42	36	P	Pn	21 38 55.2	0.0
SRS	Serrai	2.42	36	P	Pn	21 38 54.9	-0.3
SRS				AML	AML		
KARY	Karystos	2.44	117	P	Pn	21 38 56.0	+0.5
KARY	Karystos	2.44	117	P	Pn	21 38 55.9	+0.4
EFSA	Agios Efstrati	2.58	81	P	Pn	21 38 56.8	-0.6
VLI	Veliai	2.65	158	P	Pn	21 38 59.2	+0.8
VLI				AML	AML		
VLI	Veliai	2.65	158	P	Pn	21 38 59.0	+0.5
VLI				AML	AML		
PHP	Peshkopia	2.67	339	P	Pn	21 39 00.6	+1.7
LMN1	MIRINA LIMNOU	2.69	74	P	Pn	21 38 58.6	-0.4
NVR	Nevrokopi	2.73	37	P	Pn	21 38 59.4	-0.1
NVR				S	Sn	21 39 32.9	+0.6
NVR				AML	AML		
NVR	Nevrokopi	2.73	37	P	Pn	21 38 59.6	+0.1
NVR				AML	AML		
THAS	Thassos island	2.73	58	P	Pn	21 38 58.5	-1.0
THAS				AML	AML		
THAS	Thassos island	2.73	58	P	Pn	21 38 58.5	-1.0
THAS				AML	AML		
PEHC	Pehcevo	2.75	19	i Pn	Pb	21 39 04.7	-0.5
LIA	Limnos Island	2.79	74	P	Pn	21 38 59.9	-0.4
LIA				S	Sn	21 39 33.1	-0.7
LIA				AML	AML		
LIA	Limnos Island	2.79	74	P	Pn	21 38 59.8	-0.4

SKO	Skopje	2.79	356	i Pn	Pn	21 39 01.3	+0.9
KAVA	Kavala	2.82	49	P	Pn	21 39 00.0	-0.8
KAVA				AML	AML		
KAVA	Kavala	2.82	49	P	Pn	21 38 60.0	-0.8
KAVA				AML	AML		
MMB	Musomishta	2.83	33	P	Pn	21 39 01.1	0.0
MMB				S	Sn	21 39 35.7	+0.7
MMB				AML	AML		
MMB	Musomishta	2.83	33	i P	Pn	21 39 01.4	+0.4
MMB				i S	Sn	21 39 35.5	+0.5
KKB	Krupnik	2.87	22	P	Pn	21 39 01.6	+0.1
KKB				S	Sn	21 39 36.3	+0.5
KKB				AML	AML		
KKB	Krupnik	2.87	22	i P	Pn	21 39 01.8	+0.3
KKB				i S	Sn	21 39 36.4	+0.5
KTHA	Kythira Island	3.12	159	P	Pn	21 39 06.1	+1.2
KTHA				AML	AML		
KTHA	Kythira Island	3.12	159	P	Pb	21 39 10.2	-1.1
KTHA	Kythira Island	3.12	159	P	Pn	21 39 06.4	+1.5
KTHA				AML	AML		
SMTH	Samothraki Isl	3.22	65	P	Pn	21 39 05.4	-0.9
SMTH	Samothraki Isl	3.22	65	P	Pn	21 39 05.2	-1.1
MESG	Mesagne	3.27	297	P	Pn	21 39 08.0	+1.0
MESG				AML	AML		
SDA	Shkodra	3.32	330	P	Pn	21 39 10.1	+2.5
ULC	Ulcinj	3.35	327	⇑i Pn	Pn	21 39 08.9	+0.9
ULC				i Sn	Sn	21 39 48.5	+0.9
BOSS	Bosilegrad	3.36	10	ePn	Pn	21 39 08.3	+0.1
BOSS				eSn	Sn	21 39 47.6	-0.4
GADA	Gvkgeada	3.40	71	P	Pn	21 39 08.3	-0.3
GADA				AML	AML		
RZN	Rozhen	3.42	42	P	Pn	21 39 09.1	0.0
RZN				AML	AML		
RZN	Rozhen	3.42	42	i P	Pn	21 39 09.2	0.0
RZN				i S	Sn	21 39 48.7	-0.9
CHOS	Chios island	3.50	102	P	Pn	21 39 11.0	+0.9
CHOS				AML	AML		
CHOS	Chios island	3.50	102	P	Pn	21 39 11.1	+0.9
CHOS	Chios island	3.50	102	P	Pn	21 39 10.7	+0.6
ANKY	Antikythira Is	3.55	158	P	Pn	21 39 12.3	+1.6
ANKY				AML	AML		
ANKY	Antikythira Is	3.55	158	P	Pn	21 39 12.5	+1.7
ANKY				AML	AML		
PRK	Paraskevi	3.56	88	P	Pn	21 39 11.1	+0.3
PRK				AML	AML		
DRME	Dracevica, Mon	3.56	328	ePn	Pn	21 39 12.7	+1.8
DRME	Dracevica, Mon	3.56	328	⇑i Pn	Pn	21 39 12.0	+1.1
DRME				i Sn	Sn	21 39 54.0	+1.3
VTS	Vitosha	3.62	18	P	Pn	21 39 12.0	0.0
VTS				AML	AML		
VTS	Vitosha	3.62	18	i P	Pn	21 39 12.5	+0.5
VTS				i S	Sn	21 39 54.5	-0.1
VTS	Vitosha	3.62	18	ePn	Pn	21 39 11.6	-0.4
BARS	Barje	3.63	1	ePn	Pn	21 39 12.6	+0.7
BARS				eSn	Sn	21 39 53.9	-0.7
EZN	Ezine	3.64	78	⇓P	Pn	21 39 12.6	+0.6
PVY	Plav	3.65	339	⇑i Pn	Pn	21 39 13.4	+1.1
PVY				i Sn	Sn	21 39 56.0	+0.7
APE	Apeiranthos	3.69	124	⇑P	Pn	21 39 13.5	+0.7
APE	Apeiranthos	3.69	124	P	Pn	21 39 13.3	+0.6
KDZ	Kurdzhali	3.70	48	P	Pn	21 39 12.5	-0.4
KDZ				AML	AML		
KDZ	Kurdzhali	3.70	48	i P	Pn	21 39 12.7	-0.2
KDZ				i S	Sn	21 39 54.9	-1.4
PDG	Podgorica	3.73	331		Pn	21 39 13.8	+0.5
PDG	Podgorica	3.73	331	ePn	Pn	21 39 15.6	+2.3
PDG				eSn	Sn	21 40 01.3	+4.2
PDG	Podgorica	3.73	331	⇓P	Pn	21 39 14.6	+1.3
PDG	Podgorica	3.73	331	ePn	Pn	21 39 15.2	+1.9
PDG	Podgorica	3.73	331	P	Pn	21 39 15.5	+2.1
PDG	Podgorica	3.73	331	P	Pn	21 39 14.8	+1.5
PDG				AML	AML		
PDG	Podgorica	3.73	331	⇓i Pn	Pn	21 39 14.4	+1.1
PDG				i Sn	Sn	21 39 58.7	+1.6
ALN	Alexandroupoli	3.75	61	P	Pn	21 39 12.9	-0.6
ALN	Alexandroupoli	3.75	61		Pn	21 39 13.0	-0.6
ALN	Alexandroupoli	3.75	61	P	Pn	21 39 13.5	-0.1
ALN	Alexandroupoli	3.75	61	P	Pn	21 39 12.7	-0.8
CAVK	Edirne/Enez-Ca	3.75	65	⇑P	Pn	21 39 14.2	+0.7
BUM	Brajici-Budva	3.77	327	⇑i Pn	Pn	21 39 15.1	+1.1
BUM				i Sn	Sn	21 39 59.2	+1.1
TIP	Timpagrande	3.84	271		Pn	21 39 15.6	+0.8
TIP	Timpagrande	3.84	271	⇓P	Pn	21 39 16.0	+1.2
TIP	Timpagrande	3.84	271	P	Pn	21 39 15.8	+1.0
TIP	Timpagrande	3.84	271	P	Pn	21 39 15.8	+1.0
TIP	Timpagrande	3.84	271	P	Pn	21 39 15.6	+0.8
IVA	Berane	3.93	340	⇑i Pn	Pn	21 39 17.3	+1.2
IVA				i Sn	Sn	21 40 02.4	+0.4
CEME	Cevo	3.96	329	⇑i Pn	Pn	21 39 17.1	+0.5
CEME				i Sn	Sn	21 40 03.6	+0.7
KOME	Kolasin	4.02	336	⇓i Pn	Pn	21 39 18.0	+0.7
KOME				i Sn	Sn	21 40 04.2	0.0
SELS	Selova	4.05	354	ePn	Pn	21 39 18.4	+0.6
SELS				eSn	Sn	21 40 05.5	+0.4
HCY	Herceg Novi	4.07	324	ePn	Pn	21 39 18.5	+0.6
HCY	Herceg Novi	4.07	324	⇑i Pn	Pn	21 39 17.7	-0.2
HCY				i Sn	Sn	21 40 06.3	+1.0
MATE	Matera	4.11	292	⇓P	Pn	21 39 20.3	+1.8
MATE	Matera	4.11	292	P	Pn	21 39 20.3	+1.8
DIM	Dimitrovgrad	4.11	45	i P	Pn	21 39 18.5	0.0
NKME	Niksic	4.14	331	⇑i Pn	Pn	21 39 20.0	+1.1
NKME				i Sn	Sn	21 40 07.6	+0.5
IMMV	Iera Moni Meta	4.14	153	P	Pn	21 39 23.8	+4.9
SJES	Sjenica	4.28	343	ePn	Pn	21 39 23.1	+2.2
SJES	Sjenica	4.28	343	ePn	Pn	21 39 22.6	+1.7
TREB	Trebinje	4.34	325	ePn	Pn	21 39 22.0	+0.3
DBRK	Dubrovnik	4.40	323	i Pn	Pn	21 39 22.7	+0.2
DBRK				Sn	Sn	21 40 11.2	-2.3
BRY	Bratogost	4.42	328	ePn	Pn	21 39 24.6	+1.8
BRY	Bratogost	4.42	328	⇑i Pn	Pn	21 39 23.7	+0.9
BRY				i Sn	Sn	21 40 14.3	+0.2
GOCS	Kraljevo Serbi	4.42	352	ePn	Pn	21 39 23.4	+0.6
MPEP	Malo Peshtene	4.44	20	i P	Pn	21 39 24.1	+1.0
BOVS	Bovan	4.45	0	ePn	Pn	21 39 23.4	+0.3
BOVS				eSn	Sn	21 40 13.4	-1.3
BOVS	Bovan	4.45	0	⇑P	Pn	21 39 23.5	+0.4
BLKB	Belogradchik	4.50	9	ePn	Pn	21 39 24.1	+0.3
BLKB				eSn	Sn	21 40 14.6	-1.4
BLKB	Belogradchik	4.50	9	⇑P	Pn	21 39 24.8	+1.0
UPM	Unac-Piva	4.53	333	ePn	Pn	21 39 27.0	+2.5
UPM	Unac-Piva	4.53	333	⇓i Pn	Pn	21 39 26.0	+1.5
UPM				i Sn	Sn	21 40 16.7	-0.4
IVAS	Ivanjica	4.54	346	ePn	Pn	21 39 25.1	+0.6
CUC	Castrocucco	4.61	282		Pn	21 39 27.0	+1.5
CUC	Castrocucco	4.61	282	P	Pn	21 39 27.7	+2.2
KLINJ	Klinje	4.62	330	ePn	Pn	21 39 26.9	+1.3
CEL	Celeste	4.63	260		Pn	21 39 26.7	+1.0
CEL	Celeste	4.63	260	P	Pn	21 39 26.9	+1.2
ZAGS	Zajecar	4.64	5	ePn	Pn	21 39 26.4	+0.6
IDI	Anoyia	4.65	146	Pn	Pn	21 39 25.8	-0.2
	3.1nm,0.7s,baz=311,slow=11,SNR=11						
IDI				Sn	Sn	21 40 19.7	-0.1
	2.4nm,0.3s,baz=101,slow=22,SNR=4.4						
MARCO	Tramutola	4.67	286	P	Pn	21 39 29.2	+2.9
ACER	Acerenza	4.70	292		Pn	21 39 28.3	+1.6
PVL	Pavlikeni	4.73	33	i P	Pn	21 39 28.0	+1.0
PLVB	Pleven	4.74	27	⇑P	Pn	21 39 28.0	+0.9
STON	Ston	4.76	322	ePn	Pn	21 39 27.4	0.0
STON				Sn	Sn	21 40 19.3	-3.2
BALB	Balikesir	4.81	83		Pn	21 39 27.9	-0.2
ELND	Elena	4.90	39	⇑P	Pn	21 39 29.5	+0.2
BBLS	Lazi&#263i	4.98	341	ePn	Pn	21 39 32.6	+2.0
BBLS				eSn	Sn	21 40 30.7	+2.7
BBLS	Lazi&#263i	4.98	341	ePn	Pn	21 39 31.8	+1.2
DIVS	Divibare	5.07	346	ePn	Pn	21 39 32.9	+1.1
DIVS				eSn	Sn	21 40 32.0	+1.7
LSTV	Lastovo	5.10	316	ePn	Pn	21 39 31.8	-0.3
LSTV				Sn	Sn	21 40 26.7	-4.1
TRUS	Trudelj	5.13	350	ePn	Pn	21 39 32.9	+0.4
SZH	Strazhitsa	5.20	37	i P	Pn	21 39 33.5	0.0
VLAD	Vladila	5.22	22	⇓P	Pn	21 39 34.5	+0.8
KUBS	Kucevo	5.22	360	ePn	Pn	21 39 33.6	-0.2
KUBS				eSn	Sn	21 40 32.5	-1.4
MANT	Manisa	5.40	95		Pn	21 39 35.6	-0.9
RICI	Ricice	5.51	323	ePn	Pn	21 39 38.4	+0.7
RICI				Sn	Sn	21 40 37.7	-3.2
CTYL	Yalikoy Yolu	5.53	63	⇑P	Pn	21 39 38.5	+0.4
AVAS	Avala Beograd	5.58	351	ePn	Pn	21 39 39.3	+0.6
TEKS	Tekeris	5.60	344	ePn	Pn	21 39 39.9	+0.9

TEKS	Tekeris	5.60	344	ePn	Pn	21 39 39.0	0.0
HVAR	Hvar	5.62	317	i Pn	Pn	21 39 39.2	-0.1
HVAR				Sn	Sn	21 40 38.9	-4.7
KARP	Karpathos	5.67	128	Pn	Pn	21 39 40.0	0.0
RAZG	Razgrad	5.68	38	⇑P	Pn	21 39 39.9	-0.2
HERR	Herculane	5.72	5	⇑P	Pn	21 39 40.4	-0.2
PAOL	Paolisi	5.77	291		Pn	21 39 42.9	+1.6
ARG	Arkhangelos	5.90	118	Pn	Pn	21 39 44.7	+1.6
VRSS	Vrsac	5.94	357	ePn	Pn	21 39 43.7	0.0
VAE	Valguarnera	5.97	256	Pn	Pn	21 39 46.9	+2.8
	4.4nm,0.7s,baz=194,slow=22,SNR=3.1						
VAE				Sn	Sn	21 40 57.6	+5.2
	0.9nm,0.3s,baz=248,slow=10,SNR=3.6						
RAFF	Raffo Rosso	6.10	254		Pn	21 39 45.5	-0.3
FRGS	Fruska Gora	6.13	347	ePn	Pn	21 39 47.0	+0.7
FRGS				eSn	Sn	21 40 56.8	+0.6
FRGS	Fruska Gora	6.13	347	ePn	Pn	21 39 46.4	+0.1
KIJV	Kijevo	6.24	322	ePn	Pn	21 39 47.8	0.0
KIJV				Sn	Sn	21 40 56.2	-2.7
GZR	Gura Zlata	6.26	7	⇓P	Pn	21 39 48.2	+0.1
BZS	Buzias	6.43	360	⇑P	Pn	21 39 50.9	+0.5
BZS	Buzias	6.43	360	P	Pn	21 39 54.0	+3.6
	comp=Z,9.4nm,0.8s						
LOT	Lotru	6.45	13	⇑P	Pn	21 39 50.8	+0.1
LOT	Lotru	6.45	13	P	Pn	21 39 51.1	+0.4
	comp=Z,13nm,0.7s						
MORI	Morici	6.49	318	ePn	Pn	21 39 51.1	0.0
MORI				Sn	Sn	21 41 01.0	-3.8
BLY	Banja Luka	6.50	330		Pn	21 39 52.4	+1.1
BLY	Banja Luka	6.50	330	⇓P	Pn	21 39 52.4	+1.1
BLY	Banja Luka	6.50	330	ePn	Pn	21 39 52.8	+1.5
BLY	Banja Luka	6.50	330	P	Pn	21 39 53.0	+1.7
	comp=Z,41nm,0.7s						
ARR	Arges	6.55	18	⇑P	Pn	21 39 52.1	0.0
ARR	Arges	6.55	18	P	Pn	21 39 52.8	+0.7
	comp=Z,11nm,0.7s						
INTR	Introdacqua	6.57	298		Pn	21 39 54.9	+2.6
SURR	Surduc	6.57	3	⇑P	Pn	21 39 53.4	+1.1
WDD	Wied Dalam	6.61	242		Pn	21 39 52.9	+0.1
WDD	Wied Dalam	6.61	242	P	Pn	21 39 53.4	+0.6
	comp=Z,214nm,0.7s						
VOIR		6.72	21	⇑P	Pn	21 39 54.6	+0.2
VOIR		6.72	21	P	Pn	21 39 55.6	+1.1
	comp=Z,17nm,0.7s						
DUGI	Dugi Otok	6.92	316	ePn	Pn	21 39 57.0	0.0
DUGI				Sn	Sn	21 41 11.1	-4.4
AKAS	Kas	6.93	113	Pn	Pn	21 39 59.2	+1.9
ELL	Elmali	6.93	108	Pn	Pn	21 40 00.0	+2.7
UDBI	Udbina	6.94	322	ePn	Pn	21 39 58.0	+0.6
UDBI				Sn	Sn	21 41 12.0	-4.1
ISR	Istrita	6.94	30	⇑P	Pn	21 39 57.8	+0.4
MLR	Muntele Rosu	7.04	25	Pn	Pn	21 40 00.5	+1.6
	comp=Z,11nm,0.5s,baz=270,slow=24,SNR=18						
MLR				Sn	Sn	21 41 22.1	+3.3
	comp=Z,0.8nm,0.3s,baz=92,slow=23,SNR=1.1						
MLR				LR	LR	21 43 19.3	
	comp=Z,230nm,20.2s,baz=181,slow=44						
MLR	Muntele Rosu	7.04	25		Pn	21 40 00.2	+1.3
MLR	Muntele Rosu	7.04	25	⇑P	Pn	21 39 60.0	+1.1
MLR	Muntele Rosu	7.04	25	P	Pn	21 40 03.5	+4.6
	comp=Z,34nm,1.1s						
AQU	L'Aquila	7.05	299		Pn	21 40 01.0	+2.1
AQU	L'Aquila	7.05	299	ePn	Pn	21 40 01.6	+2.7
AQU	L'Aquila	7.05	299	P	Pn	21 40 02.7	+3.8
	comp=Z,28nm,0.9s						
NEHR	Nehoiu	7.11	27	⇓P	Pn	21 40 00.1	+0.4
PLIT	Plitvice	7.26	324	ePn	Pn	21 40 02.2	+0.4
PLIT				Sn	Sn	21 41 20.9	-3.2
TIRR	Tirgusor	7.27	41	Pn	Pn	21 40 01.5	-0.4
DOPR	Dopca	7.31	21	⇑P	Pn	21 40 03.4	+1.0
BISRR	Bisoca	7.36	29	⇑P	Pn	21 40 04.6	+1.4
MORH	Mrgy, Hungar	7.38	343	⇑P	Pn	21 40 03.9	+0.5
MORH	Mrgy, Hungar	7.38	343	ePn	Pn	21 40 02.9	-0.4
MORH	Mrgy, Hungar	7.38	343	P	Pn	21 40 03.2	-0.1
	comp=Z,8.0nm,0.6s						
MOSL	Moslavina	7.39	332	ePn	Pn	21 40 03.8	+0.2
MOSL				Sn	Sn	21 41 24.7	-2.5
GUMA	Gualdo di Mace	7.41	304		Pn	21 40 04.8	+1.0
COVR	Voineasa-Covas	7.44	25	⇑P	Pn	21 40 05.1	+0.8
SAHR	Sahastru	7.51	28	⇑P	Pn	21 40 05.6	+0.5
OZUR		7.54	22	⇓P	Pn	21 40 06.0	+0.4
TURR	Turia	7.57	23	⇑P	Pn	21 40 07.7	+1.6
RABC	Rab	7.58	319	ePn	Pn	21 40 05.5	-0.6
RABC				Sn	Sn	21 41 27.7	-4.1
PLOR	Plostina	7.60	27	⇑P	Pn	21 40 07.5	+1.1
VRI	Vrincioaia	7.64	27	⇑P	Pn	21 40 07.6	+0.7
VRI	Vrincioaia	7.64	27	P	Pn	21 40 09.1	+2.1
	comp=Z,50nm,0.8s						
CFR	Carcaliu	7.66	37	⇑P	Pn	21 40 07.2	-0.1
CESX	Cesi	7.71	299		Pn	21 40 09.2	+1.3
OZLJ	Ozalj	7.91	326	ePn	Pn	21 40 11.2	+0.6
OZLJ				Sn	Sn	21 41 36.8	-3.0
PTJ	Puntijarka	7.94	330	ePg	Pn	21 40 11.8	+0.7
PTJ				Sg	Pb	21 40 21.9	-12
KALN	Kalnik	7.94	333	ePg	Pn	21 40 11.2	+0.1
KALN				Sg	Pb	21 40 18.0	-15
MURB	Monte Urbino	8.02	303		Pn	21 40 13.8	+1.6
LOBO	Lobor	8.11	331	i Pg	Pn	21 40 13.8	+0.5
LOBO				Sg	Pb	21 40 23.9	-12
BEHE	Becsehely	8.13	335		Pn	21 40 13.8	+0.2
BEHE	Becsehely	8.13	335	ePn	Pn	21 40 13.8	+0.2
BEHE	Becsehely	8.13	335	P	Pn	21 40 15.0	+1.3
	comp=Z,21nm,0.8s						
VLDR	Vladesti	8.15	33	⇑P	Pn	21 40 14.4	+0.4
TESR	Tescani	8.18	25	⇓P	Pn	21 40 15.5	+1.2
BUD	Budapest	8.52	348	P	Pn	21 40 20.5	+1.5
	comp=Z,20nm,0.6s						
MPLH	Magyarpolny	8.54	341	P	Pn	21 40 20.7	+1.4
	comp=Z,15nm,0.9s						
TRI	Trieste	8.77	321	Pn	Pn	21 40 23.4	+1.0
BURAR	Bucovina Array	8.81	16	Pn	Pn	21 40 23.3	+0.2
PSZ	Piszkesteto	8.83	352		Pn	21 40 24.1	+0.8
PSZ	Piszkesteto	8.83	352	⇓P	Pn	21 40 24.4	+1.1
PSZ	Piszkesteto	8.83	352	P	Pn	21 40 24.2	+0.9
	comp=Z,22nm,0.9s						
BUR08	Bucovina Ar. S	8.83	16		Pn	21 40 23.6	+0.2
SOKA	Soboth	8.94	329	i Pn	Pn	21 40 25.5	+0.6
	comp=Z,2.7nm,0.5s						
SOKA				i Sn	Sn	21 42 04.1	-1.3
	comp=Z,1.6nm,0.4s						
OBKA	Obir	9.00	327	i Pn	Pn	21 40 26.4	+0.7
	comp=Z,2.3nm,0.4s						
OBKA				i Sn	Sn	21 42 05.2	-1.8
	comp=Z,6.2nm,0.4s						
OBKA	Obir	9.00	327	P	Pn	21 40 30.3	+4.5
	comp=Z,7.5nm,0.6s						
DRE	Drenchia	9.16	322	P	Pn	21 40 29.6	+1.8
	comp=Z,10nm,0.8s						
ARSA	Arzberg	9.23	333		Pn	21 40 29.1	+0.2
ARSA	Arzberg	9.23	333	i Pn	Pn	21 40 29.3	+0.5
	comp=Z,6.4nm,0.7s						
ARSA	Arzberg	9.23	333	P	Pn	21 40 28.8	0.0
	comp=Z,11nm,0.8s						
BR131	Keskin Array S	9.26	83		Pn	21 40 31.1	+1.8
BRTR	Keskin Array B	9.26	83	Pn	Pn	21 40 30.6	+1.3
	comp=Z,0.8nm,0.3s,baz=260,slow=12,SNR=23						
BRTR				Sn	Sn	21 42 09.1	-4.2
	comp=Z,0.2nm,0.3s,baz=189,slow=23,SNR=3.6						
BRTR				LR	LR	21 44 27.7	
	comp=Z,50nm,21.6s,baz=260,slow=41						
	comp=Z,1.7nm,0.4s						
BRTR				AML	AML		
KECS	Kecovo	9.34	355	ePN	Pn	21 40 32.1	+1.9
KECS				eSN	Sn	21 42 11.1	-3.9
RONA	Rosalia, Austr	9.37	337	i Pn	Pn	21 40 31.0	+0.2
	comp=Z,1.3nm,0.5s						
RONA				i Sn	Sn	21 42 16.8	+0.9
	comp=Z,1.9nm,0.4s						
SESA	Seetaler Alpe,	9.48	329	i Pn	Pn	21 40 30.8	-1.6
	comp=Z,1.9nm,0.5s						
VYHS	Vyhne	9.53	348	ePN	Pn	21 40 35.3	+2.4
VYHS				eSN	Sn	21 42 15.3	-4.5
STAL	STALIGIAL	9.68	320	Pn	Pn	21 40 35.0	+0.1
CONA	Conrad Observa	9.71	336	i Pn	Pn	21 40 35.6	+0.2
	comp=Z,2.4nm,0.8s						
KOLS	Kolonicke sedl	9.76	2	ePN	Pn	21 40 45.3	+9.3
CTI	Castel Tesino	10.09	316		Pn	21 40 40.8	+0.1
LANS	Liptovska Anna	10.09	352	ePN	Pn	21 40 41.7	+1.1
ABTA	Abfaltersbach	10.12	321	i Pn	Pn	21 40 42.2	+1.2
	comp=Z,3.7nm,0.6s						
ABTA				eSn	Sn	21 42 31.5	-2.7
	comp=Z,6.1nm,0.6s						
MOA	Molln	10.20	331	i Pn	Pn	21 40 42.7	+0.7

comp=Z,1.6nm,0.5s
MOA *i* Sn **Sn** **21 42 36.6 +0.4**
comp=Z,1.7nm,0.5s
BIOA Bad Ischl, Aus 10.32 328 *i* Pn **Pn** **21 40 44.5 +0.8**
comp=Z,1.3nm,0.3s
BIOA *i* Sn **Sn** **21 42 37.1 -2.0**
comp=Z,2.0nm,0.4s
KEST Kesra 10.40 254 Pn **Pn** **21 40 47.4 +2.4**
comp=Z,0.2nm,0.3s,baz=49,slow=8.8,SNR=6.4
comp=Z,6.2nm,0.9s
KEST AML AML
KEST Kesra 10.40 254 **Pn** **21 40 47.1 +2.1**
SALO Salr 10.46 312 Pn **Pn** **21 40 46.5 +0.8**
LESA Schwarzleotal 10.53 324 *i* Pn **Pn** **21 40 46.9 +0.2**
comp=Z,2.3nm,0.6s
VRAC Vranov 10.76 342 Pn **Pn** **21 40 51.0 +1.3**
comp=Z,0.1nm,0.3s,baz=176,slow=11,SNR=7.7
comp=Z,4.1nm,0.8s
VRAC AML AML
VRAC Vranov 10.76 342 P **Pn** **21 40 51.2 +1.5**
comp=Z,2.1nm,0.8s
WTTA Wattenberg 10.90 321 *e*Pn **Pn** **21 40 52.8 +0.9**
comp=Z,1.5nm,0.4s
WTTA *e*Sn **Sn** **21 42 51.2 -2.6**
comp=Z,10nm,0.6s
WATA Walderalm 10.98 321 *i* Pn **Pn** **21 40 53.7 +0.7**
comp=Z,2.5nm,0.5s
WATA *i* Sn **Sn** **21 42 53.5 -2.1**
comp=Z,11nm,0.8s
SQTA Sankt Quirin 11.09 320 *e*Pn **Pn** **21 40 53.9 -0.3**
comp=Z,0.4nm,0.2s
SQTA *i* Sn **Sn** **21 42 54.9 -3.2**
comp=Z,6.5nm,0.6s
FUORN Ofenpass-Fuorn 11.20 315 Pn **Pn** **21 40 56.5 +0.5**
FETA Feichten 11.20 318 *e*Pn **Pn** **21 40 55.6 -0.3**
comp=Z,2.6nm,0.6s
FETA *i* Sn **Sn** **21 42 56.0 -4.9**
comp=Z,1.3nm,0.6s
MOTA Moosalm 11.22 320 *i* Pn **Pn** **21 40 56.2 0.0**
comp=Z,2.2nm,0.5s
MOTA *i* Sn **Sn** **21 42 59.3 -2.2**
comp=Z,8.6nm,0.7s
GERES GERESS Array B 11.23 332 Pn **Pn** **21 40 56.6 +0.3**
baz=159,slow=14,SNR=11
GERES Sn **Sn** **21 42 59.2 -2.5**
baz=154,slow=25,SNR=5.5
comp=Z,0.7nm,0.5s
CY604 RAF Akrotiri, 11.36 111 Pn **Pn** **21 40 59.0 +1.3**
DAVOX Davos/Dischmat 11.50 315 Pn **Pn** **21 41 02.6 +2.6**
comp=Z,0.4nm,0.3s,baz=158,slow=11,SNR=6.3
DAVOX Sn **Sn** **21 43 05.5 -2.9**
comp=Z,0.2nm,0.3s,baz=316,slow=21,SNR=6.5
comp=Z,2.3nm,0.6s
DAVOX AML AML
KHC Kasperske Hory 11.52 332 **Pn** **21 41 02.1 +1.9**
KHC Kasperske Hory 11.52 332 *e*PN **Pn** **21 41 00.7 +0.6**
KHC Kasperske Hory 11.52 332 P **Pn** **21 41 00.0 -0.1**
comp=Z,5.0nm,0.7s
ZVC Zvikov 11.57 335 *e*PN **Pn** **21 41 01.8 +1.0**
TUE Stuetta 11.62 313 Pn **Pn** **21 41 02.4 +0.7**
DAVA Damuels 11.81 317 *e*Pn **Pn** **21 41 04.4 +0.1**
comp=Z,2.0nm,0.5s
DAVA *i* Sn **Sn** **21 43 12.8 -3.2**
comp=Z,2.6nm,0.3s
AKASG Malin Array Be 12.68 22 LR LR 21 47 07.7
comp=Z,230nm,18.4s,baz=180,slow=42
CLL Collm 13.57 336 *ep*P **Pn** **21 41 32.0 +4.0**
CLL *i* PP **P** **21 41 38.7 +1.6**
NACGM Naroch 16.10 11 *e*P **Pn** **21 42 02.4 +0.6**
comp=Z,14nm,0.8s,baz=194
EPOS Posof 16.20 75 P **P** **21 42 06.6 0.0**
comp=Z,9.5nm,1.3s
KIV Kislovodsk 16.41 66 **P** **21 42 13.0 +4.3**
KBZ Khabaz 16.52 67 Pn **Pn** **21 42 08.1 +0.8**
comp=Z,0.2nm,0.3s,baz=284,slow=7.0,SNR=10
comp=Z,1.3nm,0.9s
KBZ AML AML
ESDC Sonseca Array 19.81 280 P **Pn** **21 42 47.5 -0.3**
comp=Z,0.1nm,0.3s,baz=74,slow=11,SNR=13
ESDC LR LR 21 50 47.2
comp=Z,101nm,18.0s,baz=346,slow=38
comp=Z,0.9nm,0.6s
ESDC AML AML
ESDC Sonseca Array 19.81 280 P **Pn** **21 42 47.4 -0.4**
PAB San Pablo 20.12 279 P **P** **21 42 50.4 +0.7**
TAM Tamanrasset 21.37 225 P **P** **21 43 05.2 +1.9**
TAM Tamanrasset 21.37 225 P **P** **21 43 05.4 +2.0**
comp=Z,4.0nm,1.1s
HFS Hagfors 21.57 349 P **P** **21 43 04.8 -0.2**
comp=Z,1.4nm,0.5s,baz=161,slow=9.2,SNR=6.6
comp=Z,1.4nm,0.5s
FINES FINESS Array B 22.45 6 P **P** **21 43 12.4 -2.0**
comp=Z,2.5nm,0.8s,baz=180,slow=8.7,SNR=5.0
comp=Z,2.5nm,0.8s
NC602 NORSAR Array S 22.49 347 P **P** **21 43 13.9 -1.0**
NC602 IAmb IAmb 21 43 22.6
comp=Z,9.2nm,0.9s
NB2 NORSAR Subarra 22.83 347 P **P** **21 43 19.1 +0.6**
comp=Z,1.1nm,0.6s,baz=156,slow=9.3
NOA NORSAR Array B 22.83 347 P **P** **21 43 17.7 -0.8**
comp=Z,0.8nm,0.7s,baz=157,slow=9.0,SNR=5.9
NOA LR LR 21 53 45.6
comp=Z,25nm,21.5s,baz=270,slow=41
comp=Z,0.8nm,0.7s
NBO00 NORSAR Array S 22.90 346 P **P** **21 43 19.3 +0.1**
NBO00 IAmb IAmb 21 43 29.6
comp=Z,9.9nm,0.9s
NC303 NORSAR Array S 22.98 347 P **P** **21 43 19.2 -0.8**
NC303 IAmb IAmb 21 43 28.2
comp=Z,13nm,1.1s
EKA Eskdalemuir Ar 23.17 322 P **P** **21 43 21.5 -0.5**
comp=Z,6.4nm,0.8s,baz=127,slow=10,SNR=7.7
comp=Z,6.4nm,0.8s
EKB Eskdalemuir 23.18 322 P **P** **21 43 21.5 -0.7**
ARCES ARCESS Array B 30.48 3 P **P** **21 44 26.4 -1.8**
comp=Z,2.3nm,0.8s,baz=188,slow=8.5,SNR=1.8
comp=Z,2.3nm,0.8s
TORD Torodi Ar. Bea 31.39 220 P **P** **21 44 35.4 -1.3**
comp=Z,1.3nm,0.4s,baz=32,slow=8.7,SNR=1.8
comp=Z,1.3nm,0.4s
BVAR Borovoye Array 35.77 51 P **P** **21 45 15.0 +0.5**
comp=Z,1.2nm,0.5s,baz=274,slow=5.8,SNR=6.6
comp=Z,1.2nm,0.5s
KK31 Karatay Array 36.56 68 P **P** **21 45 22.0 +0.7**
KKAR Karatay Array 36.56 68 P **P** **21 45 21.9 +0.5**
BTK Batken 37.46 73 IAmb IAmb 21 45 30.9
comp=Z,5.0nm,0.8s
BTK Batken 37.46 73 P **P** **21 45 30.0 +0.8**
comp=Z,7.4nm,0.9s
ARSB Arslanbob 38.74 70 IAmb IAmb 21 45 41.7
comp=Z,4.8nm,0.7s
SPITS Spitsbergen Ar 39.17 358 P **P** **21 45 43.9 +0.9**
comp=Z,13nm,1.0s,baz=158,slow=12,SNR=2.0
comp=Z,13nm,1.0s
DBIC Dimbokro 40.25 223 P **P** **21 45 53.2 +0.5**
comp=Z,2.9nm,0.8s,baz=8.9,slow=8.3,SNR=2.7
comp=Z,2.9nm,0.8s
DBIC Dimbokro 40.25 223 IAmb IAmb 21 46 06.2
comp=Z,5.5nm,1.1s
KURBB Kurchatov Arra 40.90 55 P **P** **21 45 57.3 -0.3**
comp=Z,1.9nm,0.7s,baz=283,slow=8.9,SNR=15
comp=Z,1.9nm,0.7s
NRN Naryn 40.90 69 IAmb IAmb 21 46 07.4
comp=Z,4.2nm,1.2s
MAKZ Makanchi 43.78 60 P **P** **21 46 24.6 +3.4**
MKAR Makanchi Array 44.00 60 P **P** **21 46 22.7 -0.3**
comp=Z,3.1nm,0.5s,baz=277,slow=7.6,SNR=72
comp=Z,3.1nm,0.5s
ZAA0 Zalesovo Array 44.34 49 P **P** **21 46 25.0 -0.5**
ZALV Zalesovo Beam 44.34 49 P **P** **21 46 25.1 -0.4**
comp=Z,4.9nm,0.4s,baz=273,slow=9.1,SNR=24
ZALV LR LR 22 06 59.8
comp=Z,62nm,18.2s,baz=340,slow=39
comp=Z,4.9nm,0.4s
ZALV Zalesovo Beam 44.34 49 **P** **21 46 24.7 -0.8**
EVN Everest 54.36 81 P **P** **21 47 42.6 -0.7**
EVN IAmb IAmb 21 47 43.3
comp=Z,3.1nm,0.9s
SONM Songino Array 59.11 51 P **P** **21 48 15.9 -0.3**
comp=Z,1.3nm,0.8s,baz=288,slow=7.6,SNR=9.3
comp=Z,1.3nm,0.8s
SONM Songino Array 59.11 51 IAmb IAmb 21 48 23.5
comp=Z,2.1nm,1.0s
LBTB Lobatse 63.97 176 LR LR 22 19 13.0
comp=Z,32nm,18.0s,baz=1.0,slow=38
BOSA Boshof 67.53 177 LR LR 22 21 00.4
comp=Z,50nm,18.1s,baz=24,slow=38
CMAR Chiang Mai Arr 68.85 83 P **P** **21 49 18.4 -2.0**
comp=Z,0.3nm,0.4s,baz=315,slow=8.0,SNR=4.1
comp=Z,0.3nm,0.4s
ILAR Eielson Array 75.99 355 P **P** **21 50 02.0 -0.3**
comp=Z,0.4nm,0.9s,baz=2.8,slow=2.8,SNR=4.9
comp=Z,0.4nm,0.9s
PDAR Pinedale Array 87.23 326 P **P** **21 51 02.4 0.0**
comp=Z,0.4nm,0.8s,baz=44,slow=4.6,SNR=4.0
comp=Z,0.4nm,0.8s
TXAR Lajitas Array 94.94 314 P **P** **21 51 38.3 -0.1**
comp=Z,0.7nm,0.8s,baz=69,slow=4.2,SNR=7.9
comp=Z,0.7nm,0.8s
WRA Warramunga Arr 119.66 92 PKP **PKPdf** **21 57 04.6 -1.4**
comp=Z,0.2nm,0.3s,baz=344,slow=2.7,SNR=2.4
ASAR Alice Springs 121.37 96 PKP **PKPdf** **21 57 08.3 -0.9**
comp=Z,0.4nm,0.5s,baz=314,slow=1.6,SNR=7.9

REN ***13*** *22:07:49.0±0.5, 38.16N±0.01×117.85W±0.01, h8km±3km, Error ellipse: s-maj=2.1km s-min=1.0km az=199.0*
NEIC 13 22:07:49.2±0.5, 38.16N±0.01×117.85W±0.01, h8km±1km, ML2.8/32, ML2.2/12(REN), Error ellipse: s-maj=1.5km s-min=1.1km az=179.0, Nevada

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
COLR	**Columbus**	**0.16**	**265**		**Pg**	22 07 53.2	+0.5
COLR					Sg	22 07 56.0	+0.9
NV11	**Mina Array Sit**	**0.36**	**319**		**Pg**	22 07 56.6	+0.2
NV11					Sg	22 08 01.7	+0.5
NV11	**Mina Array Sit**	**0.36**	**319**	IAML		22 08 02.1	
	comp=N,15nm,0.6s						
NV11				IAML		22 08 03.0	
	comp=E,19nm,0.6s						
NV06	**Mina Array Sit**	**0.43**	**308**		**Pg**	22 07 57.9	+0.3
NV07	**Mina Array Sit**	**0.43**	**306**		**Pg**	22 07 57.9	+0.3
NV03	**Mina Array Sit**	**0.44**	**308**		**Pg**	22 07 58.1	+0.3
NV03					Sg	22 08 04.3	+0.7
NV08	**Mina Array Sit**	**0.44**	**304**		**Pg**	22 07 58.0	+0.2
NV04	**Mina Array Sit**	**0.45**	**306**		**Pg**	22 07 58.2	+0.3
NV01	**Mina Array Sit**	**0.45**	**307**		**Pg**	22 07 58.3	+0.3
NV01					Sg	22 08 04.4	+0.5
NVAR	**Mina Array Bea**	**0.45**	**307**	Pg	Pg	22 07 58.1	+0.1
NV05	**Mina Array Sit**	**0.45**	**310**		**Pg**	22 07 58.2	+0.2
NV02	**Mina Array Sit**	**0.46**	**308**		**Pg**	22 07 58.3	+0.3
NV09	**Mina Array Sit**	**0.47**	**306**		**Pg**	22 07 58.7	+0.3
TPH	**Tonopah**	**0.50**	**99**		**Pg**	22 07 59.0	+0.1
TPH	**Tonopah**	**0.50**	**99**		**Sg**	22 08 05.9	+0.4
TPH				IAML		22 08 14.6	
	comp=N,211nm,0.3s						
TPH				IAML		22 08 14.8	
	comp=E,216nm,0.4s						
LHV	**Little Huntoon**	**0.53**	**280**		**Pb**	22 07 60.0	-0.6
LHV	**Little Huntoon**	**0.53**	**280**		**Sg**	22 08 07.1	+0.9
LHV				IAML		22 08 15.5	
	comp=N,325nm,0.3s						
LHV				IAML		22 08 16.1	
	comp=E,268nm,0.5s						
MZP	**Montezuma Peak**	**0.59**	**141**	Pg	Pg	22 08 00.3	-0.3
RYN	**Ryan**	**0.71**	**312**		**Pg**	22 08 01.9	-0.9
KVN	**Kaiserville**	**0.91**	**348**		**Pg**	22 08 06.3	-0.5
LCH	**Last Change Ra**	**0.94**	**170**		**Pg**	22 08 07.1	-0.1
WAKR	**Walker**	**1.30**	**286**		**Pn**	22 08 13.5	-0.2
WAKR				IAML		22 08 49.7	
	comp=E,93nm,0.7s						
WAKR				IAML		22 08 50.8	
	comp=N,100nm,0.5s						
SGV	**South Grapevin**	**1.34**	**151**		**Pg**	22 08 14.8	-0.1
YERR	**Yerington**	**1.37**	**308**		**Pn**	22 08 13.9	-0.9
BFC	**Buffalo Canyon**	**1.56**	**299**		**Pb**	22 08 18.1	-0.4
WCT	**Wildcat Mounta**	**1.68**	**144**	Pg	Pb	22 08 20.0	-0.3
WCT				IAML		22 08 58.3	
	comp=N,130nm,0.3s						
WCT				IAML		22 09 01.0	
	comp=E,154nm,0.5s						
MPK	**Martis Peak**	**2.05**	**304**	Pn	Pn	22 08 23.4	-0.8
GSC	**Goldstone, Bar**	**2.97**	**163**		**Pb**	22 08 43.7	+1.3
GSC				IAML		22 09 41.9	
	comp=E,25nm,1.0s						
GSC				IAML		22 09 46.4	
	comp=N,19nm,0.8s						
PV10	**Paradox Valley**	**6.94**	**85**		**Pn**	22 09 32.5	+1.2

NIED ***13*** *22:08:47.6, 25.68N×143.63E, h11km, MW4.5, Moment Tensor Solution. s1 Moment tensor: Scale 10^15 Nm; Mrr 1.77; Mθθ -0.63; Mφφ -1.14; Mrθ -2.17; Mθφ 0.91; Mφr 5.58; Fault plane solution: M0 6.25000×10^15 NP1: φs 129.00000°, δ 9.00000°, λ 61.00000°. NP2: φs 338.00000°, δ 82.00000°, λ 94.00000°.*
IDC ***13*** *22:08:48.0±0.6, 25.34N×142.50E, h0km, mb4.0/23, mbtmp4.0/24, ML2.0/1, MS3.4/7 Error ellipse: s-maj=23.5km s-min=12.3km az=80.0*
NEIC ***13*** *22:08:52.0±1.8, 25.38N±0.07×142.3E±0.2, h16km±4km, mb4.4/11, Error ellipse: s-maj=21.1km s-min=8.6km az=73.0*
ISC 13 22:08:50.3±0.6, 25.37N±0.06×142.4E±0.1, h10km, n55, σ1 91/47, mb4.2/29, MS3.7/4, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JCJ	**Chichijima**	**1.73**	**354**	Pn	**Pn**	**22 09 18.2**	**-2.2**
	55nm,0.3s,baz=118,slow=23,SNR=29						
JCJ				Sn	**Sn**	**22 09 42.8**	**+0.3**
	187nm,0.3s,baz=304,slow=21,SNR=16						
JCJ	**Chichijima**	**1.73**	**354**		**Pn**	**22 09 20.9**	**+0.6**
JCJ					**Sb**	**22 09 45.4**	**+1.6**
MJAR	**Matsushiro Arr**	**11.69**	**343**	Pn	**Pn**	**22 11 35.6**	**-1.6**
	baz=157,slow=9.6,SNR=2.2						
MJAR				LR	LR	22 16 09.6	
	comp=Z,81nm,19.7s,baz=148,slow=38						
	1.0nm,0.8s						
JOW	**Kunigami**	**12.76**	**280**	LR	LR	22 15 46.9	
	comp=Z,106nm,19.6s,baz=26,slow=32						
KSRS	**Korea Array**	**17.22**	**318**	LR	LR	22 19 07.1	
	comp=Z,33nm,19.2s,baz=175,slow=36						
USRK	**Ussuriysk Ar.**	**20.60**	**338**	P	**P**	**22 13 28.3**	**-1.2**
	2.7nm,0.8s,baz=163,slow=15,SNR=3.0						
	2.7nm,0.8s						
H11N1	**WAKE ISLAND Hy**	**23.31**	**99**	T	T	22 37 54.9	
	baz=291,slow=74,SNR=7.2						
H11N2	**WAKE ISLAND Hy**	**23.31**	**99**	T	T	22 37 49.0	
	baz=291,slow=74,SNR=5.7						
H11N3	**WAKE ISLAND Hy**	**23.33**	**99**	T	T	22 37 39.8	
	baz=291,slow=74,SNR=5.9						
H11S3	**WAKE ISLAND Hy**	**23.54**	**102**	T	T	22 37 58.8	
	baz=292,slow=75,SNR=9.0						
H11S1	**WAKE ISLAND Hy**	**23.55**	**102**	T	T	22 37 58.7	
	baz=292,slow=75,SNR=9.1						
H11S2	**WAKE ISLAND Hy**	**23.56**	**102**	T	T	22 38 00.0	
	baz=292,slow=75,SNR=7.4						
KLR	**Kul'dur**	**25.22**	**344**	P	**P**	**22 14 15.8**	**-0.3**
	4.8nm,0.8s,baz=137,slow=9.6,SNR=11						
	4.8nm,0.8s						
SIJI	**Sorong**	**28.22**	**204**	LR	LR	22 24 01.8	
	comp=Z,74nm,18.3s,baz=92,slow=32						
HILR	**Hailar Array B**	**29.87**	**330**	P	**P**	**22 14 58.1**	**+0.3**
	0.7nm,0.4s,baz=138,slow=14,SNR=1.6						
	0.7nm,0.4s						
LZDM	**Lanzhou Array**	**34.71**	**297**	P	**P**	**22 15 41.1**	**+0.3**
	0.5nm,0.2s,baz=84,slow=15,SNR=0.9						
	0.5nm,0.2s						
SONM	**Songino Array**	**36.09**	**318**	P	**P**	**22 15 51.4**	**-1.0**
	0.7nm,0.6s,baz=141,slow=9.4,SNR=6.6						
	0.7nm,0.6s						
SONM	**Songino Array**	**36.09**	**318**	P	**P**	**22 15 52.7**	**+0.4**
CTAO	**Charters Tower**	**45.34**	**175**	P	**P**	**22 17 08.9**	**+0.1**
WB0	**Warramunga Arr**	**45.53**	**191**	P	**P**	**22 17 10.2**	**0.0**
WB0				IAmb	IAmb	22 17 12.7	
	comp=Z,5.3nm,1.1s						
WR8	**Warramunga Arr**	**45.70**	**190**	P	**P**	**22 17 12.2**	**+0.6**
WR8				IAmb	IAmb	22 17 19.7	
	comp=Z,4.7nm,1.1s						
WRA	**Warramunga Arr**	**45.72**	**191**	P	**P**	**22 17 10.8**	**-0.9**
	comp=Z,1.8nm,0.6s,baz=11,slow=8.7,SNR=20						
	comp=Z,1.8nm,0.6s						
WRA	**Warramunga Arr**	**45.72**	**191**	P	**P**	**22 17 11.3**	**-0.4**
FITZ	**Fitzroy Crossi**	**46.18**	**202**	P	**P**	**22 17 14.8**	**-0.6**
FITZ				IAmb	IAmb	22 17 16.9	
	comp=Z,1.9nm,1.1s						
ASAR	**Alice Springs**	**49.44**	**190**	P	**P**	**22 17 40.5**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=14,slow=10,SNR=12						
	comp=Z,0.5nm,0.7s						
ASAR	**Alice Springs**	**49.44**	**190**	P	**P**	**22 17 40.2**	**-0.4**
ZALV	**Zalesovo Beam**	**50.91**	**320**	P	**P**	**22 17 51.9**	**+0.4**
	comp=Z,0.4nm,0.5s,baz=89,slow=12,SNR=1.9						
ZALV				PcP	**PcP**	**22 19 08.9**	**+1.1**
	comp=Z,0.6nm,0.6s,baz=76,slow=6.1,SNR=2.2						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**51.72**	**311**	P	**P**	**22 17 57.6**	**-0.1**
	comp=Z,0.5nm,0.7s,baz=95,slow=7.7,SNR=5.0						
MKAR				PcP	**PcP**	**22 19 12.4**	**+1.3**
	comp=Z,0.4nm,0.7s,baz=72,slow=4.6,SNR=2.8						
	comp=Z,0.5nm,0.7s						
MKAR	**Makanchi Array**	**51.72**	**311**	P	**P**	**22 17 57.0**	**-0.8**
NRIK	**Noril'sk**	**54.31**	**339**	P	**P**	**22 18 17.6**	**+1.2**
	comp=Z,2.1nm,0.5s,baz=104,slow=6.8,SNR=2.5						
	comp=Z,2.1nm,0.5s						
KURK	**Kurchatov**	**54.32**	**315**		**P**	**22 18 17.6**	**+0.8**
KURK				IAmb	IAmb	22 18 18.9	
	comp=Z,2.9nm,0.6s						
KURBB	**Kurchatov Arra**	**54.38**	**315**	P	**P**	**22 18 16.7**	**-0.5**
	comp=Z,2.3nm,0.6s,baz=91,slow=8.4,SNR=22						
	comp=Z,2.3nm,0.6s						
KDAK	**Kodiak Island**	**55.64**	**36**	LR	LR	22 38 39.6	
	comp=Z,70nm,21.9s,baz=227,slow=32						
STKA	**Stephens Creek**	**56.93**	**181**	P	**P**	**22 18 35.3**	**-0.4**
	comp=Z,1.8nm,0.5s,baz=351,slow=8.3,SNR=6.8						
	comp=Z,1.8nm,0.5s						
ILAR	**Eielson Array**	**59.14**	**28**	P	**P**	**22 18 50.0**	**-0.8**
	comp=Z,1.0nm,0.9s,baz=261,slow=6.1,SNR=6.4						
	comp=Z,1.0nm,0.9s						
ILAR	**Eielson Array**	**59.14**	**28**	P	**P**	**22 18 53.2**	**+2.4**
BVAR	**Borovoye Array**	**59.43**	**318**	P	**P**	**22 18 52.5**	**-0.5**
	comp=Z,3.1nm,0.5s,baz=86,slow=8.1,SNR=9.1						
	comp=Z,3.1nm,0.5s						
BORK	**Borovoye**	**59.47**	**318**	P	**P**	**22 18 54.2**	**+0.9**
BORK				IAmb	IAmb	22 18 57.4	
	comp=Z,3.1nm,0.6s						
D25K	**Kavik River**	**59.89**	**23**	P	**P**	**22 18 55.8**	**-0.2**
D25K				IAmb	IAmb	22 19 01.3	
	comp=Z,2.5nm,0.7s						
KKAR	**Karatay Array**	**60.24**	**307**		**P**	**22 19 00.1**	**+1.3**
BMAR	**Burnt Mountain**	**60.33**	**25**	P	**P**	**22 18 59.4**	**+0.3**
E28M	**Babbage River**	**62.29**	**24**	P	**P**	**22 19 14.0**	**+1.8**
E28M				IAmb	IAmb	22 19 17.7	
	comp=Z,2.9nm,1.0s						
YKA	**Yellowknife Ar**	**73.57**	**28**	P	**P**	**22 20 22.4**	**-0.8**
	comp=Z,1.6nm,0.7s,baz=293,slow=6.0,SNR=5.1						
	comp=Z,1.6nm,0.7s						
ARCES	**ARCESS Array B**	**75.22**	**341**	P	**P**	**22 20 32.8**	**0.0**
	comp=Z,2.8nm,0.9s,baz=28,slow=11,SNR=2.0						
	comp=Z,2.8nm,0.9s						
YBH	**Yreka Blue Hor**	**77.02**	**50**	LR	LR	22 47 00.4	
	comp=Z,38nm,19.7s,baz=356,slow=30						
KBZ	**Khabaz**	**79.31**	**313**	P	**P**	**22 20 56.5**	**+0.3**
	comp=Z,2.2nm,0.8s,baz=122,slow=9.2,SNR=7.2						
	comp=Z,2.2nm,0.8s						
FINES	**FINESS Array B**	**79.57**	**334**	P	**P**	**22 20 56.7**	**-0.5**
	comp=Z,2.3nm,0.5s,baz=74,slow=6.9,SNR=24						
	comp=Z,2.3nm,0.5s						
NVAR	**Mina Array Bea**	**81.44**	**52**	P	**P**	**22 21 07.3**	**-0.8**
	comp=Z,0.2nm,0.4s,baz=307,slow=5.4,SNR=2.1						
	comp=Z,0.2nm,0.4s						
BOZ	**Bozeman (W)**	**82.62**	**43**	P	**P**	**22 21 14.3**	**+0.3**
AKASG	**Malin Array Be**	**84.11**	**324**	P	**P**	**22 21 19.9**	**-1.5**
	comp=Z,0.7nm,0.5s,baz=53,slow=5.1,SNR=6.9						
	comp=Z,0.7nm,0.5s						
NOA	**NORSAR Array B**	**85.27**	**338**	P	**P**	**22 21 26.5**	**-0.6**
	comp=Z,1.5nm,0.9s,baz=29,slow=1.9,SNR=3.4						
	comp=Z,1.5nm,0.9s						
PDAR	**Pinedale Array**	**85.31**	**45**	P	**P**	**22 21 26.9**	**-1.0**
	comp=Z,0.3nm,0.7s,baz=163,slow=1.3,SNR=3.2						
	comp=Z,0.3nm,0.7s						
BRTR	**Keskin Array B**	**87.30**	**313**	P	**P**	**22 21 37.4**	**-0.3**
	comp=Z,0.3nm,0.3s,baz=27,slow=6.6,SNR=2.8						
	comp=Z,0.3nm,0.3s						
ANMO	**Albuquerque**	**91.45**	**50**	LR	LR	23 01 49.1	
	comp=Z,30nm,18.9s,baz=357,slow=35						
LPAZ	**La Paz**	**150.14**	**78**	PKPbc	**PKPdf**	**22 28 40.3**	**+2.4**
	comp=Z,1.0nm,0.5s,baz=270,slow=2.0,SNR=4.2						

IDC ***13*** *22:10:59.0±1.2, 25.31N×142.21E, h0km, mb3.6/8, mbtmp3.6/8, Error ellipse: s-maj=44.3km s-min=17.2km az=90.0*
ISC 13 22:11:03.9±1.2, 25.40N±0.10×142.3E±0.3, h35km, n15, σ1 9/28/10, mb3.5/8, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JCJ	**Chichijima**	**1.70**	**356**	Pn	**Pn**	**22 11 28.9**	**-2.1**
	46nm,0.3s,baz=284,slow=23,SNR=5.2						
JCJ				Sn	**Sn**	**22 11 52.8**	**+1.3**
	86nm,0.3s,baz=277,slow=23,SNR=5.0						
H11N1	**WAKE ISLAND Hy**	**23.38**	**99**	T	T	22 39 54.9	
	baz=290						
H11N2	**WAKE ISLAND Hy**	**23.38**	**99**	T	T	22 39 58.0	
	baz=290						
H11N3	**WAKE ISLAND Hy**	**23.40**	**99**	T	T	22 39 56.5	
	baz=290						
H11S3	**WAKE ISLAND Hy**	**23.61**	**102**	T	T	22 40 09.4	
	baz=292						
H11S1	**WAKE ISLAND Hy**	**23.62**	**102**	T	T	22 40 05.8	
	baz=292						
H11S2	**WAKE ISLAND Hy**	**23.63**	**102**	T	T	22 40 08.8	
	baz=292						
SONM	**Songino Array**	**36.02**	**318**	P	**P**	**22 18 00.7**	**-1.2**
	0.2nm,0.5s,baz=111,slow=7.9,SNR=1.8						
	0.2nm,0.5s						
WRA	**Warramunga Arr**	**45.73**	**190**	P	**P**	**22 19 21.3**	**-0.5**
	0.7nm,0.6s,baz=11,slow=8.6,SNR=5.4						
	0.7nm,0.6s						
ASAR	**Alice Springs**	**49.45**	**190**	P	**P**	**22 19 50.5**	**-0.2**
	0.1nm,0.4s,baz=7.5,slow=8.0,SNR=3.4						
	0.1nm,0.4s						
MKAR	**Makanchi Array**	**51.65**	**311**	P	**P**	**22 20 08.7**	**+1.5**
	0.2nm,0.7s,baz=90,slow=7.5,SNR=2.4						
	0.2nm,0.7s						
KURBB	**Kurchatov Arra**	**54.31**	**315**	P	**P**	**22 20 27.1**	**+0.4**
	0.9nm,0.6s,baz=91,slow=8.3,SNR=5.9						
	0.9nm,0.6s						
ILAR	**Eielson Array**	**59.15**	**28**	P	**P**	**22 21 01.8**	**+1.0**
	0.2nm,0.8s,baz=315,slow=13,SNR=2.1						
	0.2nm,0.8s						
BVAR	**Borovoye Array**	**59.37**	**318**	P	**P**	**22 21 03.0**	**+0.5**
	1.1nm,0.5s,baz=84,slow=5.9,SNR=4.7						
	1.1nm,0.5s						
FINES	**FINESS Array B**	**79.51**	**334**	P	**P**	**22 23 06.6**	**-0.1**
	2.6nm,0.8s,baz=67,slow=6.4,SNR=7.2						
	2.6nm,0.8s						

KRSC ***13*** *22:18:09.7±2.2, 50.46N×157.62E, h52km±27km, Mc4.1, Ml5.2, Felt [IV] at Severo-Kurilsk; [II] at kordon Travyanoi.*
MOS ***13*** *22:18:12.0±1.2, 50.53N×157.26E, h68km, mb4.4/13, Error ellipse: s-maj=9.7km s-min=3.2km az=80.3*
MOS Felt (IV) at Severo-Kuril'sk.
NEIC ***13*** *22:18:15.5±1.2, 50.72N±0.07×157.0E±0.1, h69km±7km, mb4.3/86, Error ellipse: s-maj=15.7km s-min=3.6km az=125.0*
IDC ***13*** *22:18:15.4±2.1, 50.73N×157.13E, h75km±18km, mb3.8/27, mbtmp4.1/35, MS3.5/

ASAK Asacha 1.91 10 PN **Pn** 22 18 42.8 +0.1
ASAK S **Sn** 22 19 05.4 -0.2
ASAK Asacha 1.91 10 *eP* **Pn** 22 18 42.9 +0.1
ASAK *eS* **Sn** 22 19 05.5 -0.2
MTVR Mutnovka 2.04 14 PN **Pn** 22 18 44.8 +0.2
MTVR S **Sn** 22 19 08.6 -0.4
MTVR Mutnovka 2.04 14 *eP* **Pn** 22 18 44.8 +0.2
MTVR *eS* **Sn** 22 19 08.6 -0.4
GRL Gorelyy 2.10 12 PN **Pn** 22 18 45.8 +0.5
GRL S **Sn** 22 19 10.8 +0.6
GRL Gorelyy 2.10 12 *eP* **Pn** 22 18 45.8 +0.5
GRL *eS* **Sn** 22 19 10.8 +0.6
KRMR Karymshinskiy 2.38 11 PN **Pn** 22 18 50.0 +1.0
KRMR Karymshinskiy 2.38 11 *eP* **Pn** 22 18 50.0 +1.0
APC Apacha 2.43 357 PN **Pn** 22 18 50.6 +1.0
APC Apacha 2.43 357 *eP* **Pn** 22 18 50.7 +1.0
PEA0B Petropavlovsk- 2.62 4 *ce* PN **Pn** 22 18 53.3 +1.0
PEA0B Petropavlovsk- 2.62 4 **Pn** 22 18 53.5 +1.2
PETK Petropavlovsk- 2.62 4 P **Pn** 22 18 53.3 +1.0
comp=E,121nm,0.6s,baz=164,slow=15,SNR=226
PETK S **Sn** 22 19 26.7 +3.9
comp=E,168nm,0.5s,baz=161,slow=14,SNR=11
PETK LR LR 22 20 05.5
comp=E,970nm,21.2s,baz=179,slow=46
PETK Petropavlovsk- 2.62 4 **Pn** 22 18 53.2 +0.9
PET Petropavlovsk 2.64 17 *ij iP* **Pn** 22 18 53.2 +0.6
PET *i* S **Sn** 22 19 23.8 +0.4
PET pmax pmax
comp=Z,512nm,0.5s
PET smax smax
comp=E,6µm,0.6s
PET smax smax
comp=N,6µm,0.5s
PET MLR MLR
comp=Z,600nm,14.0s
PET MLR MLR
comp=Z,1µm,11.0s
PET Petropavlovsk 2.64 17 **Pn** 22 18 53.2 +0.6
PET Petropavlovsk 2.64 17 *eP* **Pn** 22 18 53.2 +0.6
PET *eS* **Sn** 22 19 24.0 +0.5
DALK Dalny 2.67 18 PN **Pn** 22 18 53.5 +0.6
DALK S **Sn** 22 19 24.0 -0.1
DALK Dalny 2.67 18 *eP* **Pn** 22 18 53.6 +0.6
DALK *eS* **Sn** 22 19 24.1 -0.1
INSR Institute 2.68 16 PN **Pn** 22 18 54.5 +1.5
INSR S **Sn** 22 19 25.7 +1.5
INSR Institute 2.68 16 *eP* **Pn** 22 18 54.6 +1.5
INSR *eS* **Sn** 22 19 25.8 +1.5
UGLR Uglovaya 2.85 18 PN **Pn** 22 18 56.8 +1.2
UGLR S **Sn** 22 19 29.9 +1.2
UGLR Uglovaya 2.85 18 *eP* **Pn** 22 18 56.9 +1.2
UGLR *eS* **Sn** 22 19 30.0 +1.2
AVH Avacha 2.89 16 PN **Pn** 22 18 57.7 +1.6
AVH S **Sn** 22 19 31.9 +2.3
AVH Avacha 2.89 16 *eP* **Pn** 22 18 57.8 +1.6
AVH *eS* **Sn** 22 19 32.0 +2.3
KOK Koryaka 2.90 15 PN **Pn** 22 18 58.3 +2.1
KOK S **Sn** 22 19 32.4 +2.6
KOK Koryaka 2.90 15 *eP* **Pn** 22 18 58.3 +2.1
KOK *eS* **Sn** 22 19 32.5 +2.6
SMAR Somma 2.90 17 PN **Pn** 22 18 58.1 +1.8
SMAR S **Sn** 22 19 31.8 +1.8
SMAR Somma 2.90 17 *eP* **Pn** 22 18 58.1 +1.8
SMAR *eS* **Sn** 22 19 31.9 +1.8
KRER Koryakskii 2.93 16 PN **Pn** 22 18 58.2 +1.5
KRER S **Sn** 22 19 31.9 +1.2
KRER Koryakskii 2.93 16 *eP* **Pn** 22 18 58.3 +1.5
KRER *eS* **Sn** 22 19 32.0 +1.2
SDLR Sedlovina 2.93 18 PN **Pn** 22 18 57.1 +0.5
SDLR S **Sn** 22 19 30.5 -0.1
SDLR Sedlovina 2.93 18 *eP* **Pn** 22 18 57.2 +0.5
SDLR *eS* **Sn** 22 19 30.6 -0.1
NLC Nalytchevo 2.94 24 PN **Pn** 22 18 55.6 -1.0
NLC S **Sn** 22 19 27.5 -3.1
NLC Nalytchevo 2.94 24 *eP* **Pn** 22 18 55.7 -1.0
NLC *eS* **Sn** 22 19 27.6 -3.1
KRX Arik 2.96 15 PN **Pn** 22 18 58.9 +1.8
KRX S **Sn** 22 19 34.5 +3.0
KRX Arik 2.96 15 *eP* **Pn** 22 18 59.0 +1.8
KRX *eS* **Sn** 22 19 34.5 +3.0
SPN Mys Shipunski 3.07 31 PN **Pn** 22 18 59.7 +1.2
SPN S **Sn** 22 19 34.4 +0.5
SPN Mys Shipunski 3.07 31 *eP* **Pn** 22 18 59.7 +1.2
SPN *eS* **Sn** 22 19 34.4 +0.5
GNL Ganaly 3.21 6 PN **Pn** 22 19 00.5 0.0
GNL Ganaly 3.21 6 *eP* **Pn** 22 19 00.6 0.0
KII Karymskiy 3.76 19 PN **Pn** 22 19 10.8 +2.8
KII S **Sn** 22 19 53.8 +2.9
KII Karymskiy 3.76 19 *eP* **Pn** 22 19 10.8 +2.8
KII *eS* **Sn** 22 19 53.8 +2.9
MKZ Mys Kozlova 4.85 32 PN **Pn** 22 19 22.7 0.0
MKZ S **Sn** 22 20 15.3 -2.2
MKZ Mys Kozlova 4.85 32 *eP* **Pn** 22 19 22.8 0.0
MKZ *eS* **Sn** 22 20 15.3 -2.2
KZV Kizimen 4.94 20 PN **Pn** 22 19 26.6 +2.4
KZV S **Sn** 22 20 21.5 +1.4
KZV Kizimen 4.94 20 *eP* **Pn** 22 19 26.6 +2.4
KZV *eS* **Sn** 22 20 21.5 +1.4
TUMD Tumrok D 5.05 20 PN **Pn** 22 19 27.5 +1.9
TUMD Tumrok D 5.05 20 *eP* **Pn** 22 19 27.5 +1.9
ESO Esso 5.49 8 PN **Pn** 22 19 34.3 +2.7
ESO Esso 5.49 8 *eP* **Pn** 22 19 34.3 +2.7
KMNR Kamenistaya 5.53 17 PN **Pn** 22 19 35.1 +2.8
KMNR Kamenistaya 5.53 17 *eP* **Pn** 22 19 35.2 +2.8
KOZ Kozyrevsk 5.76 14 PN **Pn** 22 19 36.0 +0.7
KOZ Kozyrevsk 5.76 14 *eP* **Pn** 22 19 36.1 +0.7
SRDR Sredinnyy 5.99 13 PN **Pn** 22 19 40.9 +2.4
SRDR Sredinnyy 5.99 13 *eP* **Pn** 22 19 40.9 +2.4
KLY Klyuchi 6.14 17 PN **Pn** 22 19 43.4 +3.0
KLY Klyuchi 6.14 17 *eP* **Pn** 22 19 43.5 +3.0
BDR Baidarnaya 6.49 19 PN **Pn** 22 19 47.9 +2.6
BDR Baidarnaya 6.49 19 *eP* **Pn** 22 19 47.9 +2.6
SMKR Semkarok 6.56 20 PN **Pn** 22 19 48.0 +1.8
SMKR Semkarok 6.56 20 *eP* **Pn** 22 19 48.1 +1.8
KBTR Krutoberegovo 6.57 28 PN **Pn** 22 19 47.4 +1.0
KBTR Krutoberegovo 6.57 28 *eP* **Pn** 22 19 47.5 +1.0
KBG Krutoberegovo 6.58 27 PN **Pn** 22 19 48.0 +1.5
KBG Krutoberegovo 6.58 27 *eP* **Pn** 22 19 48.1 +1.5
BKI Bering 7.01 45 PN **Pn** 22 19 52.1 -0.3
BKI Bering 7.01 45 *eP* **Pn** 22 19 52.2 -0.3
BKI *eS* **Sn** 22 21 03.9 -6.7
TIGL Tigil 7.31 5 PN **Pn** 22 19 59.4 +2.9
TIGL Tigil 7.31 5 *eP* **Pn** 22 19 59.5 +2.9
KUR Kuril'sk 8.29 234 *i* PN **Pn** 22 20 00.8 -0.1
MA2 Magadan 9.85 340 P **Pn** 22 20 30.7 -0.4
comp=Z,20nm,0.8s,baz=146,slow=10,SNR=5.8
MA2 S **Sn** 22 22 17.2 -2.8
comp=Z,5.0nm,0.5s,baz=196,slow=23,SNR=1.3
MA2 LR LR 22 24 28.6
comp=Z,221nm,21.3s,baz=158,slow=39
MA2 Magadan 9.85 340 PN **Pn** 22 20 31.7 +0.6
MA2 Magadan 9.85 340 **Pn** 22 20 31.7 +0.6
YUK Yuzh-Kuril'sk 10.15 235 *i* PN **Pn** 22 20 34.7 -0.7
SHEM Shemya Is, Ala 10.63 71 P **Pn** 22 20 42.1 +0.2
comp=Z,55nm,0.6s,baz=305,slow=8.0,SNR=4.4
SHEM S Sn 22 22 32.3 -7.0
comp=Z,36nm,0.3s,baz=311,slow=21,SNR=15
SHEM LR LR 22 24 43.3
comp=Z,62nm,21.6s,baz=299,slow=36
SMY Shemya 10.63 71 PN **Pn** 22 20 41.8 -0.1
SMY Shemya 10.63 71 Pn **Pn** 22 20 41.8 -0.1
JKA Kamikawa-asahi 11.88 243 **Pn** 22 21 00.0 +0.9
ASAJ Asahikawa 11.89 243 P **Pn** 22 21 00.0 +0.9
comp=Z,11nm,0.9s,baz=58,slow=14,SNR=4.8
SEY Seymchan 12.75 350 P **Pn** 22 21 09.0 -1.8
comp=Z,2.7nm,0.9s,baz=12,slow=22,SNR=2.6
SEY LR LR 22 26 00.9
comp=Z,150nm,18.6s,baz=151,slow=37
KMSK Kamenskaya 12.93 19 PN **Pn** 22 21 14.1 +1.0
KMSK Kamenskaya 12.93 19 *eP* **Pn** 22 21 14.2 +1.0
KLR Kul'dur 16.55 276 P **Pn** 22 22 00.5 -0.2
comp=Z,1.9nm,0.8s,baz=78,slow=14,SNR=6.9
KLR LR LR 22 28 58.1
comp=Z,145nm,18.3s,baz=94,slow=39
KLR Kul'dur 16.55 276 *ce* P **Pn** 22 21 58.7 -2.0
KLR pmax pmax
comp=Z,39nm,2.9s
BILL Bilibino 18.13 11 *i* P **P** 22 22 19.3 -0.4
BILL pmax pmax
comp=Z,8.0nm,1.0s
USRK Ussuriysk Ar. 18.27 260 P **P** 22 22 22.5 +1.0
comp=Z,1.2nm,0.6s,baz=58,slow=12,SNR=2.5

ZEA Zeya 18.71 292 *e* P **Pn** 22 22 28.3 +1.2
ZEA pmax pmax
comp=N,10.0nm,0.7s
ZEA pmax pmax
comp=Z,10.0nm,0.8s
YAK Yakutsk 19.05 318 P **P** 22 22 28.5 -1.3
comp=Z,66nm,0.6s,baz=252,slow=3.2,SNR=17
YAK Yakutsk 19.05 318 *e* P **P** 22 22 28.0 -1.8
YAK *eS* **Sn** 22 26 00.9 -2.6
YAK pmax pmax
comp=Z,78nm,1.0s
YAK pmax pmax
comp=N,9.0nm,1.3s
YAK pmax pmax
comp=E,18nm,1.1s
YAK smax smax
comp=E,210nm,4.7s
YAK smax smax
comp=N,168nm,4.7s
YAK Yakutsk 19.05 318 **P** 22 22 28.7 -1.1
MJAR Matsushiro Arr 19.62 232 P **P** 22 22 37.6 +1.4
comp=N,0.6nm,0.4s,baz=28,slow=10,SNR=4.0
MJAR Matsushiro Arr 19.62 232 **P** 22 22 37.3 +1.0
BNX BinXian 20.49 268 ⇑P **P** 22 22 43.5 -2.2
BNX pmax pmax
comp=Z,5.0nm,1.0s
HILR Hailar Array B 24.03 282 P **P** 22 23 20.5 -1.6
comp=Z,2.6nm,0.5s,baz=76,slow=13,SNR=5.2
comp=Z,2.6nm,0.5s
KSRS Korea Array 24.70 249 P **P** 22 23 29.4 +1.1
comp=Z,1.4nm,0.7s,baz=47,slow=9.7,SNR=5.0
comp=Z,1.4nm,0.7s
TIXI Tiksi 24.81 339 LR LR 22 34 06.2
comp=Z,124nm,18.5s,baz=191,slow=39
TIXI Tiksi 24.81 339 *ce* P **P** 22 23 28.1 -0.9
TIXI pmax pmax
comp=Z,8.0nm,1.7s
TIXI Tiksi 24.81 339 P **P** 22 23 29.9 +0.9
TIXI IAmb IAmb 22 23 44.0
comp=Z,13nm,1.1s
K15K Wolf Creek Mou 25.14 46 P **P** 22 23 34.2 +2.2
K15K IAmb IAmb 22 23 50.9
comp=Z,11nm,1.0s
N15K Kwethluk River 25.61 51 P **P** 22 23 38.8 +2.4
N15K IAmb IAmb 22 23 44.9
comp=Z,19nm,1.2s
J16K Anvik River 25.72 44 P **P** 22 23 40.7 +3.4
J16K IAmb IAmb 22 23 52.8
comp=Z,11nm,0.9s
JCJ Chichijima 26.10 212 LR LR 22 32 11.9
comp=Z,26nm,20.8s,baz=110,slow=32
F17K Baldwin Pennin 26.20 37 P **P** 22 23 42.6 +1.1
F17K IAmb IAmb 22 23 59.7
comp=Z,12nm,1.0s
M16K Timber Creek 26.22 50 P **P** 22 23 44.4 +2.5
M16K IAmb IAmb 22 23 59.4
comp=Z,9.2nm,0.8s
K17K Iditarod 26.68 46 P **P** 22 23 48.0 +2.1
K17K IAmb IAmb 22 24 02.3
comp=Z,9.0nm,0.9s
C18K Utukok River 26.94 32 P **P** 22 23 49.3 +1.0
C18K IAmb IAmb 22 24 01.8
comp=Z,7.2nm,0.8s
M17K Holitna River 26.98 49 P **P** 22 23 51.7 +3.1
N17K Nushagak Hills 27.07 51 P **P** 22 23 51.2 +1.8
N17K IAmb IAmb 22 24 04.9
comp=Z,8.1nm,0.9s
L18K Granite Mounta 27.38 47 P **P** 22 23 54.5 +2.2
J18K Innoko River 27.48 44 P **P** 22 23 54.1 +1.0
F19K Shaleruckik Mo 27.64 37 P **P** 22 23 54.3 -0.1
N18K Kilae Creek 27.71 50 P **P** 22 23 57.7 +2.5
N18K IAmb IAmb 22 24 10.3
comp=Z,6.2nm,0.7s
H19K Roundabout Mou 27.89 40 IAmb IAmb 22 24 12.1
comp=Z,12nm,1.0s
J19K Poorman 28.02 43 P **P** 22 23 59.0 +1.0
F20K Avaraart Lake 28.47 37 P **P** 22 24 02.3 +0.4
K20K Telida 28.66 45 P **P** 22 24 06.3 +2.7
K20K IAmb IAmb 22 24 17.1
comp=Z,7.2nm,1.2s
J20K Nowinta River 28.69 43 P **P** 22 24 04.6 +0.7
J20K IAmb IAmb 22 24 18.9
comp=Z,6.2nm,1.0s
L20K Farewell, AK 28.70 47 P **P** 22 24 05.5 +1.4
IMAR Indian Mountai 29.06 39 P **P** 22 24 07.8 +0.7
G21K Allakaket 29.24 38 P **P** 22 24 09.7 +0.9
D22K Ayikyak River 29.98 34 P **P** 22 24 15.8 +0.6
H22K Ishtalitna Cre 30.02 40 P **P** 22 24 16.7 +1.0
H22K IAmb IAmb 22 24 19.3
comp=Z,5.8nm,1.2s
BPAW Bear Paw Mtn. 30.07 43 P **P** 22 24 17.4 +1.4
BPAW IAmb IAmb 22 24 32.0
comp=Z,4.0nm,0.8s
D23K Nanushuk River 30.71 34 P **P** 22 24 23.0 +1.4
H23K Yukon River 30.77 40 P **P** 22 24 23.6 +1.3
H23K IAmb IAmb 22 24 36.4
comp=Z,7.5nm,1.2s
E23K Chandalar 30.95 36 P **P** 22 24 24.7 +0.8
E23K IAmb IAmb 22 24 27.8
comp=Z,8.8nm,1.1s
WRH Wood River Hil 31.34 43 P **P** 22 24 28.4 +1.1
WRH IAmb IAmb 22 24 41.6
comp=Z,3.8nm,0.8s
E24K Your Creek 31.38 36 P **P** 22 24 28.6 +0.9
E24K IAmb IAmb 22 24 29.6
comp=Z,5.4nm,0.8s
D24K Happy Valley 31.39 34 P **P** 22 24 28.7 +1.0
D24K IAmb IAmb 22 24 41.4
comp=Z,4.7nm,0.7s
H24K Noodor Dome 31.45 40 P **P** 22 24 29.4 +1.1
CCB Clear Creek Bu 31.46 42 P **P** 22 24 29.3 +1.0
CCB IAmb IAmb 22 24 42.0
comp=Z,3.6nm,0.8s
F24K Squaw Lake 31.55 37 P **P** 22 24 30.0 +0.8
H11N2 WAKE ISLAND Hy 31.62 163 T T 22 58 10.6
baz=348,slow=76,SNR=334
H11N3 WAKE ISLAND Hy 31.64 163 T T 22 58 11.9
baz=348,slow=76,SNR=502
H11N1 WAKE ISLAND Hy 31.64 163 T T 22 58 11.3
baz=348,slow=76,SNR=472
G24K Hadweenzic Riv 31.65 38 **P** 22 24 31.3 +1.3
HDA Harding Lake 31.83 43 P **P** 22 24 31.9 +0.3
HDA IAmb IAmb 22 24 44.9
comp=Z,4.0nm,0.6s
IL31 31.85 42 **P** 22 24 34.1 +2.4
IL31 IAmb IAmb 22 24 45.1
comp=Z,4.9nm,0.8s
ILAR Eielson Array 31.85 42 P **P** 22 24 32.6 +0.9
comp=Z,0.9nm,0.7s,baz=263,slow=5.8,SNR=14
comp=Z,0.9nm,0.7s
ILAR Eielson Array 31.85 42 P **P** 22 24 32.8 +1.0
ILAR Eielson Array 31.85 42 P **P** 22 24 32.8 +1.0
D25K Kavik River 32.28 34 P **P** 22 24 36.4 +0.8
PRP Porcupine Dome 32.42 41 **P** 22 24 38.4 +1.5
J25K Salcha River, 32.51 42 P **P** 22 24 38.9 +1.3
H11S1 WAKE ISLAND Hy 32.78 164 T T 22 59 37.2
baz=349,slow=76,SNR=619
H11S3 WAKE ISLAND Hy 32.79 164 T T 22 59 37.8
baz=349,slow=76,SNR=470
H11S2 WAKE ISLAND Hy 32.80 164 T T 22 59 36.8
baz=349,slow=76,SNR=314
BMAR Burnt Mountain 32.82 37 P **P** 22 24 42.0 +1.8
C26K Camden Bay 32.85 33 **P** 22 24 42.3 +1.9
C26K IAmb IAmb 22 24 44.2
comp=Z,8.2nm,1.1s
SONM Songino Array 32.91 286 P **P** 22 24 39.7 -1.7
comp=Z,0.4nm,0.4s,baz=58,slow=7.4,SNR=5.4
comp=Z,0.4nm,0.4s
G26K Porcupine Rive 33.12 38 **P** 22 24 44.3 +1.5
G26K IAmb IAmb 22 24 56.8
comp=Z,6.2nm,1.0s
TLY Talaya 33.14 293 LR LR 22 39 15.9
comp=Z,116nm,18.5s,baz=90,slow=38
DOT Dot Lake 33.14 44 P **P** 22 24 44.2 +1.1
SCRK Sand Creek 33.15 44 P **P** 22 24 44.4 +1.1
SCRK IAmb IAmb 22 24 55.7
comp=Z,7.4nm,1.2s
C27K Jago River 33.25 33 P **P** 22 24 44.8 +0.9
C27K IAmb IAmb 22 24 57.3
comp=Z,6.2nm,1.0s
E27K Coleen River 33.96 36 P **P** 22 24 51.3 +1.1
E27K IAmb IAmb 22 25 04.8
comp=Z,4.2nm,1.2s
K27K Chicken 33.98 43 P **P** 22 24 52.2 +1.8
K27K IAmb IAmb 22 25 03.8
comp=Z,6.8nm,0.9s
H27K Steamboat Moun 34.04 39 P **P** 22 24 52.2 +1.3
H27K IAmb IAmb 22 24 56.8
comp=Z,3.1nm,0.9s
L27K Beaver Creek, 34.20 45 **P** 22 24 54.1 +1.8
BCAR Beaver Creek A 34.22 45 P **P** 22 24 54.7 +2.2
BARN Barnard Glacie 34.59 48 P **P** 22 24 57.3 +1.4
GRNC Granite Creek 34.61 49 P **P** 22 24 57.6 +1.5
F28M Old Crow 34.62 37 IAmb IAmb 22 24 58.4
comp=Z,4.3nm,0.7s
YAH Yahtse 34.69 50 P **P** 22 24 58.5 +1.8
E28M Babbage River 34.72 35 P **P** 22 24 57.6 +0.9
I28M Miner Creek 34.75 41 P **P** 22 24 58.3 +1.1
I28M IAmb IAmb 22 25 11.2
comp=Z,4.8nm,1.1s
H29M Whitestone 35.32 39 P **P** 22 25 03.4 +1.5
H29M IAmb IAmb 22 25 16.3
comp=Z,1.7nm,0.6s
E29M Blow River 35.33 35 P **P** 22 25 03.7 +1.7
E29M IAmb IAmb 22 25 15.9
comp=Z,5.0nm,1.1s
G29M Pine Creek 35.39 38 **P** 22 25 04.2 +1.7
M29M Somme Creek 35.83 46 P **P** 22 25 08.2 +1.7
M29M IAmb IAmb 22 25 21.2
comp=Z,4.1nm,0.7s
L29M L29M 35.86 44 P **P** 22 25 09.0 +2.4
K29M Barlow Dome 36.00 43 P **P** 22 25 09.1 +1.3
G30M tAoh Zraii Nji 36.09 38 P **P** 22 25 09.8 +1.3
G30M IAmb IAmb 22 25 17.4
comp=Z,4.3nm,1.1s
F30M Barrier River 36.19 37 P **P** 22 25 11.8 +2.5
I30M Mount Dempster 36.26 41 IAmb IAmb 22 25 23.6
comp=Z,6.0nm,1.1s
J30M Hart River 36.39 42 P **P** 22 25 12.7 +1.5
INK Inuvik 36.95 35 P **P** 22 25 17.1 +1.4
INK pmax pmax
comp=Z,4.0nm,0.8s
INK Inuvik 36.95 35 P **P** 22 25 17.1 +1.4
INK IAmb IAmb 22 25 17.9
comp=Z,4.0nm,0.8s
H31M Peel River 37.01 40 P **P** 22 25 17.8 +1.5
H31M IAmb IAmb 22 25 19.8
comp=Z,4.8nm,0.8s
WHY Whitehorse 37.92 48 P **P** 22 25 26.3 +2.1
P33M Teslin, Yukon 39.03 48 P **P** 22 25 35.3 +1.9
R33M Jennings River 40.18 49 P **P** 22 25 45.7 +2.6
R33M IAmb IAmb 22 25 58.7
comp=Z,4.2nm,0.8s
ZALV Zalesovo Beam 42.79 304 P **P** 22 26 02.2 -2.2
comp=Z,1.0nm,0.5s,baz=64,slow=6.8,SNR=5.4
ZALV PcP **PcP** 22 27 54.3 -0.3
comp=Z,0.6nm,0.5s,baz=72,slow=4.7,SNR=3.9
comp=Z,1.0nm,0.5s
ZALV Zalesovo Beam 42.79 304 *i* P **P** 22 26 02.9 -1.4
ZALV pmax pmax
comp=Z,1.0nm,0.5s
YKAW3 Yellowknife Wh 46.19 40 P **P** 22 26 32.6 +1.3
YKA Yellowknife Ar 46.22 40 P **P** 22 26 32.1 +0.5
comp=Z,1.9nm,0.5s,baz=296,slow=7.5,SNR=8.2
comp=Z,1.9nm,0.5s
YKA Yellowknife Ar 46.22 40 *ce* P **P** 22 26 33.2 +1.6
YKA pmax pmax
comp=Z,2.0nm,0.5s
YKA Yellowknife Ar 46.22 40 P **P** 22 26 32.3 +0.7
RES Resolute Bay 46.35 20 P **P** 22 26 33.4 +1.0
RES pmax pmax
comp=Z,3.0nm,0.7s
RES Resolute Bay 46.35 20 P **P** 22 26 33.4 +1.0
RES IAmb IAmb 22 26 34.2
comp=Z,3.1nm,0.7s
KURK Kurchatov 47.69 303 *ce* P **P** 22 26 42.9 -0.3
KURK pmax pmax
comp=Z,11nm,1.3s
MK31 Makanchi Array 47.77 296 *ce* P **P** 22 26 43.1 -0.8
MKAR Makanchi Array 47.77 296 P **P** 22 26 42.9 -1.1
comp=Z,1.3nm,0.5s,baz=58,slow=6.6,SNR=24
MKAR LR LR 22 46 58.6
comp=Z,167nm,20.9s,baz=44,slow=36
comp=Z,1.3nm,0.5s
MKAR Makanchi Array 47.77 296 P **P** 22 26 43.3 -0.7
MKAR Makanchi Array 47.77 296 **P** 22 26 43.3 -0.7
KURBB Kurchatov Arra 47.79 302 P **P** 22 26 42.6 -1.3
comp=Z,4.4nm,1.0s,baz=61,slow=7.8,SNR=13
comp=Z,4.4nm,1.0s
MAKZ Makanchi 47.95 296 P **P** 22 26 44.1 -1.2
MAKZ pmax pmax
comp=Z,2.0nm,0.8s
MAKZ Makanchi 47.95 296 **P** 22 26 44.1 -1.2
SPITS Spitsbergen Ar 49.41 350 P **P** 22 26 55.0 -1.0
comp=Z,7.1nm,0.8s,baz=63,slow=9.5,SNR=8.6
comp=Z,7.1nm,0.8s
BVAR Borovoye Array 50.69 309 P **P** 22 27 04.5 -1.5
comp=Z,2.9nm,0.7s,baz=66,slow=7.2,SNR=8.7
comp=Z,2.9nm,0.7s
BORK Borovoye 50.71 309 *i* P **P** 22 27 05.6 -0.6
BORK pmax pmax
comp=Z,4.0nm,0.9s
BLKN Baker Lake 52.19 32 **P** 22 27 18.4 +1.4
ARTI Arti 54.26 317 *c i* P **P** 22 27 31.3 -1.1
ARTI 22 28 30.0
ARTI S **S** 22 35 07.5 +1.9
ARTI SS **SS** 22 38 46.8 -0.5
ARTI pmax pmax
comp=Z,8.0nm,1.5s
CHTO Chiang Mai 55.72 258 P **P** 22 27 45.0 +1.6
CHTO pmax pmax
comp=Z,5.0nm,0.7s
CHTO Chiang Mai 55.72 258 **P** 22 27 45.0 +1.6
CMAR Chiang Mai Arr 55.98 257 P **P** 22 27 46.9 +1.6
comp=Z,2.1nm,0.4s,baz=25,slow=7.2,SNR=17
comp=Z,2.1nm,0.4s
KSH2 Kashi 56.32 292 P **P** 22 27 47.1 -0.6
KSH2 pmax pmax
comp=Z,3.0nm,1.5s
SUMG Summit 56.72 6 P **P** 22 27 51.0 +0.7
SUMG pmax pmax
comp=Z,19nm,1.0s
SUMG Summit 56.72 6 **P** 22 27 51.0 +0.7
SUMG Summit 56.72 6 *i* P **P** 22 27 50.6 +0.3
AB31 Akbulak array 58.18 310 IAmb IAmb 22 28 02.5
comp=Z,2.7nm,0.8s
ABKAR Akbulak array 58.18 310 **P** 22 27 58.8 -1.7
NVAR Mina Array Bea 58.26 67 P **P** 22 28 04.0 +2.5
comp=Z,0.2nm,0.3s,baz=311,slow=5.6,SNR=2.4
comp=Z,0.2nm,0.3s
HNR Honiara 59.73 177 LR LR 22 49 46.3
comp=Z,31nm,21.7s,baz=90,slow=32
PDAR Pinedale Array 60.29 58 P **P** 22 28 16.4 +0.9
comp=Z,0.7nm,0.8s,baz=298,slow=3.2,SNR=4.8
comp=Z,0.7nm,0.8s
PMG Port Moresby 60.32 192 LR LR 22 49 25.5
comp=Z,37nm,21.9s,baz=311,slow=31
FRB Frobisher Bay 60.55 22 LR LR 22 55 43.2
comp=Z,43nm,21.2s,baz=46,slow=37
GSC Goldstone, Bar 61.26 68 P **P** 22 28 22.4 +0.5
GSC pmax pmax
comp=Z,8.0nm,0.3s
GSC Goldstone, Bar 61.26 68 P **P** 22 28 22.4 +0.5
BELG Belogornoye 61.58 319 *i* P **P** 22 28 21.9 -1.8
BELG pmax pmax
comp=Z,4.0nm,2.0s
FINES FINESS Array B 61.81 336 P **P** 22 28 23.2 -1.9
comp=Z,1.5nm,0.5s,baz=28,slow=8.2,SNR=11
comp=Z,1.5nm,0.5s
FINES FINESS Array B 61.81 336 *ce* P **P** 22 28 23.7 -1.4
FINES pmax pmax
comp=Z,2.0nm,0.5s
NB2 NORSAR Subarra 65.54 343 P **P** 22 28 48.8 -0.9
comp=Z,1.5nm,0.8s,baz=23,slow=6.5
NOA NORSAR Array B 65.54 343 P **P** 22 28 48.6 -1.1
comp=Z,0.9nm,0.7s,baz=21,slow=6.9,SNR=3.5
comp=Z,0.9nm,0.7s
HFS Hagfors 65.88 341 P **P** 22 28 51.1 -0.7
comp=Z,1.3nm,0.6s,baz=350,slow=7.7,SNR=5.2
comp=Z,1.3nm,0.6s
SCHQ Schefferville 68.72 26 P **P** 22 29 10.6 +0.6
comp=Z,2.3nm,0.4s,baz=319,slow=5.8,SNR=12
comp=Z,2.3nm,0.4s
SCHQ Schefferville 68.72 26 IAmb IAmb 22 29 25.7
comp=Z,5.5nm,0.8s
AFI Afiamalu 69.60 148 LR LR 22 55 38.8
comp=Z,27nm,21.5s,baz=304,slow=32
AKASG Malin Array Be 69.94 328 P **P** 22 29 15.7 -1.8
comp=Z,0.4nm,0.3s,baz=33,slow=6.9,SNR=2.6
comp=Z,0.4nm,0.3s
KBZ Khabaz 70.23 315 P **P** 22 29 18.6 -0.7

comp=Z,1.0nm,0.6s,baz=98,slow=6.0,SNR=6.4
comp=Z,1.0nm,0.6s

MSVF Nonsavu 70.34 159 LR LR 23 00 30.6
comp=Z,24nm,18.3s,baz=218,slow=36

GNI Garni 72.19 312 LR LR 23 07 48.1
comp=Z,47nm,18.5s,baz=8.5,slow=41

WRA Warramunga Arr 73.03 203 P **P** **22 29 37.0 +0.6**
comp=Z,1.7nm,0.8s,baz=20,slow=6.1,SNR=6.1
comp=Z,1.7nm,0.8s

WRA Warramunga Arr 73.03 203 *i* P **P** **22 29 37.9 +1.5**
WRA pmax pmax
comp=Z,1.0nm,0.7s

WRA Warramunga Arr 73.03 203 P **P** **22 29 37.3 +0.9**
TXAR Lajitas Array 73.24 64 P **P** **22 29 37.0 -0.9**
comp=Z,1.5nm,0.8s,baz=326,slow=6.0,SNR=9.7
comp=Z,1.5nm,0.8s

TXAR Lajitas Array 73.24 64 P **P** **22 29 37.0 -0.9**
EKA Eskdalemuir Ar 73.29 349 P **P** **22 29 36.6 -0.9**
comp=Z,1.3nm,0.5s,baz=14,slow=4.9,SNR=6.9
comp=Z,1.3nm,0.5s

GERES GERESS Array B 76.24 336 P **P** **22 29 54.0 -0.8**
comp=Z,0.6nm,0.5s,baz=24,slow=5.3,SNR=6.5
comp=Z,0.6nm,0.5s

CONA Conrad Observa 76.51 335 *i* P **P** **22 29 58.0 +1.6**
comp=Z,1.8nm,0.8s

ASAR Alice Springs 76.71 202 P **P** **22 29 59.4 +1.8**
comp=Z,0.7nm,0.6s,baz=14,slow=5.6,SNR=12
comp=Z,0.7nm,0.6s

BIOA Bad Ischl, Aus 77.32 336 *i* P **P** **22 30 02.1 +1.2**
comp=Z,1.7nm,0.5s

BRTR Keskin Array B 77.51 319 LR LR 23 10 05.0
comp=Z,20nm,18.2s,baz=289,slow=40

SESA Seetaler Alpe, 77.61 335 *i* P **P** **22 30 03.4 +0.7**
comp=Z,2.4nm,1.0s

SOKA Soboth 77.88 335 *i* P **P** **22 30 04.3 +0.2**
comp=Z,0.7nm,0.4s

KBA Koelnbreinsper 77.96 336 *i* P **P** **22 30 05.6 +0.9**
comp=Z,5.5nm,1.0s

OBKA Obir 78.17 335 *i* P **P** **22 30 05.9 +0.2**
comp=Z,2.8nm,1.2s

WTTA Wattenberg 78.23 337 *i* P **P** **22 30 06.2 0.0**
comp=Z,3.0nm,0.8s

MOTA Moosalm 78.28 337 *i* P **P** **22 30 07.1 +0.6**
comp=Z,4.0nm,0.8s

SQTA Sankt Quirin 78.38 337 *i* P **P** **22 30 07.4 +0.6**
comp=Z,5.6nm,1.2s

ABTA Abfaltersbach 78.48 336 *i* P **P** **22 30 07.5 +0.1**
comp=Z,3.9nm,1.1s

DAVA Damuels 78.64 338 *i* P **P** **22 30 09.6 +1.3**
comp=Z,6.2nm,1.2s

PPT Papeete 82.22 130 LR LR 22 58 24.9
comp=Z,36nm,21.8s,baz=251,slow=29

MMAI Mount Meron Ar 82.35 314 P **P** **22 30 28.6 +0.3**
comp=Z,3.1nm,0.5s,baz=24,slow=11,SNR=13
MMAI LR LR 23 14 42.0
comp=Z,32nm,18.2s,baz=9.0,slow=41
comp=Z,3.1nm,0.5s

EIL Elat 85.36 313 LR LR 23 15 08.0
comp=Z,39nm,18.1s,baz=30,slow=40

ESDC Sonseca Array 88.72 346 P **P** **22 30 59.2 -0.6**
comp=Z,0.7nm,0.9s,baz=357,slow=4.0,SNR=8.1
ESDC LR LR 23 16 06.4
comp=Z,42nm,19.6s,baz=2.0,slow=39
comp=Z,0.7nm,0.9s

ESDC Sonseca Array 88.72 346 IAmb IAmb 22 31 12.5
comp=Z,2.1nm,0.8s

KEST Kesra 89.62 334 P **P** **22 31 02.5 -1.8**
comp=Z,2.6nm,0.7s,baz=83,slow=8.1,SNR=2.9
comp=Z,2.6nm,0.7s

KEST Kesra 89.62 334 IAmb IAmb 22 31 06.9
comp=Z,2.8nm,0.7s

URZ Urewera 90.08 165 LR LR 23 04 15.7
comp=Z,40nm,20.7s,baz=352,slow=31

QSPA South Pole Qui 140.25 180 PKhKP PKPpre 22 37 29.9
comp=Z,1.2nm,0.9s,baz=27,slow=2.3,SNR=3.6

JMA ***13*** *22:24:19.4±0.2,25.1N±0.8×123.7E±0.3,h19km,MD4.4/9, MV3.6/9,NW OFF ISHIGAKIJIMA IS*
NIED ***13*** *22:24:19.4,25.11N×123.65E,h19km,MW4.3,Moment Tensor Solution. s3 Moment tensor: Scale 10^15Nm; Mrr-2.22; Mθθ2.17; Mφφ0.05; Mrθ-1.59; Mθφ0.33; Mφr-0.86; Fault plane solution: M0 2.86000×10^15 NP1: φs272.00000°,δ27.00000°,λ-69.00000°. NP2:φs69.00000°, δ65.00000°,λ-100.00000°.*
NEIC ***13*** *22:24:21.5±2.2,25.02N±0.08×123.60E±0.09,h10km±2km, mb4.2/3 Error ellipse: s-maj=17.2km s-min=6.7km az=133.0*
IDC ***13*** *22:24:27.7±5.8,25.11N×123.54E,h78km±57km,mb3.6/11, mbtmp3.8/12,ML3.2/1,MS3.4/25,Error ellipse: s-maj=30.4km s-min=15.0km az=64.0*

ISC 13 22:24:20.0±2.9, 24.92N±0.06×123.56E±0.04, h10km±19km, n52,σ1§02/40, mb3.9/13, MS3.4/22, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.60**	**165**	*i* P		**Pn**	**22 24 34.1**	**-0.5**
IRIF				A		A	22 24 34.1	
	comp=N,33nm,0.7s,comp=E,17nm,0.6s							
IRIF				S		**Sn**	**22 24 44.5**	**+0.1**
YOJ	**Yonaguni jima**	**0.68**	**227**			**Pn**	**22 24 35.8**	**+0.2**
YOJ						**Sn**	**22 24 46.1**	**0.0**
YOJ	**Yonaguni jima**	**0.68**	**227**	P		**Pn**	**22 24 35.7**	**+0.1**
YOJ				S		**Sn**	**22 24 46.4**	**+0.3**
JYNG	**Yonagunijimaku**	**0.73**	**230**	P		**Pn**	**22 24 36.5**	**+0.2**
JYNG				S		**Sn**	**22 24 48.0**	**+0.6**
JISG	**Ishigakijimahi**	**0.76**	**116**	P		**Pb**	**22 24 34.4**	**-0.9**
JISG				*e*S		**Sb**	**22 24 45.5**	**-0.3**
JIJ	**Ishigaki jima**	**0.77**	**136**	P		**Pb**	**22 24 35.3**	**-0.2**
JIJ				A		A	22 24 35.3	
	comp=N,6.0nm,3.2s,comp=E,8.0nm,1.6s							
JIJ				S		**Sb**	**22 24 46.7**	**+0.7**
JKRS	**Kuro-shima**	**0.80**	**149**	*e*P		**Pn**	**22 24 36.8**	**-0.4**
JKRS				A		A	22 24 36.8	
	comp=N,40nm,2.2s,comp=E,31nm,2.0s							
JKRS				*e*S		**Sn**	**22 24 48.8**	**-0.4**
HATJ	**Hateruma jima**	**0.89**	**165**	*e*P		**Pn**	**22 24 39.0**	**+0.5**
HATJ				A		A	22 24 39.0	
	comp=N,51nm,2.4s,comp=E,27nm,4.3s							
HATJ				*e*S		**Sn**	**22 24 53.1**	**+1.6**
JTJ	**Tarama**	**1.08**	**105**	A		A	22 24 39.0	
	comp=N,9.0nm,2.3s,comp=E,15nm,1.7s							
TATO	**Taipei**	**1.88**	**272**	Pn		**Pb**	**22 24 54.9**	**+0.6**
NACB	**Ninganchiao**	**1.94**	**248**			**Pb**	**22 24 55.5**	**+0.2**
YHNB	**Yeheng**	**2.00**	**263**			**Pb**	**22 24 56.0**	**-0.4**
YULB	**Yu-li**	**2.56**	**234**			**Pb**	**22 25 05.2**	**-0.9**
SSLB	**Suanglung**	**2.63**	**245**			**Pb**	**22 25 06.5**	**-0.6**
TWG	**Pinlang**	**3.09**	**228**	Pn		**Pb**	**22 25 13.8**	**-1.2**
TPUB	**Ta-pu**	**3.12**	**239**			**Pb**	**22 25 14.1**	**-1.5**
JNU	**Nakatsue**	**10.38**	**36**	LR		LR	22 31 20.5	
	comp=E,119nm,21.1s,baz=217,slow=40							
KSRS	**Korea Array**	**13.04**	**16**	P		**Pn**	**22 27 27.4**	**+2.1**
	comp=E,0.1nm,0.3s,baz=189,slow=12,SNR=7.1							
	comp=E,0.4nm,0.3s							
KSRS				AML		AML		
MJAR	**Matsushiro Arr**	**17.09**	**44**	LR		LR	22 35 03.8	
	comp=E,74nm,18.6s,baz=291,slow=38							
DAV	**Davao City (W)**	**17.86**	**173**	LR		LR	22 35 23.8	
	comp=E,128nm,21.3s,baz=331,slow=36							
USRK	**Ussuriysk Ar.**	**20.43**	**18**	P		**P**	**22 28 57.1**	**-0.1**
	comp=E,6.2nm,1.1s,baz=216,slow=7.1,SNR=5.3							
USRK				LR		LR	22 37 06.2	
	comp=E,100nm,18.6s,baz=184,slow=38							
	comp=E,6.2nm,1.1s							
CMAR	**Chiang Mai Arr**	**23.74**	**259**	P		**P**	**22 29 33.8**	**+1.3**
	comp=E,0.7nm,0.3s,baz=73,slow=10,SNR=5.1							
CMAR				LR		LR	22 39 02.7	
	comp=E,38nm,18.1s,baz=135,slow=37							
	comp=E,0.7nm,0.3s							
ASAJ	**Asahikawa**	**24.65**	**34**	LR		LR	22 40 04.1	
	comp=E,52nm,19.0s,baz=244,slow=38							
KLR	**Kul'dur**	**25.10**	**13**	P		**P**	**22 29 43.4**	**-1.3**
	comp=E,1.8nm,0.9s,baz=204,slow=3.9,SNR=4.3							
KLR				LR		LR	22 39 48.9	
	comp=E,153nm,19.2s,baz=193,slow=37							
	comp=E,1.8nm,0.9s							
SONM	**Songino Array**	**26.60**	**334**	P		**P**	**22 29 56.8**	**-1.7**
	comp=E,0.3nm,0.4s,baz=149,slow=12,SNR=3.0							
SONM				LR		LR	22 40 21.3	
	comp=E,136nm,19.1s,baz=150,slow=36							
	comp=E,0.3nm,0.4s							
SIJI	**Sorong**	**26.70**	**163**	LR		LR	22 38 38.3	
	comp=E,49nm,19.6s,baz=308,slow=32							
KAPI	**Kappang**	**29.98**	**188**	LR		LR	22 43 25.8	
	comp=E,49nm,20.0s,baz=346,slow=38							
JAY	**Jayapura**	**31.95**	**146**	LR		LR	22 41 15.3	
	comp=E,85nm,21.1s,baz=314,slow=31							
PSI	**Prapat**	**32.36**	**231**	LR		LR	22 44 00.3	
	comp=E,69nm,18.1s,baz=25,slow=36							
BATI	**Baumata**	**34.91**	**180**	LR		LR	22 47 49.5	
	comp=E,50nm,18.0s,baz=222,slow=40							
YAK	**Yakutsk**	**37.33**	**5**	LR		LR	22 48 52.5	
	comp=E,68nm,20.7s,baz=186,slow=39							
PETK	**Petropavlovsk-**	**38.06**	**33**	LR		LR	22 47 13.2	
	comp=E,55nm,18.4s,baz=238,slow=36							
MKAR	**Makanchi Array**	**39.34**	**314**	P		**P**	**22 31 47.8**	**-1.6**
	comp=E,4.3nm,1.0s,baz=104,slow=10,SNR=25							
	comp=E,4.3nm,1.0s							
MKAR	**Makanchi Array**	**39.34**	**314**	P		**P**	**22 31 48.7**	**-0.7**
MA2	**Magadan**	**39.50**	**21**	LR		LR	22 49 20.5	
	comp=E,67nm,18.3s,baz=161,slow=38							
KRVT	**Keravat (AS076**	**40.12**	**132**	LR		LR	22 47 04.3	
	comp=E,42nm,19.4s,baz=173,slow=34							
ZALV	**Zalesovo Beam**	**40.83**	**326**	P		**P**	**22 32 00.1**	**-1.5**
	comp=E,1.2nm,0.8s,baz=108,slow=9.5,SNR=5.7							
ZALV				LR		LR	22 48 52.6	
	comp=E,83nm,19.0s,baz=90,slow=36							
	comp=E,1.2nm,0.8s							
FITZ	**Fitzroy Crossi**	**42.81**	**177**	LR		LR	22 53 12.1	
	comp=E,37nm,18.0s,baz=343,slow=40							
KURK	**Kurchatov**	**42.94**	**319**	P		**P**	**22 32 19.7**	**+0.9**
KURK				IAmb		IAmb	22 32 25.2	
	comp=Z,2.4nm,0.9s							
KURBB	**Kurchatov Arra**	**42.96**	**319**	P		**P**	**22 32 17.4**	**-1.7**
	comp=Z,2.4nm,0.9s,baz=110,slow=7.6,SNR=12							
	comp=Z,2.4nm,0.9s							
PALK	**Pallekele**	**44.52**	**254**	LR		LR	22 51 58.7	
	comp=Z,20nm,18.5s,baz=52,slow=37							
WB0	**Warramunga Arr**	**45.66**	**166**	P		**P**	**22 32 42.0**	**+1.0**
WB0				IAmb		IAmb	22 32 51.0	
	comp=Z,3.1nm,0.9s							
WRA	**Warramunga Arr**	**45.81**	**166**	P		**P**	**22 32 43.0**	**+0.8**
	comp=Z,1.3nm,0.7s,baz=347,slow=8.8,SNR=7.2							
	comp=Z,1.3nm,0.7s							
WR8	**Warramunga Arr**	**45.86**	**166**	P		**P**	**22 32 44.0**	**+1.4**
WR8				IAmb		IAmb	22 32 57.4	
	comp=Z,3.1nm,1.0s							
TIXI	**Tiksi**	**46.86**	**2**	LR		LR	22 54 58.7	
	comp=Z,139nm,18.0s,baz=192,slow=39							
NRIK	**Noril'sk**	**49.27**	**344**	LR		LR	22 56 07.7	
	comp=Z,114nm,18.8s,baz=144,slow=39							
ASAR	**Alice Springs**	**49.33**	**167**	P		**P**	**22 33 10.8**	**+1.3**
	comp=Z,0.9nm,0.7s,baz=352,slow=14,SNR=12							
ASAR				PcP		**PcP**	**22 34 32.2**	**0.0**
	comp=Z,0.7nm,0.9s,baz=350,slow=4.9,SNR=2.6							
	comp=Z,0.9nm,0.7s							
CTA	**Charters Tower**	**49.89**	**152**	LR		LR	22 55 29.5	
	comp=Z,28nm,18.9s,baz=24,slow=37							
STKA	**Stephens Creek**	**59.05**	**162**	P		**P**	**22 34 20.3**	**+0.1**
	comp=Z,1.8nm,0.7s,baz=359,slow=8.2,SNR=4.0							
	comp=Z,1.8nm,0.7s							
ILAR	**Eielson Array**	**67.57**	**28**	LR		LR	23 06 20.6	
	comp=Z,32nm,18.6s,baz=271,slow=37							
SPITS	**Spitsbergen Ar**	**69.22**	**348**	LR		LR	23 08 54.6	
	comp=Z,38nm,19.5s,baz=151,slow=39							
BRTR	**Keskin Array B**	**74.47**	**307**	P		**P**	**22 35 57.6**	**-1.2**
	comp=Z,0.6nm,0.8s,baz=96,slow=5.0,SNR=4.4							
	comp=Z,0.6nm,0.8s							

SJA ***13*** *22:33:33.3±0.7, 18.22S×71.21W,h34km±2km, ML3.5, MW3.7*
GUC ***13*** *22:33:35.0±0.8, 18.19S×71.23W,h24km±7km, ML3.7, Presumed earthquake*

ISC 13 22:33:33.8±2.3, 18.20S±0.06×71.24W±0.09, h25km±14km, n28,σ1§36/48, 2C-3D, Off coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
AP01	**Chacalluta**	**0.87**	**101**	*e*P		**Pn**	**22 33 50.1**	**-0.3**
AP01				*e*S		**Sn**	**22 34 02.5**	**+0.2**
AP01				IAML			22 34 04.4	
	comp=Z,5μm,0.1s							
AP01	**Chacalluta**	**0.87**	**101**	⇓ *i* P		**Pb**	**22 33 49.9**	**-0.4**
AP01				*e*S		**Sb**	**22 34 01.4**	**-0.2**
AP01				IAML			22 34 04.0	
	comp=E,10μm,0.5s							
PB12	**IPOC Station P**	**0.96**	**115**	*e*P		**Pn**	**22 33 51.5**	**-0.3**
PB12				*e*S		**Sn**	**22 34 05.9**	**+1.2**
PB12				IAML			22 34 06.4	
	comp=Z,1μm,0.3s							
PB12	**IPOC Station P**	**0.96**	**115**	⇓ *i* P		**Pb**	**22 33 51.4**	**-0.5**
PB12				*e*S		**Sb**	**22 34 03.4**	**-0.7**
PB12				IAML			22 34 05.9	
	comp=N,2μm,0.3s							
PB16	**IPOC Station P**	**1.65**	**95**	*e*P		**Pn**	**22 34 02.3**	**+0.6**
PB16				*e*S		**Sb**	**22 34 23.7**	**-0.9**
PB16				IAML			22 34 27.7	
	comp=Z,893nm,0.5s							
PB16	**IPOC Station P**	**1.65**	**95**	⇓ *i* P		**Pn**	**22 34 02.3**	**+0.6**
PB16				IAML			22 34 25.8	
	comp=N,1μm,0.4s							
PSGCX	**Pisagua**	**1.75**	**143**	*e*P		**Pn**	**22 34 03.2**	**+0.6**
PSGCX				*e*S		**Sn**	**22 34 20.7**	**-3.4**
PSGCX				IAML			22 34 35.5	
	comp=Z,300nm,0.5s							
PSGCX	**Pisagua**	**1.75**	**143**	⇑ *i* P		**Pn**	**22 34 03.3**	**+0.7**
PB18	**Visviri**	**1.79**	**70**	*e*P		**Pb**	**22 34 05.9**	**-0.2**
PB18				*e*S		**Sb**	**22 34 31.7**	**+3.4**
PB18				IAML			22 34 37.3	
	comp=E,1μm,0.7s							
PB11	**IPOC Station P**	**2.16**	**136**	*e*P		**Pn**	**22 34 09.2**	**+0.9**
PB11				*e*S		**Sn**	**22 34 34.0**	**-0.4**
PB11				IAML			22 34 41.4	
	comp=Z,302nm,0.4s							
PB11	**IPOC Station P**	**2.16**	**136**	⇑ *i* P		**Pn**	**22 34 09.3**	**+0.9**
PB11				*e*S		**Sb**	**22 34 36.6**	**-2.1**
PB11				IAML			22 34 40.8	
	comp=E,569nm,0.5s							
TA02	**Huaiquique**	**2.31**	**153**	*e*P		**Pn**	**22 34 11.5**	**+1.3**
TA02				*e*S		**Sb**	**22 34 41.5**	**-1.4**
TA02				IAML			22 34 56.5	
	comp=Z,148nm,0.5s							
GO01	**Chusmiza**	**2.43**	**127**	*e*P		**Pn**	**22 34 13.8**	**+1.6**
GO01				*e*S		**Sb**	**22 34 46.4**	**-0.3**
GO01				IAML			22 34 53.3	
	comp=Z,158nm,0.9s							
GO01	**Chusmiza**	**2.43**	**127**	*e*P		**Pn**	**22 34 14.0**	**+1.7**
GO01				IAML			22 34 49.2	
	comp=E,530nm,0.2s							
TA01	**Diego Aracena**	**2.56**	**157**	*e*P		**Pn**	**22 34 14.4**	**+0.8**
TA01				*e*S		**Sb**	**22 34 53.8**	**+3.8**
TA01				IAML			22 34 55.7	
	comp=Z,102nm,0.9s							
TA01	**Diego Aracena**	**2.56**	**157**	*e*P		**Pn**	**22 34 14.2**	**+0.6**
TA01				IAML			22 34 55.5	
	comp=N,238nm,0.5s							
PB08	**IPOC Station P**	**2.76**	**135**	*e*P		**Pn**	**22 34 18.2**	**+1.4**
PB08				*e*S		**Sn**	**22 34 49.8**	**+0.2**
PB08				IAML			22 34 57.4	
	comp=Z,162nm,0.4s							
PB08	**IPOC Station P**	**2.76**	**135**	*e*P		**Pn**	**22 34 18.1**	**+1.4**
PB08				IAML			22 34 59.3	
	comp=E,192nm,0.3s							
PB02	**IPOC Station P**	**3.35**	**158**	*e*P		**Pn**	**22 34 25.4**	**+0.7**
PB02				*e*S		**Sn**	**22 35 04.7**	**+1.0**
PB02				IAML			22 35 31.5	
	comp=Z,145nm,0.8s							
PB02	**IPOC Station P**	**3.35**	**158**	*e*P		**Pn**	**22 34 25.5**	**+0.8**
LPAZ	**La Paz**	**3.53**	**58**	*e*P		**Pn**	**22 34 26.5**	**-1.1**
PB07	**IPOC Station P**	**3.73**	**160**	*e*P		**Pn**	**22 34 30.6**	**+0.6**
PB07				*e*S		**Sn**	**22 35 10.9**	**-2.3**
PB07				IAML			22 35 40.0	
	comp=Z,65nm,0.5s							
PB09	**IPOC Station P**	**4.04**	**153**	*e*P		**Pn**	**22 34 35.7**	**+1.5**
PB09				*e*S		**Sb**	**22 35 33.7**	**+0.8**
PB09				IAML			22 35 45.4	
	comp=Z,90nm,1.1s							
PB03	**IPOC Station P**	**4.08**	**160**	*e*P		**Pn**	**22 34 35.4**	**+0.7**
PB03				*e*S		**Sn**	**22 35 21.9**	**+0.2**
PB03				IAML			22 35 25.9	
	comp=Z,43nm,0.5s							
PB03	**IPOC Station P**	**4.08**	**160**	*e*P		**Pn**	**22 34 35.0**	**+0.3**
PB05	**IPOC Station P**	**4.73**	**168**	*e*P		**Pn**	**22 34 43.5**	**-0.1**
PB05				*e*S		**Sn**	**22 35 37.0**	**-0.8**
PB05				IAML			22 36 10.3	
	comp=Z,20nm,1.1s							
PB06	**IPOC Station P**	**4.75**	**161**	*e*P		**Pn**	**22 34 44.3**	**+0.4**
PB06				*e*S		**Sn**	**22 35 38.6**	**+0.4**
PB06				IAML			22 35 40.7	
	comp=Z,33nm,0.6s							
PB10	**IPOC Station P**	**5.33**	**173**	*e*P		**Pn**	**22 34 52.4**	**+0.7**
PB10				*e*S		**Sn**	**22 35 50.2**	**-2.1**
PB10				IAML			22 36 33.4	
	comp=Z,18nm,1.0s							

HLW ***13*** *22:33:46.5,26.91N×35.03E,h14km±3km, Ml3.3*
SGS ***13*** *22:33:47.9,26.91N×35.04E,h20km, Ml2.7*
GII ***13*** *22:33:47.9±0.0,27.040N±0.002×35.311E±0.001,h0km, Mws2.8,confirmed*

ISC 13 22:33:43.8±1.7, 26.89N±0.03×35.04E±0.03, h6km±13km, n52,σ1§46/70, Red Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
NSFG	**Safaga**	**0.99**	**263**	P		**Pn**	**22 34 04.6**	**+0.3**
NSFG				S		**Sn**	**22 34 18.0**	**-0.7**
DESA	**DESA**	**1.17**	**58**	P		**Pn**	**22 34 07.2**	**+0.3**
DESA				S		**Sb**	**22 34 21.3**	**-0.8**
KRABS	**KRABS**	**1.22**	**9**	P		**Pg**	**22 34 07.3**	**0.0**
KRABS				S		**Sb**	**22 34 19.3**	**-4.1**
AYUS	**`Aynunah**	**1.31**	**9**	P		**Pb**	**22 34 08.7**	**-0.1**
HHRG	**Al Ghardaqah**	**1.35**	**284**	P		**Pn**	**22 34 08.8**	**-0.5**
RSHS		**1.42**	**351**	P		**Pn**	**22 34 10.0**	**-0.2**
TR1	**Tor 1**	**1.47**	**319**	P		**Pb**	**22 34 11.3**	**-0.3**
BDAS	**Al Bad`**	**1.53**	**2**	P		**Pg**	**22 34 13.1**	**-0.1**
BDAS				S		**Sn**	**22 34 31.6**	**-0.6**
URD07	**Al Anba**	**1.60**	**60**	P		**Pb**	**22 34 14.1**	**+0.1**
BIDS	**Bi'r al Bayda'**	**1.71**	**90**	P		**Pb**	**22 34 15.2**	**-0.6**
BIDS				S		**Sn**	**22 34 36.1**	**-0.4**
HDHB	**Dhahab**	**1.86**	**349**	P		**Pn**	**22 34 16.7**	**+0.4**
HKAT	**Jabal Katrina**	**1.87**	**331**	P		**Pn**	**22 34 17.3**	**+0.7**
HKAT				S		**Sn**	**22 34 39.0**	**-1.7**
TBKS	**Tabuk**	**1.88**	**45**	P		**Pb**	**22 34 18.1**	**-0.4**
JLOS		**1.88**	**12**	P		**Pb**	**22 34 17.5**	**-1.2**
TR2	**Tor 2**	**1.89**	**322**	P		**Pn**	**22 34 17.5**	**+0.8**
URD12	**Shuwaq**	**1.99**	**64**	P		**Pb**	**22 34 19.6**	**-1.0**
UMJ05	**UMJ05**	**2.06**	**115**	P		**Pn**	**22 34 19.7**	**+0.6**
HAQS	**Haql**	**2.15**	**357**	P		**Pn**	**22 34 21.5**	**+1.1**
HAQS				S		**Sn**	**22 34 46.6**	**-0.8**
NUB	**Nuweibaa**	**2.16**	**351**	P		**Pn**	**22 34 20.5**	**+0.1**
HRDS	**Abu Rudays**	**2.38**	**320**	P		**Pn**	**22 34 24.5**	**+1.1**
RDLS		**2.40**	**0**	P		**Pb**	**22 34 26.1**	**-1.4**
URD14	**Abu Rakah**	**2.47**	**77**	P		**Pn**	**22 34 26.6**	**+1.8**
NEDF	**New Edfo**	**2.74**	**224**	P		**Pn**	**22 34 29.8**	**+1.4**
QLABS	**Al Qalibar**	**2.74**	**69**	P		**Pb**	**22 34 30.9**	**-2.5**
EIL	**Elat**	**2.77**	**358**	P		**Pb**	**22 34 31.8**	**-2.0**
EIL				AML		AML		
EIL	**Elat**	**2.77**	**358**	P		**Pn**	**22 34 30.3**	**+1.5**
EIL				S		**Sn**	**22 35 03.1**	**+0.5**
LNY07	**LNY07**	**2.88**	**127**	P		**Pn**	**22 34 31.0**	**+0.7**
LNY11	**LNY11**	**2.92**	**122**	P		**Pn**	**22 34 32.4**	**+1.5**
LNY12	**LNY12**	**2.94**	**123**	P		**Pn**	**22 34 32.5**	**+1.2**
LNY06	**LNY06**	**2.98**	**124**	P		**Pn**	**22 34 33.2**	**+1.5**
YTVT	**Yotvata**	**2.99**	**0**	P		**Pn**	**22 34 33.2**	**+1.4**
YTVT				S		**Sn**	**22 35 08.1**	**+0.1**
SUMJS	**Umluj**	**3.01**	**134**	P		**Pn**	**22 34 33.0**	**+0.9**
HRFI	**Mount Harif**	**3.13**	**360**	P		**Pb**	**22 34 41.5**	**+1.5**
HRFI				AML		AML		
HRFI	**Mount Harif**	**3.13**	**360**	P		**Pn**	**22 34 35.8**	**+2.0**
HRFI				S		**Sn**	**22 35 12.1**	**+0.5**
BRNS	**Bernies**	**3.14**	**196**	P		**Pn**	**22 34 35.2**	**+1.3**
PRNI	**Paran**	**3.45**	**360**	P		**Pn**	**22 34 41.3**	**+3.1**
PRNI				AML		AML		
SUZ	**Suez**	**3.52**	**327**	P		**Pn**	**22 34 40.4**	**+1.2**
ZFRI	**Zfri**	**3.65**	**2**	P		**Pn**	**22 34 42.5**	**+1.5**
ZFRI				S		**Sn**	**22 35 24.5**	**+0.2**
TRAS	**Al Qrash**	**3.66**	**119**	P		**Pn**	**22 34 43.6**	**+2.5**
NAHD	**NAHD**	**3.69**	**214**	P		**Pn**	**22 34 42.9**	**+1.4**
RMNI	**Mount Ramon**	**3.70**	**356**	P		**Pn**	**22 34 44.0**	**+2.4**
RMNI				S		**Sn**	**22 35 26.4**	**+0.7**
KASR	**Kasr**	**3.71**	**209**	P		**Pn**	**22 34 43.2**	**+1.3**
TAMRE	**El Minia**	**3.75**	**283**	P		**Pn**	**22 34 43.8**	**+1.5**
IDAN	**Idan**	**3.93**	**3**	P		**Pn**	**22 34 46.4**	**+1.6**
IDAN				S		**Sn**	**22 35 31.4**	**+0.1**
KZIT	**Kziot**	**4.04**	**352**	P		**Pn**	**22 34 49.1**	**+2.8**
KZIT				S		**Sn**	**22 35 34.9**	**+0.9**
MSBI	**Mazada**	**4.41**	**4**	P		**Pn**	**22 34 53.3**	**+1.9**
MSBI				S		**Sn**	**22 35 42.5**	**-0.6**
GHAJ	**Ghor Haditha**	**4.42**	**6**	P		**Pn**	**22 35 04.9**	**+3.0**
GHAJ	**Ghor Haditha**	**4.42**	**6**	P		**Pn**	**22 34 53.3**	**+1.8**
AMAZ	**Amatzia**	**4.63**	**359**	P		**Pn**	**22 34 56.5**	**+2.1**
AMAZ				S		**Sn**	**22 35 49.2**	**+0.7**
SLTI	**Sal'it**	**5.33**	**0**	P		**Pn**	**22 35 05.7**	**+1.7**
SLTI				S		**Sn**	**22 36 05.8**	**+0.1**
MMLI	**Mount Malkishu**	**5.54**	**3**	P		**Pn**	**22 35 08.4**	**+1.5**
MMLI				S		**Sn**	**22 36 11.1**	**+0.2**
HFRF	**Wahat Farafira**	**6.01**	**274**	P		**Pn**	**22 35 15.3**	**+2.0**

IDC ***13*** *22:53:49.0±3.1,35.81N×141.08E,h0km,mb3.3/3, mbtmp3.2/4,ML2.2/1, Error ellipse: s-maj=79.9km s-min=20.5km az=41.0*
JMA ***13*** *22:53:54.3±0.1,35.9N±0.3×140.9

HEF				SN	Sb	23 04 44.6	-0.3	
TOF	**Tornio**	**1.86**	**125**	PG	Pn	23 04 24.4	+0.6	
TOF				MSG		23 04 46.2		
	comp=Z,1.0nm,0.2s							
TOF				SG	Sn	23 04 48.4	+0.6	
KTK1	**Kautokeino**	**2.10**	**27**	PG	Pb	23 04 28.6	-1.0	
KTK1				SG	Sb	23 04 55.7	-0.5	
RNF	**Rovaniemi**	**2.22**	**102**	PG	Pn	23 04 29.6	+0.8	
RNF				SG	Sb	23 04 59.2	-0.5	
TRO	**Tromso**	**2.54**	**347**	PG	Pb	23 04 36.5	-0.7	
RANF	**Ranua**	**2.74**	**112**	SG	Sb	23 05 14.4	-0.2	
ARA0	**ARCESS Array S**	**3.00**	**35**	SB	Sb	23 05 20.8	-1.2	
OBF8	**Ulkokalla**	**3.09**	**156**	PG	Pb	23 04 46.2	-0.3	

UPP 13 23:04:31.1±0.0, 67°.18N×20°.65E, h0km, ML1.9, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.07**	**210**	P	Pg	23 04 32.7	+0.3
DUNU				S	Sg	23 04 33.7	+0.5
MASU	**Masugnsbyn**	**0.59**	**61**	P	Pg	23 04 42.5	+0.1
MASU				S	Sg	23 04 50.5	+0.5
RATU	**Laukkuluspa**	**0.77**	**328**	P	Pg	23 04 45.4	-0.4
RATU				S	Sg	23 04 56.1	+0.4
KUA	**Kurravaara**	**0.79**	**351**	P	Pg	23 04 45.9	-0.3
SALU	**Saltoluokta**	**0.86**	**285**	P	Pg	23 04 47.2	-0.3
ERTU	**Ertsjaerv**	**0.87**	**135**	P	Pg	23 04 47.1	-0.7
NIKU	**Nikkaluokta**	**0.93**	**319**	P	Pg	23 04 48.5	-0.4
PAJU	**Pajala**	**0.97**	**98**	P	Pg	23 04 49.2	-0.6
LANU	**Lannavaara**	**1.01**	**30**	P	Pg	23 04 50.0	-0.5
HARU	**Harads**	**1.03**	**173**	P	Pg	23 04 49.8	-1.0
KOVU	**Salmi**	**1.07**	**350**	P	Pg	23 04 50.9	-0.6
SJUU	**Sjulsmark**	**1.72**	**167**	P	Pn	23 05 02.0	-0.2

*KRSC **13** 23:23:55.0±2.4, 52°.43N×153°.98E, h463km±32km, Ml4.6*
*IDC **13** 23:23:54.1±1.2, 52°.64N×153°.34E, h468km±16km, mb2.8/10, mbtmp3.7/14, Error ellipse: s-maj=20.8km s-min=15.3km az=87.0*

ISC 13 23:23:52.6±0.7, 52°.6N±0°.1×153°.35E±0°.07, h447km, n40, σ2s24/42, mb3.3/10, Northwest of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PETK	**Petropavlovsk-**	**2.68**	**78**	P	**P**	**23 24 59.1**	**+2.1**
	8.7nm,0.4s,baz=229,slow=7.2,SNR=54						
ASAK	**Asacha**	**2.79**	**93**	*eP*	**P**	**23 25 00.3**	**+2.4**
GRL	**Gorelyy**	**2.88**	**90**	*eP*	**P**	**23 25 01.4**	**+2.8**
KRMR	**Karymshinskiy**	**2.91**	**84**	*eP*	**P**	**23 25 01.3**	**+2.6**
MTVR	**Mutnovka**	**2.95**	**91**	*eP*	**P**	**23 25 01.6**	**+2.5**
KDTR	**Khodutka, Kamc**	**3.02**	**104**	*eP*	**P**	**23 25 00.5**	**+1.0**
KDTR				*eS*	**S**	**23 25 53.3**	**-0.5**
RUS	**Russkaya**	**3.16**	**91**	*eP*	**P**	**23 25 02.1**	**+1.6**
KOK	**Koryaka**	**3.27**	**76**	*eP*	**P**	**23 25 04.5**	**+3.0**
KRX	**Arik**	**3.29**	**75**	*eP*	**P**	**23 25 04.3**	**+2.7**
DALK	**Dalny**	**3.30**	**81**	*eP*	**P**	**23 25 03.9**	**+2.3**
AVH	**Avacha**	**3.32**	**77**	*eP*	**P**	**23 25 05.0**	**+3.1**
KRER	**Koryakskii**	**3.33**	**76**	*eP*	**P**	**23 25 05.2**	**+3.1**
SMAR	**Somma**	**3.36**	**77**	*eP*	**P**	**23 25 05.2**	**+2.9**
UGLR	**Uglovaya**	**3.37**	**78**	*eP*	**P**	**23 25 05.4**	**+3.2**
SDLR	**Sedlovina**	**3.41**	**77**	*eP*	**P**	**23 25 05.2**	**+2.6**
NLC	**Nalytchevo**	**3.67**	**79**	*eP*	**P**	**23 25 06.5**	**+1.9**
NLC				*eS*	**S**	**23 26 03.9**	**+0.7**
KII	**Karymskiy**	**3.92**	**66**	*eP*	P	23 25 10.6	+3.8
SPN	**Mys Shipunski**	**4.07**	**81**	*eP*	**P**	**23 25 09.5**	**+1.4**
SPN				*eS*	**S**	**23 26 07.1**	**-2.5**
KZV	**Kizimen**	**4.81**	**56**	*eP*	**P**	**23 25 18.4**	**+3.5**
TUMR	**Tumrok**	**4.82**	**54**	*eP*	P	23 25 20.0	+5.0
TUMD	**Tumrok D**	**4.90**	**55**	*eP*	P	23 25 19.7	+3.9
MKZ	**Mys Kozlova**	**5.35**	**65**	*eP*	**P**	**23 25 21.3**	**+1.2**
MKZ				*eS*	**S**	**23 26 27.3**	**-4.3**
KBG	**Krutoberegovo**	**6.56**	**53**	*eP*	**P**	**23 25 34.6**	**+2.3**
KBTR	**Krutoberegovo**	**6.59**	**53**	*eP*	**P**	**23 25 32.8**	**+0.1**
MA2	**Magadan**	**7.12**	**349**	P	**P**	**23 25 40.3**	**+2.1**
	10nm,0.7s,baz=112,slow=19,SNR=1.5						
BKI	**Bering**	**7.89**	**66**	*eP*	**P**	**23 25 49.6**	**+3.1**
BKI				*eS*	**S**	**23 27 18.6**	**-1.5**
SEY	**Seymchan**	**10.35**	**358**	P	**P**	**23 26 15.6**	**+2.3**
	3.2nm,0.4s,baz=158,slow=11,SNR=7.2						
SHEM	**Shemya Is, Ala**	**12.59**	**81**	P	**P**	**23 26 36.2**	**-1.5**
	63nm,0.8s,baz=289,slow=18,SNR=2.4						
MJAR	**Matsushiro Arr**	**19.29**	**220**	P	**P**	**23 27 48.3**	**+0.6**
	1.5nm,0.5s,baz=16,slow=9.1,SNR=6.9						
SONM	**Songino Array**	**29.99**	**280**	P	**P**	**23 29 24.2**	**+1.2**
	0.3nm,0.7s,baz=79,slow=9.0,SNR=1.9						
SONM				PcP	**PcP**	**23 32 08.0**	**-3.7**
	0.4nm,0.8s,baz=57,slow=5.3,SNR=2.0						
	0.3nm,0.7s						
ILAR	**Eielson Array**	**32.03**	**44**	P	**P**	**23 29 41.8**	**+1.6**
	0.2nm,0.8s,baz=270,slow=8.2,SNR=3.3						
	0.2nm,0.8s						
KURBB	**Kurchatov Arra**	**44.54**	**299**	P	**P**	**23 31 22.3**	**-0.4**
	0.8nm,0.5s,baz=60,slow=7.4,SNR=8.7						
	0.8nm,0.5s						
MKAR	**Makanchi Array**	**44.61**	**292**	P	**P**	**23 31 22.9**	**-0.4**
	0.3nm,0.4s,baz=60,slow=7.0,SNR=5.9						
	0.3nm,0.4s						
BVAR	**Borovoye Array**	**47.40**	**305**	P	**P**	**23 31 44.2**	**-0.3**
	0.7nm,0.5s,baz=47,slow=7.0,SNR=5.9						
	0.7nm,0.5s						
CMAR	**Chiang Mai Arr**	**54.11**	**252**	P	**P**	**23 32 34.3**	**+0.1**
	0.8nm,0.3s,baz=34,slow=7.5,SNR=3.8						
	0.8nm,0.3s						
FINES	**FINESS Array B**	**58.82**	**333**	P	**P**	**23 33 05.0**	**-1.2**
	1.5nm,0.9s,baz=57,slow=10,SNR=1.5						
	1.5nm,0.9s						
GERES	**GERESS Array B**	**73.25**	**333**	P	**P**	**23 34 36.0**	**-0.9**
	0.2nm,0.4s,baz=33,slow=5.7,SNR=2.1						
	0.2nm,0.4s						
WRA	**Warramunga Arr**	**74.13**	**199**	P	**P**	**23 34 41.1**	**-0.9**
	0.3nm,0.3s,baz=17,slow=5.6,SNR=4.0						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**77.84**	**198**	P	**P**	**23 35 02.9**	**+0.2**
	0.7nm,0.4s,baz=14,slow=5.0,SNR=11						
	0.7nm,0.4s						
QSPA	**South Pole Qui**	**142.37**	**180**	PKhKP	PKPpre	23 42 27.4	
	0.3nm,0.4s,baz=24,slow=1.6,SNR=1.2						

*NEIC **13** 23:25:35.1±1.4, 6°.85S±0°.08×155°.45E±0°.07, h10km±1km, mb4.6/21, Error ellipse: s-maj=15.3km s-min=10.1km az=33.0*
*IDC **13** 23:25:47.1±1.3, 6°.98S×155°.35E, h113km±12km, mb3.7/11, mbtmp4.1/16, MS3.1/8, Error ellipse: s-maj=15.2km s-min=10.2km az=33.0*

ISC 13 23:25:45.7±0.5, 7°.04S±0°.07×155°.33E±0°.06, h100km, n52, σ1s37/54, mb4.3/20, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RABL	**Rabaul**	**4.23**	**312**	Pn	Pn	23 26 37.2	-11
RABL				Sn	**Sn**	**23 27 34.3**	**-2.1**
KRVT	**Keravat (AS076**	**4.26**	**309**	P	**Pn**	**23 26 51.5**	**+3.1**
	90nm,0.4s,baz=251,slow=18,SNR=4.4						
KRVT				S	**Sn**	**23 27 39.1**	**+2.1**
	166nm,0.3s,baz=62,slow=14,SNR=7.7						
KRVT				LR	LR	23 28 49.6	
	comp=Z,145nm,18.9s,baz=198,slow=43						
HNR	**Honiara**	**5.16**	**118**	P	**Pn**	**23 27 01.1**	**+0.5**
	52nm,0.6s,baz=340,slow=5.7,SNR=3.7						
HNR				S	**Sn**	**23 28 01.8**	**+3.0**
	134nm,0.7s,baz=171,slow=23,SNR=4.6						
HNR				LR	LR	23 28 59.5	
	comp=Z,219nm,19.7s,baz=360,slow=37						
HNR	**Honiara**	**5.16**	**118**	Pn	Pn	23 26 50.8	-10
HNR	**Honiara**	**5.16**	**118**	Sn	**Sn**	**23 27 54.8**	**-4.0**
PMG	**Port Moresby**	**8.42**	**253**	P	**Pn**	**23 27 45.3**	**+0.3**
	12nm,0.5s,baz=29,slow=11,SNR=4.4						
PMG				S	**Sn**	**23 29 18.8**	**+0.4**
	10nm,0.5s,baz=88,slow=19,SNR=5.2						
PMG				LR	LR	23 30 49.9	
	comp=Z,117nm,18.4s,baz=54,slow=36						
PMG	**Port Moresby**	**8.42**	**253**		Pn	23 27 39.4	-5.6
PMG					**Sn**	**23 29 14.6**	**-3.8**
CTA	**Charters Tower**	**15.68**	**213**	P	**P**	**23 29 24.3**	**+1.2**
	1.9nm,0.7s,baz=45,slow=21,SNR=1.6						
CTA				LR	LR	23 34 43.0	
	comp=Z,59nm,18.8s,baz=34,slow=34						
DZM	**Mont Dzumac**	**18.40**	**145**	P	**P**	**23 29 54.3**	**+1.2**
	3.3nm,0.8s,baz=339,slow=19,SNR=1.6						
DZM				LR	LR	23 36 09.1	
	comp=Z,109nm,19.1s,baz=288,slow=34						
GUMO	**Guam**	**22.97**	**333**	LR	LR	23 40 49.1	
	comp=Z,6.2nm,18.5s,baz=137,slow=39						
WB0	**Warramunga Arr**	**23.94**	**236**	P	**P**	**23 30 50.4**	**-0.3**
WR8	**Warramunga Arr**	**23.94**	**236**	P	**P**	**23 30 51.3**	**+0.5**
WR8				IAmb	IAmb	23 31 03.4	
	comp=Z,8.3nm,1.1s						
WRA	**Warramunga Arr**	**24.07**	**236**	P	**P**	**23 30 52.8**	**+0.9**
	comp=Z,1.8nm,0.4s,baz=60,slow=9.7,SNR=18						
WRA				PcP	**PcP**	**23 34 31.4**	**+0.2**
	comp=Z,0.3nm,0.5s,baz=57,slow=2.3,SNR=2.7						
	comp=Z,1.8nm,0.4s						
WRA	**Warramunga Arr**	**24.07**	**236**	P	**P**	**23 30 50.9**	**-1.0**
ASAR	**Alice Springs**	**26.39**	**229**	P	**P**	**23 31 13.1**	**0.0**
	comp=Z,0.7nm,0.5s,baz=60,slow=9.5,SNR=16						
ASAR				PcP	**PcP**	**23 34 37.2**	**+0.9**
	comp=Z,0.5nm,0.5s,baz=57,slow=2.1,SNR=4.8						
	comp=Z,0.7nm,0.5s						
ASAR	**Alice Springs**	**26.39**	**229**	P	**P**	**23 31 12.9**	**-0.1**
BFZ	**Birch Farm**	**38.36**	**154**	P	**P**	**23 32 57.1**	**+0.1**
MJAR	**Matsushiro Arr**	**46.23**	**341**	P	**P**	**23 34 01.2**	**+0.4**
	comp=Z,0.9nm,0.4s,baz=141,slow=6.3,SNR=4.3						
	comp=Z,0.9nm,0.4s						
MJAR	**Matsushiro Arr**	**46.23**	**341**	P	**P**	**23 33 59.1**	**-1.8**
MCQ	**Macquarie Isla**	**47.42**	**177**	P	**P**	**23 34 10.0**	**+0.2**
PETK	**Petropavlovsk-**	**59.95**	**2**	P	**P**	**23 35 40.2**	**-1.0**
	comp=Z,2.5nm,0.6s,baz=173,slow=6.0,SNR=2.5						
	comp=Z,2.5nm,0.6s						
PETK	**Petropavlovsk-**	**59.95**	**2**	P	**P**	**23 35 40.3**	**-0.9**
CMAR	**Chiang Mai Arr**	**61.10**	**295**	P	**P**	**23 35 50.4**	**+0.6**
	comp=Z,4.1nm,0.7s,baz=124,slow=5.5,SNR=27						
	comp=Z,4.1nm,0.7s						
SONM	**Songino Array**	**69.55**	**327**	P	**P**	**23 36 43.4**	**-0.5**
	comp=Z,0.6nm,0.5s,baz=139,slow=6.9,SNR=5.6						
	comp=Z,0.6nm,0.5s						
SONM	**Songino Array**	**69.55**	**327**	P	**P**	**23 36 43.6**	**-0.3**
EVN	**Everest**	**74.64**	**301**	P	**P**	**23 37 14.8**	**-0.5**
EVN				IAmb	IAmb	23 37 16.4	
	comp=Z,3.0nm,0.6s						
QSPA	**South Pole Qui**	**82.94**	**180**	P	**P**	**23 38 00.1**	**+0.7**
QSPA				IAmb	IAmb	23 38 37.2	
	comp=Z,6.5nm,1.4s						
ILAR	**Eielson Array**	**83.29**	**21**	P	**P**	**23 37 59.1**	**-1.9**
	comp=Z,0.7nm,0.6s,baz=258,slow=5.5,SNR=3.8						
ILAR				LR	LR	00 11 35.5	
	comp=Z,17nm,18.9s,baz=136,slow=33						
	comp=Z,0.7nm,0.6s						
RIDG	**Independent Ri**	**83.51**	**23**	P	**P**	**23 38 01.2**	**-1.0**
MKAR	**Makanchi Array**	**83.65**	**319**	P	**P**	**23 38 02.5**	**-0.7**
	comp=Z,0.7nm,0.7s,baz=94,slow=5.7,SNR=6.3						
	comp=Z,0.7nm,0.7s						
MKAR	**Makanchi Array**	**83.65**	**319**	P	**P**	**23 38 02.1**	**-1.1**
M27K	**Edge Creek, AK**	**84.03**	**25**	P	**P**	**23 38 04.9**	**-0.1**
M27K				IAmb	IAmb	23 38 13.1	
	comp=Z,5.0nm,1.2s						
O28M	**Mount Upton**	**84.04**	**26**	P	**P**	**23 38 04.7**	**-0.6**
ZALV	**Zalesovo Beam**	**84.40**	**326**	P	**P**	**23 38 04.7**	**-2.1**
	comp=Z,0.5nm,0.5s,baz=113,slow=7.2,SNR=1.9						
	comp=Z,0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**84.40**	**326**	P	**P**	**23 38 05.7**	**-1.1**
D23K	**Nanushuk River**	**84.42**	**17**	P	**P**	**23 38 06.3**	**-0.4**
MAW	**Mawson**	**84.49**	**203**	LR	LR	00 13 57.1	
	comp=Z,28nm,18.1s,baz=206,slow=34						
G26K	**Porcupine Rive**	**85.51**	**20**	P	**P**	**23 38 12.5**	**+0.4**
G26K				IAmb	IAmb	23 38 13.7	
	comp=Z,3.0nm,0.7s						
E27K	**Coleen River**	**86.84**	**19**	P	**P**	**23 38 19.0**	**+0.3**
E27K				IAmb	IAmb	23 38 20.5	
	comp=Z,3.9nm,0.7s						
C27K	**Jago River**	**86.86**	**18**	P	**P**	**23 38 19.1**	**+0.3**
C27K				IAmb	IAmb	23 38 20.2	
	comp=Z,3.9nm,0.8s						
KURBB	**Kurchatov Arra**	**87.10**	**322**	P	**P**	**23 38 20.2**	**0.0**
	comp=Z,0.1nm,0.2s,baz=116,slow=2.2,SNR=1.3						
	comp=Z,0.1nm,0.2s						
D27M	**Malcolm River**	**87.53**	**19**	P	**P**	**23 38 21.5**	**-0.5**
D27M				IAmb	IAmb	23 38 23.7	
	comp=Z,4.1nm,0.8s						
E28M	**Babbage River**	**87.71**	**19**	P	**P**	**23 38 22.8**	**-0.1**
E28M				IAmb	IAmb	23 38 24.3	
	comp=Z,1.9nm,0.7s						
EPYK	**Eagle Plains**	**87.78**	**22**	P	**P**	**23 38 22.7**	**-0.6**
INK	**Inuvik**	**89.64**	**21**	P	**P**	**23 38 31.5**	**-0.4**
	comp=Z,1.2nm,0.5s,baz=271,slow=4.7,SNR=17						
	comp=Z,1.2nm,0.5s						
INK	**Inuvik**	**89.64**	**21**	P	**P**	**23 38 31.2**	**-0.6**
INK				IAmb	IAmb	23 38 43.5	
	comp=Z,4.5nm,1.3s						
YPP	**Pitchstone Pla**	**97.63**	**46**	P	**P**	**23 39 07.3**	**-2.2**
GERES	**GERESS Array B**	**127.26**	**329**	PKP	**PKPdf**	**23 44 39.1**	**+0.3**
	comp=Z,0.3nm,0.6s,baz=48,slow=2.0,SNR=4.2						
EKA	**Eskdalemuir Ar**	**128.87**	**344**	PKP	**PKPdf**	**23 44 41.2**	**-0.3**
	comp=Z,0.4nm,0.5s,baz=23,slow=2.7,SNR=4.4						
BDFB	**Brasilia**	**147.72**	**134**	PKPbc	**PKPdf**	**23 45 18.7**	**+1.7**
	comp=Z,1.0nm,0.3s,baz=198,slow=3.3,SNR=6.2						
BDFB	**Brasilia**	**147.72**	**134**	PKPab	**PKPbc**	**23 45 20.6**	**+0.7**
MD01	**Midelt array s**	**148.33**	**327**	PKPab	**PKPbc**	**23 45 22.6**	**+1.4**

*VAO **13** 23:26:48.7±0.6, 32°.04S×71°.92W, h10km, mb4.7, Presumed earthquake*
*SJA **13** 23:26:56.9±0.7, 31°.73S×71°.71W, h32km±3km, ML4.6, MW4.5*
*IDC **13** 23:26:59.9±0.5, 31°.74S×71°.46W, h55km±3km, mb4.3/11, mbtmp4.5/15, MS3.5/13, Error ellipse: s-maj=14.8km s-min=10.7km az=1.0*
*NEIC **13** 23:26:59.9±1.4, 31°.76S±0°.04×71°.53W±0°.06, h47km±5km, mb4.7/87, ML4.7(GUC), Error ellipse: s-maj=6.9km s-min=4.9km az=72.0*
*GFZ **13** 23:27:00.7±0.2, 32°.5±2°×7°.1W±°, h58km±3km, M4.7/8, mb4.7/8*
*GUC **13** 23:27:00.0±0.5, 31°.77S×71°.45W, h57km±3km, ML4.7, Presumed earthquake*

ISC 13 23:26:59.4±0.5, 31°.73S±0°.02×71°.55W±0°.04, h51km±4km, n277, σ1s65/288, mb4.7/50, MS3.5/11, 4C-17D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CO04	**Los Peladeros**	**0.58**	**123**		**Pn**	**23 27 11.5**	**-0.5**
CO04				Sn	**Sn**	**23 27 20.3**	**-0.7**
CO04	**Los Peladeros**	**0.58**	**123**	*i*P	**Pn**	**23 27 11.7**	**-0.2**
CO04				*i* S	**Sn**	**23 27 20.6**	**-0.4**
CO04				IAML		23 27 21.6	
	comp=N,132μm,0.2s						
CO04	**Los Peladeros**	**0.58**	**123**	P	**Pn**	**23 27 11.8**	**-0.2**
CO02	**Combarbal**	**0.70**	**42**	*eP*	**Pn**	**23 27 13.4**	**0.0**
CO02				*eS*	**Sn**	**23 27 24.5**	**+1.1**
CO02				IAML		23 27 25.8	
	comp=Z,92μm,0.4s						
CO02	**Combarbal**	**0.70**	**42**		**Pn**	**23 27 13.8**	**+0.5**
CO02				Sn	**Sn**	**23 27 24.1**	**+0.7**
CO02	**Combarbal**	**0.70**	**42**	*i*P	**Pn**	**23 27 14.0**	**+0.7**
CO02				*i* S	**Sn**	**23 27 24.1**	**+0.7**
CO02				IAML		23 27 25.2	
	comp=E,236μm,0.2s						
CO02	**Combarbal**	**0.70**	**42**	P	**Pn**	**23 27 14.1**	**+0.7**
CO06	**Fray Jorge**	**1.05**	**356**		**Pn**	**23 27 19.3**	**+1.4**
CO06					**Sn**	**23 27 32.4**	**+0.8**
CO06	**Fray Jorge**	**1.05**	**356**	*i*P	**Pn**	**23 27 19.3**	**+1.4**
CO03	**El Pedregal**	**1.15**	**40**	*eP*	**Pn**	**23 27 19.9**	**+0.7**
CO03				*eS*	**Sn**	**23 27 35.7**	**+1.7**
CO03				IAML		23 27 36.8	
	comp=Z,12μm,0.5s						
CO03	**El Pedregal**	**1.15**	**40**		**Pn**	**23 27 20.0**	**+0.7**
CO03				Sn	**Sn**	**23 27 34.5**	**+0.5**
CO03	**El Pedregal**	**1.15**	**40**	*i*P	**Pn**	**23 27 20.2**	**+0.9**
CO03				*i* S	**Sn**	**23 27 35.0**	**+1.0**
CO03				IAML		23 27 35.7	
	comp=E,19μm,0.4s						
CO03	**El Pedregal**	**1.15**	**40**	P	**Pn**	**23 27 20.2**	**+0.9**
VA01	**Torpederas**	**1.29**	**184**	*eP*	**Pn**	**23 27 21.5**	**+0.3**
VA01	**Torpederas**	**1.29**	**184**		**Pn**	**23 27 21.2**	**+0.2**
VA01	**Torpederas**	**1.29**	**184**	*i*P	**Pn**	**23 27 21.4**	**+0.3**
VA01				*i* S	**Sn**	**23 27 36.5**	**-0.8**
VA01				IAML		23 27 37.9	
	comp=N,9μm,0.1s						
VA01	**Torpederas**	**1.29**	**184**	P	**Pn**	**23 27 21.4**	**+0.3**
ROCH	**El Roble**	**1.32**	**160**	*i*P	**Pn**	**23 27 21.9**	**+0.2**
ROCH				*i* S	**Sn**	**23 27 38.7**	**+0.3**
ROCH				IAML		23 27 43.0	
	comp=N,9μm,0.3s						
ROCH				IAML		23 27 43.1	
	comp=N,18μm,0.4s						
VA03	**San Esteban**	**1.33**	**141**	*eP*	**Pn**	**23 27 21.8**	**0.0**
VA03				*eS*	**Sn**	**23 27 38.4**	**-0.1**
VA03				IAML		23 27 41.2	
	comp=Z,21μm,0.4s						
VA03	**San Esteban**	**1.33**	**141**		**Pn**	**23 27 21.7**	**0.0**
VA03	**San Esteban**	**1.33**	**141**	*iP*	**Pn**	**23 27 21.6**	**0.0**
VA03				*i* S	**Sn**	**23 27 37.9**	**-0.6**
VA03				IAML		23 27 38.8	
	comp=E,52μm,0.3s						
VA03	**San Esteban**	**1.33**	**141**	P	**Pn**	**23 27 21.8**	**0.0**
MT02	**Curacav**	**1.56**	**167**	*eP*	**Pn**	**23 27 24.7**	**-0.1**
MT02				*eS*	**Sn**	**23 27 45.7**	**+1.8**
MT02				IAML		23 27 48.3	
	comp=Z,4μm,0.4s						
MT02	**Curacav**	**1.56**	**167**		**Pn**	**23 27 24.8**	**-0.1**
MT02	**Curacav**	**1.56**	**167**	*eP*	**Pn**	**23 27 24.6**	**-0.1**
PEL	**Peldehue**	**1.59**	**153**		**Pn**	**23 27 25.5**	**+0.3**
PEL	**Peldehue**	**1.59**	**153**	*iP*	**Pn**	**23 27 25.5**	**+0.3**
PEL				*i* S	**Sn**	**23 27 45.5**	**+0.9**
PEL				IAML		23 27 47.7	
	comp=E,14μm,0.3s						
PEL	**Peldehue**	**1.59**	**153**	P	**Pn**	**23 27 25.6**	**+0.4**
GO04	**Tololo Observa**	**1.68**	**23**	*eP*	**Pn**	**23 27 27.5**	**+1.0**
GO04				*eS*	**Sn**	**23 27 48.9**	**+1.8**
GO04				IAML		23 27 54.4	
	comp=Z,8μm,0.2s						
GO04	**Tololo Observa**	**1.68**	**23**		**Pn**	**23 27 27.4**	**+0.8**
GO04	**Tololo Observa**	**1.68**	**23**	*eP*	**Pn**	**23 27 27.5**	**+1.0**
GO04	**Tololo Observa**	**1.68**	**23**	P	**Pn**	**23 27 27.6**	**+1.0**
MT10	**Hacienda Santa**	**1.76**	**151**	*eP*	**Pn**	**23 27 27.9**	**+0.2**
MT05	**Renca**	**1.79**	**158**	*eP*	**Pn**	**23 27 28.6**	**+0.6**
MT05				*eS*	**Sn**	**23 27 51.9**	**+2.2**
MT05				IAML		23 27 56.8	
	comp=Z,5μm,0.6s						
MT05	**Renca**	**1.79**	**158**		**Pn**	**23 27 28.5**	**+0.6**
MT05	**Renca**	**1.79**	**158**	*eP*	**Pn**	**23 27 28.6**	**+0.6**
CO05	**La Serena**	**1.82**	**8**		**Pn**	**23 27 29.6**	**+1.3**
CO05	**La Serena**	**1.82**	**8**	*eP*	**Pn**	**23 27 29.6**	**+1.3**
MT14	**Cerro Cal¡n**	**1.87**	**153**	*eP*	**Pn**	**23 27 29.6**	**+0.5**
MT14				IAML		23 28 06.5	
	comp=E,15μm,0.8s						
MT16	**CCHEN**	**1.90**	**153**		**Pn**	**23 27 29.7**	**+0.2**
MT16	**CCHEN**	**1.90**	**153**	*eP*	**Pn**	**23 27 29.9**	**+0.4**
FCH	**Farellones**	**1.92**	**147**	*eP*	**Pn**	**23 27 30.2**	**+0.3**
FCH				IAML		23 28 05.1	
	comp=E,6μm,0.3s						
RTLS	**Leoncito**	**1.92**	**93**	*eP*	**Pn**	**23 27 31.5**	**+1.6**
RTLS				*eS*	**Sn**	**23 27 58.1**	**+5.1**
RTLS				IAML		23 27 59.1	
	comp=Z,15μm,0.4s						
VA05	**Santo Domingo**	**1.92**	**182**		**Pn**	**23 27 29.9**	**+0.2**
VA05	**Santo Domingo**	**1.92**	**182**	IAML		23 28 12.7	
	comp=E,10μm,0.6s						
VA05	**Santo Domingo**	**1.92**	**182**	P	**Pn**	**23 27 30.2**	**+0.5**
MT04	**Ro Olivares**	**2.05**	**145**	*eP*	**Pn**	**23 27 32.7**	**+1.0**
MT04				*eS*	**Sn**	**23 27 59.3**	**+3.1**
MT04				IAML		23 28 04.3	
	comp=Z,2μm,0.2s						
MT04	**Ro Olivares**	**2.05**	**145**	*eP*	**Pn**	**23 27 32.5**	**+0.8**
MT15	**Las Vizcachas**	**2.06**	**155**	*eP*	**Pn**	**23 27 32.0**	**+0.4**
MT09	**Talagante**	**2.10**	**167**		**Pn**	**23 27 33.0**	**+0.8**
MT09	**Talagante**	**2.10**	**167**	*eP*	**Pn**	**23 27 32.9**	**+0.7**
MT09				IAML		23 28 02.3	
	comp=N,5μm,0.5s						
MT01	**Popeta**	**2.15**	**173**	*eP*	**Pn**	**23 27 33.0**	**+0.2**
MT01				*eS*	**Sn**	**23 27 58.9**	**+0.7**
MT01				IAML		23 28 06.7	
	comp=Z,2μm,0.6s						
MT01	**Popeta**	**2.15**	**173**	*eP*	**Pn**	**23 27 33.0**	**+0.2**
MT08	**Bocatoma Ro**	**2.15**	**143**	*eP*	**Pn**	**23 27 34.5**	**+1.5**
MT08				*eS*	**Sn**	**23 28 03.1**	**+4.6**
MT08				IAML		23 28 04.7	
	comp=Z,3μm,0.6s						
MT08	**Bocatoma Ro**	**2.15**	**143**		**Pn**	**23 27 33.5**	**+0.6**
MT08	**Bocatoma Ro**	**2.15**	**143**	*eP*	**Pn**	**23 27 34.4**	**+1.5**
MT08				IAML		23 28 04.9	
	comp=N,6μm,0.5s						
**C

H03N2 T T 23 35 19.0
baz=80,slow=74,SNR=1933
H03S3 Juan Fernandez 6.54 249 P **Pn 23 28 33.7 +0.9**
baz=95,slow=30,SNR=75
H03S3 T T 23 35 13.0
baz=84,slow=75,SNR=54
H03S1 Juan Fernandez 6.54 249 P **Pn 23 28 33.3 +0.5**
baz=95,slow=30,SNR=44
H03S1 T T 23 35 11.6
baz=84,slow=75,SNR=38
H03S2 Juan Fernandez 6.56 249 P **Pn 23 28 33.8 +0.8**
baz=95,slow=30,SNR=81
H03S2 T T 23 35 24.3
baz=84,slow=75,SNR=49
PB14 IPOC Station P 7.15 8 Pn 23 28 42.5 +0.8
GO06 Curarrehue 7.84 180 Pn 23 28 49.2 -1.7
LR03 Panguipulli 7.91 184 Pn 23 28 51.6 -0.2
LR04 Corral 8.28 190 Pn **Pn 23 28 55.9 -0.8**
SALTA 8.78 33 P Pn 23 29 09.4 +5.3
comp=Z,14nm,0.9s
PLCA Paso Flores 9.02 175 P **Pn 23 29 06.7 -0.4**
comp=Z,1.3nm,0.3s,baz=347,slow=11,SNR=12
PLCA LR LR 23 33 15.0
comp=Z,76nm,19.2s,baz=352,slow=42
PLCA Paso Flores 9.02 175 Pn **Pn 23 29 07.2 +0.2**
PLCA Paso Flores 9.02 175 *eP* Pn 23 28 54.7 -12
PB06 IPOC Station P 9.16 12 Pn **Pn 23 29 09.5 +0.5**
ANCO Parque Anchore 11.68 106 *eP* **Pn 23 29 39.3 -4.0**
PSAL Palomas, Salto 11.93 91 *eP* **Pn 23 29 43.9 -2.8**
GO01 Chusmiza 12.20 11 Pn 23 29 52.1 +1.2
ITQB Itaqui 13.01 85 *eP* **Pn 23 29 58.7 -2.8**
PB16 IPOC Station P 13.46 8 Pn 23 30 09.1 +0.8
CPUP Villa Florida 13.55 70 P **Pn 23 30 05.9 -3.0**
comp=Z,8.1nm,0.8s,baz=239,slow=12,SNR=28
CPUP Villa Florida 13.55 70 Pn 23 30 05.5 -3.5
CPUP Villa Florida 13.55 70 *eP* **Pn 23 30 05.0 -3.9**
SJPY San Joaquin 15.15 68 *eP* **Pn 23 30 28.4 -1.8**
CPSB Cacapava Do Su 15.58 90 Pn **Pn 23 30 31.6 -4.1**
CPSB Cacapava Do Su 15.58 90 *eP* **Pn 23 30 31.4 -4.2**
LPAZ La Paz 15.68 12 P **Pn 23 30 37.2 -0.5**
comp=Z,4.9nm,0.6s,baz=195,slow=6.0,SNR=5.0
LPAZ La Paz 15.68 12 Pn 23 30 37.8 +0.1
LPAZ La Paz 15.68 12 P **Pn 23 30 38.7 +1.0**
comp=Z,20nm,1.2s
LPAZ La Paz 15.68 12 *eP* **Pn 23 30 33.8 -3.9**
COIM Forte Coimbra 17.07 50 *eP* **Pn 23 30 54.0 -0.4**
BDQN Bodoquena, MS 17.38 53 *eP* **Pn 23 30 56.1 -2.3**
ITAB Concordia 17.48 80 Pn **Pn 23 30 58.7 -0.9**
BBSD Serra de San D 17.55 37 *eP* **Pn 23 30 58.4 -2.1**
CNLB Canela 17.99 88 *eP* **Pn 23 31 02.8 -3.1**
AQDB Aquidauana 18.09 56 P **P 23 31 05.6 -1.3**
AQDB Aquidauana 18.09 56 P **P 23 31 04.9 -2.0**
comp=Z,18nm,0.8s
AQDB Aquidauana 18.09 56 *eP* **P 23 31 05.1 -1.8**
SIV San Ignacio 18.34 34 P **P 23 31 08.3 -1.4**
comp=Z,16nm,0.7s,baz=204,slow=8.8,SNR=77
PTGB Pitanga 18.52 73 *eP* **P 23 31 10.7 -1.1**
PTLB Pontes e Lacer 19.77 38 *eP* **P 23 31 24.4 -0.9**
PTLB Pontes e Lacer 19.77 38 *eP* **P 23 31 24.2 -1.1**
LDASE Londrina, Braz 19.90 70 *eP* **P 23 31 25.0 -1.8**
PP1B Ponte de Pedra 20.63 51 *eP* **P 23 31 33.3 -1.4**
PCMB Pacaembu 20.71 66 *eP* **P 23 31 33.5 -2.0**
SALV Santo Antonio 21.37 46 *eP* **P 23 31 40.7 -1.9**
VILB Vilhena 21.40 32 P **P 23 31 41.6 -1.4**
VILB IAmb IAmb 23 32 05.2
comp=Z,31nm,0.7s
VILB Vilhena 21.40 32 *eP* **P 23 31 41.4 -1.6**
SPB Sao Paulo 22.81 75 P **P 23 31 56.7 -1.3**
SPB IAmb IAmb 23 31 57.9
comp=Z,16nm,0.7s
SPB Sao Paulo 22.81 75 P **P 23 31 57.1 -0.9**
comp=Z,24nm,0.8s
SPB Sao Paulo 22.81 75 *eP* **P 23 31 54.7 -3.3**
BB19B Bebedouro 23.15 68 *eP* **P 23 31 59.7 -1.7**
VAO Valinhos 23.46 74 P 23 32 02.0 -2.5
VAO IAmb IAmb 23 32 05.0
comp=Z,18nm,0.9s
VAO Valinhos 23.46 74 *eP* **P 23 32 02.0 -2.5**
ARAG Araguaiana, MT 24.04 53 *eP* **P 23 32 08.2 -1.6**
PDRB Porto dos Gac 24.24 38 *eP* **P 23 32 10.3 -1.3**
IPMB Ipameri, GO 25.14 63 *eP* **P 23 32 17.6 -2.3**
CANS Sao Roque de M 25.25 69 *eP* **P 23 32 19.3 -1.6**
CLDB Colider 25.35 39 *eP* **P 23 32 20.7 -1.1**
PMNB Patos De Minas 26.18 66 P **P 23 32 27.6 -1.7**
comp=Z,38nm,1.0s
PMNB Patos De Minas 26.18 66 *eP* **P 23 32 27.4 -2.0**
BDFB Brasilia 26.76 59 P **P 23 32 32.5 -2.2**
comp=Z,27nm,0.7s,baz=234,slow=8.2,SNR=38
BDFB LR LR 23 44 14.2
comp=Z,241nm,19.3s,baz=234,slow=39
comp=Z,27nm,0.7s
BDFB Brasilia 26.76 59 P **P 23 32 32.9 -1.7**
SNDB Serra Nova Dou 27.11 48 *eP* **P 23 32 35.6 -2.0**
DIAM Diamantina, MG 28.48 69 *eP* **P 23 32 48.5 -1.6**
NPSB Novo Progresso 28.84 35 *eP* **P 23 32 50.8 -2.3**
BSFB Barra de Sao F 30.47 72 *eP* **P 23 33 05.1 -2.5**
SDBA SAO DESIDERIO 31.15 58 *eP* **P 23 33 10.4 -3.2**
SMTB Santa Maria do 31.83 50 P **P 23 33 17.3 -2.2**
SMTB IAmb IAmb 23 33 33.3
comp=Z,15nm,0.9s
SMTB Santa Maria do 31.83 50 *eP* **P 23 33 18.0 -1.5**
RPN Rapa Nui 33.12 268 LR LR 23 42 48.2
comp=Z,92nm,18.9s,baz=24,slow=29
BOAV Boa Vista 35.52 19 P **P 23 33 50.6 -0.9**
BOAV Boa Vista 35.52 19 *eP* **P 23 33 49.8 -1.7**
RUSC La Rusia 37.44 357 P 23 34 09.2 +0.8
RUSC IAmb IAmb 23 34 47.8
comp=Z,9.1nm,0.7s
NBPS Pedro II - PI 39.20 52 *eP* **P 23 34 21.4 -1.5**
LCBC Los crdobas, 40.62 353 P **P 23 34 35.0 +0.5**
MDP Montagnes des 40.82 30 LR LR 23 53 29.4
comp=Z,92nm,19.6s,baz=266,slow=39
RCBR Riachuelo 42.12 60 LR LR 23 51 50.4
comp=Z,43nm,18.9s,baz=27,slow=35
NBPV Pedro Velho 42.18 61 *eP* **P 23 34 46.4 -1.0**
BELA Belgrano 2 49.04 170 P **P 23 35 40.5 -0.3**
BELA IAmb IAmb 23 35 45.1
comp=Z,10nm,1.1s
VNA3 Neumayer Olymp 51.31 159 P **P 23 35 57.9 -0.1**
comp=Z,5.6nm,0.5s
VNA2 Neumayer--Watz 51.95 158 P **P 23 36 03.2 +0.4**
comp=Z,6.1nm,0.5s,baz=282,slow=7.3
SNAA Sanae 53.53 158 P **P 23 36 17.5 +2.9**
comp=Z,84nm,0.5s
SNAA Sanae 53.53 158 P **P 23 36 14.6 +0.1**
comp=Z,2.7nm,0.8s,baz=270,slow=9.5,SNR=4.6
SNAA LR LR 23 59 38.5
comp=Z,22nm,18.1s,baz=5.0,slow=37
comp=Z,2.7nm,0.8s
SNAA Sanae 53.53 158 P 23 36 17.2 +2.7
SNAA IAmb IAmb 23 36 31.1
comp=Z,7.8nm,1.0s
SNAA Sanae 53.53 158 P **P 23 36 14.8 +0.3**
comp=Z,8.4nm,0.9s
TEIG Tepich 54.09 341 P **P 23 36 20.1 +1.1**
TROLL Troll, Antarti 55.24 159 P **P 23 36 30.7 +3.6**
comp=Z,200nm,0.5s
QSPA South Pole Qui 58.50 180 P **P 23 36 50.7 +0.5**
comp=Z,6.6nm,0.8s,baz=154,slow=1.2,SNR=29
QSPA pP **pP 23 37 05.1 +0.9**
comp=Z,3.0nm,0.7s,baz=165,slow=5.2,SNR=4.6
QSPA LR LR 00 04 14.3
comp=Z,22nm,18.4s,baz=200,slow=38
comp=Z,6.6nm,0.8s
QSPA South Pole Qui 58.50 180 P **P 23 36 51.1 +0.9**
QSPA IAmb IAmb 23 36 51.7
comp=Z,6.2nm,0.8s
QSPA South Pole Qui 58.50 180 P **P 23 36 50.9 +0.7**
comp=Z,9.3nm,1.2s
833A Chaparral WMA, 65.34 333 P **P 23 37 37.5 +1.2**
EF02 Christine 65.42 334 P **P 23 37 37.6 +0.8**
Y45A Yeager Farm, C 67.41 344 P **P 23 37 50.7 +1.3**
JCT Junction City 67.43 334 P **P 23 37 50.6 +0.9**
BRDY Brady 67.86 335 IAmb IAmb 23 37 54.2
comp=Z,4.3nm,0.8s
SAND Sanderson 67.87 332 IAmb IAmb 23 37 54.9
comp=Z,9.9nm,0.9s
SWET Sewanee 67.95 347 IAmb IAmb 23 37 53.7
comp=Z,6.5nm,0.8s
WHTX Lake Whitney, 67.95 336 P **P 23 37 53.6 +0.7**
WHTX IAmb IAmb 23 37 54.9
comp=Z,8.9nm,0.9s
TXAR Lajitas Array 67.97 330 P **P 23 37 54.6 +1.4**
comp=Z,2.4nm,0.7s,baz=150,slow=8.3,SNR=20
comp=Z,2.4nm,0.7s
TXAR Lajitas Array 67.97 330 P **P 23 37 54.1 +0.9**
OXF Oxford 68.00 344 P 23 37 53.7 +0.6
OZNA Ozona 68.33 333 P 23 37 56.3 +0.9
OZNA IAmb IAmb 23 37 57.3
comp=Z,7.7nm,0.8s
V48A Smith Brothers 68.63 347 P **P 23 37 57.5 +0.4**
V48A IAmb IAmb 23 37 58.4
comp=Z,12nm,1.1s
PLPT Palo Pinto 69.00 336 P **P 23 38 00.1 +0.7**
PLPT IAmb IAmb 23 38 01.2
comp=Z,7.8nm,0.9s
Z35A Perchaven, San 69.11 337 P **P 23 38 00.7 +0.6**
WVT Waverly 69.21 346 P 23 38 00.7 +0.1
WVT Waverly 69.21 346 P **P 23 38 01.3 +0.7**
comp=Z,11nm,1.0s
TPB05 Hovey Rd 69.21 331 P **P 23 38 02.1 +1.2**
TPB05 IAmb IAmb 23 38 03.1
comp=Z,5.6nm,0.9s
ABTX Abilene, Hawle 69.30 335 IAmb IAmb 23 38 03.1
comp=Z,5.7nm,0.7s
MNHN Monahans 69.35 332 P 23 38 03.2 +1.6
MNHN IAmb IAmb 23 38 03.6
comp=Z,9.1nm,0.8s
TMB01 Midkiff 69.36 332 P **P 23 38 01.9 +0.1**
TMB01 IAmb IAmb 23 38 03.7
comp=Z,6.0nm,0.9s
TPB01 Permian Basin 69.42 331 P **P 23 38 02.3 +0.1**
TPB01 IAmb IAmb 23 38 04.5
comp=Z,7.6nm,0.7s
LCAR Lake Charles 69.91 343 IAmb IAmb 23 38 06.0
comp=Z,9.6nm,1.0s
APMT Aspermont 70.10 335 IAmb IAmb 23 38 08.1
comp=Z,6.5nm,0.8s
SN07 Snyder 07 70.17 334 P **P 23 38 06.2 -0.5**
TPB28 70.35 330 P **P 23 38 08.4 +0.5**
TPB28 IAmb IAmb 23 38 10.5
comp=Z,5.4nm,0.9s
128A Castleberry Fa 70.36 333 P **P 23 38 08.7 +0.7**
TPB11 China Draw 70.39 331 P **P 23 38 09.6 +1.5**
MNTX Cornudas Mount 70.75 330 IAmb IAmb 23 38 11.3
comp=Z,6.0nm,0.8s
PPT Papeete 71.00 261 P **P 23 38 14.2 +2.1**
comp=Z,14nm,0.5s,baz=82,slow=19,SNR=3.5
comp=Z,14nm,0.5s
MSTX Muleshoe 71.67 333 P 23 38 15.8 0.0
SMWD Samnorwood 71.74 336 P **P 23 38 16.5 +0.3**
SMWD IAmb IAmb 23 38 17.9
comp=Z,9.1nm,0.8s
CCM Cathedral Cave 71.82 344 P **P 23 38 17.4 +0.9**
CCM IAmb IAmb 23 38 17.8
comp=Z,12nm,1.1s
S39A Bolivar 71.99 342 IAmb IAmb 23 38 19.4
comp=Z,6.7nm,1.0s
121A Cookes Peak, D 72.51 328 IAmb IAmb 23 38 24.0
comp=Z,7.6nm,0.8s
P40A Paris 73.41 344 IAmb IAmb 23 38 27.7
comp=Z,13nm,1.0s
SBM South Baldy 73.47 330 P 23 38 26.6 -0.3
LENM Lemitar 73.55 330 P 23 38 27.9 +0.7
DBIC Dimbokro 74.07 72 P **P 23 38 29.3 -1.1**
comp=Z,6.0nm,0.6s,baz=224,slow=6.1,SNR=8.7
DBIC pP **PcP 23 38 45.4 0.0**
comp=Z,4.7nm,0.8s,baz=228,slow=6.1,SNR=2.6
DBIC LR LR 00 08 00.4
comp=Z,45nm,21.4s,baz=228,slow=33
comp=Z,6.0nm,0.6s
DBIC Dimbokro 74.07 72 IAmb IAmb 23 38 29.9
comp=Z,8.1nm,0.8s
SUR Sutherland 75.57 119 LR LR 00 11 55.4
comp=Z,23nm,18.0s,baz=254,slow=36
BC3 Big Chuckawall 77.09 324 P **P 23 38 48.1 +0.7**
BC3 IAmb IAmb 23 38 50.1
comp=Z,5.3nm,0.7s
ISCO Idaho Springs 77.87 334 P 23 38 51.9 +0.1
PV07 Paradox Valley 77.89 331 P **P 23 38 51.6 -0.3**
PV07 IAmb IAmb 23 38 56.2
comp=Z,14nm,1.4s
ELS Elsinore Mount 78.10 322 P **P 23 38 53.6 +0.7**
ELS IAmb IAmb 23 38 55.9
comp=Z,5.6nm,0.8s
ECSD EROS Data Cent 78.52 342 P 23 38 54.7 -0.3
ECSD IAmb IAmb 23 39 11.1
comp=Z,9.5nm,1.1s
KNB Kanab 78.53 327 P **P 23 38 55.6 +0.3**
CCUT Cedar City 79.21 327 P 23 38 59.1 -0.1
CLC China Lake 79.88 324 P **P 23 39 03.1 +0.5**
PRN Pahroc Range 79.89 326 P 23 39 03.8 +1.0
PRN IAmb IAmb 23 39 06.5
comp=Z,9.6nm,1.1s
RDMU Red Mountain 80.08 332 P **P 23 39 04.8 +1.0**
RDMU IAmb IAmb 23 39 05.8
comp=Z,6.5nm,0.8s
TPNV Topopah Spring 80.10 325 P **P 23 39 04.5 +0.5**
WCT Wildcat Mounta 80.16 325 P **P 23 39 04.9 +0.8**
WCT IAmb IAmb 23 39 24.9
comp=Z,3.6nm,0.5s
ISA Isabella, Lake 80.20 323 P **P 23 39 04.9 +0.5**
ISA IAmb IAmb 23 39 07.5
comp=Z,11nm,1.1s
BOSA Boshof 80.76 118 P **P 23 39 07.1 -0.7**
comp=Z,2.1nm,0.9s,baz=225,slow=5.7,SNR=3.3
BOSA pP **pP 23 39 22.9 +0.2**
comp=Z,2.8nm,0.6s,baz=221,slow=9.1,SNR=3.1
BOSA LR LR 00 09 05.9
comp=Z,21nm,21.3s,baz=206,slow=31
comp=Z,2.1nm,0.9s
HWUT Hardware Ranch 81.77 331 P **P 23 39 13.5 +0.7**
HWUT IAmb IAmb 23 39 14.5
comp=Z,4.2nm,0.8s
PDAR Pinedale Array 81.93 333 P **P 23 39 14.2 +0.6**
comp=Z,0.6nm,0.6s,baz=160,slow=4.7,SNR=5.7
comp=Z,0.6nm,0.6s
NVAR Mina Array Bea 82.27 325 P **P 23 39 16.8 +1.3**
comp=Z,3.2nm,0.8s,baz=152,slow=6.4,SNR=14
NVAR pP **pP 23 39 31.9 +1.8**
comp=Z,1.1nm,0.7s,baz=133,slow=2.6,SNR=3.9
comp=Z,3.2nm,0.8s
LBTB Lobatse 82.88 115 LR LR 00 11 23.3
comp=Z,58nm,20.4s,baz=216,slow=32
TORD Torodi Ar. Bea 83.05 70 P **P 23 39 19.0 -0.8**
comp=Z,1.8nm,0.5s,baz=348,slow=5.1,SNR=9.7
comp=Z,1.8nm,0.5s
YHH Holmes Hill 84.14 333 P P 23 39 26.2 +1.1
ULM Lac du Bonnet 84.42 345 P **P 23 39 25.6 -0.3**
comp=Z,5.0nm,1.0s,baz=162,slow=6.4,SNR=3.3
comp=Z,5.0nm,1.0s
ULM Lac du Bonnet 84.42 345 IAmb IAmb 23 39 27.9
comp=Z,7.8nm,1.1s
J08A Circle Bar Ran 86.19 328 P 23 39 36.5 +1.4
PLID Pearl Lake 86.47 330 P 23 39 37.4 +0.7
PLID IAmb IAmb 23 39 38.4
comp=Z,4.0nm,0.9s
MATP Matopo 87.58 112 LR LR 00 14 37.0
comp=Z,123nm,18.4s,baz=256,slow=33
ASAR Alice Springs 119.77 207 PKP **PKPdf 23 45 42.9 -1.5**
comp=Z,0.5nm,0.7s,baz=131,slow=2.0,SNR=5.3
WRA Warramunga Arr 122.94 209 PKP **PKPdf 23 45 49.0 -1.6**
comp=Z,1.1nm,0.5s,baz=168,slow=1.6,SNR=12
WRA pPKP **pPKPdf 23 46 05.6 -0.4**
comp=Z,0.6nm,0.5s,baz=156,slow=1.7,SNR=3.5
H11S2 WAKE ISLAND Hyl 26.19 271 T T 02 04 59.4
baz=117,slow=75,SNR=165
H11S1 WAKE ISLAND Hyl 26.20 271 T T 02 05 00.6
baz=117,slow=75,SNR=134
H11S3 WAKE ISLAND Hyl 26.21 271 T T 02 05 00.9
baz=117,slow=75,SNR=178
H11N3 WAKE ISLAND Hyl 26.55 272 T T 02 05 23.8
baz=116,slow=75,SNR=82
H11N1 WAKE ISLAND Hyl 26.56 272 T T 02 05 25.1
baz=116,slow=75,SNR=22
H11N2 WAKE ISLAND Hyl 26.56 272 T T 02 05 25.2
baz=116,slow=75,SNR=150
BVAR Borovoye Array 145.32 41 PKPbc **PKPab 23 46 31.3 +0.2**
comp=Z,3.2nm,0.6s,baz=311,slow=3.6,SNR=20
BVAR pPKPbc **pPKPdf 23 46 47.6 +1.2**
comp=Z,3.6nm,0.7s,baz=307,slow=2.1,SNR=7.8
KURBB Kurchatov Arra 150.91 41 PKPbc **PKPbc 23 46 45.8 -0.1**
comp=Z,1.1nm,0.6s,baz=303,slow=3.1,SNR=15
KURBB pPKPbc **pPKPbc 23 47 01.6 +0.2**
comp=Z,2.8nm,0.8s,baz=304,slow=2.8,SNR=10
KURK Kurchatov 150.92 41 PKPbc 23 46 45.8 -0.1
ZALV Zalesovo Beam 152.08 30 PKPbc **PKPbc 23 46 48.4 -0.2**
comp=Z,2.3nm,0.5s,baz=305,slow=2.7,SNR=9.8
ZALV pPKPbc **pPKPbc 23 47 04.8 +1.0**
comp=Z,6.0nm,0.6s,baz=314,slow=2.9,SNR=11
MKAR Makanchi Array 154.92 46 PKP **PKPdf 23 46 46.4 +0.2**
comp=Z,0.1nm,0.4s,baz=272,slow=3.8,SNR=1.6
MKAR PKPbc **PKPbc 23 46 54.6 -0.4**
comp=Z,0.2nm,0.5s,baz=350,slow=2.6,SNR=4.1
MKAR pPKPbc **sPKPdf 23 47 09.5 +2.3**
comp=Z,1.0nm,0.7s,baz=276,slow=3.6,SNR=5.9
HHC Hu-ho-hao-te 170.56 345 *eP* **PKPdf 23 47 03.5 +1.8**
NJ2 Nanjing 171.15 275 *eP* **PKPdf 23 47 04.3 +2.1**
NJ2 pmax pmax
comp=Z,9.0nm,0.7s
LZH Lanzhou 174.21 40 *e*PKP **PKPdf 23 47 05.9 +2.3**
LZH sPKP sPKPdf 23 47 17.3 -7.3

*JMA **13** 23:38:59.7±0.1, 23°.2N±0°.2×121°.6E±0°.5, h7km±2km,*
TAIWAN REGION
*TAP **13** 23:39:01.8, 23°.24N×121°.39E, h22km, ML3.9, C*
ISC 13 23:39:01.2±0.9, 23°.22N±0°.02×121°.49E±0°.02, h24km±4km,
n158, σ0°.98/247, 5C-13D, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
CHKH	**Chenggong**	**0.09**	**254**	⇑*iP*		**Pb**	**23 39 05.7**	**0.0**
CHKH				*i* S		**Sb**	**23 39 08.7**	**-0.1**
ECBN	**Changbin**	**0.10**	**339**	⇑*iP*		**Pb**	**23 39 06.2**	**+0.4**
ECBN				*i* S		**Sb**	**23 39 09.7**	**+0.7**
CHKT	**Chengkung**	**0.17**	**225**	⇑*iP*		**Pb**	**23 39 06.7**	**+0.2**
CHKT				*i* S		**Sb**	**23 39 10.3**	**+0.4**
FULB	**Fuli**	**0.18**	**264**	⇑*iP*		**Pb**	**23 39 06.2**	**-0.5**
FULB				*i* S		**Sb**	**23 39 09.8**	**-0.6**
EYUL	**Yuli**	**0.20**	**309**	⇓*iP*		**Pb**	**23 39 06.9**	**0.0**
EYUL				*i* S		**Sb**	**23 39 10.9**	**+0.2**
TWF1	**Yuli**	**0.22**	**307**	⇓*iP*		**Pb**	**23 39 06.8**	**-0.4**
TWF1				*i* S		**Sb**	**23 39 10.5**	**-0.7**
YULB	**Yu-li**	**0.25**	**314**	S		**Sb**	**23 39 06.7**	**-5.1**
YULB	**Yu-li**	**0.25**	**314**	P		**Pn**	**23 39 11.0**	**+1.5**
YULB	**Yu-li**	**0.25**	**314**	P		**Pb**	**23 39 06.4**	**-1.1**
YULB	**Yu-li**	**0.25**	**314**	⇓*iP*		**Pb**	**23 39 07.0**	**-0.6**
YULB				*i* S		**Pn**	**23 39 10.9**	**+1.5**
EHD	**Haiduan**	**0.27**	**256**	⇓*iP*		**Pb**	**23 39 07.2**	**-0.6**
EHD				S		**Sb**	**23 39 11.3**	**-1.0**
ECS	**Chishang**	**0.28**	**244**	P		**Pb**	**23 39 08.1**	**+0.2**
ECS				S		**Sb**	**23 39 13.5**	**+1.0**
HGSD	**Ruisui**	**0.28**	**347**	*i* P		**Pb**	**23 39 07.8**	**-0.1**
HGSD				S		**Sn**	**23 39 16.0**	**+0.7**
EDH	**Donghe**	**0.30**	**215**	P		**Pb**	**23 39 08.4**	**+0.2**
EDH				S		**Sb**	**23 39 13.8**	**+0.8**
EHYH	**Wanrong**	**0.31**	**334**	⇓*iP*		**Pb**	**23 39 07.9**	**-0.5**
EHYH				S		**Sb**	**23 39 12.7**	**-0.4**
EHY	**Hungye**	**0.33**	**332**	*eP*		**Pb**	**23 39 08.0**	**-0.7**
ELDTW	**Lidau**	**0.44**	**266**	⇓*iP*		**Pb**	**23 39 09.1**	**-1.4**
ELDTW				S		**Sb**	**23 39 14.2**	**-2.6**
LONT	**Longtian**	**0.46**	**227**	⇑*iP*		**Pb**	**23 39 10.2**	**-0.5**
LONT				S		**Sb**	**23 39 16.7**	**-0.4**
TEGC	**Jichi Village**	**0.49**	**5**	*eP*		**Pn**	**23 39 12.1**	**-0.6**
TEGC				S		**Sn**	**23 39 20.3**	**-0.2**
LDUT	**Ludao**	**0.54**	**182**	*eP*		**Pb**	**23 39 12.3**	**+0.1**
LDUT				*eS*		**Sn**	**23 39 20.8**	**-0.9**
TWGBT	**Beinan**	**0.55**	**224**	P		**Pb**	**23 39 12.4**	**+0.1**
TWGBT	**Beinan**	**0.55**	**224**	P		**Pb**	**23 39 11.8**	**-0.5**
TWGBT	**Beinan**	**0.55**	**224**	S		**Sb**	**23 39 18.5**	**-1.3**
TWGBT	**Beinan**	**0.55**	**224**	*eP*		**Pb**	**23 39 11.4**	**-0.8**
TWGBT				S		**Sb**	**23 39 18.9**	**-0.9**
TWG	**Pinlang**	**0.55**	**225**	P		**Pb**	**23 39 11.2**	**-1.1**
TWG				S		**Sb**	**23 39 18.9**	**-1.0**
YUS	**Yu-Shan**	**0.56**	**299**	⇓*iP*		**Pb**	**23 39 11.8**	**-1.0**
YUS				S		**Sb**	**23 39 18.9**	**-1.8**
SHUL	**Shoufeng**	**0.57**	**7**	*eP*		**Pn**	**23 39 13.4**	**-0.5**
SHUL				*eS*		**Sn**	**23 39 22.5**	**0.0**
ESL	**Shilin**	**0.60**	**355**	*eP*		**Pb**	**23 39 12.4**	**-0.7**
ESL				*eS*		**Sb**	**23 39 20.5**	**-0.7**
VWDT	**VWDT**	**0.62**	**329**	⇓*iP*		**Pb**	**23 39 12.8**	**-0.8**
VWDT				*eS*		**Sb**	**23 39 20.4**	**-1.5**
TEYL	**Yanliau Villag**	**0.66**	**9**	*eP*		**Pn**	**23 39 15.4**	**+0.4**
TEYL				*i* S		**Sn**	**23 39 26.0**	**+1.4**
STYH	**Taoyuan**	**0.66**	**266**	*i* P		**Pb**	**23 39 13.1**	**-1.0**
STYH				S		**Sb**	**23 39 21.1**	**-1.8**
ALS	**Alishan**	**0.69**	**295**	⇓*iP*		**Pb**	**23 39 14.2**	**-0.8**
ALS				*eS*		**Sb**	**23 39 22.0**	**-2.2**
ETM	**Tongmen**	**0.74**	**0**	P		**Pb**	**23 39 14.6**	**-1.0**
SSLB	**Suanglung**	**0.75**	**319**	P		**Pb**	**23 39 14.9**	**-0.8**
SSLB	**Suanglung**	**0.75**	**319**	P		**Pb**	**23 39 14.5**	**-1.2**
SSLB	**Suanglung**	**0.75**	**319**	⇓*iP*		**Pb**	**23 39 14.5**	**-1.2**
SSLB				*eS*		**Sb**	**23 39 24.2**	**-1.4**
WHYT	**Xinyi Township**	**0.76**	**309**	*i* P		**Pb**	**23 39 15.1**	**-0.6**
WHYT				*i* S		**Sb**	**23 39 24.9**	**-0.8**
HWA	**Hwalien**	**0.76**	**8**	*eP*		**Pb**	**23 39 15.8**	**-0.1**
HWA				*eS*		**Sn**	**23 39 29.3**	**+2.0**
OWD	**Renai**	**0.79**	**339**	*eP*		**Pb**	**23 39 15.2**	**-1.2**
OWD				*i* S		**Sb**	**23 39 24.7**	**-2.1**
ECL	**Taimali**	**0.79**	**219**	*eP*		**Pb**	**23 39 14.6**	**-1.7**
ECL				*eS*		**Sb**	**23 39 25.1**	**-1.5**
TPUB	**Ta-pu**	**0.80**	**276**	P		**Pb**	**23 39 16.3**	**-0.2**
TPUB	**Ta-pu**	**0.80**	**276**	S		**Sb**	**23 39 27.0**	**+0.1**
TPUB	**Ta-pu**	**0.80**	**276**	P		**Pb**	**23 39 15.6**	**-2.0**
TPUB	**Ta-pu**	**0.80**	**276**	⇓*iP*		**Pb**	**23 39 15.9**	**-0.5**
TPUB				*eS*		**Sb**	**23 39 26.5**	**-0.3**
LXIB	**Xiulin Townshi**	**0.80**	**355**	*eP*		**Pb**	**23 39 15.4**	**-1.3**
LXIB				*eS*		**Sb**	**23 39 25.9**	**-1.3**
WTP	**Ta-pu**	**0.81**	**272**	⇓*iP*		**Pb**	**23 39 16.2**	**-0.4**
WTP				S		**Sb**	**23 39 26.7**	**-0.5**
SLGT	**Liugui**	**0.81**	**254**	*eP*		**Pb**	**23 39 16.3**	**-0.4**
SLGT				*eS*		**Sb**	**23 39 26.8**	**-0.4**
CHN4	**Tsaushan**	**0.84**	**279**	*eP*		**Pb**	**23 39 17.1**	**-0.1**
CHN4				*eS*		**Sb**	**23 39 27.5**	**-0.4**
CHN5	**Tsauling**	**0.84**	**297**	P		**Pb**	**23 39 17.0**	**-0.2**
CHN5				*eS*		**Sb**	**23 39 27.8**	**-0.3**
WUSB	**Renai**	**0.84**	**336**	⇓*eP*		**Pb**	**23 39 16.2**	**-1.1**
WUSB				*eS*		**Sb**	**23 39 27.1**	**-1.2**
WCKO	**Fanlu**	**0.84**	**285**	P		**Pb**	**23 39 17.2**	**-0.1**
WCKO				*eS*		**Sb**	**23 39 28.2**	**0.0**
SGST	**Jiashian**	**0.85**	**261**	*eP*		**Pb**	**23 39 16.2**	**-1.1**
SGST				*eS*		**Sb**	**23 39 27.8**	**-0.5**
SMLT	**Sun Moon Lake**	**0.86**	**321**	*i* P		**Pb**	**23 39 16.7**	**-0.9**
SMLT				*eS*		**Sb**	**23 39 27.9**	**-0.8**
TWD	**Chiawan**	**0.86**	**6**	*eP*		**Pb**	**23 39 16.8**	**-0.8**
TWD				*eS*		**Sn**	**23 39 31.1**	**+1.3**
CHN1	**Nanshi**	**0.89**	**268**	*i* P		**Pb**	**23 39 17.8**	**-0.2**
CHN1				S		**Sn**	**23 39 30.1**	**-0.3**
TYC	**Yuchr**	**0.90**	**320**	*eP*		**Pb**	**23 39 17.4**	**-0.8**
TYC				*i* S		**Sn**	**23 39 30.5**	**-0.1**
SSD	**Sandimen**	**0.92**	**240**	*eP*		**Pb**	**23 39 17.6**	**-0.9**
WJS	**Zhushan**	**0.92**	**311**	*i* P		**Pn**	**23 39 18.8**	**+0.1**
WJS				*i* S		**Sn**	**23 39 31.2**	**0.0**
TWK	**Hsinying**	**0.93**	**273**	*eP*		**Pb**	**23 39 18.2**	**-0.4**
TWK				S		**Sb**	**23 39 30.1**	**-0.4**
TSMG	**Majia**	**0.93**	**237**	*eP*		**Pb**	**23 39 18.0**	**-0.7**
ETL	**Fush Village**	**0.94**	**7**	*eP*		**Pb**	**23 39 18.1**	**-0.9**
WHF	**Hehuan Shan**	**0.95**	**347**	*eP*		**Pb**	**23 39 18.1**	**-1.2**
WHF				*eS*		**Sb**	**23 39 30.7**	**-0.9**
NACB	**Ninganchiao**	**0.96**	**6**	P		**Pb**	**23 39 18.1**	**-1.1**
NACB	**Ninganchiao**	**0.96**	**6**	S		**Sb**	**23 39 30.2**	**-1.2**
NACB	**Ninganchiao**	**0.96**	**6**	P		**Pb**	**23 39 17.9**	**-1.3**
NACB	**Ninganchiao**	**0.96**	**6**	S		**Sb**	**23 39 29.9**	**-1.5**
NACB	**Ninganchiao**	**0.96**	**6**	*eP*		**Pb**	**23 39 17.9**	**-1.3**
NACB				S		**Sb**	**23 39 29.8**	**-1.6**
WGK	**Gukeng**	**0.97**	**299**	*eP*		**Pb**	**23 39 19.8**	**+0.4**
WGK				*eS*		**Sn**	**23 39 32.9**	**+0.5**

TWT	**Tachien**	**1.07**	**344**	*eP*	**Pn**	**23 39 20.6**	**-0.3**
TWT				*eS*	**Sb**	**23 39 33.5**	**-1.4**
TDCB	**Techi**	**1.08**	**344**	*eP*	**Pn**	**23 39 20.4**	**-0.5**
TDCB				*eS*	**Sb**	**23 39 33.2**	**-1.7**
WTK	**Tuku**	**1.12**	**295**	*eP*	**Pb**	**23 39 21.9**	**0.0**
WTK				S	**Sn**	**23 39 36.4**	**+0.5**
SSPT	**Xinbi**	**1.12**	**230**	*eP*	**Pb**	**23 39 22.1**	**+0.2**
ICHU	**Yijhu**	**1.12**	**278**	*eP*	**Pb**	**23 39 22.3**	**+0.3**
ICHU				*eS*	**Sb**	**23 39 38.0**	**+1.8**
EAHA	**Aohua**	**1.13**	**12**	*eP*	**Pb**	**23 39 21.9**	**-0.2**
SCZT	**Fangliau**	**1.16**	**224**	*eP*	**Pn**	**23 39 21.9**	**-0.1**
WHP	**Taichung City**	**1.17**	**335**	*eP*	**Pb**	**23 39 23.3**	**+0.4**
LAY	**Lan-yu**	**1.17**	**177**	*eP*	**Pn**	**23 39 20.9**	**-1.3**
EOS4	**EOS4**	**1.18**	**40**	P	**Pn**	**23 39 22.1**	**+0.2**
EOS4				S	**Sb**	**23 39 37.1**	**-0.2**
SLIU	**Shizi**	**1.18**	**213**	*eP*	**Pn**	**23 39 20.6**	**-1.7**
CHN8	**Yiju**	**1.19**	**276**	*eP*	**Pb**	**23 39 23.1**	**+0.1**
CHN8				S	**Sb**	**23 39 39.1**	**+1.2**
TCU	**Taichung**	**1.19**	**321**	*eP*	**Pb**	**23 39 23.4**	**+0.3**
TCU				*eS*	**Sb**	**23 39 39.2**	**+1.1**
SCLT	**Jiali**	**1.20**	**268**	*eP*	**Pb**	**23 39 23.7**	**+0.5**
SCLT				S	**Sb**	**23 39 40.1**	**+1.9**
WSL	**Shuilin Townsh**	**1.20**	**285**	*eP*	**Pb**	**23 39 23.2**	**0.0**
WSL				S	**Sb**	**23 39 39.4**	**+0.9**
NNSB	**Datong**	**1.21**	**355**	*eP*	**Pn**	**23 39 22.0**	**-0.8**
NNSB				*eS*	**Sn**	**23 39 37.1**	**-1.3**
WCHH	**Zhanghua**	**1.21**	**315**	P	**Pb**	**23 39 23.4**	**-0.1**
WCHH				S	**Sb**	**23 39 39.4**	**+0.6**
LYUB	**Lan-yu**	**1.21**	**176**	*eP*	**Pn**	**23 39 20.3**	**-2.3**
NNS	**Nan Shan**	**1.22**	**355**	*eP*	**Pn**	**23 39 22.7**	**-0.2**
NNS				S	**Sn**	**23 39 37.4**	**-1.4**
ENA	**Nanau**	**1.23**	**11**	*eP*	**Pn**	**23 39 22.0**	**-0.9**
RLNB	**Erlin**	**1.24**	**303**	*eP*	**Pb**	**23 39 22.1**	**-0.9**
RLNB				*eS*	**Sb**	**23 39 40.0**	**+0.6**
WSF	**Szhu**	**1.24**	**290**	*eP*	**Pn**	**23 39 23.0**	**0.0**
WSF				*eS*	**Sb**	**23 39 39.5**	**0.0**
EWUT	**Wuta**	**1.25**	**12**	*eP*	**Pn**	**23 39 22.5**	**-0.7**
WSSB	**Gushan**	**1.27**	**243**	*eP*	**Pb**	**23 39 25.6**	**+1.1**
WSSB				*eS*	**Sb**	**23 39 43.7**	**+3.3**
TSCK	**Chigu Township**	**1.29**	**267**	*eP*	**Pb**	**23 39 24.7**	**-0.2**
TSCK				*eS*	**Sb**	**23 39 41.8**	**+0.6**
TWQ1	**Liyutan**	**1.30**	**330**	*eP*	**Pb**	**23 39 25.5**	**+0.4**
TWQ1				S	**Sb**	**23 39 42.9**	**+1.5**
EOS3	**EOS3**	**1.31**	**35**	*eP*	**Pn**	**23 39 24.2**	**+0.4**
EOS3				*eS*	**Sb**	**23 39 41.6**	**+0.4**
LATG	**Datong**	**1.31**	**1**	*eP*	**Pn**	**23 39 23.5**	**-0.6**
SMST	**Manzhou Townsh**	**1.34**	**207**	*eP*	**Pn**	**23 39 24.3**	**-0.1**
WDJ	**Dajia District**	**1.37**	**325**	*eP*	**Pb**	**23 39 26.7**	**+0.5**
WDJ				S	**Sb**	**23 39 44.9**	**+1.6**
EOS2	**EOS2**	**1.38**	**29**	*eP*	**Pn**	**23 39 25.6**	**-0.6**
EOS2				*eS*	**Sb**	**23 39 44.9**	**+1.6**
NDT	**Datong Townshi**	**1.38**	**1**	*eP*	**Pb**	**23 39 26.5**	**+0.1**
ESAO	**Su ao**	**1.39**	**13**	*eP*	**Pb**	**23 39 25.7**	**-0.8**
TWKBT	**Hengchun**	**1.42**	**206**	*eP*	**Pn**	**23 39 25.6**	**+0.1**
ENTT	**Nioudou**	**1.42**	**3**	*eP*	**Pn**	**23 39 25.7**	**+0.2**
TWC	**Suao**	**1.42**	**13**	*eP*	**Pb**	**23 39 27.7**	**+0.6**
NDS	**Dongshan**	**1.43**	**8**	*eP*	**Pn**	**23 39 25.7**	**+0.1**
NFF	**Wufeng Townshi**	**1.45**	**346**	*eP*	**Pb**	**23 39 27.6**	**0.0**
NFF				S	**Sb**	**23 39 45.8**	**+0.2**
YHNB	**Yeheng**	**1.45**	**356**	P	**Pb**	**23 39 27.0**	**-0.6**
YHNB	**Yeheng**	**1.45**	**356**	S	**Sn**	**23 39 44.5**	**+0.2**
YHNB	**Yeheng**	**1.45**	**356**	P	**Pn**	**23 39 26.4**	**+0.4**
YHNB	**Yeheng**	**1.45**	**356**	*eP*	**Pn**	**23 39 26.6**	**+0.6**
NSK	**Sanguang**	**1.46**	**355**	*eP*	**Pn**	**23 39 26.7**	**+0.6**
NSK				*eS*	**Sn**	**23 39 44.1**	**-0.4**
NMLH	**Miaoli**	**1.46**	**334**	*eP*	**Pb**	**23 39 27.5**	**-0.3**
NSTT	**Nanjuang**	**1.48**	**342**	*eP*	**Pb**	**23 39 28.0**	**0.0**
NSTT				*eS*	**Sb**	**23 39 46.4**	**+0.0**
LIOB	**Emei**	**1.49**	**343**	*eP*	**Pb**	**23 39 28.1**	**-0.2**
LIOB				*eS*	**Sb**	**23 39 46.9**	**+0.2**
TWE	**Neicheng**	**1.51**	**6**	*eP*	**Pb**	**23 39 28.2**	**-0.3**
FUSB	**Fushanzhiwuyua**	**1.54**	**3**	*eP*	**Pn**	**23 39 27.9**	**+0.7**
FUSB				*eS*	**Sn**	**23 39 47.0**	**+0.6**
NWLT	**Wulai**	**1.55**	**0**	*eP*	**Pn**	**23 39 27.2**	**-0.2**
KSHI	**Guanxi Townshi**	**1.58**	**350**	*eP*	**Pb**	**23 39 30.2**	**+0.4**
KSHI				*eS*	**Sb**	**23 39 50.1**	**+0.8**
WDGT	**Dungji**	**1.69**	**272**	*eP*	**Pn**	**23 39 28.9**	**-0.3**
TWA	**Mucha**	**1.76**	**3**	*eP*	**Pb**	**23 39 33.4**	**+0.5**
TIPB	**Shuangxi**	**1.77**	**10**	*eP*	**Pb**	**23 39 32.1**	**-1.0**
PHUB	**P'eng-hu**	**1.79**	**280**	*eP*	**Pn**	**23 39 30.6**	**+0.1**
PHUB				*eS*	**Sn**	**23 39 51.3**	**-1.2**
PNG	**Penghu**	**1.81**	**281**	*eP*	**Pn**	**23 39 31.0**	**+0.1**
PNG				*eS*	**Sn**	**23 39 52.3**	**-0.8**
NWF	**Wu-fen Shan**	**1.86**	**8**	*eP*	**Pn**	**23 39 32.1**	**+0.4**
VCHM	**Qimei**	**1.90**	**270**	*eP*	**Pb**	**23 39 31.9**	**+0.0**
SXI1	**Grass Mountain**	**1.90**	**11**	*eP*	**Pb**	**23 39 35.0**	**-0.3**
YM01	**YM01**	**1.92**	**2**	*eP*	**Pb**	**23 39 34.9**	**-0.7**
ZUZH	**Zhuzihu**	**1.94**	**1**	*eP*	**Pb**	**23 39 33.0**	**+0.3**
ZUZH				*eS*	**Sn**	**23 39 56.1**	**-0.2**
YM08	**YM08**	**1.96**	**3**	*eP*	**Pn**	**23 39 33.4**	**+0.3**
HATJ	**Hateruma jima**	**2.28**	**68**	S	**Sn**	**23 40 05.7**	**+1.0**
IRIF	**Iriomote-Funau**	**2.33**	**61**	P	**Pn**	**23 39 39.6**	**+1.5**
IRIF				S	**Sn**	**23 40 07.5**	**+1.6**
VWUC	**VWUC**	**2.57**	**314**	*eP*	**Pn**	**23 39 40.9**	**-0.4**
JIJ	**Ishigaki jima**	**2.68**	**64**	P	**Pn**	**23 39 43.7**	**+0.8**
JIJ				*eS*	**Sn**	**23 40 15.6**	**+1.0**
PTMZ	**Houxiangcun**	**2.83**	**310**	*eP*	**Pn**	**23 39 45.0**	**+0.1**
JISG	**Ishigakijimahi**	**2.92**	**62**	P	**Pn**	**23 39 46.6**	**+0.5**
JISG				S	**Sn**	**23 40 20.1**	**-0.3**
KNM	**Kinmen**	**3.04**	**294**	*eP*	**Pn**	**23 39 49.1**	**+1.2**
KNMB	**Chin-men Tao**	**3.10**	**294**	*eP*	**Pn**	**23 39 48.2**	**-0.5**
AXDP	**Jialang**	**3.63**	**298**	*eP*	**Pn**	**23 39 54.9**	**-1.0**
MHZQ	**Yeshan**	**3.64**	**323**	*eP*	**Pn**	**23 39 56.6**	**+0.2**
LYJJ	**Jianjiangzhen**	**3.67**	**335**	*eP*	**Pn**	**23 39 57.5**	**+1.0**
DSXP	**Dongshan**	**3.77**	**278**	P	**Pn**	**23 39 58.4**	**+0.6**
XPSS	**Dashiqiu**	**3.88**	**343**	*eP*	**Pn**	**23 40 00.7**	**+1.3**
SXFK	**Yanhouchang**	**4.72**	**313**	*eP*	**Pn**	**23 40 10.6**	**-0.3**

*NOU **13** 23:48:47.4, 40°.68S×172°.32E, h0km, MLv3.7/10, Off W. Coast of S. Island, N.Z.*
*WEL **13** 23:48:48.3±0.5, 41°.S±2°×17°.2E±°, h5km, M3.6/13, ML3.5/14, MLv3.6/13, Error ellipse: s-maj=4.4km s-min=2.7km az=113.1*
ISC 13 23:48:46.9±1.3, 40°.67S±0°.03×172°.34E±0°.04, h5km±9km, n99, σ1s27/121, Off west coast of South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QRZ	**Quartz Range**	**0.22**	**138**	P	**Pg**	**23 48 51.1**	**0.0**
QRZ	**Quartz Range**	**0.22**	**138**	P	**Pg**	**23 48 51.3**	**+0.2**
QRZ				S	**Sg**	**23 48 53.7**	**-0.3**
QRZ				AML	AML		
QRZ				AML	AML		
KHLK	**Kaihoka Lakes**	**0.23**	**63**	P	**Pg**	**23 48 51.9**	**+0.4**
KHLK				S	**Sg**	**23 48 54.8**	**+0.3**
TSFS	**Takaka Scotts**	**0.41**	**117**	P	**Pg**	**23 48 54.7**	**-0.1**
TSFS				S	**Sg**	**23 48 59.7**	**-0.5**
TKNZ	**Takaka Hill**	**0.60**	**128**	P	**Pg**	**23 48 58.2**	**-0.2**
TKNZ				AML	AML		
TKNZ				AML	AML		
KASC	**Karamea School**	**0.61**	**196**	P	**Pb**	**23 49 00.3**	**+0.3**
KASC				S	**Sb**	**23 49 08.9**	**0.0**
MOTS	**Motueka DOC wo**	**0.69**	**132**	P	**Pg**	**23 49 00.1**	**0.0**
MATW	**Matariki Wadsw**	**0.81**	**160**	P	**Pg**	**23 49 02.9**	**+0.5**
MATW				S	**Sg**	**23 49 13.5**	**+0.5**
NNZ	**Nelson**	**0.96**	**125**	P	**Pg**	**23 49 04.5**	**-0.8**
NNZ				S	**Sg**	**23 49 16.6**	**-1.3**
NNZ				AML	AML		
NNZ				AML	AML		
KLDS	**Kikiwa Line De**	**1.09**	**158**	P	**Pg**	**23 49 07.6**	**-0.1**
KLDS				S	**Sb**	**23 49 22.5**	**-0.2**
MCASZ	**Murchison**	**1.13**	**180**	P	**Pb**	**23 49 09.5**	**+0.5**
MCASZ				S	**Sb**	**23 49 24.7**	**+0.7**
DSZ	**Denniston Nort**	**1.15**	**200**	P	**Pg**	**23 49 09.3**	**+0.3**
DSZ				S	**Sb**	**23 49 25.0**	**+0.4**
DSZ				AML	AML		
DSZ				AML	AML		
THZ	**Tophouse**	**1.18**	**159**	P	**Pg**	**23 49 08.8**	**-0.7**
THZ				AML	AML		
THZ				AML	AML		
DUWZ	**D'Urville Isla**	**1.21**	**97**	P	**Pg**	**23 49 09.0**	**-1.1**
DUWZ				AML	AML		
DUWZ				AML	AML		
WVFS	**Wairau Valley**	**1.22**	**142**	P	**Pg**	**23 49 09.7**	**-0.7**
BSWZ	**Blackbirch Sta**	**1.56**	**133**	P	**Pn**	**23 49 15.9**	**+0.5**
BSWZ				S	**Sg**	**23 49 37.4**	**+0.2**
BSWZ				AML	AML		
BSWZ				AML	AML		

TCW	**Tory Channel**	**1.57**	**111**	P	**Pn**	**23 49 15.0**	**-0.4**
TCW				S	**Sn**	**23 49 36.5**	**+0.5**
TCW				AML	AML		
TCW				AML	AML		
NMEZ	**Namu Road**	**1.72**	**44**	P	**Pn**	**23 49 18.7**	**+1.2**
NMEZ				AML	AML		
CMWZ	**Cape Campbell**	**1.78**	**128**	P	**Pb**	**23 49 20.5**	**+0.5**
CMWZ				AML	AML		
CMWZ				AML	AML		
NBEZ	**Newall Road No**	**1.82**	**41**	P	**Pn**	**23 49 19.7**	**+0.8**
NBEZ				AML	AML		
NBEZ				AML	AML		
KHEZ	**Kahui Hut**	**1.88**	**44**	P	**Pn**	**23 49 20.6**	**+0.8**
KHEZ	**Kahui Hut**	**1.88**	**44**	P	**Pn**	**23 49 20.2**	**+0.4**
KHEZ				AML	AML		
KHEZ				AML	AML		
SNZO	**South Karori**	**1.90**	**111**	P	**Pn**	**23 49 21.1**	**+1.1**
NEZ	**North Egmont**	**1.94**	**45**	P	**Pn**	**23 49 22.6**	**+2.0**
NEZ				AML	AML		
NEZ				AML	AML		
PKE	**Pukeiti**	**1.94**	**41**	P	**Pn**	**23 49 21.2**	**+0.7**
PKE				AML	AML		
PKE				AML	AML		
WEL	**Wellington**	**1.94**	**109**	P	**Pn**	**23 49 20.7**	**+0.2**
WEL				S	**Sn**	**23 49 45.1**	**-0.2**
WEL				AML	AML		
WEL				AML	AML		
KIW	**Kapiti Island**	**1.96**	**97**	P	**Pn**	**23 49 22.0**	**+1.1**
KIW				S	**Sn**	**23 49 46.5**	**+0.6**
KIW				AML	AML		
KIW				AML	AML		
KHZ	**Kahutara**	**1.97**	**153**	P	**Pb**	**23 49 23.0**	**-0.2**
KHZ	**Kahutara**	**1.97**	**153**	P	**Pn**	**23 49 22.6**	**+1.7**
KHZ				S	**Sb**	**23 49 48.7**	**+0.6**
LREZ	**Lake Rotokare**	**1.99**	**53**	P	**Pn**	**23 49 23.3**	**+2.1**
LREZ				AML	AML		
LREZ				AML	AML		
BHW	**Baring Head**	**2.06**	**112**	P	**Pn**	**23 49 23.3**	**+1.2**
BHW				AML	AML		
BHW				AML	AML		
CAW	**Cannon Point**	**2.12**	**103**	P	**Pn**	**23 49 24.7**	**+1.8**
CAW				S	**Sb**	**23 49 52.1**	**-0.2**
LTZ	**Lake Taylor**	**2.12**	**181**	P	**Pn**	**23 49 23.7**	**+0.7**
LTZ				S	**Sn**	**23 49 49.7**	**0.0**
OGWZ	**Otaki Gorge**	**2.16**	**95**	P	**Pn**	**23 49 24.8**	**+1.3**
OGWZ				S	**Sb**	**23 49 52.7**	**-0.8**
INZ	**Inchbonnie**	**2.16**	**198**	P	**Pn**	**23 49 24.2**	**+0.6**
WAZ	**Wanganui**	**2.22**	**67**	P	**Pn**	**23 49 25.6**	**+1.2**
MSWZ	**Moikau Station**	**2.33**	**110**	P	**Pn**	**23 49 27.8**	**+1.9**
GVZ	**Greta Valley S**	**2.36**	**167**	P	**Pn**	**23 49 27.1**	**+0.8**
PLWZ	**Talliser**	**2.38**	**113**	P	**Pn**	**23 49 27.3**	**+0.7**
VRZ	**Vera Road**	**2.42**	**51**	P	**Pn**	**23 49 28.3**	**+1.3**
PAWZ	**Paruwai Farm**	**2.44**	**108**	P	**Pn**	**23 49 28.6**	**+1.1**
MTW	**Mount Morrison**	**2.45**	**103**	P	**Pn**	**23 49 30.0**	**+2.5**
MRZ	**Mangatainoka R**	**2.46**	**91**	P	**Pb**	**23 49 31.2**	**-0.5**
MRZ				S	**Sb**	**23 50 02.4**	**+0.1**
AMCZ	**Amberley**	**2.52**	**175**	P	**Pn**	**23 49 26.7**	**-1.8**
TRWZ	**Traveller**	**2.64**	**107**	P	**Pb**	**23 49 35.6**	**+1.0**
OXZ	**Oxford**	**2.67**	**185**	P	**Pn**	**23 49 30.9**	**+0.3**
OXZ				S	**Sn**	**23 50 01.7**	**-1.6**
WVZ	**Waitaha Valley**	**2.69**	**206**	P	**Pn**	**23 49 31.2**	**+0.4**
PKVZ	**Pokaka**	**2.69**	**60**	P	**Pn**	**23 49 30.6**	**-0.2**
PKVZ				S	**Sn**	**23 50 01.4**	**-2.4**
TMWZ	**Te Maipa**	**2.73**	**100**	P	**Pb**	**23 49 35.1**	**-1.1**
TRVZ	**Turoa**	**2.82**	**62**	P	**Pn**	**23 49 33.5**	**+0.7**
WNVZ	**Wahianoa**	**2.84**	**63**	P	**Pn**	**23 49 34.2**	**+1.1**
MAVZ	**Matarangi**	**2.84**	**62**	P	**Pn**	**23 49 35.9**	**+2.7**
FWVZ	**Far West T-bar**	**2.84**	**61**	P	**Pn**	**23 49 34.1**	**+0.9**
FWVZ				S	**Sb**	**23 50 13.0**	**-0.5**
WHVZ	**Whangaehu Hut**	**2.85**	**62**	P	**Pn**	**23 49 35.4**	**+2.1**
COVZ	**Chateau Observ**	**2.87**	**60**	P	**Pn**	**23 49 35.8**	**+2.5**
TWVZ	**Taurewa**	**2.87**	**57**	P	**Pn**	**23 49 33.5**	**+0.1**
TWVZ				S	**Sb**	**23 50 15.1**	**+1.0**
HIZ	**Hauiti**	**2.90**	**43**	P	**Pn**	**23 49 33.8**	**+0.1**
HIZ	**Hauiti**	**2.90**	**43**	P	**Pn**	**23 49 33.4**	**-0.3**
MOVZ	**Moawhango**	**2.91**	**66**	P	**Pn**	**23 49 35.3**	**+1.4**
NGZ	**Ngauruhoe**	**2.92**	**60**	P	**Pn**	**23 49 34.8**	**+0.7**
MHCZ	**Mount Hutt**	**2.92**	**191**	P	**Pn**	**23 49 34.5**	**+0.4**
WTVZ	**West Tongariro**	**2.94**	**59**	P	**Pn**	**23 49 36.6**	**+2.2**
DVHZ	**Dannevirke**	**2.94**	**84**	P	**Pb**	**23 49 38.9**	**-0.9**
OTVZ	**Oturere**	**2.97**	**61**	P	**Pb**	**23 49 40.1**	**-0.2**
BFZ	**Birch Farm**	**2.97**	**92**	P	**Pg**	**23 49 42.8**	**-1.1**
NTVZ	**North Tongarir**	**3.01**	**60**	P	**Pn**	**23 49 37.7**	**+2.3**
ETVZ	**East Tongariro**	**3.01**	**61**	P	**Pn**	**23 49 36.1**	**+0.7**
TMVZ	**Te Maari**	**3.02**	**60**	P	**Pn**	**23 49 36.0**	**+2.0**
PNHZ	**Pukenui**	**3.05**	**77**	P	**Pn**	**23 49 38.8**	**+3.0**
MQZ	**McQueen's Vall**	**3.05**	**176**	P	**Pn**	**23 49 34.9**	**-0.8**
BHHZ	**Black Hill Sta**	**3.09**	**69**	P	**Pb**	**23 49 42.1**	**-0.3**
OKCZ	**Okains Bay**	**3.10**	**170**	P	**Pn**	**23 49 36.9**	**+0.4**
RPZ	**Rata Peaks**	**3.19**	**197**	P	**Pn**	**23 49 39.2**	**+1.4**
RPZ	**Rata Peaks**	**3.19**	**197**	P	**Pn**	**23 49 38.5**	**+0.8**
AKCZ	**Akaroa Harbour**	**3.23**	**173**	P	**Pn**	**23 49 38.5**	**+0.1**
KRHZ	**Kereru**	**3.25**	**73**	P	**Pb**	**23 49 42.9**	**-2.3**
ARCZ	**Arundel**	**3.39**	**194**	P	**Pn**	**23 49 40.6**	**+0.1**
FOZ	**Fox Glacier**	**3.42**	**212**	P	**Pn**	**23 49 40.6**	**-0.3**
BKZ	**Black Stump Fm**	**3.53**	**66**	P	**Pn**	**23 49 44.4**	**+2.0**
BKZ	**Black Stump Fm**	**3.53**	**66**	P	**Pn**	**23 49 45.4**	**+3.0**
KAHZ	**Kahuranaki**	**3.58**	**77**	P	**Pn**	**23 49 43.9**	**+0.8**
NMHZ	**Naumai**	**3.78**	**67**	P	**Pn**	**23 49 50.0**	**+4.2**
TOZ	**Tahuroa Road**	**3.82**	**41**	P	**Pn**	**23 49 47.3**	**+0.9**
TMZ	**Timaru**	**3.84**	**194**	P	**Pn**	**23 49 46.5**	**-0.2**
AWAZ	**Awhitu Peninsu**	**4.02**	**27**	P	**Pn**	**23 49 49.6**	**+0.5**
LBZ	**Lake Benmore**	**4.04**	**202**	P	**Pn**	**23 49 50.4**	**+0.9**
WTAZ	**Waiatarua**	**4.12**	**26**	P	**Pn**	**23 49 51.0**	**+0.6**
MKAZ	**Moumakai**	**4.18**	**33**	P	**Pn**	**23 49 53.4**	**+2.1**
JCZ	**Jackson Bay**	**4.30**	**217**	P	**Pn**	**23 49 54.5**	**+1.4**
MBAZ	**Motutapu North**	**4.38**	**28**	P	**Pn**	**23 49 55.4**	**+1.4**
URZ	**Urewera**	**4.41**	**58**	P	**Pn**	**23 49 55.8**	**+1.4**
WIAZ	**Waiheke Island**	**4.44**	**30**	P	**Pn**	**23 49 55.4**	**+0.5**
ABAZ	**Army Bay**	**4.50**	**26**	P	**Pn**	**23 49 56.3**	**+0.6**
ODZ	**Otahua Downs**	**4.55**	**195**	P	**Pn**	**23 49 56.0**	**-0.4**
ODZ	**Otahua Downs**	**4.55**	**195**	P	**Pn**	**23 49 55.8**	**-0.6**
MWZ	**Matawai**	**4.64**	**62**	P	**Pn**	**23 50 01.5**	**+3.8**
WCZ	**Waipu Caves**	**4.97**	**19**	P	**Pn**	**23 50 02.5**	**+0.3**
OUZ	**Omahuta**	**5.53**	**11**	P	**Pn**	**23 50 11.6**	**+1.8**
OUZ	**Omahuta**	**5.53**	**11**	P	**Pn**	**23 50 10.8**	**+1.0**

*NEIC **13** 23:58:08.6±0.7, 10°.3N±0°.1×138°.7E±0°.1, h10km±1km, mb4.4/10, Error ellipse: s-maj=22.3km s-min=16.7km az=122.0*
*IDC **13** 23:58:16.3±5.6, 10°.18N×138°.52E, h72km±52km, mb3.7/14, mbtmp4.0/15, ML4.5/1, MS3.3/11, Error ellipse: s-maj=28.5km s-min=16.1km az=72.0*
ISC 13 23:58:11.9±0.6, 10°.27N±0°.07×138°.60E±0°.10, h35km, n46, σ1s07/33, mb4.1/18, MS3.1/8, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**6.97**	**61**	LR	LR	00 02 24.9	
	comp=Z,164nm,18.8s,baz=228,slow=35						
GUMO	**Guam**	**6.97**	**61**	Pn	**Pn**	**23 59 49.2**	**-2.3**
JAY	**Jayapura**	**12.88**	**171**	P	**Pn**	**00 01 15.3**	**+2.8**
	2.5nm,0.3s,baz=14,slow=8.3,SNR=4.7 13nm,0.5s						
JAY				AML	AML		
SIJI	**Sorong**	**13.26**	**214**	P	**Pn**	**00 01 17.4**	**-0.4**
	2.5nm,0.3s,baz=40,slow=11,SNR=5.1						
SIJI				LR	LR	00 06 06.6	
	comp=Z,134nm,18.3s,baz=255,slow=36						
FAKI	**Fak Fak**	**14.55**	**206**	Pn	**Pn**	**00 01 34.7**	**-0.7**
LUWI	**Luwuk**	**19.35**	**235**	P	**P**	**00 02 33.9**	**-0.6**
KRVT	**Keravat (AS076**	**19.71**	**137**	LR	LR	00 09 03.4	
	comp=Z,103nm,18.5s,baz=186,slow=33						
TOLI2	**Tolitoli**	**19.91**	**244**	P	**P**	**00 02 40.7**	**0.0**
TOLI2				IAmb	IAmb	00 02 42.5	
	comp=Z,42nm,1.0s						
PMG	**Port Moresby**	**21.33**	**156**	P	**P**	**00 02 57.5**	**+1.5**
	comp=Z,3.9nm,0.3s,baz=321,slow=12,SNR=2.1 comp=Z,3.9nm,0.3s						
PMG	**Port Moresby**	**21.33**	**156**	P	**P**	**00 02 55.0**	**-1.0**
PMG				IAmb	IAmb	00 02 58.5	
	comp=Z,9.4nm,0.8s						
BATI	**Baumata**	**25.19**	**217**	P	**P**	**00 03 34.0**	**-0.4**
	comp=Z,21nm,0.4s,baz=149,slow=3.9,SNR=1.8						
MJAR	**Matsushiro Arr**	**26.15**	**359**	LR	LR	00 13 13.2	
	comp=Z,46nm,18.1s,baz=100,slow=34						
H11S3	**WAKE ISLAND Hy**	**28.38**	**70**	T	T	00 34 15.9	
	baz=257,slow=75,SNR=27						
H11S1	**WAKE ISLAND Hy**	**28.39**	**70**	T	T	00 34 18.1	
	baz=257,slow=75,SNR=22						
H11S2	**WAKE ISLAND Hy**	**28.39**	**70**	T	T	00 34 18.2	
	baz=257,slow=75,SNR=35						
KSRS	**Korea Array**	**28.72**	**342**	LR	LR	00 15 27.5	
	comp=Z,40nm,18.3s,baz=160,slow=36						
H11N1	**WAKE ISLAND Hy**	**28.86**	**68**	T	T	00 34 54.3	
	baz=254,slow=75,SNR=96						
H11N2	**WAKE ISLAND Hy**	**28.87**	**68**	T	T	00 34 55.2	
	baz=254,slow=75,SNR=67						
H11N3	**WAKE ISLAND Hy**	**28.87**	**68**	T	T	00 34 55.6	
	baz=254,slow=75,SNR=68						
WRA	**Warramunga Arr**	**30.32**	**188**	P	**P**	**00 04 19.6**	**-0.6**
	comp=Z,1.0nm,0.9s,baz=1.7,slow=9.4,SNR=6.0 comp=Z,1.0nm,0.9s						
WRA	**Warramunga Ar**	**30.32**	**188**	P	**P**	**00 04 18.7**	**-1.6**
FITZ	**Fitzroy Crossi**	**30.96**	**204**	P	**P**	**00 04 25.0**	**-0.9**
	comp=Z,1.9nm,0.8s,baz=32,slow=11,SNR=1.4 comp=Z,1.9nm,0.8s						
FITZ	**Fitzroy Crossi**	**30.96**	**204**	P	**P**	**00 04 25.8**	**-0.1**
ASAJ	**Asahikawa**	**33.90**	**5**	LR	LR	00 19 42.3	
	comp=Z,18nm,18.1s,baz=88,slow=38						
ASAR	**Alice Springs**	**34.04**	**188**	P	**P**	**00 04 53.5**	**+0.5**
	comp=Z,0.6nm,0.6s,baz=16,slow=12,SNR=17						
ASAR				LR	LR	00 18 42.2	
	comp=Z,46nm,18.8s,baz=286,slow=36 comp=Z,0.6nm,0.6s						
ASAR	**Alice Springs**	**34.04**	**188**	P	**P**	**00 04 50.5**	**-2.4**
CMAR	**Chiang Mai Arr**	**39.20**	**287**	P	**P**	**00 05 38.1**	**+1.1**
	comp=Z,4.0nm,0.9s,baz=94,slow=6.8,SNR=22						
CMAR				LR	LR	00 23 04.3	
	comp=Z,18nm,18.0s,baz=115,slow=38 comp=Z,4.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**39.20**	**287**	P	**P**	**00 05 37.3**	**+0.3**
STKA	**Stephens Creek**	**42.01**	**176**	P	**P**	**00 05 59.5**	**-0.4**
	comp=Z,3.7nm,0.8s,baz=346,slow=8.9,SNR=7.5						
STKA				LR	LR	00 23 50.6	
	comp=Z,46nm,18.9s,baz=235,slow=37 comp=Z,3.7nm,0.8s						
STKA	**Stephens Creek**	**42.01**	**176**	P	**P**	**00 05 59.0**	**-0.9**
SONM	**Songino Array**	**46.21**	**330**	P	**P**	**00 06 34.4**	**+0.8**
	comp=Z,0.8nm,0.9s,baz=167,slow=7.2,SNR=1.8 comp=Z,0.8nm,0.9s						
SONM	**Songino Array**	**46.21**	**330**	P	**P**	**00 06 34.0**	**+0.4**
SONM				IAmb	IAmb	00 06 40.1	
	comp=Z,1.4nm,1.1s						
TLY	**Talaya**	**50.14**	**332**	LR	LR	00 29 28.5	
	comp=Z,28nm,18.2s,baz=86,slow=37						
MKAR	**Makanchi Array**	**59.74**	**319**	P	**P**	**00 08 13.8**	**+0.5**
	comp=Z,0.4nm,0.8s,baz=102,slow=8.2,SNR=5.4 comp=Z,0.4nm,0.8s						
MKAR	**Makanchi Array**	**59.74**	**319**	P	**P**	**00 08 13.3**	**0.0**
KURK	**Kurchatov**	**63.27**	**322**	P	**P**	**00 08 37.2**	**+0.2**
KURK				IAmb	IAmb	00 08 47.7	
	comp=Z,2.0nm,0.

BJI **14** *00:41:55.0, 78°.40N×7°.00E, h10km, mb4.5/22, mB5.1/3, Ms4.5/5, Ms7 4.2/5*
NAO **14** *00:41:55.8±0.6, 78°.49N×7°.45E, h10km, ML4.4*
MOS **14** *00:41:55.9±0.9, 78°.33N×7°.00E, h10km, mb4.6/31, Error ellipse: s-maj=28.4km s-min=6.2km az=93.9*
FCIAR **14** *00:41:56.3, 78°.47N×7°.51E, h10km, station OMEGA has station magnitude of 3.70 station ADZR has station magnitude of 3.70*
IDC **14** *00:41:56.4±0.4, 78°.39N×7°.10E, h0km, mb4.0/27, mbtmp4.1/33, ML3.2/5, MS3.7/64, Error ellipse: s-maj=10.3km s-min=9.0km az=6.0*
GFZ **14** *00:41:57.2±0.2, 78°N±3°×±°, h10km, M5.0/31, mb4.6/31, confirmed*
GCMT **14** *00:41:57.9±0.3, 78°.21N±0°.04×6°.81E±0°.09, h12km, MW4.8/87, Moment Tensor Solution. s14,c16; s87,c122; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.97±.05; $M_{\theta\theta}$-0.18±.05; $M_{\phi\phi}$ 1.16±.04; $M_{r\theta}$-1.21±.20; $M_{\theta\phi}$ 0.31±.04; $M_{r\phi}$ 0.60±.17; Best double couple: $M_0$1.65400×10^{16} NP1:ϕ_s37.00000°, δ42.00000°, λ-35.00000°. NP2: ϕ_s154.00000°, δ67.00000°, λ-126.00000°. Principal axes: T 1.3150, Plg15.0000°, Azm270.0000°; N 0.6810, Plg33.0000°, Azm170.0000°; P -1.9920, Plg53.0000°, Azm20.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NEIC **14** *00:41:57.9±2.2, 78°.43N±0°.09×7°.2E±0°.3, h10km±1km, mb4.8/100 Error ellipse: s-maj=14.4km s-min=9.8km az=7.0*
KOLA **14** *00:41:58.9, 78°.72N×10°.32E, h0km, ML2.6, Error ellipse: s-maj=74.5km s-min=29.6km az=40.0, Spitsbergen,Greenland sea*
BER **14** *00:41:58.5±4.2, 78°.44N×7°.22E, h23km±24km, Mw4.9, ML4.3(NAO), Confirmed Earthquake*
ISC 14 00:41:56.8±1.0, 78°.31N±0°.02×7°.55E±0°.02, h13km±6km, n356, σ2^{6}66/331, mb4.7/112, MS3.7/62, 17C, Svalbard region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KBS	**Kingsbay**	**1.07**	**53**	Pn		**Pb**	**00 42 16.3**	**-0.8**
KBS				Sn		**Sg**	**00 42 28.5**	**-2.7**
KBS	**Kingsbay**	**1.07**	**53**	Pb		**Pb**	**00 42 16.3**	**-0.8**
KBS				Sb		**Sg**	**00 42 28.5**	**-2.7**
KBS	**Kingsbay**	**1.07**	**53**	P		**Pb**	**00 42 16.2**	**-0.9**
KBS	**Kingsbay**	**1.07**	**53**	↑*i*P		**Pb**	**00 42 16.1**	**-0.9**
KBS				*i* S		**Sg**	**00 42 28.3**	**-2.9**
BRBB	**Barentsburg B**	**1.39**	**96**	Pn		**Pn**	**00 42 21.0**	**-0.8**
BRBB				Sb		**Sn**	**00 42 37.4**	**-2.5**
BRBB	**Barentsburg B**	**1.39**	**96**	↑*i*P		**Pn**	**00 42 20.9**	**-0.8**
BRBB				*e*S		**Sn**	**00 42 37.2**	**-2.7**
BRBA	**Barentsburg A**	**1.40**	**97**	Pn		**Pn**	**00 42 21.3**	**-0.7**
BRBA				Sb		**Sn**	**00 42 37.9**	**-2.3**
BRBA	**Barentsburg A**	**1.40**	**97**	↑*i*P		**Pn**	**00 42 21.0**	**-0.9**
BRBA				*e*			00 42 33.5	
BRBA				IAML			00 42 34.2	
	comp=Z,2μm,0.5s							
BRBA				*i*			00 42 37.7	
SPA0	**Spitsbergen Ar**	**1.81**	**90**	Pn		**Pn**	**00 42 28.1**	**+0.3**
	baz=271,slow=16							
SPA0				Sn		**Sn**	**00 42 50.1**	**-0.4**
	baz=275,slow=18							
SPA0	**Spitsbergen Ar**	**1.81**	**90**	*i* P		**Pn**	**00 42 27.9**	**+0.3**
SPA0				*i* S		**Sn**	**00 42 49.3**	**-1.1**
SPA0	**Spitsbergen Ar**	**1.81**	**90**	Pn		**Pn**	**00 42 28.1**	**+0.3**
SPA0				Sn		**Sn**	**00 42 50.1**	**-0.4**
SPITS	**Spitsbergen Ar**	**1.81**	**90**	Pn		**Pn**	**00 42 28.0**	**+0.3**
	baz=266,slow=13							
SPITS				Sn		**Sn**	**00 42 51.0**	**+0.5**
	baz=252,slow=24							
SPITS				LR		LR	00 43 18.0	
	comp=Z,3μm,18.9s,baz=266,slow=43							
SPITS	**Spitsbergen Ar**	**1.81**	**90**	P		**Pn**	**00 42 28.0**	**+0.3**
SPITS							00 42 51.0	
SPB2	**Spitsbergen Ar**	**1.81**	**90**			**Pn**	**00 42 28.3**	**+0.6**
SPB2				Sn		**Sn**	**00 42 50.8**	**+0.3**
HOPEN	**Hopen**	**4.22**	**107**	Pn		**Pn**	**00 43 00.0**	**-0.6**
HOPEN				Sn		**Sn**	**00 43 46.9**	**-2.7**
HOPEN	**Hopen**	**4.22**	**107**	↑*i*P		**Pn**	**00 42 59.8**	**-0.9**
HOPEN				*i* S		**Sn**	**00 43 46.1**	**-3.5**
HOPEN	**Hopen**	**4.22**	**107**	↑*i*P		**Pn**	**00 42 59.8**	**-0.9**
HOPEN				*e*S		**Sn**	**00 43 46.4**	**-3.3**
HOPEN				IAML			00 43 48.3	
	comp=Z,491nm,0.3s							
BJO1	**Bjornoya**	**4.68**	**139**	Pn		**Pn**	**00 43 06.9**	**-0.1**
BJO1				Sn		**Sn**	**00 43 56.3**	**-4.7**
BJO1	**Bjornoya**	**4.68**	**139**	*e*P		**Pn**	**00 43 08.1**	**+1.2**
BJO1				*e*S		**Sn**	**00 43 56.6**	**-4.3**
BJO1	**Bjornoya**	**4.68**	**139**	*e*P		**Pn**	**00 43 08.6**	**+1.7**
BJO1				*e*S		**Sn**	**00 43 56.4**	**-4.6**
BJO1				IAML			00 44 01.7	
	comp=Z,56nm,0.5s							
BEAR	**Bear Island, N**	**4.68**	**139**	Pn		**Pn**	**00 43 06.9**	**-0.1**
	baz=338,slow=12							
BEAR				Sn		**Sn**	**00 43 56.7**	**-4.4**
	baz=330,slow=22							
NOR	**Nord**	**5.32**	**319**	Pn		**Pn**	**00 43 12.8**	**-3.0**
NOR				Sn		**Sn**	**00 44 09.4**	**-7.5**
NOR	**Nord**	**5.32**	**319**	↑*i*P		**Pn**	**00 43 12.3**	**-3.4**
NOR				*i* S		**Sn**	**00 44 09.6**	**-7.2**
NOR	**Nord**	**5.32**	**319**	*e*P		**Pn**	**00 43 12.5**	**-3.3**
NOR				*e*S		**Sn**	**00 44 08.9**	**-7.9**
NOR	**Nord**	**5.32**	**319**	P		**Pn**	**00 43 12.7**	**-3.1**
	comp=Z,74nm,1.0s							
NOR	**Nord**	**5.32**	**319**	*i* P		**Pn**	**00 43 12.5**	**-3.3**
NOR				*i* S		**Sn**	**00 44 09.3**	**-7.5**
NOR				IAML			00 44 12.2	
	comp=Z,34nm,0.6s							
DAG	**Danmarks Havn**	**5.84**	**268**	*e*P		**Pn**	**00 43 19.4**	**-3.5**
DAG				*e*S		Sn	00 44 18.9	-11
DAG	**Danmarks Havn**	**5.84**	**268**	P		**Pn**	**00 43 19.6**	**-3.3**
	comp=Z,73nm,0.8s							
DAG	**Danmarks Havn**	**5.84**	**268**	*i* P		**Pn**	**00 43 19.0**	**-3.9**
DAG				*i* S		Sn	00 44 19.4	-10
DAG				IAML			00 44 24.3	
	comp=Z,72nm,0.4s							
OMEGA	**Omega**	**7.56**	**52**	P		**Pn**	**00 43 45.8**	**-0.7**
OMEGA				*e*S		**Sn**	**00 45 04.3**	**-7.6**
	comp=Z,89nm,0.9s							
OMEGA				AML		AML		
DBG	**Daneborg**	**7.63**	**253**	Pn		**Pn**	**00 43 44.6**	**-2.9**
DBG				Sn		Sn	00 45 04.4	-9.3
DBG	**Daneborg**	**7.63**	**253**	*e*P		**Pn**	**00 43 44.1**	**-3.4**
DBG				*e*S		Sn	00 45 02.2	-12
DBG	**Daneborg**	**7.63**	**253**	*i* P		**Pn**	**00 43 44.3**	**-3.2**
DBG				*i* S		Sn	00 45 02.4	-11
DBG				IAML			00 45 10.2	
	comp=Z,36nm,0.5s							
JNW	**Jan Mayen West**	**8.40**	**218**	*e*P		**Pn**	**00 43 56.7**	**-1.4**
JNW				*e*S		**Sn**	**00 45 24.1**	**-8.5**
JNW				IAML			00 45 29.5	
	comp=Z,42nm,0.4s							
JNE	**Jan Mayen East**	**8.43**	**218**	*e*P		**Pn**	**00 43 55.4**	**-3.0**
JMIC	**Jan Mayen**	**8.45**	**218**	Pn		**Pn**	**00 43 56.2**	**-2.5**
	comp=Z,37nm,0.3s,baz=45,slow=2.6,SNR=6.3							
JMIC				Sn		**Sn**	**00 45 27.3**	**-6.6**
	comp=Z,23nm,0.3s,baz=12,slow=19,SNR=5.6							
JMIC				LR		LR	00 46 22.8	
	comp=Z,301nm,18.6s,baz=16,slow=32							
JMIC	**Jan Mayen**	**8.45**	**218**	Pn		**Pn**	**00 43 56.7**	**-2.0**
JMIC				Sn		**Sn**	**00 45 27.6**	**-6.2**
JMIC	**Jan Mayen**	**8.45**	**218**	*e*P		**Pn**	**00 43 57.4**	**-1.3**
JMIC				*e*S		**Sn**	**00 45 26.7**	**-7.2**
JMIC				IAML			00 45 30.8	
	comp=Z,59nm,0.4s							
TRO	**Tromso**	**9.24**	**155**	*e*P		**Pn**	**00 44 09.3**	**-0.3**
TRO				*e*S		Sn	00 45 46.5	-6.7
KEV	**Kevo**	**10.04**	**138**	P		**Pn**	**00 44 21.2**	**+0.8**
KEV				S		Sn	00 46 04.9	-7.8
KEV	**Kevo**	**10.04**	**138**	P		**Pn**	**00 44 22.7**	**+2.2**
KEV	**Kevo**	**10.04**	**138**			**Pn**	**00 44 22.6**	**+2.2**
KEV	**Kevo**	**10.04**	**138**	P		**Pn**	**00 44 21.2**	**+0.8**
KEV				S		Sn	00 46 04.9	-7.8
KEV	**Kevo**	**10.04**	**138**	P		**Pn**	**00 44 22.6**	**+2.1**
	comp=Z,54nm,0.8s							
VADS	**Vadso**	**10.04**	**133**	P		**Pn**	**00 44 20.4**	**-0.1**
VADS				S		Sn	00 46 05.6	-7.1
VADS	**Vadso**	**10.04**	**133**	*e*P		**Pn**	**00 44 20.1**	**-0.4**
VADS				*e*S		Sn	00 46 06.2	-6.5
VADS				IAML			00 46 10.5	
	comp=Z,17nm,0.4s							
VADS	**Vadso**	**10.04**	**133**	P		**Pn**	**00 44 19.8**	**-0.6**
VADS				S		Sn	00 46 04.9	-7.9
ARA0	**ARCESS Array S**	**10.05**	**142**	Pn		**Pn**	**00 44 19.7**	**-0.9**
	baz=349,slow=11							
ARA0				Sn		Sn	00 46 05.6	-7.4
	baz=333,slow=22							
ARA0	**ARCESS Array S**	**10.05**	**142**	Pn		**Pn**	**00 44 19.7**	**-0.9**
ARA0				Sn		Sn	00 46 05.6	-7.4
ARCES	**ARCESS Array B**	**10.05**	**142**	Pn		**Pn**	**00 44 20.7**	**+0.1**
	comp=Z,0.6nm,0.3s,baz=348,slow=12,SNR=21							
ARCES				Sn		Sn	00 46 06.8	-6.2
	comp=Z,0.7nm,0.3s,baz=347,slow=21,SNR=2.7							
ARCES				LR		LR	00 48 18.0	
	comp=Z,260nm,19.8s,baz=295,slow=38							
	comp=Z,4.0nm,0.5s							
ARCES				AML		AML		
ARCES	**ARCESS Array B**	**10.05**	**142**	P		**Pn**	**00 44 22.1**	**+1.5**
ARCES	**ARCESS Array B**	**10.05**	**142**			**Pn**	**00 44 22.1**	**+1.5**
ARCES	**ARCESS Array B**	**10.05**	**142**	P		**Pn**	**00 44 21.1**	**+0.5**
ARCES				S		**Sn**	**00 46 07.0**	**-6.0**
KTK1	**Kautokeino**	**10.27**	**147**	P		**Pn**	**00 44 24.3**	**+0.6**
KTK1	**Kautokeino**	**10.27**	**147**	*e*P		**Pn**	**00 44 24.1**	**+0.4**
LOF	**Lofoten**	**10.37**	**167**	Pn		**Pn**	**00 44 25.6**	**+0.6**
LOF	**Lofoten**	**10.37**	**167**	*e*P		**Pn**	**00 44 24.6**	**-0.4**
HEF	**Hetta**	**10.90**	**147**	P		**Pn**	**00 44 32.8**	**+0.6**
HEF	**Hetta**	**10.90**	**147**	*e*P		**Pn**	**00 44 32.1**	**-0.1**
FAUS	**Fauske**	**11.21**	**164**	Pn		**Pn**	**00 44 40.5**	**+4.1**
FAUS	**Fauske**	**11.21**	**164**	P		**Pn**	**00 44 40.2**	**+3.8**
SALU	**Saltoluokta**	**11.42**	**158**	*e*P		**Pn**	**00 44 41.3**	**+2.0**
VAGH	**Vaagaholmen**	**11.76**	**169**	Pn		**Pn**	**00 44 45.5**	**+1.6**
VAGH	**Vaagaholmen**	**11.76**	**169**	*e*P		**Pn**	**00 44 45.0**	**+1.1**
TERR	**Teriberka**	**11.77**	**126**	P		Pn	00 44 40.5	-3.6
TERR				S		Sn	00 46 43.8	-11
NEEM	**North Greenlan**	**11.90**	**295**	*i* P		Pn	00 44 39.7	-6.4
NEEM				*i* S		Sn	00 46 43.7	-15
NEEM				IAML			00 46 50.8	
	comp=Z,36nm,0.6s							
KONS	**Konsvik**	**11.99**	**169**	*e*P		**Pn**	**00 44 48.8**	**+1.7**
RAUS	**Rausandaksla**	**12.09**	**167**	*e*P		**Pn**	**00 44 50.2**	**+1.8**
STOK	**Stokkvaagen**	**12.15**	**169**	Pn		**Pn**	**00 44 50.7**	**+1.5**
STOK	**Stokkvaagen**	**12.15**	**169**	*e*P		**Pn**	**00 44 50.1**	**+0.9**
SGF	**Sodankyl**	**12.15**	**143**	P		**Pn**	**00 44 51.2**	**+1.9**
	comp=Z,32nm,0.7s							
LEIR	**Leirfjorden**	**12.37**	**169**	Pn		**Pn**	**00 44 54.1**	**+1.8**
LEIR	**Leirfjorden**	**12.37**	**169**	*e*P		**Pn**	**00 44 52.9**	**+0.6**
SUMG	**Summit**	**12.53**	**267**	P		**Pn**	**00 44 51.6**	**-3.2**
SUMG	**Summit**	**12.53**	**267**			**Pn**	**00 44 51.6**	**-3.2**
SUMG	**Summit**	**12.53**	**267**	*i* P		**Pn**	**00 44 51.6**	**-3.2**
SUMG				*i* S		Sn	00 47 00.5	-14
SUMG				IAML			00 47 06.9	
	comp=Z,16nm,0.4s							
LVZ	**Lovozero**	**12.87**	**129**	*ce*P		**Pn**	**00 44 59.8**	**+0.6**
LVZ				pmax		pmax		
	comp=Z,88nm,2.5s							
LVZ	**Lovozero**	**12.87**	**129**			**Pn**	**00 44 58.0**	**-1.1**
LVZ	**Lovozero**	**12.87**	**129**	S		Sn	00 47 12.5	-10
LVZ	**Lovozero**	**12.87**	**129**	P		**Pn**	**00 45 00.0**	**+0.9**
	comp=Z,52nm,1.4s							
APA0	**Apatity Array**	**12.88**	**132**	P		**Pn**	**00 44 57.7**	**-1.6**
APA0				S		Sn	00 47 12.2	-10
RNF	**Rovaniemi**	**12.89**	**145**	P		**Pn**	**00 45 00.2**	**+0.8**
	comp=Z,19nm,1.7s							
APA	**Apatity**	**12.98**	**132**	S		Sn	00 47 17.7	-6.9
KVDA	**Kovda**	**13.72**	**134**	P		**Pn**	**00 45 09.3**	**-1.3**
KVDA				S		Sn	00 47 34.1	-8.4
NSS	**Namsos**	**13.92**	**172**	*e*		P	00 45 17.3	-4.2
MSF	**Maaselka**	**13.93**	**141**	P		**Pn**	**00 45 16.1**	**+2.5**
	comp=Z,27nm,1.0s							
OUL	**Oulu**	**14.35**	**147**	P		**Pn**	**00 45 20.2**	**+0.9**
	comp=Z,22nm,1.1s							
TULEG	**Thule**	**15.63**	**302**	P		**Pn**	**00 45 30.1**	**-6.2**
	comp=Z,71nm,0.8s							
UPNV	**Upernavik**	**15.95**	**284**	P		Pn	00 45 33.6	-6.9
	comp=Z,125nm,0.4s							
BORG	**Borgarnes**	**16.07**	**228**	Pn		**Pn**	**00 45 40.9**	**-1.1**
	comp=Z,0.2nm,0.3s,baz=64,slow=23,SNR=1.5							
BORG				LR		LR	00 50 16.6	
	comp=Z,197nm,20.1s,baz=16,slow=31							
	comp=Z,15nm,0.9s							
BORG				AML		AML		
ADZR	**Andozero**	**17.12**	**130**	*e*P		**P**	**00 45 56.6**	**-0.4**
	comp=Z,26nm,0.7s							
ADZR				*e*S		Sn	00 48 54.3	-11
	comp=Z,21nm,0.6s							
ADZR				AML		AML		
ADZR	**Andozero**	**17.12**	**130**	*e*P		**P**	**00 45 56.6**	**-0.4**
ADZR				pmax		pmax		
	comp=Z,22nm,1.0s							
NC303	**NORSAR Array S**	**17.22**	**174**			**P**	**00 46 01.3**	**+3.1**
NC405	**NORSAR Array S**	**17.34**	**173**			**P**	**00 46 02.1**	**+2.6**
NB201	**NORSAR Array S**	**17.39**	**174**			**P**	**00 46 01.8**	**+1.7**
NOA	**NORSAR Array B**	**17.40**	**174**	P		**P**	**00 46 01.7**	**+1.5**
	baz=305,slow=19,SNR=1.5							
NOA				LR		LR	00 51 28.4	
	comp=Z,97nm,20.1s,baz=345,slow=33							
	comp=Z,1.3nm,1.1s							
LSH	**Leshukonskoye**	**17.50**	**119**	*e*P		Pn	00 45 49.8	-10
FIA0	**FINESS Array S**	**17.93**	**150**	P		**P**	**00 46 06.1**	**+0.2**
	baz=356,slow=14							
FIA0	**FINESS Array S**	**17.93**	**150**	P		**P**	**00 46 06.1**	**+0.2**
FIA1	**FINESS Array S**	**17.93**	**150**	Pn		**P**	**00 46 06.9**	**+1.0**
FIA1				IAmb		IAmb	00 46 16.8	
	comp=Z,64nm,1.3s							
FINES	**FINESS Array B**	**17.93**	**150**	P		**P**	**00 46 06.1**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=360,slow=14,SNR=12							
FINES				LR		LR	00 52 31.0	
	comp=Z,180nm,22.0s,baz=346,slow=35							
	comp=Z,5.7nm,0.9s							
FINES				AML		AML		
FINES	**FINESS Array B**	**17.93**	**150**	P		**P**	**00 46 06.8**	**+0.8**
FINES	**FINESS Array B**	**17.93**	**150**	Pn		**P**	**00 46 06.8**	**+0.8**
HFS	**Hagfors**	**18.38**	**170**	P		**Pn**	**00 46 12.5**	**+1.6**
	comp=Z,0.3nm,0.3s,baz=14,slow=13,SNR=7.4							
HFS				LR		LR	00 52 22.8	
	comp=Z,126nm,20.8s,baz=348,slow=34							
	comp=Z,3.3nm,0.8s							
HFS				AML		AML		
KONO	**Kongsberg**	**18.77**	**177**	*i* P		**Pn**	**00 46 16.0**	**+0.3**
KONO				pmax		pmax		
	comp=Z,34nm,1.3s							
SFJD	**Kangerlussuaq**	**19.53**	**267**	P		**Pn**	**00 46 23.1**	**-1.7**
	comp=Z,24nm,0.8s,baz=52,slow=11,SNR=8.4							
SFJD				S		Sn	00 49 45.9	-17
	comp=Z,5.4nm,0.5s,baz=71,slow=18,SNR=2.0							
SFJD				LR		LR	00 54 29.9	
	comp=Z,472nm,18.8s,baz=32,slow=39							
SFJD	**Kangerlussuaq**	**19.53**	**267**			**Pn**	**00 46 22.6**	**-2.2**
SFJD				IAmb		IAmb	00 46 25.2	
	comp=Z,29nm,0.8s							
SFJD	**Kangerlussuaq**	**19.53**	**267**	P		**P**	**00 46 20.7**	**-2.8**
	comp=Z,44nm,1.6s							
POIN	**Pond Inlet**	**20.13**	**300**			**P**	**00 46 28.8**	**-1.2**
POIN				IAmb		IAmb	00 46 30.6	
	comp=Z,24nm,0.7s							
KLMR	**Klimovskoe**	**20.23**	**131**	*e*P		Pn	00 46 32.3	-0.8
	comp=Z,7.8nm,0.7s							
KLMR				S		S	00 50 05.9	-12
KLMR	**Klimovskoe**	**20.23**	**131**	*e*P		**P**	**00 46 31.4**	**+0.3**
KLMR				pmax		pmax		
	comp=Z,27nm,1.5s							
VSU	**Vasula**	**20.92**	**151**	*ce*P		**P**	**00 46 40.9**	**+2.2**
VSU				pmax		pmax		
	comp=Z,28nm,1.3s							
VSU	**Vasula**	**20.92**	**151**	P		**P**	**00 46 40.9**	**+2.2**
	comp=Z,44nm,1.4s							
RES	**Resolute Bay**	**21.23**	**314**	P		**P**	**00 46 42.7**	**+0.8**
	comp=Z,3.6nm,0.6s,baz=22,slow=11,SNR=13							
RES				S		S	00 50 24.5	-13
	comp=Z,1.7nm,0.6s,baz=331,slow=22,SNR=1.7							
RES				LR		LR	00 54 49.8	
	comp=Z,232nm,18.7s,baz=24,slow=37							
	comp=Z,3.6nm,0.6s							
RES	**Resolute Bay**	**21.23**	**314**			**P**	**00 46 43.0**	**+1.1**
NRIK	**Noril'sk**	**21.90**	**70**	P		**P**	**00 46 51.5**	**+2.4**
	comp=Z,8.8nm,0.7s,baz=360,slow=6.5,SNR=12							
NRIK				S		**S**	**00 50 44.6**	**-5.7**
	comp=Z,3.6nm,0.6s,baz=325,slow=20,SNR=6.8							
NRIK				LR		LR	00 56 36.1	
	comp=Z,162nm,19.2s,baz=322,slow=40							
	comp=Z,8.8nm,0.7s							
NRIK	**Noril'sk**	**21.90**	**70**	*i* P		**P**	**00 46 51.7**	**+2.6**
NRIK				pmax		pmax		
	comp=Z,14nm,0.9s							
NRIK	**Noril'sk**	**21.90**	**70**			**P**	**00 46 50.5**	**+1.4**
EKA	**Eskdalemuir Ar**	**23.38**	**196**	P		**P**	**00 47 08.4**	**+3.7**
	comp=Z,2.4nm,0.8s,baz=1.4,slow=10.0,SNR=3.6							
	comp=Z,2.4nm,0.8s							
PABE	**Paberze**	**23.60**	**156**	P		**P**	**00 47 10.3**	**+3.5**
PABE				IAmb		IAmb	00 47 17.8	
	comp=Z,36nm,1.1s							
PABE	**Paberze**	**23.60**	**156**	P		**P**	**00 47 11.2**	**+4.4**
	comp=Z,39nm,1.0s							
ILON	**Igloolik, Nuna**	**23.62**	**298**	P		**P**	**00 47 06.5**	**-0.4**
ILON				IAmb		IAmb	00 47 17.4	
	comp=Z,23nm,1.0s							
NRS	**Narsarsuaq**	**23.69**	**254**	P		**P**	**00 47 07.2**	**-0.5**
NRS				pmax		pmax		
	comp=Z,26nm,0.9s							
NRS	**Narsarsuaq**	**23.69**	**254**	P		**P**	**00 47 07.2**	**-0.5**
NRS				IAmb		IAmb	00 47 09.4	
	comp=Z,26nm,0.9s							
KIRV	**Kirov**	**24.01**	**121**	LR		LR	00 57 25.9	
	comp=Z,234nm,18.6s,baz=345,slow=38							
KIRV	**Kirov**	**24.01**	**121**	*ce*P		**P**	**00 47 12.7**	**+2.0**
NACGM	**Naroch**	**24.44**	**153**	*e*P		**P**	**00 47 16.4**	**+1.7**
MOS	**Moscow**	**24.88**	**138**	*e*P		P	00 47 37.1	+18
MNK	**Minsk**	**24.94**	**151**	*i* P		**P**	**00 47 22.5**	**+3.3**
MNK				*i*			00 47 56.0	
MNK				*i* PPP		PPP	00 48 04.0	
MNK				*i*			00 50 56.6	
MNK				*i* S		**S**	**00 51 48.0**	**+5.9**
MNK				*i* SS		**SnSn**	**00 52 38.5**	**+8.6**
MNK				*i* SSS		SSS	00 52 52.2	
MNK				pmax		pmax		
	comp=N,15nm,1.0s							
MNK				pmax		pmax		
	comp=Z,34nm,1.0s							
MNK				pmax		pmax		
	comp=E,21nm,0.9s							
MNK				MLR		MLR		
	comp=E,32nm,10.0s							
MNK				MLR		MLR		
	comp=Z,61nm,10.0s							
MNK				MLR		MLR		
	comp=N,44nm,9.0s							
MNK	**Minsk**	**24.94**	**151**	*i* P		**P**	**00 47 22.6**	**+3.3**
	comp=E,21nm,0.9s							
MNK				*i* P		**P**	**00 47 22.6**	**+3.3**
	comp=N,15nm,1.0s							
MNK				*i* P		**P**	**00 47 22.6**	**+3.3**
	comp=Z,34nm,1.0s,baz=350							
MNK				*i* PP		**PnPn**	**00 47 56.0**	**+4.0**
MNK				*i* PPP		PPP	00 48 04.1	
MNK				*i* PcP		**PcP**	**00 50 56.7**	**+2.6**
MNK				*i* S		**S**	**00 51 48.0**	**+5.9**
MNK				*i* SS		**SnSn**	**00 52 38.5**	**+8.6**
MNK				*i* SSS		SSS	00 52 52.3	
MNK				*i* LQ		LQ	00 55 14.4	
MNK				*i* LR		LR	00 57 37.5	
MNK				*i* LRM		MLR	00 58 26.9	
	comp=E,32nm,10.5s							
MNK				*i* LRM		MLR	00 58 55.4	
	comp=Z,61nm,10.4s							
MNK				*i* LRM		MLR	00 58 56.1	
	comp=N,44nm,9.3s							
OBN	**Obninsk**	**25.35**	**139**	*e*P		**P**	**00 47 26.1**	**+3.2**
OBN				*e*			00 47 59.5	
OBN				pmax		pmax		
	comp=Z,8.0nm,0.9s							
OBN				MLR		MLR		
	comp=Z,242nm,22.0s							
FRB	**Frobisher Bay**	**26.02**	**280**	LR		LR	00 57 56.9	
	comp=Z,225nm,19.7s,baz=42,slow=37							
TIXI	**Tiksi**	**26.49**	**37**	LR		LR	00 58 46.6	
	comp=Z,28nm,20.6s,baz=7.0,slow=38							
TIXI	**Tiksi**	**26.49**	**37**	P		**P**	**00 47 34.8**	**+1.7**
TIXI				pmax		pmax		
	comp=Z,7.0nm,1.0s							
TIXI	**Tiksi**	**26.49**	**37**			**P**	**00 47 34.8**	**+1.7**
TIXI	**Tiksi**	**26.49**	**37**	P		**P**	**00 47 35.9**	**+2.8**
	comp=Z,9.9nm,1.3s							
ARTI	**Arti**	**27.72**	**112**	LR		LR	00 59 56.4	
	comp=Z,96nm,20.4s,baz=334,slow=39							
ARTI	**Arti**	**27.72**	**112**	P		**P**	**00 47 46.8**	**+2.5**
ARTI				pmax		pmax		
	comp=Z,8.0nm,0.7s							
ARTI	**Arti**	**27.72**	**112**			**P**	**00 47 46.8**	**+2.5**
ARTI				IAmb		IAmb	00 48 08.9	
	comp=Z,8.0nm,0.7s							
AKASG	**Malin Array Be**	**28.83**	**151**	P		**P**	**00 47 56.9**	**+2.6**
	comp=Z,1.5nm,0.5s,baz=350,slow=9.3,SNR=6.0							
AKASG				LR		LR	01 00 37.0	
	comp=Z,71nm,19.3s,baz=351,slow=39							
	comp=Z,1.5nm,0.5s							
AKASG	**Malin Array Be**	**28.83**	**151**	*i* P		**P**	**00 47 57.0**	**+2.7**
AKASG				pmax		pmax		
	comp

comp=Z,138nm,19.5s,baz=358,slow=36
comp=Z,1.5nm,0.8s
ZAA0 Zalesovo Array 35.29 86 P **P** **00 48 52.6 +1.8**
ZALV Zalesovo Beam 35.29 86 P **P** **00 48 52.9 +2.1**
comp=Z,2.3nm,0.7s,baz=340,slow=8.8,SNR=9.7
ZALV PcP **PcP** **00 51 22.6 +1.7**
comp=Z,1.1nm,0.7s,baz=336,slow=3.2,SNR=3.8
ZALV LR LR 01 06 20.8
comp=Z,94nm,20.0s,baz=348,slow=41
comp=Z,2.3nm,0.7s
ZALV Zalesovo Beam 35.29 86 *i* P **P** **00 48 53.2 +2.4**
ZALV pmax pmax
comp=Z,2.0nm,0.7s
ZALV Zalesovo Beam 35.29 86 P **P** **00 48 51.9 +1.1**
FDMO Fiordimonte 35.46 173 P **P** **00 48 55.7 +3.3**
NRCA Norcia 35.66 173 P **P** **00 48 57.5 +3.2**
YAK Yakutsk 35.68 43 LR LR 01 04 59.2
comp=Z,48nm,18.5s,baz=330,slow=39
YAK Yakutsk 35.68 43 *eP* **P** **00 48 55.7 +1.6**
YAK *e* 00 50 15.9
YAK *e* 00 51 22.7
YAK *eS* **S** **00 54 33.1 +3.3**
YAK *eSS* **SnSn** **00 56 54.8 +4.0**
YAK *e* 00 59 12.7
YAK pmax pmax
comp=Z,18nm,1.3s
YAK pmax pmax
comp=N,11nm,1.3s
YAK pmax pmax
comp=E,6.0nm,1.4s
YAK pmax pmax
comp=Z,89nm,3.8s
YAK smax smax
comp=E,128nm,2.7s
YAK smax smax
comp=N,115nm,2.8s
ILAR Eielson Array 36.32 342 P **P** **00 49 01.3 +1.7**
comp=N,1.6nm,0.9s,baz=5.3,slow=7.2,SNR=18
comp=N,1.6nm,0.9s
ILAR Eielson Array 36.32 342 P **P** **00 49 00.4 +0.8**
ILAR Eielson Array 36.32 342 P **P** **00 49 00.4 +0.8**
J25K Salcha River, 36.38 341 P **P** **00 49 01.4 +1.2**
J25K IAmb IAmb 00 49 22.7
comp=Z,24nm,2.0s
KURK Kurchatov 37.08 94 *ceP* **P** **00 49 09.1 +2.9**
KURK pmax pmax
comp=Z,4.0nm,0.6s
KURK Kurchatov 37.08 94 P **P** **00 49 08.0 +1.9**
KURK Kurchatov 37.08 94 P **P** **00 49 08.5 +2.3**
comp=Z,8.5nm,1.1s
KIV Kislovodsk 37.10 136 *eP* **P** **00 49 09.5 +3.0**
KIV pmax pmax
comp=Z,4.0nm,1.0s
KIV MLR MLR
comp=Z,100nm,16.0s
KURBB Kurchatov Arra 37.15 94 P **P** **00 49 09.2 +2.5**
comp=Z,3.3nm,0.6s,baz=343,slow=7.5,SNR=10
KURBB LR LR 01 09 07.6
comp=Z,133nm,18.0s,baz=200,slow=44
comp=Z,3.3nm,0.6s
KBZ Khabaz 37.35 136 P **P** **00 49 11.4 +2.9**
comp=Z,1.2nm,0.8s,baz=280,slow=5.1,SNR=7.3
KBZ LR LR 01 04 49.9
comp=Z,164nm,19.3s,baz=3.0,slow=37
comp=Z,1.2nm,0.8s
KBZ Khabaz 37.35 136 *i* P **P** **00 49 11.6 +3.1**
KBZ pmax pmax
comp=Z,7.0nm,0.9s
BCAR Beaver Creek A 37.65 338 P **P** **00 49 11.8 +0.9**
KNT Kendrikon 37.78 161 P **P** **00 49 15.2 +3.0**
comp=Z,6.1nm,1.3s
SRS Serrai 37.87 160 P **P** **00 49 15.4 +2.4**
comp=Z,6.5nm,1.1s
GRG Griva 37.95 162 P **P** **00 49 17.1 +3.4**
comp=Z,12nm,0.9s
MAK Makhachkala 38.78 131 *c* *i* P **P** **00 49 18.3 -2.3**
MAK *e* 00 50 49.6
MAK *eS* **S** **00 55 15.1 -2.2**
MAK pmax pmax
comp=Z,124nm,1.4s
MAK MLR MLR
comp=Z,276nm,18.0s
ESDC Sonseca Array 39.04 194 P **P** **00 49 25.1 +2.2**
comp=Z,0.7nm,0.8s,baz=7.2,slow=6.9,SNR=7.9
comp=Z,0.7nm,0.8s
BRTR Keskin Array B 40.15 148 P **P** **00 49 35.5 +3.3**
comp=Z,1.2nm,0.8s,baz=341,slow=6.5,SNR=6.6
BRTR LR LR 01 07 49.6
comp=Z,41nm,19.6s,baz=78,slow=39
comp=Z,1.2nm,0.8s
BRTR Keskin Array B 40.15 148 P **P** **00 49 35.3 +3.1**
BRTR Keskin Array B 40.15 148 P **P** **00 49 35.3 +3.1**
DIGO Kars 40.67 137 P P 00 49 41.4 +4.8
comp=Z,36nm,1.4s
DLBC Dease Lake 41.11 327 LR LR 01 07 28.6
comp=Z,88nm,18.2s,baz=330,slow=37
GNI Garni 41.13 135 LR LR 01 07 19.7
comp=Z,103nm,21.5s,baz=344,slow=37
TLY Talaya 41.18 70 LR LR 01 08 20.4
comp=Z,72nm,19.8s,baz=336,slow=38
MAKZ Makanchi 41.49 93 P **P** **00 49 44.8 +1.8**
MAKZ pmax pmax
comp=Z,10.0nm,1.4s
MAKZ Makanchi 41.49 93 P **P** **00 49 44.8 +1.8**
MAKZ Makanchi 41.49 93 P **P** **00 49 45.4 +2.3**
comp=Z,6.1nm,2.0s
MK31 Makanchi Array 41.56 92 *ceP* **P** **00 49 46.3 +2.6**
MKAR Makanchi Array 41.56 92 P **P** **00 49 46.1 +2.4**
comp=Z,2.9nm,0.7s,baz=342,slow=6.9,SNR=28
MKAR PcP **PcP** **00 51 42.2 +1.6**
comp=Z,0.4nm,0.5s,baz=12,slow=4.8,SNR=1.9
MKAR LR LR 01 10 52.2
comp=Z,209nm,19.0s,baz=328,slow=42
comp=Z,2.9nm,0.7s
MKAR Makanchi Array 41.56 92 P **P** **00 49 45.9 +2.2**
ANDN Andirin 42.57 146 P **P** **00 49 55.5 +3.5**
comp=Z,34nm,1.4s
KEST Kesra 42.69 178 LR LR 01 08 37.2
comp=Z,67nm,18.4s,baz=304,slow=37
KK31 Karatay Array 42.74 106 P **P** **00 49 55.7 +2.5**
KK31 pmax pmax
comp=Z,3.0nm,0.9s
KK31 Karatay Array 42.74 106 P **P** **00 49 55.7 +2.5**
KKAR Karatay Array 42.74 106 P **P** **00 49 55.7 +2.4**
KKAR Karatay Array 42.74 106 P **P** **00 49 55.7 +2.4**
ZEA Zeya 43.32 49 *eP* **P** **00 50 00.8 +3.0**
ZEA pmax pmax
comp=Z,10.0nm,1.1s
HAKT HAKKARI 43.53 137 P **P** **00 50 02.5 +2.5**
comp=Z,26nm,0.8s
KDAK Kodiak Island 43.62 345 LR LR 01 06 44.8
comp=Z,82nm,21.2s,baz=25,slow=34
ULM Lac du Bonnet 43.93 296 P **P** **00 50 02.7 0.0**
comp=Z,9.1nm,0.8s,baz=21,slow=7.3,SNR=9.7
ULM LR LR 01 08 32.5
comp=Z,119nm,18.1s,baz=10.0,slow=36
comp=Z,9.1nm,0.8s
ULM Lac du Bonnet 43.93 296 *i* P **P** **00 50 03.6 +0.9**
ULM Lac du Bonnet 43.93 296 P **P** **00 50 01.2 -1.5**
ULM IAmb IAmb 00 50 03.9
comp=Z,8.1nm,0.7s
AAK Ala-Archa 43.98 102 LR LR 01 10 32.1
comp=Z,197nm,20.5s,baz=336,slow=39
AAK Ala-Archa 43.98 102 *ceP* **P** **00 50 05.6 +2.2**
AAK pmax pmax
comp=Z,6.0nm,1.3s
EDM Edmonton 44.00 312 P **P** **00 50 04.4 +1.0**
EDM pmax pmax
comp=Z,14nm,0.9s
EDM Edmonton 44.00 312 P **P** **00 50 04.4 +1.0**
EDM IAmb IAmb 00 50 05.8
comp=Z,14nm,0.9s
EPLO Experimental L 44.08 294 P **P** **00 50 04.6 +0.6**
EPLO IAmb IAmb 00 50 05.5
comp=Z,13nm,0.7s
PDGK Podgornoye 44.31 97 P **P** **00 50 08.7 +2.6**
PDGK Podgornoye 44.31 97 P **P** **00 50 08.7 +2.6**
SONM Songino Array 45.39 69 P **P** **00 50 15.1 +0.5**
comp=Z,1.5nm,0.6s,baz=335,slow=7.9,SNR=5.7
SONM LR LR 01 11 00.6
comp=Z,79nm,20.7s,baz=19,slow=38
comp=Z,1.5nm,0.6s
SONM Songino Array 45.39 69 P **P** **00 50 15.9 +1.3**
SONM pmax pmax
comp=Z,4.0nm,1.2s
SONM Songino Array 45.39 69 P **P** **00 50 15.9 +1.3**
ULN Ulaanbaatar 45.48 69 *ceP* **P** **00 50 17.3 +1.9**
ULN pmax pmax
comp=Z,7.0nm,0.7s
ULN Ulaanbaatar 45.48 69 P **P** **00 50 17.2 +1.8**
ULN IAmb IAmb 00 50 18.7
comp=Z,7.0nm,0.8s
ULN Ulaanbaatar 45.48 69 P **P** **00 50 17.9 +2.5**
comp=Z,12nm,0.9s
WMQ Urumqi 45.51 88 *eP* **P** **00 50 18.0 +2.5**
WMQ pmax pmax
comp=Z,12nm,0.7s
TARG Taragay, Kyrgy 45.51 99 P **P** **00 50 19.3 +3.3**
TARG pmax pmax
comp=Z,16nm,1.7s
TARG Taragay, Kyrgy 45.51 99 P **P** **00 50 19.3 +3.3**
TARG IAmb IAmb 00 50 29.3
comp=Z,16nm,1.7s
OHH Osh 45.67 105 P **P** **00 50 18.6 +1.8**
comp=Z,12nm,1.5s
BTK Batken 45.74 107 P **P** **00 50 19.6 +2.2**
BTK pmax pmax
comp=Z,22nm,1.6s
BTK Batken 45.74 107 P **P** **00 50 19.6 +2.2**
BTK IAmb IAmb 00 50 37.6
comp=Z,22nm,1.6s
BTK Batken 45.74 107 P **P** **00 50 21.2 +3.8**
comp=Z,7.0nm,0.7s
MD01 Midelt array s 45.86 194 P **P** **00 50 21.8 +3.3**
SADO Sadowa 45.93 278 LR LR 01 09 18.4
comp=Z,160nm,20.4s,baz=32,slow=36
ASAI AK-SAY(Kyrgyzs 46.04 101 P **P** **00 50 24.3 +4.3**
comp=Z,3.9nm,1.4s
WUS Wushi 46.31 98 P **P** **00 50 25.4 +3.5**
comp=Z,5.3nm,0.7s
SDPT Sand Point 46.39 351 P **P** **00 50 23.5 +1.3**
DRK Karamyk 46.49 106 P **P** **00 50 27.9 +4.4**
comp=Z,11nm,0.9s
MMAI Mount Meron Ar 46.97 148 LR LR 01 11 46.0
comp=Z,29nm,21.2s,baz=344,slow=38
BBB Bella Bella 47.03 324 LR LR 01 11 07.1
comp=Z,91nm,18.1s,baz=22,slow=37
KSH2 Kashi 47.55 102 P **P** **00 50 35.3 +3.6**
KSH2 pmax pmax
comp=Z,2.0nm,1.1s
PETK Petropavlovsk- 47.59 24 P **P** **00 50 32.7 +1.1**
comp=Z,2.6nm,0.8s,baz=4.9,slow=5.1,SNR=2.3
comp=Z,2.6nm,0.8s
PETK Petropavlovsk- 47.59 24 P **P** **00 50 31.1 -0.5**
ASF Jabal al Asfar 47.97 146 LR LR 01 11 59.7
comp=Z,32nm,21.3s,baz=347,slow=38
SPMN Marine on St. 48.18 291 P **P** **00 50 37.5 +1.2**
SPMN IAmb IAmb 00 50 38.5
comp=Z,8.3nm,0.8s
KLR Kulʾdur 48.38 46 P **P** **00 50 39.3 +1.5**
comp=Z,2.1nm,0.9s,baz=53,slow=0.3,SNR=3.6
KLR LR LR 01 12 02.7
comp=Z,84nm,18.4s,baz=344,slow=37
comp=Z,2.1nm,0.9s
SHEM Shemya Is, Ala 48.96 11 LR LR 01 11 39.1
comp=Z,29nm,19.4s,baz=53,slow=36
NEW Newport 49.39 314 LR LR 01 12 44.2
comp=Z,124nm,19.6s,baz=10,slow=38
EIL Elat 50.23 149 LR LR 01 13 40.1
comp=Z,26nm,20.9s,baz=353,slow=38
ECSD EROS Data Cent 50.34 294 P **P** **00 50 53.2 +0.4**
ECSD IAmb IAmb 00 50 54.9
comp=Z,14nm,0.9s
ECSD EROS Data Cent 50.34 294 P **P** **00 50 54.0 +1.2**
comp=Z,21nm,1.0s
BNX BinXian 51.11 51 ⇑P **P** **00 51 00.3 +1.7**
BNX pmax pmax
comp=Z,6.0nm,0.6s
RSSD Black Hills 51.30 301 P **P** **00 51 00.7 +0.4**
RSSD pmax pmax
comp=Z,8.0nm,1.2s
RSSD Black Hills 51.30 301 P **P** **00 51 00.7 +0.4**
GTA2 Gaotai 52.12 78 *eP* **P** **00 51 09.0 +2.6**
GTA2 sP pwP 00 51 17.1 +4.1
GTA2 pmax pmax
comp=Z,7.0nm,1.0s
GTA2 L L
comp=Z,180nm,14.0s
GTA2 L L
comp=Z,270nm,16.5s
GTA2 L L
comp=Z,210nm,18.4s
CN2 Changchun 52.69 54 *eP* **P** **00 51 10.8 +0.5**
CN2 pmax pmax
comp=Z,10.0nm,0.3s
HHC Hu-ho-hao-te 53.10 67 *eP* **P** **00 51 13.9 +0.3**
HHC pmax pmax
comp=Z,17nm,0.6s
USRK Ussuriysk Ar. 53.33 48 P **P** **00 51 16.3 +1.3**
comp=Z,1.8nm,0.7s,baz=21,slow=8.5,SNR=2.1
USRK LR LR 01 14 14.4
comp=Z,50nm,18.6s,baz=341,slow=36
comp=Z,1.8nm,0.7s
PDAR Pinedale Array 53.56 305 P **P** **00 51 17.8 +0.7**
comp=Z,0.8nm,0.9s,baz=41,slow=12,SNR=5.6
PDAR LR LR 01 14 46.9
comp=Z,120nm,18.2s,baz=357,slow=37
comp=Z,0.8nm,0.9s
PDAR Pinedale Array 53.56 305 P **P** **00 51 17.6 +0.5**
GOMU GeErMu 54.30 84 P **P** **00 51 24.3 +1.6**
GOMU pP pwP 00 51 28.1 -1.3
GOMU sP sP 00 51 31.8 +4.8
GOMU pmax pmax
comp=Z,6.0nm,0.9s
R40A Maddies Statio 54.78 288 P **P** **00 51 25.4 -0.3**
R40A IAmb IAmb 00 51 35.5
comp=Z,8.3nm,1.0s
CCM Cathedral Cave 54.80 287 P **P** **00 51 25.8 -0.1**
CCM pmax pmax
comp=Z,18nm,1.6s
CCM Cathedral Cave 54.80 287 P **P** **00 51 25.8 -0.1**
CCM IAmb IAmb 00 51 26.3
comp=Z,18nm,1.6s
CCM Cathedral Cave 54.80 287 P **P** **00 51 25.0 -1.0**
comp=Z,7.8nm,2.6s
ASAJ Asahikawa 54.88 38 LR LR 01 16 23.7
comp=Z,35nm,18.3s,baz=92,slow=38
S39A Bolivar 55.56 289 P **P** **00 51 30.9 -0.5**
S39A IAmb IAmb 00 51 32.4
comp=Z,7.6nm,1.1s
TAM Tamanrasset 55.59 182 P **P** **00 51 34.4 +2.5**
TAM pmax pmax
comp=Z,4.0nm,0.8s
TAM Tamanrasset 55.59 182 P **P** **00 51 34.4 +2.5**
TKL Tuckaleechee C 55.64 280 LR LR 01 15 20.3
comp=Z,185nm,19.6s,baz=19,slow=36
O20A White River Ci 55.91 304 P **P** **00 51 35.5 +1.4**
LZH Lanzhou 56.22 76 *eP* **P** **00 51 39.0 +2.7**
LZH sP pwP 00 51 47.0 +4.0
LZH pmax pmax
comp=Z,10.0nm,1.0s
LZDM Lanzhou Array 56.32 76 LR LR 01 19 24.3
comp=Z,71nm,19.3s,baz=40,slow=40
ELK Elko 56.45 310 P **P** **00 51 39.7 +1.7**
ELK pmax pmax
comp=Z,14nm,1.9s
ELK Elko 56.45 310 P **P** **00 51 39.7 +1.7**
ELK IAmb IAmb 00 51 43.2
comp=Z,14nm,1.9s
Q24A Divide 56.51 300 IAmb IAmb 00 51 48.7
comp=Z,8.9nm,1.0s
YBH Yreka Blue Hor 56.59 317 LR LR 01 14 35.6
comp=Z,64nm,18.6s,baz=1.0,slow=35
T35A Sooner Cattle 56.92 292 P **P** **00 51 41.6 +0.5**
T35A IAmb IAmb 00 51 42.3
comp=Z,9.7nm,0.9s
U38A Gravette 56.98 290 IAmb IAmb 00 51 49.7
comp=Z,8.5nm,1.1s
FCAR Ozark Folk Cen 57.07 288 IAmb IAmb 00 51 51.0
comp=Z,12nm,1.2s
TMUT Trail Mountain 57.22 306 P **P** **00 51 44.4 +0.8**
TMUT IAmb IAmb 00 51 54.9
comp=Z,5.3nm,0.8s
SRU San Rafael Swe 57.29 305 P **P** **00 51 45.3 +1.4**
SRU pmax pmax
comp=Z,3.0nm,0.9s
SRU San Rafael Swe 57.29 305 P **P** **00 51 45.3 +1.4**
PV22 Blue Mesa, Par 57.56 304 IAmb IAmb 00 51 56.0
comp=Z,14nm,1.0s
Q16A Castle Valley 57.58 306 IAmb IAmb 00 51 57.2
comp=Z,10nm,0.9s
WHAR Wooly Hollow 57.69 287 IAmb IAmb 00 51 48.2
comp=Z,8.4nm,0.8s
PV15 Paradox Valley 57.69 303 P **P** **00 51 46.7 -0.2**
PV15 IAmb IAmb 00 51 56.8
comp=Z,9.7nm,0.8s
PV10 Paradox Valley 57.75 304 P **P** **00 51 49.2 +2.0**
PV14 Lion Creek, Pa 57.76 304 P **P** **00 51 48.0 +0.7**
SDCO Great Sand Dun 57.76 300 P **P** **00 51 47.4 0.0**
PV20 West Nyswonger 57.78 304 P **P** **00 51 46.3 -1.1**
PV20 IAmb IAmb 00 52 00.4
comp=Z,17nm,1.1s
PV16 Nyswonger Mesa 57.80 304 P **P** **00 51 49.9 +2.3**
PV16 IAmb IAmb 00 51 58.4
comp=Z,17nm,1.1s
PV03 Paradox Valley 57.84 304 IAmb IAmb 00 51 59.7
comp=Z,20nm,1.3s
PV18 Skein Mesa, Pa 57.86 304 P **P** **00 51 49.4 +1.4**
PV18 IAmb IAmb 00 51 58.7
comp=Z,13nm,0.9s
OK052 Battle Ridge R 57.87 292 P **P** **00 51 48.8 +1.0**
OK052 IAmb IAmb 00 51 49.9
comp=Z,16nm,0.9s
PV01 Paradox Valley 57.91 303 P **P** **00 51 49.3 +1.0**
PV13 Radium Mtn., P 57.93 304 P **P** **00 51 47.9 -0.6**
PV13 IAmb IAmb 00 51 59.4
comp=Z,15nm,1.0s
PV05 Paradox Valley 58.05 304 P **P** **00 51 50.5 +1.1**
PV05 IAmb IAmb 00 51 59.2
comp=Z,19nm,1.1s
X40A Basin Creek Fa 58.57 288 IAmb IAmb 00 52 01.8
comp=Z,9.2nm,1.1s
MIAR Mount Ida 58.66 289 IAmb IAmb 00 51 55.1
comp=Z,15nm,0.9s
MIAR Mount Ida 58.66 289 P **P** **00 51 53.8 +0.5**
comp=Z,17nm,1.4s
SZCU Shurtz Canyon 59.19 307 P **P** **00 51 57.5 +0.3**
NVAR Mina Array Bea 59.19 312 P **P** **00 51 59.1 +1.9**
comp=Z,0.2nm,0.3s,baz=354,slow=7.5,SNR=5.1
comp=Z,0.2nm,0.3s
KSRS Korea Array 59.28 53 P **P** **00 51 59.0 +1.4**
comp=Z,0.5nm,0.3s,baz=342,slow=6.4,SNR=1.4
KSRS LR LR 01 19 09.7
comp=Z,35nm,18.9s,baz=350,slow=38
comp=Z,0.5nm,0.3s
WMOK Wichita Mounta 59.46 293 IAmb IAmb 00 52 08.9
comp=Z,6.0nm,1.0s
WMOK Wichita Mounta 59.46 293 P **P** **00 52 00.3 +1.4**
comp=Z,7.3nm,2.2s
LCMT Little Creek M 59.78 307 P **P** **00 52 03.2 +2.0**
EVN Everest 60.65 94 P **P** **00 52 10.8 +2.9**
comp=Z,4.9nm,0.7s
ANMO Albuquerque 60.65 301 LR LR 01 18 18.9
comp=Z,77nm,18.1s,baz=17,slow=36
APMT Aspermont 61.09 294 P **P** **00 52 11.1 +1.0**
APMT IAmb IAmb 00 52 20.3
comp=Z,8.2nm,1.0s
MJAR Matsushiro Arr 61.74 44 P **P** **00 52 15.3 +0.9**
comp=Z,3.2nm,0.9s,baz=341,slow=5.6,SNR=5.2
MJAR LR LR 01 19 50.0
comp=Z,31nm,18.1s,baz=349,slow=37
comp=Z,3.2nm,0.9s
BRDY Brady 62.86 293 IAmb IAmb 00 52 32.5
comp=Z,4.9nm,1.0s
NJ2 Nanjing 62.99 63 *eP* **P** **00 52 23.3 +0.5**
NJ2 pmax pmax
comp=Z,12nm,0.5s
MNHN Monahans 63.50 296 P **P** **00 52 27.7 +1.4**
OZNA Ozona 63.61 295 IAmb IAmb 00 52 37.2
comp=Z,5.0nm,0.9s
PFO Pinyon Flats O 63.62 309 LR LR 01 20 49.0
comp=Z,103nm,20.7s,baz=126,slow=37
VHRN Van Horn 64.45 298 P **P** **00 52 34.5 +1.9**
VHRN IAmb IAmb 00 52 43.0
comp=Z,4.2nm,0.8s
ALPN Alpine 64.60 297 IAmb IAmb 00 52 43.6
comp=Z,8.2nm,1.2s
TORD Torodi Ar. Bea 65.24 186 P **P** **00 52 38.8 +1.1**
comp=Z,0.9nm,0.5s,baz=11,slow=8.1,SNR=1.8
comp=Z,0.9nm,0.5s
TXAR Lajitas Array 65.62 297 P **P** **00 52 41.2 +0.9**
comp=Z,1.0nm,0.5s,baz=36,slow=5.1,SNR=19
TXAR LR LR 01 20 47.3
comp=Z,82nm,18.8s,baz=20,slow=36
comp=Z,1.0nm,0.5s
TXAR Lajitas Array 65.62 297 P **P** **00 52 41.0 +0.8**
BRDH Bariadhala 66.75 91 LR LR 01 26 38.2
comp=Z,129nm,18.3s,baz=355,slow=40
SJG San Juan 69.09 258 LR LR 01 23 17.8
comp=Z,25nm,18.9s,baz=52,slow=36
LPIG La Paz 71.91 302 LR LR 01 25 24.1
comp=Z,62nm,19.3s,baz=28,slow=36
CMAR Chiang Mai Arr 72.34 85 P **P** **00 53 24.1 +2.1**
comp=Z,0.7nm,0.3s,baz=4.1,slow=8.3,SNR=5.8
CMAR LR LR 01 29 50.8
comp=Z,60nm,18.0s,baz=65,slow=40
comp=Z,0.7nm,0.3s
CMIG Matias Romero 75.88 286 LR LR 01 29 09.7
comp=Z,42nm,19.8s,baz=12,slow=37
PALK Pallekele 79.53 105 LR LR 01 32 42.4
comp=Z,66nm,18.5s,baz=332,slow=38
MBAR Mbarara 79.80 156 *ceP* **P** **00 54 07.6 +3.0**
MBAR pmax pmax
comp=Z,5.0nm,1.3s
JTS Las Juntas de 80.50 275 LR LR 01 30 36.8
comp=Z,75nm,19.9s,baz=10,slow=36
ROSC El Rosal 83.64 263 LR LR 01 29 59.1
comp=Z,45nm,21.9s,baz=120,slow=34
PSI Prapat 87.56 88 LR LR 01 39 25.7
comp=Z,55nm,19.0s,baz=337,slow=39
WRA Warramunga Arr 116.54 57 PKP **PKiKP** **01 00 39.7 0.0**
comp=Z,0.3nm,0.6s,baz=348,slow=3.4,SNR=2.1
ASAR Alice Springs 120.10 59 PKP **PKiKP** **01 00 47.1 +0.5**
comp=Z,1.2nm,0.6s,baz=357,slow=1.8,SNR=16
MAW Mawson 149.30 142 PKPbc **PKiKP** **01 01 45.4 +1.2**
comp=Z,2.5nm,0.6s,baz=357,slow=3.9,SNR=6.2
VNA2 Neumayer--Watz 149.30 190 P **PKiKP** **01 01 45.0 +0.8**
comp=Z,2.2nm,0.6s,baz=348,slow=5.0
VNA3 Neumayer Olymp 149.70 191 P **PKiKP** **01 01 45.4 +0.4**
comp=Z,3.5nm,0.8s
SNAA Sanae 149.91 187 PKPbc **PKiKP** **01 01 46.3 +0.8**
comp=Z,1.4nm,0.6s,baz=342,slow=6.1,SNR=3.4

*MEX **14** 00:42:21.9±0.6, 14.76N×92.57W, h87km±7km, MD3.9, Presumed earthquake*
*GCG **14** 00:42:25.2±0.5, 15.02N×92.35W, h34km±999km, MD3.7, Presumed earthquake*
ISC 14 00:42:17.3±1.9, 14.4N±0.1×92.66W±0.09, h84km±16km, n12,σ2s06/22, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
THIG		**0.60**	**39**	*eP*		**Pn**	**00 42 33.5**	**+1.2**
THIG				*eS*		**Sn**	**00 42 43.0**	**-0.4**
PATR	**El Naranjo**	**0.79**	**31**	*eP*		**Pn**	**00 42 34.9**	**+0.5**
PATR				*i* S		**Sn**	**00 42 45.1**	**-2.1**
CHUJ	**Union Juarez**	**0.84**	**39**	*eP*		**Pn**	**00 42 35.9**	**+0.9**
CHUJ				*eS*		**Sn**	**00 42 46.4**	**-1.8**
PAVE	**Pavencul**	**0.88**	**32**	*eP*		**Pn**	**00 42 36.3**	**+0.8**
PAVE				*eS*		**Sn**	**00 42 47.1**	**-1.9**
RTAL	**Retalhuleu**	**0.94**	**85**	*eP*		**Pn**	**00 42 38.0**	**+2.2**
RTAL				*eS*		**Sn**	**00 42 52.0**	**+2.3**
STG8	**El Palmar, Qui**	**1.27**	**89**	*i* P		**Pn**	**00 42 40.7**	**+0.6**
PCIG		**1.37**	**337**	*eP*		**Pn**	**00 42 42.0**	**+0.9**
PCIG				*eS*		**Sn**	**00 42 56.6**	**-2.5**
CCIG	**Comitan**	**1.90**	**15**	*eP*		**Pn**	**00 42 50.9**	**+2.7**
CCIG				*eS*		**Sn**	**00 43 12.5**	**+0.9**
FG16	**Alotenango, Sa**	**2.09**	**94**	*i* P		**Pn**	**00 42 51.0**	**+0.3**
FG16				*i* S		**Sn**	**00 43 11.9**	**-4.2**
TGIG		**2.37**	**349**	*eS*		**Sn**	**00 43 20.2**	**-2.4**
UXUV	**UXUV**	**3.20**	**334**	*eP*		**Pn**	**00 43 06.8**	**+1.4**
UXUV				*eS*		**Sn**	**00 43 41.2**	**-1.4**
CMIG	**Matias Romero**	**3.40**	**321**	*eP*		**Pn**	**00 43 10.2**	**+2.1**
CMIG				*eS*		**Sn**	**00 43 45.3**	**-2.1**

*TAP **14** 00:49:12.6, 21.59N×122.07E, h29km, ML3.8, D*
*JMA **14** 00:49:14.0±0.3, 22.2N±2.2×121.9E±0.4, h20km, MV4.2/12, TAIWAN REGION*
ISC 14 00:49:16.0±1.7, 21.73N±0.07×121.88E±0.04, h26km±12km, n73,σ1s47/97, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.38**	**315**	*i* P		**Pn**	**00 49 24.7**	**-1.1**
LYUB				S		**Sn**	**00 49 33.3**	**+1.0**
LAY	**Lan-yu**	**0.43**	**315**	P		**Pb**	**00 49 24.3**	**-0.9**

LAY				eS	Sb	00 49 32.8	+1.4	
TWKBT	Hengchun	1.01	282	eP	Pn	00 49 32.9	-1.6	
TWKBT				S	Sb	00 49 50.4	+2.6	
LDUT	Ludao	1.01	338	eP	Pn	00 49 33.5	-1.0	
TWK1	Hengchun	1.02	282	P	Pn	00 49 32.5	-2.1	
TWK1				eS	Sb	00 49 50.5	+2.5	
TAW	Tawu	1.10	305	eP	Pb	00 49 35.5	-0.9	
TAW				eS	Sn	00 49 50.1	0.0	
EAST	Anshuo	1.15	304	eP	Pn	00 49 34.7	-1.8	
ECL	Taimali	1.21	315	P	Pn	00 49 36.0	-1.3	
ECL				eS	Sn	00 49 52.6	-0.2	
TWGBT	Beinan	1.31	326	eP	Pb	00 49 38.8	-1.1	
TWGBT				eS	Sb	00 49 57.3	+0.9	
TWG	Pinlang	1.31	326	eP	Pn	00 49 38.4	-0.3	
TWG				eS	Sb	00 49 57.1	+0.6	
SCZT	Fangliau	1.33	299	P	Pn	00 49 37.2	-1.6	
EDH	Donghe	1.34	337	eP	Pn	00 49 38.2	-0.8	
EDH				S	Sb	00 49 57.1	-0.2	
LONT	Longtian	1.36	330	eP	Pb	00 49 39.3	-1.5	
LONT				eS	Sb	00 50 00.2	+2.4	
CHKT	Chengkung	1.44	341	eP	Pn	00 49 39.0	-1.4	
CHKT				eS	Sn	00 49 57.9	-0.6	
MASBT	Mashibuluo	1.45	307	eP	Pn	00 49 40.3	-0.2	
TSMG	Majia	1.50	311	eP	Pb	00 49 42.1	-1.0	
CHKH	Chenggong	1.52	343	eP	Pn	00 49 39.8	-1.7	
CHKH				eS	Sn	00 50 01.2	+0.9	
SSD	Sandimen	1.53	311	eP	Pn	00 49 41.8	+0.1	
EHD	Haiduan	1.54	336	eP	Pn	00 49 41.4	-0.4	
EHD				eS	Sb	00 50 04.0	+1.0	
FULB	Fuli	1.56	340	eP	Pn	00 49 41.1	-1.0	
FULB				eS	Sn	00 50 02.7	+1.3	
ECBN	Changbin	1.62	346	eS	Sn	00 50 02.7	-0.3	
ELDTW	Lidau	1.65	331	eP	Pb	00 49 42.9	-0.6	
EYUL	Yuli	1.69	342	eP	Pb	00 49 44.5	-1.9	
EYUL				*i* S	Sb	00 50 06.6	-0.7	
SLGT	Liugui	1.69	318	P	Pb	00 49 45.9	-0.6	
SLGT				eS	Sb	00 50 10.6	+3.2	
TWF1	Yuli	1.70	342	eP	Pn	00 49 43.5	-0.5	
SCST	Cishan	1.72	312	eP	Pb	00 49 46.9	0.0	
TWM1	Shoushan	1.73	309	eP	Pb	00 49 46.4	-0.8	
YULB	Yu-li	1.74	342	eP	Pn	00 49 44.2	-0.3	
STYH	Taoyuan	1.76	325	eP	Pb	00 49 46.5	-1.1	
SGST	Jiashian	1.80	319	eP	Pb	00 49 47.1	-1.2	
HGSD	Ruisui	1.80	347	eP	Pn	00 49 45.1	-0.3	
EHYH	Wanrong	1.82	344	eP	Pn	00 49 45.6	0.0	
WTP	Ta-pu	1.91	322	eP	Pb	00 49 48.9	-1.3	
CHN1	Nanshi	1.91	319	P	Pb	00 49 49.3	-0.9	
TPUB	Ta-pu	1.94	324	eP	Pb	00 49 49.4	-1.4	
TWK	Hsinying	2.00	320	eP	Pb	00 49 50.6	-1.0	
CHN4	Tsaushan	2.00	324	eP	Pb	00 49 50.8	-1.0	
ALS	Alishan	2.03	331	eP	Pn	00 49 49.4	+0.6	
WCKO	Fanlu	2.06	326	eP	Pn	00 49 49.3	+0.3	
ESL	Shilin	2.11	349	eP	Pn	00 49 49.8	+0.1	
VWDT	VWDT	2.12	342	eP	Pn	00 49 49.8	0.0	
CHN5	Tsauling	2.16	329	eP	Pb	00 49 52.5	-2.0	
WHYT	Xinyi Township	2.17	334	eP	Pb	00 49 52.6	-2.0	
SSLB	Suanglung	2.22	338	eP	Pb	00 49 52.6	-2.9	
ETM	Tongmen	2.25	351	eP	Pn	00 49 52.1	+0.5	
OWD	Renai	2.30	344	eP	Pn	00 49 52.9	+0.5	
LXIB	Xiulin Townshi	2.32	349	eP	Pn	00 49 53.4	+0.8	
LXIB				S	Sn	00 50 22.6	+2.3	
SMLT	Sun Moon Lake	2.32	337	eP	Pb	00 49 55.1	-2.2	
WUSB	Renai	2.35	343	eP	Pb	00 49 54.6	-3.2	
TYC	Yuchr	2.36	337	eP	Pb	00 49 55.7	-2.1	
WNT	Mingjian	2.40	333	eP	Pb	00 49 57.1	-1.5	
EOS4	EOS4	2.41	10	eP	Pn	00 49 53.4	-0.1	
NACB	Ninganchiao	2.44	354	eP	Pn	00 49 53.2	-1.0	
WHF	Hehuan Shan	2.47	347	eP	Pb	00 49 56.7	-3.3	
WCS	Beigang Elemen	2.48	339	eP	Pb	00 49 56.7	-3.2	
ETLH	Xiulin Townshi	2.49	352	eP	Pn	00 49 55.4	+0.4	
FUSS	Fushou	2.57	347	eP	Pn	00 49 57.6	+1.4	
EOS3	EOS3	2.58	9	eP	Pn	00 49 56.6	+0.7	
EOS3				eS	Sn	00 50 28.5	+2.2	
WHP	Taichung City	2.67	342	eP	Pb	00 50 00.8	-2.5	
NNSB	Datong	2.72	350	eP	Pn	00 49 59.7	+1.5	
TWQ1	Liyutan	2.79	339	eP	Pb	00 50 02.0	-3.3	
LATG	Datong	2.81	353	eP	Pn	00 49 59.9	+0.6	
HATJ	Hateruma jima	2.92	37	P	Pn	00 50 01.2	+0.5	
HATJ				eS	Sn	00 50 35.9	+1.0	
NFF	Wufeng Townshi	2.97	347	eP	Pb	00 50 05.0	-3.3	
NSK	Sanguang	2.97	351	eP	Pn	00 50 03.3	+1.8	
FUSB	Fushanzhiwuyua	3.02	355	eP	Pn	00 50 03.8	+1.5	
IRIF	Iriomote-Funau	3.10	33	P	Pn	00 50 03.8	+0.5	
IRIF				S	Sn	00 50 40.9	+1.4	
JKRS	Kuro-shima	3.18	38	P	Pn	00 50 05.1	+0.8	
JKRS				S	Sn	00 50 42.4	+1.1	
TIPB	Shuangxi	3.23	359	eP	Pn	00 50 06.7	+1.7	
JIJ	Ishigaki jima	3.35	38	P	Pn	00 50 06.9	+0.2	
JIJ				S	Sn	00 50 45.2	-0.4	
JISG	Ishigakijimahi	3.62	38	P	Pn	00 50 10.4	0.0	
JISG				S	Sn	00 50 52.0	-0.2	
JTJ	Tarama	3.89	41	P	Pn	00 50 14.9	+0.8	
JTJ				S	Sn	00 50 59.6	+0.7	
JMJ2	Miyako jima3	4.36	46	eS	Sn	00 51 11.3	+0.7	

*JMA **14** 01:07:58.2±0.5, 44˚N±2˚×14˚7E±˚, h157km, MV3.5/20, NEAR ETOROFU ISLAND*

SKHL 14 01:07:57.0±0.7, 43˚90N×147˚70E, h141km±5km, mb3.9/2, msha4.8/3, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SHO	**Shikotan**	0.63	268	eP		Pn		01 08 40.3	+22
SHO				AMB		AMB		01 08 40.8	
	50nm,0.3s								
SHO				eS		Sn		01 08 57.2	+23
SHO				A		A		01 08 58.2	
	260nm,0.3s								
SHO				A		A		01 08 58.2	
	210nm,0.3s								
YUK	**Yuzh-Kuril'sk**	1.33	276	eP		Pn		01 08 24.0	-0.1
YUK				eS		Sn		01 08 44.7	0.0
YUK				A		A		01 08 45.4	
	190nm,0.2s								
YUK				A		A		01 08 45.4	
	180nm,0.2s								
NEM2	**Nemuro 2**	1.52	250	P		Pn		01 08 27.3	+1.3
NEM2				eS		Sn		01 08 49.9	+1.8
NMR	**Nemuro--Hokkai**	1.53	250	eP		Pn		01 08 26.5	+0.4
NMR				eS		Sn		01 08 47.6	-0.7
JKHN	**Kushirohamanak**	2.02	247	P		Pn		01 08 33.0	+1.2
JKHN				eS		Sn		01 08 59.8	+1.4
AKK	**Akkeshi**	2.26	248	eP		Pn		01 08 35.0	+0.3
AKK				eS		Sn		01 09 02.8	-0.8
JAK	**Akkeshi**	2.37	249	eP		Pn		01 08 36.4	+0.5
JAK				eS		Sn		01 09 06.5	+0.6
JAR	**Ashorobuto**	2.92	259	eP		Pn		01 08 42.2	-0.7
JAR				eS		Sn		01 09 16.5	-1.9
JOB	**Onbets**	2.99	252	eP		Pn		01 08 43.8	0.0
JOB				eS		Sn		01 09 18.8	-1.2

*AFAD **14** 01:12:47.5, 37˚83N×26˚98E, h7km±2km, ML2.2*
*ISK **14** 01:12:47.6, 37˚85N×26˚98E, h11km, ML2.6/10*
*THE **14** 01:12:48.1, 38˚N±1˚×27˚0E±0˚9, h3km±2km, M2.2/9, MLh2.2/9*

ISC 14 01:12:48.0±0.9, 37˚83N±0˚02×26˚98E±0˚02, h12km±7km, n32, σ0°48/52, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	0.17	222	P		**Pg**		**01 12 51.5**	**-0.3**
SMG				S		**Sg**		**01 12 53.9**	**-0.6**
SMG						AML	AML		
DGB	**zmir**	0.23	341	P		**Pg**		**01 12 52.7**	**-0.2**
GCAM	**G?zelcaml?**	0.24	123	P		**Pg**		**01 12 53.4**	**+0.4**
GCAM				S		**Sg**		**01 12 56.6**	**+0.1**
GCAM				IAML				01 12 58.0	
	comp=N,828nm,0.2s								
GCAM	**G?zelcaml?**	0.24	123	Pg		**Pg**		**01 12 53.2**	**+0.1**
GCAM				Sg		**Sg**		**01 12 57.1**	**+0.6**
GCAM				AML		AML			
GMLD	**Gumuldur**	0.25	348	Pg		**Pg**		**01 12 53.1**	**-0.1**
GMLD				Sg		**Sg**		**01 12 56.8**	**+0.1**
GMLD				AML		AML			
BEYE	**izmir**	0.40	354	P		**Pg**		**01 12 55.9**	**0.0**
BEYE				S		**Sg**		**01 13 00.5**	**-0.7**
BEYE				IAML				01 13 01.0	
	comp=E,154nm,0.3s								
BEYE				IAML				01 13 02.0	
	comp=N,132nm,0.4s								
DDIM	**Aydin, Didim**	0.43	151	P		**Pg**		**01 12 56.0**	**-0.5**
DDIM				S		**Sg**		**01 13 02.3**	**+0.1**
DDIM				IAML				01 13 04.0	
	comp=N,209nm,0.5s								
DUVT	**Torbali**	0.54	44	P		**Pg**		**01 12 58.1**	**-0.4**
DUVT				S		**Sg**		**01 13 05.6**	**0.0**
DUVT				IAML				01 13 09.0	
	comp=E,117nm,0.2s								
ZEYE	**Izmir, Urla-Ze**	0.55	317	P		**Pg**		**01 12 58.3**	**-0.5**
ZEYE				S		**Sg**		**01 13 06.7**	**+0.6**
ZEYE				IAML				01 13 07.0	
	comp=N,311nm,0.4s								
BLCB	**Balcova**	0.55	5	P		**Pg**		**01 12 58.7**	**-0.1**
BLCB				S		**Sg**		**01 13 06.4**	**+0.2**
BLCB				AML		AML			
BLCB	**Balcova**	0.55	5	Pg		**Pg**		**01 12 58.6**	**-0.2**
BLCB				Sg		**Sg**		**01 13 06.6**	**+0.4**
AYDB	**Zeytinkoy-Aydi**	0.73	81	Pg		**Pg**		**01 13 02.0**	**-0.2**
AYDB				Sg		**Sb**		**01 13 12.6**	**-0.1**
AYDB				AML		AML			
AYDN	**Tasoluk**	0.73	103	P		**Pg**		**01 13 02.0**	**-0.2**
AYDN				S		**Sg**		**01 13 11.9**	**0.0**
BODT	**Bodrum**	0.81	161	P		**Pg**		**01 13 03.5**	**-0.2**
BODT				AML		AML			
BODT	**Bodrum**	0.81	161	Pg		**Pg**		**01 13 03.3**	**-0.4**
BODT				Sg		**Sb**		**01 13 15.9**	**+1.0**
BODT				AML		AML			
IZMR	**zmir-demi**	0.83	68	P		**Pb**		**01 13 04.4**	**+0.2**
IZMR				S		**Sg**		**01 13 13.1**	**-1.7**
BAGT	**Foa**	0.83	353	P		**Pg**		**01 13 03.4**	**-0.6**
BAGT				S		**Sb**		**01 13 15.8**	**+0.4**
BAGT				IAML				01 13 16.0	
	comp=E,89nm,0.6s								
KRBN	**Karaburun**	0.83	336	Pg		**Pg**		**01 13 03.8**	**-0.2**
KRBN				AML		AML			
MLSB	**Milas**	0.83	130	Pg		**Pb**		**01 13 04.2**	**-0.1**
MLSB				AML		AML			
FOCM	**Foa**	0.90	348	Pg		**Pg**		**01 13 05.2**	**-0.2**
FOCM				Sg		**Sb**		**01 13 17.9**	**+0.5**
CHOS	**Chios island**	0.92	307	P		**Pb**		**01 13 06.4**	**+0.6**
CHOS				S		**Sb**		**01 13 18.5**	**+0.5**
CHOS				AML		AML			
CHOS	**Chios island**	0.92	307	Pg		**Pg**		**01 13 05.6**	**-0.1**
CHOS				AML		AML			
KARB	**zmir-Karabur**	0.94	332	P		**Pg**		**01 13 06.0**	**-0.1**
KARB				S		**Sg**		**01 13 17.9**	**-0.5**
KARB				IAML				01 13 21.0	
	comp=N,80nm,0.3s								
CAMT	**Merkez**	0.95	16	P		**Pb**		**01 13 06.5**	**+0.1**
CAMT				S		**Sb**		**01 13 18.9**	**0.0**
CAMT				IAML				01 13 26.0	
	comp=N,84nm,0.5s								
NAZL	**Nazilli-Aydin**	1.05	82	Pg		**Pb**		**01 13 08.1**	**+0.1**
NAZL				AML		AML			
ZEDA	**zmir-Bergama**	1.14	4	P		**Pg**		**01 13 09.4**	**-0.5**
ZEDA				S		**Sb**		**01 13 25.0**	**+0.8**
DAT	**Datca**	1.20	156	Pn		**Pn**		**01 13 10.8**	**+0.1**
YER	**Yerkesik**	1.25	123	P		**Pg**		**01 13 11.6**	**-0.4**
YER	**Yerkesik**	1.25	123	Pn		**Pg**		**01 13 11.6**	**-0.4**
YER				AML		AML			
APE	**Apeiranthos**	1.38	237	P		**Pn**		**01 13 12.1**	**-1.0**
APE				AML		AML			
TURN	**Turunc**	1.46	136	Pn		**Pn**		**01 13 14.5**	**+0.4**
TURN				AML		AML			
PRK	**Paraskevi**	1.52	339	P		**Pg**		**01 13 17.2**	**+0.1**

*SOME **14** 01:25:34.8, 41˚37N×75˚82E, h10km*
*NNC **14** 01:25:35.5±0.9, 41˚39N×75˚79E, h0km, mb3.6, mpv3.2, Error ellipse: s-maj=6.9km s-min=3.6km az=167.0*
*KRNET **14** 01:25:35.2±0.1, 41˚41N×75˚82E, h26km, mb3.3*

ISC 14 01:25:33.8±1.2, 41˚37N±0˚03×75˚77E±0˚02, h11km±11km, n56, σ1°21/94, 27C-12D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ULHL	**Ulahol**	0.94	22	⇑eP		**Pg**		**01 25 51.9**	**-0.2**
ULHL				⇑eS		**Sg**		**01 26 04.3**	**-0.1**
UCH	**Uchtor**	1.27	313	⇑eP		**Pg**		**01 25 58.8**	**+0.5**
UCH				⇑eS		**Sn**		**01 26 15.9**	**+0.6**
KDJ	**Kajisay**	1.30	54	⇑eP		**Pn**		**01 25 58.2**	**+0.1**
KDJ				⇑eS		**Sb**		**01 26 15.1**	**0.0**
KBK	**Karagaybulak**	1.43	335	⇑eP		**Pg**		**01 26 00.9**	**-0.3**
KBK				⇑eS		**Sg**		**01 26 19.9**	**+0.1**
SALK	**Salom-Alik**	1.55	252	⇑eP		**Pg**		**01 26 04.2**	**+0.6**
SALK				⇑eS		**Sg**		**01 26 25.4**	**+1.7**
TKM2	**Tokmak 2**	1.56	355	⇑eP		**Pb**		**01 26 03.1**	**+0.3**
TKM2				⇑eS		**Sg**		**01 26 23.4**	**-0.5**
TARG	**Taragay, Kyrgy**	1.57	76	⇓eP		**Pb**		**01 26 03.1**	**0.0**
TARG				⇓eS		**Sb**		**01 26 23.4**	**+0.4**
AAK	**Ala-Archa**	1.59	324	⇑Pn		**Pg**		**01 26 05.0**	**+0.8**
AAK	1.1nm,0.2s			⇑Sn		**Sg**		**01 26 26.4**	**+1.5**
	5.6nm,0.4s								
AAK	**Ala-Archa**	1.59	324	⇑eP		**Pg**		**01 26 03.9**	**-0.4**
AAK				⇑eS		**Sg**		**01 26 24.9**	**0.0**
FRU1	**Bishkek**	1.67	330	⇑eP		**Pg**		**01 26 05.6**	**-0.3**
FRU1				⇑eS		**Sg**		**01 26 27.9**	**+0.3**
KST	**Kastek**	1.68	5	P		**Pg**		**01 26 06.3**	**+0.3**
KST	2.8nm,0.2s			S		**Sg**		**01 26 29.1**	**+1.3**
	51nm,0.2s								
KST	**Kastek**	1.68	5	eP		**Pg**		**01 26 06.3**	**+0.3**
KST	2.8nm,0.2s			eS		**Sg**		**01 26 29.1**	**+1.3**
	51nm,0.2s								
CHMS	**Chumysh**	1.80	335	⇑eP		**Pb**		**01 26 07.1**	**+0.4**
CHMS				⇑eS		**Sb**		**01 26 30.3**	**+1.0**
MTBS	**Maitube**	1.83	15	P		**Pg**		**01 26 08.7**	**-0.2**
MTBS	5.4nm,0.2s			S		**Sg**		**01 26 32.9**	**+0.4**
	52nm,0.3s								
MTBS	**Maitube**	1.83	15	eP		**Pg**		**01 26 08.7**	**-0.2**
MTBS	5.4nm,0.2s			eS		**Sg**		**01 26 32.9**	**+0.4**
	52nm,0.3s								
DGS	**Degeres**	1.87	0	Pg		**Pg**		**01 26 09.9**	**+0.2**
DGS	9.4nm,0.5s			Lg		Lg		01 26 35.1	
	37nm,0.2s								
DGS	**Degeres**	1.87	0	eP		**Pg**		**01 26 09.9**	**+0.2**
DGS	9.4nm,0.5s			eS		**Sg**		**01 26 35.1**	**+1.1**
	37nm,0.2s								
TNSS	**Tian-Shan**	1.88	27	P		**Pg**		**01 26 09.9**	**-0.1**
TNSS	6.6nm,0.3s			S		**Sg**		**01 26 34.8**	**+0.5**
	10nm,0.4s								
TNSS	**Tian-Shan**	1.88	27	eP		**Pg**		**01 26 09.9**	**-0.1**
TNSS	6.6nm,0.3s			eS		**Sg**		**01 26 34.9**	**+0.5**
	10nm,0.4s								
EKS2	**Erkin-Say**	1.97	312	⇑eP		**Pb**		**01 26 09.9**	**+0.2**
EKS2				⇑eS		**Sb**		**01 26 35.1**	**+0.8**
ANVS	**Anan'yevo**	2.00	44	⇑eP		**Pb**		**01 26 09.7**	**-0.6**
ANVS				⇑eS		**Sb**		**01 26 34.9**	**-0.3**
MDOK	**Medeo**	2.03	27	Pg		**Pg**		**01 26 12.1**	**-0.6**
MDOK	17nm,0.5s			Lg		Lg		01 26 39.3	
	58nm,0.4s								
MDOK	**Medeo**	2.03	27	eP		**Pg**		**01 26 12.1**	**-0.6**
MDOK	17nm,0.5s			eS		**Sg**		**01 26 39.3**	**+0.3**
	58nm,0.4s								
ARSB	**Arslanbob**	2.10	270	⇑eP		**Pb**		**01 26 12.4**	**+0.4**
ARSB				⇑eS		**Sb**		**01 26 39.2**	**+1.1**
KOTS	**Kotyrbulak**	2.11	28	Pg		**Pg**		**01 26 14.0**	**-0.3**
KOTS	10nm,0.4s			Lg		Lg		01 26 42.4	
	108nm,0.4s								
KOTS	**Kotyrbulak**	2.11	28	eP		**Pg**		**01 26 14.0**	**-0.3**
KOTS	10nm,0.4s			eS		**Sg**		**01 26 42.4**	**+0.6**
	108nm,0.4s								
USP	**Ospenovka**	2.12	334	⇓iP		**Pb**		**01 26 11.5**	**-0.7**
USP				⇓eS		**Sb**		**01 26 38.2**	**-0.4**
SFK	**Sufi-Kurgan**	2.19	233	⇓eP		**Pb**		**01 26 13.7**	**+0.1**
SFK				⇓eS		**Sb**		**01 26 41.6**	**+0.8**
PRZ	**Przheval'sk**	2.26	60	⇓eP		**Pb**		**01 26 13.7**	**-0.9**
PRZ				⇓eS		**Sb**		**01 26 41.2**	**-1.4**
KRBS	**Karabastau**	2.33	358	Pg		**Pg**		**01 26 18.1**	**-0.4**
KRBS	19nm,0.2s			Lg		Lg		01 26 49.3	
	108nm,0.4s								
KRBS	**Karabastau**	2.33	358	eP		**Pg**		**01 26 18.1**	**-0.4**
KRBS	19nm,0.2s			eS		**Sg**		**01 26 49.3**	**+0.7**
	108nm,0.4s								
MRKS	**Merke**	2.34	307	Pg		**Pg**		**01 26 18.3**	**-0.4**
MRKS	14nm,0.2s			Lg		Lg		01 26 49.9	
	40nm,0.3s								
MRKS	**Merke**	2.34	307	eP		**Pg**		**01 26 18.3**	**-0.4**
MRKS	14nm,0.2s			eS		**Sg**		**01 26 49.9**	**+0.8**
	40nm,0.3s								
OHH	**Osh**	2.41	251	⇓eP		**Pb**		**01 26 16.6**	**-0.7**
OHH				⇓eS		**Sb**		**01 26 46.7**	**-0.4**
KTBS	**Karatobe**	2.44	16	Pg		**Pb**		**01 26 18.8**	**+1.2**
KTBS	0.5nm,0.2s			Lg		Lg		01 26 51.0	
	79nm,0.6s								
KTBS	**Karatobe**	2.44	16	eP		**Pb**		**01 26 18.8**	**+1.2**
KTBS	0.5nm,0.2s			eS		**Sg**		**01 26 51.0**	**-1.1**
	79nm,0.6s								
KUU	**Kurty**	2.56	9	Pg		**Pg**		**01 26 22.0**	**-0.8**
KUU	6.4nm,0.1s			Lg		Lg		01 26 55.9	
	68nm,0.3s								
KUU	**Kurty**	2.56	9	eP		**Pg**		**01 26 22.0**	**-0.8**
KUU	6.4nm,0.1s			eS		**Sg**		**01 26 55.9**	**-0.1**
	68nm,0.3s								
SATY	**Saty**	2.58	48	Pg		**Pb**		**01 26 21.7**	**+1.5**
SATY	5.8nm,0.4s			Lg		Lg		01 26 55.1	
	51nm,0.5s								
SATY	**Saty**	2.58	48	eP		**Pb**		**01 26 21.7**	**+1.5**
SATY	5.8nm,0.4s			eS		**Sg**		**01 26 55.1**	**-1.7**
	51nm,0.5s								
MNAS	**Manas**	2.68	296	⇓eP		**Pb**		**01 26 20.0**	**-1.9**
MNAS				⇓eS		**Sb**		**01 26 52.6**	**-2.3**
UZB	**Uzunbulak**	3.00	53	Pg		**Pb**		**01 26 28.5**	**+1.2**
UZB	2.5nm,0.1s			Lg		Lg		01 27 06.8	
	13nm,0.3s								
UZB	**Uzunbulak**	3.00	53	eP		**Pb**		**01 26 28.5**	**+1.2**
UZB	2.5nm,0.1s			eS		**Sb**		**01 27 06.8**	**+2.9**
	13nm,0.3s								
ARXS	**Arharly**	3.22	27	Pg		**Pb**		**01 26 32.5**	**+1.5**
ARXS	5.0nm,0.3s			Lg		Lg		01 27 14.3	
	23nm,0.4s								
ARXS	**Arharly**	3.22	27	eP		**Pb**		**01 26 32.5**	**+1.5**
ARXS	5.0nm,0.3s			eS		**Sg**		**01 27 14.3**	**-2.9**
	23nm,0.4s								
BLB	**Baldybastay**	3.38	35	Pg		**Pb**		**01 26 35.5**	**+1.8**
BLB	2.6nm,0.2s			Lg		Lg		01 27 19.1	
	25nm,0.4s								
BTLS	**Baital**	3.88	342	Pg		**Pg**		**01 26 45.7**	**-2.5**
BTLS				Lg		Lg		01 27 36.7	
BTLS	**Baital**	3.88	342	eP		**Pg**		**01 26 45.7**	**-2.5**
BTLS				eS		**Sg**		**01 27 36.7**	**-1.7**
KNOS	**Konyrlen**	3.90	39	Pg		**Pg**		**01 26 47.1**	**-1.4**
KNOS	0.4nm,0.4s			Lg		Lg		01 27 39.4	
	11nm,0.4s								
DJR	**Jarkent**	4.18	44	Pg		**Pb**		**01 26 50.0**	**+2.6**
DJR	0.6nm,0.1s			Lg		Lg		01 27 43.9	
	5.9nm,0.4s								
DJR	**Jarkent**	4.18	44	eP		**Pb**		**01 26 50.0**	**+2.6**
DJR	0.6nm,0.1s			eS		**Sg**		**01 27 43.9**	**-4.2**
	5.9nm,0.4s								
KK31	**Karatay Array**	4.27	296	Pn		Pn		01 26 43.7	+4.9
KK31	0.7nm,0.4s,baz=116,slow=14,SNR=6.0			⇑Lg		Lg		01 27 50.0	
	3.8nm,0.5s,baz=115,slow=30								
IUG	**Iuzhnay**	4.36	282	Pg		**Pg**		**01 26 56.3**	**-1.1**
IUG	5.3nm,0.4s			Lg		Lg		01 27 54.7	
	21nm,0.6s								
IUG	**Iuzhnay**	4.36	282	eP		**Pg**		**01 26 56.3**	**-1.1**
IUG	5.3nm,0.4s			eS		**Sg**		**01 27 54.7**	**+0.8**
	21nm,0.6s								
BRLS	**Borolday**	4.71	293	Pg		**Pg**		**01 27 02.1**	**-1.9**
BRLS	0.3nm,0.2s			Lg		Lg		01 28 05.1	
	4.2nm,0.3s								
BRLS	**Borolday**	4.71	293	eP		**Pg**		**01 27 02.1**	**-1.9**
BRLS	0.3nm,0.2s			eS		**Sg**		**01 28 05.1**	**+0.1**
	4.2nm,0.3s								

*GUC **14** 01:33:14.0, 62˚16S×58˚05W, h10km, ML4.6, Presumed earthquake*
*GFZ **14** 01:33:16.8±0.2, 62˚S±4˚×5˚9W±˚, h10km, M4.4/15, mb4.4/15, Error ellipse: s-maj=13.6km s-min=6.2km az=66.9, confirmed*
*IDC **14** 01:33:17.0±0.9, 62˚34S×58˚31W, h0km, mb3.9/8, mbtmp3.9/8, MS3.2/5, Error ellipse: s-maj=51.5km s-min=18.7km az=79.0*
*NEIC **14** 01:33:17.1±1.3, 62˚38S±0˚07×58˚6W±0˚4, h11km±5km, mb4.6/14, Error ellipse: s-maj=26.3km s-min=5.6km az=72.0*

ISC 14 01:33:16.1±1.4, 62˚42S±0˚04×58˚58W±0˚08, h4km±9km, n68, σ1°97/63, mb4.4/20, MS3.2/4, 2D, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JUBA	**Jubany**

comp=Z,9.4nm,0.8s
SNAA Sanae 22.70 137 P **P** 01 38 19.8 +1.5
comp=Z,117nm,0.8s
SNAA Sanae 22.70 137 P **P** 01 38 19.3 +1.0
comp=Z,9.8nm,1.1s,baz=265,slow=10,SNR=6.0
comp=Z,9.8nm,1.1s
SNAA Sanae 22.70 137 **P** 01 38 18.9 +0.6
SNAA IAmb IAmb 01 38 22.1
comp=Z,15nm,1.1s
SNAA Sanae 22.70 137 P **P** 01 38 19.5 +1.2
comp=Z,12nm,1.5s
PLCA Paso Flores 22.88 336 P **P** 01 38 20.3 -0.2
comp=Z,4.9nm,1.1s,baz=198,slow=8.2,SNR=3.3
PLCA LR LR 01 46 04.6
comp=Z,63nm,21.6s,baz=150,slow=34
comp=Z,4.9nm,1.1s
PLCA Paso Flores 22.88 336 P **P** 01 38 19.2 -1.3
PLCA Paso Flores 22.88 336 P **P** 01 38 19.5 -0.9
comp=Z,7.5nm,1.2s
GO06 Curarrehue 24.17 335 P **P** 01 38 31.4 -1.9
GO06 IAmb IAmb 01 38 37.5
comp=Z,19nm,1.1s
GO06 Curarrehue 24.17 335 P **P** 01 38 32.9 -0.3
comp=Z,17nm,1.1s
TROLL Troll, Antarti 24.33 139 P **P** 01 38 36.1 +1.5
comp=Z,228nm,1.0s
QSPA South Pole Qui 27.80 180 P **P** 01 39 08.3 +2.4
comp=Z,2.1nm,0.7s,baz=160,slow=5.9,SNR=7.7
comp=Z,2.1nm,0.7s
QSPA South Pole Qui 27.80 180 P **P** 01 39 06.6 +0.7
QSPA South Pole Qui 27.80 180 P **P** 01 39 06.1 +0.2
comp=Z,9.1nm,1.0s
BO02 Sierra Bellavi 28.70 339 P **P** 01 39 12.9 -1.2
BO02 IAmb IAmb 01 39 37.0
comp=Z,12nm,1.4s
MT03 Universidad Ad 29.93 340 P **P** 01 39 23.3 -1.7
MT03 IAmb IAmb 01 39 40.3
comp=Z,22nm,1.4s
MT02 Curacav 30.26 339 P **P** 01 39 27.6 -0.2
MT02 IAmb IAmb 01 39 37.8
comp=Z,21nm,1.3s
PEL Peldehue 30.30 340 P **P** 01 39 27.4 -0.8
PEL IAmb IAmb 01 39 55.8
comp=Z,18nm,1.3s
PEL Peldehue 30.30 340 P **P** 01 39 27.5 -0.7
comp=Z,11nm,2.1s
ELIB Princess Elisa 30.53 143 *d*P **P** 01 39 28.6 -1.4
VA03 San Esteban 30.65 340 P **P** 01 39 31.1 -0.3
comp=Z,16nm,1.1s
ZON Zonda 31.57 343 P **P** 01 39 37.7 -1.7
comp=E,6.7nm,1.5s
CO02 Combarbal 32.25 340 P **P** 01 39 44.0 -1.4
comp=Z,10nm,1.9s
CO03 El Pedregal 32.56 340 P **P** 01 39 47.4 -0.8
comp=Z,11nm,0.9s
CO01 Juntas del Tor 33.31 342 P **P** 01 39 54.0 -0.9
CO01 IAmb IAmb 01 40 00.9
comp=Z,16nm,1.3s
CO01 Juntas del Tor 33.31 342 P **P** 01 39 53.4 -1.5
comp=Z,12nm,1.2s
CPUP Villa Florida 36.10 2 P **P** 01 40 19.6 +0.9
comp=Z,0.4nm,0.3s,baz=160,slow=9.2,SNR=3.1
CPUP LR LR 01 53 14.7
comp=Z,30nm,21.4s,baz=196,slow=33
comp=Z,0.4nm,0.3s
CPUP Villa Florida 36.10 2 P **P** 01 40 17.9 -0.8
comp=Z,3.7nm,2.3s
VNDA Vanda 38.11 193 LR LR 01 57 09.6
comp=E,56nm,18.1s,baz=161,slow=38
PB06 IPOC Station P 40.40 344 P **P** 01 40 54.9 -0.3
PB06 IAmb IAmb 01 41 27.1
comp=Z,8.9nm,0.8s
AQDB Aquidauana 41.96 4 P **P** 01 41 06.5 -1.3
comp=Z,3.6nm,2.1s
MAW Mawson 43.57 152 LR LR 01 59 00.6
comp=Z,65nm,21.8s,baz=236,slow=35
LPAZ La Paz 46.57 347 P **P** 01 41 47.5 +2.0
comp=Z,0.4nm,0.6s,baz=222,slow=14,SNR=1.5
comp=Z,0.4nm,0.6s
BDFB Brasilia 47.32 14 P **P** 01 41 51.9 +1.1
comp=Z,1.9nm,0.7s,baz=124,slow=3.6,SNR=3.6
comp=Z,1.9nm,0.7s
BOSA Boshof 62.25 99 P **P** 01 43 39.0 0.0
H10N3 ASCENSION HYDR 63.18 51 T T 02 52 09.8
baz=201,slow=74,SNR=27
H10N1 ASCENSION HYDR 63.18 51 T T 02 52 05.9
baz=201,slow=74,SNR=34
H10N2 ASCENSION HYDR 63.20 51 T T 02 52 11.1
baz=201,slow=74,SNR=32
LBTB Lobatse 65.48 97 P **P** 01 44 00.2 0.0
MLZ Mavora Lakes 66.25 214 P **P** 01 44 05.1 +0.3
ASAR Alice Springs 93.63 191 P **P** 01 46 35.7 +2.3
comp=Z,0.1nm,0.4s,baz=188,slow=5.4,SNR=1.1
comp=Z,0.1nm,0.4s
WRA Warramunga Arr 97.28 192 P Pdif 01 46 52.6 +2.4
comp=Z,0.1nm,0.3s,baz=178,slow=4.1,SNR=2.4
comp=Z,0.1nm,0.3s
VYHS Vyhne 126.40 54 *e*PDIFF **Pdif** 01 49 07.8 +9.0
ARCES ARCESS Array B 144.26 37 PKP **PKPdf** 01 52 51.3 0.0
comp=Z,0.7nm,0.4s,baz=215,slow=1.5,SNR=3.5
ARCES ARCESS Array B 144.26 37 **PKPdf** 01 52 50.8 -0.5
NJ2 Nanjing 149.57 176 *e*P **PKPdf** 01 53 00.4 -1.0
NJ2 Nanjing 149.57 176 pmax pmax
comp=Z,17nm,0.6s
LZH Lanzhou 151.45 149 *e*P **PKPdf** 01 52 58.5 -5.9
LZH pP pPKPdf 01 53 06.5 +1.1
LZH sP sPKPbc 01 53 13.9 +2.1
LZH pmax pmax
comp=Z,19nm,1.3s
BVAR Borovoye Array 151.91 86 PKP **PKPdf** 01 53 04.2 -0.1
comp=Z,0.3nm,0.4s,baz=241,slow=1.5,SNR=1.8
BVAR PKPbc **PKPbc** 01 53 10.9 +0.1
comp=Z,0.9nm,0.6s,baz=190,slow=2.4,SNR=5.1
MKAR Makanchi Array 153.02 107 PKPbc **PKiKP** 01 53 16.2 +2.5
comp=Z,0.1nm,0.4s,baz=270,slow=1.4,SNR=1.8
HHC Hu-ho-hao-te 157.60 160 *e*P **PKPdf** 01 53 07.6 -5.1

*GII **14** 01:44:28.6±0.0, 35.°070N±0.°001×23.°303E±0.°001, h0km, Mws4.0, confirmed*
*ATH **14** 01:44:35.8, 35.°00N×23.°25E, h72km±2km, ML3.1/18, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
*THE **14** 01:44:37.3, 35.°N±6.°×2.°3E±.°, h73km±6km, M2.7/34, MLh2.7/34*
ISC 14 01:44:33.7±1.5, **34.°99N**±0.°06×**23.°29E**±0.°06, **h83**km±9km, **n127**, σ**2.°26**/148, **Crete**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GVDS	**Gavdos**	**0.65**	**103**	P		**Pn**	**01 44 50.2**	**+1.2**
GVDS				S		**Sn**	**01 45 03.5**	**+3.0**
GVDS				AML		AML		
GVDS	**Gavdos**	**0.65**	**103**	P		**Pn**	**01 44 50.3**	**+1.2**
GVDS				S		**Sn**	**01 45 01.6**	**+1.1**
GVDS				AML		AML		
GVD	**Gavdhos**	**0.67**	**102**	P		**Pn**	**01 44 50.7**	**+1.4**
GVD				S		**Sn**	**01 45 04.4**	**+3.5**
GVD				AML		AML		
GVD	**Gavdhos**	**0.67**	**102**	P		**Pn**	**01 44 50.5**	**+1.2**
GVD				S		**Sn**	**01 45 01.7**	**+0.8**
GVD				AML		AML		
RODP	**Rodopos**	**0.69**	**34**	P		**Pn**	**01 44 49.7**	**+0.2**
RODP				AML		AML		
RODP	**Rodopos**	**0.69**	**34**	P		**Pn**	**01 44 49.9**	**+0.4**
RODP				S		**Sn**	**01 45 02.3**	**+1.0**
RODP				AML		AML		
IMMV	**Iera Moni Meta**	**0.74**	**50**	P		**Pn**	**01 44 50.9**	**+0.9**
IMMV				S		**Sn**	**01 45 03.4**	**+1.3**
IMMV				AML		AML		
IMMV	**Iera Moni Meta**	**0.74**	**50**	P		**Pn**	**01 44 50.9**	**+0.9**
IMMV				S		**Sn**	**01 45 03.8**	**+1.6**
IMMV				AML		AML		
CH01	**Chania**	**0.80**	**48**	P		**Pn**	**01 44 52.1**	**+1.5**
CH01				S		**Sn**	**01 45 05.0**	**+1.8**
CHNB	**Souda**	**0.81**	**52**	P		**Pn**	**01 44 52.1**	**+1.4**
CHNB				S		**Sn**	**01 45 05.3**	**+1.9**
VAM	**Vamos**	**0.86**	**60**	P		**Pn**	**01 44 52.9**	**+1.7**
VAM				S		**Sn**	**01 45 06.1**	**+1.7**
VAM				AML		AML		
VAM	**Vamos**	**0.86**	**60**	P		**Pn**	**01 44 53.0**	**+1.7**
VAM				S		**Sn**	**01 45 06.0**	**+1.7**
ANKY	**Antikythira Is**	**0.88**	**1**	P		**Pn**	**01 44 52.1**	**+0.6**
ANKY				S		**Sn**	**01 45 04.9**	**+0.1**
ANKY				AML		AML		
ANKY	**Antikythira Is**	**0.88**	**1**	P		**Pn**	**01 44 52.1**	**+0.6**
ANKY				S		**Sn**	**01 45 05.3**	**+0.5**
ANKY				AML		AML		
RTHF	**Rethymno-Limin**	**1.05**	**68**	P		**Pn**	**01 44 55.3**	**+1.9**
RTHF				S		**Sn**	**01 45 10.5**	**+2.2**
RTHF				AML		AML		
SIVA	**Sivas**	**1.25**	**88**	P		**Pn**	**01 44 58.8**	**+2.9**
SIVA				AML		AML		
SIVA	**Sivas**	**1.25**	**88**	P		**Pn**	**01 44 58.9**	**+2.9**
SIVA				S		**Sn**	**01 45 13.7**	**+1.0**
SIVA				AML		AML		
KTHR	**Kythira**	**1.28**	**349**	P		**Pn**	**01 44 57.7**	**+1.3**
KTHR				AML		AML		
KTHR	**Kythira**	**1.28**	**349**	P		**Pn**	**01 44 57.8**	**+1.5**
KTHR				S		**Sn**	**01 45 15.2**	**+1.8**
KTHA	**Kythira Island**	**1.28**	**352**	P		**Pn**	**01 44 57.9**	**+1.5**
KTHA				AML		AML		
KTHA	**Kythira Island**	**1.28**	**352**	P		**Pn**	**01 44 57.9**	**+1.5**
KTHA				S		**Sn**	**01 45 14.3**	**+0.8**
KTHA				AML		AML		
IDI	**Anoyia**	**1.35**	**77**	P		**Pn**	**01 44 60.0**	**+2.8**
IDI				S		**Sn**	**01 45 16.9**	**+1.9**
IDI				AML		AML		
IDI	**Anoyia**	**1.35**	**77**	P		**Pn**	**01 45 00.0**	**+2.8**
IDI				S		**Sn**	**01 45 17.2**	**+2.2**
NPS1	**Neapolis Lacon**	**1.54**	**353**	P		**Pn**	**01 45 01.3**	**+1.8**
NPS1				AML		AML		
VLI	**Veliai**	**1.75**	**351**	P		**Pn**	**01 45 04.2**	**+1.8**
VLI				AML		AML		
VLI	**Veliai**	**1.75**	**351**	P		**Pn**	**01 45 04.1**	**+1.7**
VLI				AML		AML		
NPS	**Neapolis**	**1.93**	**81**	P		**Pn**	**01 45 08.4**	**+3.7**
NPS				AML		AML		
NPS	**Neapolis**	**1.93**	**81**	P		**Pn**	**01 45 07.1**	**+2.4**
NPS				S		**Sn**	**01 45 30.2**	**+2.0**
MHLO	**Agia Marina, M**	**1.93**	**28**	P		**Pn**	**01 45 07.1**	**+2.4**
MHLO				S		**Sn**	**01 45 29.8**	**+1.5**
MILOS	**Milos**	**1.98**	**28**	P		**Pn**	**01 45 06.4**	**+1.0**
MILOS				AML		AML		
THR9	**Santorini-Faro**	**2.17**	**50**	P		**Pn**	**01 45 09.7**	**+1.8**
THR6	**Thira Island,**	**2.20**	**51**	P		**Pn**	**01 45 10.5**	**+2.3**
THR6	**Thira Island,**	**2.20**	**51**	P		**Pn**	**01 45 10.7**	**+2.5**
THR5	**Thira Island,**	**2.20**	**49**	P		**Pn**	**01 45 09.9**	**+1.5**
THR5	**Thira Island,**	**2.20**	**49**	P		**Pn**	**01 45 10.1**	**+1.7**
SAP3	**Santorini-Thir**	**2.21**	**49**	P		**Pn**	**01 45 10.1**	**+1.6**
SAP3	**Santorini-Thir**	**2.21**	**49**	P		**Pn**	**01 45 10.2**	**+1.7**
SNT5	**Nea Kammeni, S**	**2.22**	**50**	P		**Pn**	**01 45 10.5**	**+1.9**
SNT5				AML		AML		
SNT5	**Nea Kammeni, S**	**2.22**	**50**	P		**Pn**	**01 45 10.6**	**+1.9**
THR3	**Thira Island,**	**2.23**	**50**	P		**Pn**	**01 45 10.7**	**+2.0**
THR3	**Thira Island,**	**2.23**	**50**	P		**Pn**	**01 45 10.5**	**+1.8**
THERA	**Ancient Thera,**	**2.25**	**52**	P		**Pn**	**01 45 10.7**	**+1.7**
THERA	**Ancient Thera,**	**2.25**	**52**	P		**Pn**	**01 45 10.8**	**+1.7**
THR2	**Thira island,**	**2.28**	**50**	P		**Pn**	**01 45 11.5**	**+2.1**
THR8	**Santorini-Mono**	**2.28**	**51**	P		**Pn**	**01 45 11.1**	**+1.7**
THR8	**Santorini-Mono**	**2.28**	**51**	P		**Pn**	**01 45 11.3**	**+2.0**
STIA	**Sitia Lasithi**	**2.31**	**84**	P		**Pn**	**01 45 12.5**	**+2.8**
ZKR	**Zakros**	**2.41**	**86**	P		**Pn**	**01 45 13.9**	**+2.8**
ITM	**Ithomi**	**2.45**	**334**	P		**Pn**	**01 45 13.7**	**+2.0**
ITM				AML		AML		
ITM	**Ithomi**	**2.45**	**334**	P		**Pn**	**01 45 13.7**	**+2.0**
VLX	**Vlachokerasia**	**2.49**	**343**	P		**Pn**	**01 45 14.5**	**+2.2**
VLX				AML		AML		
VLX	**Vlachokerasia**	**2.49**	**343**	P		**Pn**	**01 45 15.0**	**+2.7**
MET3	**Ano Fanari,Met**	**2.59**	**359**	P		**Pn**	**01 45 15.4**	**+1.9**
MET1	**Methana Town,**	**2.59**	**2**	P		**Pn**	**01 45 15.6**	**+2.1**
MET6	**Megalochori,Me**	**2.60**	**1**	P		**Pn**	**01 45 15.9**	**+2.2**
MET2	**Kameni Chora,**	**2.62**	**1**	P		**Pn**	**01 45 16.4**	**+2.5**
MET2				AML		AML		
EPID	**Epidavros**	**2.63**	**357**	P		**Pn**	**01 45 16.2**	**+2.1**
EPID				AML		AML		
EPID	**Epidavros**	**2.63**	**357**	P		**Pn**	**01 45 16.5**	**+2.4**
MET5	**Makryloggos,Me**	**2.63**	**1**	P		**Pn**	**01 45 16.6**	**+2.4**
APE	**Apeiranthos**	**2.76**	**41**	P		**Pn**	**01 45 17.1**	**+1.2**
APE	**Apeiranthos**	**2.76**	**41**	P		**Pn**	**01 45 16.9**	**+1.0**
AMT	**Artemida-Makis**	**2.84**	**334**	P		**Pn**	**01 45 19.1**	**+2.1**
AMT				AML		AML		
AMT	**Artemida-Makis**	**2.84**	**334**	P		**Pn**	**01 45 19.1**	**+2.1**
VLY	**Voula,Athens**	**2.89**	**8**	P		**Pn**	**01 45 19.6**	**+2.0**
VLY				AML		AML		
VLY	**Voula,Athens**	**2.89**	**8**	P		**Pn**	**01 45 18.9**	**+1.4**
ACOR	**Acrocorinthos**	**2.92**	**353**	P		**Pn**	**01 45 20.7**	**+2.7**
ATH	**Athens Observa**	**3.00**	**6**	P		**Pn**	**01 45 20.9**	**+1.9**
ATH				AML		AML		
ATHU	**Athens Univers**	**3.00**	**8**	P		**Pn**	**01 45 20.9**	**+1.7**
ATHU	**Athens Univers**	**3.00**	**8**	P		**Pn**	**01 45 20.8**	**+1.7**
LOUT	**Loutraki**	**3.01**	**355**	P		**Pn**	**01 45 21.9**	**+2.8**
GUR	**Goura**	**3.04**	**346**	P		**Pn**	**01 45 22.2**	**+2.4**
GUR				AML		AML		
GUR	**Goura**	**3.04**	**346**	P		**Pn**	**01 45 22.4**	**+2.7**
LTK	**Loutraki**	**3.04**	**355**	P		**Pn**	**01 45 21.9**	**+2.2**
LTK				AML		AML		
LTK	**Loutraki**	**3.04**	**355**	P		**Pn**	**01 45 21.8**	**+2.2**
PTL	**Penteli**	**3.09**	**8**	P		**Pn**	**01 45 22.4**	**+2.0**
PTL	**Penteli**	**3.09**	**8**	P		**Pn**	**01 45 22.1**	**+1.7**
DION	**Dionisos Attik**	**3.13**	**9**	P		**Pn**	**01 45 22.8**	**+1.9**
DION				AML		AML		
DION	**Dionisos Attik**	**3.13**	**9**	P		**Pn**	**01 45 22.5**	**+1.6**
VILL	**Villia**	**3.17**	**0**	P		**Pn**	**01 45 23.3**	**+1.9**
VILL				AML		AML		
KARY	**Karystos**	**3.18**	**17**	P		**Pn**	**01 45 23.2**	**+1.7**
KARY				AML		AML		
KARY	**Karystos**	**3.18**	**17**	P		**Pn**	**01 45 22.8**	**+1.4**
KLV	**Kalavryta, Ach**	**3.19**	**344**	P		**Pn**	**01 45 23.9**	**+2.2**
KLV				AML		AML		
KLV	**Kalavryta, Ach**	**3.19**	**344**	P		**Pn**	**01 45 23.7**	**+2.1**
STFN	**Stefani**	**3.19**	**4**	P		**Pn**	**01 45 23.6**	**+1.9**
STFN				AML		AML		
KARP	**Karpathos**	**3.22**	**79**	P		**Pn**	**01 45 25.5**	**+3.4**
KARP	**Karpathos**	**3.22**	**79**	P		**Pn**	**01 45 25.3**	**+3.3**
VIL2	**Platees**	**3.22**	**360**	P		**Pn**	**01 45 22.7**	**+0.6**
DRO	**Drossia**	**3.22**	**337**	P		**Pn**	**01 45 24.3**	**+2.1**
DRO				AML		AML		
DRO	**Drossia**	**3.22**	**337**	P		**Pn**	**01 45 24.2**	**+2.1**
AIOA	**Agios Ioannis,**	**3.35**	**343**	P		**Pn**	**01 45 25.3**	**+1.5**
TEME	**Temeni, Aigial**	**3.37**	**344**	P		**Pn**	**01 45 25.4**	**+1.3**
RLS	**Riolos of Patr**	**3.40**	**335**	P		**Pn**	**01 45 26.8**	**+2.3**
RLS				AML		AML		
RLS	**Riolos of Patr**	**3.40**	**335**	P		**Pn**	**01 45 25.7**	**+1.3**
LAKA	**Lakka**	**3.42**	**342**	P		**Pn**	**01 45 26.5**	**+1.8**
LAKA				AML		AML		
LAKA	**Lakka**	**3.42**	**342**	P		**Pn**	**01 45 26.6**	**+1.9**
KALE	**Kalithea**	**3.52**	**345**	P		**Pn**	**01 45 28.1**	**+2.0**
KALE				AML		AML		
KALE	**Kalithea**	**3.52**	**345**	P		**Pn**	**01 45 27.4**	**+1.2**
AXS	**Araxos**	**3.55**	**335**	P		**Pn**	**01 45 29.0**	**+2.4**
SERG	**Sergoula**	**3.56**	**344**	P		**Pn**	**01 45 29.3**	**+2.6**
SERG				AML		AML		
PYRG	**Pyrgos, Dorida**	**3.57**	**344**	P		**Pn**	**01 45 28.5**	**+1.7**
EFP	**Efpalio**	**3.61**	**342**	P		**Pn**	**01 45 30.2**	**+2.9**
EFP				AML		AML		
EFP	**Efpalio**	**3.61**	**342**	P		**Pn**	**01 45 30.0**	**+2.7**
VVK	**Vomvokou**	**3.63**	**341**	P		**Pn**	**01 45 30.2**	**+2.5**
KYMI	**Kymi, Euboea I**	**3.70**	**10**	P		**Pn**	**01 45 29.9**	**+1.4**
KYMI	**Kymi, Euboea I**	**3.70**	**10**	P		**Pn**	**01 45 30.0**	**+1.4**
ATAL	**Atalanti**	**3.71**	**357**	P		**Pn**	**01 45 30.3**	**+1.6**
ATAL	**Atalanti**	**3.71**	**357**	P		**Pn**	**01 45 30.2**	**+1.6**
ANX	**Ano Chora**	**3.76**	**343**	P		**Pn**	**01 45 31.8**	**+2.3**
ANX				AML		AML		
ANX	**Ano Chora**	**3.76**	**343**	P		**Pn**	**01 45 31.9**	**+2.4**
PSDA	**Pessada-Kefalo**	**3.81**	**326**	P		**Pn**	**01 45 30.2**	**+0.2**
AXAR	**Agios Charalam**	**3.81**	**353**	P		**Pn**	**01 45 31.2**	**+1.2**
PVO	**Paravola**	**3.89**	**339**	P		**Pn**	**01 45 34.5**	**+3.4**
PVO	**Paravola**	**3.89**	**339**	P		**Pn**	**01 45 33.4**	**+2.3**
PDO	**Prodromos**	**3.98**	**336**	P		**Pn**	**01 45 34.8**	**+2.4**
AGG	**Agios Georgios**	**4.10**	**350**	P		**Pn**	**01 45 36.1**	**+2.1**
AOS2	**Alonissos-2**	**4.18**	**6**	P		**Pn**	**01 45 36.1**	**+1.1**
CSS	**Mathiatis**	**8.24**	**87**	P		Pn	01 46 25.3	-5.2
CSS				S		**Sn**	**01 47 57.4**	**-4.7**
KZIT	**Kziot**	**10.18**	**110**	P		Pn	01 46 52.4	-4.6
KZIT				S		**Sn**	**01 48 45.2**	**-4.1**
AMAZ	**Amatzia**	**10.32**	**106**	P		Pn	01 46 54.1	-4.8
AMAZ				S		**Sn**	**01 48 48.5**	**-4.4**
GEM	**Giv'at Ha'Em**	**10.41**	**96**	P		Pn	01 46 54.9	-5.2
GEM				S		**Sn**	**01 48 50.5**	**-4.5**
MMLI	**Mount Malkishu**	**10.42**	**101**	P		Pn	01 46 55.4	-4.8
MMLI				S		**Sn**	**01 48 50.5**	**-4.7**
RMNI	**Mount Ramon**	**10.60**	**111**	P		Pn	01 46 58.4	-4.3
RMNI				S		**Sn**	**01 48 55.8**	**-3.9**
MSBI	**Mazada**	**10.76**	**107**	P		Pn	01 46 59.9	-4.8
MSBI				S		**Sn**	**01 48 59.1**	**-4.2**
GHAJ	**Ghor Haditha**	**10.93**	**106**	P		Pn	01 47 02.5	-4.6
GHAJ				S		**Sn**	**01 49 02.9**	**-4.5**
ZFRI	**Zfri**	**10.94**	**111**	P		Pn	01 47 02.5	-4.8
ZFRI				S		**Sn**	**01 49 03.9**	**-3.8**
HRFI	**Mount Harif**	**11.07**	**113**	P		Pn	01 47 04.5	-4.7
HRFI				S		**Sn**	**01 49 07.4**	**-3.7**
EIL	**Elat**	**11.20**	**115**	P		Pn	01 47 06.0	-4.7
EIL				S		**Sn**	**01 49 10.1**	**-4.0**

*SOME **14** 01:46:41.6, 43.°92N×82.°35E, h5km*
*NNC **14** 01:46:46.2±2.7, 44.°06N×82.°44E, h0km, mb2.5, mpv2.1, Error ellipse: s-maj=29.0km s-min=8.3km az=124.0*
ISC 14 01:46:42.7±3.1, **44.°1N**±0.°1×**82.°4E**±0.°1, **h4**km±21km, **n6**, σ**0.°75**/12, **3C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DJR	**Jarkent**	**1.89**	**279**	*e*P		**Pb**	**01 47 17.2**	**-0.7**
DJR	1.1nm,0.1s			*e*S		**Sg**	**01 47 43.2**	**-0.3**
PDGK	5.3nm,0.2s **Podgornoye**	**2.23**	**252**	⇑P		**Pg**	**01 47 26.0**	**+0.5**
PDGK	2.2nm,0.9s			⇑S		**Sg**	**01 47 54.4**	**0.0**
UZB	5.7nm,0.6s **Uzynbulak**	**2.62**	**251**	*e*P		**Pb**	**01 47 29.5**	**-0.8**
UZB	2.7nm,0.1s			*e*S		**Sb**	**01 48 03.9**	**+1.0**
MK31	2.9nm,0.2s **Makanchi Array**	**2.73**	**359**	Pn		**Pb**	**01 47 31.6**	**-0.4**
MK31	0.1nm,0.4s,baz=172,slow=15,SNR=9.5			⇑Sn		**Sb**	**01 48 06.3**	**+0.4**
KPKS	1.4nm,0.6s,baz=176,slow=25 **Kokpek**	**2.75**	**259**	*e*P		**Pb**	**01 47 31.6**	**-1.0**
KPKS	0.5nm,0.1s			*e*S		**Sb**	**01 48 07.5**	**+0.7**
MAKZ	6.9nm,0.2s **Makanchi**	**2.75**	**354**	⇓Pn		**Pb**	**01 47 32.5**	**0.0**
MAKZ	5.0nm,1.7s			⇓Sn		**Sb**	**01 48 06.5**	**-0.2**
	1.7nm,1.1s							

*SJA **14** 01:53:31.1±0.6, 20.°28S×70.°80W, h34km±4km, ML3.4, MW3.8*
*NEIC **14** 01:53:31.1±1.3, 20.°24S±0.°03×70.°85W±0.°06, h24km±13km, ML3.6/36, ML3.5(GUC), Error ellipse: s-maj=8.7km s-min=2.7km az=109.0*
*GUC **14** 01:53:32.5±0.7, 20.°24S×70.°85W, h36km±3km, ML3.5, Presumed earthquake*
ISC 14 01:53:31.2±1.3, **20.°23S**±0.°02×**70.°85W**±0.°05, **h28**km±12km, **n57**, σ**1.°28**/74, **4C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
TA02	**Huaiquique**	**0.67**	**94**	*e*P		**Pb**	**01 53 44.4**	**0.0**
TA02				IAML			01 53 54.6	
TA02	comp=Z,3μm,0.4s **Huaiquique**	**0.67**	**94**	*e*P		**Pb**	**01 53 44.4**	**0.0**
TA02				*e*S		**Sb**	**01 53 53.7**	**+0.3**
TA02				IAML			01 53 54.5	
TA01	comp=E,9μm,0.2s **Diego Aracena**	**0.71**	**119**	*e*P		**Pb**	**01 53 44.9**	**-0.1**
TA01				*e*S		**Sb**	**01 53 54.6**	**+0.1**
TA01				IAML			01 53 56.7	
TA01	comp=Z,2μm,0.3s **Diego Aracena**	**0.71**	**119**			**Pn**	**01 53 44.5**	**-0.9**
TA01				Sg		**Sn**	**01 53 53.7**	**-1.7**
TA01				IAML			01 53 56.7	
TA01	comp=N,3μm,0.6s			IAML			01 53 57.0	
TA01	comp=E,3μm,0.6s **Diego Aracena**	**0.71**	**119**	⇓*i*P		**Pb**	**01 53 45.0**	**0.0**
TA01				*e*S		**Sb**	**01 53 54.9**	**+0.4**
TA01				IAML			01 53 57.0	
PSGCX	comp=N,3μm,0.3s **Pisagua**	**0.93**	**48**	*e*P		**Pn**	**01 53 48.1**	**-0.4**
PSGCX				IAML			01 54 05.8	
PSGCX	comp=Z,598nm,0.4s **Pisagua**	**0.93**	**48**	Pn		**Pn**	**01 53 47.9**	**-0.6**
PSGCX						**Sn**	**01 54 00.6**	**-0.3**
PSGCX	**Pisagua**	**0.93**	**48**	⇓*i*P		**Pn**	**01 53 48.1**	**-0.4**
PSGCX				*e*S		**Sn**	**01 54 00.5**	**-0.3**
PB11	**IPOC Station P**	**1.21**	**68**	*e*P		**Pb**	**01 53 53.0**	**-0.6**
PB11				IAML			01 54 16.2	
PB11	comp=Z,510nm,0.4s **IPOC Station P**	**1.21**	**68**			**Pn**	**01 53 52.5**	**0.0**
PB11						**Sn**	**01 54 07.9**	**-0.2**
PB11				IAML			01 54 14.2	
PB11	comp=N,1μm,0.4s **IPOC Station P**	**1.21**	**68**	⇓*i*P		**Pb**	**01 53 52.9**	**-0.7**
PB11				*e*S		**Sb**	**01 54 08.8**	**-0.2**
PB11				IAML			01 54 14.3	
PX02	comp=N,1μm,0.2s **IPOC Station P**	**1.40**	**26**	*e*P		**Pn**	**01 53 54.9**	**-0.1**
PB02	**IPOC Station P**	**1.41**	**141**	*e*P		**Pb**	**01 53 56.1**	**-0.9**
PB02				IAML			01 54 19.7	
PB02	comp=Z,2μm,0.4s **IPOC Station P**	**1.41**	**141**	Pn		**Pb**	**01 53 55.5**	**-1.4**
PB02	**IPOC Station P**	**1.41**	**141**	⇑*i*P		**Pb**	**01 53 56.0**	**-0.9**
PB02				*e*S		**Sb**	**01 54 13.3**	**-1.2**
PB02				IAML			01 54 20.9	
PB08	comp=E,2μm,0.3s **IPOC Station P**	**1.59**	**87**	*e*P		**Pb**	**01 53 59.4**	**-0.9**
PB08				IAML			01 54 24.4	
PB08	comp=Z,360nm,0.6s **IPOC Station P**	**1.59**	**87**	Pn		**Pb**	**01 53 58.9**	**-1.3**
PB08				IAML			01 54 23.9	
PB08	comp=N,492nm,0.6s			IAML			01 54 24.1	
PB08	comp=E,465nm,0.6s **IPOC Station P**	**1.59**	**87**	⇑*i*P		**Pb**	**01 53 59.2**	**-0.9**
PB08				*e*S		**Sb**	**01 54 19.4**	**-0.7**
GO01	**Chusmiza**	**1.65**	**71**	*e*P		**Pb**	**01 54 00.2**	**-1.1**
GO01				IAML			01 54 23.0	
GO01	comp=Z,582nm,0.3s **Chusmiza**	**1.65**	**71**	Pn		**Pb**	**01 53 59.8**	**-1.5**
GO01				IAML			01 54 26.6	
GO01	comp=E,628nm,0.3s **Chusmiza**

PB09	**IPOC Station P**	**2.17 136**		Pn	**Pb**	**01 54 07.3**	**-2.5**
PB09				IAML		01 54 47.2	
	comp=E,715nm,0.5s						
PB09				IAML		01 54 47.5	
	comp=N,386nm,0.8s						
PB09	**IPOC Station P**	**2.17 136**	⇑ *i*	P	**Pb**	**01 54 07.8**	**-2.0**
PB16	**IPOC Station P**	**2.27 34**	*e*	P	**Pn**	**01 54 08.6**	**+1.3**
PB16				IAML		01 54 45.5	
	comp=Z,196nm,0.3s						
PB16	**IPOC Station P**	**2.27 34**		Pn	**Pb**	**01 54 09.5**	**-2.3**
PB16				IAML		01 54 44.2	
	comp=N,433nm,1.1s						
PB16				IAML		01 54 44.9	
	comp=E,323nm,0.8s						
PB05	**IPOC Station P**	**2.68 167**	*e*	P	**Pn**	**01 54 12.7**	**+0.1**
PB05			*e*	S	**Sb**	**01 54 55.0**	**+3.8**
PB05				IAML		01 55 02.1	
	comp=Z,71nm,0.6s						
PB05	**IPOC Station P**	**2.68 167**		Pn	**Pn**	**01 54 11.7**	**-1.0**
PB05				IAML		01 55 14.2	
	comp=E,171nm,0.8s						
PB05	**IPOC Station P**	**2.68 167**	*e*	P	**Pn**	**01 54 12.5**	**-0.1**
PB05				IAML		01 55 08.6	
	comp=E,116nm,0.5s						
PB06	**IPOC Station P**	**2.74 155**	*e*	P	**Pn**	**01 54 14.3**	**+0.8**
PB06				S	**Sb**	**01 54 52.9**	**+0.1**
PB06				IAML		01 55 06.1	
	comp=Z,148nm,0.7s						
PB06	**IPOC Station P**	**2.74 155**		Pn	**Pn**	**01 54 12.5**	**-1.0**
PB06				IAML		01 55 08.2	
	comp=E,175nm,0.8s						
PB06				IAML		01 55 08.4	
	comp=N,174nm,1.0s						
PB06	**IPOC Station P**	**2.74 155**	*e*	P	**Pn**	**01 54 13.9**	**+0.4**
PB06				IAML		01 55 04.8	
	comp=N,140nm,0.1s						
PB18	**Visviri**	**2.92 26**		Pn	**Pb**	**01 54 20.2**	**-2.9**
PB18	**Visviri**	**2.92 26**	*e*	P	**Pb**	**01 54 22.7**	**-0.3**
PB10	**IPOC Station P**	**3.28 175**	*e*	P	**Pn**	**01 54 21.4**	**+0.5**
PB10			*e*	S	**Sn**	**01 55 00.2**	**+1.3**
PB10	**IPOC Station P**	**3.28 175**		Pn	**Pn**	**01 54 20.5**	**-0.3**
PB10	**IPOC Station P**	**3.28 175**	*e*	P	**Pn**	**01 54 20.3**	**-0.6**
AF01	**San Pedro de A**	**3.68 138**		Pn	**Pn**	**01 54 29.2**	**+2.7**
PB14	**IPOC Station P**	**4.40 175**	*e*	P	**Pn**	**01 54 35.5**	**-0.9**
PB14			*e*	S	**Sn**	**01 55 23.6**	**-3.3**
PB14				IAML		01 55 29.0	
	comp=Z,23nm,0.4s						
PB14	**IPOC Station P**	**4.40 175**		Pn	**Pn**	**01 54 36.5**	**0.0**
PB14				IAML		01 56 07.5	
	comp=E,50nm,1.1s						
PB14	**IPOC Station P**	**4.40 175**	*e*	P	**Pn**	**01 54 35.3**	**-1.1**
LPAZ	**La Paz**	**4.69 34**		Pn	Pb	01 54 46.9	-6.3
AC01	**Pan de Azucar**	**5.90 178**		Pn	**Pn**	**01 54 56.2**	**-0.6**
AC02	**Maricunga**	**6.76 167**		Pn	**Pn**	**01 55 09.3**	**+0.2**
AC06	**Mina Casimiro**	**7.11 176**		Pn	**Pn**	**01 55 13.5**	**0.0**
VILB	**Vilhena**	**12.50 56**		Pn	**Pn**	**01 56 30.5**	**+3.0**

MAN ***14*** *02:10:30.0,4˙.14N×126˙.90E,h7km,MS3.7*
DJA ***14*** *02:10:33.6±0.9,4˙N±8˙×12˙7E±˙,h10km,M4.5/13,mB5.1/6, mb4.6/6,MLv4.5/13,Mw(mB)4.5/6,MwMwp4.8/1,Mwp5.1/1*
NEIC ***14*** *02:10:34.1±1.9,4˙.18N±0˙.05×126˙.55E±0˙.07,h50km±8km, mb4.4/18,Error ellipse: s-maj=10.8km s-min=4.4km az=121.0*
IDC ***14*** *02:10:36.2±1.8,4˙.28N×126˙.84E,h77km±16km,mb4.0/14, mbtmp4.3/16,MS3.0/6,Error ellipse: s-maj=44.2km s-min=10.1km az=66.0*
GFZ ***14*** *02:10:36.9±0.6,4˙N±4˙×12˙7E±˙,h45km±5km,M4.3/19, mb4.4/19,Error ellipse: s-maj=10.4km s-min=6.0km az=29.3,confirmed*
ISC 14 02:10:32.6±0.4,**4˙21N**±0˙.04×**126˙81E**±0˙.06,**h35**km,**n95, σ1s92**/95,**mb4.4**/37,**Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.18 330**		*e*P	**Pn**	**02 11 07.7**	**+1.3**
DDMP				*e*S	**Sn**	**02 11 33.9**	**+1.7**
GAMI	**Galela, Maluku**	**2.55 157**		P	**Pn**	**02 11 13.9**	**+2.4**
GAMI				S	**Sn**	**02 11 44.9**	**+3.6**
GAMI				AML	AML		
GAMI	**Galela, Maluku**	**2.55 157**		P	**Pn**	**02 11 12.2**	**+0.8**
GSPH	**General Santos**	**2.63 315**		*i* P	**Pn**	**02 11 14.8**	**+2.1**
GSPH				*i* S	**Sn**	**02 11 47.2**	**+3.7**
DAV	**Davao City (W)**	**3.10 337**		P	**Pn**	**02 11 20.4**	**+1.4**
	259nm,0.4s,baz=215,slow=4.2,SNR=2.6						
DAV				S	**Sn**	**02 11 59.2**	**+4.3**
	295nm,0.4s,baz=246,slow=12,SNR=1.5						
DAV				LR	LR	02 12 53.9	
	comp=Z,243nm,20.1s,baz=306,slow=45						
DMPH	**Davao City--Mi**	**3.14 336**		*e*P	Pn	02 11 32.0	+12
DMPH				*i* S	**Sn**	**02 11 52.9**	**-2.9**
KCP	**Kidapawan**	**3.27 329**		*e*P	Pn	02 11 27.3	+5.9
MNI	**Manado**	**3.37 216**		P	**Pn**	**02 11 27.2**	**+4.3**
MNI				AML	AML		
TNTI	**Ternate**	**3.46 171**		Pn	**Pn**	**02 11 26.8**	**+2.8**
TNTI	**Ternate**	**3.46 171**		P	**Pn**	**02 11 23.6**	**-0.4**
BIPH	**Bislig**	**3.98 354**		*e*P	**Pn**	**02 11 34.9**	**+3.8**
BIPH				*i* S	**Sn**	**02 12 20.0**	**+3.4**
CGP	**Cagayan de Oro**	**4.71 334**		*e*P	Pn	02 11 52.1	+11
CGP				*e*S	Sn	02 12 48.0	+13
GTOI	**Gorontalo**	**5.19 227**		P	**Pn**	**02 11 51.9**	**+4.0**
	40nm,0.5s						
SANI	**Sanana**	**6.27 188**		P	**Pn**	**02 12 02.1**	**-0.5**
SANI	**Sanana**	**6.27 188**		P	**Pn**	**02 12 03.5**	**+0.9**
	0.4nm2μm50nm,0.6s						
SANI				AML	AML		
SANI	**Sanana**	**6.27 188**		P	**Pn**	**02 12 02.5**	**-0.1**
	comp=Z,47nm,0.6s						
LUWI	**Luwuk**	**6.59 218**			**Pn**	**02 12 04.7**	**-2.4**
LUWI	**Luwuk**	**6.59 218**		P	**Pn**	**02 12 05.7**	**-1.4**
	comp=Z,114nm,0.9s						
SIJI	**Sorong**	**6.73 138**		P	**Pn**	**02 12 11.7**	**+2.7**
	comp=Z,19nm,0.5s,baz=353,slow=12,SNR=8.6						
SIJI				S	**Sn**	**02 13 24.4**	**-0.1**
	comp=Z,9.1nm,0.4s,baz=32,slow=22,SNR=5.7						
SIJI				LR	LR	02 14 49.0	
	comp=Z,138nm,20.8s,baz=78,slow=37						
SIJI	**Sorong**	**6.73 138**		P	**Pn**	**02 12 11.8**	**+2.8**
	comp=Z,0.1nmcomp=Z,903nmcomp=Z,29nm,0.6s						
SIJI				AML	AML		
SIJI	**Sorong**	**6.73 138**		P	**Pn**	**02 12 11.8**	**+2.8**
	comp=Z,27nm,0.6s						
TOLI2	**Tolitoli**	**6.76 243**			**Pn**	**02 12 10.9**	**+1.5**
TOLI2	**Tolitoli**	**6.76 243**		P	**Pn**	**02 12 09.9**	**+0.5**
	comp=Z,19nm,0.7s						
APSI	**Ampana**	**7.24 226**		P	Pn	02 12 23.2	+7.2
NLAI	**Namlea**	**7.40 178**		P	**Pn**	**02 12 20.5**	**+2.3**
NLAI	**Namlea**	**7.40 178**		P	**Pn**	**02 12 18.9**	**+0.7**
	comp=Z,33nm,0.5s						
MSAI	**Masohi**	**7.79 164**		P	**Pn**	**02 12 23.3**	**-0.3**
	comp=Z,21nm,0.5s						
FAKI	**Fak Fak**	**8.93 142**			**Pn**	**02 12 40.5**	**+1.3**
FAKI	**Fak Fak**	**8.93 142**		P	**Pn**	**02 12 41.9**	**+2.7**
	comp=Z,12nm,0.6s						
KAPI	**Kappang**	**11.56 218**		LR	LR	02 17 39.6	
	comp=Z,72nm,21.4s,baz=48,slow=36						
EDFI	**Ende, Flores**	**13.84 202**		P	**Pn**	**02 13 45.2**	**-1.4**
DBNI	**Kabupaten Domp**	**15.20 214**		P	**Pn**	**02 14 03.8**	**-1.1**
	comp=Z,10nm,1.5s						
JAY	**Jayapura**	**15.41 115**		LR	LR	02 19 49.1	
	comp=Z,45nm,18.2s,baz=268,slow=36						
DRS	**Darwin Rock St**	**17.02 166**		P	**Pn**	**02 14 28.9**	**+0.8**
MTN	**Manton Dam**	**17.48 166**			**Pn**	**02 14 32.6**	**-1.1**
JAGI	**Jajag, Banyuwa**	**17.83 225**		P	**Pn**	**02 14 34.6**	**-3.5**
DLV	**Lat**	**19.69 294**		P	**Pn**	**02 15 01.2**	**+0.3**
	comp=Z,26nm,1.6s						
KNRA	**Kununurra**	**19.85 174**		P	**P**	**02 15 01.4**	**+0.7**
KNRA				IAmb	IAmb	02 15 04.8	
	comp=Z,9.8nm,0.6s						
PPBI	**Pangkal Pinang**	**21.60 253**		P	**P**	**02 15 20.1**	**+0.4**
	comp=Z,0.2nm,0.8s						
QIZ	**Qiongzhong**	**22.17 313**		P	**P**	**02 15 29.9**	**+4.1**
	comp=Z,110nm,2.5s						
FITZ	**Fitzroy Crossi**	**22.19 183**		P	**P**	**02 15 25.4**	**-0.6**
FITZ	**Fitzroy Crossi**	**22.19 183**			**P**	**02 15 25.3**	**-0.7**
FITZ	**Fitzroy Crossi**	**22.19 183**		P	**P**	**02 15 25.9**	**0.0**
	comp=Z,4.5nm,0.8s						
CGJI	**Cibinong**	**23.66 243**		P	**P**	**02 15 40.4**	**-0.7**
	comp=Z,16nm,1.0s						
WRAB	**Tennant Creek**	**25.11 163**		P	**P**	**02 15 54.5**	**+0.1**
WRAB	**Tennant Creek**	**25.11 163**		P	**P**	**02 15 54.5**	**+0.1**
	comp=Z,17nm,0.8s						
WRA	**Warramunga Arr**	**25.11 163**		P	**P**	**02 15 54.3**	**-0.1**
	comp=Z,11nm,0.8s,baz=343,slow=9.9,SNR=31						
	comp=Z,11nm,0.8s						
WRA	**Warramunga Arr**	**25.11 163**			**P**	**02 15 52.6**	**-1.8**
WR8	**Warramunga Arr**	**25.17 163**			**P**	**02 15 55.2**	**+0.2**
WR8				IAmb	IAmb	02 16 07.2	
	comp=Z,9.9nm,0.9s						
SDSI	**Sungai Dareh**	**25.87 259**		P	**P**	**02 16 01.6**	**+0.2**
	comp=Z,5.6nm,1.0s						
MBWA	**Marble Bar**	**26.14 195**		P	**P**	**02 16 04.6**	**+0.9**
	comp=Z,17nm,1.2s						
QIS	**Mount Isa**	**27.63 153**		P	**P**	**02 16 18.9**	**+1.8**
QIS	**Mount Isa**	**27.63 153**		P	**P**	**02 16 18.4**	**+1.3**
RPSI	**Rantau Prapat**	**27.87 268**		P	**P**	**02 16 20.3**	**+0.9**
	comp=Z,5.0nm,0.5s						
SLVN	**Son La**	**28.01 309**		P	**P**	**02 16 24.6**	**+4.0**
	comp=Z,11nm,1.8s						
MTSU	**Mount Surprise**	**28.12 143**		P	**P**	**02 16 23.5**	**+2.0**
	comp=Z,21nm,1.1s						
AS31	**Alice Springs**	**28.55 166**			**P**	**02 16 24.7**	**-0.6**
AS31				IAmb	IAmb	02 16 26.4	
	comp=Z,2.0nm,0.6s						
ASAR	**Alice Springs**	**28.55 166**		P	**P**	**02 16 25.8**	**+0.4**
	comp=Z,4.1nm,0.6s,baz=345,slow=6.8,SNR=86						
ASAR				PcP	**PcP**	**02 19 35.5**	**-0.9**
	comp=Z,0.6nm,0.4s,baz=352,slow=2.6,SNR=4.3						
	comp=Z,4.1nm,0.6s						
CMAR	**Chiang Mai Arr**	**30.70 300**		P	**P**	**02 16 44.5**	**+0.1**
	comp=Z,1.1nm,0.3s,baz=106,slow=7.6,SNR=4.3						
	comp=Z,1.1nm,0.3s						
CHTO	**Chiang Mai**	**30.85 300**		P	**P**	**02 16 49.4**	**+3.6**
	comp=Z,9.1nm,2.9s						
MEEK	**Meekatharra**	**31.67 194**		P	**P**	**02 16 52.0**	**-0.9**
MEEK	**Meekatharra**	**31.67 194**		P	**P**	**02 16 53.2**	**+0.3**
	comp=Z,22nm,2.6s						
KSRS	**Korea Array**	**33.11 2**		LR	LR	02 31 55.4	
	comp=Z,8.9nm,19.6s,baz=205,slow=39						
JYT	**Yasato**	**34.17 19**		P	P	02 17 21.8	+7.2
	comp=Z,0.9nm,1.6s						
FORT	**Forrest**	**34.81 178**		P	**P**	**02 17 20.4**	**+0.2**
QLP	**Quilpie**	**34.95 152**		P	**P**	**02 17 23.6**	**+2.1**
	comp=Z,10nm,1.5s						
BBOO	**Buckleboo**	**37.84 167**		P	**P**	**02 17 46.4**	**+0.3**
STKA	**Stephens Creek**	**38.55 160**		P	**P**	**02 17 52.9**	**+0.9**
	comp=Z,4.5nm,0.4s,baz=332,slow=7.5,SNR=10						
STKA				LR	LR	02 35 09.0	
	comp=Z,46nm,19.1s,baz=207,slow=38						
	comp=Z,4.5nm,0.4s						
STKA	**Stephens Creek**	**38.55 160**			**P**	**02 17 52.8**	**+0.9**
HHC	**Hu-ho-hao-te**	**38.97 342**	*e*	P	**P**	**02 17 56.8**	**+1.2**
HHC				pmax	pmax		
	comp=Z,15nm,0.7s						
ARMA	**Armidale**	**41.82 147**			**P**	**02 18 20.9**	**+1.5**
ARMA				IAmb	IAmb	02 18 38.4	
	comp=Z,16nm,1.2s						
EVN	**Everest**	**44.77 306**		P	**P**	**02 18 41.2**	**-2.7**
EVN				IAmb	IAmb	02 18 43.4	
	comp=Z,4.5nm,0.4s						
SONM	**Songino Array**	**46.88 341**		P	**P**	**02 18 58.7**	**-0.9**
	comp=Z,0.4nm,0.4s,baz=151,slow=3.3,SNR=1.8						
SONM				PcP	**PcP**	**02 20 29.8**	**-2.2**
	comp=Z,0.3nm,0.4s,baz=159,slow=4.5,SNR=3.7						
	comp=Z,0.4nm,0.4s						
SONM	**Songino Array**	**46.88 341**		P	**P**	**02 18 59.0**	**-0.6**
MKAR	**Makanchi Array**	**57.21 325**		P	**P**	**02 20 15.0**	**-1.4**
	comp=Z,0.9nm,0.4s,baz=120,slow=7.7,SNR=23						
	comp=Z,0.9nm,0.4s						
MKAR	**Makanchi Array**	**57.21 325**		P	**P**	**02 20 14.7**	**-1.7**
MAKZ	**Makanchi**	**57.40 325**		P	**P**	**02 20 17.0**	**-0.7**
MAKZ				IAmb	IAmb	02 20 27.0	
	comp=Z,4.0nm,1.1s						
ZALV	**Zalesovo Beam**	**60.20 333**		P	**P**	**02 20 35.0**	**-2.0**
	comp=Z,0.7nm,0.4s,baz=126,slow=6.8,SNR=4.8						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**60.20 333**		P	**P**	**02 20 34.6**	**-2.4**
KURBB	**Kurchatov Arra**	**61.38 327**		P	**P**	**02 20 43.1**	**-1.9**
	comp=Z,1.3nm,0.5s,baz=125,slow=6.2,SNR=20						
	comp=Z,1.3nm,0.5s						
KURK	**Kurchatov**	**61.38 327**		P	**P**	**02 20 43.2**	**-1.9**
BVAR	**Borovoye Array**	**66.97 327**		P	**P**	**02 21 20.5**	**-1.2**
	comp=Z,0.9nm,0.4s,baz=123,slow=5.5,SNR=6.4						
	comp=Z,0.9nm,0.4s						
BORK	**Borovoye**	**67.01 327**		P	**P**	**02 21 20.8**	**-1.2**
BORK				IAmb	IAmb	02 21 32.2	
	comp=Z,4.5nm,1.0s						
NRIK	**Noril'sk**	**69.99 346**		P	**P**	**02 21 38.7**	**-1.6**
	comp=Z,2.5nm,0.3s,baz=134,slow=3.5,SNR=4.1						
	comp=Z,2.5nm,0.3s						
NRIK	**Noril'sk**	**69.99 346**		IAmb	IAmb	02 21 56.5	
	comp=Z,3.2nm,0.7s						
AB31	**Akbulak array**	**71.83 321**		P	**P**	**02 21 49.9**	**-1.9**
AB31				IAmb	IAmb	02 22 03.1	
	comp=Z,3.6nm,1.5s						
ABKAR	**Akbulak array**	**71.83 321**		P	**P**	**02 21 50.0**	**-1.8**
IMAR	**Indian Mountai**	**81.88 24**		P	**P**	**02 22 47.7**	**-0.5**
CAST	**Castle Rocks**	**82.28 27**		P	**P**	**02 22 50.3**	**-0.1**
CAST				IAmb	IAmb	02 22 59.7	
	comp=Z,7.1nm,1.3s						
ILAR	**Eielson Array**	**84.64 25**		P	**P**	**02 23 01.0**	**-1.4**
	comp=Z,0.3nm,0.7s,baz=249,slow=5.6,SNR=4.4						
	comp=Z,0.3nm,0.7s						
BMAR	**Burnt Mountain**	**85.61 23**		P	**P**	**02 23 07.7**	**+0.4**
SPITS	**Spitsbergen Ar**	**90.03 349**		P	**P**	**02 23 28.2**	**0.0**
	comp=Z,9.8nm,1.0s,baz=90,slow=3.3,SNR=1.7						
	comp=Z,9.8nm,1.0s						
FINES	**FINESS Array B**	**91.45 332**		P	**P**	**02 23 33.3**	**-1.8**
	comp=Z,0.8nm,0.5s,baz=65,slow=7.0,SNR=6.0						
	comp=Z,0.8nm,0.5s						
FINES	**FINESS Array B**	**91.45 332**		P	**P**	**02 23 33.7**	**-1.4**
QSPA	**South Pole Qui**	**94.11 180**		P	**P**	**02 23 45.7**	**-1.7**
	comp=Z,1.1nm,1.1s,baz=26,slow=1.9,SNR=1.8						
	comp=Z,1.1nm,1.1s						

BGR ***14*** *02:56:43.1,28˙.70N×68˙.54E,h24km,mb5.4,Ms5.1*
IDC ***14*** *02:56:52.8±0.4,30˙.32N×67˙.41E,h0km,mb4.9/45, mbtmp4.9/46,ML5.7/1,MS5.2/92,Error ellipse: s-maj=8.6km s-min=7.5km az=34.0*
MOS ***14*** *02:56:53.8±1.1,30˙.43N×67˙.50E,h13km,mb5.3/71, MS5.2/38,Error ellipse: s-maj=4.4km s-min=3.0km az=91.6*
ISC-PP ***14*** *02:56:55,30˙.37N×67˙.44E,h11km,Mwppsm5.5,Moment Tensor Solution. s53 Moment tensor: Scale 10¹⁷Nm; Mrr0.38±.10; Mθθ0.15±.15; Mϕϕ-0.51±.12; Mrθ-0.45±.15; Mθϕ-0.24±.19; Mϕr-0.17±.10; Fault plane solution: M₀2.63000×10¹⁷ NP1:ϕs343.90000°,δ35.30000°, λ33.40000°. NP2:ϕs225.60000°,δ71.50000°,λ120.60000°.*
NEIC ***14*** *02:56:55.6±1.9,30˙.37N±0˙.08×67˙.44E±0˙.08,h12km±3km, mb5.4/301,Ms_20 5.5/444,Mwb5.4/38,Mww5.5/15 Error ellipse: s-maj=11.8km s-min=10.3km az=173.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr0.20; Mθθ-1.78; Mϕϕ1.58; Mrθ-0.59; Mθϕ-0.51; Mϕr0.20; Fault plane solution: M₀1.87000×10¹⁷ NP1:ϕs35.84000°, δ71.71000°,λ-2.07000°. NP2:ϕs126.49000°,δ88.04000°, λ-161.70000°. Principal axes: T 1.7114, Plg11.0000°, Azm260.0000°; N 0.2829, Plg72.0000°, Azm132.0000°; P -1.9943, Plg14.0000°, Azm353.0000°;*
BJI ***14*** *02:56:55.2,30˙.67N×67˙.51E,h10km,mB5.6/46,mb5.3/75, Ms5.7/87,Ms7 5.5/84*
GFZ ***14*** *02:56:55.9±0.2,30˙N±3˙×6˙7E±˙,h10km,M5.2/48, mb5.3/48*
GFZ ***14*** *02:56:55.8,30˙.36N×67˙.39E,h12km,Mw5.4/81,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-0.09; Mθθ-1.47; Mϕϕ1.55; Mrθ0.19; Mθϕ0.10; Mϕr0.10; Fault plane solution: M₀1.52963×10¹⁷ NP1: ϕs317.07532°,δ82.00245°,λ-177.18245°. NP2: ϕs226.68300°,δ87.20988°,λ-8.00710°. Principal axes: T 1.5631, Plg3.6671°, Azm272.1235°; N -0.0692, Plg81.5237°, Azm27.5949°; P -1.4938, Plg7.6315°, Azm181.6315°;*
NEIC ***14*** *02:56:55.8,30˙.34N×67˙.43E,h12km*
GCMT ***14*** *02:56:56.2±0.1,30˙.24N±0˙.01×67˙.38E±0˙.01,h19km, MW5.6/155,Moment Tensor Solution. s111,c178; s155,c310; Duration: 1s5 Moment tensor: Scale 10¹⁷ Nm; Mrr0.59±.04; Mθθ-2.93±.04; Mϕϕ2.34±.03; Mrθ-0.45±.08; Mθϕ-0.49±.03; Mϕr0.51±.08; Best double couple: M₀2.78300×10¹⁷ NP1:ϕs40.00000°,δ74.00000°, λ7.00000°. NP2:ϕs308.00000°,δ83.00000°,λ164.00000°. Principal axes: T 2.5450, Plg16.0000°, Azm263.0000°; N 0.4780, Plg73.0000°, Azm106.0000°; P -3.0210,*

Plg6.0000°, Azm355.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function
NNC ***14*** *02:56:56.4±4.9,30˙.73N×67˙.20E,h0km,mb5.4 Error ellipse: s-maj=68.3km s-min=51.6km az=155.0*
ISC 14 02:56:55.6±0.3,**30˙39N**±0˙.03×**67˙39E**±0˙.02,**h12**km±1km, **h12km:pP-P,n1282,**σ1**80**/1050,**mb5.3**/418,**MS5.4**/368, **69C-36D,Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBL	**Kabul**	**4.37**	**18**	P	**Pn**	**02 58 04.2**	**+2.2**
	SNR=347						
KBL	**Kabul**	**4.37**	**18**	P	**Pn**	**02 58 04.2**	**+2.2**
KBL	**Kabul**	**4.37**	**18**		**Pn**	**02 58 04.2**	**+2.2**
KBL	**Kabul**	**4.37**	**18**	P	**Pn**	**02 58 04.3**	**+2.4**
SRGN	**SRI GANGA NAGA**	**5.65**	**93**	*i* P	**Pb**	**02 58 33.2**	**-0.9**
SRGN				*i* S	**Sb**	**02 59 38.4**	**-3.4**
HRA	**Herat**	**5.90**	**314**		**Pn**	**02 58 24.8**	**+1.8**
NIL	**Nilore**	**5.95**	**55**	P	**Pn**	**02 58 23.8**	**+0.3**
NIL	**Nilore**	**5.95**	**55**		**Pn**	**02 58 23.8**	**+0.3**
NIL	**Nilore**	**5.95**	**55**	P	**Pn**	**02 58 24.1**	**+0.6**
	comp=Z,845nm,0.9s						
SRNI	**Srinagar**	**7.26**	**58**	*i* P	Pn	02 58 49.8	+8.0
SRNI				*i* S	**Sn**	**03 00 08.4**	**+4.1**
THN	**Thein Dam**	**7.44**	**72**	*i* P	Pb	02 58 56.3	-8.3
THN				*i* S	**Sn**	**03 00 15.1**	**+6.7**
NGCH	**Negor - Chabah**	**7.46**	**229**	P	**Pn**	**02 58 43.0**	**-1.4**
	SNR=53						
DHRM	**DHARAMSHALA**	**7.85**	**74**	*i* P	Pb	02 59 03.5	-8.2
DHRM				*i* S	**Sn**	**03 00 19.1**	**+0.4**
PWAL	**Palwal**	**8.97**	**102**	*i* P	**Pn**	**02 59 03.1**	**-1.9**
PWAL				*i* S	Sn	03 00 07.3	-39
JASK	**Jask - Hormozg**	**9.54**	**244**	P	**Pn**	**02 59 12.2**	**-0.6**
	SNR=34						
DRK	**Karamyk**	**9.76**	**21**	P	**Pn**	**02 59 16.9**	**+0.8**
DRK	**Karamyk**	**9.76**	**21**		**Pn**	**02 59 16.9**	**+0.8**
BTK	**Batken**	**10.04**	**15**	P	**Pn**	**02 59 20.3**	**+0.5**
BTK	**Batken**	**10.04**	**15**		**Pn**	**02 59 20.3**	**+0.5**
BTK	**Batken**	**10.04**	**15**	P	**Pn**	**02 59 21.2**	**+1.5**
	comp=Z,308nm,0.6s						
WSAR	**Wadi Sarin**	**10.58**	**230**	P	**Pn**	**02 59 23.5**	**-3.6**
	SNR=28						
BIDO	**Bidbid**	**10.72**	**233**	P	**Pn**	**02 59 27.1**	**-2.0**
	SNR=20						
BANOM	**Banah**	**10.75**	**248**	*i* P	**Pn**	**02 59 27.5**	**-2.0**
	SNR=22						
BANOM	**Banah**	**10.75**	**248**	P	**Pn**	**02 59 27.9**	**-1.5**
	SNR=45						
WBK	**Wadi Bani Khal**	**10.81**	**226**	P	**Pn**	**02 59 27.0**	**-3.3**
	SNR=111						
SHME	**Shamm**	**10.82**	**249**	*i* P	**Pn**	**02 59 29.1**	**-1.3**
	SNR=31						
SHME	**Shamm**	**10.82**	**249**	P	**Pn**	**02 59 29.7**	**-0.7**
	SNR=16						
JLN	**Jalan Bani Buh**	**10.89**	**223**	P	Pn	02 59 26.1	-5.2
JLN				P		02 59 28.0	
	SNR=76						
KSH2	**Kashi**	**11.02**	**35**	P	**Pn**	**02 59 34.0**	**+0.8**
KSH2				pP		02 59 37.9	
KSH2				S	**Sn**	**03 01 37.8**	**+1.4**
KSH2				pmax	pmax		
	comp=Z,460nm,0.7s						
KSH2				pmax	pmax		
	comp=Z,2μm,3.1s						
KSH2				L	L		
	comp=Z,50μm,12.4s						
KSH2				L	L		
	comp=Z,58μm,12.7s						
KSH2				L	L		
	comp=Z,24μm,12.7s						
OHH	**Osh**	**11.02**	**22**	P	**Pn**	**02 59 32.5**	**-0.7**
	comp=Z,163nm,0.7s						
MDH	**Madha**	**11.04**	**245**	*i* P	**Pn**	**02 59 30.4**	**-3.1**
	SNR=19						
MDH	**Madha**	**11.04**	**245**	P	**Pn**	**02 59 31.0**	**-2.5**
	SNR=50						
LGTI	**Lohaghat**	**11.07**	**92**	*i* S	**Sn**	**03 01 46.4**	**+8.6**
SMDO	**Samad**	**11.09**	**231**	P	**Pn**	**02 59 32.0**	**-2.2**
	SNR=37						
MASF	**Masafi**	**11.12**	**246**	P	**Pn**	**02 59 32.8**	**-1.7**
	SNR=22						
MSFE	**Esma-Masafi**	**11.12**	**246**	*i* P	**Pn**	**02 59 31.5**	**-3.1**
	SNR=22						
PTH	**Pithoragarh**	**11.14**	**91**	*i* P	Pn	02 59 45.2	+10
PTH				*i* S	Sn	03 01 49.2	+10
HOQ	**Hoqain**	**11.25**	**235**	P	**Pn**	**02 59 33.0**	**-3.4**
	SNR=110						
UOSS	**Minazif**	**11.30**	**244**	*i* P	**Pn**	**02 59 34.0**	**-2.9**
	SNR=32						
UOSS	**Minazif**	**11.30**	**244**	P	**Pn**	**02 59 33.8**	**-3.1**
UOSS	**Minazif**	**11.30**	**244**		**Pn**	**02 59 33.7**	**-3.2**
UOSS	**Minazif**	**11.30**	**244**	P	**Pn**	**02 59 33.8**	**-3.1**
	comp=Z,197nm,1.2s						
HATD	**Hatta, Dubai**	**11.41**	**244**	*i* P	**Pn**	**02 59 35.6**	**-2.9**
	SNR=12			

POO *i* S **S** **03 02 50.9 -3.5**
EKS2 Erkin-Say 13.27 21 P **Pn** **03 00 04.0 0.0**
SNR=84
UMZA Um Al Zommool 13.34 238 P **Pn** **03 00 03.6 -1.3**
AAK Ala-Archa 13.48 23 Pn **Pn** **03 00 06.0 -0.8**
comp=Z,344nm,0.3s,baz=199,slow=7.6,SNR=162
AAK Sn **Sn** **03 02 34.5 -2.3**
comp=Z,5.3nm,0.3s,baz=126,slow=19,SNR=8.6
AAK LR LR 03 06 28.8
comp=Z,9μm,20.1s,baz=216,slow=42
comp=Z,212nm,0.6s
AAK AML AML
AAK Ala-Archa 13.48 23 P **Pn** **03 00 06.3 -0.5**
SNR=128
AAK Ala-Archa 13.48 23 ⇓P **Pn** **03 00 05.4 -1.4**
comp=Z,467nm,1.2s
AAK ⇑S **Sn** **03 02 34.1 -2.6**
comp=Z,711nm,1.8s
AAK Ala-Archa 13.48 23 *i* P **Pn** **03 00 06.2 -0.7**
SNR=73
AAK Ala-Archa 13.48 23 **Pn** **03 00 05.6 -1.3**
AAK Ala-Archa 13.48 23 P **Pn** **03 00 05.9 -1.0**
comp=Z,318nm,0.7s
KBK Karagaybulak 13.66 24 P **Pn** **03 00 08.8 -0.4**
SNR=124
FRU1 Bishkek 13.68 23 P **Pn** **03 00 08.5 -1.0**
FRU1 Bishkek 13.68 23 **Pn** **03 00 08.5 -1.0**
DQM DQM 13.70 223 P **Pn** **03 00 07.8 -2.0**
SNR=12
ULHL Ulahol 13.80 29 P **Pn** **03 00 10.4 -0.9**
SNR=18
BOOM Boomskoye usch 13.89 27 P **Pn** **03 00 10.2 -2.2**
BOOM Boomskoye usch 13.89 27 **Pn** **03 00 10.2 -2.2**
CHMS Chumysh 13.89 23 P **Pn** **03 00 11.7 -0.6**
SNR=14
NGP Nagpur 13.94 128 *i* P P 03 00 26.7 +5.5
USP Ospenovka 14.05 22 P **Pn** **03 00 14.2 -0.3**
SNR=28
TARG Taragay, Kyrgy 14.09 34 P **Pn** **03 00 13.2 -2.2**
TARG Taragay, Kyrgy 14.09 34 **Pn** **03 00 13.2 -2.2**
TARG Taragay, Kyrgy 14.09 34 P **Pn** **03 00 13.3 -2.2**
comp=Z,176nm,1.1s
KDJ Kajisay 14.12 31 P **Pn** **03 00 13.3 -2.2**
KDJ Kajisay 14.12 31 **Pn** **03 00 13.3 -2.2**
KDJ Kajisay 14.12 31 P **Pn** **03 00 14.0 -1.5**
comp=Z,99nm,1.0s
TKM2 Tokmak 2 14.12 25 P **Pn** **03 00 15.1 -0.5**
SNR=19
KAD Karad 14.43 153 *i* P P 03 00 34.0 +7.4
KAD *i* S **S** **03 03 21.5 +1.7**
MZR Muzera 14.44 243 P **Pn** **03 00 16.8 -3.1**
SNR=8.1
VAR Varanasi 14.71 107 *i* P **P** **03 00 31.7 +1.9**
TNSS Tian-Shan 14.75 29 *e*P **Pn** **03 00 22.7 -1.7**
TNSS *e*S **Sn** **03 03 06.2 -1.8**
TNSS Tian-Shan 14.75 29 *e*P **Pn** **03 00 22.7 -1.7**
TNSS *e*S **Sn** **03 03 06.2 -1.8**
AAA Alma-Ata 14.88 28 *e*P **Pn** **03 00 24.6 -1.2**
AAA Alma-Ata 14.88 28 *e*P **Pn** **03 00 24.7 -1.2**
MDOK Medeo 14.90 29 *e*P **Pn** **03 00 24.5 -1.6**
MDOK Medeo 14.90 29 *e*P **Pn** **03 00 24.6 -1.6**
KNDC Almaty 14.91 28 ⇑P **Pn** **03 00 24.3 -1.9**
comp=Z,367nm,0.9s
KNDC Almaty 14.91 28 P **Pn** **03 00 26.0 -0.2**
KNDC pmax pmax
comp=Z,248nm,1.0s
PRZ Przheval'sk 14.95 33 P **Pn** **03 00 24.0 -3.0**
PRZ Przheval'sk 14.95 33 **Pn** **03 00 24.0 -3.0**
PRZ Przheval'sk 14.95 33 P **Pn** **03 00 26.6 -0.3**
comp=Z,191nm,0.6s
SATY Saty 15.40 32 *e*P **Pn** **03 00 31.5 -1.3**
SATY Saty 15.40 32 *e*P **Pn** **03 00 31.6 -1.3**
UZB Uzynbulak 15.76 33 *e*P **Pn** **03 00 36.3 -1.2**
UZB Uzynbulak 15.76 33 *e*P **Pn** **03 00 36.3 -1.2**
KPKS Kokpek 15.85 31 *e*P **Pn** **03 00 37.1 -1.5**
KPKS Kokpek 15.85 31 *e*P **Pn** **03 00 37.2 -1.5**
SHLS Shalkode 15.97 34 *e*P **Pn** **03 00 41.2 +1.0**
SHLS Shalkode 15.97 34 *e*P **Pn** **03 00 41.3 +1.0**
PDGK Podgornoye 16.12 33 ⇑P **Pn** **03 00 40.5 -1.7**
comp=Z,179nm,0.8s
PDGK ⇓S **Sn** **03 03 39.6 -1.2**
comp=Z,78nm,1.0s
PDGK Podgornoye 16.12 33 P **Pn** **03 00 40.4 -1.7**
PDGK pmax pmax
comp=Z,179nm,0.8s
PDGK Podgornoye 16.12 33 **Pn** **03 00 38.1 -4.0**
HYB Hyderabad 16.45 139 *e*P **Pn** **03 00 42.3 -4.1**
HYB *e*pP **pP** **03 00 51.7 -1.3**
HYB IVmB_BB 03 00 52.2
comp=Z,1μm,2.0s
HYB *e*sP **sP** **03 00 53.5 -1.3**
HYB *e*S **S** **03 04 00.3 -0.8**
HYB IVMs_BB IVMs_BB 03 08 30.7
comp=Z,11μm,12.5s
HYB *e*ScP **ScP** **03 09 12.4 -0.5**
HYB Hyderabad 16.45 139 *i* P **P** **03 00 51.1 +2.0**
HYB *i* S **S** **03 04 06.1 +5.0**
DOK Doka 16.80 229 P **Pn** **03 00 48.9 -2.0**
SNR=27
DMTO DMTO 16.96 225 P **Pn** **03 00 51.2 -1.6**
SNR=5.4
TDK Taldyqorghan 16.97 28 *e*P **Pn** **03 00 51.7 -1.1**
TDK Taldyqorghan 16.97 28 *e*P **Pn** **03 00 51.8 -1.1**
EVN Everest 17.14 93 **Pn** **03 00 50.2 -5.5**
EVN Everest 17.14 93 P **Pn** **03 00 50.8 -5.0**
comp=Z,1μm,0.9s
LKRN Lenkeran, Azer 17.41 303 P **P** **03 01 00.6 +1.0**
WHFO Wadi Hawf 17.55 228 P **Pn** **03 00 58.0 -2.2**
SNR=17
RBK Rabkut 17.58 226 P **Pn** **03 00 58.2 -2.4**
SNR=15
BOK Bokaro 17.72 107 *i* P **P** **03 01 09.3 +6.1**
BOK *i* S **S** **03 04 24.4 -2.7**
ABTO Aybut 18.27 228 P **Pn** **03 01 06.0 -3.1**
SNR=24
RAGD RAYAGADA 18.30 124 *i* P **P** **03 01 15.5 +5.9**
RAGD *i* S **S** **03 04 40.7 +1.8**
MNGR Mingechevir, A 19.45 308 P **Pn** **03 01 23.9 +0.7**
SEKA Sheki 19.57 309 P **Pn** **03 01 24.9 +0.2**
AB31 Akbulak array 19.67 345 P **P** **03 01 23.7 -0.6**
comp=Z,77nm,0.7s,baz=155,slow=12,SNR=444
AB31 Akbulak array 19.67 345 *e*P **P** **03 01 24.8 +0.5**
AB31 pmax pmax
comp=Z,77nm,0.7s
AB31 Akbulak array 19.67 345 **P** **03 01 24.9 +0.5**
ABKAR Akbulak array 19.67 345 P **P** **03 01 24.9 +0.6**
MAKZ Makanchi 19.91 31 ⇓P **P** **03 01 26.7 -0.3**
comp=Z,109nm,0.7s
MAKZ Makanchi 19.91 31 P **P** **03 01 25.7 -1.3**
MAKZ pmax pmax
comp=Z,109nm,0.7s
MAKZ Makanchi 19.91 31 P **P** **03 01 25.7 -1.3**
MAKZ IAmb IAmb 03 01 30.9
comp=Z,118nm,0.7s
MAKZ Makanchi 19.91 31 P **P** **03 01 25.8 -1.3**
comp=Z,177nm,0.9s
NAX Nakhchivan 19.97 302 P **Pn** **03 01 30.0 +0.5**
MK31 Makanchi Array 20.04 31 P **P** **03 01 27.9 -0.5**
comp=Z,82nm,0.9s,baz=207,slow=11,SNR=457
MK31 Makanchi Array 20.04 31 *e*P **P** **03 01 26.8 -1.7**
MK31 pmax pmax
comp=Z,82nm,0.9s
MKAR Makanchi Array 20.04 31 P **P** **03 01 27.1 -1.4**
comp=Z,30nm,0.6s,baz=208,slow=10,SNR=238
MKAR S **S** **03 05 14.4 +0.9**
comp=Z,4.7nm,0.9s,baz=224,slow=28,SNR=1.4
MKAR LR LR 03 10 05.4
comp=Z,13μm,18.0s,baz=214,slow=40
comp=Z,30nm,0.6s
MKAR Makanchi Array 20.04 31 *i* P **P** **03 01 26.8 -1.7**
MKAR pmax pmax
comp=Z,30nm,0.6s
MKAR Makanchi Array 20.04 31 P **P** **03 01 26.7 -1.8**
MAK Makhachkala 20.23 314 *e*P **P** **03 01 28.4 -2.1**
MAK *e*S **S** **03 05 15.4 -1.8**
MAK pmax pmax
comp=Z,183nm,0.9s
DHUB DHUBRI 20.39 97 *i* P **P** **03 01 30.8 -1.6**
DHUB IAmb IAmb 03 01 40.5
comp=Z,368nm,1.4s
LSA Lhasa 20.58 86 P Pn 03 01 38.3 +1.1
LSA S Sn 03 05 28.3 -1.1
LSA pmax pmax
comp=Z,38nm,1.0s
LSA L L
comp=Z,4μm,14.6s
LSA L L
comp=Z,9μm,11.7s
LSA Lhasa 20.58 86 P **P** **03 01 35.3 +0.3**
LSA pmax pmax
comp=Z,219nm,0.9s
LSA MLR MLR
comp=Z,4μm,18.0s
LSA Lhasa 20.58 86 **P** **03 01 35.2 +0.3**
LSA IAmb IAmb 03 01 43.6
comp=Z,219nm,0.9s
RAYN Ar Rayn 20.66 256 *i* P **P** **03 01 33.6 -1.7**
SNR=18
RAYN Ar Rayn 20.66 256 P **P** **03 01 33.0 -2.4**
RAYN pmax pmax
comp=Z,94nm,0.8s
RAYN MLR MLR
comp=Z,5μm,20.0s
RAYN Ar Rayn 20.66 256 **P** **03 01 33.0 -2.4**
RAYN IAmb IAmb 03 01 35.9
comp=Z,94nm,0.8s
RAYN Ar Rayn 20.66 256 P **P** **03 01 33.2 -2.2**
comp=Z,152nm,0.8s
GNI Garni 20.85 304 P **P** **03 01 37.2 -0.3**
comp=Z,24nm,1.0s,baz=54,slow=3.0,SNR=10
GNI S Sn 03 05 33.6 -1.7
comp=Z,7.5nm,0.8s,baz=147,slow=17,SNR=1.1
GNI LR LR 03 10 26.1
comp=Z,10μm,18.9s,baz=116,slow=39
comp=Z,24nm,1.0s
GNI Garni 20.85 304 *ce*P Pn 03 01 38.8 -1.1
GNI pmax pmax
comp=Z,78nm,1.3s
GNI Garni 20.85 304 **P** **03 01 38.6 +1.2**
GNI IAmb IAmb 03 01 50.7
comp=Z,216nm,1.1s
GNI Garni 20.85 304 P Pn 03 01 39.5 -0.4
comp=Z,4μmcomp=Z,179nm,1.1s
GNI Garni 20.85 304 P Pn 03 01 39.8 -0.1
comp=Z,180nm,1.1s
HAKT HAKKARI 20.87 296 P **P** **03 01 38.4 +0.7**
comp=Z,470nm,1.6s
MDRS Chennai 20.94 143 *i* P Pn 03 01 46.1 +5.2
MDRS IAmb IAmb 03 01 47.6
comp=Z,301nm,1.2s
MDRS *i* S **S** **03 05 33.0 +1.3**
WMQ Urumqi 20.95 45 ⇓P **P** **03 01 39.3 +0.9**
WMQ sP sP 03 01 46.1 +1.9
WMQ PP **PnPn** **03 02 02.8 +5.7**
WMQ S **S** **03 05 25.9 -5.8**
WMQ pmax pmax
comp=Z,18nm,0.7s
WMQ pmax pmax
comp=Z,650nm,4.5s
WMQ L L
comp=Z,23μm,16.9s
WMQ L L
comp=Z,14μm,15.7s
WMQ L L
comp=Z,8μm,18.7s
SALM Salem 21.15 150 *i* S Sn 03 05 39.3 -3.3
AKTO Aktyubinsk 21.22 343 P **P** **03 01 41.1 0.0**
comp=Z,114nm,0.7s,baz=157,slow=9.3,SNR=114
AKTO S **S** **03 05 38.5 +1.7**
comp=Z,3.7nm,0.9s,baz=117,slow=14,SNR=0.8
AKTO LR LR 03 11 45.9
comp=Z,6μm,18.1s,baz=156,slow=42
comp=Z,114nm,0.7s
AKTO Aktyubinsk 21.22 343 ⇑P **P** **03 01 40.7 -0.5**
comp=Z,118nm,0.8s
AKTO Aktyubinsk 21.22 343 P **P** **03 01 41.5 +0.3**
AKTO pmax pmax
comp=Z,118nm,0.8s
GEVA Gevas 21.54 298 P **P** **03 01 45.0 +0.1**
ZSN Zaisan 21.71 33 *e*P **P** **03 01 45.6 -0.9**
ZSN Zaisan 21.71 33 *e*P **P** **03 01 45.6 -0.9**
KURBB Kurchatov Arra 21.86 19 P **P** **03 01 47.3 -0.8**
comp=Z,110nm,1.0s,baz=211,slow=9.0,SNR=77
KURBB LR LR 03 10 33.2
comp=Z,2μm,20.2s,baz=210,slow=37
comp=Z,110nm,1.0s
KURBB Kurchatov Arra 21.86 19 ⇓P **P** **03 01 48.3 +0.2**
comp=Z,151nm,0.7s
KURBB Kurchatov Arra 21.86 19 P **P** **03 01 48.3 +0.2**
KURBB pmax pmax
comp=Z,151nm,0.7s
DIGO Kars 21.92 304 P **P** **03 01 49.8 +0.8**
comp=Z,361nm,1.5s
KURK Kurchatov 21.97 19 P **P** **03 01 48.5 -0.7**
KURK Kurchatov 21.97 19 *ce*P **P** **03 01 47.7 -1.5**
KURK pmax pmax
comp=Z,90nm,1.0s
KURK Kurchatov 21.97 19 P **P** **03 01 47.5 -1.8**
KURK IAmb IAmb 03 01 54.7
comp=Z,183nm,1.1s
KURK Kurchatov 21.97 19 P **P** **03 01 47.7 -1.5**
comp=Z,183nm,1.1s
SHL Shillong 22.14 97 P **P** **03 01 52.8 +1.3**
SNR=64
SHL Shillong 22.14 97 *i* P **P** **03 01 54.6 +3.0**
SHL IAmb IAmb 03 01 57.2
comp=Z,185nm,0.7s
KOD Kodaikanal 22.15 153 *i* P **P** **03 01 58.4 +6.6**
AGT Agartala 22.18 101 *i* P **P** **03 01 54.5 +2.8**
SEM Semipalatinsk 22.20 22 *e*P **P** **03 01 51.0 -1.0**
SEM pmax pmax
comp=Z,69nm,1.2s
SEM Semipalatinsk 22.20 22 *e*P **P** **03 01 51.0 -1.0**
comp=Z,69nm,1.2s
GURO Guroymak-BITLI 22.38 298 **P** **03 01 54.2 +0.2**
TEZP TEZPUR 22.63 93 *i* P **P** **03 01 57.8 +1.3**
TEZP *i* S **S** **03 05 54.3 -10**
BVA0 Borovoye Array 22.72 5 P **P** **03 01 57.0 -0.3**
comp=Z,2.6nm,0.7s,baz=176,slow=11,SNR=176
BVAR Borovoye Array 22.72 5 P **P** **03 01 56.5 -0.7**
comp=Z,46nm,0.5s,baz=173,slow=8.7,SNR=129
BVAR S **S** **03 06 08.7 +3.2**
comp=Z,8.8nm,1.0s,baz=177,slow=16,SNR=1.9
comp=Z,46nm,0.5s
BORK Borovoye 22.74 5 P **P** **03 01 56.7 -0.7**
BORK pmax pmax
comp=Z,220nm,1.0s
BORK MLR MLR
comp=Z,22μm,22.0s
BORK Borovoye 22.74 5 P **P** **03 01 56.7 -0.7**
BORK IAMs_20 IAMs_20 03 12 07.6
comp=Z,22μm,22.0s
EPOS Posof 22.76 306 P **P** **03 02 02.0 +4.1**
comp=Z,132nm,1.4s
NCK Nalchik 22.98 311 *i* P **P** **03 02 00.3 +0.2**
NCK pmax pmax
comp=Z,29nm,1.1s
BRDH Bariadhala 22.99 104 P **P** **03 01 58.7 -1.6**
comp=Z,120nm,0.4s,baz=282,slow=9.1,SNR=1.1
BRDH LR LR 03 13 09.5
comp=Z,7μm,20.5s,baz=320,slow=43
comp=Z,120nm,0.4s
SILR SILCHAR 23.18 98 *i* P **P** **03 02 03.5 +1.2**
SILR *i* S S 03 06 03.1 -11
ITAN ITANAGAR 23.29 91 *i* P **P** **03 02 04.1 +0.8**
ZIRO ZIRO 23.31 90 *i* P **P** **03 02 02.5 -1.3**
ZIRO *i* S S 03 06 05.1 -11
AZL Aizawl 23.46 100 *i* P **P** **03 02 05.1 0.0**
AZL IAmb IAmb 03 02 34.7
comp=Z,174nm,0.7s
AZL *i* S **S** **03 06 09.4 -9.2**
NEUR Neytrino 23.47 310 *c* iP **P** **03 02 06.3 +1.1**
NEUR pmax pmax
comp=Z,23nm,1.3s
KBZ Khabaz 23.54 311 P **P** **03 02 06.2 +0.6**
comp=Z,22nm,1.0s,baz=142,slow=8.5,SNR=32
KBZ S **S** **03 06 22.6 +3.2**
comp=Z,6.1nm,1.2s,baz=158,slow=13,SNR=1.2
comp=Z,22nm,1.0s
KBZ Khabaz 23.54 311 *ce*P **P** **03 02 06.9 +1.2**
KBZ pmax pmax
comp=Z,23nm,1.0s
TRD Trivandrum 23.54 156 *i* P **P** **03 02 11.4 +5.5**
TRD *i* S **S** **03 06 16.4 -3.4**
GOMU GeErMu 23.60 69 P **P** **03 02 06.9 +0.1**
GOMU pP pP 03 02 10.9 0.0
GOMU sP sP 03 02 14.3 +1.7
GOMU S **S** **03 06 19.3 -2.1**
GOMU L L
comp=Z,3μm,13.6s
GOMU L L
comp=Z,5μm,13.0s
GOMU L L
comp=Z,7μm,13.3s
KIV Kislovodsk 23.78 312 *i* P **P** **03 02 08.0 -0.2**
SNR=25
KIV Kislovodsk 23.78 312 *e*P **P** **03 02 08.4 +0.3**
KIV *e*S **S** **03 06 25.0 +1.5**
KIV pmax pmax
comp=Z,33nm,1.0s
KIV MLR MLR
comp=Z,2μm,14.0s
KIV Kislovodsk 23.78 312 P **P** **03 02 07.9 -0.2**
KIV IAmb IAmb 03 02 24.0
comp=Z,272nm,1.6s
KIV Kislovodsk 23.78 312 ⇑P **P** **03 02 08.9 +0.8**
KIV Kislovodsk 23.78 312 P **P** **03 02 09.7 +1.6**
comp=Z,1μmcomp=Z,91nm,1.5s
KIV Kislovodsk 23.78 312 P **P** **03 02 09.6 +1.4**
comp=Z,117nm,1.5s
KOPT Kop Dagi 23.90 301 P **P** **03 02 10.5 +0.9**
KOPT IAmb IAmb 03 02 30.7
comp=Z,157nm,1.9s
IMP Imphal 24.15 97 *i* P **P** **03 02 12.4 +0.6**
IMP IAmb IAmb 03 02 40.7
comp=Z,388nm,1.3s
IMP *i* S **S** **03 06 20.0 -10**
MOKO MOKOCHONG 24.19 93 *i* S S 03 06 19.7 -11
PASG PASIGHAT 24.47 88 *i* P **P** **03 02 14.8 +0.2**
KTUT Trabzon 24.70 303 ⇑P **P** **03 02 16.5 -0.1**
KELT Kelkit 24.86 301 P **P** **03 02 20.1 +1.9**
comp=Z,243nm,1.2s
KEMA Kemaliye 25.23 298 P **P** **03 02 22.7 +1.2**
comp=Z,487nm,1.1s
ARPR Arapgir-MALATY 25.32 298 IAmb IAmb 03 02 36.5
comp=Z,145nm,1.2s
VSLR Vesyoloye 25.33 309 *i* P **P** **03 02 22.5 +0.2**
VSLR pmax pmax
comp=Z,137nm,1.2s
SOC Sochi 25.59 309 *c* iP **P** **03 02 23.4 -1.2**
SOC *e* 03 03 02.1
SOC *e*PPP PPP 03 03 10.2
SOC *e*S **S** **03 06 51.4 -0.9**
SOC pmax pmax
comp=Z,60nm,1.0s
SOC MLR MLR
comp=Z,3μm,13.0s
GAZ Gaziantep 25.91 293 IAmb IAmb 03 02 51.5
comp=Z,64nm,1.1s
ASF Jabal al Asfar 26.08 282 LR LR 03 14 24.1
comp=Z,7μm,19.0s,baz=77,slow=40
ASF Jabal al Asfar 26.08 282 P **P** **03 02 30.6 +1.3**
comp=Z,12μmcomp=Z,639nm,2.3s
PALK Pallekele 26.17 149 LR LR 03 12 26.3
comp=Z,10μm,19.8s,baz=335,slow=36
PALK Pallekele 26.17 149 *i* P **P** **03 02 33.5 +3.3**
SNR=9.0
PALK Pallekele 26.17 149 *ce*P **P** **03 02 31.2 +1.1**
PALK pmax pmax
comp=Z,54nm,1.0s
PALK Pallekele 26.17 149 **P** **03 02 34.0 +3.9**
PALK Pallekele 26.17 149 IAMs_20 IAMs_20 03 12 15.1
comp=Z,1μm,19.0s
PALK Pallekele 26.17 149 P **P** **03 02 31.9 +1.8**
BELG Belogornoye 26.35 332 P **P** **03 02 30.9 -0.4**
comp=Z,81nm,0.9s,baz=76,slow=4.2,SNR=34
BELG LR LR 03 15 22.8
comp=Z,7μm,19.5s,baz=134,slow=42
comp=Z,81nm,0.9s
ANDN Andirin 26.64 294 P **P** **03 02 34.6 +0.4**
comp=Z,282nm,1.1s
HSUJ Al Zarqa 26.68 282 P **P** **03 02 37.7 +3.0**
comp=Z,1μmcomp=Z,58nm,1.2s
ZAA0 Zalesovo Array 26.71 23 ⇑P **P** **03 02 34.4 -0.1**
comp=Z,66nm,0.8s
ZAA0 Zalesovo Array 26.71 23 IAmb IAmb 03 02 43.1
comp=Z,95nm,0.8s
ZALV Zalesovo Beam 26.71 23 P **P** **03 02 34.4 -0.2**
comp=Z,46nm,0.5s,baz=228,slow=10,SNR=57
ZALV S **S** **03 07 10.9 +1.2**
comp=Z,2.3nm,0.7s,baz=224,slow=16,SNR=3.5
ZALV LR LR 03 14 32.2
comp=Z,3μm,19.8s,baz=218,slow=40
comp=Z,46nm,0.5s
ZALV Zalesovo Beam 26.71 23 P **P** **03 02 33.0 -1.6**
ARTI Arti 26.75 349 P **P** **03 02 35.7 +0.7**
comp=Z,28nm,0.8s,baz=162,slow=2.9,SNR=26
ARTI LR LR 03 15 08.3
comp=Z,6μm,21.8s,baz=160,slow=41
comp=Z,28nm,0.8s
ARTI Arti 26.75 349 P **P** **03 02 35.0 +0.1**
ARTI pmax pmax
comp=Z,42nm,0.8s
ARTI MLR MLR
comp=Z,4μm,19.0s
ARTI Arti 26.75 349 P **P** **03 02 35.0 +0.1**
SWQJ Karak 26.82 280 P **P** **03 02 43.6 +7.1**
SVE Sverdlovsk 26.85 352 *e*P **P** **03 02 36.7 +0.9**
SVE *e*S **S** **03 07 16.3 +4.4**
SVE pmax pmax
comp=Z,92nm,1.5s
SVE MLR MLR
comp=Z,12μm,11.0s
GEM Giv'at Ha'Em 27.06 284 P **P** **03 02 40.4 +2.4**
MMAI Mount Meron Ar 27.28 284 P **P** **03 02 39.8 -0.3**
comp=Z,3.9nm,0.9s,baz=108,slow=9.7,SNR=4.5
MMAI LR LR 03 14 44.4
comp=Z,4μm,19.6s,baz=74,slow=39
comp=Z,3.9nm,0.9s
GHAJ Ghor Haditha 27.29 280 P **P** **03 02 42.3 +2.3**
comp=Z,1μmcomp=Z,95nm,1.3s
GHAJ Ghor Haditha 27.29 280 P **P** **03 02 41.1 +1.1**
comp=Z,94nm,1.3s
MMLI Mount Malkishu 27.31 283 P **P** **03 02 41.4 +1.1**
comp=Z,51nm,1.5s
UJAP Al Uja 27.31 282 P **P** **03 02 43.3 +3.1**
comp=Z,847nmcomp=Z,36nm,1.8s
UJAP Al Uja 27.31 282 P **P** **03 02 41.0 +0.9**
comp=Z,37nm,1.8s
HSNJ Maan 27.32 278 P **P** **03 02 44.1 +3.6**
comp=Z,7μmcomp=Z,259nm,1.2s
LISJ El Lisan 27.37 280 P **P** **03 02 43.9 +3.2**
comp=Z,25μmcomp=Z,1μmcomp=Z,59nm,1.4s
MSBI Mazada 27.46 280 P **P** **03 02 42.6 +1.0**
comp=Z,38nm,1.2s
SALP Salfit 27.53 282 P **P** **03 02 43.9 +1.6**
comp=Z,948nmcomp=Z,47nm,1.1s
ANN Anapa 27.57 310 *e*P **P** **03 02 43.5 +1.1**
ANN *e*S **S** **03 07 26.1 +2.7**
ANN pmax pmax
comp=E,21nm,1.0s
AMAZ Amatzia 27.82 281 P **P** **03 02 48.3 +3.5**
comp=E,1μmcomp=E,1μmcomp=E,91nm,1.4s
PRNI Paran 27.89 278 P **P** **03 02 47.6 +2.1**
comp=E,3μmcomp=E,189nm,1.3s
HRFI Mount Harif 27.91 278 P **P** **03 02 47.5 +1.8**
comp=E,1μmcomp=E,69nm,1.1s
HRFI Mount Harif 27.91 278 P **P** **03 02 46.3 +0.6**
comp=Z,69nm,1.1s
GTA2 Gaotai 27.92 62 *e*P **P** **03 02 46.4 +0.6**
GTA2 pP sP 03 02 52.3 +0.4
GTA2 S **S** **03 07 30.6 +1.1**
GTA2 pmax pmax
comp=Z,29nm,1.0s
GTA2 pmax pmax
comp=Z,480nm,4.1s
GTA2 L L
comp=Z,14μm,17.8s
GTA2 L L
comp=Z,3μm,16.5s
GTA2 L L
comp=Z,6μm,15.6s
AQBJ Aqaba 27.95 277 P **P** **03 02 52.7 +6.7**
comp=Z,3μmcomp=Z,118nm,1.5s
CY604 RAF Akrotiri, 27.98 287 P **P** **03 02 44.8 -1.1**
CY604 IAmb IAmb 03 03 03.8
comp=Z,49nm,1.1s
TNCH TengChong 28.02 93 P **P** **03 02 48.4 +1.5**
TNCH S **S** **03 07 27.9 -3.5**
TNCH L L
comp=Z,2μm,5.9s
TNCH L L
comp=Z,6μm,11.9s
TNCH L L
comp=Z,5μm,15.0s
EIL Elat 28.04 277 LR LR 03 14 59.8
comp=Z,5μm,18.6s,baz=90,slow=39
EIL Elat 28.04 277 P **P** **03 02 47.9 +1.1**

comp=Z,1µmcomp=Z,1µmcomp=Z,45nm,1.2s
EIL Elat 28.04 277 P **P** **03 02 46.6 -0.2**
comp=Z,45nm,1.2s
VRH Novokhopyorsk 28.21 325 *e*P **P** **03 02 46.7 -1.3**
VRH *e*S **S** **03 07 31.4 -2.0**
VRH pmax pmax
comp=Z,10.0nm,1.0s
VRH smax smax
comp=E,1µm,11.1s
VRH MLR MLR
comp=Z,4µm,15.0s
KZIT Kziot 28.33 280 P **P** **03 02 51.4 +2.0**
comp=Z,1µmcomp=Z,57nm,1.6s
KZIT Kziot 28.33 280 P **P** **03 02 50.3 +0.9**
comp=Z,57nm,1.6s
KIRS Kirsehir-Merke 28.72 297 ⇓P **P** **03 02 53.0 +0.1**
CSS Mathiatis 28.94 288 P **P** **03 02 55.4 +0.6**
comp=Z,412nmcomp=Z,28nm,1.0s
CSS Mathiatis 28.94 288 P **P** **03 02 54.5 -0.4**
comp=Z,28nm,1.1s
BR104 Keskin Array S 29.01 298 P **P** **03 02 56.7 +1.2**
comp=Z,93nmcomp=Z,8.7nm,1.0s
BR104 pP **pP** **03 02 59.9 +0.2**
comp=Z,93nmcomp=Z,8.7nm,1.0s
BR131 Keskin Array S 29.01 298 *i* P **P** **03 02 55.6 +0.1**
BRTR Keskin Array B 29.01 298 P **P** **03 02 54.8 -0.7**
comp=Z,3.3nm,0.8s,baz=122,slow=8.1,SNR=20
BRTR LR LR 03 14 40.5
comp=Z,4µm,19.7s,baz=108,slow=37
comp=Z,3.3nm,0.8s
BRTR Keskin Array B 29.01 298 *i* P **P** **03 02 55.0 -0.5**
BRTR pmax pmax
comp=Z,3.0nm,0.8s
BRTR Keskin Array B 29.01 298 P **P** **03 02 54.4 -1.1**
BR106 Keskin Array S 29.03 298 P **P** **03 02 56.4 +0.7**
comp=Z,100nmcomp=Z,9.2nm,0.8s
VORD Divnogorie 29.31 323 *e*P **P** **03 02 56.1 -1.8**
VORD pmax pmax
comp=Z,20nm,1.0s
KKUL Konya-Kulu 29.49 297 P **P** **03 02 60.0 +0.2**
comp=Z,22nm,1.0s
ATD Arta Tunnel 29.50 236 LR LR 03 16 20.5
comp=Z,165nm,18.9s,baz=57,slow=40
ATD Arta Tunnel 29.50 236 P **P** **03 03 01.2 +1.2**
ATD IAmb IAmb 03 03 14.0
comp=Z,71nm,1.3s
ATD Arta Tunnel 29.50 236 P **P** **03 03 01.6 +1.7**
comp=Z,47nm,1.5s
VSR Storozhevoye 29.52 323 *e*P **P** **03 02 57.7 -2.0**
VSR *e*S **S** **03 07 52.4 -1.6**
VSR pmax pmax
comp=Z,20nm,1.0s
VSR smax smax
comp=E,720nm,9.9s
VORR Voronezh 29.75 324 *e*P **P** **03 02 59.8 -2.0**
VORR pmax pmax
comp=Z,20nm,1.0s
SIM Simferopol' 29.84 308 *e*P **P** **03 03 02.8 +0.2**
SIM pmax pmax
comp=Z,14nm,0.7s
SIM pmax pmax
comp=Z,100nm,4.8s
SIM MLR MLR
comp=Z,1µm,14.6s
KNGR Kungurtug, Tuv 30.21 39 *i* P **P** **03 03 04.9 -1.1**
KNGR pmax pmax
comp=Z,100nm,1.0s
KEPZ Antalya-Kepez 30.36 292 ⇑P **P** **03 03 06.6 -0.8**
PZH PanZhiHua 30.39 89 P **P** **03 03 08.3 +0.5**
PZH S **S** **03 08 14.9 +6.5**
PZH pmax pmax
comp=Z,60nm,1.6s
PZH pmax pmax
comp=Z,580nm,3.7s
PZH L L
comp=Z,3µm,21.0s
PZH L L
comp=Z,4µm,17.3s
PZH L L
comp=Z,4µm,15.9s
LPSR Galich'ya Gora 30.43 325 *e*P **P** **03 03 06.1 -1.7**
LPSR *e*S **S** **03 08 08.6 +0.3**
LPSR pmax pmax
comp=Z,40nm,1.0s
LPSR MLR MLR
comp=Z,3µm,17.0s
KHAM Kharkiv 30.48 319 P **P** **03 03 09.3 +1.0**
KHAM pP **sP** **03 03 14.1 -0.2**
KIRV Kirov 30.76 342 LR LR 03 17 36.1
comp=Z,6µm,20.0s,baz=151,slow=40
KIRV Kirov 30.76 342 *ce*P **P** **03 03 10.4 -0.2**
LZDM Lanzhou Array 30.77 70 P **P** **03 03 11.2 -0.1**
comp=Z,28nm,0.7s,baz=267,slow=7.4,SNR=19
LZDM LR LR 03 17 52.5
comp=Z,4µm,19.9s,baz=305,slow=41
comp=Z,28nm,0.7s
CHTO Chiang Mai 30.82 105 P **P** **03 03 12.8 +1.2**
CHTO Chiang Mai 30.82 105 P **P** **03 03 10.6 -1.0**
CHTO pmax pmax
comp=Z,59nm,1.0s
CHTO MLR MLR
comp=Z,2µm,22.0s
CHTO Chiang Mai 30.82 105 P **P** **03 03 10.6 -1.0**
CHTO IAmb IAmb 03 03 20.8
comp=Z,59nm,0.9s
CHTO Chiang Mai 30.82 105 P **P** **03 03 09.9 -1.7**
CHTO Chiang Mai 30.82 105 P **P** **03 03 10.9 -0.7**
comp=Z,73nm,1.0s
LZH Lanzhou 30.89 70 P **P** **03 03 14.1 +1.8**
LZH sP sP 03 03 24.6 +6.3
LZH PcP **PcP** **03 06 14.6 +5.7**
LZH S **S** **03 08 22.3 +6.0**
LZH pmax pmax
comp=Z,99nm,1.1s
LZH pmax pmax
comp=Z,520nm,4.6s
LZH L L
comp=Z,3µm,13.6s
LZH L L
comp=Z,6µm,13.7s
LZH L L
comp=Z,7µm,15.1s
CM31 Chiang Mai Arr 30.98 105 P **P** **03 03 12.7 -0.3**
SNR=12
CM31 Chiang Mai Arr 30.98 105 P **P** **03 03 11.8 -1.3**
CMAR Chiang Mai Arr 30.98 105 P **P** **03 03 12.1 -0.9**
comp=Z,21nm,1.1s,baz=300,slow=8.0,SNR=31
CMAR PcP **PcP** **03 06 10.2 +1.0**
comp=Z,1.1nm,0.3s,baz=319,slow=5.7,SNR=1.3
CMAR LR LR 03 19 39.9
comp=Z,3µm,18.0s,baz=295,slow=44
comp=Z,21nm,1.1s
CMAR Chiang Mai Arr 30.98 105 *i* P **P** **03 03 12.5 -0.5**
CMAR pmax pmax
comp=Z,16nm,1.1s
CMAR Chiang Mai Arr 30.98 105 P **P** **03 03 11.5 -1.6**
CD2 Chengdu 31.21 80 P **P** **03 03 15.3 +0.3**
CD2 pP pP 03 03 17.3 -1.8
CD2 sP sP 03 03 20.3 -0.7
CD2 S **S** **03 08 21.9 +0.8**
CD2 pmax pmax
comp=Z,20nm,0.9s
CD2 pmax pmax
comp=Z,880nm,4.9s
CD2 L L
comp=Z,10µm,12.2s
CD2 L L
comp=Z,8µm,14.6s
CD2 L L
comp=Z,9µm,11.1s
PLTM Poltava 31.29 317 P **P** **03 03 16.1 +0.8**
PLTM pP **sP** **03 03 21.3 0.0**
KMI2 Kunming 31.64 91 ⇓P **P** **03 03 19.6 +0.6**
KMI2 S **S** **03 08 30.8 +2.6**
KMI2 pmax pmax
comp=Z,68nm,1.1s
KMI2 L L
comp=Z,3µm,22.5s
KMI2 L L
comp=Z,2µm,12.9s
KMI2 L L
comp=Z,3µm,18.0s
TAVA DENIZLI_Tavas 32.52 293 ⇑P **P** **03 03 25.7 -0.8**
MOY Mondy 32.64 40 *e*P **P** **03 03 28.2 +0.8**
MOY pmax pmax
comp=Z,69nm,2.8s

MOS Moscow 32.93 329 *e*P **P** **03 03 30.3 +0.6**
MOS *e* 03 03 38.2
MOS *e* 03 04 42.3
MOS *e*PPP PPP 03 04 52.9
MOS *e* 03 06 10.4
MOS *e*S **S** **03 08 48.4 +1.2**
MOS *e*SS **SnSn** **03 10 52.5 +8.2**
MOS *e*SSS SSS 03 11 15.3
MOS pmax pmax
comp=Z,88nm,1.4s
MOS pmax pmax
comp=Z,100nm,1.4s
MOS smax smax
comp=N,300nm,2.7s
MOS smax smax
comp=E,400nm,2.3s
OBN Obninsk 33.03 327 LR LR 03 19 25.1
comp=E,4µm,20.6s,baz=139,slow=41
OBN Obninsk 33.03 327 ⇓*e*P **P** **03 03 30.4 -0.2**
OBN *e* 03 04 39.2
OBN *i* S **S** **03 08 45.9 -3.0**
OBN *e*SS **SnSn** **03 10 42.1 -4.8**
OBN pmax pmax
comp=Z,123nm,1.7s
OBN MLR MLR
comp=Z,5µm,15.0s
OBN Obninsk 33.03 327 P **P** **03 03 31.0 +0.4**
OBN Obninsk 33.03 327 ⇑P **P** **03 03 31.8 +1.2**
OBN Obninsk 33.03 327 P **P** **03 03 31.4 +0.8**
comp=Z,79nm,1.1s
OBN Obninsk 33.03 327 P **P** **03 03 31.8 +1.2**
comp=Z,79nm,1.1s
PURM Purcari 33.14 310 ⇑P **P** **03 03 32.8 +1.2**
PURM Purcari 33.14 310 P **P** **03 03 32.6 +1.0**
comp=Z,100nm,0.9s
ARG Arkhangelos 33.16 291 P **P** **03 03 31.4 -0.5**
comp=Z,62nm,1.5s
ZAK Zakamensk 33.40 43 *e*P **P** **03 03 34.5 +0.5**
ZAK pmax pmax
comp=Z,27nm,1.0s
SLVN Son La 33.95 97 P **P** **03 03 42.6 +3.5**
SLVN Son La 33.95 97 P **P** **03 03 39.3 +0.2**
SLVN IAmb IAmb 03 04 08.1
comp=Z,33nm,1.0s
SLVN Son La 33.95 97 P **P** **03 03 40.6 +1.5**
comp=Z,37nm,1.1s
KIS Kishinev 33.96 310 P **P** **03 03 39.2 +0.4**
comp=Z,40nm,0.8s
KARP Karpathos 33.97 290 P **P** **03 03 39.2 +0.1**
comp=Z,104nm,0.9s
KARP pP **pP** **03 03 44.1 +0.6**
comp=Z,104nm,0.9s
KARP Karpathos 33.97 290 P **P** **03 03 39.9 +0.8**
comp=Z,104nm,0.9s
KARP Karpathos 33.97 290 P **P** **03 03 38.9 -0.1**
comp=Z,104nm,0.9s
TLY Talaya 34.13 41 LR LR 03 18 44.7
comp=Z,9µm,20.2s,baz=238,slow=38
TLY Talaya 34.13 41 *d* P **P** **03 03 40.6 +0.3**
TLY pmax pmax
comp=Z,15nm,1.0s
TLY Talaya 34.13 41 P **P** **03 03 41.3 +1.0**
TLY Talaya 34.13 41 P **P** **03 03 42.4 +2.1**
comp=Z,23nm,1.1s
VLDR Vladesti 34.17 308 ⇑P **P** **03 03 42.0 +1.3**
SCTR Scanteiesti 34.20 308 ⇑P **P** **03 03 41.9 +1.1**
LEOM Leova 34.21 309 P **P** **03 03 44.3 +3.3**
SONM Songino Array 34.48 49 P **P** **03 03 43.0 -0.4**
comp=Z,4.2nm,0.7s,baz=244,slow=8.7,SNR=16
SONM PcP **PcP** **03 06 18.2 -0.4**
comp=Z,2.7nm,0.9s,baz=272,slow=3.1,SNR=1.1
SONM LR LR 03 20 07.7
comp=Z,10µm,18.0s,baz=251,slow=40
comp=Z,4.2nm,0.7s
SONM Songino Array 34.48 49 P **P** **03 03 44.1 +0.6**
SONM pmax pmax
comp=Z,18nm,1.1s
SONM Songino Array 34.48 49 P **P** **03 03 44.1 +0.6**
SORM Soroca 34.58 312 ⇓P **P** **03 03 44.4 +0.2**
SORM Soroca 34.58 312 P **P** **03 03 43.9 -0.2**
comp=Z,49nm,1.3s
SORM pP **sP** **03 03 49.8 -0.3**
comp=Z,49nm,1.3s
EZN Ezine 34.63 297 ⇑P **P** **03 03 44.8 +0.1**
GYA Guiyang 34.65 87 P **P** **03 03 45.3 +0.2**
GYA PP **PnPn** **03 04 59.3 -1.4**
GYA S **S** **03 09 14.9 +0.2**
GYA SS **SnSn** **03 11 22.6 -4.3**
GYA pmax pmax
comp=Z,14nm,0.5s
GYA pmax pmax
comp=Z,1µm,5.2s
GYA L L
comp=Z,9µm,15.6s
GYA L L
comp=Z,4µm,15.2s
GYA L L
comp=Z,5µm,15.3s
GHRR 34.68 308 ⇓P **P** **03 03 46.0 +0.9**
GHRR 34.68 308 P **P** **03 03 46.7 +1.6**
comp=Z,110nm,0.9s
IRK Irkutsk 34.72 40 *e*P **P** **03 03 46.2 +0.8**
IRK pmax pmax
comp=Z,66nm,2.1s
MNTR Muntenesti 34.76 309 ⇑P **P** **03 03 45.9 +0.2**
AK09 Malin Array Si 34.80 316 P **P** **03 03 46.7 +0.7**
AK09 pP **sP** **03 03 52.2 +0.2**
PANC Panciu 34.82 308 ⇑P **P** **03 03 47.1 +0.9**
PDRR Padureni 34.82 309 ⇓P **P** **03 03 46.3 0.0**
AK05 Malin Array Si 34.85 316 P **P** **03 03 46.8 +0.4**
RAZG Razgrad 34.86 304 ⇑P **P** **03 03 47.4 +0.8**
AKASG Malin Array Be 34.86 317 P **P** **03 03 45.6 -1.0**
comp=Z,12nm,0.9s,baz=103,slow=7.3,SNR=31
AKASG LR LR 03 20 14.2
comp=Z,3µm,19.3s,baz=112,slow=40
comp=Z,12nm,0.9s
AKBB Malin Array Si 34.86 317 *ce*P **P** **03 03 46.7 +0.1**
AKBB pmax pmax
comp=Z,29nm,0.9s
AKBB Malin Array Si 34.86 317 P **P** **03 03 47.0 +0.4**
AK01 Malin Array Si 34.87 317 P **P** **03 03 47.0 +0.4**
KIEV Kiev 34.87 317 *i* P **P** **03 03 47.0 +0.3**
SNR=16
KIEV Kiev 34.87 317 P **P** **03 03 46.1 -0.5**
KIEV pmax pmax
comp=Z,72nm,1.2s
KIEV MLR MLR
comp=Z,4µm,22.0s
KIEV Kiev 34.87 317 P **P** **03 03 46.1 -0.5**
KIEV IAmb IAmb 03 03 56.4
comp=Z,72nm,1.1s
KIEV Kiev 34.87 317 ⇑P **P** **03 03 46.5 -0.1**
KIEV Kiev 34.87 317 P **P** **03 03 46.9 +0.3**
comp=Z,273nm,1.3s
DMBR Dumbraveni 34.88 309 ⇑P **P** **03 03 47.9 +1.1**
ALN Alexandroupoli 34.91 299 P **P** **03 03 47.4 +0.3**
comp=Z,24nm,1.1s
ULN Ulaanbaatar 34.91 49 *ce*P **P** **03 03 48.0 +0.8**
ULN pmax pmax
comp=Z,28nm,2.5s
ULN Ulaanbaatar 34.91 49 P **P** **03 03 46.9 -0.4**
ULN Ulaanbaatar 34.91 49 IAMs_20 IAMs_20 03 19 35.6
comp=Z,6µm,18.0s
ULN Ulaanbaatar 34.91 49 P **P** **03 03 47.3 +0.1**
comp=Z,40nm,0.8s
ISR Istrita 35.09 306 ⇑P **P** **03 03 48.7 0.0**
SAHR Sahastru 35.10 307 ⇑P **P** **03 03 49.0 +0.2**
VRI Vrincioaia 35.10 308 ⇑P **P** **03 03 49.1 +0.4**
VRI Vrincioaia 35.10 308 P **P** **03 03 49.4 +0.6**
comp=Z,836nmcomp=Z,26nm,1.1s
VRI Vrincioaia 35.10 308 P **P** **03 03 50.2 +1.5**
comp=Z,26nm,1.1s
PLOR Plostina 35.15 308 ⇓P **P** **03 03 50.0 +0.8**
XAN Xi'an 35.16 73 P **P** **03 03 48.8 -0.6**
XAN S **S** **03 09 22.6 +0.3**
XAN pmax pmax
comp=Z,50nm,0.9s
XAN pmax pmax
comp=Z,620nm,4.1s
XAN L L
comp=Z,3µm,11.5s
XAN L L
comp=Z,12µm,16.5s
XAN L L
comp=Z,15µm,17.5s

ELND Elena 35.23 302 ⇑P **P** **03 03 49.1 -0.8**
TESR Tescani 35.29 309 ⇑P **P** **03 03 50.8 +0.4**
TESR Tescani 35.29 309 P **P** **03 03 50.7 +0.3**
comp=Z,818nmcomp=Z,32nm,1.4s
TESR Tescani 35.29 309 P **P** **03 03 51.3 +0.9**
comp=Z,32nm,1.4s
NEHR Nehoiu 35.32 307 ⇑P **P** **03 03 50.3 -0.3**
ONER Baraj Valea Uz 35.43 308 ⇓P **P** **03 03 52.3 +0.8**
COVR Voineasa-Covas 35.46 307 ⇑P **P** **03 03 52.7 +0.9**
LUBAR Lubar, Ukraine 35.49 315 P **P** **03 03 52.5 +0.5**
MLR Muntele Rosu 35.57 307 P **P** **03 03 54.1 +1.2**
comp=Z,24nm,1.1s,baz=99,slow=12,SNR=21
MLR LR LR 03 23 56.9
comp=Z,2µm,18.4s,baz=174,slow=46
comp=Z,24nm,1.1s
MLR Muntele Rosu 35.57 307 IAmb IAmb 03 04 02.5
comp=Z,155nm,1.4s
MLR IAMs_20 IAMs_20 03 20 00.8
comp=Z,3µm,22.0s
MLR Muntele Rosu 35.57 307 ⇑P **P** **03 03 53.4 +0.5**
MI29 MI29, Kamyanyy 35.59 316 P **P** **03 03 53.0 +0.2**
comp=Z,314nm,1.0s
KLMR Klimovskoe 35.62 337 *e*P **P** **03 03 52.0 -1.0**
KLMR *e* 03 05 11.3
KLMR *e* 03 06 19.5
KLMR pmax pmax
comp=Z,81nm,1.2s
KLMR MLR MLR
comp=Z,5µm,13.0s
TURR Turia 35.63 308 ⇓P **P** **03 03 54.4 +1.1**
BIZ Bicaz 35.75 309 ⇓P **P** **03 03 54.7 +0.4**
PRAR RASCA 35.77 310 ⇑P **P** **03 03 54.4 0.0**
BTO2 Baotou 35.77 61 *e*P **P** **03 03 55.8 +1.1**
BTO2 pP **sP** **03 04 00.3 -0.4**
BTO2 sP **pP** **03 04 02.8 +3.8**
BTO2 S **S** **03 09 31.8 0.0**
BTO2 sS **sS** **03 09 39.6 +0.7**
BTO2 SS **SnSn** **03 11 51.8 -2.0**
BTO2 pmax pmax
comp=Z,70nm,1.1s
BTO2 pmax pmax
comp=Z,1µm,4.3s
BTO2 L L
comp=Z,10µm,20.1s
BTO2 L L
comp=Z,5µm,19.0s
BTO2 L L
comp=Z,8µm,16.6s
IDI Anoyia 35.84 289 LR LR 03 22 19.2
comp=Z,1µm,21.7s,baz=88,slow=42
KMPD K-Podol'skiy 35.91 312 P **P** **03 03 55.4 -0.2**
KMPD pP **sP** **03 04 01.4 -0.2**
RZN Rozhen 35.95 300 *e*P **P** **03 03 55.9 -0.4**
DOPR Dopca 36.04 308 ⇑P **P** **03 03 57.3 +0.5**
HUMR Humele 36.09 305 P **P** **03 03 58.5 +1.3**
comp=Z,68nm,1.4s
BSI Banda Aceh 36.10 128 P **P** **03 03 55.2 -2.4**
VOIR 36.18 307 ⇑P **P** **03 03 58.9 +0.8**
ARR Arges 36.46 306 ⇑P **P** **03 04 00.1 -0.4**
ARR Arges 36.46 306 P **P** **03 04 01.5 +1.0**
comp=Z,44nm,1.2s
BURAR Bucovina Array 36.49 310 P **P** **03 04 00.5 -0.2**
BURAR Bucovina Array 36.49 310 ⇑P **P** **03 04 01.0 +0.3**
BUR08 Bucovina Ar. S 36.51 310 IAmb IAmb 03 04 09.7
comp=Z,45nm,1.1s
IMMV Iera Moni Meta 36.56 290 P **P** **03 04 01.2 -0.2**
comp=Z,99nm,1.1s
PAIG Paliouri 36.67 297 P **P** **03 04 02.3 +0.1**
comp=Z,17nm,1.2s
MMB Musomishta 36.68 300 *e*P **P** **03 04 01.9 -0.4**
MDB Medias 36.76 308 ⇑P **P** **03 04 03.4 +0.5**
MPEP Malo Peshtene 36.83 303 *e*P **P** **03 04 04.5 +0.9**
SOH Sokhos 36.94 299 P **P** **03 04 04.8 +0.2**
comp=Z,23nm,1.2s
ARCR ARCALIA 36.95 309 ⇑P **P** **03 04 05.0 +0.4**
PLNA Plana 36.98 301 *e*P **P** **03 04 05.1 +0.1**
RNPP5 Staryi Chortor 37.03 316 P **P** **03 04 05.7 +0.6**
XOR Xorichti 37.04 296 P **P** **03 04 04.8 -0.6**
comp=Z,21nm,1.3s
HHC Hu-ho-hao-te 37.05 61 *e*P **P** **03 04 07.6 +2.0**
HHC sP sP 03 04 14.3 +2.6
HHC S **S** **03 09 51.3 0.0**
HHC pmax pmax
comp=Z,33nm,1.5s
HHC L L
comp=Z,4µm,15.9s
HHC L L
comp=Z,3µm,15.2s
HHC L L
comp=Z,4µm,14.5s
LOT Lotru 37.07 306 ⇓P **P** **03 04 06.4 +0.7**
LOT Lotru 37.07 306 P **P** **03 04 05.7 0.0**
comp=Z,30nm,1.3s
RNPP8 Varash 37.08 316 P **P** **03 04 06.3 +0.7**
MNK Minsk 37.08 322 *i* P **P** **03 04 05.4 -0.1**
MNK *i* 03 05 30.0
MNK *i* PPP PPP 03 05 45.7
MNK *i* 03 06 25.6
MNK *i* S **S** **03 09 52.3 +1.1**
MNK *i* SS **SnSn** **03 12 27.5 +2.5**
MNK *i* 03 14 20.2
MNK pmax pmax
comp=Z,34nm,0.9s
MNK pmax pmax
comp=E,26nm,1.0s
MNK pmax pmax
comp=N,17nm,1.0s
MNK MLR MLR
comp=E,7µm,15.0s
MNK Minsk 37.08 322 *i* P **P** **03 04 05.4 -0.1**
comp=E,26nm,1.0s
MNK *i* P **P** **03 04 05.4 -0.1**
comp=N,17nm,1.0s
MNK *i* P **P** **03 04 05.4 -0.1**
comp=Z,34nm,0.9s,baz=114
MNK *i* PP **PP** **03 05 30.0 0.0**
MNK *i* PPP PPP 03 05 45.7
MNK *i* S **S** **03 09 52.3 +1.1**
MNK *i* SS **SnSn** **03 12 27.5 +2.5**
MNK *i* SSS SSS 03 12 44.3
MNK *i* LQ LQ 03 17 32.6
RNPP9 Sopachiv 37.08 317 P **P** **03 04 06.2 +0.6**
VTS Vitosha 37.13 302 *e*P **P** **03 04 06.2 -0.1**
KKB Krupnik 37.16 300 *e*P **P** **03 04 03.7 -2.7**
THE Thessaloniki 37.23 298 P **P** **03 04 07.5 +0.5**
comp=Z,14nm,1.1s
KNT Kendrikon 37.30 299 P **P** **03 04 07.0 -0.6**
comp=Z,16nm,1.0s
PEHC Pehcevo 37.33 300 *i* P **P** **03 04 07.4 -0.5**
CJR Cluj-Napoca 37.40 308 ⇓P **P** **03 04 08.9 +0.6**
VAY Valandovo 37.55 299 *i* P **P** **03 04 09.4 -0.3**
BLKB Belogradchik 37.63 303 ⇑P **P** **03 04 10.7 +0.3**
BMR Baia Mare 37.64 310 ⇑P **P** **03 04 11.0 +0.6**
GRG Griva 37.67 299 P **P** **03 04 10.3 -0.4**
comp=Z,35nm,1.3s
AGG Agios Georgios 37.71 296 P **P** **03 04 08.1 -3.0**
comp=Z,9.5nm,1.6s
MARR Marisel-Cluj 37.71 308 ⇑P **P** **03 04 11.5 +0.4**
TIY Taiyuan 37.74 66 P **P** **03 04 13.1 +1.7**
TIY S **S** **03 10 00.8 -1.0**
TIY pmax pmax
comp=Z,30nm,1.0s
TIY L L
comp=Z,2µm,11.7s
TIY L L
comp=Z,6µm,18.5s
TIY L L
comp=Z,7µm,16.5s
MLSI Meulaboh, Aceh 37.74 128 P **P** **03 04 10.8 -0.8**
comp=Z,109nm,0.9s
GZR Gura Zlata 37.76 306 ⇓P **P** **03 04 11.9 +0.4**
NACGM Naroch 37.83 322 *e*P **P** **03 04 12.2 +0.3**
comp=E,36nm,0.9s
MESR Meseseni 37.91 309 ⇑P **P** **03 04 12.4 -0.3**
HERR Herculane 37.95 305 ⇑P **P** **03 04 13.2 +0.3**
DRGR 38.01 308 ⇓P **P** **03 04 13.1 -0.5**
LYN LuoYang 38.02 72 ⇑P **P** **03 04 15.8 +2.0**
LYN pP sP 03 04 20.5 +0.7
LYN S **S** **03 10 10.3 +4.3**
LYN pmax pmax
comp=E,110nm,1.0s
LYN pmax pmax
comp=E,760nm,3.5s
LYN L L

comp=E,7µm,13.4s
LYN L L
comp=E,5µm,14.8s
LYN L L
comp=E,8µm,17.2s
ITM Ithomi 38.10 293 P **P** **03 04 12.8 -1.6**
comp=Z,40nm,1.3s
SURR Surduc 38.26 307 ⇑P **P** **03 04 15.5 -0.1**
BOVS Bovan 38.33 303 ⇑P **P** **03 04 16.5 +0.2**
TRPA Tarpa 38.36 310 P **P** **03 04 17.4 +1.0**
comp=Z,37nm,0.9s
MDVR Moldovita 38.43 305 ⇑P **P** **03 04 17.5 +0.4**
KWP Kalwaria Pacla 38.56 313 *e*P **P** **03 04 19.4 +1.3**
KWP Kalwaria Pacla 38.56 313 P **P** **03 04 19.0 +0.9**
comp=Z,86nm,1.2s
BZS Buzias 38.59 306 ⇓P **P** **03 04 18.7 +0.3**
BZS Buzias 38.59 306 P **P** **03 04 19.5 +1.0**
comp=Z,46nm,1.2s
UZHM Uzhgorod 38.62 311 P **P** **03 04 19.2 +0.6**
SIRR Siria 38.65 307 ⇑P **P** **03 04 19.2 +0.3**
KOLS Kolonicke sedl 38.69 312 *e*P **P** **03 04 20.2 +1.0**
KOLS *e* 03 04 27.6
KOLS pmax pmax
comp=Z,23nm,0.8s
KOLS Kolonicke sedl 38.69 312 *e*P **P** **03 04 20.2 +1.0**
KOLS *e* 03 04 27.6
KOLS Kolonicke sedl 38.69 312 P **P** **03 04 20.0 +0.8**
comp=Z,35nm,1.0s
OHR Ohrid 38.88 299 *i* P P 03 04 12.8 -8.2
TPTI 39.00 128 P **P** **03 04 24.0 +1.8**
comp=Z,31nm,1.0s
LKD2 Lefkada island 39.02 295 P **P** **03 04 20.7 -1.5**
comp=Z,32nm,0.8s
VSU Vasula 39.39 327 *ce*P **P** **03 04 24.5 -0.4**
VSU pmax pmax
comp=Z,64nm,1.3s
SUW Suwalki 39.47 320 *e*P **P** **03 04 26.0 +0.3**
PABE Paberze 39.55 322 P **P** **03 04 26.0 -0.3**
PABE IAmb IAmb 03 04 38.9
comp=Z,75nm,1.2s
HNS HongShan 39.56 67 ⇑P **P** **03 04 28.8 +2.2**
HNS PP **PnPn** **03 06 05.4 +5.0**
HNS S **S** **03 10 30.6 +1.5**
HNS pmax pmax
comp=Z,53nm,1.1s
HNS L L
comp=Z,5µm,14.8s
HNS L L
comp=Z,6µm,17.5s
HNS L L
comp=Z,8µm,20.7s
SJES Sjenica 39.57 302 ⇑*i*P **P** **03 04 26.3 -0.4**
CNSH ChangSha 39.58 81 P **P** **03 04 28.9 +2.0**
CNSH S **S** **03 10 32.3 +2.7**
CNSH pmax pmax
comp=Z,54nm,0.9s
CNSH L L
comp=Z,1µm,4.6s
CNSH L L
comp=Z,4µm,11.4s
CNSH L L
comp=Z,5µm,12.9s
KECS Kecovo 39.77 311 *e*P **P** **03 04 29.2 +0.9**
KECS pmax pmax
comp=Z,9.0nm,0.7s
KECS Kecovo 39.77 311 *e*P **P** **03 04 29.2 +0.9**
FRGS Fruska Gora 39.81 305 ⇑*i*P **P** **03 04 28.4 -0.3**
TEKS Tekeris 39.96 304 *e*P **P** **03 04 27.6 -2.3**
QIZ Qiongzhong 39.98 96 P **P** **03 04 28.6 -1.7**
QIZ S **S** **03 10 34.5 -1.3**
QIZ L L
comp=Z,4µm,19.2s
QIZ L L
comp=Z,3µm,11.4s
QIZ L L
comp=Z,3µm,20.2s
BBLS Lazi&#263i 40.01 303 ⇑*i*P **P** **03 04 29.9 -0.5**
KULM Kulim 40.04 122 P **P** **03 04 32.4 +1.6**
KULM Kulim 40.04 122 P **P** **03 04 30.1 -0.7**
KULM IAmb IAmb 03 04 35.9
comp=Z,77nm,1.1s
KULM Kulim 40.04 122 P **P** **03 04 31.1 +0.3**
comp=Z,994nmcomp=Z,76nm,1.1s
NIE Niedzica 40.05 312 *e*P **P** **03 04 32.7 +2.1**
PDG Podgorica 40.06 301 ⇑*i*P **P** **03 04 28.7 -2.0**
PSZ Piszkesteto 40.08 310 IAmb IAmb 03 04 39.7
comp=Z,84nm,1.0s
DRME Dracevica, Mon 40.11 301 *e*P **P** **03 04 29.5 -1.7**
R9F13 Warsaw-Wawer 40.14 316 *e*P **P** **03 04 33.0 +1.8**
R9F13 *e*S **S** **03 10 40.7 +3.3**
WHN Wuhan 40.24 77 ⇓P **P** **03 04 34.1 +1.7**
WHN pP **sP** **03 04 37.3 -1.2**
WHN S **S** **03 10 42.8 +3.3**
WHN pmax pmax
comp=Z,210nm,1.2s
WHN L L
comp=Z,8µm,11.2s
WHN L L
comp=Z,8µm,14.6s
WHN L L
comp=Z,17µm,12.8s
UPM Unac-Piva 40.34 302 *e*P **P** **03 04 30.4 -2.9**
LODK Lodwar 40.44 235 **P** **03 04 35.6 +1.4**
OJC Ojcow 40.52 313 *e*P **P** **03 04 35.4 +1.0**
XLT XíLinHaoTe 40.52 57 *e*P **P** **03 04 36.0 +1.3**
XLT pP sP 03 04 41.0 +0.2
XLT S **S** **03 10 43.0 -0.6**
XLT sS sS 03 10 50.0 -0.8
XLT pmax pmax
comp=Z,18nm,1.0s
XLT pmax pmax
comp=Z,250nm,4.1s
XLT L L
comp=Z,580nm,17.4s
XLT L L
comp=Z,3µm,18.4s
XLT L L
comp=Z,4µm,19.7s
PSI Prapat 40.53 127 P **P** **03 04 33.7 -1.4**
PSI pmax pmax
comp=Z,49nm,1.4s
PSI MLR MLR
comp=Z,6µm,20.0s
LANS Liptovska Anna 40.55 311 *e*P **P** **03 04 36.1 +1.4**
LANS *e* 03 04 43.1
LANS pmax pmax
comp=Z,7.0nm,1.1s
LANS Liptovska Anna 40.55 311 *e*P **P** **03 04 36.1 +1.4**
LANS *e* 03 04 43.1
BJT Baijiatuau 40.56 63 IAmb IAmb 03 04 44.0
comp=Z,78nm,1.5s
BJI2 Beijing 40.57 63 P **P** **03 04 34.4 -0.5**
BJI2 pP **pP** **03 04 38.8 -0.4**
BJI2 sP **sP** **03 04 41.5 +0.5**
BJI2 PP **PnPn** **03 06 12.4 +0.2**
BJI2 PcP **PcP** **03 06 38.5 +1.4**
BJI2 S **S** **03 10 40.9 -3.2**
BJI2 pmax pmax
comp=Z,340nm,4.1s
BJI2 L L
comp=Z,4µm,15.8s
BJI2 L L
comp=Z,2µm,17.5s
BJI2 L L
comp=Z,4µm,15.0s
KLINJ Klinje 40.58 302 *e*P **P** **03 04 37.1 +2.0**
BRY Bratogost 40.60 302 *e*P **P** **03 04 33.2 -2.2**
RPSI Rantau Prapat 40.61 127 P **P** **03 04 33.7 -1.8**
RPSI IAMs_20 IAMs_20 03 22 55.0
comp=Z,6µm,20.0s
HCY Herceg Novi 40.63 301 *e*P **P** **03 04 36.5 +1.1**
NRIK Noril'sk 40.67 11 P **P** **03 04 35.4 0.0**
comp=Z,17nm,0.5s,baz=209,slow=5.1,SNR=16
NRIK LR LR 03 23 48.1
comp=Z,5µm,19.4s,baz=206,slow=40
comp=Z,17nm,0.5s
NRIK Noril'sk 40.67 11 P **P** **03 04 35.9 +0.5**
MORH Mrgy, Hungar 40.72 307 ⇑P **P** **03 04 36.6 +0.4**
MORH Mrgy, Hungar 40.72 307 ⇑*i*P **P** **03 04 34.9 -1.2**
MORH Mrgy, Hungar 40.72 307 P **P** **03 04 36.5 +0.4**
comp=Z,605nmcomp=Z,29nm,1.3s
TREB Trebinje 40.74 301 *e*P **P** **03 04 35.2 -1.1**
VYHS Vyhne 40.86 310 *e*P **P** **03 04 38.3 +1.0**
VYHS *e* 03 04 44.6
VYHS pmax pmax
comp=Z,17nm,1.1s
VYHS Vyhne 40.86 310 *e*P **P** **03 04 38.3 +1.0**
VYHS *e* 03 04 44.6
IPM Ipoh 40.86 122 P **P** **03 04 38.6 +0.9**
IPM Ipoh 40.86 122 P **P** **03 04 35.8 -1.9**
SRO Srobarova 41.12 309 *e*P **P** **03 04 40.4 +1.0**
SRO pmax pmax
comp=Z,13nm,0.9s
SRO Srobarova 41.12 309 *e*P **P** **03 04 40.4 +1.0**
FIA1 FINESS Array S 41.12 331 P **P** **03 04 38.6 -0.6**
FIA1 IAmb IAmb 03 04 54.3
comp=Z,78nm,0.9s
FINES FINESS Array B 41.12 331 P **P** **03 04 38.4 -0.7**
comp=Z,13nm,0.8s,baz=123,slow=6.7,SNR=37
FINES LR LR 03 24 23.3
comp=Z,9µm,18.8s,baz=118,slow=40
comp=Z,13nm,0.8s
FINES FINESS Array B 41.12 331 P **P** **03 04 39.1 -0.1**
OKC Ostrava-Krasne 41.51 312 *e*P **P** **03 04 43.9 +1.3**
OKC MLR MLR
comp=Z,2µm,18.0s
OKC Ostrava-Krasne 41.51 312 *e*P **P** **03 04 43.9 +1.3**
OKC AMS AMS 03 24 10.0
comp=Z,2µm,18.0s
MPLH Magyarpolny 41.57 308 P **P** **03 04 43.3 +0.2**
comp=Z,2µmcomp=Z,204nm,1.2s
TIA Tai'an 41.61 68 P **P** **03 04 45.4 +1.8**
TIA S **S** **03 11 01.3 +1.6**
TIA pmax pmax
comp=Z,36nm,0.9s
TIA L L
comp=Z,3µm,12.5s
TIA L L
comp=Z,5µm,15.4s
TIA L L
comp=Z,7µm,16.6s
BLY Banja Luka 41.65 305 P **P** **03 04 44.3 +0.6**
BLY IAmb IAmb 03 04 51.4
comp=Z,60nm,1.2s
BLY Banja Luka 41.65 305 ⇑*i*P **P** **03 04 43.2 -0.6**
JAVC Velka Javorina 41.67 311 *e*P **P** **03 04 45.3 +1.3**
STEB Steborice 41.76 312 *e*P **P** **03 04 45.4 +0.8**
SMOL Smolenice 41.79 310 *e*P **P** **03 04 46.3 +1.4**
SMOL *e* 03 04 53.0
SMOL pmax pmax
comp=Z,5.0nm,1.1s
MODS Modra-Piesok 41.87 310 *e*P **P** **03 04 46.5 +0.9**
MODS *e* 03 04 52.9
MODS pmax pmax
comp=Z,65nm,1.1s
MODS Modra-Piesok 41.87 310 *e*P **P** **03 04 46.5 +0.9**
MODS *e* 03 04 52.9
MORC Moravsky Berou 41.88 312 P **P** **03 04 46.5 +0.8**
MORC pmax pmax
comp=Z,39nm,1.0s
MORC Moravsky Berou 41.88 312 P **P** **03 04 46.5 +0.8**
MORC Moravsky Berou 41.88 312 *e*P **P** **03 04 45.9 +0.2**
ZST Bratislava 41.97 310 *e*P **P** **03 04 47.5 +1.1**
ZST *e* 03 04 53.1
ZST pmax pmax
comp=Z,10.0nm,1.2s
ZST Bratislava 41.97 310 *e*P **P** **03 04 47.5 +1.1**
ZST *e* 03 04 53.1
BOD Bodaibo 42.02 36 *e*P **P** **03 04 47.0 +0.3**
BOD pmax pmax
comp=Z,55nm,1.3s
BEHE Becsehely 42.03 307 *e*P **P** **03 04 46.9 0.0**
LVZ Lovozero 42.18 342 P **P** **03 04 48.5 +0.6**
LVZ pmax pmax
comp=Z,117nm,1.5s
LVZ MLR MLR
comp=Z,6µm,18.0s
LVZ Lovozero 42.18 342 P **P** **03 04 48.5 +0.6**
LVZ IAmb IAmb 03 04 50.0
comp=Z,117nm,1.5s
LVZ IAMs_20 IAMs_20 03 24 37.3
comp=Z,6µm,18.0s
LVZ Lovozero 42.18 342 P **P** **03 04 48.0 +0.1**
comp=Z,49nm,1.2s
LVZ pP **pP** **03 04 52.8 +0.6**
comp=Z,49nm,1.2s
APA Apatity 42.28 341 *e*P **P** **03 04 49.0 +0.3**
APA *e* 03 06 26.2
APA *e* 03 06 38.9
APA *e*S **S** **03 11 08.3 -0.6**
APA *e*SS **SS** **03 14 12.5 -4.5**
APA pmax pmax
comp=Z,34nm,1.1s
APA MLR MLR
comp=Z,4µm,27.6s
KOGS Kog 42.39 307 *e*P **P** **03 04 49.9 +0.1**
KRLC Kraliky 42.41 312 *e*P **P** **03 04 51.1 +1.1**
KRLC MLR MLR
comp=Z,3µm,12.3s
KRLC Kraliky 42.41 312 *e*P **P** **03 04 51.1 +1.1**
KRLC AMS AMS 03 27 50.0
comp=Z,3µm,12.3s
MNSI Mandailing Nat 42.43 128 P **P** **03 04 50.3 -0.2**
comp=Z,40nm,0.9s
VRAC Vranov 42.43 311 LR LR 03 25 22.2
comp=Z,3µm,19.6s,baz=110,slow=40
VRAC Vranov 42.43 311 *e*P **P** **03 04 49.9 -0.3**
RONA Rosalia, Austr 42.46 309 *i* P **P** **03 04 50.7 +0.2**
comp=Z,10nm,0.8s,SNR=12
KMBO Kilima Mbogo 42.50 228 P P 03 04 45.9 -5.4
baz=34,slow=10.0
KMBO LR LR 03 25 14.7
comp=Z,786nm,18.9s,baz=66,slow=40
KMBO Kilima Mbogo 42.50 228 *i* P **P** **03 04 52.1 +0.8**
SNR=9.5
KMBO Kilima Mbogo 42.50 228 P **P** **03 04 51.6 +0.3**
KMBO pmax pmax
comp=Z,93nm,1.9s
KMBO MLR MLR
comp=Z,2µm,18.0s
KMBO Kilima Mbogo 42.50 228 P **P** **03 04 51.6 +0.3**
KMBO IAmb IAmb 03 04 53.5
comp=Z,93nm,1.9s
KRUC Moravsky 42.53 311 *e*P **P** **03 04 51.0 0.0**
WINA Alland / Wiene 42.65 309 *i* P **P** **03 04 52.3 +0.4**
comp=Z,25nm,1.2s,SNR=9.2
CUC Castrocucco 42.71 297 IAmb IAmb 03 04 59.5
comp=Z,67nm,0.7s
DPC Dobruska-Polom 42.74 313 *e*P **P** **03 04 54.1 +1.4**
DPC pmax pmax
comp=Z,7.0nm,0.6s
DPC MLR MLR
comp=Z,3µm,14.4s
DPC Dobruska-Polom 42.74 313 *e*P **P** **03 04 54.1 +1.4**
comp=Z,6.7nm,0.6s
DPC AMS AMS 03 27 10.0
comp=Z,3µm,14.4s
CONA Conrad Observa 42.77 309 *i* P **P** **03 04 53.1 +0.1**
comp=Z,7.8nm,1.2s,SNR=9.6
KSP Ksiaz 42.83 313 *e*P **P** **03 04 54.5 +1.1**
KSP Ksiaz 42.83 313 P **P** **03 04 53.8 +0.4**
comp=Z,33nm,1.1s
OSTC Ostas 42.84 313 *e*P **P** **03 04 54.5 +1.0**
OSTC *e* 03 04 59.3
OSTC MLR MLR
comp=Z,2µm,14.6s
OSTC Ostas 42.84 313 *e*P **P** **03 04 54.5 +1.0**
OSTC *ex* x 03 04 59.3
OSTC AMS AMS 03 27 40.0
comp=Z,2µm,14.6s
GROS Grobnik 42.91 307 *e*P **P** **03 04 54.2 0.0**
KIBK Kibwezi 42.93 226 P **P** **03 04 54.5 -0.1**
ARSA Arzberg 42.95 308 *i* P **P** **03 04 55.1 +0.7**
comp=Z,25nm,0.9s,SNR=20
CHVC Chvalec 42.95 313 *e*P **P** **03 04 55.7 +1.4**
CHVC MLR MLR
comp=Z,2µm,11.8s
CHVC Chvalec 42.95 313 *e*P **P** **03 04 55.7 +1.4**
CHVC AMS AMS 03 28 00.0
comp=Z,2µm,11.8s
UPC Upice 42.96 313 *e*P **P** **03 04 55.7 +1.3**
UPC MLR MLR
comp=Z,2µm,15.0s
UPC Upice 42.96 313 *e*P **P** **03 04 55.7 +1.3**
UPC AMS AMS 03 27 20.0
comp=Z,2µm,15.0s
BOJS Bojanci 43.04 306 *e*P **P** **03 04 55.0 -0.1**
BOJS *e*S **S** **03 11 21.9 +1.3**
ABNA Allensteig Bun 43.12 310 *e*P **P** **03 04 56.4 +0.6**
comp=Z,0.1nm,0.1s
TREC Trest 43.15 311 *e*P **P** **03 04 56.6 +0.6**
TREC MLR MLR
comp=Z,3µm,20.4s
TREC Trest 43.15 311 *e*P **P** **03 04 56.6 +0.6**
TREC AMS AMS 03 25 10.0
comp=Z,3µm,20.4s
SOKA Soboth 43.24 307 *i* P **P** **03 04 57.3 +0.4**
comp=Z,5.4nm,1.1s,SNR=14
HILR Hailar Array B 43.48 49 P **P** **03 04 59.2 +0.5**
comp=Z,3.2nm,0.5s,baz=248,slow=7.4,SNR=5.0
HILR LR LR 03 25 47.2
comp=Z,4µm,20.0s,baz=85,slow=40
comp=Z,3.2nm,0.5s
OBKA Obir 43.57 307 *i* P **P** **03 04 59.8 +0.3**
comp=Z,4.9nm,1.0s,SNR=18
SESA Seetaler Alpe, 43.59 308 *i* P **P** **03 05 00.7 +0.9**
comp=Z,14nm,0.8s,SNR=55
CEY Cerknica 43.63 306 *e*P **P** **03 05 00.3 +0.4**
NJ2 Nanjing 43.70 74 *e*P **P** **03 05 01.1 +0.5**
NJ2 sP **pP** **03 05 05.0 +0.1**
NJ2 ScS ScS 03 15 02.1 +1.9
NJ2 pmax pmax
comp=Z,75nm,0.7s
NJ2 L L
comp=Z,2µm,18.6s
NJ2 L L
comp=Z,5µm,15.7s
NJ2 L L
comp=Z,6µm,21.1s
BKNI Bangkinang 43.77 127 P **P** **03 05 03.7 +2.4**
BKNI Bangkinang 43.77 127 P **P** **03 05 00.5 -0.8**
BKNI IAMs_20 IAMs_20 03 24 01.8
comp=Z,5µm,21.0s
BKNI Bangkinang 43.77 127 P **P** **03 05 01.1 -0.2**
MOA Molln 43.84 309 *i* P **P** **03 05 01.8 +0.2**
comp=Z,23nm,0.8s,SNR=20
PRU Pruhonice 43.84 312 AMS AMS 03 28 00.0
comp=Z,4µm,14.2s
CKRC Cesky Krumlov 43.88 310 *e*P **P** **03 05 02.2 +0.3**
CKRC MLR MLR
comp=Z,2µm,13.6s
CKRC Cesky Krumlov 43.88 310 *e*P **P** **03 05 02.2 +0.3**
CKRC AMS AMS 03 24 40.0
comp=Z,2µm,13.6s
PVCC Panska Ves 43.88 313 *e*P **P** **03 05 03.4 +1.6**
PVCC *e* 03 05 08.1
PVCC MLR MLR
comp=Z,3µm,11.7s
PVCC Panska Ves 43.88 313 *e*P **P** **03 05 03.4 +1.6**
PVCC *ex* x 03 05 08.1
PVCC AMS AMS 03 28 20.0
comp=Z,3µm,11.7s
PPI Padang Panjang 43.90 128 P **P** **03 05 00.4 -1.9**
ZVC Zvikov 44.01 311 *e*P **P** **03 05 02.8 -0.1**
ZVC AMS AMS 03 28 20.0
comp=Z,2µm,15.4s
VAE Valguarnera 44.03 294 LR LR 03 26 36.6
comp=Z,1µm,18.9s,baz=109,slow=40
RAFF Raffo Rosso 44.11 294 IAmb IAmb 03 05 10.8
comp=Z,124nm,1.4s
BLEU Blekinge 44.17 321 *i* P **P** **03 05 03.2 -0.8**
RICC Richard 44.18 313 *e*P **P** **03 05 05.5 +1.3**
RICC AMS AMS 03 28 40.0
comp=Z,4µm,12.3s
MYKA Terra Mystica 44.20 307 *e*P **P** **03 05 04.9 +0.3**
comp=Z,16nm,1.3s
SABO M.te Sabotino 44.21 306 IAmb IAmb 03 05 11.7
comp=Z,83nm,1.2s
PRED Cave del Predi 44.25 307 IAmb IAmb 03 05 16.9
comp=Z,44nm,1.0s
BIOA Bad Ischl, Aus 44.25 309 *i* P **P** **03 05 05.2 +0.3**
comp=Z,2.8nm,0.6s,SNR=8.6
GEC2 GERESS Array S 44.28 310 *e*P **P** **03 05 04.9 -0.2**
comp=Z,20nm,0.9s,baz=95,slow=7.8
GERES GERESS Array B 44.28 310 P **P** **03 05 04.8 -0.4**
comp=Z,8.8nm,0.8s,baz=106,slow=6.2,SNR=63
GERES LR LR 03 25 37.9
comp=Z,2µm,20.2s,baz=94,slow=39
comp=Z,8.8nm,0.8s
GERES GERESS Array B 44.28 310 P **P** **03 05 05.3 +0.1**
KHC Kasperske Hory 44.38 311 *ce*P **P** **03 05 05.7 -0.2**
KHC pmax pmax
comp=Z,10.0nm,1.3s
KHC Kasperske Hory 44.38 311 *e*P **P** **03 05 03.7 -2.2**
comp=Z,42nm,1.2s
KHC *e*pP **sP** **03 05 12.0 0.0**
AQU L'Aquila 44.40 301 IAmb IAmb 03 05 38.1
comp=Z,50nm,1.0s
AQU L'Aquila 44.40 301 ⇑*i*P **P** **03 05 05.5 -0.7**
BSD Bornholm Skovb 44.41 319 *i* P **P** **03 05 04.8 -1.1**
BSD IAmb IAmb 03 05 05.5
comp=Z,24nm,0.7s
GUMA Gualdo di Mace 44.42 302 IAmb IAmb 03 05 26.4
comp=Z,35nm,0.9s
KBA Koelnbreinsper 44.42 308 *i* P **P** **03 05 06.6 +0.2**
comp=Z,4.9nm,0.7s,SNR=14
HSKC Hora Svate Kat 44.61 313 *e*P **P** **03 05 08.8 +1.1**
HSKC AMS AMS 03 29 00.0
comp=Z,4µm,13.1s
RUE Ruedersdorf 44.62 315 *e*P **P** **03 05 07.6 -0.1**
comp=Z,39nm,0.9s,baz=95,slow=7.8
DL2 Dalian 44.86 64 P **P** **03 05 11.5 +1.7**
DL2 S **S** **03 11 47.3 0.0**
DL2 pmax pmax
comp=Z,59nm,1.0s
DL2 pmax pmax
comp=Z,400nm,4.5s
DL2 L L
comp=Z,7µm,22.3s
DL2 L L
comp=Z,2µm,23.7s
DL2 L L
comp=Z,7µm,18.1s
LESA Schwarzleotal 44.89 308 *i* P **P** **03 05 10.0 -0.1**
comp=Z,19nm,0.6s,SNR=24
CLL Collm 44.95 314 *i* P **P** **03 05 10.7 +0.3**
CLL *i* 03 05 16.5
CLL *e*S **S** **03 11 50.0 +1.7**
CLL pmax pmax
comp=Z,11nm,1.0s
CLL Collm 44.95 314 *e*P **P** **03 05 10.6 +0.2**
comp=Z,14nm,1.0s,baz=95,slow=7.8
CLL Collm 44.95 314 *i* P **P** **03 05 10.7 +0.3**
comp=Z,11nm,1.0s
CLL *i* sP **sP** **03 05 16.5 +0.1**
comp=Z,17nm,1.1s
CLL *e*PP **PcP** **03 06 50.0 -1.5**
CLL *ex* x 03 07 19.0
CLL *e*PPP PPP 03 07 29.0
CLL *e*PPPP 03 07 43.0
CLL *e*S **S** **03 11 50.0 +1.7**
CLL *e*SS **ScS** **03 15 00.0 -7.5**
CLL *e*SSS SSS 03 16 06.0
CLL LH 03 18 00.0
CLL LV 03 19 00.0
CLL AMS AMS 03 25 00.0
comp=N,5µm,19.8s
CLL AMS AMS 03 25 00.0
comp=E,3µm,21.5s
CLL AMS AMS 03 25 00.0
comp=Z,2µm,18.5s
CLL AMS AMS 03 29 00.0
comp=Z,3µm,15.9s
ABTA Abfaltersbach 44.98 307 *i* P **P** **03 05 10.5 -0.3**
comp=Z,22nm,1.0s,SNR=16
BTDF Bukit Timah Da 44.98 123 P **P** **03 05 14.0 +2.9**
BTDF Bukit Timah Da 44.98 123 P **P** **03 05 11.9 +0.8**
comp=Z,46nm,1.3s
CESX Cesi 44.99 301 IAmb IAmb 03 05 29.3
comp=Z,37nm,1.1s
VADS Vadso 45.10 343 *e*P **P** **03 05 11.3 0.0**
NKC Novy Kostel 45.20 312 AMS AMS 03 29 20.0
comp=Z,5µm,12.4s
RGN Rugen 45.21 318 IAMs_20 IAMs_20 03 26 42.7
comp=Z,4µm,18.0s
TANN Tannenbergstha 45.21 312 *e*P **P** **03 05 13.1 +0.6**
comp=Z,39nm,1.3s,baz=95,slow=7.8
TANN *e*pP **sP** **03 05 19.6 +1.0**
DEL Delary 45.26 321 *i* P **P** **03 05 12.4 -0.3**
LUNU Lund 45.33 320 *i* P **P** **03 05 13.1 -0.2**
KNMB Chin-men Tao 45.35 85 IAMs_20 IAMs_20 03 27 35.8
comp=Z,4µm,20.0s
PLN Plauen 45.41 313 *e*P **P** **03 05 14.8 +0.8**
comp=Z,11nm,1.0s,baz=95,slow=7.8
KEV Kevo 45.49 342 IAMs_20 IAMs_20 03 26 28.8
comp=Z,5µm,19.0s

TEOL Teolo 45.56 305 IAmb IAmb 03 05 22.1
comp=Z,34nm,0.9s
CTI Castel Tesino 45.57 306 IAmb IAmb 03 05 26.8
comp=Z,65nm,0.9s
WTTA Wattenberg 45.59 308 *i* P **P** **03 05 15.1 -0.6**
comp=Z,1.5nm,0.5s,SNR=14
WATA Walderalm 45.63 308 *i* P **P** **03 05 15.4 -0.6**
comp=Z,0.1nm,0.3s,SNR=14
NEUB Neuenburg 45.71 314 *e*P **P** **03 05 16.9 +0.5**
comp=Z,60nm,1.1s,baz=95,slow=7.8
MOX Moxa 45.76 313 *e*P **P** **03 05 17.7 +0.8**
comp=Z,76nm,1.2s,baz=95,slow=7.8
MOX eL L 03 26 58.0
comp=Z,2µm,20.4s
ARA0 ARCESS Array S 45.77 341 *e*P **P** **03 05 16.4 -0.3**
ARCES ARCESS Array B 45.77 341 P **P** **03 05 16.0 -0.6**
comp=Z,6.1nm,0.5s,baz=130,slow=7.4,SNR=62
ARCES LR LR 03 26 19.3
comp=Z,4µm,19.4s,baz=124,slow=38
comp=Z,6.1nm,0.5s
ARCES ARCESS Array B 45.77 341 P **P** **03 05 16.4 -0.3**
ARCES pmax pmax
comp=Z,36nm,1.1s
ARCES ARCESS Array B 45.77 341 P **P** **03 05 16.4 -0.3**
ARCES IAmb IAmb 03 05 27.9
comp=Z,36nm,1.1s
TPRI Tanjung Pinang 45.83 123 P **P** **03 05 20.4 +2.6**
SSE Sheshan 45.85 75 P **P** **03 05 16.0 -1.8**
SSE pP **pP** **03 05 19.9 -2.2**
SSE S **S** **03 11 59.3 -2.5**
SSE pmax pmax
comp=Z,11nm,0.7s
SSE pmax pmax
comp=Z,190nm,3.7s
SSE L L
comp=Z,770nm,17.4s
SQTA Sankt Quirin 45.88 308 *i* P **P** **03 05 17.0 -1.0**
comp=Z,11nm,1.2s,SNR=9.5
MOTA Moosalm 45.95 308 *i* P **P** **03 05 17.5 -1.1**
comp=Z,12nm,1.1s,SNR=15
GRA1 Grafenberg Arr 45.95 311 P **P** **03 05 18.9 +0.5**
GRA1 IAmb IAmb 03 05 29.2
comp=Z,52nm,1.0s
GRF Grafenberg Arr 45.95 311 P **P** **03 05 18.9 +0.5**
GRF pmax pmax
comp=Z,53nm,1.0s
GRF MLR MLR
comp=Z,2µm,20.0s
GRF Grafenberg Arr 45.95 311 *e*P **P** **03 05 19.3 +0.9**
comp=Z,55nm,1.1s,baz=95,slow=7.8
GRF *e*pP **sP** **03 05 25.6 +1.2**
GRF eL L 03 27 33.4
comp=Z,2µm,20.0s
GRFO Grafenberg 45.96 311 P **P** **03 05 20.2 +1.8**
GRFO MLR MLR
comp=Z,2µm,19.0s
GRFO Grafenberg 45.96 311 P **P** **03 05 20.2 +1.8**
FABU Falkenberg 45.99 322 *i* P **P** **03 05 18.5 0.0**
SNY Shenyang 46.07 60 P **P** **03 05 21.3 +2.0**
SNY S **S** **03 12 09.3 +4.7**
SNY pmax pmax
comp=Z,110nm,0.9s
SNY pmax pmax
comp=Z,280nm,3.7s
SNY L L
comp=Z,4µm,14.1s
SNY L L
comp=Z,6µm,14.9s
SNY L L
comp=Z,6µm,14.7s
KTK1 Kautokeino 46.14 340 *e*P **P** **03 05 18.8 -0.7**
FLTG Flechtingen 46.15 315 *e*P **P** **03 05 19.5 -0.3**
comp=Z,37nm,0.9s,baz=95,slow=7.8
RETA Reutte 46.19 308 *i* P **P** **03 05 19.4 -0.9**
comp=Z,6.4nm,1.1s,SNR=10
FETA Feichten 46.21 308 *i* P **P** **03 05 19.9 -0.7**
comp=Z,23nm,0.9s,SNR=15
HFS Hagfors 46.22 326 P **P** **03 05 19.8 -0.5**
comp=Z,12nm,0.9s,baz=95,slow=7.9,SNR=9.3
HFS LR LR 03 27 10.5
comp=Z,3µm,20.4s,baz=98,slow=39
comp=Z,12nm,0.9s
ONAU Onsala 46.50 322 *i* P **P** **03 05 22.1 -0.4**
FUORN Ofenpass-Fuorn 46.53 307 IAmb IAmb 03 05 40.8
comp=Z,41nm,0.9s
MBAR Mbarara 46.53 235 LR LR 03 27 19.5
comp=Z,3µm,18.2s,baz=46,slow=39
MBAR Mbarara 46.53 235 P **P** **03 05 22.3 -1.2**
MBAR pmax pmax
comp=Z,15nm,1.1s
MBAR MLR MLR
comp=Z,3µm,19.0s
MBAR Mbarara 46.53 235 P **P** **03 05 22.3 -1.2**
UBR Ueberruh 46.63 309 *e*P **P** **03 05 23.2 -0.7**
comp=Z,73nm,1.0s,baz=95,slow=7.8
CLZ Clausthal 46.63 314 *e*P **P** **03 05 23.8 +0.1**
comp=Z,46nm,1.1s,baz=95,slow=7.8
DAVA Damuels 46.79 308 *i* P **P** **03 05 24.5 -0.7**
comp=Z,2.6nm,0.5s,SNR=15
DAVOX Davos/Dischmat 46.79 307 LR LR 03 28 15.7
comp=Z,2µm,21.7s,baz=85,slow=40
BSEG Bad Segeberg 46.87 317 *e*P **P** **03 05 25.8 +0.4**
comp=Z,87nm,1.1s,baz=95,slow=7.8
GTTG Gottingen 46.87 314 *e*P **P** **03 05 26.0 +0.5**
comp=Z,49nm,1.1s,baz=95,slow=7.8
HAMF Hammerfest 46.93 342 *e*P **P** **03 05 25.6 -0.1**
MSSA Maissana 47.13 304 IAmb IAmb 03 05 35.5
comp=Z,59nm,1.1s
TUE Stuetta 47.16 307 IAmb IAmb 03 05 37.9
comp=Z,35nm,0.9s
TUE Stuetta 47.16 307 P **P** **03 05 27.5 -0.7**
comp=Z,171nm,1.0s
STRU Stroemstad 47.20 324 *i* P **P** **03 05 25.2 -2.8**
JETT Jettan, Norway 47.28 340 *e*P **P** **03 05 27.9 -0.6**
CN2 Changchun 47.30 57 *e*P **P** **03 05 25.5 -3.5**
CN2 *e*pP pP 03 05 30.3 -3.1
CN2 *e*S **S** **03 12 15.3 -6.9**
CN2 pmax pmax
comp=Z,10.0nm,0.3s
CN2 pmax pmax
comp=Z,200nm,3.4s
CN2 L L
comp=Z,1µm,11.0s
CN2 L L
comp=Z,1µm,11.0s
CN2 L L
comp=Z,1µm,13.0s
NC602 NORSAR Array S 47.41 326 IAmb IAmb 03 05 29.9
comp=Z,30nm,1.1s
NC602 NORSAR Array S 47.41 326 *e*P **P** **03 05 26.9 -2.6**
NB2 NORSAR Subarra 47.63 327 P **P** **03 05 30.7 -0.7**
comp=Z,4.6nm,0.8s,baz=104,slow=7.9
NB2 NORSAR Subarra 47.63 327 P **P** **03 05 30.0 -1.4**
NB2 AMP 03 05 30.0
NOA NORSAR Array B 47.63 327 P **P** **03 05 29.9 -1.4**
comp=Z,9.5nm,0.9s,baz=106,slow=7.7,SNR=19
NOA LR LR 03 28 04.0
comp=Z,3µm,19.9s,baz=105,slow=39
comp=Z,9.5nm,0.9s
NOA NORSAR Array B 47.63 327 P **P** **03 05 30.0 -1.4**
VSL Villasalto 47.70 297 IAmb IAmb 03 05 50.1
comp=Z,35nm,0.9s
TRO Tromso 47.77 339 *e*P **P** **03 05 32.4 +0.2**
TRO IAmb IAmb 03 05 33.7
comp=Z,46nm,1.2s
SSLB Suanglung 47.78 84 P **P** **03 05 36.0 +3.0**
BFO Black Forest 47.83 309 *i* P **P** **03 05 33.0 -0.1**
BFO Black Forest 47.83 309 P **P** **03 05 32.4 -0.7**
BFO IAmb IAmb 03 05 41.2
comp=Z,55nm,1.3s
BFO Black Forest 47.83 309 *e*P **P** **03 05 32.0 -1.0**
comp=Z,51nm,1.2s,baz=95,slow=7.8
BFO *e*pP **sP** **03 05 38.7 -0.4**
MUD Monsted U'grnd 47.83 320 *i* P **P** **03 05 34.2 +1.4**
MUD IAmb IAmb 03 05 35.0
comp=Z,18nm,0.9s
NBO00 NORSAR Array S 47.84 327 IAmb IAmb 03 05 40.3
comp=Z,57nm,1.2s
NC204 NORSAR Array S 47.90 327 IAmb IAmb 03 05 41.0
comp=Z,47nm,1.1s
FAUS Fauske 47.97 336 *e*P **P** **03 05 32.8 -1.0**
FAUS IAmb IAmb 03 05 39.4
comp=Z,41nm,1.1s
PYAG Pyongyang 48.03 63 P **P** **03 05 35.6 +0.9**
PYAG S **S** **03 12 31.4 -1.4**
PYAG AmB
comp=Z,401nm,2.4s
PYAG AMS AMS
comp=Z,4µm,17.0s
RAUS Rausandaksla 48.06 334 *e*P **P** **03 05 33.6 -1.0**
KONO Kongsberg 48.12 325 *e*P **P** **03 05 34.4 -0.7**
HJU Haeju 48.16 64 P **P** **03 05 36.7 +0.9**
HJU S **S** **03 12 32.9 -1.7**
HJU AmB
comp=Z,342nm,1.5s
HJU AMS AMS
comp=Z,5µm,12.6s
STEI Steigen 48.21 336 *e*P **P** **03 05 35.4 -0.2**
YULB Yu-li 48.21 85 P **P** **03 05 40.0 +3.6**
YULB Yu-li 48.21 85 IAMs_20 IAMs_20 03 29 14.7
comp=Z,4µm,20.0s
TWG Pinlang 48.22 86 IAMs_20 IAMs_20 03 29 27.1
comp=Z,4µm,22.0s
NSS Namsos 48.24 331 *e*P **P** **03 05 33.8 -2.2**
IBBN Ibbenburen 48.28 315 *e*P **P** **03 05 36.6 +0.2**
comp=Z,41nm,1.0s,baz=95,slow=7.8
LEIR Leirfjorden 48.30 334 *e*P **P** **03 05 35.9 -0.4**
KEST Kesra 48.34 292 P **P** **03 05 37.1 -0.2**
comp=Z,21nm,0.8s,baz=10,slow=3.9,SNR=21
KEST LR LR 03 29 49.1
comp=Z,2µm,19.0s,baz=68,slow=41
comp=Z,21nm,0.8s
KEST Kesra 48.34 292 IAmb IAmb 03 05 43.7
comp=Z,46nm,0.9s
STOK Stokkvaagen 48.41 334 *e*P **P** **03 05 36.8 -0.5**
KONS Konsvik 48.43 334 *e*P **P** **03 05 36.8 -0.6**
HOMB Homborsund 48.45 323 *i* P **P** **03 05 37.6 0.0**
VAGH Vaagaholmen 48.46 335 *e*P **P** **03 05 37.4 -0.2**
HEH HeiHe 48.46 48 *e*P **P** **03 05 38.3 +0.4**
HEH sP **sP** **03 05 43.1 -0.9**
HEH S **S** **03 12 35.3 -3.2**
HEH pmax pmax
comp=Z,23nm,0.8s
HEH pmax pmax
comp=Z,280nm,4.7s
HEH L L
comp=Z,5µm,15.0s
HEH L L
comp=Z,7µm,14.6s
HEH L L
comp=Z,11µm,16.6s
ZEA Zeya 48.50 43 *e*P **P** **03 05 39.4 +1.3**
ZEA *e*S **S** **03 12 42.6 +3.7**
ZEA pmax pmax
comp=N,10.0nm,0.9s
ZEA pmax pmax
comp=Z,20nm,1.2s
ZEA smax smax
comp=N,300nm,13.1s
ZEA MLR MLR
comp=E,2µm,19.0s
ZEA MLR MLR
comp=N,3µm,18.0s
ZEA MLR MLR
comp=Z,2µm,19.0s
BUG Bochum--Univer 48.55 314 *e*P **P** **03 05 38.8 +0.3**
comp=Z,44nm,0.9s,baz=95,slow=7.8
BNX BinXian 48.57 54 ||P **P** **03 05 38.3 -0.5**
BNX pP **pP** **03 05 41.6 -1.6**
BNX sP **sP** **03 05 43.0 -1.9**
BNX S **S** **03 12 38.3 -1.9**
BNX pmax pmax
comp=Z,31nm,1.6s
BNX pmax pmax
comp=Z,320nm,3.8s
BNX L L
comp=Z,5µm,17.4s
BNX L L
comp=Z,8µm,15.2s
BNX L L
comp=Z,10µm,14.4s
SENIN Lac Senin/Sane 48.58 307 IAmb IAmb 03 05 47.0
comp=Z,40nm,0.8s
DOMB Dombas 48.87 328 *e*P **P** **03 05 39.8 -1.1**
DOMB IAmb IAmb 03 05 50.8
comp=Z,53nm,1.1s
SKAR Skarslia 48.95 326 *e*P **P** **03 05 41.3 -0.3**
SKAR IAmb IAmb 03 05 49.1
comp=Z,74nm,1.5s
INCN Inchon 48.97 65 P P 03 05 47.4 +5.4
INCN Inchon 48.97 65 IAMs_20 IAMs_20 03 28 55.5
comp=Z,4µm,18.0s
BNI Bardonecchia 49.10 305 IAmb IAmb 03 05 50.8
comp=Z,45nm,1.0s
SNART Snartemo 49.13 323 *i* P **P** **03 05 43.2 +0.3**
WLF Walferdange 49.25 311 *d*P **P** **03 05 44.4 +0.5**
comp=Z,34nm,1.1s
HHU Hamhung 49.26 62 P **P** **03 05 45.3 +1.1**
HHU AmB
comp=Z,406nm,3.1s
HHU AMS AMS
comp=Z,4µm,17.7s
MEM Membach 49.33 312 *d*P **P** **03 05 45.0 +0.5**
comp=Z,21nm,1.0s
MEM *d*PP **PP** **03 07 36.3 -2.0**
MDSI Maura Dua 49.40 128 P **P** **03 05 47.0 +1.5**
ODD1 Odda 49.65 325 *e*P **P** **03 05 47.5 +0.6**
BLS5 Blasjo 49.66 324 *e*P **P** **03 05 48.3 +1.3**
MOL Molde 49.67 328 *e*P **P** **03 05 46.2 -0.8**
TJN Taejon 49.75 66 P **P** **03 05 52.4 +4.5**
BCLA Clavier 49.78 312 *d*P **P** **03 05 48.5 +0.5**
comp=Z,8.0nm,1.3s
RCHB Rochefort 49.84 312 *d*P **P** **03 05 47.4 -1.0**
comp=Z,18nm,1.2s
AKN Aaknes 49.85 328 *e*P **P** **03 05 48.7 +0.4**
BMOL Mol 49.91 313 *d*P **P** **03 05 48.5 -0.4**
KS19 Wonju Array Si 49.93 65 IAmb IAmb 03 05 58.0
comp=Z,42nm,1.0s
KSAR Wonju Array Be 49.95 65 P **P** **03 05 48.9 -0.6**
KSAR Wonju Array Be 49.95 65 P **P** **03 05 48.9 -0.6**
KSRS Korea Array 49.98 65 P **P** **03 05 48.8 -0.9**
comp=Z,17nm,1.0s,baz=270,slow=7.0,SNR=15
KSRS LR LR 03 30 59.0
comp=Z,1µm,20.8s,baz=275,slow=41
comp=Z,17nm,1.0s
HYA Hoyanger 50.05 326 *e*P **P** **03 05 50.0 +0.2**
BMRD Maredsous 50.13 312 *d*P **P** **03 05 51.1 +0.5**
comp=Z,35nm,1.0s
MDJ Mudanjiang 50.20 55 P **P** **03 05 51.3 0.0**
MDJ pP pP 03 05 55.5 -0.2
MDJ S **S** **03 13 02.8 -0.3**
MDJ pmax pmax
comp=Z,15nm,1.7s
MDJ L L
comp=Z,2µm,16.2s
MDJ L L
comp=Z,3µm,16.5s
MDJ L L
comp=Z,7µm,15.1s
MDJ Mudanjiang 50.20 55 IAMs_20 IAMs_20 03 28 53.8
comp=Z,5µm,20.0s
DOU Dourbes 50.24 312 *d*P **P** **03 05 52.1 +0.6**
comp=Z,32nm,1.0s
KMY Karmoy 50.25 324 *e*P **P** **03 05 51.3 -0.1**
BJO1 Bjornoya 50.27 345 *e*P **P** **03 05 50.9 -0.5**
UCC Uccle 50.38 313 *d*P **P** **03 05 53.0 +0.5**
comp=Z,8.3nm,0.9s
UCC *d*PcP **PcP** **03 07 09.8 -1.0**
BSKQ Steenkerk 50.56 313 *d*P **P** **03 05 54.0 +0.2**
comp=Z,26nm,1.0s
SSB Saint Sauveur 50.59 306 IAmb IAmb 03 06 01.9
comp=Z,53nm,1.0s
TPI Tanjungpandan 50.62 123 P **P** **03 05 53.8 -0.9**
comp=Z,912nmcomp=Z,66nm,1.0s
YAK Yakutsk 50.70 33 LR LR 03 27 51.9
comp=Z,2µm,19.9s,baz=255,slow=37
YAK Yakutsk 50.70 33 *e*P **P** **03 05 54.1 -0.7**
YAK *e* 03 07 13.2
YAK *e* 03 07 51.7
YAK *e*PPP PPP 03 08 45.8
YAK *e*S **S** **03 13 09.3 -0.2**
YAK *e* 03 15 44.8
YAK *e*SSS SSS 03 18 12.7
YAK pmax pmax
comp=Z,82nm,1.1s
YAK pmax pmax
comp=N,15nm,1.3s
YAK pmax pmax
comp=E,50nm,1.4s
YAK pmax pmax
comp=Z,121nm,3.0s
YAK pmax pmax
comp=N,121nm,3.4s
YAK smax smax
comp=N,159nm,1.9s
YAK smax smax
comp=E,100nm,2.1s
YAK MLR MLR
comp=Z,4µm,14.0s
YAK MLR MLR
comp=E,3µm,12.0s
YAK MLR MLR
comp=N,1µm,13.0s
YAK Yakutsk 50.70 33 P **P** **03 05 53.4 -1.3**
YAK Yakutsk 50.70 33 IAMs_20 IAMs_20 03 28 48.6
comp=Z,3µm,19.0s
COCO West Island 50.95 142 IAMs_20 IAMs_20 03 25 20.5
comp=Z,4µm,20.0s
BOST Ostende 51.26 313 *d*P **P** **03 05 59.7 +0.5**
comp=Z,22nm,1.3s
KLR Kul'dur 51.30 49 LR LR 03 30 43.1
comp=Z,5µm,18.5s,baz=274,slow=40
KLR Kul'dur 51.30 49*c*e**P** **P** **03 05 59.5 0.0**
KLR pmax pmax
comp=Z,40nm,1.7s
STKI Sintang 51.60 117 P **P** **03 06 02.6 +0.5**
KKM Kota Kinabalu 51.80 108 P **P** **03 06 05.4 +1.6**
KKM Kota Kinabalu 51.80 108 P **P** **03 06 04.1 +0.3**
comp=Z,926nmcomp=Z,61nm,1.3s
USA0B Ussuriysk Arra 51.95 56 *i* P **P** **03 06 03.3 -1.1**
USRK Ussuriysk Ar. 51.95 56 P **P** **03 06 04.0 -0.5**
comp=Z,8.5nm,0.8s,baz=283,slow=5.9,SNR=11
USRK LR LR 03 30 10.5
comp=Z,4µm,20.1s,baz=286,slow=38
comp=Z,8.5nm,0.8s
USRK Ussuriysk Ar. 51.95 56 P **P** **03 06 04.9 +0.4**
USRK Ussuriysk Ar. 51.95 56 **P** **03 06 04.9 +0.4**
CGJI Cibinong 51.98 129 P **P** **03 06 02.1 -2.8**
VLA Vladivostok 52.03 57 *i* P **P** **03 06 03.8 -1.2**
VLA pmax pmax
comp=Z,24nm,0.9s
OPO Ambohidratompo 52.42 204 LR LR 03 25 06.6
comp=Z,2µm,21.9s,baz=264,slow=32
TIXI Tiksi 52.54 21 LR LR 03 31 12.0
comp=Z,3µm,18.3s,baz=261,slow=39
TIXI Tiksi 52.54 21*c*e**P** **P** **03 06 07.4 -1.0**
TIXI pmax pmax
comp=Z,74nm,1.7s
TIXI Tiksi 52.54 21 P **P** **03 06 07.5 -0.9**
TIXI IAmb IAmb 03 06 26.6
comp=Z,52nm,1.1s
SPITS Spitsbergen Ar 52.80 348 P **P** **03 06 10.1 -0.1**
comp=Z,14nm,0.7s,baz=116,slow=8.8,SNR=11
SPITS LR LR 03 33 19.4
comp=Z,2µm,19.6s,baz=130,slow=41
comp=Z,14nm,0.7s
SPITS Spitsbergen Ar 52.80 348 P **P** **03 06 10.9 +0.7**
SPITS pmax pmax
comp=Z,236nm,1.6s
ABPO Ambohimpanom 52.82 204 *i* P **P** **03 06 15.1 +3.9**
JOW Kunigami 53.01 78 LR LR 03 33 24.0
comp=Z,2µm,18.1s,baz=225,slow=41
CEST Esterri de Car 53.30 303 IAmb IAmb 03 06 21.4
comp=Z,59nm,1.4s
JNU Nakatsue 53.31 69 LR LR 03 32 20.9
comp=Z,4µm,18.1s,baz=286,slow=40
LEM Lembang 53.44 127 LR LR 03 30 25.9
comp=Z,3µm,20.9s,baz=271,slow=38
KBS Kingsbay 53.94 349 *i* P **P** **03 06 19.4 +0.8**
GRNR Gornyy 54.18 47 ||*i*P **P** **03 06 21.4 +0.6**
GRNR pmax pmax
comp=Z,20nm,1.0s
GRNR MLR MLR
comp=E,3µm,14.0s
GRNR MLR MLR
comp=N,2µm,15.0s
GRNR MLR MLR
comp=Z,4µm,16.0s
EKA Eskdalemuir Ar 54.72 319 P **P** **03 06 23.1 -1.5**
comp=Z,2.4nm,0.5s,baz=101,slow=8.3,SNR=14
EKA LR LR 03 33 32.7
comp=Z,2µm,18.1s,baz=78,slow=40
comp=Z,2.4nm,0.5s
TAM Tamanrasset 55.26 278 P **P** **03 06 27.5 -1.7**
TAM pmax pmax
comp=Z,10.0nm,0.9s
TAM MLR MLR
comp=Z,3µm,19.0s
TAM Tamanrasset 55.26 278 P **P** **03 06 27.5 -1.7**
TAM IAMs_20 IAMs_20 03 34 15.7
comp=Z,3µm,19.0s
JMN Monobe 55.57 68 P **P** **03 06 35.0 +3.9**
SMRI Semarang 55.58 125 IAMs_20 IAMs_20 03 33 42.4
comp=Z,3µm,19.0s
BBKI Banjar Baru 56.43 118 P **P** **03 06 36.8 -0.6**
BKB Balikpapan 56.64 114 IAMs_20 IAMs_20 03 34 53.0
comp=Z,3µm,20.0s
JMIC Jan Mayen 57.00 338 LR LR 03 32 56.6
comp=Z,2µm,20.2s,baz=103,slow=38
INU Inuyama 57.60 65 P **P** **03 06 49.2 +3.7**
INU Inuyama 57.60 65 P **P** **03 06 45.0 -0.5**
INU IAMs_20 IAMs_20 03 34 08.8
comp=Z,3µm,18.0s
ESBB Sonseca Array 57.77 300 IAmb IAmb 03 06 53.4
comp=Z,76nm,1.4s
ESDC Sonseca Array 57.77 300 P **P** **03 06 46.0 -0.8**
comp=Z,7.8nm,0.8s,baz=69,slow=6.8,SNR=52
ESDC LR LR 03 33 06.2
comp=Z,1µm,21.0s,baz=66,slow=38
comp=Z,7.8nm,0.8s
ESDC Sonseca Array 57.77 300 P **P** **03 06 46.1 -0.6**
JGF Kuroka 57.80 65 P **P** **03 06 51.3 +4.3**
PAB San Pablo 58.09 300 P **P** **03 06 48.5 -0.5**
PAB pmax pmax
comp=Z,61nm,1.2s
PAB San Pablo 58.09 300 P **P** **03 06 48.5 -0.5**
PAB IAmb IAmb 03 06 56.5
comp=Z,61nm,1.2s
MAJO Matsushiro 58.19 64 P **P** **03 06 54.2 +4.5**
MJAR Matsushiro Arr 58.20 64 P **P** **03 06 49.4 -0.3**
comp=Z,3.2nm,0.7s,baz=289,slow=9.1,SNR=8.7
MJAR LR LR 03 34 37.7
comp=Z,2µm,19.3s,baz=250,slow=39
comp=Z,3.2nm,0.7s
MJAR Matsushiro Arr 58.20 64 P **P** **03 06 48.0 -1.7**
TOLI2 Tolitoli 58.34 109 P **P** **03 06 53.8 +2.8**
YSS Yuzhno-Sakhali 58.92 51 P **P** **03 06 58.9 +4.4**
YSS Yuzhno-Sakhali 58.92 51 *e*P **P** **03 06 54.3 -0.2**
YSS *e*S **S** **03 14 56.0 -4.3**
YSS pmax pmax
comp=Z,70nm,1.0s
YSS MLR MLR
comp=Z,6µm,14.0s
YSS MLR MLR
comp=N,4µm,13.0s
YSS MLR MLR
comp=E,5µm,14.0s
MMSI Mamuju 59.10 114 P **P** **03 06 58.6 +2.4**
comp=E,39nm,0.7s
NOR Nord 59.27 350 *i* P **P** **03 06 55.9 -0.6**
NOR IAmb IAmb 03 06 58.0
comp=Z,13nm,0.9s
PBRG Braganca 59.27 303 *e*P **P** **03 06 57.1 -0.1**
PBRG IAmb IAmb 03 07 05.0
comp=Z,55nm,1.4s
ASAJ Asahikawa 59.46 54 LR LR 03 34 15.8
comp=Z,3µm,19.5s,baz=278,slow=38
DAG Danmarks Havn 59.76 345 *i* P **P** **03 06 59.0 -0.9**
DAG IAmb IAmb 03 07 01.4
comp=Z,31nm,1.1s
EDA Edea 60.03 256 P **P** **03 07 01.2 -1.5**
PVRL Vila Real 60.12 303 *e*P **P** **03 07 03.4 +0.4**
PVRL IAmb IAmb 03 07 10.8
comp=Z,89nm,1.2s
POLO Lamas de Olo 60.15 303 *e*P **P** **03 07 03.4 +0.1**
POLO IAmb IAmb 03 07 11.2
comp=Z,28nm,1.1s
KHKI Kahang-Kahang 60.20 122 P **P** **03 07 01.5 -2.3**
APSI Ampana 60.22 111 P **P** **03 07 05.4 +1.4**
PCAB Cabril 60.23 303 *e*P **P** **03 07 04.1 +0.3**
PCAB IAmb IAmb 03 07 11.8
comp=Z,138nm,1.3s
MTE Manteigas 60.23 302 P **P** **03 07 03.3 -0.5**
MTE Manteigas 60.23 302 *e*P **P** **03 07 03.8 -0.1**
MTE IAmb IAmb 03 07 12.0
comp=Z,139nm,1.1s
MTE IAMs_20 IAMs_20 03 38 23.9
comp=Z,959nm,18.0s

MDT Midelt 60.24 293 LR LR 03 38 23.8
comp=Z,1µm,18.2s,baz=70,slow=41
PGAV Gavieira, Arco 60.33 304 *e*P **P** **03 07 04.8 +0.2**
PGAV IAmb IAmb 03 07 12.7
comp=Z,114nm,1.2s
PGAV IAMs_20 IAMs_20 03 33 51.2
comp=Z,972nm,20.0s
PCBR Castelo Branco 60.34 301 *e*P **P** **03 07 04.6 +0.2**
PCBR IAmb IAmb 03 07 12.4
comp=Z,158nm,1.2s
MD01 Midelt array s 60.34 293 P **P** **03 07 04.1 -0.7**
PMRV Marv??o 60.39 301 *e*P **P** **03 07 05.0 +0.1**
PMRV IAmb IAmb 03 07 12.6
comp=Z,104nm,1.2s
PMRV IAMs_20 IAMs_20 03 40 34.1
comp=Z,893nm,16.0s
PVIS Viseu 60.40 302 *e*P **P** **03 07 05.4 +0.5**
JHJ Hachijo jima 2 60.46 67 LR LR 03 35 07.5
comp=Z,261nm,21.1s,baz=296,slow=38
PBAR Barrancos 60.48 299 *e*P **P** **03 07 05.3 -0.2**
PBAR IAmb IAmb 03 07 13.2
comp=Z,135nm,1.2s
PESTR Estremoz 60.70 300 P **P** **03 07 06.7 -0.2**
PESTR Estremoz 60.70 300 *e*P **P** **03 07 07.0 0.0**
PESTR IAmb IAmb 03 07 13.3
comp=Z,53nm,1.4s
PSARD Sardoal 60.91 301 *e*P **P** **03 07 08.9 +0.5**
PSARD IAmb IAmb 03 07 16.4
comp=Z,170nm,1.2s
PARRA Arraiolos 61.05 300 *e*P **P** **03 07 09.5 +0.1**
PARRA IAmb IAmb 03 07 16.9
comp=Z,50nm,1.2s
MA2 Magadan 61.05 35 LR LR 03 35 16.0
comp=Z,3µm,18.1s,baz=268,slow=38
MA2 Magadan 61.05 35 *i*P **P** **03 07 08.3 -0.7**
MA2 pmax pmax
comp=Z,21nm,0.9s
EVO Evora 61.11 300 *e*P **P** **03 07 09.8 0.0**
EVO IAmb IAmb 03 07 17.7
comp=Z,100nm,1.3s
PMTG Montargil 61.11 301 *e*P **P** **03 07 09.6 -0.2**
PMTG IAmb IAmb 03 07 17.4
comp=Z,75nm,1.2s
PBEJ Beja 61.15 299 *e*P **P** **03 07 10.2 +0.2**
PBEJ IAmb IAmb 03 07 11.4
comp=Z,47nm,1.8s
SEY Seymchan 61.18 31 LR LR 03 33 54.2
comp=Z,2µm,19.8s,baz=280,slow=36
SEY Seymchan 61.18 31 *ce*P **P** **03 07 09.0 -0.8**
SEY pmax pmax
comp=Z,40nm,1.3s
KAPI Kappang 61.19 116 LR LR 03 38 22.0
comp=Z,934nm,18.5s,baz=308,slow=41
LUWI Luwuk 61.20 110 P **P** **03 07 12.6 +1.9**
LUWI Luwuk 61.20 110 P **P** **03 07 14.0 +3.3**
PVAQ Vaqueiros 61.23 299 *e*P **P** **03 07 10.9 +0.3**
PVAQ IAmb IAmb 03 07 19.7
comp=Z,66nm,1.7s
PVAQ IAMs_20 IAMs_20 03 42 05.8
comp=Z,517nm,16.0s
MOE Montemor 61.37 300 *e*P **P** **03 07 12.1 +0.6**
MOE IAmb IAmb 03 07 19.6
comp=Z,172nm,1.3s
PCVE Castro Verde 61.40 299 *e*P **P** **03 07 11.9 +0.2**
PCVE IAmb IAmb 03 07 19.5
comp=Z,87nm,1.3s
PSBE So Bento 61.40 301 *e*P **P** **03 07 13.0 +1.2**
PSBE IAmb IAmb 03 07 23.7
comp=Z,131nm,1.3s
PBDV Barranco-do-Ve 61.44 298 *e*P **P** **03 07 13.1 +1.1**
PBDV IAmb IAmb 03 07 24.4
comp=Z,84nm,1.5s
MESJ Messejana 61.48 299 *e*P **P** **03 07 12.4 +0.2**
MESJ IAmb IAmb 03 07 18.9
comp=Z,14nm,1.3s
MESJ Messejana 61.48 299 *e*P **P** **03 07 12.1 -0.1**
PLOUS Minas do Lousa 61.57 299 *e*P **P** **03 07 13.1 +0.3**
PLOUS IAmb IAmb 03 07 20.9
comp=Z,129nm,1.3s
PMAFR Mafra 61.93 301 *e*P **P** **03 07 16.0 +0.7**
PMAFR IAmb IAmb 03 07 23.4
comp=Z,158nm,1.2s
PTEO Sao Teotonio 61.95 299 *e*P **P** **03 07 15.8 +0.4**
PTEO IAmb IAmb 03 07 24.1
comp=Z,88nm,2.0s
PFVI Vila Bisbo 62.15 299 *e*P **P** **03 07 17.3 +0.5**
PFVI IAmb IAmb 03 07 18.8
comp=Z,207nm,1.7s
BORG Borgarnes 62.42 331 LR LR 03 35 54.6
comp=Z,5µm,21.1s,baz=76,slow=38
BORG Borgarnes 62.42 331 *i*P **P** **03 07 17.2 -0.9**
BLWY Bulawayo 62.57 222 *i*P **P** **03 07 18.3 -1.5**
TORD Torodi Ar. Bea 62.60 270 P **P** **03 07 18.3 -1.8**
comp=Z,19nm,0.7s,baz=56,slow=5.8,SNR=53
TORD LR LR 03 37 18.4
comp=Z,4µm,18.3s,baz=64,slow=39
comp=Z,19nm,0.7s
KDI Kendari 62.80 113 P **P** **03 07 23.5 +2.1**
KSANE Kasane 62.83 226 P **P** **03 07 19.9 -1.6**
KSANE IAmb IAmb 03 07 30.7
comp=Z,21nm,1.0s
MATP Matopo 62.86 221 LR LR 03 37 49.7
comp=Z,6µm,18.3s,baz=46,slow=39
MATP Matopo 62.86 221 *i*P **P** **03 07 20.9 -0.9**
BBSI Bau Bau 63.69 114 P **P** **03 07 29.6 +2.3**
comp=Z,58nm,1.0s
GAMI Galela, Maluku 63.73 104 P **P** **03 07 30.0 +2.4**
comp=Z,3µmcomp=Z,118nm,1.3s
MOPA Mopani 63.77 217 *i*P **P** **03 07 25.5 -2.1**
SANI Sanana 64.41 109 P **P** **03 07 32.2 +0.2**
JCJ Chichijima 64.53 72 LR LR 03 36 56.8
comp=Z,1µm,21.9s,baz=298,slow=37
EDFI Ende, Flores 65.02 118 P **P** **03 07 33.7 -2.4**
BILL Bilibino 65.40 24 *i*P **P** **03 07 37.7 0.0**
BILL pmax pmax
comp=Z,9.0nm,1.1s
BILL Bilibino 65.40 24 IAMs_20 IAMs_20 03 38 37.8
comp=Z,2µm,18.0s
SUMG Summit 65.86 341 P **P** **03 07 40.7 -0.4**
SUMG pmax pmax
comp=Z,29nm,1.0s
SUMG Summit 65.86 341 P **P** **03 07 40.7 -0.4**
SUMG IAmb IAmb 03 08 01.6
comp=Z,28nm,1.0s
SUMG Summit 65.86 341 *i*P **P** **03 07 40.6 -0.4**
SUMG IAmb IAmb 03 07 43.0
comp=Z,17nm,0.7s
NEEM North Greenlan 66.35 348 *i*P **P** **03 07 43.8 -0.3**
NEEM IAmb IAmb 03 07 45.0
comp=Z,9.4nm,0.6s
SKR Severo-Kuril's 66.39 44 *e*P **P** **03 07 43.5 -0.8**
SKR *e*S S 03 17 07.4 +33
SKR pmax pmax
comp=Z,200nm,3.3s
SKR MLR MLR
comp=Z,2µm,20.0s
PETK Petropavlovsk- 66.50 41 P **P** **03 07 43.9 -1.1**
comp=Z,2.9nm,0.6s,baz=312,slow=4.4,SNR=9.3
PETK LR LR 03 38 16.3
comp=Z,2µm,20.8s,baz=289,slow=37
comp=Z,2.9nm,0.6s
PETK Petropavlovsk- 66.50 41 P **P** **03 07 44.1 -0.9**
PETK Petropavlovsk- 66.50 41 P **P** **03 07 44.1 -0.9**
POGA Pongola 66.78 214 IAmb IAmb 03 07 54.1
comp=Z,23nm,0.9s
PET Petropavlovsk 67.07 41 *e*P **P** **03 07 49.1 +0.5**
PET *e*S **S** **03 16 39.0 -3.2**
PET *e*SS **SS** **03 20 57.5 -2.9**
PET MLR MLR
comp=Z,2µm,14.0s
PET MLR MLR
comp=Z,2µm,14.0s
KDWAN Kaudwane 67.38 222 IAmb IAmb 03 08 04.6
comp=Z,43nm,1.1s
KDWAN Kaudwane 67.38 222 P **P** **03 07 50.6 -0.4**
BATI Baumata 67.44 118 P **P** **03 07 50.3 -1.3**
comp=Z,19nm,0.3s,baz=301,slow=7.8,SNR=4.4
BATI LR LR 03 39 57.0
comp=Z,2µm,20.4s,baz=318,slow=38
comp=Z,19nm,0.3s
SOEI Soe 67.63 117 P **P** **03 07 52.4 -0.4**
SOEI Soe 67.63 117 P **P** **03 07 52.4 -0.4**
GRTLG Ghanzi 67.95 227 P **P** **03 07 55.3 +0.6**
LBTB Lobatse 68.11 221 LR LR 03 40 48.5
comp=Z,804nm,18.1s,baz=37,slow=39
LBTB Lobatse 68.11 221 P **P** **03 07 54.3 -1.3**
LBTB pmax pmax
comp=Z,26nm,0.9s
LBTB Lobatse 68.11 221 P **P** **03 07 54.3 -1.3**
LBTB IAmb IAmb 03 08 06.7
comp=Z,26nm,0.8s
LBTB Lobatse 68.11 221 *i*P **P** **03 07 54.5 -1.1**
LBTB Lobatse 68.11 221 P **P** **03 07 55.5 -0.1**
SIJI Sorong 68.11 105 P **P** **03 07 54.5 -1.3**
comp=Z,34nm,1.1s,baz=317,slow=5.3,SNR=8.5
SIJI LR LR 03 41 04.0
comp=Z,287nm,19.5s,baz=290,slow=39
comp=Z,34nm,1.1s
SIJI Sorong 68.11 105 P **P** **03 07 54.0 -1.8**
comp=Z,29nm,1.2s
SKOMA Sekoma 68.68 222 P **P** **03 07 58.7 -0.5**
TSUM Tsumeb 68.75 231 LR LR 03 40 56.9
comp=Z,2µm,18.1s,baz=49,slow=38
TSUM Tsumeb 68.75 231 P **P** **03 07 59.8 0.0**
TSUM IAmb IAmb 03 08 08.7
comp=Z,20nm,1.1s
TSUM Tsumeb 68.75 231 *i*P **P** **03 07 59.2 -0.6**
ISOG Isortoq, Green 69.12 335 *i*P P 03 08 08.3 +7.0
MAKGR Makgori 69.18 221 P **P** **03 08 02.1 -0.2**
KOOLE Kule 69.78 226 IAmb IAmb 03 08 15.2
comp=Z,44nm,1.2s
KOOLE Kule 69.78 226 P **P** **03 08 06.2 0.0**
LKGWB Lokgwabe 69.98 225 P **P** **03 08 05.1 -2.2**
FAKI Fak Fak 70.05 106 P **P** **03 08 09.1 +1.2**
FAKI Fak Fak 70.05 106 P **P** **03 08 06.6 -1.3**
FAKI IAmb IAmb 03 08 16.6
comp=Z,28nm,0.9s
FAKI Fak Fak 70.05 106 P **P** **03 08 06.8 -1.1**
comp=Z,33nm,1.3s
PMOZ Porto Moniz, M 70.11 297 IAMs_20 IAMs_20 03 44 45.5
comp=Z,668nm,18.0s
BOSA Boshof 71.12 219 P **P** **03 08 13.1 -1.1**
comp=Z,9.4nm,0.7s,baz=33,slow=6.0,SNR=22
BOSA LR LR 03 37 52.4
comp=Z,2µm,20.0s,baz=42,slow=35
comp=Z,9.4nm,0.7s
BOSA Boshof 71.12 219 IAmb IAmb 03 08 26.7
comp=Z,41nm,1.2s
BOSA Boshof 71.12 219 *i*P **P** **03 08 12.9 -1.3**
BOSA Boshof 71.12 219 P **P** **03 08 13.6 -0.6**
DBIC Dimbokro 71.35 267 P **P** **03 08 14.7 -1.0**
comp=Z,13nm,0.7s,baz=58,slow=7.0,SNR=14
DBIC LR LR 03 43 50.4
comp=Z,3µm,18.0s,baz=58,slow=40
comp=Z,13nm,0.7s
DBIC Dimbokro 71.35 267 P **P** **03 08 14.8 -1.0**
DBIC pmax pmax
comp=Z,53nm,1.2s
DBIC Dimbokro 71.35 267 P **P** **03 08 14.8 -1.0**
DBIC IAmb IAmb 03 08 24.6
comp=Z,52nm,1.1s
WIN Windhoek 71.44 229 P **P** **03 08 16.9 +0.5**
MBWA Marble Bar 71.82 129 IAMs_20 IAMs_20 03 42 14.4
comp=Z,2µm,18.0s
SAUI Saumlaki 72.13 111 P **P** **03 08 22.4 +2.0**
SFJD Kangerlussuaq 72.34 339 LR LR 03 41 41.4
comp=Z,2µm,19.8s,baz=57,slow=37
SFJD Kangerlussuaq 72.34 339 IAMs_20 IAMs_20 03 41 20.3
comp=Z,2µm,21.0s
BAKI Biak 72.35 102 P **P** **03 08 22.5 +0.7**
comp=Z,72nm,1.1s
GUMO Guam 72.56 84 LR LR 03 41 58.3
comp=Z,384nm,20.3s,baz=296,slow=37
FITZ Fitzroy Crossi 73.92 123 P **P** **03 08 30.2 -0.7**
comp=Z,6.8nm,1.2s
FITZ Fitzroy Crossi 73.92 123 P **P** **03 08 30.1 -0.8**
comp=Z,6.8nm,1.2s
FITZ Fitzroy Crossi 73.92 123 P **P** **03 08 30.2 -0.7**
comp=Z,18nm,1.0s,baz=285,slow=6.0,SNR=10.0
FITZ LR LR 03 43 41.2
comp=Z,1µm,20.3s,baz=312,slow=38
comp=Z,18nm,1.0s
FITZ Fitzroy Crossi 73.92 123 P **P** **03 08 32.1 +1.2**
DRS Darwin Rock St 74.41 115 P **P** **03 08 36.2 +2.4**
RES Resolute Bay 74.54 355 LR LR 03 45 15.2
comp=Z,1µm,18.3s,baz=20,slow=39
KNRA Kununurra 74.72 119 P **P** **03 08 34.5 -1.1**
KNRA Kununurra 74.72 119 P **P** **03 08 35.8 +0.2**
comp=Z,15nm,1.1s
MEEK Meekatharra 74.94 134 P **P** **03 08 40.1 +3.4**
MEEK Meekatharra 74.94 134 P **P** **03 08 40.2 +3.5**
comp=Z,35nm,1.4s
MEEK Meekatharra 74.94 134 P **P** **03 08 37.8 +1.1**
SMPI Sarmi 74.98 101 P **P** **03 08 38.9 +1.7**
comp=Z,43nm,1.4s
C18K Utukok River 74.98 17 IAmb IAmb 03 08 51.9
comp=Z,64nm,1.4s
RDOG Red Dog Mine 74.99 17 IAMs_20 IAMs_20 03 45 07.7
comp=Z,2µm,19.0s
GAMB Gambell 75.30 23 IAMs_20 IAMs_20 03 45 16.9
comp=Z,2µm,19.0s
TNA Tin City 75.33 21 IAMs_20 IAMs_20 03 48 22.8
comp=Z,2µm,19.0s
SHEM Shemya Is, Ala 75.61 37 LR LR 03 42 54.0
comp=Z,2µm,19.8s,baz=296,slow=36
KDU Kakadu 75.80 114 P **P** **03 08 41.6 -0.2**
comp=Z,9.3nm,1.5s
KDU Kakadu 75.80 114 P **P** **03 08 41.5 -0.4**
comp=Z,9.3nm,1.5s
D19K Kuna River 75.84 16 IAmb IAmb 03 09 02.7
comp=Z,56nm,1.1s
D19K IAMs_20 IAMs_20 03 47 29.2
comp=Z,2µm,20.0s
D20K Etivluk River 76.02 15 IAmb IAmb 03 08 51.0
comp=Z,36nm,1.1s
D20K IAMs_20 IAMs_20 03 46 40.8
comp=Z,2µm,19.0s
SUR Sutherland 76.45 219 LR LR 03 41 40.9
comp=Z,1µm,20.5s,baz=40,slow=35
GENI Genyem 76.53 101 P **P** **03 08 48.8 +2.7**
GENI Genyem 76.53 101 P **P** **03 08 46.1 0.0**
F17K Baldwin Pennin 76.62 18 IAMs_20 IAMs_20 03 48 14.9
comp=Z,2µm,18.0s
BLDU Ballidu 76.68 138 P **P** **03 08 46.6 +0.1**
comp=Z,22nm,1.2s
BLDU Ballidu 76.68 138 P **P** **03 08 46.3 -0.2**
comp=Z,22nm,1.2s
BLDU Ballidu 76.68 138 P **P** **03 08 47.8 +1.3**
D22K Ayikyak River 76.73 14 IAmb IAmb 03 08 54.7
comp=Z,38nm,1.3s
D22K IAMs_20 IAMs_20 03 48 50.1
comp=Z,2µm,18.0s
C24K Franklin Bluff 76.80 12 IAMs_20 IAMs_20 03 46 27.5
comp=Z,2µm,21.0s
ANM Nome 76.81 21 IAMs_20 IAMs_20 03 45 27.7
comp=Z,2µm,18.0s
E21K Killik River 76.82 15 IAmb IAmb 03 09 01.6
comp=Z,33nm,1.0s
E21K IAMs_20 IAMs_20 03 48 51.9
comp=Z,2µm,19.0s
JAY Jayapura 76.94 101 LR LR 03 45 10.0
comp=Z,241nm,21.1s,baz=134,slow=38
D23K Nanushuk River 77.06 13 IAmb IAmb 03 08 57.2
comp=Z,32nm,1.1s
G16K Koyuk River 77.09 19 IAMs_20 IAMs_20 03 42 33.7
comp=Z,2µm,22.0s
F19K Shaleruckik Mo 77.22 17 IAmb IAmb 03 09 15.7
comp=Z,33nm,1.3s
D24K Happy Valley 77.26 13 IAmb IAmb 03 09 04.6
comp=Z,25nm,1.1s
D24K IAMs_20 IAMs_20 03 46 45.1
comp=Z,2µm,20.0s
C26K Camden Bay 77.28 11 IAmb IAmb 03 09 05.6
comp=Z,62nm,1.3s
G18K Tagagawik 77.72 18 IAMs_20 IAMs_20 03 50 01.8
comp=Z,2µm,18.0s
C27K Jago River 77.74 11 IAmb IAmb 03 09 08.0
comp=Z,30nm,0.8s
C27K IAMs_20 IAMs_20 03 47 19.4
comp=Z,2µm,19.0s
F21K Alatna River 77.92 15 IAmb IAmb 03 09 19.7
comp=Z,22nm,1.0s
G19K Purcell Mounta 77.93 17 IAmb IAmb 03 09 22.6
comp=Z,46nm,1.4s
G19K IAMs_20 IAMs_20 03 49 10.6
comp=Z,2µm,18.0s
KLBR Kellerberrin 78.00 138 P **P** **03 08 56.9 +3.0**
comp=Z,50nm,1.2s
KLBR Kellerberrin 78.00 138 P **P** **03 08 55.6 +1.7**
comp=Z,50nm,1.2s
KLBR Kellerberrin 78.00 138 P **P** **03 08 56.4 +2.5**
ILON Igloolik, Nuna 78.02 349 P **P** **03 08 52.7 -0.9**
ILON IAmb IAmb 03 09 00.8
comp=Z,36nm,1.2s
E23K Chandalar 78.04 13 IAmb IAmb 03 09 09.1
comp=Z,68nm,1.4s
E23K IAMs_20 IAMs_20 03 48 25.8
comp=Z,2µm,19.0s
H17K Granite Mounta 78.12 19 IAmb IAmb 03 09 32.7
comp=Z,47nm,1.3s
H17K IAMs_20 IAMs_20 03 43 16.7
comp=Z,2µm,22.0s
E24K Your Creek 78.25 13 IAmb IAmb 03 09 03.9
comp=Z,48nm,1.1s
E24K IAMs_20 IAMs_20 03 49 27.3
comp=Z,2µm,20.0s
H18K Honhosa River 78.38 18 IAmb IAmb 03 09 22.9
comp=Z,35nm,1.2s
D27M Malcolm River 78.51 10 IAmb IAmb 03 09 12.2
comp=Z,45nm,1.1s
D27M IAMs_20 IAMs_20 03 47 37.0
comp=Z,2µm,21.0s
H19K Roundabout Mou 78.58 17 IAmb IAmb 03 09 26.4
comp=Z,45nm,1.4s
H19K IAMs_20 IAMs_20 03 49 10.5
comp=Z,2µm,19.0s
J14K Nanvaranak Lak 78.68 21 IAMs_20 IAMs_20 03 46 56.7
comp=Z,2µm,18.0s
NWAO Narrogin (SRO) 78.68 139 P **P** **03 08 58.4 +0.7**
comp=Z,74nm,1.7s
NWAO Narrogin (SRO) 78.68 139 P **P** **03 08 57.9 +0.3**
comp=Z,75nm,1.7s
NWAO Narrogin (SRO) 78.68 139 LR LR 03 42 30.3
comp=Z,1µm,20.4s,baz=336,slow=35
NWAO Narrogin (SRO) 78.68 139 P **P** **03 08 58.8 +1.1**
NWAO Narrogin (SRO) 78.68 139 P **P** **03 08 56.2 -1.5**
NWAO pmax pmax
comp=Z,39nm,1.1s
NWAO Narrogin (SRO) 78.68 139 P **P** **03 08 56.2 -1.5**
NWAO IAmb IAmb 03 09 00.7
comp=Z,39nm,1.1s
F24K Squaw Lake 78.85 13 IAMs_20 IAMs_20 03 48 11.9
comp=Z,2µm,20.0s
IMAR Indian Mountai 78.88 16 P **P** **03 08 57.5 -0.9**
K13K Kusilvak Mount 78.92 22 IAMs_20 IAMs_20 03 47 49.9
comp=Z,2µm,19.0s
AUKUL Kulin High Sch 79.02 138 P **P** **03 09 01.4 +1.9**
J16K Anvik River 79.18 20 IAmb IAmb 03 09 14.9
comp=Z,31nm,1.1s
F25K Christian Rive 79.21 12 IAMs_20 IAMs_20 03 48 04.4
comp=Z,2µm,19.0s
E28M Babbage River 79.31 10 IAmb IAmb 03 09 09.4
comp=Z,67nm,1.1s
E28M IAMs_20 IAMs_20 03 48 12.9
comp=Z,2µm,21.0s
H21K Melozitna Rive 79.37 16 IAmb IAmb 03 09 09.7
comp=Z,42nm,1.2s
H21K IAMs_20 IAMs_20 03 48 59.6
comp=Z,2µm,20.0s
F26K Sheenjek River 79.39 12 IAMs_20 IAMs_20 03 47 00.3
comp=Z,2µm,21.0s
H22K Ishtalitna Cre 79.50 15 IAMs_20 IAMs_20 03 50 19.0
comp=Z,2µm,19.0s
BMAR Burnt Mountain 79.55 12 P **P** **03 09 02.7 +0.6**
G24K Hadweenzic Riv 79.64 13 IAmb IAmb 03 09 11.2
comp=Z,43nm,1.1s
G24K IAMs_20 IAMs_20 03 49 50.0
comp=Z,2µm,18.0s
K15K Wolf Creek Mou 79.65 21 IAMs_20 IAMs_20 03 44 37.3
comp=Z,2µm,20.0s
E29M Blow River 79.74 9 IAmb IAmb 03 09 11.6
comp=Z,82nm,1.2s
FRB Frobisher Bay 79.94 342 LR LR 03 48 54.2
comp=Z,780nm,18.7s,baz=38,slow=39
I21K Tanana 79.96 16 IAMs_20 IAMs_20 03 49 17.1
comp=Z,2µm,20.0s
J19K Poorman 80.02 18 IAMs_20 IAMs_20 03 50 18.9
comp=Z,2µm,20.0s
J18K Innoko River 80.15 18 IAMs_20 IAMs_20 03 51 09.4
comp=Z,2µm,20.0s
F28M Old Crow 80.17 10 IAmb IAmb 03 09 14.0
comp=Z,47nm,1.1s
FYU Fort Yukon 80.19 13 IAMs_20 IAMs_20 03 48 36.4
comp=Z,2µm,20.0s
SPIA Saint Paul Isl 80.20 28 IAMs_20 IAMs_20 03 47 04.7
comp=Z,2µm,20.0s
C36M Paulatuk 80.20 4 IAmb IAmb 03 09 12.7
comp=Z,75nm,1.1s
J20K Nowinta River 80.25 17 IAmb IAmb 03 09 36.6
comp=Z,32nm,1.1s
J20K IAMs_20 IAMs_20 03 51 50.2
comp=Z,1µm,18.0s
WRKA Warakurna 80.26 126 P **P** **03 09 06.8 +0.2**
comp=Z,15nm,1.2s
WRKA Warakurna 80.26 126 P **P** **03 09 06.4 -0.1**
comp=Z,15nm,1.2s
K17K Iditarod 80.29 20 IAmb IAmb 03 09 14.9
comp=Z,32nm,1.1s
K17K IAMs_20 IAMs_20 03 46 05.3
comp=Z,2µm,22.0s
KMBL Kambalda 80.30 135 P **P** **03 09 09.7 +3.1**
KMBL Kambalda 80.30 135 P **P** **03 09 08.5 +2.0**
comp=Z,12nm,1.5s
INK Inuvik 80.37 8 LR LR 03 48 16.0
comp=Z,1µm,22.0s,baz=355,slow=38
INK Inuvik 80.37 8 IAmb IAmb 03 09 14.6
comp=Z,56nm,1.1s
I23K Minto, Yukon-K 80.58 15 IAmb IAmb 03 09 15.9
comp=Z,52nm,1.4s
I23K IAMs_20 IAMs_20 03 49 56.6
comp=Z,2µm,18.0s
G27K Doyon Strip 80.61 11 IAmb IAmb 03 09 23.7
comp=Z,34nm,1.0s
K20K Telida 80.94 18 IAmb IAmb 03 09 18.3
comp=Z,37nm,1.1s
K20K IAMs_20 IAMs_20 03 50 17.3
comp=Z,2µm,19.0s
POKR Poker Plat Res 81.03 14 IAmb IAmb 03 09 18.3
comp=Z,52nm,1.1s
G29M Pine Creek 81.10 10 IAmb IAmb 03 09 53.5
comp=Z,69nm,1.4s
BPAW Bear Paw Mtn. 81.10 16 IAMs_20 IAMs_20 03 49 42.3
comp=Z,2µm,19.0s
NEA2 Nenana 81.12 15 IAMs_20 IAMs_20 03 48 57.9
comp=Z,2µm,21.0s
COLA College 81.15 14 P **P** **03 09 13.1 +2.5**
COLA College 81.15 14 P **P** **03 09 10.0 -0.6**
COLA pmax pmax
comp=Z,29nm,0.9s
COLA MLR MLR
comp=Z,1µm,20.0s
COLA College 81.15 14 P **P** **03 09 10.0 -0.6**
COLA IAmb IAmb 03 09 18.4
comp=Z,29nm,0.8s
L18K Granite Mounta 81.15 19 IAmb IAmb 03 09 18.0
comp=Z,68nm,1.8s
L18K IAMs_20 IAMs_20 03 50 47.7
comp=Z,2µm,20.0s
H27K Steamboat Moun 81.16 11 IAmb IAmb 03 09 19.4
comp=Z,51nm,1.1s
G30M tAoh Zraii Nji 81.29 9 IAMs_20 IAMs_20 03 49 39.4
comp=Z,2µm,20.0s
N14K Kuskokwak Cree 81.39 23 IAMs_20 IAMs_20 03 51 07.8
comp=Z,2µm,18.0s
CAST Castle Rocks 81.40 17 IAmb IAmb 03 09 18.4
comp=Z,42nm,0.9s
CAST IAMs_20 IAMs_20 03 49 21.3
comp=Z,2µm,19.0s
M16K Timber Creek 81.42 21 IAmb IAmb 03 09 33.9
comp=Z,22nm,0.9s
M16K IAMs_20 IAMs_20 03 48 45.9
comp=Z,2µm,19.0s
ILAR Eielson Array 81.44 14 P **P** **03 09 10.8 -1.5**
comp=Z,7.3nm,1.0s,baz=320,slow=3.9,SNR=38
ILAR PP **PP** **03 12 21.2 +3.7**
comp=Z,5.0nm,1.1s,baz=321,slow=8.3,SNR=5.1
ILAR LR LR 03 50 00.3
comp=Z,1µm,19.5s,baz=304,slow=39
comp=Z,7.3nm,1.0s
ILAR Eielson Array 81.44 14 P **P** **03 09 11.4 -0.9**
ILAR Eielson Array 81.44 14 P **P** **03 09 11.4 -0.9**
WB0 Warramunga Arr 81.45 119 P **P** **03 09 10.3 -2.6**
WB0 IAmb IAmb 03 09 17.5
comp=Z,59nm,1.5s
WRA Warramunga Arr 81.51 119 P **P** **03 09 11.8 -1.5**
comp=Z,4.4nm,0.8s,baz=318,slow=4.6,SNR=31
WRA PKKP **PKKPdf** **03 27 36.5 -0.9**
comp=Z,0.2nm,0.3s,baz=247,slow=7.1,SNR=5.2
WRA LR LR 03 48 58.4
comp=Z,686nm,19.6s,baz=270,slow=38
comp=Z,4.4nm,0.8s

WRA	**Warramunga Arr**	**81.51**	**119**	*i* P		**P**		**03 09 12.3**	**-1.0**
WRA				pmax		pmax			
	comp=Z,8.0nm,0.6s								
WRA	**Warramunga Arr**	**81.51**	**119**	P		**P**		**03 09 11.8**	**-1.5**
WRAB	**Tennant Creek**	**81.52**	**119**	P		**P**		**03 09 13.2**	**-0.1**
WRAB	**Tennant Creek**	**81.52**	**119**	*i* P		**P**		**03 09 12.2**	**-1.1**
WRAB				pmax		pmax			
	comp=Z,31nm,1.3s								
WRAB	**Tennant Creek**	**81.52**	**119**	P		**P**		**03 09 11.9**	**-1.4**
WRAB				IAmb		IAmb		03 09 17.9	
	comp=Z,74nm,1.5s								
KTH	**Kantishna Hill**	**81.58**	**16**	IAmb		IAmb		03 09 20.3	
	comp=Z,47nm,1.4s								
M17K	**Holitna River**	**81.58**	**20**	IAmb		IAmb		03 09 20.3	
	comp=Z,24nm,0.8s								
M17K				IAMs_20		IAMs_20		03 45 17.3	
	comp=Z,2µm,22.0s								
L19K	**White Mountain**	**81.69**	**19**	IAmb		IAmb		03 09 21.6	
	comp=Z,48nm,1.7s								
L19K				IAMs_20		IAMs_20		03 51 46.2	
	comp=Z,2µm,19.0s								
L20K	**Farewell, AK**	**81.72**	**18**	IAMs_20		IAMs_20		03 52 35.8	
	comp=Z,2µm,20.0s								
I27K	**Kandik River**	**81.72**	**12**	IAmb		IAmb		03 09 22.6	
	comp=Z,41nm,1.2s								
N15K	**Kwethluk River**	**81.72**	**22**	IAMs_20		IAMs_20		03 49 40.9	
	comp=Z,2µm,20.0s								
EPYK	**Eagle Plains**	**81.79**	**10**	IAmb		IAmb		03 09 21.8	
	comp=Z,60nm,1.1s								
PPLA	**Purkeypile**	**81.81**	**17**	IAmb		IAmb		03 09 19.7	
	comp=Z,96nm,1.7s								
PPLA				IAMs_20		IAMs_20		03 50 01.2	
	comp=Z,1µm,19.0s								
TRF	**Thorofare Moun**	**81.81**	**16**	IAmb		IAmb		03 09 35.2	
	comp=Z,27nm,1.1s								
TRF				IAMs_20		IAMs_20		03 51 16.3	
	comp=Z,2µm,18.0s								
MCK	**McKinley**	**81.89**	**15**	IAmb		IAmb		03 09 22.5	
	comp=Z,38nm,1.3s								
O14K	**Tigyukauivet M**	**82.03**	**23**	IAMs_20		IAMs_20		03 48 45.3	
	comp=Z,2µm,20.0s								
M19K	**Big River Lodg**	**82.05**	**19**	IAMs_20		IAMs_20		03 47 41.3	
	comp=Z,2µm,21.0s								
I28M	**Miner Creek**	**82.15**	**11**	IAmb		IAmb		03 09 23.3	
	comp=Z,36nm,0.8s								
RND	**Reindeer**	**82.19**	**16**	IAmb		IAmb		03 09 25.0	
	comp=Z,22nm,0.8s								
N17K	**Nushagak Hills**	**82.35**	**20**	IAmb		IAmb		03 09 26.4	
	comp=Z,26nm,1.2s								
N17K				IAMs_20		IAMs_20		03 49 25.6	
	comp=Z,1µm,19.0s								
M20K	**Styx River**	**82.41**	**18**	IAMs_20		IAMs_20		03 52 57.1	
	comp=Z,2µm,18.0s								
O15K	**Ungalikthiuk R**	**82.57**	**22**	IAMs_20		IAMs_20		03 49 03.1	
	comp=Z,2µm,19.0s								
N18K	**Kilae Creek**	**82.61**	**20**	IAMs_20		IAMs_20		03 48 58.6	
	comp=Z,2µm,18.0s								
CUT	**Chulitna**	**82.71**	**17**	IAMs_20		IAMs_20		03 50 01.9	
	comp=Z,2µm,20.0s								
SCRK	**Sand Creek**	**82.74**	**13**	IAmb		IAmb		03 09 26.6	
	comp=Z,24nm,1.0s								
SKT	**Skwentna**	**82.75**	**17**	IAmb		IAmb		03 09 39.1	
	comp=Z,26nm,1.0s								
RIDG	**Independent Ri**	**82.78**	**14**	IAmb		IAmb		03 09 26.0	
	comp=Z,27nm,1.2s								
O16K	**Kokwok River B**	**82.81**	**21**	IAmb		IAmb		03 09 35.0	
	comp=Z,24nm,1.1s								
O16K				IAMs_20		IAMs_20		03 50 25.6	
	comp=Z,2µm,20.0s								
DHY	**Denali Highway**	**82.82**	**15**	IAmb		IAmb		03 09 32.5	
	comp=Z,16nm,0.8s								
N19K	**Bonanza Creek**	**82.91**	**19**	IAmb		IAmb		03 09 39.9	
	comp=Z,23nm,0.8s								
N19K				IAMs_20		IAMs_20		03 47 02.5	
	comp=Z,2µm,21.0s								
I30M	**Mount Dempster**	**82.92**	**10**	IAmb		IAmb		03 09 35.4	
	comp=Z,37nm,0.8s								
DOT	**Dot Lake**	**83.02**	**14**	IAmb		IAmb		03 09 32.9	
	comp=Z,19nm,1.0s								
SUA	**Susitna One**	**83.39**	**17**	IAmb		IAmb		03 09 31.2	
	comp=Z,34nm,0.9s								
AS15	**Alice Springs**	**83.40**	**122**	P		**P**		**03 09 22.6**	**-0.5**
	comp=Z,33nm,1.0s								
AUALC	**St Philip's Co**	**83.41**	**122**	P		**P**		**03 09 25.4**	**+2.2**
AS31	**Alice Springs**	**83.41**	**122**	P		**P**		**03 09 23.2**	**+0.1**
	comp=Z,9.6nm,0.9s								
AS31	**Alice Springs**	**83.41**	**122**	P		**P**		**03 09 22.9**	**-0.3**
	comp=Z,9.6nm,0.9s								
ASAR	**Alice Springs**	**83.41**	**122**	P		**P**		**03 09 21.9**	**-1.3**
	comp=Z,9.7nm,0.7s,baz=311,slow=5.3,SNR=55								
ASAR				LR		LR		03 49 37.0	
	comp=Z,975nm,20.2s,baz=302,slow=38								
	comp=Z,9.7nm,0.7s								
AS01	**Alice Springs**	**83.44**	**122**	P		**P**		**03 09 24.7**	**+1.4**
AS09	**Alice Springs**	**83.46**	**122**	P		**P**		**03 09 22.2**	**-1.1**
AS09	**Alice Springs**	**83.46**	**122**	P		**P**		**03 09 22.6**	**-0.8**
	comp=Z,42nm,1.1s								
O19K	**Port Alsworth**	**83.46**	**20**	IAmb		IAmb		03 09 31.6	
	comp=Z,22nm,1.0s								
O19K				IAMs_20		IAMs_20		03 50 04.9	
	comp=Z,2µm,18.0s								
AS17	**Alice Springs**	**83.47**	**122**	P		**P**		**03 09 22.7**	**-0.8**
	comp=Z,42nm,1.0s								
AS17	**Alice Springs**	**83.47**	**122**	P		**P**		**03 09 22.5**	**-1.0**
	comp=Z,42nm,1.0s								
J30M	**Hart River**	**83.54**	**10**	IAmb		IAmb		03 09 31.5	
	comp=Z,33nm,0.9s								
P17K	**Kvichak River**	**83.64**	**21**	IAMs_20		IAMs_20		03 53 24.7	
	comp=Z,2µm,20.0s								
PMR	**Palmer**	**83.68**	**17**	P		**P**		**03 09 27.3**	**+3.4**
PMR	**Palmer**	**83.68**	**17**	IAmb		IAmb		03 09 44.8	
	comp=Z,52nm,1.4s								
L26K	**Log Cabin Wild**	**83.72**	**14**	IAmb		IAmb		03 09 32.3	
	comp=Z,50nm,1.3s								
MENT	**Mentasta**	**83.73**	**14**	P		**P**		**03 09 27.1**	**+2.9**
MENT	**Mentasta**	**83.73**	**14**	IAmb		IAmb		03 09 45.7	
	comp=Z,22nm,1.0s								
FORT	**Forrest**	**83.80**	**131**	P		**P**		**03 09 23.7**	**-1.3**
FORT	**Forrest**	**83.80**	**131**	P		**P**		**03 09 24.2**	**-0.8**
	comp=Z,28nm,0.9s								
FORT	**Forrest**	**83.80**	**131**	P		**P**		**03 09 23.2**	**-1.8**
FORT				IAmb		IAmb		03 09 30.6	
	comp=Z,20nm,0.8s								
SCM	**Sheep Creek Mo**	**83.91**	**16**	IAmb		IAmb		03 09 44.8	
	comp=Z,23nm,0.9s								
SCM				IAMs_20		IAMs_20		03 51 20.7	
	comp=Z,1µm,19.0s								
RC01	**Rabbit Creek A**	**83.96**	**17**	IAmb		IAmb		03 09 33.3	
	comp=Z,37nm,1.2s								
BCAR	**Beaver Creek A**	**84.00**	**13**	P		**P**		**03 09 26.2**	**+0.6**
KNK	**Knik Glacier**	**84.00**	**16**	IAMs_20		IAMs_20		03 49 08.1	
	comp=Z,2µm,22.0s								
M26K	**Nabesna, AK**	**84.36**	**14**	IAmb		IAmb		03 09 46.6	
	comp=Z,32nm,1.3s								
O22K	**Cooper Landing**	**84.48**	**17**	IAMs_20		IAMs_20		03 53 35.0	
	comp=Z,2µm,20.0s								
PWL	**Port Wells**	**84.51**	**17**	IAmb		IAmb		03 09 37.2	
	comp=Z,31nm,0.9s								
PWL				IAMs_20		IAMs_20		03 52 34.6	
	comp=Z,2µm,18.0s								
KLU	**Klutina**	**84.53**	**15**	IAmb		IAmb		03 09 38.4	
	comp=Z,20nm,0.8s								
KLU				IAMs_20		IAMs_20		03 51 03.1	
	comp=Z,1µm,18.0s								
R16K	**Pilot Point**	**84.57**	**22**	IAMs_20		IAMs_20		03 51 03.4	
	comp=Z,2µm,21.0s								
M27K	**Edge Creek, AK**	**84.62**	**13**	IAmb		IAmb		03 09 35.3	
	comp=Z,44nm,1.2s								
Q19K	**Cape Douglas,**	**84.70**	**20**	IAMs_20		IAMs_20		03 47 13.7	
	comp=Z,2µm,19.0s								
BRLK	**Bradley Lake**	**84.79**	**18**	IAMs_20		IAMs_20		03 52 42.0	
	comp=Z,2µm,19.0s								
CNPM	**China Poot**	**84.89**	**19**	IAMs_20		IAMs_20		03 53 17.7	
	comp=Z,2µm,21.0s								
BMRM	**Bremner River**	**85.30**	**15**	IAMs_20		IAMs_20		03 52 13.3	
	comp=Z,2µm,20.0s								
VRDI	**Verde Repeater**	**85.32**	**14**	IAmb		IAmb		03 09 38.4	
	comp=Z,39nm,1.4s								
M30M	**Minto, Yukon**	**85.34**	**11**	IAmb		IAmb		03 09 40.3	
	comp=Z,24nm,1.1s								
HIN	**Hinchinbrook I**	**85.36**	**16**	IAMs_20		IAMs_20		03 52 06.1	
	comp=Z,2µm,20.0s								
QIS	**Mount Isa**	**85.90**	**117**	P		**P**		**03 09 35.3**	**-0.4**
	comp=Z,19nm,1.3s								
QIS	**Mount Isa**	**85.90**	**117**	P		**P**		**03 09 35.2**	**-0.6**
	comp=Z,19nm,1.3s								
QIS	**Mount Isa**	**85.90**	**117**	P		**P**		**03 09 35.7**	**-0.1**
KDAK	**Kodiak Island**	**85.97**	**20**	LR		LR		03 50 31.1	
	comp=Z,2µm,21.6s,baz=300,slow=37								
PMG	**Port Moresby**	**86.00**	**103**	LR		LR		03 55 16.5	
	comp=Z,152nm,18.1s,baz=20,slow=41								
PMG	**Port Moresby**	**86.00**	**103**	P		**P**		**03 09 38.6**	**+2.2**
PMG	**Port Moresby**	**86.00**	**103**	*i* P		**P**		**03 09 35.1**	**-1.3**
PMG				pmax		pmax			
	comp=Z,17nm,0.9s								
PMG	**Port Moresby**	**86.00**	**103**	P		**P**		**03 09 37.9**	**+1.5**
	comp=Z,31nm,0.8s								
CNBA	**Chernabura Isl**	**86.02**	**25**	IAMs_20		IAMs_20		03 49 44.5	
	comp=Z,2µm,22.0s								
M31M	**Drury Creek, Y**	**86.07**	**10**	IAmb		IAmb		03 09 44.0	
	comp=Z,43nm,1.1s								
LOGN	**Logan Glacier**	**86.19**	**14**	IAmb		IAmb		03 09 49.9	
	comp=Z,23nm,0.9s								
LOGN				IAMs_20		IAMs_20		03 53 06.0	
	comp=Z,2µm,20.0s								
N30M	**Aishikik Lake**	**86.34**	**12**	IAmb		IAmb		03 09 45.8	
	comp=Z,23nm,1.1s								
O28M	**Mount Upton**	**86.41**	**13**	IAMs_20		IAMs_20		03 53 50.8	
	comp=Z,2µm,19.0s								
SCHQ	**Schefferville**	**86.45**	**335**	P		**P**		**03 09 37.1**	**-0.9**
	comp=Z,4.5nm,1.0s,baz=55,slow=12,SNR=1.3								
SCHQ				LR		LR		03 50 25.2	
	comp=Z,2µm,19.1s,baz=41,slow=37								
	comp=Z,4.5nm,1.0s								
N31M	**Braeburn, Yuko**	**86.53**	**11**	IAmb		IAmb		03 09 46.2	
	comp=Z,45nm,1.1s								
HYT	**Haines Junctio**	**86.86**	**12**	IAmb		IAmb		03 09 49.0	
	comp=Z,22nm,1.0s								
O30N	**Mendenhall**	**87.16**	**11**	IAmb		IAmb		03 09 48.9	
	comp=Z,22nm,1.1s								
N32M	**Quiet Lake**	**87.27**	**10**	IAmb		IAmb		03 09 50.0	
	comp=Z,25nm,1.0s								
YKAW3	**Yellowknife Wh**	**87.36**	**1**	IAmb		IAmb		03 09 50.0	
	comp=Z,32nm,1.1s								
YKA	**Yellowknife Ar**	**87.43**	**1**	P		**P**		**03 09 41.9**	**-0.7**
	comp=Z,10nm,0.9s,baz=351,slow=4.8,SNR=19								
YKA				LR		LR		03 51 50.0	
	comp=Z,2µm,21.8s,baz=4.0,slow=38								
	comp=Z,10nm,0.9s								
YKA	**Yellowknife Ar**	**87.43**	**1**	P		**P**		**03 09 41.7**	**-0.9**
YKA	**Yellowknife Ar**	**87.43**	**1**	P		**P**		**03 09 41.7**	**-0.9**
KRVT	**Keravat (AS076**	**87.54**	**96**	LR		LR		03 49 08.4	
	comp=Z,447nm,21.9s,baz=316,slow=36								
MTSU	**Mount Surprise**	**88.28**	**112**	P		**P**		**03 09 47.4**	**+0.1**
	comp=Z,7.9nm,0.9s								
MTSU	**Mount Surprise**	**88.28**	**112**	P		**P**		**03 09 47.3**	**-0.1**
	comp=Z,7.9nm,0.9s								
MTSU	**Mount Surprise**	**88.28**	**112**	P		**P**		**03 09 48.7**	**+1.3**
SKAG	**Skagway**	**88.52**	**11**	P		**P**		**03 09 52.4**	**+4.6**
SKAG	**Skagway**	**88.52**	**11**	IAmb		IAmb		03 09 56.5	
	comp=Z,33nm,1.3s								
R33M	**Jennings River**	**89.26**	**9**	IAmb		IAmb		03 09 59.7	
	comp=Z,24nm,1.1s								
JIS	**Juneau Island**	**89.81**	**11**	P		**P**		**03 09 58.0**	**+4.1**
DLBC	**Dease Lake**	**90.32**	**9**	LR		LR		03 56 28.9	
	comp=Z,1µm,19.6s,baz=282,slow=40								
CTA	**Charters Tower**	**90.86**	**113**	P		**P**		**03 10 00.8**	**+1.4**
	comp=Z,3.6nm,1.0s								
CTA	**Charters Tower**	**90.86**	**113**	P		**P**		**03 10 00.3**	**+0.9**
	comp=Z,3.6nm,1.0s								
CTA	**Charters Tower**	**90.86**	**113**	LR		LR		03 59 22.8	
	comp=Z,624nm,18.4s,baz=290,slow=41								
CTA	**Charters Tower**	**90.86**	**113**	P		**P**		**03 10 02.0**	**+2.6**
HTT	**Hallett**	**92.70**	**127**	P		**P**		**03 10 08.3**	**+0.6**
	comp=Z,3.9nm,1.6s								
HTT	**Hallett**	**92.70**	**127**	P		**P**		**03 10 08.6**	**+0.9**
	comp=Z,4.0nm,1.6s								
QLP	**Quilpie**	**92.75**	**119**	P		**P**		**03 10 10.7**	**+2.7**
D62A	**Allapoint, All**	**93.46**	**332**	P		**P**		**03 10 11.8**	**+0.7**
D62A				IAMs_20		IAMs_20		03 52 36.9	
	comp=Z,1µm,20.0s								
STKA	**Stephens Creek**	**93.70**	**125**	P		**P**		**03 10 12.0**	**-0.3**
	comp=Z,47nm,1.0s								
STKA	**Stephens Creek**	**93.70**	**125**	P		**P**		**03 10 12.3**	**0.0**
	comp=Z,47nm,1.0s								
STKA	**Stephens Creek**	**93.70**	**125**	P		**P**		**03 10 11.3**	**-0.9**
	comp=Z,4.7nm,0.9s,baz=321,slow=5.4,SNR=9.5								
STKA				LR		LR		03 55 55.3	
	comp=Z,1µm,20.1s,baz=299,slow=38								
	comp=Z,4.7nm,0.9s								
STKA	**Stephens Creek**	**93.70**	**125**	P		**P**		**03 10 13.8**	**+1.5**
E62A	**Clayton Lake**	**94.03**	**332**	IAMs_20		IAMs_20		03 52 54.8	
	comp=Z,2µm,20.0s								
G65A	**Princeton**	**94.34**	**330**	IAMs_20		IAMs_20		03 53 50.2	
	comp=Z,2µm,20.0s								
FFC	**Flin Flon**	**94.74**	**354**	*i* P		**P**		**03 10 18.1**	**+1.3**
RK1H	**Rockhampton Ha**	**95.94**	**113**	P		**P**		**03 10 23.6**	**+0.9**
H62A	**Milan**	**96.36**	**332**	IAMs_20		IAMs_20		03 54 24.5	
	comp=Z,2µm,20.0s								
BBB	**Bella Bella**	**96.66**	**10**	LR		LR		03 59 10.2	
	comp=Z,755nm,20.3s,baz=340,slow=39								
VT1	**Waterbury**	**97.21**	**332**	IAMs_20		IAMs_20		03 58 44.1	
	comp=Z,1µm,18.0s								
MCVT	**Middlebury Col**	**97.61**	**332**	IAMs_20		IAMs_20		03 59 04.3	
	comp=Z,1µm,18.0s								
MAW	**Mawson**	**97.75**	**182**	P		**P**		**03 10 27.9**	**-1.9**
	comp=Z,1.1nm,0.6s,baz=318,slow=3.8,SNR=5.7								
MAW				LR		LR		03 49 32.7	
	comp=Z,1µm,18.3s,baz=357,slow=32								
	comp=Z,1.1nm,0.6s								
J61A	**Chester**	**97.94**	**332**	IAMs_20		IAMs_20		03 55 13.4	
	comp=Z,1µm,21.0s								
NCB	**Newcomb**	**98.09**	**333**	IAMs_20		IAMs_20		03 55 51.2	
	comp=Z,1µm,21.0s								
ULM	**Lac du Bonnet**	**98.35**	**349**	LR		LR		04 02 07.7	
	comp=Z,835nm,18.1s,baz=8.5,slow=40								
SADO	**Sadowa**	**99.21**	**337**	LR		LR		03 58 32.2	
	comp=Z,410nm,18.7s,baz=52,slow=37								
J57A	**Williamstown**	**99.25**	**334**	IAMs_20		IAMs_20		03 54 58.9	
	comp=Z,1µm,22.0s								
KSCT	**K School, K**	**99.67**	**331**	IAMs_20		IAMs_20		03 56 03.2	
	comp=Z,2µm,22.0s								
L59A	**Walton**	**99.91**	**333**	IAMs_20		IAMs_20		04 03 12.5	
	comp=Z,1µm,20.0s								
NPNY	**Mohonk Preserv**	**99.92**	**332**	IAMs_20		IAMs_20		03 57 26.7	
	comp=Z,2µm,21.0s								
AGMN	**Agassiz Nation**	**100.24**	**349**	IAMs_20		IAMs_20		03 59 36.1	
	comp=Z,1µm,19.0s								
N62A	**Caumsett State**	**100.32**	**331**	IAMs_20		IAMs_20		03 57 09.5	
	comp=Z,1µm,20.0s								
PAL	**Palisades**	**100.44**	**331**	IAMs_20		IAMs_20		03 56 24.7	
	comp=Z,1µm,22.0s								
CPNY	**Central Park**	**100.65**	**331**	IAMs_20		IAMs_20		03 47 56.1	
	comp=Z,1µm,21.0s								
ODNJ	**Ogdensburg**	**100.67**	**332**	IAMs_20		IAMs_20		03 56 55.6	
	comp=Z,2µm,21.0s								
BRNJ	**Basking Ridge**	**100.99**	**331**	IAMs_20		IAMs_20		03 57 04.1	
	comp=Z,1µm,21.0s								
M57A	**Sunshine Farm,**	**101.45**	**334**	IAMs_20		IAMs_20		03 56 06.3	
	comp=Z,1µm,21.0s								
ERPA	**Erie**	**101.83**	**336**	IAMs_20		IAMs_20		03 58 16.2	
	comp=Z,2µm,20.0s								
CASY	**Casey**	**101.85**	**164**	IAMs_20		IAMs_20		03 50 04.0	
	comp=Z,1µm,21.0s								
G40A	**Rib Lake**	**101.98**	**344**	IAMs_20		IAMs_20		04 03 45.6	
	comp=Z,1µm,21.0s								
I45A	**Fountain**	**102.10**	**341**	IAMs_20		IAMs_20		03 58 29.8	
	comp=Z,2µm,21.0s								
SSPA	**Standing Stone**	**102.35**	**334**	IAMs_20		IAMs_20		03 58 57.0	
	comp=Z,1µm,21.0s								
SPMN	**Marine on St.**	**102.61**	**346**	IAMs_20		IAMs_20		04 03 52.1	
	comp=Z,1µm,19.0s								
E28A	**Huff**	**102.64**	**352**	IAMs_20		IAMs_20		04 01 17.4	
	comp=Z,1µm,20.0s								
AAM	**Ann Arbor**	**102.91**	**338**	IAMs_20		IAMs_20		04 00 02.3	
	comp=Z,2µm,20.0s								
I42A	**Draeger Farm,**	**102.96**	**343**	IAMs_20		IAMs_20		04 02 58.0	
	comp=Z,2µm,21.0s								
P57A	**Homestead Farm**	**103.39**	**333**	IAMs_20		IAMs_20		03 59 18.6	
	comp=Z,1µm,21.0s								
M50A	**Fremont**	**103.51**	**338**	IAMs_20		IAMs_20		03 58 17.5	
	comp=Z,2µm,22.0s								
N51A	**Ashland**	**103.72**	**337**	IAMs_20		IAMs_20		03 59 28.1	
	comp=Z,1µm,20.0s								
JFWS	**Jewell Farm**	**104.21**	**343**	IAMs_20		IAMs_20		04 00 53.5	
	comp=Z,1µm,19.0s								
Q56A	**Snyder Ridge,**	**104.23**	**334**	IAMs_20		IAMs_20		04 00 11.7	
	comp=Z,1µm,19.0s								
CBN	**Corbin Frederi**	**104.24**	**332**	IAMs_20		IAMs_20		04 04 17.0	
	comp=Z,1µm,19.0s								
L44A	**Lake County Fo**	**104.28**	**341**	IAMs_20		IAMs_20		03 59 13.6	
	comp=Z,2µm,22.0s								
SUSD	**Miller**	**104.49**	**350**	IAMs_20		IAMs_20		04 07 05.4	
	comp=Z,1µm,18.0s								
L42A	**Oliver, Polo**	**104.92**	**342**	IAMs_20		IAMs_20		04 05 47.3	
	comp=Z,983nm,20.0s								
O49A	**Covington**	**105.03**	**338**	IAMs_20		IAMs_20		03 59 15.6	
	comp=Z,2µm,22.0s								
M44A	**Midewin, Midew**	**105.05**	**341**	IAMs_20		IAMs_20		03 59 59.0	
	comp=Z,2µm,21.0s								
R55A	**Marlinton**	**105.25**	**334**	IAMs_20		IAMs_20		04 00 43.6	
	comp=Z,1µm,21.0s								
S57A	**Dark Hollow, R**	**105.25**	**333**	IAMs_20		IAMs_20		04 00 20.8	
	comp=Z,1µm,21.0s								
Q52A	**Bidwell**	**105.43**	**336**	IAMs_20		IAMs_20		04 00 17.4	
	comp=Z,1µm,20.0s								
SFIN	**Lafayette**	**105.72**	**340**	IAMs_20		IAMs_20		04 00 11.5	
	comp=Z,1µm,22.0s								
Q51A	**Peebles**	**105.75**	**337**	IAMs_20		IAMs_20		04 00 28.7	
	comp=Z,1µm,21.0s								
SCIA	**State Center**	**105.87**	**345**	IAMs_20		IAMs_20		04 02 10.2	
	comp=Z,1µm,19.0s								
S54A	**Dingess, Beckl**	**106.12**	**335**	IAMs_20		IAMs_20		04 01 11.6	
	comp=Z,1µm,20.0s								
BLA	**Blacksburg**	**106.30**	**334**	IAMs_20		IAMs_20		04 00 09.5	
	comp=Z,1µm,21.0s								
L34A	**Svendsen Farm,**	**106.46**	**347**	IAMs_20		IAMs_20		04 02 22.7	
	comp=Z,1µm,21.0s								
MFID	**Camas Ranch**	**106.49**	**2**	IAMs_20		IAMs_20		04 05 51.1	
	comp=Z,1µm,20.0s								
V58A	**Windy Hill, Pi**	**107.02**	**332**	IAMs_20		IAMs_20		04 07 07.7	
	comp=Z,953nm,19.0s								
K22A	**Casper**	**107.10**	**355**	IAMs_20		IAMs_20		04 04 57.4	
	comp=Z,1µm,20.0s								
PDAR	**Pinedale Array**	**107.15**	**358**	PKKPab		PKKPab		03 26 55.1	**-1.8**
	comp=Z,0.4nm,0.9s,baz=176,slow=5.9,SNR=3.4								
W59A	**Clinton**	**107.28**	**331**	IAMs_20		IAMs_20		04 01 34.7	
	comp=Z,1µm,20.0s								
BGNE	**Belgrade**	**107.32**	**349**	IAMs_20		IAMs_20		04 02 51.4	
	comp=Z,1µm,20.0s								
WVOR	**Wild Horse Val**	**107.32**	**5**	IAMs_20		IAMs_20		04 08 48.0	
	comp=Z,1µm,20.0s								
U54A	**Nelsons Funny**	**107.44**	**334**	IAMs_20		IAMs_20		04 07 25.5	
	comp=Z,1µm,20.0s								
WCI	**Wyandotte Cave**	**107.44**	**339**	IAMs_20		IAMs_20		04 02 31.4	
	comp=Z,1µm,19.0s								
V55A	**Taylorsville**	**107.80**	**334**	IAMs_20		IAMs_20		04 07 42.1	
	comp=Z,1µm,20.0s								
P40A	**Paris**	**107.85**	**343**	IAMs_20		IAMs_20		04 02 41.9	
	comp=Z,1µm,20.0s								
P38A	**Dawn**	**108.11**	**345**	IAMs_20		IAMs_20		04 04 08.8	
	comp=Z,1µm,19.0s								
X58A	**Rowland**	**108.18**	**332**	IAMs_20		IAMs_20		04 01 01.5	
	comp=Z,1µm,21.0s								
Y60A	**Bolivia**	**108.18**	**330**	IAMs_20		IAMs_20		04 02 21.7	
	comp=Z,1µm,20.0s								
KMSC	**Kings Mountain**	**108.47**	**333**	IAMs_20		IAMs_20		04 00 33.9	
	comp=Z,1µm,20.0s								
T47A	**Sharon Grove**	**108.83**	**339**	IAMs_20		IAMs_20		04 03 40.9	
	comp=Z,1µm,18.0s								
U49A	**Red Boiling Sp**	**108.84**	**337**	IAMs_20		IAMs_20		04 02 18.5	
	comp=Z,1µm,21.0s								
Y57A	**Sumter**	**109.08**	**332**	IAMs_20		IAMs_20		04 08 27.2	
	comp=Z,1µm,20.0s								
R40A	**Maddies Statio**	**109.08**	**343**	IAMs_20		IAMs_20		04 05 11.4	
	comp=Z,1µm,19.0s

PTLB	**Pontes e Lacer**	**128.99**	**274**	*eP*		**PKPdf**	**03 16 03.0**	**-0.9**
BDQN	**Bodoquena, MS**	**129.02**	**267**	*eP*		**PKPdf**	**03 16 02.1**	**-1.9**
CPSB	**Cacapava Do Su**	**129.50**	**254**	*eP*		**PKPdf**	**03 16 03.7**	**-0.9**
COIM	**Forte Coimbra**	**129.70**	**269**	*eP*		**PKPdf**	**03 16 05.0**	**-0.3**
SJPY	**San Joaquin**	**130.11**	**262**	*eP*		**PKPdf**	**03 16 04.0**	**-1.9**
SIV	**San Ignacio**	**130.90**	**275**	PKP		**PKPdf**	**03 16 06.8**	**-0.9**
	comp=Z,2.9nm,0.9s,baz=74,slow=3.8,SNR=6.3							
BBSD	**Serra de San D**	**131.02**	**273**	*eP*		**PKPdf**	**03 16 07.7**	**-0.2**
HDC	**Heredia**	**131.38**	**321**	IAMs_20	IAMs_20		04 18 29.8	
	comp=Z,684nm,20.0s							
CPUP	**Villa Florida**	**131.58**	**260**	PKP		**PKPdf**	**03 16 07.6**	**-1.0**
	comp=Z,4.8nm,0.9s,baz=81,slow=3.4,SNR=6.1							
CPUP	**Villa Florida**	**131.58**	**260**	*eP*		**PKPdf**	**03 16 08.1**	**-0.5**
JTS	**Las Juntas de**	**131.59**	**322**	IAMs_20	IAMs_20		04 20 37.2	
	comp=Z,851nm,21.0s							
PSAL	**Palomas, Salto**	**133.14**	**254**	*eP*		**PKPdf**	**03 16 10.5**	**-1.0**
LPAZ	**La Paz**	**137.09**	**279**	PKP		**PKPdf**	**03 16 19.6**	**-0.5**
	comp=Z,1.4nm,0.8s,baz=19,slow=7.5,SNR=4.6							
AC02	**Maricunga**	**141.83**	**264**	IAMs_20	IAMs_20		04 20 04.7	
	comp=Z,677nm,20.0s							
CFA	**Coronel Fontan**	**142.14**	**256**	PKP		**PKPdf**	**03 16 27.1**	**-1.0**
	comp=Z,0.9nm,0.5s,baz=63,slow=3.9,SNR=4.7							
NNA	**Nana**	**142.17**	**291**	IAMs_20	IAMs_20		04 23 39.2	
	comp=Z,845nm,21.0s							
AC01	**Pan de Azucar**	**142.91**	**266**	IAMs_20	IAMs_20		04 24 50.2	
	comp=Z,779nm,19.0s							
PPT2	**Papeete2**	**144.07**	**78**	*e*SS	SS		03 38 27.8	-3.5
	comp=Z,240nm,34.0s							
PPT2				*e*LR	LR		04 03 39.0	
	comp=Z,891nm,24.0s							
PPT2				*e*LR	LR		04 03 43.6	
	comp=Z,1µm,23.8s							
MT13	**San Alfonso**	**144.16**	**253**	IAMs_20	IAMs_20		04 24 17.6	
	comp=Z,778nm,20.0s							
PLCA	**Paso Flores**	**144.56**	**241**	PKP	PKPbc		03 16 31.0	+0.2
	comp=Z,2.3nm,0.7s,baz=74,slow=4.9,SNR=7.0							
PLCA	**Paso Flores**	**144.56**	**241**	PKIKP	PKPbc		03 16 31.0	+0.2
PLCA	**Paso Flores**	**144.56**	**241**			**PKPdf**	**03 16 31.6**	**-0.6**
PLCA	**Paso Flores**	**144.56**	**241**	*eP*	PKPbc		03 16 31.0	+0.2
MT02	**Curacav**	**144.81**	**254**			**PKPab**	**03 16 30.7**	**-0.9**
BO01	**Tunca**	**144.88**	**252**			**PKPab**	**03 16 31.0**	**-0.9**
TBI	**Tubuai**	**146.50**	**87**	*e*SS	SS		03 38 59.7	+0.6
	comp=Z,1µm,38.8s							
TBI				*e*LR	LR		04 04 40.7	
	comp=Z,1µm,22.8s							
TBI				*e*LR	LR		04 04 43.2	
	comp=Z,3µm,23.5s							
TAOE	**Nuku Hiva Isla**	**146.53**	**56**	*e*LR	LR		04 04 53.9	
	comp=Z,2µm,25.0s							
RKT	**Rikitea**	**158.78**	**75**	*e*LR	LR		04 10 34.0	
	comp=Z,2µm,26.0s							

*DJA **14** 03:00:51.5±0.4,8°S±6°×11°2E±°, h140km±6km, M3.7/30, MLv3.7/30*
*NEIC **14** 03:00:51.6±1.6,8°.6S±0°.1×111°.63E±0°.07, h109km±11km, mb4.1/9, Error ellipse: s-maj=18.8km s-min=7.1km az=207.0*
*IDC **14** 03:00:51.8±2.9,8°.60S×111°.70E, h105km±31km, mb3.6/7, mbtmp4.0/9, Error ellipse: s-maj=29.1km s-min=20.7km az=34.0*
ISC 14 03:00:51.8±0.8,**8°.00S**±0°.09×**111°.71E**±0°.04,**h141**km±7km, **n45**,σ0°**92**/45,**mb3.8/7**,**Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PWJI	**Pagerwojo**	**0.10**	**101**	P	**Pn**	**03 01 10.1**	**-0.7**
SNJI	**Sawahan-Nganju**	**0.23**	**13**	P	**Pn**	**03 01 11.7**	**+0.4**
SJI	**Sawahan**	**0.27**	**12**	P	**Pn**	**03 01 11.0**	**-0.3**
SJI				AML	AML		
NGJI	**Ngawi**	**0.68**	**339**	P	**Pn**	**03 01 13.7**	**+0.5**
NGJI				AML	AML		
WOJI	**Wonogiri, Jawa**	**0.79**	**282**	P	**Pn**	**03 01 13.9**	**-0.1**
UGM	**Wanagama**	**1.18**	**274**		**Pn**	**03 01 17.7**	**+0.3**
UGM				Sn	**Sn**	**03 01 37.4**	**+0.5**
UGM	**Wanagama**	**1.18**	**274**	P	**Pn**	**03 01 17.4**	**0.0**
UGM				AML	AML		
TBJI	**Tambak Boyo**	**1.19**	**7**	P	**Pn**	**03 01 16.7**	**-0.8**
TBJI				AML	AML		
GRJI	**Gresik**	**1.32**	**35**	P	**Pn**	**03 01 17.9**	**-1.0**
GRJI				AML	AML		
YOGI	**Yogyakarta**	**1.41**	**277**	P	**Pn**	**03 01 19.7**	**0.0**
YOGI				AML	AML		
SMRI	**Semarang**	**1.57**	**307**		**Pn**	**03 01 21.6**	**0.0**
SMRI				Sn	**Sn**	**03 01 44.9**	**+0.6**
SMRI	**Semarang**	**1.57**	**307**	P	**Pn**	**03 01 21.4**	**-0.1**
SMRI				AML	AML		
BLJI	**Banyuglugur**	**1.89**	**82**	P	**Pn**	**03 01 25.3**	**+0.3**
BLJI				AML	AML		
KMMI	**Kalianget**	**2.43**	**67**	P	**Pn**	**03 01 30.9**	**-0.7**
JAGI	**Jajag, Banyuwa**	**2.46**	**101**		**Pn**	**03 01 31.2**	**-0.9**
JAGI	**Jajag, Banyuwa**	**2.46**	**101**	P	**Pn**	**03 01 31.3**	**-0.7**
JAGI				AML	AML		
ABJI	**Asem Bagus**	**2.51**	**85**	P	**Pn**	**03 01 33.2**	**+0.6**
SCJI	**Gunung Srandil**	**2.54**	**277**	P	**Pn**	**03 01 31.9**	**-1.0**
SCJI				AML	AML		
CTJI	**Waduk Cacaban**	**2.69**	**291**	P	**Pn**	**03 01 35.0**	**+0.1**
CTJI				AML	AML		
KPJI	**Karang Pucung**	**2.83**	**283**	P	**Pn**	**03 01 36.9**	**+0.2**
KPJI				AML	AML		
CMJI	**Cimerak**	**3.24**	**274**	P	**Pn**	**03 01 40.6**	**-1.2**
CMJI				AML	AML		
SRBI	**Singaraja**	**3.47**	**92**	P	**Pn**	**03 01 45.0**	**+0.1**
SRBI				AML	AML		
IGBI	**Denpasar**	**3.50**	**104**	P	**Pn**	**03 01 45.9**	**+0.7**
BBJI	**Bungbulang**	**4.06**	**277**		**Pn**	**03 01 52.9**	**+0.2**
BBJI	**Bungbulang**	**4.06**	**277**	P	**Pn**	**03 01 52.5**	**-0.2**
LEM	**Lembang**	**4.22**	**286**	P	**Pn**	**03 01 56.7**	**+1.8**
	86nm,0.7s,baz=65,slow=14,SNR=13							
CNJI	**Cibinong**	**4.59**	**278**	P	**Pn**	**03 01 56.5**	**-3.1**
PSI	**Prapat**	**16.67**	**310**	P	**Pn**	**03 04 36.8**	**-0.6**
FITZ	**Fitzroy Crossi**	**16.86**	**128**	P	**P**	**03 04 37.1**	**-2.2**
	4.5nm,0.7s,baz=297,slow=14,SNR=14							
FITZ				S	Sn	03 07 35.9	-12
	1.2nm,0.3s,baz=311,slow=20,SNR=6.3							
FITZ	**Fitzroy Crossi**	**16.86**	**128**	P	**P**	**03 04 37.3**	**-2.0**
KNRA	**Kununurra**	**18.34**	**116**	P	**P**	**03 04 55.1**	**-0.5**
KNRA				IAmb	IAmb	03 05 32.6	
	comp=Z,23nm,1.5s							
MTN	**Manton Dam**	**19.70**	**106**	P	**P**	**03 05 09.4**	**-0.8**
SIJI	**Sorong**	**20.74**	**71**	P	Pn	03 05 26.3	+0.8
	comp=Z,3.3nm,0.3s,baz=254,slow=2.8,SNR=3.7							
	comp=Z,3.3nm,0.3s							
WRA	**Warramunga Arr**	**24.92**	**121**	P	**P**	**03 06 02.8**	**+0.8**
	comp=Z,1.3nm,0.7s,baz=297,slow=11,SNR=15							
	comp=Z,1.3nm,0.7s							
WRA	**Warramunga Arr**	**24.92**	**121**	P	**P**	**03 06 01.7**	**-0.4**
WR8	**Warramunga Ar**	**25.07**	**121**	P	**P**	**03 06 03.1**	**-0.2**
WR8				IAmb	IAmb	03 06 05.1	
	comp=Z,3.0nm,0.6s							
ASAR	**Alice Springs**	**26.36**	**129**	P	**P**	**03 06 15.1**	**+0.1**
	comp=Z,1.1nm,0.6s,baz=303,slow=8.3,SNR=19							
	comp=Z,1.1nm,0.6s							
STKA	**Stephens Creek**	**36.56**	**135**	P	**P**	**03 07 44.9**	**+0.8**
	comp=Z,1.4nm,0.4s,baz=326,slow=7.8,SNR=4.3							
	comp=Z,1.4nm,0.4s							
STKA	**Stephens Creek**	**36.56**	**135**	P	**P**	**03 07 44.7**	**+0.6**
SONM	**Songino Array**	**55.79**	**356**	P	P	03 10 22.7	+8.4
	comp=Z,0.3nm,0.3s,baz=171,slow=10,SNR=1.8							
	comp=Z,0.3nm,0.3s							
LBZ	**Lake Benmore**	**62.12**	**136**	P	**P**	**03 10 57.7**	**-0.1**
VNDA	**Vanda**	**74.15**	**170**	P	**P**	**03 12 13.1**	**+0.8**
	comp=Z,0.5nm,0.4s,baz=303,slow=4.3,SNR=3.5							
	comp=Z,0.5nm,0.4s							
VNDA	**Vanda**	**74.15**	**170**	P	**P**	**03 12 13.0**	**+0.8**
VNDA				IAmb	IAmb	03 12 19.1	
	comp=Z,6.8nm,1.5s							
QSPA	**South Pole Qui**	**81.99**	**180**	P	**P**	**03 12 56.5**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=318,slow=7.6,SNR=10.0							
	comp=Z,0.6nm,0.5s							
QSPA	**South Pole Qui**	**81.99**	**180**	P	**P**	**03 12 56.0**	**+0.1**
QSPA				IAmb	IAmb	03 13 21.0	
	comp=Z,4.8nm,1.4s							

*IDC **14** 03:02:46.1±1.4,30°.15N×67°.68E, h0km, mb3.8/9, mbtmp3.9/10, ML4.2/1, Error ellipse: s-maj=38.5km s-min=22.4km az=91.0*
ISC 14 03:02:48.5±1.2,**30°.3N**±0°.1×**67°.8E**±0°.2,**h13**km,**n10**, σ1°**18**/11,**mb3.9/8**,**Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AAK	**Ala-Archa**	**13.48**	**22**	Pn	**Pn**	**03 05 58.8**	**-0.8**
	1.1nm,0.3s,baz=201,slow=8.6,SNR=1.8						
AAK				Sn	**Sn**	**03 08 29.2**	**-0.2**
	0.2nm,0.3s,baz=260,slow=18,SNR=1.8						
	9.1nm,0.8s						
AAK				AML	AML		
MKAR	**Makanchi Array**	**19.98**	**30**	P	**P**	**03 07 20.2**	**-0.4**
	2.1nm,0.6s,baz=210,slow=9.9,SNR=1.4						
	2.1nm,0.8s						
KURBB	**Kurchatov Arra**	**21.88**	**19**	P	**P**	**03 07 43.1**	**+2.1**
	3.1nm,0.8s,baz=211,slow=9.5,SNR=1.7						
	3.1nm,0.8s						
BVAR	**Borovoye Array**	**22.83**	**4**	P	**P**	**03 07 52.5**	**+1.4**
	4.7nm,0.8s,baz=195,slow=9.2,SNR=2.2						
	4.7nm,0.8s						
ZALV	**Zalesovo Beam**	**26.70**	**23**	P	**P**	**03 08 28.9**	**+1.7**
	2.7nm,0.5s,baz=220,slow=9.5,SNR=4.8						
	2.7nm,0.5s						
AKASG	**Malin Array Be**	**35.19**	**317**	P	**P**	**03 09 41.4**	**-0.6**
	0.4nm,0.4s,baz=101,slow=9.5,SNR=1.7						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**81.16**	**119**	P	**P**	**03 15 03.6**	**-0.6**
	0.5nm,0.7s,baz=308,slow=5.9,SNR=1.4						
	0.5nm,0.7s						
ILAR	**Eielson Array**	**81.49**	**14**	P	**P**	**03 15 05.0**	**-0.2**
	0.3nm,0.8s,baz=312,slow=2.9,SNR=1.3						
	0.3nm,0.8s						
ASAR	**Alice Springs**	**83.06**	**122**	P	**P**	**03 15 14.3**	**+0.2**
	0.8nm,0.8s,baz=314,slow=5.2,SNR=4.5						
	0.8nm,0.8s						
YKA	**Yellowknife Ar**	**87.55**	**1**	P	**P**	**03 15 36.4**	**+0.5**
	0.6nm,0.8s,baz=358,slow=5.0,SNR=1.5						
	0.6nm,0.8s						

*MEX **14** 03:07:20.1±0.9, 14°.74N×92°.21W, h96km±6km, MD3.6, Presumed earthquake*
*GCG **14** 03:07:21.7±0.9, 14°.83N×92°.13W, h72km±10km, MD3.5, Presumed earthquake*
ISC 14 03:07:16.0±2.0,**14°.6N**±0°.1×**92°.15W**±0°.09,**h107**km±10km, **n13**,σ1°**64**/23,**Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**0.30**	**339**	*i* P	**Pn**	**03 07 32.6**	**+1.2**
THIG		**0.30**	**339**	*e*P	**Pn**	**03 07 32.5**	**+1.1**
THIG				*e*S	**Sn**	**03 07 42.9**	**-0.1**
RTAL	**Retalhuleu**	**0.46**	**103**	*e*P	**Pn**	**03 07 34.5**	**+2.3**
RTAL				*e*S	**Sn**	**03 07 45.8**	**+1.3**
CHUJ	**Union Juarez**	**0.46**	**5**	*e*P	**Pn**	**03 07 33.2**	**+0.6**
CHUJ				*e*S	**Sn**	**03 07 43.8**	**-1.3**
PATR	**El Naranjo**	**0.49**	**351**	*e*P	**Pn**	**03 07 33.2**	**+0.4**
PATR				*e*S	**Sn**	**03 07 43.5**	**-1.9**
PAVE	**Pavencul**	**0.56**	**358**	*e*P	**Pn**	**03 07 34.1**	**+0.8**
PAVE				*e*S	**Sn**	**03 07 44.5**	**-1.8**
STG8	**El Palmar, Qui**	**0.80**	**103**	*i* P	**Pn**	**03 07 35.2**	**0.0**
STG8				*i* S	**Sn**	**03 07 47.0**	**-2.7**
PCIG		**1.48**	**316**	*e*P	**Pn**	**03 07 43.1**	**+0.7**
PCIG				*e*S	**Sn**	**03 08 01.2**	**-1.3**
FG8	**Yepocapa, Chim**	**1.59**	**103**	*i* P	**Pn**	**03 07 44.0**	**+0.2**
CCIG	**Comitan**	**1.64**	**1**	*i* P	**Pn**	**03 07 46.8**	**+2.2**
CCIG	**Comitan**	**1.64**	**1**	*i* P	**Pn**	**03 07 46.6**	**+2.1**
CCIG				*i* S	**Sn**	**03 08 05.5**	**-0.8**
UXUV	**UXUV**	**3.29**	**325**	*e*P	**Pn**	**03 08 06.8**	**+1.1**
UXUV				*e*S	**Sn**	**03 08 41.0**	**-3.2**
CMIG	**Matias Romero**	**3.59**	**313**	*e*P	**Pn**	**03 08 11.1**	**+1.3**
CMIG				*e*S	**Sn**	**03 08 50.8**	**-0.6**

*SNET **14** 03:08:57.7±1.6, 13°.68N×89°.08W, h10km, ML2.7, Presumed earthquake*
*GCG **14** 03:08:57.6±1.5, 13°.63N×89°.08W, h10km±24km, MD3.5, Presumed earthquake*
*CATAC **14** 03:08:58.2±0.6, 14°.N±2°×8°.9W±°, h9km±2km, M2.7/12, MLv2.7/12, Error ellipse: s-maj=5.1km s-min=2.7km az=3.8, confirmed*
ISC 14 03:08:58.1±1.0,**13°.65N**±0°.03×**89°.10W**±0°.02,**h14**km±5km, **n30**,σ0°**48**/52,**El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LFRS	**El Faro**	**0.04**	**126**	*i* P	**Pg**	**03 09 01.0**	**0.0**
LOMA	**Loma Larga**	**0.07**	**267**	P	**Pg**	**03 09 01.4**	**+0.2**
LOMA	**Loma Larga**	**0.07**	**267**	*i* P	**Pg**	**03 09 01.4**	**+0.2**
LOMA				*e*S	**Sg**	**03 09 03.5**	**+0.2**
UDBS	**Universidad Do**	**0.09**	**319**	*i* P	**Pg**	**03 09 01.2**	**-0.1**
UDBS				*e*S	**Sg**	**03 09 02.7**	**-0.7**
PANCS	**Alcalda de**	**0.09**	**246**	P	**Pg**	**03 09 01.6**	**+0.3**
PANCS				S	**Sg**	**03 09 03.7**	**+0.3**
IGN	**Direccin Gen**	**0.10**	**312**	P	**Pg**	**03 09 01.3**	**-0.1**
IGN				S	**Sg**	**03 09 03.8**	**+0.3**
IGN	**Direccin Gen**	**0.10**	**312**	*i* P	**Pg**	**03 09 01.5**	**+0.1**
IGN				*e*S	**Sg**	**03 09 02.9**	**-0.7**
LFU	**La Fuente**	**0.10**	**350**	*i* P	**Pg**	**03 09 01.0**	**-0.5**
UTEC	**Universidad Te**	**0.11**	**297**	P	**Pg**	**03 09 01.9**	**+0.3**
UTEC				S	**Sg**	**03 09 04.2**	**+0.3**
UTEC	**Universidad Te**	**0.11**	**297**	*i* P	**Pg**	**03 09 01.0**	**-0.6**
UTEC				*e*S	**Sg**	**03 09 03.8**	**-0.1**
SEMO	**Seminario San**	**0.14**	**294**	P	**Pg**	**03 09 01.8**	**0.0**
SEMO				S	**Sg**	**03 09 04.6**	**+0.2**
UEES	**Universidad Ev**	**0.15**	**296**	P	**Pg**	**03 09 02.6**	**+0.5**
UEES				S	**Sg**	**03 09 05.6**	**+0.8**
UEES	**Universidad Ev**	**0.15**	**296**	*i* P	**Pg**	**03 09 02.6**	**+0.5**
UEES				*e*S	**Sg**	**03 09 05.0**	**+0.1**
PAVA	**Las Pavas**	**0.17**	**67**	P	**Pg**	**03 09 02.4**	**0.0**
PAVA				S	**Sg**	**03 09 05.3**	**+0.1**
PAVA	**Las Pavas**	**0.17**	**67**	*i* P	**Pg**	**03 09 02.4**	**0.0**
BOQS	**Boqueron**	**0.20**	**296**	*i* P	**Pg**	**03 09 03.5**	**+0.6**
BOQS				*e*S	**Sg**	**03 09 06.3**	**+0.2**
COEG	**Centro de Oper**	**0.21**	**98**	P	**Pg**	**03 09 03.5**	**+0.5**
COEG				S	**Sg**	**03 09 07.2**	**+0.9**
COEG	**Centro de Oper**	**0.21**	**98**	*i* P	**Pg**	**03 09 04.0**	**+1.0**
COEG				*e*S	**Sg**	**03 09 06.1**	**-0.2**
PMON	**Piamonte**	**0.22**	**287**	P	**Pg**	**03 09 03.9**	**+0.7**
PMON	**Piamonte**	**0.22**	**287**	*i* P	**Pg**	**03 09 03.9**	**+0.7**
PMON				*e*S	**Sg**	**03 09 07.4**	**+0.8**
LALI	**Alcalda de L**	**0.27**	**234**	P	**Pb**	**03 09 04.5**	**-0.2**
LALI	**Alcalda de L**	**0.27**	**234**	*i* P	**Pg**	**03 09 03.0**	**-1.0**
LALI				*i* S	**Sg**	**03 09 08.0**	**+0.2**
LALI	**Alcalda de L**	**0.27**	**234**	*i* P	**Pg**	**03 09 03.1**	**-0.8**
LALI				*e*S	**Sg**	**03 09 08.0**	**+0.2**
JAYA	**Jayaque - finc**	**0.34**	**271**	P	**Pb**	**03 09 06.0**	**-0.2**
JAYA				S	**Sb**	**03 09 11.3**	**-0.1**
JAYA	**Jayaque - finc**	**0.34**	**271**	*i* P	**Pb**	**03 09 05.9**	**-0.2**
JAYA				*i* S	**Sg**	**03 09 10.5**	**+0.4**
UNIC	**Universidad Ca**	**0.55**	**307**	P	**Pg**	**03 09 08.9**	**-0.1**
UNIC				S	**Sg**	**03 09 16.8**	**+0.4**
RTR	**El Retiro**	**0.59**	**295**	*i* P	**Pb**	**03 09 10.5**	**+0.2**
NUBE	**Las Nubes**	**0.71**	**291**	P	**Pb**	**03 09 12.3**	**0.0**
NUBE				S	**Sb**	**03 09 22.6**	**+0.5**
NUBE	**Las Nubes**	**0.71**	**291**	*i* P	**Pb**	**03 09 12.4**	**0.0**
SARH	**Santa Rosa de**	**1.17**	**16**	*i* P	**Pb**	**03 09 19.5**	**-0.6**
SARH				*i* S	**Sb**	**03 09 34.4**	**-0.8**

*TRN **14** 03:11:00.0, 10°.24N×62°.25W, h12km, MD3.7, Gulf of Paria.*
*FUNV **14** 03:11:16.6, 10°.30N×62°.09W, h12km, MW3.4, Presumed earthquake*
ISC 14 03:11:14.8±1.6,**10°.30N**±0°.10×**62°.15W**±0°.06,**h14**km±13km, **n17**,σ1°**25**/26,**Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.71**	**56**	*e*P	**Pg**	**03 11 28.4**	**-0.2**
DMDM				*e*S	**Sn**	**03 11 40.7**	**-0.5**
PSGH	**Port of Spain**	**0.73**	**61**	*e*P	**Pg**	**03 11 28.7**	**-0.2**
PSGH				*e*S	**Sn**	**03 11 41.8**	**+0.1**
TRN	**Trinidad (W)**	**0.81**	**65**	*e*P	**Pg**	**03 11 30.3**	**-0.3**
TRN				*e*S	**Sb**	**03 11 41.6**	**0.0**
TRN	**Trinidad (W)**	**0.81**	**65**	*e*P	**Pb**	**03 11 30.5**	**-0.3**
TRN				*e*S	x	03 11 45.0	
GRGR	**Grenville**	**1.88**	**15**	*e*P	**Pn**	**03 11 47.4**	**+0.8**
GRGR				*e*S	**Sn**	**03 12 10.6**	**+0.4**
GRGR	**Grenville**	**1.88**	**15**	*e*P	**Pn**	**03 11 46.7**	**0.0**
GRGR				*e*S	**Sn**	**03 12 10.8**	**+0.5**
GRSS	**Sisters**	**2.05**	**15**	*e*P	**Pn**	**03 11 48.0**	**-1.0**
GRSS				*e*S	**Sn**	**03 12 14.5**	**+0.1**
PCRV	**Puerto La Cruz**	**2.45**	**267**	*e*P	**Pn**	**03 11 56.2**	**+1.7**
PCRV				*e*S	**Sn**	**03 12 25.7**	**+1.4**
SVB	**Belmont**	**3.08**	**17**	*e*P	**Pn**	**03 12 04.9**	**+1.7**
SVB	**Belmont**	**3.08**	**17**	*e*P	**Pn**	**03 12 03.9**	**+0.7**
SLBI	**Saint Lucia, B**	**3.87**	**17**	*e*P	**Pn**	**03 12 14.4**	**+0.4**
MERV	**Las Mercedes**	**4.22**	**256**	*e*P	**Pn**	**03 12 20.0**	**+1.2**
MERV				*e*S	**Sn**	**03 13 06.6**	**-1.3**
TACV	**Tcata**	**4.80**	**268**	*e*P	**Pn**	**03 12 28.2**	**+1.3**
TACV				*e*S	**Sn**	**03 13 21.1**	**-1.3**
CACV	**CAICARA DEL OR**	**5.12**	**238**	*e*P	Pn	03 12 26.1	-5.0
CACV				*e*S	Sn	03 13 18.7	-11
BENV	**Beln**	**5.37**	**267**	*e*P	**Pn**	**03 12 35.6**	**+0.8**
TURV	**Turiamo**	**5.60**	**272**	*e*P	**Pn**	**03 12 38.2**	**+0.5**
MAPV	**Macapo**	**6.23**	**266**	*e*P	**Pn**	**03 12 47.8**	**+1.3**
MAPV				*e*S	**Sn**	**03 13 53.8**	**-3.8**

*IDC **14** 03:20:41.9±2.6, 4°.62S×145°.02E, h59km±23km, mb3.7/4, mbtmp4.0/9, ML3.9/3, MS3.3/1, Error ellipse: s-maj=31.9km s-min=11.9km az=51.0*
ISC 14 03:20:40.3±1.1,**4°.5S**±0°.1×**145°.1E**±0°.1,**h38**km,**n9**, σ1°**33**/11,**mb4.0/4**,**Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**4.84**	**294**	P	**Pn**	**03 21 51.5**	**+0.8**
	11nm,0.4s,baz=125,slow=12						
JAY				S	**Sn**	**03 22 46.0**	**+0.5**
	baz=128,slow=19						
JAY				LR	LR	03 24 02.4	
	comp=Z,329nm,18.3s,baz=229,slow=42						
PMG	**Port Moresby**	**5.27**	**158**	P	**Pn**	**03 21 58.0**	**+1.5**
	12nm,0.3s,baz=352,slow=3.2,SNR=7.3						
PMG				S	**Sn**	**03 22 56.3**	**+0.3**
	35nm,0.5s,baz=342,slow=20,SNR=4.3						
SIJI	**Sorong**	**14.31**	**284**	P	**Pn**	**03 24 00.8**	**+0.3**
	1.1nm,0.3s,baz=95,slow=9.4,SNR=7.8						
	3.2nm,0.3s						
SIJI				AML	AML		
CTA	**Charters Tower**	**15.53**	**176**	P	**Pn**	**03 24 17.8**	**+1.1**
	0.1nm,0.3s,baz=0.0,slow=14,SNR=1.8						
	1.7nm,0.7s						
CTA				AML	AML		
WRA	**Warramunga Arr**	**18.61**	**214**	P	**P**	**03 24 52.3**	**-2.2**
	0.4nm,0.3s,baz=37,slow=12,SNR=6.5						
	2.9nm,0.8s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.92**	**209**	P	**P**	**03 25 29.4**	**-1.1**
	0.8nm,0.6s,baz=37,slow=12,SNR=12						
	0.8nm,0.6s						
BVAR	**Borovoye Array**	**84.47**	**324**	P	**P**	**03 33 09.2**	**+0.1**
	0.5nm,0.4s,baz=103,slow=4.6,SNR=1.9						
	0.5nm,0.4s						
ILAR	**Eielson Array**	**84.85**	**24**	P	**P**	**03 33 10.4**	**-0.3**
	1.0nm,0.9s,baz=246,slow=5.6,SNR=7.0						
	1.0nm,0.9s						
QSPA	**South Pole Qui**	**85.45**	**180**	P	**P**	**03 33 12.1**	**-1.8**
	4.5nm,0.9s,baz=282,slow=1.0,SNR=24						
	4.5nm,0.9s						

*SDD **14** 03:27:43.4±1.4, 18°.08N×67°.65W, h159km±8km, MD3.3, ML2.9, MW3.1, Presumed earthquake*
*OSPL **14** 03:27:43.3±1.5, 18°.11N×67°.66W, h161km±12km, ML3.3, Presumed earthquake*
*NEIC **14** 03:27:44.5±0.7, 18°.2N±0°.1×67°.62W±0°.05, h139km±5km, ML2.9/43, Md3.5/10(RSPR), Error ellipse: s-maj=16.4km s-min=5.5km az=192.0*
*RSPR **14** 03:27:44.1, 18°.19N×67°.63W, h144km, MD3.5/10*
ISC 14 03:27:45.3±1.7,**18°.2N**±0°.1×**67°.62W**±0°.04,**h134**km±9km, **n58**,σ0°**72**/87,**18C-17D,Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IDE	**Isla Desecheo**	**0.24**	**35**		**Pn**	**03 28 03.4**	**-0.4**
IDE					**Sn**	**03 28 18.6**	**+0.7**
IDE	**Isla Desecheo**	**0.24**	**35**	*i*P *e*P	**Pn**	**03 28 03.4**	**-0.4**
IDE				*e*S	**Sn**	**03 28 18.6**	**+0.7**
PRSN	**Puerto Rico Se**	**0.45**	**86**		**Pn**	**03 28 04.0**	**-0.6**
PRSN				Sn	**Sn**	**03 28 20.1**	**+1.0**
PRSN				IAML		03 28 24.3	
	246nm,0.2s						
PRSN				IAML		03 28 25.9	
	237nm,0.3s						
PRSN	**Puerto Rico Se**	**0.45**	**86**	*i* P	**Pn**	**03 28 04.1**	**-0.5**
PRSN				*i*S	**Sn**	**03 28 20.9**	**+1.8**
PRSN				IAML		03 28 25.8	
	comp=N,138nm,0.2s						
CRPR	**Cabo Rojo, PR**	**0.52**	**111**		**Pn**	**03 28 04.3**	**-0.6**
CRPR			

EMPR					*e*S		**Sn**	**03 28 27.0**	**-0.4**
SADR	**Isla Saona**	**1.10**	**270**	⇓	*i*P		**Pn**	**03 28 08.3**	**-1.2**
SADR				⇑	*i*S		**Sn**	**03 28 27.2**	**-0.7**
SADR					IAML			03 28 34.7	
	comp=N,157nm,1.1s								
HIDR	**Higuey Centro**	**1.12**	**291**	⇓	*i*P		**Pn**	**03 28 08.6**	**-1.1**
HIDR				⇓	*i*S		**Sn**	**03 28 26.7**	**-1.6**
HIDR					IAML			03 28 29.4	
	comp=N,165nm,0.3s								
ECPR	**Experimental S**	**1.20**	**84**				**Pn**	**03 28 09.7**	**-0.8**
ECPR	**Experimental S**	**1.20**	**84**				**Sn**	**03 28 30.0**	**+0.3**
ECPR	**Experimental S**	**1.20**	**84**	⇑	*e*P		**Pn**	**03 28 09.9**	**-0.6**
SJG	**San Juan**	**1.40**	**93**			Pn	**Pn**	**03 28 12.3**	**-1.0**
SJG	**San Juan**	**1.40**	**93**			IAML		03 28 35.6	
	comp=N,117nm,0.2s								
SJG						IAML		03 28 36.3	
	comp=N,114nm,0.3s								
SJG	**San Juan**	**1.40**	**93**	⇓	*i*P		**Pn**	**03 28 12.0**	**-0.5**
SJG				⇑	*i*S		**Sn**	**03 28 33.6**	**+0.3**
SJG	**San Juan**	**1.40**	**93**	⇑	*e*P		**Pn**	**03 28 12.3**	**-0.3**
SJG	**San Juan**	**1.40**	**93**		*i* P		**Pn**	**03 28 12.1**	**-0.5**
SJG					*e*S		**Sn**	**03 28 33.8**	**+0.5**
SJG					IAML			03 28 36.7	
	comp=Z,893nm,0.6s								
IGPR	**InterUniversit**	**1.45**	**99**				**Pn**	**03 28 12.7**	**-0.4**
IGPR							**Sn**	**03 28 34.8**	**+0.4**
IGPR	**InterUniversit**	**1.45**	**99**	⇑	*e*P		**Pn**	**03 28 12.7**	**-0.4**
GCPR	**Guaynabo City**	**1.46**	**85**			Pn	**Pn**	**03 28 12.3**	**-1.0**
GCPR						IAML		03 28 35.2	
	comp=Z,70nm,0.4s								
PDPR	**Patillas Dam,**	**1.53**	**96**				**Pn**	**03 28 13.6**	**-0.3**
PDPR						IAML		03 28 38.3	
	comp=Z,110nm,0.2s								
PDPR						IAML		03 28 38.9	
	comp=Z,113nm,0.2s								
PDPR	**Patillas Dam,**	**1.53**	**96**				**Sn**	**03 28 36.4**	**+0.5**
PDPR	**Patillas Dam,**	**1.53**	**96**	⇓	*e*P		**Pn**	**03 28 13.8**	**-0.2**
HUMP	**Col San Antoni**	**1.68**	**91**				**Pn**	**03 28 15.0**	**-0.7**
HUMP						IAML		03 28 40.7	
	comp=Z,117nm,0.3s								
HUMP	**Col San Antoni**	**1.68**	**91**				**Sn**	**03 28 39.1**	**+0.1**
HUMP	**Col San Antoni**	**1.68**	**91**	⇑	*e*P		**Pn**	**03 28 15.2**	**-0.5**
SMDR	**Samana, DR**	**1.85**	**307**	⇑	*i*P		**Pn**	**03 28 17.1**	**-0.6**
SMDR					IAML			03 28 51.8	
	comp=N,90nm,0.8s								
BANI	**BANI**	**2.61**	**275**		Pn		**Pn**	**03 28 28.4**	**+1.2**
SC01	**Santiago de lo**	**3.19**	**293**		Pn		**Pn**	**03 28 36.7**	**+2.1**
PODR	**Polo**	**3.48**	**270**		Pn		**Pn**	**03 28 37.3**	**-1.2**
SDDR	**Presa de Saban**	**3.57**	**283**		Pn		**Pn**	**03 28 39.1**	**-0.4**
SDDR					IAML			03 29 28.8	
	comp=N,32nm,2.1s								

*IDC **14** 03:36:43.2±3.4, 7°.78S×120°.58E, h212^{km}×33^{km}, mb3.3/3, mbtmp3.8/6, Error ellipse: s-maj=151.4km s-min=14.4km az=54.0*

ISC 14 03:36:42.0±1.5, **8°.0S**±0°.2×**120°.3E**±0°.3, **h200^{km}, n6, σ1°22/7, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
KAPI	**Kappang**	**3.04**	**351**	P	**P**	**Pn**	**03 37 33.1**	**+1.0**
	4.2nm,0.4s,baz=166,slow=17,SNR=1.7							
BATI	**Baumata**	**4.00**	**123**	P	**P**	**Pn**	**03 37 44.3**	**+0.4**
	19nm,0.4s,baz=312,slow=14,SNR=1.3							
BATI				S		**Sn**	**03 38 31.6**	**-0.9**
	54nm,0.5s,baz=285,slow=18,SNR=4.3							
WRA	**Warramunga Arr**	**18.07**	**132**	P	**P**	**P**	**03 40 39.0**	**+0.3**
	3.0nm,0.9s,baz=304,slow=12,SNR=8.5							
ASAR	**Alice Springs**	**20.32**	**141**	P	**P**	**P**	**03 41 03.2**	**+0.2**
	1.7nm,0.4s,baz=309,slow=9.2,SNR=29							
	1.7nm,0.4s							
STKA	**Stephens Creek**	**30.94**	**143**	P	**P**	**P**	**03 42 41.4**	**+1.0**
	2.8nm,0.4s,baz=318,slow=8.8,SNR=7.2							
	2.8nm,0.4s							
MKAR	**Makanchi Array**	**64.18**	**332**	P	**P**	**P**	**03 46 53.6**	**-1.7**
	0.2nm,0.6s,baz=143,slow=5.2,SNR=1.8							
	0.2nm,0.6s							

*NEIC **14** 03:42:08.5±1.6, 21°.2S±0°.2×179°.01W±0°.07, h624^{km}±10^{km}, mb4.1/14, Error ellipse: s-maj=26.2km s-min=8.0km az=166.0*

*IDC **14** 03:42:08.4±1.5, 21°.15S×178°.98W, h631^{km}±13^{km}, mb3.3/10, mbtmp4.3/13, Error ellipse: s-maj=23.1km s-min=16.4km az=128.0*

ISC 14 03:42:07.0±0.7, **21°.2S**±0°.1×**178°.9W**±0°.1, **h619^{km}, n54, σ0°87/56, mb4.1/16, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.53**	**320**	P	**P**	**P**	**03 43 39.8**	**+2.0**
	60nm,0.5s,baz=145,slow=17,SNR=62							
MSVF				S		**S**	**03 44 53.8**	**+2.1**
	2.3nm,0.3s,baz=119,slow=23,SNR=1.2							
MSVF	**Nonsavu**	**4.53**	**320**	P	**P**	**P**	**03 43 39.7**	**+1.9**
MARNC	**Mare, Loyalty**	**12.21**	**266**	P	**P**	**P**	**03 44 46.5**	**-1.3**
PINNC	**Pines Island,**	**12.77**	**261**	P	**P**	**P**	**03 44 53.1**	**-0.2**
DZM	**Mont Dzumac**	**13.68**	**264**	P	**P**	**P**	**03 45 01.8**	**-0.5**
	4.7nm,0.7s,baz=76,slow=23,SNR=6.5							
URZ	**Urewera**	**17.33**	**191**	P	**P**	**P**	**03 45 35.8**	**+0.4**
	3.7nm,0.5s,baz=22,slow=17,SNR=2.0							
EIDS	**Eidsvold**	**27.87**	**256**	P	**P**	**P**	**03 47 09.6**	**+0.1**
CTA	**Charters Tower**	**32.61**	**266**	P	**P**	**P**	**03 47 50.0**	**-0.1**
	3.9nm,0.5s,baz=93,slow=11,SNR=11							
	3.9nm,0.5s							
CTAO	**Charters Tower**	**32.61**	**266**	P	**P**	**P**	**03 47 50.3**	**+0.2**
CTAO				IAmb		IAmb	03 47 51.5	
	comp=Z,7.2nm,1.2s							
STKA	**Stephens Creek**	**36.74**	**245**	P	**P**	**P**	**03 48 24.8**	**+0.7**
	comp=Z,1.3nm,0.5s,baz=87,slow=11,SNR=4.3							
	comp=Z,1.3nm,0.5s							
STKA	**Stephens Creek**	**36.74**	**245**	P	**P**	**P**	**03 48 24.5**	**+0.4**
BBOO	**Buckleboo**	**41.49**	**244**	P	**P**	**P**	**03 49 02.1**	**0.0**
WR8	**Warramunga Arr**	**43.55**	**263**	P	**P**	**P**	**03 49 17.4**	**-0.8**
WR8				IAmb		IAmb	03 49 19.0	
	comp=Z,6.2nm,1.2s							
AS31	**Alice Springs**	**43.56**	**258**	P	**P**	**P**	**03 49 18.2**	**-0.2**
ASAR	**Alice Springs**	**43.56**	**258**	P	**P**	**P**	**03 49 18.1**	**-0.2**
	comp=Z,6.2nm,0.7s,baz=91,slow=8.3,SNR=58							
ASAR				PcP		**PcP**	**03 50 52.0**	**+0.2**
	comp=Z,0.9nm,0.6s,baz=99,slow=4.0,SNR=6.0							
ASAR				ScP		**ScP**	**03 53 46.0**	**+0.7**
	comp=Z,0.6nm,0.7s,baz=90,slow=4.0,SNR=4.4							
	comp=Z,6.2nm,0.7s							
ASAR	**Alice Springs**	**43.56**	**258**	P	**P**	**P**	**03 49 17.7**	**-0.7**
WRA	**Warramunga Arr**	**43.70**	**263**	P	**P**	**P**	**03 49 18.7**	**-0.7**
	comp=Z,3.2nm,0.5s,baz=94,slow=4.9,SNR=25							
WRA				PcP		**PcP**	**03 50 52.1**	**-0.1**
	comp=Z,0.2nm,0.3s,baz=102,slow=3.1,SNR=2.4							
	comp=Z,3.2nm,0.5s							
WRA	**Warramunga Arr**	**43.70**	**263**	P	**P**	**P**	**03 49 18.5**	**-0.9**
FORT	**Forrest**	**48.26**	**247**	P	**P**	**P**	**03 49 52.8**	**-0.9**
FORT				IAmb		IAmb	03 49 55.7	
	comp=Z,6.1nm,0.9s							
KNRA	**Kununurra**	**49.80**	**267**	P	**P**	**P**	**03 50 04.5**	**-0.6**
KNRA				IAmb		IAmb	03 50 34.5	
	comp=Z,13nm,1.4s							
FITZ	**Fitzroy Crossi**	**52.13**	**263**	P	**P**	**P**	**03 50 21.9**	**0.0**
	comp=Z,2.5nm,0.5s,baz=90,slow=3.5,SNR=22							
	comp=Z,2.5nm,0.5s							
FITZ	**Fitzroy Crossi**	**52.13**	**263**	P	**P**	**P**	**03 50 20.4**	**-1.5**
SIJI	**Sorong**	**52.64**	**286**	P	**P**	**P**	**03 50 25.4**	**-0.3**
	comp=Z,10nm,0.4s,baz=87,slow=6.6,SNR=13							
	comp=Z,10nm,0.4s							
MBWA	**Marble Bar**	**56.90**	**258**	P	**P**	**P**	**03 50 54.2**	**-0.9**
MBWA				IAmb		IAmb	03 51 37.5	
	comp=Z,21nm,1.2s							
MORW	**Morawa**	**58.80**	**248**	P	**P**	**P**	**03 51 07.5**	**-0.3**
MORW				IAmb		IAmb	03 51 45.4	
	comp=Z,10nm,1.1s							
QSPA	**South Pole Qui**	**68.84**	**180**	P	**P**	**P**	**03 52 13.1**	**+2.2**
	comp=Z,0.6nm,1.0s,baz=18,slow=9.6,SNR=1.0							
	comp=Z,0.6nm,1.0s							
MJAR	**Matsushiro Arr**	**70.31**	**324**	P	**P**	**P**	**03 52 19.1**	**-0.7**
	comp=Z,1.0nm,0.6s,baz=158,slow=6.6,SNR=4.9							
	comp=Z,1.0nm,0.6s							
MJAR	**Matsushiro Arr**	**70.31**	**324**	P	**P**	**P**	**03 52 18.6**	**-1.3**
MJAR				IAmb		IAmb	03 52 20.1	
	comp=Z,3.4nm,1.2s							
ELIB	**Princess Elisa**	**85.83**	**187**	*d*P	**P**	**P**	**03 53 41.9**	**-0.3**
CAST	**Castle Rocks**	**86.95**	**12**	P	**P**	**P**	**03 53 46.6**	**-0.7**
CAST				IAmb		IAmb	03 53 46.7	
	comp=Z,7.0nm,1.2s							
ILAR	**Eielson Array**	**89.20**	**13**	P	**P**	**P**	**03 53 57.0**	**-0.6**
	comp=Z,0.3nm,0.5s,baz=216,slow=5.1,SNR=7.7							
	comp=Z,0.3nm,0.5s							
CMAR	**Chiang Mai Arr**	**89.59**	**290**	P	**P**	**P**	**03 54 02.1**	**+1.5**
	comp=Z,1.2nm,0.3s,baz=134,slow=3.4,SNR=5.3							
	comp=Z,1.2nm,0.3s							
BVAR	**Borovoye Array**	**119.11**	**320**	PKP		**PKPdf**	**03 59 45.9**	**-0.6**
	comp=Z,0.6nm,0.4s,baz=64,slow=3.4,SNR=3.5							
ARCES	**ARCESS Array B**	**129.48**	**349**	PKP		**PKPdf**	**04 00 06.1**	**+0.1**
	comp=Z,1.1nm,0.6s,baz=13,slow=1.6,SNR=4.6							
FINES	**FINESS Array B**	**136.23**	**343**	PKP		**PKPdf**	**04 00 16.8**	**-1.9**
	comp=Z,0.9nm,0.6s,baz=323,slow=1.0,SNR=5.3							
HFS	**Hagfors**	**140.12**	**350**	PKhKP		PKPpre	04 00 18.8	
	comp=Z,5.0nm,1.1s,baz=64,slow=6.8,SNR=6.2							
AKASG	**Malin Array Be**	**143.24**	**330**	PKP		PKPab	04 00 29.3	-0.9
	comp=Z,2.8nm,0.4s,baz=43,slow=4.3,SNR=21							
ARPP	**Arapgir-MALATY**	**143.54**	**308**			**PKPdf**	**04 00 32.9**	**0.0**
EKA	**Eskdalemuir Ar**	**145.79**	**4**	PKPbc		**PKPbc**	**04 00 38.1**	**+0.2**
	comp=Z,1.5nm,0.6s,baz=334,slow=2.4,SNR=3.6							
BRTR	**Keskin Array B**	**146.71**	**311**	PKPbc		**PKPbc**	**04 00 40.8**	**-0.4**
	comp=Z,1.0nm,0.5s,baz=143,slow=4.3,SNR=7.6							
BRTR	**Keskin Array B**	**146.71**	**311**			**PKPbc**	**04 00 40.5**	**-0.6**
BURAR	**Bucovina Array**	**147.28**	**329**	PKPbc		**PKPbc**	**04 00 42.2**	**-0.1**
CLL	**Collm**	**148.57**	**346**	*i* PKPbc		**PKPbc**	**04 00 44.4**	**-0.8**
WINA	**Alland / Wiene**	**150.61**	**339**	*i* PKP		**PKiKP**	**04 00 50.7**	**+0.1**
	comp=Z,1.9nm,0.5s							
GERES	**GERESS Array B**	**150.66**	**343**	PKPbc		**PKPbc**	**04 00 50.3**	**-0.2**
	comp=Z,0.9nm,0.6s,baz=18,slow=1.7,SNR=9.8							
CONA	**Conrad Observa**	**150.83**	**339**	*i* PKP		**PKiKP**	**04 00 51.0**	**-0.2**
	comp=Z,0.9nm,0.3s							
RONA	**Rosalia, Austr**	**150.89**	**339**	*i* PKP		**PKiKP**	**04 00 51.1**	**-0.2**
	comp=Z,2.4nm,0.4s							
MOA	**Molin**	**151.40**	**341**	*i* PKP		**PKiKP**	**04 00 52.1**	**-0.2**
	comp=Z,0.3nm,0.2s							
ARSA	**Arzberg**	**151.54**	**339**	*i* PKP		**PKPbc**	**04 00 51.9**	**-0.4**
	comp=Z,0.4nm,0.2s							
SESA	**Seetaler Alpe,**	**151.97**	**340**	*i* PKP		**PKPbc**	**04 00 53.0**	**-0.5**
	comp=Z,2.1nm,0.7s							
SOKA	**Soboth**	**152.20**	**339**	*i* PKP		**PKPbc**	**04 00 53.7**	**-0.2**
	comp=Z,0.3nm,0.3s							
WATA	**Walderalm**	**152.61**	**344**	*i* PKP		**PKiKP**	**04 00 54.8**	**-0.1**
	comp=Z,0.8nm,0.3s							
WTTA	**Wattenberg**	**152.66**	**344**	*e*PKP		**PKPbc**	**04 00 54.9**	**-0.1**
	comp=Z,1.0nm,0.3s							
ABTA	**Abfaltersbach**	**152.91**	**343**	*i* PKP		**PKPbc**	**04 00 55.0**	**-0.4**
	comp=Z,1.1nm,0.5s							

*TRN **14** 03:50:45.0, 10°.99N×62°.32W, h95^{km}, MD3.4, North of the Paria peninsula.*

*FUNV **14** 03:51:08.2, 11°.01N×62°.33W, h25^{km}, MW3.5, Presumed earthquake*

ISC 14 03:51:06.0±1.9, **11°.00N**±0°.06×**62°.33W**±0°.08, **h99^{km}**±23^{km}, **n21, σ1°12/39, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.82**	**111**	*e*P	**P**	**Pn**	**03 51 25.3**	**+0.8**
DMDM				*e*S		**Sn**	**03 51 37.7**	**-0.7**
PSQC	**Port of Spain**	**0.86**	**112**	*e*P	**P**	**Pn**	**03 51 25.7**	**+0.8**
PSQC				*e*S		**Sn**	**03 51 38.6**	**-0.5**
PSGH	**Port of Spain**	**0.88**	**112**	*e*P	**P**	**Pn**	**03 51 25.9**	**+0.9**
PSGH				*e*S		**Sn**	**03 51 38.8**	**-0.5**
TRN	**Trinidad (W)**	**0.98**	**111**	*e*P	**P**	**Pn**	**03 51 26.4**	**+0.3**
TRN				*e*S		**Sn**	**03 51 39.6**	**-1.5**
TRN	**Trinidad (W)**	**0.98**	**111**	*e*P	**P**	**Pn**	**03 51 26.7**	**+0.6**
TRN				*e*S		**Sn**	**03 51 40.3**	**-0.9**
GRGR	**Grenville**	**1.31**	**30**	*e*P	**P**	**Pn**	**03 51 29.9**	**0.0**
GRGR				*e*S		**Sn**	**03 51 46.8**	**-1.2**
GRGR	**Grenville**	**1.31**	**30**	*e*P	**P**	**Pn**	**03 51 30.2**	**+0.3**
GRGR				*e*S		**Sn**	**03 51 47.7**	**-0.3**
GRW	**Mount Saint Ca**	**1.33**	**30**	*e*P	**P**	**Pn**	**03 51 31.2**	**+0.9**
GRW				*e*S		**Sn**	**03 51 47.8**	**-0.8**
GRHS	**Sauteurs**	**1.40**	**29**	*e*P	**P**	**Pn**	**03 51 31.2**	**+0.3**
GRHS				*e*S		**Sn**	**03 51 49.5**	**-0.3**
GRSS	**Sisters**	**1.48**	**29**	*e*P	**P**	**Pn**	**03 51 32.0**	**+0.2**
GRSS				*e*S		**Sn**	**03 51 52.0**	**+0.5**
GCMP	**Grenada, Carri**	**1.73**	**31**	*e*P	**P**	**Pn**	**03 51 35.2**	**+0.1**
GCMP				*e*S		**Sn**	**03 51 56.6**	**-0.6**
PCRV	**Puerto La Cruz**	**2.41**	**250**	*e*P	**P**	**Pn**	**03 51 45.5**	**+1.6**
PCRV				*e*S		**Sn**	**03 52 12.1**	**-0.8**
SVB	**Belmont**	**2.50**	**25**	*e*P	**P**	**Pn**	**03 51 47.4**	**+2.3**
SVB				*e*S		**Sn**	**03 52 14.6**	**-0.4**
SVB	**Belmont**	**2.50**	**25**	*e*P	**P**	**Pn**	**03 51 45.4**	**+0.3**
SVB				*e*S		**Sn**	**03 52 15.2**	**+0.2**
MCLT	**Moule a Chique**	**3.02**	**27**	*e*P	**P**	**Pn**	**03 51 51.8**	**-0.2**
SLBI	**Saint Lucia, B**	**3.29**	**24**	*e*P	**P**	**Pn**	**03 51 55.4**	**-0.2**
SLBI				*e*S		**Sn**	**03 52 33.5**	**-0.3**
MERV	**Las Mercedes**	**4.27**	**246**	*e*P	**P**	**Pn**	**03 52 09.9**	**+1.1**
MERV				*e*S		**Sn**	**03 52 56.9**	**-0.7**
TACV	**Tcata**	**4.69**	**260**	*e*P	**P**	**Pn**	**03 52 15.9**	**+1.3**
TACV				*e*S		**Sn**	**03 53 07.2**	**-0.7**
BENV	**Beln**	**5.28**	**259**	*e*P	**P**	**Pn**	**03 52 24.1**	**+1.5**
BENV				*e*S		**Sn**	**03 53 19.5**	**-2.7**
CACV	**CAICARA DEL OR**	**5.37**	**231**	*e*P	**P**	Pn	03 52 20.0	-3.8
CACV				*e*S		Sn	03 53 11.1	-11
MAPV	**Macapo**	**6.13**	**260**	*e*P	**P**	**Pn**	**03 52 35.5**	**+1.3**
MAPV				*e*S		**Sn**	**03 53 40.1**	**-2.9**

*KRNET **14** 03:58:04.1±0.1, 39°.03N×70°.72E, mb3.1*

*NNC **14** 03:58:11.8±4.2, 39°.32N×69°.86E, h0^{km}, mb3.4, mpv3.0, Error ellipse: s-maj=38.5km s-min=20.5km az=179.0*

ISC 14 03:58:05.8±2.3, **39°.1N**±0°.1×**70°.72E**±0°.07, **h10^{km}, n11, σ2°10/19, 13C-4D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**0.91**	**66**	⇓ *e*P	**Pg**	**Pn**	**03 58 22.3**	**-1.0**
DRK				*e*S		**Sn**	**03 58 35.1**	**-0.6**
BTK	**Batken**	**0.94**	**4**	⇑ *e*P	**Pb**	**Pn**	**03 58 23.6**	**-0.6**
BTK				⇑ *e*S		**Sn**	**03 58 37.8**	**-0.9**
OHH	**Osh**	**2.12**	**48**	⇑ *e*P	**Pb**	**Pn**	**03 58 42.7**	**-1.6**
OHH				⇑ *e*S		**Sb**	**03 59 11.6**	**+0.9**
SFK	**Sufi-Kurgan**	**2.33**	**67**	⇓ *e*P	**Pb**	**Pn**	**03 58 46.0**	**-1.9**
SFK				⇓ *e*S		**Sb**	**03 59 16.2**	**-0.6**
ARSB	**Arslanbob**	**2.80**	**37**	⇑ *e*P	**Pn**	**Pn**	**03 58 52.5**	**+1.7**
ARSB				⇑ *e*S		**Sb**	**03 59 28.3**	**-2.1**
SALK	**Salom-Alik**	**2.96**	**52**	⇑ *e*P	**Pn**	**Pn**	**03 58 54.5**	**+1.5**
SALK				⇑ *e*S		**Sb**	**03 59 31.9**	**-3.1**
MNAS	**Manas**	**3.63**	**21**	⇑ *e*P	**Pn**	**Pn**	**03 59 04.0**	**+1.9**
MNAS				⇑ *e*S		**Sn**	**03 59 48.7**	**+3.7**
KK31	**Karatay Array**	**3.98**	**358**	⇑ Pn	**Pb**	**Pb**	**03 59 12.6**	**-3.5**
	0.9nm,0.3s,baz=182,slow=15,SNR=7.2							
KK31				Lg		Lg	04 00 13.3	
	14nm,0.6s,baz=189,slow=32							
UCH	**Uchtor**	**4.24**	**42**	⇑ *e*P	**Pn**	**Pn**	**03 59 11.5**	**+0.7**
UCH				⇑ *e*S		**Sn**	**04 00 03.7**	**+3.2**
AAK	**Ala-Archa**	**4.53**	**38**	Pn	**Pb**	**Pb**	**03 59 24.9**	**-0.6**
	3.2nm,0.9s							
AB31	**Akbulak array**	**12.73**	**326**	P	**Pn**	**Pn**	**04 01 07.7**	**+0.9**
	0.4nm,0.6s,baz=156,slow=10,SNR=4.2							

*CNRM **14** 03:58:57.0, 36°.46N×9°.39W, h14^{km}, ML3.2*

*SFS **14** 03:58:58.4, 36°.67N×9°.71W, h22^{km}, ML2.6/7, ML2.6/7, MLv2.7/7*

*IGIL **14** 03:58:59.3, 36°.69N×9°.66W, h16^{km}, ML1.0*

*INMG **14** 03:58:59.5±1.2, 36°.69N×9°.65W, h19^{km}±4^{km}, ML1.5, Error ellipse: s-maj=5.6km s-min=4.9km az=45.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Cabo S.Vicente*

ISC 14 03:58:55.4±1.7, **36°.57N**±0°.03×**9°.75W**±0°.08, **h28^{km}**±13^{km}, **n38, σ1°23/68, 1C, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**0.93**	**52**	P	**P**	**Pb**	**03 59 13.9**	**+1.0**
PFVI				S		**Sb**	**03 59 24.9**	**+0.1**
PFVI	**Vila Bisbo**	**0.93**	**52**	P	**P**	**Pb**	**03 59 11.8**	**-1.1**
PFVI				S		**Sb**	**03 59 24.1**	**-0.7**
PFVI	**Vila Bisbo**	**0.93**	**52**	⇑ *e*P	**P**	**Pn**	**03 59 14.0**	**+1.4**
PFVI				*e*S		**Sb**	**03 59 24.8**	**-0.1**
PFVI				IAML			03 59 25.5	
PFVI				IAML			03 59 25.6	
PFVI				IAML			03 59 25.9	
MORF	**Marmelete**	**1.14**	**50**	*e*P	**P**	**Pn**	**03 59 17.0**	**+1.4**
MORF				*e*S		**Sb**	**03 59 30.1**	**-1.0**
MORF				IAML			03 59 31.4	
	comp=N,7.1nm,0.1s							
MORF	**Marmelete**	**1.14**	**50**	*e*P	**P**	**Pn**	**03 59 17.0**	**+1.4**
MORF				*e*S		**Sb**	**03 59 30.4**	**-0.6**
MORF				IAML			03 59 30.7	
MORF				IAML			03 59 32.0	
MORF				IAML			03 59 32.1	
PMONC	**Monchique**	**1.22**	**52**	*e*P	**P**	**Pn**	**03 59 18.1**	**+1.5**
PMONC				*e*S		**Sn**	**03 59 32.4**	**+0.2**
PMONC				IAML			03 59 33.1	
PMONC				IAML			03 59 33.4	
PMONC				IAML			03 59 33.7	
PTEO	**Sao Teotonio**	**1.27**	**40**	*e*P	**P**	**Pn**	**03 59 18.8**	**+1.5**
PTEO				*e*S		**Sn**	**03 59 33.5**	**0.0**
PTEO				IAML			03 59 34.1	
PTEO				IAML			03 59 36.0	
PTEO				IAML			03 59 38.5	
PBDV	**Barranco-do-Ve**	**1.60**	**65**	*e*P	**P**	**Pn**	**03 59 23.6**	**+1.7**
PBDV				*e*S		**Sn**	**03 59 41.9**	**+0.2**
PBDV				IAML			03 59 42.8	
PBDV				IAML			03 59 42.9	
PBDV				IAML			03 59 50.6	
PCVE	**Castro Verde**	**1.73**	**52**	P	**P**	**Pn**	**03 59 25.3**	**+1.7**
PCVE				S		**Sn**	**03 59 44.8**	**0.0**
PCVE	**Castro Verde**	**1.73**	**52**	*e*P	**P**	**Pn**	**03 59 25.4**	**+1.7**
PCVE				*e*S		**Sn**	**03 59 45.1**	**+0.3**
PCVE				IAML			03 59 46.2	
PCVE				IAML			03 59 46.5	
MESJ	**Messejana**	**1.76**	**43**	*e*P	**P**	**Pn**	**03 59 25.4**	**+1.4**
MESJ				*e*S		**Sn**	**03 59 45.0**	**-0.4**
MESJ				IAML			03 59 45.5	
	comp=E,0.5nm,0.2s							
MESJ	**Messejana**	**1.76**	**43**	*e*P	**P**	**Pn**	**03 59 25.4**	**+1.4**
MESJ				*e*S		**Sn**	**03 59 45.1**	**-0.4**
PLOUS	**Minas do Lousa**	**1.80**	**35**	*e*P	**P**	**Pn**	**03 59 25.6**	**+1.0**
PLOUS				*e*S		**Sn**	**03 59 45.6**	**-0.9**
PLOUS				IAML			03 59 45.7	
PLOUS				IAML			03 59 47.4	
PLOUS				IAML			03 59 51.1	
PVAQ	**Vaqueiros**	**1.83**	**62**	P	**P**	**Pn**	**03 59 26.6**	**+1.7**
PVAQ				S		**Sn**	**03 59 46.6**	**-0.5**
PVAQ	**Vaqueiros**	**1.83**	**62**	*e*P	**P**	**Pn**	**03 59 26.6**	**+1.7**
PVAQ				*e*S		**Sn**	**03 59 47.0**	**-0.2**
PVAQ				IAML			03 59 48.1	
PVAQ				IAML			03 59 48.5	
PVAQ				IAML			03 59 49.5	
EGRO	**El Granado**	**2.05**	**61**	P	**P**	**Pn**	**03 59 29.7**	**+1.7**
EGRO				S		**Sn**	**03 59 53.1**	**+0.4**
PBEJ	**Beja**	**2.09**	**45**	*e*S		**Sn**	**03 59 53.2**	**-0.4**
PBEJ				IAML			03 59 54.8	
PBEJ				IAML			03 59 55.2	
MOE	**Montemor**	**2.24**	**29**	*e*P	**P**	**Pn**	**03 59 32.6**	**+1.9**
MOE				*e*S		**Sn**	**03 59 56.1**	**-1.0**
MOE				IAML			03 59 58.8	
MOE				IAML			03 59 58.9	
EVO	**Evora**	**2.40**	**35**	P	**P**	**Pn**	**03 59 33.7**	**+1.0**
EVO				S		**Sn**	**03 59 59.7**	**-1.5**
EVO	**Evora**	**2.40**	**35**	*e*P	**P**	**Pn**	**03 59 33.8**	**+1.0**
EVO				*e*S		**Sn**	**03 59 59.9**	**-1.3**
EVO				IAML			04 00 00.2	
EVO				IAML			04 00 00.6	
EVO				IAML			04 00 01.7	
PMAFR	**Mafra**	**2.41**	**

ARGC				S		**Sn**	**04 10 30.5**	**+1.4**	
PRAC	**Prado**	**3.62**	**210**	P		**Pn**	**04 09 55.5**	**-0.5**	
PRAC				S		**Sn**	**04 10 37.7**	**-1.5**	
APAC	**Apartado, Choc**	**3.63**	**287**	P		**Pn**	**04 09 56.6**	**+0.7**	
APAC				S		**Sn**	**04 10 38.3**	**-0.8**	
ORTC	**Ortega, Tolima**	**3.66**	**216**	P		**Pn**	**04 09 56.6**	**+0.2**	
ORTC				S		**Sn**	**04 10 39.8**	**-0.1**	
SJCC	**San Jacinto, C**	**3.66**	**325**	P		**Pn**	**04 09 56.1**	**-0.3**	
SJCC				S		**Sn**	**04 10 37.9**	**-2.1**	
SJCC	**San Jacinto, C**	**3.66**	**325**	*eP*		**Pn**	**04 09 56.8**	**+0.3**	
SJCC				*eS*		**Sn**	**04 10 36.5**	**-3.4**	
LCBC	**Los crdobas,**	**3.81**	**301**	P		**Pn**	**04 09 59.6**	**+1.2**	
LCBC				S		**Sn**	**04 10 41.6**	**-1.9**	
URMC	**La Uribe, Meta**	**3.83**	**200**	P		**Pn**	**04 09 58.8**	**+0.1**	
URMC				S		**Sn**	**04 10 43.7**	**-0.4**	
CRJC	**Cerrejon, Guaj**	**4.12**	**3**	P		**Pn**	**04 10 02.7**	**+0.2**	
CRJC				S		**Sn**	**04 10 50.9**	**0.0**	
YOTC	**Yotoco, Valle**	**4.34**	**229**	P		**Pn**	**04 10 05.0**	**-0.4**	
SMRC	**Santa Marta, M**	**4.41**	**345**	P		**Pn**	**04 10 07.1**	**+0.9**	
SMRC				S		**Sn**	**04 10 55.9**	**-1.6**	
MACC	**Macarena, Meta**	**4.76**	**189**	P		**Pn**	**04 10 09.4**	**-1.4**	
MACC				S		**Sn**	**04 11 01.5**	**-4.3**	
URIC	**Uribia, Colomb**	**4.91**	**12**	P		**Pn**	**04 10 12.6**	**-0.2**	
	31nm,1.5s								
URIC				S		**Sn**	**04 11 09.4**	**+0.1**	
	31nm,1.5s								
URIC				AML		AML			
URIC	**Uribia, Colomb**	**4.91**	**12**	*eP*		**Pn**	**04 10 12.6**	**-0.2**	
URIC				*eS*		**Sn**	**04 11 02.8**	**-6.5**	
TEPV	**Terepaima**	**4.92**	**51**	*eP*		**Pn**	**04 10 13.4**	**+0.6**	
JAMC	**Jamundi, Valle**	**5.11**	**225**	P		**Pn**	**04 10 15.3**	**-0.2**	
	683nm10nm,0.6s								
JAMC				S		**Sn**	**04 11 13.3**	**-0.9**	
	683nm10nm,0.6s								
JAMC				AML		AML			
UPD2	**Meteti**	**5.17**	**289**	P		**Pn**	**04 10 15.4**	**-0.8**	
	22nm,1.2s								
UPD2				S		**Sn**	**04 11 13.8**	**-1.6**	
	22nm,1.2s								
UPD2				AML		AML			
MAPV	**Macapo**	**5.43**	**57**	*eP*		**Pn**	**04 10 19.7**	**+0.1**	
MAPV				*eS*		**Sn**	**04 11 15.4**	**-6.2**	
POPC	**Popayan, Colom**	**5.61**	**220**	P		**Pn**	**04 10 22.2**	**0.0**	
	9.3nm,0.6s								
POPC				S		**Sn**	**04 11 26.5**	**+0.4**	
	9.3nm,0.6s								
POPC				AML		AML			
JACV	**Jacura**	**5.92**	**45**	*eP*		**Pn**	**04 10 26.4**	**+0.2**	
BENV	**Beln**	**6.22**	**60**	*eP*		**Pn**	**04 10 30.3**	**+0.1**	
TURV	**Turiamo**	**6.28**	**55**	*eP*		**Pn**	**04 10 30.4**	**-0.4**	
BBAC	**Balboa, Cauca**	**6.37**	**221**	P		**Pn**	**04 10 32.0**	**-0.3**	
BBAC				S		**Sn**	**04 11 42.4**	**-1.9**	
CACV	**CAICARA DEL OR**	**6.52**	**84**	*eP*		Pn	04 10 40.2	+6.2	
TACV	**Tcata**	**6.80**	**61**	*eP*		**Pn**	**04 10 37.8**	**-0.1**	
MERV	**Las Mercedes**	**7.11**	**70**	*eP*		**Pn**	**04 10 42.7**	**+0.7**	
AZU	**Azuero**	**7.20**	**278**	P		**Pn**	**04 10 42.9**	**-0.3**	
PCRV	**Puerto La Cruz**	**8.96**	**68**	*eP*		**Pn**	**04 11 07.8**	**+1.2**	
TXAR	**Lajitas Array**	**36.46**	**312**	P		**P**	**04 15 50.5**	**-0.2**	
	0.1nm,0.4s,baz=122,slow=9.5,SNR=4.7								
	0.1nm,0.4s								
ULM	**Lac du Bonnet**	**47.25**	**340**	P		**P**	**04 17 18.1**	**+0.4**	
	1.5nm,0.5s,baz=135,slow=6.3,SNR=4.6								
	1.5nm,0.5s								
YKA	**Yellowknife Ar**	**63.23**	**340**	P		**P**	**04 19 12.2**	**+0.4**	
	0.6nm,0.5s,baz=136,slow=6.2,SNR=4.9								
	0.6nm,0.5s								

IDC 14 04:16:12.6±1.6, 4°04'S×129°13'E, h0km, mb3.6/2, mbtmp3.5/4, ML3.5/2, Error ellipse: s-maj=43.1km s-min=21.0km az=97.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**3.81**	**34**	Pn	Pn	04 17 12.2	-0.3
	4.2nm,0.3s,baz=245,slow=23,SNR=25						
SIJI				Sn	Sn	04 17 48.2	-10
	7.2nm,0.3s,baz=207,slow=22,SNR=16						
	8.2nm,0.2s						
SIJI				AML	AML		
WRA	**Warramunga Arr**	**16.60**	**163**	Pn	Pn	04 20 01.4	-5.5
	0.2nm,0.3s,baz=345,slow=13,SNR=6.7						
WRA				Sn	Sn	04 22 55.3	-17
	0.1nm,0.3s,baz=343,slow=26,SNR=1.5						
	0.1nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.05**	**167**	P	P	04 20 46.8	-0.7
	2.4nm,0.5s,baz=349,slow=10,SNR=41						
	2.4nm,0.5s						
MKAR	**Makanchi Array**	**65.29**	**327**	P	P	04 26 56.4	0.0
	0.2nm,0.4s,baz=144,slow=5.4,SNR=2.5						
	0.2nm,0.4s						

*ISK **14** 04:27:41.8, 38°34'N×40°33'E, h5km, ML1.8/3*
AFAD 14 04:27:38.3, 37°44'N×39°67'E, h7km±3km, ML1.9, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DIYA	**Diyarbakir**	**0.60**	**36**	P	Pg	04 27 49.7	-0.2
SANL	**SANLIURFA_Merk**	**0.60**	**244**	P	Pg	04 27 50.0	+0.1
SANL				S	Sb	04 27 59.6	-0.3
SANL				IAML		04 28 00.0	
	comp=N,52nm,0.1s						
DYBB	**Diyarbakir**	**0.63**	**36**	Pg	Pg	04 27 50.9	+0.4
DYBB				Sg	Sg	04 27 58.0	-0.8
DYBB				AML	AML		
MDNT	**Maden**	**0.95**	**1**	P	Pg	04 27 56.8	+0.2
SVRC	**Sivrice-ELAZID**	**0.98**	**343**	Pg	Pn	04 27 58.3	-0.3
SVRC				Sg	Sb	04 28 10.7	-0.2
SVRC				AML	AML		
SURC	**SANLIURFA_SURC**	**1.01**	**237**	P	Pb	04 27 58.0	-0.1
SURC				S	Sb	04 28 11.6	-0.1
SURC				IAML		04 28 13.0	
	comp=E,31nm,0.3s						
SURC				IAML		04 28 14.0	
	comp=N,86nm,0.2s						
ATAB	**Bozova**	**1.09**	**272**	P	Pn	04 27 60.0	-0.1
ATAB				S	Sb	04 28 14.4	+0.3
ATAB				IAML		04 28 18.0	
	comp=N,22nm,0.2s						
AZEY	**Adyaman-Merk**	**1.19**	**289**	P	Pn	04 28 01.4	0.0
AZEY				S	Sn	04 28 18.2	+0.4
ELZG	**Elazig**	**1.19**	**333**	P	Pn	04 28 02.0	+0.6
ELZG				S	Sg	04 28 15.3	-1.2
ELZG				IAML		04 28 20.0	
	comp=N,28nm,0.3s						
ELZG				IAML		04 28 20.0	
	comp=E,37nm,0.5s						
KOVA	**Elazig, Kovanc**	**1.27**	**5**	P	Pn	04 28 01.9	-0.7
KOVA				S	Sb	04 28 19.2	0.0
MAYA	**Malatya/Merkez**	**1.32**	**312**	P	Pn	04 27 55.5	-7.8
MAYA				S	Sb	04 28 19.7	-1.0
AKCA	**Adyaman/G¶l**	**1.61**	**283**	P	Pg	04 28 08.9	-0.3
AKCD	**Akcadag**	**1.62**	**302**	P	Pb	04 28 08.9	+0.2

*IDC **14** 04:29:15.6±0.8, 44°22'N×115°33'W, h0km, mb3.6/1, mbtmp3.4/7, ML2.8/5, MS3.3/1, Error ellipse: s-maj=10.5km s-min=8.7km az=92.0*
*NEIC **14** 04:29:17.6±2.0, 44°30'N±0°02'×115°20'W±0°03, h10km±2km, ML3.7/74, ML4.0/34(BUT), Error ellipse: s-maj=4.4km s-min=3.1km az=32.0*
*BUT **14** 04:29:18.6±2.9, 44°29'N±0°02'×115°20'W±0°03, h7km±4km, Error ellipse: s-maj=3.5km s-min=2.8km az=209.0*
ISC 14 04:29:17.8±0.7, 44°26'N±0°04'×115°19'W±0°03, h11km, n43, σ1¶33/34, Western Idaho

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MFID	**Camas Ranch**	**0.96**	**209**	Pg	**Pb**	**04 29 37.1**	**+0.5**
MFID				Sg	**Sb**	**04 29 49.9**	**+0.6**
PLID	**Pearl Lake**	**1.01**	**325**	Pg	**Pg**	**04 29 37.2**	**+0.1**
PLID				Sg	**Sg**	**04 29 50.3**	**0.0**
PLID				IAML		04 29 53.7	
	2µm,0.5s						
PLID				IAML		04 29 53.9	
	2µm,0.4s						
BCYI	**Bear Canyon**	**1.28**	**87**	Pg	**Pb**	**04 29 42.5**	**+0.4**
ICI	**Italian Canyon**	**1.62**	**87**		**Pg**	**04 29 48.9**	**+0.1**
BMO	**Blue Mountains**	**1.62**	**292**		**Pb**	**04 29 47.2**	**-0.6**
MCMT	**McKenzie Canyo**	**1.77**	**71**		**Pb**	**04 29 51.0**	**+0.7**
DLMT	**Dillon**	**2.15**	**58**		**Pg**	**04 30 00.5**	**+1.5**
DLMT	**Dillon**	**2.15**	**58**		**Pn**	**04 29 52.5**	**-1.1**
F10A	**Beach Ranch, E**	**2.24**	**321**		**Pn**	**04 29 52.2**	**-2.6**
J08A	**Circle Bar Ran**	**2.54**	**250**		**Pn**	**04 30 00.3**	**+1.2**
BUT	**Butte**	**2.55**	**46**	Pn	**Pn**	**04 29 59.7**	**+0.5**
BUT				IAML		04 30 42.4	
	comp=N,372nm,1.2s						
BUT				IAML		04 30 49.1	
	comp=E,389nm,0.7s						
MSO	**Missoula**	**2.71**	**18**	Pn	**Pn**	**04 30 02.2**	**+0.8**
MSO				IAML		04 30 51.7	
	comp=E,347nm,0.9s						
MSO				IAML		04 30 55.1	
	comp=E,436nm,0.9s						
LNOR	**Lincton Mounta**	**2.72**	**307**	Pn	**Pn**	**04 30 02.7**	**+1.3**
LNOR				IAML		04 30 52.1	
	comp=N,252nm,1.0s						
G08A	**Pilot Rock**	**2.87**	**292**	Pn	**Pn**	**04 30 04.3**	**+0.7**
I07A	**Izee**	**3.11**	**268**	Pn	**Pn**	**04 30 08.2**	**+1.3**
GBMT	**Granite Butte,**	**3.23**	**36**	Pn	**Pn**	**04 30 08.2**	**-0.4**
ELK	**Elko**	**3.52**	**181**	Pg	**Pb**	**04 30 19.1**	**-1.0**
	comp=N,13nm,0.3s,baz=354,slow=15,SNR=33						
ELK				Lg	Lg	04 31 06.3	
	comp=N,23nm,0.3s,baz=128,slow=11,SNR=11						
ELK	**Elko**	**3.52**	**181**	IAML		04 31 10.4	
	comp=N,92nm,0.6s						
ELK				IAML		04 31 11.5	
	comp=N,91nm,0.6s						
JTMT	**Jette**	**3.54**	**10**	Pn	**Pn**	**04 30 14.8**	**+1.9**
HAWA	**Hanford**	**3.73**	**306**	Pn	**Pn**	**04 30 16.2**	**+0.9**
HAWA				IAML		04 31 21.4	
	comp=N,80nm,0.8s						
HAWA				IAML		04 31 23.0	
	comp=N,89nm,1.1s						
WAH2	**Wahluke Slope**	**3.96**	**311**		**Pn**	**04 30 19.5**	**+1.1**
G06A	**Carlson Farm,**	**4.00**	**286**		**Pn**	**04 30 19.8**	**+0.8**
G06A				IAML		04 31 29.4	
	comp=N,77nm,1.3s						
E07A	**Sunnyside**	**4.01**	**307**		**Pn**	**04 30 20.9**	**+1.9**
E07A				IAML		04 31 09.7	
	comp=E,158nm,0.5s						
E07A				IAML		04 31 29.7	
	comp=N,185nm,0.7s						
PINE	**Pine Mountain**	**4.17**	**266**	IAML		04 31 14.6	
	comp=E,90nm,4.8s						
PINE				IAML		04 31 43.8	
	comp=N,59nm,3.8s						
TCUT	**Toone Canyon**	**4.20**	**137**	IAML		04 31 47.3	
	comp=E,166nm,1.0s						
NEW	**Newport**	**4.22**	**342**	Pn	**Pn**	**04 30 23.4**	**+1.4**
	comp=E,17nm,0.6s,baz=162,slow=11,SNR=13						
NEW				Pg	**Pb**	**04 30 34.9**	**+2.9**
	comp=E,8.0nm,0.3s,baz=164,slow=15,SNR=20						
NEW				Lg	Lg	04 31 26.5	
	comp=E,13nm,0.3s,baz=89,slow=21,SNR=3.1						
NEW	**Newport**	**4.22**	**342**	IAML		04 31 34.7	
	comp=E,152nm,0.7s						
NEW				IAML		04 31 40.0	
	comp=E,89nm,0.8s						
MXC	**Moxie City**	**4.27**	**305**	IAML		04 31 42.1	
	comp=E,84nm,0.9s						
MXC				IAML		04 32 02.3	
	comp=N,66nm,1.2s						
RLMT	**Red Lodge**	**4.31**	**76**	IAML		04 31 39.9	
	comp=N,72nm,0.6s						
RLMT				IAML		04 31 47.0	
	comp=N,82nm,0.6s						
PDAR	**Pinedale Array**	**4.36**	**108**	Pn	**Pn**	**04 30 26.4**	**+2.2**
	comp=N,0.3nm,0.3s,baz=283,slow=13,SNR=10						
PDAR				Pg	**Pb**	**04 30 34.6**	**+0.1**
	comp=N,1.2nm,0.3s,baz=296,slow=13,SNR=13						
PDAR				Lg	Lg	04 31 36.4	
	baz=296,slow=32						
	comp=N,0.7nm,0.6s						
PDAR				AML	AML		
EPH	**Ephrata**	**4.36**	**317**	IAML		04 31 37.1	
	comp=E,68nm,1.2s						
EPH				IAML		04 31 47.0	
	comp=N,79nm,1.0s						
I05D	**Terrebonne, OR**	**4.41**	**273**	IAML		04 30 56.4	
	comp=E,135nm,4.9s						
I05D				IAML		04 31 48.7	
	comp=N,122nm,3.3s						
K05A	**Summer Lake**	**4.42**	**252**	IAML		04 31 54.4	
	comp=E,68nm,3.9s						
K05A				IAML		04 32 10.6	
	comp=N,72nm,4.1s						
J05D	**Fort Rock, OR**	**4.49**	**260**	IAML		04 31 43.2	
	comp=E,71nm,1.5s						
J05D				IAML		04 31 47.2	
	comp=N,81nm,4.7s						
LTY	**Liberty**	**4.86**	**310**	IAML		04 31 59.6	
	comp=E,47nm,1.5s						
LTY				IAML		04 32 02.5	
	comp=N,46nm,1.1s						
BSUT	**Blindstream Ca**	**4.96**	**137**	IAML		04 32 02.0	
	comp=E,32nm,1.9s						
YBH	**Yreka Blue Hor**	**6.07**	**248**	Pn	**Pn**	**04 30 46.4**	**-1.1**
	comp=E,0.1nm,0.3s,baz=79,slow=16,SNR=2.7						
YBH				Lg	Lg	04 32 25.6	
	comp=E,0.3nm,0.3s,baz=193,slow=16,SNR=1.0						
	comp=E,1.9nm,0.8s						
YBH				AML	AML		
NVAR	**Mina Array Bea**	**6.28**	**203**	Pg	**Pb**	**04 31 08.9**	**+1.6**
	comp=E,1.7nm,0.3s,baz=26,slow=14,SNR=7.2						
NVAR				Lg	Lg	04 32 30.0	
	baz=27,slow=40						
PFO	**Pinyon Flats O**	**10.68**	**186**	LR	LR	04 35 30.3	
	comp=E,173nm,19.9s,baz=42,slow=35						
ULM	**Lac du Bonnet**	**14.40**	**59**	Pn	**Pn**	**04 32 38.9**	**-2.5**
	comp=E,0.1nm,0.3s,baz=250,slow=11,SNR=1.9						
ULM				Lg	Lg	04 36 45.4	
	comp=E,0.1nm,0.3s,baz=265,slow=4.0,SNR=2.0						
	comp=E,2.6nm,1.0s						
ULM				AML	AML		
TXAR	**Lajitas Array**	**17.50**	**145**	P	**P**	**04 33 22.7**	**-0.3**
	baz=340,slow=11,SNR=2.4						
	comp=E,0.3nm,0.9s						
YKA	**Yellowknife Ar**	**18.27**	**1**	P	**Pn**	**04 33 30.9**	**0.0**
	comp=E,0.1nm,0.3s,baz=180,slow=12,SNR=3.6						
	comp=E,1.7nm,0.9s						
YKA				AML	AML		
ESDC	**Sonseca Array**	**76.03**	**48**	P	**P**	**04 41 04.5**	**-0.5**
	comp=E,0.5nm,0.8s,baz=314,slow=6.7,SNR=6.6						
	comp=E,0.5nm,0.8s						

*SJA **14** 04:50:17.0±0.7, 22°29'S×68°79'W, h110km±3km, ML3.3, MW3.5*
*GUC **14** 04:50:17.9±0.6, 22°29'S×68°81'W, h111km±3km, ML3.3, Presumed earthquake*
ISC 14 04:50:17.4±1.5, 22°30'S±0°03×68°82'W±0°05, h113km±9km, n28, σ1¶03/53, 7C, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.64**	**322**	*eP*	**Pn**	**04 50 36.1**	**+0.2**
PB09				*eS*	**Sn**	**04 50 49.4**	**-0.3**
PB09				IAML		04 50 49.9	
	comp=Z,1µm,0.5s						
PB09	**IPOC Station P**	**0.64**	**322**	*iP*	**Pn**	**04 50 35.9**	**0.0**
PB09				*i* S	**Sn**	**04 50 48.9**	**-0.8**
PB09				IAML		04 50 50.2	
	comp=N,1µm,0.5s						
PB06	**IPOC Station P**	**0.80**	**240**	*eP*	**Pn**	**04 50 37.4**	**+0.2**
PB06				*eS*	**Sn**	**04 50 52.7**	**+0.6**
PB06				IAML		04 50 53.0	
	comp=Z,482nm,0.2s						
PB06				*eS*		04 50 53.9	
PB06	**IPOC Station P**	**0.80**	**240**	*iP*	**Pn**	**04 50 37.3**	**+0.1**
PB06				*i* S	**Sn**	**04 50 51.9**	**-0.2**
PB06				IAML		04 50 53.1	
	comp=N,1µm,0.7s						
AF01	**San Pedro de A**	**0.88**	**138**	*eP*	**Pn**	**04 50 37.9**	**-0.2**
AF01				*eS*	**Sn**	**04 50 53.3**	**-0.3**
AF01				IAML		04 50 55.2	
	comp=Z,1µm,0.6s						
AF01	**San Pedro de A**	**0.88**	**138**	*iP*	**Pn**	**04 50 37.6**	**-0.4**
AF01				*i* S	**Sn**	**04 50 53.1**	**-0.5**
AF01				IAML		04 50 54.5	
	comp=N,2µm,0.4s						
PB03	**IPOC Station P**	**0.90**	**286**	*eP*	**Pn**	**04 50 38.2**	**+0.1**
PB03				*eS*	**Sn**	**04 50 54.3**	**+0.6**
PB03				IAML		04 50 54.7	
	comp=Z,577nm,0.1s						
PB03	**IPOC Station P**	**0.90**	**286**	*iP*	**Pn**	**04 50 38.2**	**+0.1**
PB03				*i* S	**Sn**	**04 50 53.7**	**0.0**
PB03				IAML		04 50 54.2	
	comp=E,598nm,0.2s						
PB07	**IPOC Station P**	**1.14**	**300**	*eP*	**Pn**	**04 50 40.8**	**+0.2**
PB07				*eS*	**Sn**	**04 50 58.7**	**+0.6**
PB07				IAML		04 50 59.8	
	comp=Z,505nm,0.3s						
PB07	**IPOC Station P**	**1.14**	**300**	*iP*	**Pn**	**04 50 40.8**	**+0.2**
PB07				*i* S	**Sn**	**04 50 58.0**	**-0.1**
PB07				IAML		04 50 59.1	
	comp=N,957nm,0.3s						
PB05	**IPOC Station P**	**1.39**	**246**	*eP*	**Pn**	**04 50 43.5**	**+0.2**
PB05				*eS*	**Sn**	**04 51 03.8**	**+0.9**
PB05				IAML		04 51 05.6	
	comp=Z,173nm,0.6s						
PB05	**IPOC Station P**	**1.39**	**246**	*iP*	**Pn**	**04 50 43.5**	**+0.2**
PB05				*eS*	**Sn**	**04 51 02.5**	**-0.3**
PB05				IAML		04 51 12.2	
	comp=N,287nm,0.5s						
PB02	**IPOC Station P**	**1.40**	**314**	*eP*	**Pn**	**04 50 44.0**	**+0.6**
PB02				*eS*	**Sn**	**04 51 03.4**	**+0.3**
PB02				IAML		04 51 06.8	
	comp=Z,855nm,0.3s						
PB02	**IPOC Station P**	**1.40**	**314**	*iP*	**Pn**	**04 50 43.6**	**+0.2**
PB02				*i* S	**Sn**	**04 51 02.8**	**-0.2**
PB02				IAML		04 51 06.1	
	comp=N,684nm,0.3s						
PB10	**IPOC Station P**	**2.00**	**233**	*eP*	**Pn**	**04 50 51.9**	**+1.3**
PB10				*eS*	**Sn**	**04 51 15.2**	**-0.7**
PB10				IAML		04 51 32.3	
	comp=Z,101nm,0.4s						
PB10	**IPOC Station P**	**2.00**	**233**	*eP*	**Pn**	**04 50 51.3**	**+0.7**
PB10				*eS*	**Sn**	**04 51 12.7**	**-3.3**
PB10				IAML		04 51 24.2	
	comp=N,165nm,0.4s						
TA01	**Diego Aracena**	**2.14**	**324**	*eP*	**Pn**	**04 50 51.9**	**-0.5**
TA01				*eS*	**Sn**	**04 51 18.9**	**-0.2**
TA01				IAML		04 51 24.6	
	comp=N,302nm,0.6s						
PB08	**IPOC Station P**	**2.17**	**352**	*eP*	**Pn**	**04 50 53.9**	**+0.7**
PB08				*eS*	**Sn**	**04 51 22.2**	**+1.8**
PB08	**IPOC Station P**	**2.17**	**352**	*eP*	**Pn**	**04 50 53.9**	**+0.7**
PB08				*eS*	**Sn**	**04 51 21.8**	**+1.3**
TA02	**Huaiquique**	**2.36**	**329**	*eP*	**Pn**	**04 50 55.5**	**+0.3**
TA02				*eS*	**Sn**	**04 51 20.0**	**-4.2**
GO01	**Chusmiza**	**2.64**	**352**	*eP*	**Pn**	**04 50 59.8**	**+0.4**
GO01				*eS*	**Sn**	**04 51 33.2**	**+1.8**
GO01				IAML		04 51 38.8	
	comp=Z,49nm,0.1s						
GO01	**Chusmiza**	**2.64**	**352**	*eP*	**Pn**	**04 50 59.4**	**0.0**
GO01				*eS*	**Sn**	**04 51 30.9**	**-0.5**
GO01				IAML		04 51 37.1	
	comp=N,163nm,0.2s						
PB11	**IPOC Station P**	**2.65**	**343**	*eP*	**Pn**	**04 50 58.7**	**-0.4**
PB11				*eP*		04 50 58.8	
PB11				*eS*	**Sn**	**04 51 32.1**	**+1.1**
PB11				IAML		04 51 33.6	
	comp=Z,97nm,0.7s						
PB11	**IPOC Station P**	**2.65**	**343**	*eP*	**Pn**	**04 50 58.7**	**-0.4**
PB11				*eS*	**Sn**	**04 51 30.0**	**-1.0**
PB11				IAML		04 51 34.9	
	comp=N,156nm,0.4s						
PB14	**IPOC Station P**	**2.73**	**212**	*eP*	**Pn**	**04 51 01.4**	**+1.1**
PB14				*eS*	**Sn**	**04 51 34.2**	**+1.0**
PB14				IAML		04 51 57.5	
	comp=Z,88nm,0.5s						
PB14	**IPOC Station P**	**2.73**	**212**	*eP*	**Pn**	**04 51 00.3**	**-0.1**
PSGCX	**Pisagua**	**2.95**	**335**	*eP*	**Pn**	**04 51 02.1**	**-0.9**
PSGCX				*eS*	Sn	04 51 25.5	-13
PSGCX				IAML		04 51 31.7	
	comp=Z,73nm,0.6s						
PSGCX	**Pisagua**	**2.95**	**335**	*eP*	**Pn**	**04 51 01.7**	**-1.3**

*UPA **14** 04:53:10.3±1.2, 6°66'N×82°70'W, h16km±9km, MW4.0, Presumed earthquake*
*UCR **14** 04:53:11.2±0.4, 6°89'N×82°64'W, h1km±19km, MW4.0, Presumed earthquake*
*RSNC **14** 04:53:13.5±1.1, 7°N±3°×8°3'W±°, h30km±14km, M4.4, mB4.9, mb4.9, ML3.2, Mw(mB)4.2*
*CATAC **14** 04:53:15.0±0.9, 7°N±9°×8°3'W±°, h18km±13km, M4.4/13, mb4.8/5, mB5.9/1, MLv4.1/13, Mw(mB)5.5/1, Error ellipse: s-maj=19.5km s-min=4.3km az=15.7, confirmed*
ISC 14 04:53:09.0±2.9, 6°75'N±0°08×82°67'W±0°05, h5km±14km, n87, σ1¶37/130, 3C, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LIMO3	**Limones**	**1.36**	**352**	*eP*	**Pn**	**04 53 34.1**	**-0.4**
LIMO3				*eS*	**Sg**	**04 53 53.7**	**+1.0**
PTPA	**Petro Terminal**	**1.46**	**352**	*eP*	**Pn**	**04 53 35.6**	**-0.3**
PTPA				*eS*	**Sn**	**04 53 54.3**	**-1.1**
PTPM	**Petroterminale**	**1.46**	**352**	*eP*	**Pn**	**04 53 35.7**	**-0.3**
PTPM				*eS*	**Sg**	**04 53 55.7**	**-0.3**
REME3	**Remedios, Chir**	**1.69**	**30**	*eP*	**Pn**	**04 53 39.9**	**+0.7**
REME3				*eS*	**Sg**	**04 54 02.3**	**-1.0**
DVD	**David**	**1.69**	**7**	*eP*	**Pn**	**04 53 39.4**	**+0.3**
DVD				*eS*	**Sb**	**04 54 01.5**	**-0.7**
LCMA3	**Las Lomas, Chi**	**1.70**	**9**	*eP*	**Pn**	**04 53 40.1**	**+0.9**
GMAL	**Guarumal, Vera**	**1.75**	**55**	P	**Pn**	**04 53 40.4**	**+0.4**
GMAL				S	**Sn**	**04 54 02.2**	**-0.4**
GMAL	**Guarumal, Vera**	**1.75**	**55**	*eP*	**Pn**	**04 53 40.2**	**+0.2**
GMAL	**Guarumal, Vera**	**1.75**	**55**	*eP*	**Pn**	**04 53 40.3**	**+0.4**
GMAL				*eS*	**Sn**	**04 54 02.7**	**+0.1**
PIRO	**Carate, Puerto**	**1.77**	**338**	*eP*	**Pn**	**04 53 40.5**	**+0.2**
PIRO				*eS*	**Sb**	**04 54 04.5**	**0.0**
BGUAL	**Bijagual, Pana**	**1.78**	**11**	*eP*	**Pn**	**04 53 40.8**	**+0.3**
BGUAL	**Bijagual, Pana**	**1.78**	**11**	*eP*	**Pn**	**04 53 40.9**	**+0.5**
PDCAN	**Manzana , Fuen**	**1.81**	**32**	*eP*	**Pn**	**04 53 41.2**	**+0.3**
PDCAN	**Manzana , Fuen**	**1.81**	**32**	*eP*	**Pn**	**04 53 41.3**	**+0.4**
CDITO	**Canoas**	**1.82**	**354**	P	**Pn**	**04 53 41.4**	**+0.4**
CDITO				S	**Sn**	**04 54 03.1**	**-1.4**
CDITO	**Canoas**	**1.82**	**354**	*eP*	**Pn**	**04 53 41.6**	**+0.6**
CDITO				*eS*	**Sb**	**04 54 05.3**	**-0.7**
CACAO

CHIT3				eS		Sn	04 54 22.1	0.0
EDPE	**Pejibaye, P**	**2.56**	**340**	*e*P		**Pn**	**04 53 51.6**	**+0.6**
DRK0	**Durika**	**2.56**	**347**	*e*P		Pn	04 53 36.5	-15
DRK0				eS		Sn	04 54 07.6	-15
ACHO3	**Achotines, Los**	**2.57**	**75**	*e*P		**Pn**	**04 53 51.6**	**+0.4**
ACHO3				eS		**Sn**	**04 54 21.3**	**-1.5**
AZU	**Azuero**	**2.60**	**66**	P		**Pn**	**04 53 52.1**	**+0.5**
AZU				S		**Sn**	**04 54 22.2**	**-1.3**
AZU	**Azuero**	**2.60**	**66**	*e*P		**Pn**	**04 53 52.5**	**+0.9**
AZU				eS		**Sn**	**04 54 23.2**	**-0.3**
CNI2	**El Empalme, Bo**	**2.67**	**4**	*e*P		**Pn**	**04 53 54.3**	**+1.8**
CNI2				eS		**Sn**	**04 54 26.2**	**+0.9**
PCRI3	**Pocri, Los San**	**2.69**	**70**	*e*P		**Pn**	**04 53 54.0**	**+1.1**
PCRI3				eS		**Sn**	**04 54 26.0**	**+0.1**
CEUA	**Cerro Uatsi, L**	**2.87**	**355**	*e*P		**Pn**	**04 53 58.7**	**+3.3**
PNME	**Penonome**	**2.90**	**53**	P		**Pn**	**04 53 57.7**	**+2.0**
VERH	**Veragua Rainfo**	**3.20**	**351**	*e*P		**Pn**	**04 54 01.9**	**+1.9**
ABE2	**San Pablo**	**3.24**	**335**	*e*P		**Pn**	**04 54 01.8**	**+1.1**
LCR2	**La Lucha 2**	**3.25**	**336**	P		**Pn**	**04 54 01.9**	**+1.0**
LCR2				S		**Sn**	**04 54 40.7**	**+0.6**
LCR2	**La Lucha 2**	**3.25**	**336**	*e*P		**Pn**	**04 54 01.4**	**+0.6**
LCR2	**La Lucha 2**	**3.25**	**336**	*e*P		**Pn**	**04 54 01.8**	**+1.0**
RAFA	**San Farael, Vo**	**3.38**	**341**	*e*P		**Pn**	**04 54 04.4**	**+1.7**
RESJ	**San Isidro (Tu**	**3.40**	**344**	*e*P		**Pn**	**04 54 04.8**	**+2.1**
CVTV	**Tajo**	**3.41**	**342**	*e*P		**Pn**	**04 54 05.0**	**+2.0**
ECI	**Escuela Centro**	**3.45**	**337**	*e*P		**Pn**	**04 54 04.9**	**+1.4**
BELE	**Belen**	**3.54**	**335**	*e*P		**Pn**	**04 54 05.9**	**+1.2**
ZANG	**Zanguenga, Cho**	**3.54**	**52**	*e*P		**Pn**	**04 54 06.8**	**+2.2**
ZANG				eS		**Sn**	**04 54 45.8**	**-1.1**
CVTG	**V. Turrialba,**	**3.55**	**342**	*e*P		**Pn**	**04 54 06.7**	**+1.9**
VBV1	**V. Barva**	**3.63**	**337**	*e*P		**Pn**	**04 54 07.7**	**+1.6**
BCIP	**Isla Barro Col**	**3.70**	**49**	P		**Pn**	**04 54 08.8**	**+2.0**
BCIP				S		**Sn**	**04 54 49.0**	**-1.8**
BCIP	**Isla Barro Col**	**3.70**	**49**	P		**Pn**	**04 54 08.3**	**+1.6**
BCIP				S		**Sn**	**04 54 52.0**	**+1.3**
BCIP	**Isla Barro Col**	**3.70**	**49**	*e*P		**Pn**	**04 54 08.1**	**+1.4**
BCIP	**Isla Barro Col**	**3.70**	**49**	*e*P		**Pn**	**04 54 08.1**	**+1.4**
BCIP				eS		**Sn**	**04 54 50.4**	**-0.3**
TABO3	**Taboga, Panama**	**3.70**	**56**	*e*P		**Pn**	**04 54 09.0**	**+2.2**
GAMB1	**Gamboa**	**3.76**	**51**	*e*P		**Pn**	**04 54 09.1**	**+1.4**
FRIJ	**El Hiral**	**3.82**	**50**	*e*P		**Pn**	**04 54 10.1**	**+1.7**
UPA	**Univ. de Panam**	**3.82**	**54**	P		**Pn**	**04 54 10.4**	**+2.0**
UPA	**Univ. de Panam**	**3.82**	**54**	*e*P		**Pn**	**04 54 09.7**	**+1.2**
UPA				eS		**Sn**	**04 54 53.8**	**+0.1**
TRT2	**Tortugero**	**3.93**	**345**	P		**Pn**	**04 54 12.2**	**+2.2**
TRT2				S		**Sn**	**04 54 54.7**	**-1.7**
JTS	**Las Juntas de**	**4.18**	**328**	P		**Pn**	**04 54 14.4**	**+0.9**
JTS	**Las Juntas de**	**4.18**	**328**	P		**Pn**	**04 54 14.1**	**+0.7**
CHPO	**Chepo, Panama**	**4.27**	**55**	*e*P		**Pn**	**04 54 16.2**	**+1.6**
CHPO				eS		**Sn**	**04 55 05.3**	**+0.5**
OMEN	**Al SSO del Vol**	**5.56**	**329**	P		**Pn**	**04 54 35.1**	**+2.7**
CONN	**Concepcion**	**5.60**	**329**	P		Pn	04 54 40.6	+7.6
BOAB	**BOACO BROADBAN**	**6.39**	**333**	P		**Pn**	**04 54 45.6**	**+1.8**
CNGN	**Cerro Negro**	**6.96**	**326**	P		**Pn**	**04 54 56.0**	**+4.3**
POPC	**Popayan, Colom** 828nm56nm,0.6s	**7.29**	**125**	P		**Pn**	**04 54 56.5**	**+0.1**
POPC	828nm56nm,0.6s			S		**Sn**	**04 56 14.5**	**-5.3**
RCVN	**Varillal2**	**7.63**	**333**	P		**Pn**	**04 55 03.9**	**+3.0**
ORTC	**Ortega, Tolima**	**7.91**	**110**	P		**Pn**	**04 55 07.6**	**+2.8**
ORTC				S		**Sn**	**04 56 37.2**	**+2.4**
CNCH	**Conchagua**	**8.24**	**322**	P		**Pn**	**04 55 11.4**	**+2.1**

*IDC **14** 05:00:13.2±0.9, 52.°12N×152.°67E, h430km±10km, mb3.1/18, mbtmp3.9/22, Error ellipse: s-maj=15.6km s-min=11.1km az=146.0*

*KRSC **14** 05:00:15.5±1.5, 51.°70N×153.°75E, h440km±30km, Ml4.3*

ISC 14 05:00:12.8±0.6, 52.°0N±0.°1×152.°84E±0.°08, h426km, n37, σ1§86/39, mb3.5/18, Northwest of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAK	**Asacha**	**3.13**	**82**	*e*P	**P**	**05 01 21.5**	**+2.5**
PETK	**Petropavlovsk-** 7.4nm,0.6s,baz=256,slow=7.9,SNR=88	**3.15**	**68**	P	**P**	**05 01 20.7**	**+1.7**
PETK				S	**S**	**05 02 14.4**	**+1.5**
	2.6nm,0.7s,baz=261,slow=11,SNR=1.6						
KDTR	**Khodutka, Kamc**	**3.25**	**92**	*e*P	**P**	**05 01 20.2**	**+0.4**
KDTR				eS	**S**	**05 02 10.9**	**-3.4**
MTVR	**Mutnovka**	**3.31**	**80**	*e*P	**P**	**05 01 23.3**	**+2.8**
RUS	**Russkaya**	**3.51**	**81**	*e*P	**P**	**05 01 23.0**	**+1.1**
RUS				eS	**S**	**05 02 15.9**	**-2.4**
KOK	**Koryaka**	**3.74**	**68**	*e*P	**P**	**05 01 26.4**	**+2.3**
KRX	**Arik**	**3.77**	**67**	*e*P	**P**	**05 01 26.3**	**+2.0**
UGLR	**Uglovaya**	**3.83**	**70**	*e*P	**P**	**05 01 26.9**	**+2.1**
SMAR	**Somma**	**3.83**	**69**	*e*P	**P**	**05 01 26.9**	**+2.0**
SDLR	**Sedlovina**	**3.88**	**69**	*e*P	**P**	**05 01 27.2**	**+1.9**
SPN	**Mys Shipunski**	**4.51**	**74**	*e*S	**S**	**05 02 30.9**	**-3.9**
KZV	**Kizimen**	**5.40**	**52**	*e*P	**P**	**05 01 43.1**	**+3.2**
TUMR	**Tumrok**	**5.42**	**50**	*e*P	**P**	**05 01 44.2**	**+4.2**
TUMD	**Tumrok D**	**5.50**	**52**	*e*P	**P**	**05 01 43.3**	**+2.5**
ASAJ	**Asahikawa** 14nm,0.8s,baz=339,slow=4.5,SNR=4.6	**10.47**	**225**	P	**P**	**05 02 36.6**	**+1.5**
SEY	**Seymchan** 1.6nm,0.3s,baz=135,slow=5.7,SNR=2.2	**10.92**	**359**	P	**P**	**05 02 40.9**	**+1.1**
MJAR	**Matsushiro Arr** 1.0nm,0.3s,baz=17,slow=12,SNR=4.5	**18.65**	**220**	P	**P**	**05 04 03.6**	**+0.7**
KSRS	**Korea Array** 0.5nm,0.4s,baz=39,slow=10.0,SNR=4.8 0.5nm,0.4s	**22.78**	**240**	P	**P**	**05 04 39.6**	**-1.0**
ILAR	**Eielson Array** 0.8nm,0.8s,baz=280,slow=12,SNR=13 0.8nm,0.8s	**32.66**	**44**	P	**P**	**05 06 07.8**	**+0.5**
KURBB	**Kurchatov Arra** 0.3nm,0.3s,baz=67,slow=7.1,SNR=1.8 0.3nm,0.3s	**44.55**	**299**	P	**P**	**05 07 45.0**	**+0.5**
YKA	**Yellowknife Ar** 2.0nm,0.6s,baz=305,slow=7.0,SNR=10 2.0nm,0.6s	**46.86**	**39**	P	**P**	**05 08 02.3**	**+0.3**
ARCES	**ARCESS Array B** 3.8nm,1.0s,baz=41,slow=7.9,SNR=1.7 3.8nm,1.0s	**52.81**	**339**	P	**P**	**05 08 45.4**	**-0.6**
FINES	**FINESS Array B** 1.8nm,0.6s,baz=31,slow=7.6,SNR=14 1.8nm,0.6s	**59.20**	**333**	P	**P**	**05 09 29.8**	**-0.9**
NVAR	**Mina Array Bea** 0.2nm,0.4s,baz=312,slow=5.2,SNR=1.6 0.2nm,0.4s	**60.23**	**65**	P	**P**	**05 09 39.3**	**+1.0**
PDAR	**Pinedale Array** 0.6nm,0.4s,baz=360,slow=2.1,SNR=13 0.6nm,0.4s	**61.84**	**56**	P	**P**	**05 09 49.2**	**+0.4**
NOA	**NORSAR Array B** 0.6nm,0.7s,baz=30,slow=8.5,SNR=4.6 0.6nm,0.7s	**63.17**	**340**	P	**P**	**05 09 56.2**	**-0.7**
HFS	**Hagfors** 0.8nm,0.5s,baz=72,slow=4.8,SNR=7.6 0.8nm,0.5s	**63.44**	**339**	P	**P**	**05 09 58.3**	**-0.4**
AKASG	**Malin Array Be** 0.4nm,0.3s,baz=34,slow=6.4,SNR=2.8 0.4nm,0.3s	**67.08**	**325**	P	**P**	**05 10 20.7**	**-1.1**
KBZ	**Khabaz** 1.4nm,0.6s,baz=75,slow=3.9,SNR=3.5 1.4nm,0.6s	**67.11**	**312**	P	**P**	**05 10 21.6**	**-0.6**
SCHQ	**Schefferville** 7.0nm,1.1s,baz=338,slow=11,SNR=2.4 7.0nm,1.1s	**68.50**	**23**	P	**P**	**05 10 29.2**	**-1.4**
EKA	**Eskdalemuir Ar** 1.6nm,0.7s,baz=14,slow=4.6,SNR=5.2 1.6nm,0.7s	**71.15**	**346**	P	**P**	**05 10 44.9**	**-1.5**
WRA	**Warramunga Arr** 0.2nm,0.5s,baz=9.6,slow=6.2,SNR=1.6 0.2nm,0.5s	**73.48**	**198**	P	**P**	**05 11 00.4**	**0.0**
GERES	**GERESS Array B** 0.3nm,0.3s,baz=29,slow=6.4,SNR=5.7 0.3nm,0.3s	**73.63**	**333**	P	**P**	**05 11 00.3**	**-0.8**
TXAR	**Lajitas Array** 0.9nm,0.5s,baz=298,slow=5.0,SNR=26 0.9nm,0.5s	**75.08**	**61**	P	**P**	**05 11 10.4**	**+0.7**
ASAR	**Alice Springs** 0.2nm,0.7s,baz=20,slow=6.4,SNR=2.3 0.2nm,0.7s	**77.19**	**198**	P	**P**	**05 11 21.6**	**+0.4**
QSPA	**South Pole Qui** 0.7nm,0.9s,baz=275,slow=2.3,SNR=3.1	**141.79**	**180**	PKhKP	**PKPpre**	05 18 48.0	
CPUP	**Villa Florida** 0.5nm,0.5s,baz=286,slow=11,SNR=2.9	**145.71**	**53**	PKPbc	**PKPdf**	**05 19 01.5**	**+0.2**

*IDC **14** 05:09:03.9±7.5, 0.°60N×98.°62E, h0km, mb3.4/4, mbtmp3.4/4, Error ellipse: s-maj=381.1km s-min=24.7km az=55.0*

*DJA **14** 05:09:06.4±1.1, 0.°5±5.°×9.°8E±.°, h11km±4km, M4.1/17, MLv4.1/17*

ISC 14 05:09:06.4±1.5, 0.°1S±0.°1×98.°1E±0.°1, h30km, n22, σ1§92/11, mb3.4/4, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**0.20**	**85**	P	**Pb**	**05 09 11.4**	**-1.3**
PBSI				S	**Sb**	**05 09 16.1**	**-0.8**
PBSI				AML	AML		
MNSI	**Mandailing Nat**	**1.73**	**60**	P	**Pn**	**05 09 36.4**	**+1.9**
MNSI				AML	AML		
PPI	**Padang Panjang**	**2.35**	**99**	P	**Pn**	**05 09 43.8**	**+0.8**
PPI				AML	AML		
PDSI	**Padang**	**2.52**	**109**	P	**Pn**	**05 09 47.2**	**+1.8**
PDSI				AML	AML		
PSI	**Prapat**	**2.98**	**16**	P	**Pn**	**05 09 52.9**	**+1.1**
KCSI	**Kotacane, Aceh**	**3.58**	**355**	P	**Pn**	**05 10 02.6**	**+2.6**
H08S2	**Diego Garcia H** baz=74,slow=75,SNR=346	**26.59**	**253**	T	T	05 41 58.7	
H08S3	**Diego Garcia H** baz=74,slow=75,SNR=528	**26.60**	**253**	T	T	05 42 00.2	
H08S1	**Diego Garcia H** baz=74,slow=75,SNR=389	**26.61**	**253**	T	T	05 42 02.0	
H01W3	**Cape Leeuwin H** baz=334,slow=76,SNR=4.6	**37.74**	**158**	T	T	05 56 25.1	
H01W2	**Cape Leeuwin H** baz=334,slow=76,SNR=3.9	**37.76**	**158**	T	T	05 56 26.8	
H01W1	**Cape Leeuwin H** baz=334,slow=76,SNR=5.0	**37.76**	**158**	T	T	05 56 28.7	
WRA	**Warramunga Arr** 0.2nm,0.4s,baz=301,slow=8.6,SNR=2.2 0.2nm,0.4s	**40.62**	**121**	P	**P**	**05 16 45.1**	**+1.0**
ASAR	**Alice Springs** 0.6nm,0.6s,baz=299,slow=7.7,SNR=7.4 0.6nm,0.6s	**41.93**	**127**	P	**P**	**05 16 56.4**	**+1.6**
MKAR	**Makanchi Array** 0.2nm,0.6s,baz=160,slow=8.4,SNR=6.6 0.2nm,0.6s	**48.68**	**346**	P	**P**	**05 17 45.5**	**-2.4**
ZALV	**Zalesovo Beam** 0.4nm,0.5s,baz=160,slow=9.1,SNR=3.8 0.4nm,0.5s	**54.95**	**350**	P	**P**	**05 18 32.9**	**-1.6**
H04N2	**CROZET ISLANDS** baz=54,slow=74,SNR=248	**61.23**	**215**	T	T	06 25 34.9	
H04N1	**CROZET ISLANDS** baz=54,slow=74,SNR=249	**61.24**	**215**	T	T	06 25 45.3	
H04N3	**CROZET ISLANDS** baz=54,slow=74,SNR=207	**61.25**	**215**	T	T	06 25 35.4	
H04S1	**CROZET ISLANDS** baz=55,slow=76,SNR=29	**61.55**	**214**	T	T	06 26 01.3	
H04S3	**CROZET ISLANDS** baz=55,slow=76,SNR=56	**61.56**	**214**	T	T	06 26 01.0	
H04S2	**CROZET ISLANDS** baz=55,slow=76,SNR=27	**61.57**	**214**	T	T	06 25 59.1	

IDC 14 05:25:42.2±390.0, 0.°87N×96.°14E, h0km, Error ellipse: s-maj=796.1km s-min=8.4km az=52.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H08S2	**Diego Garcia H** baz=71,slow=76,SNR=35	**25.06**	**250**	H	H	05 56 56.1	
H08S3	**Diego Garcia H** baz=71,slow=76,SNR=17	**25.06**	**250**	H	H	05 56 56.4	
H08S1	**Diego Garcia H** baz=71,slow=76,SNR=23	**25.07**	**250**	H	H	05 56 57.5	
H04N2	**CROZET ISLANDS** baz=53,slow=75,SNR=32	**60.91**	**214**	H	H	06 41 35.5	
H04N1	**CROZET ISLANDS** baz=53,slow=75,SNR=50	**60.92**	**214**	H	H	06 41 36.9	
H04N3	**CROZET ISLANDS** baz=53,slow=75,SNR=32	**60.93**	**214**	H	H	06 41 35.5	
H04S1	**CROZET ISLANDS** baz=53	**61.26**	**213**	H	H	06 42 00.3	
H04S3	**CROZET ISLANDS** baz=53	**61.27**	**213**	H	H	06 42 02.6	
H04S2	**CROZET ISLANDS** baz=53	**61.27**	**213**	H	H	06 42 00.3	

*NEIC **14** 05:31:04.6±1.7, 10.°36N±0.°08×126.°6E±0.°1, h10km±1km, mb4.6/33, Error ellipse: s-maj=20.7km s-min=12.8km az=91.0*

*MAN **14** 05:31:06.0, 10.°26N×126.°27E, h11km, MS3.9*

*IDC **14** 05:31:13.2±2.1, 10.°19N×126.°26E, h90km±20km, mb4.1/26, mbtmp4.4/28, MS3.5/18, Error ellipse: s-maj=20.1km s-min=10.1km az=69.0*

ISC 14 05:31:05.7±0.5, 10.°25N±0.°04×126.°41E±0.°07, h20km±5km, n114, σ1§56/104, mb4.6/47, MS3.6/16, 1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSSP	**Tandag City**	**1.22**	**190**	*e*P	**Pn**	**05 31 27.1**	**-0.5**
TSSP				eS	**Sb**	**05 31 44.7**	**+1.3**
PLP	**Palo**	**1.67**	**303**	*e*P	**Pn**	**05 31 34.2**	**+0.3**
PLP				eS	**Sn**	**05 31 54.8**	**0.0**
BIPH	**Bislig**	**2.06**	**181**	*i*P	**Pn**	**05 31 39.3**	**+0.2**
BIPH				*i*S	**Sn**	**05 32 03.2**	**-1.0**
LLP	**Lapu-Lapu**	**2.41**	**272**	*e*P	**Pn**	**05 31 44.6**	**+0.7**
LLP				eS	**Sn**	**05 32 11.1**	**-1.8**
CGP	**Cagayan de Oro**	**2.46**	**224**	*i*P	**Pn**	**05 31 44.7**	**0.0**
CGP				*i*S	**Sn**	**05 32 12.6**	**-1.6**
TBP	**Tagbilaran**	**2.57**	**258**	*e*P	**Pn**	**05 31 46.7**	**+0.5**
TBP				*i*S	**Sn**	**05 32 16.5**	**-0.4**
DAV	**Davao City (W)** 288nm,0.3s,baz=75,slow=2.5,SNR=5.9	**3.27**	**195**	P	**Pb**	**05 32 00.8**	**-2.3**
DAV				S	**Sn**	**05 32 39.4**	**+5.4**
	214nm,0.3s,baz=108,slow=23,SNR=8.5						
DAV	**Davao City (W)**	**3.27**	**195**	Pn	**Pn**	**05 31 59.6**	**+3.8**
DMPH	**Davao City--Mi**	**3.27**	**196**	*e*P	**Pn**	**05 31 58.9**	**+3.1**
DMPH				*i*S	**Sn**	**05 32 34.5**	**+0.3**
MMPH	**Masbate**	**3.44**	**308**	*e*P	**Pn**	**05 32 02.0**	**+3.8**
MMPH				eS	**Sb**	**05 32 47.0**	**-0.4**
DCPH	**Dipolog City**	**3.44**	**241**	*i*P	**Pn**	**05 31 59.1**	**+0.9**
DCPH				*i*S	**Sn**	**05 32 36.9**	**-1.6**
KCP	**Kidapawan**	**3.48**	**202**	*e*P	**Pn**	**05 32 00.3**	**+1.6**
KCP				*i*S	**Sn**	**05 32 42.7**	**+3.4**
DDMP	**Don Marcelino,**	**4.18**	**190**	*e*P	**Pn**	**05 32 08.3**	**-0.1**
DDMP				eS	**Sn**	**05 32 51.6**	**-4.9**
GSPH	**General Santos**	**4.38**	**199**	*i*P	Pn	05 32 16.0	+4.7
GSPH				*i*S	**Sn**	**05 33 05.5**	**+3.6**
LQP	**Lukban**	**6.12**	**309**	*e*P	Pn	05 32 40.0	+4.8
TOLI2	**Tolitoli**	**10.67**	**212**	Pn	**Pn**	**05 33 39.5**	**+2.1**
KKM	**Kota Kinabalu**	**10.92**	**248**		**Pn**	**05 33 44.0**	**+2.9**
LUWI	**Luwuk**	**11.79**	**198**	Pn	**Pn**	**05 33 56.4**	**+3.6**
KAPI	**Kappang** comp=Z,89nm,20.2s,baz=5.5,slow=38	**16.55**	**204**	LR	LR	05 41 28.8	
KAPI	**Kappang**	**16.55**	**204**	Pn	**Pn**	**05 34 57.9**	**+1.2**
KAPI				IAmb	IAmb	05 34 59.6	
	comp=Z,38nm,1.3s						
GUMO	**Guam**	**18.36**	**78**	LR	LR	05 43 07.7	
	baz=74,slow=75,SNR=528						
	comp=Z,76nm,18.6s,baz=242,slow=39						
JAY	**Jayapura**	**19.06**	**131**	P	**Pn**	**05 35 28.5**	**+0.7**
	comp=Z,17nm,0.8s,baz=106,slow=6.1,SNR=4.6						
JAY				LR	LR	05 42 31.1	
	comp=Z,182nm,18.6s,baz=340,slow=35						
SOEI	**Soe**	**19.99**	**186**	P	**P**	**05 35 38.1**	**+0.9**
BATI	**Baumata**	**20.51**	**188**	P	**P**	**05 35 42.2**	**-0.5**
	comp=Z,18nm,0.3s,baz=0.0,slow=18,SNR=1.3						
	comp=Z,18nm,0.3s						
JCJ	**Chichijima**	**22.41**	**39**	LR	LR	05 43 04.8	
	comp=Z,80nm,21.7s,baz=108,slow=32						
NJ2	**Nanjing**	**22.79**	**343**	*e*P	**P**	**05 36 06.6**	**-0.5**
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
KSRS	**Korea Array**	**27.12**	**3**	P	**P**	**05 36 47.8**	**+0.5**
	comp=Z,1.9nm,0.8s,baz=185,slow=12,SNR=6.1						
KSRS				LR	LR	05 48 44.3	
	comp=Z,33nm,19.7s,baz=10.0,slow=39						
	comp=Z,1.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**27.80**	**290**	P	**P**	**05 36 52.4**	**-1.3**
	comp=Z,1.8nm,0.3s,baz=103,slow=7.8,SNR=9.9						
CMAR				LR	LR	05 49 36.9	
	comp=Z,44nm,18.4s,baz=100,slow=40						
	comp=Z,1.8nm,0.3s						
CMAR	**Chiang Mai Arr**	**27.80**	**290**	P	**P**	**05 36 54.3**	**+0.6**
FITZ	**Fitzroy Crossi**	**28.18**	**182**	P	**P**	**05 36 56.1**	**-0.8**
	comp=Z,4.7nm,0.4s,baz=2.9,slow=7.1,SNR=9.9						
	comp=Z,4.7nm,0.4s						
PMG	**Port Moresby**	**28.42**	**133**	P	**P**	**05 36 59.9**	**+0.7**
	comp=Z,6.7nm,0.5s,baz=254,slow=5.3,SNR=3.8						
	comp=Z,6.7nm,0.5s						
XAN	**Xi'an**	**28.59**	**329**	P	**P**	**05 37 01.4**	**+0.8**
XAN				pmax	pmax		
	comp=Z,14nm,0.8s						

HNS	**HongShan**	**29.02**	**341**	*e*P		P	05 37 13.0	+8.7
HNS				pmax	pmax				
	comp=Z,13nm,0.9s								
WB0	**Warramunga Arr**	**30.85**	**165**	P		**P**	**05 37 19.5**	**-1.2**
WB0				IAmb	IAmb		05 37 21.2		
	comp=Z,5.3nm,1.1s								
WRA	**Warramunga Arr**	**31.00**	**165**	P		**P**	**05 37 20.7**	**-1.3**
	comp=Z,2.0nm,0.7s,baz=343,slow=9.9,SNR=7.2								
	comp=Z,2.0nm,0.7s								
WR8	**Warramunga Arr**	**31.06**	**165**	P		**P**	**05 37 21.4**	**-1.2**
WR8				IAmb	IAmb		05 37 22.2		
	comp=Z,11nm,1.4s								
MBWA	**Marble Bar**	**31.90**	**192**	P		**P**	**05 37 30.8**	**+1.0**
MBWA				IAmb	IAmb		05 37 56.0		
	comp=Z,13nm,0.9s								
LZDM	**Lanzhou Array**	**32.86**	**325**	LR		LR	05 52 01.5		
	comp=Z,134nm,20.5s,baz=25,slow=38								
LZH	**Lanzhou**	**32.87**	**325**	*e*P		**P**	**05 37 34.6**	**-3.9**
LZH				sP	pP		05 37 41.3	-1.7	
LZH				pmax	pmax				
	comp=Z,19nm,1.0s								
HHC	**Hu-ho-hao-te**	**33.18**	**339**	*e*P		**P**	**05 37 42.4**	**+1.3**
HHC				pmax	pmax				
	comp=Z,9.0nm,0.6s								
AS31	**Alice Springs**	**34.50**	**168**	P		**P**	**05 37 51.3**	**-1.3**
ASAR	**Alice Springs**	**34.50**	**168**	P		**P**	**05 37 52.1**	**-0.5**
	comp=Z,1.9nm,0.4s,baz=350,slow=6.8,SNR=16								
	comp=Z,1.9nm,0.4s								
ASAR	**Alice Springs**	**34.50**	**168**	P		**P**	**05 37 52.9**	**+0.3**
CTA	**Charters Tower**	**35.92**	**147**	P		**P**	**05 38 05.0**	**+0.1**
	comp=Z,2.1nm,0.6s,baz=311,slow=9.3,SNR=2.3								
	comp=Z,2.1nm,0.6s								
GTA2	**Gaotai**	**37.56**	**325**	*e*P		**P**	**05 38 20.8**	**+2.0**
GTA2				pmax	pmax				
	comp=Z,7.0nm,0.8s								
HNR	**Honiara**	**38.68**	**119**	LR		LR	05 52 21.9		
	comp=Z,60nm,21.9s,baz=14,slow=33								
H11S3	**WAKE ISLAND Hy**	**39.79**	**73**	T		T	06 21 30.2		
	baz=261,slow=75,SNR=113								
H11S1	**WAKE ISLAND Hy**	**39.81**	**73**	T		T	06 21 36.5		
	baz=261,slow=75,SNR=72								
H11S2	**WAKE ISLAND Hy**	**39.81**	**73**	T		T	06 21 35.1		
	baz=261,slow=75,SNR=80								
H11N1	**WAKE ISLAND Hy**	**40.13**	**72**	T		T	06 22 00.6		
	baz=264,slow=74,SNR=316								
H11N2	**WAKE ISLAND Hy**	**40.14**	**72**	T		T	06 22 05.3		
	baz=264,slow=74,SNR=182								
H11N3	**WAKE ISLAND Hy**	**40.15**	**72**	T		T	06 22 01.0		
	baz=264,slow=74,SNR=277								
FORT	**Forrest**	**40.83**	**178**			**P**	**05 38 45.8**	**-0.2**	
ULN	**Ulaanbaatar**	**40.89**	**340**			**P**	**05 38 47.2**	**+0.7**	
ULN				IAmb	IAmb		05 38 52.2		
	comp=Z,7.9nm,0.5s								
SONM	**Songino Array**	**41.09**	**339**	P		**P**	**05 38 48.6**	**+0.4**	
	comp=Z,1.3nm,0.6s,baz=156,slow=9.9,SNR=7.4								
	comp=Z,1.3nm,0.6s								
SONM	**Songino Array**	**41.09**	**339**	P		**P**	**05 38 48.9**	**+0.7**	
EVN	**Everest**	**41.12**	**301**	P		**P**	**05 38 50.2**	**+0.9**	
BBOO	**Buckleboo**	**43.80**	**168**			**P**	**05 39 10.2**	**0.0**	
BBOO				IAmb	IAmb		05 39 19.7		
	comp=Z,15nm,0.8s								
NWAO	**Narrogin (SRO)**	**43.82**	**191**	P		**P**	**05 39 10.0**	**-0.4**	
	comp=Z,6.3nm,0.4s,baz=20,slow=7.7,SNR=5.7								
	comp=Z,6.3nm,0.4s								
STKA	**Stephens Creek**	**44.34**	**161**	P		**P**	**05 39 14.7**	**+0.1**	
	comp=Z,3.4nm,0.5s,baz=333,slow=8.8,SNR=9.0								
	comp=Z,3.4nm,0.5s								
STKA	**Stephens Creek**	**44.34**	**161**			**P**	**05 39 14.3**	**-0.3**	
PALK	**Palikekele**	**45.24**	**270**	LR		LR	05 59 17.7		
	comp=Z,97nm,19.2s,baz=114,slow=37								
WMQ	**Urumqi**	**47.32**	**322**	*e*P		**P**	**05 39 40.6**	**+2.5**	
WMQ				LR		LR			
	comp=Z,66nm,22.7s								
PETK	**Petropavlovsk-**	**49.60**	**24**	P		**P**	**05 39 57.5**	**+2.1**	
	comp=Z,4.8nm,0.7s,baz=153,slow=1.7,SNR=4.4								
PETK				LR		LR	05 58 34.6		
	comp=Z,31nm,21.5s,baz=187,slow=33								
	comp=Z,4.8nm,0.7s								
DZM	**Mont Dzumac**	**50.73**	**130**	LR		LR	06 03 15.5		
	comp=Z,37nm,18.4s,baz=328,slow=38								
TOO	**Toolangi**	**50.82**	**160**	P		**P**	**05 40 06.0**	**+1.0**	
MKAR	**Makanchi Array**	**52.12**	**323**	P		**P**	**05 40 13.8**	**-0.8**	
MKAR				PcP		**PcP**	**05 41 25.2**	**-1.2**	
	comp=Z,1.0nm,0.5s,baz=121,slow=3.3,SNR=1.6								
MKAR				LR		LR	06 04 32.9		
	comp=Z,100nm,18.1s,baz=28,slow=38								
	comp=Z,2.3nm,0.6s								
MKAR	**Makanchi Array**	**52.12**	**323**			**P**	**05 40 13.7**	**-0.9**	
MAKZ	**Mak

VNDA					IAmb	IAmb	05 44 21.3		
	comp=Z,6.8nm,1.4s								
BURAR	**Bucovina Array**	**89.95**	**318**		P	**P**	**05 44 04.8**	**+1.0**	
BUR08	**Bucovina Ar. S**	**89.95**	**318**		P	**P**	**05 44 04.2**	**+0.4**	
BUR08					IAmb	IAmb	05 44 28.3		
	comp=Z,4.3nm,1.2s								
HFS	**Hagfors**	**92.13**	**332**		P	**P**	**05 44 12.9**	**-0.6**	
	comp=Z,2.5nm,0.9s,baz=64,slow=3.4,SNR=4.2								
	comp=Z,2.5nm,0.9s								
NOA	**NORSAR Array B**	**92.83**	**334**		LR	LR	06 30 38.0		
	comp=Z,23nm,19.6s,baz=0.0,slow=38								
YKA	**Yellowknife Ar**	**93.72**	**24**		P	**P**	**05 44 21.6**	**+0.8**	
	comp=Z,2.5nm,0.7s,baz=303,slow=4.4,SNR=7.3								
	comp=Z,2.5nm,0.7s								
TAOE	**Nuku Hiva Isla**	**94.90**	**98**	*e*	LR	LR	06 14 51.0		
	comp=Z,77nm,27.8s								
MBAR	**Mbarara**	**95.69**	**270**		LR	LR	06 28 15.8		
	comp=Z,28nm,18.0s,baz=82,slow=36								
GERES	**GERESS Array B**	**96.79**	**322**		P	**P**	**05 44 35.3**	**0.0**	
	comp=Z,0.2nm,0.5s,baz=61,slow=6.0,SNR=2.4								
	comp=Z,0.2nm,0.5s								
TXAR	**Lajitas Array**	**117.73**	**49**		PKP	**PKPdf**	**05 49 51.0**	**-0.3**	
	comp=Z,0.3nm,0.6s,baz=7.6,slow=1.1,SNR=6.4								
TORD	**Torodi Ar. Bea**	**120.40**	**292**		PKP	**PKPdf**	**05 49 54.5**	**-2.2**	
	comp=Z,0.5nm,0.5s,baz=95,slow=1.0,SNR=5.6								
DBIC	**Dimbokro**	**128.64**	**287**		PKP	**PKPdf**	**05 50 10.8**	**-1.8**	
	comp=Z,1.1nm,0.4s,baz=90,slow=20,SNR=2.2								

IDC ***14*** *05:33:26.0±2.8, 6.70S×130.72E, h60km±35km, mb3.5/2, mbtmp4.1/6, ML4.2/4, Error ellipse: s-maj=82.1km s-min=23.6km az=90.0*
DJA ***14*** *05:33:28.4±0.8, 7.3S±4.3×13.31E±.1°, h131km±17km, M3.9/6, mB4.2/1, MLv3.9/6, Mw(mB)3.2/1*
ISC 14 05:33:28.0±0.9, 6.54S±0.06×130.6E±0.1, h100km, n10, σ3s10/11, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.59**	**154**	P	P	**Pn**	**05 33 57.8**	**+2.4**
SAUI				AML		AML		
BNDI	**Bandanaira**	**2.12**	**341**	P	P	**Pn**	**05 34 03.8**	**+1.6**
BNDI				AML		AML		
FAKI	**Fak Fak**	**3.95**	**25**	P	P	**Pn**	**05 34 27.2**	**+0.6**
FAKI				AML		AML		
KMPI	**Kaimana, Papua**	**4.21**	**47**	P	P	**Pn**	**05 34 32.0**	**+2.0**
SIJI	**Sorong**	**5.67**	**7**	P	P	**Pn**	**05 34 50.1**	**+0.1**
	6.0nm,0.3s,baz=14,slow=18,SNR=18							
SIJI				S		**Sn**	**05 35 49.8**	**-4.0**
	12nm,0.2s,baz=234,slow=23,SNR=1.6							
	15nm,0.3s							
SIJI				AML		AML		
FITZ	**Fitzroy Crossi**	**12.47**	**202**	P	P	**Pn**	**05 36 18.7**	**-3.2**
	1.7nm,0.3s,baz=21,slow=8.0,SNR=42							
	4.0nm,0.3s							
FITZ				AML		AML		
WRA	**Warramunga Arr**	**13.80**	**165**	P	P	**Pn**	**05 36 36.3**	**-3.2**
	0.9nm,0.3s,baz=352,slow=14,SNR=18							
	2.0nm,0.5s							
WRA				AML		AML		
ASAR	**Alice Springs**	**17.32**	**170**	P	P	**P**	**05 37 22.5**	**-1.0**
	0.5nm,0.3s,baz=350,slow=12,SNR=26							
	0.9nm,0.3s							
ASAR				AML		AML		
MKAR	**Makanchi Array**	**68.18**	**326**	P	P	**P**	**05 44 21.2**	**+3.5**
	0.4nm,0.4s,baz=125,slow=8.1,SNR=5.5							
	0.4nm,0.4s							
ZALV	**Zalesovo Beam**	**71.44**	**333**	P	P	**P**	**05 44 41.1**	**+3.7**
	0.3nm,0.3s,baz=119,slow=5.1,SNR=2.2							
	0.3nm,0.3s							

IDC ***14*** *05:45:32.1±3.0, 37.61N×69.29E, h0km, mb3.6/6, mbtmp3.7/12, ML3.5/6, MS2.8/1, Error ellipse: s-maj=50.2km s-min=18.7km az=168.0*
NNC ***14*** *05:45:37.8±4.9, 37.72N×69.55E, h0km, mb3.9, mpv4.0, Error ellipse: s-maj=41.2km s-min=38.3km az=90.0*
ISC 14 05:45:34.7±1.8, 37.8N±0.2×69.32E±0.09, h10km, n27, σ2s24/27, mb3.8/4, 2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**4.38**	**7**	Pg	Pg	**Pg**	**05 47 01.4**	**+2.9**
	33nm,0.2s							
IUG				Lg		Lg	05 47 57.5	
	491nm,0.6s							
BRLS	**Boroldaу**	**5.24**	**4**	Pg	Pg	**Pg**	**05 47 12.1**	**-3.0**
	8.2nm,0.2s							
BRLS				Lg		Lg	05 48 16.5	
	58nm,0.6s							
KK31	**Karatay Array**	**5.38**	**9**	Pn		**Pn**	**05 46 57.5**	**+2.5**
	1.0nm,0.2s,baz=203,slow=16,SNR=50							
EKS2	**Erkin-Say**	**5.93**	**34**	P		**Pn**	**05 47 06.0**	**+3.3**
	SNR=21							
UCH	**Uchtor**	**5.95**	**40**	P		**Pn**	**05 47 05.7**	**+2.4**
	SNR=20							
AAK	**Ala-Archa**	**6.25**	**38**	Pn		**Pn**	**05 47 10.0**	**+2.9**
	6.8nm,0.3s,baz=181,slow=3.4,SNR=46							
AAK				Lg		Lg	05 48 49.7	
	3.2nm,0.3s,baz=184,slow=15,SNR=5.0							
AAK				LR		LR	05 49 56.7	
	comp=Z,76nm,20.6s,baz=310,slow=41							
	15nm,0.3s							
AAK				AML		AML		
AAK	**Ala-Archa**	**6.25**	**38**	P		**Pn**	**05 47 10.1**	**+3.0**
	SNR=22							
AAK	**Ala-Archa**	**6.25**	**38**	⇓Pn		**Pn**	**05 47 09.3**	**+2.2**
	1.4nm,0.3s							
AAK				⇓Lg		Lg	05 48 54.3	
	26nm,0.8s							
KBK	**Karagaybulak**	**6.49**	**40**	P		**Pn**	**05 47 13.8**	**+3.4**
	SNR=6.0							
USP	**Ospenovka**	**6.74**	**34**	P		**Pn**	**05 47 15.8**	**+2.1**
	SNR=9.3							
TKM2	**Tokmak 2**	**7.01**	**41**	P		**Pn**	**05 47 19.8**	**+2.2**
	SNR=7.7							
KST	**Kastek**	**7.29**	**42**	Pg		**Pg**	**05 47 52.1**	**-2.1**
	2.5nm,0.6s							
KST				Lg		Lg	05 49 25.4	
	23nm,1.0s							
DGS	**Degeres**	**7.33**	**40**	Pg		**Pg**	**05 47 53.7**	**-1.3**
	7.4nm,0.5s							
DGS				Lg		Lg	05 49 27.7	
	22nm,0.9s							
BTLS	**Baital**	**8.06**	**25**	Pg		**Pg**	**05 48 07.4**	**-1.5**
	3.9nm,0.4s							
BTLS				Lg		Lg	05 49 50.6	
	12nm,0.9s							
MKAR	**Makanchi Array**	**13.13**	**43**	Pn		**Pn**	**05 48 41.7**	**+0.4**
	0.1nm,0.3s,baz=232,slow=14,SNR=9.3							
MKAR				Lg		Lg	05 52 25.1	
	0.1nm,0.3s,baz=240,slow=28,SNR=2.0							
	1.0nm,0.6s							
MKAR				AML		AML		
KURBB	**Kurchatov Arra**	**14.40**	**24**	Pn		**Pn**	**05 48 56.6**	**-2.0**
	baz=215,slow=9.7,SNR=4.5							
KURBB				Lg		Lg	05 53 03.5	
	baz=208,slow=27,SNR=1.3							
	0.2nm,0.3s							
AKTO	**Aktyubinsk**	**14.99**	**331**	Pn		**Pn**	**05 49 03.5**	**-3.1**
	0.7nm,0.3s,baz=150,slow=12,SNR=13							
	4.0nm,0.7s							
AKTO				AML		AML		
BVA0	**Borovoye Array**	**15.25**	**2**	Pn		**P**	**05 49 17.4**	**+2.5**
	0.1nm,0.3s,baz=162,slow=8.8,SNR=5.3							
BVAR	**Borovoye Array**	**15.25**	**2**	Pn		**Pn**	**05 49 07.4**	**-2.5**
	0.1nm,0.3s,baz=178,slow=14,SNR=5.4							
	0.3nm,0.4s							
BVAR				AML		AML		
ZALV	**Zalesovo Beam**	**19.35**	**28**	P		**P**	**05 49 59.1**	**-1.1**
	0.3nm,0.3s,baz=226,slow=11,SNR=5.9							
	1.1nm,0.4s							
ZALV				AML		AML		
ARTI	**Arti**	**19.99**	**342**	P		**Pn**	**05 50 07.7**	**-1.1**
	1.9nm,0.6s,baz=210,slow=3.9,SNR=4.0							
	1.9nm,0.6s							
KBZ	**Khabaz**	**20.83**	**295**	P		**P**	**05 50 16.8**	**+0.5**
	1.1nm,0.8s,baz=142,slow=4.6,SNR=4.3							
	1.1nm,0.8s							
SONM	**Songino Array**	**28.74**	**58**	P		**P**	**05 51 32.5**	**+0.2**
	0.1nm,0.3s,baz=270,slow=8.6,SNR=1.4							
	0.1nm,0.3s							
FINES	**FINESS Array B**	**35.66**	**326**	P		**P**	**05 52 32.3**	**-0.3**
	1.8nm,0.9s,baz=116,slow=8.7,SNR=4.8							
	1.8nm,0.9s							
HFS	**Hagfors**	**41.22**	**321**	P		**P**	**05 53 19.5**	**+0.1**
	1.1nm,0.4s,baz=97,slow=12,SNR=10							
	1.1nm,0.4s							
NB2	**NORSAR Subarra**	**42.54**	**322**	P		**P**	**05 53 29.8**	**-0.4**
	comp=Z,0.5nm,0.3s,baz=98,slow=8.6							
NOA	**NORSAR Array B**	**42.54**	**322**	P		**P**	**05 53 29.8**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=93,slow=7.8,SNR=6.3							
	comp=Z,0.3nm,0.3s							

PRE 14 05:51:22.5±0.8, 25.68S×29.32E, h0km, ML1.8, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
TSWA	**Tswaing Meteor**	**1.15**	**283**	*e*P	Pg		05 51 44.1	-0.5
TSWA				*e*S	Sb		05 52 00.3	-0.5
TSWA				IAML			05 52 18.1	
	comp=Z,11nm,1.1s							
TSWA	**Tswaing Meteor**	**1.15**	**283**	*e*P	Pg		05 51 44.9	+0.3
TSWA				*e*S	Sn		05 52 04.8	+2.4
TSWA				IAML			05 52 18.2	
	comp=Z,11nm,1.1s							
HRAO	**HartRAO**	**1.49**	**262**	*e*P	Pg		05 51 50.9	-0.2
HRAO				*e*S	Sn		05 52 12.1	+1.2
HRAO	**HartRAO**	**1.49**	**262**	*e*P	Pn		05 51 48.2	-2.5
HRAO				*e*S	Sg		05 52 09.7	-0.6
LEPH	**Lephalale, Lim**	**2.28**	**322**	*e*P	Pn		05 52 01.5	0.0
LEPH				*e*S	Sg		05 52 35.6	-0.3
LEPH				IAML			05 52 46.5	
	comp=Z,4.8nm,0.3s							
MTLB	**Matlabas, Limp**	**2.77**	**312**	*e*P	Pn		05 52 09.4	+1.1
MTLB				*e*S	Sn		05 52 43.3	+0.8
MTLB				IAML			05 53 01.6	
	comp=Z,11nm,0.5s							
MOPA	**Mopani**	**2.87**	**42**	*e*P	Pn		05 52 10.4	+0.8
MOPA				*e*S	Sn		05 52 44.6	-0.2
MOPA				IAML			05 53 01.6	
	comp=Z,4.9nm,0.5s							
MOPA	**Mopani**	**2.87**	**42**	*e*P	Pn		05 52 06.8	-2.7
MOPA				*e*S	Sn		05 52 44.9	+0.1
MOPA				IAML			05 53 01.6	
	comp=Z,4.9nm,0.5s							
LBTB	**Lobatse**	**3.43**	**280**	*e*P	Pn		05 52 15.3	-2.0
LBTB				*e*S	Sn		05 52 59.2	+0.3
LBTB				IAML			05 53 21.5	
	comp=Z,2.5nm,0.5s							

PRE 14 06:17:16.1±1.4, 27.84S×30.39E, h5km, ML2.1, Presumed earthquake, South Africa

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
HRAO	**HartRAO**	**3.10**	**308**	*e*P	Pn		06 18 07.4	+1.6
HRAO				*e*S	Sn		06 18 44.2	+0.9
HRAO	**HartRAO**	**3.10**	**308**	*e*P	Pn		06 18 05.1	-0.8
HRAO				*e*S	Sn		06 18 43.5	+0.1
TSWA	**Tswaing Meteor**	**3.17**	**319**	*e*P	Pn		06 18 08.2	+1.4
TSWA				*e*S	Sn		06 18 46.2	+1.1
TSWA				IAML			06 19 10.9	
	comp=Z,6.3nm,0.8s							
TSWA	**Tswaing Meteor**	**3.17**	**319**	*e*P	Pn		06 18 06.5	-0.3
TSWA				*e*S	Sn		06 18 45.9	+0.7
TSWA				IAML			06 19 11.0	
	comp=Z,6.2nm,0.8s							
MOPA	**Mopani**	**4.39**	**12**	*e*P	Pn		06 18 25.4	+1.8
MOPA				*e*S	Sn		06 19 14.3	-0.9
MOPA				IAML			06 19 30.3	
	comp=Z,5.9nm,0.9s							
MOPA	**Mopani**	**4.39**	**12**	*e*P	Pn		06 18 24.3	+0.8
MOPA				*e*S	Sn		06 19 14.6	-0.5
MOPA				IAML			06 19 30.4	
	comp=Z,5.9nm,0.9s							
BOSA	**Boshof**	**4.60**	**259**	*e*P	Pn		06 18 26.4	0.0
BOSA				*e*S	Sn		06 19 19.6	-0.7
BOSA				IAML			06 20 32.3	
	comp=Z,0.9nm,0.8s							
LEPH	**Lephalale, Lim**	**4.60**	**329**	*e*P	Pn		06 18 26.3	-0.1
LEPH				*e*S	Sn		06 19 18.5	-1.9
LEPH				IAML			06 19 28.7	
	comp=Z,5.1nm,0.5s							
LEPH	**Lephalale, Lim**	**4.60**	**329**	*e*P	Pn		06 18 26.9	+0.5
LEPH				*e*S	Sn		06 19 19.5	-0.8
LEPH				IAML			06 19 28.8	
	comp=Z,5.1nm,0.5s							
MPHEP	**Siloam, Limpop**	**4.91**	**358**	*e*P	Pn		06 18 31.3	+0.6
MPHEP				*e*S	Sn		06 19 27.8	-0.2
MPHEP				IAML			06 19 39.2	
	comp=Z,1.5nm,0.2s							
MTLB	**Matlabas, Limp**	**5.01**	**322**	*e*P	Pn		06 18 32.8	+0.8
MTLB				*e*S	Sn		06 19 28.3	-2.1
MTLB				IAML			06 19 45.6	
	comp=Z,5.6nm,0.3s							
LBTB	**Lobatse**	**5.14**	**302**	*e*P	Pn		06 18 34.3	+0.4
LBTB				*e*S	Sn		06 19 32.0	-1.5
LBTB				IAML			06 20 05.0	
	comp=Z,1.7nm,0.3s							
CRAIL	**Swartwater, Li**	**5.38**	**338**	*e*P	Pn		06 18 37.6	+0.5
CRAIL				*e*S	Sn		06 19 37.3	-2.2
CRAIL				IAML			06 20 03.5	
	comp=Z,78nm,0.2s							
CRAIL	**Swartwater, Li**	**5.38**	**338**	*e*P	Pn		06 18 38.2	+1.1
CRAIL				*e*S	Sn		06 19 38.6	-0.9
CRAIL				IAML			06 19 38.9	
	comp=Z,106nm,0.2s							

IDC ***14*** *06:17:40.9±1.1, 25.41N×142.53E, h0km, mb3.8/10, mbtmp3.8/10, Error ellipse: s-maj=48.2km s-min=14.8km az=86.0*
ISC 14 06:17:46.3±1.1, 25.49N±0.09×142.5E±0.3, h38km, n17, σ0s89/12, mb3.9/10, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**1.63**	**350**	Pn		**Pn**	**06 18 10.7**	**-1.8**
	46nm,0.3s,baz=117,slow=17,SNR=26							
JCJ						**Sn**	**06 18 32.3**	**+0.1**
	47nm,0.3s,baz=291,slow=23,SNR=15							
H11N2	**WAKE ISLAND Hy**	**23.21**	**99**	T		T	06 46 41.6	
	baz=296,slow=74							
H11N1	**WAKE ISLAND Hy**	**23.21**	**99**	T		T	06 46 38.6	
	baz=296,slow=74							
H11N3	**WAKE ISLAND Hy**	**23.23**	**99**	T		T	06 46 40.5	
	baz=296							
H11S3	**WAKE ISLAND Hy**	**23.45**	**102**	T		T	06 46 53.3	
	baz=292,slow=75,SNR=5.4							
H11S1	**WAKE ISLAND Hy**	**23.45**	**102**	T		T	06 46 52.3	
	baz=292,slow=75,SNR=6.2							
H11S2	**WAKE ISLAND Hy**	**23.47**	**102**	T		T	06 46 56.2	
	baz=292,slow=75,SNR=5.1							
KLR	**Kul'dur**	**25.15**	**343**	P		**P**	**06 23 08.9**	**+1.2**
	0.6nm,0.3s,baz=132,slow=23,SNR=2.1							
	0.6nm,0.3s							
WRA	**Warramunga Arr**	**45.85**	**191**	P		**P**	**06 26 04.8**	**-0.1**
	0.8nm,0.5s,baz=11,slow=8.6,SNR=8.5							
	0.8nm,0.5s							
FITZ	**Fitzroy Crossi**	**46.33**	**202**	P		**P**	**06 26 08.1**	**-0.5**
	1.7nm,0.8s,baz=34,slow=7.3,SNR=1.7							
	1.7nm,0.8s							
ASAR	**Alice Springs**	**49.57**	**190**	P		**P**	**06 26 33.3**	**-0.4**
	0.2nm,0.5s,baz=5.1,slow=6.3,SNR=5.0							
	0.2nm,0.5s							
MKAR	**Makanchi Array**	**51.73**	**311**	P		**P**	**06 26 50.8**	**+0.9**
	0.5nm,0.7s,baz=90,slow=8.2,SNR=3.9							
	0.5nm,0.7s							
KURBB	**Kurchatov Arra**	**54.38**	**315**	P		**P**	**06 27 09.9**	**+0.7**
	0.9nm,0.6s,baz=92,slow=7.9,SNR=12							
	0.9nm,0.6s							
ILAR	**Eielson Array**	**58.98**	**28**	P		**P**	**06 27 42.1**	**+0.4**
	0.3nm,0.8s,baz=270,slow=7.5,SNR=1.6							
	0.3nm,0.8s							
BVAR	**Borovoye Array**	**59.43**	**318**	P		**P**	**06 27 44.8**	**-0.2**
	1.2nm,0.5s,baz=79,slow=7.5,SNR=4.2							
	1.2nm,0.5s							
FINES	**FINESS Array B**	**79.52**	**334**	P		**P**	**06 29 49.0**	**+0.1**
	5.0nm,1.0s,baz=57,slow=7.0,SNR=9.3							
	5.0nm,1.0s							
NOA	**NORSAR Array B**	**85.21**	**338**	P		**P**	**06 30 19.5**	**+0.9**
	0.7nm,0.7s,baz=45,slow=4.8,SNR=3.3							
	0.7nm,0.7s							

IDC ***14*** *06:42:29.9±1.2, 19.49S×169.08E, h19km±7km, mb5.3/37, mbtmp5.3/40, ML4.8/3, MS4.6/60, Error ellipse: s-maj=9.9km s-min=8.7km az=129.0*
BGR ***14*** *06:42:29.7, 20.22S×169.90E, h33km, Ms4.9*
NOU ***14*** *06:42:32.2, 19.61S×168.71E, h9km, MLv5.7/47, Vanuatu Islands*
NEIC ***14*** *06:42:33.5, 19.58S×168.86E, h36km*
MOS ***14*** *06:42:33.5±1.0, 19.50S×168.88E, h57km, mb5.9/40, MS5.1/6, Error ellipse: s-maj=8.1km s-min=7.0km az=123.1*
NEIC ***14*** *06:42:33.9±1.5, 19.58S±0.06×168.86E±0.05, h40km±1km, mb5.7/119, Mwb5.3/38, Mwr5.3/11, Mww5.4/15, Error ellipse: s-maj=10.5km s-min=7.3km az=199.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr1.00; Mθθ-0.05; Mϕϕ-0.95; Mrθ-0.49; Mθϕ0.38; Mϕr-0.13; Fault plane solution: M₀1.16000×10¹⁷ NP1: ϕs181.98000°, δ48.52000°, λ122.75000°. NP2: ϕs317.82000°, δ50.94000°, λ58.54000°. Principal axes: T 1.2233, Plg66.0000°, Azm162.0000°; N -0.1310, Plg24.0000°, Azm339.0000°; P -1.0923, Plg1.0000°, Azm69.0000°; Moment Tensor Solution. Moment tensor: Scale 10¹⁷ Nm; Mrr1.17; Mθθ-0.23; Mϕϕ-0.94; Mrθ0.32; Mθϕ0.48; Mϕr-0.20; Fault plane solution: M₀1.23000×10¹⁷ NP1: ϕs342.10000°, δ38.11000°, λ104.12000°. NP2: ϕs144.37000°, δ53.24000°, λ79.17000°. Principal axes: T 1.2385, Plg78.0000°, Azm13.0000°; N -0.0158, Plg9.0000°, Azm151.0000°; P -1.2227, Plg8.0000°, Azm242.0000°;*
NEIC ***14*** *06:42:33.7, 19.58S×168.86E, h38km*
NEIC ***14*** *06:42:33.9, 19.58S×169.08E, h46km, Moment Tensor Solution. Duration: 2s4 Moment tensor: Scale 10¹⁷Nm; Mrr1.81; Mθθ-0.17; Mϕϕ-1.64; Mrθ-0.10; Mθϕ0.69; Mϕr-0.09; Fault plane solution: M₀1.87000×10¹⁷ NP1: ϕs334.19000°, δ44.52000°, λ83.95000°. NP2: ϕs162.64000°, δ45.79000°, λ95.92000°. Principal axes: T 1.8183, Plg86.0000°, Azm150.0000°; N 0.0922, Plg4.0000°, Azm339.0000°; P -1.9105, Plg1.0000°, Azm248.0000°;*
NEIC ***14*** *06:42:34.1, 19.59S×168.76E, h41km*
GCMT ***14*** *06:42:34.9±0.1, 19.47S±0.01×168.63E±0.01, h50km, MW5.5/145, Moment Tensor Solution. s141, c233; s145, c263; Duration: 1s3 Moment tensor: Scale 10¹⁷ Nm; Mrr1.77±.02; Mθθ-0.16±.02; Mϕϕ-1.61±.01; Mrθ-0.03±.01; Mθϕ0.76±.01; Mϕr0.09±.02; Best double couple: M₀1.85400×10¹⁷ NP1:ϕs157.00000°, δ43.00000°, λ90.00000°. NP2:ϕs337.00000°, δ47.00000°, λ90.00000°. Principal axes: T 1.7730, Plg88.0000°, Azm256.0000°; N 0.1660, Plg0.0000°, Azm157.0000°; P -1.9360, Plg2.0000°, Azm67.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
GFZ ***14*** *06:42:35.7±0.1, 20.2S±2.2×167.9E±.1°, h59km, M5.4/76, mb5.5/76*
GFZ ***14*** *06:42:35.7, 19.51S×168.91E, h50km, Mw5.4/100, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr1.70; Mθθ-0.24; Mϕϕ-1.46; Mrθ-0.09; Mθϕ0.54; Mϕr0.01; Fault plane solution: M₀1.68435×10¹⁷ NP1: ϕs162.00358°, δ44.38428°, λ93.91430°. NP2: ϕs336.53460°, δ45.74639°, λ86.17760°. Principal axes: T 1.7018, Plg87.1794°, Azm173.2146°; N -0.0354, Plg2.7368°, Azm339.2040°; P -1.6664, Plg0.6818°, Azm69.2366°;*
BJI ***14*** *06:42:35.6, 18.86S×168.96E, h55km, mB5.5/23, mb5.5/70, Ms5.0/11, Ms7 4.8/19*
ISC 14 06:42:33.3±0.3, 19.52S±0.03×168.99E±0.03, h44km±2km, h44km:pP-P, n975, σ1s56/1024, mb5.6/227, MS4.7/71, 78C-43D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	**1.80**	**343**	P		**Pn**	**06 43 02.4**	**+0.6**
DVP	**Devils Point**	**1.94**	**337**	P		**Pn**	**06 43 05.2**	**+1.4**
MARNC	**Mare, Loyalty**	**2.15**	**205**	P		**Pn**	**06 43 05.4**	**-1.2**
MARNC	**Mare, Loyalty**	**2.15**	**205**			**Pn**	**06 43 04.9**	**-1.7**
MARNC						Sn	**06 43 28.0**	**-4.1**
YATNC	**Mamie plateau,**	**3.20**	**217**	P		**Pn**	**06 43 17.9**	**-3.2**
PINNC	**Pines Island,**	**3.40**	**205**	P		**Pn**	**06 43 22.3**	**-1.5**
PINNC	**Pines Island,**	**3.40**	**205**	S		**Sn**	**06 44 01.5**	**-1.3**
PINNC	**Pines Island,**	**3.40**	**205**			**Pn**	**06 43 23.3**	**-0.5**
PINNC						Sn	**06 43 59.3**	**-3.5**
DZM	**Mont Dzumac**	**3.48**	**223**	Pn		**Pn**	**06 43 23.4**	**-1.6**
	67nm,0.3s,baz=3.8,slow=3.8,SNR=305							
DZM						Sn	**06 44 02.1**	**-2.9**
	187nm,0.3s,baz=2.6,slow=18,SNR=3.6							
DZM				LR		LR	06 44 42.4	
	comp=Z,17μm,20.6s,baz=130,slow=37							
	208nm,0.4s							
DZM				AML		AML		
NOUC	**Port Laguerre**	**3.59**	**224**	P		**Pn**	**06 43 25.7**	**-0.7**
NOUC	**Port Laguerre**	**3.59**	**224**	P		**Pn**	**06 43 25.7**	**-0.7**
NOUC				AML		AML		
NOUC				AML		AML		
ONTNC	**Ouen Toro**	**3.65**	**220**	P		**Pn**	**06 43 25.5**	**-1.7**
ONTNC	**Ouen Toro**	**3.65**	**220**			**Pn**	**06 43 25.4**	**-1.7**
SANVU	**Saraoutou**	**4.39**	**337**	P		**Pn**	**06 43 38.3**	**+0.8**
SANVU	**Saraoutou**	**4.39**	**337**			**Pn**	**06 43 37.9**	**+0.4**
KOUNC	**Koumac, New Ca**	**4.54**	**256**	P		**Pn**	**06 43 38.9**	**-0.5**
KOUNC	**Koumac, New Ca**	**4.54**	**256**			**Pn**	**06 43 38.0**	**-1.4**
MSVF	**Nonsavu**	**8.78**	**80**	Pn		Pn	06 44 46.0	+8.3
	13nm,0.3s,baz=219,slow=10.0,SNR=157							
MSVF				LR		LR	06 47 36.4	
	comp=Z,15μm,19.4s,baz=265,slow=35							
MSVF	**Nonsavu**	**8.78**	**80**	P		Pn	06 44 45.0	+7.3
MSVF	**Nonsavu**	**8.78**	**80**	P		Pn	06 44 45.4	+7.7
MSVF	**Nonsavu**	**8.78**	**80**			Pn	06 44 45.4	+7.7
MSVF	**Nonsavu**	**8.78**	**80**	P		Pn	06 44 45.8	+8.1
NFK	**Norfolk Island**	**9.53**	**186**	P		**Pn**	**06 44 51.1**	**+3.2**
	comp=Z,149nm,0.7s							
NFK	**Norfolk Island**	**9.53**	**186**	P		**Pn**	**06 44 51.5**	**+3.6**
NFK	**Norfolk Island**	**9.53**	**186**	P		**Pn**	**06 44 50.8**	**+2.9**
	comp=Z,149nm,0.7s							
DGTI	**Dogotuki**	**10.72**	**74**	P		Pn	06 45 11.5	+7.2
HURO	**Huro Makira**	**11.30**	**322**	P		**Pn**	**06 45 13.2**	**+0.9**
NGOA	**Tingoa Renbel**	**11.69**	**311**	P		**Pn**	**06 45 17.7**	**+0.2**
HNR	**Honiara**	**13.30**

ARMA Armidale 19.09 232 P **Pn** 06 46 54.2 +0.6
comp=Z,59nm,2.6s
HIZ Hauiti 19.60 166 P **Pn** 06 47 01.3 +1.9
HIZ Hauiti 19.60 166 P **Pn** 06 46 59.9 +0.5
comp=Z,124nm,1.5s
HAZ Te Kaha 19.72 159 P **Pn** 06 47 03.2 +2.4
MXZ Matakaoa Point 19.73 158 P **Pn** 06 47 01.9 +0.9
MXZ Matakaoa Point 19.73 158 P **P** 06 46 59.8 +0.6
MXZ Matakaoa Point 19.73 158 P **Pn** 06 47 03.5 +2.6
HRRZ Handcock Road 19.84 163 P **Pn** 06 47 04.3 +1.9
RMQ Roma 19.86 246 P **P** 06 47 00.7 -0.1
comp=Z,37nm,1.2s
RUGZ Raukumara Rang 19.88 159 P **Pn** 06 47 04.2 +1.4
NIUE Niue 19.91 92 P **Pn** 06 47 03.4 +0.2
NIUE Niue 19.91 92 P **Pn** 06 47 02.5 -0.8
comp=Z,692nm,1.3s
NIUE Niue 19.91 92 P **Pn** 06 47 03.2 0.0
comp=Z,692nm,1.3s
NIUE Niue 19.91 92 P **Pn** 06 47 06.1 +2.9
NIUE Niue 19.91 92 P **Pn** 06 47 03.1 -0.1
NIUE IAmb IAmb 06 47 06.3
comp=Z,443nm,0.8s
NIUE Niue 19.91 92 P **Pn** 06 47 02.9 -0.3
comp=Z,692nm,1.3s
URZ Urewera 19.96 161 P **P** 06 47 02.6 +0.9
comp=Z,4.0nm,0.3s,baz=331,slow=4.2,SNR=37
URZ S **Sn** 06 50 53.1 +5.8
comp=Z,32nm,0.9s,baz=183,slow=22,SNR=5.6
URZ LR LR 06 53 38.3
comp=Z,2µm,20.2s,baz=312,slow=34
comp=Z,102nm,0.9s
URZ AML AML
URZ Urewera 19.96 161 P **Pn** 06 47 05.4 +1.7
URZ Urewera 19.96 161 P **Pn** 06 47 05.3 +1.7
URZ Urewera 19.96 161 P **Pn** 06 47 02.7 -1.0
comp=Z,182nm,1.0s
PRRZ Plateau Road 19.98 163 P **Pn** 06 47 07.6 +3.8
WMGZ Waiomatatini S 20.00 158 P **Pn** 06 47 05.6 +1.5
MWZ Matawai 20.16 160 P Pn 06 47 08.0 +1.9
TWGZ Tauwhareparae 20.17 159 P Pn 06 47 08.3 +2.1
PUZ Puketiti 20.17 158 P Pn 06 47 07.2 +1.0
TWVZ Taurewa 20.27 165 P Pn 06 47 12.0 +4.6
NTVZ North Tongarir 20.35 165 P Pn 06 47 09.1 +0.7
TKGZ Te Karaka 20.36 160 P Pn 06 47 09.7 +1.3
ETVZ East Tongariro 20.39 165 P Pn 06 47 12.8 +3.9
COVZ Chateau Observ 20.41 165 P Pn 06 47 09.5 +0.3
RIGZ Rimuhau 20.58 160 P Pn 06 47 11.9 +0.8
BKZ Black Stump Fm 20.62 163 P Pn 06 47 12.0 +0.4
BKZ Black Stump Fm 20.62 163 P Pn 06 47 12.2 +0.6
MGCD Mangrove Creek 20.99 226 P **P** 06 47 13.5 +0.5
comp=Z,77nm,0.9s
MGCD Mangrove Creek 20.99 226 P **P** 06 47 14.0 +1.1
comp=Z,77nm,0.9s
MGCD Mangrove Creek 20.99 226 P Pn 06 47 14.7 -1.2
comp=Z,76nm,0.9s
TARA Tarawa 21.10 11 P **P** 06 47 15.2 +1.0
comp=Z,200nm,1.4s
RIV Riverview 21.33 224 P **P** 06 47 21.2 +4.7
comp=Z,121nm,1.5s
CTA Charters Tower 21.39 265 P **P** 06 47 19.3 +1.9
CTA Charters Tower 21.39 265 P **P** 06 47 19.6 +2.2
CTA Charters Tower 21.39 265 P **P** 06 47 18.4 +1.0
comp=Z,13nm,0.8s,baz=84,slow=12,SNR=17
CTA S **S** 06 51 16.8 +4.1
comp=Z,6.0nm,0.8s,baz=71,slow=22,SNR=5.5
CTA LR LR 06 54 43.3
comp=Z,3µm,21.1s,baz=92,slow=34
CTA ScP **ScP** 06 54 56.8 +3.2
comp=Z,7.9nm,1.0s,baz=47,slow=2.9,SNR=5.1
comp=Z,13nm,0.8s
CTAO Charters Tower 21.39 265 P **P** 06 47 17.7 +0.3
CTAO Charters Tower 21.39 265 P **P** 06 47 17.4 0.0
CTAO pmax pmax
comp=Z,59nm,1.0s
CTAO Charters Tower 21.39 265 P **P** 06 47 17.4 0.0
CTAO Charters Tower 21.39 265 P **P** 06 47 17.9 +0.5
comp=Z,82nm,1.6s
QRZ Quartz Range 21.45 173 P **P** 06 47 20.7 +2.9
BFZ Birch Farm 21.99 165 P **P** 06 47 23.2 -0.3
comp=Z,193nm,0.8s
SNZO South Karori 22.26 169 P **P** 06 47 28.5 +2.1
RABL Rabaul 22.39 311 P **P** 06 47 27.0 -1.1
KRVT Keravat (AS076 22.41 310 P **P** 06 47 28.4 +0.1
comp=Z,171nm,0.4s,baz=140,slow=12,SNR=18
KRVT LR LR 06 55 08.1
comp=Z,1µm,20.9s,baz=130,slow=34
comp=Z,171nm,0.4s
KHZ Kahutara 23.15 171 P **P** 06 47 37.2 +1.5
KHZ Kahutara 23.15 171 P **P** 06 47 36.6 +0.9
comp=Z,165nm,1.5s
PMG Port Moresby 23.38 292 LR LR 06 55 24.3
comp=Z,2µm,19.6s,baz=114,slow=33
PMG Port Moresby 23.38 292*c iP* **P** 06 47 38.0 -0.2
PMG pmax pmax
comp=Z,112nm,1.0s
PMG Port Moresby 23.38 292 **P** 06 47 38.2 0.0
PMG Port Moresby 23.38 292 P **P** 06 47 37.4 -0.8
comp=Z,109nm,1.1s
PMG Port Moresby 23.38 292 P **P** 06 47 38.9 +0.7
comp=Z,112nm,1.1s
MTSU Mount Surprise 23.39 269 P **P** 06 47 39.6 +1.2
comp=Z,23nm,0.9s
MTSU Mount Surprise 23.39 269 P **P** 06 47 36.6 -1.7
comp=Z,23nm,0.9s
MTSU Mount Surprise 23.39 269 P **P** 06 47 39.2 +0.8
comp=Z,22nm,0.9s
CNB Canberra Magne 23.40 224 P **P** 06 47 40.6 +2.2
comp=Z,134nm,0.8s,comp=Z,0.0nm
CNB Canberra Magne 23.40 224 P **P** 06 47 40.1 +1.7
comp=Z,134nm,0.8s,comp=Z,0.0nm
CNB Canberra Magne 23.40 224 P **P** 06 47 39.9 +1.5
comp=Z,134nm,0.8s,comp=Z,0.0nm
CAN Canberra 23.64 224 P **P** 06 47 43.0 +2.4
comp=Z,69nm,2.7s,comp=Z,0.0nm
CAN Canberra 23.64 224 P **P** 06 47 42.6 +1.9
comp=Z,69nm,2.7s,comp=Z,0.0nm
CAN Canberra 23.64 224 P **P** 06 47 42.3 +1.6
comp=Z,69nm,2.7s,comp=Z,0.0nm
CAN Canberra 23.64 224 P **P** 06 47 42.0 +1.3
CAN Canberra 23.64 224 P **P** 06 47 41.3 +0.6
CAN pmax pmax
comp=Z,52nm,1.0s
CAN Canberra 23.64 224 **P** 06 47 41.3 +0.6
CAN Canberra 23.64 224 P **P** 06 47 40.8 +0.1
comp=Z,69nm,2.7s
QLP Quilpie 23.81 248 P **P** 06 47 43.1 +0.9
comp=Z,194nm,1.0s
QLP Quilpie 23.81 248 P **P** 06 47 42.7 +0.5
comp=Z,194nm,1.0s
QLP Quilpie 23.81 248 P **P** 06 47 43.0 +0.7
comp=Z,194nm,1.0s
QLP Quilpie 23.81 248 P **P** 06 47 43.1 +0.9
comp=Z,194nm,1.0s
CMSA Cobar Meteorol 24.13 236 P **P** 06 47 46.0 +0.9
comp=Z,52nm,0.9s,comp=Z,0.0nm
CMSA Cobar Meteorol 24.13 236 P **P** 06 47 45.6 +0.5
comp=Z,52nm,0.9s,comp=Z,0.0nm
CMSA Cobar Meteorol 24.13 236 P **P** 06 47 45.8 +0.7
comp=Z,52nm,0.9s,comp=Z,0.0nm
CMSA Cobar Meteorol 24.13 236 P **P** 06 47 45.9 +0.7
CMSA Cobar Meteorol 24.13 236 P **P** 06 47 46.0 +0.9
comp=Z,52nm,0.9s
RPZ Rata Peaks 24.18 176 LR LR 06 56 54.8
comp=Z,761nm,18.9s,baz=132,slow=36
RPZ Rata Peaks 24.18 176 P **P** 06 47 47.9 +2.4
JCZ Jackson Bay 24.48 180 P **P** 06 47 50.5 +2.2
MILA Mila 24.61 221 P **P** 06 47 51.8 +2.2
comp=Z,12nm,0.9s
MILA Mila 24.61 221 P **P** 06 47 51.3 +1.7
comp=Z,13nm,0.9s
MILA Mila 24.61 221 P **P** 06 47 51.6 +2.0
comp=Z,12nm,0.9s
ODZ Otahua Downs 25.49 177 P **P** 06 47 58.8 +1.5
ODZ Otahua Downs 25.49 177 P **P** 06 47 58.4 +1.1
comp=Z,71nm,1.4s
INKA Innaminka 27.09 247 P **P** 06 48 11.6 -0.3
TOO Toolangi 27.25 224 P **P** 06 48 15.3 +2.0
comp=Z,6.3nm,2.8s
TOO Toolangi 27.25 224 P **P** 06 48 14.9 +1.5
comp=Z,6.3nm,2.8s
TOO Toolangi 27.25 224 P **P** 06 48 15.2 +1.8
comp=Z,6.3nm,2.8s
TOO Toolangi 27.25 224 P **P** 06 48 13.9 +0.5
TOO pmax pmax
comp=Z,25nm,1.7s
TOO Toolangi 27.25 224 P **P** 06 48 13.9 +0.5

MANU Manus Island 27.37 307 P **P** 06 48 14.8 +0.3
STKA Stephens Creek 27.49 238 P **P** 06 48 16.7 +1.1
STKA Stephens Creek 27.49 238 P **P** 06 48 16.1 +0.5
comp=Z,16nm,0.8s,baz=60,slow=7.4,SNR=41
STKA PcP **PcP** 06 51 34.1 +1.0
comp=Z,16nm,0.9s,baz=66,slow=3.0,SNR=5.9
STKA ScP **ScP** 06 55 12.6 +2.4
comp=Z,7.8nm,1.1s,baz=150,slow=3.9,SNR=6.1
STKA LR LR 06 58 45.7
comp=Z,2µm,20.3s,baz=79,slow=35
STKA P3KPbc 07 20 43.3
comp=Z,1.3nm,0.4s,baz=262,slow=4.3,SNR=5.4
comp=Z,16nm,0.8s
STKA Stephens Creek 27.49 238*c iP* **P** 06 48 15.6 0.0
STKA Stephens Creek 27.49 238 P **P** 06 48 16.3 +0.7
STKA Stephens Creek 27.49 238 P **P** 06 48 14.9 -0.7
comp=Z,126nm,1.3s
QIS Mount Isa 27.61 263 P **P** 06 48 17.5 +0.8
comp=Z,16nm,1.8s,comp=Z,0.0nm
QIS Mount Isa 27.61 263 P **P** 06 48 17.1 +0.3
comp=Z,16nm,1.8s,comp=Z,0.0nm
QIS Mount Isa 27.61 263 P **P** 06 48 17.3 +0.6
comp=Z,16nm,1.8s,comp=Z,0.0nm
QIS Mount Isa 27.61 263 P **P** 06 48 17.7 +1.0
QIS Mount Isa 27.61 263 P **P** 06 48 17.4 +0.8
comp=Z,16nm,1.8s
RAR Rarotonga 29.31 99 P **P** 06 48 32.4 +0.5
comp=Z,9.4nm,0.8s,baz=282,slow=2.9,SNR=3.6
RAR LR LR 06 58 03.0
comp=Z,772nm,20.9s,baz=268,slow=32
comp=Z,9.4nm,0.8s
ARPS Mount Arapiles 29.32 228 P **P** 06 48 33.5 +1.7
comp=Z,10nm,1.2s
ARPS Mount Arapiles 29.32 228 P **P** 06 48 33.0 +1.3
comp=Z,10nm,1.2s
MOO Moorlands 29.35 214 P **P** 06 48 33.6 +1.6
comp=Z,49nm,2.3s
MOO Moorlands 29.35 214 P **P** 06 48 33.9 +1.9
comp=Z,49nm,2.3s
MOO Moorlands 29.35 214 P **P** 06 48 33.7 +1.7
TAU Tasmania Unive 29.61 213 P **P** 06 48 35.2 +0.9
TAU pmax pmax
comp=Z,200nm,1.8s
TAU Tasmania Unive 29.61 213 P **P** 06 48 35.2 +0.9
TAU IAmb IAmb 06 48 49.2
comp=Z,200nm,1.8s
HTT Hallett 30.14 237 P **P** 06 48 39.8 +0.7
comp=Z,7.4nm,0.9s
HTT Hallett 30.14 237 P **P** 06 48 39.8 +0.7
comp=Z,17nm,0.9s
HTT Hallett 30.14 237 P **P** 06 48 39.6 +0.5
comp=Z,7.4nm,0.9s
HTT Hallett 30.14 237 P **P** 06 48 39.6 +0.5
BBOO Buckleboo 32.24 239 P **P** 06 48 58.2 +0.6
comp=Z,29nm,0.8s
BBOO Buckleboo 32.24 239 P **P** 06 48 57.6 0.0
comp=Z,29nm,0.8s
BBOO Buckleboo 32.24 239 P **P** 06 48 57.6 0.0
BBOO Buckleboo 32.24 239 **P** 06 48 57.4 -0.2
JAY Jayapura 32.40 298 PcP **PcP** 06 51 46.5 +0.4
comp=Z,12nm,1.0s,baz=308,slow=3.5,SNR=4.6
JAY ScP **ScP** 06 55 29.8 +3.3
comp=Z,12nm,1.0s,baz=151,slow=19,SNR=6.7
JAY LR LR 07 01 46.5
comp=Z,1µm,21.0s,baz=132,slow=36
WR8 Warramunga Arr 32.43 263 **P** 06 48 58.8 -0.6
WB0 Warramunga Arr 32.55 264 **P** 06 48 59.0 -1.4
WRAB Tennant Creek 32.57 263 P **P** 06 49 01.6 +0.9
WRAB Tennant Creek 32.57 263*ll eP* **P** 06 48 59.0 -1.7
WRAB pmax pmax
comp=Z,15nm,1.0s
WRAB Tennant Creek 32.57 263 P **P** 06 48 59.5 -1.1
WRAB pP **pP** 06 49 11.0 -0.9
WRAB PcP **PcP** 06 51 46.5 +0.1
WRA Warramunga Arr 32.58 263 P **P** 06 48 59.2 -1.5
comp=Z,7.8nm,1.0s,baz=93,slow=8.7,SNR=17
WRA PcP **PcP** 06 51 46.8 +0.2
comp=Z,16nm,0.9s,baz=94,slow=2.6,SNR=15
WRA S **S** 06 54 12.1 -1.4
comp=Z,1.5nm,1.1s,baz=96,slow=12,SNR=6.3
WRA ScP **ScP** 06 55 29.0 +2.1
comp=Z,12nm,1.0s,baz=93,slow=3.7,SNR=10
WRA PKiKP **PKiKP** 06 59 12.2 -1.6
comp=Z,2.1nm,0.8s,baz=33,slow=0.4,SNR=11
WRA LR LR 07 02 02.3
comp=Z,2µm,19.4s,baz=91,slow=36
WRA P3KPbc 07 20 19.8
comp=Z,0.4nm,0.9s,baz=292,slow=3.8,SNR=4.6
comp=Z,7.8nm,1.0s
WRA Warramunga Arr 32.58 263 P **P** 06 48 59.9 -0.9
AS17 Alice Springs 32.75 256 P **P** 06 49 01.8 -0.5
comp=Z,37nm,1.0s
AS17 Alice Springs 32.75 256 P **P** 06 49 01.6 -0.7
comp=Z,37nm,1.0s
AS09 Alice Springs 32.80 256 P **P** 06 49 01.9 -0.8
comp=Z,45nm,0.8s
AS09 Alice Springs 32.80 256 P **P** 06 49 01.6 -1.0
comp=Z,45nm,0.8s
GENI Genyem 32.81 297 P **P** 06 49 03.0 +0.3
comp=Z,106nm,1.3s
GENI Genyem 32.81 297 P **P** 06 49 03.6 +0.9
comp=Z,84nm,1.3s
AS15 Alice Springs 32.82 256 P **P** 06 49 02.1 -0.7
comp=Z,41nm,0.8s
AS15 Alice Springs 32.82 256 P **P** 06 49 01.9 -0.9
comp=Z,41nm,0.8s
AS31 Alice Springs 32.83 256 P **P** 06 49 02.2 -0.7
comp=Z,14nm,0.6s
AS31 Alice Springs 32.83 256 P **P** 06 49 02.2 -0.7
comp=Z,14nm,0.6s
AS31 Alice Springs 32.83 256 **P** 06 49 01.9 -1.0
ASAR Alice Springs 32.83 256 P **P** 06 49 01.9 -0.9
comp=Z,26nm,0.7s,baz=83,slow=9.0,SNR=219
ASAR PcP **PcP** 06 51 47.1 0.0
comp=Z,9.7nm,0.9s,baz=98,slow=3.2,SNR=8.2
ASAR S **S** 06 54 14.6 -2.8
comp=Z,2.5nm,1.1s,baz=78,slow=5.5
ASAR ScP **ScP** 06 55 29.5 +1.7
comp=Z,6.1nm,1.2s,baz=113,slow=3.2,SNR=5.4
ASAR PKiKP **PKiKP** 06 59 12.2 -1.7
comp=Z,1.3nm,0.7s,baz=101,slow=1.3,SNR=15
ASAR LR LR 07 02 40.9
comp=Z,3µm,19.0s,baz=97,slow=37
ASAR P3KPbc 07 20 19.9
comp=Z,1.0nm,0.8s,baz=282,slow=3.7,SNR=8.6
comp=Z,26nm,0.7s
ASAR Alice Springs 32.83 256 P **P** 06 49 02.0 -0.9
ASAR Alice Springs 32.83 256 **P** 06 49 01.8 -1.1
KDU Kakadu 35.68 275 P **P** 06 49 27.9 +0.3
comp=Z,10nm,1.7s
KDU Kakadu 35.68 275 P **P** 06 49 27.2 -0.4
comp=Z,10nm,1.7s
MTN Manton Dam 36.90 275 P **P** 06 49 38.3 +0.3
comp=Z,22nm,0.8s
MTN Manton Dam 36.90 275 P **P** 06 49 37.4 -0.6
comp=Z,22nm,0.8s
MTN Manton Dam 36.90 275 P **P** 06 49 38.1 +0.1
comp=Z,22nm,0.8s
MTN Manton Dam 36.90 275 **P** 06 49 37.2 -0.8
BAKI Biak 36.98 296 P **P** 06 49 39.6 +0.9
comp=Z,98nm,1.0s
WRKA Warakurna 37.95 254 P **P** 06 49 45.4 -1.6
comp=Z,21nm,1.3s
WRKA Warakurna 37.95 254 P **P** 06 49 44.4 -2.5
WRKA Warakurna 37.95 254 P **P** 06 49 46.7 -0.2
comp=Z,21nm,1.3s
KNRA Kununurra 38.47 269 P **P** 06 49 51.1 -0.2
comp=Z,15nm,0.9s
KNRA Kununurra 38.47 269 P **P** 06 49 50.3 -1.0
FORT Forrest 38.51 245 P **P** 06 49 51.2 -0.3
comp=Z,37nm,0.9s
FORT Forrest 38.51 245 P **P** 06 49 51.9 +0.3
comp=Z,37nm,0.9s
FORT Forrest 38.51 245 **P** 06 49 50.9 -0.6
TBI Tubuai 38.77 103*eP* **P** 06 49 55.6 +1.8
comp=Z,220nm,0.9s
TBI *eS* **S** 06 55 46.6 -1.7
comp=Z,2µm,35.5s
TBI *eLQ* LQ 06 58 55.6
comp=Z,14µm,32.2s
TBI *eLR* LR 07 00 36.2
comp=Z,12µm,29.2s
PAE Paea 39.25 94*eP* **P** 06 49 58.4 +0.6
comp=Z,174nm,1.2s
PAE *eLR* LR 07 00 50.5
comp=Z,2µm,25.5s
PPT2 Papeete2 39.27 94*eP* **P** 06 49 58.9 +0.9
comp=Z,115nm,1.0s
PPT2 *eS* **S** 06 55 50.9 -5.1
comp=Z,452nm,28.5s
PPT2 *eLQ* LQ 06 59 10.0
comp=Z,4µm,34.8s
PPT2 *eLR* LR 07 00 49.9
comp=Z,3µm,27.0s
PPT2 *eLR* LR 07 00 52.1
comp=Z,2µm,29.5s
PPT Papeete 39.27 94 P **P** 06 49 57.4 -0.6
comp=Z,102nm,0.8s,baz=214,slow=6.0,SNR=13
PPT LR LR 07 01 51.4
comp=Z,1µm,21.1s,baz=260,slow=30
comp=Z,102nm,0.8s
PPTF Pamatai, Papee 39.27 94 **P** 06 49 59.6 +1.5
PPTF IAmb IAmb 06 50 01.9
comp=Z,113nm,0.9s
PPTF Pamatai, Papee 39.27 94 P **P** 06 49 59.8 +1.6
comp=Z,144nm,1.1s
XMAS Kiritimati 39.32 61 P **P** 06 50 00.2 +1.8
comp=Z,129nm,1.1s
TIAR Tiarei 39.49 94*eP* **P** 06 50 00.4 +0.6
comp=Z,767nm,1.0s
TIAR *eLR* LR 07 00 59.4
comp=Z,14µm,28.4s
FAKI Fak Fak 39.49 290 **P** 06 49 58.5 -1.4
FAKI Fak Fak 39.49 290 P **P** 06 49 57.3 -2.6
comp=Z,48nm,1.2s
FAKI Fak Fak 39.49 290 P **P** 06 49 58.0 -1.9
comp=Z,48nm,1.2s
TVO Taravao 39.54 95*eP* **P** 06 50 01.1 +0.8
comp=Z,102nm,0.8s
TVO *eLR* LR 07 01 09.0
comp=Z,2µm,25.5s
GUMO Guam 40.58 322 LR LR 07 04 40.4
comp=Z,698nm,22.0s,baz=138,slow=33
FITZ Fitzroy Crossi 40.98 265 ScP **ScP** 06 56 02.1 +4.0
comp=Z,11nm,1.1s,baz=111,slow=4.3,SNR=4.2
FITZ LR LR 07 06 51.1
comp=Z,2µm,20.3s,baz=94,slow=36
FITZ Fitzroy Crossi 40.98 265 P **P** 06 50 12.6 +0.5
comp=Z,11nm,0.9s
SIJI Sorong 41.32 292 LR LR 07 07 31.6
comp=Z,1µm,21.1s,baz=132,slow=36
SIJI Sorong 41.32 292 P **P** 06 50 14.4 -0.6
comp=Z,45nm,0.8s
PMOR Pomariorio Ree 41.34 91*eP* **P** 06 50 15.7 +0.5
comp=Z,214nm,1.1s
PMOR *eLR* LR 07 01 43.8
comp=Z,2µm,25.9s
VAH Vaihoa 41.55 91*eP* **P** 06 50 17.0 +0.2
comp=Z,140nm,1.1s
VAH *eLR* LR 07 01 48.7
comp=Z,3µm,26.5s
KMBL Kambalda 43.84 245 P **P** 06 50 35.5 +0.2
comp=Z,21nm,1.3s
KMBL Kambalda 43.84 245 P **P** 06 50 35.2 -0.2
comp=Z,21nm,1.3s
NLAI Namlea 43.97 286 P **P** 06 50 36.4 -0.1
comp=Z,80nm,1.4s
SOEI Soe 44.23 276 **P** 06 50 38.9 +0.2
SOEI IAmb IAmb 06 50 54.4
comp=Z,156nm,1.4s
SOEI Soe 44.23 276 P **P** 06 50 38.3 -0.4
comp=Z,1µmcomp=Z,81nm,1.2s
SOEI Soe 44.23 276 P **P** 06 50 39.2 +0.5
comp=Z,82nm,1.2s
BATI Baumata 44.66 275 LR LR 07 08 46.4
comp=Z,1µm,22.0s,baz=142,slow=35
BATI Baumata 44.66 275 P **P** 06 50 43.1 +1.0
comp=Z,84nm,0.9s
SANI Sanana 45.48 287 P **P** 06 50 48.3 -0.2
comp=Z,1µmcomp=Z,86nm,1.2s
SANI Sanana 45.48 287 P **P** 06 50 48.5 0.0
comp=Z,86nm,1.2s
MBWA Marble Bar 46.07 259 P **P** 06 50 53.9 +0.8
comp=Z,57nm,1.0s
MBWA Marble Bar 46.07 259 P **P** 06 50 53.0 -0.1
comp=Z,57nm,1.0s
MBWA Marble Bar 46.07 259 P **P** 06 50 53.3 +0.2
MBWA Marble Bar 46.07 259 P **P** 06 50 53.5 +0.4
comp=Z,57nm,1.0s
MBWA Marble Bar 46.07 259 P **P** 06 50 53.3 +0.2
MEEK Meekatharra 46.64 251 P **P** 06 50 58.0 +0.4
comp=Z,95nm,0.8s
MEEK Meekatharra 46.64 251 P **P** 06 50 57.1 -0.5
comp=Z,95nm,0.8s
MEEK Meekatharra 46.64 251 P **P** 06 50 58.2 +0.5
comp=Z,95nm,0.8s
EDFI Ende, Flores 46.96 276 P **P** 06 50 59.2 -1.1
comp=Z,515nmcomp=Z,27nm,1.1s
KLBR Kellerberrin 47.38 245 P **P** 06 51 02.9 -0.3
comp=Z,148nm,0.9s
KLBR Kellerberrin 47.38 245 P **P** 06 51 03.2 -0.1
comp=Z,148nm,0.9s
NWAO Narrogin (SRO) 47.87 243 P **P** 06 51 07.4 +0.3
comp=Z,77nm,0.9s
NWAO Narrogin (SRO) 47.87 243 P **P** 06 51 06.0 -1.1
comp=Z,46nm,0.8s,baz=89,slow=6.8,SNR=15
NWAO PcP **PcP** 06 52 34.5 -0.7
comp=Z,26nm,1.1s,baz=87,slow=7.5,SNR=2.9
NWAO LR LR 07 11 36.2
comp=Z,2µm,19.5s,baz=94,slow=36
comp=Z,46nm,0.8s
NWAO Narrogin (SRO) 47.87 243 P **P** 06 51 07.1 0.0
NWAO pmax pmax
comp=Z,61nm,0.9s
NWAO Narrogin (SRO) 47.87 243 P **P** 06 51 07.1 0.0
NWAO IAmb IAmb 06 51 07.8
comp=Z,61nm,0.9s
NWAO Narrogin (SRO) 47.87 243 P **P** 06 51 07.3 +0.3
comp=Z,74nm,1.0s
NWAO Narrogin (SRO) 47.87 243 P **P** 06 51 06.6 -0.5
NWAO pP **pP** 06 51 18.0 -0.8
NWAO PcP **PcP** 06 52 35.5 +0.2
BLDU Ballidu 48.25 246 P **P** 06 51 10.1 0.0
comp=Z,44nm,1.3s
LUWI Luwuk 48.81 286 P **P** 06 51 14.0 -0.5
GTOI Gorontalo 49.32 289 P **P** 06 51 19.3 +0.9
comp=Z,918nmcomp=Z,66nm,1.0s
BKSI Bulukumba 49.57 280 P **P** 06 51 19.9 -0.5
comp=Z,453nmcomp=Z,37nm,0.9s
APSI Ampana 49.88 286 P **P** 06 51 23.4 +0.7
comp=Z,66nm,1.1s
KAPI Kappang 50.03 280 LR LR 07 12 12.7
comp=Z,413nm,21.9s,baz=93,slow=36
KAPI Kappang 50.03 280*ceP* **P** 06 51 23.6 -0.2
KAPI pmax pmax
comp=Z,46nm,1.0s
KAPI Kappang 50.03 280 P **P** 06 51 24.0 +0.2
KAPI IAmb IAmb 06 51 25.6
comp=Z,56nm,1.0s
KAPI Kappang 50.03 280 P **P** 06 51 24.2 +0.4
comp=Z,586nmcomp=Z,37nm,1.7s
KAPI Kappang 50.03 280 P **P** 06 51 23.8 0.0
comp=Z,71nm,1.6s
KAPI Kappang 50.03 280 P **P** 06 51 24.4 +0.6
KAPI pP **pP** 06 51 35.8 -0.1
KAPI PcP **PcP** 06 52 44.4 +1.0
DBNI Kabupaten Domp 50.20 275 P **P** 06 51 24.2 -1.0
comp=Z,1µmcomp=Z,68nm,0.8s
DAV Davao City (W) 50.25 297 LR LR 07 11 23.1
comp=Z,254nm,20.9s,baz=34,slow=34
TAOE Nuku Hiva Isla 50.27 85*ePKP1* **P** 06 51 27.3 +1.5
comp=Z,183nm,26.1s
TAOE *eS* **S** 06 58 32.9 -2.8
comp=Z,323nm,25.9s
TAOE *eSS* **SS** 07 02 04.4 -5.3
comp=Z,282nm,29.9s
TAOE *eLQ* LQ 07 03 53.0
comp=Z,703nm,28.3s
TAOE *eLR* LR 07 05 57.7
comp=Z,1µm,24.0s
TAOE Nuku Hiva Isla 50.27 85 P **P** 06 51 28.6 +2.8
TAOE IAmb IAmb 06 51 55.1
comp=Z,198nm,1.4s
PLAI Plampang 50.61 275 P **P** 06 51 27.8 -0.4
comp=Z,963nmcomp=Z,65nm,1.8s
PLAI Plampang 50.61 275 P **P** 06 51 27.9 -0.3
comp=Z,65nm,1.8s
TTSI Tana Toraja 50.70 282 P **P** 06 51 28.0 -0.9
comp=Z,32nm,1.2s
DRV Dumont d'Urvil 50.70 194 P **P** 06 51 28.3 +0.2
DRV PcP **PcP** 06 52 44.5 -0.3
GIRL Giralia 50.95 256 P P 06 51 22.7 -8.0
KEKH Kekaha 51.36 38 P **P** 06 51 35.1 +1.5
KEKH Kekaha 51.36 38 P **P** 06 51 34.8 +1.2

comp=Z,249nm,0.9s
TWSI Taliwang, Sumb 51.48 274 P **P** **06 51 33.9 -0.8**
comp=Z,1μmcomp=Z,57nm,1.2s
TOLI2 Tolitoli 51.53 288 P **P** **06 51 34.8 -0.3**
TOLI2 IAmb IAmb 06 51 35.8
comp=Z,87nm,0.9s
TOLI2 Tolitoli 51.53 288 P **P** **06 51 35.0 -0.1**
comp=Z,108nm,0.9s
KIP Kipapa 51.94 40 *de*P **P** **06 51 38.7 +0.7**
KIP pmax pmax
comp=Z,118nm,0.8s
KIP Kipapa 51.94 40 P **P** **06 51 38.6 +0.7**
RKT Rikitea 52.07 104 *e*LQ LQ 07 04 34.0
comp=Z,9μm,41.5s
RKT *e*LR LR 07 06 32.8
comp=Z,9μm,29.2s
POHA Pohakuloa 52.28 44 P **P** **06 51 41.6 +0.8**
POHA sP **sP** **06 51 58.1 -0.1**
HPAH Hawaii Prepara 52.37 43 P **P** **06 51 42.6 +1.3**
comp=Z,277nm,0.9s
KKU Keanakolu 52.50 44 P **P** **06 51 43.4 +0.9**
KHLH Kahului Airpor 52.53 42 P **P** **06 51 44.1 +1.7**
comp=Z,210nm,1.1s
KHKI Kahang-Kahang 52.79 274 P **P** **06 51 44.4 -0.1**
comp=Z,862nmcomp=Z,44nm,1.0s
JCJ Chichijima 53.13 330 P **P** **06 51 43.6 -3.1**
comp=Z,593nm,0.9s,baz=190,slow=1.3,SNR=14
JCJ LR LR 07 12 52.3
comp=Z,428nm,21.3s,baz=123,slow=34
JCJ Chichijima 53.13 330 P **P** **06 51 46.7 0.0**
comp=Z,930nm,1.1s
SNJI Sawahan-Nganju 56.59 274 P **P** **06 52 12.4 +0.1**
comp=Z,61nm,1.2s
KKM Kota Kinabalu 57.81 291 P **P** **06 52 21.2 +0.5**
KKM IAmb IAmb 06 52 22.1
comp=Z,57nm,0.9s
KKM Kota Kinabalu 57.81 291 P **P** **06 52 20.1 -0.6**
comp=Z,964nmcomp=Z,87nm,1.5s
KKM Kota Kinabalu 57.81 291 P **P** **06 52 21.2 +0.5**
comp=Z,87nm,1.5s
VNDA Vanda 58.14 182 P **P** **06 52 22.6 +0.5**
comp=Z,9.4nm,0.6s,baz=356,slow=7.9,SNR=74
VNDA LR LR 07 13 24.8
comp=Z,457nm,21.5s,baz=16,slow=32
comp=Z,9.4nm,0.6s
VNDA Vanda 58.14 182 P **P** **06 52 23.1 +1.1**
VNDA Vanda 58.14 182 P **P** **06 52 22.8 +0.7**
comp=Z,29nm,1.2s
SBA Scott Base 58.38 181 P **P** **06 52 25.7 +2.0**
SBA pmax pmax
comp=Z,86nm,0.9s
SBA Scott Base 58.38 181 P **P** **06 52 25.7 +2.0**
SBA IAmb IAmb 06 52 26.9
comp=Z,86nm,0.9s
SBA Scott Base 58.38 181 P **P** **06 52 26.0 +2.3**
comp=Z,135nm,1.2s
SBA Scott Base 58.38 181 P **P** **06 52 25.8 +2.1**
SBA PcP **PcP** **06 53 15.5 +1.4**
JHJ Hachijo jima 2 59.31 332 LR LR 07 20 22.2
comp=Z,17nm,18.1s,baz=169,slow=38
KPJI Karang Pucung 59.39 273 P **P** **06 52 31.4 -0.3**
comp=Z,50nm,0.9s
STKI Sintang 59.58 282 P **P** **06 52 32.9 -0.1**
CASY Casey 59.77 204 P **P** **06 52 33.6 +0.1**
CASY IAmb IAmb 06 52 34.9
comp=Z,127nm,1.4s
CASY Casey 59.77 204 P **P** **06 52 34.3 +0.8**
comp=Z,34nm,0.7s
CASY Casey 59.77 204 P **P** **06 52 33.7 +0.3**
CASY pP **pP** **06 52 46.1 +0.7**
CASY PcP **PcP** **06 53 20.4 +0.6**
BBJI Bungbulang 60.56 272 P **P** **06 52 39.6 -0.2**
BBJI IAmb IAmb 06 52 40.3
comp=Z,34nm,0.9s
BBJI Bungbulang 60.56 272 P **P** **06 52 39.4 -0.4**
comp=Z,42nm,0.9s
CCD Concordia, Ant 60.57 192 P **P** **06 52 39.6 +0.2**
JOW Kunigami 60.68 318 P **P** **06 52 40.6 +0.4**
comp=Z,78nm,0.9s,baz=129,slow=13,SNR=7.5
JOW LR LR 07 15 11.3
comp=Z,169nm,21.1s,baz=78,slow=32
comp=Z,78nm,0.9s
JOW Kunigami 60.68 318 P **P** **06 52 40.8 +0.6**
JOW IAmb IAmb 06 52 42.6
comp=Z,97nm,1.0s
LEM Lembang 60.79 273 LR LR 07 18 47.8
comp=Z,619nm,22.0s,baz=76,slow=36
INU Inuyama 62.43 331 P **P** **06 52 52.4 +0.5**
INU IAmb IAmb 06 52 53.2
comp=Z,113nm,1.5s
INU Inuyama 62.43 331 P **P** **06 52 52.6 +0.8**
comp=Z,51nm,1.2s
JGF Kuroka 62.48 331 P **P** **06 52 52.0 -0.2**
JGF IAmb IAmb 06 52 53.7
comp=Z,25nm,0.7s
JGF Kuroka 62.48 331 P **P** **06 52 52.6 +0.4**
comp=Z,38nm,1.6s
JMN Monobe 62.65 327 P **P** **06 52 54.3 +0.9**
JMN IAmb IAmb 06 52 55.4
comp=Z,133nm,1.2s
JMN Monobe 62.65 327 P **P** **06 52 54.4 +0.9**
comp=Z,100nm,1.3s
CGJI Cibinong 62.67 273 P **P** **06 52 53.2 -0.7**
JSU Suzuyama 62.77 323 P **P** **06 52 54.5 +0.3**
JSU Suzuyama 62.77 323 P **P** **06 52 53.0 -1.2**
comp=Z,151nm,1.4s
MJAR Matsushiro Arr 62.89 332 P **P** **06 52 54.6 -0.3**
comp=Z,33nm,1.0s,baz=163,slow=6.9,SNR=53
MJAR LR LR 07 21 41.9
comp=Z,115nm,18.8s,baz=140,slow=37
MJAR PKPPKP **P'P'df** **07 21 52.2 -0.6**
comp=Z,0.7nm,0.3s,baz=33,slow=6.2,SNR=4.4
comp=Z,33nm,1.0s
MJAR Matsushiro Arr 62.89 332 P **P** **06 52 55.0 +0.1**
MJAR pmax pmax
comp=Z,77nm,1.2s
MJAR Matsushiro Arr 62.89 332 P **P** **06 52 55.0 +0.1**
MJAR IAmb IAmb 06 52 55.8
comp=Z,77nm,1.2s
MAJO Matsushiro 62.89 332 *d i*P **P** **06 52 55.2 +0.3**
MAJO pmax pmax
comp=Z,55nm,1.1s
MAJO Matsushiro 62.89 332 P **P** **06 52 55.0 0.0**
MAJO IAmb IAmb 06 52 55.8
comp=Z,118nm,1.3s
MAJO Matsushiro 62.89 332 P **P** **06 52 55.3 +0.3**
comp=Z,76nm,2.5s
MJB9 Matsu-Tunnel 62.90 332 P **P** **06 52 55.8 +0.8**
MJB9 IAmb IAmb 06 52 56.8
comp=Z,124nm,1.3s
YULB Yu-li 63.11 310 P **P** **06 52 56.2 -0.4**
YULB IAmb IAmb 06 53 01.5
comp=Z,58nm,1.0s
NACB Ninganchiao 63.39 311 P **P** **06 52 58.2 -0.3**
NACB Ninganchiao 63.39 311 P **P** **06 52 59.0 +0.5**
comp=Z,163nm,1.4s
NACB pP **sP** **06 53 14.8 -1.1**
TPUB Ta-pu 63.54 310 P **P** **06 52 59.1 -0.4**
TPUB Ta-pu 63.54 310 P **P** **06 52 59.4 -0.1**
comp=Z,214nm,1.0s
SSLB Suanglung 63.60 311 P **P** **06 52 59.8 -0.1**
SSLB IAmb IAmb 06 53 00.4
comp=Z,102nm,0.9s
SSLB Suanglung 63.60 311 P **P** **06 52 59.9 0.0**
comp=Z,118nm,0.9s
JNU Nakatsue 63.76 325 P **P** **06 53 00.8 +0.1**
comp=Z,35nm,0.9s,baz=86,slow=0.9,SNR=12
JNU LR LR 07 22 06.6
comp=Z,137nm,18.2s,baz=108,slow=37
comp=Z,35nm,0.9s
YHNB Yeheng 63.85 312 P **P** **06 53 02.2 +0.6**
YHNB Yeheng 63.85 312 P **P** **06 53 02.4 +0.7**
comp=Z,264nm,1.0s
TATO Taipei 63.97 312 P **P** **06 53 02.4 +0.1**
KASI Kota Agung 64.14 273 P **P** **06 53 02.7 -1.0**
comp=Z,88nm,1.2s
MDSI Maura Dua 64.78 274 P **P** **06 53 05.4 -2.5**
comp=Z,1μmcomp=Z,45nm,1.5s
JTM Tenmabayashi 65.37 337 P **P** **06 53 11.6 +0.5**
JTM Tenmabayashi 65.37 337 P **P** **06 53 11.8 +0.7**
comp=Z,208nm,0.9s
ERM Erimo 65.72 339 ⇑ *e*P **P** **06 53 10.0 -3.3**
ERM pmax pmax
comp=Z,54nm,0.8s
ERM Erimo 65.72 339 P **P** **06 53 13.8 +0.6**
ERM IAmb IAmb 06 54 50.4
comp=Z,94nm,1.2s
DSRI Dabo 65.78 279 P **P** **06 53 14.1 -0.3**
MASI Maura Aman, Be 67.05 275 P **P** **06 53 21.6 -0.9**
comp=Z,68nm,0.6s
BTDF Bukit Timah Da 67.20 280 P **P** **06 53 23.6 +0.2**
comp=Z,67nm,1.1s
JKA Kamikawa-asahi 67.78 340 P **P** **06 53 27.7 +1.3**
JKA Kamikawa-asahi 67.78 340 P **P** **06 53 28.4 +2.0**
comp=Z,264nm,0.9s
ASAJ Asahikawa 67.78 340 P **P** **06 53 28.1 +1.7**
comp=Z,162nm,0.8s,baz=208,slow=9.2,SNR=58
ASAJ LR LR 07 17 53.4
comp=Z,745nm,21.8s,baz=120,slow=31
comp=Z,162nm,0.8s
ASAJ Asahikawa 67.78 340 P **P** **06 53 27.7 +1.3**
ASAJ pmax pmax
comp=Z,183nm,0.8s
TJN Taejon 68.11 325 ⇓ *e*P **P** **06 53 29.0 +0.4**
TJN Taejon 68.11 325 P **P** **06 53 29.2 +0.7**
KSRS Korea Array 68.60 326 P **P** **06 53 32.1 +0.4**
comp=Z,4.6nm,0.8s,baz=142,slow=5.4,SNR=19
KSRS PKP2bc **P'P'bc** **07 21 43.8 -0.9**
comp=Z,4.4nm,1.1s,baz=309,slow=2.9,SNR=10
comp=Z,4.6nm,0.8s
KSAR Wonju Array Be 68.61 326 P **P** **06 53 32.1 +0.3**
KSAR Wonju Array Be 68.61 326 P **P** **06 53 32.1 +0.3**
INCN Inchon 69.31 325 P **P** **06 53 36.7 +0.5**
INCN pmax pmax
comp=Z,111nm,1.3s
INCN Inchon 69.31 325 P **P** **06 53 36.7 +0.5**
INCN IAmb IAmb 06 53 37.8
comp=Z,111nm,1.2s
INCN Inchon 69.31 325 P **P** **06 53 36.9 +0.7**
comp=Z,79nm,1.2s
BKNI Bangkinang 69.37 278 P **P** **06 53 37.0 0.0**
BKNI Bangkinang 69.37 278 P **P** **06 53 37.1 0.0**
BKNI Bangkinang 69.37 278 P **P** **06 53 38.1 +1.1**
comp=Z,206nm,1.1s
PDSI Padang 69.48 277 P **P** **06 53 36.5 -1.2**
comp=Z,33nm,0.7s
NJ2 Nanjing 70.25 316 *e*P **P** **06 53 42.9 +1.0**
NJ2 pmax pmax
comp=Z,31nm,0.6s
YSS Yuzhno-Sakhali 70.27 341 ⇓ *e*P **P** **06 53 43.3 +1.6**
YSS *e* 06 54 04.5
YSS *e*S **S** **07 02 53.1 +2.8**
YSS pmax pmax
comp=Z,110nm,0.9s
YSS pmax pmax
comp=Z,700nm,3.9s
YSS Yuzhno-Sakhali 70.27 341 P **P** **06 53 43.0 +1.3**
YSS Yuzhno-Sakhali 70.27 341 P **P** **06 53 43.6 +1.9**
comp=Z,168nm,1.0s
YSS Yuzhno-Sakhali 70.27 341 P **P** **06 53 43.1 +1.3**
YSS PcP **PcP** **06 54 04.4 +1.2**
QSPA South Pole Qui 70.53 180 P **P** **06 53 43.9 +0.5**
comp=Z,68nm,1.0s,baz=21,slow=1.0,SNR=222
QSPA S **S** **07 02 54.2 +0.7**
comp=Z,0.7nm,1.0s,baz=159,slow=22,SNR=3.1
QSPA PKP2bc **P'P'bc** **07 21 38.3 -5.8**
comp=Z,1.3nm,0.9s,baz=236,slow=3.6,SNR=4.3
QSPA LR LR 07 23 26.8
comp=Z,408nm,18.1s,baz=32,slow=35
comp=Z,68nm,1.0s
QSPA South Pole Qui 70.53 180 P **P** **06 53 43.6 +0.1**
QSPA IAmb IAmb 06 53 45.4
comp=Z,100nm,1.1s
QSPA South Pole Qui 70.53 180 P **P** **06 53 44.1 +0.7**
comp=Z,130nm,1.1s
QSPA South Pole Qui 70.53 180 P **P** **06 53 44.2 +0.7**
QSPA pP **pP** **06 53 55.6 -0.2**
SKR Severo-Kuril's 70.81 351 *e*P P 06 53 53.1 +8.2
SKR pmax pmax
comp=Z,200nm,3.6s
SKR MLR MLR
comp=Z,200nm,16.0s
MNSI Mandailing Nat 70.90 278 P **P** **06 53 45.2 -1.2**
comp=Z,6μmcomp=Z,67nm,0.7s
IPM Ipoh 70.91 282 P **P** **06 53 45.8 -0.7**
IPM IAmb IAmb 06 53 47.4
comp=Z,44nm,0.8s
IPM Ipoh 70.91 282 P **P** **06 53 44.8 -1.6**
comp=Z,76nm,1.0s
IPM Ipoh 70.91 282 P **P** **06 53 46.5 +0.1**
comp=Z,76nm,1.0s
KULM Kulim 71.56 283 P **P** **06 53 49.5 -0.8**
KULM Kulim 71.56 283 P **P** **06 53 49.7 -0.7**
comp=Z,45nm,1.5s
KULM Kulim 71.56 283 P **P** **06 53 49.3 -1.1**
comp=Z,45nm,1.5s
USA0B Ussuriysk Arra 71.88 333 *c i*P **P** **06 53 51.8 +0.2**
USA0B Ussuriysk Arra 71.88 333 P **P** **06 53 52.4 +0.8**
USRK Ussuriysk Ar. 71.88 333 P **P** **06 53 52.5 +0.9**
comp=Z,52nm,0.9s,baz=142,slow=4.3,SNR=73
USRK LR LR 07 22 40.7
comp=Z,126nm,20.9s,baz=148,slow=34
comp=Z,52nm,0.9s
USRK Ussuriysk Ar. 71.88 333 P **P** **06 53 51.9 +0.3**
USRK Ussuriysk Ar. 71.88 333 P **P** **06 53 51.9 +0.3**
SHEM Shemya Is, Ala 72.08 3 P **P** **06 53 52.6 0.0**
comp=Z,53nm,0.6s,baz=54,slow=3.0,SNR=12
SHEM LR LR 07 20 47.6
comp=Z,520nm,20.7s,baz=156,slow=32
comp=Z,53nm,0.6s
RPSI Rantau Prapat 72.19 280 P **P** **06 53 53.5 -0.7**
RPSI IAmb IAmb 06 53 54.8
comp=Z,56nm,1.0s
RPSI Rantau Prapat 72.19 280 P **P** **06 53 54.2 0.0**
comp=Z,57nm,1.3s
PSI Prapat 72.23 280 P **P** **06 53 53.5 -1.1**
PSI pmax pmax
comp=Z,56nm,1.0s
PSI Prapat 72.23 280 P **P** **06 53 54.0 -0.6**
comp=Z,57nm,1.3s
GULI GuiLin 72.33 306 ⇑ P **P** **06 53 58.3 +3.6**
GULI pmax pmax
comp=Z,71nm,1.0s
WHN Wuhan 72.36 312 ⇑ P **P** **06 53 55.1 +0.3**
WHN pP **pP** **06 54 06.6 -0.8**
WHN pmax pmax
comp=Z,120nm,0.8s
PET Petropavlovsk 72.79 353 *e*P **P** **06 53 54.3 -2.5**
PET *e*S **S** **07 03 20.5 +1.3**
PET *e*PS **PnS** **07 04 06.2 +11**
PET pmax pmax
comp=Z,78nm,0.7s
PET pmax pmax
comp=Z,200nm,14.0s
PET Petropavlovsk 72.79 353 P **P** **06 53 57.1 +0.3**
PET IAmb IAmb 06 53 58.4
comp=Z,190nm,1.5s
PEA0B Petropavlovsk- 72.98 353 *ce*P **P** **06 53 58.2 +0.2**
PEA0B Petropavlovsk- 72.98 353 P **P** **06 53 58.9 +0.9**
PEA0B IAmb IAmb 06 53 59.8
comp=Z,88nm,0.8s
PETK Petropavlovsk- 72.98 353 P **P** **06 53 58.7 +0.7**
comp=Z,56nm,0.7s,baz=143,slow=6.9,SNR=46
PETK LR LR 07 20 51.8
comp=Z,424nm,21.4s,baz=167,slow=32
comp=Z,56nm,0.7s
PETK Petropavlovsk- 72.98 353 P **P** **06 53 58.5 +0.5**
PETK Petropavlovsk- 72.98 353 P **P** **06 53 58.5 +0.5**
DL2 Dalian 73.10 323 P **P** **06 54 00.0 +1.1**
DL2 S **S** **07 03 20.8 -2.4**
DL2 pmax pmax
comp=Z,150nm,0.7s
DL2 pmax pmax
comp=Z,360nm,6.5s
DL2 L L
comp=Z,410nm,24.6s
DL2 L L
comp=Z,520nm,22.3s
DL2 L L
comp=Z,830nm,23.7s
MDJ Mudanjiang 73.26 332 P **P** **06 54 00.4 +0.6**
MDJ pmax pmax
comp=Z,140nm,1.2s
MDJ L L
comp=Z,580nm,12.1s
MDJ Mudanjiang 73.26 332 P **P** **06 53 59.9 +0.1**
MDJ IAmb IAmb 06 54 01.7
comp=Z,98nm,0.9s
MDJ Mudanjiang 73.26 332 P **P** **06 54 00.8 +1.0**
comp=Z,116nm,1.1s
KCSI Kotacane, Aceh 73.57 280 P **P** **06 54 00.2 -2.1**
comp=Z,27nm,1.3s
TYV Tymovskoe 73.81 343 *e*P **P** **06 54 04.2 +1.3**
TYV *e*S **S** **07 03 33.6 +2.8**
TYV pmax pmax
comp=Z,51nm,1.1s
TYV pmax pmax
comp=Z,200nm,2.7s
TYV smax smax
comp=N,400nm,3.7s
TYV smax smax
comp=E,300nm,3.7s
TIA Tai'an 74.00 319 P **P** **06 54 04.0 -0.3**
TIA pmax pmax
comp=E,35nm,1.0s
SNY Shenyang 74.08 326 P **P** **06 54 05.3 +0.6**
SNY pmax pmax
comp=E,22nm,0.8s
RPN Rapa Nui 74.20 114 LR LR 07 18 29.7
comp=E,414nm,20.7s,baz=282,slow=29
CN2 Changchun 74.58 329 ⇑ P **P** **06 54 07.8 +0.3**
CN2 pmax pmax
comp=E,40nm,0.7s
CN2 pmax pmax
comp=E,200nm,2.6s
MLSI Meulaboh, Aceh 75.11 280 P **P** **06 54 10.5 -0.8**
BNX BinXian 75.11 331 ⇑ P **P** **06 54 10.4 -0.1**
BNX pP **sP** **06 54 27.8 -0.4**
BNX sP PcP 06 54 34.0 +10
BNX S **S** **07 03 45.8 +0.2**
BNX pmax pmax
comp=E,120nm,0.8s
BNX L L
comp=E,430nm,28.2s
SLVN Son La 75.50 299 P **P** **06 54 13.4 0.0**
SLVN Son La 75.50 299 P **P** **06 54 13.5 0.0**
comp=E,16nm,2.6s
GRNR Gornyy 75.63 339 ⇑ *i*P **P** **06 54 15.1 +1.7**
GRNR pmax pmax
comp=Z,90nm,0.9s
ENH Enshi 75.67 310 P **P** **06 54 14.3 +0.1**
comp=Z,68nm,1.2s
LYN LuoYang 76.00 315 ⇓ P **P** **06 54 17.3 +1.4**
LYN pP **sP** **06 54 33.5 0.0**
LYN sP pP 06 54 42.3 +14
LYN pmax pmax
comp=Z,150nm,1.0s
LYN pmax pmax
comp=Z,1μm,5.5s
KLR Kul'dur 76.03 336 P **P** **06 54 16.4 +0.7**
comp=Z,29nm,0.9s,baz=122,slow=3.9,SNR=50
KLR LR LR 07 23 37.4
comp=Z,280nm,21.9s,baz=166,slow=32
comp=Z,29nm,0.9s
KLR Kul'dur 76.03 336 *ce*P **P** **06 54 16.3 +0.6**
KLR pmax pmax
comp=Z,125nm,1.7s
UNV Unalaska Valle 76.06 15 P **P** **06 54 15.1 -0.7**
UNV IAmb IAmb 06 54 17.6
comp=Z,82nm,0.8s
HNS HongShan 76.25 318 ⇑ P **P** **06 54 18.3 +1.0**
HNS pmax pmax
comp=Z,41nm,1.4s
BSI Banda Aceh 76.58 281 P **P** **06 54 18.5 -1.2**
comp=Z,1μmcomp=Z,106nm,1.1s
BJI2 Beijing 77.00 321 P **P** **06 54 22.3 +0.9**
BJI2 pP **pP** **06 54 35.3 +1.1**
BJI2 sP **sP** **06 54 41.1 +2.0**
BJI2 S **S** **07 04 07.8 +1.2**
BJI2 pmax pmax
comp=Z,32nm,0.8s
BJI2 pmax pmax
comp=Z,280nm,8.2s
BJI2 L L
comp=Z,180nm,14.9s
BJI2 L L
comp=Z,170nm,17.0s
BJI2 L L
comp=Z,450nm,31.6s
BJT Baijiatuan 77.00 321 P **P** **06 54 22.4 +0.9**
comp=Z,50nm,0.9s
BJT Baijiatuan 77.00 321 P **P** **06 54 22.1 +0.7**
TIY Taiyuan 77.88 317 P **P** **06 54 27.9 +1.4**
TIY S **S** **07 04 17.3 +0.8**
MAW Mawson 78.08 202 P **P** **06 54 28.7 +1.6**
comp=Z,11nm,1.2s
MAW Mawson 78.08 202 P **P** **06 54 28.6 +1.5**
comp=Z,38nm,1.0s,baz=119,slow=7.1,SNR=34
MAW LR LR 07 24 24.6
comp=Z,742nm,20.5s,baz=117,slow=32
comp=Z,38nm,1.0s
MAW Mawson 78.08 202 P **P** **06 54 28.1 +1.0**
MAW pmax pmax
comp=Z,11nm,1.1s
MAW Mawson 78.08 202 P **P** **06 54 28.1 +1.0**
MAW Mawson 78.08 202 P **P** **06 54 28.7 +1.6**
comp=Z,11nm,1.2s
XAN Xi'an 78.12 313 ⇑ P **P** **06 54 28.6 +0.6**
XAN pmax pmax
comp=Z,89nm,0.9s
XAN Xi'an 78.12 313 P **P** **06 54 28.5 +0.5**
XAN pP **pP** **06 54 40.5 -0.2**
KMI2 Kunming 78.23 302 ⇑ P **P** **06 54 30.5 +1.6**
KMI2 pmax pmax
comp=Z,92nm,1.0s
KMI2 L L
comp=Z,430nm,19.7s
CMAR Chiang Mai Arr 78.40 294 P **P** **06 54 31.1 +1.4**
comp=Z,5.5nm,0.6s,baz=124,slow=4.1,SNR=31
CMAR PKiKP **PKiKP** **07 00 06.7 +0.5**
comp=Z,0.9nm,0.3s,baz=314,slow=0.1,SNR=4.3
CMAR PKKPbc **PKKPbc** **07 13 27.1 +0.1**
comp=Z,1.2nm,0.4s,baz=297,slow=5.0,SNR=5.6
CMAR PKPPKP **P'P'df** **07 21 29.1 -0.8**
comp=Z,1.5nm,0.3s,baz=274,slow=3.8,SNR=6.1
comp=Z,5.5nm,0.6s
CMAR Chiang Mai Arr 78.40 294 P **P** **06 54 30.0 +0.3**
CMAR Chiang Mai Arr 78.40 294 P **P** **06 54 30.0 +0.3**
CHTO Chiang Mai 78.55 295 P **P** **06 54 30.6 0.0**
CHTO pmax pmax
comp=Z,107nm,1.7s
CHTO Chiang Mai 78.55 295 P **P** **06 54 30.6 0.0**
CHTO IAmb IAmb 06 54 33.0
comp=Z,107nm,1.7s
CHTO Chiang Mai 78.55 295 P **P** **06 54 30.4 -0.2**
comp=Z,25nm,1.4s
CHTO Chiang Mai 78.55 295 P **P** **06 54 31.8 +1.3**
comp=Z,25nm,1.4s
HEH HeiHe 78.56 334 *e*P **P** **06 54 29.8 -0.1**
HEH pmax pmax
comp=Z,41nm,0.8s
SDPT Sand Point 78.97 17 P **P** **06 54 31.6 -0.4**
SDPT IAmb IAmb 06 54 33.5
comp=Z,81nm,0.8s
XLT XiLinHaoTe 79.53 324 *e*P **P** **06 54 36.4 +0.9**
XLT pmax pmax
comp=Z,32nm,1.3s
XLT pmax pmax
comp=Z,230nm,5.7s
MA2 Magadan 80.21 351 P **P** **06 54 38.7 +0.1**
comp=Z,35nm,0.7s,baz=141,slow=3.6,SNR=9.2
MA2 LR LR 07 25 44.9
comp=Z,388nm,20.9s,baz=144,slow=32
comp=Z,35nm,0.7s
MA2 Magadan 80.21 351 ⇓ *e*P **P** **06 54 38.5 -0.2**
MA2 pmax pmax
comp=Z,21nm,0.7s
MA2 Magadan 80.21 351 P **P** **06 54 38.2 -0.5**
MA2 IAmb IAmb 06 54 39.7
comp=Z,46nm,0.8s
CD2 Chengdu 80.22 308 P **P** **06 54 40.1 +0.6**
CD2 pmax pmax
comp=Z,50nm,0.8s
HHC Hu-ho-hao-te 80.28 320 ⇓ *i*P **P** **06 54 40.8 +1.2**
HHC pP **pP** **06 54 53.5 +1.1**
HHC S **S** **07 04 44.1 +2.2**
HHC pmax pmax
comp=Z,37nm,0.8s
HHC L L
comp=Z,250nm,16.8s
HHC L L
comp=Z,260nm,11.8s
HHC L L
comp=Z,280nm,16.8s
HIA Hailar 81.23 330 P **P** **06 54 44.8 +0.4**
HIA pmax pmax
comp=Z,50nm,1.2s
HIA Hailar 81.23 330 P **P** **06 54 44.8 +0.4**

HIA Hailar 81.23 330 P P 06 54 44.6 +0.2
comp=Z,41nm,1.3s
BTO2 Baotou 81.26 319 *e*P **P 06 54 46.3 +1.4**
BTO2 pP **sP 06 55 03.0 +0.4**
BTO2 sP pP 06 55 09.8 +12
BTO2 pmax pmax
comp=Z,34nm,1.8s
BTO2 pmax pmax
comp=Z,930nm,5.0s
ZEA Zeya 81.32 336 *e*P **P 06 54 45.7 +1.0**
ZEA pmax pmax
comp=N,20nm,1.3s
ZEA pmax pmax
comp=Z,50nm,1.6s
NPW Naypyitaw 81.36 294 P **P 06 54 46.1 +0.3**
comp=Z,38nm,1.3s
HILR Hailar Array B 81.43 330 P **P 06 54 45.7 +0.2**
comp=Z,6.5nm,0.6s,baz=127,slow=9.4,SNR=14
HILR LR LR 07 33 10.0
comp=Z,113nm,18.1s,baz=80,slow=37
comp=Z,6.5nm,0.6s
BELA Belgrano 2 81.84 175 P **P 06 54 47.1 -0.2**
BELA IAmb IAmb 06 54 48.4
comp=Z,108nm,0.9s
LZH Lanzhou 82.74 312 *e*P **P 06 54 54.3 +1.5**
LZH pP **pP 06 55 07.6 +1.9**
LZH pmax pmax
comp=Z,79nm,1.1s
LZDM Lanzhou Array 82.78 312 P **P 06 54 54.9 +1.7**
comp=Z,11nm,0.7s,baz=112,slow=6.6,SNR=14
comp=Z,11nm,0.7s
SEY Seymchan 83.22 352 P **P 06 54 54.5 +0.1**
comp=Z,23nm,1.0s,baz=154,slow=6.0,SNR=20
SEY LR LR 07 27 35.3
comp=Z,662nm,21.3s,baz=148,slow=32
comp=Z,23nm,1.0s
SEY Seymchan 83.22 352⇑ *e*P **P 06 54 54.2 -0.2**
SEY pmax pmax
comp=Z,52nm,1.3s
KDAK Kodiak Island 83.38 20 P **P 06 54 55.9 +0.6**
comp=Z,57nm,0.8s,baz=234,slow=2.8,SNR=26
KDAK LR LR 07 25 33.5
comp=Z,501nm,20.8s,baz=210,slow=31
comp=Z,57nm,0.8s
KDAK Kodiak Island 83.38 20 *de*P **P 06 54 56.1 +0.7**
KDAK pmax pmax
comp=Z,196nm,1.2s
KDAK Kodiak Island 83.38 20 P **P 06 54 56.3 +0.9**
KDAK IAmb IAmb 06 54 58.4
comp=Z,140nm,1.1s
KDAK Kodiak Island 83.38 20 P **P 06 54 56.5 +1.1**
KDAK PcP **PcP 06 55 00.3 +0.7**
KDAK sP **sP 06 55 13.2 +0.1**
P17K Kvichak River 83.40 17 P **P 06 54 55.8 +0.3**
SMAI San Martin Ant 83.64 162 P **P 06 54 57.3 +0.6**
SMAI IAmb IAmb 06 54 58.8
comp=Z,66nm,1.5s
Q19K Cape Douglas, 83.98 18 P **P 06 54 58.7 +0.1**
SYO Syowa Base 84.60 196⇑ *i*P **P 06 55 01.4 -0.2**
MORE Moreh 84.73 298 P **P 06 55 02.0 -1.1**
MORE IAmb IAmb 06 55 02.9
comp=Z,44nm,1.2s
O19K Port Alsworth 84.83 17 P **P 06 55 03.0 +0.3**
HOM Homer 85.18 19 P **P 06 55 04.6 +0.1**
CNPM China Poot 85.20 19 P **P 06 55 04.5 -0.2**
RED Redoubt Volcan 85.46 18 P **P 06 55 05.8 -0.1**
RED IAmb IAmb 06 55 08.6
comp=Z,60nm,1.2s
BRLK Bradley Lake 85.50 19 P **P 06 55 06.8 +0.7**
BRLK IAmb IAmb 06 55 09.4
comp=Z,71nm,0.9s
ELIB Princess Elisa 85.82 190 *d*P **P 06 55 07.6 -0.3**
HULI Fort Hunter Li 86.00 50 P **P 06 55 10.9 +1.7**
KMPM Mount Pierce 86.10 45 P **P 06 55 11.3 +1.7**
KMPM IAmb IAmb 06 55 13.7
comp=Z,54nm,0.8s
KCPM Cahto Peak 86.10 46 P **P 06 55 11.2 +1.5**
DCMP DeCamp, Califo 86.16 46 P **P 06 55 10.8 +1.0**
DCMP IAmb IAmb 06 55 13.5
comp=Z,23nm,0.8s
SAO San Andreas Ge 86.19 49 P **P 06 55 11.6 +1.5**
SAO pmax pmax
comp=Z,57nm,0.9s
SAO San Andreas Ge 86.19 49 P **P 06 55 11.6 +1.5**
SAO IAmb IAmb 06 55 14.2
comp=Z,57nm,0.8s
GDXM Geysers 86.21 47 P **P 06 55 11.7 +1.4**
GDXM IAmb IAmb 06 55 14.8
comp=Z,36nm,1.1s
CVS Carmenet Viney 86.22 47 P **P 06 55 10.9 +0.7**
CVS IAmb IAmb 06 55 15.5
comp=Z,103nm,1.2s
KMRM Mail Ridge 86.27 45 P **P 06 55 11.9 +1.4**
SLKM Skilak Lake 86.29 19 P **P 06 55 09.4 -0.6**
SLKM IAmb IAmb 06 55 12.1
comp=Z,54nm,0.8s
MHC Mount Hamilton 86.32 48 P **P 06 55 11.2 +0.3**
MHC pmax pmax
comp=Z,64nm,0.9s
MHC Mount Hamilton 86.32 48 P **P 06 55 11.2 +0.3**
MHC IAmb IAmb 06 55 15.2
comp=Z,64nm,0.8s
BBGB Big Mountain B 86.39 49 P **P 06 55 12.8 +1.6**
PMPB Monarch Peak 86.40 50 P **P 06 55 12.4 +1.2**
O22K Cooper Landing 86.42 19 P **P 06 55 11.0 +0.4**
PKD Bear Valley Ra 86.46 50 P **P 06 55 12.3 +0.8**
PKD IAmb IAmb 06 55 15.5
comp=Z,69nm,0.8s
KHMM Horse Mountain 86.58 44 P **P 06 55 13.2 +1.1**
PMSA Palmer Station 86.73 160 LR LR 07 27 30.7
comp=Z,347nm,21.2s,baz=264,slow=31
ULN Ulaanbaatar 86.95 323 *c i*P **P 06 55 13.8 +0.1**
ULN pmax pmax
comp=Z,89nm,1.1s
ULN Ulaanbaatar 86.95 323 P **P 06 55 14.2 +0.5**
ULN Ulaanbaatar 86.95 323 P **P 06 55 12.6 -1.1**
ULN Ulaanbaatar 86.95 323 P **P 06 55 14.0 +0.3**
comp=Z,91nm,1.2s
ULN Ulaanbaatar 86.95 323 P **P 06 55 14.1 +0.4**
YAK Yakutsk 87.07 343 P **P 06 55 13.6 -0.1**
comp=Z,131nm,0.9s,baz=123,slow=2.8,SNR=42
YAK LR LR 07 29 55.5
comp=Z,281nm,21.8s,baz=144,slow=33
comp=Z,131nm,0.9s
YAK Yakutsk 87.07 343 *e*P **P 06 55 13.4 -0.3**
YAK *e**PP **pP 06 55 26.0 -0.7**
YAK *e* 06 58 35.0
YAK *e*S S 07 05 36.4 -13
YAK *e*SS **SS 07 11 32.9 -0.7**
YAK pmax pmax
comp=Z,169nm,0.9s
YAK pmax pmax
comp=E,24nm,1.3s
YAK pmax pmax
comp=N,30nm,1.3s
YAK pmax pmax
comp=Z,117nm,3.0s
YAK pmax pmax
comp=N,62nm,3.5s
YAK pmax pmax
comp=E,97nm,3.2s
YAK smax smax
comp=N,172nm,3.6s
YAK smax smax
comp=E,67nm,3.5s
YAK Yakutsk 87.07 343 P **P 06 55 14.2 +0.5**
comp=Z,228nm,1.0s
GTA2 Gaotai 87.22 314 P **P 06 55 16.0 +0.8**
GTA2 pmax pmax
comp=Z,62nm,1.0s
SONM Songino Array 87.30 323 P **P 06 55 16.0 +0.6**
comp=Z,39nm,0.9s,baz=144,slow=6.6,SNR=119
SONM PKKPbc **PKKPbc 07 13 06.2 -1.6**
comp=Z,1.9nm,0.7s,baz=219,slow=1.9,SNR=6.3
SONM LR LR 07 35 56.0
comp=Z,49nm,18.0s,baz=126,slow=37
comp=Z,39nm,0.9s
BILL Bilibino 87.33 359 *c i*P **P 06 55 14.5 -0.4**
BILL pmax pmax
comp=Z,60nm,0.9s
BILL Bilibino 87.33 359 P **P 06 55 15.0 +0.1**
BILL PcP **PcP 06 55 17.5 +0.7**
BILI Bilibino, Chuk 87.34 359 P **P 06 55 14.9 0.0**
comp=Z,80nm,0.8s
PASC Pasadena Art C 87.41 52 P **P 06 55 16.6 +0.5**
MWC Mount Wilson 87.53 52 P **P 06 55 17.5 +0.6**
MWC pmax pmax
comp=Z,80nm,0.7s
MWC Mount Wilson 87.53 52 P **P 06 55 17.5 +0.6**
YBH Yreka Blue Hor 87.67 44 LR LR 07 27 02.0
comp=Z,561nm,20.4s,baz=236,slow=30
ESJX Sierra Juarez 88.20 55 P **P 06 55 21.5 +1.3**
ESJX IAmb IAmb 06 55 24.0
comp=Z,25nm,0.7s
H02S1 DAWSON INLET T 88.23 31 P **P 06 55 17.6 -1.9**
H02S2 DAWSON INLET T 88.23 31 P **P 06 55 18.4 -1.1**
TROLL Troll, Antarti 88.24 184⇑ P **P 06 55 19.4 -0.2**
comp=Z,8µm,0.6s
BEKR Beckworth 88.37 47 P **P 06 55 21.4 +0.6**
BEKR IAmb IAmb 06 55 24.2
comp=Z,32nm,0.7s
PFO Pinyon Flats O 88.47 54 LR LR 07 26 11.2
comp=Z,451nm,21.9s,baz=234,slow=30
PFO Pinyon Flats O 88.47 54 *c i*P **P 06 55 22.2 +0.9**
PFO pmax pmax
comp=Z,49nm,0.9s
PFO Pinyon Flats O 88.47 54 P **P 06 55 22.4 +1.1**
comp=Z,42nm,0.9s
PFO Pinyon Flats O 88.47 54 P **P 06 55 22.3 +0.9**
PFO pP **pP 06 55 34.8 +0.3**
XPFO Pinon Flat 88.48 54 P **P 06 55 22.3 +0.9**
XPFO pP **pP 06 55 34.8 +0.3**
NVL N'lazarevskaya 88.55 187 *e*P **P 06 55 19.9 -1.0**
NVL *e**PP **pP 06 55 32.6 -1.2**
NVL *e*S **SKSac 07 05 40.9 -5.2**
NVL pmax pmax
comp=Z,71nm,0.8s
NVL MLR MLR
comp=Z,364nm,17.0s
CLC China Lake 88.55 51 P **P 06 55 22.5 +0.9**
CLC pmax pmax
comp=Z,72nm,1.0s
CLC China Lake 88.55 51 P **P 06 55 22.5 +0.9**
CLC IAmb IAmb 06 55 25.2
comp=Z,72nm,1.0s
SNAA Sanae 88.87 183⇑ P **P 06 55 22.1 -0.4**
comp=Z,1µm,0.6s
SNAA Sanae 88.87 183 P **P 06 55 22.6 +0.1**
comp=Z,58nm,0.6s,baz=196,slow=5.3,SNR=103
SNAA LR LR 07 31 34.3
comp=Z,266nm,21.4s,baz=174,slow=33
comp=Z,58nm,0.6s
SNAA Sanae 88.87 183 *c i*P **P 06 55 22.3 -0.2**
SNAA pmax pmax
comp=Z,101nm,1.1s
SNAA Sanae 88.87 183 P **P 06 55 22.7 +0.2**
SNAA Sanae 88.87 183 P **P 06 55 22.3 -0.2**
comp=Z,138nm,1.1s
NVAR Mina Array Bea 89.17 49 P **P 06 55 25.6 +1.0**
comp=Z,20nm,0.7s,baz=228,slow=8.1,SNR=55
NVAR LR LR 07 27 02.9
comp=Z,697nm,21.4s,baz=266,slow=30
comp=Z,20nm,0.7s
GOMU GeErMu 89.27 309 P **P 06 55 25.1 -0.2**
GOMU pmax pmax
comp=Z,10.0nm,0.9s
SRIG Santa Rosalia 89.33 61 P **P 06 55 27.0 +1.7**
comp=Z,70nm,0.9s
VNA3 Neumayer Olymp 89.47 180⇑ P **P 06 55 24.6 -0.6**
comp=Z,250nm,0.7s
VNA3 Neumayer Olymp 89.47 180 P **P 06 55 24.9 -0.4**
comp=Z,432nm,0.8s
LSA Lhasa 89.47 302 P **P 06 55 27.6 +1.1**
comp=Z,31nm,1.2s
G04A Mulino 89.48 41 P **P 06 55 26.7 +1.1**
BOD Bodaibo 89.48 334 *e*P **P 06 55 23.9 -1.4**
BOD pmax pmax
comp=Z,89nm,1.3s
LPIG La Paz 89.75 64 LR LR 07 26 51.7
comp=Z,644nm,21.4s,baz=244,slow=30
VNA2 Neumayer--Watz 89.76 181⇑ P **P 06 55 26.3 -0.3**
comp=Z,167nm,0.6s,baz=171,slow=4.8
VNA2 Neumayer--Watz 89.76 181 P **P 06 55 26.4 -0.2**
comp=Z,350nm,1.0s
BBB Bella Bella 89.84 33 LR LR 07 30 21.0
comp=Z,279nm,18.6s,baz=235,slow=32
VNA1 Neumayer--Stat 90.05 181⇑ P **P 06 55 27.9 0.0**
comp=Z,155nm,0.9s
L26K Log Cabin Wild 90.34 20 P **P 06 55 28.4 -0.9**
COLA College 90.38 17⇑ *e*P **P 06 55 28.5 -0.8**
COLA pmax pmax
comp=Z,34nm,0.9s
COLA College 90.38 17 P **P 06 55 27.9 -1.3**
comp=Z,40nm,0.9s
ZAK Zakamensk 90.39 324 *e*P **P 06 55 28.2 -1.6**
ZAK pmax pmax
comp=Z,32nm,1.4s
ILAR Eielson Array 90.57 17 P **P 06 55 28.7 -1.6**
comp=Z,19nm,0.8s,baz=238,slow=5.0,SNR=142
ILAR PKiKP **PKiKP 07 00 24.4 -0.1**
comp=Z,0.8nm,0.7s,baz=249,slow=2.9,SNR=5.2
ILAR PKKPbc **PKKPbc 07 13 00.2 -0.1**
comp=Z,0.6nm,0.8s,baz=345,slow=1.9,SNR=5.6
ILAR LR LR 07 30 35.5
comp=Z,512nm,20.2s,baz=237,slow=32
comp=Z,19nm,0.8s
WVOR Wild Horse Val 90.68 45 P **P 06 55 32.6 +1.2**
comp=Z,83nm,1.0s
PALK Pallekele 90.79 277 LR LR 07 36 22.5
comp=Z,349nm,21.8s,baz=120,slow=36
PALK Pallekele 90.79 277⇑ *e*P **P 06 55 32.9 +0.4**
PALK pmax pmax
comp=Z,26nm,1.0s
IRK Irkutsk 90.81 326 *e*P **P 06 55 30.0 -1.7**
IRK pmax pmax
comp=Z,30nm,0.9s
SCRK Sand Creek 90.83 19 P **P 06 55 31.2 -0.4**
SCRK IAmb IAmb 06 55 35.1
comp=Z,34nm,0.8s
TLY Talaya 90.86 326 LR LR 07 33 19.9
comp=Z,130nm,22.0s,baz=113,slow=34
TLY Talaya 90.86 326 *c i*P **P 06 55 31.4 -0.5**
TLY pmax pmax
comp=Z,20nm,0.9s
TLY Talaya 90.86 326 P **P 06 55 31.5 -0.5**
TLY IAmb IAmb 06 55 32.8
comp=Z,23nm,0.8s
TLY Talaya 90.86 326 P **P 06 55 32.1 +0.2**
comp=Z,37nm,1.1s
W13A Hualapai Mount 91.02 53 P **P 06 55 34.4 +1.0**
W13A IAmb IAmb 06 55 37.5
comp=Z,49nm,0.8s
MOY Mondy 92.28 325 *e*P **P 06 55 37.8 -0.8**
MOY pmax pmax
comp=Z,47nm,1.6s
TUC Tucson 92.36 57 P **P 06 55 40.8 +1.4**
comp=Z,68nm,1.1s
EVN Everest 92.36 299 P **P 06 55 40.3 +0.1**
EVN IAmb IAmb 06 55 41.6
comp=Z,64nm,1.5s
EVN Everest 92.36 299 P **P 06 55 40.7 +0.5**
comp=Z,29nm,1.6s
DLBC Dease Lake 92.40 27 P **P 06 55 39.1 +0.2**
comp=Z,47nm,0.9s,baz=207,slow=5.8,SNR=32
DLBC LR LR 07 29 27.0
comp=Z,450nm,20.8s,baz=254,slow=30
comp=Z,47nm,0.9s
E23K Chandalar 92.40 14 P **P 06 55 39.5 +0.7**
E23K IAmb IAmb 06 55 42.1
comp=Z,18nm,0.9s
R33M Jennings River 92.55 26 P **P 06 55 40.1 +0.4**
D23K Nanushuk River 92.88 14 P **P 06 55 41.6 +0.8**
D23K IAmb IAmb 06 55 44.7
comp=Z,41nm,0.9s
G27K Doyon Strip 93.54 18 P **P 06 55 43.8 -0.1**
KNGR Kungurtug, Tuv 93.72 323⇓ *e*P **P 06 55 46.9 +1.6**
KNGR pmax pmax
comp=Z,16nm,1.1s
DUG Dugway, Tooele 93.77 49 P **P 06 55 46.0 +0.2**
DUG pmax pmax
comp=Z,25nm,1.5s
DUG Dugway, Tooele 93.77 49 P **P 06 55 46.0 +0.2**
DUG IAmb IAmb 06 55 49.4
comp=Z,25nm,1.5s
DUG Dugway, Tooele 93.77 49 P **P 06 55 46.2 +0.4**
comp=Z,12nm,1.3s
NEW Newport 94.14 40 LR LR 07 29 34.0
comp=Z,224nm,22.0s,baz=243,slow=30
NEW Newport 94.14 40 P **P 06 55 48.5 +1.2**
comp=Z,16nm,1.4s
HMU Henry Mountain 94.44 51 P **P 06 55 50.6 +1.5**
HMU IAmb IAmb 06 57 43.3
comp=Z,19nm,0.9s
G29M Pine Creek 94.67 18 P **P 06 55 49.5 +0.3**
G29M IAmb IAmb 06 55 52.5
comp=Z,29nm,0.9s
121A Cookes Peak, D 94.81 57 P **P 06 55 51.8 +0.9**
121A IAmb IAmb 06 55 55.2
comp=Z,18nm,1.1s
TIXI Tiksi 94.97 348 P **P 06 55 48.8 -1.5**
comp=Z,9.8nm,1.0s,baz=147,slow=3.5,SNR=14
TIXI PKiKP **PKiKP 07 00 30.2 -1.6**
comp=Z,0.5nm,0.3s,baz=157,slow=2.9,SNR=1.6
TIXI LR LR 07 38 15.2
comp=Z,218nm,18.7s,baz=188,slow=35
comp=Z,9.8nm,1.0s
TIXI Tiksi 94.97 348⇓ *e*P **P 06 55 49.2 -1.1**
TIXI pmax pmax
comp=Z,12nm,0.9s
TIXI Tiksi 94.97 348 P **P 06 55 49.3 -1.1**
comp=Z,13nm,1.2s
HWUT Hardware Ranch 95.17 48 P **P 06 55 52.8 +0.5**
comp=Z,15nm,0.8s
MVCO Mesa Verde 95.85 53 P **P 06 55 56.4 +0.8**
comp=Z,11nm,0.9s
LL02 Futaleuf 96.30 140 P **P 06 55 58.0 +0.7**
comp=Z,18nm,0.8s
MNTX Cornudas Mount 96.46 59 P **P 06 55 59.3 +1.1**
comp=Z,14nm,1.1s
ANMO Albuquerque 96.66 55 LR LR 07 30 36.5
comp=Z,177nm,21.9s,baz=246,slow=30
ANMO Albuquerque 96.66 55 *de*P **P 06 55 59.8 +0.6**
ANMO pmax pmax
comp=Z,12nm,1.0s
ANMO Albuquerque 96.66 55 P **P 06 56 00.1 +0.9**
comp=Z,12nm,1.0s
INK Inuvik 96.89 18 P **P 06 55 58.6 -0.5**
comp=Z,22nm,1.0s,baz=256,slow=3.7,SNR=29
INK PKiKP **PKiKP 07 00 34.2 -1.0**
comp=Z,1.7nm,0.8s,baz=322,slow=0.8,SNR=4.3
INK LR LR 07 36 55.6
comp=Z,243nm,18.7s,baz=304,slow=34
comp=Z,22nm,1.0s
INK Inuvik 96.89 18 P **P 06 55 58.8 -0.3**
comp=Z,30nm,1.2s
PDAR Pinedale Array 96.98 47 P **P 06 56 00.3 -0.2**
comp=Z,5.8nm,1.0s,baz=194,slow=0.6,SNR=18
PDAR PP **PP 06 59 53.6 -3.2**
comp=Z,0.2nm,0.6s,baz=248,slow=7.5,SNR=3.9
PDAR PKiKP **PKiKP 07 00 35.5 -1.1**
comp=Z,0.5nm,0.6s,baz=174,slow=1.9,SNR=4.0
PDAR LR LR 07 34 25.4
comp=Z,268nm,19.2s,baz=250,slow=32
comp=Z,5.8nm,1.0s
TXAR Lajitas Array 97.11 62 P Pdif 06 56 01.8 +0.4
comp=Z,5.2nm,0.8s,baz=223,slow=5.7,SNR=51
TXAR PKiKP **PKiKP 07 00 36.3 -0.7**
comp=Z,0.4nm,0.8s,baz=56,slow=0.5,SNR=3.9
TXAR PKKPbc **PKKPbc 07 12 42.0 +0.5**
comp=Z,1.1nm,0.8s,baz=97,slow=3.4,SNR=13
TXAR LR LR 07 32 40.4
comp=Z,403nm,19.3s,baz=262,slow=31
comp=Z,5.2nm,0.8s
WMQ Urumqi 97.23 314 *e*P P 06 55 49.5 -12
WMQ pP pP 06 56 13.1 -1.3
WMQ pmax pmax
comp=Z,50nm,1.1s
WMQ pmax pmax
comp=Z,78nm,3.8s
WMQ LR LR
comp=N,370nm,20.1s
WMQ LR LR
comp=E,390nm,22.7s
WMQ LR LR
comp=Z,290nm,23.9s
PLCA Paso Flores 98.48 139 P Pdif 06 56 07.6 +0.2
comp=Z,3.2nm,0.9s,baz=202,slow=4.3,SNR=7.4
PLCA LR LR 07 31 06.0
comp=Z,142nm,21.3s,baz=236,slow=30
comp=Z,3.2nm,0.9s
PLCA Paso Flores 98.48 139 *e*P Pdif 06 56 07.4 0.0
YKA Yellowknife Ar 101.03 27 P **Pdif 06 56 18.1 +0.3**
comp=Z,16nm,0.8s,baz=255,slow=4.8,SNR=30
YKA PKiKP **PKiKP 07 00 41.5 -1.3**
comp=Z,1.0nm,0.7s,baz=251,slow=1.6,SNR=4.2
RSSD Black Hills 101.22 47 P **Pdif 06 56 19.7 +0.3**
comp=Z,7.6nm,0.6s
MK31 Makanchi Array 101.77 316 *d i*P **Pdif 06 56 21.9 +0.3**
MKAR Makanchi Array 101.77 316 P **Pdif 06 56 21.8 +0.2**
comp=Z,4.1nm,0.6s,baz=104,slow=5.2,SNR=22
MKAR PP **PP 07 00 30.2 -2.8**
comp=Z,4.0nm,1.1s,baz=106,slow=8.9,SNR=6.8
MKAR PKiKP **PKiKP 07 00 43.1 -1.6**
comp=Z,3.0nm,0.9s,baz=104,slow=3.8,SNR=7.6
MKAR PKKPbc **PKKPbc 07 12 25.6 -3.4**
comp=Z,1.0nm,0.6s,baz=299,slow=2.8,SNR=9.0
MKAR PKKP PKKPdf 07 12 49.0 +13
comp=Z,1.6nm,0.8s,baz=308,slow=4.0,SNR=9.2
MKAR Makanchi Array 101.77 316 *i* P **Pdif 06 56 21.7 +0.1**
MKAR pmax pmax
comp=Z,4.0nm,0.6s
ZALV Zalesovo Beam 102.20 323 P **Pdif 06 56 22.4 -0.8**
comp=Z,3.8nm,0.8s,baz=104,slow=4.7,SNR=10
ZALV PP **PP 07 00 30.4 -5.5**
comp=Z,2.5nm,1.0s,baz=89,slow=6.4,SNR=4.1
ZALV PKiKP **PKiKP 07 00 44.9 -0.3**
comp=Z,1.9nm,0.7s,baz=66,slow=1.8,SNR=5.5
ZALV PKKPbc PKKPbc 07 12 17.7 -10
comp=Z,0.6nm,0.6s,baz=259,slow=1.5,SNR=3.6
ZALV PKPPKP **P'P'df 07 20 45.4 +2.3**
comp=Z,0.8nm,0.7s,baz=264,slow=4.5,SNR=3.5
ZALV Zalesovo Beam 102.20 323 *i* P **Pdif 06 56 22.7 -0.5**
ZALV pmax pmax
comp=Z,4.0nm,0.8s
NRIK Noril'sk 105.11 339 Pdiff **Pdif 06 56 35.6 -0.2**
comp=Z,13nm,0.9s,baz=87,slow=4.6,SNR=9.9
KURBB Kurchatov Arra 105.12 319 Pdiff **Pdif 06 56 36.3 0.0**
comp=Z,1.1nm,0.8s,baz=101,slow=4.0,SNR=6.5
KURBB PKiKP **PKiKP 07 00 50.4 -0.2**
comp=Z,3.5nm,0.8s,baz=102,slow=1.6,SNR=14
KURBB PKKPbc **PKKPbc 07 12 16.9 -2.0**
comp=Z,2.6nm,0.7s,baz=283,slow=3.6,SNR=22
ULM Lac du Bonnet 107.99 42 Pdiff **Pdif 06 56 49.3 +0.2**
comp=Z,2.0nm,0.8s,baz=270,slow=1.1,SNR=3.0
ULM PKiKP **PKiKP 07 00 54.2 -1.8**
comp=Z,2.6nm,0.6s,baz=259,slow=1.6,SNR=4.4
RES Resolute Bay 110.30 16 PKiKP **PKiKP 07 00 57.8 -1.8**
comp=Z,1.5nm,0.8s,baz=282,slow=2.1,SNR=4.6
BVAR Borovoye Array 110.48 320 Pdiff **Pdif 06 57 00.3 +0.2**
comp=Z,1.3nm,0.8s,baz=90,slow=7.4,SNR=3.8
BVAR PKiKP **PKiKP 07 01 00.2 -0.3**
comp=Z,4.2nm,0.5s,baz=96,slow=3.0,SNR=18
BVAR PKKPbc **PKKPbc 07 11 59.4 -2.7**
comp=Z,2.4nm,0.6s,baz=289,slow=4.0,SNR=9.5
BORK Borovoye 110.53 320 *d i*PKiKP **PKiKP 07 01 00.4 -0.2**
LPAZ La Paz 113.53 118 PKiKP **PKiKP 07 01 07.8 -0.5**
comp=Z,2.3nm,0.9s,baz=360,slow=3.0,SNR=8.3
LPAZ PKKPbc **PKKPbc 07 11 50.5 -1.3**
comp=Z,0.9nm,0.8s,baz=164,slow=7.4,SNR=2.5
CPUP Villa Florida 115.98 134 PKP **PKiKP 07 01 11.1 -0.9**
comp=Z,3.5nm,0.7s,baz=232,slow=3.7,SNR=16
CPUP PKKPbc **PKKPbc 07 11 41.5 -1.3**
comp=Z,1.8nm,0.9s,baz=25,slow=2.6,SNR=5.8
SVE Sverdlovsk 116.15 324 *e*PKiKP **PKPdf 07 01 10.7 -0.6**
SVE pmax pmax
comp=Z,26nm,1.3s
ARTI Arti 117.43 324 *c i*PKiKP **PKPdf 07 01 12.9 -0.8**
ARTI pmax pmax
comp=Z,29nm,0.7s
SIV San Ignacio 119.44 122 PKP **PKPdf 07 01 18.1 -0.8**
comp=Z,5.1nm,0.7s,baz=235,slow=1.8,SNR=11
COIM Forte Coimbra 119.70 128 *e*P **PKPdf 07 01 19.3 0.0**
SPA0 Spitsbergen Ar 119.85 354 *e*PKPdf **PKPdf 07 01 17.3 -0.6**
SPITS Spitsbergen Ar 119.85 354 PKP **PKPdf 07 01 16.6 -1.3**
comp=Z,19nm,0.7s,baz=94,slow=6.2,SNR=11
BDQN Bodoquena, MS 120.13 129 *e*P **PKPdf 07 01 18.7 -1.4**
PTGB Pitanga 120.58 136 *e*P **PKPdf 07 01 18.4 -2.6**
BOSA Boshof 120.69 217 PKP **PKPdf 07 01 20.9 -0.3**
comp=Z,1.8nm,0.4s,baz=125,slow=1.2,SNR=7.9
BOSA PKKPbc **PKKPbc 07 11 24.4 -1.9**
comp=Z,5.0nm,1.1s,baz=337,slow=2.3,SNR=5.5
AQDB Aquidauana 120.88 130 *e*P **PKPdf 07 01 20.6 -0.9**
HSPB Hornsund (broa 120.97 353 *e*PKP **PKiKP 07 01 23.7 +3.6**
PTLB Pontes e Lacer 121.28 123 *e*P **PKPdf 07 01 21.4 -1.0**
KIRV Kirov 121.79 328 *c i*PKiKP **PKPdf 07 01 21.0 -1.0**
VILB Vilhena 121.81 120 *e*P **PKPdf 07 01 22.9 -0.6**
LDASE Londrina, Braz 122.12 136 *e*P **PKPdf 07 01 23.3 -0.6**
PCMB Pacaembu 123.25 134 *e*P **PKPdf 07 01 24.8 -1.3**
PP1B Ponte de Pedra 123.28 128 *e*P **PKPdf 07 01 25.9 -0.4**

SALV Santo Antonio 123.70 126 eP PKPdf 07 01 26.4 -0.7
LVZ Lovozero 123.84 341 d iPKIKP PKPdf 07 01 25.0 -0.9
LVZ pmax pmax
comp=Z,44nm,1.7s
LVZ Lovozero 123.84 341 PKP PKPdf 07 01 24.9 -0.9
VADS Vadso 123.91 345 ePKPdf PKiKP 07 01 26.0 -0.1
PET01 Itanhaem-SP 123.93 139 eP PKPdf 07 01 27.0 -0.4
C2SB Chapadao do Su 124.04 130 eP PKPdf 07 01 26.9 -0.8
BELG Belogornoye 124.28 321 c iPKIKP PKPdf 07 01 26.4 -0.6
SPB Sao Paulo 124.34 139 eP PKPdf 07 01 28.0 -0.1
APA Apatity 124.42 341 i PKIKP PKPdf 07 01 25.5 -1.4
APA e 07 03 15.3
APA pmax pmax
comp=Z,17nm,1.0s
APA MLR MLR
comp=Z,1µm,18.5s
ADZR Andozero 124.73 336 ePKIKP PKPdf 07 01 25.5 -2.0
ADZR pmax pmax
comp=Z,30nm,0.8s
HAMF Hammerfest 124.87 347 ePKPdf PKPdf 07 01 26.5 -1.1
VAO Valinhos 125.06 139 eP PKPdf 07 01 29.0 -0.6
SCHQ Schefferville 125.28 36 PKP PKPdf 07 01 27.6 -1.3
comp=Z,7.0nm,0.8s,baz=234,slow=5.0,SNR=6.1
ARA0 ARCESS Array S 125.28 345 ePKPdf PKPdf 07 01 28.2 -0.3
ARCES ARCESS Array B 125.28 345 PKP PKPdf 07 01 28.1 -0.4
comp=Z,26nm,0.7s,baz=76,slow=2.2,SNR=72
PDRB Porto dos Gac 125.37 121 eP PKPdf 07 01 29.3 -1.0
BB19B Bebedouro 125.46 136 eP PKPdf 07 01 29.8 -0.6
PARB Paraibuna 125.64 140 eP PKPdf 07 01 29.6 -1.2
KLMR Klimovskoe 125.67 332 ePKIKP PKPdf 07 01 27.1 -2.3
KLMR pmax pmax
comp=Z,94nm,1.4s
KTK1 Kautokeino 126.21 345 ePKPdf PKPdf 07 01 29.8 -0.5
JETT Jettan, Norway 126.43 347 ePKPdf PKPdf 07 01 30.2 -0.5
CLDB Colider 126.54 121 eP PKPdf 07 01 31.8 -0.8
TRO Tromso 126.68 347 ePKPdf PKPdf 07 01 30.6 -0.6
ARAG Araguaiana, MT 126.75 128 eP PKPdf 07 01 32.1 -0.8
CANS Sao Roque de M 127.40 137 eP PKPdf 07 01 33.9 -0.3
ATD Arta Tunnel 127.67 270 PKP PKPdf 07 01 34.8 +0.1
comp=Z,0.2nm,0.3s,baz=157,slow=6.6,SNR=5.1
VAS01 Vassouras-RJ 127.75 141 eP PKPdf 07 01 34.6 -0.1
IPMB Ipameri, GO 127.82 133 eP PKPdf 07 01 34.6 -0.4
BSCB Bom Sucesso 127.91 139 eP PKPdf 07 01 34.9 -0.2
VRH Novokhopyorsk 128.13 320 ePKIKP PKPdf 07 01 34.2 -0.2
VRH pmax pmax
comp=Z,42nm,0.7s
GNI Garni 128.33 306 PKP PKPdf 07 01 33.9 -1.5
comp=Z,20nm,0.8s,baz=114,slow=4.6,SNR=10
GNI Garni 128.33 306 d iPKIKP PKiKP 07 01 36.3 +0.3
GNI pmax pmax
comp=Z,50nm,1.7s
GNI Garni 128.33 306 PKP PKiKP 07 01 35.9 -0.1
KMBO Kilima Mbogo 128.41 252 PKhKP PKPpre 07 01 30.1
baz=59,slow=2.3
PMNB Patos De Minas 128.63 135 eP PKPdf 07 01 36.0 -0.6
BOAV Boa Vista 128.74 103 eP PKPdf 07 01 36.2 -0.5
MOS Moscow 128.79 327 i PKIKP PKiKP 07 01 36.2 0.0
MOS pmax pmax
comp=Z,45nm,0.8s
STEI Steigen 128.84 348 ePKPdf PKPdf 07 01 34.8 -0.5
NPGB Novo Progresso 128.98 117 eP PKPdf 07 01 36.4 -0.9
LOF Lofoten 129.00 348 ePKPdf PKPdf 07 01 35.7 +0.1
OZAP Van, Ozalp-Mer 129.06 304 ⇑P PKiKP 07 01 39.1 +1.5
CAM01 Campos-RJ 129.14 142 eP PKPdf 07 01 37.4 +0.1
KBZ Khabaz 129.17 311 PKP PKiKP 07 01 37.0 -0.3
comp=Z,5.7nm,0.9s,baz=128,slow=5.3,SNR=9.1
KBZ SKPbc SKPbc 07 04 58.4 +3.9
comp=Z,3.4nm,0.9s,baz=126,slow=6.5,SNR=4.1
KIV Kislovodsk 129.27 311 i PKIKP PKPdf 07 01 36.5 -0.5
KIV pmax pmax
comp=Z,22nm,1.1s
KIV Kislovodsk 129.27 311 PKP PKPdf 07 01 37.3 +0.3
FAUS Fauske 129.30 347 ePKPdf PKPdf 07 01 35.2 -1.0
LPSR Galich'ya Gora 129.31 323 ePKIKP PKPdf 07 01 34.0 -2.6
LPSR pmax pmax
comp=Z,70nm,1.0s
SNDB Serra Nova Dou 129.47 125 eP PKPdf 07 01 34.8 -3.3
VORR Voronezh 129.47 322 ePKIKP PKPdf 07 01 34.2 -2.8
VORR pmax pmax
comp=Z,50nm,1.1s
BDFB Brasilia 129.55 131 PKP PKPdf 07 01 37.9 -0.5
comp=Z,24nm,0.8s,baz=230,slow=1.1,SNR=38
OBN Obninsk 129.60 327 d iPKIKP PKPdf 07 01 37.1 0.0
OBN pmax pmax
comp=Z,88nm,1.5s
OBN MLR MLR
comp=Z,194nm,18.0s
OBN Obninsk 129.60 327 PKP PKPdf 07 01 37.3 +0.2
VSR Storozhevoye 129.65 321 ePKIKP PKPdf 07 01 37.2 -0.1
VSR pmax pmax
comp=Z,51nm,1.3s
VORD Divnogorie 129.66 321 ePKIKP PKPdf 07 01 35.5 -1.8
VORD pmax pmax
comp=Z,20nm,1.0s
ITTB Itaituba 130.03 114 eP PKPdf 07 01 38.7 -0.5
VAGH Vaagaholmen 130.27 348 ePKPdf PKPdf 07 01 37.5 -0.5
RAUS Rausandaksla 130.37 347 ePKPdf PKPdf 07 01 37.1 -1.2
HOMI Horasan 130.50 306 ⇑P PKiKP 07 01 40.9 +0.4
KONS Konsvik 130.50 348 ePKPdf PKPdf 07 01 37.7 -0.8
DIAM Diamantina, MG 130.60 138 eP PKPdf 07 01 39.3 -1.1
STOK Stokkvaagen 130.67 347 ePKPdf PKPdf 07 01 37.1 -1.7
FINES FINESS Array B 130.75 338 PKhKP PKPpre 07 01 26.4
comp=Z,4.5nm,1.0s,baz=126,slow=2.6,SNR=4.6
FINES PKP PKPdf 07 01 38.4 -0.7
comp=Z,13nm,0.9s,baz=90,slow=7.6,SNR=13
FINES SKPbc SKPab 07 05 01.9 +2.3
comp=Z,12nm,1.0s,baz=4.4,slow=9.9,SNR=12
LEIR Leirfjorden 130.84 347 ePKPdf PKPdf 07 01 38.6 -0.5
RIB01 Linhares ES 131.84 142 eP PKPdf 07 01 42.1 -0.4
SJMB Sao Joao De Ma 131.84 140 eP PKPdf 07 01 41.1 -1.4
BSFB Barra de Sao F 131.94 141 eP PKPdf 07 01 42.3 -0.4
VSU Vasula 132.42 334 dePKIKP PKPdf 07 01 41.9 -0.4
VSU pmax pmax
comp=Z,22nm,0.8s
NSS Namsos 132.45 347 ePKPdf PKPdf 07 01 41.4 -0.8
SDBA SAO DESIDERIO 133.95 131 eP PKPdf 07 01 44.6 -2.0
SMTB Santa Maria do 134.25 125 eP PKPdf 07 01 45.9 -1.3
MNK Minsk 134.26 329 i PKIKP PKPdf 07 01 46.2 +0.3
MNK i 07 01 58.9
MNK i 07 04 18.3
MNK i PPP PPP 07 07 12.9
MNK i 07 08 53.9
MNK i SS SS 07 22 06.5 +2.8
MNK i SSS SSS 07 27 05.5
MNK pmax pmax
comp=N,11nm,0.7s
MNK pmax pmax
comp=Z,37nm,0.8s
MNK pmax pmax
comp=E,47nm,0.9s
MNK Minsk 134.26 329 i PKP PKPdf 07 01 46.2 +0.3
comp=E,47nm,0.9s
MNK i PKP PKPdf 07 01 46.2 +0.3
comp=N,11nm,0.7s
MNK i PKP PKPdf 07 01 46.2 +0.3
comp=Z,37nm,0.8s,baz=56
MNK i pPKP pPKPdf 07 01 58.9 -0.5
MNK i PP PP 07 04 18.4 +0.8
MNK i PPP PPP 07 07 12.9
MNK i SKS SKSdf 07 08 53.9 +0.5
MNK i SS SS 07 22 06.5 +2.8
MNK i SSS SSS 07 27 05.5
MNK i LR LR 08 04 04.2
MBAR Mbarara 134.44 249 ⇑eP PKiKP 07 01 49.1 -0.1
NACGM Naroch 134.56 330 ePKPdf PKPdf 07 01 47.0 +0.5
MOL Molde 135.11 348 ePKPdf PKiKP 07 01 48.3 -0.5
DOMB Dombas 135.27 347 ePKPdf PKiKP 07 01 48.5 -0.7
ASF Jabal al Asfar 135.41 296 PKP PKPdf 07 01 49.3 +0.3
comp=Z,12nm,0.9s,baz=61,slow=0.9,SNR=14
ASF SKPbc SKPab 07 05 19.3 -1.6
comp=Z,8.1nm,0.9s,baz=83,slow=2.3,SNR=6.7
ASF Jabal al Asfar 135.41 296 P PKiKP 07 01 50.5 0.0
ASF AML AML
AKN Aaknes 135.58 348 ePKPdf PKiKP 07 01 49.4 -0.4
AKASG Malin Array Be 135.58 324 PKhKP PKPpre 07 01 37.0
comp=Z,1.2nm,0.5s,baz=42,slow=1.9,SNR=5.1
AKASG PKP PKPdf 07 01 48.2 -0.3
comp=Z,11nm,0.8s,baz=62,slow=2.3,SNR=20
AKASG PP PP 07 04 25.5 -0.6
comp=Z,1.4nm,0.7s,baz=55,slow=5.4,SNR=6.2
AKASG SKPbc SKPbc 07 05 17.6 +1.3
comp=Z,11nm,0.8s,baz=48,slow=3.5,SNR=6.4
AKBB Malin Array Si 135.58 324 dePKIKP PKPdf 07 01 48.3 -0.2
AKBB Malin Array Si 135.58 324 PKP PKPdf 07 01 48.3 -0.2
AK09 Malin Array Si 135.59 324 PKP PKPdf 07 01 48.2 -0.3
AK01 Malin Array Si 135.59 324 PKP PKPdf 07 01 48.6 +0.1
KIEV Kiev 135.59 324 ⇓P PKPdf 07 01 48.3 -0.2
KIEV Kiev 135.59 324 PKP PKPdf 07 01 48.3 -0.2
AK11 Malin Array Si 135.62 324 PKP PKPdf 07 01 48.3 -0.3
NB2 NORSAR Subarra 135.65 345 PKPdf PKPpre 07 01 37.8
comp=Z,5.5nm,0.8s,baz=31,slow=1.9
NB2 NORSAR Subarra 135.65 345 PKPdf PKPpre 07 01 37.0
NB2 AMP 07 01 37.0
NOA NORSAR Array B 135.65 345 PKhKP PKPpre 07 01 35.6
comp=Z,2.6nm,1.2s,baz=70,slow=10,SNR=3.1
NOA PKP PKPdf 07 01 48.2 -0.2
comp=Z,5.7nm,0.7s,baz=35,slow=2.1,SNR=9.8
AK07 Malin Array Si 135.66 324 PKP PKPdf 07 01 48.1 -0.6
HFS Hagfors 135.76 343 PKhKP PKPpre 07 01 37.9
comp=Z,1.9nm,0.6s,baz=224,slow=6.2,SNR=6.4
HFS PKP PKPdf 07 01 48.6 0.0
comp=Z,6.1nm,0.7s,baz=68,slow=3.1,SNR=7.1
NC602 NORSAR Array S 135.83 344 ePKPdf PKPdf 07 01 48.4 -0.3
QRNJ Al-Qirein 136.51 297 P PKiKP 07 01 52.7 +0.2
QRNJ AML AML
MMAI Mount Meron Ar 136.59 298 PKP PKiKP 07 01 52.1 -0.7
comp=Z,9.9nm,0.8s,baz=102,slow=2.6,SNR=7.4
MMAI SKPbc SKiKP 07 05 23.8 -1.7
comp=Z,18nm,1.1s,baz=71,slow=6.0,SNR=6.0
SKAR Skarslia 136.66 346 ePKPdf PKPdf 07 01 48.3 -2.0
KIRS Kirsehir-Merke 136.73 307 ⇓P PKiKP 07 01 52.4 -0.6
SUW Suwalki 136.77 331 ePKP PKiKP 07 01 51.7 -0.7
LUBAR Lubar, Ukraine 136.78 324 PKP PKPdf 07 01 51.2 +0.4
BRTR Keskin Array B 136.80 308 PKhKP PKPpre 07 01 39.4
comp=Z,1.0nm,0.8s,baz=128,slow=2.0,SNR=3.7
BRTR PKP PKPdf 07 01 51.4 0.0
comp=Z,8.7nm,0.9s,baz=116,slow=2.9,SNR=19
BRTR PP PP 07 04 33.9 -0.7
comp=Z,2.5nm,1.1s,baz=76,slow=5.2,SNR=5.4
BRTR SKPbc SKPbc 07 05 22.5 +1.9
comp=Z,4.4nm,1.0s,baz=131,slow=3.4,SNR=9.2
BR104 Keskin Array S 136.80 308 PKP PKPdf 07 01 51.7 +0.4
BR105 Keskin Array S 136.81 308 PKP PKPdf 07 01 52.0 +0.6
SALP Salfit 136.86 296 P PKiKP 07 01 54.9 +1.5
SALP AML AML
RNPP8 Varash 137.06 326 PKP PKPdf 07 01 51.6 +0.4
RNPP5 Staryi Chortor 137.10 326 PKP PKPdf 07 01 51.7 +0.4
HRFI Mount Harif 137.15 293 P PKiKP 07 01 53.2 -0.8
HRFI AML AML
AQBJ Aqaba 137.15 293 P PKiKP 07 01 53.6 -0.4
AQBJ AML AML
PRNI Paran 137.16 294 P PKiKP 07 01 53.4 -0.6
PRNI AML AML
EIL Elat 137.24 293 PKP PKPdf 07 01 53.0 +0.7
comp=Z,29nm,1.0s,baz=329,slow=3.1,SNR=13
EIL SKPbc SKPbc 07 05 24.1 +2.0
comp=Z,22nm,1.3s,baz=16,slow=7.1,SNR=5.2
EIL Elat 137.24 293 P PKiKP 07 01 53.5 -0.7
EIL AML AML
KONO Kongsberg 137.26 345 ePKPdf PKiKP 07 01 52.9 -0.4
SORM Soroca 137.32 321 ⇑P PKPdf 07 01 51.4 -0.4
SORM Soroca 137.32 321 PKP PKPdf 07 01 52.1 +0.3
KZIT Kziot 137.64 295 P PKiKP 07 01 54.8 -0.1
ODD1 Odda 137.72 347 ePKPdf PKiKP 07 01 53.5 -0.8
CSS Mathiatis 138.03 301 PKP PKPdf 07 01 53.9 +0.3
BLS5 Blasjo 138.20 347 ePKPdf PKPdf 07 01 47.6 -5.6
KMPD K-Podol'skiy 138.21 323 PKP PKPdf 07 01 53.0 -0.4
NBPN Ponto Novo - B 138.32 134 eP PKPdf 07 01 53.7 -1.1
TLCR 138.34 317 ⇓P PKPdf 07 01 52.1 -1.7
SAHE Sakarya_HENDEK 138.53 310 ⇓P PKPdf 07 01 53.2 -1.1
HOMB Homborsund 138.75 344 ePKPdf PKPdf 07 01 48.1 -6.0
CFR Carcaliu 138.78 317 ⇑P PKPdf 07 01 53.6 -1.0
EFOR EFORIE 138.91 316 ⇑P PKPdf 07 01 52.8 -2.0
KEPZ Antalya-Kepez 139.02 304 ⇓P PKPdf 07 01 54.3 -1.1
TESR Tescani 139.10 320 PKP PKPdf 07 01 55.6 +0.4
HARR Harsova 139.12 317 ⇑P PKPdf 07 01 55.3 +0.1
BIZ Bicaz 139.23 321 ⇑P PKPdf 07 01 48.3 -7.1
BEL Belsk 139.28 330 ePKP PKiKP 07 01 57.3 -0.3
ONER Baraj Valea Uz 139.34 320 ⇑P PKPdf 07 01 51.3 -4.4
VRI Vrincioaia 139.36 319 ⇑P PKPdf 07 01 54.6 -1.1
VRI Vrincioaia 139.36 319 PKP PKPdf 07 01 56.1 +0.4
BURAR Bucovina Array 139.41 322 ⇑P PKPdf 07 01 51.0 -4.8
PLOR Plostina 139.41 319 ⇑P PKPdf 07 01 52.2 -4.6
ISP Isparta 139.64 306 ⇑ePKIKP PKPdf 07 01 56.9 +0.3
ISP pmax pmax
comp=Z,22nm,0.6s
KWP Kalwaria Pacla 139.68 326 ePKP PKPdf 07 01 55.1 -1.1
YLV Yalova 139.68 310 PKP PKPdf 07 01 57.1 +0.6
MLR Muntele Rosu 140.02 319 ⇑P PKPdf 07 01 53.8 -3.3
KOLS Kolonicke sedl 140.32 325 ePKIKP PKPdf 07 01 51.6 -5.8
KOLS Kolonicke sedl 140.32 325 ePKP PKPdf 07 01 51.5 -5.8
KOLS e 07 05 36.4
VOIR 140.60 319 ⇓P PKPdf 07 01 53.3 -4.8
OJC Ojcow 140.80 329 ePKP PKiKP 07 02 05.8 +5.0
OJC Ojcow 140.80 329 PKP PKPdf 07 01 58.3 +0.1
ARR Arges 140.89 319 ⇑P PKPdf 07 01 53.4 -5.1
TAVA DENIZLI_Tavas 140.96 309 ⇑P PKPdf 07 01 57.3 -1.7
NBTA Tacaratu-PE 141.01 134 eP PKPdf 07 01 57.4 -2.3
NIE Niedzica 141.06 327 ePKP PKPdf 07 01 59.9 +1.2
MARR Marisel-Cluj 141.12 322 ⇑P PKPdf 07 01 54.1 -4.9
ELND Elena 141.22 315 ⇑P PKPdf 07 01 54.4 -4.8
LOT Lotru 141.38 320 ⇑P PKPdf 07 01 54.4 -5.1
LANS Liptovska Anna 141.65 328 ePKIKP PKPdf 07 01 57.7 -2.1
LANS Liptovska Anna 141.65 328 ePKP PKPdf 07 01 57.7 -2.1
NBMA Muriti-CE 141.78 132 eP PKPdf 07 01 57.3 -3.7
NBPS Pedro II - PI 141.78 125 eP PKPdf 07 01 58.9 -2.2
PLVB Pleven 141.84 317 ⇑P PKPdf 07 01 56.2 -4.0
STEB Steborice 141.97 330 ePKP PKPdf 07 01 55.8 -4.5
GZR Gura Zlata 142.00 320 ⇑P PKPdf 07 01 57.0 -3.6
KSP Ksiaz 142.02 332 ePKP PKPdf 07 01 57.4 -2.9
EZN Ezine 142.13 310 ⇑P PKPdf 07 01 56.9 -3.9
MORC Moravsky Berou 142.19 330 ePKP PKPdf 07 01 56.1 -4.6
MORC Moravsky Berou 142.19 330 ⇓P PKPdf 07 01 56.4 -4.4
SIRR Siria 142.19 322 ⇓P PKPdf 07 01 56.7 -4.1
BDKM Kayabasi 142.20 306 ⇑P PKPdf 07 01 57.4 -3.7
SURR Surduc 142.20 321 ⇓P PKPdf 07 01 56.6 -4.2
PSZ Piszkesteto 142.20 326 ⇑P PKPdf 07 01 56.1 -4.7
OSTC Ostas 142.26 332 ePKIKP PKPdf 07 01 56.9 -3.9
OSTC Ostas 142.26 332 ePKP PKPdf 07 01 56.9 -3.9
CHVC Chvalec 142.31 332 ePKIKP PKPdf 07 01 56.7 -4.2
CHVC Chvalec 142.31 332 ePKP PKPdf 07 01 56.7 -4.2
KRLC Kraliky 142.34 331 ePKIKP PKPdf 07 01 57.1 -3.9
KRLC MLR MLR
comp=Z,500nm,23.6s
KRLC Kraliky 142.34 331 ePKP PKPdf 07 01 57.1 -3.9
KRLC AMS AMS 08 03 50.0
comp=Z,500nm,23.6s
DPC Dobruska-Polom 142.36 331 ePKIKP PKPdf 07 01 56.8 -4.2
DPC Dobruska-Polom 142.36 331 ePKP PKPdf 07 01 56.8 -4.2
UPC Upice 142.38 332 ePKIKP PKPdf 07 01 56.6 -4.4
UPC Upice 142.38 332 ePKP PKPdf 07 01 56.6 -4.4
VYHS Vyhne 142.39 327 ePKIKP PKPdf 07 01 57.8 -3.3
VYHS Vyhne 142.39 327 ePKP PKPdf 07 01 57.8 -3.3
VYHS e 07 05 41.2
MPEP Malo Peshtene 142.42 317 i P PKPdf 07 02 00.6 -0.7
VALD Valchedram 142.45 318 eP PKPdf 07 02 02.8 +1.5
HERR Herculane 142.49 320 ⇑P PKPdf 07 01 57.3 -4.0
PGB Panagyurishte 142.52 316 i P PKPdf 07 01 58.0 -3.5
BZS Buzias 142.57 321 ⇑P PKPdf 07 01 57.4 -4.1
JAVC Velka Javorina 142.74 328 ePKP PKPdf 07 01 59.0 -2.8
VRAC Vranov 142.96 330 ePKP PKPdf 07 01 58.4 -3.7
VRAC Vranov 142.96 330 ⇑P PKPdf 07 01 59.4 -2.7
MDVR Moldovita 142.97 320 ⇓P PKPdf 07 02 00.3 -2.0
BLKB Belogradchik 142.97 318 ⇓P PKPdf 07 01 59.1 -3.2
PVCC Panska Ves 143.00 333 ePKIKP PKPbc 07 01 59.2 +0.3
PVCC Panska Ves 143.00 333 ePKP PKPbc 07 01 59.2 +0.3
PLNA Plana 143.03 316 i P PKPdf 07 01 58.9 -0.5
CLL Collm 143.07 335 i PKIKP PKPab 07 01 58.3 +0.7
CLL e 07 02 20.0
CLL pmax pmax
comp=Z,23nm,0.7s
CLL Collm 143.07 335 i PKPpre PKPpre 07 01 58.3
comp=Z,23nm,0.7s
CLL i PKPdf PKPdf 07 02 01.9 -0.3
comp=Z,19nm,0.8s
CLL i PKiKP PKiKP 07 02 05.0 -0.4
CLL ePKiKP sPKPdf 07 02 20.0 -0.3
CLL ePP PP 07 05 17.0 +5.1
CLL i PKSdf PKSdf 07 05 41.3 +3.6
comp=Z,20nm,1.3s
CLL ex x 07 06 09.0
CLL L L 07 53 00.0
CLL AMS AMS 08 04 00.0
comp=N,300nm,23.3s
CLL AMS AMS 08 04 00.0
comp=E,200nm,22.3s
CLL AMS AMS 08 04 00.0
comp=Z,300nm,21.7s
SMOL Smolenice 143.09 328 ePKIKP PKPbc 07 02 00.0 +0.8
VTS Vitosha 143.09 316 i P PKPab 07 01 58.1 -0.1
SRO Srobarova 143.10 327 ePKIKP PKPdf 07 02 00.8 -1.5
SRO Srobarova 143.10 327 ePKP PKPdf 07 02 00.8 -1.5
KRUC Moravsky 143.22 330 ePKP PKPab 07 01 58.5 +0.2
MMB Musomishta 143.24 314 i P PKPbc 07 01 59.3 -0.6
MODS Modra-Piesok 143.26 328 ePKIKP PKPbc 07 02 00.8 +1.1
MODS Modra-Piesok 143.26 328 ePKP PKPbc 07 02 00.8 +1.1
MODS e 07 05 43.6
PRU Pruhonice 143.41 332 ePKIKP PKPbc 07 01 59.9 -0.2
PRU MLR MLR
comp=Z,500nm,24.0s
PRU Pruhonice 143.41 332 ePKP PKPbc 07 01 59.9 -0.2
PRU AMS AMS 08 01 20.0
comp=Z,500nm,24.0s
HSKC Hora Svate Kat 143.43 334 ePKP PKPbc 07 02 00.1 0.0
TREC Trest 143.49 331 ePKIKP PKPbc 07 02 00.9 +0.6
TREC Trest 143.49 331 ePKP PKPbc 07 02 00.9 +0.6
NBMO Morrinhos-CE 143.55 125 eP PKPab 07 02 00.8 +0.2
BOVS Bovan 143.57 319 ⇑P PKPbc 07 02 00.6 -0.1
NEUB Neuenburg 143.63 336 ePKPbc PKPab 07 02 00.1 +0.3
baz=38,slow=3.3
CLZ Clausthal 143.65 338 ePKPbc PKPbc 07 02 00.5 -0.3
baz=38,slow=3.3
PEHC Pehcevo 143.70 315 i P PKPbc 07 02 01.8 +0.5
EKA Eskdalemuir Ar 143.75 352 PKhKP PKPpre 07 02 00.1
comp=Z,9.2nm,0.6s,baz=350,slow=2.3,SNR=32
FRGS Fruska Gora 143.88 322 ⇑iP PKPbc 07 02 01.5 -0.1
MORH Mrgy, Hungar 143.92 324 ⇓P PKPbc 07 02 02.2 +0.5
MORH Mrgy, Hungar 143.92 324 ⇑iP PKPab 07 02 01.1 +0.1
ABNA Allensteig Bun 143.95 330 ePKP PKPbc 07 02 02.2 +0.5
comp=Z,43nm,1.0s
ZVC Zvikov 143.97 332 ePKP PKPbc 07 02 01.9 +0.2
ZVC AMS AMS 08 02 40.0
comp=Z,500nm,18.3s
WINA Alland / Wiene 144.03 329 i PKP PKPdf 07 02 03.0 -1.0
comp=Z,12nm,0.6s,SNR=13
PLN Plauen 144.05 335 ePKPbc PKPbc 07 02 01.8 -0.2
baz=38,slow=3.3
NBPA Parau_RN 144.07 132 eP PKPab 07 02 02.5 -0.1
EDMD Edmundbyers 144.08 351 eP PKPab 07 02 01.1 -0.3
NEWG New Galloway 144.09 353 eP PKPab 07 02 00.9 -0.4
NKC Novy Kostel 144.12 334 ePKIKP PKPbc 07 02 02.8 +0.6
NKC Novy Kostel 144.12 334 ePKP PKPbc 07 02 02.8 +0.6
VAY Valandovo 144.13 315 i P PKPab 07 02 01.7 -0.3
MOX Moxa 144.14 335 ePKPbc PKPab 07 02 01.9 +0.1
baz=38,slow=3.3
MOX eL L 08 00 21.3
comp=Z,225nm,21.1s
RONA Rosalia, Austr 144.20 328 i PKP PKPbc 07 02 03.2 +0.7
comp=Z,120nm,1.1s,SNR=54
CONA Conrad Observa 144.26 329 i PKP PKPbc 07 02 03.3 +0.5
comp=Z,22nm,1.0s,SNR=66
CKRC Cesky Krumlov 144.37 331 ePKIKP PKPbc 07 02 03.4 +0.4
CKRC Cesky Krumlov 144.37 331 ePKP PKPbc 07 02 03.4 +0.4
TEKS Tekeris 144.40 321 ⇑iP PKPab 07 02 02.9 -0.1
KHC Kasperske Hory 144.47 332 dePKIKP PKPbc 07 02 03.9 +0.5
KHC Kasperske Hory 144.47 332 ePKP PKPbc 07 02 03.6 +0.2
KHC Kasperske Hory 144.47 332 PKP PKPbc 07 02 03.5 +0.1
GEC2 GERESS Array S 144.62 332 ePKPbc PKPab 07 02 03.5 -0.2
baz=38,slow=3.3
GERES GERESS Array B 144.62 332 PKP PKPbc 07 02 04.2 +0.2
comp=Z,53nm,0.8s,baz=29,slow=3.0,SNR=361
GERES SKPbc SKiKP 07 05 42.9 +1.3
comp=Z,4.8nm,0.9s,baz=75,slow=1.5,SNR=6.7
BEHE Becsehely 144.76 326 ⇑iP PKPbc 07 02 04.6 +0.3
WET Wettzell 144.77 333 ePKPbc PKPab 07 02 04.1 0.0
baz=38,slow=3.3
SJES Sjenica 144.84 319 ⇑iP PKPbc 07 02 05.1 +0.3
NBPV Pedro Velho 144.85 135 eP PKPab 07 02 04.7 -0.8
BBLS Lazi&#263i 144.85 320 ⇑iP PKPbc 07 02 05.1 +0.3
RCBR Riachuelo 144.86 133 eP PKPab 07 02 04.9 -0.7
KASTN Kahler Asten 144.87 339 ePKPbc PKPab 07 02 04.2 -0.2
baz=38,slow=3.3
HPK Haverah Park 144.87 350 eP PKPab 07 02 03.4 -1.0
ARSA Arzberg 144.89 328 i PKP PKPbc 07 02 05.1 +0.4
comp=Z,0.2nm,0.3s,SNR=51
IOMK Kirk Michael 144.97 353 eP PKPab 07 02 03.8 -0.9
GRF Grafenberg Arr 145.04 335 ePKPbc PKPdf 07 02 05.5 -0.2
baz=38,slow=3.3
GRF eL L 08 05 58.4
comp=Z,208nm,19.6s
BUG Bochum--Univer 145.04 340 ePKPbc PKPbc 07 02 04.8 -0.2
baz=38,slow=3.3
KOGS Kog 145.05 326 i PKPbc PKPbc 07 02 05.0 -0.2
MOA Moiln 145.08 330 i PKP PKPdf 07 02 06.0 +0.1
comp=Z,7.8nm,0.6s,SNR=218
ILTH Belurgan, Co L 145.37 355 eP PKPbc 07 02 05.2 -0.7
OHR Ohrid 145.41 315 i P PKPab 07 02 07.0 +0.1
LBWR Ladybower, Pea 145.43 350 eP PKPbc 07 02 05.4 -0.8
SESA Seetaler Alpe, 145.46 329 i PKP PKPdf 07 02 06.0 -0.8
comp=Z,218nm,0.9s,SNR=207
BIOA Bad Ischl, Aus 145.49 330 i PKP PKPdf 07 02 06.2 -0.4
comp=Z,107nm,0.8s,SNR=73
PERS Pernice 145.51 328 i PKPbc PKPbc 07 02 06.7 0.0
SOKA Soboth 145.52 328 i PKP PKPdf 07 02 06.5 -0.3
comp=Z,74nm,1.2s,SNR=70
BLY Banja Luka 145.63 323 ⇑P PKPdf 07 02 05.9 -1.0
BLY Banja Luka 145.63 323 ⇑iP PKPab 07 02 07.6 +0.1
WACR West Acre 145.64 347 eP PKPdf 07 02 06.1 -0.5
TNS Taunus Mts 145.67 338 ePKPbc PKPab 07 02 07.3 -0.2
baz=38,slow=3.3
PDG Podgorica 145.73 318 ⇑P PKPdf 07 02 06.2 -0.8
PDG Podgorica 145.73 318 ⇑iP PKPbc 07 02 07.4 -0.1
KLINJ Klinje 145.74 320 ⇑iP PKPdf 07 02 07.2 0.0
STNC Stoke 145.80 351 eP PKPdf 07 02 06.8 -0.1
BOPT Opiter 145.84 341 dPKP PKPab 07 02 07.8 -0.2
OBKA Obir 145.88 328 i PKP PKPdf 07 02 06.5 -0.9
comp=Z,0.1nm,0.3s,SNR=40
STBN Sutton Boningt 145.89 349 eP PKPdf 07 02 06.8 -0.2
DRME Dracevica, Mon 145.91 318 ⇑iP PKPbc 07 02 08.0 -0.1
WLF1 Llynfaes 145.91 353 eP PKPdf 07 02 06.8 -0.2
BRY Bratogost 145.91 320 ⇑iP PKPdf 07 02 07.5 -0.1
BMOL Mol 145.92 342 dPKP PKPab 07 02 08.2 -0.1
CWF Charnwood Fore 146.00 349 eP PKPdf 07 02 06.9 -0.3
KBA Koelnbreinsper 146.07 330 i PKP PKPdf 07 02 06.9 -0.8
comp=Z,13nm,1.2s,SNR=33
LESA Schwarzleotal 146.13 331 i PKP PKPdf 07 02 06.6 -1.1
comp=Z,12nm,0.9s,SNR=95
TREB Trebinje 146.13 320 eP PKPdf 07 02 06.4 -1.4
FOEL Foel Wylfa 146.15 351 eP PKPdf 07 02 07.8 +0.3
ELMS Elmsett, Ipswi 146.16 347 eP PKPdf 07 02 07.5 0.0
MEM Membach 146.17 340 dPKPdf PKPdf 07 02 07.6 +0.1
MEM dPKP PKPbc 07 02 08.8 +0.2
HCY Herceg Novi 146.19 319 ⇑iP PKPdf 07 02 07.7 -0.2
FUR Furstenfeldbru 146.20 333 ePKPbc PKPbc 07 02 08.9 +0.1
baz=38,slow=3.3
LJU Ljubljana 146.21 327 i PKPdf PKPdf 07 02 07.5 -0.3
LJU i PKPbc PKPbc 07 02 09.2 +0.3
LLW Llanuwchllyn 146.25 352 eP PKPdf 07 02 08.0 +0.4
MYKA Terra Mystica 146.25 329 i PKP PKPdf 07 02 07.2 -0.8
comp=Z,12nm,1.4s,SNR=41
HLM1 Long Mynd 146.46 351 eP PKPdf 07 02 08.0 0.0
UCC Uccle 146.50 342 dPKP PKPbc 07 02 09.4 -0.2
BCLA Clavier 146.55 341 dPKP PKPbc 07 02 09.7 -0.1
STU Stuttgart 146.58 335 ePKPbc PKPbc 07 02 10.1 +0.2
baz=38,slow=3.3
WATA Walderalm 146.70 332 i PKP PKPdf 07 02 08.5 -0.3
comp=Z,18nm,1.1s,SNR=38
ABTA Abfaltersbach 146.71 330 i PKP PKPdf 07 02 08.0 -0.7
comp=Z,23nm,0.8s,SNR=58
BSKQ Steenkerk 146.71 342 dPKP PKPbc 07 02 10.4 +0.3
WTTA Wettenberg 146.73 331 i PKP PKPdf 07 02 08.6 -0.3
comp=Z,25nm,1.1s,SNR=54
WTTA ePP PP 07 05 35.2 +1.1
comp=Z,2.1nm,0.8s
RCHB Rochefort 146.81 341 dPKP PKPbc 07 02 09.9 -0.5
BMRD Maredsous 146.82 341 dPKP PKPbc 07 02 10.4 0.0
MOTA Moosalm 146.90 332 i PKP PKPdf 07 02 08.8 -0.4
comp=Z,15nm,1.0s,SNR=66
MOTA ePP PP 07 05 36.2 +1.2
comp=Z,14nm,1.3s
WLF Walferdange 146.94 339 dPKP PKPbc 07 02 11.4 +0.6
WLF Walferdange 146.94 339 ePKPbc PKPbc 07 02 11.5 +0.7
baz=38,slow=3.3
RETA Reutte 146.95 333 i PKP PKPdf 07 02 08.6 -0.5
comp=Z,11nm,1.2s,SNR=24
SQTA Sankt Quirin 146.95 332 i PKP PKPdf 07 02 09.1 -0.1
comp=Z,21nm,1.2s,SNR=76
SQTA ePP PP 07 05 35.9 +0.6

	comp=Z,0.6nm,0.4s							
IWEX	**Carrickbyrne,**	**147.04**	**355**	*e*P	**PKPdf**	**07**	**02**	**09.6**	**+0.7**
DOU	**Dourbes**	**147.05**	**341**	*d*PKP	**PKPbc**	**07**	**02**	**11.1**	**-0.1**
UBR	**Ueberruh**	**147.08**	**333**	*e*PKPbc	**PKPbc**	**07**	**02**	**11.3**	**-0.1**
	baz=38,slow=3.3								
MONM	**Monmouth**	**147.11**	**351**	*e*P	**PKPdf**	**07**	**02**	**09.9**	**+0.8**
BFO	**Black Forest**	**147.28**	**336**	*e*PKPbc	**PKPbc**	**07**	**02**	**11.8**	**-0.1**
	baz=38,slow=3.3								
FETA	**Feichten**	**147.32**	**332**	*i* PKP	**PKPdf**	**07**	**02**	**09.9**	**0.0**
	comp=Z,18nm,1.1s,SNR=71								
FETA				*e*PP	**PP**	**07**	**05**	**37.5**	**0.0**
	comp=Z,6.2nm,1.4s								
WOL	**Wolverton**	**147.35**	**349**	*e*P	**PKPbc**	**07**	**02**	**11.3**	**-0.6**
DAVA	**Damuels**	**147.48**	**333**	*e*PKP	**PKPdf**	**07**	**02**	**09.6**	**-0.5**
	comp=Z,15nm,1.1s								
MATE	**Matera**	**148.30**	**318**	⇑P	**PKPdf**	**07**	**02**	**10.5**	**-0.9**
DYA	**Yadsworthy**	**148.64**	**351**	*e*P	**PKPbc**	**07**	**02**	**13.9**	**-1.6**
TIP	**Timpagrande**	**149.06**	**315**	⇑P	**PKPdf**	**07**	**02**	**12.4**	**-0.4**
CCA1	**Carnmenellis**	**149.06**	**353**	*e*P	**PKPbc**	**07**	**02**	**15.3**	**-1.1**
AQU	**L'Aquila**	**149.27**	**323**	⇑*i*P	**PKPbc**	**07**	**02**	**17.3**	**-0.1**
JSA	**Saint Aubin**	**149.56**	**349**	*e*P	**PKPbc**	**07**	**02**	**17.2**	**-0.5**
VAE	**Valguarnera**	**151.52**	**314**	PKPbc	**PKiKP**	**07**	**02**	**24.2**	**+0.9**
	comp=Z,15nm,0.7s,baz=44,slow=13,SNR=7.1								
VAE				PKPab	**PKPab**	**07**	**02**	**30.9**	**-0.5**
	comp=Z,65nm,0.8s,baz=109,slow=9.9,SNR=15								
KEST	**Kesra**	**155.87**	**316**	PKP	**PKPdf**	**07**	**02**	**21.3**	**-1.7**
	comp=Z,2.8nm,0.4s,baz=349,slow=3.6,SNR=4.8								
KEST				PKPab	sPKPbc	07	02	50.8	+0.2
	comp=Z,26nm,1.0s,baz=82,slow=2.3,SNR=7.8								
PBRG	**Braganca**	**157.49**	**352**	*e*PKPab	**PKPab**	**07**	**02**	**56.4**	**-0.2**
POLO	**Lamas de Olo**	**158.04**	**354**	*e*PKPab	**PKPab**	**07**	**02**	**59.2**	**+0.2**
PVRL	**Vila Real**	**158.13**	**353**	*e*PKPdf	**PKPdf**	**07**	**02**	**26.1**	**+0.4**
PVRL				*e*PKPab	**PKPab**	**07**	**02**	**59.8**	**+0.5**
PVIS	**Viseu**	**158.71**	**353**	*e*PKPdf	**PKPdf**	**07**	**02**	**26.4**	**+0.1**
PVIS				*e*PKPab	**PKPab**	**07**	**03**	**02.2**	**+0.4**
MTE	**Manteigas**	**158.98**	**353**	*e*PKPdf	**PKPdf**	**07**	**02**	**27.1**	**+0.4**
MTE				*e*PKPab	**PKPab**	**07**	**03**	**03.6**	**+0.6**
ESDC	**Sonseca Array**	**159.01**	**345**	PKP	**PKPdf**	**07**	**02**	**25.3**	**-1.5**
	comp=Z,2.3nm,1.1s,baz=357,slow=3.3,SNR=8.7								
ESDC				PKPab	**PKPab**	**07**	**03**	**03.4**	**+0.2**
	comp=Z,9.8nm,0.8s,baz=17,slow=3.6,SNR=26								
ESDC				PP	PP	07	06	35.1	-8.0
	comp=Z,2.3nm,1.1s,baz=3.1,slow=5.8,SNR=4.4								
PCBR	**Castelo Branco**	**159.52**	**352**	*e*PKPdf	**PKPdf**	**07**	**02**	**27.6**	**+0.4**
PCBR				*e*PKPab	**PKPab**	**07**	**03**	**05.7**	**+0.4**
PSARD	**Sardoal**	**159.84**	**354**	*e*PKPdf	**PKPdf**	**07**	**02**	**27.9**	**+0.3**
PSARD				*e*PKPab	**PKPab**	**07**	**03**	**07.4**	**+0.6**
PMRV	**Marv??o**	**159.91**	**352**	*e*PKPdf	**PKPdf**	**07**	**02**	**28.1**	**+0.3**
PMRV				*e*PKPab	**PKPab**	**07**	**03**	**07.2**	**+0.2**
PSBE	**So Bento**	**159.98**	**355**	*e*PKPab	**PKPab**	**07**	**03**	**08.3**	**+0.9**
PMTG	**Montargil**	**160.37**	**354**	*e*PKPdf	**PKPdf**	**07**	**02**	**29.4**	**+1.1**
PMTG				*e*PKPab	**PKPab**	**07**	**03**	**09.2**	**+0.2**
PESTR	**Estremoz**	**160.49**	**352**	*e*PKPab	**PKPab**	**07**	**03**	**09.6**	**0.0**
PMAFR	**Mafra**	**160.57**	**356**	*e*PKPab	**PKPab**	**07**	**03**	**11.4**	**+1.5**
PARRA	**Arraiolos**	**160.60**	**353**	*e*PKPdf	**PKPdf**	**07**	**02**	**28.7**	**+0.2**
PARRA				*e*PKPab	**PKPab**	**07**	**03**	**10.6**	**+0.5**
EVO	**Evora**	**160.88**	**353**	*e*PKPdf	**PKPdf**	**07**	**02**	**28.9**	**+0.1**
EVO				*e*PKPab	**PKPab**	**07**	**03**	**11.7**	**+0.5**
MOE	**Montemor**	**160.92**	**354**	*e*PKPdf	**PKPdf**	**07**	**02**	**29.3**	**+0.4**
PBAR	**Barrancos**	**161.09**	**350**	*e*PKPab	**PKPab**	**07**	**03**	**12.7**	**+0.5**
PBEJ	**Beja**	**161.36**	**352**	*e*PKPdf	**PKPdf**	**07**	**02**	**29.9**	**+0.8**
PBEJ				*e*PKPab	**PKPab**	**07**	**03**	**14.1**	**+0.8**
PLOUS	**Minas do Lousa**	**161.42**	**354**	*e*PKPdf	**PKPdf**	**07**	**02**	**30.0**	**+0.6**
PLOUS				*e*PKPab	**PKPab**	**07**	**03**	**14.9**	**+1.3**
MESJ	**Messejana**	**161.59**	**353**	*e*PKPab	**PKPab**	**07**	**03**	**15.2**	**+0.9**
MESJ	**Messejana**	**161.59**	**353**	*e*PKPab	**PKPab**	**07**	**03**	**15.4**	**+1.0**
PCVE	**Castro Verde**	**161.77**	**352**	*e*PKPdf	**PKPdf**	**07**	**02**	**30.1**	**+0.3**
PCVE				*e*PKPab	**PKPab**	**07**	**03**	**16.0**	**+0.9**
PVAQ	**Vaqueiros**	**161.95**	**352**	*e*PKPdf	**PKPdf**	**07**	**02**	**30.4**	**+0.5**
PVAQ				*e*PKPab	**PKPab**	**07**	**03**	**16.9**	**+0.9**
PBDV	**Barranco-do-Ve**	**162.14**	**352**	*e*PKPdf	**PKPdf**	**07**	**02**	**30.7**	**+0.5**
PBDV				*e*PKPab	**PKPab**	**07**	**03**	**17.9**	**+1.1**
MORF	**Marmelete**	**162.16**	**354**	*e*PKPab	**PKPab**	**07**	**03**	**17.7**	**+0.8**
MORF	**Marmelete**	**162.16**	**354**	*e*PKPdf	**PKPdf**	**07**	**02**	**30.8**	**+0.5**
MORF				*e*PKPab	**PKPab**	**07**	**03**	**18.1**	**+1.2**
MDT	**Midelt**	**165.57**	**338**	PKP	**PKPdf**	**07**	**02**	**32.9**	**-0.8**
	comp=Z,6.1nm,0.8s,baz=74,slow=2.3,SNR=13								
MDT				PKPab	**PKPab**	**07**	**03**	**32.6**	**+0.4**
	comp=Z,8.9nm,0.8s,baz=41,slow=5.0,SNR=8.8								
DBIC	**Dimbokro**	**165.89**	**206**	PKP	**PKPdf**	**07**	**02**	**33.4**	**-0.9**
	comp=Z,3.3nm,0.6s,baz=185,slow=2.7,SNR=4.8								
DBIC				PKPab	**PKPab**	**07**	**03**	**34.6**	**+0.8**
	comp=Z,13nm,0.9s,baz=149,slow=6.6,SNR=8.5								
TORD	**Torodi Ar. Bea**	**166.26**	**244**	PKP	**PKPdf**	**07**	**02**	**33.8**	**-0.7**
	comp=Z,7.9nm,1.0s,baz=0.0,slow=0.3,SNR=16								
TORD				PKPab	**PKPab**	**07**	**03**	**36.0**	**+0.2**
	comp=Z,12nm,1.0s,baz=108,slow=4.8,SNR=11								

*IDC **14** 06:49:53.9±9.9,29°55N×67°87E,h0km,mb3.5/6, mbtmp3.5/6,Error ellipse: s-maj=188.9km s-min=39.7km az=159.0*
ISC 14 06:49:57.4±8.8,**30°N**±1°×**67°9E**±0°5,**h24**km,**n6**,σ0**95**/6, **mb3.5**/5,**Pakistan**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time			Res
				Op			h	m	s	ISC
MKAR	**Makanchi Array**	**20.51**	**29**	P		**P**	**06**	**54**	**33.0**	**-0.7**
	0.4nm,0.4s,baz=210,slow=10,SNR=9.0									
	0.4nm,0.4s									
KURBB	**Kurchatov Arra**	**22.48**	**18**	P		**P**	**06**	**54**	**55.9**	**+1.0**
	0.4nm,0.4s,baz=208,slow=9.9,SNR=5.8									
	0.4nm,0.4s									
BVAR	**Borovoye Array**	**23.49**	**4**	P		**P**	**06**	**55**	**05.7**	**+0.4**
	0.7nm,0.4s,baz=186,slow=11,SNR=3.8									
	0.7nm,0.4s									
ZALV	**Zalesovo Beam**	**27.27**	**22**	P		**P**	**06**	**55**	**40.6**	**+0.9**
	0.5nm,0.4s,baz=224,slow=10,SNR=6.1									
	0.5nm,0.4s									
GERES	**GERESS Array B**	**45.16**	**311**	P		**P**	**06**	**58**	**12.4**	**+0.2**
	0.3nm,0.5s,baz=103,slow=5.9,SNR=3.5									
	0.3nm,0.5s									
ARCES	**ARCESS Array B**	**46.69**	**341**	P		**P**	**06**	**58**	**23.3**	**-0.5**
	1.0nm,0.7s,baz=143,slow=8.9,SNR=4.8									
	1.0nm,0.7s									

*AEIC **14** 06:50:22.0±1.4,51°58N±0°06×173°02W±0°07,h54km±9km, Error ellipse: s-maj=10.5km s-min=2.5km az=214.0*
NEIC 14 06:50:22.0±1.1,**51°5N**±0°1×**172°97W**±0°10,**h55**km±29km, **ML3.3**/14,**ML2.9**(AEIC),**Error ellipse: s-maj=17.4km s-min=8.6km az=172.0,Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time			Res
				Op			h	m	s	ISC
ATKA	**Atka Island**	**1.01**	**312**			Pn	06	50	40.5	+0.5
ATKA				IAML			06	50	54.2	
	comp=E,598nm,0.4s									
ATKA				IAML			06	50	54.2	
	comp=N,690nm,0.4s									
ATKA	**Atka Island**	**1.01**	**312**			Sn	06	50	53.7	+0.4
KOFP	**Korovin Flat P**	**1.02**	**317**			Pn	06	50	40.6	+0.5
KOFP						Sn	06	50	53.8	+0.3
KOSE	**Korovin Southe**	**1.05**	**321**			Pn	06	50	40.2	-0.3
KOSE						Sn	06	50	53.8	-0.5
KOKL	**Mount Kliuchef**	**1.10**	**316**			Pn	06	50	40.9	-0.3
KOKL						Sn	06	50	54.4	-1.0
GSIG	**Igitkin Island**	**1.89**	**285**			Pn	06	50	51.8	-0.1
GSIG						Sn	06	51	13.9	-0.7
GSMY	**Great Sitkin M**	**1.98**	**286**			Pn	06	50	52.9	-0.2
GSMY						Sn	06	51	16.6	-0.3
GSTR	**Great Sitkin T**	**2.00**	**287**	Pn		Pn	06	50	52.5	-0.9
GSTR				IAML			06	51	22.0	
	comp=E,268nm,1.0s									
GSTR				IAML			06	51	25.0	
	comp=N,370nm,1.1s									
GSTD	**Great Sitkin T**	**2.04**	**286**			Pn	06	50	53.3	-0.7
GSTD						Sn	06	51	17.4	-0.9
ETKA	**Kagalaska Isla**	**2.17**	**280**			Pn	06	50	56.0	+0.4
ETKA						Sn	06	51	21.3	0.0
CLES	**Cleveland East**	**2.29**	**55**	Pn		Pn	06	50	57.7	+0.5
ADK	**Adak**	**2.34**	**280**	Pn		Pn	06	50	58.3	+0.4
ADK	**Adak**	**2.34**	**280**	IAML			06	51	27.5	
	comp=N,130nm,0.3s									
ADK				IAML			06	51	27.8	
	comp=N,100nm,0.2s									
CLCO	**Concord Point,**	**2.36**	**57**			Pn	06	50	58.4	+0.2
KIRH	**Kanaga Island**	**2.59**	**280**			Pn	06	51	01.6	+0.2
KIWB	**Kanaga Island**	**2.62**	**279**	Pn		Pn	06	51	01.7	-0.1
KIKV	**Kanaga Island**	**2.64**	**279**			Pn	06	51	02.1	0.0
KIMD	**Kanaga Island**	**2.67**	**277**			Pn	06	51	03.0	+0.6
TAFL	**Tanaga Flats**	**3.08**	**276**			Pn	06	51	09.0	+0.9
OKNC	**Okmok New Cone**	**3.53**	**55**	Pn		Pn	06	51	14.1	-0.2
OKNC				IAML			06	51	52.1	
	comp=E,46nm,1.1s									
MREP	**Makushin Rep't**	**4.42**	**57**			Pn	06	51	26.5	0.0
UNV	**Unalaska Valle**	**4.56**	**57**	Pn		Pn	06	51	27.9	-0.4
WECS	**Westdahl Cape**	**5.78**	**56**	Pn		Pn	06	51	44.8	-0.3

*ISK **14** 06:55:55.6,37°73N×27°03E,h9km,ML2.4/15*
*AFAD **14** 06:55:55.6,37°73N×27°02E,h16km±1km,ML2.5*
*THE **14** 06:55:56.4,38°N±1°×27°E±°,h3km±1km,M2.4/7,MLh2.4/7*
ISC 14 06:55:56.0±0.8,**37°72N**±0°02×**27°04E**±0°02,**h13**km±5km, **n39**,σ0**956**/64,**Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time			Res
				Op			h	m	s	ISC
GCAM	**G?zelcaml?**	**0.16**	**98**	P		**Pg**	**06**	**55**	**59.8**	**0.0**
GCAM				IAML			06	56	03.0	
	comp=N,762nm,0.1s									
GCAM				S		**Sg**	**06**	**56**	**03.3**	**+0.9**
GCAM	**G?zelcaml?**	**0.16**	**98**	Pg		**Pg**	**06**	**55**	**59.7**	**0.0**
GCAM				Sg		**Sg**	**06**	**56**	**02.5**	**+0.1**
GCAM				AML		AML				
SMG	**Samos**	**0.16**	**265**	P		**Pg**	**06**	**55**	**59.6**	**-0.1**
SMG				S		**Sg**	**06**	**56**	**01.9**	**-0.5**
SMG				AML		AML				
KUSD	**Kusadasi-Aydin**	**0.24**	**55**	Pg		**Pg**	**06**	**56**	**00.9**	**-0.2**
KUSD				Sg		**Sg**	**06**	**56**	**04.3**	**-0.3**
KUSD				AML		AML				
DDIM	**Aydin, Didim**	**0.31**	**148**	P		**Pb**	**06**	**56**	**02.7**	**-0.7**
DDIM				IAML			06	56	08.0	
	comp=N,909nm,0.3s									
DDIM				IAML			06	56	08.0	
	comp=E,598nm,0.6s									
DDIM				S		**Sb**	**06**	**56**	**08.1**	**-0.3**
DIDI	**Didim-Aydin**	**0.38**	**155**	Pg		**Pg**	**06**	**56**	**03.8**	**+0.2**
DIDI				Sg		**Sb**	**06**	**56**	**09.8**	**-0.6**
DIDI				AML		AML				
BEYE	**izmir**	**0.51**	**350**	P		**Pg**	**06**	**56**	**05.8**	**-0.2**
BEYE				S		**Sg**	**06**	**56**	**12.9**	**0.0**
BEYE				IAML			06	56	17.0	
	comp=N,297nm,0.2s									
BEYE				IAML			06	56	17.0	
	comp=E,256nm,0.3s									
DUVT	**Torbali**	**0.59**	**33**	P		**Pg**	**06**	**56**	**07.2**	**-0.3**
DUVT				S		**Sb**	**06**	**56**	**15.9**	**-0.6**
DUVT				IAML			06	56	19.0	
	comp=E,220nm,0.5s									
YKAV	**Yalikavak-Bodr**	**0.63**	**162**	Pg		**Pb**	**06**	**56**	**08.5**	**-0.3**
YKAV				AML		AML				
DAGE	**izmir**	**0.63**	**63**	P		**Pg**	**06**	**56**	**08.4**	**0.0**
DAGE				S		**Sb**	**06**	**56**	**17.6**	**-0.1**
DAGE				IAML			06	56	19.0	
	comp=N,280nm,0.2s									
DAGE				IAML			06	56	20.0	
	comp=E,251nm,0.2s									
BLCB	**Balcova**	**0.66**	**0**	P		**Pg**	**06**	**56**	**08.4**	**-0.4**
BLCB				S		**Sg**	**06**	**56**	**17.6**	**0.0**
BLCB				AML		AML				
BLCB	**Balcova**	**0.66**	**0**	Pg		**Pg**	**06**	**56**	**08.5**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.67**	**321**	P		**Pg**	**06**	**56**	**08.1**	**-0.9**
ZEYE				S		**Sb**	**06**	**56**	**18.0**	**-0.5**
ZEYE				IAML			06	56	20.0	
	comp=N,288nm,0.3s									
ZEYE				IAML			06	56	21.0	
	comp=E,219nm,0.3s									
AYDN	**Tasoluk**	**0.67**	**95**	P		**Pg**	**06**	**56**	**08.8**	**-0.2**
AYDN				S		**Sn**	**06**	**56**	**20.7**	**-0.9**
BODT	**Bodrum**	**0.69**	**162**	P		**Pg**	**06**	**56**	**09.4**	**0.0**
BODT				S		**Sb**	**06**	**56**	**19.7**	**+0.3**
BODT				AML		AML				
BODT	**Bodrum**	**0.69**	**162**	Pg		**Pb**	**06**	**56**	**09.7**	**-0.3**
BODT				AML		AML				
AYDB	**Zeytinkoy-Aydi**	**0.71**	**71**	Pg		**Pb**	**06**	**56**	**09.9**	**-0.4**
AYDB				AML		AML				
MLSB	**Milas**	**0.73**	**126**	Pg		**Pb**	**06**	**56**	**10.2**	**-0.3**
MLSB				AML		AML				
BDRM	**Kayabasi**	**0.73**	**154**	P		**Pg**	**06**	**56**	**09.9**	**-0.3**
BDRM				S		**Sb**	**06**	**56**	**20.9**	**+0.3**
BDRM				IAML			06	56	24.0	
	comp=N,115nm,0.3s									
BODA	**Bodrum-Mula**	**0.76**	**155**	Pg		**Pg**	**06**	**56**	**10.4**	**-0.2**
IZMR	**zmir-demi**	**0.83**	**60**	P		**Pg**	**06**	**56**	**11.3**	**-0.8**
IZMR				S		**Sb**	**06**	**56**	**24.7**	**+1.2**
BAGT	**Foa**	**0.94**	**351**	P		**Pb**	**06**	**56**	**14.1**	**-0.1**
BAGT				IAML			06	56	28.0	
	comp=N,218nm,0.9s									
BAGT				S		**Sn**	**06**	**56**	**28.0**	**-0.2**
BAGT				IAML			06	56	29.0	
	comp=E,154nm,0.8s									
KRBN	**Karaburun**	**0.95**	**337**	Pg		**Pb**	**06**	**56**	**14.1**	**-0.2**
KRBN				Sg		**Sb**	**06**	**56**	**27.5**	**+0.7**
KRBN				AML		AML				
FOCM	**Foa**	**1.02**	**346**	Pg		**Pb**	**06**	**56**	**15.4**	**0.0**
FOCM				AML		AML				
CHOS	**Chios island**	**1.02**	**311**	P		**Pn**	**06**	**56**	**16.1**	**0.0**
CHOS				S		**Sb**	**06**	**56**	**29.6**	**+0.7**
CHOS	**Chios island**	**1.02**	**311**	Pg		**Pb**	**06**	**56**	**15.5**	**0.0**
CHOS				AML		AML				
NAZL	**Nazilli-Aydin**	**1.02**	**76**	Pg		**Pb**	**06**	**56**	**15.8**	**+0.2**
NAZL				AML		AML				
ESEN	**Aydn-Nazilli**	**1.04**	**85**	P		**Pn**	**06**	**56**	**16.2**	**-0.1**
ESEN				S		**Sn**	**06**	**56**	**30.6**	**-0.1**
CAMT	**Merkez**	**1.05**	**12**	P		**Pg**	**06**	**56**	**15.5**	**-0.7**
CAMT				S		**Sn**	**06**	**56**	**32.0**	**+1.1**
CAMT				IAML			06	56	33.0	
	comp=E,124nm,0.4s									
CAMT				IAML			06	56	39.0	
	comp=N,98nm,0.4s									
KARB	**zmir-Karabur**	**1.06**	**333**	P		**Pg**	**06**	**56**	**15.8**	**-0.6**
KARB				S		**Sn**	**06**	**56**	**32.1**	**+0.9**
DAT	**Datca**	**1.08**	**156**	Pn		**Pn**	**06**	**56**	**17.1**	**+0.2**
YER	**Yerkesik**	**1.15**	**120**	Pn		**Pn**	**06**	**56**	**18.2**	**+0.3**
YER				AML		AML				
KIRA	**zmir-Kiraz**	**1.18**	**66**	P		**Pb**	**06**	**56**	**17.8**	**-0.5**
KIRA				S		**Sn**	**06**	**56**	**34.4**	**+0.2**
GOMA	**Golmarmara-Man**	**1.20**	**35**	Pn		**Pg**	**06**	**56**	**19.1**	**0.0**
GOMA				AML		AML				
ZEDA	**zmir-Bergama**	**1.24**	**1**	P		**Pn**	**06**	**56**	**19.0**	**-0.1**
ZEDA				S		**Sn**	**06**	**56**	**36.9**	**+1.2**
KTTT	**Salihli**	**1.27**	**41**	P		**Pg**	**06**	**56**	**20.2**	**-0.3**
KTTT				S		**Sn**	**06**	**56**	**38.5**	**+2.0**
APE	**Apeiranthos**	**1.36**	**242**	Pn		**Pb**	**06**	**56**	**21.3**	**-0.1**
APE				AML		AML				
MANT	**Manisa**	**1.42**	**57**	P		**Pn**	**06**	**56**	**21.6**	**-0.1**
MANT				S		**Sb**	**06**	**56**	**40.0**	**-0.7**
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn		**Pb**	**06**	**56**	**23.2**	**-0.3**
GORD				AML		AML				

*SDD **14** 06:57:20.6±2.4,17°96N×68°88W,h101km±13km,MD3.1, ML2.7,MW2.8,Presumed earthquake*
*OSPL **14** 06:57:22.2±1.6,18°05N×68°76W,h102km±23km,ML2.7, Presumed earthquake*
ISC 14 06:57:20.6±1.4,**18°07N**±0°08×**68°80W**±0°03,**h98**km±10km, **n18**,σ1**906**/33,**15C-7D,Mona Passage**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time			Res
				Op			h	m	s	ISC
SADR	**Isla Saona**	**0.12**	**8**	⇑*i*P		**Pn**	**06**	**57**	**34.6**	**+0.3**
SADR				⇑*i*S		**Sn**	**06**	**57**	**45.8**	**+1.3**
SADR				IAML			06	57	54.1	
	comp=N,204nm,1.6s									
HIDR	**Higuey Centro**	**0.53**	**8**	⇓*i*P		**Pn**	**06**	**57**	**35.9**	**-0.4**
HIDR				⇑*i*S		**Sn**	**06**	**57**	**47.5**	**-0.6**
HIDR				IAML			06	57	48.4	
	comp=N,381nm,0.2s									
PCDR	**Punta Cana, DR**	**0.59**	**42**	⇓*i*P		**Pn**	**06**	**57**	**36.8**	**0.0**
PCDR				⇑*i*S		**Sn**	**06**	**57**	**50.2**	**+1.2**
PCDR				IAML			06	57	50.9	
	comp=N,164nm,0.5s									
PCDR	**Punta Cana, DR**	**0.59**	**42**	*i* P		**Pn**	**06**	**57**	**36.9**	**+0.1**
PCDR				*e*S		**Sn**	**06**	**57**	**49.7**	**+0.6**
PCDR				IAML			06	57	51.5	
	comp=Z,117nm,1.2s									
HATOM	**Hato Mayor del**	**0.91**	**322**	⇑*i*P		**Pn**	**06**	**57**	**38.6**	**-1.2**
HATOM				⇑*i*S		**Sn**	**06**	**57**	**52.4**	**-1.9**
HATOM				IAML			06	57	54.6	
	comp=N,45nm,0.1s									
SMDR	**Samana, DR**	**1.27**	**343**	⇑*i*P		**Pn**	**06**	**57**	**43.4**	**-0.5**
SMDR				⇑*i*S		**Sn**	**06**	**58**	**01.5**	**0.0**
SMDR				IAML			06	58	04.0	
	comp=N,106nm,0.5s									
CRPR	**Cabo Rojo, PR**	**1.61**	**92**	⇑*i*P		**Pn**	**06**	**57**	**47.6**	**-0.4**
CRPR				⇓*i*S		**Sn**	**06**	**58**	**09.1**	**+0.2**
CRPR				IAML			06	58	11.0	
	comp=N,89nm,0.2s									
CRPR	**Cabo Rojo, PR**	**1.61**	**92**	*i* P		**Pn**	**06**	**57**	**47.7**	**-0.3**
CRPR				*e*S		**Sn**	**06**	**58**	**08.5**	**-0.4**
AGPR	**Aguadilla, PR**	**1.65**	**76**	⇓*i*P		**Pn**	**06**	**57**	**49.8**	**+1.2**
AGPR				⇑*i*S		**Sn**	**06**	**58**	**11.1**	**+1.2**
AGPR				IAML			06	58	37.2	
	comp=N,76nm,2.1s									
MLPR	**Magueyes Islan**	**1.67**	**93**	⇑*i*P		**Pn**	**06**	**57**	**48.3**	**-0.5**
MLPR				⇑*i*S		**Sn**	**06**	**58**	**09.1**	**-1.3**
MLPR				IAML			06	58	09.2	
	comp=N,22nm,0.2s									
SFDR	**San Fco. de Ma**	**1.83**	**312**	⇑*i*P		**Pn**	**06**	**57**	**50.9**	**0.0**
SFDR				⇓*i*S		**Sn**	**06**	**58**	**13.6**	**-0.3**
SFDR				IAML			06	58	24.3	
	comp=N,95nm,0.9s									
AOPR	**Arecibo Observ**	**1.96**	**82**	⇓*i*P		**Pn**	**06**	**57**	**52.2**	**-0.3**
AOPR				⇑*i*S		**Sn**	**06**	**58**	**16.6**	**-0.5**
AOPR				IAML			06	58	20.8	
	comp=N,76nm,0.2s									
CELP	**Cerrillos**	**2.11**	**89**	⇑*i*P		**Pn**	**06**	**57**	**54.1**	**-0.4**
CELP				IAML			06	58	21.2	
	comp=N,6.1nm,0.3s									
LOVI	**El Cajuil, Ovi**	**2.46**	**264**	*i* P		**Pn**	**06**	**57**	**59.7**	**+0.6**
LOVI				*e*S		**Sn**	**06**	**58**	**26.9**	**-1.7**
LOVI				IAML			06	58	31.6	
	comp=Z,85nm,1.1s									
LODU1	**El Espartillar**	**2.56**	**277**	*i* P		**Pn**	**06**	**58**	**01.3**	**+1.0**
LODU1				*e*S		**Sn**	**06**	**58**	**31.0**	**0.0**
LODU1				IAML			06	58	31.3	
	comp=Z,22nm,1.9s									
LONE3	**El Aguacate, B**	**2.58**	**282**	*i* P		**Pn**	**06**	**58**	**01.1**	**+0.3**
LONE3				*e*S		**Sn**	**06**	**58**	**31.0**	**-0.7**
REDR	**Restauracion**	**2.69**	**294**	⇓*i*P		**Pn**	**06**	**58**	**05.4**	**+3.2**
REDR				IAML			06	58	46.3	
	comp=N,20nm,1.1s									
LOBH	**Bahia de las A**	**2.71**	**266**	*e*S		**Sn**	**06**	**58**	**33.2**	**-1.4**

*IDC **14** 07:04:53.1±1.3,30°68S×178°77W,h0km,mb4.0/5, mbtmp4.0/5,Error ellipse: s-maj=32.7km s-min=23.8km az=135.0*
*NEIC **14** 07:04:54.2±1.7,30°46S±0°08×178°57W±0°07,h10km±1km, mb4.4/11,Error ellipse: s-maj=15.5km s-min=7.9km az=145.0*
ISC 14 07:04:54.3±0.7,**30°32S**±0°06×**178°56W**±0°10,**h10**km,**n35**, σ2**831**/39,**mb4.1**/8,**Kermadec Islands**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC | Time | |

PSGCX	**Pisagua**	**0.92**	**44**	*eP*		**Pn**	07 14 10.4	-0.7
PSGCX				*eS*		**Sn**	07 14 23.7	+0.5
PSGCX				IAML			07 14 27.7	
	comp=Z,2µm,0.9s							
PSGCX	**Pisagua**	**0.92**	**44**			**Pn**	07 14 10.1	-0.9
PSGCX				Sn		**Sn**	07 14 23.1	-0.2
PSGCX	**Pisagua**	**0.92**	**44**	⇓*iP*		**Pn**	07 14 10.2	-0.9
PSGCX				*eS*		**Sn**	07 14 23.0	-0.2
PB11	**IPOC Station P**	**1.19**	**65**	*eP*		**Pn**	07 14 15.2	+0.4
PB11				IAML			07 14 38.5	
	comp=Z,3µm,1.0s							
PB11	**IPOC Station P**	**1.19**	**65**			**Pn**	07 14 14.9	+0.1
PB11				Sn		**Sb**	07 14 31.6	+0.2
PB11	**IPOC Station P**	**1.19**	**65**	⇓*iP*		**Pn**	07 14 15.1	+0.3
PB11				*eS*		**Sn**	07 14 30.9	+0.9
PB11				IAML			07 14 36.6	
	comp=N,7µm,0.2s							
PB02	**IPOC Station P**	**1.35**	**141**	*eP*		**Pn**	07 14 18.2	+1.2
PB02				*eS*		**Sb**	07 14 35.9	-0.1
PB02				IAML			07 14 42.1	
	comp=Z,6µm,0.5s							
PB02	**IPOC Station P**	**1.35**	**141**			**Pn**	07 14 17.5	+0.5
PB02				Sn		**Sn**	07 14 35.6	+1.7
PB02	**IPOC Station P**	**1.35**	**141**	⇑*iP*		**Pn**	07 14 18.1	+1.2
PB02				*eS*		**Sn**	07 14 35.6	+1.7
PB02				IAML			07 14 42.4	
	comp=E,7µm,0.3s							
PB08	**IPOC Station P**	**1.55**	**86**	*eP*		**Pn**	07 14 21.7	+1.7
PB08				IAML			07 14 46.7	
	comp=Z,2µm,0.4s							
PB08	**IPOC Station P**	**1.55**	**86**			**Pn**	07 14 20.8	+0.8
PB08	**IPOC Station P**	**1.55**	**86**	⇑*iP*		**Pn**	07 14 21.2	+1.2
PB08				*eS*		**Sb**	07 14 42.2	+0.2
PB08				IAML			07 14 46.3	
	comp=N,2µm,0.4s							
GO01	**Chusmiza**	**1.62**	**69**	*eP*		**Pn**	07 14 22.4	+1.2
GO01				IAML			07 14 46.7	
	comp=Z,2µm,0.5s							
GO01	**Chusmiza**	**1.62**	**69**			**Pn**	07 14 22.1	+1.0
GO01	**Chusmiza**	**1.62**	**69**	⇑*iP*		**Pn**	07 14 22.1	+1.0
GO01				*eS*		**Sb**	07 14 43.9	-0.2
GO01				IAML			07 14 45.6	
	comp=N,5µm,0.4s							
PB07	**IPOC Station P**	**1.69**	**150**	*eP*		**Pn**	07 14 22.5	+0.8
PB07				*eS*		**Sb**	07 14 51.2	+5.4
PB07				IAML			07 14 54.1	
	comp=Z,1µm,0.6s							
PB07	**IPOC Station P**	**1.69**	**150**			**Pn**	07 14 22.2	+0.5
PB07	**IPOC Station P**	**1.69**	**150**	⇑*iP*		**Pn**	07 14 22.6	+0.9
PB07				IAML			07 14 55.5	
	comp=E,2µm,0.3s							
PB12	**IPOC Station P**	**1.70**	**15**	*eP*		**Pn**	07 14 21.5	-0.4
PB12				IAML			07 14 52.3	
	comp=Z,1µm,0.6s							
PB12	**IPOC Station P**	**1.70**	**15**			**Pn**	07 14 21.7	-0.2
PB12	**IPOC Station P**	**1.70**	**15**	⇑*iP*		**Pn**	07 14 21.3	-0.6
PB12				*eS*		**Sn**	07 14 43.3	+0.7
PB12				IAML			07 14 51.2	
	comp=E,2µm,0.5s							
AP01	**Chacalluta**	**1.93**	**13**	*eP*		**Pn**	07 14 26.4	+1.4
AP01				*eS*		**Sn**	07 14 49.0	+0.8
AP01				IAML			07 15 02.6	
	comp=Z,2µm,0.8s							
AP01	**Chacalluta**	**1.93**	**13**			**Pn**	07 14 24.5	-0.4
AP01	**Chacalluta**	**1.93**	**13**	*eP*		**Pn**	07 14 24.7	-0.3
AP01				IAML			07 15 02.6	
	comp=E,6µm,0.7s							
PB03	**IPOC Station P**	**2.03**	**151**	*eP*		**Pn**	07 14 27.6	+1.2
PB03				IAML			07 15 08.9	
	comp=Z,1µm,0.5s							
PB03	**IPOC Station P**	**2.03**	**151**			**Pn**	07 14 26.4	0.0
PB03	**IPOC Station P**	**2.03**	**151**	*eP*		**Pn**	07 14 27.3	+0.9
PB03				IAML			07 15 09.3	
	comp=E,1µm,0.7s							
PB09	**IPOC Station P**	**2.11**	**137**	*eP*		**Pn**	07 14 24.3	-3.3
PB09				IAML			07 15 08.2	
	comp=Z,2µm,0.5s							
PB09	**IPOC Station P**	**2.11**	**137**			**Pn**	07 14 29.4	+1.9
PB09	**IPOC Station P**	**2.11**	**137**	⇑*iP*		**Pn**	07 14 29.9	+2.4
PB09				*eS*		**Sb**	07 14 58.4	+0.6
PB09				IAML			07 15 09.3	
	comp=E,4µm,0.6s							
PB16	**IPOC Station P**	**2.27**	**33**	*eP*		**Pn**	07 14 30.9	+0.7
PB16				IAML			07 15 12.7	
	comp=Z,1µm,0.9s							
PB16	**IPOC Station P**	**2.27**	**33**			**Pn**	07 14 31.8	+1.6
PB16	**IPOC Station P**	**2.27**	**33**	*eP*		**Pn**	07 14 30.6	+0.4
PB16				*eS*		**Sn**	07 14 59.5	+2.1
PB16				IAML			07 15 05.3	
	comp=N,1µm,0.4s							
PB05	**IPOC Station P**	**2.63**	**168**	*eP*		**Pn**	07 14 34.6	-0.2
PB05				*eS*		**Sb**	07 15 14.0	+1.1
PB05				IAML			07 15 29.5	
	comp=Z,402nm,1.1s							
PB05	**IPOC Station P**	**2.63**	**168**			**Pn**	07 14 34.4	-0.4
PB05	**IPOC Station P**	**2.63**	**168**	*eP*		**Pn**	07 14 34.5	-0.2
PB05				IAML			07 16 36.9	
	comp=E,522nm,0.6s							
PB06	**IPOC Station P**	**2.69**	**155**	*eP*		**Pn**	07 14 36.2	+0.8
PB06				*eS*		**Sb**	07 15 11.8	-2.6
PB06				IAML			07 15 28.3	
	comp=Z,776nm,0.8s							
PB06	**IPOC Station P**	**2.69**	**155**			**Pn**	07 14 35.5	+0.1
PB06	**IPOC Station P**	**2.69**	**155**	⇑*eP*		**Pn**	07 14 36.0	+0.5
PB06				IAML			07 15 35.9	
	comp=E,561nm,0.5s							
PB18	**Visviri**	**2.94**	**25**			**Pn**	07 14 41.3	+2.0
PB18	**Visviri**	**2.94**	**25**	*eP*		**Pn**	07 14 41.9	+2.6
PB18				IAML			07 15 38.0	
	comp=E,2µm,0.6s							
PB10	**IPOC Station P**	**3.24**	**176**	*eP*		**Pn**	07 14 42.6	-0.4
PB10				*eS*		**Sn**	07 15 17.9	-2.6
PB10	**IPOC Station P**	**3.24**	**176**	Pn		**Pn**	07 14 42.1	-0.9
PB10	**IPOC Station P**	**3.24**	**176**	⇓*eP*		**Pn**	07 14 42.3	-0.6
AF01	**San Pedro de A**	**3.62**	**138**			**Pn**	07 14 49.4	+0.9
PB14	**IPOC Station P**	**4.36**	**175**	*eP*		Pn	07 14 53.3	-5.3
PB14				*eS*		**Sn**	07 15 48.3	-0.2
PB14				IAML			07 15 50.8	
	comp=Z,91nm,0.6s							
PB14	**IPOC Station P**	**4.36**	**175**			**Pn**	07 14 57.1	-1.5
LPAZ	**La Paz**	**4.70**	**33**	P		**Pn**	07 15 07.5	+4.0
	comp=Z,1.8nm,0.3s,baz=246,slow=3.4,SNR=54							
LPAZ				LR		LR	07 17 20.5	
	comp=Z,307nm,20.1s,baz=258,slow=44							
	comp=Z,5.3nm,0.3s							
LPAZ				AML		AML		
LPAZ	**La Paz**	**4.70**	**33**	*eP*		**Pn**	07 15 04.0	+0.4
AC01	**Pan de Azucar**	**5.86**	**178**	Pn		**Pn**	07 15 18.7	-0.3
AC06	**Mina Casimiro**	**7.07**	**177**	Pn		**Pn**	07 15 34.4	-1.3
AC05	**El Transito**	**8.55**	**177**	Pn		**Pn**	07 15 56.1	+0.1
BBSD	**Serra de San D**	**10.13**	**74**	*eP*		**Pn**	07 16 17.1	-0.5
SIV	**San Ignacio**	**10.18**	**67**	P		**Pn**	07 16 18.1	-0.2
	comp=Z,0.2nm,0.3s,baz=266,slow=9.7,SNR=16							
	comp=Z,5.9nm,0.6s							
SIV				AML		AML		
CFA	**Coronel Fontan**	**11.53**	**169**	P		**Pn**	07 16 39.5	+2.8
	comp=Z,0.1nm,0.3s,baz=20,slow=7.2,SNR=1.8							
	comp=Z,0.4nm,0.5s							
CFA				AML		AML		
PTLB	**Pontes e Lacer**	**12.09**	**69**			**Pn**	07 16 46.3	+1.9
PTLB	**Pontes e Lacer**	**12.09**	**69**	*eP*		**Pn**	07 16 44.4	0.0
COIM	**Forte Coimbra**	**12.23**	**91**	*eP*		Pn	07 16 41.7	-4.6
VILB	**Vilhena**	**12.49**	**56**			**Pn**	07 16 50.5	+0.6
VILB	**Vilhena**	**12.49**	**56**	*eP*		**Pn**	07 16 51.2	+1.3
BDQN	**Bodoquena, MS**	**13.17**	**93**	*eP*		**Pn**	07 16 56.8	-2.5
CPUP	**Villa Florida**	**13.77**	**119**	P		**Pn**	07 17 07.0	-0.3
	comp=Z,0.1nm,0.3s,baz=317,slow=13,SNR=4.8							
	comp=Z,0.6nm,0.7s							
CPUP				AML		AML		
CPUP	**Villa Florida**	**13.77**	**119**	*eP*		Pn	07 17 02.2	-5.1
H03N1	**Juan Fernandez**	**14.98**	**207**	T		T	07 32 50.8	
	baz=33,slow=74,SNR=66							
H03N2	**Juan Fernandez**	**14.99**	**207**	T		T	07 32 51.8	
	baz=228,slow=74,SNR=60							
SALV	**Santo Antonio**	**15.00**	**76**	*eP*		**Pn**	07 17 24.5	+0.3
PP1B	**Ponte de Pedra**	**15.29**	**83**	*eP*		**Pn**	07 17 27.4	-0.6
PDRB	**Porto dos Gac**	**16.02**	**60**	*eP*		**Pn**	07 17 37.1	-0.3
C2SB	**Chapadao do Su**	**17.00**	**88**	*eP*		**Pn**	07 17 48.0	-1.8
CLDB	**Colider**	**17.19**	**59**	*eP*		**Pn**	07 17 52.0	-0.2
ANCO	**Parque Anchore**	**18.00**	**143**	*eP*		Pn	07 17 52.6	-9.5
ITAB	**Concordia**	**18.43**	**116**	P		**P**	07 18 07.2	+0.1
ITAB				IAmb		IAmb	07 18 14.9	
	comp=Z,23nm,1.4s							

LDASE	**Londrina, Braz**	**18.53**	**103**	*eP*		**P**	07 18 03.8	-4.6
NPGB	**Novo Progresso**	**19.92**	**51**	*eP*		**P**	07 18 23.6	0.0
PLCA	**Paso Flores**	**20.40**	**179**	P		Pn	07 18 30.9	-0.1
	comp=Z,2.9nm,0.8s,baz=351,slow=5.8,SNR=6.0							
	comp=Z,2.9nm,0.8s							
SNDB	**Serra Nova Dou**	**20.45**	**69**	*eP*		**P**	07 18 27.9	-1.5
IPMB	**Ipameri, GO**	**21.46**	**88**	*eP*		**P**	07 18 37.8	-2.5
ITTB	**Itaituba**	**21.56**	**45**	*eP*		**P**	07 18 39.5	-1.7
BDFB	**Brasilia**	**22.15**	**82**	P		**P**	07 18 46.1	-1.6
	comp=Z,1.8nm,0.5s,baz=226,slow=7.1,SNR=4.8							
BDFB				LR		LR	07 28 54.3	
	comp=Z,172nm,20.2s,baz=193,slow=41							
	comp=Z,1.8nm,0.5s							
BDFB	**Brasilia**	**22.15**	**82**	P		**P**	07 18 48.0	+0.2
BOAV	**Boa Vista**	**24.67**	**25**	P		**P**	07 19 12.3	-0.2
BOAV				IAmb		IAmb	07 19 13.8	
	comp=Z,7.5nm,0.8s							
BOAV	**Boa Vista**	**24.67**	**25**	*eP*		**P**	07 19 13.1	+0.6
SMTB	**Santa Maria do**	**25.12**	**67**	P		**P**	07 19 16.4	-0.2
SMTB				IAmb		IAmb	07 19 20.1	
	comp=Z,7.1nm,1.0s							
RUSC	**La Rusia**	**26.09**	**355**	P		**P**	07 19 25.7	-0.1
RUSC				IAmb		IAmb	07 19 53.4	
	comp=Z,8.8nm,1.0s							
ECPR	**Experimental S**	**38.59**	**7**	P		**P**	07 21 13.3	-1.2
TXAR	**Lajitas Array**	**58.62**	**326**	P		**P**	07 23 49.7	+1.2
	comp=Z,0.3nm,0.9s,baz=146,slow=6.8,SNR=2.0							
	comp=Z,0.3nm,0.9s							
QSPA	**South Pole Qui**	**69.92**	**180**	P		**P**	07 25 03.2	+1.1
	comp=Z,0.9nm,0.6s,baz=153,slow=0.8,SNR=11							
	comp=Z,0.9nm,0.6s							
QSPA	**South Pole Qui**	**69.92**	**180**	P		**P**	07 25 04.5	+2.3
QSPA				IAmb		IAmb	07 25 30.7	
	comp=Z,5.0nm,1.4s							
YBH	**Yreka Blue Hor**	**78.16**	**323**	LR		LR	07 58 11.9	
	comp=Z,74nm,18.9s,baz=346,slow=34							
TORD	**Torodi Ar. Bea**	**78.62**	**71**	P		**P**	07 25 53.6	0.0
	comp=Z,3.1nm,0.7s,baz=253,slow=4.9,SNR=16							
	comp=Z,3.1nm,0.7s							
H11S2	**WAKE ISLAND Hyd**	**25.96**	**279**	T		T	09 52 08.0	
	baz=102,slow=74,SNR=44							
H11S1	**WAKE ISLAND Hyd**	**25.97**	**279**	T		T	09 52 07.5	
	baz=102,slow=74,SNR=24							
H11S3	**WAKE ISLAND Hyd**	**25.98**	**279**	T		T	09 52 08.0	
	baz=102,slow=74,SNR=28							
H11N3	**WAKE ISLAND Hyd**	**26.02**	**280**	T		T	09 52 13.8	
	baz=102,slow=74,SNR=6.7							
H11N2	**WAKE ISLAND Hyd**	**26.03**	**280**	T		T	09 52 13.2	
	baz=102,slow=74,SNR=2.2							
H11N1	**WAKE ISLAND Hyd**	**26.03**	**280**	T		T	09 52 15.5	
	baz=102							
ZALV	**Zalesovo Beam**	**141.55**	**23**	PKP		**PKPdf**	07 33 21.4	-0.6
	comp=Z,0.4nm,0.4s,baz=310,slow=3.2,SNR=1.6							
MKAR	**Makanchi Array**	**145.63**	**33**	PKPbc		**PKPab**	07 33 31.2	+1.2
	comp=Z,2.5nm,0.7s,baz=320,slow=3.4,SNR=20							

IDC 14 07:14:48.6±5.5, 24°.45N×143°.20E, h152km±68km, mb3.0/3, mbtmp3.5/4, Error ellipse: s-maj=418.9km s-min=28.1km az=72.0, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**2.79**	**341**	P	Pn	07 15 33.7	+0.4
	45nm,0.3s,baz=49,slow=22,SNR=24						
JCJ				S	Sn	07 16 08.6	+0.5
	99nm,0.4s,baz=61,slow=24,SNR=9.4						
WRA	**Warramunga Arr**	**44.96**	**192**	P	P	07 22 48.6	-0.1
	0.4nm,0.3s,baz=15,slow=8.0,SNR=4.7						
	0.4nm,0.3s						
ASAR	**Alice Springs**	**48.67**	**191**	P	P	07 23 17.3	-0.2
	0.2nm,0.6s,baz=18,slow=11,SNR=5.7						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**52.88**	**311**	P	P	07 23 48.8	-0.1
	0.2nm,0.5s,baz=104,slow=6.1,SNR=2.1						
	0.2nm,0.5s						

UPA ***14*** *07:29:52.7±1.0, 5°.55N×82°.55W, h14km±22km, MW4.2, Presumed earthquake*

RSNC ***14*** *07:30:00.3±0.7, 6°N±2°×8°2W±°, h0km, M4.4, mB5.0, mb4.7, ML3.1, Mw(mB)4.4*

CATAC ***14*** *07:30:00.3±0.5, 6°N±.9°×8°2W±1°1, h78km±28km, M4.4/12, mb4.5/12, mB5.0/10, MLv4.5/10, Mw(mB)4.4/10, Error ellipse: s-maj=29.3km s-min=6.6km az=51.3, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr0.13; Mθθ1.16; Mϕϕ-1.30; Mrθ0.41; Mθϕ-0.68; Mϕr-1.09; Fault plane solution: M₀1.82768×10¹⁷ NP1: ϕs151.34522°, δ89.08600°, λ39.59318°. NP2:ϕs60.58935°, δ50.41285°, λ178.81396°. Principal axes: T 1.6892, Plg27.5088°, Azm23.4408°; N 0.2510, Plg50.3980°, Azm152.4501°; P -1.9402, Plg26.0608°, Azm278.6863°; confirmed*

ISC 14 07:29:54.3±1.3, 5°.70N±0°.06×82°.51W±0°.06, h10km, n76, σ1s86/114, 4C-3D, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CACAO	**El Cacao, Vera**	**2.32**	**45**	P	**Pn**	07 30 32.1	-0.4
CACAO				S	**Sn**	07 31 00.8	-0.3
CACAO	**El Cacao, Vera**	**2.32**	**45**	*eP*	**Pn**	07 30 32.2	-0.3
CACAO				*eS*	**Sn**	07 31 00.6	-0.5
GMAL	**Guarumal, Vera**	**2.41**	**32**	P	**Pn**	07 30 33.5	-0.3
GMAL				S	**Sn**	07 31 03.5	0.0
GMAL	**Guarumal, Vera**	**2.41**	**32**	*eP*	**Pn**	07 30 33.8	0.0
GMAL				*eS*	**Sn**	07 31 04.7	+1.3
LIMO3	**Limones**	**2.41**	**352**	*eP*	**Pn**	07 30 33.5	-0.9
LIMO3				*eS*	**Sn**	07 31 04.3	+0.9
PTPM	**Petroterminale**	**2.52**	**352**	*eP*	**Pn**	07 30 33.7	-1.6
PTPM				*eS*	**Sn**	07 31 07.1	+1.1
REME3	**Remedios, Chir**	**2.60**	**15**	*eP*	**Pn**	07 30 35.9	-0.5
REME3				*eS*	**Sn**	07 31 08.4	+0.3
LOMA3	**Las Lomas, Chi**	**2.72**	**2**	*eP*	**Pn**	07 30 37.8	-0.2
LOMA3				*eS*	**Sn**	07 31 12.2	+1.2
DVD	**David**	**2.72**	**1**	⇓*iP*	**Pn**	07 30 37.7	-0.3
DVD				*eS*	**Sn**	07 31 11.1	0.0
BAGA3	**Bagala, Chiriq**	**2.75**	**360**	*eP*	**Pn**	07 30 38.0	-0.5
BAGA3				*eS*	**Sn**	07 31 12.7	+0.9
BGUAL	**Bijagual, Pana**	**2.80**	**4**	⇓*iP*	**Pn**	07 30 39.1	0.0
BGUAL				*eS*	**Sn**	07 31 13.6	+0.6
PIRO	**Carate, Puerto**	**2.81**	**343**	P	**Pn**	07 30 40.1	+0.8
PIRO				S	**Sn**	07 31 12.1	-1.2
PIRO	**Carate, Puerto**	**2.81**	**343**	*eP*	**Pn**	07 30 38.3	-1.0
PIRO				*eS*	**Sn**	07 31 13.5	+0.2
CDITO	**Canoas**	**2.88**	**353**	P	**Pn**	07 30 38.7	-1.4
CDITO				S	**Sn**	07 31 11.7	-3.3
CDITO	**Canoas**	**2.88**	**353**	⇑*iP*	**Pn**	07 30 38.7	-1.5
CDITO				*eS*	**Sn**	07 31 15.5	+0.5
NELY	**Ciudad Neily**	**2.96**	**352**	⇓*iP*	**Pn**	07 30 40.5	-0.9
NELY				*eS*	**Sn**	07 31 16.7	-0.4
PSOM3	**Paja de Sombre**	**2.97**	**4**	*eP*	**Pn**	07 30 41.3	-0.3
PSOM3				*eS*	**Sn**	07 31 18.4	+1.0
PTAR3	**Potrerillos Ar**	**2.98**	**0**	*eP*	**Pn**	07 30 41.3	-0.4
PTAR3				*eS*	**Sn**	07 31 18.6	+1.1
BQSF3	**Alto Boquete,**	**3.03**	**1**	*eP*	**Pn**	07 30 42.0	-0.4
BQSF3				*eS*	**Sn**	07 31 18.7	-0.1
CLLRA	**Cordillera,**	**3.03**	**358**	*eP*	**Pn**	07 30 42.0	-0.4
CLLRA				*eS*	**Sn**	07 31 19.6	+0.7
BQTLY	**Boquete Panama**	**3.04**	**1**	⇑*iP*	**Pn**	07 30 42.0	-0.6
BQTLY				*eS*	**Sn**	07 31 17.9	-1.3
AZU	**Azuero**	**3.04**	**47**	P	**Pn**	07 30 42.8	+0.3
AZU				S	**Sn**	07 31 18.6	-0.4
AZU	**Azuero**	**3.04**	**47**	⇑*eP*	**Pn**	07 30 42.9	+0.4
AZU				*eS*	**Sn**	07 31 18.1	-0.9
CHIT3	**Chitre**	**3.06**	**43**	*eP*	**Pn**	07 30 43.4	+0.7
CHIT3				*eS*	**Sn**	07 31 19.5	+0.2
LNBQ3	**Los Naranjos,**	**3.08**	**1**	*eP*	**Pn**	07 30 42.5	-0.5
LNBQ3				*eS*	**Sn**	07 31 20.4	+0.4
BRU2	**Volcan**	**3.08**	**357**	P	**Pn**	07 30 42.8	-0.4
BRU2				S	**Sn**	07 31 16.7	-3.5
BRU2	**Volcan**	**3.08**	**357**	⇑*iP*	**Pn**	07 30 42.5	-0.6
BRU2				*eS*	**Sn**	07 31 20.8	+0.6
BRU2				*eS*	**Sb**	07 31 21.1	-6.0
MLIR3	**Monte Lirio, C**	**3.09**	**354**	*eP*	**Pn**	07 30 43.1	-0.1
MLIR3				*eS*	**Sn**	07 31 21.7	+1.4
SCLRA	**Santa Clara, W**	**3.13**	**355**	*eP*	**Pn**	07 30 43.6	-0.2
VITO	**San Vito**	**3.13**	**352**	*eP*	**Pn**	07 30 44.7	+0.8
RBALA	**Bur**	**3.18**	**6**	*eP*	**Pn**	07 30 44.9	+0.5
CTCR	**Cotoan**	**3.19**	**356**	*eP*	**Pn**	07 30 44.0	-0.7
CTCR				*eS*	**Sn**	07 31 23.6	+0.7
PNME	**Penonome**	**3.52**	**38**	P	**Pn**	07 30 49.9	+0.9
PNME				S	**Sn**	07 31 34.1	+3.4

PNME	**Penonome**	**3.52**	**38**	*eP*		**Pn**	07 30 50.8	+1.8
CNI2	**El Empalme, Bo**	**3.70**	**1**	*eP*		**Pn**	07 30 51.8	+0.2
CNI2				*eS*		**Sn**	07 31 35.6	+0.3
ZANG	**Zanguenga, Cho**	**4.17**	**39**	*eP*		**Pn**	07 30 57.0	-1.0
ZANG				*eP*		Pb	07 31 01.0	-6.7
ZANG				*eS*		**Sn**	07 31 44.6	-2.1
LCR2	**La Lucha 2**	**4.28**	**340**	P		**Pn**	07 30 59.1	-0.7
BCIP	**Isla Barro Col**	**4.35**	**37**	P		**Pn**	07 31 01.8	+1.4
BCIP				S		**Sn**	07 31 52.9	+1.7
BCIP	**Isla Barro Col**	**4.35**	**37**	*eP*		**Pn**	07 31 00.0	-0.5
BCIP				*eS*		**Sn**	07 31 50.6	-0.7
GAMB1	**Gamboa**	**4.39**	**39**	*eP*		**Pn**	07 31 01.4	+0.4
UPA	**Univ. de Panam**	**4.40**	**42**	P		**Pn**	07 31 03.3	+2.1
UPA	**Univ. de Panam**	**4.40**	**42**	*eP*		**Pn**	07 31 04.1	+2.9
FRIJ	**El Hiral**	**4.46**	**38**	*eP*		**Pn**	07 31 01.2	-0.7
TRT2	**Tortugero**	**4.98**	**346**	P		**Pn**	07 31 09.5	+0.3
JTS	**Las Juntas de**	**5.17**	**332**	P		**Pn**	07 31 10.5	-1.2
JTS				S		**Sn**	07 32 08.3	-3.1
UPD2	**Meteti**	**5.28**	**57**	P		Pn	07 31 18.3	+5.0
CARN	**Rivas**	**6.21**	**332**	P		**Pn**	07 31 27.5	+1.4
APAC	**Apartado, Choc**	**6.28**	**69**	P		Pn	07 31 32.7	+5.6
	2µm77nm,0.4s							
APAC				S		**Sn**	07 32 45.2	+6.2
	2µm77nm,0.4s							
APAC				AML		AML		
JAMC	**Jamundi, Valle**	**6.32**	**113**	P		**Pn**	07 31 28.3	+0.5
	1µm27nm,0.5s							
JAMC				S		**Sn**	07 32 38.1	-2.1
	1µm27nm,0.5s							
JAMC				AML		AML		
YOTC	**Yotoco, Valle**	**6.38**	**105**	P		**Pn**	07 31 29.4	+1.0
YOTC				S		**Sn**	07 32 40.0	-1.4
YOTC				AML		AML		
BBAC	**Balboa, Cauca**	**6.40**	**125**	P		**Pn**	07 31 27.8	-1.0
CBOC	**Ciudad Bolivar**	**6.47**	**88**	P		**Pn**	07 31 33.3	+3.5
	14nm,1.1s							
CBOC				S		**Sn**	07 32 42.7	-1.1
	14nm,1.1s							
CBOC				AML		AML		
PAC1	**Pacto, Paraso**	**6.55**	**145**	P		**Pn**	07 31 28.8	-2.1
PAC1				S		**Sn**	07 32 41.5	-4.3
POPC	**Popayan, Colom**	**6.61**	**118**	P		**Pn**	07 31 31.9	+0.1
	1µm40nm,0.4s							
POPC				S		**Sn**	07 32 42.1	-5.3
	1µm40nm,0.4s							
POPC				AML		AML		
LCBC	**Los crdobas,**	**6.85**	**62**	P		Pn	07 31 41.4	+6.5
	135nm,1.5s							
GUY2C	**Guyana, Caldas**	**7.13**	**93**	P		Pn	07 31 43.1	+4.0
	451nm23nm,0.6s							
GUY2C	**Guyana, Caldas**	**7.13**	**93**	P		Pn	07 31 43.6	+4.5
GUY2C				P		Pn	07 31 43.8	+4.7
GUY2C				P		Pn	07 31 43.8	+4.7
UREC	**San Jos de Ur**	**7.22**	**73**	P		**Pn**	07 31 43.9	+3.9
	514nm33nm,0.7s							
UREC				S		**Sn**	07 33 03.1	+0.9
	514nm33nm,0.7s							
BOAB	**BOACO BROADBAN**	**7.40**	**335**	P		**Pn**	07 31 44.3	+1.9
ORTC	**Ortega, Tolima**	**7.45**	**103**	P		**Pn**	07 31 46.0	+2.8
ORTC	**Ortega, Tolima**	**7.45**	**103**	P		Pn	07 31 47.1	+3.9
AMTN	**Mateare**	**7.56**	**329**	P		Pb	07 31 56.9	-8.7
LEVN	**Ruinas Leon Vi**	**7.80**	**329**	P		**Pn**	07 31 50.9	+3.0
MOM3	**MOM3**	**7.84**	**330**	P		**Pn**	07 31 51.1	+2.6
PRAC	**Prado**	**7.85**	**104**	P		**Pn**	07 31 47

KRL1	**Karlovasi Samo**	**0.11**	**247**	P	**Pg**	**07 31 23.4**	**0.0**
KRL1				S	**Sg**	**07 31 25.7**	**+0.2**
KRL1				AML	AML		
SMG	**Samos**	**0.13**	**177**	P	**Pg**	**07 31 23.7**	**-0.1**
SMG				S	**Sg**	**07 31 26.2**	**0.0**
SMG				AML	AML		
SMG	**Samos**	**0.13**	**177**	P	**Pg**	**07 31 23.7**	**-0.1**
SMG				S	**Sg**	**07 31 26.1**	**0.0**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.19**	**246**	P	**Pg**	**07 31 24.7**	**-0.1**
SAM2				S	**Sg**	**07 31 27.6**	**0.0**
SAM2				AML	AML		
DGB	**zmir**	**0.22**	**11**	P	**Pg**	**07 31 25.2**	**-0.1**
DGB				S	**Sg**	**07 31 28.8**	**+0.4**
DGB				IAML		07 31 31.0	
	comp=N,1µm,0.2s						
DGB				IAML		07 31 32.0	
	comp=E,2µm,0.3s						
GCAM	**G?zelcaml?**	**0.35**	**113**	P	**Pg**	**07 31 27.6**	**+0.1**
GCAM				IAML		07 31 33.0	
	comp=N,6µm,0.3s						
GCAM				IAML		07 31 33.0	
	comp=E,6µm,0.2s						
GCAM				S	**Sb**	**07 31 33.3**	**-0.8**
GCAM	**G?zelcaml?**	**0.35**	**113**	Pg	**Pg**	**07 31 27.7**	**+0.1**
GCAM				Sg	**Sb**	**07 31 33.4**	**-0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**86**	Pg	**Pg**	**07 31 27.9**	**0.0**
KUSD				Sg	**Sg**	**07 31 33.1**	**+0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**11**	P	**Pg**	**07 31 28.5**	**0.0**
BEYE				S	**Sb**	**07 31 35.1**	**-0.6**
BEYE				IAML		07 31 38.0	
	comp=N,1µm,0.7s						
BEYE				IAML		07 31 40.0	
	comp=E,1µm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**327**	P	**Pg**	**07 31 29.8**	**-0.2**
ZEYE				S	**Sg**	**07 31 37.2**	**+0.9**
ZEYE				IAML		07 31 39.0	
	comp=N,2µm,0.4s						
ZEYE				IAML		07 31 43.0	
	comp=E,1µm,0.3s						
DDIM	**Aydin, Didim**	**0.50**	**139**	P	**Pg**	**07 31 30.5**	**+0.1**
DDIM				S	**Sb**	**07 31 38.4**	**-0.2**
DDIM				IAML		07 31 39.0	
	comp=N,2µm,0.6s						
DDIM				IAML		07 31 39.0	
	comp=E,2µm,0.4s						
DIDI	**Didim-Aydin**	**0.56**	**145**	Pg	**Pb**	**07 31 31.8**	**-0.6**
DIDI				Sg	**Sb**	**07 31 40.1**	**-0.3**
DIDI				AML	AML		
BLCB	**Balcova**	**0.57**	**17**	P	**Pg**	**07 31 31.8**	**0.0**
BLCB				S	**Sb**	**07 31 40.0**	**-0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**17**	Pg	**Pg**	**07 31 31.9**	**+0.1**
DUVT	**Torbali**	**0.62**	**52**	P	**Pg**	**07 31 32.5**	**-0.2**
DUVT				S	**Sg**	**07 31 41.0**	**+0.1**
DUVT				IAML		07 31 44.0	
	comp=E,1µm,0.6s						
CESE	**eme**	**0.65**	**320**	Pg	**Pg**	**07 31 33.0**	**-0.2**
CESE				Sg	**Sb**	**07 31 42.6**	**-0.2**
KRBN	**Karaburun**	**0.79**	**344**	Pg	**Pg**	**07 31 35.8**	**0.0**
KRBN				Sg	**Sb**	**07 31 47.4**	**+0.5**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**153**	Pg	**Pb**	**07 31 36.1**	**-0.2**
YKAV				Sg	**Sb**	**07 31 47.2**	**+0.1**
YKAV				AML	AML		
BAGT	**Foa**	**0.82**	**1**	P	**Pg**	**07 31 36.1**	**-0.3**
BAGT				S	**Sn**	**07 31 49.9**	**-0.1**
BAGT				IAML		07 31 51.0	
	comp=N,2µm,0.6s						
BAGT				IAML		07 31 53.0	
	comp=E,1µm,0.5s						
CHOS	**Chios island**	**0.82**	**312**	P	**Pg**	**07 31 36.0**	**-0.5**
CHOS				S	**Sb**	**07 31 48.3**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**312**	Pg	**Pg**	**07 31 36.3**	**-0.2**
CHOS				Sg	**Sb**	**07 31 48.4**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**312**	P	**Pg**	**07 31 35.8**	**-0.7**
CHOS				S	**Sb**	**07 31 48.0**	**0.0**
AYDB	**Zeytinkoy-Aydi**	**0.85**	**82**	Pg	**Pb**	**07 31 37.2**	**-0.1**
AYDB				Sg	**Sb**	**07 31 49.6**	**+0.9**
AYDN	**Tasoluk**	**0.85**	**102**	P	**Pg**	**07 31 36.8**	**-0.2**
AYDN				S	**Sb**	**07 31 48.7**	**0.0**
AYDN				IAML		07 31 52.0	
	comp=E,631nm,0.3s						
AYDN				IAML		07 31 54.0	
	comp=N,580nm,0.4s						
BODT	**Bodrum**	**0.86**	**154**	P	**Pg**	**07 31 36.7**	**-0.5**
BODT				S	**Sb**	**07 31 48.9**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**154**	Pg	**Pg**	**07 31 37.1**	**-0.1**
BODT				Sg	**Sb**	**07 31 49.7**	**+0.7**
BODT				AML	AML		
FOCM	**Foa**	**0.88**	**355**	Pg	**Pg**	**07 31 37.6**	**0.0**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.89**	**173**	P	**Pg**	**07 31 37.4**	**-0.3**
KLNA				S	**Sb**	**07 31 50.5**	**+0.9**
KARB	**zmir-Karabur**	**0.89**	**338**	P	**Pg**	**07 31 37.1**	**-0.6**
KARB				S	**Sn**	**07 31 52.2**	**+0.5**
KARB				IAML		07 31 53.0	
	comp=N,910nm,0.5s						
KARB				IAML		07 31 53.0	
	comp=E,659nm,0.4s						
EAG2	**Marmaro, Chios**	**0.91**	**321**	P	**Pg**	**07 31 37.7**	**-0.4**
EAG2				S	**Sg**	**07 31 49.9**	**0.0**
BDRM	**Kayabasi**	**0.91**	**147**	P	**Pg**	**07 31 37.7**	**-0.5**
BDRM				S	**Sb**	**07 31 50.9**	**+0.4**
BDRM				IAML		07 31 53.0	
	comp=E,1µm,0.4s						
BDRM				IAML		07 31 54.0	
	comp=N,1µm,0.3s						
MLSB	**Milas**	**0.93**	**125**	Pg	**Pb**	**07 31 38.5**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**149**	Pg	**Pb**	**07 31 38.5**	**-0.2**
IZMR	**zmir-demi**	**0.94**	**71**	P	**Pb**	**07 31 38.8**	**+0.1**
IZMR				S	**Sg**	**07 31 50.3**	**-0.6**
IZMR				IAML		07 31 53.0	
	comp=N,180nm,0.5s						
IZMR				IAML		07 31 54.0	
	comp=E,258nm,0.7s						
CAMT	**Merkez**	**0.99**	**22**	P	**Pb**	**07 31 39.7**	**+0.1**
CAMT				S	**Sn**	**07 31 54.0**	**-0.2**
CAMT				IAML		07 31 55.0	
	comp=E,1µm,0.5s						
CAMT				IAML		07 31 56.0	
	comp=N,1µm,0.4s						
ZEDA	**zmir-Bergama**	**1.15**	**10**	P	**Pb**	**07 31 42.0**	**-0.3**
ZEDA				S	**Sn**	**07 31 59.2**	**+1.1**
ZEDA				IAML		07 32 00.0	
	comp=E,480nm,0.6s						
ZEDA				IAML		07 32 03.0	
	comp=N,342nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.16**	**83**	Pn	**Pb**	**07 31 42.5**	**-0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**44**	Pn	**Pg**	**07 31 44.1**	**0.0**
GOMA				AML	AML		
DKL	**Dikili**	**1.23**	**3**	Pn	**Pg**	**07 31 44.4**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.23**	**3**	P	**Pn**	**07 31 43.4**	**-0.3**
DKL				S	**Sn**	**07 32 00.5**	**+0.2**
DAT	**Datca**	**1.26**	**151**	Pn	**Pg**	**07 31 44.4**	**-0.3**
APE	**Apeiranthos**	**1.29**	**234**	Pn	**Pb**	**07 31 44.9**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.29**	**234**	P	**Pg**	**07 31 45.3**	**0.0**
APE				S	**Sb**	**07 32 01.6**	**+0.3**
APE				AML	AML		
AKHS	**Akhisar**	**1.30**	**36**	P	**Pg**	**07 31 45.4**	**-0.2**
AKHS				S	**Sg**	**07 32 03.8**	**+1.4**
AKHS				IAML		07 32 05.0	
	comp=N,378nm,0.4s						
AKS	**Akhisar**	**1.30**	**36**	Pn	**Pg**	**07 31 45.3**	**-0.2**
AKS				AML	AML		
KTTT	**Salihli**	**1.31**	**49**	P	**Pn**	**07 31 44.1**	**-0.6**
KTTT				S	**Sn**	**07 32 02.3**	**+0.2**
ASTA	**Astypalaia**	**1.34**	**197**	P	**Pb**	**07 31 45.8**	**+0.1**
ASTA				AML	AML		
YER	**Yerkesik**	**1.35**	**121**	P	**Pn**	**07 31 44.9**	**-0.4**
YER				S	**Sb**	**07 32 02.4**	**-0.8**
YER	**Yerkesik**	**1.35**	**121**	Pn	**Pb**	**07 31 45.7**	**-0.2**
YER				AML	AML		
TNSA	**Tinos**	**1.35**	**258**	P	**Pn**	**07 31 45.7**	**+0.4**
TNSA				S	**Sb**	**07 32 01.5**	**-1.7**
SOMA	**Soma-Manisa**	**1.43**	**23**	Pn	**Pb**	**07 31 47.0**	**-0.2**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.47**	**343**	P	**Pn**	**07 31 46.5**	**-0.5**
PRK				S	**Sn**	**07 32 06.6**	**+0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**1.47**	**343**	P	**Pn**	**07 31 46.6**	**-0.3**
PRK				S	**Sn**	**07 32 06.4**	**+0.2**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.51**	**44**	Pn	**Pb**	**07 31 48.4**	**-0.1**
GORD				AML	AML		
TURN	**Turunc**	**1.55**	**133**	Pn	**Pn**	**07 31 47.8**	**-0.2**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.77**	**124**	Pn	**Pb**	**07 31 52.1**	**-0.9**
DALY				AML	AML		
CMBO	**Columbo, Santo**	**1.77**	**220**	P	**Pn**	**07 31 51.8**	**+0.7**
THR8	**Santorini-Mono**	**1.79**	**218**	P	**Pn**	**07 31 52.3**	**+1.0**
THERA	**Ancient Thera,**	**1.82**	**217**	P	**Pn**	**07 31 52.6**	**+0.8**
THR3	**Thira Island,**	**1.83**	**219**	P	**Pn**	**07 31 52.7**	**+0.9**
SNT5	**Nea Kammeni, S**	**1.83**	**219**	P	**Pb**	**07 31 53.1**	**-0.9**
THR5	**Thira Island,**	**1.85**	**220**	P	**Pn**	**07 31 52.6**	**+0.5**
THR6	**Thira Island,**	**1.87**	**218**	P	**Pn**	**07 31 52.4**	**0.0**
KARY	**Karystos**	**1.90**	**277**	P	**Pn**	**07 31 52.3**	**-0.5**
KARY	**Karystos**	**1.90**	**277**	P	**Pn**	**07 31 52.7**	**-0.2**
ARG	**Arkhangelos**	**1.92**	**147**	Pn	**Pn**	**07 31 54.1**	**+1.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**07 31 53.5**	**+0.4**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**2.00**	**100**	Pn	**Pn**	**07 31 54.9**	**+0.7**
APMY				AML	AML		
KYMI	**Kymi, Euboea I**	**2.29**	**291**	P	**Pn**	**07 31 58.7**	**+0.4**
KARP	**Karpathos**	**2.30**	**173**	P	**Pn**	**07 31 57.8**	**-0.6**
DION	**Dionisos Attik**	**2.30**	**277**	P	**Pn**	**07 31 58.4**	**0.0**
PTL	**Penteli**	**2.35**	**276**	P	**Pn**	**07 31 59.0**	**-0.1**
VLY	**Voula,Athens**	**2.40**	**271**	P	**Pn**	**07 31 59.8**	**0.0**
ATHU	**Athens Univers**	**2.41**	**274**	P	**Pn**	**07 31 59.8**	**-0.1**

AFAD ***14*** *07:38:25.8, 38.01N×42.80E, h7km±2km, ML2.2*
ISK ***14*** *07:38:25.1, 38.00N×42.81E, h10km, ML2.5/5*
ISC 14 07:38:26.0±1.1, 38.01N±0.03×42.81E±0.03, h9km±9km, n14, σ0.54/25, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PERV	**Siirt/Pervari-**	**0.22**	**253**	P	**Pg**	**07 38 30.3**	**-0.3**
PERV				S	**Sg**	**07 38 34.5**	**+0.9**
AKDM	**Akdamar-Van**	**0.34**	**23**	Pg	**Pg**	**07 38 32.3**	**-0.5**
AKDM				Sg	**Sg**	**07 38 38.1**	**+0.8**
AKDM				AML	AML		
GEVA	**Gevas**	**0.36**	**33**	S	**Sg**	**07 38 38.5**	**+0.7**
SRTM	**Siirt_Merkez**	**0.70**	**268**	P	**Pg**	**07 38 39.1**	**-0.4**
SRTM				S	**Sb**	**07 38 50.4**	**+0.1**
SRTM				IAML		07 38 55.0	
	comp=E,93nm,0.4s						
SRTM				IAML		07 38 56.0	
	comp=N,169nm,0.7s						
ADCV	**BITLIS_Adilcev**	**0.80**	**355**	P	**Pg**	**07 38 40.9**	**-0.4**
ADCV				IAML		07 38 53.0	
	comp=E,66nm,0.2s						
ADCV				S	**Sb**	**07 38 53.1**	**0.0**
ADCV				IAML		07 38 59.0	
	comp=N,59nm,0.5s						
GURO	**Guroymak-BITLI**	**0.81**	**311**	Pg	**Pg**	**07 38 41.4**	**-0.3**
GURO				Sg	**Sb**	**07 38 53.3**	**-0.3**
GURO				AML	AML		
HAKT	**HAKKARI**	**0.84**	**122**	P	**Pg**	**07 38 41.9**	**-0.3**
HAKT				S	**Sb**	**07 38 54.8**	**+0.4**
HAKT				IAML		07 38 56.0	
	comp=E,171nm,0.4s						
HAKT				IAML		07 38 57.0	
	comp=N,126nm,0.5s						
CUKT	**Cukurca**	**0.99**	**140**	Pg	**Pg**	**07 38 44.3**	**-0.7**
CUKT				AML	AML		
BTMN	**Batman**	**1.23**	**265**	P	**Pg**	**07 38 49.0**	**-0.5**
BTMN				S	**Sn**	**07 39 06.8**	**+0.7**
BTMN				IAML		07 39 07.0	
	comp=N,91nm,0.5s						
BTMN				IAML		07 39 09.0	
	comp=E,130nm,0.4s						
MUSM	**Mu-Merkez**	**1.24**	**305**	P	**Pg**	**07 38 49.5**	**-0.4**
MUSM				S	**Sn**	**07 39 07.2**	**+0.4**
MUSM				IAML		07 39 09.0	
	comp=E,44nm,0.6s						
MUSM				IAML		07 39 36.0	
	comp=N,39nm,1.4s						
MIDY	**Mardin/Midyat-**	**1.27**	**242**	P	**Pg**	**07 38 50.3**	**-0.1**
MIDY				S	**Sn**	**07 39 08.3**	**+0.9**
MIDY				IAML		07 39 09.0	
	comp=N,84nm,0.4s						
MIDY				IAML		07 39 09.0	
	comp=E,70nm,0.3s						
SVAN	**Silvan-Diyarba**	**1.28**	**277**	P	**Pn**	**07 38 49.6**	**-0.5**
SVAN				IAML		07 39 08.0	
	comp=N,52nm,0.4s						
SVAN				S	**Sn**	**07 39 08.1**	**+0.6**
SVAN				IAML		07 39 10.0	
	comp=E,28nm,0.4s						
SVAN	**Silvan-Diyarba**	**1.28**	**277**	Pn	**Pb**	**07 38 49.8**	**-0.5**
SVAN				Sn	**Sn**	**07 39 07.3**	**-0.2**
SVAN				AML	AML		
AGRB	**Hanur-Agry**	**1.57**	**5**	Pn	**Pn**	**07 38 54.3**	**+0.1**
AGRB				AML	AML		

IDC ***14*** *08:05:40.2±1.7, 0.34S×124.95E, h0km, mb3.3/4, mbtmp3.3/4, Error ellipse: s-maj=203.8km s-min=24.5km az=64.0*
DJA ***14*** *08:05:47.1±0.3, 0.3S±3.3×12.5E±, h10km, M4.1/13, mB6.0/1, MLv4.1/13, Mw(mB)5.6/1*
ISC 14 08:05:47.0±1.2, 0.2S±0.1×125.1E±0.1, h53km, n9, σ1.00/9, mb3.2/4, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KMSI	**Cibinong**	**1.37**	**303**	P	**Pn**	**08 06 09.2**	**-0.6**
KMSI				S	**Sn**	**08 06 27.4**	**+0.5**
KMSI				AML	AML		
MNI	**Manado**	**1.64**	**350**	P	Pn	08 06 18.5	+5.0
MNI				AML	AML		
SANI	**Sanana**	**2.04**	**155**	P	**Pn**	**08 06 19.4**	**+0.4**
LUWI	**Luwuk**	**2.51**	**250**	P	**Pn**	**08 06 25.6**	**+0.3**
LUWI				AML	AML		
APSI	**Ampana**	**3.56**	**258**	P	**Pn**	**08 06 39.5**	**-0.2**
APSI				AML	AML		
WRA	**Warramunga Arr**	**21.61**	**156**	P	**P**	**08 10 31.0**	**-1.7**
	0.6nm,0.8s,baz=333,slow=11,SNR=1.3 0.6nm,0.8s						
ASAR	**Alice Springs**	**24.85**	**161**	P	**P**	**08 11 04.0**	**-0.7**
	0.3nm,0.7s,baz=340,slow=9.9,SNR=5.3 0.3nm,0.7s						
MKAR	**Makanchi Array**	**59.90**	**327**	P	**P**	**08 15 48.8**	**+1.3**
	0.3nm,0.5s,baz=134,slow=8.3,SNR=2.9 0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**64.20**	**329**	P	**P**	**08 16 16.5**	**+0.3**
	0.3nm,0.6s,baz=133,slow=6.2,SNR=3.4 0.3nm,0.6s						

IDC ***14*** *08:11:33.3±1.9, 29.75S×177.87W, h185km±8km, mb3.3/3, mbtmp3.9/4, Error ellipse: s-maj=49.6km s-min=22.1km az=104.0*
WEL ***14*** *08:11:35.1±1.2, 30.7S±7.7×17.7W±2.1, h154km±14km, M4.6/5, mB4.9/5, MLv4.8/3, Mw(mB)4.2/5, Error ellipse: s-maj=27.9km s-min=7.2km az=103.9*
NEIC ***14*** *08:11:36.9±1.6, 29.1S±0.1×178.3W±0.3, h191km±7km, mb4.2/12, Error ellipse: s-maj=35.2km s-min=6.8km az=64.0*
NOU ***14*** *08:12:05.1, 32.01S×179.11W, h302km, mb4.1/9, South of Kermadec Islands*
ISC 14 08:11:36.6±0.6, 29.75S±0.06×178.75W±0.10, h150km, n86, σ2.53/111, mb4.2/12, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**0.88**	**56**	P	**Pn**	**08 11 58.3**	**-2.1**
	444nm,0.2s,baz=67,slow=6.3,SNR=6.6						
RAO				S	**Sn**	**08 12 21.1**	**+2.6**
	911nm,0.3s,baz=252,slow=22,SNR=11						
RAO	**Raoul Island**	**0.88**	**56**		**Pn**	**08 12 02.7**	**+2.3**
RAO				Sn	**Sn**	**08 12 21.3**	**+2.8**
RAO	**Raoul Island**	**0.88**	**56**	P	**Pn**	**08 12 03.2**	**+2.8**
RAO				S	**Sn**	**08 12 22.1**	**+3.6**
RAO				AML	AML		
GRZ	**Great Barrier**	**8.10**	**215**	P	Pn	08 13 38.0	+6.7
MXZ	**Matakaoa Point**	**8.17**	**197**	P	**Pn**	**08 13 35.2**	**+3.1**
MXZ	**Matakaoa Point**	**8.17**	**197**		**Pn**	**08 13 29.8**	**-2.3**
MXZ	**Matakaoa Point**	**8.17**	**197**	P	**Pn**	**08 13 31.2**	**-0.9**
WMGZ	**Waiomatatini S**	**8.39**	**196**	P	**Pn**	**08 13 33.8**	**-1.2**
WMGZ				S	**Sn**	**08 15 09.3**	**+1.0**
WMGZ				AML	AML		
OUZ	**Omahuta**	**8.45**	**228**	P	Pn	08 13 44.7	+8.7
OUZ	**Omahuta**	**8.45**	**228**	P	Pn	08 13 44.6	+8.7
WCZ	**Waipu Caves**	**8.47**	**221**	P	Pn	08 13 43.6	+7.4
HAZ	**Te Kaha**	**8.49**	**199**	P	**Pn**	**08 13 36.1**	**-0.4**
HAZ				S	**Sn**	**08 15 12.4**	**+1.7**
HAZ				AML	AML		
HAZ	**Te Kaha**	**8.49**	**199**	P	**Pn**	**08 13 36.4**	**0.0**
HAZ				S	**Sn**	**08 15 16.2**	**+5.4**
PUZ	**Puketiti**	**8.66**	**196**	P	**Pn**	**08 13 37.0**	**-1.8**
PUZ				S	**Sn**	**08 15 16.8**	**+1.7**
TKGZ	**Te Karaka**	**9.11**	**197**	P	**Pn**	**08 13 43.1**	**-1.6**
TKGZ				S	**Sn**	**08 15 28.6**	**+2.8**
URZ	**Urewera**	**9.15**	**201**	P	**Pn**	**08 13 42.4**	**-2.9**
	4.8nm,0.3s,baz=255,slow=5.1,SNR=17						
URZ				S	**Sn**	**08 15 28.2**	**+1.4**
	22nm,0.3s,baz=194,slow=18,SNR=13						
URZ	**Urewera**	**9.15**	**201**	P	**Pn**	**08 13 44.2**	**-1.1**
RIGZ	**Rimuhau**	**9.39**	**197**	P	**Pn**	**08 13 49.3**	**+0.9**
RIGZ				S	**Sn**	**08 15 33.8**	**+1.4**
MUGZ	**Murupara**	**9.46**	**202**	P	**Pn**	**08 13 48.3**	**-1.1**
MUGZ				S	**Sn**	**08 15 38.4**	**+4.1**
PRGZ	**Paritu Road**	**9.56**	**196**	P	**Pn**	**08 13 49.6**	**-1.1**
ALRZ	**Allen Road**	**9.68**	**203**	P	**Pn**	**08 13 51.6**	**-0.7**
ALRZ				S	**Sn**	**08 15 40.5**	**+0.9**
KNZ	**Kokohu**	**9.71**	**197**	P	**Pn**	**08 13 51.2**	**-1.5**
RAHZ	**Arahi**	**9.77**	**199**	P	**Pn**	**08 13 50.0**	**-3.4**
RAHZ				S	**Sn**	**08 15 40.5**	**-1.2**
MHGZ	**Mahia Peninsul**	**9.78**	**195**	P	**Pn**	**08 13 51.5**	**-2.0**
MHGZ				S	**Sn**	**08 15 37.2**	**-4.6**
MTHZ	**Maungataniwha**	**9.78**	**201**	P	**Pn**	**08 13 50.7**	**-3.0**
MTHZ				S	**Sn**	**08 15 45.7**	**+3.7**
KUTZ	**Kaahu Road**	**9.81**	**206**	P	Pn	08 13 58.9	+5.0
WHHZ	**Waihua**	**9.88**	**199**	P	**Pn**	**08 13 54.4**	**-0.5**
WHHZ				S	**Sn**	**08 15 45.7**	**+1.5**
WHHZ	**Waihua**	**9.88**	**199**	P	**Pn**	**08 13 53.1**	**-1.7**
WHHZ				S	**Sn**	**08 15 43.8**	**-0.3**
NMHZ	**Naumai**	**10.02**	**200**	P	Pn	08 13 52.0	-4.8
NMHZ	**Naumai**	**10.02**	**200**	P	**Pn**	**08 13 54.2**	**-2.6**
NMHZ				S	**Sn**	**08 15 48.6**	**+0.9**
ARHZ	**Aropaoanui**	**10.12**	**199**	P	**Pn**	**08 13 53.3**	**-4.7**
ARHZ	**Aropaoanui**	**10.12**	**199**	P	**Pn**	**08 13 53.7**	**-4.4**
ARHZ				S	**Sn**	**08 15 48.6**	**-1.4**
BKZ	**Black Stump Fm**	**10.18**	**201**	P	**Pn**	**08 13 56.7**	**-2.2**
BKZ	**Black Stump Fm**	**10.18**	**201**	P	**Pn**	**08 13 56.6**	**-2.3**
HIZ	**Hauiti**	**10.22**	**209**	P	**Pn**	**08 14 01.8**	**+2.4**
HIZ	**Hauiti**	**10.22**	**209**	P	**Pn**	**08 14 02.8**	**+3.5**
MCHZ	**McNeill Hill**	**10.37**	**200**	P	**Pn**	**08 14 02.3**	**+0.9**
MCHZ				S	**Sn**	**08 15 53.8**	**-2.3**
NTVZ	**North Tongarir**	**10.40**	**205**	P	**Pn**	**08 14 01.9**	**0.0**
TMVZ	**Te Maari**	**10.40**	**205**	P	**Pn**	**08 13 59.6**	**-2.4**
ETVZ	**East Tongariro**	**10.42**	**205**	P	**Pn**	**08 13 60.0**	**-2.2**
KWHZ	**Kaweka Forest**	**10.44**	**201**	P	**Pn**	**08 13 60.0**	**-2.4**
KWHZ				S	**Sn**	**08 15 56.5**	**-1.3**
OTVZ	**Oturere**	**10.46**	**205**	P	**Pn**	**08 14 02.2**	**-0.5**
CKHZ	**Cape Kidnapper**	**10.46**	**198**	P	**Pn**	**08 13 58.6**	**-4.0**
CKHZ				S	**Sn**	**08 15 54.8**	**-3.5**
SNVZ	**South Ngauruho**	**10.49**	**205**	P	**Pn**	**08 14 03.2**	**+0.1**
NGZ	**Ngauruhoe**	**10.49**	**205**	P	**Pn**	**08 14 03.5**	**+0.3**
NGZ				S	**Sn**	**08 16 04.0**	**+4.7**
TUVZ	**Tukino**	**10.55**	**204**	P	**Pn**	**08 14 03.5**	**-0.5**
FWVZ	**Far West T-bar**	**10.58**	**205**	P	**Pn**	**08 14 04.3**	**0.0**
WNVZ	**Wahianoa**	**10.63**	**204**	P	**Pn**	**08 14 04.6**	**-0.4**
WNVZ				S	**Sn**	**08 16 01.4**	**-1.1**
MOVZ	**Moawhango**	**10.64**	**204**	P	**Pn**	**08 14 00.5**	**-4.6**
MOVZ				S	**Sn**	**08 16 02.7**	**-0.1**
KAHZ	**Kahuranaki**	**10.64**	**199**	P	**Pn**	**08 14 01.8**	**-3.3**
KAHZ				S	**Sn**	**08 16 03.3**	**+0.6**
KAHZ	**Kahuranaki**	**10.64**	**199**	P	**Pn**	**08 14 01.3**	**-3.8**
KAHZ				S	**Sn**	**08 15 58.3**	**-4.4**
KRHZ	**Kereru**	**10.65**	**201**	P	**Pn**	**08 14 01.8**	**-3.4**
KRHZ	**Kereru**	**10.65**	**201**	P	**Pn**	**08 14 01.4**	**-3.8**
KRHZ				S	**Sn**	**08 16 01.1**	**-1.9**
PKVZ	**Pokaka**	**10.69**	**205**	P	**Pn**	**08 14 04.9**	**-0.8**
PKVZ				S	**Sn**	**08 16 05.3**	**+1.5**
PXZ	**Pawanui**	**10.87**	**198**	P	**Pn**	**08 14 03.8**	**-4.1**
PXZ				S	**Sn**	**08 16 02.7**	**-5.4**
PXZ	**Pawanui**	**10.87**	**198**	P	Pn	08 14 02.5	-5.4
PNHZ	**Pukenui**	**10.95**	**201**	P	Pn	08 14 03.5	-5.7
PNHZ				S	**Sn**	**08 16 04.6**	**-5.5**
PNHZ	**Pukenui**	**10.95**	**201**	P	Pn	08 14 01.7	-7.4
PNHZ				S	**Sn**	**08 16 08.2**	**-2.0**
WPHZ	**Waipukurau**	**11.02**	**200**	P	**Pn**	**08 14 08.8**	**-1.2**
WPHZ				S	**Sn**	**08 16 09.5**	**-2.2**
BFZ	**Birch Farm**	**11.64**	**199**	P	**Pn**	**08 14 16.0**	**-2.1**
BFZ				S	**Sn**	**08 16 20.4**	**-6.4**
MSVF	**Nonsavu**	**12.31**	**346**	P	**Pn**	**08 14 24.9**	**-2.1**
	31nm,0.6s,baz=153,slow=18,SNR=16						
SNZO	**South Karori**	**12.70**	**203**	P	**Pn**	**08 14 30.1**	**-1.7**
QRZ	**Quartz Range**	**13.14**	**210**	P	**Pn**	**08 14 35.9**	**-1.5**
CTZ	**Chatham Island**	**14.06**	**174**	P	**Pn**	**08 14 45.7**	**-3.4**
KHZ	**Kahutara**	**14.08**	**204**	P	**Pn**	**08 14 46.4**	**-3.0**
CAN	**Canberra**	**27.67**	**250**	P	**P**	**08 17 12.7**	**+2.1**
CAN				IAmb	IAmb	08 17 33.8	
	comp=Z,8.5n

MLv4.2/24
ISC 14 08:26:14.6±0.5, 2°48N±0°05×98°43E±0°05, h100km, n100, σ0999/95, mb4.6/37, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RPSI	**Rantau Prapat**	**0.54**	**66**		**Pn**	**08 26 30.9**	**+0.3**
RPSI	**Rantau Prapat**	**0.54**	**66**	P	**Pn**	**08 26 31.2**	**+0.5**
PSI	**Prapat**	**0.59**	**57**	P	**Pn**	**08 26 30.7**	**-0.5**
TRSI	**Tarutung**	**0.69**	**130**	P	**Pn**	**08 26 32.5**	**+0.4**
TRSI				AML	AML		
TRSI	**Tarutung**	**0.69**	**130**	P	**Pn**	**08 26 32.8**	**+0.7**
TSI	**Tuntungan**	**1.03**	**7**	P	**Pn**	**08 26 36.2**	**+0.8**
TSI	**Tuntungan**	**1.03**	**7**	P	**Pn**	**08 26 36.5**	**+1.2**
KCSI	**Kotacane, Aceh**	**1.23**	**328**	P	**Pn**	**08 26 38.7**	**+1.0**
KCSI				AML	AML		
KCSI	**Kotacane, Aceh**	**1.23**	**328**	P	**Pn**	**08 26 38.5**	**+0.7**
TPTI		**1.48**	**302**	P	**Pn**	**08 26 41.9**	**+1.3**
TPTI				AML	AML		
TPTI		**1.48**	**302**	P	**Pn**	**08 26 41.6**	**+1.0**
MNSI	**Mandailing Nat**	**2.02**	**146**	P	**Pn**	**08 26 48.6**	**+1.1**
MNSI				AML	AML		
MNSI	**Mandailing Nat**	**2.02**	**146**	P	**Pn**	**08 26 48.0**	**+0.5**
SNSI	**Sinabang, Aceh**	**2.11**	**268**	P	**Pn**	**08 26 50.1**	**+1.5**
SNSI				AML	AML		
SNSI	**Sinabang, Aceh**	**2.11**	**268**	P	**Pn**	**08 26 49.5**	**+0.9**
PBSI	**Pulau Batu**	**2.52**	**184**	P	**Pn**	**08 26 53.9**	**-0.1**
MLSI	**Meulaboh, Aceh**	**2.70**	**311**	P	**Pn**	**08 26 57.5**	**+1.1**
MLSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**2.70**	**311**	P	**Pn**	**08 26 56.7**	**+0.3**
LHMI	**Lhok Sumawe**	**3.11**	**332**		**Pn**	**08 27 03.0**	**+1.1**
LHMI	**Lhok Sumawe**	**3.11**	**332**	P	**Pn**	**08 27 02.8**	**+0.9**
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**3.11**	**332**	P	**Pn**	**08 27 02.7**	**+0.8**
IPM	**Ipoh**	**3.26**	**52**		**Pn**	**08 27 04.6**	**+0.6**
IPM	**Ipoh**	**3.26**	**52**	P	**Pn**	**08 27 05.4**	**+1.4**
IPM				AML	AML		
IPM	**Ipoh**	**3.26**	**52**	P	**Pn**	**08 27 05.1**	**+1.1**
BKNI	**Bangkinang**	**3.37**	**129**		**Pn**	**08 27 06.2**	**+0.8**
BKNI	**Bangkinang**	**3.37**	**129**	P	**Pn**	**08 27 06.4**	**+1.1**
BKNI				AML	AML		
BKNI	**Bangkinang**	**3.37**	**129**	P	**Pn**	**08 27 05.9**	**+0.6**
PPI	**Padang Panjang**	**3.51**	**146**	P	**Pn**	**08 27 08.2**	**+0.9**
PPI				AML	AML		
KULM	**Kulim**	**3.56**	**38**		**Pn**	**08 27 08.8**	**+0.8**
KULM	**Kulim**	**3.56**	**38**	P	**Pn**	**08 27 09.1**	**+1.1**
PDSI	**Padang**	**3.93**	**149**	P	**Pn**	**08 27 14.7**	**+1.8**
PDSI				AML	AML		
PDSI	**Padang**	**3.93**	**149**	P	**Pn**	**08 27 13.1**	**+0.2**
BSI	**Banda Aceh**	**4.34**	**314**	P	**Pn**	**08 27 18.9**	**+0.5**
SDSI	**Sungai Dareh**	**4.52**	**138**	P	**Pn**	**08 27 21.2**	**+0.3**
MNAI	**Manna**	**8.16**	**146**	Pn	**Pn**	**08 28 09.6**	**-0.8**
MDSI	**Maura Dua**	**8.99**	**140**	P	**Pn**	**08 28 20.7**	**-1.0**
	comp=Z,9.2nm,1.0s						
CGJI	**Cibinong**	**11.58**	**141**	P	**Pn**	**08 28 55.0**	**-1.7**
	comp=Z,26nm,1.1s						
CMAR	**Chiang Mai Arr**	**15.89**	**2**	Pn	**Pn**	**08 29 48.5**	**-4.1**
	comp=Z,3.8nm,0.3s,baz=182,slow=12,SNR=9.6						
	comp=Z,4.3nm,0.3s						
CMAR				AML	AML		
EVN	**Everest**	**27.66**	**337**	P	**P**	**08 31 53.7**	**-0.3**
H08S2	**Diego Garcia H**	**27.77**	**249**	T	T	08 59 45.0	
	baz=70,slow=76,SNR=4.7						
H08S3	**Diego Garcia H**	**27.77**	**249**	T	T	08 59 44.4	
	baz=70,slow=76,SNR=6.5						
H08S1	**Diego Garcia H**	**27.78**	**249**	T	T	08 59 42.0	
	baz=70,slow=76,SNR=4.7						
NLAI	**Namlea**	**29.21**	**101**	P	**P**	**08 32 06.9**	**-0.2**
	comp=Z,11nm,0.8s						
FITZ	**Fitzroy Crossi**	**33.71**	**128**	P	**P**	**08 32 48.3**	**+1.7**
LZH	**Lanzhou**	**33.82**	**8**	*e*P	**P**	**08 32 50.3**	**+2.8**
LZH				pmax	pmax		
	comp=Z,16nm,1.0s						
NJ2	**Nanjing**	**35.14**	**31**	*e*P	**P**	**08 33 00.6**	**+1.8**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
NIL	**Nilore**	**38.94**	**326**		**P**	**08 33 30.6**	**-0.4**
NIL	**Nilore**	**38.94**	**326**	P	**P**	**08 33 30.7**	**-0.3**
	comp=Z,24nm,0.8s						
HHC	**Hu-ho-hao-te**	**40.00**	**16**	*e*P	**P**	**08 33 42.4**	**+2.6**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
WB0	**Warramunga Arr**	**41.65**	**124**	P	**P**	**08 33 52.4**	**-1.2**
WB0				IAmb	IAmb	08 34 19.8	
	comp=Z,2.8nm,0.9s						
WRA	**Warramunga Arr**	**41.69**	**124**	P	**P**	**08 33 52.9**	**-1.0**
	comp=Z,0.9nm,0.5s,baz=302,slow=9.2,SNR=10						
	comp=Z,0.9nm,0.5s						
WRA	**Warramunga Arr**	**41.69**	**124**	P	**P**	**08 33 52.6**	**-1.3**
WR8	**Warramunga Arr**	**41.83**	**124**	P	**P**	**08 33 54.3**	**-0.7**
WR8				IAmb	IAmb	08 34 18.7	
	comp=Z,5.6nm,0.6s						
WUS	**Wushi**	**42.26**	**338**	P	**P**	**08 33 58.8**	**+0.4**
ASAI	**AK-SAY(Kyrgyzs**	**43.08**	**336**	P	**P**	**08 34 05.7**	**+0.5**
	comp=Z,1.7nm,1.6s						
ASAR	**Alice Springs**	**43.20**	**129**	P	**P**	**08 34 05.1**	**-1.0**
	comp=Z,0.2nm,0.4s,baz=302,slow=8.0,SNR=4.2						
	comp=Z,0.2nm,0.4s						
TARG	**Taragay, Kyrgy**	**43.25**	**337**	P	**P**	**08 34 06.7**	**+0.1**
TARG				IAmb	IAmb	08 34 08.3	
	comp=Z,4.5nm,0.7s						
TARG	**Taragay, Kyrgy**	**43.25**	**337**	P	**P**	**08 34 05.6**	**-1.1**
	comp=Z,7.0nm,0.8s						
KDJ	**Kajisay**	**43.84**	**337**	P	**P**	**08 34 12.3**	**+1.2**
KDJ				IAmb	IAmb	08 34 32.8	
	comp=Z,21nm,1.3s						
DRK	**Karamyk**	**44.08**	**330**	P	**P**	**08 34 14.1**	**+0.8**
DRK	**Karamyk**	**44.08**	**330**	P	**P**	**08 34 13.6**	**+0.4**
	comp=Z,43nm,0.7s						
KSRS	**Korea Array**	**44.11**	**34**	P	**P**	**08 34 12.2**	**-0.8**
	comp=Z,0.4nm,0.3s,baz=205,slow=7.7,SNR=1.9						
	comp=Z,0.4nm,0.3s						
OHH	**Osh**	**44.41**	**332**	P	**P**	**08 34 14.8**	**-0.8**
	comp=Z,7.9nm,0.5s						
BOOM	**Boomskoye usch**	**44.63**	**336**	P	**P**	**08 34 18.0**	**+0.6**
BOOM				IAmb	IAmb	08 34 20.0	
	comp=Z,12nm,1.3s						
BOOM	**Boomskoye usch**	**44.63**	**336**	P	**P**	**08 34 18.0**	**+0.6**
	comp=Z,7.3nm,1.2s						
ARSB	**Arslanbob**	**44.95**	**333**	P	**P**	**08 34 20.3**	**+0.3**
ARSB				IAmb	IAmb	08 34 21.4	
	comp=Z,8.1nm,0.7s						
SONM	**Songino Array**	**45.70**	**7**	P	**P**	**08 34 25.7**	**-0.1**
	comp=Z,1.1nm,0.3s,baz=189,slow=10.0,SNR=7.0						
	comp=Z,1.1nm,0.3s						
SONM	**Songino Array**	**45.70**	**7**	P	**P**	**08 34 25.6**	**-0.1**
MKAR	**Makanchi Array**	**46.33**	**345**	P	**P**	**08 34 30.4**	**-0.1**
	comp=Z,4.2nm,0.4s,baz=154,slow=9.1,SNR=54						
	comp=Z,4.2nm,0.4s						
MKAR	**Makanchi Array**	**46.33**	**345**		**P**	**08 34 30.5**	**0.0**
MAKZ	**Makanchi**	**46.42**	**344**		**P**	**08 34 31.2**	**-0.1**
MAKZ				IAmb	IAmb	08 34 32.2	
	comp=Z,4.0nm,0.8s						
KK31	**Karatay Array**	**47.49**	**332**	P	**P**	**08 34 39.7**	**+0.1**
KK31				IAmb	IAmb	08 34 44.1	
	comp=Z,1.7nm,0.5s						
KKAR	**Karatay Array**	**47.49**	**332**	P	**P**	**08 34 39.8**	**+0.2**
JHJ2	**Mitsune**	**49.27**	**47**	P	**P**	**08 34 54.8**	**+1.3**
MAJO	**Matsushiro**	**49.92**	**42**	P	**P**	**08 34 58.1**	**-0.3**
MAJO				IAmb	IAmb	08 35 28.6	
	comp=Z,10nm,1.4s						
MJB9	**Matsu-Tunnel**	**49.92**	**42**	P	**P**	**08 34 58.3**	**0.0**
MJB9				IAmb	IAmb	08 35 29.5	
	comp=Z,9.4nm,1.4s						
KURBB	**Kurchatov Arra**	**50.84**	**344**	P	**P**	**08 35 05.2**	**+0.2**
	comp=Z,2.8nm,0.5s,baz=163,slow=7.0,SNR=32						
KURBB				PcP	**PcP**	**08 36 20.8**	**+0.5**
	comp=Z,0.2nm,0.4s,baz=147,slow=2.9,SNR=4.8						
	comp=Z,2.8nm,0.5s						
KURK	**Kurchatov**	**50.90**	**344**		**P**	**08 35 05.6**	**+0.1**
KURK				IAmb	IAmb	08 35 06.2	
	comp=Z,5.7nm,0.8s						
ZAA0	**Zalesovo Array**	**52.51**	**350**		**P**	**08 35 17.1**	**-0.3**
ZALV	**Zalesovo Beam**	**52.51**	**350**	P	**P**	**08 35 17.4**	**0.0**
	comp=Z,7.3nm,0.4s,baz=165,slow=7.1,SNR=39						
	comp=Z,7.3nm,0.4s						
ZALV	**Zalesovo Beam**	**52.51**	**350**		**P**	**08 35 17.1**	**-0.3**
BVAR	**Borovoye Array**	**55.47**	**340**	P	**P**	**08 35 38.6**	**-0.3**
	comp=Z,6.4nm,0.5s,baz=143,slow=9.2,SNR=27						
	comp=Z,6.4nm,0.5s						
BORK	**Borovoye**	**55.51**	**340**		**P**	**08 35 39.0**	**-0.2**
BORK				IAmb	IAmb	08 35 39.4	
	comp=Z,6.5nm,0.6s						
AB31	**Akbulak array**	**56.99**	**331**		**P**	**08 35 49.8**	**0.0**
AB31				IAmb	IAmb	08 35 50.4	
	comp=Z,5.0nm,0.7s						
ABKAR	**Akbulak array**	**56.99**	**331**		**P**	**08 35 49.1**	**-0.7**
ARTI	**Arti**	**62.55**	**336**		**P**	**08 36 27.1**	**-0.6**
H04N2	**CROZET ISLANDS**	**63.52**	**214**	T	T	09 44 33.8	
	baz=56						
H04N1	**CROZET ISLANDS**	**63.53**	**214**	T	T	09 44 33.0	
	baz=56,slow=75						
H04N3	**CROZET ISLANDS**	**63.53**	**214**	T	T	09 44 54.5	
	baz=56,slow=75						
KBZ	**Khabaz**	**63.93**	**318**	P	**P**	**08 36 37.3**	**+0.2**
	comp=Z,1.8nm,0.7s,baz=101,slow=5.5,SNR=4.8						
	comp=Z,1.8nm,0.7s						
BRTR	**Keskin Array B**	**69.18**	**312**	P	**P**	**08 37 09.7**	**-1.2**
	comp=Z,0.7nm,0.6s,baz=122,slow=4.7,SNR=4.0						
	comp=Z,0.7nm,0.6s						
BURAR	**Bucovina Array**	**76.89**	**318**	P	**P**	**08 37 57.0**	**+0.9**
BUR08	**Bucovina Ar. S**	**76.91**	**318**	P	**P**	**08 37 56.5**	**+0.3**
BUR08				IAmb	IAmb	08 37 58.4	
	comp=Z,12nm,1.5s						
FIA1	**FINESS Array S**	**79.45**	**332**	P	**P**	**08 38 09.4**	**-0.4**
FINES	**FINESS Array B**	**79.45**	**332**	P	**P**	**08 38 09.8**	**+0.1**
	comp=Z,2.6nm,0.3s,baz=100,slow=5.2,SNR=37						
	comp=Z,2.6nm,0.3s						
FINES	**FINESS Array B**	**79.45**	**332**	P	**P**	**08 38 09.5**	**-0.3**
ARCES	**ARCESS Array B**	**81.76**	**340**	P	**P**	**08 38 22.3**	**+0.3**
	comp=Z,1.7nm,0.5s,baz=96,slow=5.4,SNR=15						
	comp=Z,1.7nm,0.5s						
HFS	**Hagfors**	**85.24**	**330**	P	**P**	**08 38 40.5**	**+0.5**
	comp=Z,0.8nm,0.4s,baz=90,slow=6.5,SNR=5.2						
	comp=Z,0.8nm,0.4s						
SPITS	**Spitsbergen Ar**	**85.96**	**348**	P	**P**	**08 38 42.3**	**-1.0**
	comp=Z,8.6nm,0.9s,baz=110,slow=9.8,SNR=7.7						
	comp=Z,8.6nm,0.9s						
NOA	**NORSAR Array B**	**86.50**	**331**	P	**P**	**08 38 46.0**	**-0.2**
	comp=Z,0.8nm,0.7s,baz=95,slow=5.2,SNR=3.6						
	comp=Z,0.8nm,0.7s						

*SDD **14** 08:33:47.2±2.4, 18°.13N×71°.43W, h4km±7km, MD2.9, ML3.0, MW3.2, Presumed earthquake*
*OSPL **14** 08:33:47.7±1.6, 18°.24N×71°.37W, h0km±17km, ML3.0, Presumed earthquake*
ISC 14 08:33:46.5±0.9, 18°.20N±0°.03×71°.38W±0°.03, h8km±6km, n16, σ0991/29, 14C-5D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.10**	**109**	↑*i*P	**Pg**	**08 33 48.9**	**-0.2**
PODR				↑*i*S	**Sg**	**08 33 52.1**	**+1.2**
PODR				IAML		08 33 52.6	
	comp=N,31μm,0.1s						
PODR	**Polo**	**0.10**	**109**	*i* P	**Pg**	**08 33 48.9**	**-0.2**
PODR				*e*S	**Sg**	**08 33 51.5**	**+0.6**
LODU1	**El Espartillar**	**0.17**	**330**	*i* P	**Pg**	**08 33 50.2**	**0.0**
LODU1				*e*S	**Sg**	**08 33 51.8**	**-0.8**
LODU1				IAML		08 33 56.3	
	comp=Z,11μm,0.2s						
NEDR	**Neiba UASD**	**0.28**	**353**	↓*i*P	**Pb**	**08 33 53.0**	**-0.9**
NEDR				↑*i*S	**Sb**	**08 33 59.7**	**+0.9**
NEDR				IAML		08 34 01.2	
	comp=N,2μm,0.2s						
LOVI	**El Cajuil, Ovi**	**0.40**	**178**	*i* P	**Pb**	**08 33 55.0**	**-0.9**
LOVI				*e*S	**Sb**	**08 34 01.7**	**-0.4**
LOVI				IAML		08 34 09.8	
	comp=Z,2μm,0.5s						
LONE3	**El Aguacate, B**	**0.41**	**350**	*i* P	**Pb**	**08 33 55.2**	**-0.9**
LONE3				IAML		08 34 05.0	
	comp=Z,2μm,0.4s						
LOBH	**Bahia de las A**	**0.41**	**216**	*i* P	**Pb**	**08 33 55.5**	**-0.6**
LOBH				*e*S	**Sb**	**08 34 02.8**	**+0.3**
JIDR	**Jimani**	**0.53**	**303**	↓*i*P	**Pb**	**08 33 57.5**	**-0.6**
JIDR				IAML		08 34 13.3	
	comp=N,1μm,0.4s						
SDDR	**Presa de Saban**	**0.78**	**7**	↑*i*P	**Pb**	**08 34 01.6**	**-0.8**
SDDR				↑*i*S	**Sn**	**08 34 14.9**	**-0.9**
SDDR				IAML		08 34 23.0	
	comp=N,261nm,0.3s						
ABDR	**Alto Bandera**	**0.94**	**50**	↑*i*P	**Pb**	**08 34 05.0**	**-0.3**
ABDR				↑*i*S	**Sb**	**08 34 17.9**	**-0.2**
ABDR				IAML		08 34 27.3	
	comp=N,346nm,0.3s						
REDR	**Restauracion**	**0.96**	**359**	↑*i*P	**Pn**	**08 34 06.9**	**+0.6**
REDR				↑*i*S	**Sn**	**08 34 23.1**	**+3.0**
REDR				IAML		08 34 30.2	
	comp=N,360nm,0.3s						
BANI	**BANI**	**0.99**	**79**	↑*i*P	**Pb**	**08 34 05.5**	**-0.5**
BANI				↓*i*S	**Sn**	**08 34 20.9**	**-0.2**
BANI				IAML		08 34 28.8	
	comp=N,326nm,0.6s						
LGNH	**Logne**	**1.20**	**285**	*i* P	**Pb**	**08 34 08.9**	**-0.7**
LGNH				IAML		08 34 38.0	
	comp=Z,70nm,0.7s						
SC01	**Santiago de lo**	**1.37**	**27**	↑*i*P	**Pg**	**08 34 13.0**	**+0.2**
SC01				↓*i*S	**Sg**	**08 34 30.7**	**+0.1**
SC01				IAML		08 34 38.7	
	comp=N,150nm,0.6s						
MADR	**Mao Valverde**	**1.38**	**11**	↑*i*P	**Pg**	**08 34 12.9**	**-0.2**
MADR				↑*i*S	**Sb**	**08 34 29.4**	**-1.1**
MADR				IAML		08 34 35.4	
	comp=N,293nm,0.6s						
HATOM	**Hato Mayor del**	**1.99**	**73**	↑*i*P	**Pb**	**08 34 21.9**	**-1.0**
HATOM				↓*i*S	**Sn**	**08 34 45.7**	**+0.1**
HATOM				IAML		08 34 55.5	
	comp=N,66nm,0.3s						

JMA 14 08:35:49.2±0.5, 45°N±3°×15°1E±°, h30km, MV3.6/13, KURILE ISLANDS REGION, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	**4.21**	**246**	*e*P	Pn	08 36 53.7	+2.5
NEM2				*e*S	Sn	08 37 41.8	+2.4
JAR	**Ashorobuto**	**5.55**	**252**	*e*P	Pn	08 37 12.6	+3.0
JAR				*e*S	Sn	08 38 16.5	+4.2
JOB	**Onbets**	**5.67**	**249**	*e*P	Pn	08 37 13.8	+2.5
JOB				*e*S	Sn	08 38 18.5	+3.2
JCH	**Churui**	**6.11**	**248**	*e*P	Pn	08 37 18.9	+1.6
JCH				*e*S	Sn	08 38 28.0	+1.8

*BJI **14** 08:50:24.8, 23°.61N×94°.57E, h108km, mB5.2/22, mb4.9/62*
*IDC **14** 08:50:25.4±0.6, 23°.52N×94°.76E, h106km±4km, mb4.3/33, mbtmp4.7/36, MS3.7/36, Error ellipse: s-maj=10.8km s-min=9.0km az=51.0*
*MOS **14** 08:50:25.5±1.1, 23°.49N×94°.68E, h120km, mb4.8/33, Error ellipse: s-maj=10.1km s-min=4.2km az=121.5*
*NEIC **14** 08:50:26.2±1.8, 23°.61N±0°.06×94°.62E±0°.07, h104km±6km, mb5.0/80, Mww5.0/13, Error ellipse: s-maj=11.4km s-min=7.0km az=46.0*
*BKK **14** 08:50:26.4±0.8, 24°.N±7°×9°.5E±°, h96km±10km, MLv5.1/7*
*GFZ **14** 08:50:26.4±0.2, 24°.N±2°×9°.5E±°, h99km±3km, M4.9/15, mb5.0/15*
*GCMT **14** 08:50:27.7±0.2, 23°.50N±0°.02×94°.72E±0°.02, h100km±3km, MW4.9/111, Moment Tensor Solution. s27,c29; s111,c169; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.63±.08; Mθθ-2.34±.08; Mφφ0.70±.09; Mrθ-0.36±.06; Mθφ1.76±.08; Mφr-1.48±.05; Best double couple: Mo3.11900×10^16 NP1:φ=260.00000°, δ56.00000°, λ34.00000°. NP2:φ=149.00000°, δ62.00000°, λ141.00000°. Principal axes: T 3.0750, Plg46.0000°, Azm112.0000°; N 0.0830, Plg44.0000°, Azm299.0000°; P -3.1640, Plg4.0000°, Azm206.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 14 08:50:25.9±0.3, 23°.55N±0°.03×94°.52E±0°.03, h110km±2km, h111km:pP-P, n624, σ1957/689, mb4.8/189, 29C-36D, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MORE	**Moreh**	**0.71**	**344**		**Pn**	**08 50 43.6**	**-0.8**
IMP	**Imphal**	**1.38**	**338**	*i* P	**Pn**	**08 50 52.3**	**+0.9**
AZL	**Aizawl**	**1.69**	**277**	*i* P	**Pn**	**08 50 54.7**	**-0.4**
AZL				*i* S	**Sn**	**08 51 17.3**	**0.0**
SILR	**SILCHAR**	**1.99**	**308**	*i* P	**Pn**	**08 50 59.5**	**+0.8**
KOHI	**KOHIMA**	**2.19**	**350**	*i* P	**Pn**	**08 51 03.2**	**+1.7**
KOHI				*i* S	**Sn**	**08 51 27.3**	**-1.4**
KOHI				IAML		08 51 31.0	
	comp=N,9μm,1.0s						
MOKO	**MOKOCHONG**	**2.75**	**360**	*i* S	**Sn**	**08 51 43.7**	**+1.8**
MOKO				IAML		08 51 57.8	
	comp=N,8μm,0.5s						
BRDH	**Bariadhala**	**2.79**	**252**	P	**Pn**	**08 51 09.3**	**+0.2**
	comp=N,227nm,0.3s,baz=78,slow=10.0,SNR=27						
BRDH				S	**Sn**	**08 51 43.0**	**+0.6**
	comp=N,736nm,0.3s,baz=257,slow=20,SNR=6.4						
AGT	**Agartala**	**3.02**	**277**	*i* P	**Pn**	**08 51 12.2**	**+0.1**
AGT				*i* S	**Sn**	**08 51 47.3**	**-0.5**
SHL	**Shillong**	**3.13**	**310**	P	**Pn**	**08 51 13.7**	**-0.1**
SHL	**Shillong**	**3.13**	**310**		**Pn**	**08 51 13.7**	**-0.1**
SHL	**Shillong**	**3.13**	**310**	*i* P	**Pn**	**08 51 13.9**	**+0.1**
JORH	**JORHAT**	**3.19**	**356**	*i* P	**Pn**	**08 51 15.5**	**+1.2**
TEZP	**TEZPUR**	**3.42**	**333**	*i* P	**Pn**	**08 51 17.7**	**+0.1**
TEZP				IAML		08 51 56.2	
	comp=N,26μm,0.3s						
ITAN	**ITANAGAR**	**3.65**	**349**	*i* P	**Pn**	**08 51 21.0**	**+0.5**
DIBR	**DIBRUGARH**	**3.91**	**5**	*i* P	Pn	08 51 30.7	+6.6
DIBR				*i* S	**Sn**	**08 52 06.2**	**-3.0**
TNCH	**TengChong**	**3.94**	**67**	P	**Pn**	**08 51 25.3**	**+0.7**
TNCH				S	**Sn**	**08 52 09.0**	**-1.0**
TNCH				SMN			
	comp=N,940nm,1.0s						
TNCH				SME			
	comp=N,810nm,1.2s						
ZIRO	**ZIRO**	**4.00**	**351**	*i* P	**Pn**	**08 51 26.6**	**+1.1**
NPW	**Naypyitaw**	**4.05**	**158**	P	**Pn**	**08 51 25.9**	**0.0**
DHUB	**DHUBRI**	**4.79**	**302**	*i* P	**Pn**	**08 51 35.0**	**-0.8**
CMAI	**Chiengmai2**	**5.54**	**130**	P	**Pn**	**08 51 46.2**	**-0.1**
CHTO	**Chiang Mai**	**6.27**	**138**	P	**Pn**	**08 51 55.0**	**-1.0**
CHTO	**Chiang Mai**	**6.27**	**138**	P	**Pn**	**08 51 54.9**	**-1.0**
CHTO	**Chiang Mai**	**6.27**	**138**		**Pn**	**08 51 54.9**	**-1.1**
CHTO	**Chiang Mai**	**6.27**	**138**	P	**Pn**	**08 51 54.2**	**-1.8**
	comp=N,1.1nmcomp=N,91nm,0.7s						
CHTO				AML	AML		
CHTO	**Chiang Mai**	**6.27**	**138**	P	**Pn**	**08 51 54.7**	**-1.2**
	comp=Z,90nm,0.7s						
CM31	**Chiang Mai Arr**	**6.54**	**140**		**Pn**	**08 51 59.5**	**-0.1**
CMAR	**Chiang Mai Arr**	**6.54**	**140**	P	**Pn**	**08 51 57.8**	**-1.9**
	comp=Z,62nm,0.6s,baz=320,slow=14,SNR=160						
CMAR	**Chiang Mai Arr**	**6.54**	**140**	P	**Pn**	**08 51 58.2**	**-1.5**
CMAR	**Chiang Mai Arr**	**6.54**	**140**		**Pn**	**08 51 58.2**	**-1.5**
LSA	**Lhasa**	**6.82**	**335**	↓*e*P	**Pn**	**08 52 06.8**	**+2.9**
LSA				SMN			
	comp=Z,680nm,0.8s						
LSA				SME			
	comp=Z,550nm,0.4s						
LSA	**Lhasa**	**6.82**	**335**	P	**Pn**	**08 52 04.5**	**+0.6**
LSA	**Lhasa**	**6.82**	**335**		**Pn**	**08 52 04.5**	**+0.6**
LAMP	**Lampang**	**6.92**	**135**	P	**Pn**	**08 52 04.2**	**-0.6**
LAMP				AML	AML		
PZH	**PanZhiHua**	**7.18**	**64**	P	**Pn**	**08 52 11.3**	**+2.9**
PZH				S	**Sn**	**08 53 32.6**	**+4.1**
PZH				pmax	pmax		
	comp=Z,100nm,0.8s						
ODAN	**Odare**	**7.25**	**298**	Pn	**Pn**	**08 52 08.2**	**-1.2**
	baz=286,slow=0.0						
ODAN				Sn	**Sn**	**08 53 26.5**	**-3.8**
	comp=Z,2μm,0.5s,baz=286,slow=0.0						
ODAN				AML	AML		
KMI2	**Kunming**	**7.67**	**76**	P	**Pn**	**08 52 17.8**	**+2.6**
KMI2				S	**Sn**	**08 53 43.8**	**+3.2**
KMI2				SMN			
	comp=Z,68nm,0.9s						
KMI2				SME			
	comp=Z,56nm,1.7s						
KMI2				L	L		
	comp=Z,960nm,10.5s						
KMI2				L	L		
	comp=Z,2μm,8.9s						
KMI2				L	L		
	comp=Z,850nm,11.6s						
BOK	**Bokaro**	**7.92**	**273**	*i* P	**Pn**	**08 52 16.9**	**-1.5**
RAMN	**Ramite**	**7.92**	**297**	Pn	**Pn**	**08 52 17.8**	**-0.8**
	baz=286,slow=0.0						
RAMN				Sn	**Sn**	**08 53 43.1**	**-3.7**
	comp=Z,349nm,0.2s,baz=286,slow=0.0						
RAMN				AML	AML		
EVN	**Everest**	**8.21**	**304**		**Pn**	**08 52 22.1**	**-0.7**
EVN	**Everest**	**8.21**	**304**	P	**Pn**	**08 52 22.3**	**-0.5**
	comp=Z,1μm,0.5s						
GUN	**Gumba**	**8.91**	**301**	Pn	**Pn**	**08 52 31.4**	**-0.7**
	baz=291,slow=0.0						
GUN				Sn	**Sn**	**08 54 03.6**	**-7.4**
	comp=Z,652nm,0.3s,baz=291,slow=0.0						
GUN				AML	AML		
SLVN	**Son La**	**8.96**	**102**	P	**Pn**	**08 52 33.0**	**+0.5**
SLVN	**Son La**	**8.96**	**102**		**Pn**	**08 52 32.3**	**-0.2**
SLVN	**Son La**	**8.96**	**102**	P	**Pn**	**08 52 33.0**	**+0.5**
	comp=Z,61nm,1.0s						
PKI	**Pulchoki**	**9.14**	**298**	Pn	**Pn**	**08 52 33.7**	**-1.5**
	baz=288,slow=0.0						
PKI				Sn	**Sn**	**08 54 11.5**	**-5.0**
	comp=Z,322nm,0.4s,baz=288,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**9.16**	**298**	Pn	**Pn**	**08 52 33.9**	**-1.5**
	baz=288,slow=0.0						
PKIN				Sn	**Sn**	**08

KULM	**Kulim**	**19.10**	**161**			**P**	**P**	**08 54 41.1 +1.0**
KULM				IAmb		IAmb	08 54 42.2	
	comp=Z,48nm,0.8s							
KULM	**Kulim**	**19.10**	**161**	P		**P**	**P**	**08 54 41.2 +1.0**
	comp=Z,1µmcomp=Z,78nm,1.0s							
KULM	**Kulim**	**19.10**	**161**	P		**P**	**Pn**	**08 54 41.8 -0.4**
	comp=Z,78nm,1.0s							
LYN	**LuoYang**	**19.11**	**51**	⇑P		**P**	**Pn**	**08 54 41.3 -0.9**
LYN				PP		**pP**	**pP**	**08 55 01.0 +0.4**
LYN				sP		sP	08 55 12.8 -1.7	
LYN				S		**S**	**08 58 07.4 -3.7**	
LYN				pmax		pmax		
	comp=Z,62nm,0.8s							
LYN				pmax		pmax		
	comp=Z,800nm,5.2s							
MLSI	**Meulaboh, Aceh**	**19.26**	**174**	P		**P**	**P**	**08 54 42.1 +0.1**
	comp=Z,3µmcomp=Z,111nm,0.6s							
POO	**Poona**	**19.92**	**259**	*i* P		**P**	**P**	**08 54 46.6 -2.6**
IPM	**Ipoh**	**19.98**	**161**	P		**P**	**P**	**08 54 49.2 -0.6**
IPM	**Ipoh**	**19.98**	**161**	P		**P**	**P**	**08 54 49.8 0.0**
IPM	**Ipoh**	**19.98**	**161**	P		**P**	**P**	**08 54 49.4 -0.4**
	comp=Z,1µmcomp=Z,192nm,0.8s							
IPM	**Ipoh**	**19.98**	**161**	P		**P**	**P**	**08 54 48.9 -0.8**
	comp=Z,192nm,0.8s							
KCSI	**Kotacane, Aceh**	**20.16**	**171**	P		**P**	**P**	**08 54 52.0 +0.3**
	comp=Z,59nm,0.7s							
MALK	**Mahakanadarawa**	**20.16**	**224**	P		Pn	08 54 54.0 -0.6	
	comp=Z,34nm,1.2s							
TSI	**Tuntungan**	**20.32**	**168**	P		Pn	08 54 55.3 -1.1	
	comp=Z,153nm,0.8s							
TPTI		**20.34**	**172**	P		**P**	**P**	**08 54 53.9 +0.3**
PALK	**Pallekele**	**20.93**	**222**	P		Pn	08 55 02.2 -1.5	
	comp=Z,30nm,0.4s,baz=38,slow=10,SNR=23							
PALK				S		**S**	**08 58 43.9 -3.5**	
	comp=Z,5.1nm,0.3s,baz=104,slow=19,SNR=6.9							
	comp=Z,30nm,0.4s							
PALK	**Pallekele**	**20.93**	**222**	*d i* P		**P**	**P**	**08 55 01.7 +1.6**
PALK				pmax		pmax		
	comp=Z,85nm,1.0s							
PALK	**Pallekele**	**20.93**	**222**	P		Pn	08 55 02.1 -1.6	
PALK				IAmb		IAmb	08 55 03.2	
	comp=Z,56nm,0.8s							
PALK	**Pallekele**	**20.93**	**222**	P		**P**	**P**	**08 55 01.9 +1.9**
PALK	**Pallekele**	**20.93**	**222**	P		Pn	08 55 02.7 -1.0	
	comp=Z,82nm,1.2s							
WMQ	**Urumqi**	**20.98**	**346**	⇓P		**P**	**P**	**08 55 02.0 +1.6**
WMQ				sP		sP	08 55 34.8 -0.5	
WMQ				S		**S**	**08 58 40.3 -7.7**	
WMQ				pmax		pmax		
	comp=Z,36nm,1.1s							
WMQ				pmax		pmax		
	comp=Z,100nm,3.6s							
WMQ				L		L		
	comp=Z,280nm,11.9s							
WMQ				L		L		
	comp=Z,190nm,11.3s							
WMQ				L		L		
	comp=Z,110nm,18.3s							
PSI	**Prapat**	**21.07**	**168**	P		**P**	**P**	**08 55 03.4 +1.8**
PSI	**Prapat**	**21.07**	**168**	P		**P**	**P**	**08 55 02.8 +1.2**
PSI				pmax		pmax		
	comp=Z,46nm,0.7s							
PSI	**Prapat**	**21.07**	**168**	P		**P**	**P**	**08 55 02.9 +1.3**
	comp=Z,64nm,0.8s							
RPSI	**Rantau Prapat**	**21.17**	**168**			**P**	**P**	**08 55 02.8 +0.2**
RPSI				IAmb		IAmb	08 55 06.0	
	comp=Z,46nm,0.7s							
RPSI	**Rantau Prapat**	**21.17**	**168**	P		**P**	**P**	**08 55 03.4 +0.8**
	comp=Z,64nm,0.8s							
NIL	**Nilore**	**21.17**	**303**	P		**P**	**P**	**08 55 05.0 +2.5**
NIL				pmax		pmax		
	comp=Z,73nm,0.6s							
NIL	**Nilore**	**21.17**	**303**			**P**	**P**	**08 55 05.0 +2.5**
NIL				IAmb		IAmb	08 55 17.3	
	comp=Z,73nm,0.6s							
NIL	**Nilore**	**21.17**	**303**	P		**P**	**P**	**08 55 06.4 +3.9**
	comp=Z,111nm,0.6s							
BTO2	**Baotou**	**21.46**	**33**	*e*P		**P**	**P**	**08 55 03.4 -2.2**
BTO2				pP		**pP**	**pP**	**08 55 23.9 -2.6**
BTO2				PP		**PP**	**PnPn**	**08 55 32.4 +0.4**
BTO2				sP		**sP**	**P**	**08 55 35.9 -4.4**
BTO2				pmax		pmax		
	comp=Z,17nm,1.2s							
BTO2				pmax		pmax		
	comp=Z,400nm,4.3s							
WUS	**Wushi**	**21.77**	**328**			**P**	**P**	**08 55 09.5 +0.6**
WUS				IAmb		IAmb	08 55 44.8	
	comp=Z,52nm,0.9s							
HNS	**HongShan**	**22.15**	**47**	⇑P		**P**	**P**	**08 55 11.6 -1.1**
HNS				S		**S**	**08 59 08.1 -1.4**	
HNS				ScP		**ScP**	**09 02 32.1 -1.0**	
HNS				pmax		pmax		
	comp=Z,16nm,1.0s							
KSH2	**Kashi**	**22.37**	**318**	P		**P**	**P**	**08 55 16.8 +1.6**
KSH2				pP		pP	08 55 38.3 +1.7	
KSH2				S		**S**	**08 59 11.1 -2.5**	
KSH2				pmax		pmax		
	comp=Z,21nm,0.5s							
KSH2				L		L		
	comp=Z,310nm,6.4s							
KSH2				L		L		
	comp=Z,360nm,7.7s							
KSH2				L		L		
	comp=Z,330nm,6.9s							
HHC	**Hu-ho-hao-te**	**22.41**	**36**	*e*P		**P**	**P**	**08 55 17.3 +1.7**
TARG	**Taragay, Kyrgy**	**22.87**	**326**	P		**P**	**P**	**08 55 21.9 +1.3**
TARG				pmax		pmax		
	comp=Z,96nm,1.4s							
TARG	**Taragay, Kyrgy**	**22.87**	**326**			**P**	**P**	**08 55 21.9 +1.3**
TARG				IAmb		IAmb	08 55 52.5	
	comp=Z,96nm,1.4s							
TARG	**Taragay, Kyrgy**	**22.87**	**326**	P		**P**	**P**	**08 55 22.9 +2.4**
	comp=Z,46nm,1.1s							
ASAI	**AK-SAY(Kyrgyzs**	**22.98**	**323**	P		**P**	**P**	**08 55 24.8 +3.4**
	comp=Z,29nm,1.1s							
NJ2	**Nanjing**	**23.09**	**63**	*e*P		**P**	**P**	**08 55 21.0 -1.2**
NJ2				pmax		pmax		
	comp=Z,25nm,0.6s							
MNSI	**Mandailing Nat**	**23.15**	**167**	P		**P**	**P**	**08 55 22.0 -0.9**
	comp=Z,48nm,0.7s							
SHLS	**Shalkode**	**23.18**	**331**	*e*P		**P**	**P**	**08 55 23.8 +0.7**
SHLS	**Shalkode**	**23.18**	**331**	*e*P		**P**	**P**	**08 55 23.8 +0.7**
TIA	**Tai'an**	**23.24**	**52**	P		**P**	**P**	**08 55 23.3 -0.3**
TIA				pmax		pmax		
	comp=Z,13nm,0.6s							
PDGK	**Podgornoye**	**23.30**	**331**	P		**P**	**P**	**08 55 26.0 +1.8**
PDGK	**Podgornoye**	**23.30**	**331**			**P**	**P**	**08 55 26.0 +1.8**
UZB	**Uzynbulak**	**23.37**	**330**	*e*P		**P**	**P**	**08 55 27.2 +2.4**
UZB	**Uzynbulak**	**23.37**	**330**	*e*P		**P**	**P**	**08 55 27.3 +2.4**
SATY	**Saty**	**23.58**	**329**	*e*P		**P**	**P**	**08 55 29.5 +2.7**
SATY	**Saty**	**23.58**	**329**	*e*P		**P**	**P**	**08 55 29.5 +2.7**
KPKS	**Kokpek**	**23.77**	**330**	*e*P		**P**	**P**	**08 55 31.0 +2.6**
KPKS	**Kokpek**	**23.77**	**330**	*e*P		**P**	**P**	**08 55 31.1 +2.6**
BTDF	**Bukit Timah Da**	**23.82**	**157**	P		**P**	**P**	**08 55 29.8 +0.9**
BTDF	**Bukit Timah Da**	**23.82**	**157**	P		**P**	**P**	**08 55 29.6 +0.7**
	comp=Z,1µmcomp=Z,164nm,0.9s							
BKNI	**Bangkinang**	**23.94**	**164**	P		**P**	**P**	**08 55 31.1 +1.0**
BKNI	**Bangkinang**	**23.94**	**164**	P		**P**	**P**	**08 55 30.8 +0.7**
	comp=Z,138nm,1.1s							
TNSS	**Tian-Shan**	**24.27**	**327**	*e*P		**P**	**P**	**08 55 35.7 +2.5**
TNSS	**Tian-Shan**	**24.27**	**327**	*e*P		**P**	**P**	**08 55 35.8 +2.5**
MDOK	**Medeo**	**24.31**	**328**	*e*P		**P**	**P**	**08 55 36.1 +2.7**
MDOK	**Medeo**	**24.31**	**328**	*e*P		**P**	**P**	**08 55 36.1 +2.7**
AAA	**Alma-Ata**	**24.41**	**328**	*e*P		**P**	**P**	**08 55 36.8 +2.7**
AAA				pmax		pmax		
	comp=Z,64nm,1.3s							
AAA	**Alma-Ata**	**24.41**	**328**	*e*P		**P**	**P**	**08 55 36.9 +2.7**
	comp=Z,64nm,1.3s							
YHNB	**Yeheng**	**24.53**	**82**	P		**P**	**P**	**08 55 35.6 +0.2**
YHNB				IAmb		IAmb	08 56 13.8	
	comp=Z,203nm,1.6s							
PPI	**Padang Panjang**	**24.54**	**166**	P		**P**	**P**	**08 55 34.9 -0.6**
	comp=Z,2µmcomp=Z,18nm,0.5s							
YULB	**Yu-li**	**24.55**	**85**	P		**P**	**P**	**08 55 36.9 +1.3**
YULB				IAmb		IAmb	08 55 39.6	
	comp=Z,104nm,1.5s							
BJI2	**Beijing**	**24.56**	**43**	P		**P**	**P**	**08 55 34.8 -0.7**
BJI2				pP		**pP**	**pP**	**08 55 55.3 -4.0**
BJI2				sP		**sP**	**P**	**08 56 07.3 -5.2**
BJI2				S		**S**	**P**	**08 59 43.6 -4.8**
BJI2				pmax		pmax		
	comp=Z,7.0nm,0.6s							
KBL	**Kabul**	**24.75**	**302**	P		**P**	**P**	**08 55 39.7 +2.2**
KBL				pmax		pmax		
	comp=Z,42nm,1.0s							
KBL	**Kabul**	**24.75**	**302**			IAmb	IAmb	08 55 59.9
	comp=Z,42nm,1.0s							
KBL	**Kabul**	**24.75**	**302**	P		**P**	**P**	**08 55 40.0 +2.5**
	comp=Z,35nm,0.9s							
NACB	**Ninganchiao**	**24.76**	**83**	P		**P**	**P**	**08 55 37.7 +0.3**
NACB	**Ninganchiao**	**24.76**	**83**	P		**P**	**P**	**08 55 37.1 -0.3**
NACB				IAmb		IAmb	IAmb	08 55 40.5
	comp=Z,156nm,1.4s							
NACB	**Ninganchiao**	**24.76**	**83**	P		**P**	**P**	**08 55 38.8 +1.4**
	comp=Z,98nm,1.2s							
DRK	**Karamyk**	**24.94**	**315**	P		**P**	**P**	**08 55 41.3 +2.0**
DRK				pmax		pmax		
	comp=Z,72nm,0.5s							
DRK	**Karamyk**	**24.94**	**315**	P		**P**	**P**	**08 55 41.3 +2.0**
PDSI	**Padang**	**25.00**	**166**	P		**P**	**P**	**08 55 38.6 -1.1**
	comp=Z,43nm,0.6s							
ZSN	**Zaisan**	**25.07**	**344**	*e*P		**P**	**P**	**08 55 42.3 +2.3**
ZSN	**Zaisan**	**25.07**	**344**	*e*P		**P**	**P**	**08 55 42.4 +2.3**
TDK	**Taldyqorghan**	**25.11**	**332**	*e*P		**P**	**P**	**08 55 43.2 +2.8**
TDK	**Taldyqorghan**	**25.11**	**332**	*e*P		**P**	**P**	**08 55 43.2 +2.8**
MK31	**Makanchi Array**	**25.19**	**340**	*d i* P		**P**	**P**	**08 55 42.8 +1.6**
MKAR	**Makanchi Array**	**25.19**	**340**	P		**P**	**P**	**08 55 43.0 +1.8**
	comp=Z,37nm,0.5s,baz=156,slow=8.9,SNR=403							
MKAR						PcP	**PcP**	**08 59 12.5 +0.4**
	comp=Z,6.1nm,0.9s,baz=168,slow=3.9,SNR=7.5							
MKAR						ScP	**ScP**	**09 02 41.4 +0.2**
	comp=Z,2.0nm,0.8s,baz=134,slow=3.5,SNR=7.6							
	comp=Z,37nm,0.5s							
MKAR	**Makanchi Array**	**25.19**	**340**	*ce* P		**P**	**P**	**08 55 43.0 +1.8**
MKAR				pmax		pmax		
	comp=Z,37nm,0.4s							
MKAR	**Makanchi Array**	**25.19**	**340**				**P**	**08 55 42.7 +1.5**
AAK	**Ala-Archa**	**25.26**	**324**	*d i* P		**P**	**P**	**08 55 45.0 +3.0**
AAK				pmax		pmax		
	comp=Z,12nm,1.7s							
AAK	**Ala-Archa**	**25.26**	**324**	P		**P**	**P**	**08 55 44.7 +2.7**
MAKZ	**Makanchi**	**25.30**	**340**	P		**P**	**P**	**08 55 43.7 +1.5**
MAKZ				pmax		pmax		
	comp=Z,110nm,1.7s							
MAKZ	**Makanchi**	**25.30**	**340**				**P**	**08 55 43.7 +1.5**
MAKZ				IAmb		IAmb	08 55 45.7	
	comp=Z,110nm,1.7s							
DSRI	**Dabo**	**25.81**	**156**	P		**P**	**P**	**08 55 47.4 +0.4**
	comp=Z,32nm,1.0s							
SONM	**Songino Array**	**26.02**	**18**	P		**P**	**P**	**08 55 48.3 -0.4**
	comp=Z,1.9nm,0.4s,baz=199,slow=11,SNR=11							
SONM						ScP	**ScP**	**09 02 43.2 -0.5**
	comp=Z,3.6nm,0.8s,baz=178,slow=4.9,SNR=11							
SONM						LR	LR	09 07 54.8
	comp=Z,143nm,19.2s,baz=207,slow=40							
	comp=Z,1.9nm,0.4s							
SONM	**Songino Array**	**26.02**	**18**	P		**P**	**P**	**08 55 48.4 -0.4**
SONM				pmax		pmax		
	comp=Z,10.0nm,1.0s							
SONM	**Songino Array**	**26.02**	**18**	P		**P**	**P**	**08 55 48.4 -0.4**
ULN	**Ulaanbaatar**	**26.24**	**19**	⇑*i* P		**P**	**P**	**08 55 51.5 +0.7**
ULN				pmax		pmax		
	comp=Z,11nm,1.8s							
ULN	**Ulaanbaatar**	**26.24**	**19**	P		**P**	**P**	**08 55 51.2 +0.4**
ULN	**Ulaanbaatar**	**26.24**	**19**	P		**P**	**P**	**08 55 49.5 -1.3**
	comp=Z,48nm,1.4s							
ULN	**Ulaanbaatar**	**26.24**	**19**	P		**P**	**P**	**08 55 51.8 +1.0**
	comp=Z,12nm,1.4s							
DZET	**Dzherino**	**26.61**	**311**	P		**P**	**P**	**08 55 50.3 -3.9**
	comp=Z,21nm,0.5s							
KNGR	**Kungurtug, Tuv**	**27.10**	**4**	⇓*e*P		**P**	**P**	**08 56 01.3 +2.8**
KNGR				pmax		pmax		
	comp=Z,15nm,0.7s							
KKM	**Kota Kinabalu**	**27.18**	**126**	P		**P**	**P**	**08 55 59.8 +0.3**
KKM	**Kota Kinabalu**	**27.18**	**126**	P		**P**	**P**	**08 55 59.7 +0.3**
KKM	**Kota Kinabalu**	**27.18**	**126**	P		**P**	**P**	**08 55 59.8 +0.3**
	comp=Z,28nm,0.9s							
KKM	**Kota Kinabalu**	**27.18**	**126**	P		**P**	**P**	**08 56 00.3 +0.8**
	comp=Z,26nm,1.2s							
IUG	**Iuzhnay**	**27.54**	**318**	*e*P		**P**	**P**	**08 56 05.1 +2.7**
IUG	**Iuzhnay**	**27.54**	**318**	*e*P		**P**	**P**	**08 56 05.2 +2.7**
ZAK	**Zakamensk**	**27.64**	**12**	*e*P		**P**	**P**	**08 56 03.7 +0.5**
ZAK				pmax		pmax		
	comp=Z,4.0nm,1.3s							
DL2	**Dalian**	**27.64**	**50**	P		**P**	**P**	**08 56 04.3 +1.1**
DL2				pP		**pP**	**pP**	**08 56 26.5 -0.9**
DL2				PcP		**PcP**	**PcP**	**08 59 20.4 +2.5**
DL2				S		**S**	**S**	**09 00 36.8 -0.2**
DL2				pmax		pmax		
	comp=Z,14nm,1.0s							
DL2				pmax		pmax		
	comp=Z,330nm,5.6s							
KK31	**Karatay Array**	**27.81**	**320**	P		**P**	**P**	**08 56 05.7 +1.0**
KK31				pmax		pmax		
	comp=Z,10.0nm,0.9s							
KK31	**Karatay Array**	**27.81**	**320**	P		**P**	**P**	**08 56 05.7 +1.0**
KKAR	**Karatay Array**	**27.81**	**320**	P		**P**	**P**	**08 56 06.4 +1.7**
KKAR	**Karatay Array**	**27.81**	**320**	P		**P**	**P**	**08 56 06.4 +1.7**
CHM	**Chimkent**	**27.90**	**318**	*e*P		**P**	**P**	**08 56 08.7 +3.2**
CHM	**Chimkent**	**27.90**	**318**	*e*P		**P**	**P**	**08 56 08.7 +3.2**
KURBB	**Kurchatov Arra**	**29.75**	**339**	P		**P**	**P**	**08 56 23.1 +1.4**
	comp=Z,7.1nm,0.5s,baz=148,slow=9.7,SNR=54							
KURBB				pP			**pP**	**08 56 48.0 +1.8**
	comp=Z,4.2nm,0.8s,baz=147,slow=9.0,SNR=2.8							
KURBB				PcP			**PcP**	**08 59 23.4 +0.5**
	comp=Z,10nm,0.5s,baz=164,slow=2.2,SNR=22							
KURBB				ScP			**ScP**	**09 02 54.8 -0.2**
	comp=Z,3.1nm,0.4s,baz=160,slow=2.7,SNR=18							
KURBB				LR			LR	09 11 23.2
	comp=Z,46nm,20.6s,baz=160,slow=42							
	comp=Z,7.1nm,0.5s							
KURK	**Kurchatov**	**29.80**	**339**	*de* P		**P**	**P**	**08 56 23.3 +1.1**
KURK				pmax		pmax		
	comp=Z,5.0nm,0.7s							
KURK	**Kurchatov**	**29.80**	**339**			**P**	**P**	**08 56 23.1 +0.9**
KURK				IAmb		IAmb	IAmb	08 56 24.2
	comp=Z,14nm,0.4s							
KURK	**Kurchatov**	**29.80**	**339**	P		**P**	**P**	**08 56 23.8 +1.6**
	comp=Z,18nm,0.7s							
JOW	**Kunigami**	**30.67**	**77**	P		**P**	**P**	**08 56 29.1 -1.1**
JOW				IAmb		IAmb	IAmb	08 56 43.2
	comp=Z,73nm,1.2s							
ZAA0	**Zalesovo Array**	**31.22**	**349**				**P**	**08 56 35.6 +0.9**
ZAA0				IAmb		IAmb	IAmb	08 56 37.4
	comp=Z,24nm,1.2s							
ZALV	**Zalesovo Beam**	**31.22**	**349**	P		**P**	**P**	**08 56 35.9 +1.2**
	comp=Z,10nm,0.4s,baz=171,slow=8.3,SNR=74							
ZALV				pP			**pP**	**08 57 00.7 +1.6**
	comp=Z,6.0nm,0.7s,baz=167,slow=9.7,SNR=1.4							
ZALV				PcP			**PcP**	**08 59 26.2 -0.5**
	comp=Z,2.4nm,0.4s,baz=178,slow=4.7,SNR=4.2							
ZALV				ScP			**ScP**	**09 02 58.6 -1.2**
	comp=Z,1.5nm,0.6s,baz=112,slow=1.6,SNR=5.0							
ZALV				PKiKP			**PKiKP**	**09 06 51.0 -5.2**
	comp=Z,1.9nm,0.8s,baz=158,slow=4.7,SNR=7.3							
ZALV				LR			LR	09 11 20.9
	comp=Z,63nm,19.5s,baz=204,slow=40							
	comp=Z,10nm,0.4s							
KSRS	**Korea Array**	**31.76**	**56**	P		**P**	**P**	**08 56 36.6 -3.1**
	comp=Z,1.1nm,0.7s,baz=255,slow=9.0,SNR=4.8							
KSRS				LR			LR	09 11 02.9
	comp=Z,73nm,18.6s,baz=280,slow=39							
	comp=Z,1.1nm,0.7s							
CN2	**Changchun**	**32.43**	**44**	*e*P		**P**	**P**	**08 56 44.9 -0.6**
CN2				*ep*P		pP	pP	08 57 08.6 -1.4
CN2				*e*S		**S**	**S**	**09 01 46.8 -5.2**
CN2				pmax		pmax	pmax	
	comp=Z,10.0nm,0.3s							
CN2				pmax		pmax	pmax	
	comp=Z,100nm,3.0s							
CN2				L		L	L	
	comp=Z,60nm,5.0s							
CN2				L		L	L	
	comp=Z,60nm,5.0s							
CN2				L		L	L	
	comp=Z,100nm,5.0s							
JSU	**Suzuyama**	**32.73**	**68**	P		**P**	**P**	**08 56 46.8 -1.5**
JNU	**Nakatsue**	**33.25**	**65**	LR		LR	LR	09 11 49.2
	comp=Z,137nm,21.4s,baz=177,slow=39							
BBKI	**Banjar Baru**	**33.37**	**141**	P		**P**	**P**	**08 56 54.6 +0.7**
KPJI	**Karang Pucung**	**33.77**	**154**	P		**P**	**P**	**08 56 58.1 +0.7**
	comp=Z,86nm,1.0s							
TOLI2	**Tolitoli**	**33.86**	**127**	P		**P**	**P**	**08 56 58.5 +0.3**
TOLI2	**Tolitoli**	**33.86**	**127**	P		**P**	**P**	**08 56 57.9 -0.2**
TOLI2				IAmb		IAmb	IAmb	08 56 59.5
	comp=Z,47nm,1.0s							
SMRI	**Semarang**	**34.16**	**151**	P		**P**	**P**	**08 57 02.3 +1.5**
BNX	**BinXian**	**34.58**	**42**	⇑P		**P**	**P**	**08 57 03.5 -0.6**
BNX				pmax		pmax	pmax	
	comp=Z,7.0nm,0.6s							
BVAR	**Borovoye Array**	**34.66**	**334**	P		**P**	**P**	**08 57 06.1 +1.4**
	comp=Z,5.6nm,0.4s,baz=140,slow=11,SNR=28							
BVAR				PcP		**PcP**	**PcP**	**08 59 36.6 +0.3**
	comp=Z,5.3nm,0.4s,baz=148,slow=4.3,SNR=9.5							
BVAR				ScP		**ScP**	**ScP**	**09 03 11.3 -0.5**
	comp=Z,2.2nm,0.7s,baz=170,slow=4.4,SNR=5.3							
	comp=Z,5.6nm,0.4s							
BORK	**Borovoye**	**34.70**	**334**	P		**P**	**P**	**08 57 06.3 +1.2**
BORK				pmax		pmax	pmax	
	comp=Z,6.0nm,0.7s							
BORK	**Borovoye**	**34.70**	**334**	P		**P**	**P**	**08 57 06.3 +1.2**
MMSI	**Mamuju**	**35.28**	**134**	P		**P**	**P**	**08 57 11.3 +0.8**
	comp=Z,64nm,1.1s							
JHS	**Saijyo**	**35.35**	**62**	P		**P**	**P**	**08 57 08.2 -2.7**
SNJI	**Sawahan-Nganju**	**35.41**	**150**	P		**P**	**P**	**08 57 12.6 +0.9**
	comp=Z,25nm,0.9s							
MDJ	**Mudanjiang**	**35.46**	**45**	P		**P**	**P**	**08 57 15.8 +4.1**
MDJ				pmax		pmax		
	comp=Z,12nm,2.4s							
JMN	**Monobe**	**35.81**	**65**	P		**P**	**P**	**08 57 13.8 -1.2**
KMMI	**Kalianget**	**35.87**	**146**	P		**P**	**P**	**08 57 17.0 +1.6**
	comp=Z,173nm,1.2s							
APSI	**Ampana**	**35.87**	**129**	P		**P**	**P**	**08 57 15.8 +0.3**
	comp=Z,1µmcomp=Z,46nm,1.1s							
PMSI	**Majene**	**35.90**	**135**	P		**P**	**P**	**08 57 16.3 +0.6**
	comp=Z,114nm,1.4s							
TTSI	**Tana Toraja**	**36.15**	**134**	P		**P**	**P**	**08 57 18.9 +1.1**
	comp=Z,121nm,1.1s							
BLJI	**Banyuglugur**	**36.27**	**147**	P		**P**	**P**	**08 57 19.9 +1.1**
	comp=Z,59nm,0.8s							
KMSI	**Cibinong**	**36.59**	**124**	P		**P**	**P**	**08 57 20.9 -0.7**
LUWI	**Luwuk**	**36.77**	**128**	P		**P**	**P**	**08 57 23.0 -0.1**
SPSI	**Sidrap Palu**	**36.80**	**135**	P		**P**	**P**	**08 57 24.2 +0.8**
	comp=Z,86nm,1.2s							
USA0B	**Ussuriysk Arra**	**36.88**	**47**	⇑*e*P		**P**	**P**	**08 57 23.9 +0.1**
USRK	**Ussuriysk Ar.**	**36.88**	**47**	P		**P**	**P**	**08 57 22.1 -1.6**
	comp=Z,2.3nm,0.5s,baz=246,slow=8.6,SNR=6.8							
	comp=Z,2.3nm,0.5s							
HEH	**HeiHe**	**36.94**	**35**	*e*P		**P**	**P**	**08 57 25.8 +1.7**
JAGI	**Jajag, Banyuwa**	**37.17**	**147**	P		**P**	**P**	**08 57 26.1 -0.4**
JAGI				IAmb		IAmb	IAmb	08 57 26.8
	comp=Z,42nm,0.9s							
AB31	**Akbulak array**	**37.32**	**322**	P		**P**	**P**	**08 57 28.9 +1.5**
AB31				IAmb		IAmb	IAmb	08 57 30.0
	comp=Z,7.3nm,0.5s							
ABKAR	**Akbulak array**	**37.32**	**322**	P		**P**	**P**	**08 57 28.8 +1.4**
KAPI	**Kappang**	**37.58**	**136**	LR		LR	LR	09 15 26.2
	comp=Z,32nm,20.9s,baz=308,slow=40							
KHKI	**Kahang-Kahang**	**37.84**	**145**	P		**P**	**P**	**08 57 32.8 +0.7**
	comp=Z,989nmcomp=Z,73nm,1.3s							
BKSI	**Bulukumba**	**38.05**	**136**	P		**P**	**P**	**08 57 33.6 -0.4**
	comp=Z,39nm,1.1s							
KKSI	**Kolaka, Sulawe**	**38.20**	**133**	P		**P**	**P**	**08 57 35.6 +0.4**
	comp=Z,5µmcomp=Z,79nm,1.1s							
INU	**Inuyama**	**38.56**	**62**	P		**P**	**P**	**08 57 37.0 -1.0**
INU				IAmb		IAmb	IAmb	08 58 05.8
	comp=Z,18nm,1.0s							
INU	**Inuyama**	**38.56**	**62**	P		**P**	**P**	**08 57 37.6 -0.5**
INU				pP		**pP**	**pP**	**08 58 03.7 +0.7**
INU				sP		**sP**	**sP**	**08 58 16.6 +1.0**
KLR	**Kul'dur**	**38.83**	**39**	P		**P**	**P**	**08 57 39.5 -0.5**
	comp=Z,1.1nm,0.7s,baz=242,slow=14,SNR=2.4							
KLR				LR		LR	LR	09 15 24.4
	comp=Z,100nm,18.1s,baz=222,slow=39							
	comp=Z,1.1nm,0.7s							
KLR	**Kul'dur**	**38.83**	**39**	⇑*e*P		**P**	**P**	**08 57 40.9 +0.8**
KLR				pmax		pmax	pmax	
	comp=Z,21nm,2.6s							
TNTI	**Ternate**	**39.09**	**121**	P		**P**	**P**	**08 57 41.8 -0.8**
PLAI	**Plampang**	**39.41**	**142**	P		**P**	**P**	**08 57 44.5 -0.7**
PLAI	**Plampang**	**39.41**	**142**	P		**P**	**P**	**08 57 43.9 -1.3**
	comp=Z,89nm,1.1s							
DBNI	**Kabupaten Domp**	**39.45**	**141**	P		**P**	**P**	**08 57 46.1 +0.5**
MJB9	**Matsu-Tunnel**	**39.65**	**61**	P		**P**	**P**	**08 57 45.8 -1.4**
MAJO	**Matsushiro**	**39.65**	**61**	P		**P**	**P**	**08 57 45.5 -1.6**
MAJO	**Matsushiro**	**39

KIRV Kirov 47.33 330 *c i*P P **08 58 49.6 +1.3**
GUMO Guam 48.54 92 LR LR 09 19 14.9
comp=Z,30nm,20.4s,baz=288,slow=36
KTUT Trabzon 48.66 305 ⇑P P **08 59 01.5 +2.6**
VRH Novokhopyorsk 48.86 318 *e*P P **08 58 59.4 -0.8**
VRH pmax pmax
comp=Z,8.0nm,0.9s
SOC Sochi 48.90 308 *e*P P **08 59 01.2 +0.5**
SOC *e*PPP PPP 09 01 47.1
SOC *e*S S **09 05 58.4 +2.2**
SOC *e*SS SS **09 09 24.7 -3.4**
SOC pmax pmax
comp=Z,18nm,0.7s
SOC MLR MLR
comp=Z,111nm,15.0s
VSR Storozhevoye 50.43 318 *e*P P **08 59 14.0 +1.9**
VSR pmax pmax
comp=Z,3.0nm,0.9s
MBWA Marble Bar 50.78 149 P P **08 59 15.1 +0.1**
comp=Z,79nm,1.0s
MBWA Marble Bar 50.78 149 P P **08 59 14.5 -0.6**
comp=Z,79nm,0.9s
MBWA Marble Bar 50.78 149 P P **08 59 14.9 -0.2**
MBWA Marble Bar 50.78 149 P P **08 59 14.8 -0.3**
MBWA Marble Bar 50.78 149 P P **08 59 14.6 -0.4**
MBWA sP **sP** **08 59 55.5 +2.0**
MBWA PcP **PcP** **09 00 29.9 -0.7**
KNRA Kununurra 51.39 136 P P **08 59 19.3 -0.4**
comp=Z,34nm,1.0s
KNRA Kununurra 51.39 136 P P **08 59 18.7 -1.0**
comp=Z,34nm,1.0s
KNRA Kununurra 51.39 136 P P **08 59 19.0 -0.7**
KNRA IAmb IAmb 08 59 20.3
comp=Z,22nm,0.8s
GENI Genyem 51.47 114 P P **08 59 20.6 +0.2**
GENI Genyem 51.47 114 P P **08 59 20.3 -0.1**
KDU Kakadu 51.73 130 P P **08 59 21.0 -1.3**
comp=Z,9.1nm,1.1s
KDU Kakadu 51.73 130 P P **08 59 20.4 -1.9**
comp=Z,9.1nm,1.1s
JAY Jayapura 51.87 114 LR LR 09 21 42.6
comp=Z,33nm,19.5s,baz=339,slow=36
JAY Jayapura 51.87 114 P P **08 59 23.3 -0.2**
comp=Z,2µmcomp=Z,20nm,0.8s
TIXI Tiksi 51.91 13 *de*P P **08 59 21.5 -1.3**
TIXI pmax pmax
comp=Z,7.0nm,0.5s
TIXI Tiksi 51.91 13 P P **08 59 21.7 -1.2**
TIXI IAmb IAmb 08 59 23.4
comp=Z,12nm,0.5s
TIXI Tiksi 51.91 13 P P **08 59 21.6 -1.3**
MMAI Mount Meron Ar 52.32 294 P P **08 59 29.0 +2.4**
comp=Z,4.0nm,0.8s,baz=58,slow=5.4,SNR=2.1
comp=Z,4.0nm,0.8s
OBN Obninsk 52.77 322 *e*P P **08 59 30.6 +1.1**
OBN *e* 09 01 30.4
OBN pmax pmax
comp=Z,9.0nm,1.0s
KLMR Klimovskoe 52.83 330 *e*P P **08 59 29.0 -0.8**
KLMR *e**PP **pP** **08 59 54.1 -2.0**
KLMR pmax pmax
comp=Z,22nm,1.2s
CY604 RAF Akrotiri, 52.94 296 P P **08 59 32.9 +2.2**
CY604 IAmb IAmb 08 59 34.0
comp=Z,19nm,0.8s
EIL Elat 53.11 290 LR LR 09 27 13.0
comp=Z,56nm,18.4s,baz=56,slow=41
KIRS Kirsehir-Merke 53.12 302 ⇑P P **08 59 34.4 +1.9**
ILGA Ilgaz 53.23 305 P P **08 59 35.6 +2.1**
BR131 Keskin Array S 53.32 303 P P **08 59 35.2 +1.2**
BR131 pmax pmax
comp=Z,4.0nm,0.7s
BR131 Keskin Array S 53.32 303 P P **08 59 35.2 +1.2**
BRTR Keskin Array B 53.32 303 P P **08 59 35.5 +1.6**
comp=Z,2.1nm,0.5s,baz=106,slow=6.4,SNR=12
BRTR LR LR 09 28 25.9
comp=Z,28nm,18.2s,baz=86,slow=43
comp=Z,2.1nm,0.5s
BRTR Keskin Array B 53.32 303 P P **08 59 34.9 +0.9**
BR106 Keskin Array S 53.34 303 P P **08 59 35.1 +1.0**
comp=Z,47nmcomp=Z,4.5nm,0.7s
BR105 Keskin Array S 53.34 303 P P **08 59 35.1 +1.0**
comp=Z,5.8nm,0.9s
CSS Mathiatis 53.85 297 P P **08 59 38.9 +1.1**
comp=Z,11nm,0.7s
MEEK Meekatharra 55.07 154 P P **08 59 46.7 +0.2**
comp=Z,62nm,1.3s
MEEK Meekatharra 55.07 154 P P **08 59 46.1 -0.4**
comp=Z,62nm,1.3s
MEEK Meekatharra 55.07 154 P P **08 59 46.9 +0.3**
KEPZ Antalya-Kepez 55.08 299 ⇑P P **08 59 48.0 +1.3**
PETK Petropavlovsk- 55.48 41 P P **08 59 47.8 -1.5**
comp=Z,1.9nm,0.6s,baz=268,slow=3.1,SNR=1.7
PETK LR LR 09 26 34.8
comp=Z,44nm,18.4s,baz=263,slow=39
comp=Z,1.9nm,0.6s
PURM Purcari 56.03 311 ⇓P P **08 59 54.5 +1.3**
PURM Purcari 56.03 311 P P **08 59 54.4 +1.2**
MORW Morawa 56.27 157 P P **08 59 55.7 +0.6**
comp=Z,29nm,1.8s
MORW Morawa 56.27 157 P P **08 59 55.3 +0.2**
MORW Morawa 56.27 157 P P **08 59 54.9 -0.1**
YLV Yalova 56.55 304 P P **08 59 58.3 +1.2**
comp=Z,15nm,0.6s
AK09 Malin Array Si 56.55 316 P P **08 59 57.6 +0.7**
AK08 Malin Array Si 56.57 316 P P **08 59 57.0 0.0**
AKASG Malin Array Be 56.59 316 P P **08 59 57.2 0.0**
comp=Z,3.6nm,0.4s,baz=82,slow=6.7,SNR=27
AKASG LR LR 09 28 17.9
comp=Z,124nm,18.4s,baz=70,slow=40
comp=Z,3.6nm,0.4s
AKASG Malin Array Be 56.59 316 *i*P P **08 59 57.2 0.0**
AKASG pmax pmax
comp=Z,6.0nm,0.4s
AKBB Malin Array Si 56.59 316 *d i*P P **08 59 57.4 +0.2**
AKBB Malin Array Si 56.59 316 P P **08 59 57.0 -0.2**
AK03 Malin Array Si 56.60 316 P P **08 59 57.3 +0.1**
AK07 Malin Array Si 56.60 316 P P **08 59 57.3 +0.1**
AK01 Malin Array Si 56.60 316 P P **08 59 57.3 +0.1**
AK05 Malin Array Si 56.60 316 P P **08 59 57.3 +0.1**
KIEV Kiev 56.60 316 P P **08 59 57.4 +0.2**
KIEV pmax pmax
comp=Z,14nm,1.1s
KIEV Kiev 56.60 316 P P **08 59 57.4 +0.2**
KIEV IAmb IAmb 08 59 58.0
comp=Z,14nm,1.1s
KIEV Kiev 56.60 316 ⇓P P **08 59 57.6 +0.4**
KIEV Kiev 56.60 316 P P **08 59 57.0 -0.2**
comp=Z,71nm,0.8s
KIEV Kiev 56.60 316 P P **08 59 57.4 +0.2**
AK20 Malin Array Si 56.73 316 P P **08 59 58.2 +0.1**
TLCR 56.77 310 ⇑P P **08 59 59.7 +1.2**
SORM Soroca 57.08 313 ⇓P P **09 00 01.1 +0.5**
SORM Soroca 57.08 313 P P **09 00 00.9 +0.2**
LVZ Lovozero 57.17 337 P P **09 00 01.4 +0.4**
comp=Z,26nm,1.2s
LVZ Lovozero 57.17 337 P P **09 00 01.5 +0.4**
LVZ pP **pP** **09 00 30.3 +2.7**
LVZ sP **sP** **09 00 43.1 +3.3**
CFR Carcaliu 57.25 310 ⇓P P **09 00 03.1 +1.2**
LUBAR Lubar, Ukraine 57.50 315 P P **09 00 03.4 -0.2**
LUBAR pP **pP** **09 00 29.3 -1.0**
APA Apatity 57.52 337 *e*P P **09 00 02.3 -1.1**
APA pmax pmax
comp=Z,7.0nm,1.2s
APA MLR MLR
comp=Z,781nm,8.0s
MNK Minsk 57.65 321 *i*P P **09 00 05.6 +1.1**
MNK *i**PP **pP** **09 00 30.1 -1.2**
MNK *i* 09 00 57.1
MNK *i* 09 02 14.8
MNK *i*S S **09 07 57.6 +3.3**
MNK *i* 09 09 45.3
MNK *i*SS SS **09 11 51.0 +5.2**
MNK pmax pmax
comp=N,22nm,1.1s
MNK pmax pmax
comp=Z,6.0nm,0.7s
MNK pmax pmax
comp=E,7.0nm,0.8s
MNK MLR MLR
comp=E,119nm,13.0s
MNK MLR MLR
comp=Z,120nm,17.0s
MNK MLR MLR
comp=N,149nm,17.0s
MNK Minsk 57.65 321 *i*P P **09 00 05.7 +1.1**
comp=E,7.0nm,0.8s
MNK *i*P P **09 00 05.7 +1.1**
comp=N,22nm,1.1s
MNK *i*P P **09 00 05.7 +1.1**
comp=Z,6.0nm,0.7s,baz=94
MNK *i*pP **pP** **09 00 30.2 -1.2**
MNK *i*PP **PP** **09 02 14.8 +1.5**
MNK *i*PPP PPP 09 03 33.7
MNK *i*S S **09 07 57.7 +3.3**
MNK *i*sS **sS** **09 08 40.3 0.0**
MNK *i*SS **SS** **09 11 51.1 +5.2**
MNK *i*SSS SSS 09 14 26.6
MNK *i*LQ LQ 09 20 06.3
MNK *i*LR LR 09 25 03.3
MNK *i*LRM MLR 09 27 33.7
comp=E,119nm,12.5s
MNK *i*LRM MLR 09 28 30.3
comp=Z,120nm,17.5s
MNK *i*LRM MLR 09 29 01.4
comp=N,149nm,16.7s
DMBR Dumbraveni 57.77 311 ⇑P P **09 00 06.5 +0.9**
WB0 Warramunga Arr 58.02 135 P P **09 00 07.0 -0.6**
WRA Warramunga Arr 58.11 135 P P **09 00 07.7 -0.5**
comp=N,29nm,0.7s,baz=323,slow=7.4,SNR=28
comp=N,29nm,0.7s
WRA Warramunga Arr 58.11 135 P P **09 00 07.7 -0.5**
WRA pmax pmax
comp=Z,2.0nm,0.9s
WRA Warramunga Arr 58.11 135 P P **09 00 07.7 -0.5**
WRAB Tennant Creek 58.11 135 P P **09 00 07.3 -0.9**
WRAB Tennant Creek 58.11 135 *ce*P P **09 00 07.9 -0.3**
WRAB pmax pmax
comp=Z,45nm,0.9s
VRI Vrincioaia 58.22 310 ⇑P P **09 00 10.8 +2.0**
VRI Vrincioaia 58.22 310 P P **09 00 09.9 +1.2**
comp=Z,31nm,0.9s
SAHR Sahastru 58.26 310 ⇑P P **09 00 11.1 +2.0**
TESR Tescani 58.26 311 ⇓P P **09 00 10.4 +1.4**
TESR Tescani 58.26 311 P P **09 00 09.7 +0.8**
comp=Z,1µmcomp=Z,14nm,0.6s
PLOR Plostina 58.28 310 ⇓P P **09 00 11.4 +2.3**
KMPD K-Podol'skiy 58.34 314 P P **09 00 09.1 -0.4**
WRKA Warakurna 58.35 144 P P **09 00 10.2 +0.3**
ISR Istrita 58.38 310 ⇓P P **09 00 12.0 +2.1**
ONER Baraj Valea Uz 58.44 311 ⇓P P **09 00 12.2 +2.0**
NEHR Nehoiu 58.54 310 ⇓P P **09 00 13.4 +2.4**
COVR Voineasa-Covas 58.59 310 ⇑P P **09 00 13.2 +1.9**
BIZ Bicaz 58.62 312 ⇑P P **09 00 12.5 +1.1**
TURR Turia 58.71 311 ⇓P P **09 00 13.9 +1.8**
RNPP9 Sopachiv 58.72 317 P P **09 00 12.8 +0.8**
RNPP5 Staryi Chortor 58.72 317 P P **09 00 12.6 +0.5**
MLR Muntele Rosu 58.78 310 P P **09 00 14.1 +1.3**
MLR pmax pmax
comp=Z,27nm,0.7s
MLR Muntele Rosu 58.78 310 P P **09 00 14.1 +1.3**
MLR Muntele Rosu 58.78 310 ⇓P P **09 00 14.9 +2.1**
MLR Muntele Rosu 58.78 310 P P **09 00 13.9 +1.1**
comp=Z,49nm,0.8s
KARP Karpathos 58.80 298 P P **09 00 14.0 +1.1**
comp=Z,98nm,1.1s
OZUR 58.87 311 ⇑P P **09 00 14.7 +1.5**
DOPR Dopca 59.15 311 ⇓P P **09 00 16.6 +1.4**
KLBR Kellerberrin 59.17 157 P P **09 00 15.0 -0.4**
comp=Z,48nm,0.8s
BURAR Bucovina Array 59.20 313 ⇓P P **09 00 16.9 +1.3**
BUR08 Bucovina Ar. S 59.21 313 P P **09 00 16.5 +0.8**
BUR08 IAmb IAmb 09 00 47.3
comp=Z,16nm,1.6s
FINES FINESS Array B 59.30 329 P P **09 00 16.8 +0.9**
comp=Z,5.4nm,0.5s,baz=76,slow=5.1,SNR=57
FINES LR LR 09 30 17.1
comp=Z,97nm,18.9s,baz=40,slow=40
comp=Z,5.4nm,0.5s
VOIR 59.42 310 ⇓P P **09 00 18.1 +1.0**
VOIR 59.42 310 P P **09 00 17.9 +0.8**
comp=Z,5.9nm,0.6s
VADS Vadso 59.65 339 *e*P P **09 00 19.3 +1.1**
ARR Arges 59.71 310 ⇑P P **09 00 20.2 +1.0**
PABE Paberze 59.96 322 P P **09 00 21.3 +0.8**
KEV Kevo 60.35 338 P P **09 00 24.1 +1.1**
KEV pP **pP** **09 00 52.6 +2.9**
LODK Lodwar 60.45 260 P P **09 00 25.8 +1.2**
AS15 Alice Springs 60.53 138 P P **09 00 24.9 0.0**
comp=Z,38nm,0.9s
AS15 Alice Springs 60.53 138 P P **09 00 24.3 -0.6**
comp=Z,38nm,0.9s
AS31 Alice Springs 60.55 138 P P **09 00 25.0 +0.1**
comp=Z,12nm,0.8s
AS31 Alice Springs 60.55 138 P P **09 00 24.4 -0.6**
comp=Z,12nm,0.8s
AS31 Alice Springs 60.55 138 P P **09 00 24.9 -0.1**
AS31 IAmb IAmb 09 00 25.7
comp=Z,8.6nm,0.6s
ASAR Alice Springs 60.55 138 P P **09 00 24.9 0.0**
comp=Z,25nm,0.7s,baz=321,slow=7.0,SNR=290
comp=Z,25nm,0.7s
ASAR Alice Springs 60.55 138 P P **09 00 24.6 -0.4**
ASAR Alice Springs 60.55 138 P P **09 00 24.6 -0.4**
AUALC St Philip's Co 60.55 138 P P **09 00 24.9 -0.1**
KMBL Kambalda 60.57 153 P P **09 00 24.9 -0.1**
comp=Z,8.5nm,1.2s
AS01 Alice Springs 60.58 138 P P **09 00 24.8 -0.4**
AS09 Alice Springs 60.59 138 P P **09 00 25.4 +0.1**
comp=Z,45nm,1.0s
AS09 Alice Springs 60.59 138 P P **09 00 24.7 -0.5**
comp=Z,45nm,1.0s
AS17 Alice Springs 60.60 138 P P **09 00 25.4 +0.1**
comp=Z,39nm,0.9s
AS17 Alice Springs 60.60 138 P P **09 00 24.8 -0.5**
comp=Z,39nm,0.9s
MARR Marisel-Cluj 60.68 312 ⇑P P **09 00 27.2 +1.5**
KWP Kalwaria Pacla 60.78 315 P P **09 00 27.1 +0.9**
comp=Z,50nm,0.5s
ARA0 ARCESS Array S 60.82 338 *e*P P **09 00 27.1 +0.9**
ARCES ARCESS Array B 60.82 338 P P **09 00 27.3 +1.1**
comp=Z,4.4nm,0.4s,baz=98,slow=7.8,SNR=57
ARCES LR LR 09 28 31.8
comp=Z,114nm,21.2s,baz=218,slow=38
comp=Z,4.4nm,0.4s
PMG Port Moresby 60.99 116 P P **09 00 28.2 +0.1**
PMG Port Moresby 60.99 116 P P **09 00 27.9 -0.2**
PMG pmax pmax
comp=Z,38nm,0.9s
PMG Port Moresby 60.99 116 P P **09 00 27.9 -0.2**
PMG Port Moresby 60.99 116 P P **09 00 27.7 -0.4**
comp=Z,51nm,0.9s
PMG Port Moresby 60.99 116 P P **09 00 28.0 -0.1**
PMG PcP **PcP** **09 01 10.8 +0.4**
GZR Gura Zlata 61.02 310 ⇓P P **09 00 29.0 +1.1**
BLKB Belogradchik 61.26 308 ⇓P P **09 00 30.6 +1.0**
HERR Herculane 61.32 310 ⇑P P **09 00 31.2 +1.3**
SURR Surduc 61.44 311 ⇓P P **09 00 32.5 +1.8**
KTK1 Kautokeino 61.52 337 *e*P P **09 00 31.8 +0.8**
HAMF Hammerfest 61.64 339 *e*P P **09 00 32.6 +1.0**
BZS Buzias 61.81 310 ⇑P P **09 00 34.1 +0.9**
MDVR Moldovita 61.83 309 ⇓P P **09 00 35.0 +1.6**
BOVS Bovan 61.96 308 ⇑P P **09 00 35.0 +0.7**
QIS Mount Isa 62.07 131 P P **09 00 35.2 0.0**
comp=Z,28nm,0.9s
QIS Mount Isa 62.07 131 P P **09 00 34.6 -0.6**
comp=Z,28nm,0.9s
QIS Mount Isa 62.07 131 P P **09 00 34.7 -0.6**
NIE Niedzica 62.36 315 P P **09 00 37.6 +0.7**
comp=Z,6.6nm,0.8s
JETT Jettan, Norway 62.59 338 *e*P P **09 00 39.2 +1.1**
OJC Ojcow 62.62 316 P P **09 00 39.6 +1.0**
comp=Z,6.0nm,1.3s
ITM Ithomi 62.72 301 P P **09 00 39.3 -0.2**
ITM IAmb IAmb 09 00 39.7
comp=Z,14nm,0.9s
FORT Forrest 62.87 148 P P **09 00 40.6 +0.2**
comp=Z,17nm,1.1s
FORT Forrest 62.87 148 P P **09 00 40.0 -0.4**
FORT IAmb IAmb 09 00 41.5
comp=Z,19nm,1.1s
TRO Tromso 63.12 338 *e*P P **09 00 42.2 +0.7**
VYHS Vyhne 63.41 314 *e*P P **09 00 44.3 +0.5**
VYHS Vyhne 63.41 314 *e*P P **09 00 44.3 +0.5**
MORH Mrgy, Hungar 63.80 311 ⇓P P **09 00 47.1 +0.7**
MORH Mrgy, Hungar 63.80 311 P P **09 00 46.9 +0.5**
comp=Z,6.3nm,1.1s
MTSU Mount Surprise 63.87 126 P P **09 00 47.3 +0.1**
comp=Z,6.9nm,0.9s
MTSU Mount Surprise 63.87 126 P P **09 00 47.3 +0.1**
STEB Steborice 63.95 316 *e*P P **09 00 48.2 +0.9**
MORC Moravsky Berou 64.11 315 *e*P P **09 00 49.3 +0.8**
MORC Moravsky Berou 64.11 315 ⇑P P **09 00 49.5 +1.0**
JAVC Velka Javorina 64.13 314 *e*P P **09 00 49.4 +0.8**
FAUS Fauske 64.36 335 *e*P P **09 00 50.4 +0.7**
STEI Steigen 64.38 336 *e*P P **09 00 50.2 +0.4**
MPLH Magyarpolny 64.43 313 P P **09 00 51.2 +0.7**
comp=Z,16nm,1.1s
BLEU Blekinge 64.53 323 *i*P P **09 00 51.3 +0.4**
SPA0 Spitsbergen Ar 64.68 347 *e*P P **09 00 51.9 +0.3**
SPITS Spitsbergen Ar 64.68 347 P P **09 00 52.6 +0.9**
comp=Z,5.9nm,0.5s,baz=102,slow=7.9,SNR=11
comp=Z,5.9nm,0.5s
MOR8 Moi Rana 64.70 334 *e*P P **09 00 51.8 -0.2**
VRAC Vranov 64.78 315 LR LR 09 35 56.4
comp=Z,79nm,19.6s,baz=59,slow=42
VRAC Vranov 64.78 315 *e*P P **09 00 54.0 +1.2**
VRAC Vranov 64.78 315 ⇓P P **09 00 54.5 +1.7**
KSP Ksiaz 64.78 317 P P **09 00 53.6 +0.8**
comp=Z,12nm,0.9s
DPC Dobruska-Polom 64.83 316 *e*P P **09 00 54.3 +1.2**
DPC Dobruska-Polom 64.83 316 *e*P P **09 00 54.3 +1.2**
DPC Dobruska-Polom 64.83 316 P P **09 00 54.0 +0.9**
comp=Z,5.7nm,0.6s
RAUS Rausandaksla 64.86 334 *e*P P **09 00 53.4 +0.4**
KRUC Moravsky 64.94 315 *e*P P **09 00 54.5 +0.7**
CHVC Chvalec 64.97 316 *e*P P **09 00 55.3 +1.3**
CHVC Chvalec 64.97 316 *e*P P **09 00 55.3 +1.3**
LOF Lofoten 65.02 336 *e*P P **09 00 53.9 0.0**
BSD Bornholm Skovb 65.14 321 *i*P P **09 00 54.8 -0.1**
BSD IAmb IAmb 09 00 56.0
comp=Z,7.8nm,0.6s
VAGH Vaagaholmen 65.16 334 *e*P P **09 00 54.8 0.0**
RONA Rosalia, Austr 65.19 313 *i*P P **09 00 56.2 +0.7**
comp=Z,2.2nm,0.5s,SNR=4.2
KONS Konsvik 65.23 334 *e*P P **09 00 55.7 +0.4**
LEIR Leirfjorden 65.24 334 *e*P P **09 00 55.7 +0.3**
STOK Stokkvaagen 65.27 334 *e*P P **09 00 56.1 +0.5**
WINA Alland / Wiene 65.28 314 *e*P P **09 00 57.1 +1.1**
comp=Z,3.5nm,0.5s
HFS Hagfors 65.34 327 P P **09 00 56.9 +0.7**
comp=Z,12nm,0.4s,baz=106,slow=4.8,SNR=37
HFS LR LR 09 31 02.9
comp=Z,156nm,20.5s,baz=38,slow=37
comp=Z,12nm,0.4s
SHEM Shemya Is, Ala 65.40 41 LR LR 09 32 30.4
comp=Z,44nm,18.4s,baz=355,slow=39
CONA Conrad Observa 65.45 314 *i*P P **09 00 58.1 +0.9**
comp=Z,1.3nm,0.6s,SNR=4.5
DEL Delary 65.59 323 *i*P P **09 00 58.3 +0.5**
ABNA Allensteig Bun 65.63 314 *e*P P **09 00 59.3 +1.1**
comp=Z,1.9nm,0.5s
ARSA Arzberg 65.78 313 *e*P P **09 01 00.1 +0.8**
comp=Z,0.8nm,0.4s
NSS Namsos 65.81 332 *e*P P **09 00 59.4 +0.3**
LUNU Lund 65.92 322 *i*P P **09 01 00.9 +1.0**
PRU Pruhonice 66.01 316 *e*P P **09 01 02.0 +1.3**
PRU Pruhonice 66.01 316 *e*P P **09 01 02.0 +1.3**
CRES Cresnjevec Ost 66.06 311 *i*P P **09 01 02.0 +0.9**
FABU Falkenberg 66.16 324 *i*P P **09 01 02.4 +0.9**
SOKA Soboth 66.20 312 *e*P P **09 01 02.9 +0.8**
comp=Z,3.9nm,0.6s
ZVC Zvikov 66.32 315 *e*P P **09 01 03.6 +1.0**
PDKS Podkum 66.33 312 *i*P P **09 01 03.8 +0.9**
CKRC Cesky Krumlov 66.34 315 *e*P P **09 01 04.1 +1.3**
CKRC Cesky Krumlov 66.34 315 *e*P P **09 01 04.1 +1.3**
MBAR Mbarara 66.34 258 LR LR 09 29 57.8
comp=Z,92nm,20.9s,baz=73,slow=36
MBAR Mbarara 66.34 258 *c i*P P **09 01 04.9 +1.3**
MBAR pmax pmax
comp=Z,8.0nm,0.9s
MBAR Mbarara 66.34 258 P P **09 01 05.2 +1.6**
MBAR PcP **PcP** **09 01 35.8 +3.1**
TIP Timpagrande 66.34 304 P P **09 01 04.1 +1.0**
comp=Z,3.2nm,0.8s
NC602 NORSAR Array S 66.35 328 *e*P P **09 01 02.8 +0.2**
SESA Seetaler Alpe, 66.45 313 *i*P P **09 01 04.4 +0.6**
comp=Z,3.8nm,0.7s,SNR=5.2
NB2 NORSAR Subarra 66.47 328 P P **09 01 03.8 +0.3**
comp=Z,3.5nm,0.5s,baz=83,slow=6.5
NB2 NORSAR Subarra 66.47 328 P P **09 01 03.0 -0.5**
NB2 AMP 09 01 03.0
NOA NORSAR Array B 66.47 328 P P **09 01 03.7 +0.3**
comp=Z,4.8nm,0.5s,baz=87,slow=5.4,SNR=24
NOA LR LR 09 31 04.6
comp=Z,60nm,18.2s,baz=80,slow=37
comp=Z,4.8nm,0.5s
CTA Charters Tower 66.52 126 P P **09 01 04.2 -0.1**
comp=Z,11nm,1.2s
CTA Charters Tower 66.52 126 P P **09 01 04.2 -0.1**
CTAO Charters Tower 66.52 126 P P **09 01 04.2 -0.1**
CTAO Charters Tower 66.52 126 P P **09 01 04.1 -0.2**
CTAO pmax pmax
comp=Z,34nm,1.2s
CTAO Charters Tower 66.52 126 P P **09 01 04.1 -0.2**
CTAO IAmb IAmb 09 01 05.2
comp=Z,34nm,1.2s
MOA Molln 66.53 314 *i*P P **09 01 04.4 +0.4**
comp=Z,6.1nm,0.5s,SNR=7.6
ONAU Onsala 66.54 324 *i*P P **09 01 04.4 +0.5**
GBRS Gornja Briga 66.56 311 *i*P P **09 01 05.2 +0.9**
OBKA Obir 66.56 312 *e*P P **09 01 05.1 +0.7**
comp=Z,1.1nm,0.8s
TJOU Tjoern 66.62 325 *i*P P **09 01 05.0 +0.6**
HSKC Hora Svate Kat 66.62 317 *e*P P **09 01 05.7 +1.1**
NC204 NORSAR Array S 66.66 328 P P **09 01 04.9 +0.2**
STRU Stroemstad 66.72 326 *i*P P **09 01 05.4 +0.4**
GEC2 GERESS Array S 66.73 315 P P **09 01 06.0 +0.6**
GEC2 IAmb IAmb 09 01 07.1
comp=Z,23nm,1.4s
GERES GERESS Array B 66.73 315 P P **09 01 06.5 +1.1**
comp=Z,6.5nm,0.4s,baz=67,slow=6.2,SNR=64
GERES pP **pP** **09 01 31.4 -1.5**
comp=Z,2.2nm,0.6s,baz=77,slow=6.2,SNR=2.2
comp=Z,6.5nm,0.4s
GERES GERESS Array B 66.73 315 P P **09 01 06.1 +0.6**
GERES GERESS Array B 66.73 315 P P **09 01 06.1 +0.6**
KHC Kasperske Hory 66.76 315 ⇑*e*P P **09 01 06.2 +0.7**
KHC pmax pmax
comp=Z,8.0nm,2.5s
KHC Kasperske Hory 66.76 315 *e*P P **09 01 06.1 +0.6**
KHC Kasperske Hory 66.76 315 P P **09 01 06.2 +0.7**
comp=Z,4.2nm,1.4s
CLL Collm 66.78 318 *i*P P **09 01 05.8 +0.3**
CLL Collm 66.78 318 P P **09 01 06.3 +0.8**
comp=Z,5.1nm,1.2s
CLL Collm 66.78 318 *i*P P **09 01 05.8 +0.3**
CLL LV 09 25 00.0
OSL Oslo 66.84 327 *e*P P **09 01 06.8 +1.0**
CUC Castrocucco 66.89 305 P P **09 01 06.5 0.0**
BIOA Bad Ischl, Aus 66.97 314 *e*P P **09 01 07.5 +0.6**
comp=Z,1.7nm,0.4s
CEL Celeste 67.20 303 P P **09 01 08.4 -0.2**
CEL IAmb IAmb 09 01 39.5
comp=Z,11nm,0.9s
CEL Celeste 67.20 303 P P **09 01 09.5 +1.0**
comp=Z,14nm,1.0s
TRI Trieste 67.24 311 P P **09 01 08.8 +0.2**
TRI pmax pmax
comp=Z,14nm,0.5s
TRI Trieste 67.24 311 P P **09 01 08.8 +0.2**
TRI IAmb IAmb 09 01 09.5
comp=Z,14nm,0.5s
KBA Koelnbreinsper 67.28 313 *i*P P **09 01 09.1 +0.1**
comp=Z,2.6nm,0.7s,SNR=7.4
DOMB Dombas 67.37 329 *e*P P **09 01 09.8 +0.7**
KONO Kongsberg 67.44 327 *e*P P **09 01 10.1 +0.5**
LESA Schwarzleotal 67.66 313 *i*P P **09 01 11.5 +0.2**
comp=Z,5.7nm,0.6s,SNR=14
INKA Innaminka 67.75 136 P P **09 01 11.8 0.0**
INKA IAmb IAmb 09 01 13.2
comp=Z,12nm,1.1s
ABTA Abfaltersbach 67.90 313 *e*P P **09 01 12.4 -0.4**
comp=Z,4.0nm,0.9s
SKAR Skarslia 67.93 328 *e*P P **09 01 13.6 +0.9**
MOL Molde 68.00 330 *e*P P **09 01 13.9 +1.0**
MUD Monsted U'grnd 68.17 323 *i*P P **09 01 15.4 +1.3**
HOMB Homborsund 68.22 325 *e*P P **09 01 15.4 +1.0**
HOMB Homborsund 68.22 325 *i*P P **09 01 15.4 +1.0**
FDMO Fiordimonte 68.26 309 P P **09 01 15.6 +0.6**
FDMO IAmb IAmb 09 01 16.6
comp=Z,8.0nm,0.6s
NRCA Norcia 68.28 308 P P **09 01 15.9 +0.6**

NRCA				IAmb	IAmb	09 01 16.4		
	comp=Z,7.2nm,0.6s							
AKN	**Aaknes**	**68.31**	**330**	*eP*	**P**	**09 01 16.3**	**+1.3**
WTTA	**Wattenberg**	**68.38**	**313**	*i* P	**P**	**09 01 15.9**	**0.0**
	comp=Z,5.3nm,0.6s,SNR=4.8							
MURB	**Monte Urbino**	**68.61**	**309**	P	**P**	**09 01 18.5**	**+1.2**
MURB				IAmb	IAmb	09 01 19.9		
	comp=Z,32nm,1.2s							
BBOO	**Buckleboo**	**68.65**	**143**	P	**P**	**09 01 16.5**	**-1.0**
	comp=Z,35nm,1.0s							
BBOO	**Buckleboo**	**68.65**	**143**	P	**P**	**09 01 16.8**	**-0.7**
BBOO	**Buckleboo**	**68.65**	**143**	P	**P**	**09 01 16.7**	**-0.7**
BBOO				IAmb	IAmb	09 01 17.7		
	comp=Z,29nm,1.0s							
SQTA	**Sankt Quirin**	**68.68**	**313**	*eP*	**P**	**09 01 17.6**	**-0.1**
	comp=Z,3.5nm,0.5s							
MOTA	**Moosalm**	**68.72**	**314**	*eP*	**P**	**09 01 17.9**	**-0.1**
	comp=Z,1.8nm,0.6s							
HYA	**Hoyanger**	**68.87**	**329**	*eP*	**P**	**09 01 19.9**	**+1.5**
ODD1	**Odda**	**68.88**	**327**	*eP*	**P**	**09 01 19.7**	**+1.1**
RETA	**Reutte**	**68.92**	**314**	*eP*	**P**	**09 01 19.3**	**+0.2**
	comp=Z,5.0nm,0.5s							
FETA	**Feichten**	**69.04**	**313**	*eP*	**P**	**09 01 19.5**	**-0.5**
	comp=Z,3.5nm,0.6s							
BLS5	**Blasjo**	**69.06**	**327**	*eP*	**P**	**09 01 20.9**	**+1.1**
QLP	**Quilpie**	**69.24**	**133**	P	**P**	**09 01 21.7**	**+0.5**
	comp=Z,37nm,1.2s							
QLP	**Quilpie**	**69.24**	**133**	P	**P**	**09 01 21.5**	**+0.3**
FUORN	**Ofenpass-Fuorn**	**69.44**	**313**	P	**P**	**09 01 22.9**	**+0.3**
FUORN				IAmb	IAmb	09 01 53.5		
	comp=Z,26nm,1.9s							
DAVA	**Damuels**	**69.55**	**314**	*eP*	**P**	**09 01 24.1**	**+1.0**
	comp=Z,9.5nm,0.9s							
DAVOX	**Davos/Dischmat**	**69.66**	**313**	LR	LR	09 37 50.1		
	comp=Z,118nm,20.0s,baz=75,slow=41							
TUE	**Stuetta**	**70.09**	**313**	P	**P**	**09 01 26.9**	**+0.4**
	comp=Z,26nm,1.1s							
HTT	**Hallett**	**70.71**	**142**	P	**P**	**09 01 30.0**	**-0.1**
	comp=Z,8.2nm,1.1s							
HTT	**Hallett**	**70.71**	**142**	P	**P**	**09 01 29.4**	**-0.7**
	comp=Z,8.1nm,1.1s							
HTT	**Hallett**	**70.71**	**142**	P	**P**	**09 01 29.9**	**-0.2**
ECH	**Echery**	**71.11**	**315**	P	**P**	**09 01 33.1**	**+0.7**
ECH				pP	**pP**	**09 02 02.1**	**+2.0**
STKA	**Stephens Creek**	**71.16**	**139**	P	**P**	**09 01 31.8**	**-1.0**
	comp=Z,75nm,1.1s							
STKA	**Stephens Creek**	**71.16**	**139**	P	**P**	**09 01 31.5**	**-1.4**
	comp=Z,9.4nm,0.9s,baz=328,slow=5.0,SNR=16							
	comp=Z,9.4nm,0.9s							
STKA	**Stephens Creek**	**71.16**	**139**	*d* P	**P**	**09 01 32.0**	**-0.9**
STKA	**Stephens Creek**	**71.16**	**139**	*d* P	**P**	**09 01 32.5**	**-0.4**
STKA	**Stephens Creek**	**71.16**	**139**	P	**P**	**09 01 32.4**	**-0.4**
TATA	**Tatamba Isabel**	**71.21**	**108**	P	**P**	**09 01 32.9**	**-0.6**
WLF	**Walferdange**	**71.39**	**317**	*d* P	**P**	**09 01 34.9**	**+0.8**
	comp=Z,13nm,1.0s							
AUMAR	**Marsden Senior**	**71.62**	**143**	P	**P**	**09 01 35.5**	**0.0**
BMRD	**Maredsous**	**72.09**	**318**	*d* P	**P**	**09 01 38.5**	**+0.3**
AUMBR	**Murray Bridge**	**72.16**	**143**	P	**P**	**09 01 38.5**	**-0.2**
KEST	**Kesra**	**72.91**	**302**	P	**P**	**09 01 44.7**	**+1.2**
	comp=Z,7.8nm,0.8s,baz=85,slow=6.5,SNR=4.1							
	comp=Z,7.8nm,0.8s							
EIDS	**Eidsvold**	**73.25**	**128**	P	**P**	**09 01 45.5**	**+0.1**
	comp=Z,15nm,1.0s							
EIDS	**Eidsvold**	**73.25**	**128**	P	**P**	**09 01 45.0**	**-0.4**
CMSA	**Cobar Meteorol**	**73.47**	**136**	P	**P**	**09 01 46.6**	**0.0**
	comp=Z,27nm,1.4s							
CMSA	**Cobar Meteorol**	**73.47**	**136**	P	**P**	**09 01 46.3**	**-0.3**
	comp=Z,27nm,1.4s							
CMSA	**Cobar Meteorol**	**73.47**	**136**	P	**P**	**09 01 46.1**	**-0.5**
ALE	**Alert**	**73.56**	**357**	P	**P**	**09 01 46.9**	**+0.5**
ALE				pP	**pP**	**09 02 16.1**	**+1.9**
ARPS	**Mount Arapiles**	**74.77**	**142**	P	**P**	**09 01 52.1**	**-1.9**
EKA	**Eskdalemuir Ar**	**75.16**	**324**	P	**P**	**09 01 57.1**	**+1.0**
	comp=Z,4.2nm,0.5s,baz=74,slow=5.9,SNR=17							
EKA				LR	LR	09 37 19.0		
	comp=Z,125nm,18.1s,baz=20,slow=37							
	comp=Z,4.2nm,0.5s							
AUDCS	**Dubbo College**	**75.82**	**135**	P	**P**	**09 02 00.5**	**+0.4**
BRAT	**Ballarat**	**76.50**	**142**	P	**P**	**09 02 04.2**	**+0.4**
AUMTC	**Mt Clear Colle**	**76.52**	**142**	P	**P**	**09 02 04.0**	**+0.1**
ARMA	**Armidale**	**76.69**	**132**	P	**P**	**09 02 04.4**	**-0.8**
	comp=Z,22nm,1.0s							
ARMA	**Armidale**	**76.69**	**132**	P	**P**	**09 02 05.5**	**+0.3**
ARMA	**Armidale**	**76.69**	**132**	P	**P**	**09 02 05.7**	**+0.5**
ARMA				IAmb	IAmb	09 02 07.4		
	comp=Z,19nm,1.1s							
H21K	**Melozitna Rive**	**77.59**	**23**	P	**P**	**09 02 09.0**	**-0.6**
MATP	**Matopo**	**77.76**	**241**	LR	LR	09 34 50.4		
	comp=Z,99nm,20.7s,baz=54,slow=34							
E24K	**Your Creek**	**77.77**	**20**	P	**P**	**09 02 10.0**	**-0.6**
AUMTS	**Mt Stromlo**	**78.04**	**137**	P	**P**	**09 02 12.7**	**+0.1**
CAN	**Canberra**	**78.04**	**137**	P	**P**	**09 02 13.2**	**+0.6**
	comp=Z,28nm,1.6s							
CAN	**Canberra**	**78.04**	**137**	P	**P**	**09 02 12.5**	**-0.1**
CNB	**Canberra Magne**	**78.26**	**137**	P	**P**	**09 02 13.9**	**0.0**
	comp=Z,23nm,1.0s							
F25K	**Christian Rive**	**78.93**	**20**	P	**P**	**09 02 17.1**	**0.0**
SUMG	**Summit**	**79.02**	**347**	P	**P**	**09 02 18.1**	**+0.2**
SUMG				pmax	pmax			
	comp=Z,16nm,0.6s							
SUMG	**Summit**	**79.02**	**347**	P	**P**	**09 02 18.1**	**+0.2**
SUMG				IAmb	IAmb	09 02 18.8		
	comp=Z,16nm,0.6s							
BORG	**Borgarnes**	**79.20**	**337**	LR	LR	09 37 28.5		
	comp=Z,70nm,18.7s,baz=62,slow=36							
BMAR	**Burnt Mountain**	**79.36**	**20**	P	**P**	**09 02 19.9**	**+0.5**
ILAR	**Eielson Array**	**80.17**	**22**	P	**P**	**09 02 21.7**	**-2.0**
	comp=Z,0.6nm,0.6s,baz=280,slow=4.7,SNR=11							
ILAR				PKKPbc	**PKKPbc**	**09 21 05.5**	**-2.4**
	comp=Z,0.4nm,0.7s,baz=158,slow=1.5,SNR=4.5							
	comp=Z,0.6nm,0.6s							
A36M	**Sachs Harbour**	**80.90**	**12**	P	**P**	**09 02 27.1**	**-0.4**
A36M				IAmb	IAmb	09 02 27.9		
	comp=Z,13nm,0.8s							
ESDC	**Sonseca Array**	**81.48**	**309**	P	**P**	**09 02 31.4**	**+0.2**
	comp=Z,5.2nm,1.2s,baz=52,slow=6.1,SNR=14							
ESDC				pP	**pP**	**09 02 59.1**	**-0.4**
	comp=Z,2.5nm,1.0s,baz=46,slow=3.7,SNR=2.4							
	comp=Z,5.2nm,1.2s							
KDAK	**Kodiak Island**	**81.71**	**30**	LR	LR	09 41 16.1		
	comp=Z,74nm,21.4s,baz=268,slow=37							
RES	**Resolute Bay**	**81.81**	**3**	LR	LR	09 43 45.7		
	comp=Z,54nm,18.3s,baz=16,slow=39							
INK	**Inuvik**	**81.91**	**16**	P	**P**	**09 02 31.8**	**-1.0**
INK				pmax	pmax			
	comp=Z,11nm,1.2s							
INK	**Inuvik**	**81.91**	**16**	P	**P**	**09 02 32.0**	**-0.9**
I28M	**Miner Creek**	**82.06**	**20**	P	**P**	**09 02 32.9**	**-1.0**
LBTB	**Lobatse**	**82.39**	**239**	P	**P**	**09 02 37.3**	**+1.1**
LBTB				pP	**pP**	**09 03 07.6**	**+3.1**
H31M	**Peel River**	**83.50**	**18**		**P**	**09 02 40.3**	**-0.9**
YATNC	**Mamie plateau,**	**83.72**	**117**	P	**P**	**09 02 43.5**	**+0.5**
PCBR	**Castelo Branco**	**83.87**	**311**	*eP*	**P**	**09 02 44.9**	**+1.3**
PBAR	**Barrancos**	**84.28**	**309**	*eP*	**P**	**09 02 46.5**	**+0.9**
BOSA	**Boshof**	**84.47**	**236**	P	**P**	**09 02 47.3**	**+0.5**
	comp=Z,14nm,0.8s,baz=60,slow=4.6,SNR=16							
BOSA				pP	**pP**	**09 03 15.2**	**-0.1**
	comp=Z,9.2nm,0.7s,baz=58,slow=4.8,SNR=5.7							
BOSA				LR	LR	09 36 48.0		
	comp=Z,27nm,19.9s,baz=31,slow=33							
	comp=Z,14nm,0.8s							
BOSA	**Boshof**	**84.47**	**236**	P	**P**	**09 02 47.4**	**+0.5**
BOSA				pP	**pP**	**09 03 17.7**	**+2.4**
PARRA	**Arraiolos**	**84.71**	**310**	*eP*	**P**	**09 02 48.3**	**+0.5**
PMTG	**Montargil**	**84.73**	**310**	*eP*	**P**	**09 02 48.6**	**+0.7**
EVO	**Evora**	**84.82**	**310**	*eP*	**P**	**09 02 49.5**	**+1.1**
PBEJ	**Beja**	**84.93**	**309**	*eP*	**P**	**09 02 50.2**	**+1.2**
PVAQ	**Vaqueiros**	**85.10**	**309**	*eP*	**P**	**09 02 50.9**	**+1.1**
PLOUS	**Minas do Lousa**	**85.32**	**309**	*eP*	**P**	**09 02 51.9**	**+1.0**
TORD	**Torodi Ar. Bea**	**87.38**	**283**	P	**P**	**09 03 02.7**	**+1.3**
	comp=Z,4.9nm,0.5s,baz=64,slow=3.8,SNR=17							
TORD				pP	**pP**	**09 03 29.7**	**-0.3**
	comp=Z,2.7nm,1.0s,baz=60,slow=4.9,SNR=1.4							
	comp=Z,4.9nm,0.5s							
SUR	**Sutherland**	**89.65**	**234**	LR	LR	09 40 53.2		
	comp=Z,36nm,21.2s,baz=356,slow=34							
YKA	**Yellowknife Ar**	**91.16**	**13**	P	**P**	**09 03 17.0**	**-1.2**
	comp=Z,0.4nm,0.6s,baz=338,slow=5.0,SNR=4.5							
	comp=Z,0.4nm,0.6s							
FRB	**Frobisher Bay**	**91.98**	**353**	LR	LR	09 49 46.3		
	comp=Z,54nm,19.3s,baz=58,slow=39							
DBIC	**Dimbokro**	**95.89**	**280**	P	**P**	**09 03 41.4**	**+0.5**
	comp=Z,2.8nm,0.4s,baz=66,slow=3.6,SNR=4.2							
DBIC				LR	LR	09 52 02.4		
	comp=Z,44nm,18.2s,baz=54,slow=38							
	comp=Z,2.8nm,0.4s							

PDAR	**Pinedale Array**	**110.37**	**19**	PKiKP	**PKiKP**	**09 08 44.0**	**-1.7**	
	comp=Z,0.2nm,0.4s,baz=302,slow=2.3,SNR=6.3							
QSPA	**South Pole Qui**	**113.37**	**180**	PKiKP	**PKiKP**	**09 08 48.7**	**-1.6**	
	comp=Z,2.5nm,1.1s,baz=349,slow=1.5,SNR=4.3							
TXAR	**Lajitas Array**	**124.58**	**19**	PKP	**PKPdf**	**09 09 12.6**	**-0.5**	
	comp=Z,0.9nm,0.6s,baz=111,slow=0.8,SNR=14							
TXAR				SKP	**SKPdf**	**09 12 38.9**	**+0.3**	
	comp=Z,0.1nm,0.3s,baz=34,slow=0.9,SNR=3.5							
BDFB	**Brasilia**	**143.92**	**276**	PKP	PKPbc	09 09 48.3	+0.9	
	comp=Z,6.3nm,0.7s,baz=100,slow=6.0,SNR=8.1							
ROSC	**El Rosal**	**149.75**	**337**	PKP	**PKPdf**	**09 09 58.6**	**-0.9**	
	comp=Z,118nm,0.9s,baz=153,slow=4.5,SNR=6.1							
ROSC				PKPbc	**PKiKP**	**09 10 05.5**	**+0.2**	
	comp=Z,133nm,0.6s,baz=107,slow=7.0,SNR=47							
CPUP	**Villa Florida**	**154.34**	**258**	PKP	**PKPdf**	**09 10 04.8**	**-0.7**	
	comp=Z,4.4nm,0.9s,baz=67,slow=3.0,SNR=12							
CPUP				PKPbc	**PKPbc**	**09 10 13.1**	**-0.8**	
	comp=Z,3.1nm,0.5s,baz=106,slow=2.2,SNR=12							
PLCA	**Paso Flores**	**158.76**	**213**	PKP	**PKPdf**	**09 10 10.3**	**-0.6**	
	comp=Z,1.7nm,1.0s,baz=0.0,slow=8.1,SNR=3.3							

SJA ***14*** *09:07:39.5±0.8,20.°25S×70.°91W,h24km±2km, ML3.4, MW3.8*
GUC ***14*** *09:07:42.4±0.9,20.°24S×70.°88W,h33km±3km, ML3.4, Presumed earthquake*

ISC 14 09:07:41.2±1.6,**20.°24S**±0.°03×**70.°86W**±0.°07,**h28**km±14km,
n27,σ1°15/45,2C-2D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TA02	**Huaiquique**	**0.69**	**93**	*eP*	**Pb**	**09 07 54.4**	**-0.2**
TA02				*eS*	**Sn**	**09 08 04.8**	**0.0**
TA02				IAML		09 08 05.0	
	comp=Z,4μm,0.3s						
TA02	**Huaiquique**	**0.69**	**93**	*eP*	**Pn**	**09 07 54.8**	**-0.3**
TA02				*eS*	**Sn**	**09 08 04.3**	**-0.5**
TA02				IAML		09 08 05.0	
	comp=E,8μm,0.2s						
TA01	**Diego Aracena**	**0.72**	**117**	*eP*	**Pn**	**09 07 55.0**	**-0.4**
TA01				*eS*	**Sn**	**09 08 05.1**	**-0.5**
TA01				IAML		09 08 07.0	
	comp=Z,2μm,0.3s						
TA01	**Diego Aracena**	**0.72**	**117**	⇓*iP*	**Pn**	**09 07 55.3**	**-0.2**
TA01				*eS*	**Sn**	**09 08 05.3**	**-0.3**
TA01				IAML		09 08 07.4	
	comp=E,3μm,0.4s						
PB11	**IPOC Station P**	**1.23**	**68**	*eP*	**Pb**	**09 08 03.4**	**-0.5**
PB11				*eS*	**Sb**	**09 08 20.5**	**+1.0**
PB11				IAML		09 08 24.7	
	comp=Z,625nm,0.4s						
PB11	**IPOC Station P**	**1.23**	**68**	⇓*iP*	**Pb**	**09 08 03.3**	**-0.6**
PB11				*eS*	**Sb**	**09 08 19.1**	**-0.3**
PB11				IAML		09 08 24.9	
	comp=N,1μm,0.4s						
PB02	**IPOC Station P**	**1.41**	**140**	*eP*	**Pb**	**09 08 06.3**	**-0.7**
PB02				*eS*	**Sb**	**09 08 25.5**	**+1.0**
PB02				IAML		09 08 28.1	
	comp=Z,950nm,0.3s						
PB02	**IPOC Station P**	**1.41**	**140**	⇑*iP*	**Pb**	**09 08 06.2**	**-0.7**
PB02				*eS*	**Sb**	**09 08 24.4**	**-0.1**
PB02				IAML		09 08 27.6	
	comp=E,1μm,0.3s						
PB08	**IPOC Station P**	**1.61**	**87**	*eP*	**Pb**	**09 08 09.6**	**-0.9**
PB08				*eS*	**Sb**	**09 08 31.9**	**+1.3**
PB08				IAML		09 08 34.9	
	comp=Z,245nm,0.5s						
PB08	**IPOC Station P**	**1.61**	**87**	⇑*iP*	**Pb**	**09 08 09.5**	**-0.9**
PB08				*eS*	**Sb**	**09 08 30.7**	**+0.2**
GO01	**Chusmiza**	**1.67**	**70**	*eP*	**Pb**	**09 08 10.7**	**-0.9**
GO01				IAML		09 08 33.4	
	comp=Z,465nm,0.6s						
GO01				*eS*	**Sb**	**09 08 33.7**	**+1.3**
GO01	**Chusmiza**	**1.67**	**70**	*eP*	**Pb**	**09 08 10.6**	**-0.9**
GO01				*eS*	**Sb**	**09 08 32.9**	**+0.5**
GO01				IAML		09 08 33.8	
	comp=N,1μm,0.3s						
PB07	**IPOC Station P**	**1.74**	**149**	*eP*	**Pn**	**09 08 10.7**	**+1.0**
PB07				*eS*	**Sb**	**09 08 37.1**	**+2.9**
PB07				IAML		09 08 54.9	
	comp=Z,231nm,0.6s						
PB07	**IPOC Station P**	**1.74**	**149**	*eP*	**Pn**	**09 08 10.7**	**+1.0**
PB07				IAML		09 08 44.8	
	comp=E,368nm,0.3s						
AP01	**Chacalluta**	**1.92**	**15**	IAML		09 08 50.7	
	comp=E,911nm,0.4s						
PB03	**IPOC Station P**	**2.08**	**150**	*eP*	**Pn**	**09 08 15.3**	**+1.0**
PB03				*eS*	**Sb**	**09 08 42.3**	**-1.6**
PB03				IAML		09 08 57.0	
	comp=Z,173nm,0.6s						
PB03	**IPOC Station P**	**2.08**	**150**	*eP*	**Pn**	**09 08 15.4**	**+1.0**
PB09	**IPOC Station P**	**2.17**	**136**	*eP*	**Pb**	**09 08 18.1**	**-1.8**
PB09				*eS*	**Sb**	**09 08 46.8**	**+0.4**
PB09				IAML		09 08 56.3	
	comp=Z,348nm,0.6s						
PB09	**IPOC Station P**	**2.17**	**136**	*eP*	**Pb**	**09 08 18.1**	**-1.8**
PB09				*eS*	**Sb**	**09 08 49.2**	**+2.8**
PB16	**IPOC Station P**	**2.28**	**34**	*eP*	**Pn**	**09 08 19.3**	**+1.7**
PB16				*eS*	**Sb**	**09 08 51.4**	**+1.2**
PB16				IAML		09 09 01.3	
	comp=Z,217nm,0.5s						
PB16	**IPOC Station P**	**2.28**	**34**	*eP*	**Pb**	**09 08 20.2**	**-1.9**
PB16				*eS*	**Sb**	**09 08 48.3**	**-1.8**
PB16				IAML		09 08 53.9	
	comp=N,204nm,0.4s						
PB05	**IPOC Station P**	**2.67**	**167**	*eP*	**Pn**	**09 08 22.7**	**+0.2**
PB05				IAML		09 09 16.0	
	comp=N,95nm,0.4s						
PB06	**IPOC Station P**	**2.73**	**154**	*eP*	**Pn**	**09 08 24.4**	**+1.0**
PB06				*eS*	**Sb**	**09 09 02.8**	**+0.1**
PB06				IAML		09 09 16.8	
	comp=Z,131nm,0.7s						
PB06	**IPOC Station P**	**2.73**	**154**	*eP*	**Pn**	**09 08 24.1**	**+0.7**
PB06				IAML		09 09 15.9	
	comp=E,137nm,0.6s						
PB18	**Visviri**	**2.94**	**27**	*eP*	**Pb**	**09 08 33.1**	**-0.1**
PB10	**IPOC Station P**	**3.27**	**175**	*eP*	**Pn**	**09 08 31.5**	**+0.8**
PB10	**IPOC Station P**	**3.27**	**175**	*eP*	**Pn**	**09 08 30.5**	**-0.2**

SOME ***14*** *09:14:43.5,43.°53N×82.°17E,h15km*
NNC ***14*** *09:14:47.6±3.2,43.°48N×82.°03E,h0km, mb3.5,mpv3.2, Error ellipse: s-maj=29.9km s-min=12.1km az=139.0, Suspected Mining explosion.*

ISC 14 09:14:40.0±2.6,**43.°55N**±0.°10×**82.°4E**±0.°1,**h0km,n12,**
σ1°05/19,1C-2D,Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DJR	**Jarkent**	**2.04**	**293**	Pg	**Pb**	**09 15 18.8**	**+0.9**
	39nm,0.2s						
DJR				Lg	Lg	09 15 44.4	
	16nm,0.4s						
DJR	**Jarkent**	**2.04**	**293**	*eP*	**Pb**	**09 15 18.8**	**+0.9**
	39nm,0.2s						
DJR				*eS*	**Sb**	**09 15 44.4**	**+0.6**
	16nm,0.4s						
PDGK	**Podgornoye**	**2.12**	**265**	⇓Pn	**Pb**	**09 15 20.3**	**+0.8**
	4.7nm,0.3s						
PDGK				⇑Sn	**Sb**	**09 15 47.1**	**+0.7**
	8.2nm,0.4s						
SHLS	**Shalkode**	**2.17**	**261**	P	**Pn**	**09 15 17.4**	**-0.2**
	22nm,0.1s						
SHLS				S	**Sn**	**09 15 42.3**	**-2.9**
	67nm,0.3s						
UZB	**Uzynbulak**	**2.49**	**262**	Pg	**Pb**	**09 15 26.4**	**+0.6**
	6.6nm,0.4s						
UZB				Lg	Lg	09 15 57.6	
	8.9nm,0.3s						
UZB	**Uzynbulak**	**2.49**	**262**	*eP*	**Pb**	**09 15 26.4**	**+0.6**
	6.6nm,0.4s						
UZB				*eS*	**Sb**	**09 15 57.6**	**+0.6**
	8.9nm,0.3s						
KPKS	**Kokpek**	**2.70**	**269**	Pg	**Pb**	**09 15 30.0**	**+0.7**
	0.3nm,0.1s						
KPKS				Lg	Lg	09 16 03.9	
	8.5nm,0.5s						
KPKS	**Kokpek**	**2.70**	**269**	*eP*	**Pb**	**09 15 30.0**	**+0.7**
	0.3nm,0.1s						
KPKS				*eS*	**Sb**	**09 16 03.9**	**+1.0**
	8.5nm,0.5s						
BLB	**Baldybastay**	**2.88**	**282**	Pg	**Pb**	**09 15 32.6**	**+0.2**
	5.1nm,0.1s						
BLB				Lg	Lg	09 16 08.3	
	11nm,0.5s						

SATY	**Saty**	**2.95**	**262**	Pg	**Pb**	**09 15 33.9**	**+0.4**	
	2.0nm,0.2s							
SATY				Lg	Lg	09 16 10.9		
	12nm,0.2s							
SATY	**Saty**	**2.95**	**262**	*eP*	**Pb**	**09 15 33.9**	**+0.4**	
	2.0nm,0.2s							
SATY				*eS*	**Sb**	**09 16 10.9**	**+0.7**	
	12nm,0.2s							
MK31	**Makanchi Array**	**3.24**	**359**	Pn	**Pg**	**09 15 42.7**	**+0.5**	
	0.4nm,0.3s,baz=180,slow=16,SNR=20							
MK31				⇓Sn	**Sg**	**09 16 23.0**	**-1.2**	
	0.5nm,0.3s,baz=180,slow=27							

NEIC ***14*** *09:34:04.9±1.2,5.°67S±0.°07×145.°7E±0.°1,h97km±7km, mb4.3/26, Error ellipse: s-maj=14.6km s-min=9.6km az=91.0*
IDC ***14*** *09:34:05.1±1.6,5.°74S×145.°69E,h99km±16km,mb3.7/15, mbtmp4.1/21,MS3.3/1,Error ellipse: s-maj=18.2km s-min=11.1km az=80.0*

ISC 14 09:34:03.8±0.5,**5.°68S**±0.°05×**145.°67E**±0.°08,**h86**km,**n63,**
σ0°80/64,mb4.2/25,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MANU	**Manus Island**	**3.98**	**25**	Pn	**Pn**	**09 35 02.6**	**0.0**
PMG	**Port Moresby**	**3.99**	**158**	P	**Pn**	**09 35 04.6**	**+2.0**
	55nm,0.3s,baz=34,slow=4.5,SNR=35						
PMG				S	**Sn**	**09 35 47.9**	**-0.4**
	81nm,0.4s,baz=157,slow=20,SNR=15						
PMG	**Port Moresby**	**3.99**	**158**		**Pn**	**09 35 04.6**	**+2.0**
PMG				Sn	**Sn**	**09 35 48.5**	**+0.2**
JAY	**Jayapura**	**5.87**	**302**	P	**Pn**	**09 35 30.4**	**+2.0**
	4.0nm,0.4s,baz=175,slow=8.0,SNR=4.8						
KRVT	**Keravat (-5076**	**6.47**	**78**	P	**Pn**	**09 35 37.5**	**+1.0**
	198nm,0.4s,baz=108,slow=6.9,SNR=2.5						
RABL	**Rabaul**	**6.63**	**77**	Pn	**Pn**	**09 35 39.1**	**+0.4**
COEN	**Coen**	**8.59**	**196**	Pn	**Pn**	**09 36 06.5**	**+1.1**
FAKI	**Fak Fak**	**13.66**	**281**	Pn	**Pn**	**09 37 15.1**	**+1.0**
CTA	**Charters Tower**	**14.34**	**178**	P	**Pn**	**09 37 24.0**	**+1.2**
	1.4nm,0.8s,baz=349,slow=15,SNR=3.0						
SIJI	**Sorong**	**15.15**	**288**	P	**Pn**	**09 37 33.1**	**-0.1**
	7.6nm,0.6s,baz=63,slow=6.2,SNR=5.9						
MTN	**Manton Dam**	**16.01**	**243**	Pn	**Pn**	**09 37 44.0**	**-0.1**
WB0	**Warramunga Arr**	**17.79**	**217**	P	**P**	**09 38 04.6**	**-1.0**
WR8	**Warramunga Arr**	**17.88**	**216**	P	**Pn**	**09 38 06.7**	**-0.3**
WRA	**Warramunga Arr**	**17.96**	**217**	P	**Pn**	**09 38 07.8**	**-0.2**
	1.4nm,0.8s,baz=39,slow=12,SNR=8.4						
WRA	**Warramunga Arr**	**17.96**	**217**	P	**P**	**09 38 07.5**	**0.0**
GUMO	**Guam**	**19.16**	**358**	P	**Pn**	**09 38 23.1**	**+0.8**
	40nm,0.7s,baz=238,slow=16,SNR=1.7						
KNRA	**Kununurra**	**19.34**	**238**	P	**P**	**09 38 22.1**	**-0.5**
KNRA				IAmb	IAmb	09 38 26.6	
	comp=Z,9.3nm,1.2s						
EIDS	**Eidsvold**	**20.26**	**166**	P	**P**	**09 38 31.9**	**-0.5**
EIDS				IAmb	IAmb	09 38 35.5	
	comp=Z,8.8nm,1.0s						
AS31	**Alice Springs**	**21.17**	**211**	P	**P**	**09 38 42.4**	**+0.1**
ASAR	**Alice Springs**	**21.18**	**211**	P	**P**	**09 38 43.1**	**+0.8**
	comp=Z,0.5nm,0.5s,baz=47,slow=7.6,SNR=14						
ASAR				LR	LR	09 47 33.7	
	comp=Z,89nm,20.9s,baz=299,slow=38						
	comp=Z,0.5nm,0.5s						
ASAR	**Alice Springs**	**21.18**	**211**	P	**P**	**09 38 41.8**	**-0.5**
FITZ	**Fitzroy Crossi**	**23.13**	**236**	P	**P**	**09 39 01.4**	**-1.4**
	comp=Z,3.4nm,0.6s,baz=62,slow=8.3,SNR=13						
	comp=Z,3.4nm,0.6s						
FITZ	**Fitzroy Crossi**	**23.13**	**236**	P	**P**	**09 39 01.5**	**-1.4**
STKA	**Stephens Creek**	**26.34**	**188**	P	**P**	**09 39 31.6**	**-0.2**
	comp=Z,1.5nm,0.4s,baz=360,slow=6.1,SNR=5.4						
	comp=Z,1.5nm,0.4s						
STKA	**Stephens Creek**	**26.34**	**188**	P	**P**	**09 39 31.5**	**-0.3**
STKA				IAmb	IAmb	09 39 55.4	
	comp=Z,8.2nm,0.9s						
MJAR	**Matsushiro Arr**	**42.57**	**351**	P	**P**	**09 41 51.

KRNET ***14*** *09:51:31.3±0.1, 42.87N×77.83E, h24km, mb2.8*
ISC 14 09:51:29.5±1.1, 42.89N±0.03×77.97E±0.02, h13km±9km,
n36,σ0.85/68, 20C-10D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ANVS	**Anan'yevo**	**0.25**	**245**	⇑	*eP*		**Pb**	**09 51 36.0**	**0.0**
ANVS				⇑	*eS*		**Sb**	**09 51 39.8**	**-0.6**
SATY	**Saty** 22nm,0.0s	**0.36**	**61**	P			**Pn**	**09 51 39.3**	**-1.3**
SATY	350nm,0.1s			S			**Sn**	**09 51 45.4**	**-2.4**
SATY	**Saty** 22nm,0.0s	**0.36**	**61**	*eP*			**Pn**	**09 51 39.3**	**-1.3**
SATY	350nm,0.1s			*eS*			**Sn**	**09 51 45.4**	**-2.4**
PRZ	**Przheval'sk**	**0.51**	**142**	⇑	*eP*		**Pn**	**09 51 42.7**	**-0.1**
PRZ				⇑	*eS*		**Sn**	**09 51 50.5**	**-1.0**
KURS	**Kuram** 5.7nm,0.1s	**0.62**	**13**	P			**Pn**	**09 51 43.0**	**-1.1**
KURS	30nm,0.3s			S			**Sb**	**09 51 51.9**	**+1.0**
KURS	**Kuram** 5.7nm,0.1s	**0.62**	**13**	*eP*			**Pn**	**09 51 43.0**	**-1.1**
KURS	30nm,0.3s			*eS*			**Sb**	**09 51 51.9**	**+1.0**
KOTS	**Kotyrbulak** 9.0nm,0.1s	**0.72**	**299**	P			**Pg**	**09 51 43.2**	**-0.3**
KOTS	38nm,0.3s			S			**Sg**	**09 51 52.2**	**-0.8**
KOTS	**Kotyrbulak** 9.0nm,0.1s	**0.72**	**299**	*eP*			**Pg**	**09 51 43.2**	**-0.3**
KOTS	38nm,0.3s			*eS*			**Sg**	**09 51 52.2**	**-0.8**
MDOK	**Medeo** 13nm,0.1s	**0.73**	**292**	Pg			**Pg**	**09 51 43.4**	**-0.3**
MDOK	73nm,0.2s			Lg			Lg	09 51 52.5	
MDOK	**Medeo** 13nm,0.1s	**0.73**	**292**	*eP*			**Pg**	**09 51 43.4**	**-0.3**
MDOK	73nm,0.2s			*eS*			**Sg**	**09 51 52.5**	**-1.0**
KPKS	**Kokpek** 0.2nm,0.1s	**0.78**	**42**	P			**Pn**	**09 51 46.3**	**-0.1**
KPKS	72nm,0.3s			S			**Sn**	**09 51 57.3**	**-0.7**
KPKS	**Kokpek** 0.2nm,0.1s	**0.78**	**42**	*eP*			**Pn**	**09 51 46.3**	**-0.1**
KPKS	72nm,0.3s			*eS*			**Sn**	**09 51 57.3**	**-0.7**
UZB	**Uzynbulak** 3.2nm,0.1s	**0.81**	**71**	P			**Pn**	**09 51 47.2**	**+0.4**
UZB	28nm,0.1s			S			**Sn**	**09 51 58.8**	**0.0**
UZB	**Uzynbulak** 3.2nm,0.1s	**0.81**	**71**	*eP*			**Pn**	**09 51 47.2**	**+0.4**
UZB	28nm,0.1s			*eS*			**Sn**	**09 51 58.8**	**0.0**
KDJ	**Kajisay**	**0.96**	**218**	⇓	*eP*		**Pn**	**09 51 48.2**	**-0.7**
KDJ				⇓	*eS*		**Sb**	**09 52 00.2**	**-0.6**
TARG	**Taragay, Kyrgy**	**1.16**	**186**	⇓	*eP*		**Pn**	**09 51 52.4**	**+0.5**
TARG				⇓	*eS*		**Sn**	**09 52 07.5**	**-0.4**
PDGK	**Podgornoye** 1.1nm,0.5s	**1.20**	**68**	⇑	P		**Pg**	**09 51 54.0**	**+1.5**
PDGK	4.1nm,0.6s			⇓	S		**Sn**	**09 52 09.7**	**+1.4**
BLB	**Baldybastay** 13nm,0.1s	**1.26**	**17**	P			**Pg**	**09 51 54.7**	**+0.9**
BLB	57nm,0.1s			S			**Sg**	**09 52 11.6**	**+1.3**
ULHL	**Ulahol**	**1.43**	**244**	⇑	*eP*		**Pb**	**09 51 55.9**	**-0.3**
ULHL				⇑	*eS*		**Sn**	**09 52 13.2**	**-1.0**
KST	**Kastek** 1.3nm,0.2s	**1.48**	**277**	P			**Pb**	**09 51 57.0**	**0.0**
KST	11nm,0.3s			S			**Sn**	**09 52 15.5**	**+0.1**
KST	**Kastek** 1.3nm,0.2s	**1.48**	**277**	*eP*			**Pb**	**09 51 57.0**	**0.0**
KST	11nm,0.3s			*eS*			**Sn**	**09 52 15.5**	**+0.1**
BOOM	**Boomskoye usch**	**1.55**	**256**	⇓	*eP*		**Pb**	**09 51 57.9**	**-0.3**
BOOM				⇓	*eS*		**Sn**	**09 52 16.9**	**-0.2**
DGS	**Degeres** 3.9nm,0.2s	**1.65**	**283**	P			**Pb**	**09 51 59.9**	**0.0**
DGS	9.8nm,0.2s			S			**Sb**	**09 52 20.8**	**+0.1**
DGS	**Degeres** 3.9nm,0.2s	**1.65**	**283**	*eP*			**Pb**	**09 51 59.9**	**0.0**
DGS	9.8nm,0.2s			*eS*			**Sb**	**09 52 20.8**	**+0.1**
TKM2	**Tokmak 2**	**1.75**	**272**	⇑	*eP*		**Pb**	**09 52 01.0**	**-0.6**
TKM2				⇑	*eS*		**Sn**	**09 52 22.2**	**+0.2**
DJR	**Jarkent** 1.6nm,0.1s	**1.96**	**42**	Pg			**Pg**	**09 52 07.5**	**+0.5**
DJR	4.0nm,0.2s			Lg			Lg	09 52 33.4	
DJR	**Jarkent** 1.6nm,0.1s	**1.96**	**42**	*eP*			**Pg**	**09 52 07.5**	**+0.5**
DJR	4.0nm,0.2s			*eS*			**Sg**	**09 52 33.4**	**+1.0**
KBK	**Karagaybulak**	**2.24**	**265**	⇑	*eP*		**Pn**	**09 52 07.7**	**+1.2**
KBK				⇑	*eS*		**Sn**	**09 52 34.3**	**+0.2**
CHMS	**Chumysh**	**2.37**	**274**	⇑	*eP*		**Pn**	**09 52 09.4**	**+1.3**
CHMS				⇑	*eS*		**Sn**	**09 52 37.5**	**+0.4**
USP	**Ospenovka**	**2.57**	**280**	⇑	*eP*		**Pn**	**09 52 12.3**	**+1.3**
USP				⇑	*eS*		**Sn**	**09 52 42.5**	**+0.3**
AAK	**Ala-Archa** 1.7nm,0.7s	**2.57**	**266**	⇑	Pg		**Pb**	**09 52 15.4**	**-0.3**
AAK	2.2nm,0.7s			⇓	Lg		Lg	09 52 49.9	
AAK	**Ala-Archa**	**2.57**	**266**	⇑	*eP*		**Pn**	**09 52 12.3**	**+1.2**
AAK				⇑	*eS*		**Sn**	**09 52 42.4**	**0.0**
KAPS	**Kapalarasan** 1.6nm,0.1s	**2.60**	**22**	Pg			**Pg**	**09 52 18.6**	**-0.7**
KAPS	15nm,0.1s			Lg			Lg	09 52 52.4	
KAPS	**Kapalarasan** 1.6nm,0.1s	**2.60**	**22**	*eP*			**Pg**	**09 52 18.6**	**-0.7**
KAPS	15nm,0.1s			*eS*			**Sg**	**09 52 52.4**	**-0.5**
UCH	**Uchtor**	**2.64**	**257**	⇑	*eP*		**Pn**	**09 52 13.3**	**+1.0**
UCH				⇑	*eS*		**Sn**	**09 52 43.9**	**-0.5**
EKS2	**Erkin-Say**	**3.10**	**267**	⇓	*eP*		**Pn**	**09 52 19.6**	**+1.3**
EKS2				⇓	*eS*		**Sn**	**09 52 55.0**	**-0.2**

NEIC ***14*** *09:59:09.2±1.1, 15.20S±0.10×177.0W±0.1, h362km±5km, mb4.6/121, Error ellipse: s-maj=15.1km s-min=13.6km az=133.0*
GFZ ***14*** *09:59:09.2±0.2, 15.24'×17.7W±', h364km, M4.6/25, mb4.6/25, confirmed*
IDC ***14*** *09:59:10.7±1.3, 15.11S×177.20W, h383km±12km, mb4.0/16, mbtmp4.7/18, Error ellipse: s-maj=16.6km s-min=9.2km az=149.0*
ISC 14 09:59:07.9±0.4, 15.15S±0.08×177.09W±0.08, h350km,
n220,σ1.63/142, mb4.6/96, 3D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	**1.30**	**310**				**Pn**	**09 59 58.0**	**+3.0**
FUTU	**Fugatoga**	**1.30**	**310**		P		**Pn**	**09 59 58.1**	**+3.1**
MSVF	**Nonsavu** 32nm,0.4s,baz=141,slow=23,SNR=61	**5.32**	**240**		P		**Pn**	**10 00 34.3**	**+3.2**
MSVF	51nm,0.7s,baz=345,slow=23,SNR=5.1				S		**S**	**10 01 41.7**	**+3.2**
MSVF	**Nonsavu**	**5.32**	**240**				**Pn**	**10 00 34.7**	**+3.6**
MSVF	**Nonsavu** comp=Z,104nm,1.1s	**5.32**	**240**		P		**Pn**	**10 00 35.0**	**+3.8**
FUNA	**Funafuti**	**7.52**	**331**		Pn		**Pn**	**10 00 57.4**	**+1.0**
FUNA	**Funafuti** comp=Z,105nm,1.1s	**7.52**	**331**		P		**Pn**	**10 00 57.2**	**+0.7**
NIUE	**Niue**	**7.88**	**121**				Pn	10 01 00.4	-0.2
NIUE	**Niue** comp=Z,276nm,1.0s	**7.88**	**121**		P		Pn	10 01 00.3	-0.4
SANVU	**Saraoutou** comp=Z,54nm,1.2s	**15.15**	**267**		P		**P**	**10 02 25.9**	**+1.6**
MARNC	**Mare, Loyalty**	**15.46**	**244**				**P**	**10 02 28.2**	**+0.7**
DZM	**Mont Dzumac** comp=Z,9nm,0.6s,baz=94,slow=20,SNR=16	**17.05**	**244**		P		**P**	**10 02 46.5**	**+1.6**
ONTNC	**Ouen Toro**	**17.12**	**243**				**P**	**10 02 46.3**	**+0.7**
ONTNC	comp=Z,42nm,1.0s					IAmb	IAmb	10 02 47.6	
OUZ	**Omahuta** comp=Z,34nm,0.9s	**21.66**	**201**		P		**P**	**10 03 31.5**	**+0.5**
TCW	**Tory Channel**	**27.03**	**194**		P		**P**	**10 04 18.1**	**-1.0**
EIDS	**Eidsvold**	**31.47**	**246**		P		**P**	**10 04 57.8**	**-0.5**
ARMA	**Armidale**	**32.46**	**237**		P		**P**	**10 05 06.4**	**-0.6**
CTA	**Charters Tower** comp=Z,18nm,0.8s,baz=89,slow=8.9,SNR=19	**35.23**	**257**		P		**P**	**10 05 30.3**	**-0.4**
CTA	comp=Z,2.2nm,0.8s,baz=90,slow=3.0,SNR=1.9 comp=Z,18nm,0.8s				PcP		**PcP**	**10 07 52.3**	**-0.6**
CTAO	**Charters Tower**	**35.23**	**257**				**P**	**10 05 30.7**	**0.0**
CTAO	comp=Z,20nm,0.8s					IAmb	IAmb	10 05 34.3	
CTAO	**Charters Tower** comp=Z,29nm,0.9s	**35.23**	**257**		P		**P**	**10 05 30.6**	**0.0**
PMG	**Port Moresby**	**35.36**	**275**		P		P	10 05 30.1	-1.7
PMG	comp=Z,19nm,0.8s					IAmb	IAmb	10 05 35.8	
PMG	**Port Moresby** comp=Z,24nm,0.9s	**35.36**	**275**		P		**P**	**10 05 33.0**	**+1.2**
PMG	**Port Moresby** comp=Z,25nm,0.9s	**35.36**	**275**		P		**P**	**10 05 32.8**	**+1.0**
CAN	**Canberra**	**36.40**	**230**		P		**P**	**10 05 40.7**	**+0.3**
MTSU	**Mount Surprise** comp=Z,27nm,0.7s	**37.05**	**260**		P		**P**	**10 05 45.8**	**-0.1**
MANU	**Manus Island**	**37.40**	**287**		P		**P**	**10 05 48.7**	**-0.2**
CMSA	**Cobar Meteorol** comp=Z,13nm,0.6s	**37.64**	**238**		P		**P**	**10 05 49.9**	**-0.8**
COEN	**Coen**	**38.44**	**267**		P		**P**	**10 05 56.4**	**-1.1**
COEN	comp=Z,15nm,0.7s					IAmb	IAmb	10 06 15.1	
TOO	**Toolangi**	**39.91**	**229**		P		**P**	**10 06 08.2**	**-1.0**
INKA	**Innaminka**	**41.00**	**245**		P		**P**	**10 06 18.2**	**0.0**
STKA	**Stephens Creek** comp=Z,7.7nm,0.8s,baz=58,slow=6.4,SNR=11 comp=Z,7.7nm,0.8s	**41.10**	**239**		P		**P**	**10 06 18.6**	**-0.4**
STKA	**Stephens Creek**	**41.10**	**239**				**P**	**10 06 18.9**	**-0.1**
STKA	**Stephens Creek** comp=Z,58nm,1.0s	**41.10**	**239**		P		**P**	**10 06 18.2**	**-0.8**
QIS	**Mount Isa** comp=Z,10nm,1.0s	**41.48**	**256**		P		**P**	**10 06 21.1**	**-1.2**
JAY	**Jayapura** comp=Z,15nm,1.1s	**43.45**	**283**		P		**P**	**10 06 38.1**	**+0.1**
BBOO	**Buckleboo**	**45.87**	**239**		P		**P**	**10 06 56.0**	**-0.7**
BBOO	**Buckleboo** comp=Z,17nm,2.3s	**45.87**	**239**		P		**P**	**10 06 55.7**	**-1.0**
WR8	**Warramunga Arr**	**46.28**	**257**				**P**	**10 06 59.8**	**-0.3**
WB0	**Warramunga Arr**	**46.39**	**257**				**P**	**10 07 00.2**	**-0.7**
WB0	comp=Z,27nm,0.6s					IAmb	IAmb	10 07 00.9	
WRA	**Warramunga Arr** comp=Z,14nm,0.7s,baz=89,slow=7.2,SNR=74	**46.43**	**257**		P		**P**	**10 07 00.5**	**-0.7**
WRA	comp=Z,0.5nm,0.5s,baz=92,slow=14,SNR=4.1 comp=Z,14nm,0.7s				S		**S**	**10 13 17.7**	**-4.5**
WRA	**Warramunga Arr**	**46.43**	**257**				**P**	**10 07 00.7**	**-0.5**
AS31	**Alice Springs**	**46.80**	**252**				**P**	**10 07 03.5**	**-0.6**
AS31	comp=Z,18nm,0.7s					IAmb	IAmb	10 07 04.8	
ASAR	**Alice Springs** comp=Z,66nm,0.8s,baz=84,slow=8.1,SNR=634	**46.80**	**252**		P		**P**	**10 07 03.1**	**-0.9**
ASAR	comp=Z,0.9nm,0.6s,baz=73,slow=3.2,SNR=1.8				PcP		**PcP**	**10 08 29.7**	**-1.2**
ASAR	comp=Z,1.6nm,0.8s,baz=84,slow=15,SNR=14 comp=Z,66nm,0.8s				S		**S**	**10 13 23.4**	**-4.1**
ASAR	**Alice Springs**	**46.80**	**252**		P		**P**	**10 07 03.5**	**-0.5**
MTN	**Manton Dam**	**50.20**	**266**				**P**	**10 07 29.4**	**-0.3**
FAKI	**Fak Fak**	**51.35**	**279**		P		**P**	**10 07 38.0**	**-0.2**
KNRA	**Kununurra**	**52.08**	**262**		P		**P**	**10 07 43.4**	**-0.2**
FORT	**Forrest**	**52.36**	**243**				**P**	**10 07 44.6**	**-0.7**
FORT	comp=Z,22nm,0.7s					IAmb	IAmb	10 07 45.7	
SIJI	**Sorong** comp=Z,40nm,1.0s	**52.91**	**281**		P		**P**	**10 07 49.7**	**+0.1**
FITZ	**Fitzroy Crossi** comp=Z,5.3nm,0.9s,baz=135,slow=5.7,SNR=6.4 comp=Z,5.3nm,0.9s	**54.77**	**258**		P		**P**	**10 08 01.6**	**-1.3**
TNTI	**Ternate**	**57.12**	**281**		P		**P**	**10 08 19.1**	**-0.4**
SOEI	**Soe**	**57.38**	**268**		P		**P**	**10 08 21.3**	**-0.2**
SOEI	**Soe** comp=Z,66nm,0.8s	**57.38**	**268**		P		**P**	**10 08 22.0**	**+0.6**
SANI	**Sanana** comp=Z,16nm,2.0s	**57.59**	**277**		P		**P**	**10 08 22.1**	**-0.6**
SANI	**Sanana** comp=Z,16nm,1.9s	**57.59**	**277**		P		**P**	**10 08 22.3**	**-0.5**
EDFI	**Ende, Flores**	**60.08**	**269**		P		**P**	**10 08 38.6**	**-1.2**
KLBR	**Kellerberrin** comp=Z,64nm,0.8s	**61.21**	**242**		P		**P**	**10 08 46.5**	**-0.5**
BLDU	**Ballidu** comp=Z,16nm,2.3s	**62.12**	**243**		P		P	10 08 51.7	-1.4
MORW	**Morawa**	**62.77**	**245**		P		**P**	**10 08 56.4**	**-0.9**
MORW	comp=Z,26nm,1.4s					IAmb	IAmb	10 09 08.8	
SBA	**Scott Base**	**63.24**	**184**		P		**P**	**10 08 59.9**	**+0.4**
SBA	**Scott Base** comp=Z,22nm,1.5s	**63.24**	**184**		P		**P**	**10 09 00.8**	**+1.3**
VNDA	**Vanda** comp=Z,6.7nm,1.0s,baz=351,slow=6.4,SNR=18 comp=Z,6.7nm,1.0s	**63.29**	**185**		P		**P**	**10 09 00.1**	**+0.2**
VNDA	**Vanda**	**63.29**	**185**		P		**P**	**10 08 60.0**	**+0.1**
VNDA	comp=Z,13nm,1.3s					IAmb	IAmb	10 09 01.4	
VNDA	**Vanda** comp=Z,9.0nm,1.2s	**63.29**	**185**		P		**P**	**10 09 00.1**	**+0.2**
CASY	**Casey**	**69.16**	**204**		P		P	10 09 35.9	-1.0
CASY	comp=Z,24nm,1.4s					IAmb	IAmb	10 09 59.8	
CASY	**Casey**	**69.16**	**204**		P		P	10 09 36.1	-0.8
PETK	**Petropavlovsk-** comp=Z,3.5nm,0.8s,baz=182,slow=6.8,SNR=1.4 comp=Z,3.5nm,0.8s	**71.36**	**344**		P		**P**	**10 09 49.8**	**-0.5**
PETK	**Petropavlovsk-**	**71.36**	**344**		P		**P**	**10 09 50.4**	**0.0**
SAO	**San Andreas Ge**	**73.57**	**44**		P		P	10 10 03.2	-0.4
SAO	comp=Z,10nm,0.9s					IAmb	IAmb	10 10 04.7	
PKD	**Bear Valley Ra**	**73.73**	**45**		P		P	10 10 03.2	-1.4
KMRM	**Mail Ridge**	**74.10**	**40**		P		**P**	**10 10 07.3**	**+0.7**
O02D	**Mt. Diablo Mer**	**74.64**	**40**		P		**P**	**10 10 10.7**	**+0.9**
O02D	comp=Z,12nm,0.9s					IAmb	IAmb	10 10 11.4	
VES	**Vestal, Richgr**	**74.67**	**46**		P		P	10 10 09.8	-0.1
VES	comp=Z,15nm,0.9s					IAmb	IAmb	10 10 10.4	
QSPA	**South Pole Qui** comp=Z,14nm,0.7s,baz=27,slow=0.8,SNR=104 comp=Z,14nm,0.7s	**74.89**	**180**		P		**P**	**10 10 10.7**	**-0.2**
QSPA	**South Pole Qui**	**74.89**	**180**				**P**	**10 10 10.9**	**0.0**
QSPA	**South Pole Qui** comp=Z,31nm,1.2s	**74.89**	**180**		P		**P**	**10 10 10.9**	**0.0**
CMB	**Columbia Colle**	**74.97**	**43**		P		P	10 10 11.2	-0.5
CMB	comp=Z,8.7nm,1.0s					IAmb	IAmb	10 10 12.4	
PFO	**Pinyon Flats O** comp=Z,8.3nm,2.4s	**75.40**	**49**		P		P	10 10 14.3	+0.1
KDAK	**Kodiak Island**	**75.44**	**13**		P		P	10 10 13.1	-0.7
SRIG	**Santa Rosalia** comp=Z,17nm,0.7s	**75.72**	**56**		P		**P**	**10 10 16.3**	**+0.3**
NVAR	**Mina Array Bea** comp=Z,4.0nm,0.8s,baz=228,slow=9.6,SNR=20 comp=Z,4.0nm,0.8s	**76.57**	**44**		P		P	10 10 20.3	-0.5
WCT	**Wildcat Mounta**	**76.86**	**46**		P		P	10 10 22.0	-0.4
WCT	comp=Z,15nm,1.4s					IAmb	IAmb	10 10 23.3	
NJ2	**Nanjing**	**77.20**	**308**		*eP*		**P**	**10 10 24.6**	**+0.5**
NJ2	comp=Z,6.0nm,0.5s					pmax	pmax		
M16K	**Timber Creek**	**77.29**	**9**		P		**P**	**10 10 24.4**	**+0.4**
M16K	comp=Z,14nm,1.0s					IAmb	IAmb	10 10 25.3	
WVOR	**Wild Horse Val**	**78.50**	**40**		P		P	10 10 31.0	-0.2
L18K	**Granite Mounta**	**78.78**	**10**		P		**P**	**10 10 32.5**	**+0.4**
L18K	comp=Z,9.9nm,0.8s					IAmb	IAmb	10 10 33.4	
I07A	**Izee**	**78.87**	**38**		P		P	10 10 32.9	-0.3
K17K	**Iditarod**	**79.00**	**9**		P		**P**	**10 10 34.0**	**+0.7**
TUC	**Tucson**	**79.02**	**52**				**P**	**10 10 35.4**	**+1.1**
TUC	comp=Z,8.8nm,0.8s					IAmb	IAmb	10 10 35.8	
TUC	**Tucson** comp=Z,12nm,1.2s	**79.02**	**52**		P		**P**	**10 10 34.5**	**+0.3**
J18K	**Innoko River**	**79.95**	**9**		P		**P**	**10 10 38.5**	**+0.2**
J18K	comp=Z,11nm,0.9s					IAmb	IAmb	10 10 39.1	
HAWA	**Hanford**	**80.15**	**36**		P		**P**	**10 10 39.9**	**+0.1**
HAWA	comp=Z,11nm,0.9s					IAmb	IAmb	10 10 40.6	
DUG	**Dugway, Tooele**	**81.14**	**44**		P		P	10 10 45.0	-0.3
M26K	**Nabesna, AK**	**81.80**	**15**		P		**P**	**10 10 47.8**	**-0.3**
M26K						IAmb	IAmb	10 10 48.4	
	comp=Z,15nm,1.0s								
ZAIG	**Zacatecas** comp=Z,6.0nm,1.5s	**82.07**	**64**		P		**P**	**10 10 51.2**	**+0.5**
MLY	**Manley** comp=Z,8.2nm,1.0s	**82.41**	**11**		IAmb		IAmb	10 10 50.6	
WRH	**Wood River Hil** comp=Z,12nm,1.0s	**82.42**	**12**		IAmb		IAmb	10 10 51.1	
O30N	**Mendenhall** comp=Z,19nm,1.4s	**82.45**	**19**		IAmb		IAmb	10 10 52.6	
DOT	**Dot Lake** comp=Z,12nm,1.0s	**82.59**	**14**		IAmb		IAmb	10 10 52.2	
HDA	**Harding Lake** comp=Z,7.8nm,0.9s	**82.60**	**13**		IAmb		IAmb	10 10 51.5	
HWUT	**Hardware Ranch** comp=Z,8.9nm,0.9s	**82.63**	**43**		P		P	10 10 52.6	-0.5
BSUT	**Blindstream Ca** comp=Z,9.2nm,0.8s	**82.69**	**45**		IAmb		IAmb	10 10 54.4	
I23K	**Minto, Yukon-K** comp=Z,15nm,1.3s	**82.77**	**11**		IAmb		IAmb	10 10 52.7	
COLA	**College**	**82.82**	**12**		P		P	10 10 52.3	-0.9
COLA	**College** comp=Z,27nm,0.8s	**82.82**	**12**		P		P	10 10 52.4	-0.8
SCRK	**Sand Creek** comp=Z,7.2nm,1.0s	**82.89**	**14**		IAmb		IAmb	10 10 53.9	
VHRN	**Van Horn** comp=Z,9.7nm,0.8s	**82.93**	**56**		IAmb		IAmb	10 10 55.6	
IL31	comp=Z,12nm,1.0s	**82.93**	**13**		IAmb		IAmb	10 10 53.6	
ILAR	**Eielson Array** comp=Z,6.4nm,0.9s,baz=228,slow=5.9,SNR=44	**82.93**	**13**		P		P	10 10 52.3	-1.5
ILAR	comp=Z,0.4nm,0.9s,baz=231,slow=6.6,SNR=1.8 comp=Z,6.4nm,0.9s				pP		pP	10 12 19.2	+5.5
ILAR	**Eielson Array**	**82.93**	**13**				P	10 10 53.0	-0.8
MNTX	**Cornudas Mount** comp=Z,7.7nm,1.1s	**82.96**	**55**		IAmb		IAmb	10 10 55.9	
MNTX	**Cornudas Mount** comp=Z,9.2nm,1.1s	**82.96**	**55**		P		**P**	**10 10 55.0**	**+0.2**
PV20	**West Nyswonger**	**82.96**	**47**		P		P	10 10 54.5	-0.3
H22K	**Ishtalitna Cre** comp=Z,9.8nm,0.9s	**83.08**	**10**		IAmb		IAmb	10 10 54.9	
J25K	**Salcha River,** comp=Z,10nm,0.8s	**83.12**	**13**		IAmb		IAmb	10 10 54.8	
PV22	**Blue Mesa, Par** comp=Z,12nm,0.9s	**83.17**	**47**		IAmb		IAmb	10 10 56.7	
PV07	**Paradox Valley** comp=Z,10nm,0.9s	**83.23**	**47**		IAmb		IAmb	10 10 56.9	
G21K	**Allakaket** comp=Z,9.2nm,0.9s	**83.30**	**9**		IAmb		IAmb	10 10 56.2	
PV15	**Paradox Valley** comp=Z,15nm,1.0s	**83.31**	**47**		IAmb		IAmb	10 10 57.2	
TASM	**ASL Pad, Albuq** comp=Z,6.6nm,1.0s	**83.40**	**51**		IAmb		IAmb	10 10 57.9	
ALQ	**Albuquerque** comp=Z,6.7nm,1.0s	**83.40**	**51**		IAmb		IAmb	10 10 57.9	
ALQ	**Albuquerque** comp=Z,6.5nm,1.0s	**83.40**	**51**		IAmb		IAmb	10 10 57.9	
ANMO	**Albuquerque** comp=Z,9.1nm,1.8s	**83.40**	**51**		P		P	10 10 56.4	-0.8
TXAR	**Lajitas Array** comp=Z,7.0nm,0.9s,baz=222,slow=6.1,SNR=63 comp=Z,7.0nm,0.9s	**83.46**	**57**		P		**P**	**10 10 57.8**	**+0.4**
TXAR	**Lajitas Array**	**83.46**	**57**				**P**	**10 10 57.7**	**+0.3**
AHID	**Auburn Mtn Cher** comp=Z,14nm,1.4s	**83.47**	**43**		IAmb		IAmb	10 10 58.1	
L29M	**L29M** comp=Z,14nm,0.9s	**83.68**	**17**		IAmb		IAmb	10 10 58.4	
DLMT	**Dillon** comp=Z,12nm,0.9s	**83.75**	**40**		IAmb		IAmb	10 10 59.5	
BILI	**Bilibino, Chuk** comp=Z,8.4nm,1.0s	**83.83**	**354**		P		P	10 10 57.3	-1.0
ALPN	**Alpine** comp=Z,6.2nm,0.8s	**83.86**	**56**		IAmb		IAmb	10 11 00.6	
PRP	**Porcupine Dome** comp=Z,10nm,0.9s	**83.87**	**13**		IAmb		IAmb	10 10 59.2	
TPB01	**Permian Basin** comp=Z,7.6nm,0.8s	**83.95**	**56**		IAmb		IAmb	10 11 00.8	
DAWY	**Dawson** comp=Z,9.2nm,0.8s	**84.10**	**16**		IAmb		IAmb	10 11 00.2	
K29M	**Barlow Dome** comp=Z,6.9nm,0.9s	**84.43**	**16**		IAmb		IAmb	10 11 02.1	
YMR	**Madison River** comp=Z,7.5nm,0.9s	**84.44**	**41**		IAmb		IAmb	10 11 03.7	
PDAR	**Pinedale Array** comp=Z,4.6nm,1.0s,baz=216,slow=3.2,SNR=23 comp=Z,4.6nm,1.0s	**84.49**	**43**		P		P	10 11 01.8	-0.7
PDAR	**Pinedale Array**	**84.49**	**43**				P	10 11 01.2	-1.2
YHH	**Holmes Hill** comp=Z,8.1nm,1.2s	**84.57**	**41**		IAmb		IAmb	10 11 05.2	
J29N	**Klondike Camp** comp=Z,10nm,0.9s	**84.72**	**16**		IAmb		IAmb	10 11 03.7	
G26K	**Porcupine Rive** comp=Z,7.5nm,0.8s	**85.47**	**13**		IAmb		IAmb	10 11 07.1	
RLMT	**Red Lodge** comp=Z,10nm,1.0s	**85.72**	**41**		IAmb		IAmb	10 11 09.5	
I30M	**Mount Dempster** comp=Z,7.1nm,1.1s	**85.82**	**16**		IAmb		IAmb	10 11 07.8	
HHC	**Hu-ho-hao-te** comp=Z,8.0nm,0.6s	**86.27**	**314**		*eP*		**P**	**10 11 13.4**	**+2.3**
HHC						pmax	pmax		
HNDO	**Hondo** comp=Z,9.6nm,1.0s	**87.11**	**59**		IAmb		IAmb	10 11 16.5	
ABTX	**Abilene, Hawle** comp=Z,6.7nm,0.9s	**87.84**	**56**		IAmb		IAmb	10 11 18.5	
RSSD	**Black Hills** comp=Z,7.2nm,0.8s	**88.71**	**44**				P	10 11 21.9	-0.8
RSSD						IAmb	IAmb	10 11 22.6	
RSSD	**Black Hills** comp=Z,9.0nm,0.9s	**88.71**	**44**		P		P	10 11 21.9	-0.8
CMAR	**Chiang Mai Arr** comp=Z,0.7nm,0.3s,baz=88,slow=3.4,SNR=5.0 comp=Z,0.7nm,0.3s	**89.16**	**289**		P		**P**	**10 11 24.6**	**-0.4**
CMAR	**Chiang Mai Arr**	**89.16**	**289**		P		P	10 11 23.5	-1.6
COYC	**Coyhaique** comp=Z,14nm,1.0s	**89.47**	**137**		P		**P**	**10 11 26.6**	**+0.5**
LZH	**Lanzhou** comp=Z,11nm,1.1s	**90.22**	**307**		*eP*		**P**	**10 11 29.1**	**-0.7**
LZH						pmax	pmax		
R32A	**Long Quarter,** comp=Z,8.4nm,1.0s	**90.46**	**50**		IAmb		IAmb	10 11 32.6	
YKA	**Yellowknife Ar** comp=Z,0.9nm,0.7s,baz=243,slow=4.6,SNR=4.2 comp=Z,0.9nm,0.7s	**91.31**	**24**		P		P	10 11 33.1	-0.9
ELIB	**Princess Elisa** comp=Z,7.2nm,0.0s	**92.03**	**186**		*dP*		P	10 11 36.7	-0.8
ELIB						*d*PcP	**

VRAC	**Vranov**	**144.14**	**345**	*e*PKP	**PKPab**	**10 18 00.5**	**-0.6**	
VYHS	**Vyhne**	**144.25**	**342**	*e*PKP	**PKPab**	**10 18 01.3**	**-0.3**	
JAVC	**Velka Javorina**	**144.26**	**343**	*e*PKP	**PKPab**	**10 18 01.8**	**+0.2**	
KRUC	**Moravsky**	**144.42**	**345**	*e*PKP	**PKPab**	**10 18 01.1**	**-1.0**	
TREC	**Trest**	**144.43**	**346**	*e*PKP	**PKPab**	**10 18 01.5**	**-0.7**	
VOIR		**144.51**	**333**	PKP	**PKPab**	**10 18 02.9**	**+0.2**	
ZVC	**Zvikov**	**144.58**	**347**	*e*PKP	PKPbc	10 18 02.0	-0.7	
MODS	**Modra-Piesok**	**144.81**	**343**	*e*PKP	PKPbc	10 18 03.4	-0.1	
BMRD	**Maredsous**	**144.91**	**358**	*d*PKP	**PKPdf**	**10 18 02.1**	**-1.5**	
KHC	**Kasperske Hory**	**145.00**	**348**	*e*PKP	**PKPdf**	**10 18 03.3**	**-0.6**	
ABNA	**Allensteig Bun**	**145.02**	**345**	*e*PKP	**PKPdf**	**10 18 03.9**	**0.0**	
	comp=Z,9.4nm,1.0s							
CKRC	**Cesky Krumlov**	**145.14**	**347**	*e*PKP	**PKPdf**	**10 18 04.1**	**0.0**	
GERES	**GERESS Array B**	**145.25**	**347**	PKPbc	**PKPdf**	**10 18 03.5**	**-0.9**	
	comp=Z,2.2nm,0.8s,baz=8.5,slow=2.7,SNR=16							
GERES	**GERESS Array B**	**145.25**	**347**		**PKPdf**	**10 18 02.8**	**-1.6**	
WINA	**Alland / Wiene**	**145.38**	**344**	*e*PKP	**PKPdf**	**10 18 05.2**	**+0.7**	
	comp=Z,2.9nm,0.9s							
CONA	**Conrad Observa**	**145.60**	**345**	*e*PKP	**PKPdf**	**10 18 05.9**	**+0.9**	
	comp=Z,5.8nm,1.0s							
MMAI	**Mount Meron Ar**	**145.61**	**307**	PKPbc	**PKPdf**	**10 18 06.4**	**+1.0**	
	comp=Z,3.0nm,0.5s,baz=44,slow=6.1,SNR=4.4							
RONA	**Rosalia, Austr**	**145.70**	**344**	*e*PKP	**PKPdf**	**10 18 06.0**	**+0.9**	
	comp=Z,1.6nm,0.6s							
MOA	**Molln**	**146.06**	**346**	*e*PKP	**PKPdf**	**10 18 06.1**	**+0.3**	
	comp=Z,3.3nm,0.7s							
ARSA	**Arzberg**	**146.32**	**344**	*e*PKP	**PKPdf**	**10 18 06.6**	**+0.4**	
	comp=Z,4.7nm,1.1s							
BIOA	**Bad Ischl, Aus**	**146.35**	**347**	*e*PKP	**PKPdf**	**10 18 06.9**	**+0.7**	
	comp=Z,1.7nm,0.4s							
BFO	**Black Forest**	**146.61**	**353**		**PKPdf**	**10 18 08.5**	**+1.9**	
SESA	**Seetaler Alpe,**	**146.69**	**345**	*e*PKP	**PKPdf**	**10 18 08.3**	**+1.3**	
	comp=Z,8.4nm,0.8s							
LESA	**Schwarzleotal**	**146.81**	**348**	*e*PKP	**PKPdf**	**10 18 08.2**	**+1.2**	
	comp=Z,4.7nm,1.1s							
SOKA	**Soboth**	**146.97**	**345**	*e*PKP	**PKPdf**	**10 18 08.9**	**+1.5**	
	comp=Z,5.3nm,0.7s							
KBA	**Koelnbreinsper**	**147.00**	**347**	*e*PKP	**PKPdf**	**10 18 08.9**	**+1.4**	
	comp=Z,3.2nm,0.7s							
RETA	**Reutte**	**147.10**	**350**	*e*PKP	**PKPdf**	**10 18 09.5**	**+2.0**	
	comp=Z,11nm,1.3s							
WATA	**Walderalm**	**147.11**	**349**	*e*PKP	**PKPdf**	**10 18 09.3**	**+1.7**	
	comp=Z,2.5nm,0.5s							
WTTA	**Wattenberg**	**147.17**	**349**	*e*PKP	**PKPdf**	**10 18 10.0**	**+2.2**	
	comp=Z,7.6nm,0.8s							
MOTA	**Moosalm**	**147.18**	**350**	*e*PKP	**PKPdf**	**10 18 09.7**	**+2.0**	
	comp=Z,6.2nm,1.0s							
OBKA	**Obir**	**147.25**	**345**	*e*PKP	**PKPdf**	**10 18 07.2**	**-0.6**	
	comp=Z,1.3nm,0.5s							
SQTA	**Sankt Quirin**	**147.29**	**350**	*e*PKP	**PKPdf**	**10 18 10.2**	**+2.3**	
	comp=Z,3.3nm,0.7s							
MYKA	**Terra Mystica**	**147.36**	**346**	*e*PKP	**PKPdf**	**10 18 09.3**	**+1.4**	
	comp=Z,3.1nm,0.6s							
DAVA	**Damuels**	**147.44**	**351**	*e*PKP	**PKPdf**	**10 18 10.7**	**+2.5**	
	comp=Z,7.3nm,1.0s							
ABTA	**Abfaltersbach**	**147.49**	**348**	*e*PKP	**PKPdf**	**10 18 10.0**	**+1.8**	
	comp=Z,6.7nm,0.9s							
PRED	**Cave del Predi**	**147.55**	**346**		**PKPdf**	**10 18 13.5**	**+5.2**	
FUORN	**Ofenpass-Fuorn**	**148.03**	**350**		**PKPdf**	**10 18 12.6**	**+3.3**	
TUE	**Stuetta**	**148.31**	**352**	PKPbc	**PKPdf**	**10 18 13.8**	**+4.1**	
NRCA	**Norcia**	**151.05**	**344**		**PKPdf**	**10 18 19.8**	**+5.8**	
TIP	**Timpagrande**	**153.15**	**336**		**PKPdf**	**10 18 24.0**	**+6.8**	
TORD	**Torodi Ar. Bea**	**177.69**	**149**	PKP	**PKPdf**	**10 18 35.7**	**-2.0**	
	comp=Z,1.4nm,0.8s,baz=266,slow=2.2,SNR=5.1							
TORD				PKPab	PKPab	10 20 25.2	-1.0	
	comp=Z,3.5nm,0.9s,baz=225,slow=4.7,SNR=12							

PRE 14 10:05:19.4±0.8, 25°88S×28°85E, h0km, ML2.0, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TSWA	**Tswaing Meteor**	**0.83**	**303**	*e*P	Pn	10 05 38.2	-0.3
TSWA				*e*S	Sn	10 05 55.4	+3.9
TSWA				IAML		10 06 02.3	
	comp=Z,16nm,1.1s						
HRAO	**HartRAO**	**1.05**	**269**	*e*P	Pg	10 05 39.5	-0.1
HRAO				*e*S	Sb	10 05 54.2	-0.8
HRAO	**HartRAO**	**1.05**	**269**	*e*P	Pb	10 05 40.9	+0.3
HRAO				*e*S	Sn	10 05 59.2	+2.1
LEPH	**Lephalale, Lim**	**2.23**	**334**	*e*P	Pn	10 06 58.1	+0.4
LEPH				*e*S	Sn	10 06 26.3	+0.4
LEPH	**Lephalale, Lim**	**2.23**	**334**	*e*P	Pb	10 05 60.0	-0.6
LEPH				*e*S	Sg	10 06 31.9	+0.9
LEPH				IAML		10 06 34.7	
	comp=Z,9.1nm,1.8s						
LBTB	**Lobatse**	**3.07**	**286**	*e*P	Pn	10 06 11.2	+2.0
LBTB				*e*S	Sb	10 06 51.7	-1.2
LBTB				IAML		10 07 05.5	
	comp=Z,3.0nm,0.5s						
CRAIL	**Swartwater, Li**	**3.11**	**350**	*e*P	Pn	10 06 10.7	+0.9
CRAIL				*e*S	Sn	10 06 48.5	+0.7
CRAIL				IAML		10 07 08.9	
	comp=Z,171nm,0.2s						
CRAIL	**Swartwater, Li**	**3.11**	**350**	*e*P	Pn	10 06 11.0	+1.2
CRAIL				*e*S	Sb	10 06 53.0	-1.2
CRAIL				IAML		10 07 08.2	
	comp=Z,200nm,0.2s						
MOPA	**Mopani**	**3.30**	**45**	*e*P	Pn	10 06 13.0	+0.7
MOPA				*e*S	Sn	10 06 52.4	+0.1
MOPA	**Mopani**	**3.30**	**45**	*e*P	Pn	10 06 09.5	-2.8
MOPA				*e*S	Sn	10 06 48.9	-3.4
BOSA	**Boshof**	**4.21**	**229**	*e*P	Pn	10 06 25.7	+0.8
BOSA				*e*S	Sn	10 07 14.4	-0.5
BOSA				IAML		10 07 33.4	
	comp=Z,1.5nm,0.6s						
BOSA	**Boshof**	**4.21**	**229**	*e*P	Pn	10 06 21.0	-4.0
BOSA				*e*S	Sn	10 07 10.8	-4.1
BOSA				IAML		10 07 33.2	
	comp=Z,2.2nm,0.2s						

*MAN **14** 10:10:32.0, 11°.15N×121°.75E, h17km, MS3.9*
MAN INTENSITY III - BARBAZA LAUA-AN BUGASONG VALDERRAMA TIBIAO AND PATNONGON ANTIQUE; . INTENSITY II - BELISON ANTIQUE; LIBACAO AKLAN; . INTENSITY I - SAN JOSE DE BUENAVISTA ANTIQUE; KALIBO AND NUMANCIA AKLAN.
*IDC **14** 10:10:33.1±2.0, 10°.73N×121°.83E, h0km, mb3.7/5, mbtmp3.7/5, MS3.2/3, Error ellipse: s-maj=99.7km s-min=21.9km az=52.0*
ISC 14 10:10:35.0±0.8, 11°.15N±0°.04×121°.84E±0°.06, h22km, n25, σ1s74/23, mb3.7/5, Panay

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAP	**San Jose, Anti**	**0.41**	**165**	*i* P	**Pb**	**10 10 42.5**	**-1.0**
LLP	**Lapu-Lapu**	**2.24**	**111**	*e*P	**Pn**	**10 11 11.0**	**+0.1**
LLP				*i* S	**Sb**	**10 11 41.0**	**-1.2**
TBP	**Tagbilaran**	**2.46**	**126**	*e*P	**Pn**	**10 11 14.2**	**+0.4**
TBP				*i* S	**Sn**	**10 11 44.6**	**+1.4**
GQP	**Guinayangan**	**2.81**	**12**	*e*P	**Pn**	**10 11 17.9**	**-0.7**
GQP				*i* S	**Sn**	**10 11 52.0**	**+0.2**
DCPH	**Dipolog City**	**2.95**	**150**	*i* P	**Pn**	**10 11 19.9**	**-0.6**
DCPH				*i* S	**Sn**	**10 11 54.5**	**-0.9**
LQP	**Lukban**	**2.96**	**354**	*e*P	**Pn**	**10 11 19.8**	**-1.1**
TGY	**Tagaytay City**	**3.07**	**343**	*e*P	**Pn**	**10 11 21.3**	**-1.0**
TGY				*e*S	Sn	10 11 39.7	-19
PLP	**Palo**	**3.08**	**89**	*e*P	**Pn**	**10 11 22.6**	**+0.3**
PLP				*e*S	**Sn**	**10 11 57.4**	**-1.1**
CGP	**Cagayan de Oro**	**3.88**	**133**	*e*P	**Pn**	**10 11 36.9**	**+3.5**
CGP				*e*S	**Sn**	**10 12 18.7**	**+0.5**
ZCP	**Zamboanga City**	**4.19**	**177**	*i* P	**Pn**	**10 11 37.1**	**-0.6**
ZCP				*i* S	**Sn**	**10 12 25.5**	**-0.5**
KCP	**Kidapawan**	**5.21**	**142**	*e*P	**Pn**	**10 11 53.2**	**+1.4**
SIJI	**Sorong**	**15.17**	**141**	LR	LR	10 20 27.6	
	comp=Z,59nm,20.1s,baz=312,slow=40						
KAPI	**Kappang**	**16.19**	**187**	LR	LR	10 21 30.5	
	comp=Z,72nm,18.2s,baz=70,slow=42						
BATI	**Baumata**	**21.29**	**175**	LR	LR	10 24 20.9	
	comp=Z,128nm,20.7s,baz=264,slow=40						
CMAR	**Chiang Mai Arr**	**23.28**	**291**	P	**P**	**10 15 44.2**	**+2.8**
	1.4nm,0.3s,baz=99,slow=9.9,SNR=5.8						
	1.4nm,0.3s						
WRA	**Warramunga Arr**	**33.25**	**158**	P	**P**	**10 17 08.1**	**-2.8**
	0.3nm,0.3s,baz=335,slow=9.2,SNR=1.9						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**36.55**	**161**	P	**P**	**10 17 37.8**	**-1.6**
	0.5nm,0.6s,baz=338,slow=6.9,SNR=14						
	0.5nm,0.6s						
STKA	**Stephens Creek**	**46.77**	**157**	P	**P**	**10 19 01.6**	**-1.4**
	2.6nm,0.8s,baz=314,slow=5.8,SNR=5.9						
	2.6nm,0.8s						
MKAR	**Makanchi Array**	**48.74**	**324**	P	**P**	**10 19 22.0**	**+3.9**
	0.3nm,0.5s,baz=110,slow=8.3,SNR=2.5						
	0.3nm,0.5s						
H04N2	**CROZET ISLANDS**	**84.56**	**221**	T	T	11 54 20.9	
	baz=53,slow=74,SNR=35						
H04N1	**CROZET ISLANDS**	**84.58**	**221**	T	T	11 54 23.5	
	baz=53,slow=74,SNR=39						
H04N3	**CROZET ISLANDS**	**84.58**	**221**	T	T	11 54 20.1	
	baz=53,slow=74,SNR=26						
H04S1	**CROZET ISLANDS**	**84.75**	**220**	T	T	11 54 49.5	
	baz=57,slow=74,SNR=7.8						
H04S3	**CROZET ISLANDS**	**84.76**	**220**	T	T	11 54 49.2	
	baz=57,slow=74,SNR=7.2						
H04S2	**CROZET ISLANDS**	**84.76**	**220**	T	T	11 54 44.6	
	baz=57						

*CNRM **14** 10:13:08.1, 36°.35N×5°.57W, h66km, ML0.9*
*SFS **14** 10:13:09.1, 36°.51N×5°.34W, h48km, ML2.1/14, ML2.6/14, MLv2.3/10*
*MDD **14** 10:13:09.3±0.3, 36°.47N×5°.34W, h44km±5km, mb_Lg2.5/20, Error ellipse: s-maj=3.5km s-min=2.1km az=178.0*
*INMG **14** 10:13:09.5±1.8, 36°.49N×5°.40W, h46km±8km, ML2.0, Error ellipse: s-maj=4.6km s-min=3.2km az=72.0, #DIST_RANGE: REGIONAL #IPMA_REGION: N Gibraltar*
*IGIL **14** 10:13:10.5, 36°.54N×5°.44W, h28km, ML1.7*
ISC 14 10:13:07.5±1.2, 36°.48N±0°.03×5°.33W±0°.02, h56km±7km, n67, σ1s28/121, 2C, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
EXJIF	**Jimena de la F**	**0.11**	**248**	Pn	**Pn**	**10 13 15.6**	**-0.5**
EXJIF				Sn	**Sn**	**10 13 21.7**	**-0.5**
EMIJ	**Mijas**	**0.46**	**79**	Pn	**Pn**	**10 13 18.5**	**-0.2**
EMIJ				Sn	**Sn**	**10 13 26.6**	**-0.3**
EMIJ	**Mijas**	**0.46**	**79**	↑Pn	**Pn**	**10 13 18.5**	**-0.2**
EMIJ				Pn	Pn	10 13 18.6	-0.2
EMIJ				Sn	**Sn**	**10 13 26.4**	**-0.5**
EMIJ				Sn	Sn	10 13 26.5	-0.4
EMIJ				IVmb_Lg		10 13 27.5	
ESPR	**Espera**	**0.57**	**313**	Pn	**Pn**	**10 13 21.2**	**+1.2**
ESPR				Sn	**Sn**	**10 13 28.9**	**-0.2**
ESPR	**Espera**	**0.57**	**313**	Pn	**Pn**	**10 13 21.0**	**+1.0**
ESPR				Sn	**Sn**	**10 13 29.4**	**+0.3**
ESPR				IVmb_Lg		10 13 34.9	
ECEU	**Ceuta**	**0.58**	**183**	Pn	**Pn**	**10 13 21.3**	**+1.2**
ECEU	**Ceuta**	**0.58**	**183**	Pn	**Pn**	**10 13 21.3**	**+1.2**
ECEU				Sn	**Sn**	**10 13 28.9**	**-0.2**
EMAL	**Malaga-Limoner**	**0.78**	**68**	Pn	**Pn**	**10 13 23.3**	**+0.8**
EMAL				Sn	**Sn**	**10 13 34.5**	**+0.9**
SMIR	**Smir Dam**	**0.79**	**183**	P	**Pn**	**10 13 23.9**	**+1.2**
SMIR				S	**Sn**	**10 13 33.3**	**-0.4**
EGOR	**Sierra Gorda,**	**1.17**	**57**	Sn	**Sn**	**10 13 42.9**	**+0.1**
ELGU	**Los Guajares,**	**1.43**	**74**	Pn	**Pn**	**10 13 30.9**	**-0.3**
ELGU				Sn	**Sn**	**10 13 48.4**	**-0.6**
ELGU	**Los Guajares,**	**1.43**	**74**	Pn	**Pn**	**10 13 31.4**	**+0.2**
ELGU				Sn	**Sn**	**10 13 49.8**	**+0.8**
ELGU				IVmb_Lg		10 13 57.6	
ECAB	**El Cabril**	**1.60**	**358**	Pn	**Pn**	**10 13 33.5**	**+0.1**
ECAB	**El Cabril**	**1.60**	**358**	Pn	**Pn**	**10 13 34.2**	**+0.7**
ECAB				Sn	**Sn**	**10 13 53.9**	**+0.9**
ECAB				IVmb_Lg		10 14 01.0	
EMIN	**Mina Concepcio**	**1.68**	**321**	Sn	**Sn**	**10 13 53.9**	**-0.9**
EMIN	**Mina Concepcio**	**1.68**	**321**	Pn	**Pn**	**10 13 35.4**	**+1.0**
EMIN				Sn	**Sn**	**10 13 54.5**	**-0.3**
EADA	**Adamuz**	**1.79**	**19**	Pn	**Pn**	**10 13 37.1**	**+1.0**
EADA	**Adamuz**	**1.79**	**19**	Pn	**Pn**	**10 13 37.3**	**+1.2**
EADA				Sn	**Sn**	**10 13 57.8**	**0.0**
EADA				IVmb_Lg		10 14 04.5	
EALB	**Alboran**	**1.94**	**105**	Sn	**Sn**	**10 14 01.2**	**+0.1**
EGRO	**El Granado**	**2.02**	**302**	Pn	**Pn**	**10 13 39.8**	**+0.6**
EGRO				Sn	**Sn**	**10 14 01.6**	**-1.6**
EGRO	**El Granado**	**2.02**	**302**	Pn	**Pn**	**10 13 40.1**	**+0.9**
EGRO				Pn	Pn	10 13 40.2	+1.0
EGRO				Sn	**Sn**	**10 14 02.3**	**-1.0**
EGRO				Sn	Sn	10 14 02.4	-0.9
EGRO				IVmb_Lg		10 14 06.6	
PVAQ	**Vaqueiros**	**2.12**	**297**	P	**Pn**	**10 13 40.8**	**+0.2**
PVAQ				S	**Sn**	**10 14 04.1**	**-1.7**
PVAQ	**Vaqueiros**	**2.12**	**297**	*e*P	**Pn**	**10 13 41.3**	**+0.8**
PVAQ				*e*S	**Sn**	**10 14 04.8**	**-0.9**
PVAQ				IAML		10 14 06.2	
PVAQ				IAML		10 14 06.3	
PVAQ				IAML		10 14 07.0	
PBAR	**Barrancos**	**2.17**	**322**	Pn	**Pn**	**10 13 42.2**	**+1.0**
PBAR				Sn	**Sn**	**10 14 05.4**	**-1.7**
PBAR	**Barrancos**	**2.17**	**322**	*e*P	**Pn**	**10 13 42.3**	**+1.0**
PBAR				*e*S	**Sn**	**10 14 06.3**	**-0.7**
PBAR				IAML		10 14 07.8	
PBAR				IAML		10 14 08.2	
PBAR				IAML		10 14 08.3	
PBDV	**Barranco-do-Ve**	**2.22**	**291**	*e*P	**Pn**	**10 13 42.9**	**+1.0**
PBDV				*e*S	**Sn**	**10 14 07.5**	**-0.7**
PBDV				IAML		10 14 08.3	
PBDV				IAML		10 14 08.9	
PBDV				IAML		10 14 09.2	
EQES	**Quesada**	**2.24**	**53**	Pn	**Pn**	**10 13 42.9**	**+0.6**
EQES				Sn	**Sn**	**10 14 08.8**	**0.0**
EQES				IVmb_Lg		10 14 20.1	
AKLM	**AKL**	**2.30**	**148**	P	**Pn**	**10 13 43.1**	**0.0**
AKLM				S	**Sn**	**10 14 08.1**	**-2.1**
PCVE	**Castro Verde**	**2.45**	**299**	Pn	**Pn**	**10 13 45.9**	**+0.9**
PCVE				Sn	**Sn**	**10 14 12.1**	**-1.7**
PCVE	**Castro Verde**	**2.45**	**299**	↑*e*P	**Pn**	**10 13 45.9**	**+0.9**
PCVE				*e*S	**Sn**	**10 14 12.9**	**-1.0**
PCVE				IAML		10 14 13.6	
PCVE				IAML		10 14 14.4	
PCVE				IAML		10 14 15.9	
PBEJ	**Beja**	**2.55**	**308**	*e*P	**Pn**	**10 13 47.4**	**+1.1**
PBEJ				*e*S	**Sn**	**10 14 15.1**	**-1.0**
PBEJ				IAML		10 14 17.3	
PBEJ				IAML		10 14 17.4	
PBEJ				IAML		10 14 18.3	
EBAD	**Badajoz**	**2.64**	**330**	Pn	**Pn**	**10 13 49.4**	**+1.8**
EBAD				Sn	**Sn**	**10 14 17.5**	**-0.9**
EBAD				IVmb_Lg		10 14 18.7	
MESJ	**Messejana**	**2.68**	**301**	*e*P	**Pn**	**10 13 49.0**	**+0.9**
MESJ				*e*S	**Sn**	**10 14 17.0**	**-2.3**
MESJ				IAML		10 14 19.5	
	comp=N,1.6nm,0.2s						
MESJ	**Messejana**	**2.68**	**301**	*e*P	**Pn**	**10 13 49.0**	**+0.9**
MESJ				*e*S	**Sn**	**10 14 17.7**	**-1.6**
PMONC	**Monchique**	**2.71**	**289**	*e*P	**Pn**	**10 13 49.4**	**+0.9**
PMONC				*e*S	**Sn**	**10 14 19.9**	**-0.3**
PMONC				IAML		10 14 21.1	
PMONC				IAML		10 14 22.9	
PMONC				IAML		10 14 24.4	
MORF	**Marmelete**	**2.79**	**288**	*e*P	**Pn**	**10 13 50.4**	**+0.8**
MORF				*e*S	**Sn**	**10 14 20.1**	**-2.0**
MORF				IAML		10 14 23.1	
	comp=N,7.7nm,0.2s						
MORF	**Marmelete**	**2.79**	**288**	*e*P	**Pn**	**10 13 50.4**	**+0.8**
MORF				*e*S	**Sn**	**10 14 22.0**	**-0.1**
MORF				IAML		10 14 23.4	
MORF				IAML		10 14 24.2	
MORF				IAML		10 14 24.8	
PFVI	**Vila Bisbo**	**2.88**	**284**	*e*P	**Pn**	**10 13 51.8**	**+1.0**
PFVI				*e*S	**Sn**	**10 14 23.0**	**-1.3**
PLOUS	**Minas do Lousa**	**2.91**	**303**	*e*P	**Pn**	**10 13 52.3**	**+1.0**
PLOUS				*e*S	**Sn**	**10 14 23.2**	**-1.8**
PLOUS				IAML		10 14 25.5	
PLOUS				IAML		10 14 25.6	
PTEO	**Sao Teotonio**	**2.92**	**292**	*e*P	**Pn**	**10 13 53.5**	**+2.1**
PTEO				*e*S	**Sn**	**10 14 25.1**	**-0.1**
EVO	**Evora**	**2.96**	**315**	Pn	**Pn**	**10 13 53.2**	**+1.2**
EVO				Sn	**Sn**	**10 14 24.2**	**-2.1**
EVO	**Evora**	**2.96**	**315**	*e*P	**Pn**	**10 13 53.2**	**+1.2**
EVO				*e*S	**Sn**	**10 14 25.3**	**-0.9**
EVO				IAML		10 14 26.9	
EVO				IAML		10 14 27.2	
EVO				IAML		10 14 27.4	
PESTR	**Estremoz**	**2.98**	**324**	P	**Pn**	**10 13 53.3**	**+0.9**
PESTR				S	**Sn**	**10 14 27.2**	**+0.3**
PESTR	**Estremoz**	**2.98**	**324**	*e*S	**Sn**	**10 14 26.1**	**-0.9**
PESTR				IAML		10 14 28.1	
JBK	**JBK**	**3.11**	**133**	P	**Pn**	**10 13 55.5**	**+1.3**
JBK				S	**Sn**	**10 14 30.6**	**+0.4**
MOE	**Montemor**	**3.15**	**311**	*e*P	**Pn**	**10 13 55.8**	**+1.2**
MOE				*e*S	**Sn**	**10 14 29.6**	**-1.4**
MOE				IAML		10 14 32.4	
MOE				IAML		10 14 33.5	
MOE				IAML		10 14 34.2	
CIBOR	**Castaar de Ib**	**3.15**	**359**	Pn	**Pn**	**10 13 56.0**	**+1.3**
CIBOR				Sn	**Sn**	**10 14 30.2**	**-0.9**
PAB	**San Pablo**	**3.16**	**14**	Pn	**Pn**	**10 13 56.0**	**+1.2**
PAB				Pn	Pn	10 13 56.5	+1.6
PARRA	**Arraiolos**	**3.17**	**318**	*e*P	**Pn**	**10 13 56.0**	**+1.1**
PARRA				*e*S	**Sn**	**10 14 30.4**	**-1.1**
PARRA				IAML		10 14 31.9	
PARRA				IAML		10 14 32.2	
PARRA				IAML		10 14 32.3	
PMRV	**Marv??o**	**3.37**	**332**	*e*P	**Pn**	**10 13 59.6**	**+2.1**
PMRV				*e*S	**Sn**	**10 14 35.8**	**-0.6**
PMRV				IAML		10 14 36.0	
PMRV				IAML		10 14 36.7	
PMRV				IAML		10 14 37.0	
PMTG	**Montargil**	**3.46**	**319**	*e*P	**Pn**	**10 14 00.6**	**+1.9**
PMTG				*e*S	**Sn**	**10 14 37.7**	**-0.8**
PMTG				IAML		10 14 38.8	
PMTG				IAML		10 14 39.2	
PMTG				IAML		10 14 39.3	
EPLA	**Plasencia**	**3.63**	**351**	Pn	**Pn**	**10 14 02.9**	**+1.7**
EPLA				Sn	**Sn**	**10 14 41.3**	**-1.5**
EPLA				IVmb_Lg		10 14 44.3	
MD31	**MD31**	**3.63**	**172**	P	**Pn**	**10 14 01.4**	**+0.1**
MD31				S	**Sn**	**10 14 41.7**	**-1.2**
MDT	**Midelt**	**3.70**	**170**	P	**Pn**	**10 14 03.0**	**+0.8**
MDT				S	**Sn**	**10 14 42.8**	**-1.8**
ETOB	**Tobarra**	**3.71**	**53**	Pn	**Pn**	**10 14 03.2**	**+0.9**
ETOB				Sn	**Sn**	**10 14 43.1**	**-1.6**
ETOB				IVmb_Lg		10 14 45.8	
PCBR	**Castelo Branco**	**3.76**	**334**	*e*P	**Pn**	**10 14 05.1**	**+2.2**
PCBR				*e*S	**Sn**	**10 14 45.0**	**-0.9**
PCBR				IAML		10 14 45.7	
PCBR				IAML		10 14 46.1	
PSARD	**Sardoal**	**3.84**	**325**	*e*P	**Pn**	**10 14 05.7**	**+1.7**
PSARD				*e*S	**Sn**	**10 14 46.4**	**-1.5**
PSARD				IAML		10 14 47.8	
PSARD				IAML		10 14 48.3	
PSARD				IAML		10 14 48.8	
PMAFR	**Mafra**	**3.99**	**310**	*e*S	**Sn**	**10 14 51.2**	**-0.4**
PSBE	**So Bento**	**4.08**	**319**	*e*P	**Pn**	**10 14 09.3**	**+1.9**
PSBE				*e*S	**Sn**	**10 14 53.1**	**-0.9**
EVIV	**Cofrentes, Val**	**4.35**	**49**	Pn	**Pn**	**10 14 11.9**	**+0.9**
EVIV				Sn	**Sn**	**10 14 57.9**	**-2.5**
EVIV				IVmb_Lg		10 15 03.7	
EJUZ	**Juzbado, Salam**	**4.62**	**355**	Pn	**Pn**	**10 14 16.4**	**+1.5**
EJUZ				Sn	**Sn**	**10 15 05.2**	**-2.1**
ETOR	**Torete**	**5.04**	**30**	Pn	**Pn**	**10 14 21.8**	**+1.2**
ETOR				Sn	**Sn**	**10 15 15.3**	**-2.2**
ETOR				IVmb_Lg		10 15 23.9	
ECAL	**Calabor**	**5.57**	**349**	Pn	**Pn**	**10 14 29.6**	**+1.8**
ECAL	**Calabor**	**5.57**	**349**	Pn	**Pn**	**10 14 29.3**	**+1.6**
ECAL				Sn	**Sn**	**10 15 27.8**	**-2.6**
OUK	**Oukaimeden**	**5.66**	**203**	P	**Pn**	**10 14 26.8**	**-2.5**
OUZM	**OUZ**	**5.68**	**192**	P	**Pn**	**10 14 30.0**	**+0.6**
ELOB	**Lobios**	**5.79**	**339**	Sn	**Sn**	**10 15 31.8**	**-4.0**

*IDC **14** 10:39:13.5±0.5, 27°.78S×74°.06E, h0km, mb4.5/24, mbtmp4.5/24, MS4.3/59, Error ellipse: s-maj=18.2km s-min=14.3km az=69.0*
*BJI **14** 10:39:13.4, 27°.73S×73°.66E, h14km, mB5.5/8, mb4.9/37, Ms5.0/21, Ms7.4,8/23*
*MOS **14** 10:39:13.3±0.8, 27°.79S×74°.14E, h10km, mb5.2/36, Error ellipse: s-maj=12.6km s-min=6.4km az=92.6*
*NEIC **14** 10:39:15.7±1.2, 27°.73S±0°.08×74°.1E±0°.1, h10km±1km, mb5.2/81, Mww5.2/14, Error ellipse: s-maj=15.7km s-min=13.5km az=114.0*
*GFZ **14** 10:39:16.0±0.2, 28°.5S×7°.4E±°, h10km, M5.0/24, mb4.8/24*
*GCMT **14** 10:39:16.7±0.2, 27°.83S±0°.01×73°.97E±0°.01, h12km, MW5.1/145, Moment Tensor Solution. s74,c89; s145,c233; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-4.99±.08; Mθθ2.72±.08; Mϕϕ2.28±.09; Mrθ0.16±.26; Mθϕ-2.52±.06; Mrϕ0.66±.27; Best double couple: M05.05600×10^16 NP1:ϕs306.00000°, δ44.00000°, λ-100.00000°. NP2:ϕs139.00000°, δ47.00000°, λ-81.00000°. Principal axes: T 5.0400, Plg2.0000°, Az

LBTB Lobatse 43.27 262 LR LR 11 01 47.7
comp=Z,225nm,18.9s,baz=102,slow=31
LBTB Lobatse 43.27 262 P **P** **10 47 17.2 0.0**
LBTB pmax pmax
comp=Z,58nm,1.8s
LBTB Lobatse 43.27 262 P **P** **10 47 17.2 0.0**
LBTB IAmb IAmb 10 47 19.4
comp=Z,58nm,1.8s
LBTB Lobatse 43.27 262 P **P** **10 47 17.3 0.0**
comp=Z,20nm,2.4s
MAKGR Makgori 43.77 261 P **P** **10 47 21.6 +0.3**
MAKGR IAmb IAmb 10 47 23.2
comp=Z,61nm,1.6s
KMBO Kilima Mbogo 44.07 301 *i* P **P** 10 47 19.4 -4.5
KMBO Kilima Mbogo 44.07 301 P **P** **10 47 25.0 +1.1**
KMBO Kilima Mbogo 44.07 301 P **P** **10 47 25.9 +1.9**
comp=Z,8.1nm,2.3s
KDWAN Kaudwane 44.53 264 P **P** **10 47 27.6 +0.2**
KDWAN IAmb IAmb 10 47 35.0
comp=Z,38nm,1.3s
HYB Hyderabad 45.14 6 *e*P **P** **10 47 31.5 -0.5**
HYB IVmB_BB 10 47 32.8
comp=Z,414nm,2.0s
HYB *e*S **S** **10 54 11.6 +0.2**
HYB IVMs_BB IVMs_BB 11 04 19.7
comp=Z,402nm,17.3s
PHPEN Phepeng 45.55 261 P **P** **10 47 36.2 +0.7**
KSANE Kasane 45.90 272 P **P** **10 47 38.7 +0.4**
KSANE IAmb IAmb 10 47 41.0
comp=Z,51nm,1.6s
SUR Sutherland 45.91 251 LR LR 11 02 41.2
comp=Z,1um,21.3s,baz=117,slow=31
SUR Sutherland 45.91 251 P **P** **10 47 38.6 +0.2**
LKGWB Lokgwabe 47.35 262 **P** **10 47 46.8 -2.9**
GRTLG Ghanzi 48.17 265 **P** **10 47 56.3 +0.2**
GRTLG IAmb IAmb 10 47 59.1
comp=Z,54nm,1.6s
FITZ Fitzroy Crossi 48.19 90 LR LR 11 05 01.5
comp=Z,527nm,21.7s,baz=276,slow=32
FITZ Fitzroy Crossi 48.19 90 P **P** **10 47 57.3 +1.2**
FITZ Fitzroy Crossi 48.19 90 P **P** **10 47 54.2 -1.9**
FITZ Fitzroy Crossi 48.19 90 P **P** **10 47 54.0 -2.0**
comp=Z,3.8nm,1.6s
LODK Lodwar 48.48 304 **P** **10 47 58.5 +0.1**
LODK Lodwar 48.48 304 P **P** **10 47 59.6 +1.2**
comp=Z,5.7nm,1.4s
KOOLE Kule 48.57 263 P **P** **10 48 00.1 +1.0**
KOOLE IAmb IAmb 10 48 06.3
comp=Z,29nm,1.1s
ATD Arta Tunnel 49.40 318 LR LR 11 04 60.0
comp=Z,6.9nm,20.1s,baz=128,slow=31
ATD Arta Tunnel 49.40 318 P **P** **10 48 06.3 +0.9**
ATD IAmb IAmb 10 48 09.5
comp=Z,32nm,1.1s
ATD Arta Tunnel 49.40 318 P **P** **10 48 08.8 +3.4**
comp=Z,32nm,1.6s
MBAR Mbarara 49.49 296 LR LR 11 05 10.4
comp=Z,155nm,21.8s,baz=120,slow=31
MBAR Mbarara 49.49 296 P **P** **10 48 06.1 -0.2**
MBAR pmax pmax
comp=Z,7.0nm,1.1s
MBAR Mbarara 49.49 296 P **P** **10 48 06.1 -0.2**
MMSI Mamuju 49.54 68 P **P** **10 48 06.6 +0.1**
comp=Z,27nm,1.6s
BATI Baumata 49.70 79 LR LR 11 09 56.0
comp=Z,309nm,18.3s,baz=250,slow=37
NPW Naypyitaw 51.89 27 P **P** **10 48 25.6 +1.6**
comp=Z,34nm,1.5s
CM31 Chiang Mai Arr 51.90 31 P **P** **10 48 24.6 +0.5**
CMAR Chiang Mai Arr 51.90 31 P **P** **10 48 25.2 +1.1**
comp=Z,2.7nm,0.7s,baz=213,slow=7.3,SNR=16
CMAR LR LR 11 07 45.8
comp=Z,450nm,19.3s,baz=215,slow=33
comp=Z,2.7nm,0.7s
CMAR Chiang Mai Arr 51.90 31 *i* P **P** **10 48 25.2 +1.1**
CMAR pmax pmax
comp=Z,4.0nm,0.9s
CMAR Chiang Mai Arr 51.90 31 P **P** **10 48 24.4 +0.3**
ELIB Princess Elisa 52.02 198 *d*P **P** **10 48 26.0 +1.4**
CHTO Chiang Mai 52.22 30 P **P** **10 48 27.8 +1.3**
CHTO Chiang Mai 52.22 30 P **P** **10 48 26.9 +0.4**
CHTO pmax pmax
comp=Z,101nm,1.9s
CHTO Chiang Mai 52.22 30 **P** **10 48 26.9 +0.4**
CHTO Chiang Mai 52.22 30 P **P** **10 48 27.7 +1.3**
comp=Z,27nm,1.9s
CHTO Chiang Mai 52.22 30 P **P** **10 48 28.0 +1.5**
comp=Z,26nm,1.9s
BRDH Bariadhala 52.96 20 LR LR 11 09 20.2
comp=Z,785nm,18.9s,baz=185,slow=34
TOLI2 Tolitoli 53.26 65 P **P** **10 48 33.9 -0.4**
AUALC St Philip's Co 53.60 100 P **P** **10 48 37.8 +0.9**
ASAR Alice Springs 53.63 100 P **P** **10 48 37.5 +0.4**
comp=Z,11nm,0.7s,baz=250,slow=6.6,SNR=126
ASAR LR LR 11 08 21.7
comp=Z,328nm,20.9s,baz=270,slow=33
comp=Z,11nm,0.7s
ASAR Alice Springs 53.63 100 P **P** **10 48 37.2 +0.1**
AS31 Alice Springs 53.63 100 **P** **10 48 36.8 -0.3**
AS01 Alice Springs 53.67 100 P **P** **10 48 37.8 +0.4**
NVL N'lazarevskaya 54.95 201 *e*P P 10 48 39.3 -6.6
NVL *e*S **S** **10 56 22.4 -4.8**
NVL pmax pmax
comp=Z,4.0nm,0.8s
NVL MLR MLR
comp=Z,256nm,17.0s
WRA Warramunga Arr 55.23 96 P **P** **10 48 49.1 +0.4**
comp=Z,6.0nm,0.8s,baz=251,slow=7.7,SNR=20
comp=Z,6.0nm,0.8s
WRA Warramunga Arr 55.23 96 P **P** **10 48 48.4 -0.3**
WRAB Tennant Creek 55.24 96 P **P** **10 48 48.6 -0.2**
WRAB Tennant Creek 55.24 96⇓ *e*P **P** **10 48 47.6 -1.2**
WRAB pmax pmax
comp=Z,65nm,2.0s
WRAB Tennant Creek 55.24 96 P **P** **10 48 44.8 -4.0**
comp=Z,28nm,0.8s
MORE Moreh 55.28 23 P **P** **10 48 49.2 +0.4**
WB0 Warramunga Arr 55.34 96 P **P** **10 48 49.5 0.0**
WB0 IAmb IAmb 10 48 56.4
comp=Z,15nm,0.9s
WR8 Warramunga Arr 55.37 96 P **P** **10 48 49.3 -0.4**
WR8 IAmb IAmb 10 48 56.6
comp=Z,20nm,0.9s
SHL Shillong 55.75 20 P **P** **10 48 52.1 -0.3**
SHL Shillong 55.75 20 P **P** **10 48 52.1 -0.3**
SANI Sanana 55.78 72 P **P** **10 48 53.8 +1.1**
comp=Z,8.4nm,1.6s
SANI Sanana 55.78 72 P **P** **10 48 53.0 +0.2**
comp=Z,8.6nm,1.6s
EVN Everest 56.76 14 P **P** **10 48 59.2 -0.9**
EVN IAmb IAmb 10 49 14.2
comp=Z,55nm,1.9s
EVN Everest 56.76 14 P **P** **10 49 00.8 +0.7**
comp=Z,13nm,1.8s
STKA Stephens Creek 57.89 112 P **P** **10 49 07.0 -0.5**
comp=Z,3.3nm,0.6s,baz=286,slow=6.4,SNR=7.7
STKA LR LR 11 12 09.8
comp=Z,246nm,18.1s,baz=222,slow=34
comp=Z,3.3nm,0.6s
STKA Stephens Creek 57.89 112 P **P** **10 49 08.1 +0.6**
STKA Stephens Creek 57.89 112⇑ *e*P **P** **10 49 06.2 -1.3**
STKA Stephens Creek 57.89 112 P **P** **10 49 07.0 -0.5**
STKA Stephens Creek 57.89 112 P **P** **10 49 08.1 +0.6**
comp=Z,61nm,1.7s
RAYN Ar Rayn 57.96 329 P **P** **10 49 07.2 -0.8**
RAYN pmax pmax
comp=Z,19nm,1.3s
RAYN Ar Rayn 57.96 329 **P** **10 49 07.2 -0.8**
RAYN IAmb IAmb 10 49 10.5
comp=Z,19nm,1.2s
RAYN Ar Rayn 57.96 329 P **P** **10 49 08.4 +0.4**
comp=Z,16nm,1.5s
TROLL Troll, Antarti 58.13 200 P **P** **10 49 09.0 +0.3**
comp=Z,146nm,0.8s
INKA Innaminka 58.31 107 P **P** **10 49 10.6 +0.1**
TOO Toolangi 59.63 119 P **P** **10 49 18.7 -0.9**
TOO pmax pmax
comp=Z,8.0nm,1.2s
TOO Toolangi 59.63 119 P **P** **10 49 18.7 -0.9**
QIS Mount Isa 59.64 99 P **P** **10 49 19.5 -0.4**
QIS Mount Isa 59.64 99 P **P** **10 49 20.3 +0.4**
comp=Z,12nm,1.8s
SNAA Sanae 59.78 201 P **P** **10 49 20.7 +0.6**
comp=Z,2.2nm,0.6s,baz=61,slow=8.9,SNR=4.5
SNAA LR LR 11 11 56.9
comp=Z,310nm,18.0s,baz=22,slow=33
comp=Z,2.2nm,0.6s
SNAA Sanae 59.78 201⇓ *e*P **P** **10 49 20.6 +0.6**
SNAA pmax pmax
comp=Z,13nm,1.9s
SNAA Sanae 59.78 201 P **P** **10 49 21.0 +1.0**
SNAA IAmb IAmb 10 49 22.5
comp=Z,29nm,1.9s
DAV Davao City (W) 60.63 63 LR LR 11 12 53.3
comp=Z,225nm,21.5s,baz=208,slow=33
FAKI Fak Fak 60.68 77 P **P** **10 49 25.7 -1.3**
FAKI IAmb IAmb 10 49 30.8
comp=Z,57nm,1.9s
FAKI Fak Fak 60.68 77 P **P** **10 49 27.7 +0.7**
comp=Z,734nmcomp=Z,13nm,2.0s
FAKI Fak Fak 60.68 77 P **P** **10 49 28.3 +1.3**
comp=Z,13nm,2.3s
SIJI Sorong 60.88 74 LR LR 11 13 23.1
comp=Z,168nm,21.8s,baz=150,slow=34
NIL Nilore 61.10 359 P **P** **10 49 28.9 -0.5**
NIL pmax pmax
comp=Z,62nm,1.8s
NIL Nilore 61.10 359 P **P** **10 49 28.9 -0.5**
VNA2 Neumayer--Watz 61.24 202 P **P** **10 49 30.3 +0.3**
comp=Z,10.0nm,0.7s,baz=92,slow=6.0
VNA2 Neumayer--Watz 61.24 202 P **P** **10 49 30.1 +0.2**
comp=Z,19nm,0.8s
CMSA Cobar Meteorol 61.34 113 P **P** **10 49 31.9 +0.6**
CMSA Cobar Meteorol 61.34 113 P **P** **10 49 32.2 +0.8**
comp=Z,21nm,1.5s
QLP Quilpie 61.62 107 P **P** **10 49 34.0 +0.7**
QLP Quilpie 61.62 107 P **P** **10 49 34.0 +0.7**
comp=Z,24nm,1.8s
VNA3 Neumayer Olymp 61.96 201 P **P** **10 49 35.3 +0.4**
comp=Z,5.2nm,0.7s
VNA3 Neumayer Olymp 61.96 201 P **P** **10 49 35.6 +0.7**
comp=Z,10nm,1.1s
QSPA South Pole Qui 62.36 180 P **P** **10 49 37.1 -0.6**
comp=Z,4.7nm,0.8s,baz=276,slow=1.9,SNR=24
QSPA LR LR 11 14 27.8
comp=Z,250nm,19.3s,baz=291,slow=34
comp=Z,4.7nm,0.8s
QSPA South Pole Qui 62.36 180 P **P** **10 49 37.2 -0.5**
QSPA South Pole Qui 62.36 180 P **P** **10 49 37.9 +0.1**
comp=Z,21nm,2.0s
VNDA Vanda 62.62 166 P **P** **10 49 38.5 -0.6**
comp=Z,2.3nm,0.9s,baz=282,slow=5.3,SNR=8.0
VNDA LR LR 11 13 20.1
comp=Z,234nm,19.1s,baz=268,slow=33
comp=Z,2.3nm,0.9s
VNDA Vanda 62.62 166 P **P** **10 49 39.5 +0.3**
VNDA pmax pmax
comp=Z,14nm,1.4s
VNDA Vanda 62.62 166 P **P** **10 49 39.5 +0.3**
VNDA IAmb IAmb 10 49 45.5
comp=Z,14nm,1.4s
VNDA Vanda 62.62 166 P **P** **10 49 39.7 +0.5**
comp=Z,8.0nm,1.8s
CD2 Chengdu 64.88 28 P **P** **10 49 54.8 +0.1**
CD2 pmax pmax
comp=Z,30nm,0.9s
CTAO Charters Tower 65.62 101 P **P** **10 50 00.3 +0.5**
CTAO Charters Tower 65.62 101 P **P** **10 49 59.0 -0.8**
CTAO pmax pmax
comp=Z,9.0nm,1.0s
CTAO Charters Tower 65.62 101 P **P** **10 49 59.0 -0.8**
CTAO Charters Tower 65.62 101 P **P** **10 50 01.1 +1.3**
comp=Z,9.2nm,1.7s
ARMA Armidale 66.54 113 P **P** **10 50 06.8 +1.1**
ARMA Armidale 66.54 113 P **P** **10 50 05.2 -0.5**
ARMA Armidale 66.54 113 P **P** **10 50 07.4 +1.7**
comp=Z,24nm,1.6s
KSH2 Kashi 66.59 1 P **P** **10 50 05.3 -0.4**
KSH2 pP pwP 10 50 11.8 -0.8
KSH2 pmax pmax
comp=Z,10.0nm,1.2s
KSH2 L L
comp=Z,200nm,13.4s
KSH2 L L
comp=Z,390nm,14.1s
KSH2 L L
comp=Z,390nm,17.5s
BELA Belgrano 2 66.85 193 P **P** **10 50 07.1 +0.3**
BELA IAmb IAmb 10 50 14.1
comp=Z,33nm,1.9s
DRK Karamyk 66.94 358 P **P** **10 50 07.6 -0.5**
DRK pmax pmax
comp=Z,62nm,0.2s
DRK Karamyk 66.94 358 P **P** **10 50 07.6 -0.5**
TABU Tabubil 67.38 84 P **P** **10 50 09.4 -1.8**
JAY Jayapura 68.23 81 LR LR 11 18 46.0
comp=Z,170nm,20.6s,baz=221,slow=35
EIL Elat 68.27 324 LR LR 11 16 37.2
comp=Z,296nm,18.9s,baz=146,slow=33
ASAI AK-SAY(Kyrgyzs 68.38 2 P **P** **10 50 17.5 +0.3**
comp=Z,10.0nm,1.1s
ARSB Arslanbob 68.76 359 P **P** **10 50 19.1 -0.2**
ARSB pmax pmax
comp=Z,16nm,0.8s
ARSB Arslanbob 68.76 359 **P** **10 50 19.1 -0.2**
ARSB IAmb IAmb 10 51 30.9
comp=Z,16nm,0.8s
WUS Wushi 68.79 4 P **P** **10 50 19.5 0.0**
EDA Edea 68.98 286 P **P** **10 50 21.1 -0.1**
EDA IAmb IAmb 10 50 22.9
comp=Z,18nm,1.2s
ASF Jabal al Asfar 69.31 327 LR LR 11 16 52.1
comp=Z,204nm,20.7s,baz=120,slow=33
LZH Lanzhou 69.45 25 *e*P **P** **10 50 22.8 -0.9**
LZH pmax pmax
comp=Z,25nm,1.1s
LZH L L
comp=Z,520nm,17.9s
LZH L L
comp=Z,660nm,16.7s
LZH L L
comp=Z,650nm,18.2s
WHN Wuhan 69.60 37 P **P** **10 50 24.8 +0.3**
IUG Iuzhnay 69.67 357 *e*P **P** **10 50 25.5 +0.7**
IUG pmax pmax
comp=Z,14nm,1.1s
IUG Iuzhnay 69.67 357 *e*P **P** **10 50 25.6 +0.7**
comp=Z,14nm,1.1s
XAN Xi'an 69.80 30 P **P** **10 50 25.8 0.0**
XAN pmax pmax
comp=Z,20nm,1.3s
CHM Chimkent 69.87 356 *e*P **P** **10 50 26.9 +1.0**
CHM Chimkent 69.87 356 *e*P **P** **10 50 26.9 +1.0**
PRZ Przheval'sk 70.03 3 P **P** **10 50 27.3 +0.1**
PRZ pmax pmax
comp=Z,31nm,1.1s
PRZ Przheval'sk 70.03 3 P **P** **10 50 27.3 +0.1**
PRZ IAmb IAmb 10 50 34.0
comp=Z,31nm,1.1s
AAK Ala-Archa 70.06 0 LR LR 11 18 17.4
comp=Z,378nm,19.6s,baz=180,slow=33
AAK Ala-Archa 70.06 0⇓ *e*P **P** **10 50 28.0 +0.6**
AAK pmax pmax
comp=Z,17nm,1.4s
AAK Ala-Archa 70.06 0 P **P** **10 50 27.2 -0.1**
AAK IAmb IAmb 10 50 30.2
comp=Z,31nm,1.6s
AAK Ala-Archa 70.06 0 P **P** **10 50 28.5 +1.1**
comp=Z,10nm,1.8s
TNSS Tian-Shan 70.51 2 *e*P **P** **10 50 30.8 +0.4**
TNSS Tian-Shan 70.51 2 *e*P **P** **10 50 30.8 +0.4**
BRLS Borolday 70.56 357 *e*P **P** **10 50 29.3 -0.9**
BRLS Borolday 70.56 357 *e*P **P** **10 50 29.4 -0.9**
SATY Saty 70.60 3 *e*P **P** **10 50 31.1 +0.5**
SATY pmax pmax
comp=Z,14nm,1.6s
SATY Saty 70.60 3 *e*P **P** **10 50 31.1 +0.5**
comp=Z,14nm,1.6s
KK31 Karatay Array 70.61 357 P **P** **10 50 30.5 0.0**
KK31 pmax pmax
comp=Z,77nm,2.0s
KK31 Karatay Array 70.61 357 P **P** **10 50 30.5 0.0**
KKAR Karatay Array 70.61 357 P **P** **10 50 30.6 +0.1**
KKAR Karatay Array 70.61 357 P **P** **10 50 30.6 +0.1**
MDOK Medeo 70.64 2 *e*P **P** **10 50 31.5 +0.6**
MDOK Medeo 70.64 2 *e*P **P** **10 50 31.6 +0.6**
AAA Alma-Ata 70.69 2 *e*P **P** **10 50 31.8 +0.8**
AAA Alma-Ata 70.69 2 *e*P **P** **10 50 31.8 +0.8**
UZB Uzynbulak 70.72 4 *e*P **P** **10 50 31.8 +0.5**
UZB pmax pmax
comp=Z,14nm,1.5s
UZB Uzynbulak 70.72 4 *e*P **P** **10 50 31.9 +0.5**
comp=Z,14nm,1.5s
MMAI Mount Meron Ar 70.73 326 LR LR 11 18 30.7
comp=Z,164nm,18.0s,baz=128,slow=33
SHLS Shalkode 70.76 4 *e*P **P** **10 50 32.5 +1.0**
SHLS Shalkode 70.76 4 *e*P **P** **10 50 32.6 +1.0**
PMG Port Moresby 70.78 91 LR LR 11 21 18.3
comp=Z,293nm,19.0s,baz=304,slow=36
PMG Port Moresby 70.78 91 P **P** **10 50 31.0 -1.2**
PMG pmax pmax
comp=Z,49nm,1.6s
PMG Port Moresby 70.78 91 P **P** **10 50 31.0 -1.2**
PDGK Podgornoye 70.93 4 P **P** **10 50 32.4 -0.2**
PDGK Podgornoye 70.93 4 **P** **10 50 32.4 -0.2**
KPKS Kokpek 71.02 4 *e*P **P** **10 50 33.7 +0.6**
KPKS Kokpek 71.02 4 *e*P **P** **10 50 33.8 +0.6**
GTA2 Gaotai 71.08 21 P **P** **10 50 34.4 +0.8**
GTA2 pP pwP 10 50 39.8 -0.7
GTA2 pmax pmax
comp=Z,12nm,1.8s
GTA2 L L
comp=Z,260nm,18.7s
GTA2 L L
comp=Z,380nm,19.4s
GTA2 L L
comp=Z,320nm,19.7s
KUU Kurty 71.35 2 *e*P **P** **10 50 35.7 +0.7**
KUU Kurty 71.35 2 *e*P **P** **10 50 35.8 +0.7**
GEVA Gevas 71.86 335 P **P** **10 50 38.2 -0.2**
GEVA IAmb IAmb 10 50 42.2
comp=Z,34nm,1.8s
WMQ Urumqi 72.34 10 *e*P **P** **10 50 42.8 +1.8**
WMQ PcP **PcP** **10 50 58.3 -0.6**
WMQ pmax pmax
comp=Z,24nm,1.3s
WMQ L L
comp=Z,270nm,24.7s
WMQ L L
comp=Z,290nm,24.1s
WMQ L L
comp=Z,230nm,24.7s
TDK Taldyqorghan 72.54 3 *e*P **P** **10 50 42.6 +0.5**
TDK pmax pmax
comp=Z,12nm,0.8s
TDK Taldyqorghan 72.54 3 *e*P **P** **10 50 42.6 +0.5**
comp=Z,12nm,0.8s
GNI Garni 72.87 337 P **P** **10 50 44.3 -0.1**
comp=Z,6.9nm,0.3s,baz=180,slow=16,SNR=6.0
GNI LR LR 11 20 16.6
comp=Z,85nm,19.3s,baz=156,slow=34
comp=Z,6.9nm,0.3s
GNI Garni 72.87 337⇑ *e*P **P** **10 50 45.4 +1.0**
GNI pmax pmax
comp=Z,32nm,1.5s
GNI Garni 72.87 337 P **P** **10 50 43.5 -0.9**
GNI Garni 72.87 337 P **P** **10 50 44.2 -0.1**
comp=Z,16nm,0.6s
NJ2 Nanjing 73.20 39 *e*P **P** **10 50 47.8 +1.5**
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
GAZ Gaziantep 73.29 330 **P** **10 50 47.3 +0.5**
GAZ IAmb IAmb 10 50 50.3
comp=Z,31nm,1.5s
KOPT Kop Dagi 74.33 334 P **P** **10 50 52.9 -0.1**
KOPT IAmb IAmb 10 50 56.1
comp=Z,18nm,1.2s
MAK Makhachkala 74.51 340 *d* iP P 10 50 48.6 -5.1
MAK *e*S **SKiKP** **11 00 20.3 +0.4**
MAK *e*SS **SS** **11 05 13.0 -2.9**
MAK *e*SSS SSS 11 08 33.3
MAK pmax pmax
comp=Z,51nm,0.5s
MAKZ Makanchi 74.58 6 P **P** **10 50 53.3 -0.8**
MAKZ Makanchi 74.58 6 P **P** **10 50 53.3 -0.8**
MAKZ Makanchi 74.58 6 P **P** **10 50 53.3 -0.8**
comp=Z,9.2nm,2.7s
MK31 Makanchi Array 74.59 6 *d* **P** **10 50 53.2 -1.0**
MKAR Makanchi Array 74.59 6 P **P** **10 50 53.2 -0.9**
comp=Z,4.4nm,0.8s,baz=189,slow=6.3,SNR=35
MKAR LR LR 11 22 00.0
comp=Z,307nm,20.7s,baz=198,slow=34
comp=Z,4.4nm,0.8s
HNS HongShan 75.23 32⇑ P **P** **10 50 59.1 +1.1**
HNS S **S** **11 00 42.3 +5.5**
HNS pmax pmax
comp=Z,14nm,1.7s
HNS L L
comp=Z,440nm,20.6s
HNS L L
comp=Z,450nm,19.1s
HNS L L
comp=Z,520nm,19.6s
JOW Kunigami 75.25 49 LR LR 11 19 26.0
comp=Z,253nm,20.4s,baz=18,slow=32
BNN Bunyan 75.28 330 P **P** **10 50 57.0 -1.4**
BNN IAmb IAmb 10 51 00.8
comp=Z,21nm,1.5s
ZSN Zaisan 75.51 8 *e*P **P** **10 50 59.8 +0.4**
ZSN Zaisan 75.51 8 *e*P **P** **10 50 59.8 +0.4**
RPZ Rata Peaks 76.06 132 LR LR 11 18 24.1
comp=Z,17nm,19.5s,baz=248,slow=31
HHC Hu-ho-hao-te 76.64 28 *e*P **P** **10 51 09.1 +3.0**
HHC pmax pmax
comp=Z,11nm,0.7s
HHC L L
comp=Z,230nm,15.1s
HHC L L
comp=Z,250nm,17.7s
HHC L L
comp=Z,230nm,16.0s
KBZ Khabaz 76.68 337 P **P** **10 51 07.1 +1.0**
comp=Z,1.4nm,0.9s,baz=231,slow=2.2,SNR=3.8
KBZ LR LR 11 22 54.7
comp=Z,147nm,19.6s,baz=146,slow=34
comp=Z,1.4nm,0.9s
KIV Kislovodsk 76.95 337 *e*P **P** **10 51 07.2 -0.6**
KIV pmax pmax
comp=Z,8.0nm,0.9s
KIV Kislovodsk 76.95 337 P **P** **10 51 08.1 +0.3**
BR104 Keskin Array S 76.97 329 P **P** **10 51 07.8 -0.2**
comp=Z,53nmcomp=Z,4.4nm,1.3s
BRTR Keskin Array B 76.98 329 P **P** **10 51 08.4 +0.3**
comp=Z,2.8nm,0.9s,baz=148,slow=5.8,SNR=12
BRTR LR LR 11 23 23.7
comp=Z,174nm,18.8s,baz=102,slow=34
comp=Z,2.8nm,0.9s
BRTR Keskin Array B 76.98 329 P **P** **10 51 08.2 0.0**
BRTR Keskin Array B 76.98 329 P **P** **10 51 08.2 0.0**
BR131 Keskin Array S 76.98 329 P **P** **10 51 08.2 0.0**
BR131 pmax pmax
comp=Z,40nm,1.9s
BR131 Keskin Array S 76.98 329 P **P** **10 51 08.2 0.0**
BR131 IAmb IAmb 10 51 09.8
comp=Z,40nm,1.9s
BR106 Keskin Array S 77.00 329 P **P** **10 51 07.9 -0.3**
comp=Z,71nmcomp=Z,6.6nm,1.2s
KRVT Keravat (AS076 77.37 88 LR LR 11 26 23.2
comp=Z,97nm,18.4s,baz=258,slow=37
AB31 Akbulak array 77.71 351 P **P** **10 51 11.6 -0.2**
ABKAR Akbulak array 77.71 351 P **P** **10 51 11.4 -0.3**
ILGA Ilgaz 78.02 330 P **P** **10 51 13.9 -0.2**
ILGA IAmb IAmb 10 51 16.5
comp=Z,38nm,1.6s
SEM Semipalatinsk 78.03 4 *e*P **P** **10 51 14.5 +0.7**
SEM Semipalatinsk 78.03 4 *e*P **P** **10 51 14.5 +0.7**
KURBB Kurchatov Arra 78.15 3 P **P** **10 51 14.0 -0.2**
comp=Z,2.9nm,0.7s,baz=193,slow=5.7,SNR=22
KURBB LR LR 11 24 06.2
comp=Z,255nm,19.7s,baz=184,slow=34
comp=Z,2.9nm,0.7s
KURK Kurchatov 78.25 3 P **P** **10 51 14.6 -0.1**
KURK pmax pmax
comp=Z,51nm,1.9s
KURK Kurchatov 78.25 3 P **P** **10 51 14.6 -0.1**
KURK IAmb IAmb 10 51 16.1
comp=Z,51nm,1.9s
KURK Kurchatov 78.25 3 P **P** **10 51 14.8 0.0**
comp=Z,11nm,1.4s
MANT Manisa 78.46 325 **P** **10 51 15.9 -0.6**
AKTO Aktyubinsk 79.15 350 P **P** **10 51 19.9 +0.2**
comp=Z,2.8nm,0.8s,baz=170,slow=5.5,SNR=4.7
AKTO LR LR 11 25 58.0
comp=Z,188nm,18.3s,baz=90,slow=35
comp=Z,2.8nm,0.8s
ANN Anapa 79.58 334 *e*P **P** **10 51 21.6 -0.6**
ANN *e*S **S** **11 01 20.6 -3.1**
ANN pmax pmax

comp=Z,20nm,0.8s
BALB Balikesir 79.67 326 P **P** **10 51 23.7 +0.9**
DL2 Dalian 79.84 36 P **P** **10 51 25.3 +1.6**
DL2 S **S** **11 01 26.9 +0.2**
DL2 pmax pmax
comp=Z,20nm,0.8s
DL2 pmax pmax
comp=Z,250nm,4.8s
DL2 L L
comp=Z,550nm,24.6s
DL2 L L
comp=Z,360nm,22.7s
DL2 L L
comp=Z,890nm,24.2s
GUMO Guam 79.93 69 LR LR 11 26 33.4
comp=Z,31nm,18.9s,baz=210,slow=36
BVAR Borovoye Array 80.52 358 P **P** **10 51 27.1 0.0**
comp=Z,3.2nm,0.9s,baz=171,slow=6.4,SNR=11
comp=Z,3.2nm,0.9s
BORK Borovoye 80.55 358 *de*P **P** **10 51 27.2 0.0**
BORK pmax pmax
comp=Z,10.0nm,1.1s
BORK Borovoye 80.55 358 P **P** **10 51 27.0 -0.2**
EZN Ezine 80.60 325 P **P** **10 51 27.6 -0.2**
comp=Z,16nm,1.5s
SONM Songino Array 80.69 21 P **P** **10 51 28.8 +0.5**
comp=Z,2.4nm,1.1s,baz=184,slow=7.6,SNR=8.7
SONM LR LR 11 25 16.2
comp=Z,181nm,21.7s,baz=198,slow=34
comp=Z,2.4nm,1.1s
SONM Songino Array 80.69 21 P **P** **10 51 28.1 -0.2**
KNGR Kungurtug, Tuv 80.76 15⇑*e*P **P** **10 51 29.3 +0.7**
KNGR pmax pmax
comp=Z,9.0nm,1.3s
ULN Ulaanbaatar 80.93 22 *ce*P **P** **10 51 30.1 +0.5**
ULN pmax pmax
comp=Z,13nm,1.7s
ULN Ulaanbaatar 80.93 22 P **P** **10 51 29.3 -0.4**
ULN Ulaanbaatar 80.93 22 P **P** **10 51 29.2 -0.4**
TORD Torodi Ar. Bea 80.97 290 P **P** **10 51 30.4 0.0**
comp=Z,1.8nm,1.0s,baz=114,slow=5.7,SNR=5.4
comp=Z,1.8nm,1.0s
JNU Nakatsue 81.10 45 LR LR 11 24 30.3
comp=Z,335nm,21.3s,baz=228,slow=34
ALN Alexandroupoli 81.54 325 P **P** **10 51 33.0 +0.2**
ALN pmax pmax
comp=Z,32nm,1.2s
ALN Alexandroupoli 81.54 325 P **P** **10 51 33.0 +0.2**
ALN IAmb IAmb 10 51 35.3
comp=Z,32nm,1.2s
ZAA0 Zalesovo Array 81.92 6 P **P** **10 51 34.0 -0.4**
ZAA0 IAmb IAmb 10 51 35.1
comp=Z,38nm,1.9s
ZALV Zalesovo Beam 81.92 6 P **P** **10 51 33.9 -0.6**
comp=Z,2.7nm,0.7s,baz=188,slow=4.5,SNR=13
ZALV LR LR 11 27 28.8
comp=Z,261nm,18.4s,baz=192,slow=35
comp=Z,2.7nm,0.7s
ZALV Zalesovo Beam 81.92 6 P **P** **10 51 33.7 -0.8**
ZAK Zakamensk 82.02 18 *e*P **P** **10 51 34.8 -0.4**
ZAK pmax pmax
comp=Z,5.0nm,1.7s
HNR Honiara 82.07 96 LR LR 11 25 33.8
comp=Z,171nm,19.9s,baz=330,slow=34
PMSA Palmer Station 82.17 197 LR LR 11 24 58.5
comp=Z,131nm,20.0s,baz=170,slow=33
KSAR Wonju Array Be 82.21 40 P **P** **10 51 36.0 -0.4**
KSAR Wonju Array Be 82.21 40 P **P** **10 51 36.0 -0.4**
KSRS Korea Array 82.24 40 P **P** **10 51 35.5 -1.1**
comp=Z,3.8nm,0.8s,baz=232,slow=5.3,SNR=15
KSRS LR LR 11 26 10.6
comp=Z,369nm,20.3s,baz=220,slow=34
comp=Z,3.8nm,0.8s
URZ Urewera 82.63 129 LR LR 11 22 25.4
comp=Z,89nm,19.5s,baz=250,slow=31
TAM Tamanrasset 83.06 300 P **P** **10 51 43.5 +2.1**
comp=Z,3.4nm,0.5s
BELG Belogornoye 83.11 344 LR LR 11 28 12.4
comp=Z,116nm,18.3s,baz=102,slow=35
BELG Belogornoye 83.11 344⇑*e*P **P** **10 51 40.4 -0.3**
BELG pmax pmax
comp=Z,3.0nm,1.0s
DBIC Dimbokro 83.34 281 LR LR 11 26 25.5
comp=Z,286nm,19.7s,baz=137,slow=34
CFR Carcaliu 83.78 329 ⇓P **P** **10 51 44.7 +0.4**
ISR Istrita 84.47 328 P **P** **10 51 47.9 -0.1**
comp=Z,27nm,1.4s
ARTI Arti 84.88 351 P **P** **10 51 49.5 -0.2**
comp=Z,3.7nm,0.8s,baz=171,slow=7.7,SNR=8.8
ARTI LR LR 11 28 51.6
comp=Z,196nm,18.9s,baz=160,slow=35
comp=Z,3.7nm,0.8s
ARTI Arti 84.88 351⇑*e*P **P** **10 51 50.3 +0.6**
ARTI pmax pmax
comp=Z,25nm,1.7s
ARTI Arti 84.88 351 P **P** **10 51 49.5 -0.2**
ARTI IAmb IAmb 10 51 57.3
comp=Z,11nm,1.0s
VRI Vrincioaia 84.95 329⇑P **P** **10 51 50.9 +0.5**
VRI Vrincioaia 84.95 329 P **P** **10 51 50.3 0.0**
comp=Z,26nm,1.6s
VRI Vrincioaia 84.95 329 P **P** **10 51 50.8 +0.5**
comp=Z,26nm,1.6s
MLR Muntele Rosu 85.03 328 P **P** **10 51 51.0 +0.1**
comp=Z,16nm,1.1s,baz=99,slow=19,SNR=11
comp=Z,16nm,1.1s
MLR Muntele Rosu 85.03 328 P **P** **10 51 51.0 +0.1**
MLR Muntele Rosu 85.03 328 P **P** **10 51 51.1 +0.3**
MLR Muntele Rosu 85.03 328⇑P **P** **10 51 51.8 +0.9**
MLR Muntele Rosu 85.03 328 P **P** **10 51 50.4 -0.5**
comp=Z,26nm,1.6s
SVE Sverdlovsk 85.03 353 *e*P **P** **10 51 51.3 +0.9**
COVR Voineasa-Covas 85.17 329⇑P **P** **10 51 51.3 -0.2**
JCJ Chichijima 85.17 56 LR LR 11 28 37.5
comp=Z,66nm,18.7s,baz=94,slow=35
BLKB Belogradchik 85.24 325⇑P **P** **10 51 52.1 +0.2**
CEL Celeste 85.29 318 P **P** **10 51 52.0 -0.3**
comp=Z,13nm,1.6s
CN2 Changchun 85.38 35 *e*P **P** **10 51 54.4 +1.9**
CN2 *e*S **S** **11 02 20.8 -2.4**
CN2 pmax pmax
comp=Z,10.0nm,0.4s
CN2 pmax pmax
comp=Z,70nm,3.6s
CN2 L L
comp=Z,100nm,4.0s
CN2 L L
comp=Z,70nm,4.0s
CN2 L L
comp=Z,110nm,6.0s
TIP Timpagrande 85.38 319 P **P** **10 51 52.9 +0.1**
TIP IAmb IAmb 10 51 55.6
comp=Z,22nm,1.6s
TIP Timpagrande 85.38 319⇑P **P** **10 51 53.6 +0.9**
TIP Timpagrande 85.38 319 P **P** **10 51 52.8 +0.1**
comp=Z,6.8nm,2.2s
VOIR 85.41 328⇑P **P** **10 51 52.8 +0.1**
VOIR 85.41 328 P **P** **10 51 52.5 -0.2**
comp=Z,13nm,1.8s
TURR Turia 85.42 329⇓P **P** **10 51 52.3 -0.4**
TESR Tescani 85.47 329 P **P** **10 51 52.9 0.0**
comp=Z,11nm,1.1s
ARR Arges 85.55 328⇑P **P** **10 51 53.3 -0.1**
BOVS Bovan 85.74 325⇓P **P** **10 51 54.2 -0.1**
SORM Soroca 85.97 331 P **P** **10 51 54.9 -0.4**
comp=Z,13nm,1.7s
PDG Podgorica 86.18 323 P **P** **10 51 56.7 +0.2**
PDG IAmb IAmb 10 51 59.3
comp=Z,40nm,1.6s
GZR Gura Zlata 86.47 327⇑P **P** **10 51 58.0 0.0**
BURAR Bucovina Array 86.95 329 P **P** **10 52 00.9 +0.6**
BURAR Bucovina Array 86.95 329⇓P **P** **10 52 01.9 +1.6**
SURR Surduc 87.04 327⇓P **P** **10 52 01.3 +0.6**
HILR Hailar Array B 87.07 28 LR LR 11 31 48.9
comp=Z,121nm,18.4s,baz=80,slow=36
KMPD K-Podol'skiy 87.11 331 P **P** **10 52 00.2 -0.7**
BZS Buzias 87.19 326⇓P **P** **10 52 02.5 +1.1**
MARR Marisel-Cluj 87.23 328⇑P **P** **10 52 02.3 +0.6**
AK07 Malin Array Si 87.49 333 P **P** **10 52 02.4 -0.3**
AK09 Malin Array Si 87.51 333 P **P** **10 52 02.5 -0.3**
AK10 Malin Array Si 87.51 333 P **P** **10 52 02.4 -0.4**
AK06 Malin Array Si 87.52 333 P **P** **10 52 02.4 -0.4**
AK08 Malin Array Si 87.53 333 P **P** **10 52 02.6 -0.3**
LUBAR Lubar, Ukraine 87.59 332 P **P** **10 52 02.5 -0.7**
AKASG Malin Array Be 87.60 333 P **P** **10 52 03.2 0.0**
comp=Z,3.9nm,0.7s,baz=142,slow=4.1,SNR=18
AKASG LR LR 11 32 55.4
comp=Z,89nm,18.0s,baz=154,slow=37
comp=Z,3.9nm,0.7s
AKBB Malin Array Si 87.60 333⇓*e*P **P** **10 52 03.0 -0.2**
AKBB Malin Array Si 87.60 333 P **P** **10 52 03.0 -0.2**
KIEV Kiev 87.60 333 P **P** **10 52 03.0 -0.2**
KIEV pmax pmax
comp=Z,19nm,1.2s
KIEV Kiev 87.60 333 P **P** **10 52 03.0 -0.2**
KIEV IAmb IAmb 10 52 05.2
comp=Z,19nm,1.2s
KIEV Kiev 87.60 333⇑P **P** **10 52 03.4 +0.2**
KIEV Kiev 87.60 333 P **P** **10 52 03.0 -0.2**
comp=Z,60nm,1.1s
SIRR Siria 87.64 327⇓P **P** **10 52 03.3 -0.3**
KEST Kesra 87.79 313 P **P** **10 52 06.0 +1.4**
comp=Z,6.5nm,0.8s,baz=226,slow=1.7,SNR=7.1
KEST LR LR 11 31 07.4
comp=Z,116nm,18.3s,baz=356,slow=36
comp=Z,6.5nm,0.8s
KEST Kesra 87.79 313 P **P** **10 52 04.8 +0.2**
MJAR Matsushiro Arr 87.93 46 P **P** **10 52 05.2 0.0**
comp=Z,3.5nm,1.1s,baz=212,slow=4.9,SNR=7.3
MJAR LR LR 11 29 44.7
comp=Z,208nm,20.3s,baz=232,slow=34
comp=Z,3.5nm,1.1s
MJAR Matsushiro Arr 87.93 46 P **P** **10 52 04.5 -0.7**
MJAR pmax pmax
comp=Z,8.0nm,1.3s
MJAR Matsushiro Arr 87.93 46 P **P** **10 52 04.5 -0.7**
MI29 MI29, Kamyanyy 87.94 332 P **P** **10 52 05.1 +0.3**
comp=Z,72nm,1.1s
KIRV Kirov 88.45 347 LR LR 11 28 37.7
comp=Z,112nm,21.8s,baz=159,slow=34
KIRV Kirov 88.45 347⇑*e*P **P** **10 52 07.6 +0.6**
OBN Obninsk 88.59 340⇓*i*P **P** **10 52 09.2 +1.4**
OBN *e* 10 55 35.0
OBN pmax pmax
comp=Z,9.0nm,0.9s
OBN MLR MLR
comp=Z,105nm,13.0s
MOS Moscow 88.80 340 *e*P **P** **10 52 10.5 +1.7**
USRK Ussuriysk Ar. 89.07 38 LR LR 11 31 47.7
comp=Z,424nm,19.2s,baz=209,slow=35
MORH Mrgy, Hungar 89.10 325⇓P **P** **10 52 10.1 -0.3**
MORH Mrgy, Hungar 89.10 325 P **P** **10 52 10.5 +0.1**
comp=Z,13nm,1.8s
KOLS Kolonicke sedl 89.25 329 *e*P **P** **10 52 14.3 +3.2**
KOLS Kolonicke sedl 89.25 329 *e*P **P** **10 52 14.3 +3.2**
RNPP5 Staryi Chortor 89.36 332 P **P** **10 52 11.5 0.0**
AQU L'Aquila 89.38 320 P **P** **10 52 11.7 -0.2**
comp=Z,7.6nm,0.8s
RNPP8 Varash 89.45 332 P **P** **10 52 11.9 -0.1**
KWP Kalwaria Pacla 89.56 329 P **P** **10 52 13.0 +0.5**
comp=Z,21nm,1.5s
NRCA Norcia 89.85 320 P **P** **10 52 13.7 -0.5**
NRCA IAmb IAmb 10 52 15.8
comp=Z,25nm,1.4s
MPLH Magyarpolny 90.31 325 P **P** **10 52 15.9 -0.2**
comp=Z,1μmcomp=Z,46nm,0.7s
VYHS Vyhne 90.56 327 *e*P **P** **10 52 18.2 +0.9**
VYHS Vyhne 90.56 327 *e*P **P** **10 52 18.2 +0.9**
MNK Minsk 91.07 335 *i* P **P** **10 52 18.6 -0.7**
MNK *i* 10 55 54.8
MNK *i* PPP PPP 10 57 52.8
MNK *i* S **SKSac** **11 02 50.2 -0.7**
MNK *i* 11 03 19.3
MNK *i* PS **PS** **11 04 26.2 -0.3**
MNK *i* SS **SS** **11 09 21.5 +0.2**
MNK *i* SSS SSS 11 12 59.0
MNK pmax pmax
comp=E,8.0nm,0.7s
MNK pmax pmax
comp=N,13nm,0.8s
MNK pmax pmax
comp=Z,5.0nm,0.7s
MNK MLR MLR
comp=Z,118nm,18.0s
MNK MLR MLR
comp=E,145nm,17.0s
MNK MLR MLR
comp=N,94nm,13.0s
MNK Minsk 91.07 335 *i* P **P** **10 52 18.7 -0.7**
comp=E,8.0nm,0.7s
MNK *i* P **P** **10 52 18.7 -0.7**
comp=N,13nm,0.8s
MNK *i* P **P** **10 52 18.7 -0.7**
comp=Z,5.0nm,0.7s,baz=140
MNK *i* PP **PP** **10 55 54.9 -1.6**
MNK *i* PPP PPP 10 57 52.9
MNK *i* S **SKSac** **11 02 50.3 -0.7**
MNK *i* PS **PS** **11 04 26.3 -0.3**
MNK *i* SS **SS** **11 09 21.5 +0.2**
MNK *i* SSS SSS 11 12 59.0
MNK *i* LQ LQ 11 27 55.2
MNK *i* LRM MLR 11 33 21.2
comp=Z,118nm,17.5s
MNK *i* LRM MLR 11 34 14.5
comp=E,145nm,16.6s
MNK *i* LRM MLR 11 34 29.2
comp=N,94nm,13.4s
OJC Ojcow 91.30 329 P **P** **10 52 20.3 -0.3**
comp=N,6.8nm,1.4s
VRAC Vranov 92.21 326 LR LR 11 32 57.9
comp=N,33nm,20.1s,baz=123,slow=35
KLR Kul'dur 92.28 34 LR LR 11 35 18.6
comp=N,134nm,18.7s,baz=226,slow=36
KLMR Klimovskoe 92.69 344 *e*P **P** **10 52 23.8 -3.0**
KLMR *e* 10 56 06.1
KLMR pmax pmax
comp=Z,28nm,1.5s
KSP Ksiaz 93.37 328 P **P** **10 52 30.1 -0.1**
KHC Kasperske Hory 93.59 325 *i* P **P** **10 52 29.1 -2.2**
KHC pmax pmax
comp=Z,16nm,4.1s
DAVOX Davos/Dischmat 94.10 322 LR LR 11 34 01.2
comp=Z,78nm,18.8s,baz=80,slow=35
VSU Vasula 94.51 337 *i* P **P** **10 52 35.4 +0.2**
VSU pmax pmax
comp=Z,18nm,1.1s
ASAJ Asahikawa 95.06 42 LR LR 11 36 20.7
comp=Z,85nm,18.5s,baz=244,slow=36
CLL Collm 95.26 327 *e*P **P** **10 52 35.0 -3.8**
MDT Midelt 95.93 304 LR LR 11 34 29.7
comp=Z,52nm,19.8s,baz=49,slow=35
ESDC Sonseca Array 98.78 310 LR LR 11 37 37.1
comp=Z,98nm,18.1s,baz=106,slow=36
YAK Yakutsk 99.96 23 LR LR 11 38 33.2
comp=Z,228nm,20.7s,baz=218,slow=36
PPT2 Papeete2 118.20 132 *e*LR LR 11 34 02.2
comp=Z,214nm,27.2s
PPT2 *e*LR LR 11 34 02.6
comp=Z,134nm,27.5s
RKT Rikitea 122.16 148 *e*LR LR 11 35 48.5
comp=Z,4μm,43.2s
ILAR Eielson Array 134.89 23 PKP **PKPdf** **10 58 33.7 +0.1**
comp=Z,0.6nm,1.0s,baz=267,slow=3.2,SNR=4.3
YKA Yellowknife Ar 144.81 7 PKP **PKPab** **10 58 49.6 -1.0**
comp=Z,2.1nm,0.8s,baz=330,slow=4.1,SNR=5.0
YKA Yellowknife Ar 144.81 7 PKIKP **PKPab** **10 58 50.3 -0.3**
YKA Yellowknife Ar 144.81 7 PKPdf **PKPab** **10 58 50.3 -0.3**
DLMT Dillon 161.67 15 PKPab **PKPab** **11 00 01.3 -0.1**
PDAR Pinedale Array 164.76 10 PKP **PKPdf** **10 59 19.2 -0.4**
comp=Z,0.4nm,0.9s,baz=314,slow=6.5,SNR=4.4
NVAR Mina Array Bea 165.18 41 PKPab **PKPab** **11 00 17.8 +0.6**
comp=Z,0.9nm,0.6s,baz=332,slow=7.8,SNR=1.2
TXAR Lajitas Array 177.46 308 PKP **PKPdf** **10 59 27.5 +1.2**
comp=Z,0.4nm,1.0s,baz=94,slow=4.1,SNR=4.3
TXAR PKPab PKPab 11 01 12.4 +0.5
comp=Z,1.9nm,1.2s,baz=64,slow=2.9,SNR=8.1

AFAD ***14*** *10:44:30.7, 37.92N×27.09E, h7km±1km, ML3.0*
ISK ***14*** *10:44:30.6, 37.94N×27.15E, h5km, ML2.9/18*
ISC 14 10:44:30.9±0.9, 37.95N±0.02×27.12E±0.03, h11km±7km,
n29,σ1s22/45, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.16**	**122**	Pg	**Pg**	**10 44 34.4**	**-0.1**
KUSD				Sg	**Sg**	**10 44 36.4**	**-0.7**
KUSD				AML	AML		
DGB	**zmir**	**0.21**	**300**	P	**Pg**	**10 44 35.5**	**+0.1**
DGB				IAML		10 44 39.0	
	comp=N,2μm,0.1s						
DGB				IAML		10 44 39.0	
	comp=E,2μm,0.1s						
DGB				S	**Sg**	**10 44 39.1**	**+0.6**
GCAM	**G?zelcaml?**	**0.26**	**159**	P	**Pg**	**10 44 35.9**	**-0.4**
GCAM				S	**Sg**	**10 44 39.7**	**-0.2**
GCAM				IAML		10 44 40.0	
	comp=N,6μm,0.2s						
GCAM				IAML		10 44 40.0	
	comp=E,3μm,0.4s						
GCAM	**G?zelcaml?**	**0.26**	**159**	Pg	**Pg**	**10 44 35.9**	**-0.4**
GCAM				Sg	**Sg**	**10 44 39.6**	**-0.3**
GCAM				AML	AML		
BEYE	**izmir**	**0.32**	**332**	P	**Pg**	**10 44 37.9**	**+0.5**
BEYE				S	**Sg**	**10 44 42.3**	**+0.6**
DUVT	**Torbali**	**0.38**	**44**	P	**Pg**	**10 44 39.0**	**+0.5**
DUVT				S	**Sg**	**10 44 44.1**	**+0.6**
BLCB	**Balcova**	**0.44**	**352**	Pg	**Pg**	**10 44 39.9**	**+0.2**
BLCB				Sg	**Sg**	**10 44 46.5**	**+0.9**
DAGE	**izmir**	**0.51**	**83**	P	**Pg**	**10 44 41.1**	**+0.2**
DAGE				S	**Sg**	**10 44 47.5**	**-0.1**
ZEYE	**Izmir, Urla-Ze**	**0.57**	**301**	P	**Pg**	**10 44 41.8**	**-0.2**
ZEYE				IAML		10 44 50.0	
	comp=N,1μm,0.3s						
ZEYE				S	**Sg**	**10 44 50.3**	**+0.8**
ZEYE				IAML		10 44 51.0	
	comp=E,875nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.61**	**90**	Pg	**Pg**	**10 44 42.6**	**-0.3**
AYDB				Sg	**Sg**	**10 44 51.0**	**0.0**
KRBN	**Karaburun**	**0.79**	**326**	Pg	**Pg**	**10 44 46.4**	**+0.3**
KRBN				Sg	**Sb**	**10 44 57.9**	**+0.6**
KRBN				AML	AML		
CAMT	**Merkez**	**0.82**	**11**	P	**Pg**	**10 44 46.8**	**0.0**
CAMT				S	**Sg**	**10 44 52.8**	**-4.7**
FOCM	**Foa**	**0.82**	**339**	Pg	**Pb**	**10 44 47.5**	**+0.2**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.83**	**171**	Pg	**Pg**	**10 44 46.9**	**0.0**
YKAV				Sg	**Sb**	**10 44 58.7**	**+0.2**
YKAV				AML	AML		
MLSB	**Milas**	**0.83**	**141**	Pg	**Pg**	**10 44 46.9**	**-0.1**
MLSB				Sg	**Sb**	**10 44 58.6**	**-0.1**
MLSB				AML	AML		
BODT	**Bodrum**	**0.89**	**170**	Pg	**Pg**	**10 44 48.3**	**+0.1**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**323**	P	**Pg**	**10 44 48.1**	**-0.3**
KARB				S	**Sg**	**10 44 54.8**	**-5.5**
NAZL	**Nazilli-Aydin**	**0.93**	**88**	Pg	**Pg**	**10 44 48.4**	**-0.5**
NAZL				Sg	**Sg**	**10 45 01.2**	**+0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**0.99**	**39**	Pg	**Pg**	**10 44 49.9**	**-0.1**
GOMA				AML	AML		
AKS	**Akhisar**	**1.08**	**30**	Pg	**Pg**	**10 44 51.3**	**-0.5**
AKS				AML	AML		
DKL	**Dikili**	**1.14**	**352**	Pn	**Pg**	**10 44 52.8**	**0.0**
DKL				AML	AML		
YER	**Yerkesik**	**1.23**	**131**	Pn	**Pb**	**10 44 53.5**	**-0.7**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.25**	**15**	Pn	**Pb**	**10 44 54.9**	**+0.3**
SOMA				AML	AML		
DAT	**Datca**	**1.27**	**163**	Pn	**Pn**	**10 44 55.1**	**+0.4**
GORD	**Gordes-Manisa**	**1.27**	**41**	Pn	**Pg**	**10 44 55.3**	**-0.1**
GORD				AML	AML		
TURN	**Turunc**	**1.47**	**142**	Pn	**Pn**	**10 44 57.9**	**+0.5**
TURN				AML	AML		
DALY	**Dalyan (Mula)**	**1.66**	**132**	Pn	**Pb**	**10 45 01.1**	**-0.5**
DALY				AML	AML		
APMY	**Acipayam-Deniz**	**1.80**	**105**	Pn	**Pn**	**10 45 02.9**	**+0.9**
APMY				AML	AML		
ARG	**Arkhangelos**	**1.91**	**155**	Pn	**Pn**	**10 45 04.5**	**+1.1**
ARG				AML	AML		

IDC ***14*** *10:55:59.4±2.9, 6.66N×126.20E, h0km, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=287.8km s-min=24.7km az=66.0*
MAN ***14*** *10:56:01.0, 6.53N×125.23E, h2km, MS3.9*
ISC 14 10:56:01.0±1.4, 6.61N±0.04×125.46E±0.05, h1km±11km,
n12,σ1s81/19, mb3.6/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DAV	**Davao City (W)**	**0.47**	**15**	P	**Pn**	**10 56 14.0**	**-0.9**
DMPH	**Davao City--Mi**	**0.47**	**6**	*e*P	**Pb**	**10 56 12.8**	**+0.6**
DMPH				*i* S	**Sb**	**10 56 21.9**	**+2.2**
KCP	**Kidapawan**	**0.54**	**318**	*e*P	**Pg**	**10 56 11.2**	**-0.2**
KCP				*i* S	**Sg**	**10 56 19.9**	**+1.6**
DDMP	**Don Marcelino,**	**0.56**	**153**	*e*P	**Pg**	**10 56 13.9**	**+2.1**
DDMP				*e*S	**Sb**	**10 56 23.6**	**+1.5**
GSPH	**General Santos**	**0.72**	**224**	*i* P	**Pg**	**10 56 12.9**	**-2.0**
GSPH				*i* S	**Sn**	**10 56 32.4**	**+2.2**
BIPH	**Bislig**	**1.80**	**30**	*e*P	**Pb**	**10 56 33.5**	**-1.3**
BIPH				*e*S	**Sg**	**10 56 57.8**	**-1.2**
CGP	**Cagayan de Oro**	**1.98**	**338**	*e*P	**Pb**	**10 56 37.8**	**-0.1**
CGP				*i* S	**Sb**	**10 57 03.5**	**+0.4**
DCPH	**Dipolog City**	**2.86**	**313**	*i* P	**Pb**	**10 56 53.1**	**+0.2**
DCPH				*i* S	**Sb**	**10 57 30.1**	**+1.6**
WRA	**Warramunga Arr**	**27.80**	**162**	P	**P**	**11 01 49.5**	**-2.3**
	0.4nm,0.5s,baz=344,slow=9.2,SNR=2.2						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**31.20**	**165**	P	**P**	**11 02 18.7**	**-3.2**
	0.2nm,0.5s,baz=343,slow=9.0,SNR=3.2						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**54.48**	**325**	P	**P**	**11 05 31.2**	**+1.0**
	0.7nm,0.8s,baz=125,slow=6.4,SNR=4.1						
	0.7nm,0.8s						
KURBB	**Kurchatov Arra**	**58.65**	**327**	P	**P**	**11 06 01.4**	**+1.6**
	0.6nm,0.7s,baz=125,slow=5.9,SNR=4.2						
	0.6nm,0.7s						

BGR ***14*** *11:11:53.5, 18.65N×177.83W, h33km*
NOU ***14*** *11:12:55.4, 17.75S×178.34W, h572km, mb4.8/84, Fiji Islands Region*
NEIC ***14*** *11:12:55.2±1.4, 17.70S±0.07×178.4W±0.1, h561km±6km, mb4.6/121, Error ellipse: s-maj=15.2km s-min=10.2km az=101.0*
IDC ***14*** *11:12:55.3±0.7, 17.78S×178.31W, h568km±7km, mb3.9/20, mbtmp4.7/23, Error ellipse: s-maj=10.8km s-min=10.5km az=155.0*
GFZ ***14*** *11:12:55.6±0.4, 18°S±6°×17°8W±°, h578km±5km, M4.8/22, mb4.9/22*
ISC 14 11:12:55.1±0.4, 17.79S±0.06×178.30W±0.05,
h573km±4km**, h575**km**; pP-P, n470,σ0s88/459, mb4.7/137,**
65C-13D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LKBA	**Tubou, Lakemba**	**0.66**	**228**	P	**P**	**11 14 02.9**	**-0.1**
LKBA	**Tubou, Lakemba**	**0.66**	**228**	S	**S**	**11 14 58.5**	**+0.3**
TAVE	**Taveuni**	**1.87**	**305**	P	**P**	**11 14 06.4**	**0.0**
TAVE	**Taveuni**	**1.87**	**305**	S	**S**	**11 15 05.6**	**+1.3**
DGTI	**Dogotuki**	**2.39**	**308**	P	**P**	**11 14 07.8**	**-1.0**
DGTI	**Dogotuki**	**2.39**	**308**	S	**S**	**11 15 09.8**	**+1.2**
FUTU	**Fugatoga**	**3.46**	**3**	P	**P**	**11 14 15.0**	**0.0**
FUTU	**Fugatoga**	**3.46**	**3**	S	**S**	**11 15 20.0**	**+0.1**
FUTU	**Fugatoga**	**3.46**	**3**		**P**	**11 14 14.6**	**-0.4**
FUTU	**Fugatoga**	**3.46**	**3**	P	**P**	**11 14 14.8**	**-0.2**
MSVF	**Nonsavu**	**3.48**	**270**	P	**P**	**11 14 15.9**	**+0.8**
	817nm,0.9s,baz=89,slow=3.8,SNR=367						
MSVF				S	**S**	**11 15 21.7**	**+1.4**
	26nm,0.7s,baz=282,slow=23,SNR=10						
MSVF	**Nonsavu**	**3.48**	**270**	P	**P**	**11 14 15.3**	**+0.2**
MSVF	**Nonsavu**	**3.48**	**270**	P	**P**	**11 14 13.7**	**-1.5**
MSVF	**Nonsavu**	**3.48**	**270**	P	**P**	**11 14 16.0**	**+0.8**
NIUE	**Niue**	**8.05**	**100**	P	**P**	**11 14 50.9**	**-3.1**
FUNA	**Funafuti**	**9.52**	**345**	P	**P**	**11 15 09.2**	**+0.5**
FUNA	**Funafuti**	**9.52**	**345**		**P**	**11 15 06.8**	**-1.8**
MARNC	**Mare, Loyalty**	**13.39**	**252**	P	**P**	**11 15 46.2**	**-1.9**
SANVU	**Saraoutou**	**14.09**	**277**	P	**P**	**11 15 54.4**	**-0.8**
PINNC	**Pines Island,**	**14.21**	**248**		**P**	**11 15 55.3**	**-1.0**
OUENC	**Ouen Island, N**	**14.70**	**249**	P	**P**	**11 16 00.7**	**-0.4**
DZM	**Mont Dzumac**	**14.96**	**251**	P	**P**	**11 16 02.2**	**-1.6**
	9.0nm,0.6s,baz=91,slow=20,SNR=11						
NOUC	**Port Laguerre**	**15.10**	**251**	P	**P**	**11 16 04.9**	**-0.1**
NOUC	**Port Laguerre**	**15.10**	**251**	S	**S**	**11 18 40.8**	**0.0**
RAR	**Rarotonga**	**17.80**	**104**	P	**P**	**11 16 28.8**	**-1.2**
	41nm,0.8s,baz=269,slow=7.1,SNR=8.3						
RAR	**Rarotonga**	**17.80**	**104**	P	**P**	**11 16 30.7**	**+0.6**
RAR	**Rarotonga**	**17.80**	**104**	S	**S**	**11 19 26.3**	**+1.3**
RAR	**Rarotonga**	**17.80**	**104**		**P**	**11 16 30.9**	**+0.8**
OUZ	**Omahuta**	**18.80**	**201**	P	**P**	**11 16 42.1**	**+3.1**
	comp=Z,28nm,0.9s						

URZ Urewera 20.79 190 P P 11 16 55.7 -1.3
comp=Z,6.0nm,0.6s,baz=43,slow=1.7,SNR=5.7
comp=Z,6.0nm,0.6s
TARA Tarawa 20.89 335 P P 11 16 57.8 -0.5
TARA Tarawa 20.89 335 S S 11 20 14.2 -0.5
TARA Tarawa 20.89 335 P P 11 16 57.7 -0.5
comp=Z,102nm,1.1s
HNR Honiara 22.70 289 P P 11 17 13.5 -0.9
comp=Z,23nm,0.6s,baz=117,slow=6.8,SNR=1.8
comp=Z,23nm,0.6s
TATA Tatamba Isabel 23.26 291 P P 11 17 19.1 -0.3
TATA Tatamba Isabel 23.26 291 S S 11 20 51.5 -0.5
QRZ Quartz Range 24.28 197 P P 11 17 29.3 +1.2
OXZ Oxford 26.75 196 P P 11 17 49.0 -0.9
PAE Paea 27.35 94 eP P 11 17 55.5 +0.1
comp=Z,188nm,1.2s
PPT2 Papeete2 27.36 94 eP P 11 17 56.0 +0.4
comp=Z,84nm,1.3s
PPT2 esS sS 11 24 43.8 -3.7
comp=Z,299nm,26.8s
PPT Papeete 27.36 94 P P 11 17 55.7 +0.1
comp=Z,61nm,0.8s,baz=32,slow=3.1,SNR=8.8
comp=Z,61nm,0.8s
PPTF Pamatai, Papee 27.37 94 P P 11 17 56.3 +0.6
PPTF Pamatai, Papee 27.37 94 P 11 17 56.5 +0.8
PPTF Pamatai, Papee 27.37 94 P P 11 17 55.8 +0.1
comp=Z,88nm,0.9s
TBI Tubuai 27.54 106 esS sS 11 24 43.5 -6.6
comp=Z,491nm,22.5s
TIAR Tiarei 27.58 94 eP P 11 17 57.8 +0.3
comp=Z,478nm,0.8s
TVO Taravao 27.65 94 eP P 11 17 58.2 0.0
comp=Z,79nm,0.8s
TW1H Toowoomba 1 Ha 29.04 245 P P 11 18 10.4 +0.3
PMOR Pomariorio Ree 29.29 89 eP P 11 18 12.4 +0.1
comp=Z,161nm,1.2s
EIDS Eidsvold 29.41 250 P P 11 18 13.0 -0.2
EIDS Eidsvold 29.41 250 P 11 18 13.1 -0.2
EIDS IAmb IAmb 11 18 13.9
comp=Z,26nm,0.9s
EIDS Eidsvold 29.41 250 P P 11 18 13.1 -0.2
comp=Z,31nm,1.0s
VAH Vaihoa 29.50 90 eP P 11 18 13.8 -0.3
comp=Z,36nm,0.8s
ARMA Armidale 30.09 240 P P 11 18 19.6 +0.4
ARMA Armidale 30.09 240 P 11 18 19.6 +0.4
ARMA Armidale 30.09 240 P P 11 18 20.2 +0.9
comp=Z,39nm,0.9s
AUPHS Peel High Scho 30.91 239 P P 11 18 26.6 +0.5
SYDH Sydney Hard Ro 31.94 234 P P 11 18 35.4 +0.6
AULRC Lightning Ridg 32.88 243 P P 11 18 42.4 -0.5
AUDCS Dubbo College 33.09 238 P P 11 18 45.2 +0.6
CTA Charters Tower 33.57 260 P P 11 18 48.3 -0.5
CTAO Charters Tower 33.57 260 P P 11 18 48.3 -0.5
CTAO Charters Tower 33.57 260 P 11 18 48.5 -0.3
CTAO IAmb IAmb 11 18 49.6
comp=Z,25nm,1.1s
CTAO Charters Tower 33.57 260 P P 11 18 48.7 -0.1
comp=Z,28nm,1.1s
AUDAR Daramalan Coll 33.73 232 P P 11 18 50.3 +0.4
AUMTS Mt Stromlo 33.86 232 P P 11 18 51.5 +0.4
CAN Canberra 33.86 232 P P 11 18 51.4 +0.3
CAN Canberra 33.86 232 P 11 18 51.4 +0.3
CAN Canberra 33.86 232 P P 11 18 51.9 +0.8
comp=Z,45nm,1.0s
PMG Port Moresby 34.54 279 P P 11 18 57.6 +0.6
PMG Port Moresby 34.54 279 P 11 18 57.6 +0.6
PMG Port Moresby 34.54 279 P P 11 18 56.5 -0.5
comp=Z,1µmcomp=Z,158nm,1.0s
PMG Port Moresby 34.54 279 P P 11 18 58.4 +1.4
comp=Z,162nm,1.0s
AUSMG Snowy Mountain 34.58 231 P P 11 18 57.5 +0.4
CMSA Cobar Meteorol 35.30 240 P P 11 19 02.7 -0.4
CMSA Cobar Meteorol 35.30 240 P P 11 19 03.1 +0.1
comp=Z,57nm,0.9s
MTSU Mount Surprise 35.52 264 P P 11 19 04.4 -0.7
MTSU Mount Surprise 35.52 264 P P 11 19 04.9 -0.2
comp=Z,15nm,1.0s
QLP Quilpie 35.67 249 P P 11 19 05.7 -0.5
QLP Quilpie 35.67 249 P P 11 19 05.8 -0.4
comp=Z,81nm,1.0s
MANU Manus Island 37.15 291 P P 11 19 19.5 +1.0
MANU IAmb IAmb 11 19 20.4
comp=Z,28nm,0.9s
COEN Coen 37.21 270 P P 11 19 19.5 +0.5
COEN Coen 37.21 270 P P 11 19 19.7 +0.7
comp=Z,61nm,1.0s
TAU Tasmania Unive 38.40 222 P P 11 19 28.9 +0.7
TAU IAmb IAmb 11 19 29.2
comp=Z,24nm,1.0s
BRAT Ballarat 38.48 231 P P 11 19 29.5 +0.6
AUMTC Mt Clear Colle 38.54 231 P P 11 19 30.6 +1.2
STKA Stephens Creek 38.78 241 P P 11 19 31.9 +0.4
comp=Z,51nm,0.9s,baz=89,slow=8.8,SNR=73
comp=Z,51nm,0.9s
STKA Stephens Creek 38.78 241 P P 11 19 32.0 +0.4
STKA Stephens Creek 38.78 241 P 11 19 32.1 +0.5
STKA Stephens Creek 38.78 241 P P 11 19 32.0 +0.5
comp=Z,335nm,1.1s
INKA Innaminka 38.89 248 P 11 19 33.0 +0.6
INKA IAmb IAmb 11 19 34.5
comp=Z,30nm,1.1s
QIS Mount Isa 39.78 259 P P 11 19 39.8 +0.1
QIS Mount Isa 39.78 259 P P 11 19 39.4 -0.3
comp=Z,13nm,1.7s
HTT Hallett 41.30 239 P P 11 19 52.2 +0.6
AUMBR Murray Bridge 41.37 237 P P 11 19 52.5 +0.4
AUMAR Marden Senior 41.83 237 P P 11 19 56.4 +0.7
JAY Jayapura 42.97 286 P P 11 20 04.3 -0.7
comp=Z,78nm,1.1s
GENI Genyem 43.43 286 P P 11 20 09.3 +0.8
GENI Genyem 43.43 286 P P 11 20 08.4 -0.1
comp=Z,2µmcomp=Z,154nm,1.1s
GENI Genyem 43.43 286 P P 11 20 09.7 +1.2
comp=Z,154nm,1.1s
BBOO Buckleboo 43.56 241 P P 11 20 09.2 -0.1
BBOO Buckleboo 43.56 241 P P 11 20 09.1 -0.2
BBOO Buckleboo 43.56 241 P P 11 20 09.4 +0.1
comp=Z,76nm,1.0s
AUCAS Cummins Area S 44.07 239 P P 11 20 13.8 +0.7
WR8 Warramunga Arr 44.60 259 P 11 20 16.5 -1.1
WR8 IAmb IAmb 11 20 17.9
comp=Z,27nm,1.0s
WB0 Warramunga Arr 44.72 260 P 11 20 17.6 -0.8
WRAB Tennant Creek 44.75 259 P P 11 20 17.7 -0.9
WRAB Tennant Creek 44.75 259 P P 11 20 18.3 -0.3
WRAB Tennant Creek 44.75 259 P P 11 20 18.1 -0.6
comp=Z,49nm,1.2s
WRA Warramunga Arr 44.76 259 P P 11 20 17.9 -0.8
comp=Z,20nm,0.8s,baz=93,slow=7.4,SNR=13
WRA PcP PcP 11 21 47.4 -1.1
comp=Z,7.7nm,1.2s,baz=91,slow=3.7,SNR=7.2
WRA ScP ScP 11 24 47.7 +1.1
comp=Z,3.1nm,0.9s,baz=91,slow=4.0,SNR=7.8
WRA S S 11 26 10.5 -4.3
comp=Z,0.5nm,0.8s,baz=94,slow=12,SNR=4.9
comp=Z,20nm,0.8s
WRA Warramunga Arr 44.76 259 P P 11 20 17.7 -1.0
AS01 Alice Springs 44.88 254 P P 11 20 18.9 -0.7
AS31 Alice Springs 44.92 254 P 11 20 19.6 -0.3
ASAR Alice Springs 44.92 254 P P 11 20 19.4 -0.5
comp=Z,125nm,0.8s,baz=88,slow=8.4,SNR=1143
ASAR PcP PcP 11 21 49.1 +0.1
comp=Z,8.1nm,0.7s,baz=97,slow=4.3,SNR=8.3
ASAR ScP ScP 11 24 48.6 +1.4
comp=Z,2.3nm,0.9s,baz=88,slow=4.0,SNR=6.1
ASAR S S 11 26 14.1 -3.1
comp=Z,3.2nm,1.0s,baz=87,slow=16,SNR=16
ASAR Alice Springs 44.92 254 P 11 20 19.8 -0.2
ASAR PcP PcP 11 21 49.4 +0.4
AUALC St Philip's Co 44.94 254 P P 11 20 19.8 -0.3
SMPI Sarmi 45.01 286 P P 11 20 21.4 +0.7
comp=Z,956nmcomp=Z,65nm,0.9s
BAKI Biak 47.71 285 P P 11 20 41.3 +0.2
comp=Z,88nm,1.0s
MTN Manton Dam 48.91 268 P 11 20 49.4 -0.6
MTN IAmb IAmb 11 20 50.2
comp=Z,15nm,0.8s
MWPI Manokwari, Pap 49.72 284 P P 11 20 56.0 +0.1
comp=Z,86nm,1.0s
FORT Forrest 50.15 245 P 11 20 58.5 -0.4
FORT IAmb IAmb 11 20 59.2
comp=Z,23nm,0.8s
KNRA Kununurra 50.60 264 P 11 21 01.9 -0.5
KNRA IAmb IAmb 11 21 02.9
comp=Z,23nm,0.9s
FAKI Fak Fak 50.66 281 P P 11 21 02.6 -0.2
FAKI Fak Fak 50.66 281 P 11 21 02.1 -0.7
FAKI IAmb IAmb 11 21 04.4
comp=Z,31nm,1.2s
FAKI Fak Fak 50.66 281 P P 11 21 01.0 -1.8
FAKI Fak Fak 50.66 281 P P 11 21 02.9 +0.1
comp=Z,25nm,1.5s
FITZ Fitzroy Crossi 53.15 260 P P 11 21 20.8 +0.2
FITZ Fitzroy Crossi 53.15 260 P 11 21 20.4 -0.2
FITZ Fitzroy Crossi 53.15 260 P P 11 21 20.8 +0.2
comp=Z,4.1nm,2.6s
NLAI Namlea 55.38 279 P P 11 21 35.5 -0.8
comp=Z,80nm,1.1s
SOEI Soe 56.17 270 P P 11 21 43.1 +1.1
SOEI Soe 56.17 270 P 11 21 42.9 +1.0
SOEI Soe 56.17 270 P P 11 21 41.5 -0.5
comp=Z,1µmcomp=Z,140nm,1.1s
SOEI Soe 56.17 270 P P 11 21 43.2 +1.3
comp=Z,142nm,1.0s
TNTI Ternate 56.53 283 P P 11 21 44.6 +0.3
TNTI Ternate 56.53 283 P 11 21 44.5 +0.2
TNTI Ternate 56.53 283 P P 11 21 43.6 -0.7
comp=Z,81nm,1.0s
TNTI Ternate 56.53 283 P P 11 21 45.0 +0.7
comp=Z,82nm,1.0s
SANI Sanana 56.82 279 P P 11 21 46.0 -0.3
SANI Sanana 56.82 279 P P 11 21 45.0 -1.3
comp=Z,641nmcomp=Z,71nm,1.2s
SANI Sanana 56.82 279 P P 11 21 46.1 -0.2
comp=Z,72nm,1.1s
MBWA Marble Bar 58.20 256 P P 11 21 55.5 0.0
MBWA Marble Bar 58.20 256 P P 11 21 54.9 -0.7
MBWA IAmb IAmb 11 21 56.1
comp=Z,60nm,1.2s
MBWA Marble Bar 58.20 256 P P 11 21 55.2 -0.3
comp=Z,46nm,1.1s
MEEK Meekatharra 58.57 249 P P 11 21 57.4 -0.6
AUKUL Kulin High Sch 58.60 242 P P 11 21 57.8 -0.2
EDFI Ende, Flores 58.89 270 P P 11 21 58.9 -1.5
comp=Z,57nm,0.9s
KLBR Kellerberrin 58.98 243 P P 11 22 00.0 -0.6
KLBR Kellerberrin 58.98 243 P P 11 22 00.1 -0.4
comp=Z,117nm,0.8s
NWAO Narrogin (SRO) 59.36 242 P P 11 22 03.1 0.0
NWAO IAmb IAmb 11 22 03.9
comp=Z,25nm,0.9s
KMSI Cibinong 59.62 281 P P 11 22 04.6 -0.5
LUWI Luwuk 60.19 279 P P 11 22 09.8 +0.9
LUWI Luwuk 60.19 279 P P 11 22 10.0 +1.1
comp=Z,107nm,1.1s
SBA Scott Base 60.55 184 P P 11 22 12.8 +2.7
VNDA Vanda 60.58 185 P P 11 22 12.0 +1.7
comp=Z,1.7nm,0.7s,baz=356,slow=7.1,SNR=21
comp=Z,1.7nm,0.7s
VNDA Vanda 60.58 185 P P 11 22 12.1 +1.7
MORW Morawa 60.62 246 P P 11 22 10.9 -0.7
MORW IAmb IAmb 11 22 12.1
comp=Z,14nm,0.8s
LBFI Labuhan Bajo, 60.68 270 P P 11 22 10.4 -1.7
APSI Ampana 61.29 279 P P 11 22 16.1 0.0
comp=Z,1µmcomp=Z,77nm,1.2s
DBNI Kabupaten Domp 62.18 270 P P 11 22 20.0 -1.9
PLAI Plampang 62.60 269 P P 11 22 24.4 -0.2
PLAI Plampang 62.60 269 P P 11 22 23.6 -1.0
comp=Z,822nmcomp=Z,102nm,0.9s
PLAI Plampang 62.60 269 P P 11 22 24.7 +0.1
comp=Z,102nm,1.1s
TOLI2 Tolitoli 62.80 281 P P 11 22 26.3 +0.5
TOLI2 Tolitoli 62.80 281 P 11 22 26.4 +0.5
TOLI2 IAmb IAmb 11 22 30.1
comp=Z,21nm,0.8s
TOLI2 Tolitoli 62.80 281 P P 11 22 26.1 +0.2
comp=Z,32nm,0.9s
TWSI Taliwang, Sumb 63.48 269 P P 11 22 29.1 -1.1
comp=Z,1µmcomp=Z,110nm,0.9s
JAGI Jajag, Banyuwa 66.15 268 P P 11 22 47.5 +0.5
JAGI Jajag, Banyuwa 66.15 268 P 11 22 45.8 -1.3
JAGI Jajag, Banyuwa 66.15 268 P P 11 22 43.5 -3.6
comp=Z,86nm,1.0s
CASY Casey 66.29 205 P P 11 22 47.9 +1.0
CASY IAmb IAmb 11 22 48.6
comp=Z,22nm,1.1s
BBKI Banjar Baru 66.92 274 P P 11 22 50.2 -1.6
JGF Kuroka 67.71 322 P P 11 22 56.6 +0.4
JGF IAmb IAmb 11 22 56.9
comp=Z,8.7nm,0.7s
MJAR Matsushiro Arr 67.87 323 P P 11 22 57.0 -0.2
comp=Z,15nm,0.9s,baz=158,slow=6.2,SNR=42
comp=Z,15nm,0.9s
MJAR Matsushiro Arr 67.87 323 P P 11 22 57.3 +0.1
MAJO Matsushiro 67.87 323 P P 11 22 57.4 +0.2
MAJO Matsushiro 67.87 323 P P 11 22 56.5 -0.7
MAJO IAmb IAmb 11 22 57.9
comp=Z,20nm,0.9s
MJB9 Matsu-Tunnel 67.88 323 IAmb IAmb 11 22 58.9
comp=Z,20nm,1.0s
SNJI Sawahan-Nganju 68.61 268 P P 11 23 02.1 -0.2
comp=Z,60nm,1.2s
KKM Kota Kinabalu 68.81 284 P P 11 23 03.4 0.0
KKM IAmb IAmb 11 23 04.6
comp=Z,19nm,0.8s
ADK Adak 69.38 1 P P 11 23 05.9 0.0
UGM Wanagama 69.75 268 P P 11 23 08.9 -0.1
STKI Sintang 71.21 276 P P 11 23 17.5 -0.1
comp=Z,77nm,1.0s
QSPA South Pole Qui 72.27 180 P P 11 23 24.2 +1.3
comp=Z,9.4nm,0.7s,baz=11,slow=0.4,SNR=71
comp=Z,9.4nm,0.7s
QSPA South Pole Qui 72.27 180 P P 11 23 24.0 +1.1
QSPA IAmb IAmb 11 23 25.1
comp=Z,10nm,0.8s
TPUB Ta-pu 72.28 302 P P 11 23 22.9 -0.6
BBJI Bungbulang 72.61 268 P P 11 23 25.2 -0.6
PETK Petropavlovsk- 73.59 345 P P 11 23 30.4 +0.1
comp=Z,15nm,0.8s,baz=106,slow=5.5,SNR=14
comp=Z,15nm,0.8s
PETK Petropavlovsk- 73.59 345 P P 11 23 29.9 -0.4
KSRS Korea Array 74.68 318 P P 11 23 38.1 +1.3
comp=Z,4.0nm,0.6s,baz=135,slow=6.6,SNR=22
comp=Z,4.0nm,0.6s
KSAR Wonju Array Be 74.70 318 P P 11 23 36.8 -0.1
USRK Ussuriysk Ar. 76.57 326 P P 11 23 48.1 +0.9
comp=Z,3.2nm,0.6s,baz=174,slow=5.7,SNR=8.8
comp=Z,3.2nm,0.6s
USRK Ussuriysk Ar. 76.57 326 P 11 23 46.9 -0.3
MDSI Maura Dua 76.77 269 P P 11 23 47.1 -1.9
comp=Z,19nm,1.1s
NJ2 Nanjing 77.94 309 eP P 11 23 56.3 +1.5
NJ2 pmax pmax
comp=Z,17nm,0.5s
MDJ Mudanjiang 78.15 325 P P 11 23 56.5 +0.8
MDJ Mudanjiang 78.15 325 P P 11 23 57.3 +1.6
MDJ pmax pmax
comp=Z,40nm,0.9s
MDJ Mudanjiang 78.15 325 IAmb IAmb 11 23 57.9
comp=Z,25nm,0.8s
BTDF Bukit Timah Da 78.93 275 P P 11 24 01.1 +0.6
BTDF Bukit Timah Da 78.93 275 P P 11 23 58.5 -2.0
comp=Z,28nm,0.9s
NVAR Mina Array Bea 79.26 44 P P 11 24 03.5 +1.4
comp=Z,1.4nm,0.7s,baz=225,slow=8.4,SNR=8.9
comp=Z,1.4nm,0.7s
BNX BinXian 80.06 325 ⇓P P 11 24 05.8 +0.1
BNX sP sP 11 27 06.4 +2.3
BNX pmax pmax
comp=Z,35nm,0.9s
M16K Timber Creek 80.06 9 IAmb IAmb 11 24 07.5
comp=Z,21nm,0.9s
O19K Port Alsworth 80.10 12 IAmb IAmb 11 24 06.1
comp=Z,38nm,0.8s
ILSW Iliamna Southw 80.14 13 IAmb IAmb 11 24 06.3
comp=Z,25nm,0.8s
WHN Wuhan 80.62 306 ⇑P P 11 24 10.8 +1.8
M17K Holitna River 80.66 10 IAmb IAmb 11 24 10.7
comp=Z,30nm,0.9s
SLKM Skilak Lake 81.25 14 IAmb IAmb 11 24 12.7
comp=Z,33nm,1.0s
TUC Tucson 81.54 52 P P 11 24 13.6 -0.3
L18K Granite Mounta 81.56 10 IAmb IAmb 11 24 14.9
comp=Z,34nm,1.3s
LCMT Little Creek M 81.97 47 P P 11 24 17.1 +1.1
SUA Susitna One 81.99 13 IAmb IAmb 11 24 15.8
comp=Z,16nm,0.7s
BELA Belgrano 2 82.27 173 IAmb IAmb 11 24 17.9
comp=Z,11nm,0.7s
U15A North Rim 82.36 48 P P 11 24 20.4 +2.3
M22K Willow 82.38 13 IAmb IAmb 11 24 18.2
comp=Z,28nm,0.9s
IPM Ipoh 82.51 277 P P 11 24 19.8 +0.7
IPM Ipoh 82.51 277 P P 11 24 18.3 -0.8
comp=Z,46nm,1.0s
GHO Glory Hole Cre 82.66 14 IAmb IAmb 11 24 19.4
comp=Z,24nm,0.7s
J18K Innoko River 82.72 10 IAmb IAmb 11 24 20.2
comp=Z,16nm,0.8s
HEH HeiHe 82.86 328 eP P 11 24 20.5 +0.6
HEH pmax pmax
comp=Z,17nm,1.4s
K20K Telida 83.06 11 IAmb IAmb 11 24 21.6
comp=Z,17nm,0.8s
SCM Sheep Creek Mo 83.08 14 IAmb IAmb 11 24 21.3
comp=Z,19nm,0.7s
CAST Castle Rocks 83.49 12 IAmb IAmb 11 24 22.7
comp=Z,18nm,0.8s
HNS HongShan 83.51 312 ⇑P P 11 24 24.8 +1.3
HNS pmax pmax
comp=Z,15nm,1.4s
BJI2 Beijing 83.76 315 P P 11 24 25.8 +1.1
BJI2 pmax pmax
comp=Z,12nm,1.1s
BJT Baijiatuau 83.77 315 P P 11 24 25.6 +0.9
KTH Kantishna Hill 83.83 12 IAmb IAmb 11 24 25.5
comp=Z,13nm,0.9s
TRF Thorofare Moun 83.87 12 IAmb IAmb 11 24 24.9
comp=Z,24nm,0.8s
PSI Prapat 83.98 275 P P 11 24 26.4 -0.1
PSI Prapat 83.98 275 P P 11 24 25.2 -1.3
comp=Z,35nm,1.1s
ENH Enshi 84.29 304 P P 11 24 28.4 +0.8
MCK McKinley 84.40 13 IAmb IAmb 11 24 27.7
comp=Z,17nm,1.0s
M26K Nabesna, AK 84.64 16 IAmb IAmb 11 24 30.2
comp=Z,19nm,1.1s
M27K Edge Creek, AK 84.89 16 IAmb IAmb 11 24 31.3
comp=Z,16nm,1.1s
S34M Telegraph Cree 84.89 23 IAmb IAmb 11 24 31.8
comp=Z,12nm,0.8s
WRH Wood River Hil 85.23 13 IAmb IAmb 11 24 32.3
comp=Z,14nm,0.9s
RIDG Independent Ri 85.31 14 IAmb IAmb 11 24 32.5
comp=Z,7.2nm,0.8s
VHRN Van Horn 85.36 56 P 11 24 35.1 +2.2
HDA Harding Lake 85.42 13 IAmb IAmb 11 24 32.5
comp=Z,8.6nm,0.8s
DOT Dot Lake 85.42 15 IAmb IAmb 11 24 33.0
comp=Z,8.3nm,0.8s
CCB Clear Creek Bu 85.44 13 IAmb IAmb 11 24 32.2
comp=Z,17nm,1.1s
COLA College 85.63 13 P P 11 24 32.5 -0.6
COLA College 85.63 13 P P 11 24 32.7 -0.5
COLA IAmb IAmb 11 24 33.2
comp=Z,8.8nm,0.7s
XLT XiLinHaoTe 85.72 319 eP P 11 24 35.3 +1.0
XLT pmax pmax
comp=Z,21nm,0.8s
IL31 85.74 13 IAmb IAmb 11 24 33.9
comp=Z,6.5nm,0.7s
ILAR Eielson Array 85.74 13 P P 11 24 33.1 -0.6
comp=Z,2.7nm,0.4s,baz=223,slow=5.3,SNR=78
ILAR pP pP 11 26 38.4 +1.6
comp=Z,3.5nm,1.2s,baz=211,slow=6.3,SNR=6.2
comp=Z,2.7nm,0.4s
ILAR Eielson Array 85.74 13 P 11 24 32.6 -1.1
TXAR Lajitas Array 85.84 58 P P 11 24 37.6 +2.4
comp=Z,2.6nm,0.7s,baz=219,slow=6.2,SNR=41
TXAR pP pP 11 26 38.7 +1.0
comp=Z,0.7nm,1.0s,baz=278,slow=2.3,SNR=3.7
comp=Z,2.6nm,0.7s
H22K Ishtalitna Cre 85.86 11 P P 11 24 34.5 +0.2
G21K Allakaket 86.07 10 IAmb IAmb 11 24 36.1
comp=Z,8.1nm,0.8s
XAN Xi'an 86.27 307 P P 11 24 38.5 +1.5
XAN pmax pmax
comp=Z,60nm,1.0s
E19K Redstone River 86.41 8 IAmb IAmb 11 24 37.6
comp=Z,6.3nm,0.6s
HILR Hailar Array B 86.48 325 P P 11 24 38.6 +1.0
comp=Z,2.0nm,0.5s,baz=134,slow=13,SNR=3.6
comp=Z,2.0nm,0.5s
L29M L29M 86.52 17 IAmb IAmb 11 24 39.1
comp=Z,18nm,1.2s
PDAR Pinedale Array 87.19 43 P P 11 24 42.2 +0.9
comp=Z,1.0nm,0.6s,baz=217,slow=3.5,SNR=11
comp=Z,1.0nm,0.6s
HHC Hu-ho-hao-te 87.26 314 eP P 11 24 45.6 +4.0
HHC pmax pmax
comp=Z,7.0nm,0.6s
KMI2 Kunming 87.87 297 P P 11 24 46.8 +1.8
KMI2 pmax pmax
comp=Z,22nm,1.2s
F24K Squaw Lake 87.95 11 IAmb IAmb 11 24 45.2
comp=Z,6.0nm,0.7s
E23K Chandalar 88.12 10 IAmb IAmb 11 24 46.0
comp=Z,9.6nm,1.0s
G26K Porcupine Rive 88.28 13 IAmb IAmb 11 24 46.9
comp=Z,14nm,1.2s
BTO2 Baotou 88.37 314 eP P 11 24 48.3 +1.5
BTO2 pmax pmax
comp=Z,18nm,0.9s
BTO2 pmax pmax
comp=Z,270nm,5.7s
D22K Ayikyak River 88.37 9 IAmb IAmb 11 24 47.1
comp=Z,9.4nm,0.7s
BMAR Burnt Mountain 88.52 12 P P 11 24 47.4 +0.6
D23K Nanushuk River 88.76 10 IAmb IAmb 11 24 49.2
comp=Z,12nm,1.0s
F26K Sheenjek River 88.83 12 IAmb IAmb 11 24 49.1
comp=Z,12nm,1.5s
CMAR Chiang Mai Arr 88.94 290 P P 11 24 51.6 +1.8
comp=Z,7.7nm,0.9s,baz=109,slow=2.9,SNR=51
comp=Z,7.7nm,0.9s
CMAR Chiang Mai Arr 88.94 290 P P 11 24 51.2 +1.4
CHTO Chiang Mai 89.06 290 P P 11 24 51.2 +0.9
CHTO Chiang Mai 89.06 290 P P 11 24 50.3 0.0
CHTO IAmb IAmb 11 24 52.3
comp=Z,12nm,0.8s
CHTO Chiang Mai 89.06 290 P P 11 24 49.9 -0.4
comp=Z,16nm,0.7s
CD2 Chengdu 89.09 303 P P 11 24 51.8 +1.5
CD2 pmax pmax
comp=Z,20nm,0.7s
ELIB Princess Elisa 89.29 187 dP P 11 24 50.9 +0.3
comp=Z,14nm,0.7s
TROLL Troll, Antarti 90.43 180 ⇓P P 11 24 56.2 +0.3
comp=Z,345nm,0.6s
E28M Babbage River 90.56 13 IAmb IAmb 11 24 57.8
comp=Z,12nm,1.5s
VNA3 Neumayer Olymp 90.86 176 P P 11 24 58.0 +0.4
comp=Z,11nm,0.5s
LZH Lanzhou 90.90 308 eP P 11 25 00.3 +1.6
LZH sP sP 11 27 53.9 -6.9
LZH pmax pmax
comp=Z,19nm,1.1s
LZDM Lanzhou Array 90.96 307 P P 11 25 00.2 +1.0
comp=Z,1.3nm,0.3s,baz=90,slow=3.4,SNR=6.6
comp=Z,1.3nm,0.3s
VNA2 Neumayer--Watz 91.30 177 P P 11 25 00.3 +0.6
comp=Z,8.3nm,0.6s,baz=177,slow=3.9
VNA1 Neumayer--Stat 91.52 177 P P 11 25 01.0 +0.3
comp=Z,13nm,0.9s
INK Inuvik 91.74 15 P P 11 25 01.6 0.0
INK IAmb IAmb 11 25 02.5
comp=Z,7.8nm,1.1s
ULN Ulaanbaatar 93.13 319 P P 11 25 08.0 -0.6
SONM Songino Array 93.53 319 P P 11 25 10.6 +0.2
comp=Z,1.7nm,0.8s,baz=101,slow=3.0,SNR=8.4
comp=Z,1.7nm,0.8s
YKA Yellowknife Ar 94.18 25 P P 11 25 11.5 -1.3
comp=Z,2.0nm,0.8s,baz=239,slow=4.5,SNR=7.0
comp=Z,2.0nm,0.8s
GTA2 Gaotai 95.10 310 eP P 11 25 18.3 +0.5
GTA2 pmax pmax
comp=Z,4.0nm,1.0s
TIXI Tiksi 96.06 345 P P 11 25 20.4 -0.8
TIXI IAmb IAmb 11 25 20.6
comp=Z,3.5nm,0.9s
ZALV Zalesovo Beam 108.20 322 PKiKP PKiKP 11 30 17.6 -0.7
comp=Z,1.1nm,0.5s,baz=175,slow=5.4,SNR=4.6
MKAR Makanchi Array 109.12 314 PKiKP PKiKP 11 30 19.6 -0.7
comp=Z,1.1nm,0.5s,baz=113,slow=0.1,SNR=13
KURBB Kurchatov Arra 111.86 318 PKiKP PKiKP 11 30 24.6 -0.7
comp=Z,1.7nm,0.7s,baz=100,slow=2.0,SNR=18

BVAR	Borovoye Array	116.82	321	PKP		PKPdf	11 30 34.5	-0.4
	comp=Z,2.8nm,0.5s,baz=132,slow=2.2,SNR=10							
ARTI	Arti	122.91	326			PKPdf	11 30 46.2	-0.3
AB31	Akbulak array	123.91	318			PKiKP	11 30 48.8	-0.1
ARCES	ARCESS Array B	126.21	350	PKP		PKiKP	11 30 52.6	-0.3
	comp=Z,3.8nm,0.7s,baz=23,slow=1.9,SNR=14							
BOSA	Boshof	128.56	207	PKP		PKiKP	11 30 58.8	-0.3
	comp=Z,1.0nm,0.6s,baz=166,slow=8.3,SNR=1.1							
FINES	FINESS Array B	133.10	344	PKP		PKPdf	11 31 05.8	+0.2
	comp=Z,2.9nm,0.8s,baz=16,slow=2.8,SNR=7.5							
FINES				SKPbc		SKPab	11 33 43.1	0.0
	comp=Z,2.8nm,0.6s,baz=50,slow=2.4,SNR=12							
NB2	NORSAR Subarra	136.27	353	PKP		PKPpre	11 31 03.9	
	comp=Z,2.8nm,0.8s,baz=14,slow=4.0							
NOA	NORSAR Array B	136.27	353	PKP		PKiKP	11 31 13.2	-0.3
	comp=Z,0.7nm,0.8s,baz=7.0,slow=4.0,SNR=5.2							
HFS	Hagfors	136.83	351	PKhKP		PKPpre	11 31 02.4	
	comp=Z,0.6nm,0.5s,baz=67,slow=3.7,SNR=1.4							
MNK	Minsk	138.19	337	*i* PKiKP		PKiKP	11 31 17.2	-0.3
	comp=E,13nm,0.7s							
MNK				*i* PKiKP		PKiKP	11 31 17.2	-0.3
	comp=N,9.0nm,0.7s							
MNK				*i* PKiKP		PKiKP	11 31 17.2	-0.3
	comp=Z,3.0nm,0.5s,baz=39							
MNK				*i* pPKiKP		pPKPdf	11 33 27.4	-1.1
MNK				*i* PP		PP	11 34 12.1	+0.2
MNK				*i* PPP		PPP	11 37 19.9	
MNK				*i* SKS		SKSdf	11 37 31.9	+0.1
MNK				*i* SKKS		SKKSdf	11 47 06.3	-1.3
MNK				*i* SS		SS	11 51 41.8	+3.3
MNK				*i* SSS		SSS	11 57 01.7	
MNK				*i* LRM		MLR	12 32 46.2	
AKASG	Malin Array Be	140.50	332	PKhKP		PKPpre	11 31 13.7	
	comp=Z,0.6nm,0.3s,baz=45,slow=4.0,SNR=5.0							
AKASG				PKP		PKiKP	11 31 21.5	-0.8
	comp=Z,1.4nm,0.5s,baz=51,slow=1.4,SNR=4.4							
AKASG				SKPbc		SKPbc	11 34 01.4	-1.1
	comp=Z,0.3nm,0.3s,baz=58,slow=4.0,SNR=5.2							
AK18	Malin Array Si	140.55	333	PKP		PKPdf	11 31 19.5	-0.2
EKA	Eskdalemuir Ar	142.34	5	PKhKP		PKPpre	11 31 18.9	
	comp=Z,0.5nm,0.4s,baz=329,slow=2.9,SNR=4.4							
SORM	Soroca	142.74	330	⇑P		PKPdf	11 31 21.2	-2.5
BNN	Bunyan	143.65	312			PKPdf	11 31 25.7	-0.1
KWP	Kalwaria Pacla	144.00	337	*e*PKP		PKPab	11 31 25.5	-0.1
KWP	Kalwaria Pacla	144.00	337	PKP		PKPbc	11 31 25.1	-0.2
VASR	Vaslui	144.06	329	⇑P		PKPdf	11 31 26.6	+0.5
RUE	Ruedersdorf	144.10	347	*e*PKPbc		PKPdf	11 31 25.7	-0.1
	baz=16,slow=2.8							
MNTR	Muntenesti	144.10	329	⇑P		PKPdf	11 31 26.0	-0.1
PDRR	Padureni	144.13	329	⇑P		PKPdf	11 31 26.1	-0.1
DMBR	Dumbraveni	144.19	329	⇑P		PKPab	11 31 26.7	+0.3
GIRR	Girov	144.46	330	⇑P		PKPab	11 31 27.3	-0.1
VLDR	Vladesti	144.47	328	⇑P		PKPab	11 31 28.7	+1.2
TLCR		144.53	326	⇑P		PKPab	11 31 27.7	+0.1
OJC	Ojcow	144.53	340	*e*PKP		PKPab	11 31 27.7	+0.1
OJC	Ojcow	144.53	340	PKP		PKPbc	11 31 27.1	+0.1
BUR08	Bucovina Ar. S	144.54	332			PKPab	11 31 28.0	+0.2
BURAR	Bucovina Array	144.55	332			PKPab	11 31 27.6	-0.2
BURAR	Bucovina Array	144.55	332	⇑P		PKPab	11 31 28.1	+0.3
RETH	Rethem/Aller,	144.61	352	*e*PKPbc		PKPab	11 31 27.2	-0.4
	baz=16,slow=2.8							
SCTR	Scanteiesti	144.63	328	⇑P		PKPab	11 31 28.6	+0.5
BIZ	Bicaz	144.65	331	⇑P		PKPab	11 31 28.5	+0.4
TESR	Tescani	144.71	330	⇑P		PKPab	11 31 28.1	-0.2
TESR	Tescani	144.71	330	PKP		PKPdf	11 31 27.1	-0.1
FLTG	Flechtingen	144.72	350	*e*PKPbc		PKPbc	11 31 27.3	-0.1
	baz=16,slow=2.8							
KOLS	Kolonicke sedl	144.73	336	*e*PKP		PKPab	11 31 28.4	0.0
BR131	Keskin Array S	144.77	315			PKPdf	11 31 27.4	-0.3
BRTR	Keskin Array B	144.77	315	PKP		PKPab	11 31 28.9	-0.2
	comp=Z,16nm,0.9s,baz=138,slow=4.3,SNR=55							
BRTR				SKKPbc		SKKPbc	11 42 17.8	+0.8
	comp=Z,0.4nm,0.4s,baz=225,slow=6.8,SNR=4.8							
BRTR	Keskin Array B	144.77	315			PKPdf	11 31 27.4	-0.3
BR104	Keskin Array S	144.78	315	PKP		PKPdf	11 31 27.5	-0.2
BR106	Keskin Array S	144.78	315	PKP		PKPdf	11 31 27.6	-0.1
BR105	Keskin Array S	144.79	315	PKP		PKPdf	11 31 27.6	-0.1
KIRS	Kirsehir-Merke	144.86	314	⇑P		PKPbc	11 31 28.7	+0.3
CFR	Carcaliu	144.89	327	⇑P		PKPbc	11 31 28.2	+0.1
ONER	Baraj Valea Uz	144.96	330	⇑P		PKPab	11 31 29.2	-0.2
TPGR	Topolog	144.96	326	⇑P		PKPab	11 31 29.4	+0.1
ASSE	Asse, Remlinge	145.00	350	*e*PKPbc		PKPbc	11 31 28.4	+0.2
	baz=16,slow=2.8							
KSP	Ksiaz	145.02	344	*e*PKP		PKPab	11 31 29.0	-0.4
KSP	Ksiaz	145.02	344	PKP		PKPdf	11 31 27.7	+0.1
NIE	Niedzica	145.05	339	*e*PKP		PKPab	11 31 29.7	+0.1
NIE	Niedzica	145.05	339	PKP		PKPbc	11 31 28.0	-0.6
VRI	Vrincioaia	145.13	329	⇑P		PKPbc	11 31 28.8	-0.1
VRI	Vrincioaia	145.13	329	PKP		PKPdf	11 31 28.2	+0.3
ASF	Jabal al Asfar	145.20	301	P		PKPab	11 31 30.7	-0.2
ASF				AML		AML		
SAHR	Sahastru	145.25	329	⇑P		PKPab	11 31 29.9	-0.6
BMR	Baia Mare	145.25	334	⇑P		PKPbc	11 31 29.1	-0.1
OSTC	Ostas	145.30	344	⇑*e*PKP		PKPab	11 31 30.2	-0.3
CHVC	Chvalec	145.32	344	⇑*e*PKP		PKPab	11 31 30.2	-0.4
HARR	Harsova	145.33	326	⇑P		PKPab	11 31 30.3	-0.5
CLZ	Clausthal	145.33	351	*e*PKPbc		PKPbc	11 31 29.3	-0.1
	baz=16,slow=2.8							
ARCR	ARCALIA	145.34	332	⇑P		PKPbc	11 31 29.6	+0.1
TURR	Turia	145.34	330	⇑P		PKPab	11 31 30.1	-0.8
GRER		145.35	328	⇑P		PKiKP	11 31 31.6	-1.0
BISRR	Bisoca	145.36	328	⇑P		PKPab	11 31 30.7	-0.3
TLBR	Topalu	145.36	326	⇑P		PKPab	11 31 30.2	-0.7
CLL	Collm	145.37	347			PKPbc	11 31 29.6	+0.2
CLL	Collm	145.37	347	*e*PKPbc		PKPbc	11 31 29.3	-0.1
	baz=16,slow=2.8							
CLL	Collm	145.37	347	PKP		PKPdf	11 31 28.3	+0.2
CLL	Collm	145.37	347	*i* PKPbc		PKPbc	11 31 29.4	0.0
	comp=Z,38nm,0.9s							
CLL				*ep*PKPdf		pPKPbc	11 33 40.0	+0.4
COVR	Voineasa-Covas	145.40	329	⇑P		PKPbc	11 31 30.1	+0.4
UPC	Upice	145.40	344	⇑*e*PKP		PKPab	11 31 30.4	-0.5
OZUR		145.42	330	⇑P		PKPab	11 31 30.6	-0.5
STEB	Steborice	145.42	342	⇑*e*PKP		PKPab	11 31 30.3	-0.7
DPC	Dobruska-Polom	145.46	343	⇑*e*PKP		PKPab	11 31 30.7	-0.5
DPC	Dobruska-Polom	145.46	343	PKP		PKPbc	11 31 29.3	-0.5
LANS	Liptovska Anna	145.56	339	*e*PKP		PKPab	11 31 31.7	+0.1
KRLC	Kraliky	145.58	343	⇑*e*PKP		PKPab	11 31 30.8	-0.9
MORC	Moravsky Berou	145.63	342	*e*PKP		PKPbc	11 31 30.5	+0.2
MORC	Moravsky Berou	145.63	342	⇑P		PKPbc	11 31 29.4	-0.9
GTTG	Gottingen	145.68	351	*e*PKPbc		PKPbc	11 31 30.6	+0.3
	baz=16,slow=2.8							
DOPR	Dopca	145.70	330	⇑P		PKPab	11 31 31.9	-0.3
NEUB	Neuenburg	145.70	349	*e*PKPbc		PKPbc	11 31 30.9	+0.6
	baz=16,slow=2.8							
PVCC	Panska Ves	145.75	345	⇑*e*PKP		PKPab	11 31 31.5	-0.8
ISR	Istrita	145.75	328	PKP		PKPbc	11 31 30.5	-0.3
MLR	Muntele Rosu	145.78	329			PKPdf	11 31 29.9	+0.7
MLR	Muntele Rosu	145.78	329	⇑P		PKPbc	11 31 30.8	-0.2
MLR	Muntele Rosu	145.78	329	PKP		PKPdf	11 31 29.0	-0.2
GEM	Giv'at Ha'Em	145.89	303	P		PKPab	11 31 33.1	-0.4
GEM				AML		AML		
HSKC	Hora Svate Kat	145.94	347	⇑*e*PKP		PKPbc	11 31 31.6	+0.5
CJR	Cluj-Napoca	145.96	333	⇑P		PKPbc	11 31 31.9	+0.6
MDUB	Mudurnu	145.99	318			PKPbc	11 31 32.3	+0.7
SAHE	Sakarya_HENDEK	146.00	319	⇑P		PKPdf	11 31 30.2	+0.6
MMAI	Mount Meron Ar	146.16	303	PKPbc		PKPbc	11 31 33.3	+0.9
	comp=Z,15nm,0.6s,baz=44,slow=9.7,SNR=16							
MARR	Marisel-Cluj	146.19	333	⇑P		PKPbc	11 31 32.7	+0.6
QRNJ	Al-Qirein	146.23	302	P		PKiKP	11 31 34.1	-0.6
QRNJ				AML		AML		
VOIR		146.25	330	⇑P		PKPbc	11 31 32.8	+0.6
VOIR		146.25	330	PKP		PKPdf	11 31 30.0	+0.1
PRU	Pruhonice	146.25	345	⇑*e*PKP		PKPbc	11 31 32.5	+0.6
MOX	Moxa	146.27	349	*e*PKPbc		PKPbc	11 31 32.2	+0.2
	baz=16,slow=2.8							
DRGR		146.28	334	⇑P		PKPbc	11 31 32.8	+0.6
TANN	Tannenbergstha	146.32	348	*e*PKPbc		PKPbc	11 31 32.4	+0.2
	baz=16,slow=2.8							
VRAC	Vranov	146.32	342	*e*PKP		PKPbc	11 31 32.6	+0.4
VYHS	Vyhne	146.34	339	*e*PKP		PKPbc	11 31 33.2	+0.9
JAVC	Velka Javorina	146.40	341	*e*PKP		PKiKP	11 31 34.0	-0.7
PSZ	Piszkesteto	146.46	338			PKPbc	11 31 32.8	+0.1
PSZ	Piszkesteto	146.46	338	⇑P		PKPbc	11 31 32.4	-0.3
NKC	Novy Kostel	146.50	347	⇑*e*PKP		PKPbc	11 31 33.3	+0.7
ARR	Arges	146.50	330	⇑P		PKiKP	11 31 34.2	-0.8
GHAJ	Ghor Haditha	146.53	300			PKiKP	11 31 34.2	-1.2
BOPT	Opiter	146.60	355	*d*PKP		PKPbc	11 31 32.7	-0.1
KRUC	Moravsky	146.60	342	*e*PKP		PKPbc	11 31 33.3	+0.4
LISJ	El Lisan	146.62	300	P		PKiKP	11 31 35.2	-0.3
LISJ				AML		AML		
SALP	Salfit	146.62	302	P		PKiKP	11 31 34.9	-0.7
SALP				AML		AML		
HSNJ	Maan	146.70	298	P		PKiKP	11 31 35.7	-0.2
HSNJ				AML		AML		
ZVC	Zvikov	146.85	345	⇑*e*PKP		PKPbc	11 31 34.3	+0.7
ZVC				*e*PKPAB		PKPab	11 31 37.6	+0.9
LOZB	Loznitsa	146.93	326	⇑P		PKPbc	11 31 34.4	+0.4
MODS	Modra-Piesok	146.95	341	*e*PKP		PKiKP	11 31 35.3	-0.5
UCC	Uccle	147.00	357	*d*PKP		PKPbc	11 31 34.2	+0.3
MEM	Membach	147.07	355	*d*PKP		PKPbc	11 31 34.6	+0.5
CSS	Mathiatis	147.09	308			PKPbc	11 31 34.5	-0.2
CSS	Mathiatis	147.09	308	P		PKiKP	11 31 35.5	-1.0
SIRR	Siria	147.13	334	⇑P		PKPbc	11 31 35.2	+0.7
BSKQ	Steenkerk	147.16	357	*d*PKP		PKPbc	11 31 34.9	+0.6
TNS	Taunus Mts	147.19	352	*e*PKPbc		PKPbc	11 31 34.9	+0.4
	baz=16,slow=2.8							
ABNA	Allensteig Bun	147.23	343	*e*PKP		PKPbc	11 31 35.1	+0.4
	comp=Z,13nm,0.6s							
ABNA				*e*PKP		PKPab	11 31 39.2	+0.9
	comp=Z,10.0nm,0.7s							
PRNI	Paran	147.25	299	P		PKiKP	11 31 36.3	-0.6
PRNI				AML		AML		
GRF	Grafenberg Arr	147.26	349	*e*PKPbc		PKiKP	11 31 35.5	-0.9
	baz=16,slow=2.8							
KHC	Kasperske Hory	147.28	346	*e*PKPDF		PKPdf	11 31 32.3	+0.8
KHC				⇑*e*PKP		PKiKP	11 31 35.6	-0.9
KHC				*e*PKPAB		PKPab	11 31 39.8	+1.3
KHC	Kasperske Hory	147.28	346	PKP		PKPdf	11 31 31.6	+0.1
HRFI	Mount Harif	147.30	298	P		PKiKP	11 31 36.2	-0.9
HRFI				AML		AML		
BCLA	Clavier	147.31	356	*d*PKP		PKPbc	11 31 35.1	+0.4
GZR	Gura Zlata	147.34	332	⇑P		PKPbc	11 31 35.2	+0.1
SURR	Surduc	147.34	333	⇑P		PKPbc	11 31 35.4	+0.4
CKRC	Cesky Krumlov	147.39	344	⇑*e*PKP		PKiKP	11 31 35.9	-0.8
EIL	Elat	147.46	297	P		PKiKP	11 31 36.6	-0.8
EIL				AML		AML		
BMRD	Maredsous	147.47	356	*d*PKP		PKPbc	11 31 35.5	+0.3
GEC2	GERESS Array S	147.52	345	*e*PKPbc		PKPbc	11 31 35.7	+0.2
	baz=16,slow=2.8							
GERES	GERESS Array B	147.52	345	PKPbc		PKPbc	11 31 36.1	+0.6
	comp=Z,12nm,0.7s,baz=16,slow=2.6,SNR=72							
GERES	GERESS Array B	147.52	345			PKPdf	11 31 32.1	+0.2
KEPZ	Antalya-Kepez	147.52	312	⇑P		PKPbc	11 31 35.0	-0.8
WINA	Alland / Wiene	147.56	342	*i* PKP		PKPbc	11 31 36.0	+0.6
	comp=Z,12nm,0.7s,SNR=6.2							
RCHB	Rochefort	147.58	356	*d*PKP		PKPbc	11 31 35.8	+0.3
ELND	Elena	147.62	326	⇑P		PKiKP	11 31 37.3	0.0
BZS	Buzias	147.67	333	⇑P		PKPbc	11 31 35.6	-0.3
DOU	Dourbes	147.68	357	*d*PKP		PKiKP	11 31 36.4	-0.8
CONA	Conrad Observa	147.78	342	*i* PKP		PKPbc	11 31 36.3	+0.1
	comp=Z,13nm,0.6s,SNR=21							
RONA	Rosalia, Austr	147.85	341	*i* PKP		PKPbc	11 31 36.3	0.0
	comp=Z,0.1nm,0.2s,SNR=9.5							
RONA				*e*PKP		PKPab	11 31 42.0	+1.1
	comp=Z,6.6nm,0.7s							
HERR	Herculane	147.90	332	⇓P		PKPbc	11 31 36.6	+0.1
WLF	Walferdange	148.00	355	*d*PKP		PKiKP	11 31 37.5	-0.4
WLF	Walferdange	148.00	355	*e*PKPbc		PKiKP	11 31 37.3	-0.5
	baz=16,slow=2.8							
MDVR	Moldovita	148.29	332	⇑P		PKPbc	11 31 37.6	+0.1
MOA	Molln	148.30	344	*i* PKP		PKiKP	11 31 38.0	-0.6
	comp=Z,2.9nm,0.6s,SNR=4.5							
MOA				*e*PKP		PKPab	11 31 43.1	+0.5
	comp=Z,12nm,1.0s							
MORH	Mrgy, Hungar	148.36	337	⇑P		PKPbc	11 31 37.0	-0.5
ARSA	Arzberg	148.49	342	*e*PKP		PKPbc	11 31 37.5	-0.3
	comp=Z,2.5nm,0.9s							
BIOA	Bad Ischl, Aus	148.61	344	*e*PKP		PKPbc	11 31 38.4	+0.3
	comp=Z,9.1nm,1.0s							
BIOA				*e*PKP		PKPab	11 31 44.7	+0.8
	comp=Z,12nm,0.9s							
BLKB	Belogradchik	148.74	330	⇑P		PKiKP	11 31 39.0	-0.6
MANT	Manisa	148.78	317			PKiKP	11 31 39.6	-0.5
SESA	Seetaler Alpe,	148.89	343	*i* PKP		PKPbc	11 31 39.2	+0.1
	comp=Z,15nm,0.6s,SNR=12							
SESA				*e*PKP		PKPab	11 31 46.0	+0.6
	comp=Z,12nm,0.6s							
BFO	Black Forest	149.06	351	*e*PKPbc		PKPbc	11 31 39.3	0.0
	baz=16,slow=2.8							
LESA	Schwarzleotal	149.09	345	*i* PKP		PKPbc	11 31 39.6	+0.2
	comp=Z,1.0nm,0.4s,SNR=6.2							
TAVA	DENIZLI_Tavas	149.10	315	⇑P		PKiKP	11 31 40.7	0.0
SOKA	Soboth	149.15	342	*e*PKP		PKPbc	11 31 39.7	+0.1
	comp=Z,13nm,1.0s							
SOKA				*e*PKP		PKPab	11 31 46.5	+0.2
	comp=Z,5.1nm,0.7s							
BOVS	Bovan	149.18	331	⇑P		PKPbc	11 31 39.3	-0.3
KBA	Koelnbreinsper	149.25	344	*i* PKP		PKPbc	11 31 39.7	-0.2
	comp=Z,2.1nm,0.4s,SNR=16							
KBA				*i* PKP		PKPab	11 31 48.1	+1.3
	comp=Z,8.0nm,0.7s,SNR=7.0							
UBR	Ueberruh	149.40	349	*e*PKPbc		PKPbc	11 31 40.0	-0.1
	baz=16,slow=2.8							
WATA	Walderalm	149.43	347	*e*PKP		PKPbc	11 31 40.5	+0.2
	comp=Z,5.0nm,0.6s,SNR=5.5							
WATA				*i* PKP		PKPab	11 31 47.3	-0.3
	comp=Z,2.5nm,0.4s,SNR=5.7							
OBKA	Obir	149.44	342	*e*PKP		PKPbc	11 31 40.2	-0.1
	comp=Z,3.8nm,1.0s							
OBKA				*e*PKP		PKPab	11 31 47.3	-0.3
	comp=Z,5.3nm,1.0s							
RETA	Reutte	149.46	348	*e*PKP		PKPdf	11 31 34.8	-0.3
	comp=Z,1.1nm,0.5s							
RETA				*e*PKP		PKiKP	11 31 40.8	-0.3
	comp=Z,6.2nm,0.5s							
RETA				*e*PKP		PKPab	11 31 47.7	+0.2
	comp=Z,5.0nm,0.5s							
WTTA	Wattenberg	149.49	347	*e*PKiKP		PKiKP	11 31 41.0	-0.3
	comp=Z,23nm,0.6s,SNR=16							
MOTA	Moosalm	149.52	347	*e*PKP		PKPdf	11 31 35.2	-0.1
	comp=Z,5.3nm,1.1s							
MOTA				*e*PKP		PKiKP	11 31 40.8	-0.4
	comp=Z,15nm,0.9s							
MYKA	Terra Mystica	149.59	344	*i* PKP		PKPbc	11 31 39.7	-0.9
	comp=Z,0.4nm,0.3s,SNR=8.8							
MYKA				*e*PKP		PKPab	11 31 47.6	-0.6
	comp=Z,12nm,1.3s							
SQTA	Sankt Quirin	149.62	347	*i* PKiKP		PKiKP	11 31 41.3	-0.2
	comp=Z,15nm,0.6s,SNR=5.9							
ABTA	Abfaltersbach	149.77	345	*i* PKP		PKPbc	11 31 40.3	-0.8
	comp=Z,14nm,1.0s,SNR=8.8							
PRED	Cave del Predi	149.78	344			PKPbc	11 31 40.8	-0.3
DAVA	Damuels	149.82	349	*e*PKiKP		PKiKP	11 31 41.7	-0.2
	comp=Z,18nm,1.1s							
FETA	Feichten	149.91	348	*e*PKP		PKPdf	11 31 35.6	-0.4
	comp=Z,5.5nm,1.0s							
FETA				*i* PKiKP		PKiKP	11 31 42.0	-0.1
	comp=Z,14nm,0.9s,SNR=5.2							
BLY	Banja Luka	150.15	338	⇑P		PKiKP	11 31 42.4	-0.1
CTI	Castel Tesino	150.63	346			PKPbc	11 31 43.1	0.0
ESDC	Sonseca Array	157.64	12	PKPab		PKPab	11 32 22.2	-0.4
	comp=Z,4.1nm,1.2s,baz=344,slow=4.5,SNR=8.4							
ESDC	Sonseca Array	157.64	12			PKPab	11 32 23.0	+0.3
TORD	Torodi Ar. Bea	175.39	180	PKP		PKPdf	11 31 59.7	-1.0
	comp=Z,1.7nm,0.9s,baz=5.4,slow=1.4,SNR=5.5							

*BUL **14** 11:16:44.4±1.1,26.09S×29.42E,h10km,MD3.2, Presumed earthquake*
PRE 14 11:16:45.1±0.8,25.96S×28.86E,h0km,ML2.2, Suspected explosion,South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TSWA	Tswaing Meteor	0.89	307	*e*P		Pg		11 16 58.0	-4.1
TSWA				*e*S		Sg		11 17 11.4	-2.2
TSWA				IAML				11 17 28.2	
	comp=Z,22nm,0.6s								
TSWA	Tswaing Meteor	0.89	307	*e*P		Pg		11 17 01.5	-0.6
TSWA				*e*S		Sb		11 17 14.7	-1.1
TSWA				IAML				11 17 28.2	
	comp=Z,22nm,0.6s								
HRAO	HartRAO	1.06	274	*e*P		Pg		11 17 03.0	-2.4
HRAO				*e*S		Sg		11 17 18.5	-0.6
HRAO	HartRAO	1.06	274	*e*P		Pg		11 17 05.3	-0.1
HRAO				*e*S		Sb		11 17 20.3	-0.6
LEPH	Lephalale, Lim	2.31	335	*e*P		Pn		11 17 20.5	-3.9
LEPH				*e*S		Sn		11 17 48.4	-5.3
LEPH				IAML				11 18 10.2	
	comp=Z,12nm,0.4s								
LEPH	Lephalale, Lim	2.31	335	*e*P		Pn		11 17 25.2	+0.7
LEPH				*e*S		Sn		11 17 54.8	+1.2
LEPH				IAML				11 18 01.6	
	comp=Z,10nm,0.4s								
MTLB	Matlabas, Limp	2.69	322	*e*P		Pn		11 17 25.5	-4.3
MTLB				*e*S		Sn		11 17 59.0	-4.1
MTLB				IAML				11 18 19.2	
	comp=Z,11nm,0.5s								
MTLB	Matlabas, Limp	2.69	322	*e*P		Pn		11 17 30.9	+1.2
MTLB				*e*S		Sn		11 18 03.5	+0.4
MTLB				IAML				11 18 19.1	
	comp=Z,11nm,0.5s								
LBTB	Lobatse	3.10	287	*i* P		Pb		11 17 40.2	-0.9
LBTB				*i* S		Sb		11 18 21.1	+1.6
LBTB	Lobatse	3.10	287	*e*P		Pn		11 17 33.4	-2.0
LBTB				*e*S		Sn		11 18 10.7	-2.4
LBTB				IAML				11 18 41.6	
	comp=Z,4.3nm,0.5s								
LBTB	Lobatse	3.10	287	*e*P		Pn		11 17 35.7	+0.4
LBTB				*e*S		Sn		11 18 13.8	+0.7
LBTB				IAML				11 18 29.9	
	comp=Z,7.8nm,0.5s								
CRAIL	Swartwater, Li	3.20	350	*e*P		Pn		11 17 37.0	+0.2
CRAIL				*e*S		Sn		11 18 15.8	+0.1
CRAIL				IAML				11 18 36.8	
	comp=Z,377nm,0.4s								
MPHEP	Siloam, Limpop	3.27	22	*e*P		Pn		11 17 38.6	+0.8
MPHEP				*e*S		Sn		11 18 17.7	+0.2
MPHEP				IAML				11 18 28.8	
	comp=Z,7.7nm,0.4s								
MOPA	Mopani	3.35	44	*i* P		Pn		11 17 33.0	-5.9
MOPA				*i* S		Sn		11 18 09.5	-10
MOPA	Mopani	3.35	44	*e*P		Pn		11 17 33.9	-5.0
MOPA				*e*S		Sn		11 18 12.3	-7.1
MOPA				IAML				11 18 30.3	
	comp=Z,20nm,0.5s								
MOPA	Mopani	3.35	44	*e*P		Pn		11 17 39.5	+0.7
MOPA				*e*S		Sn		11 18 19.5	+0.1
MOPA				IAML				11 18 30.2	
	comp=Z,20nm,0.5s								
MUSN	Musina, Limpop	3.77	14	*i* P		Pn		11 17 42.5	-2.1
MUSN				*i* S		Sn		11 18 26.4	-3.4
BOSA	Boshof	4.15	230	*i* P		Pn		11 17 51.4	+1.5
BOSA				*i* S		Sn		11 18 41.6	+2.4
BOSA	Boshof	4.15	230	*e*P		Pn		11 17 49.5	-0.4
BOSA				*e*S		Sn		11 18 39.5	+0.2
BOSA				IAML				11 19 01.5	
	comp=Z,3.5nm,0.6s								
BOSA	Boshof	4.15	230	*e*P		Pn		11 17 50.4	+0.5
BOSA				*e*S		Sn		11 18 39.3	+0.1
BOSA

comp=Z,1.8nm,0.8s
ZALV Zalesovo Beam 74.83 10 P P 11 50 35.5 +2.1
comp=Z,1.3nm,0.5s,baz=197,slow=4.5,SNR=7.6
comp=Z,1.3nm,0.5s
ZALV Zalesovo Beam 74.83 10 P P 11 50 31.8 -1.5
SONM Songino Array 75.61 26 P P 11 50 40.4 +2.2
comp=Z,0.5nm,0.6s,baz=205,slow=6.4,SNR=3.1
comp=Z,0.5nm,0.6s
SONM Songino Array 75.61 26 P P 11 50 36.9 -1.3

PRE 14 11:45:28.0±1.2, 23.70S×27.29E, h0km, ML1.8, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
LEPH	**Lephalale, Lim**	**0.49**	**108**	*e*P		Pg		11 45 35.7	-1.6
LEPH				*e*S		Sg		11 45 41.9	-1.7
LEPH				IAML				11 45 44.6	
	comp=Z,29nm,0.7s								
LEPH	**Lephalale, Lim**	**0.49**	**108**	*e*P		Pg		11 45 37.5	+0.1
LEPH				*e*S		Sg		11 45 43.7	0.0
LEPH				IAML				11 45 45.5	
	comp=Z,32nm,0.4s								
CRAIL	**Swartwater, Li**	**1.25**	**44**	*e*P		Pg		11 45 51.6	-0.5
CRAIL				*e*S		Sb		11 46 08.8	-0.5
CRAIL				IAML				11 46 11.6	
	comp=Z,646nm,0.2s								
CRAIL	**Swartwater, Li**	**1.25**	**44**	*e*P		Pg		11 45 52.1	+0.1
CRAIL				*e*S		Sb		11 46 09.3	0.0
CRAIL				IAML				11 46 21.6	
	comp=Z,172nm,0.4s								
TSWA	**Tswaing Meteor**	**1.85**	**157**	*e*P		Pn		11 46 01.0	-0.2
TSWA				*e*S		Sn		11 46 24.2	-1.2
TSWA				IAML				11 46 31.2	
	comp=Z,2.8nm,0.3s								
TSWA	**Tswaing Meteor**	**1.85**	**157**	*e*P		Pb		11 46 02.1	-0.7
TSWA				*e*S		Sb		11 46 26.2	-0.5
TSWA				IAML				11 46 28.2	
	comp=Z,4.6nm,0.3s								
LBTB	**Lobatse**	**2.02**	**230**	*e*P		Pb		11 46 04.9	-0.9
LBTB				*e*S		Sb		11 46 31.5	0.0
LBTB				IAML				11 46 58.8	
	comp=Z,1.7nm,1.1s								
HRAO	**HartRAO**	**2.21**	**171**	*e*P		Pn		11 46 05.8	-0.2
HRAO				*e*S		Sn		11 46 33.5	-0.6
HRAO	**HartRAO**	**2.21**	**171**	*e*P		Pn		11 46 05.8	-0.3
HRAO				*e*S		Sb		11 46 35.9	-0.9
MPHEP	**Siloam, Limpop**	**2.77**	**74**	*e*P		Pn		11 46 13.5	-0.3
MPHEP				*e*S		Sn		11 46 47.7	-0.2
MPHEP				IAML				11 47 01.5	
	comp=Z,1.4nm,0.3s								
MOPA	**Mopani**	**3.77**	**88**	*e*P		Pn		11 46 29.0	+1.6
MOPA				*e*S		Sn		11 47 12.2	-0.3
MOPA				IAML				11 47 30.9	
	comp=Z,2.4nm,0.6s								
BOSA	**Boshof**	**5.22**	**200**	*e*P		Pn		11 46 47.8	+0.3
BOSA				*e*S		Sn		11 47 47.2	-1.3
BOSA				IAML				11 48 18.4	
	comp=Z,1.0nm,0.5s								

NNC 14 11:50:42.1±5.8, 36.87N×69.30E, h0km, mb4.0, mpv3.6, 2C-1D, Error ellipse: s-maj=51.3km s-min=35.8km az=155.0, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.30**	**8**	P			Pn	11 52 16.7	+0.4
	2.8nm,0.4s,baz=198,slow=17,SNR=27								
KK31				⇓S			Sn	11 53 30.7	+1.8
	0.9nm,0.2s,baz=192,slow=23								
AAK	**Ala-Archa**	**7.01**	**33**	⇑P			Pn	11 52 25.4	-0.8
	1.6nm,0.5s								
AAK				⇑S			Sn	11 53 46.9	+0.2
	4.7nm,0.8s								
AB31	**Akbulak array**	**14.13**	**334**	P			Pn	11 54 03.6	+0.2
	1.7nm,0.3s,baz=172,slow=12,SNR=75								
AKTO	**Aktyubinsk**	**15.80**	**333**	P			Pn	11 54 27.1	+1.3

SJA 14 12:07:49.9±0.8, 22.69S×63.64W, h452km, ML3.7, MW3.2, Salta Province

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**5.27**	**279**	*i* P			P	12 09 17.2	-0.1
PB09				*i* S			S	12 10 21.9	-6.5
PB09				IAML				12 10 41.6	
	comp=Z,9.4nm,2.0s								
PB03	**IPOC Station P**	**5.70**	**275**	*e*P			P	12 09 19.4	-2.1
PB03				*e*S			S	12 10 29.5	-6.6
PB03				IAML				12 10 36.3	
	comp=Z,15nm,0.3s								
PB07	**IPOC Station P**	**5.87**	**278**	*i* P			P	12 09 20.5	-2.7
PB07				*e*S			S	12 10 34.0	-5.3
PB07				IAML				12 10 40.9	
	comp=Z,11nm,0.7s								
PB02	**IPOC Station P**	**5.97**	**282**	*i* P			P	12 09 25.0	+0.9
PB02				*e*S			S	12 10 36.2	-4.8
PB02				IAML				12 10 44.4	
	comp=Z,26nm,0.4s								
PB05	**IPOC Station P**	**6.06**	**267**	*i* P			P	12 09 26.4	+1.3
PB05				IAML				12 10 44.6	
	comp=Z,6.2nm,1.6s								
PB10	**IPOC Station P**	**6.42**	**261**	*i* P			P	12 09 30.1	+1.5
PB10				*e*S			S	12 10 44.1	-5.3
PB10				IAML				12 10 58.4	
	comp=Z,14nm,1.7s								

AFAD 14 12:10:20.0, 40.57N×43.75E, h11km±1km, ML1.8
NORS 14 12:10:26.1, 41.27N×43.63E, h10km, MPVA3.3
ISC 14 12:10:20.2±1.4, 40.66N±0.08×43.91E±0.05, h11km±9km, n16, σ2ˢ93/29, Turkey-Georgia-Armenia border region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
EAK	**Akyaka**	**0.23**	**277**	P			**Pg**	**12 10 24.5**	**-0.5**
EAK				S			**Sg**	**12 10 28.0**	**-0.3**
EAK				IAML				12 10 33.0	
	comp=N,200nm,0.4s								
EAK				IAML				12 10 33.0	
	comp=E,171nm,0.5s								
DIGO	**Kars**	**0.47**	**239**	P			**Pg**	**12 10 27.4**	**-2.1**
DIGO				S			**Sg**	**12 10 32.1**	**-3.7**
DIGO				IAML				12 10 34.0	
	comp=N,126nm,0.6s								
DIGO				IAML				12 10 34.0	
	comp=E,189nm,0.3s								
GNI	**Garni**	**0.82**	**128**	*e*Pg			Pn	12 10 55.7	+18
GNI				*e*Sg			Sn	12 11 15.6	+26
GOLE	**Ardahan-G¶le**	**1.01**	**280**	P			Pn	12 10 45.4	+4.9
GOLE				S			**Sn**	**12 10 58.6**	**+3.7**
GOLE				IAML				12 11 05.0	
	comp=N,36nm,0.2s								
GOLE				IAML				12 11 05.0	
	comp=E,33nm,0.2s								
EPOS	**Posof**	**1.23**	**314**	P			**Pn**	**12 10 41.0**	**-2.4**
EPOS				S			**Sb**	**12 10 53.8**	**-5.6**
EPOS				IAML				12 10 57.0	
	comp=N,38nm,0.3s								
EPOS				IAML				12 11 04.0	
	comp=E,23nm,0.4s								
DAGI	**Agillar**	**1.57**	**286**	P			**Pg**	**12 10 52.1**	**+1.8**
DAGI				S			**Sb**	**12 11 10.6**	**+1.5**
DAGI				IAML				12 11 17.0	
	comp=E,11nm,0.5s								
DAGI				IAML				12 11 27.0	
	comp=N,12nm,0.6s								
DDEM	**Demirkent**	**1.65**	**279**	P			**Pg**	**12 10 54.7**	**+2.8**
DDEM				S			**Sg**	**12 11 14.6**	**+1.2**
DBAD	**Bademkaya**	**1.71**	**283**	P			**Pg**	**12 10 55.2**	**+2.1**
DBAD				S			**Sb**	**12 11 14.7**	**+1.3**
DBAD				IAML				12 11 22.0	
	comp=N,21nm,0.4s								
DBAD				IAML				12 11 32.0	
	comp=E,12nm,0.7s								
DBOC	**Borcka**	**1.83**	**293**	P			**Pb**	**12 10 54.7**	**+1.0**
DBOC				S			**Sn**	**12 11 13.9**	**-0.9**
DBOC				IAML				12 11 21.0	
	comp=E,13nm,0.5s								
LACR	**Lac**	**2.19**	**8**	*e*Pg			**Pn**	**12 10 57.8**	**+1.2**
LACR				*e*Sg			**Sn**	**12 11 20.0**	**-3.8**
DIGR	**Digorskoe uzhe**	**2.25**	**354**	*e*Pg			**Pn**	**12 10 57.3**	**-0.3**
DIGR				*e*Sg			**Sn**	**12 11 19.1**	**-6.3**
KORR	**Kora**	**2.43**	**3**	*e*Pg			**Pn**	**12 11 02.4**	**+2.5**
KORR				*e*Sg			**Sn**	**12 11 27.8**	**-1.7**
LSNR	**Lesken**	**2.62**	**359**	*e*Pg			**Pn**	**12 11 04.0**	**+1.6**
LSNR				*e*Sg			**Sn**	**12 11 31.8**	**-2.5**
BTLR	**Botlikh**	**2.65**	**40**	*e*Pn			**Pb**	**12 11 09.8**	**+2.1**
BTLR				*e*Sn			**Sb**	**12 11 41.0**	**+0.8**
NEUR	**Neytrino**	**2.75**	**341**	*e*Pg			**Pn**	**12 11 05.3**	**+0.9**
NEUR				*e*Sg			**Sn**	**12 11 32.8**	**-5.0**
SHA1	**Shidzhatmaz**	**3.21**	**344**	*e*Pn			**Pn**	**12 11 14.4**	**+3.6**
SHA1				*e*Sn			**Sn**	**12 11 47.1**	**-2.1**

ASRS 14 12:11:50.6±0.2, 52°N±2°×97.9E±1.0, h5km, MLh3.5/12, Error ellipse: s-maj=3.6km s-min=2.0km az=13.7, confirmed, Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
KNGR	**Kungurtug, Tuv**	**1.02**	**194**	Pg			Pn	12 12 14.3	+2.6
KNGR				Sg			Sn	12 12 27.2	+0.7
KNGR				AML			AML		
TDJR	**Todzha**	**1.37**	**307**	Pg			Pg	12 12 24.4	+7.6
TDJR				Sg			Sn	12 12 44.3	+9.3
TDJR				AML			AML		
MOY	**Mondy**	**1.93**	**87**	Pg			Pg	12 12 30.9	+3.3
MOY				Sg			Sg	12 12 55.2	+2.5
MOY				AML			AML		
KZLR	**Kyzyl**	**2.15**	**274**	Pg			Pg	12 12 35.8	+4.1
KZLR				Sg			Sg	12 13 04.0	+4.5
KZLR				AML			AML		
ARDR	**Aradan**	**2.92**	**291**	Pg			Pg	12 12 50.2	+3.6
ARDR				Sg			Sg	12 13 29.4	+4.9
ARDR				AML			AML		
TLY	**Talaya**	**3.58**	**86**	Pg			Pg	12 12 58.7	-0.5
TLY				Sg			Sg	12 13 46.4	+0.8
TLY				AML			AML		
ZAK	**Zakamensk**	**3.61**	**108**	Pg			Pg	12 12 58.8	-1.0
ZAK				Sg			Sg	12 13 46.9	+0.2
ZAK				AML			AML		
MINR	**Mina**	**3.98**	**328**	Pg			Pg	12 13 11.7	+4.8
MINR				Sg			Sg	12 14 05.4	+6.9
MINR				AML			AML		
IRK	**Irkutsk**	**4.00**	**78**	Sg			Sg	12 13 59.0	0.0
CERR	**Cheremushki**	**4.18**	**290**	Pg			Pg	12 13 13.5	+2.9
CERR				Sg			Sg	12 14 08.1	+3.4
CERR				AML			AML		
DJO	**Djoy, Khakassi**	**4.28**	**289**	Pg			Pg	12 13 14.8	+2.3
DJO				Sg			Sg	12 14 09.6	+1.7
DJO				AML			AML		
TEL	**Teeli**	**4.86**	**266**	Pg			Pb	12 13 17.9	+1.7
TEL				Sg			Sg	12 14 26.0	-0.7
TEL				AML			AML		
VEH	**Verkhnyaya Baz**	**4.92**	**293**	Pg			Pg	12 13 26.4	+1.5
VEH				Sg			Sg	12 14 31.7	+3.0
VEH				AML			AML		
GZLN	**Zheleznogorsk**	**5.37**	**335**	Pg			Pg	12 13 35.5	+2.1
GZLN				Sg			Sg	12 14 46.9	+3.9
GZLN				AML			AML		
SHTK	**Zheleznogorsk-**	**5.38**	**334**	Pg			Pg	12 13 34.0	+0.4
SHTK				Sg			Sg	12 14 43.5	+0.4
SHTK				AML			AML		
LUZB	**Luzhba, Kemero**	**5.86**	**294**	Pg			Pb	12 13 30.0	-3.1
LUZB				Sg			Sg	12 14 59.6	+1.1
LUZB				AML			AML		
CUR	**Chagan-Uzun**	**6.23**	**260**	Sg			Sg	12 15 09.7	-0.8
TASR	**Tashtagol**	**6.27**	**285**	Sg			Sg	12 15 12.8	+1.0
ULGR	**Ulagan, Altay**	**6.33**	**265**	Pn			Pn	12 13 30.0	+5.4
ULGR				Pg			Pg	12 13 58.6	+6.8
ULGR				Sg			Sg	12 15 11.6	-2.3

ISK 14 12:25:31.4, 37.84N×26.94E, h9km, ML2.6/9
AFAD 14 12:25:31.0, 37.86N×26.96E, h8km±15km, ML2.2
ISC 14 12:25:31.5±1.0, 37.84N±0.02×26.94E±0.03, h13km±7km, n27, σ0ˢ56/50, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.22**	**347**	P			**Pg**	**12 25 36.0**	**-0.2**
DGB				S			**Sg**	**12 25 38.9**	**-0.6**
DGB				IAML				12 25 42.0	
	comp=E,421nm,0.5s								
GCAM	**G?zelcaml?**	**0.27**	**121**	P			**Pg**	**12 25 37.5**	**+0.4**
GCAM				IAML				12 25 42.0	
	comp=N,696nm,0.3s								
GCAM				IAML				12 25 42.0	
	comp=E,563nm,0.2s								
GCAM				S			**Sb**	**12 25 42.1**	**-0.4**
GCAM	**G?zelcaml?**	**0.27**	**121**	Pg			**Pg**	**12 25 37.5**	**+0.4**
GCAM				Sg			**Sb**	**12 25 41.7**	**-0.9**
GCAM				AML			AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**85**	Pg			**Pg**	**12 25 37.4**	**+0.2**
KUSD				Sg			**Sg**	**12 25 41.6**	**+0.6**
KUSD				AML			AML		
BEYE	**izmir**	**0.39**	**358**	P			**Pg**	**12 25 39.1**	**-0.2**
BEYE				S			**Sg**	**12 25 45.1**	**+0.5**
DDIM	**Aydin, Didim**	**0.45**	**148**	P			**Pg**	**12 25 39.0**	**-1.3**
DDIM				S			**Sb**	**12 25 48.0**	**+0.2**
ZEYE	**Izmir, Urla-Ze**	**0.53**	**319**	P			**Pg**	**12 25 41.9**	**0.0**
ZEYE				IAML				12 25 49.0	
	comp=N,349nm,0.2s								
ZEYE				S			**Sb**	**12 25 49.6**	**-0.6**
ZEYE				IAML				12 25 50.0	
	comp=E,147nm,0.2s								
BLCB	**Balcova**	**0.55**	**8**	Pg			**Pg**	**12 25 42.2**	**-0.1**
DUVT	**Torbali**	**0.55**	**46**	P			**Pg**	**12 25 42.1**	**-0.2**
DUVT				IAML				12 25 49.0	
	comp=E,178nm,0.1s								
DUVT				S			**Sg**	**12 25 49.1**	**-0.5**
AYDB	**Zeytinkoy-Aydi**	**0.76**	**81**	Pg			**Pb**	**12 25 46.7**	**+0.1**
AYDB				Sg			**Sb**	**12 25 57.6**	**+0.7**
AYDB				AML			AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**159**	Pg			**Pb**	**12 25 46.7**	**+0.2**
YKAV				Sg			**Sb**	**12 25 57.7**	**+0.9**
YKAV				AML			AML		
AYDN	**Tasoluk**	**0.76**	**103**	P			**Pb**	**12 25 46.6**	**0.0**
AYDN				S			**Sn**	**12 25 59.2**	**-0.2**
AYDN				IAML				12 26 00.0	
	comp=E,99nm,0.3s								
AYDN				IAML				12 26 01.0	
	comp=N,74nm,0.2s								
BAGT	**Foa**	**0.82**	**355**	P			**Pg**	**12 25 46.9**	**-0.5**
BAGT				S			**Sn**	**12 26 01.0**	**+0.2**
BAGT				IAML				12 26 02.0	
	comp=E,75nm,0.4s								
BAGT				IAML				12 26 17.0	
	comp=N,296nm,1.0s								
BODT	**Bodrum**	**0.83**	**159**	Pg			**Pg**	**12 25 47.3**	**-0.2**
BODT				Sg			**Sb**	**12 25 59.8**	**+1.0**
BODT				AML			AML		
IZMR	**zmir-demi**	**0.85**	**69**	P			**Pb**	**12 25 48.0**	**-0.1**
IZMR				S			**Sg**	**12 25 57.8**	**-1.3**
MLSB	**Milas**	**0.85**	**129**	Pg			**Pb**	**12 25 48.4**	**+0.2**
MLSB				Sg			**Sn**	**12 26 00.9**	**-0.7**
MLSB				AML			AML		
BDRM	**Kayabasi**	**0.87**	**153**	P			**Pg**	**12 25 47.4**	**-0.8**
BDRM				S			**Sn**	**12 26 02.4**	**+0.5**
BDRM				IAML				12 26 04.0	
	comp=E,58nm,0.3s								
BDRM				IAML				12 26 06.0	
	comp=N,65nm,0.4s								
CHOS	**Chios island**	**0.89**	**308**	Pg			**Pb**	**12 25 48.9**	**+0.1**
CHOS				Sg			**Sb**	**12 26 01.7**	**+1.1**
CHOS				AML			AML		
KARB	**zmir-Karabur**	**0.93**	**333**	P			**Pn**	**12 25 49.9**	**-0.3**
KARB				S			**Sb**	**12 26 02.0**	**+0.5**
KARB				IAML				12 26 04.0	
	comp=E,100nm,0.7s								
KARB				IAML				12 26 05.0	
	comp=N,84nm,0.5s								
CAMT	**Merkez**	**0.95**	**18**	P			**Pb**	**12 25 50.0**	**+0.1**
CAMT				S			**Sn**	**12 26 04.9**	**+0.8**
CAMT				IAML				12 26 05.0	
	comp=E,124nm,0.3s								
CAMT				IAML				12 26 07.0	
	comp=N,104nm,0.6s								
ESEN	**Aydn-Nazilli**	**1.11**	**92**	P			**Pn**	**12 25 53.0**	**+0.3**
ESEN				S			**Sn**	**12 26 08.2**	**+0.3**
ZEDA	**zmir-Bergama**	**1.13**	**5**	P			**Pb**	**12 25 52.3**	**-0.6**
ZEDA				S			**Sn**	**12 26 09.2**	**+0.7**
ZEDA				IAML				12 26 13.0	
	comp=E,56nm,0.5s								
KIRA	**zmir-Kiraz**	**1.21**	**72**	P			**Pn**	**12 25 53.9**	**-0.2**
KIRA				S			**Sg**	**12 26 10.2**	**-0.2**
DAT	**Datca**	**1.22**	**155**	Pn			**Pg**	**12 25 55.1**	**+0.2**
KTTT	**Salihli**	**1.24**	**46**	P			**Pg**	**12 25 55.2**	**-0.1**
KTTT				S			**Sg**	**12 26 11.3**	**-0.2**
YER	**Yerkesik**	**1.27**	**123**	Pn			**Pg**	**12 25 55.8**	**-0.2**
YER				AML			AML		
GORD	**Gordes-Manisa**	**1.44**	**42**	Pn			**Pb**	**12 25 58.4**	**+0.2**
GORD				AML			AML		

IDC 14 12:47:24.7±0.5, 44.77S×35.90E, h0km, mb4.5/17, mbtmp4.5/17, MS4.2/42, Error ellipse: s-maj=21.1km s-min=14.2km az=58.0
NEIC 14 12:47:26.6±1.8, 44.85S±0.1×35.7E±0.2, h10km±1km, mb4.9/41, Error ellipse: s-maj=21.5km s-min=17.2km az=228.0
GFZ 14 12:47:26.7±0.2, 45°S±3°×3°6E±°, h10km, M4.7/30, mb4.8/30
GCMT 14 12:47:27.6±0.2, 44.66S±0.01×35.87E±0.03, h12km, MW4.9/109, Moment Tensor Solution. s35,c42; s109,c161; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=2.85±.07; Mθθ2.93±.06; Mϕϕ-0.07±.08; Mrθ 1.36±.21; Mθϕ 0.06±.06; Mϕr-0.35±.29; Best double couple: Ms3.21500×10¹⁶ NP1:ϕ82.00000°, δ33.00000°, λ-102.00000°. NP2:ϕ276.00000°, δ58.00000°, λ-82.00000°. Principal axes: T 3.2340, Plg13.0000°, Azm0.0000°; N -0.0380, Plg6.0000°, Azm92.0000°; P -3.1960, Plg76.0000°, Azm208.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function
ISC 14 12:47:26.5±0.3, 44.75S±0.06×35.72E±0.08, h10km, n159, σ1ˢ15/120, mb4.8/66, MS4.3/43, 3D, Prince Edward Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CRZF	**Crozet Islands**	**11.44**	**104**	P			**Pn**	**12 50 09.2**	**-0.6**
H04S3	**CROZET ISLANDS**	**11.48**	**106**	T			T	13 01 35.8	
	baz=276,slow=76								
H04S2	**CROZET ISLANDS**	**11.48**	**106**	T			T	13 01 31.7	
	baz=276,slow=76								
H04S1	**CROZET ISLANDS**	**11.50**	**106**	T			T	13 01 33.3	
	baz=276,slow=76								
GRHM	**Grahamstown, E**	**13.55**	**325**				Pn	12 50 34.5	-4.3
SUR	**Sutherland**	**16.95**	**312**	P			**Pn**	**12 51 20.9**	**-3.0**
	5.8nm,0.5s,baz=138,slow=12,SNR=29								
SUR				S			Sn	12 54 14.9	-18
	6.6nm,0.9s,baz=109,slow=22,SNR=1.6								
SUR				LR			LR	12 57 03.9	
	comp=Z,758nm,18.1s,baz=154,slow=34								
SUR	**Sutherland**	**16.95**	**312**	Pn			**Pn**	**12 51 20.6**	**-3.3**
SUR	**Sutherland**	**16.95**	**312**	P			**Pn**	**12 51 22.8**	**-1.1**
	comp=Z,42nm,2.5s								
POGA	**Pongola**	**17.66**	**348**				**Pn**	**12 51 29.7**	**-3.0**
POGA	**Pongola**	**17.66**	**348**	P			**Pn**	**12 51 32.5**	**-0.1**
	comp=Z,134nm,0.9s								
BOSA	**Boshof**	**18.14**	**329**	P			**Pn**	**12 51 35.6**	**-3.0**
	comp=Z,27nm,1.2s,baz=162,slow=13,SNR=7.1								
BOSA				S			Sn	12 54 42.8	-18
	comp=Z,4.4nm,1.1s,baz=85,slow=22,SNR=1.7								
BOSA				LR			LR	12 57 24.6	
	comp=Z,1μm,20.5s,baz=175,slow=33								
BOSA	**Boshof**	**18.14**	**329**	P			**Pn**	**12 51 37.0**	**-1.5**
BOSA	**Boshof**	**18.14**	**329**	P			**Pn**	**12 51 38.1**	**-0.4**
	comp=Z,30nm,1.3s								
CVNA	**Calvinia**	**18.21**	**311**	P			**Pn**	**12 51 38.3**	**-1.1**
	comp=Z,20nm,1.4s								
MAKGR	**Makgori**	**20.86**	**331**	P			**P**	**12 52 07.5**	**-1.1**
MAKGR				IAmb			IAmb	12 52 17.8	
	comp=Z,62nm,1.1s								
LBTB	**Lobatse**	**21.34**	**334**	P			**P**	**12 52 12.8**	**-0.9**
	comp=Z,41nm,0.9s,baz=156,slow=10,SNR=39								
LBTB				LR			LR	12 59 21.2	
	comp=Z,1μm,19.8s,baz=164,slow=34								
	comp=Z,41nm,0.9s								
LBTB	**Lobatse**	**21.34**	**334**	P			**P**	**12 52 13.4**	**-0.4**
LBTB	**Lobatse**	**21.34**	**334**	P			**P**	**12 52 13.6**	**-0.2**
	comp=Z,105nm,1.1s								
FOMA	**Nahampoana Res**	**21.74**	**29**	P			**P**	**12 52 18.4**	**+0.4**
FOMA				IAmb			IAmb	12 52 25.8	
	comp=Z,58nm,0.8s								
FOMA	**Nahampoana Res**	**21.74**	**29**	P			**P**	**12 52 20.1**	**+2.1**
	comp=Z,94nm,0.9s								
PHPEN	**Phepeng**	**21.87**	**327**	P			**P**	**12 52 19.0**	**-0.5**
PHPEN				IAmb			IAmb	12 52 29.9	
	comp=Z,74nm,1.1s								
KDWAN	**Kaudwane**	**23.16**	**333**				**P**	**12 52 31.8**	**-1.3**
LKGWB	**Lokgwabe**	**23.74**	**325**				**P**	**12 52 35.8**	**-3.2**
VOI	**Vohitsoka**	**24.54**	**25**				**P**	**12 52 46.6**	**+0.2**
VOI	**Vohitsoka**	**24.54**	**25**	P			**P**	**12 52 45.7**	**-0.7**
	comp=Z,69nm,1.0s								
MATP	**Matopo**	**24.99**	**344**	LR			LR	13 01 26.3	
	comp=Z,4μm,19.7s,baz=176,slow=34								
KOOLE	**Kule**	**25.16**	**325**	P			**P**	**12 52 50.6**	**-1.4**
GRTLG	**Ghanzi**	**26.22**	**328**				**P**	**12 53 01.4**	**-0.3**
GRTLG				IAmb			IAmb	12 53 07.2	
	comp=Z,24nm,1.1s								
WIN	**Windhoek**	**26.89**	**319**	P			**P**	**12 53 07.9**	**+0.1**
WIN				IAmb			IAmb	12 53 16.7	
	comp=Z,48nm,1.5s								
WIN	**Windhoek**	**26.89**	**319**	P			**P**	**12 53 07.0**	**-0.8**
	comp=Z,19nm,1.2s								
MAW	**Mawson**	**27.00**	**157**	P			**P**	**12 53 07.4**	**-0.7**
	comp=Z,4.1nm,0.9s,baz=301,slow=10,SNR=4.6								
MAW				LR			LR	13 01 04.6	
	comp=Z,431nm,20.2s,baz=322,slow=30								
	comp=Z,4.1nm,0.9s								
MAW	**Mawson**	**27.00**	**157**				**P**	**12 53 08.4**	**+0.3**
MAW	**Mawson**	**27.00**	**157**	P			**P**	**12 53 07.9**	**-0.2**
	comp=Z,1.6nm,0.8s								
ABPO	**Ambohimpanom**	**27.40**	**24**				**P**	**12 53 13.0**	**+0.7**
ABPO				IAmb			IAmb	12 53 19.1	
	comp=Z,25nm,1.1s								
ABPO	**Ambohimpanom**	**27.40**	**24**	P			**P**	**12 53 12.8**	**+0.5**
	comp=Z,21nm,1.2s								
OPO	**Ambohidratompo**	**27.81**	**24**	LR			LR	13 03 08.8	
	comp=Z,526nm,18.1s,baz=266,slow=34								
TROLL	**Troll, Antarti**	**31.55**	**199**	P			**P**	**12 53 48.9**	**+0.2**
	comp=Z,

comp=Z,8.5nm,1.0s
SBA Scott Base 54.08 169 P P 12 56 51.6 +0.9
SBA Scott Base 54.08 169 P P 12 56 51.2 +0.5
comp=Z,21nm,1.0s
PMSA Palmer Station 54.40 211 LR LR 13 16 15.6
comp=Z,276nm,19.7s,baz=122,slow=32
H10S2 ASCENSION HYDR 56.11 294 T T 13 57 52.2
baz=137,slow=74,SNR=99
H10S3 ASCENSION HYDR 56.13 294 T T 13 57 53.2
baz=83,slow=74,SNR=129
ATD Arta Tunnel 56.38 8 LR LR 13 19 34.6
comp=Z,5.7nm,20.9s,baz=147,slow=34
DBIC Dimbokro 62.83 313 P P 12 57 52.6 +0.1
comp=Z,5.6nm,0.9s,baz=169,slow=9.2,SNR=3.3
DBIC LR LR 13 20 45.6
comp=Z,134nm,22.0s,baz=162,slow=32
comp=Z,5.6nm,0.9s
DBIC Dimbokro 62.83 313 P P 12 57 50.9 -1.5
DBIC IAmb IAmb 12 57 58.8
comp=Z,9.5nm,0.9s
TORD Torodi Ar. Bea 65.38 323 P P 12 58 09.4 +0.3
comp=Z,3.9nm,0.7s,baz=164,slow=6.3,SNR=9.8
comp=Z,3.9nm,0.7s
PALK Pallekele 65.68 50 LR LR 13 20 57.2
comp=Z,208nm,18.7s,baz=216,slow=31
PLCA Paso Flores 72.28 230 P P 12 58 53.6 +1.5
comp=Z,3.3nm,0.9s,baz=192,slow=9.3,SNR=4.0
PLCA LR LR 13 26 05.6
comp=Z,114nm,20.0s,baz=112,slow=32
comp=Z,3.3nm,0.9s
LEM Lembang 72.38 82 LR LR 13 26 17.5
comp=Z,76nm,18.6s,baz=308,slow=32
TAM Tamanrasset 72.66 331 P P 12 58 56.0 +1.6
comp=Z,2.4nm,0.6s
CPUP Villa Florida 74.01 249 P P 12 59 02.8 +0.3
comp=Z,5.5nm,0.7s,baz=131,slow=6.6,SNR=17
CPUP LR LR 13 25 31.8
comp=Z,48nm,20.5s,baz=80,slow=31
comp=Z,5.5nm,0.7s
CPUP Villa Florida 74.01 249 P 12 59 01.8 -0.6
CPUP Villa Florida 74.01 249 P P 12 59 02.7 +0.3
comp=Z,9.4nm,0.9s
EIL Elat 74.07 359 LR LR 13 31 44.8
comp=Z,185nm,19.7s,baz=214,slow=36
BBOO Buckleboo 74.29 121 P P 12 59 03.5 -0.5
BBOO IAmb IAmb 12 59 04.1
comp=Z,13nm,0.8s
HRFI Mount Harif 74.43 359 P P 12 59 06.0 +1.4
comp=Z,9.3nm,0.9s
AQDB Aquidauana 76.86 254 P 12 59 19.2 +0.3
AQDB IAmb IAmb 12 59 20.2
comp=Z,7.9nm,0.8s
AQDB Aquidauana 76.86 254 P P 12 59 18.1 -0.7
comp=Z,13nm,0.8s
FITZ Fitzroy Crossi 77.43 103 P P 12 59 21.8 -0.3
FITZ Fitzroy Crossi 77.43 103 P P 12 59 22.5 +0.4
comp=Z,3.3nm,1.1s
ZON Zonda 77.64 238 P P 12 59 23.6 +0.4
ZON IAmb IAmb 12 59 25.7
comp=Z,21nm,1.5s
STKA Stephens Creek 78.29 123 P P 12 59 25.7 -1.0
comp=Z,9.4nm,0.8s,baz=226,slow=3.9,SNR=16
comp=Z,9.4nm,0.8s
STKA Stephens Creek 78.29 123 P 12 59 26.5 -0.2
STKA Stephens Creek 78.29 123 P P 12 59 26.1 -0.6
comp=Z,68nm,0.9s
ASAR Alice Springs 79.22 113 P P 12 59 30.9 -1.0
comp=Z,5.1nm,0.8s,baz=225,slow=5.3,SNR=66
ASAR LR LR 13 29 08.1
comp=Z,122nm,19.7s,baz=183,slow=32
comp=Z,5.1nm,0.8s
CO03 El Pedregal 79.35 237 P P 12 59 32.9 +0.2
CO03 IAmb IAmb 12 59 33.5
comp=Z,12nm,0.8s
CO01 Juntas del Tor 79.61 238 P P 12 59 34.6 +0.3
CO01 Juntas del Tor 79.61 238 P P 12 59 34.2 -0.1
comp=Z,18nm,0.9s
IDI Anoyia 80.27 351 LR LR 13 35 54.0
comp=Z,332nm,19.7s,baz=129,slow=36
INKA Innaminka 80.72 120 P 12 59 40.0 0.0
AC02 Maricunga 81.27 241 P P 12 59 43.3 -0.3
AC02 IAmb IAmb 12 59 51.4
comp=Z,10nm,0.8s
AC02 Maricunga 81.27 241 P P 12 59 43.1 -0.5
comp=Z,16nm,0.9s
BATI Baumata 81.45 96 P P 12 59 44.7 +0.6
comp=Z,38nm,0.3s,baz=207,slow=2.3,SNR=3.7
WRA Warramunga Arr 82.10 110 P P 12 59 46.5 -0.9
comp=Z,6.1nm,1.0s,baz=220,slow=4.5,SNR=28
comp=Z,6.1nm,1.0s
WRA Warramunga Arr 82.10 110 P P 12 59 46.4 -1.1
WRAB Tennant Creek 82.11 110 P P 12 59 47.0 -0.5
WRAB IAmb IAmb 12 59 47.2
comp=Z,12nm,1.1s
WRAB Tennant Creek 82.11 110 P P 12 59 46.8 -0.7
comp=Z,10nm,1.2s
WR8 Warramunga Arr 82.20 110 IAmb IAmb 12 59 48.1
comp=Z,9.7nm,1.1s
HAKT HAKKARI 82.25 6 P P 12 59 48.8 +1.0
comp=Z,15nm,1.4s
KAPI Kappang 82.25 89 LR LR 13 28 49.8
comp=Z,94nm,21.2s,baz=170,slow=30
WB0 Warramunga Arr 82.26 110 IAmb IAmb 12 59 48.4
comp=Z,16nm,1.2s
HRA Herat 82.37 22 P P 12 59 47.9 -0.6
HRA IAmb IAmb 12 59 49.4
comp=Z,9.3nm,0.9s
PTLB Pontes e Lacer 82.67 256 IAmb IAmb 12 59 58.2
comp=Z,10.0nm,1.1s
RPZ Rata Peaks 83.36 149 LR LR 13 33 20.7
comp=Z,31nm,18.6s,baz=200,slow=33
CLDB Colider 83.52 261 P P 12 59 54.2 -0.7
comp=Z,7.3nm,1.6s
KEST Kesra 83.60 339 P P 12 59 56.4 +1.7
comp=Z,8.7nm,0.9s,baz=179,slow=3.3,SNR=7.2
KEST LR LR 13 39 35.5
comp=Z,384nm,18.3s,baz=317,slow=37
comp=Z,8.7nm,0.9s
VAE Valguarnera 84.09 343 LR LR 13 39 04.4
comp=Z,223nm,18.1s,baz=186,slow=37
BRTR Keskin Array B 84.11 358 P 12 59 57.2 -0.1
comp=Z,1.9nm,0.8s,baz=170,slow=8.8,SNR=7.4
BRTR LR LR 13 39 06.5
comp=Z,61nm,18.4s,baz=174,slow=37
comp=Z,1.9nm,0.8s
BRDH Bariadhala 84.27 50 LR LR 13 32 53.3
comp=Z,148nm,19.8s,baz=204,slow=32
CEL Celeste 84.55 344 P P 13 00 00.7 +1.2
CEL Celeste 84.55 344 P P 12 59 60.0 +0.5
comp=Z,19nm,1.3s
TIO Tiouine 84.89 324 P P 13 00 01.1 -0.4
comp=Z,13nm,2.0s
QIS Mount Isa 85.14 114 P P 13 00 02.8 -0.3
comp=Z,13nm,1.3s
CMAR Chiang Mai Arr 85.19 58 P P 13 00 02.3 -0.8
comp=Z,0.2nm,0.3s,baz=243,slow=5.2,SNR=5.3
CMAR LR LR 13 31 12.6
comp=Z,64nm,20.7s,baz=220,slow=31
comp=Z,0.2nm,0.3s
MDT Midelt 85.47 327 LR LR 13 38 44.8
comp=Z,228nm,18.1s,baz=214,slow=36
MD01 Midelt array s 85.58 327 P P 13 00 04.9 +0.1
EVN Everest 86.06 44 P P 13 00 07.0 -1.0
comp=Z,6.5nm,1.1s
KNT Kendrikon 86.30 350 P P 13 00 07.1 -0.9
comp=Z,14nm,0.9s
GO01 Chusmiza 86.45 246 IAmb IAmb 13 00 11.6
comp=Z,7.3nm,1.0s
LPAZ La Paz 88.18 249 P P 13 00 19.4 +0.7
comp=Z,0.5nm,0.6s,baz=111,slow=8.7,SNR=1.8
LPAZ LR LR 13 35 14.6
comp=Z,65nm,19.4s,baz=100,slow=32
comp=Z,0.5nm,0.6s
KBZ Khabaz 88.33 5 P P 13 00 18.1 +0.4
comp=Z,3.5nm,1.0s,baz=162,slow=5.5,SNR=4.8
KBZ LR LR 13 39 40.3
comp=Z,76nm,20.5s,baz=188,slow=36
comp=Z,3.5nm,1.0s
KVAR Kislovodsk Arr 88.54 5 LR LR 13 39 00.7
comp=Z,44nm,20.4s,baz=66,slow=35
CTA Charters Tower 89.73 118 LR LR 13 35 42.4
comp=Z,167nm,18.1s,baz=214,slow=32
MLR Muntele Rosu 90.27 353 LR LR 13 43 38.6
comp=Z,137nm,19.4s,baz=180,slow=37
URZ Urewera 90.32 151 LR LR 13 37 29.2
comp=Z,144nm,20.1s,baz=200,slow=33
VRI Vrincioaia 90.58 354 P P 13 00 27.2 -1.1
comp=Z,18nm,1.0s
ESDC Sonseca Array 91.31 330 P P 13 00 33.1 +1.2
comp=Z,0.9nm,0.9s,baz=157,slow=3.0,SNR=4.9
ESDC LR LR 13 42 25.4
comp=Z,332nm,18.6s,baz=140,slow=36
comp=Z,0.9nm,0.9s
BURAR Bucovina Array 92.44 353 P P 13 00 37.1 +0.1
BURAR IAmb IAmb 13 00 42.4
comp=Z,3.3nm,0.9s
OBKA Obir 92.78 346 *eP* **P 13 00 40.2 +1.7**
comp=Z,4.4nm,1.1s
SOKA Soboth 92.86 346 *eP* **P 13 00 40.5 +1.6**
comp=Z,0.9nm,0.7s
SESA Seetaler Alpe, 93.36 346 *ePcP* **PcP 13 00 44.0 +2.0**
comp=Z,4.9nm,1.3s
ABTA Abfaltersbach 93.39 344 *eP* **P 13 00 43.3 +1.9**
comp=Z,0.1nm,0.3s
KBA Koelnbreinsper 93.55 345 *eP* **P 13 00 44.1 +1.9**
comp=Z,2.5nm,1.3s
RONA Rosalia, Austr 93.64 347 *eP* **P 13 00 44.2 +1.8**
comp=Z,6.8nm,1.2s
AAK Ala-Archa 93.65 28 LR LR 13 39 39.2
comp=Z,126nm,18.0s,baz=225,slow=34
CONA Conrad Observa 93.93 347 *eP* **P 13 00 44.9 +1.1**
comp=Z,4.2nm,1.1s
DAVOX Davos/Dischmat 93.95 343 LR LR 13 44 56.4
comp=Z,148nm,19.2s,baz=141,slow=37
FETA Feichten 94.01 343 *eP* **P 13 00 45.4 +1.1**
comp=Z,3.6nm,1.1s
WTTA Wattenberg 94.05 344 *eP* **P 13 00 46.7 +2.2**
comp=Z,3.4nm,0.8s
SQTA Sankt Quirin 94.10 344 *eP* **P 13 00 46.9 +2.2**
comp=Z,5.9nm,1.2s
MOA Molln 94.12 346 *eP* **P 13 00 46.8 +2.1**
comp=Z,2.7nm,1.1s
RETA Reutte 94.44 343 *eP* **P 13 00 48.4 +2.2**
comp=Z,1.9nm,0.7s
VRAC Vranov 95.16 348 LR LR 13 45 37.8
comp=Z,42nm,18.4s,baz=180,slow=37
GERES GERESS Array B 95.19 346 LR LR 13 45 57.9
comp=Z,108nm,19.2s,baz=191,slow=37
AKASG Malin Array Be 95.24 356 LR LR 13 48 44.6
comp=Z,51nm,18.0s,baz=184,slow=39
AB31 Akbulak array 95.99 16 P P 13 00 53.6 +0.5
AB31 IAmb IAmb 13 01 08.5
comp=Z,5.0nm,1.5s
ABKAR Akbulak array 95.99 16 P P 13 00 53.2 +0.1
AKTO Aktyubinsk 96.77 14 LR LR 13 43 31.9
comp=Z,92nm,20.4s,baz=125,slow=35
CLL Collm 97.68 346 *eP* Pdif 13 01 04.0 +3.2
CLL *eL* L 13 39 00.0
CLL AMS AMS 13 46 00.0
comp=N,100nm,21.9s
CLL AMS AMS 13 46 00.0
comp=E,100nm,16.3s
CLL AMS AMS 13 46 00.0
comp=Z,200nm,20.8s
WMQ Urumqi 99.58 35 *eP* **Pdif 13 01 10.3 +0.8**
WMQ pmax pmax
comp=Z,9.0nm,0.7s
WMQ LR LR
comp=Z,79nm,22.9s
MKAR Makanchi Array 99.98 30 LR LR 13 43 48.2
comp=Z,77nm,19.3s,baz=310,slow=34
LZH Lanzhou 101.33 50 *eP* **Pdif 13 01 16.3 -1.3**
LZH sP sPdif 13 01 21.8 +1.0
LZH pmax pmax
comp=Z,19nm,1.0s
TBI Tubuai 112.07 175 *eLR* LR 13 39 24.6
comp=Z,1μm,32.0s
TBI *eLR* LR 13 39 24.9
comp=Z,1μm,25.2s
PPT2 Papeete2 117.78 174 *eLR* LR 13 41 56.1
comp=Z,225nm,22.8s
PPT2 *eLR* LR 13 42 00.0
comp=Z,182nm,27.5s
MJAR Matsushiro Arr 122.68 69 PKP **PKPdf 13 06 21.2 -0.9**
comp=Z,1.1nm,0.8s,baz=247,slow=2.1,SNR=4.8
TAOE Nuku Hiva Isla 126.52 185 *eLR* LR 13 45 56.1
comp=Z,138nm,21.8s
TXAR Lajitas Array 144.52 258 PKP PKPbc 13 07 02.5 +0.7
comp=Z,5.3nm,0.8s,baz=143,slow=6.2,SNR=66
TXAR Lajitas Array 144.52 258 PKPab 13 07 02.0 +0.4
ULM Lac du Bonnet 147.31 297 PKPbc **PKPbc 13 07 08.8 -0.7**
comp=Z,4.8nm,0.7s,baz=83,slow=2.2,SNR=5.4
PDAR Pinedale Array 154.96 278 PKP **PKPdf 13 07 18.6 -0.7**
comp=Z,1.4nm,0.8s,baz=116,slow=3.4,SNR=9.3
YKA Yellowknife Ar 155.35 327 PKPab **PKPab 13 07 44.1 -0.2**
comp=Z,4.2nm,1.0s,baz=54,slow=3.9,SNR=7.7
NVAR Mina Array Bea 159.62 261 PKPab **PKPab 13 08 03.4 -0.5**
comp=Z,1.5nm,0.9s,baz=122,slow=5.0,SNR=4.4
ILAR Eielson Array 159.88 3 PKPab **PKPab 13 08 02.2 -1.6**
comp=Z,1.2nm,0.9s,baz=328,slow=2.8,SNR=9.0

NEIC ***14*** *12:49:26.2±1.0, 8.43N±0.08×38.88W±0.09, h10km±1km, mb4.6/12, Error ellipse: s-maj=18.4km s-min=6.8km az=49.0*
IDC ***14*** *12:49:28.2±0.9, 8.21N×38.88W, h0km, mb4.2/8, mbtmp4.2/8, MS3.5/18, Error ellipse: s-maj=37.2km s-min=17.9km az=149.0*
ISC 14 12:49:27.1±0.6, 8.43N±0.10×38.98W±0.09, h10km, n57, σ1s79/34, mb4.3/12, MS3.5/17, Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NBMO	**Morrinhos-CE**	**11.71**	**185**	*eP*	**Pn**	**12 52 13.3**	**-1.1**
NBPS	**Pedro II - PI**	**12.97**	**191**	*eP*	**Pn**	**12 52 31.2**	**-0.5**
MDP	**Montagnes des**	**13.97**	**257**	LR	LR	12 57 37.1	
	comp=Z,69nm,19.1s,baz=92,slow=35						
RCBR	**Riachuelo**	**14.49**	**168**	Pn	**Pn**	**12 52 50.6**	**-1.8**
NBMA	**Muriti-CE**	**15.69**	**179**	*eP*	**Pn**	**12 53 09.1**	**+0.7**
SACV	**Santiago Islan**	**16.39**	**65**	Pn	**Pn**	**12 53 14.9**	**-2.4**
SMTB	**Santa Maria do**	**19.20**	**207**	P	**P**	**12 53 49.9**	**-1.4**
SMTB				IAmb	IAmb	12 54 27.7	
	comp=Z,15nm,0.9s						
SMTB	**Santa Maria do**	**19.20**	**207**	*eP*	**P**	**12 53 51.9**	**+0.6**
ITTB	**Itaituba**	**21.00**	**233**	*eP*	**P**	**12 54 11.8**	**+0.9**
SDBA	**SAO DESIDERIO**	**21.52**	**196**	*eP*	**P**	**12 54 17.2**	**+0.6**
BOAV	**Boa Vista**	**22.26**	**256**	P	**P**	**12 54 23.7**	**-0.8**
BOAV				IAmb	IAmb	12 54 35.5	
	comp=Z,41nm,1.3s						
BOAV	**Boa Vista**	**22.26**	**256**	*eP*	**P**	**12 54 27.1**	**+2.5**
NPGB	**Novo Progresso**	**22.43**	**227**	*eP*	**P**	**12 54 27.2**	**+0.9**
CLDB	**Colider**	**25.45**	**221**	*eP*	**P**	**12 54 57.4**	**+1.9**
BDFB	**Brasilia**	**25.54**	**201**	LR	LR	13 04 40.2	
	comp=Z,150nm,18.2s,baz=32,slow=36						
PDRB	**Pedro dos Gac**	**26.61**	**222**	*eP*	**P**	**12 55 07.2**	**+1.2**
HUMP	**Col San Antoni**	**27.84**	**293**	P	**P**	**12 55 14.9**	**-2.1**
PDPR	**Patillas Dam,**	**27.97**	**293**	P	**P**	**12 55 16.8**	**-1.3**
PDPR				IAmb	IAmb	12 55 27.9	
	comp=Z,31nm,1.4s						
AOPR	**Arecibo Observ**	**28.73**	**293**	P	**P**	**12 55 25.2**	**+0.3**
H10N3	**ASCENSION HYDR**	**29.26**	**123**	T	T	13 25 54.4	
	baz=303,slow=74						
H10N2	**ASCENSION HYDR**	**29.27**	**123**	T	T	13 25 18.4	
	baz=303						
H10N1	**ASCENSION HYDR**	**29.28**	**123**	T	T	13 25 55.9	
	baz=303,slow=74						
H10S3	**ASCENSION HYDR**	**29.74**	**125**	T	T	13 26 09.0	
	baz=300,slow=74,SNR=65						
H10S2	**ASCENSION HYDR**	**29.76**	**125**	T	T	13 26 11.7	
	baz=280,slow=74,SNR=85						
PTLB	**Pontes e Lacer**	**31.02**	**220**	P	**P**	**12 55 43.5**	**-1.7**
PTLB				IAmb	IAmb	12 55 48.8	
	comp=Z,4.2nm,1.1s						
SIV	**San Ignacio**	**32.67**	**222**	P	**P**	**12 56 01.7**	**+2.0**
	comp=Z,3.1nm,0.8s,baz=42,slow=7.3,SNR=10						
	comp=Z,3.1nm,0.8s						
BBSD	**Serra de San D**	**33.25**	**220**	*eP*	**P**	**12 56 06.8**	**+2.0**
DBIC	**Dimbokro**	**33.86**	**91**	P	**P**	**12 56 11.3**	**+1.1**
	comp=Z,6.0nm,0.7s,baz=293,slow=9.4,SNR=1.3						
	comp=Z,6.0nm,0.7s						
ROSC	**El Rosal**	**35.28**	**266**	LR	LR	13 12 54.7	
	comp=Z,86nm,18.4s,baz=79,slow=40						
LPAZ	**La Paz**	**37.89**	**230**	P	**P**	**12 56 47.6**	**+2.3**
	comp=Z,2.7nm,0.9s,baz=43,slow=9.8,SNR=7.4						
LPAZ				LR	LR	13 11 28.1	
	comp=Z,74nm,20.0s,baz=47,slow=35						
	comp=Z,2.7nm,0.9s						
LPAZ	**La Paz**	**37.89**	**230**	P	**P**	**12 56 44.4**	**-1.0**
LPAZ	**La Paz**	**37.89**	**230**	*eP*	**P**	**12 56 47.7**	**+2.3**
CPUP	**Villa Florida**	**38.88**	**207**	LR	LR	13 12 56.2	
	comp=Z,81nm,18.1s,baz=81,slow=36						
MD01	**Midelt array s**	**39.90**	**48**	P	**P**	**12 57 00.6**	**-1.0**
MDT	**Midelt**	**39.98**	**48**	LR	LR	13 10 56.1	
	comp=Z,65nm,20.2s,baz=240,slow=32						
OTAV	**Otavalo**	**40.16**	**260**	P	**P**	**12 57 02.8**	**-1.5**
TORD	**Torodi Ar. Bea**	**40.19**	**80**	P	**P**	**12 57 06.0**	**+1.9**
	comp=Z,8.9nm,0.7s,baz=272,slow=9.2,SNR=33						
	comp=Z,8.9nm,0.7s						
ATAH	**Atahualpa**	**42.23**	**250**	LR	LR	13 15 24.0	
	comp=Z,75nm,19.9s,baz=59,slow=37						
NNA	**Nana**	**42.76**	**242**	LR	LR	13 15 17.1	
	comp=Z,34nm,19.7s,baz=72,slow=36						
PB06	**IPOC Station P**	**43.07**	**223**	P	**P**	**12 57 26.3**	**-1.4**
PB06				IAmb	IAmb	12 57 27.4	
	comp=Z,12nm,1.1s						
PB05	**IPOC Station P**	**43.60**	**224**	P	**P**	**12 57 31.5**	**-0.5**
PB05				IAmb	IAmb	12 57 41.2	
	comp=Z,17nm,1.2s						
ESDC	**Sonseca Array**	**44.11**	**40**	P	P	12 57 39.7	+3.9
	comp=Z,1.3nm,1.1s,baz=224,slow=8.3,SNR=4.9						
ESDC				LR	LR	13 12 22.8	
	comp=Z,115nm,21.0s,baz=248,slow=31						
	comp=Z,1.3nm,1.1s						
TKL	**Tuckaleechee C**	**48.99**	**310**	LR	LR	13 16 53.6	
	comp=Z,43nm,18.6s,baz=116,slow=33						
SADO	**Sadowa**	**50.15**	**323**	LR	LR	13 17 23.3	
	comp=Z,33nm,18.3s,baz=148,slow=33						
KEST	**Kesra**	**51.69**	**51**	P	P	12 58 38.5	+3.9
	comp=Z,4.0nm,1.0s,baz=252,slow=6.4,SNR=3.7						
	comp=Z,4.0nm,1.0s						
FRB	**Frobisher Bay**	**59.13**	**345**	LR	LR	13 21 57.4	
	comp=Z,50nm,18.4s,baz=148,slow=33						
ULM	**Lac du Bonnet**	**62.71**	**323**	LR	LR	13 24 57.2	
	comp=Z,21nm,19.4s,baz=8.0,slow=34						
TXAR	**Lajitas Array**	**63.88**	**298**	P	**P**	**13 00 04.1**	**+3.6**
	comp=Z,0.3nm,0.6s,baz=118,slow=7.3,SNR=5.0						
	comp=Z,0.3nm,0.6s						
TXAR	**Lajitas Array**	**63.88**	**298**	P	**P**	**12 59 58.2**	**-2.3**
TX31	**Lajitas Ar. Si**	**63.88**	**298**	P	**P**	**12 59 58.8**	**-1.8**
NOA	**NORSAR Array B**	**64.18**	**25**	LR	LR	13 22 47.9	
	comp=Z,16nm,21.2s,baz=170,slow=31						
ANMO	**Albuquerque**	**66.78**	**304**	LR	LR	13 26 13.1	
	comp=Z,28nm,21.8s,baz=78,slow=33						
PDAR	**Pinedale Array**	**70.88**	**312**	LR	LR	13 28 12.9	
	comp=Z,44nm,19.9s,baz=50,slow=33						
FINES	**FINESS Array B**	**70.84**	**27**	P	**P**	**13 00 47.1**	**+3.3**
	comp=Z,2.2nm,0.9s,baz=278,slow=1.3,SNR=4.9						
	comp=Z,2.2nm,0.9s						
FINES	**FINESS Array B**	**70.84**	**27**	P	**P**	**13 00 43.0**	**-0.9**
NEW	**Newport**	**75.87**	**318**	LR	LR	13 33 34.9	
	comp=Z,44nm,18.3s,baz=93,slow=35						
YBH	**Yreka Blue Hor**	**79.78**	**311**	LR	LR	13 34 10.2	
	comp=Z,24nm,21.0s,baz=3.5,slow=34						

IDC ***14*** *13:01:42.4±0.7, 54.96S×158.78E, h0km, mb4.4/13, mbtmp4.4/13, MS3.8/9, Error ellipse: s-maj=31.5km s-min=15.3km az=80.0*
NEIC ***14*** *13:01:43.2±2.5, 55.16S±0.04×158.6E±0.2, h10km±1km, mb4.4/20, Error ellipse: s-maj=17.0km s-min=6.3km az=280.0*
GFZ ***14*** *13:01:43.9±0.2, 55.2S±2.1×15.2E±.1, h10km, M4.3/35, mb4.6/35, Error ellipse: s-maj=7.4km s-min=5.0km az=87.1, confirmed*
ISC 14 13:01:43.4±0.4, 55.10S±0.05×158.69E±0.07, h10km, n131, σ1s85/117, mb4.5/41, MS3.8/9, Macquarie Island region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MCQ	**Macquarie Isla**	**0.62**	**14**		**Pg**	**13 01 55.5**	**+0.1**
MCQ				Sg	**Sb**	**13 02 06.6**	**+1.5**
MCQ	**Macquarie Isla**	**0.62**	**14**	P	**Pg**	**13 01 56.0**	**+0.6**
MCQ				S	**Sg**	**13 02 05.4**	**+1.8**
MCQ				AML	AML		
MCQ				AML	AML		
APZ	**The Paps**	**10.14**	**39**	P	**Pn**	**13 04 08.1**	**-0.8**
APZ				S	**Sn**	**13 05 55.8**	**-6.8**
PYZ	**Puysegur Point**	**10.28**	**33**	P	**Pn**	**13 04 12.3**	**+1.5**
SYZ	**Scrubby Hill**	**10.81**	**42**	P	**Pn**	**13 04 18.0**	**-0.1**
SYZ				S	Sn	13 06 11.1	-7.9
WHZ	**Wether Hill Ro**	**10.93**	**36**		**Pn**	**13 04 20.8**	**+1.1**
WHZ	**Wether Hill Ro**	**10.93**	**36**	P	**Pn**	**13 04 19.7**	**-0.1**
WHZ				S	**Sn**	**13 06 17.3**	**-4.7**
DCZ	**Deep Cove**	**11.05**	**33**	P	**Pn**	**13 04 23.0**	**+1.7**
MLZ	**Mavora Lakes**	**11.45**	**36**		**Pn**	**13 04 28.9**	**+2.0**
MLZ	**Mavora Lakes**	**11.45**	**36**	P	**Pn**	**13 04 29.3**	**+2.4**
MLZ				S	**Sn**	**13 06 33.1**	**-1.7**
TUZ	**Tuapeka**	**11.49**	**42**	P	**Pn**	**13 04 29.4**	**+2.1**
TUZ				S	**Sn**	**13 06 28.8**	**-6.8**
HHSZ	**Highcliff Hill**	**11.92**	**44**	P	**Pn**	**13 04 35.5**	**+2.1**
EAZ	**Earnscleugh**	**11.98**	**39**	P	**Pn**	**13 04 34.7**	**+0.6**
MSZ	**Milford Sound**	**12.00**	**33**	P	**Pn**	**13 04 37.4**	**+3.1**
WKZ	**Wanaka**	**12.23**	**37**	P	**Pn**	**13 04 40.0**	**+2.5**
ODZ	**Otahua Downs**	**12.64**	**42**	P	**Pn**	**13 04 43.3**	**+0.2**
ODZ	**Otahua Downs**	**12.64**	**42**	P	**Pn**	**13 04 47.0**	**+3.9**
	comp=Z,34nm,1.5s						
JCZ	**Jackson Bay**	**12.82**	**35**	P	**Pn**	**13 04 49.0**	**+3.4**
LBZ	**Lake Benmore**	**13.03**	**39**	P	**Pn**	**13 04 49.8**	**+1.4**
TMZ	**Timaru**	**13.34**	**42**	P	**Pn**	**13 04 52.7**	**+0.1**
RPZ	**Rata Peaks**	**13.92**	**40**	P	**Pn**	**13 05 03.3**	**+2.7**
TAU	**Tasmania Unive**	**14.27**	**324**		**Pn**	**13 05 03.9**	**-1.5**
TAU	**Tasmania Unive**	**14.27**	**324**	P	**Pn**	**13 05 03.7**	**-1.7**
	comp=Z,76nm,1.9s						
OXZ	**Oxford**	**14.63**	**42**		**Pn**	**13 05 11.1**	**+0.8**
MOO	**Moorlands**	**14.73**	**325**	P	**Pn**	**13 05 10.5**	**-1.2**
	comp=Z,58nm,0.8s						
KHZ	**Kahutara**	**15.98**	**44**	P	**P**	**13 05 31.2**	**-0.4**
	comp=Z,32nm,2.4s						
BSWZ	**Blackbirch Sta**	**16.71**	**43**	Pn	**Pn**	**13 05 36.8**	**-0.6**
QRZ	**Quartz Range**	**16.98**	**38**	P	**P**	**13 05 46.1**	**+3.4**
MILA	**Mila**	**19.19**	**336**	P	**Pn**	**13 06 09.3**	**+1.2**
	comp=Z,8.5nm,1.5s						
TOO	**Toolangi**	**19.70**	**327**	P	P	**13 06 12.7**	**0.0**
HIZ	**Hauiti**	**19.86**	**40**	P	**Pn**	**13 06 19.3**	**+3.3**
	comp=Z,48nm,1.9s						
RTZ	**Ruatahuna**	**20.59**	**44**		**P**	**13 06 24.4**	**+1.9**
RTZ				IAmb	IAmb	13 06 31.9	
	comp=Z,21nm,0.9s						
CAN	**Canberra**	**20.89**	**337**	P	Pn	13 06 27.5	-0.6
CAN	**Canberra**	**20.89**	**337**	P	**P**	**13 06 26.4**	**+0.8**
	comp=Z,27nm,2.6s						
URZ	**Urewera**	**20.95**	**44**	P	**P**	**13 06 25.9**	**-0.3**
	comp=Z,12nm,0.8s,baz=273,slow=5.7,SNR=4.6						
URZ				LR	LR	13 14 35.8	
	comp=Z,145nm,18.4s,baz=208,slow=37						
	comp=Z,12nm,0.8s						
URZ	**Urewera**	**20.95**	**44**	P	**P**	**13 06 29.5**	**+3.3**
	comp=Z,19nm,1.0s						
RIV	**Riverview**	**21.91**	**343**	P	**P**	**13 06 36.6**	**0.0**
	comp=Z,75nm,1.1s						
WCZ	**Waipu Caves**	**21.98**	**36**	P	**P**	**13 06 41.6**	**+4.3**
OUZ	**Omahuta**	**22.40**	**34**	P	**P**	**13 06 45.8**	**+4.0**
OUZ	**Omahuta**	**22.40**	**34**	P	**P**	**13 06 44.2**	**+2.4**
	comp=Z,22nm,1.3s						
VNDA	**Vanda**	**22.55**	**178**	P	**P**	**13 06 44.9**	**+1.8**
	comp=Z,3.7nm,1.0s,baz=342,slow=9.3,SNR=11						
	comp=Z,3.7nm,1.0s						
VNDA	**Vanda**	**22.55**	**178**	P	**P**	**13 06 41.9**	**-1.2**
VNDA	**Vanda**	**22.55**	**178**	P	**P**	**13 06 44.1**	**+1.1**
	comp=Z,9.0nm,1.5s						
SBA	**Scott Base**	**23.03**	**176**	P	**P**	**13 06 47.3**	**-0.9**
SBA				IAmb	IAmb	13 07 14.5	
	comp=Z,17nm,1.4s						
SBA	**Scott Base**	**23.03**	**176**	P	**P**	**13 06 46.7**	**-1.4**
	comp=Z,9.5nm,1.1s						
ARMA	**Armidale**	**25.18**	**346**	P	**P**	**13 07 09.9**	**+1.0**
ARMA	**Armidale**	**25.18**	**346**	P	**P**	**13 07 09.0**	**+0.1**
	comp=Z,19nm,0.9s						
CMSA	**Cobar Meteorol**	**25.30**	**333**	P	**P**	**13 07 09.5**	**-0.4**
	comp=Z,20nm,1.1s						
STKA	**Stephens Creek**	**26.18**	**325**	P	**P**	**13 07 18.2**	**+0.3**
	comp=Z,4.9nm,0.8s,baz=154,slow=7.5,SNR=8.2						
STKA				LR	LR	13 16 21.8	
	comp=Z,180nm,18.6s,baz=195,slow=34						
	comp=Z,4.9nm,0.8s						
STKA	**Steph

INKA					IAmb	IAmb	13 07 57.1	
	comp=Z,4.6nm,0.9s							
QLP	**Quilpie**	**30.39**	**334**	P	**P**		**13 07 56.0**	**+0.5**
	comp=Z,37nm,1.1s							
RAO	**Raoul Island**	**30.82**	**43**	LR	LR		13 20 27.6	
	comp=Z,215nm,18.1s,baz=90,slow=37							
DZM	**Mont Dzumac**	**33.49**	**13**	P	**P**		**13 08 22.0**	**-0.9**
	comp=Z,7.8nm,0.8s,baz=226,slow=8.9,SNR=6.0							
	comp=Z,7.8nm,0.8s							
QSPA	**South Pole Qui**	**35.01**	**180**	P	**P**		**13 08 36.3**	**+0.6**
	comp=Z,3.6nm,1.0s,baz=22,slow=4.2,SNR=5.9							
QSPA				PcP	**PcP**		**13 11 10.2**	**+2.8**
	comp=Z,1.0nm,0.7s,baz=339,slow=0.6,SNR=6.5							
	comp=Z,3.6nm,1.0s							
QSPA	**South Pole Qui**	**35.01**	**180**	P	**P**		**13 08 34.8**	**-0.9**
QSPA	**South Pole Qui**	**35.01**	**180**	P	**P**		**13 08 35.7**	**-0.1**
	comp=Z,9.4nm,2.0s							
CTA	**Charters Tower**	**36.20**	**340**	P	**P**		**13 08 46.0**	**-0.2**
	comp=Z,2.9nm,0.7s,baz=183,slow=10,SNR=3.7							
	comp=Z,2.9nm,0.7s							
CTAO	**Charters Tower**	**36.20**	**340**	P	**P**		**13 08 46.3**	**+0.1**
	comp=Z,8.8nm,1.8s							
ASAR	**Alice Springs**	**36.38**	**320**	P	**P**		**13 08 48.0**	**+0.2**
	comp=Z,7.8nm,0.8s,baz=158,slow=8.2,SNR=34							
ASAR				PcP	**PcP**		**13 11 11.3**	**-0.7**
	comp=Z,1.3nm,0.7s,baz=141,slow=3.5,SNR=6.2							
	comp=Z,7.8nm,0.8s							
AS31	**Alice Springs**	**36.38**	**320**	P	**P**		**13 08 47.7**	**0.0**
AS31				IAmb	IAmb		13 08 49.5	
	comp=Z,2.7nm,0.8s							
H01W1	**Cape Leeuwin H**	**36.60**	**285**	T	T		13 47 26.7	
	baz=136,slow=75							
H01W2	**Cape Leeuwin H**	**36.61**	**285**	T	T		13 47 27.1	
	baz=136,slow=75							
H01W3	**Cape Leeuwin H**	**36.62**	**285**	T	T		13 47 28.0	
	baz=136,slow=75							
KLBR	**Kellerberrin**	**37.14**	**292**	P	**P**		**13 08 52.9**	**-1.3**
	comp=Z,28nm,1.1s							
QIS	**Mount Isa**	**37.38**	**330**	P	**P**		**13 08 55.8**	**-0.4**
	comp=Z,5.1nm,2.1s							
MTSU	**Mount Surprise**	**38.50**	**338**	P	**P**		**13 09 05.9**	**+0.2**
	comp=Z,5.0nm,1.1s							
WR8	**Warramunga Arr**	**39.57**	**323**	P	**P**		**13 09 13.4**	**-1.3**
WR8				IAmb	IAmb		13 09 15.4	
	comp=Z,8.4nm,0.8s							
WRA	**Warramunga Arr**	**39.64**	**323**	P	**P**		**13 09 14.6**	**-0.6**
	comp=Z,5.2nm,0.8s,baz=159,slow=7.2,SNR=29							
WRA				PcP	**PcP**		**13 11 21.5**	**-0.6**
	comp=Z,1.4nm,0.7s,baz=160,slow=2.6,SNR=7.7							
	comp=Z,5.2nm,0.8s							
WRAB	**Tennant Creek**	**39.65**	**323**	P	**P**		**13 09 13.6**	**-1.7**
WRAB				IAmb	IAmb		13 09 15.8	
	comp=Z,7.0nm,0.7s							
WRAB	**Tennant Creek**	**39.65**	**323**	P	**P**		**13 09 14.2**	**-1.0**
	comp=Z,11nm,0.8s							
WB0	**Warramunga Arr**	**39.78**	**323**		**P**		**13 09 15.4**	**-1.1**
WB0				IAmb	IAmb		13 09 16.9	
	comp=Z,7.7nm,0.8s							
FITZ	**Fitzroy Crossi**	**44.69**	**312**	P	**P**		**13 09 56.4**	**0.0**
FITZ	**Fitzroy Crossi**	**44.69**	**312**	P	**P**		**13 09 56.5**	**0.0**
	comp=Z,2.3nm,1.5s							
MBWA	**Marble Bar**	**44.70**	**303**	P	**P**		**13 09 54.8**	**-1.7**
	comp=Z,20nm,1.9s							
HNR	**Honiara**	**45.56**	**2**	LR	LR		13 25 54.4	
	comp=Z,100nm,18.5s,baz=287,slow=32							
HNR	**Honiara**	**45.56**	**2**	P	**P**		**13 10 04.0**	**+0.7**
HNR	**Honiara**	**45.56**	**2**	P	**P**		**13 10 05.6**	**+2.3**
KNRA	**Kununurra**	**45.61**	**318**	P	**P**		**13 10 04.4**	**+0.7**
KNRA				IAmb	IAmb		13 10 05.5	
	comp=Z,6.0nm,0.8s							
PMG	**Port Moresby**	**46.49**	**344**	P	**P**		**13 10 10.8**	**+0.2**
	comp=Z,16nm,0.8s,baz=187,slow=7.8,SNR=5.7							
	comp=Z,16nm,0.8s							
PMG	**Port Moresby**	**46.49**	**344**	P	**P**		**13 10 10.2**	**-0.4**
PMG	**Port Moresby**	**46.49**	**344**	P	**P**		**13 10 12.3**	**+1.7**
	comp=Z,29nm,1.0s							
TROLL	**Troll, Antarti**	**52.09**	**189**	P	**P**		**13 10 52.3**	**-0.7**
	comp=Z,120nm,0.8s							
VNA3	**Neumayer Olymp**	**53.68**	**185**	P	**P**		**13 11 04.4**	**-0.2**
	comp=Z,3.3nm,0.8s							
VNA3	**Neumayer Olymp**	**53.68**	**185**	P	**P**		**13 11 03.6**	**-1.1**
	comp=Z,6.9nm,1.6s							
VNA2	**Neumayer--Watz**	**53.88**	**186**	P	**P**		**13 11 05.5**	**-0.6**
	comp=Z,3.2nm,0.8s,baz=164,slow=7.1							
VNA2	**Neumayer--Watz**	**53.88**	**186**	P	**P**		**13 11 05.2**	**-0.8**
	comp=Z,6.3nm,1.6s							
PPT2	**Papeete2**	**54.18**	**67**	*e*LR	LR		13 26 44.0	
PPT2				*e*LR	LR		13 26 51.2	
	comp=Z,243nm,27.8s							
PPTF	**Pamatai, Papee**	**54.18**	**67**	P	**P**		**13 11 10.4**	**+1.4**
	comp=Z,48nm,2.5s							
JAY	**Jayapura**	**54.42**	**338**	LR	LR		13 34 42.0	
	comp=Z,79nm,18.1s,baz=198,slow=36							
EDFI	**Ende, Flores**	**54.73**	**313**	P	**P**		**13 11 12.2**	**-0.8**
	comp=Z,5.7nm,1.0s							
SMPI	**Sarmi**	**55.38**	**335**	P	**P**		**13 11 17.6**	**0.0**
	comp=Z,16nm,1.1s							
BSSI	**Bau Bau, Buton**	**57.58**	**313**	P	**P**		**13 11 32.6**	**-0.7**
	comp=Z,25nm,0.9s							
NLAI	**Namlea**	**57.67**	**322**	P	**P**		**13 11 33.8**	**-0.1**
	comp=Z,25nm,1.0s							
SIJI	**Sorong**	**58.51**	**327**	P	**P**		**13 11 39.5**	**-0.2**
	comp=Z,9.9nm,1.1s							
SANI	**Sanana**	**59.18**	**321**	P	**P**		**13 11 43.7**	**-0.7**
	comp=Z,12nm,1.0s							
H04S2	**CROZET ISLANDS**	**61.24**	**229**	T	T		14 19 15.6	
	baz=140,slow=75,SNR=1402							
H04S1	**CROZET ISLANDS**	**61.24**	**229**	T	T		14 19 16.4	
	baz=140,slow=75,SNR=1900							
H04S3	**CROZET ISLANDS**	**61.25**	**229**	T	T		14 19 15.0	
	baz=140,slow=75,SNR=1275							
TAOE	**Nuku Hiva Isla**	**66.48**	**71**	*e*LR	LR		13 32 26.9	
	comp=Z,116nm,29.9s							
RPN	**Rapa Nui**	**69.30**	**108**	LR	LR		13 37 03.1	
	comp=Z,164nm,20.5s,baz=112,slow=31							
H03S2	**Juan Fernandez**	**78.62**	**134**	T	T		14 40 55.1	
	baz=208,slow=74							
H03S1	**Juan Fernandez**	**78.62**	**134**	T	T		14 40 56.4	
	baz=208,slow=74							
H03S3	**Juan Fernandez**	**78.64**	**134**	T	T		14 40 55.8	
	baz=208,slow=74,SNR=6665							
H03N3	**Juan Fernandez**	**78.95**	**134**	T	T		14 40 53.5	
	baz=218							
H03N2	**Juan Fernandez**	**78.96**	**134**	T	T		14 41 09.7	
	baz=218,slow=74							
H03N1	**Juan Fernandez**	**78.97**	**134**	T	T		14 41 10.8	
	baz=218,slow=74							
H08S2	**Diego Garcia H**	**81.61**	**269**	T	T		14 43 43.7	
	baz=144,slow=76,SNR=892							
H08S1	**Diego Carcia H**	**81.62**	**269**	T	T		14 43 50.2	
	baz=144,slow=76,SNR=510							
H08S3	**Diego Garcia H**	**81.63**	**269**	T	T		14 43 45.3	
	baz=144,slow=76,SNR=1979							
BOSA	**Boshof**	**87.57**	**220**	P	**P**		**13 14 35.0**	**+3.3**
	comp=Z,2.1nm,0.5s,baz=160,slow=3.0,SNR=10.0							
BOSA				LR	LR		13 47 43.2	
	comp=Z,41nm,18.0s,baz=126,slow=32							
	comp=Z,2.1nm,0.5s							
CMAR	**Chiang Mai Arr**	**89.01**	**305**	P	**P**		**13 14 39.1**	**+0.9**
	comp=Z,0.5nm,0.3s,baz=180,slow=3.5,SNR=8.5							
	comp=Z,0.5nm,0.3s							
CMAR	**Chiang Mai Arr**	**89.01**	**305**	P	**P**		**13 14 37.1**	**-1.2**
MJAR	**Matsushiro Arr**	**92.95**	**344**	P	**P**		**13 14 56.6**	**+0.4**
	comp=Z,2.1nm,0.9s,baz=185,slow=7.7,SNR=6.9							
MJAR				LR	LR		13 54 33.2	
	comp=Z,26nm,19.1s,baz=227,slow=34							
	comp=Z,2.1nm,0.9s							
MJAR	**Matsushiro Arr**	**92.95**	**344**	P	**P**		**13 14 51.7**	**-4.5**
CPUP	**Villa Florida**	**93.22**	**148**	P	**P**		**13 15 00.2**	**+2.2**
	comp=Z,0.6nm,0.4s,baz=239,slow=2.4,SNR=3.2							
	comp=Z,0.6nm,0.4s							
CPUP	**Villa Florida**	**93.22**	**148**	P	**P**		**13 14 56.6**	**-1.3**
CPUP				IAmb	IAmb		13 15 13.1	
	comp=Z,2.2nm,1.2s							
ASAJ	**Asahikawa**	**99.78**	**348**	LR	LR		13 55 33.1	
	comp=Z,24nm,19.4s,baz=270,slow=32							
MKAR	**Makanchi Array**	**120.11**	**309**	PKP	**PKPdf**		**13 20 31.9**	**-1.5**
	comp=Z,0.6nm,0.7s,baz=198,slow=0.8,SNR=5.2							
KURBB	**Kurchatov Arra**	**124.63**	**310**	PKP	**PKPdf**		**13 20 41.3**	**-0.6**
	comp=Z,0.8nm,0.7s,baz=132,slow=1.4,SNR=8.8							
ILAR	**Eielson Array**	**126.59**	**26**	PKP	**PKPdf**		**13 20 45.0**	**-0.3**
	comp=Z,1.0nm,1.0s,baz=282,slow=3.8,SNR=6.9							
BVAR	**Borovoye Array**	**129.93**	**308**	PKP	**PKiKP**		**13 20 52.5**	**-0.2**
	comp=Z,0.3nm,0.4s,baz=122,slow=1.9,SNR=3.5							
BRTR	**Keskin Array B**	**140.85**	**270**	PKP	**PKiKP**		**13 21 14.6**	**-1.0**
	comp=Z,0.4nm,0.4s,baz=130,slow=2.3,SNR=2.8							
AKASG	**Malin Array Be**	**149.75**	**283**	PKPbc	**PKPbc**		**13 21 31.7**	**-0.7**
	comp=Z,1.9nm,0.6s,baz=89,slow=2.7,SNR=7.3							
VYHS	**Vyhne**	**154.59**	**272**	*e*PKP	**PKPbc**		**13 21 40.7**	**-2.7**
VYHS				*e*			13 21 46.8	
FINES	**FINESS Array B**	**154.78**	**304**	PKPbc	**PKiKP**		**13 21 43.1**	**-0.2**
	comp=Z,2.0nm,0.8s,baz=145,slow=7.0,SNR=5.1							

IDC 14 13:03:31.3±1.3, 8°07S×158°28E, h0km, mb4.0/4, mbtmp4.0/5, ML4.0/1, MS3.0/2, Error ellipse: s-maj=33.5km s-min=24.4km az=36.0, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
HNR	**Honiara**	**2.14**	**130**	Pn	Pn		13 04 06.4	-1.8
	43nm,0.3s,baz=297,slow=13,SNR=40							
HNR				Sn	Sn		13 04 25.2	-10
	91nm,0.3s,baz=114,slow=21,SNR=21							
HNR				LR	LR		13 04 41.3	
	comp=Z,85nm,21.6s,baz=12,slow=33							
	106nm,0.3s							
HNR				AML	AML			
WRA	**Warramunga Arr**	**26.01**	**241**	P	P		13 09 06.8	+0.6
	2.5nm,0.8s,baz=67,slow=9.5,SNR=12							
	2.5nm,0.8s							
H11S3	**WAKE ISLAND Hy**	**27.67**	**17**	T	T		13 38 09.5	
	baz=195,slow=76,SNR=37							
H11S2	**WAKE ISLAND Hy**	**27.67**	**17**	T	T		13 38 02.0	
	baz=195,slow=76,SNR=38							
H11S1	**WAKE ISLAND Hy**	**27.68**	**17**	T	T		13 38 05.2	
	baz=195,slow=76,SNR=23							
ASAR	**Alice Springs**	**28.04**	**234**	P	P		13 09 24.0	-0.5
	1.6nm,0.4s,baz=61,slow=9.9,SNR=6.0							
	1.6nm,0.4s							
H11N1	**WAKE ISLAND Hy**	**28.88**	**17**	T	T		13 39 47.6	
	baz=196,slow=76,SNR=24							
H11N3	**WAKE ISLAND Hy**	**28.89**	**17**	T	T		13 39 49.3	
	baz=196,slow=76,SNR=25							
H11N2	**WAKE ISLAND Hy**	**28.90**	**17**	T	T		13 39 44.6	
	baz=196,slow=76,SNR=31							
SONM	**Songino Array**	**72.01**	**326**	P	P		13 14 58.1	+0.9
	1.2nm,0.7s,baz=141,slow=6.6,SNR=7.2							
	1.2nm,0.7s							
MKAR	**Makanchi Array**	**86.36**	**318**	P	P		13 16 13.9	-1.6
	0.3nm,0.6s,baz=94,slow=5.8,SNR=3.8							
	0.3nm,0.6s							
NRIK	**Noril'sk**	**90.82**	**340**	LR	LR		13 57 26.5	
	comp=Z,37nm,20.6s,baz=208,slow=36							

*IDC **14** 13:16:27.6±1.0, 60°.57N×74°.04W, h0km, mb3.6/5, mbtmp3.8/10, ML3.4/5, Error ellipse: s-maj=16.3km s-min=11.8km az=69.0*
*OTT **14** 13:16:30.4±0.2, 60°.77N×73°.88W, h18km, MN3.6/8, 117km south from Purtuniq, Qc Boothia Ungava Seismic Zone.*

ISC 14 13:16:27.5±0.6, 60°.62N±0°.04×74°.04W±0°.06, h10km, n22, σ2s 99°/32, mb3.3/5, Northern Quebec

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
FRB	**Frobisher Bay**	**4.06**	**37**	Pn	**Pn**		**13 17 30.7**	**+1.2**
	8.0nm,0.3s,baz=218,slow=12,SNR=30							
FRB				Sn	**Sn**		**13 18 15.7**	**-1.3**
	18nm,0.3s,baz=301,slow=13,SNR=9.7							
	19nm,0.3s							
FRB				AML	AML			
FRB	**Frobisher Bay**	**4.06**	**37**	PN	**Pn**		**13 17 30.6**	**+1.2**
FRB				SN	**Sn**		**13 18 13.5**	**-3.5**
FRB				Trac			13 18 32.5	
	comp=Z,48nm,0.2s							
SCHQ	**Schefferville**	**6.97**	**143**	Pn	**Pn**		**13 18 10.2**	**+0.6**
	1.3nm,0.3s,baz=330,slow=13,SNR=19							
SCHQ				Sn	**Sn**		**13 19 25.1**	**-3.7**
	6.8nm,0.3s,baz=64,slow=12,SNR=9.2							
SCHQ				Lg	Lg		13 20 01.1	
	11nm,0.3s,baz=204,slow=16,SNR=11							
	3.0nm,0.3s							
SCHQ				AML	AML			
SCHQ	**Schefferville**	**6.97**	**143**	PN	**Pn**		**13 18 11.2**	**+1.6**
SCHQ				SN	**Sn**		**13 19 28.3**	**-0.5**
SCHQ				LG	Lg		13 20 10.1	
SCHQ				Trac			13 20 14.4	
	comp=Z,33nm,0.3s							
LG4Q	**La Grande 4**	**7.02**	**180**	PN	**Pn**		**13 18 13.7**	**+3.6**
LG4Q				SN	**Sn**		**13 19 29.4**	**-0.4**
LG4Q				Trac			13 20 19.8	
	comp=Z,22nm,0.3s							
NINL	**Nain**	**7.64**	**117**	PN	**Pn**		**13 18 19.4**	**+0.7**
NINL				SN	**Sn**		**13 19 41.5**	**-3.7**
NINL				Trac			13 20 40.3	
	comp=Z,1.9nm,0.0s							
ILON	**Igloolik, Nuna**	**9.37**	**343**	PN	**Pn**		**13 18 40.9**	**-1.4**
ILON				SN	**Sn**		**13 20 20.6**	**-6.9**
ILON				Trac			13 21 24.7	
	comp=Z,9.5nm,0.1s							
FCC	**Fort Churchill**	**10.29**	**268**	PN	**Pn**		**13 18 57.1**	**+2.1**
FCC				SN	**Sn**		**13 20 46.1**	**-4.2**
FCC				Trac			13 22 12.7	
	comp=Z,149nm,1.8s							
BLKN	**Baker Lake**	**10.79**	**300**	PN	**Pn**		**13 19 02.8**	**+1.0**
BLKN				SN	Sn		13 20 53.2	-9.2
BLKN				LG	Lg		13 22 01.2	
BLKN				Trac			13 22 30.2	
	comp=Z,35nm,0.8s							
SMQ	**Clarke City**	**11.22**	**155**	PN	**Pn**		**13 19 08.9**	**+1.2**
SMQ				SN	**Sn**		**13 21 07.9**	**-5.1**
SMQ				Trac			13 22 21.1	
	comp=Z,17nm,0.5s							
ICQ	**Pointe Anglais**	**11.77**	**158**	PN	**Pn**		**13 19 15.4**	**+0.2**
ICQ				SN	**Sn**		**13 21 21.0**	**-5.6**
ICQ				Trac			13 22 53.0	
	comp=Z,124nm,1.4s							
SFJD	**Kangerlussuaq**	**12.09**	**48**	Pn	**Pn**		**13 19 19.4**	**-0.2**
	0.6nm,0.3s,baz=250,slow=12,SNR=2.3							
	4.5nm,0.5s							
SFJD				AML	AML			
KAPO	**Kapuskasing**	**12.19**	**207**	PN	**Pn**		**13 19 24.4**	**+3.4**
KAPO				SN	**Sn**		**13 21 32.9**	**-3.9**
KAPO				LG	Lg		13 22 54.2	
KAPO				Trac			13 23 05.5	
	comp=Z,160nm,2.1s							
POIN	**Pond Inlet**	**12.23**	**354**	PN	**Pn**		**13 19 19.8**	**-1.5**
POIN				SN	Sn		13 21 26.1	-11
POIN				LG	Lg		13 22 46.4	
POIN				Trac			13 23 03.2	
	comp=Z,23nm,0.8s							
RES	**Resolute Bay**	**16.02**	**340**	Pn	**Pn**		**13 20 08.3**	**-4.1**
	0.6nm,0.3s,baz=149,slow=8.4,SNR=12							
RES				Sn	Sn		13 22 57.8	-12
	0.1nm,0.3s,baz=70,slow=20,SNR=1.2							
RES				Lg	Lg		13 24 42.1	
	0.5nm,0.3s,baz=236,slow=16,SNR=6.2							
	1.7nm,0.3s							
RES				AML	AML			
ULM	**Lac du Bonnet**	**16.08**	**240**	Sn	Sn		13 22 57.4	-14
	0.2nm,0.3s,baz=66,slow=8.9,SNR=1.9							
ULM				Lg	Lg		13 24 44.0	
	0.4nm,0.3s,baz=137,slow=20,SNR=3.6							
YKA	**Yellowknife Ar**	**19.19**	**293**	P	**P**		**13 20 51.3**	**+0.4**
	0.2nm,0.3s,baz=78,slow=11,SNR=8.8							
	0.9nm,0.6s							
YKA				AML	AML			
PDAR	**Pinedale Array**	**27.86**	**246**	P	**P**		**13 22 18.3**	**+1.1**
	0.1nm,0.4s,baz=51,slow=5.8,SNR=4.0							
	0.1nm,0.4s							
ILAR	**Eielson Array**	**31.96**	**309**	P	**P**		**13 22 56.0**	**+3.0**
	0.2nm,0.5s,baz=73,slow=9.4,SNR=2.6							
	0.2nm,0.5s							
ARCES	**ARCESS Array B**	**38.22**	**34**	P	**P**		**13 23 48.3**	**+1.5**
	5.1nm,1.1s,baz=317,slow=6.2,SNR=5.7							
	5.1nm,1.1s							
FINES	**FINESS Array B**	**43.83**	**43**	P	**P**		**13 24 34.3**	**+1.2**
	1.8nm,0.8s,baz=336,slow=4.2,SNR=5.3							
	1.8nm,0.8s							
MKAR	**Makanchi Array**	**71.22**	**17**	P	**P**		**13 27 48.8**	**+2.6**
	0.1nm,0.4s,baz=8.9,slow=4.8,SNR=4.5							
	0.1nm,0.4s							

WEL 14 13:18:49.9±2.3, 32°S±22°×18°0W±2°6, h380km±44km, M4.1/10, mB4.5/1, ML4.1/8, MLv4.1/10, Mw(mB)3.6/1, Error ellipse: s-maj=39.1km s-min=20.8km az=52.3, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
MXZ	**Matakaoa Point**	**5.84**	**197**	P	Pn		13 20 21.7	+1.8
MXZ				S	S		13 21 33.5	+0.3
GRZ	**Great Barrier**	**5.92**	**222**	P	Pn		13 20 21.0	+0.1
HAZ	**Te Kaha**	**6.17**	**200**	P	Pn		13 20 23.5	0.0
HAZ				S	S		13 21 40.0	+0.3
HAZ				AML	AML			
PUZ	**Puketiti**	**6.34**	**196**	P	Pn		13 20 25.6	+0.1
RUGZ	**Raukumara Rang**	**6.39**	**200**	P	Pn		13 20 27.0	+0.9
RUGZ				AML	AML			
WCZ	**Waipu Caves**	**6.40**	**230**	P	Pn		13 20 25.6	-0.6
WCZ				AML	AML			
OUZ	**Omahuta**	**6.54**	**238**	P	Pn		13 20 26.3	-1.4
OUZ				AML	AML			
MWZ	**Matawai**	**6.78**	**200**	P	Pn		13 20 29.3	-1.1
MWZ				AML	AML			
MWZ				AML	AML			
URZ	**Urewera**	**6.83**	**202**	P	Pn		13 20 28.8	-2.2
URZ				AML	AML			
URZ				AML	AML			
TOZ	**Tahuroa Road**	**7.02**	**214**	P	P		13 20 35.9	+1.8
TOZ				AML	AML			
RIGZ	**Rimuhau**	**7.06**	**197**	P	Pn		13 20 33.6	0.0
RIGZ				AML	AML			
RIGZ				AML	AML			
MUGZ	**Murupara**	**7.14**	**204**	P	Pn		13 20 34.9	+0.3
MUGZ				AML	AML			
MUGZ				AML	AML			
RTZ	**Ruatahuna**	**7.20**	**202**	P	Pn		13 20 35.4	+0.1
RTZ				AML	AML			
RAHZ	**Arahi**	**7.44**	**200**	P	Pn		13 20 36.4	-1.6
RAHZ				AML	AML			
RAHZ				AML	AML			
MTHZ	**Maungataniwha**	**7.46**	**202**	P	Pn		13 20 38.3	+0.1
MTHZ				AML	AML			
MTHZ				AML	AML			
TLZ	**Tolley Road**	**7.49**	**211**	P	P		13 20 40.8	+1.3
TLZ				AML	AML			
ARHZ	**Aropaoanui**	**7.79**	**200**	P	Pn		13 20 42.0	0.0
ARHZ				AML	AML			
BKZ	**Black Stump Fm**	**7.86**	**203**	P	Pn		13 20 40.2	-2.6
BKZ				AML	AML			
BKZ				AML	AML			
HIZ	**Hauiti**	**7.95**	**213**	P	P		13 20 45.8	+1.1
NGZ	**Ngauruhoe**	**8.19**	**207**	P	Pn		13 20 46.6	-0.2
VRZ	**Vera Road**	**8.49**	**211**	P	Pn		13 20 50.1	-0.1
PXZ	**Pawanui**	**8.54**	**199**	P	Pn		13 20 49.8	-0.9
TSZ	**Takapari Road**	**8.84**	**203**	P	Pn		13 20 52.5	-1.7
BFZ	**Birch Farm**	**9.32**	**200**	P	Pn		13 20 58.9	-0.9
MRZ	**Mangatainoka R**	**9.51**	**203**	P	Pn		13 20 59.2	-2.8
THZ	**Tophouse**	**11.47**	**209**	P	P		13 21 20.9	-3.5
KHZ	**Kahutara**	**11.77**	**206**	P	P		13 21 24.0	-3.6

*IDC **14** 13:25:20.4±0.9, 5°.71S×149°.66E, h0km, mb3.6/5, mbtmp3.9/8, ML4.0/2, MS3.4/1, Error ellipse: s-maj=28.7km s-min=11.7km az=128.0*

ISC 14 13:25:25.8±0.9, 5°.9S±0°.1×149°.9E±0°.2, h52km, n10, σ2s 03°/11, mb3.6/4, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
KRVT	**Keravat (AS076**	**2.64**	**53**	Pn	**Pn**		**13 26 04.5**	**-1.5**
	49nm,0.3s,baz=342,slow=0.7,SNR=37							
KRVT				Sn	**Sn**		**13 26 40.1**	**+3.3**
	105nm,0.3s,baz=218,slow=15,SNR=6.8							
	280nm,0.6s							
KRVT				AML	AML			
PMG	**Port Moresby**	**4.42**	**218**	Pn	**Pn**		**13 26 30.6**	**+0.2**
	25nm,0.4s,baz=39,slow=4.9,SNR=31							
PMG				Sn	**Sn**		**13 27 21.8**	**+1.3**
	17nm,0.3s,baz=300,slow=12,SNR=13							
CTA	**Charters Tower**	**14.53**	**194**	Pn	**P**		**13 28 51.2**	**-2.7**
	0.2nm,0.3s,baz=30,slow=12,SNR=5.5							
	2.9nm,0.6s							
CTA				AML	AML			
WRA	**Warramunga Arr**	**20.58**	**226**	P	**P**		**13 30 00.1**	**-0.5**
	1.3nm,0.5s,baz=50,slow=10,SNR=12							
	1.3nm,0.5s							
ASAR	**Alice Springs**	**23.43**	**219**	P	**P**		**13 30 30.9**	**+0.2**
	0.5nm,0.4s,baz=54,slow=9.0,SNR=13							
	0.5nm,0.4s							
STKA	**Stephens Creek**	**26.98**	**196**	P	**P**		**13 31 06.0**	**+3.2**
	2.7nm,0.9s,baz=5.4,slow=12,SNR=3.4							
	2.7nm,0.9s							
MSVF	**Nonsavu**	**29.89**	**116**	LR	LR		13 42 41.3	
	comp=Z,72nm,19.7s,baz=281,slow=34							
MJAR	**Matsushiro Arr**	**43.63**	**346**	P	**P**		**13 33 25.0**	**-0.3**
	0.8nm,0.8s,baz=138,slow=7.5,SNR=2.1							
	0.8nm,0.8s							
KSRS	**Korea Array**	**47.77**	**336**	P	**P**		**13 33 58.2**	**+0.3**
	0.7nm,0.8s,baz=180,slow=9.7,SNR=3.0							
	0.7nm,0.8s							
TORD	**Torodi Ar. Bea**	**147.87**	**285**	PKPbc	**PKPbc**		**13 45 05.7**	**-0.6**
	1.2nm,0.4s,baz=42,slow=4.2,SNR=7.2							

*AFAD **14** 13:28:37.0, 37°.88N×26°.90E, h5km±3km, ML2.5*
*THE **14** 13:28:38.1, 37°.9N±0°.9×

DAGE					IAML		13 29 01.0	
	comp=E,443nm,0.2s							
KRBN	**Karaburun**	**0.76**	**339**	Pg	**Pb**	**13 28 53.2**	**0.0**	
KRBN				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.78**	**85**	Pg	**Pg**	**13 28 53.2**	**-0.2**	
AYDB				Sg	**Sg**	**13 29 03.8**	**+0.1**	
AYDB				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.82**	**158**	Pg	**Pg**	**13 28 53.7**	**-0.3**	
YKAV				AML	AML			
CHOS	**Chios island**	**0.83**	**307**	P	**Pg**	**13 28 53.7**	**-0.7**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.83**	**307**	Pg	**Pb**	**13 28 54.8**	**+0.2**	
CHOS				AML	AML			
FOCM	**Foa**	**0.84**	**351**	Pg	**Pg**	**13 28 54.5**	**+0.1**	
FOCM				AML	AML			
IZMR	**zmir-demi**	**0.87**	**73**	P	**Pg**	**13 28 54.1**	**-0.9**	
IZMR				S	**Sg**	**13 29 04.6**	**-1.7**	
KARB	**zmir-Karabur**	**0.87**	**334**	P	**Pg**	**13 28 54.3**	**-0.7**	
KARB				S	**Sb**	**13 29 07.1**	**+0.5**	
KARB				IAML		13 29 09.0		
	comp=N,180nm,0.5s							
KARB				IAML		13 29 09.0		
	comp=E,242nm,0.5s							
BODT	**Bodrum**	**0.88**	**158**	P	**Pg**	**13 28 54.8**	**-0.5**	
BODT				S	**Sb**	**13 29 07.4**	**+0.3**	
BODT				AML	AML			
BODT	**Bodrum**	**0.88**	**158**	Pg	**Pg**	**13 28 54.9**	**-0.4**	
BODT				AML	AML			
MLSB	**Milas**	**0.91**	**130**	Pg	**Pg**	**13 28 55.6**	**-0.2**	
MLSB				AML	AML			
CAMT	**Merkez**	**0.92**	**20**	P	**Pb**	**13 28 56.1**	**+0.1**	
CAMT				S	**Sb**	**13 29 09.1**	**+1.0**	
CAMT				IAML		13 29 10.0		
	comp=E,344nm,0.4s							
CAMT				IAML		13 29 13.0		
	comp=N,264nm,0.3s							
BDRM	**Kayabasi**	**0.93**	**152**	P	**Pg**	**13 28 55.5**	**-0.6**	
BDRM				S	**Sg**	**13 29 08.0**	**-0.2**	
BDRM				IAML		13 29 11.0		
	comp=N,122nm,0.3s							
BDRM				IAML		13 29 12.0		
	comp=E,127nm,0.3s							
ZEDA	**zmir-Bergama**	**1.09**	**7**	P	**Pg**	**13 28 57.7**	**-1.5**	
ZEDA				S	**Sb**	**13 29 14.3**	**+1.3**	
ZEDA				IAML		13 29 15.0		
	comp=E,158nm,0.7s							
ZEDA				IAML		13 29 17.0		
	comp=N,130nm,0.5s							
NAZL	**Nazilli-Aydin**	**1.10**	**85**	Pg	**Pg**	**13 28 58.9**	**-0.5**	
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.15**	**44**	Pn	**Pg**	**13 28 59.9**	**-0.4**	
GOMA				AML	AML			
ESEN	**Aydn-Nazilli**	**1.15**	**94**	P	**Pg**	**13 28 59.7**	**-0.6**	
ESEN				S	**Sb**	**13 29 15.8**	**+1.1**	
DKL	**Dikili**	**1.18**	**0**	Pn	**Pb**	**13 29 00.9**	**+0.4**	
DKL				AML	AML			
AKS	**Akhisar**	**1.22**	**36**	Pn	**Pg**	**13 29 01.4**	**-0.3**	
AKS				AML	AML			
KIRA	**zmir-Kiraz**	**1.22**	**75**	P	**Pg**	**13 29 01.2**	**-0.5**	
KIRA				S	**Sg**	**13 29 16.3**	**-1.4**	
KTTT	**Salihli**	**1.23**	**49**	P	**Pn**	**13 29 01.9**	**+0.8**	
KTTT				S	**Sg**	**13 29 16.3**	**-1.7**	
KTTT				IAML		13 29 20.0		
	comp=N,52nm,0.5s							
DAT	**Datca**	**1.27**	**155**	Pn	**Pn**	**13 29 02.8**	**+1.0**	
YER	**Yerkesik**	**1.33**	**124**	P	**Pn**	**13 29 01.9**	**-0.6**	
YER				AML	AML			
YER	**Yerkesik**	**1.33**	**124**	Pn	**Pg**	**13 29 03.6**	**-0.2**	
YER				AML	AML			
APE	**Apeiranthos**	**1.36**	**234**	P	**Pn**	**13 29 01.3**	**-1.6**	
APE				S	**Sb**	**13 29 21.3**	**+0.4**	
APE	**Apeiranthos**	**1.36**	**234**	Pn	**Pg**	**13 29 04.8**	**+0.4**	
APE				AML	AML			
SOMA	**Soma-Manisa**	**1.36**	**21**	Pn	**Pb**	**13 29 03.9**	**+0.4**	
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.43**	**44**	Pn	**Pn**	**13 29 04.8**	**+0.9**	
GORD				AML	AML			
TURN	**Turunc**	**1.54**	**136**	Pn	**Pb**	**13 29 06.6**	**+0.1**	
TURN				AML	AML			
ARG	**Arkhangelos**	**1.93**	**149**	Pn	**Pb**	**13 29 12.7**	**-0.5**	
ARG				AML	AML			
APMY	**Acipayam-Deniz**	**1.95**	**102**	Pn	**Pn**	**13 29 12.1**	**+1.1**	

*IDC **14** 13:30:24.0±3.1,28°.90N×66°.21E, h0km, mb3.6/7, mbtmp3.6/7, Error ellipse: s-maj=84.5km s-min=28.8km az=85.0*

ISC 14 13:30:25.5±3.1,28°.9N±0°.2×66°.3E±0°.5, h8km, n7, σ0s86/7, mb3.7/7, Pakistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**21.81**	**31**	P	**P**	**13 35 17.6**	**-0.4**
	2.4nm,0.6s,baz=209,slow=9.9,SNR=18 2.4nm,0.6s						
KURBB	**Kurchatov Arra**	**23.58**	**20**	P	**P**	**13 35 36.5**	**0.0**
	0.2nm,0.3s,baz=210,slow=10,SNR=4.3 0.2nm,0.3s						
BVAR	**Borovoye Array**	**24.28**	**6**	P	**P**	**13 35 43.1**	**0.0**
	1.2nm,0.6s,baz=187,slow=7.0,SNR=4.9 1.2nm,0.6s						
SONM	**Songino Array**	**36.19**	**47**	P	**P**	**13 37 29.4**	**+0.7**
	0.7nm,0.7s,baz=242,slow=9.7,SNR=4.9 0.7nm,0.7s						
KSRS	**Korea Array**	**51.51**	**64**	P	**P**	**13 39 31.1**	**-0.6**
	1.1nm,0.8s,baz=273,slow=7.2,SNR=4.3 1.1nm,0.8s						
WRA	**Warramunga Arr**	**81.68**	**118**	P	**P**	**13 42 45.8**	**+1.1**
	0.3nm,0.9s,baz=310,slow=4.6,SNR=1.4 0.3nm,0.9s						
ASAR	**Alice Springs**	**83.47**	**121**	P	**P**	**13 42 53.1**	**-0.9**
	0.4nm,0.7s,baz=304,slow=5.2,SNR=6.1 0.4nm,0.7s						

*ISK **14** 13:38:13.0,38°.54N×39°.60E, h5km, ML2.4/8*
*AFAD **14** 13:38:13.7,38°.52N×39°.61E, h7km±3km, ML2.5*

ISC 14 13:38:14.4±0.9,38°.52N±0°.02×39°.61E±0°.02, h9km±7km, n23, σ1s35/38, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDNT	**Maden**	**0.14**	**157**	P	**Pg**	**13 38 16.6**	**-0.9**
MDNT				IAML		13 38 19.0	
	comp=N,4μm,0.4s						
MDNT				IAML		13 38 19.0	
	comp=E,4μm,0.1s						
MDNT				S	**Sg**	**13 38 19.6**	**0.0**
KOVA	**Elazig, Kovanc**	**0.24**	**40**	P	**Pg**	**13 38 19.3**	**-0.1**
KOVA				S	**Sg**	**13 38 25.5**	**+2.9**
SVRC	**Sivrice-ELAZID**	**0.28**	**240**	Pg	**Pg**	**13 38 19.6**	**-0.4**
SVRC				Sg	**Sg**	**13 38 24.7**	**+0.9**
SVRC				AML	AML		
ELZ	**Elazig**	**0.36**	**298**	P	**Pg**	**13 38 20.9**	**-0.6**
ELZ				S	**Sb**	**13 38 28.7**	**-0.2**
ELZ				IAML		13 38 31.0	
	comp=N,382nm,0.3s						
ELZ				IAML		13 38 31.0	
	comp=E,662nm,0.3s						
CNGT	**ngs**	**0.39**	**219**	P	**Pg**	**13 38 21.9**	**-0.2**
CNGT				S	**Sb**	**13 38 28.2**	**-1.5**
CNGT				IAML		13 38 31.0	
	comp=N,417nm,0.3s						
CNGT				IAML		13 38 33.0	
	comp=E,548nm,0.7s						
ELZG	**Elazig**	**0.49**	**268**	P	**Pg**	**13 38 23.3**	**-0.7**
ELZG				S	**Sb**	**13 38 31.6**	**-1.1**
ELZG				IAML		13 38 32.0	
	comp=N,284nm,0.7s						
ELZG				IAML		13 38 33.0	
	comp=E,342nm,0.5s						
DYBB	**Diyarbakir**	**0.70**	**144**	Pg	**Pb**	**13 38 28.2**	**-0.6**
DYBB				Sg	**Sb**	**13 38 38.9**	**+0.2**
DYBB				AML	AML		
DIYA	**Diyarbakir**	**0.72**	**146**	P	**Pb**	**13 38 28.7**	**-0.4**
DIYA				S	**Sn**	**13 38 43.2**	**+1.2**
MAYA	**Malatya/Merkez**	**0.95**	**259**	P	**Pg**	**13 38 32.1**	**-0.6**
MAYA				S	**Sn**	**13 38 48.2**	**+0.3**
MAYA				IAML		13 38 49.0	
	comp=N,102nm,0.4s						
ERZN	**Erzincan**	**1.07**	**5**	Pg	**Pg**	**13 38 34.1**	**-0.8**
ERZN				AML	AML		
ARPR	**Arapgir-MALATY**	**1.15**	**300**	Pn	**Pb**	**13 38 35.3**	**-1.3**
KEMA	**Kemaliye**	**1.15**	**311**	P	**Pb**	**13 38 35.0**	**-1.5**
KEMA				S	**Sn**	**13 38 53.4**	**+0.7**
YEDI	**Yedisu-Bingol**	**1.17**	**38**	Pn	**Pn**	**13 38 36.5**	**-0.6**
ILIC	**ilic-Erzincan**	**1.24**	**319**	Pn	**Pg**	**13 38 37.6**	**-0.5**
ILIC				AML	AML		
AZEY	**Adyaman-Merk**	**1.29**	**237**	P	**Pg**	**13 38 39.5**	**+0.4**
AZEY				S	**Sg**	**13 38 59.1**	**+3.4**
SVAN	**Silvan-Diyarba**	**1.30**	**106**	Pn	**Pg**	**13 38 39.3**	**0.0**
SVAN				AML	AML		
HEKM	**Malatya_Hekimh**	**1.34**	**286**	P	**Pn**	**13 38 38.3**	**-1.2**
HEKM				S	**Sg**	**13 39 00.8**	**+3.2**
AKCD	**Akcadag**	**1.35**	**261**	P	**Pn**	**13 38 39.0**	**-0.5**
AKCD				S	**Sg**	**13 39 01.1**	**+3.4**
AKCD				IAML		13 39 05.0	
	comp=N,93nm,0.9s						
SANL	**SANLIURFA_Merk**	**1.43**	**200**	P	**Pg**	**13 38 41.7**	**-0.2**
SANL				S	**Sg**	**13 39 00.6**	**+0.1**
SANL				IAML		13 39 03.0	
	comp=E,101nm,0.4s						
SANL				IAML		13 39 04.0	
	comp=N,157nm,0.7s						
ATAB	**Bozova**	**1.48**	**225**	P	**Pn**	**13 38 40.7**	**-0.5**
ATAB				S	**Sg**	**13 39 03.5**	**+1.6**
ATAB				IAML		13 39 05.0	
	comp=N,94nm,0.4s						
ATAB				IAML		13 39 07.0	
	comp=E,92nm,0.4s						
DARE	**Darende-Malaty**	**1.67**	**272**	Pn	**Pb**	**13 38 44.5**	**-0.9**
DARE				AML	AML		
AKCA	**Adyaman/G¶l**	**1.68**	**245**	P	**Pb**	**13 38 45.0**	**-0.6**
AKCA				IAML		13 39 17.0	
	comp=N,107nm,1.2s						
AKCA				IAML		13 39 21.0	
	comp=E,44nm,0.6s						
SARI	**SarD1z-Kayseri**	**2.51**	**268**	Pn	**Pn**	**13 38 56.2**	**+0.6**

WEL 14 13:43:51.8±1.2,32°S±19°×17°8W±2°.4, h440km±37km, M4.3/5, mB4.2/2, ML4.2/6, MLv4.3/5, Mw(mB)3.2/2, Error ellipse: s-maj=36.9km s-min=15.1km az=125.1, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**6.13**	**213**	P	P	13 45 26.9	0.0
WMGZ	**Waiomatatini S**	**6.29**	**211**	P	P	13 45 29.1	+0.4
WMGZ				AML	AML		
HAZ	**Te Kaha**	**6.53**	**215**	P	P	13 45 30.8	-0.4
HAZ				S	S	13 46 51.8	-0.7
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**6.57**	**211**	P	P	13 45 33.2	+1.5
PUZ				S	S	13 46 55.0	+1.6
RUGZ	**Raukumara Rang**	**6.75**	**214**	P	P	13 45 32.7	-1.0
RUGZ				S	S	13 46 56.8	-0.2
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.78**	**212**	P	P	13 45 35.2	+1.3
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.94**	**209**	P	P	13 45 37.1	+1.5
MWZ	**Matawai**	**7.12**	**213**	P	P	13 45 37.2	-0.3
MWZ				S	S	13 47 04.4	+0.4
MWZ				AML	AML		
URZ	**Urewera**	**7.26**	**216**	P	P	13 45 38.0	-0.9
URZ				AML	AML		
RIGZ	**Rimuhau**	**7.32**	**210**	P	P	13 45 39.2	-0.5
MUGZ	**Murupara**	**7.59**	**216**	P	P	13 45 41.0	-1.6
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**7.60**	**215**	P	P	13 45 42.5	-0.3
RTZ				S	S	13 47 14.0	+0.3
RTZ				AML	AML		
RTZ				AML	AML		
MTHZ	**Maungataniwha**	**7.85**	**214**	P	P	13 45 46.2	+0.8
MTHZ				S	S	13 47 20.7	+2.1
MTHZ				AML	AML		
OUZ	**Omahuta**	**7.89**	**247**	P	P	13 45 47.0	+1.1
BKZ	**Black Stump Fm**	**8.27**	**214**	P	P	13 45 49.5	-0.4
BKZ				S	S	13 47 27.4	+0.4
BKZ				AML	AML		

*GFZ **14** 13:46:11.4±0.2,31°.S±2°.×6°.8W±°., h120km, M4.6/27, mb4.5/27*
*IDC **14** 13:46:12.0±0.6,31°.36S×67°.56W, h102km±6km, mb3.8/8, mbtmp4.0/12, MS3.7/2, Error ellipse: s-maj=19.8km s-min=13.1km az=117.0*
*SJA **14** 13:46:12.4±0.7,31°.43S×67°.59W, h102km±4km, ML4.1, MW4.0*
*NEIC **14** 13:46:12.7±2.3,31°.38S±0°.06×67°.55W±0°.10, h110km±6km, mb4.3/9, Mwr4.4(GUC), Error ellipse: s-maj=12.2km s-min=9.5km az=95.0*
*GUC **14** 13:46:13.0±0.5,31°.38S×67°.80W, h166km±15km, ML4.6, Presumed earthquake*
*VAO **14** 13:46:14.0±0.9,31°.20S×67°.32W, h122km±5km, mb4.2, Presumed earthquake*

ISC 14 13:46:11.6±0.5,31°.39S±0°.03×67°.52W±0°.04, h110km±5km, n214, σ1s61/249, mb4.3/17, 12C-2D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CFA	**Coronel Fontan**	**0.65**	**250**	P	**Pn**	**13 46 30.2**	**+0.6**
	2μm,0.3s,baz=54,slow=6.1						
CFA				S	**Sn**	**13 46 42.9**	**-0.3**
	1μm,0.3s,baz=8.1,slow=20,SNR=8.2						
CFA				LR	LR	13 46 50.6	
	comp=Z,78nm,20.5s,baz=2.0,slow=62						
CFA	**Coronel Fontan**	**0.65**	**250**	*eP*	**Pn**	**13 46 30.0**	**+0.5**
CFA				IAML		13 46 44.1	
	comp=Z,7μm,0.5s						
AVFE	**Valle Fertil**	**0.73**	**4**	*eP*	**Sn**	**13 46 46.0**	**+1.8**
RTLL	**Cerro Villicun**	**0.82**	**274**	*eP*	**Pn**	**13 46 31.8**	**+0.7**
SJA	**San Juan**	**0.90**	**261**	*eP*	**Pn**	**13 46 32.7**	**+0.9**
SJA				IAML		13 46 49.5	
	comp=Z,6μm,0.4s						
ACAN	**Cantantal**	**0.93**	**163**	*eP*	**Pn**	**13 46 34.6**	**+2.5**
ACAN				IAML		13 46 54.1	
	comp=Z,14μm,0.3s						
ZON	**Zonda**	**1.00**	**261**	*eP*	**Pn**	**13 46 33.3**	**+0.4**
ZON				*eS*	**Sn**	**13 46 48.7**	**-0.2**
ZON				IAML		13 46 49.2	
	comp=Z,14μm,0.2s						
ZON	**Zonda**	**1.00**	**261**		**Pn**	**13 46 33.5**	**+0.7**
ZON				Sn	**Sn**	**13 46 48.9**	**0.0**
ZON	**Zonda**	**1.00**	**261**	P	**Pn**	**13 46 33.5**	**+0.7**
ACCO	**Cerro Coronel**	**1.55**	**301**	*eP*	**Pn**	**13 46 40.3**	**+1.0**
ACCO				*eS*	**Sn**	**13 47 02.0**	**+1.7**
ACCO				IAML		13 47 03.1	
	comp=Z,3μm,0.3s						
RTLS	**Leoncito**	**1.57**	**254**	*eP*	**Pn**	**13 46 40.5**	**+0.9**
RTLS				*eS*	**Sn**	**13 47 01.3**	**+0.6**
ACDV	**Cuesta del Vie**	**1.83**	**311**	*eP*	**Pn**	**13 46 43.5**	**+0.9**
ACDV				IAML		13 47 09.3	
	comp=Z,594nm,0.5s						
MRA	**San Martin**	**1.84**	**124**	*eP*	**Pn**	**13 46 38.4**	**-4.3**
MRA				*eS*	**Sn**	**13 47 02.8**	**-3.7**
MRA				IAML		13 47 03.5	
	comp=Z,3μm,0.2s						
ARCO	**CERRO ARCO**	**1.88**	**219**	*eP*	**Pn**	**13 46 44.4**	**+1.1**
ARCO				*eS*	**Sn**	**13 47 06.6**	**-0.7**
ACLC	**CERRO LA CRUZ**	**2.01**	**14**	*eP*	**Pn**	**13 46 47.0**	**+2.0**
ACLC				IAML		13 47 14.4	
	comp=Z,751nm,0.4s						
AAGR	**Agrelo**	**2.03**	**213**	*eP*	Pn	13 46 33.8	-11
AAGR				*eS*	Sn	13 47 01.3	-9.2
AROD	**Rodeo**	**2.08**	**305**	*eP*	**Pn**	**13 46 47.0**	**+1.2**
AVIZ	**Vizcacheras**	**2.25**	**202**	*eP*	**Pn**	**13 46 43.5**	**-4.3**
AVIZ				*eS*	Sn	13 47 01.8	-14
TCA	**Tanti**	**2.50**	**90**	*eP*	**Pn**	**13 46 53.9**	**+2.8**
TCA				*eS*	**Sn**	**13 47 24.1**	**+2.7**
TCA				IAML		13 47 25.7	
	comp=Z,2μm,1.0s						
TCA	**Tanti**	**2.50**	**90**	⇑*eP*	**Pn**	**13 46 53.9**	**+2.8**
CO01	**Juntas del Tor**	**2.63**	**302**	*eP*	**Pn**	**13 46 54.6**	**+1.8**
CO01				*eS*	**Sn**	**13 47 26.6**	**+2.0**
CO01				IAML		13 47 26.8	
	comp=Z,365nm,0.4s						
CO01	**Juntas del Tor**	**2.63**	**302**		**Pn**	**13 46 54.7**	**+1.8**
CO01	**Juntas del Tor**	**2.63**	**302**	⇑*iP*	**Pn**	**13 46 54.7**	**+1.8**
CO01				*eS*	**Sn**	**13 47 25.5**	**+0.9**
CO01	**Juntas del Tor**	**2.63**	**302**	P	**Pn**	**13 46 54.7**	**+1.8**
VCA	**Vinchina**	**2.71**	**347**	*eP*	**Pn**	**13 46 56.0**	**+2.1**
VCA				*eS*	**Sn**	**13 47 24.1**	**-2.3**
VCA				*eS*		13 47 28.6	
VCA				IAML		13 47 32.2	
	comp=Z,966nm,0.3s						
VCA	**Vinchina**	**2.71**	**347**	⇑*iP*	**Pn**	**13 46 56.0**	**+2.1**
CO03	**El Pedregal**	**2.77**	**281**	*eP*	**Pn**	**13 46 56.1**	**+1.5**
CO03				*eS*	**Sn**	**13 47 29.8**	**+2.0**
CO03				IAML		13 47 31.1	
	comp=Z,1μm,0.3s						
CO03	**El Pedregal**	**2.77**	**281**		**Pn**	**13 46 56.0**	**+1.3**
CO03	**El Pedregal**	**2.77**	**281**	⇑*iP*	**Pn**	**13 46 56.0**	**+1.3**
CO03				*eS*	**Sn**	**13 47 27.8**	**-0.1**
CO03				IAML		13 47 30.2	
	comp=E,3μm,0.3s						
CO03	**El Pedregal**	**2.77**	**281**	P	**Pn**	**13 46 56.0**	**+1.3**
VA03	**San Esteban**	**2.92**	**241**	*eP*	**Pn**	**13 46 58.1**	**+1.6**
VA03				*eS*	**Sn**	**13 47 36.1**	**+4.9**
VA03				IAML		13 47 37.5	
	comp=Z,566nm,0.2s						
VA03	**San Esteban**	**2.92**	**241**		**Pn**	**13 46 57.9**	**+1.4**
VA03	**San Esteban**	**2.92**	**241**	*eP*	**Pn**	**13 46 57.8**	**+1.2**
VA03				*eS*	**Sn**	**13 47 32.0**	**+0.8**
VA03				IAML		13 47 36.9	
	comp=E,2μm,0.3s						
VA03	**San Esteban**	**2.92**	**241**	P	**Pn**	**13 46 57.7**	**+1.2**
MT08	**Bocatoma Ro**	**2.95**	**225**	*eP*	**Pn**	**13 46 58.6**	**+1.5**
MT08				*eS*	Sn	13 47 20.3	-12
MT08				IAML		13 47 34.9	
	comp=Z,481nm,0.3s						
MT08	**Bocatoma Ro**	**2.95**	**225**		**Pn**	**13 46 58.8**	**+1.7**
MT08	**Bocatoma Ro**	**2.95**	**225**	*eP*	**Pn**	**13 46 58.4**	**+1.3**
MT08				*eS*	**Sn**	**13 47 33.5**	**+1.4**
CO02	**Combarbal**	**2.99**	**273**	*eP*	**Pn**	**13 46 58.2**	**+0.7**
CO02				*eS*	**Sn**	**13 47 34.3**	**+1.4**
CO02				IAML		13 47 35.2	
	comp=Z,1μm,0.2s						
CO02	**Combarbal**	**2.99**	**273**		**Pn**	**13 46 58.3**	**+0.7**
CO02	**Combarbal**	**2.99**	**273**	⇑*iP*	**Pn**	**13 46 58.1**	**+0.6**
CO02				*eS*	**Sn**	**13 47 32.4**	**-0.5**
CO02	**Combarbal**	**2.99**	**273**	P	**Pn**	**13 46 58.2**	**+0.7**
MT04	**Ro Olivares**	**2.99**	**227**	*eP*	**Pn**	**13 46 59.8**	**+2.1**
MT04				*eS*	Sn	13 47 22.8	-10
MT04	**Ro Olivares**	**2.99**	**227**	⇑*eP*	**Pn**	**13 46 59.0**	**+1.3**
MT04				*i S*	**Sn**	**13 47 34.5**	**+1.2**
CO04	**Los Peladeros**	**3.02**	**257**		**Pn**	**13 46 58.1**	**0.0**
CO04	**Los Peladeros**	**3.02**	**257**	⇑*eP*	**Pn**	**13 46 58.0**	**-0.1**
CO04				*i S*	**Sn**	**13 47 33.5**	**-0.4**
CO04	**Los Peladeros**	**3.02**	**257**	P	**Pn**	**13 46 58.1**	**0.0**
FCH	**Farellones**	**3.04**	**230**	*eP*	**Pn**	**13 46 60.0**	**+1.5**
GO04	**Tololo Observa**	**3.07**	**292**	*eP*	**Pn**	**13 46 59.6**	**+0.8**
GO04				*eS*	**Sn**	**13 47 36.2**	**+1.1**
GO04				IAML		13 47 37.3	
	comp=Z,1μm,0.2s						
GO04	**Tololo Observa**	**3.07**	**292**		**Pn**	**13 46 59.5**	**+0.8**
GO04	**Tololo Observa**	**3.07**	**292**	⇑*iP*	**Pn**	**13 46 59.4**	**+0.7**
GO04	**Tololo Observa**	**3.07**	**292**	P	**Pn**	**13 46 59.6**	**+0.8**
PIL	**Pilar**	**3.12**	**96**	*eP*	**Pn**	**13 47 02.1**	**+3.0**
PIL				*eS*	**Sn**	**13 47 33.2**	**-2.5**
MT10	**Hacienda Santa**	**3.17**	**233**	*eP*	**Pn**	**13 47 01.5**	**+1.5**
PEL	**Peldehue**	**3.21**	**236**	*eP*	**Pn**	**13 47 01.5**	**+1.2**
PEL				*eS*	Sn	13 47 20.7	-17
PEL				IAML		13 47 45.7	
	comp=Z,230nm,0.4s						
PEL	**Peldehue**	**3.21**	**236**		**Pn**	**13 47 01.4**	**+1.1**
PEL	**Peldehue**	**3.21**	**236**	*eP*	**Pn**	**13 47 01.3**	**+0.9**
PEL				IAML		13 47 44.1	
	comp=E,522nm,0.5s						
PEL	**Peldehue**	**3.21**	**236**	P	**Pn**	**13 47 01.6**	**+1.2**
MT14	**Cerro Cal¡n**	**3.25**	**231**	*eP*	**Pn**	**13 47 02.1**	**+1.2**
MT14				IAML		13 47 46.1	
	comp=N,717nm,0.6s						
MT16	**CCHEN**	**3.26**	**231**	*eP*	**Pn**	**13 47 02.2**	**+1.2**
MT03	**Universidad Ad**	**3.29**	**229**		**Pn**	**13 47 03.0**	**+1.5**
CYA	**Choya**	**3.29**	**27**	*eP*	**Pn**	**13 47 03.0**	**+1.5**
CYA				*eS*	Sn	13 47 30.7	-9.3
CYA				IAML		13 48 11.2	
	comp=Z,496nm,0.4s						
TINO	**Tinogasta**	**3.31**	**359**	*eP*	**Pn**	**13 47 04.5**	**+2.6**
TINO				*eS*	Sn	13 47 30.5	-10
TINO				IAML		13 47 36.4	
	comp=Z,301nm,0.6s						
MT13	**San Alfonso**	**3.32**	**224**	*eP*	**Pn**	**13 47 02.5**	**+0.6**
MT13				*eS*	**Sn**	**13 47 42.0**	**+1.4**
MT13				IAML		13 48 08.9	
	comp=Z,191nm,0.8s						
MT13	**San Alfonso**	**3.32**	**224**		**Pn**	**13 47 03.5**	**+1.6**
MT13	**San Alfonso**	**3.32**	**224**	*eP*	**Pn**	**13 47 03.4**	**+1.6**
MT13				IAML		13 47 52.6	
	comp=N,367nm,0.2s						
LMEL	**Las Melosas**	**3.34**	**222**	*eP*	**Pn**	**13 47 04.0**	**+1.7**
LMEL				IAML		13 48 01.7	
	comp=N,309nm,0.2s						
MT15	**Las Vizcachas**	**3.35**	**228**	*eP*	**Pn**	**13 47 03.8**	**+1.5**
MT15				IAML		13 47 51.8	
	comp=N,809nm,0.2s						
ROCH	**El Roble**	**3.36**	**241**	*eP*	**Pn**	**13 47 02.1**	**-0.4**
ROCH				*i S*	**Sn**	**13 47 40.5**	**-1.3**
ROCH				IAML		13 47 47.5	
	comp=N,1μm,0.5s						
MT05	**Renca**	**3.38**	**233**	*eP*	**Pn**	**13 47 03.7**	**+1.1**
MT05				*eS*	Sn	13 47 28.7	-13
MT05				IAML		13 47 45.5	
	comp=Z,312nm,0.5s						
MT05	**Renca**	**3.38**	**233**		**Pn**	**13 47 03.9**	**+1.2**
MT05	**Renca**	**3.38**	**233**	*eP*	**Pn**	**13 47 03.7**	**+1.1**
MT05				*eS*	**Sn**	**13 47 42.9**	**+0.7**
MT05				IAML		13 47 44.9	
	comp=E,1μm,0.3s						
RFA	**San Rafael**	**3.47**	**193**	*eP*	**Pn**	**13 47 04.3**	**+0.5**
RFA				*eS*	Sn	13 47 30.7	-14
RFA				IAML		13 48 06.3	
	comp=Z,432nm,0.4s						
AC05	**El Transito**	**3.49**	**316**	*eP*	**Pn**	**13 47 06.2**	**+2.0**
AC05				*eS*	**Sn**	**13 47 47.0**	**+2.2**
AC05				IAML		13 47 49.4	
	comp=Z,290nm,0.4s						
AC05	**El Transito**	**3.49**	**316**		**Pn**	**13 47 06.1**	**+1.8**
AC05	**El Transito**	**3.49**	**316**	⇑*iP*	**Pn**	**13 47 06.0**	**+1.8**
AC05				IAML		13 47 48.2	
	comp=N,421nm,0.4s						
AC05	**El Transito**	**

BO01	**Tunca**	**4.24**	**224**	P		**Pn**	**13 47 13.7**	**-0.4**
BO02	**Sierra Bellavi**	**4.36**	**218**	*e*P		**Pn**	**13 47 17.0**	**+1.2**
BO02				IAML			13 48 15.9	
	comp=Z,128nm,0.1s							
BO02	**Sierra Bellavi**	**4.36**	**218**			**Pn**	**13 47 16.8**	**+0.9**
BO02	**Sierra Bellavi**	**4.36**	**218**	P		**Pn**	**13 47 17.2**	**+1.4**
AC04	**Llanos de Chal**	**4.43**	**315**	*e*P		**Pn**	**13 47 16.8**	**+0.1**
AC04				IAML			13 48 12.1	
	comp=Z,134nm,1.1s							
AC04	**Llanos de Chal**	**4.43**	**315**			**Pn**	**13 47 16.7**	**-0.1**
AC04	**Llanos de Chal**	**4.43**	**315**	*i* P		**Pn**	**13 47 16.6**	**-0.1**
AC04	**Llanos de Chal**	**4.43**	**315**	P		**Pn**	**13 47 17.2**	**+0.5**
GO03	**Copiapo**	**4.46**	**327**	*e*P		**Pn**	**13 47 18.3**	**+1.1**
GO03				*e*S		**Sn**	**13 48 09.8**	**+1.7**
GO03				IAML			13 48 13.7	
	comp=Z,161nm,0.4s							
GO03	**Copiapo**	**4.46**	**327**			**Pn**	**13 47 17.8**	**+0.6**
GO03	**Copiapo**	**4.46**	**327**	⇑*i*P		**Pn**	**13 47 17.8**	**+0.6**
GO03				*i* S		**Sn**	**13 48 06.3**	**-1.8**
GO03	**Copiapo**	**4.46**	**327**	P		**Pn**	**13 47 18.0**	**+0.8**
AC06	**Mina Casimiro**	**4.72**	**328**	*i* P		**Pn**	**13 47 20.6**	**0.0**
AC02	**Maricunga**	**4.75**	**342**	*e*P		**Pn**	**13 47 24.1**	**+2.6**
AC02				*e*S		**Sn**	**13 48 19.4**	**+3.7**
AC02				IAML			13 48 24.9	
	comp=Z,100nm,0.2s							
AC02	**Maricunga**	**4.75**	**342**	P		**Pn**	**13 47 20.6**	**-0.9**
GO05	**Hualane**	**5.17**	**224**	P		**Pn**	**13 47 24.6**	**-2.1**
	comp=Z,38nm,1.0s							
ML02	**Panimavida**	**5.45**	**216**	P		**Pn**	**13 47 29.8**	**-0.6**
	comp=Z,41nm,0.9s							
AC01	**Pan de Azucar**	**5.88**	**332**	P		**Pn**	**13 47 37.3**	**+0.9**
	comp=Z,205nm,0.5s							
BI02	**San Fabin de**	**6.12**	**210**	P		**Pn**	**13 47 39.2**	**-0.3**
	comp=Z,38nm,0.8s							
PB14	**IPOC Station P**	**7.20**	**339**	P		**Pn**	**13 47 54.9**	**+0.3**
	comp=Z,148nm,0.5s							
PB10	**IPOC Station P**	**8.29**	**340**	P		**Pn**	**13 48 06.3**	**-2.8**
	comp=Z,35nm,0.7s							
PSAL	**Palomas, Salto**	**8.49**	**91**	*e*P		**Pn**	**13 48 12.2**	**+0.5**
PSAL				*e*S		**Sn**	**13 49 44.8**	**-1.0**
ANCO	**Parque Anchore**	**8.54**	**112**	*e*P		**Pn**	**13 48 13.3**	**+1.0**
ANCO				*e*S		**Sn**	**13 49 47.8**	**+0.9**
GO06	**Curarrehue**	**8.79**	**200**	Pn		**Pn**	**13 48 14.8**	**-1.0**
GO06	**Curarrehue**	**8.79**	**200**	P		**Pn**	**13 48 14.5**	**-1.4**
	comp=Z,20nm,0.6s							
PB05	**IPOC Station P**	**8.83**	**344**			**Pn**	**13 48 14.3**	**-2.2**
PB05	**IPOC Station P**	**8.83**	**344**	P		**Pn**	**13 48 14.8**	**-1.7**
	comp=Z,40nm,0.6s							
PB06	**IPOC Station P**	**8.84**	**348**	P		**Pn**	**13 48 15.4**	**-1.2**
	comp=Z,86nm,0.7s							
PB03	**IPOC Station P**	**9.51**	**347**	P		**Pn**	**13 48 24.3**	**-1.5**
	comp=Z,61nm,0.6s							
ITQB	**Itaqui**	**9.55**	**82**	*e*P		**Pn**	**13 48 26.2**	**+0.2**
ITQB				*e*S		**Sn**	**13 50 09.7**	**-1.8**
PLCA	**Paso Flores**	**9.64**	**194**	P		**Pn**	**13 48 28.8**	**+1.4**
	comp=Z,1.3nm,0.4s,baz=355,slow=9.4,SNR=6.0							
PLCA				S		**Sn**	**13 50 13.4**	**-0.4**
	comp=Z,3.4nm,0.6s,baz=49,slow=22,SNR=2.8							
PLCA	**Paso Flores**	**9.64**	**194**	P		**Pn**	**13 48 26.9**	**-0.4**
	comp=Z,8.3nm,2.2s							
PB09	**IPOC Station P**	**9.67**	**350**	P		**Pn**	**13 48 27.2**	**-0.8**
	comp=Z,15nm,0.5s							
PB07	**IPOC Station P**	**9.85**	**347**			**Pn**	**13 48 28.1**	**-2.3**
PB07	**IPOC Station P**	**9.85**	**347**	P		**Pn**	**13 48 28.3**	**-2.1**
PB02	**IPOC Station P**	**10.25**	**347**			**Pn**	**13 48 32.9**	**-2.9**
PB02	**IPOC Station P**	**10.25**	**347**	P		**Pn**	**13 48 33.5**	**-2.2**
	comp=Z,46nm,0.6s							
CPUP	**Villa Florida**	**10.25**	**63**	P		**Pn**	**13 48 35.8**	**+0.2**
	comp=Z,0.8nm,0.3s,baz=222,slow=10,SNR=6.5							
CPUP				S		**Sn**	**13 50 28.0**	**-0.6**
	comp=Z,5.0nm,0.5s,baz=294,slow=17,SNR=2.9							
CPUP	**Villa Florida**	**10.25**	**63**			**Pn**	**13 48 37.3**	**+1.7**
CPUP	**Villa Florida**	**10.25**	**63**	P		**Pn**	**13 48 35.0**	**-0.6**
	comp=Z,5.1nm,0.6s							
TA01	**Diego Aracena**	**11.04**	**347**	Pn		**Pn**	**13 48 42.1**	**-4.2**
TA01	**Diego Aracena**	**11.04**	**347**	P		**Pn**	**13 48 41.8**	**-4.4**
PB08	**IPOC Station P**	**11.29**	**352**			**Pn**	**13 48 47.7**	**-2.3**
PB08	**IPOC Station P**	**11.29**	**352**	P		**Pn**	**13 48 48.1**	**-2.0**
	comp=Z,6.4nm,0.6s							
PB11	**IPOC Station P**	**11.73**	**350**			**Pn**	**13 48 52.3**	**-3.4**
PB11	**IPOC Station P**	**11.73**	**350**	P		**Pn**	**13 48 52.3**	**-3.4**
	comp=Z,13nm,0.7s							
GO01	**Chusmiza**	**11.77**	**352**	P		**Pn**	**13 48 54.1**	**-2.4**
	comp=Z,7.2nm,0.6s							
LL06	**Loncomilla**	**11.86**	**203**	P		**Pn**	**13 48 58.4**	**+1.3**
	comp=Z,9.6nm,0.7s							
PSGCX	**Pisagua**	**11.97**	**348**	Pn		**Pn**	**13 48 54.5**	**-4.3**
PSGCX	**Pisagua**	**11.97**	**348**	P		**Pn**	**13 48 54.4**	**-4.4**
	comp=Z,12nm,1.4s							
CPSB	**Cacapava Do Su**	**12.13**	**89**	Pn		**Pn**	**13 48 59.0**	**-1.8**
CPSB	**Cacapava Do Su**	**12.13**	**89**	P		**Pn**	**13 49 00.2**	**-0.5**
	comp=Z,8.8nm,0.8s							
CPSB	**Cacapava Do Su**	**12.13**	**89**	*e*P		**Pn**	**13 48 59.9**	**-0.9**
PB12	**IPOC Station P**	**12.97**	**348**	Pn		**Pn**	**13 49 07.8**	**-4.1**
PB12	**IPOC Station P**	**12.97**	**348**	P		**Pn**	**13 49 08.2**	**-3.7**
	comp=Z,14nm,1.5s							
PB16	**IPOC Station P**	**13.12**	**352**	Pn		**Pn**	**13 49 12.3**	**-2.0**
PB16	**IPOC Station P**	**13.12**	**352**	P		**Pn**	**13 49 13.6**	**-0.7**
	comp=Z,7.8nm,2.2s							
COIM	**Forte Coimbra**	**14.40**	**40**	*e*P		**Pn**	**13 49 30.1**	**-0.2**
CNLB	**Canela**	**14.54**	**86**	P		**Pn**	**13 49 31.8**	**-0.3**
	comp=Z,14nm,0.9s							
LPAZ	**La Paz**	**15.04**	**358**	P		**Pn**	**13 49 39.5**	**+0.5**
	comp=Z,1.2nm,0.4s,baz=177,slow=5.5,SNR=8.5							
LPAZ	**La Paz**	**15.04**	**358**	Pn		**Pn**	**13 49 36.0**	**-3.1**
LPAZ	**La Paz**	**15.04**	**358**	P		**Pn**	**13 49 38.0**	**-1.1**
	comp=Z,3.4nm,0.7s							
BBSD	**Serra de San D**	**15.47**	**26**	*e*P		**Pn**	**13 49 39.9**	**-3.9**
SIV	**San Ignacio**	**16.41**	**22**	P		**P**	**13 49 56.9**	**+0.5**
	comp=Z,3.2nm,0.8s,baz=198,slow=10,SNR=16							
PCMB	**Pacaembu**	**17.49**	**60**	P		**P**	**13 50 07.5**	**-0.8**
	comp=Z,8.2nm,0.6s							
PTLB	**Pontes e Lacer**	**17.62**	**28**	Pn		**Pn**	**13 50 11.9**	**+1.8**
PTLB				IAmb		IAmb	13 50 13.9	
	comp=Z,8.4nm,0.6s							
PTLB	**Pontes e Lacer**	**17.62**	**28**	*e*P		**P**	**13 50 09.1**	**-0.5**
SALV	**Santo Antonio**	**18.82**	**38**	*e*P		**P**	**13 50 22.2**	**-0.6**
VILB	**Vilhena**	**19.54**	**22**	*e*P		**P**	**13 50 30.1**	**-0.6**
NNA	**Nana**	**21.14**	**334**	P		**P**	**13 50 48.2**	**+0.3**
	comp=Z,5.6nm,0.3s,baz=153,slow=6.8,SNR=1.6							
	comp=Z,5.6nm,0.3s							
EFI	**East Falkland**	**21.44**	**164**	P		**P**	**13 50 50.7**	**0.0**
EFI				IAmb		IAmb	13 51 08.5	
	comp=Z,13nm,1.0s							
EFI	**East Falkland**	**21.44**	**164**	P		**P**	**13 50 50.8**	**0.0**
	comp=Z,43nm,2.7s							
PDRB	**Porto dos Gac**	**22.06**	**29**	*e*P		**P**	**13 50 56.5**	**-1.1**
PDRB				*e*pP		**pP**	**13 51 19.6**	**+0.9**
PMNB	**Patos De Minas**	**22.95**	**61**	P		**P**	**13 51 06.1**	**-0.6**
	comp=Z,11nm,1.0s							
CLDB	**Colider**	**23.12**	**31**	P		**P**	**13 51 07.2**	**-1.0**
	comp=Z,9.1nm,1.1s							
CLDB	**Colider**	**23.12**	**31**	*e*P		**P**	**13 51 07.4**	**-0.8**
BDFB	**Brasilia**	**23.72**	**53**	P		**P**	**13 51 14.6**	**+0.8**
	comp=Z,5.7nm,0.7s,baz=222,slow=9.7,SNR=9.2							
	comp=Z,5.7nm,0.7s							
NBPN	**Ponto Novo - B**	**32.51**	**57**	*e*P		**P**	**13 52 30.9**	**-1.2**
NBPN				*e*pP		**pP**	**13 52 57.2**	**+0.5**
BOAV	**Boa Vista**	**34.25**	**12**	P		**P**	**13 52 46.1**	**-1.0**
BOAV				IAmb		IAmb	13 52 49.1	
	comp=Z,5.1nm,0.9s							
PAYG	**Puerto Ayora**	**37.38**	**320**	P		**P**	**13 53 11.9**	**-2.0**
	comp=Z,70nm,1.3s							
RUSC	**La Rusia**	**37.45**	**351**	P		**P**	**13 53 14.7**	**-0.3**
HELC	**Santa Helena**	**38.14**	**347**	P		**P**	**13 53 20.5**	**-0.2**
RCBR	**Riachuelo**	**39.03**	**56**	LR		LR	14 10 05.5	
	comp=Z,62nm,20.0s,baz=56,slow=37							
SJCC	**San Jacinto, C**	**41.70**	**349**	P		**P**	**13 53 49.5**	**-0.3**
SJCC				IAmb		IAmb	13 53 51.3	
	comp=Z,12nm,1.0s							
VNA3	**Neumayer Olymp**	**50.39**	**159**	⇓P		P	13 55 02.7	+5.5
	comp=Z,5.3nm,0.6s							
VNA3	**Neumayer Olymp**	**50.39**	**159**	P		**P**	**13 54 56.6**	**-0.6**
	comp=Z,7.4nm,0.7s							
VNA2	**Neumayer--Watz**	**50.99**	**158**	⇓P		P	13 55 07.4	+5.7
	comp=Z,5.2nm,0.6s,baz=284,slow=7.6							
VNA2	**Neumayer--Watz**	**50.99**	**158**	P		**P**	**13 54 59.6**	**-2.1**
	comp=Z,6.1nm,0.6s							
TROLL	**Troll, Antarti**	**54.32**	**159**	P		P	13 55 32.2	+5.9
	comp=Z,148nm,0.3s							
TEIG	**Tepich**	**55.05**	**336**	P		**P**	**13 55 31.9**	**-0.1**
	comp=Z,28nm,0.8s							
QSPA	**South Pole Qui**	**58.85**	**180**	P		**P**	**13 55 60.0**	**+1.5**
	comp=Z,1.6nm,0.6s,baz=155,slow=0.6,SNR=15							
	comp=Z,1.6nm,0.6s							

QSPA	**South Pole Qui**	**58.85**	**180**	P		**P**	**13 56 00.0**	**+1.5**
QSPA				IAmb		IAmb	13 56 11.7	
	comp=Z,1.6nm,0.9s							
VNDA	**Vanda**	**67.38**	**190**	P		**P**	**13 56 56.6**	**+2.1**
	comp=Z,0.6nm,0.8s,baz=165,slow=5.7,SNR=5.5							
	comp=Z,0.6nm,0.8s							
VNDA	**Vanda**	**67.38**	**190**	P		**P**	**13 56 56.5**	**+2.1**
TXAR	**Lajitas Array**	**69.49**	**327**	P		**P**	**13 57 09.5**	**+1.2**
	comp=Z,0.6nm,0.6s,baz=156,slow=8.3,SNR=5.0							
	comp=Z,0.6nm,0.6s							
TXAR	**Lajitas Array**	**69.49**	**327**	P		**P**	**13 57 08.8**	**+0.5**
WVT	**Waverly**	**69.81**	**343**	P		**P**	**13 57 09.1**	**-1.0**
	comp=Z,18nm,0.7s							
DBIC	**Dimbokro**	**70.71**	**69**	P		**P**	**13 57 17.9**	**+1.9**
	comp=Z,2.1nm,0.5s,baz=244,slow=5.6,SNR=4.6							
	comp=Z,2.1nm,0.5s							
TORD	**Torodi Ar. Bea**	**79.72**	**68**	P		**P**	**13 58 09.5**	**+1.9**
	comp=Z,2.6nm,0.6s,baz=282,slow=6.0,SNR=6.8							
	comp=Z,2.6nm,0.6s							
PDAR	**Pinedale Array**	**83.28**	**330**	P		**P**	**13 58 27.0**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=144,slow=5.3,SNR=7.4							
	comp=Z,0.6nm,0.6s							
PDAR	**Pinedale Array**	**83.28**	**330**	P		**P**	**13 58 25.4**	**-0.6**
FRB	**Frobisher Bay**	**94.81**	**360**	LR		LR	14 44 09.3	
	comp=Z,56nm,20.5s,baz=306,slow=37							
ASAR	**Alice Springs**	**121.54**	**203**	PKP		**PKPdf**	**14 04 52.9**	**0.0**
	comp=Z,0.6nm,0.5s,baz=130,slow=1.8,SNR=11							
WRA	**Warramunga Arr**	**124.82**	**205**	PKP		**PKiKP**	**14 04 59.5**	**0.0**
	comp=Z,2.4nm,0.6s,baz=170,slow=1.7,SNR=22							
BVAR	**Borovoye Array**	**142.78**	**42**	PKP		**PKPdf**	**14 05 31.6**	**+0.1**
	comp=Z,0.7nm,0.5s,baz=270,slow=3.0,SNR=4.3							
KURBB	**Kurchatov Arra**	**148.36**	**43**	PKPbc		**PKiKP**	**14 05 46.2**	**-0.1**
	comp=Z,4.3nm,0.5s,baz=300,slow=3.2,SNR=27							
KURK	**Kurchatov**	**148.38**	**42**			**PKiKP**	**14 05 46.2**	**-0.1**
KSH2	**Kashi**	**149.04**	**65**	PKPbc		**PKiKP**	**14 05 48.9**	**+0.6**
ZALV	**Zalesovo Beam**	**149.97**	**33**	PKPbc		**PKiKP**	**14 05 49.8**	**+0.3**
	comp=Z,5.4nm,0.4s,baz=313,slow=3.4,SNR=31							
ZALV	**Zalesovo Beam**	**149.97**	**33**			**PKiKP**	**14 05 49.4**	**-0.1**
MKAR	**Makanchi Array**	**152.18**	**48**	PKPbc		**PKiKP**	**14 05 55.2**	**+0.9**
	comp=Z,3.1nm,0.6s,baz=284,slow=2.0,SNR=32							
MKAR	**Makanchi Array**	**152.18**	**48**			**PKiKP**	**14 05 54.8**	**+0.5**
HHC	**Hu-ho-hao-te**	**170.53**	**4**	*e*P		**PKPdf**	**14 06 08.3**	**+1.7**

*KRNET **14** 13:50:24.7±0.1, 42.76N×75.87E, h19km, mb2.6*
*SOME **14** 13:50:26.2, 42.80N×75.92E, h0km*

ISC 14 13:50:24.2±0.9, 42.77N±0.03×75.87E±0.02, h15km±8km, n17, σ0s69/33, 14C-14D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
TKM2	**Tokmak 2**	**0.25**	**307**	⇑*e*P		**Pb**	**13 50 30.5**	**-0.2**
TKM2				⇑*e*S		**Sb**	**13 50 34.6**	**-0.3**
BOOM	**Boomskoye usch**	**0.28**	**169**	⇓*e*P		**Pg**	**13 50 30.5**	**+0.1**
BOOM				⇓*e*S		**Sg**	**13 50 34.7**	**+0.2**
KST	**Kastek**	**0.28**	**14**	*e*P		**Pb**	**13 50 31.3**	**+0.2**
	19nm,0.1s							
KST				*e*S		**Sg**	**13 50 35.2**	**+0.7**
	37nm,0.1s							
DGS	**Degeres**	**0.48**	**351**	*e*P		**Pb**	**13 50 34.9**	**+0.5**
	6.7nm,0.1s							
DGS				*e*S		**Sb**	**13 50 41.5**	**+0.1**
	13nm,0.1s							
ULHL	**Ulahol**	**0.59**	**152**	⇑*i*P		**Pg**	**13 50 35.9**	**0.0**
ULHL				⇑*e*S		**Sg**	**13 50 44.0**	**+0.2**
KBK	**Karagaybulak**	**0.69**	**261**	⇓*e*P		**Pb**	**13 50 38.0**	**-0.1**
KBK				⇓*e*S		**Sg**	**13 50 47.5**	**+0.6**
CHMS	**Chumysh**	**0.85**	**286**	⇓*e*P		**Pb**	**13 50 40.8**	**0.0**
CHMS				⇓*e*S		**Sb**	**13 50 52.5**	**+0.4**
AAK	**Ala-Archa**	**1.02**	**263**	⇓*e*P		**Pb**	**13 50 43.8**	**+0.1**
AAK				⇓*e*S		**Sb**	**13 50 57.7**	**+0.6**
USP	**Ospenovka**	**1.12**	**297**	⇓*e*P		**Pg**	**13 50 45.5**	**-0.4**
USP				⇓*e*S		**Sn**	**13 51 00.8**	**+0.1**
UCH	**Uchtor**	**1.14**	**242**	⇑*e*P		**Pb**	**13 50 45.9**	**0.0**
UCH				⇑*e*S		**Sb**	**13 51 01.4**	**+0.7**
KDJ	**Kajisay**	**1.16**	**123**	⇑*e*P		**Pg**	**13 50 46.2**	**-0.5**
KDJ				⇑*e*S		**Sn**	**13 51 01.8**	**0.0**
ANVS	**Anan'yevo**	**1.32**	**89**	⇓*e*P		**Pg**	**13 50 48.9**	**-0.8**
ANVS				⇓*e*S		**Sg**	**13 51 06.8**	**-0.2**
EKS2	**Erkin-Say**	**1.55**	**267**	⇑*e*P		**Pb**	**13 50 53.0**	**+0.4**
EKS2				⇑*e*S		**Sg**	**13 51 13.7**	**-0.4**
TARG	**Taragay, Kyrgy**	**1.77**	**125**	⇑*e*P		**Pb**	**13 50 56.8**	**+0.1**
TARG				⇑*e*S		**Sg**	**13 51 20.1**	**-1.3**
KPKS	**Kokpek**	**2.17**	**70**	*e*P		**Pg**	**13 51 05.8**	**-0.1**
	0.6nm,0.2s							
KPKS				*e*S		**Sg**	**13 51 34.3**	**+0.1**
	7.1nm,0.3s							
MNAS	**Manas**	**2.50**	**265**	⇑*e*P		**Pb**	**13 51 07.5**	**-1.4**
MNAS				⇑*e*S		**Sn**	**13 51 36.8**	**+2.0**
KK31	**Karatay Array**	**3.95**	**277**	⇓Pn		**Pg**	**13 51 38.4**	**-1.5**
	0.1nm,0.1s,baz=83,slow=13,SNR=4.4							
KK31				⇓Lg		Lg	13 52 33.9	
	0.9nm,0.5s,baz=83,slow=25							

*NEIC **14** 14:29:19.5±1.9, 20.40S±0.04×69.04W±0.04, h85km±4km, mb4.9/87, Mwr4.8/45, Mwr4.9(GUC), Error ellipse: s-maj=6.9km s-min=4.5km az=145.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=0.65; Mθθ-0.91; Mφφ 1.56; Mrθ 1.01; Mφθ-0.62; Mφr-0.74; Fault plane solution: M₀1.95000×10¹⁶ NP1:φs310.34000°, δ77.27000°, λ-132.44000°. NP2:φs206.78000°, δ43.96000°, λ-18.51000°. Principal axes: T 2.0666, Plg21.0000°, Azm71.0000°; N -0.2695, Plg41.0000°, Azm322.0000°; P -1.7971, Plg42.0000°, Azm181.0000°;*

*SJA **14** 14:29:19.2±0.7, 20.38S×69.24W, h102km±3km, ML4.9, MW4.7*

*NEIC **14** 14:29:19.5, 20.42S×69.05W, h90km*

*VAO **14** 14:29:19.1±0.5, 20.37S×69.03W, h93km, mb5.1, Presumed earthquake*

*GFZ **14** 14:29:20.4±0.2, 20°S±2°×6°9W±°, h94km±4km, M5.0/23, mb4.9/23*

*GUC **14** 14:29:20.6±0.4, 20.39S×69.20W, h98km±2km, ML4.8, Presumed earthquake*

*IDC **14** 14:29:21.1±0.4, 20.35S×68.86W, h101km±3km, mb4.3/14, mbtmp4.7/17, MS3.6/21, Error ellipse: s-maj=14.8km s-min=11.6km az=71.0*

*GCMT **14** 14:29:25.5±0.3, 20.38S±0.02×68.98W±0.03, h92km±4km, MW4.9/105, Moment Tensor Solution. s17,c17; s105,c135; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-1.57±.12; Mθθ-1.47±.13; Mφφ 3.04±.14; Mrθ 1.20±.05; Mφθ-1.19±.10; Mφr-1.15±.09; Best double couple: M₀3.22000×10¹⁶ NP1:φs204.00000°, δ46.00000°, λ-27.00000°. NP2:φs314.00000°, δ71.00000°, λ-133.00000°. Principal axes: T 3.7180, Plg15.0000°, Azm74.0000°; N -0.9970, Plg40.0000°, Azm330.0000°; P -2.7210, Plg46.0000°, Azm180.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 14 14:29:19.8±0.3, 20.39S±0.03×69.15W±0.04, h98km±2km, h98km:pP-P, n289, σ1s65/289, mb4.7/47, 4C-7D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**0.25**	**359**	*e*P		**Pn**	**14 29 34.8**	**+0.4**
PB08				*e*S		**Sn**	**14 29 46.4**	**+1.2**
PB08	**IPOC Station P**	**0.25**	**359**			**Pn**	**14 29 33.8**	**-0.7**
PB08	**IPOC Station P**	**0.25**	**359**	*e*P		**Pn**	**14 29 34.9**	**+0.4**
GO01	**Chusmiza**	**0.72**	**357**	*e*P		**Pn**	**14 29 38.3**	**+0.4**
GO01				*e*S		**Sn**	**14 29 52.5**	**+1.4**
GO01				IAML			14 29 52.9	
	comp=Z,50μm,0.1s							
GO01	**Chusmiza**	**0.72**	**357**			**Pn**	**14 29 38.2**	**+0.4**
GO01	**Chusmiza**	**0.72**	**357**	⇓*e*P		**Pn**	**14 29 38.4**	**+0.6**
GO01				*e*S		**Sn**	**14 29 51.8**	**+0.6**
GO01	**Chusmiza**	**0.72**	**357**	P		**Pn**	**14 29 38.3**	**+0.4**
PB11	**IPOC Station P**	**0.79**	**323**	*e*P		**Pn**	**14 29 37.9**	**-0.1**
PB11				*e*S		**Sn**	**14 29 51.4**	**-0.3**
PB11				IAML			14 29 52.6	
	comp=Z,45μm,0.3s							
PB11	**IPOC Station P**	**0.79**	**323**			**Pn**	**14 29 37.8**	**-0.3**
PB11	**IPOC Station P**	**0.79**	**323**	⇓*i*P		**Pn**	**14 29 38.1**	**+0.1**
PB11				*i* S		**Sn**	**14 29 51.5**	**-0.2**
PB11	**IPOC Station P**	**0.79**	**323**	P		**Pn**	**14 29 38.0**	**-0.1**
TA02	**Huaiquique**	**0.93**	**277**	*e*P		**Pn**	**14 29 39.0**	**-0.4**
TA02				*e*S		**Sn**	**14 29 53.8**	**-0.2**
TA02				IAML			14 29 55.7	
	comp=Z,60μm,0.1s							

TA02	**Huaiquique**	**0.93**	**277**	⇑*i*P		**Pn**	**14 29 38.9**	**-0.4**
TA02				*e*S		**Sn**	**14 29 53.0**	**-1.0**
TA01	**Diego Aracena**	**0.98**	**260**	*e*P		**Pn**	**14 29 39.1**	**-0.7**
TA01				IAML			14 30 01.4	
	comp=Z,7μm,0.7s							
TA01	**Diego Aracena**	**0.98**	**260**			**Pn**	**14 29 38.9**	**-1.0**
TA01	**Diego Aracena**	**0.98**	**260**	⇑*i*P		**Pn**	**14 29 39.2**	**-0.7**
TA01	**Diego Aracena**	**0.98**	**260**	P		**Pn**	**14 29 39.2**	**-0.7**
PB02	**IPOC Station P**	**1.16**	**217**	*e*P		**Pn**	**14 29 42.2**	**+0.1**
PB02				*e*S		**Sn**	**14 29 58.9**	**+0.1**
PB02				IAML			14 30 06.0	
	comp=Z,26μm,0.3s							
PB02	**IPOC Station P**	**1.16**	**217**	Pn		**Pn**	**14 29 41.6**	**-0.4**
PB02	**IPOC Station P**	**1.16**	**217**	*i*P		**Pn**	**14 29 42.0**	**0.0**
PB02				*i* S		**Sn**	**14 29 58.2**	**-0.5**
PB02				IAML			14 30 01.8	
	comp=E,43μm,0.2s							
PB02	**IPOC Station P**	**1.16**	**217**	P		**Pn**	**14 29 42.1**	**0.0**
PSGCX	**Pisagua**	**1.21**	**311**	*e*P		**Pn**	**14 29 42.0**	**-0.6**
PSGCX				IAML			14 30 00.8	
	comp=Z,14μm,0.4s							
PSGCX	**Pisagua**	**1.21**	**311**			**Pn**	**14 29 41.5**	**-1.1**
PSGCX	**Pisagua**	**1.21**	**311**	⇑*i*P		**Pn**	**14 29 42.2**	**-0.4**
PSGCX				*e*S		**Sn**	**14 29 58.4**	**-1.3**
PSGCX	**Pisagua**	**1.21**	**311**	P		**Pn**	**14 29 42.2**	**-0.4**
PB09	**IPOC Station P**	**1.40**	**184**	*e*P		**Pn**	14 29 26.8	-18
PB09				*e*S		**Sn**	**14 30 05.9**	**+1.9**
PB09				IAML			14 30 11.6	
	comp=Z,11μm,0.5s							
PB09	**IPOC Station P**	**1.40**	**184**			**Pn**	**14 29 42.6**	**-2.4**
PB09	**IPOC Station P**	**1.40**	**184**	*e*P		**Pn**	**14 29 45.9**	**+0.9**
PB09				*e*S		**Sn**	**14 30 05.2**	**+1.2**
PB09				IAML			14 30 07.6	
	comp=N,15μm,0.4s							
PB09	**IPOC Station P**	**1.40**	**184**	P		**Pn**	**14 29 46.0**	**+1.0**
PB07	**IPOC Station P**	**1.50**	**207**	*e*P		Pn	14 29 32.1	-14
PB07				*e*S		**Sn**	**14 30 05.5**	**-0.6**
PB07				IAML			14 30 08.8	
	comp=Z,15μm,1.3s							
PB07	**IPOC Station P**	**1.50**	**207**	Pn		**Pn**	**14 29 45.8**	**-0.4**
PB07	**IPOC Station P**	**1.50**	**207**	*e*P		**Pn**	**14 29 46.0**	**-0.1**
PB07				*e*S		**Sn**	**14 30 05.8**	**-0.3**
PB07				IAML			14 30 08.6	
	comp=N,12μm,0.3s							
PB07	**IPOC Station P**	**1.50**	**207**	P		**Pn**	**14 29 46.0**	**-0.1**
PX02	**IPOC Station P**	**1.73**	**325**	*e*P		**Pn**	**14 29 47.8**	**-1.2**
PB03	**IPOC Station P**	**1.75**	**199**	*e*P		Pn	14 29 30.6	-19
PB03				IAML			14 30 12.8	
	comp=Z,6μm,0.2s							
PB03	**IPOC Station P**	**1.75**	**199**			**Pn**	**14 29 48.6**	**-0.6**
PB03	**IPOC Station P**	**1.75**	**199**	*e*P		**Pn**	**14 29 49.6**	**+0.4**
PB03				IAML			14 30 12.9	
	comp=E,7

comp=Z,64nm,1.1s
AQDB Aquidauana 12.61 93 P **Pn** 14 32 13.8 -2.0
comp=Z,55nm,1.0s
AQDB Aquidauana 12.61 93 *e*P **Pn** 14 32 13.0 -2.8
PEL Peldehue 12.78 186 P **Pn** 14 32 20.1 +2.1
comp=Z,49nm,1.2s
CZSB Cruzeiro do Su 13.05 344 *e*P **Pn** 14 32 21.2 -0.3
SALV Santo Antonio 13.54 73 *e*P **Pn** 14 32 25.0 -3.0
PP1B Ponte de Pedra 13.78 81 *e*P **Pn** 14 32 27.9 -3.2
BO01 Tunca 14.05 187 P **Pn** 14 32 34.8 +0.2
comp=Z,91nm,0.8s
BO02 Sierra Bellavi 14.42 185 P **Pn** 14 32 39.9 +0.6
comp=Z,113nm,1.0s
GO05 Hualane 14.77 189 P **Pn** 14 32 43.0 -0.7
comp=Z,38nm,1.0s
PDRB Porto dos Gac 14.78 56 *e*P **Pn** 14 32 40.6 -3.4
ML02 Panimavida 15.45 187 IAmb IAmb 14 32 57.0
comp=Z,96nm,0.9s
ML02 Panimavida 15.45 187 P **Pn** 14 32 51.5 -0.7
comp=Z,127nm,1.0s
C2SB Chapadao do Su 15.46 87 P **P** 14 32 52.7 -2.2
comp=Z,261nm,1.5s
C2SB Chapadao do Su 15.46 87 *e*P **Pn** 14 32 51.2 -1.3
CLDB Colider 15.95 56 P **P** 14 32 58.2 -2.2
comp=Z,86nm,0.9s
CLDB Colider 15.95 56 *e*P **Pn** 14 32 57.3 -1.5
BI02 San Fabin de 16.32 186 IAmb IAmb 14 33 04.8
comp=Z,152nm,1.9s
BI02 San Fabin de 16.32 186 P **Pn** 14 33 02.7 -0.5
comp=Z,36nm,1.5s
PTGB Pitanga 16.36 108 *e*P **P** 14 33 03.0 -1.9
PCMB Pacaembu 16.75 97 P **P** 14 33 08.2 -1.0
comp=Z,78nm,1.0s
PCMB Pacaembu 16.75 97 *e*P **P** 14 33 07.4 -1.8
ITAB Concordia 16.99 117 P **P** 14 33 12.9 +1.1
comp=Z,50nm,1.4s
ITAB Concordia 16.99 117 *e*P **Pn** 14 33 09.7 -1.8
LDASE Londrina, Braz 17.00 103 *e*P **P** 14 33 10.4 -1.6
ARAG Araguaiana, MT 17.13 77 *e*P **P** 14 33 11.9 -1.5
CPSB Cacapava Do Su 17.33 128 P **P** 14 33 15.8 +0.3
comp=Z,23nm,0.8s
CPSB Cacapava Do Su 17.33 128 *e*P **Pn** 14 33 13.7 -1.9
NPGB Novo Progresso 18.83 47 *e*P **P** 14 33 30.3 -1.8
SNDB Serra Nova Dou 19.07 67 *e*P **P** 14 33 33.8 -0.9
GO06 Curarrehue 19.23 185 IAmb IAmb 14 33 39.2
comp=Z,135nm,0.9s
GO06 Curarrehue 19.23 185 P **Pn** 14 33 37.6 -0.9
comp=Z,176nm,1.0s
BB19B Bebedouro 19.30 96 *e*P **P** 14 33 36.0 -1.3
LR03 Panguipulli 19.38 187 IAmb IAmb 14 33 39.6
comp=Z,87nm,1.0s
LR04 Corral 19.77 190 IAmb IAmb 14 33 44.2
comp=Z,107nm,0.9s
IPMB Ipameri, GO 19.92 87 *e*P **P** 14 33 42.8 -1.2
LR05 Currie 19.93 186 P **P** 14 33 44.1 +0.3
PLCA Paso Flores 20.31 183 P **P** 14 33 49.0 +1.0
comp=Z,92nm,0.9s,baz=5.3,slow=12,SNR=112
PLCA LR LR 14 41 20.7
comp=Z,156nm,21.3s,baz=356,slow=35
comp=Z,92nm,0.9s
PLCA Paso Flores 20.31 183 P **P** 14 33 49.1 +1.0
PLCA IAmb IAmb 14 33 50.2
comp=Z,135nm,1.0s
PLCA Paso Flores 20.31 183 *e*P **P** 14 33 47.2 -0.9
SPB Sao Paulo 20.39 103 P **P** 14 33 47.6 -1.3
comp=Z,24nm,0.7s
ITTB Itaituba 20.59 41 *e*P **P** 14 33 49.5 -1.7
PET01 Itanhaem-SP 20.60 105 *e*P **P** 14 33 50.1 -1.1
BDFB Brasilia 20.64 80 P **P** 14 33 49.8 -2.1
comp=Z,26nm,0.6s,baz=254,slow=9.5,SNR=21
BDFB LR LR 14 43 17.4
comp=Z,273nm,20.3s,baz=269,slow=41
comp=Z,26nm,0.6s
BDFB Brasilia 20.64 80 P **P** 14 33 51.1 -0.7
BDFB IAmb IAmb 14 33 55.6
comp=Z,35nm,0.7s
VAO Valinhos 20.77 101 P **P** 14 33 52.0 -1.2
VAO IAmb IAmb 14 33 53.9
comp=Z,59nm,0.9s
VAO Valinhos 20.77 101 *e*P **P** 14 33 51.8 -1.4
LL03 Petrohue 20.87 187 P Pn 14 33 55.8 -1.6
comp=Z,270nm,0.9s
LL05 Los Muermos 21.27 189 P **P** 14 34 00.6 +2.4
comp=Z,222nm,1.0s
CANS Sao Roque de M 21.34 94 *e*P **P** 14 33 57.3 -2.0
PMNB Patos De Minas 21.49 89 P **P** 14 33 60.0 -1.0
comp=Z,62nm,0.8s
PMNB Patos De Minas 21.49 89 *e*P **P** 14 33 59.7 -1.3
PARB Paraibuna 22.03 102 P **P** 14 34 05.4 -1.1
comp=Z,146nm,0.9s
PARB Paraibuna 22.03 102 *e*P **P** 14 34 05.1 -1.4
LL02 Futaleuf 22.85 185 P **P** 14 34 16.3 +1.5
comp=Z,33nm,1.4s
SMTB Santa Maria do 23.77 64 P **P** 14 34 22.9 -0.7
SMTB Santa Maria do 23.77 64 *e*P **P** 14 34 22.6 -1.0
DIAM Diamantina, MG 24.12 89 *e*P **P** 14 34 25.7 -1.2
BOAV Boa Vista 24.17 21 P **P** 14 34 27.1 -0.1
BOAV IAmb IAmb 14 34 28.2
comp=Z,80nm,0.8s
BOAV Boa Vista 24.17 21 *e*P **P** 14 34 25.4 -1.8
SDBA SAO DESIDERIO 24.55 75 *e*P **P** 14 34 29.6 -1.1
COYC Coyhaique 25.23 185 P **P** 14 34 37.0 +0.5
comp=Z,80nm,0.8s
ROSC El Rosal 25.58 348 LR LR 14 45 46.3
comp=Z,176nm,18.6s,baz=257,slow=38
SJMB Sao Joao De Ma 26.39 91 *e*P **P** 14 34 45.9 -1.4
RUSC La Rusia 26.40 351 P **P** 14 34 48.2 +0.3
RUSC IAmb IAmb 14 34 51.8
comp=Z,52nm,0.9s
BSFB Barra de Sao F 26.69 92 *e*P **P** 14 34 49.3 -0.7
RIB01 Linhares ES 27.05 93 *e*P **P** 14 34 52.1 -1.1
HELC Santa Helena 27.15 346 P **P** 14 34 54.5 +0.1
HELC IAmb IAmb 14 34 55.0
comp=Z,19nm,0.6s
GUA01 Guaratinga, BA 28.07 87 *e*P **P** 14 35 01.3 -1.0
GO08 Villa O'Higgin 28.14 185 P **P** 14 35 04.5 +1.9
GO08 IAmb IAmb 14 35 09.4
comp=Z,39nm,1.1s
CMC01 Camacan, BA 28.62 85 *e*P **P** 14 35 05.8 -1.4
NBPN Ponto Novo - B 29.41 76 *e*P **P** 14 35 13.2 -1.1
MDP Montagnes des 30.08 34 LR LR 14 48 27.8
comp=Z,179nm,18.1s,baz=158,slow=38
NBPS Pedro II - PI 31.29 63 *e*P **P** 14 35 29.9 -1.0
NBTA Tacaratu-PE 32.01 74 *e*P **P** 14 35 36.5 -0.7
NBMA Muriti-CE 32.14 71 *e*P **P** 14 35 37.4 -1.0
EFI East Falkland 32.41 167 P **P** 14 35 40.3 +0.1
EFI East Falkland 32.41 167 P **P** 14 35 40.9 +0.7
EFI pP **pP** 14 36 02.0 -1.3
EFI sP **sP** 14 36 13.1 -2.1
MG03 Isla Dawson 33.42 181 P **P** 14 35 49.9 +1.0
RCBR Riachuelo 35.37 70 LR LR 14 51 28.7
comp=Z,50nm,21.3s,baz=112,slow=38
RCBR Riachuelo 35.37 70 P **P** 14 36 04.9 -1.4
RCBR IAmb IAmb 14 36 08.3
comp=Z,27nm,0.8s
RCBR Riachuelo 35.37 70 *e*P **P** 14 36 05.2 -1.2
RCBR Riachuelo 35.37 70 P **P** 14 36 06.5 +0.1
MPOM Morne Pois Mar 35.56 14 P **P** 14 36 05.6 -2.2
BIM Bigot 35.59 14 P **P** 14 36 06.3 -1.8
NBPV Pedro Velho 35.64 72 *e*P **P** 14 36 07.5 -1.2
FDFM Morne la Roset 35.78 13 P **P** 14 36 07.8 -1.9
FDFM Morne la Roset 35.78 13 P **P** 14 36 08.4 -1.4
RPN Rapa Nui 37.27 252 LR LR 14 48 18.3
comp=Z,71nm,20.2s,baz=84,slow=30
MLPR Magueyes Islan 38.18 3 P **P** 14 36 27.8 -2.1
CRPR Cabo Rojo, PR 38.21 3 P **P** 14 36 28.6 -1.7
OBIP Obispado Ponce 38.27 4 P **P** 14 36 29.5 -1.3
CELP Cerrillos 38.31 4 P **P** 14 36 29.8 -1.3
SJG San Juan 38.38 5 P **P** 14 36 30.1 -1.5
HUMP Col San Antoni 38.43 5 P **P** 14 36 30.4 -1.7
ECPR Experimental S 38.56 4 P **P** 14 36 31.5 -1.7
GCPR Guaynabo City 38.58 5 P **P** 14 36 31.5 -1.9
PMSA Palmer Station 44.49 177 LR LR 14 56 28.1
comp=Z,164nm,18.7s,baz=136,slow=36
HNDO Hondo 57.50 329 P **P** 14 38 59.7 +0.7
HNDO IAmb IAmb 14 39 03.8
comp=Z,6.1nm,0.8s
BLA Blacksburg 58.27 349 P **P** 14 39 04.0 -0.3
WVT Waverly 58.93 342 P **P** 14 39 07.7 -1.1
WVT IAmb IAmb 14 39 53.4
comp=Z,11nm,1.0s
WVT Waverly 58.93 342 P **P** 14 39 07.9 -0.9
WVT pP **pP** 14 39 32.3 -1.4
WVT sP **sP** 14 39 42.9 -1.9

TXAR Lajitas Array 59.59 325 P **P** 14 39 13.9 +0.2
comp=Z,0.7nm,0.7s,baz=151,slow=7.2,SNR=8.2
TXAR pP **pP** 14 39 42.0 +3.8
comp=Z,0.9nm,0.8s,baz=134,slow=11,SNR=4.4
comp=Z,0.7nm,0.7s
TXAR Lajitas Array 59.59 325 P **P** 14 39 14.1 +0.4
Q56A Snyder Ridge, 59.86 351 P **P** 14 39 15.8 +0.6
Q56A IAmb IAmb 14 40 02.0
comp=Z,18nm,1.0s
BELA Belgrano 2 59.87 172 P **P** 14 39 15.8 +1.0
BELA IAmb IAmb 14 39 17.6
comp=Z,22nm,1.2s
P53A Whipple 60.65 349 P **P** 14 39 21.0 +0.4
P53A IAmb IAmb 14 40 06.4
comp=Z,27nm,1.1s
VNA3 Neumayer Olymp 61.20 161 ⇓P **P** 14 39 24.9 +1.0
comp=Z,11nm,0.8s
SSPA Standing Stone 61.25 352 P **P** 14 39 23.1 -1.5
VNA1 Neumayer--Stat 61.40 161 P **P** 14 39 27.1 +1.8
comp=Z,14nm,1.0s
VHRN Van Horn 61.44 325 P **P** 14 39 26.3 +0.1
VHRN IAmb IAmb 14 39 57.2
comp=Z,9.3nm,1.3s
VNA2 Neumayer--Watz 61.77 161 ⇓P **P** 14 39 28.8 +1.1
comp=Z,13nm,0.8s,baz=296,slow=7.5
S39A Bolivar 62.09 338 IAmb IAmb 14 40 14.9
comp=Z,12nm,1.2s
SOK Sop, Niakhar 62.32 60 P **P** 14 39 32.6 +0.4
SOK pP **pP** 14 39 57.3 -0.7
SNAA Sanae 63.40 161 P **P** 14 39 39.0 +0.4
comp=Z,12nm,0.6s,baz=301,slow=4.9,SNR=5.7
comp=Z,12nm,0.6s
319A Douglas 64.28 322 IAmb IAmb 14 42 01.3
comp=Z,12nm,0.4s
TROLL Troll, Antarti 65.11 161 ⇓P **P** 14 39 51.2 +1.2
comp=Z,458nm,0.7s
SADO Sadowa 65.48 352 LR LR 15 10 60.0
comp=Z,20nm,18.5s,baz=162,slow=38
DBIC Dimbokro 68.64 74 P **P** 14 40 11.8 -1.3
comp=Z,12nm,0.7s,baz=235,slow=5.7,SNR=12
DBIC pP **PcP** 14 40 36.5 -0.9
comp=Z,9.9nm,1.0s,baz=255,slow=8.7,SNR=3.5
DBIC LR LR 15 08 15.1
comp=Z,54nm,20.4s,baz=238,slow=34
comp=Z,12nm,0.7s
DBIC Dimbokro 68.64 74 P **P** 14 40 11.8 -1.3
DBIC IAmb IAmb 14 40 13.6
comp=Z,54nm,1.4s
DBIC Dimbokro 68.64 74 P **P** 14 40 12.4 -0.7
DBIC pP **pP** 14 40 38.0 -1.2
DBIC sP **sP** 14 40 50.2 -0.2
PV15 Paradox Valley 69.11 328 IAmb IAmb 14 41 13.1
comp=Z,11nm,0.9s
TAOE Nuku Hiva Isla 69.22 268 *e*LR LR 15 01 22.7
comp=Z,61nm,37.5s
U15A North Rim 69.68 324 P **P** 14 40 20.8 +1.4
IRM Iron Mountain 69.70 321 IAmb IAmb 14 40 57.9
comp=Z,11nm,1.4s
QSPA South Pole Qui 69.80 180 P **P** 14 40 20.5 +1.0
comp=Z,9.4nm,0.8s,baz=152,slow=2.1,SNR=42
QSPA pP **pP** 14 40 45.0 -0.2
comp=Z,3.1nm,0.7s,baz=297,slow=0.8,SNR=3.1
comp=Z,9.4nm,0.8s
QSPA South Pole Qui 69.80 180 **P** 14 40 21.0 +1.5
QSPA IAmb IAmb 14 40 22.2
comp=Z,18nm,1.1s
QSPA South Pole Qui 69.80 180 P **P** 14 40 21.0 +1.5
QSPA pP **pP** 14 40 46.1 +0.9
QSPA sP **sP** 14 40 58.6 +2.5
KNB Kanab 70.40 324 IAmb IAmb 14 40 27.0
comp=Z,11nm,1.0s
SRU San Rafael Swe 70.73 327 IAmb IAmb 14 40 27.8
comp=Z,5.8nm,0.7s
P18A Preston Nutter 70.98 328 IAmb IAmb 14 41 19.3
comp=Z,9.6nm,1.2s
P17A Butcher Ranch, 71.11 327 IAmb IAmb 14 41 22.1
comp=Z,14nm,0.7s
SHPR Sheep Range 71.35 322 P **P** 14 40 30.9 +1.5
ELIB Princess Elisa 71.56 161 *d*P **P** 14 40 31.6 +1.5
CCCA Chr Carey lake 71.97 320 IAmb IAmb 14 40 36.0
comp=Z,9.2nm,0.7s
GWY Greenwater Val 72.00 321 **P** 14 40 35.0 +1.7
FURC Furnace Creek, 72.31 321 IAmb IAmb 14 40 38.1
comp=Z,8.2nm,0.8s
PDAR Pinedale Array 73.04 330 P **P** 14 40 41.5 +2.1
comp=Z,0.3nm,0.6s,baz=132,slow=10,SNR=3.7
PDAR LR LR 15 14 51.1
comp=Z,27nm,18.3s,baz=12,slow=37
TBI Tubuai 73.65 251 *e*LR LR 15 03 24.9
comp=Z,μm,31.2s
ULM Lac du Bonnet 74.19 343 P **P** 14 40 47.2 +1.5
comp=Z,2.4nm,0.7s,baz=147,slow=13,SNR=4.1
ULM LR LR 15 16 08.3
comp=Z,27nm,18.2s,baz=15,slow=38
comp=Z,2.4nm,0.7s
NVAR Mina Array Bea 74.48 322 P **P** 14 40 49.6 +1.6
comp=Z,2.3nm,0.8s,baz=151,slow=6.7,SNR=12
NVAR pP **pP** 14 41 14.9 +1.3
comp=Z,1.6nm,0.3s,baz=242,slow=32,SNR=7.8
comp=Z,2.3nm,0.8s
NVAR Mina Array Bea 74.48 322 P **P** 14 40 48.3 +0.3
SCHQ Schefferville 74.94 1 P **P** 14 40 50.0 +0.1
comp=Z,9.2nm,0.9s,baz=178,slow=6.5,SNR=5.5
SCHQ LR LR 15 16 50.2
comp=Z,22nm,18.3s,baz=108,slow=38
comp=Z,9.2nm,0.9s
YHH Holmes Hill 75.19 331 IAmb IAmb 14 41 40.5
comp=Z,9.9nm,1.1s
PPT2 Papeete2 75.36 256 *e*LR LR 15 04 13.5
comp=Z,98nm,31.5s
PPT2 *e*LR LR 15 04 18.3
comp=Z,64nm,24.0s
PNTR Pine Nut 75.68 322 IAmb IAmb 14 41 22.2
comp=Z,9.4nm,1.2s
PAHR Pah Rah Range 75.97 322 IAmb IAmb 14 40 59.3
comp=Z,10nm,0.8s
MFID Camas Ranch 76.60 327 IAmb IAmb 14 41 38.9
comp=Z,13nm,1.4s
SBA Scott Base 76.87 190 P **P** 14 41 03.7 +2.9
SBA IAmb IAmb 14 41 04.6
comp=Z,9.5nm,1.1s
SBA Scott Base 76.87 190 P **P** 14 41 03.2 +2.5
SBA pP **pP** 14 41 29.0 +2.5
TORD Torodi Ar. Bea 77.20 71 P **P** 14 41 02.8 -0.8
comp=Z,10nm,0.8s,baz=253,slow=5.4,SNR=24
TORD pP **pP** 14 41 29.6 -0.4
comp=Z,8.4nm,0.8s,baz=251,slow=5.6,SNR=5.2
comp=Z,10nm,0.8s
VNDA Vanda 77.90 190 P **P** 14 41 08.3 +1.8
comp=Z,3.6nm,0.9s,baz=133,slow=4.5,SNR=29
VNDA pP **pP** 14 41 35.8 +3.5
comp=Z,1.3nm,0.9s,baz=160,slow=9.4,SNR=2.5
comp=Z,3.6nm,0.9s
VNDA Vanda 77.90 190 **P** 14 41 07.6 +1.1
VNDA Vanda 77.90 190 P **P** 14 41 08.8 +2.3
VNDA pP **pP** 14 41 34.9 +2.5
MDT Midelt 81.21 50 LR LR 15 17 45.7
comp=Z,71nm,18.1s,baz=232,slow=36
EDM Edmonton 82.67 335 P **P** 14 41 32.0 -0.3
EDM IAmb IAmb 14 42 02.8
comp=Z,25nm,1.3s
RAR Rarotonga 83.39 250 LR LR 15 09 34.8
comp=Z,55nm,21.4s,baz=208,slow=29
BOSA Boshof 84.17 118 LR LR 15 16 26.3
comp=Z,19nm,20.7s,baz=214,slow=34
CCD Concordia, Ant 84.40 183 P **P** 14 41 43.0 +1.6
CCD pP **pP** 14 42 08.8 +1.3
PAB San Pablo 84.88 45 P **P** 14 41 44.4 +0.4
ESDC Sonseca Array 85.20 45 P **P** 14 41 45.7 +0.1
comp=Z,2.9nm,1.0s,baz=236,slow=5.7,SNR=12
ESDC pP **pP** 14 42 13.0 +0.5
comp=Z,2.2nm,1.0s,baz=244,slow=5.2,SNR=3.6
ESDC LR LR 15 18 39.0
comp=Z,18nm,19.6s,baz=266,slow=35
comp=Z,2.9nm,1.0s
ESDC Sonseca Array 85.20 45 **P** 14 41 45.9 +0.4
ESDC IAmb IAmb 14 42 40.9
comp=Z,24nm,1.6s
MAW Mawson 85.45 163 P **P** 14 41 47.6 +1.3
comp=Z,3.8nm,0.7s,baz=222,slow=4.8,SNR=7.1
comp=Z,3.8nm,0.7s
LBTB Lobatse 85.69 115 LR LR 15 17 31.3
comp=Z,19nm,18.3s,baz=215,slow=34
YKA Yellowknife Ar 90.07 341 P **P** 14 42 08.7 +0.5
comp=Z,3.4nm,0.7s,baz=134,slow=4.7,SNR=14
YKA pP **pP** 14 42 34.5 -0.2
comp=Z,6.2nm,0.8s,baz=134,slow=4.6,SNR=8.5
comp=Z,3.4nm,0.7s
DAVOX Davos/Dischmat 97.41 43 LR LR 15 24 41.6
comp=Z,32nm,19.2s,baz=262,slow=34
MBAR Mbarara 99.06 94 LR LR 15 25 56.4
comp=Z,38nm,18.8s,baz=274,slow=34
MTSU Mount Surprise 129.57 223 P **PKiKP** 14 48 19.9 +0.9
ASAR Alice Springs 130.78 208 PKP **PKPdf** 14 48 20.3 -0.2
comp=Z,2.6nm,0.9s,baz=150,slow=2.5,SNR=16
ASAR pPKP **pPKPdf** 14 48 49.0 +0.9
comp=Z,1.1nm,0.9s,baz=140,slow=1.6,SNR=3.2
WRA Warramunga Arr 133.79 211 PKP **PKPdf** 14 48 25.8 -0.4
comp=Z,2.2nm,0.7s,baz=161,slow=1.8,SNR=17
KURBB Kurchatov Arra 140.53 32 PKP **PKiKP** 14 48 38.6 -1.6
comp=Z,0.8nm,0.8s,baz=298,slow=2.7,SNR=8.0
KURBB pPKP **pPKPdf** 14 49 05.5 0.0
comp=Z,0.6nm,0.8s,baz=299,slow=2.7,SNR=3.1
ZALV Zalesovo Beam 141.04 24 PKP **PKPdf** 14 48 38.9 +0.5
comp=Z,1.9nm,0.8s,baz=345,slow=1.7,SNR=8.0
ZALV pPKP **pPKPdf** 14 49 06.8 +0.4
comp=Z,1.8nm,0.7s,baz=274,slow=2.4,SNR=3.2
ZALV SKPbc **SKPbc** 14 52 06.8 +0.4
comp=Z,1.8nm,0.7s,baz=323,slow=2.2,SNR=5.2
KSH2 Kashi 144.41 51 PKP **PKPdf** 14 48 45.6 +0.5
MKAR Makanchi Array 144.86 35 PKP **PKPdf** 14 48 45.6 +0.2
comp=Z,3.5nm,0.9s,baz=299,slow=3.6,SNR=17
MKAR pPKP **pPKPdf** 14 49 12.3 -1.0
comp=Z,2.3nm,0.8s,baz=319,slow=4.5,SNR=4.0
MKAR SKPbc **SKiKP** 14 52 16.9 +0.3
comp=Z,1.0nm,0.9s,baz=324,slow=3.7,SNR=5.4
MKAR Makanchi Array 144.86 35 **PKPdf** 14 48 45.0 -0.4
HEH HeiHe 147.44 340 PKPbc **PKPab** 14 48 55.3 +0.9
WMQ Urumqi 149.69 34 *e*PKPbc **PKPdf** 14 48 53.9 +0.3
WMQ pPKP pPKPdf 14 49 18.0 -3.6
HILR Hailar Array B 150.04 348 PKPbc **PKiKP** 14 49 00.4 +0.5
comp=Z,2.6nm,0.6s,baz=286,slow=1.0,SNR=2.2
HILR pPKPbc **pPKPbc** 14 49 27.5 +0.9
comp=Z,2.7nm,0.4s,baz=64,slow=3.4,SNR=3.6
USRK Ussuriysk Ar. 150.45 328 PKPbc **PKiKP** 14 49 01.2 +0.5
comp=Z,3.6nm,0.7s,baz=29,slow=3.3,SNR=4.9
MJAR Matsushiro Arr 151.20 310 PKPbc **PKiKP** 14 49 03.0 +0.3
comp=Z,4.9nm,0.8s,baz=84,slow=1.7,SNR=22
SONM Songino Array 152.38 6 PKPbc **PKiKP** 14 49 05.1 +0.3
comp=Z,2.8nm,1.1s,baz=182,slow=0.5,SNR=5.8
HHC Hu-ho-hao-te 159.59 358 *e*P **PKPdf** 14 49 05.9 -1.5
LZH Lanzhou 163.20 20 *e*PKP **PKPdf** 14 49 08.1 -3.3
LZH pPKP pPKPdf 14 49 39.1 -0.5
NJ2 Nanjing 166.35 330 *e*P **PKPdf** 14 49 14.1 +0.1
NJ2 pmax pmax
comp=Z,5.0nm,0.5s
CMAR Chiang Mai Arr 168.60 98 PKP **PKPdf** 14 49 16.8 +0.7
comp=Z,0.5nm,0.7s,baz=253,slow=2.1,SNR=4.5

*NNC **14** 14:30:52.0±6.0,54.°65N×87.°07E,h0km,mb3.5,mpv3.3,*
Error ellipse: s-maj=38.0km s-min=27.2km az=49.0,
Suspected Mining explosion.
ASRS 14 14:30:57.3,55°N±1°×8°6E.°,h1km±1km,MLh3.0/17,5C-5D,
confirmed,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
POMOR	**Pomortsevo, Ku**	**0.13**	**159**	⇓P	P	Pg	14 31 01.3	+1.6
POMOR					S	Sg	14 31 04.4	+3.0
BJR4	**Bachatsky-4, K**	**0.25**	**204**	⇓P	P	Pg	14 31 04.1	+2.1
BJR4					S	Sg	14 31 08.4	+3.2
BJR3	**Bachatsky-3 (S**	**0.35**	**209**		P	Pb	14 31 06.1	-0.2
BJR3					S	Sb	14 31 12.9	+0.7
BJR3					AML	AML		
BJR1	**Bachatsky 1, K**	**0.38**	**219**	⇓P	P	Pb	14 31 06.6	-0.1
BJR1					S	Sb	14 31 13.7	+0.7
BJR1					AML	AML		
KOTO	**Kotino, Kuzbas**	**0.44**	**140**		P	Pb	14 31 08.1	+0.2
KOTO					S	Sb	14 31 16.4	+1.5
KOTO					AML	AML		
SALR	**Pechorkino, Sa**	**0.45**	**256**		P	Pb	14 31 08.1	+0.1
SALR					S	Sb	14 31 16.4	+1.3
SALR					AML	AML		
VCHU	**Verkh-Chumysh,**	**0.57**	**180**		P	Pb	14 31 09.9	-0.2
VCHU					S	Sb	14 31 19.2	+0.5
VCHU					AML	AML		
ERU	**Erunakovo, Kuz**	**0.67**	**125**		P	Pn	14 31 12.9	-1.0
ERU					S	Sn	14 31 24.2	-0.9
ERU					AML	AML		
KEM	**Kemerovo**	**0.84**	**346**		P	Pb	14 31 15.0	+0.3
KEM					S	Sn	14 31 34.6	+5.4
KEM					AML	AML		
ZAA0	**Zalesovo Array**	**1.12**	**239**	⇓P	P	Pb	14 31 19.2	-0.2
	11nm,0.7s,baz=59,slow=16							
ZAA0				⇑S	S	Sn	14 31 39.6	+3.6
	50nm,0.9s,baz=60,slow=28							
KIYZ	**Kiyzas, Kuzbas**	**1.24**	**141**		P	Pg	14 31 21.2	+0.2
KIYZ					S	Sn	14 31 41.0	+1.8
KIYZ					AML	AML		
KALT2	**Kaltan 2**	**1.24**	**155**		P	Pn	14 31 21.9	+0.1
KALT2					S	Sn	14 31 44.7	+5.5
KALT2					AML	AML		
ELT	**Eltsovka**	**1.27**	**186**		P	Pb	14 31 21.9	-0.1
ELT					S	Sn	14 31 42.6	+2.7
ELT					AML	AML		
BRCR	**Berchikul'**	**1.55**	**43**		P	Pn	14 31 25.9	-0.1
BRCR					S	Sg	14 31 50.4	+3.4
BRCR					AML	AML		
LUZB	**Luzhba, Kemero**	**1.69**	**120**		P	Pb	14 31 28.6	-0.5
LUZB					S	Sg	14 31 53.6	+2.2
LUZB					AML	AML		
NVSII	**Novosibirsk**	**1.89**	**281**		P	Pg	14 31 33.0	-0.4
NVSII					S	Sg	14 31 59.2	+1.3
NVSII					AML	AML		
TASR	**Tashtagol**	**1.97**	**154**		P	Pb	14 31 34.1	+0.3
TASR					S	Sg	14 32 00.7	+0.3
TASR					AML	AML		
VEH	**Verkhnyaya Baz**	**2.62**	**118**		P	Pb	14 31 44.2	-0.8
VEH					S	Sg	14 32 20.3	-1.1
VEH					AML	AML		
ARTR	**Artybash**	**2.78**	**169**		P	Pb	14 31 45.3	-2.4
ARTR					S	Sb	14 32 21.8	-0.4
ARTR					AML	AML		
ELDR	**Elanda**	**3.32**	**184**		P	Pb	14 31 54.8	-2.2
ELDR					S	Sb	14 32 36.1	-1.8
ELDR					AML	AML		
KURK	**Kurchatov**	**6.11**	**234**	⇑P	P	Pn	14 32 29.9	+1.3
	0.8nm,0.5s							
KURBB	**Kurchatov Arra**	**6.21**	**234**	⇑P	P	Pn	14 32 30.9	+0.9
	9.1nm,0.8s,baz=56,slow=15							
MK31	**Makanchi Array**	**8.18**	**200**	P	P	Pn	14 32 56.3	-0.8
	0.1nm,0.2s,baz=30,slow=15,SNR=16							
MK31				⇓S	S	Sn	14 34 32.0	+1.9
	2.9nm,0.9s,baz=38,slow=18							
MAKZ	**Makanchi**	**8.23**	**202**	⇑P	P	Pn	14 32 56.9	-0.8
	1.3nm,0.6s							
MAKZ				⇑S	S	Sn	14 34 33.6	+2.3
	5.1nm,1.2s							

*DNK **14** 14:59:57.9±3.9, 78.°88N×18.°81W, h0km±34km, ML3.3,*
Presumed earthquake
*BER **14** 15:00:00.1±2.4, 78.°85N×19.°00W, h4km±17km, Mw4.9,*
ML3.3(DNK), Confirmed Earthquake
ISC 14 14:59:55.2±0.8,78.°92N±0.°03×19.°11W±0.°07,h10km,n19,
σ1°83/32,Eastern Kalaallit Nunaat

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
DAG	**Danmarks Havn**	**2.16**	**177**	*e*P	**P**	**Pb**	**15 00 33.9**	**-0.4**
DAG				*e*S		**Sb**	**15 01 00.1**	**-0.9**
DAG				*e*Sg		**Sg**	**15 01 04.1**	**-0.3**
DAG				IAML			15 01 06.5	
	comp=Z,744nm,0.3s							
DAG	**Danmarks Havn**	**2.16**	**177**	*e*P	**P**	**Pb**	**15 00 33.9**	**-0.4**
DAG				*i* S		**Sg**	**15 01 04.5**	**+0.1**
DAG				IAML			15 01 06.5	
	comp=Z,744nm,0.3s							
NOR	**Nord**	**2.73**	**7**	*i* P	**P**	**Pb**	**15 00 44.0**	**0.0**
NOR				*e*S		**Sb**	**15 01 16.7**	**-0.8**
NOR				IAML			15 01 27.2	
	comp=Z,215nm,0.3s							
NOR	**Nord**	**2.73**	**7**	*i* P	**P**	**Pb**	**15 00 44.0**	**0.0**
NOR				*i* S		**Sb**	**15 01 16.9**	**-0.6**
NOR				IAML			15 01 27.2	
	comp=Z,215nm,0.3s							
DBG	**Daneborg**	**4.64**	**184**	*i* P	**P**	**Pn**	**15 01 07.4**	**+2.2**
DBG				*i* S		**Sn**	**15 01 57.3**	**-1.7**
DBG				IAML			15 02 31.6	

comp=Z,64nm,0.3s
DBG Daneboro 4.64 184 *i* P **Pn 15 01 07.4 +2.2**
DBG *i* S **Sn 15 01 57.3 -1.7**
DBG IAML 15 02 31.6
comp=Z,64nm,0.3s
KBS Kingsbay 5.94 75 *i* P **Pn 15 01 25.2 +2.3**
KBS *i* S **Sn 15 02 28.2 -2.6**
KBS Kingsbay 5.94 75 *i* P **Pn 15 01 25.2 +2.3**
KBS *i* S **Sn 15 02 28.2 -2.6**
BRBB Barentsburg B 6.64 81 *eP* **Pn 15 01 35.1 +2.9**
BRBB *eS* **Sn 15 02 45.3 -2.8**
BRBA Barentsburg A 6.66 81 *eP* Pn 15 01 37.0 +4.2
BRBA *eS* **Sn 15 02 46.5 -2.0**
SPA0 Spitsbergen Ar 7.02 78 *eP* **Pn 15 01 40.6 +2.9**
SPA0 IAML 15 01 41.8
comp=Z,3.0nm,0.6s
SPA0 *eS* **Sn 15 02 56.2 -1.3**
SUMG Summit 7.89 227 *i* P **Pn 15 01 51.0 +0.8**
SUMG Summit 7.89 227 *i* P **Pn 15 01 51.0 +0.8**
SCO Scoresbysund 8.51 186 *i* P **Pn 15 02 00.6 +2.4**
SCO *i* S **Sn 15 03 32.5 -1.6**
SCO Scoresbysund 8.51 186 *i* P **Pn 15 02 00.6 +2.4**
SCO *i* S **Sn 15 03 32.5 -1.6**
KULLO Kullorsuaq 9.58 263 *i* P **Pn 15 02 10.9 -1.8**
KULLO *i* S Sn 15 03 51.5 -8.7
KULLO Kullorsuaq 9.58 263 *i* P **Pn 15 02 10.9 -1.8**
KULLO *i* S Sn 15 03 51.5 -8.7
UPNV Upernavik 10.71 255 *i* P **Pn 15 02 28.2 0.0**
UPNV Upernavik 10.71 255 *i* P **Pn 15 02 28.2 0.0**

IDC ***14*** *15:32:31.8₀1.6, 6˚.50S×105˚.24E, h65km± 13km, mb4.1/28, mbtmp4.4/29, MS3.6/40, Error ellipse: s-maj=15.9km s-min=8.1km az=48.0*
GFZ ***14*** *15:32:31.2± 0.4, 7˚S±5˚×107˚5E± ˚, h62km, M4.6/25, mb4.9/25*
BJI ***14*** *15:32:31.0, 6˚.70S×105˚.20E, h71km, mB5.2/3, mb4.7/16*
NEIC ***14*** *15:32:32.0± 1.9, 6˚.69S± 0˚.09×105˚.17E± 0˚.08, h68km± 6km, mb4.6/32, Error ellipse: s-maj=16.5km s-min=3.5km az=221.0*
DJA ***14*** *15:32:32.2± 0.3, 7˚S±4˚×107˚5E± ˚, h51km, M4.9/37, mB5.4/12, mb4.8/30, MLv4.9/37, Mw(mB)4.8/12*
ISC 14 15:32:29.9±0.4, 6.77S±0.06×105.07E±0.05, h50km, n238, σ1§80/205, **mb4.6/47, MS3.6/38, 1D, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CGJI	**Cibinong**	**0.64**	**75**	P	**Pn**	**15 32 41.4**	**-1.5**
SBJI	**Serang**	**1.23**	**58**	P	**Pn**	**15 32 50.7**	**-0.1**
SBJI	**Serang**	**1.23**	**58**	P	**Pn**	**15 32 50.6**	**-0.3**
KASI	**Kota Agung**	**1.37**	**335**	P	**Pn**	**15 32 53.7**	**+1.0**
KASI	**Kota Agung**	**1.37**	**335**	P	**Pn**	**15 32 53.6**	**+1.0**
BLSI	**Bandar Lampung**	**1.41**	**7**	P	**Pn**	**15 32 53.7**	**+0.5**
BLSI	**Bandar Lampung**	**1.41**	**7**	P	**Pn**	**15 32 54.2**	**+1.0**
SKJI	**Sukabumi**	**1.49**	**99**	P	**Pn**	**15 32 55.6**	**+1.3**
SKJI	**Sukabumi**	**1.49**	**99**	P	**Pn**	**15 32 56.9**	**-0.5**
TNG	**Tangerang**	**1.67**	**69**	P	Pn	15 33 14.3	+17
TNG				P		15 33 14.4	
CBJI	**Citeko**	**1.80**	**79**	P	**Pn**	**15 33 00.5**	**+2.0**
CBJI				AML	AML		
KLI	**Kotabumi**	**1.91**	**353**	P	**Pn**	**15 33 03.0**	**+2.9**
KLI				AML	AML		
MDSI	**Maura Dua**	**2.44**	**339**	P	**Pn**	**15 33 09.7**	**+2.3**
MDSI	**Maura Dua**	**2.44**	**339**	P	**Pn**	**15 33 09.2**	**+1.8**
LEM	**Lembang**	**2.53**	**91**	P	**Pn**	**15 33 09.5**	**+0.8**
	446nm,0.4s,baz=304,slow=8.0,SNR=50						
LEM				S	**Sn**	**15 33 38.5**	**+0.2**
	1μm,0.6s,baz=311,slow=15,SNR=6.7						
LEM				LR	LR	15 34 14.8	
	comp=Z,894nm,18.5s,baz=236,slow=43						
LEM	**Lembang**	**2.53**	**91**	P	**Pn**	**15 33 10.1**	**+1.5**
BBJI	**Bungbulang**	**2.65**	**105**	P	**Pn**	**15 33 11.3**	**+1.1**
BBJI	**Bungbulang**	**2.65**	**105**	S	**Sn**	**15 33 41.2**	**0.0**
BBJI	**Bungbulang**	**2.65**	**105**		**Pn**	**15 33 10.2**	**0.0**
BBJI				Sn	**Sn**	**15 33 41.4**	**+0.2**
BBJI	**Bungbulang**	**2.65**	**105**	P	**Pn**	**15 33 11.0**	**+0.8**
BBJI				AML	AML		
BBJI	**Bungbulang**	**2.65**	**105**	P	**Pn**	**15 33 10.6**	**+0.4**
JCJI	**Jatiwangi**	**3.19**	**85**	P	Pn	15 33 32.6	+15
MNAI	**Manna**	**3.19**	**319**	P	**Pn**	**15 33 19.7**	**+2.0**
MNAI	**Manna**	**3.19**	**319**	S	**Sn**	**15 33 59.4**	**+4.8**
MNAI	**Manna**	**3.19**	**319**		**Pn**	**15 33 19.8**	**+2.1**
MNAI	**Manna**	**3.19**	**319**	P	Pn	**15 33 20.8**	**+3.1**
LHSI	**Lahat**	**3.31**	**332**	P	**Pn**	**15 33 23.1**	**+3.8**
LHSI				AML	AML		
CMJI	**Cimerak**	**3.49**	**107**	P	**Pn**	**15 33 22.1**	**+0.3**
CMJI				AML	AML		
CMJI	**Cimerak**	**3.49**	**107**	P	**Pn**	**15 33 21.9**	**+0.1**
PMBI	**Palembang**	**3.83**	**355**		**Pn**	**15 33 28.6**	**+2.1**
PMBI	**Palembang**	**3.83**	**355**	P	**Pn**	**15 33 30.1**	**+3.6**
PMBI				AML	AML		
PMBI	**Palembang**	**3.83**	**355**	P	**Pn**	**15 33 28.9**	**+2.4**
KPJI	**Karang Pucung**	**3.87**	**98**	P	**Pn**	**15 33 30.8**	**+3.9**
KPJI				AML	AML		
KPJI	**Karang Pucung**	**3.87**	**98**	P	**Pn**	**15 33 27.8**	**+0.8**
KSI	**Kapahiang**	**3.97**	**321**	P	**Pn**	**15 33 31.6**	**+3.2**
KSI				AML	AML		
MASI	**Maura Aman, Be**	**4.58**	**322**	P	**Pn**	**15 33 40.9**	**+4.1**
MASI				AML	AML		
MASI	**Maura Aman, Be**	**4.58**	**322**	P	**Pn**	**15 33 38.9**	**+2.1**
PPBI	**Pangkal Pinang**	**4.70**	**13**	P	**Pn**	**15 33 42.2**	**+3.8**
PPBI	**Pangkal Pinang**	**4.70**	**13**	P	**Pn**	**15 33 40.7**	**+2.3**
TPI	**Tanjungpandan**	**4.75**	**33**	P	**Pn**	**15 33 40.3**	**+1.3**
JMBI	**JAMBI**	**5.30**	**344**	P	**Pn**	**15 33 50.0**	**+3.4**
	comp=Z,3μm,0.4s						
SMRI	**Semarang**	**5.33**	**93**	P	**Pn**	**15 33 50.0**	**+2.9**
SMRI	**Semarang**	**5.33**	**93**	S	**Sn**	**15 34 48.8**	**+1.5**
SMRI	**Semarang**	**5.33**	**93**		**Pn**	**15 33 48.6**	**+1.5**
SMRI	**Semarang**	**5.33**	**93**	P	Pn	15 34 04.6	+17
SMRI	**Semarang**	**5.33**	**93**	P	**Pn**	**15 33 48.9**	**+1.7**
	comp=Z,108nm,0.9s						
UGM	**Wanagama**	**5.52**	**102**	P	**Pn**	**15 33 51.1**	**+1.4**
UGM	**Wanagama**	**5.52**	**102**	S	**Sn**	**15 34 52.5**	**+0.6**
UGM	**Wanagama**	**5.52**	**102**		**Pn**	**15 33 51.2**	**+1.5**
UGM	**Wanagama**	**5.52**	**102**	P	**Pn**	**15 33 52.2**	**+2.5**
	comp=Z,178nm,1.2s						
KRJI	**Kerinci**	**5.88**	**322**	P	Pn	15 34 05.1	+10
KRJI	**Kerinci**	**5.88**	**322**	P	**Pn**	**15 33 56.2**	**+1.5**
	comp=Z,417nm,0.9s						
WOJI	**Wonogiri, Jawa**	**5.90**	**101**	P	**Pn**	**15 33 56.7**	**+1.9**
	comp=Z,81nm,0.7s						
DSRI	**Dabo**	**6.27**	**355**	P	**Pn**	**15 34 04.0**	**+4.0**
	comp=Z,0.3nmcomp=Z,49nm,0.7s						
DSRI				AML	AML		
DSRI	**Dabo**	**6.27**	**355**	P	**Pn**	**15 34 02.6**	**+2.7**
	comp=Z,45nm,0.7s						
SNJI	**Sawahan-Nganju**	**6.71**	**99**	P	Pn	15 34 11.8	+5.7
SJI	**Sawahan**	**6.71**	**99**	P	Pn	15 34 12.1	+6.1
SJI	**Sawahan**	**6.71**	**99**	P	**Pn**	**15 34 08.7**	**+2.7**
	comp=Z,55nm,0.6s						
PWJI	**Pagerwojo**	**6.79**	**101**	P	**Pn**	**15 34 10.7**	**+3.7**
	comp=Z,1.2nmcomp=Z,2μmcomp=Z,145nm,0.6s						
PWJI				AML	AML		
PWJI	**Pagerwojo**	**6.79**	**101**	P	**Pn**	**15 34 08.5**	**+1.5**
	comp=Z,67nm,0.7s						
SDSI	**Sungai Dareh**	**6.85**	**328**	P	**Pn**	**15 34 09.1**	**+1.2**
	comp=Z,26nm,0.8s						
BWJI	**Bawean**	**7.59**	**83**	P	**Pn**	**15 34 19.8**	**+1.7**
	comp=Z,294nm,0.9s						
TPRI	**Tanjung Pinang**	**7.66**	**356**	P	Pn	15 34 24.0	+5.0
	comp=Z,0.3nmcomp=Z,45nm,0.6s						
TPRI				AML	AML		
TPRI	**Tanjung Pinang**	**7.66**	**356**	P	**Pn**	**15 34 21.3**	**+2.3**
	comp=Z,39nm,0.6s						
GMJI	**Gumukmas**	**8.43**	**101**	P	**Pn**	**15 34 32.0**	**+2.4**
	comp=Z,90nm,0.7s						
BLJI	**Banyuglugur**	**8.51**	**97**	P	Pn	15 34 38.5	+7.9
BLJI	**Banyuglugur**	**8.51**	**97**	P	**Pn**	**15 34 31.3**	**+0.7**
	comp=Z,80nm,0.4s						
ABJI	**Asem Bagus**	**9.14**	**97**	P	**Pn**	**15 34 43.5**	**+4.2**
JAGI	**Jajag, Banyuwa**	**9.15**	**101**	P	**Pn**	**15 34 40.0**	**+0.5**
JAGI	**Jajag, Banyuwa**	**9.15**	**101**	S	**Sn**	**15 36 21.5**	**+0.3**
JAGI	**Jajag, Banyuwa**	**9.15**	**101**		**Pn**	**15 34 39.8**	**+0.3**
JAGI	**Jajag, Banyuwa**	**9.15**	**101**	P	**Pn**	**15 34 41.4**	**+1.9**
JAGI	**Jajag, Banyuwa**	**9.15**	**101**	P	**Pn**	**15 34 41.0**	**+1.5**
	comp=Z,226nm,1.0s						
STKI	**Sintang**	**9.33**	**43**	P	**Pn**	**15 34 45.1**	**+3.3**
	comp=Z,46nm,0.8s						
STKI	**Sintang**	**9.33**	**43**	P	**Pn**	**15 34 43.9**	**+2.1**
	comp=Z,42nm,0.8s						
PBSI	**Pulau Batu**	**9.51**	**314**	P	**Pn**	**15 34 45.3**	**+0.9**
	comp=Z,78nm,1.1s						
SRBI	**Singaraja**	**10.14**	**98**	P	**Pn**	**15 34 55.3**	**+2.4**
SRBI	**Singaraja**	**10.14**	**98**	P	**Pn**	**15 34 54.8**	**+1.8**
	comp=Z,137nm,0.7s						
IGBI	**Denpasar**	**10.18**	**102**	P	**Pn**	**15 34 54.3**	**+0.8**
	comp=Z,2μm,0.6s						
DNP	**Denpasar**	**10.22**	**101**	P	**Pn**	**15 34 55.0**	**+0.9**
	comp=Z,215nm,0.4s						
KHKI	**Kahang-Kahang**	**10.56**	**99**	P	**Pn**	**15 35 00.0**	**+1.3**
	comp=Z,75nm,0.8s						
TWSI	**Taliwang, Sumb**	**11.86**	**100**	P	**Pn**	**15 35 15.7**	**-0.8**
	comp=Z,43nm,0.7s						
IPM	**Ipoh**	**11.89**	**340**	P	**Pn**	**15 35 17.4**	**+0.5**
	comp=Z,15nm,1.1s						
PLAI	**Plampang**	**12.75**	**100**	P	**Pn**	**15 35 27.4**	**-1.3**
PLAI	**Plampang**	**12.75**	**100**	P	**Pn**	**15 35 29.0**	**+0.3**
	comp=Z,46nm,0.8s						
PLAI	**Plampang**	**12.75**	**100**	P	**Pn**	**15 35 28.7**	**0.0**
	comp=Z,44nm,0.8s						
DBNI	**Kabupaten Domp**	**13.23**	**98**	P	**Pn**	**15 35 37.4**	**+2.1**
	comp=Z,25nm,0.8s						
MLSI	**Meulaboh, Aceh**	**13.97**	**321**	P	**Pn**	**15 35 46.1**	**+0.7**
	comp=Z,25nm,1.0s						
KAPI	**Kappang**	**14.70**	**84**	LR	LR	15 42 27.0	
	comp=Z,112nm,19.9s,baz=256,slow=41						
LBFI	**Labuhan Bajo,**	**14.78**	**98**	P	**P**	**15 36 03.9**	**+2.9**
BKSI	**Bulukumba**	**15.03**	**85**	P	**Pn**	**15 36 02.4**	**+3.0**
	comp=Z,25nm,1.1s						
BKSI	**Bulukumba**	**15.03**	**85**	P	**Pn**	**15 36 00.7**	**+1.3**
	comp=Z,25nm,0.9s						
TTSI	**Tana Toraja**	**15.15**	**77**	P	**Pn**	**15 36 01.0**	**+0.1**
	comp=Z,8.2nm,1.5s						
BSSI	**Bau Bau, Buton**	**15.33**	**89**	P	**Pn**	**15 36 03.9**	**+0.7**
	comp=Z,31nm,1.1s						
EDFI	**Ende, Flores**	**16.58**	**98**	P	**Pn**	**15 36 15.7**	**-3.6**
MMRI	**Maumere**	**17.11**	**97**	P	**P**	**15 36 28.4**	**+1.5**
MMRI	**Maumere**	**17.11**	**97**		**Pn**	**15 36 22.9**	**-2.9**
MMRI				IAmb	IAmb	15 36 28.0	
	comp=Z,40nm,0.5s						
MMRI	**Maumere**	**17.11**	**97**	P	**Pn**	**15 36 27.2**	**+1.5**
	comp=Z,2μmcomp=Z,51nm,0.7s						
TOLI2	**Tolitoli**	**17.52**	**64**	P	**P**	**15 36 35.0**	**+3.6**
LUWI	**Luwuk**	**18.55**	**73**	P	**P**	**15 36 42.7**	**0.0**
LUWI				IAmb	IAmb	15 37 17.4	
	comp=Z,26nm,0.9s						
BATI	**Baumata**	**18.70**	**102**	P	**P**	**15 36 43.0**	**-1.4**
	comp=Z,65nm,0.4s,baz=292,slow=1.8,SNR=17						
BATI	**Baumata**	**18.70**	**102**	P	**Pn**	**15 36 46.3**	**+1.1**
	comp=Z,1μmcomp=Z,90nm,0.7s						
SOEI	**Soe**	**19.22**	**100**	P	**P**	**15 36 50.8**	**+0.6**
SOEI	**Soe**	**19.22**	**100**	S	**Sn**	**15 40 28.5**	**+2.0**
SOEI	**Soe**	**19.22**	**100**	P	**P**	**15 36 48.4**	**-1.8**
SOEI	**Soe**	**19.22**	**100**	P	**P**	**15 36 50.6**	**+0.4**
	comp=Z,1μmcomp=Z,77nm,0.8s						
SOEI	**Soe**	**19.22**	**100**	P	**P**	**15 36 50.4**	**+0.1**
	comp=Z,114nm,0.8s						
GTOI	**Gorontalo**	**19.35**	**68**	P	**Pn**	**15 36 57.3**	**+4.3**
	comp=Z,17nm,0.6s						
MBWA	**Marble Bar**	**20.14**	**137**	P	**P**	**15 37 01.9**	**+1.8**
MBWA	**Marble Bar**	**20.14**	**137**	P	**P**	**15 36 59.7**	**-0.4**
MBWA				IAmb	IAmb	15 37 02.7	
	comp=Z,59nm,1.5s						
SANI	**Sanana**	**21.37**	**78**	P	**P**	**15 37 15.9**	**+2.5**
SANI	**Sanana**	**21.37**	**78**	P	**P**	**15 37 12.9**	**-0.5**
	comp=Z,5.3nm,2.3s						
FITZ	**Fitzroy Crossi**	**22.99**	**121**	P	**P**	**15 37 30.5**	**-0.1**
	comp=Z,5.8nm,0.6s,baz=291,slow=6.2,SNR=7.2						
FITZ				LR	LR	15 46 49.7	
	comp=Z,83nm,19.7s,baz=328,slow=37						
	comp=Z,5.8nm,0.6s						
FITZ	**Fitzroy Crossi**	**22.99**	**121**	P	**P**	**15 37 30.4**	**-0.3**
TNTI	**Ternate**	**23.48**	**72**	P	**P**	**15 37 37.2**	**+1.8**
	comp=Z,761nmcomp=Z,21nm,1.1s						
TNTI	**Ternate**	**23.48**	**72**	P	**P**	**15 37 36.0**	**+0.6**
	comp=Z,20nm,0.7s						
KNRA	**Kununurra**	**24.84**	**113**		**P**	**15 37 46.2**	**-1.6**
KNRA				IAmb	IAmb	15 37 49.5	
	comp=Z,25nm,0.7s						
CMAR	**Chiang Mai Arr**	**25.79**	**347**	P	**P**	**15 37 54.0**	**-2.5**
	comp=Z,1.9nm,0.6s,baz=181,slow=9.0,SNR=24						
CMAR				PcP	**PcP**	**15 41 26.6**	**+1.3**
	comp=Z,0.5nm,0.5s,baz=152,slow=2.4,SNR=4.2						
CMAR				ScP	**ScP**	**15 45 00.7**	**-0.2**
	comp=Z,0.4nm,0.8s,baz=197,slow=4.5,SNR=4.1						
CMAR				LR	LR	15 48 34.9	
	comp=Z,135nm,19.3s,baz=165,slow=38						
	comp=Z,1.9nm,0.6s						
CMAR	**Chiang Mai Arr**	**25.79**	**347**	P	**P**	**15 37 55.7**	**-0.8**
DRS	**Darwin Rock St**	**26.06**	**104**	P	**P**	**15 38 01.2**	**+2.2**
CHTO	**Chiang Mai**	**26.14**	**347**		**P**	**15 37 57.3**	**-2.3**
MTN	**Manton Dam**	**26.36**	**105**	P	**P**	**15 37 58.4**	**-3.3**
MTN				IAmb	IAmb	15 38 09.3	
	comp=Z,9.6nm,0.5s						
FAKI	**Fak Fak**	**27.34**	**83**	P	**P**	**15 38 13.9**	**+3.3**
PALK	**Pallekele**	**28.03**	**299**	LR	LR	15 48 03.1	
	comp=Z,141nm,21.0s,baz=122,slow=33						
NWAO	**Narrogin (SRO)**	**28.37**	**158**	LR	LR	15 49 18.3	
	comp=Z,194nm,19.9s,baz=268,slow=35						
H01W3	**Cape Leeuwin H**	**29.19**	**165**	T	T	16 08 53.8	
	baz=344,slow=76,SNR=969						
H01W1	**Cape Leeuwin H**	**29.21**	**165**	T	T	16 08 54.9	
	baz=344,slow=76,SNR=962						
H01W2	**Cape Leeuwin H**	**29.21**	**165**	T	T	16 08 58.6	
	baz=344,slow=76,SNR=1259						
WB0	**Warramunga Arr**	**31.25**	**117**	P	**P**	**15 38 44.5**	**-0.8**
WB0				IAmb	IAmb	15 38 45.8	
	comp=Z,6.2nm,0.9s						
WRA	**Warramunga Arr**	**31.27**	**118**	P	**P**	**15 38 45.2**	**-0.1**
	comp=Z,3.1nm,0.5s,baz=288,slow=10,SNR=21						
	comp=Z,3.1nm,0.5s						
WRA	**Warramunga Arr**	**31.27**	**118**	P	**P**	**15 38 42.5**	**-2.8**
WRAB	**Tennant Creek**	**31.27**	**118**	P	**P**	**15 38 44.9**	**-0.5**
WR8	**Warramunga Arr**	**31.41**	**118**	P	**P**	**15 38 45.5**	**-1.2**
WR8				IAmb	IAmb	15 38 47.8	
	comp=Z,7.6nm,0.6s						
BRDH	**Bariadhala**	**32.09**	**336**	LR	LR	15 55 56.2	
	comp=Z,108nm,18.5s,baz=168,slow=44						
FORT	**Forrest**	**32.16**	**141**	P	**P**	**15 38 52.9**	**-0.2**
FORT				IAmb	IAmb	15 38 59.4	
	comp=Z,8.3nm,0.8s						
H08S2	**Diego Garcia H**	**32.33**	**266**	T	T	16 13 14.9	
	baz=91,slow=76,SNR=402						
H08S3	**Diego Garcia H**	**32.34**	**266**	T	T	16 13 11.9	
	baz=91,slow=76,SNR=356						
H08S1	**Diego Garcia H**	**32.35**	**266**	T	T	16 13 12.1	
	baz=91,slow=76,SNR=311						
ASAR	**Alice Springs**	**32.38**	**124**	P	**P**	**15 38 55.5**	**+0.3**
	comp=Z,3.4nm,0.8s,baz=285,slow=7.3,SNR=31						
ASAR				S	**S**	**15 44 04.0**	**-2.1**
	comp=Z,1.3nm,0.9s,baz=294,slow=16,SNR=7.0						
ASAR				ScP	**ScP**	**15 45 22.0**	**+0.2**
	comp=Z,0.7nm,0.9s,baz=288,slow=3.5,SNR=4.2						
ASAR				LR	LR	15 52 42.5	
	comp=Z,92nm,19.6s,baz=286,slow=37						
	comp=Z,3.4nm,0.8s						
ASAR	**Alice Springs**	**32.38**	**124**	P	**P**	**15 38 55.0**	**-0.2**
AS31	**Alice Springs**	**32.38**	**124**	P	**P**	**15 38 54.8**	**-0.4**
QIS	**Mount Isa**	**36.14**	**116**	P	**P**	**15 39 28.4**	**+0.7**
	comp=Z,9.1nm,0.8s						
ENH	**Enshi**	**37.08**	**6**	P	P	15 39 41.5	+6.0
BBOO	**Buckleboo**	**38.72**	**136**	P	**P**	**15 39 49.5**	**+0.1**
BBOO	**Buckleboo**	**38.72**	**136**	P	**P**	**15 39 48.7**	**-0.7**
BBOO				IAmb	IAmb	15 39 50.8	
	comp=Z,9.8nm,0.7s						
EVN	**Everest**	**38.77**	**334**	P	**P**	**15 39 49.0**	**-1.6**
EVN				IAmb	IAmb	15 39 51.1	
	comp=Z,6.1nm,0.6s						
EVN	**Everest**	**38.77**	**334**	P	**P**	**15 39 49.4**	**-1.2**
	comp=Z,8.7nm,0.8s						
INKA	**Innaminka**	**39.70**	**126**	P	**P**	**15 39 58.7**	**+1.0**
INKA				IAmb	IAmb	15 39 59.9	
	comp=Z,4.3nm,0.7s						
HTT	**Hallett**	**41.06**	**135**	P	**P**	**15 40 08.9**	**0.0**
PMG	**Port Moresby**	**41.73**	**97**	P	**P**	**15 40 14.3**	**-0.2**
PMG	**Port Moresby**	**41.73**	**97**	P	**P**	**15 40 13.9**	**-0.6**
PMG	**Port Moresby**	**41.73**	**97**	P	**P**	**15 40 14.7**	**+0.2**
PMG	**Port Moresby**	**41.73**	**97**	P	**P**	**15 40 14.7**	**+0.2**
	comp=Z,43nm,0.9s						
CTA	**Charters Tower**	**42.05**	**112**	LR	LR	15 58 39.1	
	comp=Z,60nm,19.6s,baz=269,slow=37						
QLP	**Quilpie**	**42.12**	**123**	P	**P**	**15 40 20.0**	**+2.4**
STKA	**Stephens Creek**	**42.22**	**131**	P	**P**	**15 40 19.5**	**+1.2**
	comp=Z,50nm,0.7s,baz=304,slow=8.2,SNR=95						
STKA				LR	LR	15 59 04.3	
	comp=Z,130nm,20.5s,baz=243,slow=38						
STKA	**Stephens Creek**	**42.22**	**131**	P	**P**	**15 40 19.6**	**+1.2**
CMSA	**Cobar Meteorol**	**45.20**	**128**	P	**P**	**15 40 44.7**	**+2.4**
GTA2	**Gaotai**	**46.29**	**354**	*eP*	**P**	**15 40 50.1**	**-0.7**
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.9s						
JNU	**Nakatsue**	**46.64**	**30**	LR	LR	15 59 35.6	
	comp=Z,53nm,21.8s,baz=202,slow=35						
EIDS	**Eidsvold**	**47.63**	**118**	P	**P**	**15 41 02.0**	**+0.6**
EIDS				IAmb	IAmb	15 41 03.8	
	comp=Z,21nm,1.5s						
HHC	**Hu-ho-hao-te**	**47.76**	**7**	*eP*	**P**	**15 41 03.6**	**+1.3**
HHC				pmax	pmax		
	comp=Z,16nm,0.7s						
KSRS	**Korea Array**	**48.90**	**24**	P	**P**	**15 41 09.6**	**-1.3**
	comp=Z,1.3nm,0.9s,baz=213,slow=6.1,SNR=5.1						
KSRS				LR	LR	16 02 15.4	
	comp=Z,19nm,19.6s,baz=220,slow=37						
	comp=Z,1.3nm,0.9s						
CAN	**Canberra**	**49.28**	**132**	P	**P**	**15 41 16.5**	**+2.4**
CAN	**Canberra**	**49.28**	**132**	P	**P**	**15 41 15.3**	**+1.2**
ARMA	**Armidale**	**49.54**	**124**	P	**P**	**15 41 17.5**	**+1.3**
ARMA	**Armidale**	**49.54**	**124**	P	**P**	**15 41 17.0**	**+0.8**
NIL	**Nilore**	**50.26**	**325**	P	**P**	**15 41 20.9**	**-0.6**
MJAR	**Matsushiro Arr**	**53.11**	**33**	P	**P**	**15 41 39.5**	**-3.1**
	comp=Z,0.9nm,0.7s,baz=205,slow=8.2,SNR=5.2						
MJAR				LR	LR	16 06 09.7	
	comp=Z,17nm,19.1s,baz=230,slow=38						
	comp=Z,0.9nm,0.7s						
KSH2	**Kashi**	**53.24**	**331**	P	**P**	**15 41 43.0**	**-0.8**
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
CN2	**Changchun**	**53.61**	**18**	*eP*	**P**	**15 41 48.0**	**+1.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.3s						
TATA	**Tatamba Isabel**	**54.24**	**95**	P	**P**	**15 41 54.4**	**+3.1**
SONM	**Songino Array**	**54.38**	**1**	P	**P**	**15 41 49.9**	**-2.0**
	comp=Z,1.8nm,0.5s,baz=172,slow=7.6,SNR=12						
SONM				PcP	**PcP**	**15 42 55.3**	**+0.1**
	comp=Z,1.6nm,0.7s,baz=172,slow=5.3,SNR=6.0						
SONM				ScP	**ScP**	**15 46 48.1**	**-1.4**
	comp=Z,0.7nm,0.6s,baz=165,slow=4.3,SNR=4.6						
SONM				LR	LR	16 07 33.7	
	comp=Z,138nm,19.1s,baz=186,slow=39						
	comp=Z,1.8nm,0.5s						
SONM	**Songino Array**	**54.38**	**1**	P	**P**	**15 41 51.0**	**-0.9**
SONM				PcP	**PcP**	**15 42 54.5**	**-0.7**
SONM				ScP	**ScP**	**15 46 48.8**	**-0.6**
BNX	**BinXian**	**55.97**	**19**	||P	**P**	**15 42 02.8**	**-0.3**
BNX				pmax	pmax		
	comp=Z,12nm,0.7s						
USA0B	**Ussuriysk Arra**	**56.25**	**23**	P	**P**	**15 42 03.7**	**-1.5**
USRK	**Ussuriysk Ar.**	**56.25**	**23**	P	**P**	**15 42 03.6**	**-1.7**
	comp=Z,11nm,0.6s,baz=202,slow=6.4,SNR=19						
	comp=Z,11nm,0.6s						
USRK	**Ussuriysk Ar.**	**56.25**	**23**	P	**P**	**15 42 04.2**	**-1.0**
AAK	**Ala-Archa**	**56.51**	**333**	LR	LR	16 09 45.3	
	comp=Z,41nm,18.1s,baz=154,slow=40						
MK31	**Makanchi Array**	**57.05**	**342**	P	**P**	**15 42 09.0**	**-1.9**
MKAR	**Makanchi Array**	**57.05**	**342**	P	**P**	**15 42 08.3**	**-2.5**
	comp=Z,0.8nm,0.4s,baz=151,slow=8.8,SNR=15						
MKAR				LR	LR	16 08 24.4	
	comp=Z,63nm,21.0s,baz=152,slow=38						
	comp=Z,0.8nm,0.4s						
MKAR	**Makanchi Array**	**57.05**	**342**	P	**P**	**15 42 09.1**	**-1.7**
HILR	**Hailar Array B**	**57.54**	**11**	P	**P**	**15 42 11.9**	**-2.4**
	comp=Z,5.8nm,0.5s,baz=203,slow=9.0,SNR=8.6						
	comp=Z,5.8nm,0.5s						
TLY	**Talaya**	**58.24**	**359**	LR	LR	16 10 02.4	
	comp=Z,64nm,18.3s,baz=168,slow=39						
HEH	**HeiHe**	**60.01**	**16**	*eP*	**P**	**15 42 30.0**	**-1.4**
H04N2	**CROZET ISLANDS**	**60.20**	**220**	T	T	16 48 07.7	
	baz=64,slow=74,SNR=280						
H04N1	**CROZET ISLANDS**	**60.21**	**220**	T	T	16 48 11.4	
	baz=64,slow=74,SNR=175						
H04N3	**CROZET ISLANDS**	**60.22**	**220**	T	T	16 48 10.

BRTR	**Keskin Array B**	**80.26**	**312**	P	**P**	**15 44 35.5**	**-0.3**
	comp=Z,2.1nm,0.8s,baz=138,slow=6.3,SNR=12						
BRTR				LR	LR	16 21 30.4	
	comp=Z,29nm,21.3s,baz=110,slow=37						
	comp=Z,2.1nm,0.8s						
SUR	**Sutherland**	**81.58**	**238**	LR	LR	16 17 36.7	
	comp=Z,46nm,18.5s,baz=154,slow=33						
SHEM	**Shemya Is, Ala**	**82.92**	**35**	LR	LR	16 26 21.5	
	comp=Z,8.4nm,18.1s,baz=282,slow=39						
QSPA	**South Pole Qui**	**83.22**	**180**	P	**P**	**15 44 52.5**	**+1.7**
	comp=Z,2.1nm,0.6s,baz=268,slow=0.9,SNR=19						
QSPA				LR	LR	16 19 19.7	
	comp=Z,42nm,18.1s,baz=328,slow=34						
	comp=Z,2.1nm,0.6s						
QSPA	**South Pole Qui**	**83.22**	**180**	P	**P**	**15 44 51.2**	**+0.4**
QSPA				IAmb	IAmb	15 44 52.8	
	comp=Z,4.2nm,1.1s						
AKASG	**Malin Array Be**	**86.33**	**322**	P	**P**	**15 45 06.1**	**-0.5**
	comp=Z,0.2nm,0.2s,baz=82,slow=3.4,SNR=4.2						
	comp=Z,0.2nm,0.2s						
FINES	**FINESS Array B**	**90.67**	**332**	P	**P**	**15 45 28.1**	**+1.1**
	comp=Z,2.6nm,0.8s,baz=145,slow=7.0,SNR=7.2						
FINES				LR	LR	16 34 02.0	
	comp=Z,55nm,19.3s,baz=9.0,slow=41						
	comp=Z,2.6nm,0.8s						
ARCES	**ARCESS Array B**	**92.66**	**340**	LR	LR	16 31 38.6	
	comp=Z,67nm,19.7s,baz=196,slow=38						
NOA	**NORSAR Array B**	**97.75**	**331**	LR	LR	16 36 46.7	
	comp=Z,21nm,18.1s,baz=20,slow=40						
PPT2	**Papeete2**	**102.45**	**110**	eLR	LR	16 19 56.0	
	comp=Z,60nm,21.5s						
TAOE	**Nuku Hiva Isla**	**113.17**	**103**	eLR	LR	16 25 00.0	
	comp=Z,61nm,29.4s						
PDAR	**Pinedale Array**	**132.92**	**35**	SKPbc	**SKPbc**	**15 55 03.2**	**-0.8**
	comp=Z,1.1nm,0.8s,baz=270,slow=1.5,SNR=7.9						
ULM	**Lac du Bonnet**	**133.26**	**18**	SKPbc	**SKPbc**	**15 55 04.5**	**0.0**
	comp=Z,5.9nm,1.0s,baz=328,slow=5.8,SNR=2.9						
TXAR	**Lajitas Array**	**144.83**	**47**	PKP	**PKPab**	**15 52 02.1**	**+0.9**
	comp=Z,2.7nm,0.6s,baz=281,slow=1.0,SNR=38						
TXAR	**Lajitas Array**	**144.83**	**47**		**PKPab**	**15 52 01.2**	**-0.1**
R40A	**Maddies Static**	**144.91**	**24**	PKPdf	**PKPab**	**15 52 00.6**	**-0.6**

IDC 14 15:43:37.5±16.0, 17.56S×175.45W, h368km±85km, mb2.8/3, mbtmp3.6/4, Error ellipse: s-maj=350.2km s-min=35.0km az=138.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**6.20**	**267**	P		15 45 11.3	0.0
	11nm,0.5s,baz=70,slow=12,SNR=20						
WRA	**Warramunga Arr**	**47.47**	**259**	P		15 51 37.2	+0.1
	0.1nm,0.3s,baz=97,slow=7.2,SNR=1.6						
	0.1nm,0.3s						
ASAR	**Alice Springs**	**47.60**	**254**	P		15 51 37.9	-0.2
	0.7nm,0.4s,baz=91,slow=7.3,SNR=33						
	0.7nm,0.4s						
ILAR	**Eielson Array**	**84.94**	**12**	P		15 55 31.6	0.0
	0.2nm,0.7s,baz=205,slow=4.9,SNR=5.0						
	0.2nm,0.7s						

NNC 14 15:51:20.9±5.0, 36.85N×70.83E, h0km, mb3.5, mpv3.2, 2C, Error ellipse: s-maj=41.5km s-min=33.4km az=152.0, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**6.25**	**358**	↑P		15 52 55.0	+0.5
	0.5nm,0.2s,baz=174,slow=12,SNR=18						
KK31				↑S		15 54 08.0	+1.3
	2.3nm,0.6s,baz=179,slow=22						
AAK	**Ala-Archa**	**6.43**	**25**	P		15 52 56.4	-0.7
	1.6nm,0.8s						
AB31	**Akbulak array**	**14.71**	**331**	P		15 54 50.7	+0.4
	0.3nm,0.4s,baz=159,slow=11,SNR=13						

*IDC **14** 15:54:35.4±1.0, 17.71S×178.88W, h549km±9km, mb3.2/12, mbtmp4.0/14, Error ellipse: s-maj=19.4km s-min=14.4km az=113.0*

ISC 14 15:54:34.4±0.7, 17.7S±0.1×178.8W±0.1, h539km, n35, σ0991/35, mb3.7/11, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**2.97**	**269**	P	**P**	**15 55 48.5**	**+0.1**
	17nm,0.7s,baz=137,slow=8.4,SNR=14						
MSVF				S	**S**	15 56 52.1	+3.4
	6.4nm,0.9s,baz=178,slow=23,SNR=10.0						
AFI	**Afiamalu**	**7.78**	**62**	P	P	15 56 24.9	-4.9
DZM	**Mont Dzumac**	**14.51**	**250**	P	**P**	**15 57 37.8**	**-1.3**
	2.4nm,0.5s,baz=79,slow=23,SNR=2.8						
URZ	**Urewera**	**20.77**	**189**	P	**P**	**15 58 36.3**	**-1.6**
	7.4nm,0.7s,baz=0.0,slow=11,SNR=7.1						
	7.4nm,0.7s						
STKA	**Stephens Creek**	**38.37**	**241**	P	**P**	**16 01 10.2**	**+0.5**
	0.9nm,0.5s,baz=94,slow=9.7,SNR=4.3						
	0.9nm,0.5s						
WRA	**Warramunga Arr**	**44.27**	**259**	P	**P**	**16 01 55.8**	**-0.8**
	0.2nm,0.3s,baz=92,slow=7.0,SNR=5.4						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**44.45**	**254**	P	**P**	**16 01 57.9**	**-0.1**
	2.7nm,0.4s,baz=89,slow=7.9,SNR=75						
ASAR				PcP	**PcP**	**16 03 30.1**	**+0.2**
	0.7nm,0.4s,baz=101,slow=4.1,SNR=14						
	2.7nm,0.4s						
MJAR	**Matsushiro Arr**	**67.51**	**324**	P	**P**	**16 04 36.1**	**-1.0**
	1.9nm,0.8s,baz=162,slow=6.4,SNR=8.3						
	1.9nm,0.8s						
QSPA	**South Pole Qui**	**72.34**	**180**	P	**P**	**16 05 06.4**	**+0.9**
	1.6nm,0.6s,baz=338,slow=0.4,SNR=13						
	1.6nm,0.6s						
PETK	**Petropavlovsk-**	**73.39**	**345**	P	**P**	**16 05 10.8**	**-0.7**
	3.1nm,0.8s,baz=180,slow=1.5,SNR=4.5						
	3.1nm,0.8s						
NVAR	**Mina Array Bea**	**79.57**	**44**	P	**P**	**16 05 46.6**	**+0.7**
	0.6nm,0.7s,baz=240,slow=5.7,SNR=4.2						
	0.6nm,0.7s						
ILAR	**Eielson Array**	**85.79**	**13**	P	**P**	**16 06 15.2**	**-1.1**
	0.6nm,0.4s,baz=225,slow=5.1,SNR=27						
	0.6nm,0.4s						
TXAR	**Lajitas Array**	**86.23**	**58**	P	**P**	**16 06 20.6**	**+1.1**
	0.6nm,0.7s,baz=209,slow=6.5,SNR=9.1						
	0.6nm,0.7s						
PDAR	**Pinedale Array**	**87.49**	**44**	P	**P**	**16 06 25.5**	**+0.3**
	0.6nm,0.6s,baz=210,slow=4.0,SNR=5.3						
	0.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**88.44**	**290**	P	**P**	**16 06 31.0**	**+1.1**
	0.3nm,0.3s,baz=111,slow=3.0,SNR=5.2						
	0.3nm,0.3s						
BVAR	**Borovoye Array**	**116.44**	**321**	PKP	**PKPdf**	**16 12 16.1**	**-0.7**
	0.7nm,0.3s,baz=101,slow=2.1,SNR=6.4						
BRTR	**Keskin Array B**	**144.36**	**315**	PKP	PKPbc	16 13 09.4	-0.2
	1.3nm,0.7s,baz=150,slow=3.0,SNR=8.9						
MMAI	**Mount Meron Ar**	**145.70**	**303**	PKPbc	**PKPbc**	**16 13 13.6**	**-0.1**
	1.0nm,0.4s,baz=61,slow=6.8,SNR=2.7						
ABNA	**Allensteig Bun**	**147.01**	**343**	*e*PKP	**PKPbc**	**16 13 17.2**	**+0.5**
	0.1nm,0.0s						
GERES	**GERESS Array B**	**147.32**	**345**	PKPbc	**PKPbc**	**16 13 17.4**	**-0.3**
	1.2nm,0.4s,baz=20,slow=3.0,SNR=16						
WINA	**Aland / Wiene**	**147.33**	**341**	*e*PKP	**PKPbc**	**16 13 18.3**	**+0.7**
	1.8nm,0.6s						
CONA	**Conrad Observa**	**147.56**	**341**	*e*PKP	**PKPbc**	**16 13 18.5**	**+0.2**
	2.4nm,0.7s						
RONA	**Rosalia, Austr**	**147.62**	**341**	*e*PKP	**PKPbc**	**16 13 18.8**	**+0.4**
	1.3nm,0.6s						
SESA	**Seetaler Alpe,**	**148.67**	**342**	*e*PKP	**PKPbc**	**16 13 21.0**	**-0.2**
	2.4nm,0.5s						
LESA	**Schwarzleotal**	**148.90**	**345**	*e*PKP	**PKPbc**	**16 13 21.7**	**0.0**
	1.1nm,0.3s						
SOKA	**Soboth**	**148.93**	**341**	*e*PKP	**PKPbc**	**16 13 21.4**	**-0.4**
	2.9nm,0.7s						
KBA	**Koelnbreinsper**	**149.04**	**344**	*e*PKP	**PKPbc**	**16 13 21.3**	**-0.9**
	0.8nm,0.4s						
OBKA	**Obir**	**149.22**	**342**	*e*PKP	**PKPbc**	**16 13 22.8**	**+0.3**
	1.4nm,0.7s						
WATA	**Walderalm**	**149.25**	**346**	*e*PKP	**PKPbc**	**16 13 22.3**	**-0.3**
	1.5nm,0.4s						
RETA	**Reutte**	**149.28**	**347**	*i* PKP	**PKPbc**	**16 13 22.4**	**-0.1**
	1.6nm,0.5s						
WTTA	**Wattenberg**	**149.30**	**346**	*e*PKP	**PKPbc**	**16 13 22.8**	**0.0**
	2.4nm,0.4s						
MYKA	**Terra Mystica**	**149.38**	**343**	*e*PKP	**PKPbc**	**16 13 22.0**	**-0.8**
	1.3nm,0.5s						
SQTA	**Sankt Quirin**	**149.44**	**346**	*e*PKP	**PKPbc**	**16 13 23.0**	**0.0**
	1.1nm,0.4s						
ABTA	**Abfaltersbach**	**149.57**	**345**	*e*PKP	**PKPbc**	**16 13 22.8**	**-0.5**
	6.7nm,1.1s						
FETA	**Feichten**	**149.73**	**347**	*e*PKP	**PKPbc**	**16 13 23.7**	**0.0**
	5.5nm,1.1s						

*IDC **14** 16:13:33.9±1.1, 12.08N×122.78E, h0km, mb3.7/5, mbtmp3.9/7, ML4.3/2, MS2.8/2, Error ellipse: s-maj=40.8km s-min=17.6km az=76.0*
*MAN **14** 16:13:37.0, 12.50N×123.44E, h12km, MS3.8*
MAN INTENSITY III - ARORIOY MASBATE.

ISC 14 16:13:36.8±0.7, 12.57N±0.05×123.31E±0.08, h13km, n16, σ2863/19, mb3.8/5, Luzon

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GQP	**Guinayangan**	**1.57**	**328**	*e*P	**Pn**	**16 14 03.8**	**-0.6**
GQP				*e*S	**Sb**	**16 14 25.8**	**+0.4**
PLP	**Palo**	**2.15**	**130**	*e*P	**Pn**	**16 14 11.4**	**-1.1**
PLP				*e*S	**Sn**	**16 14 37.1**	**-2.0**
JAP	**San Jose, Anti**	**2.25**	**216**	*e*P	**Pb**	**16 14 17.1**	**-0.2**
LQP	**Lukban**	**2.30**	**312**	*e*P	**Pn**	**16 14 14.6**	**-0.1**
LLP	**Lapu-Lapu**	**2.33**	**164**	*e*P	**Pn**	**16 14 15.2**	**+0.3**
LLP				*i* S	**Sg**	**16 14 51.8**	**-0.1**
TBP	**Tagbilaran**	**2.92**	**169**	*e*P	**Pn**	**16 14 23.2**	**+0.3**
TBP				*e*S	**Sg**	**16 15 17.8**	**+7.2**
DCPH	**Dipolog City**	**3.96**	**179**	*i* P	**Pn**	**16 14 36.4**	**-1.0**
CGP	**Cagayan de Oro**	**4.31**	**161**	*e*P	**Pb**	**16 14 53.9**	**+1.3**
JOW	**Kunigami**	**14.93**	**17**	Pn	**P**	**16 17 14.4**	**+1.0**
	2.8nm,0.3s,baz=153,slow=2.3,SNR=10						
	44nm,1.1s						
JOW				AML	AML		
SIJI	**Sorong**	**15.52**	**149**	Pn	**Pn**	**16 17 12.9**	**-2.7**
	0.5nm,0.3s,baz=270,slow=18,SNR=9.7						
SIJI				LR	LR	16 23 16.9	
	comp=Z,43nm,19.8s,baz=20,slow=38						
	6.0nm,0.9s						
SIJI				AML	AML		
CMAR	**Chiang Mai Arr**	**24.18**	**287**	LR	LR	16 27 03.0	
	comp=Z,16nm,20.6s,baz=170,slow=34						
MJAR	**Matsushiro Arr**	**27.37**	**27**	P	**P**	**16 19 26.7**	**+4.8**
	2.1nm,0.3s,baz=273,slow=3.8,SNR=106						
	2.1nm,0.3s						
WRA	**Warramunga Arr**	**34.09**	**161**	P	**P**	**16 20 18.1**	**-3.3**
	0.1nm,0.4s,baz=327,slow=11,SNR=1.3						
	0.1nm,0.4s						
ASAR	**Alice Springs**	**37.48**	**164**	P	**P**	**16 20 47.7**	**-2.7**
	0.2nm,0.6s,baz=341,slow=8.4,SNR=7.8						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**48.45**	**323**	P	**P**	**16 22 19.4**	**+0.3**
	0.7nm,0.8s,baz=133,slow=8.6,SNR=5.9						
	0.7nm,0.8s						
KURBB	**Kurchatov Arra**	**52.54**	**326**	P	**P**	**16 22 48.8**	**-1.1**
	0.5nm,0.2s,baz=116,slow=8.5,SNR=2.3						
	0.5nm,0.2s						

*IDC **14** 16:54:48.7±2.7, 4.20S×79.90W, h0km, mb3.5/4, mbtmp3.5/5, ML4.0/1, Error ellipse: s-maj=222.3km s-min=34.2km az=51.0*
*IGQ **14** 16:55:02.2±0.3, 4.35S×79.07W, h78km±4km, M4.2/30, Mjma4.1/30, ML4.5/26, MLv4.1/30, Ms(BB)4.1/24*

ISC 14 16:55:00.1±0.9, 3.99S±0.05×79.15W±0.07, h100km, n51, σ1951/54, mb3.6/4, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GONZ	**Gonzanam**	**0.35**	**225**	P	**Pn**	**16 55 15.7**	**+0.3**
GONZ				S	**Sn**	**16 55 26.8**	**0.0**
ZUMB	**Zumba**	**0.87**	**180**	P	**Pn**	**16 55 20.8**	**+1.4**
ZUMB				S	**Sn**	**16 55 35.6**	**+1.8**
BOSC	**San Juan Bosco**	**1.06**	**38**	P	**Pn**	**16 55 21.4**	**+0.1**
BOSC				S	**Sn**	**16 55 36.7**	**-0.6**
ISPG	**Isla Puna-Puer**	**1.44**	**315**	P	**Pn**	**16 55 27.1**	**+1.5**
MORR	**Playas El Morr**	**1.79**	**318**	P	**Pn**	**16 55 30.7**	**+0.7**
SANGA	**Volcan Sangay**	**2.08**	**22**	P	**Pn**	**16 55 35.9**	**+1.8**
TAIS	**Taisha**	**2.29**	**46**	P	**Pn**	**16 55 37.2**	**+0.6**
TAMH	**Tambohuasha Ch**	**2.46**	**9**	P	**Pn**	**16 55 40.7**	**+1.6**
CHSH	**Refugio Sur-Vo**	**2.49**	**6**	P	**Pn**	**16 55 40.9**	**+1.2**
BPAT	**Tungurahua Vol**	**2.57**	**16**	P	**Pn**	**16 55 41.7**	**+1.1**
BBIL	**Ulba Tungurahu**	**2.61**	**15**	P	**Pn**	**16 55 42.8**	**+1.8**
PUYO	**Puyo, Santa Ro**	**2.72**	**24**	P	**Pn**	**16 55 43.6**	**+1.3**
PKYU	**Pakayacu**	**2.80**	**34**	P	**Pn**	**16 55 43.8**	**+0.6**
PPLP	**Puerto Lpez**	**2.92**	**326**	P	**Pn**	**16 55 45.5**	**+0.7**
JIPI	**JIPIJAPA**	**2.96**	**332**	P	**Pn**	**16 55 46.5**	**+1.1**
PIS1	**Pisayambo**	**3.01**	**15**	P	**Pn**	**16 55 48.1**	**+1.6**
PIAT	**Ana Tenorio**	**3.10**	**17**	P	**Pn**	**16 55 48.8**	**+1.2**
VCES	**Cotopaxi**	**3.26**	**13**	P	**Pn**	**16 55 51.0**	**+1.2**
ARDO	**Archidona, Ten**	**3.27**	**24**	P	**Pn**	**16 55 49.5**	**0.0**
ILLI	**Illinizas Sur**	**3.28**	**7**	P	**Pn**	**16 55 52.0**	**+1.9**
BMOR	**Cotopaxi Volca**	**3.31**	**12**	P	**Pn**	**16 55 52.3**	**+1.8**
BREF	**Cotopaxi Volca**	**3.37**	**12**	P	**Pn**	**16 55 54.4**	**+2.9**
BTAM	**Cotopaxi Volca**	**3.38**	**13**	P	**Pn**	**16 55 53.6**	**+2.2**
BVC2	**Cotopaxi Volca**	**3.39**	**13**	P	**Pn**	**16 55 53.0**	**+1.4**
ANTM	**Antisana-La Mi**	**3.55**	**15**	P	**Pn**	**16 55 55.3**	**+1.5**
ANTG	**Antisana-Guama**	**3.58**	**15**	P	**Pn**	**16 55 55.3**	**+1.2**
ANTS	**Antisana-Sarah**	**3.60**	**16**	P	**Pn**	**16 55 55.9**	**+1.4**
FLF1	**Flavio Alfaro-**	**3.67**	**349**	P	**Pn**	**16 55 54.7**	**-0.2**
GGPT	**Toaza - Volcan**	**3.78**	**8**	P	**Pn**	**16 55 58.3**	**+1.6**
GGPC	**Guagua Pichinc**	**3.83**	**8**	P	**Pn**	**16 55 58.4**	**+0.9**
TERV	**Terraza Guagua**	**3.83**	**8**	P	**Pn**	**16 55 58.7**	**+1.2**
PUEM	**Granja Avicola**	**3.90**	**12**	P	**Pn**	**16 56 00.2**	**+2.0**
PULU	**Pululahua**	**4.04**	**9**	P	**Pn**	**16 56 02.2**	**+2.0**
REVS	**Reventador Sur**	**4.15**	**22**	P	**Pn**	**16 56 01.7**	**+0.2**
ANGU	**Angureal**	**4.17**	**16**	P	**Pn**	**16 56 03.9**	**+1.7**
REVN	**San Rafael**	**4.17**	**21**	P	**Pn**	**16 56 02.3**	**+0.3**
PAC1	**Pacto, Paraso**	**4.24**	**5**	P	**Pn**	**16 56 03.8**	**+1.1**
CUIC	**Cuicocha-Domo**	**4.34**	**10**	P	**Pn**	**16 56 05.9**	**+1.7**
COTA	**Cocachi**	**4.37**	**11**	P	**Pn**	**16 56 06.9**	**+2.1**
YAHU	**Yahuarcocha**	**4.46**	**14**	P	**Pn**	**16 56 07.9**	**+2.0**
CASC	**Dorado de Casc**	**4.48**	**24**	P	**Pn**	**16 56 05.7**	**-0.2**
URCU	**Urcuqui**	**4.49**	**12**	P	**Pn**	**16 56 08.3**	**+2.0**
LNGL	**El Angel-Carch**	**4.83**	**14**	P	**Pn**	**16 56 12.7**	**+1.6**
TULM	**Tulcn-Chalpat**	**4.87**	**16**	P	**Pn**	**16 56 13.9**	**+2.4**
CHL1	**Volcn Chiles**	**4.90**	**14**	P	**Pn**	**16 56 13.5**	**+1.5**
CMBC	**Cumbal**	**5.07**	**15**	P	**Pn**	**16 56 16.9**	**+2.7**
LPAZ	**La Paz**	**16.33**	**139**	Pn	**P**	**16 58 44.7**	**-0.6**
	0.3nm,0.3s,baz=285,slow=5.9,SNR=4.4						
	1.0nm,0.5s						
LPAZ				AML	AML		
TXAR	**Lajitas Array**	**40.63**	**326**	P	**P**	**17 02 28.0**	**-2.5**
	0.1nm,0.6s,baz=129,slow=6.7,SNR=1.4						
	0.1nm,0.6s						
PDAR	**Pinedale Array**	**54.07**	**333**	P	**P**	**17 04 15.1**	**+0.4**
	0.5nm,0.7s,baz=136,slow=8.1,SNR=5.0						
	0.5nm,0.7s						
NVAR	**Mina Array Bea**	**55.61**	**323**	P	**P**	**17 04 25.0**	**-0.8**
	0.5nm,0.4s,baz=120,slow=4.1,SNR=4.0						
	0.5nm,0.4s						
YKA	**Yellowknife Ar**	**71.57**	**344**	P	**P**	**17 06 10.8**	**+0.7**
	0.4nm,0.6s,baz=146,slow=6.4,SNR=4.1						
	0.4nm,0.6s						

*IDC **14** 17:09:21.2±1.6, 7.60S×128.25E, h143km±15km, mb3.2/5, mbtmp3.9/10, Error ellipse: s-maj=19.7km s-min=12.9km az=112.0*

ISC 14 17:09:21.0±0.8, 7.75S±0.06×128.38E±0.09, h150km, n10, σ2855/15, mb3.4/5, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BATI	**Baumata**	**5.26**	**242**	P	**Pn**	**17 10 39.3**	**+1.3**
	38nm,0.4s,baz=110,slow=4.0,SNR=10.0						
BATI				S	**Sn**	**17 11 36.4**	**-1.6**
	40nm,0.3s,baz=284,slow=22,SNR=16						
SIJI	**Sorong**	**7.42**	**23**	P	**Pn**	**17 11 07.4**	**+0.7**
	4.9nm,0.3s,baz=264,slow=10,SNR=16						
SIJI				S	**Sn**	**17 12 26.0**	**-3.7**
	4.0nm,0.2s,baz=60,slow=24,SNR=6.2						
FITZ	**Fitzroy Crossi**	**10.62**	**194**	P	**Pn**	**17 11 49.7**	**+0.4**
	3.1nm,0.4s,baz=13,slow=9.9,SNR=39						
FITZ				S	**Sn**	**17 13 42.5**	**-4.4**
	6.1nm,0.3s,baz=108,slow=24,SNR=8.7						
WRA	**Warramunga Arr**	**13.42**	**155**	P	**Pn**	**17 12 27.8**	**+2.1**
	2.3nm,0.8s,baz=328,slow=14,SNR=15						
WRA				S	**Sn**	**17 14 51.5**	**-2.9**
	6.2nm,0.6s,baz=332,slow=23,SNR=14						
ASAR	**Alice Springs**	**16.69**	**162**	P	**Pn**	**17 13 10.5**	**+4.3**
	4.0nm,0.6s,baz=341,slow=10,SNR=93						
ASAR				S	**S**	**17 16 10.3**	**-1.6**
	1.4nm,0.5s,baz=324,slow=16,SNR=8.5						
CMAR	**Chiang Mai Arr**	**39.01**	**312**	P	**P**	**17 16 33.5**	**+0.3**
	0.4nm,0.6s,baz=127,slow=8.1,SNR=5.5						
	0.4nm,0.6s						
MKAR	**Makanchi Array**	**67.99**	**328**	P	**P**	**17 20 04.0**	**0.0**
	0.2nm,0.5s,baz=123,slow=7.1,SNR=4.2						
	0.2nm,0.5s						
ZALV	**Zalesovo Beam**	**71.56**	**335**	P	**P**	**17 20 24.2**	**-1.4**
	0.6nm,0.5s,baz=116,slow=6.6,SNR=2.4						
	0.6nm,0.5s						
VNDA	**Vanda**	**71.90**	**173**	P	**P**	**17 20 29.4**	**+2.0**
	0.6nm,0.9s,baz=279,slow=9.5,SNR=5.1						
	0.6nm,0.9s						
KURBB	**Kurchatov Arra**	**72.32**	**329**	P	**P**	**17 20 29.6**	**-0.6**
	0.5nm,0.5s,baz=128,slow=4.9,SNR=8.4						
	0.5nm,0.5s						

*NEIC **14** 17:24:23.1±2.6, 19.33S±0.04×169.52E±0.10, h131km±11km, mb4.4/16, Error ellipse: s-maj=13.1km s-min=5.3km az=90.0*
*NOU **14** 17:24:25.0, 19.48S×169.29E, h11km, MLv4.1/18, Vanuatu Islands*
*IDC **14** 17:24:26.1±7.5, 19.44S×169.27E, h146km±47km, mb3.4/5, mbtmp3.9/6, Error ellipse: s-maj=67.3km s-min=32.7km az=36.0*

ISC 14 17:24:23.2±0.7, 19.39S±0.04×169.56E±0.07, h150km, n44, σ2801/50, mb4.2/12, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RTV	**Rentapao**	**1.92**	**326**	P	**Pn**	**17 24 57.9**	**+0.5**
RTV	**Rentapao**	**1.92**	**326**	S	**Sn**	**17 25 22.8**	**-0.9**
DVP	**Devils Point**	**2.11**	**322**	P	**Pn**	**17 25 00.3**	**+0.7**
DVP	**Devils Point**	**2.11**	**322**	S	**Sn**	**17 25 26.7**	**-0.9**
MARNC	**Mare, Loyalty**	**2.52**	**214**	P	**Pn**	**17 25 04.0**	**-0.6**
MARNC	**Mare, Loyalty**	**2.52**	**214**	S	**Sn**	**17 25 32.7**	**-3.8**
MARNC	**Mare, Loyalty**	**2.52**	**214**		**Pn**	**17 25 04.0**	**-0.6**
MARNC				Sn	**Sn**	**17 25 32.5**	**-4.0**
YATNC	**Mamie plateau,**	**3.64**	**223**	P	**Pn**	**17 25 17.4**	**-1.4**
PINNC	**Pines Island,**	**3.76**	**211**		**Pn**	**17 25 20.7**	**+0.4**
PINNC				Sn	**Sn**	**17 26 02.8**	**-1.9**
OUENC	**Ouen Island, N**	**3.94**	**220**		**Pn**	**17 25 23.1**	**+0.5**
OUENC				Sn	**Sn**	**17 26 06.9**	**-1.9**
DZM	**Mont Dzumac**	**3.95**	**227**	P	**Pn**	**17 25 22.6**	**-0.3**
	20nm,0.3s,baz=52,slow=19,SNR=430						
DZM				S	**Sn**	**17 26 06.9**	**-2.4**
	42nm,0.7s,baz=270,slow=20,SNR=9.0						
NOUC	**Port Laguerre**	**4.07**	**228**	P	**Pn**	**17 25 24.3**	**0.0**
NOUC	**Port Laguerre**	**4.07**	**228**	S	**Sn**	**17 26 09.3**	**-2.5**
ONTNC	**Ouen Toro**	**4.10**	**225**	P	**Pn**	**17 25 24.9**	**+0.1**
ONTNC	**Ouen Toro**	**4.10**	**225**	S	**Sn**	**17 26 09.9**	**-2.8**
ONTNC	**Ouen Toro**	**4.10**	**225**		**Pn**	**17 25 24.6**	**-0.1**
ONTNC				Sn	**Sn**	**17 26 09.5**	**-3.1**
SANVU	**Saraoutou**	**4.52**	**330**	P	**Pn**	**17 25 31.0**	**+0.7**
SANVU	**Saraoutou**	**4.52**	**330**	Pn	**Pn**	**17 25 29.4**	**-0.9**
SANVU				Sn	**Sn**	**17 26 18.1**	**-4.5**
KOUNC	**Koumac, New Ca**	**5.09**	**256**	P	**Pn**	**17 25 38.3**	**+0.5**
KOUNC	**Koumac, New Ca**	**5.09**	**256**	Pn	**Pn**	**17 25 35.5**	**-2.3**
KOUNC				Sn	**Sn**	**17 26 32.5**	**-3.5**
FUTU	**Fugatoga**	**12.83**	**69**		**Pn**	**17 27 16.8**	**-3.4**
RAO	**Raoul Island**	**15.04**	**133**	Pn	**P**	**17 27 48.0**	**-1.8**
NIUE	**Niue**	**19.37**	**92**	P	**P**	**17 28 36.0**	**-1.4**
CTA	**Charters Tower**	**21.95**	**264**	P	**P**	**17 29 06.3**	**+1.4**
	0.8nm,0.5s,baz=90,slow=12,SNR=1.2						
	0.8nm,0.5s						
CTAO	**Charters Tower**	**21.95**	**264**	P	**P**	**17 29 06.1**	**+1.1**
THZ	**Tophouse**	**22.48**	**173**	P	**P**	**17 29 14.0**	**+4.0**
THZ				IAmb	IAmb	17 29 19.4	
	comp=Z,22nm,1.4s						
LTZ	**Lake Taylor**	**23.43**	**175**	P	**P**	**17 29 22.1**	**+3.3**
LTZ				IAmb	IAmb	17 29 25.9	
	comp=Z,14nm,1.2s						
CAN	**Canberra**	**24.11**	**225**	P	**P**	**17 29 27.1**	**+1.9**
CAN				IAmb	IAmb	17 29 27.7	
	comp=Z,19nm,1.4s						
STKA	**Stephens Creek**	**28.02**	**238**	P	**P**	**17 30 02.3**	**+2.1**
	comp=Z,

PTGC	**Puerto Gaitan,**	**2.80**	**160**	P	**Pn**	**17 57 05.9**	**-0.6**
PTGC				S	**Sn**	**17 57 38.5**	**-2.9**
NIZA	**Niza - Manizal**	**2.96**	**233**	P	**Pn**	**17 57 09.5**	**+0.8**
NIZA				S	**Sn**	**17 57 45.6**	**+0.3**
CBOC	**Ciudad Bolivar**	**3.06**	**251**	P	**Pn**	**17 57 10.8**	**+0.9**
CBOC				S	**Sn**	**17 57 47.6**	**+0.2**
SDV	**Santo Domingo**	**3.16**	**50**	P	**Pn**	**17 57 12.4**	**+1.2**
SDV				S	**Sn**	**17 57 48.3**	**-1.5**
SDV	**Santo Domingo**	**3.16**	**50**	*eP*	**Pn**	**17 57 12.5**	**+1.4**
SDV				*eS*	**Sn**	**17 57 48.0**	**-1.8**
ARGC	**Ariguani, Magd**	**3.20**	**339**	P	**Pn**	**17 57 13.4**	**+2.0**
ARGC				S	**Sn**	**17 57 51.0**	**+0.7**
PRAC	**Prado**	**3.59**	**210**	P	**Pn**	**17 57 17.1**	**+0.6**
PRAC	**Prado**	**3.59**	**210**	P	**Pn**	**17 57 16.3**	**-0.2**
PRAC				S	**Sn**	**17 57 59.2**	**-0.2**
APAC	**Apartado, Choc**	**3.61**	**287**	P	**Pn**	**17 57 16.8**	**+0.1**
APAC				S	**Sn**	**17 57 59.1**	**-0.6**
ORTC	**Ortega, Tolima**	**3.63**	**216**	P	**Pn**	**17 57 17.2**	**+0.2**
ORTC				S	**Sn**	**17 58 02.0**	**+1.8**
SJCC	**San Jacinto, C**	**3.66**	**326**	P	**Pn**	**17 57 18.7**	**+1.3**
SJCC				S	**Sn**	**17 58 00.9**	**-0.1**
SJCC	**San Jacinto, C**	**3.66**	**326**	P	**Pn**	**17 57 16.9**	**-0.5**
SJCC				S	**Sn**	**17 57 58.6**	**-2.4**
SJCC	**San Jacinto, C**	**3.66**	**326**	*eP*	**Pn**	**17 57 17.4**	**0.0**
SJCC				*eS*	**Sn**	**17 57 58.6**	**-2.4**
URMC	**La Uribe, Meta**	**3.81**	**200**	P	**Pn**	**17 57 19.8**	**+0.5**
URMC				S	**Sn**	**17 58 03.4**	**-1.0**
LCBC	**Los crdobas,**	**3.81**	**302**	P	**Pn**	**17 57 20.2**	**+1.0**
LCBC				S	**Sn**	**17 58 05.4**	**+1.2**
CRJC	**Cerrejon, Guaj**	**4.15**	**3**	P	**Pn**	**17 57 23.4**	**-0.3**
CRJC				S	**Sn**	**17 58 09.8**	**-2.5**
GUVC	**San Jose del G**	**4.30**	**174**	P	**Pn**	**17 57 25.2**	**-0.5**
GUVC				S	**Sn**	**17 58 15.3**	**-0.6**
YOTC	**Yotoco, Valle**	**4.31**	**229**	P	**Pn**	**17 57 25.5**	**-0.5**
YOTC				S	**Sn**	**17 58 16.4**	**+0.1**
SMRC	**Santa Marta, M**	**4.43**	**345**	P	**Pn**	**17 57 28.6**	**+1.3**
SMRC				S	**Sn**	**17 58 16.3**	**-2.5**
MACC	**Macarena, Meta**	**4.74**	**189**	P	**Pn**	**17 57 30.1**	**-1.3**
MACC				S	**Sn**	**17 58 22.1**	**-4.0**
URI	**Uribia**	**4.94**	**13**	P	**Pn**	**17 57 34.8**	**+0.8**
URI				S	**Sn**	**17 58 33.2**	**+2.4**
URIC	**Uribia, Colomb**	**4.94**	**13**	P	**Pn**	**17 57 33.3**	**-0.7**
	18nm,1.1s						
URIC				S	**Sn**	**17 58 28.3**	**-2.5**
	18nm,1.1s						
URIC				AML	AML		
URIC	**Uribia, Colomb**	**4.94**	**13**	*eP*	**Pn**	**17 57 33.8**	**-0.3**
TEPV	**Terepaima**	**4.94**	**51**	*eP*	**Pn**	**17 57 33.8**	**-0.4**
JAMC	**Jamundi, Valle**	**5.08**	**225**	P	**Pn**	**17 57 35.5**	**-0.6**
	2µm14nm,0.5s						
JAMC				S	**Sn**	**17 58 32.4**	**-2.1**
	2µm14nm,0.5s						
JAMC				AML	AML		
UPD2	**Meteti**	**5.16**	**289**	P	**Pn**	**17 57 36.4**	**-0.6**
	80nm,2.4s						
UPD2				S	**Sn**	**17 58 33.9**	**-2.2**
	80nm,2.4s						
UPD2				AML	AML		
MAPV	**Macapo**	**5.46**	**57**	*eP*	**Pn**	**17 57 41.0**	**+0.1**
POPC	**Popayan, Colom**	**5.58**	**220**	P	**Pn**	**17 57 42.8**	**+0.1**
	9.5nm,0.5s						
POPC				S	**Sn**	**17 58 42.4**	**-4.0**
	9.5nm,0.5s						
POPC				AML	AML		
BENV	**Beln**	**6.25**	**60**	*eP*	**Pn**	**17 57 50.7**	**-0.8**
TURV	**Turiamo**	**6.30**	**55**	*eP*	**Pn**	**17 57 51.8**	**-0.4**
BBAC	**Balboa, Cauca**	**6.34**	**221**	P	**Pn**	**17 57 53.9**	**+1.1**
BBAC				S	**Sn**	**17 59 03.3**	**-1.2**
CACV	**CAICARA DEL OR**	**6.54**	**83**	*eP*	Pn	17 58 00.9	+5.6
MERV	**Las Mercedes**	**7.14**	**70**	*eP*	**Pn**	**17 58 01.5**	**-1.8**
ANTS	**Antisana-Sarah**	**8.89**	**215**	P	**Pn**	**17 58 31.7**	**+4.6**
TXAR	**Lajitas Array**	**36.46**	**312**	P	**P**	**18 03 12.9**	**+1.2**
	0.2nm,0.5s,baz=122,slow=9.4,SNR=4.8 0.2nm,0.5s						
ULM	**Lac du Bonnet**	**47.27**	**340**	P	**P**	**18 04 39.2**	**+0.3**
	1.2nm,0.4s,baz=147,slow=9.7,SNR=1.8						
ULM				LR	LR	18 27 43.5	
	comp=Z,29nm,18.7s,baz=171,slow=40 1.2nm,0.4s						
PDAR	**Pinedale Array**	**48.07**	**324**	P	**P**	**18 04 45.6**	**+0.1**
	0.3nm,0.7s,baz=142,slow=8.4,SNR=2.4 0.3nm,0.7s						
YKA	**Yellowknife Ar**	**63.24**	**340**	P	**P**	**18 06 33.3**	**+0.3**
	0.9nm,0.6s,baz=134,slow=6.6,SNR=9.5 0.9nm,0.6s						
ASAR	**Alice Springs**	**149.15**	**234**	PKPbc	**PKPbc**	**18 15 51.4**	**-1.0**
	0.6nm,0.5s,baz=116,slow=3.5,SNR=1.1						
WRA	**Warramunga Arr**	**150.38**	**241**	PKPbc	**PKPbc**	**18 15 54.8**	**-0.6**
	0.5nm,0.4s,baz=110,slow=2.4,SNR=9.5						

*ATH **14** 17:57:44.9,37°.75N×27°.05E,h9km±1km,ML2.5/8,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **14** 17:57:45.5,37°.7N±1°.0×27°.0E±0°.7,h4km±1km,M2.5/7, MLh2.5/7*
*ISK **14** 17:57:45.0,37°.74N×27°.03E,h5km,ML2.5/20*
ISC 14 17:57:45.3±0.8,37°.73N±0°.02×27°.03E±0°.02,h11km±6km, n46,σ0°940/65,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SMG	**Samos**	**0.15**	**263**	P		**Pg**	**17 57 48.7**	**-0.1**
SMG				S		**Sg**	**17 57 51.2**	**-0.1**
SMG				AML	AML			
SMG	**Samos**	**0.15**	**263**	P		**Pg**	**17 57 48.7**	**-0.1**
SMG				S		**Sg**	**17 57 51.2**	**-0.1**
SMG				AML	AML			
GCAM	**G?zelcaml?**	**0.17**	**99**	Pg		**Pg**	**17 57 49.1**	**0.0**
GCAM				Sg		**Sg**	**17 57 51.8**	**+0.1**
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.25**	**57**	Pg		**Pg**	**17 57 50.1**	**-0.4**
KUSD				Sg		**Sg**	**17 57 53.8**	**-0.1**
KUSD				AML	AML			
KRL1	**Karlovasi Samo**	**0.26**	**285**	P		**Pg**	**17 57 50.9**	**+0.1**
KRL1				S		**Sg**	**17 57 54.4**	**0.0**
KRL1				AML	AML			
SAM2	**Drakei, Karlov**	**0.33**	**276**	P		**Pg**	**17 57 51.9**	**-0.1**
SAM2				S		**Sg**	**17 57 56.5**	**+0.1**
SAM2				AML	AML			
GMLD	**Gumuldur**	**0.36**	**346**	Pg		**Pg**	**17 57 52.6**	**+0.1**
GMLD				Sg		**Sg**	**17 57 57.7**	**+0.3**
GMLD				AML	AML			
DIDI	**Didim-Aydin**	**0.39**	**154**	Pg		**Pg**	**17 57 53.4**	**+0.4**
DIDI				Sg		**Sb**	**17 57 59.4**	**-0.7**
DIDI				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.63**	**161**	Pg		**Pg**	**17 57 57.9**	**+0.3**
YKAV				Sg		**Sb**	**17 58 07.4**	**+0.2**
YKAV				AML	AML			
BLCB	**Balcova**	**0.66**	**1**	P		**Pg**	**17 57 57.7**	**-0.3**
BLCB				S		**Sg**	**17 58 06.8**	**0.0**
BLCB	**Balcova**	**0.66**	**1**	Pg		**Pg**	**17 57 57.8**	**-0.3**
BODT	**Bodrum**	**0.70**	**161**	P		**Pg**	**17 57 58.9**	**0.0**
BODT				S		**Sb**	**17 58 08.7**	**-0.5**
BODT				AML	AML			
BODT	**Bodrum**	**0.70**	**161**	Pg		**Pg**	**17 57 59.0**	**+0.1**
BODT				Sg		**Sb**	**17 58 09.5**	**+0.3**
BODT				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.72**	**72**	Pg		**Pg**	**17 57 59.4**	**+0.1**
AYDB				AML	AML			
MLSB	**Milas**	**0.74**	**126**	Pg		**Pg**	**17 57 59.6**	**0.0**
MLSB				AML	AML			
BODA	**Bodrum-Mula**	**0.76**	**155**	Pg		**Pg**	**17 57 59.5**	**-0.5**
KLNA	**Kalymnos**	**0.77**	**183**	P		**Pg**	**17 57 60.0**	**-0.2**
KLNA				S		**Sb**	**17 58 10.8**	**-0.2**
KRBN	**Karaburun**	**0.94**	**337**	Pg		**Pg**	**17 58 03.5**	**0.0**
KRBN				AML	AML			
CHOS	**Chios island**	**1.01**	**311**	P		**Pg**	**17 58 04.6**	**-0.1**
CHOS				S		**Sb**	**17 58 18.8**	**+0.6**
CHOS				AML	AML			
CHOS	**Chios island**	**1.01**	**311**	Pg		**Pg**	**17 58 04.8**	**0.0**
CHOS				AML	AML			
CHOS	**Chios island**	**1.01**	**311**	P		**Pg**	**17 58 04.7**	**-0.1**
CHOS				S		**Sb**	**17 58 18.8**	**+0.6**
CHOS				AML	AML			
FOCM	**Foa**	**1.01**	**347**	Pg		**Pg**	**17 58 04.7**	**-0.1**
FOCM				AML	AML			
NAZL	**Nazilli-Aydin**	**1.03**	**76**	Pg		**Pg**	**17 58 05.1**	**-0.1**
NAZL				AML	AML			
DAT	**Datca**	**1.09**	**156**	Pn		**Pn**	**17 58 06.6**	**0.0**
YER	**Yerkesik**	**1.16**	**120**	P		**Pb**	**17 58 07.1**	**-0.3**
YER	**Yerkesik**	**1.16**	**120**	Pn		**Pb**	**17 58 07.4**	**0.0**
YER				AML	AML			
GOMA	**Golmarmara-Man**	**1.21**	**35**	Pn		**Pn**	**17 58 08.4**	**+0.3**
GOMA				AML	AML			
DKL	**Dikili**	**1.35**	**356**	Pn		**Pn**	**17 58 10.9**	**+0.9**
DKL				AML	AML			
DKL	**Dikili**	**1.35**	**356**	P		**Pn**	**17 58 09.3**	**-0.6**
DKL				S		**Sb**	**17 58 27.3**	**-0.5**
APE	**Apeiranthos**	**1.36**	**242**	P		**Pg**	**17 58 11.3**	**-0.1**
APE	**Apeiranthos**	**1.36**	**242**	Pn		**Pg**	**17 58 11.3**	**-0.1**
APE				AML	AML			
APE	**Apeiranthos**	**1.36**	**242**	P		**Pg**	**17 58 11.2**	**-0.2**
APE				S		**Sn**	**17 58 28.4**	**+0.1**
APE				AML	AML			
TURN	**Turunc**	**1.36**	**134**	Pn		**Pg**	**17 58 11.3**	**-0.1**
TURN				AML	AML			
SOMA	**Soma-Manisa**	**1.48**	**15**	Pn		**Pn**	**17 58 12.7**	**+0.8**
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.49**	**37**	Pn		**Pn**	**17 58 13.0**	**+1.0**
GORD				AML	AML			
DALY	**Dalyan (Mula)**	**1.58**	**124**	Pn		**Pb**	**17 58 14.6**	**0.0**
PRK	**Paraskevi**	**1.63**	**339**	P		**Pn**	**17 58 14.1**	**+0.2**
PRK	**Paraskevi**	**1.63**	**339**	P		**Pn**	**17 58 13.7**	**-0.2**
PRK				S		**Sn**	**17 58 33.9**	**-0.9**
PRK				AML	AML			
THR2	**Thira island,**	**1.80**	**225**	P		**Pn**	**17 58 16.5**	**+0.2**
THERA	**Ancient Thera,**	**1.84**	**223**	P		**Pn**	**17 58 17.1**	**+0.3**
THERA				S		**Sn**	**17 58 39.7**	**-0.3**
SAP3	**Santorini-Thir**	**1.86**	**227**	P		**Pn**	**17 58 18.1**	**+1.0**
THR6	**Thira Island,**	**1.89**	**224**	P		**Pn**	**17 58 18.3**	**+0.9**
KARY	**Karystos**	**2.07**	**279**	P		**Pn**	**17 58 19.9**	**-0.1**
DION	**Dionisos Attik**	**2.47**	**279**	P		**Pn**	**17 58 25.6**	**+0.1**
VLY	**Voula,Athens**	**2.56**	**274**	P		**Pn**	**17 58 26.6**	**-0.2**
LIA	**Limnos Island**	**2.60**	**327**	P		**Pn**	**17 58 28.1**	**+0.8**

IDC 14 18:20:29.7±4.9,9°.37S×112°.32E,h0km,mb3.1/3, mbtmp3.1/3,Error ellipse: s-maj=294.7km s-min=28.9km az=47.0,South of Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**23.72**	**119**	P	P	18 25 43.0	-0.7
	0.4nm,0.7s,baz=290,slow=9.2,SNR=5.2 0.4nm,0.7s						
ASAR	**Alice Springs**	**25.05**	**127**	P	P	18 25 56.5	+0.6
	0.2nm,0.6s,baz=299,slow=9.3,SNR=4.3 0.2nm,0.6s						
MKAR	**Makanchi Array**	**62.00**	**337**	P	P	18 30 51.7	0.0
	0.2nm,0.4s,baz=155,slow=6.4,SNR=4.2 0.2nm,0.4s						

*MOS **14** 18:27:44.3±1.0,45°.20N×147°.60E,h164km,mb4.4/4,Error ellipse: s-maj=12.4km s-min=8.8km az=63.6*
*SKHL **14** 18:27:45.3±0.1,45°.10N×147°.70E,h156km±10km,mb4.5/3, msha5.0/4*
*NEIC **14** 18:27:46.1±1.7,45°.25N±0°.10×147°.5E±0°.1,h158km±7km, mb4.3/41,Error ellipse: s-maj=15.1km s-min=10.9km az=144.0*
*JMA **14** 18:27:46.8±0.3,45°.N±2°.×14°.8E±°,h178km±4km,MV3.8/33, NEAR ETOROFU ISLAND*
*IDC **14** 18:27:47.3±2.2,45°.42N×147°.50E,h165km±20km, mb3.4/14,mbtmp3.9/19,Error ellipse: s-maj=38.0km s-min=15.4km az=161.0*
ISC 14 18:27:44.8±0.6,44°.91N±0°.07×147°.76E±0°.06,h170km±5km, n121,σ1°.64/137,mb4.2/36,2C,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
KUR	**Kuril'sk**	**0.34**	**13**	PN		**Pn**	**18 28 07.2**	**-0.5**
KUR				*e*S		**Sn**	**18 28 23.9**	**-1.5**
KUR				pmax	pmax			
	comp=Z,98nm,0.5s							
KUR				smax	smax			
	comp=N,292nm,0.5s							
KUR				smax	smax			
	comp=E,255nm,0.5s							
KUR	**Kuril'sk**	**0.34**	**13**	*e*P		**Pn**	**18 28 07.0**	**-0.7**
KUR				AMB	AMB		18 28 07.4	
	comp=E,120nm,0.4s							
KUR				*e*S		**Sn**	**18 28 23.9**	**-1.5**
KUR				A	A		18 28 29.6	
	comp=E,430nm,0.7s							
KUR				A	A		18 28 29.6	
	comp=E,270nm,0.7s							
YUK	**Yuzh-Kuril'sk**	**1.61**	**238**	*c i*PN		**Pn**	**18 28 17.5**	**+0.5**
YUK				*i* S		**Sn**	**18 28 41.5**	**-0.3**
YUK				pmax	pmax			
	comp=E,196nm,0.4s							
YUK				pmax	pmax			
	comp=Z,645nm,0.4s							
YUK				pmax	pmax			
	comp=N,86nm,0.3s							
YUK				smax	smax			
	comp=N,1µm,0.6s							
YUK				smax	smax			
	comp=E,827nm,0.4s							
YUK	**Yuzh-Kuril'sk**	**1.61**	**238**	*i* P		**Pn**	**18 28 17.0**	**0.0**
YUK				AMB	AMB		18 28 18.8	
	comp=E,650nm,0.4s							
YUK				*i* S		**Sn**	**18 28 41.8**	**0.0**
YUK				A	A		18 28 42.5	
	comp=E,1µm,0.6s							
YUK				A	A		18 28 42.5	
	comp=E,800nm,0.6s							
RUSJ	**Misakicho**	**1.97**	**247**	*e*PN		**Pn**	**18 28 21.9**	**+1.2**
RUSJ				*i* S		**Sn**	**18 28 51.1**	**+2.6**
NEM2	**Nemuro 2**	**2.12**	**224**	P		**Pn**	**18 28 22.0**	**-0.4**
NEM2				*e*S		**Sn**	**18 28 48.9**	**-2.6**
NMR	**Nemuro--Hokkai**	**2.12**	**224**	*c i*PN		**Pn**	**18 28 22.0**	**-0.4**
NMR				*i* S		**Sn**	**18 28 48.8**	**-2.8**
NMR	**Nemuro--Hokkai**	**2.12**	**224**	*i* P		**Pn**	**18 28 22.0**	**-0.4**
JRA	**Rausu**	**2.12**	**244**	*e*P		**Pn**	**18 28 23.2**	**+0.8**
JRA				*e*S		**Sn**	**18 28 51.3**	**-0.3**
JNSB	**Nemuroshibetsu**	**2.28**	**241**	*e*P		**Pn**	**18 28 25.3**	**+1.1**
JNSB				*e*S		**Sn**	**18 28 55.1**	**+0.3**
JNK	**Nakash**	**2.55**	**240**	P		**Pn**	**18 28 28.3**	**+0.8**
JNK				*e*S		**Sn**	**18 29 00.3**	**-0.3**
JKHN	**Kushirohamanak**	**2.62**	**227**	*e*P		**Pn**	**18 28 28.1**	**-0.2**
JKHN				*e*S		**Sn**	**18 28 59.7**	**-2.2**
AKK	**Akkeshi**	**2.83**	**229**	*e*P		**Pn**	**18 28 30.7**	**-0.1**
JTKR	**Abashiri--Toko**	**2.91**	**253**	P		**Pn**	**18 28 32.5**	**+0.7**
JTKR				*e*S		**Sn**	**18 29 08.3**	**0.0**
JAK	**Akkeshi**	**2.92**	**230**	P		**Pn**	**18 28 31.8**	**-0.1**
JAK				*e*S		**Sn**	**18 29 06.5**	**-2.1**
JAR	**Ashorobuto**	**3.29**	**242**	P		**Pn**	**18 28 37.9**	**+1.4**
JAR				*e*S		**Sn**	**18 29 16.2**	**-0.7**
JKK2	**Kamakawa 2**	**3.74**	**256**	*e*P		**Pn**	**18 28 43.5**	**+1.3**
JKA	**Kamikawa-asahi**	**3.77**	**260**			**Pn**	**18 28 43.9**	**+1.2**
JKA				Sn		**Sn**	**18 29 26.6**	**-1.2**
JKA	**Kamikawa-asahi**	**3.77**	**260**	*e*P		**Pn**	**18 28 44.2**	**+1.6**
ASAJ	**Asahikawa**	**3.78**	**260**	P		**Pn**	**18 28 44.2**	**+1.6**
	comp=E,33nm,0.6s,baz=77,slow=19,SNR=43							
JCH	**Churui**	**3.92**	**236**	P		**Pn**	**18 28 44.7**	**+0.2**
JCH				*e*S		**Sn**	**18 29 29.0**	**-2.1**
YSS	**Yuzhno-Sakhali**	**4.05**	**302**	Pn		**Pn**	**18 28 41.4**	**-4.6**
JWK2	**Keihoku**	**4.17**	**278**	*e*P		**Pn**	**18 28 49.8**	**+2.1**
ERM	**Erimo**	**4.42**	**231**	PN		**Pn**	**18 28 51.3**	**+0.3**
ERM							18 29 39.2	
ERM	**Erimo**	**4.42**	**231**	Pn		**Pn**	**18 28 51.3**	**+0.3**
ERM				Sn		**Sn**	**18 29 39.2**	**-3.5**
JNBK	**Urakawa-nobuka**	**4.49**	**236**	*e*P		**Pn**	**18 28 51.3**	**-0.5**
JEW	**Eniwo**	**5.01**	**248**	*e*P		**Pn**	**18 29 00.0**	**+1.4**
JEW				*e*S		**Sn**	**18 29 56.1**	**-0.2**
JOT	**Ohata**	**6.04**	**237**	*e*S		**Sn**	**18 30 15.0**	**-5.8**
JTM	**Tenmabayashi**	**6.41**	**232**	Pn		**Pn**	**18 29 14.2**	**-2.8**
JTM				Sn		**Sn**	**18 30 22.2**	**-7.4**
JANG	**Nango**	**6.46**	**228**	*e*S		**Sn**	**18 30 24.0**	**-6.7**
JOSM	**Okushiri--Mats**	**6.65**	**248**	*e*P		**Pn**	**18 29 20.2**	**0.0**
SKR	**Severo-Kuril's**	**8.06**	**41**	*e*P		**Pn**	**18 29 38.4**	**-0.3**
SKR				*e*S		**Sn**	**18 31 06.4**	**-2.4**
PETK	**Petropavlovsk-**	**10.48**	**35**	P		**Pn**	**18 30 09.0**	**-1.6**
	comp=E,5.2nm,0.9s,baz=203,slow=8.6,SNR=2.2							
PETK	**Petropavlovsk-**	**10.48**	**35**	PN		**Pn**	**18 30 09.1**	**-1.4**
PETK	**Petropavlovsk-**	**10.48**	**35**			**Pn**	**18 30 09.1**	**-1.4**
USRK	**Ussuriysk Ar.**	**11.28**	**272**	P		**Pn**	**18 30 20.9**	**-0.1**
	comp=E,2.9nm,0.6s,baz=84,slow=14,SNR=5.0							
USRK	**Ussuriysk Ar.**	**11.28**	**272**			**Pn**	**18 30 20.6**	**-0.5**
KSRS	**Korea Array**	**16.66**	**250**	P		**Pn**	**18 31 31.1**	**+2.6**
	comp=E,1.1nm,0.7s,baz=58,slow=11,SNR=5.0							
KSAR	**Wonju Array Be**	**16.70**	**250**	P		**P**	**18 31 27.7**	**-0.5**
KSAR	**Wonju Array Be**	**16.70**	**250**	P		**P**	**18 31 27.7**	**-0.5**
TJN	**Taejon**	**17.64**	**248**	P		**P**	**18 31 37.6**	**-0.9**
TJN				pmax	pmax			
	comp=Z,55nm,1.2s							
TJN	**Taejon**	**17.64**	**248**	P		**P**	**18 31 37.6**	**-0.9**
SEY	**Seymchan**	**18.26**	**7**	P		**P**	**18 31 43.6**	**-1.5**
	comp=Z,3.7nm,0.9s,baz=180,slow=18,SNR=2.0							
YAK	**Yakutsk**	**20.12**	**335**	P		**P**	**18 32 02.2**	**-3.0**
YAK				lAmb	lAmb		18 32 04.2	
	comp=Z,9.6nm,0.9s							
H11N2	**WAKE ISLAND Hy**	**29.71**	**141**	T		T	19 04 55.6	
	baz=333,slow=76,SNR=25							
H11N1	**WAKE ISLAND Hy**	**29.72**	**141**	T		T	19 04 56.3	
	baz=333,slow=76,SNR=28							
H11N3	**WAKE ISLAND Hy**	**29.73**	**141**	T		T	19 05 02.4	
	baz=333,slow=76,SNR=22							
H11S1	**WAKE ISLAND Hy**	**30.70**	**143**	T		T	19 06 17.4	
	baz=116,slow=76,SNR=38							
H11S3	**WAKE ISLAND Hy**	**30.71**	**143**	T		T	19 06 12.9	
	baz=116,slow=76,SNR=27							
H11S2	**WAKE ISLAND Hy**	**30.72**	**143**	T		T	19 06 11.3	
	baz=116,slow=76,SNR=27							
F17K	**Baldwin Pennin**	**34.51**	**33**	P		**P**	**18 34 16.9**	**+0.7**
M16K	**Timber Creek**	**34.77**	**43**	P		**P**	**18 34 19.9**	**+1.3**
C18K	**Utukok River**	**35.09**	**30**	P		**P**	**18 34 20.8**	**-0.4**
G18K	**Tagagawik**	**35.44**	**35**	P		**P**	**18 34 24.8**	**+0.6**
G18K				lAmb	lAmb		18 35 01.7	
	comp=Z,7.8nm,1.2s							
E19K	**Redstone River**	**36.27**	**32**	P		**P**	**18 34 31.9**	**+0.6**
E19K				lAmb	lAmb		18 34 33.2	
	comp=Z,5.7nm,0.8s							
CAST	**Castle Rocks**	**38.05**	**39**	P		**P**	**18 34 48.0**	**+1.6**
KDAK	**Kodiak Island**	**38.15**	**48**	P		**P**	**18 34 48.3**	**+1.1**
KDAK				pmax	pmax			
	comp=Z,55nm,1.4s							
KDAK	**Kodiak Island**	**38.15**	**48**	P		**P**	**18 34 48.3**	**+1.1**
D22K	**Ayikyak River**	**38.17**	**30**	P		**P**	**18 34 47.9**	**+0.6**
E23K	**Chandalar**	**39.21**	**32**	P		**P**	**18 34 57.0**	**+0.9**
E23K				lAmb	lAmb		18 34 57.7	
	comp=Z,3.9nm,0.7s							
D24K	**Happy Valley**	**39.58**	**30**	P		**P**	**18 34 59.4**	**+0.5**
D24K				lAmb	lAmb		18 35 00.1	
	comp=Z,7.7nm,0.5s							
D24K						**pP**	**18 35 37.0**	**+2.0**
C24K	**Franklin Bluff**	**39.66**	**29**	P		**P**	**18 34 59.9**	**+0.4**
C24K				lAmb	lAmb		18 35 00.6	
	comp=Z,6.5nm,0.7s							
DHY	**Denali Highway**	**40.20**	**40**	P		**P**	**18 35 05.4**	**+1.2**
DHY				lAmb	lAmb		18 35 26.5	
	comp=Z,9.7nm,1.4s							
ILAR	**Eielson Array**	**40.30**	**37**	P		**P**	**18 35 05.2**	**+0.3**
	comp=Z,1.0nm,0.8s,baz=271,slow=9.2,SNR=9.3 comp=Z,1.0nm,0.8s							
D25K	**Kavik River**	**40.46**	**30**	P		**P**	**18 35 06.3**	**+0.1**
D25K				lAmb	lAmb		18 35 07.9	
	comp=Z,5.8nm,0.6s							
ZALV	**Zalesovo Beam**	**40.66**	**306**	P		**P**	**18 35 06.9**	**-1.1**
	comp=Z,0.5nm,0.6s,baz=81,slow=8.9,SNR=1.8 comp=Z,0.5nm,0.6s							
ZALV	**Zalesovo Beam**	**40.66**	**306**	P		**P**	**18 35 06.8**	**-1.2**
F26K	**Sheenjek River**	**41.28**	**32**	P		**P**	**18 35 14.3**	**+1.4**
HARP	**HAARP**	**41.28**	**41**	P		**P**	**18 35 14.8**	**+1.8**
C27K	**Jago River**	**41.40**	**30**	P		**P**	**18 35 14.7**	**+0.9**
C27K				lAmb	lAmb		18 35 15.8	
	comp=Z,4.5nm,0.6s							
VRDI	**Verde Repeater**	**42.26**	**42**	P		**P**	**18 35 22.7**	**+1.5**
VRDI				lAmb	lAmb		18 35 44.3	
	comp=Z,12nm,1.3s							
E29M	**Blow River**	**43.57**	**31**	P		**P**	**18 35 32.7**	**+1.4**
E29M				lAmb	lAmb		18 35 50.4	
	comp=Z,8.3nm,1.4s							
MKAR	**Makanchi Array**	**44.45**	**297**	P		**P**	**18 35 39.0**	**+0.4**
	comp=Z,0.5nm,0.7s,baz=70,slow=9.0,SNR=4.2							
MKAR				PcP		**PcP**	**18 37 20.0**	**+0.9**
	comp=Z,0.2nm,0.6s,baz=83,slow=6.0,SNR=2.6 comp=Z,0.5nm,0.7s							
F30M	**Barrier River**	**44.47**	**32**	P		**P**	**18 35 40.7**	**+2.2**
F30M				lAmb	lAmb		18 35 41.7	
	comp=Z,8.7nm,0.9s							
MAKZ	**Makanchi**	**44.64**	**297**	P		**P**	**18 35 40.5**	**+0.3**
MAKZ				pmax	pmax			
	comp=Z,1.0nm,1.1s							
MAKZ	**Makanchi**	**44.64**	**297**	P		**P**	**18 35 40.5**	**+0.3**
INK	**Inuvik**	**45.18**	**31**	P		**P**	**18 35 45.1**	**+1.0**
INK				pmax	pmax			
	comp=Z,12nm,1.5s							
INK	**Inuvik**	**45.18**	**31**	P		**P**	**18 35 45.1**	**+1.0**
INK	

KHC	**Kasperske Hory**	**78.16**	**331**	P	**P**	**18 39 26.0**	**+1.0**
KHC				pmax	pmax			
	comp=Z,3.0nm,0.8s							
KHC	**Kasperske Hory**	**78.16**	**331**	P	**P**	**18 39 26.0**	**+1.0**
GEC2	**GERESS Array S**	**78.36**	**331**	P	**P**	**18 39 26.2**	**+0.1**
GEC2				IAmb	IAmb	18 39 55.4		
	comp=Z,5.7nm,1.4s							
GERES	**GERESS Array B**	**78.36**	**331**	P	**P**	**18 39 26.7**	**+0.6**
	comp=Z,0.7nm,0.4s,baz=39,slow=5.6,SNR=9.1							
	comp=Z,0.7nm,0.4s							
GERES	**GERESS Array B**	**78.36**	**331**	P	**P**	**18 39 26.3**	**+0.1**
TXAR	**Lajitas Array**	**81.65**	**57**	P	**P**	**18 39 46.1**	**+2.0**
	comp=Z,0.3nm,0.6s,baz=312,slow=4.1,SNR=5.0							
	comp=Z,0.3nm,0.6s							
TXAR	**Lajitas Array**	**81.65**	**57**	P	**P**	**18 39 45.7**	**+1.6**

*NNC **14** 18:49:09.8±4.1,41°.99N×80°.92E, h0km, mb3.0, mpv2.7, Error ellipse: s-maj=32.4km s-min=18.1km az=9.0*
*SOME **14** 18:49:12.4,41°.98N×80°.52E, h10km*
ISC 14 18:49:13.6±4.3, 41°.9N±0°.2×80°.9E±0°.1, h35km, n6, σ0s81/11, 3C-1D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
PDGK	**Podgornoye**	**1.75**	**325**	⇑P		**Pn**	**18 49 40.4**	**-1.3**
	7.9nm,2.0s							
PDGK				⇑S		**Sn**	**18 50 03.7**	**+0.9**
	3.8nm,1.1s							
UZB	**Uzynbulak**	**1.85**	**313**	*e*P		**Pn**	**18 49 42.6**	**-0.4**
UZB	2.5nm,0.2s			*e*S		**Sn**	**18 50 04.3**	**-0.9**
	3.2nm,0.2s							
SATY	**Saty**	**2.16**	**303**	*e*P		**Pn**	**18 49 47.8**	**+0.6**
SATY	0.6nm,0.1s			*e*S		**Sn**	**18 50 13.2**	**+0.3**
	6.3nm,0.1s							
KPKS	**Kokpek**	**2.25**	**315**	*e*P		**Pn**	**18 49 48.7**	**+0.3**
KPKS	0.3nm,0.1s			*e*S		**Sn**	**18 50 15.1**	**+0.1**
	3.3nm,0.2s							
MAKZ	**Makanchi**	**4.96**	**9**	Pn		**Pn**	**18 50 25.2**	**-0.4**
	4.9nm,2.0s							
MK31	**Makanchi Array**	**4.99**	**11**	⇑Pn		**Pn**	**18 50 25.6**	**-0.4**
	1.1nm,1.1s,baz=196,slow=13,SNR=6.2							
MK31				⇓Sn		**Sn**	**18 51 23.5**	**+1.1**
	0.4nm,0.7s,baz=187,slow=24							

*NEIC **14** 19:41:49.4±0.9, 18°.92N±0°.04×65°.15W±0°.08, h35km±2km, ML2.7/31, Md3.5/8(RSPR), Error ellipse: s-maj=14.0km s-min=5.1km az=73.0*
*RSPR **14** 19:41:50.9, 18°.96N×65°.20W, h29km±14km, MD3.5/8*
ISC 14 19:41:48.2±3.4, 19°.0N±0°.1×65°.2W±0°.2, h21km±6km, n31, σ0s59/44, 8D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
HUMP	**Col San Antoni**	**1.00**	**217**			**Pb**	**19 42 07.1**	**+0.2**
HUMP						**Sn**	**19 42 19.6**	**-0.9**
HUMP				IAML			19 42 22.4	
	177nm,0.2s							
HUMP				IAML			19 42 24.1	
	166nm,0.2s							
HUMP	**Col San Antoni**	**1.00**	**217**	⇓*i*P		**Pb**	**19 42 07.2**	**+0.2**
GCPR	**Guaynabo City**	**1.04**	**233**			**Pn**	**19 42 07.3**	**-0.3**
PDPR	**Patillas Dam,**	**1.20**	**220**			**Pn**	**19 42 09.8**	**0.0**
PDPR						**Sn**	**19 42 24.6**	**-0.9**
PDPR	**Patillas Dam,**	**1.20**	**220**	⇓*e*P		**Pb**	**19 42 10.1**	**-0.2**
SJG	**San Juan**	**1.22**	**227**			**Pn**	**19 42 10.1**	**0.0**
SJG				IAML			19 42 29.4	
	101nm,0.4s							
SJG	**San Juan**	**1.22**	**227**	⇑*i*P		**Pb**	**19 42 10.4**	**-0.2**
ECPR	**Experimental S**	**1.26**	**240**			**Pn**	**19 42 10.9**	**+0.3**
ECPR						**Sn**	**19 42 26.6**	**-0.3**
ECPR				IAML			19 42 32.5	
	259nm,0.2s							
ECPR	**Experimental S**	**1.26**	**240**	⇓*e*P		**Pb**	**19 42 11.0**	**-0.3**
IGPR	**InterUniversit**	**1.30**	**221**			**Pb**	**19 42 11.6**	**-0.3**
IGPR						**Sn**	**19 42 27.6**	**-0.2**
IGPR	**InterUniversit**	**1.30**	**221**	⇓*i*P		**Pb**	**19 42 11.6**	**-0.3**
EMPR	**Esperanza - Ma**	**1.34**	**250**			**Pn**	**19 42 11.8**	**+0.2**
EMPR						**Sb**	**19 42 29.8**	**+0.5**
EMPR	**Esperanza - Ma**	**1.34**	**250**	⇓*e*P		**Pn**	**19 42 11.8**	**+0.2**
EMPR				*e*S		**Sb**	**19 42 29.8**	**+0.5**
CELP	**Cerrillos**	**1.56**	**237**			**Pn**	**19 42 15.3**	**+0.5**
CELP						**Sn**	**19 42 34.3**	**-0.1**
CELP				IAML			19 42 37.4	
	69nm,0.6s							
CELP	**Cerrillos**	**1.56**	**237**	⇑*i*P		**Pn**	**19 42 15.4**	**+0.7**
AOPR	**Arecibo Observ**	**1.58**	**248**			**Pn**	**19 42 15.1**	**0.0**
AOPR						**Sn**	**19 42 34.4**	**-0.5**
AOPR				IAML			19 42 45.0	
	147nm,0.5s							
AOPR	**Arecibo Observ**	**1.58**	**248**	⇑*i*P		**Pn**	**19 42 15.3**	**+0.2**
OBIP	**Obispado Ponce**	**1.60**	**236**			**Pn**	**19 42 15.8**	**+0.5**
OBIP						**Sn**	**19 42 35.3**	**-0.1**
OBIP				IAML			19 42 38.6	
	comp=N,62nm,0.8s							
OBIP	**Obispado Ponce**	**1.60**	**236**	⇑*i*P		**Pn**	**19 42 16.1**	**+0.8**
OBIP				*e*S		**Sn**	**19 42 35.7**	**+0.3**
GBPR	**Guanica, Bosqu**	**1.86**	**239**			**Pb**	**19 42 20.3**	**-1.1**
GBPR						**Sn**	**19 42 42.7**	**+1.1**
GBPR	**Guanica, Bosqu**	**1.86**	**239**	⇓*i*P		**Pb**	**19 42 20.3**	**-1.1**
GBPR				*e*S		**Sn**	**19 42 42.7**	**+1.1**
AGPR	**Aguadilla, PR**	**1.86**	**256**			**Pn**	**19 42 18.7**	**-0.2**
AGPR				IAML			19 42 47.2	
	comp=N,101nm,2.5s							
AGPR				IAML			19 43 01.8	
	comp=N,117nm,1.8s							
AGPR	**Aguadilla, PR**	**1.86**	**256**	⇓*i*P		**Pn**	**19 42 19.3**	**+0.3**
PRSN	**Puerto Rico Se**	**1.98**	**249**	Pn		**Pn**	**19 42 20.1**	**-0.3**
MLPR	**Magueyes Islan**	**2.00**	**241**			**Pn**	**19 42 21.4**	**+0.7**
MLPR						**Sn**	**19 42 44.3**	**-0.7**
MLPR				IAML			19 42 48.1	
	comp=N,45nm,0.9s							
MLPR	**Magueyes Islan**	**2.00**	**241**	⇑*i*P		**Pn**	**19 42 21.6**	**+0.9**
CRPR	**Cabo Rojo, PR**	**2.03**	**243**			**Pn**	**19 42 21.5**	**+0.3**
CRPR				IAML			19 42 51.0	
	comp=N,53nm,1.4s							
CRPR				IAML			19 43 19.0	
	comp=N,46nm,2.5s							
CRPR	**Cabo Rojo, PR**	**2.03**	**243**	⇓*i*P		**Pn**	**19 42 21.9**	**+0.7**
IDE	**Isla Desecheo**	**2.22**	**256**			**Sn**	**19 42 50.3**	**-0.3**
IDE	**Isla Desecheo**	**2.22**	**256**	*e*S		**Sn**	**19 42 50.3**	**-0.3**
DR12	**Loma Pena Alta**	**3.95**	**268**	Pn		**Pn**	**19 42 48.5**	**+0.8**

*IDC **14** 20:05:43.5±5.9, 44°.52N×96°.40E, h0km, mb3.7/4, mbtmp3.5/6, ML3.3/2, MS3.0/3, Error ellipse: s-maj=130.9km s-min=15.3km az=178.0*
ISC 14 20:05:51.0±3.9, 45°.5N±0°.7×96°.16E±0°.08, h10km, n9, σ1s73/9, mb3.6/4, Mongolia

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**7.42**	**68**	Pn		**Pn**	**20 07 38.0**	**-1.4**
	0.8nm,0.3s,baz=245,slow=14,SNR=28							
SONM				Pg		**Pb**	**20 08 02.1**	**+2.3**
	2.8nm,0.3s,baz=250,slow=18,SNR=10							
SONM				Sn		**Sn**	**20 09 01.0**	**-2.5**
	2.1nm,0.3s,baz=243,slow=26,SNR=2.5							
SONM				Lg	Lg		20 09 37.7	
	3.4nm,0.3s,baz=250,slow=34,SNR=5.0							
	1.4nm,0.4s							
SONM				AML	AML			
MKAR	**Makanchi Array**	**9.72**	**283**	Pn		**Pn**	**20 08 10.6**	**-0.2**
	0.1nm,0.3s,baz=102,slow=14,SNR=6.3							
MKAR				Sn		**Sn**	**20 09 58.7**	**-1.3**
	0.4nm,0.3s,baz=112,slow=27,SNR=1.5							
MKAR				Lg	Lg		20 10 59.9	
	1.2nm,0.3s,baz=103,slow=30,SNR=6.1							
MKAR				LR	LR		20 12 08.9	
	comp=Z,70nm,18.3s,baz=93,slow=38							
	0.2nm,0.3s							
MKAR				AML	AML			
ZALV	**Zalesovo Beam**	**11.18**	**323**	Lg	Lg		20 11 53.5	
	0.2nm,0.3s,baz=119,slow=27,SNR=5.3							
PETK	**Petropavlovsk-**	**39.71**	**56**	LR	LR		20 30 00.5	
	comp=Z,27nm,18.6s,baz=311,slow=36							
ARCES	**ARCESS Array B**	**41.63**	**330**	P		**P**	**20 13 40.2**	**+1.3**
	3.0nm,0.9s,baz=78,slow=8.4,SNR=4.8							
	3.0nm,0.9s							
FINES	**FINESS Array B**	**42.39**	**318**	P		**P**	**20 13 46.0**	**+0.9**
	1.2nm,0.7s,baz=71,slow=6.6,SNR=4.2							
	1.2nm,0.7s							
MMAI	**Mount Meron Ar**	**47.61**	**277**	LR	LR		20 38 23.0	
	comp=Z,17nm,20.1s,baz=188,slow=41							
NOA	**NORSAR Array B**	**49.37**	**320**	P		**P**	**20 14 40.3**	**+0.1**
	0.2nm,0.5s,baz=89,slow=7.3,SNR=4.0							
	0.2nm,0.5s							
ILAR	**Eielson Array**	**59.62**	**26**	P		**P**	**20 15 54.5**	**-0.1**
	0.2nm,0.7s,baz=311,slow=6.7,SNR=2.5							
	0.2nm,0.7s							

*JMA **14** 20:12:26.6±0.3, 25°.N±1°×122°.2E±0°.4, h57km±4km, MV2.4/8, TAIWAN REGION*
*TAP **14** 20:12:26.8, 24°.61N×122°.24E, h5km, ML2.8, C*
ISC 14 20:12:26.6±1.2, 24°.58N±0°.03×122°.27E±0°.03, h15km±9km, n58, σ0s71/86, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
EOS2	**EOS2**	**0.16**	**191**	P		**Pb**	**20 12 31.7**	**+0.4**
EOS2				S		**Sb**	**20 12 35.5**	**+1.1**
EOS3	**EOS3**	**0.30**	**171**	*e*P		**Pb**	**20 12 34.2**	**+0.6**
TWC	**Suao**	**0.38**	**275**	*i* P		**Pg**	**20 12 33.9**	**-0.4**
TWC				*e*S		**Sb**	**20 12 40.9**	**0.0**
ESAO	**Su ao**	**0.38**	**269**	*i* P		**Pg**	**20 12 34.3**	**-0.1**
EOS4	**EOS4**	**0.46**	**174**	*i* P		**Pb**	**20 12 37.2**	**+1.0**
EOS4				S		**Sn**	**20 12 44.5**	**-1.7**
EWUT	**Wuta**	**0.46**	**253**	*i* P		**Pg**	**20 12 35.8**	**0.0**
EWUT				S		**Sb**	**20 12 43.9**	**+0.7**
NTC	**Toucheng**	**0.48**	**305**	*e*P		**Pb**	**20 12 36.9**	**0.0**
TWB1	**Santiao Chiao**	**0.49**	**330**	*e*P		**Pb**	**20 12 37.2**	**+0.2**
ENA	**Nanau**	**0.50**	**253**	*i* P		**Pg**	**20 12 36.4**	**-0.1**
ENA				*e*S		**Sb**	**20 12 44.4**	**+0.1**
NDS	**Dongshan**	**0.50**	**276**	*i* P		**Pg**	**20 12 36.4**	**-0.2**
NDS				*e*S		**Sb**	**20 12 44.1**	**-0.2**
EAHA	**Aohua**	**0.54**	**243**	*e*P		**Pb**	**20 12 37.3**	**-0.5**
TIPB	**Shuangxi**	**0.56**	**314**	*e*P		**Pb**	**20 12 38.4**	**+0.2**
TWE	**Neicheng**	**0.56**	**285**	*i* P		**Pg**	**20 12 37.5**	**-0.2**
TWE				S		**Sb**	**20 12 45.8**	**-0.2**
SXI1	**Grass Mountain**	**0.62**	**325**	*i* P		**Pn**	**20 12 40.5**	**-0.6**
SXI1				S		**Sn**	**20 12 49.9**	**-0.9**
JYNG	**Yonagunijimaku**	**0.63**	**102**	*i* P		**Pb**	**20 12 39.8**	**+0.4**
JYNG				S		**Sn**	**20 12 50.3**	**-0.6**
ENTT	**Nioudou**	**0.64**	**276**	*i* P		**Pg**	**20 12 39.1**	**-0.1**
ENTT				*e*S		**Sb**	**20 12 48.1**	**-0.2**
FUSB	**Fushanzhiwuyua**	**0.64**	**286**	P		**Pb**	**20 12 39.3**	**-0.3**
FUSB				*e*S		**Sb**	**20 12 48.1**	**-0.3**
NWF	**Wu-fen Shan**	**0.66**	**318**	P		**Pb**	**20 12 40.6**	**+0.7**
NWF				S		**Sn**	**20 12 51.1**	**-0.7**
WFSB	**Wu-fen Shan**	**0.66**	**318**	*e*P		**Pn**	**20 12 40.9**	**-0.6**
WFSB				*i* S		**Sn**	**20 12 51.0**	**-0.6**
LATG	**Datong**	**0.67**	**266**	*i* P		**Pg**	**20 12 39.6**	**-0.2**
LATG				*e*S		**Sb**	**20 12 48.8**	**-0.7**
NDT	**Datong Townshi**	**0.69**	**272**	*e*P		**Pg**	**20 12 39.7**	**-0.9**
NDT				*e*S		**Sb**	**20 12 49.7**	**0.0**
YOJ	**Yonaguni jima**	**0.69**	**100**	*i* P		**Pb**	**20 12 41.0**	**+0.6**
YOJ				S		**Sn**	**20 12 52.0**	**-0.4**
YOJ	**Yonaguni jima**	**0.69**	**100**	P		**Pb**	**20 12 40.8**	**+0.4**
YOJ				S		**Sn**	**20 12 51.7**	**-0.6**
NWLT	**Wulai**	**0.72**	**286**	*e*P		**Pb**	**20 12 41.1**	**+0.2**
NWLT				S		**Sb**	**20 12 50.8**	**+0.1**
TNOU	**National Taiwa**	**0.72**	**322**	*e*P		**Pn**	**20 12 41.9**	**-0.5**
TNOU				*e*S		**Sb**	**20 12 52.2**	**+1.5**
NACB	**Ninganchiao**	**0.73**	**237**	P		**Pb**	**20 12 40.8**	**-0.3**
NACB				*e*S		**Sb**	**20 12 51.6**	**+0.6**
TWA	**Mucha**	**0.74**	**303**	*e*P		**Pb**	**20 12 41.5**	**+0.3**
TWA				*e*S		**Sg**	**20 12 50.5**	**-0.2**
NHDH	**Xindian Distri**	**0.77**	**300**	*e*P		**Pn**	**20 12 43.6**	**+0.5**
NHY	**Taipei**	**0.78**	**306**	*e*P		**Pn**	**20 12 43.8**	**+0.7**
ETLH	**Xiulin Townshi**	**0.81**	**243**	*e*P		**Pb**	**20 12 42.1**	**-0.3**
ETLH				*e*S		**Sn**	**20 12 54.8**	**-0.6**
YHNB	**Yeheng**	**0.81**	**276**	*i* P		**Pb**	**20 12 42.5**	**0.0**
YHNB				*e*S		**Sb**	**20 12 53.5**	**+0.1**
NNSB	**Datong**	**0.82**	**260**	*i* P		**Pg**	**20 12 42.2**	**-0.3**
NNSB				*e*S		**Sb**	**20 12 54.3**	**+0.7**
NNS	**Nan Shan**	**0.82**	**260**	*e*P		**Pg**	**20 12 42.3**	**-0.3**
NNS				*e*S		**Sb**	**20 12 53.7**	**0.0**
TAP	**Taipei**	**0.83**	**304**	*e*P		**Pn**	**20 12 44.6**	**+0.8**
NSK	**Sanguang**	**0.83**	**277**	*i* P		**Pb**	**20 12 43.0**	**+0.2**
NSK				*e*S		**Sg**	**20 12 53.4**	**-0.3**
YM08	**YM08**	**0.86**	**315**	*e*P		**Pn**	**20 12 44.0**	**-0.3**
YM08				*e*S		**Sn**	**20 12 56.6**	**-0.1**
ZUZH	**Zhuzihu**	**0.87**	**312**	*e*P		**Pn**	**20 12 44.5**	**0.0**
TWS1	**Kuangyinshan**	**0.93**	**304**	*e*P		**Pn**	**20 12 45.5**	**+0.3**
ETM	**Tongmen**	**0.93**	**229**	*e*P		**Pn**	**20 12 46.3**	**+1.0**
NTST	**Danshui**	**0.94**	**308**	*e*P		**Pn**	**20 12 45.2**	**-0.1**
NTST				*e*S		**Sn**	**20 12 59.4**	**+0.8**
FUSS	**Fushou**	**0.99**	**251**	*e*P		**Pb**	**20 12 46.1**	**-0.3**
WHF	**Hehuan Shan**	**1.01**	**245**	*e*P		**Pb**	**20 12 46.0**	**-0.1**
KSHI	**Guanxi Townshi**	**1.01**	**281**	*e*P		**Pn**	**20 12 47.3**	**+1.0**
TWT	**Tachien**	**1.04**	**252**	*e*P		**Pn**	**20 12 46.7**	**-0.2**
NFF	**Wufeng Townshi**	**1.04**	**273**	*e*P		**Pn**	**20 12 48.3**	**+1.5**
TDCB	**Techi**	**1.06**	**252**	*e*P		**Pn**	**20 12 47.7**	**+0.6**
LIOB	**Emei**	**1.14**	**274**	*e*P		**Pg**	**20 12 49.6**	**+1.0**
NSTT	**Nanjuang**	**1.15**	**273**	*e*P		**Pg**	**20 12 49.8**	**+1.0**
OWD	**Renai**	**1.17**	**238**	*e*P		**Pn**	**20 12 48.6**	**-0.1**
SBCB	**Hsinchu**	**1.18**	**281**	*e*P		**Pg**	**20 12 51.1**	**+1.6**
WUSB	**Renai**	**1.20**	**241**	*e*P		**Pg**	**20 12 49.7**	**-0.1**
VWDT	**VWDT**	**1.31**	**232**	*e*P		**Pg**	**20 12 52.2**	**+0.2**
HGSD	**Ruisui**	**1.33**	**216**	*e*P		**Pg**	**20 12 51.8**	**-0.4**
WCS	**Beigang Elemen**	**1.34**	**247**	*e*P		**Pg**	**20 12 52.7**	**+0.3**
IRIF	**Iriomote-Funau**	**1.36**	**100**	*e*S		**Sn**	**20 13 06.8**	**-2.0**
SMLT	**Sun Moon Lake**	**1.43**	**241**	*e*P		**Pg**	**20 12 56.2**	**+2.2**
SSLB	**Suanglung**	**1.43**	**237**	*e*P		**Pg**	**20 12 53.8**	**-0.5**
JKRS	**Kuro-shima**	**1.63**	**102**	*e*S		**Sn**	**20 13 13.6**	**-1.9**

IDC 14 20:27:14.0±1.8, 6°.07S×129°.54E, h0km, mb3.7/1, mbtmp3.7/4, ML3.5/3, Error ellipse: s-maj=66.3km s-min=22.2km az=76.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.55**	**197**	Pn		Pn	20 30 10.2	-3.8
	0.1nm,0.3s,baz=10,slow=12,SNR=1.7							
FITZ				Sn		Sn	20 32 11.2	-23
	0.2nm,0.3s,baz=137,slow=19,SNR=2.3							
	1.8nm,0.8s							
FITZ				AML	AML			
WRA	**Warramunga Arr**	**14.56**	**162**	Pn		Pn	20 30 34.0	-7.5
	0.3nm,0.3s,baz=338,slow=13,SNR=35							
WRA				Sn		Sn	20 32 57.1	-27
	0.3nm,0.3s,baz=330,slow=21,SNR=6.8							
	0.9nm,0.5s							
WRA				AML	AML			
ASAR	**Alice Springs**	**18.00**	**167**	Pn		Pn	20 31 19.0	-6.8
	0.3nm,0.3s,baz=345,slow=9.8,SNR=42							
ASAR				Sn		Sn	20 34 20.4	-27
	baz=349,slow=26,SNR=1.4							
	1.6nm,0.6s							
ASAR				AML	AML			
MKAR	**Makanchi Array**	**67.20**	**327**	P		P	20 38 10.1	0.0
	0.4nm,0.4s,baz=119,slow=7.8,SNR=7.9							
	0.4nm,0.4s							

*CNRM **14** 20:30:12.0, 35°.07N×9°.38W, h63km, ML4.5*
*GFZ **14** 20:30:13.7±0.4, 35°.N±3°×±°, h34km, M4.1/35, mb4.1/35*
*SFS **14** 20:30:13.7, 35°.11N×9°.31W, h36km, mb4.3/8, mB5.6/6, ML4.7/27, ML4.7/27, MLv4.5/27, Mw(mB)5.0/6*
*MDD **14** 20:30:13.3±0.3, 35°.08N×9°.32W, h36km±6km, Mb5.0/111, M_mb4.6/111, Error ellipse: s-maj=2.2km s-min=1.2km az=129.0*
*IGIL **14** 20:30:14.9, 35°.13N×9°.30W, h41km, ML4.0*
*INMG **14** 20:30:14.8±1.9, 35°.12N×9°.31W, h40km±8km, ML4.0, Error ellipse: s-maj=2.4km s-min=1.3km az=114.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Mar de Marrocos*
ISC 14 20:30:07.4±0.6, 35°.08N±0°.03×9°.36W±0°.03, h10km, n256, σ3s96/416, mb3.7/16, 68C-21D, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**2.09**	**12**	P		**Pb**	**20 30 45.7**	**+0.3**
PFVI				S		**Sn**	**20 31 07.8**	**-0.8**
PFVI	**Vila Bisbo**	**2.09**	**12**	P		**Pb**	**20 30 45.6**	**+0.3**
PFVI				S		**Sn**	**20 31 09.3**	**+0.7**
PFVI	**Vila Bisbo**	**2.09**	**12**	⇓*i*P		**Pb**	**20 30 45.7**	**+0.3**
PFVI				*e*S		**Sn**	**20 31 08.0**	**-0.6**
PFVI				IAML			20 31 08.5	
PFVI				IAML			20 31 13.8	
PFVI				IAML			20 31 15.7	
PFVI	**Vila Bisbo**	**2.09**	**12**	P		**Pb**	**20 30 45.8**	**+0.3**
	comp=Z,443nm,0.7s							
MORF	**Marmelete**	**2.29**	**14**	*e*P		**Pb**	**20 30 48.5**	**-0.3**
MORF				*e*S		**Sn**	**20 31 13.2**	**-0.4**
MORF				IAML			20 31 13.9	
	comp=N,1μm,0.3s							
MORF	**Marmelete**	**2.29**	**14**	⇓*i*P		**Pb**	**20 30 48.5**	**-0.3**
MORF				*e*S		**Sn**	**20 31 12.3**	**-1.2**
MORF				IAML			20 31 13.4	
MORF				IAML			20 31 13.9	
MORF				IAML			20 31 14.1	
RTC	**Rabat Centre**	**2.33**	**117**	P		**Pb**	**20 30 48.7**	**-0.8**
RTC				S		**Sn**	**20 31 14.9**	**+0.4**
RTC	**Rabat Centre**	**2.33**	**117**	P		**Pb**	**20 30 48.5**	**-1.0**
RTC				S		**Sn**	**20 31 16.0**	**+1.5**
RTC	**Rabat Centre**	**2.33**	**117**	P		**Pb**	**20 30 49.1**	**-0.4**
AVE	**Averroes**	**2.40**	**137**	P		**Pb**	**20 30 50.7**	**0.0**
AVE				S		**Sn**	**20 31 16.9**	**+0.8**
AVE	**Averroes**	**2.40**	**137**	P		**Pb**	**20 30 50.3**	**-0.3**
AVE				S		**Sn**	**20 31 18.0**	**+1.8**
AVE	**Averroes**	**2.40**	**137**	P		**Pb**	**20 30 50.8**	**+0.2**
PBDV	**Barranco-do-Ve**	**2.45**	**28**	P		**Pb**	**20 30 50.5**	**-0.9**
PBDV				S		**Sn**	**20 31 16.2**	**-1.2**
PBDV	**Barranco-do-Ve**	**2.45**	**28**	⇓*i*P		**Pb**	**20 30 50.5**	**-0.9**
PBDV				*e*S		**Sn**	**20 31 16.7**	**-0.7**
PBDV				IAML			20 31 19.6	
PBDV				IAML			20 31 20.2	
PBDV				IAML			20 31 20.4	
PTEO	**Sao Teotonio**	**2.51**	**12**	⇓*e*P		**Pb**	**20 30 51.6**	**-1.0**
PTEO				*e*S		**Sn**	**20 31 18.6**	**-0.3**
PTEO				IAML			20 31 19.3	
PTEO				IAML			20 31 19.3	
PTEO				IAML			20 31 19.6	
EXAYA	**Ayamonte**	**2.66**	**36**	Pn		**Pb**	**20 30 53.2**	**-1.8**
PVAQ	**Vaqueiros**	**2.67**	**29**	P		**Pn**	**20 30 52.9**	**+2.5**
PVAQ				S		**Sn**	**20 31 24.1**	**+1.3**
PVAQ	**Vaqueiros**	**2.67**	**29**	⇓*e*P		**Pb**	**20 30 53.4**	**-1.9**
PVAQ				*e*S		**Sn**	**20 31 21.4**	**-1.5**
PVAQ				IAML			20 31 25.8	
PVAQ				IAML			20 31 25.8	
PVAQ				IAML			20 31 31.0	
PVAQ	**Vaqueiros**	**2.67**	**29**	P		**Pb**	**20 30 53.5**	**-1.8**
PCVE	**Castro Verde**	**2.76**	**22**	P		**Pb**	**20 30 55.0**	**-1.8**
PCVE				S		**Sn**	**20 31 24.6**	**-0.5**
PCVE	**Castro Verde**	**2.76**	**22**	⇓*e*P		**Pb**	**20 30 55.0**	**-1.8**
PCVE				*e*S		**Sn**	**20 31 24.7**	**-0.4**
PCVE				IAML			20 31 27.3	
PCVE				IAML			20 31 27.4	
PCVE				IAML			20 31 28.4	
ZHG	**ZHG**	**2.78**	**125**	P		**Pn**	**20 30 55.1**	**+3.2**
ZHG				S		**Sn**	**20 31 27.3**	**+1.7**
SRHM	**Skhour des Reh**	**2.87**	**155**	P		**Pb**	**20 30 56.9**	**-1.8**
EGRO	**El Granado**	**2.88**	**31**	P		**Pn**	**20 30 56.4**	**+3.1**
EGRO				S		**Sn**	**20 31 26.8**	**-1.2**
EGRO	**El Granado**	**2.88**	**31**	⇓Pn		**Pn**	**20 30 56.4**	**+3.1**
EGRO				⇑IVmb_VC			20 30 57.9	
	comp=N,7μm,SNR=88							
EGRO				Sn		**Sn**	**20 31 26.3**	**-1.6**
MESJ	**Messejana**	**2.90**	**18**	*e*P		**Pn**	**20 30 56.8**	**+3.2**
MESJ				*e*S		**Sn**	**20 31 27.4**	**-1.2**
MESJ				IAML			20 31 30.0	
	comp=E,129nm,0.2s							
MESJ	**Messejana**	**2.90**	**18**	⇓*e*P		**Pn**	**20 30 56.8**	**+3.2**
MESJ				*e*S		**Sn**	**20 31 27.7**	**-0.9**
CPS	**Cap Spartel**	**2.90**	**75**	P		**Pb**	**20 30 58.1**	**-1.1**
CPS				S		**Sn**	**20 31 30.3**	**+1.7**
RSA	**Sarsar**	**2.91**	**93**	P		**Pn**	**20 30 56.6**	**+2.8**
RSA				S		**Sn**	**20 31 30.1**	**+1.3**
SFS	**San Fernando**	**2.91**	**61**	P		**Pn**	**20 30 56.5**	**+2.7**
SFS				S		**Sn**	**20 31 28.2**	**-0.5**
ARNO	**Arenosillo**	**2.93**	**46**	P		**Pn**	**20 30 57.1**	**+3.1**
ARNO				S		**Sn**	**20 31 28.6**	**-0.6**
ARNO	**Arenosillo**	**2.93**	**46**	P		**Pn**	**20 30 56.6**	**+2.6**
PLOUS	**Minas do Lousa**	**3.04**	**14**	⇓*e*P		**Pn**	**20 30 58.5**	**+3.0**

PESTR **Estremoz** 4.04 20 P Pn **20 31 11.8 +2.6**
PESTR S Sn **20 31 54.2 -2.3**
PESTR **Estremoz** 4.04 20 P Pn **20 31 11.6 +2.4**
PESTR S Sn **20 31 56.9 +0.3**
PESTR **Estremoz** 4.04 20 eP Pn **20 31 11.8 +2.6**
PESTR eS Sn **20 31 54.3 -2.3**
PESTR IAML 20 31 56.7
PESTR IAML 20 31 56.8
PESTR IAML 20 31 57.6
PESTR **Estremoz** 4.04 20 P Pn **20 31 12.2 +2.9**
OUK **Oukaimeden** 4.06 162 P Pn **20 31 13.2 +3.3**
OUK Sn **20 31 58.3 +0.7**
PMTG **Montargil** 4.08 12⇓ eP Pn **20 31 12.9 +3.0**
PMTG eS Sn **20 31 55.1 -2.5**
PMTG IAML 20 31 56.8
PMTG IAML 20 31 57.3
PMTG IAML 20 31 57.5
EBAD **Badajoz** 4.12 26 P Pn **20 31 12.9 +2.6**
EBAD S Sn **20 31 55.4 -3.3**
EBAD **Badajoz** 4.12 26 Pn Pn **20 31 13.0 +2.6**
EBAD ⇑IVmb_VC 20 31 13.8
comp=N,10µm,SNR=107
EBAD Sn Sn **20 31 56.4 -2.2**
CZD **Col de Zad** 4.12 118 P Pn **20 31 13.2 +2.5**
CZD Sn Sn **20 32 00.5 +1.4**
TISM **Timmit** 4.14 143 P Pn **20 31 12.0 +1.3**
TISM Sn Sn **20 32 00.4 +1.3**
EMAL **Malaga-Limoner** 4.34 66 P Pn **20 31 15.9 +2.6**
EMAL S Sn **20 32 02.9 -1.0**
EMAL **Malaga-Limoner** 4.34 66 P Pn **20 31 15.8 +2.5**
comp=Z,16nm,0.6s
ECAB **El Cabril** 4.36 46 P Pn **20 31 15.8 +2.2**
ECAB S Sn **20 32 01.8 -2.7**
ECAB **El Cabril** 4.36 46 Pn Pn **20 31 15.8 +2.2**
ECAB ⇑IVmb_VC 20 31 16.9
comp=Z,3µm,SNR=52
ECAB Sn Sn **20 32 01.0 -3.5**
MD31 **MD31** 4.41 119 P Pn **20 31 17.4 +3.0**
MD31 Sn Sn **20 32 06.9 +1.0**
PALE **Palemas** 4.44 87 P Pn **20 31 17.4 +2.6**
PALE Sn Sn **20 32 06.8 +0.2**
PSBE **So Bento** 4.45 6⇓ eP Pn **20 31 18.2 +3.3**
PSBE eS Sn **20 32 04.8 -1.9**
PSBE IAML 20 32 08.2
PSBE IAML 20 32 08.8
PSBE IAML 20 32 08.8
CGR **Cap Guir** 4.46 186 P Pn **20 31 17.9 +2.9**
CGR Sn Sn **20 32 06.0 -1.0**
TIO **Tiouine** 4.50 156 P Pn **20 31 19.2 +3.5**
TIO S Sn **20 32 07.3 -0.9**
TIO **Tiouine** 4.50 156 P Pn **20 31 18.8 +3.1**
TIO Sn Sn **20 32 08.9 +0.7**
TIO **Tiouine** 4.50 156 P Pn **20 31 19.8 +4.1**
comp=Z,126nm,0.8s
MDT **Midelt** 4.55 118 P Pn **20 31 19.6 +3.3**
MDT Sn Sn **20 32 09.3 0.0**
AKLM **AKL** 4.56 96 P Pn **20 31 18.9 +2.5**
AKLM Sn Sn **20 32 08.7 -0.8**
TTIG **Tnine Tigouga,** 4.59 170 P Pn **20 31 17.6 +0.7**
TTIG Sn Sn **20 32 10.8 +0.2**
PSARD **Sardoal** 4.61 12⇓ eP Pn **20 31 20.3 +3.2**
PSARD eS Sn **20 32 08.4 -2.3**
PSARD IAML 20 32 10.5
PSARD IAML 20 32 10.6
PSARD IAML 20 32 11.8
PMRV **Marv??o** 4.62 19⇓ eP Pn **20 31 20.0 +2.8**
PMRV eS Sn **20 32 07.9 -2.9**
PMRV IAML 20 32 10.1
PMRV IAML 20 32 11.0
PMRV IAML 20 32 12.1
OUZM **OUZ** 4.70 152 P Pn **20 31 21.4 +3.0**
OUZM Sn Sn **20 32 14.4 +1.3**
EGOR **Sierra Gorda,** 4.71 63 P Pn **20 31 21.2 +2.7**
EGOR S Sn **20 32 10.6 -2.7**
EGOR **Sierra Gorda,** 4.71 63 Pn Pn **20 31 21.2 +2.7**
EGOR ⇑IVmb_VC 20 31 24.4
comp=Z,639nm,SNR=13
EGOR Sn Sn **20 32 11.0 -2.3**
EADA **Adamuz** 4.93 50 P Pn **20 31 23.9 +2.5**
EADA S Sn **20 32 14.1 -4.5**
EADA **Adamuz** 4.93 50 Pn Pn **20 31 24.0 +2.5**
EADA ⇑IVmb_VC 20 31 24.4
comp=Z,7µm,SNR=101
EADA Sn Sn **20 32 13.8 -4.7**
ELGU **Los Guajares,** 4.98 67 P Pn **20 31 23.1 +0.9**
ELGU S Sn **20 32 17.4 -2.5**
ELGU **Los Guajares,** 4.98 67 Pn Pn **20 31 23.2 +0.9**
ELGU ⇑IVmb_VC 20 31 28.3
comp=Z,1µm,SNR=25
ELGU Sn Sn **20 32 17.6 -2.3**
PCBR **Castelo Branco** 4.98 17⇓ eP Pn **20 31 25.1 +2.9**
PCBR eS Sn **20 32 17.1 -2.7**
PCBR IAML 20 32 19.1
PCBR IAML 20 32 19.1
PCBR IAML 20 32 19.5
GOLM **Goulmima** 4.99 131 P Pn **20 31 26.1 +3.6**
GOLM Sn Sn **20 32 23.0 +2.7**
EALB **Alboran** 5.23 79 P Pn **20 31 27.4 +1.8**
EALB S Sn **20 32 21.0 -4.9**
EALB **Alboran** 5.23 79 Pn Pn **20 31 27.7 +2.1**
EALB ⇑IVmb_VC 20 31 34.4
comp=Z,2µm,SNR=20
EALB Sn Sn **20 32 21.9 -4.0**
EQTA **Presa de Quent** 5.24 64 P Pn **20 31 28.4 +2.6**
EQTA S Sn **20 32 23.7 -2.5**
EQUE **Quentar** 5.24 64 Pn Pn **20 31 28.4 +2.6**
EQUE ⇑IVmb_VC 20 31 31.1
comp=Z,721nm,SNR=7.7
EQUE Sn Sn **20 32 25.0 -1.3**
EMEL **Melilla** 5.25 86 Pn Pn **20 31 28.3 +2.5**
EMEL ⇑IVmb_VC 20 31 31.6
comp=Z,8µm,SNR=5.6
EMEL Sn Sn **20 32 22.1 -4.2**
WMELI **Melilla** 5.25 86 P Pn **20 31 28.1 +2.2**
WMELI S Sn **20 32 23.2 -3.2**
WMELI **Melilla** 5.25 86 P Pn **20 31 28.0 +2.2**
comp=Z,44nm,0.5s
EMLI **Melilla** 5.25 86 P Pn **20 31 30.1 +4.3**
EMLI S Sn **20 32 23.3 -3.2**
TZRR **Tazzarine** 5.34 142 P Pn **20 31 30.0 +2.8**
TZRR Sn Sn **20 32 29.9 +1.1**
MTE **Manteigas** 5.50 15 eP Pn **20 31 32.1 +2.7**
MTE eS Sn **20 32 29.4 -3.4**
MTE IAML 20 32 31.7
MTE IAML 20 32 31.8
MTE IAML 20 32 32.5
MTE **Manteigas** 5.50 15 P Pn **20 31 31.1 +1.7**
comp=Z,76nm,0.6s
CIBOR **Castaar de Ib** 5.52 33 Pn Pn **20 31 31.9 +2.3**
CIBOR Sn Sn **20 32 29.8 -3.4**
EBER **Berja** 5.55 69 P Pn **20 31 31.4 +1.3**
EBER S Sn **20 32 31.9 -2.2**
EBER **Berja** 5.55 69 Pn Pn **20 31 31.5 +1.3**
EBER ⇑IVmb_VC 20 31 41.7
comp=Z,616nm,SNR=10
EBER Sn Sn **20 32 30.7 -3.4**
EPLA **Plasencia** 5.62 27 Pn Pn **20 31 33.6 +2.6**
EPLA ⇑IVmb_VC 20 31 35.1
comp=Z,1µm,SNR=14
EPLA Sn Sn **20 32 31.4 -4.1**
ARF **Arif** 5.63 129 P Pn **20 31 33.9 +2.6**
ARF Sn Sn **20 32 38.3 +2.2**
E0802 **Ubeda,Jaen** 5.64 57 Pn Pn **20 31 33.3 +2.0**
E0802 Sn Sn **20 32 32.4 -3.8**
JBK **JBK** 5.64 96 P Pn **20 31 32.7 +1.2**
JBK Sn Sn **20 32 34.6 -1.8**
PVIS **Viseu** 5.74 11 eP Pn **20 31 35.2 +2.4**
PVIS eS Sn **20 32 35.4 -3.3**
EQES **Quesada** 5.75 60 Pn Pn **20 31 34.7 +1.9**
EQES ⇑IVmb_VC 20 31 37.2
comp=Z,1µm,SNR=15
EQES Sn Sn **20 32 35.6 -3.3**
ZGR **Zagora** 5.87 146 P Pn **20 31 37.1 +2.7**
ZGR Sn Sn **20 32 43.0 +1.2**
PAB **San Pablo** 5.98 40 Pn Pn **20 31 38.3 +2.3**
PAB ⇑IVmb_VC 20 31 39.1
comp=Z,877nm,SNR=16
PAB Sn Sn **20 32 38.8 -5.8**
PAB **San Pablo** 5.98 40 P Pn **20 31 37.8 +1.7**
comp=Z,16nm,0.5s
PTO **Porto** 6.08 5 eP Pn **20 31 39.4 +2.2**
PTO eS Sn **20 32 43.3 -3.5**
PTO IAML 20 32 45.8
PTO IAML 20 32 46.8
PTO IAML 20 32 47.1
PMPST **Porto Santo, M** 6.12 253 eP Pn **20 31 41.8 +4.0**
PMPST eS Sn **20 32 43.9 -4.1**
PMPST IAML 20 32 48.6
PMPST IAML 20 32 48.9
PMPST IAML 20 32 50.0
PMPS **Porto Santo** 6.13 253⇑ eP Pn **20 31 41.0 +3.1**
PMPS IAML 20 32 51.5
ESDC **Sonseca Array** 6.28 42 Pn Pn **20 31 42.2 +2.1**
ESDC ⇑IVmb_VC 20 31 43.3
comp=Z,1µm,SNR=22
ESDC Sn Sn **20 32 47.8 -4.2**
ESBB **Sonseca Array** 6.28 42 Pn Pn **20 31 42.2 +2.1**
ESBB ⇑IVmb_VC 20 31 43.4
comp=Z,752nm,SNR=14
ESBB Sn Sn **20 32 46.0 -6.0**
PVRL **Vila Real** 6.32 11 eP Pn **20 31 43.1 +2.5**
PVRL eS Sn **20 32 49.4 -3.4**
PVRL IAML 20 32 52.2
PVRL IAML 20 32 52.2
POLO **Lamas de Olo** 6.40 11 eP Pn **20 31 44.2 +2.4**
POLO eS Sn **20 32 51.3 -3.7**
POLO IAML 20 32 54.4
POLO IAML 20 32 54.4
POLO IAML 20 32 55.3
EJUZ **Juzbado, Salam** 6.59 23 Pn Pn **20 31 46.6 +2.3**
EJUZ Sn Sn **20 32 55.0 -4.5**
ELOR **Lorca, Murcia** 6.65 65 Pn Pn **20 31 47.5 +2.3**
ELOR ⇑IVmb_VC 20 31 49.9
comp=Z,511nm,SNR=1.3
ELOR Sn Sn **20 32 57.5 -3.5**
TLOR **Lorca, Murcia** 6.70 65 P Pn **20 31 48.7 +2.9**
TLOR **Lorca, Murcia** 6.70 65 Pn Pn **20 31 48.8 +2.9**
PCAB **Cabril** 6.70 9 eP Pn **20 31 49.1 +3.2**
PCAB eS Sn **20 32 58.2 -4.1**
PCAB IAML 20 33 00.7
PCAB IAML 20 33 02.6
PCAB IAML 20 33 03.1
PMAR **Madeira** 6.71 252 P Pn **20 31 47.8 +1.7**
PMAR Sn Sn **20 33 01.6 -1.1**
PMAR **Madeira** 6.71 252 eP Pn **20 31 49.1 +3.0**
PMAR eS Sn **20 33 00.7 -1.9**
PMAR IAML 20 33 03.7
PMAR IAML 20 33 05.7
PMAR IAML 20 33 08.0
FUL **Funchal** 6.72 251 eS Sn **20 33 00.8 -1.9**
EZAR **Zarzadilla de** 6.77 63 Pn Pn **20 31 48.6 +1.7**
EZAR ⇑IVmb_VC 20 31 56.7
comp=Z,324nm,SNR=5.9
EZAR Sn Sn **20 33 00.0 -4.2**
CDLV **Cueva Verdes** 6.84 212 Pn Pn **20 31 48.6 +0.8**
CDLV Sn Sn **20 33 02.5 -3.2**
TANT **Tantan** 6.84 194 P Pn **20 31 49.8 +2.0**
TANT Sn Sn **20 33 06.7 +1.0**
ELOB **Lobios** 6.85 8 Pn Pn **20 31 50.1 +2.2**
ELOB ⇑IVmb_VC 20 31 52.1
comp=Z,1µm,SNR=7.8
ELOB Sn Sn **20 33 01.4 -4.7**
PMOZ **Porto Moniz, M** 6.89 253 P Pn **20 31 51.4 +2.8**
PMOZ S Sn **20 33 04.4 -2.7**
PMOZ **Porto Moniz, M** 6.89 253 P Pn **20 31 49.9 +1.4**
PMOZ Sn Sn **20 33 06.3 -0.8**
PMOZ **Porto Moniz, M** 6.89 253 eP Pn **20 31 51.9 +3.3**
PMOZ eS Sn **20 33 04.6 -2.5**
EFAM **Famara** 6.91 212 Pn Pn **20 31 49.4 +0.7**
EFAM Sn Sn **20 33 05.1 -2.3**
GUD **Guadarrama** 6.91 35 Pn Pn **20 31 51.8 +2.9**
GUD ⇑IVmb_VC 20 31 52.2
comp=Z,1µm,SNR=4.7
GUD Sn Sn **20 33 04.3 -3.3**
PGAV **Gavieira, Arco** 6.93 7⇑ eP Pn **20 31 51.3 +2.3**
PGAV eS Sn **20 33 03.2 -4.8**
PGAV IAML 20 33 07.2
PGAV IAML 20 33 08.5
PGAV IAML 20 33 10.7
PBRG **Braganca** 7.02 16⇑ eP Pn **20 31 52.5 +2.3**
PBRG eS Sn **20 33 06.5 -3.7**
PBRG IAML 20 33 07.8
PBRG IAML 20 33 08.8
PBRG IAML 20 33 10.3
CBLAA **Tinajo** 7.07 213 Pn Pn **20 31 52.7 +1.9**
CBLAA Sn Sn **20 33 07.6 -3.6**
UCM **Universidad Co** 7.12 41 P Pn **20 31 54.5 +2.9**
UCM S Sn **20 33 08.1 -4.5**
UCM **Universidad Co** 7.12 41 P Pn **20 31 54.6 +3.0**
comp=Z,113nm,0.5s
ECAL **Calabor** 7.15 16 P Pn **20 31 54.3 +2.3**
ECAL S Sn **20 33 09.3 -4.1**
ECAL **Calabor** 7.15 16 Pn Pn **20 31 54.4 +2.3**
ECAL ⇑IVmb_VC 20 31 56.5
comp=Z,2µm,SNR=9.9
ECAL Sn Sn **20 33 08.8 -4.6**
ECAL **Calabor** 7.15 16 P Pn **20 31 54.2 +2.3**
comp=Z,85nm,0.4s
CART **Cartagena** 7.19 67 P Pn **20 31 53.7 +1.1**
CART S Sn **20 33 07.9 -6.4**
CART **Cartagena** 7.19 67 P Pn **20 31 54.2 +1.7**
CART Sn Sn **20 33 15.4 +1.1**
CART **Cartagena** 7.19 67 P Pn **20 31 54.3 +1.7**
comp=Z,20nm,0.6s
ETOB **Tobarra** 7.20 58 P Pn **20 31 54.2 +1.4**
ETOB S Sn **20 33 08.3 -6.3**
ETOB **Tobarra** 7.20 58 Pn Pn **20 31 54.0 +1.3**
ETOB ⇑IVmb_VC 20 31 56.0
comp=Z,917nm,SNR=13
ETOB Sn Sn **20 33 08.6 -6.0**
YEBES **Yebes (Guadala** 7.36 41 Pn Pn **20 31 58.2 +3.3**
YEBES ⇑IVmb_VC 20 32 00.0
comp=Z,2µm,SNR=4.0
YEBES Sn Sn **20 33 14.1 -4.3**
FIGM **Figuig** 7.37 111 P Pn **20 31 58.7 +3.6**
FIGM Sn Sn **20 33 19.3 +0.5**
CFUE **Fuerteventura** 7.50 213 Pn Pn **20 31 57.7 +0.8**
CFUE Sn Sn **20 33 18.8 -3.2**
CFTV **Fuerteventura** 7.77 212 Pn Pn **20 32 00.9 +0.4**
CFTV Sn Sn **20 33 24.8 -3.8**
EAGO **Agolada(Pontev** 7.78 7 Pn Pn **20 32 02.4 +1.9**
EAGO ⇑IVmb_VC 20 32 05.3
comp=Z,734nm,SNR=3.9
EAGO Sn Sn **20 33 22.9 -5.7**
EVIV **Cofrentes, Val** 7.79 55 Pn Pn **20 32 02.3 +1.4**
EVIV ⇑IVmb_VC 20 32 04.0
comp=Z,326nm,SNR=4.1
EVIV Sn Sn **20 33 24.0 -5.1**
STS **Santiago** 7.82 4 Pn Pn **20 32 03.2 +2.0**
STS Sn Sn **20 33 24.1 -5.6**
EMAZ **Mazaricos** 7.86 2 Pn Pn **20 32 04.1 +2.3**
EMAZ ⇑IVmb_VC 20 32 05.3
comp=Z,1µm,SNR=2.5
EMAZ Sn Sn **20 33 24.4 -6.4**
AFON **Font Roja** 7.92 61 Pn Pn **20 32 04.2 +1.6**
AFON ⇑IVmb_VC 20 32 07.9
comp=Z,425nm,SNR=6.8
AFON Sn Sn **20 33 26.3 -6.1**
CGIN **Giniginamar, F** 7.95 212 Pn Pn **20 32 02.9 -0.1**
CGIN Sn Sn **20 33 28.0 -4.9**
ECHE **Chera** 8.06 54 P Pn **20 32 06.1 +1.7**
ECHE S Sn **20 33 28.4 -7.2**
ECHE **Chera** 8.06 54 Pn Pn **20 32 06.2 +1.7**
ECHE ⇑IVmb_VC 20 32 13.8
comp=Z,327nm,SNR=4.5
ECHE Sn Sn **20 33 30.3 -5.3**
ETOR **Torete** 8.13 43 Pn Pn **20 32 08.3 +2.8**
ETOR ⇑IVmb_VC 20 32 08.9
comp=Z,924nm,SNR=13
ETOR Sn Sn **20 33 33.2 -4.3**
EBEN2 **Beniarda presa** 8.18 61 Pn Pn **20 32 07.5 +1.4**
EBEN2 ⇑IVmb_VC 20 32 09.1
comp=Z,348nm,SNR=3.4
EBEN2 Sn Sn **20 33 32.0 -6.5**
EPON **Pontenova** 8.41 11 Pn Pn **20 32 12.7 +3.5**
EPON ⇑IVmb_VC 20 32 12.8
comp=Z,340nm,SNR=1.2
EPON Sn Sn **20 33 38.8 -5.5**
E0901 **Celadas (Terue** 8.45 48 Pn Pn **20 32 13.2 +3.2**
E0901 ⇑IVmb_VC 20 32 17.3
comp=Z,1µm,SNR=21
E0901 Sn Sn **20 33 40.3 -5.2**

GGC **Guia, Gran Can** 8.76 219 ⇑IVmb_VC 20 32 16.1
comp=Z,863nm,SNR=1.2
GGC Pn Pn **20 32 16.6 +2.4**
GGC Sn Sn **20 33 48.8 -4.2**
EMOS **Mosqueruela** 8.79 51 Pn Pn **20 32 17.2 +2.6**
EMOS ⇑IVmb_VC 20 32 20.0
comp=Z,196nm,SNR=2.8
EMOS Sn Sn **20 33 47.1 -6.9**
EARI **Arriondas** 8.82 20 Pn Pn **20 32 17.7 +2.9**
EARI ⇑IVmb_VC 20 32 24.2
comp=Z,242nm,SNR=1.1
EARI Sn Sn **20 33 50.1 -4.2**
CLUM **San Bartolome** 9.01 218 Pn Pn **20 32 20.5 +2.9**
CLUM ⇑IVmb_VC 20 32 26.6
comp=Z,436nm,SNR=1.1
CLUM Sn Sn **20 33 53.1 -6.1**
CREA **Los Realejos,** 9.10 224 ⇑IVmb_VC 20 32 28.2
comp=Z,953nm,SNR=1.3
CREA Sn Sn **20 33 56.5 -4.8**
CFOR **Fortaleza, Los** 9.13 224 ⇑IVmb_VC 20 32 27.0
comp=Z,776nm,SNR=1.2
CFOR Sn Sn **20 33 57.7 -4.8**
ALT03 **Santillana del** 9.22 25 Pn Pn **20 32 23.3 +3.0**
ALT03 ⇑IVmb_VC 20 32 25.0
comp=Z,262nm,SNR=1.9
ALT03 Sn Sn **20 33 59.8 -4.4**
ALT01 **Santillana del** 9.22 25 Pn Pn **20 32 23.3 +2.9**
ALT01 ⇑IVmb_VC 20 32 28.2
comp=Z,307nm,SNR=1.2
ALT04 **Santillana del** 9.22 25 Pn Pn **20 32 23.4 +3.0**
ALT04 ⇑IVmb_VC 20 32 31.6
comp=Z,285nm,SNR=1.7
ALT04 Sn Sn **20 33 59.2 -5.0**
ALT02 **Santillana del** 9.23 25 Pn Pn **20 32 23.4 +2.9**
ALT02 ⇑IVmb_VC 20 32 24.1
comp=Z,253nm,SNR=1.7
ALT02 Sn Sn **20 34 00.0 -4.2**
CCHO **La Orotava (Te** 9.25 224 Pn Pn **20 32 23.4 +2.3**
CCHO ⇑IVmb_VC 20 32 23.9
comp=Z,387nm,SNR=1.6
CCHO Sn Sn **20 33 59.3 -5.9**
CGRA **Granadilla de** 9.26 223 Pn Pn **20 32 24.1 +3.1**
CLAJ **Vilaflor (Tene** 9.30 224 ⇑IVmb_VC 20 32 26.2
comp=Z,767nm,SNR=1.3
CLAJ Sn Sn **20 34 01.6 -4.8**
ECOL **Islas Columbre** 9.32 56 Pn Pn **20 32 22.8 +1.1**
ECOL Sn Sn **20 33 58.6 -7.9**
CTFS **San Miguel de** 9.33 224 Pn Pn **20 32 25.0 +3.0**
CTFS ⇑IVmb_VC 20 32 35.1
comp=Z,430nm,SNR=1.0
CTFS Sn Sn **20 34 01.1 -5.9**
CADE **Adeje, Tenerif** 9.34 224 Sn Sn **20 34 01.3 -5.8**
ELAN **Lanestosa** 9.35 28 Pn Pn **20 32 25.0 +2.8**
ELAN ⇑IVmb_VC 20 32 29.0
comp=Z,244nm,SNR=1.7
ELAN Sn Sn **20 34 00.6 -6.7**
EIBI **Ibiza** 9.42 62 P Pn **20 32 23.7 +0.6**
EIBI S Sn **20 34 00.9 -8.1**
EIBI **Ibiza** 9.42 62 Pn Pn **20 32 23.9 +0.9**
EIBI ⇑IVmb_VC 20 32 28.4
comp=Z,124nm,SNR=2.2
EIBI Sn Sn **20 34 01.6 -7.4**
CPUN **Puntallana, La** 9.53 231 ⇑IVmb_VC 20 32 28.1
comp=Z,973nm,SNR=1.1
CPUN Sn Sn **20 34 05.9 -6.1**
ESAC **San Caprasio** 9.62 44 Pn Pn **20 32 28.6 +2.7**
ESAC ⇑IVmb_VC 20 32 30.3
comp=Z,901nm,SNR=5.5
ESAC Sn Sn **20 34 09.7 -4.3**
CMIR **El Paso, La Pa** 9.63 231 Pn Pn **20 32 29.1 +3.0**
CMIR ⇑IVmb_VC 20 32 29.4
comp=Z,885nm,SNR=1.6
CMIR Sn Sn **20 34 06.9 -7.6**
ERTA **Horta de San J** 9.63 50 Pn Pn **20 32 28.3 +2.3**
ERTA ⇑IVmb_VC 20 32 37.0
comp=Z,183nm,SNR=2.5
ERTA Sn Sn **20 34 09.9 -4.5**
CENR **El Paso, La Pa** 9.67 231 ⇑IVmb_VC 20 32 30.3
comp=Z,2µm,SNR=1.9
CENR Sn Sn **20 34 09.0 -6.4**
EARA **Aranguren** 9.78 36 Pn Pn **20 32 30.5 +2.4**
EARA ⇑IVmb_VC 20 32 32.0
comp=Z,519nm,SNR=4.1
EARA Sn Sn **20 34 12.0 -5.9**
EORO **Oroz-Betelu** 10.00 36 Pn Pn **20 32 34.1 +3.0**
EORO ⇑IVmb_VC 20 32 35.3
comp=Z,415nm,SNR=5.1
EORO Sn Sn **20 34 17.1 -6.3**
EALK **Alkurruntz** 10.15 34 Pn Pn **20 32 36.0 +2.8**
EALK ⇑IVmb_VC 20 32 38.2
comp=Z,434nm,SNR=3.3
EALK Sn Sn **20 34 19.6 -7.6**
CTIG **El Hierro** 10.31 228 ⇑IVmb_VC 20 32 38.3
comp=Z,880nm,SNR=1.6
CTIG Sn Sn **20 34 23.4 -7.6**
EPOB **Poblet** 10.32 50 Pn Pn **20 32 37.7 +2.2**
EPOB ⇑IVmb_VC 20 32 40.8
comp=Z,144nm,SNR=2.4
EPOB Sn Sn **20 34 24.9 -6.4**
ATE **Arette** 10.44 37 P Pn **20 32 39.9 +2.8**
comp=Z,11nm,0.8s
ECHI **Chisagues Biel** 10.62 42 Pn Pn **20 32 42.4 +2.8**
ECHI ⇑IVmb_VC 20 32 44.7
comp=Z,387nm,SNR=6.6
ECHI Sn Sn **20 34 31.0 -7.5**
ETOS **Mallorca** 10.75 61 P Pn **20 32 42.0 +0.7**
ETOS S Sn 20 34 32.1 -10
ETOS **Mallorca** 10.75 61 Pn Pn **20 32 42.7 +1.4**
ETOS ⇑IVmb_VC 20 32 45.1
comp=Z,115nm,SNR=1.6
ETOS Sn Sn **20 34 33.2 -8.5**
EMIR **Miracle** 10.92 48 Pn Pn **20 32 46.1 +2.5**
EMIR ⇑IVmb_VC 20 32 48.6
comp=Z,325nm,SNR=2.1
EJON **La Jonquera** 12.05 49 P Pn **20 33 01.0 +1.9**
EJON **La Jonquera** 12.05 49 ⇑IVmb_VC 20 33 01.4
comp=Z,367nm,SNR=1.6
EJON Pn Pn **20 33 01.8 +2.5**
EJON **La Jonquera** 12.05 49 P Pn **20 33 01.7 +2.5**
comp=Z,31nm,1.9s
SJAF **Saint Jean de** 12.07 49 P Pn **20 33 01.7 +2.3**
comp=Z,21nm,1.1s
MTLF **Montolieu** 12.18 44 P Pn **20 33 03.7 +2.8**
comp=Z,12nm,1.4s
MFF **Saint Martin d** 13.45 28 P Pn **20 33 20.5 +2.4**
comp=Z,5.3nm,1.0s
SSB **Saint Sauveur** 14.70 42 P Pn **20 33 37.3 +2.0**
ORIF **Oris-en-Rattie** 15.24 45 P Pn **20 33 44.6 +2.0**
comp=Z,8.9nm,1.4s
ISO **Isola** 15.55 49 P P **20 33 49.3 -1.7**
comp=Z,5.0nm,1.6s
TUE **Stuetta** 18.12 45 P P **20 34 22.1 +2.5**
RCHB **Rochefort** 18.45 31 P Pn **20 34 26.2 +3.3**
comp=Z,9.1nm,1.4s
WLF **Walferdange** 18.48 33 P Pn **20 34 26.0 +2.5**
comp=Z,11nm,1.4s
FUORN **Ofenpass-Fuorn** 18.74 46 P Pn **20 34 28.7 +1.9**
comp=Z,3.6nm,0.5s
DAVA **Damuels** 18.87 44 P Pn **20 34 30.7 +2.3**
comp=Z,8.7nm,3.0s
MEM **Membach** 19.12 31 P Pn **20 34 33.1 +2.0**
comp=Z,13nm,1.3s
UBR **Ueberruh** 19.22 43 P Pn **20 34 34.0 +1.6**
comp=Z,12nm,2.9s
CGRP **Cima Grappa** 19.32 50 P Pn **20 34 34.9 +1.1**
comp=Z,25nm,0.9s
SQTA **Sankt Quirin** 19.60 46 ePn Pn **20 34 39.0 +1.9**
comp=Z,1.2nm,0.5s
ABTA **Abfaltersbach** 20.15 48 ePn Pn 20 34 44.5 +0.9
comp=Z,1.5nm,0.7s
BUG **Bochum--Univer** 20.27 31 P Pn 20 34 45.6 +0.8
comp=Z,13nm,1.9s
WTSB **Winterswijk** 20.47 29 P Pn 20 34 47.6 +0.5
comp=Z,36nm,0.8s
CEL **Celeste** 20.48 74 P Pn 20 34 47.8 +0.3
comp=Z,7.2nm,1.4s
CUC **Castrocucco** 20.53 69 P Pn 20 34 47.5 -0.5
comp=Z,5.3nm,0.8s
MARCO **Tramutola** 20.55 68 P Pn 20 34 48.6 +0.2
comp=Z,5.9nm,1.2s
LESA **Schwarzleotal** 20.57 46 eP P **20 34 47.8 +1.5**
comp=Z,2.3nm,0.7s
DRE **Drenchia** 20.60 51 P Pn 20 34 48.4 -0.5
comp=Z,9.2nm,0.9s
ACOM **Acomizza, Ital** 20.68 49 P Pn 20 34 49.7 -0.2

	comp=Z,7.4nm,1.8s							
ESK	**Eskdalemuir**	**20.68**	**10**	P		Pn	20 34 49.3	-0.3
	comp=Z,31nm,1.5s							
RJOB	**Jochberg**	**20.79**	**46**	P		**P**	**20 34 49.9**	**+1.2**
MYKA	**Terra Mystica**	**20.79**	**49**	*eP*		Pn	20 34 50.4	-0.7
	comp=Z,2.3nm,0.5s							
KBA	**Koelnbreinsper**	**20.81**	**48**	*eP*		**P**	**20 34 50.6**	**+1.6**
	comp=Z,4.9nm,0.8s							
KBA	**Koelnbreinsper**	**20.81**	**48**	P		**P**	**20 34 50.6**	**+1.6**
	comp=Z,12nm,1.1s							
TIP	**Timpagrande**	**21.19**	**71**	P		**P**	**20 34 54.8**	**+1.7**
	comp=Z,3.7nm,1.1s							
BIOA	**Bad Ischl, Aus**	**21.27**	**47**	*eP*		**P**	**20 34 54.5**	**+0.7**
	comp=Z,0.4nm,0.2s							
OBKA	**Obir**	**21.31**	**50**	*eP*		**P**	**20 34 56.2**	**+1.9**
	comp=Z,0.5nm,0.6s							
OBKA	**Obir**	**21.31**	**50**	P		**P**	**20 34 56.5**	**+2.1**
	comp=Z,5.8nm,0.9s							
SOKA	**Soboth**	**21.69**	**50**	*eP*		**P**	**20 35 02.1**	**+3.8**
	comp=Z,3.3nm,1.1s							
MOA	**Molln**	**21.72**	**47**	*eP*		**P**	**20 34 59.0**	**+0.4**
	comp=Z,1.8nm,1.0s							
GEC2	**GERESS Array S**	**21.87**	**44**	P		**P**	**20 35 02.5**	**+2.2**
KHC	**Kasperske Hory**	**21.95**	**43**	P		**P**	**20 35 02.7**	**+1.7**
	comp=Z,7.2nm,2.4s							
CKRC	**Cesky Krumlov**	**22.21**	**45**	P		**P**	**20 35 05.4**	**+1.6**
	comp=Z,9.6nm,2.9s							
CONA	**Conrad Observa**	**22.72**	**48**	*eP*		**P**	**20 35 09.5**	**+0.2**
	comp=Z,2.6nm,1.0s							
RONA	**Rosalia, Austr**	**22.89**	**49**	*eP*		**P**	**20 35 12.0**	**+0.9**
	comp=Z,0.3nm,0.2s							
WINA	**Alland / Wiene**	**22.92**	**48**	*eP*		**P**	**20 35 12.6**	**+1.3**
	comp=Z,10nm,1.8s							
KOVH	**Kovagotottos**	**23.46**	**54**	P		**P**	**20 35 18.7**	**+1.9**
	comp=Z,2.4nm,1.0s							
KRUC	**Moravsky**	**23.53**	**46**	P		**P**	**20 35 19.0**	**+1.5**
	comp=Z,5.3nm,2.7s							
SACV	**Santiago Islan**	**23.77**	**216**	P		**P**	**20 35 24.1**	**+3.9**
	comp=Z,47nm,2.6s							
MORH	**Mrgy, Hungar**	**23.86**	**54**	P		**P**	**20 35 21.9**	**+1.2**
PIVO	**Bartosovice**	**24.15**	**43**	P		**P**	**20 35 25.8**	**+2.3**
	comp=E,1.6nm,0.8s							
MORC	**Moravsky Berou**	**24.52**	**45**	P		**P**	**20 35 29.3**	**+2.3**
	comp=Z,6.9nm,2.9s							
GRG	**Griva**	**25.61**	**67**	P		**P**	**20 35 37.9**	**+1.0**
	comp=Z,12nm,0.9s							
LOT	**Lotru**	**27.14**	**57**	P		**P**	**20 35 51.2**	**+0.4**
	comp=Z,4.3nm,0.7s							

IDC ***14*** *20:33:46.0±1.7,30.˚93N×100.˚87E,h0km,mb3.3/4, mbtmp3.4/5,ML3.3/1, Error ellipse: s-maj=49.6km s-min=26.5km az=65.0*

ISC 14 20:33:47.5±1.6,30.˚9N±0.˚1×100.˚8E±0.˚2,h10km,n6, σ0s55/6,mb3.3/4,Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LZDM	**Lanzhou Array**	**5.65**	**25**	Pg	**Pb**	**20 35 26.6**	**+0.2**
	baz=209,slow=15						
SONM	**Songino Array**	**17.50**	**13**	P	**Pn**	**20 37 51.3**	**-0.3**
	0.1nm,0.3s,baz=187,slow=10,SNR=6.2						
	0.8nm,0.8s						
SONM				AML	AML		
MKAR	**Makanchi Array**	**21.37**	**323**	P	**P**	**20 38 35.5**	**+0.5**
	0.3nm,0.5s,baz=123,slow=11,SNR=2.1						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**25.77**	**326**	P	**P**	**20 39 18.2**	**0.0**
	0.4nm,0.6s,baz=131,slow=10,SNR=5.3						
	0.4nm,0.6s						
ZALV	**Zalesovo Beam**	**25.78**	**338**	P	**P**	**20 39 17.7**	**-0.7**
	0.9nm,0.5s,baz=142,slow=9.4,SNR=5.9						
	0.9nm,0.5s						
WRA	**Warramunga Arr**	**59.94**	**143**	P	**P**	**20 43 54.1**	**+0.1**
	0.2nm,0.7s,baz=319,slow=7.8,SNR=2.8						
	0.2nm,0.7s						

IDC ***14*** *20:38:49.4±2.0,12.˚68S×166.˚28E,h0km,mb3.8/6, mbtmp3.8/7,ML3.6/1, Error ellipse: s-maj=50.0km s-min=18.8km az=81.0*

ISC 14 20:38:55.2±1.9,12.˚8S±0.˚1×166.˚3E±0.˚3,h44km,n7, σ1s29/8,mb3.7/6,Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**9.18**	**179**	Pn	**Pn**	**20 41 06.7**	**+1.5**
	0.6nm,0.3s,baz=72,slow=19,SNR=10						
DZM				Sn	**Sn**	**20 42 45.7**	**-1.5**
	baz=135,slow=16						
	3.7nm,0.6s						
DZM				AML	AML		
STKA	**Stephens Creek**	**29.58**	**226**	P	**P**	**20 44 55.4**	**-0.8**
	0.8nm,0.5s,baz=54,slow=9.5,SNR=3.6						
	0.8nm,0.5s						
WRA	**Warramunga Arr**	**31.46**	**253**	P	**P**	**20 45 13.5**	**+0.6**
	0.2nm,0.6s,baz=83,slow=8.5,SNR=6.4						
	0.2nm,0.6s						
ASAR	**Alice Springs**	**32.55**	**246**	P	**P**	**20 45 22.5**	**0.0**
	0.6nm,0.5s,baz=75,slow=9.2,SNR=16						
	0.6nm,0.5s						
CMAR	**Chiang Mai Arr**	**73.37**	**294**	P	**P**	**20 50 24.2**	**+1.2**
	1.0nm,0.8s,baz=124,slow=5.2,SNR=8.5						
	1.0nm,0.8s						
SONM	**Songino Array**	**80.45**	**324**	P	**P**	**20 51 02.2**	**-0.3**
	0.2nm,0.4s,baz=138,slow=6.6,SNR=4.1						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**95.22**	**317**	P	**P**	**20 52 13.1**	**-1.2**
	0.6nm,0.6s,baz=91,slow=6.3,SNR=9.2						
	0.6nm,0.6s						

IDC ***14*** *20:59:01.5±0.7, 19.˚36S×168.˚96E,h0km,mb4.1/13, mbtmp4.1/14,ML4.2/1,MS3.4/14, Error ellipse: s-maj=21.9km s-min=14.5km az=116.0*

BJI ***14*** *20:59:04.2, 19.˚72S×169.˚48E,h40km,mB5.4/3,mb4.8/12, Ms5.0/1,Ms7 4.8/1*

NEIC ***14*** *20:59:06.8±1.3, 19.˚54S±0.˚05×168.˚90E±0.˚10,h37km±6km, mb4.8/38, Error ellipse: s-maj=13.4km s-min=7.9km az=90.0*

NOU ***14*** *20:59:07.2, 19.˚57S×168.˚86E,h34km,MLv4.8/25, Vanuatu Islands*

GFZ ***14*** *20:59:07.1±0.4,20.˚2S±4.˚×16.˚9E±.˚, h48km±4km,M4.4/22, mb4.4/22, Error ellipse: s-maj=10.5km s-min=6.6km az=52.6, confirmed*

ISC 14 20:59:06.6±0.4,19.˚56S±0.˚03×168.˚89E±0.˚06,h36km±3km, h35km:pP-P,n163,σ1s07/169,mb4.6/51,MS3.7/10,4C-4D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTV	**Rentapao**	**1.81**	**346**	P	**Pn**	**20 59 36.8**	**+1.5**
RTV	**Rentapao**	**1.81**	**346**	S	**Sn**	**20 59 58.2**	**+1.1**
DVP	**Devils Point**	**1.94**	**340**	P	**Pn**	**20 59 39.1**	**+2.0**
DVP	**Devils Point**	**1.94**	**340**	S	**Sn**	**21 00 02.0**	**+1.7**
MARNC	**Mare, Loyalty**	**2.07**	**203**	P	**Pn**	**20 59 39.5**	**+0.6**
MARNC	**Mare, Loyalty**	**2.07**	**203**	S	**Sn**	**21 00 04.4**	**+0.9**
MARNC	**Mare, Loyalty**	**2.07**	**203**		**Pn**	**20 59 39.6**	**+0.6**
MARNC				Sn	**Sn**	**21 00 01.8**	**-1.7**
YATNC	**Mamie plateau,**	**3.11**	**217**	P	**Pn**	**20 59 53.1**	**-0.1**
YATNC	**Mamie plateau,**	**3.11**	**217**	S	**Sn**	**21 00 28.3**	**-0.9**
PINNC	**Pines Island,**	**3.32**	**204**	P	**Pn**	**20 59 58.3**	**+2.2**
PINNC	**Pines Island,**	**3.32**	**204**	S	**Sn**	**21 00 35.6**	**+1.3**
PINNC	**Pines Island,**	**3.32**	**204**		**Pn**	**20 59 56.6**	**+0.5**
PINNC				Sn	**Sn**	**21 00 33.3**	**-1.0**
DZM	**Mont Dzumac**	**3.39**	**222**	Pn	**Pn**	**20 59 57.9**	**+0.8**
	20nm,0.3s,baz=57,slow=7.3,SNR=222						
DZM				Sn	**Sn**	**21 00 36.5**	**+0.4**
	49nm,0.3s,baz=297,slow=22,SNR=6.0						
	62nm,0.3s						
DZM				AML	AML		
OUENC	**Ouen Island, N**	**3.43**	**214**	P	**Pn**	**20 59 59.1**	**+1.5**
OUENC	**Ouen Island, N**	**3.43**	**214**	S	**Sn**	**21 00 37.8**	**+0.8**
OUENC	**Ouen Island, N**	**3.43**	**214**		**Pn**	**20 59 59.0**	**+1.4**
NOUC	**Port Laguerre**	**3.50**	**223**	P	**Pn**	**21 00 00.4**	**+1.9**
NOUC	**Port Laguerre**	**3.50**	**223**	S	**Sn**	**21 00 39.6**	**+0.9**
ONTNC	**Ouen Toro**	**3.56**	**219**	P	**Pn**	**21 00 00.9**	**+1.6**
ONTNC	**Ouen Toro**	**3.56**	**219**	S	**Sn**	**21 00 40.6**	**+0.4**
ONTNC	**Ouen Toro**	**3.56**	**219**		**Pn**	**21 00 00.2**	**+0.8**
ONTNC				Sn	**Sn**	**21 00 38.9**	**-1.3**
SANVU	**Saraoutou**	**4.40**	**338**	P	**Pn**	**21 00 11.7**	**+0.8**
SANVU	**Saraoutou**	**4.40**	**338**		**Pn**	**21 00 11.2**	**+0.3**
SANVU				Sn	**Sn**	**21 00 59.1**	**-1.8**
SANVU	**Saraoutou**	**4.40**	**338**	P	**Pn**	**21 00 13.6**	**+2.7**
KOUNC	**Koumac, New Ca**	**4.44**	**256**		**Pn**	**21 00 11.9**	**+0.4**
KOUNC				Sn	**Sn**	**21 01 00.7**	**-1.3**
MSVF	**Nonsavu**	**8.87**	**80**	LR	LR	21 04 11.9	
	comp=Z,493nm,19.3s,baz=201,slow=35						
MSVF	**Nonsavu**	**8.87**	**80**	P	**Pn**	**21 01 09.9**	**-2.5**
	comp=Z,57nm,1.1s						
NFK	**Norfolk Island**	**9.48**	**185**	P	**Pn**	**21 01 21.1**	**+0.5**
	comp=Z,55nm,1.4s						
HNR	**Honiara**	**13.28**	**318**	LR	LR	21 06 25.1	
	comp=Z,106nm,20.1s,baz=210,slow=34						
RAO	**Raoul Island**	**15.39**	**131**	LR	LR	21 07 35.1	
	comp=Z,95nm,19.2s,baz=348,slow=33						
OUZ	**Omahuta**	**16.14**	**166**	P	**Pn**	**21 02 50.9**	**+0.1**
	comp=Z,16nm,1.3s						
EIDS	**Eidsvold**	**17.44**	**247**		**Pn**	**21 03 07.1**	**-0.1**
EIDS	**Eidsvold**	**17.44**	**247**	P	**Pn**	**21 03 06.9**	**-0.3**
	comp=Z,7.6nm,1.1s						
ARMA	**Armidale**	**18.99**	**232**		**P**	**21 03 26.1**	**+0.7**
ARMA	**Armidale**	**18.99**	**232**	P	**P**	**21 03 26.2**	**+0.9**
	comp=Z,11nm,1.8s						
AFI	**Afiamalu**	**19.34**	**76**	LR	LR	21 08 26.2	
	comp=Z,27nm,21.2s,baz=328,slow=29						
URZ	**Urewera**	**19.95**	**161**	P	**Pn**	**21 03 37.6**	**+0.1**
	comp=Z,6.3nm,0.7s,baz=153,slow=9.0,SNR=5.3						
URZ				LR	LR	21 09 39.5	
	comp=Z,137nm,19.7s,baz=320,slow=32						
	comp=Z,6.3nm,0.7s						
URZ	**Urewera**	**19.95**	**161**	P	**Pn**	**21 03 36.9**	**-0.6**
	comp=Z,15nm,1.3s						
RTZ	**Ruatahuna**	**20.24**	**161**		**P**	**21 03 38.4**	**-0.5**
RTZ				IAmb	IAmb	21 03 44.3	
	comp=Z,25nm,0.9s						
CTA	**Charters Tower**	**21.30**	**265**	P	**P**	**21 03 52.4**	**+2.0**
	comp=Z,2.7nm,0.7s,baz=59,slow=10,SNR=4.2						
	comp=Z,2.7nm,0.7s						
CTAO	**Charters Tower**	**21.30**	**265**	P	**P**	**21 03 51.0**	**+0.5**
CTAO	**Charters Tower**	**21.30**	**265**	P	**P**	**21 03 51.6**	**+1.1**
	comp=Z,18nm,1.1s						
BFZ	**Birch Farm**	**21.97**	**165**	P	**P**	**21 03 58.0**	**+0.6**
	comp=Z,27nm,1.3s						
SNZO	**South Karori**	**22.24**	**168**	P	**P**	**21 03 58.5**	**-1.7**
	comp=Z,51nm,1.3s						
MTSU	**Mount Surprise**	**23.30**	**269**	P	**P**	**21 04 13.0**	**+1.5**
	comp=Z,6.1nm,1.0s						
PMG	**Port Moresby**	**23.31**	**293**	LR	LR	21 11 55.9	
	comp=Z,85nm,19.7s,baz=62,slow=33						
CAN	**Canberra**	**23.56**	**224**	P	**P**	**21 04 12.1**	**-1.9**
CAN				IAmb	IAmb	21 04 30.2	
	comp=Z,31nm,1.5s						
CAN	**Canberra**	**23.56**	**224**	P	**P**	**21 04 14.1**	**+0.2**
	comp=Z,9.7nm,1.4s						
QLP	**Quilpie**	**23.71**	**248**	P	**P**	**21 04 16.8**	**+1.3**
	comp=Z,19nm,1.3s						
CMSA	**Cobar Meteorol**	**24.04**	**236**	P	**P**	**21 04 19.2**	**+0.8**
	comp=Z,6.3nm,0.7s						
RPZ	**Rata Peaks**	**24.15**	**176**	LR	LR	21 12 59.8	
	comp=Z,32nm,19.4s,baz=355,slow=34						
MILA	**Mila**	**24.53**	**221**	P	**P**	**21 04 24.2**	**+1.3**
	comp=Z,6.4nm,1.8s						
COEN	**Coen**	**25.23**	**279**	P	**P**	**21 04 28.3**	**-1.2**
COEN				IAmb	IAmb	21 04 44.9	
	comp=Z,52nm,1.1s						
ODZ	**Otahua Downs**	**25.45**	**177**	P	**P**	**21 04 32.1**	**+1.0**
STKA	**Stephens Creek**	**27.40**	**238**	P	**P**	**21 04 50.4**	**+1.5**
	comp=Z,3.0nm,0.6s,baz=90,slow=11,SNR=7.4						
	comp=Z,3.0nm,0.6s						
STKA	**Stephens Creek**	**27.40**	**238**	P	**P**	**21 04 47.8**	**-1.1**
STKA				IAmb	IAmb	21 05 17.3	
	comp=Z,18nm,0.8s						
STKA	**Stephens Creek**	**27.40**	**238**	P	**P**	**21 04 47.7**	**-1.1**
	comp=Z,30nm,1.9s						
RAR	**Rarotonga**	**29.39**	**99**	LR	LR	21 14 27.6	
	comp=Z,41nm,21.6s,baz=289,slow=32						
BBOO	**Buckleboo**	**32.14**	**239**	P	**P**	**21 05 30.1**	**-0.8**
BBOO				IAmb	IAmb	21 06 33.1	
	comp=Z,26nm,1.4s						
WB0	**Warramunga Arr**	**32.46**	**264**	P	**P**	**21 05 32.5**	**-1.4**
WRAB	**Tennant Creek**	**32.48**	**263**	P	**P**	**21 05 31.7**	**-2.4**
	comp=Z,4.4nm,2.6s						
WRA	**Warramunga Arr**	**32.49**	**263**	P	**P**	**21 05 33.7**	**-0.4**
	comp=Z,0.5nm,0.7s,baz=103,slow=7.8,SNR=13						
WRA				PcP	**PcP**	**21 08 21.0**	**+0.3**
	comp=Z,0.6nm,0.6s,baz=94,slow=3.0,SNR=6.5						
	comp=Z,0.5nm,0.7s						
WRA	**Warramunga Arr**	**32.49**	**263**	P	**P**	**21 05 33.1**	**-1.0**
AS31	**Alice Springs**	**32.73**	**256**		**P**	**21 05 36.1**	**-0.2**
ASAR	**Alice Springs**	**32.73**	**256**	P	**P**	**21 05 36.5**	**+0.3**
	comp=Z,4.4nm,0.6s,baz=86,slow=8.8,SNR=83						
ASAR				PcP	**PcP**	**21 08 21.5**	**+0.2**
	comp=Z,0.9nm,0.9s,baz=80,slow=3.2,SNR=4.0						
	comp=Z,4.4nm,0.6s						
ASAR	**Alice Springs**	**32.73**	**256**	P	**P**	**21 05 36.3**	**+0.1**
SMPI	**Sarmi**	**34.30**	**297**	P	**P**	**21 05 49.0**	**-0.9**
	comp=Z,14nm,1.6s						
KNRA	**Kununurra**	**38.38**	**269**	P	**P**	**21 06 23.4**	**-1.4**
KNRA				IAmb	IAmb	21 07 43.0	
	comp=Z,35nm,1.6s						
FORT	**Forrest**	**38.42**	**245**	P	**P**	**21 06 24.6**	**-0.3**
FORT				IAmb	IAmb	21 07 02.5	
	comp=Z,15nm,1.2s						
PPT2	**Papeete2**	**39.35**	**94**	*e*LQ	LQ	21 15 44.2	
	comp=Z,331nm,28.5s						
PPT2				*e*LR	LR	21 17 15.9	
	comp=Z,97nm,25.5s						
FAKI	**Fak Fak**	**39.42**	**290**	P	**P**	**21 06 32.1**	**-1.4**
FAKI				IAmb	IAmb	21 07 01.3	
	comp=Z,12nm,0.9s						
FITZ	**Fitzroy Crossi**	**40.89**	**265**	P	**P**	**21 06 44.4**	**-1.2**
FITZ	**Fitzroy Crossi**	**40.89**	**265**	P	**P**	**21 06 44.1**	**-1.4**
	comp=Z,1.9nm,1.2s						
BATI	**Baumata**	**44.58**	**275**	P	**P**	**21 07 15.4**	**-0.2**
	comp=Z,14nm,2.4s						
SANI	**Sanana**	**45.40**	**287**	P	**P**	**21 07 22.6**	**+0.4**
	comp=Z,10nm,1.4s						
SANI				pP	**pP**	**21 07 33.9**	**+1.8**
MMRI	**Maumere**	**46.40**	**277**	P	**P**	**21 07 27.5**	**-2.5**
	comp=Z,16nm,1.1s						
DBNI	**Kabupaten Domp**	**50.12**	**275**	P	**P**	**21 07 59.0**	**+0.2**
	comp=Z,8.8nm,0.7s						
PLAI	**Plampang**	**50.52**	**275**	P	**P**	**21 07 59.0**	**-2.8**
	comp=Z,21nm,1.5s						
TOLI2	**Tolitoli**	**51.46**	**288**	P	**P**	**21 08 07.3**	**-1.5**
TOLI2				IAmb	IAmb	21 08 21.1	
	comp=Z,6.2nm,0.7s						
TOLI2	**Tolitoli**	**51.46**	**288**	P	**P**	**21 08 08.2**	**-0.6**
	comp=Z,8.3nm,0.8s						
JAGI	**Jajag, Banyuwa**	**54.04**	**274**	P	**P**	**21 08 28.0**	**+0.1**
	comp=Z,16nm,1.3s						
VNDA	**Vanda**	**58.10**	**182**	P	**P**	**21 08 57.5**	**+1.5**
	comp=Z,0.6nm,0.6s,baz=356,slow=7.5,SNR=6.9						
	comp=Z,0.6nm,0.6s						
VNDA	**Vanda**	**58.10**	**182**	P	**P**	**21 08 56.0**	**0.0**
VNDA	**Vanda**	**58.10**	**182**	P	**P**	**21 08 57.2**	**+1.2**
VNDA				pP	**pwP**	**21 09 09.2**	**+0.4**
SBA	**Scott Base**	**58.34**	**181**	P	**P**	**21 08 58.7**	**+1.1**
SBA				IAmb	IAmb	21 09 01.1	
	comp=Z,6.7nm,0.9s						
SBA	**Scott Base**	**58.34**	**181**	P	**P**	**21 08 60.0**	**+2.3**
SBA				pP	**sP**	**21 09 12.2**	**+1.2**
CCD	**Concordia, Ant**	**60.52**	**192**	P	**P**	**21 09 13.9**	**+0.7**
CCD				pP	**pwP**	**21 09 25.9**	**-0.2**
MJAR	**Matsushiro Arr**	**62.88**	**333**	P	**P**	**21 09 28.5**	**-0.6**
	comp=Z,1.7nm,0.9s,baz=172,slow=7.3,SNR=5.5						
	comp=Z,1.7nm,0.9s						
MJAR	**Matsushiro Arr**	**62.88**	**333**	P	**P**	**21 09 28.8**	**-0.4**
MJAR				IAmb	IAmb	21 11 42.3	
	comp=Z,12nm,1.8s						
MAJO	**Matsushiro**	**62.89**	**333**	P	**P**	**21 09 28.8**	**-0.3**
MAJO				IAmb	IAmb	21 10 41.2	
	comp=Z,24nm,1.5s						
TPUB	**Ta-pu**	**63.50**	**310**	P	**P**	**21 09 32.9**	**-0.6**
SSLB	**Suanglung**	**63.56**	**311**	P	**P**	**21 09 32.7**	**-1.3**
JKA	**Kamikawa-asahi**	**67.79**	**340**	P	**P**	**21 10 00.2**	**-0.5**
NJ2	**Nanjing**	**70.21**	**316**	*e*P	**P**	**21 10 17.6**	**+1.5**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
QSPA	**South Pole Qui**	**70.49**	**180**	P	**P**	**21 10 18.7**	**+1.2**
	comp=Z,3.5nm,0.8s,baz=25,slow=3.9,SNR=19						
QSPA				LR	LR	21 39 40.7	
	comp=Z,43nm,18.1s,baz=48,slow=34						
	comp=Z,3.5nm,0.8s						
QSPA	**South Pole Qui**	**70.49**	**180**	P	**P**	**21 10 17.6**	**+0.1**
QSPA				IAmb	IAmb	21 10 19.1	
	comp=Z,7.2nm,1.0s						
QSPA	**South Pole Qui**	**70.49**	**180**	P	**P**	**21 10 18.6**	**+1.1**
QSPA				pP	**sP**	**21 10 30.6**	**-0.4**
IPM	**Ipoh**	**70.83**	**282**	P	**P**	**21 10 19.1**	**-1.1**
IPM				IAmb	IAmb	21 11 08.8	
	comp=Z,17nm,1.2s						
RPSI	**Rantau Prapat**	**72.12**	**280**	P	**P**	**21 10 27.2**	**-0.8**
RPSI				IAmb	IAmb	21 10 46.0	
	comp=Z,9.9nm,1.3s						
PETK	**Petropavlovsk-**	**73.01**	**353**	P	**P**	**21 10 32.3**	**-0.2**
	comp=Z,6.7nm,1.0s,baz=137,slow=6.6,SNR=4.1						
	comp=Z,6.7nm,1.0s						
PETK	**Petropavlovsk-**	**73.01**	**353**	P	**P**	**21 10 32.7**	**+0.2**
DL2	**Dalian**	**73.08**	**323**	P	**P**	**21 10 34.5**	**+1.4**
DL2				S	**S**	**21 19 57.8**	**-0.3**
DL2				pmax	pmax		
	comp=Z,30nm,1.5s						
DL2				pmax	pmax		
	comp=Z,240nm,5.1s						
DL2				L	L		
	comp=Z,510nm,22.7s						
DL2				L	L		
	comp=Z,310nm,24.6s						
DL2				L	L		
	comp=Z,660nm,23.0s						
CN2	**Changchun**	**74.56**	**329**	*e*P	**P**	**21 10 42.5**	**+0.7**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.3s						
BNX	**BinXian**	**75.10**	**331**	⇓P	**P**	**21 10 44.8**	**0.0**
BNX				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**78.34**	**294**	P	**P**	**21 11 04.2**	**+0.5**
	comp=Z,0.6nm,0.6s,baz=148,slow=3.9,SNR=5.2						
	comp=Z,0.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**78.34**	**294**	P	**P**	**21 11 03.4**	**-0.3**
HHC	**Hu-ho-hao-te**	**80.25**	**320**	*e*P	**P**	**21 11 15.8**	**+2.0**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BELA	**Belgrano 2**	**81.81**	**175**	P	**P**	**21 11 20.9**	**-0.6**
BELA				IAmb	IAmb	21 13 08.1	
	comp=Z,10nm,0.8s						
LZH	**Lanzhou**	**82.70**	**312**	*e*P	P	21 11 33.1	+6.1
LZH				pP	sP	21 11 45.0	+3.5
LZH				pmax	pmax		
	comp=Z,14nm,1.1s						
N15K	**Kwethluk River**	**83.35**	**15**	P	**P**	**21 11 28.4**	**-1.1**
M16K	**Timber Creek**	**84.37**	**15**	P	**P**	**21 11 34.8**	**+0.1**
M17K	**Holitna River**	**85.08**	**16**	P	**P**	**21 11 38.5**	**+0.3**
ELIB	**Princess Elisa**	**85.77**	**190**	*d*P	**P**	**21 11 42.2**	**+0.2**
L18K	**Granite Mounta**	**85.96**	**15**	P	**P**	**21 11 43.0**	**+0.3**
L19K	**White Mountain**	**86.40**	**16**	P	**P**	**21 11 44.0**	**-0.8**
O02D	**Mt. Diablo Mer**	**86.96**	**45**	P	**P**	**21 11 47.6**	**-0.7**
GTA2	**Gaotai**	**87.18**	**314**	*e*P	**P**	**21 11 50.0**	**+0.6**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SONM	**Songino Array**	**87.28**	**323**	P	**P**	**21 11 49.9**	**+0.2**
	comp=Z,1.5nm,0.8s,baz=151,slow=6.3,SNR=10						
	comp=Z,1.5nm,0.8s						
SONM	**Songino Array**	**87.28**	**323**	P	**P**	**21 11 49.3**	**-0.4**
YBH	**Yreka Blue Hor**	**87.76**	**44**	LR	LR	21 42 45.0	
	comp=Z,38nm,19.9s,baz=322,slow=30						
TROLL	**Troll, Antarti**	**88.19**	**184**	⇑P	**P**	**21 11 54.1**	**+0.4**
	comp=Z,534nm,0.7s						
TROLL				⇓pP	**pP**	**21 12 06.7**	**+2.1**
	comp=Z,325nm,0.7s						
J20K	**Nowinta River**	**88.23**	**15**	P	**P**	**21 11 53.4**	**-0.2**
J20K				IAmb	IAmb	21 13 43.5	
	comp=Z,31nm,2.0s						
PFO	**Pinyon Flats O**	**88.57**	**54**	LR	LR	21 45 13.6	
	comp=Z,30nm,18.3s,baz=356,slow=31						
NVAR	**Mina Array Bea**	**89.26**	**49**	P	**P**	**21 12 00.2**	**+0.8**
	comp=Z,0.5nm,0.5s,baz=232,slow=7.3,SNR=4.3						
	comp=Z,0.5nm,0.5s						
VNA3	**Neumayer Olymp**	**89.43**	**180**	⇑P	**P**	**21 11 59.4**	**0.0**
	comp=Z,18nm,0.7s						
VNA3				⇑pP	**pP**	**21 12 11.7**	**+1.5**
	comp=Z,14nm,0.7s						
VNA2	**Neumayer--Watz**	**89.72**	**181**	⇑P	**P**	**21 12 01.0**	**+0.3**
	comp=Z,12nm,0.6s,baz=169,slow=4.5						
VNA2				⇓pP	**pP**	**21 12 13.1**	**+1.5**
	comp=Z,8.2nm,0.6s,baz=171,slow=4.0						
IMAR	**Indian Mountai**	**89.82**	**14**	P	**P**	**21 12 00.4**	**-0.7**
LPIG	**La Paz**	**89.85**	**64**	LR	LR	21 45 14.5	
	comp=Z,30nm,18.3s,baz=303,slow=31						
TPNV	**Topopah Spring**	**90.11**	**51**	P	**P**	**21 12 02.6**	**-0.7**
TPNV				IAmb	IAmb	21 12 04.6	
	comp=Z,3.9nm,1.0s						
ILAR	**Eielson Array**	**90.63**	**17**	P	**P**	**21 12 03.4**	**-1.5**
	comp=Z,0.6nm,0.6s,baz=236,slow=4.8,SNR=8.7						
	comp=Z,0.6nm,0.6s						
ILAR	**Eielson Array**	**90.63**	**17**	P	**P**	**21 12 02.9**	**-2.0**
PRN	**Pahroc Range**	**91.17**	**51

ROM **14** *21:03:46.8±0.3, 43°.26N±0°.01×15°.56E±0°.02, h24km±2km, ML2.8/80, Error ellipse: s-maj=1.8km s-min=0.7km az=51.0*
PRU **14** *21:03:48.1, 43°.08N×15°.68E, h10km*
ISC 14 21:03:47.5±0.7, 43°.14N±0°.02×15°.35E±0°.02, h10km, n114, σ1§36/151, 1D, Adriatic Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
MORI	**Morici**	**0.78**	**20**	*i* Pg	**Pg**	**21 04 01.2**	**-1.3**
MORI				Sg	**Sb**	**21 04 13.1**	**-0.6**
HVAR	**Hvar**	**0.81**	**87**	*e*Pg	**Pg**	**21 04 02.4**	**-0.7**
HVAR				Sg	**Sb**	**21 04 15.2**	**+0.5**
DUGI	**Dugi Otok**	**0.88**	**346**	*e*Pg	**Pg**	**21 04 02.4**	**-2.1**
DUGI				Sg	**Sg**	**21 04 15.2**	**-0.7**
TREM	**Isole Tremiti**	**1.02**	**173**	P	**Pn**	**21 04 08.3**	**+0.5**
TREM				S	**Sn**	**21 04 23.3**	**+1.1**
TREM				AML	AML		
	comp=E,538μm,0.5s						
TREM				AML	AML		
	comp=N,657μm,0.6s						
TREM				AML	AML		
	comp=N,648μm,0.5s						
TREM				AML	AML		
	comp=N,656μm,0.6s						
TREM				AML	AML		
	comp=E,532μm,0.8s						
TREM				AML	AML		
	comp=E,532μm,0.8s						
TREM				AML	AML		
	comp=N,648μm,0.5s						
TREM				AML	AML		
	comp=E,538μm,0.5s						
TREM				AML	AML		
	comp=N,657μm,0.6s						
TREM				AML	AML		
	comp=E,538μm,0.5s						
TRTR	**Tortoreto Alta**	**1.10**	**253**	P	**Pn**	**21 04 09.8**	**+0.8**
TRTR				S	**Sn**	**21 04 28.4**	**+4.1**
KIJV	**Kijevo**	**1.16**	**41**	*i* Pg	**Pb**	**21 04 09.1**	**-0.6**
KIJV				Sg	**Sn**	**21 04 26.7**	**+0.9**
LSTV	**Lastovo**	**1.19**	**107**	*i* Pg	**Pg**	**21 04 10.8**	**+0.3**
LSTV				Sg	**Sn**	**21 04 27.9**	**+1.3**
OFFI	**Offida**	**1.23**	**261**	P	**Pg**	**21 04 11.9**	**+0.7**
OFFI				S	**Sn**	**21 04 30.2**	**+2.7**
OFFI				AML	AML		
	comp=N,674μm,0.7s						
OFFI				AML	AML		
	comp=E,592μm,0.5s						
OFFI				AML	AML		
	comp=N,674μm,0.7s						
OFFI				AML	AML		
	comp=E,592μm,0.5s						
MNTT	**Montottone**	**1.28**	**267**	P	**Pg**	**21 04 12.8**	**+0.6**
MNTT				AML	AML		
	comp=N,532μm,0.6s						
MNTT				AML	AML		
	comp=E,690μm,1.4s						
MNTT				AML	AML		
	comp=E,647μm,0.5s						
MNTT				AML	AML		
	comp=N,532μm,0.6s						
MNTT				AML	AML		
	comp=E,690μm,0.6s						
MNTT				AML	AML		
	comp=N,532μm,0.6s						
PP3	**Marolino**	**1.29**	**281**	P	**Pg**	**21 04 12.1**	**-0.3**
AOI	**Ancona**	**1.34**	**289**	P	**Pg**	**21 04 12.4**	**-0.8**
AOI				S	**Sg**	**21 04 31.1**	**+0.5**
RICI	**Ricice**	**1.35**	**74**	*e*Pn	**Pg**	**21 04 13.5**	**0.0**
RICI				Sg	**Sg**	**21 04 33.2**	**+2.1**
APRC	**Apricena**	**1.39**	**174**	P	**Pb**	**21 04 12.8**	**-0.7**
APRC				S	**Sg**	**21 04 32.5**	**+0.4**
APRC				AML	AML		
	comp=E,300μm,0.2s						
APRC				AML	AML		
	comp=N,328μm,1.4s						
APRC				AML	AML		
	comp=E,300μm,0.2s						
APRC				AML	AML		
	comp=E,300μm,0.2s						
APRC				AML	AML		
	comp=N,324μm,0.2s						
APRC				AML	AML		
	comp=E,272μm,0.2s						
APRC				AML	AML		
	comp=N,865μm,0.7s						
APRC				AML	AML		
	comp=N,328μm,0.6s						
LPEL	**Lama dei Pelig**	**1.39**	**219**	P	**Pg**	**21 04 13.7**	**-0.4**
LPEL				AML	AML		
	comp=E,330μm,1.2s						
LPEL				AML	AML		
	comp=N,204μm,1.2s						
LPEL				AML	AML		
	comp=E,292μm,0.3s						
LPEL				AML	AML		
	comp=E,298μm,0.3s						
LPEL				AML	AML		
	comp=N,196μm,0.6s						
LPEL				AML	AML		
	comp=E,292μm,0.3s						
LPEL				AML	AML		
	comp=N,210μm,0.2s						
LPEL				AML	AML		
	comp=N,210μm,0.2s						
LPEL				AML	AML		
	comp=E,330μm,0.8s						
MF5	**Montefalcone A**	**1.39**	**265**	P	**Pg**	**21 04 13.6**	**-0.6**
MF5				AML	AML		
	comp=E,212μm,0.5s						
MF5				AML	AML		
	comp=N,268μm,0.5s						
MF5				AML	AML		
	comp=E,211μm,0.5s						
MF5				AML	AML		
	comp=E,211μm,0.5s						
MF5				AML	AML		
	comp=N,268μm,0.5s						
OT13	**Castello Viest**	**1.40**	**154**	P	**Pb**	**21 04 12.9**	**-0.8**
SGRT	**San Giovanni R**	**1.41**	**168**	P	**Pn**	**21 04 13.1**	**-0.3**
SGRT				S	**Sg**	**21 04 32.7**	**-0.3**
SGRT				AML	AML		
	comp=E,217μm,0.4s						
SGRT				AML	AML		
	comp=E,217μm,0.4s						
SGRT				AML	AML		
	comp=N,218μm,0.3s						
SGRT				AML	AML		
	comp=N,218μm,0.3s						
UDBI	**Udbina**	**1.42**	**12**	*e*Pn	**Pg**	**21 04 14.2**	**-0.6**
UDBI				Sg	**Sg**	**21 04 33.8**	**+0.4**
MELA	**Melanico ??? S**	**1.44**	**186**	P	**Pb**	**21 04 13.6**	**-0.8**
MELA				S	**Sg**	**21 04 34.6**	**+0.8**
MELA				AML	AML		
	comp=E,418μm,1.5s						
MELA				AML	AML		
	comp=N,446μm,0.5s						
MELA				AML	AML		
	comp=N,396μm,1.6s						
MELA				AML	AML		
	comp=E,385μm,0.3s						
MELA				AML	AML		
	comp=N,393μm,0.7s						
MELA				AML	AML		
	comp=E,380μm,0.3s						
MELA				AML	AML		
	comp=N,345μm,0.3s						
MELA				AML	AML		
	comp=E,380μm,0.3s						
MELA				AML	AML		
	comp=E,418μm,0.5s						
MELA				AML	AML		
	comp=N,396μm,0.4s						
OT03	**San Marco in L**	**1.44**	**171**	P	**Pb**	**21 04 13.6**	**-0.9**
OT06	**Rignano Gargan**	**1.46**	**173**	P	**Pb**	**21 04 14.2**	**-0.6**
T0110	**Collepietro**	**1.47**	**232**	P	**Pg**	**21 04 15.1**	**-0.7**
GUMA	**Gualdo di Mace**	**1.47**	**268**	P	**Pb**	**21 04 14.6**	**-0.5**
MSAG	**Monte S. Angel**	**1.48**	**163**	P	**Pn**	**21 04 14.0**	**-0.4**
OT05	**Madonna di Cri**	**1.49**	**173**	P	**Pn**	**21 04 13.7**	**-0.7**
OT05				S	**Sg**	**21 04 35.4**	**0.0**
OT05				AML	AML		
	comp=E,268μm,0.3s						
OT05				AML	AML		
	comp=N,189μm,0.7s						
OT05				AML	AML		
	comp=E,267μm,0.3s						
OT05				AML	AML		
	comp=N,172μm,0.3s						
TRIV	**Trivento**	**1.49**	**203**	P	**Pb**	**21 04 14.8**	**-0.5**
MMO1	**Montemonaco**	**1.50**	**262**	P	**Pb**	**21 04 15.0**	**-0.5**
CIGN	**Sant'Elia a Pi**	**1.52**	**193**	P	**Pb**	**21 04 15.1**	**-0.7**
OT07	**Costarelle (FG**	**1.54**	**169**	P	**Pn**	**21 04 14.6**	**-0.4**
INTR	**Introdacqua**	**1.55**	**224**	P	**Pb**	**21 04 15.2**	**-1.1**
INTR				AML	AML		
	comp=E,364μm,1.0s						
INTR				AML	AML		
	comp=N,293μm,0.7s						
INTR				AML	AML		
	comp=N,259μm,0.7s						
INTR				AML	AML		
	comp=E,199μm,0.7s						
INTR				AML	AML		
	comp=N,293μm,0.7s						
INTR				AML	AML		
	comp=E,365μm,1.0s						
INTR				AML	AML		
	comp=N,259μm,0.7s						
INTR				AML	AML		
	comp=N,293μm,1.3s						
INTR				AML	AML		
	comp=N,259μm,1.3s						
INTR				AML	AML		
	comp=E,198μm,0.7s						
INTR				AML	AML		
	comp=E,365μm,1.0s						
SMA1	**SAN MARTINO**	**1.56**	**252**	P	**Pb**	**21 04 16.1**	**-0.5**
SMA1				AML	AML		
	comp=E,111μm,1.0s						
SMA1				AML	AML		
	comp=N,126μm,0.5s						
SMA1				AML	AML		
	comp=E,109μm,0.5s						
SMA1				AML	AML		
	comp=N,125μm,0.5s						
SMA1				AML	AML		
	comp=E,111μm,1.0s						
FAGN	**Fagnano**	**1.56**	**237**	P	**Pb**	**21 04 15.9**	**-0.7**
FAGN				AML	AML		
	comp=N,284μm,0.5s						
FAGN				AML	AML		
	comp=E,352μm,0.5s						
FAGN				AML	AML		
	comp=E,353μm,0.5s						
FAGN				AML	AML		
	comp=N,283μm,0.5s						
CSP1	**Cessapalombo**	**1.57**	**269**	P	**Pb**	**21 04 15.6**	**-1.1**
CSP1				AML	AML		
	comp=E,279μm,0.5s						
CSP1				AML	AML		
	comp=N,296μm,0.5s						
CSP1				AML	AML		
	comp=E,280μm,0.5s						
CSP1				AML	AML		
	comp=N,296μm,0.5s						
CSP1				AML	AML		
	comp=E,279μm,0.5s						
CSP1				AML	AML		
	comp=N,296μm,0.5s						
CSP1				AML	AML		
	comp=E,280μm,1.5s						
CING	**Cingoli**	**1.59**	**279**	P	**Pb**	**21 04 15.8**	**-1.2**
AQU	**L'Aquila**	**1.63**	**242**	*e*Pn	**Pb**	**21 04 16.7**	**-1.0**
EL6	**Elcito**	**1.65**	**277**	⇓P	**Pb**	**21 04 16.9**	**-1.2**
EL6				AML	AML		
	comp=E,170μm,1.3s						
EL6				AML	AML		
	comp=E,170μm,1.0s						
EL6				AML	AML		
	comp=N,300μm,1.1s						
EL6				AML	AML		
	comp=E,152μm,0.4s						
EL6				AML	AML		
	comp=N,299μm,1.1s						
EL6				AML	AML		
	comp=N,300μm,0.9s						
GATE	**Gambatesa**	**1.66**	**191**	P	**Pg**	**21 04 18.4**	**-0.8**
RABC	**Rab**	**1.66**	**346**	*e*Pn	**Pb**	**21 04 17.6**	**-0.6**
RABC				Sn	**Sg**	**21 04 40.1**	**-0.9**
NRCA	**Norcia**	**1.66**	**260**	P	**Pn**	**21 04 16.7**	**-0.2**
NRCA				AML	AML		
	comp=N,84μm,0.7s						
NRCA				AML	AML		
	comp=E,79μm,0.7s						
NRCA				AML	AML		
	comp=E,76μm,0.6s						
NRCA				AML	AML		
	comp=N,68μm,0.2s						
NRCA				AML	AML		
	comp=E,139μm,0.6s						
NRCA				AML	AML		
	comp=N,189μm,0.9s						
NRCA				AML	AML		
	comp=N,84μm,0.7s						
NRCA				AML	AML		
	comp=E,79μm,1.3s						
RNI2	**Rionero Sannit**	**1.68**	**212**	P	**Pb**	**21 04 18.0**	**-0.7**
BSSO	**Busso**	**1.69**	**200**	P	**Pb**	**21 04 17.4**	**-1.2**
MIDA	**Miranda**	**1.70**	**209**	P	**Pb**	**21 04 17.6**	**-1.3**
STON	**Ston**	**1.75**	**98**	*e*Pn	**Pb**	**21 04 19.0**	**-0.6**
STON				Sn	**Sg**	**21 04 42.9**	**-0.9**
PLIT	**Plitvice**	**1.75**	**6**	*e*Pn	**Pb**	**21 04 19.3**	**-0.5**
PLIT				Sn	**Sg**	**21 04 43.3**	**-0.6**
ARVD	**Arcevia**	**1.79**	**282**	P	**Pn**	**21 04 18.6**	**0.0**
ARVD				AML	AML		
	comp=E,42μm,0.5s						
ARVD				AML	AML		
	comp=N,51μm,1.6s						
ARVD				AML	AML		
	comp=E,42μm,0.5s						
ARVD				AML	AML		
	comp=N,47μm,0.7s						
ARVD				AML	AML		
	comp=N,51μm,0.4s						
FOSV	**Fossato di Vic**	**1.90**	**276**	P	**Pn**	**21 04 20.0**	**0.0**
FOSV				AML	AML		
	comp=E,72μm,0.5s						
FOSV				AML	AML		
	comp=N,84μm,0.6s						
FOSV				AML	AML		
	comp=E,72μm,0.5s						
FOSV				AML	AML		
	comp=N,84μm,0.6s						
FOSV				AML	AML		
	comp=N,84μm,1.4s						
FOSV				AML	AML		
	comp=E,72μm,1.5s						
ASSB	**Assisi San Ben**	**1.97**	**268**	P	**Pn**	**21 04 21.4**	**+0.4**
ASSB				AML	AML		
	comp=E,77μm,0.4s						
ASSB				AML	AML		
	comp=N,69μm,0.5s						
ASSB				AML	AML		
	comp=E,77μm,0.4s						
ASSB				AML	AML		
	comp=N,69μm,0.5s						
ASSB				AML	AML		
	comp=N,69μm,1.5s						
ARRO	**Arrone**	**1.98**	**254**	P	**Pb**	**21 04 22.9**	**-0.6**
ARRO				AML	AML		
	comp=E,39μm,0.4s						
ARRO				AML	AML		
	comp=N,43μm,0.3s						
ARRO				AML	AML		
	comp=E,39μm,1.1s						
ARRO				AML	AML		
	comp=N,43μm,0.3s						
LRP	**Arpino**	**1.98**	**222**	P	**Pb**	**21 04 22.6**	**-1.0**
LRP				AML	AML		
	comp=E,67μm,1.6s						
LRP				AML	AML		
	comp=N,23μm,1.0s						
LRP				AML	AML		
	comp=E,66μm,0.5s						
LRP				AML	AML		
	comp=N,22μm,0.8s						
LRP				AML	AML		
	comp=E,67μm,0.4s						
ATCC	**AVT- Casa Cast**	**1.98**	**272**	P	**Pn**	**21 04 21.7**	**+0.6**
ATCC				AML	AML		
	comp=E,134μm,1.2s						
ATCC				AML	AML		
	comp=E,133μm,1.2s						
ATCC				AML	AML		
	comp=N,115μm,1.2s						
ATCC				AML	AML		
	comp=N,114μm,1.2s						
ATCC				AML	AML		
	comp=E,134μm,0.8s						
CAPA	**Cerignola FG**	**2.01**	**170**	P	**Pn**	**21 04 21.0**	**-0.5**
CAPA				AML	AML		
	comp=E,74μm,1.0s						
CAPA				AML	AML		
	comp=N,85μm,0.8s						
CAPA				AML	AML		
	comp=E,137μm,1.1s						
CAPA				AML	AML		
	comp=E,137μm,0.9s						
CAPA				AML	AML		
	comp=E,114μm,0.8s						
CAPA				AML	AML		
	comp=N,176μm,1.2s						
CAPA				AML	AML		
	comp=E,64μm,1.3s						
CAPA				AML	AML		
	comp=N,85μm,0.8s						
CAPA				AML	AML		
	comp=N,85μm,1.2s						
CAPA				AML	AML		
	comp=N,176μm,1.2s						
VITU	**Vitulano (BN)**	**2.02**	**195**	P	**Pn**	**21 04 22.4**	**+0.7**
VITU				AML	AML		
	comp=E,165μm,0.4s						
VITU				AML	AML		
	comp=N,169μm,0.5s						
VITU				AML	AML		
	comp=E,165μm,0.4s						
VITU				AML	AML		
	comp=N,169μm,0.5s						
VITU				AML	AML		
	comp=E,183μm,0.7s						
VITU				AML	AML		
	comp=N,220μm,0.6s						
VITU				AML	AML		
	comp=E,165μm,1.6s						
BLY	**Banja Luka**	**2.09**	**39**	*e*Pn	**Pb**	**21 04 25.6**	**+0.1**
DBRK	**Dubrovnik**	**2.11**	**102**	*e*Pn	**Pb**	**21 04 24.7**	**-1.2**
DBRK				Sn	**Sg**	**21 04 53.6**	**-1.7**
ATVO	**AVT- Monte Val**	**2.16**	**278**	P	**Pn**	**21 04 24.0**	**+0.4**
ATVO				AML	AML		
	comp=E,47μm,1.0s						
ATVO				AML	AML		
	comp=N,72μm,0.8s						
ATVO				AML	AML		
	comp=E,45μm,0.5s						
ATVO				AML	AML		
	comp=N,72μm,0.8s						
ATVO				AML	AML		
	comp=N,72μm,1.2s						
ATVO				AML	AML		
	comp=E,47μm,1.0s						
TREB	**Trebinje**	**2.25**	**100**	*e*Pn	**Pb**	**21 04 26.3**	**-1.9**
ATMI	**Monte Miggiano**	**2.26**	**276**	P	**Pb**	**21 04 26.8**	**-1.6**
ATMI				AML	AML		
	comp=E,100μm,0.4s						
ATMI				AML	AML		
	comp=E,101μm,0.4s						
ATMI				AML	AML		
	comp=N,103μm,0.7s						
ATMI				AML	AML		
	comp=N,103μm,0.7s						
ATMI				AML	AML		
	comp=E,100μm,1.6s						
RIY	**Rijeka**	**2.27**	**344**	*e*Pn	**Pn**	**21 04 26.2**	**+1.1**
RIY				Sn	**Sn**	**21 04 54.6**	**+1.4**
BRY	**Bratogost**	**2.35**	**95**	*e*Pn	**Pb**	**21 04 28.3**	**-1.8**
BOJS	**Bojanci**	**2.37**	**358**	*i* Pn	**Pb**	**21 04 28.6**	**-1.7**
BOJS	**Bojanci**	**2.37**	**358**	P	**Pb**	**21 04 28.6**	**-1.7**
BOJS				AML	AML		
	comp=E,220μm,1.1s						
BOJS				AML	AML		
	comp=N,192μm,1.2s						
BOJS				AML	AML		
	comp=E,171μm,0.4s						
BOJS				AML	AML		
	comp=N,165μm,0.8s						
KLINJ	**Klinje**	**2.37**	**88**	*e*Pn	**Pn**	**21 04 25.8**	**-0.8**
AMUR	**Altamura**	**2.42**	**157**	P	**Pn**	**21 04 26.8**	**-0.3**
AMUR				AML	AML		
	comp=N,47μm,1.6s						
AMUR				AML	AML		
	comp=E,48μm,0.6s						
AMUR				AML	AML		
	comp=N,47μm,0.3s						
AMUR				AML	AML		
	comp=E,48μm,0.6s						
HCY	**Herceg Novi**	**2.42**	**105**	*e*Pn	**Pn**	**21 04 28.6**	**+1.5**
OZLJ	**Ozalj**	**2.48**	**2**	*e*Pn	**Pn**	**21 04 29.6**	**+1.6**
OZLJ				Sn	**Sn**	**21 04 59.6**	**+1.4**
KNDS	**Knezji Dol**	**2.49**	**344**	*i* Pn	**Pn**	**21 04 29.5**	**+1.3**
CRE	**Caprese Michel**	**2.52**	**282**	P	**Pn**	**21 04 29.8**	**+1.2**
CRE				AML	AML		
	comp=N,32μm,0.7s						
CRE				AML	AML		
	comp=E,31μm,0.4s						
CRE				AML	AML		
	comp=N,31μm,0.5s						
CRE				AML	AML		
	comp=N,32μm,1.3s						
CRE				AML	AML		
	comp=E,31μm,0.4s						
UPM	**Unac-Piva**	**2.61**	**87**	*e*Pn	**Pb**	**21 04 32.6**	**-1.8**
MOSL	**Moslavina**	**2.67**	**22**	*e*Pn	**Pn**	**21 04 31.7**	**+1.0**
MOSL				Sn	**Sn**	**21 05 05.3**	**+2.2**
NOCI	**Noci**	**2.67**	**151**	P	**Pn**	**21 04 30.3**	**-0.4**
NOCI				AML	AML		
	comp=N,66μm,1.3s						
NOCI				AML	AML		
	comp=E,47μm,0.3s						
NOCI				AML	AML		
	comp=N,64μm,0.5s						
NOCI				AML	AML		
	comp=E,47μm,0.3s						
NOCI				AML	AML		
	comp=N,66μm,0.7s						
PTJ	**Puntijarka**	**2.81**	**9**	*i* Pn	**Pn**	**21 04 33.0**	**+0.5**
PTJ				Sn	**Sn**	**21 05 08.6**	**+2.1**
TRI	**Trieste**	**2.81**	**337**	AML	AML		
	comp=E,53μm,0.7s						
TRI				AML	AML		
	comp=N,41μm,0.6s						
TRI				AML	AML		
	comp=E,53μm,1.3s						
GBAS	**Gorenja Brezov**	**2.87**	**347**	*i* Pn	**Pn**	**21 04 35.0**	**+1.7**
RUFI	**Rufina**	**2.88**	**285**	P	**Pn**	**21 04 34.5**	**+1.0**
RUFI				AML	AML		
	comp=E,38μm,1.9s						
RUFI				AML	AML		
	comp=N,25μm,1.9s						
PDG	**Podgorica**	**2.96**	**102**	*e*Pn	**Pn**	**21 04 35.5**	**+0.9**
DRME	**Dracevica, Mon**	**2.99**	**107**	*e*Pn	**Pn**	**21 04 36.3**	**+1.3**
SEI	**Scarperia**	**3.04**	**289**	AML	AML		
	comp=E,75μm,0.5s						
SEI				AML	AML		
	comp=N,64μm,0.4s						
BBLS	**Lazi&#263i**	**3.04**	**75**	*e*Pn	**Pn**	**21 04 38.4**	**+2.6**
CRNS	**Crni Vrh**	**3.04**	**346**	*i* Pn	**Pn**	**21 04 37.3**	**+1.5**
CRNS				*e*Sn	**Sn**	**21 05 14.4**	**+2.1**
LOBO	**Lobor**	**3.06**	**9**	*e*Pn	**Pn**	**21 04 37.4**	**+1.4**
LOBO				Sn	**Sn**	**21 05 14.0**	**+1.3**
KALN	**Kalnik**	**3.10**	**14**	*e*Pn	**Pn**	**21 04 37.0**	**+0.5**
KALN				Sn	**Sn**	**21 05 15.4**	**+1.8**
TEKS	**Tekeris**	**3.34**	**64**	*e*Pn	**Pn**	**21 04 42.6**	**+2.8**
SJES	**Sjenica**	**3.39**	**86**	*e*Pn	**Pn**	**21 04 40.7**	**+0.1**
OBKA	**Obir**	**3.42**	**351**	*e*Pn	**Pn**	**21 04 42.5**	**+1.5**
	comp=N,1.0nm,0.2s						
OBKA				*e*Sn	**Sb**	**21 05 26.4**	**-3.5**
	comp=N,0.6nm,0.2s						
BEHE	**Becsehely**	**3.48**	**16**	*e*Pn	**Pb**	**21 04 46.8**	**-2.5**
SOKA	**Soboth**	**3.55**	**357**	*e*Pn	**Pn**	**21 04 44.9**	**+2.1**
	comp=N,0.5nm,0.3s						
SOKA				*e*Sn	**Sn**	**21 05 27.2**	**+2.4**
	comp=N,0.5nm,0.3s						
ACOM	**Acomizza, Ital**	**3.65**	**340**	P	**Pn**	**21 04 44.0**	**-0.2**
ACOM				AML	AML		
	comp=N,62μm,0.6s						
ACOM				AML	AML		
	comp=E,70μm,0.8s						

ACOM					AML	AML			
	comp=N,62μm,1.4s								
ACOM					AML	AML			
	comp=E,71μm,0.8s								
ACOM					AML	AML			
	comp=N,62μm,0.6s								
ACOM					AML	AML			
	comp=E,95μm,0.7s								
ACOM					AML	AML			
	comp=N,83μm,1.2s								
MYKA	**Terra Mystica**	**3.70**	**341**	*e*Pn	**Pn**		**21 04 46.1**	**+1.3**	
	comp=N,0.6nm,0.3s								
MYKA				*e*Sn	**Sn**		**21 05 30.6**	**+2.2**	
	comp=N,0.1nm,0.1s								
FRGS	**Fruska Gora**	**3.80**	**56**	*e*Pn	**Pb**		**21 04 54.9**	**+0.3**	
MORH	**Mrgy, Hungar**	**3.87**	**36**	*e*Pn	**Pn**		**21 04 44.8**	**-2.3**	
SESA	**Seetaler Alpe,**	**4.01**	**352**	*e*Pn	**Pn**		**21 04 51.1**	**+1.8**	
	comp=N,0.3nm,0.3s								
PANI	**Panarotta**	**4.08**	**317**	P	**Pn**		**21 04 50.2**	**0.0**	
PANI				AML	AML				
	comp=N,27μm,1.6s								
PANI				AML	AML				
	comp=E,27μm,1.6s								
PANI				AML	AML				
	comp=E,24μm,1.7s								
PANI				AML	AML				
	comp=N,24μm,0.5s								
PANI				AML	AML				
	comp=N,27μm,0.4s								
ARSA	**Arzberg**	**4.12**	**2**	*e*Pn	**Pn**		**21 04 52.2**	**+1.7**	
	comp=N,0.3nm,0.2s								
ARSA				*e*Sn	**Sn**		**21 05 41.4**	**+2.7**	
	comp=N,0.6nm,0.4s								
KBA	**Koelnbreinsper**	**4.19**	**341**	*e*Pn	**Pn**		**21 04 53.1**	**+1.5**	
	comp=N,0.4nm,0.2s								
KBA				*e*Sn	**Sn**		**21 05 42.7**	**+2.0**	
	comp=N,1.2nm,0.4s								
LUSI	**Trento, Gardas**	**4.23**	**313**	AML	AML				
	comp=N,37μm,0.3s								
LUSI				AML	AML				
	comp=E,20μm,0.4s								
SALO	**Salr**	**4.25**	**307**	P	**Pn**		**21 04 52.4**	**0.0**	
SALO				AML	AML				
	comp=E,29μm,1.2s								
SALO				AML	AML				
	comp=N,32μm,1.1s								
SALO				AML	AML				
	comp=E,140μm,0.7s								
SALO				AML	AML				
	comp=N,157μm,0.9s								
KOSI	**Kohlern**	**4.36**	**321**	P	**Pn**		**21 04 54.5**	**+0.5**	
KOSI				AML	AML				
	comp=E,34μm,1.0s								
KOSI				AML	AML				
	comp=N,23μm,1.0s								
GRI	**Girifalco**	**4.39**	**169**	AML	AML				
	comp=E,51μm,0.8s								
GRI				AML	AML				
	comp=E,51μm,1.2s								
GRI				AML	AML				
	comp=N,29μm,0.1s								
GRI				AML	AML				
	comp=E,47μm,0.1s								
GRI				AML	AML				
	comp=N,29μm,0.1s								
OZOL	**Ozolo**	**4.47**	**318**	P	**Pn**		**21 04 56.0**	**+0.6**	
OZOL				AML	AML				
	comp=E,41μm,0.5s								
OZOL				AML	AML				
	comp=N,29μm,0.5s								
OZOL				AML	AML				
	comp=E,630μm,1.3s								
OZOL				AML	AML				
	comp=N,228μm,1.3s								
RONA	**Rosalia, Austr**	**4.61**	**8**	*e*Pn	**Pn**		**21 04 59.3**	**+2.0**	
	comp=N,0.1nm,0.1s								
LESA	**Schwarzleotal**	**4.68**	**337**	*e*Pn	**Pn**		**21 04 59.9**	**+1.6**	
	comp=N,1.9nm,0.3s								
LESA				*e*Sn	**Sn**		**21 05 54.3**	**+1.6**	
	comp=N,0.6nm,0.3s								
BIOA	**Bad Ischl, Aus**	**4.71**	**346**	*e*Pn	**Pn**		**21 04 59.7**	**+1.0**	
	comp=N,1.9nm,0.3s								
BIOA				*e*Sn	**Sn**		**21 05 55.7**	**+2.3**	
	comp=N,0.2nm,0.2s								
MOA	**Molln**	**4.77**	**351**	*e*Pn	**Pn**		**21 05 01.7**	**+2.2**	
	comp=N,1.9nm,0.4s								
MOA				*e*Sn	**Sn**		**21 05 56.2**	**+1.3**	
	comp=N,1.2nm,0.4s								
CONA	**Conrad Observa**	**4.80**	**4**	*e*Pn	**Pn**		**21 05 02.2**	**+2.2**	
	comp=N,0.2nm,0.2s								
CONA				*e*Sn	**Sn**		**21 05 57.2**	**+1.5**	
	comp=N,0.1nm,0.2s								
WTTA	**Wattenberg**	**4.89**	**329**	*e*Pn	**Pn**		**21 05 02.5**	**+1.2**	
	comp=N,0.4nm,0.5s								
WTTA				*e*Sn	**Sn**		**21 05 58.4**	**+0.5**	
	comp=N,0.8nm,0.3s								
SARZ	**Sarezzano**	**4.95**	**293**	AML	AML				
	comp=N,98μm,0.1s								
SARZ				AML	AML				
	comp=E,101μm,0.4s								
SARZ				AML	AML				
	comp=N,121μm,0.3s								
SARZ				AML	AML				
	comp=E,95μm,0.1s								
SARZ				AML	AML				
	comp=E,157μm,1.0s								
SARZ				AML	AML				
	comp=N,194μm,0.8s								
SARZ				AML	AML				
	comp=N,121μm,1.7s								
SARZ				AML	AML				
	comp=E,101μm,1.6s								
WATA	**Walderalm**	**4.97**	**329**	*e*Pn	**Pn**		**21 05 03.6**	**+1.2**	
	comp=E,0.1nm,0.1s								
WATA				*e*Sn	**Sn**		**21 06 01.7**	**+1.8**	
	comp=E,0.2nm,0.2s								
SQTA	**Sankt Quirin**	**5.02**	**326**	*e*Pn	**Pn**		**21 05 03.5**	**+0.5**	
	comp=E,0.1nm,0.2s								
SQTA				*e*Sn	**Sn**		**21 06 03.3**	**+2.2**	
	comp=E,0.4nm,0.2s								
MOTA	**Moosalm**	**5.16**	**326**	*e*Pn	**Pn**		**21 05 05.7**	**+0.7**	
	comp=E,0.3nm,0.3s								
MOTA				*e*Sn	**Sn**		**21 06 06.3**	**+1.6**	
	comp=E,0.2nm,0.2s								
RETA	**Reutte**	**5.42**	**325**	*e*Pn	**Pn**		**21 05 09.2**	**+0.8**	
	comp=E,0.7nm,0.4s								
RETA				*e*Sn	**Sn**		**21 06 11.1**	**+0.3**	
	comp=E,0.5nm,0.3s								
DAVA	**Damuels**	**5.67**	**319**	*e*Sn	**Sn**		**21 06 16.5**	**-0.6**	
	comp=E,1.4nm,0.5s								
CKRC	**Cesky Krumlov**	**5.73**	**353**	*e*PN	**Pn**		**21 05 14.3**	**+1.7**	
CKRC				*e*SN	**Sn**		**21 06 19.4**	**+1.0**	
VYHS	**Vyhne**	**5.89**	**23**	*e*P	**Pn**		**21 05 17.6**	**+2.8**	
KHC	**Kasperske Hory**	**6.12**	**349**	*e*PN	**Pn**		**21 05 18.2**	**+0.2**	
KHC				*e*SN	**Sn**		**21 06 26.6**	**-1.5**	

*SNET **14** 21:08:42.6±1.8, 13°.16N×90°.00W, h15km, ML3.6, Presumed earthquake*
*CATAC **14** 21:08:42.1±0.6, 13°.N±3°.×9°.0W±°, h12km±4km, M3.7/14, MLv3.7/14, Error ellipse: s-maj=7.2km s-min=5.7km az=5.4, confirmed*
*GCG **14** 21:08:44.1±1.5, 13°.28N×90°.05W, h25km±15km, MD4.2, ML4.0, Presumed earthquake*

ISC 14 21:08:43.6±1.8, **13°.16N**±0°.07×**89°.88W**±0°.04, **h18**km±7km, **n36**, σ0**°84**/58, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAYA	**Jayaque - finc**	**0.65**	**40**	P	**Pg**	**21 08 56.3**	**-0.1**
JAYA	**Jayaque - finc**	**0.65**	**40**	*e*P	**Pg**	**21 08 56.5**	**0.0**
JAYA				*e*S	**Sg**	**21 09 06.1**	**+1.0**
JAYA				IAML		21 09 09.1	
	comp=N,9μm,0.3s						
JAYA	**Jayaque - finc**	**0.65**	**40**	*e*P	**Pg**	**21 08 56.5**	**0.0**
JAYA				*e*S	**Sg**	**21 09 06.6**	**+1.5**
FAME	**Alcaldia de Sa**	**0.69**	**349**	P	**Pg**	**21 08 56.0**	**-1.3**
CEVE	**Cerro Verde**	**0.71**	**21**	P	**Pg**	**21 08 57.4**	**-0.2**
CEVE	**Cerro Verde**	**0.71**	**21**	*e*P	**Pg**	**21 08 57.5**	**-0.2**
CEVE				*e*S	**Sb**	**21 09 08.6**	**+1.5**
SBLS	**San Blas**	**0.72**	**20**	*e*P	**Pg**	**21 08 57.5**	**-0.4**
SBLS				*e*S	**Sb**	**21 09 08.5**	**+1.0**
NUBE	**Las Nubes**	**0.74**	**7**	P	**Pg**	**21 08 57.3**	**-0.9**
NUBE	**Las Nubes**	**0.74**	**7**	*i* P	**Pg**	**21 08 57.4**	**-0.9**
NUBE				*i* S	**Sg**	**21 09 07.7**	**-0.5**
NUBE				IAML		21 09 08.4	
	comp=N,4μm,0.4s						
NUBE	**Las Nubes**	**0.74**	**7**	*e*P	**Pg**	**21 08 57.5**	**-0.8**
NUBE				*e*S	**Sb**	**21 09 08.2**	**0.0**
RTR	**El Retiro**	**0.77**	**17**	*e*P	**Pg**	**21 08 58.2**	**-0.5**
PMON	**Piamonte**	**0.78**	**45**	P	**Pb**	**21 08 58.6**	**-0.1**
PMON	**Piamonte**	**0.78**	**45**	*e*P	**Pb**	**21 08 58.8**	**0.0**
PMON				*e*S	**Sb**	**21 09 10.9**	**+1.9**
CEDA	**San Andres**	**0.79**	**36**	P	**Pb**	**21 08 58.5**	**-0.5**
CEDA				S	**Sb**	**21 09 10.6**	**+1.2**
CEDA	**San Andres**	**0.79**	**36**	*e*P	**Pb**	**21 08 59.0**	**+0.1**
PANCS	**Alcalda de**	**0.81**	**57**	P	**Pb**	**21 08 58.5**	**-0.9**
PANCS				S	**Sb**	**21 09 10.2**	**+0.1**
BOQS	**Boqueron**	**0.82**	**46**	*e*P	**Pb**	**21 08 59.5**	**+0.1**
BOQS				*e*S	**Sb**	**21 09 10.9**	**+0.6**
LOAL	**Lomas de Alarc**	**0.84**	**7**	P	**Pg**	**21 08 59.3**	**-0.7**
LOAL				S	**Sg**	**21 09 11.4**	**+0.2**
LOMA	**Loma Larga**	**0.84**	**55**	P	**Pb**	**21 08 59.0**	**-0.9**
LOMA	**Loma Larga**	**0.84**	**55**	*e*P	**Pb**	**21 08 59.2**	**-0.6**
LOMA				*e*S	**Sb**	**21 09 11.6**	**+0.7**
SLOZ	**Alcaldia de Sa**	**0.86**	**6**	P	**Pb**	**21 08 59.8**	**-0.5**
UNIC	**Universidad Ca**	**0.88**	**22**	P	**Pb**	**21 08 59.9**	**-0.5**
UNIC				S	**Sg**	**21 09 12.8**	**+0.4**
LFRS	**El Faro**	**0.92**	**60**	*e*P	**Pb**	**21 09 00.7**	**-0.5**
RBDL	**Robledal**	**0.96**	**11**	*e*P	**Pb**	**21 09 01.1**	**-0.8**
RBDL				*e*S	**Sn**	**21 09 15.9**	**0.0**
PAVA	**Las Pavas**	**1.07**	**59**	P	**Pn**	**21 09 03.1**	**-0.8**
PAVA				S	**Sb**	**21 09 18.6**	**+1.2**
COEG	**Centro de Oper**	**1.07**	**65**	P	**Pn**	**21 09 02.7**	**-1.2**
COEG				S	**Sb**	**21 09 18.2**	**+0.6**
TECO	**Alcaldia de Te**	**1.13**	**71**	P	**Pn**	**21 09 03.0**	**-1.7**
TECO				S	**Sb**	**21 09 18.9**	**-0.3**
PCG5	**San Vicente Pa**	**1.16**	**335**	*i* P	**Pg**	**21 09 05.9**	**-0.1**
JUAM	**Asuncion Mita**	**1.18**	**8**	*e*P	**Pn**	**21 09 04.6**	**-0.7**
JUAM				*e*S	**Sb**	**21 09 20.3**	**-0.3**
FG16	**Alotenango, Sa**	**1.26**	**331**	*i* P	**Pg**	**21 09 08.7**	**+0.6**
FG8	**Yepocapa, Chim**	**1.28**	**329**	*i* P	**Pg**	**21 09 09.3**	**+1.0**
FG8				*i* S	**Sg**	**21 09 27.4**	**+2.3**
ALJI	**Alcalda de J**	**1.28**	**82**	S	**Sn**	**21 09 23.0**	**-0.5**
LLGN	**La Laguna**	**1.35**	**42**	P	**Pn**	**21 09 07.2**	**-0.6**
LLGN				S	**Sn**	**21 09 25.8**	**+0.5**
PACA	**Pacayal**	**1.55**	**78**	P	**Pn**	**21 09 10.3**	**-0.2**
PACA				S	**Sn**	**21 09 31.0**	**+0.9**
APG	**El Apazote**	**1.92**	**343**	*i* P	**Pn**	**21 09 14.7**	**-1.0**
CNCH	**Conchagua**	**2.00**	**86**	P	**Pn**	**21 09 16.6**	**-0.1**
CNCH				S	**Sn**	**21 09 41.9**	**+0.6**

*ISK **14** 21:22:45.9, 39°.45N×40°.21E, h5km, ML4.0/24*
*TIF **14** 21:22:46.3, 39°.45N×40°.20E, h15km*
*AFAD **14** 21:22:46.7, 39°.44N×40°.21E, h10km±2km, ML4.1*
*IDC **14** 21:22:47.5±0.7, 39°.47N×40°.19E, h0km, mb3.8/6, mbtmp3.7/14, ML3.4/8, MS3.0/9, Error ellipse: s-maj=14.3km s-min=9.2km az=134.0*

ISC 14 21:22:47.6±0.7, **39°.46N**±0°.02×**40°.23E**±0°.02, **h7**km±5km, **n128**, σ1**°66**/136, **mb3.8**/10, **MS3.1**/4, **15C-13D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YEDI	**Yedisu-Bingol**	**0.24**	**96**	Pg	**Pg**	**21 22 52.5**	**0.0**
YEDI				Sg	**Sg**	**21 22 57.1**	**+1.3**
ERZN	**Erzincan**	**0.41**	**287**	Pg	**Pg**	**21 22 54.9**	**-0.8**
ERZN				Sg	**Sg**	**21 23 01.6**	**+0.5**
ERZN				AML	AML		
EUZM	**Uzumlu**	**0.48**	**301**	P	**Pg**	**21 22 56.0**	**-0.9**
BNGB	**Bingl**	**0.59**	**143**	Pg	**Pg**	**21 22 57.8**	**-1.1**
BNGB				Sg	**Sb**	**21 23 07.7**	**-1.1**
BNGB				AML	AML		
KOPT	**Kop Dagi**	**0.59**	**20**	P	**Pg**	**21 22 59.0**	**0.0**
ECAT	**Cat-ERZURUM**	**0.59**	**76**	P	**Pg**	**21 22 58.2**	**-0.9**
ECAT				S	**Sg**	**21 23 06.7**	**-0.2**
ECAT				IAML		21 23 09.0	
	comp=E,1μm,0.5s						
ECAT				IAML		21 23 12.0	
	comp=N,2μm,0.4s						
KARO	**Karliova-Bingo**	**0.65**	**103**	Pg	**Pg**	**21 22 59.4**	**-0.8**
KARO				Sg	**Sb**	**21 23 10.2**	**-0.6**
KARO				AML	AML		
ETEKE	**Tekederesi - E**	**0.77**	**64**	P	**Pg**	**21 23 01.9**	**-0.6**
ETEKE				S	**Sb**	**21 23 13.7**	**-0.7**
BAYB	**BAYBURT**	**0.79**	**1**	P	**Pg**	**21 23 02.3**	**-0.6**
SLHN	**Bingol, Solhan**	**0.80**	**129**	P	**Pg**	**21 23 02.4**	**-0.2**
SLHN				S	**Sg**	**21 23 13.4**	**+0.2**
EMRE	**Erzurum,Aziziy**	**0.81**	**45**	P	**Pg**	**21 23 02.7**	**-0.4**
EMRE				S	**Sn**	**21 23 16.9**	**-1.0**
EMRE				IAML		21 23 22.0	
	comp=E,7μm,0.6s						
EMRE				IAML		21 23 29.0	
	comp=N,7μm,0.5s						
KOVA	**Elazig, Kovanc**	**0.82**	**203**	P	**Pg**	**21 23 02.5**	**-0.9**
BAYT	**Aydıntepe-Bayb**	**0.93**	**356**	Pg	**Pg**	**21 23 04.3**	**-1.2**
BAYT				AML	AML		
ERZM	**Erzurum**	**0.98**	**63**	P	**Pg**	**21 23 05.8**	**-0.6**
ERZM				S	**Sb**	**21 23 20.2**	**0.0**
ERZM				IAML		21 23 27.0	
	comp=E,8μm,0.4s						
ERZM				IAML		21 23 29.0	
	comp=N,7μm,0.5s						
VRTB	**Varto-Mus**	**1.00**	**107**	P	**Pg**	**21 23 06.3**	**-0.4**
VRTB	**Varto-Mus**	**1.00**	**107**	Pg	**Pg**	**21 23 06.1**	**-0.6**
VRTB				Sg	**Sn**	**21 23 21.4**	**-1.1**
VRTB				AML	AML		
KELT	**Kelkit**	**1.02**	**313**	P	**Pg**	**21 23 06.0**	**-1.2**
KRIK	**Erzurum-spir**	**1.02**	**31**	P	**Pg**	**21 23 06.9**	**-0.4**
KRIK				S	**Sn**	**21 23 22.6**	**-0.7**
KRIK				IAML		21 23 28.0	
	comp=N,4μm,0.6s						
KRIK				IAML		21 23 28.0	
	comp=E,4μm,0.6s						
ELZ	**Elazig**	**1.11**	**226**	P	**Pg**	**21 23 07.5**	**-1.4**
MDNT	**Maden**	**1.15**	**202**	P	**Pg**	**21 23 08.8**	**-0.8**
MUSM	**Mu-Merkez**	**1.24**	**126**	P	**Pb**	**21 23 09.7**	**-1.7**
ILIC	**ilic-Erzincan**	**1.29**	**270**	Pn	**Pn**	**21 23 10.4**	**-1.7**
ILIC				Sn	**Sn**	**21 23 29.7**	**0.0**
ILIC				AML	AML		
SVRC	**Sivrice-ELAZID**	**1.30**	**214**	Pn	**Pn**	**21 23 10.9**	**-1.4**
SVRC				AML	AML		
IZDR	**Rize**	**1.34**	**11**	P	**Pb**	**21 23 12.6**	**-0.5**
KOPR	**Koprukoy-ERZUR**	**1.36**	**67**	Pn	**Pn**	**21 23 12.5**	**-0.6**
KOPR				AML	AML		
HOMI	**Horasan**	**1.42**	**65**	P	**Pb**	**21 23 13.7**	**-0.8**
HOMI	**Horasan**	**1.42**	**65**	⇓P	**Pn**	**21 23 13.0**	**-1.0**
HOMI				⇑S	**Sb**	**21 23 28.4**	**-4.4**
EKAR	**Karacoban**	**1.44**	**98**	P	**Pg**	**21 23 15.1**	**0.0**
DYBB	**Diyarbakir**	**1.51**	**183**	Pn	**Pg**	**21 23 14.9**	**-1.1**
DYBB				Sn	**Sg**	**21 23 36.1**	**0.0**
DYBB				AML	AML		
SVAN	**Silvan-Diyarba**	**1.51**	**150**	P	**Pb**	**21 23 15.5**	**-0.5**
SVAN	**Silvan-Diyarba**	**1.51**	**150**	Pn	**Pb**	**21 23 15.2**	**-0.8**
SVAN				Sn	**Sg**	**21 23 36.7**	**+0.5**
SVAN				AML	AML		
ARPR	**Arapgir-MALATY**	**1.52**	**256**	Pn	**Pb**	**21 23 15.1**	**-1.0**
ARPR				Sn	**Sg**	**21 23 36.6**	**+0.2**
ARPR				AML	AML		
MACK	**Trabzon**	**1.52**	**347**	P	**Pb**	**21 23 15.2**	**-0.9**
DIYA	**Diyarbakir**	**1.54**	**183**	P	**Pg**	**21 23 16.5**	**-0.7**
KTUT	**Trabzon**	**1.56**	**347**	⇓P	**Pn**	**21 23 15.6**	**-0.1**
KTUT	**Trabzon**	**1.56**	**347**	Pn	**Pb**	**21 23 16.1**	**-0.7**
KTUT				Sn	**Sg**	**21 23 38.1**	**+0.3**
KTUT				AML	AML		
GURO	**Guroymak-BITLI**	**1.67**	**122**	Pn	**Pn**	**21 23 17.4**	**0.0**
GURO				AML	AML		
CHOM	**Cayeli-Rize**	**1.68**	**14**	Pn	**Pb**	**21 23 17.9**	**-0.9**
CHOM				AML	AML		
EOLT	**Oltu**	**1.72**	**51**	P	**Pb**	**21 23 19.4**	**-0.2**
BTMN	**Batman**	**1.77**	**152**	P	**Pb**	**21 23 19.8**	**-0.6**
EATA	**Eleskirt**	**1.79**	**76**	P	**Pb**	**21 23 20.7**	**-0.2**
BLIS	**Bitlis-Merkez**	**1.80**	**125**	P	**Pb**	**21 23 19.9**	**-1.1**
MLAZ	**Malazgirt-MUS**	**1.83**	**99**	Pn	**Pb**	**21 23 20.2**	**-1.2**
MLAZ				AML	AML		
DDEM	**Demirkent**	**1.84**	**39**	P	**Pb**	**21 23 20.3**	**-1.3**
DBAD	**Bademkaya**	**1.91**	**35**	P	**Pb**	**21 23 21.7**	**-1.2**
SENK	**Senkaya-Erzuru**	**1.96**	**55**	Pn	**Pb**	**21 23 22.1**	**-1.7**
SENK				AML	AML		
DORK	**Agr/Tutak/Do**	**1.98**	**91**	P	**Pb**	**21 23 23.3**	**-0.6**
SRTM	**Siirt_Merkez**	**1.98**	**138**	P	**Pb**	**21 23 22.3**	**-1.7**
ADCV	**BITLIS_Adilcev**	**2.05**	**108**	P	**Pg**	**21 23 25.6**	**-1.2**
DAGI	**Agillar**	**2.06**	**38**	P	**Pb**	**21 23 23.7**	**-1.8**
TUNC	**Hafik-SIVAS**	**2.09**	**277**	Pn	**Pn**	**21 23 23.5**	**+0.3**
AGRB	**Hanur-Agry**	**2.14**	**86**	Pn	**Pn**	**21 23 24.7**	**+0.8**
AGRB				AML	AML		
DBOC	**Borcka**	**2.18**	**30**	P	**Pn**	**21 23 24.8**	**+0.5**
GOLE	**Ardahan-G¶le**	**2.27**	**52**	P	**Pn**	**21 23 26.7**	**+0.9**
DARE	**Darende-Malaty**	**2.32**	**248**	Pn	**Pn**	**21 23 26.7**	**+0.4**
DARE				AML	AML		
KOTA	**Agri, Merkez-K**	**2.32**	**81**	P	**Pg**	**21 23 30.8**	**-1.3**
RSDY	**Resadiye-TOKAT**	**2.42**	**294**	Pn	**Pn**	**21 23 28.2**	**+0.6**
RSDY				AML	AML		
AKDM	**Akdamar-Van**	**2.43**	**117**	Pn	**Pn**	**21 23 28.4**	**+0.6**
AKDM				AML	AML		
KARS	**Kars**	**2.48**	**61**	Pn	**Pn**	**21 23 29.7**	**+1.2**
KARS				AML	AML		
SVSK	**Karacayir**	**2.54**	**281**	Pn	**Pn**	**21 23 29.7**	**+0.6**
SVSK				AML	AML		
CLDR	**Caldiran**	**2.88**	**95**	Pn	**Pn**	**21 23 35.1**	**+1.1**
CLDR				AML	AML		
OZAP	**Van, Ozalp-Mer**	**3.04**	**104**	⇓P	**Pb**	**21 23 41.2**	**-0.8**
TASB	**TASBURUN-IGDIR**	**3.13**	**79**	Pn	**Pn**	**21 23 38.8**	**+1.4**
TASB				AML	AML		
BGD	**Bogdanovka**	**3.14**	**54**	P	**Pb**	**21 23 41.4**	**-2.4**
AKH	**Akhalkalaki**	**3.16**	**51**	P	**Pn**	**21 23 38.9**	**+1.1**
GNI	**Garni**	**3.54**	**77**	Pn	**Pn**	**21 23 46.0**	**+2.9**
	0.9nm,0.3s,baz=337,slow=3.5,SNR=12						
GNI				Pg	**Pg**	**21 23 52.9**	**-2.5**
	6.4nm,0.3s,baz=286,slow=4.0,SNR=25 16nm,0.8s						
GNI				AML	AML		
TKB	**Tkibuli**	**3.56**	**35**	P	**Pn**	**21 23 43.2**	**-0.1**
TKB				S	**Sg**	**21 24 40.3**	**-1.7**
TRLG	**Trialeti**	**3.61**	**54**	P	**Pn**	**21 23 45.2**	**+1.2**
KZRT	**Kazreti**	**3.71**	**58**	P	**Pn**	**21 23 40.9**	**-4.5**
TBLG	**Delisi**	**4.11**	**55**	P	**Pn**	**21 23 51.9**	**+1.0**
CHRG	**Chargali**	**4.57**	**50**	P	**Pn**	**21 23 58.5**	**+1.3**
KBZ	**Khabaz**	**4.71**	**24**	Pn	**Pn**	**21 24 01.0**	**+2.0**
	0.4nm,0.3s,baz=188,slow=7.4,SNR=9.7						
KBZ				LR	LR	21 26 09.3	
	comp=Z,235nm,19.7s,baz=184,slow=43 0.8nm,0.3s						
KBZ				AML	AML		
KVAR	**Kislovodsk Arr**	**4.85**	**22**	Pn	**Pn**	**21 24 03.3**	**+2.3**
	baz=144,slow=19 1.7nm,0.4s						
SHTL	**Shatili**	**4.90**	**48**	P	**Pn**	**21 24 03.1**	**+1.4**
DDFL	**Dedoflistskaro**	**4.91**	**64**	P	**Pb**	**21 24 13.9**	**0.0**
KIRS	**Kirsehir-Merke**	**4.91**	**268**	⇓P	**Pb**	**21 24 11.3**	**-2.6**
BRTR	**Keskin Array B**	**5.10**	**275**	Pn	**Pn**	**21 24 05.6**	**+1.1**
	1.6nm,0.3s,baz=101,slow=14,SNR=27						
BRTR				LR	LR	21 26 31.4	
	comp=Z,36nm,19.2s,baz=98,slow=44 3.0nm,0.3s						
BRTR				AML	AML		
LGD	**Lagodekhi**	**5.15**	**61**	P	**Pn**	**21 24 06.5**	**+1.4**
MMAI	**Mount Meron Ar**	**7.52**	**213**	Pn	**Pn**	**21 24 39.8**	**+2.1**
	1.4nm,0.3s,baz=58,slow=16,SNR=5.9						
MMAI				Lg	Lg	21 26 48.8	
	0.7nm,0.3s,baz=112,slow=27,SNR=1.8						
MMAI				LR	LR	21 27 45.7	
	comp=Z,85nm,19.6s,baz=24,slow=40 1.2nm,0.5s						
MMAI				AML	AML		
ASF	**Jabal al Asfar**	**7.78**	**202**	Pn	**Pn**	**21 24 42.5**	**+1.5**
	0.4nm,0.3s,baz=24,slow=10.0,SNR=18						
ASF				Lg	Lg	21 26 56.3	
	0.7nm,0.3s,baz=191,slow=20,SNR=3.7 2.8nm,0.6s						
ASF				AML	AML		
TLCR		**10.20**	**308**	⇑P	**Pn**	**21 25 17.9**	**+3.6**
PURM	**Purcari**	**10.36**	**316**	⇓P	**Pn**	**21 25 19.6**	**+3.2**
CFR	**Carcaliu**	**10.62**	**306**	⇑P	Pn	21 25 24.2	+4.2
EIL	**Elat**	**10.69**	**206**	LR	LR	21 29 49.3	
	comp=Z,78nm,18.8s,baz=17,slow=40						
VLDR	**Vladesti**	**10.98**	**309**	⇑P	**Pn**	**21 25 27.9**	**+2.9**
MNTR	**Muntenesti**	**11.79**	**312**	⇓P	**Pn**	**21 25 39.0**	**+2.8**
VRI	**Vrincioaia**	**11.81**	**307**	⇑P	Pn	21 25 41.2	+4.7
PLOR	**Plostina**	**11.86**	**307**	⇑P	**Pn**	**21 25 40.9**	**+3.9**
PDRR	**Padureni**	**11.86**	**312**	⇓P	**Pn**	**21 25 39.8**	**+2.8**
DMBR	**Dumbraveni**	**11.90**	**312**	⇑P	**Pn**	**21 25 41.5**	**+3.9**
COVR	**Voineasa-Covas**	**12.13**	**306**	⇑P	**Pn**	**21 25 44.6**	**+3.9**
MLR	**Muntele Rosu**	**12.14**	**304**	Pn	Pn	21 25 45.7	+4.8
	0.1nm,0.3s,baz=90,slow=20,SNR=4.7						
MLR	**Muntele Rosu**	**12.14**	**304**	⇑P	Pn	21 25 46.0	+5.0
TESR	**Tescani**	**12.18**	**310**	⇑P	**Pn**	**21 25 45.4**	**+4.0**
SORM	**Soroca**	**12.19**	**319**	⇓P	**Pn**	**21 25 43.6**	**+2.1**
GIRR	**Girov**	**12.49**	**311**	⇓P	**Pn**	**21 25 48.6**	**+2.9**
VOIR		**12.70**	**303**	⇓P	**Pn**	**21 25 52.3**	**+3.8**
BIZ	**Bicaz**	**12.72**	**311**	⇓P	**Pn**	**21 25 51.7**	**+2.9**
JOSR	**Joseni**	**12.95**	**309**	⇑P	**Pn**	**21 25 55.8**	**+3.7**
BURAR	**Bucovina Array**	**13.59**	**312**	⇓P	**Pn**	**21 26 03.8**	**+3.1**
AKASG	**Malin Array Be**	**13.65**	**329**	Pn	**Pn**	**21 26 01.9**	**+0.5**
	1.0nm,0.3s,baz=138,slow=12,SNR=5.2						
AKASG				LR	LR	21 32 46.4	
	comp=Z,100nm,19.5s,baz=168,slow=44 1.1nm,0.5s						
AKASG

IDC ***14*** *21:41:07.2±1.0, 24.˚74N×122.˚99E, h0km, mb3.7/6, mbtmp3.6/8, ML2.7/2, MS3.5/23, Error ellipse: s-maj=34.7km s-min=17.9km az=75.0*

ISC 14 21:41:10.2±0.8**, 24˚96N**±0.˚06×**123˚72E**±0.˚04**, h32**km**, n42, σ1ᵖ54/26, mb3.6/7, MS3.4/20, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.62**	**179**	P		**Pn**	**21 41 21.6**	**-1.3**
IRIF				A		A	21 41 21.6	
	comp=N,20nm,1.9s,comp=E,11nm,2.6s							
JISG	**Ishigakijimahi**	**0.65**	**125**	*i* P		**Pn**	**21 41 21.8**	**-1.5**
JISG				S		**Sn**	**21 41 32.9**	**+0.5**
JIJ	**Ishigaki jima**	**0.71**	**147**	*i* P		**Pn**	**21 41 22.7**	**-1.3**
JIJ				*e*S		**Sb**	**21 41 34.2**	**+0.6**
JKRS	**Kuro-shima**	**0.77**	**160**	P		**Pn**	**21 41 24.3**	**-0.5**
JKRS				A		A	21 41 24.3	
	comp=N,21nm,3.2s,comp=E,24nm,1.5s							
JTJ	**Tarama**	**0.95**	**109**	P		**Pn**	**21 41 26.5**	**-0.7**
JTJ				A		A	21 41 26.5	
	comp=N,18nm,1.2s,comp=E,18nm,1.5s							
JIRJ	**Irabujima**	**1.34**	**95**	P		**Pn**	**21 41 32.1**	**-0.7**
JMJ	**Miyako jima 2**	**1.44**	**95**	P		Pb	21 41 41.1	+4.7
NACB	**Ninganchiao**	**2.09**	**248**	P		**Pn**	**21 41 43.8**	**+0.8**
YHNB	**Yeheng**	**2.15**	**263**	P		**Pn**	**21 41 43.7**	**-0.3**
YULB	**Yu-li**	**2.71**	**235**	P		**Pn**	**21 41 52.2**	**+0.6**
SSLB	**Suanglung**	**2.78**	**246**	P		**Pn**	**21 41 53.7**	**+1.1**
TPUB	**Ta-pu**	**3.27**	**240**	P		**Pn**	**21 42 01.7**	**+2.4**
KSRS	**Korea Array**	**12.96**	**15**	Pn		**P**	**21 44 21.5**	**-0.8**
	comp=E,0.1nm,0.3s,baz=190,slow=12,SNR=6.1							
KSRS				LR		LR	21 49 40.5	
	comp=E,153nm,19.2s,baz=200,slow=38							
	comp=E,1.4nm,0.8s							
KSRS				AML		AML		
MJAR	**Matsushiro Arr**	**16.96**	**44**	P		P	21 45 12.6	+5.8
	baz=234,slow=10,SNR=4.4							
MJAR				LR		LR	21 51 48.7	
	comp=E,76nm,19.6s,baz=220,slow=36							
	comp=E,0.9nm,0.7s							
DAV	**Davao City (W)**	**17.88**	**174**	LR		LR	21 52 11.3	
	comp=E,114nm,20.0s,baz=336,slow=37							
USRK	**Ussuriysk Ar.**	**20.34**	**17**	LR		LR	21 53 51.2	
	comp=E,109nm,18.4s,baz=203,slow=37							
GUMO	**Guam**	**22.91**	**116**	LR		LR	21 53 37.9	
	comp=E,20nm,21.4s,baz=161,slow=32							
CMAR	**Chiang Mai Arr**	**23.89**	**259**	P		**P**	**21 46 20.9**	**-0.3**
	comp=E,0.3nm,0.3s,baz=46,slow=8.5,SNR=5.2							
CMAR				LR		LR	21 55 40.6	
	comp=E,36nm,19.0s,baz=170,slow=38							
ASAJ	**Asahikawa**	**24.53**	**34**	LR		LR	21 55 28.5	
	comp=E,56nm,20.3s,baz=184,slow=34							
HILR	**Hailar Array B**	**24.75**	**354**	LR		LR	21 56 22.7	
	comp=E,80nm,21.8s,baz=85,slow=37							
KLR	**Kul'dur**	**25.03**	**12**	LR		LR	21 56 36.7	
	comp=E,124nm,19.7s,baz=188,slow=37							
SONM	**Songino Array**	**26.63**	**333**	P		**P**	**21 46 48.5**	**+2.5**
	comp=E,0.4nm,0.8s,baz=154,slow=10,SNR=2.5							
SONM				LR		LR	21 58 27.6	
	comp=E,110nm,18.3s,baz=180,slow=39							
	comp=E,0.4nm,0.8s							
SIJI	**Sorong**	**26.70**	**163**	LR		LR	21 55 04.1	
	comp=E,77nm,21.3s,baz=42,slow=31							
TLY	**Talaya**	**30.78**	**335**	LR		LR	22 00 17.7	
	comp=E,62nm,18.8s,baz=137,slow=38							
YAK	**Yakutsk**	**37.28**	**5**	LR		LR	22 05 12.3	
	comp=E,82nm,18.2s,baz=206,slow=38							
PETK	**Petropavlovsk-**	**37.95**	**33**	LR		LR	22 04 08.8	
	comp=E,49nm,19.6s,baz=276,slow=36							
MKAR	**Makanchi Array**	**39.42**	**314**	P		**P**	**21 48 36.4**	**-0.8**
MKAR	comp=E,1.4nm,1.0s,baz=101,slow=9.1,SNR=7.2			LR		LR	22 04 47.2	
	comp=E,32nm,19.3s,baz=96,slow=36							
	comp=E,1.4nm,1.0s							
ZALV	**Zalesovo Beam**	**40.88**	**325**	P		**P**	**21 48 47.2**	**-2.0**
	comp=E,0.7nm,0.7s,baz=120,slow=5.3,SNR=3.7							
ZALV				LR		LR	22 05 41.3	
	comp=E,54nm,18.6s,baz=111,slow=36							
	comp=E,0.7nm,0.7s							
KURBB	**Kurchatov Array**	**43.03**	**319**	P		**P**	**21 49 06.0**	**-0.8**
	comp=E,1.6nm,1.1s,baz=109,slow=7.6,SNR=6.7							
	comp=E,1.6nm,1.1s							
WRA	**Warramunga Arr**	**45.81**	**166**	P		**P**	**21 49 30.4**	**+1.2**
	comp=E,1.5nm,0.8s,baz=349,slow=8.3,SNR=8.3							
	comp=E,1.5nm,0.8s							
TIXI	**Tiksi**	**46.81**	**2**	LR		LR	22 10 32.3	
	comp=E,122nm,18.3s,baz=192,slow=38							
NRIK	**Noril'sk**	**49.28**	**344**	LR		LR	22 12 45.5	
	comp=E,78nm,18.7s,baz=140,slow=38							
ASAR	**Alice Springs**	**49.34**	**168**	P		**P**	**21 49 58.0**	**+1.4**
	comp=E,1.0nm,0.9s,baz=349,slow=6.8,SNR=7.4							
	comp=E,1.0nm,0.9s							
CTA	**Charters Tower**	**49.85**	**152**	LR		LR	22 12 08.3	
	comp=E,34nm,18.3s,baz=1.0,slow=37							
ARTI	**Arti**	**55.98**	**322**	LR		LR	22 16 02.3	
	comp=E,58nm,18.2s,baz=92,slow=38							
FINES	**FINESS Array B**	**71.94**	**330**	LR		LR	22 27 00.8	
	comp=E,113nm,19.2s,baz=359,slow=38							
HFS	**Hagfors**	**78.01**	**331**	LR		LR	22 30 06.3	
	comp=E,103nm,19.3s,baz=19,slow=38							
NOA	**NORSAR Array B**	**78.61**	**333**	LR		LR	22 31 20.6	
	comp=E,50nm,18.6s,baz=310,slow=38							

NEIC ***14*** *22:21:09.1±1.3, 6.˚40S±0.˚09×153.˚9E±0.˚1, h10km±1km, mb4.3/14, Error ellipse: s-maj=20.7km s-min=14.2km az=77.0*

IDC ***14*** *22:21:18.3±5.8, 6.˚86S×154.˚22E, h101km±39km, mb3.6/9, mbtmp3.9/9, Error ellipse: s-maj=69.0km s-min=20.6km az=109.0*

ISC 14 22:21:14.2±0.9**, 6˚44S**±0.˚07×**153˚9E**±0.˚1**, h48**km**, n31, σ1ᵖ70/33, mb4.0/16, New Britain region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KRVT	**Keravat (AS076**	**2.81**	**319**	P		Pn	22 22 09.3	+13
	602nm,0.3s,baz=281,slow=9.2,SNR=7.4							
KRVT				S		**Sn**	**22 22 33.9**	**+4.6**
	430nm,0.3s,baz=138,slow=23,SNR=6.6							
RABL	**Rabaul**	**2.81**	**323**	Pn		**Pn**	**22 21 53.7**	**-3.0**
RABL						**Sn**	**22 22 28.1**	**-1.2**
PMG	**Port Moresby**	**7.28**	**246**	P		**Pn**	**22 22 60.0**	**+2.0**
	49nm,0.6s,baz=50,slow=10,SNR=20							
PMG				S		**Sn**	**22 24 19.4**	**+0.1**
	14nm,0.4s,baz=155,slow=21,SNR=5.5							
PMG	**Port Moresby**	**7.28**	**246**			**Pn**	**22 22 56.6**	**-1.4**
CTA	**Charters Tower**	**15.46**	**208**	P		**P**	**22 24 53.1**	**+0.2**
	2.0nm,0.8s,baz=19,slow=9.4,SNR=5.3							
CTAO	**Charters Tower**	**15.46**	**208**			**P**	**22 24 51.9**	**-1.0**
WB0	**Warramunga Arr**	**23.11**	**233**	P		**P**	**22 26 14.0**	**-2.2**
WB0				IAmb		IAmb	22 26 22.9	
	comp=Z,8.8nm,1.4s							
WRA	**Warramunga Arr**	**23.24**	**233**	P		**P**	**22 26 16.2**	**-1.3**
	comp=Z,0.6nm,0.6s,baz=56,slow=10,SNR=8.2							
	comp=Z,0.6nm,0.6s							
WRA	**Warramunga Arr**	**23.24**	**233**	P		**P**	**22 26 13.0**	**-4.5**
AS31	**Alice Springs**	**25.73**	**226**	P		**P**	**22 26 38.6**	**-1.8**
ASAR	**Alice Springs**	**25.73**	**226**	P		**P**	**22 26 39.6**	**-0.8**
	comp=Z,1.8nm,0.7s,baz=60,slow=8.9,SNR=31							
	comp=Z,1.8nm,0.7s							
ASAR	**Alice Springs**	**25.73**	**226**	P		**P**	**22 26 39.1**	**-1.3**
FITZ	**Fitzroy Crossi**	**29.87**	**245**	P		**P**	**22 27 15.6**	**-1.8**
FITZ				IAmb		IAmb	22 27 27.7	
	comp=Z,5.0nm,1.4s							
KSRS	**Korea Array**	**49.94**	**333**	P		**P**	**22 30 04.1**	**+0.8**
	comp=Z,1.3nm,0.8s,baz=150,slow=7.6,SNR=5.8							
	comp=Z,1.3nm,0.8s							
SONM	**Songino Array**	**68.27**	**328**	P		**P**	**22 32 12.5**	**+2.3**
	comp=Z,0.9nm,0.6s,baz=134,slow=6.1,SNR=6.3							
	comp=Z,0.9nm,0.6s							
SONM	**Songino Array**	**68.27**	**328**	P		**P**	**22 32 10.4**	**+0.2**
SONM				IAmb		IAmb	22 32 13.0	
	comp=Z,1.1nm,0.8s							
MKAR	**Makanchi Array**	**82.26**	**319**	P		**P**	**22 33 32.3**	**+1.7**
	comp=Z,1.0nm,0.6s,baz=103,slow=6.2,SNR=11							
	comp=Z,1.0nm,0.6s							
MKAR	**Makanchi Array**	**82.26**	**319**	P		**P**	**22 33 30.9**	**+0.3**
MAKZ	**Makanchi**	**82.47**	**319**	P		**P**	**22 33 31.4**	**-0.3**
MAKZ				IAmb		IAmb	22 33 35.2	
	comp=Z,4.2nm,1.1s							
ZAA0	**Zalesovo Array**	**83.10**	**326**	P		**P**	**22 33 34.5**	**-0.2**
ZAA0				IAmb		IAmb	22 33 36.3	
	comp=Z,1.8nm,0.6s							
ZALV	**Zalesovo Beam**	**83.10**	**326**	P		**P**	**22 33 35.1**	**+0.3**
	comp=Z,1.2nm,0.4s,baz=120,slow=6.0,SNR=7.4							
	comp=Z,1.2nm,0.4s							
ZALV	**Zalesovo Beam**	**83.10**	**326**	P		**P**	**22 33 34.6**	**-0.2**
ILAR	**Eielson Array**	**83.27**	**22**	P		**P**	**22 33 34.6**	**-0.8**
	comp=Z,0.4nm,0.6s,baz=245,slow=4.9,SNR=5.5							
	comp=Z,0.4nm,0.6s							
QSPA	**South Pole Qui**	**83.53**	**180**	P		**P**	**22 33 38.1**	**+1.1**
QSPA				IAmb		IAmb	22 33 40.6	
	comp=Z,2.1nm,1.2s							
D22K	**Ayikyak River**	**83.64**	**17**	P		**P**	**22 33 37.3**	**+0.1**
D23K	**Nanushuk River**	**84.28**	**17**	P		**P**	**22 33 40.3**	**-0.2**
D23K				IAmb		IAmb	22 33 53.3	
	comp=Z,5.4nm,1.3s							
KURBB	**Kurchatov Arra**	**85.74**	**322**	P		**P**	**22 33 49.2**	**+1.1**
	comp=Z,0.6nm,0.7s,baz=102,slow=4.4,SNR=3.8							
	comp=Z,0.6nm,0.7s							
H27K	**Steamboat Moun**	**85.93**	**22**	P		**P**	**22 33 48.8**	**-0.1**
H27K				IAmb		IAmb	22 34 09.7	
	comp=Z,4.1nm,1.4s							
I28M	**Miner Creek**	**86.19**	**23**	P		**P**	**22 33 50.2**	**0.0**
H31M	**Peel River**	**88.48**	**23**	P		**P**	**22 34 01.0**	**-0.2**
BVAR	**Borovoye Array**	**91.19**	**323**	P		**P**	**22 34 14.5**	**+0.4**
	comp=Z,0.8nm,0.6s,baz=98,slow=6.0,SNR=5.9							
	comp=Z,0.8nm,0.6s							

CATAC ***14*** *22:39:12.6±0.6, 13.˚N±4.˚9W±.˚, h24km±3km, M3.6/14, MLv3.6/14, Error ellipse: s-maj=8.1km s-min=3.7km az=20.3, confirmed*

SNET ***14*** *22:39:13.3±2.1, 13.˚07N×89.˚25W, h20km, ML3.3, Presumed earthquake*

GCG ***14*** *22:39:14.4±0.7, 13.˚16N×89.˚27W, h47km±13km, MD3.8, Presumed earthquake*

ISC 14 22:39:12.1±2.0**, 13˚09N**±0.˚09×**89˚23W**±0.˚05**, h18**km±7km**, n28, σ0ᵖ40/48, El Salvador**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
LALI	**Alcalda de L**	**0.41**	**347**	P		**Pb**	**22 39 21.2**	**+0.4**
LALI				S		**Sn**	**22 39 28.8**	**-1.5**
LALI	**Alcalda de L**	**0.41**	**347**	*e*P		**Pb**	**22 39 21.2**	**+0.4**
LOMA	**Loma Larga**	**0.55**	**6**	P		**Pn**	**22 39 25.2**	**0.0**
LOMA				S		**Sn**	**22 39 34.4**	**+0.3**
LFRS	**El Faro**	**0.55**	**17**	*e*P		**Pn**	**22 39 25.2**	**0.0**
LFRS				*e*S		**Sn**	**22 39 33.5**	**-0.5**
JAYA	**Jayaque - finc**	**0.60**	**339**	P		**Pn**	**22 39 25.9**	**0.0**
JAYA	**Jayaque - finc**	**0.60**	**339**	*i* P		**Pn**	**22 39 25.9**	**0.0**
JAYA				*e*S		**Sn**	**22 39 34.3**	**-1.0**
JAYA	**Jayaque - finc**	**0.60**	**339**	*e*P		**Pn**	**22 39 25.9**	**0.0**
JAYA				*e*S		**Sn**	**22 39 34.9**	**-0.3**
IGN	**Direccin Gen**	**0.62**	**5**	P		**Pn**	**22 39 26.0**	**-0.2**
IGN				S		**Sn**	**22 39 35.7**	**0.0**
TECO	**Alcaldia de Te**	**0.62**	**44**	P		**Pn**	**22 39 25.7**	**-0.4**
TECO				S		**Sn**	**22 39 35.0**	**-0.6**
PMON	**Piamonte**	**0.62**	**352**	P		**Pn**	**22 39 26.1**	**-0.1**
PMON				S		**Sn**	**22 39 36.1**	**+0.3**
UDBS	**Universidad Do**	**0.62**	**7**	P		**Pn**	**22 39 26.0**	**-0.1**
UDBS				S		**Sn**	**22 39 36.0**	**+0.3**
COEG	**Centro de Oper**	**0.62**	**33**	P		**Pn**	**22 39 26.0**	**-0.3**
COEG	**Centro de Oper**	**0.62**	**33**	*e*P		**Pn**	**22 39 25.9**	**-0.3**
COEG				*e*S		**Sn**	**22 39 35.5**	**-0.3**
BOQS	**Boqueron**	**0.64**	**355**	*e*P		**Pn**	**22 39 26.8**	**+0.3**
BOQS				*e*S		**Sn**	**22 39 36.8**	**+0.3**
PAVA	**Las Pavas**	**0.68**	**25**	P		**Pn**	**22 39 26.7**	**-0.3**
PAVA				S		**Sn**	**22 39 37.4**	**+0.2**
ALJI	**Alcalda de J**	**0.68**	**70**	P		**Pn**	**22 39 26.7**	**-0.2**
ALJI	**Alcalda de J**	**0.68**	**70**	*e*P		**Pn**	**22 39 27.2**	**+0.3**
ALJI				*e*S		**Sn**	**22 39 37.8**	**+0.8**
CEVE	**Cerro Verde**	**0.83**	**332**	P		**Pn**	**22 39 29.1**	**0.0**
CEVE	**Cerro Verde**	**0.83**	**332**	*e*P		**Pn**	**22 39 29.5**	**+0.3**
CEVE				*e*S		**Sn**	**22 39 41.5**	**+0.5**
UNIC	**Universidad Ca**	**0.94**	**341**	P		**Pn**	**22 39 30.6**	**+0.1**
UNIC				S		**Sn**	**22 39 44.0**	**+0.4**
PACA	**Pacayal**	**0.96**	**67**	P		**Pg**	**22 39 30.6**	**-0.2**
PACA				S		**Sg**	**22 39 43.7**	**+0.2**
NUBE	**Las Nubes**	**0.97**	**326**	P		**Pb**	**22 39 30.6**	**+0.1**
NUBE	**Las Nubes**	**0.97**	**326**	*e*P		**Pn**	**22 39 30.8**	**-0.2**
NUBE				*e*S		**Sg**	**22 39 43.9**	**+0.2**
RANC	**El Ranchito**	**0.98**	**69**	P		**Pn**	**22 39 30.8**	**-0.3**
RANC				S		**Sn**	**22 39 44.5**	**-0.1**
FAME	**Alcaldia de Sa**	**1.07**	**314**	P		**Pb**	**22 39 32.0**	**-0.1**
INTP	**Intipuca**	**1.15**	**85**	*e*P		**Pn**	**22 39 33.3**	**0.0**
INTP				*e*S		**Sb**	**22 39 48.0**	**-0.1**
ESQI	**Esquipulas**	**1.46**	**356**	P		**Pn**	**22 39 37.7**	**-0.1**
ESQI				S		**Sn**	**22 39 56.3**	**-0.3**
SARH	**Santa Rosa de**	**1.73**	**15**	*e*P		**Pn**	**22 39 41.6**	**+0.1**

BJI ***14*** *22:57:19.6, 26.˚09N×127.˚08E, h96km, mB4.9/16, mb4.6/62*

MOS ***14*** *22:57:25.9±0.8, 26.˚68N×126.˚65E, h104km, mb4.7/48, Error ellipse: s-maj=7.6km s-min=4.6km az=112.2*

IDC ***14*** *22:57:26.6±1.0, 26.˚69N×126.˚60E, h96km±9km, mb4.2/39, mbtmp4.6/41, MS3.2/15, Error ellipse: s-maj=11.3km s-min=8.4km az=70.0*

GFZ ***14*** *22:57:27.8±0.3, 27.˚N±3.˚×12.˚7E±.˚, h103km±3km, M4.7/22, mb4.9/22*

JMA ***14*** *22:57:27.9±0.3, 27.˚N±2.˚×12.˚7E±.˚, h104km±2km, MD4.5/27, MV4.6/27, NW OFF OKINAWAJIMA IS*

JMA Felt II J1 at NW OFF OKINAWAJIMA IS .

NIED ***14*** *22:57:27.9, 26.˚71N×126.˚64E, h104km, MW4.5, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr-1.80; Mθθ2.34; Mϕϕ-0.53; Mrθ-4.10; Mθϕ-2.60; Mϕr-1.70; Fault plane solution: M₀5.54000×10¹⁵ NP1: ϕs335.00000°, δ35.00000°, λ-20.00000°. NP2:ϕs81.00000°, δ79.00000°, λ-124.00000°.*

NEIC ***14*** *22:57:27.3±1.7, 26.˚61N±0.˚07×126.˚73E±0.˚06, h104km±6km, mb4.9/104 Error ellipse: s-maj=10.1km s-min=6.8km az=158.0*

ISC 14 22:57:27.5±0.4**, 26˚62N**±0.˚03×**126˚74E**±0.˚03**, h109**km±3km**, h109**km**: pP-P, n527, σ1ᵖ13/595, mb4.7/168, 50C-27D, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JKE	**Kume jima 2**	**0.30**	**172**	*i* P		**Pn**	**22 57 43.5**	**+0.3**
JKE				A		A	22 57 43.5	
	comp=N,14nm,1.6s,comp=E,7.0nm,1.1s							
JAGN	**Aguni-jima**	**0.45**	**94**	*i* P		**Pn**	**22 57 44.6**	**+0.7**
JAGN				A		A	22 57 44.6	
	comp=N,96nm,0.4s,comp=E,45nm,0.4s							
JAGN				*i* S		**Sn**	**22 57 56.7**	**+0.4**
JJT3	**Tamagusuku3**	**1.05**	**117**	*i* P		**Pn**	**22 57 51.2**	**+2.0**
JJT3				A		A	22 57 51.2	
	comp=N,31nm,2.3s,comp=E,34nm,2.7s							
JJT3				S		**Sn**	**22 58 07.6**	**+2.1**
JNTH	**Nagotoyohara**	**1.15**	**95**	*i* P		**Pn**	**22 57 51.7**	**+1.4**
JNTH				A		A	22 57 51.7	
	comp=N,25nm,0.4s,comp=E,32nm,1.2s							
JNTH				S		**Sn**	**22 58 07.9**	**+0.4**
JIH	**Iheya**	**1.17**	**69**	*i* P		**Pn**	**22 57 51.7**	**+1.3**
JIH				A		A	22 57 51.7	
	comp=N,17nm,1.0s,comp=E,18nm,0.9s							
JIH				S		**Sn**	**22 58 08.4**	**+0.6**
JOW	**Kunigami**	**1.39**	**81**	P		**Pn**	**22 57 54.2**	**+1.3**
	comp=E,820nm,0.3s,baz=250,slow=11,SNR=186							
JOW				S		**Sn**	**22 58 12.1**	**-0.1**
	comp=E,13μm,0.2s,baz=124,slow=28,SNR=31							
JOW				LR		LR	22 58 28.9	
	comp=E,416nm,19.8s,baz=344,slow=42							
JOW	**Kunigami**	**1.39**	**81**	P		**Pn**	**22 57 52.3**	**-0.7**
JOW	**Kunigami**	**1.39**	**81**	S		**Sn**	**22 58 12.6**	**+0.3**
JOW	**Kunigami**	**1.39**	**81**			**Pn**	**22 57 54.1**	**+1.1**
JOW				Sn		**Sn**	**22 58 11.5**	**-0.8**
JOW	**Kunigami**	**1.39**	**81**	P		**Pn**	**22 57 54.3**	**+1.3**
JOW	**Kunigami**	**1.39**	**81**	*i* P		**Pn**	**22 57 54.2**	**+1.3**
JOW				A		A	22 57 54.2	
	comp=N,32nm,0.4s,comp=E,26nm,0.4s							
JOW				*e*S		**Sn**	**22 58 12.2**	**-0.1**
JYRO	**Yoronjima**	**1.58**	**75**	P		**Pn**	**22 57 56.4**	**+1.2**
JYRO				A		A	22 57 56.4	
	comp=N,10.0nm,1.2s,comp=E,6.0nm,0.5s							
JYRO				*e*S		**Sn**	**22 58 16.6**	**+0.3**
JOKE	**Okinoerabujima**	**1.79**	**65**	P		**Pn**	**22 57 58.6**	**+0.7**
JOKE				S		**Sn**	**22 58 21.0**	**0.0**
JIKM	**Ikemajima**	**2.16**	**219**	*e*P		**Pn**	**22 58 03.1**	**+0.6**
JIKM				*e*S		**Sn**	**22 58 28.9**	**-0.4**
JOGS	**Gusukube**	**2.21**	**213**	*e*P		**Pn**	**22 58 03.7**	**+0.5**
JOGS				A		A	22 58 03.7	
	comp=N,11nm,2.3s,comp=E,10.0nm,3.0s							
JOGS				*e*S		**Sn**	**22 58 30.1**	**-0.3**
JMJ	**Miyako jima 2**	**2.22**	**216**	P		**Pn**	**22 58 04.5**	**+1.2**
JMJ	**Miyako jima 2**	**2.22**	**216**	S		**Sn**	**22 58 29.6**	**-1.1**
JIRJ	**Irabujima**	**2.26**	**218**	P		**Pn**	**22 58 03.9**	**+0.1**
JIRJ				*e*S		**Sn**	**22 58 30.4**	**-1.3**
JMJ2	**Miyako jima3**	**2.27**	**215**	P		**Pn**	**22 58 04.4**	**+0.5**
JMJ2				*e*S		**Sn**	**22 58 32.0**	**+0.2**
JTK	**Tokunoshima**	**2.29**	**59**	P		**Pn**	**22 58 04.6**	**+0.5**
JTK				A		A	22 58 04.6	
	comp=N,4.0nm,1.3s,comp=E,3.0nm,2.6s							
JTK				S		**Sn**	**22 58 32.0**	**-0.1**
JAMN	**Amaminishikomi**	**2.70**	**53**	P		**Pn**	**22 58 09.6**	**+0.1**
JAM	**Amami Oshima**	**3.11**	**54**	P		**Pn**	**22 58 15.1**	**+0.2**
JAM				*e*S		**Sn**	**22 58 51.0**	**-0.5**
JZK	**Kikaishima**	**3.33**	**59**	P		**Pn**	**22 58 18.5**	**+0.6**
JZK				*e*S		**Sn**	**22 58 57.7**	**+0.9**
JTAJ	**Takarajima**	**3.33**	**40**	P		**Pn**	**22 58 18.9**	**+0.9**
YOJ	**Yonaguni jima**	**4.00**	**238**			**Pn**	**22 58 26.6**	**-0.3**
YOJ				Sn		**Sn**	**22 59 12.7**	**0.0**
YOJ	**Yonaguni jima**	**4.00**	**238**	P		**Pn**	**22 58 27.3**	**+0.5**
JMZ	**Minamidaito 2**	**4.11**	**100**	P		**Pn**	**22 58 28.2**	**-0.1**
JMZ	**Minamidaito 2**	**4.11**	**100**	S		**Sn**	**22 59 11.8**	**-3.6**
JMZ	**Minamidaito 2**	**4.11**	**100**	Pn		**Pn**	**22 58 27.9**	**-0.4**
JMZ				Sn		**Sn**	**22 59 11.4**	**-4.0**
JMZ	**Minamidaito 2**	**4.11**	**100**	P		**Pn**	**22 58 27.4**	**-0.9**
JMZ				*e*S		**Sn**	**22 59 11.2**	**-4.1**
JKDJ	**Kitadaitoujima**	**4.14**	**98**	*e*P		**Pn**	**22 58 28.2**	**-0.6**
JKDJ				*e*S		**Sn**	**22 59 12.8**	**-3.5**
JYAK	**Yakushimahirau**	**4.90**	**42**	*e*P		**Pn**	**22 58 38.4**	**-0.6**
JYAK				*e*S		**Sn**	**22 59 31.6**	**-3.0**
TATO	**Taipei**	**5.01**	**252**			**Pn**	**22 58 41.2**	**+0.7**
YHNB	**Yeheng**	**5.22**	**249**	P		**Pn**	**22 58 45.4**	**+2.0**
YHNB	**Yeheng**	**5.22**	**249**			**Pn**	**22 58 44.4**	**+1.0**
YHNB	**Yeheng**	**5.22**	**249**	P		**Pn**	**22 58 45.1**	**+1.7**
	comp=Z,394nm,0.8s							
JMTN	**Minamitane**	**5.25**	**43**	*e*P		**Pn**	**22 58 43.4**	**-0.3**
JMTN				*e*S		**Sn**	**22 59 41.2**	**-1.8**
NACB	**Ninganchiao**	**5.25**	**243**	P		**Pn**	**22 58 42.4**	**-1.3**
NACB	**Ninganchiao**	**5.25**	**243**			**Pn**	**22 58 42.5**	**-1.3**
NACB	**Ninganchiao**	**5.25**	**243**	P		**Pn**	**22 58 43.1**	**-0.7**
	comp=Z,72nm,0.8s							
JTN	**Tanegashima 3**	**5.48**	**42**	*e*P		**Pn**	**22 58 46.4**	**-0.4**
JSU	**Suzuyama**	**5.85**	**33**	P		**Pn**	**22 58 52.7**	**+0.8**
JSU	**Suzuyama**	**5.85**	**33**			**Pn**	**22 58 52.4**	**+0.5**
JSU	**Suzuyama**	**5.85**	**33**	P		**Pn**	**22 58 52.5**	**+0.7**
	comp=Z,104nm,0.6s							
YULB	**Yu-li**	**5.89**	**238**	P		**Pn**	**22 58 49.8**	**-2.7**
YULB	**Yu-li**	**5.89**	**238**			**Pn**	**22 58 49.7**	**-2.7**
YULB	**Yu-li**	**5.89**	**238**	P		**Pn**	**22 58 50.2**	**-2.2**
	comp=Z,90nm,0.9s							
SSLB	**Suanglung**	**5.95**	**243**	P		**Pn**	**22 58 52.0**	**-1.3**
SSLB	**Suanglung**	**5.95**	**243**			**Pn**	**22 58 51.6**	**-1.6**
SSLB	**Suanglung**	**5.95**	**243**	P		**Pn**	**22 58 52.4**	**-0.9**
	comp=Z,118nm,0.6s							
TWGBT	**Beinan**	**6.39**	**235**	P		**Pn**	**22 58 56.4**	**-2.8**
TWG	**Pinlang**	**6.39**	**235**			**Pn**	**22 58 55.4**	**-3.8**
TWG	**Pinlang**	**6.39**	**235**	P		**Pn**	**22 58 56.2**	**-3.0**
	comp=Z,133nm,0.7s							
TPUB	**Ta-pu**	**6.46**	**241**	P		**Pn**	**22 58 59.2**	**-0.9**
TPUB	**Ta-pu**	**6.46**	**241**			**Pn**	**22 58 58.8**	**-1.3**
TPUB	**Ta-pu**	**6.46**	**241**	P		**Pn**	**22 58 60.0**	**-0.1**
	comp=Z,305nm,0.8s							
SSE	**Sheshan**	**6.60**	**314**	P		Pn	22 59 06.4	+4.4
SSE				S		Sn	23 00 22.3	+6.5
SSE				SMN	

comp=Z,13nm,0.9s
XLT XiLinHaoTe 19.28 336 *e*P **Pn** **23 01 44.8 -1.1**
XLT pmax pmax
comp=Z,41nm,0.8s
XLT pmax pmax
comp=Z,240nm,3.5s
DAV Davao City (W) 19.48 183 LR LR 23 08 57.6
comp=Z,74nm,21.2s,baz=360,slow=35
BTO2 Baotou 19.83 319 *e*P **Pn** **23 01 52.8 +0.5**
BTO2 pP **pP** **23 02 12.8 +2.7**
BTO2 pmax pmax
comp=Z,20nm,0.8s
BTO2 pmax pmax
comp=Z,340nm,5.1s
BTO2 L L
comp=Z,1μm,13.4s
BTO2 L L
comp=Z,1μm,15.5s
BTO2 L L
comp=Z,1μm,13.0s
CD2 Chengdu 20.59 287 P **P** **23 01 56.8 -1.1**
CD2 pmax pmax
comp=Z,30nm,0.9s
ASAJ Asahikawa 21.66 32 P **P** **23 02 09.8 +0.7**
comp=Z,5.2nm,0.5s,baz=230,slow=7.9,SNR=6.5
comp=Z,5.2nm,0.5s
JKA Kamikawa-asahi 21.66 32 P **P** **23 02 09.0 -0.2**
JKA IAmb IAmb 23 02 24.1
comp=Z,61nm,1.5s
LZH Lanzhou 21.67 301 *e*P **P** **23 02 09.8 +0.3**
LZH pP pP 23 02 32.8 +2.6
LZH pmax pmax
comp=Z,28nm,1.1s
LZH L L
comp=Z,420nm,16.0s
LZH L L
comp=Z,510nm,12.4s
LZH L L
comp=Z,450nm,15.8s
LZDM Lanzhou Array 21.74 301 P **P** **23 02 10.0 -0.5**
comp=Z,3.8nm,0.3s,baz=116,slow=10,SNR=16
comp=Z,3.8nm,0.3s
PZH PanZhiHua 22.35 275 P **P** **23 02 16.5 -0.3**
KKM Kota Kinabalu 22.79 208 P **P** **23 02 20.0 -1.2**
KLR Kul'dur 22.91 8 P **P** **23 02 21.2 -0.7**
comp=Z,1.8nm,0.7s,baz=237,slow=8.6,SNR=4.7
KLR LR LR 23 10 33.7
comp=Z,56nm,19.6s,baz=197,slow=34
comp=Z,1.8nm,0.7s
HILR Hailar Array B 23.53 349 P **P** **23 02 27.9 +0.2**
comp=Z,2.9nm,0.4s,baz=156,slow=11,SNR=4.6
comp=Z,2.9nm,0.4s
HEH HeiHe 23.60 1 *e*P **P** **23 02 29.4 +1.1**
TNTI Ternate 25.71 179 P **P** **23 02 46.2 -1.5**
TNTI IAmb IAmb 23 02 53.1
comp=Z,22nm,0.7s
GTA2 Gaotai 25.89 306 P **P** **23 02 48.1 -1.3**
GTA2 pP pP 23 03 14.8 +1.8
GTA2 pmax pmax
comp=Z,18nm,0.5s
TOLI2 Tolitoli 26.00 194 **P** **23 02 49.7 -0.6**
TOLI2 Tolitoli 26.00 194 P **P** **23 02 52.1 +1.7**
comp=Z,17nm,1.0s
ULN Ulaanbaatar 26.23 329⇑ *e*P **P** **23 02 51.8 -0.5**
ULN pmax pmax
comp=Z,24nm,1.7s
ULN Ulaanbaatar 26.23 329 P **P** **23 02 51.0 -1.3**
comp=Z,47nm,0.8s
ULN Ulaanbaatar 26.23 329 P **P** **23 02 51.7 -0.7**
comp=Z,12nm,0.8s
SONM Songino Array 26.51 328 P **P** **23 02 54.2 -0.7**
comp=Z,9.0nm,0.6s,baz=146,slow=10,SNR=28
SONM PcP **PcP** **23 06 17.6 +0.8**
comp=Z,1.1nm,0.6s,baz=150,slow=4.2,SNR=5.1
SONM LR LR 23 13 07.3
comp=Z,56nm,21.5s,baz=182,slow=36
comp=Z,9.0nm,0.6s
SONM Songino Array 26.51 328 **P** **23 02 53.9 -0.9**
SONM **PcP** **23 06 16.8 0.0**
CMAR Chiang Mai Arr 26.89 258 P **P** **23 02 58.5 +0.1**
comp=Z,1.0nm,0.7s,baz=60,slow=8.4,SNR=6.9
CMAR PcP **PcP** **23 06 18.1 +0.1**
comp=Z,0.7nm,0.3s,baz=61,slow=1.4,SNR=4.5
CMAR LR LR 23 13 53.7
comp=Z,16nm,18.5s,baz=180,slow=37
comp=Z,1.0nm,0.7s
CMAR Chiang Mai Arr 26.89 258 P **P** **23 02 58.0 -0.4**
SIJI Sorong 27.68 170 LR LR 23 12 23.1
comp=Z,98nm,20.7s,baz=84,slow=32
SANI Sanana 28.51 182 P **P** **23 03 12.1 -0.7**
comp=Z,33nm,0.8s
SANI Sanana 28.51 182 P **P** **23 03 13.0 +0.2**
comp=Z,33nm,0.8s
GOMU GeErMu 28.76 297 P **P** **23 03 14.6 -0.7**
GOMU pmax pmax
comp=Z,3.0nm,0.5s
FAKI Fak Fak 29.84 169 **P** **23 03 23.9 -0.7**
FAKI IAmb IAmb 23 03 26.7
comp=Z,24nm,0.7s
FAKI Fak Fak 29.84 169 P **P** **23 03 26.3 +1.7**
comp=Z,37nm,0.9s
MMSI Mamuju 30.11 196 P **P** **23 03 28.6 +1.7**
comp=Z,60nm,1.0s
TLY Talaya 30.52 331 P **P** **23 03 29.8 -0.5**
comp=Z,10nm,0.7s,baz=127,slow=10,SNR=9.1
TLY LR LR 23 16 43.4
comp=Z,21nm,21.6s,baz=124,slow=38
comp=Z,10nm,0.7s
TLY Talaya 30.52 331 *de*P **P** **23 03 29.9 -0.3**
TLY pmax pmax
comp=Z,7.0nm,0.8s
TLY Talaya 30.52 331 **P** **23 03 29.4 -0.9**
TLY IAmb IAmb 23 03 31.3
comp=Z,11nm,0.7s
TLY Talaya 30.52 331 P **P** **23 03 30.0 -0.3**
comp=Z,18nm,0.8s
TLY Talaya 30.52 331 P **P** **23 03 29.9 -0.3**
TLY pP **pP** **23 03 55.8 +1.7**
BBSI Bau Bau 32.17 188 P **P** **23 03 47.3 +2.2**
comp=Z,32nm,1.0s
IPM Ipoh 33.00 233 P **P** **23 03 52.4 0.0**
IPM IAmb IAmb 23 04 38.5
comp=Z,18nm,1.2s
PETK Petropavlovsk- 35.08 33 P **P** **23 04 12.2 +2.3**
comp=Z,2.5nm,0.5s,baz=251,slow=4.4,SNR=5.9
comp=Z,2.5nm,0.5s
PETK Petropavlovsk- 35.08 33 P **P** **23 04 09.3 -0.6**
EVN Everest 35.40 281 P **P** **23 04 11.8 -1.9**
YAK Yakutsk 35.46 2 LR LR 23 19 21.7
comp=Z,29nm,18.9s,baz=262,slow=37
YAK Yakutsk 35.46 2⇑ *e*P **P** **23 04 14.5 +1.5**
YAK pmax pmax
comp=Z,4.0nm,0.9s
WMQ Urumqi 35.83 309 *e*P **P** **23 04 16.8 +0.2**
WMQ pP pP 23 04 42.6 +1.9
WMQ PcP **PcP** **23 06 43.8 +2.0**
WMQ pmax pmax
comp=Z,13nm,1.1s
WMQ L L
comp=Z,77nm,24.7s
BATI Baumata 36.73 185 P **P** **23 04 23.3 -1.1**
comp=Z,32nm,0.7s,baz=284,slow=0.5,SNR=6.6
comp=Z,32nm,0.7s
MA2 Magadan 36.89 20 LR LR 23 18 47.7
comp=Z,31nm,21.8s,baz=175,slow=35
ZSN Zaisan 38.77 314 *e*P **P** **23 04 41.6 +0.4**
ZSN Zaisan 38.77 314 *e*P **P** **23 04 41.6 +0.4**
RABL Rabaul 39.28 137 P **P** **23 04 44.4 -1.4**
SEY Seymchan 40.05 18 P **P** **23 04 52.1 +0.5**
comp=Z,3.3nm,0.6s,baz=214,slow=7.0,SNR=4.8
SEY PcP **PcP** **23 06 55.0 +0.8**
comp=Z,4.8nm,0.8s,baz=289,slow=2.4,SNR=6.2
comp=Z,3.3nm,0.6s
MK31 Makanchi Array 40.28 312 *de*P **P** **23 04 52.5 -1.3**
MKAR Makanchi Array 40.28 312 P **P** **23 04 52.8 -1.1**
comp=Z,11nm,0.6s,baz=99,slow=10,SNR=139
MKAR PcP **PcP** **23 06 55.5 +0.1**
comp=Z,6.9nm,0.7s,baz=82,slow=2.9,SNR=21
MKAR ScP **ScP** **23 10 35.8 +1.1**
comp=Z,0.8nm,0.8s,baz=108,slow=4.0,SNR=4.7
comp=Z,11nm,0.6s
MKAR Makanchi Array 40.28 312 *i* P **P** **23 04 52.7 -1.1**
MKAR pmax pmax
comp=Z,12nm,0.6s
MKAR Makanchi Array 40.28 312 **P** **23 04 52.8 -1.1**
MKAR PcP **PcP** **23 06 55.5 +0.1**
MKAR **ScP** **23 10 34.7 0.0**

MAKZ Makanchi 40.49 312 P **P** **23 04 54.6 -1.0**
MAKZ 23 06 56.0
MAKZ pmax pmax
comp=Z,8.0nm,0.8s
MAKZ Makanchi 40.49 312 P **P** **23 04 54.6 -1.0**
MAKZ PcP **PcP** **23 06 56.0 -0.1**
MAKZ Makanchi 40.49 312 P **P** **23 04 54.8 -0.8**
comp=Z,11nm,0.7s
MAKZ Makanchi 40.49 312 P **P** **23 04 54.6 -1.0**
MAKZ pP **pP** **23 05 20.4 +0.3**
MAKZ PcP **PcP** **23 06 56.4 +0.2**
ZAA0 Zalesovo Array 41.13 323 P **P** **23 04 59.3 -1.3**
ZAA0 IAmb IAmb 23 05 00.9
comp=Z,17nm,0.6s
ZALV Zalesovo Beam 41.13 323 P **P** **23 04 59.6 -1.0**
comp=Z,19nm,0.5s,baz=112,slow=8.5,SNR=110
ZALV PcP **PcP** **23 06 57.9 -0.1**
comp=Z,3.7nm,0.8s,baz=111,slow=3.7,SNR=8.0
ZALV ScP **ScP** **23 10 38.2 +0.4**
comp=Z,1.0nm,0.6s,baz=103,slow=4.7,SNR=4.4
ZALV LR LR 23 22 49.0
comp=Z,50nm,18.5s,baz=88,slow=37
comp=Z,19nm,0.5s
ZALV Zalesovo Beam 41.13 323 **P** **23 04 59.4 -1.3**
ZALV **PcP** **23 06 57.7 -0.3**
ZALV **ScP** **23 10 36.9 -1.0**
WUS Wushi 41.53 303 P **P** **23 05 03.6 -0.7**
WUS Wushi 41.53 303 P **P** **23 05 04.5 +0.2**
WUS PcP **PcP** **23 07 00.8 +1.0**
SHLS Shalkode 41.57 306 *e*P **P** **23 05 01.9 -2.7**
SHLS Shalkode 41.57 306 *e*P **P** **23 05 01.1 -3.5**
PDGK Podgornoye 41.57 306 P **P** **23 05 03.6 -1.0**
PDGK Podgornoye 41.57 306 P **P** **23 05 03.6 -1.0**
UZB Uzynbulak 41.88 306 *e*P **P** **23 05 07.1 -0.1**
UZB Uzynbulak 41.88 306 *e*P **P** **23 05 07.2 -0.1**
KPKS Kokpek 42.17 306 *e*P **P** **23 05 09.4 0.0**
KPKS Kokpek 42.17 306 *e*P **P** **23 05 09.4 0.0**
SATY Saty 42.32 306 *e*P **P** **23 05 10.7 0.0**
SATY Saty 42.32 306 *e*P **P** **23 05 10.8 0.0**
SEM Semipalatinsk 42.54 317 *e*P **P** **23 05 12.4 0.0**
SEM Semipalatinsk 42.54 317 *e*P **P** **23 05 12.4 0.0**
TDK Taldyqorghan 42.58 308 *e*P **P** **23 05 12.8 +0.2**
TDK pmax pmax
comp=Z,19nm,1.0s
TDK Taldyqorghan 42.58 308 *e*P **P** **23 05 12.9 +0.2**
comp=Z,19nm,1.0s
MDOK Medeo 43.32 306 *e*P **P** **23 05 19.2 +0.4**
MDOK Medeo 43.32 306 *e*P **P** **23 05 19.3 +0.4**
COEN Coen 43.38 156 P **P** **23 05 17.0 -2.3**
TNSS Tian-Shan 43.38 305 *e*P **P** **23 05 19.2 -0.4**
TNSS Tian-Shan 43.38 305 *e*P **P** **23 05 19.3 -0.4**
AAA Alma-Ata 43.42 306 *e*P **P** **23 05 19.7 +0.2**
AAA pmax pmax
comp=Z,23nm,1.3s
AAA Alma-Ata 43.42 306 *e*P **P** **23 05 19.7 +0.2**
comp=Z,23nm,1.3s
KURK Kurchatov 43.62 317 *ce*P **P** **23 05 19.9 -0.9**
KURK pmax pmax
comp=Z,8.0nm,1.0s
KURK Kurchatov 43.62 317 **P** **23 05 19.6 -1.3**
KURK **PcP** **23 07 05.2 -1.1**
KURK Kurchatov 43.62 317 P **P** **23 05 20.2 -0.7**
comp=Z,12nm,0.8s
KURK Kurchatov 43.62 317 P **P** **23 05 20.0 -0.9**
KURK PcP **PcP** **23 07 06.5 +0.1**
KURBB Kurchatov Arra 43.65 317 P **P** **23 05 20.3 -0.8**
comp=Z,6.3nm,0.5s,baz=105,slow=8.6,SNR=31
KURBB PcP **PcP** **23 07 06.5 +0.1**
comp=Z,4.4nm,0.6s,baz=112,slow=3.4,SNR=16
KURBB ScP **ScP** **23 10 49.4 +1.4**
comp=Z,0.5nm,0.2s,baz=107,slow=3.8,SNR=4.4
comp=Z,6.3nm,0.5s
KSH2 Kashi 44.22 300 P **P** **23 05 26.5 +0.4**
KSH2 pmax pmax
comp=Z,5.0nm,0.9s
FITZ Fitzroy Crossi 44.46 181 P **P** **23 05 28.8 +0.9**
comp=Z,7.3nm,0.7s,baz=16,slow=6.6,SNR=4.3
comp=Z,7.3nm,0.7s
FITZ Fitzroy Crossi 44.46 181 P **P** **23 05 27.9 +0.1**
TIXI Tiksi 45.08 1 P **P** **23 05 32.3 +0.1**
comp=Z,1.2nm,0.4s,baz=182,slow=6.7,SNR=7.8
TIXI PcP **PcP** **23 07 10.9 -0.1**
comp=Z,1.7nm,0.6s,baz=350,slow=1.3,SNR=4.9
TIXI LR LR 23 23 38.7
comp=Z,44nm,19.6s,baz=199,slow=35
comp=Z,1.2nm,0.4s
TIXI Tiksi 45.08 1⇑ *e*P **P** **23 05 32.5 +0.3**
TIXI pmax pmax
comp=Z,1.0nm,0.4s
TIXI Tiksi 45.08 1 P **P** **23 05 32.3 +0.1**
NIL Nilore 46.36 292 P **P** **23 05 42.3 -0.6**
NIL pmax pmax
comp=Z,9.0nm,1.1s
NIL Nilore 46.36 292 P **P** **23 05 42.3 -0.6**
NIL Nilore 46.36 292 P **P** **23 05 42.6 -0.3**
comp=Z,9.8nm,0.8s
WB0 Warramunga Arr 46.70 170 P **P** **23 05 45.1 -0.4**
WRAB Tennant Creek 46.86 170⇑ *e*P **P** **23 05 47.7 +0.9**
WRAB pmax pmax
comp=Z,15nm,1.7s
WRAB Tennant Creek 46.86 170 P **P** **23 05 47.5 +0.7**
WRAB pP **pP** **23 06 14.3 +2.5**
WRA Warramunga Arr 46.87 170 P **P** **23 05 47.7 +0.9**
comp=Z,8.5nm,0.6s,baz=352,slow=8.4,SNR=20
comp=Z,8.5nm,0.6s
WRA Warramunga Arr 46.87 170 *i* P **P** **23 05 44.9 -1.9**
WRA pmax pmax
comp=Z,9.0nm,0.6s
WRA Warramunga Arr 46.87 170 P **P** **23 05 43.6 -3.2**
DZA Taraz 47.49 305 *e*P **P** **23 05 51.6 +0.1**
DZA Taraz 47.49 305 *e*P **P** **23 05 51.7 +0.1**
MTSU Mount Surprise 47.65 157 P **P** **23 05 55.6 +2.7**
comp=Z,22nm,0.8s
BILL Bilibino 47.73 19⇓ *e*P **P** **23 05 53.7 +0.8**
BILL pmax pmax
comp=Z,26nm,2.5s
PALK Pallekele 47.74 255 P **P** **23 05 54.4 +0.6**
PALK pmax pmax
comp=Z,70nm,1.7s
PALK Pallekele 47.74 255 P **P** **23 05 54.4 +0.6**
KK31 Karatay Array 48.09 305 P **P** **23 05 55.8 -0.4**
KK31 23 07 22.5
KK31 pmax pmax
comp=Z,9.0nm,0.8s
KK31 Karatay Array 48.09 305 P **P** **23 05 55.8 -0.4**
KK31 PcP **PcP** **23 07 22.5 +0.3**
KKAR Karatay Array 48.09 305 P **P** **23 05 56.0 -0.2**
KKAR 23 07 22.2
KKAR Karatay Array 48.09 305 P **P** **23 05 56.0 -0.2**
KKAR PcP **PcP** **23 07 22.1 -0.1**
IUG luznay 48.44 304 *e*P **P** **23 05 59.4 +0.4**
IUG pmax pmax
comp=Z,13nm,1.4s
IUG luznay 48.44 304 *e*P **P** **23 05 59.4 +0.4**
comp=Z,13nm,1.4s
NRIK Noril'sk 48.48 343 P **P** **23 05 58.4 -0.3**
comp=Z,2.5nm,0.6s,baz=134,slow=9.6,SNR=2.6
NRIK PcP **PcP** **23 07 23.1 +0.1**
comp=Z,15nm,0.7s,baz=122,slow=4.0,SNR=16
NRIK LR LR 23 28 02.7
comp=Z,41nm,18.2s,baz=128,slow=38
comp=Z,2.5nm,0.6s
QIS Mount Isa 48.53 164 P **P** **23 06 01.3 +1.7**
comp=Z,31nm,1.4s
BRLS Borolday 48.59 305 *e*P **P** **23 06 00.9 +0.9**
BRLS Borolday 48.59 305 *e*P **P** **23 06 00.9 +0.9**
ADK Adak 49.05 43 P **P** **23 06 03.2 -0.1**
ADK pmax pmax
comp=Z,176nm,1.6s
ADK Adak 49.05 43 P **P** **23 06 03.2 -0.1**
BVAR Borovoye Array 49.10 318 P **P** **23 06 03.3 -0.3**
comp=Z,6.8nm,0.5s,baz=96,slow=8.6,SNR=38
BVAR PcP **PcP** **23 07 25.8 +0.1**
comp=Z,11nm,0.7s,baz=98,slow=4.2,SNR=17
BVAR ScP **ScP** **23 11 11.6 +0.8**
comp=Z,1.8nm,0.7s,baz=93,slow=5.9,SNR=6.5
comp=Z,6.8nm,0.5s
BORK Borovoye 49.14 318 *ce*P **P** **23 06 04.3 +0.3**
BORK Borovoye 49.14 318 **P** **23 06 03.8 -0.2**
BORK IAmb IAmb 23 06 05.7
comp=Z,9.1nm,0.6s
BORK PcP **PcP** **23 07 26.0 +0.2**
KBL Kabul 49.73 294 P **P** **23 06 08.9 -0.1**
KBL pmax pmax
comp=Z,14nm,0.7s

KBL Kabul 49.73 294 IAmb IAmb 23 06 10.6
comp=Z,14nm,0.7s
KBL Kabul 49.73 294 P **P** **23 06 09.2 +0.2**
comp=Z,25nm,1.0s
CTA Charters Tower 50.14 156 P **P** **23 06 13.9 +2.0**
comp=Z,6.6nm,1.0s,baz=328,slow=11,SNR=6.1
comp=Z,6.6nm,1.0s
AS31 Alice Springs 50.47 171 **P** **23 06 14.8 +0.5**
ASAR Alice Springs 50.47 171 P **P** **23 06 16.0 +1.7**
comp=Z,6.1nm,0.7s,baz=350,slow=9.3,SNR=65
comp=Z,6.1nm,0.7s
ASAR Alice Springs 50.47 171 P **P** **23 06 14.9 +0.6**
ATKA Atka Island 50.62 43 P **P** **23 06 15.4 +0.2**
SVE Sverdlovsk 55.13 322 *e*P **P** **23 06 47.7 -0.6**
HRA Herat 55.30 295 P **P** **23 06 49.9 -0.2**
AB31 Akbulak array 55.41 313 **P** **23 06 50.6 +0.2**
AB31 IAmb IAmb 23 06 51.1
comp=Z,12nm,0.7s
AB31 PcP **PcP** **23 07 49.5 +0.1**
ABKAR Akbulak array 55.41 313 **P** **23 06 50.5 +0.1**
ABKAR PcP **PcP** **23 07 49.1 -0.3**
MORW Morawa 56.31 191 P **P** **23 06 57.3 +0.4**
ARTI Arti 56.36 322 P **P** **23 06 55.6 -1.4**
ARTI pmax pmax
comp=Z,10.0nm,0.8s
ARTI Arti 56.36 322 **P** **23 06 55.6 -1.4**
ARTI IAmb IAmb 23 06 56.7
comp=Z,9.9nm,0.8s
ARTI Arti 56.36 322 P **P** **23 06 55.6 -1.4**
ARTI pP **pP** **23 07 22.1 -0.8**
ARTI PcP **PcP** **23 07 52.6 -0.3**
ANM Nome 56.80 29 P **P** **23 07 00.9 +0.8**
ANM pmax pmax
comp=Z,366nm,1.7s
ANM Nome 56.80 29 P **P** **23 07 00.8 +0.8**
L14K Kuka Creek 57.73 33 P **P** **23 07 07.2 +0.7**
J17K VABM Dome 59.48 30 P **P** **23 07 19.9 +1.2**
BBOO Buckleboo 59.76 171 P **P** **23 07 21.2 +0.2**
K17K Iditarod 59.83 31 P **P** **23 07 22.4 +1.2**
STKA Stephens Creek 59.87 165 P **P** **23 07 23.1 +1.4**
comp=Z,6.2nm,0.6s,baz=350,slow=5.6,SNR=10.0
comp=Z,6.2nm,0.6s
STKA Stephens Creek 59.87 165 P **P** **23 07 21.9 +0.2**
STKA pmax pmax
comp=Z,28nm,0.8s
STKA Stephens Creek 59.87 165 **P** **23 07 21.9 +0.2**
NWAO Narrogin (SRO) 59.91 189 P **P** **23 07 23.1 +1.2**
comp=Z,15nm,1.0s,baz=5.2,slow=11,SNR=2.0
comp=Z,15nm,1.0s
NWAO Narrogin (SRO) 59.91 189 P **P** **23 07 22.3 +0.4**
NWAO pmax pmax
comp=Z,61nm,1.4s
NWAO Narrogin (SRO) 59.91 189 P **P** **23 07 22.3 +0.4**
D19K Kuna River 60.07 24 P **P** **23 07 23.4 +0.7**
H19K Roundabout Mou 60.64 28 P **P** **23 07 27.5 +0.9**
KIRV Kirov 61.15 324⇑ *e*P **P** **23 07 31.1 +1.0**
IMAR Indian Mountai 61.75 27 P **P** **23 07 34.8 +0.7**
CAST Castle Rocks 62.62 30 **P** **23 07 40.9 +0.8**
CAST IAmb IAmb 23 07 42.4
comp=Z,20nm,0.8s
UOSS Minazif 62.76 286 P **P** **23 07 40.5 -1.0**
UOSS IAmb IAmb 23 09 31.7
comp=Z,15nm,1.2s
BELG Belogornoye 62.89 317⇑ *e*P **P** **23 07 42.2 +0.4**
BELG pmax pmax
comp=Z,3.0nm,1.0s
KDAK Kodiak Island 63.00 36 *c i*P **P** **23 07 43.3 +0.8**
KDAK pmax pmax
comp=Z,44nm,0.9s
KDAK Kodiak Island 63.00 36 **P** **23 07 42.8 +0.3**
KDAK Kodiak Island 63.00 36 P **P** **23 07 43.2 +0.8**
SKT Skwentna 63.02 32 P **P** **23 07 42.9 +0.2**
SKT IAmb IAmb 23 07 43.6
comp=Z,9.9nm,0.9s
TOLK Toolik Lake Re 63.21 24 P **P** **23 07 44.8 +1.0**
TOLK IAmb IAmb 23 07 45.9
comp=Z,16nm,0.8s
SUA Susitna One 63.45 32 **P** **23 07 45.6 0.0**
SUA IAmb IAmb 23 07 47.7
comp=Z,22nm,0.8s
BWN Browne 63.70 29 P **P** **23 07 48.5 +1.5**
BWN IAmb IAmb 23 07 50.4
comp=Z,33nm,1.2s
COLA College 64.30 28 *ce*P **P** **23 07 52.4 +1.5**
COLA pmax pmax
comp=Z,8.0nm,0.8s
COLA College 64.30 28 P **P** **23 07 52.0 +1.1**
comp=Z,20nm,0.7s
CCB Clear Creek Bu 64.36 28 P **P** **23 07 51.4 +0.1**
CCB IAmb IAmb 23 07 52.8
comp=Z,7.0nm,0.7s
KNK Knik Glacier 64.55 32 P **P** **23 07 52.8 +0.1**
KNK IAmb IAmb 23 07 54.2
comp=Z,16nm,0.8s
ILAR Eielson Array 64.73 28 P **P** **23 07 53.5 -0.3**
comp=Z,2.7nm,0.7s,baz=256,slow=4.6,SNR=48
comp=Z,2.7nm,0.7s
ILAR Eielson Array 64.73 28 P **P** **23 07 53.2 -0.6**
DHY Denali Highway 64.78 30 P **P** **23 07 54.5 +0.2**
DHY IAmb IAmb 23 08 34.2
comp=Z,21nm,1.8s
PRP Porcupine Dome 65.17 27 **P** **23 07 57.1 +0.3**
PRP IAmb IAmb 23 07 59.3
comp=Z,9.8nm,0.8s
BMAR Burnt Mountain 65.22 25 **P** **23 07 58.2 +1.2**
PAX Paxson 65.66 30 P **P** **23 08 00.4 +0.5**
PAX pmax pmax
comp=Z,9.0nm,0.8s
PAX Paxson 65.66 30 **P** **23 08 00.4 +0.5**
PAX IAmb IAmb 23 08 01.6
comp=Z,8.9nm,0.8s
SCRK Sand Creek 66.11 29 **P** **23 08 03.0 +0.1**
SCRK IAmb IAmb 23 08 04.2
comp=Z,12nm,0.7s
VRH Novokhopyorsk 66.71 317 *e*P **P** **23 08 04.3 -2.4**
VRH pmax pmax
comp=Z,10.0nm,0.9s
VRDI Verde Repeater 66.95 32 **P** **23 08 08.8 +0.5**
VRDI IAmb IAmb 23 08 10.1
comp=Z,21nm,1.0s
BCAR Beaver Creek A 67.28 30 **P** **23 08 11.3 +1.2**
I28M Miner Creek 67.47 27 **P** **23 08 12.7 +1.3**
I28M IAmb IAmb 23 08 14.0
comp=Z,16nm,0.8s
GNI Garni 67.56 305⇑ *e*P **P** **23 08 13.4 +0.9**
GNI pmax pmax
comp=Z,11nm,1.3s
KBZ Khabaz 67.88 309 P **P** **23 08 14.7 +0.5**
comp=Z,14nm,0.9s,baz=111,slow=3.0,SNR=34
comp=Z,14nm,0.9s
KBZ Khabaz 67.88 309 *d i*P **P** **23 08 14.0 -0.2**
KBZ pmax pmax
comp=Z,17nm,0.9s
KIV Kislovodsk 67.96 309 *e*P **P** **23 08 15.0 +0.1**
KIV pmax pmax
comp=Z,26nm,1.1s
KIV MLR MLR
comp=Z,24nm,17.0s
KIV Kislovodsk 67.96 309 **P** **23 08 14.9 +0.1**
KIV IAmb IAmb 23 08 16.0
comp=Z,24nm,0.8s
KIV Kislovodsk 67.96 309 ⇑P **P** **23 08 14.6 -0.2**
KIV Kislovodsk 67.96 309 P **P** **23 08 14.7 -0.2**
comp=Z,24nm,1.1s
KIV Kislovodsk 67.96 309 P **P** **23 08 15.0 +0.1**
comp=Z,31nm,1.1s
KIV Kislovodsk 67.96 309 P **P** **23 08 15.2 +0.4**
KIV PcP **PcP** **23 08 40.9 +0.4**
LPSR Galich'ya Gora 68.04 319 *e*P **P** **23 08 12.0 -3.0**
LPSR pmax pmax
comp=Z,10.0nm,1.0s
SHA1 Shidzhatmaz 68.04 309 *c i*P **P** **23 08 15.9 +0.3**
DAWY Dawson 68.06 28 P **P** **23 08 15.7 +0.6**
DAWY IAmb IAmb 23 08 17.0
comp=Z,9.0nm,0.9s
SPITS Spitsbergen Ar 68.17 348 P **P** **23 08 15.6 +0.1**
comp=Z,16nm,0.9s,baz=88,slow=5.9,SNR=5.8
comp=Z,16nm,0.9s
VORD Divnogorie 68.25 317 *e*P **P** **23 08 14.7 -1.7**
VORD pmax pmax
comp=Z,5.0nm,1.0s
VSR Storozhevoye 68.26 317 *e*P **P** **23 08 13.4 -3.1**
VSR pmax pmax
comp=Z,8.0nm,1.0s

OBN	**Obninsk**	**68.70**	**322**	⇑	*eP*		**P**	**23 08 19.4**	**+0.3**
OBN					pmax		pmax		
	comp=Z,4.0nm,0.8s								
INK	**Inuvik**	**69.06**	**23**		P		**P**	**23 08 21.5**	**+0.4**
INK					pmax		pmax		
	comp=Z,24nm,1.0s								
INK	**Inuvik**	**69.06**	**23**				**P**	**23 08 21.5**	**+0.4**
INK					IAmb		IAmb	23 08 23.0	
	comp=Z,24nm,0.9s								
INK	**Inuvik**	**69.06**	**23**		P		**P**	**23 08 22.1**	**+1.1**
	comp=Z,27nm,1.1s								
ARCES	**ARCESS Array B**	**69.15**	**338**		P		**P**	**23 08 21.3**	**-0.4**
	comp=Z,3.1nm,0.8s,baz=60,slow=7.2,SNR=8.7								
	comp=Z,3.1nm,0.8s								
ARCES	**ARCESS Array B**	**69.15**	**338**		P		**P**	**23 08 20.6**	**-1.1**
GURO	**Guroymak-BITLI**	**70.04**	**304**				**P**	**23 08 27.8**	**-0.1**
A36M	**Sachs Harbour**	**70.28**	**18**				**P**	**23 08 28.8**	**+0.2**
ALE	**Alert**	**70.99**	**1**		P		**P**	**23 08 33.0**	**+0.3**
ALE					PcP		**PcP**	**23 08 53.5**	**+1.1**
WHY	**Whitehorse**	**71.12**	**31**				**P**	**23 08 35.3**	**+1.3**
ANN	**Anapa**	**71.30**	**311**		*eP*		**P**	**23 09 04.6**	**-0.6**
ANN					*e*PP		**pP**	**23 09 00.4**	**-1.7**
ANN					*eS*		**S**	**23 17 41.7**	**-2.3**
ANN					pmax		pmax		
	comp=Z,14nm,0.9s								
FIA1	**FINESS Array S**	**71.86**	**330**		P		**P**	**23 08 37.4**	**-0.9**
FINES	**FINESS Array B**	**71.86**	**330**		P		**P**	**23 08 37.6**	**-0.6**
	comp=Z,3.4nm,0.4s,baz=63,slow=5.6,SNR=33								
	comp=Z,3.4nm,0.4s								
FINES	**FINESS Array B**	**71.86**	**330**		P		**P**	**23 08 37.5**	**-0.8**
RAYN	**Ar Rayn**	**72.42**	**288**		P		**P**	**23 08 41.8**	**-0.6**
RAYN					pmax		pmax		
	comp=Z,5.0nm,0.6s								
RAYN	**Ar Rayn**	**72.42**	**288**				**P**	**23 08 41.8**	**-0.6**
RAYN	**Ar Rayn**	**72.42**	**288**		P		**P**	**23 08 42.4**	**0.0**
	comp=Z,10.0nm,0.9s								
RAYN	**Ar Rayn**	**72.42**	**288**		P		**P**	**23 08 42.3**	**-0.1**
RAYN					PcP		**PcP**	**23 09 00.5**	**+0.8**
SIM	**Simferopol'**	**73.46**	**312**		*eP*		**P**	**23 08 48.4**	**+0.3**
SIM					pmax		pmax		
	comp=Z,16nm,1.0s								
SIM					MLR		MLR		
	comp=Z,20nm,15.0s								
MNK	**Minsk**	**73.64**	**323**		*i* P		**P**	**23 08 49.9**	**+1.0**
MNK					*i* *PP		**pP**	**23 09 15.5**	**-0.4**
MNK					*i*			23 11 35.1	
MNK					*i* PPP		PPP	23 13 20.3	
MNK					*i* S		**S**	**23 18 12.9**	**+2.5**
MNK					*i* *SS		**sS**	**23 18 57.2**	**-0.6**
MNK					*i* SS		**SS**	**23 22 58.9**	**+3.9**
MNK					pmax		pmax		
	comp=N,6.0nm,0.9s								
MNK					pmax		pmax		
	comp=Z,6.0nm,0.8s								
MNK					pmax		pmax		
	comp=E,8.0nm,0.9s								
MNK					MLR		MLR		
	comp=E,28nm,11.0s								
MNK					MLR		MLR		
	comp=N,78nm,14.0s								
MNK					MLR		MLR		
	comp=Z,44nm,17.0s								
MNK	**Minsk**	**73.64**	**323**		*i* P		**P**	**23 08 50.0**	**+1.0**
	comp=E,8.0nm,0.9s								
MNK					*i* P		**P**	**23 08 50.0**	**+1.0**
	comp=N,6.0nm,0.9s								
MNK					*i* P		**P**	**23 08 50.0**	**+1.0**
	comp=Z,6.0nm,0.8s,baz=67								
MNK					*i* pP		**pP**	**23 09 15.5**	**-0.4**
MNK					*i* PP		**PP**	**23 11 35.1**	**+1.1**
MNK					*i* PPP		PPP	23 13 20.4	
MNK					*i* S		**S**	**23 18 12.9**	**+2.5**
MNK					*i* sS		**sS**	**23 18 57.2**	**-0.6**
MNK					*i* SS		**SS**	**23 22 58.9**	**+3.9**
MNK					*i* SSS		SSS	23 26 20.6	
MNK					*i* LQ		LQ	23 36 27.2	
MNK					*i* LR		LR	23 41 47.5	
MNK					*i* LRM		MLR	23 43 48.1	
	comp=E,28nm,11.0s								
MNK					*i* LRM		MLR	23 44 10.0	
	comp=N,78nm,13.8s								
MNK					*i* LRM		MLR	23 44 16.3	
	comp=Z,44nm,16.5s								
AK03	**Malin Array Si**	**74.36**	**319**		P		**P**	**23 08 52.1**	**-1.1**
AK09	**Malin Array Si**	**74.36**	**319**		P		**P**	**23 08 52.2**	**-1.0**
AKASG	**Malin Array Be**	**74.37**	**319**		P		**P**	**23 08 52.3**	**-0.9**
	comp=Z,3.9nm,0.4s,baz=58,slow=6.2,SNR=18								
	comp=Z,3.9nm,0.4s								
AKBB	**Malin Array Si**	**74.37**	**319**	⇓	*eP*		**P**	**23 08 52.0**	**-1.2**
AKBB	**Malin Array Si**	**74.37**	**319**		P		**P**	**23 08 51.8**	**-1.4**
AK08	**Malin Array Si**	**74.37**	**319**		P		**P**	**23 08 52.3**	**-0.9**
AK01	**Malin Array Si**	**74.38**	**319**		P		**P**	**23 08 52.1**	**-1.2**
KIEV	**Kiev**	**74.38**	**319**		P		**P**	**23 08 52.1**	**-1.2**
KIEV					pmax		pmax		
	comp=Z,15nm,1.2s								
KIEV	**Kiev**	**74.38**	**319**				**P**	**23 08 52.0**	**-1.2**
KIEV	**Kiev**	**74.38**	**319**		P		**P**	**23 08 51.8**	**-1.5**
	comp=Z,51nm,0.9s								
KIEV	**Kiev**	**74.38**	**319**		P		**P**	**23 08 52.2**	**-1.0**
AK05	**Malin Array Si**	**74.41**	**319**		P		**P**	**23 08 52.6**	**-0.9**
PABE	**Paberze**	**75.29**	**325**		P		**P**	**23 08 57.7**	**-0.7**
PABE					IAmb		IAmb	23 10 03.0	
	comp=Z,47nm,1.5s								
RES	**Resolute Bay**	**75.41**	**11**		P		**P**	**23 08 58.7**	**-0.1**
RES					pmax		pmax		
	comp=Z,20nm,0.8s								
RES	**Resolute Bay**	**75.41**	**11**				**P**	**23 08 58.7**	**-0.1**
RES					IAmb		IAmb	23 09 00.0	
	comp=Z,20nm,0.8s								
LUBAR	**Lubar, Ukraine**	**75.54**	**319**		P		**P**	**23 08 59.2**	**-0.8**
PURM	**Purcari**	**75.61**	**315**		P		**P**	**23 09 00.0**	**-0.4**
	comp=Z,8.3nm,0.7s								
BR131	**Keskin Array S**	**75.74**	**307**	⇓	*eP*		**P**	**23 09 01.9**	**+0.4**
BR131	**Keskin Array S**	**75.74**	**307**				**P**	**23 09 00.2**	**-1.3**
BRTR	**Keskin Array B**	**75.74**	**307**		P		**P**	**23 09 00.6**	**-0.9**
	comp=Z,3.3nm,0.8s,baz=106,slow=4.8,SNR=17								
	comp=Z,3.3nm,0.8s								
BRTR	**Keskin Array B**	**75.74**	**307**		*ce*P		**P**	**23 09 01.2**	**-0.3**
BRTR					pmax		pmax		
	comp=Z,3.0nm,0.8s								
BR104	**Keskin Array S**	**75.74**	**307**		P		**P**	**23 09 01.3**	**-0.2**
	comp=Z,52nmcomp=Z,6.0nm,1.1s								
BR106	**Keskin Array S**	**75.75**	**307**		P		**P**	**23 09 01.1**	**-0.5**
	comp=Z,51nmcomp=Z,5.5nm,1.0s								
BR105	**Keskin Array S**	**75.76**	**307**		P		**P**	**23 09 01.3**	**-0.3**
	comp=Z,55nmcomp=Z,6.0nm,1.2s								
SORM	**Soroca**	**75.91**	**317**	⇓	P		**P**	**23 09 01.2**	**-0.9**
SORM	**Soroca**	**75.91**	**317**		P		**P**	**23 09 00.9**	**-1.2**
	comp=Z,17nm,1.4s								
RNPP9	**Sopachiv**	**76.00**	**321**		P		**P**	**23 09 02.3**	**-0.3**
RNPP8	**Varash**	**76.05**	**321**		P		**P**	**23 09 02.5**	**-0.4**
RNPP5	**Staryi Chortor**	**76.08**	**320**		P		**P**	**23 09 02.5**	**-0.5**
SUW	**Suwalki**	**76.36**	**324**		*eP*		**P**	**23 09 05.0**	**+0.4**
SUW	**Suwalki**	**76.36**	**324**		P		**P**	**23 09 03.6**	**-0.9**
SUW	**Suwalki**	**76.36**	**324**		P		**P**	**23 09 03.6**	**-0.9**
KMPD	**K-Podol'skiy**	**76.88**	**318**		P		**P**	**23 09 06.5**	**-1.1**
MNTR	**Muntenesti**	**76.99**	**316**	⇓	P		**P**	**23 09 08.1**	**-0.2**
VLDR	**Vladesti**	**77.03**	**315**	⇓	P		**P**	**23 09 08.4**	**0.0**
PDRR	**Padureni**	**77.03**	**316**	⇑	P		**P**	**23 09 08.5**	**0.0**
MMAI	**Mount Meron Ar**	**77.05**	**300**		P		**P**	**23 09 08.8**	**-0.1**
	comp=Z,1.2nm,0.6s,baz=123,slow=5.3,SNR=2.7								
	comp=Z,1.2nm,0.6s								
DMBR	**Dumbraveni**	**77.10**	**316**	⇑	P		**P**	**23 09 08.9**	**+0.1**
VARL	**Varlezi**	**77.15**	**315**	⇓	P		**P**	**23 09 09.3**	**+0.2**
SCTR	**Scanteiesti**	**77.15**	**315**	⇓	P		**P**	**23 09 09.3**	**+0.2**
TPGR	**Topolog**	**77.22**	**314**	⇑	P		**P**	**23 09 09.9**	**+0.2**
CFR	**Carcaliu**	**77.27**	**314**	⇓	P		**P**	**23 09 09.4**	**-0.4**
GHRR		**77.36**	**315**	⇓	P		**P**	**23 09 10.9**	**+0.6**
PRAR	**RASCA**	**77.54**	**317**	⇓	P		**P**	**23 09 10.9**	**-0.5**
GIRR	**Girov**	**77.55**	**316**	⇑	P		**P**	**23 09 10.9**	**-0.4**
PANC	**Panciu**	**77.61**	**315**	⇑	P		**P**	**23 09 12.6**	**+0.9**
HARR	**Harsova**	**77.61**	**314**	⇑	P		**P**	**23 09 12.1**	**+0.4**
TESR	**Tescani**	**77.64**	**316**	⇓	P		**P**	**23 09 11.9**	**-0.1**
TESR	**Tescani**	**77.64**	**316**		P		**P**	**23 09 11.4**	**-0.5**
	comp=Z,19nm,0.7s								
ODBI	**Odobesti**	**77.71**	**315**	⇓	P		**P**	**23 09 12.0**	**-0.2**
CSS	**Mathiatis**	**77.85**	**303**		P		**P**	**23 09 12.1**	**-1.2**
CSS					IAmb		IAmb	23 09 13.6	
	comp=Z,15nm,0.7s								
HFS	**Hagfors**	**77.85**	**332**		P		**P**	**23 09 11.9**	**-0.9**
	comp=Z,2.9nm,0.7s,baz=99,slow=1.5,SNR=7.8								
	comp=Z,2.9nm,0.7s								
VRI	**Vrincioaia**	**77.87**	**315**	⇑	P		**P**	**23 09 14.0**	**+0.7**
VRI	**Vrincioaia**	**77.87**	**315**		P		**P**	**23 09 13.3**	**+0.1**
	comp=Z,24nm,0.9s								
VRI	**Vrincioaia**	**77.87**	**315**		P		**P**	**23 09 14.1**	**+0.8**
	comp=Z,24nm,0.9s								
PLOR	**Plostina**	**77.93**	**315**	⇑	P		**P**	**23 09 14.2**	**+0.6**
ICOR	**Ion Corvin**	**77.94**	**313**	⇑	P		**P**	**23 09 14.0**	**+0.5**
BISRR	**Bisoca**	**78.02**	**315**	⇑	P		**P**	**23 09 15.0**	**+0.9**
BISRR	**Bisoca**	**78.02**	**315**		P		**P**	**23 09 14.1**	**0.0**
	comp=Z,42nm,0.8s								
BUR08	**Bucovina Ar. S**	**78.04**	**317**				**P**	**23 09 14.0**	**-0.2**
BURAR	**Bucovina Array**	**78.04**	**317**				**P**	**23 09 14.0**	**-0.2**
BURAR					IAmb		IAmb	23 09 15.4	
	comp=Z,9.6nm,0.7s								
BURAR	**Bucovina Array**	**78.04**	**317**	⇑	P		**P**	**23 09 13.8**	**-0.4**
NC405	**NORSAR Array S**	**78.13**	**333**		P		**P**	**23 09 13.6**	**-0.7**
NC405					IAmb		IAmb	23 09 15.4	
	comp=Z,34nm,1.4s								
COVR	**Voineasa-Covas**	**78.21**	**315**	⇑	P		**P**	**23 09 14.9**	**-0.2**
TURR	**Turia**	**78.24**	**316**	⇓	P		**P**	**23 09 15.9**	**+0.6**
OZUR		**78.36**	**316**	⇑	P		**P**	**23 09 16.5**	**+0.5**
NB2	**NORSAR Subarra**	**78.37**	**333**		P		**P**	**23 09 14.0**	**-1.7**
	comp=Z,2.5nm,0.7s,baz=55,slow=5.6								
NOA	**NORSAR Array B**	**78.37**	**333**		P		**P**	**23 09 14.9**	**-0.8**
	comp=Z,3.7nm,0.7s,baz=54,slow=5.7,SNR=16								
	comp=Z,3.7nm,0.7s								
BOSR	**Bodos**	**78.45**	**316**	⇑	P		**P**	**23 09 17.4**	**+0.9**
MLR	**Muntele Rosu**	**78.53**	**315**		P		**P**	**23 09 16.4**	**-0.6**
MLR					pmax		pmax		
	comp=Z,10.0nm,1.0s								
MLR	**Muntele Rosu**	**78.53**	**315**				**P**	**23 09 16.4**	**-0.6**
MLR	**Muntele Rosu**	**78.53**	**315**	⇑	P		**P**	**23 09 17.2**	**+0.2**
KWP	**Kalwaria Pacla**	**78.61**	**320**		P		**P**	**23 09 17.2**	**0.0**
	comp=Z,31nm,1.2s								
BEL	**Belsk**	**78.65**	**323**		*eP*		P	23 09 10.3	-7.0
SULR		**78.69**	**314**	⇓	P		**P**	**23 09 18.1**	**+0.4**
YKA	**Yellowknife Ar**	**78.73**	**25**		P		**P**	**23 09 18.4**	**+0.8**
	comp=Z,10nm,0.7s,baz=311,slow=5.6,SNR=74								
	comp=Z,10nm,0.7s								
YKA	**Yellowknife Ar**	**78.73**	**25**		*ce*P		**P**	**23 09 18.3**	**+0.8**
YKA					pmax		pmax		
	comp=Z,10.0nm,0.7s								
YKA	**Yellowknife Ar**	**78.73**	**25**				**P**	**23 09 17.4**	**-0.2**
LOZB	**Loznitsa**	**79.05**	**313**	⇑	P		**P**	**23 09 20.2**	**+0.4**
BMR	**Baia Mare**	**79.05**	**318**	⇑	P		**P**	**23 09 20.6**	**+1.0**
BMR	**Baia Mare**	**79.05**	**318**		P		**P**	**23 09 20.6**	**+1.0**
	comp=Z,22nm,1.4s								
VOIR		**79.12**	**315**	⇑	P		**P**	**23 09 20.0**	**-0.2**
KOLS	**Kolonicke sedl**	**79.19**	**319**		*eP*		**P**	**23 09 20.6**	**+0.2**
KOLS					pmax		pmax		
	comp=Z,4.0nm,0.6s								
KOLS	**Kolonicke sedl**	**79.19**	**319**		*eP*		**P**	**23 09 20.6**	**+0.2**
MDB	**Medias**	**79.22**	**316**	⇓	P		**P**	**23 09 21.0**	**+0.4**
ARR	**Arges**	**79.41**	**315**	⇑	P		**P**	**23 09 22.0**	**+0.3**
TNR	**Turnu Rosu**	**79.51**	**316**	⇑	P		**P**	**23 09 23.1**	**+0.9**
HUMR	**Humele**	**79.57**	**315**	⇑	P		**P**	**23 09 22.0**	**-0.6**
ELL	**Elmali**	**79.63**	**306**		P		**P**	**23 09 22.5**	**-0.7**
ELL					pmax		pmax		
	comp=Z,26nm,1.3s								
ELL	**Elmali**	**79.63**	**306**		P		**P**	**23 09 22.5**	**-0.7**
ELL					IAmb		IAmb	23 09 32.4	
	comp=Z,26nm,1.3s								
ELND	**Elena**	**79.72**	**313**	⇑	P		**P**	**23 09 23.4**	**0.0**
MARR	**Marisel-Cluj**	**79.75**	**317**	⇓	P		**P**	**23 09 23.7**	**+0.1**
DRGR		**79.94**	**317**	⇑	P		**P**	**23 09 24.6**	**0.0**
OJC	**Ojcow**	**79.98**	**321**		*eP*		P	23 09 34.7	+10
OJC	**Ojcow**	**79.98**	**321**		P		**P**	**23 09 24.4**	**-0.2**
OJC	**Ojcow**	**79.98**	**321**				**P**	**23 09 24.4**	**-0.2**
OJC	**Ojcow**	**79.98**	**321**		P		**P**	**23 09 24.6**	**0.0**
	comp=Z,13nm,1.2s								
NIE	**Niedzica**	**80.09**	**321**		P		**P**	**23 09 25.1**	**-0.2**
	comp=Z,3.4nm,1.1s								
DEV	**Deva**	**80.25**	**317**	⇑	P		**P**	**23 09 26.6**	**+0.5**
PLVB	**Pleven**	**80.33**	**314**	⇑	P		**P**	**23 09 26.8**	**+0.1**
KECS	**Kecovo**	**80.44**	**320**		*eP*		**P**	**23 09 28.4**	**+1.2**
KECS	**Kecovo**	**80.44**	**320**		*eP*		**P**	**23 09 28.4**	**+1.2**
SUMG	**Summit**	**80.55**	**356**		P		**P**	**23 09 27.4**	**-0.3**
SUMG					pmax		pmax		
	comp=Z,25nm,1.2s								
SUMG	**Summit**	**80.55**	**356**				**P**	**23 09 27.4**	**-0.3**
SUMG					IAmb		IAmb	23 09 29.9	
	comp=Z,25nm,1.2s								
GZR	**Gura Zlata**	**80.56**	**316**	⇑	P		**P**	**23 09 27.3**	**-0.7**
SRE	**Strehaia**	**80.64**	**315**	⇑	P		**P**	**23 09 28.8**	**+0.5**
LANS	**Liptovska Anna**	**80.70**	**321**		*eP*		**P**	**23 09 30.6**	**+2.0**
LANS					pmax		pmax		
	comp=Z,5.0nm,1.5s								
LANS	**Liptovska Anna**	**80.70**	**321**		*eP*		**P**	**23 09 30.6**	**+2.0**
SURR	**Surduc**	**80.79**	**317**	⇑	P		**P**	**23 09 29.4**	**+0.4**
HERR	**Herculane**	**81.03**	**316**	⇑	P		**P**	**23 09 30.1**	**-0.3**
STEB	**Steborice**	**81.25**	**322**		*eP*		**P**	**23 09 31.7**	**+0.3**
VYHS	**Vyhne**	**81.39**	**320**		*eP*		**P**	**23 09 32.9**	**+0.7**
VYHS					pmax		pmax		
	comp=Z,8.0nm,0.8s								
VYHS	**Vyhne**	**81.39**	**320**		*eP*		**P**	**23 09 32.9**	**+0.7**
MORC	**Moravsky Berou**	**81.46**	**322**		*eP*		**P**	**23 09 32.7**	**+0.1**
BLKB	**Belogradchik**	**81.47**	**315**	⇑	P		**P**	**23 09 32.7**	**-0.1**
KSP	**Ksiaz**	**81.58**	**323**		*eP*		P	23 09 23.5	-10
KSP	**Ksiaz**	**81.58**	**323**		P		**P**	**23 09 33.2**	**+0.1**
	comp=Z,10nm,1.4s								
DPC	**Dobruska-Polom**	**81.83**	**323**		*eP*		**P**	**23 09 33.9**	**-0.6**
DPC	**Dobruska-Polom**	**81.83**	**323**		*eP*		**P**	**23 09 33.9**	**-0.6**
DPC	**Dobruska-Polom**	**81.83**	**323**		P		**P**	**23 09 34.6**	**+0.1**
	comp=Z,5.8nm,1.1s								
JAVC	**Velka Javorina**	**81.86**	**321**		*eP*		**P**	**23 09 34.0**	**-0.7**
ILON	**Igloolik, Nuna**	**82.06**	**10**		P		**P**	**23 09 34.6**	**-0.7**
ILON					IAmb		IAmb	23 09 35.9	
	comp=Z,40nm,1.2s								
VRAC	**Vranov**	**82.23**	**322**		*eP*		**P**	**23 09 37.2**	**+0.6**
FRGS	**Fruska Gora**	**82.50**	**317**		*eP*		**P**	**23 09 37.4**	**-0.7**
MORH	**Mrgy, Hungar**	**82.67**	**318**	⇓	P		**P**	**23 09 38.8**	**-0.1**
MORH	**Mrgy, Hungar**	**82.67**	**318**		*eP*		**P**	**23 09 36.9**	**-2.0**
MORH	**Mrgy, Hungar**	**82.67**	**318**		P		**P**	**23 09 39.1**	**+0.2**
	comp=Z,4.0nm,0.9s								
MPLH	**Magyarpolny**	**82.82**	**320**		P		**P**	**23 09 39.7**	**0.0**
	comp=Z,21nm,1.2s								
TREC	**Trest**	**82.85**	**322**		*eP*		**P**	**23 09 39.9**	**+0.1**
TREC	**Trest**	**82.85**	**322**		*eP*		**P**	**23 09 39.9**	**+0.1**
TEKS	**Tekeris**	**82.98**	**317**		*eP*		**P**	**23 09 38.1**	**-2.5**
CLL	**Collm**	**83.06**	**325**		*i* P		**P**	**23 09 40.7**	**-0.1**
CLL					*e*SP		**sP**	**23 10 20.0**	**+0.1**
CLL					pmax		pmax		
	comp=Z,13nm,1.3s								
CLL	**Collm**	**83.06**	**325**				**P**	**23 09 40.1**	**-0.8**
CLL	**Collm**	**83.06**	**325**		P		**P**	**23 09 40.6**	**-0.2**
	comp=Z,11nm,2.7s								
CLL	**Collm**	**83.06**	**325**		*i* P		**P**	**23 09 40.7**	**-0.1**
	comp=Z,13nm,1.3s								
CLL					*es*P		**sP**	**23 10 20.0**	**+0.1**
WINA	**Alland / Wiene**	**83.17**	**321**		*eP*		**P**	**23 09 42.2**	**+0.8**
	comp=Z,2.1nm,0.7s								
ABNA	**Allensteig Bun**	**83.22**	**322**		*eP*		**P**	**23 09 42.3**	**+0.6**
	comp=Z,4.3nm,0.7s								
RONA	**Rosalia, Austr**	**83.26**	**320**		*eP*		**P**	**23 09 42.2**	**+0.3**
	comp=Z,0.7nm,0.5s								
SJES	**Sjenica**	**83.36**	**315**		*eP*		P	23 09 37.8	-4.9
CONA	**Conrad Observa**	**83.38**	**321**		*eP*		**P**	**23 09 43.1**	**+0.4**
	comp=Z,2.4nm,0.8s								
BBLS	**Lazi&#263i**	**83.41**	**316**		*eP*		**P**	**23 09 43.2**	**+0.3**
BLKN	**Baker Lake**	**83.42**	**17**		P		**P**	**23 09 41.8**	**-0.6**
BLKN					IAmb		IAmb	23 09 43.0	
	comp=Z,25nm,1.2s								
ZVC	**Zvikov**	**83.48**	**323**		*eP*		**P**	**23 09 43.3**	**+0.3**
ARSA	**Arzberg**	**83.94**	**320**		*eP*		**P**	**23 09 45.5**	**0.0**
	comp=Z,4.6nm,1.4s								
KHC	**Kasperske Hory**	**83.99**	**323**	⇓	*eP*		**P**	**23 09 47.1**	**+1.4**
KHC					pmax		pmax		
	comp=Z,10.0nm,2.5s								
KHC	**Kasperske Hory**	**83.99**	**323**		P		**P**	**23 09 45.8**	**+0.2**
KHC					IAmb		IAmb	23 12 15.8	
	comp=Z,24nm,2.0s								
KHC	**Kasperske Hory**	**83.99**	**323**		*eP*		**P**	**23 09 46.2**	**+0.5**
UPM	**Unac-Piva**	**84.06**	**316**		*eP*		**P**	**23 09 45.8**	**-0.5**
GEC2	**GERESS Array S**	**84.08**	**322**		P		**P**	**23 09 45.9**	**-0.3**
GERES	**GERESS Array B**	**84.08**	**322**		P		**P**	**23 09 46.4**	**+0.2**
	comp=Z,3.3nm,0.8s,baz=50,slow=4.6,SNR=30								
	comp=Z,3.3nm,0.8s								
GERES	**GERESS Array B**	**84.08**	**322**		P		**P**	**23 09 46.0**	**-0.3**
PDG	**Podgorica**	**84.23**	**315**				**P**	**23 09 46.1**	**-0.9**
PDG					IAmb		IAmb	23 09 47.8	
	comp=Z,19nm,1.0s								
PDG	**Podgorica**	**84.23**	**315**	⇓	P		**P**	**23 09 47.0**	**0.0**
PDG	**Podgorica**	**84.23**	**315**		*eP*		**P**	**23 09 46.3**	**-0.7**
MOA	**Molln**	**84.32**	**321**		*eP*		**P**	**23 09 48.0**	**+0.6**
	comp=Z,2.7nm,0.8s								
DRME	**Dracevica, Mon**	**84.41**	**315**		*eP*		**P**	**23 09 47.0**	**-0.9**
BRY	**Bratogost**	**84.44**	**315**		*eP*		**P**	**23 09 47.7**	**-0.5**
SOKA	**Soboth**	**84.54**	**320**		*i* P		**P**	**23 09 48.4**	**-0.2**
	comp=Z,3.0nm,0.7s,SNR=5.3								
SESA	**Seetaler Alpe,**	**84.56**	**321**		*i* P		**P**	**23 09 48.6**	**-0.3**
	comp=Z,3.1nm,1.2s,SNR=14								
TREB	**Trebinje**	**84.66**	**315**		*eP*		**P**	**23 09 48.4**	**-0.7**
HCY	**Herceg Novi**	**84.71**	**315**		*eP*		**P**	**23 09 48.8**	**-0.6**
BIOA	**Bad Ischl, Aus**	**84.76**	**321**		*eP*		**P**	**23 09 50.1**	**+0.5**
	comp=Z,7.5nm,1.3s								
OBKA	**Obir**	**84.91**	**320**		*eP*		**P**	**23 09 50.5**	**+0.1**
	comp=Z,2.8nm,0.9s								
ITM	**Ithomi**	**85.10**	**309**				**P**	**23 09 50.5**	**-1.0**
KBA	**Koelnbreinsper**	**85.27**	**321**		*eP*		**P**	**23 09 52.1**	**-0.2**
	comp=Z,2.5nm,0.6s								
MYKA	**Terra Mystica**	**85.36**	**321**		*eP*		**P**	**23 09 53.1**	**+0.5**
	comp=Z,1.4nm,0.5s								
LESA	**Schwarzleotal**	**85.45**	**322**		*i* P		**P**	**23 09 52.8**	**-0.3**
	comp=Z,0.5nm,0.5s,SNR=4.4								
ABTA	**Abfaltersbach**	**85.93**	**321**		*eP*		**P**	**23 09 54.7**	**-0.8**
	comp=Z,6.0nm,0.8s								
NEW	**Newport**	**86.10**	**37**		P		**P**	**23 09 56.6**	**+0.4**
NEW					pmax		pmax		
	comp=Z,7.0nm,0.9s								
NEW	**Newport**	**86.10**	**37**				**P**	**23 09 56.6**	**+0.4**
NEW					IAmb		IAmb	23 09 58.6	
	comp=Z,7.2nm,0.8s								
WATA	**Walderalm**	**86.11**	**322**		*eP*		**P**	**23 09 56.3**	**-0.2**
	comp=Z,6.7nm,1.1s								
WTTA	**Wattenberg**	**86.12**	**322**		*i* P		**P**	**23 09 56.0**	**-0.5**
	comp=Z,3.3nm,1.1s,SNR=6.6								
MOTA	**Moosalm**	**86.37**	**322**		*eP*		**P**	**23 09 57.5**	**-0.2**
	comp=Z,6.1nm,0.7s								
SQTA	**Sankt Quirin**	**86.38**	**322**		*eP*		**P**	**23 09 57.0**	**-0.7**
	comp=Z,2.6nm,0.7s								
RETA	**Reutte**	**86.47**	**322**		*eP*		**P**	**23 09 57.5**	**-0.6**
	comp=Z,1.9nm,0.7s								
L04D	**Klamath Falls**	**86.53**	**44**				**P**	**23 09 59.8**	**+1.2**
SFJD	**Kangerlussuaq**	**86.66**	**359**		P		**P**	**23 09 58.1**	**-0.4**
SFJD					pmax		pmax		
	comp=Z,22nm,0.6s								
SFJD	**Kangerlussuaq**	**86.66**	**359**		P		**P**	**23 09 58.1**	**-0.4**
SFJD	**Kangerlussuaq**	**86.66**	**359**		P		**P**	**23 09 58.1**	**-0.4**
FETA	**Feichten**	**86.77**	**322**		*eP*		**P**	**23 09 59

ISC 14 22:58:56.1±0.9, **38°15N**±0°02×**26°25E**±0°02, **h15**km±6km, **n54**, σ0**°62**/74, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CESE	**eme**	**0.18**	**12**	**Pg**	**Pg**	**22 59 00.4**	**-0.1**
CESE				Sg	**Sg**	**22 59 03.6**	**+0.2**
CESE				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.22**	**66**	P	**Pg**	**22 59 01.1**	**+0.1**
ZEYE				S	**Sg**	**22 59 03.7**	**-0.6**
ZEYE				IAML		22 59 04.0	
	comp=N,3μm,0.2s						
ZEYE				IAML		22 59 04.0	
	comp=E,2μm,0.2s						
CHOS	**Chios island**	**0.28**	**327**	P	**Pb**	**22 59 02.9**	**-0.1**
CHOS				S	**Sg**	**22 59 07.0**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.28**	**327**	Pg	**Pb**	**22 59 02.8**	**-0.1**
CHOS				Sg	**Sb**	**22 59 07.5**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.28**	**327**	P	**Pg**	**22 59 02.7**	**+0.6**
CHOS				S	**Sg**	**22 59 06.9**	**+0.6**
CHOS				AML	AML		
EAG2	**Marmaro, Chios**	**0.41**	**344**	P	**Pb**	**22 59 04.9**	**-0.1**
EAG2				S	**Sb**	**22 59 10.9**	**-0.1**
SAM2	**Drakei, Karlov**	**0.48**	**144**	P	**Pg**	**22 59 05.7**	**0.0**
SAM2				S	**Sb**	**22 59 12.8**	**-0.4**
SAM2				AML	AML		
KRBN	**Karaburun**	**0.50**	**28**	Pg	**Pg**	**22 59 06.1**	**+0.1**
KRBN				AML	AML		
KRL1	**Karlovasi Samo**	**0.51**	**135**	P	**Pb**	**22 59 07.1**	**+0.4**
KRL1				S	**Sb**	**22 59 14.0**	**+0.2**
KRL1				AML	AML		
DGB	**zmir**	**0.51**	**101**	P	**Pg**	**22 59 06.0**	**-0.1**
DGB				S	**Sg**	**22 59 12.0**	**-1.0**
DGB				IAML		22 59 13.0	
	comp=N,282nm,0.2s						
DGB				IAML		22 59 13.0	
	comp=E,311nm,0.3s						
KARB	**zmir-Karabur**	**0.53**	**14**	P	**Pg**	**22 59 06.6**	**+0.1**
KARB				S	**Sg**	**22 59 12.5**	**-1.1**
GMLD	**Gumuldur**	**0.53**	**98**	Pg	**Pg**	**22 59 05.6**	**-0.9**
GMLD				AML	AML		
BEYE	**izmir**	**0.54**	**82**	P	**Pg**	**22 59 06.6**	**-0.1**
BEYE				S	**Sg**	**22 59 13.4**	**-0.5**
BEYE				IAML		22 59 14.0	
	comp=N,498nm,0.2s						
BEYE				IAML		22 59 14.0	
	comp=E,790nm,0.4s						
SMG	**Samos**	**0.64**	**133**	P	**Pg**	**22 59 08.8**	**+0.2**
SMG				S	**Sb**	**22 59 18.3**	**+0.6**
SMG				AML	AML		
SMG	**Samos**	**0.64**	**133**	P	**Pg**	**22 59 08.7**	**0.0**
SMG				S	**Sb**	**22 59 18.6**	**+0.9**
SMG				AML	AML		
BLCB	**Balcova**	**0.67**	**69**	P	**Pg**	**22 59 09.2**	**+0.1**
BLCB				S	**Sg**	**22 59 18.1**	**+0.2**
BLCB	**Balcova**	**0.67**	**69**	Pg	**Pg**	**22 59 09.0**	**-0.1**
BLCB				Sg	**Sb**	**22 59 18.2**	**-0.2**
FOCM	**Foa**	**0.68**	**34**	Pg	**Pg**	**22 59 09.3**	**0.0**
FOCM				AML	AML		
BAGT	**Foa**	**0.69**	**43**	P	**Pn**	**22 59 11.2**	**-0.1**
BAGT				S	**Sb**	**22 59 19.5**	**+0.4**
GCAM	**G?zelcaml?**	**0.90**	**120**	P	**Pb**	**22 59 13.4**	**+0.1**
GCAM	**G?zelcaml?**	**0.90**	**120**	Pg	**Pb**	**22 59 13.0**	**-0.3**
GCAM				AML	AML		
DUVT	**Torbali**	**0.95**	**85**	P	**Pg**	**22 59 14.4**	**0.0**
DUVT				S	**Sb**	**22 59 24.9**	**-1.6**
DUVT				IAML		22 59 29.0	
	comp=E,124nm,0.2s						
CAMT	**Merkez**	**1.02**	**54**	P	**Pb**	**22 59 15.6**	**+0.1**
ZEDA	**zmir-Bergama**	**1.04**	**38**	P	**Pg**	**22 59 16.3**	**+0.1**
DDIM	**Aydin, Didim**	**1.05**	**131**	P	**Pg**	**22 59 17.5**	**+1.2**
DKL	**Dikili**	**1.05**	**29**	Pg	**Pn**	**22 59 16.3**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.05**	**29**	P	**Pb**	**22 59 15.9**	**-0.1**
DKL				S	**Sn**	**22 59 31.1**	**+0.4**
PRK	**Paraskevi**	**1.09**	**1**	P	**Pb**	**22 59 16.7**	**0.0**
PRK				S	**Sg**	**22 59 31.6**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.09**	**1**	P	**Pb**	**22 59 16.4**	**-0.3**
PRK				S	**Sg**	**22 59 31.5**	**0.0**
DAGE	**izmir**	**1.19**	**97**	P	**Pg**	**22 59 20.0**	**+0.9**
AYVA	**Ayvalik**	**1.21**	**16**	P	**Pn**	**22 59 18.4**	**0.0**
APE	**Apeiranthos**	**1.22**	**208**	P	**Pn**	**22 59 18.9**	**+0.2**
APE	**Apeiranthos**	**1.22**	**208**	P	**Pn**	**22 59 17.1**	**-1.6**
AYDB	**Zeytinkoy-Aydi**	**1.31**	**98**	Pn	**Pb**	**22 59 20.5**	**0.0**
AYDB				AML	AML		
IZMR	**zmir-demi**	**1.34**	**90**	P	**Pg**	**22 59 21.9**	**0.0**
KOCA	**Canakkale, Ayv**	**1.35**	**356**	P	**Pb**	**22 59 21.5**	**+0.3**
BODT	**Bodrum**	**1.37**	**142**	P	**Pn**	**22 59 20.5**	**-0.3**
BODT				AML	AML		
BODT	**Bodrum**	**1.37**	**142**	Pn	**Pb**	**22 59 21.5**	**0.0**
BODT				AML	AML		
AYDN	**Tasoluk**	**1.38**	**110**	P	**Pg**	**22 59 22.9**	**+0.3**
SOMA	**Soma-Manisa**	**1.42**	**45**	Pn	**Pb**	**22 59 22.2**	**-0.1**
KARY	**Karystos**	**1.44**	**266**	P	**Pn**	**22 59 19.8**	**-1.8**
MLSB	**Milas**	**1.48**	**125**	Pn	**Pn**	**22 59 22.5**	**+0.3**
MLSB				AML	AML		
NAZL	**Nazilli-Aydin**	**1.62**	**96**	Pn	**Pn**	**22 59 24.6**	**+0.5**
NAZL				AML	AML		
GORD	**Gordes-Manisa**	**1.69**	**63**	Pn	**Pn**	**22 59 25.9**	**+0.8**
GORD				AML	AML		
KYMI	**Kymi, Euboea I**	**1.76**	**287**	P	**Pn**	**22 59 26.4**	**+0.4**
DION	**Dionisos Attik**	**1.83**	**268**	P	**Pn**	**22 59 27.7**	**+0.7**
DION				AML	AML		
DION	**Dionisos Attik**	**1.83**	**268**	P	**Pn**	**22 59 25.4**	**-1.6**
DION				AML	AML		
LIA	**Limnos Island**	**1.93**	**335**	P	**Pn**	**22 59 29.2**	**+0.8**
LIA				AML	AML		
LIA	**Limnos Island**	**1.93**	**335**	P	**Pn**	**22 59 27.9**	**-0.5**
LIA				AML	AML		
VLY	**Voula,Athens**	**1.96**	**262**	P	**Pn**	**22 59 29.9**	**+1.1**
VLY	**Voula,Athens**	**1.96**	**262**	P	**Pn**	**22 59 27.8**	**-1.1**
AOS2	**Alonissos-2**	**2.13**	**299**	P	**Pn**	**22 59 30.5**	**-0.6**
SMTH	**Samothraki Isl**	**2.38**	**347**	P	**Pn**	**22 59 34.9**	**+0.3**
ALN	**Alexandroupoli**	**2.75**	**357**	P	**Pn**	**22 59 38.6**	**-1.0**

IDC ***14*** *23:11:29.4±3.6,21°.77N×122°.81E,h0km,mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=311.0km s-min=23.5km az=63.0.*
JMA ***14*** *23:11:35.4±0.5,22°.3N×121°.8E±0°.7,h91km, TAIWAN REGION*

ISC 14 23:11:37.3±3.6, **22°.0N**±0°.3×**121°.7E**±0°.6, **h100**km, **n11**, σ0**°47**/13, **mb3.5**/4, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HATJ	**Hateruma jima**	**2.88**	**43**	P	**Pn**	**23 12 21.0**	**-0.3**
HATJ				*e*S	**Sn**	**23 12 55.8**	**+0.5**
IRIF	**Iriomote-Funau**	**3.04**	**38**	P	**Pn**	**23 12 23.5**	**0.0**
JKRS	**Kuro-shima**	**3.13**	**43**	P	**Pn**	**23 12 24.9**	**+0.1**
JKRS				S	**Sn**	**23 13 02.2**	**+0.8**
JIJ	**Ishigaki jima**	**3.31**	**43**	P	**Pn**	**23 12 26.8**	**-0.3**
JIJ				S	**Sn**	**23 13 05.0**	**-0.6**
JISG	**Ishigakijimahi**	**3.58**	**42**	P	**Pn**	**23 12 30.5**	**-0.2**
JISG				*e*S	**Sn**	**23 13 11.8**	**-0.2**
PIP	**Pasuquin**	**3.74**	**196**	*e*P	Pn	23 12 35.4	+2.4
PIP				*e*S	Sn	23 13 00.8	-15
JTJ	**Tarama**	**3.87**	**46**	P	**Pn**	**23 12 34.4**	**-0.2**
JTJ				*e*S	**Sn**	**23 13 19.2**	**+0.2**
MKAR	**Makanchi Array**	**40.27**	**318**	P	P	23 19 15.2	+11
	0.4nm,0.7s,baz=101,slow=7.5,SNR=4.3 0.4nm,0.7s						
ZALV	**Zalesovo Beam**	**42.37**	**328**	P	P	23 19 30.7	+9.3
	0.5nm,0.6s,baz=115,slow=6.8,SNR=2.1 0.5nm,0.6s						
WRA	**Warramunga Arr**	**43.44**	**163**	P	**P**	**23 19 30.0**	**-0.4**
	0.9nm,0.8s,baz=343,slow=8.6,SNR=5.6 0.9nm,0.8s						
ASAR	**Alice Springs**	**46.88**	**165**	P	**P**	**23 19 58.2**	**+0.6**
	0.4nm,0.7s,baz=348,slow=8.7,SNR=5.7 0.4nm,0.7s						

IDC ***14*** *23:15:08.2±0.7,21°.33N×121°.90E,h0km,mb4.0/19, mbtmp4.1/21,ML4.0/2,MS3.7/41,Error ellipse: s-maj=17.3km s-min=14.2km az=78.0*
GFZ ***14*** *23:15:09.2±0.2,22°.N±2°×12°.2E±°,h10km,M4.5/15, mb4.5/15,confirmed*

NEIC ***14*** *23:15:09.3±1.8,21°.59N±0°.05×121°.90E±0°.07,h10km±1km, mb4.4/42,Error ellipse: s-maj=11.1km s-min=8.4km az=78.0.*
TAP ***14*** *23:15:11.6,21°.73N×122°.03E,h29km,ML4.5,D*
MAN ***14*** *23:15:11.0,21°.49N×121°.66E,h16km,MS4.8*
JMA ***14*** *23:15:12.6±0.5,22°.N±2°×121°.8E±0°.7,h61km,MV4.7/18, TAIWAN REGION*
NIED ***14*** *23:15:12.6,21°.71N×121°.81E,h61km,MW4.6,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr4.37; Mθθ3.99; Mϕϕ-8.36; Mrθ4.35; Mrϕ-4.46; Mθϕ2.62; Fault plane solution: M₀9.72000×10¹⁵ NP1: ϕs159.00000°,δ48.00000°,λ24.00000°. NP2:ϕs53.00000°, δ72.00000°,λ136.00000°.*
BJI ***14*** *23:15:12.4,21°.80N×121°.67E,h10km,mB4.9/6,mb4.1/28, ML4.1/4,Ms4.3/13,Ms7 4.0/15*

ISC 14 23:15:10.5±1.3, **21°.58N**±0°.03×**121°.95E**±0°.04, **h15**km±7km, **n298**, σ1**°76**/282, **mb4.4**/53, **MS3.7**/41, **1C-4D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.54**	**321**	*i*P	**Pg**	**23 15 21.9**	**+0.7**
LYUB				S	**Sg**	**23 15 29.3**	**+1.0**
LAY	**Lan-yu**	**0.58**	**321**	*e*P	**Pg**	**23 15 21.6**	**-0.5**
LAY				S	**Sg**	**23 15 30.1**	**+0.3**
LDUT	**Ludao**	**1.17**	**338**	P	**Pn**	**23 15 29.8**	**-2.6**
LDUT				*i*S	**Sb**	**23 15 44.9**	**-2.7**
SLIU	**Shizi**	**1.24**	**301**	*e*P	**Pn**	**23 15 31.8**	**-1.5**
TAW	**Tawu**	**1.24**	**309**	*e*P	**Pn**	**23 15 33.4**	**0.0**
TAW				S	**Sb**	**23 15 47.8**	**-1.8**
EAST	**Anshuo**	**1.29**	**308**	P	**Pn**	**23 15 32.0**	**-2.2**
ECL	**Taimali**	**1.36**	**318**	*e*P	**Pn**	**23 15 33.4**	**-1.7**
ECL				*e*S	**Sn**	**23 15 52.1**	**-0.9**
SCZT	**Fangliau**	**1.46**	**303**	*e*P	**Pn**	**23 15 34.8**	**-1.6**
SCZT				S	**Sn**	**23 15 54.5**	**-0.8**
TWGBT	**Beinan**	**1.47**	**327**	P	**Pn**	**23 15 35.1**	**-1.4**
TWGBT	**Beinan**	**1.47**	**327**	*e*P	**Pn**	**23 15 35.4**	**-1.2**
TWGBT				*e*S	**Sn**	**23 15 54.3**	**-1.2**
TWG	**Pinlang**	**1.47**	**327**		**Pn**	**23 15 34.8**	**-1.8**
TWG				Sn	**Sn**	**23 15 53.5**	**-2.2**
TWG	**Pinlang**	**1.47**	**327**	P	**Pn**	**23 15 35.7**	**-0.9**
TWG	**Pinlang**	**1.47**	**327**	*e*P	**Pn**	**23 15 35.4**	**-1.2**
TWG				*e*S	**Sn**	**23 15 54.2**	**-1.5**
EDH	**Donghe**	**1.50**	**337**	*i*P	**Pn**	**23 15 35.1**	**-2.0**
EDH				S	**Sn**	**23 15 53.8**	**-2.7**
LONT	**Longtian**	**1.52**	**330**	*e*P	**Pn**	**23 15 36.4**	**-0.9**
SSPT	**Xinbi**	**1.56**	**305**	*e*P	**Pn**	**23 15 37.9**	**+0.1**
MASBT	**Mashibuluo**	**1.59**	**310**	*e*P	**Pn**	**23 15 38.5**	**+0.3**
CHKT	**Chengkung**	**1.60**	**341**	P	**Pn**	**23 15 36.3**	**-2.1**
CHKT				S	**Sn**	**23 15 55.7**	**-3.1**
TSMG	**Majia**	**1.64**	**313**	*e*P	**Pn**	**23 15 40.4**	**+1.4**
ECS	**Chishang**	**1.65**	**336**	*e*P	**Pn**	**23 15 38.6**	**-0.4**
TWP	**Hsiaoliuchiu**	**1.65**	**298**	*e*P	**Pb**	**23 15 41.2**	**+0.4**
CHKH	**Chenggong**	**1.68**	**342**	*i*P	**Pn**	**23 15 37.5**	**-2.0**
CHKH				S	**Sn**	**23 15 57.8**	**-3.0**
EHD	**Haiduan**	**1.70**	**336**	*e*P	**Pn**	**23 15 38.8**	**-1.0**
FULB	**Fuli**	**1.72**	**340**	*e*P	**Pn**	**23 15 38.4**	**-1.6**
FULB				*e*S	**Sn**	**23 15 59.2**	**-2.5**
ECBN	**Changbin**	**1.79**	**345**	*e*P	**Pn**	**23 15 38.3**	**-2.6**
ELDTW	**Lidau**	**1.81**	**332**	P	**Pn**	**23 15 40.5**	**-0.9**
ELDTW				*i*S	**Sn**	**23 16 01.9**	**-2.4**
EYUL	**Yuli**	**1.85**	**342**	*e*P	**Pn**	**23 15 40.8**	**-1.0**
SLGT	**Liugui**	**1.85**	**320**	*e*P	**Pn**	**23 15 42.9**	**+1.1**
TWF1	**Yuli**	**1.86**	**341**	*e*P	**Pn**	**23 15 40.5**	**-1.5**
SCST	**Cishan**	**1.87**	**314**	*e*P	**Pb**	**23 15 44.3**	**-0.1**
TWM1	**Shoushan**	**1.88**	**311**	*e*P	**Pb**	**23 15 45.5**	**+0.9**
WSSB	**Gushan**	**1.88**	**304**	*e*P	**Pb**	**23 15 45.7**	**+1.0**
YULB	**Yu-li**	**1.90**	**342**	P	**Pn**	**23 15 41.3**	**-1.2**
YULB	**Yu-li**	**1.90**	**342**		**Pn**	**23 15 40.5**	**-1.9**
YULB	**Yu-li**	**1.90**	**342**	P	**Pn**	**23 15 41.2**	**-1.2**
YULB	**Yu-li**	**1.90**	**342**	*e*P	**Pn**	**23 15 41.6**	**-0.8**
STYH	**Taoyuan**	**1.92**	**326**	*e*P	**Pn**	**23 15 42.6**	**-0.1**
SGST	**Jiashian**	**1.95**	**320**	P	**Pn**	**23 15 44.2**	**+0.9**
HGSD	**Ruisui**	**1.96**	**346**	*e*P	**Pn**	**23 15 42.7**	**-0.6**
EHYH	**Wanrong**	**1.98**	**344**	*e*P	**Pn**	**23 15 43.1**	**-0.5**
EHY	**Hungye**	**2.00**	**343**	*e*P	**Pn**	**23 15 43.0**	**-0.8**
WTP	**Ta-pu**	**2.06**	**324**	P	**Pn**	**23 15 46.4**	**+1.6**
CHN1	**Nanshi**	**2.06**	**321**	*e*P	**Pn**	**23 15 47.2**	**+2.4**
TPUB	**Ta-pu**	**2.10**	**325**	P	**Pn**	**23 15 46.8**	**+1.6**
TPUB	**Ta-pu**	**2.10**	**325**		**Pn**	**23 15 45.3**	**+0.1**
TPUB	**Ta-pu**	**2.10**	**325**	P	**Pn**	**23 15 47.0**	**+1.7**
TPUB	**Ta-pu**	**2.10**	**325**	*e*P	**Pn**	**23 15 46.6**	**+1.4**
TEGC	**Jichi Village**	**2.15**	**350**	*e*P	**Pn**	**23 15 45.5**	**-0.3**
TWK	**Hsinying**	**2.15**	**321**	*e*P	**Pn**	**23 15 47.7**	**+1.7**
CHN4	**Tsaushan**	**2.16**	**325**	*e*P	**Pn**	**23 15 48.1**	**+2.0**
ALS	**Alishan**	**2.19**	**331**	*e*P	**Pn**	**23 15 47.4**	**+0.7**
SHUL	**Shoufeng**	**2.22**	**351**	P	**Pn**	**23 15 45.9**	**-1.0**
ESL	**Shilin**	**2.27**	**348**	*e*P	**Pn**	**23 15 47.0**	**-0.5**
VWDT	**VWDT**	**2.29**	**341**	*e*P	**Pn**	**23 15 48.0**	**+0.2**
TSCK	**Chigu Township**	**2.32**	**312**	*e*P	**Pn**	**23 15 50.4**	**+2.1**
CHN5	**Tsauling**	**2.32**	**330**	P	**Pn**	**23 15 50.5**	**+2.1**
WHYT	**Xinyi Township**	**2.33**	**335**	*i*P	**Pn**	**23 15 49.6**	**+1.1**
ICHU	**Yijhu**	**2.35**	**319**	*e*P	**Pn**	**23 15 50.1**	**+1.5**
CHN2	**Minshiung**	**2.37**	**325**	*e*P	**Pn**	**23 15 51.6**	**+2.7**
CHY	**Chiayi**	**2.37**	**324**	*e*P	**Pn**	**23 15 51.5**	**+2.6**
SSLB	**Suanglung**	**2.38**	**338**	P	**Pn**	**23 15 49.1**	**0.0**
SSLB	**Suanglung**	**2.38**	**338**		**Pn**	**23 15 48.2**	**-0.9**
SSLB	**Suanglung**	**2.38**	**338**	P	**Pn**	**23 15 49.4**	**+0.3**
SSLB	**Suanglung**	**2.38**	**338**	*e*P	**Pn**	**23 15 49.6**	**+0.5**
ETM	**Tongmen**	**2.41**	**350**	*e*P	**Pn**	**23 15 48.6**	**-0.8**
OWD	**Renai**	**2.46**	**343**	*e*P	**Pn**	**23 15 50.9**	**+0.5**
WDLH	**Douliu**	**2.47**	**328**	*e*P	**Pn**	**23 15 52.6**	**+2.4**
LXIB	**Xiulin Townshi**	**2.48**	**349**	*e*P	**Pn**	**23 15 49.7**	**-0.8**
SMLT	**Sun Moon Lake**	**2.48**	**337**	*e*P	**Pn**	**23 15 51.8**	**+1.2**
WSL	**Shuilin Townsh**	**2.50**	**321**	*e*P	**Pn**	**23 15 51.6**	**+0.9**
TWD	**Chiawan**	**2.51**	**353**	*e*P	**Pn**	**23 15 50.1**	**-0.7**
WUSB	**Renai**	**2.52**	**342**	*e*P	**Pn**	**23 15 51.6**	**+0.5**
TYC	**Yuchr**	**2.52**	**337**	*e*P	**Pn**	**23 15 52.8**	**+1.8**
WTK	**Tuku**	**2.54**	**326**	*e*P	**Pn**	**23 15 52.5**	**+1.2**
WNT	**Mingjian**	**2.56**	**333**	*e*P	**Pn**	**23 15 54.1**	**+2.5**
NACB	**Ninganchiao**	**2.60**	**353**	P	**Pn**	**23 15 50.6**	**-1.5**
NACB	**Ninganchiao**	**2.60**	**353**		**Pn**	**23 15 50.5**	**-1.5**
NACB	**Ninganchiao**	**2.60**	**353**	P	**Pn**	**23 15 51.1**	**-1.0**
WCS	**Beigang Elemen**	**2.64**	**339**	*e*P	**Pn**	**23 15 54.3**	**+1.6**
ETLH	**Xiulin Townshi**	**2.65**	**351**	*e*P	**Pn**	**23 15 52.6**	**-0.2**
WDGT	**Dungji**	**2.69**	**309**	*e*P	**Pn**	**23 15 53.8**	**+0.4**
FUSS	**Fushou**	**2.73**	**346**	*e*P	**Pn**	**23 15 54.3**	**+0.2**
TWT	**Tachien**	**2.75**	**345**	*e*P	**Pn**	**23 15 55.1**	**+0.7**
TDCB	**Taoni**	**2.75**	**345**	*e*P	**Pn**	**23 15 55.1**	**+0.7**
WCHH	**Zhonghua**	**2.79**	**333**	*e*P	**Pn**	**23 15 57.3**	**+2.5**
TCU	**Taichung**	**2.81**	**336**	*e*P	**Pn**	**23 15 57.4**	**+2.4**
VCHM	**Qimei**	**2.84**	**305**	*e*P	**Pn**	**23 15 56.1**	**+0.8**
WHP	**Taichung City**	**2.84**	**341**	*e*P	**Pn**	**23 15 58.0**	**+2.6**
ENA	**Nanau**	**2.84**	**356**	*e*P	**Pn**	**23 15 55.6**	**+0.3**
EWUT	**Wuta**	**2.85**	**357**	*e*P	**Pn**	**23 15 55.9**	**+0.3**
PHUB	**P'eng-hu**	**2.92**	**312**	*e*P	**Pn**	**23 15 57.0**	**+0.5**
PNG	**Penghu**	**2.96**	**312**	*e*P	**Pn**	**23 15 57.5**	**+0.4**
LATG	**Datong**	**2.96**	**353**	*e*P	**Pn**	**23 15 57.6**	**+0.4**
JYNG	**Yonagunijimaku**	**3.00**	**18**	P	**Pn**	**23 15 58.0**	**+0.4**
JYNG				*e*S	**Sn**	**23 16 32.1**	**-1.2**
HATJ	**Hateruma jima**	**3.00**	**35**	P	**Pn**	**23 15 58.7**	**+1.1**
HATJ				*e*S	**Sn**	**23 16 33.5**	**+0.1**
WDJ	**Dajia District**	**3.00**	**337**	*e*P	**Pn**	**23 15 58.4**	**+0.8**
TWC	**Suao**	**3.01**	**358**	*e*P	**Pn**	**23 15 58.3**	**+0.5**
YOJ	**Yonaguni jima**	**3.03**	**19**	P	**Pn**	**23 15 59.0**	**+1.0**
YOJ	**Yonaguni jima**	**3.03**	**19**		**Pn**	**23 15 57.5**	**-0.5**
YOJ	**Yonaguni jima**	**3.03**	**19**	P	**Pn**	**23 15 57.8**	**-0.2**
YOJ	**Yonaguni jima**	**3.03**	**19**	P	**Pn**	**23 15 58.6**	**+0.6**
YOJ				*e*S	**Sn**	**23 16 33.6**	**-0.4**
YHNB	**Yeheng**	**3.12**	**350**	P	**Pn**	**23 15 59.9**	**+0.6**
YHNB	**Yeheng**	**3.12**	**350**		**Pn**	**23 15 58.6**	**-0.7**
YHNB	**Yeheng**	**3.12**	**350**	P	**Pn**	**23 16 00.5**	**+1.2**
YHNB	**Yeheng**	**3.12**	**350**	*e*P	**Pn**	**23 16 00.1**	**+0.8**
NSK	**Sanguang**	**3.13**	**350**	*e*P	**Pn**	**23 16 00.7**	**+1.3**
NMLH	**Miaoli**	**3.13**	**340**	*e*P	**Pn**	**23 16 01.0**	**+1.6**
NFF	**Wufeng Townshi**	**3.13**	**346**	*e*P	**Pn**	**23 16 02.1**	**+2.6**
TWE	**Neicheng**	**3.13**	**355**	*e*P	**Pn**	**23 16 00.2**	**+0.8**
LIOB	**Emei**	**3.17**	**344**	*e*P	**Pn**	**23 16 02.2**	**+2.3**
IRIF	**Iriomote-Funau**	**3.19**	**31**	P	**Pn**	**23 16 01.2**	**+1.0**
IRIF				S	**Sn**	**23 16 38.3**	**+0.2**
EGS		**3.25**	**360**	*e*P	**Pn**	**23 16 02.0**	**+1.1**
JKRS	**Kuro-shima**	**3.26**	**35**	P	**Pn**	**23 16 02.4**	**+1.3**
JKRS				S	**Sn**	**23 16 40.0**	**+0.4**
HSN	**Hsinchu**	**3.33**	**345**	*e*P	**Pn**	**23 16 05.1**	**+3.0**
TIPB	**Shuangxi**	**3.38**	**358**	P	**Pn**	**23 16 04.4**	**+1.6**
TATO	**Taipei**	**3.40**	**353**	P	**Pn**	**23 16 04.2**	**+1.1**
TATO	**Taipei**	**3.40**	**353**		**Pn**	**23 16 02.4**	**-0.7**
JIJ	**Ishigaki jima**	**3.43**	**36**	P	**Pn**	**23 16 04.2**	**+0.7**
JIJ				S	**Sn**	**23 16 42.6**	**-1.3**
PIP	**Pasuquin**	**3.47**	**201**	*e*P	Pn	23 15 59.2	-4.9
PIP				*e*S	**Sn**	**23 16 43.2**	**-1.9**
SXI1	**Grass Mountain**	**3.50**	**359**	*e*P	**Pn**	**23 16 05.7**	**+1.2**
JISG	**Ishigakijimahi**	**3.70**	**36**	P	**Pn**	**23 16 07.9**	**+0.7**
JISG				*e*S	**Sn**	**23 16 49.7**	**-0.8**
SIPP	**Brgy, Tapao**	**3.90**	**201**	*e*P	**Pn**	**23 16 09.4**	**-0.6**
SIPP				*e*S	**Sn**	**23 16 55.7**	**+0.1**
JTJ	**Tarama**	**3.96**	**39**	P	**Pn**	**23 16 12.4**	**+1.6**
JTJ				S	**Sn**	**23 16 56.4**	**-0.7**
VWUC	**VWUC**	**4.10**	**326**	*e*P	**Pn**	**23 16 13.0**	**+0.3**
SZP	**Santa**	**4.25**	**200**		**Pn**	**23 16 14.2**	**-0.6**
SZP	**Santa**	**4.25**	**200**	P	**Pn**	**23 16 15.8**	**+1.0**
PTMZ	**Houxiangcun**	**4.31**	**323**	*e*P	**Pn**	**23 16 15.9**	**+0.3**
KNMB	**Chin-men Tao**	**4.35**	**312**		**Pn**	**23 16 15.4**	**-0.8**
KNMB	**Chin-men Tao**	**4.35**	**312**	P	**Pn**	**23 16 16.3**	**0.0**
KNMB	**Chin-men Tao**	**4.35**	**312**	*e*P	**Pn**	**23 16 15.9**	**-0.3**
JIRJ	**Irabujima**	**4.40**	**42**	*e*S	**Sn**	**23 17 06.8**	**-1.1**
JMJ2	**Miyako jima3**	**4.42**	**44**	S	**Sn**	**23 17 08.4**	**-0.1**
JMJ	**Miyako jima 2**	**4.45**	**43**	P	**Pn**	**23 16 21.8**	**+4.2**
JOGS	**Gusukube**	**4.49**	**45**	*e*S	**Sn**	**23 17 10.2**	**+0.1**
JIKM	**Ikemajima**	**4.50**	**42**	*e*S	**Sn**	**23 17 10.3**	**-0.1**
DSXP	**Dongshan**	**4.68**	**298**	*e*P	**Pn**	**23 16 22.1**	**+1.4**
MATB	**Ma-tsu**	**4.90**	**338**	*e*P	**Pn**	**23 16 24.8**	**+1.0**
AXDP	**Jialang**	**4.93**	**313**	*e*P	**Pn**	**23 16 25.3**	**+1.2**
LYJJ	**Jianjiangzhen**	**5.33**	**338**	*e*P	**Pn**	**23 16 30.6**	**+0.9**
XPSS	**Dashiqiu**	**5.56**	**344**	*e*P	**Pn**	**23 16 32.6**	**-0.2**
HKPS	**Hong Kong Po S**	**7.28**	**277**	P	**Pn**	**23 16 58.6**	**+2.2**
HKPS	**Hong Kong Po S**	**7.28**	**277**	Pn	**Pn**	**23 16 55.5**	**-1.0**
HKPS	**Hong Kong Po S**	**7.28**	**277**	P	**Pn**	**23 16 58.4**	**+1.9**
	comp=Z,84nm,1.0s						
LQP	**Lukban**	**7.44**	**183**	*e*P	**Pn**	**23 16 58.6**	**-0.3**
GQP	**Guinayangan**	**7.65**	**176**	*e*P	**Pn**	**23 17 03.4**	**+1.8**
GQP				*e*S	**Sn**	**23 18 24.5**	**-3.6**
JOW	**Kunigami**	**7.79**	**47**	Pn	**Pn**	**23 17 03.5**	**0.0**
	comp=Z,3.9nm,0.3s,baz=162,slow=20,SNR=2.1						
JOW				Sn	**Sn**	**23 18 25.0**	**-6.4**
	comp=Z,1.5nm,0.3s,baz=110,slow=27,SNR=1.2 comp=Z,17nm,0.6s						
JOW				AML	AML		
JOW	**Kunigami**	**7.79**	**47**	P	**Pn**	**23 17 00.3**	**-3.1**
	comp=Z,50nm,0.9s						
GZH2	**Guangzhou**	**7.93**	**287**	*e*Pn	**Pn**	**23 17 04.1**	**-1.3**
GZH2				Sn	**Sn**	**23 18 34.8**	**-0.2**
GZH2				AML	AML		
	comp=Z,140nm,0.8s						
GZH2				AML	AML		
	comp=Z,67nm,0.8s						
QIZ	**Qiongzhong**	**11.64**	**260**	Pn	**Pn**	**23 17 55.0**	**-1.2**
JNU	**Nakatsue**	**13.

KKSI	**Kolaka, Sulawe**	**25.60**	**181**	P	P	23 20 29.6	-10
GTA2	**Gaotai**	**26.03**	**318**	*eP*	**P**	**23 20 44.5**	**+1.1**
GTA2				sP	pwP	23 20 52.3	+1.7
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GTA2				L	L		
	comp=Z,280nm,12.7s						
GTA2				L	L		
	comp=Z,320nm,14.9s						
GTA2				L	L		
	comp=Z,250nm,17.8s						
IPM	**Ipoh**	**26.48**	**233**	P	**P**	**23 20 45.7**	**-1.7**
KAPI	**Kappang**	**26.52**	**185**	LR	LR	23 32 35.7	
	comp=Z,127nm,19.3s,baz=12,slow=40						
SHL	**Shillong**	**27.81**	**284**	P	**P**	**23 20 58.1**	**-1.5**
SHL				IAmb	IAmb	23 21 25.3	
	comp=Z,8.5nm,1.2s						
ASAJ	**Asahikawa**	**28.24**	**32**	LR	LR	23 33 26.8	
	comp=Z,126nm,18.7s,baz=260,slow=39						
JKA	**Kamikawa-asahi**	**28.24**	**32**	P	**P**	**23 21 02.0**	**-1.0**
KLR	**Kul'dur**	**28.67**	**13**	LR	LR	23 34 17.7	
	comp=Z,128nm,18.2s,baz=200,slow=40						
ULN	**Ulaanbaatar**	**28.83**	**339**	P	**P**	**23 21 06.3**	**-2.2**
ULN	**Ulaanbaatar**	**28.83**	**339**	P	P	23 21 19.5	+11
ULN	**Ulaanbaatar**	**28.83**	**339**	P	**P**	**23 21 06.7**	**-1.8**
	comp=Z,7.4nm,1.4s						
LSA	**Lhasa**	**28.85**	**293**	P	**P**	**23 21 08.2**	**-1.0**
LSA				IAmb	IAmb	23 21 18.0	
	comp=Z,4.7nm,0.8s						
HEH	**HeiHe**	**28.94**	**7**	*eP*	P	23 21 16.1	+7.0
SONM	**Songino Array**	**29.03**	**338**	P	**P**	**23 21 13.5**	**+3.3**
	comp=Z,0.9nm,0.7s,baz=162,slow=8.7,SNR=6.5						
	comp=Z,0.9nm,0.7s						
SONM	**Songino Array**	**29.03**	**338**	P	**P**	**23 21 09.1**	**-1.0**
EDFI	**Ende, Flores**	**30.14**	**181**	P	**P**	**23 21 23.1**	**+2.9**
JAY	**Jayapura**	**30.17**	**140**	LR	LR	23 31 10.8	
	comp=Z,170nm,19.9s,baz=214,slow=32						
MDSI	**Maura Dua**	**31.21**	**216**	P	P	23 21 38.1	+8.5
BATI	**Baumata**	**31.64**	**177**	LR	LR	23 37 32.6	
	comp=Z,268nm,18.3s,baz=294,slow=43						
UBSI	**University, Be**	**31.71**	**220**	P	**P**	**23 21 34.3**	**+0.3**
	comp=Z,240nm,1.6s						
EVN	**Everest**	**32.45**	**288**		**P**	**23 21 38.2**	**-2.9**
EVN				IAmb	IAmb	23 21 54.3	
	comp=Z,8.0nm,0.9s						
EVN	**Everest**	**32.45**	**288**	P	**P**	**23 21 42.7**	**+1.6**
	comp=Z,9.9nm,1.7s						
TLY	**Talaya**	**33.24**	**339**	LR	LR	23 38 03.3	
	comp=Z,118nm,18.3s,baz=145,slow=41						
MTN	**Manton Dam**	**35.38**	**164**	P	P	23 22 01.4	-4.5
WMQ	**Urumqi**	**35.98**	**316**	*eP*	**P**	**23 22 12.1**	**+1.1**
WMQ				L	L		
	comp=Z,69nm,21.9s						
KNRA	**Kununurra**	**37.63**	**169**	P	**P**	**23 22 21.7**	**-3.4**
KNRA				IAmb	IAmb	23 22 32.0	
	comp=Z,20nm,1.4s						
KRVT	**Keravat (AS076**	**39.12**	**128**	LR	LR	23 35 02.8	
	comp=Z,88nm,21.3s,baz=176,slow=31						
FITZ	**Fitzroy Crossi**	**39.60**	**174**	P	**P**	**23 22 38.0**	**-3.7**
MKAR	**Makanchi Array**	**40.71**	**318**	P	**P**	**23 22 51.9**	**+1.3**
	comp=Z,3.6nm,0.6s,baz=112,slow=9.8,SNR=18						
MKAR				LR	LR	23 41 02.2	
	comp=Z,103nm,18.2s,baz=106,slow=38						
	comp=Z,3.6nm,0.6s						
MKAR	**Makanchi Array**	**40.71**	**318**		**P**	**23 22 49.4**	**-1.3**
YAK	**Yakutsk**	**40.77**	**6**	LR	LR	23 41 38.4	
	comp=Z,66nm,18.6s,baz=176,slow=39						
MAKZ	**Makanchi**	**40.91**	**318**	P	**P**	**23 22 50.6**	**-1.7**
MAKZ				IAmb	IAmb	23 22 55.4	
	comp=Z,10nm,1.2s						
MAKZ	**Makanchi**	**40.91**	**318**	P	**P**	**23 22 54.0**	**+1.7**
	comp=Z,7.2nm,1.4s						
PETK	**Petropavlovsk-**	**41.66**	**32**	LR	LR	23 41 49.5	
	comp=Z,60nm,19.1s,baz=251,slow=38						
H11N1	**WAKE ISLAND Hy**	**41.99**	**84**	T	T	00 08 08.9	
	baz=282,slow=74,SNR=32						
H11N2	**WAKE ISLAND Hy**	**41.99**	**84**	T	T	00 08 13.6	
	baz=282,slow=74,SNR=30						
H11N3	**WAKE ISLAND Hy**	**42.01**	**84**	T	T	00 08 11.4	
	baz=282,slow=74,SNR=20						
H11S3	**WAKE ISLAND Hy**	**42.04**	**86**	T	T	00 08 08.5	
	baz=282,slow=75,SNR=73						
H11S1	**WAKE ISLAND Hy**	**42.05**	**86**	T	T	00 08 06.6	
	baz=282,slow=75,SNR=77						
H11S2	**WAKE ISLAND Hy**	**42.06**	**86**	T	T	00 08 13.3	
	baz=282,slow=75,SNR=80						
PALK	**Pallekele**	**42.25**	**257**	LR	LR	23 42 37.9	
	comp=Z,73nm,18.2s,baz=66,slow=39						
ZAA0	**Zalesovo Array**	**42.81**	**328**		**P**	**23 23 06.1**	**-1.6**
ZAA0				IAmb	IAmb	23 23 22.1	
	comp=Z,8.0nm,0.9s						
ZALV	**Zalesovo Beam**	**42.81**	**328**	P	**P**	**23 23 08.0**	**+0.3**
	comp=Z,3.5nm,0.5s,baz=117,slow=7.6,SNR=17						
	comp=Z,3.5nm,0.5s						
ZALV	**Zalesovo Beam**	**42.81**	**328**	P	**P**	**23 23 06.2**	**-1.5**
WB0	**Warramunga Arr**	**42.86**	**163**	P	**P**	**23 23 06.1**	**-2.3**
WB0				IAmb	IAmb	23 23 19.2	
	comp=Z,9.2nm,1.2s						
WRAB	**Tennant Creek**	**43.01**	**163**	P	**P**	**23 23 07.2**	**-2.4**
	comp=Z,12nm,0.9s						
WRA	**Warramunga Arr**	**43.01**	**163**	P	**P**	**23 23 07.4**	**-2.3**
	comp=Z,3.6nm,0.7s,baz=343,slow=8.9,SNR=10.0						
	comp=Z,3.6nm,0.7s						
WRA	**Warramunga Arr**	**43.01**	**163**	P	**P**	**23 23 06.5**	**-3.2**
MA2	**Magadan**	**43.13**	**21**	LR	LR	23 43 34.4	
	comp=Z,99nm,18.3s,baz=220,slow=39						
KSH2	**Kashi**	**43.18**	**305**	P	**P**	**23 23 14.4**	**+3.3**
KSH2				pP	sP	23 23 18.6	+2.3
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.3s						
KURK	**Kurchatov**	**44.54**	**322**		**P**	**23 23 19.9**	**-1.7**
KURK				IAmb	IAmb	23 23 37.9	
	comp=Z,4.8nm,0.9s						
KURK	**Kurchatov**	**44.54**	**322**	P	**P**	**23 23 22.5**	**+0.8**
	comp=Z,6.0nm,1.2s						
KURBB	**Kurchatov Arra**	**44.56**	**321**	P	**P**	**23 23 22.6**	**+0.8**
	comp=Z,1.6nm,0.4s,baz=116,slow=7.6,SNR=11						
KURBB				LR	LR	23 44 04.9	
	comp=Z,64nm,21.1s,baz=188,slow=39						
	comp=Z,1.6nm,0.4s						
AAK	**Ala-Archa**	**44.66**	**309**	LR	LR	23 45 15.8	
	comp=Z,225nm,18.7s,baz=103,slow=40						
MTSU	**Mount Surprise**	**45.15**	**149**	P	**P**	**23 23 25.3**	**-1.5**
	comp=Z,3.8nm,0.8s						
QIS	**Mount Isa**	**45.30**	**156**	P	**P**	**23 23 26.7**	**-1.3**
	comp=Z,4.4nm,0.7s						
AS31	**Alice Springs**	**46.46**	**165**	P	**P**	**23 23 35.5**	**-1.6**
ASAR	**Alice Springs**	**46.46**	**165**	P	**P**	**23 23 35.3**	**-1.8**
	comp=Z,1.3nm,0.6s,baz=347,slow=9.3,SNR=17						
	comp=Z,1.3nm,0.6s						
ASAR	**Alice Springs**	**46.46**	**165**	P	**P**	**23 23 34.9**	**-2.2**
KK31	**Karatay Array**	**47.63**	**309**	P	**P**	**23 23 44.3**	**-1.9**
KK31				IAmb	IAmb	23 24 00.1	
	comp=Z,3.9nm,1.1s						
KKAR	**Karatay Array**	**47.63**	**309**	P	**P**	**23 23 44.7**	**-1.5**
CTA	**Charters Tower**	**47.75**	**148**	LR	LR	23 41 59.0	
	comp=Z,58nm,21.9s,baz=318,slow=34						
KBL	**Kabul**	**47.95**	**298**	P	**P**	**23 23 47.1**	**-1.9**
KBL				IAmb	IAmb	23 23 57.5	
	comp=Z,3.5nm,0.9s						
KBL	**Kabul**	**47.95**	**298**	P	**P**	**23 23 50.7**	**+1.7**
	comp=Z,4.4nm,1.4s						
HNR	**Honiara**	**48.39**	**126**	LR	LR	23 40 50.8	
	comp=Z,41nm,21.6s,baz=29,slow=32						
BVAR	**Borovoye Array**	**50.13**	**322**	P	**P**	**23 24 06.4**	**+1.2**
	comp=Z,0.9nm,0.4s,baz=116,slow=8.8,SNR=8.1						
	comp=Z,0.9nm,0.4s						
BORK	**Borovoye**	**50.18**	**322**	P	**P**	**23 24 04.6**	**-0.9**
BORK				IAmb	IAmb	23 24 13.4	
	comp=Z,6.2nm,0.9s						
TIXI	**Tiksi**	**50.24**	**3**	LR	LR	23 47 33.7	
	comp=Z,144nm,18.8s,baz=193,slow=38						
NRIK	**Noril'sk**	**52.09**	**345**	P	**P**	**23 24 21.9**	**+2.3**
	comp=Z,2.5nm,0.7s,baz=149,slow=5.9,SNR=6.8						
NRIK				LR	LR	23 47 53.2	
	comp=Z,105nm,19.3s,baz=155,slow=38						
	comp=Z,2.5nm,0.7s						
FORT	**Forrest**	**52.39**	**173**	P	**P**	**23 24 20.6**	**-1.7**
FORT				IAmb	IAmb	23 24 28.8	
	comp=Z,7.5nm,0.9s						
BBOO	**Buckleboo**	**55.74**	**166**	P	**P**	**23 24 45.3**	**-1.5**
BBOO	**Buckleboo**	**55.74**	**166**	P	**P**	**23 24 45.5**	**-1.3**
	comp=Z,14nm,1.8s						
AB31	**Akbulak array**	**55.77**	**316**	P	**P**	**23 24 44.9**	**-1.9**
AB31				IAmb	IAmb	23 24 56.5	
	comp=Z,3.4nm,0.9s						
ABKAR	**Akbulak array**	**55.77**	**316**	P	**P**	**23 24 45.8**	**-1.0**
STKA	**Stephens Creek**	**56.39**	**160**	P	**P**	**23 24 49.9**	**-1.5**
	comp=Z,0.9nm,0.4s,baz=351,slow=5.7,SNR=3.2						
	comp=Z,0.9nm,0.4s						
STKA	**Stephens Creek**	**56.39**	**160**	P	**P**	**23 24 50.1**	**-1.3**
ARTI	**Arti**	**57.70**	**324**	LR	LR	23 52 39.7	
	comp=Z,64nm,19.0s,baz=112,slow=39						
D19K	**Kuna River**	**66.43**	**23**	P	**P**	**23 25 59.1**	**+0.2**
GNI	**Garni**	**66.87**	**306**	LR	LR	23 59 37.4	
	comp=Z,50nm,18.4s,baz=78,slow=40						
D20K	**Etivluk River**	**66.98**	**23**	P	**P**	**23 26 02.6**	**+0.2**
MSVF	**Nonsavu**	**67.42**	**121**	LR	LR	23 50 41.9	
	comp=Z,37nm,20.9s,baz=23,slow=32						
KBZ	**Khabaz**	**67.66**	**310**	P	**P**	**23 26 08.1**	**+0.9**
	comp=Z,2.9nm,1.0s,baz=90,slow=9.1,SNR=4.5						
	comp=Z,2.9nm,1.0s						
IMAR	**Indian Mountai**	**68.19**	**26**	P	**P**	**23 26 10.2**	**+0.1**
D22K	**Ayikyak River**	**68.40**	**23**	P	**P**	**23 26 12.1**	**+0.6**
H21K	**Melozitna Rive**	**68.61**	**26**	P	**P**	**23 26 13.3**	**+0.5**
H21K				IAmb	IAmb	23 26 51.5	
	comp=Z,5.5nm,1.2s						
RAYN	**Ar Rayn**	**69.79**	**288**	P	**P**	**23 26 19.9**	**-1.0**
RAYN				IAmb	IAmb	23 26 29.0	
	comp=Z,3.6nm,1.1s						
ILAR	**Eielson Array**	**71.20**	**27**	P	**P**	**23 26 31.1**	**+2.4**
	comp=Z,0.2nm,0.5s,baz=273,slow=5.6,SNR=5.0						
	comp=Z,0.2nm,0.5s						
SPITS	**Spitsbergen Ar**	**72.16**	**348**	LR	LR	00 02 57.3	
	comp=Z,48nm,20.2s,baz=31,slow=40						
I28M	**Miner Creek**	**73.90**	**26**	P	**P**	**23 26 44.9**	**+0.1**
I28M				IAmb	IAmb	23 27 01.1	
	comp=Z,2.8nm,1.0s						
FINES	**FINESS Array B**	**74.04**	**330**	P	**P**	**23 26 47.6**	**+2.0**
	comp=Z,4.6nm,1.1s,baz=36,slow=7.1,SNR=5.3						
	comp=Z,4.6nm,1.1s						
FINES	**FINESS Array B**	**74.04**	**330**	P	**P**	**23 26 45.4**	**-0.2**
F30M	**Barrier River**	**74.81**	**23**	P	**P**	**23 26 50.6**	**+0.6**
AKASG	**Malin Array Be**	**75.28**	**319**	P	**P**	**23 26 53.6**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=66,slow=5.2,SNR=4.0						
AKASG				LR	LR	00 02 27.5	
	comp=Z,48nm,19.9s,baz=30,slow=38						
	comp=Z,0.5nm,0.5s						
BRTR	**Keskin Array B**	**75.28**	**307**	P	**P**	**23 26 54.4**	**+0.9**
	comp=Z,0.7nm,0.7s,baz=76,slow=5.2,SNR=5.8						
	comp=Z,0.7nm,0.7s						
BRTR	**Keskin Array B**	**75.28**	**307**	P	**P**	**23 26 52.7**	**-0.8**
HFS	**Hagfors**	**80.17**	**331**	LR	LR	00 06 16.5	
	comp=Z,104nm,18.7s,baz=62,slow=38						
DLBC	**Dease Lake**	**80.82**	**30**	LR	LR	00 05 11.9	
	comp=Z,28nm,18.2s,baz=280,slow=37						
NOA	**NORSAR Array B**	**80.84**	**333**	LR	LR	00 07 37.4	
	comp=Z,68nm,20.2s,baz=65,slow=39						
RES	**Resolute Bay**	**81.11**	**9**	LR	LR	00 07 29.9	
	comp=Z,32nm,18.9s,baz=17,slow=39						
VRAC	**Vranov**	**83.38**	**321**	LR	LR	00 06 48.9	
	comp=Z,48nm,18.8s,baz=28,slow=37						
YKA	**Yellowknife Ar**	**85.08**	**23**	P	**P**	**23 27 46.4**	**+0.7**
	comp=Z,0.6nm,0.8s,baz=314,slow=4.0,SNR=3.8						
	comp=Z,0.6nm,0.8s						
GERES	**GERESS Array B**	**85.29**	**321**	P	**P**	**23 27 47.5**	**+0.4**
	comp=Z,0.3nm,0.7s,baz=35,slow=3.3,SNR=3.9						
	comp=Z,0.3nm,0.7s						
GERES	**GERESS Array B**	**85.29**	**321**	P	**P**	**23 27 46.3**	**-0.8**
WLF	**Walferdange**	**89.15**	**324**	*dP*	**P**	**23 28 04.3**	**-1.3**
BORG	**Borgarnes**	**89.41**	**345**	LR	LR	00 12 30.8	
	comp=Z,37nm,18.7s,baz=2,slow=38						
BMRD	**Mauna Kea**	**89.53**	**325**	*eP*	**P**	**23 28 07.7**	**+0.3**
EKA	**Eskdalemuir Ar**	**90.33**	**332**	LR	LR	00 13 35.2	
	comp=Z,99nm,18.4s,baz=191,slow=39						
MBAR	**Mbarara**	**91.34**	**270**	LR	LR	00 13 41.3	
	comp=Z,18nm,18.1s,baz=94,slow=38						
FRB	**Frobisher Bay**	**94.56**	**5**	LR	LR	00 16 12.6	
	comp=Z,33nm,18.0s,baz=316,slow=39						
MAW	**Mawson**	**98.89**	**199**	LR	LR	00 10 46.3	
	comp=Z,37nm,18.1s,baz=106,slow=34						

*IDC **14** 23:54:39.5±4.3,28.°70N×128.°49E,h0km,mb3.5/5, mbtmp3.5/5,MS3.0/7,Error ellipse: s-maj=247.2km s-min=21.1km az=64.0*
*JMA **14** 23:54:39.9±0.3,28.°8N±0.°4×128.°5E±0.°9,h14km±3km, MV3.4/12,NEAR TOKARA ISLANDS*

ISC 14 23:54:40.6±0.8,28.°72N±0.°05×128.°54E±0.°06,h10km,n22, σ0s50/17,mb3.4/5,MS3.0/5,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTAJ	**Takarajima**	**0.72**	**53**	P	**Pg**	**23 54 54.2**	**-0.4**
JTAJ				S	**Sg**	**23 55 03.9**	**-0.1**
JAMN	**Amaminishikomi**	**0.73**	**130**	P	**Pg**	**23 54 55.1**	**+0.4**
JAM	**Amami Oshima**	**0.99**	**108**	P	**Pg**	**23 54 59.2**	**-0.4**
JAM				S	**Sb**	**23 55 13.0**	**+0.2**
JTK	**Tokunoshima**	**1.00**	**159**	P	**Pg**	**23 54 59.5**	**-0.4**
JTK				S	**Sb**	**23 55 13.5**	**+0.2**
JZK	**Kikaishima**	**1.32**	**108**	P	**Pb**	**23 55 05.8**	**+0.2**
JOKE	**Okinoerabujima**	**1.36**	**179**	P	**Pn**	**23 55 04.7**	**-0.9**
JYRO	**Yoronjima**	**1.69**	**183**	*eP*	**Pn**	**23 55 10.0**	**-0.2**
JIH	**Iheya**	**1.76**	**197**	*eP*	**Pn**	**23 55 10.8**	**-0.3**
JOW	**Kunigami**	**1.90**	**187**	*eP*	**Pn**	**23 55 12.4**	**-0.6**
JNU	**Nakatsue**	**4.82**	**24**	LR	LR	23 57 57.4	
	comp=Z,218nm,18.3s,baz=199,slow=41						
KSRS	**Korea Array**	**8.72**	**357**	LR	LR	00 00 05.3	
	comp=Z,58nm,21.1s,baz=190,slow=37						
MJAR	**Matsushiro Arr**	**11.27**	**44**	LR	LR	00 02 09.9	
	comp=Z,43nm,21.5s,baz=208,slow=40						
KLR	**Kul'dur**	**20.63**	**6**	LR	LR	00 06 53.7	
	comp=Z,30nm,18.6s,baz=205,slow=36						
SONM	**Songino Array**	**25.66**	**324**	P	**P**	**00 00 11.6**	**+1.0**
	0.4nm,0.6s,baz=128,slow=9.3,SNR=2.9						
	0.4nm,0.6s						
CMAR	**Chiang Mai Arr**	**28.91**	**256**	LR	LR	00 12 55.1	
	comp=Z,24nm,19.2s,baz=100,slow=38						
YAK	**Yakutsk**	**33.32**	**1**	LR	LR	00 14 02.6	
	comp=Z,32nm,19.1s,baz=214,slow=35						
BATI	**Baumata**	**89.39**	**185**	LR	LR	00 20 44.1	
	comp=Z,412nm,18.4s,baz=250,slow=40						
MKAR	**Makanchi Array**	**40.12**	**310**	P	**P**	**00 02 16.3**	**-0.2**
	0.3nm,0.7s,baz=110,slow=7.1,SNR=3.5						
	0.3nm,0.7s						
BVAR	**Borovoye Array**	**48.63**	**317**	P	**P**	**00 03 24.4**	**0.0**
	1.6nm,0.7s,baz=88,slow=9.0,SNR=9.6						
	1.6nm,0.7s						
WRA	**Warramunga Arr**	**48.70**	**173**	P	**P**	**00 03 25.1**	**-0.2**
	0.8nm,0.6s,baz=353,slow=8.2,SNR=8.5						
	0.8nm,0.6s						
ASAR	**Alice Springs**	**52.34**	**174**	P	**P**	**00 03 53.5**	**+0.7**
	0.2nm,0.5s,baz=4.2,slow=14,SNR=8.2						
	0.2nm,0.5s						
ARTI	**Arti**	**55.73**	**321**	LR	LR	00 30 27.7	
	comp=Z,43nm,20.4s,baz=344,slow=39						

*IDC **15** 00:18:36.7±1.6,0.°73S×123.°25E,h0km,mb3.3/3, mbtmp3.5/4,ML3.7/1,MS3.0/1,Error ellipse: s-maj=28.7km s-min=23.0km az=111.0*
*DJA **15** 00:18:40.0±0.3,1.°5±2.°×12.°3E±.°,h10km,M3.8/12, MLv3.8/12*

ISC 15 00:18:42.8±1.2,0.°88S±0.°07×123.°2E±0.°1,h38km,n9, σ2s31/10,mb3.4/3,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUWI	**Luwuk**	**0.46**	**249**	P	**Pn**	**00 18 49.7**	**-3.1**
LUWI				S	**Sn**	**00 18 57.7**	**-2.3**
LUWI				AML	AML		
GTOI	**Gorontalo**	**1.51**	**353**	P	**Pn**	**00 19 08.2**	**+0.8**
APSI	**Ampana**	**1.55**	**269**	P	**Pn**	**00 19 10.2**	**+2.3**
APSI				AML	AML		
KDI	**Kendari**	**3.12**	**191**	P	**Pn**	**00 19 29.0**	**-0.4**
KDI				AML	AML		
KAPI	**Kappang**	**5.36**	**220**	Pn	**Pn**	**00 20 02.1**	**+1.8**
	2.5nm,0.3s,baz=90,slow=11,SNR=5.7						
KAPI				Sn	**Sn**	**00 21 04.3**	**+3.5**
	3.2nm,0.3s,baz=153,slow=21,SNR=7.7						
	7.8nm,0.5s						
KAPI				AML	AML		
LEM	**Lembang**	**16.63**	**249**	LR	LR	00 29 39.3	
	comp=Z,50nm,19.6s,baz=168,slow=40						
WRA	**Warramunga Arr**	**21.86**	**151**	P	**P**	**00 23 32.6**	**+0.2**
	0.8nm,0.6s,baz=331,slow=9.2,SNR=8.8						
	0.8nm,0.6s						
ASAR	**Alice Springs**	**24.92**	**156**	P	**P**	**00 24 02.6**	**0.0**
	0.9nm,0.8s,baz=332,slow=8.8,SNR=12						
	0.9nm,0.8s						
MKAR	**Makanchi Array**	**59.46**	**329**	P	**P**	**00 28 40.8**	**-1.2**
	0.2nm,0.5s,baz=124,slow=8.2,SNR=4.3						
	0.2nm,0.5s						

*IDC **15** 00:23:40.4±1.7,19.°75S×177.°68W,h557km,18km,mb3.2/5, mbtmp4.1/7,Error ellipse: s-maj=22.4km s-min=17.2km az=173.0*

ISC 15 00:23:39.6±0.8,19.°8S±0.°2×177.°6W±0.°1,h550km,n15, σ0s74/16,mb4.1/8,2C,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.56**	**296**	P	**P**	**00 25 06.9**	**+0.9**
	4.5nm,0.4s,baz=124,slow=3.6,SNR=9.4						
AFI	**Afiamalu**	**8.10**	**45**	P	P	00 25 32.1	-6.4
	17nm,0.5s,baz=234,slow=2.9,SNR=6.0						
AFI				S	S	00 27 04.3	-11
	11nm,0.3s,baz=86,slow=23,SNR=6.1						
URZ	**Urewera**	**18.97**	**193**	P	**P**	**00 27 25.2**	**-0.9**
	3.1nm,0.4s,baz=191,slow=5.2,SNR=5.6						
CTA	**Charters Tower**	**33.91**	**263**	P	**P**	**00 29 37.6**	**+0.2**
	2.7nm,0.4s,baz=94,slow=7.4,SNR=9.0						
	2.7nm,0.4s						
ASAR	**Alice Springs**	**45.02**	**256**	P	**P**	**00 31 07.0**	**+0.3**
	3.6nm,0.8s,baz=91,slow=8.4,SNR=41						
ASAR				PcP	**PcP**	**00 32 35.5**	**-0.5**
	0.4nm,0.5s,baz=104,slow=4.2,SNR=5.4						
ASAR				S	**S**	**00 37 05.4**	**-0.3**
	0.5nm,0.8s,baz=94,slow=15,SNR=5.5						
	3.6nm,0.8s						
WRA	**Warramunga Arr**	**45.04**	**261**	P	**P**	**00 31 06.9**	**0.0**
	0.6nm,0.4s,baz=98,slow=7.7,SNR=11						
	0.6nm,0.4s						
QSPA	**South Pole Qui**	**70.29**	**180**	P	**P**	**00 33 58.7**	**+1.0**
	2.9nm,0.7s,baz=56,slow=0.5,SNR=20						
	2.9nm,0.7s						
TXAR	**Lajitas Array**	**86.38**	**57**	P	**P**	**00 35 24.9**	**+0.6**
	0.3nm,0.7s,baz=205,slow=5.5,SNR=4.2						
	0.3nm,0.7s						
VNA3	**Neumayer Olymp**	**88.83**	**176**	⇑P	**P**	**00 35 34.7**	**-0.2**
	comp=Z,2.9nm,0.4s						
VNA2	**Neumayer--Watz**	**89.28**	**177**	⇑P	**P**	**00 35 37.0**	**+0.1**
	comp=Z,3.8nm,0.7s,baz=187,slow=2.8						
VNA1	**Neumayer--Stat**	**89.51**	**176**	P	**P**	**00 35 38.5**	**+0.6**
	comp=Z,4.3nm,0.8s						
BVAR	**Borovoye Array**	**118.75**	**320**	PKP	**PKPdf**	**00 41 23.9**	**-1.4**
	comp=Z,0.3nm,0.3s,baz=98,slow=3.9,SNR=4.6						
ARCES	**ARCESS Array B**	**128.28**	**350**	PKP	**PKPdf**	**00 41 42.4**	**-0.7**
	comp=Z,2.0nm,0.8s,baz=39,slow=1.8,SNR=1.6						
BRTR	**Keskin Array B**	**146.60**	**313**	PKPbc	**PKPbc**	**00 42 19.4**	**-0.7**
	comp=Z,0.8nm,0.7s,baz=100,slow=3.8,SNR=4.6						
GERES	**GERESS Array B**	**149.60**	**345**	PKPbc	**PKPbc**	**00 42 26.9**	**-0.4**
	comp=Z,0.5nm,0.6s,baz=354,slow=1.3,SNR=5.6						

*SJA **15** 00:54:24.0±0.7,20.°26S×70.°94W,h28km±3km,ML3.1, MW3.5*
*GUC **15** 00:54:27.2±0.8,20.°24S×70.°86W,h36km±3km,ML3.1, Presumed earthquake*

ISC 15 00:54:27.0±1.4,20.°27S±0.°03×70.°80W±0.°06,h33km±8km, n32,σ1s12/46,1D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TA02	**Huaiquique**	**0.62**	**90**	*eP*	**Pn**	**00 54 39.4**	**-0.1**
TA02				*eS*	**Sn**	**00 54 49.6**	**+1.1**
TA02				IAML		00 54 49.6	
	comp=Z,2µm,0.5s						
TA02	**Huaiquique**	**0.62**	**90**	*eP*	**Pn**	**00 54 39.4**	**-0.1**
TA02				*eS*	**Sb**	**00 54 49.0**	**+0.8**
TA02				IAML		00 54 49.8	
	comp=E,4µm,0.2s						
TA01	**Diego Aracena**	**0.65**	**117**	*eP*	**Pn**	**00 54 40.0**	**+0.1**
TA01				*eS*	**Sb**	**00 54 50.6**	**+1.8**
TA01				IAML		00 54 51.3	
	comp=Z,1µm,0.7s						
TA01	**Diego Aracena**	**0.65**	**117**	⇓*iP*	**Pn**	**00 54 39.9**	**+0.1**
TA01				*eS*	**Sn**	**00 54 50.0**	**+1.0**
TA01				IAML		00 54 51.9	
	comp=N,2µm,0.3s						
PSGCX	**Pisagua**	**0.92**	**43**	*eP*	**Pn**	**00 54 43.4**	**-0.4**
PSGCX				*eS*	**Sb**	**00 54 58.5**	**+1.8**
PSGCX				IAML		00 54 59.9	
	comp=Z,305nm,0.3s						
PSGCX	**Pisagua**	**0.92**	**43**	*eP*	**Pn**	**00 54 43.2**	**-0.5**
PSGCX				*eS*	**Sn**	**00 54 55.7**	**-0.3**
PB11	**IPOC Station P**	**1.19**	**65**	*eP*	**Pb**	**00 54 48.1**	**-1.0**
PB11				IAML		00 55 11.6	
	comp=Z,281nm,0.2s						
PB11	**IPOC

*SJA **15** 01:11:01.4±0.7, 29.34S×71.20W, h39km±2km, ML3.7, MW3.8*
*GUC **15** 01:11:02.4±0.7, 29.33S×71.15W, h54km±2km, ML3.8, Presumed earthquake*
ISC 15 01:11:02.0±1.2, 29.32S±0.02×71.15W±0.04, h23km±13km, n43, σ1§90/75, 4C-4D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LCO	**Las Campanas**	**0.50**	**53**	*eP*	**Pn**	**01 11 14.1**	**+0.1**
LCO				*eS*	**Sn**	**01 11 23.2**	**+1.2**
LCO	**Las Campanas**	**0.50**	**53**	*eP*	**Pb**	**01 11 13.2**	**+1.0**
LCO				*eS*	**Sn**	**01 11 22.8**	**+0.8**
CO05	**La Serena**	**0.60**	**187**	*eP*	**Pb**	**01 11 14.7**	**+0.7**
CO05				*eS*	**Sn**	**01 11 24.0**	**-0.2**
CO05				IAML		01 11 26.2	
	comp=E,12µm,0.3s						
AC05	**El Transito**	**0.91**	**58**	*eP*	**Pn**	**01 11 19.8**	**+0.3**
AC05				*eS*	**Sn**	**01 11 32.9**	**+1.1**
AC05				IAML		01 11 33.1	
	comp=Z,4µm,0.2s						
AC05	**El Transito**	**0.91**	**58⇑**	*eP*	**Pn**	**01 11 19.7**	**+0.3**
AC05				*eS*	**Sn**	**01 11 32.4**	**+0.5**
AC05				IAML		01 11 33.2	
	comp=E,7µm,0.3s						
GO04	**Tololo Observa**	**0.91**	**160**	*eP*	**Pb**	**01 11 19.0**	**-0.2**
GO04				*eS*	**Sb**	**01 11 30.8**	**-0.2**
GO04				IAML		01 11 33.1	
	comp=Z,2µm,0.3s						
GO04	**Tololo Observa**	**0.91**	**160⇓**	*eP*	**Pb**	**01 11 18.9**	**-0.3**
GO04				*eS*	**Sb**	**01 11 30.7**	**-0.3**
GO04				IAML		01 11 34.9	
	comp=N,9µm,0.6s						
AC04	**Llanos de Chal**	**1.11**	**4**	*eP*	**Pn**	**01 11 22.3**	**+0.2**
AC04				*eS*	**Sn**	**01 11 37.9**	**+1.2**
AC04				IAML		01 11 41.6	
	comp=Z,2µm,0.5s						
AC04	**Llanos de Chal**	**1.11**	**4⇑**	*eP*	**Pn**	**01 11 22.2**	**+0.1**
AC04				*eS*	**Sn**	**01 11 37.8**	**+1.1**
AC04				IAML		01 11 39.1	
	comp=E,4µm,0.4s						
CO01	**Juntas del Tor**	**1.13**	**126**	*eP*	**Pn**	**01 11 23.0**	**+0.4**
CO01				*eS*	**Sn**	**01 11 38.7**	**+1.1**
CO01				IAML		01 11 38.8	
	comp=Z,1µm,0.4s						
CO01	**Juntas del Tor**	**1.13**	**126**	*eP*	**Pn**	**01 11 22.9**	**+0.2**
CO01				*eS*	**Sn**	**01 11 38.3**	**+0.7**
CO01				IAML		01 11 39.6	
	comp=N,2µm,0.2s						
CO06	**Fray Jorge**	**1.42**	**197**	*eP*	**Pn**	**01 11 25.4**	**-1.0**
CO06				*eS*	**Sn**	**01 11 44.5**	**+0.2**
CO06				IAML		01 11 48.9	
	comp=E,1µm,0.3s						
CO03	**El Pedregal**	**1.57**	**165**	*eP*	**Pn**	**01 11 28.2**	**-0.3**
CO03				*eS*	**Sn**	**01 11 47.6**	**-0.6**
CO03				IAML		01 11 51.9	
	comp=Z,768nm,0.5s						
CO03	**El Pedregal**	**1.57**	**165⇓**	*eP*	**Pn**	**01 11 28.0**	**-0.5**
CO03				*eS*	**Sn**	**01 11 47.6**	**-0.6**
CO03				IAML		01 11 50.5	
	comp=N,1µm,0.3s						
AROD	**Rodeo**	**1.69**	**121**	*eP*	**Pb**	**01 11 32.0**	**-0.5**
CO02	**Combarbal**	**1.89**	**176**	*eP*	**Pn**	**01 11 32.0**	**-0.9**
CO02				*eS*	**Sn**	**01 11 56.9**	**+0.8**
CO02				IAML		01 11 58.0	
	comp=Z,871nm,0.3s						
CO02	**Combarbal**	**1.89**	**176**	*eP*	**Pn**	**01 11 32.0**	**-0.9**
CO02				*eS*	**Sn**	**01 11 55.7**	**-0.3**
GO03	**Copiapo**	**1.90**	**25**	*eP*	**Pn**	**01 11 33.4**	**+0.3**
GO03				*eS*	Sn	01 11 42.5	-14
GO03				IAML		01 12 10.2	
	comp=Z,542nm,0.3s						
GO03	**Copiapo**	**1.90**	**25**	*eP*	**Pn**	**01 11 33.2**	**+0.3**
GO03				*eS*	**Sb**	**01 11 58.5**	**-0.8**
GO03				IAML		01 12 03.8	
	comp=N,918nm,0.4s						
ACDV	**Cuesta del Vie**	**1.96**	**116**	*eP*	**Pb**	**01 11 37.5**	**+0.4**
ACDV				*eS*	**Sn**	**01 11 52.6**	**-5.4**
ACDV				IAML		01 12 02.1	
	comp=Z,389nm,0.5s						
AC06	**Mina Casimiro**	**2.07**	**20⇓**	*eP*	**Pn**	**01 11 35.6**	**+0.2**
AC06				*eS*	**Sn**	**01 12 01.3**	**+0.8**
AC06				IAML		01 12 15.1	
	comp=E,468nm,0.4s						
ACCO	**Cerro Coronel**	**2.21**	**126**	*eP*	**Pb**	**01 11 39.8**	**-1.6**
ACCO				*eS*	**Sn**	**01 11 56.8**	**-7.5**
ACCO				IAML		01 12 20.4	
	comp=Z,189nm,0.5s						
VCA	**Vinchina**	**2.64**	**78**	*eP*	**Pn**	**01 11 42.4**	**-1.0**
VCA				*eS*	**Sb**	**01 12 18.4**	**-2.5**
VCA				IAML		01 12 30.0	
	comp=Z,475nm,0.4s						
VCA	**Vinchina**	**2.64**	**78⇑**	*eP*	**Pb**	**01 11 47.2**	**-1.5**
VCA				*eS*	**Sb**	**01 12 20.2**	**-0.7**
CO04	**Los Peladeros**	**2.72**	**177**	*eP*	**Pn**	**01 11 44.4**	**-0.1**
CO04				*eS*	**Sn**	**01 12 16.8**	**-0.1**
RTLS	**Leoncito**	**2.95**	**148**	*eP*	**Pn**	**01 11 50.2**	**+2.6**
RTLS				*eS*	**Sn**	**01 12 23.8**	**+1.3**
RTLS				IAML		01 12 50.2	
	comp=Z,440nm,0.6s						
AC02	**Maricunga**	**3.05**	**36**	*eP*	**Pn**	**01 11 50.4**	**+1.1**
AC02				*eS*	**Sn**	**01 12 26.7**	**+1.4**
AC02				IAML		01 12 42.0	
	comp=Z,165nm,0.5s						
AC02	**Maricunga**	**3.05**	**36⇓**	*eP*	**Pn**	**01 11 50.2**	**+1.0**
AC02				*eS*	**Sn**	**01 12 27.7**	**+2.4**
AC02				IAML		01 12 33.3	
	comp=E,325nm,0.3s						
RTLL	**Cerro Villicun**	**3.06**	**132**	*eP*	**Pn**	**01 11 51.5**	**+2.4**
RTLL				*eS*	**Sn**	**01 12 25.9**	**+0.9**
RTLL				IAML		01 12 49.9	
	comp=Z,280nm,0.4s						
ZON	**Zonda**	**3.08**	**137**	*eP*	**Pb**	**01 11 55.0**	**-1.1**
ZON				*eS*	**Sb**	**01 12 40.4**	**+7.0**
ZON				IAML		01 12 54.2	
	comp=Z,144nm,0.5s						
AC01	**Pan de Azucar**	**3.19**	**9**	*eP*	**Pn**	**01 11 49.1**	**-1.7**
AC01				*eS*	**Sb**	**01 12 38.2**	**+1.7**
AC01				IAML		01 12 47.6	
	comp=Z,163nm,0.4s						
AC01	**Pan de Azucar**	**3.19**	**9**	*eP*	**Pn**	**01 11 49.0**	**-1.7**
TINO	**Tinogasta**	**3.39**	**69**	*eP*	**Pn**	**01 11 55.1**	**+1.6**
TINO				*eS*	**Sb**	**01 12 38.0**	**-4.1**
TINO				IAML		01 12 43.7	
	comp=Z,133nm,1.1s						
CFA	**Coronel Fontan**	**3.40**	**133**	*eP*	**Pn**	**01 11 55.0**	**+1.4**
CFA				*eS*	**Sn**	**01 12 36.0**	**+2.8**
CFA				IAML		01 13 00.2	
	comp=Z,80nm,0.4s						
VA03	**San Esteban**	**3.48**	**172**	*eP*	**Pn**	**01 11 54.8**	**+0.1**
VA03				*eS*	**Sn**	**01 12 38.8**	**+3.6**
VA03				IAML		01 13 02.1	
	comp=Z,215nm,0.6s						
VA03	**San Esteban**	**3.48**	**172**	*eP*	**Pn**	**01 11 55.5**	**+0.8**
ROCH	**El Roble**	**3.65**	**178**	*eP*	**Pn**	**01 11 56.8**	**-0.4**
ROCH				*⇑eP*		01 11 56.8	
ACLC	**CERRO LA CRUZ**	**3.67**	**93**	*eP*	**Pn**	**01 11 58.7**	**+1.3**
MT02	**Curacav**	**3.93**	**180**	IAML		01 13 08.0	
	comp=Z,76nm,0.5s						
MT01	**Popeta**	**4.54**	**181**	*eP*	**Pn**	**01 12 08.1**	**-1.1**
MT01				IAML		01 13 29.9	
	comp=Z,43nm,1.1s						
PB14	**IPOC Station P**	**4.72**	**8**	*eS*	**Sb**	**01 13 18.2**	**-2.5**
PB14				IAML		01 13 28.3	
	comp=Z,109nm,0.7s						
CYA	**Choya**	**4.77**	**81**	*eP*	**Pn**	**01 12 14.8**	**+2.3**
CYA				*eS*	**Sn**	**01 13 06.4**	**-0.8**
CYA				IAML		01 13 14.7	
	comp=Z,58nm,1.3s						
TCA	**Tanti**	**6.01**	**111**	*eP*	**Pn**	**01 12 29.2**	**-0.4**

IDC 15 01:23:31.4±631.0, 63.84N×2.09E, h0km, Error ellipse: s-maj=244.5km s-min=158.2km az=65.0, Norwegian Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I37NO	**I37NO**	**8.43**	**44**	I	I	02 14 10.0	
	baz=241,slow=310,SNR=1.2						
I26DE	**FREYUNG INFRAS**	**16.30**	**152**	I	I	03 03 10.0	
	baz=345,slow=328,SNR=1.5						
I43RU	**DUBNA INFRASON**	**18.61**	**96**	I	I	03 16 17.8	
	baz=307,slow=325,SNR=3.7						
I31KZ	**AKTYUBINSK INF**	**32.04**	**88**	I	I	04 37 50.8	
	baz=315,slow=324,SNR=3.7						
I46RU	**ZALESOVO INFRA**	**40.87**	**64**	I	I	05 39 52.0	
	baz=318,slow=338,SNR=1.9						

*IDC **15** 01:53:16.8±1.6, 1.71N×126.37E, h0km, mb3.7/4, mbtmp3.7/5, ML3.6/1, Error ellipse: s-maj=120.7km s-min=20.5km az=68.0*
*DJA **15** 01:53:23.4±0.2, 2.1N±3.3×12.6E±.1, h10km, M3.8/15, mb4.1/2, MLv3.6/15*
ISC 15 01:53:24.9±1.0, 1.62N±0.10×126.38E±0.05, h47km, n12, σ2§31/13, mb3.7/4, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.30**	**130**	P	**Pn**	**01 53 46.7**	**+0.1**
GAMI	**Galela, Maluku**	**1.43**	**81**	P	**Pn**	**01 53 50.6**	**+2.2**
GAMI				S	**Sn**	**01 54 08.9**	**+2.9**
GAMI				AML	AML		
MNI	**Manado**	**1.55**	**264**	P	**Pn**	**01 53 51.0**	**+0.9**
MNI				AML	AML		
KMSI	**Cibinong**	**2.61**	**247**	P	**Pn**	**01 54 06.6**	**+2.0**
KMSI				AML	AML		
GTOI	**Gorontalo**	**3.51**	**254**	P	**Pn**	**01 54 20.2**	**+3.3**
GTOI				AML	AML		
SANI	**Sanana**	**3.67**	**186**	P	**Pn**	**01 54 21.6**	**+2.5**
SANI				AML	AML		
LUWI	**Luwuk**	**4.47**	**234**	P	**Pn**	**01 54 32.0**	**+1.8**
LUWI				AML	AML		
FITZ	**Fitzroy Crossi**	**19.61**	**182**	P	**P**	**01 57 48.0**	**-1.4**
	0.1nm,0.3s,baz=355,slow=9.7,SNR=1.8						
	1.8nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.81**	**160**	P	**P**	**01 58 22.0**	**-1.9**
	1.9nm,0.5s,baz=339,slow=11,SNR=18						
	1.9nm,0.5s						
ASAR	**Alice Springs**	**26.18**	**164**	P	**P**	**01 58 54.2**	**-1.0**
	0.5nm,0.4s,baz=345,slow=8.2,SNR=18						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**59.09**	**326**	P	**P**	**02 03 18.6**	**-2.0**
	0.5nm,0.5s,baz=117,slow=7.8,SNR=5.6						
	0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**63.33**	**328**	P	**P**	**02 03 46.9**	**-2.2**
	0.2nm,0.3s,baz=128,slow=6.0,SNR=2.1						
	0.2nm,0.3s						

*IDC **15** 01:56:08.3±0.7, 11.81N×85.81W, h0km, mb4.1/9, mbtmp4.1/9, ML2.5/1, MS3.5/20, Error ellipse: s-maj=36.1km s-min=11.3km az=51.0*
*UCR **15** 01:56:10.4±1.0, 11.06N×86.65W, h9km±46km, MW4.9, Presumed earthquake*
*CATAC **15** 01:56:11.7±0.3, 11.1N±1.1×8.7W±.7, h18km±2km, M4.7/56, MLv4.7/56, Error ellipse: s-maj=2.9km s-min=2.3km az=32.8, confirmed*
*NEIC **15** 01:56:14.0±2.3, 11.17N±0.04×86.51W±0.02, h35km±2km, mb4.6/164, Error ellipse: s-maj=6.8km s-min=3.0km az=180.0*
ISC 15 01:56:14.2±0.9, 11.13N±0.04×86.58W±0.04, h57km±8km, n242, σ1§13/213, mb4.5/81, MS3.5/16, 23C-5D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NADN	**Granada**	**0.82**	**41**	*⇓P*	**Pn**	**01 56 28.4**	**-1.3**
NADN				*S*	**Sn**	**01 56 42.1**	**+0.9**
NADN	**Granada**	**0.82**	**41**	*eP*	**Pn**	**01 56 28.4**	**-1.3**
NADN				*eS*	**Sn**	**01 56 42.0**	**+0.9**
SABN	**Sabanita**	**0.92**	**26**	*⇑P*	**Pn**	**01 56 29.4**	**-1.8**
NANN	**Nandasmo**	**0.93**	**29**	*⇑P*	**Pn**	**01 56 31.4**	**+0.2**
NANN				*S*	**Sn**	**01 56 45.8**	**+2.2**
LCRUZ	**La Cruz**	**0.93**	**93**	*eP*	**Pn**	**01 56 29.6**	**-1.7**
LCRUZ				*eS*	**Sn**	**01 56 44.0**	**+0.2**
MASN	**Masaya**	**0.95**	**26**	*⇑P*	**Pn**	**01 56 30.5**	**-1.1**
MASN				*S*	**Sn**	**01 56 44.9**	**+0.6**
MAS3	**Al N del Volca**	**0.98**	**24**	*⇑P*	**Pn**	**01 56 30.7**	**-1.1**
MAS3				*S*	**Sn**	**01 56 45.5**	**+0.6**
MORN	**Al O del Volca**	**1.00**	**65**	*⇓P*	**Pn**	**01 56 31.1**	**-1.1**
ABCN	**Banco Central**	**1.02**	**15**	*P*	**Pn**	**01 56 31.8**	**-0.6**
ABCN				*S*	**Sn**	**01 56 47.2**	**+1.2**
USIM	**UNAN**	**1.03**	**17**		**Pn**	**01 56 30.8**	**-1.8**
USIM				Sn	**Sn**	**01 56 45.0**	**-1.0**
CARN	**Rivas**	**1.04**	**86**	*⇓P*	**Pn**	**01 56 31.5**	**-1.1**
CARN				*S*	**Sn**	**01 56 47.6**	**+1.3**
CARN	**Rivas**	**1.04**	**86**		**Pn**	**01 56 31.5**	**-1.1**
CARN				Sn	**Sn**	**01 56 45.3**	**-1.0**
CARN	**Rivas**	**1.04**	**86**	*eP*	**Pn**	**01 56 31.5**	**-1.1**
CARN				*eS*	**Sn**	**01 56 47.3**	**+1.0**
SAPS	**Ciudad Sandino**	**1.05**	**9**	*⇑P*	**Pn**	**01 56 31.8**	**-1.0**
SAPS				*S*	**Sn**	**01 56 47.5**	**+0.9**
TISN	**Laguna Tiscapa**	**1.06**	**17**	*P*	**Pn**	**01 56 31.1**	**-1.8**
MGAN	**Managua**	**1.07**	**18**	*⇑P*	**Pn**	**01 56 32.3**	**-0.7**
MGAN				*S*	**Sn**	**01 56 48.3**	**+1.4**
MGAN	**Managua**	**1.07**	**18**		**Pn**	**01 56 32.3**	**-0.7**
MGAN				Sn	**Sn**	**01 56 45.2**	**-1.7**
APQ2	**Apoyeque**	**1.09**	**13**	*P*	**Pn**	**01 56 32.9**	**-0.5**
APQ2				*S*	**Sn**	**01 56 48.5**	**+0.9**
APQ2	**Apoyeque**	**1.09**	**13**	*⇑P*	**Pn**	**01 56 32.6**	**-0.8**
APQ2				*S*	**Sn**	**01 56 49.2**	**+1.6**
WILN	**Americas 2**	**1.10**	**20**	*⇑P*	**Pn**	**01 56 32.6**	**-0.8**
WILN				*S*	**Sn**	**01 56 49.1**	**+1.4**
AMTN	**Mateare**	**1.11**	**7**	*P*	**Pn**	**01 56 33.1**	**-0.6**
AMTN				*S*	**Sn**	**01 56 49.2**	**+1.2**
APQN	**BB Volcan Apoy**	**1.12**	**14**	*⇑P*	**Pn**	**01 56 32.9**	**-0.9**
APQN				*S*	**Sn**	**01 56 49.2**	**+0.9**
APYN	**Apoyeque**	**1.12**	**11**	*P*	**Pn**	**01 56 32.9**	**-1.0**
APYN				*S*	**Sn**	**01 56 49.6**	**+1.3**
ALIBA	**Liberia Airpor**	**1.14**	**117**	*eP*	**Pn**	**01 56 32.9**	**-1.1**
LAPC	**Finca la Perla**	**1.18**	**107**	*eP*	**Pn**	**01 56 32.1**	**-2.4**
VRLE	**La Escondida,**	**1.24**	**106**	*eP*	**Pn**	**01 56 34.2**	**-1.1**
GPS2	**Hotel Rincn d**	**1.26**	**107**	*eP*	**Pn**	**01 56 34.4**	**-1.2**
LEVN	**Ruinas Leon Vi**	**1.27**	**358**	*⇑P*	**Pn**	**01 56 36.6**	**+0.9**
LEVN				*S*	**Sn**	**01 56 54.0**	**+2.2**
MOM2	**El Cardon**	**1.31**	**4**	*⇑P*	**Pn**	**01 56 35.3**	**-0.9**
MOM2				*S*	**Sn**	**01 56 53.7**	**+1.0**
CNGA	**Al SSO del Vol**	**1.37**	**355**	*⇑P*	**Pn**	**01 56 36.0**	**-1.0**
CNGA				*S*	**Sn**	**01 56 56.0**	**+1.8**
CNGN	**Cerro Negro**	**1.37**	**355**	*⇑P*	**Pn**	**01 56 36.1**	**-1.1**
MOM3	**MOM3**	**1.38**	**2**	*⇓P*	**Pn**	**01 56 36.1**	**-1.1**
MOM3				*S*	**Sn**	**01 56 56.1**	**+1.7**
PACN	**Al O del Volca**	**1.38**	**351**	*⇑P*	**Pn**	**01 56 36.5**	**-0.8**
PACN				*S*	**Sn**	**01 56 55.9**	**+1.3**
MESS	**Mesas**	**1.41**	**106**	*eP*	**Pn**	**01 56 36.9**	**-0.7**
CLARA	**Aguas Claras**	**1.42**	**104**	*eP*	**Pn**	**01 56 37.2**	**-0.5**
BAGA	**Bagaces**	**1.42**	**115**	*eP*	**Pn**	**01 56 37.7**	**-0.1**
COLC	**Colonia**	**1.43**	**109**	*eP*	**Pn**	**01 56 37.6**	**-0.2**
PLRN	**Geotermica Pol**	**1.46**	**353**	*⇑P*	**Pn**	**01 56 37.2**	**-1.1**
PLRN				*S*	**Sn**	**01 56 57.4**	**+1.0**
CUI	**Cuipilapa**	**1.46**	**108**	*eP*	**Pn**	**01 56 37.8**	**-0.6**
VMAR	**Armenia, Volca**	**1.47**	**102**	*eP*	**Pn**	**01 56 37.8**	**-0.6**
QUEN	**Al S del Volca**	**1.48**	**350**	*⇑P*	**Pn**	**01 56 37.7**	**-1.0**
QUEN				*S*	**Sn**	**01 56 57.4**	**+0.5**
TELN	**Telica**	**1.49**	**350**	*⇑P*	**Pn**	**01 56 36.9**	**-1.9**
TELN				*S*	**Sn**	**01 56 57.7**	**+0.5**
UPAL	**Upala**	**1.55**	**98**	*⇑P*	**Pn**	**01 56 38.9**	**-0.7**
UPAL				*S*	**Sn**	**01 57 00.8**	**+2.2**
BOAB	**BOACO BROADBAN**	**1.59**	**34**	*⇑P*	**Pn**	**01 56 39.2**	**-0.9**
BOAB				*S*	**Sn**	**01 57 01.9**	**+2.4**
BOAB	**BOACO BROADBAN**	**1.59**	**34**		**Pn**	**01 56 39.1**	**-0.9**
ACON	**Acoyapa**	**1.61**	**59**	*P*	**Pn**	**01 56 39.5**	**-0.8**
ACON				*S*	**Sn**	**01 57 02.4**	**+2.3**
CNAS	**Canas**	**1.61**	**115**	*eP*	**Pn**	**01 56 42.3**	**+2.0**
TENO	**El Achiote**	**1.63**	**105**	*eP*	**Pn**	**01 56 39.8**	**-0.8**
CRIN	**San Cristobal**	**1.63**	**344**	*P*	**Pn**	**01 56 39.8**	**-0.9**
CRIN				*S*	**Sn**	**01 57 02.3**	**+1.6**
CRIN	**San Cristobal**	**1.63**	**344**		**Pn**	**01 56 39.7**	**-0.9**
TILA	**Tilaran**	**1.71**	**112**	*eP*	**Pn**	**01 56 42.4**	**+0.7**
QUEB	**Quebradon, Cot**	**1.73**	**107**	*eP*	**Pn**	**01 56 41.3**	**-0.6**
CHIK	**Chiripa**	**1.77**	**112**	*eP*	**Pn**	**01 56 43.6**	**+1.0**
JTS	**Las Juntas de**	**1.80**	**117**	Pn	**Pn**	**01 56 41.2**	**-1.7**
	47nm,0.3s,baz=299,slow=6.9,SNR=79						
JTS					Sn	**Sn**	**01 57 05.1**	**+0.4**
	161nm,0.3s,baz=152,slow=23,SNR=12						
JTS					LR	LR	01 57 34.7	
	comp=Z,552nm,19.4s,baz=329,slow=50						
JTS	**Las Juntas de**	**1.80**	**117**	*⇑P*	**Pn**	**01 56 41.8**	**-1.1**
JTS	**Las Juntas de**	**1.80**	**117**		**Pn**	**01 56 41.9**	**-1.0**
TABAC	**Tabacon**	**1.89**	**109**	*eP*	**Pn**	**01 56 45.6**	**+1.5**
ARE1	**Arenal 1**	**1.94**	**110**	*eP*	**Pn**	**01 56 46.7**	**+1.8**
CEDE	**Laguna Cedeo**	**1.95**	**109**	*eP*	**Pn**	**01 56 46.4**	**+1.5**
VACR	**Volcan Arenal**	**1.98**	**109**	*eP*	**Pn**	**01 56 46.5**	**+1.2**
POTN	**Potosi Cosigui**	**2.07**	**334**	*P*	**Pn**	**01 56 45.5**	**-1.2**
POTN				*S*	**Sn**	**01 57 11.1**	**-0.2**
CSGN	**Cosiguina Volc**	**2.08**	**333**	*⇑P*	**Pn**	**01 56 45.5**	**-1.2**
CSGN				*S*	**Sn**	**01 57 13.1**	**+1.6**
COVE	**Coope Vega, Sa**	**2.17**	**100**	*P*	**Pn**	**01 56 48.2**	**+0.2**
RCPN	**Sur Rio San Ju**	**2.43**	**11**	*⇓P*	**Pn**	**01 56 51.8**	**+0.1**
ARTO	**Rio Cuarto**	**2.45**	**108**	*eP*	**Pn**	**01 56 53.3**	**+1.5**
CNCH	**Conchagua**	**2.47**	**330**	*⇑P*	**Pn**	**01 56 51.1**	**-1.0**
CNCH				*S*	**Sn**	**01 57 20.9**	**-0.2**
RCVN	**Varillal2**	**2.47**	**9**	*P*	**Pn**	**01 56 52.0**	**-0.2**
RCVN				*S*	**Sn**	**01 57 23.9**	**+2.6**
OCON	**Estacion meteo**	**2.49**	**2**	*P*	**Pn**	**01 56 52.2**	**-0.2**
OCON				*S*	**Sn**	**01 57 23.7**	**+2.0**
LCND	**La Caada**	**2.52**	**330**	*P*	**Pn**	**01 56 51.8**	**-1.0**
HDC	**Heredia**	**2.67**	**115**		**Pn**	**01 56 55.7**	**+0.8**
RANC	**El Ranchito**	**2.84**	**324**	*P*	**Pn**	**01 56 57.1**	**-0.2**
RANC				*S*	**Sn**	**01 57 30.7**	**+0.4**
TRT2	**Tortugero**	**2.85**	**101**	*P*	**Pn**	**01 56 57.5**	**+0.3**
LCR2	**La Lucha 2**	**2.88**	**118**	*P*	**Pn**	**01 56 58.9**	**+1.0**
LCR2	**La Lucha 2**	**2.88**	**118**		**Pn**	**01 56 57.6**	**-0.3**
BLUN	**Bluefields**	**2.88**	**72**	*P*	**Pn**	**01 56 57.7**	**0.0**
PACA	**Pacayal**	**2.89**	**324**	*P*	**Pn**	**01 56 57.0**	**-0.8**
PACA				*S*	**Sn**	**01 57 32.3**	**+0.8**
QUEP	**Quepos**	**2.91**	**125**	*P*	**Pn**	**01 56 57.7**	**-0.3**
ALJI	**Alcalda de J**	**2.93**	**319**	*P*	**Pn**	**01 56 58.0**	**-0.4**
TGUH	**Tegucigalpa,Un**	**2.99**	**347**	*⇑P*	**Pn**	**01 56 59.2**	**-0.1**
TGUH				*S*	**Sn**	**01 57 35.1**	**+1.1**
TGUH	**Tegucigalpa,Un**	**2.99**	**347**		**Pn**	**01 56 59.3**	**-0.1**
SIUN	**Universidad Ur**	**3.12**	**34**	*P*	**Pn**	**01 57 01.2**	**+0.2**
TECO	**Alcaldia de Te**	**3.22**	**318**	*P*	**Pn**	**01 57 01.4**	**-1.0**
COEG	**Centro de Oper**	**3.35**	**318**	*P*	**Pn**	**01 57 03.3**	**-0.8**
COEG				*S*	**Sn**	**01 57 42.8**	**+0.1**
PAVA	**Las Pavas**	**3.45**	**318**	*P*	**Pn**	**01 57 05.5**	**-0.2**
PAVA				*S*	**Sn**	**01 57 44.7**	**-0.6**
P5NO	**Presa 5 de nov**	**3.55**	**323**	*P*	**Pn**	**01 57 07.9**	**+1.0**
LOMA	**Loma Larga**	**3.56**	**315**	*P*	**Pn**	**01 57 08.1**	**+0.9**
LOMA				*S*	**Sn**	**01 57 47.8**	**-0.3**
UDBS	**Universidad Do**	**3.60**	**316**	*P*	**Pn**	**01 57 07.8**	**+0.2**
SEMO	**Seminario San**	**3.64**	**315**	*S*	**Sn**	**01 57 50.3**	**+0.4**
PMON	**Piamonte**	**3.71**	**314**	*P*	**Pn**	**01 57 08.4**	**-0.7**
PMON				*S*	**Sn**	**01 57 50.8**	**-0.8**
JAYA	**Jayaque - finc**	**3.77**	**312**	*P*	**Pn**	**01 57 09.3**	**-0.7**
LLGN	**La Laguna**	**3.80**	**323**	*P*	**Pn**	**01 57 11.3**	**+0.9**
CEVE	**Cerro Verde**	**4.01**	**312**	*P*	**Pn**	**01 57 14.2**	**+0.8**
CEVE				*S*	**Sn**	**01 57 59.6**	**+0.4**
NUBE	**Las Nubes**	**4.17**	**312**	*P*	**Pn**	**01 57 15.1**	**-0.4**
PIRO	**Carate, Puerto**	**4.18**	**130**	*P*	**Pn**	**01 57 16.1**	**+0.5**
PIRO	**Carate, Puerto**	**4.18**	**130**		**Pn**	**01 57 16.1**	**+0.5**
SARH	**Santa Rosa de**	**4.21**	**330**	*P*	**Pn**	**01 57 16.4**	**+0.5**
BILN	**Bilwi Airport**	**4.27**	**47**	*P*	**Pn**	**01 57 18.1**	**+1.5**
BILN	**Bilwi Airport**	**4.27**	**47**		**Pn**	**01 57 17.3**	**+0.6**
FAME	**Alcaldia de Sa**	**4.31**	**309**	*P*	**Pn**	**01 57 17.8**	**+0.5**
CDITO	**Canoas**	**4.45**	**124**	*P*	**Pn**	**01 57 19.4**	**+0.3**
BRU2	**Volcan**	**4.47**	**121**	*P*	**Pn**	**01 57 21.3**	**+1.7**
BRU2	**Volcan**	**4.47**	**121**		**Pn**	**01 57 20.4**	**+0.8**
APG	**El Apazote**	**5.40**	**316**	Pn	**Pn**	**01 57 34.0**	**+1.5**
	0.1nm,0.3s,baz=176,slow=13,SNR=5.0						
APG					Sn	**Sn**	**01 58 37.4**	**+3.9**
	0.2nm,0.3s,baz=128,slow=9.9,SNR=4.1						
APG					AML	AML		
PETF	**Flores**	**6.58**	**331**			**Pn**	**01 57 49.0**	**+0.6**
CCIG	**Comitan**	**7.45**	**314**			**Pn**	**01 58 00.7**	**+0.3**
CMIG	**Matias Romero**	**10.00**	**307**	Pn		**Pn**	**01 58 36.2**	**+0.9**
	1.6nm,0.3s,baz=136,slow=7.8,SNR=19						
CMIG					LR	LR	02 03 01.3	
	comp=Z,259nm,20.5s,baz=140,slow=40						
SJCC	**San Jacinto, C**	**11.28**	**95**	Pn		**Pn**	**01 58 53.1**	**+0.4**
TLIG	**Tl

comp=Z,16nm,0.9s
128A Castleberry Fa 25.92 328 IAmb IAmb 02 01 51.6
comp=Z,13nm,1.3s
TUL3 Leonard 26.05 343 IAmb IAmb 02 01 42.4
comp=Z,14nm,0.6s
U38A Gravette 26.17 346 IAmb IAmb 02 01 43.2
comp=Z,11nm,0.7s
SMWD Samnorwood 26.91 335 IAmb IAmb 02 01 54.1
comp=Z,13nm,0.7s
WCI Wyandotte Cave 26.99 0 P P **02 01 50.5 -0.2**
WCI IAmb IAmb 02 01 51.8
comp=Z,7.8nm,0.7s
CCM Cathedral Cave 27.14 352 P P **02 01 51.1 -0.9**
CCM IAmb IAmb 02 01 53.5
comp=Z,8.0nm,0.7s
AMTX Amarillo 27.36 332 IAmb IAmb 02 01 59.4
comp=Z,17nm,1.3s
R40A Maddies Static 27.53 350 IAmb IAmb 02 01 55.6
comp=Z,8.8nm,0.5s
Q44A Meyer Farm, Va 27.75 356 IAmb IAmb 02 01 58.0
comp=Z,17nm,0.8s
Q51A Peebles 27.93 5 IAmb IAmb 02 02 02.2
comp=Z,9.4nm,0.9s
O53A New Philadelph 29.39 8 IAmb IAmb 02 02 13.7
comp=Z,11nm,0.8s
ALQ Albuquerque 29.82 326 IAmb IAmb 02 02 19.5
comp=Z,2.5nm,0.7s
ANMO Albuquerque 29.83 326 LR LR 02 15 19.5
comp=Z,23nm,19.6s,baz=114,slow=39
ANMO Albuquerque 29.83 326 P P **02 02 17.4 +1.1**
TASM ASL Pad, Albuq 29.83 326 IAmb IAmb 02 02 19.5
comp=Z,2.6nm,0.8s
SDCO Great Sand Dun 31.48 331 IAmb IAmb 02 02 33.0
comp=Z,3.5nm,0.7s
X16A Lo Mia Camp, P 32.43 320 P P **02 02 40.6 +1.4**
PV15 Paradox Valley 33.44 328 IAmb IAmb 02 02 53.2
comp=Z,4.2nm,0.7s
PV02 Paradox Valley 33.47 327 IAmb IAmb 02 02 50.8
comp=Z,13nm,1.3s
ECSD EROS Data Cent 33.63 347 IAmb IAmb 02 02 48.4
comp=Z,8.8nm,1.0s
PV04 Paradox Valley 33.70 327 IAmb IAmb 02 02 52.5
comp=Z,7.3nm,0.7s
PV22 Blue Mesa, Par 33.74 328 IAmb IAmb 02 02 54.4
comp=Z,5.2nm,0.6s
PV14 Lion Creek, Pa 33.75 327 IAmb IAmb 02 02 52.8
comp=Z,7.3nm,0.6s
PV23 Carpenter Ridg 33.80 327 IAmb IAmb 02 02 54.2
comp=Z,7.2nm,0.7s
MDP Montagnes des 34.10 97 LR LR 02 17 31.5
comp=Z,120nm,18.2s,baz=264,slow=38
SADO Sadowa 34.13 9 LR LR 02 16 48.1
comp=Z,72nm,18.4s,baz=223,slow=37
HMU Henry Mountain 34.37 325 IAmb IAmb 02 03 06.8
comp=Z,8.3nm,1.1s
O20A White River Ci 34.68 330 IAmb IAmb 02 03 01.1
comp=Z,3.0nm,0.6s
SRU San Rafael Swe 35.09 327 IAmb IAmb 02 03 04.4
comp=Z,6.8nm,0.7s
P17A Butcher Ranch, 35.46 327 IAmb IAmb 02 03 07.8
comp=Z,6.1nm,0.7s
VILB Vilhena 35.46 132 P P **02 03 05.5 0.0**
RSSD Black Hills 36.17 339 P P **02 03 12.1 +0.6**
RSSD IAmb IAmb 02 03 13.5
comp=Z,4.7nm,0.7s
PDAR Pinedale Array 37.34 332 P P **02 03 21.3 -0.2**
comp=Z,1.9nm,0.6s,baz=129,slow=10,SNR=25
comp=Z,1.9nm,0.6s
PDAR Pinedale Array 37.34 332 P P **02 03 21.8 +0.3**
HWUT Hardware Ranch 37.44 329 IAmb IAmb 02 03 24.2
comp=Z,4.6nm,0.8s
AGMN Agassiz Nation 37.86 350 IAmb IAmb 02 03 24.8
comp=Z,5.8nm,0.8s
PTLB Pontes e Lacer 37.89 134 P P **02 03 26.1 0.0**
PTLB IAmb IAmb 02 03 27.6
comp=Z,6.7nm,0.8s
SNOW Snow King Moun 38.43 331 IAmb IAmb 02 03 32.2
comp=Z,7.8nm,0.9s
RLMT Red Lodge 39.06 334 IAmb IAmb 02 03 37.9
comp=Z,9.8nm,1.4s
NVAR Mina Array Bea 39.26 319 P P **02 03 39.6 +1.9**
comp=Z,1.5nm,0.6s,baz=133,slow=7.5,SNR=22
NVAR PcP **PcP 02 05 47.9 +2.2**
comp=Z,1.6nm,0.6s,baz=132,slow=4.0,SNR=14
comp=Z,1.5nm,0.6s
NVAR Mina Array Bea 39.26 319 P P **02 03 39.8 +2.2**
ULM Lac du Bonnet 39.76 351 P P **02 03 38.5 -2.8**
comp=Z,6.7nm,0.6s,baz=164,slow=10,SNR=14
ULM LR LR 02 22 36.9
comp=Z,28nm,18.6s,baz=191,slow=40
comp=Z,6.7nm,0.6s
ULM Lac du Bonnet 39.76 351 IAmb IAmb 02 03 39.8
comp=Z,6.9nm,0.7s
BCYI Bear Canyon 40.34 330 P P **02 03 47.1 +0.6**
MCMT McKenzie Canyo 40.45 331 P P **02 03 48.8 +1.3**
BOZ Bozeman (W) 40.47 333 P P **02 03 48.1 +0.6**
EGMT Eagleton 41.60 337 IAmb IAmb 02 03 57.4
comp=Z,4.9nm,0.7s
WVOR Wild Horse Val 41.87 324 IAmb IAmb 02 04 01.3
comp=Z,5.8nm,0.8s
AQDB Aquidauana 43.69 136 P P **02 04 14.6 +0.7**
YBH Yreka Blue Hor 43.91 320 LR LR 02 24 45.7
comp=Z,48nm,21.9s,baz=118,slow=39
RPN Rapa Nui 43.97 210 LR LR 02 17 30.3
comp=Z,54nm,20.4s,baz=47,slow=28
NEW Newport 44.98 331 LR LR 02 25 28.1
comp=Z,31nm,18.2s,baz=141,slow=39
SCHQ Schefferville 46.31 16 P P **02 04 31.7 -2.5**
comp=Z,2.0nm,0.4s,baz=214,slow=7.3,SNR=9.0
SCHQ PcP **PcP 02 06 07.8 -0.8**
comp=Z,1.2nm,0.5s,baz=171,slow=4.5,SNR=1.3
SCHQ LR LR 02 23 02.3
comp=Z,91nm,21.4s,baz=204,slow=36
SCHQ Schefferville 46.31 16 P P **02 04 32.4 -1.8**
BDFB Brasilia 46.53 124 P P **02 04 36.5 -0.2**
comp=Z,3.9nm,0.6s,baz=302,slow=6.6,SNR=7.9
comp=Z,3.9nm,0.6s
BDFB Brasilia 46.53 124 P P **02 04 36.4 -0.2**
BDFB IAmb IAmb 02 04 37.0
comp=Z,5.2nm,0.8s
CPUP Villa Florida 46.85 143 P P **02 04 39.9 +1.1**
comp=Z,1.3nm,0.7s,baz=358,slow=8.3,SNR=3.8
comp=Z,1.3nm,0.7s
FRB Frobisher Bay 54.07 10 LR LR 02 28 31.8
comp=Z,120nm,19.4s,baz=254,slow=36
YKA Yellowknife Ar 55.11 345 P P **02 05 39.0 -1.3**
comp=Z,1.8nm,0.7s,baz=145,slow=7.1,SNR=12
comp=Z,1.8nm,0.7s
DLBC Dease Lake 57.47 335 LR LR 02 34 05.8
comp=Z,49nm,18.1s,baz=274,slow=40
SFJD Kangerlussuaq 60.76 15 LR LR 02 32 23.0
comp=Z,96nm,19.7s,baz=190,slow=36
F30M Barrier River 64.99 341 P P **02 06 47.5 -0.4**
F30M IAmb IAmb 02 07 14.5
comp=Z,6.8nm,1.5s
F28M Old Crow 66.31 340 P **02 06 56.3 -0.2**
F28M IAmb IAmb 02 06 58.5
comp=Z,2.4nm,0.7s
I26K Coal Creek Min 66.36 337 IAmb IAmb 02 06 57.5
comp=Z,4.5nm,0.7s
J25K Salcha River, 66.91 336 P P **02 07 00.5 +0.2**
J25K IAmb IAmb 02 07 01.1
comp=Z,2.3nm,0.6s
IL31 67.57 336 P P **02 07 03.9 -0.5**
IL31 IAmb IAmb 02 07 04.8
comp=Z,2.6nm,0.8s
ILAR Eielson Array 67.57 336 P P **02 07 04.0 -0.5**
comp=Z,1.4nm,0.7s,baz=135,slow=4.4,SNR=30
comp=Z,1.4nm,0.7s
ILAR Eielson Array 67.57 336 -P P **02 07 04.2 -0.3**
RND Reindeer 67.87 335 P P **02 07 07.2 +0.7**
POKR Poker Flat Res 67.92 336 IAmb IAmb 02 07 06.9
comp=Z,5.2nm,0.7s
KDAK Kodiak Island 67.93 328 LR LR 02 38 49.5
comp=Z,26nm,19.9s,baz=90,slow=38
MLY Manley 69.20 336 P P **02 07 14.5 -0.3**
MLY IAmb IAmb 02 07 15.7
comp=Z,4.6nm,0.7s
D25K Kavik River 69.23 341 IAmb IAmb 02 07 16.0
comp=Z,4.4nm,0.8s
TOLK Toolik Lake Re 70.02 340 P P **02 07 19.1 -0.6**
TOLK IAmb IAmb 02 07 22.3
comp=Z,6.5nm,1.5s
ESDC Sonseca Array 77.33 52 P P **02 08 00.2 -2.9**
comp=Z,0.2nm,0.6s,baz=295,slow=4.0,SNR=1.9
comp=Z,0.2nm,0.6s
MDT Midelt 77.36 59 LR LR 02 37 23.2
comp=Z,56nm,18.7s,baz=300,slow=32

DAVOX Davos/Dischmat 86.36 43 LR LR 02 41 04.9
comp=Z,46nm,19.4s,baz=264,slow=32
SONM Songino Array 120.18 350 PKP **PKPdf** **02 14 58.8 -0.4**
comp=Z,0.4nm,0.5s,baz=207,slow=0.8,SNR=2.6
MKAR Makanchi Array 121.49 9 PKP **PKPdf** **02 15 00.6 -0.9**
comp=Z,0.2nm,0.4s,baz=308,slow=2.8,SNR=4.2
MKAR Makanchi Array 121.49 9 **PKPdf** **02 15 01.0 -0.5**
WMQ Urumqi 125.07 5 *e*PKP **PKiKP** **02 15 09.3 +0.4**
WMQ sPKP **PKiKP** 02 15 23.8 -7.6
HHC Hu-ho-hao-te 125.63 343 *e*P **PKiKP** **02 15 10.8 +0.6**
NJ2 Nanjing 130.65 331 *e*P **PKiKP** **02 15 21.5 +1.2**
NJ2 pmax pmax
comp=Z,6.0nm,0.5s
ASAR Alice Springs 139.55 247 PKP **PKiKP** **02 15 38.0 -0.7**
comp=Z,0.5nm,0.6s,baz=110,slow=1.7,SNR=12
WRA Warramunga Arr 139.70 252 PKP **PKiKP** **02 15 38.7 -0.3**
comp=Z,0.7nm,0.7s,baz=94,slow=2.5,SNR=9.7
WRA Warramunga Arr 139.70 252 **PKiKP** **02 15 38.6 -0.4**
CMAR Chiang Mai Arr 150.10 349 PKPbc **PKPbc** **02 15 59.7 +0.1**
comp=Z,1.0nm,0.3s,baz=337,slow=3.6,SNR=7.0

IDC ***15*** *02:12:28.0±1.7,5˚39S×141˚64E,h122km±13km,mb4.0/17, mbtmp4.5/22,Error ellipse: s-maj=21.5km s-min=9.4km az=94.0*
BJI ***15*** *02:12:27.8,5˚40S×141˚91E,h144km,mB5.0/7,mb4.8/32*
NEIC ***15*** *02:12:29.4±1.8,5˚36S±0˚08×141˚6E±0˚1,h128km±6km, mb4.5/38,Error ellipse: s-maj=16.2km s-min=10.5km az=70.0*
DJA ***15*** *02:12:30.7±0.4,5˚S±3˚×14˚2E±˚,h154km±7km,M4.9/10, mB5.1/3,mb4.6/6,MLv5.0/10,Mw(mB)4.5/3*
GFZ ***15*** *02:12:31.5±0.3,5˚S±4˚×14˚1E±˚,h143km,M4.4/18, mb4.6/18*

ISC 15 02:12:31.3±0.4,5˚36S±0˚05×141˚47E±0˚07,h150km,n126, σ1s28/123,mb4.5/48,2C-1D,New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAY	**Jayapura**	**2.93**	**345**	P	**Pn**	**02 13 15.2**	**-2.7**
	61nm,0.3s,baz=187,slow=11,SNR=53						
JAY				S	**Sn**	**02 13 50.6**	**-3.2**
	268nm,0.4s,baz=100,slow=23,SNR=12						
JAY	**Jayapura**	**2.93**	**345**	P	**Pn**	**02 13 14.9**	**-3.0**
JAY				S	**Sn**	**02 13 52.1**	**-1.8**
JAY				AML	AML		
GENI	**Genyem**	**3.04**	**335**	P	**Pn**	**02 13 17.7**	**-1.6**
GENI	**Genyem**	**3.04**	**335**	P	**Pn**	**02 13 16.8**	**-2.5**
GENI				S	**Sn**	**02 13 55.1**	**-1.2**
GENI				AML	AML		
GENI	**Genyem**	**3.04**	**335**	P	**Pn**	**02 13 17.9**	**-1.4**
MMPI	**Merauke**	**3.27**	**199**	P	**Pn**	**02 13 22.7**	**+0.6**
MMPI				AML	AML		
SMPI	**Sarmi**	**4.34**	**320**	P	**Pn**	**02 13 35.0**	**-1.0**
SMPI				S	**Sn**	**02 14 26.2**	**-0.2**
SMPI				AML	AML		
BAKI	**Biak**	**6.77**	**308**	P	**Pn**	**02 14 07.5**	**-0.9**
	0.4nm33nm,0.7s						
BAKI				AML	AML		
PMG	**Port Moresby**	**6.92**	**126**	P	**Pn**	**02 14 09.8**	**-0.6**
	14nm,0.8s,baz=329,slow=7.7,SNR=5.2						
PMG	**Port Moresby**	**6.92**	**126**	P	**Pn**	**02 14 13.7**	**+3.3**
PMG	**Port Moresby**	**6.92**	**126**	P	**Pn**	**02 14 11.8**	**+1.4**
PMG	**Port Moresby**	**6.92**	**126**	S	**Sn**	**02 15 29.5**	**+1.4**
PMG	**Port Moresby**	**6.92**	**126**		**Pn**	**02 14 06.9**	**-3.5**
PMG	**Port Moresby**	**6.92**	**126**	P	**Pn**	**02 14 10.8**	**+0.4**
	25nm,0.7s						
PMG	**Port Moresby**	**6.92**	**126**	P	**Pn**	**02 14 11.6**	**+1.2**
	comp=Z,26nm,0.7s						
FAKI	**Fak Fak**	**9.51**	**284**		**Pn**	**02 14 42.5**	**-2.5**
FAKI	**Fak Fak**	**9.51**	**284**	P	**Pn**	**02 14 45.3**	**+0.3**
SIJI	**Sorong**	**11.12**	**293**	P	**Pn**	**02 15 05.0**	**-1.3**
	comp=Z,3.6nm,0.3s,baz=91,slow=6.7,SNR=5.3						
MTN	**Manton Dam**	**12.62**	**233**		**Pn**	**02 15 25.3**	**-0.5**
MTSU	**Mount Surprise**	**13.00**	**168**	P	**P**	**02 15 33.2**	**-2.2**
MTSU	**Mount Surprise**	**13.00**	**168**	S	**S**	**02 18 08.6**	**+0.8**
MTSU	**Mount Surprise**	**13.00**	**168**	P	**P**	**02 15 32.9**	**-2.5**
	comp=Z,17nm,0.9s						
QIS	**Mount Isa**	**15.21**	**187**	P	**P**	**02 16 00.3**	**+0.3**
QIS	**Mount Isa**	**15.21**	**187**	P	**P**	**02 16 00.8**	**+0.7**
	comp=Z,33nm,0.8s						
CTA	**Charters Tower**	**15.36**	**163**	P	**P**	**02 16 01.1**	**-0.5**
	comp=Z,7.7nm,0.7s,baz=334,slow=12,SNR=14						
CTA	**Charters Tower**	**15.36**	**163**	P	**P**	**02 16 02.2**	**+0.6**
CTAO	**Charters Tower**	**15.36**	**163**	P	**P**	**02 16 02.2**	**+0.6**
CTAO	**Charters Tower**	**15.36**	**163**		**P**	**02 16 01.2**	**-0.4**
CTAO	**Charters Tower**	**15.36**	**163**	P	**P**	**02 16 02.1**	**+0.6**
	comp=Z,15nm,1.3s						
SANI	**Sanana**	**15.79**	**281**	P	**P**	**02 16 07.6**	**+1.1**
SANI	**Sanana**	**15.79**	**281**	P	**P**	**02 16 07.9**	**+1.4**
	comp=Z,20nm,0.6s						
WB0	**Warramunga Arr**	**15.89**	**205**		**Pn**	**02 16 06.3**	**-0.6**
WB0				IAmb	IAmb	02 16 11.1	
	comp=Z,50nm,1.0s						
WR8	**Warramunga Arr**	**16.02**	**204**		**Pn**	**02 16 07.9**	**-0.5**
WRAB	**Tennant Creek**	**16.06**	**205**	P	**P**	**02 16 08.6**	**-0.7**
	comp=Z,72nm,0.8s						
WRA	**Warramunga Arr**	**16.07**	**205**	P	**Pn**	**02 16 08.2**	**-0.8**
	comp=Z,26nm,0.6s,baz=23,slow=12,SNR=30						
WRA	**Warramunga Arr**	**16.07**	**205**	IAmb	IAmb	02 16 13.4	
	comp=Z,6.8nm,0.9s						
KNRA	**Kununurra**	**16.15**	**230**		**P**	**02 16 10.4**	**+0.1**
KNRA				IAmb	IAmb	02 16 12.8	
	comp=Z,22nm,0.8s						
SOEI	**Soe**	**17.60**	**255**	P	**Pn**	**02 16 27.7**	**0.0**
SOEI	**Soe**	**17.60**	**255**	P	**P**	**02 16 26.1**	**-0.4**
SOEI	**Soe**	**17.60**	**255**	P	**Pn**	**02 16 28.6**	**+0.9**
	comp=Z,117nm,0.8s						
BATI	**Baumata**	**18.29**	**254**	P	**P**	**02 16 33.7**	**-0.2**
	comp=Z,56nm,0.7s,baz=106,slow=4.6,SNR=7.6						
AS01	**Alice Springs**	**19.59**	**201**	P	**P**	**02 16 48.4**	**+0.4**
AS31	**Alice Springs**	**19.61**	**201**		**P**	**02 16 48.6**	**+0.4**
AS31				IAmb	IAmb	02 16 50.2	
	comp=Z,13nm,0.8s						
ASAR	**Alice Springs**	**19.61**	**201**	P	**P**	**02 16 48.5**	**+0.3**
	comp=Z,40nm,0.8s,baz=32,slow=9.6,SNR=301						
ASAR	**Alice Springs**	**19.61**	**201**	P	**P**	**02 16 48.4**	**+0.2**
AUALC	**St Philip's Co**	**19.64**	**201**	P	**Pn**	**02 16 49.3**	**-2.1**
FITZ	**Fitzroy Crossi**	**19.99**	**229**	P	**P**	**02 16 51.7**	**-0.6**
	comp=Z,5.8nm,0.6s,baz=52,slow=14,SNR=18						
	comp=Z,5.8nm,0.6s						
FITZ	**Fitzroy Crossi**	**19.99**	**229**	P	**Pn**	**02 16 54.0**	**-1.5**
	comp=Z,3.5nm,0.6s						
QLP	**Quilpie**	**21.27**	**173**	P	**P**	**02 17 05.5**	**-0.4**
QLP	**Quilpie**	**21.27**	**173**	P	**P**	**02 17 05.9**	**0.0**
	comp=Z,49nm,0.9s						
KAPI	**Kappang**	**21.63**	**270**	P	**P**	**02 17 10.5**	**+0.6**
	comp=Z,8.1nm,0.5s,baz=87,slow=6.7,SNR=7.0						
	comp=Z,8.1nm,0.5s						
KAPI	**Kappang**	**21.63**	**270**	P	**P**	**02 17 10.2**	**+0.3**
TOLI2	**Tolitoli**	**21.64**	**287**	P	**P**	**02 17 10.2**	**+0.2**
TOLI2	**Tolitoli**	**21.64**	**287**		**P**	**02 17 09.5**	**-0.6**
TOLI2				IAmb	IAmb	02 17 12.5	
	comp=Z,8.4nm,0.6s						
TOLI2	**Tolitoli**	**21.64**	**287**	P	**P**	**02 17 10.8**	**+0.8**
	comp=Z,13nm,1.1s						
EIDS	**Eidsvold**	**21.93**	**156**	P	**P**	**02 17 13.6**	**+0.7**
EIDS	**Eidsvold**	**21.93**	**156**	P	**P**	**02 17 12.4**	**-0.5**
EIDS	**Eidsvold**	**21.93**	**156**	P	**P**	**02 17 13.5**	**+0.7**
	comp=Z,51nm,1.1s						
INKA	**Innaminka**	**22.27**	**182**	P	**P**	**02 17 15.8**	**-0.5**
INKA				IAmb	IAmb	02 17 16.6	
	comp=Z,16nm,0.8s						
PLAI	**Plampang**	**23.76**	**260**	P	**P**	**02 17 28.6**	**-1.6**
	comp=Z,31nm,0.8s						
CMSA	**Cobar Meteorol**	**26.34**	**172**	P	**P**	**02 17 53.6**	**+0.2**
CMSA	**Cobar Meteorol**	**26.34**	**172**	P	**P**	**02 17 53.9**	**+0.5**
	comp=Z,15nm,1.1s						
STKA	**Stephens Creek**	**26.38**	**180**	P	**P**	**02 17 51.8**	**-2.0**
	comp=Z,3.3nm,0.8s,baz=350,slow=8.3,SNR=4.7						
	comp=Z,3.3nm,0.8s						
JAGI	**Jajag, Banyuwa**	**27.29**	**262**	P	**P**	**02 17 59.9**	**-2.3**
FORT	**Forrest**	**28.26**	**205**	P	**P**	**02 18 09.7**	**-0.8**
FORT				IAmb	IAmb	02 18 10.6	
	comp=Z,9.4nm,0.9s						
GIRL	**Giralia**	**31.42**	**234**	P	**P**	**02 18 40.1**	**+1.6**
BBJI	**Bungbulang**	**33.67**	**265**	P	**P**	**02 18 58.1**	**-0.2**
	comp=Z,14nm,0.8s						
MORW	**Morawa**	**33.69**	**223**	P	**P**	**02 18 57.1**	**-1.1**
MORW				IAmb	IAmb	02 19 00.4	
	comp=Z,18nm,1.1s						
MJAR	**Matsushiro Arr**	**41.80**	**356**	P	**P**	**02 20 05.0**	**-1.1**
	comp=Z,1.5nm,0.6s,baz=162,slow=9.8,SNR=7.3						
	comp=Z,1.5nm,0.6s						
NJ2	**Nanjing**	**42.99**	**331**	*e*P	**P**	**02 20 18.8**	**+2.9**
NJ2				pmax	pmax		
	comp=Z,15nm,0.5s						
WHN	**Wuhan**	**44.14**	**326**	P	**P**	**02 20 27.1**	**+2.0**
KSAR	**Wonju Array Be**	**44.43**	**345**	P	**P**	**02 20 27.4**	**+0.2**
KSRS	**Korea Array**	**44.43**	**345**	P	**P**	**02 20 27.6**	**+0.3**
	comp=Z,5.0nm,0.7s,baz=158,slow=8.1,SNR=18						
	comp=Z,5.0nm,0.7s						
CMAR	**Chiang Mai Arr**	**48.14**	**301**	P	**P**	**02 20 57.3**	**+0.7**
	comp=Z,0.7nm,0.3s,baz=121,slow=5.6,SNR=4.2						
	comp=Z,0.7nm,0.3s						
LYN	**LuoYang**	**48.21**	**328**	P	**P**	**02 20 58.1**	**+1.2**
LYN				pmax	pmax		
	comp=Z,35nm,0.7s						
HNS	**HongShan**	**49.32**	**332**	⇑P	**P**	**02 21 06.3**	**+1.1**
HNS				pmax	pmax		
	comp=Z,9.0nm,1.3s						
XAN	**Xi'an**	**49.82**	**324**	P	**P**	**02 21 10.0**	**+0.8**
XAN				pmax	pmax		
	comp=Z,14nm,0.8s						
USRK	**Ussuriysk Ar.**	**50.07**	**351**	P	**P**	**02 21 11.0**	**+0.2**
	comp=Z,5.5nm,0.8s,baz=169,slow=7.6,SNR=8.5						
	comp=Z,5.5nm,0.8s						
BJI2	**Beijing**	**50.81**	**335**	P	**P**	**02 21 17.4**	**+0.9**
BJI2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
CD2	**Chengdu**	**50.98**	**317**	P	**P**	**02 21 17.4**	**-0.6**
BNX	**BinXian**	**52.40**	**348**	⇑P	**P**	**02 21 28.4**	**+0.3**
BNX				pmax	pmax		
	comp=Z,18nm,0.8s						
HHC	**Hu-ho-hao-te**	**53.54**	**332**	*e*P	**P**	**02 21 40.3**	**+3.6**
HHC				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC				pmax	pmax		
	comp=Z,120nm,4.5s						
LZH	**Lanzhou**	**54.24**	**322**	*e*P	**P**	**02 21 44.1**	**+2.1**
LZH				pP	pP	02 22 12.0	-5.1
LZH				pmax	pmax		
	comp=Z,21nm,1.0s						
GTA2	**Gaotai**	**58.91**	**323**	P	**P**	**02 22 16.5**	**+1.6**
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
PETK	**Petropavlovsk-**	**59.85**	**11**	P	**P**	**02 22 20.8**	**-0.1**
	comp=Z,3.8nm,0.5s,baz=175,slow=5.7,SNR=20						
	comp=Z,3.8nm,0.5s						
SONM	**Songino Array**	**61.29**	**334**	P	**P**	**02 22 31.6**	**+0.7**
	comp=Z,0.6nm,0.6s,baz=151,slow=7.6,SNR=4.4						
	comp=Z,0.6nm,0.6s						
SONM	**Songino Array**	**61.29**	**334**	P	**P**	**02 22 32.2**	**+1.2**
EVN	**Everest**	**62.21**	**305**	P	**P**	**02 22 39.0**	**+0.9**
EVN				IAmb	IAmb	02 22 41.0	
	comp=Z,3.3nm,0.7s						
EVN	**Everest**	**62.21**	**305**	P	**P**	**02 22 39.7**	**+1.6**
	comp=Z,5.7nm,0.8s						
CASY	**Casey**	**64.51**	**193**	P	**P**	**02 22 52.0**	**+0.3**
CASY				IAmb	IAmb	02 22 52.9	
	comp=Z,8.7nm,0.9s						
VNDA	**Vanda**	**72.92**	**175**	P	**P**	**02 23 43.5**	**-0.1**
	comp=Z,2.3nm,0.6s,baz=324,slow=7.0,SNR=21						
	comp=Z,2.3nm,0.6s						
VNDA	**Vanda**	**72.92**	**175**	P	**P**	**02 23 43.8**	**+0.1**
VNDA	**Vanda**	**72.92**	**175**	P	**P**	**02 23 43.9**	**+0.2**
	comp=Z,5.2nm,0.8s						
MKAR	**Makanchi Array**	**73.56**	**322**	P	**P**	**02 23 48.6**	**+0.6**
	comp=Z,5.6nm,0.7s,baz=110,slow=7.2,SNR=37						
	comp=Z,5.6nm,0.7s						
MKAR	**Makanchi Array**	**73.56**	**322**	P	**P**	**02 23 48.9**	**+0.9**
MAKZ	**Makanchi**	**73.76**	**322**	P	**P**	**02 23 50.0**	**+0.9**
MAKZ				IAmb	IAmb	02 23 50.9	
	comp=Z,7.0nm,0.8s						
MAKZ	**Makanchi**	**73.76**	**322**	P	**P**	**02 23 50.2**	**+1.1**
	comp=Z,12nm,0.8s						
NIL	**Nilore**	**75.11**	**307**	P	**P**	**02 23 58.4**	**+1.1**
NIL				IAmb	IAmb	02 23 59.7	
	comp=Z,6.0nm,0.6s						
NIL	**Nilore**	**75.11**	**307**	P	**P**	**02 23 58.7**	**+1.5**
	comp=Z,9.8nm,0.7s						
ZALV	**Zalesovo Beam**	**75.60**	**329**	P	**P**	**02 23 59.5**	**0.0**
	comp=Z,2.0nm,0.6s,baz=115,slow=3.7,SNR=10.0						
	comp=Z,2.0nm,0.6s						
ZALV	**Zalesovo Beam**	**75.60**	**329**	P	**P**	**02 23 58.9**	**-0.6**
TIXI	**Tiksi**	**77.31**	**356**	P	**P**	**02 24 09.2**	**+0.4**
KURK	**Kurchatov**	**77.46**	**325**	P	**P**	**02 24 10.8**	**+0.8**
KURK	**Kurchatov**	**77.46**	**325**	P	**P**	**02 24 10.7**	**+0.6**
	comp=Z,7.9nm,1.3s						
KURBB	**Kurchatov Arra**	**77.47**	**324**	P	**P**	**02 24 10.6**	**+0.5**
	comp=Z,3.5nm,0.9s,baz=114,slow=4.5,SNR=24						
	comp=Z,3.5nm,0.9s						
MAW	**Mawson**	**80.73**	**202**	P	**P**	**02 24 26.9**	**-0.6**
	comp=Z,46nm,0.4s,baz=85,slow=6.7,SNR=91						
MAW	**Mawson**	**80.73**	**202**	P	**P**	**02 24 26.9**	**-0.6**
	comp=Z,12nm,0.7s						
RDOG	**Red Dog Mine**	**82.80**	**18**	P	**P**	**02 24 35.2**	**-3.1**
NRIK	**Noril'sk**	**83.03**	**343**	P	**P**	**02 24 39.2**	**-0.2**
	comp=Z,2.9nm,0.6s,baz=145,slow=5.1,SNR=4.9						
	comp=Z,2.9nm,0.6s						
NRIK	**Noril'sk**	**83.03**	**343**	IAmb	IAmb	02 24 40.4	
	comp=Z,3.9nm,0.7s						
BVAR	**Borovoye Array**	**83.05**	**325**	P	**P**	**02 24 40.7**	**+0.7**
	comp=Z,7.8nm,0.8s,baz=110,slow=5.6,SNR=33						
	comp=Z,7.8nm,0.8s						
BORK	**Borovoye**	**83.10**	**325**		**P**	**02 24 40.6**	**+0.4**
BORK				IAmb	IAmb	02 24 41.8	
	comp=Z,7.0nm,0.8s						
E19K	**Redstone River**	**84.33**	**20**	IAmb	IAmb	02 24 53.5	
	comp=Z,6.8nm,1.0s						
QSPA	**South Pole Qui**	**84.60**	**180**	P	**P**	**02 24 47.3**	**-0.4**
	comp=Z,7.4nm,0.6s,baz=304,slow=1.1,SNR=69						
	comp=Z,7.4nm,0.6s						
QSPA	**South Pole Qui**	**84.60**	**180**		**P**	**02 24 47.5**	**-0.3**
QSPA				IAmb	IAmb	02 24 48.4	
	comp=Z,9.2nm,0.8s						
QSPA	**South Pole Qui**	**84.60**	**180**	P	**P**	**02 24 47.8**	**0.0**
	comp=Z,16nm,0.9s						
DHY	**Denali Highway**	**86.34**	**26**	P	**P**	**02 24 56.3**	**-0.2**
DHY				IAmb	IAmb	02 24 57.0	
	comp=Z,5.9nm,0.8s						
CCB	**Clear Creek Bu**	**86.69**	**24**	P	**P**	**02 24 56.8**	**-1.1**
CCB				IAmb	IAmb	02 24 57.4	
	comp=Z,3.8nm,0.7s						
IL31		**87.10**	**24**	IAmb	IAmb	02 25 36.2	
	comp=Z,11nm,1.4s						
ILAR	**Eielson Array**	**87.10**	**24**	P	**P**	**02 24 58.5**	**-1.4**
	comp=Z,2.9nm,0.9s,baz=258,slow=4.9,SNR=22						
	comp=Z,2.9nm,0.9s						
E23K	**Chandalar**	**87.21**	**21**	IAmb	IAmb	02 25 02.4	
	comp=Z,4.7nm,0.9s						
F24K	**Squaw Lake**	**87.64**	**21**	IAmb	IAmb	02 25 04.3	
	comp=Z,4.5nm,0.8s				

P33M	**Teslin, Yukon**	**4.58**	**247**	Pn		**Pn**	**02 25 59.7**	**-1.1**
P33M				Sg		**Sb**	**02 27 08.7**	**+1.5**
DLBC	**Dease Lake**	**4.77**	**219**	Pn		**Pn**	**02 26 01.2**	**-2.1**
DLBC				Sg		**Sb**	**02 27 13.9**	**+1.3**
Q32M	**Nakina River**	**5.12**	**233**	Pn		**Pn**	**02 26 07.3**	**-1.0**
Q32M				Sg		**Sb**	**02 27 25.7**	**+2.9**
P32M	**Atlin**	**5.30**	**244**	Pn		**Pn**	**02 26 09.5**	**-1.1**
P32M				Sg		**Sb**	**02 27 29.9**	**+2.2**
WHY	**Whitehorse**	**5.30**	**257**	Pn		**Pn**	**02 26 09.2**	**-1.5**
WHY				Sg		**Sb**	**02 27 30.7**	**+2.9**
H31M	**Peel River**	**5.63**	**313**	Pn		**Pn**	**02 26 15.4**	**+0.3**
M30M	**Minto, Yukon**	**5.79**	**278**	Pn		**Pn**	**02 26 15.7**	**-1.5**
N30M	**Aishikik Lake**	**6.08**	**268**	Pn		**Pn**	**02 26 20.5**	**-0.8**
BESE	**Bessie Mountai**	**6.38**	**239**	Sg		**Sb**	**02 28 01.3**	**+2.4**
HYT	**Haines Junctio**	**6.45**	**263**	Pn		**Pn**	**02 26 25.7**	**-0.7**
YUK5	**Granite Creek**	**6.52**	**266**	Pn		**Pn**	**02 26 26.2**	**-1.3**
EPYK	**Eagle Plains**	**6.76**	**313**	Pn		**Pn**	**02 26 30.2**	**-0.3**
G30M	**tAoh Zraii Nji**	**6.94**	**318**	Pn		**Pn**	**02 26 32.6**	**-0.4**
C36M	**Paulatuk**	**7.10**	**1**	Pn		**Pn**	**02 26 35.4**	**+0.2**
INK	**Inuvik**	**7.16**	**332**	Pn		**Pn**	**02 26 36.2**	**+0.1**
INK				Sn		**Sn**	**02 27 50.3**	**-7.1**
F30M	**Barrier River**	**7.22**	**323**	Pn		**Pn**	**02 26 36.2**	**-0.6**
BDMTA	**Bald Mountain**	**8.01**	**157**	Pn		**Pn**	**02 26 46.6**	**-1.1**
SWHSA	**Sweathouse Loo**	**8.39**	**148**	Pn		**Pn**	**02 26 52.0**	**-1.0**
ILAR	**Eielson Array**	**10.34**	**294**	Pn		**Pn**	**02 27 22.9**	**+3.2**
	baz=99,slow=11,SNR=4.8							
ILAR				Lg		Lg	02 30 17.1	
	0.2nm,0.3s,baz=94,slow=27,SNR=5.7							
	0.3nm,0.6s							
EDM	**Edmonton**	**10.80**	**142**	P		**Pn**	**02 27 25.1**	**-0.8**
NVAR	**Mina Array Bea**	**24.16**	**168**	P		**P**	**02 30 09.9**	**+2.0**
	0.5nm,0.6s,baz=351,slow=8.2,SNR=4.0							
	0.5nm,0.6s							

IDC ***15*** *02:29:57.8±5.7,36°80N×71°62E,h97km±48km,mb3.5/8, mbtmp3.9/14,Error ellipse: s-maj=46.2km s-min=19.6km az=33.0*

NNC ***15*** *02:30:03.5±7.3,37°31N×71°43E,h129km±89km,mb3.3, mpv4.1,Error ellipse: s-maj=62.0km s-min=46.1km az=4.0*

ISC 15 02:29:58.4±0.7,36°94N±0°06×71°66E±0°08,h106km,n36, σ1§73/46,mb3.8/8,2C-4D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JMU	**Jammu**	**4.90**	**147**	*i* P		**Pn**	**02 31 09.5**	**-0.4**
JMU				*i* S		**Sn**	**02 32 05.5**	**+0.1**
JMU				IAML			02 32 15.4	
	comp=N,231nm,0.4s							
ALCI	**Alchi Leh**	**5.26**	**120**	*i* P		**Pn**	**02 31 16.9**	**+1.8**
ALCI				*i* S		**Sn**	**02 32 15.6**	**+1.0**
TSSA	**Tissa**	**5.51**	**137**	*i* P		**Pn**	**02 31 18.9**	**+0.6**
TSSA				*i* S		**Sn**	**02 32 20.6**	**+0.1**
THN	**Thein Dam**	**5.62**	**142**	*i* P		**Pn**	**02 31 19.9**	**+0.3**
UCH	**Uchtor**	**5.72**	**22**	P		**Pn**	**02 31 23.0**	**+1.8**
	SNR=40							
EKS2	**Erkin-Say**	**5.94**	**15**	P		**Pn**	**02 31 25.8**	**+1.8**
	SNR=22							
AAK	**Ala-Archa**	**6.09**	**20**	P		**Pn**	**02 31 27.9**	**+1.9**
	comp=N,34nm,0.4s,baz=184,slow=6.4,SNR=116							
AAK				S		**Sn**	**02 32 33.5**	**-0.9**
	comp=N,14nm,0.4s,baz=348,slow=22,SNR=9.2							
AAK	**Ala-Archa**	**6.09**	**20**	P		**Pn**	**02 31 28.2**	**+2.2**
	SNR=29							
AAK	**Ala-Archa**	**6.09**	**20**	⇓P		**Pn**	**02 31 27.8**	**+1.8**
	comp=N,12nm,0.5s							
AAK				⇓S		**Sn**	**02 32 34.4**	**0.0**
	comp=N,8.8nm,0.6s							
KK31	**Karatay Array**	**6.22**	**352**	⇑P		**Pn**	**02 31 28.0**	**+0.4**
	comp=N,5.3nm,0.2s,baz=194,slow=16,SNR=6.2							
KK31				⇓S		**Sn**	**02 32 31.7**	**-5.5**
	comp=N,9.9nm,0.4s,baz=176,slow=23,SNR=6.2							
KBK	**Karagaybulak**	**6.24**	**23**	P		**Pn**	**02 31 30.3**	**+2.2**
	SNR=14							
ULHL	**Ulahol**	**6.37**	**32**	P		**Pn**	**02 31 31.9**	**+2.0**
	SNR=22							
CHMS	**Chumysh**	**6.50**	**20**	P		**Pn**	**02 31 33.2**	**+1.8**
	SNR=29							
USP	**Ospenovka**	**6.68**	**18**	P		**Pn**	**02 31 35.1**	**+1.2**
	SNR=20							
TKM2	**Tokmak 2**	**6.69**	**26**	P		**Pn**	**02 31 36.2**	**+1.9**
	SNR=38							
HNLY	**HANLEY**	**7.30**	**123**	*i* P		**Pn**	**02 31 42.3**	**-0.6**
HNLY				*i* S		**Sn**	**02 33 04.7**	**+0.1**
SMLA	**Simla**	**7.38**	**140**	*i* P		**Pn**	**02 31 43.7**	**+0.2**
SMLA				*i* S		**Sn**	**02 33 03.5**	**-2.1**
SMLA				IAML			02 33 08.9	
	comp=E,148nm,0.4s							
KLP	**Kalpa**	**7.67**	**133**	*i* P		**Pn**	**02 31 48.2**	**+0.5**
KLP				*i* S		**Sn**	**02 33 10.1**	**-3.1**
UTK	**UTTARKASHI**	**8.38**	**136**	*i* P		**Pn**	**02 31 56.7**	**-0.5**
UTK				*i* S		**Sn**	**02 33 25.5**	**-4.6**
KUDL	**Kundal**	**9.67**	**154**	*i* P		**Pn**	**02 32 14.7**	**+0.1**
KUDL				*i* S		Sn	02 33 48.6	-13
MK31	**Makanchi Array**	**12.62**	**35**	P		**Pn**	**02 32 53.8**	**-0.3**
	comp=E,3.5nm,1.0s,baz=215,slow=13,SNR=21							
MKAR	**Makanchi Array**	**12.62**	**35**	P		**Pn**	**02 32 55.2**	**+1.2**
	comp=E,4.4nm,0.9s,baz=217,slow=12,SNR=20							
KURBB	**Kurchatov Arra**	**14.54**	**18**	P		**P**	**02 33 21.5**	**-0.8**
	comp=E,1.1nm,0.5s,baz=206,slow=11,SNR=11							
AB31	**Akbulak array**	**14.97**	**329**	⇑P		**Pn**	**02 33 21.9**	**-2.4**
	comp=E,0.6nm,0.3s,baz=155,slow=9.6,SNR=34							
BVAR	**Borovoye Array**	**16.11**	**357**	P		**Pn**	**02 33 38.2**	**-0.2**
	comp=E,1.2nm,0.5s,baz=158,slow=8.3,SNR=8.1							
AKTO	**Aktyubinsk**	**16.67**	**328**	P		**P**	**02 33 47.4**	**+1.3**
	comp=E,1.5nm,0.3s,baz=126,slow=7.8,SNR=6.3							
AKTO				S		Sn	02 36 38.2	-12
	comp=E,1.6nm,0.6s,baz=12,slow=20,SNR=3.7							
AKTO	**Aktyubinsk**	**16.67**	**328**	⇓P		**P**	**02 33 46.9**	**+0.8**
	comp=E,1.0nm,0.5s							
ZALV	**Zalesovo Beam**	**19.29**	**24**	P		**Pn**	**02 34 15.7**	**-1.1**
	comp=E,2.1nm,0.4s,baz=223,slow=11,SNR=11							
FINES	**FINESS Array B**	**37.41**	**326**	P		**P**	**02 37 02.2**	**+1.4**
	comp=E,2.3nm,0.9s,baz=119,slow=15,SNR=5.6							
	comp=E,2.3nm,0.9s							
ARCES	**ARCESS Array B**	**40.94**	**337**	P		**P**	**02 37 32.2**	**+2.1**
	comp=E,2.0nm,0.8s,baz=119,slow=7.9,SNR=4.1							
	comp=E,2.0nm,0.8s							
HFS	**Hagfors**	**43.05**	**322**	P		**P**	**02 37 48.4**	**+1.2**
	comp=E,1.7nm,0.8s,baz=89,slow=9.1,SNR=1.7							
	comp=E,1.7nm,0.8s							
NOA	**NORSAR Array B**	**44.35**	**323**	P		**P**	**02 37 58.6**	**+0.9**
	comp=E,0.7nm,0.7s,baz=94,slow=7.8,SNR=3.4							
	comp=E,0.7nm,0.7s							
ESDC	**Sonseca Array**	**57.72**	**298**	P		**P**	**02 39 37.9**	**-0.2**
	comp=E,0.3nm,0.6s,baz=56,slow=6.6,SNR=5.5							
	comp=E,0.3nm,0.6s							
YKA	**Yellowknife Ar**	**80.78**	**3**	P		**P**	**02 42 00.8**	**+1.1**
	comp=E,2.3nm,1.2s,baz=354,slow=5.5,SNR=4.4							
	comp=E,2.3nm,1.2s							
WRA	**Warramunga Arr**	**81.78**	**122**	P		**P**	**02 42 06.0**	**+0.3**
	comp=E,0.3nm,0.4s,baz=324,slow=5.0,SNR=5.1							
	comp=E,0.3nm,0.4s							
ASAR	**Alice Springs**	**84.07**	**125**	P		**P**	**02 42 17.7**	**+0.3**
	comp=E,0.5nm,0.6s,baz=309,slow=4.8,SNR=11							
	comp=E,0.5nm,0.6s							

BJI ***15*** *02:41:38.0,5°21S×154°10E,h78km,mB4.9/6,mb4.8/28*

NEIC ***15*** *02:41:39.0±1.2,5°34S±0°07×153°93E±0°10,h70km±7km, mb4.7/34,Error ellipse: s-maj=14.5km s-min=10.1km az=70.0*

IDC ***15*** *02:41:39.1±2.2,5°36S×153°93E,h75km±16km,mb4.3/19, mbtmp4.6/22,MS3.5/24,Error ellipse: s-maj=19.8km s-min=10.7km az=90.0*

GFZ ***15*** *02:41:42.0±1.9,5°S±7°×15°4E±1°1,h98km±13km,M4.6/18, mb4.8/18,Error ellipse: s-maj=25.5km s-min=9.5km az=62.3,confirmed*

DJA ***15*** *02:41:43.7±3.2,5°S±13°×15°4E±2°4,h89km±16km, M5.2/12,mb4.8/12,mB5.3/7,MLv5.8/1,Mw(mB)4.7/7, MwMwp4.8/1,Mwpv5.1/1*

ISC 15 02:41:39.2±0.4,5°34S±0°05×153°89E±0°05,h74km,n154, σ0§96/135,mb4.6/54,3D,New Ireland region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
RABL	**Rabaul**	**2.06**	**303**			**Pn**	**02 42 11.7**	**-0.1**
KRVT	**Keravat (AS076**	**2.12**	**299**	P		**Pn**	**02 42 12.6**	**-0.1**
	652nm,0.3s,baz=198,slow=6.4,SNR=27							
KRVT				S		**Sn**	**02 42 39.5**	**+1.4**
	2µm,0.4s,baz=336,slow=20,SNR=6.4							
TATA	**Tatamba Isabel**	**6.61**	**118**	P		**Pn**	**02 43 13.8**	**0.0**
TATA	**Tatamba Isabel**	**6.61**	**118**	S		**Sn**	**02 44 28.8**	**+1.0**
MANU	**Manus Island**	**7.28**	**296**			**Pn**	**02 43 22.6**	**-0.4**
PMG	**Port Moresby**	**7.80**	**238**	P		**Pn**	**02 43 30.8**	**+0.7**
	111nm,0.7s,baz=59,slow=7.0,SNR=28							
PMG				S		**Sn**	**02 44 58.3**	**+1.3**
	449nm,0.8s,baz=34,slow=22,SNR=5.3							
PMG	**Port Moresby**	**7.80**	**238**	S		**Sn**	**02 44 59.2**	**+2.2**
PMG	**Port Moresby**	**7.80**	**238**	P		**Pn**	**02 43 31.1**	**+1.0**
PMG	**Port Moresby**	**7.80**	**238**	S		**Sn**	**02 44 59.4**	**+2.4**
PMG	**Port Moresby**	**7.80**	**238**			**Pn**	**02 43 29.9**	**-0.2**
PMG	**Port Moresby**	**7.80**	**238**	P		**Pn**	**02 43 30.8**	**+0.7**
	2.2nm3µm1µm142nm,0.8s							
PMG				AML		AML		
PMG	**Port Moresby**	**7.80**	**238**	P		**Pn**	**02 43 31.2**	**+1.1**
	comp=Z,145nm,0.8s							
JAY	**Jayapura**	**13.45**	**282**	P		**Pn**	**02 44 48.7**	**+1.7**
	comp=Z,37nm,0.8s							
GENI	**Genyem**	**13.96**	**281**	P		**Pn**	**02 44 54.0**	**+0.3**
GENI	**Genyem**	**13.96**	**281**	P		**Pn**	**02 44 52.4**	**-1.3**
	comp=Z,3µmcomp=Z,56nm,0.9s							
GENI	**Genyem**	**13.96**	**281**	P		**Pn**	**02 44 53.0**	**-0.7**
	comp=Z,55nm,0.9s							
SMPI	**Sarmi**	**15.51**	**282**	P		**Pn**	**02 45 14.1**	**+0.4**
MTSU	**Mount Surprise**	**15.79**	**216**	P		**P**	**02 45 18.8**	**-0.9**
MTSU	**Mount Surprise**	**15.79**	**216**	P		**P**	**02 45 19.6**	**-0.2**
	comp=Z,34nm,1.0s							
CTA	**Charters Tower**	**16.44**	**206**	P		**P**	**02 45 26.9**	**-0.1**
	comp=Z,16nm,0.9s,baz=23,slow=13,SNR=23							
CTA				LR		LR	02 51 01.4	
	comp=Z,138nm,21.2s,baz=36,slow=34							
CTAO	**Charters Tower**	**16.44**	**206**	P		**P**	**02 45 26.7**	**-0.2**
CTAO	**Charters Tower**	**16.44**	**206**	P		**P**	**02 45 27.2**	**+0.3**
CTAO	**Charters Tower**	**16.44**	**206**	P		**P**	**02 45 27.4**	**+0.5**
	comp=Z,27nm,1.0s							
EIDS	**Eidsvold**	**20.10**	**187**	P		Pn	02 46 09.5	0.0
EIDS	**Eidsvold**	**20.10**	**187**			Pn	02 46 08.9	-0.6
QIS	**Mount Isa**	**20.53**	**221**	P		**P**	**02 46 11.7**	**-0.1**
QIS	**Mount Isa**	**20.53**	**221**	P		**P**	**02 46 12.2**	**+0.4**
	comp=Z,39nm,1.1s							
NOUC	**Port Laguerre**	**20.55**	**145**	P		**P**	**02 46 11.6**	**-0.3**
GUMO	**Guam**	**20.83**	**335**	LR		LR	02 54 53.6	
	comp=Z,23nm,18.8s,baz=154,slow=38							
OUENC	**Ouen Island, N**	**21.10**	**145**	P		**P**	**02 46 18.0**	**+0.1**
OUENC	**Ouen Island, N**	**21.10**	**145**			**P**	**02 46 16.9**	**-0.9**
OUENC				IAmb		IAmb	02 46 18.4	
	comp=Z,16nm,0.7s							
FAKI	**Fak Fak**	**21.71**	**275**	P		**P**	**02 46 24.3**	**-0.3**
FAKI	**Fak Fak**	**21.71**	**275**	P		**P**	**02 46 23.7**	**-0.9**
FAKI				IAmb		IAmb	02 46 26.9	
	comp=Z,32nm,0.9s							
FAKI	**Fak Fak**	**21.71**	**275**	P		**P**	**02 46 25.7**	**+1.2**
	comp=Z,41nm,1.0s							
FAKI	**Fak Fak**	**21.71**	**275**	P		**P**	**02 46 24.2**	**-0.3**
	comp=Z,41nm,1.1s							
TW1H	**Toowoomba 1 Ha**	**22.16**	**185**	P		**P**	**02 46 30.1**	**+0.9**
SAUI	**Saumlaki**	**22.59**	**262**	P		**P**	**02 46 36.4**	**+2.5**
SAUI	**Saumlaki**	**22.59**	**262**	P		**P**	**02 46 34.6**	**+0.7**
SAUI	**Saumlaki**	**22.59**	**262**	P		**P**	**02 46 35.3**	**+1.3**
	comp=Z,368nm,1.2s							
SIJI	**Sorong**	**23.02**	**280**	P		**P**	**02 46 38.5**	**+0.2**
	comp=Z,24nm,1.1s							
SIJI	**Sorong**	**23.02**	**280**	P		**P**	**02 46 37.7**	**-0.6**
	comp=Z,22nm,1.1s							
QLP	**Quilpie**	**23.05**	**203**	P		**P**	**02 46 38.2**	**-0.3**
QLP	**Quilpie**	**23.05**	**203**	P		**P**	**02 46 38.3**	**-0.2**
	comp=Z,66nm,0.8s							
MTN	**Manton Dam**	**23.66**	**250**			**P**	**02 46 43.8**	**-0.5**
WB0	**Warramunga Arr**	**23.79**	**231**	P		**P**	**02 46 45.2**	**-0.2**
WR8	**Warramunga Arr**	**23.81**	**231**	P		**P**	**02 46 45.1**	**-0.5**
WRAB	**Tennant Creek**	**23.91**	**231**	P		**P**	**02 46 46.3**	**-0.2**
	comp=Z,57nm,0.9s							
WRA	**Warramunga Arr**	**23.93**	**231**	P		**P**	**02 46 46.4**	**-0.2**
	comp=Z,25nm,0.6s,baz=54,slow=8.4,SNR=21							
WRA				PcP		**PcP**	**02 50 26.9**	**-0.7**
	comp=Z,1.1nm,0.7s,baz=53,slow=2.5,SNR=4.5							
WRA				ScP		**ScP**	**02 53 58.5**	**-1.2**
	comp=Z,0.8nm,0.9s,baz=60,slow=2.5,SNR=6.4							
	comp=Z,25nm,0.6s							
ARMA	**Armidale**	**25.04**	**185**	P		**P**	**02 46 57.9**	**+1.2**
ARMA	**Armidale**	**25.04**	**185**			**P**	**02 46 57.6**	**+0.9**
ARMA				IAmb		IAmb	02 46 58.9	
	comp=Z,22nm,0.9s							
ARMA	**Armidale**	**25.04**	**185**	P		**P**	**02 46 57.6**	**+0.9**
	comp=Z,27nm,0.9s							
INKA	**Innaminka**	**25.55**	**208**	P		**P**	**02 47 01.0**	**-0.3**
AS31	**Alice Springs**	**26.51**	**225**	P		**P**	**02 47 09.6**	**-0.5**
ASAR	**Alice Springs**	**26.51**	**225**	P		**P**	**02 47 09.7**	**-0.4**
	comp=Z,8.7nm,0.8s,baz=60,slow=9.3,SNR=38							
ASAR				PcP		**PcP**	**02 50 33.0**	**-0.4**
	comp=Z,1.3nm,0.6s,baz=51,slow=2.5,SNR=4.9							
ASAR				ScP		**ScP**	**02 54 06.3**	**-0.7**
	comp=Z,1.0nm,0.8s,baz=38,slow=3.6,SNR=4.3							
ASAR				LR		LR	02 57 11.8	
	comp=Z,135nm,20.6s,baz=96,slow=35							
	comp=Z,8.7nm,0.8s							
ASAR	**Alice Springs**	**26.51**	**225**	P		**P**	**02 47 08.8**	**-1.3**
KNRA	**Kununurra**	**26.72**	**245**	P		**P**	**02 47 11.8**	**-0.2**
KNRA				IAmb		IAmb	02 47 35.3	
	comp=Z,16nm,0.8s							
H11S3	**WAKE ISLAND Hy**	**26.83**	**28**	T		T	03 15 30.8	
	baz=208,slow=76,SNR=39							
H11S2	**WAKE ISLAND Hy**	**26.84**	**28**	T		T	03 15 29.0	
	baz=208,slow=76,SNR=47							
H11S1	**WAKE ISLAND Hy**	**26.85**	**28**	T		T	03 15 41.9	
	baz=208,slow=76,SNR=44							
CMSA	**Cobar Meteorol**	**27.18**	**195**	P		**P**	**02 47 15.6**	**-0.3**
	comp=Z,16nm,1.2s							
SANI	**Sanana**	**28.03**	**276**	P		**P**	**02 47 26.5**	**+2.8**
STKA	**Stephens Creek**	**28.81**	**202**	P		**P**	**02 47 29.6**	**-0.8**
	comp=Z,5.7nm,0.8s,baz=30,slow=12,SNR=9.1							
STKA				LR		LR	02 58 51.6	
	comp=Z,123nm,19.7s,baz=24,slow=36							
	comp=Z,5.7nm,0.8s							
STKA	**Stephens Creek**	**28.81**	**202**			**P**	**02 47 29.8**	**-0.6**
STKA				IAmb		IAmb	02 47 30.6	
	comp=Z,27nm,0.9s							
STKA	**Stephens Creek**	**28.81**	**202**	P		**P**	**02 47 30.1**	**-0.3**
	comp=Z,29nm,0.8s							
BATI	**Baumata**	**30.32**	**259**	LR		LR	03 03 27.5	
	comp=Z,314nm,18.1s,baz=328,slow=43							
FITZ	**Fitzroy Crossi**	**30.37**	**243**	LR		LR	02 59 35.9	
	comp=Z,103nm,20.6s,baz=17,slow=35							
FITZ	**Fitzroy Crossi**	**30.37**	**243**	P		**P**	**02 47 43.8**	**-0.6**
	comp=Z,13nm,0.9s							
BBOO	**Buckleboo**	**32.00**	**209**	P		**P**	**02 47 57.5**	**-1.2**
EDFI	**Ende, Flores**	**32.13**	**262**	P		**P**	**02 47 58.2**	**-1.9**
	comp=Z,21nm,1.1s							
BKSI	**Bulukumba**	**33.62**	**268**	P		**P**	**02 48 12.3**	**-0.7**
	comp=Z,13nm,1.1s							
KAPI	**Kappang**	**34.00**	**269**	LR		LR	03 06 30.7	
	comp=Z,47nm,18.1s,baz=110,slow=44							
KAPI	**Kappang**	**34.00**	**269**	P		**P**	**02 48 16.0**	**-0.2**
	comp=Z,19nm,0.9s							
AFI	**Afiamalu**	**34.87**	**107**	LR		LR	03 01 06.3	
	comp=Z,34nm,19.6s,baz=16,slow=34							
FORT	**Forrest**	**35.08**	**221**	P		**P**	**02 48 24.3**	**-1.1**
PLAI	**Plampang**	**35.99**	**262**	P		**P**	**02 48 31.6**	**-1.9**
RTZ	**Ruatahuna**	**39.20**	**151**	P		**P**	**02 48 59.8**	**-0.5**
THZ	**Tophouse**	**40.04**	**158**	P		**P**	**02 49 06.0**	**-1.2**
TCW	**Tory Channel**	**40.11**	**156**	P		**P**	**02 49 08.0**	**+0.3**
KLBR	**Kellerberrin**	**42.74**	**228**	P		**P**	**02 49 28.2**	**-1.2**
	comp=Z,32nm,0.7s							
MORW	**Morawa**	**42.87**	**232**	P		**P**	**02 49 29.2**	**-1.3**
MORW				IAmb		IAmb	02 49 30.0	
	comp=Z,13nm,0.8s							
MJAR	**Matsushiro Arr**	**44.17**	**342**	P		**P**	**02 49 40.7**	**-0.1**
	comp=Z,3.0nm,0.9s,baz=171,slow=8.9,SNR=7.4							
MJAR				LR		LR	03 05 13.6	
	comp=Z,26nm,20.1s,baz=182,slow=32							
	comp=Z,3.0nm,0.9s							
MJAR	**Matsushiro Arr**	**44.17**	**342**	P		**P**	**02 49 40.9**	**+0.1**
MAJO	**Matsushiro**	**44.17**	**342**	P		**P**	**02 49 40.1**	**-0.7**
MAJO				IAmb		IAmb	02 49 52.2	
	comp=Z,16nm,1.4s							
MJB9	**Matsu-Tunnel**	**44.17**	**342**	P		**P**	**02 49 40.2**	**-0.7**
MJB9				IAmb		IAmb	02 49 52.1	
	comp=Z,15nm,1.4s							
BBJI	**Bungbulang**	**45.98**	**265**	P		**P**	**02 49 55.4**	**-0.3**
BBJI				IAmb		IAmb	02 50 28.2	
	comp=Z,16nm,1.0s							
KSRS	**Korea Array**	**48.97**	**332**	P		**P**	**02 50 18.4**	**+0.1**
	comp=Z,2.3nm,0.5s,baz=146,slow=7.5,SNR=10.0							
	comp=Z,2.3nm,0.5s							
NJ2	**Nanjing**	**49.94**	**320**	*e*P		**P**	**02 50 27.4**	**+1.6**
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.6s							
ASAJ	**Asahikawa**	**50.27**	**349**	LR		LR	03 07 37.8	
	comp=Z,26nm,20.4s,baz=102,slow=31							
USRK	**Ussuriysk Ar.**	**53.11**	**340**	P		**P**	**02 50 50.4**	**+1.2**
	comp=Z,5.3nm,0.8s,baz=179,slow=5.9,SNR=7.7							
	comp=Z,5.3nm,0.8s							
USRK	**Ussuriysk Ar.**	**53.11**	**340**	P		**P**	**02 50 49.5**	**+0.3**
HNS	**HongShan**	**56.03**	**323**	⇓P		**P**	**02 51 10.6**	**+0.1**
BNX	**BinXian**	**56.07**	**338**	⇓P		**P**	**02 51 10.4**	**-0.2**
BNX				pmax		pmax		
	comp=Z,14nm,0.8s							
PPT2	**Papeete2**	**56.53**	**107**	*e*LR		LR	03 07 55.8	
	comp=Z,39nm,23.5s							
BJI2	**Beijing**	**56.93**	**326**	P		**P**	**02 51 19.8**	**+2.9**
BJI2				pP		**pP**	**02 51 35.4**	**+0.8**
BJI2				pmax		pmax		
	comp=Z,5.0nm,0.8s							
PETK	**Petropavlovsk-**	**58.31**	**3**	P		**P**	**02 51 27.1**	**+0.8**
	comp=Z,5.8nm,0.6s,baz=161,slow=5.5,SNR=22							
PETK				LR		LR	03 11 27.1	
	comp=Z,28nm,20.4s,baz=154,slow=31							
	comp=Z,5.8nm,0.6s							
PETK	**Petropavlovsk-**	**58.31**	**3**	P		**P**	**02 51 26.9**	**+0.5**
CMAR	**Chiang Mai Arr**	**59.09**	**295**	P		**P**	**02 51 33.3**	**+0.9**
	comp=Z,5.7nm,0.8s,baz=114,slow=5.1,SNR=28							
	comp=Z,5.7nm,0.8s							
CMAR	**Chiang Mai Arr**	**59.09**	**295**			**P**	**02 51 32.3**	**0.0**
CD2	**Chengdu**	**59.91**	**310**	P		**P**	**02 51 38.4**	**+0.5**
CD2				pmax		pmax		
	comp=Z,20nm,0.8s							
HEH	**HeiHe**	**59.91**	**341**	*e*P		**P**	**02 51 39.0**	**+1.6**
HHC	**Hu-ho-hao-te**	**60.11**	**324**	*e*P		**P**	**02 51 41.3**	**+2.1**
HHC				pmax		pmax		
	comp=Z,7.0nm,0.6s							
HHC				pmax		pmax		
	comp=Z,48nm,5.3s							
SHEM	**Shemya Is, Ala**	**60.33**	**14**	LR		LR	03 13 23.3	
	comp=Z,70nm,20.6s,baz=82,slow=32							
LZH	**Lanzhou**	**62.37**	**316**	*e*P		P	02 52 00.3	+5.7
LZH				pmax		pmax		
	comp=Z,14nm,1.2s							
LZDM	**Lanzhou Array**	**62.41**	**315**	P		**P**	**02 51 56.0**	**+1.0**
	comp=Z,5.3nm,0.4s,baz=98,slow=9.1,SNR=6.2							
	comp=Z,5.3nm,0.4s							
GTA2	**Gaotai**	**66.86**	**317**	P		**P**	**02 52 24.5**	**+0.8**
GTA2				pP		pP	02 52 40.4	-1.8
GTA2				pmax		pmax		
	comp=Z,10.0nm,1.0s							
SONM	**Songino Array**	**67.36**	**327**	P		**P**	**02 52 26.8**	**0.0**
	comp=Z,1.6nm,0.4s,baz=147,slow=6.2,SNR=9.0							
	comp=Z,1.6nm,0.4s							
SONM	**Songino Array**	**67.36**	**327**	P		**P**	**02 52 26.7**	**0.0**
SHL	**Shillong**	**67.51**	**300**	P		**P**	**02 52 27.5**	**-0.7**
GOMU	**GeErMu**	**68.92**	**312**	P		**P**	**02 52 37.4**	**+0.3**
GOMU				pmax		pmax		
	comp=Z,4.0nm,0.7s							
TLY	**Talaya**	**71.08**	**330**	LR		LR	03 23 09.8	
	comp=Z,12nm,19.2s,baz=62,slow=35							
VNDA	**Vanda**	**72.26**	**178**	P		**P**	**02 52 56.3**	**+0.2**
	comp=Z,4.2nm,1.0s,baz=330,slow=6.7,SNR=16							
	comp=Z,4.2nm,1.0s							
VNDA	**Vanda**	**72.26**	**178**	P		**P**	**02 52 56.3**	**+0.2**
VNDA				IAmb		IAmb	02 52 57.2	
	comp=Z,7.3nm,1.2s							
VNDA	**Vanda**

*IDC **15** 02:59:34.7±1.2,21°.24S×168°.87E,h0km,mb4.1/7, mbtmp4.1/8,ML3.8/1,MS3.2/7,Error ellipse: s-maj=32.9km s-min=20.1km az=144.0*
*NEIC **15** 02:59:38.5±1.6,21°.4S±0°.1×168°.68E±0°.03,h16km±5km, mb4.1/6,Error ellipse: s-maj=15.5km s-min=2.3km az=166.0*
ISC 15 02:59:39.1±0.7,21°.11S±0°.07×168°.72E±0°.10,h35km,n62, σ1s50/59,mb4.2/10,MS3.1/6,Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**0.74**	**240**	P		**Pn**	**Pn**	**02 59 50.5**	**-2.6**
MARNC	**Mare, Loyalty**	**0.74**	**240**			**Pn**	**Pn**	**02 59 50.6**	**-2.5**
MARNC				Sg		**Sn**	**Sn**	**02 59 58.6**	**-4.6**
PINNC	**Pines Island,**	**1.91**	**218**	P		**Pn**	**Pn**	**03 00 08.3**	**-0.8**
PINNC	**Pines Island,**	**1.91**	**218**			**Pn**	**Pn**	**03 00 07.4**	**-1.8**
YATNC	**Mamie plateau,**	**1.95**	**241**	P		**Pn**	**Pn**	**03 00 08.2**	**-1.5**
OUENC	**Ouen Island, N**	**2.18**	**233**	P		**Pn**	**Pn**	**03 00 13.0**	**+0.1**
OUENC	**Ouen Island, N**	**2.18**	**233**			**Pn**	**Pn**	**03 00 12.2**	**-0.7**
DZM	**Mont Dzumac**	**2.32**	**245**	Pn		**Pn**	**Pn**	**03 00 14.1**	**-0.9**
	21nm,0.3s,baz=79,slow=19,SNR=34								
DZM				Sn		**Sn**	**Sn**	**03 00 42.1**	**-0.3**
	67nm,0.3s,baz=330,slow=20,SNR=7.9								
DZM				LR		LR	LR	03 00 52.7	
	comp=Z,234nm,18.8s,baz=307,slow=32								
	50nm,0.4s								
DZM				AML		AML			
ONTNC	**Ouen Toro**	**2.42**	**240**	P		**Pn**		**03 00 16.8**	**+0.6**
ONTNC	**Ouen Toro**	**2.42**	**240**			**Pn**		**03 00 15.5**	**-0.7**
NOUC	**Port Laguerre**	**2.46**	**246**	P		**Pn**		**03 00 16.7**	**0.0**
RTV	**Rentapao**	**3.31**	**355**	P		Pn		03 00 23.5	-5.0
DVP	**Devils Point**	**3.41**	**351**	P		**Pn**		**03 00 26.3**	**-3.5**
KOUNC	**Koumac, New Ca**	**4.19**	**277**	P		**Pn**		**03 00 39.7**	**-0.8**
KOUNC	**Koumac, New Ca**	**4.19**	**277**	Pn		**Pn**		**03 00 41.1**	**+0.6**
CTA	**Charters Tower**	**21.05**	**269**	LR		LR		03 11 31.4	
	comp=Z,64nm,18.6s,baz=69,slow=34								
STKA	**Stephens Creek**	**26.47**	**240**	LR		LR		03 14 41.0	
	comp=Z,26nm,20.4s,baz=23,slow=34								
RAR	**Rarotonga**	**29.36**	**96**	LR		LR		03 14 46.6	
	comp=Z,8.6nm,19.2s,baz=256,slow=31								
WR8	**Warramunga Arr**	**32.03**	**266**	P		**P**		**03 06 01.6**	**-1.1**
WR8				IAmb		IAmb		03 06 07.9	
	comp=Z,6.6nm,1.2s								
WRA	**Warramunga Arr**	**32.19**	**266**	P		**P**		**03 06 05.0**	**+1.0**
	comp=Z,0.6nm,0.8s,baz=102,slow=8.2,SNR=4.9								
	comp=Z,0.6nm,0.8s								
WRA	**Warramunga Arr**	**32.19**	**266**	P		**P**		**03 06 04.1**	**+0.1**
AS31	**Alice Springs**	**32.25**	**259**	P		**P**		**03 06 04.6**	**0.0**
AS31				IAmb		IAmb		03 06 05.7	
	comp=Z,1.6nm,0.7s								
ASAR	**Alice Springs**	**32.25**	**259**	P		**P**		**03 06 05.2**	**+0.7**
	comp=Z,3.0nm,0.7s,baz=82,slow=9.2,SNR=52								
ASAR				PcP		**PcP**		**03 08 53.5**	**+0.9**
	comp=Z,0.5nm,1.0s,baz=151,slow=5.7,SNR=4.4								
ASAR				LR		LR		03 18 53.6	
	comp=Z,54nm,18.7s,baz=110,slow=36								
	comp=Z,3.0nm,0.7s								
ASAR	**Alice Springs**	**32.25**	**259**	P		**P**		**03 06 04.5**	**-0.1**
FITZ	**Fitzroy Crossi**	**40.61**	**267**	P		**P**		**03 07 17.1**	**+1.3**
FITZ				LR		LR		03 22 46.0	
	comp=Z,94nm,18.6s,baz=358,slow=34								
	comp=Z,3.3nm,0.9s								
FITZ	**Fitzroy Crossi**	**40.61**	**267**	P		**P**		**03 07 17.1**	**+1.3**
FITZ				IAmb		IAmb		03 07 28.3	
	comp=Z,2.4nm,0.9s								
MJAR	**Matsushiro Arr**	**64.18**	**333**	P		**P**		**03 10 11.7**	**+1.4**
	comp=Z,1.1nm,0.8s,baz=152,slow=5.7,SNR=4.2								
	comp=Z,1.1nm,0.8s								
QSPA	**South Pole Qui**	**68.95**	**180**	P		**P**		**03 10 40.8**	**+0.2**
	comp=Z,2.1nm,1.0s,baz=58,slow=3.9,SNR=5.4								
	comp=Z,2.1nm,1.0s								
QSPA	**South Pole Qui**	**68.95**	**180**	P		**P**		**03 10 40.7**	**+0.1**
USRK	**Ussuriysk Ar.**	**73.18**	**333**	P		**P**		**03 11 08.9**	**+2.7**
	comp=Z,3.5nm,0.8s,baz=156,slow=5.3,SNR=4.0								
	comp=Z,3.5nm,0.8s								
BELA	**Belgrano 2**	**80.28**	**175**	P		**P**		**03 11 45.6**	**-0.3**
BELA				IAmb		IAmb		03 11 46.3	
	comp=Z,1.8nm,0.6s								
SONM	**Songino Array**	**88.42**	**323**	P		**P**		**03 12 29.4**	**+1.8**
	comp=Z,1.0nm,0.7s,baz=145,slow=6.1,SNR=4.9								
SONM				LR		LR		03 52 25.7	
	comp=Z,76nm,19.1s,baz=315,slow=36								
	comp=Z,1.0nm,0.7s								
STEB	**Steborice**	**143.20**	**328**	*e*PKP		**PKPdf**		**03 19 10.2**	**+0.8**
CHVC	**Chvalec**	**143.57**	**330**	*e*PKP		PKiKP		03 19 27.4	+14
KRLC	**Kraliky**	**143.58**	**329**	*e*PKP		PKiKP		03 19 26.1	+13
DPC	**Dobruska-Polom**	**143.61**	**330**	*e*PKP		**PKPdf**		**03 19 09.4**	**-0.8**
UPC	**Upice**	**143.65**	**330**	*e*PKP		**PKPdf**		**03 19 09.5**	**-0.7**
CLL	**Collm**	**144.39**	**334**	*i* (PKPdf)		**PKPdf**		**03 19 11.5**	**+0.1**
RICC	**Richard**	**144.49**	**332**	*e*PKP		**PKPdf**		**03 19 12.6**	**+1.0**
PRU	**Pruhonice**	**144.69**	**331**	*e*PKP		**PKPdf**		**03 19 11.3**	**-0.7**
TREC	**Trest**	**144.73**	**329**	*e*PKP		**PKiKP**		**03 19 13.3**	**-2.6**
ABNA	**Allensteig Bun**	**145.18**	**329**	*e*PKP		**PKiKP**		**03 19 15.0**	**-1.8**
	comp=Z,3.1nm,0.7s								
ZVC	**Zvikov**	**145.24**	**331**	*e*PKP		**PKiKP**		**03 19 14.7**	**-2.2**
ZVC				*ex*		x		03 19 26.0	
WINA	**Alland / Wiene**	**145.24**	**327**	*e*PKP		**PKiKP**		**03 19 15.5**	**-1.5**
	comp=Z,3.0nm,0.8s								
RONA	**Rosalia, Austr**	**145.40**	**327**	*e*PKP		**PKiKP**		**03 19 15.7**	**-1.6**
	comp=Z,6.1nm,0.7s								
NKC	**Novy Kostel**	**145.43**	**333**	*e*PKP		**PKiKP**		**03 19 15.4**	**-1.9**
CONA	**Conrad Observa**	**145.47**	**327**	*e*PKP		**PKiKP**		**03 19 16.1**	**-1.4**
	comp=Z,7.5nm,0.8s								
CKRC	**Cesky Krumlov**	**145.62**	**330**	*e*PKP		**PKiKP**		**03 19 16.1**	**-1.6**
CKRC				*ex*		x		03 19 27.6	
KHC	**Kasperske Hory**	**145.74**	**331**	*e*PKP		**PKiKP**		**03 19 16.1**	**-1.9**
KHC				*ex*		x		03 19 27.8	
GEC2	**GERESS Array S**	**145.89**	**330**			**PKiKP**		**03 19 16.5**	**-1.9**
GERES	**GERESS Array B**	**145.89**	**330**	PKPbc		**PKiKP**		**03 19 16.7**	**-1.7**
	comp=Z,3.7nm,0.8s,baz=38,slow=2.4,SNR=28								
GERES	**GERESS Array B**	**145.89**	**330**			**PKiKP**		**03 19 16.8**	**-1.6**
MOA	**Molln**	**146.31**	**328**	*e*PKP		**PKiKP**		**03 19 17.9**	**-1.3**
	comp=Z,2.6nm,1.1s								
SESA	**Seetaler Alpe,**	**146.66**	**327**	*e*PKP		**PKiKP**		**03 19 18.9**	**-1.2**
	comp=Z,3.5nm,0.7s								
KBA	**Koelnbreinsper**	**147.30**	**328**	*e*PKP		**PKPab**		**03 19 20.0**	**-1.0**
	comp=Z,1.8nm,0.8s								
LESA	**Schwarzleotal**	**147.38**	**329**	*e*PKP		**PKiKP**		**03 19 20.7**	**-0.8**
	comp=Z,2.8nm,0.6s								
WATA	**Walderalm**	**147.96**	**330**	*e*PKP		**PKiKP**		**03 19 22.1**	**-0.7**
	comp=Z,3.8nm,1.2s								
MOTA	**Moosalm**	**148.17**	**331**	*e*PKP		**PKiKP**		**03 19 22.5**	**-0.7**
	comp=Z,5.9nm,1.0s								
SQTA	**Sankt Quirin**	**148.22**	**330**	*e*PKP		**PKiKP**		**03 19 22.8**	**-0.5**
	comp=Z,5.7nm,1.0s								
FETA	**Feichten**	**148.59**	**331**	*e*PKP		**PKiKP**		**03 19 24.3**	**+0.2**
	comp=Z,4.9nm,1.1s								
FDMO	**Fiordimonte**	**150.12**	**323**	PKPbc		**PKiKP**		**03 19 27.8**	**+0.6**
NRCA	**Norcia**	**150.24**	**322**	PKPbc		**PKiKP**		**03 19 28.4**	**+0.9**

IDC 15 03:16:52.5±2.3,9°.45N×92°.41E,h0km,mb3.4/3, mbtmp3.6/4,ML4.6/1,Error ellipse: s-maj=55.5km s-min=25.4km az=80.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.97**	**35**	Pn		**Pn**		03 19 32.6	+1.7
	1.3nm,0.3s,baz=228,slow=14,SNR=10								
	2.7nm,0.3s								
CMAR				AML		AML			
MKAR	**Makanchi Array**	**38.21**	**349**	P		P		03 24 14.1	+0.1
	0.1nm,0.3s,baz=188,slow=7.7,SNR=2.4								
	0.1nm,0.3s								
WRA	**Warramunga Arr**	**50.56**	**126**	P		P		03 25 52.7	-0.6
	0.4nm,0.9s,baz=301,slow=10,SNR=1.8								
	0.4nm,0.3s								
ASAR	**Alice Springs**	**52.23**	**130**	P		P		03 26 06.0	+0.2
	0.3nm,0.4s,baz=302,slow=7.1,SNR=10								
	0.3nm,0.4s								

*SJA **15** 03:17:31.5±0.7,20°.24S×70°.93W,h27km±2km,ML3.8, MW3.9*
*NEIC **15** 03:17:32.9±0.6,20°.23S±0°.03×70°.91W±0°.06,h17km±7km, mb4.2/4,ML3.9(GUC),Error ellipse: s-maj=8.1km s-min=4.8km az=95.0*
*GUC **15** 03:17:34.2±0.7,20°.23S×70°.92W,h22km±5km,ML3.9, Presumed earthquake*
ISC 15 03:17:30.8±1.4,20°.25S±0°.02×70°.97W±0°.05,h9km±9km, n52,σ1s14/88,9C-5D,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TA02	**Huaiquique**	**0.79**	**91**	*e*P		**Pb**		**03 17 46.7**	**0.0**
TA02				IAML				03 17 57.0	
	comp=Z,7μm,0.4s								
TA02				*e*S		**Sb**		**03 17 57.2**	**-0.2**
TA02	**Huaiquique**	**0.79**	**91**	⇓*e*P		**Pb**		**03 17 46.7**	**0.0**
TA02				*e*S		**Sb**		**03 17 56.6**	**-0.9**
TA02				IAML				03 17 57.3	
	comp=E,21μm,0.3s								
TA01	**Diego Aracena**	**0.80**	**113**	*e*P		**Pb**		**03 17 47.3**	**+0.4**
TA01				*e*S		**Sb**		**03 17 58.3**	**+0.4**
TA01				IAML				03 17 58.9	
	comp=Z,5μm,0.3s								
TA01	**Diego Aracena**	**0.80**	**113**			**Pb**		**03 17 47.4**	**+0.4**
TA01						**Sb**		**03 17 57.4**	**-0.5**
TA01	**Diego Aracena**	**0.80**	**113**	⇓*e*P		**Pb**		**03 17 47.3**	**+0.4**
TA01				*e*S		**Sb**		**03 17 57.4**	**-0.5**
TA01				IAML				03 17 59.1	
	comp=N,10μm,0.3s								
PSGCX	**Pisagua**	**1.03**	**51**	*e*P		**Pg**		**03 17 50.7**	**+0.1**
PSGCX				*e*S		**Sb**		**03 18 05.3**	**+0.8**
PSGCX				IAML				03 18 07.2	
	comp=Z,1μm,0.4s								
PSGCX	**Pisagua**	**1.03**	**51**			**Pg**		**03 17 50.7**	**+0.1**
PSGCX				Sg		**Sg**		**03 18 04.0**	**-0.1**
PSGCX	**Pisagua**	**1.03**	**51**	⇓*e*P		**Pg**		**03 17 50.7**	**+0.1**
PSGCX				*e*S		**Sg**		**03 18 04.4**	**+0.3**
PB11	**IPOC Station P**	**1.33**	**69**	*e*P		**Pn**		**03 17 55.5**	**-0.1**
PB11				*e*S		**Sb**		**03 18 12.5**	**-0.7**
PB11				IAML				03 18 12.8	
	comp=Z,2μm,0.3s								
PB11	**IPOC Station P**	**1.33**	**69**			**Pn**		**03 17 55.6**	**-0.1**
PB11				Sg		**Sb**		**03 18 11.7**	**-1.5**
PB11	**IPOC Station P**	**1.33**	**69**	⇓*e*P		**Pn**		**03 17 55.4**	**-0.3**
PB11				*e*S		**Sb**		**03 18 11.7**	**-1.5**
PB11				IAML				03 18 17.8	
	comp=N,3μm,0.3s								
PB02	**IPOC Station P**	**1.46**	**137**	*e*P		**Pb**		**03 17 58.2**	**0.0**
PB02				*e*S		**Sg**		**03 18 18.7**	**+0.9**
PB02				IAML				03 18 23.6	
	comp=Z,4μm,0.3s								
PB02	**IPOC Station P**	**1.46**	**137**			**Pb**		**03 17 58.2**	**0.0**
PB02				Sn		**Sb**		**03 18 16.5**	**-0.5**
PB02	**IPOC Station P**	**1.46**	**137**	*e*P		**Pb**		**03 17 58.0**	**-0.2**
PB02				*e*S		**Sn**		**03 18 16.8**	**0.0**
PB02				IAML				03 18 18.5	
	comp=E,4μm,0.3s								
PB08	**IPOC Station P**	**1.71**	**87**	*e*P		**Pn**		**03 18 01.7**	**+0.5**
PB08				*e*P		**Pb**		**03 18 02.0**	**-0.7**
PB08				*e*S		**Sn**		**03 18 23.6**	**+0.3**
PB08				IAML				03 18 27.6	
	comp=Z,691nm,0.9s								
PB08	**IPOC Station P**	**1.71**	**87**			**Pn**		**03 18 01.7**	**+0.5**
PB08				Sn		**Sn**		**03 18 22.5**	**-0.8**
PB08	**IPOC Station P**	**1.71**	**87**	⇑*e*P		**Pn**		**03 18 01.6**	**+0.5**
PB08				*e*S		**Sn**		**03 18 23.2**	**-0.2**
PB08				IAML				03 18 24.6	
	comp=N,1μm,0.2s								
PB12	**IPOC Station P**	**1.74**	**20**	*e*P		**Pn**		**03 18 01.7**	**+0.4**
PB12				*e*S		**Sb**		**03 18 25.6**	**+0.6**
PB12				IAML				03 18 32.7	
	comp=Z,671nm,0.6s								
PB12	**IPOC Station P**	**1.74**	**20**			**Pn**		**03 18 01.7**	**+0.4**
PB12	**IPOC Station P**	**1.74**	**20**	⇑*e*P		**Pn**		**03 18 01.7**	**+0.4**
PB12				*e*S		**Sb**		**03 18 25.0**	**0.0**
PB12				IAML				03 18 34.3	
	comp=E,1μm,0.6s								
GO01	**Chusmiza**	**1.77**	**71**			**Pn**		**03 18 02.3**	**+0.3**
GO01	**Chusmiza**	**1.77**	**71**	⇑*e*P		**Pn**		**03 18 02.4**	**+0.4**
GO01				*e*S		**Sn**		**03 18 25.4**	**+0.5**
GO01				IAML				03 18 26.5	
	comp=N,5μm,0.2s								
PB07	**IPOC Station P**	**1.78**	**146**	*e*P		**Pn**		**03 17 57.2**	**-4.7**
PB07				*e*P		**Pn**		**03 18 02.7**	**+0.8**
PB07				*e*S		**Sg**		**03 18 32.4**	**+4.3**
PB07				IAML				03 18 46.8	
	comp=Z,762nm,0.5s								
PB07	**IPOC Station P**	**1.78**	**146**			**Pn**		**03 18 02.7**	**+0.8**
PB07	**IPOC Station P**	**1.78**	**146**	⇑*e*P		**Pn**		**03 18 02.8**	**+0.8**
PB07				*e*S		**Sb**		**03 18 25.6**	**-0.7**
PB07				IAML				03 18 34.7	
	comp=E,2μm,0.9s								
AP01	**Chacalluta**	**1.96**	**18**			**Pn**		**03 18 04.8**	**+0.5**
AP01	**Chacalluta**	**1.96**	**18**	*e*P		**Pn**		**03 18 05.5**	**+1.2**
AP01				*e*S		**Sn**		**03 18 30.5**	**+1.4**
AP01				IAML				03 18 43.0	
	comp=E,3μm,0.6s								
PB03	**IPOC Station P**	**2.12**	**148**	*e*P		**Pn**		**03 18 07.4**	**+0.9**
PB03				*e*S		**Sn**		**03 18 33.2**	**+0.2**
PB03				IAML				03 18 50.9	
	comp=Z,582nm,0.5s								
PB03	**IPOC Station P**	**2.12**	**148**	Pn		**Pn**		**03 18 07.5**	**+0.9**
PB03	**IPOC Station P**	**2.12**	**148**	⇑*e*P		**Pn**		**03 18 07.4**	**+0.9**
PB03				*e*S		**Sg**		**03 18 38.3**	**-0.6**
PB03				IAML				03 18 48.5	
	comp=E,551nm,0.2s								
PB09	**IPOC Station P**	**2.23**	**134**	*e*P		**Pb**		**03 18 10.1**	**-1.2**
PB09				*e*S		**Sb**		**03 18 37.7**	**-1.4**
PB09				IAML				03 18 49.5	
	comp=Z,1μm,0.5s								
PB09	**IPOC Station P**	**2.23**	**134**			**Pn**		**03 18 09.6**	**+1.5**
PB09	**IPOC Station P**	**2.23**	**134**	⇑*e*P		**Pn**		**03 18 10.1**	**-1.2**
PB09				*e*S		**Sg**		**03 18 41.3**	**-1.2**
PB09				IAML				03 18 49.0	
	comp=E,1μm,0.7s								
PB16	**IPOC Station P**	**2.36**	**36**			**Pb**		**03 18 12.7**	**-1.1**
PB05	**IPOC Station P**	**2.68**	**165**	*e*P		**Pn**		**03 18 14.9**	**+0.6**
PB05				*e*S		**Sb**		**03 18 53.7**	**+1.5**
PB05				IAML				03 19 06.3	
	comp=Z,175nm,0.4s								
PB05	**IPOC Station P**	**2.68**	**165**			**Pn**		**03 18 14.8**	**+0.4**
PB05	**IPOC Station P**	**2.68**	**165**	⇑*e*P		**Pn**		**03 18 14.7**	**+0.4**
PB05				*e*S		**Sn**		**03 18 44.5**	**-2.5**
PB05				IAML				03 19 07.6	
	comp=N,264nm,0.7s								
PB06	**IPOC Station P**	**2.77**	**152**	*e*P		**Pn**		**03 18 16.4**	**+0.9**
PB06				*e*S		**Sn**		**03 18 51.7**	**+2.6**
PB06				*e*S		**Sg**		**03 18 58.2**	**-1.5**
PB06				IAML				03 19 10.2	
	comp=Z,320nm,0.7s								
PB06	**IPOC Station P**	**2.77**	**152**			**Pn**		**03 18 16.0**	**+0.5**
PB06	**IPOC Station P**	**2.77**	**152**	⇑*e*P		**Pn**		**03 18 16.1**	**+0.6**
PB06				*e*S		**Sn**		**03 18 48.4**	**-0.7**
PB06				IAML				03 19 07.0	
	comp=E,343nm,0.5s								
PB18	**Visviri**	**3.00**	**28**			**Pb**		**03 18 23.2**	**-1.6**
PB18	**Visviri**	**3.00**	**28**	⇓*e*P		**Pb**		**03 18 24.9**	**+0.1**
PB18				*e*S		**Sg**		**03 19 05.5**	**-1.9**
PB10	**IPOC Station P**	**3.27**	**173**	Pn		**Pn**		**03 18 22.5**	**+0.3**
PB10	**IPOC Station P**	**3.27**	**173**	⇑*e*P		**Pn**		**03 18 22.6**	**+0.4**
PB10				*e*S		**Sn**		**03 18 58.2**	**-3.1**
PB10				IAML				03 19 31.5	
	comp=N,230nm,1.0s								
PB14	**IPOC Station P**	**4.38**	**173**			**Pn**		**03 18 38.0**	**+0.1**
AC01	**Pan de Azucar**	**5.88**	**177**	Pn		**Pn**		**03 18 58.3**	**+0.2**
AC02	**Maricunga**	**6.76**	**166**	Pn		**Pn**		**03 19 09.9**	**-0.8**
VILB	**Vilhena**	**12.62**	**57**	Pn		**Pn**		**03 20 31.0**	**+0.5**
ITAB	**Concordia**	**18.58**	**116**	P		**P**		**03 21 48.5**	**+0.2**
ITAB				IAmb		IAmb		03 22 20.6	
	comp=Z,26nm,1.5s								
CPSB	**Cacapava Do Su**	**18.77**	**126**	P		**Pn**		**03 21 51.0**	**+0.2**
CPSB				IAmb		IAmb		03 22 13.2	
	comp=Z,11nm,1.4s								
RUSC	**La Rusia**	**26.07**	**355**	P		**P**		**03 23 05.2**	**-0.1**
RUSC				IAmb		IAmb		03 23 48.7	
	comp=Z,8.4nm,1.3s								
SMAI	**San Martin Ant**	**47.93**	**178**	P		**P**		**03 26 09.7**	**+0.5**

*IDC **15** 03:27:08.3±1.1,2°.04S×100°.16E,h0km,mb3.7/6, mbtmp3.7/6,MS3.0/1,Error ellipse: s-maj=54.9km s-min=21.2km az=61.0*
*DJA **15** 03:27:18.6±0.7,2°.5±4°×10°.0E±°,h17km±4km,M3.7/16, MLv3.7/16*
ISC 15 03:27:13.5±1.2,1°.96S±0°.09×100°.1E±0°.1,h34km,n21, σ0s84/10,mb3.7/6,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRJI	**Kerinci**	**1.34**	**96**	P		**Pb**		**03 27 38.0**	**-0.3**
KRJI				AML		AML			
PPI	**Padang Panjang**	**1.51**	**10**	P		**Pb**		**03 27 41.1**	**0.0**
PPI				AML		AML			
MASI	**Maura Aman, Be**	**2.42**	**119**	P		**Pb**		**03 27 57.6**	**+1.1**
MASI				AML		AML			
BKNI	**Bangkinang**	**2.44**	**22**	P		**Pn**		**03 27 51.5**	**+0.4**
BKNI				AML		AML			
DAV	**Davao City (W)**	**26.94**	**70**	LR		LR		03 43 04.6	
	comp=Z,32nm,21.0s,baz=346,slow=36								
H08S2	**Diego Garcia H**	**28.10**	**257**	T		T		04 01 55.8	
	baz=78								
H08S3	**Diego Garcia H**	**28.10**	**257**	T		T		04 01 56.4	
	baz=78,SNR=4.0								
H08S1	**Diego Garcia H**	**28.11**	**257**	T		T		04 01 55.3	
	baz=78								
WRA	**Warramunga Arr**	**37.91**	**121**	P		**P**		**03 34 26.6**	**-1.3**
	0.2nm,0.8s,baz=297,slow=8.7,SNR=1.7								
	0.2nm,0.8s								
ASAR	**Alice Springs**	**39.18**	**126**	P		**P**		**03 34 37.9**	**-0.7**
	0.5nm,0.7s,baz=303,slow=7.6,SNR=8.3								
	0.5nm,0.7s								
MKAR	**Makanchi Array**	**51.02**	**344**	P		**P**		**03 36 12.4**	**+0.2**
	0.6nm,0.5s,baz=149,slow=8.5,SNR=8.5								
	0.6nm,0.5s								
KURBB	**Kurchatov Arra**	**55.54**	**343**	P		**P**		**03 36 46.2**	**+0.9**
	0.4nm,0.6s,baz=167,slow=6.8,SNR=4.3								
	0.4nm,0.6s								
ZALV	**Zalesovo Beam**	**57.15**	**349**	P		**P**		**03 36 57.3**	**+0.5**
	0.4nm,0.3s,baz=147,slow=8.3,SNR=4.4								
	0.4nm,0.3s								
H04N2	**CROZET ISLANDS**	**60.91**	**216**	T		T		04 42 59.9	
	baz=58,slow=73,SNR=14								
H04N1	**CROZET ISLANDS**	**60.92**	**216**	T		T		04 43 00.4	
	baz=58,slow=73,SNR=18								
H04N3	**CROZET ISLANDS**	**60.92**	**216**	T		T		04 42 59.1	
	baz=58,slow=73,SNR=11								
H04S1	**CROZET ISLANDS**	**61.20**	**216**	T		T		04 43 27.0	
	baz=66								
H04S3	**CROZET ISLANDS**	**61.21**	**216**	T		T		04 43 19.3	
	baz=66,SNR=3.9								
H04S2	**CROZET ISLANDS**	**61.21**	**216**	T		T		04 43 18.4	
	baz=66								
MAW	**Mawson**	**70.36**	**194**	P		**P**		**03 38 23.2**	**-0.4**
	1.5nm,0.3s,baz=45,slow=16,SNR=2.5								
	1.5nm,0.3s								
TXAR	**Lajitas Array**	**144.59**	**37**	PKP		PKPbc		03 46 46.6	+0.5
	0.2nm,0.8s,baz=226,slow=2.2,SNR=3.8								

*OSPL **15** 03:54:02.5±1.6,19°.95N×71°.01W,h0km±8km,ML2.4, Presumed earthquake*
*SDD **15** 03:54:03.2±2.4,19°.88N×70°.99W,h20km±9km,MD2.9, ML2.6,MW2.7,Presumed earthquake*
*SSNC **15** 03:54:04.0±2.3,19°.79N×71°.03W,h6km±19km,MD3.1, ML2.9,Presumed earthquake*
ISC 15 03:54:02.9±1.0,19°.87N±0°.03×71°.08W±0°.04,h13km±7km, n17,σ1s40/32,2C-4D,Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
LUDR	**Luperon**	**0.12**	**80**	⇑*e*Pg		**Pg**		**03 54 05.5**	**-0.6**
LUDR				*e*Sg		**Sg**		**03 54 09.9**	**+1.5**
MADR	**Mao Valverde**	**0.31**	**185**	⇓*e*Pg		**Pg**		**03 54 09.0**	**-0.3**
MADR				IAML				03 54 15.9	
	comp=N,2μm,0.9s								
SC01	**Santiago de lo**	**0.55**	**144**	*e*Pg		**Pg**		**03 54 12.7**	**-1.0**
SC01				IAML				03 54 26.4	
	comp=N,80nm,0.4s								
SC01	**Santiago de lo**	**0.55**	**144**	*i* P		**Pg**		**03 54 13.3**	**-0.5**
SC01				*e*S		**Sg**		**03 54 21.3**	**+0.2**
REDR	**Restauracion**	**0.77**	**203**	*e*Pg		**Pg**		**03 54 18.2**	**+0.4**
REDR				⇓*e*Sg		**Sb**		**03 54 31.3**	**+2.9**
REDR				IAML				03 54 31.5	
	comp=N,469nm,0.3s								
SDDR	**Presa de Saban**	**0.91**	**193**	*e*Pg		**Pg**		**03 54 18.1**	**-2.4**
SDDR				⇓*e*Sg		**Sg**		**03 54 32.5**	**+0.1**
SDDR				IAML				03 54 33.0	
	comp=N,204nm,0.7s								
SDDR	**Presa de Saban**	**0.91**	**193**	*e*P		**Pg**		**03 54 18.7**	**-1.8**
SDDR				*e*S		**Sg**		**03 54 30.0**	**-2.4**
SDDR				*e*Sg		**Sg**		**03 54 32.2**	**-0.3**
SDDR				IAML				03 54 32.7

21μm,0.7s
TSN10 0.19 44 ⇓P 04 27 05.1
TSN10 S 04 27 08.2
SN08 Arah 0.20 230 Pg 04 27 05.1 -1.1
SN08 Sg 04 27 08.1 -0.8
SN08 IAML 04 27 08.2
16μm,0.4s
SN08 Arah 0.20 230 ⇓P 04 27 05.1
SN08 S 04 27 08.1
TSN09 0.27 153 ⇑P 04 27 06.4
TSN09 S 04 27 10.3
POST Post 0.54 287 Pg 04 27 11.5 -1.2
POST Sg Sg 04 27 18.7 -1.1
POST IAML 04 27 19.2
5μm,0.3s
POST IAML 04 27 23.8
5μm,0.8s
DKNS Dickens 0.75 357 Pg 04 27 15.1 -1.7
DKNS Sg Sg 04 27 25.2 -1.4
DKNS IAML 04 27 29.6
4μm,0.6s
DKNS IAML 04 27 30.3
2μm,0.7s
APMT Aspermont 0.76 57 Pg 04 27 15.4 -1.5
APMT Sg Sg 04 27 25.6 -1.2
SGCY Sterling City 1.02 192 Pg 04 27 20.0 -1.8
SGCY Sg Sg 04 27 33.0 -2.0
ABTX Abilene, Hawle 1.08 105 Pg 04 27 21.4 -1.7
ABTX Sg 04 27 35.6 -1.4
ABTX IAML 04 27 42.4
2μm,0.2s
TMB06 Greenwood 1.21 220 P 04 27 23.6
TMB06 S 04 27 39.8
229A Bryant Ranch, 1.23 220 Pg 04 27 23.6 -2.2
229A Sg 04 27 39.8 -1.9
229A IAML 04 27 44.7
1μm,0.3s
128A Castleberry Fa 1.38 258 Pn 04 27 25.9 -2.4
128A Sb 04 27 44.5 -2.1
TMB04 Seminole 1.38 259 P 04 27 26.3
TMB04 S 04 27 44.5
TMB07 1.47 232 ⇓P 04 27 28.4
TMB07 S 04 27 48.5
TMB01 Midkiff 1.60 220 Pn 04 27 30.6 -0.8
TMB01 Sn 04 27 51.8 -0.7
TMB01 Midkiff 1.60 220 P 04 27 30.8
TMB01 S 04 27 51.8
ODSA Odessa 1.61 241 Pn 04 27 30.4 -1.1
ODSA Sn 04 27 51.2 -1.6
MSTX Muleshoe 1.90 304 Pn 04 27 35.2 -0.3
MSTX Sb 04 28 01.1 -0.6
TMB02 Rankin 1.97 210 Pn 04 27 36.0 -0.4
TMB02 Sn 04 28 02.4 +0.9
TMB02 Rankin 1.97 210 P 04 27 36.0
TMB02 S 04 28 02.4
OZNA Ozona 1.99 186 Pn 04 27 36.4 -0.4
OZNA Sb 04 28 03.6 -0.7
AMTX Amarillo 2.08 342 Pn 04 27 38.4 +0.5
AMTX Sb 04 28 07.0 +0.3
PLPT Palo Pinto 2.16 92 Pn 04 27 38.5 -0.4
PLPT Sb 04 28 08.8 -0.2
PLPT IAmb_Lg 04 28 15.5
comp=Z,248nm,0.7s
WTFS Witchita Falls 2.19 66 Pn 04 27 39.5 +0.1
WTFS Sb 04 28 09.4 -0.6
NM01 Eunice 2.20 256 P 04 27 40.1
NM01 S 04 28 09.5
MNHN Monahans 2.24 226 Pn 04 27 39.5 -0.6
MNHN Pb 04 27 40.0 -3.2
MNHN Sb 04 28 09.8 -1.4
SMWD Samnorwood 2.25 13 Pn 04 27 40.5 +0.2
SMWD Sb 04 28 10.4 -1.3
BRDY Brady 2.27 135 Pn 04 27 40.2 -0.3
TPB06 Permian Basin 2.35 238 Pn 04 27 42.6 +1.0
TPB06 IAmb_Lg 04 28 21.7
comp=Z,145nm,0.7s
TPB06 Permian Basin 2.35 238 P 04 27 42.6
HTMS Hat Mesa 2.36 260 P 04 27 42.8
TPB21 2.42 230 P 04 27 43.4
TPB21 S 04 28 16.3
TPB19 West of Imperi 2.47 230 Pn 04 27 43.7 +0.4
TPB19 West of Imperi 2.47 230 P 04 27 43.7
PH03 Pantex 2.50 347 Pn 04 27 44.6 +0.8
PH03 Pantex 2.50 347 P 04 27 44.6
CPRX Cap Rock 2.51 274 Pn 04 27 44.3 +0.4
TPB15 Southwest of C 2.52 228 Pn 04 27 45.1 +1.0
WMOK Wichita Mounta 2.52 43 Pn 04 27 43.5 -0.4
JCT Junction City 2.59 159 Pn 04 27 44.8 -0.1
TPB18 2.60 230 Pn 04 27 45.6 +0.5
TPB18 2.60 230 P 04 27 45.6
CLNB Carlsbad 2.61 257 Pn 04 27 46.4 +1.2
FW07 Weatherford 2.61 94 Pn 04 27 44.7 -0.5
TPB14 2.62 228 Pn 04 27 46.2 +0.8
TPB14 2.62 228 P 04 27 46.2
PH02 Texas Public H 2.63 341 Pn 04 27 45.7 +0.2
PH02 IAmb_Lg 04 28 23.3
comp=Z,193nm,1.1s
PH02 Texas Public H 2.63 341 P 04 27 45.7
TPB30 2.63 233 Pn 04 27 46.5 +1.0
TPB30 2.63 233 P 04 27 46.5
TPB04 Verhalen 2.66 230 Pn 04 27 46.5 +0.7
TPB04 Verhalen 2.66 230 P 04 27 46.5
TPB16 Coyonosa 2.69 229 Pn 04 27 46.7 +0.5
TPB16 Coyonosa 2.69 229 P 04 27 46.7
FW06 Azle 2.79 88 Pn 04 27 46.9 -0.7
FW06 IAmb_Lg 04 28 36.3
comp=Z,200nm,0.9s
TPB05 Hovey Rd 2.87 227 Pn 04 27 49.1 +0.3
TPB05 IAmb_Lg 04 28 39.3
comp=Z,214nm,0.9s
PECS Pecos 2.96 240 Pn 04 27 50.4 +0.3
PECS IAmb_Lg 04 28 36.6
comp=Z,133nm,0.8s
FW13 Cleburne 2.96 100 Pn 04 27 49.6 -0.4
FW13 IAmb_Lg 04 28 40.4
comp=Z,228nm,0.7s
WHTX Lake Whitney, 3.04 107 IAmb_Lg 04 28 44.4
comp=Z,208nm,0.8s
X34A Smith Ranch, M 3.05 56 IAmb_Lg 04 28 39.2
comp=Z,172nm,0.8s
Z35A Perchaven, San 3.07 81 IAmb_Lg 04 28 39.1
comp=Z,107nm,0.7s
TPB28 3.31 249 IAmb_Lg 04 28 54.8
comp=Z,145nm,1.1s
ELIS Ellis County 3.37 21 IAmb_Lg 04 28 49.2
comp=Z,123nm,0.8s
ALPN Alpine 3.45 224 IAmb_Lg 04 28 50.6
comp=Z,136nm,0.8s
HNDO Hondo 3.64 157 IAmb_Lg 04 28 59.0
comp=Z,179nm,0.9s
RTBA Rita Blanca 3.84 337 IAmb_Lg 04 29 11.1
comp=Z,154nm,0.8s
W35A Tecumseh 4.01 55 IAmb_Lg 04 29 20.4
comp=Z,83nm,0.7s
OK029 Liberty Lake 4.04 44 IAmb_Lg 04 29 13.3
comp=Z,137nm,0.8s
NOKA Waynoka 4.05 23 IAmb_Lg 04 29 19.1
comp=Z,108nm,0.8s
VHRN Van Horn 4.08 240 IAmb_Lg 04 29 15.5
comp=Z,115nm,0.8s
CROK Carrier 4.31 33 IAmb_Lg 04 29 24.3
comp=Z,127nm,0.7s
OK052 Battle Ridge R 4.56 46 IAmb_Lg 04 29 34.1
comp=Z,65nm,1.0s
EPT El Paso 4.89 258 IAmb_Lg 04 29 45.2
comp=Z,102nm,1.0s
ALQ Albuquerque 5.06 295 IAmb_Lg 04 29 42.9
comp=Z,109nm,0.7s
ALQ Albuquerque 5.06 295 IAmb_Lg 04 29 42.8
comp=Z,109nm,0.7s
ALQ IAmb_Lg 04 29 42.8
comp=Z,111nm,0.7s
ANMO Albuquerque 5.06 295 IAmb_Lg 04 29 45.4
comp=Z,106nm,0.7s
TASM ASL Pad, Albuq 5.06 295 IAmb_Lg 04 29 40.1
comp=Z,103nm,0.8s
TASM ASL Pad, Albuq 5.06 295 IAmb_Lg 04 29 40.1
comp=Z,102nm,0.8s
TASM IAmb_Lg 04 29 40.1
comp=Z,103nm,0.8s
HNVL Huntsville, TX 5.08 114 IAmb_Lg 04 29 57.9
comp=Z,88nm,0.8s
Y22A Socorro 5.19 283 IAmb_Lg 04 29 55.7
comp=Z,115nm,0.9s
HKT Hockley 5.23 123 IAmb_Lg 04 29 56.1
comp=Z,74nm,0.9s
T35A Sooner Cattle 5.37 41 IAmb_Lg 04 30 00.2
comp=Z,93nm,1.0s
NATX Nacogdoches 5.39 101 IAmb_Lg 04 30 06.1
comp=Z,99nm,0.8s
R32A Long Quarter, 5.78 17 IAmb_Lg 04 30 06.9
comp=Z,90nm,1.0s
121A Cookes Peak, D 5.83 268 IAmb_Lg 04 30 05.6
comp=Z,82nm,0.9s
CBKS Cedar Bluff 5.96 9 IAmb_Lg 04 30 25.3
comp=Z,53nm,0.9s
KSCO Kaye Shedlock' 6.25 347 IAmb_Lg 04 30 33.5
comp=Z,59nm,0.7s
MIAR Mount Ida 6.30 73 IAmb_Lg 04 30 26.5
comp=Z,50nm,0.8s
U38A Gravette 6.40 55 IAmb_Lg 04 30 23.5
comp=Z,53nm,0.9s
WLAR White Oak Lake 6.55 81 IAmb_Lg 04 30 46.3
comp=Z,54nm,0.7s
HHAR Hobbs 6.64 58 IAmb_Lg 04 30 32.0
comp=Z,48nm,0.7s
Z41A Richland Creek 6.79 85 IAmb_Lg 04 30 53.8
comp=Z,52nm,1.0s
441A DeRidder 6.89 106 IAmb_Lg 04 30 54.9
comp=Z,42nm,0.9s
Q24A Divide 6.96 331 IAmb_Lg 04 30 52.8
comp=Z,47nm,1.0s
KSU1 Kansas State U 7.08 28 IAmb_Lg 04 30 48.6
comp=Z,67nm,0.9s
MVCO Mesa Verde 7.58 307 IAmb_Lg 04 31 24.2
comp=Z,38nm,0.9s
W18A Petrified Fore 7.67 289 IAmb_Lg 04 31 10.5
comp=Z,49nm,1.3s
FCAR Ozark Folk Cen 7.82 65 IAmb_Lg 04 31 14.1
comp=Z,35nm,0.8s
143A Socs Landing, 7.98 89 IAmb_Lg 04 31 19.3
comp=Z,48nm,1.1s
PV02 Paradox Valley 8.30 312 IAmb_Lg 04 31 38.2
comp=Z,30nm,1.2s
PV07 Paradox Valley 8.38 313 IAmb_Lg 04 31 48.4
comp=Z,33nm,1.2s
PV12 Saucer Basin, 8.41 312 IAmb_Lg 04 31 48.7
comp=Z,40nm,1.1s
PV11 David Mesa, Pa 8.44 312 IAmb_Lg 04 31 40.1
comp=Z,30nm,0.8s
PV05 Paradox Valley 8.45 310 IAmb_Lg 04 31 32.4
comp=Z,47nm,1.1s
PV16 Nyswonger Mesa 8.47 312 IAmb_Lg 04 31 54.6
comp=Z,36nm,1.0s
PV17 East Wray Mesa 8.48 311 IAmb_Lg 04 31 47.4
comp=Z,38nm,1.0s
PV04 Paradox Valley 8.52 312 IAmb_Lg 04 31 55.1
comp=Z,40nm,1.2s
PV20 West Nyswonger 8.52 312 IAmb_Lg 04 31 44.8
comp=Z,54nm,1.2s
R40A Maddies Statio 8.83 50 IAmb_Lg 04 31 42.5
comp=Z,35nm,0.7s
P38A Dawn 8.95 39 IAmb_Lg 04 31 57.5
comp=Z,50nm,1.1s
CCM Cathedral Cave 9.38 54 IAmb_Lg 04 32 16.9
comp=Z,28nm,0.7s
HMU Henry Mountain 9.48 305 IAmb_Lg 04 32 11.7
comp=Z,26nm,0.8s

IDC 15 04:56:07.3±3.7, 50°21S×112°36E, h0km, mb3.6/5, mbtmp3.6/5 Error ellipse: s-maj=128.6km s-min=23.1km az=109.0, Southeast Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H01W2	**Cape Leeuwin H**	**15.35**	**6**	T	T	05 15 37.2	
	baz=183,slow=74,SNR=155						
H01W1	**Cape Leeuwin H**	**15.36**	**6**	T	T	05 15 42.0	
	baz=183,slow=74,SNR=155						
H01W3	**Cape Leeuwin H**	**15.37**	**6**	T	T	05 15 37.7	
	baz=183,slow=74,SNR=126						
STKA	**Stephens Creek**	**28.39**	**61**	P	P	05 02 03.0	-0.3
	2.6nm,0.9s,baz=212,slow=8.8,SNR=2.9						
	2.6nm,0.5s						
ASAR	**Alice Springs**	**31.37**	**40**	P	P	05 02 29.4	-0.3
	0.2nm,0.7s,baz=214,slow=8.8,SNR=4.0						
	0.2nm,0.7s						
VNDA	**Vanda**	**33.00**	**162**	P	P	05 02 43.6	+0.1
	1.0nm,0.8s,baz=300,slow=8.6,SNR=5.4						
	1.0nm,0.8s						
WRA	**Warramunga Arr**	**34.88**	**38**	P	P	05 03 00.8	+0.5
	0.4nm,0.9s,baz=206,slow=8.8,SNR=2.4						
	0.4nm,0.9s						
QSPA	**South Pole Qui**	**39.92**	**180**	P	P	05 03 42.6	-0.2
	0.7nm,0.6s,baz=354,slow=1.4,SNR=5.8						
	0.7nm,0.6s						

*IDC **15** 05:05:32.2±1.8, 15°.79S×173°.09W, h0km, mb3.6/5, mbtmp3.6/6, ML3.4/1, MS2.7/2, Error ellipse: s-maj=91.9km s-min=17.1km az=138.0*

ISC 15 05:05:37.0±2.5, 15°.3S±0°.8×173°.2W±0°.6, h29km, n10, σ1§50/9, mb3.7/5, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**1.96**	**45**	Pn	**Pn**	**05 06 07.6**	**-0.8**
	11nm,0.3s,baz=257,slow=14,SNR=14						
AFI				Sn	**Sn**	**05 06 30.7**	**-1.3**
	48nm,0.3s,baz=195,slow=8.3,SNR=13						
AFI				LR	LR	05 06 32.4	
	comp=Z,54nm,19.3s,baz=175,slow=27						
	59nm,0.4s						
AFI				AML	AML		
MSVF	**Nonsavu**	**8.73**	**253**	LR	LR	05 10 43.8	
	comp=Z,121nm,18.4s,baz=173,slow=36						
WRA	**Warramunga Arr**	**50.05**	**257**	P	**P**	**05 14 28.3**	**-1.3**
	0.1nm,0.5s,baz=94,slow=7.2,SNR=1.5						
	0.1nm,0.5s						
ASAR	**Alice Springs**	**50.32**	**252**	P	**P**	**05 14 30.4**	**-1.2**
	0.7nm,0.4s,baz=83,slow=9.0,SNR=9.2						
	0.7nm,0.4s						
BATI	**Baumata**	**61.61**	**267**	LR	LR	05 42 13.2	
	comp=Z,384nm,18.0s,baz=212,slow=36						
NVAR	**Mina Array Bea**	**74.13**	**42**	P	**P**	**05 17 12.8**	**+1.7**
	0.5nm,0.6s,baz=241,slow=7.8,SNR=6.0						
	0.5nm,0.6s						
PDAR	**Pindale Array**	**82.07**	**42**	P	**P**	**05 17 55.5**	**+0.4**
	0.6nm,0.8s,baz=246,slow=5.5,SNR=6.5						
	0.6nm,0.8s						
ILAR	**Eielson Array**	**82.31**	**11**	P	**P**	**05 17 57.1**	**+1.6**
	0.3nm,0.7s,baz=206,slow=5.2,SNR=4.3						
	0.3nm,0.7s						
GERES	**GERESS Array B**	**146.07**	**352**	PKPbc	**PKPab**	**05 25 16.0**	**+1.1**
	0.2nm,0.6s,baz=45,slow=3.3,SNR=1.9						
BRTR	**Keskin Array B**	**146.19**	**321**	PKPbc	**PKiKP**	**05 25 17.3**	**-1.0**
	0.8nm,0.7s,baz=49,slow=2.9,SNR=4.7						

*SJA **15** 05:25:30.7±0.7, 23°.15S×66°.85W, h228km±4km, ML3.7, MW3.5*

*GUC **15** 05:25:32.1±0.6, 23°.15S×66°.88W, h219km±7km, ML3.9, Presumed earthquake*

ISC 15 05:25:30.4±1.8, 23°.16S±0°.04×66°.87W±0°.05, h227km±13km, n36, σ1§31/64, 8C-2D, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		**1.16**	**156**	*eP*	**Pn**	**05 26 04.8**	**+0.2**
SALTA				*eS*	**S**	**05 26 31.2**	**-0.1**
AF01	**San Pedro de A**	**1.23**	**280**	*eP*	**Pn**	**05 26 06.4**	**+1.6**
AF01				*eS*	S	05 26 41.6	+10
AF01	**San Pedro de A**	**1.23**	**280**	⇑*eP*	**Pn**	**05 26 06.2**	**+1.4**
YJA	**Yavi**	**1.59**	**52**	*eP*	**Pn**	**05 26 08.7**	**+0.9**
YJA				*eS*	**S**	**05 26 34.3**	**-2.5**
YJA	**Yavi**	**1.59**	**52**	⇑*eP*	**Pn**	**05 26 08.6**	**+0.8**
YJA				*eS*	**S**	**05 26 34.0**	**-2.9**
SLA	**San Lorenzo**	**1.99**	**141**	*eP*	**Pn**	**05 26 12.2**	**+1.2**
SLA				*eS*	**S**	**05 26 42.6**	**-0.1**
SLA	**San Lorenzo**	**1.99**	**141**	⇓*eP*	**Pn**	**05 26 12.2**	**+1.2**
SLA				*eS*	**S**	**05 26 42.1**	**-0.6**
PB06	**IPOC Station P**	**2.54**	**280**	*eP*	**Pn**	**05 26 17.7**	**+1.1**
PB06				*eS*	**S**	**05 26 52.5**	**-0.1**
PB06				IAML		05 26 55.0	
	comp=Z,206nm,0.1s						
PB06	**IPOC Station P**	**2.54**	**280**	⇑*eP*	**Pn**	**05 26 17.8**	**+1.1**
PB06				*eS*	**S**	**05 26 52.0**	**-0.6**
PB06				IAML		05 26 53.3	
	comp=N,391nm,0.2s						
PB09	**IPOC Station P**	**2.59**	**301**	*eP*	**Pn**	**05 26 18.6**	**+1.5**
PB09				*eS*	**S**	**05 26 54.0**	**+0.4**
PB09				IAML		05 26 56.3	
	comp=Z,72nm,0.2s						
PB09	**IPOC Station P**	**2.59**	**301**	⇑*eP*	**Pn**	**05 26 18.6**	**+1.5**
PB09				*eS*	**S**	**05 26 53.6**	**0.0**
PB09				IAML		05 26 57.6	
	comp=E,113nm,0.1s						
PB03	**IPOC Station P**	**2.89**	**292**	*eP*	**Pn**	**05 26 21.4**	**+0.9**
PB03				*eS*	**S**	**05 26 58.4**	**-1.1**
PB03				IAML		05 26 59.7	
	comp=Z,264nm,0.1s						
PB03	**IPOC Station P**	**2.89**	**292**	⇑*eP*	**Pn**	**05 26 21.3**	**+0.9**
PB03				*eS*	**S**	**05 26 58.4**	**-1.1**
PB03				IAML		05 26 59.6	
	comp=E,329nm,0.2s						
FSA	**Cafayete**	**3.04**	**165**	*eP*	**Pn**	**05 26 23.0**	**+0.9**
PB05	**IPOC Station P**	**3.09**	**275**	*eP*	**Pn**	**05 26 23.7**	**+1.0**
PB05				*eS*	**S**	**05 27 01.8**	**-1.7**
PB05				IAML		05 27 04.6	
	comp=Z,107nm,0.3s						
PB05	**IPOC Station P**	**3.09**	**275**	⇑*eP*	**Pn**	**05 26 23.6**	**+1.0**
PB05				*eS*	**S**	**05 27 02.6**	**-0.9**
PB07	**IPOC Station P**	**3.14**	**297**	*eP*	**Pn**	**05 26 24.0**	**+0.8**
PB07				*eS*	**S**	**05 27 03.1**	**-1.5**
PB07				IAML		05 27 04.7	
	comp=Z,189nm,0.2s						
PB07	**IPOC Station P**	**3.14**	**297**	⇑*eP*	**Pn**	**05 26 24.1**	**+0.8**
PB07				*eS*	**S**	**05 27 03.0**	**-1.7**
PB02	**IPOC Station P**	**3.35**	**303**	*eP*	**Pn**	**05 26 27.1**	**+1.4**
PB02				*eS*	**S**	**05 27 07.6**	**-1.4**
PB02				IAML		05 27 08.7	
	comp=Z,139nm,0.4s						
PB02	**IPOC Station P**	**3.35**	**303**	*eP*	**Pn**	**05 26 26.4**	**+0.7**
PB02				*eS*	**S**	**05 27 07.3**	**-1.7**
PB10	**IPOC Station P**	**3.41**	**263**	*eP*	**Pn**	**05 26 27.5**	**+1.3**
PB10				*eS*	**S**	**05 27 08.8**	**-1.2**
PB10				IAML		05 27 12.0	
	comp=Z,99nm,0.3s						
PB10	**IPOC Station P**	**3.41**	**263**	⇓*eP*	**Pn**	**05 26 27.2**	**+1.1**
PB10				*eS*	**S**	**05 27 08.7**	**-1.2**
PB14	**IPOC Station P**	**3.55**	**245**	*eP*	**Pn**	**05 26 29.3**	**+1.2**
PB14				*eS*	**S**	**05 27 12.6**	**-0.8**
PB14				IAML		05 27 15.0	
	comp=Z,130nm,0.2s						
PB14	**IPOC Station P**	**3.55**	**245**	*eP*	**Pn**	**05 26 29.0**	**+0.9**
PB14				*eS*	**S**	**05 27 11.9**	**-1.5**
PB08	**IPOC Station P**	**3.69**	**324**	*eP*	**Pn**	**05 26 32.1**	**+2.2**
PB08				*eS*	**S**	**05 27 16.8**	**+0.2**
PB08	**IPOC Station P**	**3.69**	**324**	⇑*eP*	**Pn**	**05 26 31.6**	**+1.7**
PB08				*eS*	**S**	**05 27 16.6**	**+0.2**
TA01	**Diego Aracena**	**4.02**	**309**	*eP*	**Pn**	**05 26 34.5**	**+1.1**
TA01				*eS*	**S**	**05 27 21.3**	**-1.8**
TA01				IAML		05 27 23.8	
	comp=Z,25nm,0.3s						
GO01	**Chusmiza**	**4.10**	**328**	*eP*	**Pn**	**05 26 36.2**	**+1.2**
GO01				*eS*	**S**	**05 27 26.6**	**+0.9**
GO01	**Chusmiza**	**4.10**	**328**	*eP*	**Pn**	**05 26 36.5**	**+1.6**
AC02	**Maricunga**	**4.19**	**209**	*eP*	**Pn**	**05 26 37.2**	**+1.3**
PB11	**IPOC Station P**	**4.27**	**322**	*eP*	**Pn**	**05 26 37.4**	**+0.8**
PB11				*eS*	**S**	**05 27 26.9**	**-2.0**
PB11				IAML		05 27 33.6	
	comp=Z,48nm,0.2s						
PB11	**IPOC Station P**	**4.27**	**322**	*eP*	**Pn**	**05 26 36.7**	**0.0**
AC01	**Pan de Azucar**	**4.51**	**228**	*eP*	**Pn**	**05 26 39.4**	**0.0**
AC01				*eS*	**S**	**05 27 32.4**	**-1.6**
AC01				IAML		05 27 35.5	
	comp=Z,31nm,0.4s						
PSGCX	**Pisagua**	**4.67**	**319**	*eP*	**Pn**	**05 26 42.0**	**+0.5**
PSGCX				*eS*	**S**	**05 27 35.4**	**-2.3**
PSGCX				IAML		05 27 36.3	
	comp=Z,26nm,0.4s						
TINO	**Tinogasta**	**4.92**	**187**	*eP*	**Pn**	**05 26 46.3**	**+1.8**
GO03	**Copiapo**	**5.36**	**214**	*eP*	**Pn**	**05 26 49.9**	**-0.2**
GO03				IAML		05 27 52.6	
	comp=Z,39nm,0.2s						

*IDC **15** 05:34:04.0±0.7, 52°.56N×171°.62E, h0km, mb4.2/24, mbtmp4.2/25, ML3.5/1, MS3.3/16, Error ellipse: s-maj=20.6km s-min=10.6km az=175.0*

*KRSC **15** 05:34:04.0±1.5, 52°.38N×171°.49E, h56km±62km, Ml4.7*

*NEIC **15** 05:34:05.6±1.0, 52°.6N±0°.1×171°.60E±0°.09, h10km±1km, mb4.4/104, Error ellipse: s-maj=23.4km s-min=8.8km az=177.0*

*MOS **15** 05:34:07.3±1.2, 52°.44N×171°.41E, h45km, mb4.5/24, Error ellipse: s-maj=7.9km s-min=5.9km az=38.9*

ISC 15 05:34:08.7±0.5, 52°.52N±0°.10×171°.64E±0°.04, h35km, n274, σ1§10/252, mb4.4/89, MS3.4/16, 8C, Near Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHEM	**Shemya Is, Ala**	**1.52**	**81**	Pn	**Pn**	**05 34 32.9**	**-0.3**
	148nm,0.3s,baz=194,slow=6.7,SNR=108						
SHEM				Sn	**Sn**	**05 34 52.4**	**+0.6**
	282nm,0.3s,baz=278,slow=6.7,SNR=19						
SHEM				LR	LR	05 35 08.8	
	comp=Z,268nm,18.7s,baz=315,slow=43						
SHEM	**Shemya Is, Ala**	**1.52**	**81**	Pn	**Pn**	**05 34 33.0**	**-0.3**
SHEM				Sn	**Sn**	**05 34 52.9**	**+1.1**
SMY	**Shemya**	**1.52**	**81**	P	**Pn**	**05 34 32.7**	**-0.6**
SMY				S	**Sn**	**05 34 52.1**	**+0.3**
SMY	**Shemya**	**1.52**	**81**		**Pn**	**05 34 32.9**	**-0.4**
SMY				Sn	**Sn**	**05 34 52.8**	**+1.0**
KBTR	**Krutoberegovo**	**6.34**	**309**	P	**Pn**	**05 35 40.1**	**+0.6**
KBTR	**Krutoberegovo**	**6.34**	**309**	*eP*	**Pn**	**05 35 40.1**	**+0.6**
KIWB	**Kanaga Island**	**6.93**	**91**	Pn	**Pn**	**05 35 47.3**	**-0.3**
TUMD	**Tumrok D**	**7.17**	**296**	P	**Pn**	**05 35 50.3**	**-0.6**
TUMD	**Tumrok D**	**7.17**	**296**	*eP*	**Pn**	**05 35 50.4**	**-0.6**
KZV	**Kizimen**	**7.20**	**296**	P	**Pn**	**05 35 49.8**	**-1.6**
KZV	**Kizimen**	**7.20**	**296**	*eP*	**Pn**	**05 35 49.8**	**-1.6**
ADK	**Adak**	**7.21**	**90**	P	**Pn**	**05 35 51.0**	**-0.4**
ADK	**Adak**	**7.21**	**90**	Pn	**Pn**	**05 35 51.0**	**-0.4**
KII	**Karymskiy**	**7.46**	**287**	P	**Pn**	**05 35 53.5**	**-1.5**
KII	**Karymskiy**	**7.46**	**287**	*eP*	**Pn**	**05 35 53.5**	**-1.5**
UGLR	**Uglovaya**	**7.79**	**280**	P	**Pn**	**05 35 58.3**	**-1.2**
UGLR	**Uglovaya**	**7.79**	**280**	*eP*	**Pn**	**05 35 58.4**	**-1.2**
SMAR	**Somma**	**7.80**	**281**	P	**Pn**	**05 35 57.8**	**-2.0**
SMAR	**Somma**	**7.80**	**281**	*eP*	**Pn**	**05 35 57.9**	**-2.0**
DALK	**Dalny**	**7.83**	**279**	P	**Pn**	**05 35 58.3**	**-1.7**
DALK	**Dalny**	**7.83**	**279**	*eP*	**Pn**	**05 35 58.3**	**-1.7**
KRER	**Koryakskii**	**7.83**	**281**	P	**Pn**	**05 35 58.7**	**-1.5**
KRER	**Koryakskii**	**7.83**	**281**	*eP*	**Pn**	**05 35 58.7**	**-1.5**
AVH	**Avacha**	**7.84**	**281**	P	**Pn**	**05 35 58.6**	**-1.6**
AVH	**Avacha**	**7.84**	**281**	*eP*	**Pn**	**05 35 58.6**	**-1.6**
PET	**Petropavlovsk**	**7.89**	**279**	*i* P	**Pn**	**05 35 59.3**	**-1.5**
PET	**Petropavlovsk**	**7.89**	**279**	Pn	**Pn**	**05 35 58.4**	**-2.4**
KRX	**Arik**	**7.89**	**281**	P	**Pn**	**05 35 59.0**	**-2.0**
KRX	**Arik**	**7.89**	**281**	*eP*	**Pn**	**05 35 59.1**	**-2.0**
KOK	**Koryaka**	**7.90**	**281**	P	**Pn**	**05 35 59.4**	**-1.6**
KOK	**Koryaka**	**7.90**	**281**	*eP*	**Pn**	**05 35 59.4**	**-1.6**
MTVR	**Mutnovka**	**8.21**	**275**	P	**Pn**	**05 36 03.8**	**-1.5**
MTVR	**Mutnovka**	**8.21**	**275**	*eP*	**Pn**	**05 36 03.9**	**-1.5**
KRMR	**Karymshinskiy**	**8.22**	**278**	P	**Pn**	**05 36 02.8**	**-2.4**
KRMR	**Karymshinskiy**	**8.22**	**278**	*eP*	**Pn**	**05 36 02.9**	**-2.4**
GRL	**Gorelyy**	**8.27**	**276**	P	**Pn**	**05 36 05.2**	**-1.0**
GRL	**Gorelyy**	**8.27**	**276**	*eP*	**Pn**	**05 36 05.2**	**-1.0**
KDTR	**Khodutka, Kamc**	**8.37**	**270**	P	**Pn**	**05 36 05.3**	**-2.0**
KDTR	**Khodutka, Kamc**	**8.37**	**270**	*eP*	**Pn**	**05 36 05.3**	**-2.0**
ASAK	**Asacha**	**8.39**	**275**	P	**Pn**	**05 36 06.7**	**-1.1**
ASAK	**Asacha**	**8.39**	**275**	*eP*	**Pn**	**05 36 06.8**	**-1.1**
PEA0B	**Petropavlovsk-**	**8.47**	**280**	*ce*P	**Pn**	**05 36 08.2**	**-0.5**
PEA0B	**Petropavlovsk-**	**8.47**	**280**	Pn	**Pn**	**05 36 08.1**	**-0.7**
PETK	**Petropavlovsk-**	**8.47**	**280**	Pn	**Pn**	**05 36 07.9**	**-0.8**
	2.6nm,0.3s,baz=95,slow=18,SNR=49						
PETK				LR	LR	05 39 14.2	
	comp=Z,60nm,21.3s,baz=85,slow=37						
	23nm,0.8s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**8.47**	**280**	Pn	**Pn**	**05 36 08.1**	**-0.7**
ATKA	**Atka Island**	**8.68**	**86**	Pn	**Pn**	**05 36 11.0**	**-0.6**
APC	**Apacha**	**8.80**	**278**	P	**Pn**	**05 36 13.1**	**-0.1**
APC	**Apacha**	**8.80**	**278**	*eP*	**Pn**	**05 36 13.2**	**-0.1**
MA2	**Magadan**	**13.59**	**310**	LR	LR	05 42 24.3	
	comp=Z,114nm,18.7s,baz=102,slow=37						
MA2	**Magadan**	**13.59**	**310**	*i* P	**Pn**	**05 37 17.3**	**-1.4**
MA2				pmax	pmax		
	comp=Z,12nm,1.0s						
BILL	**Bilibino**	**15.78**	**353**	*i* P	**P**	**05 37 48.2**	**-3.3**
BILL				pmax	pmax		
	comp=Z,8.0nm,1.2s						

M16K Timber Creek 18.08 50 P 05 38 17.8 +0.8
O16K Kokwok River B 18.20 55 P P 05 38 17.9 -0.4
J17K VABM Dome 18.78 43 P Pn 05 38 24.1 -1.1
K17K Iditarod 18.87 46 P Pn 05 38 24.9 -1.5
M17K Holitna River 18.89 50 P Pn 05 38 25.1 -1.5
L18K Granite Mounta 19.44 48 P Pn 05 38 30.9 -2.2
N18K Kilae Creek 19.47 52 P Pn 05 38 31.8 -1.8
N18K IAmb IAmb 05 38 53.5
comp=Z,25nm,1.4s
ACHA Angle Creek He 19.48 60 P Pn 05 38 31.5 -2.3
J16K Innoko River 19.80 44 P Pn 05 38 35.8 -1.6
G18K Tagagawik 20.00 37 P Pn 05 38 38.5 -1.3
G18K IAmb IAmb 05 39 01.8
comp=Z,19nm,1.4s
SII Sitkinak Islan 20.10 65 P Pn 05 38 38.8 -2.3
Q19K Cape Douglas, 20.40 58 P Pn 05 38 42.5 -2.1
J19K Poorman 20.43 43 P Pn 05 38 42.5 -2.3
OHAK Old Harbor 20.57 63 P Pn 05 38 43.7 -2.8
OHAK IAmb IAmb 05 38 55.5
comp=Z,18nm,0.6s
C18K Utukok River 20.66 28 P Pn 05 38 45.2 -2.4
G19K Purcell Mounta 20.68 37 P Pn 05 38 44.9 -2.8
L20K Farewell, AK 20.78 48 P Pn 05 38 46.4 -2.5
L20K IAmb IAmb 05 39 09.2
comp=Z,22nm,1.5s
KDAK Kodiak Island 20.93 61 P **P 05 38 47.2 -0.9**
comp=Z,6.6nm,0.7s,baz=265,slow=13,SNR=12
comp=Z,6.6nm,0.7s
KDAK Kodiak Island 20.93 61 P **P 05 38 47.3 -0.7**
M20K Styx River 21.00 50 P 05 38 48.5
J20K Nowinta River 21.10 43 P **P 05 38 49.2 -0.6**
F20K Avaraart Lake 21.57 35 P **P 05 38 55.2 +0.4**
PPLA Purkeypile 21.63 47 P **P 05 38 56.1 +0.5**
PPLA IAmb IAmb 05 39 20.4
comp=Z,28nm,1.5s
CNPM China Poot 21.66 56 P **P 05 38 55.9 0.0**
CNPM IAmb IAmb 05 39 09.1
comp=Z,27nm,1.2s
SKT Skwentna 21.76 50 P **P 05 38 56.8 -0.1**
SKT IAmb IAmb 05 39 22.4
comp=Z,14nm,1.3s
CAST Castle Rocks 21.79 46 P **P 05 38 57.1 -0.1**
BRLK Bradley Lake 21.85 56 P **P 05 38 58.4 +0.4**
IMAR Indian Mountai 21.86 39 P **P 05 38 58.5 +0.5**
H21K Melozitna Rive 22.11 40 P **P 05 39 01.1 +0.5**
SLKM Skilak Lake 22.23 54 P **P 05 39 02.4 +0.5**
SLKM IAmb IAmb 05 39 27.2
comp=Z,21nm,1.2s
TRF Thorofare Moun 22.58 46 P **P 05 39 06.3 +0.4**
TRF IAmb IAmb 05 39 11.3
comp=Z,24nm,1.4s
H22K Ishtalitna Cre 22.75 40 P **P 05 39 07.7 +0.2**
MLY Manley 22.75 42 P **P 05 39 07.7 +0.2**
MLY IAmb IAmb 05 39 34.6
comp=Z,12nm,1.5s
PMR Palmer 22.85 51 P **P 05 39 06.8 -1.6**
PMR pmax pmax
comp=Z,9.0nm,1.0s
PMR Palmer 22.85 51 P **P 05 39 06.8 -1.6**
PMR IAmb IAmb 05 39 14.7
comp=Z,9.0nm,1.0s
KNK Knik Glacier 23.15 52 P **P 05 39 09.4 -2.2**
KNK IAmb IAmb 05 39 31.4
comp=Z,13nm,0.9s
PWL Port Wells 23.18 53 P **P 05 39 11.1 -0.7**
PWL IAmb IAmb 05 39 38.4
comp=Z,28nm,1.4s
MCK McKinley 23.23 46 P **P 05 39 12.3 -0.1**
MCK pmax pmax
comp=Z,12nm,1.1s
MCK McKinley 23.23 46 P **P 05 39 12.3 -0.1**
MCK IAmb IAmb 05 39 24.4
comp=Z,12nm,1.1s
SML Sawmill 23.25 51 P **P 05 39 13.1 +0.5**
D22K Ayikyak River 23.41 32 P **P 05 39 13.9 -0.2**
D22K IAmb IAmb 05 39 20.0
comp=Z,11nm,0.9s
G23K Bananza Creek 23.52 38 P 05 39 15.3 0.0
SCM Sheep Creek Mo 23.72 51 P **P 05 39 17.9 +0.7**
SCM pmax pmax
comp=Z,20nm,1.0s
SCM Sheep Creek Mo 23.72 51 P **P 05 39 17.9 +0.7**
DHY Denali Highway 23.82 48 P **P 05 39 18.1 -0.2**
DHY IAmb IAmb 05 39 38.1
comp=Z,13nm,1.5s
CCB Clear Creek Bu 23.89 44 P **P 05 39 18.4 -0.2**
CCB IAmb IAmb 05 39 30.8
comp=Z,7.0nm,1.0s
COLA College 23.91 43 *i* P **P 05 39 18.2 -0.6**
COLA pmax pmax
comp=Z,8.0nm,1.0s
COLA College 23.91 43 P **P 05 39 18.8 0.0**
COLA IAmb IAmb 05 39 46.4
comp=Z,13nm,0.9s
H24K Noodor Dome 24.12 41 P 05 39 21.1 +0.3
YAK Yakutsk 24.17 310 LR LR 05 49 03.6
comp=Z,78nm,18.8s,baz=67,slow=37
YAK Yakutsk 24.17 310 *e*P **P 05 39 20.5 -0.7**
YAK pmax pmax
comp=Z,9.0nm,1.0s
YAK pmax pmax
comp=N,7.0nm,1.3s
YAK pmax pmax
comp=E,5.0nm,1.0s
IL31 24.30 44 P 05 39 22.2 -0.1
IL31 IAmb IAmb 05 39 32.8
comp=Z,6.2nm,0.9s
ILAR Eielson Array 24.30 44 P P 05 39 22.0 -0.4
comp=Z,2.1nm,0.6s,baz=246,slow=7.3,SNR=41
ILAR LR LR 05 49 04.3
comp=Z,31nm,18.1s,baz=278,slow=37
comp=Z,2.1nm,0.6s
TOLK Toolik Lake Re 24.35 34 P **P 05 39 23.5 +0.6**
TOLK IAmb IAmb 05 39 36.4
comp=Z,5.2nm,0.7s
E24K Your Creek 24.53 35 P 05 39 25.2 +0.6
E24K IAmb IAmb 05 39 39.6
comp=Z,6.0nm,1.0s
F24K Squaw Lake 24.57 37 P **P 05 39 25.6 +0.6**
K24K Donnelly Dome 24.63 46 P **P 05 39 25.6 +0.1**
D24K Happy Valley 24.79 33 P **P 05 39 26.9 0.0**
D24K IAmb IAmb 05 39 33.1
comp=Z,10.0nm,0.8s
J25K Salcha River, 24.92 44 P **P 05 39 27.1 -1.0**
PRP Porcupine Dome 25.00 42 P 05 39 29.1 +0.1
RIDG Independent Ri 25.03 46 P **P 05 39 28.7 -0.4**
RIDG IAmb IAmb 05 39 40.5
comp=Z,15nm,1.2s
KLR Kul'dur 25.16 279 LR LR 05 51 13.2
comp=Z,46nm,18.1s,baz=318,slow=41
KLR Kul'dur 25.16 279 *i* P **P 05 39 30.0 -0.3**
KLR pmax pmax
comp=Z,2.0nm,0.8s
SCRK Sand Creek 25.44 46 P 05 39 32.3 -0.6
SCRK IAmb IAmb 05 39 43.5
comp=Z,11nm,1.0s
VRDI Verde Repeater 25.56 52 P **P 05 39 33.7 -0.4**
D25K Kavik River 25.67 33 P **P 05 39 34.9 0.0**
D25K IAmb IAmb 05 39 47.7
comp=Z,4.7nm,0.7s
G26K Porcupine Rive 25.97 39 P 05 39 37.6 +0.1
G26K IAmb IAmb 05 39 51.4
comp=Z,8.4nm,0.9s
ZEA Zeya 26.34 291 *e*P **P 05 39 43.4 +2.4**
ZEA pmax pmax
comp=Z,10.0nm,0.7s
ZEA MLR MLR
comp=Z,100nm,19.0s
GRNC Granite Creek 26.40 53 P **P 05 39 42.0 +0.3**
GRNC IAmb IAmb 05 40 07.5
comp=Z,9.3nm,0.7s
TIXI Tiksi 26.76 331 P **P 05 39 44.2 -0.4**
TIXI pmax pmax
comp=Z,4.0nm,0.8s
TIXI Tiksi 26.76 331 P **P 05 39 44.2 -0.4**
TIXI IAmb IAmb 05 39 53.8
comp=Z,3.9nm,0.8s
E27K Coleen River 27.05 37 P **P 05 39 52.3 +5.0**
DAWY Dawson 27.46 46 P **P 05 39 50.7 -0.4**
DAWY IAmb IAmb 05 39 54.1
comp=Z,8.8nm,1.3s
K29M Barlow Dome 28.29 46 P 05 39 59.7 +1.2
K29M IAmb IAmb 05 40 01.3
comp=Z,5.2nm,0.9s

H11N2 WAKE ISLAND Hy 32.93 188 T T 06 16 15.1
baz=5.0,slow=76,SNR=21
H11N3 WAKE ISLAND Hy 32.95 188 T T 06 16 20.2
baz=5.0,slow=76,SNR=32
H11N1 WAKE ISLAND Hy 32.95 188 T T 06 16 20.6
baz=5.0,slow=76,SNR=22
H11S1 WAKE ISLAND Hy 34.16 188 T T 06 17 47.1
baz=5.3,slow=76,SNR=50
H11S3 WAKE ISLAND Hy 34.18 188 T T 06 17 54.5
baz=5.3,slow=76,SNR=18
H11S2 WAKE ISLAND Hy 34.18 188 T T 06 17 49.1
baz=5.3,slow=76,SNR=24
YKAW3 Yellowknife Wh 38.67 45 P **P 05 41 28.8 +0.3**
YKAW3 IAmb IAmb 05 41 36.2
comp=Z,8.9nm,1.1s
YKA Yellowknife Ar 38.70 45 P **P 05 41 29.0 +0.4**
comp=Z,1.9nm,0.7s,baz=290,slow=7.7,SNR=5.0
comp=Z,1.9nm,0.7s
YKA Yellowknife Ar 38.70 45*ce*P **P 05 41 29.5 +0.8**
YKA pmax pmax
comp=Z,2.0nm,0.7s
YKA Yellowknife Ar 38.70 45 P **P 05 41 28.6 -0.1**
ULN Ulaanbaatar 40.37 290*ce*P **P 05 41 43.6 +0.6**
ULN pmax pmax
comp=Z,3.0nm,1.2s
SONM Songino Array 40.77 290 P **P 05 41 47.5 +1.2**
comp=Z,1.9nm,0.6s,baz=66,slow=8.1,SNR=11
comp=Z,1.9nm,0.6s
SONM Songino Array 40.77 290 P **P 05 41 46.1 -0.1**
SONM pmax pmax
comp=Z,2.0nm,0.7s
SONM Songino Array 40.77 290 P **P 05 41 46.1 -0.1**
HHC Hu-ho-hao-te 41.67 279 *e*P **P 05 41 53.3 -0.4**
HHC pmax pmax
comp=Z,17nm,0.7s
HHC pmax pmax
comp=Z,78nm,4.6s
EDM Edmonton 43.32 58 P **P 05 42 06.1 -0.8**
EDM pmax pmax
comp=Z,8.0nm,0.7s
EDM Edmonton 43.32 58 P **P 05 42 06.1 -0.8**
EDM IAmb IAmb 05 42 08.3
comp=Z,8.2nm,0.7s
YBH Yreka Blue Hor 44.48 77 LR LR 05 58 43.4
comp=Z,35nm,18.1s,baz=272,slow=33
BCYI Bear Canyon 48.33 68 P **P 05 42 47.0 +0.3**
BOZ Bozeman (W) 48.54 66 P **P 05 42 48.5 +0.3**
BOZ pmax pmax
comp=Z,4.0nm,0.8s
BOZ Bozeman (W) 48.54 66 P **P 05 42 48.5 +0.3**
BOZ IAmb IAmb 05 42 59.6
comp=Z,3.7nm,0.8s
ZALV Zalesovo Beam 48.81 308 P **P 05 42 48.8 -1.2**
comp=Z,0.3nm,0.3s,baz=37,slow=13,SNR=2.3
comp=Z,0.3nm,0.3s
NVAR Mina Array Bea 49.18 77 P **P 05 42 54.1 +0.8**
comp=Z,0.9nm,0.7s,baz=291,slow=6.9,SNR=7.0
comp=Z,0.9nm,0.7s
NVAR Mina Array Bea 49.18 77 P **P 05 42 53.8 +0.4**
GTA2 Gaotai 49.58 285 P **P 05 42 56.9 +0.7**
GTA2 pmax pmax
comp=Z,9.0nm,0.7s
CLC China Lake 51.33 79 P **P 05 43 09.6 +0.2**
CLC pmax pmax
comp=Z,4.0nm,0.9s
CLC China Lake 51.33 79 P **P 05 43 09.6 +0.2**
CLC IAmb IAmb 05 43 22.5
comp=Z,3.8nm,0.9s
TPNV Topopah Spring 51.38 77 P **P 05 43 10.4 +0.5**
TPNV pmax pmax
comp=Z,4.0nm,0.8s
TPNV Topopah Spring 51.38 77 P **P 05 43 10.4 +0.5**
TPNV IAmb IAmb 05 43 22.8
comp=Z,4.2nm,0.8s
PD31 Pinedale Array 51.47 67 P **P 05 43 10.7 +0.1**
PD31 IAmb IAmb 05 43 22.4
comp=Z,2.3nm,0.8s
PDAR Pinedale Array 51.47 67 P **P 05 43 11.2 +0.6**
comp=Z,1.4nm,0.8s,baz=302,slow=4.3,SNR=13
comp=Z,1.4nm,0.8s
PDAR Pinedale Array 51.47 67 P **P 05 43 10.8 +0.2**
TMUT Trail Mountain 52.79 72 P **P 05 43 20.6 +0.1**
TMUT IAmb IAmb 05 43 36.3
comp=Z,4.0nm,0.8s
RDMU Red Mountain 52.89 70 P **P 05 43 21.4 +0.3**
RDMU IAmb IAmb 05 43 33.9
comp=Z,5.1nm,0.8s
SRU San Rafael Swe 53.31 72 P **P 05 43 23.5 -0.7**
SRU pmax pmax
comp=Z,4.0nm,0.8s
SRU San Rafael Swe 53.31 72 P **P 05 43 23.5 -0.7**
SRU IAmb IAmb 05 43 37.0
comp=Z,3.9nm,0.8s
SUMG Summit 53.45 11 P **P 05 43 24.0 -1.0**
SUMG pmax pmax
comp=Z,14nm,1.2s
SUMG Summit 53.45 11 P **P 05 43 24.0 -1.0**
WMQ Urumqi 53.64 297 *e*P **P 05 43 29.1 +2.7**
WMQ S **S 05 50 59.5 +2.0**
WMQ pmax pmax
comp=Z,20nm,0.7s
WMQ LR LR
comp=Z,78nm,23.3s
KURK Kurchatov 53.80 308*ce*P **P 05 43 26.3 -1.1**
KURK pmax pmax
comp=Z,4.0nm,0.9s
KURK Kurchatov 53.80 308 **P 05 43 27.0 -0.3**
KURK IAmb IAmb 05 43 27.9
comp=Z,3.8nm,0.8s
ULM Lac du Bonnet 53.85 53 P **P 05 43 28.1 +0.3**
comp=Z,3.8nm,0.8s,baz=347,slow=5.4,SNR=4.3
ULM LR LR 06 08 15.0
comp=Z,29nm,18.2s,baz=10.0,slow=38
comp=Z,3.8nm,0.8s
ULM Lac du Bonnet 53.85 53 P **P 05 43 28.7 +0.9**
ULM IAmb IAmb 05 43 39.1
comp=Z,5.5nm,0.9s
KURBB Kurchatov Arra 53.90 308 P **P 05 43 27.8 -0.4**
comp=Z,3.5nm,0.9s,baz=53,slow=7.3,SNR=18
comp=Z,3.5nm,0.9s
O20A White River Ci 53.94 69 P **P 05 43 29.1 +0.3**
HMU Henry Mountain 53.97 73 P 05 43 29.5 +0.3
HMU IAmb IAmb 05 43 41.9
comp=Z,4.9nm,0.7s
MK31 Makanchi Array 54.55 303*ce*P **P 05 43 31.8 -1.2**
MK31 Makanchi Array 54.55 303 P **P 05 43 32.5 -0.5**
MK31 IAmb IAmb 05 43 32.5
comp=Z,1.6nm,0.6s
MKAR Makanchi Array 54.55 303 P **P 05 43 32.1 -0.9**
comp=Z,2.0nm,0.6s,baz=58,slow=6.0,SNR=21
comp=Z,2.0nm,0.6s
MKAR Makanchi Array 54.55 303 P **P 05 43 32.4 -0.6**
GOMU GeErMu 54.68 285 P **P 05 43 33.8 -0.7**
GOMU pP pP 05 43 37.1 -6.5
GOMU sP sP 05 43 41.0 -6.2
GOMU pmax pmax
comp=Z,4.0nm,0.5s
PV22 Blue Mesa, Par 54.70 71 P **P 05 43 35.7 +1.3**
PV18 Skein Mesa, Pa 54.83 71 P 05 43 35.7 +0.4
PV05 Paradox Valley 54.83 72 P **P 05 43 35.8 +0.5**
PV07 Paradox Valley 54.85 71 P **P 05 43 35.3 -0.2**
PV07 IAmb IAmb 05 43 57.1
comp=Z,6.2nm,0.9s
PV03 Paradox Valley 54.86 71 P **P 05 43 35.3 -0.3**
PV13 Radium Mtn., P 54.94 71 P **P 05 43 36.8 +0.7**
ARCES ARCESS Array B 55.77 346 P **P 05 43 41.7 +0.2**
comp=Z,4.0nm,0.9s,baz=43,slow=9.1,SNR=5.5
comp=Z,4.0nm,0.9s
ARCES ARCESS Array B 55.77 346 P **P 05 43 41.6 +0.2**
ARCES pmax pmax
comp=Z,12nm,1.2s
ARCES ARCESS Array B 55.77 346 P **P 05 43 41.6 +0.2**
BVAR Borovoye Array 56.02 314 P **P 05 43 43.3 -0.2**
comp=Z,1.6nm,0.5s,baz=57,slow=6.7,SNR=6.9
comp=Z,1.6nm,0.5s
SFJD Kangerlussuaq 56.62 18 LR LR 06 12 17.7
comp=Z,25nm,18.1s,baz=203,slow=40
ARTI Arti 58.42 323 LR LR 06 09 08.4
comp=Z,6.9nm,19.6s,baz=15,slow=36
ARTI Arti 58.42 323 P **P 05 44 00.5 +0.2**
ARTI pmax pmax
comp=Z,4.0nm,0.4s
ARTI Arti 58.42 323 P **P 05 44 00.5 +0.2**
ANMO Albuquerque 58.53 72*ce*P **P 05 44 02.8 +1.2**
ANMO pmax pmax
comp=Z,1.0nm,0.9s

CRNM Carthage 59.07 73 P **P 05 44 05.8 +0.5**
KIRV Kirov 59.76 329*ce*P **P 05 44 10.2 +0.7**
KDJ Kajisay 60.41 301 P **P 05 44 14.2 -0.3**
KDJ pmax pmax
comp=Z,64nm,1.4s
KDJ Kajisay 60.41 301 P **P 05 44 14.2 -0.3**
KLMR Klimovskoe 60.68 335 *e*P **P 05 44 15.6 -0.2**
KLMR pmax pmax
comp=Z,19nm,1.4s
AAK Ala-Archa 61.43 304 *i* P **P 05 44 21.2 -0.2**
AAK pmax pmax
comp=Z,3.0nm,0.6s
MNTX Cornudas Mount 61.47 74 P 05 44 21.9 +0.2
VHRN Van Horn 62.37 75 P **P 05 44 28.6 +0.8**
VHRN IAmb IAmb 05 44 40.5
comp=Z,3.1nm,0.7s
SCHQ Schefferville 62.56 34 P **P 05 44 29.2 +0.6**
comp=Z,7.5nm,0.8s,baz=327,slow=5.8,SNR=6.2
comp=Z,7.5nm,0.8s
KK31 Karatay Array 63.09 306 P **P 05 44 32.0 -0.3**
KK31 pmax pmax
comp=Z,4.0nm,0.8s
KK31 Karatay Array 63.09 306 P **P 05 44 32.0 -0.3**
KK31 IAmb IAmb 05 44 33.0
comp=Z,3.5nm,0.8s
KKAR Karatay Array 63.09 306 P **P 05 44 32.5 +0.2**
KKAR Karatay Array 63.09 306 P **P 05 44 32.5 +0.2**
FINES FINESS Array B 63.12 342 P **P 05 44 32.6 +0.4**
comp=Z,2.0nm,0.7s,baz=35,slow=7.0,SNR=7.0
comp=Z,2.0nm,0.7s
FINES FINESS Array B 63.12 342 P **P 05 44 32.7 +0.5**
AKTO Aktyubinsk 63.13 319 LR LR 06 14 23.5
comp=Z,33nm,18.5s,baz=60,slow=38
AB31 Akbulak array 63.25 317 P 05 44 33.7 +0.4
AB31 IAmb IAmb 05 44 35.2
comp=Z,1.2nm,0.6s
ABKAR Akbulak array 63.25 317 P **P 05 44 33.5 +0.2**
MNHN Monahans 63.27 73 P 05 44 34.4 +0.7
KSH2 Kashi 63.42 300 P **P 05 44 35.4 +0.7**
KSH2 pmax pmax
comp=Z,7.0nm,0.7s
R40A Maddies Statio 64.06 60 P **P 05 44 38.7 0.0**
TX31 Lajitas Ar. Si 64.21 75 P 05 44 41.0 +1.1
TXAR Lajitas Array 64.21 75 P **P 05 44 41.0 +1.1**
comp=Z,4.4nm,0.6s,baz=306,slow=5.3,SNR=59
comp=Z,4.4nm,0.6s
TXAR Lajitas Array 64.21 75 P **P 05 44 41.3 +1.3**
OZNA Ozona 64.53 72 P **P 05 44 42.9 +0.9**
OZNA IAmb IAmb 05 44 43.4
comp=Z,5.2nm,1.2s
SAND Sanderson 64.66 73 P 05 44 42.1 -0.7
SAND IAmb IAmb 05 44 55.9
comp=Z,3.4nm,1.0s
CMAR Chiang Mai Arr 65.06 268 P **P 05 44 46.4 +0.9**
comp=Z,1.3nm,0.3s,baz=25,slow=7.2,SNR=7.5
comp=Z,1.3nm,0.3s
CMAR Chiang Mai Arr 65.06 268*ce*P **P 05 44 46.7 +1.2**
CMAR pmax pmax
comp=Z,1.0nm,0.3s
EVN Everest 65.29 284 P 05 44 48.1 +0.4
JCT Junction City 65.62 71 P **P 05 44 49.3 +0.2**
JCT pmax pmax
comp=Z,6.0nm,0.8s
JCT Junction City 65.62 71 P **P 05 44 49.3 +0.2**
NB201 NORSAR Array S 65.69 350 P **P 05 44 49.8 +0.8**
NB2 NORSAR Subarra 65.71 350 P **P 05 44 49.7 +0.5**
comp=Z,2.2nm,0.6s,baz=13,slow=6.5
NOA NORSAR Array B 65.71 350 P **P 05 44 49.5 +0.3**
comp=Z,2.7nm,0.6s,baz=14,slow=6.5,SNR=11
comp=Z,2.7nm,0.6s
HFS Hagfors 66.31 348 P **P 05 44 52.9 0.0**
comp=Z,1.6nm,0.5s,baz=270,slow=1.5,SNR=14
comp=Z,1.6nm,0.5s
MSVF Nonsavu 70.18 174 LR LR 06 07 55.5
comp=Z,35nm,21.6s,baz=174,slow=29
AKASG Malin Array Be 72.36 336 LR LR 06 18 28.0
comp=Z,18nm,20.6s,baz=12,slow=37
EKA Eskdalemuir Ar 72.43 357 P **P 05 45 32.0 +1.1**
comp=Z,1.8nm,0.7s,baz=27,slow=4.5,SNR=4.6
comp=Z,1.8nm,0.7s
EKA Eskdalemuir Ar 72.43 357 P **P 05 45 32.0 +1.1**
KBZ Khabaz 74.45 324 P **P 05 45 43.9 +1.0**
comp=Z,1.6nm,0.7s,baz=18,slow=3.2,SNR=3.9
comp=Z,1.6nm,0.7s
OSTC Ostas 75.21 344 *e*P **P 05 45 49.9 +2.6**
OSTC Ostas 75.21 344 *e*P **P 05 45 49.9 +2.6**
UPC Upice 75.30 344 *e*P **P 05 45 46.9 -0.8**
UPC Upice 75.30 344 *e*P **P 05 45 46.9 -0.8**
DPC Dobruska-Polom 75.40 344 *e*P **P 05 45 48.9 +0.5**
DPC Dobruska-Polom 75.40 344 *e*P **P 05 45 48.9 +0.5**
STEB Steborice 75.54 343 *e*P **P 05 45 50.3 +1.1**
KRLC Kraliky 75.58 344 *e*P **P 05 45 50.5 +1.1**
KRLC Kraliky 75.58 344 *e*P **P 05 45 50.5 +1.1**
PRU Pruhonice 76.04 345 *e*P **P 05 45 52.6 +0.6**
PRU Pruhonice 76.04 345 *e*P **P 05 45 52.6 +0.6**
TREC Trest 76.56 344 *e*P **P 05 45 56.1 +1.1**
TREC Trest 76.56 344 *e*P **P 05 45 56.1 +1.1**
ZVC Zvikov 76.63 345 *e*P **P 05 45 56.0 +0.7**
GNI Garni 76.87 321 LR LR 06 22 34.9
comp=Z,13nm,19.4s,baz=351,slow=38
KHC Kasperske Hory 77.02 345 *e*P **P 05 45 58.9 +1.3**
KHC Kasperske Hory 77.02 345 *e*P **P 05 45 58.9 +1.3**
MODS Modra-Piesok 77.14 343 *e*P **P 05 46 00.1 +1.9**
MODS Modra-Piesok 77.14 343 *e*P **P 05 46 00.1 +1.9**
ABNA Allensteig Bun 77.17 344 *e*pP **P 05 45 59.1 +0.7**
comp=Z,2.4nm,0.6s
CKRC Cesky Krumlov 77.21 345 *e*P **P 05 45 58.5 -0.1**
CKRC Cesky Krumlov 77.21 345 *e*P **P 05 45 58.5 -0.1**
GERES GERESS Array B 77.28 345 P **P 05 46 00.1 +0.9**
comp=Z,1.5nm,0.5s,baz=24,slow=5.1,SNR=18
comp=Z,1.5nm,0.5s
PPT Papeete 77.47 142 LR LR 06 19 21.3
comp=Z,22nm,18.5s,baz=305,slow=35
CONA Conrad Observa 77.81 344 *e*pP **P 05 46 03.4 +1.3**
comp=Z,2.8nm,0.8s
MOA Molln 78.16 345 *e*pP **P 05 46 05.9 +2.0**
comp=Z,2.5nm,0.9s
KBA Koelnbreinsper 79.06 345 *e*pP **P 05 46 11.1 +2.0**
comp=Z,1.1nm,1.0s
WRA Warramunga Arr 79.11 215 P **P 05 46 09.3 -0.1**
comp=Z,1.1nm,0.8s,baz=31,slow=6.4,SNR=8.4
comp=Z,1.1nm,0.8s
WRA Warramunga Arr 79.11 215 *i* P **P 05 46 08.5 -0.9**
WRA pmax pmax
comp=Z,1.0nm,0.8s
WRA Warramunga Arr 79.11 215 P **P 05 46 09.9 +0.5**
WTTA Wattenberg 79.13 346 *e*pP **P 05 46 10.9 +1.4**
comp=Z,2.5nm,0.8s
SOKA Soboth 79.17 344 *e*pP **P 05 46 11.0 +1.4**
comp=Z,2.5nm,1.3s
OBKA Obir 79.41 344 *e*pP **P 05 46 13.1 +2.1**
comp=Z,3.0nm,0.8s
FETA Feichten 79.50 347 *e*pP **P 05 46 13.4 +1.9**
comp=Z,3.3nm,1.0s
DAVOX Davos/Dischmat 79.85 347 LR LR 06 23 53.7
comp=Z,23nm,18.0s,baz=262,slow=38
ASAR Alice Springs 82.70 214 P **P 05 46 29.5 +1.0**
comp=Z,1.2nm,0.9s,baz=16,slow=4.9,SNR=7.1
comp=Z,1.2nm,0.9s
ASAR Alice Springs 82.70 214 P **P 05 46 29.1 +0.7**
ASAR Alice Springs 82.70 214 P **P 05 46 29.1 +0.7**
ESDC Sonseca Array 88.10 357 P **P 05 46 55.2 -0.2**
comp=Z,1.0nm,1.0s,baz=345,slow=4.5,SNR=4.5
comp=Z,1.0nm,1.0s
EIL Elat 89.83 323 LR LR 06 34 46.7
comp=Z,19nm,18.4s,baz=313,slow=41
BOSA Boshof 145.54 301 PKPbc **PKiKP 05 53 43.7 -3.2**
comp=Z,2.2nm,0.7s,baz=340,slow=3.6,SNR=5.4
BOSA Boshof 145.54 301 PKIKP **PKPab 05 53 42.9 -0.5**
BOSA Boshof 145.54 301 PKPab 05 53 42.9 -0.5

UCR **15** *05:40:59.6±0.6, 10.86N×86.45W, h13km±17km, MW3.8, Presumed earthquake*
CATAC **15** *05:41:01.5±0.6, 11.4N×8.6W, h25km±6km, M3.3/12, MLv3.3/12, Error ellipse: s-maj=8.8km s-min=5.1km az=31.6, confirmed*
ISC 15 05:41:01.0±2.3, 10.94N±0.06×86.35W±0.09, h16km±10km, n33, σ0.66/45, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ARIN	**Rivas**	**0.72**	**44**	S	**Sg**	**05 41 23.6**	**-1.1**
CARN	**Rivas**	**0.85**	**73**	P	**Pg**	**05 41 18.2**	**+0.7**
CARN				S	**Sn**	**05 41 30.6**	**+0.2**

CARN	**Rivas**	**0.85**	**73**	*e*P		**Pb**	**05 41 17.4**	**0.0**
ALIBA	**Liberia Airpor**	**0.86**	**113**	*e*P		**Pb**	**05 41 17.7**	**+0.1**
ALIBA				*e*S		**Sn**	**05 41 31.6**	**+0.9**
NADN	**Granada**	**0.86**	**21**	P		**Pb**	**05 41 18.1**	**+0.4**
NADN				S		**Sn**	**05 41 31.0**	**+0.1**
NADN	**Granada**	**0.86**	**21**	*e*P		**Pb**	**05 41 17.6**	**-0.1**
LAPC	**Finca la Perla**	**0.91**	**101**	*e*P		**Pb**	**05 41 17.0**	**-1.6**
MORN	**Al O del Volca**	**0.92**	**48**	P		**Pg**	**05 41 19.2**	**+0.3**
MORN				S		**Sn**	**05 41 32.6**	**+0.4**
VRLE	**La Escondida,**	**0.98**	**99**	*e*P		**Pb**	**05 41 19.3**	**-0.3**
VRLE				*e*S		**Sn**	**05 41 33.8**	**+0.1**
VORI	**VORI**	**0.99**	**97**	*e*P		**Pb**	**05 41 19.8**	**-0.1**
NANN	**Nandasmo**	**1.02**	**12**	P		**Pn**	**05 41 21.1**	**+0.4**
NANN				S		**Sn**	**05 41 35.0**	**+0.3**
SABN	**Sabanita**	**1.03**	**10**	P		**Pb**	**05 41 19.6**	**-0.9**
MASN	**Masaya**	**1.06**	**10**	P		**Pn**	**05 41 21.7**	**+0.4**
MASN				S		**Sn**	**05 41 36.3**	**+0.5**
MAS3	**Al N del Volca**	**1.09**	**9**	P		**Pb**	**05 41 21.4**	**-0.2**
MAS3				S		**Sg**	**05 41 37.2**	**+0.6**
MESS	**Mesas**	**1.15**	**100**	*e*P		**Pn**	**05 41 22.1**	**-0.4**
CLARA	**Aguas Claras**	**1.16**	**97**	*e*P		**Pn**	**05 41 22.6**	**-0.1**
CUI	**Cuipilapa**	**1.20**	**103**	*e*P		**Pn**	**05 41 22.8**	**-0.4**
TISN	**Laguna Tiscapa**	**1.20**	**4**	P		**Pn**	**05 41 21.9**	**-1.3**
AERN	**Aeropuerto Man**	**1.21**	**8**	P		**Pn**	**05 41 23.7**	**+0.3**
AERN				S		**Sb**	**05 41 36.9**	**-2.2**
VMAR	**Armenia, Volca**	**1.22**	**96**	*e*P		**Pn**	**05 41 23.5**	**0.0**
WILN	**Americas 2**	**1.23**	**7**	P		**Pn**	**05 41 23.3**	**-0.3**
WILN				S		**Sb**	**05 41 40.0**	**+0.6**
APQ2	**Apoyeque**	**1.25**	**1**	P		**Pn**	**05 41 23.7**	**-0.2**
APQ2				S		**Sn**	**05 41 41.0**	**+0.5**
APQ2	**Apoyeque**	**1.25**	**1**	P		**Pn**	**05 41 23.5**	**-0.4**
APYN	**Apoyeque**	**1.29**	**360**	S		**Sb**	**05 41 41.6**	**+0.3**
TIMP	**Tierras Morena**	**1.35**	**105**	*e*P		**Pn**	**05 41 25.1**	**-0.2**
TENO	**El Achiote**	**1.36**	**100**	*e*P		**Pn**	**05 41 25.2**	**-0.3**
COTE	**Lago Cote**	**1.45**	**104**	*e*P		**Pn**	**05 41 26.9**	**+0.2**
QUEB	**Quebradon, Cot**	**1.46**	**102**	*e*P		**Pn**	**05 41 27.1**	**+0.3**
MOM2	**El Cardon**	**1.50**	**355**	P		**Pn**	**05 41 26.9**	**-0.4**
MOM2				S		**Sn**	**05 41 47.3**	**+0.8**
JTS	**Las Juntas de**	**1.51**	**115**	*e*P		**Pn**	**05 41 27.0**	**-0.5**
ARE1	**Arenal 1**	**1.67**	**106**	*e*P		**Pn**	**05 41 30.2**	**+0.6**
VARE2	**V. Arenal**	**1.67**	**106**	*e*P		**Pn**	**05 41 29.7**	**0.0**
CEDE	**Laguna Cedeo**	**1.68**	**105**	*e*P		**Pn**	**05 41 30.6**	**+0.8**

BYKL ***15*** *06:18:23.6±0.2,53.˚15N×100.˚59E*
MOS ***15*** *06:18:25.1±1.1,53.˚19N×100.˚72E,h10km,mb4.3/6,Error ellipse: s-maj=9.4km s-min=6.4km az=43.4*
IDC ***15*** *06:18:25.9±0.6,53.˚10N×100.˚66E,h0km,mb4.0/11, mbtmp4.0/16,ML3.5/5,MS3.7/2,Error ellipse: s-maj=17.3km s-min=9.1km az=37.0*

ISC 15 06:18:26.6±0.5,53.08N±0.˚03×100.˚58E±0.˚02,h10km,n95, σ2s24/149,mb4.0/11,3C-4D,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ORL	**Orlik**	**0.72**	**221**	⇑*i*Pg		**Pg**		**06 18 37.9**	**-2.6**
	166nm,0.3s								
ORL				⇑*i*Pg		**Pg**		**06 18 37.9**	**-2.6**
	135nm,0.3s								
ORL				⇓*i*Pg		**Pg**		**06 18 37.9**	**-2.6**
	186nm,0.3s								
ORL				Pmax				06 18 39.0	
	241nm,0.3s								
ORL				*e*Sg		**Sg**		**06 18 47.9**	**-2.0**
ORL				Smax				06 18 49.1	
	2μm,0.5s								
ORL	**Orlik**	**0.72**	**221**	⇓*i*PG		**Pg**		**06 18 37.8**	**-2.7**
ORL				*e*				06 18 47.8	
ORL				pmax	pmax				
	comp=Z,331nm,0.5s								
ORL				smax	smax				
	comp=N,2μm,0.5s								
MOY	**Mondy**	**1.44**	**170**	*e*Pg		**Pn**		**06 18 51.2**	**-1.6**
MOY				*e*				06 18 56.1	
MOY				max				06 19 03.6	
	comp=N,230nm,0.5s								
MOY				*e*Sg		**Sn**		**06 19 10.2**	**-1.6**
MOY				*e*				06 19 17.6	
MOY				max				06 19 18.5	
	comp=N,1μm,0.4s								
MOY	**Mondy**	**1.44**	**170**	PG		**Pn**		**06 18 51.2**	**-1.6**
MOY								06 19 10.2	
ARS	**Arshan**	**1.62**	**135**	⇓*i*Pg		**Pn**		**06 18 54.5**	**-0.7**
ARS				Pmax				06 18 59.6	
	comp=N,491nm,0.4s								
ARS				*e*Sg		**Sb**		**06 19 16.2**	**-0.9**
ARS				Smax				06 19 25.0	
	comp=N,2μm,0.5s								
ARS	**Arshan**	**1.62**	**135**	⇓*i*PN		**Pn**		**06 18 54.5**	**-0.7**
ARS				*e*				06 19 15.6	
ARS				pmax	pmax				
	comp=Z,469nm,0.3s								
ARS				smax	smax				
	comp=E,2μm,0.5s								
TLY	**Talaya**	**2.34**	**126**	Pn		**Pb**		**06 19 06.4**	**-2.4**
	comp=E,41nm,0.3s,baz=286,slow=8.7,SNR=123								
TLY				Lg		Lg		06 19 36.4	
	comp=E,82nm,0.3s,baz=214,slow=22,SNR=16								
	comp=E,119nm,0.4s								
TLY				AML	AML				
TLY	**Talaya**	**2.34**	**126**	*e*Pg		**Pb**		**06 19 06.5**	**-2.4**
TLY				*e*				06 19 08.5	
TLY				max				06 19 08.8	
	comp=E,304nm,0.5s								
TLY				*e*				06 19 36.1	
TLY				*e*Sg		**Sb**		**06 19 36.7**	**-1.1**
TLY				Smax				06 19 43.4	
	comp=E,428nm,0.2s								
TLY	**Talaya**	**2.34**	**126**	PN		**Pn**		**06 19 06.2**	**+1.1**
TLY								06 19 36.0	
IRK	**Irkutsk**	**2.40**	**109**	*e*Pg		**Pb**		**06 19 07.2**	**-2.6**
IRK				Pmax				06 19 14.6	
	comp=E,732nm,0.1s								
IRK				*e*				06 19 34.7	
IRK				*e*Sg		**Sb**		**06 19 38.5**	**-0.9**
IRK				Smax				06 19 38.8	
	comp=E,2μm,0.5s								
IRK	**Irkutsk**	**2.40**	**109**	*e*PN		**Pn**		**06 19 04.6**	**-1.3**
IRK				*e*				06 19 08.0	
IRK				*e*				06 19 38.5	
IRK				pmax	pmax				
	comp=Z,289nm,0.2s								
IRK				smax	smax				
	comp=E,2μm,0.5s								
IVK	**Ivanovka**	**2.67**	**117**	*e*Pn		**Pn**		**06 19 09.3**	**-0.4**
IVK				*e*Pg		**Pb**		**06 19 12.1**	**-2.4**
IVK				Pmax				06 19 13.4	
	comp=E,164nm,0.3s								
IVK				*e*Sg		**Sb**		**06 19 46.3**	**-1.0**
IVK				Smax				06 19 49.5	
	comp=E,721nm,0.3s								
IVK	**Ivanovka**	**2.67**	**117**	*e*PN		**Pb**		**06 19 11.9**	**-2.6**
IVK				*e*				06 19 46.0	
IVK				pmax	pmax				
	comp=Z,232nm,0.7s								
IVK				smax	smax				
	comp=N,715nm,0.4s								
TDJR	**Todzha**	**2.81**	**258**	*e*Pg		**Pn**		**06 19 13.6**	**+2.0**
TDJR				*e*Sg		**Sb**		**06 19 51.4**	**0.0**
TDJR	**Todzha**	**2.81**	**258**	PN		**Pb**		**06 19 14.7**	**-2.2**
TDJR								06 19 51.3	
LSTR	**Listvyanka**	**2.87**	**113**	*e*Pn		**Pn**		**06 19 11.4**	**-1.0**
LSTR				*e*Pg		**Pb**		**06 19 15.2**	**-2.6**
LSTR				*e*				06 19 18.1	
LSTR				*e*PgPg		**PbPb**		**06 19 20.2**	**-0.8**
LSTR				max				06 19 20.4	
	comp=N,52nm,0.2s								
LSTR				*e*				06 19 45.9	
LSTR				*e*Sg		**Sb**		**06 19 51.8**	**-1.2**
LSTR				Smax				06 19 56.5	
	comp=N,414nm,0.6s								
LSTR	**Listvyanka**	**2.87**	**113**	*e*PN		**Pn**		**06 19 11.4**	**-1.0**
LSTR				*e*				06 19 15.5	
LSTR				*e*S		**Sn**		**06 19 44.6**	**-2.3**
LSTR				*e*				06 19 51.1	
LSTR				pmax	pmax				
	comp=Z,65nm,0.5s								
LSTR				smax	smax				
	comp=N,413nm,0.6s								
BGT	**Bolshoye Golou**	**3.12**	**108**	*e*Pn		**Pn**		**06 19 14.8**	**-1.0**
BGT				*e*Pg		**Pb**		**06 19 19.6**	**-2.5**
BGT				Pmax				06 19 24.1	
	comp=N,98nm,0.4s								
BGT				*e*Sn		**Sn**		**06 19 49.5**	**-3.7**
BGT				*e*Sg		**Sb**		**06 19 59.5**	**-0.7**
BGT				Smax				06 20 03.4	
	comp=N,540nm,0.3s								
KNGR	**Kungurtug, Tuv**	**3.13**	**219**	*e*Pg		**Pn**		**06 19 19.2**	**+3.2**
KNGR				*e*				06 19 21.8	
KNGR				*e*PgPg		**PbPb**		**06 19 25.1**	**-0.3**
KNGR				*e*Sg		**Sb**		**06 20 02.9**	**+2.4**
KNGR				*e*SgSg		**Sg**		**06 20 07.3**	**+0.3**
KNGR	**Kungurtug, Tuv**	**3.13**	**219**	*i*PN		**Pn**		**06 19 19.0**	**+3.0**
ZAK	**Zakamensk**	**3.18**	**147**	*e*Pg		**Pb**		**06 19 21.8**	**-1.4**
ZAK				Pmax				06 19 24.1	
	comp=N,78nm,0.7s								
ZAK				*e*Sg		**Sb**		**06 20 04.5**	**+2.4**
ZAK				Smax				06 20 08.4	
	comp=N,249nm,0.6s								
ZAK	**Zakamensk**	**3.18**	**147**	*e*PN		**Pb**		**06 19 21.3**	**-1.9**
ZAK				*e*				06 20 03.8	
ZAK				pmax	pmax				
	comp=Z,51nm,0.4s								
ZAK				smax	smax				
	comp=N,220nm,0.4s								
TRG	**Tyrgan**	**3.50**	**93**	⇑*i*Pn		**Pn**		**06 19 20.2**	**-0.9**
TRG				*e*Pg		**Pb**		**06 19 26.3**	**-2.4**
TRG				Pmax				06 19 31.1	
	comp=N,57nm,0.2s								
TRG				*e*				06 20 01.5	
TRG				*e*Sg		**Sb**		**06 20 12.9**	**+1.6**
TRG				Smax				06 20 20.0	
	comp=N,532nm,0.3s								
TRG	**Tyrgan**	**3.50**	**93**	*e*PN		**Pn**		**06 19 20.0**	**-1.1**
TRG				*e*				06 19 26.6	
TRG				*e*S		**Sn**		**06 20 00.6**	**-2.0**
TRG				*e*				06 20 12.4	
TRG				pmax	pmax				
	comp=Z,62nm,0.3s								
TRG				smax	smax				
	comp=N,567nm,0.5s								
VBR	**Suhoy Ruchey**	**3.56**	**109**	*e*Pg		**Pb**		**06 19 28.1**	**-1.6**
VBR				*e*Sg		**Sb**		**06 20 15.2**	**+2.2**
STDB	**Stepnoy Dvoret**	**3.64**	**102**	*e*		**Pn**		**06 19 23.4**	**+0.4**
STDB				*e*Pg		**Pb**		**06 19 28.8**	**-2.2**
STDB				*e*				06 20 10.9	
STDB				*e*Sg		**Sb**		**06 20 16.7**	**+1.5**
STDB				*e*SgSg		**Sg**		**06 20 24.4**	**+1.0**
STDB	**Stepnoy Dvoret**	**3.64**	**102**	*e*PN		**Pn**		**06 19 23.0**	**0.0**
STDB				*e*				06 19 34.0	
STDB				*e*S		**Sn**		**06 20 05.0**	**-0.9**
KAB	**Kabansk**	**3.84**	**103**	*e*Pg		**Pb**		**06 19 33.2**	**-1.3**
KAB				Pmax				06 19 37.0	
	comp=N,193nm,0.3s								
KAB				*e*Sg		**Sb**		**06 20 22.8**	**+1.7**
KAB				Smax				06 20 39.1	
	comp=N,1μm,0.7s								
FFNB	**Fofonovo**	**3.91**	**103**	*e*Pn		**Pn**		**06 19 25.9**	**-0.8**
FFNB				*e*Pg		**Pb**		**06 19 33.9**	**-1.7**
FFNB				*e*PgPg		**PbPb**		**06 19 36.5**	**-2.2**
FFNB				*e*PgPg		**Sn**		**06 20 12.4**	**-0.2**
FFNB				*e*Sg		**Sb**		**06 20 24.8**	**+1.8**
KZLR	**Kyzyl**	**4.00**	**252**	*e*Pg		**Pb**		**06 19 35.5**	**-1.6**
KZLR				*e*Sg		**Sb**		**06 20 28.3**	**+2.8**
KZLR	**Kyzyl**	**4.00**	**252**	PN		**Pb**		**06 19 34.9**	**-2.2**
HRMR	**Khuramsha**	**4.17**	**108**	*e*Pn		**Pn**		**06 19 29.5**	**-0.7**
HRMR				*e*				06 19 31.6	
HRMR				*e*Pg		**Pb**		**06 19 38.5**	**-1.5**
HRMR				Pmax				06 19 45.1	
	comp=N,108nm,0.3s								
HRMR				*e*				06 20 17.8	
HRMR				*e*Sg		**Sb**		**06 20 32.7**	**+2.3**
HRMR				Smax				06 20 38.5	
	comp=N,517nm,0.7s								
MINR	**Mina**	**4.18**	**298**	*e*		**Pb**		**06 19 38.0**	**-2.3**
MINR				*e*Pg		Pg		06 19 40.0	-6.7
MINR				*e*Sg		**Sb**		**06 20 35.5**	**+4.7**
MINR	**Mina**	**4.18**	**298**	PN		**Pb**		**06 19 37.7**	**-2.6**
MINR								06 20 36.8	
OGRR	**Ongureny**	**4.24**	**80**	*e*Pn		**Pn**		**06 19 30.1**	**-1.1**
OGRR				*e*				06 19 33.1	
OGRR				*e*Pg		**Pb**		**06 19 38.6**	**-2.6**
OGRR				Pmax				06 19 43.9	
	comp=N,65nm,0.3s								
OGRR				*e*				06 20 18.2	
OGRR				*e*Sg		**Sb**		**06 20 34.5**	**+2.2**
OGRR				Smax				06 20 38.6	
	comp=N,1μm,0.5s								
OGRR	**Ongureny**	**4.24**	**80**	*e*PN		**Pn**		**06 19 29.6**	**-1.6**
OGRR				*e*				06 19 40.5	
OGRR				*e*S		**Sn**		**06 20 18.2**	**-2.5**
OGRR				*e*				06 20 34.8	
OGRR				pmax	pmax				
	comp=Z,65nm,0.4s								
OGRR				smax	smax				
	comp=E,1μm,0.5s								
UZR	**Uzur**	**4.31**	**84**	*e*Pn		**Pn**		**06 19 31.0**	**-1.2**
UZR				*e*Pg		**Pb**		**06 19 40.1**	**-2.3**
UZR				Pmax				06 19 48.7	
	comp=E,69nm,0.3s								
UZR				*e*				06 20 20.6	
UZR				*e*Sg		**Sb**		**06 20 36.9**	**+2.5**
UZR				*e*SgSg		**SbSb**		**06 20 39.6**	**+0.1**
UZR				max				06 20 40.2	
	comp=E,964nm,1.0s								
ARDR	**Aradan**	**4.37**	**266**	*e*Pg		**Pb**		**06 19 41.7**	**-1.7**
ARDR				*e*Sg		**Sb**		**06 20 38.8**	**+2.6**
ARDR	**Aradan**	**4.37**	**266**	PN		**Pb**		**06 19 43.4**	**0.0**
ARDR								06 20 40.0	
UUDB	**Ulan-Yde**	**4.50**	**103**	*e*Pn		**Pn**		**06 19 33.5**	**-1.2**
UUDB				*e*Pg		**Pb**		**06 19 44.0**	**-1.6**
UUDB				Pmax				06 19 50.8	
	comp=E,66nm,0.4s								
UUDB				*e*				06 20 29.1	
UUDB				*e*Sg		**Sb**		**06 20 42.7**	**+2.9**
UUDB				*e*				06 20 44.5	
UUDB				max				06 20 48.4	
	comp=E,403nm,0.8s								
KELR	**Kotokel**	**4.55**	**91**	*e*		**Sn**		**06 20 29.2**	**+0.9**
KELR				*e*Sg		**Sb**		**06 20 43.2**	**+1.9**
GORB	**Goryachinsk**	**4.65**	**88**	*e*		**Pn**		**06 19 36.8**	**0.0**
GORB				*e*				06 19 45.2	
GORB				*e*Pg		**Pb**		**06 19 47.3**	**-0.9**
GORB				*e*Sg		**Sb**		**06 20 47.8**	**+3.6**
MXMB	**Maximikha**	**4.91**	**85**	*e*		**Pn**		**06 19 40.9**	**+0.4**
MXMB				*e*Pg		**Pb**		**06 19 51.8**	**-0.9**
MXMB				*e*				06 19 57.9	
MXMB				*e*				06 20 37.8	
MXMB				*e*Sg		**Sb**		**06 20 55.4**	**+3.6**
GZLN	**Zheleznogorsk**	**5.15**	**313**	PN		**Pn**		**06 19 45.8**	**+2.2**
GZLN								06 19 55.2	
GZLN								06 21 05.4	
SHTK	**Zheleznogorsk-**	**5.19**	**312**	PN		**Pn**		**06 19 45.9**	**+1.6**
SHTK								06 19 57.6	
SHTK								06 21 05.4	
CERR	**Cheremushki**	**5.55**	**271**	PN		**Pb**		**06 20 04.8**	**+1.3**
CERR								06 21 17.9	
SYVR	**Suvo**	**5.67**	**80**	*e*		**Pn**		**06 19 50.4**	**-0.4**
SYVR				*e*Pg		**Pb**		**06 20 05.0**	**-0.5**
SYVR				Pmax				06 20 13.6	
	comp=E,37nm,0.8s								
SYVR				*e*				06 20 54.9	
SYVR				*e*Sg		**Sb**		**06 21 18.6**	**+5.2**
SYVR				Smax				06 21 28.3	
	comp=E,292nm,1.0s								
SYVR	**Suvo**	**5.67**	**80**	*e*PN		**Pn**		**06 19 50.1**	**-0.7**
SYVR				*e*				06 20 07.3	
SYVR				*e*S		**Sn**		**06 20 51.8**	**-4.1**
SYVR				*e*				06 21 18.9	
SYVR				pmax	pmax				
	comp=Z,38nm,0.8s								
SYVR				smax	smax				
	comp=E,301nm,1.0s								
DJO	**Djoy, Khakassi**	**5.67**	**271**	PN		**Pb**		**06 20 02.1**	**-3.5**
DJO								06 21 20.3	
VEH	**Verkhnyaya Baz**	**6.18**	**276**	PN		**Pb**		**06 20 14.1**	**-0.2**
VEH								06 21 35.9	
SONM	**Songino Array**	**6.43**	**142**	Pg		**Pb**		**06 20 20.6**	**+2.0**
	comp=E,1.9nm,0.3s,baz=333,slow=18,SNR=10								
SONM				Lg		Lg		06 21 45.6	
	comp=E,5.7nm,0.3s,baz=312,slow=25,SNR=12								
YLYR	**Ulyunkhan**	**6.49**	**70**	*e*		**Pn**		**06 20 01.7**	**-0.5**
YLYR				*e*				06 20 12.3	
YLYR				*e*Pg		**Pb**		**06 20 19.7**	**+0.1**
YLYR				Pmax				06 20 20.7	
	comp=E,30nm,0.6s								
YLYR				*e*				06 21 14.9	
YLYR				*e*Sg		**Sb**		**06 21 44.5**	**+7.3**
YLYR				Smax				06 22 01.2	
	comp=E,220nm,1.0s								
ULN	**Ulaanbaatar**	**6.66**	**139**	*e*Pg		**Pb**		**06 20 24.7**	**+2.3**
ULN				Pmax				06 20 30.5	
	comp=E,28nm,1.0s								
ULN				*e*Sg		**Sg**		**06 21 51.6**	**-8.5**
ULN				Smax				06 22 00.8	
	comp=E,78nm,1.0s								
ULN	**Ulaanbaatar**	**6.66**	**139**	*i*PN		**Pn**		**06 20 05.0**	**+0.5**
TEL	**Teeli**	**6.73**	**256**	PN		**Pb**		**06 20 24.8**	**+1.2**
TEL								06 21 54.0	
KMO	**Kumora**	**6.79**	**61**	*e*		**Pn**		**06 20 06.3**	**+0.1**
KMO				*e*Pg		**Pb**		**06 20 25.2**	**+0.5**
KMO				Pmax				06 20 33.8	
	comp=E,29nm,0.4s								
KMO				*e*				06 21 21.0	
KMO				*e*Sg		**Sb**		**06 21 53.3**	**+7.5**
KMO				Smax				06 22 12.8	
	comp=E,395nm,1.3s								
CIT	**Chita**	**7.98**	**92**	*e*Sg		Sg		06 22 30.4	-12
CIT				Smax				06 22 37.4	
	comp=E,78nm,0.3s								
UKT	**Uakit**	**8.01**	**67**	*e*Pn		**Pn**		**06 20 22.3**	**-0.6**
UKT				*e*Pg		**Pb**		**06 20 46.5**	**+1.2**
UKT				Pmax				06 20 55.6	
	comp=E,15nm,0.8s								
UKT				*e*Sg		Sb		06 22 30.2	+10
UKT				Smax				06 22 50.1	
	comp=E,158nm,1.4s								
KPC	**Khapcheranga**	**8.11**	**110**	*e*		Pn		06 19 48.0	-36
KPC				*e*Pg		**Pb**		**06 20 50.4**	**+3.2**
KPC				Pmax				06 20 56.6	
	comp=E,4.0nm,0.4s								
KPC				*e*Sg		Sg		06 22 35.3	-12
KPC				Smax				06 22 48.5	
	comp=E,46nm,1.4s								
SVKR	**Severomuysk**	**8.12**	**63**	*e*Sg		Sb		06 22 33.7	+10
SVKR				Smax				06 22 46.2	
	comp=E,453nm,1.2s								
BOD	**Bodaibo**	**8.98**	**53**	*e*Pn		**Pn**		**06 20 34.6**	**-1.5**
BOD				*e*Pg		Pg		06 21 04.9	-13
BOD				Pmax				06 21 10.2	
	comp=E,31nm,0.6s								
BOD				*e*Sn		**Sn**		**06 22 10.9**	**-6.3**
BOD				*e*Sg		Sg		06 23 00.1	-14
BOD				Smax				06 23 10.9	
	comp=E,185nm,1.2s								
NLYR	**Nelyaty**	**9.38**	**63**	*e*		**Pn**		**06 20 41.1**	**-0.5**
NLYR				*e*Pg				06 21 11.5	
NLYR				Pmax				06 21 13.0	
	comp=E,16nm,0.8s								
NLYR				*e*				06 22 34.4	
NLYR				*e*Sg		Sn		06 23 12.3	+45
NLYR				Smax				06 23 32.4	
	comp=E,132nm,1.1s								
ZALV	**Zalesovo Beam**	**9.44**	**282**	Pg		Pn		06 21 10.8	+28
	comp=E,0.2nm,0.3s,baz=93,slow=19,SNR=5.7								
ZALV				Lg		Lg		06 23 17.6	
	comp=E,0.3nm,0.3s,baz=98,slow=21,SNR=5.3								
TUP	**Tupik**	**11.54**	**76**	*e*Sg				06 24 19.7	
TUP				Smax				06 24 39.6	
	comp=E,97nm,1.0s								
HILR	**Hailar Array B**	**12.49**	**99**	Lg		Lg		06 25 01.4	
	baz=267,slow=21								
HIA	**Hailar**	**12.61**	**100**	*e*Sg				06 24 54.4	
HIA				Smax				06 24 57.3	
	comp=E,11nm,0.4s								
HIA	**Hailar**	**12.61**	**100**	*i*P		**Pn**		**06 21 27.1**	**+1.2**
MK31	**Makanchi Array**	**13.34**	**249**	*i*P		**Pn**		**06 21 38.0**	**+2.1**
MKAR	**Makanchi Array**	**13.34**	**249**	Pn		**Pn**		**06 21 39.3**	**+3.5**
	comp=E,0.1nm,0.3s,baz=53,slow=11,SNR=4.9								
MKAR				Lg		Lg		06 25 19.6	
	baz=64,slow=24,SNR=2.5								
	comp=E,0.7nm,0.8s								
MKAR				AML	AML				
MKAR	**Makanchi Array**	**13.34**	**249**	*e*P		**Pn**		**06 21 40.1**	**+4.2**
KURK	**Kurchatov**	**13.76**	**269**	P		**Pn**		**06 21 44.2**	**+2.7**
KURBB	**Kurchatov Arra**	**13.84**	**269**	Pn		**Pn**		**06 21 44.2**	**+1.6**
	comp=E,0.1nm,0.3s,baz=276,slow=40,SNR=4.1								
	comp=E,0.8nm,0.2s								
KURBB				AML	AML				
NRIK	**Noril'sk**	**17.40**	**344**	P		**Pn**		**06 22 29.2**	**0.0**
	comp=E,0.8nm,0.3s,baz=136,slow=11,SNR=8.9								
	comp=E,6.5nm,0.6s								
NRIK				AML	AML				
NRIK	**Noril'sk**	**17.40**	**344**	*i*P		**Pn**		**06 22 26.6**	**-2.6**
NRIK				pmax	pmax				
	comp=Z,6.0nm,0.6s								
BVAR	**Borovoye Array**	**18.09**	**282**	P		**Pn**		**06 22 37.8**	**0.0**
	baz=79,slow=15,SNR=7.1								
	comp=Z,2.2nm,0.7s								
BORK	**Borovoye**	**18.13**	**282**	*i*P		**Pn**		**06 22 37.9**	**-0.3**
BORK				pmax	pmax				
	comp=Z,3.0nm,0.9s								
KLR	**Kul'dur**	**19.84**	**89**	*i*P		**Pn**		**06 22 59.2**	**+0.3**
KLR				pmax	pmax				
	comp=Z,3.0nm,1.4s								
TIXI	**Tiksi**	**22.37**	**23**	P		**P**		**06 23 23.5**	**-0.9**
	comp=E,6.0nm,0.5s,baz=255,slow=7.3,SNR=14								
	comp=E,6.0nm,0.5s								
TIXI	**Tiksi**	**22.37**	**23**	*i*P		**P**		**06 23 23.2**	**-1.2**
TIXI				pmax	pmax				
	comp=Z,8.0nm,0.6s								
ARTI	**Arti**	**24

II - TACLOBAN CITY; ORMOC CITY; BARUGO TANAUAN DULAG JULITA PALO PALOMPON CAPOOCAN KANANGA CARIGARA AND JARO LEYTE; IROSIN SORSOGON; MASBATE CITY; . INTENSITY I - LILOAN CEBU; MANDAUE CITY; CEBU CITY; LAPU-LAPU CITY; PALAPAG NORTHERN SAMAR.

MOS ***15*** *06:35:12.3±0.9, 11°.82N×124°.30E, h21km, mb5.0/47, MS4.2/4, Error ellipse: s-maj=9.8km s-min=4.8km az=120.0*

NEIC ***15*** *06:35:14.7±1.0, 11°.83N±0°.07×124°.24E±0°.08, h21km±4km, mb4.9/86, Mww5.0/22, Error ellipse: s-maj=12.3km s-min=9.3km az=66.0*

NEIC ***15*** *06:35:15, 11°.82N×124°.24E, h23km*

GCMT ***15*** *06:35:16.0±0.2, 11°.80N±0°.01×124°.13E±0°.01, h23km, MW5.1/125, Moment Tensor Solution. s61,c77; s125,c202; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=0.11±.12; Mθθ4.93±.11; Mϕϕ-4.81±.10; Mrθ-1.93±.17; Mθϕ-1.08±.08; Mϕr-0.28±.16; Best double couple: M₀5.32400×10¹⁶ NP1:ϕs323.00000°,δ73.00000°, λ9.00000°. NP2:ϕs230.00000°,δ82.00000°,λ163.00000°. Principal axes: T 5.6680, Plg18.0000°, Azm185.0000°; N -0.6810, Plg71.0000°, Azm25.0000°; P -4.9800, Plg6.0000°, Azm277.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

BJI ***15*** *06:35:20.0, 11°.80N×124°.52E, h96km, mB5.1/21, mb4.5/54*

NEIC ***15*** *06:35:20.9, 11°.82N×124°.34E, h18km, Moment Tensor Solution. Duration: 1s7 Moment tensor: Scale 10¹⁶Nm; Mrr=0.57; Mθθ4.00; Mϕϕ-3.44; Mrθ-0.65; Mθϕ-0.76; Mϕr-1.55; Fault plane solution: M₀4.18000×10¹⁶ NP1: ϕs318.38000°,δ68.60000°,λ-12.84000°. NP2:ϕs53.13000°, δ78.06000°,λ-158.10000°. Principal axes: T 4.1367, Plg6.0000°, Azm184.0000°; N 0.0857, Plg65.0000°, Azm80.0000°; P -4.2223, Plg24.0000°, Azm277.0000°;*

GFZ ***15*** *06:35:21.3±0.2, 12°N±2°×12°4E±°, h84km, M4.9/38, mb4.9/38*

DJA ***15*** *06:35:43.4±0.9, 10°N±7°×12°4E±°, h121km±5km, M5.0/62, mB5.5/32, mb4.9/62, MLv5.5/2, Mw(mB)4.9/32, MwMwp4.7/4, Mwp5.0/4*

ISC 15 06:35:16.4±0.3, 11°.86N±0°.03×124°.24E±0°.04, h36km±2km, n484, σ1°69/429, mb4.8/157, MS4.2/86, 8C-2D, Leyte

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MMPH	**Masbate**	**0.78**	**310**	*i* P		**Pn**	**06 35 27.2**	**-3.7**
MMPH				*i* S		**Sn**	**06 35 37.9**	**-3.5**
PLP	**Palo**	**1.00**	**134**	*e*P		**Pn**	**06 35 32.6**	**-1.2**
PLP				*e*S		**Sn**	**06 35 48.3**	**+1.6**
LLP	**Lapu-Lapu**	**1.55**	**190**	*i* P		**Pn**	**06 35 39.1**	**-2.4**
LLP				*i* S		**Sn**	**06 36 01.7**	**+1.2**
IBAJ	**Ibajay, Aklan**	**2.03**	**269**	*i* P		**Pn**	**06 35 46.8**	**-1.2**
TBP	**Tagbilaran**	**2.19**	**190**	*i* P		**Pn**	**06 35 48.2**	**-2.0**
TBP				*i* S		**Sn**	**06 36 14.9**	**-1.1**
SCPH	**Surigao**	**2.40**	**149**	*i* P		**Pn**	**06 35 52.7**	**-0.4**
SCPH				*i* S		Sn	06 36 37.4	+16
JAP	**San Jose, Anti**	**2.51**	**244**	*e*P		**Pn**	**06 35 54.8**	**+0.1**
GQP	**Guinayangan**	**2.69**	**319**	*e*P		**Pn**	**06 35 56.6**	**-0.5**
GQP				*e*S		**Sn**	**06 36 32.9**	**+4.5**
SNPH	**Sibulan**	**2.69**	**202**	*i* P		**Pn**	**06 35 54.9**	**-2.3**
SNPH				*i* S		Sn	06 36 38.0	+10
DCPH	**Dipolog City**	**3.37**	**195**	*i* P		**Pn**	**06 36 04.6**	**-1.9**
DCPH				*i* S		**Sn**	**06 36 41.4**	**-3.8**
CGP	**Cagayan de Oro**	**3.41**	**172**	*e*P		**Pn**	**06 36 05.2**	**-1.9**
CGP				*e*S		Sn	06 37 00.6	+14
LQP	**Lukban**	**3.46**	**311**	*e*P		**Pn**	**06 36 07.4**	**-0.6**
TGY	**Tagaytay City**	**3.92**	**305**	*e*P		Pn	06 36 18.8	+4.6
PCPS	**Palayan City**	**4.16**	**312**	*e*P		Pn	06 36 27.4	+10
PCPS				*e*S		Sn	06 37 44.6	+40
BIPH	**Bislig**	**4.20**	**150**	*e*P		**Pn**	**06 36 17.8**	**-0.2**
BIPH				*i* S		**Sn**	**06 37 04.2**	**-1.7**
KCP	**Kidapawan**	**4.89**	**170**	*e*P		**Pn**	**06 36 30.2**	**+2.7**
DMPH	**Davao City--Mi**	**4.91**	**165**	*e*P		**Pn**	**06 36 29.1**	**+1.5**
DMPH				*i* S		Sn	06 38 19.7	+56
DAV	**Davao City (W)**	**4.94**	**164**	Pn		**Pn**	**06 36 29.5**	**+1.4**
	13nm,0.3s,baz=306,slow=23,SNR=3.6 127nm,0.5s							
DAV				AML		AML		
DAV	**Davao City (W)**	**4.94**	**164**	Pn		**Pn**	**06 36 26.5**	**-1.5**
DAV	**Davao City (W)**	**4.94**	**164**	P		Pn	06 36 35.3	+7.2
DAV				AML		AML		
DAV	**Davao City (W)**	**4.94**	**164**	P		**Pn**	**06 36 30.6**	**+2.5**
DAV	**Davao City (W)**	**4.94**	**164**	P		Pn	06 36 33.0	+4.9
GSPH	**General Santos**	**5.78**	**173**	*i* P		Pn	06 36 51.8	+12
GSPH				*i* S		Sn	06 37 31.7	-13
DDMP	**Don Marcelino,**	**5.90**	**166**	*e*P		Pn	06 36 46.5	+5.2
DDMP				*e*S		Sn	06 37 32.5	-15
SZP	**Santa**	**6.74**	**328**	Pn		**Pn**	**06 36 52.2**	**-0.6**
PIP	**Pasuquin**	**7.32**	**332**	*e*P		Pn	06 37 10.4	+10
PIP				*e*S		**Sn**	**06 38 19.4**	**-3.4**
KKM	**Kota Kinabalu**	**9.81**	**235**			**Pn**	**06 37 34.3**	**-0.7**
KKM	**Kota Kinabalu**	**9.81**	**235**	P		Pn	06 37 45.8	+11
KKM	**Kota Kinabalu**	**9.81**	**235**	P		Pn	06 37 40.1	+5.0
	comp=Z,35nm,1.3s							
MNI	**Manado**	**10.36**	**177**	P		**Pn**	**06 37 46.4**	**+3.8**
	comp=Z,7μmcomp=Z,122nm,0.8s							
GAMI	**Galela, Maluku**	**10.56**	**160**	P		Pn	06 37 52.7	+7.5
	comp=Z,109nm,1.1s							
KMSI	**Cibinong**	**11.21**	**181**	P		**Pn**	**06 37 57.3**	**+3.1**
	comp=Z,3μmcomp=Z,138nm,0.8s							
GTOI	**Gorontalo**	**11.21**	**186**	P		**Pn**	**06 37 51.8**	**-2.4**
	comp=Z,69nm,0.8s							
TOLI2	**Tolitoli**	**11.21**	**198**			**Pn**	**06 37 52.8**	**-1.4**
TOLI2	**Tolitoli**	**11.21**	**198**	P		**Pn**	**06 37 55.9**	**+1.7**
	comp=Z,24nm,0.9s							
TNTI	**Ternate**	**11.44**	**164**			**Pn**	**06 37 56.2**	**-1.2**
TNTI	**Ternate**	**11.44**	**164**	P		**Pn**	**06 37 56.9**	**-0.4**
TPUB	**Ta-pu**	**11.89**	**344**	Pn		Pn	06 38 09.3	+5.9
SSLB	**Suanglung**	**12.27**	**346**	Pn		Pn	06 38 14.2	+5.5
APSI	**Ampana**	**12.94**	**192**	P		**Pn**	**06 38 19.9**	**+2.0**
	comp=Z,1μmcomp=Z,115nm,1.0s							
YHNB	**Yeheng**	**13.03**	**348**	Pn		**P**	**06 38 27.0**	**-2.0**
SANI	**Sanana**	**13.92**	**173**	P		**Pn**	**06 38 34.3**	**+3.0**
SANI	**Sanana**	**13.92**	**173**	P		**Pn**	**06 38 31.2**	**-0.1**
	comp=Z,170nm,1.2s							
SIJI	**Sorong**	**14.44**	**151**	LR		LR	06 44 11.8	
	comp=Z,1μm,21.3s,baz=276,slow=38							
NLAI	**Namlea**	**15.26**	**169**	P		**Pn**	**06 38 46.3**	**-3.0**
JOW	**Kunigami**	**15.37**	**14**	LR		LR	06 44 44.6	
	comp=Z,314nm,18.9s,baz=192,slow=37							
MMSI	**Mamuju**	**15.39**	**200**	P		**Pn**	**06 38 52.3**	**+1.2**
	comp=Z,712nmcomp=Z,37nm,0.6s							
DLV	**Lat**	**15.42**	**272**	P		**P**	**06 38 55.0**	**-0.8**
	comp=Z,21nm,1.3s							
TTSI	**Tana Toraja**	**15.44**	**197**	P		**Pn**	**06 38 52.7**	**+1.0**
	comp=Z,121nm,0.9s							
MSAI	**Masohi**	**15.81**	**163**	P		**P**	**06 39 00.6**	**+0.8**
SPSI	**Sidrap Palu**	**16.34**	**196**	P		**Pn**	**06 39 04.0**	**+0.9**
	comp=Z,1μmcomp=Z,96nm,0.8s							
FAKI	**Fak Fak**	**16.70**	**151**			**P**	**06 39 09.6**	**-0.1**
FAKI	**Fak Fak**	**16.70**	**151**	P		**P**	**06 39 11.2**	**+1.4**
	comp=Z,34nm,1.0s							
FAKI	**Fak Fak**	**16.70**	**151**	P		**Pn**	**06 39 06.8**	**-0.9**
	comp=Z,33nm,1.0s							
BNDI	**Bandanaira**	**17.22**	**161**	P		**P**	**06 39 19.2**	**+3.7**
BNDI	**Bandanaira**	**17.22**	**161**	P		**P**	**06 39 16.1**	**+0.6**
	comp=Z,383nm,1.4s							
STKI	**Sintang**	**17.26**	**228**	P		P	06 39 24.9	+8.9
KAPI	**Kappang**	**17.35**	**195**	P		**Pn**	**06 39 15.9**	**+0.1**
	comp=Z,2.9nm,0.3s,baz=16,slow=6.5,SNR=19							
KAPI				LR		LR	06 46 23.5	
	comp=Z,1μm,18.9s,baz=17,slow=39 comp=Z,47nm,0.8s							
KAPI				AML		AML		
KAPI	**Kappang**	**17.35**	**195**			**P**	**06 39 17.4**	**+0.5**
KAPI	**Kappang**	**17.35**	**195**	P		**P**	**06 39 16.8**	**-0.1**
	comp=Z,49nm,1.1s							
KAPI	**Kappang**	**17.35**	**195**	P		**P**	**06 39 17.4**	**+0.5**
	comp=Z,94nm,1.1s							
BAKI	**Biak**	**17.52**	**137**	P		**P**	**06 39 25.7**	**+6.8**
BKSI	**Bulukumba**	**17.55**	**194**	P		**P**	**06 39 19.3**	**+0.1**
	comp=Z,27nm,0.8s							
BBKI	**Banjar Baru**	**17.86**	**212**	P		**P**	**06 39 24.6**	**+2.0**
	comp=Z,5μmcomp=Z,41nm,0.8s							
SSE	**Sheshan**	**19.35**	**352**	P		**Pn**	**06 39 41.5**	**+1.3**
SSE				S		**Sn**	**06 43 19.0**	**+2.8**
SSE				pmax		pmax		
	comp=Z,13nm,1.3s							
SSE				pmax		pmax		
	comp=Z,150nm,5.4s							
SSE				L		L		
	comp=Z,370nm,13.0s							
SSE				L		L		
	comp=Z,230nm,13.2s							
SMPI	**Sarmi**	**19.90**	**133**	P		**Pn**	**06 39 47.2**	**+0.4**
GUMO	**Guam**	**20.19**	**83**	LR		LR	06 46 36.1	
	comp=Z,86nm,21.6s,baz=252,slow=34							
GUMO	**Guam**	**20.19**	**83**	P		**P**	**06 39 48.6**	**+0.4**
GUMO				pmax		pmax		
	comp=Z,320nm,1.5s							
GUMO	**Guam**	**20.19**	**83**	P		**P**	**06 39 48.6**	**+0.4**
JSU	**Suzuyama**	**20.38**	**15**	P		Pn	06 39 52.9	+0.6
JSU				IAmb		IAmb	06 46 02.3	
	comp=Z,74nm,1.3s							
EDFI	**Ende, Flores**	**20.63**	**187**	P		Pn	06 39 55.2	-0.2
	comp=Z,43nm,0.8s							
LBFI	**Labuhan Bajo,**	**20.66**	**192**	P		Pn	06 39 56.9	+1.2
NJ2	**Nanjing**	**20.70**	**347**	*e*P		Pn	06 39 56.8	+0.8
NJ2				pmax		pmax		
	comp=Z,6.0nm,0.6s							
WHN	**Wuhan**	**20.73**	**335**	P		Pn	06 39 58.3	+1.9
WHN				pP		sP	06 40 12.4	+4.6
WHN				pmax		pmax		
	comp=Z,310nm,1.7s							
WHN				L		L		
	comp=Z,2μm,15.5s							
DBNI	**Kabupaten Domp**	**21.07**	**197**	P		**P**	**06 39 58.4**	**+0.8**
	comp=Z,1μmcomp=Z,50nm,0.9s							
GENI	**Genyem**	**21.37**	**131**	P		**P**	**06 40 03.5**	**+2.6**
GENI	**Genyem**	**21.37**	**131**	P		**P**	**06 39 58.2**	**-2.7**
	comp=Z,148nm,0.8s							
KMMI	**Kalianget**	**21.38**	**209**	P		**P**	**06 40 04.4**	**+3.4**
	comp=Z,104nm,1.3s							
SOEI	**Soe**	**21.47**	**180**			**P**	**06 40 01.1**	**-1.0**
SOEI	**Soe**	**21.47**	**180**	P		**P**	**06 40 04.8**	**+2.7**
	comp=Z,2μmcomp=Z,99nm,0.9s							
SOEI	**Soe**	**21.47**	**180**	P		**P**	**06 40 02.8**	**+0.7**
	comp=Z,102nm,0.9s							
PLAI	**Plampang**	**21.53**	**198**	P		**P**	**06 40 04.4**	**+1.8**
	comp=Z,121nm,0.8s							
PLAI	**Plampang**	**21.53**	**198**	P		**P**	**06 40 02.5**	**-0.1**
	comp=Z,122nm,0.8s							
JAY	**Jayapura**	**21.72**	**130**	P		**P**	**06 40 05.3**	**+0.7**
	comp=Z,21nm,0.7s,baz=250,slow=3.1,SNR=5.8							
JAY				LR		LR	06 46 41.9	
	comp=Z,1μm,21.9s,baz=334,slow=32 comp=Z,21nm,0.7s							
TWSI	**Taliwang, Sumb**	**21.73**	**200**	P		**P**	**06 40 07.2**	**+2.5**
	comp=Z,59nm,1.0s							
SRBI	**Singaraja**	**21.75**	**205**	P		P	06 40 18.8	+14
KHKI	**Kahang-Kahang**	**21.85**	**204**	P		P	06 40 20.7	+15
BATI	**Baumata**	**21.93**	**182**	P		**P**	**06 40 06.7**	**-0.2**
	comp=Z,40nm,0.7s,baz=313,slow=1.5,SNR=4.6							
BATI				LR		LR	06 51 28.1	
	comp=Z,813nm,18.8s,baz=356,slow=45 comp=Z,40nm,0.7s							
BATI	**Baumata**	**21.93**	**182**	P		P	06 40 18.3	+11
TPI	**Tanjungpandan**	**21.97**	**230**	P		**P**	**06 40 12.8**	**+5.4**
	comp=Z,708nmcomp=Z,50nm,1.0s							
JNU	**Nakatsue**	**22.02**	**15**	P		**P**	**06 40 08.9**	**+1.1**
	comp=Z,12nm,1.1s,baz=75,slow=13,SNR=4.6							
JNU				LR		LR	06 47 26.6	
	comp=Z,409nm,21.6s,baz=199,slow=33 comp=Z,12nm,1.1s							
JAGI	**Jajag, Banyuwa**	**22.55**	**207**			**P**	**06 40 12.2**	**-1.4**
JAGI	**Jajag, Banyuwa**	**22.55**	**207**	P		**P**	**06 40 16.3**	**+2.8**
	comp=Z,136nm,1.3s							
JAGI	**Jajag, Banyuwa**	**22.55**	**207**	P		**P**	**06 40 13.9**	**+0.4**
	comp=Z,136nm,1.3s							
JCJ	**Chichijima**	**22.67**	**45**	LR		LR	06 47 45.5	
	comp=Z,247nm,21.2s,baz=15,slow=33							
NGJI	**Ngawi**	**22.94**	**214**	P		P	06 40 27.0	+9.3
SNJI	**Sawahan-Nganju**	**23.12**	**213**	P		**P**	**06 40 22.8**	**+3.1**
	comp=Z,81nm,1.6s							
JMN	**Monobe**	**23.48**	**20**	P		**P**	**06 40 23.9**	**+0.9**
JMN				IAmb		IAmb	06 40 47.6	
	comp=Z,42nm,1.0s							
JMN	**Monobe**	**23.48**	**20**	P		**P**	**06 40 23.0**	**0.0**
	comp=Z,49nm,1.2s							
WOJI	**Wonogiri, Jawa**	**23.63**	**215**	P		P	06 40 31.5	+7.1
	comp=Z,113nm,1.0s							
IPM	**Ipoh**	**24.11**	**254**			**P**	**06 40 28.1**	**-0.9**
IPM				IAmb		IAmb	06 40 34.8	
	comp=Z,70nm,1.4s							
IPM	**Ipoh**	**24.11**	**254**	P		**P**	**06 40 32.8**	**+3.8**
IPM	**Ipoh**	**24.11**	**254**	P		**P**	**06 40 28.1**	**-0.9**
	comp=Z,36nm,1.0s							
KULM	**Kulim**	**24.21**	**256**	P		P	06 40 46.8	+17
	comp=Z,27nm,1.0s							
KULM	**Kulim**	**24.21**	**256**	P		**P**	**06 40 29.3**	**-0.6**
	comp=Z,27nm,1.0s							
KMI2	**Kunming**	**24.25**	**306**	P		**P**	**06 40 35.3**	**+4.9**
KMI2				pmax		pmax		
	comp=Z,24nm,1.7s							
KMI2				L		L		
	comp=Z,570nm,19.8s							
KPJI	**Karang Pucung**	**24.40**	**219**	P		P	06 40 40.3	+8.7
	comp=Z,49nm,1.7s							
TJN	**Taejon**	**24.58**	**6**	*i* P		**P**	**06 40 33.6**	**+0.6**
TJN	**Taejon**	**24.58**	**6**	P		**P**	**06 40 33.7**	**+0.6**
LYN	**LuoYang**	**25.01**	**337**	P		**P**	**06 40 38.5**	**+1.6**
LYN				S		**S**	**06 44 59.4**	**+0.8**
LYN				sS		sS	06 45 25.9	+11
LYN				pmax		pmax		
	comp=Z,27nm,1.0s							
LYN				L		L		
	comp=Z,1μm,18.6s							
LYN				L		L		
	comp=Z,1μm,17.2s							
LYN				L		L		
	comp=Z,980nm,22.7s							
TIA	**Tai'an**	**25.09**	**346**	P		**P**	**06 40 37.8**	**+0.1**
TIA				pP		sP	06 40 59.9	+7.8
TIA				pmax		pmax		
	comp=Z,19nm,1.3s							
TIA				pmax		pmax		
	comp=Z,400nm,5.0s							
TIA				L		L		
	comp=Z,540nm,20.6s							
TIA				L		L		
	comp=Z,730nm,22.3s							
TIA				L		L		
	comp=Z,660nm,16.5s							
CMAR	**Chiang Mai Arr**	**25.27**	**288**	P		**P**	**06 40 39.2**	**-0.4**
	comp=Z,1.2nm,0.4s,baz=94,slow=8.3,SNR=6.9							
CMAR				LR		LR	06 51 57.3	
	comp=Z,258nm,18.1s,baz=105,slow=40 comp=Z,1.2nm,0.4s							
CMAR	**Chiang Mai Arr**	**25.27**	**288**	*i* P		**P**	**06 40 40.4**	**+0.9**
CMAR				pmax		pmax		
	comp=Z,1.0nm,0.4s							
CMAR	**Chiang Mai Arr**	**25.27**	**288**	P		**P**	**06 40 39.5**	**0.0**
BBJI	**Bungbulang**	**25.31**	**221**			**P**	**06 40 39.2**	**-0.7**
BBJI	**Bungbulang**	**25.31**	**221**	P		P	06 40 49.9	+10
	comp=Z,64nm,1.2s							
BBJI	**Bungbulang**	**25.31**	**221**	P		**P**	**06 40 39.7**	**-0.3**
	comp=Z,63nm,1.2s							
CHTO	**Chiang Mai**	**25.34**	**289**	P		**P**	**06 40 40.0**	**-0.2**
CHTO				pmax		pmax		
	comp=Z,35nm,1.9s							
CHTO	**Chiang Mai**	**25.34**	**289**	P		**P**	**06 40 40.0**	**-0.2**
MTN	**Manton Dam**	**25.48**	**164**	P		**P**	**06 40 41.0**	**-0.4**
	comp=Z,22nm,1.0s							
MTN	**Manton Dam**	**25.48**	**164**	P		**P**	**06 40 40.6**	**-0.7**
	comp=Z,15nm,0.8s							
MTN	**Manton Dam**	**25.48**	**164**	P		**P**	**06 40 40.4**	**-0.9**
MTN				IAmb		IAmb	06 41 10.3	
	comp=Z,21nm,1.0s							
JHJ	**Hachijo jima 2**	**25.51**	**31**	LR		LR	06 50 39.4	
	comp=Z,49nm,18.7s,baz=223,slow=36							
KSAR	**Wonju Array Be**	**25.69**	**7**	P		**P**	**06 40 43.5**	**+0.4**
KSAR	**Wonju Array Be**	**25.69**	**7**	P		**P**	**06 40 43.5**	**+0.4**
KSRS	**Korea Array**	**25.70**	**7**	P		**P**	**06 40 43.5**	**+0.3**
	comp=Z,5.5nm,0.9s,baz=186,slow=10,SNR=14							
KSRS				LR		LR	06 50 28.4	
	comp=Z,317nm,20.6s,baz=200,slow=36 comp=Z,5.5nm,0.9s							
KDU	**Kakadu**	**25.72**	**161**	P		**P**	**06 40 43.0**	**-0.5**
	comp=Z,44nm,0.9s							
KDU	**Kakadu**	**25.72**	**161**	P		**P**	**06 40 41.3**	**-2.2**
KDU	**Kakadu**	**25.72**	**161**	P		**P**	**06 40 42.9**	**-0.7**
	comp=Z,44nm,0.9s							
MDSI	**Maura Dua**	**25.73**	**232**	P		**P**	**06 40 49.2**	**+5.5**
	comp=Z,25nm,1.1s							
KS19	**Wonju Array Si**	**25.74**	**7**	P		**P**	**06 40 43.9**	**+0.3**
INU	**Inuyama**	**26.10**	**24**	P		**P**	**06 40 47.2**	**+0.4**
INU				IAmb		IAmb	06 41 04.5	
	comp=Z,29nm,1.2s							
XAN	**Xi'an**	**26.14**	**330**	P		**P**	**06 40 46.8**	**-0.5**
XAN				S		**S**	**06 45 12.9**	**-3.8**
XAN				pmax		pmax		
	comp=Z,23nm,1.2s							
XAN				pmax		pmax		
	comp=Z,200nm,4.5s							
XAN				L		L		
	comp=Z,2μm,23.0s							
XAN				L		L		
	comp=Z,2μm,22.7s							
XAN				L		L		
	comp=Z,1μm,19.4s							
JGF	**Kuroka**	**26.45**	**25**	P		**P**	**06 40 51.2**	**+1.1**
PSI	**Prapat**	**26.65**	**252**	P		**P**	**06 40 51.4**	**-0.8**
PSI				pmax		pmax		
	comp=Z,20nm,1.0s							
PSI	**Prapat**	**26.65**	**252**	P		**P**	**06 40 53.5**	**+1.3**
PPI	**Padang Panjang**	**26.65**	**244**	P		**P**	**06 40 53.1**	**+1.0**
RPSI	**Rantau Prapat**	**26.69**	**252**	P		**P**	**06 40 51.4**	**-1.0**
RPSI	**Rantau Prapat**	**26.69**	**252**	P		**P**	**06 40 51.9**	**-0.5**
	comp=Z,22nm,1.4s							
CD2	**Chengdu**	**26.81**	**318**	P		**P**	**06 40 57.8**	**+4.4**
CD2				S		**S**	**06 45 24.9**	**-2.4**
CD2				pmax		pmax		
	comp=Z,30nm,0.9s							
CD2				L		L		
	comp=Z,2μm,16.5s							
CD2				L		L		
	comp=Z,2μm,13.3s							
CD2				L		L		
	comp=Z,850nm,14.7s							
PDSI	**Padang**	**26.81**	**243**	P		P	06 41 07.0	+13
	comp=Z,6μmcomp=Z,19nm,1.1s							
HNS	**HongShan**	**26.84**	**343**	||P	**P**	**06 40 53.9**	**+0.5**
HNS				S		**S**	**06 45 28.8**	**+1.3**
HNS				pmax		pmax		
	comp=Z,13nm,1.4s							
HNS				L		L		
	comp=Z,470nm,20.1s							
HNS				L		L		
	comp=Z,620nm,15.7s							
HNS				L		L		
	comp=Z,620nm,17.5s							
DL2	**Dalian**	**27.04**	**356**	P		P	06 40 41.8	-13
DL2				pP		pP	06 40 53.4	-12
DL2				S		**S**	**06 45 21.8**	**-8.9**
DL2				pmax		pmax		
	comp=Z,9.0nm,0.7s							
DL2				pmax		pmax		
	comp=Z,150nm,4.8s							
DL2				LR		LR		
	comp=N,490nm,21.8s							
DL2				LR		LR		
	comp=E,740nm,14.7s							
DL2				LR		LR		
	comp=Z,670nm,17.5s							
KCSI	**Kotacane, Aceh**	**27.48**	**255**	P		**P**	**06 41 02.4**	**+2.8**
MJAR	**Matsushiro Arr**	**27.61**	**25**	P		**P**	**06 40 59.2**	**-1.3**
	comp=Z,0.9nm,0.4s,baz=195,slow=8.2,SNR=5.6							
MJAR				LR		LR	06 51 51.2	
	comp=Z,419nm,18.8s,baz=212,slow=36 comp=Z,0.9nm,0.4s							
MJAR	**Matsushiro Arr**	**27.61**	**25**	P		**P**	**06 41 01.1**	**+0.6**
KNRA	**Kununurra**	**27.72**	**171**	P		**P**	**06 41 04.7**	**+3.1**
KNRA	**Kununurra**	**27.72**	**171**	P		**P**	**06 41 03.1**	**+1.6**
	comp=Z,17nm,0.9s							
KNRA	**Kununurra**	**27.72**	**171**			**P**	**06 41 00.7**	**-0.8**
KNRA				IAmb		IAmb	06 41 12.3	
	comp=Z,25nm,1.1s							
BJI2	**Beijing**	**28.94**	**347**	P		**P**	**06 41 12.8**	**+0.5**
BJI2				pP		sP	06 41 34.4	+7.6
BJI2				sP		pP	06 41 44.9	+22
BJI2				S		**S**	**06 46 01.4**	**+0.7**
BJI2				pmax		pmax		
	comp=Z,8.0nm,1.2s							
BJI2				pmax		pmax		
	comp=Z,100nm,5.8s							
BJI2				L		L		
	comp=Z,210nm,14.1s							
BJI2				L		L		
	comp=Z,350nm,13.9s							
BJI2				L		L		
	comp=Z,360nm,16.5s							
BJT	**Baijiatuau**	**28.94**	**347**	P		**P**	**06 41 12.6**	**+0.3**
	comp=Z,9.9nm,1.2s							
FITZ	**Fitzroy Crossi**	**29.80**	**177**	P		**P**	**06 41 22.9**	**+2.9**
FITZ	**Fitzroy Crossi**	**29.80**	**177**	LR		LR	06 55 44.4	
	comp=Z,254nm,19.1s,baz=10.0,slow=41							
FITZ	**Fitzroy Crossi**	**29.80**	**177**	P		**P**	**06 41 19.1**	**-0.9**
FITZ	**Fitzroy Crossi**	**29.80**	**177**	P		**P**	**06 41 18.8**	**-1.2**
	comp=Z,2.8nm,0.9s							
LZDM	**Lanzhou Array**	**30.34**	**326**	LR		LR	06 53 51.9	
	comp=Z,486nm,20.4s,baz=120,slow=37							
LZH	**Lanzhou**	**30.35**	**326**	*e*P		**P**	**06 41 26.0**	**+1.0**
LZH				sP		sP	06 41 57.8	+18
LZH				pmax		pmax		
	comp=Z,22nm,0.9s							
LZH				L		L		
	comp=Z,3μm,18.6s							
LZH				L		L		
	comp=Z,2μm,18.7s							
LZH				L		L		
	comp=Z,850nm,16.8s							
HHC	**Hu-ho-hao-te**	**30.96**	**341**	*e*P		**P**	**06 41 34.4**	**+4.1**
HHC				pmax		pmax		
	comp=Z,11nm,0.5s							
HHC				pmax		pmax		
	comp=Z,75nm,4.6s							
HHC				L		L		
	comp=Z,170nm,18.6s							
HHC				L		L		
	comp=Z,450nm,18.4s							
HHC				L		L		
	comp=

GTA2 L L
comp=Z,1μm,20.9s
GTA2 L L
comp=Z,760nm,18.7s
LSA Lhasa 35.49 305 P **P** **06 42 10.4 0.0**
LSA pmax pmax
comp=Z,25nm,1.5s
LSA Lhasa 35.49 305 P **P** **06 42 10.4 0.0**
LSA IAmb IAmb 06 42 25.6
comp=Z,25nm,1.5s
QIS Mount Isa 35.58 155 P **P** **06 42 09.6 -1.0**
comp=Z,36nm,1.0s
QIS Mount Isa 35.58 155 P **P** **06 42 10.5 -0.1**
comp=Z,36nm,1.0s
QIS Mount Isa 35.58 155 P **P** **06 42 09.4 -1.2**
comp=Z,36nm,1.0s
QIS Mount Isa 35.58 155 P **P** **06 42 09.5 -1.0**
comp=Z,36nm,1.0s
MTSU Mount Surprise 35.79 146 P **P** **06 42 11.5 -0.9**
comp=Z,9.7nm,0.7s
ASAJ Asahikawa 35.82 23 LR LR 06 54 47.0
comp=Z,154nm,21.4s,baz=242,slow=33
GOMU GeErMu 35.93 317 P **P** **06 42 15.9 +1.9**
GOMU S **S** **06 47 47.9 -2.4**
GOMU pmax pmax
comp=Z,5.0nm,1.3s
GOMU L L
comp=Z,370nm,15.3s
GOMU L L
comp=Z,400nm,15.3s
GOMU L L
comp=Z,550nm,15.1s
AS15 Alice Springs 36.52 165 P **P** **06 42 18.4 -0.2**
comp=Z,24nm,0.8s
AS15 Alice Springs 36.52 165 P **P** **06 42 16.7 -2.0**
comp=Z,24nm,0.8s
AS15 Alice Springs 36.52 165 P **P** **06 42 18.2 -0.4**
comp=Z,24nm,0.8s
AS31 Alice Springs 36.55 165 P **P** **06 42 18.6 -0.2**
comp=Z,8.3nm,0.7s
AS31 Alice Springs 36.55 165 P **P** **06 42 17.8 -1.1**
comp=Z,8.3nm,0.7s
AS31 Alice Springs 36.55 165 P **P** **06 42 18.5 -0.4**
comp=Z,8.3nm,0.7s
AS31 Alice Springs 36.55 165 **P** **06 42 18.0 -0.9**
ASAR Alice Springs 36.55 165 P **P** **06 42 18.4 -0.4**
comp=Z,9.1nm,0.7s,baz=344,slow=6.4,SNR=93
ASAR PcP **PcP** **06 44 43.6 +1.6**
comp=Z,1.9nm,0.8s,baz=342,slow=3.2,SNR=1.0
ASAR LR LR 06 58 34.7
comp=Z,309nm,20.4s,baz=324,slow=38
comp=Z,9.1nm,0.7s
ASAR Alice Springs 36.55 165 P **P** **06 42 18.2 -0.7**
ASAR Alice Springs 36.55 165 **P** **06 42 18.2 -0.7**
AS17 Alice Springs 36.57 165 P **P** **06 42 18.9 -0.2**
comp=Z,19nm,0.8s
AS17 Alice Springs 36.57 165 P **P** **06 42 18.0 -1.1**
comp=Z,19nm,0.8s
AS17 Alice Springs 36.57 165 P **P** **06 42 17.4 -1.6**
comp=Z,19nm,0.8s
AS09 Alice Springs 36.59 165 P **P** **06 42 19.0 -0.2**
comp=Z,36nm,0.8s
AS09 Alice Springs 36.59 165 P **P** **06 42 18.1 -1.1**
comp=Z,36nm,0.8s
AS09 Alice Springs 36.59 165 P **P** **06 42 18.9 -0.4**
comp=Z,36nm,0.8s
WRKA Warakurna 36.88 174 P **P** **06 42 21.4 -0.3**
comp=Z,9.8nm,0.8s
WRKA Warakurna 36.88 174 P **P** **06 42 20.6 -1.1**
comp=Z,9.8nm,0.8s
WRKA Warakurna 36.88 174 P **P** **06 42 21.8 +0.1**
comp=Z,9.8nm,0.8s
HIA Hailar 37.48 355 P **P** **06 42 26.0 -0.6**
HIA pmax pmax
comp=Z,16nm,1.1s
HIA Hailar 37.48 355 P **P** **06 42 25.9 -0.6**
HIA IAmb IAmb 06 42 34.2
comp=Z,16nm,1.1s
HILR Hailar Array B 37.77 355 LR LR 06 58 40.3
comp=Z,204nm,21.4s,baz=200,slow=37
KLR Kul'dur 37.78 8 *ce*P **P** **06 42 28.9 -0.1**
KLR pmax pmax
comp=Z,15nm,1.5s
HEH HeiHe 38.37 3 *e*P **P** **06 42 33.8 -0.2**
HEH L L
comp=Z,340nm,12.8s
HEH L L
comp=Z,500nm,12.9s
HEH L L
comp=Z,320nm,13.1s
CTA Charters Tower 38.43 145 P **P** **06 42 36.3 +1.4**
comp=Z,3.5nm,0.9s
CTA Charters Tower 38.43 145 P **P** **06 42 35.9 +1.0**
comp=Z,3.5nm,0.9s
CTAO Charters Tower 38.43 145 P **P** **06 42 34.1 -0.8**
CTAO pmax pmax
comp=Z,6.0nm,0.9s
CTAO Charters Tower 38.43 145 P **P** **06 42 34.1 -0.8**
CTAO Charters Tower 38.43 145 P **P** **06 42 34.2 -0.6**
comp=Z,8.6nm,0.9s
EVN Everest 38.47 300 P **P** **06 42 35.8 -0.1**
EVN Everest 38.47 300 P **P** **06 42 37.2 +1.3**
comp=Z,10nm,1.1s
MEEK Meekatharra 38.65 188 P P 06 42 31.6 -5.0
MEEK Meekatharra 38.65 188 P **P** **06 42 35.8 -0.9**
comp=Z,32nm,1.0s
MEEK Meekatharra 38.65 188 P **P** **06 42 32.3 -4.3**
comp=Z,32nm,1.0s
ULN Ulaanbaatar 38.68 341 *ce*P **P** **06 42 37.0 +0.2**
ULN pmax pmax
comp=Z,17nm,1.5s
ULN Ulaanbaatar 38.68 341 **P** **06 42 37.1 +0.3**
ULN Ulaanbaatar 38.68 341 P **P** **06 42 37.4 +0.6**
comp=Z,12nm,1.0s
SONM Songino Array 38.86 341 P **P** **06 42 38.5 +0.2**
comp=Z,9.4nm,1.3s,baz=162,slow=10,SNR=12
SONM LR LR 06 59 16.5
comp=Z,221nm,21.4s,baz=140,slow=37
comp=Z,9.4nm,1.3s
SONM Songino Array 38.86 341 P **P** **06 42 38.2 -0.1**
SONM pmax pmax
comp=Z,10.0nm,1.4s
SONM Songino Array 38.86 341 P **P** **06 42 38.2 -0.1**
HNR Honiara 41.31 119 LR LR 06 58 11.0
comp=Z,126nm,20.2s,baz=19,slow=33
MORW Morawa 41.45 191 P **P** **06 42 58.9 -0.9**
comp=Z,36nm,1.0s
MORW Morawa 41.45 191 P **P** **06 42 58.0 -1.7**
comp=Z,36nm,1.0s
MORW Morawa 41.45 191 P **P** **06 42 58.7 -1.1**
comp=Z,36nm,1.0s
MORW Morawa 41.45 191 **P** **06 42 58.8 -1.1**
MORW IAmb IAmb 06 43 07.6
comp=Z,33nm,1.1s
MORW Morawa 41.45 191 P **P** **06 42 58.9 -0.9**
comp=Z,36nm,1.0s
ZEA Zeya 41.84 3 *e*P P 06 43 17.8 +15
ZEA pmax pmax
comp=Z,10.0nm,1.6s
ZEA MLR MLR
comp=N,200nm,16.0s
ZEA MLR MLR
comp=Z,200nm,16.0s
INKA Innaminka 42.49 158 P **P** **06 43 08.0 -0.3**
INKA IAmb IAmb 06 43 15.4
comp=Z,21nm,0.8s
FORT Forrest 42.55 175 P **P** **06 43 07.7 -1.0**
FORT IAmb IAmb 06 43 26.9
comp=Z,18nm,0.7s
QLP Quilpie 42.87 153 P P 06 43 16.7 +5.3
QLP Quilpie 42.87 153 P **P** **06 43 07.5 -3.8**
QLP Quilpie 42.87 153 P **P** **06 43 10.6 -0.7**
comp=Z,29nm,0.8s
TLY Talaya 43.09 341 LR LR 07 03 07.9
comp=Z,191nm,18.4s,baz=144,slow=39
TLY Talaya 43.09 341 *i* P **P** **06 43 14.3 +1.4**
TLY pmax pmax
comp=Z,9.0nm,0.9s
TLY Talaya 43.09 341 P **P** **06 43 12.9 0.0**
PALK Pallekele 43.14 268 LR LR 07 02 38.1
comp=Z,174nm,18.1s,baz=102,slow=38
KNGR Kungurtug, Tuv 44.40 336 *i* P **P** **06 43 24.3 +0.7**
KNGR pmax pmax
comp=Z,6.0nm,1.0s
WMQ Urumqi 44.76 322 *e*P **P** **06 43 28.1 +1.6**
WMQ L L
comp=Z,2μm,23.3s
WMQ L L
comp=Z,740nm,21.1s
WMQ L L
comp=Z,780nm,24.5s
NWAO Narrogin (SRO) 45.03 188 LR LR 07 04 44.5
comp=Z,179nm,20.3s,baz=334,slow=39
NWAO Narrogin (SRO) 45.03 188 P **P** **06 43 28.2 -0.5**
NWAO pmax pmax
comp=Z,35nm,1.0s
NWAO Narrogin (SRO) 45.03 188 P **P** **06 43 28.2 -0.5**
EIDS Eidsvold 45.31 145 P **P** **06 43 30.3 -0.7**
EIDS IAmb IAmb 06 44 52.2
comp=Z,36nm,1.9s
BBOO Buckleboo 45.83 166 P **P** **06 43 35.2 +0.3**
comp=Z,30nm,1.8s
BBOO Buckleboo 45.83 166 P **P** **06 43 34.8 -0.2**
comp=Z,30nm,1.8s
BBOO Buckleboo 45.83 166 **P** **06 43 35.0 0.0**
BBOO Buckleboo 45.83 166 P **P** **06 43 34.6 -0.3**
comp=Z,30nm,1.8s
STKA Stephens Creek 46.55 160 P **P** **06 43 41.0 +0.3**
comp=Z,89nm,0.8s
STKA Stephens Creek 46.55 160 P **P** **06 43 40.6 -0.1**
comp=Z,89nm,0.8s
STKA Stephens Creek 46.55 160 P **P** **06 43 40.8 +0.1**
comp=Z,15nm,0.7s,baz=332,slow=7.0,SNR=22
STKA LR LR 07 06 09.2
comp=Z,317nm,20.0s,baz=337,slow=40
comp=Z,15nm,0.7s
STKA Stephens Creek 46.55 160 P **P** **06 43 40.7 -0.1**
STKA pmax pmax
comp=Z,67nm,0.8s
STKA Stephens Creek 46.55 160 **P** **06 43 40.7 +0.1**
STKA Stephens Creek 46.55 160 P **P** **06 43 38.6 -2.1**
comp=Z,90nm,0.8s
HTT Hallett 47.16 163 P **P** **06 43 46.0 +0.5**
comp=Z,8.7nm,0.8s
HTT Hallett 47.16 163 P **P** **06 43 45.5 0.0**
comp=Z,8.7nm,0.8s
CMSA Cobar Meteorol 47.80 155 P **P** **06 43 51.1 +0.7**
comp=Z,93nm,0.9s
CMSA Cobar Meteorol 47.80 155 P **P** **06 43 50.7 +0.3**
comp=Z,93nm,0.9s
CMSA Cobar Meteorol 47.80 155 P **P** **06 43 50.5 +0.1**
comp=Z,93nm,0.9s
ZSN Zaisan 48.43 325 *e*P **P** **06 43 56.4 +1.2**
ZSN Zaisan 48.43 325 *e*P **P** **06 43 56.5 +1.2**
PETK Petropavlovsk- 49.06 26 P **P** **06 44 00.6 +0.7**
comp=Z,6.8nm,0.9s,baz=96,slow=39,SNR=4.0
PETK LR LR 07 02 11.3
comp=Z,120nm,21.3s,baz=225,slow=33
comp=Z,6.8nm,0.9s
PETK Petropavlovsk- 49.06 26 P **P** **06 43 59.8 -0.1**
PETK Petropavlovsk- 49.06 26 P **P** **06 43 59.8 -0.1**
MK31 Makanchi Array 49.57 323 *ce*P **P** **06 44 04.1 +0.2**
MKAR Makanchi Array 49.57 323 P **P** **06 44 04.4 +0.5**
comp=Z,3.7nm,0.9s,baz=122,slow=8.6,SNR=11
comp=Z,3.7nm,0.9s
MKAR Makanchi Array 49.57 323 *i* P **P** **06 44 04.9 +1.0**
MKAR pmax pmax
comp=Z,4.0nm,0.9s
MKAR Makanchi Array 49.57 323 **P** **06 44 04.1 +0.2**
ARMA Armidale 49.61 149 P **P** **06 44 03.7 -0.8**
ARMA IAmb IAmb 06 44 41.4
comp=Z,13nm,1.1s
SHLS Shalkode 49.64 317 *e*P **P** **06 44 03.5 -1.1**
SHLS Shalkode 49.64 317 *e*P **P** **06 44 03.5 -1.1**
PDGK Podgornoye 49.69 318 P **P** **06 44 05.3 +0.2**
PDGK Podgornoye 49.69 318 **P** **06 44 05.3 +0.2**
MAKZ Makanchi 49.76 323 P **P** **06 44 06.0 +0.6**
MAKZ pmax pmax
comp=Z,14nm,1.3s
MAKZ Makanchi 49.76 323 **P** **06 44 06.0 +0.6**
MAKZ IAmb IAmb 06 44 12.0
comp=Z,14nm,1.3s
MAKZ Makanchi 49.76 323 P **P** **06 44 06.6 +1.2**
comp=Z,8.7nm,1.4s
UZB Uzynbulak 49.93 317 *e*P **P** **06 44 07.8 +0.9**
UZB pmax pmax
comp=Z,10.0nm,1.6s
UZB Uzynbulak 49.93 317 *e*P **P** **06 44 07.8 +0.9**
comp=Z,10nm,1.6s
YAK Yakutsk 50.25 3 LR LR 07 06 46.9
comp=Z,174nm,20.1s,baz=175,slow=38
YAK Yakutsk 50.25 3 *e*P **P** **06 44 09.0 +0.3**
YAK *e* 06 45 25.5
YAK *e* 06 46 04.8
YAK *e*PPP PPP 06 47 02.5
YAK *e*S **S** **06 51 14.8 -3.6**
YAK *e* 06 53 49.8
YAK *e*SS **SS** **06 54 51.1 -1.0**
YAK pmax pmax
comp=Z,21nm,1.0s
YAK pmax pmax
comp=N,8.0nm,1.1s
YAK pmax pmax
comp=E,7.0nm,1.1s
YAK pmax pmax
comp=Z,260nm,3.6s
YAK pmax pmax
comp=N,169nm,3.4s
YAK pmax pmax
comp=E,252nm,3.7s
YAK smax smax
comp=E,407nm,4.4s
YAK smax smax
comp=N,251nm,5.5s
YAK Yakutsk 50.25 3 **P** **06 44 08.8 0.0**
YAK Yakutsk 50.25 3 P **P** **06 44 09.2 +0.5**
comp=Z,33nm,0.9s
KPKS Kokpek 50.28 317 *e*P **P** **06 44 10.6 +1.1**
KPKS Kokpek 50.28 317 *e*P **P** **06 44 10.6 +1.1**
SATY Saty 50.30 317 *e*P **P** **06 44 10.6 +0.9**
SATY pmax pmax
comp=Z,18nm,1.8s
SATY Saty 50.30 317 *e*P **P** **06 44 10.7 +0.9**
comp=Z,18nm,1.8s
SANVU Saraoutou 50.45 122 P **P** **06 44 10.0 -0.9**
ASAI AK-SAY(Kyrgyzs 50.78 314 P **P** **06 44 15.0 +1.4**
comp=Z,6.8nm,1.3s
KSH2 Kashi 50.88 311 P **P** **06 44 15.4 +1.3**
KSH2 pmax pmax
comp=Z,8.0nm,1.5s
KSH2 L L
comp=Z,490nm,16.8s
KSH2 L L
comp=Z,350nm,16.8s
KSH2 L L
comp=Z,390nm,14.4s
TDK Taldyqorghan 51.12 319 *e*P **P** **06 44 16.7 +1.1**
TDK Taldyqorghan 51.12 319 *e*P **P** **06 44 16.8 +1.1**
ARPS Mount Arapiles 51.13 162 P **P** **06 44 16.3 +0.6**
comp=Z,9.9nm,0.9s
ARPS Mount Arapiles 51.13 162 P **P** **06 44 15.9 +0.2**
comp=Z,9.9nm,0.9s
NIL Nilore 51.20 304 P **P** **06 44 16.4 -0.1**
NIL pmax pmax
comp=Z,26nm,0.9s
NIL Nilore 51.20 304 **P** **06 44 16.4 -0.1**
NIL Nilore 51.20 304 P **P** **06 44 16.9 +0.4**
comp=Z,34nm,0.8s
MDOK Medeo 51.25 317 *e*P **P** **06 44 18.1 +1.2**
MDOK Medeo 51.25 317 *e*P **P** **06 44 18.2 +1.2**
TNSS Tian-Shan 51.27 316 *e*P **P** **06 44 17.9 +0.6**
TNSS Tian-Shan 51.27 316 *e*P **P** **06 44 18.0 +0.6**
AAA Alma-Ata 51.36 317 *e*P **P** **06 44 18.6 +1.0**
AAA pmax pmax
comp=Z,22nm,1.0s
AAA Alma-Ata 51.36 317 *e*P **P** **06 44 18.6 +1.0**
comp=Z,22nm,1.0s
ZAA0 Zalesovo Array 52.29 332 **P** **06 44 23.9 -0.3**
ZALV Zalesovo Beam 52.29 332 P **P** **06 44 24.3 +0.1**
comp=Z,4.2nm,0.9s,baz=137,slow=5.8,SNR=8.4
ZALV LR LR 07 06 55.6
comp=Z,279nm,19.7s,baz=120,slow=36
comp=Z,4.2nm,0.9s
ZALV Zalesovo Beam 52.29 332 *i* P **P** **06 44 26.2 +2.0**
ZALV pmax pmax
comp=Z,4.0nm,0.9s
CAN Canberra 52.45 154 P **P** **06 44 25.4 -0.3**
CAN pmax pmax
comp=Z,37nm,1.0s
CAN Canberra 52.45 154 P **P** **06 44 25.4 -0.3**
CAN Canberra 52.45 154 P **P** **06 44 25.7 0.0**
comp=Z,40nm,1.1s
AAK Ala-Archa 52.80 315 *i* P **P** **06 44 30.6 +2.1**
AAK pmax pmax
comp=Z,11nm,1.7s
AAK Ala-Archa 52.80 315 P **P** **06 44 27.5 -1.0**
TOO Toolangi 53.06 159 P **P** 06 44 35.7 +5.6
TOO Toolangi 53.06 159 P **P** **06 44 27.2 -3.0**
TOO Toolangi 53.06 159 P **P** **06 44 29.0 -1.1**
TOO pmax pmax
comp=Z,32nm,1.8s
TOO Toolangi 53.06 159 P **P** **06 44 29.0 -1.1**
TOO IAmb IAmb 06 44 36.9
comp=Z,32nm,1.8s
OHH Osh 53.34 312 P **P** **06 44 32.7 +0.4**
ARSB Arslanbob 53.44 313 P **P** **06 44 33.3 +0.1**
ARSB pmax pmax
comp=Z,7.0nm,0.6s
ARSB Arslanbob 53.44 313 P **P** **06 44 33.2 +0.1**
ARSB IAmb IAmb 06 45 03.7
comp=Z,7.2nm,0.6s
KURK Kurchatov 53.64 326 P **P** **06 44 34.3 +0.1**
KURK pmax pmax
comp=Z,18nm,0.8s
KURK Kurchatov 53.64 326 **P** **06 44 34.3 +0.1**
KURK Kurchatov 53.64 326 P **P** **06 44 35.0 +0.8**
comp=Z,27nm,0.8s
KURBB Kurchatov Arra 53.65 326 P **P** **06 44 34.7 +0.4**
comp=Z,9.4nm,0.8s,baz=121,slow=7.5,SNR=20
comp=Z,9.4nm,0.8s
OUENC Ouen Island, N 53.89 129 P **P** **06 44 35.6 -0.8**
OUENC IAmb IAmb 06 44 59.0
comp=Z,11nm,0.9s
BTK Batken 54.65 311 P **P** **06 44 41.5 -0.4**
BTK pmax pmax
comp=Z,10.0nm,1.0s
BTK Batken 54.65 311 **P** **06 44 41.5 -0.4**
BTK IAmb IAmb 06 45 05.9
comp=Z,10nm,1.0s
BTK Batken 54.65 311 P **P** **06 44 43.4 +1.5**
comp=Z,9.3nm,1.3s
KBL Kabul 54.80 304 P **P** **06 44 43.1 -0.2**
KBL pmax pmax
comp=Z,10.0nm,0.9s
KBL Kabul 54.80 304 P **P** **06 44 43.1 -0.2**
KBL IAmb IAmb 06 45 07.5
comp=Z,9.9nm,0.9s
KBL Kabul 54.80 304 P **P** **06 44 43.5 +0.2**
comp=Z,12nm,0.8s
DZA Taraz 55.09 314 *e*P **P** **06 44 45.9 +0.9**
DZA pmax pmax
comp=Z,8.0nm,1.0s
DZA Taraz 55.09 314 *e*P **P** **06 44 46.0 +0.9**
comp=Z,8.0nm,1.0s
KK31 Karatay Array 55.73 314 *i* P **P** **06 44 50.3 +0.7**
KK31 pmax pmax
comp=Z,8.0nm,0.9s
KK31 Karatay Array 55.73 314 **P** **06 44 49.0 -0.5**
KK31 IAmb IAmb 06 44 58.0
comp=Z,11nm,1.0s
KKAR Karatay Array 55.73 314 P **P** **06 44 49.2 -0.4**
KKAR Karatay Array 55.73 314 **P** **06 44 49.2 -0.4**
IUG luzhnay 55.79 313 *e*P **P** **06 44 51.1 +0.9**
IUG luzhnay 55.79 313 *e*P **P** **06 44 51.1 +0.9**
CHM Chimkent 56.14 313 *e*P **P** **06 44 53.4 +0.9**
CHM Chimkent 56.14 313 *e*P **P** **06 44 53.5 +0.9**
BRLS Borolday 56.18 314 *e*P **P** **06 44 53.9 +1.1**
BRLS Borolday 56.18 314 *e*P **P** **06 44 54.0 +1.1**
BVAR Borovoye Array 59.24 325 P **P** **06 45 14.2 +0.1**
comp=Z,1.9nm,0.5s,baz=121,slow=7.1,SNR=8.6
comp=Z,1.9nm,0.5s
BORK Borovoye 59.28 325 *i* P **P** **06 45 14.4 0.0**
BORK pmax pmax
comp=Z,9.0nm,1.0s
BORK Borovoye 59.28 325 **P** **06 45 14.6 +0.2**
BORK IAmb IAmb 06 45 44.8
comp=Z,7.2nm,0.7s
TIXI Tiksi 59.82 2 LR LR 07 11 32.7
comp=Z,295nm,21.6s,baz=194,slow=36
TIXI Tiksi 59.82 2 *ce*P **P** **06 45 17.1 -0.6**
TIXI pmax pmax
comp=Z,4.0nm,0.8s
TIXI Tiksi 59.82 2 **P** **06 45 17.8 0.0**
TIXI IAmb IAmb 06 45 51.9
comp=Z,13nm,1.1s
TIXI Tiksi 59.82 2 P **P** **06 45 17.8 0.0**
comp=Z,7.9nm,1.4s
HRA Herat 60.34 303 P **P** **06 45 21.1 -1.2**
MSVF Nonsavu 60.72 118 LR LR 07 10 00.2
comp=Z,82nm,20.5s,baz=228,slow=34
MSVF Nonsavu 60.72 118 P **P** **06 45 25.0 +0.1**
MSVF pmax pmax
comp=Z,16nm,1.0s
MSVF Nonsavu 60.72 118 P **P** **06 45 25.0 +0.1**
MSVF IAmb IAmb 06 45 27.0
comp=Z,16nm,1.0s
NRIK Noril'sk 62.00 346 P **P** **06 45 32.6 0.0**
comp=Z,4.2nm,0.6s,baz=127,slow=3.0,SNR=6.5
NRIK LR LR 07 14 41.8
comp=Z,340nm,18.5s,baz=150,slow=38
comp=Z,4.2nm,0.6s
NRIK Noril'sk 62.00 346 *i* P **P** **06 45 32.8 +0.2**
NRIK pmax pmax
comp=Z,19nm,1.4s
NRIK Noril'sk 62.00 346 **P** **06 45 33.0 +0.4**
NRIK IAmb IAmb 06 45 53.0
comp=Z,18nm,1.1s
AB31 Akbulak array 64.38 319 *i* P **P** **06 45 48.9 +0.1**
AB31 pmax pmax
comp=Z,10.0nm,0.9s
AB31 Akbulak array 64.38 319 P **P** **06 45 48.3 -0.5**
AB31 IAmb IAmb 06 45 54.2
comp=Z,11nm,0.9s
ABKAR Akbulak array 64.38 319 P **P** **06 45 48.6 -0.2**
SVE Sverdlovsk 65.81 327 *e*P **P** **06 45 58.4 +0.5**
SVE pmax pmax
comp=Z,25nm,1.2s
AKTO Aktyubinsk 65.84 320 LR LR 07 17 00.3
comp=Z,363nm,18.6s,baz=133,slow=38
ARTI Arti 66.90 327 LR LR 07 14 55.7
comp=Z,203nm,21.8s,baz=105,slow=36
ARTI Arti 66.90 327 *ce*P **P** **06 46 04.1 -0.8**
ARTI pmax pmax
comp=Z,5.0nm,0.8s
ARTI Arti 66.90 327 **P** **06 46 04.4 -0.5**
AFI Afiamalu 68.39 110 LR LR 07 12 29.0
comp=Z,88nm,19.9s,baz=304,slow=33
RPZ Rata Peaks 69.80 146 LR LR 07 16 59.5
comp=Z,38nm,20.6s,baz=1.0,slow=36
URZ Urewera 70.17 138 LR LR 07 15 01.0
comp=Z,132nm,21.6s,baz=302,slow=34
KIRV Kirov 72.06 328 LR LR 07 18 09.2
comp=Z,240nm,20.6s,slow=36
KIRV Kirov 72.06 328 *ce*P **P** **06 46 36.0 -0.6**
BELG Belogornoye 72.53 321 *i* P **P** **06 46 41.2 +1.6**
BELG pmax pmax
comp=Z,6.0nm,0.9s
GNI Garni 74.46 309 LR LR 07 23 56.1
comp=Z,83nm,20.1s,baz=77,slow=39
D19K Kuna River 74.51 22 P **P** **06 46 51.9 +0.9**
D19K IAmb IAmb 06 46 59.0
comp=Z,17nm,0.8s
E19K Redstone River 74.72 23 P **P** **06 46 52.9 +0.7**
E19K IAmb IAmb 06 47 02.1
comp=Z,11nm,0.8s
D20K Etivluk River 75.08 22 P **P** **06 46 55.2 +0.9**
D20K IAmb IAmb 06 47 04.6
comp=Z,17nm,0.9s
J19K Poorman 75.10 27 P **P** **06 46 54.5 0.0**
J19K IAmb IAmb 06 49 20.4
comp=Z,16nm,1.4s
RAYN Ar Rayn 75.14 291 P **P** **06 46 55.2 -0.4**
comp=Z,16nm,0.9s
F20K Avaraart Lake 75.27 24 **P** **06 46 55.9 +0.5**
F20K IAmb IAmb 06 47 03.4
comp=Z,7.9nm,0.9s
L19K White Mountain 75.35 29 P **P** **06 46 56.0 0.0**
HAKT HAKKARI 75.41 306 P **P** **06 46 58.2 +1.1**
comp=Z,35nm,1.3s
KBZ Khabaz 75.68 312 P **P** **06 46 58.5 +0.4**
comp=Z,6.1nm,1.1s,baz=75,slow=2.5,SNR=7.3
comp=Z,6.1nm,1.1s
KBZ Khabaz 75.68 312 *i* P **P** **06 46 58.7 +0.6**
KBZ pmax pmax
comp=Z,14nm,1.1s
KIV Kislovodsk 75.82 313 *e*P **P** **06 46 59.0 -0.1**
KIV pmax pmax
comp=Z,14nm,1.0s
KIV MLR MLR

comp=Z,132nm,18.0s
KIV Kislovodsk 75.82 313 P **P** **06 46 59.2 +0.1**
comp=Z,23nm,0.9s
E21K Killik River 76.03 22 P **P** **06 47 00.6 +0.8**
E21K IAmb IAmb 06 47 15.9
comp=Z,9.1nm,1.0s
VRH Novokhopyorsk 76.18 320 *e*P **P** **06 47 02.9 +2.0**
VRH pmax pmax
comp=Z,10.0nm,1.0s
KDAK Kodiak Island 76.42 33 LR LR 07 18 01.1
comp=Z,74nm,19.6s,baz=248,slow=34
CAST Castle Rocks 76.65 27 **P** **06 47 03.8 +0.4**
CAST IAmb IAmb 06 47 10.9
comp=Z,12nm,0.9s
GURO Guroymak-BITLI 76.66 307 P **P** **06 47 03.5 -0.6**
BPAW Bear Paw Mtn. 77.14 27 **P** **06 47 05.7 -0.5**
KLMR Klimovskoe 77.17 330 *e*P **P** **06 47 05.3 -1.0**
KLMR pmax pmax
comp=Z,44nm,1.4s
MLY Manley 77.24 26 **P** **06 47 06.4 -0.3**
MLY IAmb IAmb 06 47 16.0
comp=Z,7.7nm,0.9s
D23K Nanushuk River 77.25 22 **P** **06 47 07.8 +1.2**
D23K IAmb IAmb 06 47 15.0
comp=Z,12nm,0.8s
E23K Chandalar 77.65 23 P **P** **06 47 09.0 0.0**
E23K IAmb IAmb 06 47 17.3
comp=Z,15nm,1.1s
VORD Divnogorie 77.72 320 *e*P **P** **06 47 13.7 +4.1**
VORD pmax pmax
comp=Z,10.0nm,1.0s
VORR Voronezh 77.73 321 *e*P **P** **06 47 13.2 +3.6**
VORR pmax pmax
comp=Z,41nm,0.5s
VSR Storozhevoye 77.79 320 *e*P **P** **06 47 12.7 +2.8**
VSR pmax pmax
comp=Z,14nm,0.7s
LPSR Galich'ya Gora 77.84 322 *e*P **P** **06 47 13.0 +2.8**
LPSR pmax pmax
comp=Z,20nm,1.0s
SOC Sochi 77.99 312 *e*P **P** **06 47 10.3 -0.9**
SOC *e*PPP PPP 06 51 57.4
SOC *e*S **S** **06 56 55.1 -7.4**
SOC *e*SSS SSS 07 05 17.2
SOC pmax pmax
comp=Z,51nm,1.2s
SOC MLR MLR
comp=Z,145nm,21.0s
MOS Moscow 78.40 325 *e*P **P** **06 47 17.3 +4.1**
MOS *e* 06 47 26.0
MOS *e* 06 50 16.7
MOS *e*PPP PPP 06 52 09.0
MOS *e*S **S** **06 57 06.0 -0.4**
MOS *e'*SS ScS 06 57 54.8 +24
MOS *e*SS **SS** **07 02 18.2 +8.8**
H24K Noodor Dome 78.41 25 **P** **06 47 13.5 +0.3**
CCB Clear Creek Bu 78.50 26 P **P** **06 47 13.6 0.0**
CCB IAmb IAmb 06 47 44.8
comp=Z,22nm,1.9s
G24K Hadweenzic Riv 78.52 24 **P** **06 47 14.5 +0.8**
G24K IAmb IAmb 06 47 24.1
comp=Z,12nm,1.0s
ILAR Eielson Array 78.89 26 P **P** **06 47 16.1 +0.3**
comp=Z,0.6nm,0.8s,baz=254,slow=3.6,SNR=11
ILAR LR LR 07 21 55.0
comp=Z,35nm,22.0s,baz=264,slow=36
comp=Z,0.6nm,0.8s
OBN Obninsk 79.05 324 LR LR 07 23 02.5
comp=Z,128nm,19.7s,baz=72,slow=36
OBN Obninsk 79.05 324⇑ *e*P **P** **06 47 18.1 +1.3**
OBN *i* 06 47 22.9
OBN *e*S **S** **06 57 10.6 -2.7**
OBN *i* PS PnS 06 58 23.5 +24
OBN *e*SS **SS** **07 02 22.6 +3.5**
OBN pmax pmax
comp=Z,5.0nm,0.5s
OBN MLR MLR
comp=Z,131nm,18.0s
KEMA Kemaliye 79.34 308 P **P** **06 47 19.1 +0.2**
comp=Z,27nm,0.9s
APA Apatity 79.45 337 *e*P **P** **06 47 20.5 +1.7**
APA *e* 06 50 19.0
APA pmax pmax
comp=Z,10.0nm,1.2s
BMAR Burnt Mountain 79.60 23 **P** **06 47 21.1 +1.4**
I26K Coal Creek Min 80.41 25 P **P** **06 47 23.9 -0.2**
E28M Babbage River 81.32 22 **P** **06 47 29.4 +0.6**
E28M IAmb IAmb 06 47 36.7
comp=Z,10nm,1.0s
RAR Rarotonga 81.50 114 LR LR 07 16 09.4
comp=Z,80nm,21.9s,baz=269,slow=30
ASF Jabal al Asfar 81.57 301 LR LR 07 27 13.5
comp=Z,67nm,19.8s,baz=55,slow=38
ARCES ARCESS Array B 82.02 339 P **P** **06 47 31.9 -0.6**
comp=Z,7.1nm,1.0s,baz=74,slow=4.9,SNR=5.5
ARCES LR LR 07 26 19.4
comp=Z,154nm,19.1s,baz=88,slow=37
comp=Z,7.1nm,1.0s
ARCES ARCESS Array B 82.02 339 P **P** **06 47 32.4 -0.1**
SPITS Spitsbergen Ar 82.08 349 LR LR 07 27 53.2
comp=Z,185nm,19.8s,baz=62,slow=38
MMAI Mount Meron Ar 82.68 302 LR LR 07 27 30.7
comp=Z,39nm,18.7s,baz=56,slow=38
F30M Barrier River 82.90 22 P **P** **06 47 36.9 -0.3**
BRTR Keskin Array B 82.99 309 P **P** **06 47 38.3 -0.1**
comp=Z,0.6nm,0.7s,baz=120,slow=5.2,SNR=3.7
BRTR LR LR 07 28 03.6
comp=Z,84nm,21.7s,baz=56,slow=38
comp=Z,0.6nm,0.7s
BR106 Keskin Array S 83.01 309 P **P** **06 47 35.3 -3.1**
INK Inuvik 83.55 21 P **P** **06 47 41.2 +0.9**
comp=Z,6.7nm,1.3s
FIA1 FINESS Array S 83.56 331 P **P** **06 47 40.0 -0.6**
FINES FINESS Array B 83.56 331 P **P** **06 47 41.0 +0.5**
comp=Z,2.4nm,0.6s,baz=35,slow=7.0,SNR=9.1
FINES LR LR 07 29 01.0
comp=Z,138nm,18.9s,baz=90,slow=39
comp=Z,2.4nm,0.6s
FINES FINESS Array B 83.56 331 *i* P **P** **06 47 42.2 +1.6**
FINES pmax pmax
comp=Z,2.0nm,0.6s
FINES FINESS Array B 83.56 331 P **P** **06 47 39.8 -0.8**
EIL Elat 83.62 299 LR LR 07 28 38.6
comp=Z,112nm,21.0s,baz=77,slow=38
KKUL Konya-Kulu 83.64 309 P **P** **06 47 40.5 -1.1**
comp=Z,16nm,1.4s
KKUL pP sP 06 48 04.4 +7.5
CSS Mathiatis 84.05 304 P **P** **06 47 43.7 0.0**
comp=Z,34nm,1.5s
AK09 Malin Array Si 84.06 320 P **P** **06 47 43.5 +0.1**
AK08 Malin Array Si 84.08 320 P **P** **06 47 43.3 -0.2**
AKASG Malin Array Be 84.08 320 P **P** **06 47 44.4 +0.9**
comp=Z,2.6nm,0.7s,baz=69,slow=4.2,SNR=10
AKASG LR LR 07 25 36.1
comp=Z,146nm,20.9s,baz=68,slow=36
comp=Z,2.6nm,0.7s
AKBB Malin Array Si 84.08 320 *ce*P **P** **06 47 43.0 -0.5**
AKBB pmax pmax
comp=Z,5.0nm,0.9s
AKBB Malin Array Si 84.08 320 P **P** **06 47 42.2 -1.3**
KIEV Kiev 84.09 320 P **P** **06 47 42.9 -0.6**
KIEV pmax pmax
comp=Z,12nm,1.2s
KIEV Kiev 84.09 320 P **P** **06 47 42.9 -0.6**
KIEV IAmb IAmb 06 47 49.4
comp=Z,12nm,1.2s
KIEV Kiev 84.09 320 P **P** **06 47 43.4 -0.2**
comp=Z,37nm,1.4s
KIEV Kiev 84.09 320 P **P** **06 47 42.7 -0.8**
comp=Z,9.4nm,1.4s
MNK Minsk 84.11 324 *i* P P 06 47 48.5 +4.9
MNK *i* 06 51 03.5
MNK *i* PPP PPP 06 52 56.6
MNK *i* S **SKSac** **06 58 01.7 -2.5**
MNK *i* SS **SS** **07 03 38.3 +3.9**
MNK *i* SSS SSS 07 07 06.0
MNK pmax pmax
comp=N,24nm,0.9s
MNK pmax pmax
comp=Z,35nm,1.0s
MNK pmax pmax
comp=E,19nm,1.0s
MNK Minsk 84.11 324 *i* P P 06 47 48.6 +5.0
comp=E,19nm,1.0s
MNK *i* P P 06 47 48.6 +5.0
comp=N,24nm,0.9s
MNK *i* P P 06 47 48.6 +5.0
comp=Z,35nm,1.0s,baz=78
MNK *i* pP sP 06 48 14.6 +16
MNK *i* sP pP 06 48 25.6 +31
MNK *i* PP **PP** **06 51 03.5 +5.8**
MNK *i* PPP PPP 06 52 56.6
MNK *i* S **SKSac** **06 58 01.7 -2.5**
MNK *i* sS ScS 06 58 49.4 +31
MNK *i* SS **SS** **07 03 38.3 +3.9**
MNK *i* SSS SSS 07 07 06.0
O30N Mendenhall 84.42 29 P **P** **06 47 44.9 -0.2**
LUBAR Lubar, Ukraine 85.16 320 P **P** **06 47 48.1 -0.9**
RNPP9 Sopachiv 85.98 322 P **P** **06 47 51.6 -1.4**
RNPP8 Varash 86.02 322 P **P** **06 47 52.4 -0.8**
RNPP5 Staryi Chortor 86.03 321 P **P** **06 47 52.7 -0.6**
KMPD K-Podol'skiy 86.30 319 P **P** **06 47 54.2 -0.5**
TESR Tescani 86.66 317 P **P** **06 47 57.4 +0.9**
VRI Vrincioaia 86.76 316 P **P** **06 47 58.3 +1.3**
comp=Z,9.6nm,1.5s
KMBO Kilima Mbogo 87.28 268 LR LR 07 27 23.9
comp=Z,64nm,18.4s,baz=100,slow=36
KMBO Kilima Mbogo 87.28 268 P **P** **06 48 01.0 +0.5**
comp=Z,2.5nm,1.8s
BURAR Bucovina Array 87.34 318 P **P** **06 48 00.1 +0.2**
DLBC Dease Lake 88.05 30 LR LR 07 22 50.8
comp=Z,486nm,21.5s,baz=246,slow=32
UZHM Uzhgorod 88.95 320 P **P** **06 48 07.6 +0.2**
HFS Hagfors 89.73 332 P **P** **06 48 10.4 -0.4**
comp=Z,4.6nm,1.1s,baz=60,slow=8.5,SNR=4.2
HFS LR LR 07 31 40.8
comp=Z,149nm,18.4s,baz=67,slow=38
comp=Z,4.6nm,1.1s
PPT Papeete 89.94 108 LR LR 07 21 24.4
comp=Z,50nm,19.5s,baz=300,slow=31
PPT2 Papete2 89.95 108 *e*S **S** **06 58 58.8 -4.7**
comp=Z,107nm,27.5s
PPT2 *e*LR LR 07 16 43.9
comp=Z,120nm,35.0s
PPT2 *e*LR LR 07 16 53.2
comp=Z,210nm,32.2s
RES Resolute Bay 90.28 10 LR LR 07 29 48.7
comp=Z,53nm,22.0s,baz=358,slow=36
NOA NORSAR Array B 90.46 333 P **P** **06 48 14.8 +0.6**
comp=Z,0.9nm,1.0s,baz=70,slow=6.0,SNR=1.5
NOA LR LR 07 31 06.6
comp=Z,206nm,21.5s,baz=60,slow=37
comp=Z,0.9nm,1.0s
MAW Mawson 90.51 200 LR LR 07 28 51.6
comp=Z,44nm,18.1s,baz=66,slow=36
TBI Tubuai 91.28 113 *e*LR LR 07 17 28.7
comp=Z,1μm,35.8s
JMIC Jan Mayen 91.43 346 LR LR 07 33 41.9
comp=Z,72nm,19.7s,baz=324,slow=38
VNDA Vanda 91.75 172 P **P** **06 48 20.8 +1.0**
comp=Z,1.2nm,0.9s,baz=332,slow=5.6,SNR=5.7
VNDA LR LR 07 28 41.6
comp=Z,96nm,20.9s,baz=337,slow=35
comp=Z,1.2nm,0.9s
VNDA Vanda 91.75 172 P **P** **06 48 19.6 -0.1**
VNDA pmax pmax
comp=Z,7.0nm,1.2s
VNDA Vanda 91.75 172 P **P** **06 48 19.6 -0.1**
VNDA IAmb IAmb 06 48 42.6
comp=Z,7.0nm,1.2s
VNDA Vanda 91.75 172 P **P** **06 48 19.2 -0.5**
comp=Z,6.0nm,1.2s
VNDA pP sP 06 48 42.2 +7.2
MODS Modra-Piesok 92.20 320 *e*P P 06 48 29.1 +6.5
MODS Modra-Piesok 92.20 320 *e*P P 06 48 29.1 +6.5
VRAC Vranov 92.29 321 LR LR 07 30 29.4
comp=Z,183nm,19.0s,baz=84,slow=36
YKA Yellowknife Ar 93.11 23 P **P** **06 48 28.0 +1.6**
comp=Z,1.0nm,0.7s,baz=303,slow=4.9,SNR=4.4
comp=Z,1.0nm,0.7s
YKA Yellowknife Ar 93.11 23 P **P** **06 48 28.0 +1.6**
MBAR Mbarara 93.55 270 LR LR 07 31 38.6
comp=Z,90nm,18.1s,baz=62,slow=36
CLL Collm 93.65 324 LH 07 16 00.0
CLL LV 07 23 00.0
CLL AMS AMS 07 25 00.0
comp=N,400nm,27.2s
CLL AMS AMS 07 25 00.0
comp=E,300nm,31.4s
CLL AMS AMS 07 31 00.0
comp=Z,200nm,23.3s
GERES GERESS Array B 94.22 322 P **P** **06 48 31.0 -1.0**
comp=Z,0.1nm,0.3s,baz=64,slow=2.3,SNR=6.1
GERES LR LR 07 32 41.4
comp=Z,191nm,22.0s,baz=60,slow=37
comp=Z,0.1nm,0.3s
GERES GERESS Array B 94.22 322 P **P** **06 48 31.0 -1.0**
TAOE Nuku Hiva Isla 97.22 98 *e*LR LR 07 20 15.4
comp=Z,200nm,29.2s
DAVOX Davos/Dischmat 97.42 321 LR LR 07 35 25.0
comp=Z,189nm,21.3s,baz=60,slow=37
NEW Newport 99.30 36 LR LR 07 36 31.4
comp=Z,29nm,18.2s,baz=304,slow=37
BORG Borgarnes 99.32 346 LR LR 07 39 24.5
comp=Z,82nm,18.1s,baz=29,slow=39
MATP Matopo 99.36 251 LR LR 07 30 36.4
comp=Z,304nm,19.2s,baz=70,slow=34
EKA Eskdalemuir Ar 99.92 333 LR LR 07 37 41.4
comp=Z,176nm,18.6s,baz=20,slow=38
TXAR Lajitas Array 118.26 47 PKP **PKPdf** **06 54 00.2 -0.5**
comp=Z,0.4nm,0.7s,baz=185,slow=3.5,SNR=4.7
TXAR Lajitas Array 118.26 47 PKIKP **PKPdf** **06 53 59.2 -1.5**
TXAR Lajitas Array 118.26 47 **PKPdf** **06 53 59.2 -1.5**
PLCA Paso Flores 148.43 158 PKPbc **PKPbc** **06 54 59.5 0.0**
comp=Z,3.5nm,0.9s,baz=198,slow=3.2,SNR=5.6

*ISK **15** 06:37:24.5,37.°92N×26.°90E,h6km,ML2.4/21*
*AFAD **15** 06:37:24.1,37.°91N×26.°88E,h8km±1km,ML2.6*
*THE **15** 06:37:24.3,38.°N±1.°×2.°7E±.°,h12km±2km,M2.7/5,ML h2.7/5*
ISC 15 06:37:24.4±0.9,**37.°91N**±0.°02×**26.°88E**±0.°02,**h12**km±6km,
n38,σ0**52**/55,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.14**	**2**	P	**Pg**	**06 37 27.6**	**-0.2**
DGB				S	**Sg**	**06 37 29.8**	**-0.5**
GMLD	**Gumuldur**	**0.17**	**11**	Pg	**Pg**	**06 37 28.3**	**0.0**
GMLD				Sg	**Sg**	**06 37 30.8**	**-0.1**
GMLD				AML	AML		
SMG	**Samos**	**0.20**	**189**	P	**Pg**	**06 37 28.6**	**-0.2**
SMG				S	**Sg**	**06 37 32.0**	**+0.3**
SMG				AML	AML		
BEYE	**izmir**	**0.32**	**7**	P	**Pg**	**06 37 30.7**	**-0.2**
BEYE				S	**Sg**	**06 37 35.5**	**+0.2**
BEYE				IAML		06 37 36.0	
	comp=N,599nm,0.3s						
BEYE				IAML		06 37 36.0	
	comp=E,634nm,0.2s						
KUSD	**Kusadasi-Aydin**	**0.33**	**98**	Pg	**Pg**	**06 37 31.2**	**+0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**126**	P	**Pg**	**06 37 31.3**	**-0.2**
GCAM				S	**Sg**	**06 37 36.9**	**+0.7**
GCAM	**G?zelcaml?**	**0.35**	**126**	Pg	**Pg**	**06 37 31.5**	**0.0**
GCAM				Sg	**Sb**	**06 37 37.1**	**-1.1**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.44**	**318**	P	**Pg**	**06 37 32.6**	**-0.5**
ZEYE				IAML		06 37 39.0	
	comp=E,539nm,0.2s						
ZEYE				S	**Sg**	**06 37 39.7**	**+0.6**
ZEYE				IAML		06 37 40.0	
	comp=N,822nm,0.2s						
BLCB	**Balcova**	**0.49**	**15**	P	**Pg**	**06 37 34.1**	**-0.1**
BLCB				S	**Sg**	**06 37 40.6**	**-0.1**
BLCB	**Balcova**	**0.49**	**15**	Pg	**Pg**	**06 37 34.2**	**+0.1**
BLCB				Sg	**Sg**	**06 37 41.1**	**+0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.55**	**55**	P	**Pg**	**06 37 34.8**	**-0.4**
DUVT				S	**Sg**	**06 37 42.2**	**-0.2**
DAGE	**izmir**	**0.70**	**82**	P	**Pg**	**06 37 37.0**	**-1.0**
DAGE				S	**Sb**	**06 37 48.1**	**-0.2**
DAGE				IAML		06 37 49.0	
	comp=N,255nm,0.2s						
DAGE				IAML		06 37 50.0	
	comp=E,230nm,0.3s						
KRBN	**Karaburun**	**0.73**	**340**	Pg	**Pb**	**06 37 38.9**	**-0.2**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.80**	**87**	Pg	**Pg**	**06 37 39.9**	**-0.1**
AYDB				AML	AML		
CHOS	**Chios island**	**0.80**	**307**	P	**Pg**	**06 37 40.0**	**0.0**
CHOS				S	**Sg**	**06 37 51.0**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.80**	**307**	Pg	**Pb**	**06 37 40.7**	**+0.3**
CHOS				Sg	**Sb**	**06 37 52.1**	**+0.8**
CHOS				AML	AML		
FOCM	**Foa**	**0.81**	**352**	Pg	**Pb**	**06 37 40.7**	**+0.2**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.84**	**334**	P	**Pg**	**06 37 40.5**	**-0.1**
KARB				S	**Sn**	**06 37 53.9**	**-0.5**
KARB				IAML		06 37 54.0	
	comp=N,220nm,0.2s						
KARB				IAML		06 37 55.0	
	comp=E,212nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.85**	**158**	Pg	**Pb**	**06 37 41.6**	**+0.5**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.88**	**75**	P	**Pg**	**06 37 40.4**	**-1.1**
IZMR				S	**Sg**	**06 37 52.7**	**-0.2**
CAMT	**Merkez**	**0.91**	**22**	P	**Pg**	**06 37 41.8**	**-0.1**
CAMT				S	**Sb**	**06 37 55.2**	**+1.1**
CAMT				IAML		06 37 57.0	
	comp=E,378nm,0.5s						
CAMT				IAML		06 37 58.0	
	comp=N,499nm,0.6s						
BODT	**Bodrum**	**0.91**	**158**	P	**Pg**	**06 37 41.3**	**-0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.91**	**158**	Pg	**Pb**	**06 37 42.8**	**+0.6**
BODT				AML	AML		
MLSB	**Milas**	**0.94**	**130**	Pg	**Pg**	**06 37 42.4**	**-0.2**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.07**	**8**	P	**Pg**	**06 37 44.6**	**-0.4**
ZEDA				S	**Sn**	**06 37 59.9**	**-0.2**
ZEDA				IAML		06 38 01.0	
	comp=E,206nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.12**	**87**	Pn	**Pn**	**06 37 46.5**	**+0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.14**	**45**	Pn	**Pn**	**06 37 46.7**	**+0.4**
GOMA				AML	AML		
DKL	**Dikili**	**1.16**	**1**	Pn	**Pb**	**06 37 46.6**	**+0.1**
DKL				AML	AML		
DAT	**Datca**	**1.30**	**154**	Pn	**Pg**	**06 37 49.9**	**+0.4**
DAT				AML	AML		
SOMA	**Soma-Manisa**	**1.35**	**22**	Pn	**Pg**	**06 37 50.3**	**-0.1**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.36**	**232**	P	**Pn**	**06 37 48.2**	**-1.2**
APE	**Apeiranthos**	**1.36**	**232**	Pn	**Pg**	**06 37 50.7**	**+0.1**
APE				AML	AML		
YER	**Yerkesik**	**1.36**	**124**	P	**Pn**	**06 37 48.7**	**-0.6**
YER	**Yerkesik**	**1.36**	**124**	Pn	**Pg**	**06 37 50.5**	**-0.1**
YER				AML	AML		
PRK	**Paraskevi**	**1.42**	**341**	P	**Pn**	**06 37 49.4**	**-0.6**
GORD	**Gordes-Manisa**	**1.43**	**45**	Pn	**Pb**	**06 37 51.3**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.57**	**136**	Pn	**Pb**	**06 37 53.3**	**-0.2**
APMY	**Acipayam-Deniz**	**1.97**	**102**	Pn	**Pn**	**06 37 59.2**	**+1.4**

MEX 15 06:53:48.3±1.1,**15.°25N**×**94.°61W**,**h17**km±997km,**MD3.8,**
Presumed earthquake,Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.41**	**71**	*e*P	Pn	06 54 10.1	-3.1
PCIG				*e*S	Sn	06 54 25.7	-5.7
HUIG	**Huatulco**	**1.54**	**290**	*e*P	Pn	06 54 12.0	-3.0
HUIG				*e*S	Sn	06 54 28.4	-6.2
CMIG	**Matias Romero**	**1.85**	**352**	*e*P	Pn	06 54 16.5	-2.8
CMIG				*i* S	Sn	06 54 37.6	-4.7
TGIG		**2.09**	**43**	*e*P	Pn	06 54 20.9	-1.7
TGIG				*e*S	Sn	06 54 45.4	-2.8
UXUV	**UXUV**	**2.11**	**12**	*e*P	Pn	06 54 20.6	-2.1
UXUV				*e*S	Sn	06 54 44.8	-3.8
PATR	**El Naranjo**	**2.29**	**93**	*e*P	Pn	06 54 22.5	-3.1
PATR				*e*S	Sn	06 54 49.0	-4.5
PAVE	**Pavencul**	**2.34**	**91**	*e*P	Pn	06 54 23.8	-2.4
PAVE				*e*S	Sn	06 54 51.0	-3.8
CHUJ	**Union Juarez**	**2.42**	**93**	*e*P	Pn	06 54 24.9	-2.4
CHUJ				*e*S	Sn	06 54 52.1	-4.5
PEIG	**Puerto Escondi**	**2.56**	**287**	*e*P	Pn	06 54 26.6	-2.5
PEIG				*e*S	Sn	06 54 53.3	-6.5
CCIG	**Comitan**	**2.59**	**66**		Pn	06 54 29.7	+0.1
CCIG	**Comitan**	**2.59**	**66**	*e*P	Pn	06 54 29.6	0.0
CCIG				*e*S	Sn	06 54 57.9	-2.9
NEUV	**Arroyo Zacate**	**2.71**	**335**	*e*P	Pn	06 54 29.0	-2.0
NEUV				*e*S	Sn	06 54 59.5	-3.9
VHO	**Vista Hermosa**	**2.73**	**312**	*e*P	Pn	06 54 28.7	-2.9
VHO				*e*S	Sn	06 55 00.3	-4.1
YOIG	**Yosondua**	**3.25**	**300**	*e*P	Pn	06 54 35.6	-3.1
YOIG				*e*S	Sn	06 55 13.6	-3.6
TXIG	**Tlaxiaco**	**3.63**	**304**	*e*P	Pn	06 54 44.2	+0.2
TXIG				*e*S	Sn	06 55 24.3	-2.4

*SSNC **15** 06:55:12.7±2.1,19.°11N×70.°18W,h90km±92km,MD3.5,*
ML3.0,Presumed earthquake
*SDD **15** 06:55:18.5±2.5,18.°07N×71.°47W,h0km±7km,MD3.4,*
ML3.2,MW3.3,Presumed earthquake
ISC 15 06:55:11.6±1.8,**17.°86N**±0.°08×**71.°65W**±0.°03,**h12**km±10km,
n18,σ1**68**/31,**21C-1D**,**Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.47**	**49**⇑	*i*P	**Pg**	**06 55 21.5**	**+0.6**
PODR			⇑	*i*S	**Sg**	**06 55 23.7**	**-3.5**
PODR				IAML		06 55 26.6	
	comp=N,56μm,0.3s						
JIDR	**Jimani**	**0.66**	**343**⇑	*i*P	**Pn**	**06 55 29.8**	**+3.1**
JIDR				IAML		06 55 42.5	
	comp=N,1μm,0.7s						
NEDR	**Neiba UASD**	**0.66**	**20**⇑	*i*P	**Pg**	**06 55 25.4**	**+1.0**
NEDR			⇑	*i*S	**Sg**	**06 55 32.4**	**-0.8**
NEDR				IAML		06 55 33.0	
	comp=N,3μm,0.3s						
SDDR	**Presa de Saban**	**1.17**	**17**⇑	*i*P	**Pn**	**06 55 33.6**	**-0.3**
SDDR			⇑	*i*S	**Sb**	**06 55 47.9**	**-1.2**
SDDR				IAML		06 56 01.0	
	comp=N,248nm,0.7s						
SDDR	**Presa de Saban**	**1.17**	**17**	*e*P	**Pn**	**06 55 33.8**	**-0.1**
SDDR				*e*S	**Sb**	**06 55 46.2**	**-2.9**
SDDR				IAML		06 55 52.0	
	comp=N,255nm,0.7s						
SDDR				IAML		06 55 58.5	
	comp=N,278nm,0.4s						
REDR	**Restauracion**	**1.33**	**11**⇓	*i*P	**Pg**	**06 55 39.4**	**+2.3**
REDR			⇑	*i*S	**Sg**	**06 55 56.0**	**+1.6**
REDR				IAML		06 55 56.6	
	comp=N,601nm,0.2s						
BANI	**BANI**	**1.34**	**66**⇑	*i*P	**Pb**	**06 55 37.4**	**+0.6**
BANI				IAML		06 56 01.2	
	comp=N,592nm,0.2s						
ABDR	**Alto Bandera**	**1.36**	**46**⇑	*i*P	**Pn**	**06 55 37.0**	**+0.2**
ABDR			⇑	*i*S	**Sn**	**06 55 52.5**	**-2.5**
ABDR				IAML		06 55 58.5	
	comp=N,555nm,0.3s						
SDD	**Santo Domingo**	**1.76**	**70**⇑	*i*P	**Pb**	**06 55 44.7**	**+0.9**
SDD			⇑	*i*S	**Sb**	**06 56 05.9**	**0.0**
SDD				IAML		06 56 15.0	
	comp=N,64nm,0.3s						
MADR	**Mao Valverde**	**1.78**	**17**⇑	*i*P	**Pb**	**06 55 44.5**	**+0.3**
MADR			⇑	*i*S	**Sn**	**06 56 05.2**	**+0.4**
MADR				IAML		06 56 10.5	
	comp=N,348nm,0.3s						
SC01	**Santiago de lo**	**1.79**	**29**⇑	*i*P	**Pb**	**06 55 44.7**	**+0.3**
SC01			⇑	*i*S	**Sn**	**06 56 03.4**	**-1.7**
SC01				IAML		06 56 10.1	
	comp=N,200nm,0.5s						
SFDR	**San Fco. de Ma**	**1.95**	**43**⇑	*i*P	**Pb**	**06 55 47.5**	**+0.4**
SFDR			⇑	*i*S	**Sn**	**06 56 09.8**	**+0.7**
SFDR				IAML		06 56 14.3	
	comp=N,517nm,0.7s						
HATOM	**Hato Mayor del**	**2.35**	**66**⇑	*i*P	**Pb**	**06 55 54.2**	**+0.3**
HATOM			⇑	*i*S	**Sn**	**06 56 18.8**	**-0.1**
HATOM				IAML		06 56 26.0	
	comp=N,86nm,0.3s						
QMBU	**Quimbuelo**	**3.79**	**308**	*e*P	**Pb**	**06 56 17.8**	**-0.7**
QMBU				*e*S	**Sb**	**06 57 06.6**	**+2.2**
QMBU				IAML		06 57 11.2	
	comp=N,26nm,1.9s						
GTBY	**Guantanamo Bay**	**3.87**	**303**	*e*P	**Pb**	**06 56 19.9**	**+0.1**
GTBY				*e*S	**Sg**	**06 57 12.7**	**-3.2**
NMDO	**Nuevo Mundo**	**4.14**	**311**	*e*P	**Pb**	**06 56 25.2**	**+0.8**
SABCS	**La Quijada**	**4.27**	**306**	*e*P	**Pb**	**06 56 25.0**	**-1.6**
PINC	**Pinares de May**	**4.71**	**304**	*e*P	**Pb**	**06 56 32.0**	**-2.1**

*SSNC **15** 06:57:29.4±2.0, 17°.93N×70°.78W, h5km, MD3.5, ML3.4, Presumed earthquake*
*SDD **15** 06:57:35.5±1.8, 18°.09N×71°.39W, h12km±9km, MD3.2, ML3.3, MW3.4, Presumed earthquake*
*OSPL **15** 06:57:37.2±2.7, 18°.23N×71°.35W, h3km±10km, ML3.4, Presumed earthquake*

ISC 15 06:57:35.7±0.9, 18°.21N±0°.02×71°.36W±0°.03, h7km±6km, n29, σ1s89/49, 4C-3D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.09**	**121**	⇑*e*P	**Pg**		**06 57 37.9**	**-0.1**
PODR				*e*S	**Sg**		**06 57 40.5**	**+0.9**
PODR				IAML			06 57 42.7	
	comp=N,71μm,0.3s							
PODR	**Polo**	**0.09**	**121**	*i* P	**Pg**		**06 57 37.9**	**-0.1**
PODR				*e*S	**Sg**		**06 57 40.5**	**+0.9**
LODU1	**El Espartillar**	**0.18**	**322**	*i* P	**Pg**		**06 57 39.1**	**-0.3**
LODU1				*e*S	**Sg**		**06 57 42.5**	**+0.6**
LODU1				IAML			06 57 46.2	
	comp=Z,12μm,0.3s							
NEDR	**Neiba UASD**	**0.28**	**348**	*e*Pg	**Pg**		**06 57 41.7**	**+0.5**
NEDR				*e*Sg	**Sb**		**06 57 48.6**	**+0.7**
	comp=N,6μm,0.7s							
NEDR				IAML			06 57 49.5	
	comp=N,6μm,0.7s							
LONE3	**El Aguacate, B**	**0.40**	**346**	*i* P	**Pg**		**06 57 44.3**	**+0.6**
LONE3				*e*S	**Sb**		**06 57 51.2**	**-0.5**
LONE3				IAML			06 57 53.5	
	comp=Z,3μm,0.4s							
LOVI	**El Cajuil, Ovi**	**0.41**	**181**	*i* P	**Pg**		**06 57 43.9**	**+0.2**
LOVI				*e*S	**Sb**		**06 57 52.3**	**+0.6**
LOVI				IAML			06 58 04.2	
	comp=Z,4μm,0.5s							
LOBH	**Bahia de las A**	**0.44**	**218**	*i* P	**Pg**		**06 57 44.5**	**+0.3**
LOBH				*e*S	**Sb**		**06 57 53.0**	**+0.5**
LOBH				IAML			06 58 06.0	
	comp=Z,3μm,0.5s							
JIDR	**Jimani**	**0.54**	**301**	*e*Pg	**Pg**		**06 57 46.2**	**-0.1**
JIDR				*e*Sg	**Sb**		**06 57 56.7**	**+1.1**
JIDR				IAML			06 57 59.1	
	comp=N,2μm,0.5s							
SDDR	**Presa de Saban**	**0.77**	**5**	⇓*e*Pg	**Pg**		**06 57 50.3**	**-0.3**
SDDR				⇑*i*S	**Sb**		**06 58 02.4**	**+0.2**
SDDR				IAML			06 58 12.9	
	comp=N,357nm,0.3s							
SDDR	**Presa de Saban**	**0.77**	**5**	*e*P	**Pg**		**06 57 50.2**	**-0.3**
SDDR				*e*S	**Sb**		**06 58 02.7**	**+0.5**
SDDR				IAML			06 58 09.0	
	comp=N,446nm,0.5s							
SDDR				IAML			06 58 14.9	
	comp=N,480nm,0.7s							
SDDR	**Presa de Saban**	**0.77**	**5**	*i* P	**Pg**		**06 57 50.4**	**-0.2**
ABDR	**Alto Bandera**	**0.92**	**49**	*e*Pg	**Pg**		**06 57 53.3**	**-0.1**
ABDR				*e*Sg	**Sn**		**06 58 09.8**	**+0.9**
ABDR				IAML			06 58 15.0	
	comp=N,700nm,0.3s							
REDR	**Restauracion**	**0.95**	**358**	⇓*e*Pg	**Pn**		**06 57 56.0**	**+0.5**
REDR				⇓*e*Sg	**Sn**		**06 58 12.6**	**+3.3**
REDR				IAML			06 58 15.2	
	comp=N,802nm,0.2s							
BANI	**BANI**	**0.97**	**79**	*e*Pg	**Pb**		**06 57 54.5**	**-0.4**
BANI				IAML			06 58 14.3	
	comp=N,782nm,0.2s							
LGNH	**Logne**	**1.22**	**284**	*i* P	**Pn**		**06 57 58.0**	**-1.2**
SC01	**Santiago de lo**	**1.35**	**26**	⇑*e*Pg	**Pg**		**06 58 01.2**	**-0.4**
SC01				IAML			06 58 30.2	
	comp=N,206nm,0.3s							
MADR	**Mao Valverde**	**1.37**	**10**	⇑*e*Pg	**Pn**		**06 58 01.0**	**-0.2**
MADR				*e*Sg	**Sg**		**06 58 21.1**	**+1.3**
MADR				IAML			06 58 25.1	
	comp=N,470nm,0.6s							
SDD	**Santo Domingo**	**1.39**	**80**	*e*Pg	**Pb**		**06 58 01.6**	**-0.5**
SDD				IAML			06 58 29.5	
	comp=N,106nm,0.9s							
HATOM	**Hato Mayor del**	**1.96**	**73**	*e*Pg	**Pb**		**06 58 10.4**	**-1.5**
HATOM				*e*Sg	**Sg**		**06 58 37.0**	**-1.8**
HATOM				IAML			06 58 41.9	
	comp=N,140nm,1.1s							
GRTK	**Grand Turk**	**3.29**	**4**	*e*P	**Pn**		**06 58 27.0**	**-0.6**
GRTK				*e*S	**Sn**		**06 59 06.5**	**-0.5**
QMBU	**Quimbuelo**	**3.82**	**302**	*e*P	**Pn**		**06 58 34.3**	**-0.6**
QMBU				*e*S	**Sn**		**06 59 23.6**	**+3.5**
QMBU				IAML			06 59 45.4	
	comp=N,32nm,1.3s							
QMBU				IAML			06 59 59.5	
	comp=E,30nm,1.1s							
GTBY	**Guantanamo Bay**	**3.94**	**296**	*e*P	**Pn**		**06 58 36.5**	**-0.1**
GTBY				*e*S	**Sb**		**06 59 31.2**	**-2.2**
NMDO	**Nuevo Mundo**	**4.14**	**305**	*e*P	**Pn**		**06 58 39.2**	**-0.2**
NMDO				*e*S	**Sn**		**06 59 32.6**	**+4.5**
MOAC	**Moa**	**4.18**	**306**	*e*P	**Pn**		**06 58 41.3**	**+1.3**
SABCS	**La Quijada**	**4.30**	**300**	*e*P	**Pn**		**06 58 42.5**	**+0.8**
SABCS				*e*S	**Sb**		**06 59 38.3**	**-5.7**
MARVS	**Santiago de Cu**	**4.65**	**293**	*e*P	**Pn**		**06 58 42.1**	**-4.2**
MARVS				*e*S	**Sb**		**06 59 48.6**	**-5.2**
MARVS				IAML			07 00 36.3	
	comp=Z,66nm,1.0s							
PINC	**Pinares de May**	**4.76**	**299**	*e*P	**Pn**		**06 58 48.6**	**+0.7**
HLGC	**Holguin**	**5.17**	**302**	*e*P	**Pn**		**06 58 57.3**	**+3.7**
LMGC	**Las Mercedes**	**5.65**	**290**	*e*P	**Pn**		**06 58 59.1**	**-1.0**

*CATAC **15** 07:07:46.7±0.2, 12°N±2°×88°W±°, h67km±2km, M3.8/49, MLv3.8/49, Error ellipse: s-maj=5.4km s-min=1.9km az=34.4, confirmed*
*UCR **15** 07:07:46.7±0.8, 11°.58N×86°.16W, h85km±4km, MW4.1, Presumed earthquake*

ISC 15 07:07:46.6±1.2, 11°.56N±0°.04×86°.24W±0°.04, h83km±6km, n84, σ0s77/124, 3C-20D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
NADN	**Granada**	**0.28**	**48**	⇓P	**Pn**		**07 07 59.0**	**-0.2**
NADN				S		**Sn**	**07 08 09.0**	**+0.6**
NADN	**Granada**	**0.28**	**48**	*e*P	**Pn**		**07 07 58.5**	**-0.6**
NADN				*e*S		**Sn**	**07 08 08.7**	**+0.3**
NANN	**Nandasmo**	**0.39**	**18**	⇓P	**Pn**		**07 08 00.6**	**+0.7**
NANN				S		**Sn**	**07 08 10.7**	**+1.0**
SABN	**Sabanita**	**0.40**	**12**	⇓P	**Pn**		**07 07 58.6**	**-1.4**
MASN	**Masaya**	**0.43**	**12**	⇓P	**Pn**		**07 07 59.6**	**-0.7**
MASN				S		**Sn**	**07 08 10.7**	**+0.4**
MAS3	**Al N del Volca**	**0.46**	**8**	P	**Pn**		**07 07 59.8**	**-0.7**
MAS3				S		**Sn**	**07 08 10.5**	**-0.1**
ABCN	**Banco Central**	**0.56**	**353**	P	**Pn**		**07 08 01.0**	**-0.2**
ABCN				S		**Sn**	**07 08 12.6**	**+0.5**
TISN	**Laguna Tiscapa**	**0.58**	**358**	⇓P	**Pn**		**07 07 59.8**	**-1.6**
MORN	**Al O del Volca**	**0.58**	**92**	⇓P	**Pn**		**07 08 01.1**	**-0.4**
WILN	**Americas 2**	**0.60**	**5**	⇓P	**Pn**		**07 08 01.1**	**-0.5**
WILN				S		**Sn**	**07 08 13.6**	**+1.0**
APQ2	**Apoyeque**	**0.64**	**353**	P	**Pn**		**07 08 01.4**	**-0.5**
APQ2	**Apoyeque**	**0.64**	**353**	⇓P	**Pn**		**07 08 01.6**	**-0.3**
APQ2				S		**Sn**	**07 08 13.3**	**+0.1**
APQ2				S			07 08 13.5	
APYN	**Apoyeque**	**0.67**	**351**	P	**Pn**		**07 08 01.6**	**-0.7**
APYN				S		**Sn**	**07 08 14.4**	**+0.4**
AMTN	**Mateare**	**0.69**	**345**	P	**Pn**		**07 08 02.3**	**-0.2**
AMTN				S		**Sn**	**07 08 14.6**	**+0.3**
LCRUZ	**La Cruz**	**0.77**	**129**	*e*P	**Pn**		**07 08 03.1**	**-0.2**
LCRUZ				*e*S		**Sn**	**07 08 16.0**	**+0.2**
CARN	**Rivas**	**0.80**	**118**	⇓P	**Pn**		**07 08 03.2**	**-0.5**
CARN				S		**Sn**	**07 08 16.6**	**+0.4**
CARN	**Rivas**	**0.80**	**118**	*e*P	**Pn**		**07 08 03.1**	**-0.5**
CARN				*e*S		**Sn**	**07 08 15.8**	**-0.5**
MOM2	**El Cardon**	**0.90**	**345**	⇓P	**Pn**		**07 08 04.2**	**-0.5**
MOM2				S		**Sn**	**07 08 18.5**	**+0.3**
LEVN	**Ruinas Leon Vi**	**0.91**	**336**	⇓P	**Pn**		**07 08 05.6**	**+0.8**
LEVN				S		**Sn**	**07 08 20.0**	**+1.6**
MOM3	**MOM3**	**0.98**	**344**	⇑P	**Pn**		**07 08 05.1**	**-0.5**
MOM3				S		**Sn**	**07 08 20.8**	**+0.9**
CNGA	**Al SSO del Vol**	**1.03**	**334**	P	**Pn**		**07 08 06.0**	**-0.3**
CNGA				S		**Sn**	**07 08 20.9**	**-0.1**
CNGN	**Cerro Negro**	**1.03**	**334**	⇓P	**Pn**		**07 08 05.7**	**-0.6**
CNGN				S		**Sn**	**07 08 21.5**	**+0.5**
BOAB	**BOACO BROADBAN**	**1.05**	**33**	⇓P	**Pn**		**07 08 05.9**	**-0.5**
BOAB				S		**Sn**	**07 08 20.9**	**-0.3**
PACN	**Al O del Volca**	**1.07**	**330**	P	**Pn**		**07 08 06.7**	**-0.1**
PACN				S		**Sn**	**07 08 23.2**	**+1.3**
ACON	**Acoyapa**	**1.12**	**69**	⇓P	**Pn**		**07 08 06.8**	**-0.5**
ACON				S		**Sn**	**07 08 22.2**	**-0.6**
ACON	**Acoyapa**	**1.12**	**69**	*e*P	**Pn**		**07 08 06.7**	**-0.5**
LAPC	**Finca la Perla**	**1.12**	**135**	*e*P	**Pn**		**07 08 05.6**	**-1.8**
BUAI	**Buenos Aires**	**1.12**	**127**	*e*P	**Pn**		**07 08 07.1**	**-0.3**
PEJA	**Penjamo Buenos**	**1.13**	**126**	*e*P	**Pn**		**07 08 07.0**	**-0.5**
PLRN	**Geotermica Pol**	**1.14**	**333**	P	**Pn**		**07 08 07.0**	**-0.5**
PLRN				S		**Sn**	**07 08 23.0**	**-0.2**
VRLE	**La Escondida,**	**1.16**	**132**	*e*P	**Pn**		**07 08 07.7**	**-0.2**
QUEN	**Al S del Volca**	**1.18**	**330**	P	**Pn**		**07 08 08.0**	**-0.1**
QUEN				S		**Sn**	**07 08 24.7**	**+0.5**
ALIBA	**Liberia Airpor**	**1.18**	**145**	*e*P	**Pn**		**07 08 08.2**	**+0.1**
GPS2	**Hotel Rincn d**	**1.19**	**133**	*e*P	**Pn**		**07 08 08.6**	**+0.4**
CLARA	**Aguas Claras**	**1.30**	**126**	*e*P	**Pn**		**07 08 09.2**	**-0.4**
MESS	**Mesas**	**1.31**	**128**	*e*P	**Pn**		**07 08 09.2**	**-0.6**
VMAR	**Armenia, Volca**	**1.34**	**124**	*e*P	**Pn**		**07 08 09.6**	**-0.5**
COLC	**Colonia**	**1.36**	**131**	*e*P	**Pn**		**07 08 10.1**	**-0.2**
CRIN	**San Cristobal**	**1.38**	**325**	⇓P	**Pn**		**07 08 10.3**	**-0.3**
CRIN				S		**Sn**	**07 08 28.0**	**-0.7**
UPAL	**Upala**	**1.38**	**119**	P	**Pn**		**07 08 09.8**	**-0.7**
UPAL				S		**Sn**	**07 08 28.2**	**-0.4**
UPAL	**Upala**	**1.38**	**119**	*e*P	**Pn**		**07 08 09.7**	**-0.8**
CUI	**Cuipilapa**	**1.39**	**130**	*e*P	**Pn**		**07 08 10.6**	**-0.1**
BAGA	**Bagaces**	**1.41**	**137**	*e*P	**Pn**		**07 08 10.7**	**-0.2**
TENO	**El Achiote**	**1.51**	**124**	*e*P	**Pn**		**07 08 11.9**	**-0.4**
TIMP	**Tierras Morena**	**1.55**	**129**	*e*P	**Pn**		**07 08 11.8**	**-1.0**
QUEB	**Quebradon, Cot**	**1.62**	**125**	*e*P	**Pn**		**07 08 13.7**	**0.0**
COTE	**Lago Cote**	**1.63**	**127**	*e*P	**Pn**		**07 08 14.1**	**+0.2**
TILA	**Tilaran**	**1.66**	**131**	*e*P	**Pn**		**07 08 13.9**	**-0.3**
JTS	**Las Juntas de**	**1.79**	**135**	*e*P	**Pn**		**07 08 15.9**	**0.0**
CEDE	**Laguna Cedeo**	**1.85**	**125**	*e*P	**Pn**		**07 08 16.7**	**-0.1**
VARE2	**V. Arenal**	**1.86**	**126**	*e*P	**Pn**		**07 08 16.6**	**-0.1**
CASO	**Castillo**	**1.86**	**127**	*e*P	**Pn**		**07 08 17.1**	**+0.3**
VACR	**Volcan Arenal**	**1.88**	**125**	*e*P	**Pn**		**07 08 16.9**	**-0.2**
POTN	**Potosi Cosigui**	**1.89**	**319**	P	**Pn**		**07 08 16.7**	**-0.4**
POTN				S		**Sn**	**07 08 40.0**	**-0.3**
RCPN	**Sur Rio San Ju**	**1.96**	**4**	⇑P	**Pn**		**07 08 18.2**	**+0.1**
COVE	**Coope Vega, Sa**	**1.99**	**115**	P	**Pn**		**07 08 17.9**	**-0.6**
RCVN	**Varillal2**	**2.01**	**1**	⇑P	**Pn**		**07 08 18.8**	**0.0**
CNCH	**Conchagua**	**2.30**	**318**	P	**Pn**		**07 08 22.5**	**-0.3**
CNCH				S		**Sn**	**07 08 50.7**	**+0.2**
LCND	**La Caada**	**2.37**	**317**	⇓P	**Pn**		**07 08 23.6**	**+0.2**
TCS1	**Tacares**	**2.44**	**128**	P	**Pn**		**07 08 25.0**	**+0.5**
BLUN	**Bluefields**	**2.46**	**79**	P	**Pn**		**07 08 24.5**	**-0.2**
BLUN				S		**Sn**	**07 08 53.3**	**-0.6**
SIUN	**Universidad Ur**	**2.58**	**34**	P	**Pn**		**07 08 26.4**	**+0.1**
HDC	**Heredia**	**2.61**	**126**	P	**Pn**		**07 08 27.3**	**+0.5**
HDC				S		**Sn**	**07 09 00.7**	**+3.0**
TRT2	**Tortugero**	**2.66**	**112**	⇓P	**Pn**		**07 08 26.8**	**-0.6**
TRT2				S		**Sn**	**07 08 58.6**	**-0.1**
TGUH	**Tegucigalpa,Un**	**2.67**	**338**	⇓P	**Pn**		**07 08 28.2**	**+0.4**
TGUH				S		**Sn**	**07 09 00.9**	**+1.6**
ACOS	**Acosta**	**2.69**	**130**	*e*P	**Pn**		**07 08 27.9**	**-0.1**
RANC	**El Ranchito**	**2.73**	**313**	⇓P	**Pn**		**07 08 29.2**	**+0.7**
PACA	**Pacayal**	**2.78**	**313**	P	**Pn**		**07 08 29.5**	**+0.4**
PACA				S		**Sn**	**07 09 02.1**	**+0.3**
VICA	**Volcano Irazu**	**2.83**	**123**	*e*P	**Pn**		**07 08 30.4**	**+0.2**
ABE2	**San Pablo**	**2.84**	**130**	*e*P	**Pn**		**07 08 29.2**	**-0.9**
LCR2	**La Lucha 2**	**2.85**	**129**	P	**Pn**		**07 08 29.6**	**-0.6**
LCR2	**La Lucha 2**	**2.85**	**129**	*e*P	**Pn**		**07 08 30.0**	**-0.2**
ALJI	**Alcalda de J**	**2.87**	**308**	P	**Pn**		**07 08 30.3**	**0.0**
ALJI				S		**Sn**	**07 09 02.8**	**-1.1**
TECO	**Alcaldia de Te**	**3.16**	**309**	P	**Pn**		**07 08 34.5**	**+0.3**
TECO				S		**Sn**	**07 09 09.1**	**-1.9**
COEG	**Centro de Oper**	**3.29**	**309**	P	**Pn**		**07 08 36.1**	**+0.1**
COEG				S		**Sn**	**07 09 12.9**	**-1.2**
PAVA	**Las Pavas**	**3.39**	**309**	P	**Pn**		**07 08 38.6**	**+1.2**
PAVA				S		**Sn**	**07 09 17.1**	**+0.5**
P5NO	**Presa 5 de nov**	**3.44**	**315**	P	**Pn**		**07 09 40.1**	**+2.1**
LOMA	**Loma Larga**	**3.53**	**306**	P	**Pn**		**07 08 39.5**	**+0.2**
LOMA				S		**Sn**	**07 09 18.9**	**-1.2**
UDBS	**Universidad Do**	**3.56**	**307**	S	**Sn**		**07 09 19.6**	**-1.1**
UTEC	**Universidad Te**	**3.58**	**307**	P	**Pn**		**07 08 41.3**	**+1.3**
PMON	**Piamonte**	**3.68**	**306**	P	**Pn**		**07 08 41.6**	**+0.3**
PMON				S		**Sn**	**07 09 24.3**	**+0.6**
JAYA	**Jayaque - finc**	**3.76**	**304**	⇓P	**Pn**		**07 08 43.2**	**+0.8**
JAYA				S		**Sn**	**07 09 23.2**	**-2.5**
CEVE	**Cerro Verde**	**3.99**	**305**	P	**Pn**		**07 08 45.9**	**+0.2**
NUBE	**Las Nubes**	**4.16**	**304**	P	**Pn**		**07 08 48.4**	**+0.5**
NUBE				S		**Sn**	**07 09 33.5**	**-1.9**

*ISK **15** 07:13:57.2, 37°.83N×26°.68E, h7km, ML2.9/27*
*ATH **15** 07:13:57.6, 37°.87N×26°.70E, h12km, ML2.8/17, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **15** 07:13:57.8, 38°N±1°×27°E±°, h10km±1km, M2.8/10, MLh2.8/10*
*AFAD **15** 07:13:58.0, 37°.88N×26°.71E, h7km±3km, ML3.0*

ISC 15 07:13:57.8±0.8, 37°.86N±0°.02×26°.68E±0°.02, h13km±5km, n102, σ0s57/140, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.07**	**162**	P	**Pg**		**07 14 00.2**	**-0.2**
KRL1				S	**Sg**		**07 14 02.0**	**-0.2**
KRL1				AML	AML			
SAM2	**Drakei, Karlov**	**0.12**	**208**	P	**Pg**		**07 14 01.1**	**+0.2**
SAM2				S	**Sg**		**07 14 03.1**	**-0.1**
SAM2				AML	AML			
SMG	**Samos**	**0.20**	**140**	P	**Pg**		**07 14 02.0**	**-0.2**
SMG				S	**Sg**		**07 14 05.0**	**-0.1**
SMG				AML	AML			
SMG	**Samos**	**0.20**	**140**	P	**Pg**		**07 14 02.2**	**0.0**
SMG				S	**Sg**		**07 14 05.4**	**+0.2**
SMG				AML	AML			
DGB	**zmir**	**0.25**	**40**	P	**Pg**		**07 14 02.8**	**-0.3**
DGB				IAML			07 14 06.0	
	comp=E,4μm,0.2s							
DGB				S	**Sg**		**07 14 06.2**	**-0.5**
GMLD	**Gumuldur**	**0.29**	**41**	Pg	**Pg**		**07 14 03.7**	**-0.1**
GMLD				Sg	**Sg**		**07 14 07.9**	**+0.2**
GMLD				AML	AML			
ZEYE	**Izmir, Urla-Ze**	**0.40**	**340**	P	**Pg**		**07 14 05.4**	**-0.5**
ZEYE				IAML			07 14 12.0	
	comp=N,2μm,0.1s							
ZEYE				S	**Sg**		**07 14 12.1**	**+0.8**
ZEYE				IAML			07 14 13.0	
	comp=E,2μm,0.3s							
BEYE	**izmir**	**0.41**	**28**	P	**Pg**		**07 14 05.7**	**-0.4**
BEYE				S	**Sg**		**07 14 11.6**	**-0.1**
GCAM	**G?zelcaml?**	**0.47**	**110**	P	**Pg**		**07 14 06.4**	**-0.6**
GCAM				S	**Sb**		**07 14 14.4**	**-0.3**
GCAM				IAML			07 14 15.0	
	comp=E,1μm,0.2s							
GCAM	**G?zelcaml?**	**0.47**	**110**	Pg	**Pg**		**07 14 06.7**	**-0.3**
GCAM				Sg	**Sg**		**07 14 13.6**	**+0.3**
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.48**	**90**	Pg	**Pg**		**07 14 06.9**	**-0.4**
KUSD				Sg	**Sg**		**07 14 13.4**	**-0.3**
KUSD				AML	AML			
CESE	**eme**	**0.56**	**328**	Pg	**Pg**		**07 14 08.6**	**-0.2**
CESE				AML	AML			
BLCB	**Balcova**	**0.60**	**28**	P	**Pg**		**07 14 09.2**	**-0.3**
BLCB				S	**Sg**		**07 14 17.0**	**-0.4**
BLCB	**Balcova**	**0.60**	**28**	Pg	**Pg**		**07 14 09.6**	**+0.1**
BLCB				AML	AML			
DDIM	**Aydin, Didim**	**0.60**	**132**	P	**Pg**		**07 14 09.3**	**-0.3**
DDIM				S	**Sb**		**07 14 19.1**	**+0.5**
DDIM				IAML			07 14 21.0	
	comp=E,1μm,0.3s							
DDIM				IAML			07 14 22.0	
	comp=N,985nm,0.5s							
DUVT	**Torbali**	**0.71**	**59**	P	**Pg**		**07 14 11.3**	**-0.3**
DUVT				S	**Sg**		**07 14 20.5**	**-0.4**
DUVT				IAML			07 14 24.0	
	comp=E,845nm,0.4s							
CHOS	**Chios island**	**0.72**	**317**	P	**Pg**		**07 14 11.8**	**-0.1**
CHOS				S	**Sb**		**07 14 23.0**	**+0.8**
CHOS				AML	AML			
CHOS	**Chios island**	**0.72**	**317**	Pg	**Pg**		**07 14 12.1**	**+0.2**
CHOS				Sg	**Sb**		**07 14 22.8**	**+0.6**
CHOS				AML	AML			
CHOS	**Chios island**	**0.72**	**317**	P	**Pg**		**07 14 11.7**	**-0.2**
CHOS				S	**Sb**		**07 14 22.2**	**0.0**
KRBN	**Karaburun**	**0.74**	**352**	Pg	**Pg**		**07 14 12.2**	**0.0**
KRBN				AML	AML			
BAGT	**Foa**	**0.81**	**10**	P	**Pb**		**07 14 13.5**	**-0.2**
BAGT				S	**Sn**		**07 14 27.2**	**+0.3**
EAG2	**Marmaro, Chios**	**0.82**	**327**	P	**Pg**		**07 14 13.6**	**-0.1**
EAG2				S	**Sg**		**07 14 24.7**	**+0.3**
KARB	**zmir-Karabur**	**0.83**	**345**	P	**Pg**		**07 14 13.7**	**-0.2**
KARB				S	**Sb**		**07 14 26.1**	**+0.8**
KARB				IAML			07 14 28.0	
	comp=N,1μm,0.5s							
KARB				IAML			07 14 28.0	
	comp=E,808nm,0.5s							
FOCM	**Foa**	**0.85**	**3**	Pg	**Pb**		**07 14 14.8**	**+0.3**
FOCM				AML	AML			
DAGE	**izmir**	**0.86**	**80**	P	**Pb**		**07 14 14.4**	**-0.3**
DAGE				S	**Sg**		**07 14 25.5**	**-0.3**
DAGE				IAML			07 14 27.0	
	comp=E,857nm,0.2s							
DAGE				IAML			07 14 28.0	
	comp=N,600nm,0.2s							
YKAV	**Yalikavak-Bodr**	**0.88**	**147**	Pg	**Pg**		**07 14 14.4**	**-0.4**
YKAV				AML	AML			
KLNA	**Kalymnos**	**0.93**	**165**	P	**Pg**		**07 14 15.4**	**-0.4**
BODT	**Bodrum**	**0.94**	**148**	P	**Pg**		**07 14 15.4**	**-0.6**
BODT				S	**Sb**		**07 14 28.9**	**+0.4**
BODT				AML	AML			
BODT	**Bodrum**	**0.94**	**148**	Pg	**Pg**		**07 14 15.7**	**-0.3**
BODT				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.96**	**84**	Pg	**Pg**		**07 14 15.9**	**-0.5**
AYDB				AML	AML			
AYDN	**Tasoluk**	**0.97**	**101**	P	**Pg**		**07 14 16.2**	**-0.4**
AYDN				S	**Sg**		**07 14 28.9**	**-0.4**
BDRM	**Kayabasi**	**1.00**	**142**	P	**Pg**		**07 14 16.8**	**-0.3**
BDRM				S	**Sn**		**07 14 31.9**	**+0.3**
BDRM				IAML			07 14 33.0	
	comp=E,391nm,0.4s							
BDRM				IAML			07 14 34.0	
	comp=N,453nm,0.2s							
BODA	**Bodrum-Mula**	**1.02**	**144**	Pg	**Pg**		**07 14 17.1**	**-0.3**
CAMT	**Merkez**	**1.02**	**29**	P	**Pb**		**07 14 17.5**	**+0.1**
CAMT				S	**Sn**		**07 14 32.0**	**-0.1**
CAMT				IAML			07 14 34.0	
	comp=E,554nm,0.3s							
CAMT				IAML			07 14 35.0	
	comp=N,471nm,0.5s							
IZMR	**zmir-demi**	**1.04**	**74**	P	**Pg**		**07 14 16.9**	**-1.0**
IZMR				S	**Sg**		**07 14 29.7**	**-1.8**
ZEDA	**zmir-Bergama**	**1.15**	**16**	P	**Pb**		**07 14 18.4**	**-1.2**
ZEDA				S	**Sn**		**07 14 36.9**	**+1.6**
APE	**Apeiranthos**	**1.21**	**230**	P	**Pn**		**07 14 19.6**	**-0.9**
APE				S	**Sg**		**07 14 37.1**	**+0.3**
APE				AML	AML			
APE	**Apeiranthos**	**1.21**	**230**	Pn	**Pn**		**07 14 19.8**	**-0.7**
APE				AML	AML			
APE	**Apeiranthos**	**1.21**	**230**	P	**Pn**		**07 14 19.6**	**-0.9**
APE				S	**Sb**		**07 14 35.8**	**-0.4**
APE				AML	AML			
DKL	**Dikili**	**1.22**	**8**	Pn	**Pg**		**07 14 21.1**	**-0.3**
DKL				AML	AML			
DKL	**Dikili**	**1.22**	**8**	P	**Pn**		**07 14 20.1**	**-0.6**
DKL				S	**Sb**		**07 14 36.5**	**0.0**
TNSA	**Tinos**	**1.25**	**256**	P	**Pn**		**07 14 20.2**	**-0.8**
TNSA				S	**Sb**		**07 14 36.0**	**-1.2**
TNSA				AML	AML			
NAZL	**Nazilli-Aydin**	**1.28**	**85**	Pn	**Pb**		**07 14 21.9**	**+0.1**
NAZL				AML	AML			
NAX1	**Naxos Island**	**1.28**	**234**	P	**Pg**		**07 14 22.9**	**+0.3**
NAX1				S	**Sn**		**07 14 39.3**	**+0.7**
NAX1				AML	AML			
GOMA	**Golmarmara-Man**	**1.29**	**49**	Pn	**Pg**		**07 14 22.2**	**-0.5**
GOMA				AML	AML			
DAT	**Datca**	**1.34**	**147**	Pn	**Pn**		**07 14 22.5**	**+0.1**
DAT				AML	AML			
ASTA	**Astypalaia**	**1.34**	**191**	P	**Pn**		**07 14 22.8**	**+0.6**
ASTA				S	**Sb**		**07 14 40.4**	**+0.6**
AKS	**Akhisar**	**1.35**	**41**	Pn	**Pg**		**07 14 23.6**	**-0.2**
AKS				AML	AML			
PRK	**Paraskevi**	**1.42**	**347**	P	**Pn**		**07 14 23.0**	**-0.4**
PRK				AML	AML			
PRK	**Paraskevi**	**1.42**	**347**	P	**Pn**		**07 14 23.0**	**-0.4**
PRK				S	**Sn**		**07 14 42.1**	**+0.1**
SOMA	**Soma-Manisa**	**1.46**	**27**	Pn	**Pg**		**07

az=72.0

ISC 15 07:22:04.1±1.0,6°84N±0.03×73°09W±0.04,h161km±7km, n50,σ1§64/91,1D,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.26**	**200**	P	**Pn**	**07 22 26.7**	**+0.6**
BARC				S	**Sn**	**07 22 41.8**	**-1.1**
BRJC	**Barrancabermej**	**0.66**	**282**	P	**Pn**	**07 22 28.5**	**+1.0**
BRJC				S	**Sn**	**07 22 45.0**	**-0.3**
RUSC	**La Rusia**	**0.94**	**179**	P	**Pn**	**07 22 31.1**	**+1.0**
RUSC				S	**Sn**	**07 22 49.5**	**-0.3**
RUSC	**La Rusia**	**0.94**	**179**	P	**Pn**	**07 22 30.7**	**+0.7**
RUSC				S	**Sn**	**07 22 49.3**	**-0.6**
RUSC	**La Rusia**	**0.94**	**179**	*e*P	**Pn**	**07 22 30.8**	**+0.7**
RUSC				*e*S	**Sn**	**07 22 48.7**	**-1.2**
CAPV	**Capacho**	**1.28**	**37**	⇓*i*P	**Pn**	**07 22 34.9**	**+2.3**
CAPV				*e*S	**Sn**	**07 22 55.4**	**+1.0**
TAMC	**Tame, Arauca**	**1.35**	**107**	P	**Pn**	**07 22 35.0**	**+1.9**
TAMC				S	**Sn**	**07 22 56.1**	**+0.8**
OCAC	**Ocana**	**1.41**	**351**	P	**Pn**	**07 22 34.9**	**+1.2**
OCAC				S	**Sn**	**07 22 56.6**	**0.0**
SPBC	**San Pablo de B**	**1.53**	**220**	P	**Pn**	**07 22 35.7**	**+0.8**
SPBC				S	**Sn**	**07 22 57.6**	**-1.0**
NORC	**Norcasia**	**2.17**	**234**	P	**Pn**	**07 22 43.1**	**+1.2**
NORC				S	**Sn**	**07 23 09.8**	**-1.4**
CHIC	**Chingaza**	**2.29**	**196**	P	**Pn**	**07 22 44.9**	**+1.3**
CHIC				S	**Sn**	**07 23 13.2**	**-1.0**
ROSC	**El Rosal** 70nm,0.4s,baz=75,slow=20,SNR=52	**2.33**	**212**	P	**Pn**	**07 22 46.3**	**+2.1**
ROSC	202nm,0.4s,baz=36,slow=19,SNR=15			S	**Sn**	**07 23 16.1**	**+1.0**
ROSC	**El Rosal**	**2.33**	**212**	P	**Pn**	**07 22 46.3**	**+2.1**
ROSC				S	**Sn**	**07 23 15.4**	**+0.3**
CVER	**Cruz Verde, Cu**	**2.50**	**203**	P	**Pn**	**07 22 48.1**	**+1.8**
CVER				S	**Sn**	**07 23 17.5**	**-1.3**
UREC	**San Jos de Ur**	**2.58**	**291**	P	**Pn**	**07 22 46.8**	**0.0**
UREC				S	**Sn**	**07 23 18.0**	**-1.8**
GUY2C	**Guyana, Caldas**	**2.77**	**235**	P	**Pn**	**07 22 50.9**	**+1.4**
GUY2C				S	**Sn**	**07 23 23.4**	**-1.3**
PTGC	**Puerto Gaitan,**	**2.79**	**160**	P	**Pn**	**07 22 49.7**	**+0.4**
PTGC				S	**Sn**	**07 23 21.6**	**-2.8**
NIZA	**Niza - Manizal**	**2.96**	**233**	P	**Pn**	**07 22 54.0**	**+2.4**
NIZA				S	**Sn**	**07 23 28.9**	**+0.5**
CBOC	**Ciudad Bolivar**	**3.06**	**252**	P	**Pn**	**07 22 54.7**	**+1.9**
CBOC				S	**Sn**	**07 23 29.9**	**-0.7**
SDV	**Santo Domingo**	**3.17**	**50**	*e*P	**Pn**	**07 22 56.2**	**+1.9**
SDV				*e*S	**Sn**	**07 23 32.6**	**-0.5**
ARGC	**Ariguani, Magd**	**3.21**	**339**	P	**Pn**	**07 22 57.0**	**+2.5**
ARGC				S	**Sn**	**07 23 36.0**	**+2.3**
ARMEC	**Armenia, Quind**	**3.42**	**229**	P	**Pn**	**07 22 59.9**	**+2.5**
ARMEC				S	**Sn**	**07 23 40.6**	**+1.9**
PRAC	**Prado**	**3.58**	**210**	P	**Pn**	**07 23 00.6**	**+1.2**
PRAC	**Prado**	**3.58**	**210**	P	**Pn**	**07 23 00.2**	**+0.9**
PRAC				S	**Sn**	**07 23 42.4**	**+0.1**
APAC	**Apartado, Choc**	**3.62**	**287**	P	**Pn**	**07 23 01.0**	**+1.3**
APAC				S	**Sn**	**07 23 43.3**	**+0.4**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**07 23 00.9**	**+1.1**
ORTC				S	**Sn**	**07 23 44.2**	**+1.1**
SJCC	**San Jacinto, C**	**3.67**	**326**	P	**Pn**	**07 23 01.1**	**+0.6**
SJCC				S	**Sn**	**07 23 42.6**	**-1.8**
SJCC	**San Jacinto, C**	**3.67**	**326**	P	**Pn**	**07 23 00.9**	**+0.4**
SJCC				S	**Sn**	**07 23 42.5**	**-1.8**
SJCC	**San Jacinto, C**	**3.67**	**326**	*e*P	**Pn**	**07 23 01.4**	**+0.9**
SJCC				*e*S	**Sn**	**07 23 41.7**	**-2.7**
URMC	**La Uribe, Meta**	**3.79**	**200**	P	**Pn**	**07 23 03.6**	**+1.5**
URMC				S	**Sn**	**07 23 47.3**	**+0.1**
LCBC	**Los crdobas,**	**3.81**	**302**	P	**Pn**	**07 23 04.8**	**+2.6**
LCBC				S	**Sn**	**07 23 46.9**	**-0.6**
CRJC	**Cerrejon, Guaj**	**4.16**	**3**	P	**Pn**	**07 23 07.3**	**+0.5**
CRJC				S	**Sn**	**07 23 53.3**	**-2.4**
GUVC	**San Jose del G**	**4.29**	**174**	P	**Pn**	**07 23 10.4**	**+1.9**
GUVC				S	**Sn**	**07 23 56.1**	**-2.6**
YOTC	**Yotoco, Valle**	**4.31**	**229**	P	**Pn**	**07 23 09.4**	**+0.7**
YOTC				S	**Sn**	**07 23 57.0**	**-2.2**
SMRC	**Santa Marta, M**	**4.44**	**345**	P	**Pn**	**07 23 11.8**	**+1.4**
SMRC				S	**Sn**	**07 24 00.7**	**-1.4**
MACC	**Macarena, Meta**	**4.72**	**189**	P	**Pn**	**07 23 13.8**	**-0.3**
MACC				S	**Sn**	**07 24 04.9**	**-4.0**
URI	**Uribia**	**4.95**	**13**	P	**Pn**	**07 23 17.4**	**+0.4**
TEPV	**Terepaima**	**4.95**	**51**	*e*P	**Pn**	**07 23 18.6**	**+1.5**
URIC	**Uribia, Colomb** 27nm,1.1s	**4.95**	**13**	P	**Pn**	**07 23 17.3**	**+0.3**
URIC	27nm,1.1s			S	**Sn**	**07 24 10.0**	**-4.1**
URIC				AML	AML		
URIC	**Uribia, Colomb**	**4.95**	**13**	*e*P	**Pn**	**07 23 17.4**	**+0.3**
URIC				*e*S	**Sn**	**07 24 10.4**	**-3.8**
JAMC	**Jamundi, Valle**	**5.07**	**225**	P	**Pn**	**07 23 19.8**	**+1.0**
JAMC				S	**Sn**	**07 24 16.2**	**-1.1**
UPD2	**Meteti** 56nm,2.3s	**5.17**	**289**	P	**Pn**	**07 23 20.2**	**+0.3**
UPD2	56nm,2.3s			S	**Sn**	**07 24 18.0**	**-1.1**
UPD2				AML	AML		
MAPV	**Macapo**	**5.46**	**57**	*e*P	**Pn**	**07 23 24.6**	**+0.8**
POPC	**Popayan, Colom** 11nm,0.9s	**5.57**	**220**	P	**Pn**	**07 23 26.6**	**+1.2**
POPC	11nm,0.9s			S	**Sn**	**07 24 27.0**	**-2.1**
POPC				AML	AML		
BENV	**Beln**	**6.26**	**60**	*e*P	**Pn**	**07 23 34.7**	**+0.3**
BENV				*e*S	**Sn**	**07 24 40.6**	**-4.6**
BBAC	**Balboa, Cauca**	**6.33**	**221**	P	**Pn**	**07 23 36.7**	**+1.2**
BBAC				S	**Sn**	**07 24 46.5**	**-0.7**
CACV	**CAICARA DEL OR**	**6.54**	**83**	*e*P	Pn	07 23 46.6	+8.5
AZU	**Azuero**	**7.19**	**278**	P	**Pn**	**07 23 47.0**	**+0.3**
TXAR	**Lajitas Array** 0.2nm,0.5s,baz=128,slow=6.3,SNR=2.7	**36.47**	**312**	P	**P**	**07 28 54.5**	**+0.5**
	0.2nm,0.5s						
WRA	**Warramunga Arr** 0.1nm,0.3s,baz=110,slow=3.2,SNR=1.7	**150.37**	**241**	PKPbc	**PKPbc**	**07 41 36.0**	**-1.4**

NNC 15 07:22:46.3±0.6,50.00°N×78.83°E,h0km,mb2.7,mpv2.3, Error ellipse: s-maj=17.1km s-min=2.9km az=70.0, Suspected Mining explosion.
IDC 15 07:22:47.5±1.2,50.02°N×78.84°E,h0km,mbtmp2.5/3, ML1.9/3,Error ellipse: s-maj=12.2km s-min=8.8km az=58.0

ISC 15 07:22:47.6±0.9,50°00N±0.04×78°80E±0.07,h0km,n16, σ1§35/29,16C-5D,Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR07	**Kurchatov Arra**	**0.61**	**343**	⇑P	**Pg**	**07 23 58.1**	**-1.2**
KUR07				⇑S	**Sg**	**07 23 07.4**	**+0.1**
KUR06	**Kurchatov Arra**	**0.63**	**344**	⇑P	**Pg**	**07 22 58.6**	**-1.1**
KUR06				⇑S	**Sg**	**07 23 07.0**	**-0.9**
KUR14	**Kurchatov Arra**	**0.63**	**348**	⇓P	**Pg**	**07 22 58.4**	**-1.3**
KUR14				⇑S	**Sg**	**07 23 07.6**	**-0.3**
KUR15	**Kurchatov Arra**	**0.64**	**346**	⇑P	**Pg**	**07 22 58.7**	**-1.2**
KUR15				⇑S	**Sg**	**07 23 07.9**	**-0.2**
KURBB	**Kurchatov Arra** 0.7nm,0.3s,baz=165,slow=18,SNR=32	**0.65**	**345**	Pg	**Pg**	**07 22 59.0**	**-1.1**
KURBB	0.8nm,0.3s,baz=164,slow=38,SNR=16			Lg	Lg	07 23 08.4	
KURBB	**Kurchatov Arra** 4.8nm,0.3s	**0.65**	**345**	⇑P	**Pg**	**07 22 58.8**	**-1.3**
KURBB	22nm,0.6s			⇓S	**Sg**	**07 23 08.9**	**+0.4**
KUR16	**Kurchatov Arra**	**0.66**	**343**	⇑P	**Pg**	**07 22 59.2**	**-1.0**
KUR16				⇓S	**Sg**	**07 23 08.4**	**-0.3**
KUR05	**Kurchatov Arra**	**0.67**	**345**	⇑P	**Pg**	**07 22 59.1**	**-1.3**
KUR05				⇑S	**Sg**	**07 23 08.4**	**-0.6**
KUR17	**Kurchatov Arra**	**0.67**	**342**	⇑P	**Pg**	**07 22 59.7**	**-0.7**
KUR17				⇑S	**Sg**	**07 23 08.9**	**-0.2**
KUR04	**Kurchatov Arra**	**0.68**	**346**	⇑P	**Pg**	**07 22 59.5**	**-1.3**
KUR04				⇓S	**Sg**	**07 23 09.1**	**-0.5**
KURK	**Kurchatov** 1.6nm,0.5s	**0.73**	**351**	⇑P	**Pg**	**07 23 00.3**	**-1.3**
KURK	1.9nm,0.5s			⇑S	**Sg**	**07 23 10.4**	**-0.5**
MK31	**Makanchi Array** 0.3nm,0.4s,baz=327,slow=14,SNR=8.8	**3.96**	**143**	Pg	**Pg**	**07 24 01.2**	**-2.3**
MK31	2.1nm,0.6s,baz=326,slow=26,SNR=13			⇓Lg	Lg	07 24 53.1	
MKAR	**Makanchi Array** 0.1nm,0.3s,baz=324,slow=11,SNR=7.7	**3.96**	**143**	Pn	**Pn**	**07 23 50.2**	**+0.5**
MKAR	0.3nm,0.3s,baz=322,slow=13,SNR=11			Pg	**Pb**	**07 23 59.1**	**+0.7**
MKAR				Sn	**Sn**	**07 24 37.5**	**+0.7**
MKAR	0.1nm,0.3s,baz=329,slow=14,SNR=2.0			Lg	Lg	07 24 50.0	
	0.7nm,0.3s,baz=327,slow=26,SNR=9.3						
	0.1nm,0.3s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA** baz=224,slow=329,SNR=2.4	**5.43**	**41**	I	I	07 52 50.0	
ZALV	**Zalesovo Beam** 0.2nm,0.3s,baz=229,slow=15,SNR=2.7	**5.43**	**41**	Pn	**Pn**	**07 24 11.7**	**+1.9**
ZALV	0.2nm,0.3s,baz=231,slow=28,SNR=2.4			Sn	**Sn**	**07 25 12.2**	**-0.7**
ZALV	0.2nm,0.3s,baz=225,slow=30,SNR=3.6			Lg	Lg	07 25 38.1	
	0.4nm,0.2s						
ZALV				AML	AML		
BVAR	**Borovoye Array** baz=115,slow=10,SNR=1.7	**6.06**	**303**	Pn	**Pn**	**07 24 21.4**	**+2.9**
BVAR	baz=116,slow=26,SNR=3.8			Sn	**Sn**	**07 25 25.2**	**-3.3**
BVAR	baz=122,slow=29,SNR=2.5			Lg	Lg	07 25 56.8	
	0.2nm,0.3s						

HEL 15 07:29:08.7±0.0,60.19°N×25.20E,h0km,ML1.6,Explosion
IDC 15 07:29:14.5±6.9,60.40°N×25.81E,h0km,mbtmp3.5/1, ML2.6/1,Error ellipse: s-maj=50.2km s-min=21.8km az=5.0

ISC 15 07:29:07.6±0.8,60.12N±0.03×25.29E±0.02,h0km,n31, σ1§27/47,Finland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VUOS	**Vuosaari Helsi**	**0.10**	**315**	*e*P	**Pg**	**07 29 09.0**	**-0.5**
VUOS				*e*S	**Sg**	**07 29 09.5**	**-1.3**
HEL1	**Helsinki**	**0.21**	**286**	*e*P	**Pg**	**07 29 11.3**	**-0.3**
HEL1				*e*S	**Sg**	**07 29 13.6**	**-0.8**
HEL1	comp=Z,85nm,0.2s			MSG		07 29 14.8	
LAUT	**Lauttasaari He**	**0.22**	**279**	*e*P	**Pg**	**07 29 11.6**	**-0.1**
LAUT				*e*S	**Sg**	**07 29 14.1**	**-0.5**
LAUT	comp=Z,118nm,0.2s			MSG		07 29 15.3	
HEL5	**Espoo, Suvisaa**	**0.27**	**270**	*e*P	**Pg**	**07 29 12.9**	**0.0**
HEL5				*e*S	**Sg**	**07 29 16.3**	**-0.1**
HEL5	comp=Z,44nm,0.2s			MSG		07 29 17.1	
MEF	**Metsahovi**	**0.46**	**283**	*e*P	**Pg**	**07 29 15.8**	**-0.4**
MEF	**Metsahovi**	**0.46**	**283**	*e*P	**Pg**	**07 29 15.9**	**-0.4**
MEF				*e*S	**Sg**	**07 29 21.2**	**-1.0**
MEF	comp=Z,20nm,0.2s			MSG		07 29 21.8	
NUR	**Nurmijarvi**	**0.50**	**321**	*e*P	**Pg**	**07 29 16.4**	**-0.9**
NUR				*e*S	**Sg**	**07 29 21.7**	**-2.1**
NUR	comp=Z,9.3nm,0.2s			MSG		07 29 22.5	
PVF	**Pernaja**	**0.51**	**34**	*e*P	**Pg**	**07 29 17.3**	**-0.1**
PVF				*e*S	**Sg**	**07 29 23.6**	**-0.5**
PVF	comp=Z,7.2nm,0.2s			MSG		07 29 24.6	
ARBE	**Arbavere**	**0.77**	**152**	*e*P	**Pn**	**07 29 24.0**	**-1.7**
ARBE				*e*S	**Sn**	**07 29 35.4**	**-2.6**
TVF	**Tvarminne**	**1.06**	**256**	*e*P	**Pg**	**07 29 27.4**	**-0.5**
TVF	comp=Z,2.3nm,0.2s			MSG		07 29 40.1	
VJF	**Virojoki**	**1.21**	**69**	*e*P	**Pg**	**07 29 30.3**	**-0.4**
VJF				MSG		07 29 45.6	
VJF	comp=Z,7.2nm,0.2s			*e*SB	**Sg**	**07 29 46.6**	**+0.3**
FIA0	**FINESS Array S**	**1.38**	**16**	*e*P	**Pn**	**07 29 32.5**	**-1.7**
FIA0	comp=Z,3.3nm,0.2s			MSG		07 29 48.9	
FINES	**FINESS Array B** comp=Z,1.1nm,0.3s,baz=190,slow=17,SNR=41	**1.38**	**16**	Pg	**Pn**	**07 29 32.8**	**-1.3**
FINES	comp=Z,2.6nm,0.3s,baz=186,slow=27,SNR=15			Lg	Lg	07 29 49.7	
FINES	comp=Z,28nm,0.8s,baz=192,slow=22,SNR=12			Rg	Rg	07 29 55.0	
MTSE	**Matsula**	**1.60**	**209**	*e*PG	**Pg**	**07 29 38.1**	**-0.1**
MTSE				*e*SN	**Sg**	**07 30 01.0**	**+2.1**
VSU	**Vasula**	**1.82**	**155**	*e*P	**Pg**	**07 29 41.8**	**-0.7**
VSU				*e*SN	**Sg**	**07 30 06.8**	**+0.8**
RAF	**Rauma**	**1.96**	**299**	*e*P	**Pn**	**07 29 42.1**	**0.0**
RAF	**Rauma**	**1.96**	**299**	*e*PG	**Pn**	**07 29 42.3**	**+0.2**
RAF	comp=Z,3.7nm,0.2s			MSG		07 30 04.7	
RAF				*e*SG	**Sn**	**07 30 07.8**	**+0.5**
KAF	**Kangasniemi**	**2.06**	**13**	*e*PG	**Pb**	**07 29 45.0**	**-0.9**
KAF	comp=Z,2.9nm,0.2s			MSG		07 30 08.1	
KAF				*e*SG	**Sn**	**07 30 11.8**	**+1.9**
KEF	**Keuruu**	**2.06**	**355**	*e*P	**Pb**	**07 29 45.1**	**-0.8**
KEF	**Keuruu**	**2.06**	**355**	*e*PG	**Pn**	**07 29 44.4**	**+0.9**
KEF	comp=Z,2.6nm,0.2s			MSG		07 30 07.8	
KEF				*e*SG	**Sn**	**07 30 10.9**	**+1.0**
RUF	**Ruokolahti**	**2.22**	**52**	*e*PG	**Pb**	**07 29 48.3**	**-0.4**
RUF	comp=Z,2.0nm,0.2s			MSG		07 30 14.3	
RUF				*e*SG	**Sb**	**07 30 17.9**	**+1.2**
KPF	**Kankaanpaa**	**2.33**	**319**	*e*PG	**Pn**	**07 29 48.5**	**+1.4**
KPF	comp=Z,1.9nm,0.2s			MSG		07 30 15.1	
KPF				*e*SG	**Sn**	**07 30 18.5**	**+2.1**
SUF	**Sumiainen**	**2.64**	**9**	*e*P	**Pb**	**07 29 54.5**	**-1.3**
SUF	**Sumiainen**	**2.64**	**9**	*e*PB	**Pn**	**07 29 53.8**	**+2.4**
SUF	comp=Z,0.9nm,0.2s			MSG		07 30 24.7	
SUF				*e*SG	**Sb**	**07 30 27.8**	**-0.9**
VAF	**Ylistaro**	**3.19**	**338**	*e*P	**Pn**	**07 30 01.2**	**+2.3**
VAF	**Ylistaro**	**3.19**	**338**	*e*PB	**Pn**	**07 30 01.3**	**+2.3**
VAF	comp=Z,0.7nm,0.2s			MSG		07 30 40.0	
JOF	**Joensuu**	**4.03**	**43**	*e*P	**Pn**	**07 30 10.9**	**+0.5**
JOF	**Joensuu**	**4.03**	**43**	*e*P	**Pn**	**07 30 11.9**	**+1.5**
HEMU	**Hemsoen**	**4.33**	**309**	*e*P	**Pn**	**07 30 16.0**	**+1.4**
I43RU	**DUBNA INFRASON** baz=304,slow=323,SNR=3.1	**7.13**	**113**	I	I	08 13 31.3	
ARCES	**ARCESS Array B** comp=Z,0.1nm,0.3s,baz=180,slow=9.8,SNR=1.5	**9.46**	**0**	Pn	**Pn**	**07 31 26.1**	**+1.2**
	comp=Z,1.9nm,0.8s						
ARCES				AML	AML		

CATAC 15 07:30:49.6±1.1,19°N±5°×9°2W±°,h29km±10km,M4.0/7, mb4.1/1,MLv3.9/7,Error ellipse: s-maj=10.9km s-min=5.2km az=150.5,confirmed
MEX 15 07:30:50.7±1.0,19°28N×92°48W,h11km±25km,MD4.1, Presumed earthquake

ISC 15 07:30:46.5±1.1,19°34N±0.05×92°46W±0.03,h10km,n22, σ1§46/42,Bay of Campeche

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCIG	**Sabancuy**	**1.26**	**107**	P	**Pn**	**07 31 10.1**	**-0.1**
SCIG				S	**Sg**	**07 31 28.4**	**+1.2**
SCIG	**Sabancuy**	**1.26**	**107**	*e*P	**Pn**	**07 31 10.1**	**-0.1**
SCIG				*e*S	**Sb**	**07 31 27.1**	**+0.4**
UXUV	**UXUV**	**2.57**	**219**	*e*P	**Pn**	**07 31 29.1**	**+0.9**
UXUV				*e*S	**Sn**	**07 31 57.8**	**-1.8**
TGIG		**2.63**	**194**	*e*P	**Pn**	**07 31 30.4**	**+1.3**
TGIG				*e*S	**Sn**	**07 32 01.4**	**+0.3**
CCIG	**Comitan**	**3.06**	**174**	P	**Pn**	**07 31 36.6**	**+1.5**
CCIG				S	**Sn**	**07 32 13.7**	**+1.9**
CCIG	**Comitan**	**3.06**	**174**	*e*P	**Pn**	**07 31 36.4**	**+1.3**
CCIG				*e*S	**Sn**	**07 32 10.1**	**-1.8**
CMIG	**Matias Romero**	**3.21**	**226**	*e*P	**Pn**	**07 31 38.0**	**+1.0**
CMIG				*e*S	**Sn**	**07 32 13.8**	**-1.6**
PETF	**Flores**	**3.45**	**134**	P	**Pn**	**07 31 40.3**	**0.0**
PETF				S	**Sn**	**07 32 19.4**	**-1.8**
PETF	**Flores**	**3.45**	**134**	*e*P	**Pn**	**07 31 40.3**	**0.0**
PETF				*e*S	**Sn**	**07 32 17.7**	**-3.6**
NEUV	**Arroyo Zacate**	**3.56**	**243**	*e*P	**Pn**	**07 31 43.2**	**+1.4**
NEUV				*e*S	**Sn**	**07 32 23.5**	**-0.5**
PCIG		**3.69**	**191**	*e*P	**Pn**	**07 31 45.6**	**+2.0**
PCIG				*e*S	**Sn**	**07 32 25.1**	**-2.1**
TEIG	**Tepich**	**4.04**	**77**	P	**Pn**	**07 31 48.8**	**+0.5**
TEIG				S	**Sn**	**07 32 35.0**	**-0.7**
JAUV	**Jalcomulco**	**4.10**	**271**	*e*P	**Pn**	**07 31 50.0**	**+0.7**
JAUV				*e*S	**Sn**	**07 32 35.8**	**-1.6**
HUEH	**Huehuetenango**	**4.11**	**167**	S	**Sn**	**07 32 37.8**	**0.0**
PAVE	**Pavencul**	**4.14**	**176**	*e*P	**Pn**	**07 31 50.5**	**+0.5**
PAVE				*e*S	**Sn**	**07 32 37.1**	**-1.4**
PATR	**El Naranjo**	**4.21**	**177**	*e*P	**Pn**	**07 31 51.0**	**+0.1**
PATR				*e*S	**Sn**	**07 32 38.5**	**-1.8**
CHUJ	**Union Juarez**	**4.24**	**175**	*e*P	**Pn**	**07 31 52.4**	**+1.0**
CHUJ				*e*S	**Sn**	**07 32 39.3**	**-1.8**
TOIG	**Toxpalan**	**4.54**	**255**	*e*P	**Pn**	**07 31 57.3**	**+1.9**
TOIG				*e*S	**Sn**	**07 32 47.7**	**-0.6**
CXUV	**Coxquihui**	**4.90**	**281**	*e*P	**Pn**	**07 32 01.1**	**+0.8**
CXUV				*e*S	**Sn**	**07 32 54.4**	**-2.7**
ESQI	**Esquipulas**	**5.62**	**147**	P	**Pn**	**07 32 10.5**	**+0.4**
SARH	**Santa Rosa de**	**5.76**	**142**	P	**Pn**	**07 32 11.7**	**-0.4**
SARH				S	**Sn**	**07 33 16.7**	**-1.6**
CTUV	**Llano Grande**	**5.92**	**292**	*e*P	**Pn**	**07 32 14.7**	**+0.5**
CTUV				*e*S	**Sn**	**07 33 19.6**	**-2.6**

IDC 15 08:05:20.1±1.7,53.07°N×168.22W,h0km,mb3.7/7, mbtmp3.7/8,ML2.5/1,MS2.9/2,Error ellipse: s-maj=50.0km s-min=23.5km az=174.0
AEIC 15 08:05:25.8±1.8,52.86N±0.08×168.17W±0.08,h32km±6km, Error ellipse: s-maj=12.4km s-min=4.4km az=151.0
NEIC 15 08:05:27.1±1.0,53.0N±0.1×168.3W±0.1,h56km±6km, mb3.6/18,ML3.7/14,ML3.5(AEIC),Error ellipse: s-maj=19.2km s-min=5.5km az=156.0

ISC 15 08:05:26.8±1.2,52.9N±0.1×168.27W±0.07,h54km±9km, n86,σ0§93/87,mb3.5/6,Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKTU	**Okmok Mt. Tuli**	**0.48**	**17**		**Pn**	**08 05 38.1**	**0.0**
OKCE	**Okmok Cone E**	**0.50**	**7**		**Pn**	**08 05 38.6**	**+0.2**
OKFG	**Magazine Ridge**	**0.53**	**24**		**Pn**	**08 05 38.4**	**-0.2**
OKFG					**Sn**	**08 05 47.4**	**+0.2**
OKNC	**Okmok New Cone**	**0.54**	**10**		**Pn**	**08 05 39.4**	**+0.6**
CLCO	**Concord Point,**	**0.89**	**261**		**Pn**	**08 05 42.1**	**-1.0**
CLCO					**Sn**	**08 05 54.5**	**-0.6**
CLES	**Cleveland East**	**0.99**	**264**		**Pn**	**08 05 44.0**	**-0.5**
CLES					**Sn**	**08 05 57.9**	**+0.5**
MAPS	**Pakushin South**	**1.19**	**42**		**Pn**	**08 05 47.0**	**-0.1**
MAPS					**Sn**	**08 06 02.8**	**+0.5**
MGOD	**Makushin Gods**	**1.21**	**44**		**Pn**	**08 05 46.7**	**-0.7**
MGOD					**Sn**	**08 06 03.3**	**+0.5**
MREP	**Makushin Rep't**	**1.27**	**45**		**Pn**	**08 05 47.9**	**-0.4**
MSW	**Makushin Switc**	**1.33**	**41**		**Pn**	**08 05 49.3**	**+0.2**
MNAT	**Makushin Natee**	**1.35**	**44**		**Pn**	**08 05 49.1**	**-0.2**
MNAT					**Sn**	**08 06 06.6**	**+0.5**
UNV	**Unalaska Valle**	**1.40**	**48**		**Pn**	**08 05 49.5**	**-0.4**
UNV					**Sn**	**08 06 07.5**	**+0.1**
UNV	comp=E,908nm,0.5s			IAML		08 06 10.8	
UNV	comp=N,878nm,0.4s			IAML		08 06 11.7	
MTBL	**Makushin Table**	**1.41**	**42**		**Pn**	**08 05 50.6**	**+0.4**
AKRB	**Akutan Reef Bi**	**1.78**	**47**		**Pn**	**08 05 55.1**	**-0.1**
ZRO	**Akutan Zero**	**1.80**	**49**		**Pn**	**08 05 55.3**	**-0.1**
ZRO					**Sn**	**08 06 17.3**	**+0.2**
LVA	**Lava Point**	**1.82**	**46**		**Pn**	**08 05 55.8**	**+0.1**
LVA	comp=E,1μm,0.5s			IAML		08 06 23.9	
AKBBA	**Akutan Broad B**	**1.82**	**49**		**Pn**	**08 05 55.6**	**-0.1**
AKV	**Akutan Volcano**	**1.83**	**48**		**Pn**	**08 05 56.5**	**+0.6**
AKGG	**Akutan Green G**	**1.86**	**46**		**Pn**	**08 05 56.5**	**+0.3**
AHB	**Akutan Harbor**	**1.89**	**50**		**Pn**	**08 05 56.6**	**0.0**
AKUT	**Akutan**	**1.92**	**50**		**Pn**	**08 05 57.2**	**+0.2**
AKUT	comp=E,418nm,0.5s			IAML		08 06 28.9	
AKUT	comp=N,469nm,0.8s			IAML		08 06 31.3	
WESP	**Westdahl Peak**	**2.63**	**52**		**Pn**	**08 06 06.8**	**0.0**
WESP					**Sn**	**08 06 39.3**	**+1.9**
WESN	**West Dahl Nort**	**2.74**	**52**		**Pn**	**08 06 08.7**	**+0.4**
WTUG	**Tugumak**	**3.00**	**49**		**Pn**	**08 06 12.4**	**+0.6**
ISLZ	**Isanotski Laza**	**3.25**	**55**		**Pn**	**08 06 15.6**	**+0.4**
KOFP	**Korovin Flat P**	**3.61**	**262**		**Pn**	**08 06 21.4**	**+1.2**
ATKA	**Atka Island**	**3.69**	**261**		**Pn**	**08 06 22.2**	**+1.0**
ATKA	comp=E,75nm,0.9s			IAML		08 07 21.2	
DT1	**Dutton Round H**	**4.15**	**56**		**Pn**	**08 06 28.4**	**+0.8**
GSMY	**Great Sitkin M**	**4.84**	**263**		**Pn**	**08 06 38.6**	**+1.6**
GSTD	**Great Sitkin T**	**4.89**	**263**		**Pn**	**08 06 39.2**	**+1.4**
ADK	**Adak**	**5.25**	**262**	Pn	**Pn**	**08 06 43.9**	**+1.2**
ADK	comp=E,67nm,0.7s			IAML		08 08 01.5	
ADK	comp=E,74nm,0.8s			IAML		08 08 06.2	
CNBA	**Chernabura Isl**	**5.47**	**66**	Pn	**Pn**	**08 06 45.7**	**0.0**
KIWB	**Kanaga Island**	**5.54**	**262**		**Pn**	**08 06 48.0**	**+1.3**
TAFL	**Tanaga Flats**	**6.02**	**263**		**Pn**	**08 06 54.6**	**+1.5**
TASE	**Tanaga Southea**	**6.08**	**264**		**Pn**	**08 06 55.2**	**+1.2**
GANO	**Gareloi North**	**6.54**	**264**	Pn	**Pn**	**08 07 00.9**	**+0.5**
GAKI	**Gareloi-Kavalg**	**6.62**	**262**		**Pn**	**08 07 02.3**	**+0.9**
CHGN	**Chignik**	**6.65**	**56**	Pn	**Pn**	**08 07 01.9**	**+0.2**
OHAK	**Old Harbor**	**9.60**	**57**	Pn	**Pn**	**08 07 41.9**	**-0.2**
KIAK	**Kiliuk Island**	**10.16**	**55**	Pn	**Pn**	**08 07 48.7**	**-1.1**
SLKM	**Skilak Lake**	**12.45**	**45**	Pn	**

H11S2	**WAKE ISLAND Hy**	**39.51**	**219**	T	T	08 55 01.7		
	baz=24,slow=76,SNR=378							
H11S3	**WAKE ISLAND Hy**	**39.52**	**219**	T	T	08 55 01.7		
	baz=24,slow=76,SNR=228							
TXAR	**Lajitas Array**	**52.08**	**90**	P	**P**	**08 14 31.1**	**-0.1**	
	comp=Z,0.2nm,0.6s,baz=313,slow=7.4,SNR=4.6							
	comp=Z,0.2nm,0.6s							
TXAR	**Lajitas Array**	**52.08**	**90**	P	**P**	**08 14 30.9**	**-0.2**	
MKAR	**Makanchi Array**	**63.90**	**314**	P	**P**	**08 15 52.2**	**-1.4**	
	comp=Z,0.3nm,0.6s,baz=45,slow=6.4,SNR=2.4							
	comp=Z,0.3nm,0.6s							
MKAR	**Makanchi Array**	**63.90**	**314**	P	**P**	**08 15 52.8**	**-0.8**	
FINES	**FINESS Array B**	**65.40**	**352**	P	**P**	**08 16 03.4**	**+0.3**	
	comp=Z,2.5nm,0.9s,baz=8.2,slow=6.9,SNR=1.5							
	comp=Z,2.5nm,0.9s							
AKASG	**Malin Array Be**	**75.69**	**349**	P	**P**	**08 17 05.9**	**0.0**	
	comp=Z,0.3nm,0.4s,baz=18,slow=6.2,SNR=1.3							
	comp=Z,0.3nm,0.4s							
CMAR	**Chiang Mai Arr**	**77.14**	**283**	P	**P**	**08 17 16.3**	**+1.7**	
	comp=Z,1.0nm,0.3s,baz=42,slow=5.9,SNR=7.0							
	comp=Z,1.0nm,0.3s							

IDC ***15*** *08:15:42.9±0.9, 7.˚51S×109.˚85E, h0km, mb3.8/6, mbtmp3.8/8, ML3.6/2, MS3.4/2, Error ellipse: s-maj=40.4km s-min=13.9km az=33.0*

DJA ***15*** *08:15:46.9±0.4, 9.˚S±2.˚×10.˚9E±.˚, h10km±2km, M4.2/41, mB4.9/1, mb4.2/1, MLv4.2/41, Mw(mB)4.2/1*

ISC 15 08:15:43.3±1.7, 8.87S±0.˚08×108.˚69E±0.˚05, h32km±13km, n34, σ1°84/32, mb3.7/6, Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CMJI	**Cimerak**	**1.10**	**348**	P		**Pb**		**08 16 05.0**	**+1.2**
CMJI				S		**Sn**		**08 16 16.5**	**-0.1**
CMJI				AML		AML			
SCJI	**Gunung Srandil**	**1.27**	**22**	P		**Pn**		**08 16 05.1**	**+0.3**
SCJI				S		**Sn**		**08 16 17.7**	**-3.1**
KPJI	**Karang Pucung**	**1.54**	**9**	P		**Pb**		**08 16 10.7**	**-0.6**
KPJI				AML		AML			
BBJI	**Bungbulang**	**1.73**	**324**	P		**Pb**		**08 16 15.6**	**+1.1**
YOGI	**Yogyakarta**	**1.90**	**57**	P		**Pn**		**08 16 14.0**	**+0.5**
YOGI				AML		AML			
CTJI	**Waduk Cacaban**	**1.91**	**15**	P		**Pn**		**08 16 15.4**	**+1.8**
CTJI				S		**Sn**		**08 16 35.8**	**-0.8**
UGM	**Wanagama**	**2.05**	**63**	P		**Pn**		**08 16 16.3**	**+0.8**
UGM				AML		AML			
CNJI	**Cibinong**	**2.19**	**315**	P		**Pn**		**08 16 17.0**	**-0.4**
CNJI				AML		AML			
LEM	**Lembang**	**2.29**	**332**	Pn		**Pb**		**08 16 23.2**	**-0.8**
	57nm,0.3s,baz=102,slow=20,SNR=10								
LEM				Sn		**Sb**		**08 16 52.7**	**+0.8**
	29nm,0.3s,baz=53,slow=20,SNR=5.3								
	76nm,0.4s								
LEM				AML		AML			
LEM	**Lembang**	**2.29**	**332**	P		**Pb**		**08 16 23.6**	**-0.4**
WOJI	**Wonogiri, Jawa**	**2.44**	**65**	P		**Pn**		**08 16 21.2**	**+0.3**
WOJI				AML		AML			
SMRI	**Semarang**	**2.51**	**44**	P		**Pn**		**08 16 23.7**	**+1.9**
SMRI				S		**Sn**		**08 16 50.2**	**-1.1**
SMRI				AML		AML			
SKJI	**Sukabumi**	**2.81**	**311**	P		**Pb**		**08 16 31.8**	**-1.0**
SKJI				AML		AML			
NGJI	**Ngawi**	**3.12**	**62**	P		**Pn**		**08 16 32.8**	**+2.5**
NGJI				AML		AML			
PWJI	**Pagerwojo**	**3.20**	**75**	P		**Pn**		**08 16 34.4**	**+3.1**
PWJI				S		**Sn**		**08 17 09.4**	**+1.1**
SNJI	**Sawahan-Nganju**	**3.23**	**71**	P		**Pb**		**08 16 35.6**	**-4.4**
SNJI				S		**Sn**		**08 17 09.8**	**+0.5**
SNJI				AML		AML			
SJI	**Sawahan**	**3.25**	**70**	P		**Pn**		**08 16 30.9**	**-1.2**
CGJI	**Cibinong**	**3.72**	**307**	P		**Pb**		**08 16 44.6**	**-3.7**
GRJI	**Gresik**	**4.23**	**63**	P		**Pn**		**08 16 46.5**	**+1.0**
GRJI				AML		AML			
FITZ	**Fitzroy Crossi**	**18.85**	**121**	P		**Pn**		**08 20 02.6**	**+1.0**
	0.1nm,0.3s,baz=312,slow=12,SNR=1.3								
FITZ				S		Sn		08 23 19.6	-12
	1.1nm,0.7s,baz=299,slow=19,SNR=1.2								
	1.8nm,0.9s								
FITZ				AML		AML			
WRA	**Warramunga Arr**	**27.13**	**117**	P		**P**		**08 21 25.4**	**+1.7**
	1.9nm,1.0s,baz=292,slow=9.9,SNR=11								
	1.9nm,1.0s								
ASAR	**Alice Springs**	**28.25**	**124**	P		**P**		**08 21 36.4**	**+2.6**
	0.7nm,0.8s,baz=300,slow=8.9,SNR=6.0								
	0.7nm,0.8s								
H08S2	**Diego Garcia H**	**35.83**	**269**	T		T		09 00 41.5	
	baz=93,slow=76,SNR=56								
H08S3	**Diego Garcia H**	**35.84**	**269**	T		T		09 00 50.5	
	baz=93,slow=76,SNR=3.9								
H08S1	**Diego Carcia H**	**35.85**	**269**	T		T		09 00 46.7	
	baz=93,slow=76,SNR=39								
STKA	**Stephens Creek**	**38.16**	**132**	P		P		08 23 04.0	+4.1
	1.5nm,0.3s,baz=315,slow=7.3,SNR=6.6								
STKA				LR		LR		08 39 10.5	
	comp=Z,22nm,18.3s,baz=221,slow=37								
	1.5nm,0.3s								
MKAR	**Makanchi Array**	**60.20**	**339**	P		**P**		**08 25 46.9**	**-1.3**
	0.3nm,0.5s,baz=155,slow=7.3,SNR=4.4								
	0.3nm,0.5s								
H04N2	**CROZET ISLANDS**	**60.97**	**222**	T		T		09 33 01.6	
	baz=69,slow=75,SNR=164								
H04N1	**CROZET ISLANDS**	**60.98**	**222**	T		T		09 33 09.1	
	baz=69,slow=75,SNR=127								
H04N3	**CROZET ISLANDS**	**60.98**	**222**	T		T		09 33 00.5	
	baz=69,slow=75,SNR=127								
KURBB	**Kurchatov Arra**	**64.77**	**339**	P		**P**		**08 26 17.0**	**-1.5**
	0.1nm,0.3s,baz=151,slow=5.4,SNR=1.5								
	0.1nm,0.3s								
ZALV	**Zalesovo Beam**	**65.75**	**345**	P		**P**		**08 26 23.2**	**-1.7**
	0.6nm,0.3s,baz=137,slow=6.9,SNR=5.2								
	0.6nm,0.3s								
KVAR	**Kislovodsk Arr**	**79.37**	**318**	LR		LR		09 07 03.4	
	comp=Z,43nm,18.7s,baz=71,slow=39								
TXAR	**Lajitas Array**	**143.47**	**52**	PKhKP		PKPpre		08 35 12.0	
	0.1nm,0.4s,baz=327,slow=4.4,SNR=1.7								

IDC ***15*** *08:37:23.6±2.5, 0.˚77N×124.˚42E, h120km±25km, mb3.9/9, mbtmp4.3/12, MS3.2/2, Error ellipse: s-maj=20.2km s-min=13.6km az=79.0*

NEIC ***15*** *08:37:24.9±1.8, 0.˚79N±0.˚09×124.˚62E±0.˚07, h118km±6km, mb4.3/12, Error ellipse: s-maj=13.1km s-min=10.2km az=192.0*

DJA ***15*** *08:37:26.4±0.2, 1.˚N±2.˚×12.˚5E±.˚, h109km±3km, M4.7/42, mB5.3/6, mb4.7/16, MLv4.6/42, Mw(mB)4.8/6*

ISC 15 08:37:24.4±0.6, 0.67N±0.˚05×124.˚61E±0.˚05, h118km, n49, σ2°04/58, mb4.2/13, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**0.64**	**262**	P		**Pn**		**08 37 44.8**	**+1.7**
KMSI				S		**Sn**		**08 37 59.6**	**+2.4**
KMSI				AML		AML			
MNI	**Manado**	**0.81**	**16**	P		**Pn**		**08 37 47.2**	**+2.7**
MNI				S		**Sn**		**08 38 02.8**	**+3.1**
GTOI	**Gorontalo**	**1.60**	**269**	P		**Pn**		**08 37 56.3**	**+3.4**
GTOI				S		**Sn**		**08 38 18.5**	**+3.9**
GTOI				AML		AML			
LUWI	**Luwuk**	**2.50**	**227**			**Pn**		**08 38 05.9**	**+1.6**
LUWI	**Luwuk**	**2.50**	**227**	P		**Pn**		**08 38 05.8**	**+1.6**
LUWI				AML		AML			
TNTI	**Ternate**	**2.76**	**88**			**Pn**		**08 38 07.7**	**+0.2**
TNTI	**Ternate**	**2.76**	**88**	P		**Pn**		**08 38 08.7**	**+1.2**
TNTI				S		**Sn**		**08 38 43.7**	**+3.1**
TNTI				AML		AML			
SANI	**Sanana**	**3.03**	**153**	P		**Pn**		**08 38 11.5**	**+0.4**
SANI				AML		AML			
APSI	**Ampana**	**3.35**	**242**	P		**Pn**		**08 38 18.0**	**+2.7**
APSI				AML		AML			
GAMI	**Galela, Maluku**	**3.38**	**70**	P		**Pn**		**08 38 17.4**	**+1.7**
GAMI				S		**Sn**		**08 38 56.8**	**+1.4**
GAMI				AML		AML			
TOLI2	**Tolitoli**	**3.85**	**277**			**Pn**		**08 38 22.6**	**+0.6**
NLAI	**Namlea**	**4.61**	**147**	P		**Pn**		**08 38 34.0**	**+1.9**
MPSI	**Mapaga**	**4.72**	**266**	P		**Pn**		**08 38 35.9**	**+2.2**
KDI	**Kendari**	**5.01**	**203**	P		**Pn**		**08 38 39.1**	**+1.6**
KDI				AML		AML			
MSAI	**Masohi**	**5.87**	**133**	P		**Pn**		**08 38 51.6**	**+2.4**
MSAI				S		**Sn**		**08 39 57.5**	**+2.2**
TTSI	**Tana Toraja**	**6.04**	**232**	P		**Pn**		**08 38 53.3**	**+1.8**
	0.3nm64nm,0.9s								
TTSI				S		**Sn**		**08 40 01.7**	**+2.3**
	0.3nm64nm,0.9s								
TTSI				AML		AML			
MMSI	**Mamuju**	**6.60**	**240**	P		**Pn**		**08 39 00.7**	**+1.6**
	0.1nm20nm,0.5s								
MMSI				AML		AML			
SIJI	**Sorong**	**6.83**	**103**	P		**Pn**		**08 39 02.8**	**+0.7**
	20nm,0.3s,baz=289,slow=11,SNR=11								
SIJI	**Sorong**	**6.83**	**103**	P		**Pn**		**08 39 06.0**	**+3.9**
	0.2nm47nm,0.8s								
SIJI				AML		AML			
KAPI	**Kappang**	**7.44**	**221**	P		**Pn**		**08 39 11.0**	**+0.6**
	7.5nm,0.3s,baz=36,slow=8.7,SNR=5.5								
KAPI				S		**Sn**		**08 40 31.7**	**-1.6**
	1.8nm,0.3s,baz=43,slow=19,SNR=0.8								
KAPI	**Kappang**	**7.44**	**221**			**Pn**		**08 39 11.3**	**+0.9**
BKSI	**Bulukumba**	**7.45**	**217**	P		**Pn**		**08 39 13.3**	**+2.8**
	0.1nm17nm,0.8s								
BKSI				AML		AML			
FAKI	**Fak Fak**	**8.43**	**115**			**Pn**		**08 39 24.6**	**+0.9**
FAKI	**Fak Fak**	**8.43**	**115**	P		**Pn**		**08 39 26.2**	**+2.5**
FAKI				AML		AML			
KKM	**Kota Kinabalu**	**9.94**	**303**	Pn		**Pn**		**08 39 42.7**	**-1.6**
SAUI	**Saumlaki**	**10.88**	**142**	Pn		**Pn**		**08 39 56.7**	**-0.1**
MTN	**Manton Dam**	**14.90**	**154**	Pn		**Pn**		**08 40 49.8**	**+0.6**
FITZ	**Fitzroy Crossi**	**18.67**	**177**	P		**P**		**08 41 34.0**	**+0.6**
	4.0nm,0.3s,baz=6.7,slow=17,SNR=38								
FITZ				S		**S**		**08 44 55.7**	**-4.4**
	1.4nm,0.8s,baz=336,slow=20,SNR=1.1								
FITZ	**Fitzroy Crossi**	**18.67**	**177**	P		**P**		**08 41 34.3**	**+0.9**
WRAB	**Tennant Creek**	**22.59**	**156**	P		**P**		**08 42 15.0**	**-0.2**
WRAB				IAmb		IAmb		08 42 17.1	
	comp=Z,13nm,0.6s								
WRA	**Warramunga Arr**	**22.59**	**156**	P		**P**		**08 42 14.9**	**-0.3**
	comp=Z,14nm,0.6s,baz=330,slow=9.9,SNR=27								
WRA				S		**S**		**08 46 10.8**	**-3.5**
	comp=Z,0.2nm,0.5s,baz=337,slow=15,SNR=1.6								
	comp=Z,14nm,0.6s								
ASAR	**Alice Springs**	**25.82**	**160**	P		**P**		**08 42 45.8**	**+1.0**
	comp=Z,2.2nm,0.7s,baz=330,slow=9.1,SNR=52								
ASAR				PcP		**PcP**		**08 46 11.1**	**-0.4**
	comp=Z,0.6nm,0.4s,baz=341,slow=2.2,SNR=7.0								
	comp=Z,2.2nm,0.7s								
ASAR	**Alice Springs**	**25.82**	**160**	P		**P**		**08 42 46.2**	**+1.4**
STKA	**Stephens Creek**	**36.14**	**155**	P		**P**		**08 44 15.9**	**+0.6**
	comp=Z,1.7nm,0.4s,baz=332,slow=10,SNR=5.6								
	comp=Z,1.7nm,0.4s								
HNR	**Honiara**	**36.59**	**107**	LR		LR		09 00 52.7	
	comp=Z,37nm,19.7s,baz=58,slow=38								
MAJO	**Matsushiro**	**37.86**	**18**	P		**P**		**08 44 28.7**	**-1.1**
MJAR	**Matsushiro Arr**	**37.86**	**18**	P		**P**		**08 44 28.3**	**-1.5**
	comp=Z,5.9nm,0.7s,baz=190,slow=8.4,SNR=2.0								
	comp=Z,5.9nm,0.7s								
ARMA	**Armidale**	**40.21**	**143**	P		**P**		**08 44 51.0**	**+1.4**
ARMA				IAmb		IAmb		08 45 08.0	
	comp=Z,5.8nm,1.1s								
CAN	**Canberra**	**42.43**	**150**	P		**P**		**08 45 08.5**	**+0.9**
CAN				IAmb		IAmb		08 45 14.9	
	comp=Z,5.4nm,1.1s								
TOO	**Toolangi**	**42.66**	**155**	P		**P**		**08 45 10.1**	**+0.6**
USRK	**Ussuriysk Ar.**	**43.84**	**8**	P		**P**		**08 45 18.1**	**-0.6**
	comp=Z,2.9nm,0.6s,baz=191,slow=5.4,SNR=2.3								
	comp=Z,2.9nm,0.6s								
MKAR	**Makanchi Array**	**58.91**	**327**	P		**P**		**08 47 08.8**	**-2.3**
	comp=Z,0.5nm,0.3s,baz=126,slow=7.8,SNR=11								
	comp=Z,0.5nm,0.3s								
MKAR	**Makanchi Array**	**58.91**	**327**	P		**P**		**08 47 09.3**	**-1.8**
PETK	**Petropavlovsk-**	**59.05**	**23**	P		**P**		**08 47 11.4**	**-0.5**
	comp=Z,4.9nm,0.5s,baz=230,slow=8.2,SNR=15								
	comp=Z,4.9nm,0.5s								
PETK	**Petropavlovsk-**	**59.05**	**23**	P		**P**		**08 47 11.8**	**-0.1**
RAO	**Raoul Island**	**62.34**	**124**	LR		LR		09 15 05.1	
	comp=Z,20nm,19.4s,baz=155,slow=36								
KURBB	**Kurchatov Arra**	**63.21**	**329**	P		**P**		**08 47 37.4**	**-2.6**
	comp=Z,0.3nm,0.2s,baz=133,slow=5.7,SNR=6.6								
	comp=Z,0.3nm,0.2s								
KURK	**Kurchatov**	**63.22**	**329**	P		**P**		**08 47 38.1**	**-2.0**
KURK				IAmb		IAmb		08 48 04.6	
	comp=Z,3.6nm,0.7s								
BVAR	**Borovoye Array**	**68.76**	**328**	P		**P**		**08 48 11.5**	**-4.0**
	comp=Z,0.4nm,0.4s,baz=131,slow=10,SNR=2.1								
	comp=Z,0.4nm,0.4s								

IDC 15 08:37:34.6±4.8, 18.˚08S×179.˚17W, h544km±31km, mb3.0/4, mbtmp3.9/5, Error ellipse: s-maj=153.1km s-min=40.3km az=25.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.67**	**277**	P		P		08 38 47.3	0.0
	25nm,0.7s,baz=108,slow=20,SNR=24								
STKA	**Stephens Creek**	**37.91**	**241**	P		P		08 44 06.4	+0.5
	1.5nm,0.7s,baz=90,slow=4.0,SNR=2.8								
	1.5nm,0.7s								
WRA	**Warramunga Arr**	**43.89**	**260**	P		P		08 44 52.5	-1.1
	0.2nm,0.3s,baz=97,slow=8.0,SNR=2.1								
	0.2nm,0.3s								
ASAR	**Alice Springs**	**44.05**	**254**	P		P		08 44 54.7	-0.1
	2.2nm,0.4s,baz=92,slow=7.6,SNR=20								
	2.2nm,0.4s								
QSPA	**South Pole Qui**	**71.98**	**180**	P		P		08 48 03.2	0.0
	1.9nm,1.2s,baz=39,slow=6.5,SNR=2.4								
	1.9nm,1.2s								

MOS ***15*** *08:38:25.4±0.9, 24.˚35N×141.˚82E, h64km, mb4.9/34, Error ellipse: s-maj=11.0km s-min=6.0km az=112.7*

JMA ***15*** *08:38:26.6±0.2, 25.˚N±1.˚×14.˚2E±.˚, h0km, MV5.8/19, IOTO ISLANDS REGION*

IDC ***15*** *08:38:27.9±1.4, 24.˚38N×141.˚86E, h72km±12km, mb4.2/34, mbtmp4.5/40, MS3.5/55, Error ellipse: s-maj=13.2km s-min=9.2km az=86.0*

NEIC ***15*** *08:38:28.5±1.4, 24.˚36N±0.˚08×141.˚9E±0.˚1, h70km±5km, mb4.9/275, Error ellipse: s-maj=14.6km s-min=12.0km az=95.0*

BJI ***15*** *08:38:29.0, 24.˚40N×141.˚90E, h88km, mB4.9/12, mb4.6/37*

GFZ ***15*** *08:38:30.4±0.2, 24.˚N±3.˚×14.˚2E±.˚, h86km, M5.0/25, mb4.9/25*

GCMT ***15*** *08:38:31.5±0.4, 24.˚38N±0.˚03×142.˚04E±0.˚03, h82km±4km, MW4.8/59, Moment Tensor Solution. s18,c20; s59,c86; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr0.94±.09; Mθθ-1.82±.07; Mϕϕ0.88±.09; Mrθ-0.07±.07; Mrϕ0.18±.09; Mθϕ-0.58±.06; Best double couple: Mo1.66900×10¹⁶ NP1:ϕs239.00000°, δ59.00000°, λ37.00000°. NP2: ϕs239.00000°, δ60.00000°, λ37.00000°. Principal axes: T 1.5040, Plg46.0000°, Azm95.0000°; N 0.3300, Plg44.0000°, Azm273.0000°; P -1.8330, Plg1.0000°, Azm4.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 15 08:38:28.4±0.4, 24.˚35N±0.˚04×141.˚89E±0.˚05, h76km±2km, h76km:pP-P, n450, σ1°26/357, mb4.9/198, 15C-2D, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**2.29**	**6**	*e*P		**Pn**		**08 39 04.0**	**0.0**
JHH2				*e*S		**Sn**		**08 39 31.4**	**+0.1**
JCJ	**Chichijima**	**2.75**	**6**	P		**Pn**		**08 39 08.1**	**-2.1**
	2μm,0.4s,baz=120,slow=23,SNR=155								
JCJ				S		**Sn**		**08 39 41.2**	**-1.2**
	1μm,0.5s,baz=270,slow=20,SNR=4.7								
JCJ				LR		LR		08 39 58.4	
	comp=Z,840nm,19.3s,baz=130,slow=33								
JCJ	**Chichijima**	**2.75**	**6**	P		**Pn**		**08 39 10.2**	**0.0**
JCJ	**Chichijima**	**2.75**	**6**	S		**Sn**		**08 39 44.6**	**+2.2**
JCJ	**Chichijima**	**2.75**	**6**			**Pn**		**08 39 11.4**	**+1.2**
JCJ	**Chichijima**	**2.75**	**6**	P		**Pn**		**08 39 11.4**	**+1.2**
CBIJ	**Chichi jima**	**2.75**	**6**	*e*P		**Pn**		**08 39 10.7**	**+0.4**
JAOM	**Aogashimamukai**	**8.30**	**347**	*e*P		**Pn**		**08 40 27.6**	**+1.7**
JHJ2	**Mitsune**	**8.92**	**349**	P		**Pn**		**08 40 35.2**	**+0.8**
JHJ2	**Mitsune**	**8.92**	**349**	Pn		**Pn**		**08 40 34.1**	**-0.3**
JHJ	**Hachijo jima 2**	**8.93**	**349**	P		**Pn**		**08 40 33.7**	**-0.8**
	8.8nm,0.3s,baz=222,slow=22,SNR=11								
JHJ				S		**Sn**		**08 42 08.4**	**-5.1**
	14nm,0.3s,baz=215,slow=18,SNR=5.3								
JMZ	**Minamidaito 2**	**9.78**	**281**	P		Pn		08 40 53.0	+6.8
BSO3	**Boso 3**	**10.49**	**354**	*e*P		**Pn**		**08 40 53.4**	**-2.1**
BSO4	**Boso 4**	**10.69**	**353**	P		**Pn**		**08 40 56.7**	**-1.8**
GUMO	**Guam**	**11.07**	**165**	LR		LR		08 43 42.5	
	comp=Z,208nm,19.9s,baz=350,slow=28								
JMN	**Monobe**	**11.68**	**325**	P		Pn		08 41 17.5	+5.5
JMN	**Monobe**	**11.68**	**325**	Pn		**Pn**		**08 41 11.9**	**-0.1**
INU	**Inuyama**	**11.75**	**340**	P		**Pn**		**08 41 14.5**	**+1.6**
INU	**Inuyama**	**11.75**	**340**			**Pn**		**08 41 12.2**	**-0.7**
INU	**Inuyama**	**11.75**	**340**	P		**Pn**		**08 41 13.9**	**+0.9**
	comp=Z,39nm,0.8s								
JGF	**Kuroka**	**11.88**	**342**	P		**Pn**		**08 41 15.2**	**+0.4**
JGF	**Kuroka**	**11.88**	**342**			**Pn**		**08 41 13.4**	**-1.4**
JGF	**Kuroka**	**11.88**	**342**	P		**Pn**		**08 41 15.2**	**+0.4**
	comp=Z,24nm,0.6s								
JYT	**Yasato**	**11.93**	**353**	Pn		**Pn**		**08 41 14.8**	**-0.6**
JOW	**Kunigami**	**12.53**	**284**	P		**Pn**		**08 41 27.9**	**+4.2**
	comp=Z,18nm,0.3s,baz=95,slow=13,SNR=7.6								
JOW				LR		LR		08 45 54.1	
	comp=Z,120nm,19.7s,baz=13,slow=36								
JOW	**Kunigami**	**12.53**	**284**	P		**P**		**08 41 30.0**	**-2.5**
MJAR	**Matsushiro Arr**	**12.56**	**346**	P		**Pn**		**08 41 21.5**	**-2.5**
	comp=Z,7.1nm,0.4s,baz=164,slow=10,SNR=18								
MJAR				S		**Sn**		**08 43 35.6**	**-6.4**
	comp=Z,6.5nm,0.7s,baz=173,slow=17,SNR=5.4								
MJAR				LR		LR		08 46 01.5	
	comp=Z,273nm,20.0s,baz=166,slow=36								
MJAR	**Matsushiro Arr**	**12.56**	**346**	P		**Pn**		**08 41 21.9**	**-2.1**
MJAR	**Matsushiro Arr**	**12.56**	**346**	Pn		**Pn**		**08 41 21.9**	**-2.1**
MAJO	**Matsushiro**	**12.56**	**346**	P		**Pn**		**08 41 22.6**	**-1.4**
MAJO	**Matsushiro**	**12.56**	**346**	*i* P		**Pn**		**08 41 23.5**	**-0.5**
MAJO	**Matsushiro**	**12.56**	**346**	Pn		**Pn**		**08 41 21.8**	**-2.3**
MAJO	**Matsushiro**	**12.56**	**346**	P		**Pn**		**08 41 22.8**	**-1.3**
	comp=Z,48nm,0.5s								
MJB9	**Matsu-Tunnel**	**12.56**	**346**	Pn		**Pn**		**08 41 21.6**	**-2.5**
JNU	**Nakatsue**	**13.02**	**315**	P		**Pn**		**08 41 30.1**	**-0.2**
	comp=Z,3.7nm,0.9s,baz=94,slow=19,SNR=5.6								
JNU				LR		LR		08 46 09.3	
	comp=Z,117nm,19.2s,baz=121,slow=36								
JHS	**Saijyo**	**13.06**	**326**	P		**Pn**		**08 41 31.1**	**+0.2**
	comp=Z,0.7nm,0.9s								
JTU	**Tsushima**	**14.86**	**316**	P		**P**		**08 42 01.0**	**+2.8**
JTM	**Tenmabayashi**	**16.41**	**358**	P		**Pn**		**08 42 12.3**	**-1.5**
JTM	**Tenmabayashi**	**16.41**	**358**			**Pn**		**08 42 12.9**	**-0.9**
JTM	**Tenmabayashi**	**16.41**	**358**	P		**Pn**		**08 42 12.9**	**-0.9**
	comp=Z,255nm,1.1s								
YOJ	**Yonaguni jima**	**17.20**	**274**	P		**Pn**		**08 42 22.8**	**-0.9**
YOJ				pmax		pmax			
	comp=Z,99nm,1.0s								
YOJ	**Yonaguni jima**	**17.20**	**274**	P		**Pn**		**08 42 22.8**	**-0.9**
YOJ				IAmb		IAmb		08 42 46.6	
	comp=Z,99nm,1.0s								
TJN	**Taejon**	**17.32**	**317**	*i* P		**Pn**		**08 42 24.2**	**-0.9**
TJN	**Taejon**	**17.32**	**317**	P		**P**		**08 42 27.0**	**+1.5**
	comp=Z,132nm,1.3s								
ERM	**Erimo**	**17.65**	**3**	P		**P**		**08 42 29.8**	**+0.7**
ERM	**Erimo**	**17.65**	**3**	*ce*P		**Pn**		**08 42 28.3**	**-0.8**
ERM				pmax		pmax			
	comp=Z,134nm,1.3s								
ERM	**Erimo**	**17.65**	**3**	P		**Pn**		**08 42 29.1**	**-0.1**
ERM	**Erimo**	**17.65**	**3**	P		**P**		**08 42 30.9**	**+1.8**
	comp=Z,97nm,1.2s								
JEM	**Erimo**	**17.65**	**3**	P		**P**		**08 42 29.6**	**+0.5**
KSRS	**Korea Array**	**17.70**	**321**	P		**Pn**		**08 42 30.1**	**+0.4**
	comp=Z,11nm,0.6s,baz=134,slow=11,SNR=46								
KSRS				LR		LR		08 48 47.2	
	comp=Z,51nm,19.8s,baz=135,slow=35								
KSAR	**Wonju Array Be**	**17.71**	**321**	P		**Pn**		**08 42 29.8**	**-0.1**
KSAR	**Wonju Array Be**	**17.71**	**321**	P		**Pn**		**08 42 29.8**	**-0.1**
KS19	**Wonju Array Si**	**17.77**	**321**	P		**P**		**08 42 30.2**	**-0.2**
INCN	**Inchon**	**18.48**	**319**	P		**P**		**08 42 38.3**	**0.0**
INCN				pmax		pmax			
	comp=Z,27nm,0.8s								
INCN	**Inchon**	**18.48**	**319**	P		**P**		**08 42 38.3**	**0.0**
INCN	**Inchon**	**18.48**	**319**	P		**Pn**		**08 42 39.9**	**+0.7**
	comp=Z,40nm,0.9s								
YHNB	**Yeheng**	**18.67**	**275**	P		Pn		08 42 49.7	+8.0
YULB	**Yu-li**	**18.86**	**271**	P		P

comp=Z,50nm,21.9s,baz=206,slow=33
comp=Z,3.5nm,1.0s
ZEA Zeya 31.34 343 *e*P **P 08 44 41.1 -0.4**
ZEA pmax pmax
comp=Z,20nm,0.8s
ZEA MLR MLR
comp=Z,100nm,16.0s
PMG Port Moresby 33.94 171 LR LR 08 58 50.6
comp=Z,50nm,18.1s,baz=346,slow=36
CD2 Chengdu 34.29 290 P **P 08 45 07.8 +0.2**
CD2 pmax pmax
comp=Z,20nm,0.5s
LZH Lanzhou 34.69 299 *e*P **P**
LZH pP sP 08 45 33.4 -3.9
LZH sP pwP 08 45 45.1 +16
LZH pmax pmax
comp=Z,27nm,1.0s
LZDM Lanzhou Array 34.79 298 P **P 08 45 13.4 +1.3**
comp=Z,2.3nm,0.3s,baz=109,slow=8.3,SNR=4.1
LZDM PcP **PcP 08 47 45.0 +0.9**
comp=Z,4.3nm,0.5s,baz=95,slow=3.3,SNR=5.7
comp=Z,2.3nm,0.3s
ULN Ulaanbaatar 36.17 319 *i* P **P 08 45 23.7 0.0**
ULN pmax pmax
comp=Z,1.0nm,0.5s
ULN Ulaanbaatar 36.17 319 P **P 08 45 23.3 -0.4**
comp=Z,4.4nm,1.1s
SONM Songino Array 36.55 319 P **P 08 45 26.9 0.0**
comp=Z,1.1nm,0.5s,baz=129,slow=11,SNR=3.8
SONM PcP **PcP 08 47 47.6 -1.3**
comp=Z,1.5nm,0.6s,baz=113,slow=3.7,SNR=2.5
SONM LR LR 09 02 00.7
comp=Z,53nm,19.0s,baz=170,slow=39
comp=Z,1.1nm,0.5s
MTN Manton Dam 38.43 197 P 08 45 42.6 -0.2
GTA2 Gaotai 38.45 303 *e*P **P 08 45 45.0 +2.0**
GTA2 pP pP 08 46 03.8 +3.0
GTA2 PcP **PcP 08 47 55.5 +0.6**
GTA2 ScP **ScP 08 51 35.0 -1.2**
GTA2 pmax pmax
comp=Z,4.0nm,0.8s
CRAI Chiangrai 38.53 272 P **P 08 45 44.2 +0.4**
CRAI IAmb IAmb 08 45 44.8
comp=Z,12nm,0.9s
YAK Yakutsk 38.57 351 LR LR 09 01 26.9
comp=Z,102nm,20.3s,baz=173,slow=36
YAK Yakutsk 38.57 351 *e*P **P 08 45 43.1 -0.4**
YAK pmax pmax
comp=Z,12nm,0.8s
YAK pmax pmax
comp=N,5.0nm,1.4s
YAK pmax pmax
comp=E,7.0nm,1.1s
YAK Yakutsk 38.57 351 P **P 08 45 44.5 +1.0**
YAK IAmb IAmb 08 45 59.0
comp=Z,16nm,0.7s
YAK Yakutsk 38.57 351 P **P 08 45 43.7 +0.2**
SEY Seymchan 39.21 8 P **P 08 45 49.8 +1.0**
comp=Z,2.0nm,0.4s,baz=203,slow=13,SNR=2.5
comp=Z,2.0nm,0.4s
CM31 Chiang Mai Arr 40.29 270 P **P 08 45 58.6 +0.2**
CM31 IAmb IAmb 08 46 06.0
comp=Z,35nm,1.9s
CMAR Chiang Mai Arr 40.29 270 P **P 08 45 59.9 +1.4**
comp=Z,1.7nm,0.5s,baz=73,slow=8.6,SNR=7.7
CMAR PcP **PcP 08 48 00.8 0.0**
comp=Z,0.8nm,0.3s,baz=67,slow=3.0,SNR=1.7
CMAR LR LR 09 01 13.8
comp=Z,37nm,21.7s,baz=95,slow=34
comp=Z,1.7nm,0.5s
CMAR Chiang Mai Arr 40.29 270 P **P 08 45 58.5 +0.1**
CMAR Chiang Mai Arr 40.29 270 P **P 08 45 58.5 +0.1**
GOMU GeErMu 41.97 298 P **P 08 46 12.8 +0.4**
GOMU pmax pmax
comp=Z,3.0nm,0.3s
IPM Ipoh 43.98 250 P **P 08 46 29.4 +0.8**
IPM IAmb IAmb 08 46 53.6
comp=Z,15nm,0.9s
CTA Charters Tower 44.37 174 LR LR 09 02 38.5
comp=Z,77nm,20.2s,baz=32,slow=33
CTAO Charters Tower 44.37 174 P **P 08 46 31.8 +0.4**
CTAO pmax pmax
comp=Z,9.0nm,0.9s
CTAO Charters Tower 44.37 174 P 08 46 31.8 +0.4
CTAO Charters Tower 44.37 174 P **P 08 46 31.5 +0.1**
comp=Z,12nm,1.0s
CTAO Charters Tower 44.37 174 P **P 08 46 31.5 +0.1**
CTAO PcP **PcP 08 48 13.9 -0.3**
WB0 Warramunga Arr 44.45 190 P 08 46 32.2 +0.1
WB0 IAmb IAmb 08 46 34.3
comp=Z,9.9nm,0.5s
WR8 Warramunga Arr 44.62 190 P 08 46 33.5 +0.1
WR8 IAmb IAmb 08 48 16.6
comp=Z,13nm,0.7s
WRAB Tennant Creek 44.62 190 P **P 08 46 33.2 -0.2**
WRAB Tennant Creek 44.62 190 P **P 08 46 33.4 0.0**
WRAB pmax pmax
comp=Z,12nm,0.6s
WRAB Tennant Creek 44.62 190 P **P 08 46 33.4 0.0**
WRAB IAmb IAmb 08 46 39.0
comp=Z,12nm,0.6s
WRAB Tennant Creek 44.62 190 P **P 08 46 33.3 0.0**
comp=Z,25nm,0.5s
WRAB Tennant Creek 44.62 190 P **P 08 46 33.2 -0.2**
WRAB PcP **PcP 08 48 15.7 +0.6**
WRA Warramunga Arr 44.63 190 P **P 08 46 32.9 -0.6**
comp=Z,7.8nm,0.3s,baz=10,slow=8.0,SNR=36
WRA PcP **PcP 08 48 15.6 +0.4**
comp=Z,8.5nm,0.6s,baz=8.8,slow=3.5,SNR=12
WRA ScP **ScP 08 51 59.7 -1.0**
comp=Z,2.3nm,0.9s,baz=7.1,slow=4.0,SNR=8.7
WRA S **S 08 52 59.5 -4.7**
comp=Z,1.1nm,0.6s,baz=8.4,slow=14,SNR=9.6
comp=Z,7.8nm,0.3s
WRA Warramunga Arr 44.63 190 *i* P **P 08 46 31.3 -2.2**
WRA pmax pmax
comp=Z,8.0nm,0.3s
QIS Mount Isa 44.69 183 P **P 08 46 33.7 -0.3**
QIS Mount Isa 44.69 183 P **P 08 46 34.1 +0.1**
comp=Z,7.2nm,0.8s
FITZ Fitzroy Crossi 45.07 202 P **P 08 46 36.9 0.0**
comp=Z,3.0nm,0.5s,baz=21,slow=9.9,SNR=8.2
FITZ LR LR 09 03 28.4
comp=Z,42nm,21.0s,baz=12,slow=33
comp=Z,3.0nm,0.5s
FITZ Fitzroy Crossi 45.07 202 P **P 08 46 37.2 +0.2**
SHL Shillong 45.13 283 P **P 08 46 38.2 +0.4**
SHL Shillong 45.13 283 P 08 46 38.2 +0.4
LSA Lhasa 45.23 288 P **P 08 46 38.5 -0.3**
LSA pmax pmax
comp=Z,8.0nm,0.7s
LSA Lhasa 45.23 288 P **P 08 46 38.5 -0.3**
BRDH Bariadhala 45.90 279 LR LR 09 06 13.3
comp=Z,42nm,20.6s,baz=98,slow=36
CLES Cleveland East 46.00 39 P **P 08 46 43.8 -0.2**
BILL Bilibino 46.18 12 *i* P **P 08 46 45.8 +0.6**
BILL pmax pmax
comp=Z,3.0nm,0.6s
SANVU Saraoutou 46.64 145 P **P 08 46 48.9 -0.5**
SANVU Saraoutou 46.64 145 P **P 08 46 48.4 -1.0**
SANVU Saraoutou 46.64 145 P **P 08 46 48.6 -0.8**
SANVU pP **pP 08 47 07.0 -0.1**
SANVU PcP **PcP 08 48 21.0 -1.2**
RPSI Rantau Prapat 46.70 249 P **P 08 46 52.1 +2.1**
comp=Z,26nm,0.8s
RPSI pP **sP 08 47 13.3 -3.5**
TIXI Tiksi 47.91 354 LR LR 09 08 11.1
comp=Z,70nm,18.1s,baz=192,slow=37
TIXI Tiksi 47.91 354*ce*P **P 08 46 58.1 -0.4**
TIXI pmax pmax
comp=Z,6.0nm,1.1s
TIXI Tiksi 47.91 354 P 08 46 58.6 0.0
TIXI Tiksi 47.91 354 P **P 08 46 58.5 -0.1**
comp=Z,9.7nm,0.7s
TIXI Tiksi 47.91 354 P **P 08 46 58.4 -0.2**
TIXI pP **pP 08 47 17.2 +0.8**
TIXI PcP **PcP 08 48 26.6 +0.8**
WMQ Urumqi 48.00 308 *e*P **P 08 47 03.4 +3.6**
AS01 Alice Springs 48.34 190 P **P 08 47 02.2 -0.3**
AS31 Alice Springs 48.35 190 P 08 47 02.5 -0.1
ASAR Alice Springs 48.35 190 P **P 08 47 01.5 -1.1**
comp=Z,1.6nm,0.4s,baz=11,slow=7.6,SNR=26
ASAR PcP **PcP 08 48 28.9 +0.6**
comp=Z,1.4nm,0.8s,baz=11,slow=3.4,SNR=5.9
ASAR ScP **ScP 08 52 14.0 -2.2**
comp=Z,1.0nm,0.7s,baz=7.2,slow=4.8,SNR=5.7
ASAR S **S 08 53 52.3 -5.1**
comp=Z,3.4nm,0.8s,baz=16,slow=21,SNR=17
ASAR LR LR 09 05 50.6
comp=Z,80nm,20.7s,baz=330,slow=34
comp=Z,1.6nm,0.4s
ASAR Alice Springs 48.35 190 P **P 08 47 01.8 -0.8**
ASAR Alice Springs 48.35 190 P **P 08 47 01.8 -0.8**
AKUT Akutan 48.74 38 P **P 08 47 05.3 +0.1**
EVN Everest 49.22 287 P 08 47 08.8 -1.3
EVN Everest 49.22 287 P **P 08 47 11.1 +1.0**
comp=Z,44nm,0.7s
EIDS Eidsvold 50.22 169 P **P 08 47 16.3 -0.4**
ZAA0 Zalesovo Array 51.41 321 P **P 08 47 24.6 -0.8**
ZALV Zalesovo Beam 51.41 321 P **P 08 47 24.5 -0.9**
comp=Z,1.9nm,0.5s,baz=109,slow=7.8,SNR=7.7
ZALV PcP **PcP 08 48 39.1 +0.1**
comp=Z,2.5nm,0.6s,baz=120,slow=4.4,SNR=5.7
ZALV LR LR 09 11 41.1
comp=Z,30nm,18.7s,baz=106,slow=39
comp=Z,1.9nm,0.5s
ZALV Zalesovo Beam 51.41 321 *i* P **P 08 47 24.2 -1.2**
ZALV pmax pmax
comp=Z,2.0nm,0.5s
ZALV Zalesovo Beam 51.41 321 P 08 47 24.4 -1.0
DZM Mont Dzumac 51.95 151 P **P 08 47 28.7 -1.2**
comp=Z,2.3nm,0.5s,baz=308,slow=19,SNR=7.2
DZM LR LR 09 07 17.9
comp=Z,46nm,21.1s,baz=344,slow=33
comp=Z,2.3nm,0.5s
MK31 Makanchi Array 52.05 311*ce*P **P 08 47 30.1 -0.3**
MKAR Makanchi Array 52.05 311 P **P 08 47 29.9 -0.5**
comp=Z,2.6nm,0.5s,baz=94,slow=8.8,SNR=27
MKAR PcP **PcP 08 48 41.7 +0.1**
comp=Z,1.2nm,0.6s,baz=97,slow=1.4,SNR=2.2
MKAR ScP **ScP 08 52 29.1 -2.8**
comp=Z,1.6nm,0.8s,baz=94,slow=5.8,SNR=6.0
MKAR LR LR 09 10 28.0
comp=Z,39nm,20.1s,baz=82,slow=37
comp=Z,2.6nm,0.5s
MKAR Makanchi Array 52.05 311*ce*P **P 08 47 30.7 +0.3**
MKAR pmax pmax
comp=Z,3.0nm,0.5s
MKAR Makanchi Array 52.05 311 P 08 47 31.0 +0.6
MAKZ Makanchi 52.26 311 P **P 08 47 32.2 +0.3**
MAKZ pmax pmax
comp=Z,3.0nm,0.8s
MAKZ Makanchi 52.26 311 P 08 47 32.2 +0.3
MAKZ Makanchi 52.26 311 P **P 08 47 32.3 +0.3**
comp=Z,4.0nm,0.5s
MAKZ Makanchi 52.26 311 P **P 08 47 32.1 +0.1**
MAKZ pP **pwP 08 47 51.7 -1.0**
N15K Kwethluk River 53.37 32 P **P 08 47 41.3 +1.4**
KURK Kurchatov 54.74 316 *i* P **P 08 47 49.5 -0.4**
KURK pmax pmax
comp=Z,3.0nm,0.5s
KURK Kurchatov 54.74 316 P 08 47 49.8 -0.1
KURK Kurchatov 54.74 316 P **P 08 47 49.6 -0.4**
comp=Z,5.4nm,1.0s
KURBB Kurchatov Arra 54.79 316 P **P 08 47 49.8 -0.5**
comp=Z,3.0nm,0.4s,baz=91,slow=8.3,SNR=40
comp=Z,3.0nm,0.4s
KIP Kipapa 55.07 80 P **P 08 47 53.9 +1.1**
KIP pmax pmax
comp=Z,234nm,1.7s
KIP Kipapa 55.07 80 P 08 47 53.9 +1.1
KIP Kipapa 55.07 80 P **P 08 47 53.8 +0.9**
NRIK Noril'sk 55.11 339 P **P 08 47 51.5 -0.8**
comp=Z,3.4nm,0.6s,baz=115,slow=6.8,SNR=4.9
NRIK LR LR 09 12 22.1
comp=Z,68nm,18.7s,baz=120,slow=37
comp=Z,3.4nm,0.6s
NRIK Noril'sk 55.11 339 *i* P **P 08 47 51.1 -1.2**
NRIK pmax pmax
comp=Z,4.0nm,0.6s
NRIK Noril'sk 55.11 339 P 08 47 52.0 -0.3
G18K Tagagawik 55.66 25 P **P 08 47 57.6 +1.3**
G18K IAmb IAmb 08 48 23.8
comp=Z,24nm,1.4s
CMSA Cobar Meteorol 55.69 176 P **P 08 47 57.6 +0.7**
comp=Z,15nm,0.9s
SII Sitkinak Islan 55.71 37 P **P 08 47 57.7 +0.8**
STKA Stephens Creek 55.91 180 P **P 08 47 58.1 -0.4**
comp=Z,8.0nm,0.6s,baz=347,slow=8.0,SNR=13
STKA LR LR 09 09 56.2
comp=Z,49nm,21.7s,baz=24,slow=34
comp=Z,8.0nm,0.6s
STKA Stephens Creek 55.91 180 P **P 08 47 58.3 -0.2**
STKA Stephens Creek 55.91 180 P 08 47 58.2 -0.2
STKA Stephens Creek 55.91 180 P **P 08 47 58.3 -0.2**
comp=Z,56nm,1.2s
OHAK Old Harbor 56.28 36 P **P 08 48 01.0 +0.1**
OHAK Old Harbor 56.28 36 P **P 08 48 00.6 -0.3**
FORT Forrest 56.40 194 P **P 08 48 02.1 +0.2**
FORT IAmb IAmb 08 48 12.2
comp=Z,10nm,0.8s
E19K Redstone River 56.67 24 IAmb IAmb 08 48 43.1
comp=Z,9.9nm,1.2s
KDAK Kodiak Island 56.73 36 P **P 08 48 04.2 +0.1**
comp=Z,7.0nm,0.6s,baz=264,slow=3.7,SNR=7.8
KDAK LR LR 09 09 36.3
comp=Z,74nm,21.8s,baz=238,slow=33
comp=Z,7.0nm,0.6s
ILSW Iliamna Southw 56.74 33 P **P 08 48 04.4 +0.1**
BBOO Buckleboo 57.11 186 P **P 08 48 06.8 -0.2**
BBOO Buckleboo 57.11 186 P **P 08 48 07.0 0.0**
F20K Avaraart Lake 57.12 24 P **P 08 48 08.0 +1.4**
KSH2 Kashi 57.14 302 P **P 08 48 08.8 +1.3**
KSH2 pmax pmax
comp=Z,5.0nm,0.7s
D20K Etivluk River 57.27 22 P **P 08 48 09.1 +1.3**
D20K IAmb IAmb 08 48 34.2
comp=Z,10nm,0.8s
IMAR Indian Mountai 57.62 26 P **P 08 48 11.2 +1.0**
AAK Ala-Archa 57.63 306 *i* P **P 08 48 11.1 +0.2**
AAK pmax pmax
comp=Z,2.0nm,0.4s
AAK Ala-Archa 57.63 306 P **P 08 48 12.4 +1.5**
CAST Castle Rocks 57.80 29 P **P 08 48 12.9 +1.3**
CAST IAmb IAmb 08 48 13.4
comp=Z,7.0nm,0.8s
G21K Allakaket 57.83 25 IAmb IAmb 08 48 39.1
comp=Z,8.4nm,0.8s
TRF Thorofare Moun 58.60 29 **P 08 48 17.8 +0.4**
TRF IAmb IAmb 08 48 18.8
comp=Z,11nm,0.9s
MORW Morawa 58.64 207 P **P 08 48 18.2 +0.4**
MLY Manley 58.66 27 IAmb IAmb 08 48 20.0
comp=Z,9.2nm,1.2s
PMR Palmer 58.90 31 P **P 08 48 19.5 +0.3**
PMR pmax pmax
comp=Z,17nm,1.0s
PMR Palmer 58.90 31 P 08 48 19.5 +0.3
G23K Bananza Creek 59.23 25 IAmb IAmb 08 48 49.2
comp=Z,14nm,1.0s
MCK McKinley 59.24 29 P **P 08 48 21.8 +0.2**
MCK pmax pmax
comp=Z,13nm,1.0s
MCK McKinley 59.24 29 **P 08 48 21.8 +0.2**
MCK IAmb IAmb 08 48 23.4
comp=Z,13nm,1.0s
H23K Yukon River 59.28 26 IAmb IAmb 08 48 51.6
comp=Z,9.1nm,1.0s
NEA2 Nenana 59.30 28 IAmb IAmb 08 48 24.4
comp=Z,11nm,0.9s
E23K Chandalar 59.63 24 IAmb IAmb 08 49 05.5
comp=Z,8.0nm,0.9s
WRH Wood River Hil 59.70 28 IAmb IAmb 08 48 26.6
comp=Z,17nm,1.4s
NIL Nilore 59.78 296 P **P 08 48 25.4 -0.5**
NIL pmax pmax
comp=Z,27nm,1.5s
NIL Nilore 59.78 296 P 08 48 25.4 -0.5
NIL Nilore 59.78 296 P **P 08 48 27.3 +1.5**
comp=Z,12nm,0.6s
CCB Clear Creek Bu 59.84 28 P **P 08 48 25.9 +0.2**
CCB IAmb IAmb 08 49 35.0
comp=Z,21nm,1.6s
COLA College 59.85 28 *i* P **P 08 48 27.2 +1.5**
COLA pmax pmax
comp=Z,6.0nm,0.7s
DHY Denali Highway 59.87 30 P **P 08 48 25.3 -0.8**
DHY IAmb IAmb 08 49 14.8
comp=Z,6.3nm,0.8s
BVAR Borovoye Array 59.90 319 P **P 08 48 25.7 -0.5**
comp=Z,5.6nm,0.5s,baz=86,slow=7.3,SNR=18
comp=Z,5.6nm,0.5s
BORK Borovoye 59.94 319 *i* P **P 08 48 26.2 -0.3**
BORK pmax pmax
comp=Z,3.0nm,0.6s
BORK Borovoye 59.94 319 P 08 48 26.4 -0.2
BORK IAmb IAmb 08 48 48.3
comp=Z,5.8nm,0.7s
H24K Noodor Dome 59.96 27 IAmb IAmb 08 48 54.4
comp=Z,12nm,1.2s
E24K Your Creek 60.05 24 IAmb IAmb 08 48 57.0
comp=Z,6.2nm,0.7s
HDA Harding Lake 60.19 28 P **P 08 48 28.1 0.0**
HDA IAmb IAmb 08 48 28.8
comp=Z,7.0nm,0.7s
G24K Hadweenzic Riv 60.23 26 IAmb IAmb 08 48 31.2
comp=Z,7.9nm,0.9s
IL31 60.25 28 **P 08 48 28.6 +0.2**
IL31 IAmb IAmb 08 48 28.7
comp=Z,10nm,0.9s
ILAR Eielson Array 60.25 28 P **P 08 48 27.9 -0.6**
comp=Z,7.6nm,0.8s,baz=262,slow=6.5,SNR=79
ILAR LR LR 09 11 19.1
comp=Z,27nm,21.7s,baz=276,slow=33
comp=Z,7.6nm,0.8s
ILAR Eielson Array 60.25 28 P **P 08 48 28.6 +0.1**
ILAR Eielson Array 60.25 28 **P 08 48 28.6 +0.1**
KK31 Karatay Array 60.50 307 P **P 08 48 31.3 +0.7**
KK31 pmax pmax
comp=Z,7.0nm,0.9s
KK31 Karatay Array 60.50 307 **P 08 48 31.2 +0.7**
KK31 IAmb IAmb 08 48 55.8
comp=Z,6.5nm,0.8s
KKAR Karatay Array 60.50 307 P **P 08 48 31.3 +0.7**
KKAR Karatay Array 60.50 307 **P 08 48 31.3 +0.7**
PALK Pallekele 60.81 265 LR LR 09 17 08.5
comp=Z,12nm,18.1s,baz=66,slow=38
HARP HAARP 60.84 31 P **P 08 48 33.9 +1.3**
J25K Salcha River, 60.88 28 P **P 08 48 33.0 +0.1**
D25K Kavik River 61.00 23 IAmb IAmb 08 48 35.8
comp=Z,11nm,0.7s
RIDG Independent Ri 61.05 29 IAmb IAmb 08 48 35.2
comp=Z,15nm,1.0s
F25K Christian Rive 61.05 25 IAmb IAmb 08 49 03.4
comp=Z,7.5nm,0.9s
DOT Dot Lake 61.40 29 IAmb IAmb 08 48 37.7
comp=Z,10nm,0.8s
SCRK Sand Creek 61.45 29 **P 08 48 37.2 +0.5**
F26K Sheenjek River 61.63 25 IAmb IAmb 08 48 40.4
comp=Z,5.8nm,0.7s
L26K Log Cabin Wild 61.69 30 IAmb IAmb 08 48 40.2
comp=Z,6.2nm,0.6s
L27K Beaver Creek, 62.39 30 IAmb IAmb 08 49 24.3
comp=Z,7.8nm,0.7s
I27K Kandik River 62.52 27 IAmb IAmb 08 49 25.1
comp=Z,20nm,1.6s
XMAS Kiritimati 62.54 101 P **P 08 48 45.8 +1.0**
XMAS pP **pwP 08 49 05.6 -1.2**
H27K Steamboat Moun 62.58 26 IAmb IAmb 08 48 46.8
comp=Z,13nm,0.8s
D27M Malcolm River 62.91 23 IAmb IAmb 08 48 48.8
comp=Z,7.0nm,0.8s
KBL Kabul 63.03 298 P **P 08 48 48.6 +0.6**
KBL pmax pmax
comp=Z,10.0nm,0.9s
KBL Kabul 63.03 298 **P 08 48 48.6 +0.6**
KBL IAmb IAmb 08 49 11.9
comp=Z,9.7nm,0.8s
KBL Kabul 63.03 298 P **P 08 48 48.6 +0.6**
comp=Z,13nm,0.8s
I28M Miner Creek 63.22 27 IAmb IAmb 08 48 50.5
comp=Z,7.3nm,0.7s
F28M Old Crow 63.26 25 **P 08 48 49.6 +0.9**
F28M IAmb IAmb 08 48 51.2
comp=Z,9.2nm,0.8s
E28M Babbage River 63.41 24 **P 08 48 50.5 +0.9**
E28M IAmb IAmb 08 48 52.2
comp=Z,8.8nm,0.7s
DAWY Dawson 63.47 29 P **P 08 48 51.1 +0.9**
DAWY IAmb IAmb 08 49 25.5
comp=Z,31nm,1.9s
H29M Whitestone 63.86 26 IAmb IAmb 08 49 24.2
comp=Z,13nm,1.1s
M29M Somme Creek 63.95 31 IAmb IAmb 08 48 55.9
comp=Z,8.2nm,0.8s
G29M Pine Creek 63.98 26 IAmb IAmb 08 48 56.1
comp=Z,11nm,0.8s
E29M Blow River 64.01 24 IAmb IAmb 08 49 18.9
comp=Z,33nm,1.9s
O29M Mount Kennedy 64.02 33 IAmb IAmb 08 48 56.6
comp=Z,20nm,1.0s
L29M L29M 64.07 30 IAmb IAmb 08 49 31.4
comp=Z,12nm,0.9s
HYT Haines Junctio 64.51 32 IAmb IAmb 08 48 59.7
comp=Z,16nm,1.1s
EPYK Eagle Plains 64.52 26 IAmb IAmb 08 48 59.1
comp=Z,16nm,0.8s
J30M Hart River 64.78 28 IAmb IAmb 08 49 01.8
comp=Z,29nm,1.9s
F30M Barrier River 64.83 25 IAmb IAmb 08 49 01.1
comp=Z,14nm,0.6s
H31M Peel River 65.52 27 IAmb IAmb 08 49 05.5
comp=Z,11nm,0.8s
INK Inuvik 65.63 24 IAmb IAmb 08 49 05.4
comp=Z,7.4nm,0.7s
SKAG Skagway 65.73 34 P **P 08 49 04.8 0.0**
JIS Juneau Island 66.38 35 P **P 08 49 09.8 +0.8**
OUZ Omahuta 66.43 152 P **P 08 48 08.9 -0.6**
ARTI Arti 66.54 323 LR LR 09 19 40.8
comp=Z,36nm,19.8s,baz=152,slow=37
ARTI Arti 66.54 323 *i* P **P 08 49 08.8 -1.3**
ARTI pmax pmax
comp=Z,4.0nm,0.7s
ARTI Arti 66.54 323 P **P 08 49 09.4 -0.7**
ARTI IAmb IAmb 08 49 31.2
comp=Z,8.1nm,0.6s
ARTI Arti 66.54 323 P **P 08 49 08.9 -1.2**
ARTI pP **pP 08 49 29.8 +0.8**
AB31 Akbulak array 66.83 315 **P 08 49 11.6 -0.5**
ABKAR Akbulak array 66.83 315 **P 08 49 11.4 -0.7**
AKTO Aktyubinsk 67.82 317 LR LR 09 20 36.4
comp=Z,35nm,20.2s,baz=202,slow=37
DLBC Dease Lake 68.61 34 LR LR 09 19 39.9
comp=Z,34nm,19.0s,baz=242,slow=36
C36M Paulatuk 68.87 22 IAmb IAmb 08 49 51.5
comp=Z,41nm,1.7s
URZ Urewera 70.50 151 LR LR 09 18 30.0
comp=Z,57nm,18.4s,baz=298,slow=34
KIRV Kirov 70.81 326*ce*P **P 08 49 35.7 -0.9**
QRZ Quartz Range 70.82 156 P **P 08 49 36.7 -0.1**
BKZ Black Stump Fm 70.99 152 P **P 08 49 37.8 -0.1**
RAR Rarotonga 72.59 124 LR LR 09 12 59.6
comp=Z,72nm,21.6s,baz=252,slow=28
RPZ Rata Peaks 72.83 158 P **P 08 49 47.9 -0.9**
SPITS Spitsbergen Ar 73.03 350 P **P 08 49 49.9 +0.2**
comp=Z,14nm,0.9s,baz=64,slow=9.8,SNR=1.9
SPITS LR LR 09 23 51.0
comp=Z,73nm,18.2s,baz=215,slow=37
comp=Z,14nm,0.9s
YKA Yellowknife Ar 74.68 28 P **P 08 49 59.4 -0.1**
comp=Z,11nm,0.7s,baz=291,slow=5.8,SNR=44
comp=Z,11nm,0.7s
YKA Yellowknife Ar 74.68 28*ce*P **P 08 49 59.7 +0.2**
YKA pmax pmax
comp=Z,12nm,0.7s
YKAW1 Yellowknife Wh 74.74 28 P **P 08 50 00.1 +0.3**
YKAW1 IAmb IAmb 08 50 01.0
comp=Z,18nm,0.9s
RES Resolute Bay 74.78 13 LR LR 09 21 26.5
comp=Z,16nm,21.8s,baz=2.5,slow=34
ARCES ARCESS Array B 76.04 341 P **P 08 50 06.7 -0.5**
comp=Z,6.2nm,0.9s,baz=61,slow=6.4,SNR=9.5
ARCES LR LR 09 27 38.2
comp=Z,44nm,20.2s,baz=136,slow=39
comp=Z,6.2nm,0.9s
ARCES ARCESS Array B 76.04 341 P **P 08 50 07.7 +0.5**
ARCES ARCESS Array B 76.04 341 P **P 08 50 07.7 +0.5**
SHUK Shuksan-Mt. Ba 76.09 43 P **P 08 50 09.0 +1.0**
SHUK IAmb IAmb 08 50 58.1
comp=Z,21nm,1.2s
MXC Moxie City 77.81 44 IAmb IAmb 08 50 19.8
comp=Z,19nm,1.2s
YBH Yreka Blue Hor 78.02 50 LR LR 09 18 25.9
comp=Z,50nm,19.4s,baz=298,slow=31
D08A Wollman Farm, 78.49 44 IAmb IAmb 08 50 23.3
comp=Z,15nm,1.0s
M03C McCloud 78.60 50 IAmb IAmb 08 50 24.0
comp=Z,21nm,1.0s

OBN	**Obninsk**	**78.63**	**326**	⇑	*e*P	**P**	**08 50 21.1**	**-0.7**
OBN					*e*		08 50 30.4	
OBN					*e**PP	**pP**	**08 50 40.3**	**-1.0**
OBN					*e**SP	**sP**	**08 50 49.6**	**+0.4**
OBN					*e*S	**S**	**09 00 11.6**	**-1.0**
OBN					*e*		09 00 22.4	
OBN					*e*		09 00 57.0	
OBN					*e*		09 01 16.4	
OBN					pmax	pmax		
	comp=Z,7.0nm,0.5s							
OBN					MLR	MLR		
	comp=Z,48nm,16.0s							
PPT	**Papeete**	**78.73**	**115**		LR	LR	09 18 11.7	
	comp=Z,23nm,21.0s,baz=156,slow=30							
PPT2	**Papeete2**	**78.74**	**115**		*e*LR	LR	09 14 43.6	
	comp=Z,87nm,29.8s							
PPT2					*e*LR	LR	09 14 49.2	
	comp=Z,122nm,36.2s							
PPTF	**Pamatai, Papee**	**78.75**	**115**		P	**P**	**08 50 24.4**	**+1.1**
PPTF					pP	**pwP**	**08 50 45.3**	**-0.8**
NEW	**Newport**	**79.11**	**42**		LR	LR	09 20 51.5	
	comp=Z,54nm,21.8s,baz=289,slow=32							
NEW	**Newport**	**79.11**	**42**		P	**P**	**08 50 25.6**	**+0.9**
NEW					pmax	pmax		
	comp=Z,11nm,0.9s							
NEW	**Newport**	**79.11**	**42**			**P**	**08 50 25.6**	**+0.9**
NEW					IAmb	IAmb	08 50 26.6	
	comp=Z,11nm,0.8s							
NEW	**Newport**	**79.11**	**42**		P	**P**	**08 50 25.8**	**+1.1**
EDM	**Edmonton**	**79.17**	**36**		IAmb	IAmb	08 50 26.8	
	comp=Z,26nm,1.1s							
E09A	**Wood Farm, Sta**	**79.19**	**44**		IAmb	IAmb	08 50 27.1	
	comp=Z,14nm,0.8s							
O03E	**Paynes Creek**	**79.20**	**51**		IAmb	IAmb	08 50 26.4	
	comp=Z,11nm,0.8s							
SUTB	**Sutter Butte**	**79.62**	**52**		IAmb	IAmb	08 50 28.8	
	comp=Z,12nm,0.8s							
KBZ	**Khabaz**	**79.68**	**313**		P	**P**	**08 50 28.3**	**+0.5**
	comp=Z,4.5nm,0.7s,baz=63,slow=16,SNR=10.0							
	comp=Z,4.5nm,0.7s							
KBZ	**Khabaz**	**79.68**	**313**		*ce*P	**P**	**08 50 27.3**	**-0.5**
KBZ					pmax	pmax		
	comp=Z,4.0nm,0.6s							
KIV	**Kislovodsk**	**79.73**	**314**		*e*P	**P**	**08 50 27.0**	**-1.3**
KIV					pmax	pmax		
	comp=Z,5.0nm,1.1s							
KIV					MLR	MLR		
	comp=Z,24nm,19.0s							
J08A	**Circle Bar Ran**	**80.26**	**47**		IAmb	IAmb	08 50 33.2	
	comp=Z,16nm,0.9s							
FINES	**FINESS Array B**	**80.28**	**334**		P	**P**	**08 50 30.1**	**-0.6**
	comp=Z,1.7nm,0.3s,baz=57,slow=5.4,SNR=31							
FINES					LR	LR	09 28 00.4	
	comp=Z,29nm,18.1s,baz=62,slow=37							
	comp=Z,1.7nm,0.3s							
FINES	**FINESS Array B**	**80.28**	**334**		P	**P**	**08 50 30.5**	**-0.2**
FINES	**FINESS Array B**	**80.28**	**334**		P	**P**	**08 50 30.5**	**-0.2**
BEKR	**Beckworth**	**80.38**	**51**			**P**	**08 50 32.5**	**+0.5**
BEKR					IAmb	IAmb	08 50 33.4	
	comp=Z,18nm,0.7s							
BMO	**Blue Mountains**	**80.41**	**45**		IAmb	IAmb	08 50 33.7	
	comp=Z,15nm,0.9s							
MHC	**Mount Hamilton**	**80.46**	**53**		IAmb	IAmb	08 50 34.2	
	comp=Z,25nm,1.4s							
WVOR	**Wild Horse Val**	**80.53**	**48**		P	**P**	**08 50 33.7**	**+1.0**
	comp=Z,16nm,1.0s							
CMB	**Columbia Colle**	**81.10**	**52**		IAmb	IAmb	08 50 37.2	
	comp=Z,12nm,0.7s							
PNTR	**Pine Nut**	**81.23**	**51**		IAmb	IAmb	08 50 38.4	
	comp=Z,16nm,0.8s							
PKD	**Bear Valley Ra**	**81.83**	**54**		IAmb	IAmb	08 50 41.3	
	comp=Z,16nm,0.7s							
MFID	**Camas Ranch**	**81.99**	**46**		IAmb	IAmb	08 50 42.2	
	comp=Z,15nm,0.9s							
NVAR	**Mina Array Bea**	**82.43**	**51**		P	**P**	**08 50 43.6**	**+0.8**
	comp=Z,11nm,0.9s,baz=297,slow=5.7,SNR=38							
NVAR					LR	LR	09 19 38.6	
	comp=Z,48nm,20.5s,baz=308,slow=30							
	comp=Z,11nm,0.9s							
GBMT	**Granite Butte,**	**82.57**	**42**		IAmb	IAmb	08 51 19.8	
	comp=Z,34nm,2.0s							
TAOE	**Nuku Hiva Isla**	**82.80**	**103**		*e*LR	LR	09 16 40.4	
	comp=Z,52nm,28.4s							
HLID	**Hailey**	**82.85**	**45**		P	**P**	**08 50 45.0**	**+0.2**
DLMT	**Dillon**	**83.18**	**43**		IAmb	IAmb	08 50 48.9	
	comp=Z,29nm,1.7s							
MZP	**Montezuma Peak**	**83.40**	**52**		IAmb	IAmb	08 50 49.0	
	comp=Z,8.1nm,0.7s							
EGMT	**Eagleton**	**83.62**	**40**		IAmb	IAmb	08 50 50.4	
	comp=Z,12nm,0.9s							
GMN	**Gold Mountain**	**83.66**	**52**		IAmb	IAmb	08 50 50.7	
	comp=Z,8.8nm,0.6s							
TPO	**Tropico Hills**	**83.99**	**55**		IAmb	IAmb	08 50 52.6	
	comp=Z,11nm,0.8s							
LRMC	**Laurel Mtn Rad**	**84.14**	**54**		IAmb	IAmb	08 50 53.0	
	comp=Z,8.8nm,0.7s							
FFC	**Flin Flon**	**84.21**	**32**	*i*	P	**P**	**08 50 52.4**	**+1.0**
FFC	**Flin Flon**	**84.21**	**32**			**P**	**08 50 52.0**	**+0.6**
FFC					IAmb	IAmb	08 50 52.8	
	comp=Z,14nm,0.8s							
FFC	**Flin Flon**	**84.21**	**32**		P	**P**	**08 50 51.8**	**+0.5**
FFC					PcP	**PcP**	**08 50 55.6**	**+0.6**
YHL	**Hebgen Lake**	**84.30**	**43**		IAmb	IAmb	08 50 55.0	
	comp=Z,19nm,1.0s							
FURC	**Furnace Creek,**	**84.31**	**53**		IAmb	IAmb	08 50 53.5	
	comp=Z,8.7nm,0.8s							
YHB	**Horse Butte**	**84.34**	**43**		IAmb	IAmb	08 50 55.1	
	comp=Z,15nm,1.1s							
CCCA	**Chr Cany lake**	**84.35**	**54**		IAmb	IAmb	08 50 54.2	
	comp=Z,9.2nm,0.7s							
YMR	**Madison River**	**84.53**	**43**		IAmb	IAmb	08 50 56.2	
	comp=Z,12nm,0.9s							
TPNV	**Topopah Spring**	**84.54**	**52**		IAmb	IAmb	08 50 55.1	
	comp=Z,12nm,0.7s							
GWY	**Greenwater Val**	**84.57**	**53**		IAmb	IAmb	08 50 55.2	
	comp=Z,14nm,0.7s							
AKASG	**Malin Array Be**	**84.67**	**324**		P	**P**	**08 50 52.6**	**-1.2**
	comp=Z,1.1nm,0.5s,baz=54,slow=5.1,SNR=5.8							
	comp=Z,1.1nm,0.5s							
AKASG	**Malin Array Be**	**84.67**	**324**		*ce*P	**P**	**08 50 54.5**	**+0.7**
AKBB	**Malin Array Si**	**84.67**	**324**		*ce*P	**P**	**08 50 52.8**	**-1.0**
AKBB					pmax	pmax		
	comp=Z,6.0nm,1.0s							
YNR	**Norris Junctio**	**84.68**	**43**		IAmb	IAmb	08 50 57.6	
	comp=Z,15nm,1.0s							
GSC	**Goldstone, Bar**	**84.86**	**54**		IAmb	IAmb	08 50 57.0	
	comp=Z,12nm,1.1s							
SHOC	**Shoshone, Teco**	**84.98**	**53**		IAmb	IAmb	08 50 57.2	
	comp=Z,9.7nm,1.0s							
PRN	**Pahroc Range**	**85.19**	**51**		IAmb	IAmb	08 50 58.7	
	comp=Z,8.7nm,1.0s							
SNOW	**Snow King Moun**	**85.24**	**44**		IAmb	IAmb	08 50 59.3	
	comp=Z,27nm,1.6s							
AHID	**Auburn Hatcher**	**85.36**	**45**		P	**P**	**08 50 58.7**	**+1.0**
	comp=Z,10nm,1.0s							
DUG	**Dugway, Tooele**	**85.45**	**48**		P	**P**	**08 50 59.1**	**+0.9**
	comp=Z,27nm,0.7s							
SHPR	**Sheep Range**	**85.52**	**52**		IAmb	IAmb	08 51 00.4	
	comp=Z,8.6nm,0.8s							
HWUT	**Hardware Ranch**	**85.62**	**46**		IAmb	IAmb	08 51 00.7	
	comp=Z,11nm,0.7s							
HWUT	**Hardware Ranch**	**85.62**	**46**		P	**P**	**08 50 60.0**	**+1.0**
	comp=Z,17nm,1.5s							
DPP	**Dos Picos Cty**	**85.77**	**56**		IAmb	IAmb	08 51 01.0	
	comp=Z,13nm,1.2s							
HFS	**Hagfors**	**85.83**	**337**		P	**P**	**08 50 58.3**	**-1.1**
	comp=Z,2.4nm,0.8s,baz=49,slow=4.4,SNR=7.7							
HFS					LR	LR	09 31 31.7	
	comp=Z,48nm,19.1s,baz=22,slow=37							
	comp=Z,2.4nm,0.8s							
PFO	**Pinyon Flats O**	**85.86**	**55**		LR	LR	09 20 43.6	
	comp=Z,44nm,20.8s,baz=272,slow=30							
PFO	**Pinyon Flats O**	**85.86**	**55**	*i*	P	**P**	**08 51 01.3**	**+1.0**
PFO	**Pinyon Flats O**	**85.86**	**55**			**P**	**08 51 00.5**	**+0.2**
PFO					IAmb	IAmb	08 51 01.8	
	comp=Z,9.7nm,1.0s							
PFO	**Pinyon Flats O**	**85.86**	**55**		P	**P**	**08 51 00.6**	**+0.3**
	comp=Z,12nm,2.0s							
PFO	**Pinyon Flats O**	**85.86**	**55**		P	**P**	**08 51 00.6**	**+0.3**
PFO					PcP	**PcP**	**08 51 02.9**	**0.0**
PFO					pP	**pwP**	**08 51 21.9**	**-1.3**
XPFO	**Pinon Flat**	**85.86**	**55**		P	**P**	**08 51 00.6**	**+0.3**
XPFO					PcP	**PcP**	**08 51 02.9**	**0.0**
XPFO					pP	**pwP**	**08 51 21.9**	**-1.3**
TCUT	**Toone Canyon**	**85.96**	**47**		IAmb	IAmb	08 51 02.2	
	comp=Z,13nm,0.7s							
RAYN	**Ar Rayn**	**86.01**	**294**		P	**P**	**08 51 01.2**	**+0.1**
RAYN					pmax	pmax		
	comp=Z,5.0nm,0.9s							
RAYN	**Ar Rayn**	**86.01**	**294**			**P**	**08 51 01.2**	**+1.0**
RAYN	**Ar Rayn**	**86.01**	**294**		P	**P**	**08 51 01.7**	**+0.6**
RAYN					pP	**pwP**	**08 51 23.5**	**-0.1**
BELC	**Belle Mtn. Jos**	**86.03**	**55**		IAmb	IAmb	08 51 02.3	
	comp=Z,14nm,1.2s							
BORC	**Borrego Spring**	**86.05**	**55**		IAmb	IAmb	08 51 02.3	
	comp=Z,13nm,1.4s							
NB2	**NORSAR Subarra**	**86.05**	**338**		P	**P**	**08 50 58.8**	**-1.7**
	comp=Z,2.0nm,0.7s,baz=44,slow=5.1							
NOA	**NORSAR Array B**	**86.05**	**338**		P	**P**	**08 50 59.2**	**-1.3**
	comp=Z,0.8nm,0.6s,baz=44,slow=4.6,SNR=5.8							
NOA					LR	LR	09 32 24.7	
	comp=Z,24nm,18.3s,baz=15,slow=38							
	comp=Z,0.8nm,0.6s							
NLU	**North Lily Min**	**86.07**	**48**		IAmb	IAmb	08 51 02.8	
	comp=Z,7.0nm,0.7s							
PDAR	**Pinedale Array**	**86.35**	**44**		P	**P**	**08 51 02.8**	**+0.2**
	comp=Z,2.8nm,0.8s,baz=281,slow=7.5,SNR=22							
PDAR					LR	LR	09 23 41.4	
	comp=Z,65nm,19.2s,baz=295,slow=31							
	comp=Z,2.8nm,0.8s							
PDAR	**Pinedale Array**	**86.35**	**44**			**P**	**08 51 03.1**	**+0.5**
BC3	**Big Chuckawall**	**86.59**	**55**		IAmb	IAmb	08 51 04.9	
	comp=Z,7.5nm,0.8s							
LCMT	**Little Creek M**	**86.65**	**51**		IAmb	IAmb	08 51 05.9	
	comp=Z,10nm,0.8s							
TMUT	**Trail Mountain**	**86.97**	**48**		IAmb	IAmb	08 52 35.9	
	comp=Z,12nm,1.7s							
BLYC	**Blythe**	**87.24**	**54**		IAmb	IAmb	08 51 08.6	
	comp=Z,7.8nm,0.9s							
SRU	**San Rafael Swe**	**87.53**	**48**		IAmb	IAmb	08 51 09.8	
	comp=Z,7.4nm,0.8s							
U15A	**North Rim**	**87.60**	**51**		IAmb	IAmb	08 51 10.8	
	comp=Z,9.1nm,1.0s							
BRTR	**Keskin Array B**	**87.67**	**313**		P	**P**	**08 51 08.2**	**-0.8**
	comp=Z,1.6nm,1.0s,baz=83,slow=4.5,SNR=4.3							
	comp=Z,1.6nm,1.0s							
BRTR	**Keskin Array B**	**87.67**	**313**		*ce*P	**P**	**08 51 08.0**	**-0.9**
BRTR					pmax	pmax		
	comp=Z,2.0nm,1.0s							
BRTR	**Keskin Array B**	**87.67**	**313**		P	**P**	**08 51 08.5**	**-0.5**
HMU	**Henry Mountain**	**87.95**	**49**		IAmb	IAmb	08 51 11.7	
	comp=Z,8.1nm,0.8s							
113A	**Mohawk Valley,**	**88.25**	**55**		IAmb	IAmb	08 51 13.3	
	comp=Z,7.5nm,0.8s							
SFJD	**Kangerlussuaq**	**88.45**	**5**		P	**P**	**08 51 11.7**	**-0.2**
SFJD					pP	**pP**	**08 51 32.8**	**+1.2**
SFJD					sP	**sP**	**08 51 40.5**	**+1.0**
WUAZ	**Wupatki**	**88.69**	**51**		IAmb	IAmb	08 51 15.4	
	comp=Z,6.5nm,0.8s							
PV21	**Cone Mtn., Par**	**88.85**	**48**		IAmb	IAmb	08 51 16.4	
	comp=Z,7.8nm,0.8s							
HAYD	**Hayden**	**88.98**	**45**		IAmb	IAmb	08 51 18.4	
	comp=Z,15nm,1.7s							
RSSD	**Black Hills**	**89.06**	**41**		P	**P**	**08 51 15.3**	**-0.2**
RSSD					pmax	pmax		
	comp=Z,13nm,1.4s							
RSSD	**Black Hills**	**89.06**	**41**		P	**P**	**08 51 15.3**	**-0.2**
RSSD					IAmb	IAmb	08 51 17.8	
	comp=Z,13nm,1.4s							
RSSD	**Black Hills**	**89.06**	**41**		P	**P**	**08 51 15.7**	**+0.2**
PV12	**Saucer Basin,**	**89.09**	**48**		IAmb	IAmb	08 51 18.3	
	comp=Z,10nm,1.0s							
PV13	**Radium Mn., P**	**89.16**	**48**		IAmb	IAmb	08 51 18.4	
	comp=Z,9.7nm,0.9s							
X16A	**Lo Mia Camp, P**	**89.18**	**52**		IAmb	IAmb	08 51 18.6	
	comp=Z,10nm,1.4s							
PV02	**Paradox Valley**	**89.19**	**48**		IAmb	IAmb	08 51 18.7	
	comp=Z,13nm,1.2s							
MLR	**Muntele Rosu**	**89.39**	**321**		LR	LR	09 33 57.7	
	comp=Z,43nm,19.4s,baz=359,slow=37							
ULM	**Lac du Bonnet**	**89.89**	**33**		LR	LR	09 30 53.0	
	comp=Z,14nm,20.8s,baz=20,slow=35							
STEB	**Steborice**	**91.01**	**328**		*e*P	**P**	**08 51 28.5**	**+4.3**
DPC	**Dobruska-Polom**	**91.44**	**329**		*e*P	**P**	**08 51 25.3**	**-0.9**
DPC	**Dobruska-Polom**	**91.44**	**329**		*e*P	**P**	**08 51 25.3**	**-0.9**
SDCO	**Great Sand Dun**	**91.61**	**47**		IAmb	IAmb	08 51 29.3	
	comp=Z,3.1nm,0.8s							
VRAC	**Vranov**	**92.00**	**328**		LR	LR	09 35 29.8	
	comp=Z,41nm,20.2s,baz=38,slow=37							
HSIG		**92.17**	**57**		IAmb	IAmb	08 51 31.8	
	comp=Z,5.7nm,0.9s							
CLL	**Collm**	**92.31**	**331**		*e*P	**P**	**08 51 30.0**	**-0.2**
CLL					LV		09 25 00.0	
TASM	**ASL Pad, Albuq**	**92.45**	**50**		IAmb	IAmb	08 51 33.4	
	comp=Z,7.0nm,0.8s							
ANMO	**Albuquerque**	**92.45**	**50**		LR	LR	09 27 30.6	
	comp=Z,22nm,20.0s,baz=320,slow=32							
ANMO	**Albuquerque**	**92.45**	**50**		*ce*P	**P**	**08 51 31.8**	**+0.4**
ANMO					pmax	pmax		
	comp=Z,8.0nm,1.3s							
ANMO	**Albuquerque**	**92.45**	**50**		P	**P**	**08 51 30.7**	**-0.7**
ANMO					IAmb	IAmb	08 51 33.8	
	comp=Z,5.5nm,0.8s							
ANMO	**Albuquerque**	**92.45**	**50**		P	**P**	**08 51 32.8**	**+1.3**
	comp=Z,9.9nm,0.9s							
ALQ	**Albuquerque**	**92.45**	**50**		IAmb	IAmb	08 51 33.4	
	comp=Z,7.5nm,0.8s							
Y22A	**Socorro**	**92.62**	**51**		IAmb	IAmb	08 51 34.6	
	comp=Z,5.3nm,1.0s							
121A	**Cookes Peak, D**	**92.76**	**52**		IAmb	IAmb	08 51 35.3	
	comp=Z,9.7nm,1.2s							
CKRC	**Cesky Krumlov**	**93.44**	**328**		*e*P	P	08 51 45.8	+10
KHC	**Kasperske Hory**	**93.57**	**329**		*e*P	**P**	**08 51 34.5**	**-1.6**
KHC	**Kasperske Hory**	**93.57**	**329**		*e*P	**P**	**08 51 34.5**	**-1.6**
GERES	**GERESS Array B**	**93.71**	**329**		P	**P**	**08 51 35.4**	**-1.4**
	comp=Z,0.3nm,0.4s,baz=32,slow=5.9,SNR=4.5							
GERES					LR	LR	09 35 58.8	
	comp=Z,42nm,20.3s,baz=323,slow=37							
	comp=Z,0.3nm,0.4s							
GERES	**GERESS Array B**	**93.71**	**329**		P	**P**	**08 51 36.0**	**-0.8**
GERES	**GERESS Array B**	**93.71**	**329**		P	**P**	**08 51 36.0**	**-0.8**
MNTX	**Cornudas Mount**	**94.93**	**52**		P	**P**	**08 51 43.4**	**+0.7**
	comp=Z,5.6nm,1.3s							
LPIG	**La Paz**	**95.07**	**61**		LR	LR	09 30 01.1	
	comp=Z,17nm,18.5s,baz=333,slow=32							
EKA	**Eskdalemuir Ar**	**95.20**	**341**		P	**P**	**08 51 42.5**	**-0.9**
	comp=Z,3.6nm,1.0s,baz=48,slow=5.8,SNR=1.9							
EKA					LR	LR	09 39 12.7	
	comp=Z,11nm,19.2s,baz=7.0,slow=38							
	comp=Z,3.6nm,1.0s							
DAVOX	**Davos/Dischmat**	**96.99**	**329**		LR	LR	09 39 53.8	
	comp=Z,18nm,19.4s,baz=76,slow=38							
SCHQ	**Scheffervill e**	**97.38**	**16**		LR	LR	09 36 29.2	
	comp=Z,24nm,21.8s,baz=11,slow=36							
TXAR	**Lajitas Array**	**97.45**	**53**		P	**P**	**08 51 54.5**	**+0.2**
	comp=Z,1.1nm,0.5s,baz=311,slow=6.3,SNR=21							
	comp=Z,1.1nm,0.5s							
TXAR	**Lajitas Array**	**97.45**	**53**		P	**P**	**08 51 54.1**	**-0.2**
TXAR	**Lajitas Array**	**97.45**	**53**		P	**P**	**08 51 54.1**	**-0.2**
QSPA	**South Pole Qui**	**114.13**	**180**		PKiKP	PKPdf	08 56 58.0	-0.3
	comp=Z,1.5nm,0.5s,baz=333,slow=2.3,SNR=17							
QSPA	**South Pole Qui**	**114.13**	**180**			PKPdf	08 56 58.2	-0.1
BOSA	**Boshof**	**123.70**	**251**		PKP	**PKPdf**	**08 57 18.1**	**+0.2**
	comp=Z,0.8nm,0.5s,baz=75,slow=12,SNR=3.6							
BOSA	**Boshof**	**123.70**	**251**		PKIKP	**PKPdf**	**08 57 18.4**	**+0.5**
BOSA	**Boshof**	**123.70**	**251**			**PKPdf**	**08 57 18.4**	**+0.5**
TORD	**Torodi Ar. Bea**	**126.15**	**309**		PKP	**PKPdf**	**08 57 22.8**	**-0.1**
	comp=Z,0.9nm,0.5s,baz=54,slow=0.9,SNR=6.1							
TROLL	**Troll, Antarti**	**127.21**	**195**	⇑	PKPdf	**PKPdf**	**08 57 24.0**	**+0.6**
	comp=Z,240nm,0.7s							
VNA2	**Neumayer--Watz**	**130.16**	**193**		PKPdf	**PKPdf**	**08 57 29.8**	**+0.9**
	comp=Z,6.4nm,0.6s,baz=127,slow=1.5							
VNA3	**Neumayer Olymp**	**130.34**	**192**	⇑	PKPdf	**PKPdf**	**08 57 29.1**	**-0.1**
	comp=Z,2.4nm,0.5s							
DBIC	**Dimbokro**	**135.26**	**309**		SKPbc	**SKPbc**	**09 01 03.5**	**-1.1**
	comp=Z,3.9nm,0.9s,baz=60,slow=2.8,SNR=3.8							
PLCA	**Paso Flores**	**148.37**	**129**		PKPbc	**PKPbc**	**08 58 06.6**	**+0.3**
	comp=Z,6.6nm,0.6s,baz=230,slow=3.0,SNR=31							
LPAZ	**La Paz**	**150.78**	**80**		PKP	**PKPdf**	**08 58 08.6**	**+0.7**
	comp=Z,1.1nm,0.7s,baz=287,slow=4.1,SNR=6.8							
LPAZ					PKPbc	**PKPbc**	**08 58 13.9**	**+0.4**
	comp=Z,12nm,0.6s,baz=351,slow=1.1,SNR=68							
CPUP	**Villa Florida**	**162.51**	**101**		PKP	**PKPdf**	**08 58 22.1**	**+0.1**
	comp=Z,1.2nm,0.9s,baz=270,slow=9.1,SNR=3.7							
CPUP					PKPab	**PKPab**	**08 59 10.4**	**0.0**
	comp=Z,2.7nm,0.8s,baz=292,slow=8.3,SNR=8.4							
CPUP	**Villa Florida**	**162.51**	**101**		PKIKP	**PKPdf**	**08 58 21.2**	**-0.8**
CPUP							08 59 10.8	
CPUP	**Villa Florida**	**162.51**	**101**			**PKPdf**	**08 58 21.1**	**-0.8**
CPUP					PKPab	**PKPab**	**08 59 10.8**	**+0.4**

IDC ***15*** *09:01:24.3±1.6,6°.98S×129°.56E,h155km±16km,mb3.6/5, mbtmp4.2/10,Error ellipse: s-maj=24.9km s-min=13.1km az=112.0*

DJA ***15*** *09:01:28.9±0.4,7°.S×3°×12°.9E±°,h152km±8km,M4.3/11, mb4.2/6,mB5.4/4,MLv4.3/11,Mw(mB)4.9/4*

ISC 15 09:01:26.2±0.8,**6.90S**±0°.06×**129.34E**±0°.07,**h150**km,**n16,**
σ**2**§**13**/16,**mb3.8/5,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
SAUI	**Saumlaki**	**2.22**	**119**	P		**Pn**	**09 02 06.8**	**+2.8**
SAUI				S		**Sn**	**09 02 33.1**	**+0.1**
SAUI				AML		AML		
BNDI	**Bandanaira**	**2.42**	**13**	P		**Pn**	**09 02 08.9**	**+2.5**
BNDI				S		**Sn**	**09 02 40.9**	**+3.4**
BNDI				AML		AML		
FAKI	**Fak Fak**	**4.90**	**36**	P		**Pn**	**09 02 38.8**	**+0.5**
FAKI				AML		AML		
KMPI	**Kaimana, Papua**	**5.41**	**54**	P		**Pn**	**09 02 46.7**	**+1.7**
SOEI	**Soe**	**5.77**	**240**	P		**Pn**	**09 02 53.0**	**+3.0**
	0.2nm21nm,0.8s							
SOEI				AML		AML		
SIJI	**Sorong**	**6.29**	**18**	P		**Pn**	**09 02 56.9**	**+0.1**
	9.1nm,0.3s,baz=197,slow=19,SNR=23							
SIJI				S		**Sn**	**09 04 05.5**	**-2.2**
	14nm,0.3s,baz=180,slow=20,SNR=11							
SIJI	**Sorong**	**6.29**	**18**	P		**Pn**	**09 02 58.3**	**+1.5**
SIJI				AML		AML		
BATI	**Baumata**	**6.51**	**239**	P		**Pn**	**09 03 01.2**	**+1.5**
	24nm,0.7s,baz=100,slow=6.1,SNR=1.6							
BATI				S		**Sn**	**09 04 13.9**	**+1.0**
	22nm,0.4s,baz=80,slow=19,SNR=6.1							
FITZ	**Fitzroy Crossi**	**11.70**	**198**	P		Pn	09 04 05.8	-2.8
	3.1nm,0.3s,baz=25,slow=11,SNR=39							
FITZ				S		Sn	09 06 07.4	-11
	7.6nm,0.5s,baz=358,slow=16,SNR=8.1							
WRA	**Warramunga Arr**	**13.85**	**160**	P		Pn	09 04 31.0	-5.3
	1.8nm,0.5s,baz=340,slow=13,SNR=23							
WRA				S		Sn	09 06 56.1	-14
	3.3nm,0.7s,baz=344,slow=22,SNR=8.3							
ASAR	**Alice Springs**	**17.24**	**166**	P		**P**	**09 05 14.6**	**-2.6**
	11nm,0.5s,baz=342,slow=9.7,SNR=161							
ASAR				S		S	09 08 18.6	-11
	0.7nm,0.5s,baz=348,slow=25,SNR=6.8							
CMAR	**Chiang Mai Arr**	**39.16**	**310**	P		**P**	**09 08 39.2**	**-0.5**
	0.9nm,0.5s,baz=125,slow=9.2,SNR=5.4							
	0.9nm,0.5s							
MKAR	**Makanchi Array**	**67.78**	**327**	P		**P**	**09 12 07.1**	**-0.7**
	1.9nm,0.5s,baz=122,slow=7.5,SNR=23							
	1.9nm,0.5s							
ZALV	**Zalesovo Beam**	**71.20**	**334**	P		P	09 12 26.6	-2.1
	1.0nm,0.6s,baz=116,slow=6.6,SNR=3.9							
	1.0nm,0.6s							
KURBB	**Kurchatov Arra**	**72.08**	**329**	P		P	09 12 32.2	-1.7
	0.6nm,0.4s,baz=128,slow=4.8,SNR=7.5							
	0.6nm,0.4s							
BVAR	**Borovoye Array**	**77.63**	**328**	P		**P**	**09 13 04.2**	**-1.6**
	0.6nm,0.5s,baz=120,slow=10,SNR=2.2							
	0.6nm,0.5s							

CNRM ***15*** *09:15:57.0,36°.11N×7°.81W,h0km,ML2.9*

MDD ***15*** *09:16:01.6±1.0,36°.29N×8°.22W,h11km±11km,mb_Lg2.5/5, Error ellipse: s-maj=14.2km s-min=4.3km az=37.0*

IGIL ***15*** *09:16:02.8,36°.15N×8°.30W,h31km,ML0.8*

INMG ***15*** *09:16:02.5±1.2,36°.15N×8°.30W,h36km,ML1.6,Error ellipse: s-maj=4.0km s-min=3.1km az=66.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Faro*

SFS ***15*** *09:16:02.0,36°.25N×8°.27W,h18km,ML2.4/9,ML2.0/9, MLv2.7/6*

ISC 15 09:16:00.0±2.1,**36°.3N**±0°.1×**8°.11W**±0°.07,**h8**km±14km,**n41,**
σ**0**§**93**/67,**West of Gibraltar**

| Code | Station Name | Δ° | AZ° | Phase | ID | ISC |

ECAB	**El Cabril**	**2.78**	**50**	Pn	**Pn**	**09 16 46.6**	**+1.6**
ECAB	**El Cabril**	**2.78**	**50**	P	**Pn**	**09 16 46.6**	**+1.6**
ECAB				IVmb_Lg		09 17 06.3	
ECAB				S	**Sn**	**09 17 18.1**	**-0.6**
PMAFR	**Mafra**	**2.80**	**341**	*eP*	**Pn**	**09 16 45.8**	**+0.6**
PMRV	**Marv??o**	**3.17**	**10**	*eP*	**Pn**	**09 16 51.0**	**+0.8**
PMRV				*eS*	**Sn**	**09 17 27.5**	**-0.8**
PSBE	**So Bento**	**3.25**	**351**	*eP*	**Pn**	**09 16 52.2**	**+0.9**
EADA	**Adamuz**	**3.38**	**56**	Pn	**Pn**	**09 16 54.6**	**+1.5**
EADA				Sn	**Sn**	**09 17 33.6**	**+0.2**
EADA	**Adamuz**	**3.38**	**56**	P	**Pn**	**09 16 54.1**	**+1.0**
EADA				S	**Sn**	**09 17 32.9**	**-0.5**
EADA				IVmb_Lg		09 17 35.1	
PCBR	**Castelo Branco**	**3.56**	**8**	*eP*	**Pn**	**09 16 56.6**	**+1.0**
PCBR				*eS*	**Sn**	**09 17 36.7**	**-1.3**
EPLA	**Plasencia**	**4.08**	**22**	S	**Sn**	**09 17 49.0**	**-1.7**
MD31	**MD31**	**4.41**	**140**	P	Pn	09 17 02.6	-4.7
MD31				S	Sn	09 17 51.2	-7.7
MDT	**Midelt**	**4.53**	**139**	P	Pn	09 17 04.2	-4.7
MDT				S	Sn	09 17 52.2	-10
OUZM	**OUZ**	**5.50**	**168**	P	Pn	09 17 16.7	-5.7
ETOB	**Tobarra**	**5.72**	**64**	P	**Pn**	**09 17 24.4**	**-0.9**
ETOB				S	**Sn**	**09 18 28.6**	**-2.6**

*IDC **15** 09:17:42.4±4.9, 18°.67S×174°.85W, h199km±45km, mb3.4/8, mbtmp3.9/8, Error ellipse: s-maj=24.8km s-min=14.6km az=101.0*

ISC 15 09:17:42.9±0.9, **18°.7S**±0°.1×**174°.9W**±0°.2, **h205**km, **n32, σ1s85/31, mb3.5/7, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**10.88**	**194**	P	Pn	09 20 06.6	-6.8
GLKZ				S	S	09 22 02.9	-12
OUZ	**Omahuta**	**19.38**	**210**	P	**P**	**09 21 53.5**	**+0.3**
WCZ	**Waipu Caves**	**19.64**	**207**	P	**P**	**09 21 56.4**	**+0.4**
MXZ	**Matakaoa Point**	**19.72**	**196**	P	**P**	**09 21 58.0**	**+1.1**
HAZ	**Te Kaha**	**20.05**	**197**	P	**P**	**09 22 01.4**	**+1.0**
MWZ	**Matawai**	**20.66**	**197**	P	**P**	**09 22 07.5**	**+0.6**
MWZ				S	**S**	**09 25 40.0**	**-6.0**
URZ	**Urewera**	**20.71**	**198**	P	**P**	**09 22 06.6**	**-0.8**
	5.0nm,0.3s,baz=327,slow=4.6,SNR=13						
URZ				S	**S**	**09 25 46.0**	**-0.8**
	10nm,0.9s,baz=291,slow=15,SNR=1.5 5.0nm,0.3s						
URZ	**Urewera**	**20.71**	**198**	P	**P**	**09 22 06.5**	**-0.8**
URZ				S	**S**	**09 25 44.3**	**-2.5**
TOZ	**Tahuroa Road**	**20.75**	**202**	P	**P**	**09 22 08.5**	**+0.7**
KNZ	**Kokohu**	**21.26**	**196**	P	**P**	**09 22 14.2**	**+1.1**
RAHZ	**Arahi**	**21.32**	**197**	P	**P**	**09 22 14.3**	**+0.5**
MTHZ	**Maungataniwha**	**21.34**	**198**	P	**P**	**09 22 14.1**	**+0.1**
NMHZ	**Naumai**	**21.57**	**198**	P	**P**	**09 22 16.9**	**+0.4**
BKZ	**Black Stump Fm**	**21.73**	**198**	P	**P**	**09 22 16.4**	**-1.6**
OTVZ	**Oturere**	**21.98**	**200**	P	**P**	**09 22 18.8**	**-1.8**
KWHZ	**Kaweka Forest**	**21.99**	**198**	P	**P**	**09 22 20.2**	**-0.4**
WNVZ	**Wahianoa**	**22.15**	**200**	P	**P**	**09 22 21.0**	**-1.3**
PXZ	**Pawanui**	**22.43**	**197**	P	**P**	**09 22 24.3**	**-0.2**
BFZ	**Birch Farm**	**23.20**	**197**	P	**P**	**09 22 31.3**	**-0.3**
QRZ	**Quartz Range**	**24.56**	**203**	P	**P**	**09 22 46.9**	**+3.0**
THZ	**Tophouse**	**25.25**	**202**	P	**P**	**09 22 53.2**	**+3.1**
INZ	**Inchbonnie**	**26.61**	**203**	P	**P**	**09 23 05.7**	**+3.4**
WRA	**Warramunga Arr**	**47.80**	**260**	P	**P**	**09 26 00.4**	**+0.3**
	0.6nm,0.3s,baz=96,slow=8.3,SNR=15 0.6nm,0.3s						
ASAR	**Alice Springs**	**47.82**	**255**	P	**P**	**09 26 01.0**	**+0.8**
	1.2nm,0.6s,baz=98,slow=7.8,SNR=25 1.2nm,0.6s						
VNDA	**Vanda**	**59.97**	**186**	P	**P**	**09 27 29.0**	**+1.8**
	0.8nm,0.9s,baz=20,slow=0.7,SNR=3.8 0.8nm,0.9s						
MJAR	**Matsushiro Arr**	**70.58**	**321**	P	**P**	**09 28 34.7**	**-1.2**
	0.4nm,0.5s,baz=106,slow=11,SNR=2.2 0.4nm,0.5s						
QSPA	**South Pole Qui**	**71.36**	**180**	P	**P**	**09 28 41.7**	**+1.4**
	1.8nm,0.8s,baz=34,slow=3.6,SNR=11 1.8nm,0.8s						
H03S2	**Juan Fernandez**	**84.55**	**124**	T	T	11 02 51.2	
	baz=249						
H03S1	**Juan Fernandez**	**84.57**	**124**	T	T	11 02 54.0	
	baz=249						
H03S3	**Juan Fernandez**	**84.57**	**124**	T	T	11 02 48.0	
	baz=249,SNR=7.0						
PDAR	**Pinedale Array**	**85.64**	**42**	P	**P**	**09 29 57.6**	**-1.2**
	0.2nm,0.7s,baz=243,slow=13,SNR=1.8 0.2nm,0.7s						
ILAR	**Eielson Array**	**85.94**	**12**	P	**P**	**09 29 59.1**	**-0.3**
	0.6nm,0.6s,baz=209,slow=4.8,SNR=16 0.6nm,0.6s						

*IDC **15** 09:19:27.5±0.8, 33°.44S×77°.92E, h0km, mb3.9/11, mbtmp3.9/11, MS3.9/46, Error ellipse: s-maj=31.5km s-min=22.9km az=68.0*

*NEIC **15** 09:19:28.8±1.2, 33°.44S±0°.04×77°.9E±0°.2, h10km±1km, mb4.4/15, Error ellipse: s-maj=23.1km s-min=4.7km az=281.0*

*GCMT **15** 09:19:32.8±0.3, 33°.45S±0°.02×77°.87E±0°.02, h25km±1km, MW4.9/93, Moment Tensor Solution. s19,c20; s93,c115; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.05±.14; $M_{\theta\theta}$-2.69±.12; $M_{\phi\phi}$2.74±.12; $M_{r\theta}$0.73±.24; $M_{r\phi}$-0.34±.10; $M_{\theta r}$-1.80±.27; Best double couple: Mo3.28200×10^{16} NP1:ϕs131.00000°,δ83.00000°,λ149.00000°. NP2: ϕs225.00000°,δ60.00000°,λ9.00000°. Principal axes: T 3.6850, Plg27.0000°, Azm84.0000°; N -0.8010, Plg59.0000°, Azm298.0000°; P -2.8800, Plg15.0000°, Azm182.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 15 09:19:28.7±0.5, **33°.43S**±0°.09×**77°.9E**±0°.1, **h10**km, **n84, σ0s71/35, mb4.1/17, MS4.0/46, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AIS	**Amsterdam Isla**	**4.36**	**183**	Pn	**Pn**	**09 20 34.7**	**-0.3**
PAF	**Port-aux-Franc**	**16.90**	**197**	Pn	**Pn**	**09 23 24.8**	**-0.3**
H04N2	**CROZET ISLANDS**	**23.61**	**230**	T	T	09 49 11.9	
	baz=66,slow=74,SNR=2808						
H04N1	**CROZET ISLANDS**	**23.62**	**230**	T	T	09 49 16.8	
	baz=66,slow=74,SNR=2813						
H04N3	**CROZET ISLANDS**	**23.62**	**230**	T	T	09 49 11.8	
	baz=66,slow=74,SNR=5751						
H04S1	**CROZET ISLANDS**	**23.81**	**228**	T	T	09 49 38.1	
	baz=62,slow=77,SNR=168						
H04S3	**CROZET ISLANDS**	**23.83**	**228**	T	T	09 49 29.2	
	baz=62,slow=77,SNR=469						
H04S2	**CROZET ISLANDS**	**23.83**	**228**	T	T	09 49 30.6	
	baz=62,slow=77,SNR=289						
H08S2	**Diego Garcia H**	**26.14**	**348**	T	T	09 52 07.9	
	baz=170,slow=76,SNR=715						
H08S1	**Diego Carcia H**	**26.14**	**348**	T	T	09 52 07.6	
	baz=170,slow=76,SNR=817						
H08S3	**Diego Garcia H**	**26.16**	**348**	T	T	09 52 09.4	
	baz=170,slow=76,SNR=1063						
H01W2	**Cape Leeuwin H**	**29.94**	**103**	T	T	09 57 10.8	
	baz=262,slow=74,SNR=66						
H01W3	**Cape Leeuwin H**	**29.94**	**103**	T	T	09 57 07.6	
	baz=262,slow=74,SNR=64						
H01W1	**Cape Leeuwin H**	**29.96**	**103**	T	T	09 57 00.7	
	baz=262,slow=74,SNR=88						
OPO	**Ambohidratompo**	**31.16**	**291**	LR	LR	09 35 03.7	
	comp=Z,140nm,18.6s,baz=268,slow=30						
NWAO	**Narrogin (SRO)**	**32.81**	**100**	LR	LR	09 36 08.1	
	comp=Z,330nm,21.4s,baz=242,slow=30						
MAW	**Mawson**	**35.31**	**190**	LR	LR	09 37 40.8	
	comp=Z,95nm,21.4s,baz=26,slow=31						
LEM	**Lembang**	**38.21**	**53**	LR	LR	09 40 06.4	
	comp=Z,159nm,18.9s,baz=196,slow=32						
PALK	**Pallekele**	**40.57**	**4**	LR	LR	09 40 04.6	
	comp=Z,162nm,20.4s,baz=183,slow=30						
IPM	**Ipoh**	**43.61**	**35**	P	**P**	**09 27 33.1**	**-0.3**
IPM				IAmb	IAmb	09 28 16.4	
	comp=Z,16nm,1.3s						
BOSA	**Boshof**	**44.96**	**261**	LR	LR	09 42 30.0	
	comp=Z,222nm,20.4s,baz=64,slow=31						
FITZ	**Fitzroy Crossi**	**45.26**	**83**	LR	LR	09 44 30.8	
	comp=Z,254nm,19.0s,baz=264,slow=33						
FITZ	**Fitzroy Crossi**	**45.26**	**83**	P	**P**	**09 27 46.1**	**-0.5**
MATP	**Matopo**	**45.50**	**274**	LR	LR	09 43 05.8	
	comp=Z,1μm,21.4s,baz=104,slow=31						
LBTB	**Lobatse**	**45.99**	**266**	LR	LR	09 43 01.8	
	comp=Z,150nm,21.3s,baz=120,slow=31						
ALKP	**Alkanpan, Nort**	**46.99**	**258**	P	**P**	**09 27 59.9**	**-0.4**
SUR	**Sutherland**	**47.39**	**255**	LR	LR	09 43 09.0	
	comp=Z,210nm,21.9s,baz=120,slow=30						
KDWAN	**Kaudwane**	**47.43**	**268**	P	**P**	**09 28 03.7**	**0.0**
BATI	**Baumata**	**47.89**	**72**	LR	LR	09 46 11.3	
	comp=Z,192nm,18.1s,baz=240,slow=34						
KAPI	**Kappang**	**48.09**	**63**	LR	LR	09 44 47.4	
	comp=Z,78nm,21.1s,baz=212,slow=32						
ASAR	**Alice Springs**	**49.66**	**94**	P	**P**	**09 28 19.7**	**-1.2**
	comp=Z,0.5nm,0.8s,baz=246,slow=7.5,SNR=6.3						
ASAR				LR	LR	09 46 20.8	
	comp=Z,147nm,21.6s,baz=270,slow=32 comp=Z,0.5nm,0.8s						
ASAR	**Alice Springs**	**49.66**	**94**	P	**P**	**09 28 19.4**	**-1.4**
AS31	**Alice Springs**	**49.66**	**94**	P	**P**	**09 28 19.6**	**-1.3**
GRTLG	**Ghanzi**	**51.17**	**268**	P	**P**	**09 28 31.4**	**-1.0**
GRTLG				IAmb	IAmb	09 28 42.8	
	comp=Z,4.1nm,1.0s						
WRA	**Warramunga Arr**	**51.65**	**90**	P	**P**	**09 28 36.0**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=244,slow=7.9,SNR=5.9 comp=Z,0.9nm,0.6s						
WRA	**Warramunga Arr**	**51.65**	**90**	P	**P**	**09 28 34.8**	**-1.1**
WRAB	**Tennant Creek**	**51.66**	**90**	P	**P**	**09 28 36.4**	**+0.5**
WRAB				IAmb	IAmb	09 28 49.7	
	comp=Z,12nm,1.4s						
STKA	**Stephens Creek**	**52.90**	**107**	LR	LR	09 48 10.5	
	comp=Z,165nm,20.0s,baz=211,slow=33						
MBAR	**Mbarara**	**54.93**	**296**	LR	LR	09 49 09.6	
	comp=Z,125nm,18.8s,baz=96,slow=32						
CMAR	**Chiang Mai Arr**	**55.38**	**24**	P	**P**	**09 29 04.4**	**+1.3**
	comp=Z,0.6nm,0.3s,baz=198,slow=7.3,SNR=4.3						
CMAR				LR	LR	09 48 10.0	
	comp=Z,72nm,21.7s,baz=185,slow=31 comp=Z,0.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**55.38**	**24**	P	**P**	**09 29 02.6**	**-0.5**
VNDA	**Vanda**	**56.34**	**165**	P	**P**	**09 29 10.0**	**+0.7**
	comp=Z,1.3nm,1.0s,baz=269,slow=5.2,SNR=4.2						
VNDA				LR	LR	09 50 59.3	
	comp=Z,200nm,18.4s,baz=278,slow=34 comp=Z,1.3nm,1.0s						
VNDA	**Vanda**	**56.34**	**165**	P	**P**	**09 29 09.3**	**0.0**
VNDA				IAmb	IAmb	09 29 35.3	
	comp=Z,4.8nm,1.4s						
QSPA	**South Pole Qui**	**56.72**	**180**	P	**P**	**09 29 12.7**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=292,slow=2.0,SNR=1.7						
QSPA				LR	LR	09 50 53.3	
	comp=Z,49nm,18.2s,baz=290,slow=33 comp=Z,0.8nm,0.8s						
QSPA	**South Pole Qui**	**56.72**	**180**	P	**P**	**09 29 12.3**	**-0.1**
QSPA				IAmb	IAmb	09 29 19.4	
	comp=Z,4.8nm,1.2s						
BRDH	**Bariadhala**	**57.32**	**15**	LR	LR	09 49 13.2	
	comp=Z,88nm,21.4s,baz=190,slow=31						
SIJI	**Sorong**	**59.54**	**69**	LR	LR	09 53 28.8	
	comp=Z,26nm,20.9s,baz=190,slow=34						
DAV	**Davao City (W)**	**60.56**	**57**	LR	LR	09 52 48.3	
	comp=Z,52nm,21.4s,baz=238,slow=33						
CTA	**Charters Tower**	**61.52**	**96**	LR	LR	09 54 07.2	
	comp=Z,203nm,20.4s,baz=230,slow=34						
BELA	**Belgrano 2**	**62.08**	**193**	P	**P**	**09 29 50.1**	**+1.1**
BELA				IAmb	IAmb	09 30 14.9	
	comp=Z,2.2nm,0.8s						
JAY	**Jayapura**	**66.08**	**76**	LR	LR	09 56 43.4	
	comp=Z,46nm,21.9s,baz=198,slow=34						
PMG	**Port Moresby**	**67.61**	**87**	LR	LR	09 57 41.4	
	comp=Z,180nm,20.7s,baz=222,slow=34						
KRVT	**Keravat (AS076**	**74.42**	**85**	LR	LR	10 02 10.0	
	comp=Z,110nm,20.8s,baz=233,slow=34						
EIL	**Elat**	**74.76**	**322**	LR	LR	09 59 33.3	
	comp=Z,57nm,18.3s,baz=114,slow=32						
AAK	**Ala-Archa**	**75.76**	**357**	LR	LR	10 00 55.2	
	comp=Z,91nm,21.5s,baz=170,slow=33						
KK31	**Karatay Array**	**76.46**	**354**	P	**P**	**09 31 18.6**	**+0.2**
KK31				IAmb	IAmb	09 31 41.4	
	comp=Z,4.2nm,1.1s						
KKAR	**Karatay Array**	**76.46**	**354**	P	**P**	**09 31 19.0**	**+0.6**
URZ	**Urewera**	**76.56**	**127**	LR	LR	10 00 21.6	
	comp=Z,74nm,18.3s,baz=248,slow=32						
MMAI	**Mount Meron Ar**	**77.24**	**324**	LR	LR	10 02 08.2	
	comp=Z,33nm,18.6s,baz=151,slow=33						
HNR	**Honiara**	**78.28**	**94**	LR	LR	10 03 28.5	
	comp=Z,94nm,19.9s,baz=303,slow=34						
MKAR	**Makanchi Array**	**79.95**	**3**	P	**P**	**09 31 38.1**	**+0.4**
	comp=Z,0.9nm,0.9s,baz=184,slow=4.2,SNR=5.2						
MKAR				LR	LR	10 04 06.7	
	comp=Z,92nm,21.7s,baz=212,slow=34 comp=Z,0.9nm,0.9s						
MKAR	**Makanchi Array**	**79.95**	**3**	P	**P**	**09 31 37.5**	**-0.2**
KBZ	**Khabaz**	**83.16**	**335**	LR	LR	10 06 10.2	
	comp=Z,28nm,19.8s,baz=150,slow=34						
BRTR	**Keskin Array B**	**83.51**	**327**	P	**P**	**09 31 56.9**	**+0.1**
	comp=Z,0.7nm,0.8s,baz=128,slow=10,SNR=3.7						
BRTR				LR	LR	10 05 19.3	
	comp=Z,20nm,19.3s,baz=128,slow=33 comp=Z,0.7nm,0.8s						
BRTR	**Keskin Array B**	**83.51**	**327**	P	**P**	**09 31 55.5**	**-1.3**
KURBB	**Kurchatov Arra**	**83.69**	**0**	P	**P**	**09 31 57.8**	**+0.6**
	comp=Z,0.7nm,0.8s,baz=191,slow=5.3,SNR=4.2						
KURBB				LR	LR	10 06 46.3	
	comp=Z,77nm,21.1s,baz=177,slow=34 comp=Z,0.7nm,0.8s						
AB31	**Akbulak array**	**83.86**	**348**	P	**P**	**09 31 58.2**	**+0.2**
AB31				IAmb	IAmb	09 32 15.9	
	comp=Z,1.9nm,1.1s						
ABKAR	**Akbulak array**	**83.86**	**348**	P	**P**	**09 31 57.9**	**-0.2**
SONM	**Songino Array**	**84.85**	**19**	LR	LR	10 07 43.1	
	comp=Z,72nm,21.8s,baz=238,slow=34						
RAO	**Raoul Island**	**85.00**	**122**	LR	LR	10 00 55.0	
	comp=Z,209nm,19.6s,baz=98,slow=29						
AKTO	**Aktyubinsk**	**85.33**	**347**	LR	LR	10 06 20.2	
	comp=Z,17nm,21.9s,baz=251,slow=33						
TORD	**Torodi Ar. Bea**	**85.95**	**289**	P	**P**	**09 32 09.5**	**+0.1**
	comp=Z,0.6nm,0.7s,baz=103,slow=4.1,SNR=3.9						
TORD				LR	LR	10 08 41.1	
	comp=Z,118nm,19.3s,baz=151,slow=34 comp=Z,0.6nm,0.7s						
BVAR	**Borovoye Array**	**86.34**	**355**	P	**P**	**09 32 11.3**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=162,slow=7.0,SNR=3.7 comp=Z,0.6nm,0.6s						
ZAA0	**Zalesovo Array**	**87.23**	**4**	P	**P**	**09 32 15.2**	**+0.5**
ZAA0				IAmb	IAmb	09 32 17.7	
	comp=Z,2.9nm,0.8s						
ZALV	**Zalesovo Beam**	**87.23**	**4**	P	**P**	**09 32 14.6**	**-0.1**
	comp=Z,0.6nm,0.3s,baz=151,slow=3.3,SNR=5.6						
ZALV				LR	LR	10 08 28.1	
	comp=Z,62nm,21.8s,baz=182,slow=34 comp=Z,0.6nm,0.3s						
ZALV	**Zalesovo Beam**	**87.23**	**4**	P	**P**	**09 32 14.4**	**-0.3**
DBIC	**Dimbokro**	**87.60**	**280**	LR	LR	10 07 11.5	
	comp=Z,147nm,21.5s,baz=155,slow=33						
TLY	**Talaya**	**87.72**	**16**	LR	LR	10 09 30.0	
	comp=Z,54nm,21.9s,baz=190,slow=34						
MSVF	**Nonsavu**	**88.56**	**110**	LR	LR	10 08 01.5	
	comp=Z,101nm,18.6s,baz=189,slow=33						
MJAR	**Matsushiro Arr**	**89.53**	**44**	LR	LR	10 10 00.3	
	comp=Z,17nm,19.9s,baz=116,slow=34						
ARTI	**Arti**	**90.99**	**349**	LR	LR	10 11 21.6	
	comp=Z,23nm,19.2s,baz=120,slow=34						
KLR	**Kul'dur**	**95.22**	**32**	LR	LR	10 14 12.9	
	comp=Z,32nm,19.9s,baz=306,slow=34						
VRAC	**Vranov**	**98.72**	**324**	LR	LR	10 17 09.7	
	comp=Z,16nm,18.9s,baz=124,slow=35						
YKA	**Yellowknife Ar**	**149.85**	**12**	PKPbc	**PKiKP**	**09 39 19.5**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=318,slow=3.2,SNR=2.6						

IDC 15 09:23:14.2±2.2, 6°.83S×129°.07E, h0km, mb3.3/1, mbtmp3.3/3, ML3.4/2, MS3.2/1, Error ellipse: s-maj=155.8km s-min=26.8km az=66.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.01**	**159**	Pn	Pn	09 26 27.6	-6.4
	0.2nm,0.3s,baz=342,slow=13,SNR=5.7						
WRA				Sn	Sn	09 28 47.7	-23
	0.3nm,0.3s,baz=336,slow=23,SNR=5.4 0.5nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.38**	**165**	Pn	Pn	09 27 11.9	-6.4
	0.1nm,0.3s,baz=341,slow=9.6,SNR=8.9						
ASAR				Sn	Sn	09 30 09.2	-23
	0.2nm,0.3s,baz=348,slow=26,SNR=6.4 0.3nm,0.4s						
ASAR				AML	AML		
RPZ	**Rata Peaks**	**51.94**	**142**	LR	LR	09 54 44.4	
	comp=Z,22nm,19.6s,baz=355,slow=36						
MKAR	**Makanchi Array**	**67.58**	**327**	P	P	09 34 12.7	0.0
	0.2nm,0.5s,baz=113,slow=7.8,SNR=1.4 0.2nm,0.5s						

*IDC **15** 09:59:17.8±1.0, 26°.33S×178°.30W, h246km±9km, mb3.8/15, mbtmp4.4/17, Error ellipse: s-maj=12.7km s-min=11.1km az=127.0*

*NEIC **15** 09:59:18.2±1.4, 26°.32S±0°.09×178°.1W±0°.1, h250km±7km, mb4.4/30, Error ellipse: s-maj=18.1km s-min=13.4km az=90.0*

ISC 15 09:59:17.6±0.4, **26°.58S**±0°.05×**178°.17W**±0°.07, **h250**km, **n189, σ2s11/199, mb4.1/30, 3C, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**2.67**	**175**	P	**Pn**	**10 00 09.7**	**+3.1**
	3μm,0.2s,baz=69,slow=17,SNR=56						
RAO				S	**S**	**10 00 48.9**	**+3.5**
	2μm,0.3s,baz=0.0,slow=20,SNR=4.7						
RAO	**Raoul Island**	**2.67**	**175**	P	**Pn**	**10 00 10.2**	**+3.5**
RAO				AML	AML		
GLKZ	**Green Lake**	**2.68**	**175**	P	**Pn**	**10 00 09.8**	**+3.1**
GLKZ				S	**S**	**10 00 41.3**	**-4.4**
GLKZ				AML	AML		
MSVF	**Nonsavu**	**9.47**	**338**	P	**Pn**	**10 01 28.0**	**-1.8**
	191nm,0.7s,baz=151,slow=13,SNR=184						
MSVF	**Nonsavu**	**9.47**	**338**		**Pn**	**10 01 28.2**	**-1.5**
NIUE	**Niue**	**10.65**	**47**	Pn	**Pn**	**10 01 40.5**	**-4.0**
OUZ	**Omahuta**	**11.14**	**217**	P	**P**	**10 01 57.1**	**+2.5**
WCZ	**Waipu Caves**	**11.31**	**213**	P	**P**	**10 01 56.5**	**0.0**
MXZ	**Matakaoa Point**	**11.35**	**194**	P	**Pn**	**10 01 50.3**	**-2.7**
MXZ				S	**S**	**10 03 53.6**	**-6.2**
WMGZ	**Waiomatatini S**	**11.57**	**194**	P	**Pn**	**10 01 51.2**	**-4.6**
WMGZ				S	**S**	**10 03 58.4**	**-6.6**
HAZ	**Te Kaha**	**11.66**	**196**	P	**Pn**	**10 01 53.4**	**-3.5**
HAZ				S	**S**	**10 04 03.6**	**-3.3**
PUZ	**Puketiti**	**11.85**	**194**	P	Pn	10 01 54.5	-4.8
PUZ				S	**S**	**10 04 03.9**	**-7.5**
RUGZ	**Raukumara Rang**	**11.88**	**196**	P	**Pn**	**10 01 56.5**	**-3.3**
RUGZ				S	**S**	**10 04 08.4**	**-3.9**
TWGZ	**Tauwhareparae**	**12.01**	**195**	P	**Pn**	**10 01 58.2**	**-3.1**
TWGZ				S	**S**	**10 04 10.9**	**-4.3**
MARZ	**Manawahe**	**12.18**	**200**	P	**P**	**10 02 05.1**	**-1.0**
CNGZ	**Carnagh Statio**	**12.26**	**193**	P	**Pn**	**10 01 59.8**	**-4.5**
MWZ	**Matawai**	**12.27**	**196**	P	Pn	10 01 59.4	-5.1
TKGZ	**Te Karaka**	**12.29**	**195**	P	Pn	10 01 60.0	-4.8
TKGZ				S	**S**	**10 04 16.5**	**-5.1**
URZ	**Urewera**	**12.31**	**198**	P	**Pn**	**10 02 01.2**	**-3.7**
	8.7nm,0.3s,baz=0.0,slow=4.0,SNR=22						
URZ				S	**S**	**10 04 15.5**	**-6.5**
	65nm,0.4s,baz=6.7,slow=19,SNR=14						
URZ	**Urewera**	**12.31**	**198**	P	**Pn**	**10 02 03.4**	**-1.6**
RIGZ	**Rimuhau**	**12.57**	**195**	P	**Pn**	**10 02 05.1**	**-3.1**
MUGZ	**Murupara**	**12.61**	**198**	P	**Pn**	**10 02 08.2**	**-0.5**
TLZ	**Tolley Road**	**12.86**	**203**	P	**P**	**10 02 15.0**	**+1.2**
KNZ	**Kokohu**	**12.89**	**195**	P	**Pn**	**10 02 11.9**	**-0.2**
RAHZ	**Arahi**	**12.93**	**197**	P	**Pn**	**10 02 11.9**	**-0.8**
MRHZ	**Matea Rd**	**13.04**	**199**	P	**Pn**	**10 02 13.2**	**-0.8**
NMHZ	**Naumai**	**13.18**	**197**	P	**Pn**	**10 02 14.2**	**-1.5**
HIZ	**Hauiti**	**13.27**	**205**	P	**P**	**10 02 20.9**	**+2.7**
ARHZ	**Aropaoanui**	**13.28**	**197**	P	**Pn**	**10 02 16.9**	**-2.0**
BKZ	**Black Stump Fm**	**13.33**	**198**	P	**Pn**	**10 02 16.7**	**-0.8**
NTVZ	**North Tongarir**	**13.51**	**201**	P	**Pn**	**10 02 19.5**	**-0.3**
TMVZ	**Te Maari**	**13.52**	**201**	P	**Pn**	**10 02 19.3**	**-0.6**
MCHZ	**McNeill Hill**	**13.53**	**197**	P	**Pn**	**10 02 17.7**	**-2.3**
ETVZ	**East Tongariro**	**13.53**	**201**	P	**Pn**	**10 02 19.4**	**-0.7**
TWVZ	**Taurewa**	**13.56**	**202**	P	**Pn**	**10 02 20.8**	**+0.3**
OTVZ	**Oturere**	**13.57**	**201**	P	**Pn**	**10 02 20.7**	**+0.1**
KWHZ	**Kaweka Forest**	**13.59**	**198**	P	**Pn**	**10 02 18.7**	**-2.0**
SNVZ	**South Ngauruho**	**13.60**	**201**	P	**Pn**	**10 02 20.9**	**-0.1**
NGZ	**Ngauruhoe**	**13.60**	**201**	P	**Pn**	**10 02 20.9**	**-0.1**
CKHZ	**Cape Kidnapper**	**13.63**	**196**	P	**Pn**	**10 02 20.2**	**-1.1**
PINNC	**Pines Island,**	**13.66**	**284**		**P**	**10 02 22.1**	**-0.7**
TUVZ	**Tukino**	**13.67**	**201**	P	**Pn**	**10 02 20.7**	**-1.1**
FWVZ	**Far West T-bar**	**13.69**	**201**	P	**Pn**	**10 02 20.7**	**-1.4**
TRVZ	**Turoa**	**13.73**	**201**	P	**Pn**	**10 02 22.2**	**-0.5**
WNVZ	**Wahianoa**	**13.74**	**201**	P	**Pn**	**10 02 20.6**	**-2.1**
BHHZ	**Black Hill Sta**	**13.75**	**199**	P	**Pn**	**10 02 16.9**	**-2.8**
PKVZ	**Pokaka**	**13.79**	**202**	P	**Pn**	**10 02 22.5**	**-0.7**
KAHZ	**Kahuranaki**	**13.81**	**196**	P	**Pn**	**10 02 20.7**	**-2.8**
**PXZ

MJAR	**Matsushiro Arr**	**75.03**	**325**		P		**P**	**10 10 30.7**	**-1.2**
MJAR					lAmb		lAmb	10 10 31.9	
	comp=Z,8.8nm,0.8s								
MAJO	**Matsushiro**	**75.03**	**325**				**P**	**10 10 30.6**	**-1.3**
JMN	**Monobe**	**75.29**	**320**		P		**P**	**10 10 32.7**	**-0.7**
MAW	**Mawson**	**75.83**	**200**		P		**P**	**10 10 38.0**	**+2.1**
	comp=Z,1.3nm,0.5s,baz=153,slow=9.0,SNR=6.1								
	comp=Z,1.3nm,0.5s								
MAW	**Mawson**	**75.83**	**200**		P		**P**	**10 10 37.6**	**+1.7**
KIWB	**Kanaga Island**	**78.09**	**1**		P		**P**	**10 10 47.7**	**-0.8**
ATKA	**Atka Island**	**78.52**	**2**		P		**P**	**10 10 49.7**	**-1.1**
JKA	**Kamikawa-asahi**	**78.99**	**332**		P		**P**	**10 10 54.0**	**+0.4**
YSS	**Yuzhno-Sakhali**	**81.25**	**334**		P		**P**	**10 11 05.6**	**0.0**
KSRS	**Korea Array**	**81.35**	**319**		P		**P**	**10 11 06.4**	**+0.1**
	comp=Z,7.0nm,0.6s,baz=133,slow=5.9,SNR=42								
	comp=Z,7.0nm,0.6s								
KSAR	**Wonju Array Be**	**81.36**	**319**				**P**	**10 11 06.2**	**-0.2**
KS19	**Wonju Array Si**	**81.42**	**319**		P		**P**	**10 11 06.6**	**-0.1**
KS19					lAmb		lAmb	10 11 28.6	
	comp=Z,25nm,1.4s								
TROLL	**Troll, Antarti**	**81.68**	**180**	⇑	P		**P**	**10 11 10.0**	**+2.2**
	comp=Z,210nm,0.5s								
PETK	**Petropavlovsk-**	**82.08**	**346**		P		**P**	**10 11 09.4**	**-0.5**
	comp=Z,8.0nm,0.8s,baz=160,slow=5.6,SNR=6.9								
	comp=Z,8.0nm,0.8s								
VNA3	**Neumayer Olymp**	**82.11**	**176**	⇑	P		**P**	**10 11 11.8**	**+1.8**
	comp=Z,4.5nm,0.4s								
VNA2	**Neumayer--Watz**	**82.55**	**177**	⇑	P		**P**	**10 11 14.3**	**+2.2**
	comp=Z,14nm,0.6s,baz=186,slow=4.8								
USA0B	**Ussuriysk Arra**	**83.90**	**326**		P		**P**	**10 11 19.4**	**+0.1**
USRK	**Ussuriysk Ar.**	**83.90**	**326**		P		**P**	**10 11 19.4**	**0.0**
	comp=Z,8.6nm,0.7s,baz=133,slow=4.2,SNR=10								
	comp=Z,8.6nm,0.7s								
CMB	**Columbia Colle**	**84.03**	**42**		P		**P**	**10 11 20.4**	**+0.2**
CMB					lAmb		lAmb	10 11 22.1	
	comp=Z,3.5nm,1.0s								
O02D	**Mt. Diablo Mer**	**84.04**	**39**		P		**P**	**10 11 20.7**	**+0.4**
O02D					lAmb		lAmb	10 11 22.6	
	comp=Z,18nm,1.1s								
M02C	**Callahan**	**84.82**	**38**		P		**P**	**10 11 24.4**	**+0.2**
M02C					lAmb		lAmb	10 11 34.9	
	comp=Z,14nm,1.3s								
WAKR	**Walker**	**84.91**	**42**		P		**P**	**10 11 24.9**	**+0.2**
WAKR					lAmb		lAmb	10 11 25.8	
	comp=Z,8.2nm,1.4s								
PLCA	**Paso Flores**	**85.22**	**133**		P		**P**	**10 11 29.3**	**+2.9**
	comp=Z,3.5nm,1.1s,baz=244,slow=7.6,SNR=4.2								
	comp=Z,3.5nm,1.1s								
NVAR	**Mina Array Bea**	**85.55**	**43**		P		**P**	**10 11 28.2**	**+0.3**
	comp=Z,1.8nm,0.9s,baz=244,slow=7.0,SNR=12								
	comp=Z,1.8nm,0.9s								
KVN	**Kaiserville**	**86.06**	**43**		P		**P**	**10 11 30.3**	**-0.2**
KVN					lAmb		lAmb	10 11 31.6	
	comp=Z,2.4nm,0.8s								
TXAR	**Lajitas Array**	**90.46**	**57**		P		**P**	**10 11 50.8**	**-0.5**
	comp=Z,0.3nm,0.7s,baz=237,slow=4.0,SNR=3.5								
	comp=Z,0.3nm,0.7s								
F10A	**Beach Ranch, E**	**90.89**	**38**		P		**P**	**10 11 52.6**	**-0.3**
F10A					lAmb		lAmb	10 11 53.4	
	comp=Z,5.8nm,1.0s								
CMAR	**Chiang Mai Arr**	**91.99**	**290**		P		**P**	**10 11 59.0**	**+0.5**
	comp=Z,0.7nm,0.3s,baz=115,slow=5.0,SNR=12								
	comp=Z,0.7nm,0.3s								
PDAR	**Pinedale Array**	**93.47**	**43**		P		**P**	**10 12 04.7**	**-0.4**
	comp=Z,1.0nm,0.8s,baz=243,slow=4.2,SNR=10								
	comp=Z,1.0nm,0.8s								
RIDG	**Independent Ri**	**93.77**	**14**		P		**P**	**10 12 05.2**	**-0.5**
RIDG					lAmb		lAmb	10 12 17.9	
	comp=Z,4.6nm,1.1s								
DOT	**Dot Lake**	**93.86**	**15**		P		**P**	**10 12 05.6**	**-0.5**
DOT					lAmb		lAmb	10 12 08.2	
	comp=Z,3.2nm,0.9s								
BCAR	**Beaver Creek A**	**93.89**	**16**		P		**P**	**10 12 05.9**	**-0.4**
ILAR	**Eielson Array**	**94.25**	**13**		P		**P**	**10 12 06.3**	**-1.5**
	comp=Z,1.2nm,0.9s,baz=214,slow=6.3,SNR=6.6								
	comp=Z,1.2nm,0.9s								
ZALV	**Zalesovo Beam**	**115.06**	**320**		PKiKP		**PKPdf**	**10 17 27.1**	**-1.3**
	comp=Z,2.5nm,0.5s,baz=83,slow=3.6,SNR=4.1								
MKAR	**Makanchi Array**	**115.17**	**312**		PKiKP		**PKPdf**	**10 17 28.1**	**-0.9**
	comp=Z,0.6nm,0.5s,baz=116,slow=1.9,SNR=7.4								
KURBB	**Kurchatov Arra**	**118.31**	**315**		PKP		**PKPdf**	**10 17 33.6**	**-1.3**
	comp=Z,1.1nm,0.2s,baz=97,slow=1.8,SNR=4.7								
BVAR	**Borovoye Array**	**123.53**	**318**		PKP		**PKPdf**	**10 17 44.2**	**-0.6**
	comp=Z,2.4nm,0.6s,baz=100,slow=1.6,SNR=9.1								
ARCES	**ARCESS Array B**	**134.83**	**349**		PKP		**PKPdf**	**10 18 05.3**	**-0.5**
	comp=Z,3.2nm,0.6s,baz=48,slow=2.0,SNR=13								
FINES	**FINESS Array B**	**141.50**	**342**		PKhKP		PKPpre	10 18 11.0	
	comp=Z,1.4nm,0.4s,baz=43,slow=4.4,SNR=18								
NB2	**NORSAR Subarra**	**144.96**	**352**		PKP		PKPbc	10 18 23.8	-0.5
	comp=Z,5.2nm,0.6s,baz=11,slow=3.7								
NOA	**NORSAR Array B**	**144.96**	**352**		PKP		PKPbc	10 18 23.2	-1.1
	comp=Z,11nm,0.7s,baz=16,slow=3.3,SNR=36								
HFS	**Hagfors**	**145.48**	**350**		PKPbc		**PKPdf**	**10 18 24.8**	**-0.5**
	comp=Z,9.4nm,0.5s,baz=47,slow=4.2,SNR=52								
STRU	**Stroemstad**	**146.91**	**351**		*i* P		**PKPbc**	**10 18 29.5**	**-0.5**
TJOU	**Tjoern**	**147.81**	**350**		*i* P		**PKPbc**	**10 18 32.0**	**-0.4**
HOMB	**Hombersund**	**147.98**	**353**		*i* P		**PKPbc**	**10 18 32.5**	**-0.3**
AKASG	**Malin Array Be**	**148.11**	**326**		PKPbc		**PKPbc**	**10 18 32.4**	**-1.0**
	comp=Z,5.7nm,0.6s,baz=45,slow=4.0,SNR=15								
KIEV	**Kiev**	**148.12**	**326**		PKP		**PKPbc**	**10 18 32.0**	**-1.5**
AK18	**Malin Array Si**	**148.17**	**327**		PKP		**PKPbc**	**10 18 32.9**	**-0.8**
AK17	**Malin Array Si**	**148.20**	**326**		PKP		**PKPbc**	**10 18 32.9**	**-0.8**
AK14	**Malin Array Si**	**148.21**	**326**		PKP		**PKPbc**	**10 18 32.9**	**-0.9**
AK13	**Malin Array Si**	**148.24**	**326**		PKP		**PKPbc**	**10 18 32.8**	**-1.0**
ONAU	**Onsala**	**148.37**	**350**		*i* P		**PKPbc**	**10 18 33.2**	**-0.7**
FABU	**Falkenberg**	**148.61**	**349**		*i* P		**PKPbc**	**10 18 34.0**	**-0.5**
BLEU	**Blekinge**	**148.63**	**345**		*i* P		**PKPbc**	**10 18 33.7**	**-1.0**
DEL	**Delary**	**148.90**	**347**		*i* P		**PKPbc**	**10 18 35.0**	**-0.3**
RNPP9	**Sopachiv**	**149.21**	**330**		PKP		**PKPbc**	**10 18 35.8**	**-0.4**
LUBAR	**Lubar, Ukraine**	**149.33**	**326**		PKP		**PKPbc**	**10 18 35.7**	**-0.9**
RNPP5	**Staryi Chortor**	**149.34**	**330**		PKP		**PKPbc**	**10 18 35.8**	**-0.8**
BSD	**Bornholm Skovb**	**149.93**	**345**		*i* P		**PKPbc**	**10 18 37.8**	**-0.1**
SORM	**Soroca**	**150.13**	**323**		PKP		**PKPbc**	**10 18 38.0**	**-0.6**
MMAI	**Mount Meron Ar**	**150.25**	**291**		PKPbc		**PKiKP**	**10 18 40.2**	**0.0**
	comp=Z,4.1nm,0.6s,baz=140,slow=1.1,SNR=4.3								
BRTR	**Keskin Array B**	**150.48**	**304**		PKPbc		**PKPbc**	**10 18 39.0**	**-0.9**
	comp=Z,1.7nm,0.6s,baz=98,slow=3.6,SNR=7.4								
BR106	**Keskin Array S**	**150.49**	**304**		PKP		**PKPbc**	**10 18 39.4**	**-0.5**
KMPD	**K-Podol'skiy**	**150.85**	**325**		PKP		**PKPbc**	**10 18 39.4**	**-0.9**
EKA	**Eskdalemuir Ar**	**151.04**	**6**		PKPbc		**PKPbc**	**10 18 39.5**	**-0.9**
	comp=Z,3.1nm,0.6s,baz=354,slow=2.3,SNR=12								
TESR	**Tescani**	**152.03**	**322**		PKP		**PKPbc**	**10 18 42.4**	**-0.6**
OJC	**Ojcow**	**152.65**	**334**		PKP		**PKPbc**	**10 18 43.9**	**-0.4**
MLR	**Muntele Rosu**	**153.03**	**321**		PKP		**PKPbc**	**10 18 45.4**	**-0.1**
VOIR		**153.57**	**321**		PKP		**PKPbc**	**10 18 46.1**	**-0.5**
MORC	**Moravsky Berou**	**153.85**	**337**		*e*PKP		**PKPab**	**10 19 00.8**	**-0.3**
CLL	**Collm**	**153.88**	**344**		*i* PKPbc		**PKPbc**	**10 18 46.8**	**-0.1**
	comp=Z,7.0nm,0.9s								
CLL					*i* PKPab		**PKPab**	**10 18 59.8**	**-1.3**
	comp=Z,6.0nm,0.7s								
JAVC	**Velka Javorina**	**154.57**	**335**		*e*PKP		**PKPab**	**10 19 04.9**	**+0.7**
VRAC	**Vranov**	**154.58**	**337**		*e*PKP		**PKPab**	**10 19 04.1**	**-0.1**
KRUC	**Moravsky**	**154.86**	**337**		*e*PKP		**PKPab**	**10 19 05.2**	**-0.2**
ABNA	**Allensteig Bun**	**155.53**	**338**		*e*PKP		**PKPab**	**10 19 08.3**	**0.0**
	comp=Z,3.6nm,0.8s								
WINA	**Aland / Wiene**	**155.78**	**336**		*i* PKP		**PKPab**	**10 19 09.9**	**+0.5**
	comp=Z,4.9nm,0.9s								
GERES	**GERESS Array B**	**155.92**	**341**		PKPab		**PKPab**	**10 19 09.7**	**-0.3**
	comp=Z,1.0nm,0.9s,baz=7.4,slow=3.2,SNR=5.6								
CONA	**Conrad Observa**	**156.01**	**336**		*e*PKP		**PKPab**	**10 19 10.6**	**+0.1**
	comp=Z,3.2nm,0.7s								
RONA	**Rosalia, Austr**	**156.04**	**335**		*i* PKP		**PKPab**	**10 19 10.8**	**+0.2**
	comp=Z,3.0nm,0.7s								
MOA	**Molln**	**156.63**	**339**		*i* PKP		**PKPab**	**10 19 13.5**	**+0.5**
	comp=Z,4.3nm,1.0s								
ARSA	**Arzberg**	**156.71**	**336**		*i* PKP		**PKPab**	**10 19 13.3**	**-0.1**
	comp=Z,1.3nm,0.6s								
BIOA	**Bad Ischl, Aus**	**156.97**	**339**		*e*PKP		**PKPab**	**10 19 15.1**	**+0.6**
	comp=Z,3.9nm,0.7s								
SESA	**Seetaler Alpe,**	**157.16**	**337**		*i* PKP		**PKPab**	**10 19 15.4**	**-0.2**
	comp=Z,5.1nm,0.6s								
SOKA	**Soboth**	**157.37**	**336**		*i* PKP		**PKPab**	**10 19 15.8**	**-0.6**
	comp=Z,3.9nm,0.9s								
OBKA	**Obir**	**157.69**	**336**		*e*PKP		**PKPab**	**10 19 17.1**	**-0.7**
	comp=Z,1.9nm,0.7s								
WTTA	**Wattenberg**	**157.95**	**342**		*i* PKP		**PKPab**	**10 19 18.7**	**-0.3**
	comp=Z,2.3nm,0.5s								
MOTA	**Moosalm**	**158.02**	**343**		*i* PKP		**PKPab**	**10 19 18.8**	**-0.4**
	comp=Z,2.6nm,0.5s								
ABTA	**Abfaltersbach**	**158.16**	**340**		*e*PKP		**PKPab**	**10 19 18.9**	**-0.9**
	comp=Z,2.9nm,0.8s								
DAVA	**Damuels**	**158.37**	**345**		*e*PKP		**PKPab**	**10 19 20.2**	**-0.6**
	comp=Z,4.7nm,0.6s								
FETA	**Feichten**	**158.41**	**343**		*i* PKP		**PKPab**	**10 19 20.6**	**-0.3**
	comp=Z,6.4nm,1.2s								
ESDC	**Sonseca Array**	**166.07**	**19**		PKPab		**PKPab**	**10 19 53.5**	**-1.1**
	comp=Z,1.3nm,1.0s,baz=343,slow=1.7,SNR=4.2								
TORD	**Torodi Ar. Bea**	**166.64**	**179**		PKPab		**PKPab**	**10 19 59.4**	**+1.9**
	comp=Z,0.7nm,0.7s,baz=165,slow=2.9,SNR=3.6								

*SJA **15** 10:05:08.4±0.6, 21°.24S×68°.96W, h126km±3km, ML3.7, MW3.7*
*NEIC **15** 10:05:09.4±0.7, 21°.244S±0°.009×69°.00W±0°.09, h128km±9km, mb4.3/5, ML3.8(GUC), Error ellipse: s-maj=12.0km s-min=1.1km az=94.0*
*GUC **15** 10:05:10.4±0.7, 21°.23S×68°.92W, h114km±3km, ML3.9, Presumed earthquake*

ISC 15 10:05:07.8±0.7, 21°.25S±0°.03×68°.99W±0°.06, h135km±7km, n65, σ1°02/90, mb4.3/3, 10C-2D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
PB09	**IPOC Station P**	**0.60**	**203**		*eP*	**Pn**	**10 05 28.8**	**+0.5**
PB09					*eS*	**Sn**	**10 05 43.2**	**-0.7**
PB09					IAML		10 05 44.5	
	comp=Z,1μm,0.1s							
PB09	**IPOC Station P**	**0.60**	**203**			**Pn**	**10 05 28.7**	**+0.4**
PB09	**IPOC Station P**	**0.60**	**203**	⇑	*iP*	**Pn**	**10 05 28.7**	**+0.4**
PB09					*eS*	**Sn**	**10 05 42.8**	**-1.0**
PB02	**IPOC Station P**	**0.85**	**265**		*eP*	**Pn**	**10 05 30.9**	**+0.8**
PB02					*eS*	**Sn**	**10 05 47.3**	**+0.4**
PB02					IAML		10 05 48.5	
	comp=Z,5μm,0.4s							
PB02	**IPOC Station P**	**0.85**	**265**			**Pn**	**10 05 30.9**	**+0.8**
PB02	**IPOC Station P**	**0.85**	**265**	⇑	*iP*	**Pn**	**10 05 31.0**	**+0.9**
PB02					*eS*	**Sn**	**10 05 46.5**	**-0.4**
PB02					IAML		10 05 47.3	
	comp=N,7μm,0.2s							
PB07	**IPOC Station P**	**0.96**	**240**		*eP*	**Pn**	**10 05 31.9**	**+0.8**
PB07					*eS*	**Sn**	**10 05 49.2**	**+0.5**
PB07					IAML		10 05 49.7	
	comp=Z,928nm,0.1s							
PB07	**IPOC Station P**	**0.96**	**240**			**Pn**	**10 05 32.0**	**+0.9**
PB07	**IPOC Station P**	**0.96**	**240**	⇑	*iP*	**Pn**	**10 05 32.0**	**+0.9**
PB07					*eS*	**Sn**	**10 05 48.3**	**-0.5**
PB07					IAML		10 05 51.8	
	comp=N,2μm,0.1s							
PB03	**IPOC Station P**	**1.07**	**222**		*eP*	**Pn**	**10 05 33.1**	**+1.0**
PB03					*eS*	**Sn**	**10 05 51.0**	**+0.5**
PB03					IAML		10 05 52.2	
	comp=Z,2μm,0.2s							
PB03	**IPOC Station P**	**1.07**	**222**			**Pn**	**10 05 32.9**	**+0.9**
PB03	**IPOC Station P**	**1.07**	**222**	⇑	*iP*	**Pn**	**10 05 33.0**	**+1.0**
PB03					*eS*	**Sn**	**10 05 50.2**	**-0.3**
PB03					IAML		10 05 52.7	
	comp=E,1μm,0.1s							
PB08	**IPOC Station P**	**1.11**	**352**		*eP*	**Pn**	**10 05 33.3**	**+0.6**
PB08					*eS*	**Sn**	**10 05 51.4**	**-0.2**
PB08					IAML		10 05 51.8	
	comp=Z,658nm,0.3s							
PB08	**IPOC Station P**	**1.11**	**352**			**Pn**	**10 05 33.2**	**+0.5**
PB08	**IPOC Station P**	**1.11**	**352**	⇓	*iP*	**Pn**	**10 05 33.2**	**+0.5**
PB08					*eS*	**Sn**	**10 05 50.5**	**-1.0**
PB08					IAML		10 05 52.0	
	comp=N,2μm,0.2s							
TA01	**Diego Aracena**	**1.30**	**301**		*eP*	**Pn**	**10 05 35.2**	**+1.0**
TA01					*eS*	**Sn**	**10 05 55.0**	**+0.7**
TA01					IAML		10 05 55.6	
	comp=Z,558nm,0.3s							
TA01	**Diego Aracena**	**1.30**	**301**			**Pn**	**10 05 35.1**	**+0.9**
TA01	**Diego Aracena**	**1.30**	**301**	⇑	*iP*	**Pn**	**10 05 35.1**	**+0.9**
TA01					*eS*	**Sn**	**10 05 54.2**	**0.0**
TA01					IAML		10 05 55.4	
	comp=E,2μm,0.3s							
TA02	**Huaiquique**	**1.45**	**312**		*eP*	**Pn**	**10 05 36.4**	**+0.7**
TA02					*eS*	**Sn**	**10 05 57.7**	**+0.8**
TA02					IAML		10 06 01.1	
	comp=Z,844nm,0.1s							
TA02	**Huaiquique**	**1.45**	**312**		*eP*	**Pn**	**10 05 36.4**	**+0.7**
TA02					*eS*	**Sn**	**10 05 56.5**	**-0.5**
TA02					IAML		10 06 00.3	
	comp=N,3μm,0.1s							
PB06	**IPOC Station P**	**1.55**	**200**		*eP*	**Pn**	**10 05 38.5**	**+1.4**
PB06					*eP*		10 05 38.6	
PB06					*eS*	**Sn**	**10 06 00.7**	**+1.4**
PB06					IAML		10 06 02.0	
	comp=Z,498nm,0.3s							
PB06	**IPOC Station P**	**1.55**	**200**			**Pn**	**10 05 38.3**	**+1.2**
PB06	**IPOC Station P**	**1.55**	**200**	⇑	*iP*	**Pn**	**10 05 38.5**	**+1.4**
PB06					*eS*	**Sn**	**10 05 59.9**	**+0.5**
PB06					IAML		10 06 02.0	
	comp=E,773nm,0.1s							
GO01	**Chusmiza**	**1.58**	**353**		*eP*	**Pn**	**10 05 38.6**	**+0.8**
GO01					*eS*	**Sn**	**10 06 01.3**	**+0.8**
GO01					IAML		10 06 01.9	
	comp=Z,700nm,0.5s							
GO01	**Chusmiza**	**1.58**	**353**			**Pn**	**10 05 38.6**	**+0.8**
GO01	**Chusmiza**	**1.58**	**353**		*eP*	**Pn**	**10 05 38.6**	**+0.8**
GO01					*eS*	**Sn**	**10 06 00.3**	**-0.1**
GO01					IAML		10 06 03.0	
	comp=N,2μm,0.1s							
PB11	**IPOC Station P**	**1.60**	**337**		*eP*	**Pn**	**10 05 38.5**	**+0.8**
PB11					*eS*	**Sn**	**10 06 00.7**	**+0.3**
PB11					IAML		10 06 02.2	
	comp=Z,564nm,0.2s							
PB11	**IPOC Station P**	**1.60**	**337**			**Pn**	**10 05 38.3**	**+0.6**
PB11	**IPOC Station P**	**1.60**	**337**	⇓	*iP*	**Pn**	**10 05 38.3**	**+0.6**
PB11					*eS*	**Sn**	**10 05 60.0**	**-0.4**
PB11					IAML		10 06 01.5	
	comp=N,2μm,0.4s							
AF01	**San Pedro de A**	**1.86**	**156**		*eP*	**Pn**	**10 05 42.6**	**+1.9**
AF01					*eS*	**Sn**	**10 06 05.3**	**-0.6**
AF01					IAML		10 06 24.3	
	comp=Z,303nm,0.6s							
AF01	**San Pedro de A**	**1.86**	**156**			**Pn**	**10 05 42.3**	**+1.6**
AF01	**San Pedro de A**	**1.86**	**156**	⇑	*iP*	**Pn**	**10 05 42.7**	**+1.9**
PSGCX	**Pisagua**	**1.96**	**327**		*eP*	**Pn**	**10 05 42.1**	**+0.3**
PSGCX					*eS*	**Sn**	**10 06 07.5**	**-0.1**
PSGCX					IAML		10 06 09.3	
	comp=Z,314nm,0.3s							
PSGCX	**Pisagua**	**1.96**	**327**			**Pn**	**10 05 41.8**	**+0.1**
PSGCX	**Pisagua**	**1.96**	**327**	⇑	*iP*	**Pn**	**10 05 42.0**	**+0.3**
PSGCX					*eS*	**Sn**	**10 06 06.9**	**-0.7**
PB05	**IPOC Station P**	**1.96**	**215**		*eP*	**Pn**	**10 05 43.0**	**+1.3**
PB05					*eS*	**Sn**	**10 06 08.8**	**+1.1**
PB05	**IPOC Station P**	**1.96**	**215**			**Pn**	**10 05 42.6**	**+0.9**
PB05	**IPOC Station P**	**1.96**	**215**	⇑	*iP*	**Pn**	**10 05 43.0**	**+1.3**
PB05					*eS*	**Sn**	**10 06 08.0**	**+0.4**
PB10	**IPOC Station P**	**2.68**	**212**		*eP*	**Pn**	**10 05 52.0**	**+1.4**
PB10					*eS*	**Sn**	**10 06 23.3**	**-0.3**
PB10	**IPOC Station P**	**2.68**	**212**			**Pn**	**10 05 52.0**	**+1.4**
PB10	**IPOC Station P**	**2.68**	**212**		*eP*	**Pn**	**10 05 51.7**	**+1.1**
PB16	**IPOC Station P**	**2.94**	**350**			**Pn**	**10 05 56.0**	**+1.6**
PB16	**IPOC Station P**	**2.94**	**350**	⇑	*eP*	**Pn**	**10 05 56.0**	**+1.6**
AP01	**Chacalluta**	**3.13**	**336**		*eP*	**Pn**	**10 05 57.5**	**+1.1**
AP01					IAML		10 06 40.3	
	comp=N,409nm,0.3s							
PB14	**IPOC Station P**	**3.61**	**201**			**Pn**	**10 06 03.0**	**+0.1**
PB14	**IPOC Station P**	**3.61**	**201**		*eP*	**Pn**	**10 06 03.4**	**+0.5**
PB18	**Visviri**	**3.67**	**353**		*eP*	Pn	10 06 08.8	+4.9
LPAZ	**La Paz**	**5.00**	**9**			**Pn**	**10 06 23.7**	**+2.1**
AC01	**Pan de Azucar**	**5.10**	**197**			**Pn**	**10 06 22.1**	**-0.2**
AC02	**Maricunga**	**5.57**	**181**			**Pn**	**10 06 30.1**	**+1.1**
AC06	**Mina Casimiro**	**6.21**	**191**			**Pn**	**10 06 36.4**	**-0.8**
GO03	**Copiapo**	**6.42**	**190**			**Pn**	**10 06 39.6**	**-0.5**
AC05	**El Transito**	**7.65**	**189**			**Pn**	**10 06 56.0**	**-0.6**
LCO	**Las Campanas**	**7.89**	**191**		Pn	**Pn**	**10 06 57.8**	**-2.1**
CO01	**Juntas del Tor**	**8.75**	**186**		Pn	**Pn**	**10 07 09.9**	**-1.7**
CO02	**Combarbal**	**10.08**	**190**		Pn	**Pn**	**10 07 27.0**	**-2.3**
PTLB	**Pontes e Lacer**	**10.98**	**60**			**Pn**	**10 07 40.4**	**-0.9**
VILB	**Vilhena**	**11.77**	**47**			**Pn**	**10 07 50.9**	**-0.8**
MT02	**Curacav**	**12.12**	**189**		Pn	**Pn**	**10 07 54.7**	**-1.4**
CZSB	**Cruzeiro do Su**	**13.91**	**344**		P	**Pn**	**10 08 17.9**	**-1.4**
SPB	**Sao Paulo**	**20.06**	**101**		P	**P**	**10 09 30.2**	**-0.4**
BDFB	**Brasilia**	**20.65**	**78**		P	**P**	**10 09 38.7**	**+1.5**
SMTB	**Santa Maria do**	**24.01**	**62**		P	**P**	**10 10 12.1**	**+1.7**
SMTB					lAmb	lAmb	10 10 14.9	
	comp=Z,8.7nm,0.8s							
BOAV	**Boa Vista**	**24.91**	**20**		P	**P**	**10 10 19.6**	**+1.1**
BOAV					lAmb	lAmb	10 10 29.1	
	comp=Z,8.6nm,1.4s							
GO08	**Villa O'Higgin**	**27.31**	**185**		P	**P**	**10 10 39.6**	**-0.1**
GO08					lAmb	lAmb	10 11 13.1	
	comp=Z,25nm,1.2s							

*IDC **15** 10:19:29.8±0.7, 17°.88N×147°.80E, h0km, mb4.0/14, mbtmp4.0/15, ML4.5/1, MS3.2/3, Error ellipse: s-maj=25.2km s-min=14.3km az=96.0*
*NEIC **15** 10:19:32.5±1.2, 17°.9N±0°.1×147°.6E±0°.2, h10km±1km, mb4.2/17, Error ellipse: s-maj=30.0km s-min=15.5km az=109.0*

ISC 15 10:19:31.4±0.7, 17°.84N±0°.09×147°.6E±0°.2, h10km, n41, σ0°89/42, mb4.2/17, MS3.1/3, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
DPSS	**Saipan**	**3.13**	**215**		Pn	**Pn**	**10 20 22.4**	**+1.5**
GUMO	**Guam**	**5.00**	**213**		Pn	**Pn**	**10 20 48.2**	**+1.7**
	19nm,0.3s,baz=139,slow=4.6,SNR=12							
GUMO					Sn	**Sn**	**10 21 41.4**	**-2.9**
	32nm,0.3s,baz=336,slow=21,SNR=6.7							
	35nm,0.3s							
GUMO					AML	AML		
GUMO	**Guam**	**5.00**	**213**			**Pn**	**10 20 47.5**	**+1.0**
INU	**Inuyama**	**19.83**	**334**		P	**P**	**10 24 02.7**	**+0.3**
INU					lAmb	lAmb	10 24 06.8	
	comp=Z,16nm,1.1s							
JGF	**Kuroka**	**19.90**	**335**		P	**P**	**10 24 03.6**	**+0.4**
JGF					lAmb	lAmb	10 24 07.0	
	comp=Z,9.2nm,0.8s							
MJAR	**Matsushiro Arr**	**20.40**	**338**		P	**P**	**10 24 08.9**	**+0.3**
	comp=Z,2.4nm,1.0s,baz=166,slow=10,SNR=6.1							
	comp=Z,2.4nm,1.0s							
MJAR	**Matsushiro Arr**	**20.40**	**338**		P	**P**	**10 24 08.7**	**+0.1**
MAJO	**Matsushiro**	**20.41**	**338**		P	**P**	**10 24 08.6**	**-0.1**
MAJO					lAmb	lAmb	10 24 22.8	
	comp=Z,5.2nm,0.7s							
MJB9	**Matsu-Tunnel**	**20.41**	**338**		P	**P**	**10 24 08.8**	**+0.1**
MJB9					lAmb	lAmb	10 24 23.8	
	comp=Z,5.2nm,0.8s							
KSRS	**Korea Array**	**26.10**	**322**		P	**P**	**10 25 05.7**	**+0.3**
	comp=Z,1.2nm,0.8s,baz=147,slow=9.2,SNR=5.8							
KSRS					LR	LR	10 35 28.4	
	comp=Z,20nm,19.1s,baz=145,slow=37							
	comp=Z,1.2nm,0.8s							
KKM	**Kota Kinabalu**	**32.83**

*NEIC **15** 11:06:17.1±1.5,5°.36N±0°.03×126°.31E±0°.08, h46km±8km, mb4.3/25, Error ellipse: s-maj=11.1km s-min=4.0km az=100.0*

ISC 15 11:06:17.7±1.0,**5°.31N**±0°.04×**126°.28E**±0°.08,**h56**km±9km, **n85**,σ1§**42**/83,**mb4.3**/27,**MS3.1**/8,**Mindanao**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.97**	**325**		*eP*		**Pn**	**11 06 33.7**	**-1.6**
DDMP					*eS*		**Sn**	**11 06 46.9**	**-1.3**
GSPH	**General Santos**	**1.53**	**300**		*i* P		**Pn**	**11 06 40.9**	**-2.0**
GSPH					*i* S		**Sn**	**11 07 00.0**	**-1.8**
DAV	**Davao City (W)**	**1.89**	**338**		P		**Pn**	**11 06 46.0**	**-1.5**
	139nm,0.4s,baz=41,slow=1.8,SNR=8.5								
DAV					S		**Sn**	**11 07 12.5**	**+2.2**
	646nm,0.6s,baz=264,slow=18,SNR=10.0								
DAV					LR		LR	11 07 43.5	
	comp=Z,835nm,19.6s,baz=158,slow=47								
DAV	**Davao City (W)**	**1.89**	**338**				**Pn**	**11 06 46.4**	**-1.2**
DAV					Sn		**Sn**	**11 07 09.4**	**-0.9**
DAV	**Davao City (W)**	**1.89**	**338**		P		**Pn**	**11 06 49.1**	**+1.5**
DAV					S		**Sn**	**11 07 15.7**	**+5.4**
DAV					AML		AML		
DMPH	**Davao City--Mi**	**1.92**	**337**		*eP*		**Pn**	**11 06 47.7**	**-0.4**
DMPH					*i* S		**Sn**	**11 07 17.3**	**+6.1**
KCP	**Kidapawan**	**2.06**	**325**		*eP*		**Pn**	**11 06 49.5**	**-0.6**
KCP					*i* S		**Sn**	**11 07 16.1**	**+1.4**
BIPH	**Bislig**	**2.86**	**2**		*i* P		**Pn**	**11 06 59.6**	**-1.3**
BIPH					*eS*		**Sn**	**11 07 30.4**	**-3.7**
CGP	**Cagayan de Oro**	**3.50**	**333**		*eP*		**Pn**	**11 07 10.8**	**+1.1**
CGP					*i* S		Sn	11 08 00.1	+10
GAMI	**Galela, Maluku**	**3.76**	**156**		P		**Pn**	**11 07 13.6**	**+0.3**
GAMI					S		**Sn**	**11 07 57.9**	**+1.6**
GAMI					AML		AML		
SCPH	**Surigao**	**4.51**	**350**		*eP*		**Pn**	**11 07 24.6**	**+1.0**
SCPH					*eS*		Sn	11 08 24.8	+10
TNTI	**Ternate**	**4.63**	**166**		Pn		**Pn**	**11 07 24.8**	**-0.4**
TNTI					Sn		Sn	**11 08 17.9**	**+0.2**
LLP	**Lapu-Lapu**	**5.48**	**335**		*eP*		Pn	11 07 41.5	+4.7
LLP					*eS*		Sn	11 08 47.0	+8.5
GTOI	**Gorontalo**	**5.67**	**215**		P		**Pn**	**11 07 40.9**	**+1.4**
	0.2nm631nm34nm,0.7s								
GTOI					AML		AML		
PLP	**Palo**	**5.96**	**348**		*eP*		**Pn**	**11 07 45.1**	**+1.6**
TOLI2	**Tolitoli**	**6.89**	**233**				**Pn**	**11 07 55.9**	**-0.3**
LUWI	**Luwuk**	**7.21**	**209**		Pn		**Pn**	**11 08 01.4**	**+0.8**
LUWI	**Luwuk**	**7.21**	**209**		Pn		**Pn**	**11 08 02.5**	**+1.9**
	2μm88nm,1.0s								
LUWI					P			11 08 10.5	
	2μm88nm,1.0s								
SANI	**Sanana**	**7.31**	**182**		P		**Pn**	**11 08 00.3**	**-1.7**
	0.1nm25nm,0.8s								
SANI					AML		AML		
SIJI	**Sorong**	**7.90**	**141**		P		**Pn**	**11 08 09.9**	**-0.2**
	0.7nm,0.3s,baz=306,slow=22,SNR=1.3								
	7.3nm,0.5s								
SIJI					AML		AML		
LQP	**Lukban**	**9.92**	**332**		*eP*		Pn	11 08 31.0	-6.8
KKM	**Kota Kinabalu**	**10.04**	**275**		Pn		**Pn**	**11 08 39.0**	**-0.4**
KAPI	**Kappang**	**12.15**	**213**		LR		LR	11 14 48.6	
	comp=Z,128nm,19.0s,baz=38,slow=43								
JAY	**Jayapura**	**16.37**	**118**		LR		LR	11 15 23.4	
	comp=Z,66nm,19.2s,baz=352,slow=33								
TWG	**Pinlang**	**18.12**	**344**		P		**P**	**11 10 23.5**	**-1.8**
TWG					IAmb		IAmb	11 10 51.1	
	comp=Z,43nm,1.3s								
MTN	**Manton Dam**	**18.67**	**165**		P		**P**	**11 10 30.0**	**-1.2**
TPUB	**Ta-pu**	**18.70**	**344**		P		**P**	**11 10 29.8**	**-1.8**
KNRA	**Kununurra**	**20.99**	**173**		P		**P**	**11 10 56.7**	**+0.1**
FITZ	**Fitzroy Crossi**	**23.27**	**182**		P		**P**	**11 11 20.4**	**-0.1**
WB0	**Warramunga Arr**	**26.16**	**162**				**P**	**11 11 47.4**	**+0.3**
WB0					IAmb		IAmb	11 12 05.0	
	comp=Z,6.8nm,0.9s								
WRAB	**Tennant Creek**	**26.31**	**163**		P		**P**	**11 11 48.0**	**-0.3**
WRAB					IAmb		IAmb	11 12 01.0	
	comp=Z,10nm,1.3s								
WRA	**Warramunga Arr**	**26.31**	**163**		P		**P**	**11 11 48.0**	**-0.3**
	comp=Z,0.9nm,0.5s,baz=343,slow=10.0,SNR=25								
	comp=Z,0.9nm,0.5s								
WRA	**Warramunga Arr**	**26.31**	**163**		P		**P**	**11 11 47.9**	**-0.5**
PSI	**Prapat**	**27.40**	**266**		LR		LR	11 25 46.6	
	comp=Z,76nm,18.1s,baz=156,slow=43								
CMAR	**Chiang Mai Arr**	**29.71**	**298**		P		**P**	**11 12 18.8**	**0.0**
	comp=Z,0.5nm,0.4s,baz=110,slow=8.8,SNR=2.0								
CMAR					LR		LR	11 24 37.7	
	comp=Z,25nm,19.3s,baz=110,slow=37								
	comp=Z,0.5nm,0.4s								
CMAR	**Chiang Mai Arr**	**29.71**	**298**		P		**P**	**11 12 18.1**	**-0.6**
AS31	**Alice Springs**	**29.74**	**166**		P		**P**	**11 12 18.1**	**-0.8**
ASAR	**Alice Springs**	**29.74**	**166**		P		**P**	**11 12 18.5**	**-0.5**
	comp=Z,0.3nm,0.5s,baz=343,slow=7.0,SNR=11								
ASAR					PcP		**PcP**		**11 15 22.1 +0.2**
	comp=Z,0.4nm,0.5s,baz=358,slow=2.3,SNR=4.2								
	comp=Z,0.3nm,0.5s								
ASAR	**Alice Springs**	**29.74**	**166**		P		**P**	**11 12 20.0**	**+1.0**
KSRS	**Korea Array**	**32.03**	**2**		P		**P**	**11 12 38.5**	**-0.4**
KSRS					LR		LR	11 27 25.4	
	comp=Z,0.8nm,0.6s,baz=187,slow=9.8,SNR=5.2								
	comp=Z,18nm,18.3s,baz=165,slow=40								
	comp=Z,0.8nm,0.6s								
MJAR	**Matsushiro Arr**	**32.96**	**18**		LR		LR	11 24 58.3	
	comp=Z,30nm,20.6s,baz=202,slow=34								
SHL	**Shillong**	**38.59**	**305**		P		**P**	**11 13 36.4**	**+0.6**
SHL					IAmb		IAmb	11 13 40.0	
	comp=Z,4.7nm,0.7s								
NWAO	**Narrogin (SRO)**	**38.98**	**192**		LR		LR	11 30 33.8	
	comp=Z,22nm,18.5s,baz=242,slow=37								
USRK	**Ussuriysk Ar.**	**39.06**	**7**		P		**P**	**11 13 40.2**	**+1.1**
STKA	**Stephens Creek**	**39.75**	**159**		P		**P**	**11 13 47.0**	**+1.9**
	comp=Z,2.6nm,0.8s,baz=342,slow=4.8,SNR=4.0								
STKA					LR		LR	11 33 55.1	
	comp=Z,61nm,18.1s,baz=242,slow=42								
	comp=Z,2.6nm,0.8s								
STKA	**Stephens Creek**	**39.75**	**159**		P		**P**	**11 13 45.7**	**+0.6**
H11S3	**WAKE ISLAND Hy**	**41.54**	**68**		T		T	11 57 52.0	
	baz=257,slow=75,SNR=4.2								
H11S1	**WAKE ISLAND Hy**	**41.55**	**68**		T		T	11 57 53.7	
	baz=257,slow=75,SNR=5.1								
H11S2	**WAKE ISLAND Hy**	**41.55**	**68**		T		T	11 57 55.3	
	baz=257,slow=75,SNR=17								
H11N1	**WAKE ISLAND Hy**	**42.02**	**66**		T		T	11 58 29.8	
	baz=254,slow=75,SNR=11								
H11N2	**WAKE ISLAND Hy**	**42.03**	**66**		T		T	11 58 29.9	
	baz=254,slow=75,SNR=11								
H11N3	**WAKE ISLAND Hy**	**42.03**	**66**		T		T	11 58 29.4	
	baz=254,slow=75,SNR=8.6								
EVN	**Everest**	**43.70**	**306**		P		**P**	**11 14 18.4**	**+0.1**
KOUNC	**Koumac, New Ca**	**45.31**	**126**		P		**P**	**11 14 30.7**	**+0.3**
ULN	**Ulaanbaatar**	**45.49**	**342**		P		**P**	**11 14 31.9**	**+0.3**
ULN					IAmb		IAmb	11 14 33.2	
	comp=Z,4.1nm,1.0s								
SONM	**Songino Array**	**45.67**	**341**		P		**P**	**11 14 33.8**	**+0.8**
	comp=Z,1.6nm,0.7s,baz=167,slow=14,SNR=4.0								
SONM					PcP		**PcP**		**11 16 10.2 -0.1**
	comp=Z,1.6nm,0.8s,baz=160,slow=4.7,SNR=4.2								
	comp=Z,1.6nm,0.7s								
SONM	**Songino Array**	**45.67**	**341**		P		**P**	**11 14 32.6**	**-0.4**
SONM					IAmb		IAmb	11 14 45.1	
	comp=Z,3.9nm,1.2s								
MKAR	**Makanchi Array**	**56.01**	**325**		P		**P**	**11 15 50.5**	**-0.1**
	comp=Z,1.5nm,0.5s,baz=120,slow=7.2,SNR=18								
MKAR					PcP		**PcP**		**11 16 49.0 +0.5**
	comp=Z,2.0nm,0.8s,baz=104,slow=5.1,SNR=6.6								
	comp=Z,1.5nm,0.5s								
MKAR	**Makanchi Array**	**56.01**	**325**		P		**P**	**11 15 49.9**	**-0.8**
YAK	**Yakutsk**	**56.66**	**2**		LR		LR	11 43 31.8	
	comp=Z,14nm,18.2s,baz=229,slow=40								
KSH2	**Kashi**	**56.76**	**314**		P		**P**	**11 15 57.0**	**+0.7**
KSH2					pmax		pmax		
	comp=Z,940nm,1.0s								
ZALV	**Zalesovo Beam**	**58.99**	**333**		P		**P**	**11 16 09.4**	**-2.0**
	comp=Z,1.1nm,0.5s,baz=111,slow=5.9,SNR=4.8								
	comp=Z,1.1nm,0.5s								
ZALV	**Zalesovo Beam**	**58.99**	**333**		P		**P**	**11 16 10.0**	**-1.5**
KURBB	**Kurchatov Arra**	**60.18**	**327**		P		**P**	**11 16 19.2**	**-0.5**
	comp=Z,2.3nm,0.8s,baz=123,slow=6.4,SNR=19								
	comp=Z,2.3nm,0.8s								
KURK	**Kurchatov**	**60.18**	**327**		P		**P**	**11 16 19.0**	**-0.7**
BVAR	**Borovoye Array**	**65.76**	**327**		P		**P**	**11 16 56.2**	**-0.5**
	comp=Z,1.2nm,0.4s,baz=124,slow=7.4,SNR=5.8								
	comp=Z,1.2nm,0.4s								
BORK	**Borovoye**	**65.81**	**327**		P		**P**	**11 16 55.8**	**-1.2**
TIXI	**Tiksi**	**66.28**	**1**		P		**P**	**11 16 59.1**	**-0.6**
TIXI					IAmb		IAmb	11 17 01.2	
	comp=Z,4.4nm,0.9s								
NRIK	**Noril'sk**	**68.80**	**346**		P		**P**	**11 17 15.8**	**+0.2**
	comp=Z,5.7nm,0.8s,baz=150,slow=5.5,SNR=8.0								
	comp=Z,5.7nm,0.8s								
NRIK	**Noril'sk**	**68.80**	**346**		P		**P**	**11 17 15.2**	**-0.4**
AB31	**Akbulak array**	**70.65**	**321**		P		**P**	**11 17 27.0**	**-0.4**
AB31					IAmb		IAmb	11 17 39.6	
	comp=Z,2.5nm,0.8s								
ABKAR	**Akbulak array**	**70.65**	**321**		P		**P**	**11 17 27.1**	**-0.3**
D19K	**Kuna River**	**79.82**	**21**		P		**P**	**11 18 19.4**	**-0.4**
D19K					IAmb		IAmb	11 18 48.5	
	comp=Z,7.8nm,1.3s								
J20K	**Nowinta River**	**80.71**	**26**		P		**P**	**11 18 26.0**	**+1.4**
J20K					IAmb		IAmb	11 18 37.1	
	comp=Z,7.3nm,1.4s								
IMAR	**Indian Mountai**	**81.10**	**24**		P		**P**	**11 18 27.4**	**+0.7**
E21K	**Killik River**	**81.32**	**22**		P		**P**	**11 18 28.2**	**+0.4**
E21K					IAmb		IAmb	11 18 52.5	
	comp=Z,3.4nm,1.0s								
H23K	**Yukon River**	**82.80**	**24**		P		**P**	**11 18 35.1**	**-0.6**
H23K					IAmb		IAmb	11 18 36.8	
	comp=Z,6.7nm,1.4s								
TOLK	**Toolik Lake Re**	**82.95**	**22**		P		**P**	**11 18 37.8**	**+1.4**
TOLK					IAmb		IAmb	11 18 53.8	
	comp=Z,2.1nm,0.9s								
ILAR	**Eielson Array**	**83.88**	**25**		P		**P**	**11 18 40.5**	**-0.7**
	comp=Z,0.3nm,0.6s,baz=254,slow=6.2,SNR=6.5								
	comp=Z,0.3nm,0.6s								
ARCES	**ARCESS Array B**	**88.82**	**340**		P		**P**	**11 19 05.4**	**+0.1**
	comp=Z,1.1nm,0.4s,baz=79,slow=6.3,SNR=9.5								
	comp=Z,1.1nm,0.4s								
SPITS	**Spitsbergen Ar**	**88.86**	**349**		P		**P**	**11 19 05.6**	**+0.2**
	comp=Z,1.3nm,0.3s,baz=89,slow=8.6,SNR=8.4								
	comp=Z,1.3nm,0.3s								
FINES	**FINESS Array B**	**90.24**	**332**		P		**P**	**11 19 11.7**	**-0.3**
	comp=Z,0.7nm,0.4s,baz=49,slow=4.7,SNR=12								
	comp=Z,0.7nm,0.4s								
VRAC	**Vranov**	**98.63**	**321**		LR		LR	12 08 10.2	
	comp=Z,58nm,20.7s,baz=246,slow=38								
TXAR	**Lajitas Array**	**120.98**	**51**		PKP		**PKPdf**	**11 25 04.8**	**0.0**
	comp=Z,0.2nm,0.6s,baz=324,slow=3.7,SNR=1.7								
TORD	**Torodi Ar. Bea**	**121.99**	**289**		PKP		**PKPdf**	**11 25 06.4**	**-0.5**
	comp=Z,0.4nm,0.3s,baz=84,slow=1.5,SNR=6.4								

*IDC **15** 11:14:59.9±0.6, 17°.63N×46°.46W, h0km, mb4.2/13, mbtmp4.1/14, ML3.6/1, MS3.9/17, Error ellipse: s-maj=20.1km s-min=14.3km az=118.0*

*NEIC **15** 11:15:01.1±1.0, 17°.6N±0°.1×46°.6W±0°.1, h10km±1km, mb4.9/46, Error ellipse: s-maj=25.7km s-min=16.8km az=166.0*

*GFZ **15** 11:15:01.4±0.2, 18°N±4°×4°7W±°, h10km, M4.6/36, mb4.6/36*

*GCMT **15** 11:15:04.1±0.2, 17°.63N±0°.03×46°.44W±0°.01, h12km, MW4.9/111, Moment Tensor Solution. s27,c29; s111,c159; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.52±.07; $M_{\theta\theta}$0.13±.07; $M_{\phi\phi}$2.39±.05; $M_{r\theta}$-0.82±.30; $M_{\theta\phi}$-0.22±.06; $M_{\phi r}$-1.86±.20; Best double couple: M_o3.18400×10^{16} NP1,φ=161.00000°, δ29.00000°, λ-117.00000°. NP2,φ=11.00000°, δ65.00000°, λ-76.00000°. Principal axes: T 3.0160, Plg19.0000°, Azm91.0000°; N 0.3370, Plg13.0000°, Azm185.0000°; P -3.3520, Plg67.0000°, Azm308.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 15 11:15:01.2±0.4,**17°.60N**±0°.08×**46°.63W**±0°.06,**h12**km,**n162**, σ1§**20**/138,**mb4.6**/86,**MS3.8**/18,**Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
MDP	**Montagnes des**	**13.74**	**206**		Pn		**Pn**	**11 18 15.1**	**-0.9**
	0.3nm,0.3s,baz=25,slow=14,SNR=1.5								
MDP					Sn		Sn	11 20 37.8	-11
	0.1nm,0.3s,baz=16,slow=23,SNR=1.3								
MDP					LR		LR	11 22 32.3	
	comp=Z,296nm,20.1s,baz=8.0,slow=33								
	2.4nm,0.8s								
MDP					AML		AML		
GDSD	**La Dsirade Is**	**13.87**	**267**		Pn		**Pn**	**11 18 16.9**	**-0.9**
ILAM	**Ilet Lapin Mar**	**13.97**	**260**		Pn		**Pn**	**11 18 17.4**	**-1.7**
MPOM	**Morne Pois Mar**	**14.04**	**259**		Pn		**Pn**	**11 18 19.4**	**-0.6**
MAGL	**Barre de l'ile**	**14.13**	**265**		Pn		**Pn**	**11 18 22.5**	**+1.2**
SVN	**Savane Anatole**	**14.23**	**261**		Pn		**Pn**	**11 18 23.2**	**+0.5**
CBE	**Ff, Capester**	**14.42**	**266**		Pn		**Pn**	**11 18 25.1**	**-0.2**
GDHS	**Morne Mazeau,**	**14.54**	**267**		Pn		**Pn**	**11 18 27.3**	**+0.2**
HUMP	**Col San Antoni**	**18.31**	**275**				**Pn**	**11 19 14.0**	**-1.1**
OBIP	**Obispado Ponce**	**19.03**	**274**		P		**P**	**11 19 22.7**	**-0.5**
DR12	**Loma Pena Alta**	**21.65**	**277**		P		**P**	**11 19 52.1**	**+0.4**
SDDR	**Presa de Saban**	**23.45**	**277**				**P**	**11 20 10.3**	**-0.4**
SDDR					IAmb		IAmb	11 20 24.2	
	comp=Z,29nm,1.1s								
SDV	**Santo Domingo**	**24.89**	**253**		LR		LR	11 29 14.2	
	comp=Z,219nm,21.3s,baz=78,slow=34								
RCBR	**Riachuelo**	**25.57**	**155**		LR		LR	11 28 03.6	
	comp=Z,119nm,19.2s,baz=32,slow=31								
RUSC	**La Rusia**	**28.35**	**249**				**P**	**11 20 54.9**	**-1.0**
RUSC					IAmb		IAmb	11 21 22.4	
	comp=Z,35nm,1.4s								
ROSC	**El Rosal**	**29.92**	**248**		LR		LR	11 34 20.3	
	comp=Z,271nm,21.3s,baz=76,slow=39								
PMOZ	**Porto Moniz, M**	**30.51**	**55**		P		**P**	**11 21 13.3**	**-1.2**
BDFB	**Brasilia**	**33.06**	**182**		LR		LR	11 33 50.4	
	comp=Z,128nm,19.7s,baz=32,slow=34								
OTAV	**Otavalo**	**35.74**	**245**		P		**P**	**11 22 02.5**	**+1.7**
	comp=Z,4.2nm,2.0s								
PMNB	**Patos De Minas**	**35.91**	**180**		P		**P**	**11 22 02.9**	**+1.3**
	comp=Z,8.6nm,1.3s								
BRU2	**Volcan**	**36.13**	**261**		P		**P**	**11 22 02.3**	**-1.4**
	comp=Z,15nm,0.6s								
GOGA	**Gofrey**	**36.56**	**303**		P		**P**	**11 22 05.8**	**-1.3**
	comp=Z,12nm,1.5s								
TKL	**Tuckaleechee C**	**37.48**	**306**		LR		LR	11 34 52.8	
	comp=Z,259nm,20.6s,baz=106,slow=32								
JTS	**Las Juntas de**	**37.84**	**264**		LR		LR	11 35 37.9	
	comp=Z,104nm,21.2s,baz=67,slow=33								
SADO	**Sadowa**	**38.39**	**322**		LR		LR	11 34 56.5	
	comp=Z,199nm,21.7s,baz=157,slow=31								
TGUH	**Tegucigalpa,Un**	**39.21**	**271**		P		**P**	**11 22 28.3**	**-1.5**
TGUH					IAmb		IAmb	11 22 37.9	
	comp=Z,43nm,1.4s								
TGUH	**Tegucigalpa,Un**	**39.21**	**271**		P		**P**	**11 22 30.6**	**+0.8**
	comp=Z,24nm,1.5s								
LPAZ	**La Paz**	**39.78**	**213**		P		**P**	**11 22 35.5**	**+0.5**
	comp=Z,1.7nm,0.6s,baz=45,slow=2.4,SNR=8.2								
LPAZ					LR		LR	11 38 31.4	
	comp=Z,138nm,19.3s,baz=28,slow=35								
	comp=Z,1.7nm,0.6s								
LPAZ	**La Paz**	**39.78**	**213**		P		**P**	**11 22 36.5**	**+1.5**
	comp=Z,5.3nm,1.0s								
ATAH	**Atahualpa**	**39.86**	**235**		LR		LR	11 38 47.5	
	comp=Z,194nm,21.8s,baz=50,slow=36								
SCHQ	**Schefferville**	**40.27**	**342**		LR		LR	11 36 56.8	
	comp=Z,157nm,20.4s,baz=153,slow=33								
H10N3	**ASCENSION HYDR**	**40.58**	**126**		T		T	12 05 43.3	
	baz=308,slow=76,SNR=258								
H10N2	**ASCENSION HYDR**	**40.58**	**126**		T		T	12 05 41.7	
	baz=308,slow=76,SNR=306								
H10N1	**ASCENSION HYDR**	**40.59**	**126**		T		T	12 05 48.1	
	baz=308,slow=76,SNR=350								
MDT	**Midelt**	**40.65**	**60**		LR		LR	11 36 29.3	
	comp=Z,114nm,19.0s,baz=276,slow=32								
WVT	**Waverly**	**40.77**	**305**		P		**P**	**11 22 42.2**	**-0.2**
	comp=Z,8.8nm,1.5s								
H10S3	**ASCENSION HYDR**	**41.15**	**127**		T		T	12 06 43.7	
	baz=274,slow=74,SNR=68								
H10S2	**ASCENSION HYDR**	**41.17**	**127**		T		T	12 06 42.5	
	baz=306,slow=74,SNR=98								
EMAL	**Malaga-Limoner**	**41.71**	**54**		P		**P**	**11 22 50.9**	**+0.8**
	comp=Z,3.6nm,1.6s								
NNA	**Nana**	**41.89**	**228**		LR		LR	11 39 51.9	
	comp=Z,115nm,21.6s,baz=46,slow=36								
APG	**El Apazote**	**42.09**	**273**		LR		LR	11 38 16.3	
	comp=Z,9.8nm,21.6s,baz=56,slow=33								
DBIC	**Dimbokro**	**42.16**	**100**		P		**P**	**11 22 52.9**	**-1.2**
	comp=Z,1.5nm,0.6s,baz=285,slow=12,SNR=1.4								
DBIC					LR		LR	11 36 58.3	
	comp=Z,360nm,21.8s,baz=302,slow=31								
	comp=Z,1.5nm,0.6s								
DBIC	**Dimbokro**	**42.16**	**100**		P		**P**	**11 22 54.7**	**+0.6**
	comp=Z,8.9nm,1.4s								
ESDC	**Sonseca Array**	**42.91**	**50**		LR		LR	11 37 19.6	
	comp=Z,194nm,20.0s,baz=248,slow=31								
PB11	**IPOC Station P**	**43.47**	**212**		P		**P**	**11 23 03.9**	**-0.8**
	comp=Z,11nm,1.5s								
CCM	**Cathedral Cave**	**43.91**	**307**		P		**P**	**11 23 08.1**	**+0.1**
CCM					IAmb		IAmb	11 23 18.7	
	comp=Z,18nm,1.4s								
CCM	**Cathedral Cave**	**43.91**	**307**		P		**P**	**11 23 09.1**	**+1.1**
	comp=Z,11nm,1.4s								
X40A	**Basin Creek Fa**	**44.39**	**302**		P		**P**	**11 23 12.6**	**+0.7**
CPUP	**Villa Florida**	**44.89**	**194**		P		**P**	**11 23 16.6**	**+0.9**
	comp=Z,2.0nm,0.4s,baz=11,slow=9.0,SNR=8.0								
CPUP					LR		LR	11 42 30.6	
	comp=Z,73nm,18.4s,baz=66,slow=37								
	comp=Z,2.0nm,0.4s								
CPUP	**Villa Florida**	**44.89**	**194**		P		**P**	**11 23 16.9**	**+1.1**
	comp=Z,5.0nm,0.9s								
MIAR	**Mount Ida**	**45.00**	**301**		P		**P**	**11 23 16.4**	**-0.3**
	comp=Z,7.4nm,3.0s								
NATX	**Nacogdoches**	**45.52**	**297**		P		**P**	**11 23 20.6**	**-0.3**
TORD	**Torodi Ar. Bea**	**46.71**	**88**		P		**P**	**11 23 29.5**	**-0.9**
	comp=Z,0.9nm,0.8s,baz=285,slow=7.4,SNR=6.3								
TORD					LR		LR	11 40 49.8	
	comp=Z,496nm,20.3s,baz=311,slow=33								
	comp=Z,0.9nm,0.8s								
W35A	**Tecumseh**	**47.77**	**302**				**P**	**11 23 38.7**	**+0.1**
W35A					IAmb		IAmb	11 23 48.5	
	comp=Z,13nm,1.0s								
435B	**Jarrell**	**47.93**	**296**		P		**P**	**11 23 39.2**	**-0.5**
435B					IAmb		IAmb	11 23 44.3	
	comp=Z,11nm,0.9s								
FW06	**Azle**	**48.08**	**299**		P		**P**	**11 23 41.1**	**+0.2**
TAM	**Tamanrasset**	**49.02**	**75**		P		**P**	**11 23 47.8**	**-0.7**
TAM	**Tamanrasset**	**49.02**	**75**		P		**P**	**11 23 48.5**	**+0.1**
	comp=Z,3.5nm,1.6s								
BRDY	**Brady**	**49.17**	**296**				**P**	**11 23 48.8**	**-0.6**
WMOK	**Wichita Mounta**	**49.28**	**301**		P		**P**	**11 23 49.1**	**-1.0**
	comp=Z,7.1nm,1.2s								
HNDO	**Hondo**	**49.34**	**294**				**P**	**11 23 52.4**	**+1.7**
HNDO					IAmb		IAmb	11 23 55.3	
	comp=Z,21nm,1.5s								
STNC	**Stoke**	**49.42**	**34**		P		**P**	**11 23 49.1**	**-1.8**
	comp=Z,56nm,1.1s								
CWF	**Charnwood Fore**	**49.73**	**35**		P		**P**	**11 23 50.8**	**-2.5**
	comp=Z,35nm,2.5s								
DRUM	**Mains of Drumt**	**51.19**	**29**		P		**P**	**11 24 03.8**	**-0.4**
	comp=Z,56nm,1.1s								
BNI	**Bardonecchia**	**51.98**	**46**		P		**P**	**11 24 11.0**	**+0.5**
KEST	**Kesra**	**52.49**	**58**		P		**P**	**11 24 13.5**	**-0.9**
KEST					IAmb		IAmb	11 24 23.4	
	comp=Z,13nm,1.1s								
ZAIG	**Zacatecas**	**52.51**	**285**		P		**P**	**11 24 16.2**	**+1.3**
	comp=Z,8.0nm,1.6s								
ALPN	**Alpine**	**53.13**	**295**				**P**	**11 24 19.4**	**+0.1**
ALPN					IAmb		IAmb	11 24 24.3	
	comp=Z,13nm,1.4s								
TXAR	**Lajitas Array**	**53.16**	**294**		P		**P**	**11 24 20.9**	**+1.5**
	comp=Z,2.7nm,1.2s,baz=77,slow=5.3,SNR=6.3								
TXAR					PcP		**PcP**		**11 25 29.5 +1.9**
	comp=Z,1.0nm,0.9s,baz=116,slow=5.7,SNR=4.1								
	comp=Z,2.7nm,1.2s								
TX31	**Lajitas Ar. Si**	**53.16**	**294**				**P**	**11 24 20.0**	**+0.5**
MNTX	**Cornudas Mount**	**54.63**	**297**		P		**P**	**11 24 30.6**	**+0.5**
	comp=Z,8.5nm,1.9s								
FUORN	**Ofenpass-Fuorn**	**54.77**	**45**		P		**P**	**11

ITM	**Ithomi**	**62.66**	**57**	P		**P**	**11 25 25.2**	**-0.7**
GRG	**Griva**	**62.95**	**53**	P		**P**	**11 25 28.4**	**+0.5**
	comp=Z,26nm,1.0s							
H09N1	**TRISTAN DA CUN**	**63.27**	**150**	T		T	12 34 12.5	
	SNR=7.4							
H09W1	**TRISTAN DA CUN**	**63.28**	**150**	T		T	12 34 07.8	
	SNR=26							
KNT	**Kendrikon**	**63.33**	**52**	P		**P**	**11 25 30.8**	**+0.5**
	comp=Z,9.5nm,0.9s							
YKA	**Yellowknife Ar**	**64.39**	**331**	P		**P**	**11 25 37.2**	**+0.3**
	comp=Z,2.7nm,0.8s,baz=104,slow=8.0,SNR=6.9							
	comp=Z,2.7nm,0.8s							
ARR	**Arges**	**64.59**	**48**	P		**P**	**11 25 39.6**	**+1.0**
	comp=Z,6.5nm,1.6s							
BURAR	**Bucovina Array**	**65.02**	**45**	P		**P**	**11 25 41.3**	**-0.1**
MLR	**Muntele Rosu**	**65.51**	**48**	P		**P**	**11 25 44.2**	**-0.5**
MLR				IAmb		IAmb	11 26 02.6	
	comp=Z,17nm,1.4s							
MLR	**Muntele Rosu**	**65.51**	**48**	P		**P**	**11 25 46.1**	**+1.4**
	comp=Z,10.0nm,0.5s							
MDPB	**Devils Postpil**	**65.73**	**304**	P		**P**	**11 25 45.7**	**-0.8**
MDPB				IAmb		IAmb	11 25 59.6	
	comp=Z,6.6nm,1.2s							
FINES	**FINESS Array B**	**66.44**	**30**	P		**P**	**11 25 50.0**	**-0.1**
	comp=Z,2.3nm,0.8s,baz=241,slow=10,SNR=3.4							
	comp=Z,2.3nm,0.8s							
ARCES	**ARCESS Array B**	**67.40**	**21**	P		**P**	**11 25 56.6**	**+0.4**
	comp=Z,3.2nm,0.8s,baz=260,slow=7.5,SNR=2.3							
	comp=Z,3.2nm,0.8s							
BR131	**Keskin Array S**	**71.60**	**53**	P		**P**	**11 26 22.8**	**-0.1**
BR131				IAmb		IAmb	11 26 33.6	
	comp=Z,7.7nm,1.2s							
BRTR	**Keskin Array B**	**71.60**	**53**	P		**P**	**11 26 22.4**	**-0.5**
	comp=Z,0.8nm,0.7s,baz=268,slow=2.9,SNR=4.8							
	comp=Z,0.8nm,0.7s							
R33M	**Jennings River**	**72.16**	**328**			**P**	**11 26 25.2**	**-0.6**
R33M				IAmb		IAmb	11 26 30.8	
	comp=Z,13nm,1.1s							
INK	**Inuvik**	**72.65**	**337**	P		**P**	**11 26 28.2**	**-0.2**
	comp=Z,9.9nm,1.1s							
F31M	**Tsiigehtchic**	**72.80**	**336**			**P**	**11 26 29.4**	**+0.1**
P33M	**Teslin, Yukon**	**73.02**	**329**	P		**P**	**11 26 30.8**	**-0.1**
P33M				IAmb		IAmb	11 26 35.0	
	comp=Z,9.8nm,1.2s							
N31M	**Braeburn, Yuko**	**74.31**	**330**			**P**	**11 26 38.6**	**+0.2**
M30M	**Minto, Yukon**	**74.63**	**331**	P		**P**	**11 26 40.2**	**0.0**
E28M	**Babbage River**	**74.82**	**338**			**P**	**11 26 41.7**	**+0.5**
M29M	**Somme Creek**	**75.41**	**331**	P		**P**	**11 26 44.8**	**-0.1**
M29M				IAmb		IAmb	11 26 49.5	
	comp=Z,8.2nm,1.0s							
E27K	**Coleen River**	**75.65**	**337**	P		**P**	**11 26 45.8**	**-0.2**
ILAR	**Eielson Array**	**78.54**	**335**	P		**P**	**11 27 03.5**	**+1.3**
	comp=Z,6.6nm,0.8s,baz=71,slow=4.7,SNR=50							
	comp=Z,6.6nm,0.8s							
ILAR	**Eielson Array**	**78.54**	**335**			**P**	**11 27 02.4**	**+0.1**
COLA	**College**	**78.90**	**335**	P		**P**	**11 27 03.9**	**-0.3**
	comp=Z,17nm,1.0s							
H23K	**Yukon River**	**79.28**	**336**	P		**P**	**11 27 06.4**	**+0.1**
H23K				IAmb		IAmb	11 27 09.8	
	comp=Z,22nm,1.3s							
BWN	**Browne**	**79.79**	**334**	P		**P**	**11 27 09.3**	**+0.2**
G21K	**Allakaket**	**80.54**	**337**			**P**	**11 27 13.6**	**+0.5**
G21K				IAmb		IAmb	11 27 18.6	
	comp=Z,13nm,1.1s							
TAOE	**Nuku Hiva Isla**	**95.96**	**263**	*e*LR		LR	11 59 29.5	
	comp=Z,82nm,31.5s							
PPT2	**Papeete2**	**107.10**	**257**	*e*LR		LR	12 04 46.9	
	comp=Z,144nm,32.0s							
HHC	**Hu-ho-hao-te**	**118.42**	**19**	*e*P		**PKPdf**	**11 33 47.0**	**-2.2**
NJ2	**Nanjing**	**128.71**	**16**	*e*P		**PKiKP**	**11 34 10.6**	**+0.9**
NJ2				pmax		pmax		
	comp=Z,8.0nm,0.6s							
H01W2	**Cape Leeuwin H**	**155.69**	**139**	T		T	14 30 19.2	
	baz=239							
H01W3	**Cape Leeuwin H**	**155.70**	**139**	T		T	14 30 10.1	
	baz=239							
H01W1	**Cape Leeuwin H**	**155.71**	**139**	T		T	14 29 52.0	
	baz=239							
ASAR	**Alice Springs**	**173.94**	**185**	PKP		**PKPdf**	**11 35 11.7**	**+0.1**
	comp=Z,0.4nm,0.9s,baz=242,slow=2.0,SNR=4.2							
WRA	**Warramunga Arr**	**177.50**	**201**	PKP		**PKPdf**	**11 35 12.3**	**-0.2**
	comp=Z,1.1nm,1.1s,baz=23,slow=0.4,SNR=4.5							

AFAD 15 11:20:51.5, 37.85N×29.47E, h7km±3km, ML1.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
INCE	**Denizli-Bozkur**	**0.16**	**149**	P	Pg	11 20 55.3	+0.5
INCE				S	Sg	11 20 58.5	+1.3
INCE				IAML		11 20 59.0	
	comp=N,339nm,0.4s						
INCE				IAML		11 20 59.0	
	comp=E,292nm,0.3s						
DNIZ	**Denizli-Tavas-**	**0.41**	**237**	P	Pg	11 20 59.6	+0.2
DNIZ				S	Sb	11 21 06.6	-1.0
DNIZ				IAML		11 21 07.0	
	comp=N,292nm,0.3s						
DNIZ				IAML		11 21 07.0	
	comp=E,278nm,0.2s						
BRDR	**BURDUR-Merkez**	**0.49**	**108**	P	Pg	11 21 01.0	-0.1
BRDR				S	Sb	11 21 11.3	+1.2
PASA	**Karahalli, USA**	**0.50**	**2**	P	Pg	11 21 01.7	+0.6
PASA				S	Sb	11 21 14.0	+3.8
TAVA	**DENIZLI_Tavas**	**0.58**	**229**	P	Pg	11 21 03.1	+0.3
TAVA				S	Sb	11 21 12.2	-0.4
SULTU	**Buldan**	**0.59**	**290**	P	Pg	11 21 03.1	+0.2
SULTU				S	Sb	11 21 13.3	+0.5
GOLH	**Golhisar**	**0.61**	**173**	P	Pg	11 21 03.1	-0.3
GOLH				IAML		11 21 13.0	
	comp=E,48nm,0.4s						
GOLH				S	Sb	11 21 13.4	-0.1
GOLH				IAML		11 21 20.0	
	comp=N,44nm,0.4s						

ISK 15 11:20:54.6, 37.83N×27.17E, h16km, ML1.8/8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.14**	**159**	Pg	Pg	11 20 58.4	0.0
GCAM				Sg	Sb	11 21 01.8	+0.2
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.32**	**321**	Pg	Pb	11 21 02.0	0.0
GMLD				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.58**	**78**	Pg	Pb	11 21 06.7	+0.2
AYDB				AML	AML		
MLSB	**Milas**	**0.71**	**138**	Pg	Pb	11 21 08.9	+0.2
MLSB				AML	AML		
BODT	**Bodrum**	**0.77**	**172**	Pg	Pb	11 21 10.0	+0.3
BODT				AML	AML		
NAZL	**Nazilli-Aydin**	**0.90**	**81**	Pg	Pg	11 21 12.3	+0.3
NAZL				AML	AML		
CHOS	**Chios island**	**1.04**	**303**	Pg	Pg	11 21 15.4	+0.6
CHOS				AML	AML		
YER	**Yerkesik**	**1.12**	**128**	Pn	Pg	11 21 16.2	-0.1
YER				AML	AML		

*TAP **15** 11:26:37.9, 24.82N×122.78E, h11km, ML2.7, D*
*JMA **15** 11:26:37.8±0.1, 24.8N±1.0×122.9E±0.7, h29km±2km, NW OFF ISHIGAKIJIMA IS*

ISC 15 11:26:37.4±1.6, 24.85N±0.08×122.85E±0.04, h23km±13km, n32, σ0.971/46, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.40**	**168**	P	**Pb**	**11 26 45.9**	**0.0**
JYNG				S	**Sb**	**11 26 51.8**	**+0.2**
YOJ	**Yonaguni jima**	**0.41**	**159**	*e*P	**Pb**	**11 26 46.5**	**+0.5**
YOJ				S	**Sb**	**11 26 52.2**	**+0.3**
YOJ	**Yonaguni jima**	**0.41**	**159**	*e*P	**Pb**	**11 26 46.0**	**0.0**
YOJ				S	**Sb**	**11 26 51.7**	**-0.2**
EOS2	**EOS2**	**0.71**	**233**	*e*P	**Pn**	**11 26 51.6**	**-0.3**
EOS2				*i* S	**Sn**	**11 27 02.0**	**-0.1**
EOS3	**EOS3**	**0.74**	**221**	*e*P	**Pn**	**11 26 52.0**	**-0.3**
EOS3				S	**Sn**	**11 27 02.4**	**-0.5**
EGS		**0.84**	**270**	*e*P	**Pb**	**11 26 53.1**	**-0.2**
EOS4	**EOS4**	**0.87**	**214**	P	**Pn**	**11 26 54.2**	**+0.3**
TWC	**Suao**	**0.94**	**256**	*e*P	**Pb**	**11 26 52.4**	**-2.7**
TWC				S	**Sb**	**11 27 05.9**	**-1.2**
IRIF	**Iriomote-Funau**	**0.95**	**122**	*e*P	**Pb**	**11 26 54.5**	**-0.7**
EWUT	**Wuta**	**1.05**	**248**	S	**Sn**	**11 27 11.1**	**+0.3**
NDS	**Dongshan**	**1.05**	**259**	*e*S	**Sb**	**11 27 09.9**	**-0.5**
ENA	**Nanau**	**1.09**	**248**	S	**Sb**	**11 27 10.6**	**-0.9**
FUSB	**Fushanzhiwuyua**	**1.15**	**266**	*e*P	**Pb**	**11 26 59.6**	**+0.9**
ENTT	**Nioudou**	**1.19**	**260**	*e*P	**Pb**	**11 26 59.9**	**+0.6**
ENTT				*e*S	**Sn**	**11 27 15.1**	**+1.0**
JKRS	**Kuro-shima**	**1.22**	**120**	*e*P	**Pn**	**11 26 58.8**	**-0.2**
NWLT	**Wulai**	**1.23**	**267**	*e*P	**Pb**	**11 27 00.5**	**+0.5**
NDT	**Datong Townshi**	**1.24**	**259**	*e*S	**Sn**	**11 27 16.8**	**+1.3**
LATG	**Datong**	**1.25**	**256**	*e*P	**Pn**	**11 26 59.1**	**-0.4**
LATG				*e*S	**Sn**	**11 27 15.9**	**+0.2**
NACB	**Ninganchiao**	**1.33**	**240**	*e*P	**Pb**	**11 27 02.0**	**+0.3**
NACB				*e*S	**Sb**	**11 27 18.1**	**-0.1**
YHNB	**Yeheng**	**1.35**	**263**	*e*P	**Pn**	**11 27 01.3**	**+0.3**
NNSB	**Datong**	**1.40**	**253**	*e*P	**Pb**	**11 27 02.8**	**-0.2**
NNSB				*e*S	**Sb**	**11 27 20.3**	**-0.1**
ETLH	**Xiulin Townshi**	**1.40**	**243**	*e*P	**Pb**	**11 27 03.6**	**+0.6**
ETLH				*e*S	**Sb**	**11 27 21.1**	**+0.6**
NNS	**Nan Shan**	**1.41**	**254**	*e*P	**Pb**	**11 27 03.3**	**+0.2**
NNS				*e*S	**Sn**	**11 27 20.1**	**+0.4**
FUSS	**Fushou**	**1.58**	**248**	*e*P	**Pb**	**11 27 06.6**	**+0.4**
FUSS				*e*S	**Sb**	**11 27 25.7**	**-0.2**
WHF	**Hehuan Shan**	**1.61**	**245**	*e*P	**Pb**	**11 27 06.6**	**-0.1**
WHF				*e*S	**Sb**	**11 27 27.1**	**+0.4**
WARBT	**Fenglin Townsh**	**1.75**	**230**	*e*P	**Pn**	**11 27 06.0**	**-0.4**
OWD	**Renai**	**1.77**	**240**	*e*P	**Pn**	**11 27 06.9**	**+0.1**
WUSB	**Renai**	**1.79**	**242**	*e*P	**Pb**	**11 27 08.6**	**-1.1**
HGSD	**Ruisui**	**1.88**	**224**	*e*P	**Pb**	**11 27 10.2**	**-0.8**
VWDT	**VWDT**	**1.90**	**236**	*e*P	**Pn**	**11 27 09.4**	**+0.9**
SSLB	**Suanglung**	**2.03**	**239**	*e*P	**Pb**	**11 27 13.2**	**-0.4**
YULB	**Yu-li**	**2.03**	**225**	*e*P	**Pn**	**11 27 11.3**	**+1.0**

NOU 15 11:28:48.4, 15.26S×166.57E, h27km, MLv4.4/14, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.64**	**107**	P	Pn	11 29 01.5	-0.2
SANVU	**Saraoutou**	**0.64**	**107**	S	Sn	11 29 11.6	+0.6
DVP	**Devils Point**	**2.90**	**148**	P	Pn	11 29 33.3	+0.5
DVP	**Devils Point**	**2.90**	**148**	S	Sn	11 30 07.6	+0.8
RTV	**Rentapao**	**3.08**	**145**	P	Pn	11 29 35.4	+0.1
NGOA	**Tingoa Renbel**	**7.32**	**299**	P	Pn	11 30 32.6	-1.1
HNR	**Honiara**	**8.68**	**311**	P	Pn	11 30 53.8	+1.5

*IDC **15** 11:31:29.5±0.5, 17.64N×46.55W, h0km, mb4.1/21, mbtmp4.1/22, ML3.4/1, Error ellipse: s-maj=17.6km s-min=12.5km az=125.0*
*NEIC **15** 11:31:31.2±1.3, 17.5N±0.1×46.37W±0.04, h10km±1km, mb4.8/33, Error ellipse: s-maj=20.4km s-min=4.3km az=163.0*
*GFZ **15** 11:31:31.4±0.2, 17.6N±5.4×6.6W±.6, h10km, M4.7/31, mb4.7/31, confirmed*
*GCMT **15** 11:31:33.2±0.3, 17.58N±0.03×46.50W±0.02, h12km, MW4.9/109, Moment Tensor Solution. s29,c31; s109,c150; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr=2.14±.08; Mθθ=0.11±.09; Mφφ=2.25±.07; Mrθ=1.17±.35; Mθφ=0.20±.07; Mφr=0.58±.25; Best double couple: Mo=2.54600×10^16 NP1=φs164.00000°, δ41.00000°, λ=126.00000°. NP2=φs28.00000°, δ58.00000°, λ=64.00000°. Principal axes: T 2.3790, Plg9.0000°, Azm99.0000°; N 0.3350, Plg22.0000°, Azm193.0000°; P -2.7140, Plg66.0000°, Azm347.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 15 11:31:31.2±0.4, 17.51N±0.08×46.47W±0.07, h12km, n157, σ0.995/142, mb4.7/81, 1D, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BBGH	**Gun Hill**	**13.35**	**253**	Pn	**Pn**	**11 34 41.8**	**+1.1**
MDP	**Montagnes des**	**13.73**	**207**	Pn	**Pn**	**11 34 44.2**	**-1.7**
	0.2nm,0.3s,baz=171,slow=17,SNR=1.5						
	6.0nm,1.0s						
MDP				AML	AML		
H05N1	**Guadeloupe/Mar**	**14.01**	**267**	T	T	11 48 51.3	
	SNR=10						
GDSD	**La Dsirade Is**	**14.02**	**267**	Pn	**Pn**	**11 34 49.6**	**-0.2**
H05S1	**Guadeloupe/Mar**	**14.15**	**260**	T	T	11 49 03.8	
	SNR=5.8						
MAGL	**Barre de l'ile**	**14.27**	**266**	Pn	**Pn**	**11 34 55.4**	**+2.1**
SVN	**Savane Anatole**	**14.36**	**261**	Pn	**Pn**	**11 34 55.5**	**+0.9**
SMRT	**St. Maarten**	**15.82**	**274**		**P**	**11 35 18.0**	**+0.2**
SMRT				AMb	AMb	11 35 24.5	
	comp=Z,38nm,0.8s						
HUMP	**Col San Antoni**	**18.46**	**275**	P	**Pn**	**11 35 48.9**	**+1.8**
OBIP	**Obispado Ponce**	**19.18**	**275**	P	**P**	**11 35 55.2**	**+0.2**
BOAV	**Boa Vista**	**20.39**	**224**		**P**	**11 36 09.9**	**+1.7**
DR12	**Loma Pena Alta**	**21.80**	**277**	P	**P**	**11 36 23.5**	**+0.1**
SC01	**Santiago de lo**	**23.08**	**279**	P	**P**	**11 36 38.2**	**+1.2**
RUSC	**La Rusia**	**28.45**	**249**	P	**P**	**11 37 26.5**	**-0.4**
CLDB	**Colider**	**29.67**	**199**	P	**P**	**11 37 36.9**	**-0.2**
	comp=Z,7.5nm,1.1s						
BDFB	**Brasilia**	**32.98**	**183**	P	**P**	**11 38 06.2**	**-0.1**
	comp=Z,1.0nm,0.4s,baz=5.7,slow=10,SNR=2.0						
	comp=Z,1.0nm,0.4s						
OTAV	**Otavalo**	**35.84**	**245**	P	**P**	**11 38 31.1**	**-0.6**
	comp=Z,6.4nm,2.0s						
LPAZ	**La Paz**	**39.79**	**214**	P	**P**	**11 39 05.5**	**+0.4**
	comp=Z,2.4nm,0.6s,baz=20,slow=7.2,SNR=7.8						
	comp=Z,2.4nm,0.6s						
LPAZ	**La Paz**	**39.79**	**214**		**P**	**11 39 05.7**	**+0.6**
LPAZ	**La Paz**	**39.79**	**214**	P	**P**	**11 39 06.3**	**+1.2**
	comp=Z,5.7nm,0.8s						
H10N3	**ASCENSION HYDR**	**40.40**	**126**	T	T	12 22 27.5	
	baz=308,slow=75,SNR=136						
H10N2	**ASCENSION HYDR**	**40.41**	**126**	T	T	12 22 16.1	
	baz=308,slow=75,SNR=94						
H10N1	**ASCENSION HYDR**	**40.42**	**126**	T	T	12 22 29.0	
	baz=308,slow=75,SNR=118						
WVT	**Waverly**	**40.94**	**305**	P	**P**	**11 39 13.7**	**-0.1**
	comp=Z,9.2nm,2.4s						
H10S3	**ASCENSION HYDR**	**40.98**	**127**	T	T	12 22 53.6	
	baz=307,slow=74,SNR=54						
H10S2	**ASCENSION HYDR**	**41.00**	**127**	T	T	12 22 54.9	
	baz=273,slow=74,SNR=48						
EMAL	**Malaga-Limoner**	**41.65**	**54**	P	**P**	**11 39 21.8**	**+2.2**
	comp=Z,3.4nm,2.6s						
DBIC	**Dimbokro**	**42.00**	**100**	P	**P**	**11 39 24.6**	**+1.8**
	comp=Z,2.6nm,0.8s,baz=311,slow=11,SNR=3.6						
	comp=Z,2.6nm,0.8s						
ESDC	**Sonseca Array**	**42.86**	**50**	P	**P**	**11 39 28.7**	**-0.8**
	comp=Z,0.6nm,0.7s,baz=227,slow=9.7,SNR=3.8						
	comp=Z,0.6nm,0.7s						
PBMO	**Poplar Bluff**	**43.13**	**305**	P	**P**	**11 39 32.1**	**+0.4**
PB11	**IPOC Station P**	**43.48**	**213**	P	**P**	**11 39 34.1**	**-0.7**
PB11				IAmb	IAmb	11 39 43.1	
	comp=Z,9.6nm,0.8s						
PB11	**IPOC Station P**	**43.48**	**213**	P	**P**	**11 39 33.8**	**-1.0**
	comp=Z,15nm,0.9s						
TA01	**Dino Aracena**	**44.42**	**213**	P	**P**	**11 39 39.8**	**-2.4**
	comp=Z,21nm,1.5s						
CPUP	**Villa Florida**	**44.84**	**194**	P	**P**	**11 39 46.0**	**+0.6**
	comp=Z,2.7nm,0.5s,baz=7.8,slow=10,SNR=11						
	comp=Z,2.7nm,0.5s						
CPUP	**Villa Florida**	**44.84**	**194**		**P**	**11 39 45.5**	**+0.2**
CPUP	**Villa Florida**	**44.84**	**194**	P	**P**	**11 39 46.1**	**+0.8**
	comp=Z,7.0nm,1.4s						
NATX	**Nacogdoches**	**45.69**	**297**	P	**P**	**11 39 52.7**	**+0.4**
HKT	**Hockley**	**46.53**	**295**	P	**P**	**11 39 58.6**	**-0.2**
	comp=Z,6.4nm,2.1s						
TORD	**Torodi Ar. Bea**	**46.56**	**88**	P	**P**	**11 39 59.3**	**-0.1**
	comp=Z,1.2nm,0.8s,baz=285,slow=7.9,SNR=5.5						
	comp=Z,1.2nm,0.8s						
FW13	**Cleburne**	**48.09**	**298**	P	**P**	**11 40 12.0**	**+0.9**
MTLF	**Montolieu**	**48.39**	**47**	P	**P**	**11 40 11.8**	**-1.4**
	comp=Z,15nm,1.4s						
BRDY	**Brady**	**49.34**	**296**		**P**	**11 40 20.4**	**-0.4**
BRDY				IAmb	IAmb	11 40 28.6	
	comp=Z,23nm,1.3s						
WMOK	**Wichita Mounta**	**49.45**	**301**	P	**P**	**11 40 20.8**	**-0.7**
	comp=Z,11nm,1.2s						
833A	**Chaparral WMA,**	**49.58**	**293**	P	**P**	**11 40 22.3**	**-0.3**
833A				IAmb	IAmb	11 40 30.9	
	comp=Z,18nm,1.1s						
R32A	**Long Quarter,**	**49.90**	**306**	P	**P**	**11 40 24.9**	**0.0**
R32A				IAmb	IAmb	11 40 33.1	
	comp=Z,18nm,1.3s						
BNI	**Bardonecchia**	**51.93**	**46**	P	**P**	**11 40 40.9**	**+0.7**
KEST	**Kesra**	**52.41**	**58**	P	**P**	**11 40 44.7**	**+0.9**
	comp=Z,3.8nm,0.8s,baz=60,slow=3.8,SNR=5.3						
	comp=Z,3.8nm,0.8s						
ZAIG	**Zacatecas**	**52.67**	**286**	P	**P**	**11 40 47.0**	**+0.8**
ZAIG	**Zacatecas**	**52.67**	**286**	P	**P**	**11 40 48.5**	**+2.3**
	comp=Z,14nm,0.7s						
ECH	**Echery**	**53.08**	**42**	P	**P**	**11 40 48.4**	**-0.1**
	comp=Z,11nm,2.4s						
TXAR	**Lajitas Array**	**53.33**	**294**	P	**P**	**11 40 50.4**	**-0.3**
	comp=Z,1.3nm,0.9s,baz=70,slow=11,SNR=5.2						
TXAR				PcP	**PcP**	**11 41 57.6**	**-0.7**
	comp=Z,1.0nm,0.8s,baz=130,slow=5.1,SNR=4.5						
	comp=Z,1.3nm,0.9s						
DAVA	**Damuels**	**54.62**	**44**	P	**P**	**11 41 00.3**	**+0.3**
	comp=Z,13nm,1.6s						
FUORN	**Ofenpass-Fuorn**	**54.73**	**45**	P	**P**	**11 41 00.1**	**-0.8**
FUORN	**Ofenpass-Fuorn**	**54.73**	**45**	P	**P**	**11 41 01.0**	**+0.1**
	comp=Z,9.7nm,2.3s						
MNTX	**Cornudas Mount**	**54.80**	**297**	P	**P**	**11 41 02.2**	**+0.9**
	comp=Z,8.3nm,1.3s						
UBR	**Ueberruh**	**54.86**	**44**	P	**P**	**11 41 02.2**	**+0.6**
	comp=Z,18nm,0.8s						
FETA	**Feichten**	**55.13**	**45**	*e*P	**P**	**11 41 04.2**	**+0.5**
	comp=Z,6.0nm,0.9s						
HPIG		**55.18**	**291**	P	**P**	**11 41 05.4**	**+1.0**
	comp=Z,8.5nm,1.1s						
ISCO	**Idaho Springs**	**55.41**	**307**		**P**	**11 41 06.6**	**+0.6**
ISCO				IAmb	IAmb	11 41 21.6	
	comp=Z,15nm,1.4s						
ISCO	**Idaho Springs**	**55.41**	**307**	P	**P**	**11 41 08.0**	**+2.0**
MOTA	**Moosalm**	**55.45**	**44**	*e*P	**P**	**11 41 06.3**	**+0.3**
	comp=Z,5.5nm,0.6s,SNR=7.3						
TEOL	**Teolo**	**55.45**	**47**	P	**P**	**11 41 04.8**	**-1.0**
SQTA	**Sankt Quirin**	**55.49**	**44**	*e*P	**P**	**11 41 06.3**	**+0.1**
	comp=Z,8.3nm,0.8s,SNR=4.8						
CTI	**Castel Tesino**	**55.56**	**46**		**P**	**11 41 06.1**	**-0.6**
CTI				IAmb	IAmb	11 41 07.7	
	comp=Z,12nm,0.7s						
CGRP	**Cima Grappa**	**55.63**	**46**	P	**P**	**11 41 07.2**	**-0.1**
	comp=Z,13nm,0.7s						
WATA	**Walderalm**	**55.76**	**44**	*e*P	**P**	**11 41 08.2**	**0.0**
	comp=Z,5.3nm,0.7s						
ANMO	**Albuquerque**	**55.76**	**301**	P	**P**	**11 41 07.9**	**-0.5**
WTTA	**Wattenberg**	**55.78**	**44**	*e*P	**P**	**11 41 08.4**	**0.0**
	comp=Z,5.7nm,0.8s						
WTTA	**Wattenberg**	**55.78**	**44**	P	**P**	**11 41 08.5**	**0.0**
	comp=Z,10nm,1.1s						
Y22A	**Socorro**	**56.16**	**299**	P	**P**	**11 41 11.8**	**+0.5**
ABTA	**Abfaltersbach**	**56.27**	**45**	*e*P	**P**	**11 41 12.0**	**+0.2**
	comp=Z,4.2nm,0.7s,SNR=4.6						
LESA	**Schwarzleotal**	**56.51**	**44**	*e*P	**P**	**11 41 13.4**	**0.0**
	comp=Z,2.4nm,0.6s						
KBA	**Koelnbreinsper**	**56.90**	**45**	*e*P	**P**	**11 41 16.3**	**-0.1**
	comp=Z,3.7nm,0.8s						
KBA	**Koelnbreinsper**	**56.90**	**45**	P	**P**	**11 41 15.9**	**-0.5**
	comp=Z,6.3nm,2.2s						
ACOM	**Acomizza, Ital**	**56.92**	**46**	P	**P**	**11 41 16.6**	**+0.1**
	comp=Z,16nm,0.8s						
NKC	**Novy Kostel**	**56.94**	**41**	*e*P	**P**	**11 41 16.5**	**+0.1**
NKC	**Novy Kostel**	**56.94**	**41**	P	**P**	**11 41 17.5**	**+1.1**
	comp=Z,17nm,0.8s						
MYKA	**Terra Mystica**	**57.02**	**45**	*e*P	**P**	**11 41 17.4**	**+0.3**
	comp=Z,9.4nm,1.0s,SNR=5.1						
BIOA	**Bad Ischl, Aus**	**57.20**	**44**	*e*P	**P**	**11 41 18.3**	**0.0**
	comp=Z,5.8nm,1.1s						
KHC	**Kasperske Hory**	**57.43**	**42**	*e*P	**P**	**11 41 19.2**	**-0.7**
KHC	**Kasperske Hory**	**57.43**	**42**	P	**P**	**11 41 19.9**	**0.0**
	comp=Z,4.3nm,0.8s						
GERES	**GERESS Array B**	**57.45**	**43**	P	**P**	**11 41 19.6**	**-0.5**
	comp=Z,0.9nm,0.6s,baz=260,slow=5.9,SNR=8.4						
	comp=Z,0.9nm,0.6s						
CLL	**Collm**	**57.52**	**40**	*e*P	**P**	**11 41 21.0**	**+0.6**
CLL				L	L	11 58 00.0	
OBKA	**Obir**	**57.62**	**46**	*e*P	**P**	**11 41 21.4**	**0.0**
	comp=Z,6.4nm,0.6s						
OBKA	**Obir**	**57.62**	**46**	P	**P**	**11 41 21.6**	**+0.3**
	comp=Z,27nm,0.7s						
MOA	**Molln**	**57.64**	**44**	*e*P	**P**	**11 41 21.3**	**-0.1**
	comp=Z,5.1nm,1.3s						
CKRC	**Cesky Krumlov**	**57.84**	**43**	*e*P	**P**	**11 41 22.7**	**-0.1**
ZVC	**Zvikov**	**57.88**	**42**	*e*P	**P**	**11 41 22.4**	**-0.6**
SOKA	**Soboth**	**57.97**	**46**	*e*P	**P**	**11 41 23.4**	**-0.4**
	comp=Z,0.9nm,0.7s						
PRA	**Prague**	**58.15**	**42**	*e*P	**P**	**11 41 23.8**	**-1.1**
PRU	**Pruhonice**	**58.21**	**42**	*e*P	**P**	**11 41 24.7**	**-0.6**
ARSA	**Arzberg**	**58.39**	**45**	*e*P	**P**	**11 41 26.3**	**-0.3**
	comp=Z,3.0nm,0.7s						
ARSA	**Arzberg**	**58.39**	**45**	P	**P**	**11 41 26.1**	**-0.6**
	comp=Z,9.1nm,0.8s						
**

INK Inuvik 72.79 337 P **P** **11 42 58.2 -1.0**
INK IAmb IAmb 11 42 59.1
comp=Z,7.7nm,0.8s

E29M Blow River 74.40 337 **P** **11 43 08.6 -0.2**
N31M Braeburn, Yuko 74.46 330 **P** **11 43 09.1 -0.2**
N31M IAmb IAmb 11 43 10.0
comp=Z,16nm,0.9s

G29M Pine Creek 74.66 336 P **P** **11 43 09.9 -0.4**
G29M IAmb IAmb 11 43 10.5
comp=Z,19nm,1.3s

O30N Mendenhall 74.71 329 P **P** **11 43 10.9 +0.1**
O30N IAmb IAmb 11 43 12.1
comp=Z,8.8nm,0.8s

DAWY Dawson 75.69 333 P **P** **11 43 16.0 -0.3**
DAWY IAmb IAmb 11 43 16.7
comp=Z,4.5nm,0.9s

KBZ Khabaz 77.67 48 P **P** **11 43 29.0 +1.2**
comp=Z,1.4nm,0.7s,baz=273,slow=4.4,SNR=3.6
comp=Z,1.4nm,0.7s

IL31 78.68 335 **P** **11 43 33.2 +0.2**
IL31 IAmb IAmb 11 43 33.9
comp=Z,11nm,0.8s

ILAR Eielson Array 78.68 335 P **P** **11 43 32.9 -0.2**
comp=Z,8.3nm,0.8s,baz=76,slow=4.8,SNR=85
comp=Z,8.3nm,0.8s

ILAR Eielson Array 78.68 335 **P** **11 43 33.2 +0.1**
TAOE Nuku Hiva Isla 96.09 263 *e*LR LR 12 16 03.5
comp=Z,85nm,35.8s

PPT2 Papeete2 107.23 257 *e*LR LR 12 21 12.7
comp=Z,128nm,31.2s

TBI Tubuai 108.36 251 *e*LR LR 12 21 50.1
comp=Z,1μm,34.5s

VNDA Vanda 118.33 187 PKP **PKiKP** **11 50 18.4 +0.6**
comp=Z,1.2nm,1.1s,baz=235,slow=2.0,SNR=6.0

HHC Hu-ho-hao-te 118.46 19 *e*P **PKPdf** **11 50 14.6 -4.8**
HNS HongShan 122.58 18 ⇓P **PKPdf** **11 50 25.6 -1.6**
NJ2 Nanjing 128.75 16 *e*P **PKPdf** **11 50 38.1 -1.1**
NJ2 pmax pmax
comp=Z,9.0nm,0.6s

H01W2 Cape Leeuwin H 155.53 139 T T 14 46 41.4
baz=240

H01W3 Cape Leeuwin H 155.54 139 T T 14 46 42.7
baz=240

H01W1 Cape Leeuwin H 155.54 139 T T 14 46 42.7
baz=240

ASAR Alice Springs 173.87 183 PKP **PKPdf** **11 51 40.8 -0.8**
comp=Z,1.1nm,1.0s,baz=224,slow=3.3,SNR=5.4

WRA Warramunga Arr 177.46 198 PKP **PKPdf** **11 51 42.3 -0.3**
comp=Z,1.1nm,1.1s,baz=80,slow=1.7,SNR=5.0

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*IDC **15** 11:37:22.7±0.5, 17.65N×46.4W, h0km, mb4.2/20, mbtmp4.2/21, ML3.7/1, MS4.0/68, Error ellipse: s-maj=19.3km s-min=12.8km az=130.0*

*NEIC **15** 11:37:25.0±1.7, 17.6N±0.1×46.4W±0.7, h10km±1km, mb4.9/41, Error ellipse: s-maj=18.3km s-min=10.7km az=186.0*

*GCMT **15** 11:37:25.0±0.2, 17.64N±0.02×46.47W±0.01, h12km, MW5.0/121, Moment Tensor Solution. s45,c48; s121,c185; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-3.23±.07; Mθθ 0.22±.07; Mφφ 3.01±.06; Mrθ-0.95±.32; Mθφ 0.25±.06; Mrφ-0.96±.22; Best double couple: Mo 3.39700×10^16 NP1: φs 173.00000°, δ 37.00000°, λ-110.00000°. NP2: φs 18.00000°, δ 56.00000°, λ-75.00000°. Principal axes: T 3.2050, Plg 9.0000°, Azm 98.0000°; N 0.3820, Plg 12.0000°, Azm 190.0000°; P -3.5880, Plg 75.0000°, Azm 330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **15** 11:37:25.5±0.2, 17.7N×4.6W±, h10km, M4.7/23, mb4.7/23*

*GFZ **15** 11:37:25.7, 17.70N×46.44W, h10km, Mw4.9/45, Moment Tensor Solution. Moment tensor: Scale 10^16 Nm; Mrr-2.43; Mθθ 0.10; Mφφ 2.33; Mrθ-0.18; Mθφ 0.27; Mrφ-0.62; Fault plane solution: Mo 2.48174×10^16 NP1: φs 184.51606°, δ 37.64022°, λ-93.75676°. NP2: φs 9.25624°, δ 52.45467°, λ-87.10724°. Principal axes: T 2.4437, Plg 7.4134°, Azm 97.1939°; N 0.0744, Plg 2.2932°, Azm 187.4925°; P -2.5181, Plg 82.2362°, Azm 294.5734°;*

ISC 15 11:37:24.7±0.4, 17.58N±0.07×46.43W±0.06, h12km, n253, σ1 s 20/181, mb 4.7/79, MS 4.1/69, 10C-8D, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDP	**Montagnes des**	**13.81**	**207**	Pn	**Pn**	**11 40 38.2**	**-2.3**
	0.4nm,0.3s,baz=14,slow=14,SNR=6.3						
MDP				Sn	Sn	11 43 00.0	-14
	0.1nm,0.3s,baz=83,slow=9.9,SNR=2.0						
MDP				LR	LR	11 44 55.2	
	comp=Z,347nm,19.9s,baz=62,slow=33						
	5.1nm,0.7s						
MDP				AML	AML		
H05N1	**Guadeloupe/Mar**	**14.05**	**267**	T	T	11 54 40.3	
	SNR=5.7						
GDSD	**La Dsirade Is**	**14.06**	**267**	Pn	**Pn**	**11 40 42.9**	**-1.0**
H05S1	**Guadeloupe/Mar**	**14.20**	**259**	T	T	11 54 56.9	
	SNR=13						
BIM	**Bigot**	**14.40**	**260**	Pn	**Pn**	**11 40 47.1**	**-1.4**
FDFM	**Morne la Roset**	**14.43**	**261**	Pn	**Pn**	**11 40 46.6**	**-2.4**
CBE	**Ff, Capester**	**14.61**	**266**	Pn	**Pn**	**11 40 49.7**	**-1.7**
CBE	**Ff, Capester**	**14.61**	**266**	P	**Pn**	**11 40 48.8**	**-2.6**
	comp=Z,143nm,1.5s						
CELP	**Cerrillos**	**19.19**	**275**	P	**P**	**11 41 48.3**	**-0.2**
CELP				IAmb	IAmb	11 41 56.5	
	comp=Z,99nm,1.5s						
BOAV	**Boa Vista**	**20.47**	**224**		**P**	**11 42 02.7**	**+0.2**
BOAV				IAmb	IAmb	11 42 13.3	
	comp=Z,62nm,1.3s						
BOAV	**Boa Vista**	**20.47**	**224**	*e*P	Pn	11 42 05.4	+0.7
DR12	**Loma Pena Alta**	**21.84**	**277**	P	**P**	**11 42 16.5**	**-0.8**
SACV	**Santiago Islan**	**22.06**	**93**	P	**P**	**11 42 16.8**	**-2.9**
SDDR	**Presa de Saban**	**23.64**	**277**	P	**P**	**11 42 42.3**	**+6.2**
	comp=Z,42nm,1.5s						
ITTB	**Itaituba**	**23.66**	**204**	*e*P	**P**	**11 42 36.2**	**0.0**
SDV	**Santo Domingo**	**25.07**	**253**	LR	LR	11 51 36.1	
	comp=Z,310nm,20.9s,baz=82,slow=34						
SDV	**Santo Domingo**	**25.07**	**253**	P	**P**	**11 42 48.9**	**-0.6**
SDV				IAmb	IAmb	11 42 58.9	
	comp=Z,22nm,0.9s						
SDV	**Santo Domingo**	**25.07**	**253**	P	**P**	**11 42 54.7**	**+5.2**
	comp=Z,159nm,2.4s						
RCBR	**Riachuelo**	**25.47**	**155**	LR	LR	11 50 25.8	
	comp=Z,178nm,20.1s,baz=353,slow=31						
NPGB	**Novo Progresso**	**26.00**	**201**	*e*P	**P**	**11 42 57.4**	**-0.3**
SMTB	**Santa Maria do**	**26.29**	**183**	P	**P**	**11 43 02.4**	**+2.0**
RUSC	**La Rusia**	**28.51**	**249**		**P**	**11 43 20.2**	**-0.7**
ROSC	**El Rosal**	**30.08**	**248**	LR	LR	11 55 29.8	
	comp=Z,453nm,21.7s,baz=73,slow=36						
PDRB	**Porto dos Gac**	**30.73**	**200**	*e*P	**P**	**11 43 41.3**	**+1.3**
BDFB	**Brasilia**	**33.04**	**183**	P	P	11 43 56.5	-3.9
	comp=Z,0.8nm,0.3s,baz=346,slow=16,SNR=3.2						
BDFB				LR	LR	11 56 33.6	
	comp=Z,176nm,19.3s,baz=16,slow=35						
VILB	**Vilhena**	**33.24**	**205**	P	**P**	**11 44 02.3**	**+0.3**
VILB				IAmb	IAmb	11 44 11.6	
	comp=Z,8.2nm,0.6s						
ARAG	**Araguaiana, MT**	**33.49**	**189**	*e*P	**P**	**11 44 03.2**	**-0.9**
PTLB	**Pontes e Lacer**	**35.13**	**202**	P	**P**	**11 44 18.4**	**+0.1**
PTLB	**Pontes e Lacer**	**35.13**	**202**	*e*P	**P**	**11 44 19.3**	**+1.0**
OTAV	**Otavalo**	**35.90**	**245**	P	**P**	**11 44 26.5**	**+0.9**
	comp=Z,8.1nm,1.5s						
OTAV	**Otavalo**	**35.90**	**245**	*e*P	**P**	**11 44 26.6**	**+0.9**
CZSB	**Cruzeiro do Su**	**36.14**	**228**		**P**	**11 44 27.5**	**+0.4**
CZSB	**Cruzeiro do Su**	**36.14**	**228**	*e*P	**P**	**11 44 26.6**	**-0.5**
BBSD	**Serra de San D**	**37.26**	**203**	*e*P	**P**	**11 44 36.5**	**-0.1**
TKL	**Tuckaleechee C**	**37.65**	**306**	LR	LR	11 57 15.6	
	comp=Z,339nm,21.6s,baz=107,slow=32						
JTS	**Las Juntas de**	**38.03**	**264**	LR	LR	11 57 49.6	
	comp=Z,126nm,21.9s,baz=81,slow=32						
SADO	**Sadowa**	**38.52**	**322**	LR	LR	11 57 18.4	
	comp=Z,242nm,21.6s,baz=156,slow=31						
COIM	**Forte Coimbra**	**38.88**	**197**	*e*P	**P**	**11 44 50.2**	**0.0**
BDQN	**Bodoquena, MS**	**39.12**	**195**	*e*P	**P**	**11 44 53.4**	**+1.2**
PCMB	**Pacaembu**	**39.23**	**187**	*e*P	**P**	**11 44 54.2**	**+1.1**
TGUH	**Tegucigalpa,Un**	**39.40**	**271**	P	**P**	**11 44 57.8**	**+2.9**
	comp=Z,30nm,1.6s						
CRIN	**San Cristobal**	**39.45**	**269**	P	**P**	**11 44 56.5**	**+1.2**
	comp=Z,220nm,0.8s						
LPAZ	**La Paz**	**39.87**	**214**	P	**P**	**11 44 59.2**	**0.0**
	comp=Z,3.6nm,0.9s,baz=28,slow=12,SNR=10.0						
LPAZ				LR	LR	12 00 34.3	
	comp=Z,245nm,21.9s,baz=24,slow=35						
	comp=Z,3.6nm,0.9s						
LPAZ	**La Paz**	**39.87**	**214**	P	**P**	**11 44 59.4**	**+0.2**
LPAZ	**La Paz**	**39.87**	**214**	P	**P**	**11 44 59.4**	**+0.2**
	comp=Z,11nm,1.5s						
LPAZ	**La Paz**	**39.87**	**214**	*e*P	**P**	**11 44 59.0**	**-0.2**
LPAZ				epP	pwP	11 45 28.5	+22
ATAH	**Atahualpa**	**40.00**	**235**	LR	LR	12 01 09.6	
	comp=Z,285nm,21.9s,baz=43,slow=36						
SCHQ	**Schefferville**	**40.35**	**342**	LR	LR	11 59 18.3	
	comp=Z,182nm,18.8s,baz=142,slow=33						
H10N3	**ASCENSION HYDR**	**40.41**	**126**	T	T	12 28 04.6	
	baz=308,slow=75,SNR=138						
H10N2	**ASCENSION HYDR**	**40.41**	**126**	T	T	12 28 05.8	
	baz=308,slow=75,SNR=155						
H10N1	**ASCENSION HYDR**	**40.43**	**126**	T	T	12 28 06.0	
	baz=308,slow=75,SNR=126						
MDT	**Midelt**	**40.49**	**60**	LR	LR	12 00 50.6	
	comp=Z,175nm,18.1s,baz=273,slow=35						
SPB	**Sao Paulo**	**40.93**	**181**	*e*P	**P**	**11 45 07.7**	**+0.5**
WVT	**Waverly**	**40.93**	**305**		**P**	**11 45 07.6**	**+0.4**
WVT	**Waverly**	**40.93**	**305**	P	**P**	**11 45 09.4**	**+2.1**
	comp=Z,11nm,1.2s						
LDASE	**Londrina, Braz**	**40.98**	**187**	*e*P	**P**	**11 45 07.8**	**+0.2**
H10S3	**ASCENSION HYDR**	**40.99**	**128**	T	T	12 28 52.1	
	baz=273,slow=74,SNR=28						
H10S2	**ASCENSION HYDR**	**41.01**	**128**	T	T	12 28 50.8	
	baz=307,slow=74,SNR=31						
ESQI	**Esquipulas**	**41.28**	**272**	P	**P**	**11 45 11.2**	**+0.8**
PETF	**Flores**	**41.42**	**276**	P	**P**	**11 45 11.3**	**-0.2**
PETF				IAmb	IAmb	11 45 19.5	
	comp=Z,52nm,1.4s						
EMAL	**Malaga-Limoner**	**41.57**	**54**	P	**P**	**11 45 13.7**	**+1.3**
	comp=Z,4.6nm,1.4s						
DBIC	**Dimbokro**	**41.97**	**100**	LR	LR	11 59 19.6	
	comp=Z,518nm,21.8s,baz=298,slow=31						
DBIC	**Dimbokro**	**41.97**	**100**	P	**P**	**11 45 16.2**	**+0.2**
APG	**Ei Apazote**	**42.27**	**273**	LR	LR	12 00 27.4	
	comp=Z,15nm,21.4s,baz=56,slow=33						
ESDC	**Sonseca Array**	**42.78**	**50**	P	**P**	**11 45 22.6**	**+0.2**
	comp=Z,1.8nm,1.1s,baz=249,slow=7.3,SNR=4.5						
ESDC				LR	LR	11 59 00.4	
	comp=Z,280nm,20.1s,baz=248,slow=30						
	comp=Z,1.8nm,1.1s						
143A	**Socs Landing,**	**43.08**	**299**	P	**P**	**11 45 24.8**	**0.0**
143A				IAmb	IAmb	11 45 33.3	
	comp=Z,35nm,1.1s						
P43A	**Skaggs, Pawnee**	**43.23**	**310**	P	**P**	**11 45 24.9**	**-1.0**
P43A				IAmb	IAmb	11 45 28.2	
	comp=Z,35nm,1.1s						
PB11	**IPOC Station P**	**43.55**	**213**	P	**P**	**11 45 27.9**	**-0.9**
PB11				IAmb	IAmb	11 45 29.4	
	comp=Z,16nm,1.1s						
CCM	**Cathedral Cave**	**44.07**	**307**	P	P	11 45 39.2	+6.4
	comp=Z,18nm,1.4s						
X40A	**Basin Creek Fa**	**44.56**	**302**	P	**P**	**11 45 36.7**	**0.0**
X40A				IAmb	IAmb	11 45 44.4	
	comp=Z,25nm,1.2s						
CPUP	**Villa Florida**	**44.91**	**194**	P	**P**	**11 45 39.0**	**-0.4**
	comp=Z,7.6nm,0.9s,baz=13,slow=10,SNR=21						
CPUP				LR	LR	12 04 44.4	
	comp=Z,104nm,18.0s,baz=66,slow=36						
	comp=Z,7.6nm,0.9s						
CPUP	**Villa Florida**	**44.91**	**194**	P	**P**	**11 45 39.2**	**-0.3**
CPUP	**Villa Florida**	**44.91**	**194**	P	**P**	**11 45 39.4**	**-0.1**
	comp=Z,12nm,1.1s						
MIAR	**Mount Ida**	**45.17**	**301**	P	P	11 45 49.0	+7.4
	comp=Z,12nm,1.4s						
CMIG	**Matias Romero**	**46.15**	**277**	LR	LR	12 04 12.5	
	comp=Z,182nm,20.7s,baz=107,slow=35						
TORD	**Torodi Ar. Bea**	**46.52**	**88**	P	**P**	**11 45 51.9**	**-0.6**
	comp=Z,2.0nm,0.9s,baz=283,slow=7.2,SNR=9.7						
TORD				LR	LR	12 03 20.4	
	comp=Z,641nm,18.9s,baz=319,slow=34						
	comp=Z,2.0nm,0.9s						
HKT	**Hockley**	**46.54**	**295**	P	**P**	**11 45 53.0**	**+0.7**
	comp=Z,13nm,2.0s						
CNLB	**Canela**	**46.81**	**185**	*e*P	**P**	**11 45 56.4**	**+1.9**
FW13	**Cleburne**	**48.09**	**298**	P	**P**	**11 46 04.6**	**0.0**
FRB	**Frobisher Bay**	**48.56**	**347**	LR	LR	12 03 56.6	
	comp=Z,162nm,21.3s,baz=136,slow=33						
TAM	**Tamanrasset**	**48.84**	**75**	P	**P**	**11 46 13.6**	**+2.9**
	comp=Z,14nm,2.2s						
WMOK	**Wichita Mounta**	**49.45**	**301**	P	P	11 46 21.5	+6.6
	comp=Z,14nm,1.3s						
SFJD	**Kangerlussuaq**	**49.47**	**358**	LR	LR	12 03 15.7	
	comp=Z,104nm,20.4s,baz=176,slow=31						
R32A	**Long Quarter,**	**49.90**	**306**	P	**P**	**11 46 18.2**	**-0.2**
EKA	**Eskdalemuir Ar**	**49.97**	**31**	LR	LR	12 03 17.8	
	comp=Z,38nm,18.7s,baz=182,slow=31						
BORG	**Borgarnes**	**50.09**	**14**	LR	LR	12 02 30.6	
	comp=Z,94nm,19.4s,baz=249,slow=30						
ULM	**Lac du Bonnet**	**51.08**	**321**	LR	LR	12 05 43.2	
	comp=Z,212nm,19.5s,baz=187,slow=33						
KEST	**Kesra**	**52.34**	**58**	P	**P**	**11 46 37.6**	**+0.8**
	comp=Z,3.8nm,0.8s,baz=254,slow=8.3,SNR=3.8						
KEST				LR	LR	12 05 51.9	
	comp=Z,211nm,21.8s,baz=258,slow=33						
	comp=Z,3.8nm,0.8s						
ZAIG	**Zacatecas**	**52.69**	**286**	P	**P**	**11 46 40.0**	**+0.2**
ZAIG				IAmb	IAmb	11 46 48.4	
	comp=Z,21nm,1.4s						
TXAR	**Lajitas Array**	**53.34**	**294**	P	**P**	**11 46 44.7**	**+0.4**
	comp=Z,1.8nm,1.1s,baz=99,slow=7.7,SNR=5.3						
TXAR				PcP	**PcP**	**11 47 51.8**	**0.0**
	comp=Z,1.9nm,1.0s,baz=79,slow=6.5,SNR=4.0						
	comp=Z,1.8nm,1.1s						
TXAR	**Lajitas Array**	**53.34**	**294**	P	**P**	**11 46 44.0**	**-0.3**
DAVOX	**Davos/Dischmat**	**54.43**	**45**	LR	LR	12 07 06.3	
	comp=Z,216nm,20.7s,baz=259,slow=33						
FETA	**Feichten**	**55.05**	**45**	*e*P	**P**	**11 46 56.6**	**0.0**
	comp=Z,12nm,1.3s						
HPIG		**55.19**	**291**	P	**P**	**11 46 58.0**	**0.0**
MOTA	**Moosalm**	**55.37**	**44**	*e*P	**P**	**11 46 59.0**	**+0.1**
	comp=Z,20nm,1.5s						
ISCO	**Idaho Springs**	**55.40**	**307**	P	**P**	**11 47 00.5**	**+1.1**
	comp=Z,18nm,1.4s						
SQTA	**Sankt Quirin**	**55.42**	**44**	*e*P	**P**	**11 46 59.2**	**+0.1**
	comp=Z,5.3nm,0.7s						
CTI	**Castel Tesino**	**55.48**	**46**	P	**P**	**11 46 59.5**	**-0.2**
CTI				IAmb	IAmb	11 47 07.9	
	comp=Z,12nm,1.0s						
WATA	**Walderalm**	**55.68**	**44**	*e*P	**P**	**11 47 01.3**	**+0.1**
	comp=Z,17nm,1.5s						
WTTA	**Wattenberg**	**55.71**	**44**	*e*P	**P**	**11 47 01.0**	**-0.3**
	comp=Z,7.2nm,0.8s						
WTTA	**Wattenberg**	**55.71**	**44**	P	**P**	**11 47 00.5**	**-0.8**
	comp=Z,13nm,2.4s						
ANMO	**Albuquerque**	**55.76**	**301**	LR	LR	12 08 07.7	
	comp=Z,326nm,21.7s,baz=97,slow=33						
ANMO	**Albuquerque**	**55.76**	**301**	P	**P**	**11 47 04.5**	**+2.6**
	comp=Z,7.7nm,1.8s						
ABTA	**Abfaltersbach**	**56.20**	**45**	*e*P	**P**	**11 47 04.2**	**-0.5**
	comp=Z,6.3nm,0.9s						
LESA	**Schwarzleotal**	**56.44**	**44**	*e*P	**P**	**11 47 05.9**	**-0.5**
	comp=Z,12nm,1.3s						
VAE	**Valguarnera**	**56.52**	**56**	LR	LR	12 08 55.3	
	comp=Z,146nm,20.5s,baz=206,slow=34						
KBA	**Koelnbreinsper**	**56.82**	**45**	*e*P	**P**	**11 47 08.9**	**-0.4**
	comp=Z,9.6nm,1.3s						
KBA	**Koelnbreinsper**	**56.82**	**45**	P	**P**	**11 47 09.4**	**+0.1**
	comp=Z,9.8nm,1.4s						
NKC	**Novy Kostel**	**56.86**	**41**	*e*P	**P**	**11 47 09.4**	**+0.1**
NKC	**Novy Kostel**	**56.86**	**41**	P	**P**	**11 47 10.0**	**+0.7**
	comp=Z,19nm,1.2s						
PRED	**Cave del Predi**	**56.86**	**46**	P	**P**	**11 47 09.0**	**-0.5**
PRED				IAmb	IAmb	11 47 18.2	
	comp=Z,12nm,1.1s						
TANN	**Tannenbergstha**	**56.91**	**41**	P	**P**	**11 47 10.6**	**+0.9**
	comp=Z,22nm,1.9s						
MYKA	**Terra Mystica**	**56.95**	**45**	*e*P	**P**	**11 47 10.0**	**0.0**
	comp=Z,7.6nm,0.6s						
BIOA	**Bad Ischl, Aus**	**57.12**	**44**	*e*P	**P**	**11 47 10.9**	**-0.3**
	comp=Z,12nm,1.3s						
KHC	**Kasperske Hory**	**57.35**	**43**	*e*P	**P**	**11 47 12.8**	**0.0**
KHC	**Kasperske Hory**	**57.35**	**43**	P	**P**	**11 47 12.2**	**-0.6**
	comp=Z,7.1nm,1.6s						
GEC2	**GERESS Array S**	**57.38**	**43**	P	**P**	**11 47 12.9**	**-0.1**
	comp=Z,5.5nm,1.2s						
GERES	**GERESS Array B**	**57.38**	**43**	P	**P**	**11 47 12.9**	**-0.1**
	comp=Z,1.3nm,0.7s,baz=260,slow=7.7,SNR=12						
	comp=Z,1.3nm,0.7s						
CLL	**Collm**	**57.44**	**40**	P	**P**	**11 47 13.4**	**0.0**
	comp=Z,11nm,2.6s						
CLL	**Collm**	**57.44**	**40**	*i* P	**P**	**11 47 13.4**	**0.0**
	comp=Z,18nm,1.4s						
CLL				*i* x	x	11 47 27.2	
	comp=Z,58nm,2.1s						
CLL				LV		12 04 00.0	
CLL				AMS	AMS	12 06 00.0	
	comp=Z,100nm,19.7s						
OBKA	**Obir**	**57.54**	**46**	*e*P	**P**	**11 47 13.9**	**-0.4**
	comp=Z,9.4nm,1.5s						
OBKA	**Obir**	**57.54**	**46**	P	**P**	**11 47 13.7**	**-0.6**
	comp=Z,16nm,0.8s						
MOA	**Molln**	**57.57**	**44**	*e*P	**P**	**11 47 14.3**	**-0.1**
	comp=Z,7.5nm,1.5s						
CKRC	**Cesky Krumlov**	**57.77**	**43**	*e*P	**P**	**11 47 19.7**	**+4.0**
CUC	**Castrocucco**	**57.77**	**53**	P	**P**	**11 47 15.7**	**-0.2**
CUC				IAmb	IAmb	11 47 19.0	
	comp=Z,16nm,1.3s						
CUC	**Castrocucco**	**57.77**	**53**	P	**P**	**11 47 16.4**	**+0.5**
	comp=Z,10nm,1.4s						
ZVC	**Zvikov**	**57.80**	**42**	*e*P	**P**	**11 47 15.7**	**-0.3**
DUN6	**Lazy B Ranch**	**57.95**	**298**	P	**P**	**11 47 17.7**	**+0.3**
JMIC	**Jan Mayen**	**57.98**	**14**	LR	LR	12 05 38.2	
	comp=Z,120nm,21.1s,baz=196,slow=29						
PRU	**Pruhonice**	**58.13**	**42**	*e*P	**P**	**11 47 18.4**	**+0.2**
ARSA	**Arzberg**	**58.31**	**45**	P	**P**	**11 47 18.7**	**-0.9**
ARSA				IAmb	IAmb	11 47 21.1	
	comp=Z,9.4nm,1.1s						
ARSA	**Arzberg**	**58.31**	**45**	*e*P	**P**	**11 47 18.8**	**-0.8**
	comp=Z,12nm,1.1s						
ARSA	**Arzberg**	**58.31**	**45**	P	**P**	**11 47 19.0**	**-0.7**
	comp=Z,14nm,1.3s						
ABNA	**Allensteig Bun**	**58.47**	**43**	*e*P	**P**	**11 47 20.0**	**-0.6**
	comp=Z,2.4nm,0.8s						
PDAR	**Pinedale Array**	**58.63**	**310**	P	**P**	**11 47 21.9**	**-0.3**
	comp=Z,2.1nm,1.1s,baz=101,slow=7.7,SNR=7.2						
PDAR				LR	LR	12 09 59.7	
	comp=Z,325nm,21.6s,baz=96,slow=33						
	comp=Z,2.1nm,1.1s						
PDAR	**Pinedale Array**	**58.63**	**310**	P	**P**	**11 47 22.3**	**+0.1**
CONA	**Conrad Observa**	**58.64**	**44**	*e*P	**P**	**11 47 21.9**	**0.0**
	comp=Z,12nm,1.6s						
WINA	**Alland / Wiene**	**58.81**	**44**	*e*P	**P**	**11 47 22.9**	**-0.1**
	comp=Z,15nm,1.3s						
RONA	**Rosalia, Austr**	**58.90**	**45**	*e*P	**P**	**11 47 23.5**	**-0.2**
	comp=Z,13nm,1.2s						
KRUC	**Moravsky**	**59.16**	**43**	*e*P	**P**	**11 47 25.1**	**-0.3**
KRUC	**Moravsky**	**59.16**	**43**	P	**P**	**11 47 25.9**	**+0.4**
	comp=Z,10.0nm,1.7s						
CHVC	**Chvalec**	**59.19**	**41**	*e*P	P	11 47 30.5	+4.8
OSTC	**Ostas**	**59.29**	**41**	*e*P	**P**	**11 47 28.3**	**+2.0**
NOA	**NORSAR Array B**	**59.29**	**29**	P	**P**	**11 47 25.9**	**-0.2**
	comp=Z,2.6nm,1.0s,baz=250,slow=7.0,SNR=3.6						
	comp=Z,2.6nm,1.0s						
DPC	**Dobruska-Polom**	**59.32**	**41**	*e*P	**P**	**11 47 25.0**	**-1.6**
DPC	**Dobruska-Polom**	**59.32**	**41**	P	**P**	**11 47 25.0**	**-1.6**
	comp=Z,4.2nm,1.2s						
VRAC	**Vranov**	**59.33**	**43**	*e*P	**P**	**11 47 26.7**	**+0.1**
VRAC	**Vranov**	**59.33**	**43**	⇓P	**P**	**11 47 28.2**	**+1.6**
VRAC	**Vranov**	**59.33**	**43**	P	**P**	**11 47 26.9**	**+0.3**
	comp=Z,3.0nm,2.4s						
KSP	**Ksiaz**	**59.39**	**41**	P	**P**	**11 47 27.2**	**+0.2**
LPIG	**La Paz**	**59.62**	**288**	LR	LR	12 13 19.6	
	comp=Z,46nm,21.7s,baz=92,slow=36						
MPLH	**Magyarpolny**	**59.67**	**45**	P	**P**	**11 47 29.4**	**+0.4**
	comp=Z,37nm,1.6s						
JAVC	**Velka Javorina**	**59.97**	**43**	*e*P	**P**	**11 47 31.7**	**+0.6**
MORC	**Moravsky Berou**	**60.01**	**42**	*e*P	**P**	**11 47 31.9**	**+0.6**
MORC	**Moravsky Berou**	**60.01**	**42**	P	**P**	**11 47 32.3**	**+1.0**
HFS	**Hagfors**	**60.16**	**30**	P	**P**	**11 47 31.8**	**-0.3**
	comp=Z,5.0nm,0.8s,baz=193,slow=4.6,SNR=8.4						
HFS				LR	LR	12 09 01.3	
	comp=Z,64nm,18.1s,baz=268,slow=32						
	comp=Z,5.0nm,0.8s						
STEB	**Steborice**	**60.18**	**42**	*e*P	P	11 47 22.0	-10
MORH	**Mrgy, Hungar**	**60.32**	**46**	⇓P	**P**	**11 47 34.5**	**+1.1**
MORH	**Mrgy, Hungar**	**60.32**	**46**	P	**P**	**11 47 33.9**	**+0.5**
	comp=Z,10nm,1.8s						
MORH	**Mrgy, Hungar**	**60.32**	**46**	P	**P**	**11 47 33.6**	**+0.2**
	comp=Z,11nm,1.8s						
PDG	**Podgorica**	**60.49**	**51**	⇑P	**P**	**11 47 35.8**	**+1.1**
PDG	**Podgorica**	**60.49**	**51**	P	**P**	**11 47 35.7**	**+1.0**
	comp=Z,15nm,1.2s						
OJC	**Ojcow**	**61.51**	**42**	P	**P**	**11 47 41.2**	**-0.3**
OJC	**Ojcow**	**61.51**	**42**	P	**P**	**11 47 41.2**	**-0.3**
NIE	**Niedzica**	**61.75**	**43**	P	**P**	**11 47 43.6**	**+0.5**
	comp=Z,3.6nm,2.0s						
PLCA	**Paso Flores**	**62.19**	**201**	P	**P**	**11 47 46.2**	**0.0**
	comp=Z,1.4nm,0.9s,baz=32,slow=12,SNR=3.1						
PLCA				LR	LR	12 15 28.6	
	comp=Z,134nm,20.1s,baz=9.5,slow=37						
	comp=Z,1.4nm,0.9s						
BOVS	**Bovan**	**62.34**	**50**	⇑P	**P**	**11 47 48.5**	**+1.4**
BZS	**Buzias**	**62.35**	**47**	⇑P	**P**	**11 47 48.8**	**+1.6**
MDVR	**Moldovita**	**62.38**	**48**	⇑P	**P**	**11 47 48.6**	**+1.1**
SIRR	**Siria**	**62.41**	**47**	⇓P	**P

KIRS	Kirsehir-Merke	71.76	54	⇑P		P		11 48 47.7	+0.5
OBN	Obninsk	71.79	37	LR		LR		12 17 54.0	
	comp=Z,81nm,18.9s,baz=228,slow=34								
OBN	Obninsk	71.79	37	P		P		11 48 47.3	+0.3
DLBC	Dease Lake	71.87	327	LR		LR		12 18 10.4	
	comp=Z,190nm,19.6s,baz=63,slow=34								
TSUM	Tsumeb	72.73	117	LR		LR		12 14 01.6	
	comp=Z,178nm,21.0s,baz=330,slow=30								
INK	Inuvik	72.75	337	LR		LR		12 20 10.3	
	comp=Z,170nm,18.6s,baz=40,slow=35								
INK	Inuvik	72.75	337	P		P		11 48 52.5	+0.1
INK				IAmb		IAmb		11 48 60.0	
	comp=Z,6.8nm,0.8s								
MMAI	Mount Meron Ar	73.94	60	LR		LR		12 21 36.4	
	comp=Z,34nm,20.7s,baz=274,slow=36								
EIL	Elat	74.20	63	LR		LR		12 22 23.8	
	comp=Z,231nm,19.2s,baz=281,slow=36								
E29M	Blow River	74.35	337	P		P		11 49 01.0	-1.0
E29M				IAmb		IAmb		11 49 03.9	
	comp=Z,14nm,1.4s								
H29M	Whitestone	74.86	335	P		P		11 49 04.0	-0.9
H29M				IAmb		IAmb		11 49 12.9	
	comp=Z,22nm,1.2s								
F28M	Old Crow	75.21	337	P		P		11 49 06.3	-0.7
L29M	L29M	75.26	332	P		P		11 49 06.7	-0.7
L29M				IAmb		IAmb		11 49 15.4	
	comp=Z,16nm,1.1s								
ASF	Jabal al Asfar	75.34	61	LR		LR		12 22 10.1	
	comp=Z,42nm,21.8s,baz=243,slow=36								
RPN	Rapa Nui	75.46	235	LR		LR		12 19 19.0	
	comp=Z,70nm,19.8s,baz=70,slow=33								
KBZ	Khabaz	77.59	48	P		P		11 49 21.4	+0.6
	comp=Z,1.8nm,0.8s,baz=203,slow=5.6,SNR=4.0								
KBZ				LR		LR		12 23 05.3	
	comp=Z,15nm,19.1s,baz=300,slow=35								
	comp=Z,1.8nm,0.8s								
PRP	Porcupine Dome	77.88	335	P		P		11 49 22.2	-0.1
PRP				IAmb		IAmb		11 49 30.7	
	comp=Z,17nm,1.2s								
MBAR	Mbarara	77.95	94	LR		LR		12 22 39.4	
	comp=Z,357nm,18.5s,baz=281,slow=35								
KIRV	Kirov	78.18	32	LR		LR		12 20 13.1	
	comp=Z,96nm,20.9s,baz=285,slow=33								
ILAR	Eielson Array	78.64	335	P		P		11 49 25.6	-0.7
	comp=Z,7.9nm,0.9s,baz=75,slow=4.5,SNR=45								
ILAR				LR		LR		12 24 06.3	
	comp=Z,87nm,19.4s,baz=92,slow=36								
	comp=Z,7.9nm,0.9s								
ILAR	Eielson Array	78.64	335	P		P		11 49 25.9	-0.5
GNI	Garni	79.76	51	LR		LR		12 25 44.8	
	comp=Z,19nm,18.3s,baz=264,slow=36								
SUR	Sutherland	81.24	128	LR		LR		12 17 11.2	
	comp=Z,90nm,21.1s,baz=313,slow=29								
LBTB	Lobatse	81.90	119	LR		LR		12 19 51.0	
	comp=Z,240nm,20.3s,baz=292,slow=31								
MATP	Matopo	82.62	114	LR		LR		12 21 32.9	
	comp=Z,538nm,19.5s,baz=258,slow=32								
BOSA	Boshof	83.08	123	LR		LR		12 19 45.1	
	comp=Z,132nm,18.7s,baz=226,slow=31								
ARTI	Arti	83.47	33	LR		LR		12 23 50.5	
	comp=Z,98nm,19.2s,baz=289,slow=33								
KDAK	Kodiak Island	83.61	329	LR		LR		12 25 52.6	
	comp=Z,227nm,19.2s,baz=66,slow=35								
KMBO	Kilima Mbogo	84.31	93	LR		LR		12 26 16.4	
	comp=Z,216nm,18.6s,baz=272,slow=35								
AKTO	Aktyubinsk	85.50	38	LR		LR		12 27 05.5	
	comp=Z,78nm,18.3s,baz=58,slow=35								
ATD	Arta Tunnel	85.91	79	LR		LR		12 28 28.6	
	comp=Z,11nm,19.0s,baz=34,slow=36								
BVAR	Borovoye Array	91.19	33	P		P		11 50 30.0	+0.2
	comp=Z,0.4nm,0.5s,baz=281,slow=2.3,SNR=3.9								
	comp=Z,0.4nm,0.5s								
KURBB	Kurchatov Arra	96.71	32	LR		LR		12 30 55.2	
	comp=Z,77nm,21.7s,baz=181,slow=33								
ZALV	Zalesovo Beam	97.45	27	LR		LR		12 30 31.2	
	comp=Z,44nm,21.1s,baz=320,slow=33								
OPO	Ambohidratompo	98.75	107	LR		LR		12 30 14.5	
	comp=Z,57nm,21.0s,baz=95,slow=32								
PPT2	Papeete2	107.28	257	eLR		LR		12 27 06.8	
PPT2				eLR		LR		12 27 11.9	
	comp=Z,227nm,34.0s								
	comp=Z,117nm,33.5s								
HHC	Hu-ho-hao-te	118.38	19	eP		PKPdf		11 56 08.6	-4.1
LZH	Lanzhou	119.67	28	ePKP		PKPdf		11 56 01.8	-14
LZH				sPKP		sPKPdf		11 56 16.5	-2.6
NJ2	Nanjing	128.68	16	eP		PKPdf		11 56 31.3	-1.2
NJ2				pmax		pmax			
	comp=Z,6.0nm,0.6s								
H01W2	Cape Leeuwin H	155.55	139	T		T		14 52 38.4	
	baz=239								
H01W3	Cape Leeuwin H	155.56	139	T		T		14 52 37.5	
	baz=239								
H01W1	Cape Leeuwin H	155.57	139	T		T		14 52 31.7	
	baz=239								
ASAR	Alice Springs	173.93	183	PKP		PKPdf		11 57 33.5	-1.6
	comp=Z,1.8nm,1.1s,baz=98,slow=2.5,SNR=6.5								
WRA	Warramunga Arr	177.53	197	PKP		PKPdf		11 57 33.8	-2.2
	comp=Z,1.8nm,1.1s,baz=342,slow=1.1,SNR=7.1								

IDC 15 11:41:11.0±1.8, 4.390S×122.38E, h0km, mb3.1/2, mbtmp3.4/4, ML3.1/2, Error ellipse: s-maj=126.6km s-min=25.0km az=64.0, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	13.50	167	Pn	Pn	11 44 21.8	-2.2
	baz=3.8,slow=15,SNR=2.4						
	3.5nm,1.2s						
WRA	Warramunga Arr	18.95	143	P	P	11 45 33.7	-0.2
	0.1nm,0.3s,baz=321,slow=12,SNR=5.8						
	0.3nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	21.71	150	P	P	11 46 04.6	+0.6
	0.5nm,0.6s,baz=337,slow=12,SNR=8.9						
	0.5nm,0.6s						
MKAR	Makanchi Array	62.48	330	P	P	11 51 36.2	-0.1
	0.1nm,0.5s,baz=134,slow=7.4,SNR=1.6						
	0.1nm,0.5s						

IDC 15 11:48:09.2±0.7, 17.69N×46.51W, h0km, mb3.9/13, mbtmp3.9/14, ML3.5/1, MS3.7/20, Error ellipse: s-maj=22.7km s-min=16.3km az=121.0

NEIC 15 11:48:10.7±0.8, 17.6N±0.1×46.4W±0.1, h10km±1km, mb4.6/14, Error ellipse: s-maj=23.4km s-min=18.9km az=131.0

GCMT 15 11:48:11.7±0.3, 17.71N±0.05×46.45W±0.03, h20km±1km, MW4.8/90, Moment Tensor Solution. s9,c10; s90,c116; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr~2.53±.20; Mθθ0.39±.12; Mφφ2.14±.13; Mrθ0.16±.33; Mrφ0.06±.07; Mθr-0.51±.21; Best double couple: Mo2.39500×10^16 NP1:φs185.00000°, δ39.00000°, λ-85.00000°. NP2: φs358.00000°, δ51.00000°, λ-94.00000°. Principal axes: T 2.1960, Plg6.0000°, Azm91.0000°; N 0.4020, Plg3.0000°, Azm1.0000°; P -2.5940, Plg83.0000°, Azm243.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 15 11:48:10.6±0.6, 17.55N±0.09×46.44W±0.09, h12km, n66, σ0s78/39, mb4.3/20, MS3.7/19, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MDP	Montagnes des	13.78	207	Pn	Pn	11 51 24.4	-1.5
	0.2nm,0.3s,baz=70,slow=10.0,SNR=1.9						
MDP				LR	LR	11 55 44.2	
	comp=Z,138nm,21.1s,baz=46,slow=33						
	3.8nm,1.0s						
MDP				AML	AML		
H05S1	Guadeloupe/Mar	14.19	259	T	T	12 05 42.3	
	SNR=12						
MAGL	Barre de l'ile	14.31	266	Pn	Pn	11 51 34.1	+0.9
FDFM	Morne la Roset	14.42	261	Pn	Pn	11 51 33.8	-0.9
CELP	Cerrillos	19.19	275	P	P	11 52 34.0	-0.4
CELP				IAmb	IAmb	11 52 54.4	
	comp=Z,45nm,1.4s						
BOAV	Boa Vista	20.45	224		P	11 52 49.5	+1.4
DR12	Loma Pena Alta	21.83	277	P	P	11 53 04.0	+0.9
SDV	Santo Domingo	25.05	253	LR	LR	12 02 43.4	
	comp=Z,168nm,20.9s,baz=76,slow=35						
RCBR	Riachuelo	25.45	155	LR	LR	12 01 12.9	
	comp=Z,74nm,20.5s,baz=36,slow=31						
RUSC	La Rusia	28.50	249	P	P	11 54 07.7	+1.0
RUSC				IAmb	IAmb	11 54 27.5	
	comp=Z,13nm,1.2s						
ROSC	El Rosal	30.07	248	LR	LR	12 07 39.7	
	comp=Z,264nm,19.4s,baz=75,slow=39						
BDFB	Brasilia	33.02	183	P	P	11 54 45.4	-0.7
	comp=Z,0.8nm,0.2s,baz=185,slow=16,SNR=1.6						
TKL	Tuckaleechee C	37.66	306	LR	LR	12 08 02.1	
	comp=Z,134nm,20.6s,baz=112,slow=32						
JTS	Las Juntas de	38.02	264	LR	LR	12 08 25.6	
	comp=Z,81nm,21.0s,baz=80,slow=32						
SADO	Sadowa	38.54	322	LR	LR	12 07 53.0	
	comp=Z,133nm,20.5s,baz=156,slow=31						
LPAZ	La Paz	39.84	214	P	P	11 55 45.3	+0.4
	comp=Z,1.1nm,0.7s,baz=164,slow=8.2,SNR=5.1						
LPAZ				LR	LR	12 11 29.4	
	comp=Z,148nm,19.6s,baz=14,slow=35						
	comp=Z,1.1nm,0.7s						
LPAZ	La Paz	39.84	214	P	P	11 55 44.9	0.0
ATAH	Atahualpa	39.98	235	LR	LR	12 11 55.4	
	comp=Z,193nm,19.8s,baz=30,slow=36						
SCHQ	Schefferville	40.38	342	LR	LR	12 10 35.9	
	comp=Z,93nm,19.4s,baz=137,slow=34						
H10N3	ASCENSION HYDR	40.40	126	T	T	12 38 49.1	
	baz=308,slow=75,SNR=14						
H10N2	ASCENSION HYDR	40.40	126	T	T	12 38 52.7	
	baz=308,slow=75,SNR=12						
H10N1	ASCENSION HYDR	40.42	126	T	T	12 38 50.5	
	baz=308,slow=75,SNR=12						
MDT	Midelt	40.51	60	LR	LR	12 11 53.7	
	comp=Z,114nm,18.4s,baz=271,slow=35						
H10S3	ASCENSION HYDR	40.98	127	T	T	12 39 38.7	
	baz=306,slow=74,SNR=17						
H10S2	ASCENSION HYDR	40.99	127	T	T	12 39 42.3	
	baz=274,slow=74,SNR=18						
DBIC	Dimbokro	41.97	100	LR	LR	12 10 06.6	
	comp=Z,219nm,20.9s,baz=299,slow=31						
ESDC	Sonseca Array	42.81	50	LR	LR	12 09 35.8	
	comp=Z,141nm,19.6s,baz=240,slow=30						
CPUP	Villa Florida	44.88	194	P	P	11 56 25.5	+0.4
	comp=Z,2.0nm,0.6s,baz=24,slow=9.0,SNR=9.0						
CPUP				LR	LR	12 15 20.0	
	comp=Z,91nm,18.2s,baz=74,slow=36						
	comp=Z,2.0nm,0.6s						
CPUP	Villa Florida	44.88	194	P	P	11 56 25.0	-0.1
TORD	Torodi Ar. Bea	46.53	88	P	P	11 56 39.1	+0.7
	comp=Z,0.7nm,0.8s,baz=267,slow=5.5,SNR=3.6						
TORD				LR	LR	12 13 17.1	
	comp=Z,265nm,21.7s,baz=332,slow=32						
	comp=Z,0.7nm,0.8s						
FRB	Frobisher Bay	48.59	347	LR	LR	12 14 42.8	
	comp=Z,56nm,21.7s,baz=124,slow=33						
PLPT	Palo Pinto	48.88	298	P	P	11 56 56.5	0.0
BRDY	Brady	49.35	296		P	11 56 59.8	-0.4
BRDY				IAmb	IAmb	11 57 08.5	
	comp=Z,7.4nm,0.9s						
BORG	Borgarnes	50.11	14	LR	LR	12 12 46.5	
	comp=Z,61nm,21.8s,baz=299,slow=30						
APMT	Aspermont	50.44	299		P	11 57 08.3	-0.1
ULM	Lac du Bonnet	51.09	321	LR	LR	12 15 18.1	
	comp=Z,92nm,21.8s,baz=2.0,slow=32						
OZNA	Ozona	51.16	296	P	P	11 57 14.2	+0.2
OZNA				IAmb	IAmb	11 57 15.8	
	comp=Z,7.2nm,1.1s						
TXAR	Lajitas Array	53.35	294	P	P	11 57 29.6	-0.7
	comp=Z,0.8nm,0.9s,baz=116,slow=8.5,SNR=3.9						
	comp=Z,0.8nm,0.9s						
VHRN	Van Horn	54.48	296		P	11 57 38.4	-0.2
GERES	GERESS Array B	57.40	43	P	P	11 57 58.9	-0.2
	comp=Z,0.4nm,0.6s,baz=269,slow=5.3,SNR=3.7						
	comp=Z,0.4nm,0.6s						
GERES	GERESS Array B	57.40	43	P	P	11 57 58.5	-0.7
CLL	Collm	57.47	40	LV		12 15 00.0	
JMIC	Jan Mayen	58.01	14	LR	LR	12 18 04.4	
	comp=Z,41nm,18.3s,baz=148,slow=31						
PDAR	Pinedale Array	58.64	310	P	P	11 58 08.0	-0.1
	comp=Z,1.0nm,1.0s,baz=95,slow=11,SNR=5.4						
	comp=Z,1.0nm,1.0s						
PDAR	Pinedale Array	58.64	310	P	P	11 58 07.5	-0.7
NOA	NORSAR Array B	59.32	29	LR	LR	12 19 35.2	
	comp=Z,29nm,18.2s,baz=215,slow=32						
WUAZ	Wupatki	59.80	301		P	11 58 16.7	+0.5
WUAZ				IAmb	IAmb	11 58 20.1	
	comp=Z,6.4nm,1.1s						
HFS	Hagfors	60.18	30	P	P	11 58 18.3	+0.1
	comp=Z,1.6nm,0.7s,baz=184,slow=8.3,SNR=4.4						
	comp=Z,1.6nm,0.7s						
H09W1	TRISTAN DA CUN	63.15	150	T	T	13 07 27.1	
	SNR=8.8						
YKA	Yellowknife Ar	64.52	331	P	P	11 58 45.6	-1.5
	comp=Z,0.9nm,0.6s,baz=101,slow=6.6,SNR=7.4						
	comp=Z,0.9nm,0.6s						
NVAR	Mina Array Bea	65.25	305	P	P	11 58 53.1	+0.4
	comp=Z,0.5nm,0.9s,baz=72,slow=8.5,SNR=3.6						
	comp=Z,0.5nm,0.9s						
FINES	FINESS Array B	66.39	30	P	P	11 58 59.5	+0.3
	comp=Z,3.4nm,0.9s,baz=211,slow=6.7,SNR=4.9						
	comp=Z,3.4nm,0.9s						
FINES	FINESS Array B	66.39	30	P	P	11 58 59.1	-0.2
ARCES	ARCESS Array B	67.39	21	P	P	11 59 05.4	-0.1
	comp=Z,5.6nm,1.1s,baz=260,slow=7.3,SNR=4.8						
	comp=Z,5.6nm,1.1s						
BRTR	Keskin Array B	71.48	53	P	P	11 59 32.4	+0.9
	comp=Z,0.7nm,0.7s,baz=288,slow=4.7,SNR=7.4						
	comp=Z,0.7nm,0.7s						
BRTR	Keskin Array B	71.48	53	P	P	11 59 31.2	-0.4
E27K	Coleen River	75.77	337	P	P	11 59 55.5	-0.5
E27K				IAmb	IAmb	11 59 56.6	
	comp=Z,5.3nm,1.2s						
C27K	Jago River	76.21	339	P	P	11 59 58.7	+0.2
C27K				IAmb	IAmb	12 00 02.5	
	comp=Z,8.8nm,1.2s						
D25K	Kavik River	77.19	339	P	P	12 00 04.2	0.0
D25K				IAmb	IAmb	12 00 07.4	
	comp=Z,7.2nm,1.1s						
ILAR	Eielson Array	78.66	335	P	P	12 00 12.2	-0.1
	comp=Z,2.3nm,0.7s,baz=76,slow=4.6,SNR=25						
	comp=Z,2.3nm,0.7s						
ILAR	Eielson Array	78.66	335	P	P	12 00 12.4	0.0
H01W2	Cape Leeuwin H	155.53	139	T	T	15 03 23.2	
	baz=239						
H01W3	Cape Leeuwin H	155.54	139	T	T	15 03 23.4	
	baz=239						
H01W1	Cape Leeuwin H	155.55	139	T	T	15 03 15.6	
	baz=239						
ASAR	Alice Springs	173.90	183	PKP	PKPdf	12 08 23.5	+2.6
	comp=Z,0.3nm,1.0s,baz=90,slow=0.9,SNR=1.2						
WRA	Warramunga Arr	177.51	197	PKP	PKPdf	12 08 21.3	-0.6
	comp=Z,0.4nm,1.1s,baz=195,slow=3.8,SNR=2.3						

SJA 15 12:18:04.9±0.7, 23.35S×66.74W, h234km±5km, ML4.0, MW3.7

GUC 15 12:18:06.5±0.7, 23.29S×66.81W, h219km±11km, ML4.4, Presumed earthquake

NEIC 15 12:18:06.4±1.6, 23.40S±0.08×66.8W±0.1, h214km±9km, mb4.5/6, ML4.4(GUC), Error ellipse: s-maj=16.6km s-min=10.9km az=78.0

IDC 15 12:18:07.2±3.9, 23.18S×66.57W, h207km±27km, mb3.1/4, mbtmp3.6/7, MS2.7/1, Error ellipse: s-maj=52.0km s-min=18.1km az=37.0

ISC 15 12:18:06.5±0.7, 23.36S±0.04×66.81W±0.04, h217km±6km, n75, σ1s30/102, mb3.6/5, 8C-1D, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		0.96	154	eP	Pn	12 18 38.2	-0.2
SALTA				IAML		12 18 38.6	
	comp=Z,859nm,0.5s						
SALTA				eS	S	12 19 03.2	-0.1
AF01	San Pedro de A	1.32	288	eP	Pn	12 18 40.0	-0.7
AF01				eS	S	12 19 11.0	+3.9
AF01	San Pedro de A	1.32	288		Pn	12 18 41.5	+0.9
AF01	San Pedro de A	1.32	288	eP	Pn	12 18 41.8	+1.1
YJA	Yavi	1.68	46	eP	Pn	12 18 44.1	+0.2
YJA				eS	S	12 19 10.6	-2.1
YJA	Yavi	1.68	46	eP	Pn	12 18 43.4	-0.5
SLA	San Lorenzo	1.80	139	eP	Pn	12 18 44.9	+0.3
SLA				eS	S	12 19 14.5	+0.3
SLA	San Lorenzo	1.80	139	eP	Pn	12 18 44.8	+0.2
PB06	IPOC Station P	2.63	284	eP	Pn	12 18 54.0	+0.9
PB06				eS	S	12 19 30.4	+1.3
PB06				IAML		12 19 32.5	
	comp=Z,419nm,0.1s						
PB06	IPOC Station P	2.63	284		Pn	12 18 53.3	+0.2
PB06	IPOC Station P	2.63	284	⇑iP	Pn	12 18 53.8	+0.7
PB06				eS	S	12 19 28.4	-0.7
PB06				IAML		12 19 31.0	
	comp=N,735nm,0.2s						
PB09	IPOC Station P	2.73	304	eP	Pn	12 18 55.1	+0.9
PB09				eS	S	12 19 33.5	+2.2
PB09	IPOC Station P	2.73	304		Pn	12 18 54.8	+0.5
PB09	IPOC Station P	2.73	304	⇑iP	Pn	12 18 55.3	+1.1
FSA	Cafayete	2.84	165	eP	Pn	12 18 55.2	-0.2
FSA				eS	S	12 19 33.0	-0.5
PB03	IPOC Station P	3.02	295	eP	Pn	12 18 58.0	+0.5
PB03				eS	S	12 19 37.0	0.0
PB03				IAML		12 19 38.7	
	comp=Z,388nm,0.3s						
PB03	IPOC Station P	3.02	295		Pn	12 18 57.4	-0.1
PB03	IPOC Station P	3.02	295	⇑iP	Pn	12 18 57.8	+0.4
PB03				iS	S	12 19 35.8	-1.2
PB03				iS	S	12 19 36.1	-0.9
PB03				IAML		12 19 39.0	
	comp=N,438nm,0.3s						
PB03				IAML		12 19 39.5	
	comp=E,404nm,0.2s						
PB05	IPOC Station P	3.17	279	eP	Pn	12 18 59.5	+0.4
PB05				eS	S	12 19 40.0	0.0
PB05				IAML		12 19 42.6	
	comp=Z,141nm,0.2s						
PB05	IPOC Station P	3.17	279		Pn	12 18 59.2	+0.1
PB05	IPOC Station P	3.17	279	⇑iP	Pn	12 18 59.4	+0.3
PB07	IPOC Station P	3.28	299	eP	Pn	12 19 00.9	+0.4
PB07				eS	S	12 19 42.4	-0.1
PB07				IAML		12 19 43.6	
	comp=Z,271nm,0.4s						
PB07	IPOC Station P	3.28	299		Pn	12 19 00.6	+0.1
PB07	IPOC Station P	3.28	299	⇑iP	Pn	12 19 00.8	+0.3
PB10	IPOC Station P	3.44	267	eP	Pn	12 19 02.6	+0.4
PB10				eS	S	12 19 45.5	-0.2
PB10				IAML		12 19 47.1	
	comp=Z,141nm,0.4s						
PB10	IPOC Station P	3.44	267		Pn	12 19 02.1	-0.1
PB10	IPOC Station P	3.44	267	⇑iP	Pn	12 19 02.7	+0.5
PB10				iS	S	12 19 44.2	-1.5
PB02	IPOC Station P	3.51	305	eP	Pn	12 19 03.3	+0.2
PB02				eS	S	12 19 46.5	-0.7
PB02				IAML		12 19 53.3	
	comp=Z,341nm,0.2s						
PB02	IPOC Station P	3.51	305		Pn	12 19 02.7	-0.4
PB02	IPOC Station P	3.51	305	⇑iP	Pn	12 19 03.1	-0.1
PB02				iS	S	12 19 45.7	-1.6
PB14	IPOC Station P	3.52	248	eP	Pn	12 19 03.9	+0.5
PB14				eS	S	12 19 46.5	-1.4
PB14				IAML		12 19 49.1	
	comp=Z,301nm,0.2s						
PB14	IPOC Station P	3.52	248		Pn	12 19 03.2	-0.2
PB14	IPOC Station P	3.52	248	⇑iP	Pn	12 19 03.6	+0.1
PB08	IPOC Station P	3.88	325	eP	Pn	12 19 08.9	+1.1
PB08				eS	S	12 19 56.4	+0.6
PB08	IPOC Station P	3.88	325		Pn	12 19 08.4	+0.6
AC02	Maricunga	4.05	211	eP	Pn	12 19 10.6	+0.6
AC02				eS	S	12 19 58.3	-1.4
AC02	Maricunga	4.05	211	Pn	Pn	12 19 09.8	-0.1
TA01	Diego Aracena	4.19	311	eP	Pn	12 19 10.7	-0.5
TA01				eS	S	12 20 00.5	-1.6
TA01				IAML		12 20 04.0	
	comp=Z,65nm,0.2s						
TA01	Diego Aracena	4.19	311		Pn	12 19 10.5	-0.7
TA01	Diego Aracena	4.19	311	eP	Pn	12 19 10.2	-1.1
GO01	Chusmiza	4.29	328	eP	Pn	12 19 13.8	+0.7
GO01				eS	S	12 20 06.0	+0.8
GO01				IAML		12 20 07.3	
	comp=Z,83nm,0.3s						
GO01	Chusmiza	4.29	328		Pn	12 19 13.3	+0.2
AC01	Pan de Azucar	4.42	230	eP	Pn	12 19 13.4	-0.7
AC01				eS	S	12 20 04.6	-2.7
AC01				IAML		12 20 09.3	
	comp=Z,117nm,0.3s						
AC01	Pan de Azucar	4.42	230	Pn	Pn	12 19 13.7	-0.4
AC01	Pan de Azucar	4.42	230	eP	Pn	12 19 13.2	-0.9
PB11	IPOC Station P	4.46	323	eP	Pn	12 19 14.2	-0.6
PB11				eS	S	12 20 06.2	-2.1
PB11				IAML		12 20 09.8	
	comp=Z,129nm,0.2s						
PB11	IPOC Station P	4.46	323		Pn	12 19 14.4	-0.4
TINO	Tinogasta	4.73	188	eP	Pn	12 19 18.7	+0.6
TINO				eS	S	12 20 12.6	-1.9
PSGCX	Pisagua	4.85	320	eP	Pn	12 19 18.3	-1.4
PSGCX				eS	S	12 20 14.4	-2.8
PSGCX				IAML		12 20 15.2	
	comp=Z,50nm,0.5s						
PSGCX	Pisagua	4.85	320		Pn	12 19 18.2	-1.4
GO03	Copiapo	5.23	216	eP	Pn	12 19 23.1	-1.1
GO03				eS	S	12 20 22.3	-3.4
GO03				IAML		12 20 24.9	
	comp=Z,118nm,0.2s						
PB16	IPOC Station P	5.60	333		Pn	12 19 29.3	-0.3
PB12	IPOC Station P	5.75	325		Pn	12 19 29.8	-1.3
AC04	Llanos de Chal	6.17	218	Pn	Pn	12 19 34.5	-1.6
LCO	Las Campanas	6.62	211	Pn	Pn	12 19 41.2	-1.1
LPAZ	La Paz	7.15	350	P	Pn	12 19 50.2	+0.8
	comp=Z,3.4nm,0.5s,baz=140,slow=5.2,SNR=21						
LPAZ				S	S	12 21 06.5	-4.7
	comp=Z,3.2nm,0.5s,baz=19,slow=19,SNR=5.8						
LPAZ				LR	LR	12 22 36.1	
	comp=Z,58nm,21.7s,baz=352,slow=38						
LPAZ	La Paz	7.15	350		Pn	12 19 50.0	+0.6
CO03	El Pedregal	8.21	204	Pn	Pn	12 20 01.4	-1.1
CPUP	Villa Florida	9.10	111	P	Pn	12 20 11.7	-2.2
	comp=Z,0.8nm,0.6s,baz=292,slow=15,SNR=3.9						
CO04	Los Peladeros	9.40	202	Pn	Pn	12 20 15.7	-2.3
CPSB	Cacapava Do Su	13.83	123		Pn	12 21 12.9	-0.9
VAO	Valinhos	18.25	93	P	P	12 22 02.3

PFVI				IAML			12 29 16.4		
MORF	**Marmelete**	**1.33**	**49**	*eP*		**Pn**	**12 29 05.7**	**+1.4**	
MORF				*eS*		**Sn**	**12 29 20.2**	**-0.9**	
MORF				IAML			12 29 22.1		
	comp=N,5.2nm,0.1s								
MORF	**Marmelete**	**1.33**	**49**	*eP*		**Pn**	**12 29 05.7**	**+1.4**	
MORF				*eS*		**Sn**	**12 29 20.8**	**-0.4**	
MORF				IAML			12 29 22.0		
MORF				IAML			12 29 22.7		
MORF				IAML			12 29 22.9		
PTEO	**Sao Teotonio**	**1.46**	**41**	*eS*		**Sn**	**12 29 23.8**	**-0.4**	
PTEO				IAML			12 29 25.3		
PTEO				IAML			12 29 27.1		
PBDV	**Barranco-do-Ve**	**1.78**	**63**	P		**Pn**	**12 29 11.7**	**+1.2**	
PBDV				S		**Sn**	**12 29 31.9**	**-0.4**	
PBDV	**Barranco-do-Ve**	**1.78**	**63**	*eP*		**Pn**	**12 29 12.2**	**+1.6**	
PBDV				*eS*		**Sn**	**12 29 31.8**	**-0.5**	
PCVE	**Castro Verde**	**1.92**	**51**	P		**Pn**	**12 29 14.0**	**+1.6**	
PCVE				S		**Sn**	**12 29 35.4**	**-0.1**	
PCVE	**Castro Verde**	**1.92**	**51**	*eP*		**Pn**	**12 29 14.2**	**+1.8**	
PCVE				*eS*		**Sn**	**12 29 35.3**	**-0.3**	
PCVE				IAML			12 29 36.9		
PCVE				IAML			12 29 37.0		
PCVE				IAML			12 29 37.4		
MESJ	**Messejana**	**1.94**	**44**	*eP*		**Pn**	**12 29 14.3**	**+1.5**	
MESJ				*eS*		**Sn**	**12 29 35.0**	**-1.3**	
MESJ				IAML			12 29 35.9		
	comp=N,0.4nm,0.1s								
MESJ	**Messejana**	**1.94**	**44**	*eP*		**Pn**	**12 29 14.4**	**+1.6**	
MESJ				*eS*		**Sn**	**12 29 35.5**	**-0.8**	
PLOUS	**Minas do Lousa**	**1.98**	**36**	*eP*		**Pn**	**12 29 15.0**	**+1.7**	
PLOUS				*eS*		**Sn**	**12 29 36.2**	**-1.1**	
PLOUS				IAML			12 29 38.6		
PLOUS				IAML			12 29 39.1		
PLOUS				IAML			12 29 40.2		
PVAQ	**Vaqueiros**	**2.01**	**61**	P		**Pn**	**12 29 14.7**	**+1.0**	
PVAQ				S		**Sn**	**12 29 37.9**	**+0.1**	
PVAQ	**Vaqueiros**	**2.01**	**61**	*eP*		**Pn**	**12 29 15.2**	**+1.5**	
PVAQ				*eS*		**Sn**	**12 29 37.0**	**-0.8**	
PVAQ				IAML			12 29 39.4		
PVAQ				IAML			12 29 39.4		
PVAQ				IAML			12 29 41.9		
EGRO	**El Granado**	**2.23**	**60**	P		**Pn**	**12 29 18.4**	**+1.7**	
EGRO				S		**Sn**	**12 29 43.4**	**0.0**	
EGRO	**El Granado**	**2.23**	**60**	P		**Pn**	**12 29 18.1**	**+1.4**	
EGRO				S		**Sn**	**12 29 42.8**	**-0.5**	
MOE	**Montemor**	**2.42**	**30**	*eP*		**Pn**	**12 29 20.5**	**+1.1**	
MOE				*eS*		**Sn**	**12 29 47.3**	**-0.7**	
MOE				IAML			12 29 47.9		
MOE				IAML			12 29 49.1		
MOE				IAML			12 29 49.7		
PMAFR	**Mafra**	**2.56**	**11**	S		**Sn**	**12 29 51.5**	**0.0**	
EVO	**Evora**	**2.58**	**35**	P		**Pn**	**12 29 22.5**	**+1.1**	
EVO				S		**Sn**	**12 29 50.3**	**-1.6**	
EVO	**Evora**	**2.58**	**35**	*eP*		**Pn**	**12 29 22.5**	**+1.1**	
EVO				*eS*		**Sn**	**12 29 50.4**	**-1.5**	
EVO				IAML			12 29 51.6		
EVO				IAML			12 29 52.8		
EVO				IAML			12 29 52.9		
PARRA	**Arraiolos**	**2.80**	**32**	*eP*		**Pn**	**12 29 25.5**	**+0.9**	
PARRA				*eS*		**Sn**	**12 29 56.4**	**-1.0**	
PARRA				IAML			12 29 57.6		
PARRA				IAML			12 29 59.5		
PARRA				IAML			12 30 03.4		
PBAR	**Barrancos**	**2.87**	**52**	P		**Pn**	**12 29 26.8**	**+1.3**	
PBAR				S		**Sn**	**12 29 58.4**	**-0.8**	
PBAR	**Barrancos**	**2.87**	**52**	*eP*		**Pn**	**12 29 26.9**	**+1.3**	
PBAR				*eS*		**Sn**	**12 29 58.3**	**-0.8**	
PBAR				IAML			12 29 59.5		
PBAR				IAML			12 30 01.1		
EMIN	**Mina Concepcio**	**2.91**	**62**	S		**Sn**	**12 29 59.6**	**-0.5**	
PMTG	**Montargil**	**2.94**	**27**	*eP*		**Pn**	**12 29 28.1**	**+1.6**	
PMTG				*eS*		**Sn**	**12 29 59.4**	**-1.5**	
PMTG				IAML			12 29 59.9		
PMTG				IAML			12 30 01.1		
PMTG				IAML			12 30 01.6		
PESTR	**Estremoz**	**3.04**	**37**	P		**Pn**	**12 29 27.3**	**-0.6**	
PESTR				S		**Sn**	**12 30 02.0**	**-1.5**	
PESTR	**Estremoz**	**3.04**	**37**	*eS*		**Sn**	**12 30 02.6**	**-0.8**	
EBAD	**Badajoz**	**3.26**	**44**	P		**Pn**	**12 29 32.5**	**+1.6**	
EBAD				S		**Sn**	**12 30 07.7**	**-1.2**	
EBAD	**Badajoz**	**3.26**	**44**	P		**Pn**	**12 29 31.4**	**+0.5**	
EBAD				S		**Sn**	**12 30 07.6**	**-1.2**	
EBAD				IVmb_Lg			12 30 10.1		
ESPR	**Espera**	**3.29**	**81**	P		**Pn**	**12 29 32.9**	**+1.6**	
ESPR				S		**Sn**	**12 30 08.5**	**-1.0**	
PMRV	**Marv??o**	**3.59**	**33**	*eP*		**Pn**	**12 29 37.1**	**+1.7**	
PMRV				*eS*		**Sn**	**12 30 14.5**	**-2.3**	
PMRV				IAML			12 30 15.8		
PMRV				IAML			12 30 16.2		
PMRV				IAML			12 30 16.5		
ECAB	**El Cabril**	**3.94**	**64**	P		**Pn**	**12 29 41.1**	**+0.9**	
ECAB				S		**Sn**	**12 30 25.5**	**0.0**	
ECAB	**El Cabril**	**3.94**	**64**	P		**Pn**	**12 29 41.5**	**+1.2**	
ECAB				S		**Sn**	**12 30 23.8**	**-1.8**	
EMAL	**Malaga-Limoner**	**4.43**	**84**	S		**Sn**	**12 30 36.5**	**-1.0**	
EADA	**Adamuz**	**4.59**	**66**	P		**Pn**	**12 29 50.3**	**+1.1**	
EADA				S		**Sn**	**12 30 40.9**	**-0.8**	
MD31	**MD31**	**5.55**	**129**	P		Pn	12 30 00.8	-1.6	
MD31				S		Sn	12 30 53.5	-12	
MDT	**Midelt**	**5.68**	**128**	P		Pn	12 30 00.4	-3.8	
MDT				S		Sn	12 31 00.4	-8.2	
OUZM	**OUZ**	**6.11**	**154**	P		**Pn**	**12 30 10.2**	**0.0**	
OUZM				S		Sn	12 31 13.9	-5.4	

*IDC **15** 12:31:08.7±1.0,3°.66S×145°.68E,h0km,mb3.9/6, mbtmp4.1/11,ML3.2/2,MS3.4/9,Error ellipse: s-maj=23.5km s-min=14.8km az=67.0*

ISC 15 12:31:11.6±0.8,3°.61S±0°.09×145°.7E±0°.1,h23km,n17, σ1s71/13,mb3.9/7,MS3.5/5,Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**5.94**	**166**	Pn	**Pn**	**12 32 37.6**	**-0.6**
	12nm,0.7s,baz=354,slow=6.6,SNR=6.1						
PMG				Sn	**Sn**	**12 33 47.2**	**+1.6**
	0.5nm,0.3s,baz=26,slow=13,SNR=3.0						
PMG				LR	LR	12 34 47.6	
	comp=Z,107nm,21.6s,baz=344,slow=37						
SIJI	**Sorong**	**14.69**	**280**	Pn	**Pn**	**12 34 36.8**	**-1.3**
	5.8nm,0.5s,baz=194,slow=8.3,SNR=6.5						
SIJI				LR	LR	12 39 49.7	
	comp=Z,119nm,20.0s,baz=68,slow=36						
HNR	**Honiara**	**15.28**	**113**	Pn	**Pn**	**12 34 44.2**	**-1.8**
	42nm,0.8s,baz=87,slow=1.4,SNR=4.1						
HNR				LR	LR	12 40 34.6	
	comp=Z,98nm,18.7s,baz=14,slow=37						
CTA	**Charters Tower**	**16.39**	**178**	Pn	**Pn**	**12 34 59.5**	**-0.8**
	0.1nm,0.3s,baz=355,slow=14,SNR=3.6						
	2.2nm,0.9s						
CTA				AML	AML		
GUMO	**Guam**	**17.10**	**357**	LR	LR	12 39 56.0	
	comp=Z,69nm,21.4s,baz=88,slow=31						
WRA	**Warramunga Arr**	**19.66**	**213**	P	**P**	**12 35 37.8**	**-1.4**
	0.1nm,0.3s,baz=37,slow=11,SNR=6.6						
	18nm,1.0s						
WRA				AML	AML		
ASAR	**Alice Springs**	**22.98**	**209**	P	**P**	**12 36 15.8**	**+1.0**
	4.6nm,1.0s,baz=40,slow=9.1,SNR=23						
	4.6nm,1.0s						
FITZ	**Fitzroy Crossi**	**24.37**	**232**	LR	LR	12 46 44.2	
	comp=Z,136nm,18.2s,baz=34,slow=38						
DZM	**Mont Dzumac**	**27.23**	**134**	LR	LR	12 46 29.3	
	comp=Z,149nm,18.3s,baz=301,slow=34						
JOW	**Kunigami**	**34.64**	**332**	LR	LR	12 49 40.6	
	comp=Z,105nm,19.0s,baz=2.5,slow=32						
NWAO	**Narrogin (SRO)**	**39.50**	**219**	P	**P**	**12 38 41.1**	**+0.5**
	13nm,1.0s,baz=90,slow=6.1,SNR=9.1						
	13nm,1.0s						
KSRS	**Korea Array**	**44.07**	**340**	P	**P**	**12 39 15.6**	**-2.3**
	1.6nm,0.9s,baz=163,slow=8.7,SNR=5.9						
KSRS				LR	LR	12 54 56.2	
	comp=Z,35nm,21.0s,baz=5.0,slow=32						
ASAJ	**Asahikawa**	**47.59**	**357**	LR	LR	13 02 18.3	
	comp=Z,35nm,18.1s,baz=92,slow=39						
CMAR	**Chiang Mai Arr**	**51.01**	**297**	P	**P**	**12 40 11.7**	**-0.5**
	0.3nm,0.4s,baz=109,slow=8.7,SNR=4.5						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**74.85**	**320**	P	**P**	**12 42 52.6**	**+2.2**
	0.4nm,0.7s,baz=105,slow=7.2,SNR=2.0						
	0.4nm,0.7s						
ILAR	**Eielson Array**	**83.81**	**23**	P	**P**	**12 43 39.3**	**+0.5**
	0.8nm,1.0s,baz=264,slow=4.4,SNR=4.6						
	0.8nm,1.0s						
BVAR	**Borovoye Array**	**84.09**	**324**	P	**P**	**12 43 43.2**	**+2.7**
	0.9nm,0.6s,baz=159,slow=8.5,SNR=5.6						
	0.9nm,0.6s						

*VAO **15** 12:33:12.9±0.8,24°.09S×67°.60W,h142km±5km,mb5.5, Presumed earthquake*

*MOS **15** 12:33:13.9±1.3,24°.20S×67°.52W,h144km,mb5.1/14, Error ellipse: s-maj=12.4km s-min=7.4km az=93.1*

*SJA **15** 12:33:13.7±0.7,24°.15S×67°.68W,h169km±5km,ML5.3, MW5.0*

*GFZ **15** 12:33:14.6,24°.19S×67°.51W,h157km,Mw5.2/55,Moment Tensor Solution. Moment tensor: Scale 10^16^Nm; Mrr0.99; Mθθ-1.56; Mφφ0.57; Mrθ2.66; Mθφ-0.04; Mφr-8.60; Fault plane solution: Mo9.10630×10^16^ NP1: φs161.86055°,δ89.04354°,λ93.80779°. NP2: φs265.94016°,δ3.92591°,λ14.11140°. Principal axes: T 9.7205, Plg45.8280°, Azm75.7247°; N -1.3878, Plg3.8073°, Azm341.7969°; P -8.3327, Plg43.9193°, Azm248.1227°;*

*GFZ **15** 12:33:14.7±0.1,24°S±2°×6°8W±°,h144km±3km,M5.2/31, mb5.3/31*

*IDC **15** 12:33:14.9±1.1,24°.10S×67°.37W,h144km±8km,mb4.7/17, mbtmp5.0/24,MS3.9/20,Error ellipse: s-maj=11.1km s-min=8.2km az=71.0*

*NEIC **15** 12:33:15.1±1.6,24°.12S±0°.06×67°.5W±0°.1,h141km±6km, mb5.2/73,Mww5.3/30,Mww5.3(GUC),Error ellipse: s-maj=14.1km s-min=8.5km az=93.0*

*GUC **15** 12:33:15.3±0.8,24°.15S×67°.85W,h165km±7km,ML5.5, Presumed earthquake*

*NEIC **15** 12:33:15.9,24°.15S×67°.62W,h152km*

*GCMT **15** 12:33:20.1±0.1,24°.10S±0°.01×67°.57W±0°.01,h168km, MW5.3/143,Moment Tensor Solution. s111,c169; s143,c212; Duration: 1s1 Moment tensor: Scale 10^17^ Nm; Mrr0.12±.02; Mθθ-0.30±.02; Mφφ0.17±.03; Mrθ0.45±.01; Mθφ-0.11±.02; Mφr-1.06±.01; Best double couple: Mo1.15700×10^17^ NP1:φs239.00000°,δ6.00000°, λ-6.00000°. NP2:φs335.00000°,δ89.00000°,λ-96.00000°. Principal axes: T 1.3080, Plg44.0000°, Azm70.0000°; N -0.3020, Plg6.0000°, Azm335.0000°; P -1.0060, Plg45.0000°, Azm239.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **15** 12:33:21,24°.15S×67°.62W,h150km, Moment Tensor Solution. Duration: 2s2 Moment tensor: Scale 10^16^Nm; Mrr0.01; Mθθ-2.41; Mφφ2.41; Mrθ2.58; Mθφ-0.33; Mφr-9.14; Fault plane solution: Mo9.81000×10^16^ NP1: φs226.81000°,δ7.30000°,λ-25.73000°. NP2:φs342.35000°, δ86.84000°,λ-96.58000°. Principal axes: T 10.7202, Plg41.0000°, Azm79.0000°; N -2.2052, Plg7.0000°, Azm343.0000°; P -8.5150, Plg48.0000°, Azm245.0000°;*

ISC 15 12:33:15.5±0.3,24°.11S±0°.03×67°.60W±0°.04,h155km±2km, h155km:pP-P,n549,σ1s85/599,mb5.1/96,13C-5D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**1.16**	**96**	*eP*	**Pn**	**12 33 42.9**	**+0.2**
SALTA		**1.16**	**96**	P	**Pn**	**12 33 43.3**	**+0.5**
AF01	**San Pedro de A**	**1.27**	**335**	*eP*	**Pn**	**12 33 44.7**	**+1.0**
AF01				*eS*	**Sn**	**12 34 07.7**	**+2.6**
AF01				IAML		12 34 28.5	
	comp=Z,24μm,0.5s						
AF01	**San Pedro de A**	**1.27**	**335**		**Pn**	**12 33 44.1**	**+0.5**
AF01	**San Pedro de A**	**1.27**	**335**	*iP*	**Pn**	**12 33 44.6**	**+1.0**
AF01				*eS*	**Sn**	**12 34 06.9**	**+1.8**
AF01				IAML		12 34 09.0	
	comp=N,74μm,0.5s						
SLA	**San Lorenzo**	**2.00**	**108**	*eP*	**Pn**	**12 33 52.5**	**+1.3**
PB06	**IPOC Station P**	**2.29**	**307**	*eP*	**Pn**	**12 33 54.7**	**+0.2**
PB06				*eS*	**Sn**	**12 34 24.9**	**+0.3**
PB06				IAML		12 34 27.9	
	comp=Z,27μm,0.3s						
PB06	**IPOC Station P**	**2.29**	**307**		**Pn**	**12 33 54.7**	**+0.2**
PB06	**IPOC Station P**	**2.29**	**307**	*eP*	**Pn**	**12 33 54.6**	**0.0**
PB06				*eS*	**Sn**	**12 34 23.8**	**-0.8**
PB06				IAML		12 34 26.7	
	comp=E,28μm,0.3s						
PB06	**IPOC Station P**	**2.29**	**307**	P	**Pn**	**12 33 54.9**	**+0.3**
FSA	**Cafayete**	**2.47**	**144**	*eP*	**Pn**	**12 33 57.2**	**+0.5**
PB14	**IPOC Station P**	**2.60**	**258**	*eP*	**Pn**	**12 33 58.0**	**-0.5**
PB14				*eS*	**Sn**	**12 34 30.5**	**-1.2**
PB14				IAML		12 34 33.0	
	comp=Z,9μm,0.5s						
PB14	**IPOC Station P**	**2.60**	**258**		**Pn**	**12 33 58.2**	**-0.4**
PB14	**IPOC Station P**	**2.60**	**258**	*eP*	**Pn**	**12 33 57.8**	**-0.8**
PB14				*eS*	**Sn**	**12 34 29.6**	**-2.1**
PB14				IAML		12 34 32.4	
	comp=E,8μm,0.4s						
PB14	**IPOC Station P**	**2.60**	**258**	P	**Pn**	**12 33 57.9**	**-0.6**
PB05	**IPOC Station P**	**2.70**	**297**	*eP*	**Pn**	**12 33 59.2**	**-0.3**
PB05				*eS*	**Sn**	**12 34 32.4**	**-1.0**
PB05				IAML		12 34 36.2	
	comp=Z,10μm,0.4s						
PB05	**IPOC Station P**	**2.70**	**297**		**Pn**	**12 33 59.2**	**-0.3**
PB05	**IPOC Station P**	**2.70**	**297**	*eP*	**Pn**	**12 33 59.0**	**-0.5**
PB05				*eS*	**Sn**	**12 34 31.5**	**-1.9**
PB05				IAML		12 34 35.1	
	comp=N,18μm,0.5s						
PB05	**IPOC Station P**	**2.70**	**297**	P	**Pn**	**12 33 59.2**	**-0.3**
YJA	**Yavi**	**2.72**	**45**	*eP*	**Pn**	**12 34 01.2**	**+1.1**
PB09	**IPOC Station P**	**2.76**	**326**	*eP*	**Pn**	**12 34 01.0**	**+0.8**
PB09				*eS*	**Sn**	**12 34 35.1**	**+0.3**
PB09				IAML		12 34 36.9	
	comp=Z,14μm,0.4s						
PB09	**IPOC Station P**	**2.76**	**326**		**Pn**	**12 34 01.1**	**+0.8**
PB09	**IPOC Station P**	**2.76**	**326**	*eP*	**Pn**	**12 34 00.9**	**+0.6**
PB09				*eS*	**Sn**	**12 34 35.0**	**+0.1**
PB09				IAML		12 34 37.5	
	comp=N,15μm,0.3s						
PB09	**IPOC Station P**	**2.76**	**326**	P	**Pn**	**12 34 01.1**	**+0.8**
PB10	**IPOC Station P**	**2.77**	**282**	*eP*	**Pn**	**12 33 59.9**	**-0.4**
PB10				*eS*	**Sn**	**12 34 34.8**	**0.0**
PB10				IAML		12 34 38.1	
	comp=Z,11μm,0.4s						
PB10	**IPOC Station P**	**2.77**	**282**		**Pn**	**12 34 00.2**	**-0.1**
PB10	**IPOC Station P**	**2.77**	**282**	*eP*	**Pn**	**12 33 59.8**	**-0.4**
PB10				IAML		12 34 38.6	
	comp=E,17μm,0.3s						
PB10	**IPOC Station P**	**2.77**	**282**	P	**Pn**	**12 34 00.1**	**-0.1**
PB03	**IPOC Station P**	**2.85**	**316**	*eP*	**Pn**	**12 34 01.4**	**-0.1**
PB03				*eS*	**Sn**	**12 34 35.8**	**-1.2**
PB03				IAML		12 34 38.3	
	comp=Z,15μm,0.3s						
PB03	**IPOC Station P**	**2.85**	**316**		**Pn**	**12 34 01.3**	**-0.1**
PB03	**IPOC Station P**	**2.85**	**316**	*eP*	**Pn**	**12 34 01.4**	**-0.1**
PB03				IAML		12 34 37.7	
	comp=E,18μm,0.4s						
PB03	**IPOC Station P**	**2.85**	**316**	P	**Pn**	**12 34 01.4**	**-0.1**
AC02	**Maricunga**	**3.04**	**207**	*eP*	**Pn**	**12 34 04.2**	**+0.1**
AC02				*eS*	**Sn**	**12 34 42.2**	**+0.5**
AC02				IAML		12 34 44.4	
	comp=Z,3μm,0.5s						
AC02	**Maricunga**	**3.04**	**207**		**Pn**	**12 34 03.5**	**-0.6**
AC02	**Maricunga**	**3.04**	**207**	*eP*	**Pn**	**12 34 04.2**	**+0.1**
AC02				*eS*	**Sn**	**12 34 41.7**	**0.0**
AC02				IAML		12 34 44.2	
	comp=E,5μm,0.3s						
AC02	**Maricunga**	**3.04**	**207**	P	**Pn**	**12 34 04.3**	**+0.2**
PB07	**IPOC Station P**	**3.17**	**318**	*eP*	**Pn**	**12 34 05.2**	**-0.3**
PB07				*eS*	**Sn**	**12 34 43.0**	**-1.2**
PB07				IAML		12 34 47.5	
	comp=Z,14μm,0.3s						
PB07	**IPOC Station P**	**3.17**	**318**		**Pn**	**12 34 05.4**	**-0.2**
PB07	**IPOC Station P**	**3.17**	**318**	*eP*	**Pn**	**12 34 05.2**	**-0.3**
PB07				*eS*	**Sn**	**12 34 42.4**	**-1.8**
PB07	**IPOC Station P**	**3.17**	**318**	P	**Pn**	**12 34 05.3**	**-0.2**
AHML	**Horco Molle**	**3.36**	**143**	*eP*	**Pn**	**12 34 04.1**	**-3.6**
AC01	**Pan de Azucar**	**3.39**	**233**	*eP*	**Pn**	**12 34 06.3**	**-1.7**
AC01				*eS*	**Sn**	**12 34 46.3**	**-2.5**
AC01				IAML		12 34 49.9	
	comp=Z,3μm,0.4s						
AC01	**Pan de Azucar**	**3.39**	**233**		**Pn**	**12 34 06.1**	**-1.9**
AC01	**Pan de Azucar**	**3.39**	**233**	*iP*	**Pn**	**12 34 06.3**	**-1.7**
AC01				IAML		12 34 47.2	
	comp=E,8μm,0.3s						
AC01	**Pan de Azucar**	**3.39**	**233**	P	**Pn**	**12 34 06.4**	**-1.7**
PB02	**IPOC Station P**	**3.50**	**322**	*eP*	**Pn**	**12 34 09.0**	**-0.6**
PB02				*eS*	**Sn**	**12 34 49.6**	**-1.9**
PB02	**IPOC Station P**	**3.50**	**322**		**Pn**	**12 34 09.7**	**+0.2**
PB02	**IPOC Station P**	**3.50**	**322**	*eP*	**Pn**	**12 34 08.7**	**-0.8**
PB02				*eS*	**Sn**	**12 34 48.6**	**-2.8**
PB02	**IPOC Station P**	**3.50**	**322**	P	**Pn**	**12 34 09.0**	**-0.6**
TINO	**Tinogasta**	**3.93**	**180**	*eP*	**Pn**	**12 34 15.1**	**-0.1**
AC06	**Mina Casimiro**	**4.07**	**217**		**Pn**	**12 34 15.2**	**-1.7**
AC06	**Mina Casimiro**	**4.07**	**217**	IAML		12 35 05.5	
	comp=E,3μm,0.3s						
GO03	**Copiapo**	**4.20**	**214**	*eP*	**Pn**	**12 34 16.7**	**-1.9**
GO03				IAML		12 35 08.5	
	comp=Z,5μm,0.5s						
GO03	**Copiapo**	**4.20**	**214**		**Pn**	**12 34 16.8**	**-1.7**
GO03	**Copiapo**	**4.20**	**214**	*eP*	**Pn**	**12 34 16.5**	**-2.1**
GO03	**Copiapo**	**4.20**	**214**	P	**Pn**	**12 34 16.6**	**-1.9**
PB08	**IPOC Station P**	**4.21**	**340**	*eP*	**Pn**	**12 34 19.4**	**+0.4**
PB08				*eS*	**Sn**	**12 35 07.3**	**-1.1**
PB08				IAML		12 35 11.6	
	comp=Z,2μm,0.2s						
PB08	**IPOC Station P**	**4.21**	**340**		**Pn**	**12 34 19.0**	**0.0**
PB08	**IPOC Station P**	**4.21**	**340**	P	**Pn**	**12 34 19.2**	**+0.1**
TA01	**Diego Aracena**	**4.26**	**325**	*eP*	**Pn**	**12 34 17.9**	**-1.5**
TA01				*eS*	**Sn**	**12 35 00.4**	**-8.7**
TA01				IAML		12 35 10.3	
	comp=Z,2μm,0.3s						
TA01	**Diego Aracena**	**4.26**	**325**		**Pn**	**12 34 18.6**	**-0.8**
TA01	**Diego Aracena**	**4.26**	**325**	*eP*	**Pn**	**12 34 18.1**	**-1.3**
TA01	**Diego Aracena**	**4.26**	**325**	P	**Pn**	**12 34 18.1**	**-1.3**
TA02	**Huaiquique**	**4.49**	**328**	*eP*	**Pn**	**12 34 20.6**	**-1.7**
TA02				*eS*	**Sn**	**12 35 05.9**	**-8.5**
TA02				IAML		12 35 17.5	
	comp=Z,1μm,0.4s						
CYA	**Choya**	**4.60**	**160**	*eP*	**Pn**	**12 34 23.5**	**-0.4**
CYA				*eS*	**Sn**	**12 35 18.1**	**+0.9**
VCA	**Vinchina**	**4.64**	**187**	*eP*	**Pn**	**12 34 24.2**	**-0.2**
VCA				*eS*	**Sn**	**12 35 18.6**	**+0.5**
GO01	**Chusmiza**	**4.66**	**341**	*eP*	**Pn**	**12 34 25.4**	**+0.3**
GO01				*eS*	**Sn**	**12 35 13.0**	**-6.3**
GO01				IAML		12 35 53.9	
	comp=Z,1μm,0.4s						
GO01	**Chusmiza**	**4.66**	**341**		**Pn**	**12 34 24.1**	**-1.1**
GO01	**Chusmiza**	**4.66**	**341**	P	**Pn**	**12 34 24.7**	**-0.5**
PB11	**IPOC Station P**	**4.73**	**336**	*eP*	**Pn**	**12 34 24.3**	**-1.4**
PB11				IAML		12 35 20.1	
	comp=Z,2μm,0.2s						
PB11	**IPOC Station P**	**4.73**	**336**		**Pn**	**12 34 24.2**	**-1.6**
PB11	**IPOC Station P**	**4.73**	**336**	P	**Pn**	**12 34 24.1**	**-1.6**
PSGCX	**Pisagua**	**5.07**	**332**	P	**Pn**	**12 34 27.9**	**-2.1**
	comp=Z,339nm,0.5s						
AC04	**Llanos de Chal**	**5.13**	**217**	IAML		12 35 29.4	
	comp=Z,2μm,0.6s						
AC04	**Llanos de Chal**	**5.13**	**217**		**Pn**	**12 34 27.8**	**-2.9**
AC04	**Llanos de Chal**	**5.13**	**217**	P	**Pn**	**12 34 27.9**	**-2.9**
	comp=Z,811nm,0.4s						
AC05	**El Transito**	**5.28**	**206**		**Pn**	**12 34 30.8**	**-2.0**
AC05	**El Transito**	**5.28**	**206**	P	**Pn**	**12 34 30.5**	**-2.3**
LCO	**Las Campanas**	**5.61**	**209**	P	**Pn**	**12 34 34.5**	**-2.9**
LCO	**Las Campanas**	**5.61**	**209**		**Pn**	**12 34 34.5**	**-2.9**
PB16	**IPOC Station P**	**6.02**	**342**		**Pn**	**12 34 41.8**	**-1.3**
PB16	**IPOC Station P**	**6.02**	**342**	P	**Pn**	**12 34 42.8**	**-0.4**
	comp=Z,284nm,1.3s						
PB12	**IPOC Station P**	**6.03**	**335**		**Pn**	**12 34 40.4**	**-2.5**
PB12	**IPOC Station P**	**6.03**	**335**	P	**Pn**	**12 34 40.2**	**-2.7**
	comp=Z,211nm,0.4s						
CO01	**Juntas del Tor**	**6.25**	**200**		**Pn**	**12 34 44.1**	**-1.7**
CO01	**Juntas del Tor**	**6.25**	**200**	P	**Pn**	**12 34 43.9**	**-1.9**
	comp=Z,163nm,0.5s						
AP01	**Chacalluta**	**6.26**	**335**	P	**Pn**	**12 34 48.5**	**+2.8**
	comp=Z,608nm,0.5s						
CO05	**La Serena**	**6.63**	**208**		**Pn**	**12 34 46.9**	**-3.7**
GO04	**Tololo Observa**	**6.67**	**205**		**Pn**	**12 34 47.5**	**-4.0**
GO04	**Tololo Observa**	**6.67**	**205**	P	**Pn**	**12 34 48.0**	**-3.5**
	comp=Z,236nm,0.6s						
PB18	**Visviri**	**6.72**	**345**		**Pn**	**12 34 52.7**	**+0.2**
PB18	**Visviri**	**6.72**	**345**	P	**Pn**	**12 34 53.4**	**+0.9**
	comp=Z,362nm,0.9s						
CO03	**El Pedregal**	**7.24**	**202**		**Pn**	**12 34 55.6**	**-3.3**
CO03	**El Pedregal**	**7.24**	**202**	P	**Pn**	**12 34 55.2**	**-3.6**
CO06	**Fray Jorge**	**7.45**	**208**		**Pn**	**12 34 58.2**	**-3.4**
ZON	**Zonda**	**7.46**	**187**	P	**Pn**	**12 34 59.8**	**-2.0**
ZON	**Zonda**	**7.46**	**187**		**Pn**	**12 34 59.8**	**-2.0**
ZON	**Zonda**	**7.46**	**187**	P	**Pn**	**12 34 60.0**	**-1.9**
	comp=E,70nm,0.5s						
CFA	**Coronel Fontan**	**7.48**	**184**	P	**Pn**	**12 35 00.3**	**-1.7**
	comp=E,25nm,0.3s,baz=10,slow=15,SNR=271						
CFA				S	**Sn**	**12 36 20.3**	**-

VILB Vilhena 13.13 34 Pn 12 36 14.8 -1.5
VILB Vilhena 13.13 34 eP Pn 12 36 14.8 -1.5
ANCO Parque Anchore 13.16 142 eP Pn 12 36 13.7 -2.8
BI05 Punta Hualpn 13.48 200 Pn Pn 12 36 16.1 -4.5
PP1B Ponte de Pedra 13.54 64 eP Pn 12 36 18.3 -3.2
H03N1 Juan Fernandez 13.58 224 P Pn 12 36 20.0 -1.7
baz=213,slow=74,SNR=16
H03N2 Juan Fernandez 13.59 224 P Pn 12 36 20.8 -1.0
baz=49,slow=74,SNR=13
VA04 Juan Fernndez 13.66 223 Pn Pn 12 36 21.0 -1.9
H03S3 Juan Fernandez 13.83 223 P Pn 12 36 23.0 -1.8
baz=54,slow=16,SNR=16
H03S1 Juan Fernandez 13.84 223 P Pn 12 36 22.9 -2.0
baz=54,slow=16,SNR=10
H03S2 Juan Fernandez 13.85 223 P Pn 12 36 23.0 -2.0
baz=54,slow=16,SNR=19
SALV Santo Antonio 13.85 56 eP Pn 12 36 22.8 -2.6
CPSB Cacapava Do Su 14.06 120 P Pn 12 36 26.6 -1.4
comp=Z,688nm,0.6s
CPSB Cacapava Do Su 14.06 120 eP Pn 12 36 25.6 -2.4
PTGB Pitanga 14.17 96 eP Pn 12 36 27.6 -1.9
ITAB Concordia 14.29 106 P Pn 12 36 29.8 -1.1
ITAB Concordia 14.29 106 P Pn 12 36 30.3 -0.6
comp=Z,183nm,1.6s
ITAB Concordia 14.29 106 eP Pn 12 36 29.4 -1.6
C2SB Chapadao do Su 14.74 72 P Pn 12 36 36.4 -0.1
comp=Z,1µm,0.9s
C2SB Chapadao do Su 14.74 72 eP Pn 12 36 35.1 -1.4
NNA Nana 14.91 322 P Pn 12 36 39.2 +0.4
comp=Z,43nm,1.1s,baz=176,slow=8.7,SNR=7.3
NNA S Sn 12 39 20.8 -3.9
comp=Z,6.9nm,0.3s,baz=221,slow=15,SNR=3.0
NNA Nana 14.91 322 i P P 12 36 40.3 -0.3
NNA pmax pmax
comp=Z,199nm,1.4s
NNA Nana 14.91 322 P Pn 12 36 38.6 -0.2
comp=Z,85nm,1.4s
NNA Nana 14.91 322 P P 12 36 41.2 +0.6
comp=Z,82nm,1.4s
LDASE Londrina, Braz 15.11 91 eP Pn 12 36 38.9 -2.3
PCMB Pacaembu 15.27 84 eP Pn 12 36 41.0 -2.1
GO06 Curarrehue 15.77 191 P Pn 12 36 46.4 -2.8
GO06 IAmb IAmb 12 36 53.0
comp=Z,185nm,0.9s
GO06 Curarrehue 15.77 191 P Pn 12 36 48.1 -1.1
comp=Z,222nm,1.0s
CNLB Canela 15.83 113 P Pn 12 36 48.6 -1.5
comp=Z,305nm,1.3s
CNLB Canela 15.83 113 eP Pn 12 36 47.9 -2.2
PDRB Porto dos Gac 16.16 42 eP Pn 12 36 51.4 -2.8
PLCA Paso Flores 16.76 188 P P 12 37 00.4 -0.4
comp=Z,28nm,0.8s,baz=4.7,slow=12,SNR=62
PLCA S Sn 12 40 08.4 -0.1
comp=Z,1.3nm,0.6s,baz=117,slow=18,SNR=1.0
PLCA ScP ScP 12 45 01.7 +1.3
comp=Z,4.4nm,1.0s,baz=342,slow=0.3,SNR=3.4
PLCA Paso Flores 16.76 188 P P 12 36 59.7 -1.1
PLCA Paso Flores 16.76 188 P Pn 12 37 01.4 +0.2
comp=Z,57nm,1.1s
CZSB Cruzeiro do Su 17.01 342 P P 12 37 01.6 -2.1
CZSB IAmb IAmb 12 37 13.1
comp=Z,65nm,0.7s
CZSB Cruzeiro do Su 17.01 342 P P 12 37 02.0 -1.7
comp=Z,94nm,0.6s
CZSB Cruzeiro do Su 17.01 342 eP P 12 37 02.2 -1.5
ARAG Araguaiana, MT 17.03 63 eP P 12 37 01.8 -2.1
CLDB Colider 17.31 42 P P 12 37 05.2 -1.8
comp=Z,323nm,1.4s
CLDB Colider 17.31 42 eP P 12 37 03.8 -3.2
LL03 Petrohue 17.45 192 P P 12 37 05.6 -2.7
LL03 IAmb IAmb 12 37 13.2
comp=Z,186nm,0.8s
LL03 Petrohue 17.45 192 P P 12 37 08.6 +0.3
comp=Z,296nm,0.8s
BB19B Bebedouro 17.87 84 eP P 12 37 11.8 -1.4
LL05 Los Muermos 17.93 194 P P 12 37 13.7 +0.2
comp=Z,215nm,0.9s
SPB Sao Paulo 18.46 92 P P 12 37 18.7 -0.8
comp=Z,198nm,0.8s
SPB Sao Paulo 18.46 92 eP P 12 37 18.4 -1.1
PET01 Itanhaem-SP 18.55 95 eP P 12 37 19.2 -1.3
VAO Valinhos 18.95 91 eP P 12 37 23.4 -1.5
IPMB Ipameri, GO 19.09 75 eP P 12 37 25.3 -1.2
LL07 Hotel Espejo d 19.29 193 P P 12 37 28.8 +0.5
comp=Z,499nm,1.0s
LL02 Futaleuf 19.35 189 P P 12 37 29.5 +0.6
comp=Z,206nm,0.9s
GO07 Milladeo Hill, 19.60 193 P P 12 37 31.1 -0.6
GO07 Milladeo Hill, 19.60 193 P P 12 37 31.6 -0.1
comp=Z,798nm,0.5s
SNDB Serra Nova Dou 19.63 55 eP P 12 37 30.0 -2.3
ATAH Atahualpa 19.80 327 P Pn 12 37 36.8 -0.9
comp=Z,10nm,0.7s,baz=160,slow=6.3,SNR=8.0
ATAH S S 12 41 13.8 +4.3
comp=Z,3.7nm,0.7s,baz=128,slow=9.5,SNR=1.3
CANS Sao Roque de M 20.00 83 eP P 12 37 35.0 -1.3
PARB Paraibuna 20.14 92 P P 12 37 36.3 -1.5
comp=Z,1µm,0.8s
PARB Paraibuna 20.14 92 eP P 12 37 36.1 -1.6
BDFB Brasilia 20.24 69 P P 12 37 37.2 -1.7
comp=Z,601nm,0.9s,baz=241,slow=11,SNR=506
BDFB S S 12 41 14.1 -3.6
comp=Z,7.8nm,0.7s,baz=146,slow=26,SNR=1.3
comp=Z,601nm,0.9s
BDFB Brasilia 20.24 69 P P 12 37 37.1 -1.8
PMNB Patos De Minas 20.47 78 P P 12 37 39.8 -1.6
comp=Z,954nm,0.8s
PMNB Patos De Minas 20.47 78 eP P 12 37 39.5 -1.9
NPGB Novo Progresso 20.64 37 eP P 12 37 39.5 -3.6
BSCB Bom Sucesso 21.30 86 P P 12 37 48.5 -1.8
comp=Z,171nm,1.0s
BSCB Bom Sucesso 21.30 86 eP P 12 37 47.9 -2.3
COYC Coyhaique 21.71 189 P P 12 37 53.1 -1.2
COYC IAmb IAmb 12 37 55.7
comp=Z,124nm,1.0s
COYC Coyhaique 21.71 189 P P 12 37 54.5 +0.3
comp=Z,140nm,1.0s
VAS01 Vassouras-RJ 22.28 90 eP P 12 37 58.5 -1.7
ITTB Itaituba 22.72 32 eP P 12 38 01.9 -2.5
DIAM Diamantina, MG 23.03 80 eP P 12 38 05.8 -1.7
SGC2 Sao Gabriel da 23.83 2 P P 12 38 18.1 +3.6
comp=Z,6µm,1.9s
CAM01 Campos-RJ 23.99 90 eP P 12 38 14.4 -1.5
SMTB Santa Maria do 24.41 55 P P 12 38 17.3 -2.5
SMTB Santa Maria do 24.41 55 eP P 12 38 17.7 -2.1
SDBA SAO DESIDERIO 24.46 66 eP P 12 38 17.9 -2.4
GO08 Villa O'Higgin 24.62 188 P P 12 38 22.4 +1.0
GO08 IAmb IAmb 12 38 25.9
comp=Z,56nm,0.9s
GO08 Villa O'Higgin 24.62 188 P P 12 38 23.3 +1.9
comp=Z,83nm,0.9s
ARCA Araçuai, MG 25.06 78 eP P 12 38 24.0 -1.7
PTLC Puerto Leguiza 25.13 343 P P 12 38 23.3 -3.0
comp=Z,686nmcomp=Z,26nm,0.9s
SJMB Sao Joao De Ma 25.16 83 eP P 12 38 25.0 -1.6
PIAT Ana Tenorio 25.19 334 P P 12 38 29.0 +1.7
comp=Z,561nmcomp=Z,31nm,0.8s
BSFB Barra de Sao F 25.43 83 P P 12 38 27.7 -1.3
comp=Z,124nm,0.8s
BSFB Barra de Sao F 25.43 83 eP P 12 38 27.4 -1.6
RIB01 Linhares ES 25.70 85 eP P 12 38 29.8 -1.7
PPLP Puerto Lpez 25.81 328 P P 12 38 37.0 +4.5
CASC Dorado de Casc 25.89 337 P P 12 38 36.1 +2.8
comp=Z,77nm,1.0s
OTAV Otavalo 26.40 335 P P 12 38 40.6 +2.4
comp=Z,9.1nm,0.7s
FLF1 Flavio Alfaro- 26.43 332 P P 12 38 41.6 +3.5
comp=Z,97nm,0.7s
PAC1 Pacto, Paraso 26.55 334 P P 12 38 43.1 +3.8
comp=Z,34nm,0.6s
GUA01 Guaratinga, BA 27.08 79 eP P 12 38 42.1 -1.8
BOAV Boa Vista 27.23 16 P P 12 38 44.4 -0.8
BOAV Boa Vista 27.23 16 eP P 12 38 45.3 +0.1
BBAC Balboa, Cauca 27.62 339 P P 12 38 51.6 +2.7
comp=Z,594nmcomp=Z,57nm,0.8s
BETC Betania 27.70 343 P P 12 38 51.9 +2.4
CMC01 Camacan, BA 27.79 77 eP P 12 38 48.5 -1.7
POPC Popayan, Colom 27.93 340 P P 12 38 54.2 +2.6
comp=Z,29nm,1.2s
URMC La Uribe, Meta 27.98 345 P P 12 38 52.5 +0.5
comp=Z,13nm,0.9s
EFI East Falkland 28.48 168 i P P 12 38 53.9 -2.0
EFI pmax pmax
comp=Z,83nm,1.1s
PTGC Puerto Gaitan, 28.49 350 P P 12 38 56.9 +0.6
comp=Z,21nm,0.7s
PRAC Prado 28.55 345 P P 12 38 57.4 +0.4
comp=Z,9.4nm,1.8s
JAMC Jamundi, Valle 28.56 341 P P 12 38 58.6 +1.3
comp=Z,20nm,0.7s
ORTC Ortega, Tolima 28.83 344 P P 12 39 00.4 +1.0
comp=Z,22nm,2.0s
CHIC Chingaza 29.19 347 P P 12 39 04.4 +1.4
comp=Z,24nm,0.6s
YOTC Yotoco, Valle 29.20 342 P P 12 39 02.0 -0.8
comp=Z,12nm,0.7s
NBPN Ponto Novo - B 29.20 68 eP P 12 39 00.0 -2.8
ROSC El Rosal 29.51 346 LR LR 12 51 17.6
comp=Z,184nm,21.2s,baz=113,slow=37
GUY2C Guyana, Caldas 30.13 344 P P 12 39 12.7 +1.3
comp=Z,15nm,0.8s
SPBC San Pablo de B 30.25 347 P P 12 39 12.7 +0.7
comp=Z,25nm,0.7s
RUSC La Rusia 30.30 349 P P 12 39 13.1 +0.2
RUSC IAmb IAmb 12 39 14.6
comp=Z,31nm,0.9s
RUSC La Rusia 30.30 349 P P 12 39 13.6 +0.7
comp=Z,34nm,1.3s
NORC Norcasia 30.34 346 P P 12 39 14.6 +1.9
comp=Z,8.0nm,0.7s
HELC Santa Helena 31.10 345 P P 12 39 19.4 -0.3
HELC Santa Helena 31.10 345 P P 12 39 21.5 +1.7
comp=Z,20nm,1.0s
NBTA Tacaratu-PE 31.89 67 eP P 12 39 23.6 -2.8
NBPS Pedro II - PI 31.93 56 eP P 12 39 24.3 -2.5
NBMA Muriti-CE 32.26 64 eP P 12 39 27.3 -2.4
MDP Montagnes des 32.49 29 LR LR 12 54 24.5
comp=Z,302nm,18.8s,baz=295,slow=39
MPGF Montagnes des 32.50 29 P P 12 39 30.7 -1.0
SDV Santo Domingo 32.93 354 P P 12 39 34.3 -1.4
NBMO Morrinhos-CE 33.69 56 eP P 12 39 41.0 -1.1
NBPA Parau_RN 34.52 63 eP P 12 39 47.3 -1.9
SJCC San Jacinto, C 34.60 347 P P 12 39 48.6 -1.3
SJCC IAmb IAmb 12 40 09.4
comp=Z,157nm,1.8s
SJCC San Jacinto, C 34.60 347 P P 12 39 48.8 -1.1
comp=Z,51nm,1.6s
CRJC Cerrejon, Guaj 35.30 351 P P 12 40 02.1 +6.2
RCBR Riachuelo 35.47 64 P P 12 39 56.2 -1.2
RCBR pmax pmax
comp=Z,147nm,1.2s
RCBR Riachuelo 35.47 64 P P 12 39 56.2 -1.2
RCBR Riachuelo 35.47 64 eP P 12 39 56.2 -1.2
SMRC Santa Marta, M 35.65 349 P P 12 39 57.2 -1.6
comp=Z,32nm,2.0s
URIC Uribia, Colomb 35.85 353 P P 12 39 58.2 -2.3
URIC IAmb IAmb 12 39 58.9
comp=Z,27nm,0.8s
URIC Uribia, Colomb 35.85 353 P P 12 39 58.0 -2.5
LCR2 La Lucha 2 37.27 333 P P 12 40 15.2 +2.4
LCR2 IAmb IAmb 12 40 16.6
comp=Z,20nm,0.7s
HOPE Hope Point 38.02 151 P P 12 40 19.2 +0.8
HOPE pmax pmax
comp=Z,303nm,1.7s
HOPE Hope Point 38.02 151 P P 12 40 19.2 +0.8
JTS Las Juntas de 38.17 332 i P P 12 40 19.5 -0.6
JTS pmax pmax
comp=Z,26nm,1.4s
FDFM Morne la Roset 39.12 10 P P 12 40 27.6 -0.4
CXM Morne La Croix 39.19 10 P P 12 40 28.7 -0.1
PMSA Palmer Station 40.72 178 LR LR 12 57 32.5
comp=Z,130nm,18.5s,baz=338,slow=36
MLPR Magueyes Islan 41.83 1 P P 12 40 49.3 -0.8
MLPR IAmb IAmb 12 40 49.9
comp=Z,46nm,1.0s
ESQI Esquipulas 43.91 329 P P 12 41 08.2 +1.1
ESQI IAmb IAmb 12 41 10.2
comp=Z,36nm,0.6s
PETF Flores 46.21 330 P P 12 41 25.4 +0.3
PETF IAmb IAmb 12 41 27.6
comp=Z,29nm,0.6s
CCIG Comitan 46.75 327 P P 12 41 29.9 +0.3
CCIG IAmb IAmb 12 41 32.3
comp=Z,20nm,0.5s
CAIB Caibarien 47.74 345 P P 12 41 37.4 +0.5
CAIB IAmb IAmb 12 41 39.4
comp=Z,42nm,1.0s
TEIG Tepich 48.45 334 P P 12 41 42.8 +0.4
TEIG Tepich 48.45 334 P P 12 41 42.9 +0.4
SOR Soroa 48.97 341 P P 12 41 46.8 +0.5
SOR pmax pmax
comp=Z,34nm,0.8s
SOR Soroa 48.97 341 P P 12 41 46.8 +0.5
SOR IAmb IAmb 12 41 48.5
comp=Z,34nm,0.8s
TLIG Tlapa 51.27 321 P P 12 42 05.1 +1.2
BBSR BB Station 56.24 3 P P 12 42 39.7 +0.2
VNA3 Neumayer Olymp 57.22 161 ⇑P P 12 42 46.9 +0.7
comp=Z,26nm,0.7s
VNA1 Neumayer--Stat 57.43 160 ⇑P P 12 42 48.8 +1.3
comp=Z,22nm,0.8s
352A Blakely 57.71 342 P P 12 42 50.4 +0.4
352A IAmb IAmb 12 42 51.8
comp=Z,32nm,0.8s
VNA2 Neumayer--Watz 57.80 160 ⇑P P 12 42 51.0 +0.8
comp=Z,17nm,0.5s,baz=289,slow=7.1
BRAL Brewton 58.04 340 P P 12 42 51.7 -0.6
154A Montrose 58.32 345 P P 12 42 54.6 +0.4
154A IAmb IAmb 12 42 56.5
comp=Z,40nm,0.9s
250A Grady 58.56 341 P P 12 42 56.1 +0.3
152A Waverly Hall 58.78 343 P P 12 42 57.3 -0.1
346A Big Creek Wild 59.02 338 P P 12 42 60.0 +0.9
GOGA Godfrey 59.17 345 P P 12 43 00.0 0.0
GOGA pmax pmax
comp=Z,10.0nm,0.8s
GOGA Godfrey 59.17 345 P P 12 42 60.0 0.0
X58A Rowland 59.40 349 P P 12 43 02.5 +1.0
SNAA Sanae 59.43 161 P P 12 43 01.5 0.0
comp=Z,11nm,0.5s,baz=287,slow=8.0,SNR=4.2
SNAA S S 12 50 58.5 +0.5
comp=Z,4.3nm,0.3s,baz=252,slow=16,SNR=1.3
comp=Z,11nm,0.5s
SNAA Sanae 59.43 161 i P P 12 43 01.1 -0.4
SNAA pmax pmax
comp=Z,42nm,1.6s
JSC Jenkinsville 59.51 347 P P 12 43 02.7 +0.4
JSC pmax pmax
comp=Z,15nm,0.9s
JSC Jenkinsville 59.51 347 P P 12 43 02.7 +0.4
Y52A Lilburn 59.75 344 P P 12 43 03.9 -0.1
Y52A IAmb IAmb 12 43 05.5
comp=Z,14nm,0.8s
HKT Hockley 60.20 332 P P 12 43 08.4 +1.3
HKT pmax pmax
comp=Z,20nm,1.4s
HKT Hockley 60.20 332 P P 12 43 08.3 +1.3
HKT Hockley 60.20 332 P P 12 43 08.3 +1.2
HKT pP pP 12 43 45.8 +1.4
Z47A Carrollton 60.24 340 P P 12 43 07.4 0.0
Z47A IAmb IAmb 12 43 08.3
comp=Z,24nm,0.6s
KMSC Kings Mountain 60.35 347 P P 12 43 07.7 -0.4
KMSC IAmb IAmb 12 43 28.0
comp=Z,16nm,0.7s
Y49A Blount Mountai 60.37 342 P P 12 43 07.8 -0.4
Y49A IAmb IAmb 12 43 10.0
comp=Z,11nm,0.6s
TROLL Troll, Antarti 61.14 161 ⇑P P 12 43 14.2 +1.0
comp=Z,881nm,0.5s
RKT Rikitea 61.16 256 eLR LR 13 01 35.9
comp=Z,993nm,26.2s
WVT Waverly 62.90 342 P P 12 43 24.7 -0.4
WVT PcP PcP 12 44 01.1 -0.8
TXAR Lajitas Array 63.45 325 P P 12 43 30.1 +1.1
comp=Z,2.3nm,0.5s,baz=154,slow=7.5,SNR=32
comp=Z,2.3nm,0.5s
NVL N'lazarevskaya 63.97 159 eP P 12 43 31.9 +0.1
NVL eS S 12 52 01.8 +6.8
NVL pmax pmax
comp=Z,23nm,0.9s
ALPN Alpine 64.27 326 P 12 43 35.3 +0.8
WCI Wyandotte Cave 64.45 344 P P 12 43 34.8 -0.5
WCI PcP PcP 12 44 07.7 -0.5
WCI pP pP 12 44 13.0 -0.6
CCM Cathedral Cave 65.71 340 P P 12 43 43.5 +0.2
CCM pP pP 12 44 22.6 +1.0
QSPA South Pole Qui 66.09 180 P P 12 43 46.9 +1.1
comp=Z,32nm,0.8s,baz=166,slow=1.4,SNR=166
QSPA S S 12 52 22.0 +0.7
comp=Z,1.7nm,1.1s,baz=135,slow=19,SNR=2.7
comp=Z,32nm,0.8s
QSPA South Pole Qui 66.09 180 P P 12 43 46.8 +1.1
QSPA pP pP 12 44 24.6 +0.7
HSIG 67.30 319 P 12 43 54.9 +1.2
HSIG IAmb IAmb 12 43 57.0
comp=Z,38nm,1.4s
ELIB Princess Elisa 67.59 160 dP P 12 43 56.0 +0.9
comp=Z,17nm,0.5s
DBIC Dimbokro 68.36 72 P P 12 44 00.1 -0.6
comp=Z,11nm,0.4s,baz=238,slow=7.2,SNR=30
DBIC LR LR 13 14 43.7
comp=Z,183nm,18.5s,baz=226,slow=36
comp=Z,11nm,0.4s
DBIC Dimbokro 68.36 72 P 12 44 00.1 -0.6
DBIC IAmb IAmb 12 44 02.5
comp=Z,23nm,0.8s
DBIC Dimbokro 68.36 72 P P 12 44 00.0 -0.6
DBIC PcP PcP 12 44 23.7 -1.4
ANMO Albuquerque 69.34 327 i P P 12 44 07.6 +1.1
ANMO pmax pmax
comp=Z,17nm,0.9s
ANMO Albuquerque 69.34 327 P P 12 44 08.2 +1.7
ANMO pP pP 12 44 46.3 +1.6
SADO Sadowa 69.36 351 LR LR 13 17 39.9
comp=Z,46nm,18.2s,baz=2.0,slow=38
TUC Tucson 69.63 322 P P 12 44 10.2 +2.0
TUC pP pP 12 44 48.8 +2.3
TUC sP sP 12 45 06.5 +3.1
O20A White River Ci 74.29 329 P 12 44 37.3 +1.3
O20A IAmb IAmb 12 44 39.6
comp=Z,25nm,0.9s
VNDA Vanda 74.50 190 P P 12 44 38.4 +2.0
comp=Z,4.9nm,0.9s,baz=130,slow=4.8,SNR=14
comp=Z,4.9nm,0.9s
VNDA Vanda 74.50 190 P P 12 44 38.6 +2.2
VNDA pmax pmax
comp=Z,7.0nm,1.0s
VNDA Vanda 74.50 190 P P 12 44 38.6 +2.2
VNDA Vanda 74.50 190 P P 12 44 38.3 +1.9
VNDA PcP PcP 12 44 52.2 +2.1
VNDA pP pP 12 45 18.4 +2.9
Q16A Castle Valley 74.79 326 P 12 44 40.5 +1.7
PPT2 Papeete2 75.89 257 eP P 12 44 47.3 +1.8
comp=Z,94nm,29.5s
PPT2 eS S 12 54 10.1 -5.7
comp=Z,114nm,26.5s
PPT2 eLR LR 13 08 14.2
comp=Z,149nm,43.2s
PPT2 eLR LR 13 08 21.9
comp=Z,204nm,30.8s
PPT Papeete 75.90 257 LR LR 13 09 27.1
comp=Z,39nm,20.4s,baz=88,slow=28
SUR Sutherland 76.24 119 LR LR 13 17 47.3
comp=Z,50nm,18.5s,baz=239,slow=35
SUR Sutherland 76.24 119 P 12 44 48.4 +1.0
SUR IAmb IAmb 12 44 50.2
comp=Z,62nm,0.7s
SUR Sutherland 76.24 119 P P 12 44 49.0 +1.6
SUR Sutherland 76.24 119 P P 12 44 48.7 +1.3
SUR PcP PcP 12 44 58.8 0.0
ARMS Ukamas 76.85 115 eP P 12 44 52.1 +1.3
FRAZ Fraserburg 76.86 119 eP P 12 44 52.6 +1.7
PDAR Pinedale Array 76.97 330 P P 12 44 52.2 +1.0
comp=Z,3.6nm,0.5s,baz=131,slow=7.6,SNR=63
PDAR LR LR 13 21 44.1
comp=Z,65nm,18.3s,baz=281,slow=38
comp=Z,3.6nm,0.5s
TORD Torodi Ar. Bea 77.12 69 P P 12 44 52.0 -0.3
comp=Z,98nm,0.7s,baz=255,slow=5.2,SNR=345
comp=Z,98nm,0.7s
GRAN Grantham 77.34 120⇑eP P 12 44 54.2 +0.7
BRAK Brakfontein 78.10 120 eP P 12 44 58.6 +0.9
TSUM Tsumeb 78.15 106 LR LR 13 15 34.4
comp=Z,138nm,21.6s,baz=356,slow=33
TSUM Tsumeb 78.15 106 P 12 44 58.1 -0.2
TSUM IAmb IAmb 12 45 00.1
comp=Z,32nm,0.9s
TSUM Tsumeb 78.15 106 P P 12 44 58.9 +0.7
TSUM Tsumeb 78.15 106 P P 12 44 58.2 0.0
ULM Lac du Bonnet 78.16 342 P P 12 44 57.8 +0.5
comp=Z,9.5nm,0.5s,baz=142,slow=6.8,SNR=21
comp=Z,9.5nm,0.5s
ALKP Alkanpan, Nort 78.24 118 eP P 12 44 58.8 +0.3
NVAR Mina Array Bea 78.28 322 P P 12 44 59.9 +1.3
comp=Z,4.5nm,1.0s,baz=150,slow=6.3,SNR=18
comp=Z,4.5nm,1.0s
SCHQ Schefferville 78.62 0 P P 12 44 59.9 +0.2
comp=Z,2.9nm,0.3s,baz=161,slow=1.1,SNR=12
comp=Z,2.9nm,0.3s
BFON Badsfontein, M 78.72 120 eP P 12 45 02.5 +1.3
KOOLE Kule 79.04 110 P P 12 45 03.6 +0.6
YHH Holmes Hill 79.12 330 P P 12 45 04.9 +1.8
GRAF Camdeboo Natio 79.18 120 eP P 12 45 05.0 +1.4
LKGWB Lokgwabe 79.50 112 P P 12 45 08.0 +2.5
LKGWB Lokgwabe 79.50 112 P P 12 45 08.5 +3.0
AFDM Forest Hills D 80.17 321 P P 12 45 09.6 +1.1
PHPEN Phepeng 80.38 114 P P 12 45 10.9 +0.7
GRTLG Ghanzi 80.52 109 P 12 45 10.9 -0.2
GRTLG Ghanzi 80.52 109 P P 12 45 11.6 +0.5
CCD Concordia, Ant 80.77 183 P P 12 45 12.8 +1.0
BOSA Boshof 81.17 117 P P 12 45 14.5 +0.1
comp=Z,19nm,0.6s,baz=256,slow=4.2,SNR=48
comp=Z,19nm,0.6s
BOSA Boshof 81.17 117 P 12 45 14.2 -0.2
BOSA IAmb IAmb 12 45 16.1
comp=Z,45nm,1.0s
BOSA Boshof 81.17 117 P P 12 45 14.8 +0.4
BOSA Boshof 81.17 117 P P 12 45 14.5 +0.1
MAW Mawson 81.49 163 P P 12 45 16.1 +1.0
comp=Z,18nm,0.9s,baz=236,slow=6.4,SNR=16
MAW LR LR 13 22 17.2
comp=Z,32nm,18.0s,baz=204,slow=36
comp=Z,18nm,0.9s
SKOMA Sekoma 81.64 113 P P 12 45 17.4 +0.5
MAKGR Makgori 81.87 115 P P 12 45 18.3 +1.2
MD01 Midelt array s 82.44 49 P 12 45 21.5 +0.7
MD31 MD31 82.44 49 P P 12 45 21.6 +0.9
MD31 IAmb IAmb 12 45 23.4
comp=Z,37nm,1.1s
MORF Marmelete 82.49 44 eP P 12 45 22.8 +1.9
MORF IAmb IAmb 12 45 24.3
comp=Z,78nm,1.5s
MDT Midelt 82.52 49 LR LR 13 22 47.3
comp=Z,75nm,18.4s,baz=234,slow=36
PTEO Sao Teotonio 82.60 43 eP P 12 45 23.8 +2.6
K05A Summer Lake 82.66 323 P 12 45 23.9 +2.2
KDWAN Kaudwane 82.69 112 P P 12 45 22.9 +0.5
KDWAN Kaudwane 82.69 112 P P 12 45 23.2 +0.8
I07A Izee 82.84 325 P 12 45 24.1 +1.5
LBTB Lobatse 82.84 114 P P 12 45 24.0 +0.8
LBTB pmax pmax
comp=Z,56nm,0.8s
LBTB Lobatse 82.84 114 P P 12 45 24.0 +0.8
LBTB IAmb IAmb 12 45 25.0
comp=Z,56nm,0.8s
LBTB Lobatse 82.84 114 P P 12 45 23.9 +0.7
PBDV Barranco-do-Ve 82.91 44 eP P 12 45 25.3 +2.3
JTMT Jette 82.92 330 P 12 45 24.2 +1.3
PCVE Castro Verde 83.08 44 eP P 12 45 25.6 +1.9
PLOUS Minas do Lousa 83.08 43 eP P 12 45 25.7 +2.0
PLOUS IAmb IAmb 12 45 28.7
comp=Z,46nm,2.1s
MESJ Messejana 83.09 43 eP P 12 45 25.0 +1.1
MESJ IAmb IAmb 12 45 26.9
comp=Z,22nm,1.4s
MESJ Messejana 83.09 43 eP P 12 45 25.9 +2.0
PVAQ Vaqueiros 83.14 44 eP P 12 45 26.2 +2.1
PVAQ IAmb IAmb 12 45 29.9
comp=Z,52nm,2.0s
PBEJ Beja 83.43 43 eP P 12 45 27.5 +2.0
MOE Montemor 83.43 43 eP P 12 45 27.4 +1.9
EVO Evora 83.64 43 eP P 12 45 28.5 +1.9
PSBE So Bento 83.76 42 eP P 12 45 29.6 +2.3
PSBE IAmb IAmb 12 45 31.0
comp=Z,117nm,1.7s
PARRA Arraiolos 83.80 43 eP P 12 45 29.4 +1.9
PARRA IAmb IAmb 12 45 31.0
comp=Z,67nm,1.6s
PMTG Montargil 83.84 42 eP P 12 45 29.1 +1.4
PMTG IAmb IAmb 12 45 31.2
comp=Z,120nm,1.5s
LDM Libby Dam 83.91 330 P 12 45 28.7 +0.9
PBAR Barrancos 84.04 44 eP P 12 45 30.2 +1.6

PBAR					IAmb	IAmb	12 45 31.9		
	comp=Z,38nm,1.6s								
PESTR	**Estremoz**	**84.11**	**43**	*e*P	**P**	**P**	**12 45 31.4**	**+2.4**	
PESTR					IAmb	IAmb	12 45 33.7		
	comp=Z,42nm,1.6s								
PSARD	**Sardoal**	**84.20**	**42**	*e*P	**P**	**P**	**12 45 31.2**	**+1.7**	
PSARD					IAmb	IAmb	12 45 32.6		
	comp=Z,89nm,1.5s								
PMRV	**Marv??o**	**84.57**	**42**	*e*P	**P**	**P**	**12 45 32.9**	**+1.6**	
PMRV					IAmb	IAmb	12 45 33.6		
	comp=Z,46nm,1.2s								
PCBR	**Castelo Branco**	**84.77**	**42**	*e*P	**P**	**P**	**12 45 33.5**	**+1.2**	
PCBR					IAmb	IAmb	12 45 35.1		
	comp=Z,63nm,1.6s								
C09A	**Chrisman Ranch**	**84.81**	**328**			**P**	**12 45 33.5**	**+1.2**	
PTO	**Porto**	**84.88**	**41**	*e*P		**P**	**12 45 34.5**	**+1.7**	
PTO					IAmb	IAmb	12 45 35.9		
	comp=Z,143nm,1.5s								
TAM	**Tamanrasset**	**84.93**	**62**		P	**P**	**12 45 34.1**	**+0.4**	
TAM					pmax	pmax			
	comp=Z,33nm,0.8s								
TAM	**Tamanrasset**	**84.93**	**62**			**P**	**12 45 34.1**	**+0.4**	
TAM					IAmb	IAmb	12 45 37.6		
	comp=Z,33nm,0.8s								
PVIS	**Viseu**	**85.05**	**41**	*e*P		**P**	**12 45 34.8**	**+1.0**	
MTE	**Manteigas**	**85.06**	**42**			**P**	**12 45 34.4**	**+0.6**	
MTE					IAmb	IAmb	12 45 36.1		
	comp=Z,46nm,0.9s								
MTE	**Manteigas**	**85.06**	**42**	*e*P		**P**	**12 45 35.4**	**+1.5**	
MTE					IAmb	IAmb	12 45 36.7		
	comp=Z,74nm,1.3s								
SOOWA	**Sowa**	**85.14**	**110**	P		**P**	**12 45 36.1**	**+1.3**	
KSANE	**Kasane**	**85.33**	**107**			**P**	**12 45 36.4**	**+0.6**	
KSANE	**Kasane**	**85.33**	**107**	P		**P**	**12 45 37.1**	**+1.3**	
PVRL	**Vila Real**	**85.49**	**41**	*e*P		**P**	**12 45 37.4**	**+1.4**	
PVRL					IAmb	IAmb	12 45 38.9		
	comp=Z,105nm,1.5s								
POLO	**Lamas de Olo**	**85.51**	**41**	*e*P		**P**	**12 45 37.2**	**+1.1**	
PCAB	**Cabril**	**85.57**	**40**	*e*P		**P**	**12 45 37.6**	**+1.3**	
PCAB					IAmb	IAmb	12 45 37.9		
	comp=Z,82nm,1.3s								
PBRG	**Braganca**	**86.40**	**41**	*e*P		**P**	**12 45 41.8**	**+1.4**	
PBRG					IAmb	IAmb	12 45 43.5		
	comp=Z,74nm,1.5s								
PAB	**San Pablo**	**86.54**	**44**	P		**P**	**12 45 42.0**	**+0.8**	
PAB					pmax	pmax			
	comp=Z,83nm,1.2s								
PAB	**San Pablo**	**86.54**	**44**	P		**P**	**12 45 42.0**	**+0.8**	
PAB	**San Pablo**	**86.54**	**44**	P		**P**	**12 45 42.3**	**+1.1**	
PAB					pP	**pP**	**12 46 23.5**	**+1.9**	
PAB					sP	**sP**	**12 46 41.0**	**+2.5**	
EDM	**Edmonton**	**86.63**	**334**	P		**P**	**12 45 41.7**	**+0.5**	
EDM					pmax	pmax			
	comp=Z,35nm,1.4s								
EDM	**Edmonton**	**86.63**	**334**			**P**	**12 45 41.7**	**+0.5**	
EDM					IAmb	IAmb	12 45 43.2		
	comp=Z,35nm,1.4s								
ESDC	**Sonseca Array**	**86.86**	**44**	P		**P**	**12 45 43.6**	**+0.9**	
	comp=Z,32nm,1.2s,baz=231,slow=5.1,SNR=51								
ESDC					LR	LR	13 22 22.9		
	comp=Z,101nm,20.7s,baz=252,slow=34								
	comp=Z,32nm,1.2s								
ESDC	**Sonseca Array**	**86.86**	**44**			**P**	**12 45 43.1**	**+0.4**	
ESBB	**Sonseca Array**	**86.86**	**44**			**P**	**12 45 43.3**	**+0.6**	
ESBB					IAmb	IAmb	12 45 45.9		
	comp=Z,67nm,1.4s								
MATP	**Matopo**	**87.14**	**111**		LR	LR	13 22 27.0		
	comp=Z,425nm,19.4s,baz=237,slow=34								
CASY	**Casey**	**89.88**	**179**	P		**P**	**12 45 58.0**	**+1.5**	
CASY					pP	**pP**	**12 46 38.3**	**+1.5**	
SFJD	**Kangerlussuaq**	**91.72**	**7**	LR		LR	13 28 00.6		
	comp=Z,24nm,20.2s,baz=188,slow=36								
CEST	**Esterri de Car**	**91.75**	**44**			**P**	**12 46 05.7**	**0.0**	
CEST					IAmb	IAmb	12 46 10.3		
	comp=Z,39nm,1.4s								
URZ	**Urewera**	**93.25**	**225**	LR		LR	13 20 55.7		
	comp=Z,68nm,19.8s,baz=150,slow=31								
KEST	**Kesra**	**93.92**	**53**	P		**P**	**12 46 15.8**	**+0.1**	
	comp=Z,3.7nm,0.5s,baz=291,slow=3.3,SNR=4.7								
	comp=Z,3.7nm,0.5s								
YKA	**Yellowknife Ar**	**94.04**	**340**	P		**P**	**12 46 16.3**	**+0.8**	
	comp=Z,4.4nm,0.5s,baz=135,slow=4.5,SNR=60								
	comp=Z,4.4nm,0.5s								
EKA	**Eskdalemuir Ar**	**96.21**	**31**	P		**P**	**12 46 25.0**	**-0.6**	
	comp=Z,0.9nm,0.7s,baz=160,slow=6.8,SNR=1.8								
EKA					LR	LR	13 24 09.4		
	comp=Z,87nm,19.8s,baz=194,slow=32								
	comp=Z,0.9nm,0.7s								
EKA	**Eskdalemuir Ar**	**96.21**	**31**	P		**P**	**12 46 25.0**	**-0.6**	
MBAR	**Mbarara**	**97.37**	**94**	LR		LR	13 26 56.7		
	comp=Z,62nm,19.8s,baz=293,slow=33								
BMRD	**Maredsous**	**97.72**	**38**	*d*P		Pdif	12 46 33.1	+0.5	
	comp=Z,7.7nm,1.2s								
WLF	**Walferdange**	**98.20**	**39**	*d*P		Pdif	12 46 35.8	+1.1	
	comp=Z,9.8nm,1.2s								
WLF					*d*pP	pP	12 47 11.9	-3.7	
WLF					*d*sP	sP	12 47 25.8	-6.6	
TUE	**Stuetta**	**98.69**	**43**			Pdif	12 46 37.7	+0.5	
TUE					IAmb	IAmb	12 46 39.2		
	comp=Z,13nm,1.2s								
DAVOX	**Davos/Dischmat**	**99.15**	**43**	LR		LR	13 29 34.3		
	comp=Z,113nm,21.8s,baz=261,slow=34								
DAVA	**Damuels**	**99.37**	**42**	*e*Pdiff		**Pdif**	**12 46 41.4**	**+1.2**	
	comp=Z,7.1nm,1.2s								
FETA	**Feichten**	**99.78**	**43**	*e*Pdiff		**Pdif**	**12 46 42.9**	**+0.9**	
	comp=Z,7.3nm,1.3s								
MOTA	**Moosalm**	**100.15**	**43**	*e*Pdiff		**Pdif**	**12 46 44.6**	**+0.9**	
	comp=Z,15nm,1.4s								
SQTA	**Sankt Quirin**	**100.16**	**43**	*e*Pdiff		**Pdif**	**12 46 44.9**	**+1.2**	
	comp=Z,20nm,1.4s								
WATA	**Walderalm**	**100.44**	**43**	*e*Pdiff		**Pdif**	**12 46 46.0**	**+1.0**	
	comp=Z,10.0nm,1.2s								
WTTA	**Wattenberg**	**100.44**	**43**	*e*Pdiff		**Pdif**	**12 46 46.6**	**+1.6**	
	comp=Z,20nm,1.4s								
LESA	**Schwarzleotal**	**101.16**	**43**	*e*Pdiff		**Pdif**	**12 46 49.4**	**+1.3**	
	comp=Z,6.2nm,1.6s								
KBA	**Koelnbreinsper**	**101.44**	**44**	*e*Pdiff		**Pdif**	**12 46 50.1**	**+0.7**	
	comp=Z,4.5nm,1.3s								
MYKA	**Terra Mystica**	**101.45**	**44**	*e*Pdiff		**Pdif**	**12 46 50.5**	**+1.2**	
	comp=Z,5.4nm,1.1s								
BIOA	**Bad Ischl, Aus**	**101.86**	**43**	*e*Pdiff		**Pdif**	**12 46 51.8**	**+0.7**	
	comp=Z,2.7nm,0.9s								
OBKA	**Obir**	**101.98**	**44**	*e*Pdiff		**Pdif**	**12 46 53.3**	**+1.5**	
	comp=Z,11nm,1.7s								
GERES	**GERESS Array B**	**102.34**	**42**	PP		**PP**	**12 51 05.6**	**-2.4**	
	comp=Z,0.6nm,0.9s,baz=281,slow=12,SNR=3.4								
CLL	**Collm**	**102.86**	**39**	*e*PP		**PKiKP**	**12 51 14.0**	**-1.0**	
CLL				*e*PPS		PPS	13 01 18.0		
CLL				*e*SSSS			13 13 30.0		
CLL				LV			13 22 00.0		
CLL				AMS		AMS	13 29 00.0		
AKASG	**Malin Array Be**	**112.50**	**43**	PKiKP		**PKiKP**	**12 51 32.7**	**-0.2**	
	comp=Z,0.3nm,0.3s,baz=273,slow=2.6,SNR=4.0								
AKASG				PP		**PP**	**12 52 18.9**	**-3.0**	
	comp=Z,0.2nm,0.3s,baz=264,slow=7.1,SNR=6.5								
ARCES	**ARCESS Array B**	**113.44**	**23**	PKKPbc		PKKPbc	13 02 15.5	-6.0	
	comp=Z,6.1nm,0.9s,baz=84,slow=3.3,SNR=7.4								
APA	**Apatity**	**116.24**	**25**	*e*PKiKP		**PKPdf**	**12 51 36.4**	**-3.2**	
APA					pmax	pmax			
	comp=Z,9.0nm,1.1s								
MTSU	**Mount Surprise**	**127.72**	**219**	P		**PKiKP**	**12 52 05.1**	**+1.2**	
AS09	**Alice Springs**	**128.08**	**205**	P		**PKiKP**	**12 52 04.8**	**+0.3**	
AS17	**Alice Springs**	**128.09**	**205**	P		**PKiKP**	**12 52 04.5**	**-0.1**	
AS31	**Alice Springs**	**128.12**	**205**	P		**PKPdf**	**12 52 04.4**	**+0.4**	
ASAR	**Alice Springs**	**128.12**	**205**	PKP		**PKPdf**	**12 52 04.3**	**+0.3**	
	comp=Z,4.7nm,0.6s,baz=135,slow=1.8,SNR=61								
AS15	**Alice Springs**	**128.15**	**205**	P		**PKiKP**	**12 52 04.6**	**0.0**	
QIS	**Mount Isa**	**128.29**	**213**	P		**PKiKP**	**12 52 05.6**	**+0.6**	
ARTI	**Arti**	**129.51**	**36**	*i* PKiKP		**PKPdf**	**12 52 05.6**	**+0.2**	
WRA	**Warramunga Arr**	**131.27**	**208**	PKP		**PKPdf**	**12 52 10.6**	**+0.6**	
	comp=Z,3.0nm,0.4s,baz=158,slow=1.8,SNR=53								
WRA					SKPbc	**SKPbc**	**12 55 21.0**	**+0.4**	
	comp=Z,9.1nm,0.8s,baz=153,slow=3.8,SNR=34								
WRAB	**Tennant Creek**	**131.27**	**208**	*i* PKiKP		**PKPdf**	**12 52 09.5**	**-0.5**	
TIXI	**Tiksi**	**131.52**	**353**	*i* PKiKP		**PKPdf**	**12 52 07.0**	**-1.8**	
AB31	**Akbulak array**	**132.20**	**45**	*i* PKiKP		**PKiKP**	**12 52 12.3**	**+0.5**	
AB31					pmax	pmax			
	comp=Z,6.0nm,1.1s								
NRIK	**Noril'sk**	**132.38**	**12**	PKP		**PKiKP**	**12 52 12.4**	**+0.8**	
	comp=Z,2.3nm,0.6s,baz=304,slow=3.6,SNR=4.7								
PETK	**Petropavlovsk-**	**135.37**	**322**	PKhKP		PKPpre	12 52 09.0		
	comp=Z,0.9nm,0.4s,baz=11,slow=2.2,SNR=7.2								
PETK					PKP	**PKiKP**	**12 52 18.1**	**0.0**	
	comp=Z,1.8nm,0.5s,baz=14,slow=2.4,SNR=11								
FITZ	**Fitzroy Crossi**	**136.10**	**198**	PKhKP		PKPpre	12 52 12.6		
	comp=Z,1.4nm,0.9s,baz=275,slow=23,SNR=1.1								
FITZ					PKP	**PKPdf**	**12 52 19.7**	**+0.6**	
	comp=Z,3.6nm,0.7s,baz=183,slow=7.4,SNR=9.8								
BORK	**Borovoye**	**137.17**	**37**	*i* PKiKP		**PKPdf**	**12 52 20.5**	**+0.6**	
BVAR	**Borovoye Array**	**137.21**	**37**	PKP		**PKPdf**	**12 52 18.4**	**-1.7**	
	comp=Z,0.6nm,0.3s,baz=170,slow=0.9,SNR=4.4								
BVAR					SKPbc	**SKiKP**	**12 55 41.5**	**-1.9**	
	comp=Z,1.3nm,0.6s,baz=242,slow=3.1,SNR=6.4								
BRLS	**Borolday**	**140.33**	**51**	*e*PKiKP		**PKPdf**	**12 52 27.1**	**+1.0**	
BRLS	**Borolday**	**140.33**	**51**	*e*PKP		**PKPdf**	**12 52 27.1**	**+1.0**	
CHM	**Chimkent**	**140.34**	**52**	*e*PKiKP		**PKPdf**	**12 52 27.2**	**+1.1**	
CHM	**Chimkent**	**140.34**	**52**	*e*PKP		**PKPdf**	**12 52 27.2**	**+1.1**	
IUG	**Iuzhnay**	**140.69**	**52**	*e*PKiKP		**PKPdf**	**12 52 27.8**	**+1.0**	
IUG	**Iuzhnay**	**140.69**	**52**	*e*PKP		**PKPdf**	**12 52 27.9**	**+1.0**	
KK31	**Karatay Array**	**140.79**	**51**	PKiKP		**PKiKP**	**12 52 31.6**	**+2.0**	
KK31					pmax	pmax			
	comp=Z,1.0nm,0.8s								
DZA	**Taraz**	**141.43**	**51**	*e*PKiKP		**PKPdf**	**12 52 29.1**	**+1.0**	
DZA	**Taraz**	**141.43**	**51**	*e*PKP		**PKPdf**	**12 52 29.2**	**+1.0**	
KURK	**Kurchatov**	**142.79**	**36**	*i* PKiKP		**PKPdf**	**12 52 31.0**	**+0.8**	
KURBB	**Kurchatov Arra**	**142.79**	**36**	PKhKP		PKPpre	12 52 27.3		
	comp=Z,1.1nm,0.4s,baz=297,slow=3.6,SNR=6.5								
KURBB					PP	**PP**	**12 55 41.2**	**+0.7**	
	comp=Z,0.7nm,0.6s,baz=290,slow=6.7,SNR=5.4								
AAK	**Ala-Archa**	**143.73**	**50**	*i* PKiKP		**PKPdf**	**12 52 31.9**	**-0.4**	
ZALV	**Zalesovo Beam**	**143.75**	**28**	PKP		PKPbc	12 52 30.6	+0.8	
	comp=Z,5.8nm,0.3s,baz=296,slow=4.4,SNR=46								
ZALV					PP	**PP**	**12 55 45.4**	**-0.6**	
	comp=Z,0.4nm,0.4s,baz=0.3,slow=4.7,SNR=1.3								
ZALV					SKPbc	**SKiKP**	**12 55 57.0**	**+0.1**	
	comp=Z,1.9nm,0.5s,baz=310,slow=3.5,SNR=6.4								
SOEI	**Soe**	**144.40**	**200**	PKP		**PKPab**	**12 52 27.4**	**-5.3**	
SOEI				PKP		PKPbc	12 52 32.3	-0.8	
SOEI				PKP		**PKPdf**	**12 52 34.7**	**+0.4**	
SOEI				PKP		**PKiKP**	**12 52 38.0**	**0.0**	
KUU	**Kurty**	**144.56**	**47**	*e*PKiKP		**PKPdf**	**12 52 34.6**	**+1.1**	
KUU	**Kurty**	**144.56**	**47**	*e*PKP		**PKPdf**	**12 52 34.6**	**+1.1**	
AAA	**Alma-Ata**	**145.20**	**48**	*e*PKiKP		**PKPab**	**12 52 35.7**	**+0.8**	
AAA	**Alma-Ata**	**145.20**	**48**	*e*PKP		**PKPab**	**12 52 35.8**	**+0.8**	
TNSS	**Tian-Shan**	**145.29**	**48**	*e*PKP2		**PKPab**	**12 52 35.7**	**0.0**	
TNSS	**Tian-Shan**	**145.29**	**48**	*e*PKP		**PKPab**	**12 52 35.8**	**0.0**	
MDOK	**Medeo**	**145.31**	**48**	*e*PKP2		**PKPab**	**12 52 36.0**	**+0.5**	
MDOK	**Medeo**	**145.31**	**48**	*e*PKP		**PKPab**	**12 52 36.0**	**+0.5**	
TDK	**Taldyqorghan**	**145.47**	**44**	*e*PKP2		**PKPab**	**12 52 36.2**	**+0.4**	
TDK	**Taldyqorghan**	**145.47**	**44**	*e*PKP		**PKPab**	**12 52 36.2**	**+0.4**	
KSH2	**Kashi**	**145.50**	**55**	PKPbc		**PKPab**	**12 52 36.9**	**+0.5**	
KSH2				PP		**PP**	**12 55 58.4**	**+0.8**	
KSH2				AMB		AMB			
	comp=Z,220nm,4.0s								
BAKI	**Biak**	**145.90**	**226**	PKP		**PKiKP**	**12 52 40.9**	**0.0**	
BAKI				PKP		**PKPab**	**12 52 41.3**	**+3.0**	
EDFI	**Ende, Flores**	**146.10**	**197**	PKP		**PKPdf**	**12 52 35.3**	**-1.9**	
EDFI				PKP		**PKPbc**	**12 52 38.7**	**+0.4**	
SATY	**Saty**	**146.27**	**48**	*e*PKP2		**PKPbc**	**12 52 37.5**	**-0.6**	
SATY	**Saty**	**146.27**	**48**	*e*PKP		**PKPbc**	**12 52 37.5**	**-0.6**	
KPKS	**Kokpek**	**146.29**	**47**	*e*PKP2		**PKPbc**	**12 52 37.5**	**-0.6**	
KPKS	**Kokpek**	**146.29**	**47**	*e*PKP		**PKPbc**	**12 52 37.5**	**-0.6**	
BOD	**Bodaibo**	**146.31**	**358**	*e*PKiKP		**PKPdf**	**12 52 36.7**	**+0.7**	
BOD					pmax	pmax			
	comp=Z,40nm,1.6s								
UZB	**Uzynbulak**	**146.65**	**47**	*e*PKiKP		**PKPdf**	**12 52 38.1**	**+0.8**	
UZB	**Uzynbulak**	**146.65**	**47**	*e*PKP		**PKPdf**	**12 52 38.1**	**+0.8**	
YSS	**Yuzhno-Sakhali**	**146.73**	**321**	*e*PKP2		**PKPbc**	**12 52 39.5**	**+0.5**	
YSS					pmax	pmax			
	comp=Z,20nm,1.0s								
LBFI	**Labuhan Bajo,**	**146.79**	**194**	PKP		**PKPbc**	**12 52 40.1**	**-0.1**	
LBFI				PKP		**PKPab**	**12 52 41.0**	**-0.7**	
SHLS	**Shalkode**	**146.94**	**47**	*e*PKiKP		**PKPbc**	**12 52 39.1**	**-0.8**	
SHLS	**Shalkode**	**146.94**	**47**	*e*PKP		**PKPbc**	**12 52 39.2**	**-0.8**	
MK31	**Makanchi Array**	**146.96**	**39**	*e*PKiKP		**PKPdf**	**12 52 38.4**	**+0.8**	
MK31					pmax	pmax			
	comp=Z,15nm,1.1s								
MKAR	**Makanchi Array**	**146.96**	**39**	PKPbc		**PKPdf**	**12 52 38.6**	**+1.0**	
	comp=Z,12nm,0.8s,baz=308,slow=1.3,SNR=69								
MKAR					SKPbc	**SKiKP**	**12 56 04.9**	**+1.1**	
	comp=Z,1.9nm,0.8s,baz=5.7,slow=1.4,SNR=4.4								
DBNI	**Kabupaten Domp**	**147.07**	**191**	PKP		**PKPdf**	**12 52 39.7**	**+1.0**	
DBNI				PKP		**PKPab**	**12 52 42.7**	**-0.1**	
HYB	**Hyderabad**	**147.72**	**95**	*e*PKPbc		**PKPbc**	**12 52 42.1**	**-0.6**	
HYB				*e*SKKSac		SKKSac	13 02 46.2	-1.5	
DGZ	**Jazzator, Alta**	**147.87**	**31**	*i* PKHKP		PKPpre	12 52 37.5		
ZSN	**Zaisan**	**148.03**	**36**	*e*PKiKP		**PKPdf**	**12 52 40.4**	**+1.1**	
ZSN	**Zaisan**	**148.03**	**36**	*e*PKP		**PKPdf**	**12 52 40.5**	**+1.1**	
ZEA	**Zeya**	**148.38**	**343**	*e*PKP2		**PKiKP**	**12 52 44.9**	**+0.1**	
ZEA					pmax	pmax			
	comp=Z,10.0nm,1.4s								
BKSI	**Bulukumba**	**149.79**	**195**	PKP		**PKPdf**	**12 52 44.1**	**+1.0**	
BKSI				PKP		**PKPbc**	**12 52 44.4**	**-3.6**	
BKSI				PKP		**PKiKP**	**12 52 48.9**	**0.0**	
KAPI	**Kappang**	**150.18**	**195**	PKP		**PKPdf**	**12 52 44.7**	**+1.0**	
KAPI				PKP		**PKPbc**	**12 52 47.2**	**-1.7**	
KAPI				PKP		**PKiKP**	**12 52 51.1**	**+1.4**	
KDI	**Kendari**	**150.38**	**201**	PKP		**PKPdf**	**12 52 45.2**	**+1.1**	
KDI				PKP		**PKiKP**	**12 52 51.8**	**+1.6**	
KLR	**Kul'dur**	**150.69**	**334**	*i* PKiKP		**PKPdf**	**12 52 45.3**	**+1.9**	
KSI	**Kapahiang**	**150.80**	**160**	PKP		PKPdf	12 52 34.6	-10	
KSI				PKP		**PKPbc**	**12 52 45.1**	**-5.4**	
SANI	**Sanana**	**150.83**	**209**	PKP		**PKPdf**	**12 52 46.0**	**+1.2**	
SANI				PKP		**PKPbc**	**12 52 50.4**	**-0.1**	
SANI				PKP		**PKiKP**	**12 52 51.2**	**+0.1**	
MOY	**Mondy**	**151.13**	**15**	*e*PKiKP		**PKiKP**	**12 52 51.5**	**+0.8**	
MOY					pmax	pmax			
	comp=Z,37nm,1.8s								
KNGR	**Kungurtug, Tuv**	**151.14**	**20**	*i* PKiKP		**PKPdf**	**12 52 45.3**	**+1.0**	
HEH	**HeiHe**	**151.41**	**340**	PKPbc		**PKPbc**	**12 52 50.8**	**+0.1**	
HEH				sPKP		**sPKPdf**	**12 53 34.4**	**-9.0**	
WMQ	**Urumqi**	**151.79**	**40**	*e*PKPbc		**PKPdf**	**12 52 47.9**	**+2.5**	
WMQ				PKPab		**PKPab**	**12 53 04.6**	**+3.2**	
ZAK	**Zakamensk**	**152.84**	**13**	*e*PKiKP		**PKiKP**	**12 52 54.6**	**+0.3**	
ZAK					pmax	pmax			
	comp=Z,5.0nm,1.0s								
TRSI	**Tarutung**	**154.48**	**147**	PKP		PKPdf	12 52 40.2	-10	
MJAR	**Matsushiro Arr**	**154.60**	**305**	PKPbc		**PKiKP**	**12 52 58.5**	**+0.3**	
	comp=Z,1.4nm,0.5s,baz=75,slow=1.4,SNR=7.1								
MJAR					PKPab	**PKPab**	**12 53 15.0**	**+1.5**	
	comp=Z,7.0nm,0.7s,baz=82,slow=3.2,SNR=16								
BNX	**BinXian**	**155.25**	**334**	ĪP		**PKPab**	**12 53 16.8**	**+0.9**	
BNX					pmax	pmax			
	comp=Z,8.0nm,0.5s								
SONM	**Songino Array**	**155.85**	**10**	PKPab		**PKPab**	**12 53 18.8**	**+0.3**	
	comp=Z,1.0nm,0.4s,baz=345,slow=2.7,SNR=4.3								
KSRS	**Korea Array**	**161.20**	**319**	PKPab		**PKPab**	**12 53 43.4**	**+1.5**	
	comp=Z,1.5nm,0.8s,baz=57,slow=5.4,SNR=6.4								
GTA2	**Gaotai**	**161.32**	**32**	*e*PKP		**PKPdf**	**12 52 59.5**	**+1.6**	
GTA2				PKPab		**PKPab**	**12 53 43.0**	**+0.4**	
GTA2				sPKP		sPKPdf	12 53 53.3	-3.6	
BTO2	**Baotou**	**163.28**	**7**	*e*PKP		**PKPdf**	**12 52 56.3**	**-3.5**	
BTO2				PP		**PP**	**12 57 35.5**	**-0.1**	
BTO2					pmax	pmax			
	comp=Z,19nm,0.8s								
BTO2					pmax	pmax			
	comp=Z,260nm,9.5s								
HHC	**Hu-ho-hao-te**	**163.30**	**2**	*e*P		**PKPdf**	**12 52 56.3**	**-3.5**	
CMAR	**Chiang Mai Arr**	**166.26**	**112**	PKPab		**PKPab**	**12 54 05.7**	**+0.9**	
	comp=Z,1.0nm,0.5s,baz=253,slow=5.2,SNR=11								
CMAR					PP	**PP**	**12 57 52.5**	**-0.3**	
	comp=Z,0.7nm,0.6s,baz=213,slow=3.5,SNR=7.5								
CD2	**Chengdu**	**169.77**	**47**	PKP		**PKPdf**	**12 53 03.8**	**-1.2**	
NJ2	**Nanjing**	**170.25**	**326**	*e*P		**PKPdf**	**12 53 05.3**	**+0.2**	
NJ2					pmax	pmax			
	comp=Z,10.0nm,0.6s								

*IDC **15** 12:53:57.6±3.5,24˚.15S×179˚.39W,h522km±42km,mb3.3/5, mbtmp4.2/6,Error ellipse: s-maj=72.5km s-min=17.1km az=168.0*

ISC 15 12:53:57.3±0.9,23˚.8S±0˚.1×179˚.4W±0˚.1,h512km,n37, σ2s68/40,mb3.9/5,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**6.47**	**338**	P	P	12 55 43.4	+4.5
	5.0nm,0.5s,baz=83,slow=23,SNR=15						
OUZ	**Omahuta**	**12.93**	**207**	P	**P**	**12 56 48.5**	**+3.0**
WCZ	**Waipu Caves**	**13.28**	**203**	P	**P**	**12 56 53.0**	**+3.8**
MXZ	**Matakaoa Point**	**13.89**	**188**	P	**P**	**12 56 58.7**	**+3.2**
HAZ	**Te Kaha**	**14.15**	**189**	P	**P**	**12 57 01.7**	**+3.5**
RUGZ	**Raukumara Rang**	**14.37**	**189**	P	**P**	**12 57 03.4**	**+2.7**
PUZ	**Puketiti**	**14.40**	**187**	P	**P**	**12 57 04.6**	**+3.8**
TWGZ	**Tauwhareparae**	**14.53**	**188**	P	**P**	**12 57 06.0**	**+3.7**
TOZ	**Tahuroa Road**	**14.59**	**196**	P	**P**	**12 57 06.4**	**+3.6**
URZ	**Urewera**	**14.75**	**191**	P	**P**	**12 57 05.8**	**+1.4**
URZ				S	**S**	**12 59 36.6**	**-2.2**
MWZ	**Matawai**	**14.75**	**190**	P	**P**	**12 57 06.8**	**+2.2**
MWZ				S	**S**	**12 59 37.6**	**-1.5**
RIGZ	**Rimuhau**	**15.08**	**189**	P	**P**	**12 57 10.7**	**+2.7**
RIGZ				S	**S**	**12 59 42.2**	**-3.1**
HIZ	**Hauiti**	**15.49**	**197**	P	**P**	**12 57 17.5**	**+5.3**
NMHZ	**Naumai**	**15.62**	**191**	P	**P**	**12 57 15.9**	**+2.3**
BKZ	**Black Stump Fm**	**15.74**	**192**	P	**P**	**12 57 16.5**	**+1.6**
BKZ				S	**S**	**12 59 53.8**	**-3.9**
NTVZ	**North Tongariro**	**15.84**	**194**	P	**P**	**12 57 18.9**	**+2.8**
ETVZ	**East Tongariro**	**15.87**	**194**	P	**P**	**12 57 18.1**	**+1.7**
NGZ	**Ngauruhoe**	**15.93**	**194**	P	**P**	**12 57 19.9**	**+2.9**
VRZ	**Vera Road**	**16.09**	**197**	P	**P**	**12 57 22.3**	**+3.8**
NEZ	**North Egmont**	**16.41**	**198**	P	**P**	**12 57 28.0**	**+6.1**
PXZ	**Pawanui**	**16.52**	**190**	P	**P**	**12 57 22.8**	**0.0**
TSZ	**Takapari Road**	**16.71**	**192**	P	**P**	**12 57 25.7**	**+0.9**
BFZ	**Birch Farm**	**17.25**	**191**	P	**P**	**12 57 30.7**	**+0.7**
MRZ	**Mangatainoka R**	**17.36**	**193**	P	**P**	**12 57 29.8**	**-1.2**
QRZ	**Quartz Range**	**18.31**	**200**	P	**P**	**12 57 41.4**	**+1.8**
NNZ	**Nelson**	**18.42**	**197**	P	**P**	**12 57 42.1**	**+1.4**
THZ	**Tophouse**	**19.06**	**198**	P	**P**	**12 57 48.1**	**+1.5**
KHZ	**Kahutara**	**19.50**	**196**	P	**P**	**12 57 51.4**	**+0.9**
GVZ	**Greta Valley S**	**20.14**	**196**	P	**P**	**12 57 57.6**	**+1.2**
LTZ	**Lake Taylor**	**20.18**	**198**	P	**P**	**12 57 57.9**	**+1.1**
INZ	**Inchbonnie**	**20.37**	**200**	P	**P**	**12 57 59.4**	**+0.9**
PPT	**Papeete**	**28.54**	**83**	P	**P**

GORD				AML	AML			
YAYO	**Edremit-Balk**	**1.75**	**3**	Pn	**Pb**	**13 05 51.9**	**+0.5**	
YAYO				AML	AML			
EZN	**Ezine**	**2.02**	**346**	Pn	**Pb**	**13 05 55.8**	**-0.3**	
EZN				AML	AML			
SUSR	**Susurluk-Balik**	**2.27**	**22**	Pn	**Pn**	**13 05 58.6**	**+1.9**	
SUSR				AML	AML			

AUST 15 13:22:10.0±0.5, 27°S±3″×11°8E±°, h10km, ML2.6/7, Error ellipse: s-maj=11.8km s-min=4.7km az=120.4, confirmed, Western Australia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MEEK	**Meekatharra**	**1.11**	**46**	P	Pb	13 22 30.2	-1.1
MEEK				S	Sg	13 22 44.7	-1.0
MEEK				AML	AML		
MORW	**Morawa**	**2.22**	**222**	P	Pn	13 22 46.2	-0.6
MORW				S	Sn	13 23 13.6	-0.7
MORW				AML	AML		
BCON	**Beacon, Wester**	**2.91**	**179**	P	Pn	13 22 57.7	+1.2
BCON				S	Sn	13 23 31.7	+0.2
BCON				AML	AML		
BLDU	**Ballidu**	**3.31**	**195**	P	Pn	13 23 04.3	+2.4
BLDU				AML	AML		
BLDU	**Ballidu**	**3.31**	**195**	P	Pn	13 23 03.1	+1.2
BLDU				AML	AML		
WATNG	**Wattoning, WA**	**3.33**	**173**	P	Pn	13 23 03.8	+1.6
WATNG				S	Sn	13 23 41.2	-0.7
WATNG				AML	AML		
KORDA	**Koorda, Wester**	**3.46**	**183**	P	Pn	13 23 05.7	+1.8
KORDA				S	Sn	13 23 43.6	-1.3
KORDA				AML	AML		
KLBR	**Kellerberrin**	**4.16**	**180**	P	Pn	13 23 14.8	+1.2
KLBR				S	Sn	13 24 01.1	-1.3
KLBR				AML	AML		
KMBL	**Kambalda**	**5.36**	**138**	P	Pn	13 23 31.3	+1.2
	comp=Z,4.5nm,1.8s,comp=Z,0.0nm						
KMBL				AML	AML		
GIRL	**Giralia**	**5.71**	**326**	P	Pn	13 23 34.8	0.0
	comp=Z,76nm,1.5s,comp=Z,0.1nm						
GIRL				AML	AML		

*IDC **15** 13:43:17.6±1.5, 24°88N×122°50E, h0km, mb3.5/2, mbtmp3.4/3, ML3.2/1, MS2.8/1, Error ellipse: s-maj=47.5km s-min=24.5km az=84.0*
*JMA **15** 13:43:37.1±0.2, 25°N±2″×123°1E±0″.6, h172km±2km, MV3.0/18, NW OFF ISHIGAKIJIMA IS*
ISC 15 13:43:35.6±0.9, 25°2N±0″.1×123°05E±0″.06, h177km±9km, n23, σ0s84/32, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.72**	**183**	P	**Pn**	**13 44 01.2**	**+0.1**
YOJ	**Yonaguni jima**	**0.72**	**183**	*e*P	**Pn**	**13 44 01.7**	**+0.6**
YOJ				*e*S	**Sn**	**13 44 20.7**	**0.0**
JYNG	**Yonagunijimaku**	**0.73**	**187**	P	**Pn**	**13 44 01.8**	**+0.6**
JYNG				*e*S	**Sn**	**13 44 21.3**	**+0.4**
IRIF	**Iriomote-Funau**	**1.05**	**144**	P	**Pn**	**13 44 03.8**	**+0.5**
IRIF				S	**Sn**	**13 44 23.6**	**-1.1**
JKRS	**Kuro-shima**	**1.28**	**137**	*e*P	**Pn**	**13 44 06.1**	**+0.8**
JKRS				S	**Sn**	**13 44 27.9**	**-0.3**
JIJ	**Ishigaki jima**	**1.29**	**129**	*i* P	**Pn**	**13 44 05.9**	**+0.6**
JIJ				S	**Sn**	**13 44 27.0**	**-1.2**
JISG	**Ishigakijimahi**	**1.29**	**117**	P	**Pn**	**13 44 05.9**	**+0.6**
JISG				S	**Sn**	**13 44 27.7**	**-0.5**
HATJ	**Hateruma jima**	**1.32**	**148**	*e*P	**Pn**	**13 44 06.6**	**+1.0**
HATJ				*e*S	**Sn**	**13 44 28.4**	**-0.3**
JTJ	**Tarama**	**1.60**	**109**	P	**Pn**	**13 44 09.4**	**+1.2**
JTJ				S	**Sn**	**13 44 33.0**	**-0.4**
YHNB	**Yeheng**	**1.60**	**252**	P	**Pn**	**13 44 09.6**	**+1.2**
NACB	**Ninganchiao**	**1.66**	**233**	P	**Pn**	**13 44 09.3**	**+0.4**
JIRJ	**Irabujima**	**1.98**	**100**	P	**Pn**	**13 44 13.4**	**+1.3**
JIRJ				S	**Sn**	**13 44 39.7**	**-0.8**
JIKM	**Ikemajima**	**2.01**	**97**	*e*S	**Sn**	**13 44 41.0**	**-0.1**
JMJ2	**Miyako jima3**	**2.12**	**102**	*e*P	**Pn**	**13 44 15.2**	**+1.5**
JMJ2				S	**Sn**	**13 44 43.0**	**-0.2**
JOGS	**Gusukube**	**2.18**	**101**	S	**Sn**	**13 44 44.8**	**+0.3**
SSLB	**Suanglung**	**2.36**	**234**	P	**Pn**	**13 44 18.2**	**+1.7**
YULB	**Yu-li**	**2.39**	**222**	P	**Pn**	**13 44 17.1**	**+0.2**
TPUB	**Ta-pu**	**2.90**	**230**	P	**Pn**	**13 44 24.0**	**+1.1**
TWGBT	**Beinan**	**2.96**	**218**	P	**Pn**	**13 44 23.9**	**+0.2**
KSRS	**Korea Array**	**12.92**	**18**	Pn	**Pn**	**13 46 31.9**	**-0.8**
	0.1nm,0.3s,baz=198,slow=11,SNR=7.0 0.4nm,0.6s						
KSRS				AML	AML		
JAY	**Jayapura**	**32.42**	**146**	LR	LR	14 03 45.8	
	comp=Z,14nm,18.6s,baz=356,slow=38						
MKAR	**Makanchi Array**	**38.83**	**314**	P	**P**	**13 50 43.0**	**-0.4**
	0.2nm,0.3s,baz=98,slow=9.7,SNR=6.6 0.2nm,0.3s						
WRA	**Warramunga Arr**	**46.18**	**165**	P	**P**	**13 51 42.9**	**+0.1**
	0.3nm,0.3s,baz=347,slow=8.7,SNR=10 0.3nm,0.3s						

*IDC **15** 13:55:26.1±1.6, 7°59N×124°24E, h0km, mb3.5/3, mbtmp3.5/3, MS2.9/1, Error ellipse: s-maj=42.6km s-min=21.1km az=31.0*
*MAN **15** 13:55:30.0, 8°35N×125°66E, h26km, MS3.7*
ISC 15 13:55:28.9±1.4, 8°34N±0″.04×125°75E±0″.08, h31km±13km, n13, σ1s49/19, mb3.4/3, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CGP	**Cagayan de Oro**	**1.05**	**276**	*i* P	**Pn**	**13 55 47.6**	**+0.1**
CGP				*i* S	**Sn**	**13 56 00.5**	**-0.6**
DAV	**Davao City (W)**	**1.27**	**187**	Pg	**Pb**	**13 55 52.8**	**+0.5**
	84nm,0.3s,baz=253,slow=7.8,SNR=8.9						
DAV				Lg	Lg	13 56 10.5	
	92nm,0.3s,baz=277,slow=23,SNR=7.1						
SCPH	**Surigao**	**1.45**	**350**	*e*P	**Pb**	**13 55 55.5**	**0.0**
SCPH				*e*S	**Sb**	**13 56 14.3**	**+0.7**
DDMP	**Don Marcelino,**	**2.22**	**181**	*e*P	**Pn**	**13 56 05.1**	**+1.4**
DDMP				*e*S	**Sn**	**13 56 30.0**	**-0.1**
TBP	**Tagbilaran**	**2.29**	**306**	*e*P	**Pn**	**13 56 05.8**	**+1.1**
TBP				*e*S	**Sn**	**13 56 33.4**	**+1.4**
DCPH	**Dipolog City**	**2.38**	**276**	*e*P	**Pn**	**13 56 07.5**	**+1.6**
LLP	**Lapu-Lapu**	**2.63**	**318**	*i* P	**Pn**	**13 56 11.1**	**+1.7**
LLP				*i* S	**Sn**	**13 56 41.4**	**+1.0**
SNPH	**Sibulan**	**2.67**	**292**	*i* P	**Pn**	**13 56 11.5**	**+1.5**
SNPH				*i* S	**Sn**	**13 56 41.0**	**-0.4**
PLP	**Palo**	**2.91**	**345**	*e*P	**Pn**	**13 56 14.8**	**+1.6**
PLP				*e*S	**Sb**	**13 56 51.6**	**-3.6**
KRVT	**Keravat (AS076**	**29.07**	**115**	LR	LR	14 13 24.2	
	comp=Z,20nm,19.1s,baz=282,slow=36						
WRA	**Warramunga Arr**	**29.35**	**163**	P	**P**	**14 01 28.2**	**-1.2**
	0.6nm,1.0s,baz=340,slow=7.5,SNR=2.7 0.6nm,1.0s						
ASAR	**Alice Springs**	**32.80**	**166**	P	**P**	**14 01 59.0**	**-0.7**
	0.3nm,0.3s,baz=342,slow=8.4,SNR=12 0.3nm,0.3s						
MKAR	**Makanchi Array**	**53.26**	**324**	P	**P**	**14 04 44.4**	**-0.4**
	0.4nm,0.9s,baz=120,slow=8.7,SNR=2.3 0.4nm,0.9s						

*THE **15** 14:08:29.2, 40°N±1°×2°0E±°, h2km±1km, M3.1/20, MLh3.1/20*
*TIR **15** 14:08:29.5, 40°.11N×19°.88E, h14km±1km, ML3.0, ML3.0, Presumed earthquake*
ISC 15 14:08:28.7±1.0, 40°12N±0″.02×19°78E±0″.03, h19km±2km, n46, σ1s13/78, Albania

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SRN	**Sarande**	**0.29**	**144**	P	**Pg**	**14 08 34.7**	**-0.4**
SRN				S	**Sg**	**14 08 38.8**	**-0.7**
SRN				AML	AML		
SRN	**Sarande**	**0.29**	**144**	Pg	**Pg**	**14 08 34.9**	**-0.3**
SRN				Sg	**Sg**	**14 08 39.5**	**-0.1**
SRN				IAML		14 08 41.0	
	12μm,0.3s						
KEK	**Kerkira**	**0.40**	**178**	P	**Pg**	**14 08 37.5**	**+0.4**
KEK				S	**Sg**	**14 08 42.7**	**0.0**
KEK				AML	AML		
VLO	**Vlora**	**0.41**	**328**	P	**Pg**	**14 08 37.7**	**+0.5**
VLO				S	**Sg**	**14 08 43.4**	**+0.3**
VLO				AML	AML		
VLO	**Vlora**	**0.41**	**328**	Pg	**Pg**	**14 08 37.7**	**+0.5**
VLO				Sg	**Sb**	**14 08 44.8**	**+1.5**
VLO				IAML		14 08 50.8	
	9μm,0.5s						
BERA	**Berati**	**0.60**	**13**	Pg	**Pb**	**14 08 39.4**	**-1.0**
BERA				Sg	**Sb**	**14 08 48.1**	**-0.3**
BERA				IAML		14 08 51.7	
	1μm,0.2s						
LSK	**Leskovik**	**0.63**	**87**	Pg	**Pb**	**14 08 39.9**	**-1.1**
LSK				Sg	**Sb**	**14 08 48.9**	**-0.6**
IGT	**Igoumenitsa**	**0.72**	**144**	P	**Pb**	**14 08 42.8**	**+0.1**
IGT				S	**Sn**	**14 08 53.7**	**-0.7**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.72**	**144**	Pg	**Pb**	**14 08 43.0**	**+0.3**
IGT				Sg	**Sg**	**14 08 53.1**	**+0.6**
KBN	**Korca**	**0.92**	**56**	P	**Pb**	**14 08 44.6**	**-1.5**
KBN				AML	AML		
KBN	**Korca**	**0.92**	**56**	Pg	**Pb**	**14 08 46.0**	**-0.1**
KBN				Sg	**Sb**	**14 08 58.5**	**+0.5**
KBN				IAML		14 09 02.4	
	750nm,0.6s						
JAN	**Janina**	**0.94**	**119**	P	**Pb**	**14 08 46.4**	**0.0**
JAN				S	**Sg**	**14 08 59.6**	**+0.1**
JAN				AML	AML		
NEST	**Nestorio**	**1.02**	**73**	P	**Pb**	**14 08 47.0**	**-0.7**
NEST				AML	AML		
NEST	**Nestorio**	**1.02**	**73**	Pg	**Pb**	**14 08 47.0**	**-0.7**
NEST				Sg	**Sg**	**14 09 01.8**	**-0.1**
NEST				IAML		14 09 07.6	
	500nm,0.6s						
PENT	**Pentalofos**	**1.04**	**85**	P	**Pb**	**14 08 47.6**	**-0.6**
PRMD	**Pramanda**	**1.17**	**120**	P	**Pb**	**14 08 50.7**	**+0.3**
PRMD				S	**Sg**	**14 09 07.1**	**+0.3**
PRMD				AML	AML		
KPRO	**Kipourio**	**1.23**	**97**	P	**Pn**	**14 08 51.0**	**+0.2**
KPRO				AML	AML		
TIR	**Tirane**	**1.23**	**3**	Pg	**Pg**	**14 08 53.3**	**+0.8**
TIR				Sg	**Sg**	**14 09 12.4**	**+3.8**
TIR				IAML		14 09 14.1	
	393nm,0.5s						
OHR	**Ohrid**	**1.26**	**38**	*i* Pn	**Pb**	**14 08 52.5**	**+0.7**
OHR				*i* Sn	**Sg**	**14 09 13.4**	**+3.8**
TETR	**Tetrakomo, Epi**	**1.39**	**123**	P	**Pb**	**14 08 54.8**	**+0.8**
TETR				AML	AML		
TSLK	**Tsoukalades, L**	**1.46**	**152**	P	**Pb**	**14 08 55.9**	**+0.7**
TSLK				AML	AML		
LKD2	**Lefkada island**	**1.49**	**153**	P	**Pb**	**14 08 56.4**	**+0.7**
LKD2				S	**Sg**	**14 09 16.4**	**-0.5**
LKD2				AML	AML		
LKD2	**Lefkada island**	**1.49**	**153**	Pg	**Pb**	**14 08 56.5**	**+0.7**
LKD2				Sg	**Sg**	**14 09 16.7**	**-0.1**
KZN	**Kozani**	**1.54**	**82**	P	**Pb**	**14 08 56.4**	**-0.2**
KZN				S	**Sn**	**14 09 15.2**	**+0.6**
KZN				AML	AML		
DRAG	**Dragano-Lefkad**	**1.56**	**156**	P	**Pb**	**14 08 57.0**	**+0.1**
DRAG				S	**Sb**	**14 09 17.8**	**+1.6**
DRAG				AML	AML		
NYDR	**Nydri-Lefkada**	**1.57**	**153**	P	**Pb**	**14 08 57.4**	**+0.3**
NYDR				AML	AML		
AMPL	**Ampelaki**	**1.63**	**137**	P	**Pb**	**14 08 58.8**	**+0.7**
AMPL				AML	AML		
EVGI	**Lefkada island**	**1.64**	**155**	P	**Pb**	**14 08 58.5**	**+0.2**
EVGI				AML	AML		
PHP	**Peshkopia**	**1.65**	**18**	Pg	**Pb**	**14 08 58.9**	**+0.5**
PHP				Sg	**Sg**	**14 09 22.3**	**+0.5**
PHP				IAML		14 09 34.0	
	321nm,1.1s						
THL	**Klokotos Trika**	**1.81**	**107**	P	**Pb**	**14 09 01.5**	**+0.4**
THL				S	**Sb**	**14 09 24.9**	**+1.6**
THL				AML	AML		
THL	**Klokotos Trika**	**1.81**	**107**	Pg	**Pb**	**14 09 01.6**	**+0.4**
THL				Sg	**Sb**	**14 09 24.9**	**+1.6**
PDO	**Prodromos**	**1.87**	**144**	P	**Pb**	**14 09 01.8**	**-0.3**
PDO				AML	AML		
TYRN	**Tyrnavos**	**1.93**	**101**	P	**Pb**	**14 09 03.3**	**0.0**
SDA	**Shkodra**	**1.94**	**354**	Pg	**Pb**	**14 09 02.6**	**-0.8**
NOCI	**Noci**	**2.18**	**289**	Sn	**Sg**	**14 09 40.5**	**+1.8**
VAY	**Valandovo**	**2.44**	**60**	*i* Pn	**Pb**	**14 09 10.5**	**-1.4**
VAY				*i* Sn	**Sg**	**14 09 47.7**	**+0.5**
DBRK	**Dubrovnik**	**2.83**	**335**	*e*Pn	**Pn**	**14 09 12.8**	**0.0**
DBRK				Sn	**Sn**	**14 09 45.9**	**-0.5**
PEHC	**Pehcevo**	**2.89**	**54**	*i* Pn	**Pb**	**14 09 18.6**	**-1.0**
PEHC				*i* Sn	**Sb**	**14 09 53.8**	**-0.8**
STON	**Ston**	**3.16**	**331**	*e*Pn	**Pn**	**14 09 17.8**	**+0.4**
STON				Sn	**Sn**	**14 09 53.4**	**-1.1**
MAKA	**Makarska**	**3.78**	**328**	*e*Pn	**Pn**	**14 09 25.8**	**-0.1**
MAKA				Sn	**Sn**	**14 10 08.5**	**-1.3**
RICI	**Ricice**	**3.91**	**330**	*e*Pn	**Pn**	**14 09 27.5**	**-0.2**
RICI				Sn	**Sn**	**14 10 11.9**	**-1.2**
MORI	**Morici**	**4.82**	**322**	*e*Pn	**Pn**	**14 09 39.6**	**-0.6**
MORI				Sn	**Sn**	**14 10 32.8**	**-2.6**
DUGI	**Dugi Otok**	**5.23**	**319**	*e*Pn	**Pn**	**14 09 44.6**	**-1.1**
DUGI				Sn	**Sn**	**14 10 42.9**	**-2.7**
UDBI	**Udbina**	**5.32**	**327**	Sn	**Sn**	**14 10 45.0**	**-2.8**
PLIT	**Plitvice**	**5.66**	**329**	*e*Pn	**Pn**	**14 09 52.6**	**+0.8**
PLIT				Sn	**Sn**	**14 10 55.0**	**-1.3**
RABC	**Rab**	**5.92**	**323**	*e*Pn	**Pn**	**14 09 54.7**	**-0.6**
RABC				Sn	**Sn**	**14 11 00.9**	**-1.7**

*IDC **15** 14:11:24.6±0.9, 2°19S×67°53E, h0km, mb3.7/11, mbtmp3.7/11, MS3.5/32, Error ellipse: s-maj=25.5km s-min=19.7km az=76.0*
ISC 15 14:11:26.3±0.8, 2°1S±0″.1×67°5E±0″.1, h10km, n47, σ0s85/14, mb3.7/11, MS3.5/31, Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H08S3	**Diego Garcia H**	**7.40**	**138**	Pn	**Pn**	**14 13 13.9**	**-0.3**
H08S3				T	T	14 20 15.8	
	baz=348,slow=71,SNR=11						
H08S1	**Diego Carcia H**	**7.40**	**138**	Pn	**Pn**	**14 13 15.8**	**+1.5**
H08S1				T	T	14 20 13.2	
	baz=348,slow=71,SNR=9.3						
H08S2	**Diego Garcia H**	**7.42**	**138**	Pn	**Pn**	**14 13 15.1**	**+0.7**
H08S2				T	T	14 20 19.5	
	baz=348,slow=71,SNR=12						
PALK	**Palkelele**	**16.16**	**55**	LR	LR	14 20 05.0	
	comp=Z,199nm,20.0s,baz=240,slow=32						
OPO	**Ambohidratompo**	**25.75**	**229**	LR	LR	14 25 01.2	
	comp=Z,97nm,18.0s,baz=160,slow=32						
KMBO	**Kilima Mbogo**	**30.23**	**271**	LR	LR	14 27 35.3	
	comp=Z,93nm,20.0s,baz=299,slow=32						
PSI	**Prapat**	**31.81**	**81**	LR	LR	14 29 41.2	
	comp=Z,182nm,18.9s,baz=245,slow=34						
BRDH	**Bariadhala**	**34.10**	**42**	LR	LR	14 33 15.5	
	comp=Z,79nm,18.5s,baz=204,slow=38						
MBAR	**Mbarara**	**36.76**	**272**	LR	LR	14 33 14.4	
	comp=Z,62nm,18.6s,baz=90,slow=36						
CMAR	**Chiang Mai Arr**	**37.10**	**55**	P	**P**	**14 18 37.5**	**+0.3**
	0.5nm,0.3s,baz=247,slow=10.0,SNR=8.4						
CMAR				LR	LR	14 32 16.9	
	comp=Z,36nm,21.5s,baz=235,slow=34 0.5nm,0.3s						
LEM	**Lembang**	**40.27**	**98**	LR	LR	14 34 08.5	
	comp=Z,127nm,18.5s,baz=204,slow=34						
ASF	**Jabal al Asfar**	**44.79**	**322**	LR	LR	14 36 38.7	
	comp=Z,36nm,20.9s,baz=166,slow=34						
AAK	**Ala-Archa**	**45.00**	**7**	LR	LR	14 37 31.6	
	comp=Z,13nm,18.4s,baz=184,slow=35						
H04N2	**CROZET ISLANDS**	**45.96**	**195**	T	T	15 08 55.2	
	baz=22,slow=74,SNR=5.8						
H04N1	**CROZET ISLANDS**	**45.96**	**195**	T	T	15 08 45.8	
	baz=22,slow=74,SNR=5.7						
H04N3	**CROZET ISLANDS**	**45.98**	**195**	T	T	15 08 57.0	
	baz=22,slow=74,SNR=5.8						
MMAI	**Mount Meron Ar**	**46.25**	**322**	LR	LR	14 37 48.3	
	comp=Z,27nm,20.2s,baz=185,slow=34						
LBTB	**Lobatse**	**46.33**	**237**	LR	LR	14 37 08.4	
	comp=Z,69nm,20.8s,baz=66,slow=33						
BOSA	**Boshof**	**48.08**	**233**	P	**P**	**14 20 06.4**	**-0.1**
	2.3nm,1.0s,baz=86,slow=7.0,SNR=3.7						
BOSA				LR	LR	14 37 37.1	
	comp=Z,38nm,18.1s,baz=33,slow=33 2.3nm,1.0s						
MKAR	**Makanchi Array**	**50.43**	**13**	P	**P**	**14 20 24.9**	**+0.9**
	0.2nm,0.7s,baz=206,slow=7.5,SNR=6.6 0.2nm,0.7s						
KBZ	**Khabaz**	**50.70**	**337**	P	**P**	**14 20 26.7**	**+0.7**
	1.0nm,0.8s,baz=127,slow=23,SNR=1.5 1.0nm,0.8s						
TSUM	**Tsumeb**	**51.66**	**247**	LR	LR	14 40 06.0	
	comp=Z,68nm,20.7s,baz=338,slow=33						
KAPI	**Kappang**	**52.23**	**95**	LR	LR	14 40 01.9	
	comp=Z,92nm,20.1s,baz=283,slow=33						
SUR	**Sutherland**	**53.14**	**230**	LR	LR	14 40 12.0	
	comp=Z,86nm,21.2s,baz=36,slow=32						
KURBB	**Kurchatov Arra**	**53.39**	**9**	P	**P**	**14 20 46.3**	**+0.3**
	0.1nm,0.3s,baz=206,slow=7.4,SNR=9.4 0.1nm,0.3s						
H01W3	**Cape Leeuwin H**	**54.20**	**133**	T	T	15 18 58.2	
	baz=297						
H01W2	**Cape Leeuwin H**	**54.21**	**133**	T	T	15 18 50.1	
	baz=297						
H01W1	**Cape Leeuwin H**	**54.22**	**133**	T	T	15 18 59.2	
	baz=297						
BATI	**Baumata**	**56.36**	**101**	LR	LR	14 45 51.6	
	comp=Z,130nm,18.1s,baz=264,slow=37						
ZALV	**Zalesovo Beam**	**57.71**	**12**	P	**P**	**14 21 17.8**	**+0.7**
	0.2nm,0.3s,baz=207,slow=7.1,SNR=6.9						
ZALV				LR	LR	14 45 50.9	
	comp=Z,35nm,18.6s,baz=7.5,slow=36 0.2nm,0.3s						
DAV	**Davao City (W)**	**58.69**	**80**	LR	LR	14 49 22.0	
	comp=Z,30nm,18.3s,baz=320,slow=39						
ARTI	**Arti**	**58.79**	**354**	LR	LR	14 48 56.5	
	comp=Z,11nm,19.4s,baz=15,slow=38						
SONM	**Songino Array**	**60.22**	**29**	P	**P**	**14 21 33.5**	**-1.3**
	0.8nm,0.4s,baz=217,slow=6.9,SNR=6.0 0.8nm,0.4s						
MAW	**Mawson**	**65.44**	**182**	LR	LR	14 44 40.4	
	comp=Z,28nm,18.2s,baz=56,slow=30						
WRA	**Warramunga Arr**	**67.54**	**111**	P	**P**	**14 22 22.4**	**-1.1**
	0.5nm,0.7s,baz=287,slow=6.0,SNR=6.2 0.5nm,0.7s						
ASAR	**Alice Springs**	**67.59**	**115**	P	**P**	**14 22 23.1**	**-0.6**
	0.3nm,0.7s,baz=274,slow=6.1,SNR=6.1						
ASAR				LR	LR	14 52 18.9	
	comp=Z,20nm,18.1s,baz=274,slow=36 0.3nm,0.7s						
KSRS	**Korea Array**	**68.28**	**48**	LR	LR	14 53 34.8	
	comp=Z,26nm,19.7s,baz=310,slow=37						
DBIC	**Dimbokro**	**72.73**	**278**	LR	LR	14 54 35.6	
	comp=Z,24nm,18.8s,baz=64,slow=36						
HFS	**Hagfors**	**74.72**	**335**	LR	LR	14 55 59.6	
	comp=Z,37nm,19.2s,baz=318,slow=36						
KLR	**Kul'dur**	**75.13**	**38**	LR	LR	14 59 31.6	
	comp=Z,36nm,18.4s,baz=332,slow=38						
STKA	**Stephens Creek**	**75.40**	**122**	LR	LR	14 54 50.9	
	comp=Z,33nm,18.3s,baz=214,slow=35						
MJAR	**Matsushiro Arr**	**75.89**	**52**	LR	LR	14 56 44.0	
	comp=Z,21nm,20.0s,baz=246,slow=36						
NOA	**NORSAR Array B**	**76.23**	**335**	LR	LR	14 57 44.5	
	comp=Z,11nm,20.6s,baz=235,slow=36						
ESDC	**Sonseca Array**	**77.17**	**311**	P	**P**	**14 23 20.5**	**-0.2**
	0.8nm,1.1s,baz=101,slow=6.6,SNR=2.3 0.8nm,1.1s						
GUMO	**Guam**	**78.25**	**76**	LR	LR	14 57 26.7	
	comp=Z,8.4nm,20.4s,baz=340,slow=35						
CTA	**Charters Tower**	**78.73**	**110**	LR	LR	14 53 35.2	
	comp=Z,31nm,21.1s,baz=236,slow=32						
QSPA	**South Pole Qui**	**87.88**	**180**	P	**P**	**14 24 16.0**	**0.0**
	1.6nm,1.0s,baz=316,slow=3.6,SNR=3.6						
QSPA				LR	LR	15 00 28.0	
	comp=Z,38nm,18.4s,baz=306,slow=34 1.6nm,1.0s						

*KRNET **15** 14:14:07.4±0.1, 42°.45N×79°.69E, h20km, mb2.6*
*SOME **15** 14:14:08.7, 42°.55N×79°.57E, h10km*
*NNC **15** 14:14:09.4±0.7, 42°.59N×79°.54E, h0km, mb3.0, mpv3.1, Error ellipse: s-maj=4.6km s-min=2.4km az=157.0*
ISC 15 14:14:08.1±2.0, 42°53N±0″.05×79°59E±0″.07, h11km±12km, n26, σ0s75/48, 6C-6D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**0.63**	**351**	P	**Pb**	**14 14 21.3**	**+0.1**
	45nm,0.1s						
SHLS				S	**Sb**	**14 14 30.5**	**+0.3**
	166nm,0.2s						
SHLS	**Shalkode**	**0.63**	**351**	*e*P	**Pb**	**14 14 21.3**	**+0.1**
	45nm,0.1s						
SHLS				*e*S	**Sb**	**14 14 30.5**	**+0.3**
	166nm,0.2s						
UZB	**Uzunybulak**	**0.74**	**326**	P	**Pg**	**14 14 22.5**	**0.0**
	20nm,0.1s						
UZB				S	**Sg**	**14 14 32.7**	**+0.4**
	21nm,0.1s						
UZB	**Uzunybulak**	**0.74**	**326**	*e*P	**Pg**	**14 14 22.5**	**0.0**
	20nm,0.1s						
UZB				*e*S	**Sg**	**14 14 32.7**	**+0.4**
	21nm,0.1s						
PRZ	**Przheval'sk**	**0.88**	**267**	⇓*e*P	**Pg**	**14 14 25.4**	**+0.2**
PRZ				⇓*e*S	**Sn**	**14 14 38.8**	**-0.8**
SATY	**Saty**	**1.02**	**301**	P	**Pg**	**14 14 27.5**	**-0.3**
	1.9nm,0.1s						
SATY				S	**Sg**	**14 14 40.9**	**-0.1**
	29nm,0.1s						
SATY	**Saty**	**1.02**	**301**	*e*P	**Pg**	**14 14 27.5**	**-0.3**
	1.9nm,0.1s						
SATY				*e*S	**Sg**	**14 14 40.9**	**-0.1**
	29nm,0.1s						
KPKS	**Kokpek**	**1.15**	**325**	P	**Pb**	**14 14 29.5**	**-0.5**
	0.3nm,0.1s						
KPKS				S	**Sg**	**14 14 44.3**	**-0.7**
	12nm,0.2s						
KPKS	**Kokpek**	**1.15**	**325**	*e*P	**Pb**	**14 14 29.5**	**-0.5**
	0.3nm,0.1s						
KPKS				*e*S	**Sg**	**14 14 44.4**	**-0.7**
	12nm,0.2s						
KURS	**Kuram**	**1.42**	**313**	P	**Pb**	**14 14 34.9**	**+0.4**
	1.7nm,0.3s						
KURS				S	**Sb**	**14 14 52.6**	**0.0**
	2.2nm,0.2s						
KURS	**Kuram**	**1.42**	**313**	*e*P	**Pb**	**14 14 35.0**	**+0.4**
	1.7nm,0.3s						
KURS				*e*S	**Sg**	**14 14 53.3**	**-0.3**
	2.2nm,0.2s						
ANVS	**Anan'yevo**	**1.44**	**281**	⇑*e*P	**Pg**	**14 14 35.7**	**-0.1**
ANVS				⇑*e*S	**Sg**	**14 14 56.1**	**+1.5**
TARG	**Taragay, Kyrgy**	**1.56**	**239**	⇓*i*P	**Pn**	**14 14 36.5**	**+0.4**
TARG				⇓*i*S	**Sb**	**14 14 57.7**	**+0.7**
**D

NNC ***15*** *14:19:26.3±0.5, 42.86N×78.03E, h0km, mb2.4, mpv2.7, Error ellipse: s-maj=4.5km s-min=1.5km az=166.0*
SOME ***15*** *14:19:26.1, 42.83N×78.05E, h10km*
KRNET ***15*** *14:19:27.4±0.1, 42.77N×78.00E, h20km, mb2.3*
ISC 15 14:19:26.1±0.9, 42.83N±0.02×78.04E±0.02, h13km±10km, n27, σ0s53/53, 8C-4D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ANVS	**Anan'yevo**	**0.28**	**260**	⇑*eP*	**Pb**	**14 19 32.8**	**-0.3**
ANVS				⇑*eS*	**Sb**	**14 19 37.2**	**-0.6**
SATY	**Saty**	**0.35**	**50**	*P*	**Pg**	**14 19 33.4**	**0.0**
	11nm,0.1s						
SATY				*S*	**Sg**	**14 19 38.7**	**+0.5**
	63nm,0.1s						
SATY	**Saty**	**0.35**	**50**	*eP*	**Pg**	**14 19 33.4**	**0.0**
	11nm,0.1s						
SATY				*eS*	**Sg**	**14 19 38.7**	**+0.5**
	63nm,0.1s						
PRZ	**Przheval'sk**	**0.44**	**142**	⇓*eP*	**Pg**	**14 19 35.5**	**+0.6**
PRZ				⇓*eS*	**Sg**	**14 19 41.6**	**+0.8**
KURS	**Kuram**	**0.67**	**8**	*P*	**Pg**	**14 19 38.6**	**-0.5**
	2.3nm,0.3s						
KURS				*S*	**Sg**	**14 19 47.6**	**-0.3**
	6.7nm,0.2s						
KURS	**Kuram**	**0.67**	**8**	*eP*	**Pg**	**14 19 38.6**	**-0.5**
	2.3nm,0.3s						
KURS				*eS*	**Sg**	**14 19 47.6**	**-0.3**
	6.7nm,0.2s						
UZB	**Uzynbulak**	**0.79**	**66**	*P*	**Pg**	**14 19 40.8**	**-0.6**
	4.4nm,0.1s						
UZB				*S*	**Sg**	**14 19 51.5**	**-0.3**
	6.6nm,0.1s						
UZB	**Uzynbulak**	**0.79**	**66**	*eP*	**Pg**	**14 19 40.8**	**-0.6**
	4.4nm,0.1s						
UZB				*eS*	**Sg**	**14 19 51.5**	**-0.3**
	6.6nm,0.1s						
KOTS	**Kotyrbulak**	**0.79**	**301**	*P*	**Pg**	**14 19 41.5**	**0.0**
	2.1nm,0.2s						
KOTS				*S*	**Sb**	**14 19 52.5**	**0.0**
	12nm,0.2s						
KOTS	**Kotyrbulak**	**0.79**	**301**	*eP*	**Pg**	**14 19 41.5**	**0.0**
	2.1nm,0.2s						
KOTS				*eS*	**Sb**	**14 19 52.5**	**0.0**
	12nm,0.2s						
KPKS	**Kokpek**	**0.79**	**36**	*P*	**Pg**	**14 19 41.0**	**-0.5**
KPKS				*S*	**Sg**	**14 19 51.8**	**-0.2**
	22nm,0.3s						
KPKS	**Kokpek**	**0.79**	**36**	*eP*	**Pg**	**14 19 41.0**	**-0.5**
KPKS				*eS*	**Sg**	**14 19 51.8**	**-0.2**
	22nm,0.3s						
MDOK	**Medeo**	**0.80**	**295**	Pg	**Pg**	**14 19 41.3**	**-0.3**
	1.0nm,0.1s						
MDOK				Lg	Lg	14 19 52.3	
	8.6nm,0.2s						
MDOK	**Medeo**	**0.80**	**295**	*eP*	**Pg**	**14 19 41.3**	**-0.3**
	1.0nm,0.1s						
MDOK				*eS*	**Sg**	**14 19 52.3**	**+0.1**
	8.6nm,0.2s						
TNSS	**Tian-Shan**	**0.83**	**285**	*P*	**Pg**	**14 19 41.9**	**-0.3**
	0.6nm,0.1s						
TNSS				*S*	**Sg**	**14 19 53.2**	**+0.1**
	2.8nm,0.2s						
TNSS	**Tian-Shan**	**0.83**	**285**	*eP*	**Pg**	**14 19 41.9**	**-0.3**
	0.6nm,0.1s						
TNSS				*eS*	**Sg**	**14 19 53.2**	**+0.1**
	2.8nm,0.2s						
KDJ	**Kajisay**	**0.94**	**222**	⇑*iP*	**Pg**	**14 19 43.9**	**-0.5**
KDJ				⇑*iS*	**Sg**	**14 19 55.8**	**-1.0**
TARG	**Taragay, Kyrgy**	**1.11**	**189**	⇓*iP*	**Pg**	**14 19 46.7**	**-1.0**
TARG				⇓*iS*	**Sg**	**14 20 01.1**	**-1.1**
BLB	**Baldybastay**	**1.31**	**14**	*P*	**Pn**	**14 19 50.2**	**-0.1**
	2.8nm,0.1s						
BLB				*S*	**Sb**	**14 20 07.4**	**0.0**
	14nm,0.2s						
ULHL	**Ulahol**	**1.45**	**247**	⇑*iP*	**Pn**	**14 19 53.0**	**+0.7**
ULHL				⇑*iS*	**Sb**	**14 20 12.4**	**+0.8**
KST	**Kastek**	**1.54**	**279**	*P*	**Pb**	**14 19 54.9**	**+0.3**
	0.7nm,0.2s						
KST				*S*	**Sg**	**14 20 15.5**	**-0.2**
	4.9nm,0.3s						
KST	**Kastek**	**1.54**	**279**	*eP*	**Pb**	**14 19 54.9**	**+0.3**
	0.7nm,0.2s						
KST				*eS*	**Sg**	**14 20 15.5**	**-0.2**
	4.9nm,0.3s						
DGS	**Degeres**	**1.71**	**285**	*P*	**Pb**	**14 19 57.7**	**+0.1**
	1.2nm,0.4s						
DGS				*S*	**Sb**	**14 20 20.2**	**+1.2**
	4.5nm,0.3s						
DGS	**Degeres**	**1.71**	**285**	*eP*	**Pb**	**14 19 57.7**	**+0.1**
	1.2nm,0.4s						
DGS				*eS*	**Sb**	**14 20 20.2**	**+1.2**
	4.5nm,0.3s						
TKM2	**Tokmak 2**	**1.80**	**274**	⇑*iP*	**Pb**	**14 19 59.0**	**0.0**
TKM2				⇑*iS*	**Sg**	**14 20 23.2**	**-0.8**
DJR	**Jarkent**	**1.97**	**40**	*P*	**Pb**	**14 20 01.5**	**-0.4**
	0.7nm,0.2s						
DJR				*S*	**Sb**	**14 20 26.9**	**+0.5**
	5.2nm,0.3s						
DJR	**Jarkent**	**1.97**	**40**	*eP*	**Pb**	**14 20 01.5**	**-0.4**
	0.7nm,0.2s						
DJR				*eS*	**Sb**	**14 20 26.9**	**+0.5**
	5.2nm,0.3s						

IDC ***15*** *14:34:20.3±1.6, 13.70S×170.21E, h614km±22km, mb2.9/6, mbtmp3.9/8, Error ellipse: s-maj=25.1km s-min=18.9km az=133.0*
NOU ***15*** *14:34:24.2, 14.16S×170.38E, h593km, mb4.3/10, Vanuatu Islands Region*
ISC 15 14:34:19.8±0.8, 13.7S±0.1×170.2E±0.1, h600km, n14, σ1s39/15, mb3.3/6, Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**3.38**	**238**	*P*	**P**	**14 35 44.1**	**+3.0**
DVP	**Devils Point**	**4.46**	**205**	*P*	**P**	**14 35 50.3**	**+1.8**
MARNC	**Mare, Loyalty**	**8.03**	**194**	*P*	**P**	**14 36 19.1**	**-0.2**
MSVF	**Nonsavu**	**8.58**	**119**	*P*	**P**	**14 36 26.3**	**+1.6**
	3.5nm,0.7s,baz=288,slow=16,SNR=5.0						
YATNC	**Mamie plateau,**	**8.90**	**200**	*P*	**P**	**14 36 27.9**	**+0.2**
DZM	**Mont Dzumac**	**9.07**	**203**	*P*	**P**	**14 36 30.5**	**+1.0**
	4.7nm,0.5s,baz=154,slow=17,SNR=16						
PINNC	**Pines Island,**	**9.26**	**196**	*P*	**P**	**14 36 31.7**	**+0.5**
ONTNC	**Ouen Toro**	**9.28**	**202**	*P*	**P**	**14 36 32.9**	**+1.5**
WRA	**Warramunga Arr**	**34.82**	**255**	*P*	**P**	**14 40 22.4**	**0.0**
	0.4nm,0.5s,baz=84,slow=8.6,SNR=14						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**35.68**	**248**	*P*	**P**	**14 40 29.1**	**-0.4**
	0.7nm,0.7s,baz=79,slow=8.6,SNR=21						
ASAR				*ScP*	**ScP**	**14 45 30.0**	**-0.7**
	0.5nm,0.7s,baz=87,slow=4.1,SNR=12						
	0.7nm,0.7s						
MJAR	**Matsushiro Arr**	**58.35**	**330**	*P*	**P**	**14 43 18.1**	**-0.7**
	1.0nm,0.4s,baz=153,slow=7.7,SNR=8.1						
	1.0nm,0.4s						
PETK	**Petropavlovsk-**	**67.38**	**352**	*P*	**P**	**14 44 16.3**	**0.0**
	6.6nm,1.0s,baz=163,slow=6.0,SNR=2.4						
	6.6nm,1.0s						
QSPA	**South Pole Qui**	**76.34**	**180**	*P*	**P**	**14 45 06.4**	**-1.8**
	0.9nm,0.9s,baz=207,slow=3.4,SNR=2.3						
	0.9nm,0.9s						
ILAR	**Eielson Array**	**84.68**	**17**	*P*	**P**	**14 45 50.1**	**-0.8**
	0.4nm,0.6s,baz=231,slow=5.7,SNR=6.9						
	0.4nm,0.6s						

NEIC ***15*** *15:17:56.3±1.7,24.95±0.1×180.0W±0.1, h511km±3km, mb4.1/17, Error ellipse: s-maj=21.9km s-min=17.6km az=137.0*
IDC ***15*** *15:17:59.3±3.9, 25.14S×179.91E, h550km±39km, mb3.4/6, mbtmp4.3/8, Error ellipse: s-maj=32.6km s-min=26.6km az=38.0*
ISC 15 15:17:55.7±0.7, 24.84S±0.08×180.0E±0.1, h501km, n40, σ1s22/41, mb4.1/15, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**7.29**	**345**	*P*	**P**	**15 19 44.9**	**-0.2**
FUTU	**Fugatoga**	**10.63**	**10**	*P*	**P**	**15 20 21.7**	**+2.0**
NIUE	**Niue**	**10.98**	**61**	*P*	**P**	**15 20 23.5**	**0.0**
DZM	**Mont Dzumac**	**12.72**	**280**	*P*	**P**	**15 20 43.8**	**+1.9**
	6.5nm,0.8s,baz=81,slow=19,SNR=7.8						
URZ	**Urewera**	**13.60**	**190**	*P*	**P**	**15 20 53.0**	**+2.0**
	7.8nm,0.7s,baz=25,slow=1.7,SNR=9.3						
URZ				*S*	**S**	**15 23 19.0**	**+3.5**
	6.3nm,0.6s,baz=61,slow=20,SNR=10						
RTZ	**Ruatahuna**	**13.97**	**190**	*P*	**P**	**15 20 54.7**	**-0.2**
TUWZ	**Tuamarina**	**17.29**	**195**	*P*	**P**	**15 21 27.8**	**-1.4**
EIDS	**Eidsvold**	**26.15**	**263**	*P*	**P**	**15 22 50.6**	**+1.3**
EIDS				IAmb	IAmb	15 23 21.4	
	comp=Z,10nm,1.4s						
TARA	**Tarawa**	**26.92**	**344**	*P*	**P**	**15 22 57.7**	**+1.5**
CTA	**Charters Tower**	**31.47**	**272**	*P*	**P**	**15 23 36.3**	**+0.5**
CTAO	**Charters Tower**	**31.47**	**272**	*P*	**P**	**15 23 36.3**	**+0.5**
CTAO	**Charters Tower**	**31.47**	**272**		**P**	**15 23 35.9**	**+0.1**
QLP	**Quilpie**	**32.18**	**259**	*P*	**P**	**15 23 42.8**	**+1.0**
MTSU	**Mount Surprise**	**33.77**	**274**	*P*	**P**	**15 23 55.9**	**+0.5**
STKA	**Stephens Creek**	**34.36**	**249**	*P*	**P**	**15 23 59.0**	**-1.2**
	comp=Z,2.0nm,0.6s,baz=98,slow=11,SNR=3.9						
	comp=Z,2.0nm,0.6s						
INKA	**Innaminka**	**35.19**	**257**	*P*	**P**	**15 24 07.7**	**+0.6**
INKA				IAmb	IAmb	15 24 09.6	
	comp=Z,2.8nm,0.8s						
BBOO	**Buckleboo**	**39.06**	**248**	*P*	**P**	**15 24 38.9**	**-0.1**
AS01	**Alice Springs**	**41.82**	**262**	*P*	**P**	**15 25 01.3**	**+0.1**
AS31	**Alice Springs**	**41.86**	**262**		**P**	**15 25 01.2**	**-0.4**
ASAR	**Alice Springs**	**41.87**	**262**	*P*	**P**	**15 25 01.2**	**-0.4**
	comp=Z,2.5nm,0.8s,baz=90,slow=7.5,SNR=72						
ASAR				*PcP*	**PcP**	**15 26 45.1**	**-0.8**
	comp=Z,0.3nm,0.6s,baz=87,slow=3.8,SNR=2.4						
	comp=Z,2.5nm,0.8s						
ASAR	**Alice Springs**	**41.87**	**262**	*P*	**P**	**15 25 00.9**	**-0.6**
WR8	**Warramunga Arr**	**42.18**	**267**		**P**	**15 25 03.5**	**-0.5**
WR8				IAmb	IAmb	15 25 04.3	
	comp=Z,5.5nm,0.8s						
WRAB	**Tennant Creek**	**42.32**	**267**	*P*	**P**	**15 25 04.3**	**-0.9**
WRAB	**Tennant Creek**	**42.32**	**267**	*P*	**P**	**15 25 04.7**	**-0.5**
WRAB				IAmb	IAmb	15 25 05.0	
	comp=Z,6.1nm,0.7s						
WB0	**Warramunga Arr**	**42.32**	**267**		**P**	**15 25 04.5**	**-0.7**
WRA	**Warramunga Arr**	**42.33**	**267**	*P*	**P**	**15 25 04.7**	**-0.5**
	comp=Z,5.7nm,0.5s,baz=103,slow=8.0,SNR=96						
	comp=Z,5.7nm,0.5s						
WRA	**Warramunga Arr**	**42.33**	**267**		**P**	**15 25 04.6**	**-0.6**
FORT	**Forrest**	**45.97**	**250**	*P*	**P**	**15 25 32.8**	**-0.5**
FORT				IAmb	IAmb	15 25 39.5	
	comp=Z,9.9nm,0.9s						
KNRA	**Kununurra**	**48.66**	**271**	*P*	**P**	**15 25 53.5**	**-0.3**
KNRA				IAmb	IAmb	15 25 54.2	
	comp=Z,3.8nm,0.7s						
FITZ	**Fitzroy Crossi**	**50.74**	**266**	*P*	**P**	**15 26 09.1**	**+0.1**
MBWA	**Marble Bar**	**55.19**	**261**	*P*	**P**	**15 26 39.5**	**-1.4**
MBWA				IAmb	IAmb	15 26 53.8	
	comp=Z,20nm,1.3s						
MORW	**Morawa**	**56.53**	**250**	*P*	**P**	**15 26 49.0**	**-1.1**
MORW				IAmb	IAmb	15 27 24.0	
	comp=Z,22nm,1.4s						
MJAR	**Matsushiro Arr**	**72.65**	**326**	*P*	**P**	**15 28 31.2**	**-0.8**
MJAR				IAmb	IAmb	15 29 09.1	
	comp=Z,5.7nm,1.4s						
MAW	**Mawson**	**76.87**	**201**	*P*	**P**	**15 28 52.4**	**-2.8**
	comp=Z,3.5nm,0.3s,baz=239,slow=18,SNR=12						
	comp=Z,3.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**89.83**	**290**	*P*	**P**	**15 30 01.8**	**+0.9**
	comp=Z,0.3nm,0.3s,baz=124,slow=4.9,SNR=6.7						
	comp=Z,0.3nm,0.3s						
TXAR	**Lajitas Array**	**90.95**	**58**	*P*	**P**	**15 30 06.4**	**+0.4**
	comp=Z,0.6nm,0.8s,baz=303,slow=4.0,SNR=4.3						
	comp=Z,0.6nm,0.8s						
HFS	**Hagfors**	**143.45**	**348**	PKP	PKPab	15 36 29.7	-0.8
	comp=Z,0.6nm,0.3s,baz=47,slow=2.8,SNR=5.0						
AKASG	**Malin Array Be**	**145.74**	**326**	PKPbc	**PKPdf**	**15 36 34.6**	**-1.8**
	comp=Z,0.3nm,0.4s,baz=64,slow=2.2,SNR=1.4						
BRTR	**Keskin Array B**	**148.11**	**306**	PKPbc	**PKPbc**	**15 36 44.4**	**-0.6**
	comp=Z,0.5nm,0.5s,baz=115,slow=3.7,SNR=3.5						
BRTR	**Keskin Array B**	**148.11**	**306**		**PKPbc**	**15 36 43.3**	**-1.6**

NEIC ***15*** *15:31:17.1±0.7, 22.40N±0.09×144.98E±0.05, h10km±1km, mb4.4/27, Error ellipse: s-maj=16.0km s-min=6.2km az=156.0*
IDC ***15*** *15:31:24.2±6.7, 22.32N×144.93E, h74km±62km, mb3.6/9, mbtmp4.0/10, ML3.4/1, MS2.9/1, Error ellipse: s-maj=50.6km s-min=16.4km az=83.0*
ISC 15 15:31:20.1±0.6, 22.39N±0.08×144.9E±0.1, h35km, n50, σ0s58/42, mb4.3/20, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JCJ	**Chichijima**	**5.31**	**332**	Pn	**Pn**	**15 32 37.0**	**+0.1**
JYT	**Yasato**	**14.39**	**344**	*P*	**P**	**15 34 47.4**	**-0.3**
MJAR	**Matsushiro Arr**	**15.26**	**339**	*P*	**P**	**15 34 57.1**	**-0.4**
	0.2nm,0.3s,baz=158,slow=13,SNR=4.1						
	1.3nm,0.4s						
MJAR				AML	AML		
H11N1	**WAKE ISLAND Hy**	**20.66**	**93**	T	T	15 58 55.1	
	baz=276						
H11N2	**WAKE ISLAND Hy**	**20.66**	**93**	T	T	15 58 55.0	
	baz=276						
H11N3	**WAKE ISLAND Hy**	**20.68**	**93**	T	T	15 58 56.8	
	baz=276						
H11S3	**WAKE ISLAND Hy**	**20.74**	**97**	T	T	15 58 59.1	
	baz=283,slow=74,SNR=4.5						
H11S1	**WAKE ISLAND Hy**	**20.75**	**97**	T	T	15 59 00.1	
	baz=283,slow=74,SNR=3.1						
H11S2	**WAKE ISLAND Hy**	**20.76**	**97**	T	T	15 59 02.2	
	baz=283,slow=74,SNR=3.6						
KSRS	**Korea Array**	**20.99**	**319**	*P*	**P**	**15 36 01.9**	**+1.5**
	0.8nm,0.7s,baz=144,slow=11,SNR=4.7						
	0.8nm,0.7s						
SSLB	**Suanglung**	**22.10**	**278**	*P*	**P**	**15 36 12.3**	**-0.3**
SSLB				IAmb	IAmb	15 36 34.4	
	comp=Z,22nm,1.3s						
TPUB	**Ta-pu**	**22.41**	**277**	*P*	**P**	**15 36 15.3**	**-0.6**
TPUB				IAmb	IAmb	15 36 23.9	
	comp=Z,52nm,1.3s						
DAV	**Davao City (W)**	**24.09**	**234**	LR	LR	15 44 40.4	
	comp=Z,29nm,20.2s,baz=246,slow=33						
PETK	**Petropavlovsk-**	**32.18**	**14**	*P*	**P**	**15 37 45.1**	**+0.5**
	comp=Z,2.6nm,1.0s,baz=242,slow=11,SNR=1.4						
	comp=Z,2.6nm,1.0s						
HIA	**Hailar**	**33.41**	**330**	*P*	**P**	**15 37 55.5**	**+0.1**
HIA				IAmb	IAmb	15 37 56.5	
	comp=Z,5.1nm,0.7s						
MTN	**Manton Dam**	**37.54**	**202**	*P*	**P**	**15 38 31.0**	**-0.1**
MTN				IAmb	IAmb	15 38 54.7	
	comp=Z,3.9nm,1.1s						
MMRI	**Maumere**	**38.02**	**218**	*P*	**P**	**15 38 35.6**	**+0.4**
KNRA	**Kununurra**	**41.02**	**204**	*P*	**P**	**15 39 00.1**	**0.0**
KNRA				IAmb	IAmb	15 39 26.1	
	comp=Z,11nm,1.3s						
WB0	**Warramunga Arr**	**43.15**	**195**	*P*	**P**	**15 39 17.3**	**-0.2**
WB0				IAmb	IAmb	15 39 57.5	
	comp=Z,5.1nm,1.2s						
ATKA	**Atka Island**	**43.18**	**36**	*P*	**P**	**15 39 17.6**	**+0.2**
WR8	**Warramunga Arr**	**43.31**	**194**	*P*	**P**	**15 39 18.6**	**-0.1**
WR8				IAmb	IAmb	15 39 30.1	
	comp=Z,4.7nm,1.2s						
WRAB	**Tennant Creek**	**43.32**	**195**	*P*	**P**	**15 39 18.8**	**-0.1**
WRAB				IAmb	IAmb	15 40 00.8	
	comp=Z,6.0nm,1.4s						
WRA	**Warramunga Arr**	**43.33**	**195**	*P*	**P**	**15 39 18.3**	**-0.7**
	comp=Z,0.5nm,0.4s,baz=14,slow=8.7,SNR=39						
	comp=Z,0.5nm,0.4s						
WRA	**Warramunga Arr**	**43.33**	**195**	*P*	**P**	**15 39 19.0**	**0.0**
FITZ	**Fitzroy Crossi**	**44.45**	**207**	*P*	**P**	**15 39 28.0**	**0.0**
AS31	**Alice Springs**	**47.02**	**194**	*P*	**P**	**15 39 47.7**	**-0.5**
ASAR	**Alice Springs**	**47.02**	**194**	*P*	**P**	**15 39 47.8**	**-0.5**
	comp=Z,0.5nm,0.8s,baz=14,slow=6.5,SNR=15						
	comp=Z,0.5nm,0.8s						
ASAR	**Alice Springs**	**47.02**	**194**	*P*	**P**	**15 39 47.4**	**-0.9**
BILL	**Bilibino**	**47.53**	**11**	*P*	**P**	**15 39 52.3**	**+0.6**
INKA	**Innaminka**	**50.00**	**185**	*P*	**P**	**15 40 11.8**	**+0.7**
EVN	**Everest**	**52.48**	**289**	*P*	**P**	**15 40 29.5**	**-1.1**
EVN				IAmb	IAmb	15 40 35.5	
	comp=Z,6.8nm,1.5s						
J16K	**Anvik River**	**54.48**	**27**	*P*	**P**	**15 40 43.8**	**-0.2**
ZALV	**Zalesovo Beam**	**54.69**	**321**	*P*	**P**	**15 40 45.8**	**+0.2**
	comp=Z,0.8nm,0.5s,baz=93,slow=7.7,SNR=3.8						
	comp=Z,0.8nm,0.5s						
MKAR	**Makanchi Array**	**55.43**	**312**	*P*	**P**	**15 40 51.0**	**-0.2**
	comp=Z,0.8nm,0.6s,baz=88,slow=9.3,SNR=7.8						
	comp=Z,0.8nm,0.6s						
MKAR	**Makanchi Array**	**55.43**	**312**	*P*	**P**	**15 40 51.0**	**-0.2**
RDOG	**Red Dog Mine**	**55.64**	**21**	*P*	**P**	**15 40 52.7**	**+0.4**
MAKZ	**Makanchi**	**55.65**	**312**	*P*	**P**	**15 40 53.0**	**+0.3**
JOKA	**Jonika Flow**	**55.86**	**81**	*P*	**P**	**15 40 54.0**	**-0.7**
F20K	**Avaraart Lake**	**57.76**	**24**	*P*	**P**	**15 41 08.2**	**+0.8**
F20K				IAmb	IAmb	15 41 24.8	
	comp=Z,4.7nm,1.3s						
KURK	**Kurchatov**	**58.08**	**317**	*P*	**P**	**15 41 10.1**	**+0.2**
KURK	**Kurchatov**	**58.08**	**317**	IAmb	IAmb	15 41 33.2	
	comp=Z,1.6nm,0.5s						
KURBB	**Kurchatov Arra**	**58.13**	**317**	*P*	**P**	**15 41 10.1**	**-0.1**
	comp=Z,1.9nm,0.3s,baz=93,slow=7.5,SNR=7.9						
	comp=Z,1.9nm,0.3s						
CRQM	**Cirque**	**61.91**	**32**	*P*	**P**	**15 41 36.2**	**0.0**
BVAR	**Borovoye Array**	**63.20**	**319**	*P*	**P**	**15 41 45.4**	**+0.6**
	comp=Z,2.1nm,0.3s,baz=85,slow=6.9,SNR=15						
	comp=Z,2.1nm,0.3s						
BORK	**Borovoye**	**63.25**	**319**	*P*	**P**	**15 41 45.4**	**+0.4**
BORK				IAmb	IAmb	15 41 46.3	
	comp=Z,2.4nm,0.8s						
THZ	**Tophouse**	**68.89**	**158**	*P*	**P**	**15 42 22.1**	**+0.8**
AB31	**Akbulak array**	**70.18**	**316**	*P*	**P**	**15 42 28.8**	**-0.5**
ABKAR	**Akbulak array**	**70.18**	**316**	*P*	**P**	**15 42 28.6**	**-0.7**
FINES	**FINESS Array B**	**83.25**	**335**	*P*	**P**	**15 43 42.9**	**+0.1**
	comp=Z,0.8nm,0.4s,baz=64,slow=4.4,SNR=11						
	comp=Z,0.8nm,0.4s						
YNE	**Yellowstone No**	**84.47**	**43**	*P*	**P**	**15 43 48.2**	**-1.5**

NIED ***15*** *15:33:02.8, 36.68N×143.67E, h23km, MW3.4, Moment Tensor Solution. s3 Moment tensor: Scale 10^14Nm; Mrr=0.55; Mθθ=0.64; Mϕϕ=1.19; Mrθ=0.47; Mθϕ=0.52; Mϕr=0.30; Fault plane solution: M0=1.25000×10^14 NP1: ϕs=335.00000°, δ54.00000°, λ-159.00000°. NP2: ϕs=232.00000°, δ73.00000°, λ-38.00000°.*
JMA ***15*** *15:33:02.8±0.1, 36.7N±0.3×143.7E±0.5, h23km±1km, MV3.7/23, FAR E OFF CENTRAL HONSHU*
IDC ***15*** *15:33:12.8±7.1, 36.49N×142.71E, h103km±51km, mb3.1/3, mbtmp3.4/5, Error ellipse: s-maj=75.9km s-min=23.7km az=80.0*
ISC 15 15:33:03.4±1.9, 36.6N±0.1×143.5E±0.2, h35km, n8, σ2s56/6, mb3.4/3, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MJAR	**Matsushiro Arr**	**4.28**	**271**	*P*	**Pn**	**15 34 08.5**	**+2.4**
	4.6nm,0.3s,baz=90,slow=15,SNR=68						
JHJ	**Hachijo jima 2**	**4.63**	**223**	*P*	**Pn**	**15 34 11.9**	**+1.0**
	3.8nm,0.2s,baz=316,slow=22,SNR=13						
JHJ				*S*	**Sn**	**15 35 01.5**	**-1.8**
	6.5nm,0.3s,baz=269,slow=21,SNR=7.4						
H11N2	**WAKE ISLAND Hy**	**26.47**	**123**	T	T	16 05 39.3	
	baz=317						
H11N1	**WAKE ISLAND Hy**	**26.48**	**123**	T	T	16 05 42.4	
	baz=317						
H11N3	**WAKE ISLAND Hy**	**26.49**	**123**	T	T	16 05 39.8	
	baz=317						
MKAR	**Makanchi Array**	**45.79**	**303**	*P*	**P**	**15 41 18.9**	**-2.7**
	0.4nm,0.8s,baz=92,slow=6.3,SNR=2.2						
	0.4nm,0.8s						
WRA	**Warramunga Arr**	**56.89**	**190**	*P*	**P**	**15 42 45.5**	**+0.7**
	1.0nm,1.2s,baz=11,slow=6.8,SNR=2.7						
	1.0nm,1.2s						
ASAR	**Alice Springs**	**60.61**	**190**	*P*	**P**	**15 43 12.0**	**+1.3**
	0.3nm,0.9s,baz=7.4,slow=7.7,SNR=2.4						
	0.3nm,0.9s						

MAN ***15*** *15:40:28.0, 2.23N×128.32E, h45km, MS3.6*
IDC ***15*** *15:40:29.2±0.8, 2.72N×127.83E, h0km, mb3.7/9, mbtmp3.7/10, ML3.8/1, MS2.9/2, Error ellipse: s-maj=41.9km s-min=13.3km az=62.0*
DJA ***15*** *15:40:34.6±0.8, 3.1N±7.1×12.8E±1.1, h10km, M4.1/13, mb4.3/4, mB4.7/2, MLv4.0/13, Mw(mB)3.9/2*
NEIC ***15*** *15:40:36.7±0.7, 2.79N±0.02×128.14E±0.09, h55km±9km, mb4.4/17, Error ellipse: s-maj=12.8km s-min=2.9km az=85.0*
ISC 15 15:40:35.6±0.6, 2.82N±0.06×128.17E±0.08, h50km, n47, σ1s28/41, mb4.1/15, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GAMI	**Galela, Maluku**	**1.05**	**201**	*P*	**Pn**	**15 40 53.3**	**-0.7**
GAMI				AML	AML		
TNTI	**Ternate**	**2.19**	**201**	Pn	**Pn**	**15 41 09.7**	**+0.1**
TNTI	**Ternate**	**2.19**	**201**	*P*	**Pn**	**15 41 10.7**	**+1.2**
MNI	**Manado**	**3.60**	**248**	*P*	**Pn**	**15 41 31.8**	**+2.9**
MNI				AML	AML		
DDMP	**Don Marcelino,**	**4.08**	**323**	*eP*	**Pn**	**15 41 37.0**	**+1.6**
DDMP				*eS*	**Sn**	**15 42 17.1**	**-4.8**
KMSI	**Cibinong**	**4.74**	**242**	*P*	**Pn**	**15 41 46.9**	**+2.3**
SIJI	**Sorong**	**4.80**	**140**	Pn	**Pn**	**15 41 46.0**	**+0.6**
	3.7nm,0.3s,baz=325,slow=21,SNR=7.7						
SIJI				Sn	**Sn**	**15 42 39.8**	**0.0**
	1.3nm,0.3s,baz=156,slow=20,SNR=1.5						
	7.9nm,0.3s						
SIJI				AML	AML		
SIJI	**Sorong**	**4.80**	**140**	*P*	**Pn**	**15 41 46.3**	**+0.9**
SIJI				AML	AML		
SANI	**Sanana**	**5.31**	**204**	*P*	**P

KURBB	**Kurchatov Arra**	**63.27**	**327**	P	**P**	**15 50 59.8**	**+0.8**
	comp=Z,0.3nm,0.5s,baz=124,slow=5.9,SNR=2.3						
	comp=Z,0.3nm,0.5s						
BVAR	**Borovoye Array**	**68.86**	**327**	P	**P**	**15 51 34.3**	**-0.6**
	comp=Z,0.3nm,0.6s,baz=108,slow=3.6,SNR=2.3						
	comp=Z,0.3nm,0.6s						
D19K	**Kuna River**	**81.44**	**21**	P	**P**	**15 52 47.8**	**+0.7**
D19K				IAmb	IAmb	15 52 53.3	
	comp=Z,9.7nm,1.4s						
VNDA	**Vanda**	**82.36**	**173**	P	**P**	**15 52 51.5**	**-0.1**
	comp=Z,0.5nm,0.6s,baz=2.7,slow=5.5,SNR=1.7						
	comp=Z,0.5nm,0.6s						
VNDA	**Vanda**	**82.36**	**173**	P	**P**	**15 52 51.8**	**+0.2**
VNDA				IAmb	IAmb	15 53 05.6	
	comp=Z,5.9nm,1.4s						

*THE **15** 15:41:54.3, 37.8N±0.8×2.7E±, h9km±1km, M2.8/6, MLh2.8/6*
*AFAD **15** 15:41:54.0, 37.84N×26.76E, h10km±3km, ML2.8*
*ISK **15** 15:41:54.1, 37.82N×26.73E, h8km, ML2.9/16*
*ATH **15** 15:41:54.1, 37.81N×26.72E, h13km, ML2.7/13, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

ISC 15 15:41:54.1±0.8, 37.83N±0.02×26.73E±0.02, h12km±5km, n71, σ0.943/112, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.04**	**210**	P	**Pg**	**15 41 56.0**	**-0.3**
KRL1				S	**Sg**	**15 41 57.7**	**-0.2**
KRL1				AML	AML		
SAM2	**Drakei, Karlov**	**0.12**	**233**	P	**Pg**	**15 41 57.3**	**0.0**
SAM2				S	**Sg**	**15 41 59.2**	**-0.2**
SMG	**Samos**	**0.15**	**145**	P	**Pg**	**15 41 57.7**	**0.0**
SMG				S	**Sg**	**15 42 00.4**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.15**	**145**	P	**Pg**	**15 41 57.7**	**0.0**
SMG				S	**Sg**	**15 42 00.3**	**+0.1**
SMG				AML	AML		
DGB	**zmir**	**0.25**	**28**	P	**Pg**	**15 41 59.0**	**-0.4**
DGB				S	**Sg**	**15 42 02.5**	**-0.5**
DGB				IAML		15 42 03.0	
	comp=E,1μm,0.2s						
GMLD	**Gumuldur**	**0.29**	**31**	Pg	**Pg**	**15 41 59.7**	**-0.3**
GMLD				Sg	**Sg**	**15 42 04.8**	**+0.9**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.42**	**108**	P	**Pg**	**15 42 02.4**	**0.0**
GCAM				S	**Sg**	**15 42 07.9**	**0.0**
GCAM	**G?zelcaml?**	**0.42**	**108**	Pg	**Pg**	**15 42 02.7**	**+0.3**
GCAM				Sg	**Sb**	**15 42 09.1**	**-0.6**
GCAM				AML	AML		
BEYE	**izmir**	**0.42**	**21**	P	**Pg**	**15 42 02.4**	**-0.1**
BEYE				S	**Sg**	**15 42 07.4**	**-0.8**
ZEYE	**Izmir, Urla-Ze**	**0.45**	**336**	P	**Pg**	**15 42 02.9**	**0.0**
ZEYE				S	**Sg**	**15 42 08.6**	**-0.3**
ZEYE				IAML		15 42 12.0	
	comp=N,778nm,0.4s						
ZEYE				IAML		15 42 15.0	
	comp=E,544nm,0.4s						
DDIM	**Aydin, Didim**	**0.55**	**132**	P	**Pg**	**15 42 05.1**	**+0.2**
DDIM				S	**Sg**	**15 42 12.2**	**+0.1**
DDIM				IAML		15 42 14.0	
	comp=N,657nm,0.6s						
DDIM				IAML		15 42 14.0	
	comp=E,726nm,0.5s						
CESE	**eme**	**0.60**	**326**	Pg	**Pg**	**15 42 05.9**	**0.0**
CESE				Sg	**Sb**	**15 42 15.4**	**+0.3**
CESE				AML	AML		
BLCB	**Balcova**	**0.61**	**24**	P	**Pg**	**15 42 05.8**	**-0.1**
BLCB				S	**Sb**	**15 42 14.8**	**-0.3**
BLCB	**Balcova**	**0.61**	**24**	Pg	**Pg**	**15 42 05.6**	**-0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.69**	**55**	P	**Pg**	**15 42 06.9**	**-0.6**
DUVT				S	**Sg**	**15 42 16.8**	**+0.3**
DUVT				IAML		15 42 20.0	
	comp=E,425nm,0.3s						
CHOS	**Chios island**	**0.77**	**316**	P	**Pg**	**15 42 09.0**	**-0.1**
CHOS				S	**Sb**	**15 42 20.2**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**316**	Pg	**Pb**	**15 42 09.9**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.77**	**316**	P	**Pg**	**15 42 09.0**	**-0.1**
CHOS				S	**Sb**	**15 42 20.6**	**+0.6**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.78**	**350**	Pg	**Pb**	**15 42 09.9**	**+0.4**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**7**	P	**Pg**	**15 42 10.3**	**+0.1**
BAGT				S	**Sb**	**15 42 21.6**	**0.0**
BAGT				IAML		15 42 25.0	
	comp=N,431nm,0.7s						
EAG2	**Marmaro, Chios**	**0.87**	**326**	P	**Pn**	**15 42 11.9**	**-0.2**
EAG2				S	**Sb**	**15 42 23.1**	**+0.4**
KARB	**zmir-Karabur**	**0.87**	**343**	P	**Pg**	**15 42 09.7**	**-1.2**
KARB				S	**Sb**	**15 42 23.5**	**+0.8**
KARB				IAML		15 42 25.0	
	comp=E,314nm,0.5s						
KARB				IAML		15 42 26.0	
	comp=N,463nm,0.9s						
FOCM	**Foa**	**0.88**	**360**	Pg	**Pb**	**15 42 11.6**	**+0.2**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.89**	**167**	P	**Pb**	**15 42 11.8**	**+0.2**
KLNA				S	**Sb**	**15 42 23.4**	**0.0**
KLNA				AML	AML		
BODT	**Bodrum**	**0.89**	**149**	P	**Pg**	**15 42 11.3**	**-0.1**
BODT				S	**Sb**	**15 42 23.7**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**149**	Pg	**Pb**	**15 42 12.1**	**+0.5**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.93**	**82**	Pg	**Pn**	**15 42 13.0**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.93**	**100**	P	**Pg**	**15 42 11.6**	**-0.3**
AYDN				S	**Sg**	**15 42 23.8**	**-0.3**
BDRM	**Kayabasi**	**0.95**	**143**	P	**Pb**	**15 42 12.7**	**+0.2**
BDRM				S	**Sg**	**15 42 25.0**	**+0.1**
BDRM				IAML		15 42 28.0	
	comp=E,176nm,0.5s						
BDRM				IAML		15 42 29.0	
	comp=N,272nm,0.5s						
BODA	**Bodrum-Mula**	**0.97**	**145**	Pg	**Pg**	**15 42 12.7**	**-0.1**
MLSB	**Milas**	**0.99**	**122**	Pg	**Pg**	**15 42 13.0**	**-0.2**
MLSB				AML	AML		
IZMR	**zmir-demi**	**1.01**	**72**	P	**Pg**	**15 42 12.8**	**-0.8**
IZMR				S	**Sg**	**15 42 24.5**	**-2.3**
CAMT	**Merkez**	**1.02**	**26**	P	**Pb**	**15 42 14.1**	**+0.2**
CAMT				S	**Sb**	**15 42 28.0**	**+0.8**
ZEDA	**zmir-Bergama**	**1.17**	**13**	P	**Pb**	**15 42 16.0**	**-0.3**
ZEDA				S	**Sb**	**15 42 31.4**	**+0.1**
ZEDA				IAML		15 42 35.0	
	comp=E,126nm,0.4s						
ZEDA				IAML		15 42 39.0	
	comp=N,158nm,0.4s						
APE	**Apeiranthos**	**1.22**	**232**	P	**Pn**	**15 42 16.5**	**-0.6**
APE				S	**Sn**	**15 42 33.8**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.22**	**232**	P	**Pn**	**15 42 16.3**	**-0.7**
APE				S	**Sb**	**15 42 32.5**	**-0.4**
APE				AML	AML		
NAZL	**Nazilli-Aydin**	**1.24**	**83**	Pn	**Pg**	**15 42 18.1**	**+0.1**
NAZL				AML	AML		
DKL	**Dikili**	**1.25**	**6**	Pn	**Pg**	**15 42 18.1**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**6**	P	**Pn**	**15 42 17.3**	**-0.1**
DKL				S	**Sb**	**15 42 33.5**	**-0.1**
GOMA	**Golmarmara-Man**	**1.28**	**46**	Pn	**Pb**	**15 42 18.4**	**+0.3**
GOMA				AML	AML		
ESEN	**Aydn-Nazilli**	**1.28**	**91**	P	**Pn**	**15 42 17.5**	**-0.3**
ESEN				S	**Sb**	**15 42 35.0**	**+0.4**
YAZI	**Mula-Dat§a-**	**1.28**	**153**	P	**Pn**	**15 42 17.7**	**-0.1**
YAZI				S	**Sb**	**15 42 34.8**	**+0.1**
AKHS	**Akhisar**	**1.35**	**39**	P	**Pn**	**15 42 19.2**	**+0.4**
AKHS				S	**Sb**	**15 42 36.7**	**+0.1**
AKHS				IAML		15 42 39.0	
	comp=N,193nm,0.6s						
AKS	**Akhisar**	**1.35**	**39**	Pn	**Pg**	**15 42 20.3**	**+0.2**
AKS				AML	AML		
KIRA	**zmir-Kiraz**	**1.37**	**74**	P	**Pn**	**15 42 19.0**	**-0.1**
KTTT	**Salihli**	**1.37**	**51**	P	**Pg**	**15 42 20.4**	**-0.1**
KTTT				S	**Sb**	**15 42 37.5**	**+0.3**
KTTT				IAML		15 42 41.0	
	comp=N,151nm,0.8s						
MULA	**Mugla, Merkez-**	**1.39**	**114**	P	**Pn**	**15 42 19.5**	**+0.1**
MULA				S	**Sb**	**15 42 37.6**	**-0.1**
YER	**Yerkesik**	**1.42**	**119**	P	**Pn**	**15 42 19.9**	**+0.1**
PRK	**Paraskevi**	**1.46**	**346**	P	**Pn**	**15 42 20.8**	**+0.5**
PRK				S	**Sn**	**15 42 39.5**	**+0.1**
PRK	**Paraskevi**	**1.46**	**346**	P	**Pb**	**15 42 21.2**	**0.0**
PRK				S	**Sn**	**15 42 39.2**	**-0.1**
SOMA	**Soma-Manisa**	**1.47**	**25**	Pn	**Pg**	**15 42 21.9**	**-0.4**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.48**	**359**	P	**Pg**	**15 42 22.3**	**-0.1**
AYVA				S	**Sg**	**15 42 41.1**	**-0.5**
AYVA				IAML		15 42 49.0	
	comp=E,82nm,0.9s						
AYVA				IAML		15 42 51.0	
	comp=N,101nm,0.6s						
GORD	**Gordes-Manisa**	**1.56**	**46**	Pn	**Pb**	**15 42 22.9**	**-0.2**
GORD				AML	AML		
MANT	**Manisa**	**1.58**	**65**	P	**Pb**	**15 42 23.6**	**+0.2**
MANT				S	**Sn**	**15 42 42.7**	**-0.1**
SULTU	**Buldan**	**1.62**	**81**	P	**Pn**	**15 42 23.2**	**+0.5**
BUHA	**Balikesir, Bur**	**1.69**	**9**	P	**Pn**	**15 42 23.0**	**-0.5**
BUHA				S	**Sb**	**15 42 46.6**	**+0.3**
BUHA				IAML		15 42 53.0	
	comp=N,100nm,0.5s						
BUHA				IAML		15 42 57.0	
	comp=E,115nm,0.4s						
STEP	**BALIKESIR_Sava**	**1.73**	**26**	P	**Pn**	**15 42 24.2**	**+0.2**
STEP				S	**Sn**	**15 42 46.4**	**+0.4**
STEP				IAML		15 42 54.0	
	comp=N,126nm,0.5s						
STEP				IAML		15 42 55.0	
	comp=E,188nm,0.5s						
THERA	**Ancient Thera,**	**1.77**	**215**	P	**Pn**	**15 42 24.3**	**-0.3**
THERA				AML	AML		
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**15 42 25.2**	**-0.1**
KARY	**Karystos**	**1.83**	**277**	P	**Pn**	**15 42 25.0**	**-0.3**
BALB	**Balikesir**	**2.02**	**26**	P	**Pn**	**15 42 28.6**	**+0.6**
BALB				S	**Sn**	**15 42 53.5**	**+0.4**
BALB				AML	AML		
DION	**Dionisos Attik**	**2.23**	**277**	P	**Pn**	**15 42 31.2**	**+0.3**
DION	**Dionisos Attik**	**2.23**	**277**	P	**Pn**	**15 42 30.7**	**-0.1**
PTL	**Penteli**	**2.28**	**276**	P	**Pn**	**15 42 31.7**	**+0.1**
PTL				AML	AML		
VLY	**Voula,Athens**	**2.33**	**271**	P	**Pn**	**15 42 32.0**	**-0.2**
ATHU	**Athens Univers**	**2.33**	**274**	P	**Pn**	**15 42 32.1**	**-0.3**
LIA	**Limnos Island**	**2.39**	**330**	P	**Pn**	**15 42 33.4**	**+0.3**
LIA				AML	AML		
AOS2	**Alonissos-2**	**2.62**	**301**	P	**Pn**	**15 42 36.9**	**+0.6**
AOS2				AML	AML		
VIL2	**Platees**	**2.76**	**279**	P	**Pn**	**15 42 38.2**	**0.0**
VIL2				AML	AML		
SMTH	**Samothraki Isl**	**2.80**	**341**	P	**Pn**	**15 42 38.8**	**+0.1**
IDI	**Anoyia**	**2.94**	**211**	P	**Pn**	**15 42 39.6**	**-1.1**

*SOME **15** 15:50:15.3, 42.15N×80.58E, h10km*
*NNC **15** 15:50:17.3±1.0, 42.19N×80.47E, h0km, mb5.0, mpv4.5, Error ellipse: s-maj=6.5km s-min=4.7km az=148.0*
*IDC **15** 15:50:17.8±0.8, 42.14N×80.75E, h0km, mb3.8/9, mbtmp3.7/16, ML3.2/7, MS3.3/6, Error ellipse: s-maj=15.8km s-min=11.3km az=83.0*
*KRNET **15** 15:50:19.8±0.1, 42.17N×80.37E, mb4.4*
*NEIC **15** 15:50:21.8±1.6, 42.30N±0.05×80.43E±0.07, h10km±1km, mb4.0/15, Error ellipse: s-maj=9.4km s-min=7.6km az=289.0*

ISC 15 15:50:20.2±0.4, 42.28N±0.03×80.43E±0.03, h10km, n134, σ2908/173, mb4.0/13, MS3.7/4, 26C-24D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHLS	**Shalkode**	**1.13**	**321**	P	**Pb**	**15 50 37.0**	**-4.8**
	145nm,0.2s						
SHLS				S	**Sg**	**15 50 53.0**	**-3.4**
	4μm,0.3s						
PDGK	**Podgornoye**	**1.25**	**327**		**Pn**	**15 50 43.0**	**-0.8**
UZB	**Uzynbulak**	**1.35**	**310**	P	**Pn**	**15 50 43.6**	**-1.5**
	223nm,0.2s						
UZB				S	**Sg**	**15 51 03.9**	**+0.4**
	449nm,0.3s						
UZB	**Uzynbulak**	**1.35**	**310**	*e*P	**Pn**	**15 50 43.6**	**-1.5**
	223nm,0.2s						
UZB				*e*S	**Sg**	**15 51 03.9**	**+0.4**
	449nm,0.3s						
WUS	**Wushi**	**1.41**	**220**		**Pn**	**15 50 43.5**	**-2.5**
PRZ	**Przheval'sk**	**1.51**	**278**	↑*i*P	**Pb**	**15 50 47.2**	**-1.2**
PRZ				↑*i*S	**Sb**	**15 51 07.3**	**-0.5**
PRZ	**Przheval'sk**	**1.51**	**278**		**Pb**	**15 50 47.3**	**-1.1**
SATY	**Saty**	**1.68**	**298**	Pg	**Pb**	**15 50 50.4**	**-0.8**
	288nm,0.4s						
SATY				Lg	Lg	15 51 16.1	
	1μm,0.2s						
SATY	**Saty**	**1.68**	**298**	*e*P	**Pb**	**15 50 50.4**	**-0.8**
	288nm,0.4s						
SATY				*e*S	**Sg**	**15 51 16.1**	**+2.0**
	1μm,0.2s						
KPKS	**Kokpek**	**1.74**	**313**	Pg	**Pb**	**15 50 50.9**	**-1.4**
	0.3nm,0.1s						
KPKS				Lg	Lg	15 51 16.7	
	3μm,0.4s						
KPKS	**Kokpek**	**1.74**	**313**	*e*P	**Pb**	**15 50 50.9**	**-1.4**
	0.3nm,0.1s						
KPKS				*e*S	**Sg**	**15 51 16.7**	**+0.5**
	3μm,0.4s						
TARG	**Taragay, Kyrgy**	**2.03**	**255**	↑*e*P	**Pn**	**15 50 55.0**	**+0.2**
TARG				↑*i*S	**Sb**	**15 51 20.9**	**-1.9**
TARG	**Taragay, Kyrgy**	**2.03**	**255**		**Pb**	**15 50 55.7**	**-1.7**
KURS	**Kuram**	**2.05**	**307**	Pg	**Pb**	**15 50 57.3**	**-0.2**
	421nm,0.4s						
KURS				Lg	Lg	15 51 27.4	
	512nm,0.4s						
KURS	**Kuram**	**2.05**	**307**	*e*P	**Pb**	**15 50 57.3**	**-0.2**
	421nm,0.4s						
KURS				*e*S	**Sg**	**15 51 27.4**	**+1.4**
	512nm,0.4s						
ANVS	**Anan'yevo**	**2.10**	**285**	↓*i*P	**Pb**	**15 50 56.8**	**-1.6**
ANVS				↓*i*S	**Sb**	**15 51 23.7**	**-0.9**
DJR	**Jarkent**	**2.10**	**347**	Pg	**Pb**	**15 50 56.8**	**-1.6**
	101nm,0.4s						
DJR				Lg	Lg	15 51 26.8	
	898nm,0.4s						
DJR	**Jarkent**	**2.10**	**347**	*e*P	**Pb**	**15 50 56.8**	**-1.6**
	101nm,0.4s						
DJR				*e*S	**Sg**	**15 51 26.8**	**-0.8**
	898nm,0.4s						
BLB	**Baldybastay**	**2.31**	**323**	Pg	**Pb**	**15 51 00.6**	**-1.4**
	593nm,0.3s						
BLB				Lg	Lg	15 51 33.3	
	14nm,0.1s						
KDJ	**Kajisay**	**2.42**	**267**	↓*i*P	**Pn**	**15 51 00.4**	**+0.5**
KDJ				↓*i*S	**Sn**	**15 51 30.2**	**+0.6**
KDJ	**Kajisay**	**2.42**	**267**		**Pb**	**15 51 02.2**	**-1.6**
KOTS	**Kotyrbulak**	**2.62**	**292**	Pg	**Pb**	**15 51 06.8**	**-0.4**
	292nm,0.5s						
KOTS				Lg	Lg	15 51 44.0	
	2μm,0.4s						
KOTS	**Kotyrbulak**	**2.62**	**292**	*e*P	**Pb**	**15 51 06.8**	**-0.4**
	292nm,0.5s						
KOTS				*e*S	**Sg**	**15 51 44.0**	**-0.3**
	2μm,0.4s						
MDOK	**Medeo**	**2.64**	**291**	Pg	**Pb**	**15 51 06.8**	**-0.8**
	515nm,0.4s						
MDOK				Lg	Lg	15 51 43.6	
	942nm,0.4s						
MDOK	**Medeo**	**2.64**	**291**	*e*P	**Pb**	**15 51 06.8**	**-0.8**
	515nm,0.4s						
MDOK				*e*S	**Sg**	**15 51 43.6**	**-1.3**
	942nm,0.4s						
TNSS	**Tian-Shan**	**2.67**	**288**	Pg	**Pb**	**15 51 06.9**	**-1.5**
	67nm,0.3s						
TNSS				Lg	Lg	15 51 43.7	
	127nm,0.5s						
TNSS	**Tian-Shan**	**2.67**	**288**	*e*P	**Pb**	**15 51 06.9**	**-1.5**
	67nm,0.3s						
TNSS				*e*S	**Sg**	**15 51 43.7**	**-2.4**
	127nm,0.5s						
ARXS	**Arharly**	**2.71**	**316**	Pg	**Pb**	**15 51 07.6**	**-1.1**
	108nm,0.5s						
ARXS				Lg	Lg	15 51 45.3	
	795nm,0.4s						
ARXS	**Arharly**	**2.71**	**316**	*e*P	**Pb**	**15 51 07.6**	**-1.1**
	108nm,0.5s						
ARXS				*e*S	**Sg**	**15 51 45.3**	**-1.8**
	795nm,0.4s						
KNDC	**Almaty**	**2.71**	**291**	⇑Pg	**Pb**	**15 51 08.0**	**-0.8**
	736nm,0.8s						
KNDC				⇓Lg	Lg	15 51 45.9	
	836nm,0.8s						
AAA	**Alma-Ata**	**2.75**	**291**	Pg	**Pb**	**15 51 08.8**	**-0.6**
	535nm,0.4s						
AAA				Lg	Lg	15 51 47.3	
	20nm,0.3s						
AAA	**Alma-Ata**	**2.75**	**291**	*e*P	**Pb**	**15 51 08.8**	**-0.6**
	535nm,0.4s						
AAA				*e*S	**Sg**	**15 51 47.3**	**-1.0**
	20nm,0.3s						
TDK	**Taldyqorghan**	**3.09**	**332**	Pg	**Pb**	**15 51 14.0**	**-1.2**
	98nm,0.4s						
TDK				Lg	Lg	15 51 56.0	
	864nm,0.4s						
TDK	**Taldyqorghan**	**3.09**	**332**	*e*P	**Pb**	**15 51 14.0**	**-1.2**
	98nm,0.4s						
TDK				*e*S	**Sg**	**15 51 56.0**	**-3.4**
	864nm,0.4s						
KAPS	**Kapalarasan**	**3.10**	**346**	Pg	**Pb**	**15 51 14.4**	**-1.0**
	15nm,0.2s						
KAPS				Lg	Lg	15 51 57.0	
	796nm,0.2s						
KAPS	**Kapalarasan**	**3.10**	**346**	*e*P	**Pb**	**15 51 14.4**	**-1.0**
	15nm,0.2s						
KAPS				*e*S	**Sg**	**15 51 57.0**	**-2.7**
	796nm,0.2s						
ULHL	**Ulahol**	**3.10**	**271**	P	**Pb**	**15 51 11.9**	**-3.7**
	SNR=30						
ULHL	**Ulahol**	**3.10**	**271**	⇑*i*P	**Pn**	**15 51 10.3**	**+0.9**
ULHL				⇑*i*S	**Sn**	**15 51 47.1**	**+0.4**
KST	**Kastek**	**3.38**	**285**	Pg	**Pb**	**15 51 17.5**	**-2.6**
	62nm,0.3s						
KST				Lg	Lg	15 52 02.7	
	322nm,0.6s						
KST	**Kastek**	**3.38**	**285**	*e*P	**Pb**	**15 51 17.5**	**-2.6**
	62nm,0.3s						
KST				*e*S	**Sb**	**15 52 02.7**	**+1.4**
	322nm,0.6s						
KUU	**Kurty**	**3.40**	**300**	Pg	**Pb**	**15 51 19.2**	**-1.2**
	33nm,0.3s						
KUU				Lg	Lg	15 52 04.9	
	253nm,0.6s						
KUU	**Kurty**	**3.40**	**300**	*e*P	**Pb**	**15 51 19.2**	**-1.2**
	33nm,0.3s						
KUU				*e*S	**Sb**	**15 52 04.9**	**+3.1**
	253nm,0.6s						
NRN	**Naryn**	**3.41**	**257**	⇓*i*P	**Pn**	**15 51 14.5**	**+0.8**
NRN				⇓*i*S	**Sn**	**15 51 54.4**	**0.0**
NRN	**Naryn**	**3.41**	**257**		**Pn**	**15 51 15.6**	**+1.9**
DGS	**Degeres**	**3.56**	**287**	Pg	**Pb**	**15 51 22.3**	**-1.0**
	40nm,0.3s						
DGS				Lg	Lg	15 52 10.4	
	278nm,0.4s						
DGS	**Degeres**	**3.56**	**287**	*e*P	**Pb**	**15 51 22.3**	**-1.0**
	40nm,0.3s						
DGS				*e*S	**Sg**	**15 52 10.4**	**-4.0**
	278nm,0.4s						
TKM2	**Tokmak 2**	**3.62**	**282**	P	**Pb**	**15 51 20.6**	**-3.7**
	SNR=11						
TKM2	**Tokmak 2**	**3.62**	**282**	⇑*e*P	**Pn**	**15 51 17.7**	**+1.2**
TKM2				⇑*i*S	**Sn**	**15 52 00.1**	**+0.7**
KRBS	**Karabastau**	**3.76**	**294**	Pg	**Pb**	**15 51 25.6**	**-1.1**
	52nm,0.3s						
KRBS				Lg	Lg	15 52 16.1	
	70nm,0.6s						
KRBS	**Karabastau**	**3.76**	**294**	*e*P	**Pb**	**15 51 25.6**	**-1.1**
	52nm,0.3s						
KRBS				*e*S	**Sb**	**15 52 16.1**	**+3.8**
	70nm,0.6s						
KBK	**Karagaybulak**	**4.07**	**277**	P	**Pn**	**15 51 26.3**	**+3.7**
	SNR=22						
KBK	**Karagaybulak**	**4.07**	**277**	⇓*i*P	**Pn**	**15 51 23.8**	**+1.2**
KBK				⇓*i*S	**Sn**	**15 52 10.7**	**+0.3**
CHMS	**Chumysh**	**4.25**	**282**	P	**Pg**	**15 51 38.9**	**-2.5**
	SNR=6.6						
CHMS	**Chumysh**	**4.25**	**282**	⇓*e*P	**Pn**	**15 51 26.3**	**+1.4**
CHMS				⇓*i*S	**Sn**	**15 52 14.9**	**+0.3**
FRU1	**Bishkek**	**4.31**	**279**	⇑*i*P	**Pn**	**15 51 27.4**	**+1.5**
FRU1				⇑*i*S	**Sn**	**15 52 16.7**	**+0.4**
FRU1	**Bishkek**	**4.31**	**279**	Pn	**Pn**	**15 51 27.0**	**+1.2**
UCH	**Uchtor**	**4.39**	**271**	P	Pb	15 51 32.2	-5.4
	SNR=8.8						
UCH	**Uchtor**	**4.39**	**271**	⇑*i*P	**Pn**	**15 51 28.3**	**+1.0**
UCH				⇑*i*S	**Sn**	**15 52 18.2**	**-0.4**
AAK	**Ala-Archa**	**4.40**	**277**	Pn	**Pn**	**15 51 31.0**	**+3.8**
	4.2nm,0.3s,baz=115,slow=8.9,SNR=40						
AAK				Pg	**Pg**	**15 51 41.8**	**-2.6**
	11nm,0.3s,baz=114,slow=21,SNR=7.1						
AAK				Lg	Lg	15 52 34.3	
	23nm,0.3s,baz=269,slow=23,SNR=8.5						
AAK				LR	LR	15 53 27.8	
	comp=Z,134nm,19.2s,baz=55,slow=41						
	6.8nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**4.40**	**277**	P	Pb	15 51 32.4	-5.3
	SNR=9.4						
AAK	**Ala-Archa**	**4.40**	**277**	⇓Pn	**Pn**	**15 51 27.8**	**+0.6**
	3.9nm,0.4s						
AAK				⇑Pg	**Pb**	**15 51 38.7**	**+1.1**
	25nm,0.6s						
AAK				⇑Lg	Lg	15 52 39.7	
	25nm,0.4s						
AAK	**Ala-Archa**	**4.40**	**277**	⇓*i*P	**Pn**	**15 51 28.5**	**+1.3**
AAK				⇓*i*S	**Sn**	**15 52 18.5**	**-0.1**
AAK	**Ala-Archa**	**4.40**	**277**		**Pn**	**15 51 30.0**	**+2.8**
USP	**Ospenovka**	**4.47**	**285**	P	**Pn**	**15 51 31.6**	**+3.6**
	SNR=10						
USP	**Ospenovka**	**4.47**	**285**	⇓*e*P	**Pn**	**15 51 29.4**	**+1.4**
USP				⇓*e*S	**Sn**	**15 52 20.4**	**+0.3**
MAKZ	**Makanchi**	**4.66**	**13**	Pn	**Pn**	**15 51 31.8**	**+1.2**
MK31	**Makanchi Array**	**4.70**	**16**	Pn	**Pn**	**15 51 31.3**	**+0.1**
	3.1nm,0.2s,baz=193,slow=13,SNR=795						
MK31				⇑Sn	**Sn**	**15 52 28.7**	**+2.9**
	3.4nm,0.3s,baz=184,slow=27,SNR=5.1						
MK31				⇑Lg	Lg	15 52 47.9	
	12nm,0.4s,baz=199,slow=30,SNR=4.2						
MKAR	**Makanchi Array**	**4.70**	**16**	Pn	**Pn**	**15 51 32.6**	**+1.4**
	3.2nm,0.3s,baz=194,slow=13,SNR=200						
MKAR				Sn	**Sn**	**15 52 27.4**	**+1.5**
	12nm,0.3s,baz=188,slow=16,SNR=12						
MKAR				Lg	Lg	15 52 47.5	
	13nm,0.3s,baz=193,slow=31,SNR=5.2						
MKAR				LR	LR	15 53 27.0	
	comp=Z,62nm,19.3s,baz=106,slow=40						
	13nm,0.4s					

ZSN					Lg	Lg	15 53 27.2	
	comp=E,54nm,0.6s							
ZSN	**Zaisan**	**6.05**	**30**	*eP*	**Pb**	**Pb**	**15 52 07.3**	**+1.6**
	comp=E,8.0nm,0.4s							
ZSN					*eS*	**Sg**	**15 53 27.2**	**-7.2**
	comp=E,54nm,0.6s							
KK31	**Karatay Array**	**7.35**	**280**	⇑Pg		**Pb**	**15 52 31.7**	**+3.9**
	comp=E,3.8nm,0.5s,baz=92,slow=16,SNR=18							
KK31					⇓Lg	Lg	15 54 13.2	
	comp=E,13nm,0.5s,baz=90,slow=28,SNR=6.4							
IUG	**luzhnay**	**7.72**	**272**		Pg	Pb	15 52 39.7	+5.6
	comp=E,31nm,1.0s							
IUG					Lg	Lg	15 54 23.2	
	comp=E,84nm,0.6s							
IUG	**luzhnay**	**7.72**	**272**	*eP*		Pb	15 52 39.7	+5.6
	comp=E,31nm,1.0s							
IUG					*eS*	**Sg**	**15 54 23.2**	**-4.6**
	comp=E,84nm,0.6s							
BRLS	**Boroldav**	**7.84**	**279**		Pg	Pg	15 52 44.6	-5.7
	comp=E,3.2nm,0.6s							
BRLS					Lg	Lg	15 54 31.5	
	comp=E,16nm,0.7s							
BRLS	**Boroldav**	**7.84**	**279**	*eP*		Pg	15 52 44.6	-5.7
	comp=E,3.2nm,0.6s							
BRLS					*eS*	**Sg**	**15 54 31.5**	**-0.2**
	comp=E,16nm,0.7s							
KURBB	**Kurchatov Arra**	**8.44**	**352**		Pn	**Pn**	**15 52 23.9**	**+1.5**
	comp=E,0.1nm,0.3s,baz=175,slow=12,SNR=6.9							
KURBB					Sn	**Sn**	**15 54 01.5**	**+3.7**
	comp=E,0.2nm,0.3s,baz=313,slow=16,SNR=1.8							
KURBB					Lg	Lg	15 54 45.9	
	comp=E,0.8nm,0.3s,baz=147,slow=42,SNR=4.0							
	comp=E,0.4nm,0.5s							
KURBB					AML	AML		
KURBB	**Kurchatov Arra**	**8.44**	**352**	⇓Pn		**Pn**	**15 52 23.5**	**+1.1**
	comp=E,4.7nm,0.7s							
KURBB					⇓Sn	**Sn**	**15 54 01.2**	**+3.4**
	comp=E,18nm,0.6s							
KURBB					⇓Lg	Lg	15 54 49.4	
	comp=E,68nm,0.6s							
KURK	**Kurchatov**	**8.53**	**352**			**Pn**	**15 52 23.9**	**+0.3**
KURK						**Sn**	**15 54 01.5**	**+1.7**
NIL	**Nilore**	**10.31**	**216**			**Pn**	**15 52 48.3**	**+0.2**
ZAA0	**Zalesovo Array**	**12.03**	**13**		Pn	**Pn**	**15 53 11.8**	**+0.2**
ZALV	**Zalesovo Beam**	**12.03**	**13**		Pn	**Pn**	**15 53 11.7**	**+0.1**
	comp=E,0.5nm,0.3s,baz=193,slow=13,SNR=7.1							
ZALV					Sn	**Sn**	**15 55 21.3**	**-4.5**
	comp=E,0.5nm,0.3s,baz=203,slow=24,SNR=5.7							
	comp=E,0.9nm,0.3s							
ZALV					AML	AML		
BVAR	**Borovoye Array**	**12.68**	**331**		Pn	**Pn**	**15 53 22.3**	**+1.8**
	baz=139,slow=14,SNR=2.7							
BVAR					Lg	Lg	15 57 06.0	
	comp=E,0.1nm,0.3s,baz=95,slow=27,SNR=6.3							
	comp=E,0.4nm,0.4s							
GOMU	**GeÉrMu**	**12.70**	**114**		P	**Pn**	**15 53 16.3**	**-4.8**
GOMU					pP		15 53 19.4	
GOMU					sP		15 53 23.8	
GOMU					pmax	pmax		
	comp=Z,24nm,0.8s							
BORK	**Borovoye**	**12.73**	**331**		Pn	**Pn**	**15 53 21.8**	**+0.7**
GTA2	**Gaotai**	**14.89**	**94**	*eP*		**P**	**15 53 58.1**	**+1.5**
GTA2					pmax	pmax		
	comp=Z,3.0nm,0.8s							
EVN	**Everest**	**15.21**	**158**		Pn	**Pn**	**15 53 56.4**	**+0.8**
EVN					IAmb	IAmb	15 54 05.2	
	comp=Z,5.8nm,1.2s							
AB31	**Akbulak array**	**15.87**	**303**			**Pn**	**15 54 02.9**	**-0.7**
ABKAR	**Akbulak array**	**15.87**	**303**		Pn	**Pn**	**15 54 03.0**	**-0.6**
AKTO	**Aktyubinsk**	**17.44**	**306**		P	**P**	**15 54 25.4**	**+0.8**
	comp=Z,0.1nm,0.3s,baz=83,slow=11,SNR=2.4							
	comp=Z,0.6nm,0.4s							
AKTO					AML	AML		
SONM	**Songino Array**	**19.12**	**64**		P	**P**	**15 54 39.4**	**-3.9**
	comp=Z,0.1nm,0.3s,baz=275,slow=9.5,SNR=1.2							
	comp=Z,0.3nm,0.3s							
SONM					AML	AML		
SONM	**Songino Array**	**19.12**	**64**			**Pn**	**15 54 44.7**	**+0.6**
SONM					IAmb	IAmb	15 55 17.7	
	comp=Z,4.9nm,1.4s							
ULN	**Ulaanbaatar**	**19.57**	**64**			**Pn**	**15 54 49.5**	**0.0**
ULN					IAmb	IAmb	15 54 53.4	
	comp=Z,6.8nm,1.2s							
ARTI	**Arti**	**20.01**	**322**		P	Pn	15 54 55.0	+0.5
	comp=Z,1.0nm,0.4s,baz=136,slow=5.4,SNR=4.5							
	comp=Z,1.0nm,0.4s							
ARTI	**Arti**	**20.01**	**322**		P	Pn	15 54 54.0	-0.5
ARTI					IAmb	IAmb	15 55 01.1	
	comp=Z,3.5nm,0.5s							
HHC	**Hu-ho-hao-te**	**23.28**	**83**	*eP*		**P**	**15 55 27.9**	**-0.1**
HHC					pmax	pmax		
	comp=Z,15nm,0.6s							
HHC					pmax	pmax		
	comp=Z,100nm,4.8s							
UOSS	**Minazif**	**26.43**	**237**		P	**P**	**15 55 59.0**	**+1.9**
KBZ	**Khabaz**	**27.33**	**286**		LR	LR	16 08 49.3	
	comp=Z,19nm,19.7s,baz=54,slow=40							
CHTO	**Chiang Mai**	**28.19**	**140**		P	**P**	**15 56 14.3**	**+1.4**
CHTO					IAmb	IAmb	15 56 26.5	
	comp=Z,8.1nm,1.4s							
CMAR	**Chiang Mai Arr**	**28.50**	**141**		P	**P**	**15 56 12.6**	**-3.1**
	comp=Z,0.7nm,0.3s,baz=320,slow=5.6,SNR=2.9							
	comp=Z,0.7nm,0.3s							
PBA	**Port Blair**	**32.35**	**157**		P	**P**	**15 56 51.5**	**+1.8**
FINES	**FINESS Array B**	**37.28**	**320**		P	**P**	**15 57 31.6**	**-0.2**
	comp=Z,1.4nm,0.7s,baz=100,slow=8.3,SNR=5.3							
	comp=Z,1.4nm,0.7s							
FINES	**FINESS Array B**	**37.28**	**320**		P	**P**	**15 57 32.5**	**+0.7**
MLR	**Muntele Rosu**	**38.77**	**294**		P	**P**	**15 57 46.4**	**+1.6**
MLR					IAmb	IAmb	15 57 50.5	
	comp=Z,5.0nm,1.3s							
ARCES	**ARCESS Array B**	**38.97**	**333**		P	**P**	**15 57 48.4**	**+2.4**
	comp=Z,5.9nm,1.0s,baz=92,slow=10,SNR=3.8							
	comp=Z,5.9nm,1.0s							
OJC	**Ojcow**	**41.62**	**303**		P	**P**	**15 58 09.7**	**+1.5**
HFS	**Hagfors**	**43.36**	**318**		P	**P**	**15 58 24.3**	**+2.1**
	comp=Z,2.5nm,0.9s,baz=88,slow=17,SNR=4.7							
	comp=Z,2.5nm,0.9s							
SPITS	**Spitsbergen Ar**	**43.71**	**344**		P	**P**	**15 58 26.6**	**+1.7**
	comp=Z,12nm,0.8s,baz=194,slow=17,SNR=4.6							
NB201	**NORSAR Array S**	**44.42**	**319**		P	**P**	**15 58 32.3**	**+1.5**
NOA	**NORSAR Array B**	**44.46**	**319**		P	**P**	**15 58 31.1**	**0.0**
	comp=Z,0.8nm,0.7s,baz=82,slow=8.0,SNR=2.3							
	comp=Z,0.8nm,0.7s							
DAVOX	**Davos/Dischmat**	**48.94**	**301**		LR	LR	16 21 41.2	
	comp=Z,78nm,18.4s,baz=268,slow=38							
JCJ	**Chichijima**	**51.92**	**86**		P	**P**	**15 59 30.1**	**+0.9**
KAPI	**Kappang**	**59.09**	**133**		LR	LR	16 26 45.1	
	comp=Z,68nm,21.3s,baz=358,slow=37							
BATI	**Baumata**	**65.53**	**132**		LR	LR	16 31 38.7	
	comp=Z,92nm,18.3s,baz=345,slow=38							
ILAR	**Eielson Array**	**67.05**	**20**		P	**P**	**16 01 14.1**	**+1.1**
	comp=Z,0.4nm,0.8s,baz=326,slow=5.9,SNR=5.9							
	comp=Z,0.4nm,0.8s							
S12K	**Black Hills**	**68.99**	**33**		P	**P**	**16 01 26.4**	**+1.0**
WRA	**Warramunga Arr**	**79.40**	**129**		P	**P**	**16 02 23.9**	**-2.6**
	comp=Z,0.7nm,1.2s,baz=334,slow=5.6,SNR=2.6							
	comp=Z,0.7nm,1.2s							
WR8	**Warramunga Arr**	**79.50**	**129**		P	**P**	**16 02 28.6**	**+1.6**
WR8					IAmb	IAmb	16 02 57.8	
	comp=Z,6.5nm,1.3s							
ASAR	**Alice Springs**	**82.11**	**132**		P	**P**	**16 02 38.6**	**-2.3**
	comp=Z,0.2nm,0.8s,baz=327,slow=5.3,SNR=4.5							
	comp=Z,0.2nm,0.8s							
ASAR	**Alice Springs**	**82.11**	**132**		P	**P**	**16 02 42.4**	**+1.5**
GRHM	**Grahamstown, E**	**90.06**	**223**		P	**P**	**16 03 21.8**	**+1.8**

*ISK **15** 16:26:35.8,37˚.78N×26˚.36E,h7km,ML3.5/18*
*THE **15** 16:26:36.9,38˚N±1˚×2˚6E±˚,h11km±2km,M3.5/21,*
MLh3.5/21
*ATH **15** 16:26:36.4,37˚.78N×26˚.38E,h12km±1km,ML3.4/24,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
*AFAD **15** 16:26:37.8,37˚.82N×26˚.46E,h13km,MW3.6*

ISC 15 16:26:36.5±0.9,37˚.80N±0˚.02×26˚.41E±0˚.02,h14km±6km,
n105,σ0°58/134,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAM2	**Drakei, Karlov**	**0.16**	**104**	P	**Pg**	**16 26 40.5**	**+0.1**
SAM2				S	**Sg**	**16 26 43.4**	**+0.2**
KRL1	**Karlovasi Samo**	**0.23**	**91**	P	**Pg**	**16 26 41.9**	**+0.3**
KRL1				S	**Sg**	**16 26 45.6**	**+0.5**
KRL1				AML	AML		
SMG	**Samos**	**0.35**	**105**	P	**Pb**	**16 26 44.0**	**-0.5**
SMG				S	**Sb**	**16 26 49.1**	**-0.7**
SMG					AML	AML	
SMG	**Samos**	**0.35**	**105**	P	**Pb**	**16 26 43.9**	**-0.6**
SMG				S	**Sb**	**16 26 49.0**	**-0.9**
SMG					AML	AML	
ZEYE	**Izmir, Urla-Ze**	**0.45**	**9**	P	**Pb**	**16 26 45.4**	**-0.7**
ZEYE				S	**Sb**	**16 26 51.8**	**-0.8**
DGB	**zmir**	**0.45**	**56**	P	**Pb**	**16 26 45.5**	**-0.7**
DGB				S	**Sg**	**16 26 51.1**	**-0.4**
GMLD	**Gumuldur**	**0.49**	**55**	Pg	**Pb**	**16 26 46.1**	**-0.7**
GMLD				Sg	**Sb**	**16 26 53.8**	**0.0**
GMLD				AML	AML		
CESE	**eme**	**0.54**	**351**	Pg	**Pb**	**16 26 47.1**	**-0.6**
CESE				AML	AML		
BEYE	**izmir**	**0.59**	**44**	P	**Pb**	**16 26 48.2**	**-0.4**
BEYE				S	**Sg**	**16 26 55.6**	**-0.3**
CHOS	**Chios island**	**0.65**	**335**	P	**Pb**	**16 26 49.5**	**-0.2**
CHOS				S	**Sb**	**16 26 59.5**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.65**	**335**	Pg	**Pb**	**16 26 49.2**	**-0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.65**	**335**	P	**Pb**	**16 26 49.4**	**-0.2**
CHOS				S	**Sb**	**16 26 58.7**	**+0.1**
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.66**	**98**	P	**Pb**	**16 26 49.4**	**-0.3**
GCAM				S	**Sg**	**16 26 57.8**	**-0.2**
GCAM	**G?zelcaml?**	**0.66**	**98**	Pg	**Pb**	**16 26 49.7**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.70**	**85**	Pg	**Pb**	**16 26 50.5**	**+0.1**
KUSD				Sg	**Sb**	**16 27 01.0**	**+1.1**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.74**	**117**	P	**Pb**	**16 26 51.3**	**+0.2**
DDIM				S	**Sg**	**16 27 00.4**	**-0.3**
BLCB	**Balcova**	**0.77**	**40**	P	**Pb**	**16 26 51.1**	**-0.5**
BLCB				S	**Sb**	**16 27 03.0**	**+1.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.77**	**40**	Pg	**Pb**	**16 26 51.9**	**+0.3**
BLCB				Sg	**Sb**	**16 27 02.9**	**+1.0**
BLCB				AML	AML		
EAG2	**Marmaro, Chios**	**0.78**	**342**	P	**Pb**	**16 26 52.0**	**+0.2**
EAG2				S	**Sb**	**16 27 02.7**	**+0.5**
DIDI	**Didim-Aydin**	**0.78**	**122**	Pg	**Pb**	**16 26 51.7**	**-0.1**
DIDI				AML	AML		
KRBN	**Karaburun**	**0.80**	**8**	Pg	**Pb**	**16 26 51.9**	**-0.3**
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.86**	**0**	P	**Pb**	**16 26 52.8**	**-0.5**
KARB				S	**Sg**	**16 27 03.8**	**-0.7**
DUVT	**Torbali**	**0.92**	**63**	P	**Pb**	**16 26 54.3**	**0.0**
DUVT				S	**Sg**	**16 27 05.3**	**-1.1**
BAGT	**Foa**	**0.92**	**22**	P	**Pb**	**16 26 53.8**	**-0.4**
BAGT				S	**Sb**	**16 27 06.8**	**+0.5**
FOCM	**Foa**	**0.95**	**15**	Pg	**Pb**	**16 26 54.5**	**-0.1**
FOCM				AML	AML		
KLNA	**Kalymnos**	**0.95**	**152**	P	**Pn**	**16 26 55.3**	**-0.1**
KLNA				S	**Sb**	**16 27 08.0**	**+0.8**
KLNA				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.97**	**134**	Pg	**Pb**	**16 26 54.8**	**-0.2**
YKAV				AML	AML		
APE	**Apeiranthos**	**1.01**	**224**	P	**Pb**	**16 26 55.6**	**-0.2**
APE				S	**Sb**	**16 27 09.2**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.01**	**224**	P	**Pb**	**16 26 55.4**	**-0.4**
APE				AML	AML		
TNSA	**Tinos**	**1.02**	**256**	P	**Pb**	**16 26 55.7**	**-0.3**
TNSA				AML	AML		
BODT	**Bodrum**	**1.03**	**136**	P	**Pn**	**16 26 56.4**	**-0.1**
BODT				S	**Sb**	**16 27 10.6**	**+1.3**
BODT				AML	AML		
BODT	**Bodrum**	**1.03**	**136**	Pg	**Pb**	**16 26 56.2**	**+0.2**
BODT				AML	AML		
BDRM	**Kayabasi**	**1.10**	**131**	P	**Pb**	**16 26 57.5**	**+0.2**
BDRM				S	**Sg**	**16 27 11.4**	**-0.7**
BODA	**Bodrum-Mula**	**1.11**	**133**	Pn	**Pn**	**16 26 58.1**	**+0.5**
AYDN	**Tasoluk**	**1.17**	**96**	P	**Pg**	**16 26 58.2**	**-0.9**
AYDB	**Zeytinkoy-Aydi**	**1.18**	**82**	Pn	**Pn**	**16 26 59.3**	**+0.6**
AYDB				AML	AML		
CAMT	**Merkez**	**1.18**	**37**	P	**Pg**	**16 26 58.5**	**-0.8**
MLSB	**Milas**	**1.20**	**114**	Pn	**Pb**	**16 26 58.9**	**0.0**
MLSB				AML	AML		
ASTA	**Astypalaia**	**1.25**	**182**	P	**Pn**	**16 27 00.0**	**+0.5**
ASTA				AML	AML		
IZMR	**zmir-demi**	**1.26**	**74**	P	**Pb**	**16 27 01.5**	**+1.4**
IZMR				S	**Sg**	**16 27 16.1**	**-1.2**
ZEDA	**zmir-Bergama**	**1.28**	**24**	P	**Pn**	**16 26 59.8**	**-0.1**
ZEDA				S	**Sb**	**16 27 17.0**	**+0.5**
DKL	**Dikili**	**1.33**	**17**	Pn	**Pg**	**16 27 01.7**	**-0.3**
DKL				Sn	**Sn**	**16 27 20.7**	**+2.7**
DKL				AML	AML		
DKL	**Dikili**	**1.33**	**17**	P	**Pn**	**16 27 00.3**	**-0.2**
YAZI	**Mula-Dat§a-**	**1.39**	**143**	P	**Pn**	**16 27 00.9**	**-0.5**
YAZI				S	**Sb**	**16 27 18.6**	**-1.2**
PRK	**Paraskevi**	**1.45**	**356**	P	**Pn**	**16 27 02.4**	**+0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.45**	**356**	P	**Pn**	**16 27 02.3**	**0.0**
GOMA	**Golmarmara-Man**	**1.49**	**52**	Pn	**Pg**	**16 27 04.5**	**-0.7**
GOMA				AML	AML		
AYVA	**Ayvalik**	**1.52**	**8**	P	**Pn**	**16 27 02.9**	**-0.3**
ESEN	**Aydn-Nazilli**	**1.54**	**89**	P	**Pn**	**16 27 03.1**	**-0.3**
AKHS	**Akhisar**	**1.54**	**45**	P	**Pn**	**16 27 03.3**	**-0.3**
AKS	**Akhisar**	**1.54**	**45**	Pn	**Pb**	**16 27 04.7**	**-0.1**
AKS				AML	AML		
CMBO	**Columbo, Santo**	**1.55**	**212**	P	**Pn**	**16 27 03.0**	**-0.7**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.55**	**212**	P	**Pn**	**16 27 03.5**	**-0.1**
KARY	**Karystos**	**1.58**	**279**	P	**Pn**	**16 27 03.8**	**-0.2**
KARY				AML	AML		
KARY	**Karystos**	**1.58**	**279**	P	**Pn**	**16 27 03.9**	**-0.2**
KARY				AML	AML		
KTTT	**Salihli**	**1.59**	**56**	P	**Pn**	**16 27 04.5**	**+0.2**
SAP3	**Santorini-Thir**	**1.61**	**212**	P	**Pn**	**16 27 03.8**	**-0.5**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.61**	**212**	P	**Pn**	**16 27 04.3**	**-0.1**
SNT5	**Nea Kammeni, S**	**1.61**	**211**	P	**Pn**	**16 27 04.1**	**-0.4**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.61**	**211**	P	**Pn**	**16 27 04.9**	**+0.4**
MULA	**Mugla, Merkez-**	**1.61**	**109**	P	**Pn**	**16 27 05.0**	**+0.4**
THERA	**Ancient Thera,**	**1.61**	**208**	P	**Pn**	**16 27 03.8**	**-0.6**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.61**	**208**	P	**Pn**	**16 27 03.9**	**-0.6**
THERA				AML	AML		
SOMA	**Soma-Manisa**	**1.62**	**33**	Pn	**Pb**	**16 27 05.7**	**-0.4**
SOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.62**	**75**	P	**Pn**	**16 27 04.8**	**+0.1**
YER	**Yerkesik**	**1.63**	**113**	P	**Pn**	**16 27 05.3**	**+0.5**
KOCA	**Canakkale, Ayv**	**1.71**	**353**	P	**Pn**	**16 27 06.0**	**+0.1**
GORD	**Gordes-Manisa**	**1.78**	**51**	Pn	**Pb**	**16 27 08.9**	**+0.1**
GORD				AML	AML		
BUHA	**Balikesir, Bur**	**1.78**	**17**	P	**Pn**	**16 27 06.5**	**-0.2**
TURN	**Turunc**	**1.78**	**124**	P	**Pn**	**16 27 06.8**	**-0.1**
MANT	**Manisa**	**1.83**	**67**	P	**Pn**	**16 27 07.9**	**+0.2**
MANT				S	**Sn**	**16 27 29.7**	**-1.0**
STEP	**BALIKESIR_Sava**	**1.88**	**33**	P	**Pn**	**16 27 08.7**	**+0.5**
SULTU	**Buldan**	**1.88**	**82**	P	**Pn**	**16 27 08.0**	**-0.3**
SULTU				S	**Sn**	**16 27 33.1**	**+1.3**
BAYC	**CANAKKALE_Bayr**	**1.94**	**3**	P	**Pn**	**16 27 08.2**	**-0.8**
MHLO	**Agia Marina, M**	**1.95**	**236**	P	**Pn**	**16 27 08.9**	**-0.2**
HARTU	**Esme**	**1.96**	**73**	P	**Pn**	**16 27 09.3**	**0.0**
DION	**Dionisos Attik**	**1.98**	**279**	P	**Pn**	**16 27 09.8**	**+0.2**
DION				AML	AML		
KYMI	**Kymi, Euboea I**	**2.00**	**295**	P	**Pn**	**16 27 10.5**	**+0.6**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.00**	**295**	P	**Pn**	**16 27 10.2**	**+0.3**
TAVA	**DENIZLI_Tavas**	**2.01**	**99**	P	**Pn**	**16 27 10.0**	**-0.1**
EZN	**Ezine**	**2.02**	**358**	P	**Pn**	**16 27 10.6**	**+0.5**
EZN				AML	AML		
PTL	**Penteli**	**2.03**	**278**	P	**Pn**	**16 27 10.5**	**+0.2**
PTL				AML	AML		
PTL	**Penteli**	**2.03**	**278**	P	**Pn**	**16 27 10.1**	**-0.2**
PTL				AML	AML		
VLY	**Voula,Athens**	**2.07**	**272**	P	**Pn**	**16 27 10.9**	**+0.1**
VLY				AML	AML		
VLY	**Voula,Athens**	**2.07**	**272**	P	**Pn**	**16 27 10.8**	**0.0**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.08**	**275**	P	**Pn**	**16 27 11.2**	**+0.2**
ATHU				AML	AML		
ATHU	**Athens Univers**	**2.08**	**275**	P	**Pn**	**16 27 11.0**	**0.0**
DNIZ	**Denizli-Tavas-**	**2.09**	**94**	P	**Pn**	**16 27 11.9**	**+0.7**
ARG	**Arkhangelos**	**2.09**	**138**	P	**Pn**	**16 27 11.4**	**+0.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.09**	**138**	P	**Pn**	**16 27 11.4**	**+0.3**
ARG				AML	AML		
ATH	**Athens Observa**	**2.14**	**275**	P	**Pn**	**16 27 11.9**	**+0.2**
ATH				AML	AML		
ATH	**Athens Observa**	**2.14**	**275**	P	**Pn**	**16 27 11.8**	**+0.2**
ATH				AML	AML		
BALY	**Balya**	**2.16**	**26**	P	**Pn**	**16 27 12.4**	**+0.4**
DEMI	**Demirci**	**2.20**	**55**	P	**Pb**	**16 27 14.5**	**-1.5**
USAK	**Uak-Merkez**	**2.25**	**65**	P	**Pn**	**16 27 13.8**	**+0.5**
STFN	**Stefani**	**2.30**	**280**	P	**Pn**	**16 27 14.5**	**+0.5**
STFN	**Stefani**	**2.30**	**280**	P	**Pn**	**16 27 14.3**	**+0.4**
STFN				AML	AML		
LIA	**Limnos Island**	**2.30**	**336**	P	**Pn**	**16 27 14.4**	**+0.4**
LIA				AML	AML		
KARP	**Karpathos**	**2.33**	**165**	P	**Pn**	**16 27 14.6**	**+0.2**
KARP				AML	AML		
MET5	**Makryloggos,Me**	**2.43**	**267**	P	**Pn**	**16 27 16.1**	**+0.4**
SMTH	**Samothraki Isl**	**2.75**	**346**	P	**Pn**	**16 27 20.5**	**+0.3**
SMTH				AML	AML		
IDI	**Anoyia**	**2.79**	**206**	P	**Pn**	**16 27 20.5**	**-0.3**
IDI				AML	AML		
NEO	**Neokhori**	**2.92**	**302**	P	**Pn**	**16 27 22.9**	**+0.4**
PAIG	**Paliouri**	**3.01**	**316**	P	**Pn**	**16 27 24.3**	**+0.6**
GUR	**Goura**	**3.22**	**274**	P	**Pn**	**16 27 26.9**	**+0.1**
GUR				AML	AML		

*THE **15** 16:36:01.6,38˚N±1˚×26˚.6E±0˚.9,h0km±1km,M2.7/5,*
MLh2.7/5
*AFAD **15** 16:36:02.0,37˚.84N×26˚.69E,h7km±2km,ML2.1*
*ISK **15** 16:36:02.2,37˚.80N×26˚.66E,h10km,ML2.4/13*

ISC 15 16:36:01.9±0.9,37˚.80N±0˚.02×26˚.66E±0˚.02,h12km±7km,
n39,σ0°63/61,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**123**	P	**Pg**	**16 36 05.5**	**-0.2**
SMG				S	**Sg**	**16 36 08.5**	**+0.2**
SMG				AML	AML		
DGB	**zmir**	**0.31**	**34**	P	**Pg**	**16 36 07.2**	**-1.0**
DGB				S	**Sg**	**16 36 11.7**	**-0.6**
GMLD	**Gumuldur**	**0.34**	**36**	Pg	**Pg**	**16 36 09.1**	**+0.3**
GMLD				Sg	**Sg**	**16 36 14.2**	**+0.8**
GMLD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.46**	**344**	P	**Pg**	**16 36 10.6**	**-0.3**
ZEYE				S	**Sg**	**16 36 17.2**	**+0.2**
ZEYE				IAML		16 36 18.0	
	comp=N,234nm,0.2s						
ZEYE				IAML		16 36 22.0	
	comp=E,165nm,0.3s						
GCAM	**G?zelcaml?**	**0.46**	**102**	P	**Pg**	**16 36 10.9**	**-0.1**
GCAM				S	**Sb**	**16 36 18.4**	**-0.4**
GCAM				IAML		16 36 20.0	
	comp=N,195nm,0.4s						
GCAM	**G?zelcaml?**	**0.46**	**102**	Pg	**Pg**	**16 36 11.0**	**0.0**
GCAM				Sg	**Sb**	**16 36 19.0**	**+0.2**
GCAM				AML	AML		
BEYE	**izmir**	**0.47**	**26**	P	**Pg**	**16 36 10.2**	**-1.0**
BEYE				IAML		16 36 18.0	
	comp=E,166nm,0.3s						
DDIM	**Aydin, Didim**	**0.57**	**126**	P	**Pb**	**16 36 13.8**	**0.0**
DDIM				S	**Sb**	**16 36 21.8**	**-0.2**
DDIM				IAML		16 36 26.0	
	comp=E,177nm,0.6s						
BLCB	**Balcova**	**0.66**	**27**	Pg	**Pg**	**16 36 15.1**	**+0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.75**	**56**	P	**Pg**	**16 36 15.8**	**-0.6**
DUVT				IAML		16 36 31.0	
	comp=E,100nm,0.3s						
CHOS	**Chios island**	**0.76**	**321**	P	**Pg**	**16 36 16.1**	**-0.5**
CHOS				S	**Sb**	**16 36 27.3**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.76**	**321**	Pg	**Pb**	**16 36 17.6**	**+0.5**
CHOS				AML	AML		
KRBN	**Karaburun**	**0.80**	**354**	Pg	**Pb**	**16 36 18.1**	**+0.4**
KRBN				AML	AML		
BAGT	**Foa**	**0.87**	**10**	P	**Pg**	**16 36 17.9**	**-0.8**
BAGT				S	**Sg**	**16 36 30.1**	**+0.1**
BAGT				IAML		16 36 35.0	
	comp=N,118nm,0.5s						
BAGT				IAML		16 36 36.0	
	comp=E,114nm,0.4s						
KARB	**zmir-Karabur**	**0.89**	**347**	P	**Pg**	**16 36 18.6**	**-0.4**
KARB				S	**Sg**	**16 36 30.2**	**-0.4**
KARB				IAML		16 36 34.0	
	comp=N,78nm,0.6s						
KARB				IAML		16 36 36.0	
	comp=E,66nm,0.8s						
BODT	**Bodrum**	**0.90**	**145**	S	**Sg**	**16 36 31.5**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.90**	**145**	Pg	**Pb**	**16 36 19.9**	**+0.5**
BODT				AML	AML		
FOCM	**Foa**	**0.91**	**3**	Pg	**

Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
*THE **15** 17:22:57.1, 38°N±1°×2°7E±°, h11km±1km, M2.5/4, MLh2.5/4*

ISC 15 17:22:56.8±0.8, 37°83N±0°02×26°81E±0°02, h14km±5km, n45, σ0s51/75, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.12**	**170**	P	**Pg**	**17 23 00.2**	**0.0**
SMG				S	**Sg**	**17 23 02.5**	**0.0**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**170**	P	**Pg**	**17 23 00.0**	**-0.2**
SMG				S	**Sg**	**17 23 02.5**	**0.0**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.17**	**247**	P	**Pg**	**17 23 00.8**	**-0.1**
SAM2				S	**Sg**	**17 23 03.6**	**-0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.23**	**14**	P	**Pg**	**17 23 01.8**	**-0.1**
DGB				S	**Sg**	**17 23 04.8**	**-0.5**
GMLD	**Gumuldur**	**0.26**	**18**	Pg	**Pg**	**17 23 02.4**	**0.0**
GMLD				Sg	**Sb**	**17 23 07.1**	**-0.6**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.36**	**111**	P	**Pg**	**17 23 04.6**	**+0.6**
GCAM				S	**Sb**	**17 23 10.1**	**-0.3**
GCAM				IAML		17 23 11.0	
	comp=N,469nm,0.2s						
GCAM				IAML		17 23 11.0	
	comp=E,449nm,0.5s						
GCAM	**G?zelcaml?**	**0.36**	**111**	Pg	**Pg**	**17 23 04.5**	**+0.4**
GCAM				Sg	**Sb**	**17 23 10.6**	**+0.2**
GCAM				AML	AML		
BEYE	**izmir**	**0.41**	**13**	P	**Pg**	**17 23 05.2**	**+0.2**
BEYE				S	**Sg**	**17 23 10.4**	**-0.2**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**330**	P	**Pg**	**17 23 06.2**	**-0.1**
ZEYE				S	**Sg**	**17 23 12.8**	**+0.1**
ZEYE				IAML		17 23 14.0	
	comp=N,382nm,0.4s						
ZEYE				IAML		17 23 14.0	
	comp=E,200nm,0.4s						
DDIM	**Aydin, Didim**	**0.50**	**137**	P	**Pg**	**17 23 06.9**	**+0.2**
DDIM				S	**Sb**	**17 23 14.6**	**0.0**
DDIM				IAML		17 23 15.0	
	comp=N,195nm,0.5s						
DDIM				IAML		17 23 16.0	
	comp=E,187nm,0.7s						
BLCB	**Balcova**	**0.59**	**18**	P	**Pg**	**17 23 08.6**	**+0.3**
BLCB				S	**Sb**	**17 23 16.7**	**-0.3**
BLCB	**Balcova**	**0.59**	**18**	Pg	**Pg**	**17 23 08.6**	**+0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.64**	**52**	P	**Pg**	**17 23 09.6**	**+0.3**
DUVT				S	**Sg**	**17 23 17.3**	**-0.5**
DUVT				IAML		17 23 22.0	
	comp=E,226nm,0.3s						
KRBN	**Karaburun**	**0.79**	**345**	Pg	**Pb**	**17 23 12.7**	**+0.4**
KRBN				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**17 23 12.3**	**-0.4**
CHOS				S	**Sb**	**17 23 24.1**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pb**	**17 23 12.9**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**17 23 12.4**	**-0.2**
CHOS				S	**Sb**	**17 23 24.5**	**+0.7**
CHOS				AML	AML		
BAGT	**Foa**	**0.83**	**2**	P	**Pn**	**17 23 14.1**	**+0.1**
BAGT				S	**Sb**	**17 23 24.1**	**+0.1**
BAGT				IAML		17 23 29.0	
	comp=E,88nm,0.4s						
BODT	**Bodrum**	**0.86**	**152**	P	**Pg**	**17 23 13.6**	**+0.1**
BODT				S	**Sb**	**17 23 25.9**	**+1.0**
BODT	**Bodrum**	**0.86**	**152**	Pg	**Pb**	**17 23 13.9**	**+0.4**
BODT				Sg	**Sn**	**17 23 27.1**	**+0.2**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.86**	**82**	Pg	**Pb**	**17 23 13.9**	**+0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.86**	**101**	P	**Pg**	**17 23 13.5**	**0.0**
AYDN				S	**Sg**	**17 23 23.7**	**-1.1**
AYDN				IAML		17 23 29.0	
	comp=E,68nm,0.5s						
FOCM	**Foa**	**0.89**	**356**	Pg	**Pb**	**17 23 14.6**	**+0.7**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.89**	**340**	P	**Pg**	**17 23 13.7**	**-0.4**
KARB				S	**Sg**	**17 23 25.3**	**-0.5**
KARB				IAML		17 23 29.0	
	comp=N,116nm,0.5s						
KARB				IAML		17 23 30.0	
	comp=E,107nm,0.5s						
EAG2	**Marmaro, Chios**	**0.90**	**322**	P	**Pg**	**17 23 14.0**	**-0.3**
BDRM	**Kayabasi**	**0.91**	**146**	P	**Pg**	**17 23 14.0**	**-0.4**
BDRM				S	**Sg**	**17 23 25.8**	**-0.6**
BDRM				IAML		17 23 30.0	
	comp=N,72nm,0.4s						
BDRM				IAML		17 23 30.0	
	comp=E,73nm,0.4s						
MLSB	**Milas**	**0.93**	**124**	Pg	**Pb**	**17 23 15.3**	**+0.5**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.95**	**71**	P	**Pg**	**17 23 15.1**	**-0.1**
IZMR				S	**Sg**	**17 23 26.0**	**-1.7**
CAMT	**Merkez**	**1.00**	**23**	P	**Pn**	**17 23 16.8**	**+0.4**
CAMT				S	**Sn**	**17 23 30.5**	**+0.2**
ZEDA	**zmir-Bergama**	**1.16**	**10**	P	**Pb**	**17 23 18.2**	**-0.3**
ZEDA				S	**Sg**	**17 23 34.2**	**0.0**
ZEDA				IAML		17 23 39.0	
	comp=N,84nm,0.5s						
ZEDA				IAML		17 23 39.0	
	comp=E,60nm,0.6s						
NAZL	**Nazilli-Aydin**	**1.18**	**83**	Pn	**Pg**	**17 23 19.9**	**+0.4**
NAZL				AML	AML		
DKL	**Dikili**	**1.24**	**3**	Pn	**Pg**	**17 23 21.2**	**+0.5**
DKL				AML	AML		
APE	**Apeiranthos**	**1.27**	**234**	P	**Pn**	**17 23 19.9**	**-0.3**
APE				S	**Sb**	**17 23 36.2**	**-0.5**
APE	**Apeiranthos**	**1.27**	**234**	P	**Pn**	**17 23 19.8**	**-0.3**
APE				AML	AML		
KIRA	**zmir-Kiraz**	**1.31**	**73**	P	**Pb**	**17 23 21.4**	**+0.2**
KIRA				S	**Sb**	**17 23 35.6**	**-2.3**
AKHS	**Akhisar**	**1.31**	**37**	P	**Pg**	**17 23 22.3**	**+0.2**
AKHS				S	**Sb**	**17 23 38.0**	**+0.1**
AKHS				IAML		17 23 42.0	
	comp=N,66nm,0.4s						
KTTT	**Salihli**	**1.33**	**49**	P	**Pb**	**17 23 21.8**	**+0.4**
KTTT				IAML		17 23 42.0	
	comp=N,34nm,0.4s						
MULA	**Mugla, Merkez-**	**1.33**	**115**	P	**Pb**	**17 23 21.9**	**+0.4**
MULA				S	**Sb**	**17 23 38.0**	**-0.4**
YER	**Yerkesik**	**1.36**	**120**	P	**Pn**	**17 23 22.0**	**+0.6**
YER				S	**Sb**	**17 23 39.3**	**0.0**
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pg**	**17 23 24.5**	**0.0**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.48**	**344**	P	**Pn**	**17 23 23.3**	**+0.4**
AYVA	**Ayvalik**	**1.48**	**356**	P	**Pn**	**17 23 23.7**	**+0.7**
AYVA				S	**Sb**	**17 23 42.9**	**+0.1**
AYVA				IAML		17 23 48.0	
	comp=E,29nm,0.6s						
AYVA				IAML		17 23 49.0	
	comp=N,48nm,0.6s						
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pg**	**17 23 25.7**	**-0.4**
GORD				AML	AML		
MANT	**Manisa**	**1.53**	**64**	P	**Pg**	**17 23 26.5**	**+0.4**
MANT				S	**Sn**	**17 23 43.3**	**-0.3**
MANT				IAML		17 23 49.0	
	comp=N,24nm,0.3s						
MANT				IAML		17 23 49.0	
	comp=E,19nm,0.2s						
DION	**Dionisos Attik**	**2.29**	**277**	P	**Pn**	**17 23 34.0**	**-0.2**
DION				AML	AML		

*IDC **15** 17:25:49.3±1.9, 15°21N×120°57E, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=78.7km s-min=23.4km az=51.0*
*MAN **15** 17:25:51.0, 15°23N×120°24E, h13km, MS3.2*

ISC 15 17:25:54.2±1.5, 15°24N±0°06×120°5E±0°1, h31km±13km, n10, σ2s51/15, mb3.6/3, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCPS	**Palayan City**	**0.80**	**137**	*eP*	**Pn**	**17 26 07.4**	**-2.0**
PCPS				*eS*	**Sb**	**17 26 19.1**	**-1.1**
TGY	**Tagaytay City**	**1.21**	**159**	*eP*	**Pb**	**17 26 18.1**	**+1.5**
LQP	**Lukban**	**1.51**	**138**	*eP*	**Pb**	**17 26 20.8**	**-1.0**
LQP				*eS*	**Sn**	**17 26 38.3**	**+0.2**
GQP	**Guinayangan**	**2.31**	**125**	*eP*	**Pb**	**17 26 33.7**	**-1.5**
GQP				*eS*	**Sb**	**17 27 09.2**	**+5.8**
SIPP	**Brgy, Tapao**	**2.67**	**359**	*eP*	**Pb**	**17 26 39.9**	**-1.4**
SIPP				*eS*	**Sn**	**17 27 09.7**	**+3.3**
PIP	**Pasuquin**	**3.07**	**2**	*eP*	**Pn**	**17 26 42.6**	**+2.0**
PIP				*eS*	**Sb**	**17 27 22.8**	**-2.4**
CMAR	**Chiang Mai Arr**	**20.87**	**282**	P	**P**	**17 30 34.3**	**+0.4**
	0.7nm,0.3s,baz=94,slow=9.2,SNR=13 0.7nm,0.3s						
WRA	**Warramunga Arr**	**37.52**	**158**	P	**P**	**17 33 04.5**	**-1.1**
	0.7nm,0.5s,baz=334,slow=9.5,SNR=16 0.7nm,0.5s						
ASAR	**Alice Springs**	**40.83**	**161**	P	**P**	**17 33 32.5**	**-0.8**
	0.6nm,0.4s,baz=336,slow=7.2,SNR=43 0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**48.81**	**326**	P	**P**	**17 34 36.3**	**-0.1**
	0.2nm,0.3s,baz=122,slow=7.8,SNR=2.5 0.2nm,0.3s						

*IDC **15** 17:26:50.6±2.9, 28°01N×142°01E, h0km, mb4.0/6, mbtmp4.0/6, Error ellipse: s-maj=119.5km s-min=29.4km az=74.0*

ISC 15 17:26:57.1±3.0, 28°0N±0°3×141°8E±0°9, h42km, n6, σ0s24/6, mb4.1/6, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.16**	**189**	P	**P**	**17 35 33.3**	**0.0**
	1.1nm,1.1s,baz=6.0,slow=8.1,SNR=5.1 1.1nm,1.1s						
ZALV	**Zalesovo Beam**	**48.63**	**319**	P	**P**	**17 35 36.7**	**+0.2**
	0.6nm,0.3s,baz=102,slow=7.5,SNR=3.0 0.6nm,0.3s						
MKAR	**Makanchi Array**	**49.68**	**309**	P	**P**	**17 35 44.6**	**-0.2**
	0.2nm,0.3s,baz=87,slow=10,SNR=7.4 0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**52.21**	**314**	P	**P**	**17 36 03.9**	**+0.2**
	1.4nm,0.4s,baz=92,slow=8.2,SNR=14 1.4nm,0.4s						
BVAR	**Borovoye Array**	**57.20**	**317**	P	**P**	**17 36 40.0**	**+0.2**
	2.6nm,0.4s,baz=87,slow=7.2,SNR=24 2.6nm,0.4s						
FINES	**FINESS Array B**	**77.04**	**334**	P	**P**	**17 38 45.2**	**-0.1**
	1.7nm,0.7s,baz=63,slow=5.9,SNR=6.7 1.7nm,0.7s						

IDC 15 17:34:36.8±13.0, 33°63S×178°29W, h0km, mb3.5/3, mbtmp3.5/4, ML3.3/1, Error ellipse: s-maj=248.4km s-min=45.0km az=100.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**5.94**	**218**	Pn	Pn	17 36 05.7	-0.3
	0.8nm,0.3s,baz=80,slow=6.1,SNR=7.1						
URZ				Sn	Sn	17 37 15.0	+0.3
	0.5nm,0.3s,baz=143,slow=21,SNR=2.0 3.5nm,0.7s						
URZ				AML	AML		
STKA	**Stephens Creek**	**33.64**	**262**	P	P	17 41 20.1	+0.8
	2.1nm,0.7s,baz=133,slow=3.5,SNR=6.3 2.1nm,0.7s						
ASAR	**Alice Springs**	**42.79**	**271**	P	P	17 42 35.9	-0.6
	0.3nm,0.9s,baz=110,slow=7.5,SNR=5.8 0.3nm,0.9s						
WRA	**Warramunga Arr**	**44.07**	**276**	P	P	17 42 46.5	-0.3
	0.3nm,0.8s,baz=117,slow=8.1,SNR=5.0 0.3nm,0.8s						

IDC 15 17:43:35.4±1.6, 4°61N×123°86E, h0km, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=148.4km s-min=19.0km az=66.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**22.63**	**176**	P	P	17 48 38.2	+0.1
	1.3nm,1.1s,baz=0.0,slow=11,SNR=1.0 1.3nm,1.1s						
WRA	**Warramunga Arr**	**26.49**	**157**	P	P	17 49 16.1	+1.5
	0.8nm,0.6s,baz=337,slow=9.3,SNR=14 0.8nm,0.6s						
ASAR	**Alice Springs**	**29.76**	**161**	P	P	17 49 42.4	-1.5
	0.3nm,0.6s,baz=342,slow=7.5,SNR=14 0.3nm,0.6s						
MKAR	**Makanchi Array**	**55.22**	**326**	P	P	17 53 10.6	+0.4
	0.8nm,0.6s,baz=131,slow=7.7,SNR=8.8 0.8nm,0.6s						
KURBB	**Kurchatov Arra**	**59.47**	**328**	P	P	17 53 39.7	-0.4
	0.4nm,0.6s,baz=132,slow=6.9,SNR=7.9 0.4nm,0.6s						

*IDC **15** 17:47:51.2±2.7, 4°77N×127°31E, h0km, mb3.4/3, mbtmp3.4/3, MS3.1/1, Error ellipse: s-maj=209.3km s-min=28.1km az=66.0*
*DJA **15** 17:49:11.5±0.4, 0°S±6°×12°3E±°, h38km±27km, M2.5/7, MLv2.5/7*

ISC 15 17:48:33.1±3.2, 0°3S±0°3×125°4E±0°2, h10km, n6, σ2s79/5, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GTOI	**Gorontalo**	**2.58**	**290**	P	Pg	17 49 29.8	+7.2
GTOI				S	**Sn**	**17 49 45.0**	**-1.4**
GTOI				AML	AML		
LUWI	**Luwuk**	**2.78**	**253**	P	**Pg**	**17 49 25.2**	**-1.2**
LUWI				S	Sn	17 49 37.3	-14
LUWI				AML	AML		
APSI	**Ampana**	**3.84**	**260**	P	**Pn**	**17 49 35.2**	**+2.8**
WRA	**Warramunga Arr**	**21.43**	**157**	P	**P**	**17 53 21.9**	**+0.3**
	0.3nm,0.9s,baz=344,slow=9.9,SNR=5.4 0.3nm,0.9s						
ASAR	**Alice Springs**	**24.69**	**161**	P	**P**	**17 53 52.5**	**-2.0**
	0.8nm,1.1s,baz=352,slow=7.5,SNR=8.2 0.8nm,1.1s						
YAK	**Yakutsk**	**62.20**	**2**	LR	LR	18 28 33.4	
	comp=Z,14nm,18.1s,baz=47,slow=43						

TRN 15 17:50:11.5, 18°04N×63°11W, h89km, MD3.7, Near South of St. Martin., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMRT	**St. Maarten**	**0.04**	**70**	*eP*	Pn	17 50 26.0	+2.0
SMRT				*eS*	Sn	17 50 35.2	+1.9
SABA	**Saba**	**0.43**	**197**	*eP*	Pn	17 50 27.4	+1.8
SABA				*eS*	Sn	17 50 37.6	+1.4
SEUS	**St. Eustatius**	**0.56**	**167**	*eP*	Pn	17 50 27.4	+0.8
SEUS				*eS*	Sn	17 50 39.4	+1.6
SKI	**Saint Kitts**	**0.79**	**153**	*eP*	Pn	17 50 30.6	+1.7
SKI				*eS*	Sn	17 50 43.5	+1.8
ANWB	**Willy Bob**	**1.32**	**106**	*eP*	Pn	17 50 36.3	+1.4
ANWB				*eS*	Sn	17 50 54.0	+1.4
DHSZ	**Broadband at M**	**2.18**	**144**	*eP*	Pn	17 50 47.3	+1.3
DHSZ				*eS*	Sn	17 51 13.7	+1.3
DSDZ	**La Diserade, G**	**2.60**	**131**	*eP*	Pn	17 50 52.6	+0.9
MAGL	**Barre de l'ile**	**2.72**	**140**	*eP*	Pn	17 50 54.7	+1.5
MAGL				*eS*	Sn	17 51 26.5	+1.2
SJG	**San Juan**	**2.89**	**272**	*eP*	Pn	17 50 57.3	+1.8
SJG				*eS*	Sn	17 51 30.1	+0.6
DWS	**Wesley**	**3.00**	**145**	*eP*	Pn	17 50 57.9	+0.8
DWS				*eS*	Sn	17 51 33.3	+1.2
DSLB	**Salisbury**	**3.05**	**148**	*eP*	Pn	17 50 59.5	+1.7
DSLB				*eS*	Sn	17 51 34.1	+0.7
BIM	**Bigot**	**4.01**	**150**	*eP*	Pn	17 51 12.2	+1.4
BIM				*eS*	Sn	17 51 57.9	+1.2

*TAP **15** 17:50:12.6, 24°87N×122°82E, h16km, ML4.1, D*
*JMA **15** 17:50:12.7±0.1, 24°9N±0°9×122°9E±0°6, h27km±2km, MV2.6/12, NW OFF ISHIGAKIJIMA IS*
*IDC **15** 17:50:18.7±1.3, 24°25N×124°44E, h0km, mb3.4/3, mbtmp3.5/5, ML2.7/2, MS3.1/5, Error ellipse: s-maj=30.1km s-min=17.6km az=111.0*

ISC 15 17:50:12.5±1.2, 24°85N±0°03×122°86E±0°03, h14km±9km, n155, σ1s27/261, mb3.4/3, MS3.0/4, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.40**	**169**	*eP*	**Pb**	**17 50 21.3**	**-0.1**
JYNG				*eS*	**Sb**	**17 50 27.5**	**+0.1**
YOJ	**Yonaguni jima**	**0.41**	**161**	P	**Pb**	**17 50 21.8**	**+0.3**
YOJ	**Yonaguni jima**	**0.41**	**161**	*i* P	**Pb**	**17 50 21.8**	**+0.3**
YOJ				*i* S	**Sb**	**17 50 27.5**	**0.0**
YOJ	**Yonaguni jima**	**0.41**	**161**	*eP*	**Pb**	**17 50 21.4**	**-0.1**
YOJ				*eS*	**Sb**	**17 50 27.6**	**0.0**
EOS2	**EOS2**	**0.72**	**234**	*i* P	**Pg**	**17 50 27.0**	**+0.5**
EOS2				*i* S	**Sb**	**17 50 37.4**	**+1.0**
EOS3	**EOS3**	**0.75**	**222**	*i* P	**Pg**	**17 50 27.7**	**+0.7**
EOS3				*i* S	**Sg**	**17 50 37.7**	**+0.8**
TWB1	**Santiao Chiao**	**0.81**	**282**	P	**Pb**	**17 50 27.3**	**-1.1**
TWB1				S	**Sb**	**17 50 37.4**	**-1.9**
EGS		**0.85**	**270**	P	**Pb**	**17 50 28.1**	**-0.9**
EOS4	**EOS4**	**0.88**	**215**	P	**Pg**	**17 50 29.6**	**+0.1**
EOS4				S	**Sb**	**17 50 40.3**	**-0.5**
SXI1	**Grass Mountain**	**0.93**	**286**	*i* P	**Pb**	**17 50 29.5**	**-1.0**
IRIF	**Iriomote-Funau**	**0.94**	**123**	*eP*	**Pb**	**17 50 29.5**	**-1.1**
TIPB	**Shuangxi**	**0.95**	**278**	*i* P	**Pb**	**17 50 29.8**	**-1.0**
TWC	**Suao**	**0.95**	**256**	P	**Pb**	**17 50 29.5**	**-1.3**
TWC				S	**Sb**	**17 50 41.5**	**-1.8**
ESAO	**Su ao**	**0.97**	**254**	*eP*	**Pb**	**17 50 30.0**	**-1.0**
ESAO				S	**Sb**	**17 50 41.9**	**-1.8**
NWF	**Wu-fen Shan**	**1.01**	**283**	P	**Pb**	**17 50 31.2**	**-0.6**
WFSB	**Wu-fen Shan**	**1.01**	**283**	P	**Pb**	**17 50 30.8**	**-1.0**
WFSB				*eS*	**Sb**	**17 50 43.0**	**-1.9**
ILA	**Ilan**	**1.02**	**266**	S	**Sb**	**17 50 45.1**	**-0.1**
PCYT	**Pengchaiyu**	**1.06**	**318**	P	**Pb**	**17 50 32.0**	**-0.7**
PCYT				*eS*	**Sg**	**17 50 46.4**	**-0.5**
NDS	**Dongshan**	**1.06**	**259**	*i* P	**Pb**	**17 50 31.6**	**-1.2**
NDS				S	**Sb**	**17 50 45.5**	**-1.1**
EWUT	**Wuta**	**1.07**	**248**	*eP*	**Pb**	**17 50 32.0**	**-0.8**
EWUT				*eS*	**Sb**	**17 50 44.9**	**-1.6**
TWE	**Neicheng**	**1.09**	**264**	P	**Pb**	**17 50 32.0**	**-1.3**
TWE				*eS*	**Sb**	**17 50 46.8**	**-0.6**
ENA	**Nanau**	**1.10**	**248**	*eP*	**Pb**	**17 50 32.3**	**-1.1**
ENA				S	**Sb**	**17 50 45.9**	**-1.8**
EAHA	**Aohua**	**1.15**	**244**	P	**Pn**	**17 50 33.9**	**-0.2**
EAHA				S	**Sb**	**17 50 47.7**	**-1.2**
FUSB	**Fushanzhiwuyua**	**1.16**	**266**	*eP*	**Pn**	**17 50 34.0**	**-0.5**
FUSB				S	**Sb**	**17 50 48.5**	**-1.0**
HATJ	**Hateruma jima**	**1.16**	**132**	*eP*	**Pn**	**17 50 33.9**	**-0.5**
TWA	**Mucha**	**1.17**	**277**	*eP*	**Pb**	**17 50 34.4**	**-0.2**
ENTT	**Nioudou**	**1.20**	**260**	*eP*	**Pn**	**17 50 34.5**	**-0.4**
ENTT				S	**Sb**	**17 50 49.5**	**-0.9**
JKRS	**Kuro-shima**	**1.21**	**120**	*eP*	**Pn**	**17 50 34.5**	**-0.5**
YM01	**YM01**	**1.21**	**285**	*eS*	**Sn**	**17 50 50.6**	**-0.7**
ZUZH	**Zhuzihu**	**1.24**	**285**	*eP*	**Pn**	**17 50 34.3**	**-1.2**
NWLT	**Wulai**	**1.24**	**267**	*eP*	**Pn**	**17 50 35.0**	**-0.5**
NWLT				*eS*	**Sb**	**17 50 50.9**	**-0.7**
NDT	**Datong Townshi**	**1.25**	**259**	*eP*	**Pb**	**17 50 36.3**	**+0.3**
NDT				S	**Sn**	**17 50 52.0**	**-0.3**
LATG	**Datong**	**1.26**	**256**	P	**Pn**	**17 50 35.2**	**-0.6**
LATG				S	**Sb**	**17 50 51.2**	**-1.0**
TATO	**Taipei**	**1.26**	**276**	P	**Pn**	**17 50 34.4**	**-1.3**
JIJI	**Ishigaki jima**	**1.26**	**112**	*eP*	**Pn**	**17 50 34.7**	**-1.0**
ETL	**Fush Village**	**1.32**	**239**	P	**Pb**	**17 50 37.0**	**-0.2**
ETL				*i* S	**Sn**	**17 50 53.8**	**-0.3**
NTST	**Danshui**	**1.32**	**284**	*eP*	**Pn**	**17 50 36.2**	**-0.4**
NACB	**Ninganchiao**	**1.34**	**240**	P	**Pn**	**17 50 36.8**	**0.0**
NACB	**Ninganchiao**	**1.34**	**240**	P	**Pn**	**17 50 36.4**	**-0.4**
NACB				S	**Sn**	**17 50 53.7**	**-0.7**
JISG	**Ishigakijimahi**	**1.34**	**101**	*eP*	**Pn**	**17 50 36.1**	**-0.7**
YHNB	**Yeheng**	**1.36**	**263**	P	**Pg**	**17 50 39.0**	**+0.2**
YHNB	**Yeheng**	**1.36**	**263**	*eP*	**Pn**	**17 50 36.9**	**-0.3**
YHNB				*eS*	**Sn**	**17 50 54.7**	**-0.5**
NSK	**Sanguang**	**1.38**	**263**	*eP*	**Pb**	**17 50 38.1**	**0.0**
NSK				S	**Sn**	**17 50 54.7**	**-0.8**
TWD	**Chiawan**	**1.39**	**237**	P	**Pn**	**17 50 37.7**	**+0.2**
TWD				S	**Sn**	**17 50 55.4**	**-0.2**
ETLH	**Xiulin Townshi**	**1.41**	**243**	P	**Pb**	**17 50 38.4**	**-0.3**
ETLH				*i* S	**Sb**	**17 50 56.4**	**-0.2**
NNSB	**Datong**	**1.41**	**253**	P	**Pn**	**17 50 37.7**	**-0.2**
NNSB				*eS*	**Sn**	**17 50 55.4**	**-1.0**
NNS	**Nan Shan**	**1.42**	**254**	P	**Pb**	**17 50 38.3**	**-0.5**
NNS				S	**Sn**	**17 50 55.3**	**-1.2**
HWA	**Hwalien**	**1.44**	**233**	P	**Pg**	**17 50 40.8**	**+0.6**
TEYL	**Yanliau Villag**	**1.51**	**230**	*eP*	**Pb**	**17 50 39.8**	**-0.6**
TEYL				*eS*	**Sb**	**17 50 59.2**	**-0.2**
ETM	**Tongmen**	**1.53**	**235**	P	**Pn**	**17 50 39.4**	**0.0**
ETM				*eS*	**Sb**	**17 50 59.5**	**-0.4**
KSHI	**Guanxi Townshi**	**1.54**	**268**	*eP*	**Pn**	**17 50 39.9**	**+0.4**
KSHI				S	**Sn**	**17 50 58.9**	**-0.4**
LXIB	**Xiulin Townshi**	**1.56**	**238**	P	**Pn**	**17 50 40.3**	**+0.3**
LXIB				*eS*	**Sb**	**17 51 00.4**	**-0.5**
SHUL	**Shoufeng**	**1.59**	**229**	P	**Pn**	**17 50 40.4**	**+0.2**
SHUL				S	**Sn**	**17 50 59.6**	**-1.0**
FUSS	**Fushou**	**1.59**	**248**	P	**Pb**	**17 50 41.3**	**-0.6**
FUSS				S	**Sb**	**17 51 01.3**	**-0.7**
NFF	**Wufeng Townshi**	**1.60**	**263**	P	**Pn**	**17 50 40.5**	**0.0**
NFF				S	**Sn**	**17 51 01.1**	**0.0**
WHF	**Hehuan Shan**	**1.62**	**245**	*i* P	**Pb**	**17 50 41.7**	**-0.7**
WHF				S	**Sn**	**17 51 01.7**	**-0.2**
TWT	**Tachien**	**1.65**	**249**	P	**Pb**	**17 50 42.9**	**+0.1**
TWT				S	**Sb**	**17 51 03.9**	**+0.4**
TEGC	**Jichi Village**	**1.66**	**227**	*eP*	**Pn**	**17 50 41.2**	**+0.1**
TEGC				*eS*	**Sb**	**17 51 03.0**	**-0.6**
ESL	**Shilin**	**1.66**	**232**	P	**Pn**	**17 50 41.3**	**0.0**
ESL				S	**Sn**	**17 51 02.4**	**0.0**
TDCB	**Techi**	**1.66**	**250**	P	**Pb**	**17 50 42.7**	**-0.4**
TDCB				*eS*	**Sb**	**17 51 03.2**	**-0.7**
LIOB	**Emei**	**1.69**	**264**	*eP*	**Pb**	**17 50 43.2**	**-0.2**
LIOB				*eS*	**Sn**	**17 51 03.2**	**0.0**
NSTT	**Nanjuang**	**1.71**	**263**	*eP*	**Pb**	**17 50 43.6**	**-0.1**
NSTT				S	**Sb**	**17 51 04.7**	**-0.4**
SBCB	**Hsinchu**	**1.71**	**269**	P	**Pn**	**17 50 41.6**	**-0.3**
SBCB				*eS*	**Sn**	**17 51 03.0**	**-0.6**
HSN	**Hsinchu**	**1.72**	**269**	*eS*	**Sn**	**17 51 02.1**	**-1.8**
WARBT	**Fenglin Townsh**	**1.75**	**231**	P	**Pn**	**17 50 42.3**	**-0.3**
WARBT				*eS*	**Sn**	**17 51 02.3**	**-2.5**
OWD	**Renai**	**1.78**	**240**	*i* P	**Pn**	**17 50 43.5**	**+0.6**
OWD				S	**Sn**	**17 51 05.8**	**+0.3**
WUSB	**Renai**

ALS	**Alishan**	**2.30**	**235**	P		**Pn**	**17 50 51.8**	**+1.4**
ALS				S		**Sn**	**17 51 19.8**	**+1.1**
ECS	**Chishang**	**2.30**	**221**	*eP*		**Pn**	**17 50 50.1**	**0.0**
ECS				S		**Sn**	**17 51 18.8**	**+0.5**
EDH	**Donghe**	**2.35**	**218**	P		**Pn**	**17 50 49.7**	**-1.0**
EDH				S		**Sn**	**17 51 17.4**	**-2.0**
CHN5	**Tsauling**	**2.35**	**239**	*eP*		**Pb**	**17 50 53.3**	**-1.5**
ELDTW	**Lidau**	**2.36**	**226**	P		**Pn**	**17 50 50.8**	**-0.2**
ELDTW				*eS*		**Sn**	**17 51 18.2**	**-1.7**
WGK	**Gukeng**	**2.40**	**242**	P		**Pn**	**17 50 52.9**	**+1.5**
WGK				*eS*		**Sn**	**17 51 21.6**	**+1.0**
WDL	**Douliou City**	**2.40**	**243**	*eP*		**Pn**	**17 50 53.2**	**+1.8**
WDL				*eS*		**Sb**	**17 51 24.6**	**-0.5**
WDLH	**Douliu**	**2.42**	**242**	*eP*		**Pb**	**17 50 54.6**	**-1.2**
WDLH				S		**Sb**	**17 51 24.7**	**-0.8**
RLNB	**Erlin**	**2.47**	**248**	*eS*		**Sb**	**17 51 25.2**	**-2.0**
WCKO	**Fanlu**	**2.50**	**236**	*eP*		**Pn**	**17 50 54.8**	**+2.1**
WCKO				S		**Sb**	**17 51 26.4**	**-1.4**
LONT	**Longtian**	**2.50**	**220**	*eP*		**Pn**	**17 50 52.6**	**-0.2**
LONT				*eS*		**Sn**	**17 51 22.7**	**-0.5**
LDUT	**Ludao**	**2.51**	**211**	*eP*		**Pn**	**17 50 51.7**	**-1.2**
LDUT				*eS*		**Sn**	**17 51 20.6**	**-2.8**
STYH	**Taoyuan**	**2.54**	**229**	P		**Pn**	**17 50 54.6**	**+1.3**
STYH				S		**Sn**	**17 51 25.3**	**+1.3**
CHN2	**Minshiung**	**2.54**	**240**	*eP*		**Pn**	**17 50 54.7**	**+1.3**
CHN2				*eS*		**Sn**	**17 51 25.6**	**+1.4**
CHN4	**Tsaushan**	**2.55**	**235**	P		**Pb**	**17 50 56.1**	**-2.1**
CHN4				S		**Sb**	**17 51 27.6**	**-1.9**
TPUB	**Ta-pu**	**2.56**	**233**	P		**Pn**	**17 50 55.3**	**+1.7**
TPUB	**Ta-pu**	**2.56**	**233**	P		**Pn**	**17 50 55.3**	**+1.7**
TPUB				S		**Sb**	**17 51 27.1**	**-2.5**
TWGBT	**Beinan**	**2.60**	**219**	P		**Pn**	**17 50 53.7**	**-0.4**
TWGBT	**Beinan**	**2.60**	**219**	P		**Pn**	**17 50 53.8**	**-0.4**
TWGBT				*eS*		**Sn**	**17 51 25.9**	**+0.3**
TWG	**Pinlang**	**2.60**	**220**	P		**Pn**	**17 50 53.7**	**-0.5**
TWG				*eS*		**Sn**	**17 51 23.8**	**-1.8**
CHY	**Chiayi**	**2.60**	**239**	*eP*		**Pn**	**17 50 56.2**	**+2.0**
CHY				*eS*		**Sb**	**17 51 29.0**	**-1.8**
WTP	**Ta-pu**	**2.60**	**233**	*eP*		**Pn**	**17 50 56.1**	**+1.8**
WTP				*eS*		**Sn**	**17 51 28.0**	**+2.3**
TWK	**Hsinying**	**2.68**	**235**	P		**Pn**	**17 50 57.3**	**+1.9**
TWK				*eS*		**Sb**	**17 51 30.3**	**-2.9**
WSF	**Szhu**	**2.69**	**244**	*eP*		**Pn**	**17 50 56.3**	**+0.8**
WSF				*eS*		**Sn**	**17 51 28.7**	**+0.7**
CHN1	**Nanshi**	**2.70**	**233**	*eP*		**Pb**	**17 50 58.4**	**-2.3**
CHN1				*eS*		**Sn**	**17 51 30.4**	**+2.2**
SGST	**Jiashian**	**2.73**	**230**	P		**Pn**	**17 50 57.9**	**+1.9**
SGST				*eS*		**Sn**	**17 51 31.1**	**+2.4**
SLGT	**Liugui**	**2.74**	**228**	*eP*		**Pb**	**17 50 58.8**	**-2.6**
SLGT				S		**Sn**	**17 51 29.5**	**+0.3**
WSL	**Shuilin Townsh**	**2.75**	**242**	P		**Pb**	**17 50 58.7**	**-2.7**
WSL				*eS*		**Sb**	**17 51 32.2**	**-2.7**
ICHU	**Yijhu**	**2.79**	**238**	P		**Pn**	**17 50 58.7**	**+1.9**
ICHU				S		**Sn**	**17 51 32.7**	**+2.5**
ECL	**Taimali**	**2.84**	**218**	*eP*		**Pn**	**17 50 56.5**	**-1.0**
ECL				*eS*		**Sn**	**17 51 28.2**	**-3.4**
CHN8	**Yiju**	**2.85**	**239**	*eP*		**Pn**	**17 50 58.4**	**+0.8**
CHN8				S		**Sb**	**17 51 34.9**	**-3.0**
SCST	**Cishan**	**2.92**	**229**	P		**Pb**	**17 51 01.8**	**-2.6**
SCST				S		**Sb**	**17 51 37.5**	**-2.4**
SSD	**Sandimen**	**2.92**	**225**	P		**Pn**	**17 51 00.7**	**+2.0**
SSD				*eS*		**Sn**	**17 51 35.3**	**+1.7**
TSMG	**Majia**	**2.94**	**224**	P		**Pn**	**17 51 01.6**	**+2.7**
TSMG				S		**Sn**	**17 51 36.8**	**+2.7**
SCLT	**Jiali**	**2.96**	**236**	S		**Sb**	**17 51 37.6**	**-3.4**
TWM1	**Shoushan**	**3.01**	**228**	*eP*		**Pn**	**17 51 01.6**	**+1.7**
TWM1				*eS*		**Sn**	**17 51 36.4**	**+2.6**
MASBT	**Mashibuluo**	**3.02**	**223**	*eP*		**Pn**	**17 51 00.9**	**+0.9**
MASBT				*eS*		**Sn**	**17 51 36.6**	**+0.6**
TSCK	**Chigu Township**	**3.05**	**237**	*eP*		**Pn**	**17 51 02.0**	**+1.6**
TSCK				*eS*		**Sn**	**17 51 38.1**	**+1.4**
LYUB	**Lan-yu**	**3.07**	**203**	*eP*		**Pn**	**17 50 59.6**	**-1.0**
LYUB				*eS*		**Sn**	**17 51 33.0**	**-4.1**
EAST	**Anshuo**	**3.07**	**217**	*eP*		**Pn**	**17 51 00.0**	**-0.7**
SSPT	**Xinbi**	**3.16**	**222**	*eP*		**Pn**	**17 51 02.9**	**+1.0**
SSPT				*eS*		**Sn**	**17 51 40.5**	**+1.2**
SCZT	**Fangliau**	**3.21**	**220**	*eP*		**Pn**	**17 51 04.4**	**+1.8**
SCZT				*eS*		**Sn**	**17 51 43.9**	**+3.2**
SLIU	**Shizi**	**3.23**	**216**	*eP*		**Pn**	**17 51 02.0**	**-0.8**
SLIU				*eS*		**Sn**	**17 51 39.3**	**-2.0**
PNG	**Penghu**	**3.28**	**248**	*eS*		**Sn**	**17 51 43.6**	**+1.2**
PHUB	**P'eng-hu**	**3.29**	**247**	*eS*		**Sn**	**17 51 42.7**	**+0.2**
WDGT	**Dungji**	**3.33**	**242**	*eS*		**Sn**	**17 51 44.3**	**+0.7**
SMST	**Manzhou Townsh**	**3.37**	**214**	*eP*		**Pn**	**17 51 03.4**	**-1.4**
SMST				*eS*		**Sn**	**17 51 42.9**	**-1.8**
HEN	**Hengchun**	**3.44**	**215**	*eP*		**Pn**	**17 51 38.4**	**+0.4**
HEN				*eS*		**Sn**	**17 51 46.1**	**-0.1**
TWKBT	**Hengchun**	**3.45**	**214**	*eP*		**Pn**	**17 51 08.7**	**+2.8**
TWKBT				*eS*		**Sn**	**17 51 45.9**	**-0.8**
VCHM	**Qimei**	**3.54**	**243**	*eS*		**Sn**	**17 51 49.6**	**+0.9**
KNMB	**Chin-men Tao**	**4.09**	**266**	*eP*		**Pn**	**17 51 15.0**	**+0.4**
KNMB				S		**Sn**	**17 52 00.5**	**-1.9**
AXDP	**Jialang**	**4.45**	**272**	*eP*		**Pn**	**17 51 22.2**	**+2.7**
DSXP	**Dongshan**	**5.09**	**258**	*eP*		**Pn**	**17 51 29.3**	**+0.9**
JOW	**Kunigami**	**5.26**	**67**	Pn		Pn	17 51 24.2	-6.5
	0.5nm,0.3s,baz=228,slow=16,SNR=2.4							
JOW				Sn		Sn	17 52 11.7	-20
	0.2nm,0.3s,baz=310,slow=26,SNR=2.1 23nm,1.0s							
JOW				AML		AML		
KSRS	**Korea Array**	**13.29**	**18**	Pn		**P**	**17 53 31.9**	**+1.4**
	0.1nm,0.3s,baz=192,slow=13,SNR=7.6							
KSRS				LR		LR	17 58 58.5	
	comp=Z,42nm,18.3s,baz=195,slow=39 0.9nm,0.7s							
KSRS				AML		AML		
CMAR	**Chiang Mai Arr**	**23.11**	**259**	LR		LR	18 04 23.8	
	comp=Z,23nm,19.0s,baz=65,slow=35							
KLR	**Kul'dur**	**25.32**	**14**	LR		LR	18 06 23.5	
	comp=Z,25nm,18.5s,slow=38							
MA2	**Magadan**	**39.80**	**22**	LR		LR	18 15 19.4	
	comp=Z,30nm,18.4s,baz=20,slow=38							
KURBB	**Kurchatov Arra**	**42.60**	**319**	P		P	17 58 27.8	+20
	0.2nm,0.5s,baz=113,slow=8.3,SNR=1.3 0.2nm,0.5s							
WRA	**Warramunga Arr**	**45.90**	**165**	P		**P**	**17 58 35.4**	**+0.6**
	0.9nm,0.9s,baz=347,slow=8.7,SNR=7.8 0.9nm,0.9s							
TIXI	**Tiksi**	**46.96**	**3**	LR		LR	18 20 53.4	
	comp=Z,48nm,18.9s,baz=190,slow=39							
ASAR	**Alice Springs**	**49.40**	**167**	P		**P**	**17 59 03.6**	**+1.6**
	0.2nm,0.5s,baz=349,slow=8.0,SNR=6.2 0.2nm,0.5s							

*IDC **15** 17:51:01.2±1.3,54°.34N×159°.94W, h0km, mb3.7/6, mbtmp3.7/10, ML3.9/4, MS3.1/1, Error ellipse: s-maj=29.1km s-min=18.0km az=172.0*
*NEIC **15** 17:51:04.1±1.8,54°.23N±0°.06×159°.65W±0°.08, h25km±9km, mb3.8/4, ML3.5/30, ML3.5(AEIC), Error ellipse: s-maj=9.0km s-min=6.9km az=169.0*
*AEIC **15** 17:51:05.3±2.2,54°.27N±0°.04×159°.73W±0°.06, h14km±6km, Error ellipse: s-maj=7.5km s-min=2.3km az=137.0*

ISC 15 17:51:05.8±0.8, 54°.33N±0°.07×159°.64W±0°.05, h35km, n151, σ1s02/148, mb3.6/7, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.49**	**3**		**Pn**	**17 51 15.6**	**-0.8**
CNBA				IAML		17 51 25.9	
	comp=N,3μm,0.5s						
CNBA	**Chernabura Isl**	**0.49**	**3**		**Sn**	**17 51 25.0**	**+1.3**
CHNA	**Chernabura Isl**	**0.51**	**3**	P	**Pn**	**17 51 15.9**	**-0.6**
SDPT	**Sand Point**	**1.13**	**335**	P	**Pn**	**17 51 25.0**	**-0.1**
SDPT	**Sand Point**	**1.13**	**335**		**Pn**	**17 51 24.8**	**-0.3**
SDPT				IAML		17 51 40.7	
	comp=N,919nm,0.5s						
SDPT				IAML		17 51 42.3	
	comp=E,1μm,0.6s						
SDPT	**Sand Point**	**1.13**	**335**		**Sn**	**17 51 40.4**	**+1.0**
DOL	**Dolgoi Island**	**1.53**	**303**		**Pn**	**17 51 29.2**	**-1.4**
DOL					**Sn**	**17 51 48.7**	**-0.6**
PVV	**Pavlof Volcano**	**1.63**	**311**		**Pn**	**17 51 31.5**	**-0.4**
PS1A	**Pavlof South-1**	**1.64**	**313**		**Pn**	**17 51 32.0**	**0.0**
PS1A					**Sn**	**17 51 53.0**	**+1.1**
PS4A	**Pavlof South-4**	**1.64**	**309**		**Pn**	**17 51 31.8**	**-0.3**
PS4A					**Sn**	**17 51 52.3**	**+0.4**
HAG	**Hague Volcano**	**1.64**	**308**		**Pn**	**17 51 31.8**	**-0.4**
VNKR	**Veniaminof 5**	**1.71**	**5**		**Pn**	**17 51 34.4**	**+1.3**
DT1	**Dutton Round H**	**1.72**	**298**		**Pn**	**17 51 31.7**	**-1.5**
DT1					**Sn**	**17 51 53.0**	**-1.0**
DTNA	**Dutton South F**	**1.73**	**300**		**Pn**	**17 51 32.6**	**-0.7**
PN7A	**Pavlof North-7**	**1.76**	**310**		**Pn**	**17 51 33.9**	**+0.1**
VNWF	**Veniaminof 8**	**1.83**	**1**		**Pn**	**17 51 36.1**	**+1.3**
S12K	**Black Hills**	**1.96**	**316**		**Pn**	**17 51 36.8**	**+0.3**
S12K	**Black Hills**	**1.96**	**316**		**Sn**	**17 52 01.8**	**+1.9**
CHGN	**Chignik**	**2.10**	**19**		**Pn**	**17 51 38.8**	**+0.4**
CHGN	**Chignik**	**2.10**	**19**	IAML		17 52 20.8	
	comp=E,419nm,0.9s						
BPBCA	**Veniaminof**	**2.37**	**16**		**Pn**	**17 51 42.7**	**+0.6**
ISLZ	**Isanotski Laza**	**2.41**	**281**		**Pn**	**17 51 42.1**	**-0.6**
ISNN	**Isanotski Nor**	**2.46**	**284**		**Pn**	**17 51 43.6**	**+0.2**
SSLS	**Shishaldin Sou**	**2.57**	**280**		**Pn**	**17 51 45.0**	**0.0**
SSLN	**Shishaldin Nor**	**2.58**	**283**		**Pn**	**17 51 45.5**	**+0.4**
SSBA	**Shishaldin**	**2.65**	**282**		**Pn**	**17 51 46.0**	**0.0**
CHIR	**Chirikof Islan**	**2.75**	**55**	P	**Pn**	**17 51 46.7**	**-0.7**
CHIR	**Chirikof Islan**	**2.75**	**55**	Pn	**Pn**	**17 51 46.9**	**-0.5**
CHIR				IAML		17 52 20.1	
	comp=N,138nm,1.2s						
CHIR				IAML		17 52 53.0	
	comp=E,120nm,1.1s						
WTUG	**Tugumak**	**2.81**	**283**		**Pn**	**17 51 48.2**	**0.0**
WESN	**West Dahl Nort**	**2.90**	**277**		**Pn**	**17 51 49.4**	**-0.1**
WESP	**Westdahl Peak**	**2.98**	**275**		**Pn**	**17 51 50.3**	**-0.2**
WECS	**Westdahl Cape**	**3.01**	**276**	Pn	**Pn**	**17 51 50.8**	**-0.1**
R16K	**Pilot Point**	**3.45**	**19**	Pn	**Pn**	**17 51 57.5**	**+0.6**
R16K				IAML		17 53 17.6	
	comp=N,148nm,1.0s						
AKUT	**Akutan**	**3.60**	**269**	Pn	**Pn**	**17 51 58.6**	**-0.5**
AKUT				IAML		17 52 40.6	
	comp=E,57nm,1.0s						
AKUT				IAML		17 53 50.8	
	comp=N,53nm,1.1s						
AHB	**Akutan Harbor**	**3.63**	**269**		**Pn**	**17 51 59.0**	**-0.5**
AKBBA	**Akutan Broad B**	**3.70**	**269**		**Pn**	**17 52 00.1**	**-0.3**
AKGG	**Akutan Green G**	**3.73**	**271**		**Pn**	**17 52 00.3**	**-0.5**
SII	**Sitkinak Islan**	**3.83**	**52**	P	**Pn**	**17 52 01.8**	**-0.4**
SII	**Sitkinak Islan**	**3.83**	**52**		**Pn**	**17 52 01.9**	**-0.2**
SII				IAML		17 52 48.2	
	comp=E,97nm,1.2s						
SII				IAML		17 53 29.7	
	comp=N,97nm,0.9s						
PLK1	**Peulik 1**	**3.88**	**25**		**Pn**	**17 52 04.1**	**+1.3**
UNV	**Unalaska Valle**	**4.07**	**266**	P	**Pn**	**17 52 04.0**	**-1.5**
UNV	**Unalaska Valle**	**4.07**	**266**		**Pn**	**17 52 03.4**	**-2.1**
MTBL	**Makushin Table**	**4.16**	**268**		**Pn**	**17 52 06.1**	**-0.6**
MREP	**Makushin Rep't**	**4.22**	**266**		**Pn**	**17 52 06.7**	**-0.9**
MSW	**Makushin Switc**	**4.22**	**267**		**Pn**	**17 52 06.5**	**-1.1**
MGOD	**Makushin Gods**	**4.30**	**266**		**Pn**	**17 52 07.7**	**-1.0**
MAPS	**Pakushin South**	**4.33**	**266**		**Pn**	**17 52 08.2**	**-0.9**
CAHL	**Cahill**	**4.45**	**31**		**Pn**	**17 52 11.2**	**+0.5**
ANCK	**Angle Creek**	**4.52**	**29**		**Pn**	**17 52 12.5**	**+0.8**
OHAK	**Old Harbor**	**4.61**	**48**		**Pn**	**17 52 12.3**	**-0.6**
P16K	**Nushagak River**	**4.80**	**10**	Pn	**Pn**	**17 52 16.0**	**+0.5**
P16K	**Nushagak River**	**4.80**	**10**	IAML		17 53 38.5	
	comp=E,32nm,1.1s						
P16K				IAML		17 54 16.4	
	comp=N,37nm,0.9s						
O15K	**Ungalikthiuk R**	**4.86**	**359**	Pn	**Pn**	**17 52 16.9**	**+0.5**
O15K				IAML		17 53 22.7	
	comp=N,23nm,1.0s						
O15K				IAML		17 53 54.8	
	comp=E,28nm,1.2s						
KAWH	**Katmai**	**4.88**	**32**		**Pn**	**17 52 16.7**	**+0.1**
KARR	**Katmai Rainbow**	**5.00**	**31**		**Pn**	**17 52 18.7**	**+0.5**
Q18K	**Katmai Hardscr**	**5.03**	**29**		**Pn**	**17 52 19.5**	**+0.7**
KAHG	**Katmai Hook Gl**	**5.04**	**32**		**Pn**	**17 52 19.3**	**+0.4**
OKTU	**Okmok Mt. Tuli**	**5.06**	**263**		**Pn**	**17 52 18.6**	**-0.5**
OKNC	**Okmok New Cone**	**5.09**	**264**	Pn	**Pn**	**17 52 18.4**	**-1.2**
OKNC				IAML		17 53 46.8	
	comp=E,50nm,1.0s						
KDAK	**Kodiak Island**	**5.25**	**46**	Pn	**Pn**	**17 52 21.1**	**-0.7**
	comp=E,3.9nm,0.3s,baz=214,slow=3.8,SNR=170						
KDAK				Sn	**Sn**	**17 53 18.8**	**-2.1**
	comp=E,0.8nm,0.3s,baz=218,slow=17,SNR=1.6 comp=E,7.6nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.25**	**46**	Pn	**Pn**	**17 52 21.0**	**-0.7**
P18K	**Big Mountain,**	**5.62**	**24**		**Pn**	**17 52 27.9**	**+1.0**
O17K	**Koliganek Bris**	**5.63**	**13**		**Pn**	**17 52 27.5**	**+0.6**
N14K	**Kuskokwak Cree**	**5.72**	**350**	Pn	**Pn**	**17 52 29.0**	**+1.0**
CLCO	**Concord Point,**	**6.21**	**260**		**Pn**	**17 52 34.1**	**-0.7**
N17K	**Nushagak Hills**	**6.36**	**11**	Pn	**Pn**	**17 52 38.0**	**+1.1**
M13K	**Dall Lake**	**6.42**	**343**	Pn	**Pn**	**17 52 37.0**	**-0.7**
ILSW	**Iliamna Southw**	**6.68**	**29**	Pn	**Pn**	**17 52 41.9**	**+0.5**
ILS	**Iliamna Low So**	**6.68**	**30**		**Pn**	**17 52 42.5**	**+1.2**
M16K	**Timber Creek**	**6.72**	**3**		**Pn**	**17 52 43.0**	**+1.1**
ILW	**Iliamna West**	**6.74**	**29**		**Pn**	**17 52 43.0**	**+0.7**
ILIM	**Iliamna**	**6.81**	**29**		**Pn**	**17 52 43.9**	**+0.7**
CNPM	**China Poot**	**6.95**	**38**	Pn	**Pn**	**17 52 44.5**	**-0.4**
N19K	**Bonanza Creek**	**7.07**	**21**	Pn	**Pn**	**17 52 47.7**	**+1.0**
RDSO	**Redoubt South**	**7.18**	**28**		**Pn**	**17 52 49.6**	**+1.3**
RDWB	**Redoubt West**	**7.18**	**28**		**Pn**	**17 52 49.0**	**+0.7**
M17K	**Holitna River**	**7.19**	**8**	Pn	**Pn**	**17 52 49.0**	**+0.8**
NCT	**North Crescent**	**7.22**	**27**		**Pn**	**17 52 49.6**	**+0.9**
BRSE	**Bradley Lake S**	**7.28**	**38**		**Pn**	**17 52 48.9**	**-0.6**
RDT	**Redoubt**	**7.37**	**29**		**Pn**	**17 52 51.9**	**+1.0**
L17K	**Donlin**	**7.86**	**5**		**Pn**	**17 52 57.6**	**+0.2**
SEW	**Seward**	**8.00**	**40**		**Pn**	**17 52 59.9**	**+0.5**
SLKM	**Skilak Lake**	**8.01**	**36**	Pn	**Pn**	**17 52 59.0**	**-0.5**
K13K	**Kusilvak Mount**	**8.07**	**343**	Pn	**Pn**	**17 53 01.2**	**+0.9**
STLK	**Strandline Lak**	**8.30**	**27**		**Pn**	**17 53 03.9**	**+0.3**
K17K	**Iditarod**	**8.44**	**4**	Pn	**Pn**	**17 53 06.1**	**+0.6**
SUA	**Susitna One**	**8.57**	**30**	Pn	**Pn**	**17 53 07.7**	**+0.4**
RC01	**Rabbit Creek A**	**8.60**	**34**		**Pn**	**17 53 08.9**	**+1.3**
J14K	**Nanvaranak Lak**	**8.69**	**348**	Pn	**Pn**	**17 53 09.9**	**+1.1**
P23K	**Montague Islan**	**8.74**	**45**	Pn	**Pn**	**17 53 09.8**	**+0.3**
MID	**Middleton Isla**	**8.89**	**50**	Pn	**Pn**	**17 53 11.2**	**-0.4**
KOFP	**Korovin Flat P**	**8.98**	**263**		**Pn**	**17 53 11.7**	**-1.1**
PWL	**Port Wells**	**8.92**	**38**	Pn	**Pn**	**17 53 10.8**	**-1.2**
ATKA	**Atka Island**	**8.98**	**262**	P	**Pn**	**17 53 12.1**	**-0.8**
ATKA	**Atka Island**	**8.98**	**262**	Pn	**Pn**	**17 53 12.0**	**-0.8**
J16K	**Anvik River**	**9.00**	**357**		**Pn**	**17 53 13.2**	**+0.1**
PMR	**Palmer**	**9.17**	**33**	P	**Pn**	**17 53 15.5**	**+0.2**
PMR	**Palmer**	**9.17**	**33**		**Pn**	**17 53 15.8**	**+0.4**
HIN	**Hinchinbrook I**	**9.34**	**44**	Pn	**Pn**	**17 53 17.1**	**-0.6**
GHO	**Glory Hole Cre**	**9.37**	**33**	Pn	**Pn**	**17 53 18.8**	**+0.6**
EYAK	**Cordova Ski Ar**	**9.73**	**45**		**Pn**	**17 53 22.8**	**-0.2**
SCM	**Sheep Creek Mo**	**9.94**	**36**		**Pn**	**17 53 26.0**	**0.0**
KLU	**Klutina**	**10.22**	**40**		**Pn**	**17 53 28.9**	**-0.9**
ADK	**Adak**	**10.54**	**264**	P	**Pn**	**17 53 32.6**	**-1.5**
ADK	**Adak**	**10.54**	**264**	Pn	**Pn**	**17 53 32.9**	**-1.2**
DHY	**Denali Highway**	**10.82**	**31**	Pn	**Pn**	**17 53 37.1**	**-1.1**
GLB	**Gilahina Butte**	**11.01**	**43**	Pn	**Pn**	**17 53 40.1**	**-0.5**
VRDI	**Verde Repeater**	**11.04**	**45**	Pn	**Pn**	**17 53 40.2**	**-1.0**
TGL	**Tana Glacier**	**11.07**	**48**	Pn	**Pn**	**17 53 40.2**	**-1.3**
PAL	**Paxson**	**11.35**	**35**		**Pn**	**17 53 45.9**	**+0.5**
YAH	**Yahtse**	**11.38**	**51**		**Pn**	**17 53 46.2**	**+0.4**
GRNC	**Granite Creek**	**11.53**	**49**		**Pn**	**17 53 46.5**	**-1.4**
BARN	**Barnard Glacie**	**11.72**	**48**	Pn	**Pn**	**17 53 49.6**	**-0.8**
K24K	**Donnelly Dome**	**11.85**	**31**		**Pn**	**17 53 53.0**	**+1.0**
LOGN	**Logan Glacier**	**11.90**	**49**		**Pn**	**17 53 52.8**	**-0.2**
PNL	**Peninsula**	**12.24**	**56**	P	**Pn**	**17 53 57.9**	**+0.5**
O28M	**Mount Upton**	**12.25**	**50**		**Pn**	**17 53 58.5**	**+0.8**
IL31		**12.28**	**26**		**Pn**	**17 53 55.8**	**-2.0**
ILAR	**Eielson Array**	**12.28**	**26**	Pn	**Pn**	**17 53 55.8**	**-2.0**
	comp=E,0.2nm,0.3s,baz=216,slow=13,SNR=10						
ILAR				Sn	**Sn**	**17 56 07.2**	**-6.0**
	baz=192,slow=29,SNR=2.9 comp=E,0.6nm,0.5s						
ILAR				AML	AML		
P29M	**Windy Craggy**	**13.04**	**57**		**Pn**	**17 54 09.0**	**+0.7**
S31K	**Pelican**	**13.52**	**65**	Pn	**Pn**	**17 54 13.8**	**-1.0**
M29M	**Somme Creek**	**13.71**	**45**	Pn	**Pn**	**17 54 17.2**	**-0.2**
SIT	**Sitka**	**13.96**	**69**	P	**Pn**	**17 54 20.0**	**-0.8**
SIT	**Sitka**	**13.96**	**69**	Pn	**Pn**	**17 54 19.0**	**-1.7**
L29M	**L29M**	**14.15**	**43**	Pn	**Pn**	**17 54 23.8**	**+0.4**
DAWY	**Dawson**	**14.17**	**38**	Pn	**Pn**	**17 54 24.4**	**+0.7**
SKAG	**Skagway**	**14.20**	**59**	P	**Pn**	**17 54 25.4**	**+1.3**
S32K	**Killisnoo**	**14.38**	**67**	Pn	**Pn**	**17 54 26.1**	**-0.3**
M30M	**Minto, Yukon**	**14.46**	**46**	Pn	**Pn**	**17 54 28.2**	**+0.5**
JIS	**Juneau Island**	**14.53**	**64**	P	**Pn**	**17 54 28.4**	**-0.1**
WHY	**Whitehorse**	**14.68**	**54**	Pn	**Pn**	**17 54 32.2**	**+1.5**
U33K	**Whale Pass**	**15.20**	**72**	Pn	**Pn**	**17 54 35.8**	**-1.7**
U33K				IAmb	IAmb	17 55 00.4	
	comp=Z,12nm,1.0s						
SHEM	**Shemya Is, Ala**	**15.67**	**275**	LR	LR	18 00 27.2	
	comp=Z,71nm,19.3s,baz=54,slow=36						
DLBC	**Dease Lake**	**16.83**	**64**	Pn	**Pn**	**17 54 59.2**	**+0.7**
	comp=Z,0.3nm,0.3s,baz=277,slow=6.9,SNR=10 comp=Z,0.8nm,0.4s						
DLBC				AML	AML		
INK	**Inuvik**	**18.57**	**31**	P	**P**	**17 55 19.2**	**0.0**
	comp=Z,0.5nm,0.3s,baz=205,slow=13,SNR=11 comp=Z,1.7nm,0.4s						
INK				AML	AML		
INK	**Inuvik**	**18.57**	**31**	P	**P**	**17 55 19.6**	**+0.3**
YKAW3	**Yellowknife Wh**	**24.49**	**52**	P	**P**	**17 56 22.4**	**+1.2**
YKAW3				IAmb	IAmb	17 56 35.4	
	comp=Z,1.6nm,0.9s						
YKA	**Yellowknife Ar**	**24.49**	**52**	P	**P**	**17 56 22.3**	**+1.0**
	comp=Z,0.5nm,0.4s,baz=268,slow=8.4,SNR=9.5 comp=Z,0.5nm,0.4s						
PEA0B	**Petropavlovsk-**	**25.00**	**285**	P	**P**	**17 56 25.7**	**-0.3**
PETK	**Petropavlovsk-**	**25.00**	**285**	P	**P**	**17 56 25.0**	**-0.9**
	comp=Z,1.8nm,0.5s,baz=76,slow=12,SNR=18 comp=Z,1.8nm,0.5s						
PETK	**Petropavlovsk-**	**25.00**	**285**	P	**P**	**17 56 25.3**	**-0.7**
NVAR	**Mina Array Bea**	**32.10**	**103**	P	**P**	**17 57 31.6**	**+2.0**
	comp=Z,0.5nm,0.5s,baz=310,slow=8.8,SNR=3.7 comp=Z,0.5nm,0.5s						
H11N2	**WAKE ISLAND Hy**	**42.92**	**230**	T	T	18 44 45.7	
	baz=28,slow=76,SNR=69						
H11N3	**WAKE ISLAND Hy**	**42.93**	**230**	T	T	18 44 46.5	
	baz=28,slow=76,SNR=64						
H11N1	**WAKE ISLAND Hy**	**42.94**	**230**	T	T	18 44 48.7	
	baz=28,slow=76,SNR=45						
H11S1	**WAKE ISLAND Hy**	**44.08**	**229**	T	T	18 46 15.9	
	baz=28,slow=76,SNR=46						
H11S2	**WAKE ISLAND Hy**	**44.09**	**229**	T	T	18 46 16.9	
	baz=28,slow=76,SNR=56						
H11S3	**WAKE ISLAND Hy**	**44.10**	**229**	T	T	18 46 17.2	
	baz=28,slow=76,SNR=33						
TXAR	**Lajitas Array**	**47.06**	**99**	P	**P**	**17 59 35.8**	**+1.9**
	comp=Z,0.6nm,0.7s,baz=322,slow=7.4,SNR=6.5 comp=Z,0.6nm,0.7s						
BVAR	**Borovoye Array**	**65.25**	**329**	P	**P**	**18 01 43.4**	**+0.1**
	comp=Z,0.3nm,0.5s,baz=19,slow=6.1,SNR=1.8 comp=Z,0.3nm,0.5s						
MKAR	**Makanchi Array**	**66.45**	**319**	P	**P**	**18 01 50.9**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=37,slow=7.6,SNR=2.6 comp=Z,0.4nm,0.7s						

**IDC 15 17:57:31.9±12.0, 4°.78S×134°.58E, h262km±114km, mb3.5/1, mbtmp3.5/4, Error ellipse: s-maj=139.8km s-min=66.8km az=163.0, Irian Ja

MRKS				*e*S		**Sg**	**19 11 55.4**	**-0.6**
	10nm,0.4s							
KST	**Kastek**	**5.13**	**50**	Pg		**Pg**	**19 11 41.8**	**0.0**
	0.9nm,0.3s							
KST				Lg		Lg	19 12 49.2	
	2.3nm,0.3s							
KST	**Kastek**	**5.13**	**50**	*e*P		**Pg**	**19 11 41.8**	**0.0**
	0.9nm,0.3s							
KST				*e*S		**Sg**	**19 12 49.2**	**+0.9**
	2.3nm,0.3s							

NOU ***15*** *19:19:36.1, 19˚.28S×176˚.89W, h340km, mb4.4/21, Fiji Islands Region*
IDC ***15*** *19:19:39.0±1.4, 19˚.40S×177˚.28W, h353km±12km, mb3.8/7, mbtmp4.5/9, Error ellipse: s-maj=18.9km s-min=13.7km az=41.0*

ISC 15 19:19:37.4±0.7,**19˚.40S**±0˚.08×**177˚.03W**±0˚.08,**h351**km, **n53**,σ1§**46**/61,**mb4.3**/9,**2C**,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
LKBA	**Tubou, Lakemba**	**2.05**	**304**	P		**Pn**	**19 20 26.8**	**-2.3**
DGTI	**Dogotuki**	**4.36**	**314**	P		**Pn**	**19 20 47.9**	**-2.3**
MSVF	**Nonsavu**	**4.95**	**289**	P		**Pn**	**19 20 55.6**	**-1.1**
	11nm,0.6s,baz=108,slow=7.7,SNR=16							
MSVF				S		**S**	**19 21 59.1**	**-1.6**
	6.3nm,0.9s,baz=124,slow=23,SNR=0.9							
MSVF	**Nonsavu**	**4.95**	**289**	P		**Pn**	**19 20 55.8**	**-0.8**
NIUE	**Niue**	**6.72**	**88**	P		**Pn**	**19 21 14.2**	**-2.3**
NIUE	**Niue**	**6.72**	**88**	P		**Pn**	**19 21 13.9**	**-2.6**
NIUE				S		S	19 22 29.6	-7.5
NIUE				AML		AML		
GLKZ	**Green Lake**	**9.86**	**185**	P		**Pn**	**19 21 53.3**	**-0.2**
GLKZ				S		**S**	**19 23 40.8**	**-4.4**
RTV	**Rentapao**	**13.88**	**274**	P		**Pn**	**19 22 41.7**	**+0.4**
MARNC	**Mare, Loyalty**	**14.16**	**259**	P		**Pn**	**19 22 43.6**	**+0.8**
PINNC	**Pines Island,**	**14.85**	**255**	P		**Pn**	**19 22 52.9**	**+0.4**
OUENC	**Ouen Island, N**	**15.37**	**256**	P		**Pn**	**19 22 58.1**	**-0.4**
DZM	**Mont Dzumac**	**15.69**	**257**	P		**P**	**19 23 01.0**	**+1.4**
	8.7nm,0.6s,baz=87,slow=16,SNR=6.8							
WCZ	**Waipu Caves**	**18.15**	**203**	P		**P**	**19 23 27.3**	**+1.6**
MXZ	**Matakaoa Point**	**18.55**	**192**	P		**P**	**19 23 31.7**	**+1.7**
MXZ	**Matakaoa Point**	**18.55**	**192**	P		**P**	**19 23 30.9**	**+0.9**
WIAZ	**Waiheke Island**	**18.64**	**200**	P		**P**	**19 23 31.8**	**+0.8**
WMGZ	**Waiomatatini S**	**18.78**	**191**	P		**P**	**19 23 34.2**	**+1.8**
URZ	**Urewera**	**19.47**	**194**	P		**P**	**19 23 39.6**	**-0.1**
	9.4nm,0.3s,baz=327,slow=7.0,SNR=19							
URZ				S		**S**	**19 26 55.1**	**-4.4**
	5.6nm,0.6s,baz=101,slow=24,SNR=6.3							
URZ	**Urewera**	**19.47**	**194**	P		**P**	**19 23 39.7**	**-0.1**
URZ	**Urewera**	**19.47**	**194**	P		**P**	**19 23 39.7**	**-0.1**
MUGZ	**Murupara**	**19.76**	**195**	P		**P**	**19 23 42.8**	**+0.1**
MTHZ	**Maungataniwha**	**20.10**	**194**	P		**P**	**19 23 47.5**	**+1.3**
NMHZ	**Naumai**	**20.34**	**194**	P		**P**	**19 23 49.7**	**+1.2**
BKZ	**Black Stump Fm**	**20.48**	**195**	S		**S**	**19 27 18.4**	**+2.4**
BHHZ	**Black Hill Sta**	**20.89**	**195**	P		**P**	**19 23 51.8**	**-1.6**
BHHZ				S		**S**	**19 27 24.8**	**+2.1**
KRHZ	**Kereru**	**20.96**	**194**	P		**P**	**19 23 53.4**	**-0.6**
PXZ	**Pawanui**	**21.23**	**193**	P		**P**	**19 23 56.3**	**0.0**
BFZ	**Birch Farm**	**21.98**	**194**	P		**P**	**19 24 02.6**	**-0.6**
BFZ	**Birch Farm**	**21.98**	**194**	P		**P**	**19 24 02.7**	**-0.6**
DUWZ	**D'Urville Isla**	**22.70**	**198**	P		**P**	**19 24 10.4**	**+0.7**
TRWZ	**Traveller**	**22.79**	**194**	P		**P**	**19 24 12.0**	**+1.4**
TCW	**Tory Channel**	**22.98**	**197**	P		**P**	**19 24 11.8**	**-0.4**
QRZ	**Quartz Range**	**23.15**	**200**	P		**P**	**19 24 14.4**	**+0.5**
QRZ	**Quartz Range**	**23.15**	**200**	P		**P**	**19 24 14.3**	**+0.4**
NNZ	**Nelson**	**23.24**	**199**	P		**P**	**19 24 15.4**	**+0.8**
KHZ	**Kahutara**	**24.30**	**197**	P		**P**	**19 24 23.7**	**-0.5**
KHZ	**Kahutara**	**24.30**	**197**	P		**P**	**19 24 23.6**	**-0.5**
JCZ	**Jackson Bay**	**27.32**	**203**	P		**P**	**19 24 52.3**	**+1.1**
ARMA	**Armidale**	**30.38**	**243**	P		**P**	**19 25 19.6**	**+1.3**
STKA	**Stephens Creek**	**39.09**	**243**	P		**P**	**19 26 31.7**	**-0.4**
	8.5nm,0.5s,baz=87,slow=11,SNR=39							
	8.5nm,0.5s							
WRAB	**Tennant Creek**	**45.66**	**261**	P		**P**	**19 27 23.8**	**-0.8**
WRA	**Warramunga Arr**	**45.67**	**261**	P		**P**	**19 27 23.9**	**-0.8**
	3.5nm,0.4s,baz=98,slow=7.6,SNR=16							
WRA				PcP		**PcP**	**19 28 56.4**	**+0.2**
	0.4nm,0.5s,baz=103,slow=3.5,SNR=2.7							
WRA				S		**S**	**19 33 39.2**	**-1.6**
	0.2nm,0.7s,baz=98,slow=14,SNR=2.5							
	3.5nm,0.4s							
ASAR	**Alice Springs**	**45.67**	**256**	P		**P**	**19 27 24.6**	**0.0**
	22nm,0.7s,baz=92,slow=7.9,SNR=282							
ASAR				PcP		**PcP**	**19 28 56.2**	**+0.1**
	0.8nm,0.7s,baz=96,slow=4.4,SNR=3.3							
ASAR				S		**S**	**19 33 38.6**	**-2.1**
	0.5nm,0.8s,baz=94,slow=14,SNR=5.0							
	22nm,0.7s							
MBWA	**Marble Bar**	**58.99**	**257**	P		**P**	**19 29 01.7**	**+0.1**
VNDA	**Vanda**	**59.09**	**185**	P		**P**	**19 29 03.1**	**+1.8**
	0.7nm,0.5s,baz=33,slow=7.3,SNR=8.9							
	0.7nm,0.5s							
KLBR	**Kellerberrin**	**59.35**	**244**	P		**P**	**19 29 04.0**	**+0.1**
NWAO	**Narrogin (SRO)**	**59.68**	**243**	P		**P**	**19 29 07.5**	**+1.4**
BLDU	**Balliduu**	**60.34**	**245**	P		**P**	**19 29 10.6**	**0.0**
MJAR	**Matsushiro Arr**	**69.88**	**323**	P		**P**	**19 30 12.3**	**+1.2**
	0.8nm,0.5s,baz=164,slow=5.5,SNR=6.4							
	0.8nm,0.5s							
QSPA	**South Pole Qui**	**70.67**	**180**	P		**P**	**19 30 17.6**	**+2.0**
	5.3nm,0.7s,baz=290,slow=0.4,SNR=28							
	5.3nm,0.7s							
ILAR	**Eielson Array**	**87.04**	**12**	P		**P**	**19 31 43.3**	**-0.1**
	0.5nm,0.4s,baz=220,slow=4.4,SNR=4.2							
	0.5nm,0.4s							
VNA3	**Neumayer Olymp**	**89.17**	**176**	⇑P		**P**	**19 31 54.2**	**+0.7**
	comp=Z,10nm,0.7s							
VNA2	**Neumayer--Watz**	**89.63**	**177**	⇑P		**P**	**19 31 56.7**	**+1.1**
	comp=Z,6.3nm,0.6s,baz=189,slow=4.2							

SSNC ***15*** *19:19:58.9±1.0, 20˚.29N×72˚.12W, h5km, MD3.4, ML2.4, Presumed earthquake*
OSPL ***15*** *19:19:58.0±0.5, 20˚.10N×72˚.31W, h68km±14km, ML2.7, Presumed earthquake*
SDD ***15*** *19:20:00.2±1.9, 20˚.44N×72˚.13W, h73km±41km, MD3.1, ML2.7, MW3.2, Presumed earthquake*

ISC 15 19:19:57.1±1.6,**20˚.33N**±0˚.04×**72˚.13W**±0˚.03,**h13**km±13km, **n17**,σ1§**20**/31,**15C-1D**,**Haiti region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
LOPP1	**Punta Rusia, P**	**0.99**	**118**	*i* P			**Pb**	**19 20 16.2**	**0.0**
LOPP1				*e*S			**Sb**	**19 20 29.7**	**+0.5**
LOPP1				IAML				19 20 36.8	
	comp=Z,76nm,1.5s								
LUDR	**Luperon**	**1.19**	**111**	⇑*e*Pg			**Pn**	**19 20 20.3**	**+0.8**
LUDR				⇑*e*Sg			**Sn**	**19 20 35.9**	**+0.4**
GRTK	**Grand Turk**	**1.50**	**38**	⇑*e*Pg			**Pn**	**19 20 23.5**	**-0.2**
GRTK				IAML				19 20 57.5	
	comp=N,67nm,1.8s								
GRTK	**Grand Turk**	**1.50**	**38**	*e*P			**Pg**	**19 20 25.1**	**-0.8**
GRTK				⇓*e*S			**Sn**	**19 20 42.8**	**-0.4**
GRTK				IAML				19 20 46.5	
	comp=N,64nm,0.3s								
GRTK				IAML				19 20 46.9	
	comp=N,41nm,0.1s								
GRTK	**Grand Turk**	**1.50**	**38**	*i* P			**Pg**	**19 20 25.7**	**-0.2**
GRTK				*e*S			**Sg**	**19 20 46.2**	**+0.8**
SDDR	**Presa de Saban**	**1.56**	**149**	⇑*e*Pg			**Pb**	**19 20 25.9**	**0.0**
SDDR				⇑*e*Sg			**Sn**	**19 20 44.8**	**+0.1**
SDDR				IAML				19 20 48.2	
	comp=N,37nm,0.4s								
SDDR	**Presa de Saban**	**1.56**	**149**	*e*P			**Pn**	**19 20 23.3**	**-1.3**
SDDR				*e*S			**Sn**	**19 20 43.0**	**-1.8**
SDDR				IAML				19 20 45.7	
	comp=N,21nm,0.2s								
SDDR				IAML				19 20 48.0	
	comp=N,30nm,0.2s								
SC01	**Santiago de lo**	**1.59**	**124**	⇑*e*Pg			**Pb**	**19 20 26.0**	**-0.5**
SC01				⇑*e*Sg			**Sn**	**19 20 46.2**	**+0.6**
SC01				IAML				19 20 59.0	
	comp=N,77nm,3.0s								
JIDR	**Jimani**	**1.85**	**172**	⇑*e*Pg			**Pn**	**19 20 28.6**	**0.0**
JIDR				⇑*e*Sg			**Sn**	**19 20 52.6**	**+0.8**
JIDR				IAML				19 20 53.8	
	comp=N,173nm,0.4s								
NEDR	**Neiba UASD**	**1.96**	**160**	⇑*e*Pg			**Pb**	**19 20 32.4**	**-0.3**
NEDR				⇑*e*Sg			**Sn**	**19 20 55.0**	**+0.5**
NEDR				IAML				19 21 25.2	
	comp=N,52nm,2.4s								
ABDR	**Alto Bandera**	**2.07**	**137**	⇑*e*Pg			**Pn**	**19 20 32.5**	**+0.5**
ABDR				⇑*e*Sg			**Sn**	**19 20 57.5**	**-0.3**
ABDR				IAML				19 21 42.6	
	comp=N,42nm,4.2s								
QMBU	**Quimbuelo**	**2.53**	**267**	*e*P			**Pn**	**19 20 40.1**	**+2.2**
QMBU				*e*S			**Sn**	**19 21 07.8**	**-0.8**
QMBU				IAML				19 21 16.1	
	comp=E,57nm,0.2s								
QMBU				IAML				19 21 19.5	
	comp=N,40nm,0.2s								
BANI	**BANI**	**2.55**	**139**	⇑*e*Pg			**Pn**	**19 20 40.0**	**+1.7**
BANI				⇑*e*Sg			**Sn**	**19 21 07.2**	**-2.2**
BANI				IAML				19 21 23.0	
	comp=N,40nm,1.2s								
MOAC	**Moa**	**2.68**	**278**	*e*P			Pn	19 20 34.0	-6.0
NMDO	**Nuevo Mundo**	**2.69**	**275**	*e*P			**Pn**	**19 20 39.2**	**-1.0**
NMDO				*e*S			**Sn**	**19 21 10.8**	**-1.8**
NMDO				IAML				19 21 23.9	
	comp=N,9.1nm,0.2s								
NMDO				IAML				19 21 29.1	
	comp=E,11nm,0.2s								
GTBY	**Guantanamo Bay**	**2.83**	**262**	*e*P			**Pn**	**19 20 41.7**	**-0.5**
GTBY				*e*S			**Sn**	**19 21 14.5**	**-1.7**
GTBY				IAML				19 21 23.4	
	comp=E,5.9nm,0.2s								
GTBY				IAML				19 21 26.0	
	comp=E,8.7nm,0.2s								
SABCS	**La Quijada**	**2.99**	**271**	*e*P			**Pn**	**19 20 46.2**	**+1.8**
SABCS				*e*S			**Sn**	**19 21 22.6**	**+2.4**
SABCS				IAML				19 21 33.6	
	comp=N,16nm,0.3s								
SABCS				IAML				19 21 36.0	
	comp=E,5.2nm,0.2s								

IDC ***15*** *19:30:12.8±2.1, 43˚.10N×145˚.20E, h0km, mb3.7/4, mbtmp3.6/5, ML2.3/1, MS3.1/1, Error ellipse: s-maj=51.3km s-min=25.9km az=130.0*
MOS ***15*** *19:30:14.9±1.1, 42˚.87N×145˚.35E, h41km, mb4.5/1, Error ellipse: s-maj=32.4km s-min=13.3km az=74.4*
NIED ***15*** *19:30:16.9, 42˚.93N×145˚.45E, h44km, MW3.7, Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁴Nm; Mrr0.86; Mθθ0.35; Mϕϕ -1.21; Mrθ3.28; Mϕθ -2.27; Mϕr-0.49; Fault plane solution: M₀4.08000×10¹⁴ NP1: ϕs181.00000°, δ39.00000°, λ13.00000°. NP2:ϕs80.00000°, δ82.00000°, λ128.00000°.*
JMA ***15*** *19:30:16.9±0.1, 42˚.9N±0˚.3×145˚.5E±0˚.5, h44km±1km, MV3.8/37, OFF NEMURO PENINSULA*
JMA Felt I J1 at OFF NEMURO PENINSULA .
SKHL ***15*** *19:30:17.9±0.2, 43˚.00N×145˚.50E, h54km±6km, mb4.9/2*

ISC 15 19:30:17.3±1.1,**42˚.96N**±0˚.08×**145˚.45E**±0˚.05,**h43**km±8km, **n29**,σ0§**59**/37,**mb3.3**/4,**2D**,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JKHN	**Kushirohamanak**	**0.25**	**301**	P			**Pn**	**19 30 25.4**	**+0.2**
JKHN				S			**Sn**	**19 30 30.9**	**+0.1**
AKK	**Akkeshi**	**0.45**	**278**	*i* P			**Pn**	**19 30 27.3**	**-0.2**
AKK				*e*S			**Sn**	**19 30 34.5**	**-0.2**
NMR	**Nemuro--Hokkai**	**0.46**	**26**	⇓*i*PN			**Pn**	**19 30 27.4**	**-0.2**
NMR				*i* S			**Sn**	**19 30 34.6**	**-0.3**
NMR	**Nemuro--Hokkai**	**0.46**	**26**	*i* P			**Pn**	**19 30 27.6**	**0.0**
NMR				*i* S			**Sn**	**19 30 34.8**	**-0.1**
NEM2	**Nemuro 2**	**0.46**	**28**	P			**Pn**	**19 30 27.4**	**-0.2**
NEM2				S			**Sn**	**19 30 34.8**	**-0.2**
JAK	**Akkeshi**	**0.56**	**274**	P			**Pn**	**19 30 28.6**	**-0.3**
JAK				S			**Sn**	**19 30 37.1**	**+0.1**
JNK	**Nakash**	**0.82**	**320**	P			**Pn**	**19 30 32.0**	**-0.5**
JNK				S			**Sn**	**19 30 42.5**	**-1.0**
JNSB	**Nemuroshibetsu**	**0.88**	**338**	P			**Pn**	**19 30 33.0**	**-0.2**
JNSB				*e*S			**Sn**	**19 30 44.5**	**-0.3**
JRA	**Rausu**	**1.01**	**346**	P			**Pn**	**19 30 34.8**	**-0.1**
JRA				S			**Sn**	**19 30 47.9**	**-0.1**
YUK	**Yuzh-Kuril'sk**	**1.12**	**15**	*e*PN			**Pn**	**19 30 36.0**	**-0.4**
YUK				*i* S			**Sn**	**19 30 50.2**	**-0.4**
YUK				pmax	pmax				
	comp=N,93nm,0.1s								
YUK				pmax	pmax				
	comp=E,109nm,0.1s								
YUK				pmax	pmax				
	comp=Z,325nm,0.1s								
YUK				smax	smax				
	comp=N,606nm,0.2s								
YUK				smax	smax				
	comp=E,2μm,0.1s								
YUK	**Yuzh-Kuril'sk**	**1.12**	**15**	*e*P			**Pn**	**19 30 35.4**	**-1.0**
YUK				AMB	AMB			19 30 36.8	
	comp=E,200nm,0.2s								
YUK				*i* S			**Sn**	**19 30 49.9**	**-0.7**
YUK				A	A			19 30 51.8	
	comp=E,1μm,0.4s								
YUK				A	A			19 30 51.8	
	comp=E,1μm,0.4s								
RUSJ	**Misakicho**	**1.16**	**353**	⇓*i*PN			**Pn**	**19 30 37.4**	**+0.4**
RUSJ				*i* S			**Sn**	**19 30 52.7**	**+1.1**
JOB	**Onbets**	**1.19**	**268**	P			**Pn**	**19 30 37.0**	**-0.3**
JOB				*e*S			**Sn**	**19 30 51.7**	**-0.6**
JAR	**Ashorobuto**	**1.28**	**286**	P			**Pn**	**19 30 38.5**	**-0.1**
JAR				S			**Sn**	**19 30 54.9**	**+0.4**
SHO	**Shikotan**	**1.36**	**47**	*e*S			Sn	19 31 14.0	+17
SHO				A	A			19 31 16.4	
	comp=E,410nm,0.3s								
SHO				A	A			19 31 16.4	
	comp=E,590nm,0.3s								
KUR	**Kuril'sk**	**2.87**	**37**	PN			**Pn**	**19 31 00.4**	**0.0**
KUR				*e*S			**Sn**	**19 31 33.7**	**+0.1**
KUR				smax	smax				
	comp=N,86nm,0.5s								
KUR				smax	smax				
	comp=E,73nm,0.4s								
KUR	**Kuril'sk**	**2.87**	**37**	*e*P			**Pn**	**19 31 00.2**	**-0.2**
KUR				*e*S			**Sn**	**19 31 32.1**	**-1.5**
MJAR	**Matsushiro Arr**	**8.49**	**223**	Pn			**Pn**	**19 32 17.0**	**-0.7**
	baz=26,slow=14,SNR=2.3								
	comp=E,0.8nm,0.6s								
YAK	**Yakutsk**	**21.27**	**339**	LR			LR	19 43 40.4	
	comp=E,49nm,18.9s,baz=184,slow=38								
SONM	**Songino Array**	**27.64**	**294**	P			**P**	**19 36 01.0**	**+0.2**
	comp=E,0.3nm,0.5s,baz=82,slow=10,SNR=2.3								
	comp=E,0.3nm,0.5s								
H11N2	**WAKE ISLAND Hy**	**29.36**	**135**	T			T	20 07 03.8	
	baz=327,slow=75,SNR=112								
H11N1	**WAKE ISLAND Hy**	**29.37**	**135**	T			T	20 07 20.5	
	baz=327,slow=75,SNR=109								
H11N3	**WAKE ISLAND Hy**	**29.38**	**135**	T			T	20 07 16.4	
	baz=327,slow=75,SNR=107								
H11S1	**WAKE ISLAND Hy**	**30.29**	**137**	T			T	20 08 24.4	
	baz=329,slow=76,SNR=220								
H11S3	**WAKE ISLAND Hy**	**30.29**	**137**	T			T	20 08 12.9	
	baz=329,slow=76,SNR=196								
H11S2	**WAKE ISLAND Hy**	**30.30**	**137**	T			T	20 08 23.0	
	baz=329,slow=76,SNR=194								
ILAR	**Eielson Array**	**42.86**	**36**	P			**P**	**19 38 12.3**	**+1.6**
	comp=E,0.2nm,0.5s,baz=275,slow=8.1,SNR=4.2								
	comp=E,0.2nm,0.5s								
MKAR	**Makanchi Array**	**43.85**	**298**	P			**P**	**19 38 18.3**	**-0.8**
	comp=E,0.6nm,0.7s,baz=78,slow=11,SNR=3.5								
	comp=E,0.6nm,0.7s								
FINES	**FINESS Array B**	**65.01**	**332**	P			**P**	**19 40 52.4**	**0.0**
	comp=E,4.4nm,0.9s,baz=56,slow=6.1,SNR=5.9								
	comp=E,4.4nm,0.9s								

CATAC ***15*** *19:52:46.5±0.2, 11˚.N±2˚.×8˚.6W±˚, h70km±3km, M3.7/40, MLv3.7/40, Error ellipse: s-maj=6.9km s-min=2.0km az=46.5, confirmed*
UCR ***15*** *19:52:46.0±0.8, 11˚.62N×86˚.26W, h89km±8km, MW3.6, Presumed earthquake*

ISC 15 19:52:46.3±1.3,**11.52N**±0˚.05×**86˚.36W**±0˚.06,**h87**km±9km, **n75**,σ0§**60**/108,**6C-19D**,**Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
NADN	**Granada**	**0.39**	**55**	P			**Pn**	**19 52 60.0**	**0.0**
NADN				S			**Sn**	**19 53 10.6**	**+0.4**
SABN	**Sabanita**	**0.47**	**24**	P			**Pn**	**19 52 58.0**	**-2.6**
NANN	**Nandasmo**	**0.47**	**29**	P			**Pn**	**19 53 01.6**	**+0.9**
NANN				S			**Sn**	**19 53 12.7**	**+1.4**
MASN	**Masaya**	**0.51**	**24**	P			**Pn**	**19 53 01.6**	**+0.7**
MASN				S			**Sn**	**19 53 12.1**	**+0.4**
MAS3	**Al N del Volca**	**0.53**	**20**	P			**Pn**	**19 53 00.7**	**-0.3**
MAS3				S			**Sn**	**19 53 12.3**	**+0.3**
ABCN	**Banco Central**	**0.60**	**5**	P			**Pn**	**19 53 01.7**	**+0.1**
ABCN				S			**Sn**	**19 53 13.7**	**+0.7**
TISN	**Laguna Tiscapa**	**0.62**	**8**	P			**Pn**	**19 53 00.5**	**-1.4**
WILN	**Americas 2**	**0.66**	**15**	P			**Pn**	**19 53 01.7**	**-0.5**
WILN				S			**Sn**	**19 53 14.2**	**+0.3**
APQ2	**Apoyeque**	**0.67**	**3**	P			**Pn**	**19 53 02.3**	**0.0**
APQ2				S			**Sn**	**19 53 14.3**	**+0.1**
APQ2	**Apoyeque**	**0.67**	**3**	⇓P			**Pn**	**19 53 02.0**	**-0.3**
APQ2				S			**Sn**	**19 53 14.7**	**+0.5**
MORN	**Al O del Volca**	**0.70**	**88**	⇓P			**Pn**	**19 53 02.0**	**-0.5**
MORN				S			**Sn**	**19 53 14.5**	**-0.2**
APYN	**Apoyeque**	**0.71**	**1**	P			**Pn**	**19 53 02.7**	**0.0**
APYN				S			**Sn**	**19 53 15.0**	**+0.1**
AMTN	**Mateare**	**0.71**	**354**	P			**Pn**	**19 53 02.9**	**+0.2**
AMTN				S			**Sn**	**19 53 15.8**	**+0.9**
OMEN	**Al SSO del Vol**	**0.72**	**91**	⇓P			**Pn**	**19 53 02.3**	**-0.5**
OMEN				S			**Sn**	**19 53 14.8**	**-0.2**
LCRUZ	**La Cruz**	**0.84**	**122**	*e*P			**Pn**	**19 53 04.0**	**-0.1**
LCRUZ				*e*S			**Sn**	**19 53 17.5**	**+0.2**
CARN	**Rivas**	**0.89**	**112**	⇓P			**Pn**	**19 53 04.0**	**-0.5**
CARN				S			**Sn**	**19 53 18.1**	**0.0**
CARN	**Rivas**	**0.89**	**112**	*e*P			**Pn**	**19 53 04.0**	**-0.5**
LEVN	**Ruinas Leon Vi**	**0.91**	**344**	⇓P			**Pn**	**19 53 05.0**	**+0.2**
LEVN				S			**Sn**	**19 53 19.0**	**+0.4**
MOM2	**El Cardon**	**0.92**	**352**	⇓P			**Pn**	**19 53 04.5**	**-0.3**
MOM2				S			**Sn**	**19 53 18.6**	**-0.2**
MOM3	**MOM3**	**0.99**	**351**	⇑P			**Pn**	**19 53 05.4**	**-0.4**
MOM3				S			**Sn**	**19 53 20.4**	**+0.1**
CNGA	**Al SSO del Vol**	**1.02**	**341**	⇓P			**Pn**	**19 53 05.9**	**-0.3**
CNGA				S			**Sn**	**19 53 20.9**	**-0.1**
CNGN	**Cerro Negro**	**1.03**	**341**	⇓P			**Pn**	**19 53 05.9**	**-0.3**
CNGN				S			**Sn**	**19 53 20.5**	**-0.6**
ILCN	**San Idelfonso**	**1.10**	**342**	⇓P			**Pn**	**19 53 06.5**	**-0.5**
ILCN				S			**Sn**	**19 53 22.5**	**-0.1**
PLRN	**Geotermica Pol**	**1.13**	**339**	⇑P			**Pn**	**19 53 07.1**	**-0.2**
PLRN				S			**Sn**	**19 53 22.9**	**-0.3**
BOAB	**BOACO BROADBAN**	**1.14**	**36**	⇓P			**Pn**	**19 53 07.1**	**-0.4**
BOAB				S			**Sn**	**19 53 22.8**	**-0.7**
QUEN	**Al S del Volca**	**1.17**	**336**	⇓P			**Pn**	**19 53 08.0**	**+0.1**
QUEN				S			**Sn**	**19 53 24.2**	**+0.2**
TELN	**Telica**	**1.17**	**337**	⇑P			**Pn**	**19 53 06.6**	**-1.4**
TELN				S			**Sn**	**19 53 23.2**	**-1.0**
HERN	**Volcan Telica**	**1.18**	**337**	⇓P			**Pn**	**19 53 07.8**	**-0.3**
HERN				S			**Sn**	**19 53 23.7**	**-0.5**
HERN	**Volcan Telica**	**1.18**	**337**	*e*P			**Pn**	**19 53 07.7**	**-0.3**
LAPC	**Finca la Perla**	**1.18**	**129**	*e*P			**Pn**	**19 53 06.7**	**-1.3**
BUAI	**Buenos Aires**	**1.19**	**122**	*e*P			**Pn**	**19 53 07.7**	**-0.5**
VORI	**VORI**	**1.22**	**125**	*e*P			**Pn**	**19 53 08.9**	**+0.3**
VRLE	**La Escondida,**	**1.22**	**127**	*e*P			**Pn**	**19 53 08.0**	**-0.5**
ALIBA	**Liberia Airpor**	**1.22**	**139**	*e*P			**Pn**	**19 53 09.2**	**+0.7**
GPS2	**Hotel Rincn d**	**1.25**	**128**	*e*P			**Pn**	**19 53 09.0**	**+0.1**
DELF	**Filadelfia**	**1.33**	**143**	*e*P			**Pn**	**19 53 10.3**	**+0.5**
CRIN	**San Cristobal**	**1.35**	**330**	⇓P			**Pn**	**19 53 10.1**	**0.0**
CRIN				S			**Sn**	**19 53 27.7**	**-0.4**
CLARA	**Aguas Claras**	**1.37**	**122**	*e*P			**Pn**	**19 53 10.2**	**-0.2**
HORNC	**Hornillas**	**1.41**	**125**	*e*P			**Pn**	**19 53 10.7**	**-0.2**
VMAR	**Armenia, Volca**	**1.41**	**120**	*e*P			**Pn**	**19 53 10.5**	**-0.3**
COLC	**Colonia**	**1.42**	**127**	*e*P			**Pn**	**19 53 11.0**	**0.0**
CUI	**Cuipilapa**	**1.45**	**126**	*e*P			**Pn**	**19 53 11.3**	**-0.1**
BAGA	**Bagaces**	**1.46**	**132**	*e*P			**Pn**	**19 53 11.4**	**0.0**
PLVR	**Palo Verde**	**1.53**	**140**	*e*P			**Pn**	**19 53 12.8**	**+0.3**
LIMN	**Finca el Limon**	**1.53**	**360**	⇑P			**Pn**	**19 53 12.3**	**-0.2**
TENO	**El Achiote**	**1.58**	**121**	*e*P			**Pn**	**19 53 12.5**	**-0.5**
NICO	**Nicoya**	**1.64**	**147**	*e*P			**Pn**	**19 53 13.9**	**+0.1**
COTE	**Lago Cote**	**1.70**	**123**	*e*P			**Pn**	**19 53 14.9**	**+0.3**
TILA	**Tilaran**	**1.72**	**127**	*e*P			**Pn**	**19 53 14

Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	**Bering**	**0.30**	**211**	*eP*	Pn	20 11 10.1	+0.6
BKI				*eS*	Sn	20 11 15.5	-1.0
KBTR	**Krutoberegovo**	**2.07**	**293**	*eP*	Pn	20 11 35.5	+2.1
TUMD	**Tumrok D**	**3.35**	**268**	*eP*	Pn	20 11 54.6	+3.5
TUMD				*eS*	Sn	20 12 35.1	+5.6
KZV	**Kizimen**	**3.42**	**267**	*eP*	Pn	20 11 56.3	+4.2
SDLR	**Sedlovina**	**4.83**	**246**	*eP*	Pn	20 12 16.3	+4.9
KRER	**Koryakskii**	**4.88**	**247**	*eP*	Pn	20 12 17.1	+4.8
KRX	**Arik**	**4.91**	**248**	*eP*	Pn	20 12 17.2	+4.6
KRMR	**Karymshinskiy**	**5.45**	**244**	*eS*	Sn	20 13 25.8	+4.7

*IDC **15** 20:12:32.1±1.7, 14°.08S×66°.40E, h0km, mb3.5/5, mbtmp3.5/5, MS3.5/15, Error ellipse: s-maj=69.0km s-min=29.7km az=45.0*

ISC 15 20:12:33.8±1.8, 14°.1S±0°.4×66°.4E±0°.4, h10km, n29, σ0§82/6, mb3.6/5, MS3.5/15, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H08S1	**Diego Carcia H**	**8.73**	**44**	T	T	20 24 12.4	
	baz=219,slow=75,SNR=428						
H08S2	**Diego Garcia H**	**8.74**	**44**	T	T	20 24 10.6	
	baz=219,slow=75,SNR=956						
H08S3	**Diego Garcia H**	**8.75**	**43**	T	T	20 24 11.1	
	baz=219,slow=75,SNR=2329						
PALK	**Pallekele**	**25.51**	**35**	LR	LR	20 26 07.9	
	comp=Z,144nm,19.5s,baz=204,slow=32						
H04N2	**CROZET ISLANDS**	**34.27**	**198**	T	T	20 54 43.2	
	baz=26,slow=76,SNR=657						
H04N1	**CROZET ISLANDS**	**34.28**	**198**	T	T	20 54 44.2	
	baz=26,slow=76,SNR=752						
H04N3	**CROZET ISLANDS**	**34.29**	**198**	T	T	20 54 43.0	
	baz=26,slow=76,SNR=708						
PSI	**Prapat**	**36.33**	**65**	LR	LR	20 32 20.8	
	comp=Z,84nm,18.8s,baz=187,slow=33						
MATP	**Matopo**	**36.70**	**255**	LR	LR	20 32 26.1	
	comp=Z,168nm,19.7s,baz=48,slow=32						
LBTB	**Lobatse**	**39.84**	**248**	LR	LR	20 33 42.3	
	comp=Z,47nm,21.1s,baz=78,slow=32						
BOSA	**Boshof**	**40.76**	**242**	LR	LR	20 34 31.2	
	comp=Z,40nm,19.3s,baz=61,slow=32						
BRDH	**Bariadhala**	**44.10**	**34**	LR	LR	20 38 01.6	
	comp=Z,76nm,19.8s,baz=210,slow=35						
SUR	**Sutherland**	**45.32**	**238**	LR	LR	20 37 09.9	
	comp=Z,49nm,19.8s,baz=96,slow=33						
CMAR	**Chiang Mai Arr**	**45.53**	**46**	LR	LR	20 37 14.8	
	comp=Z,28nm,21.7s,baz=155,slow=33						
TSUM	**Tsumeb**	**46.95**	**257**	LR	LR	20 40 19.3	
	comp=Z,53nm,18.0s,baz=324,slow=36						
H01W3	**Cape Leeuwin H**	**47.59**	**125**	T	T	21 11 33.1	
	baz=283,slow=75,SNR=68						
H01W2	**Cape Leeuwin H**	**47.60**	**125**	T	T	21 11 33.3	
	baz=283,slow=75,SNR=76						
H01W1	**Cape Leeuwin H**	**47.61**	**125**	T	T	21 11 34.4	
	baz=283,slow=75,SNR=68						
MAW	**Mawson**	**53.53**	**182**	LR	LR	20 39 27.4	
	comp=Z,48nm,19.1s,baz=15,slow=30						
BATI	**Baumata**	**55.98**	**93**	LR	LR	20 42 18.6	
	comp=Z,133nm,20.0s,baz=272,slow=32						
AAK	**Ala-Archa**	**56.92**	**7**	LR	LR	20 44 24.7	
	comp=Z,47nm,18.5s,baz=166,slow=34						
MKAR	**Makanchi Array**	**62.25**	**12**	P	**P**	**20 22 55.6**	**-0.2**
	0.2nm,0.7s,baz=201,slow=7.7,SNR=5.3						
	0.2nm,0.7s						
ASAR	**Alice Springs**	**64.07**	**110**	P	**P**	**20 23 09.0**	**+0.5**
	0.1nm,0.3s,baz=280,slow=5.5,SNR=4.0						
	0.1nm,0.3s						
WRA	**Warramunga Arr**	**64.84**	**106**	P	**P**	**20 23 13.3**	**-0.2**
	0.6nm,0.9s,baz=269,slow=5.7,SNR=3.0						
	0.6nm,0.9s						
KURBB	**Kurchatov Arra**	**65.29**	**8**	P	**P**	**20 23 16.2**	**+0.5**
	0.1nm,0.2s,baz=187,slow=6.5,SNR=1.4						
KURBB				LR	LR	20 49 51.0	
	comp=Z,48nm,21.7s,baz=186,slow=34						
	0.1nm,0.2s						
TLY	**Talaya**	**73.03**	**23**	LR	LR	20 55 34.6	
	comp=Z,53nm,18.2s,baz=230,slow=35						
KSRS	**Korea Array**	**77.17**	**46**	LR	LR	20 58 27.0	
	comp=Z,13nm,19.9s,baz=255,slow=36						
ESDC	**Sonseca Array**	**84.39**	**313**	P	**P**	**20 25 07.0**	**+0.3**
	0.5nm,0.6s,baz=93,slow=4.0,SNR=6.1						
	0.5nm,0.6s						
PDAR	**Pinedale Array**	**151.21**	**354**	PKPbc	**PKPbc**	**20 32 26.9**	**-1.1**
	0.4nm,0.6s,baz=34,slow=4.1,SNR=4.2						

*SJA **15** 20:26:22.2±0.6, 39°.42S×72°.35W, h85km±6km, ML3.6, MW3.3*
*GUC **15** 20:26:23.8±0.8, 39°.39S×72°.32W, h82km±3km, ML3.6, Presumed earthquake*

ISC 15 20:26:24.3±1.4, 39°.39S±0°.04×72°.39W±0°.04, h76km±10km, n18, σ1§49/30, 1C-4D, Central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LR03	**Panguipulli**	**0.24**	**173**	⇓*iP*	**Pn**	**20 26 35.6**	**-0.2**
LR03				*i* S	**Sn**	**20 26 44.7**	**+0.4**
LR03				IAML		20 26 45.6	
	comp=E,3μm,0.2s						
LC01	**Cunco**	**0.63**	**39**	⇓*iP*	**Pn**	**20 26 38.5**	**-0.5**
LC01				*i* S	**Sn**	**20 26 49.9**	**+0.1**
LC01				IAML		20 26 52.1	
	comp=E,4μm,0.1s						
GO06	**Curarrehue**	**0.73**	**106**	*eP*	**Pn**	**20 26 39.3**	**-0.9**
GO06				*eS*	**Sn**	**20 26 51.9**	**0.0**
GO06	**Curarrehue**	**0.73**	**106**	⇓*iP*	**Pn**	**20 26 39.2**	**-0.9**
GO06				*i* S	**Sn**	**20 26 51.2**	**-0.7**
GO06				IAML		20 26 52.4	
	comp=N,1μm,0.8s						
LR02	**Universidad Au**	**0.79**	**238**	*i* P	**Pn**	**20 26 40.9**	**+0.3**
LR02				*i* S	**Sn**	**20 26 53.6**	**+1.0**
LR02				IAML		20 26 56.0	
	comp=N,8μm,0.5s						
LR05	**Currie**	**0.89**	**161**	⇑*iP*	**Pn**	**20 26 41.3**	**-0.5**
LR05				*i* S	**Sn**	**20 26 54.8**	**0.0**
LR05				IAML		20 26 55.5	
	comp=N,1μm,0.2s						
LR04	**Corral**	**0.94**	**238**	*eP*	**Pn**	**20 26 42.2**	**-0.2**
LR04				*eS*	**Sn**	**20 26 56.3**	**+0.5**
LR04				IAML		20 27 01.0	
	comp=Z,1μm,0.2s						
LR04	**Corral**	**0.94**	**238**	⇓*iP*	**Pn**	**20 26 42.4**	**+0.1**
LR04				*i* S	**Sn**	**20 26 56.5**	**+0.7**
LR04				IAML		20 26 57.7	
	comp=E,4μm,0.3s						
BI04	**Isla Mocha**	**1.52**	**309**	*i* P	**Pn**	**20 26 50.0**	**+0.3**
BI04				*i* S	**Sn**	**20 27 09.0**	**0.0**
BI04				IAML		20 27 10.5	
	comp=N,2μm,0.2s						
LL03	**Petrohue**	**1.75**	**180**	*eP*	**Pn**	**20 26 52.3**	**-0.4**
LL03				*eS*	**Sn**	**20 27 14.0**	**-0.2**
LL03				IAML		20 27 18.1	
	comp=E,493nm,0.3s						
CANA	**Caviahue**	**1.82**	**35**	*eP*	**Pn**	**20 26 53.8**	**-0.1**
CANA				*eS*	**Sn**	**20 27 16.6**	**+0.2**
PLCA	**Paso Flores**	**1.94**	**134**	*eP*	**Pn**	**20 26 54.2**	**-1.2**
PLCA				*eS*	**Sn**	**20 27 25.1**	**+6.0**
LL05	**Los Muermos**	**2.18**	**202**	IAML		20 27 31.8	
	comp=E,232nm,0.3s						
BI02	**San Fabin de**	**2.86**	**18**	*eP*	**Pn**	**20 27 08.2**	**+0.4**
BI02				*eS*	**Sn**	**20 27 41.0**	**-0.2**
BI02	**San Fabin de**	**2.86**	**18**	*eP*	**Pn**	**20 27 10.0**	**+2.2**
LL06	**Loncomilla**	**2.98**	**198**	*eP*	**Pn**	**20 27 06.9**	**-2.3**
LL06				IAML		20 27 44.6	
	comp=E,240nm,0.2s						
ML02	**Panimavida**	**3.70**	**12**	*eP*	**Pn**	**20 27 18.6**	**-0.6**
GO05	**Hualane**	**4.39**	**5**	*i* P	**Pn**	**20 27 26.4**	**-2.1**

*AFAD **15** 20:46:19.7, 37°.85N×26°.82E, h8km±2km, ML2.9*
*ATH **15** 20:46:19.9, 37°.83N×26°.84E, h13km±1km, ML2.8/11, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*THE **15** 20:46:20.4, 38°№1°×2°.7E±°, h10km±1km, M2.9/10, MLh2.9/10*
*ISK **15** 20:46:20.0, 37°.86N×26°.86E, h8km, ML3.1/19*

ISC 15 20:46:20.2±0.8, 37°.85N±0°.01×26°.85E±0°.02, h13km±5km, n76, σ0§51/113, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRL1	**Karlovasi Samo**	**0.12**	**245**	P	**Pg**	**20 46 23.1**	**-0.3**
KRL1				S	**Sg**	**20 46 25.9**	**+0.1**
KRL1				AML	AML		
SMG	**Samos**	**0.14**	**184**	P	**Pg**	**20 46 23.6**	**-0.1**
SMG				S	**Sg**	**20 46 25.9**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**184**	P	**Pg**	**20 46 23.5**	**-0.2**
SMG				S	**Sg**	**20 46 26.3**	**+0.1**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**8**	P	**Pg**	**20 46 24.4**	**-0.4**
DGB				S	**Sg**	**20 46 27.2**	**-0.7**
SAM2	**Drakei, Karlov**	**0.21**	**245**	P	**Pg**	**20 46 24.4**	**-0.4**
SAM2				S	**Sg**	**20 46 27.8**	**-0.1**
SAM2				AML	AML		
GMLD	**Gumuldur**	**0.23**	**13**	Pg	**Pg**	**20 46 25.1**	**-0.2**
GMLD				Sg	**Sg**	**20 46 28.8**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**116**	P	**Pg**	**20 46 27.3**	**+0.2**
GCAM				IAML		20 46 33.0	
	comp=N,1μm,0.9s						
GCAM				S	**Sb**	**20 46 33.0**	**-0.3**
GCAM				IAML		20 46 34.0	
	comp=E,1μm,0.5s						
GCAM	**G?zelcaml?**	**0.34**	**116**	Pg	**Pg**	**20 46 27.1**	**0.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**88**	Pg	**Pg**	**20 46 27.2**	**0.0**
KUSD				Sg	**Sg**	**20 46 32.3**	**+0.3**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**9**	P	**Pg**	**20 46 27.8**	**-0.1**
BEYE				S	**Sg**	**20 46 33.0**	**-0.2**
BEYE				IAML		20 46 35.0	
	comp=N,1μm,0.3s						
BEYE				IAML		20 46 35.0	
	comp=E,917nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**325**	P	**Pg**	**20 46 28.9**	**-0.7**
ZEYE				S	**Sg**	**20 46 35.4**	**-0.6**
ZEYE				IAML		20 46 37.0	
	comp=N,1μm,0.5s						
DDIM	**Aydin, Didim**	**0.50**	**141**	P	**Pb**	**20 46 30.4**	**-0.4**
DDIM				IAML		20 46 39.0	
	comp=N,952nm,0.6s						
DDIM				IAML		20 46 40.0	
	comp=E,1μm,0.5s						
BLCB	**Balcova**	**0.56**	**16**	P	**Pg**	**20 46 31.2**	**0.0**
BLCB				S	**Sg**	**20 46 38.7**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**16**	Pg	**Pg**	**20 46 31.1**	**0.0**
BLCB				Sg	**Sg**	**20 46 38.9**	**+0.3**
BLCB				AML	AML		
DIDI	**Didim-Aydin**	**0.56**	**146**	Pg	**Pg**	**20 46 31.4**	**+0.2**
DIDI				AML	AML		
DUVT	**Torbali**	**0.60**	**52**	P	**Pg**	**20 46 31.6**	**-0.4**
DUVT				S	**Sg**	**20 46 38.7**	**-1.3**
CESE	**eme**	**0.65**	**318**	Pg	**Pb**	**20 46 33.0**	**-0.3**
CESE				Sg	**Sb**	**20 46 42.3**	**+0.1**
CESE				AML	AML		
KRBN	**Karaburun**	**0.78**	**343**	Pg	**Pb**	**20 46 35.5**	**-0.1**
KRBN				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**154**	Pg	**Pb**	**20 46 36.0**	**+0.1**
YKAV				AML	AML		
BAGT	**Foa**	**0.81**	**0**	P	**Pg**	**20 46 35.5**	**-0.3**
BAGT				S	**Sb**	**20 46 47.1**	**+0.3**
BAGT				IAML		20 46 50.0	
	comp=N,471nm,0.7s						
BAGT				IAML		20 46 50.0	
	comp=E,586nm,0.4s						
CHOS	**Chios island**	**0.82**	**311**	P	**Pg**	**20 46 35.6**	**-0.5**
CHOS				S	**Sb**	**20 46 47.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	Pg	**Pb**	**20 46 36.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	P	**Pg**	**20 46 35.7**	**-0.5**
CHOS				S	**Sb**	**20 46 47.9**	**+0.4**
AYDB	**Zeytinkoy-Aydi**	**0.83**	**83**	Pg	**Pg**	**20 46 36.1**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.84**	**103**	P	**Pg**	**20 46 36.3**	**-0.1**
AYDN				S	**Sg**	**20 46 46.8**	**-0.7**
AYDN				IAML		20 46 51.0	
	comp=N,541nm,0.7s						
AYDN				IAML		20 46 51.0	
	comp=E,601nm,0.3s						
BODT	**Bodrum**	**0.87**	**155**	P	**Pg**	**20 46 36.4**	**-0.6**
BODT				S	**Sb**	**20 46 49.3**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**155**	Pg	**Pg**	**20 46 36.6**	**-0.3**
BODT				AML	AML		
FOCM	**Foa**	**0.87**	**354**	Pg	**Pb**	**20 46 37.4**	**+0.3**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**337**	P	**Pg**	**20 46 36.3**	**-0.9**
KARB				S	**Sg**	**20 46 48.4**	**-0.5**
KARB				IAML		20 46 52.0	
	comp=N,404nm,0.5s						
KARB				IAML		20 46 52.0	
	comp=E,362nm,0.6s						
KLNA	**Kalymnos**	**0.89**	**174**	P	**Pb**	**20 46 37.9**	**+0.4**
KLNA				S	**Sb**	**20 46 49.8**	**+0.5**
KLNA				AML	AML		
EAG2	**Marmaro, Chios**	**0.91**	**320**	P	**Pb**	**20 46 38.1**	**+0.4**
EAG2				S	**Sb**	**20 46 50.3**	**+0.6**
BDRM	**Kayabasi**	**0.91**	**149**	P	**Pg**	**20 46 36.9**	**-0.9**
BDRM				S	**Sg**	**20 46 49.1**	**-0.7**
BDRM				IAML		20 46 51.0	
	comp=E,294nm,0.6s						
IZMR	**zmir-demi**	**0.92**	**71**	P	**Pg**	**20 46 37.2**	**-0.7**
IZMR				S	**Sg**	**20 46 47.6**	**-2.4**
MLSB	**Milas**	**0.92**	**126**	Pg	**Pb**	**20 46 38.0**	**0.0**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**150**	Pg	**Pb**	**20 46 38.6**	**+0.4**
CAMT	**Merkez**	**0.97**	**22**	P	**Pn**	**20 46 39.4**	**-0.1**
CAMT				S	**Sb**	**20 46 52.0**	**+0.4**
ZEDA	**zmir-Bergama**	**1.13**	**9**	P	**Pb**	**20 46 41.4**	**-0.2**
ZEDA				S	**Sn**	**20 46 57.4**	**+0.3**
ZEDA				IAML		20 46 59.0	
	comp=N,214nm,0.4s						
ZEDA				IAML		20 47 00.0	
	comp=E,418nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.15**	**84**	Pn	**Pb**	**20 46 41.8**	**-0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.19**	**92**	P	**Pb**	**20 46 42.1**	**-0.4**
ESEN				S	**Sg**	**20 46 58.4**	**-0.2**
GOMA	**Golmarmara-Man**	**1.20**	**44**	Pn	**Pn**	**20 46 42.9**	**+0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**2**	Pn	**Pg**	**20 46 43.8**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.22**	**2**	P	**Pb**	**20 46 43.3**	**+0.2**
DAT	**Datca**	**1.26**	**152**	P	**Pb**	**20 46 44.0**	**+0.2**
DAT				S	**Sn**	**20 47 01.0**	**+0.6**
YAZI	**Mula-Dat§a-**	**1.26**	**157**	P	**Pn**	**20 46 42.8**	**-0.6**
YAZI				S	**Sn**	**20 47 00.7**	**+0.5**
KIRA	**zmir-Kiraz**	**1.27**	**74**	P	**Pn**	**20 46 43.6**	**-0.2**
AKS	**Akhisar**	**1.28**	**36**	Pn	**Pg**	**20 46 44.4**	**-0.4**
AKS				AML	AML		
AKHS	**Akhisar**	**1.28**	**36**	S	**Sb**	**20 47 00.6**	**+0.1**
KTTT	**Salihli**	**1.29**	**49**	P	**Pn**	**20 46 43.4**	**-0.5**
KTTT				IAML		20 47 05.0	
	comp=N,189nm,0.6s						
APE	**Apeiranthos**	**1.30**	**234**	P	**Pn**	**20 46 43.4**	**-0.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.30**	**234**	P	**Pn**	**20 46 43.4**	**-0.7**
APE				AML	AML		
MULA	**Mugla, Merkez-**	**1.31**	**116**	P	**Pn**	**20 46 44.5**	**+0.2**
MULA				IAML		20 47 07.0	
	comp=E,185nm,0.5s						
YER	**Yerkesik**	**1.34**	**121**	P	**Pn**	**20 46 44.8**	**+0.2**
YER				S	**Sb**	**20 47 02.5**	**+0.1**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.41**	**22**	Pn	**Pb**	**20 46 46.3**	**-0.1**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.46**	**355**	P	**Pb**	**20 46 47.0**	**-0.2**
AYVA				S	**Sb**	**20 47 06.2**	**+0.4**
AYVA				IAML		20 47 10.0	
	comp=N,191nm,0.6s						
AYVA				IAML		20 47 10.0	
	comp=E,147nm,1.0s						
PRK	**Paraskevi**	**1.47**	**342**	P	**Pn**	**20 46 46.7**	**+0.4**
PRK				S	**Sb**	**20 47 06.1**	**+0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**1.47**	**342**	P	**Pn**	**20 46 46.7**	**+0.4**
GORD	**Gordes-Manisa**	**1.49**	**44**	Pn	**Pb**	**20 46 47.7**	**0.0**
GORD				AML	AML		
MANT	**Manisa**	**1.49**	**64**	P	**Pg**	**20 46 48.5**	**-0.4**
MANT				S	**Sn**	**20 47 06.5**	**+0.2**
MANT				IAML		20 47 11.0	
	comp=E,122nm,0.4s						
SULTU	**Buldan**	**1.53**	**82**	P	**Pn**	**20 46 47.3**	**0.0**
SULTU				S	**Sb**	**20 47 08.4**	**+0.6**
TURN	**Turunc**	**1.54**	**133**	P	**Pn**	**20 46 47.0**	**-0.3**
TURN				S	**Sb**	**20 47 08.1**	**+0.1**
HARTU	**Esme**	**1.62**	**72**	P	**Pn**	**20 46 48.3**	**-0.2**
BUHA	**Balikesir, Bur**	**1.66**	**6**	P	**Pn**	**20 46 49.2**	**+0.3**
BUHA				S	**Sg**	**20 47 12.5**	**-1.2**
BUHA				IAML		20 47 15.0	
	comp=E,140nm,0.8s						
BUHA				IAML		20 47 16.0	
	comp=N,185nm,0.4s						
STEP	**BALIKESIR_Sava**	**1.67**	**24**	P	**Pb**	**20 46 50.6**	**-0.2**
STEP				S	**Sn**	**20 47 11.1**	**+0.6**
STEP				IAML		20 47 17.0	
	comp=N,207nm,0.8s						
TAVA	**DENIZLI_Tavas**	**1.68**	**102**	P	**Pn**	**20 46 49.4**	**+0.1**
KOCA	**Canakkale, Ayv**	**1.74**	**342**	P	**Pn**	**20 46 50.1**	**0.0**
DNIZ	**Denizli-Tavas-**	**1.75**	**97**	P	**Pn**	**20 46 50.9**	**+0.6**
DEMI	**Demirci**	**1.89**	**50**	P	**Pb**	**20 46 55.0**	**+0.4**
BAYC	**CANAKKALE_Bayr**	**1.91**	**353**	P	**Pn**	**20 46 52.0**	**-0.3**
KARY	**Karystos**	**1.92**	**276**	P	**Pn**	**20 46 52.0**	**-0.4**
USAK	**Uak-Merkez**	**1.92**	**62**	P	**Pb**	**20 46 55.2**	**+0.2**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**20 46 52.8**	**+0.3**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**20 46 52.8**	**+0.3**
ARG				AML	AML		
BALY	**Balya**	**1.98**	**17**	P	**Pn**	**20 46 54.0**	**+0.6**
DION	**Dionisos Attik**	**2.31**	**277**	P	**Pn**	**20 46 58.0**	**0.0**
VLY	**Voula,Athens**	**2.42**	**271**	P	**Pn**	**20 46 59.5**	**+0.1**
VLY				AML	AML		
LIA	**Limnos Island**	**2.42**	**328**	P	**Pn**	**20 47 01.4**	**+2.0**
LIA				AML	AML		

*IDC **15** 20:48:22.9±0.7, 44°.40N×115°.11W, h0km, mb3.8/5, mbtmp3.8/14, ML3.8/8, MS3.4/18, Error ellipse: s-maj=10.8km s-min=7.9km az=83.0*
*NEIC **15** 20:48:22.9±1.5, 44°.35N±0°.02×115°.04W±0°.03, h5km±6km, mb3.7/11, ML4.4/120, Mwr4.1/52, ML4.8/36(BUT), Error ellipse: s-maj=3.8km s-min=2.3km az=210.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}=0.50; $M_{\theta\theta}$=1.59; $M_{\phi\phi}$=-1.10; $M_{r\theta}$=-0.24; $M_{\theta\phi}$=-0.90; $M_{r\phi}$=0.40; Fault plane solution: $M_0$1.74000×10^{15} NP1: ϕ_s64.40000°, δ75.91000°, λ=-161.11000°. NP2: ϕ_s329.64000°, δ71.70000°, λ=-14.86000°. Principal axes: T 1.8718, Plg3.0000°, Azm196.0000°; N -0.3098, Plg67.0000°, Azm100.0000°; P -1.5620, Plg23.0000°, Azm288.0000°;*
*NEIC **15** 20:48:23.2, 44°.34N×115°.01W, h6km*
*BUT **15** 20:48:23.7±1.6, 44°.34N±0°.03×115°.02W±0°.04, h7km±6km, Error ellipse: s-maj=4.7km s-min=2.8km az=51.0*

ISC 15 20:48:24.1±0.5, 44°.38N±0°.04×114°.98W±0°.04, h11km, n137, σ1§78/100, mb3.8/9, MS3.3/10, Western Idaho

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.91**	**153**		Pg	20 48 40.1	-1.7
HLID				Sg	**Sg**	**20 48 52.1**	**-1.6**
HLID				IAML		20 48 52.7	
	16μm,0.3s						
HLID				IAML		20 48 57.0	
	14μm,0.4s						
PLID	**Pearl Lake**	**1.01**	**315**		**Pg**	**20 48 43.0**	**-0.6**
PLID				Sg	**Sg**	**20 48 56.4**	**-0.5**
PLID				IAML		20 49 00.6	
	6μm,0.7s						
PLID				IAML		20 49 01.1	
	7μm,0.5s						
BCYI	**Bear Canyon**	**1.13**	**93**		**Pb**	**20 48 45.4**	**-0.5**
MFID	**Camas Ranch**	**1.14**	**213**		Pb	20 48 43.9	-2.1
MFID				Sg	**Sb**	**20 48 59.3**	**-1.5**
MCMT	**McKenzie Canyo**	**1.59**	**73**		**Pn**	**20 48 53.4**	**+1.0**
BMO	**Blue Mountains**	**1.73**	**287**		**Pn**	**20 48 53.5**	**-0.7**
MOMT	**Monida**	**1.86**	**83**		**Pn**	**20 48 57.6**	**+1.4**
DLMT	**Dillon**	**1.96**	**59**	Pn	**Pn**	**20 48 58.5**	**+1.1**
VCMT	**Victor**	**2.14**	**15**		**Pn**	**20 49 00.7**	**+0.9**
HBMT	**Mount Humbug**	**2.20**	**49**		**Pn**	**20 49 01.6**	**+0.8**
F10A	**Beach Ranch, E**	**2.25**	**316**		**Pn**	**20 49 02.3**	**+0.9**
F10A				IAML		20 49 36.7	
	comp=N,3μm,0.8s						
BGMT	**Barton Gulch**	**2.26**	**67**		**Pn**	**20 49 02.6**	**+1.0**
LRM	**Limekiln Ridge**	**2.30**	**50**		**Pn**	**20 49 03.0**	**+0.8**
BPMT	**Black Pine Rid**	**2.33**	**27**		**Pn**	**20 49 03.1**	**+0.6**
BUT	**Butte**	**2.37**	**45**		**Pn**	**20 49 03.7**	**+0.7**
BUT				IAML		20 49 39.9	
	comp=N,2μm,0.7s						
BUT				IAML		20 49 40.3	
	comp=E,3μm,0.6s						
CMI	**Centennial Mou**	**2.41**	**85**		**Pn**	**20 49 05.2**	**+1.4**
MSO	**Missoula**	**2.56**	**16**		**Pn**	**20 49 06.4**	**+0.8**
MSO				IAML		20 49 55.5	
	comp=E,2μm,1.1s						
MSO				IAML		20 50 00.5	
	comp=E,1μm,0.9s						
QLMT	**Earthquake Lak**	**2.58**	**79**	Pn	**Pn**	**20 49 07.5**	**+1.6**
LCCM	**Lewis and Clar**	**2.64**	**55**		**Pn**	**20 49 07.4**	**+0.6**
BOZ	**Bozeman (W)**	**2.67**	**62**		**Pn**	**20 49 08.1**	**+0.9**
J08A	**Circle Bar Ran**	**2.72**	**249**		**Pn**	**20 49 07.3**	**-0.6**
MKMT	**Mink Peak**	**2.73**	**358**		**Pn**	**20 49 08.6**	**+0.5**
MCID	**Moose Creek**	**2.73**	**93**		**Pn**	**20 49 10.2**	**+2.0**
YHL	**Hebgen Lake**	**2.75**	**79**		**Pn**	**20 49 10.4**	**+1.9**
ELMT	**Elliston**	**2.77**	**38**		**Pn**	**20 49 08.8**	**+0.2**
LNOR	**Lincton Mounta**	**2.77**	**304**		**Pn**	**20 49 09.2**	**+0.7**
LNOR				IAML		20 49 59.1	
	comp=N,708nm,1.6s						
CHMT	**Chamberlain Mo**	**2.81**	**25**		**Pn**	**20 49 09.7**	**+0.5**
YMC	**Maple Creek**	**2.87**	**81**		**Pn**	**20 49 12.2**	**+2.2**
NDMT	**Ninemile Divid**	**2.89**	**2**		**Pn**	**20 49 10.8**	**+0.5**
PCMT	**Pistol Creek**	**2.91**	**13**		**Pn**	**20 49 11.4**	**+0.8**

comp=E,231nm,0.5s
ELK AML AML
HWUT Hardware Ranch 3.74 137 IAML 20 50 25.9
comp=E,482nm,0.7s
HWUT IAML 20 50 27.4
comp=E,543nm,0.9s
BGU Big Grassy Mou 3.74 157 IAML 20 50 22.8
comp=N,719nm,0.8s
BGU IAML 20 50 23.5
comp=E,918nm,1.2s
C15A Salmond Ranch, 3.78 25 Pn Pn 20 49 22.7 +0.3
C15A Salmond Ranch, 3.78 25 IAML 20 50 27.7
comp=E,710nm,0.8s
C15A IAML 20 50 30.8
comp=N,639nm,1.0s
HAWA Hanford 3.79 304 IAML 20 50 26.8
comp=N,313nm,0.8s
F07A Phinny Hill Vi 3.81 295 IAML 20 50 29.1
comp=E,675nm,1.0s
F07A IAML 20 50 31.2
comp=N,584nm,0.9s
D08A Wollman Farm, 3.84 316 IAML 20 50 32.3
comp=E,602nm,1.0s
D08A IAML 20 50 32.4
comp=N,466nm,1.0s
OD2 Odessa Site #2 3.98 320 Pn Pn 20 49 25.1 +0.1
GCMT Greycliff 4.02 68 Pn Pn 20 49 28.1 +2.3
E07A Sunnyside 4.06 304 IAML 20 50 46.4
comp=E,482nm,0.7s
E07A IAML 20 50 50.4
comp=N,471nm,0.8s
LDM Libby Dam 4.08 357 Pn Pn 20 49 27.6 +1.1
RLMT Red Lodge 4.14 78 IAML 20 50 38.3
comp=N,615nm,0.7s
NEW Newport 4.16 340 Pn **Pn 20 49 28.5 +1.0**
comp=N,5.4nm,0.3s,baz=163,slow=15,SNR=84
NEW Pg **Pb 20 49 39.5 +2.2**
comp=N,15nm,0.3s,baz=149,slow=15,SNR=17
NEW Sn **Sn 20 50 17.1 +0.9**
comp=N,19nm,0.3s,baz=150,slow=16,SNR=6.5
NEW Lg Lg 20 50 32.4
comp=N,19nm,0.3s,baz=108,slow=20,SNR=10
NEW LR LR 20 51 06.8
comp=N,258nm,19.8s,baz=134,slow=40
comp=N,14nm,0.3s
NEW AML AML
NEW Newport 4.16 340 Pn 20 49 28.4 +0.8
NEW Newport 4.16 340 IAML 20 50 47.0
comp=N,595nm,0.9s
PDAR Pinedale Array 4.26 110 Pn **Pn 20 49 33.3 +4.2**
comp=N,1.9nm,0.3s,baz=299,slow=12,SNR=70
PDAR Lg Lg 20 50 39.0
comp=N,5.7nm,0.3s,baz=312,slow=24,SNR=3.1
comp=N,16nm,0.7s
PDAR AML AML
BMN Battle Mountai 4.28 204 IAML 20 50 33.8
comp=E,487nm,0.7s
BMN IAML 20 50 35.4
comp=N,546nm,0.8s
MXC Moxie City 4.33 302 IAML 20 50 56.5
comp=N,231nm,1.4s
MXC IAML 20 51 14.3
comp=E,214nm,1.2s
EPH Ephrata 4.38 314 IAML 20 50 46.1
comp=E,270nm,1.5s
DUG Dugway, Tooele 4.48 158 IAML 20 50 52.2
comp=E,476nm,1.3s
DUG IAML 20 50 52.2
comp=E,474nm,1.0s
I05D Terrebonne, OR 4.56 272 IAML 20 50 57.3
comp=N,195nm,1.5s
I05D IAML 20 51 00.6
comp=E,209nm,1.1s
K05A Summer Lake 4.60 251 Pn 20 49 34.1 +0.2
K05A IAML 20 51 02.1
comp=N,242nm,3.0s
MOD Modoc Plateau 4.61 239 IAML 20 50 58.7
comp=N,282nm,1.3s
MOD IAML 20 51 06.4
comp=E,283nm,0.9s
J05D Fort Rock, OR 4.65 259 IAML 20 51 01.0
comp=N,180nm,1.8s
J05D IAML 20 51 01.1
comp=E,166nm,1.3s
LTY Liberty 4.91 308 IAML 20 51 09.8
comp=N,237nm,1.3s
LTY IAML 20 51 25.6
comp=E,170nm,1.0s
BSUT Blindstream Ca 4.95 139 IAML 20 51 03.1
comp=E,196nm,0.7s
BSUT IAML 20 51 13.9
comp=N,195nm,1.5s
EGMT Eagleton 5.14 43 Pn 20 49 41.8 +0.7
JRO Jston Ridge Ob 5.44 293 Pn 20 49 44.9 -0.4
H04D Lebanon 5.55 274 Pn 20 49 46.8 +0.1
D05A Enumclaw 5.65 302 Pn 20 49 49.0 +1.1
BUCK Buck Mountain 5.75 271 Pn **Pn 20 49 49.7 +0.3**
L04D Klamath Falls 5.76 251 Pn 20 49 49.5 -0.2
P17A Butcher Ranch, 5.83 146 Pn 20 49 51.2 +0.5
YBH Yreka Blue Hor 6.25 248 Pn **Pn 20 49 56.5 +0.2**
comp=N,0.7nm,0.3s,baz=49,slow=15,SNR=8.5
YBH Sn **Sn 20 51 08.9 +1.1**
comp=N,0.3nm,0.3s,baz=59,slow=18,SNR=0.9
YBH Lg Lg 20 51 40.3
comp=N,1.1nm,0.3s,baz=145,slow=12,SNR=4.2
YBH LR LR 20 52 48.3
comp=N,176nm,18.3s,baz=354,slow=43
comp=N,1.5nm,0.3s
YBH AML AML
NVAR Mina Array Bea 6.45 204 Pn **Pn 20 50 01.3 +2.1**
comp=N,2.5nm,0.3s,baz=21,slow=12,SNR=19
NVAR Lg Lg 20 51 44.7
comp=N,10nm,0.3s,baz=46,slow=21,SNR=2.6
NVAR LR LR 20 52 32.5
comp=N,275nm,18.0s,baz=347,slow=39
comp=N,5.6nm,0.7s
NVAR AML AML
RSSD Black Hills 7.87 88 Pn 20 50 22.8 +4.2
PV01 Paradox Valley 7.89 140 Pn 20 51 21.4 +2.4
FURC Furnace Creek, 8.03 191 Pn 20 51 21.5 +0.8
CWC Cottonwood Cre 8.28 198 Pn 20 50 26.5 +2.3
GWY Greenwater Val 8.29 190 Pn 20 50 27.0 +2.7
ISCO Idaho Springs 8.33 120 Pn 20 50 28.8 +3.6
DGMT Dagmar 8.50 57 Pn 20 50 29.1 +2.0
MPMC Manual Prospec 8.53 194 Pn 20 50 30.2 +2.5
MVCO Mesa Verde 8.68 143 Pn 20 50 32.7 +2.8
CLC China Lake 8.79 194 Pn 20 50 34.6 +3.5
EDM Edmonton 8.91 6 Pn 20 50 33.3 +0.5
CCCA Chr Cany lake 9.03 192 Pn 20 50 38.4 +3.9
SDCO Great Sand Dun 9.75 130 Pn 20 50 46.9 +2.4
IRM Iron Mountain 10.21 181 Pn 20 50 53.6 +3.0
T25A Trinidad 10.79 128 Pn 20 51 02.9 +4.2
PFO Pinyon Flats O 10.81 187 Pn **Pn 20 51 01.4 +2.4**
comp=N,0.1nm,0.3s,baz=47,slow=7.7,SNR=4.7
PFO Lg Lg 20 54 01.8
comp=N,0.1nm,0.3s,baz=97,slow=19,SNR=1.9
PFO LR LR 20 55 33.5
comp=N,124nm,21.7s,baz=20,slow=40
comp=N,2.9nm,0.8s
PFO AML AML
ANMO Albuquerque 11.48 142 Pn **Pn 20 51 10.9 +2.8**
comp=N,0.1nm,0.3s,baz=342,slow=19,SNR=1.4
ANMO Lg Lg 20 54 20.3
comp=N,0.1nm,0.3s,baz=192,slow=20,SNR=4.7
ANMO LR LR 20 55 37.5
comp=N,81nm,18.1s,baz=322,slow=38
comp=N,0.3nm,0.3s
ANMO AML AML
TUC Tucson 12.49 163 Pn 20 51 22.9 +1.1
ECSD EROS Data Cent 13.23 86 Pn 20 51 27.0 -4.9
ULM Lac du Bonnet 14.21 59 Pn **Pn 20 51 45.9 +0.7**
comp=N,0.5nm,0.3s,baz=258,slow=9.7,SNR=4.6
ULM Lg Lg 20 55 38.7
comp=N,0.2nm,0.3s,baz=172,slow=21,SNR=3.0
ULM LR LR 20 57 38.4
comp=N,96nm,19.3s,baz=20,slow=39
POST Post 15.41 133 Pn 20 51 57.5 -4.0
POST IAmb IAmb 20 52 10.5
comp=Z,4.5nm,0.7s
VHRN Van Horn 15.70 146 Pn 20 52 02.6 -2.6
VHRN IAmb IAmb 20 52 25.4
comp=Z,3.1nm,1.0s
WMOK Wichita Mounta 15.75 122 Pn 20 51 59.9 -6.0
WMOK IAmb IAmb 20 52 17.2
comp=Z,3.3nm,0.9s
DLBC Dease Lake 16.86 332 Lg Lg 20 57 06.8
baz=69,slow=16,SNR=1.1

TXAR Lajitas Array 17.51 145 P **Pn 20 52 30.6 +2.3**
comp=Z,0.6nm,0.9s,baz=336,slow=14,SNR=4.6
TXAR Lg Lg 20 57 37.6
baz=222,slow=2.0,SNR=2.6
BRDY Brady 18.13 131 P **Pn 20 52 36.5 +0.6**
BRDY IAmb IAmb 20 52 43.7
comp=Z,3.9nm,0.8s
YKA Yellowknife Ar 18.15 1 P **Pn 20 52 34.0 -1.8**
comp=Z,0.2nm,0.3s,baz=187,slow=13,SNR=8.9
YKA Lg Lg 20 57 53.2
comp=Z,0.1nm,0.3s,baz=172,slow=28,SNR=5.3
YKA LR LR 20 59 56.3
comp=Z,173nm,18.4s,baz=241,slow=38
comp=Z,2.4nm,0.8s
YKA AML AML
LPIG La Paz 20.59 168 LR LR 21 00 13.9
comp=Z,102nm,18.8s,baz=232,slow=34
M30M Minto, Yukon 22.18 333 P **P 20 53 17.1 -2.9**
BLKN Baker Lake 22.66 22 P P 20 53 19.1 -5.8
BLKN IAmb IAmb 20 53 23.4
comp=Z,1.9nm,0.9s
U49A Red Boiling Sp 23.48 99 P P 20 53 29.0 -4.7
U49A IAmb IAmb 20 53 50.7
comp=Z,3.0nm,0.8s
DAWY Dawson 24.06 334 P **P 20 53 35.2 -3.9**
EPYK Eagle Plains 24.99 339 P **P 20 53 44.8 -2.7**
TZTN Tazewell 25.05 97 P **P 20 53 44.3 -4.0**
TKL Tuckaleechee C 25.32 99 LR LR 21 03 51.0
comp=Z,94nm,20.1s,baz=303,slow=36
PRP Porcupine Dome 27.01 332 P **P 20 54 03.5 -2.4**
PRP IAmb IAmb 20 54 10.2
comp=Z,1.4nm,0.6s
ILAR Eielson Array 27.05 330 P **P 20 54 05.2 -0.9**
comp=Z,0.9nm,0.9s,baz=123,slow=8.2,SNR=7.6
comp=Z,0.9nm,0.9s
RES Resolute Bay 31.69 10 LR LR 21 06 27.1
comp=Z,77nm,20.4s,baz=9.5,slow=34
SCHQ Schefferville 32.30 54 P **P 20 54 53.8 +1.0**
comp=Z,2.8nm,0.8s,baz=274,slow=5.8,SNR=2.2
SCHQ LR LR 21 08 55.2
comp=Z,86nm,18.2s,baz=303,slow=38
comp=Z,2.8nm,0.8s
FRB Frobisher Bay 32.43 37 LR LR 21 08 16.8
comp=Z,110nm,18.8s,baz=298,slow=37
JTS Las Juntas de 42.72 133 LR LR 21 16 30.4
comp=Z,35nm,18.4s,baz=8.6,slow=39
SDV Santo Domingo 52.15 119 LR LR 21 23 25.2
comp=Z,19nm,19.9s,baz=292,slow=40
BORG Borgarnes 52.41 33 LR LR 21 19 20.9
comp=Z,99nm,19.2s,baz=316,slow=35
SPITS Spitsbergen Ar 54.24 11 LR LR 21 20 53.2
comp=Z,65nm,21.2s,baz=327,slow=36
NOA NORSAR Array B 66.25 25 LR LR 21 26 36.8
comp=Z,9.9nm,20.3s,baz=255,slow=35
FINES FINESS Array B 69.92 19 P **P 20 59 35.8 +1.0**
comp=Z,3.2nm,0.9s,baz=1.7,slow=4.7,SNR=3.8
comp=Z,3.2nm,0.9s
ESDC Sonseca Array 75.83 48 P **P 21 00 10.9 +0.6**
comp=Z,0.3nm,0.6s,baz=312,slow=6.2,SNR=4.9
comp=Z,0.3nm,0.6s
KURBB **Kurchatov Arra 84.65 351** P **P 21 00 56.8 -0.7**
comp=Z,0.1nm,0.5s,baz=9.7,slow=5.7,SNR=2.0
comp=Z,0.1nm,0.5s
HHC Hu-ho-hao-te 85.41 326 *e*P **P 21 01 00.0 -1.7**
HHC pmax pmax
comp=Z,8.0nm,0.7s
HHC pmax pmax
comp=Z,66nm,7.1s

*VIE **15** 20:48:38.5±0.5, 51.47N×16.22E, h0km, mb2.5/3, ml2.4/6, ml2.4/6, Error ellipse: s-maj=3.7km s-min=2.8km az=150.0*
69 km NW of Wroclaw Suspected Mining induced.
*PRU **15** 20:48:38.5, 51.48N×16.18E, h0km*
ISC 15 20:48:38.5±1.2, 51.46N±0.06×16.13E±0.03, h0km, n29, σ0s62/57, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.62**	**170**	*e*Pg	**Pg**	**20 48 51.2**	**+0.7**
KSP				*e*Sg	**Sb**	**20 49 00.2**	**-1.4**
CHVC	**Chvalec**	**0.87**	**183**	*e*PG	**Pg**	**20 48 55.3**	**+0.1**
CHVC				*e*SG	**Sg**	**20 49 07.2**	**+0.7**
OSTC	**Ostas**	**0.90**	**176**	*e*PG	**Pg**	**20 48 56.0**	**+0.1**
OSTC				*e*SG	**Sg**	**20 49 08.2**	**+0.7**
	comp=Z,14nm,0.2s						
OSTC				AML	AML		
UPC	**Upice**	**0.95**	**184**	*e*PG	**Pg**	**20 48 56.8**	**0.0**
UPC				*e*SG	**Sg**	**20 49 10.1**	**+0.9**
	comp=Z,22nm,0.3s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.12**	**174**	*e*PG	**Pg**	**20 48 59.0**	**-0.9**
DPC				*e*SG	**Sg**	**20 49 15.1**	**+0.7**
	comp=Z,12nm,0.6s						
DPC				AML	AML		
PVCC	**Panska Ves**	**1.35**	**227**	*e*PG	**Pg**	**20 49 04.3**	**-0.2**
PVCC				*e*SG	**Sn**	**20 49 23.6**	**+0.2**
	comp=Z,28nm,0.2s						
PVCC				AML	AML		
KRLC	**Kraliky**	**1.45**	**163**	*e*PG	**Pn**	**20 49 05.2**	**-0.8**
KRLC				*e*SG	**Sg**	**20 49 24.6**	**-0.3**
	comp=Z,7.1nm,0.4s						
KRLC				AML	AML		
RICC	**Richard**	**1.57**	**235**	*e*PG	**Pn**	**20 49 07.0**	**-0.7**
RICC				*e*SG	**Sg**	**20 49 29.7**	**+0.6**
	comp=Z,12nm,0.5s						
RICC				AML	AML		
PRU	**Pruhonice**	**1.78**	**215**	*e*PG	**Pb**	**20 49 11.6**	**-0.5**
PRU				*e*SG	**Sg**	**20 49 35.9**	**+0.1**
	comp=Z,7.1nm,0.4s						
PRU				AML	AML		
STEB	**Steborice**	**1.85**	**145**	*e*PG	**Pn**	**20 49 11.8**	**+0.3**
STEB				*e*SG	**Sn**	**20 49 36.3**	**+0.7**
	comp=Z,15nm,0.6s						
STEB				AML	AML		
HSKC	**Hora Svate Kat**	**1.90**	**244**	*e*PG	**Pn**	**20 49 12.7**	**+0.4**
HSKC				*e*SG	**Sg**	**20 49 39.4**	**-0.2**
	comp=Z,7.9nm,0.5s						
HSKC				AML	AML		
MORC	**Moravsky Berou**	**1.91**	**151**	*e*PN	**Pn**	**20 49 11.7**	**-0.7**
MORC				*e*SG	**Sb**	**20 49 38.7**	**0.0**
CLL	**Collm**	**1.96**	**267**	*i* Pg	**Pb**	**20 49 14.9**	**-0.2**
CLL				*e*Sg	**Sb**	**20 49 40.0**	**-0.1**
	comp=Z,10.0nm,0.7s						
OKC	**Ostrava-Krasne**	**2.07**	**141**	*e*PG	**Pb**	**20 49 16.1**	**-0.9**
OKC				*e*SG	**Sb**	**20 49 43.4**	**+0.2**
	comp=Z,7.5nm,0.6s						
OKC				AML	AML		
VRAC	**Vranov**	**2.17**	**172**	*e*PN	**Pn**	**20 49 15.9**	**-0.1**
VRAC				*e*SG	**Sg**	**20 49 47.9**	**-0.4**
TREC	**Trest**	**2.20**	**191**	*e*PN	**Pn**	**20 49 16.5**	**+0.1**
TREC				*e*PG	**Pb**	**20 49 19.2**	**-0.1**
TREC				*e*SG	**Sg**	**20 49 49.7**	**+0.4**
	comp=Z,7.0nm,0.2s						
TREC				AML	AML		
ZVC	**Zvikov**	**2.37**	**212**	*e*PN	**Pn**	**20 49 18.7**	**0.0**
ZVC				*e*PG	**Pb**	**20 49 22.1**	**0.0**
ZVC				*e*SG	**Sg**	**20 49 54.4**	**-0.2**
	comp=Z,3.7nm,0.5s						
ZVC				AML	AML		
KRUC	**Moravsky**	**2.41**	**176**	*e*PN	**Pn**	**20 49 19.0**	**-0.1**
KRUC				*e*SG	**Sg**	**20 49 55.2**	**-0.6**
NKC	**Novy Kostel**	**2.63**	**244**	*e*PG	**Pb**	**20 49 27.1**	**+0.5**
NKC				*e*SG	**Sg**	**20 50 04.0**	**+0.9**
	comp=Z,9.3nm,0.3s						
NKC				AML	AML		
OJC	**Ojcow**	**2.64**	**117**	*e*Pg	**Pg**	**20 49 29.1**	**0.0**
OJC				*e*Sg	**Sg**	**20 50 03.5**	**+0.3**
ABNA	**Allensteig Bun**	**2.83**	**189**	*e*Pn	**Pn**	**20 49 25.3**	**+0.3**
	comp=Z,0.4nm,0.1s						
KHC	**Kasperske Hory**	**2.85**	**216**	*e*PN	**Pn**	**20 49 24.8**	**-0.4**
KHC				*e*PG	**Pb**	**20 49 29.9**	**-0.3**
KHC				*e*SN	**Sn**	**20 50 00.0**	**-0.2**
KHC				*e*SG	**Sg**	**20 50 09.6**	**-0.3**
	comp=Z,2.3nm,0.4s						
KHC				AML	AML		
CKRC	**Cesky Krumlov**	**2.89**	**205**	*e*PN	**Pn**	**20 49 26.0**	**+0.2**
CKRC				*e*PG	**Pb**	**20 49 30.9**	**0.0**
CKRC				*e*SG	**Sg**	**20 50 10.4**	**-0.9**
	comp=Z,3.3nm,0.6s						
CKRC				AML	AML		
LANS	**Liptovska Anna**	**3.15**	**136**	*e*SG	**Sg**	**20 50 20.1**	**+0.4**
MODS	**Modra-Piesok**	**3.18**	**166**	*e*SG	**Sg**	**20 50 23.1**	**+2.6**
WINA	**Alland / Wiene**	**3.35**	**181**	*e*Pn	**Pn**	**20 49 31.8**	**-0.4**
	comp=Z,0.3nm,0.1s						
CONA	**Conrad Observa**	**3.54**	**183**	*i* Pn	**Pn**	**20 49 35.3**	**+0.5**
	comp=Z,0.3nm,0.3s						
CONA				*e*Sn	**Sn**	**20 50 17.7**	**+0.3**
	comp=Z,0.7nm,0.4s						
MOA	**Molln**	**3.81**	**199**	*i* Pn	**Pn**	**20 49 38.7**	**+0.2**
	comp=Z,0.4nm,0.3s						
BIOA	**Bad Ischl, Aus**	**4.10**	**204**	*e*Pn	**Pn**	**20 49 43.1**	**+0.6**
	comp=Z,0.4nm,0.2s						

*NEIC **15** 20:49:51.7±2.5, 18.05N×0.03×67.52W×0.03, h10km±2km, ML2.7/33, Md3.3/15(RSPR), Error ellipse: s-maj=6.3km s-min=3.3km az=51.0*
*RSPR **15** 20:49:54.2, 18.16N×67.40W, h11km±1km, MD3.3/15*
*SDD **15** 20:49:54.0±0.8, 18.18N×67.40W, h21km±6km, MD2.8, ML2.4, MW2.8, Presumed earthquake*
*OSPL **15** 20:49:54.1±1.6, 18.16N×67.42W, h12km±8km, ML3.5, Presumed earthquake*
ISC 15 20:49:53.1±1.1, 18.17N±0.04×67.41W±0.03, h25km±7km, n46, σ0s54/56, 23C-6D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IDE	**Isla Desecheo**	**0.22**	**343**		**Pb**	**20 49 59.2**	**+0.2**
IDE	**Isla Desecheo**	**0.22**	**343**	⇓*e*P	**Pb**	**20 49 59.2**	**+0.2**
PRSN	**Puerto Rico Se**	**0.25**	**80**		**Pb**	**20 49 59.4**	**0.0**
PRSN	**Puerto Rico Se**	**0.25**	**80**	⇑*e*Pg	**Pb**	**20 49 59.5**	**+0.2**
PRSN				⇑*e*Sg	**Sb**	**20 50 03.0**	**-0.6**
PRSN				IAML		20 50 09.3	
	comp=N,1μm,0.3s						
PRSN	**Puerto Rico Se**	**0.25**	**80**	⇓*e*P	**Pb**	**20 49 59.6**	**+0.2**
CRPR	**Cabo Rojo, PR**	**0.33**	**121**		**Pb**	**20 50 00.2**	**-0.3**
CRPR	**Cabo Rojo, PR**	**0.33**	**121**	⇓*e*Pg	**Pb**	**20 50 00.4**	**0.0**
CRPR				⇑*e*Sg	**Sb**	**20 50 06.3**	**+0.8**
CRPR				IAML		20 50 09.5	
	comp=N,365nm,0.4s						
CRPR	**Cabo Rojo, PR**	**0.33**	**121**	⇓*e*P	**Pb**	**20 50 00.5**	**0.0**
CRPR	**Cabo Rojo, PR**	**0.33**	**121**	*i* P	**Pb**	**20 50 00.4**	**0.0**
CRPR				*e*S	**Sb**	**20 50 05.5**	**0.0**
MLPR	**Magueyes Islan**	**0.40**	**121**		**Pb**	**20 50 01.4**	**-0.2**
MLPR				Sg	**Sb**	**20 50 07.2**	**-0.2**
MLPR	**Magueyes Islan**	**0.40**	**121**	⇓*e*Pg	**Pb**	**20 50 01.4**	**-0.2**
MLPR				⇑*e*Sg	**Sb**	**20 50 07.2**	**-0.2**
MLPR				IAML		20 50 07.9	
	comp=N,104nm,0.2s						
MLPR	**Magueyes Islan**	**0.40**	**121**	⇓*e*P	**Pb**	**20 50 01.5**	**-0.1**
AGPR	**Aguadilla, PR**	**0.40**	**44**		**Pb**	**20 50 01.8**	**+0.1**
AGPR				IAML		20 50 10.5	
	comp=N,728nm,0.2s						
AGPR	**Aguadilla, PR**	**0.40**	**44**	⇑*e*Pg	**Pb**	**20 50 01.9**	**+0.1**
AGPR				⇑*e*Sg	**Sb**	**20 50 07.4**	**-0.2**
AGPR				IAML		20 50 08.2	
	comp=N,727nm,0.2s						
AGPR	**Aguadilla, PR**	**0.40**	**44**	⇑*e*P	**Pb**	**20 50 01.8**	**+0.1**
AGPR	**Aguadilla, PR**	**0.40**	**44**	*i* P	**Pb**	**20 50 01.8**	**+0.1**
AGPR				*e*S	**Sb**	**20 50 08.1**	**+0.5**
GBPR	**Guanica, Bosqu**	**0.54**	**111**		**Pb**	**20 50 04.2**	**+0.3**
GBPR	**Guanica, Bosqu**	**0.54**	**111**	⇑*e*P	**Pb**	**20 50 04.2**	**+0.3**
AOPR	**Arecibo Observ**	**0.64**	**74**		**Pb**	**20 50 05.2**	**-0.4**
AOPR	**Arecibo Observ**	**0.64**	**74**	⇑*e*Pg	**Pb**	**20 50 05.3**	**-0.4**
AOPR				⇑*e*Sg	**Sb**	**20 50 13.6**	**-0.7**
AOPR				IAML		20 50 17.0	
	comp=N,580nm,0.2s						
AOPR	**Arecibo Observ**	**0.64**	**74**	⇑*e*P	**Pb**	**20 50 05.4**	**-0.3**
OBIP	**Obispado Ponce**	**0.77**	**100**		**Pb**	**20 50 07.5**	**-0.3**
OBIP	**Obispado Ponce**	**0.77**	**100**	⇓*e*P	**Pb**	**20 50 07.7**	**-0.2**
OBIP	**Obispado Ponce**	**0.77**	**100**	*i* P	**Pb**	**20 50 07.5**	**-0.3**
OBIP				*e*S	**Sb**	**20 50 16.9**	**-1.0**
OBIP				IAML		20 50 19.9	
	comp=Z,617nm,0.1s						
CELP	**Cerrillos**	**0.79**	**97**		**Pb**	**20 50 07.6**	**-0.6**
CELP	**Cerrillos**	**0.79**	**97**	⇓*e*Pg	**Pb**	**20 50 07.7**	**-0.6**
CELP				⇑*e*Sg	**Sb**	**20 50 18.7**	**+0.2**
CELP				IAML		20 50 19.3	
	comp=N,60nm,0.3s						
CELP	**Cerrillos**	**0.79**	**97**	⇑*e*P	**Pb**	**20 50 07.6**	**-0.6**
EMPR	**Esperanza - Ma**	**0.89**	**70**		**Pb**	**20 50 09.7**	**0.0**
EMPR	**Esperanza - Ma**	**0.89**	**70**	⇑*e*P	**Pb**	**20 50 09.7**	**0.0**
PCDR	**Punta Cana, DR**	**0.99**	**290**	*e*Pg	**Pb**	**20 50 11.4**	**-0.1**
PCDR				IAML		20 50 50.6	
	comp=N,84nm,1.1s						
PCDR	**Punta Cana, DR**	**0.99**	**290**	*i* P	**Pb**	**20 50 11.3**	**-0.1**
ECPR	**Experimental S**	**1.00**	**82**		**Pn**	**20 50 10.8**	**-0.7**
ECPR	**Experimental S**	**1.00**	**82**	⇑*e*P	**Pn**	**20 50 11.4**	**-0.2**
SJG	**San Juan**	**1.20**	**93**		**Pn**	**20 50 13.5**	**-0.8**
SJG				IAML		20 50 34.4	
	comp=N,180nm,0.2s						
SJG				IAML		20 50 34.5	
	comp=N,164nm,0.2s						
SJG	**San Juan**	**1.20**	**93**	⇑*e*P	**Pb**	**20 50 16.3**	**+1.3**
SJG	**San Juan**	**1.20**	**93**	*i* P	**Pb**	**20 50 15.3**	**+0.3**
SJG				*e*S	**Sb**	**20 50 31.7**	**+1.6**
SJG				IAML		20 50 34.5	
	comp=Z,3μm,0.1s						
IGPR	**InterUniversit**	**1.25**	**99**		**Pb**	**20 50 17.5**	**+1.5**
IGPR	**InterUniversit**	**1.25**	**99**	⇑*e*P	**Pb**	**20 50 17.5**	**+1.5**
GCPR	**Guaynabo City**	**1.26**	**84**		**Pn**	**20 50 15.6**	**+0.4**
GCPR				IAML		20 50 34.2	
	comp=Z,168nm,0.2s						
GCPR				IAML		20 50 34.2	
	comp=Z,190nm,0.2s						
HIDR	**Higuey Centro**	**1.31**	**289**	⇑*e*Pg	**Pn**	**20 50 16.0**	**+0.1**
HIDR				⇑*e*Sg	**Sb**	**20 50 33.4**	**-0.1**
HIDR				IAML		20 50 47.1	
	comp=N,90nm,0.3s						
PDPR	**Patillas Dam,**	**1.32**	**97**		**Pb**	**20 50 17.6**	**+0.3**
PDPR	**Patillas Dam,**	**1.32**	**97**	IAML		20 50 37.4	
	comp=N,133nm,0.1s						
PDPR	**Patillas Dam,**	**1.32**	**97**	⇑*e*P	**Pb**	**20 50 17.6**	**+0.3**
HUMP	**Col San Antoni**	**1.48**	**91**		**Pb**	**20 50 20.2**	**+0.3**
HUMP	**Col San Antoni**	**1.48**	**91**	IAML		20 50 40.5	
	comp=N,104nm,0.2s						
HUMP				IAML		20 50 40.9	
	comp=N,121nm,0.2s						
HUMP	**Col San Antoni**	**1.48**	**91**	⇑*e*P	**Pb**	**20 50 20.2**	**+0.3**

*JSN **15** 20:55:15.8±0.5, 17.98N×76.20W, h0km±20km, MD2.3, Confirmed Earthquake*
*SSNC **15** 20:55:19.0±2.7, 18.28N×76.27W, h5km±18km, MD3.1, ML2.0, Presumed earthquake*
ISC 15 20:55:12.4±1.8, 18.1N±0.1×76.08W±0.07, h15km±12km, n10, σ0s77/20, 1C-1D, Jamaica region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GWJ	**Greenwich**	**0.62**	**265**	*i* P	**Pn**	**20 55 25.7**	**-1.1**
GWJ				*i* S	**Sg**	**20 55 33.2**	**+0.2**
STH	**Stony Hill**	**0.70**	**266**	⇑*i*P	**Pn**	**20 55 27.2**	**-0.6**
STH				*i* P	**Pn**	**20 55 27.2**	**-0.6**
STH				⇓*i*S	**Sb**	**20 55 35.8**	**0.0**
PCJ	**Portland Cotta**	**1.10**	**250**	*i* P	**Pg**	**20 55 33.2**	**-0.4**
CVJ	**Coleyville**	**1.39**	**274**	*i* P	**Pg**	**20 55 39.4**	**+0.2**
CVJ				*i* S	**Sb**	**20 55 57.1**	**+1.3**
MTDJ	**Mount Denham**	**1.39**	**274**	*e*P	**Pb**	**20 55 38.6**	**+0.5**
MTDJ				*e*S	**Sb**	**20 55 56.8**	**+1.0**
MTDJ				IAML		20 55 59.0	
	24nm,0.1s						
MTDJ				IAML		20 55 59.4	
	comp=Z,12nm,0.1s						
LMGC	**Las Mercedes**	**2.12**	**336**	*e*P	**Pb**	**20 55 49.7**	**-0.8**
LMGC				*e*S	**Sn**	**20 56 14.0**	**+0.7**
LMGC				IAML		20 56 15.1	
	comp=E,3.6nm,0.1s						
LMGC				IAML		20 56 17.6	
	comp=N,5.9nm,0.0s						
PILO	**Pilon**	**2.17**	**325**	*e*P	**Pb**	**20 55 51.0**	**-0.4**
PILO				*e*S	**Sn**	**20 56 14.4**	**-0.3**
PILO				IAML		20 56 15.9	
	comp=E,110nm,0.1s						
PILO				IAML		20 56 16.5	
	comp=N,265nm,0.2s						
SABCS	**La Quijada**	**2.34**	**18**	*e*P	**Pb**	**20 55 55.4**	**+1.1**
SABCS				*e*S	**Sb**	**20 56 22.6**	**-0.5**
SABCS				IAML		20 56 25.2	
	comp=N,4.5nm,0.2s						
SABCS				IAML		20 56 26.5	
	comp=E,4.3nm,0.1s						
PINC	**Pinares de May**	**2.36**	**7**	*e*P	**Pb**	**20 55 54.1**	**-0.6**
PINC				*e*S	**Sn**	**20 56 20.2**	**+0.8**
PINC				IAML		20 56 24.2	
	comp=N,9.8nm,0.1s						

PINC IAML 20 56 24.3
comp=E,13nm,0.1s
QMBU Quimbuelo 2.38 30 *eP* **Pg 20 55 58.7 +0.5**
QMBU *eS* **Sb 20 56 24.0 -0.3**
QMBU IAML 20 56 31.1
comp=N,5.6nm,0.2s
QMBU IAML 20 56 31.7
comp=E,4.3nm,0.2s

IDC ***15*** *21:14:16.8±0.8, 54°.7N×159°.96W, h0km, mb4.0/20, mbtmp3.9/23, ML3.7/3, MS3.4/20, Error ellipse: s-maj=21.7km s-min=11.9km az=171.0*
AEIC ***15*** *21:14:20.4±2.0, 54°.51N±0°.04×159°.79W±0°.06, h8km±4km, Error ellipse: s-maj=5.4km s-min=5.1km az=114.0*
NEIC ***15*** *21:14:20.9, 54°.51N×159°.74W, h35km*
NEIC ***15*** *21:14:21.1±1.6, 54°.52N±0°.05×159°.74W±0°.07, h35km±2km, mb4.3/35, ML4.4/32, Mwr4.3/43, ML4.2(AEIC), Error ellipse: s-maj=9.5km s-min=6.4km az=161.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}=0.31; $M_{\theta\theta}$=2.70; $M_{\phi\phi}$=3.01; $M_{r\theta}$=0.88; $M_{\theta\phi}$=0.53; $M_{\phi r}$=-0.41; Fault plane solution: M_o=3.07000×10^{15} NP1:∅$_\phi$=321.61000°, δ=81.10000°, λ=-162.66000°. NP2:∅$_\phi$=228.85000°, δ=72.87000°, λ=-9.32000°. Principal axes: T 3.0926, Plg=6.0000°, Azm=94.0000°; N -0.0364, Plg=71.0000°, Azm=348.0000°; P -3.0562, Plg=19.0000°, Azm=186.0000°;*
ISC 15 21:14:20.2±1.3, 54°.53N±0°.08×159°.70W±0°.04, h28km±8km, n201, σ1=01/180, mb4.2/27, MS3.5/21, South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.30**	**13**			**Pb**	**21 14 27.4**	**-0.1**
CNBA	**Chernabura Isl**	**0.30**	**13**			**Sb**	**21 14 32.7**	**+0.2**
CNBA				IAML			21 14 33.5	
	comp=N,48μm,0.4s							
CNBA				IAML			21 14 33.6	
	comp=E,71μm,0.7s							
CHNA	**Chernabura Isl**	**0.31**	**12**	P		**Pb**	**21 14 27.1**	**-0.6**
SDPT	**Sand Point**	**0.94**	**332**	P		**Pn**	**21 14 36.7**	**-0.8**
SDPT	**Sand Point**	**0.94**	**332**			**Pn**	**21 14 36.9**	**-0.6**
SDPT						**Sn**	**21 14 49.7**	**-0.2**
SDPT	**Sand Point**	**0.94**	**332**	IAML			21 14 50.9	
	comp=E,13μm,1.2s							
DOL	**Dolgoi Island**	**1.40**	**297**			**Pn**	**21 14 43.1**	**-0.7**
DOL						**Sn**	**21 15 00.7**	**-0.6**
PVV	**Pavlof Volcano**	**1.47**	**306**			**Pn**	**21 14 44.9**	**+0.1**
PS1A	**Pavlof South-1**	**1.48**	**308**			**Pn**	**21 14 45.1**	**+0.2**
PS1A						**Sn**	**21 15 04.9**	**+1.6**
PS4A	**Pavlof South-4**	**1.49**	**304**			**Pn**	**21 14 45.2**	**+0.1**
PS4A						**Sn**	**21 15 04.0**	**+0.4**
HAG	**Hague Volcano**	**1.50**	**303**			**Pn**	**21 14 45.5**	**+0.3**
VNKR	**Veniaminof 5**	**1.52**	**7**			**Pn**	**21 14 46.4**	**+0.9**
DT1	**Dutton Round H**	**1.60**	**292**			**Pn**	**21 14 45.9**	**-0.7**
DT1						**Sn**	**21 15 06.0**	**-0.3**
DTNA	**Dutton South F**	**1.60**	**294**			**Pn**	**21 14 46.4**	**-0.2**
DTNA						**Sn**	**21 15 06.4**	**+0.1**
PN7A	**Pavlof North-7**	**1.60**	**305**			**Pn**	**21 14 47.5**	**+0.8**
VNWF	**Veniaminof 8**	**1.63**	**3**			**Pn**	**21 14 48.0**	**+0.9**
VNNS	**Veniaminof 9**	**1.71**	**5**			**Pn**	**21 14 50.1**	**+1.8**
VNHG	**Veniaminof 1**	**1.73**	**10**			**Pn**	**21 14 50.1**	**+1.6**
VNFG	**Fog Glacier, M**	**1.76**	**3**			**Pn**	**21 14 50.5**	**+1.6**
S12K	**Black Hills**	**1.79**	**312**			**Pn**	**21 14 49.4**	**+0.1**
S12K				IAML			21 15 18.7	
	comp=N,3μm,0.3s							
S12K				IAML			21 15 24.1	
	comp=E,3μm,0.7s							
CHGN	**Chignik**	**1.93**	**22**			**Pn**	**21 14 51.3**	**+0.3**
CHGN						**Sn**	**21 15 15.3**	**+1.1**
CHGN	**Chignik**	**1.93**	**22**	IAML			21 15 21.3	
	comp=E,4μm,1.1s							
CHGN				IAML			21 15 23.5	
	comp=N,2μm,0.7s							
BPBCA	**Veniaminof**	**2.19**	**18**			**Pn**	**21 14 55.2**	**+0.5**
ANPB	**Aniakchak Plen**	**2.42**	**19**			**Pn**	**21 14 58.6**	**+0.7**
AZAC	**Aniakchak**	**2.52**	**19**			**Pn**	**21 15 00.7**	**+1.4**
CHIR	**Chirikof Islan**	**2.68**	**59**	P		**Pn**	**21 15 01.4**	**0.0**
CHIR	**Chirikof Islan**	**2.68**	**59**			**Pn**	**21 15 00.5**	**-0.8**
CHIR				IAML			21 15 52.4	
	comp=E,1μm,1.0s							
CHIR				IAML			21 16 02.4	
	comp=N,1μm,1.9s							
WTUG	**Tugumak**	**2.74**	**279**			**Pn**	**21 15 02.1**	**-0.1**
WESN	**West Dahl Nort**	**2.84**	**273**			**Pn**	**21 15 03.6**	**0.0**
WESP	**Westdahl Peak**	**2.92**	**271**			**Pn**	**21 15 05.2**	**+0.3**
WECS	**Westdahl Cape**	**2.96**	**272**			**Pn**	**21 15 04.0**	**-1.2**
WECS				IAML			21 16 12.6	
	comp=N,1μm,1.2s							
AKUT	**Akutan**	**3.57**	**266**	Pn		**Pn**	**21 15 13.8**	**+0.1**
R17L	**Mt. Peulik Vol**	**3.63**	**30**			**Pn**	**21 15 16.1**	**+1.6**
ZRO	**Akutan Zero**	**3.70**	**266**			**Pn**	**21 15 15.5**	**0.0**
SII	**Sitkinak Islan**	**3.74**	**55**	P		**Pn**	**21 15 17.0**	**+1.0**
SII	**Sitkinak Islan**	**3.74**	**55**			**Pn**	**21 15 15.7**	**-0.3**
SII				IAML			21 16 33.9	
	comp=N,674nm,0.9s							
SII				IAML			21 16 38.0	
	comp=E,768nm,2.0s							
PLK5	**Peulik 5**	**3.82**	**23**			**Pn**	**21 15 17.8**	**+0.7**
MGOD	**Makushin Gods**	**4.28**	**263**			**Pn**	**21 15 23.8**	**+0.4**
CAHL	**Cahill**	**4.30**	**33**			**Pn**	**21 15 24.1**	**+0.4**
Q17K	**Contact Creek**	**4.30**	**28**			**Pn**	**21 15 24.4**	**+0.6**
MAPS	**Pakushin South**	**4.31**	**263**			**Pn**	**21 15 24.2**	**+0.4**
ANCK	**Angle Creek**	**4.36**	**31**			**Pn**	**21 15 25.4**	**+0.8**
ACHA	**Angle Creek He**	**4.42**	**32**			**Pn**	**21 15 25.8**	**+0.3**
OHAK	**Old Harbor**	**4.51**	**51**			**Pn**	**21 15 26.1**	**-0.5**
P16K	**Nushagak River**	**4.61**	**11**			**Pn**	**21 15 29.9**	**+2.0**
O15K	**Ungalikthiuk R**	**4.66**	**359**			**Pn**	**21 15 28.6**	**-0.1**
O15K				IAML			21 16 55.6	
	comp=N,222nm,1.2s							
O15K				IAML			21 17 05.5	
	comp=E,463nm,1.3s							
KAWH	**Katmai**	**4.73**	**33**			**Pn**	**21 15 29.5**	**0.0**
O14K	**Tigyukauivet M**	**4.81**	**350**			**Pn**	**21 15 30.2**	**-0.5**
KARR	**Katmai Rainbow**	**4.85**	**33**			**Pn**	**21 15 31.6**	**+0.4**
Q18K	**Katmai Hardscr**	**4.88**	**30**			**Pn**	**21 15 32.4**	**+0.6**
KAHG	**Katmai Hook Gl**	**4.89**	**34**			**Pn**	**21 15 32.2**	**+0.3**
P17K	**Kvichak River**	**5.01**	**20**			**Pn**	**21 15 35.9**	**+2.5**
KDAK	**Kodiak Island**	**5.15**	**48**	Pn		**Pn**	**21 15 34.1**	**-1.1**
KDAK						**Sn**	**21 16 31.2**	**-2.4**
	comp=E,4.9nm,0.3s,baz=190,slow=2.4,SNR=83							
	baz=44,slow=4.0 comp=E,9.8nm,0.3s							
KDAK				AML		AML		
KDAK	**Kodiak Island**	**5.15**	**48**			**Pn**	**21 15 34.5**	**-0.8**
KDAK				IAML			21 17 28.2	
	comp=E,146nm,1.8s							
O16K	**Kokwok River B**	**5.16**	**9**			**Pn**	**21 15 35.9**	**+0.5**
O16K				IAML			21 17 19.9	
	comp=N,164nm,1.3s							
O16K				IAML			21 17 22.0	
	comp=E,257nm,1.9s							
O17K	**Koliganek Bris**	**5.45**	**14**			**Pn**	**21 15 40.6**	**+1.2**
N14K	**Kuskokwak Cree**	**5.52**	**350**			**Pn**	**21 15 40.4**	**+0.1**
N15K	**Kwethluk River**	**5.66**	**358**			**Pn**	**21 15 42.8**	**+0.4**
N17K	**Nushagak Hills**	**6.17**	**12**			**Pn**	**21 15 50.5**	**+1.2**
M15K	**Kasigluk River**	**6.21**	**356**			**Pn**	**21 15 50.4**	**+0.5**
M13K	**Dall Lake**	**6.22**	**343**			**Pn**	**21 15 50.1**	**+0.1**
O19K	**Port Alsworth**	**6.38**	**25**			**Pn**	**21 15 52.5**	**+0.2**
SPIA	**Saint Paul Isl**	**6.50**	**298**	P		**Pn**	**21 15 57.7**	**+3.8**
ILSW	**Iliamna Southw**	**6.52**	**30**			**Pn**	**21 15 54.6**	**+0.3**
M16K	**Timber Creek**	**6.53**	**3**			**Pn**	**21 15 55.0**	**+0.8**
ILW	**Iliamna West**	**6.59**	**30**			**Pn**	**21 15 55.7**	**+0.5**
ILIM	**Iliamna**	**6.66**	**31**			**Pn**	**21 15 56.5**	**+0.4**
CNPM	**China Poot**	**6.81**	**39**			**Pn**	**21 15 57.7**	**-0.5**
N19K	**Bonanza Creek**	**6.89**	**22**			**Pn**	**21 16 00.1**	**+0.7**
L14K	**Kuka Creek**	**7.01**	**348**			**Pn**	**21 16 01.2**	**+0.4**
RDSO	**Redoubt South**	**7.02**	**29**			**Pn**	**21 16 01.5**	**+0.3**
NCT	**North Crescent**	**7.06**	**28**			**Pn**	**21 16 02.0**	**+0.4**
BRSE	**Bradley Lake S**	**7.14**	**39**			**Pn**	**21 16 01.8**	**-0.9**
L15K	**Ungalak Mounta**	**7.23**	**353**			**Pn**	**21 16 03.8**	**-0.1**
L17K	**Donlin**	**7.67**	**5**			**Pn**	**21 16 10.6**	**+0.7**
SPNN	**North Nagishla**	**7.80**	**26**			**Pn**	**21 16 12.2**	**+0.3**
K15K	**Wolf Creek Mou**	**7.85**	**354**			**Pn**	**21 16 12.9**	**+0.5**
SLKM	**Skilak Lake**	**7.87**	**37**			**Pn**	**21 16 13.4**	**+0.7**
K13K	**Kusilvak Mount**	**7.87**	**343**			**Pn**	**21 16 13.1**	**+0.4**
SEW	**Seward**	**7.87**	**41**			**Pn**	**21 16 12.8**	**+0.1**
M19K	**Big River Lodg**	**7.91**	**19**			**Pn**	**21 16 14.4**	**+1.3**
K17K	**Iditarod**	**8.25**	**5**			**Pn**	**21 16 18.0**	**+0.2**
SUA	**Susitna One**	**8.42**	**31**			**Pn**	**21 16 19.4**	**-0.8**
RC01	**Rabbit Creek A**	**8.45**	**35**			**Pn**	**21 16 21.2**	**+0.6**
PWL	**Port Wells**	**8.79**	**39**			**Pn**	**21 16 25.1**	**-0.2**
J16K	**Anvik River**	**8.80**	**357**			**Pn**	**21 16 25.9**	**+0.5**
J18K	**Innoko River**	**9.10**	**9**			**Pn**	**21 16 29.6**	**+0.1**
KNK	**Knik Glacier**	**9.12**	**36**			**Pn**	**21 16 29.4**	**-0.4**
GHO	**Glory Hole Cre**	**9.22**	**34**			**Pn**	**21 16 31.4**	**+0.2**
HIN	**Hinchinbrook I**	**9.22**	**45**			**Pn**	**21 16 31.3**	**+0.1**
I17K	**Unalakleet**	**9.40**	**357**			**Pn**	**21 16 34.4**	**+0.8**
FID	**Port Fidalgo**	**9.43**	**43**			**Pn**	**21 16 33.1**	**-1.0**
EYAK	**Cordova Ski Ar**	**9.62**	**46**	P		**Pn**	**21 16 36.3**	**-0.2**
EYAK	**Cordova Ski Ar**	**9.62**	**46**			**Pn**	**21 16 36.2**	**-0.4**
SCM	**Sheep Creek Mo**	**9.80**	**37**			**Pn**	**21 16 39.4**	**+0.2**
KLU	**Klutina**	**10.09**	**41**			**Pn**	**21 16 43.0**	**-0.2**
H17K	**Granite Mounta**	**10.44**	**360**			**Pn**	**21 16 48.7**	**+0.8**
DHY	**Denali Highway**	**10.67**	**32**			**Pn**	**21 16 50.7**	**-0.4**
GLB	**Gilahina Butte**	**10.89**	**44**			**Pn**	**21 16 54.7**	**+0.6**
HARP	**HAARP**	**10.94**	**38**			**Pn**	**21 16 55.4**	**+0.6**
TGL	**Tana Glacier**	**10.97**	**49**			**Pn**	**21 16 55.4**	**+0.2**
IMAR	**Indian Mountai**	**11.86**	**12**			**Pn**	**21 17 08.3**	**+1.1**
IL31		**12.12**	**27**			**Pn**	**21 17 08.9**	**-1.8**
ILAR	**Eielson Array**	**12.12**	**27**	Pn		**Pn**	**21 17 07.4**	**-3.3**
	comp=E,0.1nm,0.3s,baz=217,slow=13,SNR=7.9 comp=E,0.6nm,0.7s							
ILAR					AML	AML		
ILAR	**Eielson Array**	**12.12**	**27**			**Pn**	**21 17 09.0**	**-1.7**
PNL	**Peninsula**	**12.16**	**57**	P		**Pn**	**21 17 11.9**	**+0.5**
S31K	**Pelican**	**13.47**	**66**			**Pn**	**21 17 29.2**	**0.0**
SIT	**Sitka**	**13.92**	**70**	P		**Pn**	**21 17 34.4**	**-1.0**
DAWY	**Dawson**	**14.04**	**39**			**Pn**	**21 17 36.7**	**-0.2**
SKAG	**Skagway**	**14.13**	**60**	P		**Pn**	**21 17 39.5**	**+1.3**
SKAG	**Skagway**	**14.13**	**60**			**Pn**	**21 17 39.8**	**+1.6**
JIS	**Juneau Island**	**14.47**	**65**	P		**Pn**	**21 17 44.1**	**+1.2**
WHY	**Whitehorse**	**14.60**	**55**			**Pn**	**21 17 45.7**	**+1.0**
P32M	**Atlin**	**14.96**	**60**	Pn		**Pn**	**21 17 51.8**	**+2.3**
G27K	**Doyon Strip**	**15.07**	**28**	Pn		**Pn**	**21 17 51.5**	**+0.5**
I29M	**Ogilvie Camp,**	**15.16**	**36**			**P**	**21 17 55.2**	**-1.7**
I29M					IAmb	IAmb	21 18 11.1	
	comp=E,22nm,0.8s							
M31M	**Drury Creek, Y**	**15.26**	**50**			**Pn**	**21 17 55.2**	**+1.8**
M31M					IAmb	IAmb	21 18 09.2	
	comp=E,14nm,0.8s							
J30M	**Hart River**	**15.44**	**40**			**Pn**	**21 17 56.7**	**+0.8**
J30M					IAmb	IAmb	21 18 26.6	
	comp=E,12nm,0.7s							
P33M	**Teslin, Yukon**	**15.51**	**58**			**P**	**21 17 59.8**	**-1.1**
P33M					IAmb	IAmb	21 18 12.8	
	comp=E,18nm,0.8s							
H29M	**Whitestone**	**15.65**	**33**	P		**P**	**21 18 00.8**	**-1.6**
H29M					IAmb	IAmb	21 18 25.4	
	comp=E,42nm,1.3s							
I30M	**Mount Dempster**	**15.76**	**38**	IAmb		IAmb	21 18 24.7	
	comp=E,29nm,0.8s							
S34M	**Telegraph Cree**	**16.19**	**66**	IAmb		IAmb	21 18 21.4	
	comp=E,18nm,0.9s							
G29M	**Pine Creek**	**16.20**	**31**	IAmb		IAmb	21 18 20.1	
	comp=E,33nm,1.4s							
DLBC	**Dease Lake**	**16.78**	**64**	Pn		**P**	**21 18 15.2**	**+0.3**
	comp=E,0.6nm,0.3s,baz=270,slow=12,SNR=4.6							
H31M	**Peel River**	**16.78**	**38**	IAmb		IAmb	21 18 28.3	
	comp=E,38nm,1.1s							
G30M	**tAoh Zrail Nji**	**16.80**	**33**	IAmb		IAmb	21 18 25.4	
	comp=E,30nm,1.1s							
WTLY	**Watson Lake, Y**	**17.49**	**59**	IAmb		IAmb	21 18 25.3	
	comp=E,33nm,1.0s							
INK	**Inuvik**	**18.42**	**31**	P		**P**	**21 18 33.0**	**+0.2**
	comp=E,0.3nm,0.3s,baz=228,slow=13,SNR=24 comp=E,5.3nm,0.7s							
INK					AML	AML		
WRGLY	**Wrigley**	**20.39**	**50**	P		**P**	**21 18 55.4**	**+1.0**
BILL	**Bilibino**	**20.84**	**324**	P		**P**	**21 18 58.7**	**-0.5**
C36M	**Paulatuk**	**21.91**	**34**			**P**	**21 19 10.8**	**+0.1**
C36M					IAmb	IAmb	21 19 20.9	
	comp=E,12nm,0.7s							
YKA	**Yellowknife Ar**	**24.40**	**53**	P		**P**	**21 19 35.9**	**+0.2**
	comp=E,1.0nm,0.8s,baz=267,slow=6.5,SNR=8.9 comp=E,1.0nm,0.8s							
YKA	**Yellowknife Ar**	**24.40**	**53**	P		**P**	**21 19 34.4**	**-1.3**
PETK	**Petropavlovsk-**	**24.91**	**284**	P		**P**	**21 19 40.5**	**0.0**
	comp=E,3.8nm,0.6s,baz=83,slow=13,SNR=14							
PETK					LR	LR	21 29 20.9	
	comp=E,30nm,19.7s,baz=90,slow=37 comp=E,3.8nm,0.6s							
PETK	**Petropavlovsk-**	**24.91**	**284**	P		**P**	**21 19 39.6**	**-0.8**
MA2	**Magadan**	**26.88**	**301**	LR		LR	21 30 53.7	
	comp=E,61nm,18.5s,baz=110,slow=37							
YBH	**Yreka Blue Hor**	**27.46**	**102**	LR		LR	21 28 17.3	
	comp=E,143nm,18.6s,baz=342,slow=30							
NVAR	**Mina Array Bea**	**32.18**	**103**	P		**P**	**21 20 49.2**	**+3.5**
	comp=E,2.0nm,0.4s,baz=298,slow=8.2,SNR=7.2 comp=E,2.0nm,0.4s							
NVAR	**Mina Array Bea**	**32.18**	**103**	P		**P**	**21 20 46.3**	**+0.6**
YHH	**Holmes Hill**	**32.48**	**87**	P		**P**	**21 20 50.1**	**+1.8**
YHH					IAmb	IAmb	21 20 59.2	
	comp=E,5.5nm,0.7s							
TIXI	**Tiksi**	**33.95**	**327**	LR		LR	21 34 26.8	
	comp=E,51nm,20.1s,baz=186,slow=36							
TIXI	**Tiksi**	**33.95**	**327**			**P**	**21 20 59.2**	**-1.3**
TIXI					IAmb	IAmb	21 20 59.7	
	comp=E,4.1nm,1.1s							
PD31	**Pinedale Array**	**34.43**	**89**			**P**	**21 21 07.4**	**+2.1**
PD31					IAmb	IAmb	21 21 41.4	
	comp=E,4.8nm,1.2s							
PDAR	**Pinedale Array**	**34.43**	**89**	P		**P**	**21 21 07.1**	**+1.8**
	comp=E,0.7nm,0.6s,baz=315,slow=4.4,SNR=11 comp=E,0.7nm,0.6s							
PDAR	**Pinedale Array**	**34.43**	**89**	P		**P**	**21 21 05.7**	**+0.4**
YAK	**Yakutsk**	**36.12**	**311**	LR		LR	21 37 33.3	
	comp=E,124nm,19.2s,baz=68,slow=39							
O20A	**White River Ci**	**36.86**	**91**	P		**P**	**21 21 27.4**	**+1.3**
ULM	**Lac du Bonnet**	**38.00**	**69**	LR		LR	21 36 58.5	
	comp=E,81nm,18.5s,baz=178,slow=36							
H11N2	**WAKE ISLAND Hy**	**43.02**	**229**	T		T	22 08 15.8	
	baz=28,slow=76,SNR=91							
H11N3	**WAKE ISLAND Hy**	**43.03**	**229**	T		T	22 08 16.3	
	baz=28,slow=76,SNR=81							
H11N1	**WAKE ISLAND Hy**	**43.04**	**229**	T		T	22 08 30.7	
	baz=28,slow=76,SNR=38							
FRB	**Frobisher Bay**	**43.74**	**40**	LR		LR	21 41 04.6	
	comp=E,122nm,20.1s,baz=290,slow=37							
H11S1	**WAKE ISLAND Hy**	**44.18**	**229**	T		T	22 09 50.9	
	baz=28,slow=76,SNR=47							
H11S2	**WAKE ISLAND Hy**	**44.20**	**229**	T		T	22 09 54.7	
	baz=28,slow=76,SNR=46							
H11S3	**WAKE ISLAND Hy**	**44.20**	**229**	T		T	22 09 54.8	
	baz=28,slow=76,SNR=30							
MJAR	**Matsushiro Arr**	**45.46**	**273**	P		**P**	**21 22 35.8**	**-0.7**
	comp=E,2.0nm,0.5s,baz=38,slow=8.0,SNR=4.2							
MJAR					LR	LR	21 42 54.4	
	comp=Z,27nm,19.2s,baz=50,slow=38 comp=E,2.8nm,0.5s							
MJAR	**Matsushiro Arr**	**45.46**	**273**	P		**P**	**21 22 37.5**	**+0.9**
MJAR					IAmb	IAmb	21 23 11.0	
	comp=Z,4.2nm,1.4s							
TXAR	**Lajitas Array**	**47.13**	**99**	P		**P**	**21 22 51.7**	**+1.9**
	comp=E,0.6nm,0.8s,baz=296,slow=4.8,SNR=7.4 comp=E,0.6nm,0.8s							
TXAR	**Lajitas Array**	**47.13**	**99**	P		**P**	**21 22 49.5**	**-0.3**
NRIK	**Noril'sk**	**47.18**	**333**	LR		LR	21 45 56.7	
	comp=E,62nm,18.9s,baz=60,slow=40							
KSRS	**Korea Array**	**50.77**	**282**	P		**P**	**21 23 17.8**	**+0.4**
	comp=E,0.8nm,0.5s,baz=54,slow=6.0,SNR=7.5							
KSRS					LR	LR	21 46 54.9	
	comp=E,10nm,18.0s,baz=240,slow=39 comp=E,0.8nm,0.5s							
KSAR	**Wonju Array Be**	**50.80**	**282**	P		**P**	**21 23 18.1**	**+0.4**
WVT	**Waverly**	**51.41**	**80**	P		**P**	**21 23 24.2**	**+1.9**
TLY	**Talaya**	**53.57**	**310**	LR		LR	21 45 56.4	
	comp=Z,54nm,18.3s,baz=37,slow=36							
SONM	**Songino Array**	**54.99**	**305**	P		**P**	**21 23 47.7**	**-1.0**
	comp=Z,2.2nm,0.9s,baz=56,slow=8.3,SNR=8.9 comp=Z,2.2nm,0.9s							
SONM	**Songino Array**	**54.99**	**305**	P		**P**	**21 23 48.8**	**+0.1**
SONM					IAmb	IAmb	21 23 49.4	
	comp=Z,2.8nm,1.0s							
BORG	**Borgarnes**	**56.83**	**20**	LR		LR	21 53 52.6	
	comp=E,35nm,18.4s,baz=326,slow=42							
ZALV	**Zalesovo Beam**	**59.52**	**322**	P		**P**	**21 24 19.7**	**-0.7**
	comp=Z,0.4nm,0.3s,baz=47,slow=6.5,SNR=4.1							
ZALV					LR	LR	21 50 34.9	
	comp=Z,66nm,19.9s,baz=66,slow=37 comp=Z,0.4nm,0.3s							
ZALV	**Zalesovo Beam**	**59.52**	**322**	P		**P**	**21 24 19.3**	**-1.1**
FINES	**FINESS Array B**	**64.28**	**357**	P		**P**	**21 24 51.0**	**-1.2**
	comp=Z,4.0nm,1.0s,baz=15,slow=7.9,SNR=6.1 comp=Z,4.0nm,1.0s							
FINES	**FINESS Array B**	**64.28**	**357**	P		**P**	**21 24 51.7**	**-0.5**
KURK	**Kurchatov**	**64.36**	**323**	P		**P**	**21 24 52.6**	**-0.3**
KURK					IAmb	IAmb	21 25 37.0	
	comp=Z,3.3nm,0.8s							
GTA2	**Gaotai**	**64.40**	**302**	*e*P		**P**	**21 24 53.3**	**-0.3**
GTA2					pmax	pmax		
	comp=Z,4.0nm,1.3s							
GTA2					LR	LR		
	comp=N,180nm,13.6s							
GTA2					LR	LR		
	comp=E,100nm,14.3s							
GTA2					LR	LR		
	comp=Z,150nm,15.6s							
KURBB	**Kurchatov Arra**	**64.47**	**323**	P		**P**	**21 24 53.1**	**-0.6**
	comp=Z,0.9nm,0.3s,baz=24,slow=6.5,SNR=4.0 comp=Z,0.9nm,0.3s							
BVAR	**Borovoye Array**	**65.06**	**329**	P		**P**	**21 24 55.8**	**-1.7**
	comp=Z,1.3nm,0.6s,baz=22,slow=10.0,SNR=4.7 comp=Z,1.3nm,0.6s							
ARTI	**Arti**	**65.16**	**338**	P		**P**	**21 24 56.6**	**-1.4**
	comp=Z,1.7nm,0.4s,baz=54,slow=3.3,SNR=4.6 comp=Z,1.7nm,0.4s							
ARTI	**Arti**	**65.16**	**338**	P		**P**	**21 24 57.2**	**-0.9**
HFS	**Hagfors**	**65.57**	**4**	P		**P**	**21 25 00.1**	**-0.5**
	comp=Z,4.5nm,1.0s,baz=87,slow=7.4,SNR=2.4 comp=Z,4.5nm,1.0s							
MKAR	**Makanchi Array**	**66.28**	**319**	LR		LR	21 54 28.4	
	comp=Z,59nm,18.6s,baz=356,slow=36							
MKAR	**Makanchi Array**	**66.28**	**319**	P		**P**	**21 25 07.0**	**+1.5**
AKTO	**Aktyubinsk**	**70.74**	**336**	P		**P**	**21 25 32.3**	**-1.0**
	comp=Z,3.1nm,0.8s,baz=52,slow=4.7,SNR=9.0 comp=Z,3.1nm,0.8s							
AB31	**Akbulak array**	**71.35**	**334**	P		**P**	**21 25 36.8**	**-0.2**
AB31					IAmb	IAmb	21 25 37.9	
	comp=Z,3.2nm,0.9s							
ABKAR	**Akbulak array**	**71.35**	**334**	P		**P**	**21 25 36.8**	**-0.1**
AAK	**Ala-Archa**	**72.74**	**321**	LR		LR	22 00 29.0	
	comp=Z,78nm,18.0s,baz=16,slow=38							
CLL	**Collm**	**74.36**	**5**	*e*P		**P**	**21 25 55.0**	**+0.3**
AKASG	**Malin Array Be**	**74.88**	**354**	P		**P**	**21 25 56.9**	**-0.9**
	comp=Z,0.5nm,0.4s,baz=9.1,slow=5.9,SNR=5.1 comp=Z,0.5nm,0.4s							
KSH2	**Kashi**	**75.37**	**319**	P		**P**	**21 26 01.0**	**0.0**
KSH2					pmax	pmax		
	comp=Z,5.0nm,1.1s							
LANS	**Liptovska Anna**	**76.69**	**1**	*e*P		**P**	**21 26 09.3**	**+1.1**
GERES	**GERESS Array B**	**76.85**	**4**	P		**P**	**21 26 09.7**	**+0.5**
	comp=Z,0.5nm,0.6s,baz=317,slow=5.7,SNR=3.5 comp=Z,0.5nm,0.6s							
GERES	**GERESS Array B**	**76.85**	**4**	P		**P**	**21 26 08.7**	**-0.5**
KOLS	**Kolonicke sedl**	**76.90**	**359**	*e*P		**P**	**21 26 10.4**	**+1.0**
VYHS	**Vyhne**	**77.34**	**1**	*e*P		**P**	**21 26 11.5**	**-0.4**
ZST	**Bratislava**	**77.61**	**2**	*e*P		**P**	**21 26 13.1**	**-0.2**
CMAR	**Chiang Mai Arr**	**81.56**	**290**	P		**P**	**21 26 35.1**	**-0.1**
	comp=Z,0.8nm,0.6s,baz=14,slow=4.7,SNR=8.4							
CMAR					LR	LR	22 04 54.3	
	comp=Z,7.4nm,18.4s,baz=190,slow=37 comp=Z,0.8nm,0.6s							
CMAR	**Chiang Mai Arr**	**81.56**	**290**	P		**P**	**21 26 34.6**	**-0.6**
GNI	**Garni**	**83.39**	**341**	LR		LR	22 08 27.9	
	comp=Z,18nm,18.2s,baz=7.5,slow=39							
ESDC	**Sonseca Array**	**83.89**	**19**	P		**P**	**21 26 47.6**	**+0.5**
	comp=Z,1.0nm,0.8s,baz=341,slow=4.8,SNR=5.6 comp=Z,1.0nm,0.8s							
BRTR	**Keskin Array B**	**85.42**	**350**	P		**P**	**21 26 54.1**	**-0.9**

DDIM					IAML		21 18 12.0	
	comp=N,364nm,0.5s							
DDIM					IAML		21 18 12.0	
	comp=E,347nm,0.4s							
ZEYE	**Izmir, Urla-Ze**	**0.55**	**323**	P	**Pg**	**21 18 06.5**	**-0.2**	
ZEYE				S	**Sg**	**21 18 13.8**	**-0.1**	
BLCB	**Balcova**	**0.59**	**9**	P	**Pg**	**21 18 07.8**	**+0.2**	
BLCB				S	**Sb**	**21 18 16.9**	**+0.1**	
BLCB	**Balcova**	**0.59**	**9**	Pg	**Pg**	**21 18 07.5**	**0.0**	
BLCB				AML	AML			
DUVT	**Torbali**	**0.59**	**45**	P	**Pg**	**21 18 07.6**	**+0.1**	
DUVT				S	**Sg**	**21 18 14.9**	**-0.4**	
DUVT				IAML		21 18 21.0		
	comp=E,397nm,0.5s							
CESE	**eme**	**0.72**	**317**	Pg	**Pg**	**21 18 09.8**	**-0.2**	
CESE				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.73**	**157**	Pg	**Pb**	**21 18 10.9**	**+0.1**	
YKAV				AML	AML			
AYDN	**Tasoluk**	**0.77**	**100**	P	**Pg**	**21 18 11.0**	**0.0**	
AYDN				S	**Sg**	**21 18 20.9**	**-0.2**	
AYDN				IAML		21 18 27.0		
	comp=N,149nm,0.3s							
AYDB	**Zeytinkoy-Aydi**	**0.78**	**79**	Pg	**Pb**	**21 18 11.6**	**-0.1**	
AYDB				AML	AML			
BODT	**Bodrum**	**0.80**	**157**	P	**Pg**	**21 18 11.4**	**-0.1**	
BODT				S	**Sg**	**21 18 22.5**	**+0.6**	
BODT				AML	AML			
BODT	**Bodrum**	**0.80**	**157**	Pg	**Pg**	**21 18 11.8**	**+0.3**	
BODT				Sg	**Sb**	**21 18 24.1**	**+1.3**	
BODT				AML	AML			
KRBN	**Karaburun**	**0.84**	**340**	Pg	**Pg**	**21 18 12.1**	**-0.2**	
KRBN				AML	AML			
KLNA	**Kalymnos**	**0.84**	**177**	P	**Pg**	**21 18 11.7**	**-0.6**	
BDRM	**Kayabasi**	**0.84**	**150**	P	**Pg**	**21 18 11.8**	**-0.5**	
BDRM				S	**Sg**	**21 18 23.1**	**-0.3**	
BDRM				IAML		21 18 28.0		
	comp=E,160nm,0.3s							
BDRM				IAML		21 18 29.0		
	comp=N,147nm,0.7s							
MLSB	**Milas**	**0.85**	**126**	Pg	**Pg**	**21 18 12.6**	**+0.2**	
MLSB				AML	AML			
BAGT	**Foa**	**0.85**	**356**	P	**Pb**	**21 18 12.8**	**0.0**	
BAGT				S	**Sb**	**21 18 24.3**	**0.0**	
BAGT				IAML		21 18 35.0		
	comp=E,130nm,1.0s							
BODA	**Bodrum-Mula**	**0.87**	**152**	Pg	**Pb**	**21 18 13.4**	**+0.4**	
IZMR	**zmir-demi**	**0.88**	**67**	P	**Pg**	**21 18 12.6**	**-0.4**	
IZMR				S	**Sg**	**21 18 23.0**	**-1.6**	
CHOS	**Chios island**	**0.90**	**311**	P	**Pg**	**21 18 13.0**	**-0.3**	
CHOS				S	**Sb**	**21 18 26.3**	**+0.7**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.90**	**311**	Pg	**Pg**	**21 18 13.4**	**0.0**	
CHOS				Sg	**Sn**	**21 18 26.8**	**-0.9**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.90**	**311**	P	**Pg**	**21 18 13.1**	**-0.2**	
CHOS				S	**Sb**	**21 18 26.6**	**+1.0**	
CHOS				AML	AML			
FOCM	**Foa**	**0.92**	**351**	Pg	**Pb**	**21 18 14.1**	**+0.1**	
FOCM				AML	AML			
KARB	**zmir-Karabur**	**0.95**	**335**	P	**Pg**	**21 18 13.9**	**-0.4**	
KARB				S	**Sb**	**21 18 27.2**	**+0.2**	
KARB				IAML		21 18 30.0		
	comp=E,172nm,0.5s							
KARB				IAML		21 18 31.0		
	comp=N,122nm,0.3s							
EAG2	**Marmaro, Chios**	**0.98**	**319**	P	**Pn**	**21 18 16.1**	**+0.4**	
CAMT	**Merkez**	**0.99**	**18**	P	**Pb**	**21 18 15.4**	**+0.1**	
CAMT				S	**Sb**	**21 18 28.6**	**+0.3**	
CAMT				IAML		21 18 32.0		
	comp=E,162nm,0.4s							
CAMT				IAML		21 18 33.0		
	comp=N,180nm,0.7s							
NAZL	**Nazilli-Aydin**	**1.10**	**81**	Pn	**Pg**	**21 18 17.1**	**0.0**	
NAZL				AML	AML			
ESEN	**Aydn-Nazilli**	**1.13**	**90**	P	**Pb**	**21 18 17.5**	**-0.1**	
ESEN				S	**Sn**	**21 18 33.5**	**+0.2**	
ZEDA	**zmir-Bergama**	**1.17**	**6**	P	**Pb**	**21 18 18.2**	**-0.1**	
ZEDA				S	**Sb**	**21 18 33.0**	**-0.4**	
DAT	**Datca**	**1.19**	**154**	S	**Sb**	**21 18 34.2**	**0.0**	
DAT				AML	AML			
DAT	**Datca**	**1.19**	**154**	P	**Pn**	**21 18 18.9**	**+0.2**	
DAT				S	**Sb**	**21 18 33.6**	**-0.5**	
YAZI	**Mula-Dat§a-**	**1.20**	**159**	P	**Pb**	**21 18 18.4**	**-0.2**	
YAZI				S	**Sb**	**21 18 33.9**	**-0.2**	
GOMA	**Golmarmara-Man**	**1.20**	**41**	Pn	**Pg**	**21 18 19.2**	**+0.2**	
GOMA				AML	AML			
KIRA	**zmir-Kiraz**	**1.23**	**71**	P	**Pn**	**21 18 19.0**	**-0.3**	
MULA	**Mugla, Merkez-**	**1.24**	**116**	P	**Pn**	**21 18 19.4**	**+0.1**	
DKL	**Dikili**	**1.27**	**359**	Pn	**Pg**	**21 18 20.2**	**-0.2**	
DKL				AML	AML			
DKL	**Dikili**	**1.27**	**359**	P	**Pn**	**21 18 19.8**	**+0.1**	
YER	**Yerkesik**	**1.27**	**121**	P	**Pb**	**21 18 20.2**	**+0.2**	
YER				S	**Sg**	**21 18 37.1**	**+0.1**	
YER				AML	AML			
KTTT	**Salihli**	**1.28**	**46**	P	**Pg**	**21 18 20.8**	**+0.2**	
KTTT				S	**Sb**	**21 18 34.9**	**-1.7**	
AKHS	**Akhisar**	**1.28**	**33**	P	**Pg**	**21 18 20.9**	**+0.2**	
AKHS				IAML		21 18 40.0		
	comp=N,105nm,0.4s							
AKS	**Akhisar**	**1.28**	**33**	Pn	**Pg**	**21 18 20.9**	**+0.2**	
AKS				AML	AML			
APE	**Apeiranthos**	**1.33**	**237**	P	**Pn**	**21 18 19.6**	**-0.9**	
APE				S	**Sb**	**21 18 38.1**	**+0.2**	
APE				AML	AML			
APE	**Apeiranthos**	**1.33**	**237**	P	**Pn**	**21 18 19.4**	**-1.0**	
APE				AML	AML			
SOMA	**Soma-Manisa**	**1.44**	**19**	Pn	**Pb**	**21 18 22.9**	**+0.1**	
SOMA				AML	AML			
MANT	**Manisa**	**1.46**	**61**	P	**Pg**	**21 18 23.8**	**-0.3**	
GORD	**Gordes-Manisa**	**1.48**	**41**	Pn	**Pb**	**21 18 23.8**	**+0.2**	
GORD				AML	AML			
AYVA	**Ayvalik**	**1.52**	**353**	P	**Pb**	**21 18 24.5**	**+0.3**	
AYVA				IAML		21 18 51.0		
	comp=N,53nm,0.4s							
PRK	**Paraskevi**	**1.53**	**341**	P	**Pn**	**21 18 23.5**	**+0.3**	
PRK				S	**Sb**	**21 18 43.6**	**-0.1**	
PRK	**Paraskevi**	**1.53**	**341**	P	**Pn**	**21 18 23.6**	**+0.3**	
PRK				AML	AML			
STEP	**BALIKESIR_Sava**	**1.69**	**21**	P	**Pg**	**21 18 28.3**	**-0.2**	
STEP				IAML		21 18 58.0		
	comp=E,60nm,0.4s							
STEP				IAML		21 19 03.0		
	comp=N,55nm,0.6s							
BUHA	**Balikesir, Bur**	**1.70**	**4**	P	**Pn**	**21 18 26.2**	**+0.5**	
BUHA				IAML		21 18 55.0		
	comp=E,70nm,0.5s							
BUHA				IAML		21 18 56.0		
	comp=N,44nm,0.4s							
ARG	**Arkhangelos**	**1.85**	**148**	P	**Pn**	**21 18 28.3**	**+0.6**	
ARG				AML	AML			
KARY	**Karystos**	**1.98**	**277**	P	**Pn**	**21 18 30.5**	**+1.1**	
KARY				AML	AML			
DION	**Dionisos Attik**	**2.38**	**278**	P	**Pn**	**21 18 35.6**	**+0.6**	
DION				AML	AML			

*NNC **15** 21:21:52.4±1.1,44˚.14N×82˚.01E,h0km,mb3.5,mpv3.2, Error ellipse: s-maj=10.7km s-min=5.6km az=139.0*
*SOME **15** 21:21:52.7,44˚.15N×82˚.03E,h20km*
ISC 15 21:21:51.8±3.1,**44˚02N**±0˚.08×**82˚30E**±0˚.08,**h0**km±24km, **n31**,σ2**s40**/48,**2D**,**Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DJR	**Jarkent**	**1.83**	**281**	P	**Pn**	**21 22 23.0**	**-1.6**
	12nm,0.2s						
DJR				S	**Sn**	**21 22 45.5**	**-3.0**
	78nm,0.3s						
DJR	**Jarkent**	**1.83**	**281**	*e*P	**Pn**	**21 22 22.9**	**-1.6**
	12nm,0.2s						
DJR				*e*S	**Sn**	**21 22 45.2**	**-3.2**
	78nm,0.3s						
SHLS	**Shalkode**	**2.23**	**248**	P	**Pn**	**21 22 25.7**	**-4.5**
	22nm,0.2s						
SHLS				S	**Sn**	**21 22 50.1**	**-8.4**
	122nm,0.2s						
KAPS	**Kapalarasan**	**2.45**	**302**	Pg	**Pn**	**21 22 31.9**	**-1.1**
	10nm,0.3s						
KAPS				Lg	Lg	21 23 00.7	
	110nm,0.2s						
KAPS	**Kapalarasan**	**2.45**	**302**	*e*P	**Pn**	**21 22 31.9**	**-1.1**
	10nm,0.3s						
KAPS				*e*S	**Sn**	**21 23 00.7**	**-3.0**
	110nm,0.2s						
UZB	**Uzynbulak**	**2.54**	**251**	Pg	**Pn**	**21 22 35.6**	**+1.3**
	4.3nm,0.2s						
UZB				Lg	Lg	21 23 06.7	
	15nm,0.2s						
UZB	**Uzynbulak**	**2.54**	**251**	*e*P	**Pn**	**21 22 35.6**	**+1.3**
	4.3nm,0.2s						
UZB				*e*S	**Sn**	**21 23 06.7**	**+0.7**
	15nm,0.2s						
KPKS	**Kokpek**	**2.68**	**259**	Pg	**Pn**	**21 22 36.9**	**+0.7**
	0.7nm,0.3s						
KPKS				Lg	Lg	21 23 08.7	
	18nm,0.4s						
KPKS	**Kokpek**	**2.68**	**259**	*e*P	**Pn**	**21 22 37.0**	**+0.7**
	0.7nm,0.3s						
KPKS				*e*S	**Sn**	**21 23 08.7**	**-0.7**
	18nm,0.4s						
BLB	**Baldybastay**	**2.75**	**273**	Pg	**Pn**	**21 22 38.9**	**+1.6**
	8.0nm,0.2s						
BLB				Lg	Lg	21 23 12.6	
	50nm,0.3s						
MK31	**Makanchi Array**	**2.77**	**360**	⇓Pn	**Pn**	**21 22 35.5**	**-1.9**
	0.4nm,0.3s,baz=186,slow=13,SNR=109						
MK31				⇓Pg	**Pb**	**21 22 41.9**	**-0.3**
	0.8nm,0.2s,baz=173,slow=14,SNR=23						
MK31				Lg	Lg	21 23 15.7	
	7.2nm,0.4s,baz=184,slow=32,SNR=16						
SATY	**Saty**	**2.99**	**253**	Pg	**Pb**	**21 22 43.9**	**-2.1**
	2.7nm,0.2s						
SATY				Lg	Lg	21 23 21.2	
	45nm,0.2s						
SATY	**Saty**	**2.99**	**253**	*e*P	**Pb**	**21 22 43.9**	**-2.1**
	2.7nm,0.2s						
SATY				*e*S	**Sn**	**21 23 21.1**	**+4.0**
	45nm,0.2s						
KURS	**Kuram**	**3.04**	**261**	Pg	**Pb**	**21 22 45.2**	**-1.5**
	2.5nm,0.5s						
KURS				Lg	Lg	21 23 23.2	
	9.3nm,0.5s						
KURS	**Kuram**	**3.04**	**261**	*e*P	**Pb**	**21 22 45.2**	**-1.5**
	2.5nm,0.5s						
KURS				*e*S	**Sn**	**21 23 23.1**	**+4.9**
	9.3nm,0.5s						
ARXS	**Arharly**	**3.23**	**275**	Pg	**Pn**	**21 22 47.1**	**+3.4**
	6.9nm,0.3s						
ARXS				Lg	Lg	21 23 26.2	
	22nm,0.3s						
ARXS	**Arharly**	**3.23**	**275**	*e*P	**Pn**	**21 22 47.1**	**+3.4**
	6.9nm,0.3s						
ARXS				*e*S	**Sn**	**21 23 26.2**	**+3.4**
	22nm,0.3s						
KOTS	**Kotyrbulak**	**3.85**	**260**	Pg	**Pb**	**21 23 00.7**	**+0.1**
	11nm,0.6s						
KOTS				Lg	Lg	21 23 49.5	
	43nm,0.6s						
KOTS	**Kotyrbulak**	**3.85**	**260**	*e*P	**Pb**	**21 23 00.7**	**+0.1**
	11nm,0.6s						
KOTS				*e*S	**Sb**	**21 23 49.5**	**+1.7**
	43nm,0.6s						
ZSN	**Zaisan**	**3.87**	**27**	Pg	**Pb**	**21 23 01.1**	**+0.2**
	5.2nm,0.5s						
ZSN				Lg	Lg	21 23 50.5	
	17nm,0.5s						
ZSN	**Zaisan**	**3.87**	**27**	*e*P	**Pb**	**21 23 01.1**	**+0.2**
	5.2nm,0.5s						
ZSN				*e*S	**Sb**	**21 23 50.5**	**+2.3**
	17nm,0.5s						
MDOK	**Medeo**	**3.91**	**259**	Pg	**Pb**	**21 23 01.7**	**0.0**
	7.9nm,0.6s						
MDOK				Lg	Lg	21 23 51.1	
	27nm,0.6s						
MDOK	**Medeo**	**3.91**	**259**	*e*P	**Pb**	**21 23 01.7**	**0.0**
	7.9nm,0.6s						
MDOK				*e*S	**Sb**	**21 23 51.1**	**+1.6**
	27nm,0.6s						
TNSS	**Tian-Shan**	**4.01**	**258**	Pg	**Pb**	**21 23 02.7**	**-0.9**
	0.6nm,0.1s						
TNSS				Lg	Lg	21 23 52.9	
	3.2nm,0.6s						
TNSS	**Tian-Shan**	**4.01**	**258**	*e*P	**Pb**	**21 23 02.7**	**-0.9**
	0.6nm,0.1s						
TNSS				*e*S	**Sb**	**21 23 52.9**	**+0.1**
	3.2nm,0.6s						
KST	**Kastek**	**4.71**	**260**	Pg	**Pb**	**21 23 15.9**	**+0.6**
	1.0nm,0.6s						
KST				Lg	Lg	21 24 15.7	
	10nm,0.5s						
KST	**Kastek**	**4.71**	**260**	*e*P	**Pb**	**21 23 15.9**	**+0.6**
	1.0nm,0.6s						
KST				*e*S	**Sb**	**21 24 15.7**	**+3.1**
	10nm,0.5s						
KRBS	**Karabastau**	**4.80**	**268**	Pg	**Pb**	**21 23 16.1**	**-0.7**
	1.0nm,0.4s						
KRBS				Lg	Lg	21 24 16.1	
	5.5nm,0.4s						
KRBS	**Karabastau**	**4.80**	**268**	*e*P	**Pb**	**21 23 16.1**	**-0.7**
	1.0nm,0.4s						
KRBS				*e*S	**Sb**	**21 24 16.1**	**+1.0**
	5.5nm,0.4s						
DGS	**Degeres**	**4.80**	**263**	Pg	**Pb**	**21 23 16.0**	**-0.9**
	1.6nm,0.4s						
DGS				Lg	Lg	21 24 15.7	
	16nm,0.5s						
DGS	**Degeres**	**4.80**	**263**	*e*P	**Pb**	**21 23 16.0**	**-0.9**
	1.6nm,0.4s						
DGS				*e*S	**Sb**	**21 24 15.7**	**+0.5**
	16nm,0.5s						

*BUT **15** 21:36:43.6±0.9,44˚.34N±0˚.03×115˚.01W±0˚.05,h8km±3km, Error ellipse: s-maj=6.2km s-min=2.9km az=53.0*
NEIC 15 21:36:42.2±1.1,**44˚30N**±0˚.02×**115˚02W**±0˚.02,**h10**km±2km, **ML3.1**/84,**ML3.5**/22(BUT),**Error ellipse: s-maj=3.9km s-min=3.1km az=332.0**,**Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.86**	**149**	Pg	Pg	21 36 58.8	+0.1
HLID				Sg	Sg	21 37 10.0	0.0
HLID				IAML		21 37 12.1	
	461nm,0.2s						
PLID	**Pearl Lake**	**1.05**	**319**	Pg	Pg	21 37 02.4	0.0
PLID				Sg	Sg	21 37 15.8	-0.3
PLID				IAML		21 37 20.8	
	496nm,0.3s						
MFID	**Camas Ranch**	**1.06**	**214**		Sn	21 37 18.4	+0.3
MFID	**Camas Ranch**	**1.06**	**214**	Pg	Pg	21 37 02.6	0.0
BCYI	**Bear Canyon**	**1.16**	**89**	Pn	Pn	21 37 05.2	+0.5
ICI	**Italian Canyon**	**1.49**	**88**		Pg	21 37 11.3	+0.5
MCMT	**McKenzie Canyo**	**1.64**	**71**	Pn	Pn	21 37 11.6	+0.4
BMO	**Blue Mountains**	**1.72**	**289**		Pn	21 37 12.6	+0.3
MOMT	**Monida**	**1.90**	**80**		Pb	21 37 17.7	+0.6
DLMT	**Dillon**	**2.02**	**58**		Pb	21 37 18.1	-1.0
DLMT				IAML		21 37 49.8	
	210nm,0.4s						
VCMT	**Victor**	**2.22**	**15**		Pn	21 37 20.5	+1.3
HBMT	**Mount Humbug**	**2.27**	**48**		Pn	21 37 21.4	+1.5
F10A	**Beach Ranch, E**	**2.29**	**318**		Pn	21 37 20.9	+0.8
F10A				IAML		21 37 54.6	
	comp=E,196nm,0.5s						
LRM	**Limekiln Ridge**	**2.37**	**49**		Pn	21 37 22.8	+1.4
BPMT	**Black Pine Rid**	**2.41**	**27**		Pn	21 37 23.0	+1.2
BUT	**Butte**	**2.44**	**45**	Pn	Pn	21 37 24.0	+1.8
BUT				IAML		21 38 00.2	
	comp=E,107nm,0.6s						
BUT				IAML		21 38 03.2	
	comp=N,86nm,0.8s						
QLMT	**Earthquake Lak**	**2.62**	**77**	Pn	Pn	21 37 25.1	+0.3
MSO	**Missoula**	**2.64**	**16**		Pn	21 37 26.0	+1.1
MSO				IAML		21 38 17.2	
	comp=N,62nm,1.3s						
MSO				IAML		21 38 18.5	
	comp=N,113nm,1.0s						
J08A	**Circle Bar Ran**	**2.67**	**250**		Pn	21 37 26.7	+1.3
J08A				IAML		21 38 16.2	
	comp=N,104nm,0.6s						
J08A				IAML		21 38 16.9	
	comp=E,97nm,0.9s						
LCCM	**Lewis and Clar**	**2.70**	**54**		Pn	21 37 27.2	+1.3
BOZ	**Bozeman (W)**	**2.73**	**61**		Pn	21 37 27.6	+1.3
BOZ				IAML		21 38 09.3	
	comp=E,93nm,0.3s						
YHB	**Horse Butte**	**2.77**	**79**	Pn	Pn	21 37 29.1	+2.2
YHB				IAML		21 38 13.5	
	comp=N,63nm,0.7s						
LNOR	**Lincton Mounta**	**2.79**	**305**		Pn	21 37 28.8	+1.8
YHL	**Hebgen Lake**	**2.79**	**77**		Pn	21 37 28.4	+1.1
YHL				IAML		21 38 15.3	
	comp=E,125nm,0.9s						
YHL				IAML		21 38 15.6	
	comp=N,95nm,0.9s						
CHMT	**Chamberlain Mo**	**2.89**	**25**		Pn	21 37 29.6	+1.1
YMR	**Madison River**	**2.92**	**81**		Pn	21 37 31.1	+2.1
NDMT	**Ninemile Divid**	**2.97**	**3**		Pn	21 37 30.6	+1.0
G08A	**Pilot Rock**	**2.97**	**291**		Pn	21 37 30.6	+1.1
PCMT	**Pistol Creek**	**2.99**	**13**		Pn	21 37 31.3	+1.5
YHH	**Holmes Hill**	**3.02**	**79**	IAML		21 38 20.4	
	comp=N,65nm,0.7s						
YHH				IAML		21 38 22.6	
	comp=E,55nm,0.5s						
GBMT	**Granite Butte,**	**3.13**	**34**	IAML		21 38 31.1	
	comp=N,48nm,0.6s						
GBMT				IAML		21 38 31.1	
	comp=E,41nm,0.7s						
SLMT	**Seeley Lake**	**3.13**	**19**		Pn	21 37 32.7	+1.0
FBMT	**Ferry Basin**	**3.13**	**7**		Pn	21 37 32.9	+1.2
YNR	**Norris Junctio**	**3.13**	**81**	IAML		21 38 27.1	
	comp=N,58nm,0.6s						
YNR				IAML		21 38 30.4	
	comp=E,37nm,0.4s						
SNOW	**Snow King Moun**	**3.19**	**104**	IAML		21 38 43.9	
	comp=E,35nm,4.9s						
WVOR	**Wild Horse Val**	**3.23**	**236**	IAML		21 38 27.4	
	comp=E,35nm,1.0s						
I07A	**Izee**	**3.23**	**268**	IAML		21 38 08.1	
	comp=N,32nm,4.7s						
I07A				IAML		21 38 38.5	
	comp=E,33nm,3.9s						
LYMT	**Lyon Mountain**	**3.28**	**35**		Pn	21 37 35.0	+1.1
SWMT	**Swartz Lake**	**3.29**	**12**		Pn	21 37 35.0	+1.2
JTMT	**Jette**	**3.48**	**8**		Pn	21 37 37.9	+1.3
SPUT	**South Promonto**	**3.54**	**147**	IAML		21 38 41.0	
	comp=N,28nm,0.6s						
CRMT	**Chrome Mountai**	**3.65**	**70**		Pn	21 37 43.0	+3.9
HAWA	**Hanford**	**3.81**	**305**	IAML		21 39 29.3	
	comp=N,21nm,4.8s						
HAWA				IAML		21 39 35.2	
	comp=N,22nm,5.0s						
C15A	**Salmond Ranch,**	**3.86**	**25**		Sg	21 38 46.6	+0.6
WAH2	**Wahluke Slope**	**4.03**	**309**	IAML		21 38 56.5	
	comp=E,42nm,0.9s						
WAH2				IAML		21 39 12.0	
	comp=N,43nm,0.7s						
E07A	**Sunnyside**	**4.08**	**305**	IAML		21 38 36.8	
	comp=N,39nm,0.7s						
E07A				IAML		21 38 46.9	
	comp=E,36nm,4.7s						
TCUT	**Toone Canyon**	**4.15**	**139**	IAML		21 38 59.2	
	comp=E,32nm,0.8s						
TCUT				IAML		21 39 02.2	
	comp=N,42nm,0.8s						
LDM	**Libby Dam**	**4.16**	**357**	IAML		21 39 00.6	
	comp=E,40nm,0.6s						
BMN	**Battle Mountai**	**4.20**	**204**	IAML		21 38 55.0	
	comp=E,35nm,0.7s						
NEW	**Newport**	**4.22**	**341**	IAML		21 38 56.5	
	comp=E,28nm,0.5s						
DUG	**Dugway, Tooele**	**4.42**	**158**	IAML		21 39 07.9	
	comp=E,13nm,1.6s						
DUG				IAML		21 39 11.7	
	comp=E,17nm,1.4s						
MOD	**Modoc Plateau**	**4.55**	**240**	IAML		21 38 53.7	
	comp=E,21nm,5.0s						
MOD				IAML		21 38 58.9	
	comp=N,18nm,4.5s						
NLU	**North Lily Min**	**4.87**	**152**	IAML		21 39 44.8	
	comp=N,9.4nm,4.6s						
BSUT	**Blindstream Ca**	**4.91**	**139**	IAML		21 40 08.8	
	comp=E,11nm,4.9s						

*IDC **15** 21:44:10.4±2.2,46˚.88N×93˚.77E,h0km,mbtmp2.9/2, ML2.5/2,Error ellipse: s-maj=31.4km s-min=13.3km az=4.0*
*ASRS **15** 21:44:22.0±0.5,47˚.N±2˚×9˚.4E±˚,h10km,MLh3.9/13,Error ellipse: s-maj=5.2km s-min=3.1km az=170.9,confirmed*
ISC 15 21:44:22.1±2.0,**47˚42N**±0˚.10×**93˚.65E**±0˚.04,**h10**km,**n22**, σ2**s97**/40,**Mongolia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KNGR	**Kungurtug, Tuv**	**4.08**	**37**	Pg	**Pb**	**21 45 33.6**	**-0.5**
KNGR				Sg	**Sg**	**21 46 32.9**	**-0.1**
KNGR				AML	AML		
TEL	**Teeli**	**4.25**	**329**	Pg	**Pn**	**21 45 25.2**	**-1.7**
TEL				Pg	**Pb**	**21 45 38.1**	**+1.1**
TEL				Sg	**Sg**	**21 46 37.6**	**-0.9**
TEL				AML	AML		
KZLR	**Kyzyl**	**4.32**	**7**	Pg	**Pb**	**21 45 40.8**	**+2.7**
KZLR				Sg	**Sg**	**21 46 37.9**	**-2.8**
CUR	**Chagan-Uzun**	**4.41**	**309**	Pn	**Pn**	**21 45 26.3**	**-2.9**
CUR				Pg	**Pb**	**21 45 40.5**	**+0.8**
CUR				Sg	**Sg**	**21 46 39.3**	**-4.3**
CUR				AML	AML		
DGZ	**Jazzator, Alta**	**4.71**	**301**	Pn	**Pn**	**21 45 32.6**	**-0.8**
DGZ				Pg	**Pb**	**21 45 44.7**	**-0.1**
DGZ				Sg	**Sb**	**21 46 47.7**	**+6.0**
DGZ				AML	AML		
ULGR	**Ulagan, Altay**	**4.93**	**313**	Pn	**Pn**	**21 45 36.2**	**+0.1**
ULGR				Pg	**Pb**	**21 45 49.0**	**+0.6**
ULGR				Sg	**Sg**	**21 46 57.8**	**-2.3**
ULGR				AML	AML		
CHBI	**Chibit, Altay**	**4.98**	**308**	Pg	**Pn**	**21 45 35.8**	**-1.1**
CHBI				Pg	**Pb**	**21 45 49.5**	**+0.1**
CHBI				Sg	**Sg**	**21 46 58.4**	**-3.5**
CHBI				AML	AML		
ARDR	**Aradan**	**5.17**	**359**	Pg	**Pb**	**21 45 54.1**	**+1.6**
ARDR				Sg	**Sg**	**21 47 04.6**	**-3.3**
ARDR				AML	AML		
TDJR	**Todzha**	**5.23**	**17**	Pg	**Pb**	**21 45 56.3**	**+2.7**
TDJR				Sg	**Sg**	**21 47 09.2**	**-0.7**
TDJR				AML	AML		
TUNR	**Tungur**	**5.56**	**302**	Pg	**Pb**	**21 46 02.5**	**+3.3**
TUNR				Sg	**Sg**	**21 47 17.0**	**-3.4**
TUNR				AML	AML		
DJO	**Djoy, Khakassi**	**5.59**	**345**	Pg	**Pb**	**21 46 03.0**	**+3.3**
DJO				Sg	**Sg**	**21 47 16.7**	**-4.8**
DJO				AML	AML		
CERR	**Cheremushki**	**5.63**	**346**	Pg	**Pb**	**21 46 03.0**	**+2.7**
CERR				Sg	**Sg**	**21 47 18.5**	**-4.1**
CERR				AML	AML		
ARTR	**Artybash**	**6.03**	**319**	Pg	**Pb**	**21 46 11.2**	**+4.1**
ARTR				Sg	**Sg**	**21 47 32.3**	**-3.0**
ARTR				AML	AML		
VEH	**Verkhnyaya Baz**	**6.22**	**341**	Pg	**Pb**	**21 46 14.1**	**+3.7**
VEH				Sg	**Sg**	**21 47 38.5**	**-2.9**
VEH				AML	AML		
ELDR	**Elanda**	**6.23**	**310**	Pg	**Pb**	**21 46 15.0**	**+4.4**
ELDR				Sg	**Sg**	**21 47 38.8**	**-3.1**
ELDR				AML	AML		
MOY	**Mondy**	**6.40**	**46**

s-min=18.6km az=87.0
*NEIC **15** 21:52:40.0±2.2,31°.41S±0°.06×177°.2W±0°.2, h10km±1km, mb4.4/9, Error ellipse: s-maj=24.3km s-min=10.8km az=87.0*

ISC 15 21:52:42.4±1.1, 31°.41S±0°.07×177°.2W±0°.2, h35km, n23, σ1§27/21, mb4.2/7, MS3.1/3, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
RAO	**Raoul Island**	**2.25**	**343**	Pn		**Pn**	**21 53 16.5**	**-0.6**
	98nm,0.3s,baz=354,slow=22,SNR=6.5							
RAO				Sn		**Sn**	**21 53 44.0**	**+0.4**
	94nm,0.3s,baz=30,slow=20,SNR=4.4							
RAO				LR		LR	21 54 11.6	
	comp=Z,271nm,18.2s,baz=153,slow=40							
	301nm,0.2s							
RAO				AML		AML		
RAO	**Raoul Island**	**2.25**	**343**	Pn		**Pn**	**21 53 17.1**	**0.0**
RAO				Sn		**Sn**	**21 53 42.1**	**-1.5**
URZ	**Urewera**	**8.29**	**213**	Pn		**Pn**	**21 54 38.7**	**-1.5**
	1.8nm,0.3s,baz=259,slow=3.6,SNR=9.4							
URZ				Sn		**Sn**	**21 56 11.6**	**-1.0**
	5.0nm,0.3s,baz=179,slow=13,SNR=10.0							
	3.3nm,0.2s							
URZ				AML		AML		
RTZ	**Ruatahuna**	**8.64**	**212**	Pn		**Pn**	**21 54 44.2**	**-0.8**
THZ	**Tophouse**	**13.04**	**215**	Pn		**Pn**	**21 55 44.6**	**-0.6**
OUENC	**Ouen Island, N**	**16.83**	**298**	Pn		**Pn**	**21 56 35.5**	**+0.2**
DZM	**Mont Dzumac**	**17.33**	**298**	LR		LR	22 02 18.4	
	comp=Z,73nm,20.1s,baz=124,slow=33							
WHZ	**Wether Hill Ro**	**18.51**	**214**	P		**Pn**	**21 56 55.8**	**-0.2**
WHZ				IAmb		IAmb	21 57 09.5	
	comp=Z,62nm,1.4s							
CTA	**Charters Tower**	**34.67**	**280**	LR		LR	22 12 07.0	
	comp=Z,34nm,20.4s,baz=130,slow=34							
STKA	**Stephens Creek**	**34.96**	**258**	LR		LR	22 11 52.6	
	comp=Z,53nm,19.2s,baz=25,slow=33							
PMG	**Port Moresby**	**39.69**	**296**	LR		LR	22 14 54.7	
	comp=Z,30nm,19.8s,baz=229,slow=34							
ASAR	**Alice Springs**	**43.78**	**268**	P		**P**	**22 00 47.4**	**+2.5**
	comp=Z,0.9nm,0.6s,baz=105,slow=7.2,SNR=11							
	comp=Z,0.9nm,0.6s							
ASAR	**Alice Springs**	**43.78**	**268**	P		**P**	**22 00 45.2**	**+0.3**
WR0	**Warramunga Arr**	**44.68**	**273**	P		**P**	**22 00 53.6**	**+1.5**
WR0				IAmb		IAmb	22 01 03.3	
	comp=Z,4.8nm,1.2s							
WR8	**Warramunga Arr**	**44.72**	**273**	P		**P**	**22 00 53.6**	**+1.2**
WR8				IAmb		IAmb	22 01 07.5	
	comp=Z,5.9nm,1.1s							
WRAB	**Tennant Creek**	**44.85**	**273**	P		**P**	**22 00 54.7**	**+1.3**
WRAB				IAmb		IAmb	22 01 20.9	
	comp=Z,4.2nm,1.0s							
WRA	**Warramunga Arr**	**44.86**	**273**	P		**P**	**22 00 55.7**	**+2.2**
	comp=Z,1.8nm,0.6s,baz=112,slow=7.9,SNR=24							
	comp=Z,1.8nm,0.6s							
WRA	**Warramunga Arr**	**44.86**	**273**	P		**P**	**22 00 54.6**	**+1.1**
WB0	**Warramunga Arr**	**44.88**	**273**	P		**P**	**22 00 55.0**	**+1.3**
WB0				IAmb		IAmb	22 01 14.3	
	comp=Z,7.5nm,1.2s							
QSPA	**South Pole Qui**	**58.70**	**180**	P		P	22 02 40.3	+4.0
	comp=Z,2.0nm,0.9s,baz=48,slow=3.0,SNR=4.5							
	comp=Z,2.0nm,0.9s							
QSPA	**South Pole Qui**	**58.70**	**180**	P		**P**	**22 02 38.0**	**+1.6**
U15A	**North Rim**	**90.79**	**47**	P		**P**	**22 05 41.3**	**-0.9**
FINES	**FINESS Array B**	**146.34**	**340**	PKPbc		**PKPab**	**22 12 19.1**	**-0.5**
	comp=Z,5.8nm,0.8s,baz=47,slow=2.9,SNR=18							

*IDC **15** 21:54:51.7±1.4,27°.92S×66°.58W, h144km±15km, mb3.6/4, mbtmp3.9/8, Error ellipse: s-maj=30.1km s-min=12.9km az=113.0*
*SJA **15** 21:54:52.9±1.0,28°.00S×66°.62W, h174km±5km, ML3.7, MW3.5*
*NEIC **15** 21:54:52.2±1.9,27°.98S±0°.08×66°.6W±0°.1, h161km±8km, mb4.3/5, Error ellipse: s-maj=15.2km s-min=10.5km az=106.0*

ISC 15 21:54:52.6±0.7, 27°.94S±0°.04×66°.63W±0°.05, h170km±6km, n73, σ1§35/88, mb4.0/3, Catamarca Province

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
TINO	**Tinogasta**	**0.84**	**261**	*i* P		**Pn**	**21 55 19.9**	**+1.6**
TINO				*i* S		**Sn**	**21 55 38.8**	**+0.9**
TINO				IAML			21 55 44.1	
	comp=Z,353nm,1.2s							
ACLC	**CERRO LA CRUZ**	**1.51**	**191**	*i* P		**Pn**	**21 55 25.4**	**+1.5**
ACLC				*i* S		**Sn**	**21 55 47.8**	**-0.5**
ACLC				IAML			21 55 49.2	
	comp=Z,173nm,0.7s							
VCA	**Vinchina**	**1.60**	**240**	*i* P		**Pn**	**21 55 25.7**	**+0.9**
VCA				*i* S		**Sn**	**21 55 49.8**	**0.0**
VCA				IAML			21 55 53.6	
	comp=Z,272nm,0.7s							
AHML	**Horco Molle**	**1.63**	**45**	*i* P		**Pn**	**21 55 22.5**	**-2.6**
AHML				*i* S		**Sn**	**21 55 46.8**	**-3.4**
AHML				IAML			21 55 47.4	
	comp=Z,159nm,0.5s							
FSA	**Cafayete**	**1.91**	**18**	*i* P		**Pn**	**21 55 30.0**	**+1.8**
FSA				*i* S		**Sn**	**21 55 57.5**	**+1.7**
AC02	**Maricunga**	**2.48**	**296**			**Pn**	**21 55 35.5**	**+0.5**
AVFE	**Valle Fertil**	**2.80**	**195**	*i* P		**Pn**	**21 55 39.0**	**+0.6**
AVFE				*i* S		**Sn**	**21 56 13.2**	**-1.0**
AVFE				IAML			21 56 18.6	
	comp=Z,149nm,0.3s							
ACDV	**Cuesta del Vie**	**3.11**	**224**	*i* P		**Pn**	**21 55 43.6**	**+1.3**
ACDV				*i* S		**Sn**	**21 56 21.4**	**+0.4**
ACDV				IAML			21 56 22.2	
	comp=Z,159nm,0.7s							
GO03	**Copiapo**	**3.21**	**275**	*i* P		**Pn**	**21 55 44.0**	**+0.6**
GO03				*i* S		**Sn**	**21 56 21.4**	**-1.6**
GO03				IAML			21 56 21.6	
	comp=Z,304nm,0.2s							
GO03	**Copiapo**	**3.21**	**275**			**Pn**	**21 55 44.0**	**+0.6**
AC05	**El Transito**	**3.33**	**254**			**Pn**	**21 55 46.0**	**+1.1**
AROD	**Rodeo**	**3.33**	**228**	*i* P		**Pn**	**21 55 46.5**	**+1.3**
AROD				*i* S		**Sn**	**21 56 26.6**	**+0.5**
AC06	**Mina Casimiro**	**3.35**	**279**			**Pn**	**21 55 45.3**	**+0.1**
SLA	**San Lorenzo**	**3.36**	**18**	*i* P		**Pn**	**21 55 47.6**	**+2.1**
SLA				*i* S		**Sn**	**21 56 28.2**	**+1.6**
ACCO	**Cerro Coronel**	**3.39**	**218**	*i* P		**Pn**	**21 55 46.6**	**+0.7**
ACCO				*i* S		**Sn**	**21 56 27.2**	**-0.3**
ACCO				IAML			21 56 27.8	
	comp=Z,164nm,0.4s							
CO01	**Juntas del Tor**	**3.65**	**235**	Pn		**Pn**	**21 55 49.6**	**+0.5**
LCO	**Las Campanas**	**3.74**	**252**			**Pn**	**21 55 50.4**	**+0.2**
RTLL	**Cerro Villicun**	**3.74**	**205**	*i* P		**Pn**	**21 55 50.5**	**+0.5**
RTLL				*i* S		**Sn**	**21 56 33.4**	**-1.6**
RTLL				IAML			21 56 35.3	
	comp=Z,261nm,0.4s							
TCA	**Tanti**	**3.82**	**153**	*i* P		**Pn**	**21 55 52.1**	**+0.9**
TCA				*i* S		**Sn**	**21 56 34.9**	**-2.0**
TCA				IAML			21 56 36.3	
	comp=Z,72nm,0.6s							
CFA	**Coronel Fontan**	**3.91**	**201**	P		**Pn**	**21 55 52.4**	**+0.2**
	comp=Z,11nm,0.3s,baz=31,slow=14,SNR=19							
CFA				S		**Sn**	**21 56 36.6**	**-2.3**
	comp=Z,84nm,0.3s,baz=179,slow=16,SNR=10.0							
AC04	**Llanos de Chal**	**3.93**	**265**	Pn		**Pn**	**21 55 52.1**	**-0.4**
AC01	**Pan de Azucar**	**3.96**	**296**			**Pn**	**21 55 53.5**	**+0.6**
ZON	**Zonda**	**4.01**	**206**			**Pn**	**21 55 51.9**	**-1.6**
GO04	**Tololo Observa**	**4.27**	**238**			**Pn**	**21 55 56.9**	**-0.2**
ACAN	**Cantantal**	**4.35**	**186**	*i* P		**Pn**	**21 55 57.9**	**+0.1**
ACAN				*i* S		**Sn**	**21 56 46.9**	**-2.1**
ACAN				IAML			21 56 49.9	
	comp=Z,466nm,0.4s							
CO05	**La Serena**	**4.49**	**243**			**Pn**	**21 55 58.6**	**-1.0**
MRA	**San Martin**	**4.53**	**170**	*i* P		Pn	21 55 52.4	-8.0
MRA				IAML			21 57 25.1	
	comp=Z,22nm,0.5s							
CO03	**El Pedregal**	**4.57**	**230**			**Pn**	**21 56 00.8**	**0.0**
PB14	**IPOC Station P**	**4.73**	**313**			**Pn**	**21 56 03.7**	**+0.5**
CO02	**Combarbal**	**5.00**	**228**	Pn		**Pn**	**21 56 05.5**	**-1.0**
CO06	**Fray Jorge**	**5.15**	**237**			**Pn**	**21 56 07.3**	**-0.9**
CO04	**Los Peladeros**	**5.56**	**222**	Pn		**Pn**	**21 56 12.9**	**-0.9**
PB10	**IPOC Station P**	**5.65**	**320**			**Pn**	**21 56 15.3**	**+0.3**
PB06	**IPOC Station P**	**5.85**	**332**			**Pn**	**21 56 17.7**	**0.0**
VA03	**San Esteban**	**5.88**	**214**	Pn		**Pn**	**21 56 16.0**	**-2.0**
PB05	**IPOC Station P**	**6.01**	**327**			**Pn**	**21 56 20.2**	**+0.5**
PEL	**Peldehue**	**6.25**	**213**	Pn		**Pn**	**21 56 21.9**	**-0.9**
MT03	**Universidad Ad**	**6.46**	**210**	Pn		**Pn**	**21 56 24.9**	**-0.7**
MT05	**Renca**	**6.48**	**212**	Pn		**Pn**	**21 56 24.0**	**-1.8**
PB03	**IPOC Station P**	**6.51**	**334**			**Pn**	**21 56 26.5**	**+0.1**
PB09	**IPOC Station P**	**6.56**	**338**			**Pn**	**21 56 27.7**	**+0.6**
MT02	**Curacav**	**6.57**	**215**	Pn		**Pn**	**21 56 25.8**	**-1.1**
PB07	**IPOC Station P**	**6.86**	**334**			**Pn**	**21 56 30.6**	**-0.4**
MT09	**Talagante**	**6.92**	**212**	Pn		**Pn**	**21 56 30.2**	**-1.5**
BO04	**La Punta**	**6.93**	**209**	Pn		**Pn**	**21 56 30.6**	**-1.1**
MT01	**Popeta**	**7.11**	**213**	Pn		**Pn**	**21 56 32.1**	**-2.0**
PB02	**IPOC Station P**	**7.23**	**335**			**Pn**	**21 56 35.5**	**-0.4**
BO01	**Tunca**	**7.48**	**210**	Pn		**Pn**	**21 56 37.1**	**-1.8**
PB08	**IPOC Station P**	**8.10**	**343**			**Pn**	**21 56 47.1**	**-0.5**
CPUP	**Villa Florida**	**8.44**	**81**	P		**Pn**	**21 56 51.9**	**+0.1**
	comp=Z,1.6nm,0.9s,baz=270,slow=12,SNR=4.5							
CPUP	**Villa Florida**	**8.44**	**81**			**Pn**	**21 56 50.5**	**-1.2**
GO01	**Chusmiza**	**8.56**	**344**			**Pn**	**21 56 52.3**	**-1.1**
PB11	**IPOC Station P**	**8.66**	**341**			**Pn**	**21 56 51.9**	**-2.1**
PSGCX	**Pisagua**	**8.90**	**338**			**Pn**	**21 56 55.6**	**-2.3**
PB16	**IPOC Station P**	**9.92**	**344**			**Pn**	**21 57 11.1**	**-0.7**
LPAZ	**La Paz**	**11.68**	**353**	P		**Pn**	**21 57 35.0**	**+0.1**
	comp=Z,2.5nm,0.3s,baz=146,slow=7.8,SNR=23							
LPAZ				S		**Sn**	**21 59 40.6**	**-4.1**
	comp=Z,0.4nm,0.6s,baz=31,slow=21,SNR=1.4							
LPAZ	**La Paz**	**11.68**	**353**			**Pn**	**21 57 34.0**	**-0.8**
SIV	**San Ignacio**	**12.96**	**25**	P		**Pn**	**21 57 51.0**	**+0.4**
	comp=Z,0.5nm,0.4s,baz=205,slow=12,SNR=4.7							
VILB	**Vilhena**	**16.08**	**23**			**Pn**	**21 58 28.0**	**-1.4**
VILB				IAmb		IAmb	21 58 30.5	
	comp=Z,8.8nm,0.6s							
VAO	**Valinhos**	**18.42**	**79**			**P**	**21 58 53.2**	**-1.9**
VAO				IAmb		IAmb	21 58 57.7	
	comp=Z,11nm,0.6s							
BDFB	**Brasilia**	**21.15**	**58**	P		**P**	**21 59 24.5**	**-0.1**
	comp=Z,1.6nm,0.3s,baz=222,slow=11,SNR=6.1							
	comp=Z,1.6nm,0.3s							
BDFB	**Brasilia**	**21.15**	**58**	P		**P**	**21 59 24.8**	**+0.3**
QSPA	**South Pole Qui**	**62.28**	**180**	P		**P**	**22 04 58.8**	**+2.5**
	comp=Z,1.0nm,0.7s,baz=151,slow=5.6,SNR=2.4							
	comp=Z,1.0nm,0.7s							
QSPA	**South Pole Qui**	**62.28**	**180**	P		**P**	**22 04 58.4**	**+2.1**
QSPA				IAmb		IAmb	22 05 40.2	
	comp=Z,3.5nm,1.2s							
DBIC	**Dimbokro**	**68.79**	**70**	P		**P**	**22 05 39.2**	**+0.6**
	comp=Z,1.6nm,0.5s,baz=212,slow=6.7,SNR=1.6							
	comp=Z,1.6nm,0.5s							
DBIC	**Dimbokro**	**68.79**	**70**	P		**P**	**22 05 37.7**	**-0.9**
TORD	**Torodi Ar. Bea**	**77.70**	**68**	P		**P**	**22 06 31.6**	**+0.7**
	comp=Z,0.9nm,0.6s,baz=248,slow=8.8,SNR=4.7							
	comp=Z,0.9nm,0.6s							
WRA	**Warramunga Arr**	**128.25**	**205**	PKP		**PKiKP**	**22 13 40.8**	**+0.8**
	comp=Z,0.3nm,1.0s,baz=146,slow=2.0,SNR=1.5							
WRA	**Warramunga Arr**	**128.25**	**205**			**PKPdf**	**22 13 38.0**	**-1.4**
ZALV	**Zalesovo Beam**	**146.65**	**31**	PKPbc		**PKPab**	**22 14 16.5**	**+1.3**
	comp=Z,0.6nm,0.3s,baz=300,slow=3.6,SNR=2.6							
ZALV	**Zalesovo Beam**	**146.65**	**31**			**PKPbc**	**22 14 13.9**	**+0.1**
MKAR	**Makanchi Array**	**149.24**	**44**	PKPbc		**PKiKP**	**22 14 23.2**	**+1.3**
	comp=Z,0.6nm,0.6s,baz=295,slow=3.0,SNR=4.7							
MKAR	**Makanchi Array**	**149.24**	**44**			**PKPdf**	**22 14 18.6**	**+2.2**

*TEH **15** 22:06:31.2,27°.13N×53°.57E, h17km±21km, ML3.6, Presumed earthquake*
*IDC **15** 22:06:31.1±1.6,27°.20N×53°.48E, h15km±6km, mb3.7/12, mbtmp3.8/13, ML4.0/1, Error ellipse: s-maj=28.6km s-min=19.5km az=176.0*
*NEIC **15** 22:06:31.1±2.0,27°.3N±0°.1×53°.51E±0°.09, h10km±1km, mb4.1/12, Error ellipse: s-maj=19.4km s-min=11.9km az=25.0*
*DSN **15** 22:06:35.2±1.3,27°.04N×53°.79E, h10km, ML3.2/11, Error ellipse: s-maj=14.8km s-min=9.3km az=168.0*
*OMAN **15** 22:06:38.5±1.3,26°.86N×53°.94E, h10km, ml3.3/18, Error ellipse: s-maj=10.6km s-min=7.8km az=167.0*

ISC 15 22:06:32.6±1.2, 27°.20N±0°.04×53°.56E±0°.05, h27km±10km, n96, σ1§42/119, mb3.9/23, Southern Iran

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
LMD1	**Lamerd**	**0.38**	**292**	Pg		**Pb**	**22 06 39.7**	**-1.2**
KHL1	**Khalili_Fars**	**0.50**	**332**	Pg		**Pb**	**22 06 41.9**	**-1.0**
JHRM	**Jahrom**	**1.30**	**1**	Pg		**Pb**	**22 06 57.0**	**+0.5**
BNDS	**Bandar-Abbas**	**2.33**	**84**	Pn		**Pn**	**22 07 10.1**	**+0.7**
BANOM	**Banah**	**2.33**	**196**	P		**Pn**	**22 07 12.3**	**+3.1**
JRN	Qarnain Island			S		**Sb**	**22 07 43.8**	**+1.5**
DSBU	**Dashti - Bushe**	**2.34**	**300**	Pn		**Pn**	**22 07 11.3**	**+1.8**
SHME	**Shamm**	**2.58**	**116**	P		**Pn**	**22 07 13.2**	**+0.6**
BANOM	**Banah**	**2.76**	**117**	P		**Pn**	**22 07 15.3**	**+0.1**
BANOM	**Banah**	**2.76**	**117**	P		**Pn**	**22 07 16.0**	**+0.8**
NAZ	**Nazwa, Dubai**	**2.90**	**139**	P		**Pn**	**22 07 19.0**	**+2.0**
NAZ	**Nazwa, Dubai**	**2.90**	**139**	P		**Pn**	**22 07 19.4**	**+2.3**
	SNR=14							
NAZ				S		**Sn**	**22 07 52.8**	**+1.7**
AJN	**Ajban**	**2.92**	**154**	P		**Pn**	**22 07 19.1**	**+1.8**
AJN				S		**Sn**	**22 07 49.3**	**-2.3**
MASF	**Masafi**	**2.96**	**127**	P		**Pn**	**22 07 20.2**	**+2.3**
	SNR=5.4							
MASF				S		**Sn**	**22 07 52.1**	**-0.5**
MSFE	**Esma-Masafi**	**2.97**	**128**	P		**Pn**	**22 07 18.9**	**+0.9**
ASUD	**Al Ashush, Dub**	**3.02**	**148**	P		**Pn**	**22 07 21.2**	**+2.6**
ASUD	**Al Ashush, Dub**	**3.02**	**148**	P		**Pn**	**22 07 21.4**	**+2.7**
ASUD				S		**Sn**	**22 07 52.9**	**-1.0**
MDH	**Madha**	**3.10**	**127**	P		**Pn**	**22 07 20.1**	**+0.2**
MDH	**Madha**	**3.10**	**127**	P		**Pn**	**22 07 21.1**	**+1.2**
MDH				S		**Sn**	**22 07 57.6**	**+1.5**
UOSS	**Minazif**	**3.27**	**133**	P		**Pn**	**22 07 23.0**	**+0.8**
UOSS	**Minazif**	**3.27**	**133**	P		**Pn**	**22 07 23.0**	**+0.8**
UOSS				S		**Sn**	**22 08 00.3**	**+0.1**
UOSS	**Minazif**	**3.27**	**133**			**Pn**	**22 07 23.3**	**+1.1**
UOSS	**Minazif**	**3.27**	**133**	Pn		**Pn**	**22 07 23.1**	**+1.0**
HATD	**Hatta, Dubai**	**3.31**	**135**	P		**Pn**	**22 07 24.4**	**+1.7**
HATD				S		**Sn**	**22 08 00.5**	**-0.6**
HATD	**Hatta, Dubai**	**3.31**	**135**	P		**Pn**	**22 07 24.0**	**+1.3**
HATD				S		**Sn**	**22 08 02.5**	**+1.3**
ASHO	**Ashiyiah**	**3.37**	**137**	P		**Pn**	**22 07 24.8**	**+1.3**
ASHO	**Ashiyiah**	**3.37**	**137**	P		**Pn**	**22 07 25.0**	**+1.5**
	SNR=31							
ASHO				S		**Sn**	**22 08 03.5**	**+0.9**
MZWR	**Madinat Zayed**	**3.43**	**175**	P		**Pn**	**22 07 26.2**	**+1.8**
MZWR				S		**Sn**	**22 08 04.7**	**+0.5**
ALNE	**Al Ain**	**3.70**	**147**	P		**Pn**	**22 07 29.7**	**+1.6**
ALNE				S		**Sn**	**22 08 08.4**	**-2.5**
KHNJ	**Kahnooj**	**3.76**	**78**	Pn		**Pn**	**22 07 29.5**	**+0.6**
SOHO	**SOHO**	**4.06**	**138**	P		**Pn**	**22 07 32.5**	**-0.5**
	SNR=13							
KHGB	**Koh Gabri**	**4.07**	**38**	Pn		**Pn**	**22 07 35.6**	**+2.2**
JASK	**Jask - Hormozg**	**4.08**	**108**	P		**Pn**	**22 07 33.4**	**+0.1**
	SNR=6.6							
JASK				S		**Sn**	**22 08 21.5**	**+1.3**
JASK	**Jask - Hormozg**	**4.08**	**108**	Pn		**Pn**	**22 07 34.1**	**+0.8**
IMEH	**Mehriz**	**4.28**	**12**	Pn		**Pn**	**22 07 38.5**	**+2.2**
TAFT	**Taft - Yazd**	**4.54**	**7**	Pn		**Pn**	**22 07 42.1**	**+2.2**
KRM1	**Kerman Provinc**	**4.63**	**44**	Pn		**Pn**	**22 07 42.9**	**+1.9**
ARQ	**Araqi**	**4.69**	**144**	P		**Pn**	**22 07 40.7**	**-1.0**
	SNR=12							
ARQ				S		**Sn**	**22 08 33.5**	**-1.7**
UMZA	**Um Al Zommool**	**4.69**	**162**	P		**Pn**	**22 07 43.2**	**+1.5**
UMZA				S		**Sn**	**22 08 37.0**	**+1.6**
IRAM	**Ramesheh**	**4.71**	**348**	Pn		**Pn**	**22 07 44.8**	**+2.6**
IBAF	**Bafgh**	**4.72**	**21**	Pn		**Pn**	**22 07 44.0**	**+1.8**
KBAM	**BAM**	**4.73**	**65**	Pn		**Pn**	**22 07 44.5**	**+2.1**
HOQ	**Hoqain**	**4.95**	**136**	P		**Pn**	**22 07 45.8**	**+0.6**
	SNR=6.0							
HOQ				S		**Sn**	**22 08 39.9**	**-1.7**
BIDO	**Bidbid**	**5.52**	**131**	P		**Pn**	**22 07 55.6**	**+2.5**
BIDO				S		**Sn**	**22 08 53.6**	**-2.1**
BSY	**Bisya**	**5.53**	**143**	P		**Pn**	**22 07 54.9**	**+1.6**
BSY				S		**Sn**	**22 08 54.3**	**-1.7**
SMDO	**Samad**	**5.79**	**134**	P		**Pn**	**22 07 58.3**	**+1.4**
SMDO				S		**Sn**	**22 09 01.0**	**-1.5**
WSAR	**Wadi Sarin**	**6.05**	**130**	P		**Pn**	**22 08 01.1**	**+0.6**
WSAR				S		**Sn**	**22 09 05.1**	**-3.8**
JMDO	**Jabal Madar**	**6.33**	**138**	P		**Pn**	**22 08 04.9**	**+0.5**
JMDO				S		**Sn**	**22 09 13.0**	**-2.9**
WBK	**Wadi Bani Khal**	**6.71**	**132**	P		**Pn**	**22 08 11.2**	**+1.8**
WBK				S		**Sn**	**22 09 24.4**	**-0.6**
NGCH	**Negor - Chabah**	**7.04**	**103**	P		**Pn**	**22 08 14.9**	**+0.9**
JLN	**Jalan Bani Buh**	**7.32**	**132**	P		**Pn**	**22 08 18.3**	**+0.5**
MHTO	**MHTO**	**7.38**	**146**	P		**Pn**	**22 08 19.1**	**+0.4**
	SNR=12							
MHTO				S		**Sn**	**22 09 39.2**	**-2.3**
RAYN	**Ar Rayn**	**8.15**	**245**			**Pn**	**22 08 28.8**	**-0.5**
DOK	**Doka**	**8.55**	**176**	P		**Pn**	**22 08 34.5**	**-0.3**
WHFO	**Wadi Hawf**	**9.24**	**179**	P		**Pn**	**22 08 45.0**	**+0.8**
	SNR=5.8							
DMTO	**DMTO**	**9.52**	**172**	P		**Pn**	**22 08 52.2**	**+4.2**
ABTO	**Aybut**	**9.80**	**181**	P		**Pn**	**22 08 52.2**	**+0.3**
	SNR=19							
GNI	**Garni**	**14.85**	**333**	Pn		**Pn**	**22 10 02.4**	**+1.5**
	0.6nm,0.3s,baz=68,slow=23,SNR=2.4							
	1.2nm,0.5s							
GNI				AML		AML		
GNI	**Garni**	**14.85**	**333**			**Pn**	**22 10 00.6**	**-0.3**
GURO	**Guroymak-BITLI**	**14.88**	**322**	P		**Pn**	**22 10 01.2**	**-0.2**
BRTR	**Keskin Array B**	**20.74**	**312**	P		**P**	**22 11 11.1**	**-0.3**
	1.3nm,0.6s,baz=134,slow=12,SNR=11							
	1.3nm,0.6s							
BRTR	**Keskin Array B**	**20.74**	**312**	P		**P**	**22 11 09.8**	**-1.6**
BR131	**Keskin Array S**	**20.74**	**312**	P		**P**	**22 11 09.8**	**-1.6**
ARSB	**Arslanbob**	**21.30**	**44**	P		**P**	**22 11 16.1**	**-1.2**
ARSB				IAmb		IAmb	22 11 24.3	
	comp=Z,7.5nm,0.9s							
ELL	**Elmali**	**22.16**	**301**	P		**P**	**22 11 27.1**	**+0.4**
ELL				IAmb		IAmb	22 11 43.9	
	comp=Z,15nm,1.4s							
AB31	**Akbulak array**	**22.57**	**11**	P		**P**	**22 11 30.6**	**-0.2**
ABKAR	**Akbulak array**	**22.57**	**11**	P		**P**	**22 11 31.2**	**+0.4**
NRN	**Naryn**	**23.26**	**47**	P		**P**	**22 11 37.5**	**-0.9**
NRN				IAmb		IAmb	22 12 03.6	
	comp=Z,4.8nm,1.1s							
IDI	**Anoyia**	**25.74**	**295**	P		**P**	**22 12 00.2**	**-0.9**
EVN	**Everest**	**29.44**	**81**	P		**P**	**22 12 35.3**	**+0.3**
EVN				IAmb		IAmb	22 12 36.5	
	comp=Z,7.8nm,1.5s							
MK31	**Makanchi Array**	**29.89**	**42**	P		**P**	**22 12 39.1**	**+1.0**
MK31				IAmb		IAmb	22 13 10.7	
	comp=Z,2.9nm,1.4s							
MKAR	**Makanchi Array**	**29.89**	**42**	P		**P**	**22 12 38.7**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=236,slow=9.5,SNR=8.4							
	comp=Z,0.5nm,0.5s							
MKAR	**Makanchi Array**	**29.89**	**42**	P		**P**	**22 12 37.4**	**-0.7**
AKASG	**Malin Array Be**	**29.90**	**328**	P		**P**	**22 12 37.6**	**-0.4**
	comp=Z,0.8nm,0.4s,baz=137,slow=8.3,SNR=5.3							
AKASG				pP		pP	22 12 42.4	-3.6
	comp=Z,0.8nm,0.4s,baz=138,slow=8.4,SNR=6.0							
	comp=Z,0.8nm,0.4s							
KIEV	**Kiev**	**29.90**	**328**	P		**P**	**22 12 37.6**	**-0.4**
BURAR	**Bucovina Array**	**30.10**	**320**	P		**P**	**22 12 40.5**	**+0.6**
BUR08	**Bucovina Ar. S**	**30.12**	**320**	P		**P**	**22 12 40.5**	**+0.3**
BUR08				IAmb		IAmb	22 13 16.3	
	comp=Z,3.9nm,1.4s							
ZALV	**Zalesovo Beam**	**35.24**	**32**	P		**P**	**22 13 25.1**	**+0.5**
	comp=Z,0.7nm,0.5s,baz=262,slow=10,SNR=3.9							
	comp=Z,0.7nm,0.5s							
MYKA	**Terra Mystica**	**36.85**	**312**	*e*P		**P**	**22 13 38.8**	**+0.1**
	comp=Z,0.7nm,0.3s							
LESA	**Schwarzleotal**	**37.72**	**313**	*i* P		**P**	**22 13 46.0**	**-0.1**
	comp=Z,0.5nm,0.3s							
SQTA	**Sankt Quirin**	**38.62**	**313**	*i* P		**P**	**22 13 53.4**	**-0.3**
	comp=Z,1.6nm,0.3s							
MOTA	**Moosalm**	**38.72**	**313**	*i* P		**P**	**22 13 53.9**	**-0.7**
	comp=Z,0.7nm,0.3s							
CLL	**Collm**	**38.86**	**319**	*e*P		**P**	**22 13 54.0**	**-1.5**
FETA	**Feichten**	**38.88**	**312**	*i* P		**P**	**22 13 55.9**	**0.0**
	com

SLMT	**Seeley Lake**	**3.09**	**20**			Pn	22 23 34.1	+1.2
YNM	**Yellowstone No**	**3.12**	**81**	IAML			22 24 25.5	
	comp=E,174nm,0.7s							
YNR	**Norris Junctio**	**3.13**	**82**	IAML			22 24 28.3	
	comp=E,129nm,0.4s							
SNOW	**Snow King Moun**	**3.21**	**104**	IAML			22 24 33.6	
	comp=E,127nm,0.7s							
SNOW				IAML			22 24 33.9	
	comp=E,141nm,0.9s							
WVOR	**Wild Horse Val**	**3.25**	**235**	IAML			22 24 28.8	
	comp=E,115nm,0.8s							
WVOR				IAML			22 24 34.5	
	comp=E,98nm,0.7s							
SWMT	**Swartz Lake**	**3.25**	**12**			Pn	22 23 36.7	+1.8
LYMT	**Lyon Mountain**	**3.26**	**35**			Pn	22 23 36.1	+0.9
AHID	**Auburn Hatcher**	**3.26**	**117**	IAML			22 24 37.7	
	comp=E,114nm,0.8s							
AHID				IAML			22 24 43.1	
	comp=E,95nm,0.8s							
JTMT	**Jette**	**3.45**	**8**			Pn	22 23 39.3	+1.6
E08A	**Dider Farm, El**	**3.56**	**309**	IAML			22 24 51.8	
	comp=N,77nm,0.9s							
SPUT	**South Promonto**	**3.58**	**147**	IAML			22 24 40.6	
	comp=E,86nm,0.6s							
SPUT				IAML			22 24 42.0	
	comp=N,78nm,0.5s							
YBMT	**Yellow Bay**	**3.59**	**11**			Pn	22 23 41.8	+2.1
YNE	**Yellowstone No**	**3.64**	**78**	IAML			22 24 37.8	
	comp=N,129nm,0.5s							
YNE				IAML			22 24 44.2	
	comp=E,99nm,0.6s							
BGU	**Big Grassy Mou**	**3.72**	**156**	IAML			22 24 43.8	
	comp=N,72nm,0.8s							
BGU				IAML			22 24 44.5	
	comp=E,83nm,1.3s							
HWUT	**Hardware Ranch**	**3.73**	**136**	IAML			22 24 47.5	
	comp=E,63nm,1.1s							
F07A	**Phinny Hill Vi**	**3.80**	**296**	IAML			22 24 50.8	
	comp=E,107nm,0.8s							
F07A				IAML			22 24 51.9	
	comp=N,73nm,0.9s							
C15A	**Salmond Ranch,**	**3.83**	**25**			Pn	22 23 44.0	+1.1
C15A	**Salmond Ranch,**	**3.83**	**25**	IAML			22 24 48.8	
	comp=E,84nm,0.8s							
C15A				IAML			22 25 00.1	
	comp=N,85nm,0.9s							
D08A	**Wollman Farm,**	**3.85**	**316**	IAML			22 24 53.4	
	comp=E,80nm,1.0s							
D08A				IAML			22 24 54.0	
	comp=N,66nm,0.9s							
OD2	**Odessa Site #2**	**3.99**	**321**			Pn	22 23 47.1	+2.1
E07A	**Sunnyside**	**4.05**	**305**	IAML			22 25 07.6	
	comp=E,81nm,0.8s							
E07A				IAML			22 25 11.9	
	comp=N,66nm,0.9s							
G06A	**Carlson Farm,**	**4.09**	**285**	IAML			22 24 49.9	
	comp=N,45nm,4.9s							
LDM	**Libby Dam**	**4.12**	**357**			Pn	22 23 49.1	+2.3
NEW	**Newport**	**4.18**	**340**	IAML			22 24 59.1	
	comp=N,78nm,0.8s							
BMN	**Battle Mountai**	**4.23**	**203**	IAML			22 24 55.7	
	comp=N,85nm,0.8s							
PINE	**Pine Mountain**	**4.29**	**265**	IAML			22 25 14.2	
	comp=E,60nm,3.8s							
PINE				IAML			22 25 21.2	
	comp=N,60nm,4.5s							
MXC	**Moxie City**	**4.33**	**303**	IAML			22 25 06.3	
	comp=E,52nm,4.8s							
MXC				IAML			22 25 17.6	
	comp=N,39nm,1.6s							
EPH	**Ephrata**	**4.39**	**315**	IAML			22 25 16.2	
	comp=E,59nm,4.1s							
EPH				IAML			22 25 18.3	
	comp=N,79nm,0.9s							
DUG	**Dugway, Tooele**	**4.46**	**158**	IAML			22 25 13.3	
	comp=N,53nm,1.1s							
DUG				IAML			22 25 13.7	
	comp=N,58nm,1.6s							
K05A	**Summer Lake**	**4.56**	**251**	IAML			22 25 20.6	
	comp=N,71nm,5.0s							
K05A				IAML			22 25 31.7	
	comp=E,53nm,5.0s							
MOD	**Modoc Plateau**	**4.56**	**240**	IAML			22 25 20.2	
	comp=N,60nm,1.2s							
MOD				IAML			22 25 22.4	
	comp=E,43nm,1.4s							
J05D	**Fort Rock, OR**	**4.61**	**259**	IAML			22 24 51.8	
	comp=E,62nm,4.9s							
J05D				IAML			22 25 29.8	
	comp=N,59nm,3.8s							
NLU	**North Lily Min**	**4.90**	**152**	IAML			22 25 22.0	
	comp=E,26nm,0.9s							
LTY	**Liberty**	**4.91**	**308**	IAML			22 24 42.8	
	comp=E,33nm,4.6s							
LTY				IAML			22 25 38.4	
	comp=N,40nm,3.2s							

PRU ***15*** *22:28:07.3, 51˚.42N×16˚.11E, h0km*
DNK ***15*** *22:28:07.5±1.3, 51˚.63N×15˚.73E, h0km, ML3.0, Suspected explosion*
VIE ***15*** *22:28:08.2±0.4, 51˚.37N×15˚.96E, h0km, mb2.5/6, ml2.8/7, ml2.7/7, Error ellipse: s-maj=4.0km s-min=2.2km az=36.0*
79 km WNW of Wroclaw Suspected Mining induced.
UPP ***15*** *22:28:11.4±3.0, 51˚.82N×15˚.57E, h0km, ML2.0, Presumed earthquake*

ISC 15 22:28:04.8±0.8,**51˚.54N**±0˚.03×**16˚.12E**±0˚.03,**h0km**,**n46**, σ1ᵍ**30**/**86**,**Poland**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.70**	**171**	*e*Pg		**Pg**	**22 28 19.0**	**+0.8**
KSP				*e*Sg		**Sg**	**22 28 27.6**	**+0.4**
CHVC	**Chvalec**	**0.95**	**183**	*e*PG		**Pg**	**22 28 23.2**	**+0.3**
CHVC				*e*SG		**Sg**	**22 28 34.0**	**-1.2**
	comp=Z,23nm,0.4s							
CHVC				AML		AML		
OSTC	**Ostas**	**0.98**	**177**	*e*PG		**Pg**	**22 28 23.8**	**+0.2**
OSTC				*e*SG		**Sg**	**22 28 35.1**	**-1.2**
	comp=Z,39nm,0.4s							
OSTC				AML		AML		
UPC	**Upice**	**1.03**	**184**	*e*PG		**Pg**	**22 28 24.7**	**+0.2**
UPC				*e*SG		**Sg**	**22 28 36.9**	**-1.0**
	comp=Z,71nm,0.4s							
UPC				AML		AML		
DPC	**Dobruska-Polom**	**1.19**	**174**	*e*PG		**Pg**	**22 28 27.5**	**-0.1**
DPC				*e*SG		**Sg**	**22 28 42.4**	**-0.7**
	comp=Z,28nm,0.3s							
DPC				AML		AML		
PVCC	**Panska Ves**	**1.41**	**225**	*e*PG		**Pg**	**22 28 31.9**	**+0.2**
PVCC				*e*SG		**Sg**	**22 28 49.6**	**-0.3**
	comp=Z,75nm,0.4s							
PVCC				AML		AML		
KRLC	**Kraliky**	**1.52**	**164**	*e*PG		**Pn**	**22 28 33.1**	**-0.1**
KRLC				*e*SG		**Sg**	**22 28 52.1**	**-1.5**
	comp=Z,30nm,0.3s							
KRLC				AML		AML		
RICC	**Richard**	**1.62**	**233**	*e*PG		**Pn**	**22 28 35.0**	**+0.5**
RICC				*e*SG		**Sn**	**22 28 56.0**	**-0.1**
	comp=Z,41nm,0.4s							
RICC				AML		AML		
PRA	**Prague**	**1.82**	**217**	*e*SG		**Sg**	**22 29 02.6**	**-0.5**
PRU	**Pruhonice**	**1.85**	**214**	*e*PG		**Pn**	**22 28 38.0**	**+0.3**
PRU				*e*SG		**Sb**	**22 29 02.9**	**-0.1**
	comp=Z,20nm,0.9s							
PRU				AML		AML		
STEB	**Steborice**	**1.92**	**146**	*e*PG		**Pn**	**22 28 39.7**	**+1.1**
STEB				*e*SG		**Sb**	**22 29 04.5**	**-0.5**
	comp=Z,40nm,0.7s							
STEB				AML		AML		
HSKC	**Hora Svate Kat**	**1.94**	**242**	*e*PG		**Pb**	**22 28 40.5**	**-0.4**
HSKC				*e*SG		**Sb**	**22 29 06.2**	**+0.6**
	comp=Z,24nm,0.4s							
HSKC				AML		AML		
CLL	**Collm**	**1.97**	**265**	*e*Pn		**Pn**	**22 28 40.0**	**+0.7**
CLL				*i* Pg		**Pg**	**22 28 43.3**	**+0.9**
CLL				*i* x		x	22 28 47.0	
CLL				*e*Sg		**Sg**	**22 29 09.0**	**+1.1**
	comp=Z,11nm,0.5s							
MORC	**Moravsky Berou**	**1.98**	**152**	*e*PN		**Pn**	**22 28 39.8**	**+0.2**
MORC				*e*SG		**Sb**	**22 29 06.8**	**-0.1**
OKC	**Ostrava-Krasne**	**2.13**	**142**	*e*PG		**Pb**	**22 28 44.2**	**0.0**
OKC				*e*SG		**Sb**	**22 29 11.4**	**+0.2**
	comp=Z,19nm,0.7s							
OKC				AML		AML		

VRAC	**Vranov**	**2.25**	**172**	*e*PN		**Pn**	**22 28 44.0**	**+0.8**
VRAC				*e*SG		**Sb**	**22 29 14.6**	**0.0**
TREC	**Trest**	**2.28**	**191**	*e*PN		**Pn**	**22 28 44.4**	**+0.7**
TREC				*e*PG		**Pb**	**22 28 46.8**	**0.0**
TREC				*e*SG		**Sb**	**22 29 16.1**	**+0.6**
	comp=Z,21nm,0.4s							
TREC				AML		AML		
ZVC	**Zvikov**	**2.44**	**211**	*e*PN		**Pn**	**22 28 46.1**	**+0.3**
ZVC				*e*PG		**Pb**	**22 28 49.2**	**-0.2**
ZVC				*e*SN		**Sn**	**22 29 15.3**	**-0.9**
ZVC				*e*SG		**Sg**	**22 29 22.0**	**-0.9**
	comp=Z,11nm,0.4s							
ZVC				AML		AML		
KRUC	**Moravsky**	**2.48**	**176**	*e*PN		**Pn**	**22 28 47.4**	**+1.0**
KRUC				*e*SG		**Sg**	**22 29 22.4**	**-2.1**
NKC	**Novy Kostel**	**2.67**	**242**	*e*PG		**Pb**	**22 28 55.0**	**+1.6**
NKC				*e*SG		**Sg**	**22 29 30.8**	**+0.4**
	comp=Z,24nm,0.3s							
NKC				AML		AML		
OJC	**Ojcow**	**2.68**	**118**	*e*Pg		**Pg**	**22 28 57.1**	**+1.1**
OJC				*e*Sg		**Sg**	**22 29 32.1**	**+1.5**
ABNA	**Allensteig Bun**	**2.90**	**189**	*e*Pn		**Pn**	**22 28 53.2**	**+1.0**
	comp=Z,0.6nm,0.1s							
KHC	**Kasperske Hory**	**2.91**	**215**	*e*PN		**Pn**	**22 28 52.6**	**+0.3**
KHC				*e*PG		**Pb**	**22 28 57.6**	**+0.1**
KHC				*e*SN		**Sn**	**22 29 27.3**	**-0.6**
KHC				*e*SG		**Sg**	**22 29 36.3**	**-1.8**
	comp=Z,4.0nm,0.3s							
KHC				AML		AML		
CKRC	**Cesky Krumlov**	**2.96**	**204**	*e*PN		**Pn**	**22 28 53.9**	**+0.9**
CKRC				*e*PG		**Pb**	**22 28 59.0**	**+0.7**
CKRC				*e*SG		**Sg**	**22 29 37.3**	**-2.4**
	comp=Z,12nm,0.7s							
CKRC				AML		AML		
LANS	**Liptovska Anna**	**3.21**	**137**	*e*SG		**Sg**	**22 29 47.7**	**-0.1**
MODS	**Modra-Piesok**	**3.25**	**166**	*e*SG		**Sg**	**22 29 50.2**	**+1.0**
CONA	**Conrad Observa**	**3.62**	**183**	*i* Pn		**Pn**	**22 29 03.4**	**+1.3**
	comp=Z,0.2nm,0.2s							
CONA				*e*Sn		**Sn**	**22 29 45.9**	**+0.5**
	comp=Z,1.3nm,0.3s							
BSD	**Bornholm Skovb**	**3.66**	**349**	*i* P		**Pn**	**22 29 03.5**	**+1.0**
BSD				*i* S		**Sn**	**22 29 44.7**	**-1.6**
BSD				IAML			22 29 56.1	
	comp=Z,22nm,0.9s							
MOA	**Molln**	**3.88**	**199**	*e*Pn		**Pn**	**22 29 06.3**	**+0.6**
	comp=Z,0.5nm,0.3s							
BIOA	**Bad Ischl, Aus**	**4.17**	**204**	*e*Pn		**Pn**	**22 29 10.1**	**+0.4**
	comp=Z,0.3nm,0.2s							
BIOA				*e*Sn		**Sn**	**22 29 59.3**	**+0.1**
	comp=Z,4.2nm,0.5s							
LUNU	**Lund**	**4.40**	**340**	*i* P		**Pn**	**22 29 13.9**	**+1.2**
LUNU				*i* S		**Sn**	**22 30 03.0**	**-1.7**
LESA	**Schwarzleotal**	**4.69**	**210**	*e*Pn		**Pn**	**22 29 16.9**	**+0.1**
	comp=Z,0.3nm,0.4s							
BLEU	**Blekinge**	**4.78**	**358**	*i* P		**Pn**	**22 29 20.2**	**+2.3**
BLEU				*i* S		**Sn**	**22 30 12.1**	**-1.9**
KBA	**Koelnbreinsper**	**4.82**	**203**	*e*Pn		**Pn**	**22 29 18.8**	**+0.1**
	comp=Z,0.1nm,0.2s							
DEL	**Delary**	**5.12**	**346**	P		**Pn**	**22 29 23.4**	**+0.7**
DEL				S		**Sn**	**22 30 18.3**	**-4.0**
DEL	**Delary**	**5.12**	**346**	*i* P		**Pn**	**22 29 23.3**	**+0.7**
DEL				S		**Sn**	**22 30 18.3**	**-4.0**
DEL				*i* S		Sb	22 30 19.1	-18
VXJU	**Vaexsjoe**	**5.44**	**353**	P		**Pn**	**22 29 28.4**	**+1.4**
VXJU	**Vaexsjoe**	**5.44**	**353**	P		**Pn**	**22 29 28.4**	**+1.4**
OSKU	**Oskarshamn**	**5.67**	**360**	P		**Pn**	**22 29 31.8**	**+1.6**
OSKU	**Oskarshamn**	**5.67**	**360**	P		**Pn**	**22 29 31.8**	**+1.6**
BYXU	**Byxelkrok**	**5.79**	**5**	P		**Pn**	**22 29 33.5**	**+1.7**
BYXU				S		**Sn**	**22 30 36.3**	**-2.5**
BYXU	**Byxelkrok**	**5.79**	**5**	P		**Pn**	**22 29 33.5**	**+1.7**
BYXU				S		**Sn**	**22 30 36.3**	**-2.5**
EKSU	**Eksjoe**	**6.07**	**356**	P		**Pn**	**22 29 37.1**	**+1.4**
EKSU	**Eksjoe**	**6.07**	**356**	P		**Pn**	**22 29 37.1**	**+1.4**
VSTU	**Vaestervik**	**6.14**	**2**	P		**Pn**	**22 29 38.3**	**+1.7**
VSTU				S		**Sn**	**22 30 45.4**	**-2.1**
VSTU	**Vaestervik**	**6.14**	**2**	P		**Pn**	**22 29 38.3**	**+1.7**
VSTU				S		**Sn**	**22 30 45.4**	**-2.1**

IDC ***15*** *22:28:15.2±2.1, 7˚.11S×129˚.60E, h170km±27km, mb2.9/1, mbtmp3.6/6, Error ellipse: s-maj=34.9km s-min=20.0km az=96.0*

ISC 15 22:28:11.7±0.9,**7˚.18S**±0˚.06×**129˚.9E**±0˚.1,**h150km**,**n6**, σ4ᵍ**73**/**9**,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**6.43**	**13**	P		**Pn**	**22 29 47.0**	**+2.7**
	2.5nm,0.4s,baz=186,slow=23,SNR=6.8							
SIJI				S		**Sn**	**22 30 50.4**	**-6.4**
	3.4nm,0.3s,baz=237,slow=22,SNR=5.1							
BATI	**Baumata**	**6.81**	**243**	P		**Pn**	**22 29 51.0**	**+1.6**
	18nm,0.4s,baz=201,slow=1.1,SNR=7.1							
FITZ	**Fitzroy Crossi**	**11.60**	**200**	P		**Pn**	**22 30 54.9**	**+2.1**
	0.4nm,0.3s,baz=16,slow=9.0,SNR=9.0							
FITZ				S		**Sn**	**22 32 54.3**	**-6.8**
	1.1nm,0.4s,baz=143,slow=24,SNR=6.5							
WRA	**Warramunga Arr**	**13.41**	**161**	P		**P**	**22 31 19.0**	**-1.4**
	0.2nm,0.7s,baz=337,slow=12,SNR=12							
WRA				S		**Sn**	**22 33 42.1**	**-2.7**
	0.3nm,0.3s,baz=338,slow=24,SNR=5.1							
ASAR	**Alice Springs**	**16.84**	**167**	P		**Pn**	**22 32 03.7**	**+4.8**
	1.2nm,0.5s,baz=345,slow=11,SNR=9.8							
MKAR	**Makanchi Array**	**68.30**	**327**	P		**P**	**22 38 56.9**	**+0.2**
	0.2nm,0.4s,baz=116,slow=9.1,SNR=4.3							
	0.2nm,0.4s							

BUT ***15*** *22:37:14.8±1.3, 44˚.32N±0˚.03×115˚.05W±0˚.04, h10km±8km, Error ellipse: s-maj=4.9km s-min=3.2km az=215.0*

NEIC 15 22:37:13.8±1.2,**44˚.32N**±0˚.03×**115˚.04W**±0˚.05,**h10km**±2km, **ML3.3**/100,**ML3.7**/26(BUT),**Error ellipse: s-maj=6.8km s-min=3.8km az=52.0**,**Western Idaho**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.88**	**149**	Pg		Pb	22 37 31.3	+0.1
HLID				Sg		Sb	22 37 42.6	-0.4
HLID				IAML			22 37 43.6	
	1µm,0.3s							
HLID				IAML			22 37 49.5	
	779nm,0.3s							
PLID	**Pearl Lake**	**1.03**	**319**			Pb	22 37 34.1	+0.3
PLID				IAML			22 37 52.2	
	1µm,0.2s							
PLID	**Pearl Lake**	**1.03**	**319**			Sb	22 37 47.7	+0.1
MFID	**Camas Ranch**	**1.06**	**213**			Pn	22 37 35.4	+0.5
BCYI	**Bear Canyon**	**1.17**	**90**	Pg		Pn	22 37 36.8	+0.3
ICI	**Italian Canyon**	**1.51**	**89**			Pb	22 37 42.1	+0.1
MCMT	**McKenzie Canyo**	**1.65**	**71**			Pn	22 37 43.3	+0.3
BMO	**Blue Mountains**	**1.71**	**289**			Pb	22 37 44.6	-0.6
BMO				IAML			22 38 14.0	
	191nm,0.3s							
MOMT	**Monida**	**1.92**	**81**			Pb	22 37 49.3	+0.3
DLMT	**Dillon**	**2.03**	**58**			Pb	22 37 49.5	-1.3
VCMT	**Victor**	**2.21**	**15**			Pn	22 37 51.9	+1.3
F10A	**Beach Ranch, E**	**2.27**	**318**			Pn	22 37 52.1	+0.7
HBMT	**Mount Humbug**	**2.27**	**49**			Pn	22 37 52.8	+1.2
LRM	**Limekiln Ridge**	**2.38**	**50**			Pn	22 37 54.2	+1.2
BUT	**Butte**	**2.44**	**45**	Pn		Pn	22 37 55.2	+1.4
BUT				IAML			22 38 31.6	
	comp=E,176nm,0.6s							
BUT				IAML			22 38 35.7	
	comp=N,163nm,0.3s							
MSO	**Missoula**	**2.63**	**17**			Pn	22 37 57.1	+0.7
MSO				IAML			22 38 38.8	
	comp=N,128nm,0.5s							
MSO				IAML			22 38 49.8	
	comp=N,169nm,1.1s							
QLMT	**Earthquake Lak**	**2.63**	**77**	Pn		Pn	22 37 58.7	+2.2
J08A	**Circle Bar Ran**	**2.66**	**250**			Pn	22 37 58.5	+1.7
J08A				IAML			22 38 46.9	
	comp=E,179nm,0.5s							
J08A				IAML			22 38 47.5	
	comp=N,170nm,0.5s							
LCCM	**Lewis and Clar**	**2.71**	**55**			Pn	22 37 58.6	+1.1
BOZ	**Bozeman (W)**	**2.74**	**61**			Pn	22 37 59.0	+1.0
LNOR	**Lincton Mounta**	**2.77**	**305**	Pn		Pn	22 38 00.0	+1.7
LNOR				IAML			22 38 50.1	
	comp=N,67nm,1.3s							
YHB	**Horse Butte**	**2.79**	**80**	Pn		Pn	22 38 00.1	+1.5
YHB				IAML			22 38 45.0	
	comp=N,116nm,0.8s							
YHB				IAML			22 38 46.1	
	comp=E,79nm,0.7s							
YHL	**Hebgen Lake**	**2.81**	**78**	IAML			22 38 47.3	
	comp=N,161nm,0.9s							
CHMT	**Chamberlain Mo**	**2.89**	**25**			Pn	22 38 01.1	+1.0
YHH	**Holmes Hill**	**3.03**	**80**	IAML			22 38 52.8	
	comp=E,101nm,0.8s							
OVMT	**Ovando**	**3.10**	**27**			Pn	22 38 04.0	+1.1
E09A	**Wood Farm, Sta**	**3.10**	**316**	IAML			22 38 56.7	
	comp=N,78nm,0.7s							
E09A				IAML			22 39 01.3	
	comp=E,62nm,0.8s							
SLMT	**Seeley Lake**	**3.12**	**20**			Pn	22 38 03.9	+0.7
FBMT	**Ferry Basin**	**3.12**	**8**			Pn	22 38 04.4	+1.2
GBMT	**Granite Butte,**	**3.12**	**35**			Pn	22 38 04.2	+0.9
GBMT	**Granite Butte,**	**3.12**	**35**	IAML			22 38 52.7	
	comp=N,98nm,0.6s							
GBMT				IAML			22 38 59.2	
	comp=E,82nm,0.5s							
YNM	**Yellowstone No**	**3.13**	**81**	IAML			22 38 55.9	
	comp=N,108nm,0.5s							
YNM				IAML			22 38 56.4	
	comp=E,93nm,0.4s							
YNR	**Norris Junctio**	**3.15**	**81**	IAML			22 38 57.4	
	comp=N,91nm,0.6s							
YNR				IAML			22 38 58.2	
	comp=E,81nm,0.4s							
WVOR	**Wild Horse Val**	**3.23**	**236**	IAML			22 39 04.4	
	comp=E,47nm,0.7s							
AHID	**Auburn Hatcher**	**3.26**	**117**	IAML			22 39 07.8	
	comp=E,47nm,0.8s							
SXM	**Sixmile**	**3.27**	**55**			Pn	22 38 07.3	+2.0
SWMT	**Swartz Lake**	**3.28**	**12**			Pn	22 38 06.6	+1.3
SPUT	**South Promonto**	**3.56**	**147**	IAML			22 39 11.1	
	comp=E,36nm,1.4s							
E08A	**Dider Farm, El**	**3.57**	**309**	IAML			22 39 08.5	
	comp=E,36nm,0.6s							
E08A				IAML			22 39 26.2	
	comp=N,48nm,2.8s							
BGU	**Big Grassy Mou**	**3.70**	**156**	IAML			22 39 13.9	
	comp=N,30nm,0.7s							
BGU				IAML			22 39 14.7	
	comp=E,34nm,1.9s							
D08A	**Wollman Farm,**	**3.86**	**317**	IAML			22 39 22.8	
	comp=E,39nm,0.9s							
D08A				IAML			22 39 52.0	
	comp=N,36nm,3.2s							
E07A	**Sunnyside**	**4.06**	**305**	IAML			22 39 07.8	
	comp=N,57nm,0.4s							
E07A				IAML			22 39 26.0	
	comp=E,53nm,2.1s							
BMN	**Battle Mountai**	**4.20**	**203**	IAML			22 39 25.4	
	comp=N,41nm,1.2s							
BMN				IAML			22 39 25.6	
	comp=E,44nm,0.8s							
NEW	**Newport**	**4.21**	**341**	IAML			22 39 29.0	
	comp=E,54nm,0.7s							
PINE	**Pine Mountain**	**4.29**	**265**	IAML			22 40 07.4	
	comp=E,42nm,4.3s							
PINE				IAML			22 40 44.7	
	comp=N,44nm,5.0s							
MXC	**Moxie City**	**4.33**	**303**	IAML			22 39 37.0	
	comp=E,36nm,3.3s							
MXC				IAML			22 39 51.0	
	comp=N,29nm,4.3s							
DUG	**Dugway, Tooele**	**4.44**	**157**	IAML			22 39 41.2	
	comp=N,22nm,1.3s							
DUG				IAML			22 39 43.8	
	comp=N,25nm,0.9s							
MOD	**Modoc Plateau**	**4.54**	**240**	IAML			22 39 49.7	
	comp=N,27nm,2.7s							
MOD				IAML			22 40 26.0	
	comp=E,24nm,4.4s							
NLU	**North Lily Min**	**4.88**	**152**	IAML			22 39 51.4	
	comp=N,13nm,4.9s							
NLU				IAML			22 39 53.4	
	comp=E,16nm,3.7s							
LTY	**Liberty**	**4.92**	**309**	IAML			22 40 02.9	
	comp=N,31nm,4.2s							

BJI ***15*** *22:37:39.8, 8˚.39N×126˚.49E, h53km, mB5.7/76, mb5.5/83, Ms5.7/96, Ms7 5.5/94*
MOS ***15*** *22:37:41.0±1.1, 8˚.72N×126˚.28E, h39km, mb5.9/66, MS5.5/33, Error ellipse: s-maj=6.8km s-min=3.8km az=113.3*
ISC-PP ***15*** *22:37:43, 8˚.76N×126˚.29E, h36km, Mwppsm6.3, Moment Tensor Solution. s43 Moment tensor: Scale 10¹⁸Nm; Mrr0.70±.16; Mθθ-0.41±.21; Mθφ0.31±.15; Mrθ0.12±.15; Mθφ0.22±.12; Mφr-0.25±.23; Fault plane solution: M₀3.63000×10¹⁸ NP1,φs52.30000°, δ57.10000°, λ63.20000°. NP2,φs275.20000°, δ41.40000°, λ124.90000°.*
MAN ***15*** *22:37:43.0, 8˚.60N×126˚.49E, h54km, MS6.0*
MAN INTENSITY VI - HINATUAN SURIGAO DEL SUR; . INTENSITY V - SAN AGUSTIN CITY OF BISLIG LIANGA AND LINGIG SURIGAO DEL SUR; BAYUGAN CITY ROSARIO TALACOGON SAN FRANCISCO AND SANTA JOSEFA AGUSAN DEL SUR; . INTENSITY IV - BAYABAS BOROBO CAGWAIT LANUZA MARIHATAG AND TAGO SURIGAO DEL SUR; LAAK MABINI MACO MARAGUSAN MAWAB MONKAYO NABUNTURAN AND PANTUKAN DAVAO DE ORO; BUTUAN CITY; . INTENSITY III - CARMEN MADRID AND TANDAG CITY SURIGAO DEL SUR; CAGAYAN DE ORO CITY; TAGOLOAN VILLANUEVA BALINGASAG MISAMIS ORIENTAL; MATI CITY DAVAO ORIENTAL; TAGUM CITY DAVAO DEL NORTE; SAN FRANCISCO AND SAN RICARDO SOUTHERN LEYTE; SOCORRO SURIGAO DEL NORTE; . INTENSITY II - CARRASCAL CORTES AND TAGBINA SURIGAO DEL SUR; EL SALVADOR CITY INITAO LUGAIT MANTICAO MISAMIS ORIENTAL; DAVAO CITY; DAPA GENERAL LUNA MAINIT AND SURIGAO CITY SURIGAO DEL NORTE; SAN JOSE DINAGAT ISLANDS; PANABO CITY DAVAO DEL NORTE; PINTUYAN SOUTHERN LEYTE; MAMBAJAO MAHINOG AND GUINSILIBAN CAMIGUIN ISLAND; . INTENSITY I - ILIGAN CITY.
NEIC ***15*** *22:37:43.7±2.0, 8˚.76N±0˚.06×126˚.29E±0˚.05, h43km±1km, mb6.1/366, Ms_20 5.6/390, Mwb6.1/114, Mww6.0/54, Error ellipse: s-maj=10.1km s-min=8.8km az=165.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr1.61; Mθθ0.03; Mθφ-1.64; Mrθ0.35; Mθφ0.22; Mφr0.25; Fault plane solution: M₀1.70000×10¹⁸ NP1,φs5.22000°, δ49.88000°, λ107.04000°. NP2,φs159.78000°, δ43.02000°, λ70.83000°. Principal axes: T 1.7134, Plg77.0000°, Azm338.0000°; N -0.0335, Plg13.0000°, Azm174.0

IPGP ***15*** *22:37:45.0, 8.72N, 126.29E, h51km, Mw6.0, Fault plane solution: NP1:φ185.00000°, δ42.00000°, λ73.00000°. NP2:φ27.00000°, δ50.00000°, λ105.00000°.*

DJA ***15*** *22:37:46.2, 0.3, 9°N, 12°6E, h44km, 3km, M6.0/148, mB6.4/144, mb6.1/148, MLv6.7/7, Mw(mB)6.2/144, MwMwp5.7/122, Mwp5.8/122*

NEIC ***15*** *22:37:51.1, 8.76N, 126.59E, h46km, Moment Tensor Solution. Duration: 51 Moment tenso: Scale 10^18Nm; Mrr0.84; Mθθ0.01; Mϕϕ -0.86; Mrθ0.15; Mθϕ0.03; Mrϕ0.91; Fault plane solution: M0 1.25000×10^18 NP1: φs170.43000°, δ21.94000°, λ75.31000°. NP2:φs6.22000°, δ68.82000°, λ95.83000°. Principal axes: T 1.2549, Plg66.0000°, Azm286.0000°; N -0.0017, Plg5.0000°, Azm184.0000°; P -1.2532, Plg24.0000°, Azm92.0000°;*

ISC 15 22:37:43.9±0.2, 8.69N±0.02×126.35E±0.03, h51km±1km, h51km:pP-P,n1890,σ1991/1712, mb6.0/461, MS5.5/327, 126C-57D, Mindanao

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.51**	**179**	*i*	P		**Pn**	**22 37 55.2**	**-0.1**
BIPH				*i*	S		**Sn**	**22 38 02.2**	**-1.2**
CGP	**Cagayan de Oro**	**1.66**	**262**	*i*	P		**Pn**	**22 38 12.7**	**+2.1**
CGP				*i*	S		**Sn**	**22 38 35.8**	**+5.2**
DAV	**Davao City (W)**	**1.79**	**205**		P		**Pn**	**22 38 14.7**	**+2.4**
	5μm,0.4s,baz=57,slow=4.3,SNR=90								
DAV					S		**Sn**	**22 38 41.1**	**+7.2**
	105μm,0.7s,baz=77,slow=23,SNR=7.5								
DAV	**Davao City (W)**	**1.79**	**205**		P		**Pn**	**22 38 15.8**	**+3.5**
DAV	**Davao City (W)**	**1.79**	**205**		S		**Sn**	**22 38 35.3**	**+1.4**
DAV	**Davao City (W)**	**1.79**	**205**				**Pn**	**22 38 12.4**	**0.0**
DAV					Sn		**Sn**	**22 38 34.3**	**+0.4**
DAV	**Davao City (W)**	**1.79**	**205**		P		**Pn**	**22 38 14.8**	**+2.4**
DAV	**Davao City (W)**	**1.79**	**205**	⇓	P		**Pn**	**22 38 14.7**	**+2.4**
DAV	**Davao City (W)**	**1.79**	**205**		P		**Pn**	**22 38 15.8**	**+3.5**
DAV	**Davao City (W)**	**1.79**	**205**		P		**Pn**	**22 38 14.0**	**+1.7**
DMPH	**Davao City--Mi**	**1.81**	**208**	*eP*			**Pn**	**22 38 14.6**	**+2.0**
DMPH				*i*	S		Sn	22 38 47.5	+13
KCP	**Kidapawan**	**2.09**	**217**	*eP*			**Pn**	**22 38 19.2**	**+2.7**
KCP				*i*	S		**Sn**	**22 38 45.2**	**+3.8**
DDMP	**Don Marcelino,**	**2.65**	**194**	*eP*			**Pn**	**22 38 24.9**	**+0.7**
DDMP				*eS*			**Sn**	**22 39 01.9**	**+6.8**
PLP	**Palo**	**2.80**	**331**	*eP*			**Pn**	**22 38 29.7**	**+3.4**
PLP				*eS*			Sn	22 39 10.3	+11
LLP	**Lapu-Lapu**	**2.85**	**305**	*i*	P		**Pn**	**22 38 30.3**	**+3.3**
LLP				*i*	S		**Sn**	**22 39 07.3**	**+7.2**
GSPH	**General Santos**	**2.94**	**208**	*i*	P		Pn	22 38 37.6	+9.3
GSPH				*i*	S		**Sn**	**22 39 08.1**	**+5.6**
SNPH	**Sibulan**	**3.15**	**282**	*eP*			**Pn**	**22 38 33.6**	**+2.6**
SNPH				*eS*			**Sn**	**22 39 14.1**	**+6.7**
MMPH	**Masbate**	**4.52**	**324**	*eP*			**Pn**	**22 38 54.1**	**+4.2**
MMPH				*i*	S		Sn	22 39 31.6	-10
JAP	**San Jose, Anti**	**4.80**	**296**	*eP*			Pn	22 38 58.5	+4.9
IBAJ	**Ibajay, Aklan**	**5.16**	**307**	*i*	P		Pn	22 39 03.5	+5.0
GQP	**Guinayangan**	**6.44**	**324**	*eP*			**Pn**	**22 39 19.5**	**+3.3**
GAMI	**Galela, Maluku**	**6.96**	**168**		P		**Pn**	**22 39 26.0**	**+2.7**
	29nm36μm4μm,1.2s								
GAMI					AML		AML		
MNI	**Manado**	**7.36**	**192**		P		**Pn**	**22 39 31.5**	**+2.7**
MNI					AML		AML		
PPR	**Puerto Princes**	**7.60**	**279**	*i*	P		**Pn**	**22 39 34.6**	**+2.5**
TNTI	**Ternate**	**7.94**	**173**		P		**Pn**	**22 39 40.2**	**+3.5**
	3μm,1.2s								
TNTI					AML		AML		
TNTI	**Ternate**	**7.94**	**173**		S		**Sn**	**22 41 07.8**	**+2.7**
	3μm,1.2s								
TNTI					AML		AML		
TNTI	**Ternate**	**7.94**	**173**				**Pn**	**22 39 38.4**	**+1.7**
TNTI	**Ternate**	**7.94**	**173**	⇓	P		**Pn**	**22 39 37.0**	**+0.3**
TNTI	**Ternate**	**7.94**	**173**		P		**Pn**	**22 39 40.5**	**+3.8**
	11nm26μm3μm,1.2s								
TNTI					AML		AML		
I39PW	**PALAU INFRASON**	**8.19**	**97**		I		I	23 23 50.0	
	baz=272,slow=316,SNR=1.9								
KMSI	**Cibinong**	**8.40**	**196**		P		**Pn**	**22 39 45.6**	**+2.5**
GTOI	**Gorontalo**	**8.67**	**203**		P		**Pn**	**22 39 46.6**	**-0.1**
TOLI2	**Tolitoli**	**9.36**	**217**		P		**Pn**	**22 39 56.1**	**0.0**
	295nm,0.8s								
TOLI2	**Tolitoli**	**9.36**	**217**				**Pn**	**22 39 55.4**	**-0.7**
TOLI2	**Tolitoli**	**9.36**	**217**		P		**Pn**	**22 39 56.3**	**+0.1**
	comp=Z,5μmcomp=Z,295nm,0.8s,comp=Z,32μm								
TARAI	**Tarakan**	**10.23**	**239**		P		Pn	22 40 14.5	+6.4
	comp=Z,25μmcomp=Z,2μm,1.6s								
LUWI	**Luwuk**	**10.31**	**200**		P		**Pn**	**22 40 11.7**	**+2.5**
LUWI					S		**Sn**	**22 41 58.4**	**-5.0**
LUWI	**Luwuk**	**10.31**	**200**		P		**Pn**	**22 40 12.9**	**+3.7**
	comp=Z,3μm,0.8s								
LUWI	**Luwuk**	**10.31**	**200**				**Pn**	**22 40 10.9**	**+1.8**
LUWI	**Luwuk**	**10.31**	**200**	⇑	P		**Pn**	**22 40 11.5**	**+2.3**
LUWI	**Luwuk**	**10.31**	**200**		P		**Pn**	**22 40 12.6**	**+3.4**
LUWI	**Luwuk**	**10.31**	**200**		P		**Pn**	**22 40 11.1**	**+1.8**
	comp=Z,3μm,0.8s,comp=Z,34μmcomp=Z,32μm								
KKM	**Kota Kinabalu**	**10.39**	**256**		P		**Pn**	**22 40 13.3**	**+2.9**
	comp=Z,403nm,1.5s								
KKM	**Kota Kinabalu**	**10.39**	**256**				**Pn**	**22 40 10.1**	**-0.3**
KKM	**Kota Kinabalu**	**10.39**	**256**		P		Pn	22 40 16.5	+6.1
KKM	**Kota Kinabalu**	**10.39**	**256**	⇓	P		**Pn**	**22 40 14.9**	**+4.4**
KKM	**Kota Kinabalu**	**10.39**	**256**		P		Pn	22 40 17.1	+6.7
APSI	**Ampana**	**10.63**	**206**		P		**Pn**	**22 40 17.4**	**+3.8**
SANI	**Sanana**	**10.68**	**182**		P		**Pn**	**22 40 12.0**	**-2.3**
SANI					S		**Sn**	**22 42 05.4**	**-7.0**
SANI	**Sanana**	**10.68**	**182**		P		**Pn**	**22 40 13.4**	**-0.9**
	comp=Z,1μm,1.0s								
SANI	**Sanana**	**10.68**	**182**		S		**Sn**	**22 42 15.5**	**+3.0**
	comp=Z,1μm,1.0s								
SANI	**Sanana**	**10.68**	**182**		P		**Pn**	**22 40 13.1**	**-1.2**
SANI	**Sanana**	**10.68**	**182**		P		**Pn**	**22 40 13.0**	**-1.3**
	comp=Z,18μmcomp=Z,1μm,1.0s,comp=Z,20μm								
SIJI	**Sorong**	**10.69**	**152**		P		**Pn**	**22 40 13.3**	**-1.1**
	comp=Z,182nm,0.6s,baz=342,slow=12,SNR=47								
SIJI					S		**Sn**	**22 42 07.4**	**-5.3**
	comp=Z,86nm,0.3s,baz=225,slow=23,SNR=11								
SIJI					LR		LR	22 44 38.2	
	comp=Z,15μm,20.8s,baz=340,slow=39								
SIJI	**Sorong**	**10.69**	**152**		P		**Pn**	**22 40 15.1**	**+0.7**
	comp=Z,26μmcomp=Z,9μmcomp=Z,617nm,0.8s								
PIP	**Pasuquin**	**11.08**	**330**	*eP*			**Pn**	**22 40 20.9**	**+1.2**
PIP				*eS*			Sn	22 43 01.9	+40
PCI	**Palu**	**11.54**	**215**		P		**Pn**	**22 40 30.4**	**+4.4**
	comp=Z,35μmcomp=Z,9μmcomp=Z,867nm,1.2s								
NLAI	**Namlea**	**11.88**	**176**		P		**Pn**	**22 40 30.0**	**-0.6**
MWPI	**Manokwari, Pap**	**12.25**	**141**		P		**Pn**	**22 40 37.6**	**+1.8**
	comp=Z,2μm,1.1s								
FAKI	**Fak Fak**	**12.95**	**153**		P		**Pn**	**22 40 46.2**	**+0.9**
	comp=Z,684nm,0.9s								
FAKI	**Fak Fak**	**12.95**	**153**				**Pn**	**22 40 45.5**	**+0.2**
FAKI	**Fak Fak**	**12.95**	**153**		P		**Pn**	**22 40 46.4**	**+1.1**
FAKI	**Fak Fak**	**12.95**	**153**	⇓	P		**Pn**	**22 40 44.6**	**-0.7**
FAKI	**Fak Fak**	**12.95**	**153**		P		**Pn**	**22 40 46.7**	**+1.4**
	comp=Z,29μmcomp=Z,18μmcomp=Z,680nm,0.9s								
FAKI	**Fak Fak**	**12.95**	**153**		P		**Pn**	**22 40 44.1**	**-1.1**
	comp=Z,684nm,0.9s,comp=Z,18μmcomp=Z,29μm								
KDI	**Kendari**	**13.11**	**197**		P		**Pn**	**22 40 50.7**	**+3.2**
	comp=Z,18μmcomp=Z,8μmcomp=Z,629nm,1.1s								
TTSI	**Tana Toraja**	**13.36**	**209**		P		**Pn**	**22 40 54.8**	**+3.9**
	comp=Z,33μmcomp=Z,25μmcomp=Z,2μm,1.1s								
MMSI	**Mamuju**	**13.53**	**214**		P		**Pn**	**22 40 56.8**	**+3.6**
	comp=Z,23μmcomp=Z,307nm,0.9s								
BNDI	**Bandanaira**	**13.60**	**165**		P		**Pn**	**22 40 56.0**	**+1.8**
	comp=Z,645nm,1.3s								
BNDI	**Bandanaira**	**13.60**	**165**		P		**Pn**	**22 40 55.7**	**+1.5**
	comp=Z,20μmcomp=Z,27μmcomp=Z,647nm,1.2s								
BNDI	**Bandanaira**	**13.60**	**165**		P		**Pn**	**22 40 54.9**	**+0.8**
	comp=Z,646nm,1.3s,comp=Z,26μmcomp=Z,20μm								
KKSI	**Kolaka, Sulawe**	**13.61**	**200**		P		**Pn**	**22 40 57.3**	**+2.9**
	comp=Z,19μmcomp=Z,285nm,0.8s								
BKB	**Balikpapan**	**13.66**	**224**		P		**Pn**	**22 40 53.9**	**-1.1**
	comp=Z,1μm,1.4s								
BKB	**Balikpapan**	**13.66**	**224**		Pn		**Pn**	**22 40 52.0**	**-3.1**
BKB	**Balikpapan**	**13.66**	**224**	⇓	P		**Pn**	**22 40 58.2**	**+3.1**
BKB	**Balikpapan**	**13.66**	**224**		P		P	22 41 07.6	+5.2
BAKI	**Biak**	**13.82**	**135**		P		**Pn**	**22 40 58.6**	**+1.4**
	comp=Z,2μm,2.2s								
PMSI	**Majene**	**14.20**	**212**		P		**P**	**22 41 06.0**	**-2.5**
	comp=Z,23μmcomp=Z,10μmcomp=Z,460nm,1.3s								
KMPI	**Kaimana, Papua**	**14.30**	**149**		P		**P**	**22 41 09.3**	**-0.2**
	comp=Z,31μmcomp=Z,2μm,1.6s								
BBSI	**Bau Bau**	**14.58**	**195**		P		**P**	**22 41 17.3**	**+4.6**
TWGBT	**Beinan**	**14.93**	**341**		P		**P**	**22 41 15.7**	**-0.7**
	comp=Z,131nm,0.5s								
TWG	**Pinlang**	**14.93**	**341**		Pn		**Pn**	**22 41 12.2**	**+0.3**
TWG	**Pinlang**	**14.93**	**341**		P		**P**	**22 41 14.9**	**-1.6**
	comp=Z,131nm,0.5s,comp=Z,3μmcomp=Z,24μm								
KAPI	**Kappang**	**15.12**	**206**		P		**Pn**	**22 41 15.0**	**+0.6**
	comp=Z,52nm,0.9s,baz=25,slow=12,SNR=26								
KAPI					LR		LR	22 47 40.2	
	comp=Z,12μm,20.1s,baz=29,slow=40								
KAPI	**Kappang**	**15.12**	**206**		P		**Pn**	**22 41 16.0**	**+1.6**
	comp=Z,289nm,1.3s								
KAPI	**Kappang**	**15.12**	**206**	*ce*	P		**Pn**	**22 41 15.6**	**+1.2**
KAPI	**Kappang**	**15.12**	**206**				**Pn**	**22 41 15.3**	**+0.9**
KAPI	**Kappang**	**15.12**	**206**	⇑	P		**P**	**22 41 18.1**	**-0.6**
KAPI	**Kappang**	**15.12**	**206**		P		**P**	**22 41 17.7**	**-1.0**
BKSI	**Bulukumba**	**15.25**	**204**		P		**P**	**22 41 18.2**	**-1.8**
	comp=Z,15μmcomp=Z,10μmcomp=Z,520nm,1.1s								
YULB	**Yu-li**	**15.40**	**342**		P		**Pn**	**22 41 18.7**	**+0.8**
	comp=Z,80nm,0.6s								
YULB	**Yu-li**	**15.40**	**342**				**Pn**	**22 41 14.0**	**-3.9**
YULB	**Yu-li**	**15.40**	**342**		P		**P**	**22 41 20.0**	**-1.7**
	comp=Z,4μmcomp=Z,80nm,0.6s,comp=Z,22μmcomp=Z,4μm								
MKS	**Makassar**	**15.43**	**207**		P		**P**	**22 41 22.3**	**+0.2**
	comp=Z,22μmcomp=Z,16μmcomp=Z,1μm,1.4s								
TPUB	**Ta-pu**	**15.53**	**340**		P		**Pn**	**22 41 19.7**	**+0.1**
	comp=Z,214nm,0.9s								
TPUB	**Ta-pu**	**15.53**	**340**		Pn		**Pn**	**22 41 17.5**	**-2.1**
TPUB	**Ta-pu**	**15.53**	**340**		P		**Pn**	**22 41 19.9**	**+0.4**
	comp=Z,214nm,0.9s,comp=Z,6μmcomp=Z,30μm								
BSSI	**Bau Bau, Buton**	**15.86**	**202**		P		**P**	**22 41 25.5**	**-1.3**
SSLB	**Suanglung**	**15.87**	**342**		P		**Pn**	**22 41 25.4**	**+1.4**
	comp=Z,164nm,0.8s								
SSLB	**Suanglung**	**15.87**	**342**		Pn		**Pn**	**22 41 22.4**	**-1.7**
SSLB	**Suanglung**	**15.87**	**342**		P		**Pn**	**22 41 25.1**	**+1.1**
SSLB	**Suanglung**	**15.87**	**342**		P		**Pn**	**22 41 24.4**	**+0.3**
	comp=Z,164nm,0.8s,comp=Z,4μmcomp=Z,27μm								
YOJ	**Yonaguni jima**	**16.00**	**349**		P		**P**	**22 41 29.6**	**+1.3**
	comp=Z,390nm,1.0s								
YOJ	**Yonaguni jima**	**16.00**	**349**				**Pn**	**22 41 24.0**	**-1.7**
YOJ	**Yonaguni jima**	**16.00**	**349**		P		**Pn**	**22 41 24.6**	**-1.0**
	comp=Z,390nm,1.0s,comp=Z,7μmcomp=Z,27μm								
NACB	**Ninganchiao**	**16.05**	**344**		P		**Pn**	**22 41 27.5**	**+1.2**
	comp=Z,106nm,1.1s								
NACB	**Ninganchiao**	**16.05**	**344**		Pn		**Pn**	**22 41 24.5**	**-1.8**
NACB	**Ninganchiao**	**16.05**	**344**		P		**P**	**22 41 28.2**	**-0.7**
	comp=Z,106nm,1.1s,comp=Z,3μmcomp=Z,25μm								
JMJ	**Miyako jima 2**	**16.06**	**357**		P		**P**	**22 41 30.4**	**+1.4**
	comp=Z,4μm,1.0s								
FUSS	**Fushou**	**16.22**	**343**		P		**P**	**22 41 30.8**	**-0.2**
SMPI	**Sarmi**	**16.26**	**130**		P		**P**	**22 41 30.2**	**-1.1**
	comp=Z,2μm,1.3s								
YHNB	**Yeheng**	**16.58**	**344**		P		**P**	**22 41 34.3**	**-0.6**
	comp=Z,254nm,1.2s								
YHNB	**Yeheng**	**16.58**	**344**				**Pn**	**22 41 32.9**	**-0.1**
YHNB	**Yeheng**	**16.58**	**344**		P		**Pn**	**22 41 33.4**	**+0.4**
	comp=Z,252nm,1.2s,comp=Z,6μmcomp=Z,27μm								
SAUI	**Saumlaki**	**17.29**	**163**		P		**P**	**22 41 43.9**	**+1.3**
	comp=Z,2μm,1.2s								
SAUI	**Saumlaki**	**17.29**	**163**				**Pn**	**22 41 41.6**	**-0.2**
SAUI	**Saumlaki**	**17.29**	**163**		P		**P**	**22 41 43.8**	**+1.2**
SAUI	**Saumlaki**	**17.29**	**163**	⇓	P		**P**	**22 41 44.0**	**+1.4**
SAUI	**Saumlaki**	**17.29**	**163**		P		**P**	**22 41 44.6**	**+2.0**
	comp=Z,13μmcomp=Z,20μmcomp=Z,2μm,1.2s								
KNMB	**Chin-men Tao**	**17.43**	**335**		Pn		**Pn**	**22 41 41.5**	**-2.0**
KNMB	**Chin-men Tao**	**17.43**	**335**		P		**Pn**	**22 41 41.8**	**-1.7**
	comp=Z,26μmcomp=Z,5μmcomp=Z,142nm,0.9s								
JMZ	**Minamidaito 2**	**17.65**	**15**				**P**	**22 41 46.5**	**-0.1**
JMZ	**Minamidaito 2**	**17.65**	**15**		P		**P**	**22 41 46.6**	**0.0**
	comp=Z,1μm,2.7s,comp=Z,48μm								
MMRI	**Maumere**	**17.70**	**193**		P		**P**	**22 41 49.3**	**+2.1**
	comp=Z,1μm,1.3s								
MMRI	**Maumere**	**17.70**	**193**				**Pn**	**22 41 46.3**	**-0.6**
MMRI	**Maumere**	**17.70**	**193**	⇓	P		**P**	**22 41 50.8**	**+3.6**
MMRI	**Maumere**	**17.70**	**193**		P		**P**	**22 41 52.5**	**+5.3**
	comp=Z,11μmcomp=Z,22μmcomp=Z,1μm,1.3s								
MMRI	**Maumere**	**17.70**	**193**		P		**P**	**22 41 49.0**	**+1.8**
	comp=Z,11μmcomp=Z,21μmcomp=Z,1μm,1.3s,comp=Z,21μm								
GENI	**Genyem**	**17.76**	**129**		P		**P**	**22 41 48.7**	**+0.8**
	comp=Z,884nm,0.8s								
GENI	**Genyem**	**17.76**	**129**	⇓	P		**P**	**22 41 48.1**	**+0.2**
GENI	**Genyem**	**17.76**	**129**		P		**P**	**22 41 49.5**	**+1.6**
	comp=Z,22μmcomp=Z,880nm,1.2s								
GENI	**Genyem**	**17.76**	**129**		P		**P**	**22 41 48.8**	**+0.8**
	comp=Z,41μmcomp=Z,22μmcomp=Z,884nm,0.8s,comp=Z,22μm								
QZH2	**Quanzhou**	**17.77**	**336**	⇑	P		**Pn**	**22 41 47.3**	**-0.4**
QZH2					PP		**sP**	**22 42 03.8**	**-2.1**
QZH2					S		**Sn**	**22 45 03.1**	**-1.9**
QZH2					pmax		pmax		
	comp=Z,6μm,6.9s								
QZH2					L		L		
	comp=Z,10μm,19.6s								
QZH2					L		L		
	comp=Z,6μm,17.5s								
QZH2					L		L		
	comp=Z,17μm,20.3s								
DLV	**Lat**	**17.87**	**282**		P		**P**	**22 41 50.8**	**+1.5**
	comp=Z,323nm,1.1s								
DLV	**Lat**	**17.87**	**282**				**Pn**	**22 41 47.4**	**-1.8**
HKC	**Hong Kong Obse**	**17.89**	**321**	⇑	P		**P**	**22 41 50.0**	**+0.7**
HKPS	**Hong Kong Po S**	**17.89**	**320**		P		**P**	**22 41 51.0**	**+1.7**
	comp=Z,204nm,1.5s								
HKPS	**Hong Kong Po S**	**17.89**	**320**				**Pn**	**22 41 48.4**	**-0.8**
EDFI	**Ende, Flores**	**17.94**	**195**		P		**P**	**22 41 51.5**	**+1.5**
	comp=Z,12μmcomp=Z,604nm,1.1s								
JAY	**Jayapura**	**18.13**	**127**		P		**Pn**	**22 41 52.4**	**+0.1**
	comp=Z,57nm,0.9s,baz=303,slow=4.3,SNR=14								
JAY					LR		LR	22 47 25.0	
	comp=Z,19μm,20.5s,baz=334,slow=32								
JAY	**Jayapura**	**18.13**	**127**		P		**P**	**22 41 52.0**	**0.0**
JAY	**Jayapura**	**18.13**	**127**		P		**Pn**	**22 41 53.8**	**+1.6**
JOW	**Kunigami**	**18.13**	**6**		P		**Pn**	**22 41 52.4**	**+0.3**
	comp=Z,200nm,0.5s,baz=158,slow=11,SNR=40								
JOW					LR		LR	22 48 18.2	
	comp=Z,9μm,19.9s,baz=167,slow=35								
JOW	**Kunigami**	**18.13**	**6**		P		**Pn**	**22 41 54.5**	**+2.4**
	comp=Z,756nm,1.4s								
JOW	**Kunigami**	**18.13**	**6**				**Pn**	**22 41 52.2**	**+0.1**
JOW	**Kunigami**	**18.13**	**6**	⇑	P		**Pn**	**22 41 55.6**	**+3.5**
JOW	**Kunigami**	**18.13**	**6**		P		**Pn**	**22 41 55.6**	**+3.5**
MCO	**Taipa Grande**	**18.16**	**319**		P		**Pn**	**22 41 54.0**	**+1.6**
LBFI	**Labuhan Bajo,**	**18.24**	**201**		P		**Pn**	**22 41 55.4**	**+2.0**
SOEI	**Soe**	**18.45**	**187**		P		**Pn**	**22 41 57.7**	**+1.7**
SOEI					S		**S**	**22 45 22.9**	**-0.9**
SOEI	**Soe**	**18.45**	**187**		P		**Pn**	**22 41 57.8**	**+1.7**
	comp=Z,2μm,1.0s								
SOEI	**Soe**	**18.45**	**187**		P		**Pn**	**22 41 57.2**	**+1.1**
SOEI	**Soe**	**18.45**	**187**		P		**Pn**	**22 41 58.4**	**+2.3**
SOEI	**Soe**	**18.45**	**187**	⇑	P		**Pn**	**22 41 55.8**	**-0.3**
SOEI	**Soe**	**18.45**	**187**		P		**Pn**	**22 41 59.3**	**+3.2**
	comp=Z,15μmcomp=Z,24μmcomp=Z,2μm,0.9s								
GUMO	**Guam**	**18.80**	**73**		P		**Pn**	**22 41 59.9**	**-0.4**
	comp=Z,69nm,0.3s,baz=229,slow=3.5,SNR=7.2								
GUMO					LR		LR	22 48 08.8	
	comp=Z,9μm,19.6s,baz=255,slow=33								
GUMO	**Guam**	**18.80**	**73**		P		**Pn**	**22 41 01.8**	**+1.5**
	comp=Z,775nm,1.6s								
GUMO	**Guam**	**18.80**	**73**		P		**Pn**	**22 42 00.5**	**+0.2**
GUMO					IAmb		IAmb	22 42 11.2	
	comp=Z,1μm,1.4s								
BATI	**Baumata**	**18.97**	**188**		P		**Pn**	**22 42 02.2**	**-0.1**
	comp=Z,185nm,0.5s,baz=172,slow=2.0,SNR=26								
BATI					LR		LR	22 51 16.8	
	comp=Z,6μm,20.2s,baz=332,slow=43								
BATI	**Baumata**	**18.97**	**188**		P		**Pn**	**22 42 03.7**	**+1.4**
	comp=Z,12μmcomp=Z,15μmcomp=Z,2μm,0.9s								
QIZ	**Qiongzhong**	**19.02**	**304**		P		**Pn**	**22 42 03.8**	**+0.9**
	comp=Z,450nm,1.5s								
QIZ	**Qiongzhong**	**19.02**	**304**		P		**Pn**	**22 42 03.6**	**+0.7**
QIZ					sP		**sP**	**22 42 21.8**	**+2.0**
QIZ					S		**S**	**22 45 33.3**	**-1.8**
QIZ					sS		**sS**	**22 45 55.5**	**+2.0**
QIZ					pmax		pmax		
	comp=Z,97nm,1.0s								
QIZ					pmax		pmax		
	comp=Z,5μm,6.1s								
QIZ					L		L		
	comp=Z,9μm,14.5s								
QIZ					L		L		
	comp=Z,9μm,16.7s								
QIZ					L		L		
	comp=Z,21μm,17.3s								
QIZ	**Qiongzhong**	**19.02**	**304**		P		**Pn**	**22 41 59.6**	**-2.1**
GZH2	**Guangzhou**	**19.21**	**322**		P		**Pn**	**22 42 05.8**	**+0.7**
GZH2					sP		**sP**	**22 42 20.3**	**-1.4**
GZH2					S		**Sn**	**22 45 42.4**	**+2.6**
GZH2					pmax		pmax		
	comp=Z,140nm,0.6s								
GZH2					L		L		
	comp=Z,15μm,22.9s								
GZH2					L		L		
	comp=Z,17μm,21.6s								
GZH2					L		L		
	comp=Z,39μm,22.5s								
WSI	**Waingapu**	**19.21**	**198**		P		**Pn**	**22 42 09.5**	**+4.3**
	comp=Z,13μmcomp=Z,16μmcomp=Z,820nm,0.9s								
PLAI	**Plampang**	**19.39**	**206**		P		**Pn**	**22 42 07.4**	**+0.1**
	comp=Z,700nm,0.9s								
PLAI	**Plampang**	**19.39**	**206**		P		**Pn**	**22 42 09.1**	**+1.8**
	comp=Z,15μmcomp=Z,9μmcomp=Z,699nm,0.8s								
TWSI	**Taliwang, Sumb**	**19.72**	**209**		P		**Pn**	**22 42 12.3**	**+1.1**
	comp=Z,14μmcomp=Z,9μmcomp=Z,614nm,1.1s								
BWJI	**Bawean**	**19.88**	**224**		P		**Pn**	**22 42 19.6**	**+6.5**
SRBI	**Singaraja**	**20.03**	**214**		P		Pn	22 42 17.4	+2.6
	comp=Z,16μmcomp=Z,18μmcomp=Z,1μm,1.4s								
KHKI	**Kahang-Kahang**	**20.04**	**213**		P		Pn	22 42 19.7	+4.7
	comp=Z,13μmcomp=Z,9μmcomp=Z,556nm,1.1s								
DPSS	**Saipan**	**20.09**	**69**		P		Pn	22 42 14.7	-0.9
ABJI	**Asem Bagus**	**20.35**	**217**		P		Pn	22 42 23.0	+4.3
	comp=Z,16μmcomp=Z,22μmcomp=Z,680nm,1.5s								
DNP	**Denpasar**	**20.52**	**213**		P		pP	22 42 31.9	+2.2
IGBI	**Denpasar**	**20.67**	**213**		P		Pn	22 42 29.3	+6.9
BLJI	**Banyuglugur**	**20.70**	**218**		P		Pn	22 42 24.6	+1.8
	comp=Z,15μmcomp=Z,12μmcomp=Z,524nm,1.1s								
GRJI	**Gresik**	**20.78**	**222**		P		Pn	22 42 27.2	+3.5
	comp=Z,18μmcomp=Z,35μmcomp=Z,3μm,1.3s								
JAGI	**Jajag, Banyuwa**	**20.94**	**216**		P		Pn	22 42 24.5	-1.2
JAGI	**Jajag, Banyuwa**	**20.94**	**216**		P		**P**	**22 42 22.9**	**+0.3**
JAGI					IAmb		IAmb	22 42 39.9	
	comp=Z,1μm,1.6s								
JAGI	**Jajag, Banyuwa**	**20.94**	**216**	⇑	P		Pn	22 42 27.9	+2.2
JAGI	**Jajag, Banyuwa**	**20.94**	**216**		P		Pn	22 42 29.8	+4.1
	comp=Z,13μmcomp=Z,10μmcomp=Z,618nm,1.4s								
TBJI	**Tambak Boyo**	**21.13**	**224**		P		pP	22 42 40.4	+4.0
DRS	**Darwin Rock St**	**21

comp=Z,32µm,17.3s
CBJI Citeko 24.57 233 P **P** 22 43 03.6 +4.4
comp=Z,15µmcomp=Z,16µmcomp=Z,911nm,1.0s
BBJI Bungbulang 24.60 230 P **P** 22 43 02.6 +3.0
comp=Z,239nm,1.1s
BBJI Bungbulang 24.60 230 P **P** 22 42 58.8 -0.8
BBJI Bungbulang 24.60 230 P **P** 22 43 03.7 +4.1
BBJI Bungbulang 24.60 230 P **P** 22 43 01.2 +1.6
comp=Z,7µmcomp=Z,5µmcomp=Z,239nm,1.1s
JNU Nakatsue 24.67 9 LR LR 22 52 24.1
comp=Z,6µm,21.9s,baz=172,slow=36
JNU Nakatsue 24.67 9 P **P** 22 42 59.8 -0.3
JMBI JAMBI 24.85 247 P **P** 22 43 07.1 +5.2
SBJI Serang 24.96 235 P **P** 22 43 06.5 +3.7
SLVN Son La 25.01 303 P **P** 22 43 06.2 +2.8
SLVN Son La 25.01 303 P **P** 22 43 01.3 -2.1
SLVN IAMs_20 IAMs_20 22 52 57.3
comp=Z,13µm,20.0s
SKJI Sukabumi 25.15 232 P pP 22 43 15.5 -2.0
BLSI Bandar Lampung 25.26 237 P **P** 22 43 10.4 +4.8
comp=Z,10µmcomp=Z,14µmcomp=Z,425nm,0.9s
IPM Ipoh 25.50 262 P **P** 22 43 10.5 +2.7
comp=Z,393nm,1.2s
IPM Ipoh 25.50 262 P **P** 22 43 06.5 -1.3
IPM IAmb IAmb 22 43 40.4
comp=Z,417nm,1.1s
IPM Ipoh 25.50 262 ⇑P **P** 22 43 08.1 +0.3
IPM Ipoh 25.50 262 P **P** 22 43 09.1 +1.3
IPM Ipoh 25.50 262 P **P** 22 43 09.3 +1.5
comp=Z,13µmcomp=Z,7µmcomp=Z,286nm,1.4s
CGJI Cibinong 25.60 234 P **P** 22 43 13.9 +5.3
comp=Z,13µmcomp=Z,815nm,1.5s
MDSI Maura Dua 25.70 240 P **P** 22 43 11.0 +1.5
comp=Z,10µmcomp=Z,845nm,1.2s
GYA Guiyang 25.71 316 ⇓P **P** 22 43 10.9 +1.2
GYA pP pP 22 43 20.4 -2.2
GYA S **S** 22 47 33.3 -1.9
GYA pmax pmax
comp=Z,2µm,6.0s
GYA L L
comp=Z,12µm,24.9s
GYA L L
comp=Z,11µm,26.9s
GYA L L
comp=Z,28µm,28.3s
KULM Kulim 25.73 264 P **P** 22 43 12.3 +2.4
comp=Z,371nm,1.3s
KULM Kulim 25.73 264 P **P** 22 43 09.7 -0.2
KULM IAmb IAmb 22 43 33.3
comp=Z,439nm,1.1s
KULM Kulim 25.73 264 ⇑P **P** 22 43 11.2 +1.3
KULM Kulim 25.73 264 P **P** 22 43 11.7 +1.8
comp=Z,6µmcomp=Z,371nm,1.3s
KULM Kulim 25.73 264 P **P** 22 43 12.1 +2.2
comp=Z,6µmcomp=Z,371nm,1.3s,comp=Z,6µm
JTU Tsushima 25.86 6 P **P** 22 43 14.8 +4.0
comp=Z,221nm,1.1s
JTU Tsushima 25.86 6 P **P** 22 43 08.8 -2.0
JTU IAmb IAmb 22 43 27.2
comp=Z,546nm,1.4s
JTU Tsushima 25.86 6 ⇑P **P** 22 43 11.3 +0.5
JTU Tsushima 25.86 6 P **P** 22 43 13.1 +2.3
comp=Z,11µmcomp=Z,6µmcomp=Z,222nm,1.1s,comp=Z,6µm
JMN Monobe 25.86 14 P **P** 22 43 12.8 +1.9
comp=Z,879nm,1.2s
JMN Monobe 25.86 14 P **P** 22 43 09.8 -1.1
JMN IAmb IAmb 22 43 18.4
comp=Z,1µm,1.2s
JMN Monobe 25.86 14 P **P** 22 43 12.2 +1.3
comp=Z,9µmcomp=Z,879nm,1.2s
LHSI Lahat 25.94 242 P **P** 22 43 15.3 +3.6
comp=Z,13µmcomp=Z,480nm,1.0s
KASI Kota Agung 25.97 238 P **P** 22 43 13.8 +1.8
comp=Z,10µmcomp=Z,6µmcomp=Z,558nm,1.1s
BKNI Bangkinang 26.55 253 P **P** 22 43 16.8 -0.5
BKNI Bangkinang 26.55 253 P **P** 22 43 19.7 +2.5
BKNI Bangkinang 26.55 253 P **P** 22 43 24.3 +7.1
comp=Z,17µmcomp=Z,7µmcomp=Z,526nm,1.2s
FITZ Fitzroy Crossi 26.63 182 P **P** 22 43 16.7 -1.1
comp=Z,117nm,1.0s,comp=Z,0.0nm
FITZ Fitzroy Crossi 26.63 182 P **P** 22 43 17.6 -0.3
comp=Z,147nm,0.9s,baz=11,slow=9.4,SNR=124
FITZ S **S** 22 47 56.3 +6.8
comp=Z,36nm,0.9s,baz=343,slow=8.3,SNR=1.8
FITZ LR LR 22 54 41.3
comp=Z,3µm,20.7s,baz=8.0,slow=38
comp=Z,147nm,0.9s
FITZ Fitzroy Crossi 26.63 182 P **P** 22 43 20.7 +2.8
comp=Z,1µm,1.0s
FITZ Fitzroy Crossi 26.63 182 P **P** 22 43 17.9 0.0
FITZ Fitzroy Crossi 26.63 182 ⇑P **P** 22 43 17.1 -0.8
FITZ Fitzroy Crossi 26.63 182 P **P** 22 43 17.8 -0.1
comp=Z,2µmcomp=Z,2µmcomp=Z,117nm,1.0s,comp=Z,2µm
ENH Enshi 26.64 326 P **P** 22 43 22.0 +4.0
comp=Z,61nm,1.0s
ENH Enshi 26.64 326 P **P** 22 43 15.8 -2.2
ENH IAMs_20 IAMs_20 22 53 31.8
comp=Z,17µm,22.0s
KSI Kapahiang 26.68 244 P **P** 22 43 20.8 +2.3
comp=Z,16µmcomp=Z,604nm,1.2s
MNAI Manna 26.69 242 P **P** 22 43 22.3 +3.7
comp=Z,1µm,1.0s
MNAI Manna 26.69 242 P pP 22 43 33.8 +2.3
MASI Maura Aman, Be 26.76 245 P **P** 22 43 23.5 +4.3
comp=Z,17µmcomp=Z,15µmcomp=Z,811nm,1.0s
KRJI Kerinci 27.03 248 P **P** 22 43 26.5 +4.8
JAD Aida 27.09 14 P **P** 22 43 22.2 +0.4
JIE Ise 27.29 19 P **P** 22 43 24.2 +0.6
JHJ Hachijo jima 2 27.29 25 LR LR 22 54 35.2
comp=Z,415nm,18.9s,baz=197,slow=37
PMG Port Moresby 27.43 130 P **P** 22 43 24.5 -0.7
comp=Z,58nm,0.7s,baz=7.7,slow=8.3,SNR=16
comp=Z,58nm,0.7s
PMG Port Moresby 27.43 130 P **P** 22 43 26.5 +1.3
comp=Z,253nm,1.2s
PMG Port Moresby 27.43 130*ce*P **P** 22 43 24.8 -0.3
PMG pmax pmax
comp=Z,411nm,1.6s
PMG Port Moresby 27.43 130 P **P** 22 43 24.9 -0.3
PMG Port Moresby 27.43 130 ⇑P **P** 22 43 24.2 -1.0
PMG Port Moresby 27.43 130 P **P** 22 43 25.7 +0.5
comp=Z,10µmcomp=Z,5µmcomp=Z,247nm,1.2s
PMG Port Moresby 27.43 130 P **P** 22 43 26.1 +0.9
comp=Z,10µmcomp=Z,5µmcomp=Z,253nm,1.2s,comp=Z,5µm
TJN Taejon 27.57 2 P **P** 22 43 27.3 +1.1
comp=Z,544nm,1.1s
TJN Taejon 27.57 2 *i* P **P** 22 43 26.2 0.0
TJN pmax pmax
comp=Z,2.0nm,0.5s
TJN Taejon 27.57 2 P **P** 22 43 24.7 -1.4
TJN IAmb IAmb 22 44 04.3
comp=Z,651nm,1.1s
TJN Taejon 27.57 2 P **P** 22 43 25.7 -0.5
comp=Z,40µmcomp=Z,9µmcomp=Z,584nm,1.1s,comp=Z,9µm
JWT Wachi 27.73 16 P **P** 22 43 28.3 +0.7
KMI2 Kunming 27.81 309 ⇑P **P** 22 43 30.4 +1.7
KMI2 pP sP 22 43 47.1 -0.8
KMI2 S **S** 22 48 10.3 +1.8
KMI2 sS sS 22 48 32.8 +2.5
KMI2 pmax pmax
comp=Z,79nm,1.2s
KMI2 pmax pmax
comp=Z,1µm,8.8s
KMI2 L L
comp=Z,8µm,26.9s
KMI2 L L
comp=Z,10µm,22.2s
KMI2 L L
comp=Z,20µm,26.2s
PSI Prapat 27.90 260 P **P** 22 43 30.2 +0.7
comp=Z,15nm,0.6s,baz=59,slow=6.5,SNR=19
PSI PcP **PcP** 22 46 44.7 +0.3
comp=Z,21nm,0.7s,baz=76,slow=4.2,SNR=2.8
PSI ScP **ScP** 22 50 22.2 +0.9
comp=Z,24nm,1.2s,baz=50,slow=5.7,SNR=3.6
PSI LR LR 22 58 33.8
comp=Z,4µm,19.0s,baz=57,slow=45
comp=Z,15nm,0.6s
PSI Prapat 27.90 260 P **P** 22 43 32.5 +3.0
comp=Z,354nm,1.2s
PSI Prapat 27.90 260 P **P** 22 43 31.3 +1.8
comp=Z,12µmcomp=Z,4µmcomp=Z,274nm,1.2s,comp=Z,13µm,1.2s,
comp=Z,4µm,1.2s,comp=Z,328nm,1.2s
PSI P pP 22 43 33.4 -9.2
comp=Z,12µmcomp=Z,4µmcomp=Z,274nm,1.2s,comp=Z,13µm,1.2s,
comp=Z,4µm,1.2s,comp=Z,328nm,1.2s
RPSI Rantau Prapat 27.92 259 P **P** 22 43 29.4 -0.2
RPSI IAmb IAmb 22 43 48.3
comp=Z,454nm,1.2s
RPSI Rantau Prapat 27.92 259 P **P** 22 43 31.7 +2.1
comp=Z,13µmcomp=Z,4µmcomp=Z,328nm,1.2s,comp=Z,4µm
COEN Coen 28.02 143 P **P** 22 43 34.2 +3.7
comp=Z,397nm,1.6s
JSG Sagara 28.05 21 P **P** 22 43 33.9 +3.5
comp=Z,481nm,1.3s
JSG Sagara 28.05 21 P **P** 22 43 30.4 0.0
JSG IAmb IAmb 22 43 34.8
comp=Z,356nm,0.9s
JSG Sagara 28.05 21 P **P** 22 43 32.1 +1.7
comp=Z,10µmcomp=Z,7µmcomp=Z,480nm,1.3s,comp=Z,7µm
TRSI Tarutung 28.05 258 P 22 43 38.9 +8.0
INU Inuyama 28.27 19 P **P** 22 43 33.4 +1.0
comp=Z,272nm,0.9s
INU Inuyama 28.27 19 P **P** 22 43 31.9 -0.5
INU Inuyama 28.27 19 ⇑P **P** 22 43 32.8 +0.4
INU Inuyama 28.27 19 P **P** 22 43 33.0 +0.6
comp=Z,10µmcomp=Z,4µmcomp=Z,272nm,0.9s
CM31 Chiang Mai Arr 28.32 293 P **P** 22 43 35.0 +1.9
SNR=63
CM31 Chiang Mai Arr 28.32 293 P **P** 22 43 32.8 -0.3
CM31 IAmb IAmb 22 43 59.6
comp=Z,386nm,1.2s
CMAR Chiang Mai Arr 28.32 293 P **P** 22 43 34.0 +0.9
comp=Z,38nm,0.8s,baz=103,slow=6.7,SNR=173
CMAR ScP **ScP** 22 50 22.3 0.0
comp=Z,3.6nm,0.8s,baz=123,slow=1.1,SNR=4.5
CMAR pScP 22 50 46.9
comp=Z,19nm,1.0s,baz=66,slow=1.5,SNR=9.1
CMAR LR LR 22 55 52.0
comp=Z,7µm,18.4s,baz=105,slow=38
comp=Z,38nm,0.8s
CMAR Chiang Mai Arr 28.32 293*ce*P **P** 22 43 34.5 +1.4
CMAR pmax pmax
comp=Z,55nm,0.9s
CMAR Chiang Mai Arr 28.32 293 P **P** 22 43 32.7 -0.4
CMAR ScP **ScP** 22 50 21.1 -1.2
CHTO Chiang Mai 28.42 294 P **P** 22 43 35.6 +1.6
comp=Z,98nm,1.3s
CHTO Chiang Mai 28.42 294 P **P** 22 43 35.3 +1.3
CHTO Chiang Mai 28.42 294 P **P** 22 43 33.6 -0.4
CHTO Chiang Mai 28.42 294 ⇑P **P** 22 43 35.0 +1.0
CHTO Chiang Mai 28.42 294 P **P** 22 43 36.3 +2.3
CHTO Chiang Mai 28.42 294 P **P** 22 43 35.1 +1.2
comp=Z,14µmcomp=Z,4µmcomp=Z,163nm,1.3s,comp=Z,4µm
JGF Kuroka 28.61 19 P **P** 22 43 36.6 +1.1
comp=Z,128nm,0.9s
JGF Kuroka 28.61 19 ⇑P **P** 22 43 35.2 -0.2
JGF Kuroka 28.61 19 P **P** 22 43 35.5 0.0
comp=Z,9µmcomp=Z,2µmcomp=Z,149nm,1.0s
KSAR Wonju Array Be 28.65 3 P **P** 22 43 34.6 -1.2
KSAR Wonju Array Be 28.65 3 P **P** 22 43 34.6 -1.2
TIA Tai'an 28.65 344 P **P** 22 43 35.5 -0.3
TIA S **S** 22 48 18.8 -2.3
TIA pmax pmax
comp=Z,16nm,1.0s
TIA pmax pmax
comp=Z,1µm,9.0s
TIA L L
comp=Z,5µm,21.1s
TIA L L
comp=Z,3µm,19.4s
TIA L L
comp=Z,9µm,21.6s
INCN Inchon 28.66 0 P **P** 22 43 39.5 +3.6
comp=Z,55nm,0.9s
INCN Inchon 28.66 0 P **P** 22 43 35.3 -0.7
comp=Z,14µmcomp=Z,2µmcomp=Z,57nm,0.9s
KSRS Korea Array 28.67 3 P **P** 22 43 36.1 +0.3
comp=Z,74nm,0.9s,baz=182,slow=9.4,SNR=129
KSRS PcP **PcP** 22 46 46.0 +0.3
comp=Z,11nm,0.7s,baz=186,slow=2.1,SNR=11
KSRS pPcP 22 47 01.1
comp=Z,16nm,0.7s,baz=187,slow=2.2,SNR=7.5
KSRS ScP **ScP** 22 50 21.9 -1.0
comp=Z,3.9nm,0.8s,baz=180,slow=3.3,SNR=5.1
KSRS pScP 22 50 47.1
comp=Z,25nm,1.1s,baz=187,slow=3.3,SNR=13
KSRS LR LR 22 57 48.0
comp=Z,6µm,18.1s,baz=180,slow=42
comp=Z,74nm,0.9s
KRVT Keravat (AS076 28.67 116 P **P** 22 43 36.2 0.0
comp=Z,98nm,0.3s,baz=159,slow=8.2,SNR=9.9
KRVT LR LR 22 54 11.6
comp=Z,4µm,20.4s,baz=325,slow=34
comp=Z,98nm,0.3s
KS19 Wonju Array Si 28.71 3 P **P** 22 43 35.8 -0.5
LYN LuoYang 28.72 336 P **P** 22 43 35.0 -1.4
LYN S **S** 22 48 17.5 -4.7
LYN sS sS 22 48 46.4 +2.4
LYN pmax pmax
comp=Z,36nm,0.6s
LYN pmax pmax
comp=Z,2µm,11.7s
LYN L L
comp=Z,10µm,23.4s
LYN L L
comp=Z,7µm,22.3s
LYN L L
comp=Z,17µm,18.9s
RABL Rabaul 28.74 115 P **P** 22 43 37.6 +0.7
RABL IAmb IAmb 22 43 56.0
comp=Z,425nm,1.1s
KCSI Kotacane, Aceh 28.87 262 P **P** 22 43 38.7 +0.7
SISI Saibi 28.94 251 P **P** 22 43 39.0 +0.4
HJU Haeju 29.23 359 P **P** 22 43 41.2 +0.4
HJU S **S** 22 48 26.3 -3.7
HJU AmB
comp=Z,2µm,4.8s
PZH PanZhiHua 29.30 310 P **P** 22 43 45.0 +3.2
PZH S **S** 22 48 36.6 +4.9
PZH pmax pmax
comp=Z,30nm,1.2s
PZH pmax pmax
comp=Z,1µm,10.6s
PZH L L
comp=Z,7µm,23.9s
PZH L L
comp=Z,8µm,24.9s
PZH L L
comp=Z,16µm,24.1s
WB0 Warramunga Arr 29.37 164 P **P** 22 43 40.5 -1.9
LHMI Lhok Sumawe 29.39 265 P **P** 22 43 45.0 +2.4
comp=Z,908nm,1.0s
LHMI Lhok Sumawe 29.39 265 P **P** 22 43 42.5 -0.1
LHMI Lhok Sumawe 29.39 265 ⇑P **P** 22 43 45.2 +2.6
LHMI Lhok Sumawe 29.39 265 P P 22 43 47.4 +4.8
LHMI Lhok Sumawe 29.39 265 P **P** 22 43 45.5 +2.9
comp=Z,18µmcomp=Z,10µmcomp=Z,907nm,1.0s
WB8 Warramunga Arr 29.41 164 P **P** 22 43 40.8 -1.9
TPTI 29.50 261 P P 22 43 50.7 +7.1
JRY Ryogami san 29.51 21 P **P** 22 43 42.7 -0.8
WRAB Tennant Creek 29.52 165 P **P** 22 43 43.7 +0.1
comp=Z,83nm,1.3s
WRAB Tennant Creek 29.52 165 *i* P **P** 22 43 42.3 -1.4
WRAB pmax pmax
comp=Z,116nm,1.0s
WRAB Tennant Creek 29.52 165 P **P** 22 43 42.7 -0.9
WRAB IAmb IAmb 22 44 38.1
comp=Z,524nm,1.5s
WRAB Tennant Creek 29.52 165 P **P** 22 43 42.7 -0.9
comp=Z,6µmcomp=Z,4µmcomp=Z,154nm,1.3s,comp=Z,4µm
WRA Warramunga Arr 29.52 165 P **P** 22 43 42.4 -1.3
comp=Z,36nm,0.7s,baz=343,slow=9.7,SNR=30
WRA pP **pP** 22 43 54.8 -1.9
comp=Z,79nm,0.8s,baz=349,slow=10,SNR=15
WRA LR LR 22 57 16.6
comp=Z,4µm,21.2s,baz=338,slow=40
WRA P3KPbc 23 15 45.5
comp=Z,0.3nm,0.4s,baz=168,slow=4.0,SNR=6.1
comp=Z,36nm,0.7s
WRA Warramunga Arr 29.52 165 P **P** 22 43 42.0 -1.7
WR8 Warramunga Arr 29.58 164 P **P** 22 43 42.2 -2.0
MJAR Matsushiro Arr 29.75 19 P **P** 22 43 44.7 -0.8
comp=Z,98nm,0.8s,baz=194,slow=9.3,SNR=141
MJAR pScP 22 50 51.1
comp=Z,3.3nm,0.8s,baz=194,slow=2.1,SNR=4.4
MJAR LR LR 22 54 41.8
comp=Z,7µm,21.9s,baz=213,slow=34
MJAR P3KPbc 23 15 44.8
comp=Z,2.3nm,0.8s,baz=0.0,slow=4.0,SNR=5.7
comp=Z,98nm,0.8s
MJAR Matsushiro Arr 29.75 19 P **P** 22 43 44.1 -1.4
MAJO Matsushiro 29.75 19 P **P** 22 43 49.1 +3.6
MAJO Matsushiro 29.75 19*c i* P **P** 22 43 44.9 -0.6
MAJO pmax pmax
comp=Z,127nm,0.9s
MAJO Matsushiro 29.75 19 P **P** 22 43 43.8 -1.8
MAJO Matsushiro 29.75 19 ⇑P **P** 22 43 44.7 -0.9
MAJO Matsushiro 29.75 19 P **P** 22 43 44.9 -0.6
comp=Z,9µmcomp=Z,2µmcomp=Z,149nm,0.9s,comp=Z,2µm
MAT Matsushiro 29.75 19 P **P** 22 43 44.7 -0.9
MJB9 Matsu-Tunnel 29.75 19 P **P** 22 43 44.0 -1.6
XAN Xi'an 29.89 330 P **P** 22 43 44.8 -2.1
XAN PP **PnPn** 22 44 45.3 +0.4
XAN S **S** 22 48 36.1 -4.7
XAN sS sS 22 49 00.8 -1.8
XAN pmax pmax
comp=Z,35nm,0.5s
XAN pmax pmax
comp=Z,1µm,8.2s
XAN L L
comp=Z,12µm,21.5s
XAN L L
comp=Z,9µm,19.1s
XAN L L
comp=Z,17µm,22.8s
MLSI Meulaboh, Aceh 30.07 264 P **P** 22 43 49.4 +0.7
PYAG Pyongyang 30.23 359 P **P** 22 43 50.6 +0.9
PYAG S **S** 22 48 42.6 -3.2
PYAG AmB
comp=Z,1µm,4.0s
MBWA Marble Bar 30.37 192 P **P** 22 43 51.5 +0.3
comp=Z,305nm,1.5s,comp=Z,0.0nm
MBWA Marble Bar 30.37 192 P **P** 22 43 51.5 +0.3
comp=Z,305nm,1.5s,comp=Z,0.0nm
MBWA Marble Bar 30.37 192 P **P** 22 43 55.7 +4.5
comp=Z,175nm,1.5s
MBWA Marble Bar 30.37 192 P **P** 22 43 51.4 +0.2
MBWA Marble Bar 30.37 192 P **P** 22 43 50.7 -0.5
MBWA IAmb IAmb 22 44 04.8
comp=Z,279nm,1.1s
MBWA Marble Bar 30.37 192 ⇓P **P** 22 43 51.2 0.0
MBWA Marble Bar 30.37 192 P **P** 22 43 51.8 +0.6
comp=Z,5µmcomp=Z,4µmcomp=Z,305nm,1.5s,comp=Z,4µm
MBWA pP **pP** 22 44 03.0 -1.2
MBWA Marble Bar 30.37 192 P **P** 22 43 51.2 0.0
MBWA pP **pP** 22 44 02.4 -1.8
MBWA sP **sP** 22 44 07.3 -2.9
DL2 Dalian 30.38 353 P **P** 22 43 51.1 0.0
DL2 sP **sP** 22 44 08.3 -1.9
DL2 S **S** 22 48 46.3 -1.8
DL2 pmax pmax
comp=Z,84nm,0.7s
DL2 pmax pmax
comp=Z,1µm,6.5s
DL2 L L
comp=Z,6µm,20.6s
DL2 L L
comp=Z,5µm,20.2s
DL2 L L
comp=Z,10µm,26.0s
CD2 Chengdu 30.54 319 P **P** 22 43 51.8 -0.9
CD2 pP pP 22 44 03.8 -2.0
CD2 S **S** 22 48 47.1 -3.9
CD2 pmax pmax
comp=Z,80nm,0.7s
CD2 pmax pmax
comp=Z,820nm,6.8s
CD2 L L
comp=Z,25µm,24.5s
CD2 L L
comp=Z,24µm,24.5s
CD2 L L
comp=Z,25µm,27.9s
TNCH TengChong 31.09 305 P **P** 22 43 59.4 +1.6
TNCH pP pP 22 44 12.8 +1.8
TNCH S **S** 22 49 00.8 +0.7
TNCH pmax pmax
comp=Z,120nm,1.1s
TNCH pmax pmax
comp=Z,2µm,5.0s
TNCH L L
comp=Z,2µm,19.3s
TNCH L L
comp=Z,5µm,14.9s
TNCH L L
comp=Z,11µm,19.3s
HHU Hamhung 31.12 2 P **P** 22 43 58.5 +0.9
HHU S **S** 22 48 56.7 -3.0
HHU AmB
comp=Z,2µm,3.5s
NPW Naypyitaw 31.23 294 P **P** 22 44 00.7 +1.9
comp=Z,5µmcomp=Z,5µmcomp=Z,296nm,0.9s,comp=Z,5µm
SUJ Sinuiju 31.32 357 P **P** 22 44 00.5 +1.2
TIY Taiyuan 31.51 339 P **P** 22 44 02.1 +0.9
TIY sP **sP** 22 44 22.6 +2.3
TIY S **S** 22 49 05.3 -0.8
TIY pmax pmax
comp=Z,840nm,8.8s
TIY L L
comp=Z,4µm,22.7s
TIY L L
comp=Z,4µm,20.6s
TIY L L
comp=Z,7µm,24.7s
JMM Marumori 31.84 22 P **P** 22 44 04.3 +0.4
QIS Mount Isa 31.86 156 P **P** 22 44 03.3 -1.0
comp=Z,662nm,0.7s,comp=Z,0.0nm
QIS Mount Isa 31.86 156 P **P** 22 44 05.8 +1.5
comp=Z,662nm,0.7s
QIS Mount Isa 31.86 156 P **P** 22 44 03.5 -0.8
comp=Z,4µmcomp=Z,8µmcomp=Z,662nm,0.7s,comp=Z,8µm
MTSU Mount Surprise 32.02 146 P **P** 22 44 06.2 +0.5
comp=Z,232nm,0.9s
MTSU Mount Surprise 32.02 146 P **P** 22 44 09.7 +3.9
comp=Z,232nm,0.9s
MTSU Mount Surprise 32.02 146 P **P** 22 44 06.5 +0.7
comp=Z,2µmcomp=Z,232nm,0.9s,comp=Z,2µm
JYA Atsumi 32.11 20 P **P** 22 44 07.0 +0.7
BJI2 Beijing 32.49 345 P **P** 22 44 08.8 -0.9
BJI2 pP **pP** 22 44 19.4 -3.3
BJI2 sP **sP** 22 44 24.3 -4.4
BJI2 PcP **PcP** 22 46 54.3 -1.4
BJI2 S **S** 22 49 18.8 -2.3
BJI2 pmax pmax
comp=Z,54nm,1.1s
BJI2 pmax pmax
comp=Z,910nm,5.1s
BJI2 L L
comp=Z,5µm,24.5s
BJT Baijiatuao 32.49 345 P **P** 22 44 09.9 +0.2
comp=Z,695nm,1.2s
BJT Baijiatuao 32.49 345 P **P** 22 44 08.4 -1.3
BJT pmax pmax
comp=Z,294nm,1.5s
BJT MLR MLR
comp=Z,3µm,20.0s
BJT Baijiatuao 32.49 345 P **P** 22 44 08.4 -1.3
BJT IAmb IAmb 22 44 50.9
comp=Z,294nm,1.5s
AS15 Alice Springs 32.97 167 P **P** 22 44 12.8 -1.3
comp=Z,122nm,1.1s
AS31 Alice Springs 33.00 167 P **P** 22 44 13.4 -0.9
comp=Z,29nm,0.8s,comp=Z,0.0nm
AS31 Alice Springs 33.00 167 P **P** 22 44 13.2 -1.1
ASAR Alice Springs 33.00 167 P **P** 22 44 13.0 -1.3
comp=Z,8.7nm,0.3s,baz=350,slow=6.8,SNR=61
ASAR pP **pP** 22 44 26.0 -1.3
comp=Z,22nm,0.5s,baz=348,slow=7.1,SNR=12
ASAR PcP **PcP** 22 46 57.1 -0.3
comp=Z,28nm,0.6s,baz=353,slow=2.4,SNR=9.0
ASAR ScP **ScP** 22 50 36.6 -1.0
comp=Z,7.5nm,0.8s,baz=353,slow=3.2,SNR=4.4
ASAR pScP 22 51 01.9
comp=Z,7.3nm,0.7s,baz=275,slow=1.0,SNR=4.2
ASAR LR LR 22 59 32.2
comp=Z,3µm,21.2s,baz=342,slow=40
ASAR PKPPKP **P'P'df** 23 17 44.9 +2.5
comp=Z,1.0nm,0.8s,baz=164,slow=2.4,SNR=4.3
comp=Z,8.7nm,0.3s
ASAR Alice Springs 33.00 167 P **P** 22 44 13.1 -1.2
ASAR **PcP** 22 46 57.3 -0.1
ASAR **ScP** 22 50 35.9 -1.7
AS01 Alice Springs 33.01 167 P **P** 22 44 14.4 0.0
comp=Z,98nm,1.3s
AS17 Alice Springs 33.02 167 P **P** 22 44 13.5 -1.0
comp=Z,198nm,1.3s
AS09 Alice Springs 33.04 167 P **P** 22 44 13.7 -1.0
comp=Z,140nm,0.9s

SNY	**Shenyang**	33.09	356	⇑P		**P**		**22 44 15.0**	**+0.2**
SNY				S		**S**		**22 49 27.5**	**-2.9**
SNY				pmax		pmax			
	comp=Z,73nm,0.6s								
SNY				pmax		pmax			
	comp=Z,2µm,4.0s								
SNY				L		L			
	comp=Z,3µm,22.6s								
SNY				L		L			
	comp=Z,3µm,20.0s								
SNY				L		L			
	comp=Z,7µm,24.7s								
PBA	**Port Blair**	33.20	278	*i* P		**P**		**22 44 18.6**	**+2.4**
GIRL	**Giralia**	33.33	201	P		**P**		**22 44 21.2**	**+4.1**
	comp=Z,157nm,1.2s								
GIRL	**Giralia**	33.33	201	P		**P**		**22 44 18.1**	**+0.9**
	comp=Z,118nm,1.3s								
JOM	**Ohasama**	33.44	21	P		**P**		**22 44 18.4**	**+0.4**
WRKA	**Warakurna**	33.58	177	P		**P**		**22 44 18.8**	**-0.5**
	comp=Z,129nm,0.9s,comp=Z,0.0nm								
LZDM	**Lanzhou Array**	34.10	326	P		**P**		**22 44 23.4**	**-0.7**
	comp=Z,6.6nm,0.3s,baz=145,slow=11,SNR=14								
LZDM				PcP		**PcP**		**22 47 01.0**	**+0.3**
	comp=Z,3.2nm,0.4s,baz=194,slow=3.0,SNR=1.9								
LZDM				pScP				22 51 05.7	
	comp=Z,2.1nm,0.4s,baz=251,slow=4.5,SNR=4.4								
LZDM				LR		LR		22 59 03.5	
	comp=Z,9µm,21.0s,baz=120,slow=38								
	comp=Z,6.6nm,0.3s								
LZH	**Lanzhou**	34.12	326	*e*P		**P**		**22 44 24.8**	**+0.7**
LZH				sP		sP		22 44 42.3	-1.0
LZH				S		**S**		**22 49 46.3**	**-0.5**
LZH				pmax		pmax			
	comp=Z,91nm,1.3s								
LZH				pmax		pmax			
	comp=Z,1µm,5.3s								
LZH				L		L			
	comp=Z,4µm,19.1s								
LZH				L		L			
	comp=Z,9µm,19.4s								
LZH				L		L			
	comp=Z,14µm,20.0s								
MORE	**Moreh**	34.28	301	P		**P**		**22 44 22.7**	**-2.9**
MORE				IAMs_20		IAMs_20		22 59 27.0	
	comp=Z,9µm,20.0s								
JTM	**Tenmabayashi**	34.53	20	P		**P**		**22 44 28.3**	**+0.9**
	comp=Z,330nm,0.9s								
JTM	**Tenmabayashi**	34.53	20	P		**P**		**22 44 27.9**	**+0.5**
JTM				IAmb		IAmb		22 44 31.1	
	comp=Z,363nm,1.1s								
JTM	**Tenmabayashi**	34.53	20	⇑P		**P**		**22 44 27.9**	**+0.5**
JTM	**Tenmabayashi**	34.53	20	P		**P**		**22 44 28.4**	**+1.0**
	comp=Z,8µmcomp=Z,3µmcomp=Z,330nm,0.9s								
HHC	**Hu-ho-hao-te**	34.61	340	*e*P		**P**		**22 44 29.0**	**+0.7**
HHC				pP		sP		22 44 46.9	-0.5
HHC				S		**S**		**22 49 50.0**	**-4.2**
HHC				sS		sS		22 50 17.4	+1.2
HHC				SS		**SnSn**		**22 52 09.6**	**-0.6**
HHC				pmax		pmax			
	comp=Z,30nm,1.0s								
HHC				pmax		pmax			
	comp=Z,580nm,6.5s								
HHC				L		L			
	comp=Z,4µm,15.5s								
HHC				L		L			
	comp=Z,3µm,15.7s								
HHC				L		L			
	comp=Z,4µm,16.1s								
VLA	**Vladivostok**	34.63	7	*i* P		**P**		**22 44 28.3**	**+0.1**
VLA				pmax		pmax			
	comp=Z,150nm,1.1s								
CTA	**Charters Tower**	34.67	146	P		**P**		**22 44 29.3**	**+0.5**
	comp=Z,162nm,1.2s								
CTA	**Charters Tower**	34.67	146	P		**P**		**22 44 27.8**	**-1.1**
	comp=Z,13nm,0.5s,baz=323,slow=8.7,SNR=21								
CTA				pP		**pP**		**22 44 41.8**	**+0.1**
	comp=Z,328nm,1.1s,baz=321,slow=9.6,SNR=37								
CTA				LR		LR		22 59 49.4	
	comp=Z,5µm,20.2s,baz=312,slow=38								
	comp=Z,13nm,0.5s								
CTAO	**Charters Tower**	34.67	146	P		**P**		**22 44 31.8**	**+3.0**
	comp=Z,148nm,1.2s								
CTAO	**Charters Tower**	34.67	146	P		**P**		**22 44 28.5**	**-0.3**
CTAO				IAmb		IAmb		22 44 44.0	
	comp=Z,356nm,1.0s								
CTAO	**Charters Tower**	34.67	146	P		**P**		**22 44 29.8**	**+0.9**
	comp=Z,6µmcomp=Z,6µmcomp=Z,409nm,1.2s,comp=Z,6µm								
CTAO	**Charters Tower**	34.67	146	P		**P**		**22 44 29.4**	**+0.6**
CTAO				pP		**pP**		**22 44 41.2**	**-0.5**
IMP	**Imphal**	34.80	301	*i* P		P		22 44 25.1	-5.0
AUAYR	**Ayr State High**	34.92	144	P		**P**		**22 44 33.6**	**+2.6**
	comp=Z,323nm,1.3s								
CN2	**Changchun**	34.98	359	⇓P		**P**		**22 44 31.6**	**+0.4**
CN2				PP		**PP**		**22 45 55.3**	**+3.9**
CN2				S		**S**		**22 49 58.1**	**-1.5**
CN2				pmax		pmax			
	comp=Z,10.0nm,0.8s								
CN2				pmax		pmax			
	comp=Z,800nm,6.0s								
CN2				L		L			
	comp=Z,1µm,18.0s								
CN2				L		L			
	comp=Z,2µm,18.0s								
CN2				L		L			
	comp=Z,1µm,20.0s								
KOHI	**KOHIMA**	35.01	303	*i* P		P		22 44 25.1	-6.8
BTO2	**Baotou**	35.12	338	*e*P		**P**		**22 44 34.3**	**+1.7**
BTO2				pP		**sP**		**22 44 49.4**	**-2.4**
BTO2				sP		pP		22 44 56.6	+11
BTO2				S		**S**		**22 50 01.9**	**-0.1**
BTO2				sS		**sS**		**22 50 28.3**	**+4.3**
BTO2				SS		**SnSn**		**22 52 22.3**	**-0.1**
BTO2				pmax		pmax			
	comp=Z,23nm,1.8s								
BTO2				pmax		pmax			
	comp=Z,2µm,12.6s								
BTO2				L		L			
	comp=Z,12µm,19.3s								
BTO2				L		L			
	comp=Z,8µm,20.8s								
BTO2				L		L			
	comp=Z,16µm,23.4s								
AZL	**Aizawl**	35.49	299	*i* P		**P**		**22 44 33.3**	**-2.8**
USA0B	**Ussuriysk Arra**	35.71	7	*c i* P		**P**		**22 44 38.4**	**+0.9**
USA0B	**Ussuriysk Arra**	35.71	7	P		**P**		**22 44 37.7**	**+0.2**
USA0B				IAmb		IAmb		22 44 57.6	
	comp=Z,312nm,0.8s								
USRK	**Ussuriysk Ar.**	35.71	7	P		**P**		**22 44 38.4**	**+0.9**
	comp=Z,160nm,0.8s,baz=189,slow=7.6,SNR=185								
USRK				pP		**pP**		**22 44 51.6**	**+1.0**
	comp=Z,207nm,0.9s,baz=191,slow=7.8,SNR=11								
USRK				pScP				22 51 11.2	
	comp=Z,4.9nm,0.8s,baz=222,slow=2.6,SNR=7.4								
USRK				LR		LR		22 58 47.7	
	comp=Z,5µm,21.2s,baz=182,slow=35								
	comp=Z,160nm,0.8s								
USRK	**Ussuriysk Ar.**	35.71	7	P		**P**		**22 44 38.2**	**+0.7**
MDJ	**Mudanjiang**	35.90	4	P		**P**		**22 44 40.3**	**+1.2**
	comp=Z,408nm,1.1s								
MDJ	**Mudanjiang**	35.90	4	P		**P**		**22 44 39.9**	**+0.8**
MDJ				PP		**PP**		**22 46 01.4**	**-0.1**
MDJ				S		**S**		**22 50 15.8**	**+2.2**
MDJ				SS		**SnSn**		**22 52 42.6**	**+1.6**
MDJ				pmax		pmax			
	comp=Z,84nm,1.3s								
MDJ				L		L			
	comp=Z,10µm,24.3s								
MDJ	**Mudanjiang**	35.90	4	P		**P**		**22 44 39.2**	**+0.1**
MDJ				IAmb		IAmb		22 44 55.4	
	comp=Z,468nm,1.1s								
MEEK	**Meekatharra**	35.92	192	P		**P**		**22 44 39.9**	**+0.4**
	comp=Z,478nm,1.1s,comp=Z,0.0nm								
MEEK	**Meekatharra**	35.92	192	P		**P**		**22 44 41.0**	**+1.5**
	comp=Z,478nm,1.1s								
MEEK	**Meekatharra**	35.92	192	P		**P**		**22 44 40.3**	**+0.8**
	comp=Z,6µmcomp=Z,7µmcomp=Z,478nm,1.1s								
BRDH	**Bariadhala**	36.08	297	P		**P**		**22 44 41.6**	**+0.6**
	comp=Z,340nm,0.6s,baz=85,slow=10,SNR=29								
BRDH				LR		LR		23 00 13.5	
	comp=Z,9µm,21.9s,baz=146,slow=37								
XLT	**XiLinHaoTe**	36.20	347	*e*P		**P**		**22 44 40.9**	**-0.9**
XLT				pP		pP		22 44 56.8	+1.8
XLT				sP		sP		22 45 02.5	+1.5
XLT				PP		**PP**		**22 46 11.8**	**+6.9**
XLT				sS		sS		22 50 48.0	+7.6
XLT				pmax		pmax			
	comp=Z,63nm,1.0s								
XLT				pmax		pmax			
	comp=Z,2µm,5.0s								
XLT				L		L			
	comp=Z,220nm,17.9s								
XLT				L		L			
	comp=Z,2µm,14.9s								
XLT				L		L			
	comp=Z,3µm,16.5s								
ERM	**Erimo**	36.35	21	P		**P**		**22 44 46.6**	**+3.6**
	comp=Z,388nm,1.5s								
ERM	**Erimo**	36.35	21	*c i* P		**P**		**22 44 45.5**	**+2.5**
ERM				pmax		pmax			
	comp=Z,211nm,0.9s								
ERM	**Erimo**	36.35	21	⇓P		**P**		**22 44 44.9**	**+2.0**
JEM	**Erimo**	36.35	21	P		**P**		**22 44 46.6**	**+3.6**
	comp=Z,225nm,0.9s								
TEZP	**TEZPUR**	36.44	304	*i* P		P		22 44 31.2	-13
JEW	**Eniwo**	36.50	19	*e*P		**P**		**22 44 47.3**	**+3.0**
AGT	**Agartala**	36.79	298	*i* P		P		22 44 35.3	-12
SHL	**Shillong**	36.81	301	P		**P**		**22 44 47.5**	**+0.1**
	SNR=92								
SHL	**Shillong**	36.81	301	P		**P**		**22 44 47.5**	**+0.1**
SHL				pmax		pmax			
	comp=Z,554nm,0.9s								
SHL	**Shillong**	36.81	301	P		**P**		**22 44 47.5**	**+0.1**
SHL	**Shillong**	36.81	301	*i* P		P		22 44 33.3	-14
BNX	**BinXian**	36.92	1	⇓P		**P**		**22 44 48.3**	**+0.5**
BNX				pP		**sP**		**22 45 04.8**	**-2.0**
BNX				PP		**PnPn**		**22 46 14.8**	**+1.5**
BNX				S		**S**		**22 50 29.4**	**+0.2**
BNX				sS		**sS**		**22 50 53.5**	**+2.3**
BNX				pmax		pmax			
	comp=Z,70nm,0.6s								
BNX				pmax		pmax			
	comp=Z,2µm,6.8s								
BNX				L		L			
	comp=Z,4µm,23.3s								
BNX				L		L			
	comp=Z,4µm,19.5s								
BNX				L		L			
	comp=Z,7µm,25.5s								
TEY	**Ternei**	37.28	12	⇑*e*P		P		22 44 42.9	-7.9
TEY				pmax		pmax			
	comp=Z,110nm,0.5s								
TEY				pmax		pmax			
	comp=N,110nm,0.4s								
TEY				pmax		pmax			
	comp=E,100nm,5.2s								
TEY				pmax		pmax			
	comp=N,400nm,3.6s								
TEY				pmax		pmax			
	comp=Z,600nm,3.6s								
TATA	**Tatamba Isabel**	37.40	116	P		**P**		**22 44 55.0**	**+2.7**
	comp=Z,466nm,1.7s								
SAVO	**Savo Central**	37.75	117	P		**P**		**22 44 58.0**	**+2.7**
	comp=Z,144nm,1.2s								
HNR	**Honiara**	37.99	118	P		**P**		**22 44 56.4**	**-0.9**
	comp=Z,70nm,0.5s,baz=219,slow=10,SNR=4.7								
HNR				LR		LR		22 59 13.2	
	comp=Z,6µm,21.2s,baz=14,slow=34								
	comp=Z,70nm,0.5s								
HNR	**Honiara**	37.99	118	P		**P**		**22 44 59.9**	**+2.6**
	comp=Z,302nm,1.5s								
HNR	**Honiara**	37.99	118	P		**P**		**22 44 57.2**	**-0.1**
HNR				pmax		pmax			
	comp=Z,777nm,1.2s								
HNR	**Honiara**	37.99	118	P		**P**		**22 44 57.2**	**-0.1**
HNR	**Honiara**	37.99	118	P		**P**		**22 44 58.1**	**+0.8**
	comp=Z,6µmcomp=Z,6µmcomp=Z,408nm,1.5s								
ASAJ	**Asahikawa**	38.02	19	LR		LR		22 59 51.5	
	comp=Z,6µm,21.2s,baz=212,slow=35								
ASAJ	**Asahikawa**	38.02	19	P		**P**		**22 44 57.6**	**+0.5**
ASAJ				pmax		pmax			
	comp=Z,284nm,0.9s								
JKA	**Kamikawa-asahi**	38.02	19	P		**P**		**22 44 57.5**	**+0.4**
JKA				IAmb		IAmb		22 45 15.7	
	comp=Z,284nm,0.9s								
JKA	**Kamikawa-asahi**	38.02	19	P		**P**		**22 44 59.2**	**+2.1**
	comp=Z,9µmcomp=Z,7µmcomp=Z,344nm,1.5s								
JMP	**Maruseppu**	38.17	20	P		**P**		**22 45 00.7**	**+2.3**
DHUB	**DHUBRI**	38.56	301	*i* P		**P**		**22 44 57.7**	**-4.2**
GTA2	**Gaotai**	38.81	326	P		**P**		**22 45 03.3**	**-0.7**
GTA2				PP		**PnPn**		**22 46 40.8**	**+4.5**
GTA2				S		**S**		**22 50 59.3**	**+1.0**
GTA2				pmax		pmax			
	comp=Z,36nm,0.9s								
GTA2				pmax		pmax			
	comp=Z,1µm,7.9s								
GTA2				L		L			
	comp=Z,6µm,23.5s								
GTA2				L		L			
	comp=Z,5µm,22.8s								
GTA2				L		L			
	comp=Z,11µm,24.8s								
INKA	**Innaminka**	38.81	159	P		**P**		**22 45 02.4**	**-1.6**
INKA				IAmb		IAmb		22 45 17.9	
	comp=Z,448nm,1.6s								
MORW	**Morawa**	38.84	194	P		**P**		**22 45 04.5**	**+0.3**
	comp=Z,336nm,1.3s,comp=Z,0.0nm								
MORW	**Morawa**	38.84	194	P		**P**		**22 45 04.5**	**+0.3**
	comp=Z,336nm,1.3s,comp=Z,0.0nm								
MORW	**Morawa**	38.84	194	P		**P**		**22 45 07.4**	**+3.2**
	comp=Z,336nm,1.3s								
MORW	**Morawa**	38.84	194	P		**P**		**22 45 04.6**	**+0.5**
MORW	**Morawa**	38.84	194	⇑P		**P**		**22 45 04.5**	**+0.3**
MORW	**Morawa**	38.84	194	P		**P**		**22 45 05.0**	**+0.8**
	comp=Z,5µmcomp=Z,6µmcomp=Z,336nm,1.3s								
MORW				pP		**pP**		**22 45 16.8**	**-0.7**
LSA	**Lhasa**	39.02	307	P		**P**		**22 45 07.0**	**+0.7**
LSA	**Lhasa**	39.02	307	P		**P**		**22 45 03.5**	**-2.9**
LSA				S		**S**		**22 50 59.4**	**-3.0**
LSA				pmax		pmax			
	comp=Z,41nm,1.5s								
LSA				L		L			
	comp=Z,2µm,17.1s								
LSA				L		L			
	comp=Z,3µm,16.9s								
LSA				L		L			
	comp=Z,5µm,17.8s								
LSA	**Lhasa**	39.02	307	IAmb		IAmb		22 45 27.2	
	comp=Z,493nm,1.6s								
YUK	**Yuzh-Kuril'sk**	39.09	22	*c i* P		**P**		**22 45 07.7**	**+1.6**
YUK				*i*				22 46 39.7	
YUK				*i* S		**S**		**22 51 04.3**	**+2.3**
YUK				*i* SSS		SSS		22 54 19.7	
YUK				pmax		pmax			
	comp=N,579nm,1.0s								
YUK				pmax		pmax			
	comp=Z,842nm,1.0s								
NGOA	**Tingoa Renbel**	39.10	120	P		**P**		**22 45 09.4**	**+2.9**
	comp=Z,906nm,1.4s								
COBR	**COOCHBEHAR**	39.11	301	*i* P		P		22 44 58.5	-8.0
QLP	**Quilpie**	39.13	154	P		**P**		**22 45 05.2**	**-1.4**
	comp=Z,692nm,2.1s								
QLP	**Quilpie**	39.13	154	P		**P**		**22 45 09.5**	**+2.9**
	comp=Z,692nm,2.1s								
QLP	**Quilpie**	39.13	154	⇑P		**P**		**22 45 05.1**	**-1.5**
QLP	**Quilpie**	39.13	154	P		**P**		**22 45 05.2**	**-1.4**
	comp=Z,9µmcomp=Z,692nm,2.1s,comp=Z,9µm								
FORT	**Forrest**	39.28	178	P		**P**		**22 45 07.7**	**-0.1**
	comp=Z,201nm,0.7s,comp=Z,0.0nm								
FORT	**Forrest**	39.28	178	P		**P**		**22 45 07.7**	**-0.1**
FORT				IAmb		IAmb		22 45 23.5	
	comp=Z,417nm,1.4s								
GOMU	**GeErMu**	39.66	318	P		**P**		**22 45 10.8**	**-0.6**
GOMU				S		**S**		**22 51 13.8**	**+2.2**
GOMU				pmax		pmax			
	comp=Z,14nm,1.4s								
GOMU				L		L			
	comp=Z,4µm,15.5s								
GOMU				L		L			
	comp=Z,6µm,15.1s								
GOMU				L		L			
	comp=Z,9µm,15.7s								
JPG	**JALPAIGURI**	39.82	301	*i* P		P		22 45 05.2	-7.3
KMBL	**Kambalda**	40.06	186	P		**P**		**22 45 14.2**	**-0.2**
	comp=Z,264nm,1.1s								
BLDU	**Ballidu**	40.16	193	P		**P**		**22 45 15.6**	**+0.4**
	comp=Z,538nm,1.1s								
BLDU	**Ballidu**	40.16	193	P		**P**		**22 45 17.1**	**+1.9**
	comp=Z,538nm,1.1s								
BLDU	**Ballidu**	40.16	193	P		**P**		**22 45 16.0**	**+0.8**
	comp=Z,8µmcomp=Z,538nm,1.1s								
HURO	**Huro Makira**	40.17	118	P		P		22 45 20.9	+5.4
	comp=Z,158nm,1.5s								
WAKE	**Wake Island**	40.40	70	P		**P**		**22 45 20.4**	**+3.0**
	comp=Z,182nm,1.2s								
GD1S	**Gladstone Soft**	40.42	144	P		P		22 45 22.3	+4.9
YSS	**Yuzhno-Sakhali**	40.62	17	P		**P**		**22 45 20.7**	**+2.0**
	comp=Z,130nm,0.9s								
YSS	**Yuzhno-Sakhali**	40.62	17	*αe*P		**P**		**22 45 21.1**	**+2.4**
YSS				*e**PP		**pwP**		**22 45 33.7**	**-0.4**
YSS				*e**SP		**sP**		**22 45 39.0**	**+1.8**
YSS				*e*				22 46 57.0	
YSS				*e*				22 47 20.3	
YSS				*e*S		**S**		**22 51 29.2**	**+4.4**
YSS				*e*SS		**SS**		**22 54 27.1**	**+0.6**
YSS				pmax		pmax			
	comp=Z,130nm,1.0s								
YSS				pmax		pmax			
	comp=Z,2µm,7.8s								
YSS				pmax		pmax			
	comp=N,600nm,3.3s								
YSS				pmax		pmax			
	comp=Z,2µm,6.0s								
YSS				pmax		pmax			
	comp=N,2µm,4.6s								
YSS				smax		smax			
	comp=N,400nm,6.8s								
YSS				smax		smax			
	comp=E,600nm,4.1s								
YSS				MLR		MLR			
	comp=Z,3µm,18.0s								
YSS				MLR		MLR			
	comp=N,2µm,16.0s								
YSS				MLR		MLR			
	comp=E,2µm,15.0s								
KLR	**Kul'dur**	40.66	5	LR		LR		23 02 13.5	
	comp=E,3µm,20.2s,baz=190,slow=36								
KLR	**Kul'dur**	40.66	5	*c i* P		**P**		**22 45 19.2**	**+0.2**
KLR				pmax		pmax			
	comp=Z,185nm,1.5s								
BWNR	**Bhubaneshwar**	40.78	291	*i* P		**P**		**22 45 16.7**	**-3.8**
HIA	**Hailar**	40.82	353	P		**P**		**22 45 21.5**	**+1.1**
	comp=Z,72nm,1.2s								
HIA	**Hailar**	40.82	353	IAMs_20		IAMs_20		23 01 43.4	
	comp=Z,6µm,21.0s								
KUR	**Kuril'sk**	40.87	23	*c i* P		**P**		**22 45 20.6**	**-0.3**
KUR				*e*				22 46 56.0	
KUR				*e*PPP		PPP		22 47 26.1	
KUR				*e*S		**S**		**22 51 32.1**	**+3.4**
KUR				*e*SSS		SSS		22 55 11.0	
KUR				pmax		pmax			
	comp=Z,4µm,4.5s								
KUR				pmax		pmax			
	comp=Z,741nm,1.0s								
KUR				MLR		MLR			
	comp=Z,2µm,14.0s								
KLBR	**Kellerberrin**	40.89	191	P		**P**		**22 45 21.9**	**+0.6**
	comp=Z,698nm,1.1s								
KLBR	**Kellerberrin**	40.89	191	P		**P**		**22 45 22.7**	**+1.5**
	comp=Z,698nm,1.1s								
KLBR	**Kellerberrin**	40.89	191	P		**P**		**22 45 21.9**	**+0.6**
	comp=Z,826nmcomp=Z,8µmcomp=Z,698nm,1.1s								
KLBR				pP		**pP**		**22 45 34.1**	**-0.5**
HILR	**Hailar Array B**	41.10	353	P		**P**		**22 45 22.6**	**-0.2**
	comp=Z,7.9nm,0.3s,baz=171,slow=10,SNR=14								
HILR				PcP		**PcP**		**22 47 21.4**	**-0.1**
	comp=Z,14nm,0.5s,baz=172,slow=3.3,SNR=4.0								
HILR				pPcP				22 47 36.3	
	comp=Z,25nm,0.7s,baz=160,slow=4.7,SNR=5.0								
HILR				pScP				22 51 32.2	
	comp=Z,4.7nm,0.6s,baz=142,slow=7.3,SNR=8.2								
HILR				LR		LR		23 03 25.9	
	comp=Z,2µm,20.4s,baz=90,slow=38								
	comp=Z,7.9nm,0.3s								
RMQ	**Roma**	41.19	149	P		**P**		**22 45 28.3**	**+4.6**
	comp=Z,102nm,1.7s								
HEH	**HeiHe**	41.44	1	*e*P		**P**		**22 45 25.4**	**0.0**
HEH				sP		**sP**		**22 45 43.8**	**-0.7**
HEH				PP		**PP**		**22 47 03.6**	**+1.7**
HEH				S		**S**		**22 51 36.0**	**-0.9**
HEH				pmax		pmax			
	comp=Z,110nm,0.8s								
HEH				pmax		pmax			
	comp=Z,3µm,6.3s								
HEH				L		L			
	comp=Z,4µm,22.0s								
HEH				L		L			
	comp=Z,2µm,20.6s								
HEH				L		L			
	comp=Z,6µm,22.7s								
JMUI	**Jamui**	41.47	298	*i* P		P		22 45 19.3	-6.8
BOK	**Bokaro**	41.48	296	*i* P		P		22 45 19.2	-7.0
EIDS	**Eidsvold**	41.55	145	P		**P**		**22 45 25.4**	**-1.3**
	comp=Z,444nm,1.5s,comp=Z,0.0nm								
EIDS	**Eidsvold**	41.55	145	P		**P**		**22 45 25.4**	**-1.3**
	comp=Z,444nm,1.5s,comp=Z,0.0nm								
EIDS	**Eidsvold**	41.55	145	P		**P**		**22 45 29.5**	**+2.8**
	comp=Z,444nm,1.5s								
EIDS	**Eidsvold**	41.55	145	P		**P**		**22 45 25.6**	**-1.1**
EIDS				IAmb		IAmb		22 45 40.4	
	comp=Z,523nm,1.1s								
EIDS	**Eidsvold**	41.55	145	⇑P		**P**		**22 45 26.1**	**-0.6**
EIDS	**Eidsvold**	41.55	145	P		**P**		**22 45 25.4**	**-1.3**
	comp=Z,5µmcomp=Z,6µmcomp=Z,444nm,1.5s								
AUKUL	**Kulin High Sch**	41.87	190	P		**P**		**22 45 31.3**	**+2.1**
	comp=Z,290nm,1.0s								
EVN	**Everest**	41.88	302	P		**P**		**22 45 30.2**	**0.0**
EVN				IAmb		IAmb		22 45 53.0	
	comp=Z,447nm,1.3s								
EVN	**Everest**	41.88	302	⇑P		**P**		**22 45 30.6**	**+0.4**
EVN	**Everest**	41.88	302	P		**P**		**22 45 30.9**	**+0.7**
	comp=Z,7µmcomp=Z,5µmcomp=Z,184nm,0.6s								
NWAO	**Narrogin (SRO)**	42.29	191	P		**P**		**22 45 33.0**	**+0.4**
	comp=Z,418nm,0.9s,comp=Z,0.0nm								
NWAO	**Narrogin (SRO)**	42.29	191	P		**P**		**22 45 31.3**	**-1.4**
	comp=Z,70nm,0.7s,baz=15,slow=7.5,SNR=34								
NWAO				pP		**pP**		**22 45 45.0**	**-1.1**
	comp=Z,325nm,0.9s,baz=17,slow=9.6,SNR=17								
NWAO				LR		LR		23 04 31.2	
	comp=Z,2µm,21.1s,baz=14,slow=38								
	comp=Z,70nm,0.7s								
NWAO	**Narrogin (SRO)**	42.29	191	P		**P**		**22 45 34.3**	**+1.6**
	comp=Z,237nm,0.9s								
NWAO	**Narrogin (SRO)**	42.29	191	P		**P**		**22 45 34.2**	**+1.6**
NWAO	**Narrogin (SRO)**	42.29	191	P		**P**		**22 45 33.5**	**+0.9**
NWAO				pmax		pmax			
	comp=Z,795nm,1.3s								
NWAO	**Narrogin (SRO)**	42.29	191	P		**P**		**22 45 33.5**	**+0.9**
NWAO				IAmb		IAmb		22 45 46.8	
	comp=Z,795nm,1.3s								
NWAO

RAGD **RAYAGADA** 42.82 289 *i* P P 22 45 34.3 -2.9
STKA **Stephens Creek** 42.89 161 P P 22 45 36.9 -0.7
comp=Z,1µm,1.2s,comp=Z,0.0nm
STKA **Stephens Creek** 42.89 161 P P 22 45 36.8 -0.7
comp=Z,76nm,0.8s,baz=336,slow=7.9,SNR=39
STKA LR LR 23 06 20.3
comp=Z,4µm,22.0s,baz=337,slow=40
comp=Z,76nm,0.8s
STKA **Stephens Creek** 42.89 161 P P 22 45 39.1 +1.6
comp=Z,69nm,1.2s
STKA **Stephens Creek** 42.89 161 *c i* P P 22 45 37.3 -0.2
STKA **Stephens Creek** 42.89 161 P P 22 45 36.8 -0.7
STKA **Stephens Creek** 42.89 161 P P 22 45 37.0 -0.7
comp=Z,19µmcomp=Z,25µmcomp=Z,1µm,1.2s
STKA pP pP 22 45 49.0 -1.8
AULRC **Lightning Ridg** 43.25 152 P P 22 45 42.8 +2.3
comp=Z,875nm,1.6s
HTT **Hallett** 43.56 165 P P 22 45 43.7 +0.7
comp=Z,113nm,1.7s
HTT **Hallett** 43.56 165 P P 22 45 44.8 +1.8
comp=Z,280nm,1.7s
HTT **Hallett** 43.56 165 ⇑P P 22 45 43.1 +0.1
AUCAS **Cummins Area S** 43.63 169 P P 22 45 47.0 +3.6
comp=Z,676nm,1.2s
TW1H **Toowoomba 1 Ha** 43.74 146 P P 22 45 47.1 +2.6
comp=Z,973nm,1.1s
RKGY **Rocky Gully** 43.97 191 P P 22 45 49.5 +3.3
comp=Z,234nm,1.5s,comp=Z,0.0nm
RKGY **Rocky Gully** 43.97 191 P P 22 45 46.5 +0.3
comp=Z,234nm,1.5s,comp=Z,0.0nm
CMSA **Cobar Meteorol** 44.08 156 P P 22 45 48.4 +1.4
comp=Z,311nm,1.2s,comp=Z,0.0nm
CMSA **Cobar Meteorol** 44.08 156 P P 22 45 47.1 0.0
comp=Z,311nm,1.2s,comp=Z,0.0nm
CMSA **Cobar Meteorol** 44.08 156 P P 22 45 47.3 +0.2
comp=Z,311nm,1.2s
CMSA **Cobar Meteorol** 44.08 156 P P 22 45 47.5 +0.4
comp=Z,5µmcomp=Z,4µmcomp=Z,311nm,1.2s
TYV **Tymovskoe** 44.15 15 *eP* P 22 45 50.4 +3.0
TYV *eS* S 22 52 21.2 +4.4
TYV pmax pmax
comp=Z,3µm,4.8s
TYV pmax pmax
comp=Z,97nm,1.3s
TYV smax smax
comp=N,2µm,8.4s
TYV smax smax
comp=E,4µm,8.4s
TYV MLR MLR
comp=N,2µm,21.0s
AUALB **St Joseph's Co** 44.19 190 P P 22 45 50.8 +2.9
comp=N,249nm,1.0s
GKPR **Gorakhpur** 44.38 299 *i* P P 22 45 42.8 -6.9
VAR **Varanasi** 44.39 297 *i* P P 22 45 44.8 -5.0
CIT **Chita** 44.45 349 *eP* P 22 45 45.7 -4.2
CIT *e* 22 46 02.0
CIT *e* 22 47 33.3
CIT *e* 22 48 07.7
CIT pmax pmax
comp=Z,600nm,1.6s
H01W3 **Cape Leeuwin H** 44.85 194 P P 22 45 54.5 +1.6
baz=37,slow=7.5,SNR=7.2
H01W1 **Cape Leeuwin H** 44.86 194 P P 22 45 54.1 +1.2
baz=37,slow=7.5,SNR=9.6
H01W2 **Cape Leeuwin H** 44.87 194 P P 22 45 54.9 +1.8
baz=37,slow=7.5,SNR=10
GHSS **Government Hou** 44.90 166 P P 22 45 59.0 +5.5
comp=Z,244nm,0.8s
ZEA **Zeya** 44.92 1 *eP* P 22 45 53.1 -0.4
ZEA *e* 22 47 34.2
ZEA pmax pmax
comp=E,100nm,3.1s
ZEA pmax pmax
comp=N,200nm,3.6s
ZEA pmax pmax
comp=Z,400nm,3.6s
ZEA pmax pmax
comp=E,30nm,0.6s
ZEA pmax pmax
comp=N,30nm,1.4s
ZEA pmax pmax
comp=Z,60nm,1.1s
ZEA pmax pmax
comp=Z,2µm,7.4s
ZEA MLR MLR
comp=E,600nm,16.0s
ZEA MLR MLR
comp=N,2µm,15.0s
ZEA MLR MLR
comp=Z,2µm,16.0s
GC1S **Gold Coast 1 S** 45.08 145 P P 22 45 56.5 +1.4
comp=Z,71nm,1.0s
VJD **Vijayawada** 45.19 285 *i* P P 22 46 03.3 +7.0
PALK **Pallekele** 45.21 272 P P 22 45 55.1 -1.4
comp=Z,13nm,0.8s,baz=85,slow=6.1,SNR=7.2
PALK PcP PcP 22 47 35.8 -0.3
comp=Z,19nm,0.7s,baz=299,slow=1.4,SNR=6.9
PALK LR LR 23 04 36.0
comp=Z,3µm,21.9s,baz=94,slow=36
comp=Z,13nm,0.8s
PALK **Pallekele** 45.21 272 *i* P P 22 45 56.3 -0.2
SNR=7.7
PALK **Pallekele** 45.21 272 P P 22 45 57.6 +1.1
PALK **Pallekele** 45.21 272 P P 22 45 55.6 -0.9
PALK pmax pmax
comp=Z,537nm,1.6s
PALK MLR MLR
comp=Z,4µm,21.0s
PALK **Pallekele** 45.21 272 P P 22 45 55.6 -0.9
PALK IAmb IAmb 22 46 14.6
comp=Z,537nm,1.6s
PALK **Pallekele** 45.21 272 P P 22 45 57.4 +0.9
PALK sP sP 22 46 13.4 -2.6
AUMBR **Murray Bridge** 45.27 165 P P 22 45 58.4 +1.9
comp=Z,396nm,1.4s
MALK **Mahakanadarawa** 45.28 273 P P 22 45 57.2 +0.2
MALK S S 22 52 31.7 -2.5
MALK **Mahakanadarawa** 45.28 273 ⇑P P 22 45 58.0 +1.0
MALK **Mahakanadarawa** 45.28 273 P P 22 45 59.3 +2.3
comp=Z,7µmcomp=Z,5µmcomp=Z,236nm,1.9s,comp=Z,5µm
MDRS **Chennai** 45.44 280 *i* P P 22 45 53.6 -4.6
ZAK **Zakamensk** 45.76 340 *eP* P 22 46 00.0 -0.4
ZAK pmax pmax
comp=Z,52nm,1.7s
ARMA **Armidale** 45.84 149 P P 22 46 04.1 +2.9
comp=Z,378nm,1.7s,comp=Z,0.0nm
ARMA **Armidale** 45.84 149 P P 22 46 02.0 +0.7
comp=Z,378nm,1.7s,comp=Z,0.0nm
ARMA **Armidale** 45.84 149 P P 22 46 03.3 +2.0
comp=Z,378nm,1.7s
ARMA **Armidale** 45.84 149 P P 22 46 01.4 +0.1
ARMA **Armidale** 45.84 149 ⇓P P 22 46 02.1 +0.7
AUPHS **Peel High Scho** 46.03 150 P P 22 46 06.6 +4.0
comp=Z,312nm,1.8s
BRCI **Bahraich** 46.17 300 *i* P P 22 45 56.5 -7.3
BRCI IVmB_BB 22 46 22.9
comp=Z,15µm,1.8s
LKN **LUCKNOW** 46.59 299 *i* P P 22 46 00.2 -7.0
TLY **Talaya** 46.74 341 LR LR 23 07 25.8
comp=Z,3µm,21.5s,baz=142,slow=38
TLY **Talaya** 46.74 341 *c i* P P 22 46 08.2 +0.3
TLY pmax pmax
comp=Z,57nm,1.1s
TLY **Talaya** 46.74 341 P P 22 46 06.2 -1.7
TLY **Talaya** 46.74 341 ⇑P P 22 46 07.6 -0.3
TLY **Talaya** 46.74 341 P P 22 46 08.7 +0.7
comp=Z,6µmcomp=Z,1µmcomp=Z,53nm,0.8s
TARA **Tarawa** 46.92 96 P P 22 46 12.6 +2.7
comp=Z,367nm,1.3s
TARA **Tarawa** 46.92 96 IAMs_20 IAMs_20 23 02 32.2
comp=Z,5µm,21.0s
IRK **Irkutsk** 47.02 342 *eP* P 22 46 08.9 -1.2
IRK pmax pmax
comp=Z,178nm,2.9s
SANVU **Saraoutou** 47.05 120 P P 22 46 14.6 +3.8
comp=Z,878nm,1.0s
SANVU **Saraoutou** 47.05 120 IAMs_20 IAMs_20 23 04 08.3
comp=Z,4µm,22.0s
SANVU **Saraoutou** 47.05 120 P P 22 46 11.3 +0.5
NGP **Nagpur** 47.18 291 *i* P P 22 46 07.4 -4.5
HYB **Hyderabad** 47.26 286 *eP* P 22 46 11.4 -1.1
HYB *esP* pP 22 46 28.4 +2.1
HYB *ePP* PP 22 48 03.5 -0.6
HYB *eS* S 22 53 02.0 -0.6
HYB **Hyderabad** 47.26 286 *i* P P 22 46 07.8 -4.7
KOUNC **Koumac, New Ca** 47.28 128 P P 22 46 16.2 +3.6
comp=Z,110nm,1.2s
SALM **Salem** 47.49 278 *i* P P 22 46 14.6 +0.2
SALM IVmB_BB 22 46 31.6
comp=Z,3µm,2.3s
ARPS **Mount Arapiles** 47.50 163 P P 22 46 14.9 +0.9
comp=Z,234nm,1.4s
ARPS **Mount Arapiles** 47.50 163 P P 22 46 14.0 0.0
comp=Z,234nm,1.4s
MOY **Mondy** 47.63 339 *eP* P 22 46 14.7 -0.3
MOY pmax pmax
comp=Z,127nm,3.1s
AUMAG **Moama Anglican** 47.80 160 P P 22 46 20.3 +4.0
comp=Z,258nm,0.9s
MGCD **Mangrove Creek** 47.87 152 P P 22 46 19.7 +2.8
NTLH **Newcastle Hard** 47.90 151 P P 22 46 21.7 +4.6
comp=Z,255nm,1.0s
PTH **Pithoragarh** 47.91 302 *i* P P 22 46 09.7 -7.9
KNGR **Kungurtug, Tuv** 48.12 336 *i* P P 22 46 20.0 +1.2
KNGR pmax pmax
comp=Z,48nm,1.4s
SYDH **Sydney Hard Ro** 48.16 153 P P 22 46 21.3 +2.2
comp=Z,150nm,1.1s
AUKHS **Kincumber High** 48.20 152 P P 22 46 23.1 +3.6
comp=Z,256nm,2.0s
KOD **Kodaikanal** 48.21 276 *i* P P 22 46 20.7 +0.4
JHNI **Jhansi** 48.30 296 *i* P P 22 46 15.1 -5.3
RIV **Riverview** 48.41 152 P P 22 46 24.5 +3.5
comp=Z,497nm,1.2s
WMQ **Urumqi** 48.51 323 *eP* P 22 46 19.0 -2.9
WMQ sP sP 22 46 43.3 +1.8
WMQ S S 22 53 18.1 -1.6
WMQ pmax pmax
comp=Z,11nm,0.7s
WMQ pmax pmax
comp=Z,780nm,7.5s
WMQ L L
comp=Z,7µm,22.1s
WMQ L L
comp=Z,6µm,23.5s
WMQ L L
comp=Z,6µm,24.2s
SKR **Severo-Kuril's** 48.56 25 *eP* P 22 46 23.6 +1.6
SKR *eS* S 22 53 38.7 +19
SKR pmax pmax
comp=Z,900nm,3.5s
SKR pmax pmax
comp=Z,291nm,0.8s
SKR MLR MLR
comp=Z,2µm,23.0s
JOSI **Joshimath** 48.71 303 *i* P P 22 46 15.1 -8.8
AUMTS **Mt Stromlo** 48.72 155 P P 22 46 29.1 +5.6
comp=Z,425nm,1.3s
CAN **Canberra** 48.72 155 P P 22 46 23.5 0.0
comp=Z,382nm,1.2s,comp=Z,0.0nm
CAN **Canberra** 48.72 155 P P 22 46 25.0 +1.4
CAN **Canberra** 48.72 155 P P 22 46 24.0 +0.5
CAN **Canberra** 48.72 155 ⇑P P 22 46 24.9 +1.4
CAN **Canberra** 48.72 155 P P 22 46 21.6 -2.0
comp=Z,5µmcomp=Z,6µmcomp=Z,382nm,1.2s
CAN **Canberra** 48.72 155 P P 22 46 25.8 +2.2
CAN pP pP 22 46 37.2 +0.1
WOLH **Wollongong Har** 48.76 153 P P 22 46 26.4 +2.7
comp=Z,148nm,1.1s
TRD **Trivandrum** 48.81 274 *i* P P 22 46 22.0 -2.6
BRAT **Ballarat** 48.86 161 P P 22 46 26.6 +2.2
comp=Z,96nm,1.2s
CNB **Canberra Magne** 48.87 155 P P 22 46 30.1 +5.4
comp=Z,360nm,1.1s
CNB **Canberra Magne** 48.87 155 P P 22 46 24.7 +0.1
comp=Z,360nm,1.1s
AUHPC **Hawkesdale P12** 48.89 163 P P 22 46 30.2 +5.5
comp=Z,691nm,1.3s
DVP **Devils Point** 48.95 123 P P 22 46 29.1 +3.6
comp=Z,4µm,1.3s
AKL **Akola** 49.01 290 *i* P P 22 46 22.1 -3.9
RTV **Rentapao** 49.19 122 P P 22 46 29.6 +2.3
comp=Z,790nm,1.1s
AUUHS **Ulladulla High** 49.38 154 P P 22 46 31.3 +2.8
comp=Z,197nm,0.6s
TOO **Toolangi** 49.39 160 P P 22 46 30.1 +1.6
comp=Z,134nm,1.8s,comp=Z,0.0nm
TOO **Toolangi** 49.39 160 P P 22 46 28.8 +0.2
comp=Z,134nm,1.8s,comp=Z,0.0nm
TOO **Toolangi** 49.39 160 P P 22 46 29.3 +0.7
TOO IAmb IAmb 22 46 44.3
comp=Z,294nm,1.5s
MLBS **Spotswood, Mel** 49.42 161 P P 22 46 34.0 +5.3
comp=Z,204nm,1.0s
UTK **UTTARKASHI** 49.68 303 *i* P P 22 46 22.8 -8.4
NOUC **Port Laguerre** 49.71 129 P P 22 46 33.9 +2.7
comp=Z,259nm,1.3s
NOUC **Port Laguerre** 49.71 129 P P 22 46 30.7 -0.5
NOUC **Port Laguerre** 49.71 129 P P 22 46 32.6 +1.4
NOUC pP pP 22 46 44.1 -0.5
DZM **Mont Dzumac** 49.80 129 LR LR 23 05 00.9
comp=Z,3µm,21.9s,baz=296,slow=33
MERT **Meerut** 49.83 301 *i* P P 22 46 24.1 -8.1
BOD **Bodaibo** 49.93 351 *eP* P 22 46 31.7 -0.7
BOD pmax pmax
comp=Z,185nm,1.3s
ONTNC **Ouen Toro** 49.94 129 P P 22 46 36.9 +3.9
comp=Z,215nm,1.1s
ONTNC **Ouen Toro** 49.94 129 ⇑P P 22 46 33.9 +0.9
KLP **Kalpa** 50.06 304 *i* P P 22 46 24.5 -10
YATNC **Mamie plateau,** 50.14 128 P P 22 46 37.2 +2.7
comp=Z,352nm,1.2s
LDR **Lodi Road** 50.18 300 *i* P P 22 46 27.7 -7.0
NDI **New Delhi** 50.21 300 *i* P P 22 46 27.4 -7.6
NPLP **NPLP New Delhi** 50.23 300 *i* P P 22 46 27.9 -7.3
MILA **Mila** 50.28 156 P P 22 46 35.9 +0.5
OUENC **Ouen Island, N** 50.30 129 P P 22 46 38.4 +2.7
comp=Z,197nm,1.1s
OUENC **Ouen Island, N** 50.30 129 IAmb IAmb 22 46 50.9
comp=Z,183nm,1.0s
NRLA **Narela** 50.33 300 *i* P P 22 46 28.5 -7.4
MNGI **Mangalore** 50.68 280 *i* P P 22 46 37.7 -1.0
KUDL **Kundal** 50.71 299 *i* P P 22 46 31.6 -7.2
MARNC **Mare, Loyalty** 50.72 127 P P 22 46 42.5 +3.6
comp=Z,755nm,1.1s
PINNC **Pines Island,** 50.87 128 P P 22 46 43.0 +3.0
comp=Z,626nm,1.0s
PINNC **Pines Island,** 50.87 128 P P 22 46 39.8 -0.2
PEA0B **Petropavlovsk-** 51.03 24 *ceP* P 22 46 42.7 +1.9
PETK **Petropavlovsk-** 51.03 24 P P 22 46 41.4 +0.5
comp=Z,61nm,0.5s,baz=239,slow=3.3,SNR=144
PETK pScP 22 52 12.7
comp=Z,17nm,1.1s,baz=277,slow=3.9,SNR=4.4
PETK LR LR 23 08 24.5
comp=Z,3µm,19.7s,baz=214,slow=36
comp=Z,61nm,0.5s
PETK **Petropavlovsk-** 51.03 24 P P 22 46 42.7 +1.9
PETK 22 47 56.2
PETK **Petropavlovsk-** 51.03 24 P P 22 46 42.7 +1.9
PETK PcP PcP 22 47 56.2 0.0
CGRH **CHANDIGARH** 51.07 303 *i* P P 22 46 33.9 -7.6
CGRH IVmB_BB 22 46 59.0
comp=Z,10µm,1.4s
PET **Petropavlovsk** 51.36 24 P P 22 46 44.8 +1.6
comp=Z,975nm,1.3s
PET **Petropavlovsk** 51.36 24 *eP* P 22 46 44.2 +1.0
PET *eS* S 22 54 01.7 +2.9
PET pmax pmax
comp=Z,2µm,14.9s
PET pmax pmax
comp=Z,281nm,1.3s
PET MLR MLR
comp=Z,2µm,21.0s
PET **Petropavlovsk** 51.36 24 P P 22 46 43.8 +0.6
PET IAmb IAmb 22 47 01.4
comp=Z,423nm,1.3s
PET **Petropavlovsk** 51.36 24 ⇑P P 22 46 44.5 +1.3
PET **Petropavlovsk** 51.36 24 P P 22 46 44.9 +1.7
comp=Z,5µmcomp=Z,242nm,1.3s
PET **Petropavlovsk** 51.36 24 P P 22 46 44.7 +1.5
comp=Z,7µmcomp=Z,6µmcomp=Z,256nm,1.3s
KAD **Karad** 51.42 285 *i* P P 22 46 41.6 -2.7
BHK **Bhakra** 51.57 303 *i* P P 22 46 34.1 -11
BHK IVmB_BB 22 46 53.6
comp=Z,2µm,0.6s
GOA **Goa** 51.70 283 *i* P P 22 46 46.2 -0.1
ALCI **Alchi Leh** 51.70 307 *i* P P 22 46 35.4 -11
POO **Poona** 51.80 287 *i* P P 22 46 42.2 -4.9
AJM **Ajmer** 52.00 297 *i* P P 22 46 42.0 -6.5
AJM IVmB_BB 22 47 04.6
comp=Z,2µm,1.8s
DGZ **Jazzator, Alta** 52.15 329 *c i* P P 22 46 49.9 +0.5
DGZ pmax pmax
comp=Z,32nm,0.8s
ZSN **Zaisan** 52.20 325 *eP* P 22 46 49.7 +0.1
ZSN *eS* S 22 54 10.4 -0.3
ZSN **Zaisan** 52.20 325 *eP* P 22 46 49.7 +0.1
ZSN *eS* S 22 54 10.5 -0.3
THN **Thein Dam** 52.35 304 *i* P P 22 46 42.1 -9.0
UDPR **Udaipur** 52.53 294 *i* P P 22 46 46.4 -6.2
JMU **Jammu** 53.19 305 *i* P P 22 46 48.4 -8.8
YAK **Yakutsk** 53.29 2 LR LR 23 12 12.8
comp=Z,2µm,18.7s,baz=179,slow=39
YAK **Yakutsk** 53.29 2 *c i* P P 22 46 57.5 +0.1
YAK *e* 22 48 03.8
YAK *e* 22 48 58.6
YAK *ePPP* PPP 22 50 08.1
YAK *eS* S 22 54 21.6 -3.4
YAK *e* 22 56 36.8
YAK pmax pmax
comp=Z,176nm,1.5s
YAK pmax pmax
comp=N,80nm,1.6s
YAK pmax pmax
comp=E,18nm,1.1s
YAK pmax pmax
comp=Z,838nm,4.2s
YAK pmax pmax
comp=N,284nm,3.2s
YAK pmax pmax
comp=E,116nm,2.2s
YAK smax smax
comp=E,622nm,4.2s
YAK smax smax
comp=N,518nm,4.0s
YAK **Yakutsk** 53.29 2 P P 22 46 56.7 -0.7
YAK IAmb IAmb 22 47 16.1
comp=Z,155nm,0.9s
YAK **Yakutsk** 53.29 2 ⇑P P 22 46 57.2 -0.2
YAK **Yakutsk** 53.29 2 P P 22 46 57.4 0.0
comp=Z,9µmcomp=Z,3µmcomp=Z,208nm,1.1s
GLAD **Gladstone** 53.31 160 P P 22 47 01.2 +3.4
comp=Z,111nm,1.0s
SRGN **SRI GANGA NAGA** 53.31 301 *i* P P 22 46 51.8 -6.3
MK31 **Makanchi Array** 53.33 323 *i* P P 22 46 57.4 -0.6
MK31 pmax pmax
comp=Z,21nm,0.7s
MKAR **Makanchi Array** 53.33 323 P P 22 46 57.5 -0.6
comp=Z,29nm,0.5s,baz=122,slow=7.7,SNR=176
MKAR LR LR 23 10 53.6
comp=Z,8µm,22.0s,baz=116,slow=37
MKAR PKPPKP P'P'df 23 17 19.8 -2.6
comp=Z,1.7nm,0.9s,baz=247,slow=2.5,SNR=5.6
comp=Z,29nm,0.5s
MKAR **Makanchi Array** 53.33 323 P P 22 46 57.7 -0.3
MKAR **Makanchi Array** 53.33 323 P P 22 46 57.6 -0.3
SHLS **Shalkode** 53.36 318 *c i* P P 22 46 56.1 -2.3
SHLS **Shalkode** 53.36 318 ⇑*i* P P 22 46 56.2 -2.3
PDGK **Podgornoye** 53.42 318 P P 22 46 57.8 -1.0
PDGK **Podgornoye** 53.42 318 P P 22 46 57.8 -1.0
BKNR **BIKĀNER** 53.47 298 *i* P P 22 46 52.6 -6.7
MAKZ **Makanchi** 53.52 323 P P 22 46 58.6 -0.8
MAKZ pmax pmax
comp=Z,225nm,1.4s
MAKZ MLR MLR
comp=Z,7µm,20.0s
MAKZ **Makanchi** 53.52 323 P P 22 46 58.6 -0.8
MAKZ IAmb IAmb 22 47 21.9
comp=Z,224nm,1.4s
MAKZ **Makanchi** 53.52 323 ⇑P P 22 46 58.9 -0.5
MAKZ **Makanchi** 53.52 323 P P 22 46 59.0 -0.4
comp=Z,6µmcomp=Z,2µmcomp=Z,116nm,1.2s
MAKZ **Makanchi** 53.52 323 P P 22 46 58.9 -0.5
MAKZ sP pP 22 47 15.1 +1.8
SRNI **Srinagar** 53.55 306 *i* P P 22 46 50.8 -9.2
UZB **Uzynbulak** 53.65 318 *c i* P P 22 47 00.2 -0.4
UZB *eS* S 22 54 29.8 -1.1
UZB **Uzynbulak** 53.65 318 ⇑*i* P P 22 47 00.2 -0.4
UZB *eS* S 22 54 29.8 -1.1
PRZ **Przheval'sk** 53.78 317 P P 22 47 01.4 -0.2
PRZ pmax pmax
comp=Z,131nm,1.1s
PRZ **Przheval'sk** 53.78 317 P P 22 47 01.4 -0.2
TARG **Taragay, Kyrgy** 53.88 316 P P 22 47 01.9 -0.7
TARG pmax pmax
comp=Z,78nm,1.1s
TARG **Taragay, Kyrgy** 53.88 316 P P 22 47 01.9 -0.7
TARG **Taragay, Kyrgy** 53.88 316 P P 22 47 03.6 +1.0
comp=Z,7µmcomp=Z,1µmcomp=Z,67nm,1.3s
KPKS **Kokpek** 54.01 318 *eP* P 22 47 02.8 -0.3
KPKS **Kokpek** 54.01 318 *eP* P 22 47 02.9 -0.3
SATY **Saty** 54.02 318 *c i* P P 22 47 02.9 -0.3
SATY *eS* S 22 54 34.9 -0.9
SATY **Saty** 54.02 318 ⇑*i* P P 22 47 03.0 -0.3
SATY *eS* S 22 54 34.9 -0.9
MA2 **Magadan** 54.02 15 LR LR 23 10 23.2
comp=Z,1µm,19.6s,baz=206,slow=36
MA2 **Magadan** 54.02 15 P P 22 47 05.3 +2.5
comp=Z,162nm,0.9s
MA2 **Magadan** 54.02 15 *c i* P P 22 47 04.5 +1.7
MA2 pmax pmax
comp=Z,59nm,1.0s
MA2 **Magadan** 54.02 15 P P 22 47 03.2 +0.4
MA2 IAmb IAmb 22 47 22.3
comp=Z,110nm,0.8s
MA2 **Magadan** 54.02 15 ⇓P P 22 47 03.9 +1.1
MA2 **Magadan** 54.02 15 P P 22 47 03.8 +1.0
comp=Z,3µmcomp=Z,158nm,0.9s
MA2 **Magadan** 54.02 15 P P 22 47 04.5 +1.7
comp=Z,7µmcomp=Z,3µmcomp=Z,143nm,0.9s
MA2 **Magadan** 54.02 15 P P 22 47 03.6 +0.8
MA2 sP sP 22 47 20.0 -2.5
MOO **Moorlands** 54.34 161 P P 22 47 08.4 +3.1
comp=Z,234nm,1.6s
ASAI **AK-SAY(Kyrgyzs** 54.46 315 P P 22 47 07.0 +0.3
comp=Z,7µmcomp=Z,1µmcomp=Z,67nm,1.1s
KDJ **Kajisay** 54.47 316 P P 22 47 07.4 +0.8
comp=Z,7µmcomp=Z,2µmcomp=Z,56nm,0.7s
KSH2 **Kashi** 54.52 312 P P 22 47 06.6 -0.4
KSH2 sP sP 22 47 26.3 -0.4
KSH2 PP PP 22 49 13.6 +3.9
KSH2 S S 22 54 40.5 -2.2
KSH2 pmax pmax
comp=Z,36nm,1.1s
KSH2 pmax pmax
comp=Z,2µm,5.4s
KSH2 L L
comp=Z,4µm,18.9s
KSH2 L L
comp=Z,5µm,19.9s
KSH2 L L
comp=Z,8µm,20.1s
NIL **Nilore** 54.69 305 P P 22 47 08.5 +0.3
NIL **Nilore** 54.69 305 P P 22 47 07.6 -0.6
NIL **Nilore** 54.69 305 P P 22 47 08.4 +0.2
comp=Z,9µmcomp=Z,8µmcomp=Z,716nm,1.1s
TAU **Tasmania Unive** 54.80 161 P P 22 47 11.4 +2.7
comp=Z,251nm,1.6s
TAU **Tasmania Unive** 54.80 161 P P 22 47 09.1 +0.4
TAU pmax pmax
comp=Z,448nm,1.4s
TAU **Tasmania Unive** 54.80 161 P P 22 47 09.1 +0.4
TAU IAmb IAmb 22 47 24.1
comp=Z,448nm,1.4s
TAU **Tasmania Unive** 54.80 161 ⇑P P 22 47 11.3 +2.7
TDK **Taldyqorghan** 54.85 320 *eP* P 22 47 09.0 -0.1
TDK pmax pmax
comp=Z,42nm,0.7s
TDK **Taldyqorghan** 54.85 320 *eP* P 22 47 09.0 -0.1
comp=Z,42nm,0.7s
MDOK **Medeo** 54.97 317 *eP* P 22 47 10.0 -0.2
MDOK *eS* S 22 54 47.7 -1.0
MDOK **Medeo** 54.97 317 *eP* P 22 47 10.0 -0.2
MDOK *eS* S 22 54 47.7 -1.0
TNSS **Tian-Shan** 54.98 317 *eP* P 22 47 10.0 -0.6
TNSS **Tian-Shan** 54.98 317 *eP* P 22 47 10.1 -0.6
AAA **Alma-Ata** 55.08 317 *eP* P 22 47 10.5 -0.3
AAA pmax pmax
comp=Z,24nm,0.6s
AAA **Alma-Ata** 55.08 317 *eP* P 22 47 10.6 -0.3
comp=Z,24nm,0.6s
ULHL **Ulahol** 55.16 316 P P 22 47 12.0 +0.4
SNR=7.2
FUNA **Funafuti** 55.35 107 P P 22 47 18.6 +5.4
comp=Z,274nm,1.5s
FUNA **Funafuti** 55.35 107 P P 22 47 13.2 0.0

FUNA IAmb IAmb 22 47 30.5
comp=Z,370nm,1.1s
JASL Jaisalmer 55.37 297 *i* P P 22 47 06.5 -6.7
JASL IVmB_BB 22 47 29.2
comp=Z,7μm,1.6s
KUU Kurty 55.73 318 *e*P **P** **22 47 15.4 -0.1**
KUU Kurty 55.73 318 *e*P **P** **22 47 15.5 -0.1**
TKM2 Tokmak 2 55.85 317 P **P** **22 47 15.5 -1.1**
SNR=27
ZALV Zalesovo Beam 56.04 332 P **P** **22 47 16.0 -1.4**
comp=Z,18nm,0.5s,baz=119,slow=6.7,SNR=57
ZALV LR LR 23 13 18.5
comp=Z,3μm,20.9s,baz=138,slow=38
ZALV PKPPKP **P'P'df** **23 17 16.0 -1.9**
comp=Z,1.9nm,0.8s,baz=228,slow=3.8,SNR=4.2
comp=Z,18nm,0.5s
ZALV Zalesovo Beam 56.04 332 P **P** **22 47 15.9 -1.6**
BHUJ Bhuj 56.07 292 *i* P P 22 47 12.5 -5.7
KBK Karagaybulak 56.20 316 P **P** **22 47 19.6 +0.6**
SNR=16
UCH Uchtor 56.34 315 P **P** **22 47 20.8 +0.4**
SNR=49
SEM Semipalatinsk 56.36 326 *e*P **P** **22 47 19.7 -0.4**
SEM Semipalatinsk 56.36 326 *e*P **P** **22 47 19.7 -0.4**
CHMS Chumysh 56.46 316 P **P** **22 47 20.3 -0.4**
SNR=6.8
AAK Ala-Archa 56.50 316 P **P** **22 47 21.0 -0.2**
comp=Z,9.1nm,0.6s,baz=137,slow=6.9,SNR=12
AAK LR LR 23 14 55.7
comp=Z,4μm,18.8s,baz=104,slow=40
comp=Z,9.1nm,0.6s
AAK Ala-Archa 56.50 316 *i* P **P** **22 47 21.7 +0.5**
SNR=15
AAK Ala-Archa 56.50 316 P **P** **22 47 21.0 -0.2**
AAK Ala-Archa 56.50 316*c i* P **P** **22 47 21.5 +0.3**
AAK pmax pmax
comp=Z,84nm,1.8s
AAK Ala-Archa 56.50 316 P **P** **22 47 20.6 -0.6**
AAK Ala-Archa 56.50 316 ⇑P **P** **22 47 21.1 -0.2**
AAK Ala-Archa 56.50 316 P **P** **22 47 21.3 +0.1**
comp=Z,7μmcomp=Z,1μmcomp=Z,48nm,2.0s
USP Ospenovka 56.73 317 P **P** **22 47 22.3 -0.3**
SNR=31
OHH Osh 56.99 313 P **P** **22 47 23.9 -0.7**
comp=Z,65nm,1.2s
EKS2 Erkin-Say 57.00 316 P **P** **22 47 24.8 +0.1**
SNR=32
SEY Seymchan 57.32 14 LR LR 23 11 23.6
comp=Z,2μm,21.8s,baz=204,slow=35
SEY Seymchan 57.32 14*ce*P **P** **22 47 29.4 +3.0**
SEY pmax pmax
comp=Z,160nm,1.8s
DRK Karamyk 57.39 312 IAmb IAmb 22 47 56.2
comp=Z,208nm,1.2s
DRK Karamyk 57.39 312 P **P** **22 47 27.9 +0.2**
comp=Z,2μmcomp=Z,152nm,1.1s
KURK Kurchatov 57.41 326 P **P** **22 47 27.0 -0.2**
KURK Kurchatov 57.41 326*c i*P **P** **22 47 26.7 -0.6**
KURK pmax pmax
comp=Z,148nm,0.9s
KURK Kurchatov 57.41 326 P **P** **22 47 25.7 -1.6**
KURK IAmb IAmb 22 47 58.2
comp=Z,157nm,0.9s
KURK Kurchatov 57.41 326 P **P** **22 47 26.6 -0.6**
comp=Z,7μmcomp=Z,2μmcomp=Z,161nm,0.9s,comp=Z,2μm
KURK Kurchatov 57.41 326 P **P** **22 47 26.5 -0.7**
KURBB Kurchatov Arra 57.41 326 P **P** **22 47 26.4 -0.8**
comp=Z,35nm,0.6s,baz=127,slow=6.4,SNR=187
KURBB LR LR 23 14 00.6
comp=Z,2μm,18.9s,baz=138,slow=38
KURBB PKPPKP **P'P'df** **23 17 11.7 -4.4**
comp=Z,4.3nm,0.9s,baz=270,slow=3.4,SNR=11
comp=Z,35nm,0.6s
MSVF Nonsavu 57.41 117 LR LR 23 08 45.5
comp=Z,5μm,21.5s,baz=307,slow=32
MSVF Nonsavu 57.41 117 P **P** **22 47 30.6 +2.7**
comp=Z,1μm,1.1s
MSVF Nonsavu 57.41 117 P **P** **22 47 29.0 +1.1**
BTK Batken 58.29 312 IAmb IAmb 22 48 06.2
comp=Z,199nm,1.3s
BTK Batken 58.29 312 P **P** **22 47 33.6 -0.1**
comp=Z,6μmcomp=Z,2μmcomp=Z,111nm,1.6s
KBL Kabul 58.30 305 P **P** **22 47 34.8 +0.7**
SNR=41
KBL Kabul 58.30 305 P **P** **22 47 33.2 -0.8**
KBL pmax pmax
comp=Z,379nm,1.6s
KBL Kabul 58.30 305 P **P** **22 47 33.2 -0.8**
KBL IAmb IAmb 22 47 51.8
comp=Z,379nm,1.6s
KBL Kabul 58.30 305 P **P** **22 47 33.9 -0.2**
comp=Z,6μmcomp=Z,3μmcomp=Z,146nm,1.2s
DGTI Dogotuki 58.37 115 P **P** **22 47 37.6 +3.1**
comp=Z,749nm,1.1s
SHEM Shemya Is, Ala 58.43 32 LR LR 23 11 38.9
comp=Z,1μm,19.8s,baz=300,slow=35
DZA Taraz 58.78 315 *e*P **P** **22 47 37.0 0.0**
DZA Taraz 58.78 315 *e*P **P** **22 47 37.1 0.0**
KKAR Karatay Array 59.41 315 P **P** **22 47 40.5 -0.9**
KKAR Karatay Array 59.41 315 P **P** **22 47 40.5 -0.9**
IUG luzhnay 59.46 314 *e*P **P** **22 47 41.9 +0.1**
IUG pmax pmax
comp=Z,58nm,1.1s
IUG luzhnay 59.46 314 *e*P **P** **22 47 42.0 +0.1**
comp=Z,58nm,1.1s
FUTU Fugatoga 59.63 112 P **P** **22 47 46.2 +2.9**
comp=Z,2μm,1.1s
CHM Chimkent 59.82 314 *e*P **P** **22 47 44.1 -0.1**
CHM Chimkent 59.82 314 *e*P **P** **22 47 44.1 -0.1**
BRLS Borolday 59.86 315*c i*P **P** **22 47 44.6 +0.1**
BRLS pmax pmax
comp=Z,39nm,1.2s
BRLS Borolday 59.86 315 ⇑*i*P **P** **22 47 44.6 +0.1**
comp=Z,39nm,1.2s
LKBA Tubou, Lakemba 60.36 117 P **P** **22 47 51.1 +2.9**
comp=Z,16nm,1.0s
OUZ Omahuta 62.40 137 IAMs_20 IAMs_20 23 11 24.9
comp=Z,3μm,20.0s
OUZ Omahuta 62.40 137 ⇑P **P** **22 48 03.9 +2.3**
OUZ Omahuta 62.40 137 P **P** **22 48 03.7 +2.0**
comp=Z,5μmcomp=Z,3μmcomp=Z,195nm,1.5s
OUZ pP **pP** **22 48 15.9 +0.1**
TIXI Tiksi 62.92 1 LR LR 23 15 43.5
comp=Z,3μm,21.2s,baz=193,slow=36
TIXI Tiksi 62.92 1*c i*P **P** **22 48 04.4 -0.1**
TIXI pmax pmax
comp=Z,125nm,1.0s
TIXI Tiksi 62.92 1 P **P** **22 48 03.5 -1.1**
TIXI IAmb IAmb 22 48 25.3
comp=Z,242nm,1.1s
TIXI Tiksi 62.92 1 IAMs_20 IAMs_20 23 15 15.7
comp=Z,3μm,22.0s
TIXI Tiksi 62.92 1 ⇓P **P** **22 48 03.7 -0.8**
TIXI Tiksi 62.92 1 P **P** **22 48 03.9 -0.7**
comp=Z,4μmcomp=Z,232nm,1.0s
TIXI Tiksi 62.92 1 P **P** **22 48 04.1 -0.4**
TIXI pP **pP** **22 48 15.7 -2.8**
TIXI sP **sP** **22 48 20.8 -3.4**
BVAR Borovoye Array 63.00 326 P **P** **22 48 04.2 -1.3**
comp=Z,48nm,0.6s,baz=129,slow=7.6,SNR=150
BVAR PKPPKP **P'P'df** **23 17 05.3 -2.0**
comp=Z,0.9nm,0.8s,baz=9.5,slow=4.5,SNR=4.2
comp=Z,48nm,0.6s
BORK Borovoye 63.05 326*c i*P **P** **22 48 05.5 -0.3**
BORK pmax pmax
comp=Z,99nm,0.9s
BORK Borovoye 63.05 326 P **P** **22 48 05.2 -0.6**
BORK IAmb IAmb 22 48 40.0
comp=Z,135nm,0.8s
BORK IAMs_20 IAMs_20 23 16 57.2
comp=Z,5μm,22.0s
ADK Adak 63.13 36 P **P** **22 48 05.5 -0.8**
ADK pmax pmax
comp=Z,360nm,1.2s
ADK MLR MLR
comp=Z,5μm,21.0s
ADK Adak 63.13 36 P **P** **22 48 05.5 -0.8**
ADK IAmb IAmb 22 48 25.0
comp=Z,360nm,1.2s
ADK Adak 63.13 36 IAMs_20 IAMs_20 23 10 47.4
comp=Z,5μm,21.0s
ADK Adak 63.13 36 ⇑P **P** **22 48 07.3 +1.0**
ADK Adak 63.13 36 P **P** **22 48 07.7 +1.4**
comp=Z,8μmcomp=Z,6μmcomp=Z,219nm,0.8s
ADK Adak 63.13 36 P **P** **22 48 06.9 +0.6**
HRA Herat 63.80 304 P **P** **22 48 09.9 -1.5**
HRA IAmb IAmb 22 48 28.0
comp=Z,503nm,1.6s
NGCH Negor - Chabah 63.97 294 P **P** **22 48 12.5 +0.2**
SNR=7.5
MKAZ Moumakai 64.51 138 P **P** **22 48 16.9 +1.3**
ATKA Atka Island 64.68 36 P **P** **22 48 19.8 +3.3**
comp=Z,732nm,0.8s
ATKA Atka Island 64.68 36 IAMs_20 IAMs_20 23 11 19.4
comp=Z,4μm,22.0s
ATKA Atka Island 64.68 36 ⇑P **P** **22 48 17.3 +0.8**
BILL Bilibino 64.89 15*c i*P **P** **22 48 18.3 +0.7**
BILL pmax pmax
comp=Z,59nm,1.1s
BILL Bilibino 64.89 15 P **P** **22 48 17.8 +0.2**
BILL IAmb IAmb 22 48 37.6
comp=Z,288nm,1.3s
BILL Bilibino 64.89 15 P **P** **22 48 18.0 +0.4**
BILL sP **sP** **22 48 34.7 -2.7**
BILI Bilibino, Chuk 64.95 15 P **P** **22 48 18.2 +0.2**
comp=Z,3μmcomp=Z,4μmcomp=Z,173nm,1.3s
KHEZ Kahui Hut 65.04 141 P **P** **22 48 23.7 +4.6**
JCZ Jackson Bay 65.05 148 P **P** **22 48 22.3 +3.2**
QRZ Quartz Range 65.06 143 IAMs_20 IAMs_20 23 13 57.0
comp=Z,4μm,22.0s
QRZ Quartz Range 65.06 143 P **P** **22 48 19.3 +0.2**
TOZ Tahuroa Road 65.09 139 IAMs_20 IAMs_20 23 13 41.1
comp=Z,4μm,22.0s
HIZ Hauiti 65.12 140 IAMs_20 IAMs_20 23 16 55.8
comp=Z,2μm,20.0s
HIZ Hauiti 65.12 140 P **P** **22 48 21.5 +2.0**
DCZ Deep Cove 65.17 150 P **P** **22 48 20.1 +0.4**
DCZ IAmb IAmb 22 48 39.8
comp=Z,227nm,1.2s
FOZ Fox Glacier 65.24 147 IAMs_20 IAMs_20 23 16 02.7
comp=Z,3μm,21.0s
VRZ Vera Road 65.41 140 P **P** **22 48 25.0 +3.6**
PYZ Puysegur Point 65.43 150 P P 22 48 26.2 +4.8
PYZ Puysegur Point 65.43 150 IAMs_20 IAMs_20 23 16 38.4
comp=Z,3μm,18.0s
JLN Jalan Bani Buh 65.46 290 P **P** **22 48 21.1 -1.1**
SNR=6.0
NRIK Noril'sk 65.55 346 P **P** **22 48 21.2 -0.6**
comp=Z,60nm,0.6s,baz=119,slow=6.6,SNR=79
NRIK S **S** **22 57 01.8 -1.2**
comp=Z,2.6nm,0.7s,baz=343,slow=20,SNR=7.9
NRIK PKPPKP **P'P'df** **23 16 59.8 -2.5**
comp=Z,2.1nm,0.6s,baz=148,slow=0.5,SNR=4.0
NRIK LR LR 23 20 15.1
comp=Z,3μm,18.6s,baz=142,slow=39
comp=Z,60nm,0.6s
NRIK Noril'sk 65.55 346 IAmb IAmb 22 48 41.6
comp=Z,172nm,0.8s
RAO Raoul Island 65.58 128 LR LR 23 15 28.5
comp=Z,886nm,21.6s,baz=350,slow=34
RAO Raoul Island 65.58 128 P P 22 48 27.8 +5.1
comp=Z,624nm,1.2s
MLZ Mavora Lakes 65.58 149 IAmb IAmb 22 48 36.9
comp=Z,222nm,1.5s
MLZ IAMs_20 IAMs_20 23 14 33.7
comp=Z,3μm,22.0s
INZ Inchbonnie 65.62 145 IAmb IAmb 22 48 40.0
comp=Z,228nm,1.1s
INZ IAMs_20 IAMs_20 23 13 40.8
comp=Z,5μm,22.0s
WKZ Wanaka 65.68 148 IAMs_20 IAMs_20 23 14 25.3
comp=Z,3μm,21.0s
NNZ Nelson 65.81 143 IAmb IAmb 22 48 40.8
comp=Z,508nm,1.6s
NNZ IAMs_20 IAMs_20 23 14 29.2
comp=Z,5μm,22.0s
TWVZ Taurewa 65.81 140 P **P** **22 48 25.2 +1.1**
THZ Tophouse 65.86 143 IAmb IAmb 22 48 40.1
comp=Z,266nm,1.1s
THZ IAMs_20 IAMs_20 23 14 43.1
comp=Z,4μm,21.0s
WHZ Wether Hill Ro 65.86 149 IAmb IAmb 22 48 38.4
comp=Z,235nm,1.4s
WBK Wadi Bani Khal 65.87 291 P **P** **22 48 24.3 -0.5**
SNR=6.0
DUWZ D'Urville Isla 65.88 142 P **P** **22 48 24.1 -0.4**
WTVZ West Tongariro 65.93 140 P **P** **22 48 27.4 +2.5**
COVZ Chateau Observ 65.95 140 P **P** **22 48 24.7 -0.4**
NGZ Ngauruhoe 65.97 140 P **P** **22 48 27.0 +1.7**
FWVZ Far West T-bar 65.99 140 P **P** **22 48 27.8 +2.4**
LBZ Lake Benmore 66.00 147 IAMs_20 IAMs_20 23 16 38.9
comp=Z,3μm,21.0s
SNVZ South Ngauruho 66.00 140 P **P** **22 48 28.2 +2.7**
OTVZ Oturere 66.01 140 P **P** **22 48 27.5 +2.1**
RPZ Rata Peaks 66.04 146 LR LR 23 15 01.3
comp=Z,784nm,21.9s,baz=242,slow=34
RPZ Rata Peaks 66.04 146 P **P** **22 48 25.7 +0.3**
RPZ IAmb IAmb 22 48 43.4
comp=Z,278nm,0.9s
WNVZ Wahianoa 66.06 140 P **P** **22 48 26.7 +0.9**
LTZ Lake Taylor 66.12 145 IAmb IAmb 22 48 44.0
comp=Z,339nm,1.4s
WSAR Wadi Sarin 66.19 292 P **P** **22 48 25.7 -1.1**
SNR=7.8
MOVZ Moawhango 66.20 140 P **P** **22 48 27.0 +0.4**
OXZ Oxford 66.34 145 IAmb IAmb 22 48 32.1
comp=Z,95nm,0.7s
OXZ IAMs_20 IAMs_20 23 14 22.8
comp=Z,5μm,22.0s
URZ Urewera 66.44 138 LR LR 23 14 57.5
comp=Z,2μm,21.3s,baz=301,slow=34
URZ Urewera 66.44 138 P **P** **22 48 28.0 0.0**
URZ Urewera 66.44 138 P **P** **22 48 28.3 +0.2**
comp=Z,5μmcomp=Z,4μmcomp=Z,233nm,1.7s
KIW Kapiti Island 66.52 142 P **P** **22 48 29.8 +1.3**
BKZ Black Stump Fm 66.54 139 P **P** **22 48 29.8 +1.0**
comp=Z,337nm,1.3s
BKZ Black Stump Fm 66.54 139 P **P** **22 48 28.7 -0.1**
RTZ Ruatahuna 66.55 139 IAMs_20 IAMs_20 23 14 28.7
comp=Z,5μm,22.0s
MTHZ Maungataniwha 66.59 139 P **P** **22 48 29.4 +0.3**
HAZ Te Kaha 66.61 138 P **P** **22 48 29.5 +0.3**
SQUM Sultan Qaboos 66.61 292 P **P** **22 48 29.4 -0.1**
KHZ Kahutara 66.63 144 IAmb IAmb 22 48 44.3
comp=Z,470nm,1.4s
KHZ Kahutara 66.63 144 P **P** **22 48 29.1 0.0**
comp=Z,4μmcomp=Z,4μmcomp=Z,265nm,1.5s
KWHZ Kaweka Forest 66.64 140 P **P** **22 48 29.5 +0.1**
RUGZ Raukumara Rang 66.65 138 P **P** **22 48 30.2 +0.6**
OGWZ Otaki Gorge 66.65 142 P **P** **22 48 28.9 -0.5**
BIDO Bidbid 66.66 292 P **P** **22 48 29.3 -0.5**
SNR=22
SNZO South Karori 66.66 142 P **P** **22 48 32.6 +3.2**
comp=Z,170nm,1.3s
SNZO South Karori 66.66 142 P **P** **22 48 28.3 -1.1**
SNZO South Karori 66.66 142 IAMs_20 IAMs_20 23 14 45.4
comp=Z,5μm,22.0s
JMDO Jabal Madar 66.67 291 P **P** **22 48 28.9 -1.1**
ODZ Otahua Downs 66.69 147 IAmb IAmb 22 48 46.8
comp=Z,278nm,1.5s
ODZ Otahua Downs 66.69 147 ⇓P **P** **22 48 30.2 +0.7**
NMHZ Naumai 66.70 139 P **P** **22 48 30.9 +1.1**
SMDO Samad 66.73 291 P **P** **22 48 29.6 -0.8**
KRHZ Kereru 66.73 140 P **P** **22 48 29.9 0.0**
MWZ Matawai 66.75 138 P **P** **22 48 30.3 +0.1**
CAW Cannon Point 66.76 142 P **P** **22 48 29.9 -0.2**
RAGZ Rawiri 66.77 138 P **P** **22 48 29.8 -0.5**
PNHZ Pukenui 66.77 140 P **P** **22 48 30.3 +0.1**
POWZ Post Office Ro 66.78 141 P **P** **22 48 30.0 -0.2**
RAHZ Arahi 66.78 139 P **P** **22 48 31.6 +1.3**
MHTO MHTO 66.81 289 P **P** **22 48 29.6 -1.2**
SNR=24
MRZ Mangatainoka R 66.81 141 IAmb IAmb 22 48 46.0
comp=Z,219nm,1.1s
MRZ IAMs_20 IAMs_20 23 16 45.5
comp=Z,3μm,20.0s
MRZ Mangatainoka R 66.81 141 P **P** **22 48 29.2 -1.2**
BHW Baring Head 66.82 142 P **P** **22 48 29.6 -0.8**
MCHZ McNeill Hill 66.83 140 P **P** **22 48 27.7 -2.9**
MXZ Matakaoa Point 66.86 137 P P 22 48 36.5 +5.8
comp=Z,284nm,1.5s
MXZ Matakaoa Point 66.86 137 IAmb IAmb 22 48 46.3
comp=Z,359nm,1.2s
HOWZ Holdsworth Sta 66.91 141 P **P** **22 48 28.4 -2.7**
ARHZ Aropaoanui 66.92 139 P **P** **22 48 31.9 +0.8**
MQZ McQueen's Vall 66.92 145 IAmb IAmb 22 48 48.0
comp=Z,373nm,1.3s
MQZ IAMs_20 IAMs_20 23 14 41.3
comp=Z,3μm,22.0s
JASK Jask - Hormozg 66.93 294 P **P** **22 48 32.8 +1.3**
SNR=9.6
DVHZ Dannevirke 66.97 141 P **P** **22 48 30.9 -0.5**
TKGZ Te Karaka 67.02 138 P **P** **22 48 32.4 +0.6**
MTW Mount Morrison 67.06 142 P **P** **22 48 31.8 -0.2**
KAHZ Kahuranaki 67.14 140 P **P** **22 48 34.0 +1.4**
PAWZ Paruwai Farm 67.14 142 P **P** **22 48 32.2 -0.3**
PLWZ Palliser 67.15 142 P **P** **22 48 32.0 -0.5**
DQM DQM 67.23 288 P **P** **22 48 31.4 -2.1**
BFZ Birch Farm 67.24 141 P **P** **22 48 36.0 +2.9**
comp=Z,267nm,1.7s
BFZ Birch Farm 67.24 141 IAMs_20 IAMs_20 23 17 20.8
comp=Z,4μm,20.0s
BFZ Birch Farm 67.24 141 P **P** **22 48 33.0 -0.1**
PRHZ Porangahau 67.25 140 P **P** **22 48 34.6 +1.4**
TMWZ Te Maipa 67.27 141 P **P** **22 48 33.1 -0.2**
CNGZ Carnagh Statio 67.28 138 P **P** **22 48 33.9 +0.5**
TRWZ Traveller 67.31 142 P **P** **22 48 33.7 +0.1**
HOQ Hoqain 67.41 292 P **P** **22 48 33.6 -1.0**
SNR=18
BSY Bisya 67.51 291 P **P** **22 48 34.4 -0.9**
SNR=7.9
ABKAR Akbulak array 68.12 320 P **P** **22 48 38.0 -0.5**
SOHO SOHO 68.12 292 *i* P **P** **22 48 37.9 -1.1**
SNR=8.6
SOHO SOHO 68.12 292 P **P** **22 48 38.1 -1.0**
SNR=8.2
ARQ Araqi 68.13 292 P **P** **22 48 37.6 -1.6**
SNR=8.9
MDH Madha 68.34 294 P **P** **22 48 38.5 -1.9**
BANOM Banah 68.34 294 P **P** **22 48 39.1 -1.4**
UOSS Minazif 68.42 293 P **P** **22 48 40.2 -0.8**
UOSS Minazif 68.42 293 P **P** **22 48 39.5 -1.4**
UOSS Minazif 68.42 293 P **P** **22 48 39.7 -1.2**
UOSS Minazif 68.42 293 P **P** **22 48 40.2 -0.8**
comp=Z,7μmcomp=Z,1μmcomp=Z,52nm,1.0s
UOSS Minazif 68.42 293 P **P** **22 48 39.3 -1.7**
UOSS sP **pP** **22 48 56.7 +1.4**
UOSS PcP **PcP** **22 49 04.8 -1.3**
MASF Masafi 68.47 294 P **P** **22 48 40.1 -1.2**
MSFE Esma-Masafi 68.47 294 P **P** **22 48 40.5 -0.7**
SPIA Saint Paul Isl 68.47 32 P **P** **22 48 43.7 +3.2**
comp=Z,414nm,1.2s
HATD Hatta, Dubai 68.49 293 *i* P **P** **22 48 40.8 -0.5**
SNR=12
HATD Hatta, Dubai 68.49 293 P **P** **22 48 40.8 -0.5**
SNR=6.5
SHME Shamm 68.49 295 P **P** **22 48 41.1 -0.2**
SHME Shamm 68.49 295 P **P** **22 48 40.2 -1.1**
ASHO Ashiyiah 68.55 293 *i* P **P** **22 48 41.0 -0.8**
SNR=9.8
ASHO Ashiyiah 68.55 293 P **P** **22 48 39.5 -2.3**
NIUE Niue 68.58 114 P **P** **22 48 46.4 +4.5**
comp=Z,1μm,1.2s
ALNE Al Ain 68.83 292 *i* P **P** **22 48 43.0 -0.5**
SNR=44
ALNE Al Ain 68.83 292 P **P** **22 48 42.9 -0.7**
SNR=21
NAZ Nazwa, Dubai 68.92 293 *i* P **P** **22 48 43.2 -0.9**
SNR=6.5
NAZ Nazwa, Dubai 68.92 293 P **P** **22 48 42.8 -1.2**
UMQ Umm Al-Quwin 68.92 294 P **P** **22 48 44.3 +0.3**
FAQ Al Faqa, Dubai 68.98 293 P **P** **22 48 44.1 -0.3**
FAQ Al Faqa, Dubai 68.98 293 P **P** **22 48 43.3 -1.1**
SNR=6.4
SHAO Shalim 69.10 286 *i* P **P** **22 48 45.2 -0.1**
SNR=17
SHAO Shalim 69.10 286 P **P** **22 48 45.0 -0.3**
SNR=23
ASUD Al Ashush, Dub 69.22 293 P **P** **22 48 45.2 -0.7**
UMZA Um Al Zommool 69.39 291 P **P** **22 48 45.8 -1.2**
AJN Ajban 69.53 293 P **P** **22 48 45.1 -2.7**
SVE Sverdlovsk 69.58 328*d i*P **P** **22 48 46.8 -0.7**
SVE *e*S **S** **22 57 48.3 -3.4**
SVE pmax pmax
comp=Z,130nm,0.7s
SVE MLR MLR
comp=Z,3μm,21.0s
AKTO Aktyubinsk 69.58 321 LR LR 23 21 27.0
comp=Z,6μm,21.5s,baz=100,slow=38
DMTO DMTO 69.76 286 P **P** **22 48 49.3 -0.1**
AKUT Akutan 70.09 35 P P 22 48 55.9 +5.3
RBK Rabkut 70.48 285 P **P** **22 48 52.8 -1.0**
SNR=30
DOK Doka 70.50 287 P **P** **22 48 52.1 -1.7**
SNR=27
MZWR Madinat Zayed 70.55 292 P **P** **22 48 53.3 -0.8**
ARTI Arti 70.67 327 LR LR 23 22 23.3
comp=Z,2μm,20.5s,baz=108,slow=38
ARTI Arti 70.67 327 P **P** **22 48 52.7 -1.4**
WHFO Wadi Hawf 70.87 286 P **P** **22 48 55.2 -1.0**
SNR=29
MZR Muzera 70.94 291 *i* P **P** **22 48 56.2 -0.3**
SNR=63
MZR Muzera 70.94 291 P **P** **22 48 56.2 -0.3**
SNR=18
ABTO Aybut 71.36 285 P **P** **22 48 58.5 -0.7**
SNR=38
GHWR Ruwais 71.47 292 P **P** **22 48 59.3 -0.4**
JRN Qarnain Island 71.47 293 P **P** **22 48 58.8 -0.8**
SNR=10.0
MSEY Mahe Island 71.90 262 P **P** **22 49 01.0 -1.4**
MSEY Mahe Island 71.90 262 IAMs_20 IAMs_20 23 17 48.4
comp=Z,3μm,21.0s
SLWR Sila 72.55 292 P **P** **22 49 05.9 -0.2**
J14K Nanvaranak Lak 73.25 27 IAmb IAmb 22 49 30.1
comp=Z,296nm,1.6s
L14K Kuka Creek 73.32 28 IAmb IAmb 22 49 31.6
comp=Z,349nm,1.0s
SDPT Sand Point 73.34 35 P P 22 49 15.7 +5.6
CTZ Chatham Island 73.35 141 P **P** **22 49 12.5 +2.1**
comp=Z,99nm,1.3s
CTZ Chatham Island 73.35 141 IAMs_20 IAMs_20 23 20 52.5
comp=Z,2μm,21.0s
N14K Kuskokwak Cree 73.50 30 IAmb IAmb 22 49 31.6
comp=Z,623nm,1.6s
SAKB Bahrain 73.53 294 P **P** **22 49 11.4 -0.5**
F15K North Star Dit 73.54 24 IAmb IAmb 22 49 31.8
comp=Z,226nm,1.4s
KIP Kipapa 73.56 70 P P 22 49 18.3 +6.2
KIP Kipapa 73.56 70 P **P** **22 49 15.9 +3.8**
KIP Kipapa 73.56 70 P **P** **22 49 15.3 +3.2**
KIP pP **PcP** **22 49 27.4 -0.5**
O14K Tigyukauivet M 73.59 31 IAmb IAmb 22 49 31.8
comp=Z,176nm,1.0s
CNBA Chernabura Isl 73.76 35 IAmb IAmb 22 49 32.1
comp=Z,338nm,1.1s
CNBA IAMs_20 IAMs_20 23 18 50.5
comp=Z,2μm,20.0s
CHNA Chernabura Isl 73.76 35 P **P** **22 49 16.7 +4.0**
comp=Z,302nm,1.0s
K15K Wolf Creek Mou 74.06 28 IAmb IAmb 22 49 35.3
comp=Z,329nm,1.4s
O15K Kngalikthiuk R 74.30 31 IAmb IAmb 22 49 36.0
comp=Z,208nm,1.2s
G16K Koyuk River 74.39 24 IAmb IAmb 22 49 36.6
comp=Z,296nm,1.8s
J16K Anvik River 74.68 27 IAmb IAmb 22 49 35.3
comp=Z,619nm,1.9s
I17K Unalakleet 74.76 26 IAmb IAmb 22 49 35.7
comp=Z,641nm,1.9s
RDOG Red Dog Mine 74.83 22 IAmb IAmb 22 49 36.6
comp=Z,377nm,1.5s
F17K Baldwin Pennin 75.07 23 IAmb IAmb 22 49 37.2
comp=Z,183nm,1.2s
O16K Kokwok River B 75.24 31 IAmb IAmb 22 49 41.6
comp=Z,186nm,1.1s
K17K Iditarod 75.61 27 IAmb IAmb 22 49 41.6
comp=Z,510nm,1.3s
CASY Casey 75.67 187 P **P** **22 49 23.5 +0.2**
CASY IAmb IAmb 22 49 38.5
comp=Z,293nm,1.2s
CASY Casey 75.67 187 P **P** **22 49 23.1 -0.2**
CASY pP **PcP** **22 49 35.6 -0.4**
N17K Nushagak Hills 75.82 30 IAmb IAmb 22 49 43.0
comp=Z,351nm,1.2s
KIRV Kirov 75.82 328 LR LR 23 25 31.0
comp=Z,3μm,21.7s,baz=103,slow=38
KIRV Kirov 75.82 328*c i*P **P** **22 49 23.3 -1.2**
DRV Dumont d'Urvil 75.82 174 P **P** **22 49 24.4 +0.3**
DRV pP **PcP** **22 49 36.9 +0.4**
MAK Makhachkala 75.97 312*d i*P **P** **22 49 21.9 -3.8**
MAK *e**PP **PcP** **22 49 38.7 +0.8**
MAK *e* 22 52 18.7
MAK *e*PPP PPP 22 54 02.2
MAK *e*S **S** **22 58 58.8 -6.2**
MAK *e**SS **sS** **22 59 28.0 -1.4**
MAK *e*SS **SS** **23 03 58.9 +0.5**

MAK pmax pmax
comp=Z,460nm,1.1s
MAK MLR MLR
comp=Z,4µm,18.0s
POHA Pohakuloa 75.98 72 P P 22 49 31.3 +4.8
POHA Pohakuloa 75.98 72 P **P** **22 49 29.7 +3.2**
POHA pP **pwP** **22 49 42.3 -0.7**
H18K Honhosa River 75.98 25 IAmb IAmb 22 49 42.1
comp=Z,257nm,1.4s
L18K Granite Mounta 76.28 28 IAmb IAmb 22 49 44.6
comp=Z,223nm,1.2s
L18K IAMs_20 IAMs_20 23 20 44.8
comp=Z,2µm,22.0s
BELG Belogornoye 76.28 322 LR LR 23 25 28.6
comp=Z,2µm,21.8s,baz=96,slow=38
BELG Belogornoye 76.28 322 *c i*P **P** **22 49 26.4 -0.8**
BELG pmax pmax
comp=Z,23nm,1.1s
KNHH Kane Nui o Ham 76.35 72 P **P** **22 49 28.4 0.0**
J18K Innoko River 76.43 27 IAmb IAmb 22 49 44.8
comp=Z,195nm,1.4s
N18K Kilae Creek 76.47 30 IAmb IAmb 22 49 45.7
comp=Z,403nm,1.5s
E19K Redstone River 76.81 23 IAmb IAmb 22 49 49.2
comp=Z,269nm,1.0s
H19K Roundabout Mou 76.83 25 IAmb IAmb 22 49 47.4
comp=Z,303nm,1.2s
SII Sitkinak Islan 76.99 34 P **P** **22 49 34.5 +3.3**
comp=Z,396nm,1.1s
SII Sitkinak Islan 76.99 34 IAmb IAmb 22 49 54.6
comp=Z,280nm,0.8s
L19K White Mountain 77.13 28 IAmb IAmb 22 49 49.9
comp=Z,201nm,1.2s
N19K Bonanza Creek 77.17 30 IAmb IAmb 22 49 49.7
comp=Z,433nm,1.4s
O19K Port Alsworth 77.20 30 IAmb IAmb 22 49 49.1
comp=Z,513nm,1.6s
I20K Naaghedeneel 77.57 26 IAmb IAmb 22 49 52.5
comp=Z,376nm,1.1s
L20K Farewell, AK 77.61 28 IAmb IAmb 22 49 51.9
comp=Z,286nm,1.6s
KDAK Kodiak Island 77.93 33 LR LR 23 20 19.1
comp=Z,4µm,21.4s,baz=243,slow=33
KDAK Kodiak Island 77.93 33 *i*P **P** **22 49 37.4 +1.0**
KDAK pmax pmax
comp=Z,103nm,0.9s
KDAK Kodiak Island 77.93 33 P **P** **22 49 37.1 +0.8**
KDAK IAmb IAmb 22 49 56.4
comp=Z,214nm,0.7s
KDAK Kodiak Island 77.93 33 P **P** **22 49 37.2 +0.8**
IMAR Indian Mountai 78.00 24 P **P** **22 49 37.5 +0.9**
GNI Garni 78.05 309 LR LR 23 29 18.7
comp=Z,2µm,21.8s,baz=83,slow=40
GNI Garni 78.05 309 P **P** **22 49 36.0 -1.7**
GNI Garni 78.05 309 P **P** **22 49 39.3 +1.6**
GNI Garni 78.05 309 *ce*P **P** **22 49 38.8 +1.1**
GNI pmax pmax
comp=Z,114nm,1.7s
GNI Garni 78.05 309 P **P** **22 49 37.6 0.0**
GNI Garni 78.05 309 P **P** **22 49 38.4 +0.7**
comp=Z,4µmcomp=Z,194nm,1.4s
G21K Allakaket 78.15 24 IAmb IAmb 22 49 54.7
comp=Z,299nm,1.2s
RAYN Ar Rayn 78.23 292 *i*P **P** **22 49 38.2 -0.7**
SNR=30
RAYN Ar Rayn 78.23 292 P **P** **22 49 38.0 -0.9**
RAYN Ar Rayn 78.23 292 P **P** **22 49 38.1 -0.7**
RAYN IAmb IAmb 22 49 54.7
comp=Z,191nm,0.9s
RAYN Ar Rayn 78.23 292 P **P** **22 49 37.8 -1.1**
RAYN PcP **PcP** **22 49 46.4 -1.7**
RAYN sP **pP** **22 49 54.3 +0.8**
RAR Rarotonga 78.33 114 LR LR 23 18 31.4
comp=Z,3µm,21.2s,baz=277,slow=31
RAR Rarotonga 78.33 114 P P 22 49 44.6 +5.3
comp=Z,74nm,1.8s
CAST Castle Rocks 78.50 27 IAmb IAmb 22 49 56.4
comp=Z,357nm,1.3s
I21K Tanana 78.66 25 IAmb IAmb 22 49 57.7
comp=Z,329nm,1.2s
SKT Skwentna 78.67 28 IAmb IAmb 22 49 57.1
comp=Z,345nm,1.3s
OZAP Van, Ozalp-Mer 78.68 308 ⇑P **P** **22 49 40.6 -0.7**
D22K Ayikyak River 78.68 21 IAmb IAmb 22 49 57.8
comp=Z,620nm,1.8s
NCK Nalchik 78.83 313 *i*P **P** **22 49 41.8 +0.1**
NCK pmax pmax
comp=Z,16nm,0.9s
BRLK Bradley Lake 78.90 31 IAmb IAmb 22 50 01.0
comp=Z,298nm,1.1s
SUA Susitna One 79.02 29 IAmb IAmb 22 50 01.5
comp=Z,276nm,1.0s
BPAW Bear Paw Mtn. 79.03 26 IAmb IAmb 22 49 59.2
comp=Z,419nm,1.2s
MLY Manley 79.18 25 IAmb IAmb 22 50 00.2
comp=Z,223nm,1.2s
TRF Thorofare Moun 79.31 27 IAmb IAmb 22 50 02.2
comp=Z,240nm,1.1s
KBZ Khabaz 79.33 313 P **P** **22 49 43.9 -0.4**
comp=Z,8.3nm,0.7s,baz=80,slow=11,SNR=19
KBZ LR LR 23 29 13.3
comp=Z,3µm,21.7s,baz=74,slow=39
comp=Z,8.3nm,0.7s
KBZ Khabaz 79.33 313 *ce*P **P** **22 49 44.0 -0.4**
KBZ pmax pmax
comp=Z,47nm,1.0s
D23K Nanushuk River 79.41 21 IAmb IAmb 22 50 02.0
comp=Z,494nm,1.4s
GEVA Gevas 79.42 307 IAmb IAmb 22 50 02.4
comp=Z,627nm,1.8s
KIV Kislovodsk 79.48 313 *i*P **P** **22 49 45.1 -0.2**
SNR=21
KIV Kislovodsk 79.48 313 P **P** **22 49 45.6 +0.2**
KIV Kislovodsk 79.48 313 *e*P **P** **22 49 45.2 -0.2**
KIV *e* 22 52 46.4
KIV *e*S **S** **22 59 41.9 -1.2**
KIV pmax pmax
comp=Z,35nm,1.0s
KIV MLR MLR
comp=Z,2µm,19.0s
KIV Kislovodsk 79.48 313 P **P** **22 49 45.1 -0.2**
KIV Kislovodsk 79.48 313 P **P** **22 49 45.2 -0.2**
comp=Z,2µmcomp=Z,91nm,1.2s
KIV Kislovodsk 79.48 313 P **P** **22 49 44.9 -0.4**
KIV sP **pP** **22 50 02.0 +2.0**
NEUR Neytrino 79.49 312 *c i*P **P** **22 49 45.3 -0.2**
NEUR pmax pmax
comp=Z,49nm,1.2s
RC01 Rabbit Creek A 79.50 29 IAmb IAmb 22 50 07.6
comp=Z,171nm,1.0s
SHA1 Shidzhatmaz 79.50 313 *d i*P **P** **22 49 46.6 +0.9**
G23K Bananza Creek 79.55 24 IAmb IAmb 22 50 02.7
comp=Z,324nm,1.3s
BWN Browne 79.69 26 IAmb IAmb 22 50 05.0
comp=Z,259nm,1.0s
H23K Yukon River 79.71 25 IAmb IAmb 22 50 03.4
comp=Z,260nm,1.2s
E23K Chandalar 79.76 22 IAmb IAmb 22 50 04.0
comp=Z,431nm,1.1s
I23K Minto, Yukon-K 79.76 25 IAmb IAmb 22 50 05.6
comp=Z,173nm,0.9s
PMR Palmer 79.80 29 P **P** **22 49 50.5 +4.0**
comp=Z,267nm,1.2s
PMR Palmer 79.80 29 IAmb IAmb 22 50 03.2
comp=Z,189nm,0.9s
GHO Glory Hole Cre 79.90 29 IAmb IAmb 22 50 07.0
comp=Z,188nm,1.0s
VRH Novokhopyorsk 79.93 320 *e*P **P** **22 49 46.3 -1.1**
VRH pmax pmax
comp=Z,36nm,0.6s
RND Reindeer 79.95 27 IAmb IAmb 22 50 04.1
comp=Z,362nm,1.2s
D24K Happy Valley 80.09 21 IAmb IAmb 22 50 05.3
comp=Z,272nm,1.1s
KNK Knik Glacier 80.12 29 IAmb IAmb 22 50 05.6
comp=Z,359nm,1.0s
SML Sawmill 80.18 29 IAmb IAmb 22 50 05.8
comp=Z,337nm,1.0s
WRH Wood River Hil 80.30 26 IAmb IAmb 22 50 07.9
comp=Z,202nm,1.0s
WRH IAMs_20 IAMs_20 23 25 35.7
comp=Z,2µm,21.0s
H24K Noodor Dome 80.39 25 IAmb IAmb 22 50 08.4
comp=Z,205nm,1.0s
COLA College 80.40 26 P **P** **22 49 54.2 +4.5**
comp=Z,76nm,0.9s
COLA College 80.40 26 P **P** **22 49 50.6 +0.9**
COLA pmax pmax
comp=Z,97nm,0.8s
COLA MLR MLR
comp=Z,2µm,20.0s
COLA College 80.40 26 P **P** **22 49 50.6 +0.9**
COLA College 80.40 26 IAMs_20 IAMs_20 23 25 42.0
comp=Z,2µm,20.0s
COLA College 80.40 26 P **P** **22 49 49.8 0.0**
COLA PcP **PcP** **22 49 56.7 +0.1**
F24K Squaw Lake 80.40 23 IAmb IAmb 22 50 07.2
comp=Z,198nm,1.1s
CCB Clear Creek Bu 80.42 26 IAMs_20 IAMs_20 23 26 48.9
comp=Z,2µm,20.0s
G24K Hadweenzic Riv 80.56 24 IAmb IAmb 22 50 08.0
comp=Z,298nm,1.2s
DHY Denali Highway 80.62 27 IAmb IAmb 22 50 08.7
comp=Z,597nm,1.8s
SCM Sheep Creek Mo 80.66 29 IAmb IAmb 22 50 08.7
comp=Z,412nm,1.1s
HDA Harding Lake 80.79 26 IAmb IAmb 22 50 09.0
comp=Z,141nm,0.9s
HDA IAMs_20 IAMs_20 23 26 10.8
comp=Z,2µm,20.0s
IL31 80.81 26 IAmb IAmb 22 50 08.1
comp=Z,273nm,1.6s
ILAR Eielson Array 80.81 26 P **P** **22 49 51.0 -1.0**
comp=Z,23nm,0.6s,baz=240,slow=4.8,SNR=145
ILAR pP **pP** **22 50 05.5 -0.4**
comp=Z,37nm,0.8s,baz=258,slow=5.7,SNR=14
ILAR PKKPbc **PKKPbc** **23 08 30.9 -2.1**
comp=Z,1.7nm,1.0s,baz=106,slow=1.4,SNR=10.0
ILAR PKPPKP 23 16 34.1
comp=Z,1.4nm,1.1s,baz=123,slow=1.7,SNR=5.4
ILAR LR LR 23 26 22.6
comp=Z,1µm,20.2s,baz=258,slow=36
comp=Z,23nm,0.6s
ILAR Eielson Array 80.81 26 P **P** **22 49 50.5 -1.5**
LABN Labinsk 80.85 314 *e*P **P** **22 49 51.9 -0.7**
LABN *e**PP **pP** **22 50 07.2 -0.1**
LABN *e*S **S** **22 59 55.5 -1.8**
LABN pmax pmax
comp=Z,12nm,0.7s
LABN MLR MLR
comp=Z,5µm,22.0s
KLMR Klimovskoe 80.93 330 *e*P **P** **22 49 53.6 +1.0**
KLMR S **S** **22 59 54.7 -2.7**
KLMR pmax pmax
comp=Z,189nm,1.4s
KLMR MLR MLR
comp=Z,3µm,17.0s
D25K Kavik River 80.96 21 IAmb IAmb 22 50 10.6
comp=Z,221nm,1.1s
ERBR Yeremizino-Bor 80.96 315 *e*P **P** **22 49 52.5 -0.7**
ERBR *e**PP **pP** **22 50 07.4 -0.5**
ERBR *e*S **S** **22 59 55.5 -2.9**
ERBR pmax pmax
comp=Z,34nm,0.8s
ERBR MLR MLR
comp=Z,2µm,20.0s
F25K Christian Rive 81.26 23 IAmb IAmb 22 50 12.2
comp=Z,205nm,1.2s
KOPT Kop Dagi 81.31 309 IAmb IAmb 22 50 29.1
comp=Z,155nm,1.1s
K24K Donnelly Dome 81.32 27 IAmb IAmb 22 50 10.9
comp=Z,336nm,1.3s
PRP Porcupine Dome 81.37 25 IAMs_20 IAMs_20 23 23 51.0
comp=Z,2µm,22.0s
ADZR Andozero 81.41 333 *e*P **P** **22 49 54.8 -0.3**
ADZR pmax pmax
comp=Z,33nm,0.7s
ADZR MLR MLR
comp=Z,3µm,17.0s
VSLR Vesyoloye 81.42 313 *i*P **P** **22 49 55.0 -0.7**
VSLR pmax pmax
comp=Z,57nm,1.0s
FYU Fort Yukon 81.46 24 IAmb IAmb 22 50 13.7
comp=Z,554nm,1.5s
EYAK Cordova Ski Ar 81.46 30 P **P** **22 49 58.9 +3.4**
comp=Z,173nm,1.9s
EYAK Cordova Ski Ar 81.46 30 IAmb IAmb 22 50 12.6
comp=Z,315nm,1.3s
VORD Divnogorie 81.47 320 *e*P **P** **22 49 53.4 -2.3**
VORD pmax pmax
comp=Z,30nm,0.8s
J25K Salcha River, 81.47 26 IAMs_20 IAMs_20 23 26 01.7
comp=Z,2µm,21.0s
VORR Voronezh 81.48 321 *e*P **P** **22 49 54.4 -1.3**
VORR pmax pmax
comp=Z,33nm,0.5s
PAX Paxson 81.49 27 IAmb IAmb 22 50 12.6
comp=Z,400nm,1.4s
PAX IAMs_20 IAMs_20 23 23 17.4
comp=Z,2µm,22.0s
VSR Storozhevoye 81.53 321 *e*P **P** **22 49 54.7 -1.3**
VSR pmax pmax
comp=Z,16nm,0.6s
LPSR Galich'ya Gora 81.60 322 *e*P **P** **22 49 54.6 -1.8**
LPSR pmax pmax
comp=Z,34nm,0.6s
SOC Sochi 81.64 313 *e*P **P** **22 49 54.9 -1.9**
SOC *e* 22 52 58.3
SOC *e*PPP PPP 22 54 55.1
SOC *e*S **S** **23 00 00.7 -4.8**
SOC *e*SSS SSS 23 08 53.2
SOC pmax pmax
comp=Z,17nm,0.6s
SOC MLR MLR
comp=Z,2µm,21.0s
BMAR Burnt Mountain 81.68 23 P **P** **22 49 57.6 +1.1**
RIDG Independent Ri 81.74 27 IAMs_20 IAMs_20 23 23 16.8
comp=Z,3µm,22.0s
F26K Sheenjek River 81.83 23 IAmb IAmb 22 50 15.2
comp=Z,183nm,1.2s
ATD Arta Tunnel 81.99 280 P **P** **22 50 00.4 +1.1**
SNR=29
ATD Arta Tunnel 81.99 280 IAmb IAmb 22 50 16.8
comp=Z,232nm,1.0s
BMRM Bremner River 82.00 30 IAMs_20 IAMs_20 23 23 08.1
comp=Z,3µm,22.0s
G26K Porcupine Rive 82.01 23 IAmb IAmb 22 50 16.0
comp=Z,279nm,1.2s
DOT Dot Lake 82.09 27 IAmb IAmb 22 50 15.9
comp=Z,277nm,1.1s
DOT IAMs_20 IAMs_20 23 23 47.1
comp=Z,2µm,22.0s
SCRK Sand Creek 82.11 26 IAmb IAmb 22 50 16.3
comp=Z,244nm,1.3s
SCRK IAMs_20 IAMs_20 23 27 22.5
comp=Z,2µm,20.0s
MOS Moscow 82.17 325 *e*P **P** **22 49 58.5 -0.8**
MOS *e**PP **pP** **22 50 15.2 +1.3**
MOS *e* 22 53 06.1
MOS *e*PPP PPP 22 54 57.1
MOS *e*S **S** **23 00 08.5 -1.9**
MOS *e*SS **SS** **23 05 28.5 -2.1**
MOS *e*SSS SSS 23 08 57.5
MOS pmax pmax
comp=Z,34nm,0.6s
MOS pmax pmax
comp=Z,1µm,4.0s
MOS pmax pmax
comp=E,700nm,4.3s
MOS MLR MLR
comp=Z,6µm,23.0s
MOS MLR MLR
comp=E,4µm,22.0s
GLB Gilahina Butte 82.35 29 IAmb IAmb 22 50 20.8
comp=Z,250nm,1.0s
GLB IAMs_20 IAMs_20 23 23 14.3
comp=Z,2µm,22.0s
I26K Coal Creek Min 82.37 25 IAMs_20 IAMs_20 23 24 21.3
comp=Z,2µm,22.0s
L26K Log Cabin Wild 82.46 27 IAmb IAmb 22 50 19.2
comp=Z,131nm,0.9s
L26K IAMs_20 IAMs_20 23 23 39.9
comp=Z,2µm,22.0s
VRDI Verde Repeater 82.54 29 IAMs_20 IAMs_20 23 23 27.3
comp=Z,2µm,22.0s
LVZ Lovozero 82.65 338 *ce*P **P** **22 50 02.0 +0.3**
LVZ pmax pmax
comp=Z,68nm,0.9s
LVZ Lovozero 82.65 338 P **P** **22 50 02.1 +0.5**
LVZ IAmb IAmb 22 50 46.8
comp=Z,178nm,1.1s
ABPO Ambohimpanom 82.66 250 *i*P **P** **22 50 02.9 +0.1**
ABPO Ambohimpanom 82.66 250 P **P** **22 50 01.1 -1.6**
ABPO Ambohimpanom 82.66 250 IAMs_20 IAMs_20 23 23 45.9
comp=Z,2µm,20.0s
M26K Nabesna, AK 82.67 28 IAmb IAmb 22 50 18.9
comp=Z,227nm,1.2s
CRQM Cirque 82.73 30 IAmb IAmb 22 50 19.4
comp=Z,282nm,1.2s
MCARA McCarthy VSAT 82.74 29 IAmb IAmb 22 50 22.8
comp=Z,171nm,1.0s
MCARA IAMs_20 IAMs_20 23 24 10.4
comp=Z,2µm,21.0s
E27K Coleen River 82.76 22 IAmb IAmb 22 50 19.6
comp=Z,399nm,1.5s
OBN Obninsk 82.82 325 LR LR 23 29 05.0
comp=Z,4µm,21.7s,baz=86,slow=37
OBN Obninsk 82.82 325‖ *e*P **P** **22 50 02.5 -0.1**
OBN *e**PP **pP** **22 50 17.2 -0.1**
OBN *i* 22 53 11.5
OBN *i*S **S** **23 00 10.8 -6.2**
OBN *e*SSS SSS 23 09 01.2
OBN pmax pmax
comp=Z,101nm,1.5s
OBN MLR MLR
comp=Z,6µm,22.0s
OBN Obninsk 82.82 325 P **P** **22 50 03.0 +0.3**
OBN IAmb IAmb 22 50 48.1
comp=Z,199nm,1.5s
OBN Obninsk 82.82 325 ⇓P **P** **22 50 02.0 -0.6**
OBN Obninsk 82.82 325 P **P** **22 50 03.9 +1.3**
comp=Z,2µmcomp=Z,88nm,1.8s
TGL Tana Glacier 82.88 30 IAmb IAmb 22 50 20.1
comp=Z,390nm,1.4s
K27K Chicken 82.94 26 IAMs_20 IAMs_20 23 24 36.3
comp=Z,2µm,22.0s
H27K Steamboat Moun 82.97 24 IAmb IAmb 22 50 22.5
comp=Z,294nm,1.4s
ARPR Arapgir-MALATY 83.05 308 IAMs_20 IAMs_20 23 31 46.9
comp=Z,3µm,22.0s
L27K Beaver Creek, 83.14 27 IAmb IAmb 22 50 23.1
comp=Z,156nm,1.1s
APA Apatity 83.16 337 *e*P **P** **22 50 01.9 -2.3**
APA *e* 22 53 18.8
APA *e*S **S** **23 00 12.7 -7.4**
APA *e*SS **SS** **23 05 43.6 -1.1**
APA pmax pmax
comp=Z,89nm,1.0s
APA MLR MLR
comp=Z,4µm,18.3s
BCAR Beaver Creek A 83.16 27 P **P** **22 50 05.0 +0.6**
ANN Anapa 83.18 314 *e*P **P** **22 50 03.4 -1.4**
ANN *e**PP **pP** **22 50 18.3 -1.2**
ANN *e*S **S** **23 00 18.7 -2.5**
ANN pmax pmax
comp=Z,33nm,0.6s
ANN MLR MLR
comp=Z,3µm,20.0s
M27K Edge Creek, AK 83.19 28 IAMs_20 IAMs_20 23 25 01.6
comp=Z,2µm,21.0s
GRNC Granite Creek 83.41 30 IAMs_20 IAMs_20 23 23 37.3
comp=Z,2µm,21.0s
BARN Barnard Glacie 83.42 29 IAMs_20 IAMs_20 23 23 40.6
comp=Z,2µm,22.0s
YAH Yahtse 83.45 30 IAMs_20 IAMs_20 23 25 57.2
comp=Z,3µm,21.0s
E28M Babbage River 83.47 22 IAmb IAmb 22 50 23.3
comp=Z,479nm,1.4s
VOI Vohitsoka 83.65 247 P **P** **22 50 05.9 -1.9**
VOI Vohitsoka 83.65 247 P **P** **22 50 06.2 -1.6**
VOI IAmb IAmb 22 50 22.9
comp=Z,302nm,2.0s
VOI IAMs_20 IAMs_20 23 22 12.2
comp=Z,2µm,20.0s
CCD Concordia, Ant 83.67 181 P **P** **22 50 07.1 0.0**
LOGN Logan Glacier 83.77 29 IAMs_20 IAMs_20 23 23 37.7
comp=Z,2µm,21.0s
E29M Blow River 84.10 22 IAmb IAmb 22 50 26.1
comp=Z,384nm,1.4s
O28M Mount Upton 84.17 30 IAMs_20 IAMs_20 23 23 48.4
comp=Z,2µm,22.0s
HOPEN Hopen 84.24 347 *e*P **P** **22 50 10.7 +1.1**
HOPEN IVmB_BB 22 50 12.4
comp=Z,3µm,3.2s
VADS Vadso 84.26 340 *e*P **P** **22 50 09.5 -0.3**
VADS IVmB 22 50 12.1
comp=Z,2µm,2.9s
VADS *e*SKSac **SKSac** **23 00 26.8 -2.1**
TOKA Tokat 84.35 310 IAmb IAmb 22 50 27.7
comp=Z,306nm,1.6s
J29N Klondike Camp 84.56 26 IAMs_20 IAMs_20 23 29 38.4
comp=Z,2µm,20.0s
PNL Peninsula 84.71 31 P P 22 50 18.1 +5.8
comp=Z,509nm,1.1s
L29M L29M 84.81 27 IAMs_20 IAMs_20 23 25 47.0
comp=Z,2µm,22.0s
EPYK Eagle Plains 84.87 24 IAMs_20 IAMs_20 23 26 49.4
comp=Z,2µm,22.0s
K29M Barlow Dome 84.96 26 IAMs_20 IAMs_20 23 29 08.5
comp=Z,2µm,21.0s
ASF Jabal al Asfar 84.98 302 LR LR 23 34 38.5
comp=Z,1µm,20.2s,baz=68,slow=40
ASF Jabal al Asfar 84.98 302 P **P** **22 50 15.2 +0.8**
ASF AML AML
BNN Bunyan 85.01 308 IAmb IAmb 22 50 31.0
comp=Z,363nm,1.5s
F30M Barrier River 85.01 22 IAMs_20 IAMs_20 23 24 58.4
comp=Z,2µm,22.0s
O29M Mount Kennedy 85.03 30 IAMs_20 IAMs_20 23 23 27.4
comp=Z,2µm,22.0s
KEV Kevo 85.13 340 P **P** **22 50 13.7 -0.5**
KEV pmax pmax
comp=Z,44nm,0.9s
KEV MLR MLR
comp=Z,3µm,22.0s
KEV Kevo 85.13 340 P **P** **22 50 13.7 -0.5**
KEV IAMs_20 IAMs_20 23 33 56.2
comp=Z,3µm,22.0s
KEV Kevo 85.13 340 P **P** **22 50 13.2 -1.0**
I30M Mount Dempster 85.21 25 IAmb IAmb 22 50 34.0
comp=Z,320nm,1.2s
I30M IAMs_20 IAMs_20 23 26 30.5
comp=Z,2µm,22.0s
HYT Haines Junctio 85.47 29 IAmb IAmb 22 50 33.7
comp=Z,214nm,1.1s
SIM Simferopol' 85.51 315 *e*P **P** **22 50 15.2 -1.4**
SIM *e* 22 53 34.0
SIM *e*S **SKSac** **23 00 36.0 -1.8**
SIM pmax pmax
comp=Z,70nm,0.8s
SIM MLR MLR
comp=Z,2µm,21.0s
N30M Aishikik Lake 85.56 29 IAMs_20 IAMs_20 23 24 52.1
comp=Z,2µm,21.0s
SPB2 Spitsbergen Ar 85.57 349 IAmb IAmb 22 50 45.9
comp=Z,120nm,1.1s
SPA0 Spitsbergen Ar 85.57 349 *e*P **P** **22 50 14.9 -1.4**
SPITS Spitsbergen Ar 85.57 349 P **P** **22 50 15.2 -1.1**
comp=Z,13nm,0.4s,baz=96,slow=7.6,SNR=38
SPITS pP **pP** **22 50 29.7 -1.3**
comp=Z,43nm,0.8s,baz=79,slow=10,SNR=4.9
SPITS LR LR 23 34 37.4
comp=Z,2µm,19.0s,baz=60,slow=40
comp=Z,13nm,0.4s
SPITS Spitsbergen Ar 85.57 349 P **P** **22 50 15.3 -1.0**
SPITS pmax pmax
comp=Z,203nm,1.3s
HSUJ Al Zarqa 85.58 302 P **P** **22 50 19.9 +2.6**
HSUJ P **pP** **22 50 33.2 +1.1**
HSUJ AML AML
ARA0 ARCESS Array S 85.69 340 *e*P **P** **22 50 15.8 -1.2**
ARA0 IVmB 22 50 18.6
comp=Z,837nm,1.6s
ARA0 *e*PP **PP** **22 53 37.8 +1.6**
ARA0 *e*SKSac **SKSac** **23 00 36.4 -1.7**
ARCES ARCESS Array B 85.69 340 P **P** **22 50 15.8 -1.2**
comp=Z,25nm,0.7s,baz=79,slow=5.6,SNR=32
ARCES pP **pP** **22 50 31.0 -0.8**
comp=Z,45nm,0.7s,baz=69,slow=6.6,SNR=12
ARCES PKKPbc **PKKPbc** **23 08 18.9 -2.9**
comp=Z,2.6nm,0.7s,baz=243,slow=1.4,SNR=7.5
ARCES LR LR 23 33 27.9
comp=Z,1µm,20.2s,baz=74,slow=39
comp=Z,25nm,0.7s
ARCES ARCESS Array B 85.69 340 P **P** **22 50 16.2 -0.8**
ARCES pmax pmax
comp=Z,65nm,0.9s
ARCES ARCESS Array B 85.69 340 P **P** **22 50 16.2 -0.8**
INK Inuvik 85.71 22 LR LR 23 32 00.2

comp=Z,870nm,19.3s,baz=280,slow=38
CRZF Crozet Islands 85.73 222 IAMs_20 IAMs_20 23 22 18.5
comp=Z,2µm,21.0s
GEM Giv'at Ha'Em 85.88 303 P P 22 50 20.7 +2.0
GEM P pP 22 50 34.8 +1.3
HAMF Hammerfest 86.03 341 eP P 22 50 16.6 -2.0
HAMF IVmB 22 50 21.1
comp=Z,663nm,2.0s
HAMF ePP PP 22 53 40.0 +1.1
HAMF eSKSac SKSac 23 00 38.5 -1.6
QRNJ Al-Qirein 86.07 302 P P 22 50 21.3 +1.7
QRNJ AML AML
MMAI Mount Meron Ar 86.12 303 P P 22 50 19.3 -0.7
comp=Z,9.8nm,0.7s,baz=58,slow=8.0,SNR=15
MMAI pP pP 22 50 34.6 -0.3
comp=Z,116nm,1.1s,baz=151,slow=1.9,SNR=13
MMAI LR LR 23 33 40.9
comp=Z,734nm,21.8s,baz=71,slow=39
comp=Z,9.8nm,0.7s
O30N Mendenhall 86.16 29 IAmb IAmb 22 50 37.0
comp=Z,187nm,1.3s
O30N IAMs_20 IAMs_20 23 24 06.9
comp=Z,2µm,22.0s
N31M Braeburn, Yuko 86.17 28 IAMs_20 IAMs_20 23 27 48.2
comp=Z,2µm,19.0s
UJAP Al Uja 86.21 302 P P 22 50 22.0 +1.7
UJAP AML AML
GHAJ Ghor Haditha 86.21 301 IAMs_20 IAMs_20 23 35 50.0
comp=Z,2µm,20.0s
GHAJ Ghor Haditha 86.21 301 P P 22 50 21.0 +0.6
GHAJ AML AML
BJO1 Bjornoya 86.25 345 eP P 22 50 20.7 +1.1
HSNJ Maan 86.25 300 P P 22 50 22.8 +2.0
HSNJ P pP 22 50 37.0 +1.4
HSNJ AML AML
LISJ El Lisan 86.30 301 P P 22 50 22.7 +2.0
LISJ AML AML
ILGA Ilgaz 86.34 311 IAmb IAmb 22 50 36.5
comp=Z,143nm,1.4s
FURI Furi 86.40 278 IAMs_20 IAMs_20 23 26 19.4
comp=Z,2µm,22.0s
SALP Salfit 86.43 302 P P 22 50 23.3 +1.8
SALP AML AML
KIRS Kirsehir-Merke 86.46 309 ⇓P P 22 50 20.4 -1.1
BR131 Keskin Array S 86.59 309 P P 22 50 21.6 -0.7
SNR=23
BRTR Keskin Array B 86.59 309 P P 22 50 20.7 -1.6
comp=Z,2.3nm,0.5s,baz=126,slow=4.4,SNR=22
BRTR pP pP 22 50 36.5 -0.5
comp=Z,17nm,1.0s,baz=108,slow=4.0,SNR=9.3
BRTR PKKPbc PKKPbc 23 08 18.6 -0.2
comp=Z,1.4nm,0.7s,baz=183,slow=3.9,SNR=6.1
BRTR LR LR 23 35 08.7
comp=Z,1µm,19.9s,baz=74,slow=40
comp=Z,2.3nm,0.5s
BRTR Keskin Array B 86.59 309 P P 22 50 20.3 -1.9
BR104 Keskin Array S 86.59 309 P P 22 50 20.2 -2.1
comp=Z,244nmcomp=Z,25nm,1.0s
KTK1 Kautokeino 86.60 339 eP P 22 50 19.7 -1.8
KTK1 IVmB 22 50 25.2
comp=Z,694nm,2.7s
KTK1 eSKSac SKSac 23 00 44.8 +1.1
S31K Pelican 86.61 32 IAMs_20 IAMs_20 23 25 20.3
comp=Z,1µm,19.0s
M31M Drury Creek, Y 86.67 28 IAmb IAmb 22 50 39.1
comp=Z,194nm,1.4s
M31M IAMs_20 IAMs_20 23 28 25.3
comp=Z,2µm,22.0s
CY604 RAF Akrotiri, 86.67 304 P P 22 50 22.2 0.0
CY604 IAmb IAmb 22 50 39.0
comp=Z,281nm,1.2s
AMAZ Amatzia 86.73 301 P P 22 50 28.8 +5.8
AMAZ AML AML
SKAG Skagway 86.78 30 P P 22 50 25.5 +2.9
comp=Z,70nm,1.0s
PRNI Paran 86.82 300 P P 22 50 23.7 +0.3
PRNI AML AML
HRFI Mount Harif 86.84 300 P P 22 50 24.6 +1.1
HRFI AML AML
AQBJ Aqaba 86.87 299 P P 22 50 24.9 +1.2
AQBJ AML AML
EIL Elat 86.97 299 LR LR 23 34 26.0
comp=Z,1µm,22.0s,baz=82,slow=39
EIL Elat 86.97 299 P P 22 50 25.2 +1.1
EIL AML AML
PPT Papeete 87.00 108 LR LR 23 21 13.7
comp=Z,1µm,21.5s,baz=267,slow=30
PPT2 Papeete2 87.00 108 eP P 22 50 40.2 +16
comp=Z,122nm,1.5s
PPT2 ePP PP 22 53 43.3 -5.1
comp=Z,334nm,26.8s
PPT2 eS S 23 00 53.9 -6.2
comp=Z,2µm,26.0s
PPT2 eSS SS 23 06 43.2 -0.9
comp=Z,3µm,26.8s
PPT2 eLQ LQ 23 13 58.6
comp=Z,3µm,36.0s
PPT2 eLR LR 23 18 04.6
comp=Z,5µm,28.8s
PPT2 eLR LR 23 18 05.0
comp=Z,7µm,27.5s
PAE Paea 87.01 108 ePKIKP P 22 50 37.2 +13
comp=Z,212nm,1.4s
PAE eLR LR 23 17 59.8
comp=Z,3µm,23.8s
PPTF Pamatai, Papee 87.01 108 P P 22 50 28.1 +3.5
comp=Z,101nm,1.9s
BESE Bessie Mountai 87.21 31 IAmb IAmb 22 50 42.2
comp=Z,423nm,2.0s
TIAR Tiarei 87.21 108 ePKIKP P 22 50 37.9 +12
comp=Z,2µm,1.5s
KZIT Kziot 87.26 301 P P 22 50 26.9 +1.4
KZIT AML AML
SIT Sitka 87.27 33 P P 22 50 28.6 +3.7
comp=Z,179nm,1.8s
FINES FINESS Array B 87.31 332 P P 22 50 23.5 -1.6
comp=Z,13nm,0.4s,baz=80,slow=4.6,SNR=88
FINES PKKPbc PKKPbc 23 08 15.4 -2.3
comp=Z,3.9nm,0.9s,baz=156,slow=10.0,SNR=3.7
FINES LR LR 23 32 47.3
comp=Z,3µm,20.9s,baz=78,slow=38
comp=Z,13nm,0.4s
FINES FINESS Array B 87.31 332 P P 22 50 23.6 -1.5
TVO Taravao 87.34 108 ePKIKP P 22 50 42.2 +16
comp=Z,138nm,1.0s
TVO eLR LR 23 18 18.6
comp=Z,5µm,27.8s
A36M Sachs Harbour 87.39 17 IAmb IAmb 22 50 42.8
comp=Z,249nm,1.1s
JETT Jettan, Norway 87.41 340 eP P 22 50 25.0 -0.5
JETT IVmB 22 50 26.9
comp=Z,517nm,0.3s
JETT eSKSac SKSac 23 00 48.0 -0.8
N32M Quiet Lake 87.51 29 IAmb IAmb 22 50 44.3
comp=Z,181nm,0.9s
N32M IAMs_20 IAMs_20 23 28 13.4
comp=Z,2µm,21.0s
CSS Mathiatis 87.54 305 IAmb IAmb 22 50 42.0
comp=Z,286nm,1.6s
CSS Mathiatis 87.54 305 P P 22 50 26.2 -0.6
comp=Z,2µmcomp=Z,96nm,0.9s
CSS Mathiatis 87.54 305 P P 22 50 27.5 +0.7
P32M Atlin 87.56 30 IAMs_20 IAMs_20 23 25 27.3
comp=Z,2µm,21.0s
S32K Killisnoo 87.58 32 IAMs_20 IAMs_20 23 22 29.0
comp=Z,2µm,22.0s
VSU Vasula 87.65 329 ceP P 22 50 26.0 -0.8
VSU pmax pmax
comp=Z,64nm,1.3s
AKASG Malin Array Be 87.83 321 P P 22 50 25.8 -2.0
comp=Z,2.0nm,0.5s,baz=61,slow=5.5,SNR=14
AKASG pP pP 22 50 41.0 -1.5
comp=Z,12nm,0.7s,baz=66,slow=4.5,SNR=7.8
AKASG LR LR 23 33 18.5
comp=Z,1µm,20.6s,baz=84,slow=38
comp=Z,2.0nm,0.5s
AKASG Malin Array Be 87.83 321 ceP P 22 50 25.7 -2.0
AKASG pmax pmax
comp=Z,5.0nm,0.5s
AKBB Malin Array Si 87.83 321 ceP P 22 50 27.3 -0.5
AKBB Malin Array Si 87.83 321 P P 22 50 25.9 -1.9
KIEV Kiev 87.84 321 i P P 22 50 26.3 -1.5
SNR=12
KIEV Kiev 87.84 321 P P 22 50 25.9 -1.9
KIEV pmax pmax
comp=Z,83nm,1.3s
KIEV MLR MLR
comp=Z,2µm,20.0s
KIEV Kiev 87.84 321 P P 22 50 25.9 -1.9
KIEV Kiev 87.84 321 IAMs_20 IAMs_20 23 35 07.4
comp=Z,2µm,20.0s
KIEV Kiev 87.84 321 ⇓P P 22 50 26.2 -1.6
P33M Teslin, Yukon 87.86 29 P P 22 50 28.5 +0.6
P33M IAmb IAmb 22 50 46.0
comp=Z,111nm,1.4s
P33M IAMs_20 IAMs_20 23 26 59.9
comp=Z,2µm,20.0s
MNK Minsk 87.88 325 i P P 22 50 27.9 0.0
MNK i *PP pP 22 50 44.9 +2.2
MNK i 22 53 53.9
MNK i PPP PPP 22 55 48.9
MNK i S SKSac 23 00 50.2 -1.8
MNK i SS SS 23 06 55.6 +1.0
MNK i SSS SSS 23 10 30.4
MNK pmax pmax
comp=Z,22nm,0.9s
MNK pmax pmax
comp=N,22nm,1.0s
MNK pmax pmax
comp=E,25nm,1.2s
MNK MLR MLR
comp=N,4µm,22.0s
MNK MLR MLR
comp=Z,5µm,20.0s
MNK MLR MLR
comp=E,3µm,21.0s
MNK Minsk 87.88 325 i P P 22 50 28.0 0.0
comp=E,25nm,1.2s
MNK i P P 22 50 28.0 0.0
comp=N,22nm,1.0s
MNK i P P 22 50 28.0 0.0
comp=Z,22nm,0.9s,baz=78
MNK i pP pP 22 50 44.9 +2.2
MNK i sP sP 22 50 51.8 +3.5
MNK i PP PP 22 53 54.0 -0.2
MNK i PPP PPP 22 55 49.0
MNK i S SKSac 23 00 50.2 -1.8
MNK i sS ScS 23 01 18.7 +5.3
MNK i SS SS 23 06 55.6 +1.0
MNK i SSS SSS 23 10 30.4
MNK i LQ LQ 23 24 24.4
MNK i LRM MLR 23 31 44.5
comp=N,4µm,22.5s
MNK i LRM MLR 23 31 51.6
comp=Z,5µm,19.7s
MNK i LRM MLR 23 32 10.2
comp=E,3µm,21.3s
TRO Tromso 87.88 340 IVmB_BB 22 50 27.8
comp=Z,1µm,3.9s
TRO eP P 22 50 28.2 +0.6
TRO eSKSac SKSac 23 00 57.6 +6.1
TBI Tubuai 88.12 114 eP P 22 50 37.3 +7.6
comp=Z,290nm,1.4s
TBI ePP PP 22 53 58.0 +0.8
comp=Z,2µm,26.2s
TBI eS S 23 01 09.4 -1.0
comp=Z,7µm,28.8s
TBI eSS SS 23 07 00.5 +0.4
comp=Z,19µm,32.5s
TBI eLQ LQ 23 14 49.6
comp=Z,17µm,38.8s
TBI eLR LR 23 18 31.3
comp=Z,29µm,36.2s
NOR Nord 88.14 355 P P 22 50 28.6 -0.1
comp=Z,5µmcomp=Z,43nm,1.4s
NOR Nord 88.14 355 i P P 22 50 28.1 -0.6
NOR IAmb IAmb 22 50 29.4
comp=Z,9.1nm,0.7s
PMOR Pomariorio Ree 88.16 105 eP P 22 50 46.0 +16
comp=Z,220nm,1.1s
PMOR eLR LR 23 18 39.3
comp=Z,8µm,22.2s
PURM Purcari 88.19 317 ⇓P P 22 50 29.2 -0.4
PURM Purcari 88.19 317 P P 22 50 28.7 -0.9
comp=Z,3µmcomp=Z,132nm,0.9s
MAW Mawson 88.26 200 P P 22 50 30.4 +1.1
comp=Z,20nm,1.7s,comp=Z,0.0nm
MAW Mawson 88.26 200 P P 22 50 28.1 -1.2
comp=Z,24nm,0.6s,baz=47,slow=6.2,SNR=4.0
MAW pP pP 22 50 43.0 -1.1
comp=Z,17nm,0.5s,baz=45,slow=5.4,SNR=3.4
MAW LR LR 23 25 28.3
comp=Z,1µm,21.5s,baz=58,slow=32
comp=Z,24nm,0.6s
MAW Mawson 88.26 200 P P 22 50 29.5 +0.2
MAW pmax pmax
comp=Z,49nm,1.6s
MAW Mawson 88.26 200 P P 22 50 29.5 +0.2
VNDA Vanda 88.37 173 P P 22 50 28.6 -1.2
comp=Z,21nm,0.6s,baz=314,slow=6.7,SNR=88
VNDA pP pP 22 50 43.3 -1.2
comp=Z,117nm,1.0s,baz=320,slow=5.4,SNR=23
VNDA PKKPbc PKKPdf 23 08 12.7 +2.1
comp=Z,1.7nm,0.7s,baz=105,slow=2.3,SNR=7.1
VNDA LR LR 23 30 12.1
comp=Z,1µm,21.1s,baz=349,slow=36
comp=Z,21nm,0.6s
VNDA Vanda 88.37 173 P P 22 50 28.9 -0.8
VNDA pmax pmax
comp=Z,260nm,1.2s
VNDA Vanda 88.37 173 P P 22 50 28.9 -0.8
VNDA Vanda 88.37 173 P P 22 50 29.6 -0.1
comp=Z,4µmcomp=Z,4µmcomp=Z,246nm,1.3s,comp=Z,4µm
VNDA Vanda 88.37 173 P P 22 50 29.6 -0.1
VNDA PcP PcP 22 50 31.0 -0.3
VNDA pP pP 22 50 42.6 -1.9
NACGM **Naroch** 88.41 325 eP P 22 50 30.0 -0.5
NACGM eP P 22 50 30.0 -0.5
NACGM eP P 22 50 30.0 -0.5
comp=Z,52nm,1.0s,baz=78
NACGM epP pP 22 50 45.9 +0.7
NACGM esP sP 22 50 52.3 +1.5
NACGM ePP PP 22 53 57.4 -1.1
NACGM ePPP PPP 22 55 52.1
NACGM S S 23 00 51.8 -20
NACGM sS ScS 23 01 21.6 +3.8
NACGM SS SS 23 06 59.0 -3.3
NACGM SSS SSS 23 10 51.8
NACGM LRM MLR 23 31 06.6
comp=N,2µm,20.5s
NACGM LRM MLR 23 31 37.8
comp=E,4µm,21.2s
NACGM LRM MLR 23 31 43.4
comp=Z,5µm,21.6s
Q32M Nakina River 88.43 31 P P 22 50 31.2 +0.4
VAH Vaihoa 88.45 106 eP P 22 50 47.4 +16
comp=Z,396nm,1.6s
VAH eLR LR 23 18 45.4
comp=Z,8µm,22.2s
KEPZ Antalya-Kepez 88.61 307 ⇑P P 22 50 30.2 -1.7
KIBK Kibwezi 88.68 267 P P 22 50 31.9 -0.8
KIBK Kibwezi 88.68 267 P P 22 50 32.4 -0.3
SNR=30
KIBK Kibwezi 88.68 267 IAmb IAmb 22 50 48.5
comp=Z,134nm,1.2s
C36M Paulatuk 88.69 20 IAmb IAmb 22 50 48.0
comp=Z,93nm,0.8s
ALE Alert 88.82 1 P P 22 50 32.0 +0.1
ALE pP pP 22 50 44.9 -1.6
SORM Soroca 88.89 318 ⇓P P 22 50 32.4 -0.4
SORM Soroca 88.89 318 P P 22 50 31.6 -1.3
comp=Z,1µmcomp=Z,43nm,1.0s
LUBAR Lubar, Ukraine 88.91 320 P P 22 50 31.4 -1.5
JURR Jurilovca 89.21 315 ⇑P P 22 50 33.6 -0.8
SBA Scott Base 89.27 172 P P 22 50 35.1 +1.1
SBA pmax pmax
comp=Z,598nm,1.5s
SBA MLR MLR
comp=Z,1µm,21.0s
SBA Scott Base 89.27 172 P P 22 50 35.1 +1.1
SBA Scott Base 89.27 172 P P 22 50 34.6 +0.7
SBA pP pP 22 50 47.4 -1.3
KMBO Kilima Mbogo 89.28 269 P P 22 50 29.4 -6.3
KMBO LR LR 23 31 11.2
comp=Z,735nm,18.7s,baz=94,slow=36
KMBO Kilima Mbogo 89.28 269 i P P 22 50 35.1 -0.6
SNR=32
KMBO Kilima Mbogo 89.28 269 P P 22 50 35.8 +0.1
KMBO Kilima Mbogo 89.28 269 P P 22 50 33.0 -2.7
KMBO pmax pmax
comp=Z,125nm,1.2s
KMBO MLR MLR
comp=Z,900nm,20.0s
KMBO Kilima Mbogo 89.28 269 P P 22 50 34.9 -0.8
ISP Isparta 89.30 308 ceP P 22 50 35.4 +0.2
ISP pmax pmax
comp=Z,25nm,1.3s
TPGR Topolog 89.51 315 ⇑P P 22 50 35.2 -0.7
VLDR Vladesti 89.54 316 ⇓P P 22 50 35.4 -0.6
TIRR Tirgusor 89.60 315 IAMs_20 IAMs_20 23 35 52.6
comp=Z,1µm,20.0s
TIRR Tirgusor 89.60 315 ⇓P P 22 50 35.0 -1.2
TATR Tatarca 89.62 316 ⇑P P 22 50 35.5 -0.8
SCTR Scanteiesti 89.64 316 ⇑P P 22 50 35.9 -0.5
CFR Carcaliu 89.64 316 ⇑P P 22 50 36.0 -0.5
VARL Varlezi 89.69 316 ⇑P P 22 50 36.2 -0.4
DLBC Dease Lake 89.70 31 P P 22 50 35.2 -1.4
comp=Z,7.4nm,0.9s,baz=262,slow=4.3,SNR=6.6
DLBC LR LR 23 27 04.7
comp=Z,911nm,21.5s,baz=262,slow=33
comp=Z,7.4nm,0.9s
MNTR Muntenesti 89.73 317 ⇑P P 22 50 36.5 -0.3
RNPP9 Sopachiv 89.73 322 P P 22 50 36.5 -0.2
STEI Steigen 89.74 339 IVmB 22 50 36.5
comp=Z,643nm,0.5s
STEI IVmB_BB 22 50 36.5
comp=Z,661nm,0.7s
STEI eP P 22 50 36.6 +0.2
STEI eSKSac SKSac 23 01 02.9 +0.3
PDRR Padureni 89.78 317 ⇓P P 22 50 36.3 -0.8
PABE Paberze 89.84 326 IAmb IAmb 22 50 54.7
comp=Z,71nm,0.8s
TLBR Topalu 89.84 315 ⇑P P 22 50 36.7 -0.7
DMBR Dumbraveni 89.85 317 ⇑P P 22 50 36.7 -0.7
HARR Harsova 89.89 315 ⇓P P 22 50 36.3 -1.3
HARR Harsova 89.89 315 ⇑P P 22 50 36.6 -1.0
FAUS Fauske 89.94 339 eP P 22 50 35.8 -1.6
FAUS IVmB_BB 22 50 36.0
comp=Z,1µm,5.8s
FAUS ePP PP 22 54 13.4 +3.1
FAUS eSKSac SKSac 23 01 02.9 -0.9
PSN Preselentsi 89.96 314 P P 22 50 40.1 +2.1
ELL Elmali 89.98 307 IAmb IAmb 22 50 54.5
comp=Z,105nm,1.2s
T35M Bob Quinn 89.99 32 IAmb IAmb 22 50 55.0
comp=Z,86nm,1.3s
KMPD K-Podol'skiy 90.03 319 P P 22 50 37.1 -1.1
PANC Panciu 90.17 316 ⇑P P 22 50 38.4 -0.5
LOF Lofoten 90.25 340 eP P 22 50 38.5 -0.3
LOF IVmB 22 50 43.3
comp=Z,679nm,1.4s
LOF ePP PP 22 54 09.3 -3.4
LOF eSKSac SKSac 23 01 09.0 +3.5
ODBI Odobesti 90.26 316 ⇓P P 22 50 38.8 -0.5
KSL Kastellorizon 90.35 307 P P 22 50 35.9 -4.1
GIRR Girov 90.37 318 ⇑P P 22 50 39.2 -0.7
TESR Tescani 90.37 317 ⇓P P 22 50 39.4 -0.4
TESR Tescani 90.37 317 P P 22 50 39.1 -0.8
comp=Z,993nmcomp=Z,59nm,1.2s
PRAR RASCA 90.46 318 ⇓P P 22 50 39.8 -0.4
VRI Vrincioaia 90.46 316 ⇓P P 22 50 39.5 -0.8
LODK Lodwar 90.47 274 P P 22 50 40.3 -0.8
SNR=23
PLOR Plostina 90.52 316 ⇓P P 22 50 39.5 -1.1
SAHR Sahastru 90.52 316 ⇑P P 22 50 39.8 -0.8
ONER Baraj Valea Uz 90.58 317 ⇓P P 22 50 40.3 -0.5
BIZ Bicaz 90.64 318 ⇑P P 22 50 40.6 -0.5
SUW Suwalki 90.67 325 eP P 22 50 41.1 0.0
MANT Manisa 90.70 309 IAmb IAmb 22 50 57.0
comp=Z,86nm,1.3s
MOR8 Moi Rana 90.73 338 eP P 22 50 39.9 -1.2
RAUS Rausandaksla 90.77 338 eP P 22 50 40.2 -1.1
RAUS IVmB 22 50 49.2
comp=Z,341nm,2.2s
RAUS e 23 01 32.5
COVR Voineasa-Covas 90.82 317 ⇑P P 22 50 41.4 -0.6
NEHR Nehoiu 90.86 316 ⇑P P 22 50 41.8 -0.4
TURR Turia 90.90 317 ⇓P P 22 50 41.8 -0.6
VAGH Vaagaholmen 90.93 339 eP P 22 50 41.0 -1.0
VAGH e 23 01 30.7
BURAR Bucovina Array 91.07 318 P P 22 50 41.8 -1.4
BURAR Bucovina Array 91.07 318 ⇑P P 22 50 42.7 -0.5
KONS Konsvik 91.08 338 eP P 22 50 40.1 -2.5
MLR Muntele Rosu 91.08 316 LR LR 23 36 41.3
comp=Z,3µm,22.0s,baz=52,slow=39
MLR Muntele Rosu 91.08 316 ⇑P P 22 50 42.7 -0.7
LOZB Loznitsa 91.11 314 ⇓P P 22 50 42.7 -0.7
BOSR Bodos 91.14 317 ⇓P P 22 50 42.8 -0.7
YER Yerkesik 91.18 308 P P 22 50 40.1 -3.8
STOK Stokkvaagen 91.19 338 eP P 22 50 40.1 -3.0
LEIR Leirfjorden 91.24 338 eP P 22 50 41.1 -2.4
DOPR Dopca 91.35 317 ⇑P P 22 50 43.9 -0.5
JMB Yambol 91.36 313 P P 22 50 40.5 -4.0
ARG Arkhangelos 91.49 307 P P 22 50 44.1 -1.2
SZH Strazhitsa 91.58 314 P P 22 50 44.1 -1.5
VOIR 91.71 316 ⇑P P 22 50 45.5 -0.7
BLCB Balcova 91.88 309 P P 22 50 46.3 -0.7
ARR Arges 92.01 316 ⇑P P 22 50 47.3 -0.3
ENEZ Enez 92.03 312 P P 22 50 46.2 -1.4
ALN Alexandroupoli 92.07 312 P P 22 50 45.2 -2.6
EZN Ezine 92.11 311 P P 22 50 47.1 -0.9
EZN Ezine 92.11 311 ⇑P P 22 50 46.8 -1.2
KWP Kalwaria Pacla 92.15 321 eP P 22 50 49.1 +1.0
KWP Kalwaria Pacla 92.15 321 P P 22 50 48.5 +0.4
comp=Z,2µmcomp=Z,134nm,1.1s
PVL Pavlikeni 92.18 314 P P 22 50 47.3 -1.0
PRK Paraskevi 92.28 310 P P 22 50 48.3 -0.5
DAG Danmarks Havn 92.31 352 i P P 22 50 46.7 -1.5
DAG IAmb IAmb 22 50 48.0
comp=Z,42nm,0.9s
GADA Gvkgeada 92.34 311 P P 22 50 47.7 -1.4
NSS Namsos 92.36 337 eP P 22 50 46.0 -2.6
KARP Karpathos 92.40 306 IAMs_20 IAMs_20 23 40 35.4
comp=Z,1µm,21.0s
KDZ Kurdzhali 92.42 313 P P 22 50 46.7 -2.8
PLVB Pleven 92.51 314 ⇓P P 22 50 49.3 -0.5
VLAD Vladila 92.51 315 ⇓P P 22 50 49.0 -0.8
SMTH Samothraki Isl 92.55 311 P P 22 50 46.7 -3.4
BBB Bella Bella 92.56 36 LR LR 23 28 05.3
comp=Z,665nm,20.9s,baz=288,slow=33
LOT Lotru 92.58 317 ⇑P P 22 50 49.5 -0.7
KOLS Kolonicke sedl 92.62 320 eP P 22 50 48.1 -2.1
KOLS Kolonicke sedl 92.62 320 eP P 22 50 48.1 -2.1
BEL Belsk 92.68 323 eP P 22 50 50.6 +0.2
BEL Belsk 92.68 323 P P 22 50 55.6 +5.2
comp=Z,297µmcomp=Z,10µm,1.2s
MARR Marisel-Cluj 92.69 318 ⇓P P 22 50 49.8 -1.0
UZHM Uzhgorod 92.69 320 P P 22 50 50.9 +0.4
PLD Plovdiv 92.72 313 P P 22 50 49.9 -1.0
RZN Rozhen 92.84 313 P P 22 50 46.7 -4.9
RZN Rozhen 92.84 313 P P 22 50 51.9 +0.3
DRGR 92.93 318 ⇓P P 22 50 50.9 -0.9
LIA Limnos Island 92.95 311 P P 22 50 50.4 -1.5
RES Resolute Bay 93.02 10 LR LR 23 35 10.0
comp=Z,623nm,20.1s,baz=322,slow=37
RES Resolute Bay 93.02 10 IAmb IAmb 22 51 26.5
comp=Z,64nm,0.9s
RES Resolute Bay 93.02 10 P P 22 50 51.8 +0.2
comp=Z,52nm,1.1s
DEV Deva 93.05 317 ⇓P P 22 50 51.4 -0.8
THAS Thassos island 93.12 312 P P 22 50 50.9 -1.8
KAVA Kavala 93.18 312 P P 22 50 51.4 -1.5
GZR Gura Zlata 93.27 317 ⇓P P 22 50 52.7 -0.7
HFS Hagfors 93.47 332 P P 22 50 51.6 -2.3
comp=Z,7.0nm,0.5s,baz=219,slow=1.9,SNR=12
HFS pP pP 22 51 06.2 -2.6
comp=Z,16nm,0.7s,baz=69,slow=13,SNR=7.9
HFS PKKPbc PKKPdf 23 08 00.8 +0.8
comp=Z,1.4nm,0.7s,baz=256,slow=6.0,SNR=4.5
HFS LR LR 23 36 26.2
comp=Z,3µm,21.6s,baz=66,slow=38
comp=Z,7.0nm,0.5s
NVR Nevrokopi 93.56 313 P P 22 50 52.1 -2.7
PLNA Plana 93.59 314 P P 22 50 53.6 -1.4
MMB Musomishta 93.59 313 P P 22 50 51.9 -3.0
SURR Surduc 93.61 317 ⇑P P 22 50 53.6 -1.2
VTS Vitosha 93.69 314 P P 22 50 53.7 -1.8
VTS Vitosha 93.69 314 P P 22 50 57.7 +2.2
NIE Niedzica 93.72 321 eP P 22 50 56.2 +0.9
SIRR Siria 93.77 318 ⇑P P 22 50 54.4 -1.3
OJC Ojcow 93.78 322 eP P 22 50 56.7 +1.2
BLKB Belogradchik 93.81 315 ⇑P P 22 50 54.9 -1.0
SRS Serrai 93.82 312 P P 22 50 52.4 -3.5
BLEU Blekinge 93.94 328 i P P 22 50 57.7 +1.6

KARY Karystos 93.96 309 P **P** **22 50 54.9 -1.7**
KKB Krupnik 93.97 313 P **P** **22 50 54.7 -1.9**
KKB Krupnik 93.97 313 P **P** **22 50 56.5 -0.1**
BZS Buzias 93.99 317 ⇑P **P** **22 50 55.3 -1.3**
PAIG Paliouri 94.06 311 P **P** **22 50 54.2 -2.8**
KYMI Kymi, Euboea I 94.07 310 P **P** **22 50 55.2 -1.9**
SOH Sokhos 94.07 312 P **P** **22 50 55.0 -2.1**
AOS Alonnisos 94.10 310 P **P** **22 50 54.2 -3.1**
PLG Polygyros 94.12 312 P **P** **22 50 54.4 -2.9**
MDVR Moldovita 94.16 316 ⇑P **P** **22 50 56.9 -0.5**
NC602 NORSAR Array S 94.19 333 *e*P **P** **22 50 56.0 -1.1**
NC602 IVmB 22 51 07.2
comp=Z,1μm,3.0s
NC602 *e*PP **PP** **22 54 44.1 +0.3**
NC602 *e*SKSac **SKSac** **23 01 26.1 -1.8**
NB2 NORSAR Subarra 94.20 334 P **P** **22 50 55.2 -2.1**
comp=Z,10nm,0.8s,baz=64,slow=4.6
NB2 NORSAR Subarra 94.20 334 P **P** **22 50 55.0 -2.3**
NB2 AMP 22 50 55.0
NOA NORSAR Array B 94.20 334 P **P** **22 50 54.8 -2.5**
comp=Z,6.4nm,0.7s,baz=65,slow=4.5,SNR=24
NOA pP **pP** **22 51 09.8 -2.2**
comp=Z,12nm,0.8s,baz=63,slow=4.7,SNR=12
NOA LR LR 23 38 42.7
comp=Z,2μm,18.4s,baz=70,slow=39
comp=Z,6.4nm,0.7s
IDI Anoyia 94.27 306 LR LR 23 40 15.8
comp=Z,746nm,20.9s,baz=75,slow=40
IDI Anoyia 94.27 306 P **P** **22 50 59.1 +1.0**
IDI Anoyia 94.27 306 P **P** **22 50 57.2 -1.0**
KNT Kendrikon 94.31 313 P **P** **22 50 55.2 -3.0**
LANS Liptovska Anna 94.32 321 *e*P **P** **22 50 58.9 +0.8**
LANS Liptovska Anna 94.32 321 *e*P **P** **22 50 58.9 +0.8**
DION Dionisos Attik 94.33 309 P **P** **22 50 55.8 -2.6**
SIVA Sivas 94.39 306 P **P** **22 50 54.5 -4.1**
PTL Penteli 94.39 309 P **P** **22 50 55.4 -3.3**
PSZ Piszkesteto 94.43 320 IAMs_20 IAMs_20 23 37 03.2
comp=Z,2μm,20.0s
PSZ Piszkesteto 94.43 320 P **P** **22 50 58.9 +0.2**
comp=Z,3μmcomp=Z,801nmcomp=Z,23nm,1.9s,comp=Z,801nm
TULEG Thule 94.45 4 IAMs_20 IAMs_20 23 31 14.9
comp=Z,2μm,20.0s
ATHU Athens Univers 94.48 309 P **P** **22 50 56.8 -2.3**
VAY Valandovo 94.51 313 *i*P **P** **22 50 57.2 -1.9**
ATH Athens Observa 94.53 309 P **P** **22 50 56.3 -2.9**
DBG Daneborg 94.59 351 *i*P **P** **22 50 57.8 -0.9**
DBG IAmb IAmb 22 50 59.4
comp=Z,30nm,1.0s
DOMB Dombas 94.66 335 *e*P **P** **22 50 59.0 -0.3**
GRG Griva 94.73 312 P **P** **22 50 56.6 -3.6**
TAOE Nuku Hiva Isla 94.74 98 *e*PKIKP **P** **22 50 58.9 -1.9**
comp=Z,519nm,26.8s
TAOE *e*PP **PP** **22 54 45.3 -4.6**
comp=Z,355nm,26.5s
TAOE *e*S **S** **23 02 09.0 -2.0**
comp=Z,2μm,31.3s
TAOE *e*SS **SS** **23 08 28.7 -7.4**
comp=Z,1μm,28.3s
TAOE *e*LQ LQ 23 17 42.2
comp=Z,3μm,33.8s
TAOE *e*LR LR 23 21 31.7
comp=Z,5μm,29.1s
VAM Vamos 94.78 307 P **P** **22 50 59.0 -1.5**
DEL Delary 94.87 329 *i*P **P** **22 51 02.1 +1.7**
ATAL Atalanti 94.87 310 P **P** **22 50 57.3 -3.5**
OKC Ostrava-Krasne 94.91 322 *e*P P 22 51 06.8 +6.1
OKC MLR MLR
comp=Z,1μm,16.8s
OKC Ostrava-Krasne 94.91 322 *e*P P 22 51 06.8 +6.1
OKC AMS AMS 23 39 30.0
comp=Z,1μm,16.8s
VYHS Vyhne 94.92 320 *e*P **P** **22 51 01.5 +0.7**
VYHS Vyhne 94.92 320 *e*P **P** **22 51 01.5 +0.7**
IMMV Iera Moni Meta 94.94 307 P **P** **22 50 58.4 -2.8**
JMIC Jan Mayen 94.97 347 LR LR 23 39 25.8
comp=Z,985nm,19.9s,baz=47,slow=39
MOL Molde 95.02 336 *e*P **P** **22 50 60.0 -0.9**
STRU Stroemstad 95.10 332 *i*P **P** **22 51 01.4 0.0**
STEB Steborice 95.10 322 *e*P **P** **22 50 59.4 -2.2**
STEB *e*pP **pP** **22 51 15.3 -1.1**
YKAW3 Yellowknife Wh 95.12 24 IAmb IAmb 22 51 17.6
comp=Z,166nm,1.4s
AXAR Agios Charalam 95.12 310 P **P** **22 50 58.8 -3.2**
SKO Skopje 95.14 314 *i*P **P** **22 50 59.9 -2.1**
YKA Yellowknife Ar 95.15 24 P **P** **22 51 01.4 -0.1**
comp=Z,31nm,0.8s,baz=302,slow=4.3,SNR=57
YKA pP **pP** **22 51 16.4 +0.1**
comp=Z,60nm,1.0s,baz=301,slow=4.7,SNR=15
YKA PKiKP **PKiKP** **22 55 41.9 -0.6**
comp=Z,0.9nm,0.6s,baz=311,slow=1.9,SNR=6.5
YKA PKKPbc **PKKPdf** **23 07 53.9 -3.2**
comp=Z,2.2nm,0.6s,baz=124,slow=3.1,SNR=14
YKA LR LR 23 34 11.3
comp=Z,1μm,21.8s,baz=290,slow=36
comp=Z,31nm,0.8s
YKA Yellowknife Ar 95.15 24 P **P** **22 51 01.6 0.0**
YKAW1 Yellowknife Wh 95.21 24 IAmb IAmb 22 51 18.1
comp=Z,158nm,1.4s
KNDR Palaiochora Ch 95.28 307 P **P** **22 51 01.1 -1.7**
MORC Moravsky Berou 95.30 322 *e*P **P** **22 51 03.0 +0.4**
MORC Moravsky Berou 95.30 322 ⇑P **P** **22 51 02.0 -0.6**
AGG Agios Georgios 95.30 311 P **P** **22 51 00.3 -2.5**
KZN Kozani 95.37 312 P **P** **22 51 00.9 -2.2**
ANKY Antikythira Is 95.38 307 P **P** **22 51 01.2 -2.0**
THL Klokotos Trika 95.39 311 P **P** **22 51 00.1 -3.0**
AKN Aaknes 95.44 336 *e*P **P** **22 51 03.1 +0.2**
AKN *e*PP **PP** **22 54 55.0 +1.4**
VLI Veliai 95.45 308 P **P** **22 51 00.6 -2.8**
KTHA Kythira Island 95.47 308 P **P** **22 51 00.3 -3.3**
JAVC Velka Javorina 95.53 321 *e*P **P** **22 51 03.5 -0.2**
KONO Kongsberg 95.55 333 IAMs_20 IAMs_20 23 38 14.9
comp=Z,2μm,20.0s
GUR Goura 95.58 310 P **P** **22 51 01.3 -2.9**
KALE Kalithea 95.62 310 P **P** **22 51 02.3 -2.0**
SKAR Skarslia 95.63 334 *e*P **P** **22 51 03.4 -0.5**
MBAR Mbarara 95.64 270 LR LR 23 32 46.3
comp=Z,1μm,21.2s,baz=63,slow=34
MBAR Mbarara 95.64 270 *ce*P **P** **22 51 06.0 +1.0**
MBAR pmax pmax
comp=Z,9.0nm,1.0s
MBAR Mbarara 95.64 270 IAMs_20 IAMs_20 23 32 36.5
comp=Z,1μm,20.0s
KRLC Kraliky 95.66 322 *e*P **P** **22 51 03.0 -1.2**
KRLC MLR MLR
comp=Z,2μm,20.3s
KRLC Kraliky 95.66 322 *e*P **P** **22 51 03.0 -1.2**
KRLC AMS AMS 23 35 40.0
comp=Z,2μm,20.3s
KRLC Kraliky 95.66 322 P **P** **22 51 04.5 +0.3**
comp=Z,20nm,2.3s
KSP Ksiaz 95.67 323 *e*P **P** **22 51 04.2 0.0**
SERG Sergoula 95.67 310 P **P** **22 51 01.2 -3.3**
KLV Kalavryta, Ach 95.70 310 P **P** **22 51 01.3 -3.4**
VLX Vlachokerasia 95.71 309 P **P** **22 51 01.6 -3.1**
EVR Evrytania 95.72 311 P **P** **22 51 01.8 -3.0**
ANX Ano Chora 95.73 310 P **P** **22 51 01.7 -3.1**
KPRO Kipourio 95.77 312 P **P** **22 51 01.7 -3.2**
LAKA Lakka 95.78 310 P **P** **22 51 01.6 -3.4**
MORH Mrgy, Hungar 95.78 318 ⇑P **P** **22 51 04.3 -0.4**
EFP Efpalio 95.78 310 P **P** **22 51 03.0 -1.9**
OSTC Ostas 95.82 323 *e*P **P** **22 51 02.8 -2.1**
OSTC MLR MLR
comp=Z,4μm,22.2s
OSTC Ostas 95.82 323 *e*P **P** **22 51 02.8 -2.1**
OSTC AMS AMS 23 36 10.0
comp=Z,4μm,22.2s
DPC Dobruska-Polom 95.83 323 *e*P **P** **22 51 04.8 -0.2**
DPC *e* 22 51 15.6
DPC MLR MLR
comp=Z,3μm,21.3s
DPC Dobruska-Polom 95.83 323 *e*P **P** **22 51 04.8 -0.2**
DPC *e*pP **pP** **22 51 15.6 -4.2**
DPC AMS AMS 23 36 20.0
comp=Z,3μm,21.3s
DPC Dobruska-Polom 95.83 323 P **P** **22 51 05.9 +0.9**
comp=Z,2μmcomp=Z,26nm,1.1s
OHR Ohrid 95.85 313 *i*P **P** **22 51 03.5 -1.8**
VVK Vomvokou 95.86 310 P **P** **22 51 04.2 -1.2**
PENT Pentalofos 95.87 312 P **P** **22 51 03.8 -1.7**
CHVC Chvalec 95.91 323 *e*P **P** **22 51 05.7 +0.4**
CHVC *e* 22 51 19.0
CHVC MLR MLR
comp=Z,4μm,24.9s
CHVC Chvalec 95.91 323 *e*P **P** **22 51 05.7 +0.4**
CHVC *e*pP **pP** **22 51 19.0 -1.1**
CHVC AMS AMS 23 36 20.0
comp=Z,4μm,24.9s
MODS Modra-Piesok 95.94 321 *e*P **P** **22 51 06.0 +0.5**
MODS Modra-Piesok 95.94 321 *e*P **P** **22 51 06.0 +0.5**
UPC Upice 95.96 323 *e*P **P** **22 51 05.9 +0.4**
UPC MLR MLR
comp=Z,4μm,22.7s
UPC Upice 95.96 323 *e*P **P** **22 51 05.9 +0.4**
UPC AMS AMS 23 36 20.0
comp=Z,4μm,22.7s
UPC Upice 95.96 323 P **P** **22 51 06.8 +1.2**
comp=Z,36nm,1.2s
KBN Korca 96.00 312 P **P** **22 51 04.2 -1.8**
KBN Korca 96.00 312 P **P** **22 51 09.2 +3.1**
comp=Z,26nm,1.0s
TETR Tetrakomo, Epi 96.00 311 P **P** **22 51 04.5 -1.5**
PVO Paravola 96.02 310 P **P** **22 51 04.9 -1.1**
VRAC Vranov 96.04 322 LR LR 23 39 16.3
comp=Z,1μm,18.3s,baz=82,slow=38
VRAC Vranov 96.04 322 *e*P **P** **22 51 05.5 -0.4**
VRAC Vranov 96.04 322 ⇓P **P** **22 51 05.2 -0.7**
DRO Drossia 96.06 310 P **P** **22 51 03.8 -2.5**
PRMD Pramanda 96.08 311 P **P** **22 51 04.9 -1.5**
ITM Ithomi 96.11 309 P **P** **22 51 05.3 -1.2**
ITM Ithomi 96.11 309 IAmb IAmb 22 51 20.9
comp=Z,178nm,1.5s
PLEV Plevrona-Mesol 96.17 310 P **P** **22 51 04.0 -2.7**
AMPL Ampelaki 96.17 311 P **P** **22 51 03.7 -3.0**
AMT Artemida-Makis 96.18 309 P **P** **22 51 03.2 -3.7**
RLS Riolos of Patr 96.22 310 P **P** **22 51 04.1 -2.9**
JAN Janina 96.23 312 P **P** **22 51 03.7 -3.3**
AXS Araxos 96.25 310 P **P** **22 51 04.0 -3.1**
KRUC Moravsky 96.25 322 *e*P **P** **22 51 06.0 -0.9**
RUE Ruedersdorf 96.51 325 *e*Pdiff **P** **22 51 08.8 +1.0**
baz=65,slow=4.4
RUE *e*SKSac S 23 02 03.8 -21
baz=63,slow=5.4
FOO Floro 96.53 336 *e*P **P** **22 51 07.9 +0.1**
PDG Podgorica 96.56 315 ⇓P **P** **22 51 06.8 -1.5**
PDG Podgorica 96.56 315 P **P** **22 51 07.2 -1.2**
comp=Z,2μmcomp=Z,456nmcomp=Z,28nm,0.8s
NYDR Nydri-Lefkada 96.61 311 P **P** **22 51 05.4 -3.3**
IGT Igoumenitsa 96.65 312 P **P** 22 51 02.4 -6.5
EVGI Lefkada island 96.67 311 P **P** **22 51 05.6 -3.4**
TREC Trest 96.72 322 *e*P **P** **22 51 08.1 -0.9**
TREC *e* 22 51 21.4
TREC MLR MLR
comp=Z,2μm,20.3s
TREC Trest 96.72 322 *e*P **P** **22 51 08.1 -0.9**
TREC *e*pP **pP** **22 51 21.4 -2.5**
TREC AMS AMS 23 36 20.0
comp=Z,2μm,20.3s
TREC Trest 96.72 322 P **P** **22 51 07.3 -1.8**
comp=Z,618nmcomp=Z,27nm,1.0s
LLLB Lillooet 96.77 37 IAmb IAmb 22 51 26.1
comp=Z,94nm,1.2s
WINA Alland / Wiene 96.79 321 *e*PcP **PcP** **22 51 09.7 +0.3**
comp=Z,8.5nm,1.3s
RONA Rosalia, Austr 96.79 320 *e*PcP **P** **22 51 09.4 -0.1**
comp=Z,6.6nm,1.2s
RONA *e*PP **PP** **22 55 03.4 -1.2**
comp=Z,8.7nm,1.3s
RONA *e*PKiKP **PKiKP** **22 55 44.6 -1.2**
comp=Z,13nm,1.1s
PVCC Panska Ves 96.81 323 *e*P P 22 51 24.0 +15
PVCC AMS AMS 23 36 50.0
comp=Z,3μm,23.7s
PVCC Panska Ves 96.81 323 P **P** **22 51 09.1 -0.3**
comp=Z,42nm,1.2s
VLS Valsamata 96.85 310 P **P** **22 51 06.4 -3.4**
PSDA Pessada-Kefalo 96.87 310 P **P** **22 51 06.0 -3.9**
SYO Syowa Base 96.89 201 ⇑*i*P **P** **22 51 08.5 -0.7**
ABNA Allensteig Bun 96.98 321 *e*PcP **P** **22 51 10.0 -0.3**
comp=Z,11nm,0.9s
CONA Conrad Observa 96.99 321 *e*PcP **P** **22 51 10.3 0.0**
comp=Z,7.2nm,1.4s
CONA *e*PP **PP** **22 55 03.8 -2.3**
comp=Z,4.9nm,0.9s
CONA PKiKP **PKiKP** **22 55 41.7 -4.6**
comp=Z,22nm,1.6s
KEK Kerkira 96.99 312 P **P** **22 51 07.0 -3.4**
KEK Kerkira 96.99 312 IAmb IAmb 22 51 22.7
comp=Z,64nm,1.4s
PRU Pruhonice 97.03 323 *e*P **P** **22 51 09.9 -0.5**
PRU *e* 22 51 23.8
PRU MLR MLR
comp=Z,4μm,24.2s
PRU Pruhonice 97.03 323 *e*P **P** **22 51 09.9 -0.5**
PRU *ex* x 22 51 16.7
PRU *e*pP **pP** **22 51 23.8 -1.4**
PRU AMS AMS 23 37 00.0
comp=Z,4μm,24.2s
PRU Pruhonice 97.03 323 P Pdif 22 51 11.1 +0.6
comp=Z,26nm,1.2s
BLS5 Blasjo 97.06 333 *e*P **P** **22 51 09.4 -0.9**
PRA Prague 97.06 323 AMS AMS 23 29 30.0
comp=Z,100nm,27.1s
RICC Richard 97.08 323 *e*P Pdif 22 51 27.1 +16
RICC AMS AMS 23 38 00.0
comp=Z,2μm,19.7s
KOGS Kog 97.27 319 *e*Pdiff **P** **22 51 09.4 -2.1**
KOGS *e*pP **pP** **22 51 25.6 -0.8**
CLL Collm 97.42 324 *i*P **P** **22 51 12.0 -0.1**
CLL *i* *PP **pP** **22 51 24.5 -2.4**
CLL *e*S **S** **23 02 31.0 -1.6**
CLL Collm 97.42 324 IAMs_20 IAMs_20 23 38 10.8
comp=Z,2μm,21.0s
CLL Collm 97.42 324 *e*Pdiff **P** **22 51 11.5 -0.6**
baz=65,slow=4.4
CLL *e*SKSac SKSac 23 02 04.9 +20
baz=63,slow=5.4
CLL Collm 97.42 324 *i*P **P** **22 51 12.0 -0.1**
CLL *i* pP **pP** **22 51 24.5 -2.4**
comp=Z,43nm,1.2s
CLL *i* x x 22 51 32.2
CLL *e*PP **PP** **22 55 06.0 -3.1**
CLL *e*SKKSac S 23 02 06.0 -27
CLL *e*S **S** **23 02 31.0 -1.6**
CLL *e*SP **SP** **23 03 54.0 -0.1**
CLL *e*PPS PPS 23 04 42.0
CLL *e*SS SS 23 09 24.0 +13
CLL *e*SSS SSS 23 13 00.0
CLL *ex* x 23 14 54.0
CLL LH 23 22 00.0
CLL LV 23 25 00.0
CLL AMS AMS 23 36 00.0
comp=N,1μm,25.5s
CLL AMS AMS 23 36 00.0
comp=E,2μm,22.9s
CLL AMS AMS 23 36 00.0
comp=Z,2μm,25.0s
CLL AMS AMS 23 38 00.0
comp=Z,2μm,22.5s
HSKC Hora Svate Kat 97.45 324 AMS AMS 23 38 10.0
comp=Z,3μm,19.5s
ZVC Zvikov 97.45 322 *e*P **P** **22 51 11.2 -1.1**
ZVC *ex* x 22 51 18.4
ZVC *e*pP **pP** **22 51 25.7 -1.4**
ZVC AMS AMS 23 36 50.0
comp=Z,3μm,22.4s
CKRC Cesky Krumlov 97.62 322 *e*P **P** **22 51 12.5 -0.6**
CKRC *e* 22 51 25.2
CKRC MLR MLR
comp=Z,3μm,27.3s
CKRC Cesky Krumlov 97.62 322 *e*P **P** **22 51 12.5 -0.6**
CKRC *e*pP **pP** **22 51 25.2 -2.7**
CKRC AMS AMS 23 37 00.0
comp=Z,3μm,27.3s
GORT1 Trebel 97.67 326 *e*Pdiff Pdif 22 51 13.9 +0.7
baz=65,slow=4.4
GORT1 Trebel 97.67 326 P Pdif 22 51 14.3 +1.2
comp=Z,4μmcomp=Z,48nm,0.9s
BSEG Bad Segeberg 97.79 328 *e*Pdiff **P** **22 51 13.5 -0.2**
baz=65,slow=4.4
BSEG *e*SKSac SKSac 23 02 08.8 +22
baz=63,slow=5.4
KHC Kasperske Hory 97.94 322 *ce*P Pdif 22 51 15.5 +0.9
KHC pmax pmax
comp=Z,7.0nm,1.3s
KHC Kasperske Hory 97.94 322 IAMs_20 IAMs_20 23 38 10.9
comp=Z,2μm,21.0s
KHC Kasperske Hory 97.94 322 *e*P **P** **22 51 12.9 -1.7**
KHC *e*pP **pP** **22 51 26.5 -2.9**
KHC AMS AMS 23 37 10.0
comp=Z,3μm,21.7s
KHC Kasperske Hory 97.94 322 P Pdif 22 51 15.1 +0.5
comp=Z,3μmcomp=Z,23nm,1.2s
SOKA Soboth 97.97 320 *e*PcP **P** **22 51 14.6 -0.2**
comp=Z,2.8nm,1.0s
SOKA *i* PP **PP** **22 55 14.1 +0.5**
comp=Z,4.1nm,1.0s
SOKA *e*PKiKP **PKiKP** **22 55 48.4 +0.4**
comp=Z,8.4nm,1.5s
GEC2 GERESS Array S 97.98 322 *e*Pdiff **P** **22 51 14.3 -0.5**
baz=65,slow=4.4
GEC2 *e*SKSac SKSac 23 02 11.0 +22
baz=63,slow=5.4
GEC2 GERESS Array S 97.98 322 P **P** **22 51 14.6 -0.2**
comp=Z,32nm,1.1s
GERES GERESS Array B 97.98 322 P **P** **22 51 13.6 -1.2**
comp=Z,4.5nm,0.8s,baz=48,slow=4.0,SNR=35
GERES pP **pP** **22 51 28.6 -1.0**
comp=Z,18nm,1.0s,baz=72,slow=4.3,SNR=14
GERES PKKPbc **PKKPbc** **23 07 50.0 +0.2**
comp=Z,0.8nm,0.8s,baz=240,slow=2.6,SNR=3.9
GERES LR LR 23 40 17.4
comp=Z,1μm,19.4s,baz=78,slow=38
comp=Z,4.5nm,0.8s
GERES GERESS Array B 97.98 322 P **P** **22 51 13.9 -0.9**
GERES GERESS Array B 97.98 322 P **P** **22 51 13.9 -0.9**
FLTG Flechtingen 97.99 326 *e*Pdiff **P** **22 51 14.1 -0.5**
baz=65,slow=4.4
FLTG *e*SKSac SKSac 23 02 09.8 +22
baz=63,slow=5.4
MOA Molln 98.01 321 *e*PcP Pdif 22 51 15.0 +0.1
comp=Z,10nm,0.9s
MOA Molln 98.01 321 P Pdif 22 51 15.1 +0.2
comp=Z,53nm,1.2s
TANN Tannenbergstha 98.09 324 *e*Pdiff Pdif 22 51 15.5 +0.2
baz=65,slow=4.4
SESA Seetaler Alpe, 98.10 320 *e*PcP **P** **22 51 15.5 -0.1**
comp=Z,5.7nm,1.0s
SESA PP **PP** **22 55 14.6 -0.2**
comp=Z,9.0nm,1.2s
SESA *e*PKiKP **PKiKP** **22 55 47.6 -0.8**
comp=Z,20nm,1.4s
SCO Scoresbysund 98.12 350 IAMs_20 IAMs_20 23 35 49.7
comp=Z,2μm,22.0s
SCO Scoresbysund 98.12 350 *i*P **P** **22 51 13.9 -0.9**
SCO IAmb IAmb 22 51 16.2
comp=Z,14nm,0.9s
NEUB Neuenburg 98.16 325 *e*Pdiff **P** **22 51 15.3 -0.1**
baz=65,slow=4.4
NKC Novy Kostel 98.17 324 *e*P Pdif 22 51 31.0 +15
NKC AMS AMS 23 38 40.0
comp=Z,3μm,18.5s
PLN Plauen 98.24 324 *e*Pdiff Pdif 22 51 16.0 +0.2
baz=65,slow=4.4
BOJS Bojanci 98.25 318 *i* Pdiff Pdif 22 51 16.4 +0.4
BOJS *e*PP **PP** **22 55 18.0 +2.3**
BOJS *e* 22 59 09.2
SUMG Summit 98.29 355 *i*P **P** **22 51 15.0 -1.1**
SUMG IAmb IAmb 22 51 15.8
comp=Z,6.3nm,0.8s
OBKA Obir 98.34 320 *e*PcP **P** **22 51 16.2 -0.2**
comp=Z,3.0nm,1.1s
OBKA *e*PP **PP** **22 55 17.3 +0.8**
comp=Z,4.2nm,1.1s
OBKA *ep*PKiKP PKiKP 22 56 01.2 +13
comp=Z,13nm,1.4s
WET Wettzell 98.36 322 *e*Pdiff Pdif 22 51 17.0 +0.5
baz=65,slow=4.4
WET *e*SKSac SKSac 23 02 13.7 +23
baz=63,slow=5.4
WET Wettzell 98.36 322 P Pdif 22 51 17.6 +1.2
comp=Z,20nm,1.3s
ASSE Asse, Remlinge 98.39 326 *e*Pdiff Pdif 22 51 16.4 +0.1
baz=65,slow=4.4
ASSE *e*SKSac SKSac 23 02 13.2 +23
baz=63,slow=5.4
MOX Moxa 98.49 324 *e*Pdiff **P** **22 51 16.9 -0.1**
baz=65,slow=4.4
MOX *e*SKSac SKSac 23 02 11.6 +21
baz=63,slow=5.4
MOX *e*L L 23 39 23.0
comp=Z,2μm,20.2s
LJU Ljubljana 98.53 319 *ep*P pP 22 51 31.0 -1.0
QSPA South Pole Qui 98.57 180 P **P** **22 51 15.8 -1.2**
comp=Z,6.1nm,0.8s,baz=303,slow=1.0,SNR=29
QSPA LR LR 23 36 09.9
comp=Z,1μm,21.0s,baz=344,slow=36
comp=Z,6.1nm,0.8s
QSPA South Pole Qui 98.57 180 P **P** **22 51 15.3 -1.7**
QSPA South Pole Qui 98.57 180 IAMs_20 IAMs_20 23 35 49.5
comp=Z,2μm,22.0s
CLZ Clausthal 98.68 326 *e*Pdiff Pdif 22 51 18.1 +0.3
baz=65,slow=4.4
CLZ Clausthal 98.68 326 P Pdif 22 51 18.7 +0.9
comp=Z,43nm,1.4s
RETH Rethem/Aller, 98.84 327 *e*Pdiff Pdif 22 51 18.5 +0.1
baz=65,slow=4.4
RETH Rethem/Aller, 98.84 327 P Pdif 22 51 21.2 +2.9
MYKA Terra Mystica 98.87 320 *e*Pdiff **P** **22 51 18.4 -0.4**
comp=Z,3.2nm,1.0s
KBA Koelnbreinsper 98.89 320 *e*Pdiff **P** **22 51 18.5 -0.5**
comp=Z,2.1nm,0.9s
KBA Koelnbreinsper 98.89 320 P Pdif 22 51 23.4 +4.3
comp=Z,3μmcomp=Z,18nm,0.9s
CADS Cadrg 98.97 320 *e*Pdiff **P** **22 51 18.5 -0.7**
GTTG Gottingen 99.04 325 *e*Pdiff **Pdif** **22 51 19.2 -0.2**
baz=65,slow=4.4
GRF Grafenberg Arr 99.12 323 *e*Pdiff **Pdif** **22 51 19.7 0.0**
baz=65,slow=4.4
GRF *e*L L 23 39 02.4
comp=Z,3μm,21.6s
LESA Schwarzleotal 99.17 321 *e*Pdiff **Pdif** **22 51 19.7 -0.5**
comp=Z,5.9nm,1.0s
LESA *e*PP **PP** **22 55 22.4 -0.4**
comp=Z,3.8nm,1.0s
GRC2 Grafenberg Arr 99.37 323 P **Pdif** **22 51 21.4 +0.5**
comp=Z,37nm,1.2s
TIP Timpagrande 99.39 312 IAmb IAmb 22 51 36.4
comp=Z,97nm,1.8s
TIP Timpagrande 99.39 312 ⇑P **Pdif** **22 51 20.5 -0.8**
TIP Timpagrande 99.39 312 P **Pdif** **22 51 20.9 -0.5**
comp=Z,2μmcomp=Z,625nmcomp=Z,30nm,1.8s
YBH Yreka Blue Hor 99.49 45 P **Pdif** **22 51 20.7 -1.1**
comp=Z,1.6nm,0.8s,baz=80,slow=5.9,SNR=4.2
YBH pP **pP** **22 51 36.7 +0.6**
comp=Z,16nm,1.1s,baz=290,slow=3.1,SNR=8.2
YBH LR LR 23 26 21.5
comp=Z,1μm,21.8s,baz=301,slow=29
comp=Z,1.6nm,0.8s
YBH Yreka Blue Hor 99.49 45 **Pdif** **22 51 21.6 -0.1**
ABTA Abfaltersbach 99.54 320 *e*Pdiff **Pdif** **22 51 20.8 -1.0**
comp=Z,8.8nm,1.2s
FUR Furstenfeldbru 99.73 322 *e*Pdiff **Pdif** **22 51 22.7 +0.2**
baz=65,slow=4.4
CUC Castrocucco 99.81 313 IAMs_20 IAMs_20 23 41 45.9
comp=Z,2μm,22.0s
WTTA Wattenberg 99.88 321 *e*Pdiff **Pdif** **22 51 22.9 -0.6**
comp=Z,8.2nm,0.8s
WTTA Wattenberg 99.88 321 P **Pdif** **22 51 22.9 -0.6**
comp=Z,34nm,1.2s
WATA Walderalm 99.89 321 *e*Pdiff **Pdif** **22 51 22.7 -0.7**
comp=Z,3.2nm,0.7s
KASTN Kahler Asten 100.06 326 *e*Pdiff **Pdif** **22 51 24.2 +0.3**
baz=65,slow=4.4
SQTA Sankt Quirin 100.16 321 *e*Pdiff **Pdif** **22 51 23.3 -1.3**
comp=Z,8.0nm,1.0s
SQTA *ep*PKiKP PKiKP 22 56 05.1 +13
comp=Z,17nm,1.5s
MOTA Moosalm 100.18 321 *e*Pdiff **Pdif** **22 51 24.4 -0.3**
comp=Z,5.1nm,1.0s
MOTA *e*PP **PP** **22 55 28.9 -1.6**
comp=Z,9.0nm,1.5s
RETA Reutte 100.33 322 *e*Pdiff **Pdif** **22 51 25.2 -0.1**
comp=Z,3.6nm,1.1s
TNS Taunus Mts 100.49 325 *e*Pdiff **Pdif** **22 51 26.2 +0.3**
baz=65,slow=4.4
FETA Feichten 100.55 321 *e*Pdiff **Pdif** **22 51 25.8 -0.5**
comp=Z,6.0nm,1.0s
NEW Newport 100.56 37 P **Pdif** **22 51 25.7 -0.6**
comp=Z,5.7nm,0.8s,baz=249,slow=2.7,SNR=7.7
NEW pP pP 22 51 41.8 +1.2
comp=Z,17nm,0.8s,baz=293,slow=4.4,SNR=10
BUG Bochum--Univer 100.58 326 *e*Pdiff **Pdif** **22 51 26.4 +0.2**
baz=65,slow=4.4
BUG *e*SKSac SKSac 23 02 24.5 +23
baz=63,slow=5.4
UBR Ueberruh 100.64 322 *e*Pdiff **Pdif** **22 51 26.3 -0.4**

baz=65,slow=4.4
AQU L'Aquila 100.66 316 PP PKiKP 22 55 36.8 -16
STU Stuttgart 100.72 323 *e*Pdiff **Pdif 22 51 27.1 +0.2**
baz=65,slow=4.4
DAVA Damuels 100.95 322 *e*Pdiff **Pdif 22 51 26.8 -1.4**
comp=Z,6.0nm,1.4s
FUORN Ofenpass-Fuorn 101.00 321 IAMs_20 IAMs_20 23 42 01.0
comp=Z,2µm,22.0s
FUORN Ofenpass-Fuorn 101.00 321 P **Pdif 22 51 28.1 -0.4**
comp=Z,30nm,2.0s
ORV Oroville 101.12 47 IAMs_20 IAMs_20 23 30 41.1
comp=Z,2µm,21.0s
RKT Rikitea 101.30 112 *e*P **Pdif 22 51 28.0 -2.0**
comp=Z,9µm,35.0s
RKT *e*S 23 03 08.0
comp=Z,3µm,37.8s
RKT *e*SS **SS 23 10 05.9 -1.9**
comp=Z,11µm,31.5s
RKT *e*LQ LQ 23 20 30.1
comp=Z,8µm,32.2s
RKT *e*LR LR 23 24 37.0
comp=Z,12µm,22.8s
BFO Black Forest 101.43 323 *e*Pdiff **Pdif 22 51 28.0 -2.1**
baz=65,slow=4.4
TUE Stuetta 101.64 321 IAMs_20 IAMs_20 23 43 10.8
comp=Z,2µm,20.0s
VLC Villacollemand 101.96 319 PP **PKiKP 22 55 47.5 -7.7**
WLF Walferdange 102.06 325 *e*Pdiff **Pdif 22 51 33.5 +0.7**
baz=65,slow=4.4
WELL Weller Preserv 102.09 48 IAMs_20 IAMs_20 23 30 34.1
comp=Z,2µm,20.0s
ELIB Princess Elisa 102.24 198 *d*Pdif **Pdif 22 51 34.5 +1.2**
ELIB *dx* x 22 51 49.0
ELIB *dx* x 22 51 55.9
ELIB *d*PKiKP **PKiKP 22 55 54.5 -0.5**
BMRD Maredsous 102.52 326 *d*PP **PP 22 55 46.8 -1.0**
PKD Bear Valley Ra 103.12 50 IAMs_20 IAMs_20 23 27 33.8
comp=Z,2µm,22.0s
EKA Eskdalemuir Ar 103.66 333 PKKPbc PKKPbc 23 07 33.4 -0.3
comp=Z,1.8nm,0.9s,baz=243,slow=2.7,SNR=3.8
BOSA Boshof 103.82 243 PKiKP **PKiKP 22 55 58.4 -0.7**
comp=Z,2.5nm,0.9s,baz=90,slow=1.9,SNR=3.6
NVAR Mina Array Bea 103.85 47 Pdiff **Pdif 22 51 42.2 +0.8**
comp=Z,1.6nm,0.7s,baz=288,slow=5.0,SNR=6.0
NVAR pPdiff **pPdif 22 51 58.0 +2.3**
comp=Z,7.0nm,0.8s,baz=267,slow=4.9,SNR=9.3
NVAR PKiKP **PKiKP 22 55 59.0 -0.1**
comp=Z,3.0nm,0.8s,baz=302,slow=4.3,SNR=3.7
NVAR PKKPbc **PKKPbc 23 07 31.6 -1.2**
comp=Z,1.9nm,0.6s,baz=120,slow=4.1,SNR=5.3
VES Vestal, Richgr 104.26 50 IAMs_20 IAMs_20 23 28 21.9
comp=Z,2µm,22.0s
DLMT Dillon 104.66 39 IAMs_20 IAMs_20 23 30 29.9
comp=Z,2µm,21.0s
ELK Elko 105.05 44 pPdiff **pPdif 22 52 02.6 +1.6**
comp=Z,5.0nm,0.9s,baz=185,slow=1.4,SNR=7.6
ELK PKiKP **PKiKP 22 56 00.9 -0.3**
comp=Z,0.8nm,0.4s,baz=316,slow=2.0,SNR=3.5
PASC Pasadena Art C 105.57 51 IAMs_20 IAMs_20 23 37 39.4
comp=Z,1µm,19.0s
MWC Mount Wilson 105.65 51 IAMs_20 IAMs_20 23 28 46.8
comp=Z,2µm,22.0s
AHID Auburn Hatcher 106.86 40 IAMs_20 IAMs_20 23 33 22.5
comp=Z,2µm,22.0s
PFO Pinyon Flats O 107.11 51 pPdiff pPdif 22 52 11.3 +1.1
comp=Z,3.5nm,1.0s,baz=288,slow=4.2,SNR=9.5
PFO Pinyon Flats O 107.11 51 IAMs_20 IAMs_20 23 43 00.3
comp=Z,1µm,20.0s
HWUT Hardware Ranch 107.12 42 IAMs_20 IAMs_20 23 32 59.6
comp=Z,2µm,22.0s
BELC Belle Mtn. Jos 107.31 50 IAMs_20 IAMs_20 23 31 41.7
comp=Z,2µm,20.0s
BW06 Boulder Array 107.85 40 IAMs_20 IAMs_20 23 33 54.5
comp=Z,2µm,22.0s
PDAR Pinedale Array 107.85 40 pPdiff **pPdif 22 52 14.2 +0.8**
comp=Z,0.7nm,0.7s,baz=309,slow=0.9,SNR=5.0
PDAR PKiKP **PKiKP 22 56 06.5 +0.2**
comp=Z,1.4nm,0.7s,baz=122,slow=1.5,SNR=6.0
PDAR PKKPbc **PKKPbc 23 07 18.4 -2.4**
comp=Z,1.6nm,0.6s,baz=127,slow=5.1,SNR=11
IRM Iron Mountain 107.90 50 IAMs_20 IAMs_20 23 30 34.2
comp=Z,2µm,22.0s
WUAZ Wupatki 110.11 47 IAMs_20 IAMs_20 23 37 52.4
comp=Z,2µm,21.0s
HAYD Hayden 110.48 41 IAMs_20 IAMs_20 23 34 02.9
comp=Z,1µm,22.0s
ULM Lac du Bonnet 110.78 27 PKKPbc PKKPbc 23 07 16.9 +5.5
comp=Z,8.4nm,0.9s,baz=152,slow=7.3,SNR=6.2
VNA2 Neumayer--Watz 111.50 195 ⇑PKiKP **PKiKP 22 56 12.3 +0.2**
VNA2 comp=Z,14nm,0.6s,baz=85,slow=1.9 ⇓PP PP 22 57 05.6 +12
comp=Z,7.1nm,0.7s,baz=96,slow=2.5
VNA2 ⇓PKKPdf **PKKPab 23 07 20.7 +4.5**
comp=Z,5.1nm,0.7s
VNA3 Neumayer Olymp 111.85 194 ⇑PKiKP **PKiKP 22 56 12.6 -0.1**
comp=Z,9.4nm,0.9s
VNA3 ⇓PP PP 22 57 06.7 +11
comp=Z,14nm,1.2s
VNA3 ⇓PKKPbc **PKKPbc 23 07 03.5 -4.9**
comp=Z,2.2nm,0.6s
VNA3 ⇓PKKPdf **PKKPdf 23 07 21.3 -6.0**
comp=Z,6.6nm,0.8s
VNA1 Neumayer--Stat 111.90 195 PKKPdf PKKPdf 23 07 21.3 -5.8
comp=Z,14nm,1.0s
ISCO Idaho Springs 111.93 41 IAMs_20 IAMs_20 23 35 34.8
comp=Z,2µm,22.0s
TUC Tucson 111.99 50 IAMs_20 IAMs_20 23 32 34.5
comp=Z,1µm,22.0s
AGMN Agassiz Nation 112.16 29 IAMs_20 IAMs_20 23 42 52.5
comp=Z,2µm,22.0s
ESDC Sonseca Array 113.47 320 PKiKP **PKiKP 22 56 17.2 +0.4**
comp=Z,0.9nm,1.0s,baz=99,slow=5.1,SNR=3.2
ESDC PP **PP 22 57 05.9 -2.1**
comp=Z,1.9nm,1.0s,baz=46,slow=7.3,SNR=4.1
ESDC PKKPbc **PKKPab 23 07 09.1 -0.7**
comp=Z,2.2nm,1.0s,baz=257,slow=3.7,SNR=6.2
F33A 5 Mile Ranch, 113.64 31 IAMs_20 IAMs_20 23 41 25.8
comp=Z,2µm,20.0s
TASM ASL Pad, Albuq 113.91 46 IAMs_20 IAMs_20 23 36 01.5
comp=Z,2µm,21.0s
TASM ASL Pad, Albuq 113.91 46 IAMs_20 IAMs_20 23 36 01.5
comp=Z,2µm,21.0s
TASM ASL Pad, Albuq 113.91 46 IAMs_20 IAMs_20 23 36 01.5
comp=Z,2µm,21.0s
TASM ASL Pad, Albuq 113.91 46 IAMs_20 IAMs_20 23 36 01.5
comp=Z,2µm,21.0s
ANMO Albuquerque 113.91 46 PKiKP **PKiKP 22 56 18.4 +0.4**
comp=Z,2.9nm,0.7s,baz=225,slow=1.6,SNR=9.2
ANMO Albuquerque 113.91 46 IAMs_20 IAMs_20 23 36 02.1
comp=Z,2µm,21.0s
ALQ Albuquerque 113.91 46 IAMs_20 IAMs_20 23 36 02.2
comp=Z,2µm,21.0s
ALQ Albuquerque 113.91 46 IAMs_20 IAMs_20 23 36 02.2
comp=Z,2µm,21.0s
ABQ Albuquerque 113.91 46 IAMs_20 IAMs_20 23 36 02.6
comp=Z,2µm,21.0s
TAM Tamanrasset 114.19 300 IAMs_20 IAMs_20 23 48 44.6
comp=Z,1µm,22.0s
PGAV Gavieira, Arco 114.70 324 eLR LR 23 37 55.6
PGAV IAMs_20 IAMs_20 23 50 18.4
comp=Z,1µm,20.0s
POLO Lamas de Olo 114.80 323 *e*tx tx 22 56 34.3
MTE Manteigas 115.25 323 *e*LR LR 23 38 31.9
MTE IAMs_20 IAMs_20 23 50 45.0
comp=Z,1µm,22.0s
PCBR Castelo Branco 115.55 322 *e*tx tx 22 56 36.2
SCHQ Schefferville 115.75 8 PKP **PKiKP 22 56 19.2 -1.5**
comp=Z,4.9nm,0.5s,baz=8.2,slow=1.6,SNR=16
SCHQ pPKP PKPdf 22 56 35.5 +15
comp=Z,6.5nm,0.6s,baz=178,slow=1.2,SNR=3.6
PMRV Marv??o 115.75 322 *e*PKPdf **PKiKP 22 56 19.3 -1.9**
PMRV *e*tx tx 22 56 36.4
PMRV *e*LR LR 23 36 24.8
PMRV IAMs_20 IAMs_20 23 50 25.6
comp=Z,999nm,24.0s
PSARD Sardoal 116.12 322 *e*tx tx 22 56 37.6
L34A Svendsen Farm, 116.20 34 IAMs_20 IAMs_20 23 44 40.1
comp=Z,1µm,21.0s
PESTR Estremoz 116.22 321 *e*tx tx 22 56 36.6
CBKS Cedar Bluff 116.23 39 IAMs_20 IAMs_20 23 38 28.4
comp=Z,2µm,20.0s
PBAR Barrancos 116.29 320 *e*PKPdf **PKPdf 22 56 21.4 -0.8**
PBAR *e*tx tx 22 56 37.0
PMTG Montargil 116.48 322 *e*tx tx 22 56 37.5
PARRA Arraiolos 116.52 321 *e*tx tx 22 56 37.3
PSBE So Bento 116.55 322 *e*tx tx 22 56 37.6
EVO Evora 116.68 321 *e*PKPdf **PKiKP 22 56 24.1 +1.1**
EVO *e*tx tx 22 56 38.3
MOE Montemor 116.90 321 *e*PKPdf **PKiKP 22 56 24.7 +1.3**
MOE *e*tx tx 22 56 38.0
PBEJ Beja 116.90 321 *e*tx tx 22 56 38.0
MSTX Muleshoe 117.01 45 IAMs_20 IAMs_20 23 37 42.6
comp=Z,2µm,21.0s
PVAQ Vaqueiros 117.18 320 *e*PKPdf **PKiKP 22 56 24.7 +0.8**
PVAQ *e*tx tx 22 56 38.6
PVAQ *e*LR LR 23 38 14.8
PVAQ IAMs_20 IAMs_20 23 51 07.4
comp=Z,2µm,22.0s
H06N1 SOCORRO T-PHAS 117.19 64 T T 01 04 57.0
SNR=9.4
MESJ Messejana 117.23 321 *e*PKPdf **PKiKP 22 56 25.4 +1.4**
MESJ *e*tx tx 22 56 40.2
PLOUS Minas do Lousa 117.24 321 *e*PKPdf **PKiKP 22 56 25.8 +1.8**
PLOUS *e*tx tx 22 56 39.0
PCVE Castro Verde 117.25 320 *e*tx tx 22 56 39.3
PBDV Barranco-do-Ve 117.41 320 *e*tx tx 22 56 40.2
PTEO Sao Teotonio 117.73 321 *e*tx tx 22 56 40.2
MD01 Midelt array s 117.77 314 **PKPdf 22 56 24.8 -0.6**
MORF Marmelete 117.83 320 *e*tx tx 22 56 41.7
N38A Joes South For 118.73 33 IAMs_20 IAMs_20 23 38 09.4
comp=Z,2µm,19.0s
TXAR Lajitas Array 118.78 50 PKP **PKiKP 22 56 27.4 0.0**
comp=Z,5.8nm,0.8s,baz=349,slow=1.3,SNR=35
TXAR pPKP **pPKPdf 22 56 41.8 -0.9**
comp=Z,19nm,0.9s,baz=238,slow=1.1,SNR=22
TXAR PKKPbc **PKKPbc 23 06 40.5 -2.9**
comp=Z,0.3nm,0.7s,baz=152,slow=5.5,SNR=5.2
TXAR Lajitas Array 118.78 50 **PKPdf 22 56 27.1 -0.3**
L40A Anamosa 118.90 31 IAMs_20 IAMs_20 23 45 05.4
comp=Z,1µm,18.0s
WMOK Wichita Mounta 119.29 42 IAMs_20 IAMs_20 23 50 59.4
comp=Z,1µm,20.0s
T35A Sooner Cattle 119.40 39 IAMs_20 IAMs_20 23 45 01.9
comp=Z,2µm,20.0s
OK029 Liberty Lake 119.51 40 IAMs_20 IAMs_20 23 39 49.3
comp=Z,2µm,22.0s
ABTX Abilene, Hawle 119.94 44 IAMs_20 IAMs_20 23 38 28.9
comp=Z,2µm,22.0s
N41A Harden Midland 120.07 32 IAMs_20 IAMs_20 23 42 24.5
comp=Z,1µm,19.0s
P40A Paris 120.27 34 IAMs_20 IAMs_20 23 42 57.0
comp=Z,2µm,21.0s
W35A Tecumseh 120.28 41 **PKPdf 22 56 29.5 -0.5**
TORD Torodi Ar. Bea 120.91 291 PKP **PKPdf 22 56 30.3 -1.4**
comp=Z,7.1nm,0.8s,baz=54,slow=2.0,SNR=33
TORD pPKP **pPKPdf 22 56 45.2 -1.7**
comp=Z,21nm,0.9s,baz=31,slow=1.7,SNR=18
TORD PP **PP 22 58 04.7 +3.8**
comp=Z,26nm,1.2s,baz=62,slow=6.4,SNR=6.0
TORD PKKPbc **PKKPab 23 06 36.9 +0.2**
comp=Z,2.1nm,0.7s,baz=300,slow=1.9,SNR=6.8
HDIL Hopedale 120.99 31 IAMs_20 IAMs_20 23 44 02.8
comp=Z,2µm,22.0s
U38A Gravette 121.02 38 IAMs_20 IAMs_20 23 46 18.5
comp=Z,2µm,20.0s
JCT Junction City 121.03 47 IAMs_20 IAMs_20 23 42 56.2
comp=Z,2µm,21.0s
P43A Skaggs, Pawnee 121.55 32 IAMs_20 IAMs_20 23 39 59.6
comp=Z,1µm,22.0s
WHTX Lake Whitney, 121.81 44 IAMs_20 IAMs_20 23 41 20.4
comp=Z,2µm,22.0s
P46A Rosedale 122.75 31 IAMs_20 IAMs_20 23 42 25.3
comp=Z,2µm,21.0s
N49A Columbus Grove 123.18 27 IAMs_20 IAMs_20 23 48 55.3
comp=Z,2µm,22.0s
M50A Fremont 123.30 26 IAMs_20 IAMs_20 23 49 17.3
comp=Z,1µm,19.0s
P48A Milroy 123.75 29 IAMs_20 IAMs_20 23 43 20.6
comp=Z,2µm,20.0s
M52A Chesterland 123.91 25 IAMs_20 IAMs_20 23 46 38.1
comp=Z,1µm,21.0s
HKT Hockley 124.14 45 IAMs_20 IAMs_20 23 44 57.0
comp=Z,1µm,19.0s
WCI Wyandotte Cave 124.27 31 PKIKP **PKPdf 22 56 37.1 -0.4**
WCI Wyandotte Cave 124.27 31 **PKPdf 22 56 37.1 -0.4**
T47A Sharon Grove 124.78 33 IAMs_20 IAMs_20 23 44 37.4
comp=Z,1µm,22.0s
WVT Waverly 125.03 34 PKIKP **PKPdf 22 56 38.6 -0.4**
WVT Waverly 125.03 34 **PKPdf 22 56 38.6 -0.4**
R50A Paris 125.20 29 IAMs_20 IAMs_20 23 44 49.1
comp=Z,1µm,21.0s
143A Socs Landing, 125.33 39 IAMs_20 IAMs_20 23 53 02.9
comp=Z,1µm,20.0s
Q52A Bidwell 125.63 27 IAMs_20 IAMs_20 23 46 58.1
comp=Z,1µm,19.0s
U49A Red Boiling Sp 125.84 32 IAMs_20 IAMs_20 23 45 44.3
comp=Z,1µm,22.0s
SSPA Standing Stone 126.06 23 **PKPdf 22 56 40.7 -0.2**
S51A Beattyville 126.07 29 IAMs_20 IAMs_20 23 55 15.9
comp=Z,1µm,19.0s
VBMS Vicksburg 126.21 39 IAMs_20 IAMs_20 23 53 16.2
comp=Z,1µm,20.0s
X48A Hartselle 126.69 35 IAMs_20 IAMs_20 23 49 58.3
comp=Z,1µm,22.0s
TZTN Tazewell 126.95 30 IAMs_20 IAMs_20 23 52 07.5
comp=Z,2µm,21.0s
S54A Dingess, Beckl 127.01 27 IAMs_20 IAMs_20 00 00 05.7
comp=Z,1µm,19.0s
W50A Signal Mountai 127.08 33 IAMs_20 IAMs_20 23 51 04.3
comp=Z,1µm,21.0s
M63A Gales Ferry 127.36 17 IAMs_20 IAMs_20 23 50 02.5
comp=Z,1µm,20.0s
Y49A Blount Mountai 127.48 35 IAMs_20 IAMs_20 23 42 27.2
comp=Z,1µm,22.0s
X51A Calhoun 127.81 33 IAMs_20 IAMs_20 23 57 01.5
comp=Z,1µm,21.0s
U54A Nelsons Funny 127.81 29 IAMs_20 IAMs_20 23 55 19.0
comp=Z,1µm,21.0s
W52A Murphy 127.89 32 IAMs_20 IAMs_20 23 57 31.5
comp=Z,1µm,21.0s
BLA Blacksburg 127.90 27 IAMs_20 IAMs_20 00 00 39.1
comp=Z,1µm,19.0s
V53A Saluda 128.01 30 IAMs_20 IAMs_20 23 52 37.4
comp=Z,2µm,22.0s
S57A Dark Hollow, R 128.08 25 IAMs_20 IAMs_20 00 00 51.7
comp=Z,1µm,20.0s
R58B Mineral 128.36 24 IAMs_20 IAMs_20 23 59 50.9
comp=Z,2µm,22.0s
U56A King 128.63 28 IAMs_20 IAMs_20 23 59 57.4
comp=Z,1µm,20.0s
V55A Taylorsville 128.64 29 IAMs_20 IAMs_20 23 56 17.9
comp=Z,1µm,21.0s
Y52A Lilburn 128.77 33 IAMs_20 IAMs_20 23 47 32.9
comp=Z,1µm,20.0s
DBIC Dimbokro 129.03 286 PKP **PKPdf 22 56 45.3 -1.9**
comp=Z,6.5nm,0.6s,baz=52,slow=2.6,SNR=9.4
DBIC Dimbokro 129.03 286 PKIKP **PKPdf 22 56 46.3 -1.0**
DBIC Dimbokro 129.03 286 **PKPdf 22 56 46.3 -1.0**
KMSC Kings Mountain 129.16 29 IAMs_20 IAMs_20 23 59 42.7
comp=Z,1µm,20.0s
152A Waverly Hall 129.31 34 IAMs_20 IAMs_20 23 49 27.6
comp=Z,1µm,21.0s
GOGA Godfrey 129.43 33 IAMs_20 IAMs_20 23 56 56.5
comp=Z,1µm,20.0s
V58A Windy Hill, Pi 129.66 27 IAMs_20 IAMs_20 00 01 58.7
comp=Z,1µm,20.0s
451A Vernon 130.24 37 IAMs_20 IAMs_20 23 44 54.4
comp=Z,2µm,22.0s
W59A Clinton 130.48 27 IAMs_20 IAMs_20 23 52 31.5
comp=Z,1µm,21.0s
Y57A Sumter 130.52 29 IAMs_20 IAMs_20 23 52 36.8
comp=Z,1µm,22.0s
X58A Rowland 130.58 28 IAMs_20 IAMs_20 23 54 06.3
comp=Z,1µm,20.0s
V61A Roper 130.76 25 IAMs_20 IAMs_20 23 57 51.4
comp=Z,1µm,21.0s
TIGA Tifton 130.87 34 IAMs_20 IAMs_20 23 49 36.8
comp=Z,2µm,22.0s
NHSC New Hope 131.36 30 IAMs_20 IAMs_20 23 50 26.1
comp=Z,1µm,21.0s
456A Hilliard 132.28 34 IAMs_20 IAMs_20 23 47 51.0
comp=Z,1µm,21.0s
USHA Ushuaia 132.50 168 PKP **PKiKP 22 56 53.4 -0.4**
comp=Z,20nm,0.6s,baz=75,slow=3.5,SNR=2.9
DWPF Disney Wildern 134.61 35 IAMs_20 IAMs_20 23 56 43.0
comp=Z,1µm,20.0s
TEIG Tepich 135.43 49 IAMs_20 IAMs_20 23 49 12.1
comp=Z,1µm,22.0s
060A Indiantown 136.04 35 IAMs_20 IAMs_20 00 09 33.9
comp=Z,935nm,20.0s
SOR Soroa 137.50 42 *e*P PKiKP 22 57 14.7 +10
TGUH Tegucigalpa,Un 139.70 56 IAMs_20 IAMs_20 23 46 59.4
comp=Z,1µm,22.0s
LCCY Blossom Villag 141.63 43 *e*P PKiKP 22 57 22.7 +9.3
CBCY The Bluff, Cay 141.80 42 *e*P PKiKP 22 57 25.2 +12
PILO Pilon 143.19 39 *e*P **PKiKP 22 57 16.2 -0.4**
LMGC Las Mercedes 143.32 39 *e*P **PKPdf 22 57 14.4 +0.9**
JTS Las Juntas de 143.58 59 PKP PKPbc 22 57 12.4 +0.8
comp=Z,13nm,0.7s,baz=249,slow=6.9,SNR=5.7
JTS pPKP pPKPdf 22 57 27.3 -2.2
comp=Z,80nm,1.0s,baz=338,slow=3.8,SNR=14
JTS Las Juntas de 143.58 59 PKIKP PKPbc 22 57 12.8 +1.2
JTS MLR MLR
comp=Z,900nm,21.0s
JTS Las Juntas de 143.58 59 PKPbc 22 57 12.8 +1.2
JTS Las Juntas de 143.58 59 IAMs_20 IAMs_20 23 50 52.7
comp=Z,917nm,21.0s
PINC Pinares de May 143.73 37 *e*P PKiKP 22 57 26.1 +8.5
CHIV Chivirico 143.75 38 *e*P PKiKP 22 57 26.0 +8.3
MOAC Moa 144.08 35 *e*P **PKiKP 22 57 25.8 +7.4**
SABCS La Quijada 144.11 36 *e*P PKiKP 22 57 27.5 +9.0
NMDO Nuevo Mundo 144.15 36 *e*P PKiKP 22 57 27.0 +8.4
MTDJ Mount Denham 144.34 41 *e*P **PKiKP 22 57 26.1 +7.0**
HDC Heredia 144.44 59 IAMs_20 IAMs_20 23 49 16.4
comp=Z,1µm,22.0s
HDC Heredia 144.44 59 *e*P **PKPdf 22 57 16.1 +0.2**
QMBU Quimbuelo 144.53 36 *e*P PKiKP 22 57 28.8 +9.5
GTBY Guantanamo Bay 144.57 36 *e*P PKiKP 22 57 28.8 +9.4
PLCA Paso Flores 144.73 158 PKP PKPbc 22 57 14.7 +0.2
comp=Z,38nm,0.9s,baz=227,slow=3.7,SNR=60
PLCA pPKP pPKPdf 22 57 28.6 -2.2
comp=Z,48nm,0.7s,baz=227,slow=4.2,SNR=14
PLCA Paso Flores 144.73 158 PKIKP **PKPdf 22 57 15.0 -0.5**
PLCA Paso Flores 144.73 158 PKPbc 22 57 15.0 +0.5
PLCA Paso Flores 144.73 158 *e*P **PKPab 22 57 14.0 -0.3**
SDDR Presa de Saban 147.46 32 IAMs_20 IAMs_20 00 10 18.9
comp=Z,1µm,22.0s
SDDR Presa de Saban 147.46 32 *e*P **PKPbc 22 57 22.3 -1.0**
SJG San Juan 150.64 25 IAMs_20 IAMs_20 00 09 14.2
comp=Z,858nm,21.0s
HUMP Col San Antoni 150.74 24 PKPdf **PKPdf 22 57 25.5 -0.5**
SABA Saba 152.19 20 IAMs_20 IAMs_20 00 16 31.4
comp=Z,885nm,21.0s
SEUS St. Eustatius 152.39 20 IAMs_20 IAMs_20 00 00 06.8
comp=Z,1µm,22.0s
CFA Coronel Fontan 153.47 151 PKP **PKPdf 22 57 29.2 -0.5**
comp=Z,1.9nm,0.7s,baz=223,slow=6.7,SNR=6.7
CFA PKPbc **PKPbc 22 57 36.7 -0.7**
comp=Z,17nm,0.5s,baz=255,slow=2.3,SNR=40
OTAV Otavalo 153.74 71 *e*P **PKPdf 22 57 28.4 -2.8**
ANCO Parque Anchore 154.23 172 *e*P **PKPdf 22 57 31.9 +1.2**
ROSC El Rosal 155.39 58 PKP **PKPdf 22 57 34.0 +0.7**
comp=Z,11nm,0.5s,baz=50,slow=3.3,SNR=4.2
ROSC pPKP **pPKPdf 22 57 48.8 +0.1**
comp=Z,70nm,0.9s,baz=39,slow=5.3,SNR=9.8
ATAH Atahualpa 155.44 88 PKP **PKPdf 22 57 33.4 -0.1**
comp=Z,11nm,0.8s,baz=100,slow=12,SNR=1.8
ATAH pPKP **pPKPdf 22 57 49.3 +0.6**
comp=Z,42nm,0.9s,baz=166,slow=0.5,SNR=7.4
SVN Savane Anatole 155.46 18 IAMs_20 IAMs_20 00 17 21.8
comp=Z,1µm,22.0s
FDFM Morne la Roset 155.56 18 IAMs_20 IAMs_20 00 04 47.9
comp=Z,1µm,22.0s
SDV Santo Domingo 155.68 45 PKP **PKPdf 22 57 33.9 +0.4**
comp=Z,8.4nm,0.4s,baz=301,slow=2.0,SNR=5.5
NNA Nana 156.95 100 PKP **PKPdf 22 57 35.2 +0.3**
comp=Z,8.6nm,0.6s,baz=346,slow=5.2,SNR=3.6
NNA Nana 156.95 100 **PKPdf 22 57 33.4 -1.5**
PSAL Palomas, Salto 157.42 171 *e*P **PKPdf 22 57 37.1 +2.1**
GRGR Grenville 157.83 21 IAMs_20 IAMs_20 00 19 32.1
comp=Z,839nm,21.0s
CPSB Cacapava Do Su 158.40 180 *e*P **PKPdf 22 57 36.1 -0.1**
ITQB Itaqui 158.94 173 *e*P **PKPdf 22 57 37.3 +0.4**
CNLB Canela 159.32 187 *e*P **PKPdf 22 57 37.3 -0.2**
CZSB Cruzeiro do Su 161.11 88 *e*P **PKPdf 22 57 40.3 +0.5**
CPUP Villa Florida 162.11 169 PKP **PKPdf 22 57 40.6 +0.2**
comp=Z,3.5nm,0.8s,baz=201,slow=4.0,SNR=7.2
CPUP pPKP **pPKPdf 22 57 55.9 +0.2**
comp=Z,27nm,1.1s,baz=73,slow=0.2,SNR=27
CPUP PKPab **PKPab 22 58 28.9 +2.0**
comp=Z,21nm,1.0s,baz=169,slow=4.7,SNR=5.8
CPUP Villa Florida 162.11 169 PKIKP **PKPdf 22 57 40.8 +0.4**
CPUP Villa Florida 162.11 169 PKPdf **PKPdf 22 57 40.8 +0.4**
CPUP pPKPab **pPKPab 22 58 40.2 -1.6**
CPUP Villa Florida 162.11 169 *e*P **PKPdf 22 57 40.9 +0.5**
RCBR Riachuelo 162.17 278 *e*P **PKPdf 22 57 42.4 +1.4**
CAM01 Campos-RJ 162.57 220 *e*P **PKPdf 22 57 41.0 -0.1**
VAS01 Vassouras-RJ 163.31 215 *e*P **PKPdf 22 57 43.1 +1.3**
NBPA Parau_RN 163.34 279 *e*P **PKPdf 22 57 43.1 +1.1**
PET01 Itanhaem-SP 163.34 201 *e*P **PKPdf 22 57 42.3 +0.6**
RIB01 Linhares ES 163.38 229 *e*P **PKPdf 22 57 41.8 -0.1**
PARB Paraibuna 163.53 207 *e*P **PKPdf 22 57 48.0 +5.9**
SJPY San Joaquin 163.62 172 *e*P **PKPdf 22 57 44.3 +2.3**
LPAZ La Paz 163.98 120 PKP **PKPdf 22 57 43.2 0.0**
comp=Z,12nm,0.8s,baz=270,slow=1.7,SNR=24
LPAZ pPKP **pPKPdf 22 57 58.4 -0.2**
comp=Z,67nm,0.9s,baz=31,slow=1.9,SNR=29
LPAZ La Paz 163.98 120 **PKPdf 22 57 41.1 -2.2**
LPAZ La Paz 163.98 120 *e*P **PKPdf 22 57 43.1 -0.2**
PTGB Pitanga 164.00 185 *e*P **PKPdf 22 57 42.6 +0.1**
BSFB Barra de Sao F 164.01 230 *e*P **PKPdf 22 57 41.8 -0.7**
SJMB Sao Joao De Ma 164.34 229 *e*P **PKPdf 22 57 43.2 +0.4**
GUA01 Guaratinga, BA 164.39 238 *e*P **PKPdf 22 57 43.8 +0.9**
VAO Valinhos 164.40 203 *e*P **PKPdf 22 57 43.7 +0.9**
CMC01 Camacan, BA 164.68 243 *e*P **PKPdf 22 57 44.1 +1.0**
LDASE Londrina, Braz 165.18 189 *e*P **PKPdf 22 57 44.0 +0.6**
NBMA Muriti-CE 165.20 274 *e*P **PKPdf 22 57 44.0 +0.2**
ARCA Araçuai, MG 166.02 233 *e*P **PKPdf 22 57 43.0 -1.3**
MDP Montagnes des 166.26 356 PKP **PKPdf 22 57 44.9 +0.3**
comp=Z,12nm,1.0s,baz=313,slow=2.6,SNR=3.9
MDP pPKP **pPKPdf 22 57 59.8 0.0**
comp=Z,58nm,1.2s,baz=16,slow=2.1,SNR=7.8
DIAM Diamantina, MG 166.40 224 *e*P **PKPdf 22 57 44.2 -0.5**
CANS Sao Roque de M 166.51 211 *e*P **PKPdf 22 57 45.3 +0.6**
MURT Porto Murtinho 166.56 164 *e*P **PKPdf 22 57 43.9 -0.7**
BB19B Bebedouro 166.75 201 *e*P **PKPdf 22 57 47.6 +2.8**
PCMB Pacaembu 166.96 190 *e*P **PKPdf 22 57 44.6 -0.3**
BOAV Boa Vista 167.03 32 *e*P **PKPdf 22 57 45.3 +0.1**
NBPS Pedro II - PI 167.15 289 *e*P **PKPdf 22 57 45.1 -0.3**
PMNB Patos De Minas 167.97 215 *e*P **PKPdf 22 57 45.0 -0.7**
AQDB Aquidauana 168.12 171 *e*P **PKPdf 22 57 46.8 +1.1**
COIM Forte Coimbra 168.15 161 *e*P **PKPdf 22 57 45.6 -0.2**
BBSD Serra de San D 169.17 142 *e*P **PKPdf 22 57 46.0 -0.5**
IPMB Ipameri, GO 169.36 209 *e*P **PKPdf 22 57 47.6 +1.0**
SIV San Ignacio 169.75 136 PKP **PKPdf 22 57 47.3 +0.5**
comp=Z,7.0nm,0.9s,baz=154,slow=0.7,SNR=27
SIV pPKP **pPKPdf 22 58 01.6 -0.5**
comp=Z,66nm,1.0s,baz=259,slow=2.9,SNR=42
C2SB Chapadao do Su 169.95 184 *e*P **PKPdf 22 57 49.3 +2.4**
SDBA SAO DESIDERIO 170.65 246 *e*P **PKPdf 22 57 46.0 -1.5**
PP1B Ponte de Pedra 171.07 172 *e*P **PKPdf 22 57 46.4 -1.2**
BDFB Brasilia 171.17 218 PKP **PKPdf 22 57 48.0 +0.2**
comp=Z,5.5nm,0.9s,baz=309,slow=3.6,SNR=6.1
BDFB pPKP **pPKPdf 22 58 02.0 -1.0**
comp=Z,34nm,1.0s,baz=57,slow=2.4,SNR=17
BDFB PKPab **PKPab 22 59 06.5 -0.8**
comp=Z,12nm,1.0s,baz=127,slow=4.3,SNR=4.2
BDFB pPKPab **pPKPab 22 59 22.4 +0.2**
comp=Z,45nm,1.1s,baz=65,slow=3.7,SNR=8.2
BDFB Brasilia 171.17 218 **PKPdf 22 57 46.8 -1.0**
BDFB **PKPab 22 59 06.0 -1.3**
PTLB Pontes e Lacer 171.41 142 *e*P **PKPdf 22 57 48.0 +0.3**
VILB Vilhena 172.30 124 *e*P **PKPdf 22 57 49.3 +1.1**
SALV Santo Antonio 172.56 165 *e*P **PKPdf 22 57 48.5 +0.2**
ARAG Araguaiana, MT 172.80 194 *e*P **PKPdf 22 57 48.8 +0.4**
SMTB Santa Maria do 174.01 268 *e*P **PKPdf 22 57 48.8 -0.1**
ITTB Itaituba 175.23 26 *e*P **PKPdf 22 57 49.2 -0.1**
PDRB Porto dos Gac 175.80 134 *e*P **PKPdf 22 57 48.6 -0.8**
SNDB Serra Nova Dou 176.00 215 *e*P **PKPdf 22 57 49.1 -0.3**
CLDB Colider 176.97 136 *e*P **PKPdf 22 57 49.6 -0.1**
NPGB Novo Progresso 177.64 46 *e*P **PKPdf 22 57 49.6 -0.3**

IDC ***15*** *22:49:06.8±0.9, 13°.28N×124°.39E, h0km, mb4.1/9, mbtmp4.1/9, Error ellipse: s-maj=40.8km s-min=15.8km az=72.0*
NEIC ***15*** *22:49:09.7±0.8, 13°.3N±0°.1×124°.4E±0°.2, h16km±6km, mb4.4/21, Error ellipse: s-maj=23.8km s-min=13.7km az=68.0*
MAN ***15*** *22:49:10.0, 13°.61N×124°.60E, h31km, MS4.3*
ISC 15 22:49:11.8±0.6, 13°.52N±0°.05×124°.55E±0°.07, h35km, n50,
σ1.992/50, mb4.3/20, Luzon

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
MMPH	**Masbate**	**1.47**	**218**	*e*P		**Pn**	**22 49 37.2**	**+1.5**
MMPH				*i* S		**Sn**	**22 49 56.1**	**+2.4**

GQP	**Guinayangan**	**2.08**	**281**	*e*P	**Pn**	**22 49 44.0**	**-0.2**
GQP				*i* S	**Sn**	**22 50 08.6**	**-0.3**
PLP	**Palo**	**2.38**	**170**	*e*P	**Pn**	**22 49 50.3**	**+2.0**
PLP				*e*S	**Sn**	**22 50 18.7**	**+2.4**
LLP	**Lapu-Lapu**	**3.23**	**190**	*e*P	**Pn**	**22 50 01.6**	**+1.5**
LLP				*e*S	**Sn**	**22 50 39.9**	**+2.5**
TGY	**Tagaytay City**	**3.56**	**280**	*e*P	**Pn**	**22 50 06.2**	**+1.6**
PCPS	**Palayan City**	**3.57**	**289**	*e*P	**Pn**	**22 50 06.8**	**+2.1**
PCPS				*e*S	**Sn**	**22 50 50.3**	**+4.6**
SNPH	**Sibulan**	**4.35**	**197**	*e*P	**Pn**	**22 50 17.3**	**+1.9**
SNPH				*e*S	**Sn**	**22 51 08.6**	**+3.6**
SZP	**Santa**	**5.62**	**316**	Pn	**Pn**	**22 50 31.6**	**-1.4**
KSRS	**Korea Array**	**24.02**	**7**	P	**P**	**22 54 24.5**	**+1.1**
	1.2nm,0.6s,baz=186,slow=11,SNR=4.6						
	1.2nm,0.6s						
JGF	**Kuroka**	**24.83**	**25**	P	**P**	**22 54 33.1**	**+2.2**
JGF				IAmb	IAmb	22 54 42.0	
	comp=Z,7.8nm,1.0s						
CMAR	**Chiang Mai Arr**	**25.09**	**285**	P	**P**	**22 54 32.6**	**-0.7**
	comp=Z,0.9nm,0.3s,baz=92,slow=6.9,SNR=4.5						
	comp=Z,0.9nm,0.3s						
CMAR	**Chiang Mai Arr**	**25.09**	**285**	P	**P**	**22 54 33.3**	**-0.1**
BKNI	**Bangkinang**	**26.72**	**243**	P	**P**	**22 54 46.9**	**-1.3**
MTN	**Manton Dam**	**26.99**	**166**	P	**P**	**22 54 48.9**	**-1.6**
MTN				IAmb	IAmb	22 54 58.1	
	comp=Z,3.2nm,0.6s						
KNRA	**Kununurra**	**29.31**	**172**	P	**P**	**22 55 09.1**	**-2.1**
KNRA				IAmb	IAmb	22 55 09.8	
	comp=Z,5.3nm,1.1s						
USRK	**Ussuriysk Ar.**	**31.23**	**10**	P	**P**	**22 55 30.7**	**+2.8**
	comp=Z,1.7nm,0.7s,baz=187,slow=8.3,SNR=2.7						
	comp=Z,1.7nm,0.7s						
USRK	**Ussuriysk Ar.**	**31.23**	**10**	P	**P**	**22 55 30.2**	**+2.2**
FITZ	**Fitzroy Crossi**	**31.44**	**178**	P	**P**	**22 55 26.8**	**-3.1**
WB0	**Warramunga Arr**	**34.47**	**163**	P	**P**	**22 55 54.5**	**-1.9**
WB0				IAmb	IAmb	22 56 04.2	
	comp=Z,7.5nm,0.8s						
WRA	**Warramunga Arr**	**34.62**	**164**	P	**P**	**22 55 56.1**	**-1.7**
	comp=Z,4.5nm,0.9s,baz=345,slow=7.9,SNR=17						
	comp=Z,4.5nm,0.9s						
WRA	**Warramunga Arr**	**34.62**	**164**	P	**P**	**22 55 56.2**	**-1.7**
WR8	**Warramunga Arr**	**34.68**	**163**	P	**P**	**22 55 56.1**	**-2.2**
ULN	**Ulaanbaatar**	**37.22**	**340**	P	**P**	**22 56 20.8**	**+0.9**
SONM	**Songino Array**	**37.41**	**340**	P	**P**	**22 56 24.3**	**+2.8**
	comp=Z,1.2nm,0.9s,baz=154,slow=6.1,SNR=5.1						
	comp=Z,1.2nm,0.9s						
SONM	**Songino Array**	**37.41**	**340**	P	**P**	**22 56 22.5**	**+1.0**
EVN	**Everest**	**37.93**	**298**	P	**P**	**22 56 25.9**	**-0.9**
EVN				IAmb	IAmb	22 56 33.9	
	comp=Z,4.3nm,1.0s						
AS31	**Alice Springs**	**38.07**	**166**	P	**P**	**22 56 26.5**	**-0.8**
ASAR	**Alice Springs**	**38.07**	**166**	P	**P**	**22 56 25.7**	**-1.6**
	comp=Z,9.0nm,0.4s,baz=343,slow=7.0,SNR=72						
	comp=Z,9.0nm,0.4s						
ASAR	**Alice Springs**	**38.07**	**166**	P	**P**	**22 56 25.6**	**-1.7**
CTAO	**Charters Tower**	**39.64**	**147**	P	**P**	**22 56 40.5**	**+0.1**
CTAO				IAmb	IAmb	22 56 50.6	
	comp=Z,6.0nm,1.1s						
H11S3	**WAKE ISLAND Hy**	**40.74**	**77**	T	T	23 40 17.4	
	baz=269,slow=75,SNR=26						
H11S1	**WAKE ISLAND Hy**	**40.75**	**77**	T	T	23 40 17.8	
	baz=269,slow=75,SNR=25						
H11S2	**WAKE ISLAND Hy**	**40.75**	**77**	T	T	23 40 18.6	
	baz=269,slow=75,SNR=29						
H11N1	**WAKE ISLAND Hy**	**40.96**	**75**	T	T	23 40 34.9	
	baz=268,slow=74,SNR=33						
H11N2	**WAKE ISLAND Hy**	**40.96**	**75**	T	T	23 40 34.8	
	baz=268,slow=74,SNR=25						
H11N3	**WAKE ISLAND Hy**	**40.97**	**75**	T	T	23 40 36.4	
	baz=268,slow=74,SNR=30						
MORW	**Morawa**	**43.13**	**191**	P	**P**	**22 57 06.4**	**-2.5**
INKA	**Innaminka**	**43.92**	**159**	P	**P**	**22 57 14.3**	**-1.0**
INKA				IAmb	IAmb	22 57 15.8	
	comp=Z,8.2nm,0.8s						
FORT	**Forrest**	**44.17**	**176**		**P**	**22 57 15.1**	**-2.2**
FORT				IAmb	IAmb	22 57 19.9	
	comp=Z,15nm,1.1s						
NWAO	**Narrogin (SRO)**	**46.71**	**188**	P	**P**	**22 57 34.5**	**-2.8**
NWAO				IAmb	IAmb	22 57 41.9	
	comp=Z,11nm,1.1s						
BBOO	**Buckleboo**	**47.36**	**167**	P	**P**	**22 57 41.2**	**-1.3**
STKA	**Stephens Creek**	**48.01**	**160**	P	**P**	**22 57 46.3**	**-1.2**
	comp=Z,4.2nm,0.7s,baz=329,slow=13,SNR=3.3						
	comp=Z,4.2nm,0.7s						
STKA	**Stephens Creek**	**48.01**	**160**	P	**P**	**22 57 46.3**	**-1.2**
MKAR	**Makanchi Array**	**48.44**	**322**	P	**P**	**22 57 51.1**	**+0.3**
ZALV	**Zalesovo Beam**	**50.98**	**331**	P	**P**	**22 58 12.3**	**+2.3**
	comp=Z,0.4nm,0.4s,baz=114,slow=6.6,SNR=1.8						
	comp=Z,0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**50.98**	**331**	P	**P**	**22 58 11.4**	**+1.4**
KURK	**Kurchatov**	**52.45**	**325**	P	**P**	**22 58 21.3**	**+0.3**
KURK				IAmb	IAmb	22 58 23.9	
	comp=Z,7.3nm,0.9s						
KURBB	**Kurchatov Arra**	**52.46**	**325**	P	**P**	**22 58 20.4**	**-0.6**
	comp=Z,2.5nm,0.6s,baz=122,slow=7.7,SNR=9.4						
	comp=Z,2.5nm,0.6s						
AB31	**Akbulak array**	**63.34**	**319**	P	**P**	**22 59 37.6**	**+0.3**
AB31				IAmb	IAmb	22 59 49.5	
	comp=Z,2.6nm,0.9s						
ABKAR	**Akbulak array**	**63.34**	**319**	P	**P**	**22 59 37.5**	**+0.2**

PRU 15 22:50:02.8, 51.39N×16.13E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHVC	**Chvalec**	**0.80**	**183**	*e*SG	Sg	22 50 27.9	-0.7
OSTC	**Ostas**	**0.84**	**176**	*e*PG	Pg	22 50 17.6	-1.2
OSTC				*e*SG	Sg	22 50 29.9	+0.3
UPC	**Upice**	**0.89**	**185**	*e*PG	Pg	22 50 18.7	-1.1
UPC				*e*SG	Sg	22 50 30.6	-0.6
DPC	**Dobruska-Polom**	**1.05**	**173**	*e*PG	Pg	22 50 21.6	-1.3
DPC				*e*SG	Sg	22 50 36.2	-0.2
PVCC	**Panska Ves**	**1.31**	**229**	*e*SG	Sg	22 50 44.5	-0.4
KRLC	**Kraliky**	**1.38**	**162**	*e*SG	Sg	22 50 46.5	-0.6

*IGQ **15** 22:52:44.1±0.1,2°S±1°×7°9W±°, h5km, M4.1/24, Mjma4.2/24, MLv4.1/24, Ms(BB)4.0/4*
*RSNC **15** 22:52:45.3±0.6,2°S±5°×8°0W±°, h123km±9km, M4.2, mB4.8, mb4.2, ML3.5, Mw(mB)4.0*

ISC 15 22:52:42.4±1.3, 2°29S±0.02×79°22W±0.03, h0km±14km, n89, σ1s08/101, 25C-10D, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABAB	**Ecuador-Univer**	**0.56**	**329**	⇓P	**Pb**	**22 52 56.0**	**+0.8**
ABAB				S	**Sb**	**22 53 04.7**	**+1.0**
AZOG	**Ecuador-Azogue**	**0.59**	**141**	⇓P	**Pg**	**22 52 53.9**	**+0.1**
AZOG				S	**Sg**	**22 53 00.4**	**-1.1**
JSCH	**Cashca Tororas**	**0.62**	**23**	⇑P	**Pb**	**22 52 55.7**	**-0.5**
JSCH				S	**Sg**	**22 53 03.2**	**+1.0**
ACUE	**Ecuador-Cuenca**	**0.67**	**157**	⇑P	**Pb**	**22 52 57.3**	**+0.1**
ACUE				S	**Sg**	**22 53 05.0**	**+1.0**
AGRD	**Ecuador-Guaran**	**0.74**	**17**	P	**Pb**	**22 52 57.9**	**-0.5**
AGRD				S	**Sb**	**22 53 07.9**	**-1.4**
AGUAY	**Guayaquil**	**0.77**	**288**	P	**Pn**	**22 52 59.3**	**-1.1**
AC07	**Ecuador-Guayaq**	**0.77**	**280**	⇓P	**Pn**	**22 52 59.8**	**-0.8**
TAMH	**Tambohuasha Ch**	**0.86**	**31**	⇑P	**Pb**	**22 53 00.6**	**+0.1**
TAMH				S	**Sb**	**22 53 11.8**	**-1.0**
CHSH	**Refugio Sur-Vo**	**0.86**	**24**	⇑P	**Pb**	**22 53 00.2**	**-0.4**
SANGA	**Volcan Sangay**	**0.88**	**75**	⇑P	**Pg**	**22 52 59.4**	**+0.1**
SANGA				S	**Sg**	**22 53 10.3**	**-0.4**
PORT	**Chimborazo Vol**	**0.93**	**29**	⇑P	**Pb**	**22 53 01.9**	**+0.1**
IGUA	**Igualata**	**0.98**	**36**	⇑P	**Pg**	**22 53 01.8**	**+0.5**
ARRY	**Arrayan**	**1.09**	**45**	⇑P	**Pg**	**22 53 03.1**	**-0.2**
BIL2	**Estacion Bilba**	**1.09**	**41**	P	**Pb**	**22 53 04.0**	**-0.4**
BPAT	**Tungurahua Vol**	**1.11**	**45**	⇑P	**Pg**	**22 53 03.7**	**+0.1**
BBIL	**Ulba Tunguruhu**	**1.11**	**41**	P	**Pg**	**22 53 03.8**	**+0.2**
BOSC	**San Juan Bosco**	**1.12**	**140**	⇓P	**Pg**	**22 53 05.4**	**-0.1**
JUI6	**Juive**	**1.14**	**41**	⇑P	**Pg**	**22 53 04.4**	**+0.1**
ISPG	**Isla Puna-Puer**	**1.16**	**234**	⇓P	**Pn**	**22 53 07.5**	**+1.5**
MORR	**Playas El Morr**	**1.17**	**253**	⇑P	**Pn**	**22 53 06.7**	**+0.7**
PUYO	**Puyo, Santa Ro**	**1.43**	**57**	⇑P	**Pg**	**22 53 10.4**	**+0.5**
PIS1	**Pisayambo**	**1.48**	**34**	⇑P	**Pb**	**22 53 10.7**	**-0.4**
PIAT	**Ana Tenorio**	**1.60**	**37**	⇑P	**Pb**	**22 53 13.0**	**0.0**
PIAT	**Ana Tenorio**	**1.60**	**37**	P	**Pn**	**22 53 12.1**	**-0.2**
PIAT				S	**Sb**	**22 53 33.2**	**-0.8**
JIPI	**JIPIJAPA**	**1.62**	**304**	⇓P	**Pn**	**22 53 11.7**	**-0.6**
ILLI	**Illinizas Sur**	**1.64**	**17**	⇑P	**Pg**	**22 53 14.2**	**+0.4**
SRAM	**San Ramn-Vol**	**1.66**	**23**	⇑P	**Pg**	**22 53 14.7**	**+0.4**
BRRN	**Barrancas-Volc**	**1.67**	**26**	⇑P	**Pg**	**22 53 14.5**	**+0.1**
VCES	**Cotopaxi**	**1.69**	**29**	⇑P	**Pb**	**22 53 14.8**	**0.0**
SLOR	**San Lorenzo -**	**1.71**	**25**	⇑P	**Pg**	**22 53 15.4**	**+0.2**
PPLP	**Puerto Lpez**	**1.72**	**295**	⇓P	**Pn**	**22 53 12.4**	**-1.2**
PPLP	**Puerto Lpez**	**1.72**	**295**	P	**Pn**	**22 53 12.4**	**-1.2**
PPLP				S	**Sg**	**22 53 38.7**	**+1.0**
TAIS	**Taisha**	**1.72**	**93**	⇑P	**Pb**	**22 53 14.7**	**-0.3**
BMOR	**Cotopaxi Volca**	**1.72**	**26**	⇑P	**Pg**	**22 53 15.6**	**+0.1**
PKYU	**Pakayacu**	**1.75**	**69**	⇑P	**Pb**	**22 53 15.4**	**+0.1**
SALI	**Salinas**	**1.77**	**273**	P	**Pb**	**22 53 15.1**	**-0.6**
SUCR	**Mariscal Sucre**	**1.79**	**24**	⇑P	**Pg**	**22 53 17.1**	**+0.3**
NAS2	**Nasa**	**1.80**	**25**	⇓P	**Pg**	**22 53 17.2**	**+0.4**
ARDO	**Archidona, Ten**	**1.91**	**48**	⇑P	**Pb**	**22 53 17.8**	**-0.4**
GONZ	**Gonzanam**	**1.94**	**185**	P	**Pg**	**22 53 19.8**	**+0.1**
ANTM	**Antisana-La Mi**	**2.01**	**30**	P	**Pb**	**22 53 20.1**	**0.0**
ASDO	**Santo Domingo**	**2.01**	**3**	P	**Pb**	**22 53 19.2**	**-0.7**
FLF1	**Flavio Alfaro-**	**2.02**	**342**	P	**Pb**	**22 53 18.1**	**+0.4**
FLF1	**Flavio Alfaro-**	**2.02**	**342**	P	**Pn**	**22 53 18.0**	**+0.3**
FLF1				S	**Sb**	**22 53 44.1**	**-1.5**
ANTG	**Antisana-Guama**	**2.02**	**29**	⇑P	**Pb**	**22 53 20.4**	**+0.1**
ANTS	**Antisana-Sarah**	**2.06**	**31**	P	**Pg**	**22 53 21.6**	**-0.4**
ISPT	**Isla de la Pla**	**2.11**	**299**	P	**Pn**	**22 53 19.6**	**+0.5**
ZALD	**Colegio Gonzal**	**2.12**	**19**	P	**Pg**	**22 53 26.3**	**+3.2**
GGPT	**Toaza - Volcan**	**2.14**	**16**	⇓P	**Pg**	**22 53 23.5**	**+0.1**
TING	**Casa Alexandra**	**2.14**	**21**	P	**Pg**	**22 53 23.9**	**+0.5**
JUA2	**San Juan 2**	**2.15**	**17**	P	**Pg**	**22 53 23.8**	**+0.2**
CIVI	**Edificio de In**	**2.19**	**19**	P	**Pg**	**22 53 24.9**	**+0.5**
TERV	**Terraza Guagua**	**2.19**	**16**	P	**Pg**	**22 53 24.3**	**0.0**
FENY	**Casa Vinicio C**	**2.25**	**19**	P	**Pg**	**22 53 25.8**	**+0.3**
YANA	**Yana**	**2.25**	**17**	P	**Pb**	**22 53 24.7**	**+0.5**
PUEM	**Granja Avicola**	**2.30**	**22**	P	**Pg**	**22 53 26.5**	**0.0**
PULU	**Pululahua**	**2.40**	**17**	P	**Pb**	**22 53 27.4**	**+0.6**
ZUMB	**Zumba**	**2.56**	**178**	P	**Pb**	**22 53 29.5**	**+0.2**
PAC1	**Pacto, Paraso**	**2.57**	**10**	P	**Pb**	**22 53 29.3**	**-0.2**
PAC1	**Pacto, Paraso**	**2.57**	**10**	P	**Pb**	**22 53 28.0**	**+1.5**
PAC1				S	**Sb**	**22 54 02.8**	**+1.0**
CAYR	**Refugio Cayamb**	**2.59**	**28**	P	**Pg**	**22 53 31.4**	**-0.7**
ANGU	**Angureal**	**2.62**	**28**	P	**Pb**	**22 53 31.0**	**+0.5**
OTAV	**Otavalo**	**2.62**	**17**	P	**Pb**	**22 53 30.2**	**-0.4**
OTAV				S	**Sg**	**22 54 06.9**	**+0.1**
REVS	**Reventador Sur**	**2.69**	**36**	P	**Pb**	**22 53 30.7**	**-0.9**
LAV4	**Lava4-Reventad**	**2.70**	**36**	P	**Pb**	**22 53 32.6**	**+0.8**
CUSE	**Cuicocha Este**	**2.70**	**18**	P	**Pg**	**22 53 33.1**	**-1.2**
CUSE				S	**Sg**	**22 54 10.1**	**+0.7**
CUIC	**Cuicocha-Domo**	**2.71**	**18**	P	**Pb**	**22 53 32.2**	**+0.1**
REVN	**San Rafael**	**2.72**	**36**	P	**Pb**	**22 53 31.5**	**-0.6**
IMBA	**Imbabura, San**	**2.74**	**22**	P	**Pb**	**22 53 33.3**	**+0.7**
COTA	**Cotacachi**	**2.75**	**19**	P	**Pb**	**22 53 32.9**	**+0.2**
URCU	**Urcuqui**	**2.88**	**20**	P	**Pb**	**22 53 34.3**	**-0.5**
CASC	**Dorado de Casc**	**3.06**	**38**	⇓P	**Pb**	**22 53 38.2**	**+0.4**
CASC	**Dorado de Casc**	**3.06**	**38**	P	**Pb**	**22 53 38.0**	**+0.3**
CASC				S	**Sg**	**22 54 19.1**	**-1.6**
LNGL	**El Angel-Carch**	**3.25**	**22**	P	**Pb**	**22 53 42.1**	**+0.9**
TULM	**Tulcn-Chalpat**	**3.31**	**26**	P	**Pb**	**22 53 43.4**	**+1.1**
CHL1	**Volcn Chiles**	**3.31**	**23**	P	**Pb**	**22 53 40.7**	**-1.7**
ECEN	**Cerro Negro**	**3.33**	**22**	P	**Pb**	**22 53 40.9**	**-1.8**
CHMA	**Chilma**	**3.34**	**20**	P	**Pb**	**22 53 42.0**	**-0.6**
CRUC	**La Cruz**	**4.45**	**31**	P	**Pg**	**22 54 07.2**	**-0.6**
BBAC	**Balboa, Cauca**	**4.71**	**25**	P	**Pn**	**22 53 59.1**	**+4.1**
	48nm,0.6s						
BBAC				S	**Sb**	**22 55 00.3**	**-3.2**
	48nm,0.6s						
BBAC				AML	AML		
PTLC	**Puerto Leguiza**	**5.05**	**61**	P	**Pn**	**22 53 58.6**	**-0.9**
PTLC				S	**Sb**	**22 55 12.4**	**-0.7**
POPC	**Popayan, Colom**	**5.43**	**28**	P	Pn	22 54 09.2	+4.4
	9.3nm,0.5s						
POPC				AML	AML		
JAMC	**Jamundi, Valle**	**6.03**	**25**	P	Pn	22 54 17.8	+4.7
	32nm,0.9s						
BETC	**Betania**	**6.22**	**37**	P	**Pg**	**22 54 39.6**	**-2.0**
YOTC	**Yotoco, Valle**	**6.86**	**25**	P	**Pn**	**22 54 27.4**	**+3.0**
	8.5nm,1.0s						
MACC	**Macarena, Meta**	**6.95**	**51**	P	**Pn**	**22 54 26.9**	**+1.4**
	2µm75nm,0.8s						
URMC	**La Uribe, Meta**	**7.33**	**41**	P	**Pn**	**22 54 34.4**	**+3.6**
	41nm,1.2s						
ORTC	**Ortega, Tolima**	**7.33**	**33**	P	Pn	22 54 35.2	+4.4
	25nm,1.1s						
PRAC	**Prado**	**7.37**	**36**	P	Pn	22 54 37.9	+6.5
	23nm,1.3s						

*IDC **15** 23:17:23.1±0.9, 44°28N×115°24W, h0km, mbtmp3.4/6, ML3.5/5, Error ellipse: s-maj=15.3km s-min=9.0km az=81.0*
*NEIC **15** 23:17:24.0±2.6, 44°31N±0°02×115°05W±0°03, h10km±2km, ML3.6/126, ML4.1/31(BUT), Error ellipse: s-maj=3.2km s-min=3.0km az=197.0*
*BUT **15** 23:17:24.4±2.5, 44°33N±0°02×115°03W±0°02, h8km±5km, Error ellipse: s-maj=2.5km s-min=2.0km az=132.0*

ISC 15 23:17:24.0±1.2, 44°31N±0°03×115°04W±0°02, h4km±11km, n71, σ1s01/63, Western Idaho

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.88**	**149**		**Pg**	**23 17 41.0**	**+0.2**
HLID				Sg	**Sg**	**23 17 52.5**	**+0.3**
HLID				IAML		23 17 58.5	
	2µm,0.3s						
PLID	**Pearl Lake**	**1.03**	**319**		**Pg**	**23 17 43.8**	**-0.1**
PLID				Sg	**Sg**	**23 17 57.2**	**-0.1**
MFID	**Camas Ranch**	**1.06**	**213**		**Pb**	**23 17 44.8**	**-0.2**
MFID				Sg	**Sn**	**23 17 59.8**	**-1.3**
BCYI	**Bear Canyon**	**1.17**	**90**		**Pg**	**23 17 46.1**	**-0.4**
BCYI				Sg	**Sg**	**23 18 02.1**	**+0.4**
ICI	**Italian Canyon**	**1.51**	**89**		**Pb**	**23 17 52.2**	**-0.5**
ICI					**Sg**	**23 18 12.6**	**+0.2**
MCMT	**McKenzie Canyo**	**1.65**	**71**		**Pn**	**23 17 53.8**	**-0.2**
BMO	**Blue Mountains**	**1.71**	**289**		**Pn**	**23 17 54.3**	**-0.3**
BMO					**Sb**	**23 18 17.2**	**-0.6**
BMO				IAML		23 18 19.0	
	399nm,0.3s						
MOMT	**Monida**	**1.92**	**81**		**Pb**	**23 17 58.4**	**-1.3**
DLMT	**Dillon**	**2.03**	**58**		**Pb**	**23 18 02.0**	**+0.4**
DLMT				Sg	**Sg**	**23 18 28.3**	**-1.0**
VCMT	**Victor**	**2.21**	**15**		**Pn**	**23 18 01.4**	**-0.3**
F10A	**Beach Ranch, E**	**2.27**	**318**		**Pn**	**23 18 03.1**	**+0.7**
F10A				Sg	**Sb**	**23 18 35.1**	**+1.1**
F10A				IAML		23 18 43.3	
	comp=E,436nm,0.3s						
F10A				IAML		23 18 43.7	
	comp=N,542nm,0.3s						
HBMT	**Mount Humbug**	**2.27**	**48**		**Pn**	**23 18 02.2**	**-0.4**
BGMT	**Barton Gulch**	**2.33**	**66**		**Pn**	**23 18 03.1**	**-0.1**
LRM	**Limekiln Ridge**	**2.38**	**50**		**Pn**	**23 18 03.4**	**-0.6**
BPMT	**Black Pine Rid**	**2.40**	**27**		**Pn**	**23 18 03.8**	**-0.6**
BUT	**Butte**	**2.44**	**45**		**Pn**	**23 18 04.5**	**-0.4**
BUT					**Sn**	**23 18 34.8**	**-0.4**
CMI	**Centennial Mou**	**2.46**	**84**		**Pn**	**23 18 05.7**	**+0.6**
QLMT	**Earthquake Lak**	**2.63**	**77**		**Pn**	**23 18 07.7**	**+0.2**
MSO	**Missoula**	**2.63**	**17**		**Pn**	**23 18 07.1**	**-0.3**
MSO				IAML		23 18 48.3	
	comp=N,424nm,0.4s						
J08A	**Circle Bar Ran**	**2.66**	**250**	Pn	**Pn**	**23 18 08.1**	**+0.3**
J08A					**Sn**	**23 18 41.4**	**+0.9**
J08A				IAML		23 18 58.1	
	comp=E,431nm,1.1s						
J08A				IAML		23 19 06.5	
	comp=N,299nm,1.0s						
LCCM	**Lewis and Clar**	**2.71**	**55**		**Pn**	**23 18 08.0**	**-0.5**
BOZ	**Bozeman (W)**	**2.74**	**61**		**Pn**	**23 18 08.7**	**-0.2**
BOZ				Sg	**Sb**	**23 18 49.1**	**+1.4**
LNOR	**Lincton Mounta**	**2.78**	**305**		**Pn**	**23 18 09.9**	**+0.6**
YHB	**Horse Butte**	**2.78**	**80**		**Pn**	**23 18 10.9**	**+1.3**
YHB				IAML		23 18 52.9	
	comp=N,189nm,0.8s						
YHB				IAML		23 18 55.0	
	comp=E,175nm,0.7s						
MKMT	**Mink Peak**	**2.79**	**359**		**Pb**	**23 18 16.0**	**+1.4**
YHL	**Hebgen Lake**	**2.81**	**78**		**Pn**	**23 18 10.8**	**+0.8**
YHL				Sg	**Sb**	**23 18 50.6**	**+0.9**
YMC	**Maple Creek**	**2.92**	**80**		**Pn**	**23 18 12.5**	**+1.1**
YMR	**Madison River**	**2.94**	**82**		**Pn**	**23 18 12.5**	**+0.8**
YMR					**Sb**	**23 18 54.7**	**+1.3**
G08A	**Pilot Rock**	**2.96**	**291**		**Pn**	**23 18 11.6**	**-0.2**
PCMT	**Pistol Creek**	**2.99**	**13**		**Pn**	**23 18 12.1**	**-0.2**
YFT	**Old Faithful**	**3.02**	**86**		**Pn**	**23 18 13.9**	**+1.1**
YFT				IAML		23 19 02.6	
	comp=N,109nm,0.9s						
YHH	**Holmes Hill**	**3.03**	**80**		**Pn**	**23 18 14.0**	**+0.9**
YHH				IAML		23 19 01.9	
	comp=N,308nm,0.5s						
YPP	**Pitchstone Pla**	**3.04**	**89**		**Pn**	**23 18 13.8**	**+0.6**
YPP				IAML		23 19 03.0	
	comp=N,125nm,0.8s						
YPP				IAML		23 19 06.8	
	comp=E,152nm,0.5s						
FBMT	**Ferry Basin**	**3.12**	**8**		**Pn**	**23 18 13.9**	**-0.3**
YNM	**Yellowstone No**	**3.13**	**81**	IAML		23 19 04.0	
	comp=E,232nm,0.3s						
YNM				IAML		23 19 06.8	
	comp=N,162nm,0.8s						
YNR	**Norris Junctio**	**3.15**	**81**	IAML		23 19 07.1	
	comp=N,241nm,0.9s						
YNR				IAML		23 19 08.3	
	comp=E,184nm,1.0s						
SNOW	**Snow King Moun**	**3.21**	**104**		**Pb**	**23 18 19.8**	**-2.0**
SNOW	**Snow King Moun**	**3.21**	**104**	IAML		23 19 09.7	
	comp=E,161nm,0.8s						
SNOW				IAML		23 19 17.2	
	comp=E,142nm,1.4s						
AHID	**Auburn Hatcher**	**3.25**	**117**		**Pb**	**23 18 20.3**	**-2.2**
AHID	**Auburn Hatcher**	**3.25**	**117**	IAML		23 19 10.3	
	comp=E,152nm,0.6s						
AHID				IAML		23 19 16.2	
	comp=E,152nm,0.7s						
SWMT	**Swartz Lake**	**3.28**	**12**		**Pn**	**23 18 16.0**	**-0.3**
JTMT	**Jette**	**3.48**	**8**		**Pn**	**23 18 18.8**	**-0.2**
YMP	**Mirror Lake Pl**	**3.52**	**81**	IAML		23 19 26.7	
	comp=N,116nm,0.8s						
YMP				IAML		23 19 38.7	
	comp=E,123nm,0.7s						
BSMT	**Bassoo Peak**	**3.54**	**3**		**Pn**	**23 18 20.0**	**0.0**
SPUT	**South Promonto**	**3.56**	**147**	IAML		23 19 18.5	
	comp=E,113nm,1.2s						
SPUT				IAML		23 19 21.5	
	comp=N,153nm,0.6s						
ELK	**Elko**	**3.57**	**182**	Pn	**Pn**	**23 18 21.8**	**+1.4**
	comp=N,6.0nm,0.3s,baz=351,slow=10,SNR=72						
ELK				Pg	**Pb**	**23 18 26.3**	**-1.6**
	comp=N,10nm,0.3s,baz=351,slow=14,SNR=66						
ELK				Lg	Lg	23 19 12.0	
	comp=N,15nm,0.3s,baz=171,slow=17,SNR=5.9						
	comp=N,44nm,0.5s						
ELK				AML	AML		
YBMT	**Yellow Bay**	**3.62**	**11**		**Pn**	**23 18 21.9**	**+0.9**
BGU	**Big Grassy Mou**	**3.69**	**156**	IAML		23 19 23.4	
	comp=N,109nm,0.8s						
BGU				IAML		23 19 24.8	
	comp=E,124nm,1.2s						
HWUT	**Hardware Ranch**	**3.72**	**135**	IAML		23 19 21.3	
	comp=E,81nm,1.1s						
HWUT				IAML		23 19 25.4	
	comp=E,88nm,0.9s						
F07A	**Phinny Hill Vi**	**3.81**	**296**	IAML		23 19 33.6	
	comp=E,95nm,0.8s						
F07A				IAML		23 19 36.8	
	comp=N,88nm,0.9s						
WAH2	**Wahluke Slope**	**4.01**	**309**	IAML		23 19 35.6	
	comp=E,97nm,0.7s						
WAH2				IAML		23 19 35.9	
	comp=N,95nm,0.9s						
E07A	**Sunnyside**	**4.07**	**305**	IAML		23 19 17.5	
	comp=N,83nm,0.5s						
E07A				IAML		23 20 15.7	
	comp=E,49nm,0.8s						
BMN	**Battle Mountai**	**4.20**	**203**	IAML		23 19 35.9	
	comp=N,68nm,0.9s						
BMN				IAML		23 19 39.3	
	comp=E,82nm,0.8s						
NEW	**Newport**

AF01 eS Sn 23 20 02.4 +1.2
SLA San Lorenzo 1.65 105 eP Pn 23 19 32.2 -3.7
SLA eS Sn 23 20 04.0 +2.0
SLA San Lorenzo 1.65 105⇓eP Pn 23 19 37.5 +1.6
FSA Cafayete 2.14 148 eP Pn 23 19 42.8 +1.6
PB06 IPOC Station P 2.65 306 eP Pn 23 19 42.8 -4.2
PB06 23 19 47.9
PB06 eS Sn 23 20 20.2 -1.4
PB06 IAML 23 20 21.9
comp=Z,379nm,0.2s
PB06 IPOC Station P 2.65 306 Pn 23 19 48.0 +1.0
PB06 Sn Sn 23 20 21.3 -0.4
PB06 IPOC Station P 2.65 306⇓eP Pn 23 19 47.9 +0.9
PB06 i S Sn 23 20 20.3 -1.4
PB06 IAML 23 20 23.5
comp=N,847nm,0.1s
PB14 IPOC Station P 2.88 263 eP Pn 23 19 50.7 +0.8
PB14 eS Sn 23 20 26.4 -0.5
PB14 IAML 23 20 27.4
comp=Z,122nm,0.2s
PB14 IPOC Station P 2.88 263 Pn 23 19 50.3 +0.5
PB14 IPOC Station P 2.88 263⇑iP Pn 23 19 50.5 +0.6
PB14 i S Sn 23 20 25.4 -1.4
AHML Horco Molle 3.02 145 eP Pn 23 19 48.8 -2.5
AHML eS Sn 23 20 26.4 -3.1
AC02 Maricunga 3.04 213 eP Pn 23 19 53.5 +1.7
AC02 eS Sn 23 20 28.9 -1.7
AC02 IAML 23 21 07.1
comp=Z,191nm,0.8s
AC02 Maricunga 3.04 213 Pn 23 19 53.6 +1.7
AC02 Maricunga 3.04 213⇑eP Pn 23 19 53.5 +1.7
PB05 IPOC Station P 3.06 297 eP Pn 23 19 52.3 +0.5
PB05 eS Sn 23 20 29.2 -1.2
PB05 IAML 23 20 37.0
comp=Z,183nm,0.6s
PB05 IPOC Station P 3.06 297 Pn 23 19 52.4 +0.6
PB05 IPOC Station P 3.06 297⇑iP Pn 23 19 52.3 +0.5
PB05 i S Sn 23 20 27.9 -2.5
PB05 IAML 23 20 32.9
comp=E,249nm,0.6s
PB09 IPOC Station P 3.09 323 eP Pn 23 19 53.5 +1.3
PB09 eS Sn 23 20 31.1 0.0
PB09 IAML 23 20 31.6
comp=Z,382nm,0.7s
PB09 IPOC Station P 3.09 323 Pn 23 19 53.4 +1.2
PB09 IPOC Station P 3.09 323⇑iP Pn 23 19 53.3 +1.1
PB09 i S Sn 23 20 30.4 -0.8
PB09 IAML 23 20 32.1
comp=N,468nm,0.5s
PB03 IPOC Station P 3.21 314 eP Pn 23 19 54.2 +0.6
PB03 eS Sn 23 20 31.8 -1.9
PB03 IAML 23 20 35.6
comp=Z,302nm,0.2s
PB03 IPOC Station P 3.21 314 Pn 23 19 54.3 +0.6
PB03 IPOC Station P 3.21 314⇑iP Pn 23 19 54.2 +0.6
PB03 i S Sn 23 20 31.1 -2.7
PB03 IAML 23 20 37.7
comp=E,376nm,0.5s
PB07 IPOC Station P 3.52 316 eP Pn 23 19 58.0 +0.4
PB07 eS Sn 23 20 39.4 -1.4
PB07 IAML 23 20 40.1
comp=Z,430nm,0.5s
PB07 IPOC Station P 3.52 316 Pn 23 19 57.8 +0.3
PB07 IPOC Station P 3.52 316⇑iP Pn 23 19 58.0 +0.4
PB07 eS Sn 23 20 37.9 -2.9
AC01 Pan de Azucar 3.54 238 eP Pn 23 19 57.6 0.0
AC01 eS Sn 23 20 39.6 -1.2
AC01 IAML 23 20 42.5
comp=Z,130nm,0.2s
AC01 Pan de Azucar 3.54 238 Pn 23 19 57.6 0.0
AC01 Pan de Azucar 3.54 238⇑iP Pn 23 19 57.6 0.0
AC01 i S Sn 23 20 38.8 -2.1
PB02 IPOC Station P 3.84 320 eP Pn 23 20 01.4 0.0
PB02 eS Sn 23 20 45.9 -1.8
PB02 IAML 23 20 48.8
comp=Z,237nm,0.3s
PB02 IPOC Station P 3.84 320 Pn 23 20 01.5 0.0
PB02 IPOC Station P 3.84 320⇑iP Pn 23 20 01.4 0.0
PB02 eS Sn 23 20 45.0 -2.8
AC06 Mina Casimiro 4.13 222 Pn 23 20 03.9 -1.1
AC06 Mina Casimiro 4.13 222 eP Pn 23 20 05.0 0.0
GO03 Copiapo 4.24 219 Pn 23 20 06.4 0.0
GO03 Copiapo 4.24 219 iP Pn 23 20 06.2 -0.2
GO03 i S Sn 23 20 54.4 -2.4
PB08 IPOC Station P 4.50 337 Pn Pn 23 20 12.0 +1.9
PB08 IPOC Station P 4.50 337 iP Pn 23 20 10.9 +0.8
TA01 Diego Aracena 4.60 323 eP Pn 23 20 10.7 -0.3
TA01 eS Sn 23 20 52.0 -13
TA01 IAML 23 21 05.0
comp=Z,55nm,0.9s
TA01 Diego Aracena 4.60 323 Pn Pn 23 20 10.8 -0.3
TA01 Diego Aracena 4.60 323 iP Pn 23 20 10.4 -0.6
TA01 i S Sn 23 21 00.9 -4.1
GO01 Chusmiza 4.95 338 Pn 23 20 18.1 +2.0
PB11 IPOC Station P 5.04 333 iS Sn 23 21 10.8 -4.7
AC04 Llanos de Chal 5.18 221 Pn 23 20 18.2 -0.3
AC04 Llanos de Chal 5.18 221 eP Pn 23 20 17.6 -0.9
AC05 El Transito 5.26 210 Pn 23 20 19.5 -0.2
AC05 El Transito 5.26 210 eP Pn 23 20 19.5 -0.2
PSGCX Pisagua 5.38 330 eP Pn 23 20 11.2 -10
LCO Las Campanas 5.61 213 Pn 23 20 23.7 -0.7
LCO Las Campanas 5.61 213 eP Pn 23 20 23.2 -1.2
CFA Coronel Fontan 7.33 187 P Pn 23 20 47.1 +0.5
comp=Z,0.7nm,0.3s,baz=274,slow=19,SNR=11
CFA S Sn 23 22 07.2 -2.1
comp=Z,2.0nm,0.3s,baz=252,slow=21,SNR=7.8
LPAZ La Paz 8.01 354 P Pn 23 20 57.0 +0.6
comp=Z,4.0nm,0.4s,baz=156,slow=5.6,SNR=38
LPAZ La Paz 8.01 354 Pn 23 20 56.9 +0.6
LPAZ La Paz 8.01 354 eP Pn 23 20 56.9 +0.6
CPUP Villa Florida 9.21 105 P Pn 23 21 09.6 -1.7
comp=Z,1.5nm,0.9s,baz=274,slow=15,SNR=3.7
MURT Porto Murtinho 9.27 75 eP Pn 23 21 11.6 -0.6
BBSD Serra de San D 9.42 43 eP Pn 23 21 13.0 -1.2
BBSD eS Sn 23 22 54.7 -4.6
COIM Forte Coimbra 9.80 65 eP Pn 23 21 17.5 -1.7
SIV San Ignacio 10.10 36 P Pn 23 21 21.7 -1.5
comp=Z,2.6nm,0.6s,baz=212,slow=12,SNR=17
PP1B Ponte de Pedra 13.34 62 eP Pn 23 22 03.3 -1.4
SALV Santo Antonio 13.70 55 eP Pn 23 22 08.2 -0.9
CPSB Cacapava Do Su 13.70 119 eP P 23 22 11.3 -0.9
CPSB Cacapava Do Su 13.70 119 eP P 23 22 10.8 -1.1
PTGB Pitanga 13.84 95 eP P 23 22 12.2 -1.3
LDASE Londrina, Braz 14.80 90 eP Pn 23 22 23.1 +0.3
PCMB Pacaembu 14.98 83 eP Pn 23 22 25.4 +0.4
PLCA Paso Flores 16.62 189 P Pn 23 22 46.0 +1.2
comp=Z,1.2nm,0.8s,baz=9.8,slow=11,SNR=9.8
ARAG Araguaiana, MT 16.83 62 eP P 23 22 46.2 -0.4
CLDB Colider 17.24 41 eP P 23 22 50.7 -0.4
VAO Valinhos 18.64 90 P P 23 23 06.7 +0.4
VAO Valinhos 18.64 90 eP P 23 23 06.7 +0.4
IPMB Ipameri, GO 18.84 74 eP P 23 23 09.0 +0.5
LL02 Futaleuf 19.22 190 P P 23 23 14.4 +2.0
LL02 IAmb IAmb 23 23 18.5
comp=Z,14nm,0.8s
SNDB Serra Nova Dou 19.48 54 eP P 23 23 15.1 -0.4
CANS Sao Roque de M 19.71 82 eP P 23 23 18.2 +0.2
BDFB Brasilia 20.02 68 P P 23 23 22.1 +0.8
comp=Z,16nm,0.8s,baz=242,slow=11,SNR=27
BDFB Brasilia 20.02 68 P P 23 23 21.5 +0.2
BDFB IAmb IAmb 23 23 22.6
comp=Z,14nm,0.7s
PMNB Patos De Minas 20.20 78 eP P 23 23 23.7 +0.4
ITTB Itaituba 22.71 31 eP P 23 23 48.0 -0.7
DIAM Diamantina, MG 22.76 79 eP P 23 23 49.2 0.0
SDBA SAO DESIDERIO 24.25 65 eP P 23 24 02.5 -0.2
SMTB Santa Maria do 24.26 54 P P 23 24 03.5 +0.8
SMTB IAmb IAmb 23 24 04.6
comp=Z,21nm,0.5s
SMTB Santa Maria do 24.26 54 eP P 23 24 03.2 +0.4
ARCA Araçuai, MG 24.79 77 eP P 23 24 07.3 -0.3
SJMB Sao Joao De Ma 24.87 82 eP P 23 24 08.2 -0.1
APG El Apazote 45.16 328 LR LR 23 43 31.4
comp=Z,25nm,19.9s,baz=227,slow=32
TXAR Lajitas Array 63.78 325 P P 23 29 17.2 +2.1
comp=Z,0.3nm,0.7s,baz=156,slow=7.7,SNR=3.9
comp=Z,0.3nm,0.7s
QSPA South Pole Qui 65.91 180 P P 23 29 30.7 +2.3
comp=Z,1.2nm,0.5s,baz=136,slow=0.8,SNR=9.9
comp=Z,1.2nm,0.5s
QSPA South Pole Qui 65.91 180 IAmb IAmb 23 29 32.5
comp=Z,2.5nm,0.9s

TORD Torodi Ar. Bea 76.90 69 P P 23 30 35.8 +1.0
comp=Z,0.7nm,0.4s,baz=254,slow=5.6,SNR=5.3
comp=Z,0.7nm,0.4s
PDAR Pinedale Array 77.28 329 P P 23 30 39.6 +2.9
comp=Z,0.4nm,0.9s,baz=144,slow=7.4,SNR=1.9
comp=Z,0.4nm,0.9s
KSH2 Kashi 145.35 56 PKPbc PKPdf 23 38 15.8 -2.9
MKAR Makanchi Array 146.91 40 PKPbc PKPab 23 38 26.8 +1.9
comp=Z,0.4nm,0.7s,baz=270,slow=0.7,SNR=3.0
HHC Hu-ho-hao-te 163.47 3 eP PKPdf 23 38 38.1 -5.3
NJ2 Nanjing 170.58 326 eP PKPdf 23 38 48.4 -0.3
NJ2 pmax pmax
comp=Z,8.0nm,0.5s
GYA Guiyang 174.10 67 ⇓PKP PKPdf 23 38 47.9 -2.7
GYA pPKP pPKPdf 23 39 44.0 +4.2
GYA PP PP 23 44 18.8 +3.0
GYA AMB AMB
comp=Z,180nm,3.3s

IDC 15 23:25:37.4±1.3,4°.58S×151°.52E,h0km,mb3.5/3,
mbtmp3.5/3,Error ellipse: s-maj=47.7km s-min=17.5km
az=144.0,New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	0.57	62	Pn		Pn		23 25 52.3	-0.6
	212nm,0.3s,baz=11,slow=1.1,SNR=14								
KRVT				Sn		Sb		23 26 00.9	+1.9
	420nm,0.3s,baz=10,slow=23,SNR=11								
WRA	Warramunga Arr	22.66	226	P		P		23 30 40.1	-0.4
	0.4nm,0.3s,baz=51,slow=11,SNR=5.7								
	0.4nm,0.3s								
ASAR	Alice Springs	25.48	220	P		P		23 31 07.7	+0.2
	1.1nm,0.7s,baz=54,slow=8.7,SNR=12								
	1.1nm,0.7s								
SONM	Songino Array	65.46	328	P		P		23 36 22.5	+0.1
	0.3nm,0.5s,baz=124,slow=7.2,SNR=1.7								
	0.3nm,0.5s								

ATH ***16*** *00:05:51.4,37°.85N×26°.91E,h14km±1km,ML2.8/6,*
Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
THE ***16*** *00:05:51.9,37°.9N±0°.7×26°.9E±0°.6,h11km±1km,M2.8/16,*
MLh2.8/16
AFAD ***16*** *00:05:51.5,37°.86N×26°.90E,h8km±1km,ML2.7*
ISK ***16*** *00:05:51.1,37°.85N×26°.89E,h2km,ML3.0/18*

ISC 16 00:05:51.6±0.8,37.85N±0.01×26.90E±0.02,h15km±5km,
n81,σ0.58/121,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMG	Samos	0.15	199	P		Pg		00 05 55.5	-0.1
SMG				S		Sg		00 05 58.4	+0.2
SMG				AML		AML			
SMG	Samos	0.15	199	P		Pg		00 05 55.3	-0.3
SMG				S		Sg		00 05 58.0	-0.2
SMG				AML		AML			
DGB	zmir	0.20	356	P		Pg		00 05 56.0	-0.3
DGB				S		Sg		00 05 58.7	-0.7
GMLD	Gumuldur	0.22	3	Pg		Pg		00 05 56.6	0.0
GMLD				AML		AML			
SAM2	Drakei, Karlov	0.25	248	P		Pg		00 05 56.9	-0.2
SAM2				S		Sg		00 06 00.7	-0.1
SAM2				AML		AML			
GCAM	G?zelcaml?	0.30	120	P		Pb		00 05 58.4	-0.4
GCAM				S		Sg		00 06 02.8	+0.5
GCAM				IAML				00 06 03.0	
	comp=E,1μm,0.2s								
GCAM				IAML				00 06 04.0	
	comp=N,1μm,0.6s								
GCAM	G?zelcaml?	0.30	120	Pg		Pb		00 05 58.6	-0.1
GCAM				Sg		Sb		00 06 03.2	-0.3
GCAM				AML		AML			
KUSD	Kusadasi-Aydin	0.30	89	Pg		Pg		00 05 58.0	0.0
KUSD				AML		AML			
BEYE	izmir	0.37	3	P		Pg		00 05 59.2	0.0
BEYE				S		Sg		00 06 04.2	-0.3
DDIM	Aydin, Didim	0.48	146	P		Pg		00 06 01.2	0.0
DDIM				IAML				00 06 10.0	
	comp=N,493nm,0.3s								
ZEYE	Izmir, Urla-Ze	0.50	321	P		Pg		00 06 01.3	-0.2
ZEYE				S		Sg		00 06 06.8	-1.3
ZEYE				IAML				00 06 12.0	
	comp=N,718nm,0.3s								
ZEYE				IAML				00 06 13.0	
	comp=E,680nm,0.2s								
BLCB	Balcova	0.54	12	P		Pg		00 06 02.4	+0.1
BLCB				S		Sb		00 06 10.4	0.0
BLCB				AML		AML			
BLCB	Balcova	0.54	12	Pg		Pg		00 06 02.5	+0.2
BLCB				Sg		Sb		00 06 11.0	+0.6
BLCB				AML		AML			
DUVT	Torbali	0.57	50	P		Pg		00 06 02.9	+0.1
DUVT				S		Sg		00 06 10.2	-0.2
CESE	eme	0.67	315	Pg		Pb		00 06 04.9	-0.1
CESE				AML		AML			
KRBN	Karaburun	0.79	340	Pg		Pg		00 06 06.6	-0.3
KRBN				AML		AML			
AYDB	Zeytinkoy-Aydi	0.79	83	Pg		Pb		00 06 07.3	+0.2
AYDB				AML		AML			
YKAV	Yalikavak-Bodr	0.79	157	Pg		Pg		00 06 06.9	0.0
YKAV				AML		AML			
AYDN	Tasoluk	0.80	104	P		Pb		00 06 07.5	+0.2
AYDN				S		Sb		00 06 18.2	+0.4
AYDN				IAML				00 06 22.0	
	comp=N,335nm,0.3s								
AYDN				IAML				00 06 23.0	
	comp=E,316nm,0.3s								
BAGT	Foa	0.80	357	P		Pg		00 06 07.0	-0.2
BAGT				S		Sb		00 06 18.0	+0.2
BAGT				IAML				00 06 21.0	
	comp=E,406nm,0.4s								
BAGT				IAML				00 06 22.0	
	comp=N,353nm,0.7s								
CHOS	Chios island	0.85	309	P		Pg		00 06 07.8	-0.4
CHOS				S		Sb		00 06 20.8	+1.3
CHOS				AML		AML			
CHOS	Chios island	0.85	309	Pg		Pb		00 06 08.9	+0.7
CHOS				AML		AML			
CHOS	Chios island	0.85	309	P		Pg		00 06 07.6	-0.6
CHOS				AML		AML			
BODT	Bodrum	0.85	157	P		Pg		00 06 07.6	-0.6
BODT				S		Sn		00 06 21.2	-0.1
BODT				AML		AML			
BODT	Bodrum	0.85	157	Pg		Pb		00 06 08.4	+0.2
BODT				AML		AML			
FOCM	Foa	0.87	351	Pg		Pb		00 06 08.8	+0.4
FOCM				AML		AML			
IZMR	zmir-demi	0.88	71	P		Pb		00 06 08.6	+0.1
IZMR				S		Sg		00 06 18.3	-1.9
MLSB	Milas	0.89	128	Pg		Pb		00 06 09.2	+0.4
MLSB				AML		AML			
KARB	zmir-Karabur	0.90	335	P		Pg		00 06 08.3	-0.7
KARB				S		Sb		00 06 20.9	+0.3
KARB				IAML				00 06 24.0	
	comp=N,359nm,0.4s								
KARB				IAML				00 06 24.0	
	comp=E,375nm,0.3s								
KLNA	Kalymnos	0.90	176	P		Pg		00 06 08.7	-0.3
BDRM	Kayabasi	0.90	151	P		Pb		00 06 09.2	+0.3
BDRM				S		Sb		00 06 21.6	+0.9
BDRM				IAML				00 06 25.0	
	comp=E,260nm,0.6s								
BDRM				IAML				00 06 26.0	
	comp=N,375nm,0.9s								
BODA	Bodrum-Mula	0.92	153	Pg		Pb		00 06 09.7	+0.5
EAG2	Marmaro, Chios	0.93	318	P		Pn		00 06 10.1	0.0
CAMT	Merkez	0.95	20	P		Pb		00 06 10.2	+0.4
CAMT				S		Sb		00 06 23.3	+1.2
NAZL	Nazilli-Aydin	1.11	84	Pn		Pn		00 06 13.2	+0.6
NAZL				AML		AML			
ZEDA	zmir-Bergama	1.12	7	P		Pb		00 06 12.7	0.0
ZEDA				S		Sn		00 06 28.1	+0.3
ZEDA				IAML				00 06 31.0	
	comp=E,236nm,0.5s								
ZEDA				IAML				00 06 32.0	
	comp=N,166nm,0.4s								
ESEN	Aydn-Nazilli	1.15	92	P		Pg		00 06 13.6	-0.2
ESEN				S		Sg		00 06 28.5	-0.3
GOMA	Golmarmara-Man	1.17	43	Pn		Pg		00 06 14.4	+0.2
GOMA				AML		AML			
DKL	Dikili	1.22	0	Pn		Pg		00 06 15.3	+0.3
DKL				AML		AML			
DKL	Dikili	1.22	0	P		Pn		00 06 14.4	+0.3
KIRA	zmir-Kiraz	1.23	73	P		Pn		00 06 14.6	+0.3
KIRA				S		Sb		00 06 29.4	-1.0
DAT	Datca	1.25	154	P		Pn		00 06 14.7	+0.1
DAT				S		Sn		00 06 32.3	+1.2
DAT				AML		AML			
AKHS	Akhisar	1.25	35	P		Pb		00 06 15.2	+0.3
AKHS				S		Sb		00 06 30.5	-0.3
AKHS				IAML				00 06 36.0	
	comp=N,164nm,0.5s								
AKS	Akhisar	1.25	35	Pn		Pg		00 06 15.8	+0.1
AKS				AML		AML			
YAZI	Mula-Dat§a-	1.25	159	P		Pn		00 06 14.4	-0.1
YAZI				S		Sb		00 06 30.5	-0.3
KTTT	Salihli	1.25	48	P		Pg		00 06 15.5	-0.3
KTTT				S		Sb		00 06 30.6	-0.3
KTTT				IAML				00 06 36.0	
	comp=N,152nm,0.5s								
MULA	Mugla, Merkez-	1.28	117	P		Pn		00 06 15.5	+0.5
MULA				S		Sb		00 06 31.5	-0.1
YER	Yerkesik	1.31	123	P		Pb		00 06 16.3	+0.3
YER				S		Sg		00 06 33.7	-0.3
APE	Apeiranthos	1.34	235	P		Pn		00 06 15.6	-0.3
APE				S		Sg		00 06 34.4	-0.5
APE				AML		AML			
APE	Apeiranthos	1.34	235	P		Pn		00 06 15.5	-0.3
APE				AML		AML			
SOMA	Soma-Manisa	1.39	21	Pn		Pg		00 06 18.3	-0.1
SOMA				AML		AML			
MANT	Manisa	1.45	64	P		Pg		00 06 19.1	-0.5
MANT				S		Sn		00 06 34.5	-1.9
MANT				IAML				00 06 42.0	
	comp=N,88nm,0.4s								
MANT				IAML				00 06 42.0	
	comp=E,99nm,0.3s								
GORD	Gordes-Manisa	1.45	43	Pn		Pg		00 06 19.3	-0.3
GORD				Sn		Sg		00 06 39.8	+1.3
GORD				AML		AML			
AYVA	Ayvalik	1.46	354	P		Pg		00 06 20.0	+0.3
AYVA				IAML				00 06 42.0	
	comp=E,130nm,0.8s								
AYVA				IAML				00 06 44.0	
	comp=N,158nm,0.6s								
PRK	Paraskevi	1.48	341	P		Pb		00 06 18.7	0.0
PRK				S		Sb		00 06 37.9	+0.6
PRK				AML		AML			
PRK	Paraskevi	1.48	341	P		Pn		00 06 17.7	+0.1
SULTU	Buldan	1.49	82	P		Pn		00 06 18.7	+0.8
SULTU				S		Sn		00 06 36.4	-0.8
TURN	Turunc	1.52	135	P		Pn		00 06 18.0	-0.1
TURN				S		Sn		00 06 36.6	-1.0
HARTU	Esme	1.57	71	P		Pn		00 06 19.9	+0.9
HARTU				S		Sn		00 06 38.5	-0.7
TAVA	DENIZLI_Tavas	1.64	103	P		Pn		00 06 20.5	+0.5
STEP	BALIKESIR_Sava	1.65	23	P		Pb		00 06 22.4	+0.7
STEP				S		Sg		00 06 44.8	0.0
STEP				IAML				00 06 49.0	
	comp=N,111nm,0.4s								
STEP				IAML				00 06 58.0	
	comp=E,106nm,0.4s								
BUHA	Balikesir, Bur	1.65	5	P		Pn		00 06 20.1	+0.1
BUHA				S		Sb		00 06 42.5	+0.2
BUHA				IAML				00 06 47.0	
	comp=N,195nm,0.5s								
DNIZ	Denizli-Tavas-	1.71	97	P		Pn		00 06 21.4	+0.4
DNIZ				IAML				00 06 53.0	
	comp=E,93nm,0.3s								
DNIZ				IAML				00 06 55.0	
	comp=N,99nm,0.4s								
DALY	Dalyan (Mula)	1.74	126	P		Pb		00 06 24.1	+0.9
KOCA	Canakkale, Ayv	1.75	340	P		Pn		00 06 22.3	+0.9
KOCA				IAML				00 06 52.0	
	comp=E,108nm,0.5s								
KOCA				IAML				00 06 55.0	
	comp=N,107nm,0.4s								
CMBO	Columbo, Santo	1.83	221	P		Pn		00 06 22.6	+0.1
DEMI	Demirci	1.85	50	P		Pb		00 06 25.6	+0.3
DEMI				S		Sn		00 06 44.9	-1.2
THRA	Thira	1.85	220	P		Pn		00 06 22.5	-0.3
THRA				AML		AML			
THERA	Ancient Thera,	1.87	218	P		Pn		00 06 23.5	+0.4
THERA				AML		AML			
USAK	Uak-Merkez	1.87	62	P		Pb		00 06 26.1	+0.5
SNT5	Nea Kamneni, S	1.88	220	P		Pn		00 06 24.0	+0.8
SNT5				AML		AML			
SAP3	Santorini-Thir	1.88	222	P		Pn		00 06 24.0	+0.8
BAYC	CANAKKALE_Bayr	1.90	352	P		Pn		00 06 23.3	-0.2
BAYC				S		Sn		00 06 46.8	-0.4
BAYC				IAML				00 06 56.0	
	comp=E,52nm,0.4s								
ARG	Arkhangelos	1.91	149	P		Pn		00 06 24.6	+1.1
ARG				AML		AML			
ARG	Arkhangelos	1.91	149	P		Pn		00 06 24.5	+0.9
KARY	Karystos	1.96	276	P		Pn		00 06 24.9	+0.7
KARY	Karystos	1.96	276	P		Pn		00 06 24.4	+0.1
BALY	Balya	1.96	16	P		Pb		00 06 27.0	-0.1
BALY				S		Sb		00 06 50.7	-0.7
BALY				IAML				00 07 00.0	
	comp=E,54nm,0.7s								
BALY				IAML				00 07 04.0	
	comp=N,97nm,0.5s								
EZN	Ezine	2.02	347	P		Pn		00 06 26.0	+0.9
EZN				AML		AML			
BKES	Balkesir-Mer	2.04	23	P		Pb		00 06 28.5	+0.2
BKES				IAML				00 07 07.0	
	comp=E,49nm,0.7s								
SKY	Skiros Island	2.11	300	P		Pn		00 06 26.7	+0.3

TRN ***16*** *00:12:00.0, 18°.13N×63°.98W,h4km,MD3.4,West of*
Anguilla.
RSPR ***16*** *00:12:17.2, 17°.56N×64°.14W,h34km±23km,MD3.6/4*
NEIC ***16*** *00:12:17.3±2.0, 17°.6N±0°.1×64°.20W±0°.03,h35km±2km,*
ML2.6/21,Md3.6/4(RSPR),Error ellipse: s-maj=18.4km
s-min=3.1km az=193.0

ISC 16 00:12:17.1±1.6,18°.1N±0°.1×64°.18W±0°.04,h29km±17km,
n36,σ1.925/43,2C-6D,Virgin Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SABA	Saba	1.04	120	Pn		Pn		00 12 34.1	-1.6
SABA				IAML				00 12 54.7	
	comp=E,288nm,0.3s								
SABA				IAML				00 12 56.3	
	comp=N,199nm,0.4s								
SABA	Saba	1.04	120	eP		Pb		00 12 36.8	+0.4
SABA				eS		Sb		00 12 51.9	+2.2
SMRT	St. Maarten	1.06	95			Sn		00 12 52.4	+2.6
SMRT	St. Maarten	1.06	95	eP		Pb		00 12 37.8	+1.0
SMRT				eS		Sn		00 12 52.1	+2.3
HUMP	Col San Antoni	1.58	270			Pn		00 12 42.8	-0.5
HUMP						Sn		00 13 03.0	+0.3
HUMP	Col San Antoni	1.58	270	IAML				00 13 05.1	
	comp=N,75nm,0.4s								
HUMP				IAML				00 13 05.3	
	comp=N,48nm,0.3s								
HUMP	Col San Antoni	1.58	270⇑eP			Pn		00 12 42.8	-0.5
SKI	Saint Kitts	1.59	120	eP		Pb		00 12 45.8	-0.1
SKI				eS		Sb		00 13 07.5	+1.8
PDPR	Patillas Dam,	1.75	266			Pn		00 12 45.0	-0.5
PDPR						Sn		00 13 07.2	+0.2
PDPR	Patillas Dam,	1.75	266⇓iP			Pn		00 12 45.0	-0.5
GCPR	Guaynabo City	1.81	276	Pn		Pn		00 12 46.3	-0.1
IGPR	InterUniversit	1.84	265			Pn		00 12 46.0	-0.7
IGPR						Sn		00 13 09.3	+0.3
IGPR	InterUniversit	1.84	265⇓eP			Pn		00 12 46.0	-0.7
SJG	San Juan	1.87	269	Pn		Pn		00 12 47.0	-0.1
SJG						Sn		00 13 09.4	-0.4
SJG				IAML				00 13 14.5	
	comp=N,41nm,0.2s								
SJG				IAML				00 13 15.8	
	comp=N,39nm,0.3s								
ECPR	Experimental S	2.08	275			Pn		00 12 50.9	+0.8
ECPR						Sn		00 13 15.5	+0.5
ECPR	Experimental S	2.08	275⇓eP			Pn		00 12 50.9	+0.8
CELP	Cerrillos	2.28	269			Pn		00 12 53.1	+0.3
CELP	Cerrillos	2.28	269			Sn		00 13 21.2	+1.2
CELP	Cerrillos	2.28	269	IAML				00 13 14.6	
	comp=N,23nm,2.9s								
CELP	Cerrillos	2.28	269⇓eP			Pn		00 12 53.1	+0.3
OBIP	Obispado Ponce	2.31	268			Pn		00 12 53.5	+0.3

OBIP	Obispado Ponce	2.31	268		Sn	00 13 21.4	+0.8
OBIP	Obispado Ponce	2.31	268	IAML		00 13 19.8	
	comp=N,25nm,2.6						
OBIP	Obispado Ponce	2.31	268	‖ eP	Pn	00 12 53.5	+0.3
OBIP				eS	Sn	00 13 21.4	+0.8
ANWB	Willy Bob	2.33	101	eP	Pb	00 12 54.8	-3.6
ANWB				eS	Sb	00 13 23.6	-3.3
AOPR	Arecibo Observ	2.45	275		Pn	00 12 55.0	-0.2
AOPR	Arecibo Observ	2.45	275		Sn	00 13 26.2	+2.0
AOPR	Arecibo Observ	2.45	275	⇑ iP	Pn	00 12 56.5	+1.3
GBPR	Guanica, Bosqu	2.57	267		Sn	00 13 27.1	0.0
GBPR	Guanica, Bosqu	2.57	267	eS	Sn	00 13 27.1	0.0
MLPR	Magueyes Islan	2.73	267		Pn	00 12 58.3	-0.6
MLPR					Sn	00 13 31.3	+0.4
MLPR	Magueyes Islan	2.73	267	IAML		00 13 32.3	
	comp=N,28nm,2.1s						
MLPR				IAML		00 14 30.6	
	comp=N,37nm,2.7s						
MLPR	Magueyes Islan	2.73	267	‖ eP	Pn	00 12 58.3	-0.6
CRPR	Cabo Rojo, PR	2.79	268		Pn	00 12 59.4	-0.3
CRPR					Sn	00 13 32.8	+0.4
CRPR	Cabo Rojo, PR	2.79	268	IAML		00 14 24.0	
	comp=N,40nm,2.2s						
CRPR	Cabo Rojo, PR	2.79	268	⇑ eP	Pn	00 12 59.4	-0.3

IDC ***16*** *00:28:03.2±1.8,5°.76S×130°.89E, h106km±16km, mb3.9/15, mbtmp4.3/17, Error ellipse: s-maj=20.2km s-min=11.3km az=89.0*
DJA ***16*** *00:28:03.9±0.2,6°S±2°×13°1E±°, h10km, M5.0/12, mb4.9/11, mB5.5/8, MLv5.0/12, Mw(mB)5.0/8*
NEIC ***16*** *00:28:04.7±2.1,5°.83S±0°.05×130°.9E±0°.1, h120km±3km, mb4.2/15, Error ellipse: s-maj=14.5km s-min=7.7km az=96.0*
GFZ ***16*** *00:28:04.4±0.4,6°S±3°×13°1E±°, h128km±3km, M4.9/18, mb4.5/18, Error ellipse: s-maj=8.5km s-min=5.8km az=124.9, confirmed*

ISC 16 00:28:02.9±0.4, 5°.86S±0°.03×130°.88E±0°.06, h100km, n88, σ2s00/89, mb4.2/24, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	1.65	324	P	Pn	00 28 35.2	+4.2
BNDI				S	Sn	00 28 57.6	+5.3
BNDI	Bandanaira	1.65	324	P	Pn	00 28 35.3	+4.3
SAUI	Saumlaki	2.15	169	Pn	Pn	00 28 40.5	+3.1
SAUI				Sn	Sn	00 29 06.7	+2.9
SAUI	Saumlaki	2.15	169	P	Pn	00 28 43.5	+6.0
SAUI				S	Sn	00 29 09.7	+5.8
SAUI				AML	AML		
MSAI	Masohi	3.16	322	P	Pn	00 28 53.5	+2.6
FAKI	Fak Fak	3.23	25	Pn	Pn	00 28 53.7	+2.0
FAKI				Sn	Sn	00 29 30.7	+1.2
FAKI	Fak Fak	3.23	25	P	Pn	00 28 54.0	+2.2
FAKI				S	Sn	00 29 28.9	-0.6
FAKI				AML	AML		
FAKI	Fak Fak	3.23	25	P	Pn	00 28 53.8	+2.0
KMPI	Kaimana, Papua	3.57	52	P	Pn	00 28 58.8	+2.5
NLAI	Namlea	4.58	305	P	Pn	00 29 13.6	+3.7
NLAI				AML	AML		
NLAI	Namlea	4.58	305	P	Pn	00 29 11.7	+1.8
SIJI	Sorong	4.97	5	P	Pn	00 29 16.1	+0.8
	225nm,0.3s,baz=209,slow=11,SNR=80						
SIJI				S	Sn	00 30 08.5	-3.3
	662nm,0.2s,baz=85,slow=23,SNR=19						
SIJI	Sorong	4.97	5	P	Pn	00 29 16.4	+1.0
SIJI	Sorong	4.97	5	P	Pn	00 29 16.1	+0.8
MWPI	Manokwari, Pap	5.83	33	P	Pn	00 29 30.2	+3.2
MWPI				AML	AML		
MWPI	Manokwari, Pap	5.83	33	P	Pn	00 29 29.2	+2.2
	comp=Z,7μm,0.5s						
SANI	Sanana	6.17	308	P	Pn	00 29 33.9	+2.3
	comp=Z,0.3nmcomp=Z,76nm,0.5s						
SANI				AML	AML		
SANI	Sanana	6.17	308	P	Pn	00 29 32.7	+1.1
	comp=Z,73nm,0.5s						
MTN	Manton Dam	6.94	178	Pn	Pn	00 29 44.1	+2.0
MTN				Sn	Sn	00 30 57.9	-1.7
BAKI	Biak	6.99	49	P	Pn	00 29 47.5	+4.8
SOEI	Soe	7.60	239	Pn	Pn	00 29 53.0	+1.8
SOEI	Soe	7.60	239	P	Pn	00 29 53.9	+2.7
	comp=Z,0.3nmcomp=Z,51nm,0.6s						
SOEI				AML	AML		
SOEI	Soe	7.60	239	P	Pn	00 29 53.3	+2.1
	comp=Z,72nm,0.8s						
BATI	Baumata	8.34	238	P	Pn	00 30 03.6	+2.5
	comp=Z,98nm,0.4s,baz=91,slow=2.1,SNR=11						
BATI				S	Sn	00 31 34.0	+0.3
	comp=Z,27nm,0.3s,baz=149,slow=20,SNR=8.0						
BATI	Baumata	8.34	238	P	Pn	00 30 03.7	+2.5
	comp=Z,2μmcomp=Z,109nm,0.5s						
BATI	Baumata	8.34	238	P	Pn	00 30 02.5	+1.3
	comp=Z,105nm,0.5s						
KDI	Kendari	8.44	283	P	Pn	00 30 07.8	+5.3
	comp=Z,2μmcomp=Z,22nm,0.9s						
EDFI	Ende, Flores	9.55	252	P	Pn	00 30 22.0	+4.3
EDFI	Ende, Flores	9.55	252	P	Pn	00 30 20.3	+2.6
	comp=Z,9.5nm,1.2s						
KNRA	Kununurra	9.97	192		Pn	00 30 23.4	+0.1
KNRA				Sn	Sn	00 32 08.3	-5.0
SPSI	Sidrap Palu	11.22	279	P	Pn	00 30 41.4	+1.1
	comp=Z,17nm,0.7s						
TTSI	Tana Toraja	11.37	284	P	Pn	00 30 43.9	+1.5
	comp=Z,7.9nm,0.6s						
TOLI2	Tolitoli	12.23	304	Pn	Pn	00 30 54.9	+1.2
TOLI2	Tolitoli	12.23	304	P	Pn	00 30 53.1	-0.7
	comp=Z,8.6nm,0.6s						
FITZ	Fitzroy Crossi	13.19	202	P	Pn	00 31 03.6	-2.8
	comp=Z,26nm,0.4s,baz=24,slow=10,SNR=129						
FITZ				S	Sn	00 33 21.8	-10
	comp=Z,21nm,0.3s,baz=47,slow=19,SNR=11						
FITZ	Fitzroy Crossi	13.19	202		Pn	00 31 04.1	-2.3
FITZ	Fitzroy Crossi	13.19	202	P	Pn	00 31 04.4	-2.0
	comp=Z,8.6nm,0.7s						
WB0	Warramunga Arr	14.24	166		Pn	00 31 19.6	-0.5
WRAB	Tennant Creek	14.39	167	Pn	Pn	00 31 22.0	0.0
WRA	Warramunga Arr	14.40	167	P	Pn	00 31 19.2	-2.8
	comp=Z,2.6nm,0.4s,baz=346,slow=10,SNR=21						
WRA				S	Sn	00 33 52.0	-8.8
	comp=Z,19nm,1.0s,baz=350,slow=22,SNR=13						
WRA	Warramunga Arr	14.40	167		Pn	00 31 19.9	-2.2
WR8	Warramunga Arr	14.45	166		Pn	00 31 21.8	-0.9
BBKI	Banjar Baru	16.16	278	P	Pn	00 31 46.0	+1.7
	comp=Z,46nm,0.8s						
JAGI	Jajag, Banyuwa	16.79	260	P	Pn	00 31 52.0	-0.2
	comp=Z,39nm,1.4s						
AS31	Alice Springs	17.94	171		P	00 32 06.7	+1.4
AS31				IAmb	IAmb	00 32 08.1	
	comp=Z,12nm,0.5s						
ASAR	Alice Springs	17.94	171	P	P	00 32 06.0	+0.8
	comp=Z,21nm,0.5s,baz=348,slow=9.5,SNR=345						
ASAR				S	S	00 35 16.0	-10
	comp=Z,2.7nm,0.5s,baz=346,slow=23,SNR=6.7						
ASAR	Alice Springs	17.94	171		P	00 32 07.0	+1.7
MBWA	Marble Bar	18.65	214	P	P	00 32 13.6	+0.5
MBWA				IAmb	IAmb	00 32 15.1	
	comp=Z,23nm,1.1s						
MBWA	Marble Bar	18.65	214	P	P	00 32 13.5	+0.5
	comp=Z,21nm,1.1s						
KKM	Kota Kinabalu	18.82	309	P	P	00 32 14.8	-0.2
	comp=Z,27nm,0.9s						
CTA	Charters Tower	20.57	135	P	P	00 32 35.9	+1.9
	comp=Z,1.2nm,0.5s,baz=304,slow=17,SNR=1.6						
	comp=Z,1.2nm,0.5s						
BBJI	Bungbulang	23.12	265	P	P	00 32 59.1	-1.6
BBJI				IAmb	IAmb	00 33 03.9	
	comp=Z,14nm,1.0s						
STKA	Stephens Creek	27.76	160	P	P	00 33 42.8	+0.4
	comp=Z,1.0nm,0.4s,baz=348,slow=8.6,SNR=3.6						
	comp=Z,1.0nm,0.4s						
STKA	Stephens Creek	27.76	160	P	P	00 33 42.7	+0.4
STKA				IAmb	IAmb	00 33 48.5	
	comp=Z,6.7nm,0.9s						
KLBR	Kellerberrin	28.39	204	P	P	00 33 45.9	-2.1
	comp=Z,24nm,0.7s						
CMAR	Chiang Mai Arr	39.69	308	P	P	00 35 25.4	-0.2
	comp=Z,2.5nm,0.6s,baz=136,slow=7.1,SNR=13						
	comp=Z,2.5nm,0.6s						
CHTO	Chiang Mai	39.89	309	P	P	00 35 25.6	-1.8
	comp=Z,7.8nm,0.9s						
KSRS	Korea Array	43.18	357	P	P	00 35 53.7	-0.2
	comp=Z,0.8nm,0.4s,baz=172,slow=7.8,SNR=2.2						
	comp=Z,0.8nm,0.4s						

HHC	Hu-ho-hao-te	49.75	341	eP	P	00 36 48.4	+3.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,120nm,3.9s						
LSA	Lhasa	52.00	315	P	P	00 37 02.0	-0.8
	comp=Z,7.8nm,0.7s						
EVN	Everest	54.19	311	P	P	00 37 18.6	-0.6
ULN	Ulaanbaatar	57.47	341	P	P	00 37 41.0	-0.6
	comp=Z,3.0nm,1.2s						
SONM	Songino Array	57.65	341	P	P	00 37 41.9	-1.0
	comp=Z,0.9nm,0.6s,baz=159,slow=6.9,SNR=4.5						
	comp=Z,0.9nm,0.6s						
SONM	Songino Array	57.65	341	P	P	00 37 41.8	-1.1
WMQ	Urumqi	62.93	326	eP	P	00 38 20.9	+2.0
WMQ				pP	pwP	00 38 48.8	+0.1
NIL	Nilore	67.14	310		P	00 38 45.4	-1.0
PDGK	Podgornoye	67.44	322	P	P	00 38 48.0	-0.1
MKAR	Makanchi Array	67.76	326	P	P	00 38 49.8	-0.1
	comp=Z,6.1nm,0.7s,baz=113,slow=8.8,SNR=61						
	comp=Z,6.1nm,0.7s						
MKAR	Makanchi Array	67.76	326	P	P	00 38 50.0	0.0
KSH2	Kashi	67.88	316	P	P	00 38 51.1	+0.1
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MAKZ	Makanchi	67.94	326	P	P	00 38 51.0	-0.1
DRK	Karamyk	70.64	315	P	P	00 39 07.7	-0.5
DRK				IAmb	IAmb	00 39 09.1	
	comp=Z,4.6nm,0.8s						
KBL	Kabul	70.71	310	P	P	00 39 07.2	-1.4
KBL				IAmb	IAmb	00 39 08.9	
	comp=Z,4.9nm,1.1s						
ZAA0	Zalesovo Array	70.96	333	P	P	00 39 08.5	-1.0
ZAA0				IAmb	IAmb	00 39 09.0	
	comp=Z,1.4nm,0.7s						
ZALV	Zalesovo Beam	70.96	333	P	P	00 39 07.5	-1.9
	comp=Z,0.9nm,0.4s,baz=137,slow=5.2,SNR=5.5						
	comp=Z,0.9nm,0.4s						
ZALV	Zalesovo Beam	70.96	333	P	P	00 39 07.7	-1.8
BTK	Batken	71.57	315	P	P	00 39 13.6	-0.1
BTK				IAmb	IAmb	00 39 14.2	
	comp=Z,2.6nm,0.8s						
KURBB	Kurchatov Arra	72.01	328	P	P	00 39 14.8	-1.0
	comp=Z,5.2nm,0.2s,baz=124,slow=5.2,SNR=5.1						
	comp=Z,5.2nm,0.2s						
VNDA	Vanda	73.47	173	P	P	00 39 23.7	-0.3
	comp=Z,0.4nm,0.5s,baz=297,slow=2.3,SNR=1.5						
	comp=Z,0.4nm,0.5s						
BVAR	Borovoye Array	77.57	327	P	P	00 39 47.1	-0.8
	comp=Z,1.2nm,0.6s,baz=126,slow=7.5,SNR=6.6						
	comp=Z,1.2nm,0.6s						
BORK	Borovoye	77.62	327	P	P	00 39 47.4	-0.8
NRIK	Noril'sk	80.68	346	P	P	00 40 03.7	-0.8
	comp=Z,1.6nm,0.6s,baz=72,slow=8.3,SNR=2.5						
	comp=Z,1.6nm,0.6s						
NRIK	Noril'sk	80.68	346	IAmb	IAmb	00 40 04.7	
	comp=Z,2.1nm,0.8s						
QSPA	South Pole Qui	84.11	180	P	P	00 40 22.1	-0.5
	comp=Z,2.0nm,0.9s,baz=33,slow=0.3,SNR=2.5						
	comp=Z,2.0nm,0.9s						
QSPA	South Pole Qui	84.11	180	IAmb	IAmb	00 40 24.9	
	comp=Z,0.7nm,1.1s						
ILAR	Eielson Array	91.95	25	P	P	00 40 57.7	-2.3
	comp=Z,0.3nm,0.8s,baz=236,slow=4.9,SNR=2.1						
	comp=Z,0.3nm,0.8s						
MMAI	Mount Meron Ar	97.74	302	P	P	00 41 25.8	-1.5
	comp=Z,3.2nm,1.0s,baz=114,slow=6.6,SNR=0.8						
	comp=Z,3.2nm,1.0s						
BRTR	Keskin Array B	99.28	309	P	Pdif	00 41 34.2	+0.1
	comp=Z,0.5nm,0.9s,baz=29,slow=3.3,SNR=2.7						
	comp=Z,0.5nm,0.9s						

IDC ***16*** *00:34:27.2±0.8,57°.67S×24°.38W, h0km, mb4.1/8, mbtmp4.1/8, Error ellipse: s-maj=30.3km s-min=20.2km az=71.0*
NEIC ***16*** *00:34:29.6±1.9,57°.6S±0°.1×24°.6W±0°.1, h10km±1km, mb4.4/9, Error ellipse: s-maj=25.3km s-min=5.1km az=201.0*

ISC 16 00:34:28.7±0.6, 57°.7S±0°.1×24°.6W±0°.2, h10km, n50, σ0s64/39, mb4.2/8, 3C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HOPE	Hope Point	7.49	292	Pn	Pn	00 36 18.2	+0.3
VNA1	Neumayer--Stat	14.71	158	⇑ P	Pn	00 37 57.2	+0.7
	comp=Z,2.5nm,0.2s						
VNA3	Neumayer Olymp	14.94	161	⇑ P	Pn	00 37 59.5	-0.2
	comp=Z,3.0nm,0.2s						
VNA2	Neumayer--Watz	15.11	158	⇑ P	Pn	00 38 02.7	+0.9
	comp=Z,2.5nm,0.3s,baz=330,slow=14						
PMSA	Palmer Station	19.93	233	P	Pn	00 39 03.6	+1.6
	comp=Z,28nm,1.0s,baz=81,slow=4.9,SNR=2.0						
	comp=Z,28nm,1.0s						
PMSA	Palmer Station	19.93	233	P	Pn	00 39 03.2	+1.2
PMSA				IAmb	IAmb	00 39 10.0	
	comp=Z,31nm,1.0s						
QSPA	South Pole Qui	32.52	180	P	P	00 40 59.3	-0.1
	comp=Z,1.7nm,0.5s,baz=210,slow=1.5,SNR=14						
	comp=Z,1.7nm,0.5s						
QSPA	South Pole Qui	32.52	180	P	P	00 40 59.6	+0.2
QSPA				IAmb	IAmb	00 40 59.9	
	comp=Z,1.9nm,0.6s						
BI02	San Fabin de	37.07	284	P	P	00 41 37.0	-1.9
CPUP	Villa Florida	38.97	310	P	P	00 41 55.3	+0.4
	comp=Z,0.4nm,0.3s,baz=126,slow=6.4,SNR=4.5						
	comp=Z,0.4nm,0.3s						
CPUP	Villa Florida	38.97	310	P	P	00 41 55.5	+0.6
CFA	Coronel Fontan	39.51	292	P	P	00 42 00.7	+1.3
	comp=Z,0.5nm,0.3s,baz=135,slow=5.7,SNR=3.6						
	comp=Z,0.5nm,0.3s						
MT02	Curacav	39.64	288	P	P	00 41 59.7	-0.7
MT02				IAmb	IAmb	00 42 06.9	
	comp=Z,10nm,1.1s						
VNDA	Vanda	44.95	182	P	P	00 42 42.8	-0.4
	comp=Z,1.8nm,0.8s,baz=174,slow=6.1,SNR=5.7						
	comp=Z,1.8nm,0.8s						
VNDA	Vanda	44.95	182	P	P	00 42 43.0	-0.2
BDFB	Brasilia	45.53	328	P	P	00 42 49.1	+0.6
	comp=Z,0.9nm,0.3s,baz=108,slow=4.2,SNR=4.0						
	comp=Z,0.9nm,0.3s						
H04S2	CROZET ISLANDS	45.60	111	T	T	01 32 30.2	
	baz=226						
H04S3	CROZET ISLANDS	45.61	111	T	T	01 32 31.0	
	baz=226						
H04S1	CROZET ISLANDS	45.62	111	T	T	01 32 33.5	
	baz=226						
H10S2	ASCENSION HYDR	49.26	13	T	T	01 37 03.9	
	baz=34,slow=74						
H10S3	ASCENSION HYDR	49.27	13	T	T	01 37 04.6	
	baz=186,slow=74						
H10N1	ASCENSION HYDR	50.38	13	T	T	01 38 28.8	
	baz=186						
H10N3	ASCENSION HYDR	50.38	13	T	T	01 38 26.7	
	baz=186						
H10N2	ASCENSION HYDR	50.40	13	T	T	01 38 29.6	
	baz=186						
LPAZ	La Paz	52.49	304	P	P	00 43 41.6	-0.8
	comp=Z,1.3nm,0.4s,baz=82,slow=4.0,SNR=13						
	comp=Z,1.3nm,0.4s						
LPAZ	La Paz	52.49	304	P	P	00 43 41.9	-0.6
LPAZ				IAmb	IAmb	00 43 45.3	
	comp=Z,1.2nm,0.6s						
BOAV	Boa Vista	66.47	320	P	P	00 45 18.5	+0.3
BOAV				IAmb	IAmb	00 45 19.0	
	comp=Z,7.7nm,0.9s						
TORD	Tordi Ar. Bea	73.88	27	P	P	00 46 02.3	-1.3
	comp=Z,0.7nm,0.5s,baz=187,slow=5.7,SNR=4.1						
	comp=Z,0.7nm,0.5s						
EIDS	Eidsvold	97.15	176	P	Pdif	00 48 05.0	+3.7
PDAR	Pinedale Array	122.41	300	PKP	PKPdf	00 53 22.9	-0.6
	comp=Z,0.2nm,0.4s,baz=239,slow=1.7,SNR=4.1						
FINES	FINESS Array B	125.23	27	PKP	PKiKP	00 53 28.2	-0.1
	comp=Z,3.5nm,1.0s,baz=191,slow=0.7,SNR=5.7						
YKA	Yellowknife Ar	138.36	316	PKP	PKPdf	00 53 52.5	-0.2
	comp=Z,0.6nm,0.6s,baz=134,slow=2.0,SNR=11						
YKA	Yellowknife Ar	138.36	316		PKPdf	00 53 53.3	+0.6
H29M	Whitestone	149.20	314	PKPbc	PKPbc	00 54 16.0	+0.2
G29M	Pine Creek	149.26	315	PKPbc	PKPbc	00 54 16.4	+0.5
NRIK	Noril'sk	149.41	40	PKPbc	PKiKP	00 54 18.2	+0.9
SONM	Songino Array	149.41	87	PKPbc	PKiKP	00 54 17.7	-0.4
	comp=Z,1.5nm,0.8s,baz=202,slow=5.7,SNR=5.9						
SONM	Songino Array	149.41	87		PKiKP	00 54 18.1	-0.1
E29M	Blow River	149.58	318		PKPbc	00 54 16.7	0.0
MCARA	McCarthy VSAT	149.60	303	PKPbc	PKiKP	00 54 17.9	-0.1
I28M	Miner Creek	149.60	312		PKPbc	00 54 17.1	+0.2
ILAR	Eielson Array	152.28	309	PKPbc	PKiKP	00 54 23.6	+0.2
	comp=Z,1.1nm,0.4s,baz=137,slow=2.7,SNR=24						
ILAR	Eielson Array	152.28	309		PKPbc	00 54 23.4	+0.3
F25K	Christian Rive	152.30	315	PKPbc	PKiKP	00 54 24.5	+1.1
C26K	Camden Bay	152.30	320	PKPbc	PKiKP	00 54 23.8	+0.6
SLKM	Skilak Lake	152.60	299	PKPbc	PKPbc	00 54 24.0	0.0
CCB	Clear Creek Bu	152.63	308	PKPbc	PKPbc	00 54 23.8	-0.1
BRLK	Bradley Lake	152.68	297	PKPbc	PKiKP	00 54 24.6	+0.3
WRH	Wood River Hil	152.72	308	PKPbc	PKPbc	00 54 23.9	-0.2
D25K	Kavik River	152.76	319	PKPbc	PKiKP	00 54 24.4	+0.1

CATAC ***16*** *00:38:21.3±0.6, 13°N±4°×8°9W±°, h23km±3km, M3.5/17, MLv3.5/17, Error ellipse: s-maj=8.1km s-min=3.4km az=21.0, confirmed*
SNET ***16*** *00:38:22.6±0.7, 13°.20N×89°.26W, h55km±12km, ML3.4, Presumed earthquake*
GCG ***16*** *00:38:22.2±1.7, 13°.12N×89°.34W, h33km±8km, MD4.0, Presumed earthquake*

ISC 16 00:38:21.9±1.5, 13°.10N±0°.06×89°.33W±0°.04, h24km±11km, n55, σ0s72/73, 1C-6D, El Salvador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LALI	Alcalda de L	0.39	1	P	Pb	00 38 29.3	-0.9
LALI				S	Sb	00 38 36.0	+0.1
LALI	Alcalda de L	0.39	1	i P	Pb	00 38 29.5	-0.8
PANCS	Alcalda de	0.53	16	S	Sn	00 38 42.1	-0.2
LOMA	Loma Larga	0.56	15	P	Pn	00 38 34.1	-0.4
LOMA	Loma Larga	0.56	15	eP	Pn	00 38 34.3	-0.3
LOMA				eS	Sn	00 38 43.2	0.0
JAYA	Jayaque - finc	0.57	348	P	Pn	00 38 34.4	-0.2
JAYA	Jayaque - finc	0.57	348	i P	Pn	00 38 34.4	-0.2
JAYA				i S	Sn	00 38 42.2	-1.0
JAYA	Jayaque - finc	0.57	348	‖ iP	Pn	00 38 34.4	-0.2
JAYA				eS	Sn	00 38 42.6	-0.6
LFRS	El Faro	0.58	26	⇑ eP	Pn	00 38 34.3	-0.4
LFRS				eS	Sn	00 38 43.3	-0.3
PMON	Piamonte	0.61	1	P	Pb	00 38 34.8	+0.8
PMON				S	Sn	00 38 44.2	-0.1
PMON	Piamonte	0.61	1	‖ iP	Pb	00 38 34.9	+0.8
SEMO	Seminario San	0.61	9	S	Sn	00 38 43.7	-0.6
UEES	Universidad Ev	0.62	8	P	Pb	00 38 35.0	+0.8
UEES				S	Sn	00 38 44.6	+0.1
UEES	Universidad Ev	0.62	8	eP	Pb	00 38 34.9	+0.8
BOQS	Boqueron	0.64	4	‖ iP	Pb	00 38 35.4	+0.9
BOQS				eS	Sn	00 38 44.8	-0.2
PIC2	El Picacho	0.65	6	eP	Pb	00 38 35.6	+0.9
COEG	Centro de Oper	0.68	40	P	Pn	00 38 35.0	-1.1
COEG				S	Sn	00 38 44.9	-0.9
COEG	Centro de Oper	0.68	40	eP	Pn	00 38 35.1	-0.9
LFU	La Fuente	0.68	18	‖ eP	Pb	00 38 35.9	+0.7
TECO	Alcaldia de Te	0.69	50	P	Pn	00 38 35.1	-1.1
TECO				S	Sn	00 38 44.5	-1.5
TECO	Alcaldia de Te	0.69	50	eP	Pn	00 38 35.0	-1.1
CEDA	San Andres	0.70	355	eP	Pb	00 38 36.4	+0.8
PAVA	Las Pavas	0.72	32	P	Pn	00 38 36.0	-0.6
PAVA				S	Sb	00 38 46.4	+1.0
PAVA	Las Pavas	0.72	32	‖ eP	Pb	00 38 36.1	+0.3
ALJI	Alcalda de J	0.77	73	P	Pn	00 38 36.7	-0.5
ALJI				S	Sb	00 38 47.8	+1.1
ALJI	Alcalda de J	0.77	73	eP	Pn	00 38 36.8	-0.5
CEVE	Cerro Verde	0.78	338	P	Pb	00 38 38.1	+1.1
CEVE	Cerro Verde	0.78	338	eP	Pb	00 38 38.0	+1.0
SBLS	San Blas	0.79	339	eP	Pb	00 38 37.6	+0.5
SNJE	San Jose	0.81	340	eP	Pb	00 38 37.8	+0.3
RTR	El Retiro	0.85	339	eP	Pb	00 38 38.6	+0.4
TECA	Tecapa	0.89	64	eP	Pn	00 38 38.5	-0.6
UNIC	Universidad Ca	0.91	346	P	Pn	00 38 38.4	-0.7
UNIC				S	Sb	00 38 51.9	+1.3
NUBE	Las Nubes	0.91	331	P	Pn	00 38 38.9	-0.5
NUBE	Las Nubes	0.91	331	i P	Pn	00 38 39.0	-0.4
NUBE				i S	Sb	00 38 51.1	+0.1
NUBE	Las Nubes	0.91	331	‖ eP	Pn	00 38 39.0	-0.4
FAME	Alcaldia de Sa	1.00	318	P	Pn	00 38 39.9	-0.5
FAME				S	Sn	00 38 52.6	-1.2
SLOZ	Alcaldia de Sa	1.02	334	eP	Pn	00 38 40.6	-0.1
PACA	Pacayal	1.04	69	P	Pn	00 38 40.9	-0.2
PACA				S	Sb	00 38 54.9	+0.2
PACA	Pacayal	1.04	69	eP	Pn	00 38 40.6	-0.5
LCY	Lacayo	1.05	72	eP	Pn	00 38 41.0	-0.3
JUCU	Jucuarˌn	1.06	81	eP	Pn	00 38 41.0	-0.3
RANC	El Ranchito	1.06	72	P	Pn	00 38 40.8	-0.6
RANC				S	Sb	00 38 55.1	-0.1
RANC	El Ranchito	1.06	72	eP	Pn	00 38 40.9	-0.6
INTP	Intipuca	1.24	85	eP	Pn	00 38 43.4	-0.3
LCND	La Caada	1.41	81	P	Pn	00 38 45.5	-0.5
LCND	La Caada	1.41	81	eP	Pn	00 38 45.4	-0.3
ESQI	Esquipulas	1.45	359	P	Pn	00 38 46.4	-0.4
CNCH	Conchagua	1.46	83	P	Pn	00 38

DKL	**Dikili**	**1.20**	**5**	Pn	**Pg**	**00 56 13.8**	**-0.2**
DKL				AML	AML		
GORD	**Gordes-Manisa**	**1.50**	**46**	Pn	**Pn**	**00 56 17.7**	**+0.1**
GORD				AML	AML		

*ISK **16** 00:56:14.7, 37.8**4**N×26.9**7**E, h**14**km, ML2.6/10*
*THE **16** 00:56:15.2, 37.8**5**N±0.0**8**×27.0**E**±0.0**6**, h**8**km±**1**km, M2.5/6, MLh2.5/6*
AFAD 16 00:56:14.4, 37.82N×26.91E, h7km±4km, ML2.3, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.13**	**208**	P	Pg	00 56 18.5	+1.3
SMG				S	Sg	00 56 21.0	+2.0
SMG				AML	AML		
DGB	**zmir**	**0.23**	**354**	P	Pg	00 56 19.7	+0.7
DGB				S	Sg	00 56 22.2	+0.1
GMLD	**Gumuldur**	**0.25**	**0**	Pg	Pg	00 56 20.2	+0.8
GMLD				Sg	Sb	00 56 25.0	-0.9
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**115**	P	Pg	00 56 20.5	+0.6
GCAM				S	Sg	00 56 24.3	+0.6
GCAM	**G?zelcaml?**	**0.28**	**115**	Pg	Pg	00 56 20.6	+0.7
GCAM				Sg	Sg	00 56 24.6	+0.9
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**83**	Pg	Pg	00 56 20.6	+0.3
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**2**	P	Pg	00 56 22.9	+0.7
BEYE				S	Sg	00 56 28.4	+0.7
DDIM	**Aydin, Didim**	**0.45**	**144**	P	Pb	00 56 23.9	-0.7
DDIM				S	Sg	00 56 29.7	+0.8
DDIM				IAML		00 56 31.0	
	comp=N,436nm,0.2s						
DDIM				IAML		00 56 32.0	
	comp=E,219nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.53**	**322**	P	Pg	00 56 25.1	+0.5
ZEYE				S	Sg	00 56 32.4	+0.9
ZEYE				IAML		00 56 37.0	
	comp=E,286nm,0.2s						
BLCB	**Balcova**	**0.57**	**10**	P	Pg	00 56 25.8	+0.4
BLCB				S	Sb	00 56 34.0	-1.0
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**10**	Pg	Pg	00 56 25.9	+0.5
BLCB				Sg	Sb	00 56 34.1	-1.0
BLCB				AML	AML		
DUVT	**Torbali**	**0.58**	**47**	P	Pg	00 56 25.7	+0.1
AYDN	**Tasoluk**	**0.78**	**102**	P	Pg	00 56 29.9	+0.4
AYDN				S	Sg	00 56 38.5	-1.1
AYDN				IAML		00 56 44.0	
	comp=N,92nm,0.2s						
AYDN				IAML		00 56 44.0	
	comp=E,100nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.78**	**81**	Pg	Pg	00 56 29.7	+0.2
AYDB				AML	AML		
BODT	**Bodrum**	**0.82**	**157**	S	Sb	00 56 42.1	-0.1
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**157**	Pg	Pb	00 56 30.7	-0.3
BODT				Sg	Sb	00 56 42.9	+0.7
BODT				AML	AML		
BAGT	**Foa**	**0.83**	**357**	P	Pb	00 56 31.1	-0.1
BAGT				S	Sg	00 56 41.0	-0.2
BAGT				IAML		00 56 43.0	
	comp=N,112nm,1.0s						
BAGT				IAML		00 56 45.0	
	comp=E,76nm,0.4s						
MLSB	**Milas**	**0.86**	**127**	Pg	Pg	00 56 30.9	-0.1
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.87**	**151**	P	Pg	00 56 30.8	-0.2
BDRM				S	Sg	00 56 42.2	-0.1
BDRM				IAML		00 56 46.0	
	comp=E,128nm,0.3s						
BDRM				IAML		00 56 47.0	
	comp=N,117nm,0.2s						
IZMR	**zmir-demi**	**0.88**	**69**	P	Pb	00 56 32.0	+0.1
IZMR				S	Sg	00 56 39.9	-2.8
CHOS	**Chios island**	**0.88**	**310**	P	Pb	00 56 32.6	+0.5
CHOS				S	Sn	00 56 45.4	-0.9
BODA	**Bodrum-Mula**	**0.89**	**152**	Pg	Pb	00 56 32.4	+0.3
KARB	**zmir-Karabur**	**0.93**	**335**	P	Pb	00 56 32.8	0.0
KARB				S	Sb	00 56 44.8	-0.5
KARB				IAML		00 56 49.0	
	comp=N,134nm,0.4s						
KARB				IAML		00 56 50.0	
	comp=E,93nm,0.7s						
CAMT	**Merkez**	**0.98**	**19**	P	Pn	00 56 34.2	-0.3
CAMT				S	Sb	00 56 46.9	+0.2
CAMT				IAML		00 56 49.0	
	comp=N,148nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.10**	**82**	Pg	Pg	00 56 35.4	-0.1
NAZL				Sg	Sb	00 56 50.2	-0.1
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.14**	**91**	P	Pg	00 56 36.2	0.0
ESEN				S	Sg	00 56 49.2	-1.8
ZEDA	**zmir-Bergama**	**1.15**	**6**	P	Pg	00 56 36.4	-0.1
ZEDA				S	Sg	00 56 51.5	+0.1
ZEDA				IAML		00 56 55.0	
	comp=N,45nm,0.3s						
ZEDA				IAML		00 56 56.0	
	comp=E,58nm,0.4s						
DAT	**Datca**	**1.21**	**154**	P	Pn	00 56 37.8	0.0
DAT	**Datca**	**1.21**	**154**	P	Pb	00 56 37.7	0.0
YAZI	**Mula-Dat§a-**	**1.22**	**159**	P	Pn	00 56 38.0	+0.2
YAZI				S	Sg	00 56 52.4	-1.1
KIRA	**zmir-Kiraz**	**1.23**	**72**	S	Sg	00 56 51.2	-2.9
MULA	**Mugla, Merkez-**	**1.25**	**116**	P	Pn	00 56 37.6	-0.8
MULA				S	Sg	00 56 52.3	-2.4
KTTT	**Salihli**	**1.27**	**47**	P	Pb	00 56 38.6	0.0
KTTT				S	Sb	00 56 52.7	-2.5
KTTT				IAML		00 56 58.0	
	comp=N,46nm,0.4s						
AKHS	**Akhisar**	**1.27**	**34**	P	Pn	00 56 36.5	-2.0
AKHS				IAML		00 56 59.0	
	comp=N,68nm,0.3s						
YER	**Yerkesik**	**1.29**	**122**	P	Pn	00 56 38.4	-0.4
SOMA	**Soma-Manisa**	**1.42**	**20**	Pn	Pn	00 56 40.2	-0.4
SOMA				AML	AML		
MANT	**Manisa**	**1.46**	**62**	P	Pg	00 56 42.3	-0.1
MANT				S	Sn	00 56 57.2	-3.6
GORD	**Gordes-Manisa**	**1.47**	**42**	Pn	Pn	00 56 41.0	-0.4
GORD				AML	AML		
AYVA	**Ayvalik**	**1.49**	**353**	P	Pn	00 56 39.8	-1.8
AYVA				IAML		00 57 10.0	
	comp=N,30nm,0.6s						

*STR **16** 01:13:21.6±0.0, 42.5N±0.1×1.3E±0.0**9**, h5km, MLv1.6/8, LOCSAT earthModelID pyrenees_taup-2.11 preliminary*
MRB 16 01:13:19.9±0.6, 42.55N×1.34E, h4km±18km, ML-0.8/3, Error ellipse: s-maj=3.3km s-min=2.0km az=246.0, Pyrenees

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CEST	**Esterri de Car**	**0.08**	**310**	P	Pg	01 13 21.4	-0.3
CEST				S	Sg	01 13 22.9	0.0
	2.9nm,0.1s						
CEST				AML	AML		
PAND	**Andorre**	**0.16**	**99**	P	Pg	01 13 23.3	+0.2
PAND				AML	AML		
ARBS	**La Rabassa**	**0.18**	**123**	P	Pg	01 13 23.2	-0.4
ARBS				S	Sg	01 13 25.5	-0.6
	0.7nm,0.1s						
ARBS				AML	AML		
CSOR	**Sort**	**0.23**	**221**	P	Pg	01 13 23.9	-0.4
SALF	**Salau**	**0.24**	**333**	P	Pg	01 13 24.3	-0.3
SALF	**Salau**	**0.24**	**333**	Pg	Pg	01 13 25.3	+0.8
SALF				Sg	Sg	01 13 28.9	+1.2
CORG	**Organya**	**0.32**	**183**	P	Pg	01 13 26.3	+0.3
GENF	**Genat**	**0.33**	**32**	P	Pg	01 13 25.6	-0.6
CARA	**Val d'Aran**	**0.42**	**293**	P	Pg	01 13 27.9	-0.1
VIER	**Vielha - Casau**	**0.44**	**292**	Pg	Pb	01 13 29.8	-0.5
VIER				Sg	Sg	01 13 34.9	+0.9
MLS	**Moulis**	**0.45**	**337**	Pg	Pb	01 13 29.6	-0.8
DUNF	**Dun**	**0.59**	**36**	Pg	Pb	01 13 33.3	+0.4
CARF	**Carcanieres**	**0.59**	**73**	Pg	Pb	01 13 32.6	-0.2
FNEB	**Nbias**	**0.67**	**58**	Pg	Pb	01 13 34.3	+0.1
LATF	**Latrape**	**0.69**	**358**	Pg	Pb	01 13 34.9	+0.5
LATF				Sg	Sb	01 13 44.6	+0.3
ECHI	**Chisagues Biel**	**0.85**	**278**	Pg	Pb	01 13 37.4	+0.1
ECHI	**Chisagues Biel**	**0.85**	**278**	Pg	Pb	01 13 36.8	-0.5
ECHI				Sg	Sg	01 13 47.8	+0.5
ECHI				IVmb_Lg		01 13 56.8	
EPF	**Esparros**	**0.88**	**304**	*e*Sg	Sg	01 13 48.5	+0.3
	3.8nm,0.2s						
FILF	**Fillols**	**0.90**	**89**	P	Pg	01 13 37.0	-0.2
FILF				S	Sg	01 13 48.4	-0.5
	4.9nm,0.1s						
FILF				AML	AML		
FILF	**Fillols**	**0.90**	**89**	Pg	Pg	01 13 37.7	+0.5
FILF	**Fillols**	**0.90**	**89**	Pg	Pg	01 13 36.6	-0.6
FILF				Sg	Sg	01 13 48.5	-0.4
EPOB	**Poblet**	**1.21**	**189**	Sg	Sn	01 13 60.0	-0.5
ETSF	**Etsaut**	**1.44**	**285**	*e*Sg	Sn	01 14 06.7	+0.4
	5.3nm,0.3s						
ESAC	**San Caprasio**	**1.58**	**239**	Sg	Sg	01 14 10.4	-0.2
SLVF	**La Salvetat-Pe**	**1.75**	**20**	Pg	Pg	01 13 54.0	+0.5
SLVF				Sg	Sg	01 14 17.2	+1.0

*LDG **16** 01:13:21.9±0.1, 42.5**5**N×1.3**1**E, h5km, Md2.5/1, Ml2.1/9, Error ellipse: s-maj=1.8km s-min=1.5km az=166.0*
*MDD **16** 01:13:22.3±0.3, 42.5**6**N×1.3**0**E, h12km, mb_Lg2.1/23, Error ellipse: s-maj=2.0km s-min=1.5km az=14.0*
*STR **16** 01:13:23.1±0.0, 42.6N±0.2×1.4E±0.1, h5km, MLv1.4/7, LOCSAT earthModelID pyrenees_taup-2.11 preliminary*
MRB 16 01:13:22.5±0.3, 42.56N×1.35E, h4km±2km, ML1.3/25, Error ellipse: s-maj=1.2km s-min=0.8km az=58.0, Pyrenees

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CEST	**Esterri de Car**	**0.08**	**298**	P	Pg	01 13 24.5	+0.2
CEST				S	Sg	01 13 26.0	+0.5
	136nm,0.2s						
CEST				AML	AML		
PAND	**Andorre**	**0.15**	**105**	P	Pg	01 13 25.4	-0.1
PAND				S	Sg	01 13 27.9	+0.4
	72nm,0.3s						
PAND				AML	AML		
PAND	**Andorre**	**0.15**	**105**	Pg	Pg	01 13 25.8	+0.3
PAND				Sg	Sg	01 13 28.3	+0.8
PAND	**Andorre**	**0.15**	**105**	Pg	Pg	01 13 24.7	-0.9
PAND				Sg	Sg	01 13 27.3	-0.2
PAND	**Andorre**	**0.15**	**105**	S	Pg	01 13 25.4	-0.1
	1.6nm,0.1s						
ARBS	**La Rabassa**	**0.18**	**128**	P	Pg	01 13 26.4	+0.2
ARBS				S	Sg	01 13 29.1	+0.5
	51nm,0.3s						
ARBS				AML	AML		
SALF	**Salau**	**0.23**	**329**	P	Pg	01 13 27.5	+0.4
SALF				S	Sg	01 13 30.5	+0.4
	96nm,0.1s						
SALF				AML	AML		
SALF	**Salau**	**0.23**	**329**	Pg	Pg	01 13 26.9	-0.2
SALF				Sg	Sg	01 13 30.1	-0.1
SALF	**Salau**	**0.23**	**329**	S	Pg	01 13 27.5	+0.5
CSOR	**Sort**	**0.24**	**221**	P	Pg	01 13 27.2	0.0
CSOR				S	Sg	01 13 30.9	+0.4
	83nm,0.2s						
CSOR				AML	AML		
CSOR	**Sort**	**0.24**	**221**	S	Pg	01 13 27.0	-0.2
GENF	**Genat**	**0.31**	**32**	P	Pg	01 13 28.8	+0.3
GENF				S	Sg	01 13 32.9	+0.3
GENF	**Genat**	**0.31**	**32**	Pg	Pg	01 13 28.7	+0.2
GENF				Sg	Sg	01 13 33.3	+0.7
CORG	**Organya**	**0.33**	**184**	P	Pg	01 13 28.9	+0.1
CORG				S	Sg	01 13 33.7	+0.5
	27nm,0.3s						
CORG				AML	AML		
CARA	**Val d'Aran**	**0.42**	**291**	P	Pg	01 13 30.2	-0.4
CARA				S	Sg	01 13 36.5	+0.3
	31nm,0.3s						
CARA				AML	AML		
MLS	**Moulis**	**0.44**	**335**	P	Pg	01 13 30.9	-0.1
MLS				S	Sg	01 13 36.5	-0.2
	14nm,0.4s						
MLS				AML	AML		
MLS	**Moulis**	**0.44**	**335**	Pg	Pb	01 13 32.0	-0.8
MLS				Sg	Sg	01 13 36.9	+0.2
CLLI	**Llivia**	**0.47**	**100**	P	Pg	01 13 31.3	-0.2
CLLI				S	Sg	01 13 37.8	+0.2
	12nm,0.2s						
CLLI				AML	AML		
CTRE	**Tremp**	**0.49**	**241**	P	Pg	01 13 31.7	-0.2
CTRE				AML	AML		
	16nm,0.3s						
VALC	**Valcebollere**	**0.54**	**109**	P	Pg	01 13 32.8	-0.1
VALC				S	Sg	01 13 40.6	+0.6
	25nm,0.1s						
VALC				AML	AML		
DUNF	**Dun**	**0.57**	**36**	Pg	Pb	01 13 34.5	-0.7
CARF	**Carcanieres**	**0.58**	**74**	P	Pg	01 13 33.1	-0.5
CARF				S	Sg	01 13 41.6	+0.5
	11nm,0.1s						
CARF				AML	AML		
CARF	**Carcanieres**	**0.58**	**74**	Sg	Sg	01 13 41.6	+0.5
FNEB	**Nbias**	**0.66**	**58**	Pg	Pg	01 13 35.4	+0.3
EMIR	**Miracle**	**0.66**	**169**	Pg	Pg	01 13 34.9	-0.2
EMIR				Sg	Sg	01 13 43.5	-0.2
EMIR				IVmb_Lg		01 13 45.8	
CBRU	**Bruguera**	**0.67**	**114**	P	Pg	01 13 35.3	-0.1
CBRU				S	Sg	01 13 44.7	+0.6
	13nm,0.2s						
CBRU				AML	AML		
LATF	**Latrape**	**0.68**	**357**	Pg	Pg	01 13 35.9	+0.5
CORI	**Orista**	**0.78**	**138**	P	Pg	01 13 37.2	-0.3
CORI				S	Sg	01 13 48.4	+0.8
	5.6nm,0.2s						
CORI				AML	AML		
RESF	**Ens**	**0.79**	**289**	Pg	Pg	01 13 37.9	+0.3
CAVN	**Les Avellanes**	**0.81**	**214**	P	Pg	01 13 37.9	-0.2
CAVN				S	Sg	01 13 48.8	+0.3
ECHI	**Chisagues Biel**	**0.86**	**277**	P	Pg	01 13 38.5	-0.5
ECHI				AML	AML		
	4.8nm,0.3s						
EPF	**Esparros**	**0.88**	**303**	*e*Pg	Pg	01 13 37.7	-1.7
EPF	**Esparros**	**0.88**	**303**	*e*Pg	Pg	01 13 38.1	-1.3
	baz=125						
EPF				AML	AML		
MTLF	**Montolieu**	**1.01**	**39**	*e*Pg	Pg	01 13 41.8	0.0
MTLF				*e*Sg	Sg	01 13 54.6	-0.3
	18nm,0.3s						
MTLF				AML	AML		
CBEU	**Beuda**	**1.03**	**107**	P	Pg	01 13 41.5	-0.7
CBEU				S	Sg	01 13 56.0	+0.5
VIEF	**Viey**	**1.03**	**289**	S	Sg	01 13 55.3	-0.4
	3.5nm,0.3s						
VIEF				AML	AML		
CFON	**Fontmartina**	**1.13**	**134**	P	Pg	01 13 43.4	-0.8
CFON				S	Sg	01 13 59.3	+0.4
SJAF	**Saint Jean de**	**1.13**	**93**	P	Pg	01 13 43.5	-0.7
SJAF				S	Sg	01 13 59.2	+0.2
	11nm,0.3s						
SJAF				AML	AML		
SJAF	**Saint Jean de**	**1.13**	**93**	Pg	Pg	01 13 43.6	-0.6
SJAF				Sg	Sg	01 13 59.2	+0.2
EJON	**La Jonquera**	**1.14**	**95**	Pg	Pg	01 13 43.5	-0.9
EJON				Sg	Sb	01 14 00.1	0.0
EJON				IVmb_Lg		01 14 03.5	
EPOB	**Poblet**	**1.22**	**190**	P	Pg	01 13 45.2	-0.7
EPOB				S	Sg	01 14 01.6	-0.2
	9.2nm,0.2s						
EPOB				AML	AML		
EPOB	**Poblet**	**1.22**	**190**	Pg	Pg	01 13 45.1	-0.8
EPOB				IVmb_Lg		01 14 02.1	
CGAR	**Garraf**	**1.33**	**161**	P	Pn	01 13 46.5	-1.4
CGAR				S	Sg	01 14 05.1	-0.2
	4.9nm,0.3s						
CGAR				AML	AML		
CCAS	**Cassa de la Se**	**1.34**	**120**	P	Pn	01 13 47.0	-0.9
CCAS				S	Sg	01 14 05.3	-0.1
	8.2nm,0.5s						
CCAS				AML	AML		
CPAL	**Palau Saverder**	**1.36**	**100**	P	Pn	01 13 47.4	-0.9
CPAL				S	Sg	01 14 05.8	-0.5
	6.9nm,0.2s						
CPAL				AML	AML		
CLAF	**Gruissan**	**1.40**	**65**	*e*Pg	Pn	01 13 48.0	-0.8
CLAF				*e*Sg	Sb	01 14 07.3	-0.1
CLAF	**Gruissan**	**1.40**	**65**	P	Pn	01 13 47.4	-1.4
CLAF				S	Sb	01 14 06.4	-1.1
CLAF	**Gruissan**	**1.40**	**65**	Pg	Pn	01 13 47.3	-1.5
CLAF				Sg	Sb	01 14 07.4	-0.1
ETSF	**Etsaut**	**1.45**	**284**	*e*Pg	Pb	01 13 50.0	-0.1
ETSF				AML	AML		
ESAC	**San Caprasio**	**1.59**	**239**	P	Pn	01 13 50.9	-0.6
ESAC				S	Sn	01 14 12.5	-0.1
ESAC	**San Caprasio**	**1.59**	**239**	Pg	Pn	01 13 50.7	-0.8
ESAC				IVmb_Lg		01 14 18.8	
ATE	**Arette**	**1.60**	**290**	P	Pn	01 13 51.6	0.0
ATE				S	Sb	01 14 13.0	-0.1
	3.2nm,0.4s						
ATE				AML	AML		
ERTA	**Horta de San J**	**1.77**	**206**	P	Pn	01 13 53.7	-0.3
ERTA				S	Sn	01 14 17.1	+0.1
	4.6nm,0.4s						
ERTA				AML	AML		
ERTA	**Horta de San J**	**1.77**	**206**	Pg	Pb	01 13 55.0	-0.6
ERTA				Sg	Sn	01 14 16.3	-0.7
ERTA				IVmb_Lg		01 14 20.8	
SJPF	**Ste Jean**	**1.97**	**287**	*e*Pg	Pb	01 13 58.7	-0.3
SJPF				*e*Sg	Sb	01 14 24.9	+0.9
	3.9nm,0.3s						
SJPF				AML	AML		
CMAS	**Mas de Barbera**	**1.99**	**203**	S	Sn	01 14 22.6	+0.3
	3.7nm,0.2s						
CMAS				AML	AML		
EALK	**Alkurruntz**	**2.20**	**288**	Pg	Pn	01 13 59.9	-0.1
EALK				Sg	Sb	01 14 29.3	-1.3
EALK				IVmb_Lg		01 14 45.1	
LASF	**Ste Croix**	**2.38**	**49**	*e*Pg	Pb	01 14 06.4	+0.6
LASF				*e*Sg	Sb	01 14 36.6	+1.1
	1.9nm,0.3s						
LASF				AML	AML		
LFF	**La Frestale**	**2.42**	**350**	*e*Pg	Pb	01 14 06.5	-0.1
LFF				*e*Sg	Sb	01 14 38.1	+1.3
	3.3nm,0.3s						
LFF				AML	AML		
CAF	**Calviac**	**2.42**	**12**	*e*Pg	Pg	01 14 08.0	-0.9
CAF				*e*Sg	Sb	01 14 37.8	+1.0
	2.0nm,0.2s						
CAF				AML	AML		
RJF	**Les Rejaudoux**	**2.75**	**2**	*e*Sg	Sb	01 14 47.3	+1.1
	1.3nm,0.2s						
RJF				AML	AML		
VIVF	**Saint-Julien-l**	**3.33**	**45**	*e*Pg	Pb	01 14 23.5	+1.4
VIVF				*e*Sg	Sb	01 15 06.0	+3.1
	0.8nm,0.2s						
VIVF				AML	AML		

*IDC **16** 01:39:02.1±1.0, 31.37N×93.34E, h0km, mb3.7/7, mbtmp3.7/10, ML3.6/3, MS3.4/2, Error ellipse: s-maj=33.2km s-min=19.7km az=60.0*
ISC 16 01:39:07.4±1.1, 31.5N±0.2×93.5E±0.1, h35km, n13, σ1§24/11, mb3.5/6, Xizang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LZDM	**Lanzhou Array**	**9.63**	**60**	Pn	**Pn**	**01 41 22.9**	**-0.9**
	baz=250,slow=12						
	4.5nm,0.6s						
MKAR	**Makanchi Array**	**17.55**	**334**	P	**Pn**	**01 43 08.3**	**-0.9**
	baz=135,slow=14,SNR=5.1						
	0.5nm,0.6s						
SONM	**Songino Array**	**19.10**	**27**	P	**P**	**01 43 26.9**	**-0.2**
	0.2nm,0.3s,baz=218,slow=11,SNR=5.2						
	1.0nm,0.7s						
SONM				AML	AML		
KURBB	**Kurchatov Arra**	**22.12**	**334**	P	**P**	**01 43 59.8**	**+0.1**
	1.7nm,0.8s,baz=139,slow=12,SNR=12						
	1.7nm,0.8s						
ZALV	**Zalesovo Beam**	**23.31**	**347**	P	**P**	**01 44 12.8**	**+0.8**
	0.4nm,0.6s,baz=169,slow=10,SNR=1.6						
	0.4nm,0.6s						
KSRS	**Korea Array**	**28.93**	**69**	LR	LR	01 57 46.0	
	comp=Z,46nm,19.5s,baz=185,slow=39						
USRK	**Ussuriysk Ar.**	**32.68**	**56**	LR	LR	01 59 07.8	
	comp=Z,105nm,20.5s,baz=145,slow=37						
FINES	**FINESS Array B**	**52.16**	**326**	P	**P**	**01 48 15.8**	**+1.7**
	3.4nm,0.9s,baz=98,slow=10,SNR=2.0						
	3.4nm,0.9s						
WRA	**Warramunga Arr**	**64.43**	**137**	P	**P**	**01 49 41.2**	**+0.9**
	0.2nm,0.6s,baz=315,slow=7.6,SNR=1.2						
	0.2nm,0.6s						
ASAR	**Alice Springs**	**67.12**	**140**	P	**P**	**01 49 57.5**	**-0.1**
	0.6nm,0.6s,baz=325,slow=6.6,SNR=8.2						
	0.6nm,0.6s						
ILAR	**Eielson Array**	**73.25**	**23**	P	**P**	**01 50 35.9**	**+1.3**
	0.5nm,0.8s,baz=310,slow=6.5,SNR=5.3						
	0.5nm,0.8s						
TORD	**Torodi Ar. Bea**	**84.73**	**282**	P	**P**	**01 51 37.1**	**-1.2**
	1.3nm,0.9s,baz=47,slow=2.6,SNR=2.9						
	1.3nm,0.9s						
LPAZ	**La Paz**	**157.43**	**308**	PKPab	**PKPab**	**01 59 30.9**	**-1.8**
	0.4nm,0.3s,baz=45,slow=1.4,SNR=3.0						

*SJA **16** 01:41:31.5±0.7, 20.26S×70.90W, h29km±2km, ML3.2, MW3.6*
*GUC **16** 01:41:34.4±0.8, 20.22S×70.85W, h35km±3km, ML3.2, Presumed earthquake*
ISC 16 01:41:30.6±2.1, 20.20S±0.03×70.84W±0.06, h1km±13km, n32, σ1§48/52, 4C, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TA02	**Huaiquique**	**0.67**	**97**	*e*P	Pg	01 41 30.6	-13
TA02				*e*S	**Sg**	**01 41 45.4**	**-6.7**
TA02				IAML		01 41 56.6	
	comp=Z,2µm,0.4s						
TA02	**Huaiquique**	**0.67**	**97**	*e*P	**Pb**	**01 41 46.5**	**+1.4**
TA02				*e*S	**Sb**	**01 41 55.6**	**+0.9**
TA02				IAML		01 41 56.8	
	comp=E,3µm,0.1s						
TA01	**Diego Aracena**	**0.72**	**121**	*e*P	**Pb**	**01 41 47.0**	**+1.1**
TA01				*e*S	**Sb**	**01 41 57.5**	**+1.2**
TA01				IAML		01 41 58.2	
	comp=Z,2µm,0.8s						
TA01	**Diego Aracena**	**0.72**	**121**	*e*P	**Pb**	**01 41 46.8**	**+0.9**
TA01				*e*S	**Sb**	**01 41 57.1**	**+0.9**
TA01				IAML		01 41 58.8	
	comp=N,3µm,0.3s						
PSGCX	**Pisagua**	**0.90**	**49**	*e*P	**Pn**	**01 41 50.5**	**+0.1**
PSGCX				*e*S	**Sn**	**01 42 04.7**	**+0.6**
PSGCX				IAML		01 42 10.4	
	comp=Z,402nm,0.3s						
PSGCX	**Pisagua**	**0.90**	**49**	*e*P	**Pn**	**01 41 50.2**	**-0.2**
PSGCX				*e*S	**Sb**	**01 42 02.3**	**+0.8**
PB11	**IPOC Station P**	**1.19**	**69**	*e*P	**Pn**	**01 41 55.3**	**+0.7**
PB11				*e*S	**Sn**	**01 42 12.1**	**+0.7**
PB11				IAML		01 42 12.4	
	comp=Z,458nm,0.3s						
PB11	**IPOC Station P**	**1.19**	**69**	*e*P	**Pn**	**01 41 54.9**	**+0.3**
PB11				*e*S	**Sn**	**01 42 10.6**	**-0.8**
PB11				IAML		01 42 17.2	
	comp=N,802nm,0.3s						
PB02	**IPOC Station P**	**1.42**	**142**	*e*P	**Pn**	**01 41 58.2**	**+0.5**
PB02				*e*S	**Sg**	**01 42 18.1**	**+1.7**
PB02				IAML		01 42 22.0	
	comp=Z,987nm,0.3s						
PB02	**IPOC Station P**	**1.42**	**142**	⇑*i*P	**Pn**	**01 41 57.8**	**+0.1**
PB02				*e*S	**Sb**	**01 42 16.4**	**-0.3**
PB02				IAML		01 42 23.7	
	comp=E,1µm,0.5s						
PB08	**IPOC Station P**	**1.58**	**88**	*e*P	**Pb**	**01 42 01.3**	**+0.4**
PB08

PB12				IAML			01 42 35.3	
	comp=E,274nm,0.4s							
PB07	**IPOC Station P**	**1.76**	**150**	*eP*	**Pn**	**01 42 02.4**	**-0.1**	
PB07				*eS*	**Sn**	**01 42 24.2**	**-1.4**	
PB07				IAML		01 42 41.7		
	comp=Z,215nm,0.5s							
PB07	**IPOC Station P**	**1.76**	**150⇑**	*iP*	**Pn**	**01 42 02.2**	**-0.2**	
PB07				*eS*	**Sn**	**01 42 24.8**	**-0.8**	
PB07				IAML		01 42 32.3		
	comp=E,186nm,0.4s							
AP01	**Chacalluta**	**1.87**	**15**	*eP*	Pn	01 41 52.4	-11	
AP01				IAML		01 42 39.2		
	comp=Z,235nm,0.3s							
AP01	**Chacalluta**	**1.87**	**15**	IAML		01 42 42.7		
	comp=E,734nm,0.5s							
PB03	**IPOC Station P**	**2.10**	**151**	*eP*	**Pn**	**01 42 07.0**	**-0.1**	
PB03				*eS*	**Sn**	**01 42 32.8**	**-1.2**	
PB03				IAML		01 42 44.3		
	comp=Z,169nm,0.3s							
PB03	**IPOC Station P**	**2.10**	**151**	*eP*	**Pn**	**01 42 06.9**	**-0.2**	
PB03				IAML		01 42 48.0		
	comp=E,143nm,0.4s							
PB09	**IPOC Station P**	**2.18**	**137**	*eP*	**Pn**	**01 42 09.6**	**+1.4**	
PB09				*eS*	**Sb**	**01 42 37.9**	**-0.7**	
PB09				IAML		01 42 50.3		
	comp=Z,217nm,0.7s							
PB09	**IPOC Station P**	**2.18**	**137⇑**	*iP*	**Pn**	**01 42 09.6**	**+1.4**	
PB09				IAML		01 42 49.1		
	comp=E,238nm,0.4s							
PB16	**IPOC Station P**	**2.24**	**34**	*eP*	**Pb**	**01 42 11.8**	**-0.3**	
PB16				IAML		01 42 53.0		
	comp=Z,156nm,0.9s							
PB16	**IPOC Station P**	**2.24**	**34**	*eP*	**Pb**	**01 42 12.6**	**+0.5**	
PB16				*eS*	**Sg**	**01 42 42.5**	**-0.1**	
PB16				IAML		01 42 50.0		
	comp=E,164nm,0.5s							
PB05	**IPOC Station P**	**2.71**	**168**	*eP*	**Pn**	**01 42 15.0**	**-0.4**	
PB05				*eS*	**Sg**	**01 42 58.4**	**+0.7**	
PB05				IAML		01 43 05.4		
	comp=Z,47nm,0.8s							
PB05	**IPOC Station P**	**2.71**	**168**	*iP*	**Pn**	**01 42 14.3**	**-1.1**	
PB05				IAML		01 43 07.0		
	comp=N,74nm,0.6s							
PB06	**IPOC Station P**	**2.76**	**155**	*eP*	**Pn**	**01 42 15.8**	**-0.4**	
PB06				*eS*	**Sn**	**01 42 52.7**	**+2.5**	
PB06				IAML		01 43 07.6		
	comp=Z,93nm,0.6s							
PB06	**IPOC Station P**	**2.76**	**155**	*eP*	**Pn**	**01 42 15.6**	**-0.6**	
PB06				IAML		01 43 13.0		
	comp=N,82nm,0.6s							
PB10	**IPOC Station P**	**3.31**	**176**	*eP*	**Pn**	**01 42 22.9**	**-0.7**	
PB10				IAML		01 43 22.4		
	comp=Z,27nm,1.2s							
PB10	**IPOC Station P**	**3.31**	**176**	*eP*	**Pn**	**01 42 22.1**	**-1.5**	
PB10				IAML		01 43 30.2		
	comp=N,24nm,0.5s							

IDC 16 01:49:53.8±2.9, 16°.59S×176°.34W, h549km±27km, mb3.2/5, mbtmp4.1/6, Error ellipse: s-maj=38.2km s-min=31.8km az=97.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**5.49**	**257**	P	P	01 51 27.8	0.0
	27nm,0.8s,baz=120,slow=16,SNR=22						
URZ	**Urewera**	**22.34**	**194**	P	P	01 54 10.8	0.0
	2.8nm,0.3s,baz=10.0,slow=17,SNR=5.6						
	2.8nm,0.3s						
STKA	**Stephens Creek**	**41.00**	**240**	P	P	01 56 48.6	-0.8
	3.9nm,1.1s,baz=104,slow=9.4,SNR=3.4						
	3.9nm,1.1s						
WRA	**Warramunga Arr**	**46.83**	**258**	P	P	01 57 34.7	-0.1
	0.9nm,0.7s,baz=93,slow=7.0,SNR=8.5						
	0.9nm,0.7s						
ASAR	**Alice Springs**	**47.06**	**253**	P	P	01 57 36.5	0.0
	10.0nm,0.5s,baz=88,slow=8.3,SNR=118						
	10.0nm,0.5s						
ILAR	**Eielson Array**	**84.17**	**12**	P	P	02 01 26.8	-0.1
	0.2nm,0.7s,baz=207,slow=5.0,SNR=1.1						
	0.2nm,0.7s						

IDC 16 02:03:04.6±1.1, 6°.09S×142°.08E, h0km, mb3.7/3, mbtmp3.7/8, ML3.7/4, MS2.9/1, Error ellipse: s-maj=24.9km s-min=14.5km az=83.0

ISC 16 02:03:09.1±0.9, 6°.30S±0°.07×142°.0E±0°.1, h35km, n9, σ2s08/12, mb3.8/3, New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAY	**Jayapura**	**3.96**	**342**	Pn	**Pn**	**02 04 06.8**	**-0.6**
	5.3nm,0.3s,baz=150,slow=9.6,SNR=7.4						
JAY				Sn	**Sn**	**02 04 53.9**	**+1.2**
	6.6nm,0.3s,baz=242,slow=19,SNR=5.6						
	15nm,0.4s						
JAY				AML	AML		
PMG	**Port Moresby**	**6.00**	**121**	Pn	**Pn**	**02 04 36.5**	**+1.0**
	7.5nm,0.5s,baz=297,slow=9.0,SNR=2.2						
PMG				Sn	Sn	02 05 25.8	-17
	2.0nm,0.3s,baz=222,slow=22,SNR=1.7						
CTA	**Charters Tower**	**14.33**	**163**	Lg	Lg	02 10 42.0	
	0.3nm,0.3s,baz=18,slow=20,SNR=1.8						
CTA				LR	LR	02 12 07.6	
	comp=Z,49nm,18.8s,baz=40,slow=38						
WRA	**Warramunga Arr**	**15.45**	**208**	Pn	**Pn**	**02 06 44.6**	**0.0**
	0.2nm,0.3s,baz=29,slow=13,SNR=7.3						
WRA				Sn	**Sn**	**02 09 29.7**	**-5.1**
	0.2nm,0.3s,baz=72,slow=42,SNR=2.9						
WRA				Lg	Lg	02 11 18.2	
	0.7nm,0.3s,baz=33,slow=25,SNR=2.7						
	0.6nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**18.93**	**203**	P	**Pn**	**02 07 29.2**	**+1.2**
	0.3nm,0.3s,baz=33,slow=10.0,SNR=17						
ASAR				S	**Sn**	**02 10 59.8**	**+0.8**
	0.4nm,0.3s,baz=13,slow=29,SNR=1.9						
ASAR				Lg	Lg	02 13 10.1	
	baz=21,slow=29						
	2.6nm,1.0s						
ASAR				AML	AML		
FITZ	**Fitzroy Crossi**	**19.77**	**232**	P	**Pn**	**02 07 40.5**	**+2.4**
	0.2nm,0.3s,baz=44,slow=13,SNR=8.0						
FITZ				S	**Sn**	**02 11 19.5**	**+0.1**
	2.0nm,0.8s,baz=38,slow=13,SNR=2.3						
	1.9nm,0.6s						
FITZ				AML	AML		
MKAR	**Makanchi Array**	**74.59**	**322**	P	**P**	**02 14 44.5**	**-0.2**
	0.2nm,0.6s,baz=116,slow=6.6,SNR=1.5						
	0.2nm,0.6s						
BVAR	**Borovoye Array**	**84.09**	**325**	P	**P**	**02 15 35.9**	**-0.4**
	1.0nm,0.6s,baz=112,slow=6.4,SNR=5.0						
	1.0nm,0.6s						
ILAR	**Eielson Array**	**87.76**	**24**	P	**P**	**02 15 52.7**	**-1.5**
	0.5nm,0.9s,baz=261,slow=6.2,SNR=2.3						
	0.5nm,0.9s						

AFAD 16 02:50:02.4, 37°.82N×26°.99E, h10km±1km, ML2.4
ISK 16 02:50:02.8, 37°.83N×27°.00E, h10km, ML2.7/16
ATH 16 02:50:02.5, 37°.81N×27°.01E, h11km±1km, ML2.6/7, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
THE 16 02:50:03.3, 37°.8N±0°.6×27°.0E±0°.6, h5km±1km, M2.5/12, MLh2.5/12

ISC 16 02:50:02.5±0.8, 37°.83N±0°.01×26°.99E±0°.02, h16km±5km, n65, σ0s68/106, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**226**	P	**Pg**	**02 50 06.7**	**-0.1**
SMG				S	**Sg**	**02 50 09.4**	**-0.2**
SMG				AML	AML		
SMG	**Samos**	**0.17**	**226**	P	**Pg**	**02 50 06.5**	**-0.2**
SMG				S	**Sg**	**02 50 09.1**	**-0.4**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**123**	P	**Pg**	**02 50 07.7**	**+0.1**
GCAM				S	**Sg**	**02 50 11.3**	**+0.2**
GCAM				IAML		02 50 12.0	
	comp=E,1μm,0.6s						
GCAM	**G?zelcaml?**	**0.23**	**123**	Pg	**Pb**	**02 50 07.9**	**-0.4**
GCAM				Sg	**Sb**	**02 50 11.7**	**-0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**82**	Pg	**Pg**	**02 50 08.1**	**+0.3**
KUSD				Sg	**Sg**	**02 50 11.3**	**-0.1**
KUSD				AML	AML		
DGB	**zmir**	**0.24**	**339**	P	**Pg**	**02 50 08.2**	**+0.4**
DGB				S	**Sg**	**02 50 11.0**	**-0.4**
DGB				IAML		02 50 13.0	
	comp=N,530nm,0.7s						
GMLD	**Gumuldur**	**0.26**	**347**	Pg	**Pb**	**02 50 08.7**	**-0.1**
GMLD				Sg	**Sb**	**02 50 13.0**	**0.0**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.31**	**257**	P	**Pg**	**02 50 09.0**	**0.0**
SAM2				S	**Sg**	**02 50 13.4**	**0.0**
SAM2				AML	AML		
BEYE	**izmir**	**0.40**	**353**	P	**Pg**	**02 50 11.0**	**+0.4**
BEYE				S	**Sg**	**02 50 16.2**	**0.0**
DDIM	**Aydin, Didim**	**0.42**	**152**	P	**Pb**	**02 50 11.1**	**-0.4**
DDIM				S	**Sb**	**02 50 17.3**	**-0.4**
DUVT	**Torbali**	**0.53**	**43**	P	**Pg**	**02 50 13.4**	**+0.3**
DUVT				IAML		02 50 22.0	
	comp=E,203nm,0.1s						
BLCB	**Balcova**	**0.56**	**4**	P	**Pb**	**02 50 13.9**	**0.0**
BLCB				S	**Sb**	**02 50 22.5**	**+0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**4**	Pg	**Pb**	**02 50 14.0**	**0.0**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**317**	P	**Pg**	**02 50 13.8**	**+0.1**
ZEYE				S	**Sb**	**02 50 21.6**	**-0.2**
ZEYE				IAML		02 50 25.0	
	comp=E,321nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.72**	**80**	Pg	**Pb**	**02 50 17.4**	**+0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.72**	**103**	P	**Pg**	**02 50 16.7**	**+0.1**
AYDN				S	**Sg**	**02 50 25.8**	**-0.4**
AYDN				IAML		02 50 30.0	
	comp=E,212nm,0.3s						
AYDN				IAML		02 50 31.0	
	comp=N,158nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.74**	**162**	Pg	**Pb**	**02 50 17.2**	**+0.2**
YKAV				AML	AML		
BODT	**Bodrum**	**0.81**	**161**	P	**Pb**	**02 50 18.1**	**-0.1**
BODT				S	**Sn**	**02 50 30.4**	**-0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**161**	Pg	**Pb**	**02 50 18.4**	**+0.3**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.82**	**68**	P	**Pb**	**02 50 18.5**	**+0.1**
IZMR				S	**Sg**	**02 50 27.1**	**-2.1**
IZMR				IAML		02 50 34.0	
	comp=E,136nm,0.4s						
MLSB	**Milas**	**0.82**	**130**	Pg	**Pb**	**02 50 18.8**	**+0.4**
MLSB				AML	AML		
BAGT	**Foa**	**0.83**	**353**	P	**Pg**	**02 50 17.3**	**-1.4**
BAGT				IAML		02 50 28.0	
	comp=N,105nm,0.9s						
BAGT				IAML		02 50 39.0	
	comp=E,191nm,0.8s						
KRBN	**Karaburun**	**0.84**	**336**	Pg	**Pn**	**02 50 19.7**	**0.0**
KRBN				AML	AML		
BDRM	**Kayabasi**	**0.84**	**154**	P	**Pg**	**02 50 18.4**	**-0.4**
BDRM				S	**Sb**	**02 50 29.9**	**+0.1**
BDRM				IAML		02 50 34.0	
	comp=N,148nm,0.3s						
BDRM				IAML		02 50 34.0	
	comp=E,166nm,0.4s						
BODA	**Bodrum-Mula**	**0.86**	**156**	Pg	**Pn**	**02 50 20.2**	**+0.2**
KLNA	**Kalymnos**	**0.87**	**181**	P	**Pg**	**02 50 18.9**	**-0.5**
KLNA				S	**Sb**	**02 50 31.2**	**+0.6**
FOCM	**Foa**	**0.91**	**347**	Pg	**Pn**	**02 50 20.7**	**+0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.93**	**307**	P	**Pn**	**02 50 21.0**	**0.0**
CHOS				S	**Sn**	**02 50 34.5**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.93**	**307**	Pg	**Pn**	**02 50 21.4**	**+0.4**
CHOS				Sg	**Sn**	**02 50 34.5**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.93**	**307**	P	**Pn**	**02 50 21.0**	**0.0**
CHOS				S	**Sn**	**02 50 33.6**	**-0.4**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.95**	**332**	P	**Pb**	**02 50 20.7**	**0.0**
KARB				S	**Sb**	**02 50 32.6**	**-0.5**
KARB				IAML		02 50 36.0	
	comp=N,122nm,0.4s						
KARB				IAML		02 50 36.0	
	comp=E,99nm,0.8s						
CAMT	**Merkez**	**0.95**	**15**	P	**Pn**	**02 50 21.4**	**+0.1**
CAMT				S	**Sg**	**02 50 33.8**	**+0.3**
CAMT				IAML		02 50 38.0	
	comp=N,169nm,0.6s						
CAMT				IAML		02 50 41.0	
	comp=E,168nm,0.8s						
EAG2	**Marmaro, Chios**	**1.00**	**316**	P	**Pn**	**02 50 22.9**	**+1.0**
NAZL	**Nazilli-Aydin**	**1.04**	**82**	Pg	**Pn**	**02 50 23.1**	**+0.6**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.08**	**91**	P	**Pb**	**02 50 22.9**	**+0.2**
ESEN				S	**Sb**	**02 50 36.9**	**+0.3**
ZEDA	**zmir-Bergama**	**1.14**	**3**	P	**Pb**	**02 50 24.0**	**+0.1**
ZEDA				IAML		02 50 43.0	
	comp=E,63nm,0.3s						
ZEDA				IAML		02 50 45.0	
	comp=N,80nm,0.5s						
GOMA	**Golmarmara-Man**	**1.14**	**39**	Pn	**Pg**	**02 50 25.1**	**+0.6**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.17**	**71**	P	**Pn**	**02 50 24.4**	**0.0**
KIRA				S	**Sb**	**02 50 37.7**	**-1.8**
KIRA				IAML		02 50 42.0	
	comp=N,76nm,0.6s						
DAT	**Datca**	**1.19**	**157**	P	**Pg**	**02 50 25.9**	**+0.4**
DAT				S	**Sn**	**02 50 42.5**	**+1.9**
DAT				AML	AML		
DAT	**Datca**	**1.19**	**157**	P	**Pg**	**02 50 26.8**	**+1.3**
DAT				S	**Sb**	**02 50 39.3**	**-0.7**
DAT				IAML		02 50 51.0	
	comp=N,65nm,0.6s						
MULA	**Mugla, Merkez-**	**1.20**	**118**	P	**Pg**	**02 50 25.4**	**-0.2**
MULA				S	**Sb**	**02 50 39.5**	**-0.8**
KTTT	**Salihli**	**1.22**	**45**	P	**Pb**	**02 50 25.5**	**+0.3**
KTTT				S	**Sb**	**02 50 39.9**	**-1.0**
AKHS	**Akhisar**	**1.23**	**31**	P	**Pg**	**02 50 26.2**	**0.0**
AKHS				IAML		02 50 52.0	
	comp=N,87nm,0.4s						
YER	**Yerkesik**	**1.24**	**124**	P	**Pg**	**02 50 26.3**	**-0.1**
YER				S	**Sg**	**02 50 44.2**	**+1.6**
DKL	**Dikili**	**1.24**	**357**	Pn	**Pg**	**02 50 26.6**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**357**	P	**Pn**	**02 50 25.1**	**-0.1**
APE	**Apeiranthos**	**1.39**	**237**	P	**Pb**	**02 50 27.8**	**-0.3**
APE				S	**Sg**	**02 50 48.0**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.39**	**237**	P	**Pn**	**02 50 27.1**	**-0.2**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**18**	Pn	**Pb**	**02 50 28.8**	**+0.6**
SOMA				AML	AML		
MANT	**Manisa**	**1.40**	**61**	P	**Pg**	**02 50 29.8**	**+0.3**
MANT				S	**Sn**	**02 50 45.0**	**-0.9**
SULTU	**Buldan**	**1.42**	**80**	P	**Pb**	**02 50 28.9**	**+0.1**
SULTU				S	**Sn**	**02 50 44.5**	**-1.9**
GORD	**Gordes-Manisa**	**1.43**	**40**	Pn	**Pg**	**02 50 29.6**	**-0.4**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.50**	**351**	P	**Pg**	**02 50 31.2**	**-0.1**
AYVA				IAML		02 50 59.0	
	comp=N,51nm,0.6s						
HARTU	**Esme**	**1.52**	**70**	P	**Pg**	**02 50 31.8**	**+0.1**
PRK	**Paraskevi**	**1.52**	**339**	P	**Pb**	**02 50 30.3**	**-0.1**
PRK				S	**Sg**	**02 50 51.6**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.52**	**339**	P	**Pb**	**02 50 30.0**	**-0.4**
PRK				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.57**	**103**	P	**Pn**	**02 50 30.1**	**+0.3**
TAVA				S	**Sn**	**02 50 47.8**	**-2.1**
DNIZ	**Denizli-Tavas-**	**1.64**	**96**	P	**Pn**	**02 50 31.7**	**+0.9**
DNIZ				IAML		02 50 59.0	
	comp=E,52nm,0.3s						
DNIZ				IAML		02 51 02.0	
	comp=N,36nm,0.4s						
STEP	**BALIKESIR_Sava**	**1.65**	**20**	P	**Pb**	**02 50 33.5**	**+0.9**
STEP				S	**Sn**	**02 50 52.0**	**+0.2**
STEP				IAML		02 51 04.0	
	comp=N,64nm,0.6s						
STEP				IAML		02 51 09.0	
	comp=E,39nm,0.5s						
BUHA	**Balikesir, Bur**	**1.67**	**2**	P	**Pb**	**02 50 32.5**	**-0.5**
BUHA				S	**Sg**	**02 50 56.2**	**-0.2**
BUHA				IAML		02 51 02.0	
	comp=E,39nm,0.4s						
BUHA				IAML		02 51 07.0	
	comp=N,35nm,0.4s						
DEMI	**Demirci**	**1.82**	**48**	P	**Pg**	**02 50 37.3**	**-0.1**
DEMI				S	**Sn**	**02 50 55.7**	**-0.4**
USAK	**Uak-Merkez**	**1.82**	**60**	P	**Pb**	**02 50 36.5**	**+0.9**
USAK				S	**Sn**	**02 50 57.5**	**+1.3**
ARG	**Arkhangelos**	**1.85**	**150**	P	**Pb**	**02 50 35.1**	**-0.8**
ARG				S	**Sb**	**02 50 58.9**	**+0.1**
CMBO	**Columbo, Santo**	**1.85**	**224**	P	**Pb**	**02 50 35.1**	**-0.9**
CMBO				S	**Sb**	**02 51 00.2**	**+1.2**
SIMV	**Simav**	**2.05**	**51**	P	**Pb**	**02 50 40.4**	**+1.0**
SIMV				S	**Sb**	**02 51 04.8**	**+0.2**

IDC 16 03:53:17.5±2.7, 17°.81S×178°.63W, h611km±22km, mb2.7/5, mbtmp3.6/6, Error ellipse: s-maj=110.5km s-min=21.1km az=151.0

ISC 16 03:53:16.6±2.1, 17°.9S±0°.7×178°.5W±0°.4, h600km, n7, σ0s88/7, mb3.2/5, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**3.28**	**272**	P	**P**	**03 54 38.8**	**+1.3**
	5.4nm,0.6s,baz=125,slow=16,SNR=4.7						
WRA	**Warramunga Arr**	**44.54**	**259**	P	**P**	**04 00 35.9**	**-0.9**
	0.5nm,0.5s,baz=96,slow=7.2,SNR=9.7						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**44.71**	**254**	P	**P**	**04 00 37.5**	**-0.6**
	2.1nm,0.5s,baz=88,slow=8.8,SNR=29						
	2.1nm,0.5s						
ILAR	**Eielson Array**	**85.86**	**13**	P	**P**	**04 04 52.9**	**-0.6**
	0.2nm,0.4s,baz=219,slow=4.9,SNR=9.6						
	0.2nm,0.4s						
TXAR	**Lajitas Array**	**86.06**	**58**	P	**P**	**04 04 55.3**	**0.0**
	0.3nm,0.7s,baz=213,slow=5.7,SNR=4.8						
	0.3nm,0.7s						
PDAR	**Pinedale Array**	**87.39**	**43**	P	**P**	**04 05 01.7**	**+0.3**
	0.2nm,0.6s,baz=235,slow=4.5,SNR=1.7						
	0.2nm,0.6s						
GERES	**GERESS Array B**	**147.54**	**345**	PKPbc	**PKPbc**	**04 11 54.5**	**0.0**
	0.3nm,0.5s,baz=8.3,slow=5.8,SNR=2.5						

NEIC 16 04:05:55.4±1.0, 18°.7N±0°.1×145°.8E±0°.4, h213km±11km, mb4.0/10, Error ellipse: s-maj=54.3km s-min=16.7km az=101.0
IDC 16 04:06:06.0±10.0, 18°.95N×144°.88E, h337km±113km, mb3.1/7, mbtmp3.8/7, Error ellipse: s-maj=46.8km s-min=17.7km az=102.0

ISC 16 04:05:52.7±0.8, 18°.83N±0°.08×145°.2E±0°.2, h200km, n20, σ1s31/21, mb3.9/13, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DPSS	**Saipan**	**3.62**	**170**	Pn	**Pn**	**04 06 50.5**	**+0.7**
DPSS				Sn	**Sn**	**04 07 32.8**	**-2.0**
PETK	**Petropavlovsk-**	**35.57**	**13**	P	**P**	**04 12 32.3**	**+1.5**
	2.9nm,0.9s,baz=198,slow=9.1,SNR=3.5						
	2.9nm,0.9s						
WB0	**Warramunga Arr**	**39.79**	**196**	P	**P**	**04 13 07.8**	**+1.4**
WB0				IAmb	IAmb	04 13 26.1	
	comp=Z,4.2nm,1.1s						
WR8	**Warramunga Arr**	**39.94**	**196**	P	**P**	**04 13 07.6**	**-0.1**
WR8				IAmb	IAmb	04 13 31.8	
	comp=Z,8.3nm,1.4s						
WRAB	**Tennant Creek**	**39.96**	**196**	P	**P**	**04 13 09.6**	**+1.8**
WRAB				IAmb	IAmb	04 13 20.2	
	comp=Z,5.1nm,1.1s						
WRA	**Warramunga Arr**	**39.97**	**196**	P	**P**	**04 13 09.2**	**+1.3**
	comp=Z,0.6nm,0.4s,baz=23,slow=9.1,SNR=15						
	comp=Z,0.6nm,0.4s						
WRA	**Warramunga Arr**	**39.97**	**196**	P	**P**	**04 13 08.4**	**+0.4**
FITZ	**Fitzroy Crossi**	**41.41**	**209**	P	**P**	**04 13 21.8**	**+2.1**
ASAR	**Alice Springs**	**43.65**	**195**	P	**P**	**04 13 38.9**	**+1.2**
	comp=Z,0.3nm,0.5s,baz=13,slow=6.8,SNR=5.6						
	comp=Z,0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**60.88**	**318**	P	**P**	**04 15 41.9**	**-2.1**
	comp=Z,0.5nm,0.3s,baz=72,slow=6.9,SNR=1.5						
	comp=Z,0.5nm,0.3s						
CAST	**Castle Rocks**	**61.21**	**27**	P	**P**	**04 15 46.6**	**+0.5**
CAST				IAmb	IAmb	04 16 16.8	
	comp=Z,3.5nm,1.3s						
BPAW	**Bear Paw Mtn.**	**61.86**	**27**	P	**P**	**04 15 49.4**	**-1.1**
BPAW				IAmb	IAmb	04 16 31.8	
	comp=Z,6.4nm,1.4s						
D22K	**Ayikyak River**	**62.65**	**21**	P	**P**	**04 15 56.5**	**+0.8**
H24K	**Noodor Dome**	**63.58**	**25**	P	**P**	**04 16 02.1**	**+0.3**
ILAR	**Eielson Array**	**63.75**	**26**	P	**P**	**04 16 01.1**	**-1.7**
	comp=Z,0.4nm,0.8s,baz=266,slow=5.2,SNR=6.3						
	comp=Z,0.4nm,0.8s						
D25K	**Kavik River**	**64.95**	**21**	P	**P**	**04 16 11.3**	**+0.6**
D25K				IAmb	IAmb	04 16 29.1	
	comp=Z,1.9nm,1.1s						
BMAR	**Burnt Mountain**	**65.20**	**24**	P	**P**	**04 16 13.1**	**+0.8**
YKA	**Yellowknife Ar**	**78.11**	**28**	P	**P**	**04 17 28.8**	**-0.5**
	comp=Z,0.3nm,0.5s,baz=288,slow=5.6,SNR=4.7						
	comp=Z,0.3nm,0.5s						
NVAR	**Mina Array Bea**	**83.46**	**52**	P	**P**	**04 17 58.2**	**-0.2**
	comp=Z,0.9nm,0.7s,baz=274,slow=5.3,SNR=7.9						
	comp=Z,0.9nm,0.7s						
NVAR	**Mina Array Bea**	**83.46**	**52**	P	**P**	**04 17 57.7**	**-0.7**

IDC 16 04:18:16.9±1.7, 19°.66N×108°.75W, h0km, mb3.7/6, mbtmp3.5/8, ML3.2/2, MS3.3/8, Error ellipse: s-maj=46.7km s-min=18.2km az=127.0
MEX 16 04:18:22.9±0.9, 19°.74N×108°.81W, h10km, MD4.4, Presumed earthquake

ISC 16 04:18:19.9±0.7, 19°.6N±0°.1×109°.03W±0°.04, h26km, n28, σ1s82/30, mb3.9/5, MS3.5/4, Revilla Gigedo Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H06N1	**SOCORRO T-PHAS**	**1.98**	**250**	Pn	**Pb**	**04 18 55.5**	**+0.3**
H06N1				Sn	**Sn**	**04 19 14.3**	**-1.3**
H06N1				T	T	04 21 04.9	
	SNR=24						
H06N	**Isla Socorro**	**1.98**	**250**	*eP*	**Pn**	**04 18 50.1**	**-1.6**
H06N				*eS*	**Sn**	**04 19 13.8**	**-1.9**
H06S1	**SOCORRO T**	**2.00**	**246**	Pn	**Pb**	**04 18 55.4**	**-0.2**
H06S1				Sn	**Sn**	**04 19 14.9**	**-1.3**
H06S1				T	T	04 21 06.7	
	SNR=26						
H06S		**2.00**	**246**	*eP*	**Pn**	**04 18 50.9**	**-1.2**
H06S				*eS*	**Sn**	**04 19 14.9**	**-1.4**
YELA	**Yelapa**	**3.48**	**74**	*eP*	**Pn**	**04 19 11.3**	**-1.1**
YELA				*eS*	**Sn**	**04 19 47.8**	**-5.0**
CJM	**Chamela**	**3.76**	**90**	*eP*	**Pn**	**04 19 16.1**	**-0.1**
CJM		

	1.0nm,0.8s							
ILAR	**Eielson Array**	**51.69**	**340**	P	**P**	**04 27 25.7**	**+1.2**
	1.7nm,1.0s,baz=151,slow=6.9,SNR=12							
	1.7nm,1.0s							
H03N2	**Juan Fernandez**	**60.03**	**151**	T	T	05 33 49.1		
	baz=314,slow=74,SNR=55							
H03N1	**Juan Fernandez**	**60.04**	**151**	T	T	05 33 50.2		
	baz=308,slow=74,SNR=103							
PETK	**Petropavlovsk-**	**76.52**	**322**	P	**P**	**04 30 09.5**	**+1.8**	
	1.3nm,0.7s,baz=81,slow=8.9,SNR=1.8							
	1.3nm,0.7s							
ARCES	**ARCESS Array B**	**85.47**	**15**	P	**P**	**04 30 55.5**	**+0.4**	
	1.0nm,0.6s,baz=316,slow=6.9,SNR=4.7							
	1.0nm,0.6s							
MJAR	**Matsushiro Arr**	**95.53**	**312**	LR	LR	05 08 01.6		
	comp=Z,17nm,19.9s,baz=48,slow=31							
WRA	**Warramunga Array**	**120.70**	**258**	PKP	**PKiKP**	**04 37 11.9**	**+1.5**	
	0.3nm,0.8s,baz=72,slow=2.2,SNR=4.6							
ASAR	**Alice Springs**	**121.75**	**254**	PKP	**PKiKP**	**04 37 14.2**	**+1.7**	
	0.8nm,0.8s,baz=123,slow=2.8,SNR=4.4							

*TAP **16** 04:19:35.5,24.˙76N×122.˙31E,h9km,ML3.0,D*
*JMA **16** 04:19:36.5±0.1,25.˙1N±1.˙1×122.˙3E±0.˙3,h16km,MV2.1/8,*
TAIWAN REGION

ISC 16 04:19:34.2±1.3,24.˙79N±0.˙03×122.˙42E±0.˙03,h4km±10km, n48,σ0°59/94,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
EOS2	**EOS2**	**0.40**	**205**	*i* P	**Pb**	**04 19 43.3**	**-0.6**
EOS2				*i* S	**Sg**	**04 19 49.2**	**+1.9**
TWB1	**Santiao Chiao**	**0.45**	**299**	P	**Pb**	**04 19 44.0**	**-0.7**
TWB1				*i* S	**Sb**	**04 19 49.9**	**-1.9**
EOS3	**EOS3**	**0.51**	**190**	*i* P	**Pb**	**04 19 45.3**	**-0.3**
EOS3				S	**Sb**	**04 19 52.7**	**-0.6**
TWC	**Suao**	**0.55**	**251**	*i* P	**Pg**	**04 19 44.6**	**-0.1**
TWC				*e*S	**Sg**	**04 19 51.6**	**-0.2**
TIPB	**Shuangxi**	**0.57**	**289**	*i* P	**Pb**	**04 19 46.5**	**-0.3**
TIPB				*e*S	**Sb**	**04 19 53.6**	**-1.6**
SXI1	**Grass Mountain**	**0.58**	**302**	*i* P	**Pb**	**04 19 46.9**	**-0.1**
SXI1				S	**Sb**	**04 19 54.6**	**-1.0**
JYNG	**Yonagunijimaku**	**0.59**	**125**	*e*P	**Pb**	**04 19 47.6**	**+0.5**
JYNG				*e*S	**Sb**	**04 19 55.6**	**-0.2**
YOJ	**Yonaguni jima**	**0.63**	**121**	*e*P	**Pn**	**04 19 48.9**	**-1.1**
YOJ				*e*S	**Sb**	**04 19 56.8**	**-0.3**
NWF	**Wu-fen Shan**	**0.64**	**296**	*e*P	**Pb**	**04 19 48.7**	**+0.6**
NWF				S	**Sb**	**04 19 57.0**	**-0.5**
WFSB	**Wu-fen Shan**	**0.64**	**296**	*e*P	**Pn**	**04 19 49.2**	**-0.9**
WFSB				S	**Sb**	**04 19 57.2**	**-0.2**
NDS	**Dongshan**	**0.66**	**257**	*i* P	**Pg**	**04 19 46.9**	**+0.1**
NDS				S	**Sg**	**04 19 55.8**	**+0.5**
EOS4	**EOS4**	**0.67**	**188**	*i* P	**Pb**	**04 19 48.6**	**+0.3**
EOS4				S	**Sb**	**04 19 57.7**	**-0.1**
EWUT	**Wuta**	**0.67**	**240**	*i* P	**Pg**	**04 19 47.4**	**+0.2**
EWUT				S	**Sg**	**04 19 56.3**	**+0.4**
TWE	**Neicheng**	**0.69**	**265**	*i* P	**Pg**	**04 19 47.2**	**-0.1**
TWE				S	**Sg**	**04 19 56.6**	**+0.3**
TNOU	**National Taiwa**	**0.69**	**302**	*e*P	**Pb**	**04 19 48.8**	**0.0**
TNOU				S	**Sb**	**04 19 59.1**	**+0.4**
ENA	**Nanau**	**0.71**	**240**	*i* P	**Pg**	**04 19 46.6**	**-1.3**
ENA				S	**Sg**	**04 19 57.4**	**+0.2**
FUSB	**Fushanzhiwuyua**	**0.75**	**268**	*i* P	**Pg**	**04 19 49.0**	**+0.3**
FUSB				S	**Sb**	**04 20 00.3**	**-0.3**
ENTT	**Nioudou**	**0.79**	**259**	*i* P	**Pg**	**04 19 49.4**	**0.0**
ENTT				S	**Sg**	**04 20 00.4**	**+0.9**
NWLT	**Wulai**	**0.83**	**269**	*i* P	**Pg**	**04 19 50.4**	**+0.3**
NWLT				S	**Sb**	**04 20 02.3**	**-0.5**
NDT	**Datong Townshi**	**0.84**	**257**	P	**Pg**	**04 19 50.7**	**+0.3**
NDT				S	**Sb**	**04 20 02.5**	**-0.7**
YM01	**YM01**	**0.85**	**295**	P	**Pb**	**04 19 52.0**	**+0.5**
YM01				*i* S	**Sb**	**04 20 03.7**	**+0.4**
LATG	**Datong**	**0.85**	**253**	*i* P	**Pg**	**04 19 50.7**	**+0.2**
LATG				*i* S	**Sg**	**04 20 01.9**	**+0.3**
YM08	**YM08**	**0.85**	**298**	*e*P	**Pn**	**04 19 53.1**	**+0.1**
YM08				*i* S	**Sb**	**04 20 03.2**	**-0.2**
TWY	**Chenhua**	**0.89**	**303**	P	**Pn**	**04 19 53.3**	**-0.2**
TWY				*i* S	**Sb**	**04 20 05.3**	**+0.9**
PCYT	**Pengchaiyu**	**0.89**	**340**	P	**Pb**	**04 19 52.3**	**0.0**
PCYT				*e*S	**Sn**	**04 20 07.7**	**+0.6**
YHNB	**Yeheng**	**0.95**	**263**	*i* P	**Pg**	**04 19 52.8**	**+0.2**
YHNB				*e*S	**Sg**	**04 20 04.5**	**-0.4**
NACB	**Ninganchiao**	**0.97**	**231**	*i* P	**Pg**	**04 19 52.1**	**-0.6**
NACB				S	**Sg**	**04 20 04.5**	**-0.8**
NNSB	**Datong**	**1.01**	**249**	*i* P	**Pg**	**04 19 53.4**	**-0.1**
NNSB				S	**Sg**	**04 20 07.1**	**+0.5**
NNS	**Nan Shan**	**1.01**	**250**	P	**Pb**	**04 19 54.0**	**-0.4**
NNS				*e*S	**Sb**	**04 20 07.7**	**-0.5**
TWD	**Chiawan**	**1.03**	**227**	*i* P	**Pn**	**04 19 55.2**	**-0.2**
TWD				*e*S	**Sb**	**04 20 09.0**	**+0.5**
ETLH	**Xiulin Townshi**	**1.03**	**236**	*i* P	**Pg**	**04 19 53.9**	**-0.1**
ETLH				S	**Sg**	**04 20 07.2**	**-0.2**
NFF	**Wufeng Townshi**	**1.19**	**263**	*i* P	**Pn**	**04 19 57.7**	**-0.1**
NFF				S	**Sb**	**04 20 10.9**	**+0.1**
LXIB	**Xiulin Townshi**	**1.19**	**230**	*e*P	**Pn**	**04 19 58.3**	**+0.4**
LXIB				S	**Sn**	**04 20 15.0**	**+0.4**
FUSS	**Fushou**	**1.20**	**243**	*i* P	**Pg**	**04 19 57.4**	**+0.2**
FUSS				S	**Sg**	**04 20 12.1**	**-0.6**
WHF	**Hehuan Shan**	**1.23**	**239**	*i* P	**Pg**	**04 19 57.5**	**-0.3**
WHF				S	**Sg**	**04 20 12.2**	**-1.6**
SHUL	**Shoufeng**	**1.27**	**218**	*e*P	**Pn**	**04 19 58.9**	**+0.1**
SHUL				*e*S	**Sn**	**04 20 17.0**	**+0.8**
IRIF	**Iriomote-Funau**	**1.28**	**110**	*e*S	**Sn**	**04 20 16.9**	**+0.4**
LIOB	**Emei**	**1.28**	**264**	*i* P	**Pn**	**04 19 60.0**	**+1.0**
LIOB				*e*S	**Sb**	**04 20 15.9**	**+0.1**
OWD	**Renai**	**1.40**	**234**	*i* P	**Pg**	**04 20 01.0**	**-0.1**
OWD				S	**Sg**	**04 20 19.6**	**+0.2**
WARBT	**Fenglin Townsh**	**1.42**	**222**	*e*P	**Pn**	**04 20 00.9**	**0.0**
WARBT				S	**Sg**	**04 20 19.9**	**0.0**
WUSB	**Renai**	**1.43**	**236**	*i* P	**Pn**	**04 20 01.1**	**+0.1**
WUSB				S	**Sg**	**04 20 19.5**	**-0.6**
WCS	**Beigang Elemen**	**1.55**	**242**	P	**Pg**	**04 20 04.0**	**0.0**
WCS				S	**Sg**	**04 20 24.5**	**+0.4**
VWDT	**VWDT**	**1.55**	**229**	*i* P	**Pg**	**04 20 04.0**	**-0.1**
VWDT				S	**Sn**	**04 20 23.6**	**+0.3**
JIJ	**Ishigaki jima**	**1.63**	**105**	*e*S	**Sb**	**04 20 25.5**	**-0.3**
SSLB	**Suanglung**	**1.67**	**234**	*i* P	**Pb**	**04 20 05.1**	**-0.4**
SSLB				*e*S	**Sb**	**04 20 27.2**	**+0.3**
TYC	**Yuchr**	**1.67**	**239**	*e*P	**Pg**	**04 20 06.6**	**+0.3**
TYC				*e*S	**Sn**	**04 20 26.4**	**+0.1**
ALS	**Alishan**	**1.95**	**229**	P	**Pb**	**04 20 10.4**	**0.0**
ALS				*e*S	**Sn**	**04 20 34.5**	**+1.0**
CHN5	**Tsauling**	**1.98**	**234**	P	**Pb**	**04 20 10.4**	**-0.5**
CHN5				*i* S	**Sg**	**04 20 37.8**	**-0.1**

*ISK **16** 04:28:20.8,37.˙88N×26.˙91E,h8km,ML2.6/18*
*THE **16** 04:28:21.8,37.˙9N±0.˙7×27.˙0E±0.˙5,h3km±1km,M2.3/7,*
MLh2.3/7
*AFAD **16** 04:28:21.2,37.˙90N×26.˙96E,h7km±3km,ML2.3*

ISC 16 04:28:21.0±0.8,37.˙87N±0.˙02×26.˙96E±0.˙02,h15km±6km, n53,σ0°62/83,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**342**	P	**Pg**	**04 28 25.1**	**-0.2**
DGB				S	**Sg**	**04 28 27.1**	**-1.2**
DGB				IAML		04 28 28.0	
	comp=E,1μm,0.2s						
SMG	**Samos**	**0.19**	**210**	P	**Pg**	**04 28 25.7**	**+0.3**
SMG				S	**Sg**	**04 28 28.6**	**+0.3**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.20**	**351**	Pg	**Pg**	**04 28 25.7**	**+0.1**
GMLD				Sg	**Sg**	**04 28 28.6**	**-0.2**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**93**	Pg	**Pg**	**04 28 26.8**	**+0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**128**	P	**Pg**	**04 28 27.4**	**+0.5**
GCAM				IAML		04 28 32.0	
	comp=N,378nm,0.1s						
GCAM				IAML		04 28 32.0	
	comp=E,465nm,0.3s						
GCAM	**G?zelcaml?**	**0.28**	**128**	Pg	**Pb**	**04 28 27.6**	**-0.1**
GCAM				Sg	**Sb**	**04 28 32.2**	**0.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**356**	P	**Pg**	**04 28 27.9**	**-0.3**
BEYE				S	**Sg**	**04 28 32.8**	**-0.3**
BEYE				IAML		04 28 34.0	
	comp=N,402nm,0.2s						
BEYE				IAML		04 28 34.0	
	comp=E,342nm,0.3s						
DDIM	**Aydin, Didim**	**0.47**	**151**	P	**Pb**	**04 28 31.2**	**+0.2**
DDIM				IAML		04 28 42.0	
	comp=E,163nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**316**	P	**Pg**	**04 28 31.1**	**0.0**
ZEYE				S	**Sg**	**04 28 37.7**	**-0.3**
ZEYE				IAML		04 28 39.0	
	comp=N,174nm,0.2s						
ZEYE				IAML		04 28 39.0	
	comp=E,163nm,0.2s						
BLCB	**Balcova**	**0.52**	**7**	P	**Pg**	**04 28 31.4**	**+0.3**
BLCB				S	**Sg**	**04 28 38.5**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**7**	Pg	**Pg**	**04 28 31.4**	**+0.3**
BLCB				AML	AML		
DUVT	**Torbali**	**0.52**	**48**	P	**Pg**	**04 28 31.3**	**0.0**
DUVT				S	**Sg**	**04 28 37.2**	**-1.0**
DUVT				IAML		04 28 38.0	
	comp=E,216nm,0.1s						
AYDB	**Zeytinkoy-Aydi**	**0.74**	**84**	Pg	**Pb**	**04 28 36.3**	**+0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.76**	**106**	P	**Pg**	**04 28 36.1**	**+0.4**
AYDN				S	**Sb**	**04 28 46.8**	**+0.6**
AYDN				IAML		04 28 50.0	
	comp=E,107nm,0.3s						
BAGT	**Foa**	**0.79**	**354**	P	**Pb**	**04 28 36.5**	**+0.1**
BAGT				S	**Sg**	**04 28 46.5**	**-0.1**
BAGT				IAML		04 28 51.0	
	comp=N,154nm,0.8s						
BAGT				IAML		04 28 51.0	
	comp=E,161nm,0.8s						
IZMR	**zmir-demi**	**0.83**	**71**	P	**Pn**	**04 28 38.1**	**0.0**
IZMR				S	**Sg**	**04 28 46.3**	**-1.6**
BODT	**Bodrum**	**0.86**	**161**	P	**Pg**	**04 28 38.0**	**+0.4**
BODT	**Bodrum**	**0.86**	**161**	Pg	**Pg**	**04 28 37.9**	**+0.4**
BODT				AML	AML		
MLSB	**Milas**	**0.87**	**131**	Pg	**Pn**	**04 28 38.9**	**+0.2**
MLSB				AML	AML		
CHOS	**Chios island**	**0.88**	**306**	P	**Pb**	**04 28 38.2**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.88**	**306**	Pg	**Pg**	**04 28 37.4**	**-0.6**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.90**	**154**	P	**Pg**	**04 28 38.4**	**+0.1**
BDRM				S	**Sg**	**04 28 49.5**	**-0.5**
BDRM				IAML		04 28 56.0	
	comp=N,69nm,0.3s						
KARB	**zmir-Karabur**	**0.90**	**332**	P	**Pg**	**04 28 38.3**	**-0.1**
KARB				S	**Sb**	**04 28 50.6**	**+0.5**
KARB				IAML		04 28 54.0	
	comp=E,97nm,0.4s						
KARB				IAML		04 28 57.0	
	comp=N,95nm,0.5s						
CAMT	**Merkez**	**0.92**	**18**	P	**Pg**	**04 28 38.6**	**-0.1**
CAMT				S	**Sb**	**04 28 51.0**	**+0.3**
NAZL	**Nazilli-Aydin**	**1.06**	**85**	Pn	**Pn**	**04 28 42.2**	**+0.8**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.09**	**5**	P	**Pn**	**04 28 42.8**	**+0.9**
ZEDA				S	**Sg**	**04 28 56.2**	**-0.2**
ZEDA				IAML		04 29 01.0	
	comp=E,84nm,0.4s						
ZEDA				IAML		04 29 03.0	
	comp=N,67nm,0.3s						
ESEN	**Aydn-Nazilli**	**1.10**	**93**	P	**Pb**	**04 28 41.6**	**-0.2**
ESEN				S	**Sb**	**04 28 55.6**	**-0.4**
GOMA	**Golmarmara-Man**	**1.12**	**42**	Pn	**Pn**	**04 28 43.0**	**+0.8**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.19**	**74**	P	**Pg**	**04 28 44.0**	**+0.2**
KIRA				S	**Sb**	**04 28 58.1**	**-0.3**
DKL	**Dikili**	**1.20**	**358**	Pn	**Pg**	**04 28 44.2**	**+0.2**
DKL				AML	AML		
AKHS	**Akhisar**	**1.21**	**34**	P	**Pb**	**04 28 44.0**	**+0.4**
AKHS				IAML		04 29 04.0	
	comp=N,53nm,0.3s						
KTTT	**Salihli**	**1.21**	**47**	P	**Pn**	**04 28 43.7**	**+0.3**
KTTT				S	**Sb**	**04 28 58.5**	**-0.6**
DAT	**Datca**	**1.25**	**156**	P	**Pg**	**04 28 45.2**	**+0.2**
DAT				S	**Sb**	**04 28 59.8**	**-0.4**
DAT	**Datca**	**1.25**	**156**	Pn	**Pg**	**04 28 45.3**	**+0.3**
DAT				AML	AML		
MULA	**Mugla, Merkez-**	**1.25**	**119**	P	**Pb**	**04 28 44.9**	**+0.6**
MULA				S	**Sb**	**04 28 58.5**	**-1.7**
YAZI	**Mula-Dat§a-**	**1.25**	**161**	P	**Pb**	**04 28 44.8**	**+0.5**
YAZI				S	**Sg**	**04 29 01.7**	**+0.3**
YER	**Yerkesik**	**1.29**	**125**	P	**Pg**	**04 28 45.9**	**+0.2**
YER	**Yerkesik**	**1.29**	**125**	Pn	**Pg**	**04 28 45.9**	**+0.2**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.36**	**19**	Pn	**Pg**	**04 28 46.9**	**-0.2**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**235**	Pn	**Pb**	**04 28 46.9**	**+0.2**
APE				AML	AML		
MANT	**Manisa**	**1.40**	**63**	P	**Pg**	**04 28 49.0**	**+1.0**
MANT				S	**Sn**	**04 29 02.8**	**-1.9**
GORD	**Gordes-Manisa**	**1.41**	**42**	Pn	**Pg**	**04 28 48.1**	**0.0**
GORD				Sn	**Sg**	**04 29 07.5**	**+1.1**
GORD				AML	AML		
SULTU	**Buldan**	**1.44**	**82**	P	**Pn**	**04 28 47.0**	**+0.3**
SULTU				S	**Sn**	**04 29 05.7**	**+0.3**
AYVA	**Ayvalik**	**1.45**	**352**	P	**Pb**	**04 28 48.2**	**+0.5**
AYVA				S	**Sn**	**04 29 05.4**	**0.0**
AYVA				IAML		04 29 11.0	
	comp=E,52nm,0.8s						
AYVA				IAML		04 29 12.0	
	comp=N,41nm,0.7s						
TURN	**Turunc**	**1.50**	**136**	P	**Pn**	**04 28 47.5**	**+0.2**
TURN				S	**Sn**	**04 29 05.2**	**-1.5**
TURN	**Turunc**	**1.50**	**136**	Pn	**Pb**	**04 28 48.6**	**+0.1**
TURN				AML	AML		
HARTU	**Esme**	**1.53**	**72**	P	**Pg**	**04 28 50.1**	**-0.2**
STEP	**BALIKESIR_Sava**	**1.61**	**21**	P	**Pb**	**04 28 50.5**	**0.0**
STEP				S	**Sb**	**04 29 10.8**	**+0.1**
STEP				IAML		04 29 18.0	
	comp=N,47nm,0.5s						
STEP				IAML		04 29 19.0	
	comp=E,53nm,0.5s						
BUHA	**Balikesir, Bur**	**1.63**	**3**	P	**Pb**	**04 28 51.1**	**+0.3**
BUHA				S	**Sb**	**04 29 12.0**	**+0.9**
BUHA				IAML		04 29 16.0	
	comp=N,62nm,0.6s						
BUHA				IAML		04 29 18.0	
	comp=E,58nm,0.6s						
YAYO	**Edremit-Balk**	**1.74**	**3**	Pn	**Pb**	**04 28 52.9**	**+0.3**
YAYO				AML	AML		
KOCA	**Canakkale, Ayv**	**1.75**	**339**	P	**Pg**	**04 28 53.8**	**-0.7**
KOCA				S	**Sn**	**04 29 14.2**	**+1.3**
KOCA				IAML		04 29 25.0	
	comp=N,25nm,0.8s						
DEMI	**Demirci**	**1.81**	**49**	P	**Pb**	**04 28 54.9**	**+1.0**
BAYC	**CANAKKALE_Bayr**	**1.89**	**350**	P	**Pn**	**04 28 52.6**	**-0.2**
BAYC				S	**Sn**	**04 29 14.9**	**-1.5**

*NEIC **16** 04:43:08,38.˙19N×117.˙75W,h14km,Moment Tensor Solution. Moment tensor: Scale 10¹⁴Nm; Mrr-0.86; Mθθ0.19; Mϕϕ0.68; Mrθ0.51; Mθϕ0.96; Mϕr-0.48; Fault plane solution: M₀1.43000×10¹⁴ NP1:φ₁6.00000°, δ58.00000°,λ-138.00000°. NP2:φ₂250.00000°, δ55.00000°,λ-40.00000°. Principal axes: T 1.4286, Plg2.0000°, Azm127.0000°; N 0.0005, Plg39.0000°, Azm36.0000°; P -1.4291, Plg51.0000°, Azm220.0000°;*
*REN **16** 04:43:08.4±1.7,38.˙19N±0.˙01×117.˙75W±0.˙02,h11km±3km*
Error ellipse: s-maj=2.4km s-min=1.6km az=215.0

NEIC 16 04:43:07.9±1.2,38.˙18N±0.˙01×117.˙76W±0.˙02,h16km±2km, ML3.3/112,ML3.6/18(REN),Mwr3.4/8(SLM),Error ellipse: s-maj=2.0km s-min=1.4km az=64.0,Nevada

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
COLR	**Columbus**	**0.24**	**261**		Pb	04 43 13.8	-0.3
COLR					Sb	04 43 17.8	-0.3
NV11	**Mina Array Sit**	**0.40**	**309**	Pg	Pb	04 43 16.6	-0.2
NV11				Sg	Sb	04 43 22.3	-0.4
TPH	**Tonopah**	**0.44**	**104**	Pg	Pb	04 43 17.2	-0.2
TPH				Sg	Sg	04 43 23.2	+0.4
TPH				IAML		04 43 23.7	
	comp=N,4μm,0.4s						
TPH				IAML		04 43 24.2	
	comp=E,3μm,0.4s						
NV06	**Mina Array Sit**	**0.47**	**301**		Pb	04 43 18.1	0.0
NV07	**Mina Array Sit**	**0.48**	**298**		Pb	04 43 18.3	+0.1
NV07					Sb	04 43 25.4	+0.3
NV03	**Mina Array Sit**	**0.49**	**300**		Pb	04 43 18.3	0.0
NV03					Sb	04 43 25.4	+0.1
NV04	**Mina Array Sit**	**0.49**	**299**		Pb	04 43 18.6	+0.1
NV08	**Mina Array Sit**	**0.49**	**297**		Pg	04 43 17.9	0.0
NV08					Sb	04 43 25.7	+0.2
NV01	**Mina Array Sit**	**0.49**	**300**		Pb	04 43 18.5	0.0
NV01					Sb	04 43 25.8	+0.3
NV05	**Mina Array Sit**	**0.49**	**302**		Pb	04 43 18.3	-0.1
NV05					Sb	04 43 26.0	+0.4
NVAR	**Mina Array Bea**	**0.49**	**300**		Pb	04 43 18.4	-0.1
NV02	**Mina Array Sit**	**0.50**	**301**		Pb	04 43 18.6	0.0
NV02					Sb	04 43 26.0	+0.3
NV09	**Mina Array Sit**	**0.52**	**299**		Pb	04 43 18.9	0.0
MZP	**Montezuma Peak**	**0.57**	**148**	Pg	Pb	04 43 19.5	-0.1
MZP				Sg	Sg	04 43 27.2	+0.4
MZP				IAML		04 43 27.8	
	comp=E,3μm,0.5s						
MZP				IAML		04 43 28.1	
	comp=N,2μm,0.3s						
LHV	**Little Huntoon**	**0.59**	**277**	Pg	Pb	04 43 20.4	+0.4
LHV				Sg	Sb	04 43 28.4	+0.3
LHV				IAML		04 43 29.6	
	comp=N,3μm,0.6s						
LHV				IAML		04 43 30.2	
	comp=E,2μm,0.5s						
RYN	**Ryan**	**0.75**	**307**	Pg	Pb	04 43 22.8	+0.1
RYN				Sg	Sb	04 43 33.1	+0.3
RYN				IAML		04 43 34.6	
	comp=E,2μm,0.3s						
Q09A	**Carvers**	**0.79**	**35**	Pg	Pb	04 43 23.6	+0.1
Q09A				Sg	Sb	04 43 34.4	+0.3
Q09A				IAML		04 43 37.6	
	comp=E,2μm,0.5s						
KVN	**Kaiserville**	**0.91**	**343**	Pg	Pb	04 43 25.5	0.0
KVN				Sg	Sg	04 43 37.6	0.0
KVN				IAML		04 43 41.5	
	comp=E,1μm,0.5s						
KVN				IAML		04 43 41.8	
	comp=N,784nm,0.5s						
LCH	**Last Change Ra**	**0.95**	**175**		Pn	04 43 26.8	0.0
LCH					Sn	04 43 39.6	-0.6
GMN	**Gold Mountain**	**0.97**	**156**	Pg	Pn	04 43 27.0	-0.2
GMN				Sg	Sg	04 43 39.7	+0.3
MCBM	**Casa Benchmark**	**1.05**	**239**		Pn	04 43 29.0	+0.7
MDYM	**Dry Creek**	**1.12**	**242**		Pg	04 43 30.4	+0.7
MDPB	**Devils Postpil**	**1.18**	**243**	Pg	Pg	04 43 30.9	+0.2
MDPB				Sg	Sg	04 43 46.2	-0.1
MDPB				IAML		04 43 48.0	
	comp=E,402nm,0.3s						
TIN	**Tinemaha, Big**	**1.19**	**199**		Pg	04 43 31.4	+0.6
TIN					Sg	04 43 47.1	+0.7
TIN					IAML	04 43 52.9	
	comp=E,899nm,0.9s						
GRAC	**Grapevine Rang**	**1.23**	**165**		Pg	04 43 31.6	0.0
SGV	**South Grapevin**	**1.33**	**154**		Pg	04 43 33.2	-0.4
WAKR	**Walker**	**1.36**	**284**	Pn	Pb	04 43 33.5	+0.3
WAKR				IAML		04 43 56.7	
	comp=E,456nm,0.6s						
WAKR				IAML		04 43 58.0	
	comp=N,398nm,0.4s						
NTA	**Nevada Test Si**	**1.38**	**130**		Pb	04 43 34.0	+0.4
YERR	**Yerington**	**1.41**	**305**	Pn	Pb	04 43 33.9	-0.1
YERR				IAML		04 43 55.9	
	comp=N,682nm,0.4s						
EHN	**Echo Peak**	**1.49**	**130**		Pb	04 43 35.5	0.0
WCT	**Wildcat Mounta**	**1.66**	**147**	Pn	Pn	04 43 37.1	+0.7
S11A	**Rachel**	**1.68**	**108**	Pn	Pn	04 43 37.5	+0.7
PNTR	**Pine Nut**	**1.70**	**303**	Pn	Pn	04 43 38.0	+0.8
PNTR				IAML		04 44 04.8	
	comp=E,552nm,0.8s						
PNTR				IAML		04 44 11.3	
	comp=N,519nm,0.8s						
TPNV	**Topopah Spring**	**1.72**	**135**	Pn	Pn	04 43 38.0	+0.6
TPNV				IAML		04 44 05.8	
	comp=N,351nm,0.5s						
TPNV				IAML		04 44 10.0	
	comp=N,430nm,0.6s						
CWC	**Cottonwood Cre**	**1.76**	**188**	Pn	Pn	04 43 38.7	+0.7
CWC				IAML		04 44 08.3	
	comp=N,198nm,0.2s						
CWC				IAML		04 44 08.3	
	comp=E,207nm,0.2s						
CPY	**CP-1**	**1.84**	**132**		Pn	04 43 40.2	+1.1
VCNR	**Virginia City**	**1.85**	**307**		Pb	04 43 41.9	+0.3
FURC	**Furnace Creek,**	**1.86**	**157**	Pn	Pn	04 43 40.2	+1.1
NSP	**Numbskull Pass**	**1.90**	**139**		Pb	04 43 41.2	-1.2
SDH	**Striped Hills**	**1.91**	**143**		Pb	04 43 41.4	-1.1
PAHR	**Pah Rah Range**	**1.98**	**321**	Pn	Pn	04 43 41.6	+0.6
PAHR				IAML		04 44 12.6	
	comp=E,152nm,0.7s						
CMB	**Columbia Colle**	**2.08**	**267**		Pn	04 43 43.2	+1.0
CMB	**Columbia Colle**	**2.08**	**267**	Pn	Pn	04 43 42.9	+0.7
CMB				IAML		04 44 15.1	
	comp=N,140nm,0.5s						
CMB				IAML		04 44 18.0	
	comp=E,88nm,0.5s						
AMDNV	**Amargosa**	**2.09**	**145**		Pb	04 43 44.2	-1.3
MPMC	**Manual Prospec**	**2.13**	**174**	Pn	Pn	04 43 44.1	+1.0
MPMC				IAML		04 44 18.2	
	comp=E,192nm,0.4s						
GWY	**Greenwater Val**	**2.18**	**156**	Pn	Pn	04 43 44.7	+1.0
GWY				IAML		04 44 20.1	
	comp=N,269nm,0.4s						
GWY				IAML		04 44 26.5	
	comp=E,306nm,0.8s						
PRN	**

KNB	**Kanab**	**4.09**	**105**	Pn	Pn	04 44 11.2	+1.2
TCRU	**Three Creeks R**	**4.19**	**83**	Pn	Pn	04 44 14.1	+2.6
MOD	**Modoc Plateau**	**4.20**	**333**	Pn	Pn	04 44 12.6	+1.1
MOD				IAML		04 45 23.6	
	comp=E,24nm,0.7s						
MOD				IAML		04 45 26.2	
	comp=N,24nm,3.1s						
WVOR	**Wild Horse Val**	**4.30**	**351**	Pn	Pn	04 44 14.1	+1.3
WVOR				IAML		04 45 52.0	
	comp=N,27nm,4.7s						
DUG	**Dugway, Tooele**	**4.33**	**61**	Pn	Pn	04 44 15.6	+2.2
DUG				IAML		04 45 27.1	
	comp=N,42nm,0.7s						
PKCU	**Pink Cliffs**	**4.38**	**98**	Pn	Pn	04 44 14.6	+0.5
W13A	**Hualapai Mount**	**4.38**	**133**	Pn	Pn	04 44 15.2	+1.2
BELC	**Belle Mtn. Jos**	**4.41**	**161**	Pn	Pn	04 44 15.1	+0.7
ELS	**Elsinore Mount**	**4.53**	**176**	Pn	Pn	04 44 17.8	+1.8
IRM	**Iron Mountain**	**4.54**	**151**	Pn	Pn	04 44 18.4	+2.3
BGU	**Big Grassy Mou**	**4.57**	**52**	Pn	Pn	04 44 18.1	+1.6
PFO	**Pinyon Flats O**	**4.68**	**167**	Pn	Pn	04 44 19.7	+1.5
U15A	**North Rim**	**4.70**	**110**	Pn	Pn	04 44 20.0	+1.6
K05A	**Summer Lake**	**5.13**	**333**	Pn	Pn	04 44 25.9	+1.6
BLYC	**Blythe**	**5.14**	**148**	Pn	Pn	04 44 26.0	+1.7
BLYC				IAML		04 45 52.7	
	comp=E,27nm,0.9s						
BLYC				IAML		04 45 56.1	
	comp=N,22nm,0.8s						
SPUT	**South Promonto**	**5.15**	**51**	Pn	Pn	04 44 26.8	+2.3
HMU	**Henry Mountain**	**5.54**	**90**	Pn	Pn	04 44 28.9	-1.2
BAR	**Barrett**	**5.56**	**171**	Pn	Pn	04 44 30.5	+0.3
SRU	**San Rafael Swe**	**5.74**	**78**	Pn	Pn	04 44 33.6	+0.9
WUAZ	**Wupatki**	**5.77**	**116**	Pn	Pn	04 44 34.7	+1.6
HLID	**Hailey**	**5.94**	**24**	Pn	Pn	04 44 34.7	-0.8
P18A	**Preston Nutter**	**6.04**	**74**	Pn	Pn	04 44 37.5	+0.7
X16A	**Lo Mia Camp, P**	**6.33**	**124**	Pn	Pn	04 44 42.1	+1.2
PV05	**Paradox Valley**	**6.83**	**88**	Pn	Pn	04 44 51.5	+3.9
PV10	**Paradox Valley**	**6.86**	**86**	Pn	Pn	04 44 50.7	+2.5
PV23	**Carpenter Ridg**	**6.88**	**85**	Pn	Pn	04 44 49.0	+1.4
PV18	**Skein Mesa, Pa**	**6.97**	**87**	Pn	Pn	04 44 49.0	-0.6
PV12	**Saucer Basin,**	**7.05**	**86**	Pn	Pn	04 44 51.3	+0.5
PV07	**Paradox Valley**	**7.17**	**85**	Pn	Pn	04 44 52.6	+0.2
PV15	**Paradox Valley**	**7.30**	**86**	Pn	Pn	04 44 55.2	+1.0

*CATAC **16** 04:59:44.1±0.2, 11°N±2°×8°7W±°, h50km±13km, M3.7/36, MLv3.7/36, Error ellipse: s-maj=6.0km s-min=2.4km az=42.9, confirmed*
*UCR **16** 04:59:45.0±0.7, 11°.13N×86°.71W, h19km±7km, MW4.4, Presumed earthquake*
ISC 16 04:59:42.7±1.4, 11°.04N±0°.04×86°.87W±0°.04, h18km±4km, n69, σ°85/92, 19C-2D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NADN	**Granada**	**1.08**	**49**	*eP*	**Pn**	**05 00 02.7**	**-0.1**
SABN	**Sabanita**	**1.14**	**37**	⇑P	**Pn**	**05 00 02.6**	**-1.0**
NANN	**Nandasmo**	**1.15**	**39**	⇑P	**Pg**	**05 00 05.0**	**-0.1**
COPN	**Copaltepe**	**1.16**	**13**	⇑P	**Pn**	**05 00 03.3**	**-0.8**
COPN	**Copaltepe**	**1.16**	**13**	*eP*	**Pn**	**05 00 03.3**	**-0.8**
MASN	**Masaya**	**1.17**	**37**	⇑P	**Pg**	**05 00 05.3**	**-0.1**
MAS3	**Al N del Volca**	**1.19**	**35**	⇑P	**Pn**	**05 00 04.2**	**-0.2**
MAS3				S	**Sb**	**05 00 20.4**	**+0.6**
LCRUZ	**La Cruz**	**1.22**	**88**	*eP*	**Pn**	**05 00 04.2**	**-0.5**
TISN	**Laguna Tiscapa**	**1.24**	**28**	⇑P	**Pn**	**05 00 04.2**	**-0.9**
APQ2	**Apoyeque**	**1.27**	**25**	⇑P	**Pn**	**05 00 05.4**	**0.0**
APQ2	**Apoyeque**	**1.27**	**25**	⇑P	**Pn**	**05 00 05.5**	**+0.1**
APQ2				S	**Sn**	**05 00 21.5**	**-0.5**
APQ2				S	**Sg**	**05 00 23.3**	**-0.4**
APYN	**Apoyeque**	**1.29**	**23**	⇑P	**Pb**	**05 00 06.3**	**-0.1**
MORN	**Al O del Volca**	**1.30**	**67**	⇑P	**Pn**	**05 00 05.6**	**-0.2**
WILN	**Americas 2**	**1.30**	**31**	⇑P	**Pn**	**05 00 05.9**	**+0.1**
WILN				S	**Sg**	**05 00 24.6**	**-0.1**
OMEN	**Al SSO del Vol**	**1.30**	**69**	⇑P	**Pn**	**05 00 05.6**	**-0.3**
CARN	**Rivas**	**1.33**	**84**	⇑P	**Pn**	**05 00 06.2**	**-0.1**
CARN				S	**Sn**	**05 00 24.4**	**+1.0**
ALIBA	**Liberia Airpor**	**1.37**	**109**	*eP*	**Pn**	**05 00 07.0**	**+0.1**
ALIBA				*eS*	**Sn**	**05 00 24.5**	**0.0**
LEVN	**Ruinas Leon Vi**	**1.38**	**10**	⇑P	**Pb**	**05 00 07.9**	**+0.1**
LEVN				S	**Sb**	**05 00 25.4**	**+0.3**
LAPC	**Finca la Perla**	**1.44**	**101**	*eP*	**Pn**	**05 00 06.1**	**-1.6**
MOM2	**El Cardon**	**1.44**	**15**	⇑P	**Pn**	**05 00 08.0**	**+0.2**
MOM2				S	**Sb**	**05 00 27.0**	**+0.1**
CNGA	**Al SSO del Vol**	**1.45**	**6**	⇑P	**Pb**	**05 00 08.4**	**-0.8**
CNGA				S	**Sn**	**05 00 26.5**	**-0.2**
CNGN	**Cerro Negro**	**1.46**	**6**	⇑P	**Pn**	**05 00 08.4**	**+0.2**
CNGN				S	**Sg**	**05 00 29.9**	**0.0**
VRLE	**La Escondida,**	**1.50**	**99**	*eP*	**Pn**	**05 00 08.5**	**-0.2**
MOM3	**MOM3**	**1.50**	**13**	⇓P	**Pn**	**05 00 08.9**	**+0.3**
GPS3	**Bodega del ICE**	**1.50**	**101**	*eP*	**Pg**	**05 00 11.8**	**+0.1**
VORI	**VORI**	**1.51**	**98**	*eP*	**Pn**	**05 00 08.7**	**-0.2**
GPS2	**Hotel Rincn d**	**1.52**	**101**	*eP*	**Pn**	**05 00 08.8**	**-0.2**
BUAI	**Buenos Aires**	**1.52**	**96**	*eP*	**Pn**	**05 00 09.4**	**+0.6**
PEJA	**Penjamo Buenos**	**1.53**	**95**	*eP*	**Pn**	**05 00 09.3**	**+0.2**
PLRN	**Geotermica Pol**	**1.54**	**4**	⇑P	**Pn**	**05 00 09.4**	**+0.2**
PLRN				S	**Sn**	**05 00 28.1**	**-0.6**
CRIN	**San Cristobal**	**1.66**	**354**	P	**Pb**	**05 00 11.6**	**-1.1**
CRIN				S	**Sb**	**05 00 33.4**	**+0.1**
MESS	**Mesas**	**1.67**	**100**	*eP*	**Pn**	**05 00 11.2**	**+0.2**
COLC	**Colonia**	**1.68**	**103**	*eP*	**Pn**	**05 00 11.3**	**+0.2**
CLARA	**Aguas Claras**	**1.68**	**99**	*eP*	**Pn**	**05 00 11.8**	**+0.6**
CUI	**Cuipilapa**	**1.72**	**103**	*eP*	**Pn**	**05 00 11.8**	**+0.1**
VMAR	**Armenia, Volca**	**1.74**	**97**	*eP*	**Pn**	**05 00 12.4**	**+0.4**
CMARA	**Lajas Hojancha**	**1.75**	**125**	⇑P	**Pn**	**05 00 11.1**	**-1.0**
INDI	**Punta indio, G**	**1.78**	**131**	⇓P	**Pn**	**05 00 11.6**	**-0.9**
UPAL	**Upala**	**1.83**	**94**	P	**Pn**	**05 00 13.4**	**+0.2**
UPAL				S	**Sn**	**05 00 36.6**	**+0.8**
UPAL	**Upala**	**1.83**	**94**	*eP*	**Pn**	**05 00 13.3**	**+0.2**
BOAB	**BOACO BROADBAN**	**1.83**	**40**	P	**Pn**	**05 00 12.8**	**-0.4**
BOAB				S	**Sn**	**05 00 36.6**	**+0.7**
TIMP	**Tierras Morena**	**1.87**	**104**	*eP*	**Pn**	**05 00 14.9**	**+1.0**
TENO	**El Achiote**	**1.89**	**100**	*eP*	**Pn**	**05 00 14.0**	**0.0**
ACON	**Acoyapa**	**1.90**	**61**	P	**Pn**	**05 00 14.7**	**+0.6**
ACON				S	**Sn**	**05 00 37.8**	**+0.3**
ACON	**Acoyapa**	**1.90**	**61**	*eP*	**Pn**	**05 00 13.5**	**-0.6**
TILA	**Tilaran**	**1.95**	**107**	*eP*	**Pb**	**05 00 18.0**	**+0.3**
COTE	**Lago Cote**	**1.97**	**103**	*eP*	**Pn**	**05 00 15.5**	**+0.3**
QUEB	**Quebradon, Cot**	**1.98**	**102**	*eP*	**Pn**	**05 00 15.9**	**+0.6**
JTS	**Las Juntas de**	**2.02**	**111**	*eP*	**Pn**	**05 00 16.1**	**+0.2**
MTEVE	**Monteverde**	**2.13**	**109**	*eP*	**Pn**	**05 00 17.4**	**-0.1**
CASO	**Castillo**	**2.18**	**106**	*eP*	**Pb**	**05 00 20.9**	**-0.7**
VARE2	**V. Arenal**	**2.19**	**105**	*eP*	**Pn**	**05 00 18.6**	**+0.4**
FORC	**Fortuna**	**2.23**	**105**	*eP*	**Pn**	**05 00 19.0**	**+0.2**
CNCH	**Conchagua**	**2.42**	**337**	P	**Pn**	**05 00 22.4**	**+1.1**
CNCH				S	**Sn**	**05 00 51.6**	**+1.1**
COVE	**Coope Vega, Sa**	**2.44**	**97**	P	**Pn**	**05 00 22.6**	**+1.0**
LCND	**La Caada**	**2.47**	**336**	P	**Pn**	**05 00 22.8**	**+0.9**
VPL2	**V. Platanar**	**2.55**	**106**	*eP*	**Pb**	**05 00 26.8**	**-1.1**
RCPN	**Sur Rio San Ju**	**2.58**	**17**	P	**Pn**	**05 00 24.6**	**+0.9**
RCVN	**Varillal2**	**2.61**	**15**	P	**Pn**	**05 00 24.8**	**+0.7**
TGUH	**Tegucigalpa,Un**	**3.02**	**353**	P	**Pn**	**05 00 30.8**	**+1.1**
TGUH				S	**Sn**	**05 01 06.1**	**+0.5**
ABE2	**San Pablo**	**3.07**	**115**	*eP*	**Pn**	**05 00 32.3**	**+1.9**
LCR2	**La Lucha 2**	**3.10**	**114**	P	**Pn**	**05 00 32.5**	**+1.7**
LCR2				S	**Sn**	**05 01 07.2**	**-0.3**
LCR2	**La Lucha 2**	**3.10**	**114**	*eP*	**Pn**	**05 00 33.2**	**+2.4**
TECO	**Alcaldia de Te**	**3.11**	**323**	P	**Pn**	**05 00 31.3**	**+0.5**
TECO				S	**Sn**	**05 01 06.5**	**-1.0**
PIEC	**Cerro El Cedra**	**3.19**	**116**	*eP*	**Pn**	**05 00 33.3**	**+1.2**
COEG	**Centro de Oper**	**3.23**	**323**	P	**Pn**	**05 00 34.0**	**+1.4**
COEG				S	**Sn**	**05 01 09.4**	**-1.2**
JAYA	**Jayaque - finc**	**3.62**	**316**	P	**Pn**	**05 00 39.2**	**+1.2**
JAYA				S	**Sn**	**05 01 19.5**	**-0.8**
NUBE	**Las Nubes**	**4.02**	**315**	P	**Pn**	**05 00 44.8**	**+1.3**
NUBE				S	**Sn**	**05 01 28.0**	**-2.3**
PIRO	**Carate, Puerto**	**4.36**	**127**	P	**Pn**	**05 00 49.6**	**+1.7**
PIRO				S	**Sn**	**05 01 35.7**	**-2.6**

*IDC **16** 05:03:35.1±7.8, 2°.57N×96°.30E, h0km, mb4.0/5, mbtmp4.0/6, ML4.3/1, MS3.1/2, Error ellipse: s-maj=156.7km s-min=80.5km az=145.0*
*NEIC **16** 05:03:36.4±1.1, 2°.49N±0°.08×95°.68E±0°.06, h10km±2km, mb4.2/11, Error ellipse: s-maj=15.6km s-min=4.8km az=144.0*
*DJA **16** 05:03:39.6±0.6, 3°N±5°×9°6E±°, h14km±5km, M4.0/12, MLv4.0/12*
ISC 16 05:03:36.0±1.1, 2°.55N±0°.10×95°.71E±0°.09, h10km, n44, σ1°§07/33, mb4.2/11, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNSI	**Sinabang, Aceh**	**0.63**	**103**	P	**Pn**	**05 03 52.6**	**+1.6**
SNSI				S	**Sn**	**05 04 01.6**	**+0.4**
SNSI				AML	AML		
TPTI		**1.63**	**64**	P	**Pn**	**05 04 04.4**	**-0.3**
TPTI				S	**Sn**	**05 04 23.5**	**-2.3**
MLSI	**Meulaboh, Aceh**	**1.84**	**22**	P	**Pn**	**05 04 09.6**	**+1.9**
KCSI	**Kotacane, Aceh**	**2.27**	**65**	P	**Pn**	**05 04 15.0**	**+1.4**
LHMI	**Lhok Sumawe**	**2.93**	**25**	Pn	**Pn**	**05 04 24.1**	**+1.5**
BSI	**Banda Aceh**	**2.96**	**352**	P	**Pn**	**05 04 23.1**	**+0.1**
RPSI	**Rantau Prapat**	**3.21**	**87**	Pn	**Pn**	**05 04 27.5**	**+0.9**
KULM	**Kulim**	**5.63**	**61**		**Pn**	**05 05 01.0**	**+1.2**
IPM	**Ipoh**	**5.64**	**70**	Pn	**Pn**	**05 05 00.3**	**+0.3**
CMAR	**Chiang Mai Arr**	**16.12**	**11**	Pn	**Pn**	**05 07 23.1**	**+0.2**
	0.4nm,0.3s,baz=193,slow=12,SNR=5.0						
CMAR				LR	LR	05 13 33.2	
	comp=Z,35nm,18.8s,baz=130,slow=37 0.8nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**16.12**	**11**	Pn	**Pn**	**05 07 23.7**	**+0.8**
H08S2	**Diego Garcia H**	**25.28**	**246**	T	T	05 35 19.4	
	baz=67,slow=75,SNR=67						
H08S3	**Diego Garcia H**	**25.28**	**246**	T	T	05 35 20.4	
	baz=67,slow=75,SNR=85						
H08S1	**Diego Garcia H**	**25.30**	**246**	T	T	05 35 21.6	
	baz=67,slow=75,SNR=33						
KNMB	**Chin-men Tao**	**30.89**	**43**	P	**P**	**05 09 52.1**	**-0.8**
H01W3	**Cape Leeuwin H**	**41.06**	**157**	T	T	05 54 53.1	
	baz=332,slow=76,SNR=57						
H01W2	**Cape Leeuwin H**	**41.07**	**157**	T	T	05 54 53.1	
	baz=332,slow=76,SNR=49						
H01W1	**Cape Leeuwin H**	**41.07**	**157**	T	T	05 54 53.1	
	baz=332,slow=76,SNR=43						
DRK	**Karanyk**	**42.71**	**332**	P	**P**	**05 11 32.9**	**-0.7**
PDGK	**Podgornoye**	**43.10**	**343**	P	**P**	**05 11 35.0**	**-1.5**
WB0	**Warramunga Arr**	**43.98**	**122**	P	**P**	**05 11 43.3**	**-0.6**
WB0				IAmb	IAmb	05 12 11.2	
	comp=Z,7.2nm,1.4s						
WRA	**Warramunga Arr**	**44.01**	**122**	P	**P**	**05 11 43.1**	**-1.0**
WR8	**Warramunga Arr**	**44.15**	**122**	P	**P**	**05 11 44.6**	**-0.7**
WR8				IAmb	IAmb	05 11 52.1	
	comp=Z,4.1nm,1.2s						
MK31	**Makanchi Array**	**45.59**	**347**	P	**P**	**05 11 56.1**	**-0.2**
MK31				IAmb	IAmb	05 12 12.9	
	comp=Z,4.6nm,1.4s						
MKAR	**Makanchi Array**	**45.59**	**347**	P	**P**	**05 11 57.8**	**+1.5**
	comp=Z,1.3nm,0.5s,baz=160,slow=9.3,SNR=13 comp=Z,1.3nm,0.5s						
MKAR	**Makanchi Array**	**45.59**	**347**	P	**P**	**05 11 56.0**	**-0.3**
MAKZ	**Makanchi**	**45.68**	**347**	P	**P**	**05 11 56.3**	**-0.7**
MAKZ				IAmb	IAmb	05 12 20.6	
	comp=Z,2.4nm,0.9s						
SONM	**Songino Array**	**46.05**	**10**	P	**P**	**05 12 00.6**	**+0.6**
	comp=Z,1.7nm,0.6s,baz=191,slow=9.4,SNR=13 comp=Z,1.7nm,0.6s						
SONM	**Songino Array**	**46.05**	**10**	P	**P**	**05 12 01.0**	**+0.9**
SONM				IAmb	IAmb	05 12 01.7	
	comp=Z,1.5nm,0.8s						
KURBB	**Kurchatov Arra**	**50.06**	**346**	P	**P**	**05 12 32.1**	**+1.3**
	comp=Z,0.5nm,0.3s,baz=164,slow=7.2,SNR=7.7 comp=Z,0.5nm,0.3s						
KURK	**Kurchatov**	**50.12**	**346**	P	**P**	**05 12 31.8**	**+0.5**
ZAA0	**Zalesovo Array**	**52.01**	**352**	P	**P**	**05 12 45.6**	**+0.2**
ZAA0				IAmb	IAmb	05 12 54.5	
	comp=Z,7.2nm,1.5s						
ZALV	**Zalesovo Beam**	**52.01**	**352**	P	**P**	**05 12 46.6**	**+1.2**
	comp=Z,2.0nm,0.6s,baz=182,slow=8.2,SNR=11 comp=Z,2.0nm,0.6s						
ZALV	**Zalesovo Beam**	**52.01**	**352**	P	**P**	**05 12 46.1**	**+0.6**
BVAR	**Borovoye Array**	**54.50**	**341**	P	**P**	**05 13 05.0**	**+1.1**
	comp=Z,0.6nm,0.4s,baz=130,slow=7.1,SNR=2.0 comp=Z,0.6nm,0.4s						
AB31	**Akbulak array**	**55.63**	**332**	P	**P**	**05 13 11.1**	**-1.0**
AB31				IAmb	IAmb	05 13 15.0	
	comp=Z,2.6nm,1.1s						
ABKAR	**Akbulak array**	**55.63**	**332**	P	**P**	**05 13 12.7**	**+0.6**
AKTO	**Aktyubinsk**	**57.35**	**332**	LR	LR	05 41 31.4	
	comp=Z,25nm,18.8s,baz=34,slow=40						
H04N2	**CROZET ISLANDS**	**62.06**	**213**	T	T	06 21 25.8	
	baz=50,slow=76,SNR=331						
H04N1	**CROZET ISLANDS**	**62.08**	**213**	T	T	06 21 26.4	
	baz=50,slow=76,SNR=270						
H04N3	**CROZET ISLANDS**	**62.08**	**213**	T	T	06 21 25.0	
	baz=50,slow=76,SNR=263						
H04S1	**CROZET ISLANDS**	**62.43**	**212**	T	T	06 21 48.3	
	baz=51,slow=77,SNR=61						
H04S3	**CROZET ISLANDS**	**62.44**	**212**	T	T	06 21 49.8	
	baz=51,slow=77,SNR=77						
H04S2	**CROZET ISLANDS**	**62.45**	**212**	T	T	06 21 51.1	
	baz=51,slow=77,SNR=45						

*IDC **16** 05:34:43.2±0.7, 34°.26S×72°.99W, h0km, mb4.0/11, mbtmp4.0/15, ML4.0/4, MS3.8/11, Error ellipse: s-maj=21.1km s-min=14.1km az=102.0*
*NEIC **16** 05:34:45.4±1.1, 34°.33S±0°.04×72°.62W±0°.06, h11km±4km, mb4.5/10, Mwr4.3/61, Mwr4.5(GUC), Error ellipse: s-maj=7.5km s-min=4.8km az=59.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=2.28; Mθθ=0.57; Mϕϕ=1.71; Mrθ=0.06; Mrϕ=0.88; Mθϕ=-3.20; Fault plane solution: M0=3.90000×10¹⁵ NP1:ϕs=5.53000°, δ=73.30000°, λ=-102.24000°. NP2:ϕs=222.57000°, δ=20.60000°, λ=-54.76000°. Principal axes: T 3.6632, Plg=27.0000°, Azm=105.0000°; N 0.4423, Plg=12.0000°, Azm=9.0000°; P -4.1055, Plg=60.0000°, Azm=258.0000°;*
*NEIC **16** 05:34:45.5, 34°.34S×72°.62W, h12km*
*GFZ **16** 05:34:45.0±0.3, 34°.S±2°×7°.3W±°, h10km, M4.5/9, mb4.5/9*
*GUC **16** 05:34:46.3±0.8, 34°.38S×72°.68W, h39km±2km, ML4.3, Presumed earthquake*
*VAO **16** 05:34:49.9±0.6, 34°.53S×71°.86W, h10km, mb4.4, Presumed earthquake*
ISC 16 05:35:44.7±1.5, 34°.34S±0°.03×72°.67W±0°.05, h9km±9km, n169, σ1§21/165, mb4.4/18, MS3.9/8, 15C-1D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BO03	**Pichilemu**	**0.60**	**105**	*eP*	**Pb**	**05 34 57.9**	**+0.5**
BO03				*eS*	**Sb**	**05 35 06.3**	**+0.3**
BO03				IAML		05 35 07.8	
	comp=E,48μm,0.3s						
BO03	**Pichilemu**	**0.60**	**105**	P	**Pb**	**05 34 58.4**	**+1.0**
GO05	**Hualane**	**0.90**	**138**		**Pg**	**05 35 02.3**	**+0.2**
GO05				Sg	**Sg**	**05 35 14.3**	**+0.4**
GO05	**Hualane**	**0.90**	**138**	⇑*iP*	**Pg**	**05 35 02.1**	**0.0**
GO05				*eS*	**Sg**	**05 35 14.0**	**+0.1**
GO05				IAML		05 35 16.1	
	comp=N,27μm,0.3s						
GO05	**Hualane**	**0.90**	**138**	P	**Pg**	**05 35 02.4**	**+0.2**
VA05	**Santo Domingo**	**1.11**	**52**		**Pb**	**05 35 06.1**	**+0.1**
VA05	**Santo Domingo**	**1.11**	**52**	⇑*iP*	**Pb**	**05 35 06.0**	**+0.1**
VA05				*eS*	**Sb**	**05 35 20.7**	**+0.2**
VA05				IAML		05 35 28.3	
	comp=E,12μm,0.4s						
VA05	**Santo Domingo**	**1.11**	**52**	P	**Pb**	**05 35 06.2**	**+0.3**
MT01	**Popeta**	**1.27**	**68**		**Pn**	**05 35 08.0**	**-0.5**
MT01	**Popeta**	**1.27**	**68**	⇑*iP*	**Pn**	**05 35 07.9**	**-0.7**
MT01				*eS*	**Sb**	**05 35 24.4**	**-0.7**
MT01				IAML		05 35 27.8	
	comp=N,6μm,0.4s						
BO01	**Tunca**	**1.31**	**93**		**Pn**	**05 35 08.4**	**-0.7**
BO01					**Sb**	**05 35 25.7**	**-0.7**
BO01	**Tunca**	**1.31**	**93**	⇑*iP*	**Pn**	**05 35 08.5**	**-0.7**
BO01				*eS*	**Sb**	**05 35 25.1**	**-1.2**
BO01				IAML		05 35 28.8	
	comp=N,6μm,0.5s						
BO01	**Tunca**	**1.31**	**93**	P	**Pn**	**05 35 08.8**	**-0.4**
MT09	**Talagante**	**1.50**	**69**		**Pn**	**05 35 11.5**	**-0.4**
MT09	**Talagante**	**1.50**	**69**	⇑*iP*	**Pn**	**05 35 11.5**	**-0.4**
MT09				*eS*	**Sn**	**05 35 31.0**	**-0.7**
MT09				IAML		05 35 44.4	
	comp=E,5μm,0.6s						
VA01	**Torpederas**	**1.56**	**33**		**Pn**	**05 35 12.8**	**+0.1**
VA01	**Torpederas**	**1.56**	**33**	*eP*	**Pn**	**05 35 12.5**	**-0.1**
VA01	**Torpederas**	**1.56**	**33**	P	**Pn**	**05 35 13.1**	**+0.5**
BO02	**Sierra Bellavi**	**1.62**	**107**	Pn	**Pn**	**05 35 13.6**	**+0.1**
BO02	**Sierra Bellavi**	**1.62**	**107**	⇑*iP*	**Pn**	**05 35 13.0**	**-0.5**
BO02				*eS*	**Sn**	**05 35 33.2**	**-1.4**
BO02				IAML		05 35 42.7	
	comp=E,11μm,0.3s						
BO02	**Sierra Bellavi**	**1.62**	**107**	P	**Pn**	**05 35 13.8**	**+0.3**
MT02	**Curacav**	**1.67**	**50**	Pn	**Pn**	**05 35 13.8**	**-0.2**
MT02	**Curacav**	**1.67**	**50**	*eP*	**Pn**	**05 35 13.7**	**-0.3**
MT02				*eS*	**Sn**	**05 35 34.6**	**-1.0**
BO04	**La Punta**	**1.74**	**79**		**Pn**	**05 35 15.6**	**+0.5**
BO04	**La Punta**	**1.74**	**79**	⇑*iP*	**Pn**	**05 35 15.5**	**+0.4**
BO04				*eS*	**Sn**	**05 35 36.8**	**-0.6**
BO04				IAML		05 35 49.4	
	comp=E,5μm,0.4s						
ML02	**Panimavida**	**1.75**	**145**		**Pn**	**05 35 15.1**	**-0.1**
ML02	**Panimavida**	**1.75**	**145**	*eP*	**Pn**	**05 35 15.6**	**+0.4**
ML02				*eS*	**Sn**	**05 35 35.8**	**-1.9**
ML02				IAML		05 35 46.8	
	comp=N,11μm,0.8s						
ML02	**Panimavida**	**1.75**	**145**	P	**Pn**	**05 35 15.4**	**+0.1**
MT12	**Pirque**	**1.86**	**72**	⇑*iP*	**Pn**	**05 35 17.1**	**+0.4**
MT05	**Renca**	**1.86**	**60**		**Pn**	**05 35 17.0**	**+0.2**
MT05	**Renca**	**1.86**	**60**	*eP*	**Pn**	**05 35 16.7**	**-0.1**
MT05				IAML		05 35 51.6	
	comp=E,5μm,0.5s						
ROCH	**El Roble**	**1.94**	**46**	*eP*	**Pn**	**05 35 18.1**	**+0.1**
ROCH				IAML		05 35 56.0	
	comp=E,4μm,0.6s						
MT15	**Las Vizcachas**	**1.94**	**68**	⇑*iP*	**Pn**	**05 35 18.1**	**+0.2**
MT15				IAML		05 35 51.3	
	comp=N,4μm,0.2s						
MT03	**Universidad Ad**	**1.98**	**65**		**Pn**	**05 35 18.8**	**+0.3**
MT03	**Universidad Ad**	**1.98**	**65**	*eP*	**Pn**	**05 35 18.6**	**+0.2**
MT03				IAML		05 35 57.2	
	comp=E,5μm,0.2s						
MT16	**CCHEN**	**2.00**	**64**		**Pn**	**05 35 19.2**	**+0.5**
MT16	**CCHEN**	**2.00**	**64**	⇑*iP*	**Pn**	**05 35 19.0**	**+0.2**
MT16				IAML		05 35 55.1	
	comp=E,3μm,0.6s						
MT14	**Cerro Calan**	**2.01**	**63**	⇑*iP*	**Pn**	**05 35 19.3**	**+0.5**
PEL	**Peldehue**	**2.04**	**55**		**Pn**	**05 35 20.0**	**+0.8**
PEL	**Peldehue**	**2.04**	**55**	*eP*	**Pn**	**05 35 19.9**	**+0.8**
PEL	**Peldehue**	**2.04**	**55**	P	**Pn**	**05 35 20.1**	**+1.0**
MT13	**San Alfonso**	**2.06**	**74**		**Pn**	**05 35 20.3**	**+0.7**
MT13	**San Alfonso**	**2.06**	**74**	*eP*	**Pn**	**05 35 20.3**	**+0.7**
MT10	**Hacienda Santa**	**2.07**	**60**	*eP*	**Pn**	**05 35 20.4**	**+0.7**
LMEL	**Las Melosas**	**2.10**	**77**	*eP*	**Pn**	**05 35 21.1**	**+0.9**
FCH	**Farellones**	**2.22**	**64**	⇑*eP*	**Pn**	**05 35 22.3**	**+0.3**
MT04	**Ro Olivares**	**2.30**	**67**	*eP*	**Pn**	**05 35 23.5**	**+0.5**
VA03	**San Esteban**	**2.36**	**49**		**Pn**	**05 35 24.6**	**+0.9**
VA03	**San Esteban**	**2.36**	**49**	*eP*	**Pn**	**05 35 24.7**	**+1.0**
VA03	**San Esteban**	**2.36**	**49**	P	**Pn**	**05 35 24.8**	**+1.0**
MT08	**Bocatoma Ro**	**2.38**	**69**	Pn	**Pn**	**05 35 23.4**	**-0.7**
MT08	**Bocatoma Ro**	**2.38**	**69**	*eP*	**Pn**	**05 35 25.3**	**+1.2**
BI02	**San Fabin de**	**2.58**	**154**		**Pn**	**05 35 26.9**	**+0.2**
BI02	**San Fabin de**	**2.58**	**154**	⇓*eP*	**Pn**	**05 35 26.8**	**+0.2**
BI02	**San Fabin de**	**2.58**	**154**	P	**Pn**	**05 35 27.0**	**+0.2**
CO04	**Los Peladeros**	**2.69**	**32**		**Pn**	**05 35 28.3**	**-0.1**
CO04	**Los Peladeros**	**2.69**	**32**	*eP*	**Pn**	**05 35 28.5**	**+0.1**
CO04	**Los Peladeros**	**2.69**	**32**	P	**Pn**	**05 35 29.2**	**+0.8**
CO02	**Combarbal**	**3.43**	**25**	*eP*	**Pn**	**05 35 38.7**	**+0.3**
CO02	**

PTLB	**Pontes e Lacer**	**22.41**	**36**	P	**P**	05 39 42.2	**-1.5**
PTLB				IAmb	IAmb	05 39 56.0	
	comp=Z,12nm,1.1s						
PTLB	**Pontes e Lacer**	**22.41**	**36**	*e*P	**P**	05 39 45.1	**+1.5**
PCMB	**Pacaembu**	**22.71**	**62**	P	**P**	05 39 46.4	**-0.5**
	comp=Z,26nm,0.7s						
PCMB	**Pacaembu**	**22.71**	**62**	*e*P	**P**	05 39 46.3	**-0.5**
PP1B	**Ponte de Pedra**	**23.04**	**48**	*e*P	**P**	05 39 51.6	**+1.3**
C2SB	**Chapadao do Su**	**23.49**	**54**	P	**P**	05 39 56.0	**+1.2**
	comp=Z,48nm,1.0s						
C2SB	**Chapadao do Su**	**23.49**	**54**	*e*P	**P**	05 39 55.9	**+1.0**
SALV	**Santo Antonio**	**23.88**	**44**	*e*P	**P**	05 40 02.4	**+3.8**
VILB	**Vilhena**	**24.11**	**31**	*e*P	**P**	05 40 05.5	**+4.7**
VAO	**Valinhos**	**25.15**	**70**	P	**P**	05 40 11.0	**+0.7**
VAO				IAmb	IAmb	05 40 16.3	
	comp=Z,23nm,1.2s						
PDRB	**Porto dos Gac**	**26.89**	**37**	*e*P	**P**	05 40 28.9	**+2.9**
ATAH	**Atahualpa**	**27.58**	**348**	LR	LR	05 49 22.2	
	comp=Z,89nm,19.5s,baz=201,slow=32						
CLDB	**Colider**	**27.98**	**37**	P	**P**	05 40 38.3	**+2.5**
	comp=Z,13nm,0.8s						
CLDB	**Colider**	**27.98**	**37**	*e*P	**P**	05 40 39.4	**+3.5**
BDFB	**Brasilia**	**28.95**	**56**	P	**P**	05 40 45.3	**+0.7**
	comp=Z,2.7nm,0.7s,baz=214,slow=9.9,SNR=5.1						
	comp=Z,2.7nm,0.7s						
NPGB	**Novo Progresso**	**31.51**	**34**	*e*P	**P**	05 41 11.3	**+4.2**
RPN	**Rapa Nui**	**32.20**	**273**	LR	LR	05 50 35.5	
	comp=Z,279nm,19.4s,baz=85,slow=30						
RUSC	**La Rusia**	**40.01**	**359**	P	**P**	05 42 20.1	**-0.4**
RUSC				IAmb	IAmb	05 42 43.1	
	comp=Z,19nm,1.4s						
MDP	**Montagnes des**	**43.55**	**30**	LR	LR	06 02 48.6	
	comp=Z,131nm,18.4s,baz=196,slow=39						
BELA	**Belgrano 2**	**46.64**	**170**	P	**P**	05 43 13.4	**+0.6**
BELA				IAmb	IAmb	05 43 33.1	
	comp=Z,6.2nm,1.0s						
VNA3	**Neumayer Olymp**	**49.24**	**158**	⇑P	**P**	05 43 34.2	**+1.1**
	comp=Z,4.9nm,0.8s						
SNAA	**Sanae**	**51.47**	**158**	P	**P**	05 43 51.8	**+1.8**
	comp=Z,127nm,0.3s						
SNAA	**Sanae**	**51.47**	**158**	P	**P**	05 43 51.3	**+1.3**
	comp=Z,4.2nm,0.3s,baz=246,slow=10,SNR=3.3						
	comp=Z,4.2nm,0.3s						
SNAA	**Sanae**	**51.47**	**158**	P	**P**	05 43 51.1	**+1.1**
TROLL	**Troll, Antarti**	**53.17**	**158**	P	**P**	05 44 04.1	**+1.4**
	comp=Z,163nm,0.5s						
QSPA	**South Pole Qui**	**55.90**	**180**	P	**P**	05 44 22.4	**-0.2**
	comp=Z,4.6nm,0.9s,baz=136,slow=2.2,SNR=13						
	comp=Z,4.6nm,0.9s						
QSPA	**South Pole Qui**	**55.90**	**180**	P	**P**	05 44 23.0	**+0.4**
QSPA				IAmb	IAmb	05 44 24.7	
	comp=Z,7.8nm,1.1s						
TEIG	**Tepich**	**56.26**	**342**	P	**P**	05 44 25.3	**-0.2**
VNDA	**Vanda**	**63.67**	**191**	P	**P**	05 45 16.3	**+0.6**
	comp=Z,0.4nm,0.9s,baz=162,slow=6.4,SNR=2.1						
	comp=Z,0.4nm,0.9s						
TX31	**Lajitas Ar. Si**	**69.78**	**331**	P	**P**	05 45 54.8	**-0.6**
TXAR	**Lajitas Array**	**69.78**	**331**	P	**P**	05 45 54.9	**-0.4**
	comp=Z,0.7nm,0.8s,baz=147,slow=7.1,SNR=5.9						
	comp=Z,0.7nm,0.8s						
TXAR	**Lajitas Array**	**69.78**	**331**	P	**P**	05 45 55.1	**-0.2**
MAW	**Mawson**	**73.00**	**164**	LR	LR	06 18 32.0	
	comp=Z,126nm,18.2s,baz=224,slow=36						
SUR	**Sutherland**	**75.12**	**119**	LR	LR	06 16 57.8	
	comp=Z,50nm,18.2s,baz=219,slow=34						
DBIC	**Dimbokro**	**75.78**	**72**	P	**P**	05 46 33.1	**+1.9**
	comp=Z,2.3nm,0.8s,baz=211,slow=7.7,SNR=6.8						
	comp=Z,2.3nm,0.8s						
BOSA	**Boshof**	**80.37**	**118**	P	**P**	05 46 57.9	**+1.1**
	comp=Z,2.3nm,0.9s,baz=256,slow=4.2,SNR=4.8						
	comp=Z,2.3nm,0.9s						
LBTB	**Lobatse**	**82.63**	**115**	LR	LR	06 19 16.5	
	comp=Z,41nm,19.2s,baz=202,slow=32						
URZ	**Urewera**	**83.05**	**228**	LR	LR	06 16 51.1	
	comp=Z,69nm,18.1s,baz=156,slow=30						
PDAR	**Pinedale Array**	**83.83**	**334**	P	**P**	05 47 12.3	**-2.2**
	comp=Z,0.4nm,0.7s,baz=157,slow=6.2,SNR=4.0						
	comp=Z,0.4nm,0.7s						
NVAR	**Mina Array Bea**	**83.87**	**326**	P	**P**	05 47 12.8	**-2.0**
	comp=Z,0.7nm,0.8s,baz=177,slow=5.6,SNR=5.9						
	comp=Z,0.7nm,0.8s						
TORD	**Torodi Ar. Bea**	**84.81**	**70**	P	**P**	05 47 20.5	**+0.6**
	comp=Z,0.9nm,1.0s,baz=248,slow=10,SNR=3.6						
	comp=Z,0.9nm,1.0s						
MDT	**Midelt**	**92.43**	**51**	LR	LR	06 28 24.1	
	comp=Z,66nm,19.8s,baz=244,slow=35						
BVAR	**Borovoye Array**	**147.88**	**43**	PKPbc	**PKiKP**	05 54 30.8	**-0.8**
	comp=Z,4.1nm,0.6s,baz=289,slow=4.5,SNR=11						
KURBB	**Kurchatov Arra**	**153.47**	**43**	PKPbc	**PKiKP**	05 54 43.4	**+0.2**
	comp=Z,1.1nm,0.8s,baz=286,slow=3.0,SNR=8.4						
ZALV	**Zalesovo Beam**	**154.79**	**32**	PKPbc	**PKiKP**	05 54 46.1	**+0.4**
	comp=Z,1.8nm,0.7s,baz=331,slow=0.8,SNR=8.0						
MKAR	**Makanchi Array**	**157.38**	**49**	PKPab	**PKPab**	05 55 12.6	**+0.4**
	comp=Z,0.9nm,0.7s,baz=294,slow=2.9,SNR=6.1						
SONM	**Songino Array**	**166.50**	**3**	PKPab	**PKPab**	05 55 52.6	**+0.5**
	comp=Z,0.8nm,0.7s,baz=27,slow=3.2,SNR=4.8						
NJ2	**Nanjing**	**170.08**	**260**	*e*P	**PKPdf**	05 54 53.3	**+0.4**
NJ2				pmax	pmax		
	comp=Z,11nm,1.1s						
HHC	**Hu-ho-hao-te**	**172.69**	**334**	*e*P	**PKPdf**	05 54 50.8	**-3.3**

MEX ***16*** *06:08:57.4±0.6, 14°.76N×91°.99W, h136km±4km, MD4.1, Presumed earthquake*
GCG ***16*** *06:08:58.3±0.8, 14°.82N×91°.89W, h111km±12km, MD3.9, Presumed earthquake*

ISC 16 06:08:53.4±2.0, **14°.68N**±0°.08×**92°.00W**±0°.07, **h146**km±11km, **n18**, σ1°**69**/33, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RTAL	**Retalhuleu**	**0.34**	**118**	*e*P	**Pn**	**06 09 15.2**	**+1.6**
RTAL				*e*S	**Sn**	**06 09 29.2**	**+0.4**
THIG		**0.34**	**311**	*i* P	**Pn**	**06 09 14.8**	**+1.2**
THIG		**0.34**	**311**	*e*P	**Pn**	**06 09 14.8**	**+1.2**
THIG				*e*S	**Sn**	**06 09 28.9**	**0.0**
CHUJ	**Union Juarez**	**0.42**	**346**	*e*P	**Pn**	**06 09 14.9**	**+0.7**
CHUJ				*e*S	**Sn**	**06 09 29.3**	**-0.8**
PATR	**El Naranjo**	**0.49**	**333**	*e*P	**Pn**	**06 09 15.1**	**+0.6**
PATR				*e*S	**Sn**	**06 09 29.2**	**-1.4**
PAVE	**Pavencul**	**0.54**	**342**	*e*P	**Pn**	**06 09 15.8**	**+1.0**
PAVE				*e*S	**Sn**	**06 09 30.2**	**-0.8**
STGB	**El Palmar, Qui**	**0.67**	**110**	*i* P	**Pn**	**06 09 14.5**	**-1.0**
HUEH	**Huehuetenango**	**0.80**	**37**	*i* P	**Pn**	**06 09 17.0**	**+0.7**
HUEH				*e*S	**Sn**	**06 09 31.8**	**-2.1**
HUEH	**Huehuetenango**	**0.80**	**37**	*e*P	**Pn**	**06 09 17.3**	**+0.9**
HUEH				*e*S	**Sn**	**06 09 32.6**	**-1.4**
APG	**El Apazote**	**1.52**	**78**	*i* P	**Pn**	**06 09 24.4**	**+1.3**
PCIG		**1.55**	**311**	*e*P	**Pn**	**06 09 25.1**	**+1.9**
PCIG				*e*S	**Sn**	**06 09 46.0**	**0.0**
CCIG	**Comitan**	**1.60**	**355**	*e*P	**Pn**	**06 09 25.3**	**+1.4**
CCIG				*e*S	**Sn**	**06 09 46.4**	**-0.9**
TGIG		**2.35**	**333**	*e*P	**Pn**	**06 09 32.2**	**-0.3**
TGIG				*e*S	**Sn**	**06 10 00.9**	**-1.7**
UXUV	**UXUV**	**3.33**	**322**	*e*P	**Pn**	**06 09 46.6**	**+1.7**
UXUV				*e*S	**Sn**	**06 10 23.2**	**-1.6**
CMIG	**Matias Romero**	**3.67**	**311**	*e*P	**Pn**	**06 09 51.0**	**+1.8**
CMIG				*e*S	**Sn**	**06 10 32.3**	**-0.2**
HUIG	**Huatulco**	**4.11**	**286**	*e*P	**Pn**	**06 09 56.2**	**+1.2**
HUIG				*e*S	**Sn**	**06 10 38.6**	**-4.2**
NEUV	**Arroyo Zacate**	**4.73**	**310**	*e*P	**Pn**	**06 10 04.4**	**+1.2**
NEUV				*e*P		06 10 05.5	
NEUV				*e*S	**Sn**	**06 10 57.1**	**-0.5**
PEIG	**Puerto Escondi**	**5.13**	**285**	*e*P	**Pn**	**06 10 11.2**	**+2.6**
PEIG				*e*S	**Sn**	**06 11 03.2**	**-3.9**

THE ***16*** *06:39:45.5, 37°.9N±0°.8×26°.9E±0°.5, h10km±1km, M2.5/7, MLh2.5/7*
AFAD ***16*** *06:39:45.0, 37°.88N×26°.85E, h10km±1km, ML2.1*
ISK ***16*** *06:39:45.8, 37°.91N×26°.91E, h11km±1km, ML2.5/10*

ISC 16 06:39:45.5±0.9, **37°.89N**±0°.02×**26°.87E**±0°.02, **h12**km±6km, **n30**, σ0°**54**/47, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**5**	P	**Pg**	**06 39 49.2**	**-0.1**
DGB				IAML		06 39 51.0	
	comp=E,512nm,0.2s						
DGB				S	**Sg**	**06 39 51.7**	**-0.3**
SMG	**Samos**	**0.18**	**187**	P	**Pg**	**06 39 49.3**	**-0.3**
SMG				S	**Sg**	**06 39 52.3**	**-0.1**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.19**	**12**	Pg	**Pg**	**06 39 49.8**	**0.0**
GMLD				Sg	**Sg**	**06 39 53.1**	**+0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.33**	**94**	Pg	**Pg**	**06 39 51.9**	**-0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.34**	**8**	P	**Pg**	**06 39 52.2**	**-0.2**
BEYE				S	**Sg**	**06 39 57.4**	**+0.3**
BEYE				IAML		06 40 00.0	
	comp=E,174nm,0.4s						
GCAM	**G?zelcaml?**	**0.35**	**123**	P	**Pg**	**06 39 52.3**	**-0.2**
GCAM				S	**Sg**	**06 39 57.8**	**+0.7**
GCAM				IAML		06 39 58.0	
	comp=E,191nm,0.4s						
GCAM				IAML		06 39 58.0	
	comp=N,270nm,0.3s						
GCAM	**G?zelcaml?**	**0.35**	**123**	Pg	**Pg**	**06 39 52.6**	**+0.1**
GCAM				Sg	**Sg**	**06 39 58.0**	**+0.9**
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.45**	**321**	P	**Pg**	**06 39 53.9**	**-0.5**
ZEYE				S	**Sg**	**06 40 01.0**	**+0.5**
ZEYE				IAML		06 40 01.0	
	comp=E,336nm,0.2s						
ZEYE				IAML		06 40 01.0	
	comp=N,660nm,0.2s						
BLCB	**Balcova**	**0.52**	**16**	P	**Pg**	**06 39 55.6**	**-0.1**
BLCB				S	**Sg**	**06 40 02.8**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**16**	Pg	**Pg**	**06 39 55.7**	**+0.1**
BLCB				Sg	**Sg**	**06 40 03.3**	**+0.8**
BLCB				AML	AML		
KRBN	**Karaburun**	**0.75**	**341**	Pg	**Pb**	**06 40 00.4**	**0.0**
KRBN				AML	AML		
CHOS	**Chios island**	**0.81**	**308**	P	**Pg**	**06 40 00.9**	**-0.3**
CHOS				S	**Sb**	**06 40 12.4**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.81**	**308**	Pg	**Pn**	**06 40 02.4**	**-0.4**
CHOS				Sg	**Sb**	**06 40 13.7**	**+1.2**
CHOS				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.83**	**156**	Pg	**Pn**	**06 40 02.7**	**-0.2**
YKAV				AML	AML		
FOCM	**Foa**	**0.83**	**353**	Pg	**Pb**	**06 40 01.9**	**+0.1**
FOCM				AML	AML		
AYDN	**Tasoluk**	**0.83**	**105**	P	**Pg**	**06 40 01.4**	**-0.2**
AYDN				S	**Sg**	**06 40 13.0**	**+0.4**
AYDN				IAML		06 40 16.0	
	comp=E,53nm,0.6s						
KARB	**zmir-Karabur**	**0.85**	**335**	P	**Pg**	**06 40 01.1**	**-0.9**
IZMR	**zmir-demi**	**0.89**	**73**	P	**Pg**	**06 40 02.1**	**-0.6**
IZMR				S	**Sg**	**06 40 12.6**	**-1.8**
BODT	**Bodrum**	**0.90**	**157**	P	**Pg**	**06 40 02.3**	**-0.5**
BODT				S	**Sb**	**06 40 14.8**	**0.0**
BODT	**Bodrum**	**0.90**	**157**	Pg	**Pn**	**06 40 03.9**	**0.0**
BODT				AML	AML		
CAMT	**Merkez**	**0.93**	**22**	P	**Pg**	**06 40 03.6**	**+0.1**
CAMT				S	**Sb**	**06 40 16.1**	**+0.3**
CAMT				IAML		06 40 19.0	
	comp=N,215nm,0.3s						
CAMT				IAML		06 40 19.0	
	comp=E,192nm,0.4s						
MLSB	**Milas**	**0.93**	**129**	Pg	**Pb**	**06 40 03.9**	**+0.3**
MLSB				AML	AML		
ZEDA	**zmir-Bergama**	**1.09**	**9**	P	**Pb**	**06 40 05.9**	**-0.3**
ZEDA				S	**Sb**	**06 40 21.0**	**+0.6**
ZEDA				IAML		06 40 24.0	
	comp=E,39nm,0.9s						
ZEDA				IAML		06 40 24.0	
	comp=N,46nm,0.3s						
KIRA	**zmir-Kiraz**	**1.25**	**75**	P	**Pn**	**06 40 08.1**	**-0.7**
KTTT	**Salihli**	**1.25**	**50**	P	**Pg**	**06 40 09.9**	**+0.2**
KTTT				S	**Sb**	**06 40 25.4**	**+0.2**
KTTT				IAML		06 40 28.0	
	comp=N,58nm,0.5s						
APE	**Apeiranthos**	**1.34**	**233**	P	**Pn**	**06 40 09.3**	**-0.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.34**	**233**	Pn	**Pg**	**06 40 11.7**	**+0.5**
YER	**Yerkesik**	**1.35**	**123**	P	**Pn**	**06 40 10.1**	**-0.1**
PRK	**Paraskevi**	**1.43**	**341**	P	**Pn**	**06 40 11.0**	**-0.3**
GORD	**Gordes-Manisa**	**1.45**	**45**	Pn	**Pn**	**06 40 11.9**	**+0.4**

ISK ***16*** *07:12:17.6, 37°.90N×27°.02E, h7km, ML2.5/16*
AFAD ***16*** *07:12:17.1, 37°.84N×26°.94E, h7km±2km, ML2.0*
THE ***16*** *07:12:18.1, 38°.N±2°×2°.7E±°, h4km±3km, M2.2/6, MLh2.2/6*

ISC 16 07:12:18.0±0.9, **37°.87N**±0°.02×**26°.98E**±0°.03, **h10**km±8km, **n26**, σ0°**46**/39, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.20**	**336**	P	**Pg**	**07 12 21.8**	**-0.3**
DGB				S	**Sg**	**07 12 24.9**	**0.0**
DGB				IAML		07 12 25.0	
	comp=E,225nm,0.3s						
DGB				IAML		07 12 25.0	
	comp=N,206nm,0.1s						
SMG	**Samos**	**0.20**	**215**	P	**Pg**	**07 12 21.8**	**-0.4**
SMG				S	**Sg**	**07 12 25.0**	**0.0**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.21**	**346**	Pg	**Pg**	**07 12 22.4**	**0.0**
GMLD				Sg	**Sg**	**07 12 25.8**	**+0.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**93**	Pg	**Pg**	**07 12 22.4**	**-0.6**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**131**	P	**Pg**	**07 12 22.9**	**-0.4**
GCAM				IAML		07 12 27.0	
	comp=E,328nm,0.1s						
GCAM				IAML		07 12 27.0	
	comp=N,373nm,0.2s						
GCAM				S	**Sg**	**07 12 27.3**	**+0.4**
GCAM	**G?zelcaml?**	**0.26**	**131**	Pg	**Pg**	**07 12 23.3**	**0.0**
GCAM				Sg	**Sg**	**07 12 27.5**	**+0.6**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**353**	P	**Pg**	**07 12 24.8**	**-0.3**
BEYE				S	**Sg**	**07 12 30.5**	**+0.7**
BEYE				IAML		07 12 31.0	
	comp=E,76nm,0.3s						
DUVT	**Torbali**	**0.51**	**47**	P	**Pg**	**07 12 27.6**	**-0.2**
DUVT				IAML		07 12 34.0	
	comp=E,149nm,0.1s						
DUVT				S	**Sg**	**07 12 34.1**	**-0.4**
BLCB	**Balcova**	**0.51**	**5**	P	**Pg**	**07 12 28.0**	**-0.1**
BLCB				S	**Sb**	**07 12 35.7**	**-1.0**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**5**	Pg	**Pg**	**07 12 27.7**	**-0.3**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**314**	P	**Pg**	**07 12 27.3**	**-0.9**
ZEYE				S	**Sg**	**07 12 35.5**	**+0.4**
ZEYE				IAML		07 12 36.0	
	comp=N,330nm,0.5s						
ZEYE				IAML		07 12 39.0	
	comp=E,80nm,0.2s						
CESE	**eme**	**0.71**	**311**	Pg	**Pb**	**07 12 31.8**	**-0.6**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.72**	**84**	Pg	**Pg**	**07 12 31.4**	**-0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.74**	**106**	P	**Pg**	**07 12 32.1**	**-0.3**
AYDN				S	**Sb**	**07 12 43.0**	**-0.3**
AYDN				IAML		07 12 45.0	
	comp=N,34nm,0.2s						
AYDN				IAML		07 12 46.0	
	comp=E,45nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.78**	**162**	Pg	**Pb**	**07 12 33.6**	**-0.1**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**335**	Pg	**Pg**	**07 12 33.2**	**-0.1**
KRBN				AML	AML		
BODT	**Bodrum**	**0.85**	**162**	Pg	**Pb**	**07 12 34.7**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.85**	**132**	Pg	**Pg**	**07 12 34.4**	**-0.1**
MLSB				AML	AML		
FOCM	**Foa**	**0.86**	**347**	Pg	**Pg**	**07 12 34.3**	**-0.3**
FOCM				AML	AML		
CHOS	**Chios island**	**0.89**	**305**	P	**Pb**	**07 12 35.7**	**+0.1**
CHOS				S	**Sb**	**07 12 47.6**	**-0.1**
CHOS	**Chios island**	**0.89**	**305**	Pg	**Pb**	**07 12 35.5**	**-0.1**
CHOS				Sg	**Sb**	**07 12 48.2**	**+0.5**
CHOS				AML	AML		
CAMT	**Merkez**	**0.91**	**17**	P	**Pb**	**07 12 36.2**	**+0.3**
CAMT				S	**Sb**	**07 12 49.1**	**+0.9**
CAMT				IAML		07 12 51.0	
	comp=E,142nm,0.3s						
CAMT				IAML		07 12 52.0	
	comp=N,92nm,0.5s						
GOMA	**Golmarmara-Man**	**1.11**	**41**	Pg	**Pg**	**07 12 38.6**	**-0.8**
GOMA				AML	AML		
DAT	**Datca**	**1.24**	**157**	Pn	**Pn**	**07 12 41.9**	**+0.4**
DAT				AML	AML		
YER	**Yerkesik**	**1.27**	**125**	Pn	**Pg**	**07 12 42.3**	**-0.1**
YER				AML	AML		
TURN	**Turunc**	**1.49**	**137**	Pn	**Pb**	**07 12 45.5**	**-0.2**
TURN				AML	AML		

NEIC ***16*** *07:19:11.1±1.4, 21°.93N±0°.05×121°.45E±0°.06, h59km±5km, mb4.8/122, Mwr4.7/14, Error ellipse: s-maj=8.8km s-min=6.2km az=48.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr 0.23; Mθθ 0.21; Mϕϕ -0.44; Mrθ 1.22; Mθϕ 0.36; Mϕr -0.24; Fault plane solution: M₀ 1.35000×10¹⁶ NP1:ϕs 7.88000°, δ22.05000°, λ169.42000°. NP2:ϕs 107.70000°, δ86.05000°, λ68.29000°. Principal axes: T 1.4433, Plg45.0000°, Azm356.0000°; N -0.2165, Plg22.0000°, Azm109.0000°; P -1.2269, Plg37.0000°, Azm217.0000°;*
MOS ***16*** *07:19:11.0±0.9, 21°.93N×121°.52E, h77km, mb5.1/51 Error ellipse: s-maj=8.2km s-min=4.5km az=119.4*
NEIC ***16*** *07:19:11.1, 21°.93N×121°.45E, h59km*
JMA ***16*** *07:19:12.6±0.2, 22°.N±1°×12°1E±°, h63km±4km, MD4.9/19, MV5.1/19, TAIWAN REGION*
ASIES ***16*** *07:19:12.5, 21°.98N×121°.26E, h68km, Mw4.7, Fault plane solution: NP1:ϕs 5.00000°, δ22.00000°, λ149.00000°. NP2:ϕs 124.00000°, δ79.00000°, λ71.00000°.*
GFZ ***16*** *07:19:12.4, 21°.95N×121°.30E, h70km, Mw4.8/26, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr 0.74; Mθθ 0.65; Mϕϕ -1.40; Mrθ 1.39; Mθϕ 0.44; Mϕr -0.73; Fault plane solution: M₀ 2.02667×10¹⁶ NP1: ϕs 130.92649°, δ77.00963°, λ56.05465°. NP2:ϕs 22.45988°, δ36.06594°, λ157.55313°. Principal axes: T 2.0997, Plg46.9310°, Azm5.6015°; N -0.1549, Plg32.9639°, Azm139.5306°; P -1.9448, Plg24.3704°, Azm246.6147°;*
GFZ ***16*** *07:19:12.4±0.3, 22°.N±3°×12°1E±°, h62km, M4.8/25, mb4.7/25, confirmed*
TAP ***16*** *07:19:12.1, 21°.98N×121°.28E, h68km, ML5.4, C*
NIED ***16*** *07:19:12.6, 22°.04N×121°.34E, h63km, MW4.9, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁶Nm; Mrr 1.29; Mθθ 1.31; Mϕϕ -0.02; Mrθ 2.41; Mθϕ 0.58; Mϕr 0.39; Fault plane solution: M₀ 2.82000×10¹⁶ NP1:ϕs 56.00000°, δ16.00000°, λ-113.00000°. NP2:ϕs 260.00000°, δ75.00000°, λ-84.00000°.*
BJI ***16*** *07:19:13.1, 22°.08N×121°.28E, h62km, mB4.8/21, mb4.6/64, ML4.7/4, Ms4.2/38, Ms7 4.0/40*
MAN ***16*** *07:19:13.0, 21°.79N×121°.25E, h33km, MS4.4*
IDC ***16*** *07:19:13.5±2.1, 21°.94N×121°.56E, h87km±19km, mb4.2/26, mbtmp4.5/29, MS3.6/52, Error ellipse: s-maj=14.2km s-min=10.7km az=68.0*
GCMT ***16*** *07:19:14.1±0.3, 21°.94N±0°.02×121°.22E±0°.02, h61km±2km, MW4.9/88, Moment Tensor Solution. s19,c21; s88,c120; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr 1.92±.16; Mθθ 0.84±.12; Mϕϕ -2.77±.12; Mrθ 1.24±.06; Mϕθ 0.17±.09; Mϕr -0.53±.07; Best double couple: M₀ 2.80700×10¹⁶ NP1:ϕs 26.00000°, δ47.00000°, λ136.00000°. NP2: ϕs 149.00000°, δ60.00000°, λ53.00000°. Principal axes: T 2.7560, Plg57.0000°, Azm7.0000°; N 0.0970, Plg32.0000°, Azm170.0000°; P -2.8580, Plg8.0000°, Azm265.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 16 07:19:12.3±0.4, **21°.93N**±0°.03×**121°.32E**±0°.02, **h70**km±2km, **h70**km:**pP-P, n664**, σ1°**20**/782, **mb4.8**/175, **30C-16D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LAY	**Lan-yu**	**0.24**	**64**	⇓*i*P	**Pn**	**07 19 23.1**	**0.0**
LAY				*i* S	**Sn**	**07 19 31.2**	**+0.1**
LYUB	**Lan-yu**	**0.26**	**75**	⇓*i*P	**Pn**	**07 19 22.7**	**-0.5**
LYUB				*i* S	**Sn**	**07 19 30.3**	**-0.9**
TSEB	**Hengchuen, Pin**	**0.39**	**265**	⇑*i*P	**Pn**	**07 19 24.8**	**+0.7**
TSEB				S	**Sn**	**07 19 33.9**	**+1.1**
SMST	**Manzhou Townsh**	**0.46**	**281**	*i* P	**Pn**	**07 19 24.7**	**0.0**
SMST				*e*S	**Sn**	**07 19 33.5**	**-0.3**
TWKBT	**Hengchun**	**0.47**	**271**	⇑*i*P	**Pn**	**07 19 25.1**	**+0.3**
TWKBT				S	**Sn**	**07 19 34.2**	**+0.2**
TWK1	**Hengchun**	**0.48**	**271**	⇑*i*P	**Pn**	**07 19 25.1**	**+0.2**
TWK1				*i* S	**Sn**	**07 19 34.1**	**-0.1**
SNW	**Nanwan**	**0.53**	**273**	P	**Pn**	**07 19 26.4**	**+1.0**
SNW				S	**Sn**	**07 19 35.9**	**+0.9**
HEN	**Hengchun**	**0.54**	**278**	*i* P	**Pn**	**07 19 26.0**	**+0.5**
HEN				*i* S	**Sn**	**07 19 35.3**	**0.0**
SLIU	**Shizi**	**0.56**	**300**	⇓*i*P	**Pn**	**07 19 25.4**	**-0.3**
SLIU				S	**Sn**	**07 19 35.3**	**-0.2**
TAWH	**Dawu Township**	**0.57**	**315**	⇓*i*P	**Pn**	**07 19 25.2**	**-0.6**
TAWH				S	**Sn**	**07 19 34.3**	**-0.9**
TAW	**Tawu**	**0.58**	**317**	⇓P	**Pn**	**07 19 25.2**	**-0.7**
TAW				S	**Sn**	**07 19 34.7**	**-1.2**
EAST	**Anshuo**	**0.62**	**316**	⇓*i*P	**Pn**	**07 19 25.9**	**-0.5**
EAST				S	**Sn**	**07 19 35.5**	**-1.4**
ECL	**Taimali**	**0.74**	**333**	P	**Pn**	**07 19 26.7**	**-0.9**
ECL				S	**Sn**	**07 19 36.9**	**-2.2**
LDUT	**Ludao**	**0.75**	**11**	⇓*i*P	**Pn**	**07 19 27.1**	**-0.7**
LDUT				*i* S	**Sn**	**07 19 38.8**	**-0.4**
SCZT	**Fangliau**

ECBN eS Sn 07 19 53.0 -0.3
EYUL Yuli 1.41 0 eP Pn 07 19 35.4 -0.7
SHHT Tainan City 1.41 321 eP Pn 07 19 36.8 +0.8
TWF1 Yuli 1.41 359⇑iP Pn 07 19 35.1 -1.0
TWF1 eS Sn 07 19 52.3 -1.7
CHN3 Shinhua 1.44 322 P Pn 07 19 37.5 +1.1
CHN3 S Sn 07 19 55.5 +0.9
CHN1 Nanshi 1.44 330⇑eP Pn 07 19 36.5 -0.1
CHN1 eS Sn 07 19 54.1 -0.7
YULB Yu-li 1.45 359 P Pn 07 19 35.9 -0.7
YULB Yu-li 1.45 359 P Pn 07 19 35.8 -0.8
YULB Yu-li 1.45 359 Pn Pn 07 19 35.5 -1.2
YULB Sn Sn 07 19 52.4 -2.6
YULB Yu-li 1.45 359 P Pn 07 19 35.6 -1.0
YULB Yu-li 1.45 359⇑iP Pn 07 19 35.5 -1.2
YULB eS Sn 07 19 53.9 -1.1
WTP Ta-pu 1.46 334⇑iP Pn 07 19 36.7 0.0
WTP iS Sn 07 19 55.2 0.0
TAI1 Yung-k'ang 1.49 318 eP Pn 07 19 37.5 +0.4
TAI1 eS Sn 07 19 55.8 -0.1
TPUB Ta-pu 1.50 335 P Pn 07 19 36.9 -0.4
TPUB Ta-pu 1.50 335 P Pn 07 19 37.4 +0.1
TPUB Ta-pu 1.50 335 Pn Pn 07 19 37.1 -0.2
TPUB Sn Sn 07 19 55.4 -0.8
TPUB Ta-pu 1.50 335 P Pn 07 19 37.3 0.0
TPUB Ta-pu 1.50 335⇑iP Pn 07 19 37.1 -0.2
TPUB S Sn 07 19 55.5 -0.8
SSHA Shanhua 1.53 322 eP Pn 07 19 37.6 0.0
SSHA eS Sn 07 19 56.9 +0.2
TWK Hsinying 1.53 330 iP Pn 07 19 37.4 -0.3
TWK eS Sn 07 19 55.3 -1.7
EHYH Wanrong 1.55 1 P Pn 07 19 37.3 -0.6
EHYH S Sn 07 19 55.5 -1.8
HGSD Ruisui 1.55 4 eP Pn 07 19 38.5 +0.6
HGSD eS Sn 07 19 59.8 +2.4
CHN4 Tsaushan 1.56 335 ⇑P Pn 07 19 37.9 -0.2
CHN4 S Sn 07 19 58.0 +0.4
EHY Hungye 1.56 0 eP Pn 07 19 37.4 -0.7
SCLT Jiali 1.61 320 P Pn 07 19 38.5 -0.2
SCLT iS Sn 07 19 58.0 -0.7
WCKO Fanlu 1.64 336⇑iP Pn 07 19 38.9 -0.2
WCKO S Sn 07 19 58.4 -0.9
ALS Alishan 1.64 343⇑iP Pn 07 19 39.6 +0.2
ALS eS Sn 07 20 00.3 +0.4
TSCK Chigu Township 1.66 317 iP Pn 07 19 39.1 -0.2
TSCK eS Sn 07 19 59.8 0.0
ICHU Yijhu 1.71 326 ⇑P Pn 07 19 39.8 -0.3
ICHU eS Sn 07 20 00.1 -1.0
CHN8 Yiju 1.74 324 P Pn 07 19 40.1 -0.3
CHN8 S Sn 07 20 00.6 -1.1
CHN5 Tsauling 1.76 340 eP Pn 07 19 40.5 -0.3
CHN5 S Sn 07 20 01.9 -0.5
CHY Chiayi 1.76 332 eP Pn 07 19 40.5 -0.3
CHY eS Sn 07 20 01.7 -0.6
CHN2 Minshiung 1.77 334 eP Pn 07 19 41.2 +0.3
CHN2 iS Sn 07 20 01.4 -1.1
WARBT Fenglin Townsh 1.78 2 eP Pn 07 19 40.4 -0.6
TEGC Jichi Village 1.78 7 P Pn 07 19 41.5 +0.5
TEGC S Sn 07 20 03.9 +1.2
WHYT Xinyi Township 1.81 346 P Pn 07 19 41.6 +0.2
WHYT S Sn 07 20 04.1 +0.7
VWDT VWDT 1.82 355 iP Pn 07 19 42.2 +0.7
VWDT S Sn 07 20 04.3 +0.7
SHUL Shoufeng 1.86 7 iP Pn 07 19 42.6 +0.6
SHUL S Sn 07 20 05.3 +0.7
ESL Shilin 1.88 3 eP Pn 07 19 42.7 +0.4
ESL S Sn 07 20 02.9 -2.1
WSL Shuilin Townsh 1.88 328 eP Pn 07 19 41.9 -0.3
WSL S Sn 07 20 03.8 -1.2
SSLB Suanglung 1.88 350 P Pn 07 19 42.7 +0.4
SSLB Suanglung 1.88 350 Pn Pn 07 19 42.2 -0.1
SSLB Sn Sn 07 20 03.5 -1.6
SSLB Suanglung 1.88 350 P Pn 07 19 42.5 +0.2
SSLB Suanglung 1.88 350 P Pn 07 19 42.7 +0.4
SSLB eS Sn 07 20 04.7 -0.4
WGK Gukeng 1.88 338 eP Pn 07 19 42.2 -0.1
WGK S Sn 07 20 04.7 -0.4
WDLH Douliu 1.89 338 iP Pn 07 19 42.2 -0.2
WDLH iS Sn 07 20 04.8 -0.6
WDL Douliou City 1.91 338 eP Pn 07 19 42.5 -0.3
WDL eS Sn 07 20 05.6 -0.4
TEYL Yanliau Villag 1.94 8 P Pn 07 19 44.3 +1.1
TEYL S Sn 07 20 08.8 +2.1
WTK Tuku 1.95 334 P Pn 07 19 42.5 -0.6
WTK S Sn 07 20 05.9 -0.8
WJS Zhushan 1.96 344 eP Pn 07 19 43.5 +0.2
WJS eS Sn 07 20 08.4 +1.4
WSF Szhu 1.98 329 P Pn 07 19 43.0 -0.6
WSF S Sn 07 20 05.8 -1.6
SMLT Sun Moon Lake 1.98 349 iP Pn 07 19 44.0 +0.2
SMLT S Sn 07 20 08.1 +0.4
TYC Yuchr 2.01 348 iP Pn 07 19 44.2 +0.2
TYC eS Sn 07 20 08.0 -0.1
OWD Renai 2.02 356 P Pn 07 19 44.7 +0.4
OWD eS Sn 07 20 08.2 -0.4
WNT Mingjian 2.02 343 eP Pn 07 19 44.3 +0.1
WNT eS Sn 07 20 08.6 +0.1
WDGT Dungji 2.02 311 iP Pn 07 19 43.2 -1.0
WDGT S Sn 07 20 05.5 -3.1
ETM Tongmen 2.03 4 eP Pn 07 19 44.3 0.0
ETM eS Sn 07 20 07.2 -1.6
HWA Hwalien 2.05 7 eP Pn 07 19 45.4 +0.8
HWA eS Sn 07 20 10.6 +1.3
WUSB Renai 2.06 355 iP Pn 07 19 45.7 +0.7
WUSB S Sn 07 20 09.9 +0.3
LXIB Xiulin Townshi 2.08 2 P Pn 07 19 44.7 -0.4
LXIB eS Sn 07 20 09.4 -0.7
RLNB Erlin 2.14 336 eP Pn 07 19 45.2 -0.6
RLNB eS Sn 07 20 10.2 -1.1
WCS Beigang Elemen 2.15 350 eP Pn 07 19 46.0 +0.1
WCS eS Sn 07 20 11.5 0.0
WTCT Ta-ch'eng 2.15 334 eP Pn 07 19 46.8 +0.9
WTCT eS Sn 07 20 11.0 -0.6
TWD Chiawan 2.15 7 eP Pn 07 19 46.4 +0.4
TWD eS Sn 07 20 12.1 +0.4
VCHM Qimei 2.16 306⇑eP Pn 07 19 44.9 -1.1
VCHM eS Sn 07 20 08.5 -3.3
WHF Hehuan Shan 2.20 359 eP Pn 07 19 47.6 +0.6
WHF eS Sn 07 20 13.6 +0.1
ETL Fush Village 2.23 7 eP Pn 07 19 47.0 -0.2
ETL eS Sn 07 20 13.5 -0.2
NACB Ninganchiao 2.24 6 P Pn 07 19 46.9 -0.3
NACB Ninganchiao 2.24 6 P Pn 07 19 47.7 +0.5
NACB Ninganchiao 2.24 6 Pn 07 19 46.4 -0.8
NACB Ninganchiao 2.24 6 P Pn 07 19 47.0 -0.2
NACB Ninganchiao 2.24 6 eP Pn 07 19 47.3 +0.1
NACB eS Sn 07 20 13.6 -0.3
WCH1 Changhua City 2.24 342 P Pn 07 19 46.9 -0.3
WCH1 eS Sn 07 20 13.9 0.0
WCHH Zhanghua 2.25 342 eP Pn 07 19 47.0 -0.3
WCHH S Sn 07 20 12.9 -1.1
PHUB P'eng-hu 2.25 315 P Pn 07 19 46.1 -1.2
PHUB eS Sn 07 20 10.5 -3.6
ETLH Xiulin Townshi 2.27 4 P Pn 07 19 47.3 -0.3
ETLH eS Sn 07 20 13.6 -1.0
TCU Taichung 2.28 345 eP Pn 07 19 47.5 -0.3
TCU eS Sn 07 20 14.8 0.0
PNG Penghu 2.30 315 eP Pn 07 19 46.7 -1.3
PNG eS Sn 07 20 12.1 -3.2
FUSS Fushou 2.30 358 P Pn 07 19 49.4 +1.1
FUSS S Sn 07 20 16.2 +0.4
TWT Tachien 2.31 357 eP Pn 07 19 49.1 +0.8
TWT eS Sn 07 20 16.6 +0.8
TDCB Techi 2.31 356 eP Pn 07 19 48.9 +0.6
TDCB eS Sn 07 20 16.5 +0.7
WHP Taichung City 2.36 352 P Pn 07 19 49.3 +0.5
WHP S Sn 07 20 17.6 +0.7
EOS4 EOS4 2.36 23 P Pn 07 19 49.2 +0.7
EOS4 eS Sn 07 20 15.8 -0.5
EAHA Aohua 2.42 9 eP Pn 07 19 50.0 +0.5
EAHA S Sn 07 20 18.3 +0.2
TWQ1 Liyutan 2.46 348 eP Pn 07 19 50.5 +0.4
TWQ1 S Sn 07 20 19.5 +0.5
WDJ Dajia District 2.48 346 eP Pn 07 19 51.0 +0.5
WDJ eS Sn 07 20 19.6 -0.1
NNSB Datong 2.48 1 P Pn 07 19 51.5 +0.9
NNSB eS Sn 07 20 20.4 +0.5
NNS Nan Shan 2.50 1 eP Pn 07 19 52.1 +1.3
NNS eS Sn 07 20 21.7 +1.5

ENA Nanau 2.51 9 eP Pn 07 19 51.0 +0.2
ENA eS Sn 07 20 20.5 +0.1
EOS3 EOS3 2.52 21 P Pn 07 19 51.6 +0.8
EOS3 eS Sn 07 20 20.1 -0.2
EWUT Wuta 2.54 10 P Pn 07 19 51.8 +0.7
EWUT S Sn 07 20 20.8 -0.2
LATG Datong 2.60 4 eP Pn 07 19 52.9 +0.8
EOS2 EOS2 2.61 19 eP Pn 07 19 53.6 +1.5
NMLH Miaoli 2.64 349 eP Pn 07 19 53.5 +0.9
NDT Datong Townshi 2.66 4 eP Pn 07 19 53.8 +0.9
NFF Wufeng Townshi 2.69 356 eP Pn 07 19 53.5 +0.2
NSTT Nanjuang 2.70 354 eP Pn 07 19 54.4 +1.0
ENTT Nioudou 2.70 5 eP Pn 07 19 55.2 +1.7
ENTT eS Sn 07 20 25.9 +0.8
TWC Suao 2.71 10 eP Pn 07 19 55.0 +1.5
TWC S Sn 07 20 25.7 +0.5
NDS Dongshan 2.71 8 eP Pn 07 19 54.9 +1.4
LIOB Emei 2.71 354 eP Pn 07 19 53.9 +0.3
YHNB Yeheng 2.72 1 P Pn 07 19 55.7 +1.9
YHNB Yeheng 2.72 1 Pn Pn 07 19 53.6 -0.2
YHNB Yeheng 2.72 1 P Pn 07 19 56.0 +2.2
YHNB Yeheng 2.72 1 eP Pn 07 19 55.6 +1.9
YHNB eS Sn 07 20 26.6 +0.9
NSK Sanguang 2.73 1 eP Pn 07 19 55.5 +1.6
NSK S Sn 07 20 26.4 +0.5
TWE Neicheng 2.79 7 eP Pn 07 19 56.4 +1.7
TWE S Sn 07 20 27.9 +0.7
FUSB Fushanzhiwuyua 2.82 5 eP Pn 07 19 56.6 +1.4
FUSB eS Sn 07 20 29.2 +1.0
KSHI Guanxi Townshi 2.83 357 eP Pn 07 19 56.3 +1.1
NWLT Wulai 2.84 3 eP Pn 07 19 56.8 +1.5
NWLT eS Sn 07 20 28.9 +0.5
SBCB Hsinchu 2.86 354 eP Pn 07 19 55.4 -0.2
HSN Hsinchu 2.87 354 eP Pn 07 19 56.0 +0.2
JYNG Yonagunijimaku 2.92 31 eP Pn 07 19 56.9 +0.6
JYNG A A 07 19 56.9
comp=N,7.0nm,3.2s,comp=E,13nm,3.9s
JYNG eS Sn 07 20 29.1 -1.2
EGS 2.95 11 eP Pn 07 19 59.4 +2.6
YOJ Yonaguni jima 2.96 31 eP Pn 07 19 57.7 +0.8
YOJ A A 07 19 57.7
comp=N,8.0nm,1.6s,comp=E,8.0nm,1.3s
YOJ eS Sn 07 20 30.2 -1.1
NCU National Centr 3.02 358 eP Pn 07 19 59.0 +1.2
TATO Taipei 3.03 3 P Pn 07 20 00.1 +2.2
TATO Taipei 3.03 3 Pn Pn 07 19 56.4 -1.5
TATO Taipei 3.03 3 P Pn 07 20 00.2 +2.2
TWA Mucha 3.04 5 eP Pn 07 20 00.2 +2.1
TWA eS Sn 07 20 35.2 +1.8
TIPB Shuangxi 3.06 9 eP Pn 07 20 00.2 +1.9
TIPB eS Sn 07 20 36.0 +2.2
HATJ Hateruma jima 3.12 47 eP Pn 07 19 59.4 +0.3
HATJ A A 07 19 59.4
comp=N,8.0nm,1.9s,comp=E,10.0nm,3.5s
HATJ eS Sn 07 20 34.1 -1.0
TWB1 Santiao Chiao 3.12 11 eP Pn 07 20 00.4 +1.3
TWB1 eS Sn 07 20 35.9 +0.7
NWF Wu-fen Shan 3.15 8 eP Pn 07 20 01.3 +1.7
NWF eS Sn 07 20 38.2 +2.1
WFSB Wu-fen Shan 3.15 8 eP Pn 07 20 01.2 +1.7
SXI1 Grass Mountain 3.19 9 eP Pn 07 20 02.0 +1.9
YM01 YM01 3.21 4 eP Pn 07 20 02.0 +1.7
NTST Danshui 3.22 2 eP Pn 07 20 01.9 +1.5
ZUZH Zhuzihu 3.22 4 eP Pn 07 20 00.9 +0.4
TNOU National Taiwa 3.23 7 eP Pn 07 20 01.9 +1.3
ANP Anpu 3.24 3 eP Pn 07 20 02.1 +1.2
ANP eS Sn 07 20 38.0 -0.4
YM08 YM08 3.25 4 eP Pn 07 20 02.6 +1.7
IRIF Iriomote-Funau 3.26 42 eP Pn 07 20 01.5 +0.5
IRIF A A 07 20 01.5
comp=N,11nm,1.2s,comp=E,10.0nm,1.4s
IRIF eS Sn 07 20 38.2 -0.5
TWY Chenhua 3.34 4 eP Pn 07 20 03.1 +1.0
JKRS Kuro-shima 3.38 47 eP Pn 07 20 03.2 +0.6
JKRS A A 07 20 03.2
comp=N,11nm,3.3s,comp=E,11nm,3.5s
JKRS eS Sn 07 20 40.6 -0.9
VWUC VWUC 3.49 331 eP Pn 07 20 03.0 -1.2
JIJ Ishigaki jima 3.55 47 eP Pn 07 20 04.9 0.0
JIJ A A 07 20 04.9
comp=N,5.0nm,1.0s,comp=E,6.0nm,2.6s
JIJ eS Sn 07 20 44.0 -1.7
KNM Kinmen 3.63 314 eP Pn 07 20 06.4 +0.4
KNM eS Sn 07 20 47.2 -0.4
PIP Pasuquin 3.65 191 iP Pn 07 20 05.8 -0.5
PIP iS Sn 07 20 44.8 -3.4
KNMB Chin-men Tao 3.69 314 Pn 07 20 05.9 -1.0
KNMB Chin-men Tao 3.69 314 P Pn 07 20 06.0 -0.9
KNMB Chin-men Tao 3.69 314 eP Pn 07 20 05.9 -0.9
KNMB eS Sn 07 20 45.8 -3.4
PTMZ Houxiangcun 3.69 327 eP Pn 07 20 05.7 -1.2
PTMZ eS Sn 07 20 44.8 -4.4
PCYT Pengchaiyu 3.74 10 eP Pn 07 20 09.0 +1.4
PCYT eS Sn 07 20 48.1 -2.3
JISG Ishigakijimahi 3.81 46 eP Pn 07 20 08.4 -0.1
JISG A A 07 20 08.4
comp=N,13nm,0.5s,comp=E,7.0nm,2.2s
JISG eS Sn 07 20 50.6 -1.6
ZPLA Ao Xicun 3.84 302 eP Pn 07 20 08.2 -0.7
ZPLA eS Sn 07 20 49.5 -3.4
QZH2 Quanzhou 3.90 321⇑iP Pn 07 20 08.6 -1.2
QZH2 S Sn 07 20 49.5 -4.9
QZH2 AML AML
comp=E,990nm,0.7s
QZH2 AML AML
comp=E,2µm,0.7s
QZH2 L L
comp=E,880nm,8.6s
DSXP Dongshan 4.00 297 eP Pn 07 20 10.5 -0.6
DSXP eS Sn 07 20 52.7 -4.1
JTJ Tarama 4.12 48 eP Pn 07 20 13.0 +0.3
JTJ A A 07 20 13.0
comp=N,9.0nm,1.1s,comp=E,6.0nm,0.7s
JTJ eS Sn 07 20 58.4 -1.1
AXDP Jialang 4.26 314 iP Pn 07 20 13.9 -0.8
AXDP eS Sn 07 20 58.8 -4.4
MATB Ma-tsu 4.38 344 eP Pn 07 20 14.9 -1.4
MATB eS Sn 07 21 01.5 -4.6
SZP Santa 4.43 191 P Pn 07 20 12.2 -4.9
SZP Santa 4.43 191 Pn 07 20 15.1 -1.9
JIRJ Irabujima 4.58 50 P Pn 07 20 19.6 +0.5
JIRJ eS Sn 07 21 09.6 -1.4
JMJ2 Miyako jima3 4.62 52 eP Pn 07 20 20.3 +0.7
JMJ2 eS Sn 07 21 11.2 -0.9
MHZQ Yeshan 4.65 334 eP Pn 07 20 18.9 -1.0
MHZQ eS Sn 07 21 08.6 -4.0
JIKM Ikemajima 4.68 50 P Pn 07 20 20.4 0.0
JIKM eS Sn 07 21 12.5 -0.8
JOGS Gusukube 4.69 52 eS Sn 07 21 13.5 -0.2
LYJJ Jianjiangzhen 4.81 343 eP Pn 07 20 21.1 -1.0
LYJJ eS Sn 07 21 12.8 -3.8
XPSS Dashiqiu 5.08 349 eP Pn 07 20 24.6 -1.3
SXFK Yanhouchang 5.57 324 eP Pn 07 20 31.3 -1.3
HKPS Hong Kong Po S 6.66 274 P Pn 07 20 47.3 -0.3
HKPS Hong Kong Po S 6.66 274 Pn 07 20 47.5 0.0
HKPS Hong Kong Po S 6.66 274 P Pn 07 20 47.1 -0.4
comp=Z,200nm,0.8s
PCPS Palayan City 7.25 182 eP Pn 07 20 44.5 -11
PCPS eS Sn 07 21 56.6 -20
LQP Lukban 7.78 178 eP Pn 07 21 07.4 +4.4
JOW Kunigami 8.00 51 P Pn 07 21 03.2 -2.5
comp=Z,17nm,0.3s,baz=126,slow=20,SNR=14
JOW S Sn 07 22 30.6 -4.1
comp=Z,22nm,0.4s,baz=303,slow=28,SNR=11
GQP Guinayangan 8.06 172 eP Pn 07 20 53.5 -13
CNSH ChangSha 9.82 311 P Pn 07 21 29.8 -0.9
CNSH S Sn 07 23 14.8 -4.5
CNSH SMN
comp=Z,190nm,1.1s
CNSH SME
comp=Z,180nm,1.2s
CNSH L L
comp=Z,610nm,6.2s
CNSH L L
comp=Z,510nm,7.2s
NJ2 Nanjing 10.31 348 eP Pn 07 21 36.4 -1.0
NJ2 S Sn 07 23 36.3 +5.0
NJ2 pmax pmax
comp=Z,29nm,0.5s
NJ2 L L
comp=Z,500nm,7.1s

NJ2 L L
comp=Z,420nm,6.6s
NJ2 L L
comp=Z,200nm,4.3s
WHN Wuhan 10.61 325 P Pn 07 21 43.5 +2.1
WHN S Sn 07 23 35.8 -2.7
QIZ Qiongzhong 11.14 257 P Pn 07 21 49.4 +0.7
QIZ S Sn 07 23 54.0 +2.4
QIZ L L
comp=Z,600nm,17.4s
QIZ L L
comp=Z,540nm,18.0s
QIZ L L
comp=Z,770nm,18.6s
JNU Nakatsue 13.99 35 P Pn 07 22 26.8 -0.4
comp=Z,2.7nm,0.3s,baz=208,slow=1.3,SNR=5.3
JNU LR LR 07 28 57.3
comp=Z,150nm,18.5s,baz=188,slow=42
TIA Tai'an 14.69 347 P Pn 07 22 37.5 +1.3
TIA pmax pmax
comp=Z,25nm,1.0s
TIA pmax pmax
comp=Z,300nm,4.5s
TIA L L
comp=Z,500nm,10.4s
TIA L L
comp=Z,270nm,8.8s
TIA L L
comp=Z,560nm,15.8s
LYN LuoYang 14.78 330 P Pn 07 22 39.3 +1.9
LYN pP P 07 22 44.3 +2.6
LYN pmax pmax
comp=Z,47nm,1.2s
LYN pmax pmax
comp=Z,400nm,3.5s
LYN L L
comp=Z,820nm,13.3s
LYN L L
comp=Z,720nm,15.6s
LYN L L
comp=Z,890nm,16.1s
TJN Taejon 15.32 19 P Pn 07 22 46.6 +2.2
DAV Davao City (W) 15.34 164 LR LR 07 28 40.0
comp=Z,292nm,20.1s,baz=330,slow=37
INCN Inchon 16.16 15 P Pn 07 22 54.8 -0.2
INCN pmax pmax
comp=Z,80nm,1.7s
INCN Inchon 16.16 15 P Pn 07 22 54.8 -0.2
SLVN Son La 16.20 271 P Pn 07 22 55.2 -0.5
SLVN Son La 16.20 271 P Pn 07 22 54.0 -1.7
comp=Z,7.7nm,0.5s
XAN Xi'an 16.27 320 P Pn 07 22 56.5 +0.1
XAN pmax pmax
comp=Z,29nm,0.9s
XAN pmax pmax
comp=Z,250nm,3.9s
XAN L L
comp=Z,350nm,7.9s
XAN L L
comp=Z,420nm,6.9s
XAN L L
comp=Z,470nm,11.0s
HNS HongShan 16.44 341 ⇑P P 07 23 00.0 0.0
HNS pmax pmax
comp=Z,210nm,1.1s
HNS L L
comp=Z,440nm,14.6s
HNS L L
comp=Z,500nm,14.3s
KSAR Wonju Array Be 16.47 19 P Pn 07 22 58.5 -0.3
KSAR Wonju Array Be 16.47 19 P Pn 07 22 58.5 -0.3
KSRS Korea Array 16.49 19 P Pn 07 22 58.8 -0.2
comp=Z,7.3nm,0.6s,baz=201,slow=11,SNR=22
KS19 Wonju Array Si 16.52 19 P Pn 07 22 59.1 -0.3
DL2 Dalian 16.92 1 eP P 07 23 12.8 +7.5
DL2 pmax pmax
comp=Z,17nm,0.9s
TIY Taiyuan 17.50 336 eP P 07 23 14.4 +2.6
TIY pmax pmax
comp=Z,42nm,0.8s
TIY pmax pmax
comp=Z,420nm,6.0s
CD2 Chengdu 18.07 303 P Pn 07 23 19.8 +1.2
CD2 pmax pmax
comp=Z,60nm,0.7s
BJI2 Beijing 18.55 347 P P 07 23 23.8 +0.5
BJI2 pP pP 07 23 36.0 -1.6
BJI2 S S 07 26 52.0 +1.2
BJI2 pmax pmax
comp=Z,30nm,1.4s
BJI2 pmax pmax
comp=Z,130nm,6.6s
BJI2 L L
comp=Z,190nm,20.9s
BJI2 L L
comp=Z,210nm,21.0s
BJI2 L L
comp=Z,260nm,24.7s
BJT Baijiatuau 18.55 347 P Pn 07 23 25.1 +0.8
BJT Baijiatuau 18.55 347 P P 07 23 23.5 +0.2
BJT pmax pmax
comp=Z,29nm,1.0s
BJT Baijiatuau 18.55 347 P P 07 23 23.5 +0.2
BJT Baijiatuau 18.55 347 P Pn 07 23 24.8 +0.5
comp=Z,34nm,1.4s
INU Inuyama 19.16 42 P Pn 07 23 32.2 +0.7
INU Inuyama 19.16 42 P 07 23 28.6 -1.4
INU IAmb IAmb 07 23 34.8
comp=Z,26nm,0.5s
INU Inuyama 19.16 42 P Pn 07 23 32.3 +0.7
comp=Z,32nm,0.9s
JCJ Chichijima 19.66 71 LR LR 07 29 34.2
comp=Z,126nm,21.5s,baz=134,slow=32
JHJ Hachijo jima 2 19.77 52 LR LR 07 30 39.2
comp=Z,24nm,21.7s,baz=168,slow=35
SNY Shenyang 19.93 5 P Pn 07 23 41.9 +1.4
SNY pmax pmax
comp=Z,20nm,0.6s
HHC Hu-ho-hao-te 20.59 339 eP P 07 23 46.9 +1.3
HHC S S 07 27 28.8 -3.1
HHC sS sS 07 27 49.4 -5.8
HHC pmax pmax
comp=Z,41nm,1.3s
HHC pmax pmax
comp=Z,150nm,4.5s
HHC L L
comp=Z,320nm,18.4s
HHC L L
comp=Z,270nm,18.6s
HHC L L
comp=Z,300nm,18.8s
MAJO Matsushiro 20.67 42 P P 07 23 48.6 +2.2
MAJO Matsushiro 20.67 42 iP P 07 23 45.0 -1.4
MAJO Matsushiro 20.67 42 P P 07 23 44.5 -1.9
MAJO IAmb IAmb 07 23 51.5
comp=Z,75nm,1.7s
MAJO Matsushiro 20.67 42 P Pn 07 23 48.9 -0.5
comp=Z,26nm,1.6s
MJB9 Matsu-Tunnel 20.67 42 P P 07 23 44.3 -2.1
MJB9 IAmb IAmb 07 23 52.5
comp=Z,71nm,1.7s
MJAR Matsushiro Arr 20.67 42 P P 07 23 46.7 +0.3
comp=Z,11nm,0.7s,baz=232,slow=8.8,SNR=25
MJAR LR LR 07 32 37.7
comp=Z,47nm,20.0s,baz=223,slow=39
comp=Z,11nm,0.7s
MJAR Matsushiro Arr 20.67 42 P P 07 23 44.9 -1.5
MJAR pmax pmax
comp=Z,72nm,1.8s
MJAR Matsushiro Arr 20.67 42 P P 07 23 44.9 -1.5
MJAR IAmb IAmb 07 23 50.9
comp=Z,72nm,1.8s
TOLI2 Tolitoli 20.70 182 P P 07 23 45.2 -1.7
TOLI2 Tolitoli 20.70 182 P 07 23 46.8 -0.1
TOLI2 IAmb IAmb 07 23 52.8
comp=Z,102nm,1.7s
TOLI2 Tolitoli 20.70 182 P P 07 23 48.9 +2.0
comp=Z,33nm,1.4s
LZH Lanzhou 20.75 317 eP Pn 07 23 49.6 -0.8
LZH sP sP 07 24 09.6 -1.3
LZH S S 07 27 36.3 +1.0
LZH sS sS 07 27 52.0 -6.6
LZH pmax pmax
comp=Z,43nm,1.4s
LZH L L
comp=Z,390nm,17.9s

LZH L L
comp=Z,320nm,19.6s
LZH L L
comp=Z,370nm,16.8s
LZDM Lanzhou Array 20.76 316 P Pn 07 23 50.0 -0.8
comp=Z,8.5nm,0.6s,baz=124,slow=13,SNR=9.7
LZDM LR LR 07 32 33.6
comp=Z,104nm,19.2s,baz=60,slow=38
comp=Z,8.5nm,0.6s
BTO2 Baotou 21.11 335 *e*P **P 07 23 51.8 +0.6**
BTO2 S **S 07 27 40.8 -1.5**
BTO2 pmax pmax
comp=Z,42nm,1.7s
BTO2 pmax pmax
comp=Z,390nm,6.7s
BTO2 L L
comp=Z,760nm,15.7s
BTO2 L L
comp=Z,810nm,14.3s
BTO2 L L
comp=Z,820nm,23.5s
CHTO Chiang Mai 21.20 266 P **P 07 23 52.8 +0.5**
CHTO Chiang Mai 21.20 266 P **P 07 23 52.3 0.0**
CHTO pmax pmax
comp=Z,35nm,1.3s
CHTO Chiang Mai 21.20 266 **P 07 23 52.3 0.0**
CHTO Chiang Mai 21.20 266 P **P 07 23 54.7 +2.4**
comp=Z,22nm,1.3s
GTOI Gorontalo 21.23 175 P **P 07 23 53.0 +0.4**
comp=Z,477nmcomp=Z,55nm,0.8s
CM31 Chiang Mai Arr 21.28 265 P **P 07 23 52.7 -0.4**
CMAR Chiang Mai Arr 21.28 265 P **P 07 23 55.6 +2.6**
comp=Z,4.6nm,0.7s,baz=71,slow=8.9,SNR=26
comp=Z,4.6nm,0.7s
CMAR Chiang Mai Arr 21.28 265 *i* P **P 07 23 55.7 +2.6**
CMAR pmax pmax
comp=Z,4.0nm,0.6s
CMAR Chiang Mai Arr 21.28 265 P **P 07 23 52.7 -0.4**
CN2 Changchun 22.08 8 P **P 07 24 02.9 +1.5**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
CN2 L L
comp=Z,100nm,16.0s
CN2 L L
comp=Z,100nm,16.0s
CN2 L L
comp=Z,100nm,18.0s
XLT XiLinHaoTe 22.33 350 *e*P **P 07 24 03.3 -1.0**
XLT pP pP 07 24 15.8 -3.0
XLT pmax pmax
comp=Z,23nm,0.6s
XLT pmax pmax
comp=Z,160nm,8.2s
XLT L L
comp=Z,26nm,16.6s
XLT L L
comp=Z,140nm,15.4s
XLT L L
comp=Z,260nm,21.8s
APSI Ampana 22.71 179 P **P 07 24 10.6 +2.2**
comp=Z,697nmcomp=Z,72nm,1.3s
VLA Vladivostok 22.89 20 *e*P **P 07 24 10.8 +0.8**
VLA pmax pmax
comp=Z,56nm,1.3s
MDJ Mudanjiang 23.63 15 P **P 07 24 17.6 +0.6**
MDJ pmax pmax
comp=Z,16nm,0.6s
MDJ Mudanjiang 23.63 15 P **P 07 24 15.7 -1.3**
MDJ IAmb IAmb 07 24 18.0
comp=Z,71nm,1.6s
MDJ Mudanjiang 23.63 15 P **P 07 24 16.1 -0.9**
comp=Z,24nm,0.7s
GUMO Guam 23.89 106 LR LR 07 31 33.2
comp=Z,75nm,20.6s,baz=280,slow=31
USA0B Ussuriysk Arra 23.90 19 *e*P **P 07 24 18.2 -1.2**
USA0B Ussuriysk Arra 23.90 19 P **P 07 24 18.9 -0.5**
USA0B IAmb IAmb 07 24 20.9
comp=Z,100nm,1.7s
USRK Ussuriysk Ar. 23.90 19 P **P 07 24 19.2 -0.1**
comp=Z,7.6nm,0.5s,baz=192,slow=7.6,SNR=18
USRK LR LR 07 33 13.0
comp=Z,75nm,19.7s,baz=198,slow=35
comp=Z,7.6nm,0.5s
USRK Ussuriysk Ar. 23.90 19 P **P 07 24 18.2 -1.2**
USRK Ussuriysk Ar. 23.90 19 P **P 07 24 18.2 -1.2**
BNX BinXian 24.26 10 ⇑P **P 07 24 22.8 +0.1**
BNX pmax pmax
comp=Z,10.0nm,0.7s
SIJI Sorong 24.66 156 LR LR 07 34 03.9
comp=Z,44nm,21.6s,baz=179,slow=36
GTA2 Gaotai 25.38 318 P **P 07 24 33.8 +0.7**
GTA2 pP pP 07 24 44.4 -5.2
GTA2 pmax pmax
comp=Z,15nm,1.1s
GTA2 L L
comp=Z,220nm,11.7s
GTA2 L L
comp=Z,240nm,14.3s
GTA2 L L
comp=Z,210nm,13.7s
KAPI Kappang 26.82 183 LR LR 07 35 35.0
comp=Z,139nm,21.9s,baz=349,slow=37
GOMU GeErMu 27.07 308 P **P 07 24 50.3 +1.6**
GOMU pmax pmax
comp=Z,7.0nm,0.8s
SHL Shillong 27.16 283 P **P 07 24 50.3 +1.0**
SHL pmax pmax
comp=Z,9.0nm,0.9s
SHL Shillong 27.16 283 P **P 07 24 50.3 +1.0**
HIA Hailar 27.30 358 P **P 07 24 49.2 -1.0**
HIA pmax pmax
comp=Z,14nm,0.5s
HIA Hailar 27.30 358 P **P 07 24 49.2 -1.0**
HIA IAmb IAmb 07 24 49.5
comp=Z,14nm,0.5s
HIA Hailar 27.30 358 P **P 07 24 49.2 -1.0**
comp=Z,22nm,1.1s
BRDH Bariadhala 27.45 277 LR LR 07 36 24.5
comp=Z,71nm,18.1s,baz=134,slow=37
HILR Hailar Array B 27.59 358 P **P 07 24 51.6 -1.2**
comp=Z,8.4nm,0.5s,baz=171,slow=10,SNR=13
HILR LR LR 07 35 53.1
comp=Z,85nm,21.2s,baz=230,slow=36
comp=Z,8.4nm,0.5s
ASAJ Asahikawa 28.26 34 LR LR 07 35 44.9
comp=Z,145nm,21.9s,baz=96,slow=35
ULN Ulaanbaatar 28.30 340 *de*P **P 07 25 00.1 +0.8**
ULN pmax pmax
comp=Z,16nm,1.3s
ULN Ulaanbaatar 28.30 340 P **P 07 24 57.7 -1.5**
comp=Z,27nm,1.6s
KLR Kul'dur 28.47 14 *e*P **P 07 24 59.5 -1.1**
KLR pmax pmax
comp=Z,4.0nm,1.2s
SONM Songino Array 28.49 339 P **P 07 25 00.8 -0.1**
comp=Z,10.0nm,0.8s,baz=155,slow=10.0,SNR=30
SONM LR LR 07 37 33.6
comp=Z,375nm,18.8s,baz=162,slow=38
comp=Z,10.0nm,0.8s
SONM Songino Array 28.49 339 P **P 07 25 01.0 +0.1**
SONM pmax pmax
comp=Z,11nm,0.9s
SONM Songino Array 28.49 339 **P 07 25 01.0 +0.1**
HEH HeiHe 28.67 8 *e*P **P 07 25 05.8 +3.5**
HEH pmax pmax
comp=Z,11nm,0.9s
PSI Prapat 28.90 232 P **P 07 25 05.6 +0.7**
YSS Yuzhno-Sakhali 30.39 30 *e*P **P 07 25 18.9 +1.3**
YSS *e*S **S 07 30 12.5 -0.6**
YSS *e*SS **ScP 07 31 51.8 -0.4**
YSS pmax pmax
comp=Z,20nm,1.1s
YSS MLR MLR
comp=Z,500nm,11.0s
YSS MLR MLR
comp=N,200nm,10.0s
JAY Jayapura 30.82 140 LR LR 07 34 55.0
comp=N,91nm,20.4s,baz=297,slow=31
ZAK Zakamensk 31.73 338 *e*P **P 07 25 28.6 -0.9**
ZAK pmax pmax
comp=Z,6.0nm,1.3s
EVN Everest 31.78 288 P **P 07 25 30.3 -0.5**
EVN Everest 31.78 288 P **P 07 25 33.2 +2.4**
comp=Z,9.3nm,0.9s
BATI Baumata 32.02 176 LR LR 07 39 12.4
comp=Z,71nm,19.6s,baz=312,slow=37
ZEA Zeya 32.07 7 *e*P **P 07 25 32.4 +0.1**
ZEA pmax pmax
comp=Z,10.0nm,0.3s
TLY Talaya 32.71 340 LR LR 07 40 10.2
comp=Z,274nm,18.3s,baz=135,slow=38
TLY Talaya 32.71 340 P **P 07 25 37.3 -0.7**
KNGR Kungurtug, Tuv 34.15 333⇑ *e*P **P 07 25 51.7 +1.1**
KNGR pmax pmax
comp=Z,11nm,1.1s
WMQ Urumqi 35.33 316 *e*P **P 07 26 03.3 +2.5**
WMQ S **S 07 31 31.3 +1.3**
WMQ pmax pmax
comp=Z,13nm,0.7s
KNRA Kununurra 38.08 168 P **P 07 26 22.4 -1.9**
DGZ Jazzator, Alta 38.47 324⇑ *e*P **P 07 26 28.6 +1.1**
DGZ *i* *PP **pP 07 26 43.7 -0.7**
DGZ pmax pmax
comp=Z,8.0nm,1.1s
ZSN Zaisan 38.77 320 *e*P **P 07 26 31.0 +1.1**
ZSN Zaisan 38.77 320 *e*P **P 07 26 31.1 +1.1**
KRVT Keravat (AS076 39.79 127 LR LR 07 40 31.1
comp=Z,46nm,20.7s,baz=324,slow=32
FITZ Fitzroy Crossi 40.01 174 P **P 07 26 39.4 -0.9**
MK31 Makanchi Array 40.06 318 *i* P **P 07 26 41.6 +1.0**
MK31 pmax pmax
comp=Z,20nm,1.1s
MKAR Makanchi Array 40.06 318 P **P 07 26 42.2 +1.6**
comp=Z,11nm,0.8s,baz=107,slow=10,SNR=67
MKAR PcP **PcP 07 28 44.4 +0.2**
comp=Z,0.6nm,0.4s,baz=232,slow=6.1,SNR=5.1
MKAR ScP **ScP 07 32 25.3 -1.9**
comp=Z,0.5nm,0.6s,baz=107,slow=6.2,SNR=4.0
MKAR LR LR 07 44 45.1
comp=Z,112nm,19.0s,baz=130,slow=38
comp=Z,11nm,0.8s
MKAR Makanchi Array 40.06 318 *i* P **P 07 26 42.2 +1.6**
MKAR pmax pmax
comp=Z,12nm,0.8s
MKAR Makanchi Array 40.06 318 P **P 07 26 41.0 +0.4**
MKAR **PcP 07 28 44.3 +0.1**
MAKZ Makanchi 40.26 318 P **P 07 26 42.8 +0.5**
MAKZ pmax pmax
comp=Z,31nm,1.2s
MAKZ Makanchi 40.26 318 P **P 07 26 42.8 +0.5**
MAKZ IAmb IAmb 07 26 44.8
comp=Z,31nm,1.1s
MAKZ Makanchi 40.26 318 P **P 07 26 43.7 +1.4**
comp=Z,26nm,1.2s
YAK Yakutsk 40.48 6 LR LR 07 44 53.1
comp=Z,49nm,18.4s,baz=178,slow=38
YAK Yakutsk 40.48 6 *e*P **P 07 26 44.3 +0.5**
YAK pmax pmax
comp=Z,23nm,1.2s
YAK Yakutsk 40.48 6 P **P 07 26 42.7 -1.1**
YAK IAmb IAmb 07 26 44.4
comp=Z,21nm,0.7s
SHLS Shalkode 40.61 311 *e*P **P 07 26 44.3 -1.0**
SHLS Shalkode 40.61 311 *e*P **P 07 26 44.4 -1.0**
PDGK Podgornoye 40.64 312 P **P 07 26 45.5 -0.2**
PDGK Podgornoye 40.64 312 **P 07 26 45.5 -0.2**
UZB Uzynbulak 40.91 311 *e*P **P 07 26 49.2 +1.4**
UZB Uzynbulak 40.91 311 *e*P **P 07 26 49.3 +1.4**
KPKS Kokpek 41.24 312 *e*P **P 07 26 51.8 +1.3**
KPKS Kokpek 41.24 312 *e*P **P 07 26 51.9 +1.3**
SATY Saty 41.32 311 *e*P **P 07 26 52.5 +1.4**
SATY Saty 41.32 311 *e*P **P 07 26 52.6 +1.4**
PETK Petropavlovsk- 41.67 33 P **P 07 26 53.2 -0.6**
comp=Z,1.4nm,0.5s,baz=249,slow=6.2,SNR=11
PETK LR LR 07 45 38.8
comp=Z,38nm,20.3s,baz=228,slow=38
comp=Z,1.4nm,0.5s
PETK Petropavlovsk- 41.67 33 P **P 07 26 52.7 -1.1**
PETK Petropavlovsk- 41.67 33 P **P 07 26 52.7 -1.1**
PALK Pallekele 41.76 256 *i* P **P 07 26 57.9 +2.9**
TDK Taldyqorghan 41.91 314 *e*P **P 07 26 57.3 +1.5**
TDK pmax pmax
comp=Z,8.0nm,0.6s
TDK Taldyqorghan 41.91 314 *e*P **P 07 26 57.4 +1.5**
comp=Z,8.3nm,0.6s
ASAI AK-SAY(Kyrgyzs 42.13 307 P **P 07 26 59.6 +1.5**
comp=Z,3.7nm,2.2s
ZAA0 Zalesovo Array 42.21 328 **P 07 26 58.0 -0.1**
ZALV Zalesovo Beam 42.21 328 P **P 07 26 58.4 +0.3**
comp=Z,14nm,0.4s,baz=118,slow=7.8,SNR=66
ZALV PcP **PcP 07 28 50.3 -0.7**
comp=Z,0.8nm,0.6s,baz=126,slow=3.9,SNR=1.0
ZALV LR LR 07 45 40.4
comp=Z,145nm,19.3s,baz=132,slow=38
comp=Z,14nm,0.4s
ZALV Zalesovo Beam 42.21 328 **P 07 26 58.2 +0.1**
MDOK Medeo 42.30 311 *e*P **P 07 27 00.6 +1.4**
MDOK Medeo 42.30 311 *e*P **P 07 27 00.6 +1.4**
TNSS Tian-Shan 42.34 310 *e*P **P 07 27 00.8 +1.0**
TNSS Tian-Shan 42.34 310 *e*P **P 07 27 00.8 +1.0**
AAA Alma-Ata 42.41 311 *e*P **P 07 27 01.4 +1.4**
AAA Alma-Ata 42.41 311 *e*P **P 07 27 01.5 +1.4**
H11N1 WAKE ISLAND Hy 42.54 84 T T 08 12 20.8
baz=282,slow=75,SNR=44
H11N2 WAKE ISLAND Hy 42.54 84 T T 08 12 22.5
baz=282,slow=75,SNR=70
H11N3 WAKE ISLAND Hy 42.55 84 T T 08 12 20.8
baz=282,slow=75,SNR=53
H11S3 WAKE ISLAND Hy 42.60 86 T T 08 12 22.1
baz=283,slow=74,SNR=164
H11S1 WAKE ISLAND Hy 42.61 86 T T 08 12 23.4
baz=283,slow=74,SNR=126
H11S2 WAKE ISLAND Hy 42.62 86 T T 08 12 24.0
baz=283,slow=74,SNR=88
NRN Naryn 42.63 308 P **P 07 27 03.5 +1.4**
NRN pmax pmax
comp=Z,11nm,1.1s
NRN Naryn 42.63 308 **P 07 27 03.5 +1.4**
SEM Semipalatinsk 42.84 322 *e*P **P 07 27 04.6 +1.1**
SEM pmax pmax
comp=Z,14nm,1.1s
SEM Semipalatinsk 42.84 322 *e*P **P 07 27 04.6 +1.1**
comp=Z,14nm,1.1s
MA2 Magadan 43.02 22 LR LR 07 45 12.4
comp=Z,84nm,20.0s,baz=220,slow=36
WB0 Warramunga Arr 43.37 162 P **P 07 27 06.2 -1.7**
WRA Warramunga Arr 43.52 162 P **P 07 27 07.6 -1.5**
comp=Z,5.1nm,0.6s,baz=344,slow=8.8,SNR=28
WRA PcP **PP 07 28 54.9 +3.2**
comp=Z,0.9nm,0.6s,baz=337,slow=3.6,SNR=2.1
comp=Z,5.1nm,0.6s
WRA Warramunga Arr 43.52 162 *i* P **P 07 27 07.8 -1.3**
WRA pmax pmax
comp=Z,6.0nm,0.6s
WRA Warramunga Arr 43.52 162 P **P 07 27 07.0 -2.1**
WRA **PcP 07 28 55.1 -0.8**
WR8 Warramunga Arr 43.58 162 **P 07 27 07.9 -1.6**
WR8 IAmb IAmb 07 27 09.1
comp=Z,8.7nm,0.7s
NIL Nilore 43.75 296 P **P 07 27 10.1 -0.8**
NIL pmax pmax
comp=Z,17nm,1.1s
NIL Nilore 43.75 296 P **P 07 27 10.1 -0.8**
NIL IAmb IAmb 07 27 13.4
comp=Z,17nm,1.1s
NIL Nilore 43.75 296 P **P 07 27 12.0 +1.1**
comp=Z,5.9nm,1.2s
KURK Kurchatov 43.91 322 *ce*P **P 07 27 12.8 +1.0**
KURK pmax pmax
comp=Z,17nm,1.0s
KURK Kurchatov 43.91 322 P **P 07 27 11.9 0.0**
KURK IAmb IAmb 07 27 13.8
comp=Z,12nm,0.8s
KURK Kurchatov 43.91 322 P **P 07 27 12.9 +1.0**
comp=Z,29nm,1.5s
KURBB Kurchatov Arra 43.92 321 P **P 07 27 12.9 +1.0**
comp=Z,8.0nm,0.5s,baz=115,slow=7.7,SNR=64
KURBB PcP **PP 07 28 55.3 0.0**
comp=Z,0.5nm,0.5s,baz=107,slow=3.2,SNR=1.8
comp=Z,8.0nm,0.5s
KURBB Kurchatov Arra 43.92 321 P **P 07 27 11.7 -0.3**
KURBB pmax pmax
comp=Z,26nm,0.9s
AAK Ala-Archa 43.99 309 LR LR 07 49 26.9
comp=Z,121nm,18.2s,baz=102,slow=41
ARSB Arslanbob 44.83 307 P **P 07 27 19.1 -0.5**
ARSB pmax pmax
comp=Z,6.0nm,0.4s
ARSB Arslanbob 44.83 307 P **P 07 27 19.1 -0.5**
ARSB IAmb IAmb 07 28 46.1
comp=Z,6.1nm,0.4s
QIS Mount Isa 45.85 156 P **P 07 27 26.9 -0.8**
comp=Z,13nm,0.8s
BTK Batken 46.26 305 P **P 07 27 31.4 +0.6**
BTK pmax pmax
comp=Z,5.0nm,1.1s
BTK Batken 46.26 305 P **P 07 27 31.4 +0.6**
DZA Taraz 46.33 309 *e*P **P 07 27 32.7 +1.5**
DZA Taraz 46.33 309 *e*P **P 07 27 32.7 +1.5**
AS31 Alice Springs 46.95 164 **P 07 27 34.8 -1.4**
AS31 PcP **PcP 07 29 07.4 -0.4**
ASAR Alice Springs 46.95 164 P **P 07 27 35.3 -0.9**
comp=Z,1.0nm,0.4s,baz=354,slow=14,SNR=34
ASAR PcP **PcP 07 29 07.2 -0.6**
comp=Z,0.7nm,0.4s,baz=342,slow=3.2,SNR=5.9
comp=Z,1.0nm,0.4s
ASAR Alice Springs 46.95 164 P **P 07 27 34.9 -1.3**
ASAR 07 29 07.2
ASAR Alice Springs 46.95 164 P **P 07 27 34.9 -1.3**
ASAR **PcP 07 29 07.2 -0.6**
KK31 Karatay Array 46.95 309 *i* P **P 07 27 37.6 +1.5**
KK31 pmax pmax
comp=Z,3.0nm,0.8s
KK31 Karatay Array 46.95 309 **P 07 27 36.6 +0.5**
KK31 PcP **PcP 07 29 08.2 +0.5**
KKAR Karatay Array 46.95 309 P **P 07 27 36.6 +0.5**
KKAR 07 29 08.2
KKAR Karatay Array 46.95 309 P **P 07 27 36.6 +0.5**
KKAR PcP **PcP 07 29 08.2 +0.5**
IUG luzhnay 47.15 308 *e*P **P 07 27 39.2 +1.5**
IUG pmax pmax
comp=Z,19nm,1.3s
IUG luzhnay 47.15 308 *e*P **P 07 27 39.3 +1.5**
comp=Z,19nm,1.3s
KBL Kabul 47.27 297 P **P 07 27 39.8 +0.9**
KBL IAmb IAmb 07 27 41.8
comp=Z,15nm,1.1s
KBL PcP **PcP 07 29 09.8 +0.6**
KBL Kabul 47.27 297 P **P 07 27 41.3 +2.4**
comp=Z,10nm,0.9s
BRLS Borolday 47.43 309 *e*P **P 07 27 41.9 +2.1**
BRLS Borolday 47.43 309 *e*P **P 07 27 41.9 +2.1**
CHM Chimkent 47.49 308 *e*P **P 07 27 41.7 +1.4**
CHM Chimkent 47.49 308 *e*P **P 07 27 41.7 +1.4**
CTA Charters Tower 48.35 148 LR LR 07 46 35.9
comp=Z,54nm,21.2s,baz=32,slow=34
BVA2 Borovoye Array 49.50 322 P **P 07 27 55.1 -0.4**
BVA2 pmax pmax
comp=Z,3.0nm,0.5s
BVAR Borovoye Array 49.50 322 P **P 07 27 56.8 +1.2**
comp=Z,8.7nm,0.4s,baz=108,slow=8.8,SNR=42
BVAR PcP **PcP 07 29 16.2 -0.3**
comp=Z,1.7nm,0.5s,baz=121,slow=2.2,SNR=3.8
comp=Z,8.7nm,0.4s
BORK Borovoye 49.55 322 P **P 07 27 56.9 +1.0**
BORK pmax pmax
comp=Z,25nm,1.2s
BORK Borovoye 49.55 322 **P 07 27 56.9 +1.0**
TIXI Tiksi 49.92 3 LR LR 07 50 27.2
comp=Z,144nm,19.3s,baz=192,slow=38
TIXI Tiksi 49.92 3 *de*P **P 07 27 56.8 -1.6**
TIXI pmax pmax
comp=Z,25nm,1.6s
TIXI Tiksi 49.92 3 **P 07 27 57.2 -1.2**
TIXI IAmb IAmb 07 27 57.8
comp=Z,12nm,0.9s
TIXI Tiksi 49.92 3 P **P 07 27 57.1 -1.4**
comp=Z,15nm,1.3s
SHEM Shemya Is, Ala 50.48 39 LR LR 07 51 07.0
comp=Z,30nm,18.1s,baz=240,slow=38
NRIK Noril'sk 51.60 345 P **P 07 28 10.8 -0.3**
comp=Z,15nm,0.8s,baz=139,slow=7.3,SNR=19
NRIK LR LR 07 52 15.9
comp=Z,108nm,18.2s,baz=142,slow=38
comp=Z,15nm,0.8s
NRIK Noril'sk 51.60 345 *ce*P **P 07 28 10.8 -0.3**
NRIK pmax pmax
comp=Z,74nm,1.7s
NRIK Noril'sk 51.60 345 **P 07 28 11.2 +0.2**
AB31 Akbulak array 55.11 315 *i* P **P 07 28 38.1 +1.0**
AB31 pmax pmax
comp=Z,2.0nm,0.5s
AB31 Akbulak array 55.11 315 **P 07 28 38.1 +1.0**
AB31 IAmb IAmb 07 28 39.4
comp=Z,12nm,1.1s
ABKAR Akbulak array 55.11 315 **P 07 28 38.1 +1.0**
SVE Sverdlovsk 55.93 325 *e*P **P 07 28 44.0 +1.1**
SVE pmax pmax
comp=Z,32nm,1.1s
BBOO Buckleboo 56.23 165 P **P 07 28 45.3 0.0**
AKTO Aktyubinsk 56.48 317 LR LR 07 55 19.9
comp=Z,96nm,20.2s,baz=92,slow=38
AKTO Aktyubinsk 56.48 317 P **P 07 28 47.7 +0.8**
AKTO pmax pmax
comp=Z,8.0nm,1.1s
STKA Stephens Creek 56.92 159 P **P 07 28 49.4 -0.8**
comp=Z,3.3nm,0.5s,baz=335,slow=5.6,SNR=10
comp=Z,3.3nm,0.5s
STKA Stephens Creek 56.92 159 P **P 07 28 49.9 -0.3**
STKA pmax pmax
comp=Z,47nm,1.2s
STKA Stephens Creek 56.92 159 P **P 07 28 49.9 -0.3**
ARTI Arti 57.07 324 LR LR 07 54 23.5
comp=Z,72nm,18.7s,baz=108,slow=37
ARTI Arti 57.07 324⇑ *e*P **P 07 28 51.1 +0.1**
ARTI pmax pmax
comp=Z,16nm,0.9s
ARTI Arti 57.07 324 **P 07 28 51.2 +0.2**
KIRV Kirov 62.13 326 LR LR 07 58 38.5
comp=Z,108nm,18.5s,baz=92,slow=38
KIRV Kirov 62.13 326⇑ *e*P **P 07 29 26.0 +0.3**
BELG Belogornoye 63.05 319 *e*P **P 07 29 33.2 +1.3**
BELG pmax pmax
comp=Z,4.0nm,1.1s
K13K Kusilvak Mount 63.38 31 P **P 07 29 33.6 -0.4**
TOO Toolangi 63.41 159 P **P 07 29 34.9 +0.4**
TOO pmax pmax
comp=Z,47nm,2.0s
TOO Toolangi 63.41 159 P **P 07 29 34.9 +0.4**
J14K Nanvaranak Lak 63.94 30 P **P 07 29 37.6 0.0**
GNI Garni 66.19 305 LR LR 08 02 23.3
comp=Z,39nm,20.7s,baz=109,slow=39
VRH Novokhopyorsk 66.79 318 *e*P **P 07 29 56.3 +0.1**
VRH pmax pmax
comp=Z,27nm,0.8s
KBZ Khabaz 66.99 310 P **P 07 29 58.7 +1.0**
comp=Z,4.1nm,0.8s,baz=39,slow=4.8,SNR=4.7
KBZ LR LR 08 04 50.1
comp=Z,35nm,19.1s,baz=24,slow=41
comp=Z,4.1nm,0.8s
KBZ Khabaz 66.99 310 *de*P **P 07 29 59.2 +1.5**
KBZ pmax pmax
comp=Z,7.0nm,1.0s
H19K Roundabout Mou 67.05 27 IAmb IAmb 07 30 54.5
comp=Z,11nm,1.2s
KIV Kislovodsk 67.11 310 *e*P **P 07 30 00.5 +1.9**
KIV pmax pmax
comp=Z,8.0nm,1.0s
KIV MLR MLR
comp=Z,25nm,17.0s
KLMR Klimovskoe 67.13 328 *e*P **P 07 29 56.2 -2.0**
KLMR *e*PP **pP 07 30 14.5 -1.9**
KLMR pmax pmax
comp=Z,57nm,1.5s
J20K Nowinta River 68.12 28 IAmb IAmb 07 30 55.3
comp=Z,40nm,2.0s
G21K Allakaket 68.19 25 IAmb IAmb 07 31 49.6
comp=Z,26nm,1.8s
VORR Voronezh 68.29 318 *e*P **P 07 30 06.0 +0.3**
VORR pmax pmax
comp=Z,26nm,0.4s
LPSR Galich'ya Gora 68.33 319 *e*P **P 07 30 06.1 +0.2**
LPSR pmax pmax
comp=Z,46nm,1.1s
VORD Divnogorie 68.34 318 *e*P **P 07 30 04.7 -1.3**
VORD pmax pmax
comp=Z,10.0nm,1.0s
ERBR Yeremizino-Bor 68.37 312 *e*P **P 07 30 07.0 +0.6**
ERBR *e**PP **pP 07 30 24.5 -0.1**
ERBR *e*S **S 07 39 04.0 +1.7**
ERBR pmax pmax
comp=Z,28nm,1.1s
VSR Storozhevoye 68.38 318 *e*P **P 07 30 06.4 +0.1**
VSR pmax pmax
comp=Z,20nm,0.8s
LABN Labinsk 68.39 311 *e*P **P 07 30 08.1 +1.6**
LABN *e**PP **pP 07 30 24.7 0.0**
LABN *e*S **S 07 39 05.5 +3.0**

LABN pmax pmax
comp=Z,23nm,0.5s
H21K Melozitna Rive 68.55 26 IAmb IAmb 07 30 09.0
comp=Z,29nm,1.6s
MOS Moscow 68.66 323 *eP* **P 07 30 07.7 -0.2**
D23K Nanushuk River 69.02 23 IAmb IAmb 07 30 13.5
comp=Z,31nm,1.7s
H22K Ishtalitna Cre 69.11 26 IAmb IAmb 07 30 14.4
comp=Z,20nm,1.5s
CAST Castle Rocks 69.12 29 IAmb IAmb 07 30 11.5
comp=Z,26nm,1.7s
RAYN Ar Rayn 69.13 288 P **P 07 30 10.2 -1.4**
RAYN pmax pmax
comp=Z,6.0nm,1.1s
RAYN Ar Rayn 69.13 288 P **P 07 30 10.2 -1.4**
RAYN Ar Rayn 69.13 288 P **P 07 30 13.1 +1.5**
comp=Z,6.0nm,1.1s
APA Apatity 69.15 336 *eP* **P 07 30 12.3 +1.5**
APA *e* 07 30 38.7
APA pmax pmax
comp=Z,10.0nm,1.3s
APA MLR MLR
comp=Z,550nm,4.2s
OBN Obninsk 69.34 322 LR LR 08 01 41.0
comp=Z,85nm,18.2s,baz=158,slow=37
OBN Obninsk 69.34 322|| *eP* **P 07 30 12.5 +0.3**
OBN *e**PP **pP 07 30 31.1 +0.7**
OBN *e* 07 30 35.3
OBN *e**SP **sP 07 30 39.7 +1.6**
OBN *e* 07 32 45.0
OBN *e*PPP PPP 07 34 28.3
OBN pmax pmax
comp=Z,17nm,0.9s
OBN MLR MLR
comp=Z,44nm,13.0s
TOLK Toolik Lake Re 69.46 23 P **P 07 30 12.1 -0.7**
TOLK IAmb IAmb 07 30 13.3
comp=Z,38nm,1.8s
STLK Strandline Lak 69.49 31 P **P 07 30 11.7 -1.4**
STLK IAmb IAmb 07 30 16.4
comp=Z,25nm,1.8s
BPAW Bear Paw Mtn. 69.51 28 IAmb IAmb 07 32 04.1
comp=Z,31nm,2.0s
E23K Chandalar 69.52 24 IAmb IAmb 07 30 14.1
comp=Z,21nm,1.6s
KDAK Kodiak Island 69.67 35 LR LR 08 00 38.9
comp=Z,36nm,21.9s,baz=251,slow=36
KDAK Kodiak Island 69.67 35 P **P 07 30 13.1 -1.0**
KDAK pmax pmax
comp=Z,128nm,1.7s
KDAK Kodiak Island 69.67 35 P **P 07 30 13.1 -1.0**
H23K Yukon River 69.87 26 IAmb IAmb 07 30 17.1
comp=Z,20nm,1.6s
E24K Your Creek 69.94 24 IAmb IAmb 07 30 16.6
comp=Z,6.5nm,0.6s
BRLK Bradley Lake 70.22 33 P **P 07 30 16.4 -1.2**
F24K Squaw Lake 70.25 24 IAmb IAmb 07 30 20.4
comp=Z,41nm,1.9s
NEA2 Nenana 70.26 27 IAmb IAmb 07 30 18.5
comp=Z,28nm,1.6s
H24K Noodor Dome 70.54 26 IAmb IAmb 07 30 59.0
comp=Z,21nm,1.8s
G24K Hadweenzic Riv 70.55 25 IAmb IAmb 07 30 33.6
comp=Z,15nm,1.6s
ANN Anapa 70.66 311 *eP* **P 07 30 20.3 -0.1**
ANN *e**PP **pP 07 30 38.2 -0.6**
ANN *eS* **S 07 39 29.0 -0.1**
ANN pmax pmax
comp=Z,21nm,0.8s
KEV Kevo 71.10 338 P **P 07 30 22.9 +0.2**
KEV pmax pmax
comp=Z,97nm,1.7s
KEV Kevo 71.10 338 P **P 07 30 22.9 +0.2**
IL31 71.15 27 P **P 07 30 21.4 -1.7**
IL31 IAmb IAmb 07 32 40.2
comp=Z,24nm,2.0s
ILAR Eielson Array 71.15 27 P **P 07 30 21.2 -1.9**
comp=Z,1.1nm,0.5s,baz=272,slow=5.0,SNR=29
ILAR LR LR 08 03 15.0
comp=Z,14nm,19.1s,baz=298,slow=37
comp=Z,1.1nm,0.5s
ILAR Eielson Array 71.15 27 P **P 07 30 21.6 -1.5**
ILAR Eielson Array 71.15 27 P **P 07 30 21.6 -1.5**
BMAR Burnt Mountain 71.52 24 P **P 07 30 25.7 +0.4**
ARCES ARCESS Array B 71.67 338 P **P 07 30 25.5 -0.7**
comp=Z,2.8nm,0.7s,baz=66,slow=7.2,SNR=8.9
ARCES LR LR 08 08 23.8
comp=Z,29nm,18.4s,baz=110,slow=41
comp=Z,2.8nm,0.7s
ARCES ARCESS Array B 71.67 338 P **P 07 30 25.6 -0.5**
ARCES pmax pmax
comp=Z,78nm,1.8s
ARCES ARCESS Array B 71.67 338 P **P 07 30 25.6 -0.5**
SPB2 Spitsbergen Ar 71.70 348 P **P 07 30 26.5 +0.3**
SPITS Spitsbergen Ar 71.70 348 P **P 07 30 26.2 0.0**
comp=Z,4.6nm,0.5s,baz=83,slow=7.9,SNR=10
SPITS LR LR 08 05 37.0
comp=Z,90nm,18.7s,baz=58,slow=39
comp=Z,4.6nm,0.5s
G26K Porcupine Rive 71.93 24 IAmb IAmb 07 30 29.2
comp=Z,6.3nm,0.5s
SCRK Sand Creek 72.56 27 IAmb IAmb 07 31 40.0
comp=Z,26nm,2.0s
G27K Doyon Strip 72.78 24 IAmb IAmb 07 30 35.9
comp=Z,21nm,1.8s
H27K Steamboat Moun 72.98 25 IAmb IAmb 07 31 09.7
comp=Z,36nm,1.9s
E28M Babbage River 73.06 22 IAmb IAmb 07 30 34.6
comp=Z,14nm,1.6s
F28M Old Crow 73.23 23 IAmb IAmb 07 32 26.0
comp=Z,18nm,1.8s
GLB Gilahina Butte 73.27 30 IAmb IAmb 07 32 42.8
comp=Z,30nm,1.6s
K27K Chicken 73.36 27 IAmb IAmb 07 30 38.5
comp=Z,14nm,1.4s
M26K Nabesna, AK 73.39 29 IAmb IAmb 07 30 38.1
comp=Z,32nm,1.8s
FIA1 FINESS Array S 73.44 330 P **P 07 30 37.3 +0.6**
FINES FINESS Array B 73.44 330 P **P 07 30 36.6 -0.2**
comp=Z,2.8nm,0.6s,baz=55,slow=5.1,SNR=16
FINES LR LR 08 04 39.3
comp=Z,88nm,18.1s,baz=351,slow=37
comp=Z,2.8nm,0.6s
FINES FINESS Array B 73.44 330 P **P 07 30 37.0 +0.2**
FINES FINESS Array B 73.44 330 P **P 07 30 37.0 +0.2**
MCARA McCarthy VSAT 73.65 30 P **P 07 30 38.4 +0.3**
MCARA IAmb IAmb 07 33 11.6
comp=Z,13nm,1.2s
E29M Blow River 73.70 22 IAmb IAmb 07 32 31.8
comp=Z,16nm,1.8s
BCAR Beaver Creek A 73.75 28 P **P 07 30 38.6 0.0**
VSU Vasula 73.92 327 *deP* **P 07 30 39.4 -0.2**
VSU pmax pmax
comp=Z,45nm,1.1s
MNK Minsk 74.38 323 *i* P **P 07 30 42.3 -0.1**
MNK *i* *PP **pP 07 31 00.6 -0.3**
MNK *i* 07 33 28.2
MNK *i* PPP PPP 07 35 14.9
MNK *i* S **S 07 40 13.2 +2.0**
MNK *i* *SS **sS 07 40 43.6 +0.1**
MNK *i* SS **SS 07 45 02.1 +4.1**
MNK pmax pmax
comp=E,29nm,0.8s
MNK pmax pmax
comp=Z,31nm,0.8s
MNK pmax pmax
comp=N,28nm,0.8s
MNK MLR MLR
comp=Z,52nm,15.0s
MNK MLR MLR
comp=N,221nm,22.0s
MNK Minsk 74.38 323 *i* P **P 07 30 42.4 -0.1**
comp=E,29nm,0.8s
MNK *i* P **P 07 30 42.4 -0.1**
comp=N,28nm,0.8s
MNK *i* P **P 07 30 42.4 -0.1**
comp=Z,31nm,0.8s,baz=74
MNK *i* pP **pP 07 31 00.6 -0.3**
MNK *i* PP **PP 07 33 28.2 -0.8**
MNK *i* PPP PPP 07 35 14.9
MNK *i* S **S 07 40 13.3 +2.0**
MNK *i* sS **sS 07 40 43.7 +0.1**
MNK *i* SS **SS 07 45 02.1 +4.1**
MNK *i* SSS SSS 07 48 23.1
MNK *i* LQ LQ 07 57 12.8
MNK *i* LR LR 08 03 11.7
MNK *i* LRM MLR 08 05 36.2
comp=Z,52nm,14.7s
MNK *i* LRM MLR 08 05 40.8
comp=N,221nm,21.6s
DAWY Dawson 74.48 27 IAmb IAmb 07 32 52.7
comp=Z,18nm,1.7s
NOR Nord 74.58 354 *i* P **P 07 30 41.8 -1.3**
NOR IAmb IAmb 07 30 44.2
comp=Z,3.6nm,0.7s
BR131 Keskin Array S 74.61 307 *eP* **P 07 30 44.8 +0.6**
BRTR Keskin Array B 74.61 307 P **P 07 30 44.1 -0.1**
comp=Z,1.2nm,0.6s,baz=93,slow=5.2,SNR=6.7
BRTR LR LR 08 07 13.5
comp=Z,24nm,18.1s,baz=89,slow=38
comp=Z,1.2nm,0.6s
BRTR Keskin Array B 74.61 307 *i* P **P 07 30 45.2 +1.0**
BRTR pmax pmax
comp=Z,1.0nm,0.6s
BRTR Keskin Array B 74.61 307 P **P 07 30 44.4 +0.2**
BR104 Keskin Array S 74.61 307 P **P 07 30 44.0 -0.2**
comp=Z,2.9nm,1.4s
BR106 Keskin Array S 74.62 307 P **P 07 30 44.7 +0.4**
comp=Z,3.8nm,1.3s
AK03 Malin Array Si 74.63 319 P **P 07 30 43.7 -0.2**
AKASG Malin Array Be 74.63 319 P **P 07 30 43.4 -0.5**
comp=Z,2.1nm,0.4s,baz=61,slow=6.0,SNR=23
comp=Z,2.1nm,0.4s
AKASG Malin Array Be 74.63 319 *i* P **P 07 30 43.7 -0.2**
AKASG pmax pmax
comp=Z,3.0nm,0.5s
AKBB Malin Array Si 74.63 319 *ceP* **P 07 30 43.7 -0.2**
AKBB pmax pmax
comp=Z,14nm,1.0s
AKBB Malin Array Si 74.63 319 P **P 07 30 43.7 -0.2**
AK01 Malin Array Si 74.64 319 P **P 07 30 43.8 -0.2**
AK10 Malin Array Si 74.64 319 P **P 07 30 43.8 -0.2**
KIEV Kiev 74.64 319 P **P 07 30 43.7 -0.3**
KIEV pmax pmax
comp=Z,10.0nm,0.9s
KIEV Kiev 74.64 319 P **P 07 30 43.7 -0.3**
KIEV IAmb IAmb 07 30 44.9
comp=Z,9.5nm,0.8s
KIEV Kiev 74.64 319 P **P 07 30 43.7 -0.3**
comp=Z,51nm,1.2s
KIEV Kiev 74.64 319 P **P 07 30 43.2 -0.8**
comp=Z,13nm,1.2s
AK02 Malin Array Si 74.65 319 P **P 07 30 43.9 -0.1**
AK04 Malin Array Si 74.66 319 P **P 07 30 43.9 -0.2**
AK05 Malin Array Si 74.67 319 P **P 07 30 44.1 0.0**
AK23 Malin Array Si 74.67 319 P **P 07 30 44.0 -0.2**
AK07 Malin Array Si 74.68 319 P **P 07 30 44.0 -0.2**
AK12 Malin Array Si 74.69 319 P **P 07 30 44.1 -0.2**
AK15 Malin Array Si 74.69 319 P **P 07 30 44.1 -0.2**
AK22 Malin Array Si 74.71 319 P **P 07 30 44.2 -0.2**
AK16 Malin Array Si 74.71 319 P **P 07 30 44.2 -0.2**
F30M Barrier River 74.71 23 IAmb IAmb 07 31 56.4
comp=Z,39nm,1.8s
AK18 Malin Array Si 74.72 319 P **P 07 30 44.2 -0.2**
AK14 Malin Array Si 74.72 319 P **P 07 30 44.3 -0.1**
AK21 Malin Array Si 74.72 319 P **P 07 30 44.3 -0.1**
AK17 Malin Array Si 74.74 319 P **P 07 30 44.3 -0.2**
AK20 Malin Array Si 74.75 319 P **P 07 30 44.4 -0.2**
AK19 Malin Array Si 74.75 319 P **P 07 30 44.4 -0.2**
AK13 Malin Array Si 74.76 319 P **P 07 30 44.4 -0.2**
EPYK Eagle Plains 74.79 24 IAmb IAmb 07 32 17.9
comp=Z,28nm,1.6s
J29N Klondike Camp 74.84 26 IAmb IAmb 07 30 46.7
comp=Z,9.2nm,0.5s
INK Inuvik 75.26 22 LR LR 08 06 28.3
comp=Z,30nm,18.7s,baz=260,slow=38
INK Inuvik 75.26 22 P **P 07 30 46.3 -0.9**
INK pmax pmax
comp=Z,14nm,1.7s
INK Inuvik 75.26 22 P **P 07 30 46.3 -0.9**
KKUL Konya-Kulu 75.30 307 P **P 07 30 49.7 +1.6**
L29M L29M 75.32 28 IAmb IAmb 07 30 49.7
comp=Z,17nm,1.4s
I30M Mount Dempster 75.32 25 IAmb IAmb 07 30 48.7
comp=Z,16nm,1.6s
K29M Barlow Dome 75.33 27 IAmb IAmb 07 30 49.2
comp=Z,16nm,1.4s
F31M Tsiigehtchic 75.51 23 IAmb IAmb 07 31 00.3
comp=Z,43nm,1.9s
SORM Soroca 75.90 316 P **P 07 30 51.1 -0.2**
comp=Z,19nm,1.0s
KIS Kishinev 75.94 315 P **P 07 30 51.3 -0.2**
comp=Z,81nm,0.5s
PABE Paberze 76.24 324 P **P 07 30 53.3 +0.3**
PABE Paberze 76.24 324 P **P 07 30 53.7 +0.7**
comp=Z,50nm,1.0s
RNPP9 Sopachiv 76.44 320 P **P 07 30 54.6 +0.4**
EIL Elat 76.46 297 LR LR 08 07 54.4
comp=Z,58nm,18.9s,baz=88,slow=38
RNPP8 Varash 76.48 320 P **P 07 30 54.7 +0.2**
RNPP5 Staryi Chortor 76.50 320 P **P 07 30 54.8 +0.2**
TIRR Tirgusor 76.97 313 P **P 07 30 57.7 +0.3**
comp=Z,7.7nm,0.8s
KMPD K-Dodol'skiy 76.98 317 P **P 07 30 57.6 +0.3**
SUW Suwalki 77.16 323 *eP* **P 07 30 59.0 +0.8**
TESR Tescani 77.50 315 P **P 07 31 00.6 +0.2**
comp=Z,839nmcomp=Z,22nm,1.2s
TESR Tescani 77.50 315 P **P 07 31 00.2 -0.2**
comp=Z,22nm,1.6s
VRI Vrincioaia 77.66 315 P **P 07 31 01.8 +0.5**
comp=Z,25nm,1.4s
VRI Vrincioaia 77.66 315 P **P 07 31 02.0 +0.8**
comp=Z,25nm,1.4s
C36M Pautuk 77.88 19 IAmb IAmb 07 31 03.3
comp=Z,13nm,1.2s
BURAR Bucovina Array 78.07 317 **P 07 31 04.0 +0.4**
BURAR IAmb IAmb 07 31 06.3
comp=Z,9.3nm,1.0s
BUR08 Bucovina Ar. S 78.07 317 **P 07 31 04.2 +0.5**
BUR08 IAmb IAmb 07 31 05.5
comp=Z,18nm,1.4s
MLR Muntele Rosu 78.30 314 IAmb IAmb 07 31 06.9
comp=Z,14nm,1.2s
MLR Muntele Rosu 78.30 314 P **P 07 31 05.5 +0.5**
comp=Z,10nm,1.5s
MLR Muntele Rosu 78.30 314 P **P 07 31 06.3 +1.3**
comp=Z,10nm,1.2s
KWP Kalwaria Pacla 78.94 319 P **P 07 31 08.9 +0.6**
comp=Z,52nm,1.1s
ARR Arges 79.21 315 P **P 07 31 11.1 +1.2**
comp=Z,13nm,1.1s
HFS Hagfors 79.58 331 P **P 07 31 10.9 -0.6**
comp=Z,2.9nm,0.5s,baz=217,slow=9.3,SNR=12
HFS LR LR 08 09 39.8
comp=Z,162nm,18.5s,baz=62,slow=38
comp=Z,2.9nm,0.5s
TRPA Tarpa 79.58 318 P **P 07 31 12.8 +1.1**
comp=Z,18nm,1.4s
NC405 NORSAR Array S 80.02 332 P **P 07 31 13.9 0.0**
NC303 NORSAR Array S 80.11 333 P **P 07 31 14.3 -0.1**
NB201 NORSAR Array S 80.23 332 P **P 07 31 15.6 +0.6**
NOA NORSAR Array B 80.27 332 P **P 07 31 14.6 -0.7**
comp=Z,2.6nm,0.5s,baz=62,slow=5.4,SNR=12
NOA LR LR 08 10 19.7
comp=Z,120nm,18.4s,baz=55,slow=38
comp=Z,2.6nm,0.5s
OJC Ojcow 80.47 320 *eP* **P 07 31 17.4 +0.8**
OJC Ojcow 80.47 320 P **P 07 31 16.3 -0.2**
OJC Ojcow 80.47 320 **P 07 31 16.3 -0.2**
OJC Ojcow 80.47 320 P **P 07 31 17.2 +0.7**
comp=Z,35nm,1.3s
OJC Ojcow 80.47 320 P **P 07 31 17.5 +1.0**
NIE Niedzica 80.48 319 *eP* **P 07 31 18.1 +1.5**
NIE Niedzica 80.48 319 P **P 07 31 17.2 +0.6**
comp=Z,11nm,1.2s
NEEM North Greenlan 80.73 358 *i* P **P 07 31 17.7 -0.1**
NEEM IAmb IAmb 07 31 18.0
comp=Z,19nm,0.7s
DBG Daneborg 80.82 350 *i* P **P 07 31 17.7 -0.3**
DBG IAmb IAmb 07 31 18.2
comp=Z,8.7nm,0.8s
RES Resolute Bay 80.85 9 LR LR 08 09 06.1
comp=Z,22nm,21.7s,baz=6.0,slow=37
RES Resolute Bay 80.85 9 P **P 07 31 18.1 0.0**
RES pmax pmax
comp=Z,34nm,2.0s
RES Resolute Bay 80.85 9 P **P 07 31 18.1 0.0**
RES IAmb IAmb 07 33 49.1
comp=Z,34nm,1.9s
JMIC Jan Mayen 81.03 345 LR LR 08 12 43.6
comp=Z,26nm,18.2s,baz=327,slow=40
PSZ Piszkesteto 81.31 318 P **P 07 31 22.3 +1.2**
comp=Z,7.5nm,1.3s
VYHS Vyhne 81.73 319 *eP* **P 07 31 24.7 +1.4**
VYHS pmax pmax
comp=Z,15nm,1.1s
VYHS Vyhne 81.73 319 *eP* **P 07 31 24.7 +1.4**
VYHS Vyhne 81.73 319 P **P 07 31 25.0 +1.7**
MORC Moravsky Berou 81.99 321 *eP* **P 07 31 25.2 +0.6**
MORC Moravsky Berou 81.99 321 P **P 07 31 26.0 +1.4**
comp=Z,8.9nm,1.3s
KSP Ksiaz 82.27 322 *eP* **P 07 31 27.3 +1.3**
JAVC Velka Javorina 82.29 320 *eP* **P 07 31 28.1 +1.9**
JAVC Velka Javorina 82.29 320 P **P 07 31 27.9 +1.6**
GRG Griva 82.33 311 P **P 07 31 26.5 -0.1**
DPC Dobruska-Polom 82.46 321 P **P 07 31 27.6 +0.5**
comp=Z,6.9nm,1.5s
MODS Modra-Piesok 82.73 319 *eP* **P 07 31 30.1 +1.6**
MODS pmax pmax
comp=Z,51nm,1.8s
MODS Modra-Piesok 82.73 319 *eP* **P 07 31 30.1 +1.6**
VRAC Vranov 82.74 320 LR LR 08 11 21.9
comp=Z,74nm,20.3s,baz=62,slow=38
VRAC Vranov 82.74 320 *eP* **P 07 31 29.5 +1.0**
VRAC Vranov 82.74 320 P **P 07 31 28.9 +0.4**
MORH Mrgy, Hungar 82.77 317 P **P 07 31 29.4 +0.7**
comp=Z,8.3nm,1.7s
MORH Mrgy, Hungar 82.77 317 P **P 07 31 29.9 +1.2**
comp=Z,9.3nm,1.7s
KRUC Moravsky 82.97 320 *eP* **P 07 31 30.3 +0.6**
MPLH Magyarpolny 83.07 318 P **P 07 31 30.9 +0.7**
comp=Z,44nm,1.4s
MPLH Magyarpolny 83.07 318 P **P 07 31 31.5 +1.3**
comp=Z,17nm,1.4s
PVCC Panska Ves 83.39 322 P **P 07 31 31.8 -0.1**
TREC Trest 83.40 321 P **P 07 31 33.4 +1.5**
WINA Alland / Wiene 83.57 319 *i* PcP **P 07 31 34.0 +1.2**
comp=Z,21nm,1.5s
RONA Rosalia, Austr 83.61 319 *eP* **P 07 31 33.5 +0.4**
comp=Z,5.2nm,1.1s
PRU Pruhonice 83.65 322 P **P 07 31 33.6 +0.5**
ABNA Allensteig Bun 83.71 320 *i* PcP **P 07 31 34.5 +1.0**
comp=Z,11nm,0.9s
CONA Conrad Observa 83.78 319 *i* PcP **P 07 31 34.9 +1.0**
comp=Z,16nm,1.3s
CLL Collm 83.92 323 *eP* **P 07 31 35.0 +0.6**
CLL *e**PP **pP 07 31 53.0 -0.3**
CLL Collm 83.92 323 P **P 07 31 35.1 +0.6**
CLL Collm 83.92 323 *eP* **P 07 31 35.0 +0.6**
CLL *e*pP **pP 07 31 53.0 -0.3**
CLL LV 08 03 00.0
CLL AMS AMS 08 13 00.0
comp=Z,200nm,17.1s
ITM Ithomi 84.12 308 IAmb IAmb 07 31 35.6
comp=Z,12nm,0.8s
ITM Ithomi 84.12 308 P **P 07 31 35.1 -0.7**
comp=Z,18nm,1.2s
ARSA Arzberg 84.28 319 *i* PcP **P 07 31 36.8 +0.4**
comp=Z,7.8nm,1.2s
KHC Kasperske Hory 84.59 321 *eP* **P 07 31 38.7 +0.7**
KHC *i* *PP **pP 07 31 56.5 -0.3**
KHC pmax pmax
comp=Z,5.0nm,1.2s
KHC Kasperske Hory 84.59 321 P **P 07 31 38.6 +0.6**
GEC2 GERESS Array S 84.65 321 IAmb IAmb 07 31 39.5
comp=Z,6.7nm,1.0s
GERES GERESS Array B 84.65 321 P **P 07 31 38.5 0.0**
comp=Z,1.9nm,0.6s,baz=72,slow=4.3,SNR=17
GERES LR LR 08 11 03.9
comp=Z,76nm,18.9s,baz=14,slow=37
comp=Z,1.9nm,0.6s
SUMG Summit 84.74 354 P **P 07 31 38.5 -0.3**
SUMG pmax pmax
comp=Z,48nm,1.6s
SUMG Summit 84.74 354 **P 07 31 38.5 -0.3**
SUMG Summit 84.74 354 *i* P **P 07 31 38.6 -0.3**
SUMG IAmb IAmb 07 31 40.5
comp=Z,9.9nm,0.6s
MOA Molln 84.77 320 *i* PcP **P 07 31 39.2 +0.2**
comp=Z,9.8nm,1.1s
SOKA Soboth 84.83 318 *e*PcP **P 07 31 39.4 +0.1**
comp=Z,7.4nm,1.1s
SESA Seetaler Alpe, 84.92 319 *i* PcP **P 07 31 40.6 +0.6**
comp=Z,16nm,1.0s
YKAW3 Yellowknife Wh 84.94 23 P **P 07 31 38.8 -0.7**
YKA Yellowknife Ar 84.99 23 P **P 07 31 38.6 -1.0**
comp=Z,2.3nm,0.5s,baz=309,slow=5.0,SNR=37
comp=Z,2.3nm,0.5s
YKAW1 Yellowknife Wh 85.04 23 P **P 07 31 39.5 -0.4**
OBKA Obir 85.21 318 *i* P **P 07 31 41.0 -0.2**
comp=Z,3.4nm,0.9s
KBA Koelnbreinsper 85.68 319 *i* PcP **P 07 31 43.5 -0.2**
comp=Z,7.6nm,1.6s
LESA Schwarzleotal 85.92 320 *i* PcP **P 07 31 44.7 0.0**
comp=Z,2.1nm,0.5s
ABTA Abfaltersbach 86.34 319 *i* PcP **P 07 31 47.0 +0.2**
comp=Z,5.3nm,0.8s
WTTA Wattenberg 86.62 320 *i* PcP **P 07 31 48.1 -0.2**
comp=Z,4.0nm,0.6s
ILON Igloolik, Nuna 87.44 8 P **P 07 31 51.0 -0.6**
DAVA Damuels 87.65 321 *i* PcP **P 07 31 52.9 -0.4**
comp=Z,2.8nm,0.6s
FUORN Ofenpass-Fuorn 87.76 320 P **P 07 31 54.2 +0.3**
DAVOX Davos/Dischmat 87.91 320 LR LR 08 15 27.6
comp=Z,106nm,20.6s,baz=81,slow=38
BORG Borgarnes 88.92 345 LR LR 08 14 35.4
comp=Z,45nm,21.5s,baz=349,slow=37
BMRD Maredsous 88.92 325 *dP* **P 07 31 58.8 -0.2**
EKA Eskdalemuir Ar 89.75 332 LR LR 08 15 05.8
comp=Z,172nm,19.4s,baz=7.5,slow=37
EDM Edmonton 91.50 29 P **P 07 32 10.5 -0.5**
EDM pmax pmax
comp=Z,21nm,1.5s
EDM Edmonton 91.50 29 P **P 07 32 10.5 -0.5**
FRB Frobisher Bay 94.25 4 LR LR 08 17 59.6
comp=Z,21nm,19.1s,baz=308,slow=37
TXAR Lajitas Array 113.10 42 PKiKP **PKiKP 07 37 40.1 -2.2**
comp=Z,0.2nm,0.6s,baz=196,slow=2.0,SNR=6.7
URIC Uribia, Colomb 144.11 23 PKPdf **PKPab 07 38 38.7 +0.2**
SJCC San Jacinto, C 144.47 29 PKPdf **PKPab 07 38 39.6 -0.3**
GRGR Grenville 146.02 5 PKPdf **PKPdf 07 38 43.2 -0.9**

AUST 16 07:30:39.2±0.7, 18°S±5°×12°0E±°, h10km, mb3.8/3, ML3.1/5, Error ellipse: s-maj=12.1km s-min=6.2km az=150.2, confirmed, Western Australia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CAAN	**Eighty Mile Be**	**1.71**	**132**	P	Pn	07 31 09.7	+0.6
CAAN				S	Sb	07 31 33.0	+0.6
CAAN				AML	AML		
CAAN	**Eighty Mile Be**	**1.71**	**132**	P	Pn	07 31 09.8	+0.7
CAAN				S	Sn	07 31 31.6	+0.5
CAAN				AML	AML		
AUBRM	**Broome Senior**	**1.96**	**86**	P	Pn	07 31 13.4	+0.8
AUBRM				S	Sn	07 31 37.1	-0.2
AUBRM				AML	AML		
AUBRM	**Broome Senior**	**1.96**	**86**	P	Pn	07 31 13.2	+0.6
AUBRM				S	Sn	07 31 38.1	+0.8
AUBRM				AML	AML		
MBWA	**Marble Bar**	**3.06**	**188**	P	Pn	07 31 27.1	-0.6
MBWA				S	Sn	07 32 03.6	-0.9
MBWA				AML	AML		
MBWA	**Marble Bar**	**3.06**	**188**	P	Pn	07 31 27.6	-0.2
MBWA				S	Sn	07 32 03.1	-1.4
MBWA				AML	AML		
FITZ	**Fitzroy Crossi**	**5.20**	**91**	P	Pn	07 31 55.7	-1.4
FITZ	**Fitzroy Crossi**	**5.20**	**91**	P	Pn	07 31 55.2	-1.8
GIRL	**Giralia**	**7.17**	**230**	P	Pn	07 32 25.2	+1.0
comp=Z,34nm,1.7s,comp=Z,0.1nm							
GIRL				AML	AML		
MEEK	**Meekatharra**	**8.61**	**189**	P	Pn	07 32 44.5	+0.5
comp=Z,0.1nmcomp=Z,13nm,2.4s							
MEEK				AML	AML		
MEEK	**Meekatharra**	**8.61**	**189**	P	Pn	07 32 44.1	+0.1
comp=Z,13nm,2.4s,comp=Z,0.1nm							
MEEK				AML	AML		
WRKA	**Warakurna**	**10.23**	**134**	P	Pn	07 33 06.2	0.0
comp=Z,3.2nm,2.1s,comp=Z,0.0nm							
WRKA				AML	AML		
MORW	**Morawa**	**11.55**	**198**	P	Pn	07 33 23.1	-1.1
comp=Z,13nm,2.9s							

NEIC **16** *07:50:51.9±1.2, 15°90S±0.07×173°65W±0.07, h10km±1km,*

mb4.9/233, Error ellipse: s-maj=13.1km s-min=10.5km az=152.0
*NOU **16** 07:50:55.1, 15°.88S×173°.01W, h0km, mb5.0/7, Tonga Islands*
*IDC **16** 07:50:57.2±2.1, 15°.87S×173°.69W, h40km±19km, mb4.3/13, mbtmp4.5/16, ML4.1/3, MS3.8/42, Error ellipse: s-maj=19.8km s-min=12.2km az=133.0*
ISC 16 07:50:51.4±0.3, 15°.93S±0'.06×173°.57W±0'.05, h10km, n353, σ1§29/249, mb4.8/121, MS3.9/39, 44C-8D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**2.65**	**41**	Pn	**Pn**	**07 51 33.8**	**-0.5**
	175nm,0.3s,baz=224,slow=2.8,SNR=178						
AFI				Sn	**Sn**	**07 51 59.7**	**-6.9**
	959nm,0.3s,baz=64,slow=21,SNR=16						
AFI				LR	LR	07 52 35.0	
	comp=Z,1μm,21.4s,baz=278,slow=36 1μm,0.5s						
AFI				AML	AML		
FUTU	**Fugatoga**	**4.68**	**290**	P	**Pb**	**07 52 13.1**	**-0.5**
FUTU	**Fugatoga**	**4.68**	**290**	Pn	**Pn**	**07 52 00.2**	**-2.0**
NIUE	**Niue**	**4.68**	**133**		**Pn**	**07 52 01.8**	**-0.4**
LKBA	**Tubou, Lakemba**	**5.51**	**245**	P	**Pb**	**07 52 24.2**	**-3.6**
TAVE	**Taveuni**	**6.13**	**262**	P	**Pb**	**07 52 34.9**	**-3.4**
DGTI	**Dogotuki**	**6.44**	**266**	P	Pb	07 52 38.7	-5.0
MSVF	**Nonsavu**	**8.22**	**256**	Pn	Pb	07 53 04.2	-10
	0.8nm,0.3s,baz=106,slow=10,SNR=24						
MSVF				LR	LR	07 55 45.7	
	comp=Z,992nm,20.8s,baz=78,slow=36						
MSVF	**Nonsavu**	**8.22**	**256**	P	Pb	07 53 03.5	-10
MSVF	**Nonsavu**	**8.22**	**256**	Pn	**Pn**	**07 52 49.4**	**-1.5**
RAO	**Raoul Island**	**13.85**	**196**	Pn	**Pn**	**07 54 08.5**	**+0.6**
RAR	**Rarotonga**	**14.10**	**114**	Pn	**Pn**	**07 54 09.0**	**-2.3**
	1.6nm,0.3s,baz=260,slow=10,SNR=6.1						
RAR				LR	LR	07 58 11.2	
	comp=Z,215nm,20.8s,baz=263,slow=30 8.0nm,0.4s						
RAR				AML	AML		
RAR	**Rarotonga**	**14.10**	**114**		**Pn**	**07 54 13.2**	**+1.9**
MARNC	**Mare, Loyalty**	**18.27**	**250**	P	**Pn**	**07 55 04.5**	**-0.8**
MARNC				IAmb	IAmb	07 55 14.3	
	comp=Z,186nm,1.5s						
SANVU	**Saraoutou**	**18.52**	**269**	P	**P**	**07 55 07.5**	**-0.6**
PINNC	**Pines Island,**	**19.10**	**247**	P	**P**	**07 55 13.1**	**-1.4**
OUENC	**Ouen Island, N**	**19.58**	**248**	P	**P**	**07 55 18.7**	**-1.1**
DZM	**Mont Dzumac**	**19.85**	**249**	P	**P**	**07 55 22.4**	**-0.4**
	comp=Z,0.7nm,0.3s,baz=88,slow=18,SNR=9.9 comp=Z,6.6nm,0.9s						
DZM				AML	AML		
ONTNC	**Ouen Toro**	**19.90**	**248**	P	**P**	**07 55 21.9**	**-1.3**
NOUC	**Port Laguerre**	**19.98**	**249**	P	Pn	07 55 34.3	+8.4
KOUNC	**Koumac, New Ca**	**21.52**	**254**	P	**P**	**07 55 39.3**	**-1.5**
KOUNC				IAmb	IAmb	07 55 40.1	
	comp=Z,66nm,1.2s						
PPT	**Papeete**	**23.04**	**97**	LR	LR	08 02 27.1	
	comp=Z,96nm,20.6s,baz=248,slow=30						
PPT2	**Papeete2**	**23.04**	**98**	*e*S	**S**	**08 00 00.5**	**-7.6**
	comp=Z,510nm,27.8s						
PPT2				*e*LR	LR	08 01 25.0	
	comp=Z,238nm,23.0s						
PPT2				*e*LR	LR	08 01 25.0	
	comp=Z,220nm,24.0s						
URZ	**Urewera**	**23.71**	**198**	LR	LR	08 04 35.1	
	comp=Z,225nm,18.2s,baz=16,slow=34						
TBI	**Tubuai**	**23.86**	**112**	*e*S	**S**	**08 00 14.7**	**-6.6**
	comp=Z,2μm,34.2s						
TBI				*e*LR	LR	08 01 54.9	
	comp=Z,1μm,23.0s						
HNR	**Honiara**	**26.61**	**281**	LR	LR	08 05 43.1	
	comp=Z,420nm,20.6s,baz=200,slow=33						
RPZ	**Rata Peaks**	**30.63**	**202**	LR	LR	08 09 13.8	
	comp=Z,54nm,18.7s,baz=33,slow=36						
TAOE	**Nuku Hiva Isla**	**33.36**	**82**	*e*LR	LR	08 06 01.9	
	comp=Z,195nm,25.8s						
EIDS	**Eidsvold**	**34.29**	**248**	P	**P**	**07 57 37.9**	**-0.3**
ARMA	**Armidale**	**34.93**	**239**	P	**P**	**07 57 42.9**	**-0.8**
KRVT	**Keravat (AS076**	**35.71**	**285**	LR	LR	08 11 17.2	
	comp=Z,686nm,20.6s,baz=121,slow=34						
CTA	**Charters Tower**	**38.37**	**258**	LR	LR	08 12 13.3	
	comp=Z,130nm,19.6s,baz=57,slow=33						
CTAO	**Charters Tower**	**38.37**	**258**	P	**P**	**07 58 10.8**	**-2.2**
CAN	**Canberra**	**38.58**	**233**	P	**P**	**07 58 13.7**	**-1.1**
PMG	**Port Moresby**	**38.81**	**275**	LR	LR	08 12 06.5	
	comp=Z,118nm,20.6s,baz=26,slow=33						
PMG	**Port Moresby**	**38.81**	**275**	P	**P**	**07 58 15.3**	**-1.5**
PMG				IAmb	IAmb	07 58 42.4	
	comp=Z,23nm,1.1s						
H11N3	**WAKE ISLAND Hy**	**40.28**	**331**	T	T	08 41 25.6	
	baz=150,slow=76,SNR=26						
H11N1	**WAKE ISLAND Hy**	**40.29**	**331**	T	T	08 41 19.2	
	baz=150,slow=76,SNR=26						
H11N2	**WAKE ISLAND Hy**	**40.30**	**331**	T	T	08 41 29.8	
	baz=150,slow=76,SNR=25						
MANU	**Manus Island**	**40.87**	**286**	P	**P**	**07 58 32.9**	**-1.0**
MANU				IAmb	IAmb	07 58 48.1	
	comp=Z,54nm,1.8s						
TOO	**Toolangi**	**42.01**	**231**	P	**P**	**07 58 42.7**	**-0.3**
TOO				IAmb	IAmb	07 59 03.5	
	comp=Z,36nm,1.8s						
STKA	**Stephens Creek**	**43.63**	**240**	P	**P**	**07 58 57.1**	**+0.8**
	comp=Z,7.6nm,0.9s,baz=71,slow=9.3,SNR=9.6						
STKA				LR	LR	08 15 02.2	
	comp=Z,52nm,20.1s,baz=28,slow=33 comp=Z,7.6nm,0.9s						
STKA	**Stephens Creek**	**43.63**	**240**	P	**P**	**07 58 55.2**	**-1.1**
INKA	**Innaminka**	**43.78**	**246**	P	**P**	**07 58 56.7**	**-0.8**
JAY	**Jayapura**	**46.93**	**282**	LR	LR	08 17 56.8	
	comp=Z,54nm,20.8s,baz=186,slow=35						
BBOO	**Buckleboo**	**48.41**	**240**	P	**P**	**07 59 34.0**	**0.0**
WR8	**Warramunga Arr**	**49.41**	**257**		**P**	**07 59 40.4**	**-1.4**
WRA	**Warramunga Arr**	**49.56**	**257**	P	**P**	**07 59 43.8**	**+0.8**
	comp=Z,4.5nm,0.8s,baz=92,slow=7.3,SNR=19						
WRA				PcP	**PcP**	**08 01 06.0**	**+1.2**
	comp=Z,0.6nm,0.5s,baz=93,slow=3.1,SNR=2.0 comp=Z,4.5nm,0.8s						
WRA	**Warramunga Arr**	**49.56**	**257**		**P**	**07 59 42.2**	**-0.8**
AS31	**Alice Springs**	**49.79**	**252**		**P**	**07 59 43.6**	**-1.2**
ASAR	**Alice Springs**	**49.79**	**252**	P	**P**	**07 59 45.6**	**+0.8**
	comp=Z,6.5nm,0.4s,baz=89,slow=7.8,SNR=78						
ASAR				PcP	**PcP**	**08 01 06.5**	**+0.9**
	comp=Z,0.7nm,0.7s,baz=98,slow=3.9,SNR=0.7						
ASAR				LR	LR	08 19 34.9	
	comp=Z,207nm,20.1s,baz=102,slow=35 comp=Z,6.5nm,0.4s						
ASAR	**Alice Springs**	**49.79**	**252**		**P**	**07 59 44.1**	**-0.7**
GUMO	**Guam**	**50.48**	**303**	LR	LR	08 18 14.9	
	comp=Z,31nm,20.9s,baz=104,slow=32						
MTN	**Manton Dam**	**53.52**	**266**	P	**P**	**08 00 11.2**	**-1.6**
FORT	**Forrest**	**55.03**	**243**	P	**P**	**08 00 22.5**	**-1.0**
FORT				IAmb	IAmb	08 01 21.6	
	comp=Z,9.7nm,1.1s						
KNRA	**Kununurra**	**55.32**	**262**	P	**P**	**08 00 25.3**	**-0.5**
SIJI	**Sorong**	**56.38**	**280**	LR	LR	08 23 50.8	
	comp=Z,84nm,21.0s,baz=98,slow=35						
FITZ	**Fitzroy Crossi**	**57.94**	**258**	LR	LR	08 23 40.7	
	comp=Z,142nm,19.6s,baz=140,slow=34						
FITZ	**Fitzroy Crossi**	**57.94**	**258**		**P**	**08 00 43.1**	**-1.3**
SBA	**Scott Base**	**62.72**	**185**	P	**P**	**08 01 17.3**	**+1.2**
SBA				IAmb	IAmb	08 01 20.6	
	comp=Z,8.7nm,0.8s						
VNDA	**Vanda**	**62.84**	**186**	P	**P**	**08 01 19.4**	**+2.5**
	comp=Z,1.9nm,0.7s,baz=4.7,slow=6.3,SNR=14 comp=Z,1.9nm,0.7s						
VNDA	**Vanda**	**62.84**	**186**	P	**P**	**08 01 17.9**	**+0.9**
VNDA				IAmb	IAmb	08 01 35.8	
	comp=Z,7.0nm,1.3s						
DAV	**Davao City (W)**	**64.42**	**286**	LR	LR	08 28 13.1	
	comp=Z,36nm,18.6s,baz=265,slow=35						
MORW	**Morawa**	**65.51**	**245**	P	**P**	**08 01 34.6**	**-0.8**
KAPI	**Kappang**	**66.22**	**272**	LR	LR	08 29 31.3	
	comp=Z,33nm,18.1s,baz=82,slow=35						
SHEM	**Shemya Is, Ala**	**69.20**	**352**	LR	LR	08 27 09.0	
	comp=Z,100nm,21.1s,baz=146,slow=31						
MJAR	**Matsushiro Arr**	**69.23**	**320**	LR	LR	08 26 02.2	
	comp=Z,51nm,21.9s,baz=138,slow=30						
MJAR	**Matsushiro Arr**	**69.23**	**320**	P	**P**	**08 01 58.4**	**-0.3**
MJAR				IAmb	IAmb	08 02 35.7	
	comp=Z,13nm,1.8s						
CNBA	**Chernabura Isl**	**71.46**	**8**	P	**P**	**08 02 11.6**	**-0.3**
HULI	**Fort Hunter Li**	**71.53**	**43**	P	**P**	**08 02 13.3**	**+0.6**
JRSC	**Jasper Ridge**	**71.72**	**41**	P	**P**	**08 02 13.8**	**0.0**
SAO	**San Andreas Ge**	**71.83**	**42**	P	**P**	**08 02 15.3**	**+0.7**
SAO				IAmb	IAmb	08 02 17.7	
	comp=Z,15nm,1.0s						
SDPT	**Sand Point**	**71.86**	**8**	P	**P**	**08 02 14.1**	**-0.1**
KMRM	**Mail Ridge**	**72.58**	**38**	P	**P**	**08 02 19.3**	**+0.3**
MWC	**Mount Wilson**	**72.62**	**46**	P	**P**	**08 02 20.4**	**+0.8**
MWC				IAmb	IAmb	08 02 21.8	
	comp=Z,7.3nm,0.8s						
VTX	**Valle De La Tr**	**72.71**	**49**	P	**P**	**08 02 20.4**	**+0.4**
VTX				IAmb	IAmb	08 04 20.0	
	comp=Z,17nm,1.3s						
DPP	**Dos Picos Cty**	**72.73**	**47**	P	**P**	**08 02 20.5**	**+0.5**
ELS	**Elsinore Mount**	**72.74**	**47**	P	**P**	**08 02 21.0**	**+0.9**
VES	**Vestal, Richgr**	**72.84**	**44**	P	**P**	**08 02 20.3**	**-0.2**
BFSC	**Mount Baldy Ra**	**72.91**	**46**	P	**P**	**08 02 21.5**	**+0.4**
ESJX	**Sierra Juarez**	**72.91**	**49**	P	**P**	**08 02 21.3**	**-0.1**
ESJX				IAmb	IAmb	08 02 24.1	
	comp=Z,6.8nm,0.9s						
KARE	**Kearney REC, C**	**73.00**	**43**	P	**P**	**08 02 21.8**	**+0.3**
CHGN	**Chignik**	**73.07**	**9**	P	**P**	**08 02 21.5**	**+0.1**
PEA0B	**Petropavlovsk-**	**73.08**	**342**	P	**P**	**08 02 22.1**	**+0.5**
PETK	**Petropavlovsk-**	**73.08**	**342**	P	**P**	**08 02 22.9**	**+1.3**
	comp=Z,3.1nm,0.8s,baz=101,slow=9.0,SNR=4.6 comp=Z,3.1nm,0.8s						
PETK	**Petropavlovsk-**	**73.08**	**342**	P	**P**	**08 02 21.6**	**0.0**
O02D	**Mt. Diablo Mer**	**73.09**	**38**	P	**P**	**08 02 22.2**	**+0.1**
KHBM	**Hayfork Bally**	**73.14**	**38**	P	**P**	**08 02 22.5**	**0.0**
ISA	**Isabella, Lake**	**73.14**	**44**	P	**P**	**08 02 22.4**	**-0.1**
ISA				IAmb	IAmb	08 02 25.4	
	comp=Z,11nm,1.2s						
CMB	**Columbia Colle**	**73.27**	**41**		**P**	**08 02 23.6**	**+0.5**
YUH	**Yuha Desert**	**73.27**	**48**	P	**P**	**08 02 23.4**	**+0.2**
PFO	**Pinyon Flats O**	**73.40**	**47**	LR	LR	08 26 23.7	
	comp=Z,109nm,20.1s,baz=254,slow=29						
PFO	**Pinyon Flats O**	**73.40**	**47**		**P**	**08 02 23.3**	**-0.8**
AFDM	**Forest Hills D**	**73.45**	**40**		**P**	**08 02 25.1**	**+0.9**
LPIG	**La Paz**	**73.45**	**58**	LR	LR	08 26 11.5	
	comp=Z,84nm,20.1s,baz=239,slow=29						
ORV	**Oroville**	**73.49**	**39**	P	**P**	**08 02 24.1**	**-0.3**
ORV				IAmb	IAmb	08 02 27.0	
	comp=Z,11nm,1.2s						
LRMC	**Laurel Mtn Rad**	**73.58**	**45**	P	**P**	**08 02 24.9**	**-0.2**
CCCA	**Chr Cany lake**	**73.82**	**45**	P	**P**	**08 02 26.4**	**-0.1**
CCCA				IAmb	IAmb	08 02 29.2	
	comp=Z,14nm,1.1s						
CLC	**China Lake**	**73.82**	**45**	P	**P**	**08 02 25.5**	**-0.9**
CWC	**Cottonwood Cre**	**73.85**	**44**		**P**	**08 02 25.7**	**-1.1**
MDPB	**Devils Postpil**	**73.87**	**42**	P	**P**	**08 02 27.6**	**+0.7**
BELC	**Belle Mtn. Jos**	**73.93**	**47**	P	**P**	**08 02 26.7**	**-0.6**
MPMC	**Manual Prospec**	**74.03**	**44**	P	**P**	**08 02 27.0**	**-0.9**
MPMC				IAmb	IAmb	08 02 30.1	
	comp=Z,7.7nm,0.9s						
GSC	**Goldstone, Bar**	**74.08**	**45**	P	**P**	**08 02 28.2**	**+0.2**
YBH	**Yreka Blue Hor**	**74.12**	**37**	LR	LR	08 26 15.1	
	comp=Z,126nm,20.8s,baz=234,slow=29						
YBH	**Yreka Blue Hor**	**74.12**	**37**	P	**P**	**08 02 28.6**	**+0.5**
YBH				IAmb	IAmb	08 02 31.5	
	comp=Z,14nm,0.9s						
QSPA	**South Pole Qui**	**74.12**	**180**	P	**P**	**08 02 29.7**	**+1.8**
	comp=Z,5.5nm,0.9s,baz=91,slow=1.8,SNR=19 comp=Z,5.5nm,0.9s						
QSPA	**South Pole Qui**	**74.12**	**180**		**P**	**08 02 28.1**	**+0.3**
QSPA				IAmb	IAmb	08 02 35.4	
	comp=Z,8.5nm,1.1s						
BC3	**Big Chuckawall**	**74.13**	**47**		**P**	**08 02 28.4**	**0.0**
WAKR	**Walker**	**74.15**	**41**		**P**	**08 02 28.4**	**0.0**
M03C	**McCloud**	**74.17**	**38**		**P**	**08 02 27.8**	**-0.7**
MPK	**Martis Peak**	**74.24**	**40**	P	**P**	**08 02 28.9**	**-0.2**
MPK				IAmb	IAmb	08 02 32.6	
	comp=Z,18nm,1.2s						
BEKR	**Beckworth**	**74.38**	**40**		**P**	**08 02 30.2**	**+0.5**
BEKR				IAmb	IAmb	08 02 32.5	
	comp=Z,7.6nm,1.0s						
PNTR	**Pine Nut**	**74.39**	**41**		**P**	**08 02 29.1**	**-0.8**
PNTR				IAmb	IAmb	08 02 32.8	
	comp=Z,11nm,1.0s						
LHV	**Little Huntoon**	**74.60**	**42**	P	**P**	**08 02 31.1**	**+0.3**
IRM	**Iron Mountain**	**74.61**	**47**		**P**	**08 02 31.6**	**+0.5**
IRM				IAmb	IAmb	08 02 33.8	
	comp=Z,8.4nm,1.1s						
GWY	**Greenwater Val**	**74.65**	**45**	P	**P**	**08 02 31.2**	**-0.3**
FURC	**Furnace Creek,**	**74.67**	**44**	P	**P**	**08 02 30.7**	**-0.6**
FURC				IAmb	IAmb	08 02 34.0	
	comp=Z,6.5nm,0.7s						
SHOC	**Shoshone, Teco**	**74.76**	**45**	P	**P**	**08 02 32.3**	**+0.4**
SHOC				IAmb	IAmb	08 02 34.3	
	comp=Z,8.0nm,0.9s						
NVAR	**Mina Array Bea**	**74.83**	**42**	P	**P**	**08 02 34.5**	**+2.0**
	comp=Z,3.8nm,0.8s,baz=227,slow=10,SNR=37						
NVAR				LR	LR	08 28 12.8	
	comp=Z,133nm,20.0s,baz=199,slow=30 comp=Z,3.8nm,0.8s						
NVAR	**Mina Array Bea**	**74.83**	**42**	P	**P**	**08 02 32.5**	**0.0**
BLYC	**Blythe**	**74.84**	**48**		**P**	**08 02 32.2**	**-0.2**
GMN	**Gold Mountain**	**74.87**	**43**	P	**P**	**08 02 32.3**	**-0.4**
GMN				IAmb	IAmb	08 02 35.3	
	comp=Z,6.5nm,0.7s						
113A	**Mohawk Valley,**	**74.89**	**49**		**P**	**08 02 32.0**	**-0.6**
MZP	**Montezuma Peak**	**75.02**	**43**	P	**P**	**08 02 33.8**	**+0.2**
TPH	**Tonopah**	**75.33**	**43**	P	**P**	**08 02 35.2**	**-0.2**
TPH				IAmb	IAmb	08 02 38.1	
	comp=Z,9.4nm,0.9s						
TPNV	**Topopah Spring**	**75.35**	**44**		**P**	**08 02 36.0**	**+0.5**
KDAK	**Kodiak Island**	**75.47**	**11**	LR	LR	08 27 39.5	
	comp=Z,107nm,20.0s,baz=207,slow=29						
MOD	**Modoc Plateau**	**75.64**	**38**	IAmb	IAmb	08 02 39.8	
	comp=Z,12nm,0.9s						
KSRS	**Korea Array**	**76.42**	**316**	LR	LR	08 31 22.8	
	comp=Z,22nm,20.9s,baz=100,slow=32						
TUC	**Tucson**	**76.85**	**51**		**P**	**08 02 44.5**	**+0.5**
WVOR	**Wild Horse Val**	**76.95**	**38**	P	**P**	**08 02 45.2**	**+0.9**
WVOR				IAmb	IAmb	08 02 47.2	
	comp=Z,9.8nm,1.0s						
X16A	**Lo Mia Camp, P**	**77.39**	**48**	IAmb	IAmb	08 02 50.1	
	comp=Z,7.0nm,0.8s						
J08A	**Circle Bar Ran**	**77.59**	**38**	IAmb	IAmb	08 02 50.6	
	comp=Z,14nm,1.2s						
CCUT	**Cedar City**	**77.62**	**45**		**P**	**08 02 48.2**	**-0.2**
USRK	**Ussuriysk Ar.**	**77.70**	**323**	LR	LR	08 29 49.3	
	comp=Z,54nm,20.8s,baz=163,slow=30						
KNB	**Kanab**	**77.72**	**46**	P	**P**	**08 02 48.9**	**+0.1**
U15A	**North Rim**	**77.78**	**46**	IAmb	IAmb	08 02 52.5	
	comp=Z,13nm,1.2s						
PSUT	**Pine Spring**	**77.80**	**44**		**P**	**08 02 48.8**	**-0.6**
SZCU	**Shurtz Canyon**	**77.83**	**45**	IAmb	IAmb	08 02 52.6	
	comp=Z,8.4nm,1.2s						
WUAZ	**Wupatki**	**77.97**	**48**		**P**	**08 02 50.2**	**-0.1**
WUAZ				IAmb	IAmb	08 02 53.6	
	comp=Z,26nm,1.8s						
ELK	**Elko**	**78.09**	**41**	LR	LR	08 29 29.4	
	comp=Z,108nm,21.1s,baz=268,slow=30						
ELK	**Elko**	**78.09**	**41**		**P**	**08 02 51.2**	**+0.3**
DUN6	**Lazy B Ranch**	**78.23**	**51**	P	**P**	**08 02 51.8**	**+0.1**
PKCU	**Pink Cliffs**	**78.28**	**45**	P	**P**	**08 02 52.2**	**0.0**
PKCU				IAmb	IAmb	08 02 56.0	
	comp=Z,19nm,1.3s						
BBB	**Bella Bella**	**78.43**	**27**	LR	LR	08 29 44.8	
	comp=Z,65nm,21.3s,baz=241,slow=30						
G08A	**Pilot Rock**	**78.46**	**36**	P	**P**	**08 02 52.6**	**-0.1**
G08A				IAmb	IAmb	08 02 55.4	
	comp=Z,16nm,1.4s						
L18K	**Granite Mounta**	**79.02**	**8**	IAmb	IAmb	08 02 58.9	
	comp=Z,7.3nm,0.7s						
STLK	**Strandline Lak**	**79.08**	**10**	IAmb	IAmb	08 02 57.1	
	comp=Z,7.1nm,0.8s						
SUA	**Susitna One**	**79.25**	**11**	IAmb	IAmb	08 02 58.5	
	comp=Z,14nm,0.8s						
DUG	**Dugway, Tooele**	**79.36**	**43**	IAmb	IAmb	08 03 00.3	
	comp=Z,21nm,1.8s						
HMU	**Henry Mountain**	**79.61**	**46**	P	**P**	**08 02 59.6**	**+0.2**
GHO	**Glory Hole Cre**	**79.87**	**12**	IAmb	IAmb	08 03 02.9	
	comp=Z,9.6nm,0.7s						
DIV	**Divide**	**79.94**	**13**	IAmb	IAmb	08 03 02.1	
	comp=Z,11nm,0.8s						
BMRM	**Bremner River**	**80.06**	**14**	IAmb	IAmb	08 03 02.9	
	comp=Z,11nm,0.8s						
J18K	**Innoko River**	**80.22**	**8**	IAmb	IAmb	08 03 04.8	
	comp=Z,9.4nm,0.9s						
NJ2	**Nanjing**	**80.35**	**307**	*e*P	**P**	**08 03 05.3**	**+2.1**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
LENM	**Lemitar**	**80.54**	**50**	P	**P**	**08 03 04.3**	**-0.1**
VHRN	**Van Horn**	**80.60**	**54**	IAmb	IAmb	08 03 07.3	
	comp=Z,7.6nm,0.7s						
TCUT	**Toone Canyon**	**80.75**	**43**	IAmb	IAmb	08 03 08.1	
	comp=Z,9.9nm,0.9s						
PV05	**Paradox Valley**	**80.81**	**46**	IAmb	IAmb	08 03 09.0	
	comp=Z,15nm,0.9s						
CAST	**Castle Rocks**	**80.84**	**10**	IAmb	IAmb	08 04 25.4	
	comp=Z,27nm,1.9s						
PV10	**Paradox Valley**	**80.99**	**46**	IAmb	IAmb	08 03 09.1	
	comp=Z,12nm,0.9s						
PV14	**Lion Creek, Pa**	**81.00**	**46**	IAmb	IAmb	08 03 09.3	
	comp=Z,12nm,0.9s						
PV17	**East Wray Mesa**	**81.00**	**46**	IAmb	IAmb	08 03 08.9	
	comp=Z,8.0nm,0.9s						
PV18	**Skein Mesa, Pa**	**81.02**	**46**	IAmb	IAmb	08 03 09.4	
	comp=Z,12nm,1.0s						
PV20	**West Nyswonger**	**81.03**	**46**	IAmb	IAmb	08 03 09.5	
	comp=Z,16nm,1.0s						
TX31	**Lajitas Ar. Si**	**81.04**	**56**	IAmb	IAmb	08 03 10.5	
	comp=Z,30nm,2.0s						
PV13	**Radium Mtn., P**	**81.04**	**46**	P	**P**	**08 03 06.9**	**-0.2**
PV13				IAmb	IAmb	08 03 09.6	
	comp=Z,13nm,1.0s						
TXAR	**Lajitas Array**	**81.04**	**56**	P	**P**	**08 03 08.8**	**+1.7**
	comp=Z,1.3nm,0.8s,baz=219,slow=8.2,SNR=15 comp=Z,1.3nm,0.8s						
TXAR	**Lajitas Array**	**81.04**	**56**	P	**P**	**08 03 07.3**	**+0.2**
PV04	**Paradox Valley**	**81.09**	**46**	IAmb	IAmb	08 03 09.9	
	comp=Z,10nm,0.9s						
PV12	**Saucer Basin,**	**81.13**	**46**	IAmb	IAmb	08 03 10.2	
	comp=Z,12nm,1.1s						
TRF	**Thorofare Moun**	**81.17**	**10**	IAmb	IAmb	08 03 09.0	
	comp=Z,6.8nm,0.6s						
PV01	**Paradox Valley**	**81.20**	**46**	IAmb	IAmb	08 03 09.9	
	comp=Z,14nm,1.1s						
NEW	**Newport**	**81.23**	**34**	LR	LR	08 32 42.3	
	comp=Z,68nm,18.7s,baz=228,slow=31						
J20K	**Nowinta River**	**81.24**	**8**	IAmb	IAmb	08 03 10.0	
	comp=Z,9.7nm,0.9s						
TASM	**ASL Pad, Albuq**	**81.26**	**50**	IAmb	IAmb	08 03 12.2	
	comp=Z,9.7nm,1.4s						
ALQ	**Albuquerque**	**81.27**	**50**	IAmb	IAmb	08 03 12.2	
	comp=Z,11nm,1.4s						
ALQ	**Albuquerque**	**81.27**	**50**	IAmb	IAmb	08 03 12.2	
	comp=Z,11nm,1.4s						
ANMO	**Albuquerque**	**81.27**	**50**	LR	LR	08 30 28.0	
	comp=Z,76nm,19.8s,baz=255,slow=29						
ANMO	**Albuquerque**	**81.27**	**50**	P	**P**	**08 03 07.9**	**-0.4**
PV15	**Paradox Valley**	**81.36**	**46**	IAmb	IAmb	08 03 11.2	
	comp=Z,10nm,1.0s						
RND	**Reindeer**	**81.38**	**11**	IAmb	IAmb	08 03 10.8	
	comp=Z,8.3nm,0.7s						
ALPN	**Alpine**	**81.49**	**55**	IAmb	IAmb	08 03 11.8	
	comp=Z,5.7nm,0.8s						
TPB01	**Permian Basin**	**81.61**	**55**	IAmb	IAmb	08 03 12.3	
	comp=Z,6.4nm,0.8s						
M26K	**Nabesna, AK**	**81.69**	**14**	IAmb	IAmb	08 03 12.2	
	comp=Z,6.8nm,0.9s						
HYT	**Haines Junctio**	**81.76**	**17**	P	**P**	**08 03 11.2**	**+1.0**
HYT				IAmb	IAmb	08 03 13.5	
	comp=Z,8.2nm,1.1s						
TPB11	**China Draw**	**81.81**	**54**	IAmb	IAmb	08 03 18.5	
	comp=Z,26nm,1.9s						
BWN	**Browne**	**81.98**	**10**	P	**P**	**08 03 11.8**	**+0.7**
BWN				IAmb	IAmb	08 03 13.2	
	comp=Z,12nm,0.8s						
CLNB	**Carlsbad**	**82.07**	**53**	P	**P**	**08 03 11.7**	**-0.8**
O30N	**Mendenhall**	**82.12**	**18**	IAmb	IAmb	08 03 14.7	
	comp=Z,9.4nm,0.9s						
H19K	**Roundabout Mou**	**82.24**	**7**	IAmb	IAmb	08 03 15.6	
	comp=Z,8.7nm,0.9s						
DLBC	**Dease Lake**	**82.25**	**21**	LR	LR	08 35 22.7	
	comp=Z,46nm,18.8s,baz=208,slow=32						
SNOW	**Snow King Moun**	**82.35**	**41**	IAmb	IAmb	08 03 17.5	
	comp=Z,5.2nm,0.8s						
NEA2	**Nenana**	**82.44**	**10**	P	**P**	**08 03 14.4**	**+0.9**
NEA2				IAmb	IAmb	08 03 16.4	
	comp=Z,5.5nm,0.8s						
MLY	**Manley**	**82.56**	**10**	IAmb	IAmb	08 03 15.9	
	comp=Z,5.8nm,0.8s						
MNHN	**Monahans**	**82.56**	**55**	IAmb	IAmb	08 03 17.3	
	comp=Z,5.6nm,0.8s						
YHB	**Horse Butte**	**82.73**	**40**	IAmb	IAmb	08 03 18.5	
	comp=Z,7.2nm,1.1s						
G19K	**Purcell Mounta**	**82.76**	**7**	IAmb	IAm

EPYK	**Eagle Plains**	**86.52**	**14**	P	**P**	**08 03 35.4**	**+1.2**
EPYK				IAmb	IAmb	08 05 31.6	
	comp=Z,19nm,1.7s						
RSSD	**Black Hills**	**86.96**	**43**	P	**P**	**08 03 37.4**	**+0.2**
MAW	**Mawson**	**87.24**	**199**	P	**P**	**08 03 39.5**	**+1.7**
	comp=Z,2.8nm,0.7s,baz=129,slow=6.3,SNR=2.5						
MAW				LR	LR	08 40 04.3	
	comp=Z,58nm,18.2s,baz=210,slow=34						
	comp=Z,2.8nm,0.7s						
MAW	**Mawson**	**87.24**	**199**	P	**P**	**08 03 38.5**	**+0.6**
MAW				IAmb	IAmb	08 04 01.0	
	comp=Z,12nm,1.8s						
INK	**Inuvik**	**88.82**	**14**	LR	LR	08 35 54.7	
	comp=Z,38nm,20.2s,baz=334,slow=30						
HHC	**Hu-ho-hao-te**	**89.26**	**313**	*e*P	**P**	**08 03 51.4**	**+3.4**
HHC				pmax	pmax		
	comp=Z,15nm,0.5s						
HHC				pmax	pmax		
	comp=Z,78nm,4.5s						
YKA	**Yellowknife Ar**	**90.64**	**23**	P	**P**	**08 03 54.3**	**+0.5**
	comp=Z,1.6nm,1.0s,baz=231,slow=4.3,SNR=5.5						
	comp=Z,1.6nm,1.0s						
ELIB	**Princess Elisa**	**91.60**	**185**	*d*P	**P**	**08 03 59.9**	**+1.5**
	comp=Z,4.3nm,1.0s						
VNA3	**Neumayer Olymp**	**92.35**	**175**	⇑P	**P**	**08 04 03.3**	**+1.5**
	comp=Z,8.5nm,0.8s						
CMAR	**Chiang Mai Arr**	**92.62**	**288**	P	**P**	**08 04 05.2**	**+1.1**
	comp=Z,1.3nm,0.3s,baz=106,slow=4.6,SNR=5.8						
CMAR				LR	LR	08 39 43.4	
	comp=Z,10nm,21.6s,baz=100,slow=32						
	comp=Z,1.3nm,0.3s						
VNA2	**Neumayer--Watz**	**92.84**	**175**	⇑P	**P**	**08 04 06.1**	**+2.0**
	comp=Z,6.4nm,0.7s,baz=191,slow=3.0						
ATAH	**Atahualpa**	**93.01**	**98**	LR	LR	08 35 33.3	
	comp=Z,58nm,21.5s,baz=267,slow=29						
VNA1	**Neumayer--Stat**	**93.04**	**175**	⇑P	**P**	**08 04 07.0**	**+2.0**
	comp=Z,8.7nm,0.8s						
LZH	**Lanzhou**	**93.40**	**306**	*e*P	**P**	**08 04 09.5**	**+2.1**
LZH				pP	sP	08 04 37.9	+26
LZH				pmax	pmax		
	comp=Z,16nm,1.3s						
ULM	**Lac du Bonnet**	**94.44**	**39**	LR	LR	08 38 55.2	
	comp=Z,114nm,20.1s,baz=191,slow=30						
SONM	**Songino Array**	**95.12**	**318**	LR	LR	08 40 27.7	
	comp=Z,32nm,20.4s,baz=220,slow=31						
TKL	**Tuckaleechee C**	**98.95**	**56**	LR	LR	08 43 25.1	
	comp=Z,54nm,18.3s,baz=268,slow=32						
MKAR	**Makanchi Array**	**111.08**	**314**	PKiKP	**PKiKP**	**08 09 25.9**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=70,slow=1.1,SNR=4.2						
KURBB	**Kurchatov Arra**	**113.49**	**319**	PKiKP	**PKiKP**	**08 09 29.7**	**0.0**
	comp=Z,0.4nm,0.4s,baz=88,slow=1.8,SNR=6.3						
BVAR	**Borovoye Array**	**118.19**	**322**	PKP	**PKPdf**	**08 09 39.1**	**+0.3**
	comp=Z,1.5nm,0.5s,baz=14,slow=0.6,SNR=7.4						
ARCES	**ARCESS Array B**	**125.10**	**352**	PKP	**PKiKP**	**08 09 52.5**	**+0.6**
	comp=Z,7.5nm,0.7s,baz=21,slow=1.9,SNR=19						
BOSA	**Boshof**	**132.12**	**202**	PKP	**PKPdf**	**08 10 07.0**	**+0.6**
	comp=Z,1.3nm,0.9s,baz=234,slow=2.8,SNR=3.6						
FINES	**FINESS Array B**	**132.42**	**347**	PKP	**PKPdf**	**08 10 05.8**	**+0.2**
	comp=Z,5.7nm,0.8s,baz=112,slow=3.1,SNR=7.1						
AKASG	**Malin Array Be**	**140.76**	**337**	PKP	**PKPdf**	**08 10 21.5**	**+0.1**
	comp=Z,0.3nm,0.3s,baz=35,slow=2.8,SNR=4.4						
KIBK	**Kibwezi**	**143.86**	**243**	PKPdf	PKPbc	08 10 26.3	+0.5
OJC	**Ojcow**	**144.12**	**345**	PKPdf	**PKPdf**	**08 10 26.9**	**-0.5**
CLL	**Collm**	**144.31**	**353**	PKPdf	**PKPdf**	**08 10 27.4**	**-0.3**
CLL	**Collm**	**144.31**	**353**	*i* PKPdf	PKPbc	08 10 26.9	+0.9
	comp=Z,7.0nm,0.8s						
KOLS	**Kolonicke sedl**	**144.62**	**342**	*e*PKP	**PKPdf**	**08 10 29.0**	**+0.6**
DPC	**Dobruska-Polom**	**144.74**	**349**	⇑*e*PKP	**PKPdf**	**08 10 29.5**	**+0.9**
BUR08	**Bucovina Ar. S**	**144.77**	**338**	PKPdf	**PKPab**	**08 10 26.7**	**-0.9**
BURAR	**Bucovina Array**	**144.79**	**338**	PKPdf	**PKPab**	**08 10 28.0**	**+0.3**
BURAR	**Bucovina Array**	**144.79**	**338**	⇑P	**PKPdf**	**08 10 29.1**	**+0.3**
STEB	**Steborice**	**144.85**	**347**	⇑*e*PKP	**PKPdf**	**08 10 29.7**	**+1.0**
KRLC	**Kraliky**	**144.92**	**348**	⇑*e*PKP	**PKPdf**	**08 10 29.2**	**+0.3**
BIZ	**Bicaz**	**145.02**	**336**	⇑P	**PKPdf**	**08 10 30.2**	**+1.1**
MORC	**Moravsky Berou**	**145.05**	**347**	*e*PKP	**PKPdf**	**08 10 29.9**	**+0.8**
MORC	**Moravsky Berou**	**145.05**	**347**	⇑P	**PKPdf**	**08 10 30.5**	**+1.4**
TESR	**Tescani**	**145.16**	**335**	⇑P	**PKPab**	**08 10 29.3**	**+0.3**
LANS	**Liptovska Anna**	**145.19**	**345**	*e*PKP	**PKiKP**	**08 10 32.2**	**-1.1**
GHRR		**145.21**	**334**	⇑P	**PKPdf**	**08 10 30.5**	**+1.1**
TLCR		**145.28**	**332**	⇑P	**PKPdf**	**08 10 30.1**	**+0.5**
PRU	**Pruhonice**	**145.39**	**351**	⇑*e*PKP	**PKPdf**	**08 10 31.1**	**+1.5**
MEM	**Membach**	**145.40**	**0**	*d*PKP	**PKPbc**	**08 10 29.9**	**+0.4**
ONER	**Baraj Valea Uz**	**145.40**	**335**	⇑P	**PKPdf**	**08 10 32.0**	**+2.2**
NEGRR	**Negrea**	**145.42**	**333**	⇓P	**PKPbc**	**08 10 29.5**	**-0.2**
PANC	**Panciu**	**145.47**	**334**	⇑P	**PKPab**	**08 10 32.2**	**+2.1**
KECS	**Kecovo**	**145.54**	**343**	*e*PKP	**PKiKP**	**08 10 32.7**	**-1.2**
BNN	**Bunyan**	**145.56**	**317**	PKPdf	**PKPdf**	**08 10 28.3**	**-2.2**
CFR	**Carcaliu**	**145.59**	**332**	⇑P	**PKPdf**	**08 10 28.6**	**-1.5**
VRI	**Vrincioaia**	**145.65**	**335**	⇑P	**PKPab**	**08 10 32.0**	**+1.2**
BMRD	**Maredsous**	**145.69**	**2**	*d*PKP	**PKPdf**	**08 10 30.6**	**+0.5**
BMRD				*dp*PKP	sPKPab	08 11 00.8	+26
VRAC	**Vranov**	**145.69**	**348**	*e*PKP	**PKPab**	**08 10 32.2**	**+1.4**
PLOR	**Plostina**	**145.69**	**335**	⇑P	**PKPdf**	**08 10 30.1**	**-0.3**
TPGR	**Topolog**	**145.71**	**332**	⇑P	**PKPab**	**08 10 32.8**	**+1.8**
SAHR	**Sahastru**	**145.78**	**334**	⇑P	**PKPab**	**08 10 32.9**	**+1.6**
TURR	**Turia**	**145.78**	**335**	⇑P	**PKiKP**	**08 10 33.3**	**-1.2**
OZUR		**145.84**	**336**	⇑P	**PKPab**	**08 10 33.3**	**+1.8**
COVR	**Voineasa-Covas**	**145.88**	**335**	⇑P	**PKPab**	**08 10 32.7**	**+1.0**
JAVC	**Velka Javorina**	**145.89**	**347**	*e*PKP	**PKiKP**	**08 10 33.6**	**-1.1**
KRUC	**Moravsky**	**145.96**	**348**	*e*PKP	**PKPab**	**08 10 32.6**	**+0.8**
ZVC	**Zvikov**	**145.98**	**351**	⇑*e*PKP	**PKPab**	**08 10 33.2**	**+1.3**
TIRR	**Tirgusor**	**146.02**	**331**	PKPdf	**PKPdf**	**08 10 30.1**	**-0.8**
TIRR	**Tirgusor**	**146.02**	**331**	⇓P	**PKPbc**	**08 10 32.0**	**+0.3**
HARR	**Harsova**	**146.06**	**332**	⇑P	**PKPbc**	**08 10 31.8**	**+0.1**
TLBR	**Topalu**	**146.12**	**332**	⇑P	**PKPdf**	**08 10 30.6**	**-0.4**
PSZ	**Piszkesteto**	**146.22**	**344**	⇑P	**PKPab**	**08 10 33.0**	**+0.1**
MLR	**Muntele Rosu**	**146.27**	**335**	PKPdf	**PKPdf**	**08 10 30.0**	**-1.5**
MLR	**Muntele Rosu**	**146.27**	**335**	⇑P	**PKPdf**	**08 10 31.9**	**+0.4**
ISR	**Istrita**	**146.33**	**334**	⇑P	**PKPdf**	**08 10 31.3**	**-0.2**
MARR	**Marisel-Cluj**	**146.34**	**339**	⇑P	**PKPbc**	**08 10 33.4**	**+0.7**
KHC	**Kasperske Hory**	**146.37**	**352**	⇑*e*PKP	**PKPab**	**08 10 34.1**	**+0.7**
DRGR		**146.37**	**340**	⇑P	**PKPab**	**08 10 34.5**	**+0.9**
MANR	**Mangalia**	**146.42**	**330**	⇑P	**PKPab**	**08 10 34.9**	**+1.2**
MODS	**Modra-Piesok**	**146.44**	**347**	*e*PKP	**PKiKP**	**08 10 35.2**	**-0.6**
BR131	**Keskin Array S**	**146.46**	**320**	PKPdf	**PKPdf**	**08 10 30.2**	**-1.7**
BRTR	**Keskin Array B**	**146.46**	**320**	PKPbc	**PKPab**	**08 10 35.0**	**+0.7**
	comp=Z,8.9nm,0.7s,baz=105,slow=2.0,SNR=49						
ABNA	**Allenstein Bun**	**146.52**	**349**	*e*PKP	**PKPab**	**08 10 34.7**	**+0.7**
	comp=Z,6.9nm,0.7s						
CKRC	**Cesky Krumlov**	**146.57**	**351**	⇑*e*PKP	**PKPab**	**08 10 34.1**	**-0.1**
GERES	**GERESS Array B**	**146.63**	**351**	PKPbc	**PKPab**	**08 10 34.4**	**-0.1**
	comp=Z,3.4nm,0.7s,baz=2.9,slow=2.7,SNR=19						
KIRS	**Kirsehir-Merke**	**146.64**	**319**	⇑P	**PKPbc**	**08 10 34.1**	**+0.3**
VOIR		**146.68**	**336**	⇓P	**PKPab**	**08 10 35.4**	**+0.6**
SRO	**Srobarova**	**146.72**	**345**	*e*PKP	**PKiKP**	**08 10 39.8**	**+3.4**
ARR	**Arges**	**146.90**	**336**	⇑P	**PKPab**	**08 10 36.5**	**+0.9**
WINA	**Alland / Wiene**	**146.94**	**348**	*i* PKP	**PKPab**	**08 10 36.3**	**+0.7**
	comp=Z,3.3nm,0.5s						
CONA	**Conrad Observa**	**147.15**	**348**	*i* PKP	**PKPab**	**08 10 36.8**	**+0.3**
	comp=Z,8.3nm,0.6s						
SIRR	**Siria**	**147.18**	**340**	⇑P	**PKPbc**	**08 10 35.4**	**+0.3**
RONA	**Rosalia, Austr**	**147.28**	**348**	*i* PKP	**PKPab**	**08 10 36.9**	**-0.1**
	comp=Z,7.9nm,0.8s						
SURR	**Surduc**	**147.48**	**339**	⇑P	**PKPab**	**08 10 37.3**	**-0.5**
MOA	**Molln**	**147.51**	**350**	*e*PKP	**PKPbc**	**08 10 37.1**	**+1.2**
	comp=Z,6.1nm,0.7s						
GZR	**Gura Zlata**	**147.57**	**338**	⇑P	**PKPbc**	**08 10 35.3**	**-0.9**
BIOA	**Bad Ischl, Aus**	**147.77**	**351**	*e*PKP	**PKPbc**	**08 10 38.0**	**+1.4**
	comp=Z,1.8nm,0.4s						
BZS	**Buzias**	**147.77**	**340**	⇑P	**PKiKP**	**08 10 38.4**	**-0.2**
ARSA	**Arzberg**	**147.87**	**348**	*e*PKiKP	**PKiKP**	**08 10 38.6**	**-0.2**
	comp=Z,3.4nm,0.5s						
LESA	**Schwarzleotal**	**148.17**	**352**	*i* PKP	**PKPbc**	**08 10 39.0**	**+1.3**
	comp=Z,2.2nm,0.5s						
SESA	**Seetaler Alpe,**	**148.18**	**349**	*i* PKP	**PKPbc**	**08 10 38.9**	**+1.0**
	comp=Z,14nm,0.7s						
RETA	**Reutte**	**148.33**	**354**	*i* PKP	**PKPbc**	**08 10 39.3**	**+1.2**
	comp=Z,7.5nm,0.8s						
ELND	**Elena**	**148.36**	**332**	⇓P	**PKPdf**	**08 10 36.7**	**+1.9**
WATA	**Walderalm**	**148.39**	**353**	*i* PKP	**PKPbc**	**08 10 39.5**	**+1.1**
	comp=Z,4.8nm,0.6s						
KBA	**Koelnbreinsper**	**148.41**	**351**	*e*PKP	**PKPbc**	**08 10 39.4**	**+0.8**
	comp=Z,3.4nm,0.5s						
MOTA	**Moosalm**	**148.43**	**354**	*i* PKP	**PKPbc**	**08 10 39.7**	**+1.1**
	comp=Z,11nm,0.9s						
WTTA	**Wattenberg**	**148.46**	**353**	*i* PKiKP	**PKiKP**	**08 10 39.9**	**-0.3**
	comp=Z,12nm,0.6s						
SOKA	**Soboth**	**148.51**	**349**	*i* PKP	**PKPbc**	**08 10 39.5**	**+0.9**
	comp=Z,5.6nm,0.8s						
SQTA	**Sankt Quirin**	**148.54**	**354**	*i* PKiKP	**PKiKP**	**08 10 40.2**	**-0.1**
	comp=Z,7.9nm,0.8s						
DAVA	**Damuels**	**148.60**	**355**	*i* PKP	**PKPbc**	**08 10 40.1**	**+1.1**
	comp=Z,16nm,1.0s						
OBKA	**Obir**	**148.76**	**349**	*e*PKP	**PKPbc**	**08 10 39.8**	**+0.5**
	comp=Z,6.2nm,0.8s						
FETA	**Feichten**	**148.79**	**354**	*i* PKP	**PKPbc**	**08 10 40.2**	**+0.7**
	comp=Z,6.9nm,0.9s						
MYKA	**Terra Mystica**	**148.80**	**350**	*i* PKP	**PKPbc**	**08 10 39.9**	**+0.5**
	comp=Z,5.9nm,0.7s						
ABTA	**Abfaltersbach**	**148.85**	**352**	*i* PKP	**PKPbc**	**08 10 40.4**	**+0.8**
	comp=Z,12nm,0.8s						
BLKB	**Belogradchik**	**149.12**	**337**	⇑P	**PKPbc**	**08 10 39.6**	**-0.7**
KEPZ	**Antalya-Kepez**	**149.43**	**318**	⇑P	**PKPbc**	**08 10 40.9**	**-0.4**
BOVS	**Bovan**	**149.47**	**338**	⇑P	**PKPbc**	**08 10 41.6**	**+0.6**
EZN	**Ezine**	**150.53**	**328**	⇑P	**PKiKP**	**08 10 44.7**	**+0.2**
TORD	**Torodi Ar. Bea**	**174.65**	**120**	PKP	**PKPdf**	**08 11 02.0**	**-0.5**
	comp=Z,0.8nm,0.7s,baz=276,slow=2.7,SNR=5.3						
TORD				PKPab	**PKPab**	**08 12 36.6**	**+0.5**
	comp=Z,1.0nm,0.8s,baz=252,slow=3.1,SNR=5.8						

ROM 16 08:24:24.6±0.2, 44.30N±0.01×11.45E±0.01, h21km±1km, ML1.8/21, 4C-1D, Error ellipse: s-maj=0.9km s-min=0.9km az=222.0, Northern Italy

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MTRZ	**Monterenzio**	**0.08**	**12**	⇑P	Pb	08 24 28.3	-0.3
MTRZ				S	Sb	08 24 31.8	+0.5
MTRZ				AML	AML		
	comp=N,684μm,0.5s						
MTRZ				AML	AML		
	comp=E,466μm,0.3s						
MTRZ				AML	AML		
	comp=N,630μm,0.3s						
MTRZ				AML	AML		
	comp=N,609μm,0.3s						
MTRZ				AML	AML		
	comp=E,466μm,0.3s						
MTRZ				AML	AML		
	comp=E,407μm,0.3s						
VISG	**Visignano**	**0.11**	**184**	⇑P	Pb	08 24 28.4	-2.7
VISG				S	Sb	08 24 31.9	-3.9
VISG				AML	AML		
	comp=E,1815μm,0.3s						
VISG				AML	AML		
	comp=N,1290μm,0.1s						
VISG				AML	AML		
	comp=E,1815μm,1.7s						
VISG				AML	AML		
	comp=E,1458μm,0.1s						
VISG				AML	AML		
	comp=N,1291μm,0.1s						
BRIS	**BRISIGHELLA**	**0.16**	**163**	⇓P	Pb	08 24 30.2	-0.4
BRIS				S	Sb	08 24 35.2	+0.3
BRIS				AML	AML		
	comp=E,260μm,0.5s						
BRIS				AML	AML		
	comp=N,295μm,0.7s						
BRIS				AML	AML		
	comp=E,295μm,1.3s						
BRIS				AML	AML		
	comp=N,263μm,0.3s						
BRIS				AML	AML		
	comp=N,173μm,0.5s						
BRIS				AML	AML		
	comp=E,260μm,0.5s						
SEI	**Scarperia**	**0.26**	**194**	⇑P	Pb	08 24 30.3	-0.5
SEI				S	Sb	08 24 35.3	+0.2
SEI				AML	AML		
	comp=N,432μm,0.3s						
SEI				AML	AML		
	comp=N,488μm,0.4s						
SEI				AML	AML		
	comp=E,353μm,0.3s						
SEI				AML	AML		
	comp=E,352μm,0.3s						
ZCCA	**Zocca**	**0.34**	**278**	P	Pn	08 24 33.1	-1.2
MOCL	**Monte Cuccoli**	**0.35**	**213**	P	Pb	08 24 32.0	-0.1
MOCL				S	Sb	08 24 38.2	+1.1
MPPT	**Montemurlo**	**0.43**	**217**	P	Pb	08 24 33.2	-0.1
RUFI	**Rufina**	**0.46**	**174**	P	Pb	08 24 34.2	+0.2
SFI	**Santa Sofia**	**0.49**	**144**	P	Pb	08 24 34.2	-0.3
SFI				S	Sb	08 24 42.7	+1.4
SFI				AML	AML		
	comp=N,72μm,1.0s						
SFI				AML	AML		
	comp=N,55μm,0.5s						
SFI				AML	AML		
	comp=E,65μm,0.6s						
SFI				AML	AML		
	comp=E,65μm,0.6s						
SFI				AML	AML		
	comp=E,148μm,1.0s						
SFI				AML	AML		
	comp=N,137μm,0.8s						
ASQU	**Asqua**	**0.56**	**154**	P	Pb	08 24 35.9	+0.1
ASQU				S	Sb	08 24 44.5	+1.0
ASQU				AML	AML		
	comp=E,100μm,0.4s						
ASQU				AML	AML		
	comp=N,78μm,1.6s						
ASQU				AML	AML		
	comp=E,101μm,0.4s						
ASQU				AML	AML		
	comp=E,100μm,1.6s						
ASQU				AML	AML		
	comp=N,76μm,0.3s						
CRE	**Caprese Michel**	**0.77**	**152**	⇑P	Pb	08 24 39.7	+0.4
CRE				AML	AML		
	comp=E,47μm,0.5s						
CRE				AML	AML		
	comp=N,39μm,1.5s						
CRE				AML	AML		
	comp=E,47μm,1.5s						
CRE				AML	AML		
	comp=E,47μm,0.5s						
CRE				AML	AML		
	comp=N,36μm,0.3s						
CPGN	**Carpegna, Ital**	**0.81**	**128**	AML	AML		
	comp=E,49μm,1.1s						
CPGN				AML	AML		
	comp=E,49μm,1.1s						
CPGN				AML	AML		
	comp=N,61μm,1.6s						
CPGN				AML	AML		
	comp=N,61μm,1.6s						
CPGN				AML	AML		
	comp=N,61μm,0.4s						
ATPI	**Pietralunga -**	**1.10**	**141**	AML	AML		
	comp=E,103μm,0.8s						
ATPI				AML	AML		
	comp=N,22μm,0.1s						

SARA 16 08:24:56.5±0.7, 43.02N±0.02×13.14E±0.03, h8km±99km, ML1.8/3, Mwp2.0/3, Central Italy

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NRCA	**Norcia**	**0.19**	**185**	Pg	Pg	08 25 01.6	+1.2
NRCA				Sg	Sg	08 25 02.8	-0.3
USLL	**Sellano**	**0.19**	**222**	Pg	Pg	08 25 01.3	+0.9
USLL				Sg	Sg	08 25 04.5	+1.4
NOCU	**Nocera Umbra**	**0.26**	**289**	Pg	Pg	08 25 01.8	+0.1
NOCU				Sg	Sg	08 25 05.5	+0.4

*SDD **16** 08:33:38.2±2.1, 20.14N×70.88W, h12km±35km, MD3.4, ML3.1, MW3.2, Presumed earthquake*
*OSPL **16** 08:33:38.4, 20.14N×70.99W, h0km, ML2.9, Presumed earthquake*
*SSNC **16** 08:33:40.5±1.9, 20.10N×71.38W, h5km, MD2.9, ML2.9, Presumed earthquake*

ISC 16 08:33:37.2±1.0, 20.13N±0.03×70.98W±0.04, h20km±4km, n26, σ1°30/43, 16C-4D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LUDR	**Luperon**	**0.24**	**173**	⇓*e*Pg	**Pb**	**08 33 42.5**	**-0.6**
LUDR				⇑*e*Sg	**Sb**	**08 33 46.7**	**-0.4**
LOPP1	**Punta Rusia, P**	**0.34**	**216**	*i* P	**Pb**	**08 33 44.6**	**0.0**
LOPP1				*e*S	**Sb**	**08 33 49.4**	**-0.1**
LOPP1				IAML		08 33 53.1	
	comp=Z,456nm,0.3s						
MADR	**Mao Valverde**	**0.57**	**191**	⇑*e*Sg	**Sn**	**08 33 58.3**	**-0.7**
MADR				⇑*e*Sg	**Sb**	**08 33 58.9**	**+2.5**
MADR				IAML		08 33 59.6	
	comp=N,4μm,0.4s						
SC01	**Santiago de lo**	**0.74**	**161**	⇑*e*Pg	**Pb**	**08 33 51.5**	**+0.1**
SC01				IAML		08 34 05.8	
	comp=N,494nm,0.8s						
SC01	**Santiago de lo**	**0.74**	**161**	*i* P	**Pb**	**08 33 51.5**	**+0.1**
SC01				*e*S	**Sn**	**08 34 02.5**	**-0.7**
SC01				IAML		08 34 08.7	
	comp=Z,301nm,0.8s						
CADR	**Cabrera**	**1.08**	**115**	*e*Pg	**Pn**	**08 33 57.1**	**-0.1**
CADR				*e*Sg	**Sb**	**08 34 08.2**	**-2.7**
CADR				IAML		08 34 17.1	
	comp=N,475nm,0.2s						
SFDR	**San Fco. de Ma**	**1.09**	**140**	⇑*e*Pg	**Pb**	**08 33 57.5**	**+0.1**
SFDR				IAML		08 34 15.3	
	comp=N,699nm,0.4s						
SDDR	**Presa de Saban**	**1.18**	**194**	⇑*e*Pg	**Pn**	**08 33 58.7**	**+0.1**
SDDR				⇑*e*Sg	**Sn**	**08 34 15.0**	**+0.9**
SDDR				IAML		08 34 16.8	
	comp=N,273nm,0.5s						
SDDR	**Presa de Saban**	**1.18**	**194**	*i* P	**Pn**	**08 33 58.5**	**0.0**
SDDR				*i* S	**Sn**	**08 34 14.7**	**+0.6**
SDDR				IAML		08 34 16.4	
	comp=N,243nm,0.5s						
SDDR				IAML		08 34 16.6	
	comp=N,219nm,0.3s						
SDDR	**Presa de Saban**	**1.18**	**194**	*i* P	**Pn**	**08 33 58.6**	**0.0**
SDDR				*e*S	**Sn**	**08 34 14.9**	**+0.9**
SDDR				IAML		08 34 16.7	
	comp=Z,228nm,0.3s						
ABDR	**Alto Bandera**	**1.36**	**166**	⇑*e*Pg	**Pn**	**08 34 01.6**	**+0.3**
ABDR				⇑*e*Sg	**Sn**	**08 34 18.9**	**0.0**
ABDR				IAML		08 34 22.0	
	comp=N,228nm,0.2s						
GRTK	**Grand Turk**	**1.38**	**354**	⇓*e*Pg	**Pb**	**08 34 03.0**	**+0.7**
GRTK				IAML		08 34 24.7	
	comp=N,243nm,0.3s						
GRTK	**Grand Turk**	**1.38**	**354**	*i* P	**Pb**	**08 34 02.8**	**+0.5**
GRTK				*i* S	**Sb**	**08 34 22.5**	**+3.0**
GRTK				IAML		08 34 24.8	
	comp=N,254nm,0.3s						
GRTK				IAML		08 34 25.4	
	comp=N,247nm,0.3s						
GRTK	**Grand Turk**	**1.38**	**354**	*i* P	**Pb**	**08 34 03.0**	**+0.7**
GRTK				IAML		08 34 27.0	
	comp=Z,147nm,0.7s						
LONE3	**El Aguacate, B**	**1.58**	**197**	*i* P	**Pb**	**08 34 05.4**	**-0.5**
LONE3				*e*S	**Sb**	**08 34 26.5**	**+1.0**
LONE3				IAML		08 34 31.2	
	comp=Z,91nm,0.7s						
NEDR	**Neiba UASD**	**1.69**	**194**	⇑*e*Pg	**Pb**	**08 34 07.7**	**+0.1**
NEDR				⇑*e*Sg	**Sb**	**08 34 31.0**	**+2.6**
NEDR				IAML		08 34 34.5	
	comp=N,98nm,0.4s						
JIDR	**Jimani**	**1.83**	**207**	⇑*e*Pg	**Pb**	**08 34 09.6**	**-0.3**
JIDR				⇑*e*Sg	**Sb**	**08 34 34.2**	**+1.8**
JIDR				IAML		08 34 35.4	
	comp=N,199nm,0.4s						
BANI	**BANI**	**1.83**	**161**	⇑*e*Pg	**Pb**	**08 34 10.2**	**+0.2**
BANI				⇑*e*Sg	**Sb**	**08 34 33.8**	**+1.3**
BANI				IAML		08 34 40.0	
	comp=N,329nm,0.3s						
LODU1	**El Espartillar**	**1.83**	**195**	*i* P	**Pb**	**08 34 10.3**	**+0.3**
LODU1				IAML		08 34 37.3	
	comp=Z,200nm,0.6s						
SDD	**Santo Domingo**	**1.95**	**149**	*e*Pg	**Pb**	**08 34 10.8**	**-1.2**
SDD				⇓*e*Sg	**Sb**	**08 34 34.9**	**-0.9**
SDD				IAML		08 34 41.0	
	comp=N,74nm,0.7s						
SDD	**Santo Domingo**	**1.95**	**149**	*i* P	**Pb**	**08 34 10.7**	**-1.2**
SDD				*e*S	**Sb**	**08 34 34.8**	**-1.0**
PODR	**Polo**	**1.98**	**188**	*i* P	**Pb**	**08 34 12.6**	**0.0**
PODR				IAML		08 34 42.9	
	comp=Z,1μm,0.3s						
HIDR	**Higuey Centro**	**2.63**	**125**	⇓*e*Pg	**Pn**	**08 34 20.5**	**+2.0**
HIDR				⇑*e*Sg	**Sb**	**08 34 54.0**	**-1.5**
HIDR				IAML		08 35 04.5	
	comp=N,187nm,0.3s						
NMDO	**Nuevo Mundo**	**3.78**	**277**	*i* P	**Pn**	**08 34 31.2**	**-3.1**
SABCS	**La Quijada**	**4.07**	**274**	*i* P	**Pn**	**08 34 36.7**	**-1.7**
PINC	**Pinares de May**	**4.53**	**275**	*i* P	**Pn**	**08 34 42.9**	**-1.7**

*IDC **16** 08:46:34.1±5.1, 14.01N×91.94W, h60km±31km, mb3.4/3, mbtmp3.6/5, ML3.5/2, MS2.8/2, Error ellipse: s-maj=51.7km s-min=10.8km az=6.0*
*MEX **16** 08:46:35.3±0.9, 14.11N×92.03W, h54km±15km, MD4.2, Presumed earthquake*
*CATAC **16** 08:46:35.1, 14.2N±2.9°2W±°, h43km±5km, M4.2/21, mb4.5/2, mB4.8/1, MLv4.1/21, Mw(mB)4.1/1, MwMwp5.4/1, Mwp5.6/1, confirmed*
*GCG **16** 08:46:35.8±1.7, 14.21N×91.79W, h40km±27km, MD4.7, ML4.5, Presumed earthquake*

ISC 16 08:46:33.4±1.2, 14.06N±0.06×92.01W±0.04, h47km±11km, n59, σ1°77/90, mb3.8/3, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res

COEG	**Centro de Oper**	**3.07**	**98**	P	**Pn**	**08 47 21.3**	**+1.8**
COEG				S	**Sn**	**08 47 56.2**	**+1.2**
TECO	**Alcaldia de Te**	**3.17**	**99**	P	**Pn**	**08 47 22.3**	**+1.4**
TECO				S	**Sn**	**08 47 57.8**	**+0.2**
PETF	**Flores**	**3.51**	**36**	P	**Pn**	**08 47 25.7**	**+0.2**
UXUV	**UXUV**	**3.84**	**328**	*e*P	**Pn**	**08 47 31.6**	**+1.6**
UXUV				*e*S	**Sn**	**08 48 14.4**	**+0.5**
LCND	**La Caada**	**4.07**	**100**	P	**Pn**	**08 47 36.2**	**+3.0**
CMIG	**Matias Romero**	**4.09**	**318**	P	**Pn**	**08 47 34.7**	**+1.2**
	comp=E,2.0nm,0.3s,baz=160,slow=12,SNR=28						
CMIG				S	**Sn**	**08 48 23.3**	**+3.0**
	comp=E,28nm,0.3s,baz=122,slow=13,SNR=7.9						
CMIG				LR	LR	08 49 29.0	
	comp=E,101nm,19.6s,baz=132,slow=42						
	comp=E,7.5nm,0.3s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**4.09**	**318**	*e*P	**Pn**	**08 47 35.1**	**+1.6**
CMIG				*e*S	**Sn**	**08 48 17.2**	**-3.0**
CNCH	**Conchagua**	**4.13**	**100**	P	**Pn**	**08 47 36.5**	**+2.4**
CNCH				S	**Sn**	**08 48 22.1**	**+0.8**
HUIG	**Huatulco**	**4.32**	**294**	*e*P	**Pn**	**08 47 38.1**	**+1.6**
HUIG				*e*S	**Sn**	**08 48 21.9**	**-3.8**
SCIG	**Sabancuy**	**4.94**	**9**	*e*P	**Pn**	**08 47 44.9**	**-0.2**
NEUV	**Arroyo Zacate**	**5.15**	**315**	*e*P	**Pn**	**08 47 50.6**	**+2.5**
NEUV				*e*S	**Sn**	**08 48 43.9**	**-2.3**
PEIG	**Puerto Escondi**	**5.33**	**292**	*e*P	**Pn**	**08 47 51.7**	**+1.2**
PEIG				*e*S	**Sn**	**08 48 50.5**	**-0.2**
CNGN	**Cerro Negro**	**5.39**	**106**	P	**Pn**	**08 47 54.4**	**+2.9**
VHO	**Vista Hermosa**	**5.45**	**304**	*e*P	**Pn**	**08 47 53.4**	**+1.0**
VHO				*e*S	**Sn**	**08 48 54.1**	**+0.1**
MOM3	**MOM3**	**5.56**	**105**	P	**Pn**	**08 47 56.2**	**+2.5**
COPN	**Copaltepe**	**5.59**	**109**	P	**Pn**	**08 47 56.7**	**+2.6**
YOIG	**Yosondua**	**6.02**	**298**	*e*P	**Pn**	**08 48 02.3**	**+2.0**
YOIG				*e*S	**Sn**	**08 49 10.1**	**+2.1**
TXAR	**Lajitas Array**	**18.64**	**326**	P	**Pn**	**08 50 49.6**	**+1.4**
	comp=E,0.1nm,0.3s,baz=142,slow=11,SNR=7.9						
	comp=E,0.9nm,0.9ns						
TXAR				AML	AML		
TKL	**Tuckaleechee C**	**22.74**	**18**	LR	LR	09 01 02.3	
	comp=E,35nm,20.8s,baz=172,slow=38						
PDAR	**Pinedale Array**	**32.36**	**335**	PcP	**PcP**	**08 55 44.3**	**-1.3**
	comp=E,0.3nm,0.7s,baz=125,slow=4.8,SNR=2.9						
NVAR	**Mina Array Bea**	**33.62**	**321**	P	**P**	**08 53 11.7**	**+2.0**
	comp=E,0.8nm,0.6s,baz=133,slow=8.9,SNR=9.1						
	comp=E,0.8nm,0.6s						
YKA	**Yellowknife Ar**	**50.97**	**347**	P	**P**	**08 55 28.4**	**-1.6**
	comp=E,0.6nm,0.6s,baz=152,slow=7.5,SNR=5.5						
	comp=E,0.6nm,0.6s						
ILAR	**Eielson Array**	**62.78**	**337**	P	**P**	**08 56 52.8**	**-1.0**
	comp=E,0.6nm,0.7s,baz=138,slow=4.6,SNR=8.7						
	comp=E,0.6nm,0.7s						
CMAR	**Chiang Mai Arr**	**145.93**	**341**	PKPbc	**PKPdf**	**09 06 07.5**	**-0.6**
	comp=E,1.3nm,0.3s,baz=26,slow=2.0,SNR=7.8						

VIE 16 08:48:08.1±0.1, 47°52.N×14°.93E, h0km, mb1.4/3, ml1.3/7, Error ellipse: s-maj=1.4km s-min=0.9km az=158.0 2 km E of Erzberg Mining explosion., Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SESA	**Seetaler Alpe,**	**0.47**	**212**	*e*Pg	Pg	08 48 17.2	+0.1
	1.9nm,0.2s						
SESA				*e*Sg	Sg	08 48 23.9	+0.7
	11nm,0.4s						
ARSA	**Arzberg**	**0.48**	**123**	*i* Pg	Pg	08 48 17.4	0.0
	0.6nm,0.1s						
ARSA				*i* Sg	Sg	08 48 24.3	+0.8
	0.8nm,0.2s						
MOA	**Molln**	**0.56**	**307**	*i* Pg	Pg	08 48 19.0	+0.1
	0.8nm,0.2s						
MOA				*e*Sg	Sg	08 48 26.8	+0.6
	1.2nm,0.2s						
CONA	**Conrad Observa**	**0.75**	**56**	*i* Pg	Pg	08 48 23.0	+0.5
	0.3nm,0.1s						
CONA				*e*Sg	Sg	08 48 33.1	+0.8
	1.1nm,0.2s						
BIOA	**Bad Ischl, Aus**	**0.89**	**282**	*e*Pg	Pg	08 48 25.7	+0.5
	0.3nm,0.1s						
RONA	**Rosalia, Austr**	**0.94**	**78**	*i* Pg	Pg	08 48 26.6	+0.5
	1.7nm,0.2s						
RONA				*i* Sg	Sg	08 48 38.9	+0.6
	1.3nm,0.2s						
KBA	**Koelnbreinsper**	**1.17**	**249**	*i* Sg	Sb	08 48 47.2	+0.2
	1.1nm,0.3s						

KRSZO 16 08:49:07.6±1.2, 48°.06N×20°.68E, h0km, ML1.5/5, Error ellipse: s-maj=7.1km s-min=4.1km az=161.0, Suspected Explosion., Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KECS	**Kecovo**	**0.44**	**343**	Pg	Pg	08 49 17.0	+1.0
KECS				Lg	Lg	08 49 23.4	
KECS				AML	AML		
KECS	**Kecovo**	**0.44**	**343**	*e*PG	Pg	08 49 17.0	+1.0
KECS				*e*SG	Sb	08 49 23.7	-1.7
ABAH	**Abaujker**	**0.44**	**58**	Pg	Pg	08 49 17.1	+1.0
ABAH				Lg	Lg	08 49 23.0	
ABAH				AML	AML		
PSZ	**Piszkesteto**	**0.55**	**255**	Pg	Pb	08 49 19.9	-0.1
PSZ				Lg	Lg	08 49 27.3	
PSZ				AML	AML		

*NEIC **16** 08:53:45.6±1.0, 59°.2S±0°.1×24°.9W±0°.2, h10km±1km, mb4.6/27, Error ellipse: s-maj=20.1km s-min=14.8km az=51.0*
*IDC **16** 08:53:56.4±6.5, 59°.19S×24°.92W, h99km±59km, mb3.9/9, mbtmp4.2/10, ML4.7/1, MS3.5/8, Error ellipse: s-maj=29.5km s-min=17.3km az=73.0*
ISC 16 08:53:46.4±0.5, 59°.17S±0°.08×24°.86W±0°.10, h18km, n64, σ0s83/58, mb4.5/15, MS3.5/7, 5C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**8.05**	**302**	Pn	**Pn**	**08 55 42.3**	**0.0**
ORCD	**Orcadas**	**10.09**	**253**	Pn	**Pn**	**08 56 09.9**	**-0.2**
VNA1	**Neumayer--Stat**	**13.43**	**156**	⇑P	**Pn**	**08 56 54.5**	**-1.1**
	comp=Z,28nm,1.0s						
VNA3	**Neumayer Olymp**	**13.62**	**159**	⇑P	**Pn**	**08 56 56.3**	**-2.1**
	comp=Z,14nm,0.6s						
VNA3				⇑S	Sn	08 59 12.9	-16
	comp=E,4.6nm,0.4s						
VNA2	**Neumayer--Watz**	**13.82**	**156**	⇑P	**Pn**	**08 56 59.6**	**-1.5**
	comp=Z,6.7nm,0.4s,baz=316,slow=14						
SNAA	**Sanae**	**15.38**	**153**	P	**P**	**08 57 29.5**	**+2.8**
	comp=Z,3.2nm,0.3s,baz=318,slow=9.7,SNR=4.3						
SNAA				LR	LR	09 02 28.8	
	comp=Z,116nm,18.7s,baz=288,slow=33						
	comp=Z,16nm,0.5s						
SNAA				AML	AML		
SNAA	**Sanae**	**15.38**	**153**	Pn	**Pn**	**08 57 21.1**	**-1.0**
SNAA				IAmb	IAmb	08 57 33.1	
	comp=Z,18nm,0.5s						
TROLL	**Troll, Antarti**	**16.89**	**151**	⇑P	**Pn**	**08 57 41.2**	**-0.4**
	comp=Z,234nm,0.4s						
PMSA	**Palmer Station**	**19.00**	**236**	P	**P**	**08 58 06.6**	**0.0**
BELA	**Belgrano 2**	**19.07**	**186**	P	**Pn**	**08 58 07.8**	**-0.5**
EFI	**East Falkland**	**20.11**	**277**	P	**P**	**08 58 19.1**	**+0.2**
EFI				IAmb	IAmb	08 58 26.4	
	comp=Z,70nm,1.2s						
QSPA	**South Pole Qui**	**31.07**	**180**	P	**P**	**09 00 04.5**	**+1.4**
	comp=Z,3.2nm,0.6s,baz=200,slow=3.5,SNR=20						
	comp=Z,3.2nm,0.6s						
QSPA	**South Pole Qui**	**31.07**	**180**		**P**	**09 00 04.2**	**+1.0**
QSPA				IAmb	IAmb	09 00 05.2	
	comp=Z,6.8nm,0.9s						
AY02	**Valle Explorad**	**31.11**	**272**	P	**P**	**09 00 03.7**	**+0.3**
GO07	**Milladeo Hill,**	**33.68**	**276**	P	**P**	**09 00 26.3**	**+0.3**
PLCA	**Paso Flores**	**33.84**	**282**	P	**P**	**09 00 29.3**	**+1.7**
	comp=Z,1.9nm,0.9s,baz=76,slow=11,SNR=2.9						
PLCA				LR	LR	09 12 55.4	
	comp=Z,77nm,18.4s,baz=176,slow=34						
	comp=Z,1.9nm,0.9s						
PLCA	**Paso Flores**	**33.84**	**282**	P	**P**	**09 00 27.6**	**+0.1**
BO02	**Sierra Bellavi**	**38.58**	**289**	P	**P**	**09 01 07.9**	**-0.1**
BO02				IAmb	IAmb	09 01 51.4	
	comp=Z,18nm,1.4s						
GO05	**Hualane**	**38.97**	**287**	P	**P**	**09 01 10.5**	**-0.7**
BO01	**Tunca**	**39.05**	**289**	P	**P**	**09 01 10.5**	**-1.4**
BO01				IAmb	IAmb	09 01 14.1	
	comp=Z,15nm,1.3s						
BO04	**La Punta**	**39.14**	**289**	P	**P**	**09 01 12.5**	**-0.2**
BO04				IAmb	IAmb	09 01 22.2	
	comp=Z,26nm,1.5s						
MT08	**Bocatoma Ro**	**39.30**	**291**	P	**P**	**09 01 14.7**	**+0.4**
MT08				IAmb	IAmb	09 01 37.2	
	comp=Z,15nm,1.3s						
MT09	**Talagante**	**39.50**	**289**	P	**P**	**09 01 15.7**	**-0.1**
MT09				IAmb	IAmb	09 01 38.1	
	comp=Z,16nm,1.1s						
MT01	**Popeta**	**39.56**	**289**	P	**P**	**09 01 16.1**	**0.0**
MT01				IAmb	IAmb	09 01 43.6	
	comp=Z,16nm,1.1s						
MT02	**Curacav**	**39.99**	**290**	P	**P**	**09 01 20.0**	**+0.2**
ZON	**Zonda**	**40.22**	**294**	P	**P**	**09 01 22.2**	**+0.4**
SUR	**Sutherland**	**40.42**	**69**	LR	LR	09 15 30.8	
	comp=Z,74nm,18.9s,baz=196,slow=32						
CO04	**Los Peladeros**	**40.91**	**291**	P	**P**	**09 01 27.8**	**+0.1**
CO01	**Juntas del Tor**	**42.20**	**293**	P	**P**	**09 01 38.7**	**+0.5**
CO01				IAmb	IAmb	09 01 39.7	
	comp=Z,11nm,1.2s						
VNDA	**Vanda**	**43.50**	**182**	P	**P**	**09 01 48.5**	**+0.5**
	comp=Z,2.3nm,0.8s,baz=187,slow=5.9,SNR=11						
	comp=Z,2.3nm,0.8s						
VNDA	**Vanda**	**43.50**	**182**	P	**P**	**09 01 48.4**	**+0.5**
BOSA	**Boshof**	**45.67**	**71**	LR	LR	09 17 28.2	
	comp=Z,28nm,18.5s,baz=209,slow=31						
BDFB	**Brasilia**	**46.70**	**329**	P	**P**	**09 02 15.3**	**+1.2**
	comp=Z,1.2nm,0.3s,baz=172,slow=7.1,SNR=1.9						
	comp=Z,1.2nm,0.3s						
BDFB	**Brasilia**	**46.70**	**329**	P	**P**	**09 02 13.8**	**-0.3**
BDFB				IAmb	IAmb	09 02 56.4	
	comp=Z,7.6nm,1.3s						
PB14	**IPOC Station P**	**46.88**	**297**	P	**P**	**09 02 14.5**	**-1.3**
LBTB	**Lobatse**	**48.86**	**68**	LR	LR	09 18 20.9	
	comp=Z,42nm,20.8s,baz=195,slow=30						
TSUM	**Tsumeb**	**50.25**	**56**	LR	LR	09 21 07.1	
	comp=Z,57nm,18.5s,baz=160,slow=32						
SMTB	**Santa Maria do**	**53.09**	**331**	P	**P**	**09 03 03.0**	**+0.4**
VILB	**Vilhena**	**53.10**	**315**	P	**P**	**09 03 02.5**	**-0.1**
VILB				IAmb	IAmb	09 03 24.4	
	comp=Z,16nm,1.5s						
LPAZ	**La Paz**	**53.20**	**305**	P	**P**	**09 03 04.6**	**+0.5**
	comp=Z,1.2nm,0.6s,baz=190,slow=9.5,SNR=5.5						
	comp=Z,1.2nm,0.6s						
LPAZ	**La Paz**	**53.20**	**305**	P	**P**	**09 03 03.3**	**-0.8**
MATP	**Matopo**	**54.15**	**68**	LR	LR	09 23 39.6	
	comp=Z,153nm,18.2s,baz=222,slow=33						
BOAV	**Boa Vista**	**67.51**	**321**	P	**P**	**09 04 40.8**	**-0.4**
DBIC	**Dimbokro**	**67.55**	**22**	P	**P**	**09 04 41.1**	**-0.3**
	comp=Z,4.4nm,0.9s,baz=196,slow=7.8,SNR=3.4						
	comp=Z,4.4nm,0.9s						
DBIC	**Dimbokro**	**67.55**	**22**	P	**P**	**09 04 41.2**	**-0.3**
MBAR	**Mbarara**	**72.55**	**60**	LR	LR	09 33 37.1	
	comp=Z,16nm,20.4s,baz=110,slow=33						
TORD	**Torodi Ar. Bea**	**75.22**	**27**	P	**P**	**09 05 28.5**	**+0.8**
	comp=Z,3.5nm,0.7s,baz=194,slow=6.5,SNR=23						
	comp=Z,3.5nm,0.7s						
ASAR	**Alice Springs**	**95.62**	**161**	P	**P**	**09 07 10.0**	**-0.7**
	comp=Z,0.3nm,0.6s,baz=193,slow=4.5,SNR=6.9						
	comp=Z,0.3nm,0.6s						
ASAR	**Alice Springs**	**95.62**	**161**	P	**P**	**09 07 10.5**	**-0.2**
WRA	**Warramunga Arr**	**99.34**	**160**	P	**Pdif**	**09 07 27.5**	**+0.1**
	comp=Z,0.4nm,1.0s,baz=199,slow=6.6,SNR=1.9						
	comp=Z,0.4nm,1.0s						
YKA	**Yellowknife Ar**	**139.30**	**315**	PKP	**PKPdf**	**09 13 10.6**	**0.0**
	comp=Z,0.7nm,0.7s,baz=95,slow=19,SNR=3.8						
R33M	**Jennings River**	**144.06**	**303**	PKPdf	**PKPdf**	**09 13 19.0**	**-0.5**
Q32M	**Nakina River**	**144.39**	**302**	PKPdf	**PKPdf**	**09 13 20.6**	**+0.4**
R32K	**Eaglecrest**	**145.01**	**300**	PKPbc	**PKPdf**	**09 13 20.8**	**-0.2**
P33M	**Teslin, Yukon**	**145.28**	**303**	PKPbc	**PKPab**	**09 13 21.8**	**+0.3**
P32M	**Atlin**	**145.35**	**302**	PKPbc	**PKPdf**	**09 13 21.1**	**-0.5**
C36M	**Paulatuk**	**146.17**	**321**	PKPdf	**PKPbc**	**09 13 22.9**	**-0.8**
WHY	**Whitehorse**	**146.39**	**303**	PKPdf	**PKPdf**	**09 13 23.1**	**-0.3**
JCJ	**Chichijima**	**146.70**	**159**	PKPdf	**PKPdf**	**09 13 24.3**	**-0.6**
M31M	**Drury Creek, Y**	**146.92**	**306**	PKPdf	**PKPbc**	**09 13 25.0**	**-1.2**
O30N	**Mendenhall**	**146.97**	**303**	PKPdf	**PKPbc**	**09 13 25.5**	**-0.9**
N31M	**Braeburn, Yuko**	**147.17**	**304**	PKPdf	**PKPdf**	**09 13 25.3**	**+0.7**
SONM	**Songino Array**	**149.57**	**90**	PKPbc	**PKPbc**	**09 13 33.5**	**-0.2**
	comp=Z,1.8nm,0.9s,baz=239,slow=2.7,SNR=7.4						
ILAR	**Eielson Array**	**153.07**	**307**	PKPbc	**PKiKP**	**09 13 41.1**	**-0.2**
	comp=Z,1.3nm,0.9s,baz=107,slow=4.0,SNR=9.7						

*SOME **16** 09:19:14.3, 40°.65N×79°.82E, h10km*
*KRNET **16** 09:19:15.4±0.1, 40°.74N×80°.01E, mb3.1*
*NNC **16** 09:19:16.1±2.8, 40°.75N×79°.86E, h3km±23km, mb3.3, mpv2.9, Error ellipse: s-maj=26.3km s-min=17.9km az=69.0*
ISC 16 09:19:20.0±4.0, 40°.9N±0°.1×79°.81E±0°.08, h6km±18km, n17, σ1s17/28, 8C-7D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**1.71**	**298**	⇓*i*P	**Pn**	**09 19 50.8**	**+0.2**
TARG				⇓*i*S	**Sg**	**09 20 16.5**	**+1.6**
PRZ	**Przheval'sk**	**1.88**	**326**	⇑*i*P	**Pn**	**09 19 53.3**	**+0.6**
PRZ				⇑*i*S	**Sg**	**09 20 21.2**	**+1.0**
SHLS	**Shalkode**	**2.24**	**353**	Pg	**Pb**	**09 20 00.6**	**-0.2**
	14nm,0.4s						
SHLS				Lg	Lg	09 20 33.8	
	23nm,0.8s						
UZB	**Uzynbulak**	**2.29**	**345**	Pg	**Pb**	**09 20 00.6**	**-1.2**
	5.7nm,0.4s						
UZB				Lg	Lg	09 20 33.8	
	5.5nm,0.8s						
UZB	**Uzynbulak**	**2.29**	**345**	*e*P	**Pb**	**09 20 00.6**	**-1.2**
	5.7nm,0.4s						
UZB				*e*S	**Sg**	**09 20 33.8**	**+0.3**
	5.5nm,0.8s						
KDJ	**Kajisay**	**2.31**	**302**	⇓*i*P	**Pn**	**09 19 58.7**	**0.0**
KDJ				⇓*i*S	**Sb**	**09 20 30.4**	**-0.6**
SATY	**Saty**	**2.37**	**334**	Pg	**Pb**	**09 20 02.8**	**-0.2**
	5.9nm,0.5s						
SATY				Lg	Lg	09 20 38.0	
	17nm,0.6s						
SATY	**Saty**	**2.37**	**334**	*e*P	**Pb**	**09 20 02.8**	**-0.2**
	5.9nm,0.5s						
SATY				*e*S	**Sg**	**09 20 38.0**	**+1.9**
	17nm,0.6s						
PDGK	**Podgornoye**	**2.41**	**354**	⇑Pg	**Pb**	**09 20 04.4**	**+0.6**
	4.7nm,0.5s						
PDGK				⇓Lg	Lg	09 20 38.2	
	11nm,0.7s						
ANVS	**Anan'yevo**	**2.44**	**320**	⇓*i*P	**Pn**	**09 20 01.2**	**+0.6**
ANVS				⇓*i*S	**Sb**	**09 20 34.5**	**-0.4**
KPKS	**Kokpek**	**2.67**	**342**	Pg	**Pb**	**09 20 07.2**	**-1.0**
	0.2nm,0.3s						
KPKS				Lg	Lg	09 20 45.1	
	7.7nm,1.0s						
KPKS	**Kokpek**	**2.67**	**342**	*e*P	**Pb**	**09 20 07.2**	**-1.0**
	0.2nm,0.3s						
KPKS				*e*S	**Sg**	**09 20 45.1**	**-0.5**
	7.7nm,1.0s						
KURS	**Kuram**	**2.83**	**335**	Pg	**Pb**	**09 20 10.1**	**-0.8**
	2.2nm,0.6s						
KURS				Lg	Lg	09 20 50.3	
	6.8nm,0.8s						
KURS	**Kuram**	**2.83**	**335**	*e*P	**Pb**	**09 20 10.1**	**-0.8**
	2.2nm,0.6s						
KURS				*e*S	**Sg**	**09 20 50.4**	**-0.5**
	6.8nm,0.8s						
NRN	**Naryn**	**2.92**	**281**	⇑*i*P	**Pn**	**09 20 07.2**	**0.0**
NRN				⇑*i*S	**Sn**	**09 20 44.7**	**+1.9**
ULHL	**Ulahol**	**2.98**	**297**	⇑*i*P	**Pn**	**09 20 08.2**	**+0.2**
ULHL				⇑*i*S	**Sb**	**09 20 46.8**	**-3.5**
MK31	**Makanchi Array**	**6.12**	**16**	Pn	**Pn**	**09 20 50.9**	**-0.1**
	0.3nm,0.5s,baz=198,slow=15,SNR=7.7						
MK31				⇑Sn	**Sn**	**09 22 02.4**	**+1.1**
	0.3nm,0.6s,baz=193,slow=26,SNR=3.5						

*IDC **16** 09:29:05.4±1.5, 11°.49N×86°.82W, h159km±28km, mb3.0/1, mbtmp3.6/3, Error ellipse: s-maj=65.2km s-min=25.6km az=38.0*
*CATAC **16** 09:29:06.9, 12°N±1°×8°6W±1°, h146km±1km, M3.1/37, MLv3.1/37, confirmed*
*UCR **16** 09:29:06.9±1.4, 11°.24N×87°.07W, h16km±25km, MW3.8, Presumed earthquake*
ISC 16 09:29:05.6±1.0, 12°.00N±0°.06×86°.42W±0°.06, h153km±6km, n65, σ1s00/81, 1C, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABCN	**Banco Central**	**0.17**	**42**	P	**Pn**	**09 29 26.9**	**+0.7**
ABCN				S	**Sn**	**09 29 41.1**	**-0.7**
TISN	**Laguna Tiscapa**	**0.21**	**47**	P	**Pn**	**09 29 25.9**	**-0.4**
APQ2	**Apoyeque**	**0.22**	**26**	P	**Pn**	**09 29 26.9**	**+0.6**
APQ2				S	**Sn**	**09 29 41.5**	**-0.5**
COPN	**Copaltepe**	**0.24**	**318**	P	**Pn**	**09 29 25.5**	**-0.8**
COPN	**Copaltepe**	**0.24**	**318**	⇑*i*P	**Pn**	**09 29 25.6**	**-0.8**
APYN	**Apoyeque**	**0.24**	**17**	P	**Pn**	**09 29 28.1**	**+1.8**
MAS3	**Al N del Volca**	**0.24**	**84**	P	**Pn**	**09 29 26.8**	**+0.4**
SABN	**Sabanita**	**0.26**	**99**	P	**Pn**	**09 29 26.9**	**+0.6**
MASN	**Masaya**	**0.27**	**92**	P	**Pn**	**09 29 28.7**	**+2.2**
WILN	**Americas 2**	**0.28**	**55**	P	**Pn**	**09 29 27.0**	**+0.6**
WILN				S	**Sn**	**09 29 42.2**	**0.0**
NANN	**Nandasmo**	**0.30**	**101**	P	**Pn**	**09 29 28.1**	**+1.6**
MOM2	**El Cardon**	**0.44**	**352**	P	**Pn**	**09 29 27.7**	**+0.7**
MOM2				S	**Sn**	**09 29 44.1**	**+0.8**
LEVN	**Ruinas Leon Vi**	**0.44**	**335**	P	**Pn**	**09 29 28.2**	**+1.2**
NADN	**Granada**	**0.46**	**123**	P	**Pn**	**09 29 27.9**	**+0.9**
NADN				S	**Sn**	**09 29 44.0**	**+0.6**
NADN	**Granada**	**0.46**	**123**	*e*P	**Pn**	**09 29 27.1**	**0.0**
MOM3	**MOM3**	**0.52**	**350**	P	**Pn**	**09 29 27.8**	**+0.4**
CNGA	**Al SSO del Vol**	**0.56**	**331**	P	**Pn**	**09 29 28.2**	**+0.5**
CNGN	**Cerro Negro**	**0.57**	**332**	P	**Pn**	**09 29 28.1**	**+0.5**
PLRN	**Geotermica Pol**	**0.67**	**330**	P	**Pn**	**09 29 28.7**	**+0.4**
PLRN				S	**Sn**	**09 29 45.8**	**+0.3**
TELN	**Telica**	**0.72**	**327**	P	**Pn**	**09 29 28.4**	**-0.2**
QUEN	**Al S del Volca**	**0.72**	**325**	P	**Pn**	**09 29 29.4**	**+0.8**
QUEN				S	**Sn**	**09 29 46.3**	**+0.1**
HERN	**Volcan Telica**	**0.72**	**327**	P	**Pn**	**09 29 29.6**	**+1.0**
HERN	**Volcan Telica**	**0.72**	**327**	*e*P	**Pn**	**09 29 28.9**	**+0.2**
MORN	**Al O del Volca**	**0.88**	**120**	P	**Pn**	**09 29 30.5**	**+0.8**
OMEN	**Al SSO del Vol**	**0.92**	**122**	P	**Pn**	**09 29 30.5**	**+0.5**
CARN	**Rivas**	**1.20**	**132**	P	**Pn**	**09 29 33.2**	**+0.8**
CARN				S	**Sn**	**09 29 52.5**	**-0.3**
CARN	**Rivas**	**1.20**	**132**	*e*P	**Pn**	**09 29 32.7**	**+0.3**
CARN				*e*S	**Sn**	**09 29 53.6**	**+0.7**
LCRUZ	**La Cruz**	**1.20**	**140**	*e*P	**Pn**	**09 29 33.0**	**+0.5**
ACON	**Acoyapa**	**1.22**	**91**	P	**Pn**	**09 29 32.8**	**+0.2**
POTN	**Potosi Cosigui**	**1.45**	**313**	P	**Pn**	**09 29 35.1**	**+0.2**
POTN				S	**Sn**	**09 29 57.5**	**+0.2**
BUAI	**Buenos Aires**	**1.55**	**136**	*e*P	**Pn**	**09 29 36.4**	**+0.5**
RCPN	**Sur Rio San Ju**	**1.55**	**12**	P	**Pn**	**09 29 36.9**	**+0.8**
LAPC	**Finca la Perla**	**1.56**	**141**	*e*P	**Pn**	**09 29 35.4**	**-0.7**
VRLE	**La Escondida,**	**1.59**	**139**	*e*P	**Pn**	**09 29 37.1**	**+0.6**
RCVN	**Varillal2**	**1.59**	**8**	P	**Pn**	**09 29 37.5**	**+0.9**
OCON	**Estacion meteo**	**1.62**	**358**	P	**Pn**	**09 29 37.6**	**+0.8**
CLARA	**Aguas Claras**	**1.72**	**134**	*e*P	**Pn**	**09 29 37.9**	**+0.1**
MESS	**Mesas**	**1.74**	**136**	*e*P	**Pn**	**09 29 38.5**	**+0.5**
CUI	**Cuipilapa**	**1.82**	**137**	*e*P	**Pn**	**09 29 39.0**	**+0.1**
CNCH	**Conchagua**	**1.87**	**313**	P	**Pn**	**09 29 40.4**	**+0.8**
CNCH				S	**Sn**	**09 30 05.9**	**+0.2**
LCND	**La Caada**	**1.94**	**312**	P	**Pn**	**09 29 40.9**	**+0.7**
TIMP	**Tierras Morena**	**1.97**	**135**	*e*P	**Pn**	**09 29 41.2**	**+0.6**
TILA	**Tilaran**	**2.08**	**137**	*e*P	**Pn**	**09 29 42.3**	**+0.3**
CHIK	**Chiripa**	**2.15**	**136**	*e*P	**Pn**	**09 29 43.1**	**+0.4**
CMARA	**Lajas Hojancha**	**2.20**	**153**	P	**Pn**	**09 29 44.1**	**+0.7**
TGUH	**Tegucigalpa,Un**	**2.21**	**338**	P	**Pn**	**09 29 44.7**	**+1.2**
JTS	**Las Juntas de**	**2.23**	**139**	P	**Pn**	**09 29 43.8**	**+0.1**
	22nm,0.3s,baz=319,slow=11,SNR=6.9						
JTS				S	**Sn**	**09 30 12.8**	**-0.2**
	112nm,0.4s,baz=298,slow=22,SNR=14						
JTS	**Las Juntas de**	**2.23**	**139**	*e*P	**Pn**	**09 29 44.3**	**+0.6**
VARE2	**V. Arenal**	**2.27**	**132**	*e*P	**Pn**	**09 29 46.2**	**+2.0**
CASO	**Castillo**	**2.27**	**133**	*e*P	**Pn**	**09 29 45.5**	**+1.2**
MTEVE	**Monteverde**	**2.29**	**137**	*e*P	**Pn**	**09 29 45.2**	**+0.7**
PACA	**Pacayal**	**2.36**	**308**	P	**Pn**	**09 29 46.4**	**+1.1**
PACA				S	**Sn**	**09 30 16.9**	**+1.0**
BLUN	**Bluefields**	**2.59**	**90**	P	**Pn**	**09 29 48.0**	**0.0**
ARZA	**Esparza**	**2.64**	**139**	*e*P	**Pn**	**09 29 50.3**	**+1.7**
SRA1	**San Ramn**	**2.69**	**135**	*e*P	**Pn**	**09 29 50.5**	**+1.1**
PALD	**Palmares**	**2.75**	**135**	*e*P	**Pn**	**09 29 51.4**	**+1.4**
TRB2	**Turrubares**	**2.84**	**137**	*e*P	**Pn**	**09 29 51.9**	**+0.8**
TRT2	**Tortugero**	**3.00**	**118**	P	**Pn**	**09 29

σ1$18/22, **mb3.0**/5, **Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APC	**Apacha**	**0.18**	**113**	*eP*	**Pn**	**09 51 58.3**	**-0.1**
PETK	**Petropavlovsk-**	**0.51**	**77**	P	Pn	09 51 46.2	-13
	6.5nm,0.5s,baz=96,slow=15,SNR=36						
PETK				S	S	09 52 09.1	-18
	3.4nm,0.3s,baz=65,slow=24,SNR=5.9						
MIPR	**Malaya Ipel'ka**	**0.72**	**186**	*eP*	**Pn**	**09 51 59.5**	**-0.3**
PET	**Petropavlovsk**	**1.07**	**88**	*eS*	**S**	**09 52 32.6**	**+1.0**
DALK	**Dalny**	**1.13**	**87**	*eS*	**S**	**09 52 32.9**	**+0.7**
RUS	**Russkaya**	**1.14**	**119**	*eP*	**Pn**	**09 52 01.8**	**+0.1**
RUS				*eS*	**S**	**09 52 32.2**	**-0.1**
UGLR	**Uglovaya**	**1.19**	**79**	*eS*	**S**	**09 52 34.2**	**+1.2**
KDTR	**Khodutka, Kamc**	**1.40**	**148**	*eP*	**Pn**	**09 52 02.4**	**-0.9**
KDTR				*eS*	**S**	**09 52 33.1**	**-2.0**
NLC	**Nalytchevo**	**1.50**	**82**	*eS*	**S**	**09 52 37.7**	**+1.5**
PAU	**Pauzhetka**	**1.53**	**182**	*eP*	**Pn**	**09 52 04.2**	**0.0**
SPN	**Mys Shipunski**	**1.90**	**86**	*eP*	**Pn**	**09 52 07.7**	**+0.8**
SPN				*eS*	**S**	**09 52 40.9**	**-0.9**
TUMD	**Tumrok D**	**3.03**	**42**	*eS*	**S**	**09 53 00.2**	**-0.6**
MKZ	**Mys Kozlova**	**3.28**	**60**	*eS*	**S**	**09 53 03.0**	**-2.4**
KBTR	**Krutoberegovo**	**4.72**	**45**	*eP*	**Pn**	**09 52 36.7**	**+0.4**
KBTR				*eS*	**S**	**09 53 32.3**	**-2.6**
ILAR	**Eielson Array**	**30.26**	**45**	P	**P**	**09 57 08.2**	**0.0**
	0.3nm,0.6s,baz=268,slow=7.1,SNR=5.8 0.3nm,0.6s						
YKA	**Yellowknife Ar**	**44.53**	**41**	P	**P**	**09 59 07.2**	**0.0**
	0.4nm,0.6s,baz=305,slow=7.0,SNR=5.4 0.4nm,0.6s						
PDAR	**Pinedale Array**	**59.25**	**59**	P	**P**	**10 00 56.2**	**+0.5**
	0.1nm,0.3s,baz=316,slow=4.6,SNR=4.3 0.1nm,0.3s						
TXAR	**Lajitas Array**	**72.45**	**65**	P	**P**	**10 02 20.2**	**+0.7**
	0.2nm,0.7s,baz=323,slow=6.1,SNR=5.0 0.2nm,0.7s						
ASAR	**Alice Springs**	**78.91**	**201**	P	**P**	**10 02 55.4**	**-0.4**
	0.5nm,0.6s,baz=15,slow=4.8,SNR=12 0.5nm,0.6s						

*IDC **16** 10:06:10.0±0.8,31°.19N×49°.80E,h0km,mb3.9/19, mbtmp3.9/21,ML3.8/2,MS3.2/5,Error ellipse: s-maj=21.5km s-min=14.0km az=179.0*
*NEIC **16** 10:06:12.2±1.5,31°.20N±0°.04×49°.65E±0°.09,h10km±1km, mb4.2/21,Error ellipse: s-maj=14.0km s-min=3.8km az=64.0*
*TEH **16** 10:06:13.6,31°.29N×49°.79E,h11km±19km,ML3.9, Presumed earthquake*
*THR **16** 10:06:13.5±0.0,31°.23N×49°.76E,h11km±2km,ML4.0, Presumed earthquake*
*OMAN **16** 10:06:21.2±0.7,30°.47N×49°.94E,h6km,mb3.9/21,Error ellipse: s-maj=6.4km s-min=3.7km az=8.0*
*DSN **16** 10:06:22.3±1.3,30°.39N×49°.85E,h15km,ML3.8/8,Error ellipse: s-maj=17.4km s-min=7.1km az=8.0*

ISC 16 10:06:11.9±0.4,**31°.17N**±0°.04×**49.76E**±0°.04,**h10km**,**n134,** σ2$32/154, **mb4.1**/27, **MS3.2**/4, **Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AMIS	**Naft Sefid**	**0.63**	**321**	Pg	**Pb**	**10 06 25.4**	**+0.4**
ABEH	**Behbahan**	**0.71**	**143**	Pg	**Pg**	**10 06 29.0**	**+3.3**
AHWZ	**Ahwaz**	**0.96**	**280**	Pg	**Pn**	**10 06 33.1**	**+1.6**
JHBN	**Jahan bin**	**1.31**	**36**	Pg	**Pg**	**10 06 36.7**	**-0.4**
ZNGN	**Zangian**	**1.33**	**45**	Pg	**Pb**	**10 06 36.8**	**-0.3**
GTMR	**Gotvand**	**1.40**	**337**	*e*Pg	**Pb**	**10 06 38.5**	**+0.3**
GTMR				IAML		10 07 02.4	
	comp=Z,2μm,1.0s						
IBRJ	**Brojen**	**1.48**	**60**	Pg	**Pg**	**10 06 40.4**	**0.0**
KLNJ	**Kolanjah**	**1.58**	**96**	*e*Pn	**Pn**	**10 06 41.9**	**+1.5**
KLNJ				IAML		10 07 09.0	
	comp=Z,4μm,1.0s						
KLNJ	**Kolanjah**	**1.58**	**96**	Pg	**Pb**	**10 06 42.7**	**+1.2**
KAZ2	**Kazeron-Fars-I**	**2.27**	**133**	Pn	**Pn**	**10 06 53.7**	**+4.2**
IRAM	**Ramesheh**	**2.33**	**74**	Pn	**Pb**	**10 06 54.0**	**-0.2**
KHMZ	**Khomeyn**	**2.56**	**4**	*e*Pn	**Pb**	**10 06 56.9**	**-1.2**
KHMZ				IAML		10 07 36.7	
	comp=Z,540nm,1.0s						
KBD	**Kabd**	**2.67**	**222**	P	**Pn**	**10 06 59.5**	**+4.4**
KBD				S	**Sn**	**10 07 31.9**	**+4.4**
IKFM	**Kafar-mosalman**	**2.85**	**326**	Pn	**Pn**	**10 06 59.6**	**+2.3**
DSBU	**Dashti - Bushe**	**3.09**	**155**	Pn	**Pn**	**10 07 05.0**	**+4.2**
GHVR	**GHOM**	**3.54**	**21**	*e*Pn	**Pn**	**10 07 09.8**	**+2.7**
GHVR				IAML		10 08 12.1	
	comp=Z,390nm,1.0s						
TAFT	**Taft - Yazd**	**3.81**	**81**	Pn	**Pn**	**10 07 14.2**	**+3.3**
IQOM	**Qom**	**3.82**	**16**	Pn	**Pn**	**10 07 13.2**	**+2.1**
ILBA	**Ilam Banvizeh**	**3.87**	**310**	*e*Pn	**Pn**	**10 07 13.9**	**+2.4**
ILBA				IAML		10 08 49.5	
	comp=Z,85nm,1.0s						
IALM	**Almabolaq**	**3.91**	**340**	Pn	**Pn**	**10 07 14.4**	**+2.1**
SNQR	**Sonqor, Kerman**	**4.08**	**335**	Pn	**Pn**	**10 07 16.7**	**+2.0**
ICHK	**Chekchek**	**4.11**	**74**	Pn	**Pn**	**10 07 17.4**	**+2.5**
IGHG	**Ghaleghazi**	**4.14**	**320**	Pn	**Pn**	**10 07 17.6**	**+2.2**
DOBD	**Dorbid, Yazd**	**4.14**	**77**	Pn	**Pn**	**10 07 18.5**	**+3.2**
IMEH	**Mehriz**	**4.17**	**86**	Pn	**Pn**	**10 07 19.4**	**+3.6**
YZKH	**Yazd**	**4.29**	**72**	*e*Pn	**Pn**	**10 07 20.4**	**+3.0**
YZKH				IAML		10 08 25.4	
	comp=Z,76nm,1.0s						
SNGE	**Sanandaj**	**4.40**	**333**	*e*Pn	**Pn**	**10 07 20.9**	**+1.9**
SNGE				IAML		10 08 14.6	
	comp=Z,160nm,1.0s						
QABG	**Abgarm-Qazvin**	**4.53**	**358**	Pn	**Pn**	**10 07 23.5**	**+2.8**
DAMV	**Damavand**	**4.81**	**22**	*e*Pn	**Pn**	**10 07 27.3**	**+2.6**
DAMV				IAML		10 08 56.3	
	comp=Z,79nm,1.0s						
CHTH	**Charan**	**4.86**	**13**	*e*Pn	**Pn**	**10 07 28.2**	**+2.9**
CHTH				IAML		10 08 42.2	
	comp=Z,29nm,1.0s						
SAKB	**Bahrain**	**5.22**	**172**	P	**Pn**	**10 07 30.8**	**+0.7**
ZNJK	**Zanjan**	**5.55**	**351**	*e*Pn	**Pn**	**10 07 37.9**	**+3.1**
ZNJK				IAML		10 09 28.6	
	comp=Z,11nm,1.0s						
SRSL	**SARDASHT**	**6.18**	**326**	*e*Pn	**Pn**	**10 07 46.0**	**+2.6**
SRSL				IAML		10 08 57.4	
	comp=Z,130nm,1.0s						
TABS	**Tabas**	**6.70**	**66**	*e*Pn	**Pn**	**10 07 53.8**	**+3.4**
TABS				IAML		10 10 00.7	
	comp=Z,23nm,1.0s						
JRN	**Qarnain Island**	**6.78**	**155**	P	**Pn**	**10 07 52.6**	**+1.0**
SHRO	**Shahrood**	**7.09**	**46**	*e*Pn	**Pn**	**10 07 58.8**	**+2.9**
SHRO				IAML		10 09 35.7	
	comp=Z,2.4nm,1.0s						
SLWR	**Sila**	**7.28**	**166**	P	**Pn**	**10 08 00.6**	**+2.2**
SHME	**Shamm**	**7.59**	**131**	P	**Pn**	**10 08 04.9**	**+2.3**
SHME	**Shamm**	**7.59**	**131**	P	**Pn**	**10 08 04.6**	**+2.0**
SHME				S	**Sn**	**10 09 25.3**	**-3.4**
BANOM	**Banah**	**7.78**	**131**	P	**Pn**	**10 08 06.7**	**+1.5**
BANOM				S	**Sn**	**10 09 29.0**	**-4.3**
BANOM	**Banah**	**7.78**	**131**	P	**Pn**	**10 08 07.7**	**+2.5**
BANOM				S	**Sn**	**10 09 29.5**	**-3.8**
BSRN	**Basiran**	**8.04**	**82**	*e*Pn	**Pn**	**10 08 11.5**	**+2.7**
BSRN				IAML		10 08 13.1	
	comp=Z,4.3nm,0.9s						
NAZ	**Nazwa, Dubai**	**8.07**	**138**	P	**Pn**	**10 08 12.1**	**+2.9**
	SNR=6.9						
NAZ				S	**Sn**	**10 09 38.0**	**-2.6**
MASF	**Masafi**	**8.08**	**134**	P	**Pn**	**10 08 11.8**	**+2.4**
MASF				S	**Sn**	**10 09 37.8**	**-3.1**
MSFE	**Esma-Masafi**	**8.09**	**134**	P	**Pn**	**10 08 11.0**	**+1.5**
ASUD	**Al Ashush, Dub**	**8.18**	**142**	P	**Pn**	**10 08 12.8**	**+2.2**
	SNR=8.7						
ASUD				S	**Sn**	**10 09 39.1**	**-4.0**
MDH	**Madha**	**8.22**	**134**	P	**Pn**	**10 08 13.2**	**+2.0**
MDH	**Madha**	**8.22**	**134**	P	**Pn**	**10 08 13.4**	**+2.2**
MDH				S	**Sn**	**10 09 40.9**	**-3.3**
FAQ	**Al Faqa, Dubai**	**8.22**	**140**	P	**Pn**	**10 08 14.3**	**+3.0**
FAQ				S	**Sn**	**10 09 41.0**	**-3.4**
MZWR	**Madinat Zayed**	**8.24**	**153**	P	**Pn**	**10 08 13.8**	**+2.3**
SBZV	**Sabzevar**	**8.35**	**49**	*e*Pn	**Pn**	**10 08 16.1**	**+2.8**
SBZV				IAML		10 08 22.2	
	comp=Z,14nm,1.0s						
UOSS	**Minazif**	**8.42**	**136**	P	**Pn**	**10 08 15.9**	**+1.9**
UOSS	**Minazif**	**8.42**	**136**	P	**Pn**	**10 08 16.4**	**+2.3**
UOSS				S	**Sn**	**10 09 44.7**	**-4.5**
UOSS	**Minazif**	**8.42**	**136**		**Pn**	**10 08 15.6**	**+1.6**
RAYN	**Ar Rayn**	**8.51**	**207**	P	**Pn**	**10 08 15.5**	**+0.2**
RAYN	**Ar Rayn**	**8.51**	**207**	P	**Pn**	**10 08 15.8**	**+0.6**
RAYN				S	**Sn**	**10 09 48.4**	**-3.0**
RAYN	**Ar Rayn**	**8.51**	**207**		**Pn**	**10 08 15.2**	**-0.1**
ASHO	**Ashiyiah**	**8.54**	**138**	P	**Pn**	**10 08 16.8**	**+1.2**
ASHO				S	**Sn**	**10 09 47.8**	**-4.2**
ASHO	**Ashiyiah**	**8.54**	**138**	P	**Pn**	**10 08 17.0**	**+1.4**
	SNR=6.9						
ASHO				S	**Sn**	**10 09 48.4**	**-3.6**
MZR	**Muzera**	**8.79**	**157**	P	**Pn**	**10 08 20.2**	**+1.1**
MZR	**Muzera**	**8.79**	**157**	P	**Pn**	**10 08 21.0**	**+2.0**
	SNR=8.9						
MZR				S	**Sn**	**10 09 54.0**	**-4.2**
ALNE	**Al Ain**	**8.86**	**142**	P	**Pn**	**10 08 21.4**	**+1.3**
JASK	**Jask - Hormozg**	**8.88**	**125**	P	**Pn**	**10 08 21.7**	**+1.4**
JASK				S	**Sn**	**10 09 57.9**	**-2.5**
BJRD	**Bojnurd**	**9.07**	**42**	*e*Pn	**Pn**	**10 08 26.9**	**+3.9**
BJRD				IAML		10 08 32.3	
	comp=Z,19nm,0.9s						
SOHO	**SOHO**	**9.23**	**138**	P	**Pn**	**10 08 26.0**	**+0.8**
SOHO				S	**Sn**	**10 10 06.3**	**-2.8**
SHRT	**Shahrakht**	**9.24**	**72**	*e*Pn	**Pn**	**10 08 29.3**	**+4.0**
SHRT				IAML_BB		10 09 11.7	
	comp=Z,390nm,1.0s						
UMZA	**Um Al Zommool**	**9.71**	**149**	P	**Pn**	**10 08 33.6**	**+1.9**
UMZA				S	**Sn**	**10 10 16.0**	**-4.8**
ARQ	**Araqi**	**9.86**	**141**	P	**Pn**	**10 08 34.5**	**+0.7**
ARQ				S	**Sn**	**10 10 22.6**	**-1.9**
BSY	**Bisya**	**10.70**	**140**	P	**Pn**	**10 08 46.1**	**+0.8**
	SNR=5.8						
BSY				S	**Sn**	**10 10 41.2**	**-4.0**
SMDO	**Samad**	**10.95**	**136**	P	**Pn**	**10 08 50.1**	**+1.4**
	SNR=6.5						
SMDO				S	**Sn**	**10 10 47.6**	**-3.7**
ASF	**Jabal al Asfar**	**11.00**	**279**	Pn	**Pn**	**10 08 48.9**	**-0.6**
	comp=Z,1.3nm,0.3s,baz=80,slow=9.1,SNR=6.3						
ASF				Sn	Sn	10 10 45.4	-7.3
	comp=Z,0.2nm,0.3s,baz=268,slow=17,SNR=1.3 comp=Z,3.0nm,0.3s						
ASF				AML	AML		
WSAR	**Wadi Sarin**	**11.17**	**133**	P	**Pn**	**10 08 53.9**	**+2.1**
WSAR				S	**Sn**	**10 10 52.3**	**-4.4**
JMDO	**Jabal Madar**	**11.51**	**138**	P	**Pn**	**10 08 58.3**	**+2.0**
JMDO				S	**Sn**	**10 11 01.1**	**-3.8**
NGCH	**Negor - Chabah**	**11.58**	**117**	P	**Pn**	**10 08 59.1**	**+1.8**
WBK	**Wadi Bani Khal**	**11.84**	**134**	P	**Pn**	**10 09 03.3**	**+2.4**
WBK				S	**Sn**	**10 11 10.9**	**-2.3**
JLN	**Jalan Bani Buh**	**12.46**	**134**	P	**Pn**	**10 09 10.3**	**+1.0**
MHTO	**MHTO**	**12.54**	**142**	P	**Pn**	**10 09 11.5**	**+1.1**
	SNR=15						
MHTO				S	**Sn**	**10 11 25.6**	**-4.7**
EIL	**Elat**	**12.87**	**267**	LR	LR	10 15 15.2	
	comp=Z,31nm,18.1s,baz=323,slow=42						
DOK	**Doka**	**13.11**	**161**	P	**Pn**	**10 09 19.0**	**+0.7**
	SNR=13						
DOK				S	Sn	10 11 38.5	-5.8
DQM	**DQM**	**13.21**	**146**	P	**Pn**	**10 09 19.4**	**-0.3**
DQM				S	**Sn**	**10 11 42.2**	**-4.5**
WHFO	**Wadi Hawf**	**13.69**	**164**	P	**Pn**	**10 09 26.5**	**+0.3**
	SNR=11						
WHFO				S	**Sn**	**10 11 53.6**	**-4.9**
ABTO	**Aybut**	**14.13**	**166**	P	**Pn**	**10 09 32.6**	**+0.4**
ABTO				S	Sn	10 12 02.7	-6.5
SHAO	**Shalim**	**14.13**	**157**	P	**Pn**	**10 09 31.9**	**-0.3**
SHAO				S	Sn	10 12 04.0	-5.3
DMTO	**DMTO**	**14.20**	**159**	P	**Pn**	**10 09 32.8**	**-0.4**
DMTO				S	Sn	10 12 05.7	-5.2
BRTR	**Keskin Array B**	**15.64**	**307**	Pn	**Pn**	**10 09 55.4**	**+2.8**
	comp=Z,0.2nm,0.3s,baz=124,slow=11,SNR=4.0 comp=Z,0.9nm,0.7s						
BRTR				AML	AML		
AB31	**Akbulak array**	**19.63**	**20**	P	**P**	**10 10 40.6**	**+0.1**
ABKAR	**Akbulak array**	**19.63**	**20**	P	**P**	**10 10 39.4**	**-1.1**
AKTO	**Aktyubinsk**	**20.21**	**15**	P	**P**	**10 10 46.8**	**0.0**
	comp=Z,0.8nm,0.3s,baz=210,slow=11,SNR=6.4 comp=Z,0.8nm,0.3s						
KK31	**Karatay Array**	**20.32**	**48**	P	Pn	10 10 49.8	-0.4
KKAR	**Karatay Array**	**20.32**	**48**		**P**	**10 10 49.2**	**+1.0**
IDI	**Anoyia**	**21.18**	**288**	P	**P**	**10 10 58.6**	**+1.1**
	comp=Z,3.9nm,0.5s,baz=90,slow=8.1,SNR=3.1 comp=Z,3.9nm,0.5s						
IDI	**Anoyia**	**21.18**	**288**	P	**P**	**10 10 55.4**	**-2.2**
IDI				IAmb	IAmb	10 11 19.2	
	comp=Z,19nm,1.1s						
TIRR	**Tirgusor**	**21.37**	**314**	P	**P**	**10 10 59.1**	**-0.3**
TIRR				IAmb	IAmb	10 11 00.9	
	comp=Z,4.5nm,0.9s						
KSH2	**Kashi**	**22.50**	**62**	P	**P**	**10 11 15.5**	**+3.7**
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
AAK	**Ala-Archa**	**22.77**	**53**	LR	LR	10 22 01.7	
	comp=Z,54nm,18.2s,baz=182,slow=42						
MLR	**Muntele Rosu**	**23.40**	**314**	LR	LR	10 21 30.6	
	comp=Z,30nm,19.6s,baz=179,slow=39						
AGG	**Agios Georgios**	**23.70**	**297**	P	**P**	**10 11 22.9**	**-1.1**
AGG				IAmb	IAmb	10 11 25.0	
	comp=Z,1.9nm,0.5s						
ITM	**Ithomi**	**23.74**	**292**	P	**P**	**10 11 23.4**	**-0.9**
ITM				IAmb	IAmb	10 11 37.1	
	comp=Z,16nm,1.3s						
AKASG	**Malin Array Be**	**24.77**	**328**	P	**P**	**10 11 33.2**	**-0.5**
	comp=Z,1.1nm,0.5s,baz=130,slow=7.4,SNR=8.2 comp=Z,1.1nm,0.5s						
KIEV	**Kiev**	**24.78**	**328**	P	**P**	**10 11 33.4**	**-0.3**
KIEV				IAmb	IAmb	10 11 34.5	
	comp=Z,4.7nm,0.8s						
BURAR	**Bucovina Array**	**24.93**	**318**	P	**P**	**10 11 35.6**	**+0.4**
BUR08	**Bucovina Ar. S**	**24.95**	**318**	P	**P**	**10 11 33.7**	**-1.8**
BUR08				IAmb	IAmb	10 11 50.0	
	comp=Z,4.6nm,1.3s						
BVAR	**Borovoye Array**	**26.49**	**29**	P	**P**	**10 11 48.9**	**-0.3**
	comp=Z,0.9nm,0.4s,baz=231,slow=23,SNR=5.2 comp=Z,0.9nm,0.4s						
MKAR	**Makanchi Array**	**29.45**	**49**	P	**P**	**10 12 15.5**	**-0.3**
	comp=Z,0.3nm,0.5s,baz=247,slow=11,SNR=3.5 comp=Z,0.3nm,0.5s						
GERES	**GERESS Array B**	**32.38**	**313**	P	**P**	**10 12 41.7**	**0.0**
	comp=Z,0.3nm,0.4s,baz=98,slow=8.1,SNR=1.8 comp=Z,0.3nm,0.4s						
ZAA0	**Zalesovo Array**	**33.88**	**38**	P	**P**	**10 12 55.7**	**+1.1**
ZAA0				IAmb	IAmb	10 12 56.2	
	comp=Z,2.0nm,0.8s						
ZALV	**Zalesovo Beam**	**33.88**	**38**	P	**P**	**10 12 54.5**	**-0.1**
	comp=Z,0.5nm,0.4s,baz=248,slow=9.0,SNR=3.7 comp=Z,0.5nm,0.4s						
FIA1	**FINESS Array S**	**34.01**	**340**	P	**P**	**10 12 54.7**	**-1.0**
FINES	**FINESS Array B**	**34.01**	**340**	P	**P**	**10 12 55.0**	**-0.7**
	comp=Z,4.6nm,0.7s,baz=140,slow=10,SNR=22 comp=Z,4.6nm,0.7s						
HFS	**Hagfors**	**37.56**	**331**	P	**P**	**10 13 25.4**	**-0.7**
	comp=Z,1.9nm,0.8s,baz=146,slow=9.8,SNR=5.1 comp=Z,1.9nm,0.8s						
NC405	**NORSAR Array S**	**38.91**	**332**	P	**P**	**10 13 36.6**	**-0.9**
NOA	**NORSAR Array B**	**39.08**	**331**	P	**P**	**10 13 37.4**	**-1.5**
	comp=Z,0.8nm,0.7s,baz=109,slow=9.7,SNR=2.1 comp=Z,0.8nm,0.7s						
KEV	**Kevo**	**40.71**	**348**	P	**P**	**10 13 52.4**	**+0.1**
ARCES	**ARCESS Array B**	**40.80**	**347**	P	**P**	**10 13 51.2**	**-1.8**
	comp=Z,4.2nm,1.1s,baz=147,slow=7.3,SNR=6.7 comp=Z,4.2nm,1.1s						
ARCES	**ARCESS Array B**	**40.80**	**347**	P	**P**	**10 13 52.1**	**-0.9**
SONM	**Songino Array**	**45.72**	**52**	P	**P**	**10 14 32.8**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=276,slow=8.0,SNR=2.2 comp=Z,0.3nm,0.6s						
CMAR	**Chiang Mai Arr**	**46.06**	**94**	P	**P**	**10 14 35.6**	**-0.6**
	comp=Z,1.0nm,0.3s,baz=293,slow=8.4,SNR=7.0 comp=Z,1.0nm,0.3s						
TORD	**Torodi Ar. Bea**	**47.59**	**259**	P	**P**	**10 14 48.7**	**+0.6**
	comp=Z,1.0nm,0.7s,baz=50,slow=8.9,SNR=6.4 comp=Z,1.0nm,0.7s						
DBIC	**Dimbokro**	**56.46**	**256**	P	**P**	**10 15 55.0**	**+0.7**
	comp=Z,3.3nm,0.7s,baz=57,slow=7.4,SNR=3.3 comp=Z,3.3nm,0.7s						
KSRS	**Korea Array**	**63.14**	**61**	P	**P**	**10 16 39.8**	**-0.2**
	comp=Z,1.9nm,0.5s,baz=283,slow=6.6,SNR=8.6 comp=Z,1.9nm,0.5s						
ILON	**Igloolik, Nuna**	**73.73**	**344**	P	**P**	**10 17 45.8**	**+0.1**
LUWI	**Luwuk**	**76.05**	**100**	P	**P**	**10 18 00.1**	**+0.1**
C26K	**Camden Bay**	**78.64**	**5**	P	**P**	**10 18 14.5**	**+0.9**
C26K				IAmb	IAmb	10 18 15.3	
	comp=Z,4.7nm,1.0s						
D22K	**Ayikyak River**	**78.88**	**8**	P	**P**	**10 18 15.5**	**+0.5**
E19K	**Redstone River**	**79.59**	**10**	P	**P**	**10 18 18.4**	**-0.5**
E19K				IAmb	IAmb	10 18 34.7	
	comp=Z,7.8nm,1.2s						
INK	**Inuvik**	**80.79**	**1**	P	**P**	**10 18 24.9**	**-0.4**
INK				IAmb	IAmb	10 18 25.8	
	comp=Z,5.5nm,1.4s						
BMAR	**Burnt Mountain**	**81.11**	**6**	P	**P**	**10 18 27.3**	**+0.2**
IMAR	**Indian Mountai**	**81.47**	**10**	P	**P**	**10 18 29.0**	**0.0**
SIJI	**Sorong**	**83.18**	**95**	LR	LR	11 00 02.4	
	comp=Z,15nm,18.8s,baz=302,slow=39						
ILAR	**Eielson Array**	**83.49**	**7**	P	**P**	**10 18 38.9**	**-0.6**
	comp=Z,0.8nm,0.7s,baz=321,slow=4.7,SNR=14 comp=Z,0.8nm,0.7s						
YKA	**Yellowknife Ar**	**85.81**	**353**	P	**P**	**10 18 51.0**	**-0.2**
	comp=Z,1.5nm,0.8s,baz=8.4,slow=5.1,SNR=9.5 comp=Z,1.5nm,0.8s						
WRA	**Warramunga Arr**	**95.66**	**110**	LR	LR	11 08 14.0	
	comp=Z,70nm,18.6s,baz=89,slow=39						
ASAR	**Alice Springs**	**97.21**	**113**	P	**P**	**10 19 43.7**	**-1.5**
	comp=Z,0.3nm,0.9s,baz=308,slow=4.5,SNR=3.4 comp=Z,0.3nm,0.9s						
QSPA	**South Pole Qui**	**121.01**	**180**	PKP	**PKPdf**	**10 25 02.2**	**-1.7**
	comp=Z,0.7nm,0.6s,baz=257,slow=2.0,SNR=6.9						

*IDC **16** 10:26:46.9±1.3,27°.65N×130°.10E,h0km,mb3.5/3, mbtmp3.5/4,ML3.0/1,MS3.0/1,Error ellipse: s-maj=27.3km s-min=15.2km az=110.0*
*JMA **16** 10:26:50.0±0.3,28°.N±1°×13°.0E±°,h64km±4km,MV2.6/16, NEAR AMAMI-OSHIMA ISLAND*

ISC 16 10:26:48.0±2.0,**27°.61N**±0°.04×**129°.97E**±0°.06,**h13**km±13km, **n18**,σ1$58/24, **mb3.6**/3, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.70**	**0**	*e*P	**Pn**	**10 27 03.4**	**-0.2**
JZK				*e*S	**Sn**	**10 27 14.5**	**+0.3**
JAM	**Amami Oshima**	**0.86**	**338**	P	**Pb**	**10 27 05.0**	**+0.2**
JAM				*e*S	**Sb**	**10 27 16.1**	**-0.1**
JTK	**Tokunoshima**	**0.92**	**281**	P	**Pb**	**10 27 06.1**	**+0.3**
JAMN	**Amaminishikomi**	**0.94**	**312**	P	**Pg**	**10 27 05.7**	**-0.6**
JYRO	**Yoronjima**	**1.47**	**247**	P	**Pn**	**10 27 14.3**	**+0.1**
JTAJ	**Takarajima**	**1.68**	**336**	*e*P	**Pn**	**10 27 16.2**	**-0.8**
JOW	**Kunigami**	**1.70**	**243**	Pn	**Pn**	**10 27 17.4**	**+0.1**
	6.8nm,0.3s,baz=68,slow=19,SNR=16						
JOW				Sn	**Sn**	**10 27 36.8**	**-2.1**
	16nm,0.3s,baz=62,slow=17,SNR=4.9						
JOW	**Kunigami**	**1.70**	**243**	*e*P	**Pn**	**10 27 17.3**	**0.0**
JKDJ	**Kitadaitoujima**	**2.04**	**144**	*e*S	**Sn**	**10 27 45.7**	**-1.6**
JNTH	**Nagotoyohara**	**2.05**	**238**	P	**Pn**	**10 27 21.9**	**-0.2**
JNTH				*e*S	**Sn**	**10 27 45.2**	**-2.3**
JMZ	**Minamidaito 2**	**2.11**	**148**	S	**Sn**	**10 27 46.4**	**-2.7**
JYAK	**Yakushimahirau**	**2.66**	**10**	P	**Pn**	**10 27 30.6**	**0.0**
JYAK				S	**Sn**	**10 28 00.7**	**-1.9**
JKE	**Kume jima 2**	**3.12**	**246**	*e*P	**Pn**	**10 27 36.8**	**0.0**
JKE				S	**Sn**	**10 28 12.6**	**-1.3**
JNU	**Nakatsue**	**5.55**	**8**	Pn	**Pn**	**10 28 10.8**	**+0.5**
	0.5nm,0.3s,baz=187,slow=8.1,SNR=4.8						
JNU				Sn	**Sn**	**10 29 10.0**	**-3.9**
	0.1nm,0.3s,baz=187,slow=19,SNR=2.1 5.8nm,0.9s						
JNU				AML	AML		
HILR	**Hailar Array B**	**23.28**	**343**	LR	LR	10 41 54.0	
	comp=Z,41nm,19.6s,baz=280,slow=39						
ZALV	**Zalesovo Beam**	**42.11**	**321**	P	**P**	**10 34 41.6**	**+2.0**
	0.5nm,0.4s,baz=98,slow=8.9,SNR=2.6 0.5nm,0.4s						
WRA	**Warramunga Arr**	**47.46**	**174**	P	**P**	**10 35 22.9**	**+0.2**
	0.3nm,0.5s,baz=354,slow=7.9,SNR=3.0 0.3nm,0.5s						
ASAR	**Alice Springs**	**51.12**	**175**	P	**P**	**10 35 52.5**	**+1.8**
	0.3nm,0.7s,baz=2.3,slow=7.7,SNR=6.3 0.3nm,0.7s						

*AFAD **16** 10:40:16.6,39°.12N×28°.15E,h7km±3km,ML2.2*
*ISK **16** 10:40:17.6,39°.07N×28°.12E,h8km,ML2.6/11*

ISC 16 10:40:16.6±1.0,**39°.11N**±0°.03×**28°.15E**±0°.02,**h18**km±2km, **n24**,σ0$36/38, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GORD	**Gordes-Manisa**	**0.20**	**175**	Pg	**Pb**	**10 40 21.5**	**+0.1**
GORD				Sg	**Sb**	**10 40 24.5**	**+0.1**
GORD				AML	AML		
AKHS	**Akhisar**	**0.35**	**229**	P	**Pb**	**10 40 24.2**	**-0.1**
AKHS				IAML		10 40 30.0

CHOS					AML	AML			

KOLA ***16*** *10:41:25.6, 67.64N×33.78E, h0km, ML1.8, Error ellipse: s-maj=2.8km s-min=1.6km az=140.0, Khibiny, mines Rasvumchorr, Central*

HEL 16 10:41:25.8±0.1, 67.64N×33.78E, h0km, ML1.4, Suspected explosion, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APA	**Apatity**	**0.16**	**244**	P	Pg	10 41 28.2	-0.5
APA0	**Apatity Array**	**0.30**	**264**	P	Pg	10 41 30.6	-1.0
APA0				S	Sg	10 41 34.8	-0.7
LVZ	**Lovozero**	**0.42**	**51**	P	Pg	10 41 32.8	-1.1
LVZ				S	Sg	10 41 38.6	-0.8
LVZ	**Lovozero**	**0.42**	**51**	PG	Pg	10 41 33.2	-0.7
LVZ				SG	Sg	10 41 38.9	-0.5
KVDA	**Kovda**	**1.01**	**201**	P	Pg	10 41 43.9	-1.3
KVDA				S	Sg	10 41 56.8	-1.5
VRF	**Varrio**	**1.59**	**276**	PG	Pn	10 41 54.1	-1.1
VRF	comp=Z,3.0nm,0.2s			MSG		10 42 13.5	
VRF				SG	Sn	10 42 14.2	-2.3
TERR	**Teriberka**	**1.65**	**17**	P	Pn	10 41 54.5	-1.4
TERR				S	Sn	10 42 15.3	-2.4
OLKF	**Oulanka, Finla**	**2.17**	**234**	PG	Pb	10 42 04.6	-1.2
OLKF	comp=Z,2.1nm,0.2s			MSG		10 42 30.1	
OLKF				SG	Sb	10 42 32.6	-0.6
KU6	**Riekki** baz=44	**2.23**	**225**	PG	Pn	10 42 05.4	+1.4
KU6	comp=Z,1.4nm,0.2s			MSG		10 42 31.9	
KU6				SG	Sb	10 42 34.2	-0.9
MSF	**Maaselka**	**2.56**	**229**	SG	Sb	10 42 44.8	+0.5
VADS	**Vadso**	**2.96**	**329**	S	Sn	10 42 50.6	+0.5
RNF	**Rovaniemi** baz=70	**3.20**	**255**	PN	Pn	10 42 17.3	0.0
RNF				SN	Sn	10 42 55.4	-0.7
RANF	**Ranua**	**3.21**	**243**	PB	Pb	10 42 21.0	-2.5
RANF				SG	Sg	10 43 06.6	-2.1
KEV	**Kevo**	**3.26**	**314**	PN	Pn	10 42 17.8	-0.3
KEV				SN	Sn	10 42 56.3	-1.2
ARA0	**ARCESS Array S**	**3.58**	**306**	PN	Pn	10 42 21.4	-1.1
ARCES	**ARCESS Array B**	**3.58**	**306**	P	Pn	10 42 21.4	-1.1
ARCES				S	Sn	10 43 03.6	-1.9
RMF	**Romuvaara**	**3.78**	**206**	PN	Pn	10 42 26.5	+1.3
KLF	**Kolari** baz=83	**3.80**	**268**	PG	Pb	10 42 34.1	+0.4
TOF	**Tornio**	**4.04**	**252**	PG	Pb	10 42 39.0	+1.2
PAJU	**Pajala**	**4.17**	**266**	PG	Pb	10 42 40.4	+0.4
LANU	**Lannavaara**	**4.48**	**281**	PN	Pb	10 42 33.1	-1.8
LANU				SB	Sb	10 43 36.0	-3.8
SALU	**Saltoluokta**	**5.87**	**275**	*eP*	Pn	10 42 50.1	-3.8
FAUS	**Fauske**	**7.09**	**276**	S	Sn	10 44 27.4	-4.3

NEIC ***16*** *10:56:21.4±2.1, 35.897N±0.009×117.69W±0.02, h5km±1km, ML3.4/144, Mwr3.6/4(PAS), Error ellipse: s-maj=2.4km s-min=2.2km az=103.0*

PAS 16 10:56:22.3±1.6, 35.888N±0.009×117.72W±0.02, h8km±2km, Error ellipse: s-maj=2.1km s-min=1.2km az=75.0, Central California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TOW	**Tower One**	**0.09**	**203**		Pg	10 56 25.0	+0.5
TOW					Sg	10 56 27.6	+1.5
RCWM	**Renegade Canyo**	**0.09**	**45**		Pg	10 56 24.6	0.0
RCWM					Sg	10 56 26.3	+0.1
WVPM	**Volcano Peak E**	**0.10**	**309**		Pg	10 56 24.8	0.0
WVPM					Sg	10 56 26.7	+0.3
CLC	**China Lake**	**0.12**	**125**		Pg	10 56 25.1	0.0
WCSM	**Coso Springs S**	**0.14**	**346**		Pg	10 56 25.4	-0.1
WCSM					Sg	10 56 27.6	0.0
WNMM	**Nine Mile Cany**	**0.15**	**253**		Pg	10 56 25.6	+0.1
WNMM					Sg	10 56 28.1	+0.4
WRVM	**Rose V. Centra**	**0.18**	**312**		Pg	10 56 26.1	0.0
WRVM					Sg	10 56 28.8	+0.2
SRTC	**Snort**	**0.20**	**186**		Pg	10 56 26.7	+0.4
SRTC					Sg	10 56 30.5	+1.5
GPO	**China Lake**	**0.24**	**168**		Pg	10 56 27.2	0.0
GPO					Sg	10 56 31.2	+0.7
MFS	**McCloud Flat S**	**0.25**	**335**		Pg	10 56 27.3	-0.1
MFS					Sg	10 56 30.9	0.0
MPMC	**Manual Prospec**	**0.26**	**48**		Pg	10 56 27.3	-0.2
MPMC	comp=E,9μm,0.4s			IAML		10 56 31.2	
MPMC	comp=N,9μm,0.6s			IAML		10 56 31.3	
WCHM	**Chimney Peak**	**0.28**	**269**		Pg	10 56 27.8	-0.3
DAC	**Darwin (Calif)**	**0.40**	**15**		Pg	10 56 29.6	-0.6
DAC					Sg	10 56 35.2	-0.3
LRMC	**Laurel Mtn Rad**	**0.41**	**175**		Pg	10 56 30.1	-0.3
LRMC	**Laurel Mtn Rad**	**0.41**	**175**		Sg	10 56 35.9	+0.2
WORM	**Onyx Ranch**	**0.46**	**246**		Pg	10 56 31.0	-0.3
WORM					Sg	10 56 37.2	-0.2
CCCA	**Chr Cany lake**	**0.47**	**141**		Pg	10 56 31.5	+0.1
CCCA	**Chr Cany lake**	**0.47**	**141**		Sg	10 56 38.5	+1.0
WBSM	**Bird Springs**	**0.49**	**224**		Sg	10 56 38.2	0.0
WHFM	**Hanning Flat**	**0.54**	**250**		Sg	10 56 32.5	-0.3
WHFM					Pg	10 56 39.8	-0.2
CWC	**Cottonwood Cre**	**0.62**	**332**		Sg	10 56 33.9	-0.4
CWC	comp=E,2μm,0.2s			IAML		10 56 43.3	
CWC	comp=N,2μm,0.2s			IAML		10 56 44.5	
CWC	**Cottonwood Cre**	**0.62**	**332**		Sg	10 56 42.3	-0.3
DTP	**Desert Tortois**	**0.63**	**189**		Pg	10 56 33.9	-0.6
DTP					Sg	10 56 42.6	0.0
ISA	**Isabella, Lake**	**0.65**	**250**	Pg	Pg	10 56 34.5	-0.4
ISA	comp=N,3μm,0.4s			IAML		10 56 43.3	
ISA	**Isabella, Lake**	**0.65**	**250**		Sg	10 56 42.6	-0.7
CGO	**Cerro Gordo**	**0.66**	**354**		Pg	10 56 34.5	-0.6
WASM	**Alta Sierra Ca**	**0.69**	**258**		Pg	10 56 35.3	-0.4
WASM					Sg	10 56 44.4	-0.4
CCAC	**Calif City Air**	**0.77**	**198**		Pg	10 56 36.6	-0.6
CCAC					Sg	10 56 47.2	0.0
SPG2	**Springville 2**	**0.90**	**291**		Pg	10 56 38.6	-1.0
FURC	**Furnace Creek,**	**0.91**	**50**		Pg	10 56 39.5	-0.2
GWY	**Greenwater Val**	**0.91**	**71**		Pg	10 56 39.3	-0.5
GWY	comp=E,2μm,0.4s			IAML		10 56 52.8	
GWY	comp=N,1μm,0.5s			IAML		10 56 57.2	
GSC	**Goldstone, Bar**	**0.95**	**128**		Pg	10 56 39.8	-0.8
GSC	comp=N,1μm,0.3s			IAML		10 56 54.7	
TEJ	**El Tejon**	**1.02**	**230**		Pg	10 56 40.9	-1.1
TPO	**Tropico Hills**	**1.09**	**202**		Pg	10 56 42.1	-1.1
TPO	comp=N,1μm,0.5s			IAML		10 57 00.1	
TPO	comp=E,928nm,0.5s			IAML		10 57 00.2	
VES	**Vestal, Richgr**	**1.11**	**268**		Pg	10 56 42.8	-0.8
VES	comp=E,1μm,0.6s			IAML		10 57 01.1	
GRAC	**Grapevine Rang**	**1.14**	**15**		Pg	10 56 43.5	-0.8
GRAC	comp=E,836nm,0.5s			IAML		10 57 02.1	
GRAC	comp=N,944nm,0.8s			IAML		10 57 04.4	
SHOC	**Shoshone, Teco**	**1.18**	**89**		Pg	10 56 43.3	-1.6
SGV	**South Grapevin**	**1.22**	**27**		Pg	10 56 44.8	-1.1
TIN	**Tinemaha, Big**	**1.23**	**341**	Pg	Pb	10 56 45.3	-0.7
TIN	comp=N,863nm,1.0s			IAML		10 57 04.6	
WCT	**Wildcat Mounta**	**1.27**	**44**		Pn	10 56 45.2	-1.2
WCT	comp=E,743nm,0.4s			IAML		10 57 04.1	
WCT	comp=N,395nm,0.4s			IAML		10 57 04.9	
GMN	**Gold Mountain**	**1.46**	**15**		Pn	10 56 48.5	-0.7
OSI	**Osito Audit: C**	**1.51**	**213**		Pn	10 56 49.9	+0.1
OSI	comp=N,384nm,0.5s			IAML		10 57 14.1	
OSI	comp=E,541nm,0.7s			IAML		10 57 17.7	
TPNV	**Topopah Spring**	**1.59**	**48**		Pn	10 56 50.0	-1.0
TPNV	comp=E,601nm,0.9s			IAML		10 57 15.2	
TPNV	comp=E,682nm,0.6s			IAML		10 57 15.9	
BFSC	**Mount Baldy Ra**	**1.65**	**178**		Pn	10 56 51.8	+0.1
BFSC	comp=E,253nm,0.6s			IAML		10 57 18.4	
MWC	**Mount Wilson**	**1.68**	**189**		Pn	10 56 51.8	-0.4
MWC	comp=E,474nm,0.5s			IAML		10 57 17.3	
MWC	comp=N,572nm,0.5s			IAML		10 57 17.9	
PASC	**Pasadena Art C**	**1.75**	**193**		Pn	10 56 52.6	-0.5
MTPC	**Mountain Pass**	**1.81**	**102**		Pn	10 56 52.5	-1.5
MTPC	comp=N,237nm,0.7s			IAML		10 57 22.5	
MTPC	comp=E,229nm,0.4s			IAML		10 57 22.6	
CARC	**Carrizo Plain**	**1.82**	**252**		Pb	10 56 55.4	-0.6
MZP	**Montezuma Peak**	**1.83**	**8**		Pn	10 56 53.7	-0.7
SMMC	**Simmler**	**1.94**	**253**		Pn	10 56 56.8	+1.1
MDPB	**Devils Postpil**	**2.05**	**328**		Pn	10 56 58.7	+1.2
MDPB	comp=N,328nm,0.2s			IAML		10 57 26.9	
SHPR	**Sheep Range**	**2.16**	**73**		Pn	10 56 58.1	-0.8
SHPR	comp=N,129nm,0.9s			IAML		10 57 34.5	
TPH	**Tonopah**	**2.22**	**10**		Pn	10 56 59.2	-0.4
TPH	comp=N,125nm,0.8s			IAML		10 57 41.5	
ELS	**Elsinore Mount**	**2.25**	**174**		Pn	10 56 59.2	-0.8
ELS	comp=N,160nm,0.6s			IAML		10 57 40.1	
ELS	comp=E,132nm,0.8s			IAML		10 57 40.2	
PKD	**Bear Valley Ra**	**2.29**	**272**		Pn	10 57 00.9	+0.5
PKD	comp=E,139nm,0.7s			IAML		10 57 45.6	
BELC	**Belle Mtn. Jos**	**2.36**	**143**		Pn	10 57 00.1	-1.4
BELC	comp=E,213nm,0.7s			IAML		10 57 40.5	
BELC	comp=N,222nm,0.7s			IAML		10 57 43.4	
S11A	**Rachel**	**2.36**	**42**		Pn	10 57 01.1	-0.5
LHV	**Little Huntoon**	**2.44**	**345**		Pn	10 57 02.8	+0.3
LHV	comp=N,103nm,0.6s			IAML		10 57 45.6	
LHV	comp=E,115nm,0.8s			IAML		10 57 47.2	
PFO	**Pinyon Flats O**	**2.50**	**155**		Pn	10 57 02.6	-0.8
PFO	comp=E,154nm,1.0s			IAML		10 57 46.4	
NVAR	**Mina Array Bea**	**2.58**	**350**		Pn	10 57 03.7	-1.0
PRN	**Pahroc Range**	**2.63**	**54**	IAML		10 57 52.0	
PRN	comp=N,222nm,0.9s			IAML		10 57 56.0	
PRN	comp=E,239nm,1.0s			IAML		10 57 56.0	
SBI	**Santa Barbara**	**2.63**	**204**		Pn	10 57 04.2	-0.9
IRM	**Iron Mountain**	**2.73**	**128**		Pn	10 57 04.5	-2.0
IRM	comp=N,88nm,0.4s			IAML		10 57 52.2	
IRM	comp=E,94nm,0.9s			IAML		10 57 58.1	
BBGB	**Big Mountain B**	**2.77**	**285**		Pn	10 57 07.8	+0.7
HULI	**Fort Hunter Li**	**2.85**	**274**		Pn	10 57 08.8	+0.6
HULI	comp=E,94nm,1.1s			IAML		10 57 48.0	
HULI	comp=N,103nm,0.8s			IAML		10 58 02.0	
BC3	**Big Chuckawall**	**2.91**	**139**		Pn	10 57 07.2	-1.9
BC3	comp=E,94nm,1.0s			IAML		10 58 01.3	
BC3	comp=N,149nm,0.6s			IAML		10 58 03.3	
DPP	**Dos Picos Cty**	**2.95**	**167**		Pn	10 57 08.9	-0.7
DPP	comp=E,108nm,0.6s			IAML		10 57 57.5	
CMB	**Columbia Colle**	**3.02**	**316**		Pn	10 57 12.9	+2.3
CMB	comp=E,84nm,0.6s			IAML		10 58 00.9	
CMB	comp=N,79nm,0.8s			IAML		10 58 01.4	
SAO	**San Andreas Ge**	**3.13**	**287**		Pn	10 57 13.9	+1.9
KVN	**Kaiserville**	**3.17**	**355**		Pn	10 57 12.4	-0.3
BAR	**Barrett**	**3.32**	**164**	IAML		10 58 05.5	
BAR	comp=E,118nm,0.4s			IAML		10 58 07.3	
BAR	comp=N,82nm,0.6s			IAML		10 58 07.3	
BLYC	**Blythe**	**3.39**	**128**	IAML		10 58 10.1	
BLYC	comp=N,61nm,0.5s			IAML		10 58 11.3	
BLYC	comp=E,65nm,0.5s			IAML		10 58 15.8	
MHC	**Mount Hamilton**	**3.47**	**296**	IAML		10 58 15.8	
MHC	comp=N,54nm,0.9s			IAML		10 58 23.8	
KNB	**Kanab**	**4.11**	**73**	IAML		10 58 34.2	
KNB	comp=E,32nm,0.8s			IAML		10 58 34.8	
U15A	**North Rim**	**4.43**	**81**	IAML		10 58 39.8	
U15A	comp=E,31nm,0.8s			IAML		10 58 53.9	
BMN	**Battle Mountai**	**4.55**	**5**		Pn	10 57 31.6	-0.1
PKCU	**Pink Cliffs**	**4.62**	**69**		Pn	10 57 32.3	-0.5
PKCU	comp=N,49nm,3.0s			IAML		10 59 04.8	
WUAZ	**Wupatki**	**5.18**	**92**		Pn	10 57 40.6	+0.3
ELK	**Elko**	**5.23**	**21**		Pn	10 57 41.3	+0.2
X18A	**Snowflake**	**6.51**	**100**	Pn	Pn	10 57 59.4	+0.8

SDD ***16*** *10:57:18.1±1.7, 19.14N×72.28W, h147km±19km, MD3.1, ML3.0, MW3.1, Presumed earthquake*
OSPL ***16*** *10:57:38.7±0.7, 18.30N×72.01W, h0km±9km, ML2.0, Presumed earthquake*

ISC 16 10:57:24.7±3.6, 18.9N±0.1×72.2W±0.2, h95km±27km, n10, σ3986/15, 8C, Haiti region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LONE3	**El Aguacate, B**	**0.76**	**115**	*i* P	Pn	10 57 49.6	+7.2
LONE3				*e*S	**Sn**	**10 57 57.9**	**+2.3**
LONE3	comp=E,35nm,0.3s			IAML		10 58 01.6	
NEDR	**Neiba UASD**	**0.85**	**122**	⇑*e*Pg	**Pn**	**10 57 41.6**	**-1.5**
NEDR				⇑*e*Sg	**Sn**	**10 57 58.5**	**+1.6**
NEDR	comp=N,71nm,0.2s			IAML		10 58 00.3	
LODU1	**El Espartillar**	**0.88**	**131**	*i* P	**Pn**	**10 57 47.6**	**+4.1**
LODU1				*e*S	**Sn**	**10 57 54.3**	**-3.3**
LODU1	comp=Z,135nm,2.0s			IAML		10 57 57.8	
PODR	**Polo**	**1.14**	**132**	*e*Pg	**Pn**	**10 57 45.8**	**-0.8**
PODR				⇑*e*Sg	**Sn**	**10 58 03.6**	**+0.5**
PODR	comp=N,75nm,1.4s			IAML		10 58 06.3	
PODR	**Polo**	**1.14**	**132**	*i* P	**Pn**	**10 57 51.3**	**+4.7**
PODR				*e*S	**Sn**	**10 58 00.5**	**-2.6**
PODR	comp=Z,319nm,0.1s			IAML		10 58 03.5	
LOBH	**Bahia de las A**	**1.18**	**154**	*i* P	**Pn**	**10 57 48.8**	**+1.9**
LOBH				*e*S	**Sn**	**10 57 56.6**	**-6.9**
LOBH	comp=Z,39nm,0.9s			IAML		10 57 57.5	
LOVI	**El Cajuil, Ovi**	**1.37**	**146**	*i* P	**Pn**	**10 57 52.4**	**+3.3**
LOVI				*e*S	**Sn**	**10 58 03.3**	**-4.2**
LOVI	comp=Z,66nm,1.1s			IAML		10 58 09.7	
LUDR	**Luperon**	**1.50**	**50**	⇑*e*Pg	Pn	10 57 45.5	-5.2
LUDR				⇑*e*Sg	**Sn**	**10 58 06.5**	**-3.9**
BANI	**BANI**	**1.81**	**107**	⇑*e*Pg	Pn	10 57 51.4	-3.3
BANI				⇑*e*Sg	**Sn**	**10 58 16.3**	**-1.3**
CADR	**Cabrera**	**2.24**	**71**	⇑*e*Pg	Pn	10 57 53.5	-6.7
CADR	comp=N,281nm,0.1s			IAML		10 59 06.0	

AEIC ***16*** *10:58:19.8±1.2, 51.06N±0.08×176.43W±0.04, h17km±8km, Error ellipse: s-maj=11.9km s-min=2.5km az=167.0*

NEIC 16 10:58:18.1±0.8, 50.95N±0.04×176.35W±0.07, h24km±9km, ML3.1/8, ML2.7(AEIC), Error ellipse: s-maj=6.8km s-min=5.2km az=75.0, Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ETKA	**Kagalaska Isla**	**0.91**	**358**		Pb	10 58 35.2	0.0
ETKA					Sb	10 58 46.9	0.0
ADK	**Adak**	**0.96**	**348**		Pb	10 58 35.8	-0.2
ADK	518nm,0.3s			IAML		10 58 48.7	
ADK	543nm,0.5s			IAML		10 58 49.2	
ADK	**Adak**	**0.96**	**348**		Sb	10 58 47.9	-0.3
KIMD	**Kanaga Island**	**0.98**	**326**		Pn	10 58 36.1	-0.2
KIWB	**Kanaga Island**	**1.03**	**331**		Pn	10 58 37.0	-0.1
KIWB					Sb	10 58 50.1	-0.3
KIWB	**Kanaga Island** comp=E,425nm,0.7s	**1.03**	**331**	IAML		10 58 50.9	
KIWB	comp=N,745nm,0.5s			IAML		10 58 51.3	
ADAG	**Mount Adagdak**	**1.04**	**351**		Pb	10 58 37.5	+0.1
ADAG					Sn	10 58 51.2	+0.1
KIKV	**Kanaga Island**	**1.06**	**331**		Pn	10 58 37.5	+0.1
KIKV					Sb	10 58 51.1	0.0
GSIG	**Igitkin Island**	**1.07**	**14**		Pb	10 58 37.9	0.0
GSIG					Sn	10 58 52.0	+0.2
GSMY	**Great Sitkin M**	**1.11**	**9**		Pb	10 58 38.4	-0.2
GSMY					Sn	10 58 53.4	+0.7
GSTD	**Great Sitkin T**	**1.11**	**7**		Pb	10 58 38.6	0.0
GSTD					Sb	10 58 52.8	0.0
GSTR	**Great Sitkin T**	**1.16**	**9**	Pn	Pn	10 58 38.6	-0.2
TASE	**Tanaga Southea**	**1.38**	**311**		Pn	10 58 42.1	+0.3
ATKA	**Atka Island**	**1.84**	**46**	Pn	Pn	10 58 47.5	-0.6
SUA	**Susitna One**	**17.58**	**43**		Pn	11 02 21.2	-0.1
SCRK	**Sand Creek**	**21.44**	**40**	P	P	11 03 04.8	+0.4

IDC ***16*** *11:15:00.7±1.9, 0.69N×125.75E, h0km, mb3.3/4, mbtmp3.3/4, Error ellipse: s-maj=210.8km s-min=23.3km az=65.0*
DJA ***16*** *11:15:09.0±0.5, 1.1N±5.5×12.7E±.1°, h47km±12km, M3.0/7, MLv3.0/7*

ISC 16 11:15:05.5±1.3, 1.0N±0.2×126.4E±0.1, h39km, n7, σ073/7, mb3.3/4, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**0.94**	**101**	P	**Pn**	**11 15 22.7**	**+0.5**
TNTI				S	**Sn**	**11 15 34.1**	**-0.4**
TNTI				AML	AML		
TNTI	**Ternate**	**0.94**	**101**	P	**Pn**	**11 15 22.4**	**+0.2**
TNTI				AML	AML		
SANI	**Sanana**	**3.01**	**189**	P	Pn	11 15 56.4	+5.7
WRA	**Warramunga Arr** 0.4nm,0.6s,baz=336,slow=11,SNR=2.3 0.4nm,0.6s	**22.16**	**160**	P	**P**	**11 19 57.4**	**-0.8**
ASAR	**Alice Springs** 0.3nm,0.4s,baz=351,slow=9.6,SNR=9.4 0.3nm,0.4s	**25.52**	**164**	P	**P**	**11 20 31.3**	**+0.8**
MKAR	**Makanchi Array** 0.2nm,0.3s,baz=133,slow=6.3,SNR=4.1 0.2nm,0.3s	**59.68**	**326**	P	**P**	**11 25 06.4**	**+0.3**
KURBB	**Kurchatov Arra** 0.2nm,0.6s,baz=109,slow=5.7,SNR=1.8 0.2nm,0.6s	**63.93**	**328**	P	**P**	**11 25 33.8**	**-0.6**

IDC ***16*** *11:21:14.7±1.3, 61.96S×55.63W, h0km, mb3.8/3, mbtmp3.8/3, MS3.7/2, Error ellipse: s-maj=61.0km s-min=30.8km az=79.0*
GUC ***16*** *11:21:16.0, 62.41S×58.41W, h5km, ML4.2, Presumed earthquake*
NEIC ***16*** *11:21:17.5±1.1, 62.39S±0.04×58.6W±0.1, h10km±1km, mb4.4/13, Error ellipse: s-maj=12.0km s-min=3.9km az=242.0*

ISC 16 11:21:16.5±1.2, 62.39S±0.04×58.43W±0.05, h8km±8km, n32, σ1853/32, mb4.3/8, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JUBA	**Jubany**	**0.19**	**323**	*e*P	**Pg**	**11 21 20.0**	**-0.3**
JUBA				*i* S	**Sg**	**11 21 22.7**	**-0.2**
JUBA	comp=Z,15μm,0.5s			IAML		11 21 23.6	
ESPZ	**Base Esperanza**	**1.21**	**148**	*i* P	**Pg**	**11 21 39.1**	**-0.6**
ESPZ				*i* S	**Sb**	**11 21 55.2**	**-0.1**
ESPZ	**Base Esperanza**	**1.21**	**148**		**Pg**	**11 21 39.0**	**-0.6**
ESPZ				Sg	**Sn**	**11 21 56.5**	**+0.3**
PMSA	**Palmer Station**	**3.47**	**224**	*i* P	**Pg**	**11 22 21.2**	**-1.8**
PMSA				*i* S	**Sb**	**11 23 03.3**	**+2.8**
PMSA	**Palmer Station**	**3.47**	**224**	Pn	**Pn**	**11 22 11.2**	**+0.5**
ORCD	**Orcadas**	**6.74**	**82**	Pn	**Pn**	**11 22 56.8**	**+1.2**
USHA	**Ushuaia** comp=Z,636nm,20.3s,baz=80,slow=29	**9.19**	**321**	LR	LR	11 26 00.3	
EFI	**East Falkland**	**10.74**	**1**	*i* P	**Pn**	**11 23 50.3**	**-0.1**
EFI				*i* S	**Sn**	**11 25 49.4**	**-1.3**
EFI	comp=E,81nm,2.5s			IAML		11 26 00.8	
PLCA	**Paso Flores** comp=Z,1.5nm,0.8s,baz=162,slow=9.6,SNR=3.8	**22.88**	**336**	P	**P**	**11 26 21.6**	**+1.3**
PLCA	comp=Z,110nm,18.1s,baz=183,slow=34 comp=Z,1.5nm,0.8s			LR	LR	11 34 19.4	
QSPA	**South Pole Qui** comp=Z,0.9nm,0.8s,baz=160,slow=4.9,SNR=5.6 comp=Z,0.9nm,0.8s	**27.84**	**180**	P	**P**	**11 27 08.5**	**+2.4**
QSPA	**South Pole Qui**	**27.84**	**180**	P	**P**	**11 27 06.4**	**+0.2**
GO05	**Hualane**	**28.69**	**336**	P	**P**	**11 27 13.3**	**-0.5**
MT01	**Popeta**	**29.68**	**338**	P	**P**	**11 27 23.3**	**+0.8**
MT01	comp=Z,3.0nm,0.8s			IAmb	IAmb	11 27 26.2	
CO01	**Juntas del Tor**	**33.30**	**341**	P	**P**	**11 27 55.2**	**+0.5**
CO01	comp=Z,6.0nm,1.1s			IAmb	IAmb	11 28 12.4	
LCO	**Las Campanas**	**34.34**	**341**	P	**P**	**11 28 04.2**	**+0.5**
PB16	**IPOC Station P**	**44.68**	**345**	P	**P**	**11 29 30.6**	**+0.2**
PB16	comp=Z,3.8nm,1.0s			IAmb	IAmb	11 29 48.7	
PB18	**Visviri**	**45.42**	**345**	P	**P**	**11 29 36.0**	**-0.1**
PTLB	**Pontes e Lacer**	**46.88**	**359**	P	**P**	**11 29 47.8**	**+0.8**
RPN	**Rapa Nui**	**48.46**	**292**	P	**P**	**11 29 58.9**	**-0.3**
CASY	**Casey**	**51.38**	**174**	P	**P**	**11 30 20.9**	**0.0**
CASY	comp=Z,4.7nm,0.9s			IAmb	IAmb	11 30 34.0	
BOSA	**Boshof**	**62.18**	**99**	P	**P**	**11 31 38.9**	**+0.6**
H10N3	**ASCENSION HYDR** baz=202,slow=75,SNR=56	**63.10**	**50**	T	T	12 40 07.4	
H10N1	**ASCENSION HYDR** baz=202,slow=75,SNR=82	**63.10**	**50**	T	T	12 40 07.2	
H10N2	**ASCENSION HYDR** baz=202,slow=75,SNR=88	**63.12**	**50**	T	T	12 40 08.8	
LKGWB	**Lokgwabe**	**64.15**	**93**	P	**P**	**11 31 54.2**	**+2.8**
LKGWB	comp=Z,2.7nm,0.7s			IAmb	IAmb	11 31 59.2	
KDWAN	**Kaudwane**	**66.38**	**95**	P	**P**	**11 32 06.8**	**+1.0**
KDWAN	comp=Z,2.5nm,0.9s			IAmb	IAmb	11 32 16.6	
TORD	**Torodi Ar. Bea** comp=Z,1.1nm,0.9s,baz=201,slow=4.0,SNR=5.4 comp=Z,1.1nm,0.9s	**88.50**	**58**	P	P	11 34 00.6	-8.7
NJ2	**Nanjing**	**149.60**	**175**	*eP*	**PKPdf**	**11 41 01.8**	**+0.6**
NJ2	comp=Z,8.0nm,0.7s			pmax	pmax		
LZH	**Lanzhou**	**151.45**	**149**	*eP*	**PKPdf**	**11 41 01.3**	**-2.9**
BVAR	**Borovoye Array** comp=Z,1.3nm,0.7s,baz=232,slow=1.7,SNR=4.2	**151.83**	**86**	PKPbc	**PKPbc**	**11 41 07.8**	**-2.6**
MKAR	**Makanchi Array** comp=Z,0.4nm,0.6s,baz=219,slow=1.8,SNR=3.8	**152.96**	**107**	PKPbc	**PKPbc**	**11 41 11.4**	**-1.8**
HHC	**Hu-ho-hao-te**	**157.61**	**160**	*eP*	**PKPdf**	**11 41 09.1**	**-3.4**

IDC ***16*** *11:45:24.1±1.3, 9.76S×155.11E, h0km, mb3.9/7, mbtmp3.9/8, ML3.8/1, MS3.1/9, Error ellipse: s-maj=38.2km s-min=20.1km az=95.0*

ISC 16 11:45:29.6±1.2, 9.8S±0.1×155.0E±0.3, h35km, n14, σ057/8, mb3.9/7, MS3.2/4, D'Entrecasteaux Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara** comp=Z,61nm,18.9s,baz=299,slow=37	**4.87**	**87**	LR	LR	11 48 22.1	
KRVT	**Keravat (AS076** 2.1nm,0.3s,baz=360,slow=22,SNR=3.8	**6.18**	**331**	Pn	**Pn**	**11 46 58.3**	**-0.2**
KRVT	comp=Z,121nm,19.6s,baz=224,slow=37			LR	LR	11 49 14.7	

24nm,0.6s
KRVT AML AML
PMG Port Moresby 7.76 272 LR LR 11 50 16.1
comp=Z,101nm,18.4s,baz=46,slow=37
CTA Charters Tower 13.30 218 LR LR 11 53 18.8
comp=Z,65nm,18.4s,baz=48,slow=36
DZM Mont Dzumac 16.43 140 LR LR 11 54 46.0
comp=Z,124nm,19.7s,baz=218,slow=34
WRA Warramunga Arr 22.38 241 P **P 11 50 24.6 -0.5**
1.6nm,0.9s,baz=64,slow=9.5,SNR=7.1
1.6nm,0.9s
MSVF Nonsavu 23.71 112 LR LR 11 58 11.8
comp=Z,50nm,18.4s,baz=355,slow=32
ASAR Alice Springs 24.45 233 P **P 11 50 45.8 +0.3**
1.7nm,0.8s,baz=64,slow=9.6,SNR=17
1.7nm,0.8s
STKA Stephens Creek 25.28 208 P **P 11 50 52.5 -0.4**
5.2nm,0.8s,baz=43,slow=13,SNR=6.5
STKA LR LR 12 00 34.0
comp=Z,75nm,18.4s,baz=23,slow=36
5.2nm,0.8s
FITZ Fitzroy Crossi 29.66 251 LR LR 12 04 05.2
comp=Z,61nm,18.3s,baz=247,slow=38
SONM Songino Array 71.67 328 P **P 11 56 48.7 +0.7**
1.3nm,0.8s,baz=134,slow=4.3,SNR=4.4
1.3nm,0.8s
QSPA South Pole Qui 80.23 180 P **P 11 57 36.8 +0.3**
1.6nm,1.0s,baz=13,slow=5.5,SNR=6.3
1.6nm,1.0s
MKAR Makanchi Array 85.49 319 P **P 11 58 04.2 +0.2**
0.9nm,1.0s,baz=105,slow=5.6,SNR=4.1
0.9nm,1.0s
ILAR Eielson Array 85.92 21 P **P 11 58 05.0 -0.7**
0.6nm,0.9s,baz=232,slow=4.4,SNR=4.2
ILAR LR LR 12 30 04.4
comp=Z,22nm,20.6s,baz=295,slow=31
0.6nm,0.9s

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*IDC **16** 12:03:57.4±1.4,5.°22S×154.°87E,h0km,mb3.7/5, mbtmp3.7/6,ML4.1/1,Error ellipse: s-maj=26.4km s-min=20.8km az=0.0*
ISC 16 12:04:03.0±1.5,5.°2S±0.°2×154.°8E±0.°2,h35km,n6,σ0s74/6, mb3.5/5,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.86**	**287**	**Pn**	**Pn**	**12 04 45.9**	**-0.3**
	23nm,0.3s,baz=101,slow=19,SNR=4.9						
KRVT				Lg	Lg	12 05 33.9	
	9.5nm,0.3s,baz=57,slow=22,SNR=1.4						
	39nm,0.3s						
KRVT				AML	AML		
WRA	**Warramunga Arr**	**24.72**	**232**	P	**P**	**12 09 21.6**	**+0.3**
	0.4nm,0.4s,baz=58,slow=9.2,SNR=4.5						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**27.25**	**225**	P	**P**	**12 09 43.2**	**-0.9**
	0.2nm,0.3s,baz=57,slow=9.3,SNR=13						
	0.2nm,0.3s						
FITZ	**Fitzroy Crossi**	**31.23**	**243**	P	**P**	**12 10 20.1**	**+0.6**
	1.6nm,0.8s,baz=82,slow=7.1,SNR=1.8						
	1.6nm,0.8s						
PETK	**Petropavlovsk-**	**58.10**	**2**	P	**P**	**12 13 53.2**	**+0.4**
	2.4nm,0.9s,baz=187,slow=6.8,SNR=1.6						
	2.4nm,0.9s						
ILAR	**Eielson Array**	**81.76**	**22**	P	**P**	**12 16 17.5**	**-0.4**
	0.6nm,1.1s,baz=272,slow=8.4,SNR=2.1						
	0.6nm,1.1s						

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*NCEDC **16** 12:05:26.0±1.5,41.°88N±0.°05×126.°28W±0.°08,h2km±1km, Error ellipse: s-maj=10.9km s-min=8.0km az=235.0*
*IDC **16** 12:05:28.9±1.6,41.°98N×125.°97W,h0km,mb3.5/5, mbtmp3.5/11,MLJ3.3/6,MS2.9/5,Error ellipse: s-maj=34.7km s-min=12.9km az=39.0*
*NEIC **16** 12:05:28.4±1.0,41.°84N±0.°05×125.°98W±0.°07,h10km±1km, mb3.7/14,ML3.5/112,ML3.7/12(NCEDC),Error ellipse: s-maj=9.9km s-min=7.6km az=220.0*
ISC 16 12:05:28.5±0.7,41.°83N±0.°04×125.°98W±0.°07,h11km, n126,σ0s83/119,mb3.7/8,Off coast of northern California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBO	**Bosley Butte**	**1.36**	**73**		**Pn**	**12 05 53.1**	**-0.4**
SIGP	**Signal Peak, C**	**1.43**	**88**		**Pn**	**12 05 54.3**	**-0.2**
SIGP					**Sn**	**12 06 12.6**	**-0.6**
KSXB	**Camp Six Broad**	**1.57**	**89**		**Pn**	**12 05 56.3**	**-0.2**
KSXB					**Sn**	**12 06 16.0**	**-0.8**
KRMB	**Red Mountain**	**1.58**	**101**		**Pn**	**12 05 56.5**	**-0.1**
KRMB				IAML		12 06 17.4	
	comp=E,276nm,0.5s						
JCC	**Jacoby Creek,**	**1.79**	**124**	Pn	**Pn**	**12 05 58.7**	**-0.5**
JCC				IAML		12 06 21.6	
	comp=E,244nm,0.7s						
FER	**Ferndale**	**1.80**	**133**		**Pb**	**12 06 01.3**	**-0.2**
L02F	**Cave Junction**	**1.82**	**80**		**Pn**	**12 05 59.6**	**-0.2**
KCTM	**Capetown**	**1.84**	**137**		**Pn**	**12 05 60.0**	**0.0**
K02D	**Willamette Mer**	**1.92**	**63**		**Pn**	**12 06 00.7**	**-0.5**
KHMM	**Horse Mountain**	**1.95**	**119**		**Pn**	**12 06 01.8**	**+0.2**
KHMM				IAML		12 06 27.1	
	comp=N,274nm,0.6s						
KHMM				IAML		12 06 28.2	
	comp=E,302nm,0.5s						
KOMM	**Orleans Mounta**	**1.98**	**105**		**Pn**	**12 06 02.3**	**+0.3**
PETL	**Petrolia**	**1.98**	**141**		**Pn**	**12 06 01.9**	**0.0**
KMPM	**Mount Pierce**	**1.99**	**135**		**Pn**	**12 06 02.0**	**-0.2**
KMPM				IAML		12 06 27.2	
	comp=N,466nm,0.6s						
KMPM				IAML		12 06 30.1	
	comp=E,475nm,0.7s						
J01E	**Myrtle Point**	**2.02**	**48**		**Pn**	**12 06 01.5**	**-0.9**
DMOR	**Dinsmores, CA**	**2.05**	**122**		**Pn**	**12 06 03.4**	**+0.3**
RBOW	**Rainbow Ridge,**	**2.06**	**136**		**Pn**	**12 06 02.7**	**-0.4**
KCRM	**Chalk Rock**	**2.15**	**130**		**Pn**	**12 06 04.5**	**+0.1**
BRIC	**Briceland Vine**	**2.33**	**137**		**Pn**	**12 06 07.1**	**+0.3**
KMRM	**Mail Ridge**	**2.35**	**132**		**Pn**	**12 06 07.3**	**+0.2**
KMRM				IAML		12 06 41.2	
	comp=N,221nm,0.7s						
M02C	**Callahan**	**2.39**	**100**		**Pn**	**12 06 07.1**	**-0.6**
KHBM	**Hayfork Bally**	**2.39**	**118**		**Pn**	**12 06 07.7**	**-0.1**
DBO	**Dodson Butte**	**2.40**	**57**		**Pn**	**12 06 07.7**	**-0.1**
YBH	**Yreka Blue Hor**	**2.45**	**91**	Pn	**Pn**	**12 06 09.3**	**+0.8**
	comp=N,16nm,0.3s,baz=286,slow=12,SNR=342						
YBH				Sn	**Sn**	**12 06 37.0**	**-1.5**
	comp=N,6.8nm,0.3s,baz=158,slow=18,SNR=4.0						
YBH				LR	LR	12 06 42.4	
	comp=N,92nm,20.3s,baz=337,slow=30						
	comp=N,44nm,0.2s						
YBH				AML	AML		
YBH	**Yreka Blue Hor**	**2.45**	**91**		**Pn**	**12 06 09.3**	**+0.8**
BBOR	**Butler Butte**	**2.67**	**66**		**Pn**	**12 06 11.4**	**-0.1**
I03D	**Drain, OR**	**2.69**	**45**		**Pn**	**12 06 11.1**	**-0.6**
I03D				IAML		12 06 43.7	
	comp=N,135nm,0.5s						
I03D				IAML		12 06 44.3	
	comp=E,88nm,0.5s						
I02E	**Swisshome, OR**	**2.76**	**34**	Pn	**Pn**	**12 06 12.6**	**-0.1**
I02E				IAML		12 06 44.8	
	comp=N,243nm,0.7s						
I02E				IAML		12 06 47.1	
	comp=E,225nm,0.6s						
L04D	**Klamath Falls**	**2.77**	**81**		**Pn**	**12 06 13.6**	**+0.7**
KIPM	**Iron Peak**	**2.77**	**136**		**Pn**	**12 06 13.3**	**+0.4**
KCPM	**Cahto Peak**	**2.81**	**139**		**Pn**	**12 06 13.5**	**0.0**
INGLE	**Inglenook, Smi**	**2.88**	**142**		**Pn**	**12 06 14.1**	**-0.2**
KFPM	**Farley Peak**	**2.93**	**138**		**Pn**	**12 06 15.0**	**-0.1**
O02D	**Mt. Diablo Mer**	**2.93**	**123**		**Pn**	**12 06 15.0**	**0.0**
M03C	**McCloud**	**2.95**	**100**	Pn	**Pn**	**12 06 16.1**	**+0.8**
M03C				IAML		12 06 55.9	
	comp=N,95nm,0.7s						
M03C				IAML		12 06 56.7	
	comp=E,132nm,0.8s						
MNDO	**Woodland Fire**	**3.04**	**145**		**Pn**	**12 06 16.3**	**-0.2**
DCMP	**DeCamp, Califo**	**3.10**	**139**		**Pn**	**12 06 17.2**	**-0.2**
J04A	**Umpqua Nationa**	**3.19**	**63**		**Pn**	**12 06 18.3**	**-0.5**
J04A				IAML		12 06 42.1	
	comp=E,185nm,0.8s						
J04A				IAML		12 07 06.5	
	comp=N,185nm,0.5s						
BUCK	**Buck Mountain**	**3.23**	**42**		**Pn**	**12 06 19.7**	**+0.5**
BUCK				IAML		12 06 46.4	
	comp=N,106nm,3.2s						
BUCK				IAML		12 07 53.2	
	comp=E,117nm,3.7s						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I04A	**Tendick Farm,**	**3.28**	**52**		**Pn**	**12 06 20.7**	**+0.8**
I04A				IAML		12 07 02.7	
	comp=N,133nm,0.2s						
I04A				IAML		12 07 03.4	
	comp=E,151nm,0.2s						
COR	**Corvallis**	**3.38**	**35**	Pn	**Pn**	**12 06 21.6**	**+0.5**
COR				IAML		12 07 07.3	
	comp=E,148nm,0.9s						
O03E	**Paynes Creek**	**3.51**	**115**		**Pn**	**12 06 24.5**	**+1.4**
O03E				IAML		12 07 10.8	
	comp=E,110nm,0.7s						
O03E				IAML		12 07 15.2	
	comp=N,62nm,0.8s						
AONC	**Vina, CA USA**	**3.52**	**121**	Pn	**Pn**	**12 06 23.2**	**+0.1**
AONC				IAML		12 07 26.6	
	comp=E,114nm,4.7s						
AONC				IAML		12 07 40.3	
	comp=N,107nm,1.4s						
HATC	**Hat Creek Radi**	**3.55**	**105**		**Pn**	**12 06 23.5**	**-0.1**
HATC				IAML		12 07 18.8	
	comp=E,90nm,4.6s						
HATC				IAML		12 07 22.0	
	comp=N,73nm,2.4s						
H04D	**Lebanon**	**3.59**	**40**		**Pn**	**12 06 24.5**	**+0.4**
H04D				IAML		12 07 12.9	
	comp=N,124nm,0.6s						
WIFE	**Three Sisters-**	**3.78**	**53**		**Pn**	**12 06 26.4**	**-0.5**
WIFE				IAML		12 07 05.0	
	comp=E,77nm,3.1s						
WIFE				IAML		12 07 18.1	
	comp=N,79nm,1.8s						
J05D	**Fort Rock, OR**	**3.80**	**66**		**Pn**	**12 06 27.0**	**0.0**
J05D				IAML		12 07 08.5	
	comp=E,40nm,4.7s						
J05D				IAML		12 07 17.4	
	comp=N,39nm,3.9s						
GDXM	**Geysers**	**3.88**	**140**	Pn	**Pn**	**12 06 27.8**	**-0.4**
K05A	**Summer Lake**	**3.88**	**75**		**Pn**	**12 06 28.8**	**+0.6**
K05A				IAML		12 07 27.6	
	comp=E,34nm,4.2s						
K05A				IAML		12 09 04.0	
	comp=N,47nm,4.8s						
G03D	**McMinnville, O**	**3.91**	**29**	Pn	**Pn**	**12 06 29.0**	**+0.5**
ORV	**Oroville**	**4.10**	**122**		**Pn**	**12 06 31.2**	**+0.2**
ORV				IAML		12 07 22.8	
	comp=E,79nm,0.6s						
ORV				IAML		12 07 24.6	
	comp=N,57nm,0.8s						
SUTB	**Sutter Butte**	**4.12**	**128**	Pn	**Pn**	**12 06 31.1**	**-0.3**
ELFS	**Eagle Lake Fie**	**4.14**	**105**	Pn	**Pn**	**12 06 31.2**	**-0.7**
ELFS				IAML		12 07 24.0	
	comp=N,43nm,4.3s						
ELFS				IAML		12 08 22.8	
	comp=E,65nm,5.0s						
PINE	**Pine Mountain**	**4.19**	**60**		**Pn**	**12 06 32.8**	**+0.2**
PINE				IAML		12 07 29.6	
	comp=E,39nm,3.8s						
PINE				IAML		12 09 16.3	
	comp=N,39nm,4.4s						
I05D	**Terrebonne, OR**	**4.22**	**52**		**Pn**	**12 06 31.9**	**-1.0**
I05D				IAML		12 07 25.0	
	comp=E,74nm,4.0s						
I05D				IAML		12 07 55.8	
	comp=N,74nm,4.2s						
G04A	**Mulino**	**4.23**	**36**		**Pn**	**12 06 32.0**	**-0.8**
MOD	**Modoc Plateau**	**4.24**	**87**		**Pn**	**12 06 32.9**	**-0.3**
CVS	**Carmenet Viney**	**4.41**	**141**	Pn	**Pn**	**12 06 34.8**	**-0.5**
CVS				IAML		12 07 37.3	
	comp=E,31nm,3.8s						
CVS				IAML		12 07 59.6	
	comp=N,27nm,3.5s						
BEKR	**Beckworth**	**4.69**	**113**	Pn	**Pn**	**12 06 38.9**	**-0.5**
BEKR				IAML		12 07 45.6	
	comp=N,19nm,0.7s						
BEKR				IAML		12 07 47.9	
	comp=E,19nm,1.3s						
HOOD	**Mount Hood Mea**	**4.70**	**41**	Pn	**Pn**	**12 06 39.0**	**-0.4**
HOOD				IAML		12 07 54.8	
	comp=E,51nm,1.3s						
HOOD				IAML		12 08 56.2	
	comp=N,46nm,4.7s						
AFDM	**Forest Hills D**	**4.79**	**125**		**Pn**	**12 06 41.4**	**+0.8**
AFDM				IAML		12 07 45.6	
	comp=N,34nm,0.6s						
G05A	**Wamic**	**4.81**	**43**	Pn	**Pn**	**12 06 42.0**	**+1.1**
RADR	**Rader Ridge**	**4.85**	**18**	Pn	**Pn**	**12 06 42.5**	**+1.0**
G06A	**Carlson Farm,**	**5.17**	**47**		**Pn**	**12 06 46.7**	**+0.9**
G06A				IAML		12 08 05.2	
	comp=N,29nm,4.8s						
G06A				IAML		12 09 23.9	
	comp=E,33nm,3.9s						
MPK	**Martis Peak**	**5.19**	**117**	Pn	**Pn**	**12 06 46.7**	**+0.4**
JRO	**Jston Ridge Ob**	**5.20**	**30**	Pn	**Pn**	**12 06 47.1**	**+0.8**
I07A	**Izee**	**5.26**	**63**	Pn	**Pn**	**12 06 46.6**	**-0.5**
JRSC	**Jasper Ridge**	**5.28**	**146**	Pn	**Pn**	**12 06 47.0**	**-0.4**
PAHR	**Pah Rah Range**	**5.44**	**111**	Pn	**Pn**	**12 06 49.4**	**-0.2**
WVOR	**Wild Horse Val**	**5.50**	**81**		**Pn**	**12 06 50.6**	**+0.2**
PNTR	**Pine Nut**	**5.58**	**117**	Pn	**Pn**	**12 06 51.6**	**-0.1**
MHC	**Mount Hamilton**	**5.60**	**142**	Pn	**Pn**	**12 06 52.1**	**+0.3**
CMB	**Columbia Colle**	**5.73**	**130**	Pn	**Pn**	**12 06 53.6**	**+0.1**
J08A	**Circle Bar Ran**	**5.75**	**72**		**Pn**	**12 06 53.8**	**0.0**
LON	**Longmire**	**5.76**	**30**		**Pn**	**12 06 54.6**	**+0.7**
YERR	**Yerington**	**5.88**	**117**	Pn	**Pn**	**12 06 55.7**	**0.0**
F07A	**Phinny Hill Vi**	**5.97**	**45**	Pn	**Pn**	**12 06 56.6**	**-0.2**
FORD	**Fort Ord Natur**	**6.08**	**146**	Pn	**Pn**	**12 06 56.9**	**-1.4**
GNW	**Green Mountain**	**6.16**	**20**	Pn	**Pn**	**12 06 59.7**	**+0.4**
G08A	**Pilot Rock**	**6.16**	**54**		**Pn**	**12 07 00.5**	**+1.0**
MXC	**Moxie City**	**6.26**	**39**		**Pn**	**12 07 00.8**	**0.0**
E07A	**Sunnyside**	**6.46**	**41**		**Pn**	**12 07 03.4**	**-0.1**
B04A	**Port Angeles**	**6.47**	**15**	Pn	**Pn**	**12 07 04.0**	**+0.4**
HAWA	**Hanford**	**6.50**	**43**	Pn	**Pn**	**12 07 04.3**	**+0.2**
YPT	**Yellepit**	**6.59**	**48**	Pn	**Pn**	**12 07 07.1**	**+1.8**
LTY	**Liberty**	**6.62**	**33**	Pn	**Pn**	**12 07 06.6**	**+0.9**
NVAR	**Mina Array Bea**	**6.79**	**117**	Pn	**Pn**	**12 07 10.6**	**+2.2**
	comp=E,0.3nm,0.3s,baz=296,slow=15,SNR=6.3						
NVAR				Sn	**Sn**	**12 08 28.0**	**+2.2**
	comp=E,0.3nm,0.3s,baz=308,slow=24,SNR=11						
	comp=E,0.4nm,0.4s						
NVAR				AML	AML		
ELK	**Elko**	**8.16**	**94**	Pn	**Pn**	**12 07 29.2**	**+2.1**
	comp=E,0.2nm,0.3s,baz=293,slow=11,SNR=18						
	comp=E,2.9nm,0.7s						
ELK				AML	AML		
NEW	**Newport**	**8.98**	**41**	LR	LR	12 11 24.4	
	comp=E,131nm,18.4s,baz=236,slow=40						
BBB	**Bella Bella**	**10.46**	**353**	LR	LR	12 11 00.5	
	comp=E,44nm,19.5s,baz=200,slow=32						
PFO	**Pinyon Flats O**	**11.14**	**134**	Pn	**Pn**	**12 08 09.1**	**+1.4**
	comp=E,0.1nm,0.3s,baz=342,slow=13,SNR=2.2						
	comp=E,0.4nm,0.6s						
PFO				AML	AML		
H02S1	**DAWSON INLET T**	**12.19**	**341**	T	T	12 20 54.5	
	SNR=431						
H02S2	**DAWSON INLET T**	**12.19**	**341**	T	T	12 20 54.5	
	SNR=429						
PDAR	**Pinedale Array**	**12.20**	**80**	Pn	**Pn**	**12 08 23.5**	**+1.1**
	baz=246,slow=11,SNR=5.4						
PDAR				LR	LR	12 12 60.0	
	comp=E,58nm,18.8s,baz=214,slow=37						
	comp=E,0.8nm,0.9s						
ISCO	**Idaho Springs**	**15.55**	**91**	Pn	**Pn**	**12 09 07.1**	**-0.9**
DLBC	**Dease Lake**	**16.82**	**353**	Pn	**Pn**	**12 09 23.6**	**-0.2**
	baz=160,slow=15,SNR=3.1						
	comp=E,0.8nm,0.9s						
T25A	**Trinidad**	**17.29**	**99**	Pn	**Pn**	**12 09 28.2**	**-1.8**
T25A				IAmb	IAmb	12 09 34.3	
	comp=Z,2.4nm,0.7s						
OGNE	**Ogallala**	**17.98**	**85**		**Pn**	**12 09 38.0**	**-0.5**
OGNE				IAmb	IAmb	12 09 46.0	
	comp=Z,3.9nm,0.7s						
P33M	**Teslin, Yukon**	**18.88**	**349**	P	**P**	**12 09 47.3**	**-1.4**
P33M				IAmb	IAmb	12 10 00.3	
	comp=Z,3.4nm,1.1s						
WHY	**Whitehorse**	**19.62**	**347**	P	**P**	**12 09 56.1**	**-0.7**
WHY				IAmb	IAmb	12 10 06.5	
	comp=Z,6.2nm,1.1s						
FFC	**Flin Flon**	**20.40**	**43**	P	**P**	**12 10 04.9**	**-0.4**
FFC				IAmb	IAmb	12 10 13.8	
	comp=Z,2.9nm,0.9s						
YKA	**Yellowknife Ar**	**21.77**	**14**	P	**P**	**12 10 21.5**	**+1.5**
	comp=Z,2.1nm,1.0s,baz=209,slow=11,SNR=4.2						
	comp=Z,2.1nm,1.0s						
YKA	**Yellowknife Ar**	**21.77**	**14**	P	**P**	**12 10 18.7**	**-1.3**
TX31	**Lajitas Ar. Si**	**21.95**	**117**	P	**P**	**12 10 21.6**	**-0.6**
TXAR	**Lajitas Array**	**21.95**	**117**	P	**P**	**12 10 26.4**	**+4.2**
	comp=Z,0.7nm,1.0s,baz=301,slow=9.1,SNR=5.1						
	comp=Z,0.7nm,1.0s						
TXAR	**Lajitas Array**	**21.95**	**117**	P	**P**	**12 10 21.9**	**-0.3**
BCAR	**Beaver Creek A**	**23.22**	**342**	P	**P**	**12 10 34.3**	**-1.0**
J30M	**Hart River**	**23.55**	**349**	P	**P**	**12 10 38.4**	**-0.3**
J30M				IAmb	IAmb	12 10 41.8	
	comp=Z,2.0nm,0.9s						
BRLK	**Bradley Lake**	**23.63**	**328**	P	**P**	**12 10 38.7**	**-0.8**
SPMN	**Marine on St.**	**24.20**	**71**	P	**P**	**12 10 45.3**	**+0.4**
SPMN				IAmb	IAmb	12 10 51.7	
	comp=Z,5.2nm,1.1s						
TREL	**Terrell**	**25.36**	**101**	P	**P**	**12 10 55.1**	**-0.3**
ILAR	**Eielson Array**	**25.90**	**340**	P	**P**	**12 11 00.7**	**+0.5**
	comp=Z,0.5nm,0.8s,baz=152,slow=8.0,SNR=6.9						
	comp=Z,0.5nm,0.8s						
ILAR	**Eielson Array**	**25.90**	**340**	P	**P**	**12 11 00.0**	**-0.2**
SADO	**Sadowa**	**33.85**	**69**	LR	LR	12 25 34.9	
	comp=Z,42nm,19.3s,baz=171,slow=36						
H11N3	**WAKE ISLAND Hy**	**60.22**	**270**	T	T	13 20 40.2	
	baz=52,slow=75,SNR=14						
H11N2	**WAKE ISLAND Hy**	**60.22**	**270**	T	T	13 21 00.2	
	baz=52,slow=75,SNR=11						
H11N1	**WAKE ISLAND Hy**	**60.23**	**270**	T	T	13 21 00.6	
	baz=52,slow=75,SNR=12						
H11S1	**WAKE ISLAND Hy**	**61.11**	**270**	T	T	13 21 47.4	
	baz=52,slow=74,SNR=12						
H11S2	**WAKE ISLAND Hy**	**61.12**	**270**	T	T	13 21 46.8	
	baz=52,slow=74,SNR=13						
H11S3	**WAKE ISLAND Hy**	**61.13**	**270**	T	T	13 21 54.0	
	baz=52,slow=74,SNR=9.4						
FINES	**FINESS Array B**	**74.60**	**14**	P	**P**	**12 17 08.2**	**+1.0**
	comp=Z,1.5nm,0.8s,baz=330,slow=4.8,SNR=1.1						
	comp=Z,1.5nm,0.8s						
FINES	**FINESS Array B**	**74.60**	**14**	P	**P**	**12 17 06.9**	**-0.2**
KURK	**Kurchatov**	**85.36**	**345**	P	**P**	**12 18 05.1**	**-0.3**
KURK				IAmb	IAmb	12 18 16.1	
	comp=Z,0.8nm,0.7s						
KURBB	**Kurchatov Arra**	**85.46**	**345**	P	**P**	**12 18 06.7**	**+0.7**
	comp=Z,0.3nm,0.5s,baz=15,slow=4.3,SNR=3.3						
	comp=Z,0.3nm,0.5s						
MKAR	**Makanchi Array**	**88.25**	**341**	P	**P**	**12 18 20.0**	**+0.3**
AB31	**Akbulak array**	**89.14**	**356**	P	**P**	**12 18 24.2**	**+0.4**
ABKAR	**Akbulak array**	**89.14**	**356**	P	**P**	**12 18 24.2**	**+0.4**

IDC 16 12:10:41.4±3.6,1.°81N×121.°70E,h133km±30km,mb3.1/5, mbtmp3.6/5,Error ellipse: s-maj=146.7km s-min=16.3km az=64.0,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KCP	**Kidapawan**	**6.17**	**33**	*i* P	Pn	12 12 01.7	-8.6
KCP				*i* S		12 12 07.4	
FITZ	**Fitzroy Crossi**	**20.16**	**169**	P	P	12 15 03.5	-2.0
	1.6nm,0.8s,baz=351,slow=11,SNR=1.9						
	1.6nm,0.8s						
WRA	**Warramunga Arr**	**24.93**	**151**	P	P	12 15 51.7	-0.6
	0.3nm,0.4s,baz=332,slow=8.8,SNR=4.6						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**27.98**	**156**	P	P	12 16 21.5	+1.8
	0.2nm,0.6s,baz=342,slow=7.2,SNR=5.4						
ASAR				PcP	PcP	12 19 31.2	-0.6
	0.5nm,0.9s,baz=351,slow=2.4,SNR=3.8						
ASAR				ScP	ScP	12 22 59.5	-0.9
	0.2nm,0.8s,baz=341,slow=3.3,SNR=3.3						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**56.40**	**328**	P	P	12 20 09.2	+0.3
	0.7nm,0.5s,baz=123,slow=8.1,SNR=7.2						
	0.7nm,0.5s						
KURBB	**Kurchatov Arra**	**60.75**	**330**	P	P	12 20 38.6	-0.3
	1.6nm,0.8s,baz=128,slow=6.2,SNR=15						
	1.6nm,0.8s						

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*AFAD **16** 12:14:57.2,37.°82N×26.°88E,h7km±2km,ML1.9*
*THE **16** 12:14:57.8,38.°N±1.°×26.°9E±0.°7,h10km±3km,M2.4/5, MLh2.4/5*
*ISK **16** 12:14:57.5,37.°83N×26.°88E,h9km,ML2.5/12*
ISC 16 12:14:57.8±0.9,37.°83N±0.°02×26.°88E±0.°03,h12km±6km, n31,σ0s65/51,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.12**	**194**	P	**Pg**	**12 15 00.8**	**-0.1**
SMG				S	**Sg**	**12 15 03.2**	**-0.1**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**2**	P	**Pg**	**12 15 02.4**	**-0.3**
DGB				S	**Sg**	**12 15 05.8**	**-0.1**
DGB				IAML		12 15 07.0	
	comp=E,204nm,0.1s						
DGB				IAML		12 15 07.0	
	comp=N,120nm,0.2s						
DGB	**zmir**	**0.23**	**2**	P	**Pg**	**12 15 02.4**	**-0.3**
DGB				S	**Sg**	**12 15 05.7**	**-0.1**
DGB				IAML		12 15 07.0	
	comp=E,204nm,0.1s						
DGB				IAML		12 15 10.0	
	comp=N,90nm,0.1s						
GMLD	**Gumuldur**	**0.25**	**7**	Pg	**Pg**	**12 15 02.8**	**-0.3**
GMLD				Sg	**Sg**	**12 15 07.1**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**114**	P	**Pg**	**12 15 03.5**	**-0.7**
GCAM				S	**Sg**	**12 15 08.5**	**+0.1**
GCAM				IAML		12 15 10.0	
	comp=N,435nm,0.2s						
GCAM	**G?zelcaml?**	**0.31**	**114**	P	**Pg**	**12 15 03.7**	**-0.4**
GCAM				S	**Sg**	**12 15 08.6**	**+0.3**
GCAM				IAML		12 15 09.0	
	comp=E,303nm,0.1s						
GCAM				IAML		12 15 09.0	
	comp=N,336nm,0.4s						
KUSD	**Kusadasi-Aydin**	**0.33**	**84**	Pg	**Pg**	**12 15 03.9**	**-0.6**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**6**	P	**Pg**	**12 15 05.2**	**-0.6**
BEYE				S	**Sg**	**12 15 11.6**	**+0.3**
BEYE				IAML		12 15 13.0	
	comp=E,139nm,0.2s						
BEYE				IAML		12 15 15.0	
	comp=N,118nm,0.2s						
BEYE	**izmir**	**0.40**	**6**	P	**Pg**	**12 15 04.1**	**-1.7**
BEYE				S	**Sg**	**12 15 11.4**	**+0.2**
BEYE				IAML		12 15 13.0	
	comp=E,139nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**325**	P	**Pg**	**12 15 06.8**	**-0.9**

	comp=N,33nm,0.7s								
KARB					IAML			12 15 32.0	
	comp=E,60nm,0.9s								
KARB	**zmir-Karabur**	**0.91**	**337**		P	**Pg**		**12 15 14.1**	**-1.3**
KARB					S	**Sb**		**12 15 28.2**	**+0.6**
KARB					IAML			12 15 31.0	
	comp=N,35nm,0.7s								
KARB					IAML			12 15 32.0	
	comp=E,60nm,0.9s								
CAMT	**Merkez**	**0.98**	**20**		P	**Pg**		**12 15 16.0**	**-0.8**
CAMT					S	**Sb**		**12 15 30.0**	**+0.3**
CAMT					IAML			12 15 33.0	
	comp=E,108nm,0.2s								
CAMT	**Merkez**	**0.98**	**20**		P	**Pg**		**12 15 16.2**	**-0.6**
CAMT					S	**Sb**		**12 15 30.0**	**+0.3**
CAMT					IAML			12 15 34.0	
	comp=N,84nm,0.4s								
NAZL	**Nazilli-Aydin**	**1.13**	**83**		Pn	**Pn**		**12 15 19.7**	**+0.2**
NAZL					AML	AML			
ZEDA	**zmir-Bergama**	**1.15**	**8**		P	**Pn**		**12 15 21.1**	**+1.4**
ZEDA					S	**Sn**		**12 15 35.5**	**+0.2**
ZEDA					IAML			12 15 38.0	
	comp=E,23nm,0.2s								
ZEDA					IAML			12 15 38.0	
	comp=N,32nm,0.4s								
ZEDA	**zmir-Bergama**	**1.15**	**8**		P	**Pn**		**12 15 20.8**	**+1.1**
ZEDA					S	**Sn**		**12 15 35.4**	**0.0**
ZEDA					IAML			12 15 38.0	
	comp=E,23nm,0.2s								
ZEDA					IAML			12 15 38.0	
	comp=N,39nm,0.5s								
DAT	**Datca**	**1.23**	**153**		Pn	**Pg**		**12 15 21.3**	**-0.2**
YER	**Yerkesik**	**1.32**	**121**		Pn	**Pg**		**12 15 22.6**	**-0.5**
YER					AML	AML			

*OSPL **16** 12:24:29.7±2.0,20°.22N×70°.77W,h6$^{km}_{\pm}$6^{km},ML3.2, Presumed earthquake*
*SDD **16** 12:24:30.0±2.4,20°.15N×70°.71W,h20$^{km}_{\pm}$23^{km},MD3.2, ML3.3,MW3.4, Presumed earthquake*
*SSNC **16** 12:24:31.3±2.1,20°.15N×70°.97W,h5$^{km}_{\pm}$15^{km},MD3.5, ML3.1, Presumed earthquake*

ISC 16 12:24:27.8±1.9,20°.16N±0°.03×70°.81W±0°.04,h9$^{km}_{\pm}$15^{km}, n27,σ1°30/43,10C-9D,Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m s	ISC
LUDR	**Luperon**	**0.30**	**208**	*e*Pg		**Pb**	**12**	**24 35.3**	**-0.1**
LUDR				*e*Sg		**Sb**	**12**	**24 42.7**	**+2.3**
SODR	**Sosua Marina B**	**0.46**	**152**	*e*Pg		**Pn**	**12**	**24 38.9**	**-1.7**
SODR				IAML			12	24 53.5	
	comp=N,2μm,0.8s								
LOPP1	**Punta Rusia, P**	**0.48**	**231**	*i*P		**Pn**	**12**	**24 39.6**	**-1.3**
LOPP1				*e*S		**Sb**	**12**	**24 47.0**	**+1.4**
LOPP1				IAML			12	24 50.4	
	comp=Z,1μm,0.3s								
MADR	**Mao Valverde**	**0.65**	**205**	*e*Pg		**Pb**	**12**	**24 41.9**	**+0.4**
MADR				*e*Sg		**Sn**	**12**	**24 53.4**	**-0.3**
MADR				IAML			12	24 57.5	
	comp=N,1μm,0.3s								
SC01	**Santiago de lo**	**0.73**	**174**	*e*Pg		**Pb**	**12**	**24 43.1**	**+0.3**
SC01				IAML			12	24 56.5	
	comp=N,749nm,0.8s								
SC01	**Santiago de lo**	**0.73**	**174**	*i*P		**Pb**	**12**	**24 42.9**	**+0.1**
SC01				*e*S		**Sn**	**12**	**24 55.4**	**-0.3**
SC01				IAML			12	24 59.5	
	comp=Z,447nm,0.5s								
REDR	**Restauracion**	**1.13**	**209**	*e*Pg		**Pn**	**12**	**24 51.2**	**+1.3**
REDR				*e*Sg		**Sn**	**12**	**25 09.1**	**+3.5**
REDR				IAML			12	25 12.9	
	comp=N,947nm,0.2s								
SDDR	**Presa de Saban**	**1.26**	**201**	*e*Pg		**Pn**	**12**	**24 51.5**	**-0.2**
SDDR				*e*Sg		**Sb**	**12**	**25 09.1**	**+1.0**
SDDR				IAML			12	25 15.7	
	comp=N,431nm,0.5s								
SDDR	**Presa de Saban**	**1.26**	**201**	*e*P		**Pn**	**12**	**24 51.4**	**-0.2**
SDDR				*e*S		**Sb**	**12**	**25 09.0**	**+1.0**
SDDR				IAML			12	25 13.1	
	comp=N,238nm,0.4s								
SDDR				IAML			12	25 15.7	
	comp=N,437nm,0.4s								
SDDR	**Presa de Saban**	**1.26**	**201**	*i*P		**Pn**	**12**	**24 51.3**	**-0.4**
SDDR				*e*S		**Sb**	**12**	**25 09.2**	**+1.0**
SDDR				IAML			12	25 17.7	
	comp=Z,206nm,0.6s								
ABDR	**Alto Bandera**	**1.35**	**173**	*e*Pg		**Pn**	**12**	**24 52.8**	**-0.4**
ABDR				*e*Sg		**Sg**	**12**	**25 11.1**	**-0.3**
ABDR				IAML			12	25 13.1	
	comp=N,418nm,0.4s								
GRTK	**Grand Turk**	**1.38**	**347**	*e*Pg		**Pb**	**12**	**24 54.9**	**+1.1**
GRTK				*e*Sg		**Sn**	**12**	**25 13.4**	**+1.7**
GRTK				IAML			12	25 19.8	
	comp=N,743nm,0.3s								
GRTK	**Grand Turk**	**1.38**	**347**	*e*P		**Pb**	**12**	**24 54.3**	**+0.5**
GRTK				*e*S		**Sn**	**12**	**25 13.1**	**+1.5**
GRTK				IAML			12	25 15.8	
	comp=N,736nm,0.3s								
GRTK				IAML			12	25 18.5	
	comp=N,780nm,0.3s								
GRTK	**Grand Turk**	**1.38**	**347**	*i* P		**Pb**	**12**	**24 53.9**	**+0.1**
GRTK				IAML			12	25 17.8	
	comp=Z,387nm,0.3s								
LONE3	**El Aguacate, B**	**1.67**	**202**	*i*P		**Pb**	**12**	**24 58.4**	**-0.4**
LONE3				*e*S		**Sb**	**12**	**25 20.5**	**+0.6**
LONE3				IAML			12	25 24.4	
	comp=Z,160nm,0.4s								
SMDR	**Samana, DR**	**1.75**	**119**	*e*Pg		**Pn**	**12**	**24 57.8**	**-0.6**
SMDR				*e*Sg		**Sb**	**12**	**25 21.4**	**-0.9**
SMDR				IAML			12	25 26.8	
	comp=N,199nm,0.8s								
BANI	**BANI**	**1.81**	**166**	*e*Pg		**Pb**	**12**	**25 00.5**	**-0.7**
BANI				IAML			12	25 33.1	
	comp=N,258nm,0.9s								
SDD	**Santo Domingo**	**1.89**	**153**	*i* P		**Pn**	**12**	**25 00.2**	**-0.1**
SDD				*e*S		**Sn**	**12**	**25 24.8**	**+0.5**
SDD				IAML			12	25 25.7	
	comp=Z,158nm,0.7s								
LODU1	**El Espartillar**	**1.91**	**199**	*i*P		**Pb**	**12**	**25 02.7**	**-0.1**
LODU1				IAML			12	25 29.9	
	comp=Z,444nm,0.6s								
JIDR	**Jimani**	**1.93**	**211**	*e*Pg		**Pb**	**12**	**25 03.3**	**0.0**
JIDR				*e*Sg		**Sg**	**12**	**25 30.1**	**+0.2**
	comp=N,726nm,0.6s								
JIDR				IAML			12	25 30.9	
	comp=N,726nm,0.6s								
PODR	**Polo**	**2.03**	**193**	*e*Pg		**Pb**	**12**	**25 05.0**	**-0.1**
PODR				IAML			12	25 35.3	
	comp=N,686nm,0.8s								
PODR	**Polo**	**2.03**	**193**	*i*P		**Pb**	**12**	**25 05.0**	**-0.1**
PODR				IAML			12	25 35.1	
	comp=Z,1μm,0.8s								
HIDR	**Higuey Centro**	**2.51**	**128**	IAML			12	25 55.8	
	comp=N,95nm,0.3s								
QMBU	**Quimbuelo**	**3.76**	**271**	*e*P		**Pn**	**12**	**25 25.6**	**-0.5**
QMBU				*e*S		**Sn**	**12**	**26 08.2**	**-2.4**
QMBU				IAML			12	26 26.9	
	comp=E,40nm,0.4s								
QMBU				IAML			12	26 27.6	
	comp=N,32nm,0.4s								
NMDO	**Nuevo Mundo**	**3.94**	**277**	IAML			12	27 11.3	
	comp=N,23nm,4.9s								
NMDO	**Nuevo Mundo**	**3.94**	**277**	*e*P		**Pn**	**12**	**25 26.7**	**-1.8**
NMDO				*e*S		**Sn**	**12**	**26 10.7**	**-4.2**
GTBY	**Guantanamo Bay**	**4.05**	**267**	*e*P		**Pn**	**12**	**25 29.9**	**-0.1**
GTBY				*e*S		**Sn**	**12**	**26 16.9**	**-0.8**

*IDC **16** 12:32:30.3±1.9,47°.80N×154°.85E,h0^{km},mb3.7/6, mbtmp3.7/7,ML2.6/1,MS2.8/1,Error ellipse: s-maj=40.8km s-min=19.5km az=136.0*
*KRSC **16** 12:32:35.9±1.5,48°.24N×156°.20E,h8$^{km}_{\pm}$39^{km},Ml3.8*
*JMA **16** 12:32:37.7±0.9,47°.N±8°×156°.5E±°,h0^{km},FAR FIELD*

ISC 16 12:32:35.3±1.3,48°.0N±0°.1×155°.1E±0°.2,h33^{km},n33, σ2°.04/36,mb3.7/6,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m s	ISC
SKR	**Severo-Kuril's**	**2.77**	**14**	*e*P		**Pn**	**12**	**33 17.9**	**+0.5**
SKR				*e*S		**Sn**	**12**	**33 49.0**	**-0.6**
PAU	**Pauzhetka**	**3.65**	**18**	*e*P		**Pn**	**12**	**33 29.1**	**-0.3**
PAU				*e*S		**Sn**	**12**	**34 08.1**	**-3.2**
KDTR	**Khodutka, Kamc**	**4.28**	**26**	*e*P		**Pn**	**12**	**33 37.4**	**-0.7**
KDTR				*e*S		**Sn**	**12**	**34 23.2**	**-3.7**
ASAK	**Asacha**	**4.75**	**22**	*e*P		**Pn**	**12**	**33 45.5**	**+0.8**
MTVR	**Mutnovka**	**4.91**	**23**	*e*P		**Pn**	**12**	**33 47.2**	**+0.3**
MTVR				*e*S		**Sn**	**12**	**34 39.9**	**-2.7**
GRL	**Gorelyy**	**4.95**	**22**	*e*P		**Pn**	**12**	**33 48.4**	**+1.0**
GRL				*e*S		**Sn**	**12**	**34 41.9**	**-1.6**
RUS	**Russkaya**	**4.96**	**25**	*e*S		**Sn**	**12**	**34 40.0**	**-3.5**
PETK	**Petropavlovsk-**	**5.38**	**17**	Pn		**Pn**	**12**	**33 54.5**	**+1.2**
	0.9nm,0.3s,baz=196,slow=13,SNR=30								
PETK						**Sn**	**12**	**34 56.7**	**+2.7**
	baz=183,slow=15								
PETK				LR		LR	12	36 29.0	
	comp=Z,76nm,18.3s,baz=118,slow=42 2.5nm,0.4s								
PETK				AML		AML			
PET	**Petropavlovsk**	**5.53**	**23**	*e*P		**Pn**	**12**	**33 55.3**	**+0.2**
DALK	**Dalny**	**5.56**	**24**	*e*P		**Pn**	**12**	**33 56.4**	**+0.8**
DALK				*e*S		**Sn**	**12**	**34 55.8**	**-2.6**
KOK	**Koryaka**	**5.76**	**22**	*e*P		**Pn**	**12**	**34 00.0**	**+1.5**
AVH	**Avacha**	**5.77**	**23**	*e*P		**Pn**	**12**	**34 00.8**	**+2.2**
SMAR	**Somma**	**5.78**	**23**	*e*P		**Pn**	**12**	**34 00.4**	**+1.5**
SDLR	**Sedlovina**	**5.82**	**23**	*e*P		**Pn**	**12**	**33 59.1**	**-0.2**
KRX	**Arik**	**5.83**	**22**	*e*P		**Pn**	**12**	**34 00.6**	**+1.1**
NEM2	**Nemuro 2**	**8.00**	**238**	*e*P		**Pn**	**12**	**34 29.6**	**+0.5**
JAK	**Akkeshi**	**8.82**	**239**	*e*P		**Pn**	**12**	**34 41.0**	**+0.5**
JAK				*e*S		**Sn**	**12**	**35 15.9**	**-2.8**
JAR	**Ashorobuto**	**9.19**	**243**	*e*P		**Pn**	**12**	**34 48.4**	**+2.9**
JOB	**Onbets**	**9.38**	**241**	*e*P		**Pn**	**12**	**34 49.9**	**+1.7**
JKK2	**Kamakawa 2**	**9.51**	**249**	*e*P		**Pn**	**12**	**34 54.1**	**+4.2**
JCH	**Churui**	**9.83**	**241**	*e*P		**Pn**	**12**	**34 55.5**	**+1.2**
JCH				*e*S		**Sn**	**12**	**36 40.6**	**-2.9**
KSRS	**Korea Array**	**22.43**	**252**	P		**P**	**12**	**37 28.1**	**-3.0**
	1.4nm,1.1s,baz=48,slow=11,SNR=1.5 1.4nm,1.1s								
H11N2	**WAKE ISLAND Hy**	**29.80**	**157**	T		T		13 10 21.2	
	baz=345,slow=76,SNR=6.4								
H11N1	**WAKE ISLAND Hy**	**29.81**	**157**	T		T		13 10 22.9	
	baz=345,slow=76,SNR=8.5								
H11N3	**WAKE ISLAND Hy**	**29.82**	**157**	T		T		13 10 25.1	
	baz=345,slow=76,SNR=4.0								
H11S1	**WAKE ISLAND Hy**	**30.92**	**158**	T		T		13 11 49.0	
	baz=344,slow=76,SNR=42								
H11S3	**WAKE ISLAND Hy**	**30.93**	**158**	T		T		13 11 56.0	
	baz=344,slow=76,SNR=56								
H11S2	**WAKE ISLAND Hy**	**30.94**	**158**	T		T		13 11 40.3	
	baz=344,slow=76,SNR=40								
MKAR	**Makanchi Array**	**47.53**	**297**	P		**P**	**12**	**41 06.7**	**-0.6**
	0.3nm,0.6s,baz=65,slow=9.1,SNR=3.5 0.3nm,0.6s								
KURBB	**Kurchatov Arra**	**47.86**	**303**	P		**P**	**12**	**41 09.7**	**+0.1**
	1.3nm,0.6s,baz=68,slow=8.2,SNR=11 1.3nm,0.6s								
BVAR	**Borovoye Array**	**51.08**	**309**	P		**P**	**12**	**41 34.7**	**+0.5**
	0.5nm,0.4s,baz=62,slow=9.0,SNR=2.2 0.5nm,0.4s								
HFS	**Hagfors**	**67.73**	**340**	P		**P**	**12**	**43 30.3**	**+1.3**
	2.1nm,0.8s,baz=30,slow=6.9,SNR=1.8 2.1nm,0.8s								
TXAR	**Lajitas Array**	**75.74**	**62**	P		**P**	**12**	**44 19.3**	**+1.6**
	0.2nm,0.6s,baz=300,slow=4.7,SNR=3.6 0.2nm,0.6s								

*NEIC **16** 12:36:10.6±1.0,21°.33S±0°.09×170°.61E±0°.09,h146$^{km}_{\pm}$5^{km}, mb4.7/58, Error ellipse: s-maj=13.8km s-min=10.8km az=153.0*
*NOU **16** 12:36:12.0,21°.41S×170°.61E,h104^{km}, MLv4.9/24, Southeast of Loyalty Islands*
*IDC **16** 12:36:13.6±1.7,21°.38S×170°.37E,h173$^{km}_{\pm}$14^{km}, mb3.9/11,mbtmp4.3/14,MS2.3/1,Error ellipse: s-maj=16.5km s-min=14.1km az=145.0*

ISC 16 12:36:10.7±0.4,21°.37S±0°.05×170°.57E±0°.06,h150^{km}, n153,σ0°.89/162,mb4.5/45,2D,Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m s	ISC
MARNC	**Mare, Loyalty**	**2.37**	**267**	P		**Pn**	**12**	**36 50.6**	**+0.4**
MARNC	**Mare, Loyalty**	**2.37**	**267**	S		**Sn**	**12**	**37 19.5**	**-1.1**
MARNC	**Mare, Loyalty**	**2.37**	**267**			**Pn**	**12**	**36 50.8**	**+0.6**
MARNC						**Sn**	**12**	**37 19.4**	**-1.2**
PINNC	**Pines Island,**	**3.15**	**246**	P		**Pn**	**12**	**37 00.6**	**+0.6**
PINNC	**Pines Island,**	**3.15**	**246**	S		**Sn**	**12**	**37 39.4**	**+1.3**
PINNC	**Pines Island,**	**3.15**	**246**			**Pn**	**12**	**37 00.5**	**+0.6**
PINNC						**Sn**	**12**	**37 38.3**	**+0.2**
YATNC	**Mamie plateau,**	**3.49**	**258**	P		**Pn**	**12**	**37 03.9**	**-0.4**
YATNC	**Mamie plateau,**	**3.49**	**258**	S		**Sn**	**12**	**37 46.3**	**+0.4**
OUENC	**Ouen Island, N**	**3.62**	**253**	Pn		**Pn**	**12**	**37 06.5**	**+0.5**
DZM	**Mont Dumac**	**3.90**	**259**	P		**Pn**	**12**	**37 10.4**	**+0.7**
	78nm,0.6s,baz=122,slow=6.1,SNR=155								
DZM				LR		LR	12	37 55.0	
	comp=Z,45nm,20.6s,baz=158,slow=27								
DZM				S		**Sn**	**12**	**37 56.2**	**+0.6**
	52nm,0.4s,baz=265,slow=23,SNR=7.0								
ONTNC	**Ouen Toro**	**3.94**	**256**	P		**Pn**	**12**	**37 11.0**	**+0.9**
ONTNC	**Ouen Toro**	**3.94**	**256**	S		**Sn**	**12**	**37 56.3**	**0.0**
ONTNC	**Ouen Toro**	**3.94**	**256**			**Pn**	**12**	**37 10.8**	**+0.7**
ONTNC						**Sn**	**12**	**37 56.1**	**-0.2**
NOUC	**Port Laguerre**	**4.03**	**259**	P		**Pn**	**12**	**37 11.8**	**+0.4**
NOUC	**Port Laguerre**	**4.03**	**259**	S		**Sn**	**12**	**37 59.4**	**+0.8**
RTV	**Rentapao**	**4.09**	**330**	P		**Pn**	**12**	**37 13.6**	**+1.4**
RTV	**Rentapao**	**4.09**	**330**	S		**Sn**	**12**	**38 01.3**	**+1.3**
DVP	**Devils Point**	**4.27**	**328**	P		**Pn**	**12**	**37 15.5**	**+1.0**
DVP	**Devils Point**	**4.27**	**328**	S		**Sn**	**12**	**38 05.1**	**+1.0**
KOUNC	**Koumac, New Ca**	**5.93**	**277**	P		**Pn**	**12**	**37 38.7**	**+2.2**
KOUNC	**Koumac, New Ca**	**5.93**	**277**			**Pn**	**12**	**37 38.0**	**+1.5**
KOUNC						**Sn**	**12**	**38 43.4**	**-0.2**
SANVU	**Saraoutou**	**6.70**	**331**	P		**Pn**	**12**	**37 48.6**	**+1.8**
SANVU	**Saraoutou**	**6.70**	**331**	Pn		**Pn**	**12**	**37 45.7**	**-1.2**
MSVF	**Nonsavu**	**7.92**	**64**	Pn		Pn	12	38 08.8	+5.5
	5.0nm,0.9s,baz=192,slow=20,SNR=5.5								
MSVF	**Nonsavu**	**7.92**	**64**	Pn		**Pn**	**12**	**38 02.3**	**-1.0**
NGOA	**Tingoa Renbel**	**14.02**	**312**	P		**P**	**12**	**39 28.5**	**+2.4**
MXZ	**Matakaoa Point**	**17.47**	**159**	P		**Pn**	**12**	**40 08.4**	**+3.3**
URZ	**Urewera**	**17.75**	**163**	P		**Pn**	**12**	**40 09.3**	**+0.8**
	16nm,0.7s,baz=29,slow=1.4,SNR=9.3								
URZ	**Urewera**	**17.75**	**163**	P		**Pn**	**12**	**40 10.7**	**+2.2**
EIDS	**Eidsvold**	**18.33**	**254**	P		**P**	**12**	**40 14.6**	**+1.0**
BKZ	**Black Stump Fm**	**18.45**	**165**	P		**Pn**	**12**	**40 17.9**	**+1.1**
ARMA	**Armidale**	**19.25**	**238**	P		**P**	**12**	**40 24.9**	**+1.1**
CTAO	**Charters Tower**	**22.78**	**269**	P		**P**	**12**	**41 01.7**	**+1.1**
CAN	**Canberra**	**23.46**	**229**	P		**P**	**12**	**41 07.3**	**+0.6**
CAN				IAmb		IAmb	12	41 25.7	
	comp=Z,53nm,1.5s								
PMG	**Port Moresby**	**25.47**	**294**	P		**P**	**12**	**41 25.2**	**+0.1**
PMG				IAmb		IAmb	12	41 26.0	
	comp=Z,9.7nm,0.8s								
TOO	**Toolangi**	**27.03**	**228**	P		**P**	**12**	**41 39.1**	**+0.1**
INKA	**Innaminka**	**27.82**	**251**	P		**P**	**12**	**41 45.8**	**-0.2**
STKA	**Stephens Creek**	**27.86**	**242**	P		**P**	**12**	**41 46.0**	**-0.4**
	comp=Z,3.5nm,0.5s,baz=82,slow=10.0,SNR=9.5 comp=Z,3.5nm,0.5s								
STKA	**Stephens Creek**	**27.86**	**242**	P		**P**	**12**	**41 46.6**	**+0.3**
BBOO	**Buckleboo**	**32.63**	**242**	P		**P**	**12**	**42 28.1**	**-0.3**
BBOO				IAmb		IAmb	12	42 39.2	
	comp=Z,34nm,1.4s								
WR8	**Warramunga Arr**	**33.74**	**266**			**P**	**12**	**42 36.9**	**-1.2**
WR8				IAmb		IAmb	12	42 37.3	
	comp=Z,7.5nm,0.8s								
WB0	**Warramunga Arr**	**33.87**	**266**			**P**	**12**	**42 38.0**	**-1.2**
WB0				IAmb		IAmb	12	42 38.4	
	comp=Z,8.8nm,0.8s								
WRA	**Warramunga Arr**	**33.89**	**266**	P		**P**	**12**	**42 37.6**	**-1.8**
	comp=Z,5.3nm,0.6s,baz=101,slow=7.9,SNR=48								
WRA				PcP		**PcP**	**12**	**45 12.5**	**-2.2**
	comp=Z,0.5nm,0.8s,baz=95,slow=3.3,SNR=3.0 comp=Z,5.3nm,0.6s								
WRA	**Warramunga Arr**	**33.89**	**266**			**P**	**12**	**42 37.9**	**-1.5**
WRA						**PcP**	**12**	**45 12.0**	**-2.7**
AS31	**Alice Springs**	**33.89**	**259**			**P**	**12**	**42 38.6**	**-0.8**
ASAR	**Alice Springs**	**33.89**	**259**	P		**P**	**12**	**42 38.2**	**-1.2**
	comp=Z,4.4nm,0.7s,baz=80,slow=8.4,SNR=90								
ASAR				PcP		**PcP**	**12**	**45 13.4**	**-1.3**
	comp=Z,0.5nm,0.7s,baz=67,slow=3.0,SNR=4.4 comp=Z,4.4nm,0.7s								
ASAR	**Alice Springs**	**33.89**	**259**	P		**P**	**12**	**42 38.1**	**-1.4**
ASAR						**PcP**	**12**	**45 13.7**	**-1.1**
MTN	**Manton Dam**	**38.55**	**276**	IAmb		IAmb	12	43 18.6	
	comp=Z,4.1nm,0.6s								
MTN				P		**P**	**12**	**43 18.7**	**-0.4**
FORT	**Forrest**	**39.12**	**247**	P		**P**	**12**	**43 23.0**	**-0.6**
FORT				IAmb		IAmb	12	43 24.2	
	comp=Z,5.6nm,0.8s								
KNRA	**Kununurra**	**39.96**	**271**	P		**P**	**12**	**43 29.9**	**-0.8**
SAUI	**Saumlaki**	**40.12**	**283**	P		**P**	**12**	**43 31.9**	**-0.3**
FAKI	**Fak Fak**	**41.53**	**291**	P		**P**	**12**	**43 42.8**	**-0.8**
FAKI				IAmb		IAmb	12	43 58.1	
	comp=Z,18nm,1.0s								
FITZ	**Fitzroy Crossi**	**42.31**	**266**	P		**P**	**12**	**43 49.7**	**-0.3**
MBWA	**Marble Bar**	**47.20**	**261**	P		**P**	**12**	**44 28.2**	**-0.5**
MBWA				IAmb		IAmb	12	44 28.8	
	comp=Z,17nm,0.7s								
NWAO	**Narrogin (SRO)**	**48.39**	**244**	P		**P**	**12**	**44 37.1**	**-0.5**
MORW	**Morawa**	**49.56**	**250**	P		**P**	**12**	**44 46.0**	**-0.7**
MORW				IAmb		IAmb	12	44 47.0	
	comp=Z,26nm,1.4s								
TOLI2	**Tolitoli**	**53.51**	**288**			**P**	**12**	**45 15.6**	**-0.5**
TOLI2				IAmb		IAmb	12	45 16.4	
	comp=Z,10nm,0.9s								
SBA	**Scott Base**	**56.56**	**181**	P		**P**	**12**	**45 38.5**	**+1.5**
SBA				IAmb		IAmb	12	45 39.6	
	comp=Z,5.0nm,1.0s								
CASY	**Casey**	**58.69**	**204**	P		**P**	**12**	**45 51.9**	**-0.1**
KKM	**Kota Kinabalu**	**59.85**	**291**	P		**P**	**12**	**45 59.6**	**-1.4**
JHJ2	**Mitsune**	**61.62**	**331**	P		**P**	**12**	**46 12.8**	**+0.4**
JGF	**Kuroka**	**64.82**	**330**	P		**P**	**12**	**46 33.3**	**-0.2**
JGF				IAmb		IAmb	12	46 38.2	
	comp=Z,16nm,1.4s								
MJAR	**Matsushiro Arr**	**65.21**	**332**	P		**P**	**12**	**46 35.6**	**-0.4**
	comp=Z,1.1nm,0.5s,baz=143,slow=6.0,SNR=4.4 comp=Z,1.1nm,0.5s								
NACB	**Ninganchiao**	**65.72**	**311**	P		**P**	**12**	**46 39.5**	**0.0**
JNU	**Nakatsue**	**66.12**	**324**	P		**P**	**12**	**46 41.4**	**-0.5**
	comp=Z,2.5nm,0.6s,baz=18,slow=3.2,SNR=4.8 comp=Z,2.5nm,0.6s								
QSPA	**South Pole Qui**	**68.69**	**180**	P		**P**	**12**	**46 57.7**	**-0.1**
	comp=Z,2.8nm,0.8s,baz=14,slow=1.2,SNR=14 comp=Z,2.8nm,0.8s								
QSPA	**South Pole Qui**	**68.69**	**180**	P		**P**	**12**	**46 58.1**	**+0.3**
KSAR	**Wonju Array Be**	**70.97**	**325**	P		**P**	**12**	**47 10.8**	**-1.1**
KS19	**Wonju Array Si**	**71.03**	**325**	P		**P**	**12**	**47 11.1**	**-1.2**
KS19				IAmb		IAmb	12	47 23.9	
	comp=Z,20nm,1.3s								
NJ2	**Nanjing**	**72.60**	**316**	*e*P		**P**	**12**	**47 23.0**	**+1.3**
NJ2				pmax		pmax			
	comp=Z,7.0nm,0.7s								
IPM	**Ipoh**	**72.75**	**282**	P		**P**	**12**	**47 22.0**	**-1.0**
IPM				IAmb		IAmb	12	47 23.2	
	comp=Z,7.2nm,0.6s								
KULM	**Kulim**	**73.41**	**283**	P		**P**	**12**	**47 26.8**	**-0.2**
KULM				IAmb		IAmb	12	47 51.0	
	comp=Z,31nm,1.5s								
PEA0B	**Petropavlovsk-**	**75.00**	**352**	P		**P**	**12**	**47 35.4**	**+0.2**
PEA0B				IAmb		IAmb	12	47 37.1	
	comp=Z,26nm,1.2s								
PETK	**Petropavlovsk-**	**75.00**	**352**	P		**P**	**12**	**47 35.9**	**+0.6**
	comp=Z,5.6nm,0.9s,baz=190,slow=5.7,SNR=6.2 comp=Z,5.6nm,0.9s								
PETK	**Petropavlovsk-**	**75.00**	**352**	P		**P**	**12**	**47 35.8**	**+0.5**
CLES	**Cleveland East**	**75.81**	**12**	P		**P**	**12**	**47 40.0**	**+0.2**
CN2	**Changchun**	**76.92**	**328**	P		**P**	**12**	**47 45.0**	**-1.3**
CN2				pmax		pmax			
	comp=Z,10.0nm,0.5s								
MAW	**Mawson**	**76.94**	**202**	P		**P**	**12**	**47 47.0**	**+0.8**
	comp=Z,3.9nm,0.7s,baz=92,slow=10,SNR=6.4 comp=Z,3.9nm,0.7s								
MAW	**Mawson**	**76.94**	**202**	P		**P**	**12**	**47 46.9**	**+0.8**
XAN	**Xi'an**	**80.46**	**312**	P		**P**	**12**	**48 06.3**	**+0.3**
XAN				pmax		pmax			
	comp=Z,7.0nm,0.7s								
CMAR	**Chiang Mai Arr**	**80.51**	**294**	P		**P**	**12**	**48 07.7**	**+1.1**
	comp=Z,0.9nm,0.4s,baz=135,slow=4.5,SNR=9.3 comp=Z,0.9nm,0.4s								
CMAR

GERES	**GERESS Array B**	**146.95**	**332**	PKPbc	**PKPbc**	**12 55 35.2**	**-0.4**
	comp=Z,8.5nm,0.6s,baz=32,slow=2.7,SNR=38							
GERES	**GERESS Array B**	**146.95**	**332**		**PKPbc**	**12 55 35.9**	**+0.2**
ARSA	**Arzberg**	**147.24**	**328**	*i* PKP	**PKPbc**	**12 55 35.9**	**-0.4**
	comp=Z,3.8nm,0.9s							
MOA	**Molln**	**147.42**	**330**	*i* PKP	**PKPbc**	**12 55 36.7**	**-0.1**
	comp=Z,3.0nm,0.4s,SNR=4.4							
SESA	**Seetaler Alpe,**	**147.80**	**329**	*i* PKP	**PKPbc**	**12 55 37.8**	**-0.3**
	comp=Z,8.0nm,0.5s,SNR=5.5							
SOKA	**Soboth**	**147.88**	**328**	*i* PKP	**PKPbc**	**12 55 37.7**	**-0.5**
	comp=Z,3.9nm,0.6s							
OBKA	**Obir**	**148.23**	**328**	*i* PKP	**PKPbc**	**12 55 38.8**	**-0.3**
	comp=Z,16nm,1.5s							
KBA	**Koelnbreinsper**	**148.41**	**330**	*i* PKP	**PKPdf**	**12 55 35.0**	**-1.0**
	comp=Z,4.3nm,1.0s							
KBA				*i* PKP	**PKPbc**	**12 55 39.4**	**-0.3**
	comp=Z,5.6nm,0.5s							
LESA	**Schwarzleotal**	**148.47**	**331**	*i* PKP	**PKPbc**	**12 55 39.3**	**-0.4**
	comp=Z,8.5nm,0.5s							
MYKA	**Terra Mystica**	**148.59**	**329**	*i* PKP	**PKPbc**	**12 55 39.3**	**-0.7**
	comp=Z,7.3nm,0.6s,SNR=4.4							
WATA	**Walderalm**	**149.03**	**332**	*e*PKP	**PKPdf**	**12 55 36.1**	**-0.9**
	comp=Z,3.9nm,0.9s							
WATA				*i* PKP	**PKPbc**	**12 55 40.8**	**-0.4**
	comp=Z,4.7nm,0.6s							
ABTA	**Abfaltersbach**	**149.04**	**330**	*i* PKP	**PKPbc**	**12 55 40.4**	**-0.8**
	comp=Z,8.0nm,0.7s							
WTTA	**Wattenberg**	**149.06**	**332**	*i* PKP	**PKPdf**	**12 55 37.1**	**+0.1**
	comp=Z,4.9nm,1.4s							
WTTA				*i* PKP	**PKPbc**	**12 55 41.1**	**-0.2**
	comp=Z,13nm,1.0s,SNR=4.9							
MOTA	**Moosalm**	**149.23**	**332**	*i* PKP	**PKPbc**	**12 55 41.4**	**-0.3**
	comp=Z,9.4nm,0.6s,SNR=5.6							
SQTA	**Sankt Quirin**	**149.28**	**332**	*e*PKP	**PKPbc**	**12 55 41.5**	**-0.2**
	comp=Z,12nm,0.5s,SNR=4.9							
FETA	**Feichten**	**149.64**	**332**	*i* PKP	**PKPbc**	**12 55 42.7**	**0.0**
	comp=Z,8.5nm,0.8s,SNR=6.3							
DAVA	**Damuels**	**149.79**	**333**	*i* PKP	**PKPbc**	**12 55 42.3**	**-0.8**
	comp=Z,5.9nm,0.5s							

HEL 16 12:46:12.4±0.4, 61°50N×30°23E, *h*0km, ML1.2, Explosion, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RUF	**Ruokolahti**	**0.62**	**264**	PG	Pg	12 46 23.5	-0.8
RUF				SG	Sg	12 46 31.3	-1.0
RUF				MSG		12 46 32.1	
	comp=Z,1.6nm,0.2s						
JOF	**Joensuu**	**1.51**	**19**	PN	Pn	12 46 40.4	-0.3
	baz=199						
JOF				SN	Sg	12 47 00.2	-0.8
VJF	**Virojoki**	**1.62**	**235**	PG	Pn	12 46 41.4	-0.7
VJF				MSG		12 47 00.9	
	comp=Z,1.9nm,0.2s						
KAF	**Kangasniemi**	**1.96**	**290**	PG	Pb	12 46 48.1	-0.9
KAF				MSG		12 47 10.7	
	comp=Z,0.8nm,0.2s						
FIA0	**FINESS Array S**	**2.00**	**270**	PG	Pn	12 46 47.7	+0.4
FIA0				MSG		12 47 11.8	
	comp=Z,2.5nm,0.2s						
NIF	**Nilsia**	**2.21**	**330**	MSG		12 47 18.0	
	comp=Z,0.7nm,0.2s						
NIF				SG	Sb	12 47 20.4	-0.7
SUF	**Sumiainen**	**2.28**	**304**	MSG		12 47 19.8	
	comp=Z,0.5nm,0.2s						
SUF				SG	Sb	12 47 22.6	-0.5
KEF	**Keuruu**	**2.63**	**287**	MSG		12 47 30.1	
	comp=Z,1.5nm,0.2s						
RAF	**Rauma**	**4.12**	**267**	PN	Pn	12 47 17.6	+1.2

HEL 16 12:46:28.6±0.1, 60°13N×23°92E, *h*0km, ML1.5, Suspected explosion, Finland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MEF	**Metsahovi**	**0.25**	**68**	PG	Pg	12 46 32.8	-0.7
MEF				SG	Sg	12 46 36.4	-0.3
MEF				MSG		12 46 37.7	
	comp=Z,39nm,0.2s						
HEL5	**Espoo, Suvisaa**	**0.41**	**91**	PG	Pg	12 46 35.9	-0.5
HEL5				MSG		12 46 42.1	
	comp=Z,14nm,0.2s						
TVF	**Tvarminne**	**0.44**	**230**	PG	Pg	12 46 36.7	-0.3
	baz=54						
TVF				MSG		12 46 43.1	
	comp=Z,11nm,0.2s						
LAUT	**Lauttasaari He**	**0.47**	**86**	PG	Pg	12 46 37.3	-0.2
LAUT				SG	Sg	12 46 43.4	-0.2
LAUT				MSG		12 46 43.9	
	comp=Z,4.4nm,0.2s						
HEL1	**Helsinki**	**0.48**	**83**	PG	Pg	12 46 37.6	-0.3
HEL1				MSG		12 46 44.4	
	comp=Z,15nm,0.2s						
NUR	**Nurmijarvi**	**0.53**	**43**	PG	Pg	12 46 38.1	-0.6
NUR				MSG		12 46 45.7	
	comp=Z,6.4nm,0.2s						
VUOS	**Vuosaari Helsi**	**0.61**	**83**	PG	Pg	12 46 39.9	-0.4
VUOS				MSG		12 46 48.1	
	comp=Z,5.0nm,0.2s						
PVF	**Pernaja**	**1.05**	**66**	PG	Pg	12 46 47.5	-1.3
	baz=245						
PVF				MSG		12 47 00.8	
	comp=Z,3.2nm,0.2s						
PVF				SN	Sn	12 47 08.7	+2.7
ARBE	**Arbavere**	**1.25**	**123**	SN	Sn	12 47 13.0	+2.2
RAF	**Rauma**	**1.40**	**311**	PG	Pn	12 46 53.7	-1.6
RAF				MSG		12 47 10.6	
	comp=Z,4.1nm,0.2s						
RAF				SG	Sg	12 47 12.2	-1.2
MTSE	**Matsula**	**1.42**	**182**	PN	Pn	12 46 54.9	-0.6
MTSE				SN	Sg	12 47 14.1	+0.1
FIA0	**FINESS Array S**	**1.69**	**38**	PG	Pn	12 46 58.7	-0.7
	baz=218						
FIA0				MSG		12 47 19.1	
	comp=Z,2.5nm,0.2s						
FIA0				SN	Sn	12 47 21.7	0.0
VJF	**Virojoki**	**1.85**	**75**	PG	Pn	12 47 01.9	+0.3
VJF				MSG		12 47 23.8	
	comp=Z,2.1nm,0.2s						
KPF	**Kankaanpaa**	**1.94**	**333**	PG	Pn	12 47 03.5	+0.8
	baz=151						
KPF				MSG		12 47 26.1	
	comp=Z,4.7nm,0.2s						
KPF				SG	Sn	12 47 28.1	+0.4
KEF	**Keuruu**	**2.10**	**12**	PG	Pn	12 47 06.2	+1.2
KEF				MSG		12 47 30.8	
	comp=Z,1.5nm,0.2s						
KEF				SG	Sb	12 47 33.8	-0.4
VSU	**Vasula**	**2.21**	**138**	SG	Sb	12 47 36.8	-0.3
KAF	**Kangasniemi**	**2.31**	**29**	MSG		12 47 36.8	
	comp=Z,1.0nm,0.2s						
KAF				SG	Sb	12 47 39.0	-1.1
UMAU	**Umeaa**	**4.07**	**339**	SB	Sb	12 48 28.0	-2.7
BURU	**Burvik**	**4.63**	**346**	SG	Sb	12 48 50.0	+3.2

*GII **16** 13:06:05.2±0.0, 31°158N±0°002×35°300E±0°001, h0km, confirmed*
*JSO **16** 13:06:07.8±0.3, 31°N±2°×3°5E±°, h5km, M2.5/11, MLv2.5/11*

ISC 16 13:06:05.0±0.8, 31°15N±0°02×35°21E±0°04, h0km, n34, σ0s73/57, Dead Sea region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSBI	**Mazada**	**0.21**	**38**	P	**Pg**	**13 06 08.4**	**-0.7**
MSBI				S	**Sg**	**13 06 12.2**	**+0.4**
LISJ	**El Lisan**	**0.25**	**68**	P	**Pg**	**13 06 09.4**	**-0.5**
LISJ				AML	AML		
IDAN	**Idan**	**0.32**	**170**	P	**Pg**	**13 06 11.7**	**+0.6**
IDAN				S	**Sb**	**13 06 18.4**	**-0.9**
GHAJ	**Ghor Haditha**	**0.34**	**63**	P	**Pg**	**13 06 12.0**	**+0.4**
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**0.34**	**63**	P	**Pg**	**13 06 11.8**	**+0.1**
GHAJ				S	**Sg**	**13 06 16.6**	**+0.5**
HZVA	**Hazeva**	**0.38**	**171**	P	**Pb**	**13 06 14.1**	**-0.6**
HZVA				S	**Sb**	**13 06 20.6**	**-0.5**
AMAZ	**Amatzia**	**0.46**	**327**	P	Pn	13 06 23.8	+4.9
AMAZ				AML	AML		
AMAZ	**Amatzia**	**0.46**	**327**	P	**Pb**	**13 06 15.8**	**-0.2**
AMAZ				S	**Sb**	**13 06 24.4**	**+1.1**
JER	**Jerusalem**	**0.62**	**359**	P	**Pb**	**13 06 18.7**	**-0.2**
JER				S	**Sb**	**13 06 28.7**	**+0.6**
RMNI	**Mount Ramon**	**0.67**	**215**	P	**Pn**	**13 06 20.6**	**-1.2**
RMNI				S	**Sn**	**13 06 32.3**	**-0.8**
ALMO	**Almog**	**0.68**	**19**	P	**Pg**	**13 06 17.6**	**-0.4**
ALMO				S	**Sb**	**13 06 29.0**	**-0.6**
KZIT	**Kziot**	**0.74**	**251**	P	**Pn**	**13 06 21.9**	**-0.8**
KZIT				S	**Sn**	**13 06 34.3**	**-0.3**
SWQJ	**Karak**	**0.81**	**71**	P	**Sn**	**13 06 33.0**	**-1.8**
PRNI	**Paran**	**0.81**	**192**	P	**Pb**	**13 06 22.5**	**+0.5**
PRNI				AML	AML		
YITV	**Yitav**	**0.82**	**13**	P	**Pg**	**13 06 20.9**	**+0.2**
YITV				S	**Sb**	**13 06 34.0**	**+0.4**
SALP	**Salfit**	**0.92**	**359**	P	Sn	**13 06 37.0**	**-2.2**
RGMN	**Argaman**	**1.05**	**15**	P	**Pg**	**13 06 25.7**	**+0.5**
RGMN				S	**Sb**	**13 06 40.6**	**+0.2**
SLTI	**Sal'it**	**1.10**	**353**	P	**Pb**	**13 06 27.2**	**+0.3**
SLTI				S	**Sn**	**13 06 43.4**	**-0.2**
HRFI	**Mount Harif**	**1.12**	**188**	P	**Pn**	**13 06 27.6**	**-0.3**
HRFI				AML	AML		
HRFI	**Mount Harif**	**1.12**	**188**	P	**Pb**	**13 06 27.2**	**0.0**
HRFI				S	**Sn**	**13 06 44.4**	**+0.4**
ROII	**Roi**	**1.12**	**12**	P	**Pg**	**13 06 26.2**	**-0.4**
ROII				S	**Sb**	**13 06 43.4**	**+0.9**
QRNJ	**Al-Qirein**	**1.23**	**15**	P	**Sn**	**13 06 45.8**	**-0.8**
YTVT	**Yotvata**	**1.26**	**186**	P	**Pn**	**13 06 30.2**	**+0.4**
YTVT				S	**Sn**	**13 06 48.5**	**+1.0**
MMLI	**Mount Malkishu**	**1.30**	**8**	P	**Pg**	**13 06 30.0**	**+0.1**
MMLI				S	**Sn**	**13 06 49.0**	**+0.4**
MMLI	**Mount Malkishu**	**1.30**	**8**	P	**Pg**	**13 06 30.0**	**+0.1**
MMLI				S	**Sn**	**13 06 48.5**	**-0.1**
OFRI	**`Ofer**	**1.48**	**353**	P	**Pn**	**13 06 32.0**	**-1.0**
OFRI				S	**Sn**	**13 06 54.0**	**+0.9**
EIL	**Elat**	**1.49**	**189**	P	**Pg**	**13 06 33.3**	**-0.3**
EIL				AML	AML		
EIL	**Elat**	**1.49**	**189**	P	**Pn**	**13 06 32.8**	**-0.3**
EIL				S	**Sn**	**13 06 55.3**	**+2.1**
ASF	**Jabal al Asfar**	**1.73**	**53**	P	**Pg**	**13 06 39.7**	**+0.8**
KNHM	**Kefar Nahum**	**1.76**	**10**	P	**Pn**	**13 06 36.8**	**+0.1**
KNHM				S	**Sb**	**13 07 00.6**	**-0.2**
MMA0B	**Mount Meron ar**	**1.87**	**5**	P	**Pn**	**13 06 37.6**	**-0.8**
MMA0B				S	**Sn**	**13 07 02.9**	**+0.2**
HNTI	**Hanita**	**1.93**	**359**	P	**Pn**	**13 06 39.4**	**+0.2**
HNTI				S	**Sb**	**13 07 05.2**	**-0.6**
GEM	**Giv'at Ha'Em**	**2.09**	**11**	P	**Pn**	**13 06 41.4**	**0.0**
GEM				S	**Sn**	**13 07 08.7**	**+0.6**
NATI	**Neve Ativ**	**2.16**	**12**	P	**Pn**	**13 06 42.6**	**+0.5**
NATI				S	**Sn**	**13 07 10.5**	**+0.8**

NOU 16 13:10:43.5, 15°33S×167°51E, h110km, MLv4.4/11, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.32**	**248**	S	Sn	13 11 13.9	+2.7
SANVU	**Saraoutou**	**0.32**	**248**	P	Pn	13 11 00.1	+0.8
DVP	**Devils Point**	**2.47**	**165**	P	Pn	13 11 22.6	+0.1
YATNC	**Mamie plateau,**	**6.72**	**185**	P	Pn	13 12 19.4	-0.2
PINNC	**Pines Island,**	**7.25**	**180**	P	Pn	13 12 27.3	+0.6

*IDC **16** 13:37:26.9±0.9, 0°23N×125°90E, h0km, mb3.9/8, mbtmp3.9/9, ML3.4/1, Error ellipse: s-maj=35.0km s-min=16.4km az=54.0*
*DJA **16** 13:37:31.1±1.2, 0°N±3°×12°6E±°, h12km±11km, M3.8/18, mb4.0/6, MLv3.7/18*
*NEIC **16** 13:37:33.5±1.0, 0°51N±0°10×126°41E±0°05, h39km±11km, mb4.3/12, Error ellipse: s-maj=15.0km s-min=5.6km az=158.0*

ISC 16 13:37:33.6±0.6, 0°38N±0°06×126°36E±0°05, h47km, n36, σ1s29/34, mb4.0/11, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.08**	**69**		**Pn**	**13 37 50.8**	**-1.6**
TNTI	**Ternate**	**1.08**	**69**	P	**Pn**	**13 37 51.6**	**-0.8**
TNTI				AML	AML		
MNI	**Manado**	**1.85**	**305**	P	**Pn**	**13 38 01.5**	**-1.5**
MNI				AML	AML		
GAMI	**Galela, Maluku**	**2.04**	**45**	P	**Pn**	**13 38 05.3**	**-0.2**
GAMI				AML	AML		
KMSI	**Cibinong**	**2.39**	**275**	P	**Pn**	**13 38 08.9**	**-1.4**
KMSI				AML	AML		
SANI	**Sanana**	**2.44**	**189**	P	**Pn**	**13 38 08.7**	**-2.3**
NLAI	**Namlea**	**3.67**	**168**	P	**Pn**	**13 38 27.2**	**-0.7**
NLAI				AML	AML		
LUWI	**Luwuk**	**3.85**	**249**		**Pn**	**13 38 31.5**	**+1.1**
LUWI	**Luwuk**	**3.85**	**249**	P	**Pn**	**13 38 30.3**	**-0.1**
LUWI				AML	AML		
APSI	**Ampana**	**4.88**	**255**	P	**Pn**	**13 38 43.2**	**-1.3**
SIJI	**Sorong**	**5.06**	**104**	Pn	Pn	13 38 51.1	+4.1
	1.2nm,0.3s,baz=282,slow=15,SNR=4.6 4.6nm,0.5s						
SIJI				AML	AML		
TOLI2	**Tolitoli**	**5.62**	**277**	Pn	**Pn**	**13 38 53.8**	**-0.9**
TTSI	**Tana Toraja**	**7.37**	**242**	P	**Pn**	**13 39 16.8**	**-1.9**
	15nm,0.7s						
MTN	**Manton Dam**	**13.96**	**160**	Pn	**Pn**	**13 40 49.7**	**+0.8**
JAGI	**Jajag, Banyuwa**	**15.01**	**234**	Pn	**Pn**	**13 41 04.5**	**+1.7**
JAGI				IAmb	IAmb	13 41 38.7	
	comp=Z,59nm,1.1s						
UGM	**Wanagama**	**17.81**	**242**		**P**	**13 41 39.0**	**+0.5**
BBJI	**Bungbulang**	**20.22**	**247**	P	**P**	**13 42 05.6**	**+0.6**
BBJI				IAmb	IAmb	13 42 38.7	
	comp=Z,26nm,1.3s						
WB0	**Warramunga Arr**	**21.51**	**159**	P	**P**	**13 42 17.1**	**-1.7**
WRA	**Warramunga Ar**	**21.66**	**159**	P	**P**	**13 42 18.8**	**-1.6**
	comp=Z,1.1nm,0.4s,baz=337,slow=11,SNR=13 comp=Z,1.1nm,0.4s						
WRA	**Warramunga Arr**	**21.66**	**159**	P	**P**	**13 42 18.6**	**-1.8**
WR8	**Warramunga Arr**	**21.72**	**159**	P	**P**	**13 42 19.3**	**-1.7**
WR8				IAmb	IAmb	13 42 25.1	
	comp=Z,12nm,1.4s						
TPUB	**Ta-pu**	**23.46**	**347**	P	**P**	**13 42 37.8**	**-1.2**
AS31	**Alice Springs**	**25.00**	**163**	P	**P**	**13 42 52.8**	**-0.4**
ASAR	**Alice Springs**	**25.00**	**163**	P	**P**	**13 42 53.3**	**0.0**
	comp=Z,1.0nm,0.3s,baz=343,slow=9.6,SNR=52 comp=Z,1.0nm,0.3s						
ARMA	**Armidale**	**38.94**	**144**	P	**P**	**13 44 56.4**	**+1.1**
SONM	**Songino Array**	**50.35**	**343**	P	**P**	**13 46 26.3**	**+0.2**
	comp=Z,0.8nm,0.7s,baz=152,slow=6.5,SNR=1.6 comp=Z,0.8nm,0.7s						
SONM	**Songino Array**	**50.35**	**343**	IAmb	IAmb	13 46 42.6	
	comp=Z,2.5nm,1.3s						
PETK	**Petropavlovsk-**	**58.66**	**22**	P	**P**	**13 47 28.6**	**+2.5**
	comp=Z,2.5nm,0.8s,baz=227,slow=8.7,SNR=1.7 comp=Z,2.5nm,0.8s						
PETK	**Petropavlovsk-**	**58.66**	**22**	P	**P**	**13 47 26.7**	**+0.6**
MKAR	**Makanchi Array**	**60.11**	**327**	P	**P**	**13 47 35.8**	**-0.4**
	comp=Z,1.3nm,0.6s,baz=121,slow=8.2,SNR=8.6 comp=Z,1.3nm,0.6s						
ZALV	**Zalesovo Beam**	**63.41**	**334**	P	**P**	**13 47 56.6**	**-1.7**
	comp=Z,0.3nm,0.3s,baz=139,slow=6.8,SNR=2.2 comp=Z,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**64.36**	**328**	P	**P**	**13 48 04.1**	**-0.6**
	comp=Z,1.2nm,0.7s,baz=127,slow=6.0,SNR=9.0 comp=Z,1.2nm,0.7s						
KURK	**Kurchatov**	**64.37**	**329**	P	**P**	**13 48 04.4**	**-0.3**
KURK				IAmb	IAmb	13 48 08.8	
	comp=Z,4.0nm,0.9s						
BVAR	**Borovoye Array**	**69.93**	**328**	P	**P**	**13 48 38.3**	**-1.6**
	comp=Z,0.2nm,0.3s,baz=112,slow=6.7,SNR=1.8 comp=Z,0.2nm,0.3s						
BORK	**Borovoye**	**69.97**	**328**	P	**P**	**13 48 40.2**	**0.0**
BORK				IAmb	IAmb	13 48 40.9	
	comp=Z,1.4nm,0.5s						
ABKAR	**Akbulak array**	**74.51**	**321**	P	**P**	**13 49 07.0**	**-0.4**

*IDC **16** 13:42:14.1±0.6, 10°84S×164°35E, h0km, mb4.4/17, mbtmp4.4/21, ML4.6/4, MS3.5/26, Error ellipse: s-maj=15.8km s-min=12.6km az=57.0*
*MOS **16** 13:42:14.4±1.0, 10°85S×164°30E, h11km, mb5.0/17, Error ellipse: s-maj=10.9km s-min=9.0km az=33.8*
*NEIC **16** 13:42:16.8±1.5, 10°92S±0°09×164°40E±0°09, h10km±1km, mb5.1/102, Error ellipse: s-maj=17.4km s-min=11.6km az=41.0*
*NOU **16** 13:42:17.7, 10°80S×164°44E, h30km, mb5.0/29, Santa Cruz Islands Region*
*BJI **16** 13:42:17.3, 10°50S×164°15E, h12km, mB5.0/8, mb4.7/31, Ms4.8/1, Ms7 4.5/1*

ISC 16 13:42:18.7±0.4, 10°90S±0°06×164°36E±0°06, h29km, n200, σ1s16/146, mb5.0/89, MS3.7/23, 9C-9D, Santa Cruz Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HURO	**Huro Makira**	**2.45**	**280**	P	**Pn**	**13 42 55.8**	**-1.0**
HURO	**Huro Makira**	**2.45**	**280**	S	**Sn**	**13 43 26.6**	**+0.8**
NGOA	**Tingoa Renbel**	**4.26**	**261**	P	**Pn**	**13 43 20.0**	**-1.7**
HNR	**Honiara**	**4.58**	**288**	Pn	**Pn**	**13 43 26.6**	**+0.5**
	48nm,0.3s,baz=256,slow=3.3,SNR=16						
HNR				Sn	**Sn**	**13 44 18.8**	**+0.4**
	22nm,0.3s,baz=294,slow=21,SNR=5.8						
HNR				LR	LR	13 45 18.3	
	comp=Z,386nm,19.2s,baz=218,slow=40 160nm,0.5s						
HNR				AML	AML		
HNR	**Honiara**	**4.58**	**288**	P	**Pn**	**13 43 26.9**	**+0.8**
HNR	**Honiara**	**4.58**	**288**	S	**Sn**	**13 44 18.8**	**+0.4**
HNR	**Honiara**	**4.58**	**288**		**Pn**	**13 43 27.0**	**+0.8**
SAVO	**Savo Central**	**4.80**	**291**	P	**Pn**	**13 43 29.8**	**+0.6**
SAVO	**Savo Central**	**4.80**	**291**	S	**Sn**	**13 44 24.1**	**+0.2**
TATA	**Tatamba Isabel**	**5.14**	**299**	P	**Pn**	**13 43 33.1**	**-0.7**
TATA	**Tatamba Isabel**	**5.14**	**299**	S	**Sn**	**13 44 32.0**	**-0.1**
SANVU	**Saraoutou**	**5.30**	**149**	P	**Pn**	**13 43 34.4**	**-1.6**
SANVU	**Saraoutou**	**5.30**	**149**	S	**Sn**	**13 44 36.4**	**+0.2**
SANVU	**Saraoutou**	**5.30**	**149**		**Pn**	**13 43 35.0**	**-1.0**
DVP	**Devils Point**	**7.73**	**152**	P	**Pn**	**13 44 09.7**	**+0.3**
KOUNC	**Koumac, New Ca**	**9.59**	**180**	P	**Pn**	**13 44 36.0**	**+1.0**
MARNC	**Mare, Loyalty**	**11.09**	**162**	P	**Pn**	**13 44 56.4**	**+0.9**
DZM	**Mont Dzumac**	**11.29**	**170**	Pn	**Pn**	**13 44 57.4**	**-0.9**
	2.2nm,0.3s,baz=21,slow=6.6,SNR=28						
DZM				LR	LR	13 48 29.8	
	comp=Z,193nm,19.1s,baz=327,slow=33 8.8nm,0.5s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**11.29**	**171**	P	**Pn**	**13 44 58.5**	**+0.3**
YATNC	**Mamie plateau,**	**11.36**	**168**	P	**Pn**	**13 44 58.7**	**-0.4**
ONTNC	**Ouen Toro**	**11.52**	**170**	P	**Pn**	**13 45 02.6**	**+1.3**
PINNC	**Pines Island,**	**12.02**	**166**	Pn	**Pn**	**13 45 08.0**	**-0.1**
KRVT	**Keravat (AS076**	**13.86**	**297**	LR	LR	13 50 52.9	
	comp=Z,78nm,21.4s,baz=184,slow=38						
MSVF	**Nonsavu**	**14.90**	**119**	Pn	**Pn**	**13 45 48.1**	**+0.5**
	0.2nm,0.3s,baz=288,slow=23,SNR=3.1 1.5nm,0.4s						
MSVF				AML	AML		
PMG	**Port Moresby**	**16.99**	**273**	LR	LR	13 51 55.3	
	comp=Z,232nm,20.8s,baz=106,slow=34						
EIDS	**Eidsvold**	**19.11**	**219**		**Pn**	**13 46 40.0**	**-0.4**
CTA	**Charters Tower**	**19.67**	**240**	P	**Pn**	**13 46 46.8**	**-0.4**
	0.9nm,0.3s,baz=60,slow=11,SNR=24						
CTA				LR	LR	13 53 05.0	
	comp=Z,170nm,20.0s,baz=53,slow=33 31nm,1.0s						
CTA				AML	AML		
CTAO	**Charters Tower**	**19.67**	**240**	P	**Pn**	**13 46 46.9**	**-0.3**
CTAO	**Charters Tower**	**19.67**	**240**	P	**Pn**	**13 46 46.5**	**-0.7**
CTAO				pmax	pmax		
	comp=Z,28nm,0.9s						
CTAO	**Charters Tower**	**19.67**	**240**	P	**Pn**	**13 46 46.5**	**-0.7**
CTAO	**Charters Tower**	**19.67**	**240**		**Pn**	**13 46 46.7**	**-0.4**
RAO	**Raoul Island**	**24.64**	**140**	P	**P**	**13 47 36.2**	**-0.8**
RAO				pmax	pmax		
	comp=Z,411nm,1.5s						
RAO	**Raoul Island**	**24.64**	**140**	P	**P**	**13 47 36.1**	**-0.8**
CMSA	**Cobar Meteorol**	**26.83**	**217**	P	**P**	**13 47 57.3**	**+0.6**
INKA	**Innaminka**	**27.79**	**230**		**P**	**13 48 05.9**	**+0.5**
STKA	**Stephens Creek**	**29.62**	**222**	P	**P**	**13 48 21.8**	**+0.1**
	comp=Z,5.9nm,0.9s,baz=44,slow=11,SNR=5.2						
STKA				LR	LR	13 59 17.9	
	comp=Z,96nm,18.6s,baz=22,slow=34 comp=Z,5.9nm,0.9s						
STKA	**Stephens Creek**	**29.62**	**222**	*e*P	**P**	**13 48 22.6**	**+0.9**
STKA	**Stephens Creek**	**29.62**	**222**		**P**	**13 48 22.5**	**+0.9**
STKA				IAmb	IAmb	13 48 34.7	
	comp=Z,45nm,1.0s						
WR8	**Warramunga Arr**	**30.11**	**249**		**P**	**13 48 24.3**	**-1.9**
BKZ	**Black Stump Fm**	**30.15**	**161**	P	**P**	**13 48 26.5**	**+0.2**
WB0	**Warramunga Arr**	**30.17**	**249**		**P**	**13 48 24.7**	**-2.0**
WRAB	**Tennant Creek**	**30.24**	**249**	P	**P**	**13 48 25.5**	**-1.8**
WRA	**Warramunga Arr**	**30.25**	**249**	P	**P**	**13 48 25.4**	**-2.0**
	comp=Z,10nm,1.1s,baz=77,slow=8.9,SNR=15 comp=Z,10nm,1.1s						
WRA	**Warramunga Ar**	**30.25**	**249**	*i* P	**P**	**13 48 25.7**	**-1.7**
WRA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
MRZ	**Mangatainoka R**	**31.25**	**163**	P	**P**	**13 48 36.2**	**+0.2**
MRZ				IAmb	IAmb	13 49 44.7	
	comp=Z,45nm,1.5s						
AS01	**Alice Springs**	**31.60**	**242**	P	**P**	**13 48 37.2**	**-2.1**
AS31	**Alice Springs**	**31.64**	**242**	P	**P**	**13 48 37.8**	**-1.9**
ASAR	**Alice Springs**	**31.64**	**242**	P	**P**	**13 48 37.6**	**-2.1**
	comp=Z,2.0nm,0.8s,baz=64,slow=10,SNR=32						
ASAR				PcP	**PcP**	**13 51 28.8**	**-2.7**
	comp=Z,0.4nm,0.9s,baz=83,slow=3.4,SNR=2.4						
ASAR				LR	LR	14 00 29.9	
	comp=Z,137nm,19.8s,baz=98,slow=35 comp=Z,2.0nm,0.8s						
ASAR	**Alice Springs**	**31.64**	**242**	P	**P**	**13 48 38.0**	**-1.7**
ASAR	**Alice Springs**	**31.64**	**242**	P	**P**	**13 48 38.0**	**-1.7**
PLWZ	**Palliser**	**32.01**	**164**	P	**P**	**13 48 42.7**	**0.0**
HTT	**Hallett**	**32.35**	**222**	P	**P**	**13 48 46.3**	**+0.5**
RPZ	**Rata Peaks**	**33.20**	**171**	LR	LR	14 01 50.6	
	comp=Z,22nm,19.4s,baz=188,slow=35						
MQZ	**McQueen's Vall**	**33.47**	**169**	P	**

KLR pmax pmax
comp=Z,18nm,2.5s
VNDA Vanda 66.62 181 P P 13 53 07.1 +1.1
comp=Z,4.2nm,0.9s,baz=357,slow=5.9,SNR=25
comp=Z,4.2nm,0.9s
VNDA Vanda 66.62 181 P 13 53 07.4 +1.4
HNS HongShan 66.87 319 ⇓P P 13 53 09.0 +0.8
HNS pmax pmax
comp=Z,7.0nm,1.3s
SBA Scott Base 66.95 179 P P 13 53 10.3 +2.1
SBA pmax pmax
comp=Z,13nm,1.1s
SBA Scott Base 66.95 179 P P 13 53 10.3 +2.1
SBA IAmb IAmb 13 53 11.7
comp=Z,12nm,1.1s
XAN Xi'an 69.02 313 P P 13 53 22.3 +0.4
XAN pmax pmax
comp=Z,7.0nm,0.7s
XLT XiLinHaoTe 69.96 325 eP P 13 53 29.3 +1.7
XLT pmax pmax
comp=Z,9.0nm,0.9s
XLT pmax pmax
comp=Z,130nm,4.5s
CMAR Chiang Mai Arr 70.81 294 P P 13 53 33.4 +0.2
comp=Z,0.9nm,0.6s,baz=122,slow=4.0,SNR=8.2
comp=Z,0.9nm,0.6s
HHC Hu-ho-hao-te 70.84 320 eP P 13 53 34.8 +1.7
HHC pmax pmax
comp=Z,21nm,0.7s
HHC pmax pmax
comp=Z,54nm,3.8s
MA2 Magadan 71.09 353 LR LR 14 18 44.8
comp=Z,21nm,20.0s,baz=170,slow=31
CD2 Chengdu 71.43 308 eP P 13 53 38.0 +1.2
HIA Hailar 71.58 331⇑eP P 13 53 36.6 -0.6
HIA pmax pmax
comp=Z,12nm,1.5s
LZH Lanzhou 73.65 313 eP P 13 53 51.1 +1.0
LZH pP pP 13 53 55.6 -1.6
LZH pmax pmax
comp=Z,13nm,1.0s
LZDM Lanzhou Array 73.70 313 P P 13 53 51.8 +1.2
comp=Z,0.8nm,0.3s,baz=119,slow=5.8,SNR=1.4
comp=Z,0.8nm,0.3s
N15K Kwethluk River 76.30 17 P P 13 54 05.3 +0.7
K13K Kusilvak Mount 76.55 15 P P 13 54 07.0 +1.0
KDAK Kodiak Island 76.95 22 LR LR 14 26 39.1
comp=Z,34nm,19.5s,baz=226,slow=35
M16K Timber Creek 77.33 17 P 13 54 11.5 +1.1
M16K IAmb IAmb 13 54 23.0
comp=Z,22nm,1.0s
ULN Ulaanbaatar 77.39 325ceP P 13 54 11.7 +0.5
ULN pmax pmax
comp=Z,10.0nm,1.2s
ULN Ulaanbaatar 77.39 325 P 13 54 12.1 +0.9
ULN IAmb IAmb 13 54 33.5
comp=Z,24nm,1.5s
YAK Yakutsk 77.58 344 P P 13 54 13.1 +1.4
K15K Wolf Creek Mou 77.65 16 P P 13 54 13.6 +1.5
K15K IAmb IAmb 13 54 14.5
comp=Z,24nm,1.1s
SONM Songino Array 77.75 324 P P 13 54 13.8 +0.6
comp=Z,2.7nm,0.8s,baz=134,slow=8.5,SNR=7.8
comp=Z,2.7nm,0.8s
SONM Songino Array 77.75 324 IAmb IAmb 13 54 14.9
comp=Z,6.5nm,1.2s
GTA2 Gaotai 78.05 314 P P 13 54 16.4 +1.3
GTA2 sP sP 13 54 26.1 +1.2
GTA2 pmax pmax
comp=Z,9.0nm,1.0s
BILL Bilibino 78.75 1⇓eP P 13 54 17.7 -0.4
BILL pmax pmax
comp=Z,12nm,1.1s
K17K Iditarod 78.87 17 P P 13 54 20.3 +1.5
L18K Granite Mounta 78.94 17 P 13 54 20.8 +1.5
L18K IAmb IAmb 13 54 22.0
comp=Z,29nm,1.2s
QSPA South Pole Qui 79.10 180 P P 13 54 20.9 +0.6
comp=Z,7.9nm,1.0s,baz=19,slow=6.0,SNR=24
comp=Z,7.9nm,1.0s
QSPA South Pole Qui 79.10 180 P 13 54 21.0 +0.6
J18K Innoko River 79.91 17 IAmb IAmb 13 54 26.6
comp=Z,28nm,1.4s
L20K Farewell, AK 79.99 18 IAmb IAmb 13 54 47.9
comp=Z,31nm,1.3s
K20K Telida 80.59 18 P P 13 54 29.4 +1.1
J19K Poorman 80.62 17 P P 13 54 29.6 +1.2
J19K IAmb IAmb 13 54 31.5
comp=Z,27nm,1.6s
J20K Nowinta River 81.19 17 P P 13 54 32.5 +1.1
J20K IAmb IAmb 13 54 54.7
comp=Z,45nm,1.9s
CAST Castle Rocks 81.24 18 P 13 54 31.7 0.0
H19K Roundabout Mou 81.59 15 IAmb IAmb 13 54 36.4
comp=Z,17nm,1.1s
KLU Klutina 81.97 22 IAmb IAmb 13 54 47.5
comp=Z,16nm,1.2s
RND Reindeer 82.25 19 IAmb IAmb 13 54 52.4
comp=Z,18nm,1.3s
F19K Shaleruckik Mo 82.29 14 IAmb IAmb 13 55 00.2
comp=Z,22nm,1.4s
MCK McKinley 82.45 19 IAmb IAmb 13 54 41.7
comp=Z,18nm,1.2s
I21K Tanana 82.56 17 IAmb IAmb 13 54 40.6
comp=Z,20nm,1.2s
IMAR Indian Mountai 82.66 16 P P 13 54 39.9 +0.8
GLB Gilahina Butte 82.71 22 IAmb IAmb 13 54 50.8
comp=Z,18nm,1.2s
MLY Manley 82.81 18 P 13 54 40.4 +0.4
MLY IAmb IAmb 13 54 42.1
comp=Z,21nm,1.5s
E19K Redstone River 82.92 14 IAmb IAmb 13 54 53.0
comp=Z,20nm,1.0s
F20K Avaraart Lake 82.96 15 IAmb IAmb 13 55 04.0
comp=Z,15nm,1.2s
G21K Allakaket 83.12 16 IAmb IAmb 13 54 43.5
comp=Z,17nm,1.3s
WRH Wood River Hil 83.23 19 IAmb IAmb 13 54 44.0
comp=Z,16nm,1.2s
H22K Ishtalitna Cre 83.25 17 IAmb IAmb 13 54 55.1
comp=Z,16nm,1.3s
LOGN Logan Glacier 83.42 24 IAmb IAmb 13 54 55.5
comp=Z,19nm,1.1s
CCB Clear Creek Bu 83.44 19 P 13 54 43.2 0.0
COLA College 83.58 19d iP P 13 54 43.8 0.0
COLA pmax pmax
comp=Z,16nm,0.9s
M26K Nabesna, AK 83.61 22 IAmb IAmb 13 54 56.3
comp=Z,19nm,1.3s
F21K Alatna River 83.66 15 P P 13 54 45.0 +0.7
F21K IAmb IAmb 13 54 46.2
comp=Z,11nm,1.2s
O28M Mount Upton 83.71 24 IAmb IAmb 13 54 57.2
comp=Z,18nm,1.0s
RIDG Independent Ri 83.81 20 IAmb IAmb 13 54 56.5
comp=Z,21nm,1.4s
IL31 83.82 19 IAmb IAmb 13 54 56.7
comp=Z,8.8nm,1.0s
ILAR Eielson Array 83.82 19 P P 13 54 44.8 -0.3
comp=Z,5.1nm,0.9s,baz=241,slow=4.7,SNR=36
ILAR LR LR 14 26 16.0
comp=Z,33nm,20.1s,baz=250,slow=32
comp=Z,5.1nm,0.9s
ILAR Eielson Array 83.82 19 P P 13 54 45.2 +0.1
L26K Log Cabin Wild 83.88 21 IAmb IAmb 13 54 47.8
comp=Z,24nm,1.5s
POKR Poker Flat Res 83.88 18 IAmb IAmb 13 54 46.0
comp=Z,9.8nm,0.8s
DOT Dot Lake 84.02 21 IAmb IAmb 13 54 48.0
comp=Z,12nm,1.0s
KNGR Kungurtug, Tuv 84.18 324⇓eP P 13 54 49.0 +1.6
KNGR pmax pmax
comp=Z,8.0nm,1.0s
J25K Salcha River, 84.20 19 P P 13 54 47.8 +0.7
J25K IAmb IAmb 13 54 49.1
comp=Z,11nm,0.9s
SCRK Sand Creek 84.25 20 IAmb IAmb 13 54 49.3
comp=Z,8.9nm,1.0s
MAW Mawson 84.34 202 P P 13 54 48.2 +0.4
comp=Z,1.9nm,0.3s,baz=101,slow=5.2,SNR=8.7
MAW LR LR 14 29 31.2
comp=Z,84nm,18.8s,baz=221,slow=34
comp=Z,1.9nm,0.3s
L27K Beaver Creek, 84.45 22 IAmb IAmb 13 54 50.6
comp=Z,15nm,1.2s
BCAR Beaver Creek A 84.46 22 P 13 54 49.7 +1.2
YBH Yreka Blue Hor 84.77 46 LR LR 14 23 41.9
comp=Z,41nm,21.6s,baz=265,slow=29
HYT Haines Junctio 84.83 25 P P 13 54 51.4 +1.0
HYT IAmb IAmb 13 56 12.2
comp=Z,15nm,1.5s
G24K Hadweenzic Riv 84.94 17 IAmb IAmb 13 54 52.7
comp=Z,8.6nm,0.9s
BBB Bella Bella 85.24 35 LR LR 14 24 14.5
comp=Z,30nm,21.9s,baz=238,slow=30
F24K Squaw Lake 85.39 17 IAmb IAmb 13 54 55.8
comp=Z,23nm,1.7s
L29M L29M 85.84 23 P 13 54 56.5 +1.1
I27K Kandik River 86.06 20 IAmb IAmb 13 55 09.1
comp=Z,26nm,1.2s
F25K Christian Rive 86.07 17 IAmb IAmb 13 55 09.0
comp=Z,14nm,1.2s
BMAR Burnt Mountain 86.28 18 P 13 54 58.7 +1.2
H27K Steamboat Moun 86.47 19 IAmb IAmb 13 55 01.0
comp=Z,19nm,1.2s
G27K Doyon Strip, 86.78 19 IAmb IAmb 13 55 23.7
comp=Z,17nm,1.4s
DLBC Dease Lake 86.94 29 LR LR 14 35 37.7
comp=Z,52nm,18.2s,baz=246,slow=37
NVAR Mina Array Bea 86.98 50 LR LR 14 25 17.1
comp=Z,48nm,20.4s,baz=321,slow=30
BORC Borrego Spring 87.07 55 P P 13 55 01.2 -0.8
PFO Pinyon Flats O 87.12 55 LR LR 14 24 13.1
comp=Z,25nm,20.3s,baz=265,slow=29
E27K Coleen River 87.64 18 IAmb IAmb 13 55 07.5
comp=Z,19nm,1.3s
I30M Mount Dempster 87.64 21 IAmb IAmb 13 55 15.9
comp=Z,9.7nm,1.1s
C26K Camden Bay 87.80 16 P 13 55 06.6 +1.9
F28M Old Crow 87.82 18 IAmb IAmb 13 55 08.6
comp=Z,14nm,1.4s
C27K Jago River 87.93 16 IAmb IAmb 13 55 08.1
comp=Z,9.3nm,1.1s
G29M Pine Creek 88.01 19 P 13 55 07.1 +1.2
WMQ Urumqi 88.03 315 eP P 13 55 06.8 +0.3
WMQ pmax pmax
comp=Z,19nm,1.1s
EPYK Eagle Plains 88.14 20 IAmb IAmb 13 55 08.8
comp=Z,9.8nm,1.0s
D27M Malcolm River 88.46 17 IAmb IAmb 13 55 31.3
comp=Z,25nm,1.6s
E28M Babbage River 88.50 18 IAmb IAmb 13 55 32.9
comp=Z,26nm,1.7s
G30M tAoh Zrail Nji 88.64 20 IAmb IAmb 13 55 11.7
comp=Z,13nm,1.2s
DGZ Jazzator, Alta 89.92 321⇑iP P 13 55 14.0 -1.4
DGZ pmax pmax
comp=Z,4.0nm,1.3s
MFID Camas Ranch 90.12 46 P P 13 55 15.4 -1.0
MFID IAmb IAmb 13 55 32.3
comp=Z,11nm,1.4s
LPIG La Paz 90.19 66 LR LR 14 31 40.6
comp=Z,24nm,18.2s,baz=260,slow=33
NEW Newport 90.53 41 LR LR 14 26 03.2
comp=Z,18nm,21.2s,baz=288,slow=29
MK31 Makanchi Array 92.49 317⇑eP P 13 55 26.9 -0.3
MKAR Makanchi Array 92.49 317 P P 13 55 27.1 -0.1
comp=Z,2.4nm,0.9s,baz=87,slow=6.5,SNR=7.7
comp=Z,2.4nm,0.9s
ZALV Zalesovo Beam 92.64 324 P P 13 55 26.9 -0.8
comp=Z,2.3nm,0.9s,baz=87,slow=6.2,SNR=7.4
comp=Z,2.3nm,0.9s
ELIB Princess Elisa 93.41 191 dP P 13 55 31.5 +0.3
comp=Z,3.2nm,1.0s
PDAR Pinedale Array 94.46 47 P P 13 55 36.5 -0.2
comp=Z,0.2nm,0.3s,baz=253,slow=4.0,SNR=3.0
comp=Z,0.2nm,0.3s
YKA Yellowknife Ar 95.47 27 LR LR 14 30 56.6
comp=Z,48nm,21.7s,baz=266,slow=31
ANMO Albuquerque 95.49 56 LR LR 14 31 23.4
comp=Z,29nm,18.3s,baz=295,slow=31
ANMO Albuquerque 95.49 56⇓eP P 13 55 41.9 +0.4
ANMO pmax pmax
comp=Z,6.0nm,1.6s
NRIK Noril'sk 95.51 340 LR LR 14 37 01.8
comp=Z,36nm,21.6s,baz=99,slow=34
KURK Kurchatov 95.66 320⇑eP P 13 55 40.0 -1.6
KURK pmax pmax
comp=Z,4.0nm,1.3s
BORK Borovoye 101.04 322⇑eP Pdif 13 56 04.8 -0.9
BORK pmax pmax
comp=Z,7.0nm,2.5s
KIRV Kirov 112.15 329⇑iPKIKP PKiKP 14 00 51.4 +0.2
ARCES ARCESS Array B 115.85 345 PKP PKiKP 14 00 57.5 -0.6
comp=Z,2.4nm,0.9s,baz=29,slow=2.8,SNR=4.1
VRH Novokhopyorsk 118.64 323 ePKIKP PKPdf 14 01 01.7 -2.2
VRH pmax pmax
comp=Z,10.0nm,1.0s
GNI Garni 119.52 310⇑iPKIKP PKPdf 14 01 06.2 0.0
OBN Obninsk 119.97 328 iPKIKP PKPdf 14 01 04.0 -2.3
OBN e 14 02 29.9
OBN pmax pmax
comp=Z,5.0nm,0.8s
MNK Minsk 124.61 331 iPKIKP PKPdf 14 01 13.3 -2.0
MNK iPPP PPP 14 05 37.3
MNK iSS SS 14 19 53.3 -0.1
MNK iSSS SSS 14 24 28.5
MNK pmax pmax
comp=Z,19nm,0.7s
MNK pmax pmax
comp=N,35nm,0.7s
MNK pmax pmax
comp=E,130nm,0.8s
MNK MLR MLR
comp=E,943nm,21.0s
MNK MLR MLR
comp=N,1μm,23.0s
MNK MLR MLR
comp=Z,44nm,16.0s
MNK Minsk 124.61 331 iPKP PKPdf 14 01 13.3 -2.0
comp=E,130nm,0.8s
MNK iPKP **PKPdf 14 01 13.3 -2.0**
comp=N,35nm,0.7s
MNK iPKP **PKPdf 14 01 13.3 -2.0**
comp=Z,19nm,0.7s,baz=55
MNK iPPP PPP 14 05 37.4
MNK iSS SS 14 19 53.3 -0.1
MNK iSSS SSS 14 24 28.5
MNK iLRM MLR 14 55 20.6
comp=E,943nm,20.7s
MNK iLRM MLR 14 55 20.9
comp=N,1μm,23.1s
MNK iLRM MLR 14 55 24.0
comp=Z,44nm,15.9s
KEST Kesra 146.47 322 PKPbc PKPbc 14 01 57.9 +0.2
comp=Z,9.2nm,0.9s,baz=56,slow=3.5,SNR=8.1
ESDC Sonseca Array 149.52 342 PKPbc PKPbc 14 02 06.1 +0.3
comp=Z,1.8nm,1.0s,baz=24,slow=3.5,SNR=6.4
ESDC Sonseca Array 149.52 342 PKiKP 14 02 06.7 -0.2

*DJA **16** 13:48:24.2±0.2,0.7°N±2.1°×12.7°E±0.8°,h10km,M4.4/36, mB4.9/13,mb4.7/24,MLv4.5/36,Mw(mB)4.2/13*
*BJI **16** 13:48:25.1,0.2°N×126.1°E,h46km,mB4.9/5,mb4.6/22, Ms4.3/1,Ms7 3.9/1*
*IDC **16** 13:48:26.6±1.9,0.2°N×126.2°E,h46km±20km,mb4.1/19, mbtmp4.3/22,ML4.0/3,MS3.5/8,Error ellipse: s-maj=14.7km s-min=11.8km az=76.0*
*NEIC **16** 13:48:26.1±1.6,0.3°N±0.07°×126.29°E±0.05,h41km±7km, mb4.6/27,Error ellipse: s-maj=11.1km s-min=6.9km az=155.0*

ISC 16 13:48:26.5±0.4,0.32N±0.05×126.31E±0.05,h47km,n100, σ1§27/96,mb4.5/35,MS3.5/7,1C,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.15**	**67**			**Pn**	**13 48 44.6**		**-1.6**
TNTI				Sn		**Sn**	**13 48 57.9**		**-3.0**
TNTI	**Ternate**	**1.15**	**67**	P		**Pn**	**13 48 45.3**		**-0.9**
MNI	**Manado**	**1.84**	**307**	P		**Pn**	**13 48 54.5**		**-1.2**
MNI				AML		AML			
GAMI	**Galela, Maluku**	**2.11**	**45**	P		**Pn**	**13 48 59.6**		**+0.2**
GAMI				AML		AML			
KMSI	**Cibinong**	**2.34**	**276**	P		**Pn**	**13 49 01.6**		**-0.9**
KMSI				AML		AML			
SANI	**Sanana**	**2.38**	**188**	P		**Pn**	**13 49 01.2**		**-1.8**
GTOI	**Gorontalo**	**3.31**	**275**	P		**Pn**	**13 49 19.0**		**+3.2**
GTOI				AML		AML			
NLAI	**Namlea**	**3.63**	**167**	P		**Pn**	**13 49 20.7**		**+0.5**
NLAI				AML		AML			
LUWI	**Luwuk**	**3.79**	**249**			**Pn**	**13 49 22.8**		**+0.4**
LUWI	**Luwuk**	**3.79**	**249**	P		**Pn**	**13 49 23.1**		**+0.7**
LUWI				AML		AML			
APSI	**Ampana**	**4.81**	**255**	P		**Pn**	**13 49 36.4**		**-0.1**
APSI				AML		AML			
SIJI	**Sorong**	**5.10**	**103**	P		**Pn**	**13 49 42.4**		**+2.0**
	5.1nm,0.3s,baz=270,slow=13,SNR=16								
SIJI				S		**Sn**	**13 50 40.3**		**+2.2**
	15nm,0.7s,baz=207,slow=21,SNR=1.9								
SIJI				LR		LR	13 52 04.5		
	comp=Z,426nm,19.4s,baz=252,slow=42								
	18nm,0.5s								
SIJI				AML		AML			
SIJI	**Sorong**	**5.10**	**103**	P		**Pn**	**13 49 41.2**		**+0.8**
TOLI2	**Tolitoli**	**5.58**	**278**			**Pn**	**13 49 46.6**		**-0.4**
KDI	**Kendari**	**5.62**	**221**	P		**Pn**	**13 49 47.4**		**-0.3**
	0.2nm77nm,0.7s								
KDI				AML		AML			
BNDI	**Bandanaira**	**6.01**	**143**	P		**Pn**	**13 49 53.6**		**+0.7**
	0.7nm112nm,1.3s								
BNDI				AML		AML			
KKSI	**Kolaka, Sulawe**	**6.45**	**226**	P		**Pn**	**13 49 58.3**		**-0.6**
	0.2nm67nm,0.8s								
KKSI				AML		AML			
PCI	**Palu**	**6.58**	**259**	P		**Pn**	**13 49 59.2**		**-1.6**
	0.2nm53nm,0.8s								
PCI				AML		AML			
FAKI	**Fak Fak**	**6.76**	**118**	P		**Pn**	**13 50 03.5**		**+0.3**
FAKI				AML		AML			
BBSI	**Bau Bau**	**6.87**	**213**	P		**Pn**	**13 50 05.2**		**+0.4**
	0.2nm71nm,1.1s								
BBSI				AML		AML			
TTSI	**Tana Toraja**	**7.30**	**243**	P		**Pn**	**13 50 11.0**		**+0.4**
TTSI				AML		AML			
BKSI	**Bulukumba**	**8.34**	**228**	P		**Pn**	**13 50 25.3**		**+0.4**
	447nm47nm,0.8s								
KAPI	**Kappang**	**8.42**	**231**	P		**Pn**	**13 50 25.1**		**-0.9**
	1.8nm,0.3s,baz=108,slow=6.4,SNR=11								
KAPI				S		**Sn**	**13 51 57.9**		**-2.0**
	2.4nm,0.3s,baz=81,slow=19,SNR=0.9								
	13nm,0.6s								
KAPI				AML		AML			
KAPI	**Kappang**	**8.42**	**231**	*c iP*		**Pn**	**13 50 26.5**		**+0.5**
KAPI	**Kappang**	**8.42**	**231**			**Pn**	**13 50 26.3**		**+0.3**
KAPI	**Kappang**	**8.42**	**231**	P		**Pn**	**13 50 26.7**		**+0.7**
BSSI	**Bau Bau, Buton**	**8.66**	**222**	P		**Pn**	**13 50 30.9**		**+1.6**
	703nm34nm,0.8s								
EDFI	**Ende, Flores**	**10.12**	**207**	P		**Pn**	**13 50 49.0**		**-0.4**
SOEI	**Soe**	**10.21**	**191**	P		Pn	13 51 09.1		+18
KHKI	**Kahang-Kahang**	**13.72**	**231**	P		P	13 51 53.1		+7.2
MTN	**Manton Dam**	**13.93**	**160**	Pn		**Pn**	**13 51 41.4**		**0.0**
JAY	**Jayapura**	**14.67**	**101**	LR		LR	13 58 53.9		
	comp=Z,228nm,18.7s,baz=239,slow=42								
KNRA	**Kununurra**	**16.08**	**171**	Pn		**Pn**	**13 52 08.5**		**-1.0**
SNJI	**Sawahan-Nganju**	**16.59**	**241**	P		**P**	**13 52 21.5**		**+3.5**
PWJI	**Pagerwojo**	**16.66**	**240**	P		**P**	**13 52 21.2**		**+2.5**
UGM	**Wanagama**	**17.73**	**242**	P		**P**	**13 52 31.3**		**+0.7**
FITZ	**Fitzroy Crossi**	**18.32**	**182**	P		**P**	**13 52 36.2**		**-0.7**
	0.3nm,0.3s,baz=11,slow=4.9,SNR=6.3								
	6.8nm,1.0s								
FITZ				AML		AML			
FITZ	**Fitzroy Crossi**	**18.32**	**182**	P		**P**	**13 52 36.0**		**-1.0**
KPJI	**Karang Pucung**	**18.93**	**246**	P		**Pn**	**13 52 46.6**		**+2.0**
BBJI	**Bungbulang**	**20.15**	**247**	P		**P**	**13 52 55.6**		**-1.4**
BBJI				IAmb		IAmb	13 53 00.7		
	comp=Z,15nm,0.7s								
WB0	**Warramunga Arr**	**21.48**	**159**			**P**	**13 53 10.4**		**-0.9**
WB0				IAmb		IAmb	13 53 31.9		
	comp=Z,20nm,1.1s								
WRA	**Warramunga Arr**	**21.62**	**159**	P		**P**	**13 53 11.7**		**-1.2**
	comp=Z,5.5nm,0.4s,baz=338,slow=11,SNR=35								
	comp=Z,5.5nm,0.4s								
WRA	**Warramunga Arr**	**21.62**	**159**			**P**	**13 53 10.5**		**-2.4**
WR8	**Warramunga Arr**	**21.69**	**159**			**P**	**13 53 12.6**		**-1.0**
WR8				IAmb		IAmb	13 53 29.7		
	comp=Z,14nm,0.9s								
GUMO	**Guam**	**22.62**	**54**	LR		LR	14 01 37.1		
	comp=Z,190nm,19.5s,baz=244,slow=35								
TPUB	**Ta-pu**	**23.50**	**347**	P		**P**	**13 53 31.9**		**-0.4**
KRJI	**Kerinci**	**24.95**	**264**	P		P	13 54 04.4		+18
AS31	**Alice Springs**	**24.96**	**163**			**P**	**13 53 45.8**		**0.0**
ASAR	**Alice Springs**	**24.96**	**163**	P		**P**	**13 53 46.3**		**+0.5**
	comp=Z,14nm,0.8s,baz=348,slow=12,SNR=101								
ASAR				PcP		**PcP**	**13 57 20.3**		**-0.1**
	comp=Z,0.4nm,0.6s,baz=338,slow=2.5,SNR=3.2								
	comp=Z,14nm,0.8s								
ASAR	**Alice Springs**	**24.96**	**163**			**P**	**13 53 46.0**		**+0.2**
CTA	**Charters Tower**	**28.17**	**137**	LR		LR	14 06 55.3		
	comp=Z,66nm,18.0s,baz=252,slow=39								
FORT	**Forrest**	**30.98**	**177**	P		**P**	**13 54 38.9**		**-0.5**
FORT				IAmb		IAmb	13 54 42.4		
	comp=Z,7.8nm,0.7s								
NJ2	**Nanjing**	**32.34**	**348**	*eP*		**P**	**13 54 52.4**		**+1.1**
NJ2				pmax		pmax			
	comp=Z,16nm,0.9s								
CMAR	**Chiang Mai Arr**	**32.36**	**305**	P		**P**	**13 54 50.1**		**-1.7**
	comp=Z,0.4nm,0.3s,baz=114,slow=7.9,SNR=5.1								
CMAR				LR		LR	14 08 56.9		
	comp=Z,37nm,21.5s,baz=110,slow=38								
	comp=Z,0.4nm,0.3s								
BBOO	**Buckleboo**	**34.22**	**165**	P		**P**	**13 55 07.9**		**+0.1**
BBOO				IAmb		IAmb	13 55 27.4		
	comp=Z,28nm,1.5s								
STKA	**Stephens Creek**	**35.15**	**157**	P		**P**	**13 55 16.9**		**+1.1**
	comp=Z,5.6nm,0.7s,baz=326,slow=12,SNR=7.1								
	comp=Z,5.6nm,0.7s								
STKA	**Stephens Creek**	**35.15**	**157**	P		**P**	**13 55 15.2**		**-0.6**
KSRS	**Korea Array**	**36.98**	**2**	P		**P**	**13 55 32.2**		**+0.9**
	comp=Z,1.8nm,0.7s,baz=184,slow=9.1,SNR=6.4								
	comp=Z,1.8nm,0.7s								
MJAR	**Matsushiro Arr**	**37.69**	**16**	P		**P**	**13 55 37.6**		**+0.1**
	comp=Z,1.2nm,0.7s,baz=193,slow=9.4,SNR=4.3								
	comp=Z,1.2nm,0.7s								
ARMA	**Armidale**	**38.92**	**144**	P		**P**	**13 55 47.3**		**-0.8**
ARMA				IAmb		IAmb	13 56 07.8		
	comp=Z,29nm,1.3s								
LZH	**Lanzhou**	**41.25**	**332**	*eP*		**P**	**13 56 09.3**		**+1.9**
LZH				sP		sP	13 56 25.9		+1.4
LZH				S		**S**	**14 02 20.5**		**+2.3**
LZH				pmax		pmax			
	comp=Z,13nm,1.3s								
HHC	**Hu-ho-hao-te**	**42.50**	**343**	*eP*		**P**	**13 56 18.8**		**+1.4**
HHC				pmax		pmax			
	comp=Z,5.0nm,0.5s								
HHC				pmax		pmax			
	comp=Z,62nm,5.3s								
HHC				L		L			
	comp=Z,120nm,13.5s								
HHC				L		L			
	comp=Z,150nm,13.5s								
HHC				L		L			
	comp=Z,120nm,14.1s								
USRK	**Ussuriysk Ar.**	**43.98**	**6**	P		**P**	**13 56 29.6**		**+0.5**
	comp=Z,2.7nm,0.7s,baz=193,slow=5.6,SNR=4.6								
	comp=Z,2.7nm,0.7s								
GTA2	**Gaotai**	**45.91**	**331**	*eP*		**P**	**13 56 44.5**		**-0.3**
GTA2				pmax		pmax			
	comp=Z,5.0nm,0.8s								
ASAJ	**Asahikawa**	**45.96**	**16**	LR		LR	14 16 40.5		
	comp=Z,37nm,18.7s,baz=80,slow=37								
HEH	**HeiHe**	**49.75**	**1**	*eP*		**P**	**13 57 17.6**		**+3.5**
HEH				pmax		pmax			
	comp=Z,6.0nm,1.2s								
ULN	**Ulaanbaatar**	**50.22**	**343**			**P**	**13 57 17.5**		**-0.4**
ULN				IAmb		IAmb	13 57 22.9		
	comp=Z,7.5nm,0.9s								
ULN	**Ulaanbaatar**	**50.22**	**343**	P		**P**	**13 57 21.5**		**+3.5**
SONM	**Songino Array**	**50.39**	**343**	P		**P**	**13 57 21.0**		**+1.8**
	comp=Z,5.1nm,0.9s,baz=159,slow=8.5,SNR=11								
	comp=Z,5.1nm,0.9s								
SONM	**Songino Array**	**50.39**	**343**	IAmb		IAmb	13 57 23.6		
	comp=Z,4.7nm,1.0s								
PETK	**Petropavlovsk-**	**58.73**	**22**	P		**P**	**13 58 20.4**		**+1.0**
	comp=Z,3.8nm,0.5s,baz=198,slow=5.2,SNR=19								
	comp=Z,3.8nm,0.5s								
PDGK	**Podgornoye**	**59.79**	**322**			**P**	**13 58 26.6**		**-0.6**
MKAR	**Makanchi Array**	**60.12**	**327**	P		**P**	**13 58 29.0**		**-0.2**
	comp=Z,8.8nm,0.6s,baz=122,slow=7.9,SNR=32								
MKAR				LR		LR	14 25 49.2		
	comp=Z,76nm,20.8s,baz=118,slow=37								
	comp=Z,8.8nm,0.6s								
MKAR	**Makanchi Array**	**60.12**	**327**	P		**P**	**13 58 28.7**		**-0.5**
YAK	**Yakutsk**	**61.60**	**2**			**P**	**13 58 38.7**		**-0.2**
ZAA0	**Zalesovo Array**	**63.43**	**334**			**P**	**13 58 50.2**		**-1.1**
ZAA0				IAmb		IAmb	13 58 54.6		
	comp=Z,4.7nm,0.9s								
ZALV	**Zalesovo Beam**	**63.43**	**334**	P		**P**	**13 58 50.4**		**-0.8**
	comp=Z,3.7nm,0.7s,baz=117,slow=5.7,SNR=14								

comp=Z,3.7nm,0.7s
ZALV Zalesovo Beam 63.43 334 P 13 58 50.5 -0.7
KURBB Kurchatov Arra 64.38 328 P 13 58 57.0 -0.6
comp=Z,10nm,0.9s,baz=130,slow=6.1,SNR=34
comp=Z,10nm,0.9s
KURK Kurchatov 64.39 329 P 13 58 56.5 -1.1
KK31 Karatay Array 65.45 318 P 13 59 03.1 -1.7
KK31 IAmb IAmb 13 59 08.8
comp=Z,4.0nm,0.8s
KKAR Karatay Array 65.45 318 P 13 59 03.0 -1.7
BVAR Borovoye Array 69.94 328 P 13 59 32.6 -0.2
comp=Z,3.6nm,0.6s,baz=120,slow=8.8,SNR=10
comp=Z,3.6nm,0.6s
BORK Borovoye 69.99 328 P 13 59 32.9 -0.2
BORK IAmb IAmb 13 59 37.1
comp=Z,9.1nm,1.0s
NRIK Noril'sk 73.62 347 P 13 59 53.9 -0.7
comp=Z,2.3nm,0.4s,baz=143,slow=5.3,SNR=5.0
comp=Z,2.3nm,0.4s
NRIK Noril'sk 73.62 347 IAmb IAmb 14 00 01.9
comp=Z,5.7nm,0.7s
AB31 Akbulak array 74.52 321 P 13 59 59.6 -0.6
AB31 IAmb IAmb 14 00 04.3
comp=Z,3.4nm,0.8s
ABKAR Akbulak array 74.52 321 P 13 59 59.5 -0.7
VNDA Vanda 80.12 173 P P 14 00 30.9 -0.2
comp=Z,0.8nm,0.9s,baz=302,slow=6.4,SNR=7.6
VNDA LR LR 14 36 12.5
comp=Z,23nm,19.6s,baz=200,slow=36
comp=Z,0.8nm,0.9s
VNDA Vanda 80.12 173 P P 14 00 31.3 +0.2
RAYN Ar Rayn 81.44 294 P 14 00 38.8 -0.5
RAYN IAmb IAmb 14 00 40.9
comp=Z,5.1nm,0.8s
N19K Bonanza Creek 84.45 29 P 14 00 54.0 -0.2
KBZ Khabaz 85.00 314 P P 14 00 56.5 -0.6
comp=Z,4.0nm,1.0s,baz=272,slow=5.0,SNR=2.8
comp=Z,4.0nm,1.0s
IMAR Indian Mountai 85.61 24 P P 14 00 59.6 -0.1
ILAR Eielson Array 88.34 25 P P 14 01 12.7 -0.3
comp=Z,0.2nm,0.6s,baz=256,slow=4.1,SNR=4.9
comp=Z,0.2nm,0.6s
QSPA South Pole Qui 90.25 180 P P 14 01 21.3 -0.7
comp=Z,2.2nm,0.9s,baz=3.8,slow=3.0,SNR=3.5
comp=Z,2.2nm,0.9s
QSPA South Pole Qui 90.25 180 P P 14 01 22.3 +0.2
QSPA IAmb IAmb 14 01 25.6
comp=Z,3.2nm,1.1s
BCAR Beaver Creek A 90.58 27 P P 14 01 23.8 +0.2
BRTR Keskin Array B 91.85 310 P P 14 01 30.3 +0.1
comp=Z,0.6nm,0.8s,baz=84,slow=5.1,SNR=4.2
comp=Z,0.6nm,0.8s
TORD Torodi Ar. Bea 123.51 286 PKP PKPdf 14 07 18.9 -0.9
comp=Z,0.6nm,0.7s,baz=57,slow=1.7,SNR=4.3

UCR ***16*** *13:59:13.0±0.7, 4.72N×76.13W, h18km, MW4.3, Presumed earthquake*
VAO ***16*** *13:59:18.8±0.4, 4.71N×76.38W, h63km, mb4.8, Presumed earthquake*
GFZ ***16*** *13:59:20.4±0.2, 5°N±3°×7°W±°, h74km, M4.8/19, mb4.8/19, confirmed*
CATAC ***16*** *13:59:20.9±1.3, 5°N±3°×7°W±°, h22km±12km, M5.3/15, mb5.7/7, mB5.8/7, MLv5.1/15, Mw(mB)5.3/7, MwMwp3.5/1, Mwp4.2/1, Error ellipse: s-maj=7.1km s-min=4.6km az=43.8, confirmed*
NEIC ***16*** *13:59:21.0±2.3, 4.72N±0.06×76.52W±0.07, h73km±7km, mb4.8/48, Error ellipse: s-maj=10.0km s-min=8.3km az=100.0*
UPA ***16*** *13:59:21.9±1.7, 5.16N×76.66W, h7km±9km, MW4.4, Presumed earthquake*
RSNC ***16*** *13:59:22.3±0.0, 5°N±1°×7°W±°, h58km±4km, M4.6, mB5.7, mb5.3, ML4.0, Mw(mB)5.2*
IDC ***16*** *13:59:23.3±1.8, 4.82N×76.42W, h115km±17km, mb4.0/12, mbtmp4.4/15, MS3.1/6, Error ellipse: s-maj=19.0km s-min=11.4km az=57.0*

ISC 16 13:59:20.1±0.5, 4.81N±0.03×76.61W±0.03, h84km±5km, n256, σ1$70/291, mb4.7/37, 12C-8D, Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YOTC	**Yotoco, Valle**	**0.86**	**162**	P	**Pn**	**13 59 38.2**	**+0.3**
YOTC				S	**Sn**	**13 59 51.3**	**+0.1**
ARMEC	**Armenia, Quind**	**0.98**	**105**	P	**Pn**	**13 59 40.4**	**+1.1**
ARMEC				S	**Sn**	**13 59 54.2**	**+0.5**
CMAN1	**Manizales, Cal**	**1.11**	**76**	P	**Pn**	**13 59 42.1**	**+1.1**
CMAN1				S	**Sn**	**13 59 57.8**	**+1.1**
NIZA	**Niza - Manizal**	**1.16**	**78**	P	**Pn**	**13 59 42.6**	**+1.0**
NIZA				S	**Sn**	**13 59 59.5**	**+1.7**
CBOC	**Ciudad Bolivar**	**1.21**	**29**	P	**Pn**	**13 59 42.1**	**0.0**
CBOC				S	**Sn**	**13 59 57.2**	**-1.4**
GUY2C	**Guyana, Caldas**	**1.31**	**71**	P	**Pn**	**13 59 44.2**	**+0.6**
GUY2C				S	**Sn**	**14 00 01.1**	**-0.1**
SOLC	**Bahia Solano**	**1.62**	**331**	P	**Pn**	**13 59 46.9**	**-0.2**
SOLC				S	**Sn**	**14 00 05.9**	**-1.7**
ORTC	**Ortega, Tolima**	**1.63**	**123**	P	**Pn**	**13 59 48.4**	**+1.1**
ORTC				S	**Sn**	**14 00 09.7**	**+1.9**
HELC	**Santa Helena**	**1.75**	**38**	P	**Pn**	**13 59 49.2**	**0.0**
HELC				S	**Sn**	**14 00 11.4**	**+0.3**
HELC	**Santa Helena**	**1.75**	**38**			**13 59 48.9**	**-0.2**
HELC				Sn	**Sn**	**14 00 09.9**	**-1.2**
HELC	**Santa Helena**	**1.75**	**38**	P	**Pn**	**13 59 48.9**	**-0.2**
HELC				S	**Sn**	**14 00 10.4**	**-0.7**
HELC	**Santa Helena**	**1.75**	**38**	P⇓	*i*P **Pn**	**13 59 49.0**	**-0.2**
HELC				*i* S	**Sn**	**14 00 10.0**	**-1.1**
MEDEC	**Medelln, Ant**	**1.78**	**35**	P	**Pn**	**13 59 49.9**	**+0.5**
NORC	**Norcasia**	**1.89**	**66**	P	**Pn**	**13 59 51.9**	**+1.2**
NORC				S	**Sn**	**14 00 15.3**	**+1.3**
PRAC	**Prado**	**2.03**	**122**	P	**Pn**	**13 59 54.3**	**+1.8**
PRAC				S	**Sn**	**14 00 20.5**	**+3.1**
PRAC	**Prado**	**2.03**	**122**	P	**Pn**	**13 59 54.2**	**+1.6**
PRAC				S	**Sn**	**14 00 19.3**	**+1.9**
POPC	**Popayan, Colom**	**2.25**	**182**	P	**Pn**	**13 59 58.0**	**+2.3**
ROSC	**El Rosal**	**2.28**	**89**	P	**Pn**	**13 59 59.1**	**+2.9**
	309nm,0.3s,baz=252,slow=2.4,SNR=58						
ROSC				S	**Sn**	**14 00 22.6**	**-1.3**
	627nm,0.4s,baz=244,slow=23,SNR=9.8						
ROSC	**El Rosal**	**2.28**	**89**	P	**Pn**	**13 59 59.4**	**+3.2**
ROSC	**El Rosal**	**2.28**	**89**		**Pn**	**13 59 53.5**	**-2.8**
ROSC	**El Rosal**	**2.28**	**89**	P	**Pn**	**13 59 58.5**	**+2.3**
SPBC	**San Pablo de B**	**2.66**	**71**	P	**Pn**	**14 00 22.2**	**+1.1**
SPBC				S	**Sn**	**14 00 34.4**	**+1.9**
URMC	**La Uribe, Meta**	**2.71**	**125**	P	**Pn**	**14 00 02.9**	**+1.2**
URMC				S	**Sn**	**14 00 30.1**	**-3.6**
PTBC	**PUERTO BERRIO,**	**2.75**	**51**	P	**Pn**	**14 00 02.6**	**+0.4**
PTBC				S	**Sn**	**14 00 33.9**	**-0.6**
APAC	**Apartado, Choc**	**3.07**	**1**	P	**Pn**	**14 00 08.8**	**+2.3**
APAC				S	**Sn**	**14 00 40.3**	**-2.0**
UREC	**San Jos de Ur**	**3.12**	**20**	P	**Pn**	**14 00 07.3**	**+0.2**
UREC				S	**Sn**	**14 00 43.4**	**0.0**
UREC	**San Jos de Ur**	**3.12**	**20**	*e*P	**Pn**	**14 00 07.5**	**+0.4**
UREC				*i* S	**Sn**	**14 00 40.6**	**-2.8**
BRJC	**Barrancabermej**	**3.57**	**53**	P	**Pn**	**14 00 13.6**	**+0.3**
RUSC	**La Rusia**	**3.67**	**73**	P	**Pn**	**14 00 16.7**	**+1.6**
RUSC	**La Rusia**	**3.67**	**73**		**Pn**	**14 00 15.3**	**+0.3**
RUSC	**La Rusia**	**3.67**	**73**	P	**Pn**	**14 00 15.9**	**+0.8**
MACC	**Macarena, Meta**	**3.82**	**134**	P	**Pn**	**14 00 17.7**	**+1.0**
BARC	**Barichara**	**3.84**	**62**	P	**Pn**	**14 00 18.0**	**+0.8**
UPD2	**Meteti**	**3.97**	**339**	P	**Pn**	**14 00 19.7**	**+1.0**
UPD2	**Meteti**	**3.97**	**339**	*e*P	**Pn**	**14 00 19.5**	**+0.8**
UPD2				*e*S	**Sn**	**14 01 00.1**	**-4.0**
LCBC	**Los crdobas,**	**4.03**	**3**	Pn	**Pn**	**14 00 21.2**	**+1.7**
LCBC	**Los crdobas,**	**4.03**	**3**	P	**Pn**	**14 00 21.2**	**+1.7**
PEDA3	**Pedasi**	**4.34**	**309**	P⇑	*e*P **Pn**	**14 00 22.9**	**-0.8**
PEDA3				*i* S	**Sn**	**14 01 12.6**	**-0.5**
ACHO3	**Achotines, Los**	**4.39**	**306**	*e*P	**Pn**	**14 00 24.0**	**-0.4**
PCRI3	**Pocri, Los San**	**4.49**	**309**	P⇑	*e*P **Pn**	**14 00 25.6**	**-0.2**
PCRI3				*e*S	**Sn**	**14 01 15.9**	**-1.0**
GUVC	**San Jose del G**	**4.56**	**119**	P	**Pn**	**14 00 27.7**	**+0.9**
TOSI3	**Tonosi**	**4.60**	**304**	P⇓	*e*P **Pn**	**14 00 27.1**	**-0.2**
TOSI3				*e*S	**Sn**	**14 01 18.3**	**-1.3**
AZU	**Azuero**	**4.70**	**309**	*e*P	**Pn**	**14 00 28.3**	**-0.2**
AZU	**Azuero**	**4.70**	**309**	P⇑	*i*P **Pn**	**14 00 28.4**	**-0.2**
AZU				*e*S	**Sn**	**14 01 19.0**	**-2.8**
OCAC	**Ocana**	**4.72**	**44**	P	**Pn**	**14 00 29.4**	**+0.3**
CUSE	**Cuicocha Este**	**4.81**	**202**	P	**Pn**	**14 00 31.2**	**+0.6**
OTAV	**Otavalo**	**4.90**	**202**		**Pn**	**14 00 30.8**	**-0.9**
OTAV	**Otavalo**	**4.90**	**202**	P	**Pn**	**14 00 32.0**	**+0.3**
OTAV	**Otavalo**	**4.90**	**202**	P	**Pn**	**14 00 32.2**	**+0.5**
OTAV	**Otavalo**	**4.90**	**202**	*e*P	**Pn**	**14 00 30.9**	**-0.8**
CHIT3	**Chitre**	**4.91**	**310**	*e*P⇓	**Pn**	**14 00 31.7**	**+0.2**
CHIT3				*i* S	**Sn**	**14 01 25.4**	**-1.7**
CACAO	**El Cacao, Vera**	**4.92**	**301**	P	**Pn**	**14 00 30.8**	**-0.8**
CACAO	**El Cacao, Vera**	**4.92**	**301**	*e*P⇑	**Pn**	**14 00 31.2**	**-0.4**
CACAO				*i* S	**Sn**	**14 01 26.6**	**-0.7**
PTLC	**Puerto Leguiza**	**4.95**	**158**	P	Pn	14 00 38.2	+6.2
CHPO	**Chepo, Panama**	**5.00**	**330**	*i*P⇓	**Pn**	**14 00 32.7**	**0.0**
CHPO				*i* S	**Sn**	**14 01 24.9**	**-4.2**
PAC1	**Pacto, Paraso**	**5.01**	**206**	P	**Pn**	**14 00 31.9**	**-1.1**
TAMC	**Tame, Arauca**	**5.06**	**71**	P	**Pn**	**14 00 34.4**	**+0.8**
	4µm253nm,0.7s						
TAMC				AML	AML		
UPA	**Univ. de Panam**	**5.06**	**325**	P	**Pn**	**14 00 33.3**	**-0.3**
UPA				AML	AML		
UPA	**Univ. de Panam**	**5.06**	**325**	*i*P⇑	**Pn**	**14 00 33.3**	**-0.3**
UPA				*i* S	**Sn**	**14 01 28.6**	**-2.2**
ARRA3	**Arraijan, Pana**	**5.12**	**324**	*i*P⇑	**Pn**	**14 00 34.5**	**+0.2**
ARRA3				*e*S	**Sn**	**14 01 29.1**	**-3.1**
MARI3	**Mariato, Verag**	**5.19**	**303**	*e*P	**Pn**	**14 00 34.6**	**-0.7**
PNME	**Penonome**	**5.20**	**315**	P	Pn	**14 00 35.8**	**+0.4**
	14µm1µm,0.6s						
PNME				AML	AML		
PNME	**Penonome**	**5.20**	**315**	*i*P⇑	**Pn**	**14 00 35.8**	**+0.4**
PNME				*i* P		14 00 35.8	
ZANG	**Zanguenga, Cho**	**5.24**	**322**	*e*P	**Pn**	**14 00 36.0**	**+0.1**
ZANG	**Zanguenga, Cho**	**5.24**	**322**	*i*P⇓	**Pn**	**14 00 36.5**	**+0.5**
ZANG				*i* S	**Sn**	**14 01 35.7**	**+0.6**
SJCC	**San Jacinto, C**	**5.25**	**16**	P	**Pn**	**14 00 36.6**	**+0.4**
SJCC	**San Jacinto, C**	**5.25**	**16**	P	**Pn**	**14 00 36.5**	**+0.3**
	78nm,0.8s						
SJCC				AML	AML		
SJCC	**San Jacinto, C**	**5.25**	**16**	*e*P	**Pn**	**14 00 34.7**	**-1.5**
GAMB1	**Gamboa**	**5.28**	**324**	*e*P	**Pn**	**14 00 36.4**	**0.0**
GAMB1				⇑*i*P		14 00 36.5	
GAMB1				*i* S	**Sn**	**14 01 35.7**	**-0.3**
FRIJ	**El Hiral**	**5.37**	**325**	*i*P⇑	**Pn**	**14 00 37.6**	**-0.1**
FRIJ				*e*S	**Sn**	**14 01 35.4**	**-2.8**
BCIP	**Isla Barro Col**	**5.39**	**324**	P	**Pn**	**14 00 38.1**	**+0.1**
BCIP	**Isla Barro Col**	**5.39**	**324**	P	**Pn**	**14 00 37.8**	**-0.2**
	25µm1µm,0.5s						
BCIP				AML	AML		
BCIP	**Isla Barro Col**	**5.39**	**324**	*e*P	**Pn**	**14 00 37.9**	**-0.2**
BCIP	**Isla Barro Col**	**5.39**	**324**	P	**Pn**	**14 00 38.1**	**+0.1**
	comp=Z,1µm,0.5s						
BCIP	**Isla Barro Col**	**5.39**	**324**	*i*P⇑	**Pn**	**14 00 38.0**	**0.0**
BCIP				*i* S	**Sn**	**14 01 36.2**	**-2.5**
GMAL	**Guarumal, Vera**	**5.45**	**303**	P	**Pn**	**14 00 39.8**	**+0.9**
GMAL				AML	AML		
GMAL	**Guarumal, Vera**	**5.45**	**303**	*e*P	**Pn**	**14 00 39.6**	**+0.7**
GMAL	**Guarumal, Vera**	**5.45**	**303**	*i*P⇓	**Pn**	**14 00 40.0**	**+1.1**
GMAL				*e*S	**Sn**	**14 01 41.3**	**+0.9**
MLIR	**Monte Lirio**	**5.46**	**324**	*i*P⇓	**Pn**	**14 00 39.0**	**-0.1**
MLIR				*i* S	**Sn**	**14 01 37.7**	**-2.7**
RSUS3	**Rio de Jesus,**	**5.51**	**305**	*e*P	**Pn**	**14 00 40.3**	**+0.6**
SFRA3	**San Francisco,**	**5.52**	**309**	*e*P	**Pn**	**14 00 40.8**	**+0.9**
ARGC	**Ariguani, Magd**	**5.54**	**25**	P	**Pn**	**14 00 41.3**	**+1.2**
	comp=Z,66nm,0.6s						
ARGC				AML	AML		
SAFE3	**Santa Fe, Vera**	**5.77**	**310**	*i* P	**Pn**	**14 00 44.4**	**+1.2**
FLF1	**Flavio Alfaro-**	**6.06**	**212**	P	**Pn**	**14 00 47.1**	**-0.1**
REME3	**Remedios, Chir**	**6.20**	**303**	*e*P	**Pn**	**14 00 50.5**	**+1.4**
KKNTU	**Kakinte**	**6.53**	**308**	*e*P	**Pn**	**14 00 55.0**	**+1.4**
KKNTU	**Kakinte**	**6.53**	**308**	*i*P⇑	**Pn**	**14 00 55.9**	**+2.3**
SMRC	**Santa Marta, M**	**6.74**	**20**		**Pn**	**14 00 55.4**	**-1.1**
BGUAL	**Bijagual, Pana**	**6.77**	**303**	*e*P	**Pn**	**14 00 58.8**	**+2.0**
LOMA3	**Las Lomas, Chi**	**6.78**	**302**	*e*P	Pn	14 00 52.4	-4.6
RBALA	**Bur**	**6.83**	**307**	*e*P	**Pn**	**14 00 59.1**	**+1.5**
RBALA	**Bur**	**6.83**	**307**	*i*P⇑	**Pn**	**14 00 59.5**	**+1.8**
PSOM3	**Paja de Sombre**	**6.86**	**304**	*e*P	**Pn**	**14 00 59.7**	**+1.6**
CHGR2	**Aguacate**	**6.86**	**307**	*i*P⇓	**Pn**	**14 00 59.5**	**+1.4**
CHGR2				*i* S	**Sn**	**14 02 16.8**	**+2.1**
PTAR3	**Potrerillos Ar**	**7.00**	**304**	*e*P	**Pn**	**14 01 02.5**	**+2.3**
BQTLY	**Boquete Panama**	**7.01**	**304**	*e*P	**Pn**	**14 01 02.1**	**+1.8**
BQTLY	**Boquete Panama**	**7.01**	**304**	*e*P	**Pn**	**14 01 02.5**	**+2.2**
PTPM	**Petroterminale**	**7.08**	**299**	*e*P	**Pn**	**14 01 02.9**	**+1.8**
CLLRA	**Cordillera,**	**7.13**	**304**	*e*P	**Pn**	**14 01 03.5**	**+1.6**
CLLRA	**Cordillera,**	**7.13**	**304**	*e*P	**Pn**	**14 01 03.6**	**+1.6**
SDV	**Santo Domingo**	**7.19**	**55**	P	**Pn**	**14 01 02.9**	**+0.2**
	comp=Z,22nm,0.3s,baz=239,slow=4.1,SNR=55						
SDV				S	**Sn**	**14 02 19.0**	**-4.0**
	comp=Z,85nm,0.5s,baz=24,slow=14,SNR=6.3						
SDV				LR	LR	14 04 11.6	
	comp=Z,108nm,18.2s,baz=281,slow=41						
SDV	**Santo Domingo**	**7.19**	**55**		**Pn**	**14 01 01.4**	**-1.3**
SDV	**Santo Domingo**	**7.19**	**55**	P	**Pn**	**14 01 02.9**	**+0.2**
SDV	**Santo Domingo**	**7.19**	**55**	P	**Pn**	**14 01 02.6**	**-0.1**
	comp=Z,414nm,0.8s						
BRU2	**Volcan**	**7.22**	**304**	P	**Pn**	**14 01 05.3**	**+2.1**
BRU2	**Volcan**	**7.22**	**304**		**Pn**	**14 01 03.7**	**+0.5**
BRU2	**Volcan**	**7.22**	**304**	*e*P	**Pn**	**14 01 04.9**	**+1.8**
BRU2	**Volcan**	**7.22**	**304**	P	**Pn**	**14 01 05.3**	**+2.1**
	comp=Z,79nm,0.5s						
BRU2	**Volcan**	**7.22**	**304**	*e*P	**Pn**	**14 01 05.1**	**+1.9**
PIRO	**Carate, Puerto**	**7.58**	**298**	P	**Pn**	**14 01 09.6**	**+1.7**
PIRO	**Carate, Puerto**	**7.58**	**298**		**Pn**	**14 01 08.1**	**+0.3**
PIRO	**Carate, Puerto**	**7.58**	**298**	*e*P	**Pn**	**14 01 09.5**	**+1.7**
DRK0	**Durika**	**7.94**	**304**	*e*P	Pn	14 00 59.0	-14
URIC	**Uribia, Colomb**	**8.23**	**33**		**Pn**	**14 01 14.6**	**-2.2**
URIC	**Uribia, Colomb**	**8.23**	**33**	P	**Pn**	**14 01 14.5**	**-2.3**
LCOCO	**El Coco**	**8.66**	**308**	*e*P	**Pn**	**14 01 24.7**	**+2.1**
PIEC	**Cerro El Cedra**	**8.72**	**304**	*e*P	**Pn**	**14 01 26.1**	**+2.4**
CVTV	**Tajo**	**8.76**	**307**	*e*P	**Pn**	**14 01 26.8**	**+2.5**
LCR2	**La Lucha 2**	**8.82**	**304**	P	**Pn**	**14 01 28.2**	**+3.2**
LCR2	**La Lucha 2**	**8.82**	**304**		**Pn**	**14 01 27.7**	**+2.6**
VICA	**Volcano Irazu**	**8.83**	**306**	*e*P	**Pn**	**14 01 27.5**	**+2.2**
HDC	**Heredia**	**9.05**	**305**	*e*P	**Pn**	**14 01 30.3**	**+2.1**
JTS	**Las Juntas de**	**9.90**	**304**	P	Pn	14 01 44.5	+4.8
	comp=Z,15nm,0.5s,baz=113,slow=11,SNR=9.1						
JTS				LR	LR	14 05 40.6	
	comp=Z,88nm,19.3s,baz=130,slow=38						
JTS	**Las Juntas de**	**9.90**	**304**	P	**Pn**	**14 01 43.6**	**+4.0**
	comp=Z,31nm,0.9s						
INDI	**Punta Indio, G**	**10.15**	**300**	P	**Pn**	**14 01 45.8**	**+2.9**
BILN	**Bilwi Airport**	**11.35**	**324**	Pn	**Pn**	**14 01 59.6**	**+0.3**
BOAB	**BOACO BROADBAN**	**N.74**	**311**	Pn	**Pn**	**14 02 06.0**	**+1.5**
BOAB	**BOACO BROADBAN**	**N.74**	**311**	P	**Pn**	**14 02 05.7**	**+1.2**
	comp=Z,82nm,1.7s						
ATAH	**Atahualpa**	**11.99**	**189**	LR	LR	14 06 55.6	
	comp=Z,118nm,21.1s,baz=2.6,slow=38						
CZSB	**Cruzeiro do Su**	**13.05**	**163**	*e*P	**Pn**	**14 02 19.9**	**-2.3**
MTDJ	**Mount Denham**	**13.37**	**356**	Pn	**Pn**	**14 02 29.2**	**+2.6**
SDDR	**Presa de Saban**	**15.02**	**20**		**Pn**	**14 02 49.9**	**+2.0**
SDDR	**Presa de Saban**	**15.02**	**20**	P	**Pn**	**14 02 48.8**	**+0.9**
	comp=Z,36nm,0.9s						
MLPR	**Magueyes Islan**	**16.08**	**35**	P	**P**	**14 03 05.1**	**+2.1**
BOAV	**Boa Vista**	**16.23**	**98**		**Pn**	**14 03 00.9**	**-2.3**
BOAV	**Boa Vista**	**16.23**	**98**	*e*P	**Pn**	**14 03 01.1**	**-2.1**
CELP	**Cerrillos**	**16.44**	**36**	P	**P**	**14 03 08.6**	**+1.6**
CELP				IAmb	IAmb	14 03 15.9	
	comp=Z,140nm,1.9s						
AOPR	**Arecibo Observ**	**16.55**	**35**	P	**P**	**14 03 10.5**	**+2.3**
SJG	**San Juan**	**16.72**	**37**	P	**Pn**	**14 03 08.8**	**-0.3**
	comp=Z,25nm,0.8s						
ECPR	**Experimental S**	**16.75**	**36**	P	**P**	**14 03 12.2**	**+1.7**
ECPR				IAmb	IAmb	14 03 16.1	
	comp=Z,39nm,0.8s						
HUMP	**Col San Antoni**	**16.92**	**38**		**P**	**14 03 13.1**	**+0.8**
HUMP				IAmb	IAmb	14 03 16.2	
	comp=Z,57nm,1.1s						
APG	**El Apazote**	**16.98**	**308**	P	**Pn**	**14 03 13.6**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=56,slow=23,SNR=1.7						
MPOM	**Morne Pois Mar**	**18.23**	**57**	P	**P**	**14 03 26.9**	**+0.1**
MPOM				IAmb	IAmb	14 03 42.1	
	comp=Z,136nm,1.2s						
SMRT	**St. Maarten**	**18.67**	**44**	P	**Pn**	**14 03 32.8**	**-0.1**
SMRT				IAmb	IAmb	14 03 33.9	
	comp=Z,69nm,0.8s						
SMRT	**St. Maarten**	**18.67**	**44**	P	**Pn**	**14 03 32.9**	**0.0**
	comp=Z,99nm,1.0s						
CMIG	**Matias Romero**	**21.67**	**306**	LR	LR	14 12 54.7	
	comp=Z,46nm,18.4s,baz=166,slow=37						
LPAZ	**La Paz**	**22.57**	**158**	P	**P**	**14 04 12.7**	**-1.7**
	comp=Z,3.4nm,0.5s,baz=339,slow=10,SNR=21						
	comp=Z,3.4nm,0.5s						
LPAZ	**La Paz**	**22.57**	**158**		**P**	**14 04 12.1**	**-2.3**
LPAZ	**La Paz**	**22.57**	**158**	P	**P**	**14 04 12.4**	**-1.9**
	comp=Z,7.8nm,0.9s						
LPAZ	**La Paz**	**22.57**	**158**	*e*P	**P**	**14 04 12.1**	**-2.3**
ITTB	**Itaituba**	**22.76**	**113**	*e*P	**P**	**14 04 13.7**	**-1.9**
PB18	**Visviri**	**23.34**	**163**	P	**P**	**14 04 21.3**	**-0.5**
PB18	**Visviri**	**23.34**	**163**	P	**P**	**14 04 23.1**	**+1.4**
	comp=Z,17nm,1.2s						
MDP	**Montagnes des**	**23.88**	**88**	P	**P**	**14 04 25.6**	**-0.5**
	comp=Z,12nm,0.4s,baz=266,slow=11,SNR=25						
MDP				LR	LR	14 15 42.1	
	comp=Z,38nm,18.3s,baz=133,slow=41						
	comp=Z,12nm,0.4s						
VILB	**Vilhena**	**24.02**	**137**		**P**	**14 04 27.4**	**0.0**
VILB	**Vilhena**	**24.02**	**137**	*e*P	**P**	**14 04 27.4**	**0.0**
PB12	**IPOC Station P**	**24.08**	**165**	P	**P**	**14 04 25.9**	**-2.1**
	comp=Z,49nm,0.6s						
NPGB	**Novo Progresso**	**24.26**	**119**	*e*P	**P**	**14 04 27.9**	**-1.7**
PSGCX	**Pisagua**	**25.08**	**165**	P	**P**	**14 04 37.4**	**+0.4**
PSGCX				IAmb	IAmb	14 05 13.0	
	comp=Z,54nm,1.6s						
PB11	**IPOC Station P**	**25.35**	**165**	P	**P**	**14 04 39.9**	**+0.3**
PB11				IAmb	IAmb	14 04 41.4	
	comp=Z,19nm,0.5s						
PB11	**IPOC Station P**	**25.35**	**165**	P	**P**	**14 04 39.6**	**+0.1**
	comp=Z,27nm,0.5s						
GO01	**Chusmiza**	**25.39**	**164**	P	**P**	**14 04 40.8**	**+0.5**
	comp=Z,15nm,0.6s						
PDRB	**Porto dos Gac**	**25.64**	**130**	*e*P	**P**	**14 04 41.1**	**-1.0**
SIV	**San Ignacio**	**25.76**	**144**	P	**P**	**14 04 42.5**	**-0.6**
	comp=Z,14nm,0.4s,baz=319,slow=11,SNR=63						
	comp=Z,14nm,0.4s						
PB08	**IPOC Station P**	**25.85**	**164**	P	**P**	**14 04 44.5**	**+0.2**
	comp=Z,12nm,1.1s						
CLDB	**Colider**	**25.92**	**127**	P	**P**	**14 04 43.5**	**-1.1**
	comp=Z,28nm,1.0s						
CLDB	**Colider**	**25.92**	**127**	*e*P	**P**	**14 04 43.3**	**-1.4**
PTLB	**Pontes e Lacer**	**26.54**	**140**	*e*P	**P**	**14 04 49.3**	**-0.9**
BBSD	**Serra de San D**	**26.97**	**144**	*e*P	**P**	**14 04 52.7**	**-1.4**
PB05	**IPOC Station P**	**28.19**	**167**	P	**P**	**14 05 06.1**	**+1.1**
PB05				IAmb	IAmb	14 05 15.1	
	comp=Z,28nm,1.3s						
SALV	**Santo Antonio**	**29.19**	**135**	*e*P	**P**	**14 05 13.1**	**-0.7**
SNDB	**Serra Nova Dou**	**30.19**	**124**	*e*P	**P**	**14 05 21.7**	**-1.0**
SALTA		**30.54**	**161**	P	**P**	**14 05 25.6**	**-0.7**
	comp=Z,2.8nm,1.2s						
COIM	**Forte Coimbra**	**30.75**	**144**	*e*P	**P**	**14 05 26.2**	**-1.4**
PP1B	**Ponte de Pedra**	**30.92**	**137**	*e*P	**P**	**14 05 28.6**	**-0.5**
AC01	**Pan de Azucar**	**31.32**	**170**	P	**P**	**14 05 34.0**	**+1.5**
AC01				IAmb	IAmb	14 06 09.7	
	comp=Z,42nm,1.4s						
TKL	**Tuckaleechee C**	**31.41**	**349**	LR	LR	14 18 24.8	
	comp=Z,36nm,21.3s,baz=126,slow=36						
BDQN	**Bodoquena, MS**	**31.79**	**143**	*e*P	**P**	**14 05 35.5**	**-1.1**
ARAG	**Araguaiana, MT**	**31.91**	**130**	*e*P	**P**	**14 05 36.4**	**-1.5**
SMTB	**Santa Maria do**	**31.96**	**115**	P	**P**	**14 05 37.6**	**-0.8**
SMTB				IAmb	IAmb	14 05 38.7	
	comp=Z,20nm,0.8s						
SMTB	**Santa Maria do**	**31.96**	**115**	*e*P	**P**	**14 05 37.5**	**-0.8**
MURT	**Porto Murtinho**	**32.22**	**145**	*e*P	**P**	**14 05 38.7**	**-1.8**
AQDB	**Aquidauana**	**32.45**	**141**	P	**P**	**14 05 41.6**	**-0.9**
AQDB	**Aquidauana**	**32.45**	**141**	P	**P**	**14 05 41.7**	**-0.8**
	comp=Z,33nm,0.7s						
AQDB	**Aquidauana**	**32.45**	**141**	*e*P	**P**	**14 05 41.5**	**-1.1**
AC05	**El Transito**	**34.00**	**170**	P	**P**	**14 05 57.4**	**+1.4**
AC05				IAmb	IAmb	14 05 58.8	
	comp=Z,13nm,0.9s

DBIC	**Dimbokro**	**71.36**	**85**	P	**P**	**14 10 33.8**	**+2.2**
DBIC				pP	**pP**	**14 10 53.1**	**-0.7**
TORD	**Torodi Ar. Bea**	**77.55**	**78**	P	**P**	**14 11 06.6**	**-0.9**
	comp=Z,1.2nm,0.6s,baz=285,slow=6.6,SNR=8.4						
	comp=Z,1.2nm,0.6s						
RND	**Reindeer**	**77.81**	**334**	P	**P**	**14 11 10.4**	**+2.3**
RND				IAmb	IAmb	14 11 24.8	
	comp=Z,21nm,1.6s						
QSPA	**South Pole Qui**	**94.83**	**180**	P	**P**	**14 12 32.3**	**0.0**
	comp=Z,1.1nm,1.1s,baz=124,slow=3.6,SNR=1.9						
	comp=Z,1.1nm,1.1s						
QSPA	**South Pole Qui**	**94.83**	**180**	P	**P**	**14 12 32.3**	**0.0**
HHC	**Hu-ho-hao-te**	**133.95**	**351**	*e*P	**PKiKP**	**14 18 33.5**	**+4.1**
LZH	**Lanzhou**	**139.32**	**359**	*e*P	**PKPdf**	**14 18 35.5**	**-2.8**
LZH				sP	sPKPdf	14 19 13.9	+3.0
LZH				pmax	pmax		
	comp=Z,13nm,1.4s						
NJ2	**Nanjing**	**140.50**	**339**	*e*P	**PKPdf**	**14 18 41.4**	**+1.1**
NJ2				pmax	pmax		
	comp=Z,9.0nm,1.2s						
ASAR	**Alice Springs**	**145.12**	**235**	PKPbc	**PKPbc**	**14 18 47.7**	**-0.7**
	comp=Z,0.9nm,0.6s,baz=107,slow=3.3,SNR=14						
WRA	**Warramunga Arr**	**146.33**	**241**	PKPbc	**PKPdf**	**14 18 51.4**	**+0.5**
	comp=Z,0.5nm,0.8s,baz=104,slow=3.0,SNR=3.2						

IDC ***16*** *14:21:29.6±3.9, 9.49N×126.42E, h0km, mb3.4/3, mbtmp3.4/3, Error ellipse: s-maj=315.5km s-min=26.4km az=66.0*
MAN ***16*** *14:21:31.0, 10.19N×125.86E, h24km, MS3.4*
ISC 16 14:21:28.8±1.5, 10.33N±0.08×126.1E±0.1, h35km, n7, σ2s00/10, mb3.4/3, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLP	**Palo**	**1.35**	**308**	*e*P	**Pn**	**14 21 52.6**	**+1.5**
PLP				*e*S	**Sn**	**14 22 08.6**	**+0.8**
BIPH	**Bislig**	**2.15**	**172**	*i* P	**Pn**	**14 22 04.8**	**+2.6**
BIPH				*e*S	**Sn**	**14 22 29.0**	**+1.3**
TBP	**Tagbilaran**	**2.26**	**254**	*e*P	**Pn**	**14 22 04.9**	**+1.3**
TBP				*i* S	**Sn**	**14 22 30.5**	**+0.2**
CGP	**Cagayan de Oro**	**2.30**	**216**	*e*P	**Pn**	**14 22 05.3**	**+1.1**
CGP				*e*S	**Sn**	**14 22 30.9**	**-0.5**
WRA	**Warramunga Arr**	**31.17**	**165**	P	**P**	**14 27 41.1**	**-3.6**
	0.3nm,0.7s,baz=345,slow=8.9,SNR=2.2						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**34.65**	**167**	P	**P**	**14 28 14.0**	**-1.1**
	0.2nm,0.4s,baz=351,slow=7.0,SNR=18						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**51.85**	**323**	P	P	14 30 46.2	+13
	0.4nm,0.6s,baz=132,slow=8.9,SNR=2.3						
	0.4nm,0.6s						

NNC ***16*** *14:22:28.7±0.9, 45.28N×80.71E, h0km±7km, mb3.8, mpv3.6, Error ellipse: s-maj=7.6km s-min=4.5km az=129.0*
SOME ***16*** *14:22:30.6, 45.22N×80.68E, h25km*
ISC 16 14:22:31.0±1.3, 45.25N±0.04×80.77E±0.04, h23km±16km, n41, σ1s54/62, 3C-10B, Kazakhstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAPS	**Kapalarasan**	**1.00**	**273**	P	**Pb**	**14 22 48.0**	**-1.6**
	112nm,0.1s						
KAPS				S	**Sn**	**14 23 00.9**	**-2.2**
	520nm,0.3s						
KAPS	**Kapalarasan**	**1.00**	**273**	*e*P	**Pb**	**14 22 48.0**	**-1.6**
	112nm,0.1s						
KAPS				*e*S	**Sn**	**14 23 00.9**	**-2.2**
	520nm,0.3s						
DJR	**Jarkent**	**1.15**	**218**	P	**Pb**	**14 22 51.9**	**-0.4**
	132nm,0.3s						
DJR				S	**Sn**	**14 23 06.9**	**+0.1**
	95nm,0.3s						
DJR	**Jarkent**	**1.15**	**218**	*e*P	**Pb**	**14 22 51.9**	**-0.4**
	132nm,0.3s						
DJR				*e*S	**Sn**	**14 23 06.9**	**+0.1**
	95nm,0.3s						
TDK	**Taldyqorghan**	**1.69**	**263**	P	**Pb**	**14 23 00.1**	**-1.3**
	139nm,0.2s						
TDK				S	**Sb**	**14 23 22.0**	**-0.3**
	604nm,0.7s						
TDK	**Taldyqorghan**	**1.69**	**263**	*e*P	**Pb**	**14 23 00.1**	**-1.3**
	139nm,0.2s						
TDK				*e*S	**Sb**	**14 23 22.0**	**-0.3**
	604nm,0.7s						
MAKZ	**Makanchi**	**1.77**	**28**	Pn	**Pn**	**14 23 00.0**	**-0.3**
MAKZ				Sn	**Sn**	**14 23 22.8**	**+0.6**
MK31	**Makanchi Array**	**1.88**	**34**	⇑Pn	**Pn**	**14 23 01.9**	**+0.1**
	1.9nm,0.2s,baz=211,slow=12,SNR=278						
MK31				⇓Sn	**Sn**	**14 23 25.7**	**+1.0**
	10nm,0.2s,baz=216,slow=25,SNR=21						
BLB	**Baldybastay**	**2.00**	**236**	Pg	**Pb**	**14 23 05.8**	**-0.9**
	129nm,0.1s						
BLB				Lg	Lg	14 23 31.7	
	138nm,0.4s						
PDGK	**Podgornoye**	**2.12**	**206**	⇑Pn	**Pb**	**14 23 07.3**	**-1.6**
	6.0nm,0.5s						
PDGK				⇑Sn	**Sb**	**14 23 35.3**	**+0.5**
	25nm,0.4s						
SHLS	**Shalkode**	**2.29**	**205**	Pg	**Pb**	**14 23 09.8**	**-1.9**
	14nm,0.2s						
SHLS				Lg	Lg	14 23 38.2	
	130nm,0.6s						
KPKS	**Kokpek**	**2.32**	**221**	Pg	**Pb**	**14 23 10.6**	**-1.6**
	0.3nm,0.3s						
KPKS				Lg	Lg	14 23 39.4	
	146nm,0.5s						
KPKS	**Kokpek**	**2.32**	**221**	*e*P	**Pb**	**14 23 10.6**	**-1.6**
	0.3nm,0.3s						
KPKS				*e*S	**Sb**	**14 23 39.4**	**-1.2**
	146nm,0.5s						
ARXS	**Arharly**	**2.34**	**245**	Pg	**Pb**	**14 23 11.6**	**-0.9**
	23nm,0.4s						
ARXS				Lg	Lg	14 23 41.2	
	152nm,0.6s						
ARXS	**Arharly**	**2.34**	**245**	*e*P	**Pb**	**14 23 11.6**	**-0.9**
	23nm,0.4s						
ARXS				*e*S	**Sb**	**14 23 41.2**	**+0.3**
	152nm,0.6s						
UZB	**Uzynbulak**	**2.44**	**211**	Pg	**Pb**	**14 23 12.0**	**-2.3**
	8.6nm,0.2s						
UZB				Lg	Lg	14 23 41.6	
	96nm,0.4s						
UZB	**Uzynbulak**	**2.44**	**211**	*e*P	**Pb**	**14 23 12.0**	**-2.3**
	8.6nm,0.2s						
UZB				*e*S	**Sb**	**14 23 41.6**	**-2.5**
	96nm,0.4s						
KURS	**Kuram**	**2.56**	**228**	Pg	**Pb**	**14 23 15.2**	**-1.0**
	9.9nm,0.8s						
KURS				Lg	Lg	14 23 47.2	
	32nm,0.3s						
KURS	**Kuram**	**2.56**	**228**	*e*P	**Pb**	**14 23 15.2**	**-1.0**
	9.9nm,0.8s						
KURS				*e*S	**Sb**	**14 23 47.2**	**-0.1**
	32nm,0.3s						
SATY	**Saty**	**2.77**	**219**	Pg	**Pb**	**14 23 20.1**	**+0.3**
	11nm,0.2s						
SATY				Lg	Lg	14 23 55.8	
	351nm,0.3s						
SATY	**Saty**	**2.77**	**219**	*e*P	**Pb**	**14 23 20.1**	**+0.3**
	11nm,0.2s						
SATY				*e*S	**Sb**	**14 23 55.8**	**+2.4**
	351nm,0.3s						
KTBS	**Karatobe**	**3.30**	**244**	Pg	**Pb**	**14 23 27.6**	**-1.3**
	0.2nm,0.1s						
KTBS				Lg	Lg	14 24 08.6	
	14nm,0.4s						
KTBS	**Karatobe**	**3.30**	**244**	*e*P	**Pb**	**14 23 27.6**	**-1.3**
	0.2nm,0.1s						
KTBS				*e*S	**Sb**	**14 24 08.6**	**-0.1**
	14nm,0.4s						
KOTS	**Kotyrbulak**	**3.31**	**234**	Pg	**Pb**	**14 23 29.6**	**+0.5**
	9.6nm,0.4s						
KOTS				Lg	Lg	14 24 11.8	
	35nm,0.5s						
KOTS	**Kotyrbulak**	**3.31**	**234**	*e*P	**Pb**	**14 23 29.6**	**+0.5**
	9.6nm,0.4s						
KOTS				*e*S	**Sb**	**14 24 11.8**	**+2.9**
	35nm,0.5s						
MDOK	**Medeo**	**3.39**	**233**	Pg	**Pb**	**14 23 30.8**	**+0.4**
	20nm,0.5s						
MDOK				Lg	Lg	14 24 14.0	
	32nm,0.6s						
MDOK	**Medeo**	**3.39**	**233**	*e*P	**Pb**	**14 23 30.8**	**+0.4**
	20nm,0.5s						
MDOK				*e*S	**Sb**	**14 24 14.0**	**+2.7**
	32nm,0.6s						
KUU	**Kurty**	**3.44**	**248**	Pg	**Pb**	**14 23 31.2**	**-0.1**
	7.7nm,0.3s						
KUU				Lg	Lg	14 24 14.5	
	22nm,0.5s						
KUU	**Kurty**	**3.44**	**248**	*e*P	**Pb**	**14 23 31.2**	**-0.1**
	7.7nm,0.3s						
KUU				*e*S	**Sb**	**14 24 14.6**	**+1.9**
	22nm,0.5s						
TNSS	**Tian-Shan**	**3.53**	**233**	Pg	**Pb**	**14 23 33.4**	**+0.5**
	1.9nm,0.3s						
TNSS				Lg	Lg	14 24 18.5	
	3.1nm,0.6s						
TNSS	**Tian-Shan**	**3.53**	**233**	*e*P	**Pb**	**14 23 33.4**	**+0.5**
	1.9nm,0.3s						
TNSS				*e*S	**Sb**	**14 24 18.5**	**+3.0**
	3.1nm,0.6s						
ZSN	**Zaisan**	**3.59**	**51**	Pg	**Pb**	**14 23 33.2**	**-0.6**
	4.4nm,0.4s						
ZSN				Lg	Lg	14 24 17.8	
	13nm,0.5s						
ZSN	**Zaisan**	**3.59**	**51**	*e*P	**Pb**	**14 23 33.2**	**-0.6**
	4.4nm,0.4s						
ZSN				*e*S	**Sb**	**14 24 17.8**	**+0.8**
	13nm,0.5s						
MTBS	**Maitube**	**3.77**	**237**	Pg	**Pb**	**14 23 37.1**	**+0.2**
	7.9nm,0.6s						
MTBS				Lg	Lg	14 24 24.7	
	25nm,0.5s						
MTBS	**Maitube**	**3.77**	**237**	*e*P	**Pb**	**14 23 37.1**	**+0.2**
	7.9nm,0.6s						
MTBS				*e*S	**Sb**	**14 24 24.8**	**+2.6**
	25nm,0.5s						
KST	**Kastek**	**4.10**	**239**	Pg	**Pb**	**14 23 43.0**	**+0.4**
	4.4nm,0.6s						
KST				Lg	Lg	14 24 34.8	
	15nm,1.0s						
KST	**Kastek**	**4.10**	**239**	*e*P	**Pb**	**14 23 43.0**	**+0.4**
	4.4nm,0.6s						
KST				*e*S	**Sb**	**14 24 34.8**	**+3.1**
	15nm,1.0s						
DGS	**Degeres**	**4.11**	**243**	Pg	**Pb**	**14 23 43.7**	**+1.0**
	6.8nm,0.6s						
DGS				Lg	Lg	14 24 36.8	
	23nm,0.9s						
DGS	**Degeres**	**4.11**	**243**	*e*P	**Pb**	**14 23 43.7**	**+1.0**
	6.8nm,0.6s						
DGS				*e*S	**Sb**	**14 24 36.8**	**+4.8**
	23nm,0.9s						
MRKS	**Merke**	**5.99**	**248**	Pg	Pb	14 24 18.5	+3.8
	1.4nm,0.5s						
MRKS				Lg	Lg	14 25 35.7	
	3.8nm,1.0s						
MRKS	**Merke**	**5.99**	**248**	*e*P	Pb	14 24 18.5	+3.8
	1.4nm,0.5s						
MRKS				*e*S	Sb	14 25 35.7	+10
	3.8nm,1.0s						

SJA ***16*** *14:22:45.7±0.7, 32.44S×71.43W, h72km±3km, ML4.0, MW3.8*
IDC ***16*** *14:22:47.0±3.3, 32.39S×71.42W, h76km±29km, mb3.4/2, mbtmp3.8/6, Error ellipse: s-maj=32.3km s-min=19.0km az=119.0*
NEIC ***16*** *14:22:46.8±0.6, 32.44S±0.04×71.48W±0.05, h68km±6km, mb4.5/3, Mwr4.2(GUC), Error ellipse: s-maj=6.8km s-min=5.9km az=75.0*
GUC ***16*** *14:22:46.6±0.9, 32.44S×71.42W, h80km±4km, ML4.2, Presumed earthquake*
ISC 16 14:22:46.5±0.8, 32.43S±0.02×71.44W±0.04, h74km±6km, n100, σ0s99/132, mb4.4/3, 5C-5D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO04	**Los Peladeros**	**0.55**	**46**		**Pn**	**14 23 01.1**	**+0.6**
CO04				Sn	**Sn**	**14 23 10.5**	**-0.3**
CO04	**Los Peladeros**	**0.55**	**46**	⇓*i*P	**Pn**	**14 23 01.1**	**+0.6**
CO04				*i* S	**Sn**	**14 23 11.5**	**+0.7**
CO04				IAML		14 23 13.2	
	comp=N,18μm,0.2s						
VA01	**Torpederas**	**0.62**	**196**	*e*P	**Pn**	**14 23 01.2**	**+0.3**
VA01				IAML		14 23 14.1	
	comp=Z,3μm,0.1s						
VA01	**Torpederas**	**0.62**	**196**		**Pn**	**14 23 01.3**	**+0.5**
VA01	**Torpederas**	**0.62**	**196**	⇑*i*P	**Pn**	**14 23 01.3**	**+0.5**
VA01				*i* S	**Sn**	**14 23 12.2**	**+0.8**
VA01				IAML		14 23 14.5	
	comp=N,20μm,0.1s						
ROCH	**El Roble**	**0.65**	**146**	⇓*i*P	**Pn**	**14 23 01.5**	**0.0**
ROCH				*i* S	**Sn**	**14 23 12.4**	**-0.1**
ROCH				IAML		14 23 14.0	
	comp=N,16μm,0.5s						
VA03	**San Esteban**	**0.82**	**114**	*e*P	**Pn**	**14 23 03.1**	**-0.2**
VA03				*e*S	**Sn**	**14 23 15.4**	**-0.2**
VA03				IAML		14 23 15.8	
	comp=Z,8μm,0.6s						
VA03	**San Esteban**	**0.82**	**114**		**Pn**	**14 23 02.9**	**-0.3**
VA03	**San Esteban**	**0.82**	**114**	⇓*i*P	**Pn**	**14 23 03.0**	**-0.2**
VA03				*i* S	**Sn**	**14 23 14.7**	**-0.9**
VA03				IAML		14 23 15.9	
	comp=E,22μm,0.1s						
MT02	**Curacav**	**0.87**	**163**	*e*P	**Pn**	**14 23 03.6**	**-0.1**
MT02				*e*S	**Sn**	**14 23 16.6**	**+0.2**
MT02	**Curacav**	**0.87**	**163**		**Pn**	**14 23 03.6**	**-0.1**
MT02	**Curacav**	**0.87**	**163**	*i* P	**Pn**	**14 23 03.6**	**-0.1**
MT02				*i* S	**Sn**	**14 23 15.8**	**-0.6**
PEL	**Peldehue**	**0.96**	**138**		**Pn**	**14 23 04.7**	**-0.1**
PEL	**Peldehue**	**0.96**	**138**	*e*P	**Pn**	**14 23 04.2**	**-0.5**
PEL				*i* S	**Sn**	**14 23 17.7**	**-0.7**
PEL				IAML		14 23 18.8	
	comp=N,12μm,0.2s						
MT05	**Renca**	**1.13**	**149**	*e*P	**Pn**	**14 23 07.1**	**+0.1**
MT05				*e*S	**Sn**	**14 23 22.6**	**+0.5**
MT05				IAML		14 23 26.4	
	comp=Z,2μm,0.5s						
MT05	**Renca**	**1.13**	**149**		**Pn**	**14 23 07.0**	**+0.1**
MT05	**Renca**	**1.13**	**149**	*e*P	**Pn**	**14 23 07.0**	**+0.1**
MT05				*i* S	**Sn**	**14 23 22.1**	**0.0**
MT05				IAML		14 23 23.9	
	comp=N,7μm,0.3s						
MT10	**Hacienda Santa**	**1.14**	**138**	*i* P	**Pn**	**14 23 07.1**	**+0.1**
MT14	**Cerro Cal¡n**	**1.23**	**142**	*i* P	**Pn**	**14 23 08.3**	**+0.1**
MT14				*i* S	**Sn**	**14 23 24.5**	**+0.1**
MT14				IAML		14 23 25.8	
	comp=E,8μm,0.4s						
VA05	**Santo Domingo**	**1.23**	**187**		**Pn**	**14 23 08.1**	**-0.1**
VA05	**Santo Domingo**	**1.23**	**187**	*i* P	**Pn**	**14 23 08.3**	**+0.2**
VA05				*i* S	**Sn**	**14 23 24.4**	**0.0**
MT16	**CCHEN**	**1.26**	**142**		**Pn**	**14 23 08.7**	**+0.1**
MT16	**CCHEN**	**1.26**	**142**	⇑*i*P	**Pn**	**14 23 08.8**	**+0.2**
MT16				*i* S	**Sn**	**14 23 24.9**	**-0.2**
MT16				IAML		14 23 25.9	
	comp=N,3μm,0.6s						
CO02	**Combarbal**	**1.28**	**17**	*e*P	**Pn**	**14 23 09.3**	**+0.5**
CO02				*e*S	**Sn**	**14 23 26.9**	**+1.3**
CO02				IAML		14 23 30.2	
	comp=Z,3μm,0.1s						
CO02	**Combarbal**	**1.28**	**17**		**Pn**	**14 23 09.1**	**+0.3**
CO02	**Combarbal**	**1.28**	**17**	⇓*i*P	**Pn**	**14 23 09.3**	**+0.5**
CO02				*i* S	**Sn**	**14 23 25.5**	**-0.1**
CO02				IAML		14 23 29.0	
	comp=E,14μm,0.3s						
MT03	**Universidad Ad**	**1.32**	**144**	*e*P	**Pn**	**14 23 09.6**	**+0.2**
MT03				*e*S	**Sn**	**14 23 27.2**	**+0.6**
MT03				IAML		14 23 28.4	
	comp=Z,7μm,0.5s						
MT03	**Universidad Ad**	**1.32**	**144**		**Pn**	**14 23 09.5**	**+0.2**
MT03	**Universidad Ad**	**1.32**	**144**	⇑*i*P	**Pn**	**14 23 09.6**	**+0.2**
MT03				*i* S	**Sn**	**14 23 26.6**	**0.0**
MT03				IAML		14 23 28.3	
	comp=E,11μm,0.1s						
FCH	**Farellones**	**1.32**	**133**	⇑*i*P	**Pn**	**14 23 09.5**	**-0.1**
FCH				*i* S	**Sn**	**14 23 26.4**	**-0.6**
MT09	**Talagante**	**1.40**	**164**		**Pn**	**14 23 10.8**	**+0.4**
MT09	**Talagante**	**1.40**	**164**	*i* P	**Pn**	**14 23 10.8**	**+0.4**
MT09				*i* S	**Sn**	**14 23 28.1**	**-0.3**
MT09				IAML		14 23 32.4	
	comp=N,4μm,0.2s						
MT15	**Las Vizcachas**	**1.41**	**146**	*i* P	**Pn**	**14 23 10.4**	**-0.1**
MT15				*i* S	**Sn**	**14 23 28.5**	**0.0**
MT15				IAML		14 23 29.9	
	comp=N,11μm,0.2s						
MT01	**Popeta**	**1.44**	**174**	*e*P	**Pn**	**14 23 11.0**	**+0.1**
MT01				*e*S	**Sn**	**14 23 29.9**	**+0.7**
MT01				IAML		14 23 32.1	
	comp=Z,1μm,0.1s						
MT01	**Popeta**	**1.44**	**174**		**Pn**	**14 23 11.0**	**+0.1**
MT01	**Popeta**	**1.44**	**174**	*i* P	**Pn**	**14 23 11.0**	**+0.1**
MT04	**Ro Olivares**	**1.47**	**132**	*e*P	**Pn**	**14 23 11.8**	**+0.3**
MT04				*e*S	**Sn**	**14 23 31.2**	**+1.0**
MT04				IAML		14 23 32.6	
	comp=Z,1μm,0.2s						
MT04	**Ro Olivares**	**1.47**	**132**	*i* P	**Pn**	**14 23 11.6**	**+0.2**
MT04				*i* S	**Sn**	**14 23 30.3**	**+0.1**
MT12	**Pirque**	**1.50**	**150**	*i* P	**Pn**	**14 23 11.8**	**+0.1**
MT12				*i* S	**Sn**	**14 23 30.9**	**+0.2**
MT12				IAML		14 23 32.6	
	comp=N,3μm,0.4s						
MT08	**Bocatoma Ro**	**1.57**	**131**	*e*P	**Pn**	**14 23 13.8**	**+1.0**
MT08				*e*S	**Sn**	**14 23 34.5**	**+1.9**
MT08				*e*S		14 23 34.7	
MT08	**Bocatoma Ro**	**1.57**	**131**	⇑*i*P	**Pn**	**14 23 13.5**	**+0.7**
MT08				*i* S	**Sn**	**14 23 33.2**	**+0.6**
MT13	**San Alfonso**	**1.63**	**144**	*e*P	**Pn**	**14 23 13.5**	**0.0**
MT13				*e*S	**Sn**	**14 23 34.7**	**+0.8**
MT13				IAML		14 23 35.9	
	comp=Z,1μm,0.2s						
MT13	**San Alfonso**	**1.63**	**144**		**Pn**	**14 23 13.8**	**+0.3**
MT13	**San Alfonso**	**1.63**	**144**	*i* P	**Pn**	**14 23 13.8**	**+0.3**
MT13				*i* S	**Sn**	**14 23 33.7**	**-0.2**
MT13				IAML		14 23 35.4	
	comp=N,3μm,0.1s						
BO04	**La Punta**	**1.71**	**156**		**Pn**	**14 23 14.7**	**+0.3**
BO04	**La Punta**	**1.71**	**156**	*i* P	**Pn**	**14 23 14.7**	**+0.3**
BO04				*i* S	**Sn**	**14 23 35.4**	**-0.1**
CO03	**El Pedregal**	**1.71**	**22**	*e*P	**Pn**	**14 23 15.4**	**+0.9**
CO03				*e*S	**Sn**	**14 23 36.9**	**+1.2**
CO03				IAML		14 23 38.2	
	comp=Z,2μm,0.3s						
CO03	**El Pedregal**	**1.71**	**22**		**Pn**	**14 23 15.2**	**+0.7**
CO03	**El Pedregal**	**1.71**	**22**	*i* P	**Pn**	**14 23 15.4**	**+0.9**
CO03				*i* S	**Sn**	**14 23 36.2**	**+0.6**
CO03				IAML		14 23 40.1	
	comp=E,4μm,0.2s						
CO06	**Fray Jorge**	**1.76**	**355**		**Pn**	**14 23 15.3**	**+0.3**
CO06	**Fray Jorge**	**1.76**	**355**	⇓*i*P	**Pn**	**14 23 15.5**	**+0.5**
LMEL	**Las Melosas**	**1.76**	**144**	*i* P	**Pn**	**14 23 15.7**	**+0.5**
LMEL				*i* S	**Sn**	**14 23 36.9**	**0.0**
BO01	**Tunca**	**1.98**	**171**	*e*P	**Pn**	**14 23 18.2**	**+0.1**
BO01				*e*S	**Sn**	**14 23 42.7**	**+0.7**
BO01	**Tunca**	**1.98**	**171**		**Pn**	**14 23 18.0**	**0.0**
BO01	**Tunca**	**1.98**	**171**	*i* P	**Pn**	**14 23 18.0**	**0.0**
GO04	**Tololo Observa**	**2.31**	**14**	*e*P	**Pn**	**14 23 23.5**	**+0.7**
GO04				*e*S	**Sn**	**14 23 51.1**	**+0.7**
GO04				IAML		14 23 51.9	
	comp=Z,1μm,0.2s						
GO04	**Tololo Observa**	**2.31**	**14**	*i* P	**Pn**	**14 23 23.0**	**+0.3**
GO04				*i* S	**Sn**	**14 23 50.1**	**-0.2**
BO02	**Sierra Bellavi**	**2.42**	**167**	*e*P	**Pn**	**14 23 24.4**	**+0.4**
BO02				*e*S	**Sn**	**14 23 56.3**	**+3.6**
BO02				IAML		14 23 58.0	
	comp=Z,460nm,0.1s						
BO02	**Sierra Bellavi**	**2.42**	**167**		**Pn**	**14 23 24.1**	**0.0**
BO02	**Sierra Bellavi**	**2.42**	**167**	*e*P	**Pn**	**14 23 24.2**	**+0.2**
CO05	**La Serena**	**2.51**	**4**	*i* P	**Pn**	**14 23 25.5**	**+0.4**
ZON	**Zonda**	**2.51**	**70**		**Pn**	**14 23 26.3**	**+1.1**
GO05	**Hualane**	**2.61**	**189**	*e*P	**Pn**	**14 23 26.3**	**-0.2**
GO05				*e*S	**Sn**	**14 23 55.9**	**-1.2**
GO05	**Hualane**	**2.61**	**189**		**Pn**	**14 23 26.0**	**-0.5**
GO05	**Hualane**	**2.61**	**189**	*e*P	**Pn**	**14 23 25.9**	**-0.6**
GO05				*i* P		14 23 26.1	
CO01	**Juntas del Tor**	**2.70**	**26**	*e*P	**Pn**	**14 23 29.6**	**+1.6**
CO01				*e*S	**Sn**	**14 24 00.7**	**+0.9**
CO01	**Juntas del Tor**	**2.70**	**26**	*e*P	**Pn**	**14 23 29.4**	**+1.4**
ACCO	**Cerro Coronel**	**2.74**	**49**	*e*P	**Pn**	**14 23 30.5**	**+2.0**
ACCO				*e*S	**Sn**	**14 23 54.1**	**-6.6**
ACCO				IAML		14 23 55.0	
	comp=Z,267nm,0.4s						
CFA	**Coronel Fontan**	**2.84**	**74**	P	**Pn**	**14 23 30.8**	**+1.1**
	comp=Z,21nm,0.2s,baz=260,slow=15,SNR=134						
CFA				S	**Sn**	**14 24 03.3**	**+0.4**
	comp=Z,74nm,0.2s,baz=131,slow=18,SNR=13						
CFA	**Coronel Fontan**	**2.84**	**74**	*e*P	**Pn**	**14 23 31.0**	**+1.3**
CFA				*e*S	**Sn**	**14 24 06.4**	**+3.4**
CFA				IAML		14 24 34.1	
	comp=Z,234nm,0.8s						
ML02	**Panimavida**	**3.33**	**180**	*e*P	**Pn**	**14 23 36.9**	**+0.7**
ML02				IAML		14 24 51.1	
	comp=Z,143nm,0.8s						
LCO	**Las Campanas**	**3.46**	**11**		**Pn**	**14 23 38.7**	**+0.3**
AC05	**El Transito**	**3.72**	**16**		**Pn**	**14 23 42.2**	**+0.5**
AC05	**El Transito**	**3.72**	**16**	*e*P	**Pn**	**14 23 42.5**	**+0.8**
AC04	**Llanos de Chal**	**4.22**	**4**		**Pn**	**14 23 48.2**	**-0.3**
H03N1	**Juan Fernandez**	**6.36**	**259**	P	**Pn**	**14 24 19.7**	**+2.3**
	baz=241,slow=74,SNR=18						
H03N1				T	T	14 31 01.9	
	baz=176,slow=74,SNR=353						
H03N2	**Juan Fernandez**	**6.38**	**259**	P	**Pn**	**14 24 19.8**	**+2.3**
	baz=21,slow=74,SNR=19						
H03N2				T	T	14 31 02.8	
	baz=85,slow=74,SNR=243						
H03S1	**Juan Fernandez**	**6.42**	**255**	T	T	14 24 19.2	
	baz=119,slow=75,SNR=5.7						
H03S1				T	T	14 30 50.6	
	baz=82,slow=75,SNR=20						
H03S3	**Juan Fernandez**	**6.42**	**255**	T	T	14 24 19.5	
	baz=119,slow=75,SNR=6.6						
H03S3				T	T	14 30 50.7	
	baz=82,slow=75,SNR=21						
H03S2	**Juan Fernandez**	**6.43**	**255**	T	T	14 24 19.4	
	baz=119,slow=75,SNR=7.8						
H03S2				T	T	14 30 50.9	
	baz=82,slow=75,SNR=22						
LR05	**Currie**	**7.80**	**183**		**Pn**	**14 24 37.0**	**-0.3**
PLCA	**Paso Flores**	**8.32**	**175**	P	**Pn**	**14 24 44.1**	**-0.3**
	comp=Z,2.4nm,0.4s,baz=353,slow=14,SNR=29						
PLCA	**Paso Flores**	**8.32**	**175**	Pn	**Pn**	**14 24 44.3**	**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROCAM	**Rodrigues Isla**	**6.02**	**303**	Pn	**Pn**	**14 35 20.9**	**-0.3**
H08S1	**Diego Garcia H**	**15.79**	**14**	T	T	14 53 06.9	
	baz=192,slow=76,SNR=504						
H08S2	**Diego Garcia H**	**15.79**	**14**	T	T	14 53 07.5	
	baz=192,slow=76,SNR=653						
H08S3	**Diego Garcia H**	**15.81**	**14**	T	T	14 53 08.5	
	baz=192,slow=76,SNR=1403						
H04N2	**CROZET ISLANDS**	**26.78**	**207**	T	T	15 08 11.0	
	baz=39,slow=74						
H04N1	**CROZET ISLANDS**	**26.79**	**207**	T	T	15 08 14.4	
	baz=39,slow=74						
H04N3	**CROZET ISLANDS**	**26.80**	**207**	T	T	15 08 09.5	
	baz=39,slow=74						
PALK	**Pallekele**	**32.38**	**23**	LR	LR	14 50 33.6	
	comp=Z,64nm,18.5s,baz=196,slow=31						
POGA	**Pongola**	**33.69**	**255**	P	**P**	**14 40 33.4**	**0.0**
KIBK	**Kibwezi**	**36.22**	**300**	P	**P**	**14 40 55.1**	**-0.3**
KIBK				IAmb	IAmb	14 41 21.4	
	comp=Z,5.1nm,1.3s						
MATP	**Matopo**	**37.40**	**266**	LR	LR	14 54 23.4	
	comp=Z,252nm,20.4s,baz=90,slow=33						
LBTB	**Lobatse**	**39.33**	**258**	LR	LR	14 54 06.9	
	comp=Z,37nm,18.5s,baz=140,slow=31						
BOSA	**Boshof**	**39.36**	**253**	LR	LR	14 55 00.1	
	comp=Z,43nm,19.8s,baz=90,slow=32						
H01W2	**Cape Leeuwin H**	**41.08**	**117**	T	T	15 24 54.6	
	baz=275,slow=75,SNR=102						
H01W3	**Cape Leeuwin H**	**41.08**	**117**	T	T	15 24 54.1	
	baz=275,slow=75,SNR=99						
H01W1	**Cape Leeuwin H**	**41.09**	**117**	T	T	15 24 55.2	
	baz=275,slow=75,SNR=83						
CMAR	**Chiang Mai Arr**	**50.77**	**38**	LR	LR	15 03 25.8	
	comp=Z,13nm,18.1s,baz=215,slow=35						
CMAR	**Chiang Mai Arr**	**50.77**	**38**	P	**P**	**14 42 53.0**	**+0.5**
KNRA	**Kununurra**	**56.77**	**94**	P	**P**	**14 43 35.4**	**-1.2**
KNRA				IAmb	IAmb	14 44 00.9	
	comp=Z,9.7nm,1.4s						
ASAR	**Alice Springs**	**59.30**	**105**	P	**P**	**14 43 53.9**	**-0.6**
	comp=Z,0.3nm,0.7s,baz=254,slow=7.6,SNR=4.7						
	comp=Z,0.3nm,0.7s						
WRA	**Warramunga Arr**	**60.64**	**101**	P	**P**	**14 44 03.2**	**-0.4**
	comp=Z,0.8nm,0.8s,baz=255,slow=7.1,SNR=5.6						
	comp=Z,0.8nm,0.8s						
WRA	**Warramunga Arr**	**60.64**	**101**	IAmb	IAmb	14 44 09.7	
	comp=Z,0.1nm,0.9s						
QSPA	**South Pole Qui**	**67.01**	**180**	P	**P**	**14 44 45.6**	**+0.6**
	comp=Z,1.4nm,1.1s,baz=243,slow=1.8,SNR=6.4						
	comp=Z,1.4nm,1.1s						
QSPA	**South Pole Qui**	**67.01**	**180**	IAmb	IAmb	14 45 27.2	
	comp=Z,4.3nm,1.4s						
MKAR	**Makanchi Array**	**70.65**	**10**	P	**P**	**14 45 07.3**	**-0.3**
	comp=Z,1.3nm,1.0s,baz=205,slow=6.4,SNR=3.8						
	comp=Z,1.3nm,1.0s						
ZALV	**Zalesovo Beam**	**77.99**	**10**	P	**P**	**14 45 51.3**	**+1.2**
	comp=Z,0.8nm,0.6s,baz=218,slow=9.0,SNR=1.9						
	comp=Z,0.8nm,0.6s						

*IDC **16** 14:43:40.5±0.9,4°.94S×154°.90E, h0km, mb4.0/10, mbtmp4.1/12, ML3.7/2, MS3.3/7, Error ellipse: s-maj=19.3km s-min=15.8km az=180.0*
*NEIC **16** 14:43:42.3±1.4,4°.87S±0°.10×154°.84E±0°.07, h10km±1km, mb4.5/21, Error ellipse: s-maj=16.5km s-min=11.0km az=17.0*

ISC 16 14:43:41.6±0.7,4°.83S±0°.09×154°.83E±0°.07, h10km, n51, σ1s30/44, mb4.3/19, MS3.4/3, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RABL	**Rabaul**	**2.73**	**283**	Pn	**Pn**	**14 44 25.9**	**+0.4**
KRVT	**Keravat (AS076**	**2.84**	**281**	Pn	**Pn**	**14 44 23.9**	**-3.1**
	91nm,0.3s,baz=140,slow=22,SNR=9.0						
KRVT				Pg	**Pb**	**14 44 33.1**	**+0.7**
	74nm,0.3s,baz=70,slow=5.5,SNR=8.7						
KRVT				Lg	Lg	14 45 11.3	
	151nm,0.3s,baz=25,slow=23,SNR=9.7						
KRVT				LR	LR	14 45 57.8	
	comp=Z,634nm,18.0s,baz=94,slow=47						
HNR	**Honiara**	**6.83**	**132**	Pn	**Pn**	**14 45 20.4**	**-1.5**
	14nm,0.3s,baz=140,slow=12,SNR=11						
HNR				LR	LR	14 48 14.5	
	comp=Z,208nm,18.4s,baz=357,slow=41						
	31nm,0.3s						
HNR				AML	AML		
HNR	**Honiara**	**6.83**	**132**		**Pn**	**14 45 20.8**	**-1.1**
PMG	**Port Moresby**	**8.86**	**239**	Pn	**Pn**	**14 45 53.2**	**+3.4**
	8.6nm,0.3s,baz=48,slow=7.8,SNR=27						
PMG				Sn	**Sn**	**14 47 30.1**	**+0.3**
	3.8nm,0.3s,baz=132,slow=23,SNR=4.7						
	36nm,0.5s						
PMG				AML	AML		
PMG	**Port Moresby**	**8.86**	**239**		**Pn**	**14 45 50.3**	**+0.5**
JAY	**Jayapura**	**14.28**	**279**	Pn	**P**	**14 47 08.9**	**-2.5**
	1.1nm,0.3s,baz=100,slow=11,SNR=4.5						
JAY				LR	LR	14 52 04.9	
	comp=Z,136nm,19.6s,baz=70,slow=35						
CTA	**Charters Tower**	**17.31**	**208**	P	**P**	**14 47 46.6**	**+1.7**
	2.2nm,0.8s,baz=6.1,slow=14,SNR=2.1						
CTA				LR	LR	14 53 35.7	
	comp=Z,68nm,20.6s,baz=46,slow=34						
ONTNC	**Ouen Toro**	**20.70**	**148**	P	**P**	**14 48 21.8**	**-0.3**
ONTNC				IAmb	IAmb	14 48 57.7	
	comp=Z,37nm,1.3s						
EIDS	**Eidsvold**	**20.73**	**190**	P	**P**	**14 48 22.6**	**+0.2**
EIDS				IAmb	IAmb	14 48 34.8	
	comp=Z,18nm,1.4s						
SIJI	**Sorong**	**23.85**	**279**	P	**P**	**14 48 56.4**	**+1.0**
	comp=Z,2.5nm,0.5s,baz=65,slow=22,SNR=1.5						
	comp=Z,2.5nm,0.5s						
MTN	**Manton Dam**	**24.71**	**250**	P	**P**	**14 49 03.1**	**-0.2**
MTN				IAmb	IAmb	14 49 22.6	
	comp=Z,5.3nm,1.0s						
WB0	**Warramunga Arr**	**24.83**	**232**		**P**	**14 49 04.0**	**-0.3**
WB0				IAmb	IAmb	14 49 04.8	
	comp=Z,8.2nm,0.7s						
WR8	**Warramunga Arr**	**24.85**	**231**	P	**P**	**14 49 04.2**	**-0.3**
WR8				IAmb	IAmb	14 49 05.0	
	comp=Z,6.3nm,0.7s						
WRAB	**Tennant Creek**	**24.95**	**231**	P	**P**	**14 49 04.8**	**-0.6**
WRAB				IAmb	IAmb	14 49 05.9	
	comp=Z,7.3nm,0.7s						
WRA	**Warramunga Arr**	**24.97**	**231**	P	**P**	**14 49 05.1**	**-0.4**
	comp=Z,6.3nm,0.6s,baz=58,slow=10.0,SNR=64						
	comp=Z,6.3nm,0.6s						
WRA	**Warramunga Arr**	**24.97**	**231**	P	**P**	**14 49 05.2**	**-0.4**
ARMA	**Armidale**	**25.63**	**186**	P	**P**	**14 49 11.1**	**-0.4**
H11S3	**WAKE ISLAND Hy**	**25.96**	**26**	T	T	15 16 44.8	
	baz=207,slow=74						
H11S2	**WAKE ISLAND Hy**	**25.97**	**26**	T	T	15 16 48.1	
	baz=207,slow=74						
H11S1	**WAKE ISLAND Hy**	**25.98**	**26**	T	T	15 16 49.2	
	baz=207						
MSVF	**Nonsavu**	**26.09**	**121**	LR	LR	14 58 50.7	
	comp=Z,90nm,18.0s,baz=287,slow=35						
INKA	**Innaminka**	**26.43**	**209**		**P**	**14 49 17.1**	**-1.6**
LHI	**Lord Howe Isla**	**26.84**	**172**	P	**P**	**14 49 21.2**	**-1.2**
H11N1	**WAKE ISLAND Hy**	**27.13**	**26**	T	T	15 18 21.1	
	baz=198						
H11N3	**WAKE ISLAND Hy**	**27.14**	**26**	T	T	15 18 20.8	
	baz=198						
H11N2	**WAKE ISLAND Hy**	**27.15**	**26**	T	T	15 18 17.7	
	baz=198						
AS31	**Alice Springs**	**27.52**	**225**		**P**	**14 49 27.5**	**-1.1**
ASAR	**Alice Springs**	**27.52**	**225**	P	**P**	**14 49 27.6**	**-1.1**
	comp=Z,1.6nm,0.5s,baz=55,slow=9.1,SNR=52						
	comp=Z,1.6nm,0.5s						
ASAR	**Alice Springs**	**27.52**	**225**	P	**P**	**14 49 27.0**	**-1.6**
KNRA	**Kununurra**	**27.78**	**245**	P	**P**	**14 49 29.9**	**-1.0**
KNRA				IAmb	IAmb	14 50 06.3	
	comp=Z,9.8nm,1.1s						
BATI	**Baumata**	**31.34**	**258**	LR	LR	15 02 58.2	
	comp=Z,45nm,19.9s,baz=150,slow=37						
FITZ	**Fitzroy Crossi**	**31.43**	**243**	P	**P**	**14 50 02.6**	**-0.7**
	comp=Z,3.3nm,0.6s,baz=62,slow=8.4,SNR=4.1						
	comp=Z,3.3nm,0.6s						
AFI	**Afiamalu**	**34.12**	**108**	LR	LR	15 02 29.8	
	comp=Z,61nm,18.1s,baz=30,slow=33						
FORT	**Forrest**	**36.06**	**221**	P	**P**	**14 50 42.5**	**-1.0**
FORT				IAmb	IAmb	14 51 01.4	
	comp=Z,9.7nm,1.1s						
MBWA	**Marble Bar**	**37.72**	**241**	P	**P**	**14 50 56.6**	**-1.1**
MBWA				IAmb	IAmb	14 50 56.9	
	comp=Z,10nm,0.9s						
NNZ	**Nelson**	**39.86**	**158**	P	**P**	**14 51 15.7**	**+0.3**
MORW	**Morawa**	**43.91**	**232**	P	**P**	**14 51 47.7**	**-1.1**
CMAR	**Chiang Mai Arr**	**59.72**	**295**	P	**P**	**14 53 49.2**	**+2.2**
	comp=Z,1.0nm,0.6s,baz=120,slow=5.5,SNR=11						
	comp=Z,1.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**59.72**	**295**	P	**P**	**14 53 47.0**	**0.0**
AIS	**Amsterdam Isla**	**76.98**	**232**	P	**P**	**14 55 35.1**	**+0.3**
L19K	**White Mountain**	**77.02**	**22**	P	**P**	**14 55 35.7**	**+1.1**
L19K				IAmb	IAmb	14 55 58.9	
	comp=Z,9.3nm,1.3s						
ILAR	**Eielson Array**	**81.44**	**22**	P	**P**	**14 55 59.3**	**+0.7**
	comp=Z,0.5nm,0.8s,baz=232,slow=5.3,SNR=4.0						
	comp=Z,0.5nm,0.8s						
MKAR	**Makanchi Array**	**81.68**	**319**	P	**P**	**14 56 02.6**	**+2.2**
	comp=Z,0.5nm,0.7s,baz=106,slow=9.2,SNR=3.3						
	comp=Z,0.5nm,0.7s						
MKAR	**Makanchi Array**	**81.68**	**319**	P	**P**	**14 56 01.0**	**+0.6**
J25K	**Salcha River,**	**81.92**	**22**	P	**P**	**14 56 02.2**	**+0.9**
ZALV	**Zalesovo Beam**	**82.31**	**326**	P	**P**	**14 56 04.8**	**+1.5**
	comp=Z,0.2nm,0.3s,baz=102,slow=5.6,SNR=1.6						
	comp=Z,0.2nm,0.3s						
L27K	**Beaver Creek,**	**82.58**	**24**	P	**P**	**14 56 05.6**	**+0.9**
L27K				IAmb	IAmb	14 56 07.8	
	comp=Z,2.8nm,1.1s						
BCAR	**Beaver Creek A**	**82.60**	**24**	P	**P**	**14 56 04.9**	**+0.1**
QSPA	**South Pole Qui**	**85.13**	**180**	P	**P**	**14 56 19.0**	**+1.1**
	comp=Z,1.0nm,1.0s,baz=134,slow=5.3,SNR=1.7						
	comp=Z,1.0nm,1.0s						
BVAR	**Borovoye Array**	**90.48**	**323**	P	**P**	**14 56 43.9**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=93,slow=5.1,SNR=1.9						
	comp=Z,0.2nm,0.3s						

*IDC **16** 14:44:39.7±1.5,4°.78S×154°.91E, h0km, mb4.0/3, mbtmp4.2/5, ML2.4/1, Error ellipse: s-maj=28.8km s-min=19.3km az=13.0*
*NEIC **16** 14:44:41.6±0.7,4°.83S±0°.09×155°.01E±0°.09, h10km±1km, mb4.4/13, Error ellipse: s-maj=16.6km s-min=13.8km az=331.0*

ISC 16 14:44:41.2±1.2,4°.8S±0°.1×155°.00E±0°.09, h10km, n20, σ0s86/21, mb4.3/8, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**6.71**	**133**	Pn	**Pn**	**14 46 21.6**	**+1.7**
	26nm,0.3s,baz=94,slow=1.4,SNR=6.0						
HNR				Sn	**Sn**	**14 47 36.1**	**-0.3**
	0.8nm,0.3s,baz=218,slow=20,SNR=1.7						
HNR	**Honiara**	**6.71**	**133**		**Pn**	**14 46 20.2**	**+0.3**
PMG	**Port Moresby**	**9.01**	**239**	Pn	**Pn**	**14 46 52.9**	**+1.4**
	2.0nm,0.3s,baz=162,slow=23,SNR=1.7						
	11nm,0.5s						
PMG				AML	AML		
PMG	**Port Moresby**	**9.01**	**239**		**Pn**	**14 46 52.7**	**+1.2**
ONTNC	**Ouen Toro**	**20.61**	**149**	P	**P**	**14 49 21.0**	**+0.2**
ONTNC				IAmb	IAmb	14 49 51.4	
	comp=Z,31nm,1.1s						
FUNA	**Funafuti**	**24.31**	**100**	P	**P**	**14 49 59.1**	**-0.2**
MTN	**Manton Dam**	**24.87**	**250**	P	**P**	**14 50 04.1**	**-0.3**
MTN				IAmb	IAmb	14 50 06.2	
	comp=Z,8.2nm,1.3s						
WB0	**Warramunga Arr**	**24.96**	**232**	P	**P**	**14 50 04.7**	**-0.4**
WB0				IAmb	IAmb	14 50 05.4	
	comp=Z,5.6nm,0.7s						
WRAB	**Tennant Creek**	**25.09**	**231**	P	**P**	**14 50 05.9**	**-0.4**
WRAB				IAmb	IAmb	14 50 06.5	
	comp=Z,6.6nm,0.7s						
WRA	**Warramunga Arr**	**25.11**	**231**	P	**P**	**14 50 06.1**	**-0.3**
	comp=Z,5.9nm,0.8s,baz=54,slow=9.4,SNR=7.7						
	comp=Z,5.9nm,0.8s						
WRA	**Warramunga Arr**	**25.11**	**231**	P	**P**	**14 50 06.0**	**-0.5**
ARMA	**Armidale**	**25.65**	**187**	P	**P**	**14 50 10.9**	**-0.4**
ARMA				IAmb	IAmb	14 50 49.6	
	comp=Z,16nm,1.3s						
INKA	**Innaminka**	**26.52**	**209**	P	**P**	**14 50 18.1**	**-1.1**
AS31	**Alice Springs**	**27.65**	**225**	P	**P**	**14 50 28.4**	**-1.0**
ASAR	**Alice Springs**	**27.65**	**225**	P	**P**	**14 50 28.1**	**-1.4**
	comp=Z,1.2nm,0.5s,baz=55,slow=8.9,SNR=7.0						
	comp=Z,1.2nm,0.5s						
KNRA	**Kununurra**	**27.94**	**245**	P	**P**	**14 50 31.3**	**-0.7**
KNRA				IAmb	IAmb	14 50 48.7	
	comp=Z,8.2nm,1.1s						
STKA	**Stephens Creek**	**29.70**	**203**	P	**P**	**14 50 47.2**	**-0.3**
BBOO	**Buckleboo**	**32.98**	**210**	P	**P**	**14 51 15.8**	**-0.7**
WHZ	**Wether Hill Ro**	**42.43**	**167**	P	**P**	**14 52 35.2**	**-0.9**
ILAR	**Eielson Array**	**81.37**	**22**	P	**P**	**14 56 58.1**	**+0.2**
	comp=Z,0.5nm,0.7s,baz=237,slow=5.9,SNR=4.4						
	comp=Z,0.5nm,0.7s						

*IDC **16** 14:50:18.0±1.2,0°.36N×126°.23E, h0km, mb3.7/6, mbtmp3.8/6, Error ellipse: s-maj=140.4km s-min=19.1km az=67.0*
*DJA **16** 14:50:22.0±0.2,0°.N±3°×12°.6E±°, h10km, M3.6/19, mb3.8/5, MLv3.6/19*
*NEIC **16** 14:50:24.2±1.5,0°.34N±0°.05×126°.30E±0°.07, h36km±8km, mb4.4/14, Error ellipse: s-maj=10.0km s-min=6.2km az=113.0*

ISC 16 14:50:24.7±0.6,0°.29N±0°.06×126°.31E±0°.05, h47km, n36, σ0s91/35, mb4.0/11, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.16**	**65**	Pn	**Pn**	**14 50 43.4**	**-1.1**
TNTI	**Ternate**	**1.16**	**65**	P	**Pn**	**14 50 43.4**	**-1.1**
TNTI				AML	AML		
MNI	**Manado**	**1.87**	**308**	P	**Pn**	**14 50 52.9**	**-1.4**
MNI				AML	AML		
GAMI	**Galela, Maluku**	**2.13**	**44**	P	**Pn**	**14 50 58.3**	**+0.4**
GAMI				AML	AML		
SANI	**Sanana**	**2.34**	**188**	P	**Pn**	**14 50 59.8**	**-0.9**
KMSI	**Cibinong**	**2.35**	**277**	P	**Pn**	**14 51 00.2**	**-0.6**
KMSI				AML	AML		
GTOI	**Gorontalo**	**3.32**	**276**	P	**Pn**	**14 51 16.9**	**+2.7**
GTOI				AML	AML		
NLAI	**Namlea**	**3.59**	**167**	P	**Pn**	**14 51 17.9**	**0.0**
NLAI				AML	AML		
LUWI	**Luwuk**	**3.78**	**250**	Pn	**Pn**	**14 51 19.9**	**-0.6**
LUWI	**Luwuk**	**3.78**	**250**	P	**Pn**	**14 51 20.3**	**-0.1**
LUWI				AML	AML		
APSI	**Ampana**	**4.81**	**256**	P	**Pn**	**14 51 33.5**	**-1.2**
TOLI2	**Tolitoli**	**5.59**	**278**	Pn	**Pn**	**14 51 44.6**	**-0.8**
SOEI	**Soe**	**10.18**	**191**	Pn	**Pn**	**14 52 47.4**	**-1.0**
MTN	**Manton Dam**	**13.89**	**160**	Pn	**Pn**	**14 53 39.5**	**+0.5**
UGM	**Wanagama**	**17.72**	**242**	P	**P**	**14 54 28.3**	**-0.3**
WB0	**Warramunga Arr**	**21.45**	**159**	P	**P**	**14 55 09.8**	**+0.6**
WRA	**Warramunga Arr**	**21.59**	**159**	P	**P**	**14 55 10.4**	**-0.3**
	0.8nm,0.4s,baz=338,slow=11,SNR=14						
	0.8nm,0.4s						
WRA	**Warramunga Arr**	**21.59**	**159**	IAmb	IAmb	14 55 14.9	
	comp=Z,0.2nm,1.4s						
WR8	**Warramunga Arr**	**21.66**	**159**	P	**P**	**14 55 11.3**	**-0.1**
WR8				IAmb	IAmb	14 55 53.7	
	comp=Z,7.5nm,1.3s						
TPUB	**Ta-pu**	**23.54**	**347**	P	**P**	**14 55 30.6**	**-0.2**
AS31	**Alice Springs**	**24.92**	**163**	P	**P**	**14 55 44.5**	**+0.8**
ASAR	**Alice Springs**	**24.93**	**163**	P	**P**	**14 55 44.1**	**+0.5**
	comp=Z,0.6nm,0.4s,baz=342,slow=11,SNR=20						
	comp=Z,0.6nm,0.4s						
ASAR	**Alice Springs**	**24.93**	**163**	P	**P**	**14 55 44.6**	**+0.9**
STKA	**Stephens Creek**	**35.11**	**157**	P	**P**	**14 57 13.7**	**0.0**
STKA				IAmb	IAmb	14 57 47.1	
	comp=Z,10nm,0.8s						
KOUNC	**Koumac, New Ca**	**42.52**	**121**	P	**P**	**14 58 16.3**	**+0.4**
JKA	**Kamikawa-asahi**	**45.99**	**16**	P	**P**	**14 58 43.8**	**+0.5**
SONM	**Songino Array**	**50.42**	**343**	P	**P**	**14 59 17.7**	**0.0**
	comp=Z,1.6nm,0.6s,baz=148,slow=8.5,SNR=2.0						
	comp=Z,0.6nm,0.6s						
SONM	**Songino Array**	**50.42**	**343**	P	**P**	**14 59 17.5**	**-0.2**
SONM				IAmb	IAmb	14 59 30.4	
	comp=Z,3.9nm,1.4s						
MKAR	**Makanchi Array**	**60.16**	**327**	P	**P**	**15 00 26.8**	**-0.9**
	comp=Z,0.8nm,0.5s,baz=118,slow=7.5,SNR=8.8						
	comp=Z,0.8nm,0.5s						
KURBB	**Kurchatov Arra**	**64.42**	**328**	P	**P**	**15 00 54.9**	**-1.1**
	comp=Z,1.1nm,0.6s,baz=124,slow=6.2,SNR=6.0						
	comp=Z,1.1nm,0.6s						
KURK	**Kurchatov**	**64.42**	**329**	P	**P**	**15 00 55.4**	**-0.6**
KURK				IAmb	IAmb	15 00 59.6	
	comp=Z,2.0nm,0.7s						
BVAR	**Borovoye Array**	**69.98**	**328**	P	**P**	**15 01 30.3**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=102,slow=5.0,SNR=3.9						
	comp=Z,0.3nm,0.4s						
AB31	**Akbulak array**	**74.55**	**321**	P	**P**	**15 01 58.0**	**-0.6**
AB31				IAmb	IAmb	15 02 24.4	
	comp=Z,2.2nm,1.2s						
ABKAR	**Akbulak array**	**74.55**	**321**	P	**P**	**15 01 58.0**	**-0.6**
SPIA	**Saint Paul Isl**	**75.66**	**30**	P	**P**	**15 02 06.2**	**+1.4**
L18K	**Granite Mounta**	**83.70**	**27**	P	**P**	**15 02 49.3**	**+1.0**
L18K				IAmb	IAmb	15 03 02.5	
	comp=Z,13nm,1.5s						

*BJI **16** 15:08:09.8,27°.46N×130°.09E, h20km, mB4.7/27, mb4.5/69, Ms4.8/71, Ms7 4.7/71*
*MOS **16** 15:08:11.3±1.0,27°.66N×129°.96E, h11km, mb5.2/43, MS4.8/9, Error ellipse: s-maj=7.9km s-min=4.3km az=113.4*
*IDC **16** 15:08:11.1±0.4,27°.71N×129°.96E, h0km, mb4.6/30, mbtmp4.6/37, ML3.5/6, MS4.0/59, Error ellipse: s-maj=11.6km s-min=9.5km az=108.0*
*NEIC **16** 15:08:12.9±1.9,27°.61N±0°.05×129°.93E±0°.06, h10km±1km, mb5.1/129, Error ellipse: s-maj=9.0km s-min=8.1km az=153.0*
*GFZ **16** 15:08:13.5±0.2,28°N±3°×13°0E±°, h10km, M5.2/21, mb4.9/21*
*JMA **16** 15:08:14.4±0.2,27°.7N±0°.9×13°0E±°, h62km, MD4.5/25, MV4.1/25, NEAR AMAMI-OSHIMA ISLAND*
*NIED **16** 15:08:14.4,27°.69N×129°.88E, h62km, MW4.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}1.15; $M_{\theta\theta}$0.38; $M_{\phi\phi}$-1.53; $M_{r\theta}$-0.62; $M_{\theta\phi}$-0.80; $M_{\phi r}$-0.60; Fault plane solution: $M_0$1.76000×10^{16} NP1: ϕ_s354.00000°, δ37.00000°, λ50.00000°. NP2: ϕ_s220.00000°, δ63.00000°, λ116.00000°.*

ISC 16 15:08:13.4±0.6,27°.64N±0°.03×129°.92E±0°.03, h14km±3km, n572, σ1s22/519, mb5.0/195, MS4.3/86, 64C-24D, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.68**	**4**	P	**Pn**	**15 08 28.2**	**-0.4**
JZK				A	A	15 08 28.2	
	comp=N,127nm,1.4s,comp=E,112nm,2.2s						
JAM	**Amami Oshima**	**0.82**	**340**	P	**Pb**	**15 08 29.5**	**+0.1**
JAM				A	A	15 08 29.5	
	comp=N,32nm,3.6s,comp=E,31nm,3.5s						
JAM				S	**Sn**	**15 08 41.5**	**-1.0**
JTK	**Tokunoshima**	**0.87**	**280**	P	**Pb**	**15 08 30.7**	**+0.3**
JTK				A	A	15 08 30.7	
	comp=N,27nm,1.7s,comp=E,29nm,1.2s						
JAMN	**Amaminishikomi**	**0.89**	**313**	P	**Pg**	**15 08 30.2**	**-0.5**
JAMN				A	A	15 08 30.2	
	comp=N,23nm,2.5s,comp=E,25nm,2.1s						
JOKE	**Okinoerabujima**	**1.23**	**257**	P	**Pn**	**15 08 36.2**	**0.0**
JOKE				A	A	15 08 36.2	
	comp=N,17nm,1.9s,comp=E,19nm,5.8s						
JYRO	**Yoronjima**	**1.44**	**245**	P	**Pn**	**15 08 39.0**	**-0.2**
JYRO				A	A	15 08 39.0	
	comp=N,18nm,3.5s,comp=E,13nm,2.9s						
JTAJ	**Takarajima**	**1.64**	**337**	P	**Pn**	**15 08 41.0**	**-0.8**
JTAJ				A	A	15 08 41.0	
	comp=N,14nm,2.7s,comp=E,11nm,3.1s						
JOW	**Kunigami**	**1.67**	**242**	Pn	**Pn**	**15 08 42.1**	**-0.1**
	comp=E,124nm,0.3s,baz=95,slow=28,SNR=177						
JOW				Sn	**Sn**	**15 09 01.8**	**-1.7**
	comp=E,209nm,0.3s,baz=74,slow=19,SNR=9.2						
JOW	**Kunigami**	**1.67**	**242**	P	**Pn**	**15 08 40.8**	**-1.5**
JOW	**Kunigami**	**1.67**	**242**		**Pn**	**15 08 41.9**	**-0.5**
JOW	**Kunigami**	**1.67**	**242**	P	**Pn**	**15 08 42.1**	**-0.1**
JOW	**Kunigami**	**1.67**	**242**	P	**Pn**	**15 08 41.8**	**-0.5**
JOW				A	A	15 08 41.8	
	comp=N,14nm,4.0s,comp=E,11nm,4.0s						
JIH	**Iheya**	**1.84**	**251**	P	**Pn**	**15 08 44.5**	**-0.1**
JIH				A	A	15 08 44.5	
	comp=N,13nm,4.8s,comp=E,18nm,2.7s						
JNTH	**Nagotoyohara**	**2.03**	**237**	P	**Pn**	**15 08 45.9**	**-1.2**
JNTH				*eS*	**Sn**	**15 09 10.8**	**-1.5**
JKDJ	**Kitadaitoujima**	**2.08**	**144**	P	**Pn**	**15 08 47.1**	**-0.9**
JKDJ				A	A	15 08 47.1	
	comp=N,8.0nm,4.8s,comp=E,6.0nm,3.1s						
JKDJ				S	**Sn**	**15 09 11.7**	**-2.0**
JMZ	**Minamidaito 2**	**2.15**	**147**	P	**Pn**	**15 08 47.9**	**-1.0**
JMZ	**Minamidaito 2**	**2.15**	**147**		**Pn**	**15 08 47.7**	**-1.2**
JMZ	**Minamidaito 2**	**2.15**	**147**	P	**Pn**	**15 08 49.6**	**+0.7**
JMZ	**Minamidaito 2**	**2.15**	**147**	P	**Pn**	**15 08 47.5**	**-1.4**
JMZ				S	**Sn**	**15 09 12.0**	**-3.4**
JNN	**Nakanoshima**	**2.19**	**359**	A	A	15 08 48.7	
	comp=N,8.0nm,4.8s,comp=E,13nm,4.5s						
JJT3	**Tamagusuku3**	**2.42**	**233**	P	**Pn**	**15 08 52.4**	**-0.2**
JJT3				A	A	15 08 52.4	
	comp=N,27nm,2.4s,comp=E,27nm,2.0s						
JAGN	**Aguni-jima**	**2.61**	**247**	*eP*	**Pn**	**15 08 55.0**	**-0.1**
JAGN				A	A	15 08 55.0	
	comp=N,9.0nm,4.1s,comp=E,11nm,1.8s						
JYAK	**Yakushimahirau**	**2.64**	**11**	P	**Pn**	**15 08 55.4**	**-0.2**
JKC	**Kuchinoerabu**	**2.82**	**5**	*eP*	**Pn**	**15 08 58.3**	**+0.1**
JMTN	**Minamitane**	**2.88**	**17**	P	**P

NJ2 L L
comp=Z,2µm,12.3s
JCJ Chichijima 10.92 90 Pn **Pn 15 10 46.7 -2.6**
comp=Z,115nm,0.8s,baz=294,slow=18,SNR=2.8
JCJ LR LR 15 14 35.4
comp=Z,417nm,18.2s,baz=186,slow=35
MAJO Matsushiro 11.32 36 P **Pn 15 10 57.8 +3.1**
MAJO Matsushiro 11.32 36 *e*P **Pn 15 10 56.1 +1.4**
MAJO Matsushiro 11.32 36 P **Pn 15 10 55.2 +0.5**
MAJO Matsushiro 11.32 36 P **Pn 15 10 56.5 +1.7**
comp=Z,13nm,0.8s
MJAR Matsushiro Arr 11.32 36 Pn **Pn 15 10 53.5 -1.2**
comp=Z,0.1nm,0.3s,baz=237,slow=14,SNR=8.4
comp=Z,1.9nm,0.7s
MJAR AML AML
MJB9 Matsu-Tunnel 11.32 36 Pn 15 10 54.9 +0.1
DL2 Dalian 13.20 330 P **Pn 15 11 22.6 +2.2**
DL2 S **Sn 15 13 50.6 +3.7**
DL2 pmax pmax
comp=Z,28nm,1.8s
DL2 pmax pmax
comp=Z,360nm,8.5s
DL2 L L
comp=Z,2µm,13.3s
DL2 L L
comp=Z,2µm,12.8s
DL2 L L
comp=Z,3µm,15.1s
TIA Tai'an 13.81 311 P **Pn 15 11 30.0 +1.2**
TIA pmax pmax
comp=Z,9.0nm,1.6s
TIA pmax pmax
comp=Z,200nm,5.3s
TIA L L
comp=Z,2µm,12.9s
TIA L L
comp=Z,2µm,13.1s
TIA L L
comp=Z,3µm,15.6s
WHN Wuhan 13.92 286 P **Pn 15 11 31.5 +1.2**
SNY Shenyang 15.08 341 P **Pn 15 11 47.9 +1.9**
SNY S **S 15 14 41.5 -8.6**
SNY pmax pmax
comp=Z,14nm,1.7s
SNY pmax pmax
comp=Z,83nm,4.5s
SNY L L
comp=Z,2µm,13.0s
SNY L L
comp=Z,1µm,12.3s
SNY L L
comp=Z,3µm,13.3s
VLA Vladivostok 15.53 5⇑ *e*P **Pn 15 11 53.5 +1.6**
HNS HongShan 16.09 311 ⇑P **Pn 15 11 59.1 0.0**
HNS S **Sn 15 14 57.3 0.0**
HNS pmax pmax
comp=Z,12nm,0.9s
HNS L L
comp=Z,910nm,15.9s
HNS L L
comp=Z,2µm,14.3s
HNS L L
comp=Z,3µm,14.3s
LYN LuoYang 16.45 299 P **Pn 15 12 03.8 0.0**
LYN S **S 15 15 13.5 -4.8**
LYN pmax pmax
comp=Z,13nm,0.6s
LYN pmax pmax
comp=Z,370nm,6.5s
LYN L L
comp=Z,1µm,12.8s
LYN L L
comp=Z,770nm,11.8s
LYN L L
comp=Z,2µm,15.6s
CN2 Changchun 16.53 349 P **P 15 12 07.1 -0.2**
CN2 S **Sn 15 15 10.3 +2.3**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 L L
comp=Z,1µm,13.0s
CN2 L L
comp=Z,500nm,13.0s
CN2 L L
comp=Z,1µm,13.0s
USA0B Ussuriysk Arra 16.61 5⇓ *e*P **P 15 12 07.1 -1.1**
USRK Ussuriysk Ar. 16.61 5 Pn **Pn 15 12 05.9 +0.1**
comp=Z,0.1nm,0.3s,baz=174,slow=16,SNR=3.3
comp=Z,3.2nm,1.0s
USRK AML AML
USRK Ussuriysk Ar. 16.61 5 P **15 12 07.5 -0.8**
BJI2 Beijing 16.80 321 P **Pn 15 12 09.0 +0.8**
BJI2 S **Sn 15 15 17.1 +2.5**
BJI2 pmax pmax
comp=Z,34nm,0.9s
BJI2 L L
comp=Z,550nm,14.5s
BJI2 L L
comp=Z,610nm,14.5s
BJI2 L L
comp=Z,860nm,16.5s
BJT Baijiatuau 16.80 321 P **Pn 15 12 08.2 0.0**
BJT pmax pmax
comp=Z,29nm,0.8s
BJT Baijiatuau 16.80 321 Pn **Pn 15 12 08.2 0.0**
TIY Taiyuan 17.80 309 *e*P **P 15 12 23.4 +1.9**
TIY S **Sn 15 15 42.6 +3.6**
TIY pmax pmax
comp=Z,58nm,0.7s
TIY L L
comp=Z,2µm,13.7s
TIY L L
comp=Z,2µm,13.1s
TIY L L
comp=Z,3µm,13.4s
BNX BinXian 18.18 354 ⇑P **P 15 12 25.3 -0.2**
BNX pmax pmax
comp=Z,8.0nm,1.0s
XAN Xi'an 19.11 295 ⇑P **P 15 12 35.1 -0.9**
XAN S **Sn 15 16 11.4 +0.6**
XAN pmax pmax
comp=Z,260nm,3.7s
XAN L L
comp=Z,850nm,13.1s
XAN L L
comp=Z,3µm,13.7s
XAN L L
comp=Z,3µm,13.1s
ASAJ Asahikawa 19.35 28 P **Pn 15 12 39.0 -0.5**
comp=Z,0.4nm,0.3s,baz=336,slow=26,SNR=4.6
comp=Z,5.0nm,0.8s
ASAJ AML AML
JKA Kamikawa-asahi 19.35 29 P **Pn 15 12 39.9 +0.3**
JKA IAmb IAmb 15 12 46.2
comp=Z,223nm,1.9s
XLT XiLinHaoTe 19.69 329 *e*P **P 15 12 42.1 -0.1**
XLT PP **PnPn 15 12 58.8 +1.4**
XLT pmax pmax
comp=Z,10.0nm,0.8s
XLT pmax pmax
comp=Z,170nm,4.4s
XLT L L
comp=Z,2µm,15.4s
XLT L L
comp=Z,2µm,14.3s
GUMO Guam 19.75 132 LR LR 15 20 06.6
comp=Z,285nm,18.0s,baz=344,slow=36
HHC Hu-ho-hao-te 20.05 316 *e*P **P 15 12 47.0 +0.8**
HHC pmax pmax
comp=Z,17nm,0.8s
HHC pmax pmax
comp=Z,120nm,5.6s
HHC L L
comp=Z,790nm,16.5s
HHC L L
comp=Z,980nm,16.7s
HHC L L
comp=Z,1µm,16.3s
QIZ Qiongzhong 20.31 249 P **P 15 12 49.4 +0.3**
QIZ S **S 15 16 37.8 +1.2**
QIZ L L
comp=Z,880nm,15.5s
QIZ L L
comp=Z,710nm,16.1s
QIZ L L
comp=Z,960nm,19.3s

GYA Guiyang 20.75 272 ⇑P **P 15 12 55.0 +1.1**
GYA S Sn 15 16 50.1 -0.3
GYA pmax pmax
comp=Z,22nm,1.5s
GYA L L
comp=Z,890nm,13.5s
GYA L L
comp=Z,2µm,17.5s
GYA L L
comp=Z,2µm,16.2s
DAV Davao City (W) 20.87 192 LR LR 15 21 58.8
comp=Z,242nm,18.0s,baz=5.5,slow=40
BTO2 Baotou 21.05 314 *e*P **P 15 12 57.8 +0.7**
BTO2 pP **pwP 15 13 02.4 -1.1**
BTO2 sP **sP 15 13 04.9 +2.9**
BTO2 pmax pmax
comp=Z,22nm,0.9s
BTO2 pmax pmax
comp=Z,260nm,4.1s
BTO2 L L
comp=Z,2µm,13.1s
BTO2 L L
comp=Z,2µm,15.6s
BTO2 L L
comp=Z,3µm,16.5s
KLR Kul'dur 21.61 3 P **P 15 13 01.3 -1.5**
comp=Z,4.2nm,0.8s,baz=195,slow=7.0,SNR=12
comp=Z,4.2nm,0.8s
YSS Yuzhno-Sakhali 21.76 24 *e*P **P 15 13 07.7 +3.2**
YSS pmax pmax
comp=Z,50nm,1.4s
YSS pmax pmax
comp=Z,800nm,4.9s
YSS MLR MLR
comp=Z,500nm,17.0s
CD2 Chengdu 23.04 284 P **P 15 13 17.8 -0.5**
CD2 S **S 15 17 28.5 -0.3**
CD2 pmax pmax
comp=Z,70nm,1.0s
CD2 L L
comp=Z,2µm,13.9s
CD2 L L
comp=Z,4µm,13.9s
CD2 L L
comp=Z,4µm,13.9s
HILR Hailar Array B 23.24 343 P **P 15 13 19.3 -1.0**
comp=Z,3.9nm,0.6s,baz=157,slow=7.7,SNR=2.6
LZH Lanzhou 23.64 297 *e*P **P 15 13 23.4 -1.1**
LZH pP sP 15 13 28.8 -0.7
LZH S **S 15 17 35.1 -3.8**
LZH pmax pmax
comp=Z,24nm,1.4s
LZH pmax pmax
comp=Z,170nm,5.5s
LZH L L
comp=Z,1µm,14.8s
LZH L L
comp=Z,2µm,13.7s
LZH L L
comp=Z,3µm,13.4s
LZDM Lanzhou Array 23.73 297 P **P 15 13 24.7 -0.8**
comp=Z,8.6nm,0.6s,baz=130,slow=8.7,SNR=11
LZDM LR LR 15 23 57.1
comp=Z,422nm,18.4s,baz=90,slow=40
comp=Z,8.6nm,0.6s
KMI2 Kunming 24.45 270 ⇑P **P 15 13 32.0 -0.2**
KMI2 sP pwP 15 13 42.8 +4.0
KMI2 pmax pmax
comp=Z,86nm,0.9s
KMI2 L L
comp=Z,580nm,12.9s
KMI2 L L
comp=Z,1µm,14.2s
KMI2 L L
comp=Z,1µm,12.9s
SLVN Son La 24.47 261 P 15 13 32.6 +0.4
SLVN Son La 24.47 261 P **P 15 13 34.1 +1.9**
comp=Z,14nm,1.3s
PZH PanZhiHua 25.10 274 P **P 15 13 37.3 -0.7**
PZH S **S 15 18 06.4 +4.0**
PZH pmax pmax
comp=Z,20nm,1.4s
PZH pmax pmax
comp=Z,110nm,4.2s
PZH L L
comp=Z,650nm,19.6s
PZH L L
comp=Z,840nm,17.7s
PZH L L
comp=Z,1µm,19.6s
KKM Kota Kinabalu 25.12 214 P **P 15 13 38.6 +0.4**
KKM IAmb IAmb 15 13 47.7
comp=Z,30nm,1.1s
ZEA Zeya 26.15 356 *e*P **P 15 13 46.9 -0.1**
ZEA pmax pmax
comp=N,10.0nm,0.7s
ZEA pmax pmax
comp=Z,20nm,1.1s
ZEA MLR MLR
comp=Z,200nm,12.0s
MNI Manado 26.50 191 P **P 15 13 51.1 +0.6**
TNTI Ternate 26.83 186 P **P 15 13 53.2 -0.3**
comp=Z,22nm,1.3s
TNTI Ternate 26.83 186 P **P 15 13 53.9 +0.4**
comp=Z,22nm,1.3s
ULN Ulaanbaatar 26.93 325⇓ *e*P **P 15 13 54.7 +0.3**
ULN pmax pmax
comp=Z,5.0nm,1.1s
ULN Ulaanbaatar 26.93 325 P **P 15 13 55.0 +0.6**
ULN Ulaanbaatar 26.93 325 P **P 15 13 54.6 +0.2**
comp=Z,36nm,1.4s
ULN Ulaanbaatar 26.93 325 P **P 15 13 53.9 -0.5**
comp=Z,9.3nm,1.4s
SONM Songino Array 27.25 324 P **P 15 13 56.4 -0.8**
comp=Z,2.1nm,0.7s,baz=145,slow=10,SNR=5.2
SONM LR LR 15 26 26.9
comp=Z,507nm,22.0s,baz=96,slow=40
comp=Z,2.1nm,0.7s
GTA2 Gaotai 27.64 303 P **P 15 13 59.4 -1.4**
GTA2 sP pwP 15 14 09.1 +1.7
GTA2 pmax pmax
comp=Z,16nm,0.9s
GTA2 L L
comp=Z,1µm,15.6s
GTA2 L L
comp=Z,1µm,15.9s
GTA2 L L
comp=Z,2µm,15.9s
GTOI Gorontalo 27.66 195 P **P 15 13 58.1 -2.8**
TOLI2 Tolitoli 27.79 200 P **P 15 14 02.5 +0.3**
comp=Z,13nm,1.1s
TNCH TengChong 28.23 272 P **P 15 14 06.3 +0.1**
TNCH pP pP 15 14 09.5 -0.3
TNCH S **S 15 18 51.9 0.0**
TNCH pmax pmax
comp=Z,47nm,1.2s
TNCH L L
comp=Z,750nm,12.7s
TNCH L L
comp=Z,1µm,13.0s
TNCH L L
comp=Z,3µm,14.8s
SIJI Sorong 28.37 177 LR LR 15 24 27.1
comp=Z,195nm,19.4s,baz=28,slow=34
CHTO Chiang Mai 29.73 259 P **P 15 14 19.2 -0.1**
CHTO Chiang Mai 29.73 259 P **P 15 14 19.3 -0.1**
CHTO pmax pmax
comp=Z,46nm,1.5s
CHTO Chiang Mai 29.73 259 P 15 14 19.3 -0.1
CHTO IAmb IAmb 15 14 32.8
comp=Z,46nm,1.5s
CHTO Chiang Mai 29.73 259 P **P 15 14 19.7 +0.3**
comp=Z,17nm,1.1s
CHTO Chiang Mai 29.73 259 P **P 15 14 19.9 +0.5**
comp=Z,17nm,1.1s
SANI Sanana 29.76 188 P **P 15 14 18.9 -0.7**
SANI Sanana 29.76 188 P **P 15 14 18.6 -1.0**
comp=Z,17nm,1.0s
SANI Sanana 29.76 188 P **P 15 14 18.5 -1.2**
comp=Z,17nm,1.0s
CMAR Chiang Mai Arr 29.86 259 P **P 15 14 21.3 +0.6**
comp=Z,2.9nm,0.7s,baz=56,slow=7.6,SNR=25
CMAR PcP **PcP 15 17 24.1 +0.4**
comp=Z,0.7nm,0.3s,baz=61,slow=1.3,SNR=5.1
comp=Z,2.9nm,0.7s
CMAR Chiang Mai Arr 29.86 259 P 15 14 20.7 +0.1
SKR Severo-Kuril's 30.41 34 *e*P P 15 14 16.4 -8.7

SKR *e* 15 15 23.9
SKR pmax pmax
comp=Z,200nm,4.2s
SKR MLR MLR
comp=Z,500nm,16.0s
FAKI Fak Fak 30.46 175 P **P 15 14 26.1 +0.2**
FAKI IAmb IAmb 15 14 37.4
comp=Z,22nm,1.1s
GOMU GeErMu 30.86 295 P **P 15 14 29.6 -0.2**
GOMU pP pP 15 14 32.8 -0.6
GOMU sP pwP 15 14 37.3 +1.0
GOMU S **S 15 19 37.3 +3.8**
GOMU pmax pmax
comp=Z,9.0nm,1.4s
GOMU L L
comp=Z,220nm,9.2s
GOMU L L
comp=Z,210nm,9.4s
GOMU L L
comp=Z,240nm,9.6s
TLY Talaya 31.09 328 LR LR 15 29 13.0
comp=Z,612nm,18.0s,baz=126,slow=41
TLY Talaya 31.09 328⇑ *e*P **P 15 14 32.4 +1.3**
TLY pmax pmax
comp=Z,4.0nm,0.8s
JAY Jayapura 31.73 159 LR LR 15 25 30.3
comp=Z,274nm,18.8s,baz=20,slow=33
MORE Moreh 32.14 272 P 15 14 40.0 -0.7
MORE IAmb IAmb 15 14 40.4
comp=Z,14nm,0.8s
PETK Petropavlovsk- 32.71 31 P **P 15 14 45.0 -0.3**
comp=Z,3.2nm,0.8s,baz=224,slow=7.2,SNR=2.2
PETK LR LR 15 29 21.7
comp=Z,181nm,20.2s,baz=218,slow=39
comp=Z,3.2nm,0.8s
PETK Petropavlovsk- 32.71 31 P **P 15 14 45.8 +0.4**
PETK Petropavlovsk- 32.71 31 P **P 15 14 45.8 +0.4**
KAPI Kappang 33.91 198 LR LR 15 29 23.7
comp=Z,31nm,22.0s,baz=13,slow=37
LSA Lhasa 33.98 283 P **P 15 14 57.0 -0.2**
LSA pmax pmax
comp=Z,14nm,0.7s
LSA Lhasa 33.98 283 P 15 14 57.0 -0.2
LSA IAmb IAmb 15 15 09.3
comp=Z,14nm,0.7s
SHL Shillong 33.99 275 P **P 15 14 56.4 -0.6**
SHL Shillong 33.99 275 P **P 15 14 56.4 -0.6**
YAK Yakutsk 34.39 360*d* *i*P **P 15 14 59.1 -0.7**
YAK *e* 15 16 08.7
YAK *e*PPP PPP 15 16 27.0
YAK *e* 15 17 34.0
YAK *e*S **S 15 20 25.5 -1.5**
YAK *e*SS **SnSn 15 22 38.0 +0.9**
YAK *e* 15 25 19.4
YAK pmax pmax
comp=Z,50nm,0.9s
YAK pmax pmax
comp=N,23nm,1.5s
YAK pmax pmax
comp=E,3.0nm,0.9s
YAK pmax pmax
comp=Z,138nm,4.9s
YAK pmax pmax
comp=E,139nm,5.9s
YAK pmax pmax
comp=N,131nm,3.8s
YAK smax smax
comp=E,58nm,2.4s
YAK smax smax
comp=N,41nm,2.5s
YAK MLR MLR
comp=Z,193nm,13.0s
YAK MLR MLR
comp=N,210nm,21.0s
YAK MLR MLR
comp=E,123nm,18.0s
YAK Yakutsk 34.39 360 P 15 14 58.8 -1.1
YAK Yakutsk 34.39 360 P **P 15 14 59.3 -0.5**
comp=Z,61nm,0.9s
H11N2 WAKE ISLAND Hy 34.66 95 T T 15 51 38.6
baz=290,slow=75,SNR=11
H11N1 WAKE ISLAND Hy 34.66 95 T T 15 51 38.7
baz=290,slow=75,SNR=7.4
H11N3 WAKE ISLAND Hy 34.68 95 T T 15 51 39.8
baz=290,slow=75,SNR=11
H11S3 WAKE ISLAND Hy 34.92 97 T T 15 52 03.4
baz=287
H11S1 WAKE ISLAND Hy 34.93 97 T T 15 52 04.7
baz=287
H11S2 WAKE ISLAND Hy 34.94 97 T T 15 52 09.7
baz=287
MA2 Magadan 35.00 18 LR LR 15 30 54.3
comp=Z,157nm,18.1s,baz=231,slow=39
WMQ Urumqi 37.45 307 *e*P **P 15 15 28.6 +2.2**
WMQ L L
comp=Z,340nm,14.7s
WMQ L L
comp=Z,960nm,13.9s
WMQ L L
comp=Z,570nm,16.9s
SOEI Soe 37.57 189 P **P 15 15 26.1 -1.6**
SOEI IAmb IAmb 15 15 48.7
comp=Z,52nm,1.0s
SOEI Soe 37.57 189 P **P 15 15 30.7 +3.0**
EVN Everest 37.98 281 P **P 15 15 29.6 -2.1**
EVN IAmb IAmb 15 15 42.6
comp=Z,25nm,1.0s
EVN Everest 37.98 281 P **P 15 15 31.9 +0.1**
comp=Z,27nm,1.1s
SEY Seymchan 38.24 16 LR LR 15 33 05.2
comp=Z,306nm,18.3s,baz=158,slow=39
SEY Seymchan 38.24 16⇓ *e*P **P 15 15 33.3 +0.6**
SEY pmax pmax
comp=Z,33nm,1.9s
KRVT Keravat (AS076 38.26 143 LR LR 15 30 09.1
comp=Z,74nm,19.0s,baz=264,slow=34
PSI Prapat 38.56 236 LR LR 15 32 31.0
comp=Z,165nm,18.2s,baz=31,slow=38
DGZ Jazzator, Alta 39.13 316⇑ *i*P **P 15 15 40.0 -0.6**
DGZ pmax pmax
comp=Z,7.0nm,2.3s
ZSN Zaisan 40.16 312 *e*P **P 15 15 50.2 +1.2**
ZSN Zaisan 40.16 312 *e*P **P 15 15 50.2 +1.2**
MTN Manton Dam 40.26 178 P **P 15 15 49.7 -0.4**
comp=Z,21nm,0.9s
MTN Manton Dam 40.26 178 P **P 15 15 49.4 -0.7**
comp=Z,21nm,0.9s
MTN Manton Dam 40.26 178 P **P 15 15 49.9 -0.2**
comp=Z,21nm,0.9s
MTN Manton Dam 40.26 178 P **P 15 15 49.1 -1.0**
PMG Port Moresby 40.44 153 LR LR 15 30 37.2
comp=Z,213nm,20.2s,baz=336,slow=33
MK31 Makanchi Array 41.75 310⇓ *e*P **P 15 16 01.6 -0.6**
MKAR Makanchi Array 41.75 310 P **P 15 16 01.0 -1.2**
comp=Z,2.3nm,0.7s,baz=97,slow=9.9,SNR=13
MKAR PcP **PcP 15 17 58.5 +0.1**
comp=Z,3.2nm,0.8s,baz=62,slow=2.9,SNR=7.3
MKAR LR LR 15 35 15.0
comp=Z,401nm,18.3s,baz=90,slow=39
comp=Z,2.3nm,0.7s
ZALV Zalesovo Beam 42.07 321 P **P 15 16 02.5 -2.1**
comp=Z,2.0nm,0.6s,baz=102,slow=9.2,SNR=9.5
ZALV PcP **PcP 15 18 00.1 +0.9**
comp=Z,0.4nm,0.4s,baz=130,slow=4.5,SNR=2.1
ZALV ScP **ScP 15 21 51.0 +1.7**
comp=Z,0.2nm,0.4s,baz=106,slow=4.7,SNR=1.3
ZALV LR LR 15 35 37.3
comp=Z,272nm,18.2s,baz=113,slow=39
comp=Z,2.0nm,0.6s
ZALV Zalesovo Beam 42.07 321 *i* P **P 15 16 03.5 -1.1**
ZALV pmax pmax
comp=Z,2.0nm,0.6s
ZALV Zalesovo Beam 42.07 321 P 15 16 02.0 -2.6
KNRA Kununurra 43.07 182 P **P 15 16 12.6 -0.4**
comp=Z,39nm,0.8s
KNRA Kununurra 43.07 182 P **P 15 16 12.3 -0.7**
comp=Z,39nm,0.8s
KNRA Kununurra 43.07 182 P 15 16 13.0 -0.1
KNRA IAmb IAmb 15 16 14.2
comp=Z,25nm,0.7s
SHLS Shalkode 43.30 305 *e*P **P 15 16 13.3 -1.6**
SHLS Shalkode 43.30 305 *e*P **P 15 16 13.3 -1.6**
KPKS Kokpek 43.88 305 *e*P **P 15 16 20.6 +1.0**
KPKS Kokpek 43.88 305 *e*P **P 15 16 20.6 +1.0**
SATY Saty 44.06 304 *e*P **P 15 16 21.8 +0.7**
SATY Saty 44.06 304 *e*P **P 15 16 21.9 +0.7**

TDK Taldyqorghan 44.20 307 *e*P **P 15 16 22.7 +0.7**
TDK Taldyqorghan 44.20 307 *e*P **P 15 16 22.8 +0.7**
TARG Taragay, Kyrgy 44.46 302 P **P 15 16 24.0 -0.6**
TARG pmax pmax
comp=Z,11nm,0.9s
TARG Taragay, Kyrgy 44.46 302 P 15 16 24.0 -0.6
TARG Taragay, Kyrgy 44.46 302 P **P 15 16 24.7 +0.1**
comp=Z,14nm,1.2s
KURK Kurchatov 44.86 315⇑ *i*P **P 15 16 26.7 -0.5**
KURK pmax pmax
comp=Z,7.0nm,1.0s
KURK Kurchatov 44.86 315 P 15 16 25.2 -2.0
KURK Kurchatov 44.86 315 P **P 15 16 25.4 -1.8**
comp=Z,6.5nm,1.0s
KURBB Kurchatov Arra 44.90 315 P **P 15 16 26.0 -1.4**
comp=Z,3.4nm,0.8s,baz=102,slow=8.6,SNR=14
KURBB PcP **PcP 15 18 10.2 +1.3**
comp=Z,1.8nm,0.6s,baz=95,slow=4.0,SNR=6.6
KURBB LR LR 15 37 05.6
comp=Z,813nm,18.2s,baz=179,slow=39
comp=Z,3.4nm,0.8s
MDOK Medeo 45.06 304 *e*P **P 15 16 29.7 +0.6**
MDOK Medeo 45.06 304 *e*P **P 15 16 29.7 +0.6**
TNSS Tian-Shan 45.13 304 *e*P **P 15 16 30.2 +0.3**
TNSS Tian-Shan 45.13 304 *e*P **P 15 16 30.3 +0.3**
AAA Alma-Ata 45.16 305 *e*P **P 15 16 30.6 +0.8**
AAA pmax pmax
comp=Z,9.0nm,0.6s
AAA Alma-Ata 45.16 305 *e*P **P 15 16 30.6 +0.8**
comp=Z,8.6nm,0.6s
ASAI AK-SAY(Kyrgyzs 45.42 301 P **P 15 16 31.6 -0.6**
comp=Z,6.7nm,0.9s
FITZ Fitzroy Crossi 45.66 186 P **P 15 16 34.4 +0.7**
comp=Z,5.9nm,0.9s
FITZ Fitzroy Crossi 45.66 186 P **P 15 16 34.1 +0.4**
comp=Z,5.9nm,0.9s
FITZ Fitzroy Crossi 45.66 186 LR LR 15 34 41.3
comp=Z,52nm,20.5s,baz=354,slow=35
FITZ Fitzroy Crossi 45.66 186 P 15 16 33.5 -0.2
BILL Bilibino 45.87 18⇓ *e*P **P 15 16 34.7 -0.2**
BILL pmax pmax
comp=Z,6.0nm,0.9s
BILL Bilibino 45.87 18 P 15 16 35.5 +0.6
BILL IAmb IAmb 15 16 49.7
comp=Z,42nm,2.0s
KSH2 Kashi 46.20 299 P **P 15 16 38.3 +0.2**
KSH2 sP pwP 15 16 45.3 +0.5
KSH2 pmax pmax
comp=Z,10.0nm,0.9s
KSH2 L L
comp=Z,380nm,14.8s
KSH2 L L
comp=Z,370nm,13.2s
KSH2 L L
comp=Z,760nm,14.8s
AAK Ala-Archa 46.93 304 LR LR 15 39 39.3
comp=Z,466nm,18.7s,baz=97,slow=40
AAK Ala-Archa 46.93 304⇓ *i*P **P 15 16 43.3 -0.5**
AAK pmax pmax
comp=Z,9.0nm,2.5s
HNR Honiara 46.94 137 LR LR 15 34 59.6
comp=Z,24nm,20.4s,baz=60,slow=34
WRAB Tennant Creek 47.48 174 P **P 15 16 48.0 -0.1**
WRAB Tennant Creek 47.48 174 *ce*P **P 15 16 47.9 -0.1**
WRAB pmax pmax
comp=Z,28nm,0.8s
WRAB Tennant Creek 47.48 174 P **P 15 16 47.8 -0.3**
WRAB Tennant Creek 47.48 174 P **P 15 16 48.3 +0.3**
comp=Z,38nm,1.1s
WRA Warramunga Arr 47.49 174 P **P 15 16 48.1 0.0**
comp=Z,18nm,0.7s,baz=353,slow=8.4,SNR=98
comp=Z,18nm,0.7s
WRA Warramunga Arr 47.49 174 *i*P **P 15 16 48.0 -0.2**
WRA pmax pmax
comp=Z,20nm,0.7s
WRA Warramunga Arr 47.49 174 P 15 16 46.8 -1.3
MTSU Mount Surprise 47.59 161 P **P 15 16 50.7 +1.7**
comp=Z,20nm,1.0s
MTSU Mount Surprise 47.59 161 P 15 16 50.4 +1.4
comp=Z,20nm,1.1s
MTSU Mount Surprise 47.59 161 P 15 16 50.5 +1.6
comp=Z,20nm,1.0s
HYB Hyderabad 48.23 269 *e*P **P 15 16 53.8 -0.4**
HYB *e*S **S 15 23 54.1 +0.6**
NRIK Noril'sk 48.39 341 P **P 15 16 53.8 -0.8**
comp=Z,16nm,0.8s,baz=120,slow=8.8,SNR=18
NRIK LR LR 15 38 54.2
comp=Z,222nm,18.2s,baz=132,slow=38
comp=Z,16nm,0.8s
NRIK Noril'sk 48.39 341 *c i*P **P 15 16 53.1 -1.5**
NRIK pmax pmax
comp=Z,21nm,0.9s
NRIK Noril'sk 48.39 341 P 15 16 53.2 -1.3
NRIK IAmb IAmb 15 16 54.9
comp=Z,16nm,0.8s
NIL Nilore 48.61 292 P **P 15 16 56.3 -0.6**
NIL pmax pmax
comp=Z,26nm,0.8s
NIL Nilore 48.61 292 P 15 16 56.3 -0.6
NIL Nilore 48.61 292 P **P 15 16 56.9 +0.1**
comp=Z,39nm,0.8s
QIS Mount Isa 48.82 168 P **P 15 16 58.2 -0.2**
comp=Z,33nm,0.9s
QIS Mount Isa 48.82 168 P **P 15 16 57.9 -0.5**
comp=Z,33nm,0.9s
QIS Mount Isa 48.82 168 P P 15 16 58.6 +0.2
QIS Mount Isa 48.82 168 P **P 15 16 58.8 +0.4**
comp=Z,33nm,0.9s
KKAR Karatay Array 49.84 304 P P 15 17 05.8 -0.4
KKAR Karatay Array 49.84 304 P 15 17 05.8 -0.4
CTA Charters Tower 50.01 160 P **P 15 17 08.4 +0.9**
comp=Z,25nm,1.0s
CTA Charters Tower 50.01 160 P P 15 17 08.1 +0.5
comp=Z,25nm,1.0s
CTA Charters Tower 50.01 160 LR LR 15 37 46.5
comp=Z,82nm,18.8s,baz=24,slow=36
CTAO Charters Tower 50.01 160 P **P 15 17 07.3 -0.2**
CTAO Charters Tower 50.01 160 P **P 15 17 08.0 +0.5**
CTAO pmax pmax
comp=Z,43nm,0.9s
CTAO Charters Tower 50.01 160 P **P 15 17 08.0 +0.5**
CTAO Charters Tower 50.01 160 P **P 15 17 08.7 +1.2**
comp=Z,62nm,1.0s
BVAR Borovoye Array 50.25 317 P **P 15 17 08.2 -0.9**
comp=Z,8.3nm,0.9s,baz=86,slow=9.2,SNR=16
BVAR PcP **PcP 15 18 28.9 +1.0**
comp=Z,5.6nm,0.7s,baz=101,slow=2.9,SNR=6.4
comp=Z,8.3nm,0.9s
IUG luzhnay 50.25 303 *e*P **P 15 17 10.0 +0.7**
IUG luzhnay 50.25 303 *e*P **P 15 17 10.0 +0.7**
BORK Borovoye 50.29 317 *d i*P **P 15 17 08.2 -1.1**
BORK pmax pmax
comp=Z,10.0nm,0.9s
BORK Borovoye 50.29 317 P 15 17 07.8 -1.5
BRLS Borolday 50.34 304 *e*P **P 15 17 11.8 +1.9**
BRLS Borolday 50.34 304 *e*P **P 15 17 11.8 +1.9**
CHM Chimkent 50.55 303 *e*P **P 15 17 12.5 +1.0**
CHM pmax pmax
comp=Z,7.0nm,0.6s
CHM Chimkent 50.55 303 *e*P **P 15 17 12.5 +1.0**
comp=Z,6.7nm,0.6s
PALK Pallekele 50.73 256 LR LR 15 40 13.7
comp=Z,293nm,20.4s,baz=62,slow=38
AS15 Alice Springs 51.12 175 P **P 15 17 16.5 +0.6**
comp=Z,21nm,0.8s
AS15 Alice Springs 51.12 175 P P 15 17 16.2 +0.3
comp=Z,21nm,0.8s
AS31 Alice Springs 51.15 175 P **P 15 17 16.4 +0.3**
comp=Z,4.3nm,0.6s
AS31 Alice Springs 51.15 175 P **P 15 17 16.1 0.0**
comp=Z,4.3nm,0.6s
ASAR Alice Springs 51.15 175 P **P 15 17 16.4 +0.3**
comp=Z,15nm,0.8s,baz=6.2,slow=9.2,SNR=132
comp=Z,15nm,0.8s
ASAR Alice Springs 51.15 175 P P 15 17 16.3 +0.2
AS17 Alice Springs 51.16 175 P **P 15 17 16.7 +0.6**
comp=Z,21nm,0.7s
AS17 Alice Springs 51.16 175 P P 15 17 16.4 +0.3
comp=Z,21nm,0.7s
AS09 Alice Springs 51.19 175 P P 15 17 16.9 +0.5
comp=Z,36nm,0.8s
AS09 Alice Springs 51.19 175 P P 15 17 16.6 +0.2
comp=Z,36nm,0.8s
KBL Kabul 51.91 294 P **P 15 17 21.8 -0.3**
KBL pmax pmax
comp=Z,23nm,0.8s
KBL Kabul 51.91 294 IAmb IAmb 15 17 33.4
comp=Z,22nm,0.8s
WRKA Warakurna 52.39 182 P P 15 17 26.1 +0.7
comp=Z,14nm,1.1s
WRKA Warakurna 52.39 182 P P 15 17 26.4 +1.0
comp=Z,14nm,1.1s
QLP Quilpie 55.64 164 P P 15 17 49.3 +0.3
comp=Z,26nm,1.1s
QLP Quilpie 55.64 164 P P 15 17 49.0 0.0
comp=Z,26nm,1.1s
SVE Sverdlovsk 56.08 322 *e*P **P 15 17 51.5 -0.4**
SVE pmax pmax
comp=Z,12nm,1.1s
SVE MLR MLR
comp=Z,780nm,15.0s
EIDS Eidsvold 56.51 157 P P 15 17 55.6 +0.4
comp=Z,19nm,0.9s
EIDS Eidsvold 56.51 157 P P 15 17 55.3 +0.1
comp=Z,19nm,0.9s
EIDS Eidsvold 56.51 157 P P 15 17 55.5 +0.3
EIDS IAmb IAmb 15 17 56.5
comp=Z,14nm,0.8s
ABKAR Akbulak array 56.80 313 P P 15 17 55.3 -1.8
ARTI Arti 57.33 321 LR LR 15 44 28.7
comp=Z,208nm,20.9s,baz=90,slow=38
ARTI Arti 57.33 321 P P 15 17 59.8 -1.0
ARTI pmax pmax
comp=Z,9.0nm,0.7s
ARTI Arti 57.33 321 P P 15 17 59.8 -1.0
ARTI IAmb IAmb 15 18 13.7
comp=Z,8.8nm,0.7s
HRA Herat 57.45 295 IAmb IAmb 15 18 13.6
comp=Z,9.3nm,0.7s
AKTO Aktyubinsk 57.93 314 LR LR 15 45 00.2
comp=Z,345nm,18.3s,baz=119,slow=38
J19K Poorman 58.74 30 P P 15 18 10.5 0.0
J20K Nowinta River 59.38 30 IAmb IAmb 15 18 33.4
comp=Z,32nm,1.8s
K20K Telida 59.43 31 P P 15 18 16.2 +0.8
K20K IAmb IAmb 15 18 34.4
comp=Z,42nm,1.8s
STKA Stephens Creek 60.22 169 P P 15 18 21.0 0.0
comp=Z,5.8nm,0.8s,baz=340,slow=5.8,SNR=7.9
STKA LR LR 15 43 30.5
comp=Z,54nm,21.9s,baz=23,slow=35
comp=Z,5.8nm,0.8s
STKA Stephens Creek 60.22 169⇑ *i*P **P 15 18 21.8 +0.7**
STKA Stephens Creek 60.22 169 IAmb IAmb 15 18 22.4
comp=Z,35nm,0.9s
I21K Tanana 60.29 28 IAmb IAmb 15 18 39.8
comp=Z,33nm,1.8s
BBOO Buckleboo 60.40 174 P P 15 18 23.7 +1.5
comp=Z,13nm,1.9s
BBOO Buckleboo 60.40 174 P P 15 18 23.4 +1.2
comp=Z,20nm,1.8s
H22K Ishtalitna Cre 60.52 28 IAmb IAmb 15 18 44.1
comp=Z,10nm,1.1s
DZM Mont Dzumac 60.73 141 LR LR 15 41 20.1
comp=Z,63nm,21.2s,baz=307,slow=33
CMSA Cobar Meteorol 60.74 165 P P 15 18 26.2 +1.6
comp=Z,26nm,1.4s
SUA Susitna One 61.08 33 IAmb IAmb 15 18 39.7
comp=Z,10nm,0.7s
E23K Chandalar 61.13 25 IAmb IAmb 15 18 48.1
comp=Z,8.4nm,0.9s
D24K Happy Valley 61.37 24 IAmb IAmb 15 19 18.2
comp=Z,14nm,1.1s
NEA2 Nenana 61.57 29 IAmb IAmb 15 18 54.3
comp=Z,9.4nm,1.0s
MCK McKinley 61.70 30 IAmb IAmb 15 18 44.7
comp=Z,19nm,1.3s
RND Reindeer 61.77 30 IAmb IAmb 15 18 43.0
comp=Z,10nm,0.8s
KIRV Kirov 61.98 324 LR LR 15 49 10.5
comp=Z,457nm,18.7s,baz=85,slow=40
KIRV Kirov 61.98 324⇓ *i*P **P 15 18 32.8 0.0**
COLA College 62.06 29⇓ *e*P **P 15 18 34.3 +1.1**
COLA pmax pmax
comp=Z,12nm,1.6s
POKR Poker Plat Res 62.22 28 IAmb IAmb 15 18 47.1
comp=Z,11nm,0.9s
IL31 62.48 29 IAmb IAmb 15 18 53.8
comp=Z,23nm,1.9s
ILAR Eielson Array 62.48 29 P P 15 18 35.8 -0.3
comp=Z,1.0nm,0.7s,baz=268,slow=6.1,SNR=12
comp=Z,1.0nm,0.7s
HDA Harding Lake 62.50 29 IAmb IAmb 15 18 46.5
comp=Z,42nm,2.0s
C26K Camden Bay 62.69 23 IAmb IAmb 15 18 40.4
comp=Z,12nm,1.2s
C27K Jago River 63.13 23 IAmb IAmb 15 19 07.6
comp=Z,37nm,2.0s
SCRK Sand Creek 63.85 29 P P 15 18 45.1 -0.2
SCRK IAmb IAmb 15 18 59.9
comp=Z,30nm,2.0s
BELG Belogornoye 64.05 318⇑ *e*P **P 15 18 44.4 -2.2**
BELG pmax pmax
comp=Z,2.0nm,0.8s
MSVF Nonsavu 64.87 128 LR LR 15 44 25.2
comp=Z,23nm,19.1s,baz=297,slow=34
MSVF Nonsavu 64.87 128 P P 15 18 53.5 +1.0
MSVF pmax pmax
comp=Z,19nm,1.2s
MSVF Nonsavu 64.87 128 P P 15 18 53.5 +1.0
MSVF IAmb IAmb 15 18 55.4
comp=Z,19nm,1.1s
KLMR Klimovskoe 66.46 328 *e*P **P 15 18 59.3 -2.8**
KLMR pmax pmax
comp=Z,53nm,1.4s
KLMR MLR MLR
comp=Z,607nm,16.0s
MAK Makhachkala 66.47 307 *d i*P P 15 18 55.1 -7.4
MAK pmax pmax
comp=Z,691nm,1.4s
MAK MLR MLR
comp=Z,252nm,13.0s
L29M L29M 66.59 30 IAmb IAmb 15 19 18.2
comp=Z,12nm,1.4s
APA Apatity 67.20 336 *e*P **P 15 19 04.2 -2.5**
APA *e* 15 19 33.5
APA pmax pmax
comp=Z,12nm,1.1s
APA MLR MLR
comp=Z,728nm,5.5s
SPITS Spitsbergen Ar 67.76 348 P P 15 19 10.0 -0.1
comp=Z,21nm,0.8s,baz=82,slow=7.7,SNR=6.9
SPITS LR LR 15 53 02.0
comp=Z,133nm,18.6s,baz=44,slow=40
comp=Z,21nm,0.8s
VRH Novokhopyorsk 67.90 317 *e*P **P 15 19 09.4 -2.0**
VRH pmax pmax
comp=Z,10.0nm,0.8s
NCK Nalchik 69.03 309⇑ *e*P **P 15 19 19.7 +1.0**
NCK pmax pmax
comp=Z,22nm,0.5s
LPSR Galich'ya Gora 69.13 319 *e*P **P 15 19 17.1 -2.0**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
ARCES ARCESS Array B 69.25 339 P P 15 19 19.8 +0.2
comp=Z,3.7nm,0.7s,baz=76,slow=7.6,SNR=7.1
ARCES LR LR 15 55 23.8
comp=Z,354nm,18.4s,baz=72,slow=41
comp=Z,3.7nm,0.7s
GNI Garni 69.30 305 LR LR 15 53 48.6
comp=Z,89nm,19.0s,baz=68,slow=40
GNI Garni 69.30 305 *de*P **P 15 19 22.1 +1.5**
GNI pmax pmax
comp=Z,19nm,1.1s
GNI Garni 69.30 305 P P 15 19 21.3 +0.7
comp=Z,20nm,1.0s
VSR Storozhevoye 69.43 318 *e*P **P 15 19 18.4 -2.6**
VSR pmax pmax
comp=Z,9.0nm,0.9s
KBZ Khabaz 69.44 309 P P 15 19 21.9 +0.8
comp=Z,20nm,0.9s,baz=144,slow=1.8,SNR=24
KBZ LR LR 15 53 55.8
comp=Z,190nm,18.6s,baz=80,slow=40
comp=Z,20nm,0.9s
KBZ Khabaz 69.44 309 *ce*P **P 15 19 21.5 +0.4**
KBZ pmax pmax
comp=Z,31nm,1.0s
KIV Kislovodsk 69.51 310 *e*P **P 15 19 22.2 +0.5**
KIV pmax pmax
comp=Z,33nm,1.0s
KIV MLR MLR
comp=Z,190nm,17.0s
SHA1 Shidzhatmaz 69.60 309 *de*P **P 15 19 23.3 +0.8**
OBN Obninsk 69.64 322 *e*P **P 15 19 22.2 0.0**
OBN *e**PP **sP 15 19 26.8 -0.6**
OBN *e* 15 19 46.3
OBN *e* 15 21 56.9
OBN pmax pmax
comp=Z,31nm,1.3s
OBN MLR MLR
comp=Z,467nm,18.0s
NOR Nord 69.66 355 *i*P **P 15 19 21.8 -0.2**
NOR IAmb IAmb 15 19 22.5
comp=Z,6.2nm,0.9s
NEUR Neytrino 69.72 309⇑ *e*P **P 15 19 24.4 +1.2**
NEUR pmax pmax
comp=Z,7.0nm,1.1s
C36M Paulatuk 69.84 21 IAmb IAmb 15 19 24.6
comp=Z,15nm,1.1s
PUL Pulkovo 71.14 328⇑ *e*P **P 15 19 32.6 +1.3**
GURO Guroymak-BITLI 71.82 304 IAmb IAmb 15 19 48.2
comp=Z,18nm,0.8s
FIA1 FINESS Array S 72.38 331 P P 15 19 38.7 0.0
FINES FINESS Array B 72.38 331 P **P 15 19 38.4 -0.3**
comp=Z,24nm,0.8s,baz=63,slow=5.4,SNR=32
FINES LR LR 15 55 14.1
comp=Z,402nm,18.3s,baz=62,slow=39
comp=Z,24nm,0.8s
FINES FINESS Array B 72.38 331 P P 15 19 38.8 0.0
KOPT Kop Dagi 72.40 306 IAmb IAmb 15 19 54.7
comp=Z,17nm,0.9s
VSU Vasula 73.37 328 *de*P **P 15 19 44.7 +0.1**
VSU pmax pmax
comp=Z,55nm,0.9s
RES Resolute Bay 73.88 11 LR LR 15 55 39.9
comp=Z,68nm,18.7s,baz=3.5,slow=39
RES Resolute Bay 73.88 11 P P 15 19 47.4 +0.1
RES pmax pmax
comp=Z,16nm,1.0s
RES Resolute Bay 73.88 11 P P 15 19 47.4 +0.1
RES IAmb IAmb 15 19 49.1
comp=Z,16nm,1.0s
DAG Danmarks Havn 74.06 353 *i*P **P 15 19 47.8 -0.5**
DAG IAmb IAmb 15 19 49.3
comp=Z,10nm,1.0s
RAYN Ar Rayn 74.79 289⇑P **P 15 19 54.1 +0.4**
RAYN Ar Rayn 74.79 289 P P 15 19 53.7 0.0
RAYN IAmb IAmb 15 20 06.0
comp=Z,20nm,1.0s
SIM Simferopol' 74.86 313 *e*P **P 15 19 53.3 -0.3**
SIM pmax pmax
comp=Z,22nm,0.9s
NEEM North Greenlan 75.15 0 *i*P **P 15 19 55.2 +0.1**
NEEM IAmb IAmb 15 19 56.2
comp=Z,19nm,1.0s
AK03 Malin Array Si 75.43 320 P P 15 19 56.8 0.0
AKASG Malin Array Be 75.44 320 P **P 15 19 56.5 -0.3**
comp=Z,5.7nm,0.5s,baz=57,slow=6.3,SNR=27
AKASG LR LR 15 56 09.1
comp=Z,504nm,19.0s,baz=46,slow=38
comp=Z,5.7nm,0.5s
AKBB Malin Array Si 75.44 320⇑ *i*P **P 15 19 55.9 -0.9**
AKBB pmax pmax
comp=Z,15nm,0.8s
AKBB Malin Array Si 75.44 320 P P 15 19 56.8 0.0
AK09 Malin Array Si 75.44 320 P P 15 19 56.8 0.0
AK01 Malin Array Si 75.45 320 P P 15 19 56.7 -0.2
RAO Raoul Island 75.45 135 LR LR 15 46 25.8
comp=Z,109nm,20.5s,baz=259,slow=30
AK08 Malin Array Si 75.45 320 P P 15 19 56.7 -0.2
KIEV Kiev 75.45 320⇓ P **P 15 19 56.6 -0.3**
KIEV Kiev 75.45 320 P P 15 19 56.0 -0.9
KIEV IAmb IAmb 15 19 58.4
comp=Z,12nm,0.8s
KIEV Kiev 75.45 320⇓ P **P 15 19 56.6 -0.3**
KIEV Kiev 75.45 320 P P 15 19 56.8 -0.1
comp=Z,71nm,1.6s
AK04 Malin Array Si 75.46 320 P P 15 19 56.7 -0.3
AK10 Malin Array Si 75.47 320 P P 15 19 57.1 +0.1
AK02 Malin Array Si 75.47 320 P P 15 19 57.0 0.0
AK23 Malin Array Si 75.47 320 P P 15 19 57.0 0.0
AK11 Malin Array Si 75.48 320 P P 15 19 57.1 0.0
AK05 Malin Array Si 75.49 320 P P 15 19 57.1 0.0
AK15 Malin Array Si 75.50 320 P P 15 19 57.2 0.0
AK22 Malin Array Si 75.50 320 P P 15 19 57.2 0.0
AK06 Malin Array Si 75.50 320 P P 15 19 57.2 0.0
AK12 Malin Array Si 75.50 320 P P 15 19 57.2 0.0
AK21 Malin Array Si 75.51 320 P P 15 19 57.2 0.0
AK07 Malin Array Si 75.52 320 P P 15 19 57.3 0.0
AK18 Malin Array Si 75.52 320 P P 15 19 57.3 0.0
AK16 Malin Array Si 75.52 320 P P 15 19 57.3 0.0
AK14 Malin Array Si 75.54 320 P P 15 19 57.4 0.0
AK17 Malin Array Si 75.54 320 P P 15 19 57.4 0.0
AK20 Malin Array Si 75.54 320 P P 15 19 57.4 0.0
AK19 Malin Array Si 75.55 320 P P 15 19 57.2 -0.3
AK13 Malin Array Si 75.57 320 P P 15 19 57.4 -0.2
GAZ Gaziantep 75.87 305 IAmb IAmb 15 20 14.4
comp=Z,23nm,1.2s
BNN Bunyan 76.17 307 IAmb IAmb 15 20 13.4
comp=Z,17nm,1.1s
DBG Daneborg 76.43 352 *i*P **P 15 20 02.2 +0.2**
DBG IAmb IAmb 15 20 02.7
comp=Z,14nm,1.1s
YKA Yellowknife Ar 76.61 26 P P 15 20 03.9 +0.6
comp=Z,2.1nm,0.8s,baz=305,slow=5.3,SNR=8.3
comp=Z,2.1nm,0.8s
LUBAR Lubar, Ukraine 76.63 319 P P 15 20 02.8 -0.8
RNPP9 Sopachiv 76.99 321 P P 15 20 06.0 +0.3
RNPP8 Varash 77.05 321 P P 15 20 06.0 0.0
RNPP5 Staryi Chortor 77.08 321 P P 15 20 06.4 +0.2
SORM Soroca 77.09 318⇑P **P 15 20 05.5 -0.7**
SORM Soroca 77.09 318⇑P **P 15 20 05.5 -0.7**
SUW Suwalki 77.19 325 *e*P **P 15 20 06.6 -0.1**
BR131 Keskin Array S 77.36 308 IAmb IAmb 15 20 21.0
comp=Z,14nm,0.8s
BRTR Keskin Array B 77.36 308 P P 15 20 08.5 +0.4
comp=Z,8.1nm,0.8s,baz=100,slow=4.9,SNR=28
BRTR LR LR 15 59 43.3
comp=Z,124nm,19.7s,baz=46,slow=40
comp=Z,8.1nm,0.8s
BRTR Keskin Array B 77.36 308 P P 15 20 08.0 -0.2
BRTR Keskin Array B 77.36 308 P P 15 20 08.0 -0.2
BR104 Keskin Array S 77.36 308 P P 15 20 08.4 +0.2
comp=Z,96nmcomp=Z,13nm,0.8s
BR106 Keskin Array S 77.37 308 P P 15 20 08.4 +0.2
comp=Z,94nmcomp=Z,12nm,0.9s
BR105 Keskin Array S 77.38 308 P P 15 20 08.5 +0.3
comp=Z,103nmcomp=Z,15nm,1.0s
KIRS Kirsehir-Merke 77.42 308⇓P **P 15 20 09.0 +0.6**
KMPD K-Podol'skiy 78.01 319 P P 15 20 10.9 -0.5
TLCR 78.15 315⇑P **P 15 20 12.4 +0.2**
TLCR 78.15 315⇑P **P 15 20 12.4 +0.2**
ASF Jabal al Asfar 78.18 300 LR LR 16 01 36.8
comp=Z,132nm,18.1s,baz=77,slow=41
HFS Hagfors 78.27 333 P **P 15 20 12.2 -0.4**
comp=Z,12nm,0.8s,baz=64,slow=6.8,SNR=13
HFS LR LR 15 58 41.7
comp=Z,214nm,19.4s,baz=40,slow=39
comp=Z,12nm,0.8s
JURR Jurilovca 78.30 314⇑P **P 15 20 13.4 +0.4**
DMBR Dumbraveni 78.33 317⇑P **P 15 20 13.3 +0.1**
NC303 NORSAR Array S 78.54 334 IAmb IAmb 15 20 16.4
comp=Z,25nm,0.9s
TPGR Topolog 78.55 315⇑P **P 15 20 14.9 +0.4**
NB2 NORSAR Subarra 78.71 334 P P 15 20 14.3 -0.8
comp=Z,11nm,0.7s,baz=52,slow=5.9
NB2 NORSAR Subarra 78.71 334 P P 15 20 14.0 -1.1
NOA NORSAR Array B 78.71 334 P P 15 20 14.6 -0.5
comp=Z,11nm,0.8s,baz=50,slow=5.5,SNR=25
NOA LR LR 15 58 45.8
comp=Z,169nm,18.3s,baz=50,slow=39
comp=Z,11nm,0.8s
TIRR Tirgusor 78.73 314⇑P **P 15 20 15.5 0.0**
TIRR Tirgusor 78.73 314⇑P **P 15 20 15.5 0.0**
TIRR Tirgusor 78.73 314 P P 15 20 15.8 +0.3
comp=Z,8.9nm,1.0s
TESR Tescani 78.87 317⇑P **P 15 20 16.1 -0.2**
TESR Tescani 78.87 317 P P 15 20 16.4 +0.2
comp=Z,17nm,1.6s
HARR Harsova 78.93 315⇑P **P 15 20 17.0 +0.5**
HARR Harsova 78.93 315⇑P **P 15 20 17.0 +0.5**
MMAI Mount Meron Ar 78.96 301 LR LR 16 01 20.7
comp=Z,62nm,18.3s,baz=26,slow=40
BIZ Bicaz 78.99 317⇑P **P 15 20 17.5 +0.6**
URZ Urewera 79.04 144 P P 15 20 16.3 -0.7
comp=Z,8.0nm,0.7s,baz=311,slow=8.0,SNR=3.6
comp=Z,8.0nm,0.7s

ONER	Baraj Valea Uz	79.11 317	⇑P		P	15 20 18.4	+0.8
VRI	Vrincioaia	79.13 316	⇑P		P	15 20 19.3	+1.6
VRI	Vrincioaia	79.13 316	⇑P		P	15 20 19.3	+1.6
VRI	Vrincioaia	79.13 316	P		P	15 20 17.8	+0.1
	comp=Z,26nm,1.1s						
PLOR	Plostina	79.18 316	⇑P		P	15 20 19.3	+1.3
PLOR	Plostina	79.18 316	⇑P		P	15 20 19.3	+1.3
BURAR	Bucovina Array	79.20 318	⇑P		P	15 20 18.3	+0.2
BURAR	Bucovina Array	79.20 318	P		P	15 20 17.9	-0.2
BURAR	Bucovina Array	79.20 318	⇑P		P	15 20 18.3	+0.2
RTZ	Ruatahuna	79.24 144	P		P	15 20 17.6	-0.7
RTZ				IAmb	IAmb	15 20 18.3	
	comp=Z,25nm,0.9s						
ICOR	Ion Corvin	79.28 314	⇑P		P	15 20 19.8	+1.3
COVR	Voineasa-Covas	79.46 316	⇑P		P	15 20 20.3	+0.8
TURR	Turia	79.47 317	⇑P		P	15 20 20.8	+1.2
OZUR		79.59 317	⇑P		P	15 20 21.4	+1.1
ISR	Istrita	79.60 316	⇓		P	15 20 21.0	+0.7
	comp=Z,19nm,0.9s						
KWP	Kalwaria Pacla	79.64 321	*e*P		P	15 20 20.8	+0.4
KWP	Kalwaria Pacla	79.64 321	P		P	15 20 21.1	+0.7
CSS	Mathiatis	79.65 304	IAmb	IAmb	15 20 22.1		
	comp=Z,16nm,0.8s						
SUMG	Summit	79.73 356	P		P	15 20 21.2	+0.3
SUMG				pmax	pmax		
	comp=Z,17nm,0.8s						
SUMG	Summit	79.73 356	P		P	15 20 21.2	+0.3
SUMG				IAmb	IAmb	15 20 22.9	
	comp=Z,17nm,0.8s						
SUMG	Summit	79.73 356	*i* P		P	15 20 22.0	+1.0
SUMG				IAmb	IAmb	15 20 22.7	
	comp=Z,16nm,0.8s						
MLR	Muntele Rosu	79.79 316	LR		LR	15 59 09.3	
	comp=Z,164nm,19.0s,baz=0.0,slow=38						
MLR	Muntele Rosu	79.79 316	⇑P		P	15 20 22.3	+0.9
MLR	Muntele Rosu	79.79 316	⇑P		P	15 20 22.3	+0.9
MLR	Muntele Rosu	79.79 316	P		P	15 20 21.9	+0.5
	comp=Z,12nm,0.9s						
DOPR	Dopca	79.90 317	⇑P		P	15 20 22.6	+0.8
SCO	Scoresbysund	80.11 351	*i* P		P	15 20 23.7	+1.2
SCO				IAmb	IAmb	15 20 24.7	
	comp=Z,15nm,1.0s						
CTYL	Yalikoy Yolu	80.21 312	⇑P		P	15 20 24.0	+0.4
KOLS	Kolonicke sedl	80.24 320	*e*P		P	15 20 24.8	+1.2
KOLS				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KOLS	Kolonicke sedl	80.24 320	*e*P		P	15 20 24.8	+1.2
VOIR		80.36 316	⇑P		P	15 20 25.0	+0.5
VOIR		80.36 316	⇑P		P	15 20 25.0	+0.5
RPZ	Rata Peaks	80.40 151	LR		LR	15 53 31.1	
	comp=Z,11nm,20.5s,baz=226,slow=34						
LOZB	Loznitsa	80.41 314	⇑P		P	15 20 25.5	+0.8
ARR	Arges	80.65 316	⇑P		P	15 20 27.0	+1.0
EIL	Elat	80.77 299	LR		LR	16 02 28.6	
	comp=Z,65nm,18.3s,baz=98,slow=40						
BAND	Balkesir-Ban	80.87 311	⇑P		P	15 20 27.3	+0.1
MARR	Marisel-Cluj	80.91 318	⇑P		P	15 20 27.5	+0.1
OJC	Ojcow	80.93 322	*e*P		P	15 20 28.8	+1.5
OJC	Ojcow	80.93 322	P		P	15 20 27.7	+0.4
	comp=Z,44nm,0.9s						
ELND	Elena	81.08 314	⇑P		P	15 20 28.7	+0.4
NIE	Niedzica	81.09 321	*e*P		P	15 20 29.4	+1.2
NIE	Niedzica	81.09 321	P		P	15 20 29.1	+0.9
	comp=Z,7.6nm,0.9s						
LOT	Lotru	81.14 317	⇑P		P	15 20 29.3	+0.6
SAATT	Saattut	81.82 1	*i* P		P	15 20 32.4	+0.8
SAATT				IAmb	IAmb	15 20 33.3	
	comp=Z,51nm,1.1s						
SURR	Surduc	81.97 318	⇑P		P	15 20 33.4	+0.5
PSZ	Piszkesteto	82.12 320	⇑P		P	15 20 33.6	-0.2
PSZ	Piszkesteto	82.12 320	IAmb	IAmb	15 20 37.0		
	comp=Z,16nm,1.3s						
PSZ	Piszkesteto	82.12 320	⇑P		P	15 20 33.6	-0.2
STEB	Steborice	82.18 323	*e*P		P	15 20 34.8	+0.9
HERR	Herculane	82.25 317	⇑P		P	15 20 35.2	+0.8
MORC	Moravsky Berou	82.39 323	⇓P		P	15 20 36.1	+1.0
MORC	Moravsky Berou	82.39 323	IAmb	IAmb	15 20 40.0		
	comp=Z,10nm,0.9s						
MORC	Moravsky Berou	82.39 323	*e*P		P	15 20 35.7	+0.6
MORC			*e*			15 20 46.6	
MORC	Moravsky Berou	82.39 323	⇓P		P	15 20 36.1	+1.0
VYHS	Vyhne	82.40 321	*e*P		P	15 20 36.6	+1.5
VYHS				pmax	pmax		
	comp=Z,7.0nm,0.9s						
VYHS	Vyhne	82.40 321	*e*P		P	15 20 36.6	+1.5
KSP	Ksiaz	82.45 324	*e*P		P	15 20 37.0	+1.7
KSP	Ksiaz	82.45 324	P		P	15 20 36.3	+1.0
	comp=Z,23nm,1.0s						
KRLC	Kraliky	82.63 323		AMS	AMS	16 01 10.0	
	comp=Z,600nm,16.3s						
OSTC	Ostas	82.65 324	*e*P		P	15 20 39.5	+3.1
OSTC	Ostas	82.65 324	*e*P		P	15 20 39.5	+3.1
DPC	Dobruska-Polom	82.72 324	*e*P		P	15 20 38.1	+1.3
DPC				MLR	MLR		
	comp=Z,600nm,17.8s						
DPC	Dobruska-Polom	82.72 324	*e*P		P	15 20 38.1	+1.3
DPC				AMS	AMS	16 01 10.0	
	comp=Z,600nm,17.8s						
MDVR	Moldovita	82.73 317	⇑P		P	15 20 37.0	+0.1
BLKB	Belogradchik	82.75 316	⇑P		P	15 20 37.0	0.0
UPC	Upice	82.79 324		AMS	AMS	16 01 00.0	
	comp=Z,500nm,18.9s						
JAVC	Velka Javorina	82.84 322	*e*P		P	15 20 39.4	+1.9
SMOL	Smolenice	83.17 322	*e*P		P	15 20 43.6	+4.5
SMOL				pmax	pmax		
	comp=Z,4.0nm,0.2s						
VRAC	Vranov	83.17 323	LR		LR	16 01 48.6	
	comp=Z,262nm,18.8s,baz=64,slow=39						
VRAC	Vranov	83.17 323	⇑P		P	15 20 39.2	+0.1
VRAC	Vranov	83.17 323	*e*P		P	15 20 39.9	+0.8
VRAC			*e*			15 20 48.8	
VRAC	Vranov	83.17 323	⇑P		P	15 20 39.2	+0.1
MODS	Modra-Piesok	83.33 322	*e*P		P	15 20 42.1	+2.2
MODS				pmax	pmax		
	comp=Z,9.0nm,0.9s						
MODS	Modra-Piesok	83.33 322	*e*P		P	15 20 42.1	+2.2
BOVS	Bovan	83.34 316	⇓P		P	15 20 40.3	+0.3
KRUC	Moravsky	83.42 323	*e*P		P	15 20 41.4	+1.0
KRUC			*e*			15 20 50.7	
BSEG	Bad Segeberg	83.51 329	*e*P		P	15 20 41.5	+0.8
	comp=Z,17nm,0.9s,baz=51,slow=5.3						
RICC	Richard	83.76 325		AMS	AMS	16 02 40.0	
	comp=Z,700nm,18.8s						
TREC	Trest	83.77 323	*e*P		P	15 20 43.6	+1.4
TREC	Trest	83.77 323	*e*P		P	15 20 43.6	+1.4
MORH	Mrgy, Hungar	83.77 319	P		P	15 20 42.7	+0.5
	comp=Z,13nm,0.8s						
CLL	Collm	83.85 326	*i* P		P	15 20 42.9	+0.4
CLL			*e*S		S	15 31 10.0	+4.5
CLL				pmax	pmax		
	comp=Z,22nm,1.0s						
CLL	Collm	83.85 326	*e*P		P	15 20 42.9	+0.4
	comp=Z,19nm,0.9s,baz=51,slow=5.3						
CLL	Collm	83.85 326	P		P	15 20 43.0	+0.4
	comp=Z,25nm,0.8s						
CLL	Collm	83.85 326	*i* P		P	15 20 42.9	+0.4
	comp=Z,22nm,1.0s						
CLL			*ex*		x	15 20 52.0	
CLL			*e*S		S	15 31 10.0	+4.5
CLL			LH			15 54 00.0	
CLL			LV			15 56 00.0	
CLL				AMS	AMS	16 02 00.0	
	comp=N,600nm,15.3s						
CLL				AMS	AMS	16 02 00.0	
	comp=E,600nm,15.1s						
CLL				AMS	AMS	16 02 00.0	
	comp=Z,1μm,16.1s						
PRU	Pruhonice	83.86 324	*e*P		P	15 20 43.3	+0.7
PRU				MLR	MLR		
	comp=Z,500nm,14.8s						
PRU	Pruhonice	83.86 324	*e*P		P	15 20 43.3	+0.7
PRU				AMS	AMS	16 02 00.0	
	comp=Z,500nm,14.8s						
HSKC	Hora Svate Kat	84.06 325	*e*P		P	15 20 44.6	+0.9
HSKC				AMS	AMS	16 02 30.0	
	comp=Z,700nm,17.7s						
FLTG	Flechtingen	84.09 327	*e*P		P	15 20 44.0	+0.3
	comp=Z,24nm,1.0s,baz=51,slow=5.3						
WINA	Alland / Wiene	84.14 322	*i* pP		P	15 20 45.2	+1.1
	comp=Z,18nm,1.4s						
ABNA	Allensteig Bun	84.16 323	*i* P		P	15 20 44.5	+0.3
	comp=Z,11nm,0.8s						
RONA	Rosalia, Austr	84.25 322	*i* P		P	15 20 45.3	+0.5
	comp=Z,10nm,1.1s						
CONA	Conrad Observa	84.36 322	*e*pP		P	15 20 46.5	+1.2
	comp=Z,21nm,0.8s,SNR=11						
ZVC	Zvikov	84.37 324	*e*P		P	15 20 46.1	+0.9
NEUB	Neuenburg	84.52 326	*e*P		P	15 20 46.6	+0.7
	comp=Z,38nm,1.1s,baz=51,slow=5.3						
CKRC	Cesky Krumlov	84.67 323	*e*P		P	15 20 48.1	+1.3
CKRC				MLR	MLR		
	comp=Z,400nm,18.9s						
CKRC	Cesky Krumlov	84.67 323	*e*P		P	15 20 48.1	+1.3
CKRC				AMS	AMS	16 02 10.0	
	comp=Z,400nm,18.9s						
PLN	Plauen	84.78 325	*e*P		P	15 20 47.7	+0.5
	comp=Z,3.5nm,1.1s,baz=51,slow=5.3						
NKC	Novy Kostel	84.79 325		AMS	AMS	16 03 00.0	
	comp=Z,800nm,17.1s						
CLZ	Clausthal	84.81 327	*e*P		P	15 20 48.2	+0.8
	comp=Z,41nm,1.0s,baz=51,slow=5.3						
KHC	Kasperske Hory	84.87 324	⇓*e*P		P	15 20 48.6	+0.8
KHC				pmax	pmax		
	comp=Z,15nm,1.4s						
KHC	Kasperske Hory	84.87 324		IAmb	IAmb	15 21 04.0	
	comp=Z,10nm,1.1s						
KHC	Kasperske Hory	84.87 324	*e*P		P	15 20 48.8	+1.0
KHC				AMS	AMS	16 02 20.0	
	comp=Z,600nm,18.5s						
KHC	Kasperske Hory	84.87 324	P		P	15 20 48.4	+0.6
	comp=Z,13nm,1.4s						
ARSA	Arzberg	84.94 321		IAmb	IAmb	15 20 52.7	
	comp=Z,11nm,0.9s						
ARSA	Arzberg	84.94 321	*i* PcP		P	15 20 49.3	+1.1
	comp=Z,9.2nm,0.9s						
MOX	Moxa	84.95 326	*e*L		L	16 08 11.9	
	comp=Z,195nm,18.6s						
GEC2	GERESS Array S	84.98 323		IAmb	IAmb	15 20 49.9	
	comp=Z,9.2nm,1.0s						
GERES	GERESS Array B	84.98 323	P		P	15 20 48.5	0.0
	comp=Z,4.3nm,0.8s,baz=46,slow=3.9,SNR=18						
GERES				LR	LR	16 02 14.3	
	comp=Z,287nm,18.7s,baz=53,slow=38						
	comp=Z,4.3nm,0.8s						
GERES	GERESS Array B	84.98 323	P		P	15 20 47.9	-0.6
GERES	GERESS Array B	84.98 323	P		P	15 20 47.9	-0.6
BORG	Borgarnes	85.23 348	LR		LR	16 01 01.1	
	comp=Z,44nm,19.8s,baz=23,slow=37						
MOA	Molln	85.28 322	*e*P		P	15 20 49.9	0.0
	comp=Z,14nm,1.1s						
BLY	Banja Luka	85.44 319	⇑P		P	15 20 53.7	+3.0
SESA	Seetaler Alpe,	85.55 322	*i* PcP		P	15 20 52.4	+0.9
	comp=Z,41nm,1.0s,SNR=13						
SOKA	Soboth	85.55 321	*e*P		P	15 20 51.2	-0.1
	comp=Z,24nm,1.2s,SNR=5.8						
SFJD	Kangerlussuaq	85.66 0	*i* P		P	15 20 51.6	+0.3
SFJD				IAmb	IAmb	15 20 52.1	
	comp=Z,13nm,0.7s						
BIOA	Bad Ischl, Aus	85.71 323	*i* P		P	15 20 52.4	+0.4
	comp=Z,19nm,1.2s						
GRF	Grafenberg Arr	85.74 325	*e*L		L	16 03 40.2	
	comp=Z,448nm,18.6s						
OBKA	Obir	85.92 321	*i* P		P	15 20 52.4	-0.8
	comp=Z,14nm,0.9s						
KBA	Koelnbreinsper	86.24 322	*i* P		P	15 20 54.3	-0.6
	comp=Z,16nm,1.0s						
BEKR	Beckworth	86.32 47	P		P	15 20 54.8	-0.6
MYKA	Terra Mystica	86.35 322	*i* P		P	15 20 54.5	-0.8
	comp=Z,14nm,1.0s						
LESA	Schwarzleotal	86.39 323	*e*P		P	15 20 55.5	0.0
	comp=Z,44nm,1.0s,SNR=10						
ABTA	Abfaltersbach	86.89 322	*e*P		P	15 20 57.3	-0.6
	comp=Z,24nm,1.0s,SNR=6.4						
WATA	Walderalm	87.03 323	*i* P		P	15 20 58.6	-0.1
	comp=Z,5.3nm,0.5s						
WTTA	Wattenberg	87.04 323	*i* P		P	15 20 58.7	-0.1
	comp=Z,19nm,1.1s						
MOTA	Moosalm	87.28 323	*e*P		P	15 20 59.1	-0.8
	comp=Z,20nm,0.9s,SNR=5.6						
SQTA	Sankt Quirin	87.30 323	*i* PcP		P	15 20 60.0	0.0
	comp=Z,9.8nm,0.8s						
FETA	Feichten	87.68 323	*e*PcP		P	15 21 01.7	-0.2
	comp=Z,10nm,0.8s						
FRB	Frobisher Bay	87.76 8	LR		LR	16 02 45.9	
	comp=Z,205nm,20.4s,baz=290,slow=37						
DLMT	Dillon	87.79 39		IAmb	IAmb	15 21 15.5	
	comp=Z,10nm,1.1s						
DAVA	Damuels	87.96 324	*i* PcP		P	15 21 03.7	+0.5
	comp=Z,31nm,0.9s,SNR=5.9						
EKA	Eskdalemuir Ar	88.14 335	P		P	15 21 02.8	-0.8
	comp=Z,2.6nm,0.7s,baz=40,slow=6.6,SNR=3.7						
EKA				LR	LR	16 06 17.2	
	comp=Z,295nm,18.2s,baz=26,slow=40						
	comp=Z,2.6nm,0.7s						
KVN	Kaiserville	88.22 46	P		P	15 21 04.0	-0.6
KVN				pmax	pmax		
	comp=Z,14nm,1.6s						
KVN	Kaiserville	88.22 46	P		P	15 21 04.0	-0.6
KVN				IAmb	IAmb	15 21 24.2	
	comp=Z,14nm,1.6s						
DAVOX	Davos/Dischmat	88.28 323	LR		LR	16 04 20.4	
	comp=Z,302nm,20.3s,baz=70,slow=38						
PPT	Papeete	89.93 110	LR		LR	15 54 39.4	
	comp=Z,38nm,20.1s,baz=282,slow=31						
PPT2	Papeete2	89.94 110	*e*LR		LR	15 49 47.8	
	comp=Z,104nm,30.2s						
PPT2			*e*LR		LR	15 49 51.1	
	comp=Z,156nm,26.8s						
PDAR	Pinedale Array	91.12 39	P		P	15 21 18.9	+0.7
	comp=Z,1.4nm,0.8s,baz=344,slow=1.0,SNR=13						
	comp=Z,1.4nm,0.8s						
PDAR	Pinedale Array	91.12 39	P		P	15 21 18.5	+0.3
VAE	Valguarnera	91.40 314	LR		LR	16 10 35.1	
	comp=Z,66nm,19.1s,baz=158,slow=41						
PFO	Pinyon Flats O	92.43 50	*i* P		P	15 21 26.6	+2.3
ULM	Lac du Bonnet	92.48 27	P		P	15 21 22.6	-1.3
	comp=Z,3.9nm,0.9s,baz=359,slow=8.3,SNR=2.4						
ULM				LR	LR	16 07 48.4	
	comp=Z,25nm,18.6s,baz=6.0,slow=39						
	comp=Z,3.9nm,0.9s						
P17A	Butcher Ranch,	92.54 42		IAmb	IAmb	15 21 37.8	
	comp=Z,6.8nm,0.9s						
P18A	Preston Nutter	92.73 42		IAmb	IAmb	15 21 39.0	
	comp=Z,6.7nm,1.0s						
KNB	Kanab	92.78 45		IAmb	IAmb	15 21 38.8	
	comp=Z,7.2nm,0.9s						
TBI	Tubuai	92.81 115	*e*LR		LR	15 50 57.9	
	comp=Z,885nm,32.8s						
TBI			*e*LR		LR	15 51 10.1	
	comp=Z,1μm,34.0s						
SRU	San Rafael Swe	92.90 43		IAmb	IAmb	15 21 28.3	
	comp=Z,5.2nm,0.8s						
HMU	Henry Mountain	93.51 44	P		P	15 21 29.1	-0.2
HMU				IAmb	IAmb	15 21 41.9	
	comp=Z,5.7nm,0.9s						
PV10	Paradox Valley	94.26 42		IAmb	IAmb	15 21 35.2	
	comp=Z,8.9nm,0.9s						
PV17	East Wray Mesa	94.37 43		IAmb	IAmb	15 21 49.6	
	comp=Z,9.6nm,1.2s						
PV05	Paradox Valley	94.42 43		IAmb	IAmb	15 21 35.5	
	comp=Z,9.2nm,1.0s						
KEST	Kesra	95.67 315	P		P	15 21 37.9	-1.2
	comp=Z,4.1nm,0.8s,baz=343,slow=6.2,SNR=4.1						
	comp=Z,4.1nm,0.8s						
SCHQ	Schefferville	96.61 10	P		P	15 21 41.5	-1.4
	comp=Z,3.8nm,0.7s,baz=295,slow=6.0,SNR=3.7						
SCHQ				LR	LR	16 08 15.8	
	comp=Z,145nm,20.3s,baz=331,slow=37						
	comp=Z,3.8nm,0.7s						
MBAR	Mbarara	98.42 274	LR		LR	16 10 22.0	
	comp=Z,52nm,18.3s,baz=54,slow=38						
ESDC	Sonseca Array	100.44 326	P		Pdif	15 22 00.3	-0.1
	comp=Z,0.8nm,0.9s,baz=67,slow=5.0,SNR=4.1						
QSPA	South Pole Qui	117.41 180	PKP		PKPdf	15 26 57.0	-0.9
	comp=Z,0.9nm,0.8s,baz=289,slow=3.4,SNR=7.7						
DBIC	Dimbokro	124.57 301	PKP		PKPdf	15 27 12.6	-0.6
	comp=Z,5.3nm,1.1s,baz=348,slow=3.6,SNR=2.6						
PLCA	Paso Flores	158.68 133	PKPab		PKPab	15 28 46.4	+0.2
	comp=Z,1.4nm,0.8s,baz=180,slow=6.1,SNR=3.6						

*IDC **16** 15:35:31.9±1.0,27.68N×130.05E,h0km,mb3.9/6, mbtmp3.9/7,ML3.2/1, Error ellipse: s-maj=31.8km s-min=14.6km az=94.0*
*NEIC **16** 15:35:34.3±1.3,27.73N±0.05×129.88E±0.07,h10km±1km, mb4.6/22, Error ellipse: s-maj=10.3km s-min=9.2km az=101.0*
*JMA **16** 15:35:36.1±0.3,28.°N±1.°×13.°0E±.°,h72km±4km, MV2.9/19, NEAR AMAMI-OSHIMA ISLAND*
ISC 16 15:35:33.9±2.0,**27.66N**±0.03×**129.93E**±0.04,**h12**km±12km,
n51,σ0§**99**/59,**mb4.4**/15,**Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JZK	Kikaishima	0.65	3	P	Pn	15 35 50.0	+0.9
JAM	Amami Oshima	0.80	339	P	Pn	15 35 51.4	+0.3
JAM				*e*S	Sn	15 36 03.0	+0.1
JTK	Tokunoshima	0.88	278	P	Pn	15 35 52.5	+0.4
JTK				*e*S	Sn	15 36 05.0	+0.3
JAMN	Amaminishikomi	0.88	311	P	Pn	15 35 52.2	0.0
JOKE	Okinoerabujima	1.24	256	*e*P	Pg	15 35 57.7	-0.2
JYRO	Yoronjima	1.46	245	P	Pn	15 36 00.5	+0.4
JYRO				*e*S	Sn	15 36 18.6	-0.5
JTAJ	Takarajima	1.62	337	*e*P	Pn	15 36 00.6	-1.7
JOW	Kunigami	1.69	241	Pn	Pn	15 36 03.6	+0.3
	17nm,0.3s,baz=83,slow=17,SNR=33						
JOW	Kunigami	1.69	241		Pn	15 36 03.3	0.0
JOW	Kunigami	1.69	241	P	Pn	15 36 03.6	+0.3
JOW				*e*S	Sn	15 36 25.0	+0.1
JIH	Iheya	1.85	251	P	Pn	15 36 06.0	+0.5
JIH				*e*S	Sn	15 36 28.7	-0.1
JNTH	Nagotoyohara	2.04	237	P	Pn	15 36 08.2	+0.1
JNTH				*e*S	Sn	15 36 32.3	-1.3
JKDJ	Kitadaitoujima	2.10	144	*e*P	Pn	15 36 07.7	-1.2
JKDJ				*e*S	Sn	15 36 32.0	-2.8
JMZ	Minamidaito 2	2.17	147	Pn	Pn	15 36 10.8	+1.0
JJT3	Tamagusuku3	2.44	232	P	Pn	15 36 13.8	+0.2
JYAK	Yakushimahirau	2.62	11	*e*P	Pn	15 36 16.8	+0.7
JAGN	Aguni-jima	2.62	247	*e*P	Pn	15 36 16.6	+0.5
JMTN	Minamitane	2.86	17	*e*P	Pn	15 36 19.9	+0.6
JTN	Tanegashima 3	3.12	17	*e*P	Pn	15 36 23.7	+0.7
JSU	Suzuyama	3.86	7	Pn	Pn	15 36 32.2	-0.9
JNU	Nakatsue	5.50	8	Pn	Pn	15 36 56.8	+1.0
	0.7nm,0.3s,baz=211,slow=5.9,SNR=8.8						
JNU				Sn	Sn	15 37 57.8	-1.2
	baz=70,slow=18						
	7.2nm,0.7s						
JNU				AML	AML		
JMN	Monobe	6.94	28	Pn	Pn	15 37 13.5	-2.0
BJT	Baijiatuan	16.79	321	Pn	Pn	15 39 28.1	-0.8
ERM	Erimo	17.94	34	P	P	15 39 44.5	+0.7
ERM				IAmb	IAmb	15 40 09.6	
	comp=Z,104nm,1.3s						
YAK	Yakutsk	34.37	360	P	P	15 42 20.6	+0.2
YAK				IAmb	IAmb	15 42 23.2	
	comp=Z,9.7nm,1.1s						
SAUI	Saumlaki	35.46	178	P	P	15 42 30.9	+0.6
MTN	Manton Dam	40.28	178	P	P	15 43 11.9	+0.9
MTN				IAmb	IAmb	15 43 38.1	
	comp=Z,12nm,1.5s						
ZAA0	Zalesovo Array	42.05	321	P	P	15 43 25.1	-0.2
KNRA	Kununurra	43.09	182	P	P	15 43 34.6	+0.5
KNRA				IAmb	IAmb	15 44 10.3	
	comp=Z,12nm,1.4s						
KURK	Kurchatov	44.85	315	P	P	15 43 45.5	-2.4
KURBB	Kurchatov Arra	44.89	315	P	P	15 43 47.1	-1.1
	comp=Z,0.1nm,0.3s,baz=100,slow=9.7,SNR=1.6						
	comp=Z,0.1nm,0.3s						
KDJ	Kajisay	44.93	303	P	P	15 43 46.4	-2.5
KDJ				IAmb	IAmb	15 44 13.5	
	comp=Z,9.9nm,1.0s						
HNR	Honiara	46.95	138	P	P	15 44 05.3	+0.4
WB0	Warramunga Arr	47.34	174	P	P	15 44 08.2	+0.4
WB0				IAmb	IAmb	15 44 46.0	
	comp=Z,9.7nm,1.4s						
WRA	Warramunga Arr	47.51	174	P	P	15 44 08.3	-0.8
	comp=Z,1.4nm,0.6s,baz=354,slow=8.4,SNR=22						
	comp=Z,1.4nm,0.6s						
WRA	Warramunga Arr	47.51	174	P	P	15 44 08.6	-0.6
WR8	Warramunga Arr	47.54	174	P	P	15 44 09.9	+0.5
WR8				IAmb	IAmb	15 44 37.9	
	comp=Z,8.6nm,1.3s						
CTAO	Charters Tower	50.03	160	P	P	15 44 29.1	+0.6
CTAO				IAmb	IAmb	15 44 57.9	
	comp=Z,7.5nm,1.1s						
BVAR	Borovoye Array	50.24	317	P	P	15 44 30.0	+0.2
	comp=Z,0.3nm,0.5s,baz=106,slow=9.1,SNR=1.9						
	comp=Z,0.3nm,0.5s						
PALK	Pallekele	50.75	256	P	P	15 44 33.5	-0.7
AS31	Alice Springs	51.17	175	P	P	15 44 37.7	+0.7
ASAR	Alice Springs	51.17	175	P	P	15 44 37.7	+0.6
	comp=Z,1.0nm,0.7s,baz=6.8,slow=14,SNR=27						
	comp=Z,1.0nm,0.7s						
H22K	Ishtalitna Cre	60.50	28	P	P	15 45 45.0	+1.4
H22K				IAmb	IAmb	15 46 12.2	
	comp=Z,4.8nm,1.4s						
BWN	Browne	61.41	29	P	P	15 45 51.0	+1.4
TOO	Toolangi	66.51	167	P	P	15 46 25.0	+1.5
MHA	Mahukona	67.31	78	P	P	15 46 29.9	+0.8
O30N	Mendenhall	68.15	32	P	P	15 46 33.9	+0.2
O30N				IAmb	IAmb	15 47 12.2	
	comp=Z,18nm,1.5s						
FINES	FINESS Array B	72.36	331	P	P	15 46 58.5	-0.9
	comp=Z,2.0nm,0.9s,baz=72,slow=11,SNR=1.1						
	comp=Z,2.0nm,0.9s						
HFS	Hagfors	78.26	333	P	P	15 47 32.6	-0.8
	comp=Z,5.3nm,0.9s,baz=73,slow=4.8,SNR=3.5						
	comp=Z,5.3nm,0.9s						
MSEY	Mahe Island	78.48	259	P	P	15 47 34.7	-0.7
ESK	Eskdalemuir	88.15	335	P	P	15 48 24.5	0.0

*NORS **16** 15:37:21.6,41.°24N×43.°81E,h26km,MPVA3.4*
*AZER **16** 15:37:23.4,41.°02N×44.°22E,h8km,ml1.9*
ISC 16 15:37:24.6±1.9,**41.°34N**±0.°06×**44.°22E**±0.°08,**h10**km±14km,

comp=E,0.5nm,0.5s
CMAR AML AML
SONM Songino Array 17.19 355 P **Pn 15 58 54.4 -0.3**
comp=E,0.1nm,0.3s,baz=173,slow=13,SNR=2.1
comp=E,1.2nm,0.5s
SONM AML AML
SONM Songino Array 17.19 355 IAmb IAmb 15 58 56.3
comp=Z,1.4nm,0.8s
KSRS Korea Array 17.37 62 P **P 15 58 58.0 -0.1**
comp=Z,0.1nm,0.3s,baz=245,slow=11,SNR=4.4
comp=Z,1.0nm,0.7s
KSRS AML AML
TLY Talaya 21.27 352 LR LR 16 08 05.0
comp=Z,49nm,20.2s,baz=160,slow=37
MKAR Makanchi Array 25.88 316 P **P 16 00 26.7 +0.5**
comp=Z,0.6nm,0.6s,baz=120,slow=10,SNR=4.9
comp=Z,0.6nm,0.6s
PDGK Podgornoye 26.28 307 P **P 16 00 30.0 -0.1**
ZALV Zalesovo Beam 28.86 330 P **P 16 00 53.6 +0.6**
comp=Z,0.6nm,0.4s,baz=132,slow=12,SNR=3.3
comp=Z,0.6nm,0.4s
KURK Kurchatov 29.93 320 P **P 16 01 04.0 +1.5**
KURK Kurchatov 29.93 320 IAmb IAmb 16 01 40.8
comp=Z,4.3nm,1.4s
KURBB Kurchatov Arra 29.94 320 P **P 16 01 04.0 +1.5**
comp=Z,0.2nm,0.4s,baz=125,slow=9.9,SNR=1.8
comp=Z,0.2nm,0.4s
ARSB Arslanbob 30.49 300 P **P 16 01 07.2 -0.5**
ARSB IAmb IAmb 16 01 11.0
comp=Z,3.2nm,1.5s
ABKAR Akbulak array 40.82 311 P **P 16 02 36.1 +0.2**
TIXI Tiksi 42.45 9 P **P 16 02 48.6 -0.4**
TIXI IAmb IAmb 16 03 10.0
comp=Z,7.7nm,1.4s
FITZ Fitzroy Crossi 51.22 159 P **P 16 03 57.9 -0.3**
WB0 Warramunga Arr 55.98 150 P **P 16 04 31.8 -1.4**
WB0 IAmb IAmb 16 05 00.3
comp=Z,5.8nm,1.4s
WRAB Tennant Creek 56.11 150 P **P 16 04 33.5 -0.6**
WRA Warramunga Arr 56.12 150 P **P 16 04 34.0 -0.1**
comp=Z,1.0nm,0.7s,baz=340,slow=8.0,SNR=13
comp=Z,1.0nm,0.7s
WR8 Warramunga Arr 56.20 150 P **P 16 04 33.8 -0.9**
AS31 Alice Springs 59.27 153 P **P 16 04 55.6 -0.6**
AS31 IAmb IAmb 16 05 13.0
comp=Z,1.8nm,1.4s
ASAR Alice Springs 59.27 153 P **P 16 04 56.2 -0.1**
comp=Z,0.5nm,0.5s,baz=335,slow=6.8,SNR=19
comp=Z,0.5nm,0.5s
ASAR Alice Springs 59.27 153 P **P 16 04 55.5 -0.8**
SPU Mount Spurr 67.88 31 P **P 16 05 52.0 -0.8**
BMAR Burnt Mountain 68.14 23 P **P 16 05 55.0 +0.7**
IDI Anoyia 68.31 299 P **P 16 05 55.8 -0.1**
PRP Porcupine Dome 68.68 25 P **P 16 05 57.4 -0.4**
PRP IAmb IAmb 16 06 38.6
comp=Z,4.0nm,1.3s
I26K Coal Creek Min 69.66 25 P **P 16 06 03.2 -0.5**
I26K IAmb IAmb 16 06 33.3
comp=Z,5.2nm,1.3s

*SJA **16** 16:03:55.5±0.6,23.°58S×67.°88W,h160km,ML3.7,MW3.6*
*GUC **16** 16:03:57.0±0.6,23.°52S×67.°95W,h162km±4km,ML3.8, Presumed earthquake*

ISC 16 16:03:54.4±1.5,23.°60S±0.°03×67.°91W±0.°05, h172km±12km,n30,σ1ᵍ35/55,4C,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
AF01	**San Pedro de A**	**0.70**	**339**	*eP*			**Pn**	**16 04 20.2**	**+0.5**
AF01				*eS*			Sn	16 04 26.1	-13
AF01	**San Pedro de A**	**0.70**	**339**	*eP*			**Pn**	**16 04 19.8**	**+0.1**
AF01				*i S*			**Sn**	**16 04 37.3**	**-1.8**
AF01				IAML				16 04 39.4	
comp=E,1μm,0.4s									
SALTA		**1.56**	**114**	*eP*			**Pn**	**16 04 27.6**	**+0.7**
PB06	**IPOC Station P**	**1.78**	**300**	*eP*			**Pn**	**16 04 29.8**	**+1.1**
PB06				*eS*			**Sn**	**16 04 55.1**	**-0.1**
PB06				IAML				16 04 56.8	
comp=Z,623nm,0.1s									
PB06	**IPOC Station P**	**1.78**	**300**	⇑*iP*			**Pn**	**16 04 30.0**	**+1.3**
PB06				*eS*			**Sn**	**16 04 54.3**	**-0.9**
PB06				IAML				16 04 58.2	
comp=N,1μm,0.1s									
PB09	**IPOC Station P**	**2.18**	**325**	*eP*			**Pn**	**16 04 34.9**	**+1.7**
PB09				*eS*			**Sn**	**16 05 03.6**	**+0.4**
PB09				IAML				16 05 03.9	
comp=Z,307nm,0.5s									
PB09	**IPOC Station P**	**2.18**	**325**	*eP*			**Pn**	**16 04 34.5**	**+1.3**
PB09				*i S*			**Sn**	**16 05 02.8**	**-0.4**
PB09				IAML				16 05 04.6	
comp=N,307nm,0.4s									
PB05	**IPOC Station P**	**2.24**	**289**	*eP*			**Pn**	**16 04 34.9**	**+1.1**
PB05				*eS*			**Sn**	**16 05 04.2**	**-0.1**
PB05				IAML				16 05 08.2	
comp=Z,184nm,0.2s									
PB05	**IPOC Station P**	**2.24**	**289**	*eP*			**Pn**	**16 04 34.8**	**+1.0**
PB05				*i S*			**Sn**	**16 05 03.2**	**-1.1**
PB05				IAML				16 05 07.7	
comp=N,264nm,0.4s									
PB03	**IPOC Station P**	**2.30**	**312**	*eP*			**Pn**	**16 04 35.6**	**+1.0**
PB03				*eS*			**Sn**	**16 05 04.7**	**-1.0**
PB03				IAML				16 05 08.7	
comp=Z,496nm,0.3s									
PB03	**IPOC Station P**	**2.30**	**312**	*eP*			**Pn**	**16 04 35.6**	**+1.0**
PB03				*eS*			**Sn**	**16 05 04.2**	**-1.5**
PB03				IAML				16 05 07.0	
comp=E,534nm,0.2s									
PB10	**IPOC Station P**	**2.43**	**272**	*eP*			**Pn**	**16 04 37.6**	**+1.7**
PB10				*eS*			**Sn**	**16 05 08.7**	**+0.6**
PB10				IAML				16 05 14.7	
comp=Z,188nm,0.4s									
PB10	**IPOC Station P**	**2.43**	**272**	⇑*iP*			**Pn**	**16 04 37.5**	**+1.6**
PB10				*i S*			**Sn**	**16 05 07.0**	**-1.1**
PB10				IAML				16 05 12.2	
comp=N,246nm,0.2s									
SLA	**San Lorenzo**	**2.46**	**117**	*eP*			**Pn**	**16 04 38.8**	**+2.4**
PB14	**IPOC Station P**	**2.50**	**245**	*eP*			**Pn**	**16 04 38.5**	**+1.5**
PB14				*eS*			**Sn**	**16 05 10.4**	**+0.4**
PB14				IAML				16 05 13.2	
comp=Z,274nm,0.3s									
PB14	**IPOC Station P**	**2.50**	**245**	*eP*			**Pn**	**16 04 38.3**	**+1.3**
PB14				*i S*			**Sn**	**16 05 10.0**	**0.0**
PB14				IAML				16 05 11.0	
comp=E,312nm,0.4s									
PB07	**IPOC Station P**	**2.62**	**315**	*eP*			**Pn**	**16 04 39.2**	**+1.0**
PB07				*eS*			**Sn**	**16 05 12.0**	**-0.3**
PB07				IAML				16 05 12.7	
comp=Z,342nm,0.2s									
PB07	**IPOC Station P**	**2.62**	**315**	⇑*iP*			**Pn**	**16 04 39.2**	**+1.0**
PB07				*eS*			**Sn**	**16 05 10.7**	**-1.5**
PB07				IAML				16 05 11.8	
comp=N,390nm,0.3s									
YJA	**Yavi**	**2.62**	**58**	*eP*			**Pn**	**16 04 40.1**	**+1.5**
PB02	**IPOC Station P**	**2.93**	**321**	*eP*			**Pn**	**16 04 43.0**	**+1.1**
PB02				*eS*			**Sn**	**16 05 17.6**	**-1.2**
PB02				IAML				16 05 22.1	
comp=Z,260nm,0.2s									
PB02	**IPOC Station P**	**2.93**	**321**	⇑*iP*			**Pn**	**16 04 42.6**	**+0.6**
PB02				*eS*			**Sn**	**16 05 16.9**	**-1.9**
PB02				IAML				16 05 23.8	
comp=E,299nm,0.3s									
AC02	**Maricunga**	**3.40**	**199**	*eP*			**Pn**	**16 04 49.9**	**+1.7**
AC02				*eS*			**Sn**	**16 05 27.0**	**-3.1**
AC01	**Pan de Azucar**	**3.52**	**223**	*eP*			**Pn**	**16 04 49.8**	**+0.6**
AC01				*eS*			**Sn**	**16 05 31.5**	**-0.5**
AC01				IAML				16 05 33.4	
comp=Z,95nm,0.4s									
AC01	**Pan de Azucar**	**3.52**	**223**	*eP*			**Pn**	**16 04 49.6**	**+0.4**
AC01				*i S*			**Sn**	**16 05 30.7**	**-1.3**
TA01	**Diego Aracena**	**3.69**	**325**	*eP*			**Pn**	**16 04 52.7**	**+1.4**
TA01				*i S*			**Sn**	**16 05 34.8**	**-1.0**
PB11	**IPOC Station P**	**4.16**	**337**	*eP*			**Pn**	**16 04 58.0**	**+0.5**
PB11				*eS*			**Sn**	**16 05 45.2**	**-1.6**
PB11	**IPOC Station P**	**4.16**	**337**	*eP*			**Pn**	**16 04 57.3**	**-0.2**
PB11				*i S*			**Sn**	**16 05 43.8**	**-3.0**
AC06	**Mina Casimiro**	**4.34**	**210**	*eP*			**Pn**	**16 05 00.4**	**+0.7**
AC06				*i S*			**Sn**	**16 05 47.9**	**-3.0**
PSGCX	**Pisagua**	**4.49**	**332**	*eP*			**Pn**	**16 05 03.2**	**+1.5**
PSGCX				*eS*			Sn	16 05 40.0	-14
GO03	**Copiapo**	**4.50**	**207**	*eP*			**Pn**	**16 05 02.0**	**+0.3**
GO03				*i S*			**Sn**	**16 05 53.5**	**-1.0**

*IDC **16** 16:14:40.0±0.8,27.°76N×129.°96E,h0km,mb3.8/12, mbtmp3.7/15,ML3.0/2,MS3.2/2,Error ellipse: s-maj=21.5km s-min=11.9km az=108.0*
*NEIC **16** 16:14:42.1±1.7,27.°68N±0.°02×129.°95E±0.°07,h10km±1km, mb4.6/16,Error ellipse: s-maj=10.7km s-min=4.0km az=89.0*
*JMA **16** 16:14:43.5±0.3,28.°1N±1.°×13.°0E±.°,h72km,MV3.1/13, NEAR AMAMI-OSHIMA ISLAND*

ISC 16 16:14:44.9±0.5,27.°68N±0.°04×129.°93E±0.°05,h34km,n51, σ1ᵍ07/54,mb4.1/20,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.63**	**4**	P			**Pn**	**16 14 57.5**	**+0.1**
JZK				*eS*			**Sb**	**16 15 08.7**	**+2.3**
JAM	**Amami Oshima**	**0.78**	**339**	P			**Pn**	**16 14 58.8**	**-0.7**
JAM				*eS*			**Sb**	**16 15 10.4**	**0.0**
JAMN	**Amaminishikomi**	**0.87**	**310**	P			**Pn**	**16 14 59.8**	**-0.9**
JTK	**Tokunoshima**	**0.87**	**277**	P			**Pn**	**16 15 00.1**	**-0.6**
JTK				*eS*			**Sb**	**16 15 12.9**	**-0.1**
JOKE	**Okinoerabujima**	**1.25**	**255**	P			**Pn**	**16 15 05.5**	**-0.4**
JYRO	**Yoronjima**	**1.47**	**244**	P			**Pn**	**16 15 08.1**	**-0.8**
JTAJ	**Takarajima**	**1.60**	**337**	P			**Pn**	**16 15 09.9**	**-0.8**
JOW	**Kunigami**	**1.70**	**240**	Pn			**Pn**	**16 15 11.4**	**-0.7**
24nm,0.3s,baz=96,slow=26,SNR=12									
JOW							Sn	**Sn**	**16 15 32.0**	**-0.7**
56nm,0.3s,baz=161,slow=25,SNR=7.9									
JOW	**Kunigami**	**1.70**	**240**				**Pn**	**16 15 11.1**	**-1.0**
JOW	**Kunigami**	**1.70**	**240**	P			**Pn**	**16 15 11.0**	**-1.1**
JIH	**Iheya**	**1.86**	**250**	P			**Pn**	**16 15 13.9**	**-0.4**
JNTH	**Nagoyoyohara**	**2.06**	**236**	P			**Pn**	**16 15 15.9**	**-1.1**
JMZ	**Minamidaito 2**	**2.19**	**148**	Pn			**Pn**	**16 15 16.8**	**-2.0**
JSU	**Suzuyama**	**3.84**	**7**				**Pn**	**16 15 40.5**	**-1.0**
JNU	**Nakatsue**	**5.48**	**8**	Pn			**Pn**	**16 16 04.7**	**+0.5**
1.1nm,0.3s,baz=196,slow=14,SNR=13									
JNU							Sn	**Sn**	**16 17 02.0**	**-4.1**
baz=235,slow=12									
7.0nm,0.6s									
JNU					AML		AML		
JMN	**Monobe**	**6.92**	**28**	Pn			**Pn**	**16 16 23.2**	**-0.7**
KSRS	**Korea Array**	**9.89**	**351**	Pn			**Pn**	**16 17 04.5**	**-0.1**
0.5nm,0.6s,baz=159,slow=14,SNR=1.8									
MJAR	**Matsushiro Arr**	**11.28**	**36**	Pn			**Pn**	**16 17 24.0**	**+0.4**
baz=211,slow=13,SNR=1.4									
0.6nm,0.7s									
GUMO	**Guam**	**19.77**	**132**	LR			LR	16 25 26.2	
comp=Z,19nm,19.2s,baz=349,slow=33									
CMAR	**Chiang Mai Arr**	**29.88**	**259**	P			**P**	**16 20 50.5**	**+1.0**
0.4nm,0.5s,baz=55,slow=7.4,SNR=4.3									
0.4nm,0.5s									
CMAR	**Chiang Mai Arr**	**29.88**	**259**	P			**P**	**16 20 48.6**	**-0.9**
FAKI	**Fak Fak**	**30.50**	**175**	P			**P**	**16 20 56.0**	**+1.1**
FAKI				IAmb			IAmb	16 20 59.3	
comp=Z,18nm,1.1s									
SAUI	**Saumlaki**	**35.48**	**178**	P			**P**	**16 21 39.1**	**+0.7**
SMRI	**Semarang**	**39.34**	**211**	P			**P**	**16 22 11.6**	**+0.5**
MKAR	**Makanchi Array**	**41.73**	**310**	P			**P**	**16 22 28.8**	**-1.8**
comp=Z,0.8nm,0.8s,baz=75,slow=11,SNR=2.8									
comp=Z,0.8nm,0.8s									
ZALV	**Zalesovo Beam**	**42.04**	**321**	P			**P**	**16 22 30.7**	**-2.2**
comp=Z,0.3nm,0.4s,baz=105,slow=8.6,SNR=1.7									
comp=Z,0.3nm,0.4s									
KNRA	**Kununurra**	**43.12**	**182**	P			**P**	**16 22 42.4**	**+0.4**
KNRA				IAmb			IAmb	16 23 25.4	
comp=Z,8.0nm,1.1s									
PDGK	**Podgornoye**	**43.27**	**305**	P			**P**	**16 22 42.4**	**-0.9**
TARG	**Taragay, Kyrgy**	**44.44**	**302**	P			**P**	**16 22 52.2**	**-0.8**
TARG				IAmb			IAmb	16 23 05.2	
comp=Z,4.5nm,1.0s									
KURK	**Kurchatov**	**44.83**	**315**	P			**P**	**16 22 54.9**	**-0.7**
KURBB	**Kurchatov Arra**	**44.87**	**315**	P			**P**	**16 22 54.9**	**-1.0**
comp=Z,0.3nm,0.5s,baz=99,slow=9.2,SNR=3.7									
comp=Z,0.3nm,0.5s									
WB0	**Warramunga Arr**	**47.37**	**174**	P			**P**	**16 23 16.1**	**+0.3**
WB0				IAmb			IAmb	16 23 48.3	
comp=Z,6.9nm,1.4s									
WRA	**Warramunga Arr**	**47.53**	**174**	P			**P**	**16 23 17.1**	**0.0**
comp=Z,1.3nm,0.6s,baz=354,slow=8.3,SNR=18									
comp=Z,1.3nm,0.6s									
WRA	**Warramunga Arr**	**47.53**	**174**	IAmb			IAmb	16 23 18.0	
comp=Z,2.2nm,1.1s									
WR8	**Warramunga Arr**	**47.56**	**174**	P			**P**	**16 23 17.4**	**+0.1**
WR8				IAmb			IAmb	16 23 47.1	
comp=Z,12nm,1.5s									
KKAR	**Karatay Array**	**49.83**	**304**	P			**P**	**16 23 34.4**	**-0.2**
CTAO	**Charters Tower**	**50.05**	**160**	P			**P**	**16 23 37.3**	**+0.9**
CTAO				IAmb			IAmb	16 23 53.8	
comp=Z,14nm,1.4s									
BORK	**Borovoye**	**50.26**	**317**	P			**P**	**16 23 37.8**	**0.0**
BORK				IAmb			IAmb	16 23 48.1	
comp=Z,1.9nm,0.8s									
AS31	**Alice Springs**	**51.19**	**175**	P			**P**	**16 23 45.5**	**+0.5**
ASAR	**Alice Springs**	**51.19**	**175**	P			**P**	**16 23 45.6**	**+0.6**
comp=Z,0.7nm,0.8s,baz=7.2,slow=14,SNR=26									
comp=Z,0.7nm,0.8s									
K13K	**Kusilvak Mount**	**54.43**	**32**	P			**P**	**16 24 09.3**	**+0.8**
BYL	**Byron's Ledge**	**68.16**	**79**	P			**P**	**16 25 42.1**	**-0.2**
FINES	**FÍNESS Array B**	**72.35**	**331**	P			**P**	**16 26 07.3**	**+0.3**
comp=Z,2.6nm,0.7s,baz=87,slow=4.0,SNR=8.7									
FINES							LR	LR	17 03 27.5
comp=Z,55nm,19.2s,baz=235,slow=40									
comp=Z,2.6nm,0.7s									
AKASG	**Malin Array Be**	**75.41**	**320**	P			**P**	**16 26 26.2**	**+1.1**
comp=Z,1.0nm,0.5s,baz=66,slow=5.8,SNR=4.6									
comp=Z,1.0nm,0.5s									
BRTR	**Keskin Array B**	**77.33**	**308**	P			**P**	**16 26 35.9**	**-0.6**
comp=Z,0.7nm,0.8s,baz=101,slow=4.6,SNR=3.7									
comp=Z,0.7nm,0.8s									
HFS	**Hagfors**	**78.24**	**333**	P			**P**	**16 26 41.2**	**+0.4**
comp=Z,1.4nm,0.6s,baz=331,slow=5.1,SNR=1.6									
comp=Z,1.4nm,0.6s									
NB201	**NORSAR Array S**	**78.64**	**334**	P			**P**	**16 26 43.7**	**+0.5**
NB201				IAmb			IAmb	16 27 17.0	
comp=Z,20nm,1.3s									
NB2	**NORSAR Subarra**	**78.68**	**334**	P			**P**	**16 26 43.9**	**+0.5**
comp=Z,3.4nm,0.8s,baz=52,slow=5.9									
NOA	**NORSAR Array B**	**78.68**	**334**	P			**P**	**16 26 43.5**	**+0.1**
comp=Z,1.3nm,0.8s,baz=51,slow=5.3,SNR=3.8									
comp=Z,1.3nm,0.8s									
GERES	**GERESS Array B**	**84.95**	**323**	P			**P**	**16 27 17.9**	**+1.2**
comp=Z,0.4nm,0.7s,baz=83,slow=3.1,SNR=4.2									
comp=Z,0.4nm,0.7s									
CCCA	**Chr Cany lake**	**90.68**	**49**	P			**P**	**16 27 43.3**	**-1.1**

*SJA **16** 16:41:19.2±0.7,23.°93S×66.°84W,h220km±8km,ML4.3, MW3.9*
*IDC **16** 16:41:20.1±1.7,23.°86S×66.°79W,h192km±16km,mb3.5/8, mbtmp3.9/14,Error ellipse: s-maj=19.3km s-min=13.3km az=81.0*
*NEIC **16** 16:41:20.3±1.6,23.°94S±0.°07×66.°8W±0.°1,h197km±6km, mb4.5/8,ML4.2(GUC),Error ellipse: s-maj=13.8km s-min=10.8km az=90.0*
*GUC **16** 16:41:21.8±0.6,23.°85S×67.°12W,h229km±8km,ML4.2, Presumed earthquake*
*VAO **16** 16:41:26.9±2.2,23.°62S×66.°32W,h230km,mb4.2, Presumed earthquake*

ISC 16 16:41:19.7±0.5,23.°89S±0.°04×66.°86W±0.°05,h200km,n94, σ1ᵍ74/119,mb3.9/8,11C,Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SALTA		**0.58**	**125**	*eP*			**Pn**	**16 41 49.5**	**+1.8**
SALTA				*eS*			Sn	16 42 19.1	+10
SLA	**San Lorenzo**	**1.49**	**124**	*eP*			**Pn**	**16 41 55.2**	**+1.7**
SLA				*eS*			**Sn**	**16 42 19.6**	**-0.2**
AF01	**San Pedro de A**	**1.53**	**307**	*eP*			**Pn**	**16 41 56.7**	**+2.6**
AF01	**San Pedro de A**	**1.53**	**307**				**Pn**	**16 41 56.6**	**+2.6**
AF01	**San Pedro de A**	**1.53**	**307**	⇑*iP*			**Pn**	**16 41 56.6**	**+2.6**
YJA	**Yavi**	**2.11**	**36**	*eP*			**Pn**	**16 42 02.2**	**+2.3**
PB06	**IPOC Station P**	**2.76**	**295**	*eP*			**Pn**	**16 42 08.3**	**+1.6**
PB06				*eS*			**Sn**	**16 42 44.3**	**+0.9**
PB06	**IPOC Station P**	**2.76**	**295**	Pn			**Pn**	**16 42 08.1**	**+1.4**
PB06	**IPOC Station P**	**2.76**	**295**	⇑*iP*			**Pn**	**16 42 08.3**	**+1.6**
PB06				*i S*			**Sn**	**16 42 43.1**	**-0.2**
PB06				IAML				16 42 48.3	
comp=N,518nm,0.2s									
PB09	**IPOC Station P**	**3.03**	**313**	*eP*			**Pn**	**16 42 11.9**	**+2.0**
PB09				*eS*			**Sn**	**16 42 50.6**	**+1.6**
PB09				IAML				16 42 53.7	
comp=Z,297nm,0.4s									
PB09	**IPOC Station P**	**3.03**	**313**				**Pn**	**16 42 11.6**	**+1.7**
PB09	**IPOC Station P**	**3.03**	**313**	⇑*iP*			**Pn**	**16 42 11.8**	**+2.0**
PB09				*i S*			**Sn**	**16 42 49.8**	**+0.7**
PB09				IAML				16 42 52.9	
comp=E,306nm,0.4s									
PB03	**IPOC Station P**	**3.23**	**304**	*eP*			**Pn**	**16 42 13.6**	**+1.2**
PB03				*eS*			**Sn**	**16 42 53.6**	**+0.1**
PB03				IAML				16 42 56.6	
comp=Z,398nm,0.2s									
PB03	**IPOC Station P**	**3.23**	**304**				**Pn**	**16 42 13.4**	**+1.2**
PB03	**IPOC Station P**	**3.23**	**304**	⇑*iP*			**Pn**	**16 42 13.6**	**+1.2**
PB03				*eS*			**Sn**	**16 42 51.3**	**-2.1**
PB05	**IPOC Station P**	**3.24**	**288**	*eP*			**Pn**	**16 42 13.4**	**+1.1**
PB05				*eS*			**Sn**	**16 42 54.7**	**+1.2**
PB05	**IPOC Station P**	**3.24**	**288**				**Pn**	**16 42 13.2**	**+0.9**
PB05	**IPOC Station P**	**3.24**	**288**	⇑*iP*			**Pn**	**16 42 13.2**	**+0.9**
PB05				*eS*			**Sn**	**16 42 51.9**	**-1.5**
PB14	**IPOC Station P**	**3.32**	**256**	*eP*			**Pn**	**16 42 14.6**	**+1.2**
PB14				*eS*			**Sn**	**16 42 55.3**	**-0.1**
PB14				IAML				16 43 00.6	
comp=Z,290nm,0.4s									
PB14	**IPOC Station P**	**3.32**	**256**				**Pn**	**16 42 14.1**	**+0.6**
PB14	**IPOC Station P**	**3.32**	**256**	⇑*iP*			**Pn**	**16 42 14.2**	**+0.8**
PB14				*i S*			**Sn**	**16 42 53.0**	**-2.4**
PB10	**IPOC Station P**	**3.41**	**276**	*eP*			**Pn**	**16 42 15.5**	**+1.2**
PB10				*eS*			**Sn**	**16 42 58.2**	**+1.3**
PB10	**IPOC Station P**	**3.41**	**276**				**Pn**	**16 42 15.2**	**+1.0**
PB10	**IPOC Station P**	**3.41**	**276**	⇑*iP*			**Pn**	**16 42 15.4**	**+1.2**
PB10				*i S*			**Sn**	**16 42 56.2**	**-0.6**
PB07	**IPOC Station P**	**3.52**	**307**	*eP*			**Pn**	**16 42 16.8**	**+1.0**
PB07				*eS*			**Sn**	**16 42 59.2**	**-0.5**
PB07				IAML				16 43 03.6	
comp=Z,313nm,0.4s									
PB07	**IPOC Station P**	**3.52**	**307**				**Pn**	**16 42 16.4**	**+0.6**
PB07	**IPOC Station P**	**3.52**	**307**	⇑*iP*			**Pn**	**16 42 16.9**	**+1.0**
PB07				*i S*			**Sn**	**16 42 57.9**	**-1.8**
AC02	**Maricunga**	**3.58**	**214**	*eP*			**Pn**	**16 42 18.2**	**+1.4**
AC02				*eS*			**Sn**	**16 43 07.8**	**+6.2**
AC02	**Maricunga**	**3.58**	**214**				**Pn**	**16 42 17.6**	**+0.8**
AC02	**Maricunga**	**3.58**	**214**	⇑*eP*			**Pn**	**16 42 18.0**	**+1.2**
AC02				*i S*			**Sn**	**16 43 03.7**	**+2.1**
PB02	**IPOC Station P**	**3.79**	**312**	*eP*			**Pn**	**16 42 19.9**	**+0.8**
PB02				*eS*			**Sn**	**16 43 04.8**	**-0.9**
PB02				IAML				16 43 08.5	
comp=Z,420nm,0.3s									
PB02	**IPOC Station P**	**3.79**	**312**				**Pn**	**16 42 19.5**	**+0.4**
PB02	**IPOC Station P**	**3.79**	**312**	⇑*iP*			**Pn**	**16 42 19.7**	**+0.6**
PB02				*i S*			**Sn**	**16 43 03.8**	**-1.9**
AC01	**Pan de Azucar**	**4.07**	**236**				**Pn**	**16 42 21.9**	**-0.5**
AC01	**Pan de Azucar**	**4.07**	**236**	*eP*			**Pn**	**16 42 22.0**	**-0.3**
AC01				*eS*			**Sn**	**16 43 08.4**	**-3.2**
TA01	**Diego Aracena**	**4.52**	**316**	*eP*			**Pn**	**16 42 28.2**	**+0.2**
TA01				*eS*			**Sn**	**16 43 21.2**	**-0.5**
TA01				IAML				16 43 27.1	
comp=Z,552nm,2.1s									
TA01	**Diego Aracena**	**4.52**	**316**	*eP*			**Pn**	**16 42 28.8**	**+0.8**
TA01				*i S*			**Sn**	**16 43 19.7**	**-2.0**
AC06	**Mina Casimiro**	**4.68**	**222**				**Pn**	**16 42 29.5**	**-0.5**
AC06	**Mina Casimiro**	**4.68**	**222**	⇑*eP*			**Pn**	**16 42 29.3**	**-0.7**
AC06				*i S*			**Sn**	**16 43 23.1**	**-2.3**
TA02	**Huaiquique**	**4.71**	**319**	*i S*			**Sn**	**16 43 24.5**	**-1.6**
GO01	**Chusmiza**	**4.73**	**332**				**Pn**	**16 42 31.2**	**0.0**
GO03	**Copiapo**	**4.78**	**219**				**Pn**	**16 42 30.8**	**-0.6**
GO03	**Copiapo**	**4.78**	**219**	*eP*			**Pn**	**16 42 30.7**	**-0.7**
GO03				*i S*			**Sn**	**16 43 25.0**	**-2.9**
PB11	**IPOC Station P**	**4.86**	**327**	*eP*			**Pn**	**16 42 32.6**	**+0.1**
PB11				*eS*			**Sn**	**16 43 27.8**	**-2.1**
PB11				IAML				16 43 31.3	
comp=Z,195nm,0.2s									
PB11	**IPOC Station P**	**4.86**	**327**				**Pn**	**16 42 32.6**	**+0.1**
PSGCX	**Pisagua**	**5.24**	**324**	*eP*			**Pn**	**16 42 36.5**	**-0.8**
PSGCX				*eS*			**Sn**	**16 43 34.8**	**-3.7**
PSGCX				IAML				16 43 38.2	
comp=Z,103nm,0.6s									
PB12	**IPOC Station P**	**6.16**	**328**				**Pn**	**16 42 48.2**	**-1.0**
LPAZ	**La Paz**	**7.66**	**351**	P			**Pn**	**16 43 10.8**	**+1.6**
comp=Z,1.4nm,0.3s,baz=148,slow=7.9,SNR=13									
LPAZ				S			**Sn**	**16 44 33.0**	**-3.1**
comp=Z,2.2nm,0.7s,baz=293,slow=14,SNR=4.2									
LPAZ	**La Paz**	**7.66**	**351**				**Pn**	**16 43 09.6**	**+0.5**
CFA	**Coronel Fontan**	**7.78**	**189**	P			**Pn**	**16 43 09.9**	**-0.2**

*IDC **16** 16:43:01.4±1.3,52.°88N×167.°10W,h0^{km},mb3.6/5, mbtmp3.6/7,ML3.3/3,MS2.9/7,Error ellipse: s-maj=39.9km s-min=18.7km az=157.0*
*AEIC **16** 16:43:06.3±1.0,53.°31N±0.°07×167.°39W±0.°06,h38^{km}±5^{km}, Error ellipse: s-maj=11.5km s-min=3.4km az=158.0*
*NEIC **16** 16:43:06.8±1.0,53.°31N±0.°07×167.°37W±0.°05,h36^{km}±8^{km}, mb4.1/23,ML3.9/18,ML3.7(AEIC),Error ellipse: s-maj=10.5km s-min=2.9km az=162.0*

ISC 16 16:43:06.9±0.7,53.°32N±0.°08×167.°36W±0.°05,h39^{km}±2^{km}, n86,σ0°99/84,mb4.1/14,MS2.6/5,Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKFG	**Magazine Ridge**	**0.34**	**286**		**Pn**	**16 43 15.1**	**-0.4**
OKFG					**Sn**	**16 43 21.4**	**-0.5**
OKTU	**Okmok Mt. Tuli**	**0.41**	**279**		**Pn**	**16 43 16.1**	**-0.3**
OKNC	**Okmok New Cone**	**0.48**	**287**		**Pn**	**16 43 16.8**	**-0.5**
OKNC					**Sn**	**16 43 24.0**	**-0.5**
OKNC				IAML		16 43 25.3	
	comp=E,4μm,0.7s						
OKNC				IAML		16 43 28.1	
	comp=N,4μm,0.2s						
OKCE	**Okmok Cone E**	**0.49**	**283**		**Pn**	**16 43 17.3**	**-0.2**
MAPS	**Pakushin South**	**0.55**	**27**		**Pn**	**16 43 17.7**	**-0.6**
MAPS					**Sn**	**16 43 25.9**	**-0.4**
MGOD	**Makushin Gods**	**0.56**	**31**		**Pn**	**16 43 17.7**	**-0.7**
MGOD					**Sn**	**16 43 26.6**	**0.0**
MSW	**Makushin Switc**	**0.69**	**30**		**Pn**	**16 43 19.8**	**-0.3**
MSW					**Sn**	**16 43 29.8**	**+0.1**
MNAT	**Makushin Natee**	**0.69**	**35**		**Pn**	**16 43 19.8**	**-0.4**
MNAT					**Sn**	**16 43 30.0**	**+0.2**
MTBL	**Makushin Table**	**0.77**	**32**		**Pn**	**16 43 21.3**	**0.0**
MTBL					**Sn**	**16 43 32.6**	**+1.0**
AKRB	**Akutan Reef Bi**	**1.12**	**43**		**Sn**	**16 43 42.4**	**+2.3**
ZRO	**Akutan Zero**	**1.13**	**46**		**Sn**	**16 43 41.9**	**+1.5**
AKBBA	**Akutan Broad B**	**1.15**	**47**		**Sn**	**16 43 43.2**	**+2.2**
LVA	**Lava Point**	**1.15**	**42**		**Pn**	**16 43 26.9**	**+0.4**
LVA				IAML		16 43 50.1	
	comp=E,4μm,0.5s						
LVA	**Lava Point**	**1.15**	**42**		**Sn**	**16 43 43.2**	**+2.2**
AKLV	**Akutan Long Va**	**1.19**	**44**		**Sn**	**16 43 44.0**	**+2.2**
AKGG	**Akutan Green G**	**1.20**	**42**		**Pn**	**16 43 27.7**	**+0.6**
AKGG					**Sn**	**16 43 44.8**	**+2.7**
AKUT	**Akutan**	**1.25**	**48**		**Pn**	**16 43 27.9**	**+0.2**
AKUT				IAML		16 43 47.0	
	comp=N,2μm,0.6s						
CLCO	**Concord Point,**	**1.52**	**250**		**Pn**	**16 43 31.4**	**-0.1**
CLCO					**Sn**	**16 43 50.1**	**0.0**
CLES	**Cleveland East**	**1.61**	**253**	Pn	**Pn**	**16 43 32.6**	**-0.1**
WECS	**Westdahl Cape**	**1.95**	**50**		**Pn**	**16 43 38.5**	**+1.1**
WECS				IAML		16 44 07.8	
	comp=E,1μm,0.7s						
WECS				IAML		16 44 17.1	
	comp=N,1μm,0.6s						
WEBT	**Westdahl Beart**	**2.00**	**49**		**Pn**	**16 43 39.0**	**+1.0**
WEBT					**Sn**	**16 44 03.0**	**+1.2**
WESN	**West Dahl Nort**	**2.06**	**52**		**Pn**	**16 43 39.5**	**+0.5**
WTUG	**Tugumak**	**2.33**	**48**		**Pn**	**16 43 43.0**	**+0.4**
SSSN	**Shishaldin**	**2.40**	**51**		**Pn**	**16 43 44.4**	**+0.8**
ISNN	**Isanotski Nort**	**2.60**	**53**		**Pn**	**16 43 47.2**	**+0.9**
DT1	**Dutton Round H**	**3.48**	**57**		**Pn**	**16 43 58.5**	**+0.1**
DTNA	**Dutton South F**	**3.51**	**56**		**Pn**	**16 44 00.1**	**+1.2**
S12K	**Black Hills**	**3.90**	**50**	Pn	**Pn**	**16 44 05.3**	**+1.1**
SPIA	**Saint Paul Isl**	**4.21**	**338**	Pn	**Pn**	**16 44 08.1**	**-0.2**
SPIA				IAML		16 45 03.4	
	comp=E,177nm,1.0s						
SPIA				IAML		16 46 42.5	
	comp=N,169nm,1.0s						
SDPT	**Sand Point**	**4.51**	**60**		**Pn**	**16 44 13.8**	**+1.3**
SDPT	**Sand Point**	**4.51**	**60**	IAML		16 45 26.2	
	comp=N,110nm,1.0s						
SDPT				IAML		16 45 30.4	
	comp=E,87nm,1.2s						
CNBA	**Chernabura Isl**	**4.82**	**69**	Pn	**Pn**	**16 44 16.7**	**0.0**
GSCK	**Great Sitkin C**	**5.52**	**260**		**Pn**	**16 44 28.4**	**+2.0**
KIWB	**Kanaga Island**	**6.15**	**260**	Pn	**Pn**	**16 44 35.2**	**+0.1**
N15K	**Kwethluk River**	**7.94**	**27**		**Pn**	**16 44 59.7**	**+0.1**
O16K	**Kokwok River B**	**8.11**	**35**		**Pn**	**16 45 02.0**	**+0.1**
KDAK	**Kodiak Island**	**9.49**	**56**	Pn	**Pn**	**16 45 19.7**	**-1.0**
	comp=E,0.7nm,0.3s,baz=149,slow=2.5,SNR=9.8						
KDAK				Sn	**Sn**	**16 47 02.2**	**-3.7**
	baz=155,slow=21,SNR=1.1						
KDAK				LR	LR	16 49 37.3	
	comp=E,89nm,19.4s,baz=232,slow=41						
	comp=E,1.8nm,0.3s						
KDAK				AML	AML		
L19K	**White Mountain**	**11.09**	**32**	Pn	**Pn**	**16 45 43.5**	**+0.7**
FID	**Port Fidalgo**	**13.54**	**48**	Pn	**Pn**	**16 46 14.8**	**-1.2**
SCM	**Sheep Creek Mo**	**13.66**	**43**	Pn	**Pn**	**16 46 17.6**	**-0.3**
KLU	**Klutina**	**14.10**	**46**		**Pn**	**16 46 23.2**	**-0.6**
GLB	**Gilahina Butte**	**15.00**	**48**	Pn	**Pn**	**16 46 35.8**	**-0.1**
GLB				IAmb	IAmb	16 47 18.4	
	comp=Z,14nm,1.5s						
MCARA	**McCarthy VSAT**	**15.34**	**49**	Pn	**Pn**	**16 46 40.2**	**0.0**
MCARA				IAmb	IAmb	16 47 14.2	
	comp=Z,15nm,1.3s						
ILAR	**Eielson Array**	**15.48**	**34**	Pn	**Pn**	**16 46 43.0**	**+1.0**
	comp=Z,0.1nm,0.3s,baz=234,slow=12,SNR=4.5						
ILAR				LR	LR	16 52 48.8	
	comp=Z,69nm,19.3s,baz=254,slow=37						
	comp=Z,0.3nm,0.8s						
ILAR				AML	AML		
RIDG	**Independent Ri**	**15.62**	**39**	Pn	**Pn**	**16 46 44.7**	**+0.7**
BARN	**Barnard Glacie**	**15.85**	**51**	Pn	**Pn**	**16 46 46.6**	**-0.4**
M27K	**Edge Creek, AK**	**16.20**	**46**	Pn	**Pn**	**16 46 51.7**	**+0.3**
O28M	**Mount Upton**	**16.46**	**52**	P	**P**	**16 46 56.9**	**-0.4**
O28M				IAmb	IAmb	16 47 01.4	
	comp=Z,12nm,1.4s						
BCAR	**Beaver Creek A**	**16.52**	**44**	Pn	**Pn**	**16 46 55.3**	**-0.1**
M29M	**Somme Creek**	**17.72**	**48**		**P**	**16 47 10.5**	**-0.5**
K29M	**Barlow Dome**	**18.59**	**44**	P	**Pn**	**16 47 20.9**	**-0.1**
H29M	**Whitestone**	**19.25**	**37**	P	**P**	**16 47 27.4**	**-0.1**
H29M				IAmb	IAmb	16 47 46.8	
	comp=Z,17nm,1.4s						
C26K	**Camden Bay**	**19.55**	**23**	P	**Pn**	**16 47 31.6**	**-0.7**
C26K				IAmb	IAmb	16 47 36.8	
	comp=Z,11nm,1.2s						
PEA0B	**Petropavlovsk-**	**20.81**	**284**	P	**P**	**16 47 45.3**	**+0.7**
PETK	**Petropavlovsk-**	**20.81**	**284**	P	Pn	16 47 47.1	0.0
	comp=Z,1.0nm,0.3s,baz=82,slow=13,SNR=29						
PETK				LR	LR	16 54 32.8	
	comp=Z,18nm,21.4s,baz=55,slow=33						
	comp=Z,1.0nm,0.3s						
BBB	**Bella Bella**	**23.58**	**77**	LR	LR	16 54 13.8	
	comp=Z,21nm,21.6s,baz=190,slow=29						
YKA	**Yellowknife Ar**	**28.70**	**50**	P	**P**	**16 48 59.5**	**-0.3**
	comp=Z,0.2nm,0.4s,baz=278,slow=9.5,SNR=1.8						
	comp=Z,0.2nm,0.4s						
NEW	**Newport**	**31.61**	**79**	LR	LR	17 00 16.0	
	comp=Z,38nm,18.6s,baz=348,slow=33						
MCMT	**McKenzie Canyo**	**35.91**	**81**	P	**P**	**16 50 03.5**	**+0.2**
YHL	**Hebgen Lake**	**36.88**	**80**	P	**P**	**16 50 11.8**	**+0.1**
YHL				IAmb	IAmb	16 50 14.0	
	comp=Z,4.6nm,1.4s						
YHH	**Holmes Hill**	**37.11**	**80**	P	**P**	**16 50 13.6**	**-0.1**
YHH				IAmb	IAmb	16 50 14.9	
	comp=Z,4.0nm,1.1s						
H11N2	**WAKE ISLAND Hy**	**38.96**	**221**	T	T	17 31 41.9	
	baz=24,slow=76						
H11N3	**WAKE ISLAND Hy**	**38.97**	**221**	T	T	17 31 40.6	
	baz=24,slow=76						
H11N1	**WAKE ISLAND Hy**	**38.98**	**221**	T	T	17 31 39.9	
	baz=24,slow=76						
BW06	**Boulder Array**	**39.04**	**82**	P	**P**	**16 50 29.2**	**-0.6**
BW06				IAmb	IAmb	16 50 47.7	
	comp=Z,4.0nm,1.4s						
PDAR	**Pinedale Array**	**39.04**	**82**	P	**P**	**16 50 28.8**	**-1.1**
	comp=Z,0.5nm,0.6s,baz=316,slow=7.8,SNR=4.4						
	comp=Z,0.5nm,0.6s						
PDAR	**Pinedale Array**	**39.04**	**82**	P	**P**	**16 50 28.9**	**-1.0**
H11S1	**WAKE ISLAND Hy**	**40.15**	**220**	T	T	17 33 10.1	
	baz=25,slow=76						
H11S2	**WAKE ISLAND Hy**	**40.16**	**220**	T	T	17 33 12.9	
	baz=25,slow=76						
H11S3	**WAKE ISLAND Hy**	**40.17**	**220**	T	T	17 33 11.1	
	baz=25,slow=76						
MJAR	**Matsushiro Arr**	**40.95**	**268**	LR	LR	17 12 51.9	
	comp=Z,4.7nm,18.1s,baz=64,slow=44						
MDJ	**Mudanjiang**	**41.05**	**284**	P	**P**	**16 50 46.4**	**+0.2**
HMU	**Henry Mountain**	**41.34**	**88**	P	**P**	**16 50 49.2**	**+0.2**
HMU				IAmb	IAmb	16 50 50.2	
	comp=Z,2.0nm,0.6s						
O20A	**White River Ci**	**41.43**	**84**	P	**P**	**16 50 49.3**	**-0.3**
O20A				IAmb	IAmb	16 50 49.8	
	comp=Z,3.6nm,0.6s						
PV13	**Radium Mtn., P**	**42.34**	**87**	P	**P**	**16 50 57.0**	**-0.2**
PV02	**Paradox Valley**	**42.36**	**86**	P	**P**	**16 50 57.4**	**0.0**
PV02				IAmb	IAmb	16 51 37.8	
	comp=Z,3.0nm,1.0s						
MNTX	**Cornudas Mount**	**48.81**	**91**	P	**P**	**16 51 48.5**	**+0.5**
MNTX				IAmb	IAmb	16 52 07.3	
	comp=Z,3.2nm,1.4s						
SFJD	**Kangerlussuaq**	**50.98**	**27**	P	**P**	**16 52 05.1**	**+1.1**
TX31	**Lajitas Ar. Si**	**51.53**	**91**	P	**P**	**16 52 08.6**	**-0.2**
TX31				IAmb	IAmb	16 52 19.9	
	comp=Z,2.9nm,1.1s						
TXAR	**Lajitas Array**	**51.53**	**91**	P	**P**	**16 52 08.5**	**-0.3**
	comp=Z,1.0nm,0.6s,baz=301,slow=5.8,SNR=12						
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	**51.53**	**91**	P	**P**	**16 52 08.4**	**-0.4**
HHC	**Hu-ho-hao-te**	**53.71**	**292**	*eP*	**P**	**16 52 27.0**	**+2.2**
HHC				pmax	pmax		
	comp=Z,15nm,0.8s						
HHC				pmax	pmax		
	comp=Z,71nm,4.0s						
CLL	**Collm**	**75.75**	**360**	*i* P	**P**	**16 54 46.5**	**-1.5**
	comp=Z,5.0nm,0.8s						
KBZ	**Khabaz**	**79.90**	**338**	LR	LR	17 32 60.0	
	comp=Z,15nm,18.5s,baz=83,slow=37						
WRA	**Warramunga Arr**	**88.55**	**233**	P	**P**	**16 55 54.4**	**-0.9**
	comp=Z,0.6nm,1.0s,baz=28,slow=5.0,SNR=1.1						
	comp=Z,0.6nm,1.0s						
QSPA	**South Pole Qui**	**143.09**	**180**	PKhKP	PKPpre	17 02 29.9	
	comp=Z,0.9nm,0.8s,baz=277,slow=1.4,SNR=2.1						

*IDC **16** 16:43:26.1±2.3,24.°57N×122.°08E,h0^{km},mb3.6/2, mbtmp3.7/4,ML3.7/2,Error ellipse: s-maj=54.6km s-min=20.4km az=112.0*
*TAP **16** 16:43:38.1,24.°38N×122.°71E,h79^{km},ML4.1,B*
*JMA **16** 16:43:38.0±0.1,24.°N±2.°×122.°7E±0.°4,h78^{km}±1km, MV3.2/18,NW OFF ISHIGAKIJIMA IS*

ISC 16 16:43:37.4±0.9,24.°36N±0.°02×122.°71E±0.°02,h82^{km}±5^{km}, n209,σ1°37/386,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.24**	**67**	P	**Pn**	**16 43 50.0**	**+0.5**
JYNG				S	**Sn**	**16 43 58.7**	**+0.2**
YOJ	**Yonaguni jima**	**0.30**	**70**	P	**Pn**	**16 43 50.0**	**+0.1**
YOJ	**Yonaguni jima**	**0.30**	**70**	*i* P	**Pn**	**16 43 50.4**	**+0.5**
YOJ				*i* S	**Sn**	**16 43 59.0**	**0.0**
YOJ	**Yonaguni jima**	**0.30**	**70**	P	**Pn**	**16 43 50.4**	**+0.5**
YOJ				S	**Sn**	**16 43 59.0**	**0.0**
EOS3	**EOS3**	**0.36**	**258**	*i* P	**Pn**	**16 43 51.5**	**+1.4**
EOS3				S	**Sn**	**16 44 01.5**	**+2.1**
EOS4	**EOS4**	**0.43**	**236**	*i* P	**Pn**	**16 43 51.2**	**+0.9**
EOS4				*i* S	**Sn**	**16 44 01.1**	**+1.2**
EOS2	**EOS2**	**0.44**	**278**	P	**Pn**	**16 43 51.9**	**+1.3**
EOS2				*i* S	**Sn**	**16 44 02.5**	**+2.0**
ESAO	**Su ao**	**0.81**	**285**	*eP*	**Pn**	**16 43 55.3**	**+0.9**
ESAO				S	**Sn**	**16 44 07.5**	**+0.4**
TWC	**Suao**	**0.82**	**288**	*i* P	**Pn**	**16 43 55.0**	**+0.6**
TWC				*i* S	**Sn**	**16 44 06.7**	**-0.5**
EWUT	**Wuta**	**0.85**	**276**	*i* P	**Pn**	**16 43 55.2**	**+0.3**
EWUT				*i* S	**Sn**	**16 44 08.0**	**+0.2**
EGS		**0.85**	**305**	*eP*	**Pn**	**16 43 55.5**	**+0.6**
EGS				S	**Sn**	**16 44 07.5**	**-0.4**
EAHA	**Aohua**	**0.88**	**268**	*i* P	**Pn**	**16 43 55.9**	**+0.8**
EAHA				*i* S	**Sn**	**16 44 09.2**	**+0.8**
EHP	**Heping Village**	**0.88**	**267**	*i* P	**Pn**	**16 43 56.3**	**+1.1**
EHP				S	**Sn**	**16 44 09.4**	**+0.9**
ENA	**Nanau**	**0.88**	**275**	P	**Pn**	**16 43 55.9**	**+0.7**
ENA				S	**Sn**	**16 44 08.8**	**+0.3**
TWB1	**Santiao Chiao**	**0.92**	**315**	P	**Pn**	**16 43 56.0**	**+0.4**
TWB1				S	**Sn**	**16 44 08.7**	**-0.5**
IRIF	**Iriomote-Funau**	**0.93**	**91**	P	**Pn**	**16 43 56.6**	**+0.8**
IRIF				S	**Sn**	**16 44 09.8**	**+0.3**
NTC	**Toucheng**	**0.94**	**302**	P	**Pn**	**16 43 57.0**	**+1.1**
NTC				*i* S	**Sn**	**16 44 09.9**	**+0.3**
NDS	**Dongshan**	**0.94**	**287**	*i* P	**Pn**	**16 43 57.0**	**+1.1**
NDS				S	**Sn**	**16 44 10.0**	**+0.3**
ILA	**Ilan**	**0.96**	**295**	P	**Pn**	**16 43 56.6**	**+0.5**
ILA				S	**Sn**	**16 44 09.2**	**+0.1**
TIPB	**Shuangxi**	**1.01**	**307**	*i* P	**Pn**	**16 43 57.2**	**+0.6**
TIPB				*i* S	**Sn**	**16 44 10.7**	**-0.4**
ETL	**Fush Village**	**1.01**	**259**	*i* P	**Pn**	**16 43 57.1**	**+0.4**
ETL				S	**Sn**	**16 44 11.1**	**-0.1**
TWE	**Neicheng**	**1.01**	**291**	*i* P	**Pn**	**16 43 57.5**	**+0.8**
TWE				S	**Sn**	**16 44 10.8**	**-0.4**
NACB	**Ninganchiao**	**1.03**	**260**	P	**Pn**	**16 43 56.7**	**-0.2**
NACB	**Ninganchiao**	**1.03**	**260**	S	**Sn**	**16 44 10.9**	**-0.7**
NACB	**Ninganchiao**	**1.03**	**260**	*i* P	**Pn**	**16 43 57.2**	**+0.3**
NACB				S	**Sn**	**16 44 10.9**	**-0.7**
HATJ	**Hateruma jima**	**1.05**	**107**	*eS*	**Sn**	**16 44 13.1**	**+1.2**
TWD	**Chiawan**	**1.05**	**255**	*i* P	**Pn**	**16 43 57.4**	**+0.2**
TWD				S	**Sn**	**16 44 11.7**	**-0.3**
SXI1	**Grass Mountain**	**1.05**	**314**	*i* P	**Pn**	**16 43 58.0**	**+0.7**
SXI1				S	**Sn**	**16 44 12.6**	**+0.4**
ENTT	**Nioudou**	**1.08**	**285**	*i* P	**Pn**	**16 43 58.7**	**+1.2**
ENTT				*i* S	**Sn**	**16 44 13.4**	**+0.8**
HWA	**Hwalien**	**1.08**	**249**	*i* P	**Pn**	**16 43 58.1**	**+0.7**
HWA				S	**Sn**	**16 44 13.1**	**+0.6**
LATG	**Datong**	**1.09**	**279**	*i* P	**Pn**	**16 43 58.6**	**+0.8**
LATG				S	**Sn**	**16 44 13.2**	**+0.2**
FUSB	**Fushanzhiwuyua**	**1.09**	**292**	*i* P	**Pn**	**16 43 58.7**	**+0.9**
FUSB				S	**Sn**	**16 44 12.9**	**-0.1**
NWF	**Wu-fen Shan**	**1.10**	**310**	*i* P	**Pn**	**16 43 58.7**	**+0.9**
NWF				S	**Sn**	**16 44 13.4**	**+0.2**
WFSB	**Wu-fen Shan**	**1.10**	**310**	*i* P	**Pn**	**16 43 58.7**	**+0.9**
WFSB				*i* S	**Sn**	**16 44 13.0**	**0.0**
NDT	**Datong Townshi**	**1.11**	**283**	*i* P	**Pn**	**16 43 59.2**	**+1.2**
NDT				S	**Sn**	**16 44 14.3**	**+0.9**
TEYL	**Yanliau Villag**	**1.12**	**244**	*i* P	**Pn**	**16 43 58.4**	**+0.3**
TEYL				*i* S	**Sn**	**16 44 13.3**	**-0.2**
ETLH	**Xiulin Townshi**	**1.13**	**262**	*i* P	**Pn**	**16 43 58.6**	**+0.4**
ETLH				*i* S	**Sn**	**16 44 13.8**	**0.0**
TNOU	**National Taiwa**	**1.16**	**313**	*i* P	**Pn**	**16 43 59.1**	**+0.7**
TNOU				*i* S	**Sn**	**16 44 14.3**	**0.0**
NWLT	**Wulai**	**1.17**	**291**	*eP*	**Pn**	**16 43 60.0**	**+1.3**
NWLT				S	**Sn**	**16 44 14.9**	**+0.2**
ETM	**Tongmen**	**1.18**	**251**	*i* P	**Pn**	**16 43 58.9**	**+0.2**
ETM				*eS*	**Sn**	**16 44 14.3**	**-0.4**
SHUL	**Shoufeng**	**1.19**	**242**	*i* P	**Pn**	**16 43 59.3**	**+0.5**
SHUL				*eS*	**Sn**	**16 44 14.9**	**0.0**
TWA	**Mucha**	**1.19**	**301**	*i* P	**Pn**	**16 43 59.7**	**+0.8**
TWA				S	**Sn**	**16 44 14.9**	**-0.2**
JKRS	**Kuro-shima**	**1.20**	**96**	P	**Pn**	**16 44 00.2**	**+1.3**
JKRS				*eS*	**Sn**	**16 44 16.0**	**+1.0**
NNSB	**Datong**	**1.21**	**274**	*i* P	**Pn**	**16 43 59.9**	**+0.7**
NNSB				S	**Sn**	**16 44 15.6**	**-0.1**
NNSH	**Datong**	**1.21**	**274**	*i* P	**Pn**	**16 43 59.8**	**+0.6**
NNSH				*i* S	**Sn**	**16 44 15.5**	**-0.1**
NNS	**Nan Shan**	**1.22**	**274**	*i* P	**Pn**	**16 44 00.0**	**+0.6**
NNS				*i* S	**Sn**	**16 44 16.4**	**+0.6**
LXIB	**Xiulin Townshi**	**1.23**	**254**	*i* P	**Pn**	**16 43 59.6**	**+0.1**
LXIB				S	**Sn**	**16 44 16.2**	**+0.2**
NHDH	**Xindian Distri**	**1.23**	**299**	P	**Pn**	**16 44 00.3**	**+0.9**
NHDH				S	**Sn**	**16 44 15.8**	**0.0**
NHY	**Taipei**	**1.24**	**303**	S	**Sn**	**16 44 16.4**	**+0.4**
TEGC	**Jichi Village**	**1.25**	**239**	*i* P	**Pn**	**16 44 00.1**	**+0.5**
TEGC				S	**Sn**	**16 44 17.0**	**+0.7**
YHNB	**Yeheng**	**1.25**	**285**	P	**Pn**	**16 44 00.5**	**+0.8**
YHNB	**Yeheng**	**1.25**	**285**	S	**Sn**	**16 44 16.9**	**+0.4**
YHNB	**Yeheng**	**1.25**	**285**	*i* P	**Pn**	**16 44 00.8**	**+1.1**
YHNB				S	**Sn**	**16 44 17.1**	**+0.6**
TATO	**Taipei**	**1.27**	**299**	P	**Pn**	**16 44 00.6**	**+0.8**
TATO	**Taipei**	**1.27**	**299**	S	**Sn**	**16 44 16.5**	**-0.2**
TATO	**Taipei**	**1.27**	**299**	S	**Sn**	**16 44 16.6**	**-0.2**
NSK	**Sanguang**	**1.27**	**285**	P	**Pn**	**16 44 00.9**	**+1.0**
NSK				*i* S	**Sn**	**16 44 17.4**	**+0.6**
NWRT	**Kuosheng**	**1.27**	**312**	P	**Pn**	**16 44 00.8**	**+0.9**
NWRT				S	**Sn**	**16 44 17.4**	**+0.7**
ESL	**Shilin**	**1.28**	**245**	*i* P	**Pn**	**16 44 00.2**	**+0.1**
ESL				S	**Sn**	**16 44 16.9**	**-0.2**
TAP	**Taipei**	**1.28**	**302**	S	**Sn**	**16 44 17.1**	**0.0**
YM01	**YM01**	**1.30**	**307**	*i* P	**Pn**	**16 44 01.1**	**+0.8**
YM01				S	**Sn**	**16 44 17.2**	**-0.2**
YM08	**YM08**	**1.31**	**309**	*i* P	**Pn**	**16 44 01.0**	**+0.6**
YM08				*i* S	**Sn**	**16 44 17.1**	**-0.5**
JIJ	**Ishigaki jima**	**1.31**	**90**	*eP*	**Pn**	**16 44 01.0**	**+0.6**
JIJ				S	**Sn**	**16 44 17.4**	**-0.2**
BACT	**New Taipei Cit**	**1.31**	**299**	*eP*	**Pn**	**16 44 01.5**	**+1.1**
BACT				S	**Sn**	**16 44 18.6**	**+0.8**
ZUZH	**Zhuzihu**	**1.32**	**307**	*i* P	**Pn**	**16 44 01.3**	**+0.7**
ZUZH				*i* S	**Sn**	**16 44 17.6**	**-0.5**
WHF	**Hehuan Shan**	**1.33**	**261**	*i* P	**Pn**	**16 44 01.6**	**+0.5**
WHF				S	**Sn**	**16 44 18.8**	**-0.1**
FUSS	**Fushou**	**1.34**	**266**	*i* P	**Pn**	**16 44 02.0**	**+1.0**
FUSS				*i* S	**Sn**	**16 44 18.8**	**+0.1**
ANP	**Anpu**	**1.36**	**308**	*i* P	**Pn**	**16 44 01.7**	**+0.7**
ANP				S	**Sn**	**16 44 18.4**	**-0.5**
EGFH	**Guangfu**	**1.36**	**240**	*i* P	**Pn**	**16 44 01.3**	**+0.4**
EGFH				*eS*	**Sn**	**16 44 18.4**	**-0.3**
TWY	**Chenhua**	**1.36**	**312**	*i* P	**Pn**	**16 44 02.2**	**+1.2**
TWY				S	**Sn**	**16 44 20.2**	**+1.4**
WARBT	**Fenglin Townsh**	**1.37**	**242**	*i* P	**Pn**	**16 44 01.2**	**+0.1**
WARBT				S	**Sn**	**16 44 18.2**	**-0.7**
TWS1	**Kuangyinshan**	**1.39**	**302**	*i* P	**Pn**	**16 44 02.2**	**+0.9**
TWS1				*i* S	**Sn**	**16 44 19.3**	**0.0**
PCYT	**Pengchaiyu**	**1.39**	**336**	*i* P	**Pn**	**16 44 02.6**	**+1.2**
PCYT				*eS*	**Sn**	**16 44 19.0**	**-0.4**
NTST	**Danshui**	**1.40**	**305**	*eP*	**Pn**	**16 44 04.0**	**+2.5**
NTST				S	**Sn**	**16 44 19.9**	**+0.4**
TWT	**Tachien**	**1.40**	**266**	*i* P	**Pn**	**16 44 03.2**	**+1.5**
TWT				*i* S	**Sn**	**16 44 20.8**	**+0.8**
TDCB	**Techi**	**1.42**	**266**	*i* P	**Pn**	**16 44 03.2**	**+1.3**
TDCB				S	**Sn**	**16 44 20.6**	**+0.3**
NTY	**Taoyuan**	**1.43**	**297**	*eP*	**Pn**	**16 44 02.7**	**+0.7**
NTY				*eS*	**Sn**	**16 44 20.7**	**+0.3**
KSHI	**Guanxi Townshi**	**1.45**	**287**	P	**Pn**	**16 44 03.7**	**+1.5**
KSHI				S	**Sn**	**16 44 22.1**	**+1.2**
OWD	**Renai**	**1.46**	**254**	*i* P	**Pn**	**16 44 03.0**	**+0.6**
OWD				S	**Sn**	**16 44 20.3**	**-0.9**
HGSD	**Ruisui**	**1.46**	**234**	*i* P	**Pn**	**16 44 02.5**	**+0.3**
NFF	**Wufeng Townshi**	**1.47**	**281**	*i* P	**Pn**	**16 44 03.8**	**+1.3**
NFF				S	**Sn**	**16 44 22.3**	**+0.9**
JISG	**Ishigakijimahi**	**1.48**	**81**	*i* P	**Pn**	**16 44 03.2**	**+0.7**
JISG				S	**Sn**	**16 44 21.6**	**+0.1**
WUSB	**Renai**	**1.50**	**256**	*i* P	**Pn**	**16 44 03.8**	**+0.9**
WUSB				S	**Sn**	**16 44 22.4**	**+0.3**
NCU	**National Centr**	**1.51**	**294**	P	**Pn**	**16 44 04.4**	**+1.5**
NCU				S	**Sn**	**16 44 23.6**	**+1.4**
EHYH	**Wanrong**	**1.52**	**236**	*i* P	**Pn**	**16 44 03.3**	**+0.3**
EHYH				*eS*	**Sn**	**16 44 22.3**	**0.0**
NJD	**Zhudong**	**1.52**	**285**	*eP*	**Pn**	**16 44 05.5**	**+2.4**
NJD				*eS*	**Sn**	**16 44 24.0**	**+1.5**
EHY	**Hungye**	**1.52**	**236**	*i* P	**Pn**	**16 44 03.3**	**+0.1**
EHY				*eS*	**Sn**	**16 44 21.9**	**-0.7**
ECBN	**Changbin**	**1.55**	**228**	*i* P	**Pn**	**16 44 03.8**	**+0.4**
ECBN				S	**Sn**	**16 44 22.5**	**-0.6**
LIOB	**Emei**	**1.57**	**281**	*i* P	**Pn**	**16 44 05.0**	**+1.3**
LIOB				S	**Sn**	**16 44 24.7**	**+1.1**
NSTT	**Nanjuang**	**1.58**	**280**	*i* P	**Pn**	**16 44 05.1**	**+1.3**
NSTT				*i* S	**Sn**	**16 44 24.8**	**+1.1**
HSN1	**Hsinchu**	**1.59**	**286**	P	**Pn**	**16 44 04.9**	**+0.9**
HSN1				S	**Sn**	**16 44 25.5**	**+1.4**
WHP	**Taichung City**	**1.61**	**267**	*i* P	**Pn**	**16 44 06.3**	**+2.0**
WHP				S	**Sn**	**16 44 26.0**	**+1.4**
YULB	**Yu-li**	**1.61**	**234**	*i* P	**Pn**	**

RLNB	**Erlin**	**2.19**	**258**		P		**Pn**	**16 44 13.5**	**+1.6**
RLNB					S		**Sn**	**16 44 39.8**	**+1.5**
CHN2	**Minshiung**	**2.20**	**248**	*eP*	**Pn**		**Pn**	**16 44 14.5**	**+2.5**
CHN2					S		**Sn**	**16 44 42.3**	**+3.8**
WTP	**Ta-pu**	**2.21**	**240**	*i* P	**Pn**		**Pn**	**16 44 14.2**	**+1.9**
WTP				*i* S	**Sn**		**Sn**	**16 44 40.7**	**+1.8**
CHY	**Chiayi**	**2.26**	**248**	*eP*	**Pn**		**Pn**	**16 44 14.8**	**+2.0**
CHY					S		**Sn**	**16 44 42.5**	**+2.7**
WTCT	**Ta-ch'eng**	**2.27**	**258**	P	**Pn**		**Pn**	**16 44 14.4**	**+1.5**
WTCT				*eS*	**Sn**		**Sn**	**16 44 42.1**	**+2.0**
TWK	**Hsinying**	**2.31**	**242**	P	**Pn**		**Pn**	**16 44 15.7**	**+2.2**
TWK				*eS*	**Sn**		**Sn**	**16 44 43.9**	**+2.9**
CHN1	**Nanshi**	**2.31**	**240**	*eP*	**Pn**		**Pn**	**16 44 15.5**	**+1.9**
CHN1				*i S*	**Sn**		**Sn**	**16 44 44.0**	**+2.8**
JIRJ	**Irabujima**	**2.31**	**78**	P	**Pn**		**Pn**	**16 44 14.3**	**+0.8**
JIRJ				*eS*	**Sn**		**Sn**	**16 44 41.8**	**+0.6**
SNST	**Tainan City**	**2.32**	**241**	P	**Pn**		**Pn**	**16 44 15.6**	**+1.9**
SNST				*eS*	**Sn**		**Sn**	**16 44 42.2**	**+0.9**
SGST	**Jiashian**	**2.33**	**237**	*i* P	**Pn**		**Pn**	**16 44 15.2**	**+1.5**
SGST				S	**Sn**		**Sn**	**16 44 44.5**	**+3.0**
SLGT	**Liugui**	**2.33**	**235**	P	**Pn**		**Pn**	**16 44 16.1**	**+2.3**
SLGT				S	**Sn**		**Sn**	**16 44 44.7**	**+3.1**
ECL	**Taimali**	**2.38**	**223**	P	**Pn**		**Pn**	**16 44 14.1**	**-0.4**
ECL				S	**Sn**		**Sn**	**16 44 41.8**	**-1.0**
JIKM	**Ikemajima**	**2.38**	**76**	*eS*	**Sn**		**Sn**	**16 44 43.7**	**+0.9**
WSF	**Szhu**	**2.38**	**253**	P	**Pn**		**Pn**	**16 44 16.0**	**+1.5**
WSF				S	**Sn**		**Sn**	**16 44 44.7**	**+1.8**
JMJ	**Miyako jima 2**	**2.40**	**79**	P	**Pn**		**Pn**	**16 44 16.2**	**+1.6**
JMJ	**Miyako jima 2**	**2.40**	**79**	S	**Sn**		**Sn**	**16 44 45.3**	**+2.1**
JMJ	**Miyako jima 2**	**2.40**	**79**	P	**Pn**		**Pn**	**16 44 16.2**	**+1.6**
JMJ				S	**Sn**		**Sn**	**16 44 44.2**	**+0.9**
WSL	**Shuilin Townsh**	**2.42**	**250**	*i* P	**Pn**		**Pn**	**16 44 16.4**	**+1.5**
WSL				S	**Sn**		**Sn**	**16 44 45.9**	**+2.2**
JMJ2	**Miyako jima3**	**2.42**	**80**	P	**Pn**		**Pn**	**16 44 16.3**	**+1.4**
JMJ2				*eS*	**Sn**		**Sn**	**16 44 45.3**	**+1.6**
ICHU	**Yijhu**	**2.43**	**246**	P	**Pn**		**Pn**	**16 44 16.8**	**+1.6**
ICHU				*eS*	**Sn**		**Sn**	**16 44 46.5**	**+2.5**
JOGS	**Gusukube**	**2.49**	**80**	P	**Pn**		**Pn**	**16 44 17.4**	**+1.5**
JOGS				*eS*	**Sn**		**Sn**	**16 44 46.9**	**+1.5**
SSD	**Sandimen**	**2.49**	**230**	P	**Pn**		**Pn**	**16 44 17.6**	**+1.6**
SSD				S	**Sn**		**Sn**	**16 44 46.8**	**+1.3**
CHN8	**Yiju**	**2.50**	**247**	P	**Pn**		**Pn**	**16 44 17.4**	**+1.4**
CHN8				S	**Sn**		**Sn**	**16 44 48.5**	**+2.9**
SCST	**Cishan**	**2.50**	**235**	*i* P	**Pn**		**Pn**	**16 44 19.1**	**+3.0**
SCST				*eS*	**Sn**		**Sn**	**16 44 50.5**	**+4.7**
TSMG	**Majia**	**2.51**	**229**	*i* P	**Pn**		**Pn**	**16 44 17.8**	**+1.6**
TSMG				*eS*	**Sn**		**Sn**	**16 44 48.3**	**+2.4**
SSHA	**Shanhua**	**2.53**	**242**	P	**Pn**		**Pn**	**16 44 18.9**	**+2.5**
SSHA				*eS*	**Sn**		**Sn**	**16 44 47.2**	**+0.8**
LAY	**Lan-yu**	**2.54**	**205**	*i* P	**Pn**		**Pn**	**16 44 16.0**	**-0.7**
LAY				S	**Sn**		**Sn**	**16 44 44.0**	**-2.8**
LYUB	**Lan-yu**	**2.56**	**204**	*i* P	**Pn**		**Pn**	**16 44 16.1**	**-0.8**
LYUB				S	**Sn**		**Sn**	**16 44 44.1**	**-3.2**
MASBT	**Mashibuluo**	**2.58**	**228**	*i* P	**Pn**		**Pn**	**16 44 18.5**	**+1.4**
MASBT				S	**Sn**		**Sn**	**16 44 49.0**	**+1.4**
TWM1	**Shoushan**	**2.59**	**234**	P	**Pn**		**Pn**	**16 44 21.0**	**+3.7**
SGLT	**Jiouru**	**2.60**	**232**	*eP*	**Pn**		**Pn**	**16 44 22.0**	**+4.6**
EAST	**Anshuo**	**2.60**	**221**	P	**Pn**		**Pn**	**16 44 17.6**	**+0.1**
EAST				*eS*	**Sn**		**Sn**	**16 44 46.5**	**-1.8**
TAWH	**Dawu Township**	**2.61**	**220**	*eP*	**Pn**		**Pn**	**16 44 17.7**	**+0.1**
TAWH				*eS*	**Sn**		**Sn**	**16 44 48.3**	**-0.1**
TSCK	**Chigu Township**	**2.69**	**244**	P	**Pn**		**Pn**	**16 44 20.1**	**+1.5**
TSCK				*i S*	**Sn**		**Sn**	**16 44 52.0**	**+1.9**
SSPT	**Xinbi**	**2.71**	**227**	P	**Pn**		**Pn**	**16 44 21.1**	**+2.2**
SCZT	**Fangliau**	**2.75**	**225**	P	**Pn**		**Pn**	**16 44 21.0**	**+1.5**
SCZT				*eS*	**Sn**		**Sn**	**16 44 52.8**	**+1.0**
SLIU	**Shizi**	**2.76**	**220**	*eP*	**Pn**		**Pn**	**16 44 20.0**	**+0.4**
SLIU				*eS*	**Sn**		**Sn**	**16 44 52.2**	**+0.2**
SMST	**Manzhou Townsh**	**2.90**	**217**	P	**Pn**		**Pn**	**16 44 22.0**	**+0.6**
SMST				*eS*	**Sn**		**Sn**	**16 44 55.5**	**+0.3**
HEN	**Hengchun**	**2.96**	**218**	P	**Pn**		**Pn**	**16 44 24.0**	**+1.7**
HEN				S	**Sn**		**Sn**	**16 44 58.2**	**+1.3**
TWKBT	**Hengchun**	**2.97**	**216**	P	**Pn**		**Pn**	**16 44 23.5**	**+1.0**
TWKBT				S	**Sn**		**Sn**	**16 44 57.4**	**+0.3**
PNG	**Penghu**	**2.99**	**255**	*i* P	**Pn**		**Pn**	**16 44 23.0**	**+0.4**
PNG				S	**Sn**		**Sn**	**16 44 56.6**	**-0.9**
WDGT	**Dungji**	**3.00**	**249**	*i* P	**Pn**		**Pn**	**16 44 23.6**	**+0.9**
WDGT				*eS*	**Sn**		**Sn**	**16 44 56.0**	**-1.7**
VWUC	**VWUC**	**3.03**	**283**	*i* P	**Pn**		**Pn**	**16 44 23.4**	**+0.3**
VWUC				S	**Sn**		**Sn**	**16 44 56.0**	**-2.4**
MATB	**Ma-tsu**	**3.07**	**306**	P	**Pn**		**Pn**	**16 44 24.3**	**+0.6**
MATB				S	**Sn**		**Sn**	**16 44 58.6**	**-0.9**
MSUT	**Lienchiang**	**3.10**	**306**	*eP*	**Pn**		**Pn**	**16 44 25.1**	**+1.0**
MSUT				*eS*	**Sn**		**Sn**	**16 45 00.1**	**0.0**
VCHM	**Qimei**	**3.21**	**250**	*i* P	**Pn**		**Pn**	**16 44 24.4**	**+0.7**
VCHM				S	**Sn**		**Sn**	**16 45 02.4**	**-0.5**
PTMZ	**Houxiangcun**	**3.33**	**282**	*i* P	**Pn**		**Pn**	**16 44 27.6**	**+0.3**
PTMZ				S	**Sn**		**Sn**	**16 45 03.3**	**-2.5**
XPSS	**Dashiqiu**	**3.42**	**319**	P	**Pn**		**Pn**	**16 44 28.5**	**0.0**
XPSS				S	**Sn**		**Sn**	**16 45 09.0**	**+1.1**
LYJJ	**Jianjiangzhen**	**3.44**	**310**	*eP*	**Pn**		**Pn**	**16 44 29.1**	**+0.3**
LYJJ				*eS*	**Sn**		**Sn**	**16 45 08.6**	**+0.1**
MHZQ	**Yeshan**	**3.75**	**298**	*eP*	**Pn**		**Pn**	**16 44 33.4**	**+0.4**
MHZQ				*eS*	**Sn**		**Sn**	**16 45 15.3**	**-0.7**
KNM	**Kinmen**	**3.90**	**272**	*eP*	**Pn**		**Pn**	**16 44 37.7**	**+2.8**
KNM				*eS*	**Sn**		**Sn**	**16 45 20.2**	**+0.7**
KNMB	**Chin-men Tao**	**3.94**	**272**	*eP*	**Pn**		**Pn**	**16 44 35.5**	**0.0**
KNMB				*eS*	**Sn**		**Sn**	**16 45 18.2**	**-2.4**
AXDP	**Jialang**	**4.34**	**278**	*i* P	**Pn**		**Pn**	**16 44 41.7**	**+0.7**
AXDP				S	**Sn**		**Sn**	**16 45 28.9**	**-1.5**
ZPLA	**Ao Xicun**	**4.55**	**266**	P	**Pn**		**Pn**	**16 44 43.9**	**+0.1**
ZPLA				*eS*	**Sn**		**Sn**	**16 45 33.9**	**-1.6**
DSXP	**Dongshan**	**4.87**	**263**	*eP*	**Pn**		**Pn**	**16 44 48.7**	**+0.5**
DSXP				*eS*	**Sn**		**Sn**	**16 45 42.5**	**-0.8**
SXFK	**Yanhouchang**	**5.01**	**295**	*eP*	**Pn**		**Pn**	**16 44 50.0**	**-0.1**
SXFK				*eS*	**Sn**		**Sn**	**16 45 45.3**	**-1.5**
JOW	**Kunigami**	**5.60**	**63**	Pn	**Pn**		**Pn**	**16 44 57.3**	**-0.8**
	8.0nm,0.3s,baz=180,slow=9.1,SNR=20 16nm,0.3s								
JOW				AML	AML				
JOW	**Kunigami**	**5.60**	**63**	*eP*	**Pn**		**Pn**	**16 44 57.4**	**-0.7**
KSRS	**Korea Array**	**13.79**	**18**	Pn	**Pn**		**Pn**	**16 46 45.9**	**-3.4**
	0.1nm,0.3s,baz=198,slow=11,SNR=5.0 0.7nm,0.8s								
KSRS				AML	AML				
WRA	**Warramunga Arr**	**45.47**	**165**	P	**P**		**P**	**16 51 49.5**	**+0.9**
	1.1nm,0.8s,baz=348,slow=8.8,SNR=9.7 1.1nm,0.8s								
ASAR	**Alice Springs**	**48.96**	**166**	P	**P**		**P**	**16 52 17.2**	**+1.5**
	0.2nm,0.4s,baz=348,slow=7.1,SNR=12 0.2nm,0.4s								

*MDD **16** 17:04:45.2±0.8,35°.70N×10°.24W,h24km±8km, mb_Lg3.3/14, Error ellipse: s-maj=8.8km s-min=4.0km az=79.0*

*INMG **16** 17:04:48.2±1.3,35°.78N×10°.19W,h27km, ML2.3, Error ellipse: s-maj=6.2km s-min=4.7km az=94.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Mar de Marrocos*

*IGIL **16** 17:04:48.3,35°.93N×10°.08W,h6km, ML2.2*

*CNRM **16** 17:04:50.0,35°.07N×9°.82W,h10km, ML2.9*

ISC 16 17:04:44.4±3.2,35°.85N±0°.08×10°.01W±0°.08,h13km±15km, n59,σ2s03/92,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.60**	**36**	Pn	**Pn**	**17 05 14.6**	**+2.1**
PFVI				Sn	**Sb**	**17 05 34.1**	**+0.2**
PFVI	**Vila Bisbo**	**1.60**	**36**	*eP*	**Pb**	**17 05 14.8**	**+0.9**
PFVI				*eS*	**Sg**	**17 05 34.5**	**-1.4**
PFVI				IAML		17 05 35.9	
PFVI				IAML		17 05 36.3	
PFVI				IAML		17 05 36.4	
MORF	**Marmelete**	**1.82**	**37**	*eP*	**Pn**	**17 05 17.8**	**+2.3**
MORF				*eS*	**Sb**	**17 05 39.7**	**-0.7**
MORF				IAML		17 05 42.9	
	comp=E,20nm,0.1s						
MORF	**Marmelete**	**1.82**	**37**	*eP*	**Pn**	**17 05 17.9**	**+2.3**
MORF				*eS*	**Sb**	**17 05 40.3**	**-0.1**
MORF				IAML		17 05 42.4	
MORF				IAML		17 05 42.5	
MORF				IAML		17 05 43.1	
PTEO	**Sao Teotonio**	**1.98**	**31**	*eP*	**Pn**	**17 05 20.5**	**+2.7**
PTEO				*eS*	**Sb**	**17 05 44.1**	**-1.0**
PTEO				IAML		17 05 45.3	
PTEO				IAML		17 05 45.6	
PTEO				IAML		17 05 45.9	
PTEO	**Sao Teotonio**	**1.98**	**31**	Pn	**Pn**	**17 05 19.6**	**+1.8**
PTEO				Sn	**Sb**	**17 05 44.4**	**-0.7**
PBDV	**Barranco-do-Ve**	**2.18**	**50**	Pn	**Pn**	**17 05 23.0**	**+2.6**
PBDV				Sn	**Sn**	**17 05 48.9**	**+1.5**
PBDV	**Barranco-do-Ve**	**2.18**	**50**	*eP*	**Pn**	**17 05 23.7**	**+3.3**
PBDV				*eS*	**Sb**	**17 05 49.8**	**-0.9**
PBDV				IAML		17 05 53.4	
PBDV				IAML		17 05 53.8	
PBDV				IAML		17 05 53.8	
PCVE	**Castro Verde**	**2.38**	**41**	Pn	**Pn**	**17 05 26.1**	**+2.9**
PCVE				Sn	**Sn**	**17 05 53.6**	**+1.2**
PCVE	**Castro Verde**	**2.38**	**41**	*eP*	**Pn**	**17 05 26.4**	**+3.1**
PCVE				*eS*	**Sn**	**17 05 53.9**	**+1.6**
PCVE				IAML		17 05 56.2	
PCVE				IAML		17 05 56.8	
PCVE				IAML		17 05 57.8	
PVAQ	**Vaqueiros**	**2.41**	**49**	*eP*	**Pn**	**17 05 26.4**	**+2.8**
PVAQ				*eS*	**Sn**	**17 05 54.6**	**+1.6**
PVAQ				IAML		17 05 57.8	
PVAQ				IAML		17 05 58.1	
PVAQ				IAML		17 05 58.1	
EGRO	**El Granado**	**2.64**	**50**	Pn	**Pn**	**17 05 29.8**	**+3.1**
EGRO				Sn	**Sn**	**17 05 59.7**	**+1.1**
EGRO	**El Granado**	**2.64**	**50**	Pn	**Pn**	**17 05 28.0**	**+1.3**
EGRO				Pn	**Pn**	**17 05 28.0**	**+1.3**
EGRO				Sn	**Sn**	**17 05 59.9**	**+1.7**
EGRO				Sn	**Sb**	**17 06 00.8**	**-3.1**
EGRO				IVmb_Lg		17 06 03.6	
PBEJ	**Beja**	**2.77**	**38**	*eS*	**Sn**	**17 06 03.2**	**+1.3**
PBEJ				IAML		17 06 05.8	
PBEJ				IAML		17 06 05.8	
PBEJ				IAML		17 06 06.1	
MOE	**Montemor**	**2.98**	**26**	*eP*	**Pn**	**17 05 33.9**	**+2.4**
MOE				*eS*	**Sn**	**17 06 07.6**	**+0.5**
MOE				IAML		17 06 09.2	
MOE				IAML		17 06 10.1	
MOE				IAML		17 06 11.8	
EVO	**Evora**	**3.12**	**30**	Sn	**Sn**	**17 06 10.7**	**+0.2**
EVO	**Evora**	**3.12**	**30**	*eS*	**Sn**	**17 06 10.9**	**+0.4**
EVO				IAML		17 06 12.2	
EVO				IAML		17 06 12.3	
EVO				IAML		17 06 12.6	
PMAFR	**Mafra**	**3.15**	**10**	Pn	**Pn**	**17 05 35.2**	**+1.3**
PMAFR				Sn	**Sn**	**17 06 11.0**	**-0.4**
PMAFR	**Mafra**	**3.15**	**10**	*eP*	**Pn**	**17 05 35.5**	**+1.6**
PMAFR				*eS*	**Sn**	**17 06 11.0**	**-0.4**
EMIN	**Mina Concepcio**	**3.29**	**53**	Pn	**Pn**	**17 05 38.9**	**+3.2**
EMIN				Sn	**Sn**	**17 06 15.1**	**+0.3**
EMIN	**Mina Concepcio**	**3.29**	**53**	Pn	**Pn**	**17 05 37.7**	**+1.9**
EMIN				Sn	**Sn**	**17 06 15.6**	**+0.8**
PBAR	**Barrancos**	**3.32**	**45**	*eP*	**Pn**	**17 05 39.2**	**+3.0**
PBAR				*eS*	**Sn**	**17 06 16.9**	**+1.4**
PBAR				IAML		17 06 18.9	
PBAR				IAML		17 06 19.0	
PBAR				IAML		17 06 19.3	
PARRA	**Arraiolos**	**3.35**	**27**	*eP*	**Pn**	**17 05 38.8**	**+2.3**
PARRA				*eS*	**Sn**	**17 06 16.1**	**-0.1**
PARRA				IAML		17 06 19.0	
PARRA				IAML		17 06 19.1	
PARRA				IAML		17 06 20.0	
ESPR	**Espera**	**3.50**	**72**	Pn	**Pn**	**17 05 40.8**	**+2.3**
ESPR	**Espera**	**3.50**	**72**	Pn	**Pn**	**17 05 40.8**	**+2.2**
ESPR				Sn	**Sn**	**17 06 21.0**	**+1.0**
ESPR				IVmb_Lg		17 06 27.1	
PMTG	**Montargil**	**3.52**	**23**	*eP*	**Pn**	**17 05 40.9**	**+2.1**
PMTG				*eS*	**Sn**	**17 06 20.1**	**-0.1**
PMTG				IAML		17 06 21.4	
PMTG				IAML		17 06 21.8	
PMTG				IAML		17 06 22.9	
PMTG	**Montargil**	**3.52**	**23**	Pn	**Pn**	**17 05 40.5**	**+1.7**
PMTG				Sn	**Sn**	**17 06 20.5**	**+0.2**
PESTR	**Estremoz**	**3.58**	**32**	Sn	**Sn**	**17 06 22.0**	**+0.1**
PESTR	**Estremoz**	**3.58**	**32**	*eS*	**Sn**	**17 06 22.1**	**+0.3**
PESTR				IAML		17 06 23.6	
PESTR				IAML		17 06 24.5	
PESTR				IAML		17 06 25.5	
ZHG	**ZHG**	**3.67**	**130**	P	Pn	17 05 39.6	-1.4
ZHG				Sn	Sn	17 06 17.3	-6.8
EBAD	**Badajoz**	**3.76**	**39**	Pn	**Pn**	**17 05 42.3**	**+3.0**
EBAD				Sn	**Sn**	**17 06 28.0**	**+1.7**
EBAD	**Badajoz**	**3.76**	**39**	Pn	**Pn**	**17 05 43.1**	**+1.0**
EBAD				Sn	**Sn**	**17 06 27.0**	**+0.7**
EBAD				S	**Sb**	**17 06 27.5**	**-8.7**
EBAD				IVmb_Lg		17 06 29.6	
PSBE	**So Bento**	**3.78**	**14**	*eP*	**Pn**	**17 05 43.9**	**+1.4**
PSBE				*eS*	**Sn**	**17 06 27.0**	**0.0**
SRHM	**Skhour des Reh**	**3.80**	**152**	P	Pn	17 05 40.9	-1.9
SRHM				Sn	Sn	17 06 20.6	-6.8
PSARD	**Sardoal**	**4.02**	**21**	*eP*	**Pn**	**17 05 47.7**	**+1.9**
PSARD				*eS*	**Sn**	**17 06 32.1**	**-0.7**
PSARD				IAML		17 06 35.9	
PSARD				IAML		17 06 37.6	
PSARD				IAML		17 06 38.0	
PMRV	**Marv??o**	**4.13**	**29**	*eP*	**Pn**	**17 05 49.2**	**+1.8**
PMRV				*eS*	**Sn**	**17 06 34.5**	**-1.1**
PMRV				IAML		17 06 36.7	
PMRV				IAML		17 06 37.6	
PMRV				IAML		17 06 38.5	
ECAB	**El Cabril**	**4.30**	**58**	Pn	**Pn**	**17 05 51.9**	**+2.3**
ECAB				Sn	**Sn**	**17 06 39.0**	**-0.6**
ECAB	**El Cabril**	**4.30**	**58**	Pn	**Pn**	**17 05 51.9**	**+2.3**
ECAB				Sn	**Sn**	**17 06 39.3**	**-0.3**
ECAB				IVmb_Lg		17 06 41.4	
EADA	**Adamuz**	**4.93**	**60**	Pn	**Pn**	**17 06 00.5**	**+2.2**
EADA				Sn	**Sn**	**17 06 55.0**	**-0.2**
EADA	**Adamuz**	**4.93**	**60**	Pn	**Pn**	**17 06 00.2**	**+1.9**
EADA				Sn	**Sn**	**17 06 55.6**	**+0.5**
EADA				IVmb_Lg		17 06 57.7	
OUK	**Oukaimeden**	**4.96**	**158**	P	Pn	17 05 56.0	-3.0
OUK				Sn	Sn	17 06 44.7	-12
EPLA	**Plasencia**	**5.23**	**35**	Sn	**Sn**	**17 07 02.0**	**-0.6**
EPLA				IVmb_Lg		17 07 05.9	
CIBOR	**Castaar de Ib**	**5.24**	**43**	Sn	**Sn**	**17 07 02.9**	**-0.1**
MD31	**MD31**	**5.26**	**123**	P	Pn	17 06 32.3	-0.7
MD31				Sn	Sn	17 06 58.1	-5.5
MDT	**Midelt**	**5.40**	**123**	P	Pn	17 06 04.2	-0.6
MDT				Sn	Sn	17 07 01.8	-5.1
TIO	**Tiouine**	**5.42**	**154**	P	Pn	17 06 01.1	-4.0
TIO				Sn	Sn	17 06 56.4	-11
TTIG	**Tnine Tigouga,**	**5.45**	**166**	P	Pn	17 05 58.7	-6.8
TTIG				Sn	Sn	17 06 54.6	-14
OUZM	**OUZ**	**5.63**	**150**	P	Pn	17 06 04.4	-3.5
OUZM				Sn	Sn	17 07 02.1	-10
POLO	**Lamas de Olo**	**5.78**	**17**	*eP*	**Pn**	**17 06 11.6**	**+1.5**
POLO	**Lamas de Olo**	**5.78**	**17**	Pn	**Pn**	**17 06 11.0**	**+1.0**
POLO				Sn	**Sn**	**17 07 15.0**	**-1.3**
PAB	**San Pablo**	**5.81**	**49**	Pn	**Pn**	**17 06 11.4**	**+0.9**
PAB				Sn	**Sn**	**17 07 16.4**	**-0.6**
PAB				IVmb_Lg		17 07 25.3	
ELOB	**Lobios**	**6.20**	**14**	Sn	**Sn**	**17 07 24.2**	**-2.4**
ELOB				IVmb_Lg		17 07 31.5	
JBK	**JBK**	**6.29**	**102**	P	**Pn**	**17 06 17.1**	**0.0**
JBK				Sn	**Sn**	**17 07 25.1**	**-3.8**
ENIJ	**Nijar**	**6.39**	**78**	Pn	**Pn**	**17 06 21.4**	**+3.0**
ECAL	**Calabor**	**6.60**	**22**	Sn	**Sn**	**17 07 33.9**	**-2.5**
ECAL				IVmb_Lg		17 07 47.9	
ETOB	**Tobarra**	**7.30**	**65**	Pn	**Pn**	**17 06 32.1**	**+1.2**
ETOB				Sn	**Sn**	**17 07 51.3**	**-2.5**
ETOB				IVmb_Lg		17 08 05.5	

*BJI **16** 17:18:14.0,59°.80N×138°.90W,h10km, mB5.0/5, mb4.6/16, Ms7 4.0/1*

*NEIC **16** 17:18:16.7±2.0,59°.75N±0°.03×138°.87W±0°.04,h6km±4km, mb4.3/33,ML4.3/140, Mwr4.1/74, ML4.2(AEIC), Error ellipse: s-maj=3.8km s-min=2.8km az=189.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.53; $M_{\theta\theta}$-1.70; $M_{\phi\phi}$0.17; $M_{r\theta}$0.36; $M_{\theta\phi}$0.45; $M_{\phi r}$-0.24; Fault plane solution: $M_0$1.74000×10^{15} NP1: ϕ_s276.34000°,δ38.50000°,λ79.96000°. NP2: ϕ_s109.08000°,δ52.20000°,λ97.89000°. Principal axes: T 1.5957, Plg81.0000°, Azm56.0000°; N 0.2537, Plg6.0000°, Azm284.0000°; P -1.8494, Plg7.0000°, Azm193.0000°;*

*AEIC **16** 17:18:16.2±2.0,59°.73N±0°.03×138°.92W±0°.04,h2km±2km Error ellipse: s-maj=3.9km s-min=2.6km az=191.0*

*PGC **16** 17:18:16.9±0.1,59°.71N×138°.90W,h1km, ML4.4/29, Mw4.1,ML4.2(AEIC),52km east of Yakutat, Ak Southeastern Alaska*

*IDC **16** 17:18:16.5±0.5,59°.88N×139°.00W,h0km, mb4.1/23, mbtmp4.1/29,ML3.8/5,MS3.3/29, Error ellipse: s-maj=11.5km s-min=7.6km az=24.0*

*NEIC **16** 17:18:17.4,59°.79N×138°.87W,h10km*

ISC 16 17:18:16.5±1.0,59°.74N±0°.02×138°.90W±0°.02,h5km±6km, n389,σ0s95/395,mb4.3/34,MS3.4/23,Southeastern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNL	**Peninsula**	**0.26**	**254**		**Pb**	**17 18 25.1**	**+1.3**
PNL	**Peninsula**	**0.26**	**254**	P	**Pg**	**17 18 21.5**	**-0.2**
PNL				S	**Pb**	**17 18 25.1**	**+1.3**
BCPM	**Bancas Point**	**0.43**	**300**		**Pg**	**17 18 24.5**	**-0.3**
BCPM					**Sg**	**17 18 30.6**	**+0.2**
BCPM	**Bancas Point**	**0.43**	**300**	IAML		17 18 31.3	
	comp=E,10μm,0.3s						
BCPM				IAML		17 18 32.5	
	comp=N,14μm,0.7s						
O29M	**Mount Kennedy**	**0.59**	**16**		**Pg**	**17 18 27.4**	**-0.4**
O29M					**Sg**	**17 18 36.1**	**+0.6**
O29M	**Mount Kennedy**	**0.59**	**16**	P	**Pg**	**17 18 27.6**	**-0.2**
P29M	**Windy Craggy**	**0.60**	**100**		**Pg**	**17 18 27.4**	**-0.5**
P29M				IAML		17 18 37.9	
	comp=N,14μm,0.5s						
P29M	**Windy Craggy**	**0.60**	**100**		**Sg**	**17 18 36.5**	**+0.7**
P29M	**Windy Craggy**	**0.60**	**100**	P	**Pg**	**17 18 27.9**	**-0.1**
P29M				S	**Sg**	**17 18 35.7**	**-0.1**
PCA	**Pinnacle**	**0.77**	**298**		**Pg**	**17 18 30.8**	**-0.5**
PCA	**Pinnacle**	**0.77**	**298**		**Sb**	**17 18 42.3**	**-1.0**
PCA	**Pinnacle**	**0.77**	**298**	P	**Pg**	**17 18 31.2**	**-0.1**
PCA				S	**Sg**	**17 18 41.8**	**+0.5**
YUK7	**Dusty Glacier**	**0.88**	**25**		**Pg**	**17 18 32.9**	**-0.5**
YUK7					**Pg**	**17 18 33.1**	**-0.2**
YUK7					**Sg**	**17 18 45.0**	**+0.2**
YUK7					**Sb**	**17 18 45.2**	**-1.3**
YUK7	**Dusty Glacier**	**0.88**	**25**	P	**Pg**	**17 18 33.1**	**-0.2**
SAMH	**Samovar Hills**	**1.03**	**293**		**Pg**	**17 18 35.7**	**-0.5**
SAMH					**Pg**	**17 18 35.9**	**-0.2**
SAMH					**Sb**	**17 18 50.2**	**-0.4**
SAMH					**Sg**	**17 18 50.4**	**+0.9**
SAMH	**Samovar Hills**	**1.03**	**293**	P	**Pg**	**17 18 36.0**	**-0.2**
SAMH				S	**Sg**	**17 18 49.8**	**+0.3**
P30M	**Million Dollar**	**1.05**	**68**		**Pg**	**17 18 35.9**	**-0.7**
P30M					**Sb**	**17 18 51.6**	**+0.4**
P30M	**Million Dollar**	**1.05**	**68**	P	**Pg**	**17 18 36.0**	**-0.7**
O28M	**Mount Upton**	**1.22**	**329**		**Pg**	**17 18 38.2**	**-1.7**
O28M					**Sg**	**17 18 54.8**	**-0.9**
O28M					**Sb**	**17 18 55.2**	**-1.1**
O28M	**Mount Upton**	**1.22**	**329**	IAML		17 18 58.9	
	comp=N,6μm,0.5s						
O28M				IAML		17 19 02.0	
	comp=E,5μm,0.5s						
O28M	**Mount Upton**	**1.22**	**329**	P	**Pg**	**17 18 38.1**	**-1.8**
O28M				S	**Sg**	**17 18 54.2**	**-1.5**
YUK6	**Outpost Mounta**	**1.24**	**12**		**Pg**	**17 18 39.0**	**-1.2**
YUK6					**Sg**	**17 18 56.2**	**0.0**
YUK6	**Outpost Mounta**	**1.24**	**12**	P	**Pg**	**17 18 39.3**	**-0.9**
YUK6				S	**Sb**	**17 18 56.4**	**-0.4**
HYT	**Haines Junctio**	**1.29**	**32**		**Pg**	**17 18 40.1**	**-1.2**
HYT	**Haines Junctio**	**1.29**	**32**		**Sg**	**17 18 57.4**	**-0.6**
HYT					**Sb**	**17 18 58.1**	**-0.1**
HYT	**Haines Junctio**	**1.29**	**32**	P	**Pg**	**17 18 40.4**	**-0.8**
PLBC	**Pleasant Camp**	**1.32**

P32M	**Atlin**	**2.63**	**91**	Pn	**Pn**	**17 18 59.4**	**-0.3**
P32M				Sg	**Sg**	**17 19 39.5**	**-1.5**
R32K	**Eaglecrest**	**2.70**	**121**		**Pn**	**17 19 01.3**	**+0.7**
VRDI	**Verde Repeater**	**2.70**	**305**		**Pn**	**17 19 00.8**	**+0.1**
VRDI				IAML		17 19 42.1	
	comp=E,2µm,0.9s						
M29M	**Somme Creek**	**2.72**	**4**		**Pn**	**17 19 02.0**	**+1.0**
M29M	**Somme Creek**	**2.72**	**4**	IAML		17 19 43.3	
	comp=E,1µm,1.0s						
M29M				IAML		17 19 48.4	
	comp=N,1µm,0.8s						
M29M	**Somme Creek**	**2.72**	**4**	Pn	**Pn**	**17 19 02.3**	**+1.3**
JIS	**Juneau Island**	**2.76**	**120**		**Pn**	**17 19 01.0**	**-0.3**
BVCY	**Beaver Creek**	**2.85**	**341**	Pn	**Pn**	**17 19 02.8**	**+0.2**
GLB	**Gilahina Butte**	**2.96**	**307**		**Pn**	**17 19 04.2**	**0.0**
GLB				IAML		17 19 45.9	
	comp=E,893nm,0.6s						
GLB				IAML		17 19 52.7	
	comp=N,1µm,1.1s						
M27K	**Edge Creek, AK**	**3.00**	**332**		**Pn**	**17 19 05.1**	**+0.3**
M27K	**Edge Creek, AK**	**3.00**	**332**	IAML		17 19 54.0	
	comp=E,957nm,1.1s						
M27K				IAML		17 20 00.9	
	comp=N,934nm,0.8s						
M30M	**Minto, Yukon**	**3.02**	**19**		**Pn**	**17 19 06.0**	**+0.9**
M30M				IAML		17 20 02.0	
	comp=N,777nm,0.9s						
M30M				IAML		17 20 03.6	
	comp=E,839nm,0.8s						
M30M	**Minto, Yukon**	**3.02**	**19**	Pn	**Pn**	**17 19 06.3**	**+1.3**
BMRM	**Bremner River**	**3.09**	**296**		**Pn**	**17 19 05.7**	**-0.3**
P33M	**Teslin, Yukon**	**3.09**	**79**		**Pn**	**17 19 05.3**	**-0.7**
P33M	**Teslin, Yukon**	**3.09**	**79**	Pn	**Pn**	**17 19 05.7**	**-0.3**
P33M				Sg	**Sg**	**17 19 53.4**	**-2.3**
S32K	**Killisnoo**	**3.21**	**133**		**Pn**	**17 19 08.8**	**+1.4**
N32M	**Quiet Lake**	**3.21**	**61**		**Pn**	**17 19 08.4**	**+0.8**
N32M	**Quiet Lake**	**3.21**	**61**	Pn	**Pn**	**17 19 08.1**	**+0.5**
SIT	**Sitka**	**3.28**	**144**		**Pn**	**17 19 09.6**	**+1.1**
SIT				IAML		17 20 12.1	
	comp=E,645nm,0.9s						
M31M	**Drury Creek, Y**	**3.31**	**40**		**Pn**	**17 19 10.1**	**+1.2**
M31M				IAML		17 20 06.8	
	comp=E,887nm,0.9s						
M31M				IAML		17 20 10.7	
	comp=N,692nm,1.1s						
M31M	**Drury Creek, Y**	**3.31**	**40**	Pn	**Pn**	**17 19 10.1**	**+1.2**
M26K	**Nabesna, AK**	**3.33**	**325**		**Pn**	**17 19 09.3**	**0.0**
M26K	**Nabesna, AK**	**3.33**	**325**	IAML		17 20 04.6	
	comp=N,589nm,0.6s						
M26K				IAML		17 20 15.1	
	comp=E,530nm,0.7s						
L29M	**L29M**	**3.40**	**6**		**Pn**	**17 19 11.1**	**+0.8**
L29M	**L29M**	**3.40**	**6**	IAML		17 20 13.8	
	comp=N,1µm,0.7s						
L29M	**L29M**	**3.40**	**6**	Pn	**Pn**	**17 19 11.8**	**+1.6**
Q32M	**Nakina River**	**3.48**	**100**		**Pn**	**17 19 11.6**	**+0.1**
Q32M	**Nakina River**	**3.48**	**100**	IAML		17 20 11.2	
	comp=E,628nm,0.8s						
Q32M				IAML		17 20 15.6	
	comp=N,514nm,0.9s						
Q32M	**Nakina River**	**3.48**	**100**	Pn	**Pn**	**17 19 10.8**	**-0.6**
EYAK	**Cordova Ski Ar**	**3.52**	**286**		**Pn**	**17 19 12.0**	**+0.2**
EYAK				IAML		17 20 17.7	
	comp=N,439nm,0.8s						
PS12	**TAPS Pump St12**	**3.54**	**302**		**Pn**	**17 19 12.4**	**+0.3**
BCAR	**Beaver Creek A**	**3.62**	**339**		**Pn**	**17 19 12.6**	**-0.6**
BC01	**Beaver Creek A**	**3.62**	**338**		**Pn**	**17 19 12.8**	**-0.4**
L27K	**Beaver Creek,**	**3.62**	**338**		**Pn**	**17 19 12.8**	**-0.4**
L27K	**Beaver Creek,**	**3.62**	**338**	Pn	**Pn**	**17 19 12.9**	**-0.3**
DIV	**Divide**	**3.68**	**295**		**Pn**	**17 19 13.9**	**-0.2**
DIV				IAML		17 20 19.1	
	comp=N,583nm,0.7s						
DIV	**Divide**	**3.68**	**295**	Pn	**Pn**	**17 19 14.3**	**+0.2**
MID	**Middleton Isla**	**3.80**	**268**	Pn	**Pn**	**17 19 14.7**	**-0.9**
HIN	**Hinchinbrook I**	**3.87**	**283**	Pn	**Pn**	**17 19 16.4**	**-0.2**
HIN				IAML		17 20 34.3	
	comp=N,566nm,1.0s						
KLU	**Klutina**	**3.88**	**300**		**Pn**	**17 19 17.1**	**+0.2**
FID	**Port Fidalgo**	**3.91**	**288**		**Pn**	**17 19 18.0**	**+0.8**
FID				IAML		17 20 23.1	
	comp=E,606nm,0.6s						
FID				IAML		17 20 29.0	
	comp=N,511nm,0.9s						
L26K	**Log Cabin Wild**	**3.93**	**329**		**Pn**	**17 19 17.7**	**+0.3**
L26K	**Log Cabin Wild**	**3.93**	**329**	IAML		17 20 14.2	
	comp=N,327nm,0.4s						
L26K				IAML		17 20 27.7	
	comp=E,444nm,0.5s						
MENT	**Mentasta**	**3.96**	**326**	IAML		17 20 28.6	
	comp=E,439nm,0.8s						
MENT				IAML		17 20 41.5	
	comp=N,473nm,1.1s						
PS11	**TAPS Pump St11**	**3.98**	**309**		**Pn**	**17 19 18.8**	**+0.7**
HARP	**HAARP**	**4.04**	**314**		**Pn**	**17 19 20.1**	**+1.0**
HARP				IAML		17 20 33.1	
	comp=E,638nm,1.0s						
HARP				IAML		17 20 46.8	
	comp=N,556nm,1.2s						
R33M	**Jennings River**	**4.05**	**91**		**Pn**	**17 19 19.4**	**+0.2**
R33M	**Jennings River**	**4.05**	**91**	IAML		17 20 28.1	
	comp=E,454nm,0.8s						
R33M				IAML		17 20 30.3	
	comp=N,501nm,0.9s						
R33M	**Jennings River**	**4.05**	**91**	Pn	**Pn**	**17 19 19.4**	**+0.3**
R33M				Sn	**Sn**	**17 20 08.7**	**+1.7**
K29M	**Barlow Dome**	**4.17**	**8**		**Pn**	**17 19 22.6**	**+1.8**
K29M	**Barlow Dome**	**4.17**	**8**	IAML		17 20 42.8	
	comp=N,455nm,1.1s						
K29M	**Barlow Dome**	**4.17**	**8**	Pn	**Pn**	**17 19 22.7**	**+1.8**
GLI	**Glacier Island**	**4.24**	**289**		**Pn**	**17 19 21.7**	**0.0**
GLI				IAML		17 20 28.7	
	comp=E,472nm,0.7s						
GLI				IAML		17 20 29.7	
	comp=N,385nm,0.8s						
P23K	**Montague Islan**	**4.30**	**277**		**Pn**	**17 19 21.7**	**-0.7**
P23K				IAML		17 20 13.3	
	comp=N,311nm,0.4s						
P23K				IAML		17 21 00.5	
	comp=E,348nm,0.9s						
S34M	**Telegraph Cree**	**4.43**	**111**		**Pn**	**17 19 24.7**	**+0.4**
S34M				IAML		17 20 38.9	
	comp=N,420nm,0.8s						
S34M	**Telegraph Cree**	**4.43**	**111**	Pn	**Pn**	**17 19 24.1**	**-0.2**
S34M				Sn	**Sn**	**17 20 17.8**	**+1.6**
PAX	**Paxson**	**4.53**	**319**		**Pn**	**17 19 25.8**	**+0.1**
PAX	**Paxson**	**4.53**	**319**	Pn	**Pn**	**17 19 26.2**	**+0.4**
K27K	**Chicken**	**4.56**	**342**		**Pn**	**17 19 26.1**	**+0.1**
K27K				IAML		17 20 47.2	
	comp=E,363nm,1.0s						
K27K				IAML		17 20 49.9	
	comp=N,229nm,1.1s						
DOT	**Dot Lake**	**4.63**	**330**		**Pn**	**17 19 26.8**	**-0.2**
SCM	**Sheep Creek Mo**	**4.63**	**301**		**Pn**	**17 19 27.3**	**+0.1**
SCM	**Sheep Creek Mo**	**4.63**	**301**	IAML		17 20 45.7	
	comp=N,394nm,0.9s						
J29N	**Klondike Camp**	**4.74**	**4**	Pn	**Pn**	**17 19 30.1**	**+1.5**
DLBC	**Dease Lake**	**4.76**	**102**	Pn	**Pn**	**17 19 29.8**	**+0.9**
	comp=N,2.4nm,0.3s,baz=261,slow=11,SNR=21						
DLBC				Pg	**Pb**	**17 19 41.6**	**+1.2**
	comp=N,9.4nm,0.3s,baz=264,slow=15,SNR=20						
DLBC				Sn	**Sn**	**17 20 24.9**	**+0.5**
	comp=N,13nm,0.3s,baz=167,slow=22,SNR=3.1						
DLBC				Lg	Lg	17 20 44.5	
	comp=N,18nm,0.3s,baz=120,slow=17,SNR=5.8						
DLBC				LR	LR	17 20 46.1	
	comp=N,55nm,18.2s,baz=269,slow=31						
	comp=N,6.4nm,0.3s						
DLBC				AML	AML		
DLBC	**Dease Lake**	**4.76**	**102**		**Pn**	**17 19 29.5**	**+0.7**
DLBC	**Dease Lake**	**4.76**	**102**	Pn	**Pn**	**17 19 29.6**	**+0.7**
U33K	**Whale Pass**	**4.76**	**137**		**Pn**	**17 19 28.8**	**0.0**
U33K	**Whale Pass**	**4.76**	**137**	IAML		17 20 56.1	
	comp=N,165nm,1.1s						
U33K				IAML		17 21 06.8	
	comp=E,173nm,1.0s						
M23K	**Glacier View**	**4.79**	**299**		**Pn**	**17 19 29.7**	**+0.4**
WRAK	**Wrangell Islan**	**4.81**	**131**		**Pn**	**17 19 29.6**	**+0.1**
WRAK				IAML		17 20 56.5	
	comp=E,216nm,0.8s						
WRAK				IAML		17 21 13.3	
	comp=E,266nm,1.0s						
PWL	**Port Wells**	**4.83**	**288**		**Pn**	**17 19 30.1**	**+0.3**
PWL	**Port Wells**	**4.83**	**288**	IAML		17 20 48.0	
	comp=N,284nm,1.0s						
PWL				IAML		17 21 05.9	
	comp=E,156nm,1.0s						
SCRK	**Sand Creek**	**4.89**	**333**		**Pn**	**17 19 30.1**	**-0.5**
RIDG	**Independent Ri**	**4.91**	**327**		**Pn**	**17 19 30.9**	**0.0**
RIDG	**Independent Ri**	**4.91**	**327**	IAML		17 21 01.3	
	comp=E,205nm,1.1s						
J30M	**Hart River**	**5.00**	**13**		**Pn**	**17 19 33.2**	**+1.0**
J30M	**Hart River**	**5.00**	**13**	Pn	**Pn**	**17 19 34.4**	**+2.1**
KNK	**Knik Glacier**	**5.00**	**294**		**Pn**	**17 19 33.3**	**+1.1**
KNK	**Knik Glacier**	**5.00**	**294**	IAML		17 20 50.8	
	comp=E,299nm,0.6s						
SML	**Sawmill**	**5.07**	**298**		**Pn**	**17 19 33.6**	**+0.5**
WAT6	**Susitna Watana**	**5.14**	**307**		**Pn**	**17 19 34.1**	**-0.1**
K24K	**Donnelly Dome**	**5.22**	**324**		**Pn**	**17 19 36.0**	**+0.8**
K24K				IAML		17 21 23.4	
	comp=E,204nm,1.2s						
K24K				IAML		17 21 29.8	
	comp=N,193nm,1.0s						
DHY	**Denali Highway**	**5.27**	**313**		**Pn**	**17 19 35.6**	**-0.3**
GHO	**Glory Hole Cre**	**5.32**	**297**		**Pn**	**17 19 37.2**	**+0.6**
GHO	**Glory Hole Cre**	**5.32**	**297**	IAML		17 21 07.9	
	comp=E,231nm,0.8s						
SEW	**Seward**	**5.32**	**278**		**Pn**	**17 19 35.4**	**-1.1**
T35M	**Bob Quinn**	**5.33**	**118**		**Pn**	**17 19 37.5**	**+0.9**
T35M	**Bob Quinn**	**5.33**	**118**	IAML		17 21 08.1	
	comp=E,154nm,1.1s						
T35M				IAML		17 21 12.1	
	comp=N,195nm,0.6s						
PMR	**Palmer**	**5.36**	**295**		**Pn**	**17 19 37.9**	**+0.8**
PMR				IAML		17 20 59.7	
	comp=E,232nm,0.7s						
O22K	**Cooper Landing**	**5.47**	**282**		**Pn**	**17 19 38.1**	**-0.4**
RC01	**Rabbit Creek A**	**5.54**	**289**		**Pn**	**17 19 39.7**	**+0.2**
WAT1	**Susitna Watana**	**5.59**	**308**		**Pn**	**17 19 40.4**	**+0.2**
I30M	**Mount Dempster**	**5.63**	**11**		**Pn**	**17 19 42.7**	**+1.9**
I30M	**Mount Dempster**	**5.63**	**11**	Pn	**Pn**	**17 19 43.0**	**+2.2**
I30M				Sn	**Sn**	**17 20 48.2**	**+2.4**
I29M	**Ogilvie Camp,**	**5.65**	**3**		**Pn**	**17 19 42.2**	**+1.2**
I29M	**Ogilvie Camp,**	**5.65**	**3**	Pn	**Pn**	**17 19 42.7**	**+1.6**
I29M				Sn	**Sn**	**17 20 49.0**	**+2.8**
WAT7	**Susitna Watana**	**5.71**	**307**		**Pn**	**17 19 41.8**	**-0.2**
SLKM	**Skilak Lake**	**5.71**	**283**		**Pn**	**17 19 41.2**	**-0.8**
I28M	**Miner Creek**	**5.75**	**356**	Pn	**Pn**	**17 19 43.8**	**+1.3**
J25K	**Salcha River,**	**5.75**	**331**		**Pn**	**17 19 42.0**	**-0.4**
M22K	**Willow**	**5.86**	**295**		**Pn**	**17 19 44.8**	**+0.9**
I26K	**Coal Creek Min**	**5.92**	**342**		**Pn**	**17 19 45.6**	**+0.8**
BRSE	**Bradley Lake S**	**5.99**	**275**		**Pn**	**17 19 45.9**	**+0.2**
RND	**Reindeer**	**6.01**	**312**		**Pn**	**17 19 46.6**	**+0.6**
I27K	**Kandik River**	**6.02**	**349**		**Pn**	**17 19 47.0**	**+0.9**
HDA	**Harding Lake**	**6.02**	**325**		**Pn**	**17 19 47.4**	**+1.3**
BRLK	**Bradley Lake**	**6.06**	**275**		**Pn**	**17 19 47.2**	**+0.5**
PS08	**TAPS Pump Stn8**	**6.08**	**326**		**Pn**	**17 19 47.8**	**+0.8**
SUA	**Susitna One**	**6.09**	**292**		**Pn**	**17 19 48.1**	**+1.0**
MCK	**McKinley**	**6.22**	**314**		**Pn**	**17 19 50.4**	**+1.4**
ILAR	**Eielson Array**	**6.27**	**327**	Pn	**Pn**	**17 19 48.1**	**-1.4**
	comp=E,1.2nm,0.3s,baz=154,slow=12,SNR=23						
ILAR				Lg	Lg	17 21 25.1	
	comp=E,1.5nm,0.3s,baz=24,slow=15,SNR=4.6						
ILAR				LR	LR	17 21 50.2	
	comp=E,119nm,19.8s,baz=73,slow=35						
	comp=E,0.8nm,0.5s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**6.27**	**327**		**Pn**	**17 19 51.2**	**+1.6**
WRH	**Wood River Hil**	**6.41**	**322**		**Pn**	**17 19 52.4**	**+0.9**
H31M	**Peel River**	**6.43**	**17**		**Pn**	**17 19 52.8**	**+1.0**
H31M	**Peel River**	**6.43**	**17**	Pn	**Pn**	**17 19 53.4**	**+1.6**
CCB	**Clear Creek Bu**	**6.45**	**324**		**Pn**	**17 19 52.7**	**+0.8**
H29M	**Whitestone**	**6.51**	**2**		**Pn**	**17 19 53.6**	**+0.8**
H29M	**Whitestone**	**6.51**	**2**	Pn	**Pn**	**17 19 53.9**	**+1.0**
PRP	**Porcupine Dome**	**6.55**	**335**		**Pn**	**17 19 53.7**	**+0.2**
SKT	**Skwentna**	**6.57**	**295**		**Pn**	**17 19 54.4**	**+0.7**
TRF	**Thorofare Moun**	**6.58**	**309**		**Pn**	**17 19 54.2**	**+0.3**
STLK	**Strandline Lak**	**6.61**	**291**		**Pn**	**17 19 54.5**	**+0.3**
H27K	**Steamboat Moun**	**6.62**	**351**		**Pn**	**17 19 55.4**	**+1.0**
H27K	**Steamboat Moun**	**6.62**	**351**	Pn	**Pn**	**17 19 55.5**	**+1.1**
SPCG	**Spurr Capps Gl**	**6.66**	**289**		**Pn**	**17 19 55.8**	**+0.8**
SPU	**Mount Spurr**	**6.67**	**288**		**Pn**	**17 19 55.6**	**+0.6**
EPYK	**Eagle Plains**	**6.73**	**8**		**Pn**	**17 19 56.9**	**+1.0**
EPYK	**Eagle Plains**	**6.73**	**8**	Pn	**Pn**	**17 19 57.3**	**+1.5**
RDYT	**Redoubt**	**6.80**	**283**		**Pn**	**17 19 55.9**	**-0.9**
MDM	**Murphy Dome**	**6.80**	**324**		**Pn**	**17 19 57.8**	**+1.0**
CKL	**Chakachamna La**	**6.80**	**288**		**Pn**	**17 19 56.9**	**0.0**
SPBG	**Spurr Blockage**	**6.83**	**289**		**Pn**	**17 19 57.3**	**+0.1**
O20K	**Slope Mountain**	**6.91**	**279**		**Pn**	**17 19 58.2**	**-0.2**
DFR	**Drift River**	**6.93**	**283**		**Pn**	**17 19 57.7**	**-1.1**
RDSO	**Redoubt South**	**6.96**	**282**		**Pn**	**17 19 58.2**	**-0.9**
RED	**Redoubt Volcan**	**6.98**	**282**		**Pn**	**17 19 59.2**	**-0.1**
SPNN	**North Nagishla**	**7.00**	**289**		**Pn**	**17 19 59.3**	**-0.4**
NCT	**North Crescent**	**7.05**	**283**		**Pn**	**17 19 59.7**	**-0.7**
IVE	**Iliamna Volcan**	**7.11**	**278**		**Pn**	**17 19 59.9**	**-1.3**
PPLA	**Purkeypile**	**7.13**	**302**		**Pn**	**17 20 01.6**	**+0.1**
ILS	**Iliamna Low So**	**7.14**	**278**		**Pn**	**17 20 01.5**	**-0.1**
ILSW	**Iliamna Southw**	**7.18**	**278**		**Pn**	**17 20 02.2**	**+0.1**
BPAW	**Bear Paw Mtn.**	**7.18**	**313**		**Pn**	**17 20 02.2**	**+0.2**
G27K	**Doyon Strip**	**7.20**	**351**		**Pn**	**17 20 02.9**	**+0.6**
G29M	**Pine Creek**	**7.21**	**3**		**Pn**	**17 20 03.4**	**+0.9**
G29M	**Pine Creek**	**7.21**	**3**	Pn	**Pn**	**17 20 03.9**	**+1.5**
P19K	**Oil Pt**	**7.26**	**275**		**Pn**	**17 20 03.4**	**+0.3**
H25L	**Birch Creek**	**7.26**	**337**		**Pn**	**17 20 03.9**	**+0.8**
I23K	**Minto, Yukon-K**	**7.27**	**323**		**Pn**	**17 20 04.0**	**+0.8**
M20K	**Styx River**	**7.28**	**293**		**Pn**	**17 20 04.3**	**+0.8**
CAST	**Castle Rocks**	**7.29**	**306**		**Pn**	**17 20 03.8**	**+0.2**
G30M	**tAoh Zraii Nji**	**7.37**	**8**		**Pn**	**17 20 05.8**	**+1.2**
G30M	**tAoh Zraii Nji**	**7.37**	**8**	Pn	**Pn**	**17 20 06.2**	**+1.6**
KDAK	**Kodiak Island**	**7.38**	**261**	Pn	**Pn**	**17 20 04.0**	**-0.8**
	comp=E,76nm,0.4s,baz=34,slow=4.8,SNR=303						
KDAK				Sn	**Sn**	**17 21 23.8**	**-5.0**
	comp=E,16nm,0.3s,baz=201,slow=21,SNR=24						
KDAK				LR	LR	17 22 48.9	
	comp=E,141nm,19.3s,baz=63,slow=37						
KDAK	**Kodiak Island**	**7.38**	**261**		**Pn**	**17 20 03.9**	**-0.9**
AUJK	**Augustine Jueg**	**7.39**	**273**		**Pn**	**17 20 05.3**	**+0.4**
G26K	**Porcupine Rive**	**7.56**	**345**		**Pn**	**17 20 07.8**	**+0.6**
CHUM	**Lake Minchumin**	**7.59**	**309**		**Pn**	**17 20 07.9**	**+0.4**
NBC1	**NorthernBC 1**	**7.63**	**84**	Pn	**Pn**	**17 20 08.4**	**+0.3**
MLY	**Manley**	**7.64**	**319**		**Pn**	**17 20 08.5**	**+0.2**
L20K	**Farewell, AK**	**7.76**	**297**		**Pn**	**17 20 10.4**	**+0.5**
G25K	**Bearman Lake**	**7.76**	**338**		**Pn**	**17 20 10.7**	**+0.8**
OHAK	**Old Harbor**	**7.95**	**258**		**Pn**	**17 20 11.1**	**-1.5**
G24K	**Hadweenzic Riv**	**7.98**	**335**		**Pn**	**17 20 13.8**	**+0.8**
F30M	**Barrier River**	**8.02**	**9**		**Pn**	**17 20 14.8**	**+1.3**
F30M	**Barrier River**	**8.02**	**9**	Pn	**Pn**	**17 20 15.0**	**+1.4**
F31M	**Tsiigehtchic**	**8.06**	**14**		**Pn**	**17 20 14.7**	**+0.7**
F31M	**Tsiigehtchic**	**8.06**	**14**	Pn	**Pn**	**17 20 15.5**	**+1.4**
K20K	**Telida**	**8.10**	**303**		**Pn**	**17 20 14.3**	**-0.3**
BMAR	**Burnt Mountain**	**8.12**	**344**		**Pn**	**17 20 15.3**	**+0.4**
BM01	**Burnt Mountain**	**8.13**	**344**		**Pn**	**17 20 15.7**	**+0.7**
L19K	**White Mountain**	**8.14**	**299**		**Pn**	**17 20 15.5**	**+0.3**
KAHG	**Katmai Hook Gl**	**8.15**	**268**		**Pn**	**17 20 15.3**	**-0.1**
KAWH	**Katmai**	**8.31**	**267**		**Pn**	**17 20 17.5**	**0.0**
F26K	**Sheenjek River**	**8.31**	**346**		**Pn**	**17 20 18.3**	**+0.7**
F26K	**Sheenjek River**	**8.31**	**346**	Pn	**Pn**	**17 20 18.6**	**+1.0**
Q18K	**Katmai Hardscr**	**8.34**	**269**		**Pn**	**17 20 17.8**	**-0.3**
F25K	**Christian Rive**	**8.43**	**342**		**Pn**	**17 20 19.9**	**+0.7**
F25K	**Christian Rive**	**8.43**	**342**	Pn	**Pn**	**17 20 20.3**	**+1.2**
J20K	**Nowinta River**	**8.44**	**308**		**Pn**	**17 20 19.4**	**+0.1**
M18K	**Stony River**	**8.51**	**289**		**Pn**	**17 20 19.9**	**-0.2**
N18K	**Kilae Creek**	**8.51**	**284**		**Pn**	**17 20 19.3**	**-1.0**
CAHL	**Cahill**	**8.66**	**266**		**Pn**	**17 20 22.0**	**-0.3**
SII	**Sitkinak Islan**	**8.69**	**255**		**Pn**	**17 20 21.5**	**-1.2**
E29M	**Blow River**	**8.70**	**2**		**Pn**	**17 20 23.6**	**+0.9**
E29M	**Blow River**	**8.70**	**2**	Pn	**Pn**	**17 20 24.2**	**+1.4**
ANCK	**Angle Creek**	**8.71**	**267**		**Pn**	**17 20 23.3**	**+0.2**
F24K	**Squaw Lake**	**8.76**	**337**		**Pn**	**17 20 24.3**	**+0.6**
KJL	**Kejulik**	**8.80**	**266**		**Pn**	**17 20 24.4**	**+0.1**
Q17K	**Contact Creek**	**8.89**	**268**		**Pn**	**17 20 25.4**	**-0.2**
E28M	**Babbage River**	**8.91**	**358**		**Pn**	**17 20 26.4**	**+0.8**
E28M	**Babbage River**	**8.91**	**358**	Pn	**Pn**	**17 20 26.8**	**+1.2**
INK	**Inuvik**	**8.91**	**13**	Pn	**Pn**	**17 20 25.2**	**-0.5**
	comp=E,1.1nm,0.3s,baz=202,slow=15,SNR=18						
INK				Sn	**Sn**	**17 22 04.6**	**-1.7**
	comp=E,0.3nm,0.3s,baz=256,slow=10,SNR=3.4						
INK				Lg	Lg	17 22 49.2	
	comp=E,1.0nm,0.3s,baz=268,slow=13,SNR=3.7						
INK				LR	LR	17 24 10.2	
	comp=E,445nm,18.7s,baz=220,slow=40						
	comp=E,2.9nm,0.4s						
INK				AML	AML		
INK	**Inuvik**	**8.91**	**13**		**Pn**	**17 20 26.1**	**+0.4**
INK	**Inuvik**	**8.91**	**13**	Pn	**Pn**	**17 20 27.0**	**+1.3**
P17K	**Kvichak River**	**8.95**	**274**		**Pn**	**17 20 25.9**	**-0.3**
J19K	**Poorman**	**8.97**	**306**		**Pn**	**17 20 26.6**	**+0.1**
L18K	**Granite Mounta**	**8.99**	**294**		**Pn**	**17 20 26.7**	**-0.2**
N17K	**Nushagak Hills**	**9.16**	**283**		**Pn**	**17 20 28.4**	**-0.7**
O17K	**Koliganek Bris**	**9.18**	**278**		**Pn**	**17 20 29.0**	**-0.4**
IM01	**Indian Mountai**	**9.21**	**319**		**Pn**	**17 20 30.6**	**+0.7**
IMAR	**Indian Mountai**	**9.21**	**319**		**Pn**	**17 20 30.3**	**+0.5**
J18K	**Innoko River**	**9.26**	**301**		**Pn**	**17 20 30.8**	**+0.3**
PLK3	**Peulik 3**	**9.27**	**265**		**Pn**	**17 20 30.9**	**+0.3**
M17K	**Holitna River**	**9.27**	**288**		**Pn**	**17 20 30.8**	**+0.1**
H20K	**Anotleneega Mo**	**9.34**	**315**		**Pn**	**17 20 32.6**	**+1.0**
E24K	**Your Creek**	**9.36**	**337**		**Pn**	**17 20 32.6**	**+0.7**
PLBL	**Peulik Blue Cr**	**9.54**	**265**		**Pn**	**17 20 34.2**	**-0.2**
D27M	**Malcolm River**	**9.58**	**356**	Pn	**Pn**	**17 20 36.5**	**+1.6**
D28M	**Stokes Point**	**9.63**	**0**		**Pn**	**17 20 36.6**	**+1.1**
D28M	**Stokes Point**	**9.63**	**0**	Pn	**Pn**	**17 20 37.1**	**+1.6**
BBB	**Bella Bella**	**9.68**	**137**	LR	LR	17 24 11.6	
	comp=E,85nm,19.4s,baz=10,slow=36						
O16K	**Kokwok River B**	**9.71**	**277**		**Pn**	**17 20 36.9**	**+0.2**
L17K	**Donlin**	**9.73**	**293**		**Pn**	**17 20 36.7**	**-0.2**
P16K	**Nushagak River**	**9.76**	**274**		**Pn**	**17 20 38.5**	**+1.1**
K17K	**Iditarod**	**9.81**	**296**		**Pn**	**17 20 38.3**	**+0.3**
D25K	**Kavik River**	**10.13**	**345**		**Pn**	**17 20 43.2**	**+0.8**
C26K	**Camden Bay**	**10.53**	**349**		**Pn**	**17 20 48.3**	**+0.5**
N15K	**Kwethluk River**	**10.63**	**281**		**Pn**	**17 20 49.8**	**+0.6**
O15K	**Ungalikthiuk R**	**10.66**	**276**		**Pn**	**17 20 51.4**	**+1.7**
G18K	**Tagagawik**	**10.90**	**313**		**Pn**	**17 20 53.1**	**+0.1**
K15K	**Wolf Creek Mou**	**11.26**	**293**		**Pn**	**17 20 56.8**	**-1.0**
C36M	**Paulatuk**	**11.52**	**27**		**Pn**	**17 21 00.4**	**-0.8**
YKA	**Yellowknife Ar**	**12.04**	**66**	Pn	**Pn**	**17 21 09.1**	**+0.7**
	comp=E,0.3nm,0.3s,baz=268,slow=13,SNR=16						
YKA				Lg	Lg	17 24 28.6	
	baz=271,slow=29,SNR=5.1						
YKA				LR	LR	17 25 32.7	
	comp=E,86nm,21.2s,baz=304,slow=36						
	comp=E,3.5nm,0.8s						
YKA				AML	AML		
YKA	**Yellowknife Ar**	**12.04**	**66**		**Pn**	**17 21 08.5**	**+0.1**
CNBA	**Chernabura Isl**	**12.21**	**255**		**Pn**	**17 21 10.4**	**-0.4**
PN7A	**Pavlof North-7**	**13.09**	**261**		**Pn**	**17 21 22.6**	**-0.3**
A36M	**Sachs Harbour**	**13.45**	**18**		**Pn**	**17 21 27.3**	**-0.3**
EDM	**Edmonton**	**15.48**	**104**		**Pn**	**17 21 56.5**	**+1.2**
C09A	**Chrisman Ranch**	**16.98**	**126**	Pn	**Pn**	**17 22 13.7**	**-0.9**
NEW	**Newport**	**17.10**	**123**	P	**P**	**17 22 20.1**	**+2.2**
	comp=E,0.1nm,0.3s,baz=334,slow=7.3,SNR=5.4						
NEW				LR	LR	17 29 38.0	
	comp=E,100nm,19.0s,baz=322,slow=40						
	comp=E,3.9nm,0.7s						
NEW				AML	AML		
NEW	**Newport**	**17.10**	**123**		**Pn**	**17 22 14.6**	**-1.5**
LNOR	**Lincton Mounta**	**18.54**	**129**		**Pn**	**17 22 34.9

FINES				LR	LR	17 57 21.2			
	comp=Z,21nm,18.5s,baz=245,slow=40								
	comp=Z,2.1nm,0.8s								
FINES	**FINESS Array B**	**58.59**	**8**	P	**P**	**17 28 12.6**	**-0.9**		
EKA	**Eskdalemuir Ar**	**59.97**	**27**	P	**P**	**17 28 23.6**	**+0.3**		
	comp=Z,2.0nm,0.7s,baz=337,slow=7.0,SNR=2.9								
EKA				LR	LR	17 56 50.8			
	comp=Z,62nm,18.2s,baz=9.5,slow=39								
	comp=Z,2.0nm,0.7s								
KSRS	**Korea Array**	**60.01**	**293**	P	**P**	**17 28 25.1**	**+1.3**		
	comp=Z,3.8nm,0.7s,baz=29,slow=7.3,SNR=9.6								
	comp=Z,3.8nm,0.7s								
SONM	**Songino Array**	**60.36**	**315**	P	**P**	**17 28 26.3**	**+0.1**		
	comp=Z,1.2nm,0.8s,baz=32,slow=8.5,SNR=3.9								
	comp=Z,1.2nm,0.8s								
SONM	**Songino Array**	**60.36**	**315**	P	**P**	**17 28 25.2**	**-1.0**		
SONM				IAmb	IAmb	17 28 30.1			
	comp=Z,3.8nm,1.4s								
ZAA0	**Zalesovo Array**	**61.37**	**332**		**P**	**17 28 31.7**	**-1.1**		
ZALV	**Zalesovo Beam**	**61.37**	**332**	P	**P**	**17 28 32.4**	**-0.4**		
	comp=Z,3.6nm,0.8s,baz=18,slow=6.8,SNR=11								
ZALV				LR	LR	17 57 45.3			
	comp=Z,42nm,18.1s,baz=40,slow=39								
	comp=Z,3.6nm,0.8s								
ZALV	**Zalesovo Beam**	**61.37**	**332**	P	**P**	**17 28 31.8**	**-1.0**		
ARTI	**Arti**	**63.41**	**349**	LR	LR	18 00 00.0			
	comp=Z,18nm,18.1s,baz=34,slow=40								
ARTI	**Arti**	**63.41**	**349**		**P**	**17 28 45.9**	**-0.5**		
HHC	**Hu-ho-hao-te**	**64.32**	**308**	*e*P	**P**	**17 28 51.6**	**-1.2**		
HHC				pmax	pmax				
	comp=Z,9.0nm,0.7s								
HHC				pmax	pmax				
	comp=Z,110nm,6.0s								
BVAR	**Borovoye Array**	**65.14**	**341**	P	**P**	**17 28 58.0**	**+0.1**		
	comp=Z,1.5nm,0.6s,baz=348,slow=6.4,SNR=5.9								
	comp=Z,1.5nm,0.6s								
KURK	**Kurchatov**	**65.78**	**335**	P	**P**	**17 29 01.9**	**-0.1**		
KURBB	**Kurchatov Arra**	**65.89**	**335**	P	**P**	**17 29 02.4**	**-0.2**		
	comp=Z,2.5nm,0.9s,baz=24,slow=6.1,SNR=12								
KURBB				LR	LR	18 00 05.9			
	comp=Z,31nm,19.6s,baz=171,slow=38								
	comp=Z,2.5nm,0.9s								
MKAR	**Makanchi Array**	**68.61**	**331**	P	**P**	**17 29 19.3**	**-0.7**		
	comp=Z,1.3nm,0.9s,baz=41,slow=4.8,SNR=4.6								
MKAR				LR	LR	18 01 24.5			
	comp=Z,34nm,19.9s,baz=329,slow=38								
	comp=Z,1.3nm,0.9s								
MKAR	**Makanchi Array**	**68.61**	**331**	P	**P**	**17 29 18.9**	**-1.1**		
AKASG	**Malin Array Be**	**69.49**	**8**	P	**P**	**17 29 24.9**	**-0.5**		
	comp=Z,2.6nm,0.6s,baz=356,slow=6.2,SNR=14								
	comp=Z,2.6nm,0.6s								
KIEV	**Kiev**	**69.50**	**8**		**P**	**17 29 24.8**	**-0.6**		
WMQ	**Urumqi**	**69.94**	**326**	*e*P	**P**	**17 29 29.8**	**+1.4**		
WMQ				L	L				
	comp=Z,110nm,24.2s								
ABKAR	**Akbulak array**	**70.28**	**347**		**P**	**17 29 29.8**	**-0.5**		
DAVOX	**Davos/Dischmat**	**70.81**	**22**	LR	LR	18 01 13.7			
	comp=Z,29nm,19.4s,baz=274,slow=36								
LZH	**Lanzhou**	**71.47**	**311**	*e*P	**P**	**17 29 37.6**	**-0.3**		
LZH				sP	sP	17 29 47.6	+7.0		
LZH				pmax	pmax				
	comp=Z,15nm,1.4s								
ESDC	**Sonseca Array**	**74.20**	**35**	P	**P**	**17 29 54.4**	**+0.4**		
	comp=Z,1.1nm,0.7s,baz=337,slow=6.0,SNR=7.0								
	comp=Z,1.1nm,0.7s								
KBZ	**Khabaz**	**76.88**	**359**	P	**P**	**17 30 09.5**	**+0.4**		
	comp=Z,2.6nm,0.9s,baz=7.1,slow=8.1,SNR=2.5								
KBZ				LR	LR	18 07 09.4			
	comp=Z,7.8nm,21.9s,baz=42,slow=38								
	comp=Z,2.6nm,0.9s								
KSH2	**Kashi**	**77.44**	**333**	P	**P**	**17 30 14.8**	**+2.2**		
KSH2				pmax	pmax				
	comp=Z,3.0nm,1.5s								
BRTR	**Keskin Array B**	**80.70**	**6**	P	**P**	**17 30 30.6**	**+0.2**		
	comp=Z,0.9nm,0.7s,baz=328,slow=2.3,SNR=5.7								
	comp=Z,0.9nm,0.7s								
BRTR	**Keskin Array B**	**80.70**	**6**	P	**P**	**17 30 29.9**	**-0.6**		
CMAR	**Chiang Mai Arr**	**89.11**	**307**	P	**P**	**17 31 13.9**	**+1.1**		
	comp=Z,2.8nm,0.8s,baz=5.0,slow=4.9,SNR=19								
	comp=Z,2.8nm,0.8s								
CMAR	**Chiang Mai Arr**	**89.11**	**307**		**P**	**17 31 12.7**	**-0.1**		
BOSA	**Boshof**	**147.05**	**26**	PKPbc	**PKPdf**	**17 37 59.2**	**+1.3**		
	comp=Z,1.9nm,0.7s,baz=34,slow=6.1,SNR=4.5								
BOSA	**Boshof**	**147.05**	**26**		**PKPdf**	**17 37 59.0**	**+1.0**		
QSPA	**South Pole Qui**	**149.55**	**180**	PKPbc	**PKPbc**	**17 38 05.2**	**-0.1**		
	comp=Z,14nm,1.2s,baz=217,slow=0.4,SNR=21								
QSPA	**South Pole Qui**	**149.55**	**180**		**PKPbc**	**17 38 05.0**	**-0.2**		

*IDC **16** 17:38:40.1±1.2,24°.85S×179°.77E,h498km±13km, mb3.3/11,mbtmp4.2/15,Error ellipse: s-maj=15.5km s-min=13.7km az=67.0*
*NEIC **16** 17:38:40.2±1.9,24°.9S±0°.1×179°.96E±0°.07,h505km±8km, mb4.2/16,Error ellipse: s-maj=16.1km s-min=9.5km az=171.0*
*NOU **16** 17:38:41.0,24°.95S×178°.97E,h415km,mb4.1/21,South of Fiji Islands*

ISC 16 17:38:40.0±0.6,24°.86S±0°.07×179°.84E±0°.10,h501km,n57, σ0s95/53,mb4.1/18,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**4.81**	**156**	P	**P**	**17 40 04.8**	**-0.4**
	139nm,0.4s,baz=259,slow=23,SNR=2.2						
MSVF	**Nonsavu**	**7.29**	**346**	P	**P**	**17 40 29.1**	**-0.2**
	6.7nm,0.7s,baz=240,slow=16,SNR=8.2						
MSVF	**Nonsavu**	**7.29**	**346**	P	**P**	**17 40 29.6**	**+0.3**
MSVF	**Nonsavu**	**7.29**	**346**	P	**P**	**17 40 29.6**	**+0.3**
DGTI	**Dogotuki**	**8.52**	**359**	P	**P**	**17 40 43.0**	**+1.1**
MARNC	**Mare, Loyalty**	**11.37**	**285**	P	**P**	17 41 05.3	-6.7
PINNC	**Pines Island,**	**11.57**	**279**	P	**P**	17 41 07.5	-6.5
YATNC	**Mamie plateau,**	**12.21**	**281**	P	**P**	17 41 14.6	-6.2
DZM	**Mont Dzumac**	**12.61**	**280**	P	**P**	**17 41 25.2**	**+0.1**
	6.7nm,1.0s,baz=100,slow=18,SNR=1.9						
URZ	**Urewera**	**13.56**	**189**	P	**P**	**17 41 35.8**	**+1.0**
	6.6nm,0.9s,baz=14,slow=17,SNR=2.1						
URZ				S	**S**	**17 43 57.5**	**-1.6**
	6.0nm,0.7s,baz=196,slow=22,SNR=3.9						
QRZ	**Quartz Range**	**17.05**	**199**	P	**P**	**17 42 10.6**	**-0.7**
KHZ	**Kahutara**	**18.27**	**195**	P	**P**	**17 42 24.2**	**+1.7**
HNR	**Honiara**	**24.38**	**306**	P	**P**	**17 43 17.8**	**-0.3**
TATA	**Tatamba Isabel**	**25.18**	**307**	P	**P**	**17 43 24.2**	**-1.0**
CMSA	**Cobar Meteorol**	**30.74**	**250**	P	**P**	**17 44 14.2**	**+0.5**
CTA	**Charters Tower**	**31.35**	**272**	P	**P**	**17 44 19.9**	**+0.8**
CTAO	**Charters Tower**	**31.35**	**272**	P	**P**	**17 44 19.9**	**+0.8**
CTAO	**Charters Tower**	**31.35**	**272**	P	**P**	**17 44 19.9**	**+0.8**
QLP	**Quilpie**	**32.06**	**259**	P	**P**	**17 44 25.6**	**+0.5**
MTSU	**Mount Surprise**	**33.66**	**274**	P	**P**	**17 44 39.9**	**+1.1**
STKA	**Stephens Creek**	**34.24**	**249**	P	**P**	**17 44 43.8**	**+0.3**
	2.7nm,0.4s,baz=91,slow=11,SNR=7.5						
	2.7nm,0.4s						
STKA	**Stephens Creek**	**34.24**	**249**	P	**P**	**17 44 44.2**	**+0.7**
STKA	**Stephens Creek**	**34.24**	**249**	IAmb	IAmb	17 44 44.4	
	comp=Z,20nm,0.6s						
INKA	**Innaminka**	**35.07**	**257**	P	**P**	**17 44 51.6**	**+1.1**
INKA				IAmb	IAmb	17 44 52.7	
	comp=Z,3.5nm,0.8s						
HTT	**Hallett**	**36.56**	**247**	P	**P**	**17 45 02.9**	**+0.1**
QIS	**Mount Isa**	**37.27**	**268**	P	**P**	**17 45 08.9**	**0.0**
BBOO	**Buckleboo**	**38.94**	**248**	P	**P**	**17 45 21.7**	**-0.6**
AS31	**Alice Springs**	**41.74**	**262**		**P**	**17 45 44.8**	**-0.2**
AS31				IAmb	IAmb	17 45 47.3	
	comp=Z,2.2nm,0.4s						
ASAR	**Alice Springs**	**41.74**	**262**	P	**P**	**17 45 45.0**	**0.0**
	comp=Z,2.5nm,0.3s,baz=92,slow=7.3,SNR=236						
ASAR				ScP	**ScP**	**17 50 32.4**	**+0.2**
	comp=Z,0.5nm,0.9s,baz=63,slow=4.8,SNR=4.1						
	comp=Z,2.5nm,0.3s						
WR8	**Warramunga Arr**	**42.06**	**267**		**P**	**17 45 46.5**	**-0.9**
WR8				IAmb	IAmb	17 45 47.7	
	comp=Z,8.3nm,0.9s						
WRAB	**Tennant Creek**	**42.20**	**267**	P	**P**	**17 45 47.7**	**-0.9**
WRAB				IAmb	IAmb	17 45 48.9	
	comp=Z,14nm,1.1s						
WB0	**Warramunga Arr**	**42.20**	**268**		**P**	**17 45 47.8**	**-0.8**
WRA	**Warramunga Arr**	**42.21**	**267**	P	**P**	**17 45 48.2**	**-0.5**
	comp=Z,8.5nm,0.5s,baz=104,slow=8.0,SNR=97						
WRA				ScP	**ScP**	**17 50 36.6**	**+2.5**
	comp=Z,0.2nm,0.7s,baz=98,slow=3.5,SNR=6.2						
WRA				S	**S**	**17 51 30.3**	**-2.0**
	comp=Z,1.6nm,1.0s,baz=104,slow=14,SNR=5.2						
	comp=Z,8.5nm,0.5s						
WRA	**Warramunga Arr**	**42.21**	**267**		**P**	**17 45 48.1**	**-0.5**
SIJI	**Sorong**	**52.61**	**289**	P	**P**	**17 47 07.0**	**0.0**
	comp=Z,20nm,0.5s,baz=126,slow=10,SNR=12						
VNDA	**Vanda**	**53.41**	**185**	P	**P**	**17 47 12.2**	**+0.5**
	comp=Z,0.2nm,0.5s,baz=18,slow=5.0,SNR=5.5						
	comp=Z,0.2nm,0.5s						
VNDA	**Vanda**	**53.41**	**185**	IAmb	IAmb	17 47 20.6	
	comp=Z,1.5nm,1.4s						
TOLI2	**Tolitoli**	**62.68**	**285**		**P**	**17 48 15.1**	**-0.7**
TOLI2				IAmb	IAmb	17 48 17.2	
	comp=Z,7.9nm,0.7s						
QSPA	**South Pole Qui**	**65.23**	**180**	P	**P**	**17 48 31.6**	**+0.3**
	comp=Z,0.7nm,0.6s,baz=3.2,slow=0.1,SNR=8.7						
	comp=Z,0.7nm,0.6s						
QSPA	**South Pole Qui**	**65.23**	**180**	P	**P**	**17 48 31.2**	**-0.1**
QSPA				IAmb	IAmb	17 49 03.1	
	comp=Z,4.8nm,1.5s						
MJAR	**Matsushiro Arr**	**72.61**	**326**	P	**P**	**17 49 16.1**	**0.0**
	comp=Z,2.2nm,0.8s,baz=146,slow=5.9,SNR=5.7						
	comp=Z,2.2nm,0.8s						
MJAR	**Matsushiro Arr**	**72.61**	**326**	IAmb	IAmb	17 49 50.9	
	comp=Z,17nm,0.8s						
MAW	**Mawson**	**76.80**	**201**	P	**P**	**17 49 39.4**	**+0.2**
	comp=Z,1.2nm,0.5s,baz=153,slow=4.5,SNR=1.6						
	comp=Z,1.2nm,0.5s						
KSRS	**Korea Array**	**78.89**	**320**	P	**P**	**17 49 50.9**	**+0.1**
	comp=Z,1.0nm,0.7s,baz=129,slow=4.8,SNR=4.2						
	comp=Z,1.0nm,0.7s						
PETK	**Petropavlovsk-**	**80.00**	**347**	P	**P**	**17 49 56.2**	**-0.2**
	comp=Z,1.6nm,0.6s,baz=115,slow=6.7,SNR=5.8						
	comp=Z,1.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**89.72**	**290**	P	**P**	**17 50 46.7**	**+1.9**
	comp=Z,1.2nm,0.7s,baz=146,slow=3.3,SNR=12						
	comp=Z,1.2nm,0.7s						
CHTO	**Chiang Mai**	**89.88**	**291**	P	**P**	**17 50 46.2**	**+0.7**
CHTO				IAmb	IAmb	17 50 47.9	
	comp=Z,2.0nm,0.8s						
TXAR	**Lajitas Array**	**91.06**	**58**	P	**P**	**17 50 51.8**	**+0.9**
	comp=Z,0.3nm,0.7s,baz=230,slow=5.9,SNR=4.3						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**91.06**	**58**	P	**P**	**17 50 51.1**	**+0.2**
BOZ	**Bozeman (W)**	**93.68**	**41**	P	**P**	**17 50 59.6**	**-3.0**
BVAR	**Borovoye Array**	**121.06**	**318**	PKP	**PKPdf**	**17 56 34.5**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=109,slow=2.8,SNR=5.3						
FINES	**FINESS Array B**	**139.30**	**341**	PKhKP	PKPpre	17 56 59.0	
	comp=Z,1.9nm,0.8s,baz=46,slow=5.5,SNR=5.0						
HFS	**Hagfors**	**143.45**	**348**	PKP	PKPab	17 57 14.3	-0.5
	comp=Z,2.3nm,0.5s,baz=69,slow=8.1,SNR=12						
AKASG	**Malin Array Be**	**145.69**	**326**	PKPbc	**PKPdf**	**17 57 21.5**	**+0.8**
	comp=Z,1.9nm,0.5s,baz=45,slow=4.3,SNR=7.6						
MMAI	**Mount Meron Ar**	**147.95**	**293**	PKPbc	**PKPbc**	**17 57 29.2**	**+0.3**
	comp=Z,1.4nm,0.4s,baz=61,slow=7.8,SNR=5.6						
BRTR	**Keskin Array B**	**148.03**	**306**	PKPbc	**PKPbc**	**17 57 28.8**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=116,slow=3.4,SNR=6.5						
BRTR	**Keskin Array B**	**148.03**	**306**		**PKPbc**	**17 57 28.6**	**-0.5**

*MAN **16** 17:45:10.0,13°.49N×120°.64E,h2km,MS2.9*
*IDC **16** 17:45:11.9±12.0,13°.17N×120°.57E,h0km,mb3.1/3, mbtmp3.2/3,Error ellipse: s-maj=439.6km s-min=31.7km az=40.0*

ISC 16 17:45:11.2±1.2,13°.57N±0°.09×120°.69E±0°.07,h10km,n7, σ1s20/11,mb3.1/3,Mindoro

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PGP	**Puerto Galera**	**0.27**	**104**	*e*P	**Pb**	**17 45 17.4**	**-0.7**
PGP				*e*S	**Sb**	**17 45 23.2**	**+0.3**
TGY	**Tagaytay City**	**0.58**	**25**	*e*P	**Pn**	**17 45 24.8**	**-0.8**
TGY				*e*S	**Sn**	**17 45 34.9**	**-0.5**
LQP	**Lukban**	**0.99**	**57**	*e*P	**Pn**	**17 45 31.1**	**-0.3**
LQP				*e*S	**Sg**	**17 45 43.4**	**+0.2**
GQP	**Guinayangan**	**1.74**	**79**	*e*P	**Pg**	**17 45 44.8**	**+0.1**
GQP				*e*S	**Sg**	**17 46 09.4**	**+2.0**
CMAR	**Chiang Mai Arr**	**21.45**	**286**	P	**P**	**17 50 02.1**	**+2.2**
	0.3nm,0.5s,baz=98,slow=11,SNR=4.0						
	0.3nm,0.5s						
WRA	**Warramunga Arr**	**35.91**	**158**	P	**P**	**17 52 11.4**	**-0.5**
	0.3nm,0.7s,baz=336,slow=9.0,SNR=5.1						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**39.20**	**161**	P	**P**	**17 52 38.9**	**-0.9**
	0.3nm,0.7s,baz=337,slow=6.6,SNR=5.2						
	0.3nm,0.7s						

*IDC **16** 17:48:26.6±0.7,46°.86S×33°.18E,h0km,mb4.1/10, mbtmp4.1/12,ML4.1/2,MS3.5/17,Error ellipse: s-maj=33.0km s-min=17.1km az=57.0*
*NEIC **16** 17:48:28.9±1.3,46°.85S±0°.1×33°.44E±0°.09,h10km±1km, mb4.4/15,Error ellipse: s-maj=19.0km s-min=9.9km az=168.0*

ISC 16 17:48:28.3±0.6,46°.7S±0°.1×33°.1E±0°.2,h10km,n44, σ1s86/26,mb4.4/14,MS3.5/15,Prince Edward Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H04S3	**CROZET ISLANDS**	**12.86**	**97**	T	T	18 04 27.4	
	baz=263,slow=77,SNR=132						
H04S2	**CROZET ISLANDS**	**12.86**	**97**	T	T	18 04 35.9	
	baz=263,slow=77,SNR=219						
H04S1	**CROZET ISLANDS**	**12.88**	**97**	T	T	18 04 32.6	
	baz=263,slow=77,SNR=90						
SUR	**Sutherland**	**17.17**	**322**	P	**Pn**	**17 52 29.4**	**+1.0**
	0.5nm,0.3s,baz=139,slow=13,SNR=17						
SUR				S	**Sn**	**17 55 33.2**	**-6.2**
	6.6nm,0.9s,baz=64,slow=12,SNR=2.2						
SUR				LR	LR	17 57 59.1	
	comp=Z,206nm,19.5s,baz=154,slow=33						
	2.6nm,0.5s						
SUR				AML	AML		
SUR	**Sutherland**	**17.17**	**322**	IAmb	IAmb	17 52 52.1	
	comp=Z,28nm,1.3s						
BOSA	**Boshof**	**19.12**	**338**	P	**Pn**	**17 52 53.9**	**+1.6**
	comp=Z,0.5nm,0.3s,baz=153,slow=13,SNR=14						
BOSA				LR	LR	17 59 09.5	
	comp=Z,148nm,20.1s,baz=192,slow=33						
	comp=Z,8.3nm,0.9s						
BOSA				AML	AML		
BOSA	**Boshof**	**19.12**	**338**	P	**P**	**17 52 52.2**	**+0.7**
MAKGR	**Makgori**	**21.92**	**340**	P	**P**	**17 53 24.2**	**+2.4**
MAKGR				IAmb	IAmb	17 53 31.0	
	comp=Z,20nm,0.8s						
LBTB	**Lobatse**	**22.50**	**342**	LR	LR	18 01 12.2	
	comp=Z,149nm,20.0s,baz=152,slow=34						
LBTB	**Lobatse**	**22.50**	**342**	P	**P**	**17 53 29.3**	**+1.2**
LBTB				IAmb	IAmb	17 53 31.8	
	comp=Z,20nm,1.4s						
KDWAN	**Kaudwane**	**24.29**	**341**	P	**P**	**17 53 47.3**	**+1.4**
KDWAN				IAmb	IAmb	17 54 00.9	
	comp=Z,24nm,1.0s						
KOOLE	**Kule**	**25.89**	**332**	P	**P**	**17 54 01.3**	**+0.8**
KOOLE				IAmb	IAmb	17 54 19.9	
	comp=Z,12nm,0.9s						
MAW	**Mawson**	**25.92**	**154**	P	**P**	**17 54 00.1**	**-0.1**
	comp=Z,3.4nm,0.8s,baz=272,slow=20,SNR=3.7						
MAW				LR	LR	18 01 32.1	
	comp=Z,43nm,21.2s,baz=272,slow=30						
	comp=Z,3.4nm,0.8s						
MAW	**Mawson**	**25.92**	**154**	IAmb	IAmb	17 54 04.7	
	comp=Z,1.4nm,1.1s						
MATP	**Matopo**	**26.52**	**350**	LR	LR	18 02 59.7	
	comp=Z,363nm,22.0s,baz=196,slow=33						
TSUM	**Tsumeb**	**30.29**	**330**	LR	LR	18 05 50.4	
	comp=Z,156nm,21.6s,baz=162,slow=34						
OPO	**Ambohidratompo**	**30.39**	**27**	LR	LR	18 05 31.0	
	comp=Z,48nm,18.3s,baz=92,slow=34						
QSPA	**South Pole Qui**	**43.48**	**180**	P	**P**	**17 56 30.6**	**-0.8**
	comp=Z,2.1nm,0.8s,baz=251,slow=1.0,SNR=9.6						
QSPA				LR	LR	18 13 15.7	
	comp=Z,55nm,19.6s,baz=236,slow=34						
	comp=Z,2.1nm,0.8s						
QSPA	**South Pole Qui**	**43.48**	**180**	P	**P**	**17 56 30.9**	**-0.4**
QSPA				IAmb	IAmb	17 56 55.4	
	comp=Z,3.6nm,0.9s						
MBAR	**Mbarara**	**46.00**	**357**	LR	LR	18 14 51.1	
	comp=Z,50nm,19.2s,baz=166,slow=34						
VNDA	**Vanda**	**52.05**	**168**	P	**P**	**17 57 37.0**	**-0.5**
	comp=Z,2.5nm,0.7s,baz=252,slow=6.6,SNR=19						
VNDA				LR	LR	18 17 50.0	
	comp=Z,87nm,21.9s,baz=202,slow=34						
	comp=Z,2.5nm,0.7s						
VNDA	**Vanda**	**52.05**	**168**	P	**P**	**17 57 37.6**	**+0.1**
VNDA				IAmb	IAmb	17 57 40.8	
	comp=Z,2.2nm,0.7s						
SBA	**Scott Base**	**52.48**	**169**	P	**P**	**17 57 41.4**	**+0.8**
SBA				IAmb	IAmb	17 57 45.1	
	comp=Z,4.2nm,0.9s						
H10S2	**ASCENSION HYDR**	**55.32**	**297**	T	T	18 57 53.8	
	baz=80,slow=74,SNR=64						
H10S3	**ASCENSION HYDR**	**55.34**	**297**	T	T	18 57 51.8	
	baz=140,slow=74,SNR=81						
DBIC	**Dimbokro**	**62.96**	**317**	P	**P**	**17 58 55.8**	**+0.8**
	comp=Z,1.6nm,0.6s,baz=150,slow=8.1,SNR=1.6						
DBIC				LR	LR	18 22 44.3	
	comp=Z,18nm,20.0s,baz=24,slow=33						
	comp=Z,1.6nm,0.6s						
TORD	**Torodi Ar. Bea**	**65.95**	**326**	P	**P**	**17 59 16.5**	**+1.9**
	comp=Z,0.7nm,0.4s,baz=183,slow=8.4,SNR=2.2						
	comp=Z,0.7nm,0.4s						
BDFB	**Brasilia**	**72.75**	**265**	P	**P**	**17 59 55.3**	**-1.7**
	comp=Z,1.2nm,0.3s,baz=131,slow=9.3,SNR=1.9						
	comp=Z,1.2nm,0.3s						
BDFB	**Brasilia**	**72.75**	**265**	IAmb	IAmb	18 00 01.3	
	comp=Z,9.2nm,1.3s						
EIL	**Elat**	**76.08**	**2**	LR	LR	18 32 32.6	
	comp=Z,23nm,18.3s,baz=206,slow=35						
CO01	**Juntas del Tor**	**77.03**	**240**	P	**P**	**18 00 24.6**	**+2.9**
ASF	**Jabal al Asfar**	**78.62**	**3**	LR	LR	18 33 46.0	
	comp=Z,17nm,19.5s,baz=130,slow=34						
STKA	**Stephens Creek**	**78.69**	**125**	P	**P**	**18 00 29.7**	**-0.9**
	comp=Z,2.6nm,0.7s,baz=269,slow=5.2,SNR=4.4						
	comp=Z,2.6nm,0.7s						
ASAR	**Alice Springs**	**80.10**	**114**	P	**P**	**18 00 37.9**	**-0.6**
	comp=Z,1.3nm,0.8s,baz=224,slow=5.5,SNR=16						
	comp=Z,1.3nm,0.8s						
ASAR	**Alice Springs**	**80.10**	**114**	P	**P**	**18 00 37.6**	**-1.0**
WRA	**Warramunga Arr**	**83.09**	**112**	P	**P**	**18 00 53.5**	**-0.8**
	comp=Z,0.4nm,0.5s,baz=212,slow=6.5,SNR=3.4						
	comp=Z,0.4nm,0.5s						
WRA	**Warramunga Arr**	**83.09**	**112**	P	**P**	**18 00 53.8**	**-0.6**
VAE	**Valguarnera**	**85.51**	**345**	LR	LR	18 39 25.6	
	comp=Z,54nm,19.3s,baz=150,slow=36						
MDT	**Midelt**	**86.19**	**329**	LR	LR	18 40 08.0	
	comp=Z,42nm,20.1s,baz=210,slow=36						
GNI	**Garni**	**87.13**	**9**	LR	LR	18 40 40.7	
	comp=Z,23nm,18.4s,baz=152,slow=36						
CMAR	**Chiang Mai Arr**	**87.77**	**60**	P	**P**	**18 01 16.9**	**-0.6**
	comp=Z,0.2nm,0.3s,baz=227,slow=5.9,SNR=4.8						
	comp=Z,0.2nm,0.3s						
ESDC	**Sonseca Array**	**92.19**	**332**	LR	LR	18 43 45.7	
	comp=Z,30nm,18.2s,baz=143,slow=36						
TXAR	**Lajitas Array**	**142.33**	**258**	PKP	**PKPdf**	**18 07 58.6**	**-2.4**
	comp=Z,1.0nm,0.9s,baz=145,slow=6.3,SNR=6.3						
PDAR	**Pinedale Array**	**153.37**	**275**	PKPbc	**PKPbc**	**18 08 26.5**	**+0.1**
	comp=Z,0.3nm,0.6s,baz=97,slow=0.4,SNR=2.6						

*IDC **16** 17:48:47.4±2.4,33°.43N×141°.17E,h40km±22km,mb3.7/4, mbtmp4.0/8,ML3.5/3,MS2.6/2,Error ellipse: s-maj=17.2km s-min=11.4km az=105.0*
*NIED **16** 17:48:48.2,33°.51N×141°.04E,h45km,MW3.8,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}1.61; $M_{\theta\theta}$3.15; $M_{\phi\phi}$-4.76; $M_{r\theta}$-1.47; $M_{\theta\phi}$0.39; $M_{\phi r}$-2.76; Fault plane solution: M_o5.11000×10^{14} NP1: ϕ_s314.00000°,δ47.00000°,λ14.00000°. NP2: ϕ_s214.00000°,δ80.00000°,λ136.00000°.*
*JMA **16** 17:48:48.2±0.1,33°.5N±0°.3×141°.0E±0°.3,h45km,MV3.7/28, E OFF HACHIJOJIMA ISLAND*

ISC 16 17:48:46.1±1.7,33°.35N±0°.05×141°.16E±0°.07,h35km±5km, n18,σ0s89/25,mb3.9/4,Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**1.15**	**258**	P	**Pb**	**17 49 07.7**	**+0.2**
JHJ2				S	**Sb**	**17 49 22.1**	**-0.1**
JHCJ	**Hachijojimakas**	**1.18**	**257**	P	**Pb**	**17 49 07.7**	**-0.2**
JHCJ				S	**Sb**	**17 49 22.5**	**-0.4**
JHJ	**Hachijo jima 2**	**1.18**	**259**	P	**Pb**	**17 49 07.8**	**-0.1**
	144nm,0.3s,baz=229,slow=24,SNR=572						
JHJ				S	**Sb**	**17 49 22.4**	**-0.6**
	256nm,0.3s,baz=37,slow=20,SNR=14						
BSO1	**Boso 1**	**1.31**	**353**	P	**Pn**	**17 49 07.2**	**-0.1**
BSO1				*e*S	**Sn**	**17 49 23.2**	**-0.1**
JMKN	**Mik

LSTV	**Lastovo**	**1.29**	**281**	*e*Pg		**Pb**	17 50 43.9	-0.8
LSTV				Sg		**Sg**	17 51 01.3	-0.3
MAKA	**Makarska**	**1.39**	**303**	*e*Pn		**Pg**	17 50 46.4	-0.4
MAKA				Sg		**Sg**	17 51 05.7	+0.9
RICI	**Ricice**	**1.44**	**312**	*e*Pn		**Pb**	17 50 46.9	-0.4
RICI				Sg		**Sg**	17 51 07.1	+0.5
BBLS	**Lazi&#263i**	**1.45**	**23**	*e*Pn		**Pb**	17 50 47.8	+0.4
BBLS				*e*Sn		**Sg**	17 51 08.9	+2.2
IVAS	**Ivanjica**	**1.53**	**47**	*e*Pn		**Pn**	17 50 47.7	-0.2
IVAS				*e*Sn		**Sb**	17 51 09.4	+0.9
HVAR	**Hvar**	**1.71**	**293**	*e*Pn		**Pb**	17 50 50.8	-1.1
HVAR				Sn		**Sb**	17 51 13.0	-0.6
DIVS	**Divibare**	**1.85**	**33**	*e*Pn		**Pb**	17 50 53.7	-0.7
GOCS	**Kraljevo Serbi**	**1.95**	**58**	*e*Pn		**Pn**	17 50 54.6	+0.9
GOCS				*e*Sn		**Sb**	17 51 20.0	-0.5
SELS	**Selova**	**1.96**	**69**	*e*Pn		**Pb**	17 50 55.0	-1.3
SELS				*e*Sn		**Sb**	17 51 20.6	-0.3
GRUS	**Gruza**	**2.04**	**48**	*e*Pn		**Pn**	17 50 55.9	+1.0
TEKS	**Tekeris**	**2.12**	**18**	*e*Pn		**Pn**	17 50 56.1	+0.2
KIJV	**Kijevo**	**2.17**	**313**	*i* Pn		**Pb**	17 50 58.2	-1.7
KIJV				Sn		**Sb**	17 51 26.1	-0.8
BARS	**Barje**	**2.38**	**82**	*e*Pn		**Pn**	17 51 00.7	+1.2
BARS				*e*Sn		**Sn**	17 51 30.7	+1.8
MORI	**Morici**	**2.50**	**303**	*e*Pn		**Pb**	17 51 02.8	-2.5
MORI				Sn		**Sn**	17 51 33.1	+1.3
BOVS	**Bovan**	**2.52**	**63**	⇑P		**Pn**	17 51 02.0	+0.6
BOVS				⇑S		**Sn**	17 51 33.2	+1.0
AVAS	**Avala Beograd**	**2.56**	**32**	*e*Pn		**Pn**	17 51 02.5	+0.5
FRGS	**Fruska Gora**	**2.75**	**18**	*e*Pn		**Pn**	17 51 04.9	+0.2
UDBI	**Udbina**	**2.87**	**315**	*i* Pn		**Pn**	17 51 07.6	+1.4
UDBI				Sn		**Sn**	17 51 42.5	+1.5
ZAGS	**Zajecar**	**2.94**	**63**	*e*Pn		**Pn**	17 51 08.2	+1.0
ZAGS				*e*Sn		**Sn**	17 51 43.4	+0.8
DUGI	**Dugi Otok**	**2.97**	**300**	*e*Pn		**Pn**	17 51 08.0	+0.4
DUGI				Sn		**Sn**	17 51 44.0	+0.5
ZAPS	**Zavoj**	**3.04**	**75**	*e*Pn		**Pn**	17 51 09.7	+1.0
ZAPS				*e*Sn		**Sn**	17 51 45.5	+0.2
BLKB	**Belogradchik**	**3.17**	**69**	⇑P		**Pn**	17 51 11.6	+1.2
BLKB				⇑S		**Sn**	17 51 50.4	+2.0
PLIT	**Plitvice**	**3.18**	**318**	*e*Pn		**Pn**	17 51 12.2	+1.5
PLIT				Sn		**Sn**	17 51 50.2	+1.4
RABC	**Rab**	**3.55**	**310**	Sn		**Sn**	17 51 59.1	+1.5
HERR	**Herculane**	**3.62**	**48**	⇓P		**Pn**	17 51 17.8	+1.3
HERR				⇑S		**Sn**	17 52 00.6	+1.3
MORH	**Mrgy, Hungar**	**3.67**	**0**	⇑P		**Pn**	17 51 17.3	+0.1
BZS	**Buzias**	**3.76**	**34**	⇑P		**Pn**	17 51 19.1	+0.6
BZS				⇑S		**Sn**	17 52 03.1	+0.2
SURR	**Surduc**	**4.09**	**37**	⇑P		**Pn**	17 51 23.3	+0.3
SURR				⇑S		**Sn**	17 52 10.7	-0.2
GZR	**Gura Zlata**	**4.14**	**45**	⇑P		**Pn**	17 51 24.6	+0.8
GZR				⇑S		**Sn**	17 52 12.6	+0.1
SIRR	**Siria**	**4.32**	**29**	⇑P		**Pn**	17 51 26.4	+0.3
SIRR				⇑S		**Sn**	17 52 16.1	-0.6
MARR	**Marisel-Cluj**	**5.24**	**36**	⇑P		**Pn**	17 51 39.3	+0.4
MARR				⇑S		**Sn**	17 52 38.8	-0.7

*UPP **16** 18:00:34.8±0.1, 67.05N×20.94E, h0km, ML2.3, Suspected explosion*
*IDC **16** 18:00:36.3±1.5, 67.08N×20.77E, h0km, mbtmp2.9/4, ML1.8/4, Error ellipse: s-maj=27.1km s-min=13.3km az=110.0*
ISC 16 18:00:34.9±0.8, **67.05N**±0.03×**20.92E**±0.03, **h0km, n25,** σ0.84/31, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DUNU	**Dundret**	**0.15**	**297**	P	**Pg**	**18 00 38.1**	**+0.2**
DUNU				S	**Sg**	**18 00 40.5**	**+0.7**
MASU	**Masugnsbyn**	**0.58**	**45**	P	**Pg**	**18 00 45.9**	**-0.1**
MASU				S	**Sg**	**18 00 53.5**	**0.0**
ERTU	**Ertsjaerv**	**0.71**	**134**	P	**Pg**	**18 00 48.0**	**-0.4**
PAJU	**Pajala**	**0.86**	**91**	P	**Pg**	**18 00 50.5**	**-0.8**
PAJU				S	**Sg**	**18 01 02.5**	**+0.1**
HARU	**Harads**	**0.89**	**179**	P	**Pg**	**18 00 51.6**	**-0.4**
HARU				S	**Sg**	**18 01 03.2**	**-0.3**
RATU	**Laukkuluspa**	**0.93**	**327**	P	**Pg**	**18 00 51.9**	**-0.7**
KUA	**Kurravaara**	**0.93**	**346**	P	**Pg**	**18 00 51.8**	**-0.9**
SALU	**Saltoluokta**	**1.00**	**290**	P	**Pg**	**18 00 53.5**	**-0.4**
SALU	**Saltoluokta**	**1.00**	**290**	*e*P	**Pb**	**18 00 54.5**	**-0.5**
LANU	**Lannavaara**	**1.08**	**22**	P	**Pg**	**18 00 54.3**	**-1.3**
LANU	**Lannavaara**	**1.08**	**22**	*e*P	**Pg**	**18 00 55.2**	**-0.4**
NIKU	**Nikkaluokta**	**1.10**	**319**	P	**Pg**	**18 00 55.1**	**-0.8**
KOVU	**Salmi**	**1.21**	**346**	P	**Pg**	**18 00 57.0**	**-1.1**
SJU	**Sjulsmark**	**1.57**	**170**	P	**Pn**	**18 01 03.8**	**-0.2**
SJUU	**Sjulsmark**	**1.57**	**170**	*e*P	**Pn**	**18 01 05.3**	**+0.5**
HEF	**Hetta**	**1.72**	**36**	*e*P	**Pn**	**18 01 05.8**	**-0.1**
ARCES	**ARCESS Array B**	**3.02**	**32**	Pn	**Pn**	**18 01 24.1**	**+0.3**
	0.2nm,0.3s,baz=216,slow=14,SNR=17						
ARCES				Sn	**Sn**	**18 02 02.7**	**+2.0**
	0.8nm,0.3s,baz=214,slow=23,SNR=9.8 0.6nm,0.2s						
ARCES				AML	AML		
VAF	**Ylistaro**	**4.09**	**169**	*e*P	**Pn**	**18 01 39.7**	**+1.1**
SUF	**Sumiainen**	**4.89**	**150**	*e*P	**Pn**	**18 01 50.0**	**+0.5**
KEF	**Keuruu**	**5.19**	**159**	*e*P	**Pn**	**18 01 54.4**	**+0.7**
JOF	**Joensuu**	**6.05**	**128**	*e*P	**Pn**	**18 02 04.9**	**-0.6**
FINES	**FINESS Array B**	**6.06**	**156**	Pn	**Pn**	**18 02 07.2**	**+1.7**
	0.1nm,0.3s,baz=347,slow=13,SNR=8.1						
FINES				Sn	**Sn**	**18 03 14.2**	**-1.4**
	0.2nm,0.3s,baz=344,slow=25,SNR=1.3 1.5nm,0.8s						
FINES				AML	AML		
RAF	**Rauma**	**6.07**	**176**	*e*P	**Pn**	**18 02 06.3**	**+0.7**
NOA	**NORSAR Array B**	**7.38**	**220**	Pn	**Pn**	**18 02 22.6**	**-1.1**
	baz=41,slow=18,SNR=1.8 0.5nm,0.8s						
HFS	**Hagfors**	**7.65**	**208**	Pn	**Pn**	**18 02 27.8**	**+0.4**
	0.1nm,0.3s,baz=37,slow=14,SNR=1.0 1.7nm,0.8s						
HFS				AML	AML		

*IDC **16** 18:15:42.5±1.2, 27.76N×130.00E, h0km, mb3.7/3, mbtmp3.6/4, ML3.0/1, Error ellipse: s-maj=30.4km s-min=14.9km az=111.0*
*JMA **16** 18:15:45.7±0.3, 28.2N×13.0E, h72km±4km, MV2.4/17, NEAR AMAMI-OSHIMA ISLAND*
ISC 16 18:15:40.9±1.3, **27.49N**±0.04×**130.06E**±0.04, **h10km**±10km, **n19,** σ1.9**33/27, mb3.7/3, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.82**	**354**	*e*P	**Pn**	**18 15 60.0**	**+1.4**
JZK				*e*S	**Sn**	**18 16 11.2**	**+0.3**
JAM	**Amami Oshima**	**1.00**	**336**	P	**Pn**	**18 16 01.4**	**+0.3**
JAM				*e*S	**Sg**	**18 16 13.1**	**-0.1**
JTK	**Tokunoshima**	**1.03**	**287**	P	**Pn**	**18 16 02.4**	**+1.0**
JTK				S	**Sn**	**18 16 15.0**	**-0.9**
JAMN	**Amaminishikomi**	**1.08**	**314**	P	**Pn**	**18 16 02.3**	**+0.1**
JAMN				*e*S	**Sg**	**18 16 15.5**	**-0.4**
JOKE	**Okinoerabujima**	**1.33**	**265**	*e*P	**Pg**	**18 16 07.9**	**+1.4**
JYRO	**Yoronjima**	**1.51**	**252**	*e*P	**Pg**	**18 16 10.5**	**+0.6**
JOW	**Kunigami**	**1.72**	**248**	Pn	**Pg**	**18 16 12.7**	**-1.3**
	5.2nm,0.3s,baz=95,slow=27,SNR=7.2						
JOW				Sn	**Sb**	**18 16 33.7**	**-0.7**
	14nm,0.3s,baz=46,slow=27,SNR=6.4						
JOW	**Kunigami**	**1.72**	**248**	*e*P	**Pg**	**18 16 13.5**	**-0.4**
JTAJ	**Takarajima**	**1.82**	**336**	*e*P	**Pn**	**18 16 12.2**	**-0.1**
JIH	**Iheya**	**1.92**	**257**	*e*P	**Pb**	**18 16 15.9**	**-0.1**
JIH				*e*S	**Sb**	**18 16 39.3**	**-0.7**
JMZ	**Minamidaito 2**	**1.96**	**148**	*e*P	**Pg**	**18 16 18.7**	**+0.1**
JMZ				*e*S	**Sg**	**18 16 43.2**	**-0.8**
JNTH	**Nagotoyohara**	**2.06**	**242**	*e*P	**Pb**	**18 16 18.2**	**-0.2**
JNTH				*e*S	**Sn**	**18 16 41.9**	**+0.5**
JJT3	**Tamagusuku3**	**2.44**	**237**	*e*P	**Pb**	**18 16 24.0**	**-0.9**
JYAK	**Yakushimahirau**	**2.76**	**8**	*e*P	**Pn**	**18 16 26.8**	**+1.6**
JYAK				*e*S	**Sn**	**18 16 57.3**	**-1.5**
JMTN	**Minamitane**	**2.99**	**14**	*e*P	**Pn**	**18 16 30.2**	**+1.8**
JNU	**Nakatsue**	**5.66**	**7**	Pn	**Pn**	**18 17 05.3**	**+0.2**
	0.5nm,0.3s,baz=226,slow=14,SNR=5.6						
JNU				Sn	**Sn**	**18 18 05.7**	**-4.4**
	baz=178,slow=8.5 3.4nm,0.6s						
JNU				AML	AML		
WRA	**Warramunga Arr**	**47.34**	**175**	P	P	18 24 19.5	+4.5
	0.5nm,0.7s,baz=353,slow=7.9,SNR=3.0 0.5nm,0.7s						
ASAR	**Alice Springs**	**50.99**	**175**	P	P	18 24 48.7	+5.6
	0.2nm,0.6s,baz=6.9,slow=14,SNR=4.9 0.2nm,0.6s						
FINES	**FINESS Array B**	**72.57**	**331**	P	**P**	**18 27 09.6**	**+1.6**
	2.8nm,0.9s,baz=67,slow=6.7,SNR=4.5 2.8nm,0.9s						

IDC 16 18:32:38.5±2.2, **4.24S**×133.26E, **h0km, mb3.5/1, mbtmp3.5/5, ML3.4/4, MS2.2/1, Error ellipse: s-maj=62.9km s-min=14.7km az=77.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**3.90**	**329**	Pn	Pn	18 33 39.6	-0.1
	1.0nm,0.3s,baz=56,slow=7.3,SNR=7.8						
SIJI				Sn	Sn	18 34 25.2	-1.0
	0.8nm,0.3s,baz=198,slow=22,SNR=1.5						
SIJI				LR	LR	18 35 41.1	
	comp=Z,34nm,19.3s,baz=245,slow=47 2.5nm,0.3s						
SIJI				AML	AML		
WRA	**Warramunga Arr**	**15.64**	**176**	Pn	Pn	18 36 16.9	-3.7
	0.1nm,0.3s,baz=356,slow=12,SNR=5.9						
WRA				Sn	Sn	18 38 59.1	-16
	0.1nm,0.3s,baz=356,slow=24,SNR=2.5 0.2nm,0.4s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**15.66**	**208**	Pn	Pn	18 36 15.2	-5.6
	0.3nm,0.3s,baz=34,slow=11,SNR=7.7						
FITZ				Sn	Sn	18 39 01.1	-14
	0.2nm,0.3s,baz=213,slow=21,SNR=5.8 1.0nm,0.4s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**19.32**	**178**	P	P	18 37 03.6	-1.9
	0.1nm,0.3s,baz=3.8,slow=11,SNR=13 1.3nm,0.7s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.78**	**325**	P	P	18 43 39.4	+1.1
	0.4nm,0.9s,baz=124,slow=8.1,SNR=1.5 0.4nm,0.9s						

*IDC **16** 18:33:41.5±1.1, 13.91N×121.05E, h0km, mb3.7/7, mbtmp3.8/7, Error ellipse: s-maj=66.7km s-min=19.4km az=62.0*
*MAN **16** 18:33:56.0, 13.74N×120.53E, h94km, MS3.3*
ISC 16 18:33:55.1±0.9, **13.71N**±0.10×**120.48E**±0.08, **h100km, n11,** σ2.03/13, **mb3.8/7, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TGY	**Tagaytay City**	**0.59**	**49**	*i* P	**Pn**	**18 34 12.6**	**+0.9**
TGY				*i* S	**Sn**	**18 34 28.1**	**+4.0**
LQP	**Lukban**	**1.10**	**69**	*i* P	**Pn**	**18 34 18.3**	**+1.4**
GQP	**Guinayangan**	**1.92**	**84**	*e*P	**Pn**	**18 34 28.0**	**+1.4**
GQP				*e*S	**Sn**	**18 34 51.5**	**+0.8**
PPR	**Puerto Princes**	**4.27**	**204**	*e*P	**Pn**	**18 35 00.4**	**+2.5**
CMAR	**Chiang Mai Arr**	**21.22**	**286**	P	**P**	**18 38 33.8**	**+0.7**
	0.2nm,0.3s,baz=98,slow=12,SNR=1.7 0.2nm,0.3s						
WRA	**Warramunga Arr**	**36.11**	**158**	P	**P**	**18 40 45.3**	**-2.4**
	0.4nm,0.6s,baz=332,slow=9.0,SNR=2.5 0.4nm,0.6s						
ASAR	**Alice Springs**	**39.40**	**160**	P	**P**	**18 41 13.3**	**-1.9**
	0.4nm,0.6s,baz=338,slow=6.9,SNR=9.0 0.4nm,0.6s						
MKAR	**Makanchi Array**	**45.90**	**324**	P	**P**	**18 42 07.8**	**+0.2**
	0.7nm,0.5s,baz=112,slow=8.3,SNR=5.9 0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**48.95**	**333**	P	**P**	**18 42 29.9**	**-1.3**
	1.1nm,0.3s,baz=123,slow=6.1,SNR=7.3 1.1nm,0.3s						
KURBB	**Kurchatov Arra**	**50.06**	**326**	P	**P**	**18 42 39.5**	**-0.1**
	2.1nm,0.7s,baz=130,slow=7.8,SNR=15 2.1nm,0.7s						
ARCES	**ARCESS Array B**	**79.00**	**339**	P	**P**	**18 45 46.2**	**-1.5**
	2.4nm,0.9s,baz=79,slow=5.8,SNR=3.7 2.4nm,0.9s						

*BJI **16** 18:37:46.3, 21.67N×121.06E, h18km, mB4.8/22, mb4.3/51, ML4.0/5, Ms4.5/54, Ms7 4.3/54*
*NEIC **16** 18:37:46.6±1.6, 21.65N±0.07×121.02E±0.08, h10km±1km, mb4.7/79, Error ellipse: s-maj=12.3km s-min=12.2km az=170.0*
*TAP **16** 18:37:46.6, 21.60N×121.03E, h38km, ML4.9, D*
*MAN **16** 18:37:47.0, 21.37N×120.87E, h1km, MS4.6*
*GFZ **16** 18:37:47.5±0.2, 22°N±4°×12°1E±°, h10km, M4.6/18, mb4.5/18*
*JMA **16** 18:37:48.2±0.9, 22°N±4°×12°1E±°, h54km, MV4.9/20, TAIWAN REGION*
*NIED **16** 18:37:48.2, 21.82N×120.86E, h54km, MW5.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^16Nm; Mrr-0.42; Mθθ0.11; Mϕϕ0.31; Mrθ2.38; Mθϕ2.17; Mϕr1.59; Fault plane solution: Mo3.36000×10^16 NP1: ϕs352.00000°, δ33.00000°, λ-170.00000°. NP2: ϕs254.00000°, δ84.00000°, λ-58.00000°.*
*GCMT **16** 18:37:50.6±0.4, 21.71N±0.02×120.83E±0.03, h26km±1km, MW4.8/67, Moment Tensor Solution. s15,c16; s67,c101; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.05±.13; Mθθ0.60±.07; Mϕϕ-1.65±.10; Mrθ-0.51±.14; Mθϕ-0.75±.06; Mϕr-0.85±.15; Best double couple: Mo1.79600×10^16 NP1:ϕs351.0000°, δ33.00000°, λ.51.00000°. NP2: ϕs214.00000°, δ65.00000°, λ.112.00000°. Principal axes: T 1.4280, Plg63.0000°, Azm161.0000°; N 0.7320, Plg20.0000°, Azm24.0000°; P -2.1630, Plg17.0000°, Azm288.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*IDC **16** 18:37:50.3±1.8, 21.60N×121.21E, h41km±15km, mb4.2/32, mbtmp4.4/35, ML3.7/3, MS3.9/25 Error ellipse: s-maj=15.0km s-min=9.3km az=78.0*
ISC 16 18:37:49.2±0.8, **21.63N**±0.03×**121.02E**±0.02, **h31**km±5km, **n433,** σ1.9**48**/466, **mb4.6**/86, **MS4.0**/32, **14C-2D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSEB	**Hengchuen, Pn**	**0.29**	**337**	*i* P	**Pb**	**18 37 55.5**	**-1.2**
TSEB				*i* S	**Sn**	**18 38 02.5**	**-0.1**
TWKBT	**Hengchun**	**0.36**	**328**	⇑P	**Pb**	**18 37 56.3**	**-1.4**
TWKBT				*i* S	**Sb**	**18 38 03.0**	**-0.3**
TWK1	**Hengchun**	**0.37**	**327**	*i* P	**Pb**	**18 37 56.2**	**-1.5**
TWK1				*i* S	**Sb**	**18 38 03.1**	**-0.4**
SNW	**Nanwan**	**0.41**	**322**	*e*P	**Pb**	**18 37 57.6**	**-0.7**
SNW				*e*S	**Sn**	**18 38 05.4**	**-0.3**
SMST	**Manzhou Townsh**	**0.42**	**336**	P	**Pb**	**18 37 57.1**	**-1.4**
SMST				S	**Sn**	**18 38 04.8**	**-1.0**
HEN	**Hengchun**	**0.45**	**325**	*i* P	**Pb**	**18 37 58.0**	**-1.0**
HEN				S	**Sn**	**18 38 06.2**	**-0.5**
SLIU	**Shizi**	**0.61**	**340**	*i* P	**Pb**	**18 38 00.2**	**-1.4**
SLIU				*i* S	**Sn**	**18 38 10.3**	**-0.4**
LAY	**Lan-yu**	**0.64**	**51**	*e*P	**Pb**	**18 38 00.2**	**-1.8**
LAY				S	**Sb**	**18 38 10.3**	**-0.3**
LYUB	**Lan-yu**	**0.64**	**55**	*i* P	**Pb**	**18 37 59.7**	**-2.3**
LYUB				S	**Sb**	**18 38 08.8**	**-1.9**
TAWH	**Dawu Township**	**0.71**	**350**	⇑P	**Pb**	**18 38 01.2**	**-2.0**
TAWH				S	**Sn**	**18 38 12.4**	**-0.6**
TAW	**Tawu**	**0.73**	**351**	⇑*e*P	**Pb**	**18 38 01.3**	**-2.2**
EAST	**Anshuo**	**0.76**	**348**	⇑*i* P	**Pb**	**18 38 02.0**	**-2.1**
SCZT	**Fangliau**	**0.82**	**333**	⇑*i* P	**Pn**	**18 38 04.0**	**-0.7**
SCZT				*i* S	**Sn**	**18 38 15.8**	**0.0**
WLCH	**Liuqiu**	**0.93**	**320**	P	**Pb**	**18 38 06.2**	**-0.7**
TWP	**Hsiaoliuchiu**	**0.94**	**319**	*e*P	**Pb**	**18 38 06.3**	**-0.7**
TWP				S	**Sb**	**18 38 21.3**	**+2.3**
SSPT	**Xinbi**	**0.94**	**334**	P	**Pb**	**18 38 06.4**	**-0.7**
ECL	**Taimali**	**0.96**	**356**	⇑P	**Pn**	**18 38 03.7**	**-2.8**
MASBT	**Mashibuluo**	**1.04**	**340**	P	**Pn**	**18 38 06.8**	**-0.8**
MASBT				*e*S	**Sb**	**18 38 21.2**	**-0.7**
LDUT	**Ludao**	**1.11**	**22**	P	**Pn**	**18 38 06.2**	**-2.5**
LDUT				*e*S	**Sn**	**18 38 21.4**	**-1.5**
TTN	**Taitung**	**1.12**	**6**	*e*P	**Pn**	**18 38 07.8**	**-1.0**
TSMG	**Majia**	**1.12**	**342**	P	**Pn**	**18 38 07.8**	**-1.0**
SSD	**Sandimen**	**1.16**	**342**	*e*P	**Pn**	**18 38 08.3**	**-1.1**
SSD				S	**Sb**	**18 38 24.1**	**-1.4**
TWGBT	**Beinan**	**1.18**	**3**	P	**Pn**	**18 38 07.9**	**-1.7**
TWGBT	**Beinan**	**1.18**	**3**	*i* P	**Pn**	**18 38 06.6**	**-3.0**
TWG	**Pinlang**	**1.18**	**2**		**Pn**	**18 38 08.2**	**-1.5**
TWG	**Pinlang**	**1.18**	**2**	P	**Pn**	**18 38 06.7**	**-3.0**
TWG	**Pinlang**	**1.18**	**2**	*e*P	**Pn**	**18 38 06.6**	**-3.0**
SGLT	**Jiouru**	**1.19**	**336**	*e*P	**Pb**	**18 38 10.9**	**-0.3**
SGLT				*e*S	**Sb**	**18 38 28.1**	**+1.8**

WSSB	**Gushan**	**1.23**	**325**	*e*P		**Pn**	18 38 09.7	-0.6
LONT	**Longtian**	**1.27**	**5**	*e*P		**Pn**	18 38 08.2	-2.7
TWM1	**Shoushan**	**1.31**	**335**	*e*P		**Pb**	18 38 11.8	-1.4
SCST	**Cishan**	**1.34**	**339**	*e*P		**Pb**	18 38 13.7	0.0
EDH	**Donghe**	**1.36**	**11**	*e*P		**Pn**	18 38 10.0	-2.0
EDH				*e*S		**Sn**	18 38 28.2	-0.8
SLGT	**Liugui**	**1.40**	**346**	*e*P		**Pn**	18 38 12.7	+0.1
ECS	**Chishang**	**1.47**	**7**	*e*P		**Pn**	18 38 12.0	-1.6
CHKT	**Chengkung**	**1.49**	**12**	P		**Pn**	18 38 11.9	-2.0
CHKT				*e*S		**Sn**	18 38 31.4	-0.9
SGST	**Jiashian**	**1.50**	**344**	*e*P		**Pn**	18 38 13.3	-0.7
EHD	**Haiduan**	**1.52**	**6**	*e*P		**Pn**	18 38 11.3	-2.9
STYH	**Taoyuan**	**1.55**	**352**	*e*P		**Pn**	18 38 14.5	-0.1
ELDTW	**Lidau**	**1.55**	**360**	*e*P		**Pn**	18 38 12.7	-2.1
TAI	**Tainan**	**1.56**	**331**	*e*P		**Pn**	18 38 14.3	-0.5
TAI				*e*S		**Sn**	18 38 33.9	0.0
CHN3	**Shinhua**	**1.56**	**337**	*e*P		**Pb**	18 38 16.4	-1.1
FULB	**Fuli**	**1.58**	**9**	P		**Pn**	18 38 13.1	-2.0
CHKH	**Chenggong**	**1.59**	**13**	P		**Pn**	18 38 13.3	-1.9
CHKH				*e*S		**Sn**	18 38 33.9	-0.8
CHN1	**Nanshi**	**1.61**	**344**	*e*P		**Pn**	18 38 15.4	-0.2
CHN1				S		**Sb**	18 38 36.3	-2.0
WTP	**Ta-pu**	**1.65**	**347**	*e*P		**Pn**	18 38 16.2	+0.1
TPUB	**Ta-pu**	**1.70**	**348**	P		**Pb**	18 38 18.2	-1.6
TPUB	**Ta-pu**	**1.70**	**348**				18 38 15.8	-0.9
TPUB	**Ta-pu**	**1.70**	**348**	P		**Pn**	18 38 17.2	+0.4
TPUB	**Ta-pu**	**1.70**	**348**	*e*P		**Pn**	18 38 16.9	+0.2
TWK	**Hsinying**	**1.70**	**343**	*e*P		**Pn**	18 38 16.3	-0.5
SCLT	**Jiali**	**1.71**	**334**	*e*P		**Pn**	18 38 13.7	-3.3
SCLT				*e*S		**Sn**	18 38 38.4	+0.6
ECBN	**Changbin**	**1.72**	**13**	*e*P		**Pn**	18 38 15.4	-1.7
ECBN				*e*S		**Sn**	18 38 36.8	-1.2
EYUL	**Yuli**	**1.73**	**9**	*e*P		**Pn**	18 38 15.4	-1.8
TWF1	**Yuli**	**1.73**	**8**	*e*P		**Pn**	18 38 16.0	-1.2
TSCK	**Chigu Township**	**1.74**	**330**	P		**Pn**	18 38 16.2	-1.1
TSCK				*e*S		**Sn**	18 38 37.2	-1.1
CHN4	**Tsaushan**	**1.75**	**347**	*e*P		**Pn**	18 38 17.1	-0.4
YULB	**Yu-li**	**1.77**	**8**	P		**Pn**	18 38 16.4	-1.3
YULB	**Yu-li**	**1.77**	**8**				18 38 16.6	-1.1
YULB	**Yu-li**	**1.77**	**8**	P		**Pb**	18 38 19.9	-1.1
YULB	**Yu-li**	**1.77**	**8**	P		**Pn**	18 38 14.7	-3.0
WCKO	**Fanlu**	**1.84**	**348**	*e*P		**Pn**	18 38 18.2	-0.4
ICHU	**Yijhu**	**1.85**	**338**	*e*P		**Pn**	18 38 17.9	-0.9
ICHU				*e*S		**Sn**	18 38 41.0	-0.1
CHN8	**Yiju**	**1.86**	**336**	*e*P		**Pn**	18 38 18.2	-0.7
CHN8				*e*S		**Sn**	18 38 42.2	+0.8
EHYH	**Wanrong**	**1.88**	**9**	*e*P		**Pn**	18 38 16.4	-2.8
ALS	**Alishan**	**1.88**	**354**	P		**Pn**	18 38 19.8	+0.3
ALS				*e*S		**Sb**	18 38 45.7	-0.5
EHY	**Hungye**	**1.88**	**8**	*e*P		**Pn**	18 38 17.7	-1.6
HGSD	**Ruisui**	**1.89**	**11**	*e*P		**Pn**	18 38 18.1	-1.2
CHY	**Chiayi**	**1.94**	**344**	*e*P		**Pn**	18 38 17.9	-2.1
CHN2	**Minshiung**	**1.96**	**345**	*e*P		**Pn**	18 38 19.4	-0.9
CHN5	**Tsauling**	**1.98**	**351**	*e*P		**Pn**	18 38 21.0	+0.3
WSL	**Shuilin Townsh**	**2.02**	**339**	P		**Pn**	18 38 20.1	-1.0
WSL				S		**Sn**	18 38 45.4	+0.1
WDGT	**Dungji**	**2.05**	**322**	*e*P		**Pn**	18 38 19.6	-2.0
WDGT				*e*S		**Sn**	18 38 43.0	-3.1
WHYT	**Xinyi Township**	**2.06**	**356**	*e*P		**Pn**	18 38 22.6	+0.8
WGK	**Gukeng**	**2.09**	**348**	*e*P		**Pn**	18 38 21.6	-0.4
WARBT	**Fenglin Townsh**	**2.10**	**9**	*e*P		**Pn**	18 38 20.5	-1.8
WDL	**Douliou City**	**2.12**	**348**	*e*P		**Pn**	18 38 22.3	-0.2
TEGC	**Jichi Village**	**2.12**	**13**	*e*P		**Pn**	18 38 21.8	-0.7
WSF	**Szhu**	**2.13**	**340**	*e*P		**Pn**	18 38 21.9	-0.7
WSF				*e*S		**Sn**	18 38 47.2	-0.8
SSLB	**Suanglung**	**2.14**	**358**	P		**Pb**	18 38 24.8	-2.6
SSLB	**Suanglung**	**2.14**	**358**			**Pn**	18 38 22.1	-0.5
SSLB	**Suanglung**	**2.14**	**358

WFSB	**Wu-fen Shan**	**3.49**	**11**	*eP*		**Pn**		**18 38 43.3**	**+1.9**
HATJ	**Hateruma jima**	**3.52**	**46**	*eP*		**Pn**		**18 38 41.8**	**0.0**
HATJ				*eS*		**Sn**		**18 39 22.6**	**+0.1**
YM01	**YM01**	**3.53**	**8**	*eP*		**Pn**		**18 38 42.6**	**+0.6**
SXI1	**Grass Mountain**	**3.53**	**13**	*eP*		**Pn**		**18 38 44.2**	**+2.1**
ZUZH	**Zhuzihu**	**3.54**	**8**	*eP*		**Pn**		**18 38 42.6**	**+0.4**
ANP	**Anpu**	**3.57**	**7**	*eP*		**Pn**		**18 38 42.8**	**+0.3**
TNOU	**National Taiwa**	**3.57**	**11**	*eP*		**Pn**		**18 38 42.8**	**+0.3**
YM08	**YM08**	**3.58**	**8**	*eP*		**Pn**		**18 38 42.4**	**-0.2**
VWUC	**VWUC**	**3.64**	**337**	*eP*		**Pn**		**18 38 42.5**	**-0.9**
KNM	**Kinmen**	**3.65**	**320**	*eP*		**Pn**		**18 38 43.5**	**-0.1**
KNM				*eS*		**Sn**		**18 39 24.3**	**-1.4**
IRIF	**Iriomote-Funau**	**3.67**	**42**	*eP*		**Pn**		**18 38 43.5**	**-0.3**
KNMB	**Chin-men Tao**	**3.72**	**320**	Pn		**Pn**		**18 38 42.6**	**-1.9**
KNMB						**Sn**		**18 39 22.8**	**-4.4**
KNMB	**Chin-men Tao**	**3.72**	**320**	*eP*		**Pn**		**18 38 43.1**	**-1.4**
KNMB				*eS*		**Sn**		**18 39 24.1**	**-3.1**
SIPP	**Brgy, Tapao**	**3.73**	**188**	*eP*		**Pn**		**18 38 45.5**	**+0.8**
SIPP				*eS*		**Sn**		**18 39 26.0**	**-1.6**
JKRS	**Kuro-shima**	**3.78**	**46**	*eP*		**Pn**		**18 38 45.3**	**-0.1**
JKRS				*eS*		**Sn**		**18 39 29.2**	**+0.4**
ZPLA	**Ao Xicun**	**3.79**	**308**	*eP*		**Pn**		**18 38 43.3**	**-2.2**
ZPLA				*eS*		**Sn**		**18 39 25.4**	**-3.5**
PTMZ	**Houxiangcun**	**3.81**	**333**	*eP*		**Pn**		**18 38 44.6**	**-1.2**
DSXP	**Dongshan**	**3.91**	**303**	*eP*		**Pn**		**18 38 44.9**	**-2.3**
DSXP				*eS*		**Sn**		**18 39 28.6**	**-3.4**
JIJ	**Ishigaki jima**	**3.96**	**46**	*eP*		**Pn**		**18 38 47.2**	**-0.6**
JIJ				*eS*		**Sn**		**18 39 32.7**	**-0.4**
QZH2	**Quanzhou**	**3.98**	**326**	Pn		**Pn**		**18 38 46.8**	**-1.3**
QZH2				Sn		**Sn**		**18 39 30.3**	**-3.4**
QZH2				AML		AML			
	170nm,0.8s								
QZH2				AML		AML			
	260nm,1.0s								
QZH2				L		L			
	comp=N,3µm,16.5s								
QZH2				L		L			
	comp=E,3µm,10.0s								
QZH2				L		L			
	comp=Z,3µm,11.0s								
PCYT	**Pengchaiyu**	**4.09**	**13**	*eP*		**Pn**		**18 38 49.9**	**+0.2**
JISG	**Ishigakijimahi**	**4.22**	**45**	*eP*		**Pn**		**18 38 50.8**	**-0.6**
JISG				*eS*		**Sn**		**18 39 38.9**	**-0.7**
AXDP	**Jialang**	**4.29**	**320**	*eP*		**Pn**		**18 38 50.9**	**-1.5**
JTJ	**Tarama**	**4.52**	**48**	*eP*		**Pn**		**18 38 55.4**	**-0.1**
JTJ				*eS*		**Sn**		**18 39 46.8**	**-0.2**
MATB	**Ma-tsu**	**4.60**	**348**	*eP*		**Pn**		**18 38 55.6**	**-1.1**
MHZQ	**Yeshan**	**4.80**	**338**	*eP*		**Pn**		**18 38 58.1**	**-1.4**
MHZQ				*eS*		**Sn**		**18 39 52.4**	**-1.6**
JIRJ	**Irabujima**	**4.99**	**50**	*eP*		**Pn**		**18 39 01.9**	**0.0**
JIRJ				*eS*		**Sn**		**18 39 58.8**	**+0.2**
JMJ2	**Miyako jima3**	**5.03**	**51**	*eP*		**Pn**		**18 39 02.6**	**+0.1**
LYJJ	**Jianjiangzhen**	**5.03**	**347**	*eP*		**Pn**		**18 39 01.9**	**-0.6**
LYJJ				*eS*		**Sn**		**18 39 56.9**	**-2.6**
JMJ	**Miyako jima 2**	**5.05**	**50**	P		**Pn**		**18 39 03.3**	**+0.5**
JIKM	**Ikemajima**	**5.08**	**49**	*eP*		**Pn**		**18 39 03.8**	**+0.5**
JIKM				*eS*		**Sn**		**18 40 01.3**	**+0.4**
JOGS	**Gusukube**	**5.09**	**52**	*eP*		**Pn**		**18 39 04.1**	**+0.7**
JOGS				*eS*		**Sn**		**18 40 02.3**	**+1.1**
XPSS	**Dashiqiu**	**5.33**	**352**	*eP*		**Pn**		**18 39 05.0**	**-1.6**
SXFK	**Yanhouchang**	**5.66**	**328**	*eP*		**Pn**		**18 39 09.0**	**-2.2**
HKPS	**Hong Kong Po S**	**6.42**	**277**	P		**Pn**		**18 39 19.9**	**-1.8**
HKPS	**Hong Kong Po S**	**6.42**	**277**			**Pn**		**18 39 19.3**	**-2.3**
PCPS	**Palayan City**	**6.94**	**180**	*eP*		Pn		18 39 17.0	-12
PCPS				*eS*		Sn		18 40 28.1	-19
JKE	**Kume jima 2**	**7.04**	**47**	*eP*		**Pn**		**18 39 28.9**	**-1.3**
GZH2	**Guangzhou**	**7.09**	**288**	Pn		**Pn**		**18 39 29.0**	**-1.9**
GZH2				Sn		**Sn**		**18 40 48.8**	**-1.7**
GZH2				AML		AML			
	85nm,0.8s								
GZH2				AML		AML			
	68nm,1.0s								
GQP	**Guinayangan**	**7.81**	**170**	*eP*		**Pn**		**18 39 40.1**	**-0.6**
GQP				*eS*		**Sn**		**18 41 08.4**	**+0.3**
JOW	**Kunigami**	**8.40**	**51**	P		**Pn**		**18 39 47.4**	**-1.5**
	2.7nm,0.3s,baz=116,slow=16,SNR=10								
JOW				S		**Sn**		**18 41 14.8**	**-7.9**
	21nm,0.9s,baz=107,slow=26,SNR=1.5								
	17nm,0.7s								
JOW				AML		AML			
JOW	**Kunigami**	**8.40**	**51**	P		**Pn**		**18 39 48.5**	**-0.4**
JOW	**Kunigami**	**8.40**	**51**	Pn		**Pn**		**18 39 48.0**	**-0.9**
SSE	**Sheshan**	**9.42**	**1**	P		**Pn**		**18 40 02.6**	**-0.3**
SSE				S		**Sn**		**18 41 49.8**	**+2.0**
SSE				L		L			
	comp=N,650nm,16.7s								
SSE				L		L			
	comp=E,750nm,21.7s								
SSE				L		L			
	comp=Z,800nm,17.2s								
NJ2	**Nanjing**	**10.55**	**350**	*eP*		**Pn**		**18 40 18.9**	**+0.6**
NJ2				pmax		pmax			
	comp=Z,11nm,0.8s								
NJ2				L		L			
	comp=N,2µm,13.3s								
NJ2				L		L			
	comp=E,1µm,14.7s								
NJ2				L		L			
	comp=Z,2µm,13.7s								
QIZ	**Qiongzhong**	**10.80**	**258**	P		**Pn**		**18 40 20.1**	**-1.7**
QIZ	**Qiongzhong**	**10.80**	**258**	P		**Pn**		**18 40 21.5**	**-0.3**
QIZ				S		**Sn**		**18 42 23.5**	**+1.8**
QIZ				pmax		pmax			
	comp=Z,35nm,2.1s								
QIZ				L		L			
	comp=N,2µm,18.7s								
QIZ				L		L			
	comp=E,1µm,18.8s								
QIZ				L		L			
	comp=Z,2µm,18.7s								
PLP	**Palo**	**11.08**	**159**	*eP*		**Pn**		**18 40 28.1**	**+2.4**
JNU	**Nakatsue**	**14.40**	**35**	P		**Pn**		**18 41 11.2**	**+0.3**
	0.1nm,0.3s,baz=197,slow=17,SNR=1.3								
JNU				LR		LR		18 46 54.1	
	comp=Z,641nm,20.6s,baz=187,slow=38								
	4.9nm,1.0s								
JNU				AML		AML			
LYN	**LuoYang**	**14.91**	**332**	P		**Pn**		**18 41 19.4**	**+1.6**
LYN				pmax		pmax			
	comp=Z,13nm,0.5s								
LYN				L		L			
	comp=N,1µm,19.9s								
LYN				L		L			
	comp=E,790nm,19.9s								
LYN				L		L			
	comp=Z,2µm,16.6s								
TIA	**Tai'an**	**14.92**	**348**	P		**Pn**		**18 41 19.9**	**+2.0**
TIA				S		**Sn**		**18 44 05.9**	**+3.7**
TIA				pmax		pmax			
	comp=Z,52nm,1.2s								
TIA				L		L			
	comp=N,1µm,14.3s								
TIA				L		L			
	comp=E,860nm,18.8s								
TIA				L		L			
	comp=Z,2µm,13.0s								
SLVN	**Son La**	**15.94**	**272**	P		**Pn**		**18 41 24.9**	**-6.5**
	comp=Z,14nm,2.1s								
XAN	**Xi'an**	**16.33**	**322**	⇑P		**P**		**18 41 41.4**	**+2.5**
XAN				S		**S**		**18 44 46.0**	**-2.4**
XAN				pmax		pmax			
	comp=Z,12nm,1.3s								
XAN				pmax		pmax			
	comp=Z,170nm,4.0s								
XAN				L		L			
	comp=Z,1µm,12.4s								
XAN				L		L			
	comp=Z,1µm,14.4s								
XAN				L		L			
	comp=Z,2µm,14.4s								
JMN	**Monobe**	**16.56**	**41**	P		**P**		**18 41 40.2**	**-1.3**
HNS	**HongShan**	**16.64**	**342**	⇑P		**P**		**18 41 42.0**	**-0.2**
HNS				pmax		pmax			
	comp=Z,15nm,1.4s								
HNS				L		L			
	comp=Z,1µm,18.1s								
HNS				L		L			
	comp=Z,850nm,17.3s								
HNS				L		L			
	comp=Z,1µm,17.1s								
KSRS	**Korea Array**	**16.86**	**19**	P		**P**		**18 41 43.9**	**-0.8**
	comp=Z,0.9nm,0.3s,baz=197,slow=12,SNR=14								
	comp=Z,8.0nm,0.8s								
KSRS				AML		AML			

KMI2	**Kunming**	**17.14**	**285**	P		**P**		**18 41 50.3**	**+2.2**
KMI2				pmax		pmax			
	comp=Z,10.0nm,0.7s								
KMI2				pmax		pmax			
	comp=Z,110nm,3.8s								
KMI2				L		L			
	comp=Z,1µm,13.3s								
KMI2				L		L			
	comp=Z,620nm,12.1s								
KMI2				L		L			
	comp=Z,550nm,12.9s								
DL2	**Dalian**	**17.22**	**2**	P		**P**		**18 41 49.1**	**+0.4**
DL2				S		**Sn**		**18 44 57.8**	**-0.3**
DL2				pmax		pmax			
	comp=Z,11nm,0.9s								
DL2				pmax		pmax			
	comp=Z,170nm,5.6s								
DL2				L		L			
	comp=Z,1µm,16.4s								
DL2				L		L			
	comp=Z,600nm,15.8s								
DL2				L		L			
	comp=Z,1µm,16.5s								
PZH	**PanZhiHua**	**18.25**	**289**	P		**P**		**18 42 03.1**	**+2.7**
PZH				S		**Sn**		**18 45 24.9**	**+1.4**
PZH				pmax		pmax			
	comp=Z,10.0nm,1.5s								
PZH				pmax		pmax			
	comp=Z,130nm,6.6s								
PZH				L		L			
	comp=Z,1µm,14.2s								
PZH				L		L			
	comp=Z,590nm,13.0s								
PZH				L		L			
	comp=Z,590nm,13.0s								
BJI2	**Beijing**	**18.79**	**348**	P		**Pn**		**18 42 07.3**	**+0.7**
BJI2				S		**S**		**18 45 38.5**	**+0.5**
BJI2				pmax		pmax			
	comp=Z,26nm,1.0s								
BJI2				pmax		pmax			
	comp=Z,150nm,3.5s								
BJI2				L		L			
	comp=Z,430nm,17.9s								
BJI2				L		L			
	comp=Z,710nm,17.5s								
BJI2				L		L			
	comp=Z,730nm,17.5s								
BJT	**Baijiatuan**	**18.79**	**348**			**Pn**		**18 42 06.5**	**-0.2**
INU	**Inuyama**	**19.57**	**42**	P		**Pn**		**18 42 17.1**	**+1.1**
INU	**Inuyama**	**19.57**	**42**	P		**Pn**		**18 42 16.8**	**+0.7**
	comp=Z,40nm,0.9s								
JGF	**Kuroka**	**19.94**	**42**	P		**Pn**		**18 42 21.0**	**+0.5**
JGF	**Kuroka**	**19.94**	**42**			**Pn**		**18 42 21.2**	**+0.7**
JGF				IAmb		IAmb		18 42 22.5	
	comp=Z,33nm,0.8s								
JGF	**Kuroka**	**19.94**	**42**	P		**Pn**		**18 42 21.1**	**+0.5**
	comp=Z,48nm,1.0s								
JCJ	**Chichijima**	**20.02**	**70**	LR		LR		18 49 38.6	
	comp=Z,289nm,19.5s,baz=148,slow=36								
TOLI2	**Tolitoli**	**20.40**	**181**			**P**		**18 42 23.0**	**-0.7**
TOLI2	**Tolitoli**	**20.40**	**181**	P		**P**		**18 42 24.7**	**+1.0**
	comp=Z,18nm,1.0s								
MNI	**Manado**	**20.41**	**169**	P		**P**		**18 42 24.7**	**+0.8**
	comp=Z,2µmcomp=Z,72nm,0.7s								
HHC	**Hu-ho-hao-te**	**20.77**	**339**	*eP*		Pn		18 42 30.1	-0.1
HHC				S		**S**		**18 46 20.1**	**+2.2**
HHC				sS		sS		18 46 28.4	-2.5
HHC				pmax		pmax			
	comp=Z,21nm,1.2s								
HHC				pmax		pmax			
	comp=Z,140nm,7.0s								
HHC				L		L			
	comp=Z,600nm,15.5s								
HHC				L		L			
	comp=Z,740nm,15.5s								
HHC				L		L			
	comp=Z,690nm,15.2s								
LZH	**Lanzhou**	**20.78**	**318**	*eP*		Pn		18 42 29.9	-0.5
LZH				sP		sP		18 42 39.3	-0.8
LZH				S		**S**		**18 46 15.3**	**-3.0**
LZH				pmax		pmax			
	comp=Z,16nm,1.2s								
LZH				L		L			
	comp=Z,960nm,16.2s								
LZH				L		L			
	comp=Z,630nm,16.8s								
LZH				L		L			
	comp=Z,910nm,17.9s								
LZDM	**Lanzhou Array**	**20.79**	**317**	P		Pn		18 42 30.4	-0.3
	comp=Z,1.8nm,0.4s,baz=140,slow=7.2,SNR=4.0								
LZDM				LR		LR		18 51 32.7	
	comp=Z,556nm,19.1s,baz=110,slow=39								
	comp=Z,1.8nm,0.4s								
CHTO	**Chiang Mai**	**20.90**	**266**			**P**		**18 42 29.6**	**+0.4**
CHTO	**Chiang Mai**	**20.90**	**266**	P		Pn		18 42 30.8	-1.1
CHTO	**Chiang Mai**	**20.90**	**266**	P		Pn		18 42 30.8	-1.1
	comp=Z,12nm,1.3s								
TNCH	**TengChong**	**20.93**	**284**	P		**P**		**18 42 30.6**	**+0.9**
TNCH				S		Sn		18 46 26.3	-1.8
TNCH				pmax		pmax			
	comp=Z,17nm,1.0s								
TNCH				pmax		pmax			
	comp=Z,130nm,3.1s								
TNCH				L		L			
	comp=Z,1µm,11.2s								
TNCH				L		L			
	comp=Z,470nm,12.9s								
TNCH				L		L			
	comp=Z,530nm,16.7s								
GTOI	**Gorontalo**	**20.96**	**174**	P		**P**		**18 42 29.8**	**0.0**
	comp=Z,35nm,0.6s								
CMAR	**Chiang Mai Arr**	**20.98**	**265**	P		Pn		18 42 31.4	-1.3
	comp=Z,2.5nm,0.9s,baz=69,slow=8.8,SNR=23								
CMAR				PcP		**PcP**		**18 46 37.4**	**+0.5**
	comp=Z,0.7nm,0.7s,baz=26,slow=0.5,SNR=6.8								
CMAR				LR		LR		18 51 43.3	
	comp=Z,796nm,18.9s,baz=85,slow=39								
	comp=Z,2.5nm,0.9s								
CMAR	**Chiang Mai Arr**	**20.98**	**265**			**P**		**18 42 29.9**	**-0.1**
CMAR						**PcP**		**18 46 37.0**	**+0.2**
MAJO	**Matsushiro**	**21.07**	**41**			**P**		**18 42 31.1**	**+0.2**
MAJO	**Matsushiro**	**21.07**	**41**	P		**P**		**18 42 33.4**	**+2.5**
	comp=Z,28nm,1.6s								
MJAR	**Matsushiro Arr**	**21.07**	**41**	P		**P**		**18 42 31.0**	**0.0**
	comp=Z,15nm,0.9s,baz=228,slow=8.3,SNR=37								
MJAR				LR		LR		18 51 47.3	
	comp=Z,391nm,19.1s,baz=218,slow=40								
	comp=Z,15nm,0.9s								
MJAR	**Matsushiro Arr**	**21.07**	**41**	P		**P**		**18 42 31.1**	**+0.2**
MJB9	**Matsu-Tunnel**	**21.07**	**41**			**P**		**18 42 31.9**	**+1.0**
TNTI	**Ternate**	**21.64**	**163**			**P**		**18 42 36.1**	**-1.0**
TNTI				IAmb		IAmb		18 42 39.4	
	comp=Z,15nm,0.7s								
TNTI	**Ternate**	**21.64**	**163**	P		**P**		**18 42 37.9**	**+0.8**
	comp=Z,22nm,1.0s								
TNTI	**Ternate**	**21.64**	**163**	P		**P**		**18 42 37.8**	**+0.8**
	comp=Z,22nm,1.1s								
CN2	**Changchun**	**22.41**	**8**	P		**P**		**18 42 46.3**	**+1.1**
CN2				S		**S**		**18 46 46.5**	**-3.0**
CN2				pmax		pmax			
	comp=Z,10.0nm,0.6s								
CN2				L		L			
	comp=Z,500nm,14.0s								
CN2				L		L			
	comp=Z,200nm,14.0s								
CN2				L		L			
	comp=Z,500nm,16.0s								
APSI	**Ampana**	**22.42**	**178**	P		**P**		**18 42 45.8**	**+0.4**
	comp=Z,803nmcomp=Z,69nm,1.2s								
PCI	**Palu**	**22.43**	**183**	P		**P**		**18 42 47.7**	**+2.1**
	comp=Z,42nm,1.0s								
XLT	**XiLinHaoTe**	**22.58**	**351**	*eP*		**P**		**18 42 45.3**	**-1.8**
XLT				S		**S**		**18 46 49.3**	**-3.4**
XLT				sS		pS		18 46 58.6	-3.9
XLT				SS		**SnSn**		**18 47 34.3**	**+11**
XLT				pmax		pmax			
	comp=Z,13nm,1.0s								
XLT				pmax		pmax			
	comp=Z,190nm,4.0s								
XLT				L		L			
	comp=Z,560nm,24.3s								
XLT				L		L			
	comp=Z,660nm,20.7s								
LUWI	**Luwuk**	**22.60**	**175**			**P**		**18 42 46.3**	**-1.1**
LUWI	**Luwuk**	**22.60**	**175**	P		**P**		**18 42 47.3**	**-0.1**
	comp=Z,1µmcomp=Z,105nm,1.4s								
LUWI	**Luwuk**	**22.60**	**175**	P		**P**		**18 42 49.2**	**+1.8**

	comp=Z,106nm,1.4s								
NPW	**Naypyitaw**	**23.34**	**270**	P		**P**		**18 42 56.5**	**+1.5**
	comp=Z,14nm,1.2s								
MDJ	**Mudanjiang**	**23.99**	**15**	P		**P**		**18 43 00.8**	**-0.2**
MDJ				pmax		pmax			
	comp=Z,15nm,1.0s								
MDJ	**Mudanjiang**	**23.99**	**15**			**P**		**18 42 60.0**	**-1.0**
MDJ				IAmb		IAmb		18 43 04.2	
	comp=Z,15nm,0.9s								
SANI	**Sanana**	**24.03**	**168**	P		**P**		**18 43 02.1**	**+0.5**
SANI	**Sanana**	**24.03**	**168**	P		**P**		**18 43 02.3**	**+0.7**
	comp=Z,29nm,0.6s								
SANI	**Sanana**	**24.03**	**168**	P		**P**		**18 43 01.4**	**-0.3**
	comp=Z,29nm,0.6s								
GUMO	**Guam**	**24.07**	**105**	LR		LR		18 52 11.4	
	comp=Z,352nm,19.0s,baz=291,slow=36								
USA0B	**Ussuriysk Arra**	**24.27**	**19**			**P**		**18 43 03.2**	**-0.4**
USA0B				IAmb		IAmb		18 43 05.0	
	comp=Z,16nm,1.1s								
USRK	**Ussuriysk Ar.**	**24.27**	**19**	P		**P**		**18 43 04.1**	**+0.6**
	comp=Z,11nm,0.8s,baz=209,slow=8.9,SNR=20								
	comp=Z,11nm,0.8s								
USRK	**Ussuriysk Ar.**	**24.27**	**19**	P		**P**		**18 43 03.1**	**-0.5**
MORE	**Moreh**	**24.73**	**281**			**P**		**18 43 08.0**	**-0.1**
MORE				IAmb		IAmb		18 43 20.5	
	comp=Z,14nm,1.2s								
PMSI	**Majene**	**25.07**	**185**	P		**P**		**18 43 12.1**	**+1.1**
	comp=Z,57nm,1.1s								
GTA2	**Gaotai**	**25.43**	**319**	*eP*		**P**		**18 43 15.1**	**+0.8**
GTA2				pP		pP		18 43 19.6	-3.6
GTA2				pmax		pmax			
	comp=Z,2.0nm,1.0s								
GTA2				L		L			
	comp=Z,320nm,11.4s								
GTA2				L		L			
	comp=Z,560nm,14.3s								
GTA2				L		L			
	comp=Z,710nm,14.0s								
NLAI	**Namlea**	**25.43**	**166**	P		**P**		**18 43 15.5**	**+1.2**
KAPI	**Kappang**	**26.51**	**183**	P		**P**		**18 43 25.0**	**+0.9**
	comp=Z,7.7nm,0.4s,baz=288,slow=8.2,SNR=4.5								
KAPI				LR		LR		18 55 29.6	
	comp=Z,230nm,18.6s,baz=18,slow=40								
	comp=Z,7.7nm,0.4s								
KAPI	**Kappang**	**26.51**	**183**	P		**P**		**18 43 24.3**	**+0.2**
KAPI				IAmb		IAmb		18 43 31.5	
	comp=Z,26nm,1.1s								
KAPI	**Kappang**	**26.51**	**183**	P		**P**		**18 43 25.4**	**+1.3**
	comp=Z,271nmcomp=Z,8.2nm,0.8s								
KAPI	**Kappang**	**26.51**	**183**	P		**P**		**18 43 26.9**	**+2.8**
	comp=Z,16nm,0.8s								
BRDH	**Bariadhala**	**27.21**	**278**	LR		LR		18 56 27.6	
	comp=Z,292nm,18.5s,baz=140,slow=41								
ULN	**Ulaanbaatar**	**28.48**	**340**			**P**		**18 43 40.7**	**-1.0**
ULN	**Ulaanbaatar**	**28.48**	**340**	P		**P**		**18 43 42.3**	**+0.6**
	comp=Z,38nm,0.8s								
ULN	**Ulaanbaatar**	**28.48**	**340**	P		**P**		**18 43 42.4**	**+0.6**
	comp=Z,9.8nm,0.8s								
SONM	**Songino Array**	**28.67**	**339**	P		**P**		**18 43 44.2**	**+0.8**
	comp=Z,5.5nm,0.8s,baz=158,slow=8.2,SNR=11								
	comp=Z,5.5nm,0.8s								
SONM	**Songino Array**	**28.67**	**339**	P		**P**		**18 43 43.8**	**+0.5**
PPI	**Padang Panjang**	**29.79**	**225**	P		**P**		**18 43 53.3**	**-0.1**
	comp=Z,16nm,1.1s								
EDFI	**Ende, Flores**	**30.20**	**179**	P		**P**		**18 43 56.1**	**-1.1**
JAY	**Jayapura**	**30.77**	**139**	LR		LR		18 55 20.5	
	comp=Z,171nm,18.9s,baz=332,slow=34								
EVN	**Everest**	**31.61**	**288**	P		**P**		**18 44 09.2**	**-1.1**
EVN				IAmb		IAmb		18 44 33.2	
	comp=Z,6.2nm,0.9s								
BATI	**Baumata**	**31.75**	**175**	P		**P**		**18 44 09.4**	**-1.3**
	comp=Z,13nm,0.4s,baz=20,slow=12,SNR=5.2								
	comp=Z,13nm,0.4s								
WMQ	**Urumqi**	**35.35**	**317**	*eP*		**P**		**18 44 44.1**	**+2.2**
WMQ				L		L			
	comp=Z,410nm,9.7s								
WMQ				L		L			
	comp=Z,340nm,8.9s								
WMQ				L		L			
	comp=Z,220nm,14.5s								
FITZ	**Fitzroy Crossi**	**39.75**	**173**	P		**P**		**18 45 17.9**	**-1.3**
	comp=Z,3.9nm,0.6s,baz=358,slow=7.8,SNR=20								
FITZ				PcP		**PcP**		**18 47 25.2**	**-0.1**
	comp=Z,2.7nm,0.8s,baz=208,slow=6.1,SNR=3.0								
	comp=Z,3.9nm,0.6s								
FITZ	**Fitzroy Crossi**	**39.75**	**173**	P		**P**		**18 45 18.3**	**-0.8**
KRVT	**Keravat (AS076**	**39.83**	**127**	LR		LR		19 00 35.3	
	comp=Z,216nm,18.0s,baz=312,slow=34								
MKAR	**Makanchi Array**	**40.09**	**318**	P		**P**		**18 45 22.9**	**+0.9**
	comp=Z,2.0nm,0.7s,baz=113,slow=9.5,SNR=9.0								
MKAR				PcP		**PcP**		**18 47 28.0**	**+1.8**
	comp=Z,2.4nm,0.9s,baz=82,slow=3.1,SNR=3.8								
	comp=Z,2.0nm,0.7s								
MKAR	**Makanchi Array**	**40.09**	**318**	P		**P**		**18 45 23.0**	**+1.1**
PMG	**Port Moresby**	**40.12**	**138**	LR		LR		19 01 13.5	
	comp=Z,54nm,20.1s,baz=294,slow=35								
PDGK	**Podgornoye**	**40.63**	**312**			**P**		**18 45 28.8**	**+2.2**
YAK	**Yakutsk**	**40.81**	**6**			**P**		**18 45 25.7**	**-1.9**
PALK	**Pallekele**	**41.42**	**256**	LR		LR		19 03 51.1	
	comp=Z,254nm,19.8s,baz=58,slow=38								
PETK	**Petropavlovsk-**	**42.07**	**33**	P		**P**		**18 45 37.0**	**-1.0**
	comp=Z,1.7nm,0.8s,baz=256,slow=5.8,SNR=1.4								
	comp=Z,1.7nm,0.8s								
PETK	**Petropavlovsk-**	**42.07**	**33**	P		**P**		**18 45 36.7**	**-1.4**
ZAA0	**Zalesovo Array**	**42.32**	**329**			**P**		**18 45 40.2**	**+0.2**
ZALV	**Zalesovo Beam**	**42.32**	**329**	P		**P**		**18 45 40.6**	**+0.6**
	comp=Z,5.8nm,0.6s,baz=117,slow=8.5,SNR=24								
ZALV				PcP		**PcP**		**18 47 32.4**	**-0.8**
	comp=Z,0.9nm,0.6s,baz=112,slow=3.4,SNR=2.0								
ZALV				ScP		**ScP**		**18 51

comp=Z,1.6nm,0.5s,baz=223,slow=3.7,SNR=7.4
comp=Z,1.8nm,0.9s
AS31 Alice Springs 46.74 164 P 18 46 14.4 -1.3
ASAR Alice Springs 46.74 164 P P 18 46 15.0 -0.7
comp=Z,2.3nm,0.4s,baz=346,slow=8.4,SNR=94
ASAR PcP **PcP 18 47 48.5 -0.3**
comp=Z,3.6nm,0.8s,baz=347,slow=2.9,SNR=9.4
ASAR ScP **ScP 18 51 39.1 -1.3**
comp=Z,1.4nm,0.8s,baz=347,slow=4.2,SNR=10
ASAR LR LR 19 07 28.8
comp=Z,47nm,19.9s,baz=316,slow=38
comp=Z,2.3nm,0.4s
ASAR Alice Springs 46.74 164 P P 18 46 14.3 -1.4
ASAR **PcP 18 47 48.6 -0.3**
AS01 Alice Springs 46.75 164 P P 18 46 15.1 -0.7
KK31 Karatay Array 46.93 309 P 18 46 16.5 -0.6
KKAR Karatay Array 46.93 309 P 18 46 17.1 0.0
KBL Kabul 47.16 298 P P 18 46 20.2 +1.0
MEEK Meekatharra 48.04 183 P P 18 46 24.6 -1.2
CTA Charters Tower 48.25 148 LR LR 19 07 43.7
comp=Z,63nm,18.9s,baz=12,slow=37
TATA Tatamba Isabel 48.36 124 P P 18 46 29.1 +0.7
HNR Honiara 49.12 125 LR LR 19 06 42.2
comp=Z,74nm,18.8s,baz=22,slow=35
BVAR Borovoye Array 49.56 322 P P 18 46 38.2 +1.0
comp=Z,1.6nm,0.7s,baz=112,slow=9.8,SNR=6.6
BVAR PcP **PcP 18 47 59.0 +0.4**
comp=Z,4.5nm,0.9s,baz=110,slow=3.2,SNR=7.4
comp=Z,1.6nm,0.7s
BORK Borovoye 49.61 322 P P 18 46 38.2 +0.7
SHEM Shemya Is, Ala 50.88 39 LR LR 19 07 48.9
comp=Z,73nm,21.5s,baz=296,slow=35
NRIK Noril'sk 51.82 346 P P 18 46 53.9 0.0
comp=Z,16nm,0.9s,baz=116,slow=8.0,SNR=17
comp=Z,16nm,0.9s
NRIK Noril'sk 51.82 346 P 18 46 54.0 0.0
INKA Innaminka 52.66 158 P 18 47 00.5 -0.1
INKA IAmb IAmb 18 47 01.5
comp=Z,6.5nm,0.7s
LUES Luesalemba Tem 54.51 122 P P 18 47 14.6 +0.1
AB31 Akbulak array 55.13 316 IAmb IAmb 18 47 31.7
comp=Z,5.8nm,1.0s
ABKAR Akbulak array 55.13 316 P 18 47 19.1 +0.6
BBOO Buckleboo 56.01 165 P P 18 47 24.6 -0.4
STKA Stephens Creek 56.74 159 P P 18 47 29.8 -0.3
comp=Z,7.8nm,0.6s,baz=335,slow=5.9,SNR=19
STKA LR LR 19 13 20.9
comp=Z,36nm,20.4s,baz=21,slow=38
comp=Z,7.8nm,0.6s
STKA Stephens Creek 56.74 159 P P 18 47 29.7 -0.5
STKA Stephens Creek 56.74 159 P P 18 47 29.7 -0.5
ARTI Arti 57.15 324 P P 18 47 32.0 -0.8
ARTI IAmb IAmb 18 47 45.6
comp=Z,8.4nm,0.8s
HTT Hallett 57.36 162 P P 18 47 34.6 0.0
CMSA Cobar Meteorol 57.92 155 P P 18 47 38.8 +0.3
DZM Mont Dzumac 62.04 132 LR LR 19 11 19.0
comp=Z,107nm,20.5s,baz=329,slow=32
KBZ Khabaz 66.97 310 P P 18 48 40.0 +1.1
comp=Z,4.4nm,0.9s,baz=140,slow=5.2,SNR=5.2
comp=Z,4.4nm,0.9s
MSVF Nonsavu 68.19 121 LR LR 19 13 32.6
comp=Z,85nm,21.5s,baz=335,slow=32
MSVF Nonsavu 68.19 121 P P 18 48 48.3 +1.2
J20K Nowinta River 68.52 28 IAmb IAmb 18 48 50.8
comp=Z,4.4nm,0.8s
RAYN Ar Rayn 68.96 288 P P 18 48 52.9 +0.9
H22K Ishtalitna Cre 69.50 26 IAmb IAmb 18 49 01.9
comp=Z,9.7nm,1.3s
CAST Castle Rocks 69.51 29 P P 18 48 54.4 -0.2
CAST IAmb IAmb 18 48 57.3
comp=Z,6.7nm,0.8s
SPU Mount Spurr 69.83 31 IAmb IAmb 18 48 57.6
comp=Z,11nm,1.3s
MLY Manley 69.88 27 P P 18 48 57.0 +0.1
MLY IAmb IAmb 18 48 58.9
comp=Z,5.5nm,0.9s
KDAK Kodiak Island 70.07 35 P P 18 48 57.4 -0.7
comp=Z,5.8nm,0.6s,baz=241,slow=6.7,SNR=8.2
comp=Z,5.8nm,0.6s
KDAK Kodiak Island 70.07 35 P P 18 48 57.9 -0.2
NEA2 Nenana 70.65 27 IAmb IAmb 18 49 03.0
comp=Z,5.5nm,0.8s
MCK McKinley 70.86 28 P P 18 49 01.4 -1.5
MCK IAmb IAmb 18 49 03.2
comp=Z,11nm,1.2s
D25K Kavik River 70.88 22 IAmb IAmb 18 49 03.9
comp=Z,5.8nm,0.8s
F25K Christian Rive 71.47 24 IAmb IAmb 18 49 18.7
comp=Z,5.1nm,0.9s
ILAR Eielson Array 71.54 27 P P 18 49 06.1 -0.8
comp=Z,0.9nm,0.9s,baz=296,slow=7.5,SNR=6.6
comp=Z,0.9nm,0.9s
ILAR Eielson Array 71.54 27 P P 18 49 06.6 -0.4
C27K Jago River 71.73 22 IAmb IAmb 18 49 09.0
comp=Z,4.3nm,0.9s
ARCES ARCESS Array B 71.84 338 P P 18 49 09.3 +0.7
comp=Z,3.3nm,0.8s,baz=64,slow=5.5,SNR=4.4
comp=Z,3.3nm,0.8s
ARCES ARCESS Array B 71.84 338 P P 18 49 09.1 +0.4
BMAR Burnt Mountain 71.91 24 P P 18 49 09.4 +0.3
SPITS Spitsbergen Ar 71.93 348 P P 18 49 10.0 +0.9
comp=Z,8.9nm,1.0s,baz=60,slow=4.3,SNR=1.0
comp=Z,8.9nm,1.0s
G26K Porcupine Rive 72.32 24 IAmb IAmb 18 49 12.6
comp=Z,5.1nm,0.8s
I26K Coal Creek Min 72.96 26 IAmb IAmb 18 49 15.9
comp=Z,5.8nm,1.0s
H27K Steamboat Moun 73.37 25 IAmb IAmb 18 49 19.6
comp=Z,14nm,1.5s
E28M Babbage River 73.44 22 IAmb IAmb 18 49 19.2
comp=Z,5.6nm,0.8s
FINES FINESS Array B 73.56 330 P P 18 49 19.5 +0.5
comp=Z,5.8nm,0.8s,baz=64,slow=4.4,SNR=7.3
comp=Z,5.8nm,0.8s
FINES FINESS Array B 73.56 330 P P 18 49 19.6 +0.6
GLB Gilahina Butte 73.67 30 IAmb IAmb 18 49 21.1
comp=Z,12nm,1.1s
ASF Jabal al Asfar 74.04 299 LR LR 19 24 31.2
comp=Z,72nm,19.6s,baz=79,slow=38
E29M Blow River 74.08 22 IAmb IAmb 18 49 22.8
comp=Z,5.7nm,1.0s
BCAR Beaver Creek A 74.14 28 P P 18 49 22.2 -0.3
G29M Pine Creek 74.51 24 IAmb IAmb 18 49 25.5
comp=Z,10nm,1.0s
BRTR Keskin Array B 74.57 307 P P 18 49 26.4 +0.9
comp=Z,0.9nm,0.8s,baz=84,slow=7.3,SNR=5.6
comp=Z,0.9nm,0.8s
BRTR Keskin Array B 74.57 307 P P 18 49 25.7 +0.2
BR106 Keskin Array S 74.58 307 P P 18 49 25.6 0.0
comp=Z,1.9nm,1.0s
AK09 Malin Array Si 74.66 319 P P 18 49 25.8 +0.2
AK03 Malin Array Si 74.67 319 P P 18 49 25.8 +0.1
AK08 Malin Array Si 74.67 319 P P 18 49 25.9 +0.2
AKASG Malin Array Be 74.67 319 P P 18 49 25.3 -0.3
comp=Z,0.5nm,0.3s,baz=62,slow=6.1,SNR=6.7
comp=Z,0.5nm,0.3s
AK01 Malin Array Si 74.68 319 P P 18 49 25.9 +0.2
AK10 Malin Array Si 74.68 319 P P 18 49 25.9 +0.1
AK05 Malin Array Si 74.71 319 P P 18 49 26.1 +0.2
AK07 Malin Array Si 74.72 319 P P 18 49 26.2 +0.2
AK18 Malin Array Si 74.76 319 P P 18 49 26.4 +0.2
AK17 Malin Array Si 74.78 319 P P 18 49 26.5 +0.2
AK20 Malin Array Si 74.79 319 P P 18 49 26.6 +0.2
MMAI Mount Meron Ar 75.02 300 LR LR 19 24 50.2
comp=Z,53nm,19.4s,baz=76,slow=38
G30M tAoh Zraii Nji 75.16 23 IAmb IAmb 18 49 28.9
comp=Z,9.6nm,0.9s
EPYK Eagle Plains 75.18 24 IAmb IAmb 18 49 28.7
comp=Z,7.3nm,0.9s
J29N Klondike Camp 75.23 26 IAmb IAmb 18 49 30.1
comp=Z,7.8nm,0.9s
INK Inuvik 75.64 22 P P 18 49 29.5 -1.4
comp=Z,6.5nm,0.8s,baz=295,slow=5.8,SNR=15
comp=Z,6.5nm,0.8s
INK Inuvik 75.64 22 IAmb IAmb 18 49 31.2
comp=Z,8.0nm,0.8s
LUBAR Lubar, Ukraine 75.79 318 P P 18 49 32.0 -0.2
PABE Paberze 76.32 324 P P 18 49 35.1 +0.1
RNPP9 Sopachiy 76.49 320 P P 18 49 36.6 +0.5
HYT Haines Junctio 76.77 30 IAmb IAmb 18 49 39.2
comp=Z,9.8nm,1.0s
KMPD K-Podol'skiy 77.01 317 P P 18 49 39.2 +0.1
M31M Drury Creek, Y 77.65 28 IAmb IAmb 18 49 43.2
comp=Z,4.6nm,0.8s
BUR08 Bucovina Ar. S 78.10 317 P P 18 49 45.6 +0.2
BUR08 IAmb IAmb 18 49 52.6
comp=Z,7.8nm,1.2s
MLR Muntele Rosu 78.31 314 P P 18 49 47.8 +1.2
MLR IAmb IAmb 18 50 08.3
comp=Z,7.5nm,1.2s
P32M Atlin 78.99 30 IAmb IAmb 18 49 51.2
comp=Z,7.0nm,0.8s
HFS Hagfors 79.71 331 P P 18 49 54.5 +0.8
comp=Z,3.3nm,0.8s,baz=92,slow=7.2,SNR=2.3
comp=Z,3.3nm,0.8s
NB2 NORSAR Subarra 80.40 332 P P 18 49 57.5 -0.1
comp=Z,46nm,2.0s,baz=60,slow=5.9
NB2 NORSAR Subarra 80.40 332 P P 18 49 57.0 -0.6
NB2 AMP 18 49 57.0
NOA NORSAR Array B 80.40 332 P P 18 49 57.1 -0.4
comp=Z,1.6nm,0.7s,baz=62,slow=5.1,SNR=4.7
comp=Z,1.6nm,0.7s
OJC Ojcow 80.53 320 P P 18 49 58.4 0.0
DLBC Dease Lake 81.21 30 P P 18 50 00.6 -1.4
comp=Z,3.2nm,0.8s,baz=275,slow=8.4,SNR=5.5
comp=Z,3.2nm,0.8s
KSP Ksiaz 82.33 322 P P 18 50 08.3 +0.4
comp=Z,14nm,1.7s
CLL Collm 83.99 323 *eP* **P 18 50 17.0 +0.5**
comp=Z,10.0nm,1.1s
CLL LH 19 21 00.0
CLL LV 19 26 00.0
CLL AMS AMS 19 34 00.0
comp=N,100nm,18.8s
CLL AMS AMS 19 34 00.0
comp=Z,200nm,19.2s
GEC2 GERESS Array S 84.71 321 P 18 50 20.5 +0.1
GEC2 IAmb IAmb 18 50 23.5
comp=Z,4.8nm,1.0s
GERES GERESS Array B 84.71 321 *dP* **P 18 50 20.4 +0.1**
comp=Z,2.7nm,0.8s,baz=58,slow=3.5,SNR=15
GERES LR LR 19 30 25.7
comp=Z,50nm,18.3s,baz=320,slow=37
comp=Z,2.7nm,0.8s
GERES GERESS Array B 84.71 321 P P 18 50 20.0 -0.3
YKA Yellowknife Ar 85.37 23 P P 18 50 22.9 -0.3
comp=Z,4.0nm,0.8s,baz=314,slow=4.8,SNR=17
comp=Z,4.0nm,0.8s
YKA Yellowknife Ar 85.37 23 P P 18 50 22.1 -1.1
WLF Walferdange 88.60 324 *dP* **P 18 50 38.5 -0.7**
BMRD Maredsous 89.01 325 *dP* **P 18 50 39.9 -1.1**
MBAR Mbarara 90.48 270 LR LR 19 33 31.6
comp=Z,64nm,18.5s,baz=58,slow=37
PPT2 Papeete2 95.79 107 *eLR LR* 19 22 10.0
comp=Z,64nm,22.8s
TBI Tubuai 97.89 112 *eLR LR* 19 23 02.2
comp=Z,2μm,39.5s
MAW Mawson 98.65 199 LR LR 19 35 30.1
comp=Z,43nm,18.1s,baz=84,slow=35

IDC ***16*** *18:47:15.7±1.7, 0°.53N×126°.69E, h0km, mb4.1/4, mbtmp4.1/4, Error ellipse: s-maj=171.9km s-min=21.4km az=66.0*
DJA ***16*** *18:47:20.4±0.2, 0°.1N±3°×12°.6E±°, h10km, M3.7/18, mb4.0/6, MLv3.6/18*
ISC 16 18:47:22.6±1.1, 0°.44N±0°.08×126°.31E±0°.06, h47km, n13, σ1s54/13, mb4.1/4, Northern Moluccа Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.10**	**72**	P	**Pn**	**18 47 41.7**	**0.0**
MNI	**Manado**	**1.78**	**304**	P	**Pn**	**18 47 50.2**	**-0.8**
MNI				AML	AML		
GAMI	**Galela, Maluku**	**2.03**	**47**	P	**Pn**	**18 47 55.8**	**+1.5**
GAMI				AML	AML		
KMSI	**Cibinong**	**2.34**	**273**	P	**Pn**	**18 47 58.0**	**-0.6**
KMSI				AML	AML		
GTOI	**Gorontalo**	**3.31**	**273**	P	**Pn**	**18 48 14.9**	**+3.0**
GTOI				AML	AML		
NLAI	**Namlea**	**3.73**	**168**	P	**Pn**	**18 48 18.9**	**+1.1**
NLAI				AML	AML		
LUWI	**Luwuk**	**3.83**	**247**	P	**Pn**	**18 48 20.4**	**+1.3**
LUWI				AML	AML		
APSI	**Ampana**	**4.85**	**254**	P	**Pn**	**18 48 32.9**	**-0.2**
APSI				AML	AML		
TTSI	**Tana Toraja**	**7.36**	**242**	P	**Pn**	**18 49 06.5**	**-1.0**
	15nm,1.0s						
WRA	**Warramunga Arr**	**21.73**	**159**	P	**P**	**18 52 07.4**	**-2.7**
	1.0nm,0.5s,baz=339,slow=10,SNR=17						
	1.0nm,0.5s						
ASAR	**Alice Springs**	**25.07**	**163**	P	**P**	**18 52 42.5**	**-0.3**
	9.6nm,0.3s,baz=344,slow=11,SNR=35						
	9.6nm,0.3s						
MKAR	**Makanchi Array**	**60.03**	**327**	P	**P**	**18 57 25.2**	**+0.5**
	1.2nm,0.6s,baz=117,slow=8.2,SNR=9.8						
	1.2nm,0.6s						
KURBB	**Kurchatov Arra**	**64.29**	**328**	P	**P**	**18 57 53.7**	**+0.6**
	0.9nm,0.6s,baz=130,slow=6.1,SNR=3.1						
	0.9nm,0.6s						

INMG ***16*** *18:48:57.4±2.4, 35°.66N×4°.59W, h19km±10km, ML1.8, Error ellipse: s-maj=15.4km s-min=6.6km az=122.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Alboran*
SFS ***16*** *18:48:58.4, 35°.64N×4°.67W, h70km, ML2.2/17, ML2.7/17, MLv2.9/8*
MDD ***16*** *18:48:58.3±0.7, 35°.64N×4°.65W, h33km±2km, mb_Lg2.4/12, Error ellipse: s-maj=5.8km s-min=3.9km az=166.0*
CNRM ***16*** *18:49:00.7, 35°.32N×4°.77W, h65km*
ISC 16 18:48:58.2±1.2, 35°.59N±0°.05×4°.71W±0°.05, h35km, n53, σ2s61/30, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMIR	**Smir Dam**	**0.55**	**280**	P	**Pn**	**18 49 14.1**	**+4.5**
SMIR				S	**Sn**	**18 49 25.3**	**+7.8**
PALE	**Palemas**	**0.73**	**120**	P	**Pn**	**18 49 14.7**	**+2.6**
PALE				S	**Sn**	**18 49 25.9**	**+3.9**
EMIJ	**Mijas**	**0.98**	**357**	Pn	Pn	18 49 15.7	+0.2
EMIJ				Sn	Sn	18 49 28.1	-0.1
EMIJ	**Mijas**	**0.98**	**357**	Pg	Pn	18 49 14.1	-1.4
EMIJ				Pg		18 49 14.9	
EMIJ				Sg	Sn	18 49 26.9	-1.3
EMIJ				Sg		18 49 27.0	
EMIJ				IVmb_Lg		18 49 29.7	
EMAL	**Malaga-Limoner**	**1.20**	**11**	Sn	Sn	18 49 33.0	-0.5
AKLM	**AKL**	**1.28**	**147**	P	**Pn**	**18 49 21.0**	**+1.3**
SFS	**San Fernando**	**1.49**	**306**	Pn	**Pn**	**18 49 23.0**	**+0.5**
ELGU	**Los Guajares,**	**1.55**	**34**	Pn	Pn	18 49 22.2	-1.2
ELGU				Sn	Sn	18 49 39.7	-2.6
ELGU	**Los Guajares,**	**1.55**	**34**	Pg	Pn	18 49 22.4	-1.0
ELGU				Sn	Sn	18 49 39.7	-2.6
ELGU				IVmb_Lg		18 49 48.0	
ESPR	**Espera**	**1.58**	**325**	Sn	**Sn**	**18 49 42.6**	**-0.3**
ESPR	**Espera**	**1.58**	**325**	Sg	**Sn**	**18 49 42.9**	**+0.1**
ESPR				IVmb_Lg		18 49 49.9	
IFR	**Ifrane**	**2.09**	**189**	Pn	**Pn**	**18 49 31.4**	**+0.5**
JBK	**JBK**	**2.16**	**125**	P	**Pn**	**18 49 31.9**	**0.0**
JBK				S	**Sn**	**18 49 56.2**	**-1.3**
EXCBR	**El Cabril**	**2.55**	**347**	Pn	Pn	18 49 36.3	-0.8
EXCBR				Sn	Sn	18 50 03.4	-3.4
ECAB	**El Cabril**	**2.55**	**347**	Pn	Pn	18 49 36.1	-1.0
ECAB				Sn	Sn	18 50 03.7	-3.2
ECAB	**El Cabril**	**2.55**	**347**	Pn	Pn	18 49 36.2	-0.9
ECAB				Sn	Sn	18 50 03.6	-3.3
ECAB				IVmb_Lg		18 50 07.9	
EQES	**Quesada**	**2.58**	**30**	Sn	Sn	18 50 04.3	-3.4
EQES				IVmb_Lg		18 50 12.0	
EADA	**Adamuz**	**2.58**	**2**	Pn	Pn	18 49 36.9	-0.6
EADA				Sn	Sn	18 50 05.5	-2.2
EADA	**Adamuz**	**2.58**	**2**	Pn	Pn	18 49 36.9	-0.6
EADA				Sn	Sn	18 50 04.3	-3.3
EADA				IVmb_Lg		18 50 06.8	
ZHG	**ZHG**	**2.66**	**217**	P	**Pn**	**18 49 39.8**	**+1.1**
ZHG				S	**Sn**	**18 50 10.5**	**+0.7**
EMIN	**Mina Concepcio**	**2.69**	**325**	Pn	Pn	18 49 38.6	-0.3
EMIN				Sn	Sn	18 50 07.7	-2.5
MD31	**MD31**	**2.71**	**181**	P	**Pn**	**18 49 39.2**	**-0.1**
MD31				S	**Sn**	**18 50 07.4**	**-3.6**
MDT	**Midelt**	**2.77**	**178**	P	**Pn**	**18 49 39.5**	**-0.7**
MDT				S	**Sn**	**18 50 09.5**	**-2.9**
EGRO	**El Granado**	**2.96**	**312**	Pn	**Pn**	**18 49 42.4**	**-0.2**
EGRO				Sn	**Sn**	**18 50 14.4**	**-2.6**
EGRO	**El Granado**	**2.96**	**312**	Pn	Pn	18 49 42.3	-0.3
EGRO				Sn	Sn	18 50 14.0	-3.0
EGRO				IVmb_Lg		18 50 16.2	
PVAQ	**Vaqueiros**	**3.02**	**308**	*eP*	**Pn**	**18 49 44.0**	**+0.4**
PVAQ				*eS*	**Sn**	**18 50 16.2**	**-2.3**
PVAQ				IAML		18 50 17.7	
PVAQ				IAML		18 50 18.0	
PVAQ				IAML		18 50 18.2	
PBDV	**Barranco-do-Ve**	**3.08**	**303**	Sn	**Sn**	**18 50 17.9**	**-2.0**
PBDV	**Barranco-do-Ve**	**3.08**	**303**	*eS*	**Sn**	**18 50 18.1**	**-1.8**
PBDV				IAML		18 50 18.4	
PBDV				IAML		18 50 18.4	
PBDV				IAML		18 50 19.5	
PBAR	**Barrancos**	**3.19**	**325**	Pn	Pn	18 49 45.4	-0.4
PBAR				Sn	Sn	18 50 19.2	-3.3
PBAR	**Barrancos**	**3.19**	**325**	*eP*	Pn	18 49 45.4	-0.4
PBAR				*eS*	Sn	18 50 19.3	-3.2
PBAR				IAML		18 50 20.9	
PBAR				IAML		18 50 21.2	
PBAR				IAML		18 50 21.7	
PCVE	**Castro Verde**	**3.37**	**308**	Sn	**Sn**	**18 50 24.7**	**-2.2**
PCVE	**Castro Verde**	**3.37**	**308**	*eS*	**Sn**	**18 50 24.5**	**-2.5**
PCVE				IAML		18 50 25.8	
PCVE				IAML		18 50 25.9	
PCVE				IAML		18 50 26.8	
PMONC	**Monchique**	**3.54**	**300**	*eS*	**Sn**	**18 50 29.8**	**-1.5**
MESJ	**Messejana**	**3.60**	**310**	*eS*	Sn	18 50 29.8	-3.1
MORF	**Marmelete**	**3.61**	**300**	*eS*	**Sn**	**18 50 31.1**	**-2.0**
MORF				IAML		18 50 32.1	
MORF				IAML		18 50 33.7	
MORF				IAML		18 50 33.8	
EBAD	**Badajoz**	**3.66**	**331**	Pn	Pn	18 49 51.2	-1.0
EBAD				Sn	Sn	18 50 30.5	-3.6
EBAD				IVmb_Lg		18 50 32.4	
PFVI	**Vila Bisbo**	**3.66**	**296**	Sn	**Sn**	**18 50 31.1**	**-3.2**
PFVI	**Vila Bisbo**	**3.66**	**296**	*eS*	**Sn**	**18 50 32.3**	**-1.9**
PTEO	**Sao Teotonio**	**3.77**	**302**	*eS*	**Sn**	**18 50 35.0**	**-2.1**
PLOUS	**Minas do Lousa**	**3.85**	**310**	*eS*	Sn	18 50 35.5	-3.4
EVO	**Evora**	**3.95**	**319**	Sn	Sn	18 50 38.1	-3.3
EVO	**Evora**	**3.95**	**319**	*eS*	Sn	18 50 38.2	-3.2
EVO				IAML		18 50 38.4	
EVO				IAML		18 50 39.6	
EVO				IAML		18 50 40.0	
PAB	**San Pablo**	**3.96**	**4**	Pn	Pn	18 49 54.8	-1.7
PAB				Sn	Sn	18 50 36.4	-5.4
PAB				IVmb_Lg		18 50 47.4	
PESTR	**Estremoz**	**4.00**	**326**	Sn	Sn	18 50 38.8	-3.8
PESTR	**Estremoz**	**4.00**	**326**	*eS*	Sn	18 50 39.1	-3.5
CIBOR	**Castaar de Ib**	**4.08**	**352**	Pn	Pn	18 49 56.7	-1.4
CIBOR				Sn	Sn	18 50 39.5	-5.2
MOE	**Montemor**	**4.13**	**316**	*eS*	Sn	18 50 42.1	-3.7
PARRA	**Arraiolos**	**4.18**	**322**	*eP*	Pn	18 49 58.8	-0.6
PARRA				*eS*	Sn	18 50 43.1	-3.9
PARRA				IAML		18 50 43.4	
PARRA				IAML		18 50 43.5	
PARRA				IAML		18 50 46.1	
PMRV	**Marv??o**	**4.39**	**332**	*eP*	Pn	18 50 01.9	-0.4
PMRV				*eS*	Sn	18 50 48.5	-3.7
PMTG	**Montargil**	**4.46**	**322**	*eS*	Sn	18 50 50.3	-3.7
PMTG	**Montargil**	**4.46**	**322**	Sn	Sn	18 50 50.0	-4.0
EPLA	**Plasencia**	**4.60**	**347**	Sn	Sn	18 50 52.6	-4.9
EPLA				IVmb_Lg		18 50 54.7	
PSARD	**Sardoal**	**4.85**	**327**	*eS*	Sn	18 50 59.2	-4.4

IDC ***16*** *18:51:57.8±0.8, 59°.69N×138°.94W, h0km, mb3.8/8, mbtmp3.7/13, ML3.6/5, Error ellipse: s-maj=13.4km s-min=8.9km az=19.0*
NEIC ***16*** *18:51:58.5±1.6, 59°.74N±0°.03×138°.91W±0°.03, h6km±4km, ML3.8/132, Mwr3.6/42, ML3.6(AEIC), Error ellipse: s-maj=4.2km s-min=2.3km az=190.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_w3.34; $M_{\theta\theta}$-2.94; $M_{\phi\phi}$-0.40; M_{rr}1.26; $M_{\theta\phi}$1.10; $M_{r\theta}$-0.70; Fault plane solution: M_o3.64000×10^{14} NP1:ϕ_s287.12000°, δ33.59000°, λ84.37000°. NP2:ϕ_s113.87000°, δ56.59000°, λ93.73000°. Principal axes: T 3.6453, Plg78.0000°, Azm37.0000°; N -0.0033, Plg3.0000°, Azm292.0000°; P -3.6420, Plg12.0000°, Azm201.0000°;*
AEIC ***16*** *18:51:58.0±1.3, 59°.74N±0°.04×138°.88W±0°.04, h1km±1km Error ellipse: s-maj=6.0km s-min=2.6km az=184.0*
NEIC ***16*** *18:51:59.4, 59°.73N×138°.97W, h10km*
PGC ***16*** *18:51:59.0±0.0, 59°.73N×138°.91W, h1km, ML3.8/25, ML3.6(AEIC), 52km east of Yakutat, Ak Southeastern Alaska*
ISC 16 18:51:58.4±1.0, 59°.75N±0°.02×138°.92W±0°.02, h6km±7km, n253, σ0s94/266, mb3.9/8, Southeastern Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PNL	**Peninsula**	**0.25**	**252**	P	**Pg**	**18 52 03.1**	**-0.3**
PNL	**Peninsula**	**0.25**	**252**	S	**Sg**	**18 52 06.9**	**+0.2**
PNL	**Peninsula**	**0.25**	**252**		**Sg**	**18 52 07.0**	**+0.2**
PNL	**Peninsula**	**0.25**	**252**	P	**Pg**	**18 52 03.4**	**+0.1**
PNL				S	**Sg**	**18 52 07.0**	**+0.3**
BCPM	**Bancas Point**	**0.41**	**300**		**Pg**	**18 52 06.5**	**0.0**
BCPM					**Sg**	**18 52 12.7**	**+0.8**
BCPM	**Bancas Point**	**0.41**	**300**	IAML		18 52 12.8	
	comp=N,4μm,0.2s						
BCPM				IAML		18 52 13.2	
	comp=E,3μm,0.2s						
O29M	**Mount Kennedy**	**0.58**	**17**		**Pg**	**18 52 09.6**	**0.0**
O29M					**Sg**	**18 52 17.3**	**0.0**
O29M	**Mount Kennedy**	**0.58**	**17**	IAML		18 52 24.6	
	comp=N,4μm,0.4s						
O29M	**Mount Kennedy**	**0.58**	**17**	P	**Pg**	**18 52 09.5**	**-0.2**
P29M	**Windy Craggy**	**0.61**	**101**		**Pg**	**18 52 09.7**	**-0.5**
P29M				Sg	**Sg**	**18 52 18.1**	**0.0**
P29M				IAML		18 52 19.4	
	comp=N,6μm,0.4s						
P29M				IAML		18 52 19.8	
	comp=E,4μm,0.4s						
P29M	**Windy Craggy**	**0.61**	**101**	P	**Pg**	**18 52 09.9**	**-0.3**
P29M				S	**Sg**	**18 52 18.0**	**-0.1**
PCA	**Pinnacle**	**0.76**	**298**		**Pg**	**18 52 12.9**	**0.0**
PCA				Sg	**Sg**	**18 52 23.8**	**+1.0**
PCA	**Pinnacle**	**0.76**	**298**	P	**Pg**	**18 52 12.9**	**0.0**
PCA				S	**Sg**	**18 52 23.1**	**+0.3**
YUK7	**Dusty Glacier**	**0.88**	**26**		**Pg**	**18 52 14.9**	**-0.4**
YUK7					**Sg**	**18 52 26.7**	**-0.1**
YUK7	**Dusty Glacier**	**0.88**	**26**	P	**Pg**	**18 52 14.8**	**-0.5**
YUK7				S	**Sg**	**18 52 26.6**	**-0.1**
SAMH	**Samovar Hills**	**1.01**	**293**		**Pg**	**18 52 17.6**	**-0.2**
SAMH					**Ph**	**18 52 18.3**	**-0.4**
SAMH					**Sb**	**18 52 32.7**	**+0.7**
SAMH	**Samovar Hills**	**1.01**	**293**	P	**Pg**	**18 52 17.8**	**0.0**
P30M	**Million Dollar**	**1.06**	**68**		**Pg**	**18 52 17.8**	**-0.9**
P30M					**Sg**	**18 52 32.4**	**0.0**
P30M	**Million Dollar**	**1.06**	**68**	IAML		18 52 37.9	
	comp=N,2μm,0.4s						
P30M				IAML		18 52 37.9	
	comp=E,2μm,0.3s						
P30M	**Million Dollar**	**1.06**	**68**	P	**Pg**	**18 52 17.8**	**-0.9**
P30M				S	**Sg**	**18 52 32.3**	**0.0**
O28M	**Mount Upton**	**1.21**	**329**		**Pg**	**18 52 20.1**	**-1.5**
O28M				IAML		18 52 40.8	
	comp=N,2μm,0.5s						
O28M				IAML		18 52 43.9	
	comp=E,2μm,0.6s						
O28M	**Mount Upton**	**1.21**	**329**		**Sg**	**18 52 37.0**	**-0.2**
O28M	**Mount Upton**	**1.21**	**329**	P	**Pg**	**18 52 20.3**	**-1.2**
O28M				S	**Sg**	**18 52 36.8**	**-0.4**
YUK6	**Outpost Mounta**	**1.23**	**13**		**Pg**	**18 52 21.3**	**-0.7**
YUK6					**Sb**	**18 52 38.3**	**-0.2**
YUK6	**Outpost Mounta**	**1.23**	**13**	P	**Pg**	**18 52 21.2**	**-0.8**
YUK6				S	**Sg**	**18 52 38.1**	**+0.1**
HYT	**Haines Junctio**	**1.29**	**33**		**Pg**	**18 52 21.9**	**-1.2**
HYT				IAML		18 52 43.4	
	comp=N,1μm,0.5s						
HYT	**Haines Junctio**	**1.29**	**33**		**Sg**	**18 52 39.9**	**0.0**
HYT	**Haines Junctio**	**1.29**	**33**	P	**Pg**	**18 52 22.3**	**-0.9**
HYT				S	**

LOGN	**Logan Glacier**	**1.50**	**317**		**Sn**	**18 52 46.2**	**+0.2**
LOGN	**Logan Glacier**	**1.50**	**317**	Pn	**Pn**	**18 52 25.6**	**-0.4**
LOGN				Sn	**Sg**	**18 52 46.8**	**+0.3**
YUK8	**Steele Glacier**	**1.60**	**345**		**Pn**	**18 52 27.5**	**0.0**
YUK8					**Sg**	**18 52 50.0**	**+0.3**
YUK8	**Steele Glacier**	**1.60**	**345**	Pn	**Pn**	**18 52 27.5**	**0.0**
YUK8				Sn	**Sb**	**18 52 49.4**	**+0.4**
BRWY	**Burwash Landin**	**1.63**	**358**		**Pb**	**18 52 28.7**	**-0.2**
GRNC	**Granite Creek**	**1.72**	**306**		**Pn**	**18 52 28.4**	**-0.8**
GRNC	**Granite Creek**	**1.72**	**306**		**Sg**	**18 52 53.6**	**-0.1**
GRNC	**Granite Creek**	**1.72**	**306**	Pn	**Pn**	**18 52 29.4**	**+0.2**
GRNC				Sn	**Sb**	**18 52 53.2**	**+0.5**
O30N	**Mendenhall**	**1.75**	**53**		**Pn**	**18 52 29.6**	**+0.3**
O30N				Sn	**Sb**	**18 52 52.7**	**-0.4**
O30N				IAML		18 52 55.9	
	comp=E,966nm,0.7s						
O30N				IAML		18 52 56.0	
	comp=N,1µm,0.8s						
O30N	**Mendenhall**	**1.75**	**53**	Pn	**Pn**	**18 52 30.0**	**+0.6**
O30N				Sn	**Sb**	**18 52 53.2**	**+0.1**
CYK	**Cape Yakataga**	**1.82**	**282**		**Pn**	**18 52 30.5**	**+0.2**
SKAG	**Skagway**	**1.85**	**97**	P	**Pn**	**18 52 31.0**	**+0.3**
SKAG	**Skagway**	**1.85**	**97**	S	**Sb**	**18 52 55.7**	**-0.3**
SKAG	**Skagway**	**1.85**	**97**		**Pn**	**18 52 31.0**	**+0.3**
SKAG				IAML		18 52 58.6	
	comp=N,842nm,0.6s						
SKAG				IAML		18 52 59.2	
	comp=E,613nm,0.6s						
BARN	**Barnard Glacie**	**1.89**	**315**		**Pn**	**18 52 31.8**	**+0.3**
BARN	**Barnard Glacie**	**1.89**	**315**		**Sb**	**18 52 57.8**	**+0.3**
N30M	**Aishikik Lake**	**1.94**	**27**		**Pn**	**18 52 32.7**	**+0.6**
KIAG	**Kiagna River**	**2.08**	**306**		**Sb**	**18 53 02.8**	**+0.1**
KIAG	**Kiagna River**	**2.08**	**306**	Sn	**Sb**	**18 53 02.1**	**-0.6**
BALM	**Baldy**	**2.13**	**309**		**Sb**	**18 53 04.6**	**+0.3**
BALM	**Baldy**	**2.13**	**309**	Sn	**Sn**	**18 53 03.0**	**+1.4**
YUK3	**Moose Creek**	**2.17**	**340**	Pn	**Pn**	**18 52 35.9**	**+0.6**
TGL	**Tana Glacier**	**2.19**	**299**		**Pn**	**18 52 36.0**	**+0.4**
TGL	**Tana Glacier**	**2.19**	**299**		**Sb**	**18 53 06.1**	**+0.1**
WHY	**Whitehorse**	**2.22**	**64**		**Pn**	**18 52 36.3**	**+0.5**
WHY	**Whitehorse**	**2.22**	**64**	Pn	**Pn**	**18 52 36.4**	**+0.6**
YUK2	**White River**	**2.25**	**336**	Pn	**Pn**	**18 52 37.1**	**+0.7**
PTPK	**Patty Peak**	**2.27**	**311**	Pn	**Pn**	**18 52 37.6**	**+0.9**
PTPK				Sn	**Sn**	**18 53 06.5**	**+1.3**
S31K	**Pelican**	**2.27**	**141**		**Pn**	**18 52 36.4**	**-0.1**
S31K				IAML		18 53 14.4	
	comp=N,388nm,0.9s						
CRQM	**Cirque**	**2.33**	**298**		**Pn**	**18 52 37.5**	**0.0**
CRQM	**Cirque**	**2.33**	**298**		**Sb**	**18 53 09.6**	**-0.5**
N31M	**Braeburn, Yuko**	**2.33**	**40**		**Pn**	**18 52 38.0**	**+0.6**
N31M				IAML		18 53 19.3	
	comp=N,651nm,0.6s						
BESE	**Bessie Mountai**	**2.40**	**117**		**Pn**	**18 52 38.0**	**-0.4**
BESE				IAML		18 53 15.4	
	comp=E,458nm,0.5s						
BESE				IAML		18 53 16.4	
	comp=N,362nm,0.9s						
BESE	**Bessie Mountai**	**2.40**	**117**	Pn	**Pn**	**18 52 39.1**	**+0.7**
MCARA	**McCarthy VSAT**	**2.61**	**311**		**Pn**	**18 52 42.0**	**+0.8**
MCARA	**McCarthy VSAT**	**2.61**	**311**		**Sb**	**18 53 17.6**	**-0.2**
MCARA	**McCarthy VSAT**	**2.61**	**311**	Pn	**Pn**	**18 52 42.2**	**+1.1**
P32M	**Atlin**	**2.65**	**91**		**Pn**	**18 52 41.6**	**-0.1**
P32M				IAML		18 53 23.1	
	comp=N,449nm,0.8s						
P32M	**Atlin**	**2.65**	**91**	Pg	**Pb**	**18 52 46.0**	**-0.2**
VRDI	**Verde Repeater**	**2.69**	**305**		**Sb**	**18 53 18.3**	**-2.0**
VRDI	**Verde Repeater**	**2.69**	**305**		**Pn**	**18 52 42.5**	**+0.1**
VRDI				IAML		18 53 21.5	
	comp=E,307nm,0.7s						
M29M	**Somme Creek**	**2.71**	**5**		**Pn**	**18 52 43.9**	**+1.2**
M29M	**Somme Creek**	**2.71**	**5**	IAML		18 53 25.6	
	comp=E,336nm,1.0s						
M29M				IAML		18 53 27.0	
	comp=N,249nm,0.5s						
M29M	**Somme Creek**	**2.71**	**5**	Pn	**Pn**	**18 52 44.1**	**+1.4**
R32K	**Eaglecrest**	**2.72**	**121**		**Pn**	**18 52 42.1**	**-0.5**
JIS	**Juneau Island**	**2.77**	**120**	P	**Pn**	**18 52 43.6**	**+0.2**
JIS	**Juneau Island**	**2.77**	**120**	S	**Sn**	**18 53 18.6**	**+1.5**
JIS	**Juneau Island**	**2.77**	**120**		**Pn**	**18 52 43.2**	**-0.2**
BVCY	**Beaver Creek**	**2.84**	**341**		**Pn**	**18 52 45.8**	**+1.5**
GLB	**Gilahina Butte**	**2.95**	**307**		**Pn**	**18 52 46.4**	**+0.5**
GLB				IAML		18 53 34.2	
	comp=N,253nm,1.0s						
M27K	**Edge Creek, AK**	**2.99**	**333**	IAML		18 53 36.2	
	comp=E,221nm,0.9s						
M27K				IAML		18 53 42.8	
	comp=N,198nm,0.8s						
M30M	**Minto, Yukon**	**3.02**	**19**		**Pn**	**18 52 48.0**	**+1.1**
M30M				IAML		18 53 35.3	
	comp=E,271nm,0.8s						
M30M				IAML		18 53 35.3	
	comp=N,196nm,0.6s						
M30M	**Minto, Yukon**	**3.02**	**19**	Pn	**Pn**	**18 52 47.9**	**+1.1**
BMRM	**Bremner River**	**3.08**	**296**		**Pn**	**18 52 47.8**	**+0.2**
P33M	**Teslin, Yukon**	**3.10**	**79**		**Pn**	**18 52 47.3**	**-0.7**
P33M				IAML		18 53 37.3	
	comp=N,170nm,0.7s						
P33M	**Teslin, Yukon**	**3.10**	**79**	Pn	**Pn**	**18 52 48.0**	**0.0**
P33M				Sg	**Sb**	**18 53 34.5**	**+2.3**
N32M	**Quiet Lake**	**3.22**	**62**		**Pn**	**18 52 49.9**	**+0.4**
N32M	**Quiet Lake**	**3.22**	**62**	Pn	**Pn**	**18 52 50.3**	**+0.8**
N32M				Sg	**Sb**	**18 53 38.5**	**+3.0**
S32K	**Killisnoo**	**3.22**	**133**		**Pn**	**18 52 50.0**	**+0.5**
SIT	**Sitka**	**3.30**	**143**	P	**Pn**	**18 52 52.7**	**+2.1**
SIT	**Sitka**	**3.30**	**143**		**Pn**	**18 52 50.5**	**0.0**
M31M	**Drury Creek, Y**	**3.31**	**40**		**Pn**	**18 52 50.7**	**0.0**
M31M				IAML		18 53 48.1	
	comp=E,272nm,1.0s						
M31M				IAML		18 53 52.5	
	comp=N,198nm,1.0s						
M31M	**Drury Creek, Y**	**3.31**	**40**	Pn	**Pn**	**18 52 52.1**	**+1.3**
M26K	**Nabesna, AK**	**3.32**	**325**		**Pn**	**18 52 51.5**	**+0.5**
L29M	**L29M**	**3.40**	**6**		**Pn**	**18 52 53.3**	**+1.3**
L29M	**L29M**	**3.40**	**6**	Pn	**Pn**	**18 52 53.6**	**+1.6**
WACK	**Wrangell Chich**	**3.47**	**313**		**Pn**	**18 52 54.5**	**+1.3**
Q32M	**Nakina River**	**3.50**	**100**		**Pn**	**18 52 53.3**	**-0.2**
Q32M	**Nakina River**	**3.50**	**100**	IAML		18 53 50.9	
	comp=N,142nm,0.8s						
Q32M				IAML		18 53 52.9	
	comp=E,144nm,0.7s						
Q32M	**Nakina River**	**3.50**	**100**	Pn	**Pn**	**18 52 53.7**	**+0.2**
EYAK	**Cordova Ski Ar**	**3.51**	**286**	P	**Pn**	**18 52 54.5**	**+1.1**
EYAK	**Cordova Ski Ar**	**3.51**	**286**		**Pn**	**18 52 53.9**	**+0.5**
EYAK					**Pn**	**18 52 54.3**	**+0.8**
BCAR	**Beaver Creek A**	**3.60**	**339**		**Pn**	**18 52 54.5**	**-0.3**
BC01	**Beaver Creek A**	**3.61**	**338**		**Pn**	**18 52 54.3**	**-0.6**
L27K	**Beaver Creek,**	**3.61**	**338**		**Pn**	**18 52 54.4**	**-0.4**
L27K	**Beaver Creek,**	**3.61**	**338**	Pn	**Pn**	**18 52 55.0**	**+0.1**
DIV	**Divide**	**3.67**	**295**	IAML		18 54 00.9	
	comp=N,120nm,0.7s						
DIV	**Divide**	**3.67**	**295**		**Pn**	**18 52 56.0**	**+0.3**
DIV					**Pn**	**18 52 56.2**	**+0.5**
HIN	**Hinchinbrook I**	**3.85**	**283**		**Pn**	**18 52 58.4**	**+0.1**
HIN	**Hinchinbrook I**	**3.85**	**283**	IAML		18 54 10.3	
	comp=E,166nm,0.7s						
HIN				IAML		18 54 15.0	
	comp=N,117nm,0.8s						
KLU	**Klutina**	**3.87**	**300**		**Pn**	**18 52 59.3**	**+0.8**
FID	**Port Fidalgo**	**3.90**	**288**		**Pn**	**18 52 59.6**	**+0.8**
FID	**Port Fidalgo**	**3.90**	**288**	IAML		18 54 02.5	
	comp=E,156nm,0.5s						
FID				IAML		18 54 07.2	
	comp=N,142nm,0.5s						
L26K	**Log Cabin Wild**	**3.92**	**329**		**Pn**	**18 52 59.5**	**+0.4**
L26K				IAML		18 53 57.9	
	comp=N,90nm,0.4s						
L26K				IAML		18 54 01.7	
	comp=E,109nm,0.4s						
MENT	**Mentasta**	**3.95**	**326**	IAML		18 54 10.4	
	comp=E,91nm,0.8s						
HARP	**HAARP**	**4.03**	**314**	IAML		18 54 14.5	
	comp=E,125nm,1.0s						
HARP				IAML		18 54 28.7	
	comp=N,89nm,1.1s						
R33M	**Jennings River**	**4.06**	**92**		**Pn**	**18 53 01.1**	**-0.1**
R33M	**Jennings River**	**4.06**	**92**	IAML		18 54 08.7	
	comp=E,123nm,0.9s						
R33M				IAML		18 54 12.0	
	comp=N,127nm,0.8s						
R33M	**Jennings River**	**4.06**	**92**	Pn	**Pn**	**18 53 01.5**	**+0.3**
R33M				Sn	**Sn**	**18 53 50.8**	**+1.6**
K29M	**Barlow Dome**	**4.16**	**9**		**Pn**	**18 53 04.5**	**+1.9**
K29M	**Barlow Dome**	**4.16**	**9**	IAML		18 54 16.4	
	comp=N,103nm,0.9s						
K29M				IAML		18 54 24.7	
	comp=E,140nm,1.0s						
K29M	**Barlow Dome**	**4.16**	**9**	Pn	**Pn**	**18 53 04.6**	**+1.9**
K29M				Sn	**Sn**	**18 53 52.7**	**+1.1**
GLI	**Glacier Island**	**4.22**	**289**		**Pn**	**18 53 03.9**	**+0.6**
GLI	**Glacier Island**	**4.22**	**289**	IAML		18 54 09.3	
	comp=E,106nm,0.6s						
GLI				IAML		18 54 11.1	
	comp=N,76nm,1.1s						
P23K	**Montague Islan**	**4.28**	**277**		**Pn**	**18 53 03.9**	**-0.2**
P23K				IAML		18 54 25.3	
	comp=N,77nm,1.0s						
P23K				IAML		18 54 28.2	
	comp=E,74nm,1.1s						
S34M	**Telegraph Cree**	**4.45**	**111**		**Pn**	**18 53 06.4**	**0.0**
S34M	**Telegraph Cree**	**4.45**	**111**	IAML		18 54 23.6	
	comp=E,113nm,0.9s						
S34M				IAML		18 54 25.3	
	comp=N,115nm,0.8s						
S34M	**Telegraph Cree**	**4.45**	**111**	Pn	**Pn**	**18 53 06.6**	**+0.2**
K27K	**Chicken**	**4.55**	**342**		**Pn**	**18 53 08.2**	**+0.4**
K27K	**Chicken**	**4.55**	**342**	IAML		18 54 29.1	
	comp=E,86nm,0.9s						
DOT	**Dot Lake**	**4.62**	**330**		**Pn**	**18 53 09.3**	**+0.6**
SCM	**Sheep Creek Mo**	**4.62**	**301**		**Pn**	**18 53 09.8**	**+1.0**
SCM	**Sheep Creek Mo**	**4.62**	**301**	IAML		18 54 29.6	
	comp=E,92nm,1.1s						
SCM				IAML		18 54 34.6	
	comp=N,71nm,0.7s						
J29N	**Klondike Camp**	**4.73**	**4**		**Pn**	**18 53 11.6**	**+1.2**
DLBC	**Dease Lake**	**4.77**	**102**	Pn	**Pn**	**18 53 11.6**	**+0.6**
	comp=N,1.5nm,0.3s,baz=272,slow=6.5,SNR=14						
DLBC				Pg	**Pb**	**18 53 23.2**	**+0.8**
	comp=N,2.6nm,0.3s,baz=269,slow=14,SNR=16						
DLBC				Sn	**Sn**	**18 54 05.8**	**-0.7**
	comp=N,3.6nm,0.3s,baz=250,slow=11,SNR=3.3						
DLBC				Lg	Lg	18 54 24.2	
	comp=N,5.7nm,0.3s,baz=109,slow=17,SNR=5.2						
	comp=N,3.0nm,0.3s						
DLBC				AML	AML		
DLBC	**Dease Lake**	**4.77**	**102**		**Pn**	**18 53 11.5**	**+0.6**
DLBC	**Dease Lake**	**4.77**	**102**	Pn	**Pn**	**18 53 11.5**	**+0.6**
PWL	**Port Wells**	**4.81**	**287**		**Pn**	**18 53 12.4**	**+1.0**
PWL				IAML		18 54 28.1	
	comp=N,49nm,0.7s						
WRAK	**Wrangell Islan**	**4.83**	**131**	Pn	**Pn**	**18 53 11.4**	**-0.2**
SCRK	**Sand Creek**	**4.87**	**333**		**Pn**	**18 53 11.7**	**-0.6**
RIDG	**Independent Ri**	**4.89**	**327**		**Pn**	**18 53 13.2**	**+0.6**
RIDG				IAML		18 54 42.5	
	comp=E,41nm,1.2s						
KNK	**Knik Glacier**	**4.99**	**294**		**Pn**	**18 53 15.6**	**+1.8**
KNK	**Knik Glacier**	**4.99**	**294**	IAML		18 54 29.5	
	comp=E,67nm,0.7s						
KNK				IAML		18 54 31.2	
	comp=N,76nm,1.0s						
J30M	**Hart River**	**5.00**	**13**		**Pn**	**18 53 15.6**	**+1.5**
J30M	**Hart River**	**5.00**	**13**	Pn	**Pn**	**18 53 16.2**	**+2.2**
SML	**Sawmill**	**5.05**	**298**		**Pn**	**18 53 16.2**	**+1.5**
SML				IAML		18 54 33.8	
	comp=E,69nm,0.9s						
SML				IAML		18 54 45.9	
	comp=N,61nm,1.1s						
GHO	**Glory Hole Cre**	**5.31**	**297**		**Pn**	**18 53 19.0**	**+0.7**
GHO	**Glory Hole Cre**	**5.31**	**297**	IAML		18 54 45.4	
	comp=N,60nm,0.7s						
GHO				IAML		18 54 49.7	
	comp=E,49nm,0.8s						
SEW	**Seward**	**5.31**	**278**		**Pn**	**18 53 17.6**	**-0.5**
T35M	**Bob Quinn**	**5.34**	**118**		**Pn**	**18 53 19.2**	**+0.5**
T35M				IAML		18 54 53.2	
	comp=N,57nm,0.5s						
T35M				IAML		18 54 56.7	
	comp=E,49nm,0.7s						
T35M	**Bob Quinn**	**5.34**	**118**	Pn	**Pn**	**18 53 19.8**	**+1.1**
PMR	**Palmer**	**5.35**	**295**		**Pn**	**18 53 19.3**	**+0.6**
PMR				IAML		18 54 41.6	
	comp=E,45nm,0.7s						
RC01	**Rabbit Creek A**	**5.52**	**289**		**Pn**	**18 53 21.7**	**+0.6**
I30M	**Mount Dempster**	**5.62**	**11**		**Pn**	**18 53 23.5**	**+0.9**
I30M	**Mount Dempster**	**5.62**	**11**	Pn	**Pn**	**18 53 24.9**	**+2.3**
WAT7	**Susitna Watana**	**5.70**	**307**		**Pn**	**18 53 23.3**	**-0.4**
SLKM	**Skilak Lake**	**5.70**	**283**		**Pn**	**18 53 23.5**	**-0.1**
J25K	**Salcha River,**	**5.74**	**331**		**Pn**	**18 53 24.1**	**0.0**
I28M	**Miner Creek**	**5.74**	**356**		**Pn**	**18 53 25.3**	**+1.1**
I28M	**Miner Creek**	**5.74**	**356**	Pn	**Pn**	**18 53 26.2**	**+1.9**
I26K	**Coal Creek Min**	**5.91**	**342**		**Pn**	**18 53 27.4**	**+0.9**
BRSE	**Bradley Lake S**	**5.98**	**275**		**Pn**	**18 53 28.1**	**+0.7**
RND	**Reindeer**	**5.99**	**312**		**Pn**	**18 53 28.4**	**+0.7**
I27K	**Kandik River**	**6.01**	**349**		**Pn**	**18 53 29.0**	**+1.2**
SUA	**Susitna One**	**6.07**	**292**		**Pn**	**18 53 29.8**	**+1.0**
CUT	**Chulina**	**6.12**	**301**		**Pn**	**18 53 30.5**	**+1.3**
CNPM	**China Poot**	**6.25**	**273**		**Pn**	**18 53 31.9**	**+0.7**
ILAR	**Eielson Array**	**6.26**	**327**	Pn	**Pn**	**18 53 32.0**	**+0.7**
	comp=E,0.3nm,0.3s,baz=152,slow=13,SNR=9.5						
ILAR				Sn	**Sn**	**18 54 44.2**	**+1.2**
	comp=E,0.5nm,0.3s,baz=146,slow=23,SNR=4.6						
ILAR				Lg	Lg	18 55 14.7	
	comp=E,0.5nm,0.3s,baz=140,slow=28,SNR=4.4						
	comp=E,0.6nm,0.5s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**6.26**	**327**		**Pn**	**18 53 31.7**	**+0.4**
H31M	**Peel River**	**6.43**	**17**		**Pn**	**18 53 35.4**	**+1.8**
H31M	**Peel River**	**6.43**	**17**	Pn	**Pn**	**18 53 35.6**	**+1.9**
H29M	**Whitestone**	**6.50**	**2**		**Pn**	**18 53 35.6**	**+1.0**
H29M	**Whitestone**	**6.50**	**2**	Pn	**Pn**	**18 53 35.9**	**+1.4**
SKT	**Skwentna**	**6.55**	**295**		**Pn**	**18 53 36.8**	**+1.5**
TRF	**Thorofare Moun**	**6.57**	**309**		**Pn**	**18 53 37.2**	**+1.5**
STLK	**Strandline Lak**	**6.59**	**291**		**Pn**	**18 53 37.4**	**+1.5**
H27K	**Steamboat Moun**	**6.61**	**351**		**Pn**	**18 53 37.8**	**+1.6**
SPCG	**Spurr Capps Gl**	**6.65**	**289**		**Pn**	**18 53 37.8**	**+1.1**
EPYK	**Eagle Plains**	**6.72**	**8**	Pn	**Pn**	**18 53 39.6**	**+2.0**
RDT	**Redoubt**	**6.78**	**383**		**Pn**	**18 53 38.8**	**+0.3**
CKL	**Chakachamna La**	**6.79**	**288**		**Pn**	**18 53 39.4**	**+0.8**
SPBG	**Spurr Blockage**	**6.81**	**289**		**Pn**	**18 53 39.5**	**+0.6**
O20K	**Slope Mountain**	**6.90**	**279**		**Pn**	**18 53 40.9**	**+0.8**
DFR	**Drift River**	**6.92**	**283**		**Pn**	**18 53 40.3**	**-0.1**
SPNN	**North Nagishla**	**6.98**	**289**		**Pn**	**18 53 41.8**	**+0.4**
NCT	**North Crescent**	**7.04**	**283**		**Pn**	**18 53 42.5**	**+0.5**
BPAW	**Bear Paw Mtn.**	**7.17**	**313**		**Pn**	**18 53 44.5**	**+0.8**
G29M	**Pine Creek**	**7.20**	**3**	Pn	**Pn**	**18 53 45.3**	**+1.1**
P19K	**Oil Pt**	**7.24**	**275**		**Pn**	**18 53 45.9**	**+1.2**
M20K	**Styx River**	**7.27**	**293**		**Pn**	**18 53 46.7**	**+1.5**
CAST	**Castle Rocks**	**7.28**	**306**		**Pn**	**18 53 46.2**	**+1.0**
G30M	**tAoh Zraii Nji**	**7.36**	**8**		**Pn**	**18 53 47.3**	**+1.0**
G30M	**tAoh Zraii Nji**	**7.36**	**8**	Pn	**Pn**	**18 53 47.6**	**+1.3**
KDAK	**Kodiak Island**	**7.37**	**260**	Pn	**Pn**	**18 53 46.1**	**-0.4**
	comp=E,7.4nm,0.3s,baz=42,slow=5.6,SNR=89						
KDAK				Sn	**Sn**	**18 55 07.0**	**-3.3**
	comp=E,3.6nm,0.3s,baz=239,slow=22,SNR=15						
	comp=E,21nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**7.37**	**260**		**Pn**	**18 53 45.8**	**-0.7**
NBC1	**NorthernBC 1**	**7.64**	**84**	Pn	**Pn**	**18 53 50.9**	**+0.7**
L20K	**Farewell, AK**	**7.74**	**297**		**Pn**	**18 53 52.0**	**+0.4**
M19K	**Big River Lodg**	**7.86**	**293**		**Pn**	**18 53 54.2**	**+1.0**
OHAK	**Old Harbor**	**7.94**	**258**		**Pn**	**18 53 53.0**	**-1.3**
F30M	**Barrier River**	**8.02**	**9**		**Pn**	**18 53 57.0**	**+1.6**
F30M	**Barrier River**	**8.02**	**9**	Pn	**Pn**	**18 53 56.9**	**+1.6**
K20K	**Telida**	**8.08**	**303**		**Pn**	**18 53 56.6**	**+0.4**
BM01	**Burnt Mountain**	**8.12**	**345**		**Pn**	**18 53 57.6**	**+0.8**
L19K	**White Mountain**	**8.12**	**294**		**Pn**	**18 53 57.6**	**+0.8**
KAHG	**Katmai Hook Gl**	**8.14**	**268**		**Pn**	**18 53 58.0**	**+0.9**
KARR	**Katmai Rainbow**	**8.21**	**268**		**Pn**	**18 53 58.6**	**+0.5**
KAWH	**Katmai**	**8.29**	**267**		**Pn**	**18 53 59.6**	**+0.4**
F26K	**Sheenjek River**	**8.30**	**346**	Pn	**Pn**	**18 54 00.2**	**+1.0**
Q18K	**Katmai Hardscr**	**8.33**	**269**		**Pn**	**18 53 59.9**	**+0.1**
J20K	**Nowinta River**	**8.42**	**308**		**Pn**	**18 54 01.9**	**+1.0**
M18K	**Stony River**	**8.49**	**289**		**Pn**	**18 54 02.5**	**+0.6**
CAHL	**Cahill**	**8.65**	**266**		**Pn**	**18 54 04.2**	**+0.1**
ANCK	**Angle Creek**	**8.70**	**267**		**Pn**	**18 54 05.1**	**+0.3**
Q17K	**Contact Creek**	**8.88**	**268**		**Pn**	**18 54 07.4**	**+0.1**
E28M	**Babbage River**	**8.90**	**359**	Pn	**Pn**	**18 54 08.6**	**+1.2**
INK	**Inuvik**	**8.91**	**13**	Pn	**Pn**	**18 54 09.4**	**+1.9**
	comp=E,0.7nm,0.3s,baz=203,slow=18,SNR=11						
INK				Sn	**Sn**	**18 55 47.7**	**-0.3**
	comp=E,0.2nm,0.3s,baz=126,slow=19,SNR=1.5						
INK				Lg	Lg	18 56 36.8	
	comp=E,0.1nm,0.3s,baz=72,slow=20,SNR=1.6						
	comp=E,2.7nm,0.6s						
INK				AML	AML		
INK	**Inuvik**	**8.91**	**13**		**Pn**	**18 54 08.5**	**+1.0**
INK	**Inuvik**	**8.91**	**13**	Pn	**Pn**	**18 54 08.8**	**+1.3**
L18K	**Granite Mounta**	**8.98**	**294**		**Pn**	**18 54 08.6**	**+0.1**
N17K	**Nushagak Hills**	**9.14**	**283**		**Pn**	**18 54 10.7**	**-0.1**
O17K	**Koliganek Bris**	**9.17**	**278**		**Pn**	**18 54 11.7**	**+0.6**
IM01	**Indian Mountai**	**9.20**	**319**		**Pn**	**18 54 12.9**	**+1.4**
PLK3	**Peulik 3**	**9.25**	**265**		**Pn**	**18 54 12.8**	**+0.5**
R17L	**Mt. Peulik Vol**	**9.32**	**264**		**Pn**	**18 54 13.5**	**+0.3**
L17K	**Donlin**	**9.72**	**293**		**Pn**	**18 54 19.2**	**+0.6**
K17K	**Iditarod**	**9.79**	**296**		**Pn**	**18 54 20.4**	**+0.7**
N16K	**Nishlik Lake**	**9.93**	**283**		**Pn**	**18 54 22.0**	**+0.5**
C27K	**Jago River**	**10.12**	**350**		**Pn**	**18 54 28.1**	**+4.0**
YKA	**Yellowknife Ar**	**12.04**	**66**	Pn	**Pn**	**18 54 50.5**	**+0.1**
	comp=E,0.1nm,0.3s,baz=266,slow=13,SNR=5.3						
YKA				Lg	Lg	18 58 13.6	
	comp=E,0.1nm,0.3s,baz=259,slow=26,SNR=3.8						
	comp=E,0.9nm,0.6s						
YKA				AML	AML		
YKA	**Yellowknife Ar**	**12.04**	**66**		**Pn**	**18 54 50.0**	**-0.4**
RES	**Resolute Bay**	**21.86**	**30**	P	**P**	**18 56 51.8**	**+0.4**
	comp=E,1.6nm,0.6s,baz=252,slow=11,SNR=9.0						
	comp=E,1.6nm,0.6s						
RES	**Resolute Bay**	**21.86**	**30**	P	**P**	**18 56 51.3**	**0.0**
PDAR	**Pinedale Array**	**24.72**	**120**	P	**P**	**18 57 19.7**	**-0.8**
	comp=E,0.1nm,0.3s,baz=307,slow=7.5,SNR=1.3						
	comp=E,0.1nm,0.3s						
PDAR	**Pinedale Array**	**24.72**	**120**	P	**P**	**18 57 19.5**	**-1.0**
SEY	**Seymchan**	**31.68**	**306**	P	**P**	**18 58 22.2**	**0.0**
	comp=E,0.5nm,0.3s,baz=39,slow=6.5,SNR=1.7						
	comp=E,0.5nm,0.3s						
H11N2	**WAKE ISLAND Hy**	**55.35**	**248**	T	T	20 00 31.6	
	baz=30,slow=75,SNR=11						
H11N3	**WAKE ISLAND Hy**	**55.36**	**248**	T	T	20 00 34.6	
	baz=30,slow=75,SNR=16						
H11N1	**WAKE ISLAND Hy**	**55.37**	**248**	T	T	20 00 35.0	
	baz=30,slow=75,SNR=7.0						
H11S1	**WAKE ISLAND Hy**	**56.50**	**248**	T	T	20 02 06.2	
	baz=30,slow=75,SNR=9.5						
H11S2	**WAKE ISLAND Hy**	**56.51**	**248**	T	T	20 01 44.2	
	baz=30,slow=75,SNR=5.1						
H11S3	**WAKE ISLAND Hy**	**56.52**	**248**	T	T	20 02 06.1	
	baz=30,slow=75,SNR=5.3						
ZALV	**Zalesovo Beam**	**61.36**	**332**	P	**P**	**19 02 14.2**	**-0.4**
	comp=E,0.5nm,0.5s,baz=31,slow=5.9,SNR=2.6						
	comp=E,0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**61.36**	**332**	P	**P**	**19 02 14.1**	**-0.5**
KURK	**Kurchatov**	**65.77**	**335**	P	**P**	**19 02 42.4**	**-1.3**
KURBB	**Kurchatov Arra**	**65.87**	**335**	P	**P**	**19 02 44.4**	**0.0**
	comp=E,1.2nm,0.2s,baz=357,slow=3.9,SNR=1.7						
	comp=E,1.2nm,0.2s						
MKAR	**Makanchi Array**	**68.60**	**331**	P	**P**	**19 03 00.5**	**-1.3**
	comp=E,0.7nm,0.3s,baz=65,slow=8.4,SNR=1.8						
	comp=E,0.7nm,0.9s						
MKAR	**Makanchi Array**	**68.60**	**331**	P	**P**	**19 03 00.8**	**-1.1**
AKASG	**Malin Array Be**	**69.49**	**8**	P	**P**	**19 03 06.8**	**-0.4**
	comp=E,0.6nm,0.5s,baz=343,slow=5.1,SNR=2.0						
	comp=E,0.6nm,0.5s						
CMAR	**Chiang Mai Arr**	**89.10**	**306**	P	**P**	**19 04 55.2**	**+0.6**
	comp=E,0.3nm,0.4s,baz=358,slow=4.9,SNR=5.7						
	comp=E,0.3nm,0.4s						

MK31	**Makanchi Array**	**5.73**	**352**	⇓Pg		Pb	19 11 08.4	+3.4
	0.3nm,0.3s,baz=168,slow=16,SNR=5.8							
MK31				⇓Lg		Lg	19 12 24.7	
	3.4nm,0.6s,baz=164,slow=28,SNR=2.8							

*IDC **16** 19:23:20.7±0.7,3°.10S×129°.85E,h0km,mb4.1/10, mbtmp4.2/15,ML4.2/5,MS3.4/2,Error ellipse: s-maj=19.1km s-min=11.8km az=102.0*
*NEIC **16** 19:23:22.3±1.9,3°.05S±0°.06×129°.76E±0°.05,h13km±5km, mb4.3/19,Error ellipse: s-maj=9.3km s-min=6.8km az=149.0*
*DJA **16** 19:23:24.3±0.7,3°S±2°×13°.0E±°,h11km±6km,M4.2/17, mB4.7/7,mb4.6/17,MLv4.3/16,Mw(mB)4.0/7*

ISC 16 19:23:23.0±0.5,2°.97S±0°.04×130°.05E±0°.06,h25km,n61, σ1§84/61,mb4.2/17,Seram

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**1.55**	**185**	P	**Pb**	**19 23 51.3**	**+0.3**
BNDI				AML	AML		
FAKI	**Fak Fak**	**2.20**	**89**		**Pb**	**19 24 01.4**	**-0.7**
FAKI				Sn	**Sn**	**19 24 19.5**	**-4.9**
FAKI	**Fak Fak**	**2.20**	**89**	P	**Pb**	**19 24 04.3**	**+2.2**
SIJI	**Sorong**	**2.42**	**30**	Pn	**Pb**	**19 24 05.2**	**-0.7**
	19nm,0.3s,baz=46,slow=11,SNR=97						
SIJI				Sn	**Sb**	**19 24 35.7**	**+0.5**
	28nm,0.3s,baz=298,slow=11,SNR=11						
	45nm,0.2s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.42**	**30**	P	**Pb**	**19 24 05.0**	**-0.8**
SIJI				AML	AML		
NLAI	**Namlea**	**2.96**	**265**	P	**Pn**	**19 24 08.6**	**+0.2**
NLAI				AML	AML		
SANI	**Sanana**	**4.16**	**283**	P	**Pn**	**19 24 23.6**	**-1.4**
SANI				AML	AML		
TNTI	**Ternate**	**4.59**	**324**		**Pn**	**19 24 30.9**	**0.0**
TNTI	**Ternate**	**4.59**	**324**	P	**Pn**	**19 24 29.9**	**-0.9**
BAKI	**Biak**	**6.30**	**74**	P	Pn	19 25 01.0	+6.5
KMSI	**Cibinong**	**7.02**	**300**	P	**Pn**	**19 25 04.3**	**+0.1**
KMSI				AML	AML		
LUWI	**Luwuk**	**7.52**	**285**	Pn	**Pn**	**19 25 07.4**	**-3.8**
LUWI	**Luwuk**	**7.52**	**285**	P	**Pn**	**19 25 10.9**	**-0.3**
	0.2nm483nm43nm,1.3s						
LUWI				AML	AML		
GTOI	**Gorontalo**	**7.90**	**297**	P	**Pn**	**19 25 18.5**	**+2.1**
	0.1nm346nm26nm,0.5s						
GTOI				AML	AML		
APSI	**Ampana**	**8.64**	**284**	P	**Pn**	**19 25 25.1**	**-1.5**
	40nm,1.0s						
SOEI	**Soe**	**8.86**	**220**	P	**Pn**	**19 25 32.2**	**+2.6**
	21nm,0.8s						
BATI	**Baumata**	**9.59**	**221**	Pn	**Pn**	**19 25 39.9**	**+0.3**
	2.7nm,0.3s,baz=143,slow=1.1,SNR=5.2						
BATI				LR	LR	19 29 07.3	
	comp=Z,325nm,20.9s,baz=46,slow=37						
	9.8nm,0.6s						
BATI				AML	AML		
BATI	**Baumata**	**9.59**	**221**	P	**Pn**	**19 25 42.1**	**+2.5**
	24nm,0.8s						
MTN	**Manton Dam**	**9.87**	**174**		**Pn**	**19 25 44.8**	**+1.4**
TOLI2	**Tolitoli**	**10.12**	**294**		**Pn**	**19 25 43.0**	**-3.8**
KAPI	**Kappang**	**10.47**	**259**	Pn	**Pn**	**19 25 53.3**	**+1.6**
	1.2nm,0.3s,baz=111,slow=6.7,SNR=4.8						
KAPI				LR	LR	19 30 25.3	
	comp=Z,167nm,20.4s,baz=89,slow=41						
	3.3nm,0.4s						
KAPI				AML	AML		
KNRA	**Kununurra**	**12.69**	**186**		**Pn**	**19 26 17.4**	**-4.6**
FITZ	**Fitzroy Crossi**	**15.64**	**196**	Pn	**Pn**	**19 26 57.9**	**-4.0**
	1.1nm,0.3s,baz=30,slow=9.2,SNR=20						
	1.1nm,0.4s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.64**	**196**		**Pn**	**19 27 00.3**	**-1.6**
WB0	**Warramunga Arr**	**17.22**	**166**		**Pn**	**19 27 20.1**	**-2.0**
WB0				IAmb	IAmb	19 27 25.6	
	comp=Z,27nm,1.3s						
WRAB	**Tennant Creek**	**17.37**	**166**		**Pn**	**19 27 23.0**	**-0.9**
WRA	**Warramunga Arr**	**17.38**	**166**	P	**Pn**	**19 27 22.5**	**-1.5**
	comp=Z,1.1nm,0.3s,baz=346,slow=12,SNR=40						
	comp=Z,4.2nm,0.6s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.38**	**166**		**Pn**	**19 27 23.6**	**-0.5**
WR8	**Warramunga Arr**	**17.43**	**166**		**Pn**	**19 27 23.3**	**-1.3**
AS31	**Alice Springs**	**20.91**	**170**		**P**	**19 28 03.5**	**-0.3**
AS31				IAmb	IAmb	19 28 05.7	
	comp=Z,12nm,0.7s						
ASAR	**Alice Springs**	**20.91**	**170**	P	**P**	**19 28 03.6**	**-0.2**
	comp=Z,30nm,0.5s,baz=350,slow=6.9,SNR=18						
	comp=Z,30nm,0.5s						
ASAR	**Alice Springs**	**20.91**	**170**		**P**	**19 28 03.2**	**-0.6**
BBJI	**Bungbulang**	**22.74**	**258**	P	**P**	**19 28 19.8**	**-3.9**
INKA	**Innaminka**	**26.67**	**158**		**P**	**19 29 01.4**	**+1.4**
INKA				IAmb	IAmb	19 29 02.8	
	comp=Z,3.4nm,0.6s						
PPI	**Padang Panjang**	**29.74**	**274**	P	**P**	**19 29 29.2**	**+1.4**
BBOO	**Buckleboo**	**30.21**	**170**	P	**P**	**19 29 31.4**	**-0.3**
STKA	**Stephens Creek**	**30.74**	**161**	P	**P**	**19 29 37.4**	**+1.1**
	comp=Z,2.7nm,0.5s,baz=335,slow=7.5,SNR=12						
	comp=Z,2.7nm,0.5s						
STKA	**Stephens Creek**	**30.74**	**161**	P	**P**	**19 29 38.0**	**+1.7**
CM31	**Chiang Mai Arr**	**37.31**	**306**	P	**P**	**19 30 33.4**	**-0.1**
CM31				IAmb	IAmb	19 30 35.8	
	comp=Z,9.0nm,1.4s						
CMAR	**Chiang Mai Arr**	**37.31**	**306**	P	**P**	**19 30 34.9**	**+1.4**
	comp=Z,0.5nm,0.4s,baz=127,slow=7.2,SNR=13						
	comp=Z,0.5nm,0.4s						
CMAR	**Chiang Mai Arr**	**37.31**	**306**	P	P	19 30 28.6	-4.9
CHTO	**Chiang Mai**	**37.49**	**306**		**P**	**19 30 34.5**	**-0.5**
CHTO				IAmb	IAmb	19 30 37.1	
	comp=Z,3.6nm,0.8s						
CHTO	**Chiang Mai**	**37.49**	**306**	P	**P**	**19 30 37.1**	**+2.0**
HHC	**Hu-ho-hao-te**	**46.77**	**341**	*eP*	**P**	**19 31 53.0**	**+2.5**
HHC				pmax	pmax		
	comp=Z,12nm,0.8s						
HHC				pmax	pmax		
	comp=Z,37nm,5.4s						
EVN	**Everest**	**51.71**	**309**	P	**P**	**19 32 27.9**	**-1.3**
EVN				IAmb	IAmb	19 32 47.7	
	comp=Z,4.3nm,1.0s						
ULN	**Ulaanbaatar**	**54.48**	**341**	P	**P**	**19 32 47.9**	**-0.9**
ULN				IAmb	IAmb	19 32 52.3	
	comp=Z,7.5nm,1.1s						
SONM	**Songino Array**	**54.67**	**341**	P	**P**	**19 32 51.7**	**+1.6**
	comp=Z,0.8nm,0.6s,baz=160,slow=9.5,SNR=5.4						
	comp=Z,0.8nm,0.6s						
SONM	**Songino Array**	**54.67**	**341**	P	**P**	**19 32 51.4**	**+1.3**
SONM				IAmb	IAmb	19 32 52.3	
	comp=Z,3.9nm,1.4s						
MKAR	**Makanchi Array**	**64.92**	**326**	P	**P**	**19 34 01.7**	**+1.2**
	comp=Z,1.3nm,0.8s,baz=130,slow=7.6,SNR=4.9						
	comp=Z,1.3nm,0.8s						
MKAR	**Makanchi Array**	**64.92**	**326**	P	**P**	**19 34 01.1**	**+0.6**
SEY	**Seymchan**	**67.86**	**11**	P	**P**	**19 34 22.2**	**+3.3**
	comp=Z,2.2nm,0.9s,baz=189,slow=4.2,SNR=5.0						
	comp=Z,2.2nm,0.9s						
ZAA0	**Zalesovo Array**	**68.03**	**333**	P	**P**	**19 34 21.1**	**+1.0**
ZAA0				IAmb	IAmb	19 34 21.6	
	comp=Z,2.4nm,0.9s						
ZALV	**Zalesovo Beam**	**68.03**	**333**	P	**P**	**19 34 20.9**	**+0.8**
	comp=Z,1.1nm,0.7s,baz=97,slow=4.6,SNR=5.9						
	comp=Z,1.1nm,0.7s						
ZALV	**Zalesovo Beam**	**68.03**	**333**	P	**P**	**19 34 20.2**	**0.0**
KURBB	**Kurchatov Arra**	**69.14**	**328**	P	**P**	**19 34 28.4**	**+1.2**
	comp=Z,3.1nm,0.6s,baz=128,slow=5.7,SNR=35						
	comp=Z,3.1nm,0.6s						
KURK	**Kurchatov**	**69.14**	**328**	P	**P**	**19 34 26.6**	**-0.6**
KKAR	**Karatay Array**	**70.38**	**318**	P	**P**	**19 34 34.7**	**-0.4**
BVAR	**Borovoye Array**	**74.71**	**327**	P	**P**	**19 35 01.8**	**+1.2**
	comp=Z,1.0nm,0.6s,baz=130,slow=4.6,SNR=7.0						
	comp=Z,1.0nm,0.6s						
BORK	**Borovoye**	**74.76**	**327**	P	**P**	**19 35 01.2**	**+0.3**
BORK				IAmb	IAmb	19 35 02.7	
	comp=Z,2.2nm,0.8s						
VNDA	**Vanda**	**76.41**	**173**	P	**P**	**19 35 10.2**	**+0.3**
	comp=Z,0.9nm,0.9s,baz=302,slow=4.7,SNR=4.3						
	comp=Z,0.9nm,0.9s						
VNDA	**Vanda**	**76.41**	**173**	P	**P**	**19 35 10.4**	**+0.5**
VNDA				IAmb	IAmb	19 35 21.5	
	comp=Z,4.3nm,1.5s						

*NEIC **16** 19:30:53.3±1.2,5°.77S±0°.09×153°.83E±0°.10,h10km±1km, mb4.4/20,Error ellipse: s-maj=16.3km s-min=14.3km az=70.0*
*IDC **16** 19:30:59.3±2.8,5°.87S×153°.75E,h56km±22km,mb3.9/13, mbtmp4.2/16,ML3.1/3,MS3.6/25,Error ellipse: s-maj=26.3km s-min=11.7km az=80.0*

ISC 16 19:30:58.2±0.7,5°.82S±0°.06×153°.8E±0°.1,h48km,n65, σ1§03/47,mb4.2/20,MS3.6/22,New Ireland region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RABL	**Rabaul**	**2.29**	**315**	Pn	**Pn**	**19 31 30.9**	**-2.7**
KRVT	**Keravat (AS076**	**2.31**	**311**	P	**Pn**	**19 31 33.4**	**-0.5**
	20nm,0.3s,baz=47,slow=7.7,SNR=14						
KRVT				S	**Sn**	**19 32 03.5**	**+2.5**
	2µm,0.8s,baz=16,slow=22,SNR=8.2						
	131nm,0.5s						
KRVT				AML	AML		
HNR	**Honiara**	**7.08**	**121**	LR	LR	19 35 29.2	
	comp=Z,660nm,19.3s,baz=7.5,slow=38						
PMG	**Port Moresby**	**7.47**	**241**	P	**Pn**	**19 32 45.1**	**+0.5**
	3.2nm,0.3s,baz=70,slow=7.2,SNR=10.0						
PMG				S	**Sn**	**19 34 08.3**	**+0.2**
	12nm,0.5s,baz=317,slow=21,SNR=3.4						
	21nm,0.6s						
PMG				AML	AML		
PMG	**Port Moresby**	**7.47**	**241**		**Pn**	**19 32 44.4**	**-0.3**
JAY	**Jayapura**	**13.45**	**284**	LR	LR	19 39 20.1	
	comp=Z,313nm,19.8s,baz=20,slow=37						
CTA	**Charters Tower**	**15.96**	**207**	P	**P**	**19 34 41.5**	**-1.0**
	0.1nm,0.3s,baz=11,slow=13,SNR=9.0						
CTA				LR	LR	19 40 10.7	
	comp=Z,307nm,19.9s,baz=37,slow=35						
	9.1nm,0.8s						
CTA				AML	AML		
CTAO	**Charters Tower**	**15.96**	**207**	Pn	**Pn**	**19 34 39.9**	**+0.3**
DZM	**Mont Dzumac**	**20.27**	**144**	P	**P**	**19 35 30.4**	**+0.4**
	3.6nm,0.9s,baz=252,slow=9.6,SNR=1.7						
DZM				LR	LR	19 42 48.4	
	comp=Z,265nm,18.2s,baz=334,slow=35						
	3.6nm,0.9s						
GUMO	**Guam**	**21.22**	**335**	LR	LR	19 42 59.2	
	comp=Z,66nm,20.8s,baz=151,slow=34						
MTN	**Manton Dam**	**23.40**	**251**	P	**P**	**19 36 03.2**	**+0.1**
MTN				IAmb	IAmb	19 36 05.2	
	comp=Z,6.6nm,1.1s						
WB0	**Warramunga Arr**	**23.40**	**232**		**P**	**19 36 02.2**	**-0.9**
WR8	**Warramunga Arr**	**23.43**	**231**		**P**	**19 36 02.5**	**-0.8**
WR8				IAmb	IAmb	19 36 06.0	
	comp=Z,8.2nm,0.8s						
WRA	**Warramunga Arr**	**23.54**	**232**	P	**P**	**19 36 03.8**	**-0.7**
	comp=Z,5.1nm,0.8s,baz=55,slow=9.7,SNR=19						
WRA				LR	LR	19 45 49.0	
	comp=Z,301nm,21.1s,baz=91,slow=38						
	comp=Z,5.1nm,0.8s						
WRA	**Warramunga Arr**	**23.54**	**232**	P	**P**	**19 36 04.0**	**-0.4**
INKA	**Innaminka**	**25.07**	**208**	P	**P**	**19 36 17.8**	**-0.5**
AS31	**Alice Springs**	**26.09**	**225**		**P**	**19 36 27.2**	**-0.5**
ASAR	**Alice Springs**	**26.09**	**225**	P	**P**	**19 36 27.3**	**-0.4**
	comp=Z,7.5nm,0.9s,baz=56,slow=8.9,SNR=56						
ASAR				PcP	**PcP**	**19 39 56.1**	**+1.6**
	comp=Z,0.7nm,0.8s,baz=61,slow=2.7,SNR=4.8						
ASAR				LR	LR	19 46 11.5	
	comp=Z,156nm,21.8s,baz=62,slow=35						
	comp=Z,7.5nm,0.9s						
ASAR	**Alice Springs**	**26.09**	**225**		**P**	**19 36 26.5**	**-1.2**
ASAR					**PcP**	**19 39 55.6**	**+1.0**
MSVF	**Nonsavu**	**26.50**	**119**	LR	LR	19 45 59.6	
	comp=Z,200nm,19.5s,baz=281,slow=34						
H11S3	**WAKE ISLAND Hy**	**27.31**	**28**	T	T	20 04 59.6	
	baz=213						
H11S2	**WAKE ISLAND Hy**	**27.31**	**28**	T	T	20 04 56.6	
	baz=213						
H11S1	**WAKE ISLAND Hy**	**27.33**	**28**	T	T	20 05 04.9	
	baz=213						
STKA	**Stephens Creek**	**28.32**	**202**	P	**P**	**19 36 46.4**	**-1.1**
	comp=Z,1.6nm,0.7s,baz=331,slow=12,SNR=3.6						
STKA				LR	LR	19 47 40.7	
	comp=Z,156nm,20.7s,baz=22,slow=35						
	comp=Z,1.6nm,0.7s						
STKA	**Stephens Creek**	**28.32**	**202**	P	**P**	**19 36 46.2**	**-1.3**
FITZ	**Fitzroy Crossi**	**30.06**	**244**	P	**P**	**19 37 02.4**	**-0.7**
	comp=Z,7.2nm,0.8s,baz=111,slow=6.7,SNR=13						
FITZ				LR	LR	19 50 07.6	
	comp=Z,182nm,19.1s,baz=64,slow=38						
	comp=Z,7.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**30.06**	**244**	P	**P**	**19 37 02.2**	**-1.0**
DAV	**Davao City (W)**	**30.92**	**294**	LR	LR	19 47 24.9	
	comp=Z,77nm,21.9s,baz=104,slow=32						
KAPI	**Kappang**	**33.89**	**270**	LR	LR	19 54 46.3	
	comp=Z,43nm,18.1s,baz=100,slow=42						
FORT	**Forrest**	**34.64**	**221**	P	**P**	**19 37 42.7**	**-0.4**
URZ	**Urewera**	**38.61**	**150**	LR	LR	19 53 04.1	
	comp=Z,145nm,18.5s,baz=322,slow=34						
RPZ	**Rata Peaks**	**40.69**	**161**	LR	LR	19 55 11.0	
	comp=Z,97nm,18.3s,baz=308,slow=36						
MJAR	**Matsushiro Arr**	**44.60**	**342**	LR	LR	19 56 16.2	
	comp=Z,29nm,18.8s,baz=170,slow=34						
RAR	**Rarotonga**	**47.47**	**113**	LR	LR	19 57 30.0	
	comp=Z,24nm,18.5s,baz=285,slow=34						
KSRS	**Korea Array**	**49.35**	**333**	LR	LR	19 55 53.6	
	comp=Z,24nm,21.8s,baz=90,slow=30						
PPT	**Papeete**	**56.48**	**107**	LR	LR	20 03 22.3	
	comp=Z,32nm,18.1s,baz=220,slow=34						
PETK	**Petropavlovsk-**	**58.80**	**3**	LR	LR	20 01 03.2	
	comp=Z,46nm,21.5s,baz=136,slow=31						
CM31	**Chiang Mai Arr**	**59.20**	**295**	P	**P**	**19 40 53.7**	**-1.2**
CM31				IAmb	IAmb	19 41 09.6	
	comp=Z,5.0nm,1.1s						
CMAR	**Chiang Mai Arr**	**59.20**	**295**	P	**P**	**19 40 56.5**	**+1.6**
	comp=Z,1.0nm,0.8s,baz=114,slow=5.3,SNR=7.9						
	comp=Z,1.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**59.20**	**295**	P	**P**	**19 40 55.0**	**+0.1**
SHEM	**Shemya Is, Ala**	**60.83**	**14**	LR	LR	20 04 43.3	
	comp=Z,75nm,20.8s,baz=268,slow=33						
MORE	**Moreh**	**65.16**	**300**	P	**P**	**19 41 34.3**	**-0.5**
MORE				IAmb	IAmb	19 41 35.1	
	comp=Z,2.7nm,0.9s						
MA2	**Magadan**	**65.24**	**358**	LR	LR	20 11 17.1	
	comp=Z,29nm,18.6s,baz=108,slow=37						
GTA2	**Gaotai**	**67.14**	**317**	*eP*	**P**	**19 41 49.8**	**+2.4**
GTA2				pP	pP	19 41 52.4	-6.8
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
SHL	**Shillong**	**67.67**	**301**	P	**P**	**19 41 50.4**	**-0.7**
SONM	**Songino Array**	**67.71**	**328**	P	**P**	**19 41 51.2**	**+0.4**
	comp=Z,0.8nm,0.6s,baz=104,slow=6.1,SNR=2.9						
	comp=Z,0.8nm,0.6s						
SONM	**Songino Array**	**67.71**	**328**	P	**P**	**19 41 50.7**	**-0.1**
SONM				IAmb	IAmb	19 42 06.3	
	comp=Z,4.5nm,1.5s						
VNDA	**Vanda**	**71.78**	**178**	P	**P**	**19 42 15.2**	**+0.1**
	comp=Z,2.0nm,0.9s,baz=313,slow=5.9,SNR=13						
	comp=Z,2.0nm,0.9s						
VNDA	**Vanda**	**71.78**	**178**	P	**P**	**19 42 15.9**	**+0.8**
VNDA				IAmb	IAmb	19 42 28.4	
	comp=Z,3.0nm,0.8s						
MKAR	**Makanchi Array**	**81.74**	**319**	P	**P**	**19 43 11.2**	**-0.7**
	comp=Z,1.9nm,0.7s,baz=115,slow=5.3,SNR=8.6						
	comp=Z,1.9nm,0.7s						
MKAR	**Makanchi Array**	**81.74**	**319**	P	**P**	**19 43 12.5**	**+0.6**
ZAA0	**Zalesovo Array**	**82.54**	**326**	P	**P**	**19 43 14.4**	**-1.4**
ZAA0				IAmb	IAmb	19 43 35.4	
	comp=Z,2.1nm,0.8s						
ZALV	**Zalesovo Beam**	**82.54**	**326**	P	**P**	**19 43 15.5**	**-0.4**
	comp=Z,0.9nm,0.5s,baz=104,slow=5.4,SNR=5.5						
	comp=Z,0.9nm,0.5s						
ZALV	**Zalesovo Beam**	**82.54**	**326**	P	**P**	**19 43 14.8**	**-1.1**
ILAR	**Eielson Array**	**82.74**	**22**	LR	LR	20 16 18.4	
	comp=Z,50nm,19.0s,baz=261,slow=33						
QSPA	**South Pole Qui**	**84.14**	**180**	P	**P**	**19 43 25.1**	**+1.0**
	comp=Z,6.9nm,0.9s,baz=30,slow=2.3,SNR=18						
	comp=Z,6.9nm,0.9s						
QSPA	**South Pole Qui**	**84.14**	**180**	P	**P**	**19 43 25.3**	**+1.2**
KURK	**Kurchatov**	**85.17**	**322**	P	**P**	**19 43 29.4**	**0.0**
KURK				IAmb	IAmb	19 44 12.0	
	comp=Z,3.5nm,0.8s						
KURBB	**Kurchatov Arra**	**85.20**	**322**	P	**P**	**19 43 29.1**	**-0.5**
	comp=Z,1.5nm,0.9s,baz=112,slow=3.8,SNR=12						
	comp=Z,1.5nm,0.9s						
NIL	**Nilore**	**85.36**	**304**	P	**P**	**19 43 30.4**	**-0.4**
NIL				IAmb	IAmb	19 43 36.8	
	comp=Z,4.3nm,1.1s						
YBH	**Yreka Blue Hor**	**89.00**	**48**	LR	LR	20 15 54.2	
	comp=Z,83nm,21.9s,baz=274,slow=30						
BVAR	**Borovoye Array**	**90.64**	**323**	P	**P**	**19 43 55.9**	**+0.3**
	comp=Z,1.8nm,0.9s,baz=100,slow=6.2,SNR=6.8						
	comp=Z,1.8nm,0.9s						
NVAR	**Mina Array Bea**	**91.94**	**52**	LR	LR	20 24 03.6	
	comp=Z,26nm,18.1s,baz=236,slow=35						
NEW	**Newport**	**93.69**	**42**	LR	LR	20 22 35.2	
	comp=Z,65nm,18.0s,baz=274,slow=33						
TORD	**Torodi Ar. Bea**	**151.55**	**287**	PKPbc	**PKPbc**	**19 50 47.1**	**-1.0**
	comp=Z,2.2nm,0.7s,baz=72,slow=0.7,SNR=7.1						

*IDC **16** 20:14:22.4±0.6,21°.57N×121°.14E,h0km,mb4.3/25, mbtmp4.3/27,ML3.8/2,MS3.8/31,Error ellipse: s-maj=16.5km s-min=13.3km az=75.0*
*MAN **16** 20:14:22.0,21°.52N×120°.23E,h6km,MS3.7*
*TAP **16** 20:14:24.4,21°.51N×121°.01E,h32km,ML5.0,D*
*NIED **16** 20:14:24.4,21°.66N×120°.87E,h29km,MW4.7,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁶Nm; Mrr0.03; Mθθ0.20; Mϕϕ-0.23; Mrθ0.88; Mθϕ0.15; Mϕr0.57; Fault plane solution: M₀1.06000×10¹⁶ NP1: ϕs130.00000°,δ8.00000°,λ-16.00000°. NP2:ϕs235.00000°, δ88.00000°,λ-98.00000°.*
*NEIC **16** 20:14:24.9±1.8,21°.62N±0°.07×121°.00E±0°.08,h10km±1km, mb4.6/63 Error ellipse: s-maj=13.3km s-min=11.6km az=138.0*
*BJI **16** 20:14:26.2,21°.64N×120°.99E,h26km,mB4.6/14,mb4.3/51, ML4.1/5,Ms4.1/41,Ms7 4.0/45*

ISC 16 20:14:25.3±1.1,21°.59N±0°.03×121°.01E±0°.03,h17km±6km, n310,σ1§46/358,mb4.5/59,MS3.8/38,12C,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TSEB	**Hengchuen, Pin**	**0.32**	**341**	⇑*iP*	**Pb**	**20 14 33.9**	**+1.3**
TSEB				*i* S	**Sb**	**20 14 41.3**	**+3.8**
TWKBT	**Hengchun**	**0.39**	**332**	⇑*iP*	**Pb**	**20 14 34.6**	**+0.8**
TWKBT				*eS*	**Sb**	**20 14 41.2**	**+1.7**
TWK1	**Hengchun**	**0.40**	**331**	⇑*iP*	**Pb**	**20 14 34.6**	**+0.7**
TWK1				*eS*	**Sb**	**20 14 41.7**	**+2.0**
SMST	**Manzhou Townsh**	**0.46**	**339**	*eP*	**Pb**	**20 14 35.8**	**+0.9**
SMST				*eS*	**Sb**	**20 14 43.5**	**+2.2**
HEN	**Hengchun**	**0.48**	**328**	⇑*iP*	**Pb**	**20 14 36.4**	**+1.0**
HEN				*eS*	**Sb**	**20 14 44.4**	**+2.3**
SLIU	**Shizi**	**0.65**	**342**	⇑*iP*	**Pb**	**20 14 38.6**	**+0.4**
SLIU				S	**Sn**	**20 14 49.1**	**-0.5**
LAY	**Lan-yu**	**0.67**	**48**	*eP*	**Pb**	**20 14 38.8**	**+0.2**
LYUB	**Lan-yu**	**0.67**	**52**	P	**Pb**	**20 14 38.4**	**-0.1**
LYUB				*i* S	**Sb**	**20 14 48.5**	**+1.0**
TAW	**Tawu**	**0.77**	**352**	⇑*eP*	**Pg**	**20 14 39.8**	**-0.6**
TAW				*eS*	**Sn**	**20 14 52.8**	**+0.4**
EAST	**Anshuo**	**0.80**	**349**	⇑*iP*	**Pg**	**20 14 40.4**	**-0.6**
EAST				S	**Sn**	**20 14 54.1**	**+0.8**
SCZT	**Fangliau**	**0.86**	**335**	⇑*iP*	**Pn**	**20 14 42.4**	**-0.1**
SCZT				*i* S	**Sn**	**20 14 54.9**	**+0.3**
WLCH	**Liuqiu**	**0.96**	**322**	*eP*	**Pn**	**20 14 45.1**	**+1.2**
WLCH				*eS*	**Sn**	**20 14 59.9**	**+2.8**
TWP	**Hsiaoliuchiu**	**0.96**	**321**	P	**Pn**	**20 14 44.8**	**+0.8**
TWP				*i* S	**Sn**	**20 14 59.5**	**+2.2**
SSPT	**Xinbi**	**0.98**	**335**	⇑*eP*	**Pn**	**20 14 44.8**	**+0.6**
SSPT				*i* S	**Sn**	**20 14 58.6**	**+1.0**
ECL	**Taimali**	**1.00**	**357**	⇑*iP*	**Pg**	**20 14 42.2**	**-2.5**
ECL				*i* S	**Sg**	**20 14 55.0**	**-2.9**
MASBT	**Mashibuluo**	**1.07**	**341**	*eP*	**Pn**	**20 14 45.7**	**+0.2**
MASBT				*eS*	**Sb**	**20 15 00.2**	**+1.1**
LDUT	**Ludao**	**1.15**	**21**	*eP*	**Pb**	**20 14 44.9**	**-1.9**
LDUT				*eS*	**Sb**	**20 15 00.1**	**-1.4**
TSMG	**Majia**	**1.16**	**343**	P	**Pb**	**20 14 46.5**	**-0.3**
TSMG				*eS*	**Sg**	**20 15 02.3**	**-0.6**
TTN	**Taitung**	**1.16**	**6**	*eP*	**Pn**	**20 14 46.3**	**-0.4**
KAU	**Kaohsiung**	**1.17**	**326**	*eS*	**Sn**	**20 15 03.0**	**+0.6**
SSD	**Sandimen**	**1.20**	**343**	*eP*	**Pn**	**20 14 46.9**	**-0.4**
SSD				*eS*	**Sb**	**20 15 03.4**	**+0.6**
TWGBT	**Beinan**	**1.22**	**3**	P	**Pn**	**20 14 46.7**	**-0.9**
TWGBT	**Beinan**	**1.22**	**3**	P	**Pn**	**20 14 45.2**	**-2.4**
TWGBT	**Beinan**	**1.22**	**3**	*eP*	**Pn**	**20 14 45.1**	**-2.4**
TWG	**Pinlang**	**1.22**	**3**		**Pn**	**20 14 47.1**	**-0.5**
TWG	**Pinlang**	**1.22**	**3**	*eP*	**Pn**	**20 14 45.1**	**-2.5**
SGLT	**Jiouru**	**1.23**	**337**	*eP*	**Pg**	**20 14 49.1**	**+0.1**
SGLT				*eS*	**Sn**	**20 15 07.1**	**+3.4**
WSSB	**Gushan**	**1.25**	**326**	*eP*	**Pn**	**20 14 48.1**	**+0.1**
WSSB				*eS*	**Sg**	**20 15 05.2**	**-0.8**
LONT	**Longtian**	**1.31**	**5**	*eP*	**Pn**	**20 14 46.6**	**-2.2**
LONT				*eS*	**Sb**	**20 15 06.7**	**+0.7**
SNJT	**Kaohsiung City**	**1.31**	**332**	*eP*	**Pn**	**20 14 47.8**	**-1

SSLB	**Suanglung**	**2.18**	**359**	*e*P		**Pn**	**20 15 01.8 +1.0**
SSLB				S		**Sn**	**20 15 29.6 +2.1**
SHUL	**Shoufeng**	**2.24**	**13**	*e*P		**Pn**	**20 15 02.2 +0.6**
SHUL				*e*S		**Sn**	**20 15 30.3 +1.4**
ESL	**Shilin**	**2.24**	**10**	*e*P		**Pn**	**20 15 01.0 -0.6**
SMLT	**Sun Moon Lake**	**2.28**	**357**	*i* P		**Pn**	**20 15 03.2 +1.0**
SMLT				S		**Sn**	**20 15 31.8 +1.8**
WNT	**Mingjian**	**2.29**	**352**	*e*P		**Pn**	**20 15 02.6 +0.3**
WNT				*e*S		**Sn**	**20 15 31.5 +1.3**
TYC	**Yuchr**	**2.30**	**356**	*e*P		**Pn**	**20 15 03.5 +1.0**
TYC				*e*S		**Sn**	**20 15 32.5 +2.1**
TEYL	**Yanliau Villag**	**2.33**	**13**	*e*P		**Pb**	**20 15 05.5 -1.3**
PHUB	**P'eng-hu**	**2.33**	**325**	*e*P		**Pn**	**20 15 01.5 -1.3**
PHUB				*i* S		**Sn**	**20 15 27.4 -3.6**
OWD	**Renai**	**2.35**	**4**	*e*P		**Pn**	**20 15 05.0 +1.7**
OWD				*e*S		**Sn**	**20 15 33.6 +1.8**
WTCT	**Ta-ch'eng**	**2.36**	**343**	*e*S		**Sn**	**20 15 31.9 +0.2**
RLNB	**Erlin**	**2.36**	**345**	*e*S		**Sn**	**20 15 32.5 +0.6**
PNG	**Penghu**	**2.38**	**326**	P		**Pn**	**20 15 01.7 -1.8**
PNG				S		**Sn**	**20 15 29.4 -2.9**
WUSB	**Renai**	**2.39**	**2**	*e*P		**Pn**	**20 15 04.3 +0.5**
WUSB				*e*S		**Sn**	**20 15 33.5 +0.8**
ETM	**Tongmen**	**2.40**	**11**	*e*P		**Pn**	**20 15 03.3 -0.5**
LXIB	**Xiulin Townshi**	**2.44**	**9**	*e*P		**Pn**	**20 15 02.9 -1.6**
WCS	**Beigang Elemen**	**2.45**	**358**	P		**Pn**	**20 15 05.2 +0.7**
WCS				*e*S		**Sn**	**20 15 35.4 +1.3**
WCH1	**Changhua City**	**2.50**	**350**	*e*S		**Sn**	**20 15 36.1 +0.8**
WCHH	**Zhanghua**	**2.51**	**350**	*e*S		**Sn**	**20 15 36.3 +0.8**
TWD	**Chiawan**	**2.53**	**12**	*e*P		**Pn**	**20 15 06.8 +1.2**
WHF	**Hehuan Shan**	**2.55**	**5**	*e*P		**Pn**	**20 15 06.5 +0.2**
TCU	**Taichung**	**2.56**	**353**	*e*P		**Pn**	**20 15 06.7 +0.7**
TCU				*e*S		**Sn**	**20 15 37.9 +1.2**
NACB	**Ninganchiao**	**2.62**	**12**	P		**Pn**	**20 15 08.4 +1.0**
NACB	**Ninganchiao**	**2.62**	**12**	P		**Pn**	**20 15 06.9 0.0**
NACB	**Ninganchiao**	**2.62**	**12**			**Pn**	**20 15 05.7 -1.2**
NACB	**Ninganchiao**	**2.62**	**12**	*e*P		**Pn**	**20 15 05.7 -1.2**
NACB				*e*S		**Sn**	**20 15 35.2 -3.1**
ETLH	**Xiulin Townshi**	**2.64**	**9**	*e*P		**Pn**	**20 15 06.8 -0.3**
FUSS	**Fushou**	**2.65**	**5**	*e*P		**Pn**	**20 15 07.8 +0.3**
FUSS				*e*S		**Sb**	**20 15 42.9 -1.9**
TDCB	**Techi**	**2.65**	**3**	P		**Pn**	**20 15 08.4 +1.0**
TDCB				*e*S		**Sn**	**20 15 39.1 -0.1**
TWT	**Tachien**	**2.65**	**3**	P		**Pn**	**20 15 08.2 +0.7**
WHP	**Taichung City**	**2.67**	**359**	*e*P		**Pn**	**20 15 08.8 +1.2**
WHP				*e*S		**Sn**	**20 15 42.5 +2.9**
TWQ1	**Liyutan**	**2.75**	**355**	*e*P		**Pn**	**20 15 09.8 +1.2**
TWQ1				*e*S		**Sn**	**20 15 43.0 +1.5**
EOS4	**EOS4**	**2.79**	**25**	*e*P		**Pn**	**20 15 09.5 +0.7**
EOS4				S		**Sn**	**20 15 41.0 -0.9**
EAHA	**Aohua**	**2.80**	**14**	*e*P		**Pn**	**20 15 11.9 +2.5**
NNSB	**Datong**	**2.84**	**7**	*e*P		**Pn**	**20 15 10.2 +0.2**
NNS	**Nan Shan**	**2.85**	**7**	*e*P		**Pn**	**20 15 11.1 +0.9**
ENA	**Nanau**	**2.90**	**13**	*e*P		**Pn**	**20 15 11.9 +1.2**
EOS3	**EOS3**	**2.94**	**24**	*e*P		**Pn**	**20 15 12.5 +1.5**
EOS3				*e*S		**Sn**	**20 15 46.1 +0.3**
LATG	**Datong**	**2.96**	**9**	*e*P		**Pn**	**20 15 12.3 +0.6**
NSTT	**Nanjuang**	**3.02**	**360**	*e*P		**Pn**	**20 15 13.8 +1.4**
NFF	**Wufeng Townshi**	**3.02**	**2**	*e*P		**Pn**	**20 15 13.5 +1.0**
NFF				*e*S		**Sn**	**20 15 48.2 -0.1**
EOS2	**EOS2**	**3.03**	**22**	*e*P		**Pn**	**20 15 13.1 +0.8**
EOS2				*e*S		**Sn**	**20 15 48.8 +0.7**
NDT	**Datong Townshi**	**3.03**	**9**	*e*P		**Pn**	**20 15 14.4 +1.9**
LIOB	**Emei**	**3.04**	**0**	*e*P		**Pn**	**20 15 13.4 +0.8**
ENTT	**Nioudou**	**3.07**	**9**	*e*P		**Pn**	**20 15 15.3 +2.2**
ENTT				*e*S		**Sn**	**20 15 51.0 +1.5**
YHNB	**Yeheng**	**3.08**	**6**	P		**Pb**	**20 15 17.0 -2.7**
YHNB	**Yeheng**	**3.08**	**6**	P		**Pn**	**20 15 14.5 +1.3**
YHNB	**Yeheng**	**3.08**	**6**			**Pn**	**20 15 12.9 -0.3**
YHNB	**Yeheng**	**3.08**	**6**	*e*P		**Pn**	**20 15 13.8 +0.5**
YHNB				*e*S		**Sn**	**20 15 52.9 +3.2**
NSK	**Sanguang**	**3.08**	**6**	*e*P		**Pn**	**20 15 14.2 +0.9**
NDS	**Dongshan**	**3.09**	**12**	*e*P		**Pn**	**20 15 15.4 +2.0**
NDS				*e*S		**Sn**	**20 15 49.6 -0.3**
TWC	**Suao**	**3.10**	**14**	*e*P		**Pn**	**20 15 14.7 +1.3**
TWC				*e*S		**Sn**	**20 15 50.7 +0.7**
TWE	**Neicheng**	**3.17**	**11**	*e*P		**Pn**	**20 15 16.3 +1.9**
KSHI	**Guanxi Townshi**	**3.17**	**3**	*e*P		**Pn**	**20 15 15.5 +1.0**
FUSB	**Fushanzhiwuyua**	**3.19**	**9**	*e*P		**Pn**	**20 15 15.2 +0.4**
NWLT	**Wulai**	**3.20**	**8**	*e*P		**Pn**	**20 15 16.3 +1.4**
NWLT				*e*S		**Sn**	**20 15 53.9 +1.3**
PIP	**Pasuquin**	**3.27**	**187**	*e*P		**Pn**	**20 15 15.3 -0.6**
PIP				*e*S		**Sn**	**20 15 53.3 -1.1**
EGS		**3.34**	**14**	*e*P		**Pb**	**20 15 20.8 -3.4**
TATO	**Taipei**	**3.39**	**7**	P		**Pn**	**20 15 20.8 +3.3**
TATO	**Taipei**	**3.39**	**7**	P		**Pn**	**20 15 17.8 +1.4**
TATO	**Taipei**	**3.39**	**7**			**Pn**	**20 15 17.8 +0.4**
YOJ	**Yonaguni jima**	**3.40**	**32**	P		**Pn**	**20 15 20.0 +2.5**
YOJ	**Yonaguni jima**	**3.40**	**32**			**Pn**	**20 15 17.9 +0.4**
YOJ	**Yonaguni jima**	**3.40**	**32**	*e*P		**Pn**	**20 15 17.9 +0.4**
YOJ				*e*S		**Sn**	**20 15 56.1 -1.2**
TWA	**Mucha**	**3.41**	**9**	*e*P		**Pn**	**20 15 20.4 +2.7**
TIPB	**Shuangxi**	**3.44**	**12**	*e*P		**Pn**	**20 15 20.6 +2.4**
TIPB				*e*S		**Sn**	**20 15 59.2 +0.6**
TWB1	**Santiao Chiao**	**3.51**	**15**	*e*P		**Pn**	**20 15 21.1 +2.0**
NWF	**Wu-fen Shan**	**3.53**	**11**	*e*P		**Pn**	**20 15 22.6 +3.2**
NWF				*e*S		**Sn**	**20 16 03.4 +2.5**
WFSB	**Wu-fen Shan**	**3.53**	**11**	*e*P		**Pn**	**20 15 23.3 +3.9**
SXI1	**Grass Mountain**	**3.57**	**13**	*e*P		**Pn**	**20 15 22.4 +2.4**
SXI1				*e*S		**Sn**	**20 16 05.3 +3.4**
YM01	**YM01**	**3.57**	**8**	*e*P		**Pn**	**20 15 21.7 +1.8**
ZUZH	**Zhuzihu**	**3.58**	**8**	*e*P		**Pn**	**20 15 20.8 +0.7**
YM08	**YM08**	**3.62**	**8**	*e*P		**Pn**	**20 15 22.9 +2.4**
VWUC	**VWUC**	**3.67**	**337**	*e*P		**Pn**	**20 15 21.2 -0.1**
KNM	**Kinmen**	**3.68**	**320**	*e*P		**Pn**	**20 15 21.7 +0.3**
KNMB	**Chin-men Tao**	**3.74**	**320**			**Pn**	**20 15 21.0 -1.3**
KNMB	**Chin-men Tao**	**3.74**	**320**	*e*P		**Pn**	**20 15 21.8 -0.5**
ZPLA	**Ao Xicun**	**3.81**	**308**	*e*P		**Pn**	**20 15 21.9 -1.2**
PTMZ	**Houxiangcun**	**3.85**	**333**	*e*P		**Pn**	**20 15 23.1 -0.6**
DSXP	**Dongshan**	**3.92**	**303**	*e*P		**Pn**	**20 15 23.8 -1.0**
QZH2	**Quanzhou**	**4.01**	**327**	Pn		**Pn**	**20 15 25.4 -0.5**
QZH2				Sn		**Sn**	**20 16 08.0 -4.5**
QZH2				AML	AML		
	330nm,0.8s						
QZH2				AML	AML		
	470nm,0.7s						
QZH2				L	L		
	comp=N,1μm,17.3s						
QZH2				L	L		
	comp=E,1μm,9.4s						
QZH2				L	L		
	comp=Z,1μm,14.4s						
PCYT	**Pengchaiyu**	**4.13**	**13**	*e*P		**Pn**	**20 15 30.8 +3.2**
AXDP	**Jialang**	**4.32**	**320**	*e*P		**Pn**	**20 15 29.6 -0.5**
MATB	**Ma-tsu**	**4.64**	**348**	*e*P		**Pn**	**20 15 33.8 -0.9**
MATB				*e*S		**Sn**	**20 16 24.9 -3.2**
MHZQ	**Yeshan**	**4.84**	**338**	*e*P		**Pn**	**20 15 36.4 -0.9**
LYJJ	**Jianjiangzhen**	**5.07**	**347**	*e*P		**Pn**	**20 15 39.4 -1.0**
SXFK	**Yanhouchang**	**5.69**	**328**	*e*P		**Pn**	**20 15 47.9 -1.1**
HKPS	**Hong Kong Po S**	**6.42**	**277**			**Pn**	**20 15 57.6 -1.4**
GZH2	**Guangzhou**	**7.10**	**288**	Pn		**Pn**	**20 16 07.3 -1.1**
GZH2				Sn		**Sn**	**20 17 25.1 -3.6**
GZH2				AML	AML		
	66nm,0.7s						
GZH2				AML	AML		
	69nm,0.8s						
GQP	**Guinayangan**	**7.77**	**170**	*e*P		Pn	20 16 25.0 +7.4
GQP				*e*S		**Sn**	**20 17 47.7 +2.5**
JOW	**Kunigami**	**8.43**	**50**	Pn		**Pn**	**20 16 26.0 -0.7**
	2.1nm,0.3s,baz=121,slow=26,SNR=5.3						
JOW				Sn		**Sn**	**20 17 58.7 -2.8**
	0.7nm,0.3s,baz=265,slow=24,SNR=1.0 16nm,0.6s						
JOW				AML	AML		
JOW	**Kunigami**	**8.43**	**50**	Pn		**Pn**	**20 16 26.2 -0.5**
SSE	**Sheshan**	**9.46**	**1**	P		**Pn**	**20 16 41.3 +0.5**
SSE				S		**Sn**	**20 18 30.3 +3.5**
SSE				L	L		
	comp=N,310nm,15.7s						
SSE				L	L		
	comp=E,320nm,15.9s						
SSE				L	L		
	comp=Z,330nm,16.7s						
NJ2	**Nanjing**	**10.59**	**350**	*e*P		**Pn**	**20 16 57.1 +0.8**
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
NJ2				L	L		
	comp=N,150nm,7.1s						
NJ2				L	L		
	comp=E,680nm,12.3s						
NJ2				L	L		
	comp=Z,650nm,12.3s						
WHN	**Wuhan**	**10.73**	**327**	*e*P		**Pn**	**20 17 00.8 +2.6**
WHN				S		**Sn**	**20 18 54.5 -3.5**
WHN				L	L		
	comp=Z,2μm,12.9s						
QIZ	**Qiongzhong**	**10.79**	**258**	P		**Pn**	**20 16 58.4 -0.6**
QIZ				S		**Sn**	**20 18 58.8 -0.6**
QIZ				L	L		
	comp=N,800nm,19.9s						
QIZ				L	L		
	comp=E,530nm,14.2s						
QIZ				L	L		
	comp=Z,640nm,19.1s						
JNU	**Nakatsue**	**14.43**	**35**	Pn		**Pn**	**20 17 48.5 -0.4**
	0.6nm,0.3s,baz=196,slow=4.8,SNR=6.2						
JNU				LR	LR		20 23 31.9
	comp=Z,320nm,19.9s,baz=197,slow=38						
LYN	**LuoYang**	**14.94**	**332**	P		**Pn**	**20 17 57.3 +1.6**
LYN				sP		P	20 18 04.3 +3.1
LYN				pmax	pmax		
	comp=Z,10.0nm,1.1s						
LYN				L	L		
	comp=N,440nm,12.3s						
LYN				L	L		
	comp=E,470nm,15.6s						
LYN				L	L		
	comp=Z,730nm,16.1s						
TIA	**Tai'an**	**14.96**	**348**	P		**Pn**	**20 17 58.0 +2.1**
TIA				pmax	pmax		
	comp=Z,25nm,1.1s						
TIA				L	L		
	comp=N,610nm,15.2s						
TIA				L	L		
	comp=E,480nm,16.8s						
TIA				L	L		
	comp=Z,780nm,18.4s						
XAN	**Xi'an**	**16.36**	**322**	P		**P**	**20 18 17.9 +0.9**
XAN				pmax	pmax		
	comp=Z,13nm,0.9s						
XAN				L	L		
	comp=N,340nm,8.9s						
XAN				L	L		
	comp=E,460nm,13.7s						
XAN				L	L		
	comp=Z,580nm,13.1s						
HNS	**HongShan**	**16.67**	**342**	⇑P		**P**	**20 18 19.8 -0.6**
HNS				S		**Sn**	**20 21 20.8 -2.0**
HNS				pmax	pmax		
	comp=Z,13nm,1.4s						
HNS				L	L		
	comp=N,560nm,16.3s						
HNS				L	L		
	comp=E,380nm,16.2s						
HNS				L	L		
	comp=Z,590nm,16.7s						
KSRS	**Korea Array**	**16.90**	**19**	Pn		**Pn**	**20 18 21.3 +0.3**
	0.8nm,0.3s,baz=200,slow=11,SNR=15						
KSRS				LR	LR		20 25 54.4
	comp=Z,254nm,18.3s,baz=190,slow=41 6.6nm,0.7s						
KSRS				AML	AML		
DL2	**Dalian**	**17.26**	**2**	P		**P**	**20 18 27.3 +0.4**
DL2				S		**Sn**	**20 21 37.1 -0.1**
DL2				pmax	pmax		
	comp=Z,27nm,1.1s						
DL2				pmax	pmax		
	comp=Z,210nm,4.7s						
DL2				L	L		
	comp=N,560nm,16.6s						
DL2				L	L		
	comp=E,200nm,18.0s						
DL2				L	L		
	comp=Z,640nm,15.8s						
BJI2	**Beijing**	**18.82**	**348**	P		**Pn**	**20 18 46.3 +1.6**
BJI2				pmax	pmax		
	comp=Z,31nm,0.9s						
BJI2				pmax	pmax		
	comp=Z,110nm,5.9s						
BJI2				L	L		
	comp=N,170nm,19.2s						
BJI2				L	L		
	comp=E,360nm,21.0s						
BJI2				L	L		
	comp=Z,380nm,17.1s						
BJT	**Baijiatuau**	**18.82**	**348**			**Pn**	**20 18 45.4 +0.7**
BJT				IAmb	IAmb		20 18 46.9
	comp=Z,24nm,0.6s						
INU	**Inuyama**	**19.60**	**42**			**P**	**20 18 53.2 +0.5**
INU				IAmb	IAmb		20 18 57.1
	comp=Z,32nm,0.7s						
JGF	**Kuroka**	**19.98**	**42**			**P**	**20 18 58.0 +1.2**
JGF				IAmb	IAmb		20 19 00.8
	comp=Z,33nm,0.7s						
SNY	**Shenyang**	**20.29**	**6**	P		Pn	20 19 04.3 +2.2
SNY				pmax	pmax		
	comp=Z,16nm,0.6s						
MNI	**Manado**	**20.37**	**169**	P		Pn	20 19 03.5 +0.2
HHC	**Hu-ho-hao-te**	**20.80**	**339**	*e*P		Pn	20 19 08.1 -0.2
HHC				pP		sP	20 19 10.5 -2.3
HHC				S		**S**	**20 22 54.0 -3.4**
HHC				sS		pS	20 23 09.4 +1.0
HHC				pmax	pmax		
	comp=Z,13nm,0.9s						
HHC				pmax	pmax		
	comp=Z,130nm,4.5s						
HHC				L	L		
	comp=Z,310nm,16.7s						
HHC				L	L		
	comp=Z,450nm,16.7s						
HHC				L	L		
	comp=Z,320nm,16.5s						
LZH	**Lanzhou**	**20.80**	**318**	*e*P		Pn	20 19 07.6 -0.8
LZH				sP		sP	20 19 15.6 +2.7
LZH				pmax	pmax		
	comp=Z,21nm,1.3s						
LZH				L	L		
	comp=Z,400nm,16.8s						
LZH				L	L		
	comp=Z,330nm,19.2s						
LZH				L	L		
	comp=Z,430nm,16.1s						
LZDM	**Lanzhou Array**	**20.81**	**317**	P		Pn	20 19 08.6 -0.1
	comp=Z,1.1nm,0.3s,baz=124,slow=7.2,SNR=1.5						
LZDM				LR	LR		20 28 20.2
	comp=Z,259nm,18.2s,baz=165,slow=40 comp=Z,1.1nm,0.3s						
CHTO	**Chiang Mai**	**20.89**	**266**			**P**	**20 19 08.2 +1.3**
CHTO	**Chiang Mai**	**20.89**	**266**	P		Pn	20 19 08.5 -1.0
GTOI	**Gorontalo**	**20.92**	**174**	P		**P**	**20 19 08.2 +1.0**
	comp=Z,17nm,1.0s						
TNCH	**TengChong**	**20.93**	**284**	P		Pn	20 19 11.3 +1.2
TNCH				S		**S**	**20 22 55.3 -5.1**
TNCH				pmax	pmax		
	comp=Z,8.0nm,0.7s						
TNCH				L	L		
	comp=Z,460nm,9.5s						
TNCH				L	L		
	comp=Z,180nm,10.4s						
TNCH				L	L		
	comp=Z,260nm,13.8s						
CM31	**Chiang Mai Arr**	**20.97**	**265**	P		**P**	**20 19 08.5 +0.8**
CMAR	**Chiang Mai Arr**	**20.97**	**265**	P		Pn	20 19 09.8 -0.5
	comp=Z,1.9nm,0.8s,baz=72,slow=9.1,SNR=22						
CMAR				PcP		**PcP**	**20 23 16.5 +1.4**
	comp=Z,0.4nm,0.3s,baz=47,slow=1.6,SNR=4.9						
CMAR				LR	LR		20 28 21.4
	comp=Z,339nm,19.0s,baz=85,slow=40 comp=Z,1.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**20.97**	**265**	P		**P**	**20 19 08.6 +0.9**
MAJO	**Matsushiro**	**21.11**	**41**			**P**	**20 19 09.8 +0.8**
MJB9	**Matsu-Tunnel**	**21.11**	**41**			**P**	**20 19 11.4 +2.3**
MJAR	**Matsushiro Arr**	**21.11**	**41**	P		**P**	**20 19 09.4 +0.3**
	comp=Z,14nm,0.8s,baz=228,slow=8.7,SNR=37						
MJAR				LR	LR		20 27 55.1
	comp=Z,162nm,19.9s,baz=222,slow=39 comp=Z,14nm,0.8s						
MJAR	**Matsushiro Arr**	**21.11**	**41**	P		**P**	**20 19 09.7 +0.6**
BTO2	**Baotou**	**21.30**	**336**	*e*P		**P**	**20 19 15.9 +4.7**
BTO2				pmax	pmax		
	comp=Z,30nm,1.0s						
BTO2				pmax	pmax		
	comp=Z,220nm,9.4s						
BTO2				L	L		
	comp=Z,500nm,13.2s						
BTO2				L	L		
	comp=Z,1μm,16.7s						
BTO2				L	L		
	comp=Z,600nm,15.0s						
CN2	**Changchun**	**22.45**	**8**	P		**P**	**20 19 24.8 +1.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				L	L		
	comp=Z,200nm,16.0s						
CN2				L	L		
	comp=Z,200nm,16.0s						
CN2				L	L		
	comp=Z,300nm,16.0s						
LUWI	**Luwuk**	**22.56**	**175**	P		**P**	**20 19 24.2 -0.6**
LUWI				IAmb	IAmb		20 19 46.5
	comp=Z,34nm,1.0s						
XLT	**XiLinHaoTe**	**22.62**	**351**	*e*P		**P**	**20 19 25.1 -0.2**
XLT				pmax	pmax		
	comp=Z,31nm,1.1s						
XLT				pmax	pmax		
	comp=Z,60nm,3.6s						
XLT				L	L		
	comp=Z,330nm,14.5s						
XLT				L	L		
	comp=Z,260nm,18.2s						
SANI	**Sanana**	**24.00**	**168**	P		**P**	**20 19 39.6 +0.4**
MDJ	**Mudanjiang**	**24.03**	**15**	P		**P**	**20 19 39.0 -0.3**
MDJ				pmax	pmax		
	comp=Z,11nm,1.2s						
MDJ	**Mudanjiang**	**24.03**	**15**			**P**	**20 19 38.6 -0.7**
MDJ				IAmb	IAmb		20 19 43.3
	comp=Z,14nm,0.7s						
GUMO	**Guam**	**24.07**	**105**	LR	LR		20 28 50.4
	comp=Z,144nm,19.1s,baz=280,slow=36						
USA0B	**Ussuriysk Arra**	**24.31**	**19**			**P**	**20 19 42.4 +0.5**
USA0B				IAmb	IAmb		20 19 43.8
	comp=Z,13nm,0.8s						
USRK	**Ussuriysk Ar.**	**24.31**	**19**	P		**P**	**20 19 42.3 +0.4**
	comp=Z,14nm,0.8s,baz=203,slow=10,SNR=25						
USRK				LR	LR		20 29 48.2
	comp=Z,150nm,18.3s,baz=203,slow=38 comp=Z,14nm,0.8s						
USRK	**Ussuriysk Ar.**	**24.31**	**19**			**P**	**20 19 41.3 -0.6**
MORE	**Moreh**	**24.73**	**281**			**P**	**20 19 46.6 +0.6**
MORE				IAmb	IAmb		20 19 59.8
	comp=Z,14nm,1.5s						
GTA2	**Gaotai**	**25.45**	**319**	*e*P		**P**	**20 19 54.0 +1.5**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
GTA2				L	L		
	comp=Z,170nm,14.3s						
GTA2				L	L		
	comp=Z,230nm,14.3s						
GTA2				L	L		
	comp=Z,310nm,15.6s						
KAPI	**Kappang**	**26.47**	**183**	LR	LR		20 32 17.9
	comp=Z,104nm,19.4s,baz=48,slow=41						
SHL	**Shillong**	**26.96**	**284**	P		**P**	**20 20 06.7 +0.4**
BRDH	**Bariadhala**	**27.21**	**278**	LR	LR		20 33 14.2
	comp=Z,132nm,18.4s,baz=150,slow=41						
HILR	**Hailar Array B**	**27.92**	**358**	P		**P**	**20 20 13.4 -1.1**
	comp=Z,2.8nm,0.5s,baz=186,slow=12,SNR=3.8 comp=Z,2.8nm,0.5s						
PSI	**Prapat**	**28.47**	**232**	LR	LR		20 32 17.3
	comp=Z,85nm,18.4s,baz=16,slow=38						
ULN	**Ulaanbaatar**	**28.52**	**340**			**P**	**20 20 20.1 +0.2**
ULN				IAmb	IAmb		20 20 21.7
	comp=Z,7.0nm,0.9s						
SONM	**Songino Array**	**28.70**	**339**	P		**P**	**20 20 22.0 +0.4**
	comp=Z,7.0nm,0.8s,baz=157,slow=9.2,SNR=22						
SONM				LR	LR		20 34 02.5
	comp=Z,209nm,18.7s,baz=155,slow=41 comp=Z,7.0nm,0.8s						
SONM	**Songino Array**	**28.70**	**339**			**P**	**20 20 22.1 +0.4**
HEH	**HeiHe**	**29.04**	**8**	*e*P		**P**	**20 20 23.4 -1.0**
HEH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BATI	**Baumata**	**31.71**	**175**	LR	LR		20 33 51.1
	comp=Z,79nm,22.0s,baz=44,slow=37						
TLY	**Talaya**	**32.93**	**340**	LR	LR		20 35 53.4
	comp=Z,142nm,19.8s,baz=142,slow=39						
WMQ	**Urumqi**	**35.38**	**317**	*e*P		**P**	**20 21 23.0 +2.9**
WMQ				L	L		
	comp=Z,95nm,24.1s						
KRVT	**Keravat (AS076**	**39.82**	**127**	LR	LR		20 37 50.2
	comp=Z,90nm,19.2s,baz=200,slow=35						
MKAR	**Makanchi Array**	**40.12**	**318**	P		**P**	**20 22 00.3 +0.2**
	comp=Z,1.4nm,0.7s,baz=108,slow=9.5,SNR=10						
MKAR				PcP		**PcP**	**20 24 06.1 +1.7**
	comp=Z,1.1nm,0.7s,baz=191,slow=2.0,SNR=5.4						
MKAR				LR	LR		20 40 53.2
	comp=Z,127nm,19.5s,baz=112,slow=40 comp=Z,1.4nm,0.7s						
MKAR	**Makanchi Array**	**40.12**	**318**	P		**P**	**20 21 59.5 -0.6**
YAK	**Yakutsk**	**40.85**	**6**	LR	LR		20 41 04.6
	comp=Z,212nm,19.2s,baz=186,slow=39						
YAK	**Yakutsk**	**40.85**	**6**			**P**	**20 22 04.2 -1.6**
PALK	**Pallekele**	**41.41**	**256**	LR	LR		20 40 58.8
	comp=Z,99nm,18.8s,baz=61,slow=38						
PETK	**Petropavlovsk-**	**42.11**	**32**	P		**P**	**20 22 15.7 -0.6**
	comp=Z,5.2nm,1.0s,baz=214,slow=7.6,SNR=2.5						
PETK				LR	LR		20 40 53.3
	comp=Z,84nm,18.5s,baz=244,slow=38 comp=Z,5.2nm,1.0s						
ZAA0	**Zalesovo Array**	**42.35**	**329**			**P**	**20 22 17.9 -0.4**
ZAA0				IAmb	IAmb		20 22 20.3
	comp=Z,6.9nm,0.8s						
ZALV	**Zalesovo Beam**	**42.35**	**329**	P		**P**	**20 22 18.2 -0.1**
	comp=Z,5.5nm,0.6s,baz=118,slow=8.1,SNR=26						
ZALV				LR	LR		20 41 44.0
	comp=Z,104nm,18.4s,baz=116,slow=39 comp=Z,5.5nm,0.6s						
NRN	**Naryn**	**42.62**	**308**	P		**P**	**20 22 21.9 +0.8**
H11N1	**WAKE ISLAND Hy**	**42.85**	**84**	T		T	21 08 32.9
	baz=284						
H11N2	**WAKE ISLAND Hy**	**42.85**	**84**	T		T	21 08 31.6
	baz=284,slow=74						
H11N3	**WAKE ISLAND Hy**	**42.87**	**84**	T		T	21 08 33.6
	baz=284,slow=74						
WRA	**Warramunga Arr**	**43.29**	**162**	P		**P**	**20 22 25.7 -0.6**
	comp=Z,2.7nm,0.5s,baz=343,slow=9.0,SNR=21						
WRA				PcP		**PcP**	**20 24 15.4 +0.2**
	comp=Z,1.7nm,0.7s,baz=347,slow=3.9,SNR=7.6 comp=Z,2.7nm,0.5s						
WR8	**Warramunga Arr**	**43.35**	**161**	P		**P**	**20 22 25.9 -0.9**
MA2	**Magadan**	**43.43**	**22**	LR	LR		20 43 17.5
	comp=Z,136nm,18.3s,baz=196,slow=40						
AAK	**Ala-Archa**	**43.99**	**310**	LR	LR		20 42 15.4
	comp=Z,146

	comp=Z,3.5nm,0.9s							
OBN	**Obninsk**	**69.44**	**322**		LR	LR	20 58 12.9	
	comp=Z,84nm,19.8s,baz=42,slow=38							
H22K	**Ishtalitna Cre**	**69.54**	**26**			**P**	**20 25 32.6**	**-0.3**
H22K					IAmb	IAmb	20 25 34.0	
	comp=Z,6.4nm,1.2s							
CAST	**Castle Rocks**	**69.55**	**29**			**P**	**20 25 33.2**	**+0.3**
CAST					IAmb	IAmb	20 25 36.0	
	comp=Z,6.0nm,0.8s							
MLY	**Manley**	**69.92**	**27**			**P**	**20 25 36.7**	**+1.4**
MLY					IAmb	IAmb	20 25 37.4	
	comp=Z,6.0nm,1.0s							
H23K	**Yukon River**	**70.30**	**26**		IAmb	IAmb	20 25 40.8	
	comp=Z,5.3nm,0.9s							
F24K	**Squaw Lake**	**70.68**	**24**		IAmb	IAmb	20 25 41.0	
	comp=Z,7.0nm,1.0s							
NEA2	**Nenana**	**70.69**	**27**		IAmb	IAmb	20 25 41.4	
	comp=Z,4.9nm,0.8s							
F25K	**Christian Rive**	**71.51**	**24**		IAmb	IAmb	20 25 46.6	
	comp=Z,3.3nm,0.8s							
ILAR	**Eielson Array**	**71.58**	**27**		P	**P**	**20 25 43.8**	**-1.5**
	comp=Z,0.7nm,0.5s,baz=271,slow=5.2,SNR=16							
	comp=Z,0.7nm,0.5s							
ILAR	**Eielson Array**	**71.58**	**27**		P	**P**	**20 25 44.0**	**-1.3**
ARCES	**ARCESS Array B**	**71.87**	**338**		P	**P**	**20 25 46.7**	**-0.3**
	comp=Z,4.2nm,0.7s,baz=46,slow=6.9,SNR=6.1							
	comp=Z,4.2nm,0.7s							
ARCES	**ARCESS Array B**	**71.87**	**338**		P	**P**	**20 25 47.4**	**+0.4**
BMAR	**Burnt Mountain**	**71.94**	**24**			**P**	**20 25 48.0**	**+0.5**
SPITS	**Spitsbergen Ar**	**71.97**	**348**		P	**P**	**20 25 47.2**	**-0.2**
	comp=Z,6.4nm,0.7s,baz=101,slow=7.5,SNR=5.1							
SPITS					LR	LR	21 02 09.6	
	comp=Z,108nm,18.0s,baz=55,slow=40							
	comp=Z,6.4nm,0.7s							
F26K	**Sheenjek River**	**72.05**	**24**		IAmb	IAmb	20 25 49.6	
	comp=Z,7.7nm,1.1s							
DOT	**Dot Lake**	**73.03**	**28**		IAmb	IAmb	20 25 54.1	
	comp=Z,7.2nm,1.2s							
MENT	**Mentasta**	**73.36**	**28**		IAmb	IAmb	20 25 57.4	
	comp=Z,7.0nm,1.2s							
E28M	**Babbage River**	**73.48**	**22**		IAmb	IAmb	20 25 57.6	
	comp=Z,5.2nm,0.7s							
FINES	**FINESS Array B**	**73.60**	**330**		P	**P**	**20 25 57.5**	**+0.2**
	comp=Z,3.6nm,0.7s,baz=45,slow=3.5,SNR=9.2							
	comp=Z,3.6nm,0.7s							
FINES	**FINESS Array B**	**73.60**	**330**		P	**P**	**20 25 57.2**	**-0.1**
ASF	**Jabal al Asfar**	**74.05**	**299**		LR	LR	21 02 33.3	
	comp=Z,33nm,18.1s,baz=207,slow=39							
L27K	**Beaver Creek,**	**74.16**	**28**		IAmb	IAmb	20 26 02.7	
	comp=Z,3.6nm,0.7s							
BRTR	**Keskin Array B**	**74.59**	**307**		P	**P**	**20 26 04.5**	**+0.7**
	comp=Z,0.7nm,0.8s,baz=123,slow=4.6,SNR=4.3							
	comp=Z,0.7nm,0.8s							
BRTR	**Keskin Array B**	**74.59**	**307**		P	**P**	**20 26 03.7**	**0.0**
AKASG	**Malin Array Be**	**74.70**	**319**		P	**P**	**20 26 04.0**	**0.0**
	comp=Z,1.5nm,0.6s,baz=63,slow=5.7,SNR=6.2							
	comp=Z,1.5nm,0.6s							
MMAI	**Mount Meron Ar**	**75.03**	**300**		LR	LR	21 03 14.8	
	comp=Z,29nm,18.3s,baz=103,slow=39							
EPYK	**Eagle Plains**	**75.22**	**24**		IAmb	IAmb	20 26 07.5	
	comp=Z,6.0nm,0.7s							
INK	**Inuvik**	**75.67**	**22**		IAmb	IAmb	20 26 09.6	
	comp=Z,6.0nm,0.8s							
I30M	**Mount Dempster**	**75.75**	**25**		IAmb	IAmb	20 26 12.0	
	comp=Z,3.8nm,0.8s							
K29M	**Barlow Dome**	**75.76**	**27**		IAmb	IAmb	20 26 11.2	
	comp=Z,3.8nm,0.8s							
H31M	**Peel River**	**76.33**	**24**		IAmb	IAmb	20 26 13.7	
	comp=Z,7.5nm,0.9s							
M30M	**Minto, Yukon**	**76.51**	**28**		IAmb	IAmb	20 26 16.2	
	comp=Z,7.7nm,0.9s							
N30M	**Aishikik Lake**	**76.77**	**29**		IAmb	IAmb	20 26 17.4	
	comp=Z,7.1nm,0.8s							
M31M	**Drury Creek, Y**	**77.69**	**28**		IAmb	IAmb	20 26 21.9	
	comp=Z,6.6nm,0.8s							
MLR	**Muntele Rosu**	**78.33**	**314**		P	**P**	**20 26 25.2**	**+0.3**
MLR					IAmb	IAmb	20 26 29.1	
	comp=Z,3.5nm,0.8s							
HFS	**Hagfors**	**79.74**	**331**		P	**P**	**20 26 31.4**	**-0.7**
	comp=Z,1.8nm,0.7s,baz=150,slow=3.2,SNR=2.2							
	comp=Z,1.8nm,0.7s							
NB2	**NORSAR Sbarra**	**80.43**	**332**		P	**P**	**20 26 35.9**	**0.0**
	comp=Z,2.6nm,0.7s,baz=61,slow=5.6							
NOA	**NORSAR Array B**	**80.43**	**332**		P	**P**	**20 26 35.8**	**-0.1**
	comp=Z,1.1nm,0.5s,baz=64,slow=5.2,SNR=5.0							
NOA					LR	LR	21 06 06.4	
	comp=Z,114nm,18.3s,baz=55,slow=39							
	comp=Z,1.1nm,0.5s							
RES	**Resolute Bay**	**81.23**	**9**		LR	LR	21 06 28.6	
	comp=Z,51nm,19.0s,baz=11,slow=38							
IDI	**Anoyia**	**82.58**	**305**		LR	LR	21 10 04.6	
	comp=Z,62nm,20.2s,baz=12,slow=40							
CLL	**Collm**	**84.02**	**323**		*e*P	**P**	**20 26 55.0**	**+0.2**
	comp=Z,4.0nm,0.8s							
CLL				*i*	x	x	20 27 04.3	
CLL				*e*	S	**SKSac**	**20 37 17.0**	**-0.3**
CLL				*e*	PS	**PnS**	**20 38 16.0**	**+4.3**
CLL					LV		21 03 00.0	
CLL					AMS	AMS	21 11 00.0	
	comp=Z,100nm,17.9s							
GERES	**GERESS Array B**	**84.74**	**321**		P	**P**	**20 26 59.6**	**+1.0**
	comp=Z,1.9nm,0.8s,baz=70,slow=4.4,SNR=12							
	comp=Z,1.9nm,0.8s							
GERES	**GERESS Array B**	**84.74**	**321**		P	**P**	**20 26 59.1**	**+0.5**
YKA	**Yellowknife Ar**	**85.41**	**23**		P	**P**	**20 27 01.0**	**-0.5**
	comp=Z,3.7nm,0.8s,baz=316,slow=4.7,SNR=16							
	comp=Z,3.7nm,0.8s							
YKA	**Yellowknife Ar**	**85.41**	**23**		P	**P**	**20 27 01.5**	**-0.1**

AUST 16 20:14:28.1±0.4,20°S±2°×13°4E±°,h14km±3km,mb3.8/12, ML2.6/12,Error ellipse: s-maj=6.1km s-min=3.6km az=75.6,confirmed,Northern Territory

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
WB9	**Warramunga Arr**	**0.37**	**96**	P		Pb	20 14 37.3	+0.8
WB9				S		Sb	20 14 42.1	-0.1
WB9				AML		AML		
WRAB	**Tennant Creek**	**0.38**	**118**	P		Pb	20 14 36.6	-0.1
WRAB				S		Sg	20 14 41.1	+0.1
WRAB				AML		AML		
WRAB	**Tennant Creek**	**0.38**	**118**	P		Pb	20 14 36.4	-0.3
WRAB				S		Sg	20 14 40.9	0.0
WRAB				AML		AML		
AS15	**Alice Springs**	**3.86**	**181**	P		Pn	20 15 29.8	+2.5
AS15				S		Sn	20 16 13.7	+1.2
AS15				AML		AML		
AS15	**Alice Springs**	**3.86**	**181**	P		Pn	20 15 29.8	+2.5
AS15				AML		AML		
AS17	**Alice Springs**	**3.89**	**180**	P		Pn	20 15 29.9	+2.3
AS17	**Alice Springs**	**3.89**	**180**	P		Pn	20 15 29.9	+2.3
AS17				AML		AML		
AS31	**Alice Springs**	**3.89**	**181**	P		Pn	20 15 31.2	+3.5
AS31				S		Sn	20 16 13.8	+0.6
AS31	**Alice Springs**	**3.89**	**181**	P		Pn	20 15 30.0	+2.4
AS31				S		Sn	20 16 13.7	+0.5
AS31				AML		AML		
AUALC	**St Philip's Co**	**3.92**	**181**	P		Pn	20 15 26.8	-1.1
AUALC				S		Sn	20 16 14.9	+1.1
AUALC				AML		AML		
AUALC	**St Philip's Co**	**3.92**	**181**	S		Sn	20 16 14.7	+0.9
AS09	**Alice Springs**	**3.92**	**181**	P		Pn	20 15 30.8	+2.7
AS09				AML		AML		
AS09	**Alice Springs**	**3.92**	**181**	P		Pn	20 15 30.6	+2.5
AS09				AML		AML		
QIS	**Mount Isa**	**5.33**	**100**	P		Pn	20 15 50.1	+2.7
	comp=Z,3.4nm,1.4s,comp=Z,0.0nm							
QIS				S		Sn	20 16 49.6	+0.9
QIS				AML		AML		
QIS	**Mount Isa**	**5.33**	**100**	P		Pn	20 15 49.8	+2.3
	comp=Z,3.4nm,1.4s,comp=Z,0.0nm							
QIS				AML		AML		
KNRA	**Kununurra**	**6.43**	**308**	P		Pn	20 16 04.2	+1.7
	comp=Z,6.5nm,1.9s,comp=Z,0.0nm							
KNRA				S		Sn	20 17 16.0	+0.4
KNRA				AML		AML		
KDU	**Kakadu**	**7.18**	**348**	P		Pn	20 16 15.4	+2.6
	comp=Z,5.1nm,1.6s,comp=Z,0.0nm							
KDU				S		Sn	20 17 34.4	+0.2
KDU				AML		AML		
MTN	**Manton Dam**	**7.40**	**338**	P		Pn	20 16 18.6	+2.7
	comp=Z,4.7nm,0.6s,comp=Z,0.0nm							
MTN				S		Sn	20 17 41.1	+1.4
MTN				AML		AML		
WRKA	**Warakurna**	**7.44**	**224**	P		Pn	20 16 16.1	-0.3
	comp=Z,3.5nm,1.5s,comp=Z,0.0nm							
WRKA				S		Sn	20 17 36.0	-4.7
WRKA				AML		AML		
WRKA	**Warakurna**	**7.44**	**224**	P		Pn	20 16 16.1	-0.3
	comp=Z,3.5nm,1.5s,comp=Z,0.0nm							
WRKA				AML		AML		
DRS	**Darwin Rock St**	**7.87**	**337**	S		Sn	20 17 51.7	+0.6
	comp=Z,8.9nm,1.1s,comp=Z,0.0nm							
DRS				AML		AML		
FITZ	**Fitzroy Crossi**	**8.07**	**280**	P		Pn	20 16 27.1	+2.0
FITZ				S		Sn	20 17 53.5	-2.7
OOD	**Oodnadatta**	**8.15**	**169**	P		Pn	20 16 28.5	+2.4
	comp=Z,3.3nm,2.5s,comp=Z,0.0nm							
OOD				S		Sn	20 17 54.8	-3.3
OOD				AML		AML		
OOD	**Oodnadatta**	**8.15**	**169**	P		Pn	20 16 27.0	+0.9
	comp=Z,3.2nm,2.5s,comp=Z,0.0nm							
OOD				AML		AML		
MULG	**Mulgathing**	**10.48**	**180**	P		Pn	20 16 58.2	+0.2
	comp=Z,5.8nm,2.0s							
MULG				S		Sn	20 18 49.0	-6.4
MULG	**Mulgathing**	**10.48**	**180**	P		Pn	20 16 58.0	-0.1
	comp=Z,5.8nm,2.0s,comp=Z,0.0nm							
MULG				AML		AML		
AXCOZ	**Aramac airstri**	**10.96**	**109**	P		Pn	20 17 02.4	-2.3
LCRK	**Leigh Creek**	**11.31**	**161**	P		Pn	20 17 11.1	+1.7
LCRK	**Leigh Creek**	**11.31**	**161**	P		Pn	20 17 09.3	-0.1
FORT	**Forrest**	**12.21**	**205**	P		Pn	20 17 19.8	-1.9
	comp=Z,8.7nm,1.1s							
FORT				S		Sn	20 19 29.2	-8.6
FORT	**Forrest**	**12.21**	**205**	P		Pn	20 17 19.8	-2.0
BBOO	**Buckleboo**	**13.13**	**172**	P		Pn	20 17 33.3	-1.1
	comp=Z,22nm,1.9s							
STKA	**Stephens Creek**	**13.87**	**152**	P		Pn	20 17 42.0	-2.4
	comp=Z,40nm,2.0s							

VAO ***16*** *20:18:28.7±0.4,28°.46S×71°.19W,h10km, mb4.9, Presumed earthquake*
SJA ***16*** *20:18:28.9±0.7,28°.34S×71°.43W,h22km±3km, ML5.1, MW4.8*
MOS ***16*** *20:18:32.7±1.3,28°.36S×71°.02W,h42km, mb5.2/15, Error ellipse: s-maj=14.8km s-min=7.4km az=101.0*
GFZ ***16*** *20:18:32.6,28°.38S×71°.24W,h50km, Mw4.7/41, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr1.22; Mθθ-0.10; Mφφ-1.12; Mrθ-0.24; Mθφ-0.22; Mφr1.00; Fault plane solution: M₀1.57627×10¹⁶ NP1: φs204.14034°,δ27.14125°,λ115.19016°. NP2: φs356.28134°,δ65.61900°,λ77.69156°. Principal axes: T 1.6419, Plg67.0931°, Azm243.4969°; N -0.1406, Plg11.1959°, Azm1.4280°; P -1.5013, Plg19.7154°, Azm95.4954°;*
GUC ***16*** *20:18:33.8±0.6,28°.42S×71°.10W,h49km±2km, ML4.9, Presumed earthquake*
GFZ ***16*** *20:18:33.0±0.1,28°S±1°×7°1W±°,h50km, M5.3/42, mb5.1/42, Error ellipse: s-maj=5.9km s-min=2.7km az=92.4, confirmed*
NEIC ***16*** *20:18:34.2±2.2,28°.43S±0°.04×71°.11W±0°.06,h43km±3km, mb5.0/210,Mwr4.8/83,ML5.1(GUC), Error ellipse: s-maj=7.5km s-min=5.4km az=95.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr1.57; Mθθ0.11; Mφφ-1.68; Mrθ-0.09; Mθφ-0.30; Mφr0.42; Fault plane solution: M₀1.71000×10¹⁶ NP1:φs3.14000°, δ52.13000°,λ82.38000°. NP2:φs195.43000°,δ38.52000°, λ99.67000°. Principal axes: T 1.6387, Plg81.0000°, Azm237.0000°; N 0.1412, Plg6.0000°, Azm8.0000°; P -1.7798, Plg7.0000°, Azm99.0000°;*
NEIC ***16*** *20:18:34.1,28°.42S×71°.09W,h44km*
IDC ***16*** *20:18:37.1±2.2,28°.39S×70°.97W,h72km±18km, mb4.5/18, mbtmp4.8/20,MS3.8/29, Error ellipse: s-maj=16.8km s-min=10.6km az=77.0*

ISC 16 20:18:33.2±0.3,28°.41S±0°.02×71°.19W±0°.04,h42km±2km, h42km:pP-P,n482,σ1§57/443,mb5.0/123,MS3.9/26, 19C-16D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.23**	**27**	*e*P		**Pn**	**20 18 41.2**	**+0.3**
AC04	**Llanos de Chal**	**0.23**	**27**			**Pn**	**20 18 41.4**	**+0.5**
AC04				Sn		**Sn**	**20 18 47.9**	**+1.5**
AC04	**Llanos de Chal**	**0.23**	**27**	*i*P		**Pn**	**20 18 41.5**	**+0.6**
AC04				*i* S		**Sn**	**20 18 47.3**	**+0.9**
AC04	**Llanos de Chal**	**0.23**	**27**	P		**Pn**	**20 18 41.5**	**+0.5**
LCO	**Las Campanas**	**0.74**	**144**	*e*P		**Pn**	**20 18 47.1**	**-0.3**
LCO					IAML		20 19 05.4	
	comp=Z,48μm,0.4s							
LCO	**Las Campanas**	**0.74**	**144**	P		**Pn**	**20 18 47.4**	**0.0**
LCO	**Las Campanas**	**0.74**	**144**			**Pn**	**20 18 47.4**	**0.0**
LCO	**Las Campanas**	**0.74**	**144**	*i*P		**Pn**	**20 18 47.5**	**+0.1**
LCO				*i* S		**Sn**	**20 18 57.3**	**-0.4**
AC05	**El Transito**	**0.91**	**118**	*e*P		**Pn**	**20 18 49.8**	**0.0**
AC05	**El Transito**	**0.91**	**118**			**Pn**	**20 18 49.4**	**-0.3**
AC05	**El Transito**	**0.91**	**118**	*i*P		**Pn**	**20 18 49.7**	**0.0**
AC05				*i* S		**Sn**	**20 19 01.3**	**-0.4**
AC05					IAML		20 19 02.6	
	comp=E,43μm,0.8s							
AC05	**El Transito**	**0.91**	**118**	P		**Pn**	**20 18 49.7**	**0.0**
GO03	**Copiapo**	**1.17**	**46**	*e*P		**Pn**	**20 18 53.5**	**+0.2**
GO03					IAML		20 19 13.3	
	comp=Z,24μm,0.5s							
GO03	**Copiapo**	**1.17**	**46**			**Pn**	**20 18 53.4**	**+0.2**
GO03				Sn		**Sn**	**20 19 08.0**	**-0.1**
GO03	**Copiapo**	**1.17**	**46**	*i*P		**Pn**	**20 18 53.6**	**+0.4**
GO03				*i* S		**Sn**	**20 19 08.6**	**+0.5**
GO03					IAML		20 19 10.1	
	comp=N,80μm,0.3s							
GO03	**Copiapo**	**1.17**	**46**	P		**Pn**	**20 18 53.8**	**+0.5**
AC06	**Mina Casimiro**	**1.28**	**35**			**Pn**	**20 18 55.5**	**+0.8**
AC06	**Mina Casimiro**	**1.28**	**35**	*i*P		**Pn**	**20 18 56.0**	**+1.2**
AC06				*i* S		**Sn**	**20 19 11.9**	**+1.2**
AC06					IAML		20 19 14.4	
	comp=E,54μm,0.4s							
CO05	**La Serena**	**1.50**	**182**			**Pn**	**20 18 58.1**	**+0.4**
CO05	**La Serena**	**1.50**	**182**	*e*P		**Pn**	**20 18 58.1**	**+0.4**
CO05				*i* S		**Sn**	**20 19 18.1**	**+2.1**
CO05					IAML		20 19 23.6	
	comp=N,30μm,0.5s							
GO04	**Tololo Observa**	**1.79**	**169**	*e*P		**Pn**	**20 19 03.0**	**+1.1**
GO04				*e*S		**Sn**	**20 19 26.6**	**+3.1**
GO04					IAML		20 19 27.4	
	comp=Z,14μm,0.9s							
GO04	**Tololo Observa**	**1.79**	**169**			**Pn**	**20 19 02.6**	**+0.8**
GO04	**Tololo Observa**	**1.79**	**169**	*i*P		**Pn**	**20 19 02.9**	**+1.0**
GO04				*i* S		**Sn**	**20 19 25.4**	**+1.9**
GO04					IAML		20 19 29.5	
	comp=N,49μm,0.5s							
GO04	**Tololo Observa**	**1.79**	**169**	P		**Pn**	**20 19 03.0**	**+1.1**
CO01	**Juntas del Tor**	**1.83**	**149**	*e*P		**Pn**	**20 19 04.0**	**+1.6**
CO01				*e*S		**Sn**	**20 19 27.9**	**+3.4**
CO01					IAML		20 19 28.8	
	comp=Z,7μm,0.6s							
CO01	**Juntas del Tor**	**1.83**	**149**			**Pn**	**20 19 03.4**	**+1.0**
CO01	**Juntas del Tor**	**1.83**	**149**	*e*P		**Pn**	**20 19 03.5**	**+1.1**
CO01				*i* S		**Sn**	**20 19 26.1**	**+1.6**
CO01					IAML		20 19 28.2	
	comp=N,12μm,0.3s							
CO01	**Juntas del Tor**	**1.83**	**149**	P		**Pn**	**20 19 03.7**	**+1.3**
CO06	**Fray Jorge**	**2.29**	**190**			**Pn**	**20 19 08.1**	**-0.4**
CO06	**Fray Jorge**	**2.29**	**190**	*e*P		**Pn**	**20 19 08.0**	**-0.4**
CO06					IAML		20 19 53.9	
	comp=E,5μm,0.6s							
AROD	**Rodeo**	**2.31**	**140**	*e*P		**Pn**	**20 19 11.9**	**+2.9**
AROD				*e*S		Sn	20 19 26.8	-9.5
AC01	**Pan de Azucar**	**2.31**	**13**	*e*P		**Pn**	**20 19 08.6**	**-0.3**
AC01				*e*S		Sn	20 19 46.0	+10
AC01					IAML		20 19 48.8	
	comp=Z,10μm,0.5s							
AC01	**Pan de Azucar**	**2.31**	**13**			**Pn**	**20 19 08.4**	**-0.5**
AC01	**Pan de Azucar**	**2.31**	**13**	*i*P		**Pn**	**20 19 08.5**	**-0.3**
AC01				*i* S		**Sn**	**20 19 42.5**	**+6.4**
AC01					IAML		20 19 48.8	
	comp=E,16μm,0.5s							
AC01	**Pan de Azucar**	**2.31**	**13**	P		**Pn**	**20 19 08.6**	**-0.3**
AC02	**Maricunga**	**2.41**	**50**	*e*P		**Pn**	**20 19 12.5**	**+1.9**
AC02				*e*S		**Sn**	**20 19 43.3**	**+4.2**
AC02					IAML		20 19 49.3	
	comp=Z,10μm,0.9s							
AC02	**Maricunga**	**2.41**	**50**			**Pn**	**20 19 12.5**	**+1.9**
AC02	**Maricunga**	**2.41**	**50**	*e*P		**Pn**	**20 19 12.6**	**+2.0**
AC02				*i* S		**Sn**	**20 19 42.1**	**+3.0**
AC02					IAML		20 19 45.5	
	comp=N,16μm,0.4s							
CO03	**El Pedregal**	**2.46**	**170**	*e*P		**Pn**	**20 19 11.9**	**+1.0**
CO03				*e*S		**Sn**	**20 19 43.1**	**+3.4**
CO03					IAML		20 19 52.6	
	comp=Z,6μm,0.8s							
CO03	**El Pedregal**	**2.46**	**170**			**Pn**	**20 19 11.5**	**+0.6**
CO03	**El Pedregal**	**2.46**	**170**	*i*P		**Pn**	**20 19 11.8**	**+0.9**
CO03				*i* S		**Sn**	**20 19 40.9**	**+1.1**
CO03					IAML		20 19 53.5	
	comp=E,22μm,1.1s							
CO03	**El Pedregal**	**2.46**	**170**	P		**Pn**	**20 19 12.0**	**+1.0**
ACDV	**Cuesta del Vie**	**2.52**	**135**	*e*P		**Pn**	**20 19 14.8**	**+3.0**
ACDV					IAML		20 19 59.3	
	comp=Z,3μm,0.8s							
VCA	**Vinchina**	**2.65**	**98**	*e*P		**Pn**	**20 19 17.3**	**+3.8**
VCA				*e*S		Sn	20 19 55.8	+11
VCA					IAML		20 20 02.6	
	comp=Z,11μm,0.5s							
VCA	**Vinchina**	**2.65**	**98**	*e*P		**Pn**	**20 19 17.4**	**+3.9**
CO02	**Combarbal**	**2.79**	**177**	*e*P		**Pn**	**20 19 16.1**	**+0.7**
CO02				*e*S		**Sn**	**20 19 53.8**	**+5.8**
CO02					IAML		20 20 01.4	
	comp=Z,11μm,0.9s							
CO02	**Combarbal**	**2.79**	**177**			**Pn**	**20 19 15.7**	**+0.3**
CO02	**Combarbal**	**2.79**	**177**	*i*P		**Pn**	**20 19 15.8**	**+0.3**
CO02				*i* S		**Sn**	**20 19 50.9**	**+3.0**
CO02	**Combarbal**	**2.79**	**177**	P		**Pn**	**20 19 16.0**	**+0.5**
ACCO	**Cerro Coronel**	**2.85**	**140**	*e*P		**Pn**	**20 19 19.7**	**+3.2**
ACCO				*e*S		Sn	20 19 58.4	+8.6
ACCO					IAML		20 20 05.7	
	comp=Z,4μm,0.8s							
TINO	**Tinogasta**	**3.21**	**85**	*e*P		**Pn**	**20 19 21.9**	**+0.6**
TINO					IAML		20 20 22.6	
	comp=Z,3μm,0.6s							
CO04	**Los Peladeros**	**3.62**	**177**			**Pn**	**20 19 27.6**	**+0.5**
CO04	**Los Peladeros**	**3.62**	**177**	P		**Pn**	**20 19 27.9**	**+0.8**
RTLS	**Leoncito**	**3.75**	**155**	*e*P		**Pn**	**20 19 32.8**	**+3.9**
RTLS				*e*S		Sn	20 20 26.1	+14
RTLS					IAML		20 20 37.5	
	comp=Z,9μm,0.8s							
ZON	**Zonda**	**3.81**	**146**	*e*P		**Pn**	**20 19 32.1**	**+2.7**
ZON				*e*S		Sn	20 20 23.8	+11
ZON					IAML		20 20 39.3	
	comp=Z,2μm,0.8s							
ZON	**Zonda**	**3.81**	**146**	P		**Pn**	**20 19 32.0**	**+2.6**
ZON	**Zonda**	**3.81**	**146**			**Pn**	**20 19 32.0**	**+2.6**
ZON	**Zonda**	**3.81**	**146**	P		**Pn**	**20 19 29.8**	**+0.4**
PB14	**IPOC Station P**	**3.83**	**11**	*e*P		**Pn**	**20 19 29.1**	**-0.9**
PB14				*e*S		Sn	20 20 27.9	+14
PB14					IAML		20 20 36.9	
	comp=Z,4μm,0.6s							
PB14	**IPOC Station P**	**3.83**	**11**			**Pn**	**20 19 28.5**	**-1.6**
PB14	**IPOC Station P**	**3.83**	**11**	P		**Pn**	**20 19 28.7**	**-1.3**
ACLC	**CERRO LA CRUZ**	**3.85**	**106**	*e*P		**Pn**	**20 19 32.4**	**+2.3**
ACLC				*e*S		Sn	20 20 23.1	+8.8
ACLC					IAML		20 20 25.3	
	comp=Z,4μm,0.6s							
CFA	**Coronel Fontan**	**4.08**	**142**	P		**Pn**	**20 19 35.6**	**+2.4**
	comp=Z,261nm,0.3s,baz=327,slow=14,SNR=272							
CFA				S		**Sn**	**20 20 22.6**	**+2.8**
	comp=Z,540nm,0.4s,baz=111,slow=16,SNR=7.6							
CFA				LR		LR	20 21 25.6	
	comp=Z,920nm,19.0s,baz=346,slow=42							
CFA	**Coronel Fontan**	**4.08**	**142**	*e*P		**Pn**	**20 19 35.8**	**+2.6**
CFA				*e*S		**Sn**	**20 20 26.2**	**+6.4**
CFA					IAML		20 20 43.1	
	comp=Z,3μm,0.9s							
VA03	**San Esteban**	**4.37**	**173**	*e*P		**Pn**	**20 19 38.8**	**+1.6**
VA03				*e*S		Sn	20 20 43.4	+16
VA03					IAML		20 21 02.6	
	comp=Z,2μm,0.8s							
VA03	**San Esteban**	**4.37**	**173**			**Pn**	**20 19 38.0**	**+0.8**
VA03	**San Esteban**	**4.37**	**173**	P		**Pn**	**20 19 36.9**	**-0.3**
VA01	**Torpederas**	**4.61**	**185**			**Pn**	**20 19 38.6**	**-1.8**
VA01	**Torpederas**	**4.61**	**185**	P		**Pn**	**20 19 39.1**	**-1.3**
PEL	**Peldehue**	**4.74**	**175**	P		**Pn**	**20 19 42.5**	**+0.4**
PEL	**Peldehue**	**4.74**	**175**			**Pn**	**20 19 42.5**	**+0.4**
PEL	**Peldehue**	**4.74**	**175**	P		**Pn**	**20 19 42.9**	**+0.7**
CYA	**Choya**	**4.75**	**92**	*e*P		**Pn**	**20 19 43.7**	**+1.5**
CYA				*e*S		**Sn**	**20 20 43.3**	**+7.2**
CYA					IAML		20 20 45.5	
	comp=Z,1μm,0.9s							
CYA	**Choya**	**4.75**	**92**	*i*P		**Pn**	**20 19 43.6**	**+1.3**
ARCO	**CERRO ARCO**	**4.83**	**157**	*e*S		Sn	20 20 53.1	+15
ARCO					IAML		20 20 57.9	
	comp=Z,2μm,0.5s							
PB10	**IPOC Station P**	**4.91**	**7**	*e*P		**Pn**	**20 19 43.7**	**-0.8**
PB10					IAML		20 21 12.2	
	comp=Z,859nm,0.8s							
PB10	**

PLCA	Paso Flores	12.30	178		P		Pn	20 21 25.7	-0.1	
PLCA								20 23 48.6		
PLCA	Paso Flores	12.30	178				Pn	20 21 25.7	-0.1	
PLCA	Paso Flores	12.30	178		P		Pn	20 21 23.3	-2.5	
	comp=Z,24nm,1.6s									
PLCA	Paso Flores	12.30	178		eP		Pn	20 21 22.5	-3.3	
LPAZ	La Paz	12.39	14		P		Pn	20 21 25.1	-2.6	
	comp=Z,2.7nm,0.4s,baz=204,slow=7.1,SNR=17									
LPAZ					S		Sn	20 23 50.7	+6.0	
	comp=Z,5.4nm,0.8s,baz=187,slow=16,SNR=1.1									
LPAZ					LR		LR	20 26 38.4		
	comp=Z,495nm,19.1s,baz=174,slow=39									
LPAZ	La Paz	12.39	14				Pn	20 21 25.3	-2.3	
LPAZ	La Paz	12.39	14		P		Pn	20 21 24.9	-2.7	
	comp=Z,21nm,0.7s									
LPAZ	La Paz	12.39	14		eP		Pn	20 21 25.1	-2.6	
CPUP	Villa Florida	12.49	84		P		Pn	20 21 27.6	-0.8	
	comp=Z,18nm,0.6s,baz=257,slow=13,SNR=36									
CPUP					S		Sn	20 23 48.5	+2.3	
	comp=Z,19nm,0.8s,baz=308,slow=16,SNR=1.4									
CPUP					LR		LR	20 26 48.3		
	comp=Z,804nm,19.4s,baz=258,slow=40									
CPUP	Villa Florida	12.49	84				Pn	20 21 26.6	-1.8	
CPUP	Villa Florida	12.49	84		P		Pn	20 21 26.4	-2.0	
	comp=Z,58nm,0.7s									
CPUP	Villa Florida	12.49	84		eP		Pn	20 21 26.2	-2.2	
ANCO	Parque Anchore	12.72	121		eP		Pn	20 21 29.4	-2.1	
ITQB	Itaqui	12.81	99		eP		Pn	20 21 30.1	-2.6	
SJPY	San Joaquin	13.91	79		eP		Pn	20 21 46.4	-1.4	
LL02	Futaleuf	14.76	182		P		P	20 22 04.7	+0.3	
BBSD	Serra de San D	14.82	43		eP		Pn	20 21 59.0	-1.1	
COIM	Forte Coimbra	14.86	58		eP		Pn	20 21 59.7	-0.9	
BDQN	Bodoquena, MS	15.35	62		eP		Pn	20 22 05.1	-1.9	
SIV	San Ignacio	15.50	39		P		Pn	20 22 04.5	-4.5	
	comp=Z,4.1nm,0.5s,baz=233,slow=9.2,SNR=16									
CPSB	Cacapava Do Su	15.60	102		Pn		Pn	20 22 07.7	-2.5	
CPSB	Cacapava Do Su	15.60	102		P		Pn	20 22 07.7	-2.5	
	comp=Z,81nm,0.7s									
CPSB	Cacapava Do Su	15.60	102		eP		Pn	20 22 08.6	-1.6	
AQDB	Aquidauana	16.16	64				Pn	20 22 15.0	-2.4	
AQDB	Aquidauana	16.16	64		P		Pn	20 22 16.4	-1.0	
	comp=Z,28nm,0.8s									
AQDB	Aquidauana	16.16	64		eP		Pn	20 22 16.5	-0.9	
ITAB	Concordia	16.90	91		P		P	20 22 27.0	-1.3	
ITAB					IAmb		IAmb	20 22 29.9		
	comp=Z,112nm,1.1s									
ITAB	Concordia	16.90	91		P		Pn	20 22 24.2	-2.5	
	comp=Z,133nm,2.0s									
ITAB	Concordia	16.90	91		eP		Pn	20 22 25.4	-1.3	
PTLB	Pontes e Lacer	17.05	43				Pn	20 22 27.9	-0.7	
PTLB	Pontes e Lacer	17.05	43		eP		Pn	20 22 28.5	-0.1	
COYC	Coyhaique	17.14	182		P		Pn	20 22 29.5	0.0	
	comp=Z,28nm,0.9s									
PTGB	Pitanga	17.50	82		eP		Pn	20 22 32.6	-1.7	
CNLB	Canela	17.84	98		P		P	20 22 38.4	-0.3	
	comp=Z,100nm,1.0s									
CNLB	Canela	17.84	98		eP		Pn	20 22 36.7	-1.7	
PP1B	Ponte de Pedra	18.45	58		eP		Pn	20 22 45.6	-0.2	
VILB	Vilhena	18.48	36		P		P	20 22 44.9	-0.9	
VILB	Vilhena	18.48	36		eP		Pn	20 22 46.2	0.0	
LDASE	Londrina, Braz	18.73	79		eP		Pn	20 22 48.4	-0.9	
SALV	Santo Antonio	18.97	52		eP		Pn	20 22 51.3	-0.8	
PCMB	Pacaembu	19.28	74		eP		Pn	20 22 54.8	-1.0	
C2SB	Chapadao do Su	19.34	64		P		Pn	20 22 55.5	-1.1	
	comp=Z,82nm,0.7s									
C2SB	Chapadao do Su	19.34	64		eP		Pn	20 22 55.7	-0.8	
GO08	Villa O'Higgin	20.05	183		P		P	20 23 03.4	+0.7	
GO08	Villa O'Higgin	20.05	183		P		Pn	20 23 04.0	-0.7	
	comp=Z,47nm,1.4s									
PDRB	Porto dos Gac	21.50	42		eP		P	20 23 17.8	-0.8	
PET01	Itanhaem-SP	21.81	85		eP		P	20 23 22.3	+0.4	
BB19B	Bebedouro	21.82	75		eP		P	20 23 20.7	-1.3	
SPB	Sao Paulo	21.87	83		P		P	20 23 22.6	+0.1	
	comp=Z,42nm,1.2s									
SPB	Sao Paulo	21.87	83		eP		P	20 23 22.8	+0.3	
ARAG	Araguaiana, MT	21.92	59		eP		P	20 23 22.4	-0.8	
ATAH	Atahualpa	22.23	341		P		P	20 23 28.4	+1.6	
	comp=Z,8.4nm,0.9s,baz=189,slow=9.9,SNR=6.1									
ATAH					LR		LR	20 30 43.5		
	comp=Z,123nm,20.9s,baz=197,slow=33									
	comp=Z,8.4nm,0.9s									
VAO	Valinhos	22.47	82		P		P	20 23 26.5	-2.5	
VAO					IAmb		IAmb	20 23 30.1		
	comp=Z,74nm,0.9s									
VAO	Valinhos	22.47	82		eP		P	20 23 28.3	-0.7	
CLDB	Colider	22.64	43		P		P	20 23 28.8	-2.0	
	comp=Z,31nm,0.9s									
CLDB	Colider	22.64	43		eP		P	20 23 28.9	-2.0	
IPMB	Ipameri, GO	23.49	69		eP		P	20 23 37.8	-1.6	
PARB	Paraibuna	23.54	83		eP		P	20 23 39.1	-0.7	
CANS	Sao Roque de M	23.96	76		eP		P	20 23 44.3	+0.4	
PMNB	Patos De Minas	24.70	72		P		P	20 23 50.0	-0.6	
	comp=Z,25nm,1.4s									
PMNB					pP		pP	20 24 01.1	-1.0	
PMNB	Patos De Minas	24.70	72		eP		P	20 23 50.6	0.0	
SNDB	Serra Nova Dou	24.76	53		eP		P	20 23 49.6	-1.5	
BDFB	Brasilia	24.91	64		P		P	20 23 51.3	-1.2	
	comp=Z,5.1nm,0.5s,baz=242,slow=11,SNR=9.0									
BDFB					LR		LR	20 34 50.8		
	comp=Z,214nm,18.5s,baz=209,slow=39									
	comp=Z,5.1nm,0.5s									
BDFB	Brasilia	24.91	64		P		P	20 23 51.0	-1.5	
EFI	East Falkland	25.24	161	⇓	iP		P	20 23 55.6	+0.6	
EFI					pmax		pmax			
	comp=Z,85nm,1.3s									
NPGB	Novo Progresso	26.00	38		eP		P	20 24 01.1	-1.2	
DIAM	Diamantina, MG	27.14	74		eP		P	20 24 11.1	-1.7	
SJMB	Sao Joao De Ma	29.09	77		eP		P	20 24 28.5	-1.4	
SDBA	SAO DESIDERIO	29.23	62		eP		P	20 24 31.0	-0.4	
BSFB	Barra de Sao F	29.32	78		P		P	20 24 32.1	0.0	
	comp=Z,42nm,1.9s									
BSFB					pP		pP	20 24 43.8	+0.2	
BSFB	Barra de Sao F	29.32	78		eP		P	20 24 31.2	-0.8	
OTAV	Otavalo	29.32	345		P		P	20 24 33.1	+0.6	
OTAV					pmax		pmax			
	comp=Z,13nm,1.2s									
OTAV	Otavalo	29.32	345				P	20 24 33.1	+0.6	
OTAV	Otavalo	29.32	345		P		P	20 24 31.8	-0.7	
	comp=Z,7.8nm,1.0s									
RIB01	Linhares ES	29.52	79		eP		P	20 24 31.8	-2.0	
SMTB	Santa Maria do	29.53	53		P		P	20 24 32.8	-1.1	
SMTB					IAmb		IAmb	20 24 56.8		
	comp=Z,27nm,1.0s									
SMTB	Santa Maria do	29.53	53		eP		P	20 24 33.3	-0.6	
BOAV	Boa Vista	32.30	20		P		P	20 24 57.9	-0.3	
BOAV					IAmb		IAmb	20 25 17.0		
	comp=Z,14nm,0.7s									
BOAV	Boa Vista	32.30	20		eP		P	20 24 58.0	-0.3	
ROSC	El Rosal	33.20	354		P		P	20 25 08.7	+2.1	
	comp=Z,9.0nm,0.4s,baz=122,slow=10,SNR=5.0									
ROSC					LR		LR	20 41 05.2		
	comp=Z,77nm,18.1s,baz=111,slow=41									
	comp=Z,9.0nm,0.4s									
RPN	Rapa Nui	33.68	263		LR		LR	20 34 41.9		
	comp=Z,276nm,18.5s,baz=66,slow=28									
NBPN	Ponto Novo - B	33.87	65		eP		P	20 25 11.0	-1.1	
RUSC	La Rusia	34.15	357		P		P	20 25 16.2	+1.2	
HELC	Santa Helena	34.65	352		P		P	20 25 19.4	+0.2	
HELC					IAmb		IAmb	20 25 21.9		
	comp=Z,33nm,1.2s									
PMSA	Palmer Station	36.66	175		LR		LR	20 39 54.2		
	comp=Z,346nm,18.1s,baz=325,slow=35									
ORCD	Orcadas	36.90	159		P		P	20 25 37.0	-0.5	
NBPS	Pedro II - PI	37.00	55		eP		P	20 25 38.4	-0.6	
SDV	Santo Domingo	37.08	1		LR		LR	20 42 10.2		
	comp=Z,156nm,20.4s,baz=200,slow=38									
SDV	Santo Domingo	37.08	1		P		P	20 25 38.5	-1.3	
NBMA	Muriti-CE	37.08	62		eP		P	20 25 39.2	-0.5	
MDP	Montagnes des	37.81	31		P		P	20 25 44.7	-1.0	
	comp=Z,8.3nm,0.5s,baz=205,slow=7.0,SNR=10									
MDP					LR		LR	20 42 04.8		
	comp=Z,236nm,20.9s,baz=188,slow=37									
	comp=Z,8.3nm,0.5s									
MPGF	Montagnes des	37.82	31		P		P	20 25 44.9	-0.9	
MPGF					pP		pP	20 25 56.4	-1.1	
MPGF					sP		sP	20 26 01.2	-1.3	
SJCC	San Jacinto, C	38.28	354		P		P	20 25 50.1	+0.4	
NBPA	Parau_RN	39.37	62		eP		P	20 25 59.2	+0.3	
URIC	Uribia, Colomb	39.88	359		P		P	20 26 00.1	-3.0	
URIC					IAmb		IAmb	20 26 00.6		
	comp=Z,32nm,1.3s									
RCBR	Riachuelo	40.26	63		LR		LR	20 43 19.2		
	comp=Z,77nm,19.4s,baz=272,slow=37									
JTS	Las Juntas de	40.71	339	⇓	eP		P	20 26 12.0	+2.0	
JTS					pmax		pmax			
	comp=Z,45nm,2.3s									
CRPR	Cabo Rojo, PR	46.31	5		P		P	20 26 54.4	-0.6	
OBIP	Obispado Ponce	46.39	6		P		P	20 26 53.7	-1.9	
OBIP					IAmb		IAmb	20 26 56.6		
	comp=Z,43nm,1.6s									
CELP	Cerrillos	46.43	6		P		P	20 26 53.5	-2.3	
CELP					IAmb		IAmb	20 26 56.3		
	comp=Z,23nm,0.8s									
BANI	BANI	46.53	1		P		P	20 26 57.1	+0.2	
ECPR	Experimental S	46.69	6		P		P	20 26 56.8	-1.2	
TEIG	Tepich	51.09	339		P		P	20 27 32.2	+0.5	
TEIG	Tepich	51.09	339		P		P	20 27 30.7	-1.0	
	comp=Z,83nm,0.8s									
TEIG	Tepich	51.09	339		P		P	20 27 32.5	+0.8	
TEIG					pP		pP	20 27 43.6	+0.3	
TEIG					sP		sP	20 27 48.4	+0.4	
VNA3	Neumayer Olymp	54.28	159	⇑	P		P	20 27 54.8	+0.1	
	comp=Z,20nm,0.6s									
VNA3	Neumayer Olymp	54.28	159		P		P	20 27 54.1	-0.7	
	comp=Z,43nm,1.0s									
VNA3					pP		pP	20 28 07.2	+0.3	
VNA1	Neumayer--Stat	54.56	159		P		P	20 27 57.4	+0.8	
	comp=Z,18nm,1.2s									
VNA2	Neumayer--Watz	54.91	159	⇑	P		P	20 27 59.4	+0.2	
	comp=Z,40nm,0.5s,baz=282,slow=7.7									
VNA2	Neumayer--Watz	54.91	159		P		P	20 27 59.6	+0.3	
	comp=Z,65nm,0.7s									
SNAA	Sanae	56.51	159	⇑	P		P	20 28 10.9	+0.2	
	comp=Z,606nm,0.5s									
SNAA	Sanae	56.51	159		P		P	20 28 10.9	+0.2	
	comp=Z,22nm,0.4s,baz=272,slow=5.9,SNR=6.4									
	comp=Z,22nm,0.4s									
SNAA	Sanae	56.51	159		P		P	20 28 11.0	+0.2	
SNAA					pmax		pmax			
	comp=Z,30nm,0.9s									
SNAA	Sanae	56.51	159		P		P	20 28 10.9	+0.2	
TROLL	Troll, Antarti	58.22	159	⇑	P		P	20 28 23.1	+0.2	
	comp=Z,810nm,0.6s									
NVL	N'lazarevskaya	61.18	158		eP		P	20 28 41.3	-1.8	
NVL					eS		S	20 36 55.9	-3.5	
NVL					pmax		pmax			
	comp=Z,21nm,1.1s									
QSPA	South Pole Qui	61.81	180		P		P	20 28 48.2	+0.6	
	comp=Z,20nm,0.6s,baz=162,slow=1.1,SNR=191									
QSPA					LR		LR	20 55 00.9		
	comp=Z,52nm,19.5s,baz=169,slow=35									
	comp=Z,20nm,0.6s									
QSPA	South Pole Qui	61.81	180		P		P	20 28 47.8	+0.1	
QSPA	South Pole Qui	61.81	180		P		P	20 28 48.2	+0.6	
QSPA					pP		pP	20 29 00.0	+0.1	
QSPA					sP		sP	20 29 04.9	+0.2	
HKT	Hockley	62.63	336	⇓	eP		P	20 28 52.6	-0.6	
HKT					pmax		pmax			
	comp=Z,19nm,1.6s									
HNDO	Hondo	63.56	333		IAmb		IAmb	20 29 02.1		
	comp=Z,14nm,0.8s									
FPAL	Fort Paine	64.08	347		P		P	20 29 03.6	+0.7	
FPAL					IAmb		IAmb	20 31 15.4		
	comp=Z,34nm,1.9s									
HPIG		64.21	326		IAmb		IAmb	20 29 06.9		
	comp=Z,19nm,1.3s									
HPIG		64.21	326		P		P	20 29 03.8	-0.3	
	comp=Z,14nm,1.1s									
X48A	Hartselle	64.30	345		IAmb		IAmb	20 29 05.2		
	comp=Z,17nm,1.1s									
LPIG	La Paz	64.38	320		LR		LR	20 51 33.5		
	comp=Z,60nm,21.6s,baz=206,slow=31									
CPCT	Cooper Cave	64.75	348		IAmb		IAmb	20 29 07.6		
	comp=Z,14nm,1.1s									
SWET	Sewanee	64.80	347		IAmb		IAmb	20 29 08.3		
	comp=Z,16nm,0.8s									
TKL	Tuckaleechee C	64.82	349		IAmb		IAmb	20 29 07.8		
	comp=Z,12nm,0.9s									
BRDY	Brady	65.01	334		IAmb		IAmb	20 29 11.1		
	comp=Z,11nm,0.9s									
SAND	Sanderson	65.13	331		IAmb		IAmb	20 29 12.6		
	comp=Z,27nm,1.2s									
TXAR	Lajitas Array	65.28	329		P		P	20 29 12.3	+1.5	
	comp=Z,4.0nm,0.8s,baz=153,slow=8.7,SNR=38									
	comp=Z,4.0nm,0.8s									
TXAR	Lajitas Array	65.28	329				P	20 29 12.0	+1.1	
OZNA	Ozona	65.54	332		IAmb		IAmb	20 29 14.8		
	comp=Z,24nm,1.2s									
WVT	Waverly	66.08	345		P		P	20 29 14.9	-0.9	
WVT					pmax		pmax			
	comp=Z,14nm,1.0s									
WVT	Waverly	66.08	345		P		P	20 29 14.9	-0.9	
WVT					IAmb		IAmb	20 29 16.4		
	comp=Z,14nm,1.0s									
WVT	Waverly	66.08	345		P		P	20 29 15.5	-0.2	
	comp=Z,16nm,1.0s									
WVT	Waverly	66.08	345		P		P	20 29 15.5	-0.2	
WVT					sP		pP	20 29 32.4	+4.3	
ALPN	Alpine	66.15	330		IAmb		IAmb	20 29 18.9		
	comp=Z,31nm,1.7s									
SGCY	Sterling City	66.41	332		IAmb		IAmb	20 29 20.1		
	comp=Z,17nm,1.0s									
TMB01	Midkiff	66.59	332		IAmb		IAmb	20 29 21.6		
	comp=Z,12nm,1.1s									
MNHN	Monahans	66.60	331		IAmb		IAmb	20 29 21.2		
	comp=Z,11nm,0.7s									
TPB01	Permian Basin	66.70	330		IAmb		IAmb	20 29 22.7		
	comp=Z,15nm,1.0s									
T47A	Sharon Grove	66.75	346		IAmb		IAmb	20 29 20.9		
	comp=Z,22nm,1.1s									
LCAR	Lake Charles	66.84	342		IAmb		IAmb	20 29 21.4		
	comp=Z,13nm,0.7s									
PECS	Pecos	67.11	330		IAmb		IAmb	20 29 25.4		
	comp=Z,25nm,1.5s									
VHRN	Van Horn	67.11	329		IAmb		IAmb	20 29 25.9		
	comp=Z,28nm,1.6s									
APMT	Aspermont	67.25	334				P	20 29 23.3	-0.1	
APMT					IAmb		IAmb	20 29 26.3		
	comp=Z,19nm,1.0s									
SN07	Snyder 07	67.35	333		IAmb		IAmb	20 29 25.8		
	comp=Z,14nm,1.1s									
TAOE	Nuku Hiva Isla	67.36	272	e	LR		LR	20 49 41.3		
	comp=Z,683nm,27.1s									
X34A	Smith Ranch, M	67.55	336		P		P	20 29 25.8	+0.6	
X34A					IAmb		IAmb	20 29 27.2		
	comp=Z,24nm,1.1s									
POST	Post	67.57	333		P		P	20 29 24.6	-0.9	
POST					IAmb		IAmb	20 29 27.2		
	comp=Z,26nm,1.6s									
128A	Castleberry Fa	67.59	332		P		P	20 29 25.8	+0.2	
128A					IAmb		IAmb	20 29 27.8		
	comp=Z,14nm,1.3s									
TPB28		67.64	330		P		P	20 29 27.2	+1.2	
TPB28					IAmb		IAmb	20 29 29.0		
	comp=Z,31nm,1.5s									
TPB11	China Draw	67.66	330		P		P	20 29 28.2	+2.2	
HHAR	Hobbs	67.82	340		IAmb		IAmb	20 29 29.2		
	comp=Z,30nm,1.5s									
DKNS	Dickens	67.87	333				P	20 29 28.0	+0.7	
S44A	Carbondale	67.91	345		P		P	20 29 27.5	+0.2	
GDL2	Guadalupe Moun	68.03	330		P		P	20 29 28.9	+0.5	
MNTX	Cornudas Mount	68.06	329		IAmb		IAmb	20 29 29.9		
	comp=Z,18nm,1.4s									
MNTX	Cornudas Mount	68.06	329		P		P	20 29 26.9	-1.6	
	comp=Z,11nm,1.1s									
OK052	Battle Ridge R	68.46	338		IAmb		IAmb	20 29 32.4		
	comp=Z,18nm,1.0s									
HSIG		68.61	323		IAmb		IAmb	20 29 34.9		
	comp=Z,40nm,1.9s									
CCM	Cathedral Cave	68.74	343		P		P	20 29 32.6	+0.1	
CCM					pmax		pmax			
	comp=Z,14nm,0.8s									
CCM	Cathedral Cave	68.74	343		P		P	20 29 32.6	+0.1	
CCM					IAmb		IAmb	20 29 33.9		
	comp=Z,14nm,0.8s									
CCM	Cathedral Cave	68.74	343		P		P	20 29 31.0	-1.5	
	comp=Z,21nm,0.9s									
CCM	Cathedral Cave	68.74	343		P		P	20 29 32.9	+0.4	
CCM					pP		pP	20 29 45.0	+0.1	
CCM					sP		sP	20 29 49.4	-0.3	
CCM					PcP		PcP	20 29 57.5	+0.5	
MSTX	Muleshoe	68.88	332		IAmb		IAmb	20 29 35.5		
	comp=Z,28nm,1.1s									
OK048	Pawnee Station	68.89	338		IAmb		IAmb	20 29 35.2		
	comp=Z,22nm,0.9s									
S39A	Bolivar	68.95	341		IAmb		IAmb	20 29 35.5		
	comp=Z,17nm,0.9s									
AMTX	Amarillo	69.23	334		IAmb		IAmb	20 29 38.5		
	comp=Z,18nm,1.2s									
TBI	Tubuai	69.44	254	e	LR		LR	20 50 48.7		
	comp=Z,923nm,30.8s									
VNDA	Vanda	69.71	191		P		P	20 29 39.2	+1.1	
	comp=Z,2.4nm,0.7s,baz=122,slow=5.8,SNR=18									
VNDA					LR		LR	20 56 59.0		
	comp=Z,25nm,19.8s,baz=138,slow=33									
	comp=Z,2.4nm,0.7s									
VNDA	Vanda	69.71	191		P		P	20 29 39.6	+1.4	
VNDA					pmax		pmax			
	comp=Z,3.0nm,0.8s									
VNDA	Vanda	69.71	191				P	20 29 39.6	+1.4	
VNDA	Vanda	69.71	191		P		P	20 29 38.0	-0.1	
	comp=Z,5.7nm,1.6s									
VNDA	Vanda	69.71	191		P		P	20 29 39.7	+1.6	
VNDA					PcP		PcP	20 30 02.5	+1.7	
TUC	Tucson	71.15	325		P		P	20 29 49.1	+1.5	
TUC					pmax		pmax			
	comp=Z,16nm,1.7s									
TUC	Tucson	71.15	325				P	20 29 49.1	+1.5	
TUC	Tucson	71.15	325		P		P	20 29 45.7	-1.9	
	comp=Z,7.7nm,2.3s									
TUC	Tucson	71.15	325		P		P	20 29 49.1	+1.5	
TUC					sP		sP	20 30 05.7	+1.1	
TUC					PcP		PcP	20 30 08.8	+1.3	
ANMO	Albuquerque	71.28	330	⇑	iP		P	20 29 49.6	+1.1	
ANMO					pmax		pmax			
	comp=Z,8.0nm,1.2s									
ANMO	Albuquerque	71.28	330		P		P	20 29 48.3	-0.2	
PPT2	Papeete2	71.86	259	e	P		P	20 29 53.1	+0.8	
	comp=Z,35nm,26.0s									
PPT2				e	S		S	20 39 15.4	+5.0	
	comp=Z,32nm,26.0s									
PPT2				e	LQ		LQ	20 48 47.3		
	comp=Z,110nm,23.0s									
PPT2				e	LR		LR	20 51 51.9		
	comp=Z,158nm,22.5s									
PPT2				e	LR		LR	20 51 55.3		
	comp=Z,166nm,25.0s									
T25A	Trinidad	72.28	333		IAmb		IAmb	20 29 57.5		
	comp=Z,29nm,1.4s									
X18A	Snowflake	72.54	327		IAmb		IAmb	20 29 59.1		
	comp=Z,22nm,1.6s									
DBIC	Dimbokro	72.75	72		P		P	20 29 57.2	-0.2	
	comp=Z,14nm,0.7s,baz=247,slow=6.0,SNR=16									
DBIC					LR		LR	20 59 53.7		
	comp=Z,63nm,20.2s,baz=210,slow=34									
	comp=Z,14nm,0.7s									
DBIC	Dimbokro	72.75	72				P	20 29 57.2	-0.2	
DBIC					IAmb		IAmb	20 29 58.1		
	comp=Z,17nm,0.8s									
DBIC	Dimbokro	72.75	72		P		P	20 29 57.3	-0.2	
DBIC					pP		pP	20 30 08.9	-1.1	
MVCO	Mesa Verde	74.08	330		IAmb		IAmb	20 30 08.1		
	comp=Z,20nm,1.1s									
MVCO	Mesa Verde	74.08	330		P		P	20 30 05.2	+0.1	
	comp=Z,21nm,1.6s									
Q24A	Divide	74.15	333		IAmb		IAmb	20 30 08.4		
	comp=Z,19nm,1.0s									
PV01	Paradox Valley	74.88	330		IAmb		IAmb	20 30 13.6		
	comp=Z,31nm,1.2s									
ISCO	Idaho Springs	75.05	333		P		P	20 30 11.2	+0.4	
	comp=Z,12nm,2.1s									
PFO	Pinyon Flats O	75.13	322	i	P		P	20 30 14.1	+2.9	
PFO	Pinyon Flats O	75.13	322				P	20 30 13.1	+1.9	
PFO	Pinyon Flats O	75.13	322		P		P	20 30 11.1	-0.1	
ECSD	EROS Data Cent	75.48	341		IAmb		IAmb	20 30 14.4		
	comp=Z,20nm,0.9s									
ECSD	EROS Data Cent	75.48	341		P		P	20 30 11.9	-0.9	
	comp=Z,30nm,0.9s									
KNB	Kanab	75.92	327		IAmb		IAmb	20 30 20.0		
	comp=Z,35nm,1.3s									
CCD	Concordia, Ant	76.31	184		P		P	20 30 18.1	+0.4	
CCD					pP		PcP	20 30 30.1	+0.6	
O20A	White River Ci	76.40	332		IAmb		IAmb	20 30 21.3		
	comp=Z,23nm,0.9s									
SZCU	Shurtz Canyon	76.51	327		IAmb		IAmb	20 30 22.5		
	comp=Z,

	comp=Z,18nm,1.1s								
ULM	**Lac du Bonnet**	**81.32**	**344**	P	**P**	**20 30 44.9**	**+0.1**		
	comp=Z,10nm,0.7s,baz=180,slow=5.6,SNR=13								
	comp=Z,10nm,0.7s								
ULM	**Lac du Bonnet**	**81.32**	**344**	IAmb	IAmb	20 30 46.0			
	comp=Z,23nm,1.1s								
YHH	**Holmes Hill**	**81.34**	**333**	IAmb	IAmb	20 30 48.3			
	comp=Z,14nm,1.0s								
TORD	**Torodi Ar. Bea**	**81.63**	**70**	P	**P**	**20 30 46.6**	**-0.7**		
	comp=Z,11nm,0.6s,baz=262,slow=4.7,SNR=41								
	comp=Z,11nm,0.6s								
HLID	**Hailey**	**81.86**	**330**	IAmb	IAmb	20 30 51.0			
	comp=Z,13nm,1.1s								
HLID	**Hailey**	**81.86**	**330**	P	**P**	**20 30 47.3**	**-0.8**		
	comp=Z,14nm,1.0s								
BCYI	**Bear Canyon**	**82.02**	**331**	IAmb	IAmb	20 30 51.8			
	comp=Z,20nm,1.5s								
BOSA	**Boshof**	**82.04**	**118**	P	**P**	**20 30 49.1**	**-0.4**		
	comp=Z,18nm,0.7s,baz=255,slow=3.3,SNR=50								
BOSA				LR	LR	21 01 31.0			
	comp=Z,84nm,21.6s,baz=206,slow=31								
	comp=Z,18nm,0.7s								
BOSA	**Boshof**	**82.04**	**118**	IAmb	IAmb	20 30 49.9			
	comp=Z,21nm,0.9s								
BOSA	**Boshof**	**82.04**	**118**	P	**P**	**20 30 47.8**	**-1.7**		
	comp=Z,28nm,1.0s								
BOSA	**Boshof**	**82.04**	**118**	P	**P**	**20 30 49.1**	**-0.4**		
BOSA				pP	**pP**	**20 31 01.1**	**-1.1**		
GRTLG	**Ghanzi**	**82.13**	**110**	IAmb	IAmb	20 30 50.8			
	comp=Z,15nm,0.7s								
ORV	**Oroville**	**82.26**	**323**	IAmb	IAmb	20 30 53.0			
	comp=Z,22nm,1.2s								
DLMT	**Dillon**	**82.52**	**332**	IAmb	IAmb	20 30 54.0			
	comp=Z,12nm,1.1s								
O03E	**Paynes Creek**	**82.95**	**323**	IAmb	IAmb	20 30 55.2			
	comp=Z,12nm,1.0s								
SCHQ	**Schefferville**	**82.99**	**3**	P	**P**	**20 30 54.6**	**+1.1**		
	comp=Z,9.9nm,1.1s,baz=135,slow=5.7,SNR=2.5								
	comp=Z,9.9nm,1.1s								
SCHQ	**Schefferville**	**82.99**	**3**	P	**P**	**20 30 53.5**	**+0.1**		
MAKGR	**Makgori**	**82.99**	**115**	IAmb	IAmb	20 30 55.5			
	comp=Z,16nm,1.1s								
MOD	**Modoc Plateau**	**83.37**	**325**	IAmb	IAmb	20 30 57.9			
	comp=Z,8.9nm,0.8s								
J08A	**Circle Bar Ran**	**83.57**	**327**	IAmb	IAmb	20 30 59.4			
	comp=Z,16nm,0.8s								
EGMT	**Eagleton**	**83.59**	**335**	IAmb	IAmb	20 30 58.5			
	comp=Z,26nm,1.5s								
PLID	**Pearl Lake**	**83.76**	**330**	IAmb	IAmb	20 31 00.1			
	comp=Z,13nm,0.9s								
LBTB	**Lobatse**	**84.00**	**115**	LR	LR	21 07 37.6			
	comp=Z,39nm,19.2s,baz=194,slow=35								
LBTB	**Lobatse**	**84.00**	**115**	P	**P**	**20 30 57.3**	**-2.4**		
	comp=Z,39nm,0.8s								
LBTB	**Lobatse**	**84.00**	**115**	P	**P**	**20 30 59.3**	**-0.4**		
LBTB				pP	**pP**	**20 31 11.2**	**-1.2**		
LBTB				sP	**sP**	**20 31 16.3**	**-1.0**		
BMO	**Blue Mountains**	**84.17**	**329**	IAmb	IAmb	20 31 08.9			
	comp=Z,18nm,1.8s								
TIO	**Tiouine**	**84.80**	**51**	P	**P**	**20 31 02.5**	**-1.0**		
	comp=Z,30nm,1.2s								
TIO				pP	**pP**	**20 31 16.4**	**+0.2**		
F10A	**Beach Ranch, E**	**85.00**	**330**	IAmb	IAmb	20 31 09.8			
	comp=Z,18nm,1.4s								
PINE	**Pine Mountain**	**85.08**	**326**	IAmb	IAmb	20 31 07.3			
	comp=Z,14nm,0.9s								
CASY	**Casey**	**85.60**	**181**	P	**P**	**20 31 07.7**	**+0.8**		
HAWA	**Hanford**	**86.35**	**329**	IAmb	IAmb	20 31 13.0			
	comp=Z,10nm,0.9s								
NEW	**Newport**	**86.72**	**331**	LR	LR	21 06 22.8			
	comp=Z,35nm,21.8s,baz=106,slow=33								
MD31	**MD31**	**87.66**	**51**	P	**P**	**20 31 17.9**	**+0.4**		
MD31				IAmb	IAmb	20 31 32.6			
	comp=Z,11nm,1.6s								
MDT	**Midelt**	**87.74**	**51**	LR	LR	21 09 26.0			
	comp=Z,92nm,20.2s,baz=234,slow=35								
URZ	**Urewera**	**87.97**	**227**	LR	LR	21 02 10.7			
	comp=Z,49nm,19.0s,baz=166,slow=30								
SHUK	**Shuksan-Mt. Ba**	**89.15**	**329**	IAmb	IAmb	20 31 25.1			
	comp=Z,8.8nm,0.9s								
TAM	**Tamanrasset**	**89.74**	**64**	P	**P**	**20 31 27.4**	**-0.2**		
TAM				pmax	pmax				
	comp=Z,33nm,0.2s								
TAM	**Tamanrasset**	**89.74**	**64**		**P**	**20 31 27.4**	**-0.2**		
TAM	**Tamanrasset**	**89.74**	**64**	P	**P**	**20 31 26.2**	**-1.4**		
	comp=Z,3.8nm,2.8s								
TAM				pP	**pP**	**20 31 40.0**	**-0.6**		
ESDC	**Sonseca Array**	**92.17**	**45**	P	**P**	**20 31 37.3**	**-1.0**		
	comp=Z,0.5nm,0.8s,baz=244,slow=5.1,SNR=4.4								
ESDC				LR	LR	21 11 48.3			
	comp=Z,81nm,18.3s,baz=250,slow=35								
	comp=Z,0.5nm,0.8s								
ESDC	**Sonseca Array**	**92.17**	**45**	P	**P**	**20 31 37.6**	**-0.7**		
AFI	**Afiamalu**	**92.53**	**253**	LR	LR	21 03 45.8			
	comp=Z,70nm,21.9s,baz=30,slow=29								
YKA	**Yellowknife Ar**	**97.01**	**341**	P	Pdif	20 31 60.0	0.0		
	comp=Z,1.5nm,0.6s,baz=144,slow=4.0,SNR=8.8								
	comp=Z,1.5nm,0.6s								
YKA	**Yellowknife Ar**	**97.01**	**341**	P	Pdif	20 32 00.1	+0.1		
YKA	**Yellowknife Ar**	**97.01**	**341**	P	Pdif	20 32 00.1	+0.1		
AKASG	**Malin Array Be**	**117.81**	**45**	PKP	**PKPdf**	**20 37 13.8**	**-0.8**		
	comp=Z,1.3nm,0.5s,baz=266,slow=2.7,SNR=10.0								
AKBB	**Malin Array Si**	**117.81**	**45**	*i* PKIKP	**PKPdf**	**20 37 13.7**	**-0.9**		
MMAI	**Mount Meron Ar**	**117.91**	**66**	PKP	**PKiKP**	**20 37 15.3**	**-0.2**		
	comp=Z,1.8nm,0.8s,baz=38,slow=4.2,SNR=4.6								
BR131	**Keskin Array S**	**118.37**	**58**	PKIKP	**PKPdf**	**20 37 15.7**	**-0.6**		
BR131	**Keskin Array S**	**118.37**	**58**		**PKPdf**	**20 37 15.7**	**-0.6**		
BRTR	**Keskin Array B**	**118.37**	**58**	PKP	**PKiKP**	**20 37 16.2**	**-0.1**		
	comp=Z,1.6nm,0.7s,baz=191,slow=2.2,SNR=10								
OBN	**Obninsk**	**122.81**	**41**	*i* PKIKP	**PKiKP**	**20 37 24.3**	**0.0**		
OBN				*e*		20 39 00.4			
OBN				*e*PPP	PPP	20 41 37.2			
OBN				pmax	pmax				
	comp=Z,10.0nm,1.0s								
OBN				MLR	MLR				
	comp=Z,38nm,14.0s								
AS17	**Alice Springs**	**122.82**	**208**	P	**PKPdf**	**20 37 24.8**	**-0.5**		
ASAR	**Alice Springs**	**122.85**	**208**	PKP	**PKPdf**	**20 37 24.8**	**-0.6**		
	comp=Z,2.6nm,0.7s,baz=135,slow=1.7,SNR=26								
AS31	**Alice Springs**	**122.86**	**208**		**PKPdf**	**20 37 24.6**	**-0.8**		
AS15	**Alice Springs**	**122.88**	**208**	P	**PKPdf**	**20 37 24.9**	**-0.6**		
VSLR	**Vesyoloye**	**123.82**	**55**	*i* PKIKP	**PKiKP**	**20 37 27.0**	**+0.3**		
KLMR	**Klimovskoe**	**124.42**	**34**	*e*PKIKP	**PKPdf**	**20 37 25.6**	**-1.4**		
KLMR				pmax	pmax				
	comp=Z,25nm,1.5s								
KIV	**Kislovodsk**	**125.80**	**55**	*e*PKIKP	**PKiKP**	**20 37 31.1**	**+0.4**		
KIV				pmax	pmax				
	comp=Z,9.0nm,1.1s								
WR8	**Warramunga Arr**	**125.88**	**210**		**PKPdf**	**20 37 30.9**	**-0.4**		
KBZ	**Khabaz**	**125.92**	**55**	PKP	**PKPdf**	**20 37 30.1**	**-0.3**		
	comp=Z,2.6nm,0.8s,baz=13,slow=1.5,SNR=4.4								
KBZ	**Khabaz**	**125.92**	**55**	*i* PKIKP	**PKiKP**	**20 37 31.7**	**+0.9**		
WRA	**Warramunga Arr**	**125.97**	**210**	PKP	**PKPdf**	**20 37 31.2**	**-0.2**		
	comp=Z,5.4nm,0.6s,baz=166,slow=1.7,SNR=63								
WRA	**Warramunga Arr**	**125.97**	**210**		**PKPdf**	**20 37 31.0**	**-0.4**		
WRAB	**Tennant Creek**	**125.97**	**210**	*i* PKIKP	**PKPdf**	**20 37 31.2**	**-0.2**		
BILL	**Bilibino**	**128.08**	**336**	*i* PKIKP	**PKPdf**	**20 37 33.6**	**-0.2**		
KIRV	**Kirov**	**129.65**	**36**	*i* PKIKP	**PKiKP**	**20 37 38.2**	**+0.4**		
ARTI	**Arti**	**134.87**	**37**	PKIKP	**PKiKP**	**20 37 47.4**	**-1.1**		
ARTI	**Arti**	**134.87**	**37**		**PKiKP**	**20 37 47.4**	**-1.1**		
SEY	**Seymchan**	**135.47**	**333**	*i* PKIKP	**PKiKP**	**20 37 49.1**	**-0.4**		
PETK	**Petropavlovsk-**	**136.62**	**319**	PKP	**PKPdf**	**20 37 50.0**	**-0.3**		
	comp=Z,2.7nm,0.8s,baz=52,slow=2.6,SNR=2.0								
ABKAR	**Akbulak array**	**137.50**	**47**		**PKPdf**	**20 37 52.5**	**+0.4**		
BORK	**Borovoye**	**142.52**	**38**	*e*PKIKP	**PKPdf**	**20 38 00.1**	**-1.0**		
BVAR	**Borovoye Array**	**142.57**	**38**	PKhKP	PKPpre	20 37 55.7			
	comp=Z,2.8nm,0.5s,baz=29,slow=3.3,SNR=7.5								
YAK	**Yakutsk**	**143.66**	**344**	*d* PKIKP	PKPbc	20 38 00.5	+0.1		
YAK				*e*		20 38 12.0			
YAK				*e*		20 41 13.1			
YAK				*e*SS	SS	20 59 53.0	-1.0		
YAK				pmax	pmax				
	comp=Z,26nm,0.9s								
YAK				pmax	pmax				
	comp=N,8.0nm,1.5s								
YAK				pmax	pmax				
	comp=E,3.0nm,0.9s								
YAK				pmax	pmax				
	comp=Z,195nm,6.0s								
YAK				pmax	pmax				
	comp=N,72nm,2.7s								
YAK				pmax	pmax				
	comp=E,137nm,3.6s								
YAK	**Yakutsk**	**143.66**	**344**		PKPbc	20 38 00.5	+0.1		
KAPI	**Kappang**	**145.14**	**199**	PKIKP	**PKPdf**	**20 38 06.7**	**-0.2**		
KAPI	**Kappang**	**145.14**	**199**		**PKPdf**	**20 38 06.7**	**-0.2**		
KKAR	**Karatay Array**	**145.96**	**54**	PKP2	**PKPbc**	**20 38 08.0**	**-0.3**		
KKAR	**Karatay Array**	**145.96**	**54**		**PKPbc**	**20 38 08.0**	**-0.3**		
YSS	**Yuzhno-Sakhali**	**147.72**	**314**	*e*PKP2	**PKPbc**	**20 38 12.6**	**-0.5**		
LUWI	**Luwuk**	**147.80**	**207**		**PKPdf**	**20 38 11.0**	**-0.4**		
KURK	**Kurchatov**	**148.15**	**37**	*de*PKIKP	**PKPdf**	**20 38 11.9**	**+1.1**		
KURK	**Kurchatov**	**148.15**	**37**		**PKPdf**	**20 38 10.8**	**0.0**		
KURBB	**Kurchatov Arra**	**148.15**	**37**	PKPbc	**PKPbc**	**20 38 12.1**	**-2.0**		
	comp=E,12nm,0.6s,baz=304,slow=3.0,SNR=54								
AAK	**Ala-Archa**	**148.91**	**54**	*ce*PKIKP	**PKPdf**	**20 38 13.7**	**+1.1**		
AAK	**Ala-Archa**	**148.91**	**54**		**PKPdf**	**20 38 12.5**	**-0.1**		
ZALV	**Zalesovo Beam**	**149.04**	**28**	PKP	**PKPdf**	**20 38 12.9**	**+0.8**		
	comp=E,43nm,0.6s,baz=269,slow=2.5,SNR=76								
ZALV				PKPbc	**PKiKP**	**20 38 16.6**	**-1.0**		
	comp=E,44nm,0.6s,baz=304,slow=2.3,SNR=78								
ZALV	**Zalesovo Beam**	**149.04**	**28**		**PKPdf**	**20 38 12.3**	**+0.1**		
NIL	**Nilore**	**149.19**	**71**	PKIKP	**PKPdf**	**20 38 13.0**	**-0.2**		
NIL						20 38 17.4			
NIL	**Nilore**	**149.19**	**71**		**PKPdf**	**20 38 13.0**	**-0.2**		
NIL					**PKPbc**	**20 38 17.4**	**0.0**		
BOD	**Bodaibo**	**150.38**	**354**	*e*PKIKP	**PKPbc**	**20 38 17.7**	**-1.8**		
BOD				pmax	pmax				
	comp=Z,100nm,1.4s								
KSH2	**Kashi**	**150.52**	**60**	PKPbc	**PKPdf**	**20 38 16.6**	**+1.4**		
KSH2				pPKP	PKPab	20 38 28.0	+0.6		
TOLI2	**Tolitoli**	**150.54**	**205**		**PKPbc**	**20 38 20.1**	**-1.2**		
ZEA	**Zeya**	**151.30**	**337**	*e*PKIKP	**PKiKP**	**20 38 22.1**	**-0.2**		
ZEA				pmax	pmax				
	comp=Z,10.0nm,1.1s								
MAKZ	**Makanchi**	**152.12**	**42**	PKIKP	**PKPbc**	**20 38 23.6**	**-0.3**		
MAKZ	**Makanchi**	**152.12**	**42**		**PKPbc**	**20 38 23.6**	**-0.3**		
MK31	**Makanchi Array**	**152.31**	**41**	*ce*PKIKP	**PKPdf**	**20 38 16.7**	**-0.8**		
MKAR	**Makanchi Array**	**152.31**	**41**	PKP	**PKPdf**	**20 38 17.4**	**-0.2**		
	comp=Z,1.6nm,0.7s,baz=337,slow=0.8,SNR=7.4								
MKAR				PKPbc	**PKiKP**	**20 38 24.5**	**-0.2**		
	comp=Z,16nm,0.6s,baz=293,slow=1.9,SNR=98								
MKAR				PKPab	**PKPab**	**20 38 35.8**	**+1.3**		
	comp=Z,5.0nm,0.6s,baz=342,slow=1.5,SNR=5.8								
MKAR	**Makanchi Array**	**152.31**	**41**		**PKPdf**	**20 38 17.2**	**-0.3**		
MKAR					**PKPbc**	**20 38 24.0**	**-0.3**		
MKAR					**PKPab**	**20 38 35.2**	**+0.8**		
DGZ	**Jazzator, Alta**	**153.20**	**32**	*i* PKIKP	**PKiKP**	**20 38 26.7**	**+0.2**		
MJAR	**Matsushiro Arr**	**153.98**	**296**	PKPbc	**PKiKP**	**20 38 28.6**	**+0.2**		
	comp=Z,1.7nm,0.8s,baz=138,slow=3.1,SNR=5.5								
MJAR				PKPab	**pPKPbc**	**20 38 42.8**	**+1.3**		
	comp=Z,5.9nm,0.7s,baz=114,slow=2.4,SNR=14								
MJAR	**Matsushiro Arr**	**153.98**	**296**	PKIKP	**PKPdf**	**20 38 20.5**	**+0.2**		
MJAR						20 38 28.6			
MJAR	**Matsushiro Arr**	**153.98**	**296**	PKPdf	**PKPdf**	**20 38 20.5**	**+0.2**		
MJAR					**PKiKP**	**20 38 28.6**	**+0.2**		
HEH	**HeiHe**	**154.01**	**332**	*e*P	**PKPbc**	**20 38 27.4**	**-0.5**		
HEH				pmax	pmax				
	comp=Z,7.0nm,0.7s								
HEH				pmax	pmax				
	comp=Z,92nm,6.5s								
USRK	**Ussuriysk Ar.**	**155.68**	**317**	PKPab	**PKPab**	**20 38 49.9**	**+1.1**		
	comp=Z,1.9nm,0.5s,baz=19,slow=5.0,SNR=6.7								
USRK	**Ussuriysk Ar.**	**155.68**	**317**		**PKPab**	**20 38 49.6**	**+0.9**		
KNGR	**Kungurtug, Tuv**	**156.24**	**18**	*e*PKIKP	**PKPdf**	**20 38 24.1**	**+1.1**		
WMQ	**Urumqi**	**157.13**	**42**	*e*PKP	**PKPdf**	**20 38 21.8**	**-2.6**		
SONM	**Songino Array**	**160.52**	**5**	PKP	**PKPdf**	**20 38 28.6**	**+0.3**		
	comp=Z,0.9nm,0.8s,baz=334,slow=6.6,SNR=5.0								
SONM				PKPab	**PKPab**	**20 39 10.3**	**+0.7**		
	comp=Z,0.4nm,0.6s,baz=340,slow=3.0,SNR=4.1								
SONM	**Songino Array**	**160.52**	**5**		**PKPdf**	**20 38 28.4**	**+0.1**		
ULN	**Ulaanbaatar**	**160.53**	**4**	PKP2	**PKPab**	**20 39 10.4**	**+0.7**		
ULN	**Ulaanbaatar**	**160.53**	**4**		**PKPab**	**20 39 10.4**	**+0.7**		
GOMU	**GeErMu**	**165.86**	**53**	PKP	**PKPdf**	**20 38 34.8**	**+0.7**		
CMAR	**Chiang Mai Arr**	**166.59**	**135**	PKP	**PKPdf**	**20 38 35.4**	**+0.7**		
	comp=Z,0.4nm,0.2s,baz=208,slow=0.9,SNR=6.3								
CMAR				PKPab	**PKPab**	**20 39 36.3**	**-0.7**		
	comp=Z,0.4nm,0.3s,baz=239,slow=5.9,SNR=5.0								
CMAR	**Chiang Mai Arr**	**166.59**	**135**		**PKPdf**	**20 38 35.0**	**+0.3**		
CMAR					**PKPab**	**20 39 33.9**	**-3.1**		
GTA2	**Gaotai**	**166.65**	**32**	PKP	**PKPdf**	**20 38 35.5**	**+1.2**		
GTA2				pPKP	pPKPdf	20 38 44.5	-3.0		
CHTO	**Chiang Mai**	**166.85**	**134**	PKP2	**PKPab**	**20 39 36.9**	**-1.2**		
CHTO	**Chiang Mai**	**166.85**	**134**		**PKPab**	**20 39 36.9**	**-1.2**		
HHC	**Hu-ho-hao-te**	**167.39**	**350**	*e*P	**PKPdf**	**20 38 35.9**	**+1.1**		
NJ2	**Nanjing**	**170.59**	**295**	*e*P	**PKPdf**	**20 38 36.9**	**0.0**		
NJ2				pmax	pmax				
	comp=Z,6.0nm,0.5s								
LZH	**Lanzhou**	**171.27**	**28**	*e*P	**PKPdf**	**20 38 38.5**	**+1.1**		
CD2	**Chengdu**	**174.95**	**59**	PKP	**PKPdf**	**20 38 38.5**	**-0.3**		

NEIC ***16*** *20:29:52.9±1.1, 54.°38N±0.°04×159.°74W±0.°08, h10km±1km, ML3.6/32, ML3.5(AEIC), Error ellipse: s-maj=8.1km s-min=6.2km az=80.0*

AEIC ***16*** *20:29:55.9±1.2, 54.°42N±0.°05×159.°80W±0.°07, h15km±5km, Error ellipse: s-maj=7.2km s-min=5.4km az=150.0*

IDC ***16*** *20:29:56.2±2.0, 55.°16N×160.°49W, h0km, mb3.7/5, mbtmp3.6/6, ML2.9/1, MS3.8/5, Error ellipse: s-maj=46.0km s-min=25.4km az=173.0*

ISC 16 20:29:54.9±1.3, 54.°46N±0.°09×159.°75W±0.°04, h22km±7km, n92, σ0°87/94, mb3.8/5, MS4.0/5, South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
CNBA	**Chernabura Isl**	**0.37**	**15**			**Pb**	**20 30 03.5**	**+0.7**
CNBA						**Sb**	**20 30 08.6**	**+0.4**
CNBA					IAML		20 30 10.9	
	comp=E,6μm,0.5s							
SDPT	**Sand Point**	**0.98**	**335**	Pg	**Pn**	**Pn**	**20 30 12.9**	**-0.4**
SDPT				Sn	**Sb**	**Sb**	**20 30 25.3**	**-0.5**
SDPT					IAML		20 30 28.6	
	comp=E,2μm,0.7s							
DOL	**Dolgoi Island**	**1.40**	**300**			**Pn**	**20 30 18.5**	**-0.7**
DOL						**Sn**	**20 30 36.5**	**-0.5**
PVV	**Pavlof Volcano**	**1.49**	**309**			**Pn**	**20 30 20.5**	**+0.2**
PS1A	**Pavlof South-1**	**1.50**	**311**			**Pn**	**20 30 20.6**	**+0.2**
PS1A						**Sb**	**20 30 40.0**	**-0.6**
PS4A	**Pavlof South-4**	**1.50**	**307**			**Pn**	**20 30 20.5**	**-0.1**
PS4A						**Sb**	**20 30 40.5**	**-0.2**
PS4A						**Sn**	**20 30 40.7**	**+1.2**
VNKR	**Veniaminof 5**	**1.59**	**8**			**Pn**	**20 30 22.5**	**+0.7**
DT1	**Dutton Round H**	**1.60**	**295**			**Pn**	**20 30 21.2**	**-0.7**
DT1						**Sn**	**20 30 40.9**	**-1.0**
DTNA	**Dutton South F**	**1.60**	**296**			**Pn**	**20 30 21.6**	**-0.3**
DTNA						**Sn**	**20 30 41.8**	**-0.1**
PN7A	**Pavlof North-7**	**1.62**	**308**			**Pn**	**20 30 22.6**	**+0.4**
VNWF	**Veniaminof 8**	**1.70**	**4**			**Pb**	**20 30 24.4**	**-1.0**
VNSS	**Veniaminof 8**	**1.78**	**5**			**Pn**	**20 30 25.4**	**+1.0**
VNSS						**Pb**	**20 30 25.8**	**-1.1**
S12K	**Black Hills**	**1.82**	**314**			**Pn**	**20 30 25.1**	**+0.3**
S12K	**Black Hills**	**1.82**	**314**			**Sn**	**20 30 47.8**	**+0.4**
CHGN	**Chignik**	**2.00**	**22**			**Pn**	**20 30 27.3**	**0.0**
CHGN					IAML		20 31 01.9	
	comp=E,478nm,0.7s							
CHGN					IAML		20 31 02.3	
	comp=N,342nm,0.5s							
BPBCA	**Veniaminof**	**2.26**	**19**			**Pn**	**20 30 31.4**	**+0.4**
ISLZ	**Isanotski Laza**	**2.32**	**278**			**Pn**	**20 30 31.6**	**-0.2**
SSLS	**Shishaldin Sou**	**2.48**	**278**			**Pn**	**20 30 34.6**	**+0.5**
ANPB	**Aniakchak Plen**	**2.49**	**19**			**Pn**	**20 30 34.6**	**+0.5**
ANPB						**Pb**	**20 30 36.6**	**-2.4**
SSLN	**Shishaldin Nor**	**2.49**	**280**			**Pn**	**20 30 35.1**	**+1.0**
SSLN						**Sn**	**20 31 06.5**	**+2.6**
WTUG	**Tugumak**	**2.72**	**280**			**Pn**	**20 30 37.9**	**+0.7**
CHIR	**Chirikof Islan**	**2.73**	**58**	Pn		**Pn**	**20 30 37.2**	**-0.2**
CHIR					IAML		20 31 29.2	
	comp=E,272nm,1.1s							
CHIR					IAML		20 31 31.5	
	comp=N,159nm,1.0s							
WESP	**Westdahl Peak**	**2.90**	**273**			**Pn**	**20 30 39.8**	**0.0**
WESP						**Sn**	**20 31 14.3**	**+0.3**
WECS	**Westdahl Cape**	**2.93**	**273**	Pn		**Pn**	**20 30 41.0**	**+0.9**
WECS					IAML		20 31 37.1	
	comp=N,272nm,1.2s							
WECS					IAML		20 31 39.0	
	comp=E,173nm,1.1s							
AKUT	**Akutan**	**3.54**	**267**	Pn		**Pn**	**20 30 48.8**	**+0.3**
AHB	**Akutan Harbor**	**3.57**	**267**			**Pn**	**20 30 47.4**	**-1.5**
AHB						**Sn**	**20 31 29.3**	**-1.1**
PLBL	**Peulik Blue Cr**	**3.64**	**26**			**Pn**	**20 30 50.5**	**+0.6**
ZRO	**Akutan Zero**	**3.67**	**267**			**Pn**	**20 30 50.3**	**0.0**
ZRO						**Sn**	**20 31 32.2**	**-0.7**
LVA	**Lava Point**	**3.69**	**268**	Pn		**Pn**	**20 30 52.1**	**+1.5**
LVA					IAML		20 31 56.4	
	comp=N,132nm,1.1s							
LVA					IAML		20 32 05.8	
	comp=E,91nm,1.0s							
R17L	**Mt. Peulik Vol**	**3.70**	**30**			**Pn**	**20 30 51.6**	**+0.8**
PLK3	**Peulik 3**	**3.78**	**30**			**Pn**	**20 30 52.6**	**+0.8**
SII	**Sitkinak Islan**	**3.80**	**54**	Pn		**Pn**	**20 30 52.8**	**+0.7**
SII					IAML		20 32 11.4	
	comp=N,104nm,0.9s							
UNV	**Unalaska Valle**	**4.02**	**264**	Pn		**Pn**	**20 30 55.9**	**+0.8**
MNAT	**Makushin Natee**	**4.12**	**265**			**Pn**	**20 30 56.3**	**-0.1**
MSW	**Makushin Switc**	**4.17**	**265**			**Pn**	**20 30 56.6**	**-0.5**
KJL	**Kejulik**	**4.29**	**31**			**Pn**	**20 30 59.3**	**+0.5**
Q17K	**Contact Creek**	**4.38**	**28**			**Pn**	**20 31 00.3**	**+0.2**
ANCK	**Angle Creek**	**4.43**	**31**			**Pn**	**20 31 01.6**	**+0.8**
OHAK	**Old Harbor**	**4.57**	**50**			**Pn**	**20 31 02.2**	**-0.5**
P16K	**Nushagak River**	**4.68**	**11**	Pn		**Pn**	**20 31 04.5**	**+0.4**
Q15K	**Ungalikthiuk R**	**4.73**	**360**			**Pn**	**20 31 05.0**	**+0.2**
Q15K					IAML		20 32 41.1	
	comp=E,41nm,1.2s							
KAWH	**Katmai**	**4.80**	**33**			**Pn**	**20 31 05.6**	**-0.2**
Q14K	**Tigyukauivet M**	**4.88**	**351**	Pn		**Pn**	**20 31 07.0**	**+0.2**
Q14K					IAML		20 32 54.6	
	comp=E,39nm,1.2s							
KARR	**Katmai Rainbow**	**4.92**	**33**			**Pn**	**20 31 07.6**	**+0.2**
Q18K	**Katmai Hardscr**	**4.95**	**30**			**Pn**	**20 31 08.3**	**+0.3**
KDAK	**Kodiak Island**	**5.21**	**47**	Pn		**Pn**	**20 31 10.4**	**-1.0**
KDAK					IAML		20 32 50.0	
	comp=E,22nm,1.2s							
O16K	**Kokwok River B**	**5.22**	**9**	Pn		**Pn**	**20 31 11.7**	**+0.1**
O16K					IAML		20 32 50.1	
	comp=E,20nm,1.1s							
O16K					IAML		20 32 59.3	
	comp=N,23nm,1.1s							
O17K	**Koliganek Bris**	**5.52**	**14**			**Pn**	**20 31 16.0**	**+0.3**
N14K	**Kuskokwak Cree**	**5.58**	**350**			**Pn**	**20 31 16.8**	**+0.4**
N15K	**Kwethluk River**	**5.72**	**358**			**Pn**	**20 31 19.1**	**+0.6**
N16K	**Nishlik Lake**	**6.05**	**5**			**Pn**	**20 31 23.4**	**+0.4**
M13K	**Dall Lake**	**6.28**	**343**			**Pn**	**20 31 26.8**	**+0.8**
M16K	**Timber Creek**	**6.59**	**3**			**Pn**	**20 31 30.9**	**+0.5**
ILSW	**Iliamna Southw**	**6.59**	**30**	Pn		**Pn**	**20 31 30.4**	**-0.2**
CNPM	**China Poot**	**6.88**	**39**			**Pn**	**20 31 34.6**	**+0.2**
N19K	**Bonanza Creek**	**6.97**	**22**			**Pn**	**20 31 36.4**	**+

ONGER				S	**Sn**	**20 36 01.3**	**-1.2**
ONGER				AML	AML		
ONGER	**Ongerup, WA**	**3.74**	**165**	P	**Pn**	**20 35 19.6**	**+0.8**
ONGER				S	**Sn**	**20 36 01.7**	**-0.9**
ONGER				AML	AML		
MEEK	**Meekatharra**	**3.79**	**19**	P	**Pn**	**20 35 21.3**	**+1.8**
MEEK				S	**Sn**	**20 36 01.1**	**-2.8**
MEEK				AML	AML		
KMBL	**Kambalda**	**4.13**	**107**	P	**Pn**	**20 35 25.2**	**+1.0**
KMBL				S	**Sn**	**20 36 10.8**	**-1.7**
KMBL				AML	AML		
RKGY	**Rocky Gully**	**4.36**	**183**	P	**Pn**	**20 35 28.0**	**+0.7**
RKGY				S	**Sn**	**20 36 17.4**	**-0.5**
RKGY				AML	AML		
RKGY	**Rocky Gully**	**4.36**	**183**	P	**Pn**	**20 35 27.7**	**+0.4**
RKGY				AML	AML		
DNDOZ	**Balladonia**	**6.07**	**113**	P	**Pn**	**20 35 52.2**	**+1.3**
	comp=Z,100nm,2.1s						
DNDOZ				S	**Sn**	**20 36 57.0**	**-3.2**
DNDOZ	**Balladonia**	**6.07**	**113**	P	**Pn**	**20 35 52.1**	**+1.3**
	comp=Z,101nm,2.1s,comp=Z,0.4nm						
DNDOZ				AML	AML		
FORT	**Forrest**	**9.34**	**96**	P	**Pn**	**20 36 34.7**	**-0.9**
	comp=Z,13nm,0.9s,comp=Z,0.0nm						
FORT				S	**Sn**	**20 38 13.9**	**-6.5**
FORT				AML	AML		
WRKA	**Warakurna**	**11.08**	**65**	P	**Pn**	**20 37 03.2**	**+3.7**
WRKA				S	**Sn**	**20 38 59.8**	**-3.5**
MTN	**Manton Dam**	**21.56**	**40**	P	**P**	**20 39 10.3**	**-0.3**
MTN	**Manton Dam**	**21.56**	**40**	P	**P**	**20 39 10.3**	**-0.3**
MTSU	**Mount Surprise**	**27.40**	**70**	P	**P**	**20 40 07.9**	**+1.1**
MTSU	**Mount Surprise**	**27.40**	**70**	P	**P**	**20 40 07.4**	**+0.7**
DRV	**Dumont d'Urvil**	**38.96**	**166**	P	**P**	**20 41 47.5**	**+0.7**

*THE **16** 20:35:35.8, 37.8N±0.7×27.0E±0.6, h5km±2km, M2.5/8, MLh2.5/8*
*ISK **16** 20:35:35.4, 37.83N×26.96E, h8km, ML2.5/17*
*ATH **16** 20:35:35.1, 37.79N×26.98E, h12km, ML2.3/13, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 16 20:35:35.6±0.8, 37.80N±0.02×26.95E±0.02, h13km±5km, n45, σ0s49/66, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.13**	**222**	P	**Pg**	**20 35 38.7**	**-0.2**
SMG				S	**Sg**	**20 35 40.9**	**-0.4**
SMG				AML	AML		
SMG	**Samos**	**0.13**	**222**	P	**Pg**	**20 35 38.7**	**-0.2**
SMG				S	**Sg**	**20 35 41.0**	**-0.2**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.19**	**268**	P	**Pg**	**20 35 39.8**	**0.0**
KRL1				S	**Sg**	**20 35 42.8**	**+0.1**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**114**	Pg	**Pg**	**20 35 40.9**	**0.0**
GCAM				Sg	**Sg**	**20 35 45.5**	**+1.1**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.27**	**261**	P	**Pg**	**20 35 41.0**	**-0.2**
SAM2				S	**Sg**	**20 35 45.2**	**+0.2**
SAM2				AML	AML		
GMLD	**Gumuldur**	**0.27**	**355**	Pg	**Pg**	**20 35 40.9**	**-0.4**
GMLD				Sg	**Sg**	**20 35 45.2**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**78**	Pg	**Pg**	**20 35 41.1**	**-0.3**
KUSD				AML	AML		
BLCB	**Balcova**	**0.59**	**7**	P	**Pg**	**20 35 46.9**	**-0.2**
BLCB				S	**Sb**	**20 35 55.3**	**-0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**7**	Pg	**Pg**	**20 35 46.7**	**-0.4**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.73**	**158**	Pg	**Pb**	**20 35 50.3**	**+0.2**
CESE	**eme**	**0.73**	**316**	Pg	**Pg**	**20 35 49.9**	**+0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.76**	**79**	Pg	**Pg**	**20 35 49.7**	**-0.7**
AYDB				AML	AML		
BODT	**Bodrum**	**0.80**	**158**	P	**Pg**	**20 35 50.6**	**-0.3**
BODT				S	**Sb**	**20 36 02.8**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**158**	Pg	**Pb**	**20 35 51.4**	**+0.1**
BODT				Sg	**Sb**	**20 36 02.8**	**+0.8**
BODT				AML	AML		
MLSB	**Milas**	**0.83**	**127**	Pg	**Pb**	**20 35 51.7**	**-0.3**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.84**	**178**	P	**Pb**	**20 35 52.1**	**-0.1**
KRBN	**Karaburun**	**0.85**	**339**	Pg	**Pb**	**20 35 52.1**	**-0.1**
KRBN				AML	AML		
BODA	**Bodrum-Mula**	**0.86**	**153**	Pg	**Pb**	**20 35 52.9**	**+0.5**
CHOS	**Chios island**	**0.91**	**310**	P	**Pg**	**20 35 52.8**	**-0.5**
CHOS				S	**Sb**	**20 36 06.3**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**310**	Pg	**Pb**	**20 35 53.8**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**310**	P	**Pg**	**20 35 52.7**	**-0.5**
CHOS				S	**Sb**	**20 36 06.1**	**+0.6**
FOCM	**Foa**	**0.92**	**350**	Pg	**Pg**	**20 35 52.9**	**-0.6**
FOCM				AML	AML		
NAZL	**Nazilli-Aydin**	**1.08**	**81**	Pg	**Pg**	**20 35 55.7**	**-0.7**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.18**	**40**	Pn	**Pn**	**20 35 58.0**	**+0.1**
YER	**Yerkesik**	**1.26**	**122**	P	**Pg**	**20 35 59.6**	**-0.2**
DKL	**Dikili**	**1.27**	**359**	Pn	**Pb**	**20 35 59.4**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.27**	**359**	P	**Pn**	**20 35 59.3**	**+0.2**
DKL				S	**Sn**	**20 36 16.6**	**+0.7**
APE	**Apeiranthos**	**1.34**	**237**	P	**Pn**	**20 35 59.5**	**-0.6**
APE	**Apeiranthos**	**1.34**	**237**	P	**Pn**	**20 35 59.2**	**-0.9**
APE				S	**Sb**	**20 36 18.2**	**+0.4**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.43**	**19**	Pn	**Pg**	**20 36 03.3**	**+0.2**
SOMA				AML	AML		
NAX1	**Naxos Island**	**1.43**	**241**	P	**Pn**	**20 36 00.8**	**-0.4**
NAX1				S	**Sn**	**20 36 20.6**	**+0.6**
TNSA	**Tinos**	**1.44**	**260**	P	**Pn**	**20 36 01.0**	**-0.3**
TNSA				S	**Sn**	**20 36 20.0**	**-0.1**
GORD	**Gordes-Manisa**	**1.47**	**41**	Pn	**Pg**	**20 36 03.2**	**-0.6**
GORD				AML	AML		
PRK	**Paraskevi**	**1.54**	**340**	P	**Pb**	**20 36 03.6**	**-0.3**
PRK				S	**Sn**	**20 36 22.6**	**0.0**
PRK				AML	AML		
ARG	**Arkhangelos**	**1.84**	**149**	P	**Pn**	**20 36 06.8**	**-0.1**
ARG				S	**Sn**	**20 36 29.1**	**-1.1**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.85**	**220**	P	**Pn**	**20 36 06.1**	**-1.0**
THERA				S	**Sn**	**20 36 30.0**	**-0.4**
THERA				AML	AML		
THR3	**Thira Island,**	**1.86**	**222**	P	**Pn**	**20 36 08.0**	**+0.8**
SNT5	**Nea Kammeni, S**	**1.87**	**222**	P	**Pn**	**20 36 07.4**	**+0.1**
SNT5				S	**Sn**	**20 36 30.7**	**-0.1**
THR6	**Thira Island,**	**1.90**	**221**	P	**Pn**	**20 36 07.2**	**-0.6**
BALB	**Balikesir**	**1.98**	**21**	P	**Pn**	**20 36 09.3**	**+0.5**
BALB				AML	AML		
KARY	**Karystos**	**2.00**	**277**	P	**Pn**	**20 36 09.3**	**+0.3**
KARP	**Karpathos**	**2.26**	**176**	P	**Pn**	**20 36 12.8**	**+0.1**
DION	**Dionisos Attik**	**2.40**	**278**	P	**Pn**	**20 36 14.6**	**0.0**
LIA	**Limnos Island**	**2.50**	**327**	P	**Pn**	**20 36 15.4**	**-0.6**
LIA				S	**Sn**	**20 36 46.4**	**0.0**
LIA				AML	AML		
SMTH	**Samothraki Isl**	**2.88**	**338**	P	**Pn**	**20 36 21.2**	**-0.1**
SMTH				S	**Sn**	**20 36 55.8**	**0.0**
SMTH				AML	AML		

DJA 16 20:36:29.3±1.1, 3°S±3°×13°8E±°, h22km±10km, M4.3/13, mB4.8/1, mb4.4/4, MLv4.3/13, Mw(mB)4.0/1, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMPI	**Sarmi**	**1.44**	**19**	P	Pb	20 36 55.4	-0.1
GENI	**Genyem**	**2.08**	**69**	P	Pn	20 37 02.4	-0.5
GENI				AML	AML		
JAY	**Jayapura**	**2.61**	**71**	P	Pn	20 37 09.4	-0.8
BAKI	**Biak**	**3.02**	**315**	P	Pn	20 37 16.5	+0.6
BAKI				S	Sn	20 37 52.8	+1.3
BAKI				AML	AML		
FAKI	**Fak Fak**	**5.99**	**274**	P	Pn	20 37 55.7	-1.0
	0.1nm23nm,0.9s						
FAKI				AML	AML		
SIJI	**Sorong**	**7.39**	**289**	P	Pn	20 38 15.0	-0.9
SIJI				AML	AML		

*NEIC **16** 20:58:21.5±1.7, 16.09N±0.05×95.91W±0.04, h39km±7km, mb4.4/29, Md4.3/80(MEX), Error ellipse: s-maj=8.0km s-min=5.8km az=165.0*
*MEX **16** 20:58:22.0±0.6, 16.02N×95.91W, h57km±6km, MD4.3, Presumed earthquake*

ISC 16 20:58:21.0±0.8, 16.04N±0.04×95.93W±0.02, h51km±10km, n100, σ1s67/166, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**0.32**	**213**		**Pn**	**20 58 30.5**	**0.0**
HUIG					**Sn**	**20 58 37.2**	**+0.1**
HUIG	**Huatulco**	**0.32**	**213**	*eP*	**Pn**	**20 58 30.5**	**0.0**
HUIG				*eS*	**Sn**	**20 58 37.2**	**+0.1**
PEIG	**Puerto Escondi**	**1.18**	**268**		**Pn**	**20 58 40.9**	**-0.3**
PEIG					**Sn**	**20 58 56.2**	**+0.1**
PEIG	**Puerto Escondi**	**1.18**	**268**	*eP*	**Pn**	**20 58 40.9**	**-0.3**
PEIG				*eS*	**Sn**	**20 58 56.2**	**+0.1**
OXLC	**Oaxaca**	**1.27**	**324**		**Pn**	**20 58 42.0**	**-0.6**
OXLC					**Sn**	**20 58 57.4**	**-1.2**
OXLC	**Oaxaca**	**1.27**	**324**	*eP*	**Pn**	**20 58 42.0**	**-0.6**
OXLC				*eS*	**Sn**	**20 58 57.4**	**-1.2**
OXBJ	**Oaxaca**	**1.28**	**323**		**Pn**	**20 58 42.5**	**-0.3**
OXBJ					**Sn**	**20 58 58.7**	**-0.2**
OXBJ	**Oaxaca**	**1.28**	**323**	*eP*	**Pn**	**20 58 42.5**	**-0.3**
OXBJ				*eS*	**Sn**	**20 58 58.7**	**-0.2**
OXIG	**Oaxaca**	**1.29**	**323**		**Pn**	**20 58 42.8**	**-0.1**
OXIG					**Sn**	**20 58 58.4**	**-0.8**
VHO	**Vista Hermosa**	**1.29**	**323**	*eP*	**Pn**	**20 58 42.8**	**-0.1**
VHO				*eS*	**Sn**	**20 58 58.4**	**-0.8**
CMIG	**Matias Romero**	**1.45**	**43**		**Pn**	**20 58 44.3**	**-0.5**
CMIG					**Sn**	**20 59 02.3**	**-0.4**
CMIG	**Matias Romero**	**1.45**	**43**	*i* P	**Pn**	**20 58 44.3**	**-0.5**
CMIG				*eS*	**Sn**	**20 59 02.3**	**-0.4**
NEUV	**Arroyo Zacate**	**1.67**	**4**		**Pn**	**20 58 47.7**	**-0.2**
NEUV					**Sn**	**20 59 07.9**	**-0.3**
NEUV	**Arroyo Zacate**	**1.67**	**4**	*eP*	**Pn**	**20 58 47.7**	**-0.2**
NEUV				*eS*	**Sn**	**20 59 07.9**	**-0.3**
YOIG	**Yosondua**	**1.76**	**298**		**Pn**	**20 58 50.3**	**+1.0**
YOIG					**Sn**	**20 59 12.9**	**+2.2**
YOIG	**Yosondua**	**1.76**	**298**	*eP*	**Pn**	**20 58 50.3**	**+1.0**
YOIG				*eS*	**Sn**	**20 59 12.9**	**+2.2**
UXUV	**UXUV**	**2.13**	**53**		**Pn**	**20 58 53.4**	**-0.8**
UXUV					**Sn**	**20 59 19.1**	**-0.3**
UXUV	**UXUV**	**2.13**	**53**	*eP*	**Pn**	**20 58 53.4**	**-0.8**
UXUV				*eS*	**Sn**	**20 59 19.1**	**-0.3**
TXIG	**Tlaxiaco**	**2.14**	**305**		**Pn**	**20 58 55.9**	**+1.3**
TXIG					**Sn**	**20 59 20.9**	**+0.7**
TXIG	**Tlaxiaco**	**2.14**	**305**	*eP*	**Pn**	**20 58 55.9**	**+1.3**
TXIG				*eS*	**Sn**	**20 59 20.9**	**+0.7**
PNIG	**Pinotepa**	**2.15**	**280**		**Pn**	**20 58 54.5**	**+0.1**
PNIG					**Sn**	**20 59 17.9**	**-1.9**
PNIG	**Pinotepa**	**2.15**	**280**	*eP*	**Pn**	**20 58 54.5**	**+0.1**
PNIG				*eS*	**Sn**	**20 59 17.9**	**-1.9**
TOIG	**Toxpalan**	**2.32**	**332**		**Pn**	**20 58 58.4**	**+1.5**
TOIG					**Sn**	**20 59 23.1**	**-1.2**
TOIG	**Toxpalan**	**2.32**	**332**	*eP*	**Pn**	**20 58 58.4**	**+1.5**
TOIG				*eS*	**Sn**	**20 59 23.1**	**-1.2**
TUIG	**Tuzandepetl**	**2.45**	**36**		**Pn**	**20 58 58.8**	**+0.2**
TUIG					**Sn**	**20 59 24.4**	**-2.9**
TUIG	**Tuzandepetl**	**2.45**	**36**	*eP*	**Pn**	**20 58 58.8**	**+0.2**
TUIG				*eS*	**Sn**	**20 59 24.4**	**-2.9**
HLIG	**Huajuapan de L**	**2.53**	**315**		**Pn**	**20 59 03.1**	**+3.2**
HLIG					**Sn**	**20 59 31.1**	**+1.5**
HLIG	**Huajuapan de L**	**2.53**	**315**	*eP*	**Pn**	**20 59 03.1**	**+3.2**
HLIG				*eS*	**Sn**	**20 59 31.1**	**+1.5**
PMUV	**Sontecomapan**	**2.61**	**17**		**Pn**	**20 58 58.9**	**-1.9**
PMUV					**Sn**	**20 59 29.8**	**-1.6**
PMUV	**Sontecomapan**	**2.61**	**17**	*eP*	**Pn**	**20 58 58.9**	**-1.9**
PMUV				*eS*	**Sn**	**20 59 29.8**	**-1.6**
PCIG		**2.62**	**97**		**Pn**	**20 59 00.9**	**0.0**
PCIG					**Sn**	**20 59 31.2**	**-0.4**
PCIG		**2.62**	**97**	*eP*	**Pn**	**20 59 00.9**	**0.0**
PCIG				*eS*	**Sn**	**20 59 31.2**	**-0.4**
TPIG	**Tehuac#an**	**2.74**	**330**		**Pn**	**20 59 03.8**	**+1.1**
TPIG					**Sn**	**20 59 36.5**	**+1.9**
TPIG	**Tehuac#an**	**2.74**	**330**	*eP*	**Pn**	**20 59 03.8**	**+1.1**
TPIG				*eS*	**Sn**	**20 59 36.5**	**+1.9**
TGIG		**2.79**	**74**		**Pn**	**20 59 03.7**	**+0.4**
TGIG					**Sn**	**20 59 36.4**	**+0.6**
TGIG		**2.79**	**74**	*eP*	**Pn**	**20 59 03.7**	**+0.4**
TGIG				*eS*	**Sn**	**20 59 36.4**	**+0.6**
FTIG	**Fresnillo de T**	**2.81**	**312**		**Pn**	**20 59 05.9**	**+2.2**
FTIG					**Sn**	**20 59 37.3**	**+0.8**
FTIG	**Fresnillo de T**	**2.81**	**312**	*eP*	**Pn**	**20 59 05.9**	**+2.2**
FTIG				*eS*	**Sn**	**20 59 37.3**	**+0.8**
TLIG	**Tlapa**	**2.95**	**301**		**Pn**	**20 59 04.8**	**-0.7**
TLIG	**Tlapa**	**2.95**	**301**		LR	20 59 45.5	
TLIG	**Tlapa**	**2.95**	**301**		**Sn**	**20 59 39.3**	**-0.5**
TLIG	**Tlapa**	**2.95**	**301**	*eP*	**Pn**	**20 59 06.4**	**+0.9**
TLIG				*eS*	**Sn**	**20 59 39.3**	**-0.5**
CRIG	**Cruz Grande**	**3.15**	**283**		**Pn**	**20 59 08.7**	**+0.5**
CRIG					**Sn**	**20 59 41.2**	**-3.4**
CRIG	**Cruz Grande**	**3.15**	**283**	*eP*	**Pn**	**20 59 08.7**	**+0.5**
CRIG				*eS*	**Sn**	**20 59 41.2**	**-3.4**
JAUV	**Jalcomulco**	**3.42**	**346**		**Pn**	**20 59 10.5**	**-1.3**
JAUV					**Sn**	**20 59 53.0**	**+1.9**
JAUV	**Jalcomulco**	**3.42**	**346**	*eP*	**Pn**	**20 59 10.5**	**-1.3**
JAUV				*eS*	**Sn**	**20 59 53.0**	**+1.9**
CCIG	**Comitan**	**3.65**	**86**	Pn	**Pg**	**20 59 16.5**	**+1.3**
CCIG	**Comitan**	**3.65**	**86**		**Sn**	**20 59 57.6**	**+0.6**
CCIG	**Comitan**	**3.65**	**86**	*eP*	**Pn**	**20 59 14.4**	**-0.7**
CCIG				*eS*	**Sn**	**20 59 57.6**	**+0.6**
PATR	**El Naranjo**	**3.67**	**104**		**Pn**	**20 59 17.2**	**+1.7**
PATR					**Sn**	**20 59 58.5**	**+0.7**
PATR	**El Naranjo**	**3.67**	**104**	*eP*	**Pn**	**20 59 17.2**	**+1.7**
PATR				*eS*	**Sn**	**20 59 58.5**	**+0.7**
DAIG	**Los Arroyos**	**3.71**	**286**		**Pn**	**20 59 17.1**	**+1.3**
DAIG					**Sn**	**20 59 53.9**	**-4.3**
DAIG	**Los Arroyos**	**3.71**	**286**	*eP*	**Pn**	**20 59 17.1**	**+1.3**
DAIG				*eS*	**Sn**	**20 59 53.9**	**-4.3**
PAVE	**Pavencul**	**3.71**	**103**		**Pn**	**20 59 18.4**	**+2.4**
PAVE					**Sn**	**21 00 00.0**	**+1.4**
PAVE	**Pavencul**	**3.71**	**103**	*eP*	**Pn**	**20 59 18.4**	**+2.4**
PAVE				*eS*	**Sn**	**21 00 00.0**	**+1.4**
CHUJ	**Union Juarez**	**3.80**	**104**	*eP*	**Pn**	**20 59 18.9**	**+1.6**
CHUJ				*eS*	**Sn**	**21 00 01.7**	**+0.9**
PPM	**Popocatepetl**	**3.96**	**320**	*eP*	**Pn**	**20 59 22.3**	**+2.5**
PPM				*eS*	**Sn**	**21 00 07.5**	**+2.2**
PPIG	**Popocatepetl**	**3.97**	**320**		**Pn**	**20 59 22.3**	**+2.5**
PPIG					**Sn**	**21 00 07.5**	**+2.1**
MEIG	**Mezcala**	**4.00**	**299**		**Pn**	**20 59 21.7**	**+1.8**
MEIG					**Sn**	**21 00 02.8**	**-2.9**
MEIG	**Mezcala**	**4.00**	**299**	*eP*	**Pn**	**20 59 21.7**	**+1.8**
MEIG				*eS*	**Sn**	**21 00 02.8**	**-2.9**
PLIG	**Platanillo**	**4.14**	**305**		**Pn**	**20 59 24.1**	**+2.2**
PLIG					**Sn**	**21 00 13.1**	**+3.9**
PLIG	**Platanillo**	**4.14**	**305**	*eP*	**Pn**	**20 59 24.1**	**+2.2**
PLIG				*eS*	**Sn**	**21 00 13.1**	**+3.9**
CAIG	**El Cayaco**	**4.28**	**284**		**Pn**	**20 59 24.0**	**+0.3**
CAIG					**Sn**	**21 00 08.0**	**-4.4**
CAIG	**El Cayaco**	**4.28**	**284**	*eP*	**Pn**	**20 59 24.0**	**+0.3**
CAIG				*eS*	**Sn**	**21 00 08.0**	**-4.4**
HUEH	**Huehuetenango**	**4.32**	**99**	Pn	**Pn**	**20 59 23.1**	**-1.3**
RTAL	**Retalhuleu**	**4.35**	**110**	Pn	**Pn**	**20 59 24.4**	**-0.2**
CXUV	**Coxquihui**	**4.41**	**339**		**Pn**	**20 59 25.2**	**-0.3**
CXUV					**Sn**	**21 00 17.7**	**+2.2**
CXUV	**Coxquihui**	**4.41**	**339**	*eP*	**Pn**	**20 59 25.2**	**-0.3**
CXUV				*eS*	**Sn**	**21 00 17.7**	**+2.2**
ARIG	**Puente Sto Nin**	**4.78**	**298**		**Pn**	**20 59 27.3**	**-3.2**
ARIG					**Sn**	**21 00 24.8**	**0.0**
ARIG	**Puente Sto Nin**	**4.78**	**298**	*eP*	**Pn**	**20 59 27.3**	**-3.2**
ARIG				*eS*	**Sn**	**21 00 24.8**	**0.0**
SCIG	**Sabancuy**	**5.38**	**57**		**Pn**	**20 59 36.7**	**-2.0**
SCIG					**Sn**	**21 00 36.1**	**-3.3**
SCIG	**Sabancuy**	**5.38**	**57**	*eP*	**Pn**	**20 59 36.7**	**-2.0**
SCIG				*eS*	**Sn**	**21 00 36.1**	**-3.3**
ZIIG	**Zihuatanejo**	**5.53**	**287**		**Pn**	**20 59 40.9**	**+0.1**
ZIIG					**Sn**	**21 00 40.6**	**-2.5**
ZIIG	**Zihuatanejo**	**5.53**	**287**	*eP*	**Pn**	**20 59 40.9**	**+0.1**
ZIIG				*eS*	**Sn**	**21 00 40.6**	**-2.5**
PETF	**Flores**	**5.88**	**81**		**Sn**	**21 00 50.2**	**-1.5**
PETF	**Flores**	**5.88**	**81**	Pn	**Pn**	**20 59 46.4**	**+0.8**
PETF	**Flores**	**5.88**	**81**	*eP*	**Pn**	**20 59 46.8**	**+1.2**
PETF				*eS*	**Sn**	**21 00 50.2**	**-1.5**
TEIG	**Tepich**	**8.38**	**59**	Pn	**Pn**	**21 00 20.4**	**+0.5**
TEIG				Sn	**Sn**	**21 01 50.2**	**-2.9**
SAND	**Sanderson**	**14.98**	**339**		**P**	**21 01 56.4**	**+2.3**
BRDY	**Brady**	**15.44**	**350**		**Pn**	**21 01 56.1**	**+0.6**
ALPN	**Alpine**	**15.93**	**335**	P	**P**	**21 02 06.0**	**+1.2**
PLPT	**Palo Pinto**	**16.84**	**353**		**Pn**	**21 02 13.7**	**+0.3**
PLPT				IAmb	IAmb	21 02 30.4	
	comp=Z,16nm,0.8s						
ABTX	**Abilene, Hawle**	**16.86**	**349**	Pn	**Pn**	**21 02 13.4**	**-0.1**
MIAR	**Mount Ida**	**18.55**	**6**	P	**P**	**21 02 32.6**	**-1.0**
UALR	**University of**	**18.93**	**9**	P	**P**	**21 02 38.8**	**+1.1**
UALR				IAmb	IAmb	21 02 53.4	
	comp=Z,14nm,0.7s						
W35A	**Tecumseh**	**19.06**	**358**		**Pn**	**21 02 40.6**	**+0.3**
121A	**Cookes Peak, D**	**19.63**	**329**	P	**P**	**21 02 46.7**	**+1.0**
OK052	**Battle Ridge R**	**19.89**	**358**	P	**P**	**21 02 48.3**	**+0.1**
OK052				IAmb	IAmb	21 03 03.4	
	comp=Z,20nm,0.8s						
FCAR	**Ozark Folk Cen**	**20.06**	**9**	P	**P**	**21 02 50.1**	**+0.1**
FCAR				IAmb	IAmb	21 03 05.1	
	comp=Z,21nm,0.8s						
OK048	**Pawnee Station**	**20.32**	**358**	P	**P**	**21 02 52.8**	**-0.1**
OK048				IAmb	IAmb	21 02 57.2	
	comp=Z,15nm,0.8s						
OK051	**E0350 and S346**	**20.40**	**358**	P	**P**	**21 02 54.1**	**+0.3**
CROK	**Carrier**	**20.47**	**355**	P	**P**	**21 02 55.4**	**+0.9**
SBM	**South Baldy**	**20.54**	**332**	P	Pn	21 02 58.8	+0.5
LENM	**Lemitar**	**20.61**	**333**	P	**P**	**21 02 54.5**	**-1.8**
Y52A	**Lilburn**	**20.72**	**29**	P	**P**	**21 02 55.9**	**-1.4**
Y52A				IAmb	IAmb	21 03 22.1	
	comp=Z,14nm,0.9s						
T35A	**Sooner Cattle**	**20.80**	**359**		**P**	**21 02 58.8**	**+0.7**
T35A				IAmb	IAmb	21 03 12.9	
	comp=Z,18nm,0.9s						
KAN08	**Anthony NE Sta**	**21.18**	**355**	P	**P**	**21 03 02.7**	**+0.5**
P40A	**Paris**	**23.65**	**7**		**P**	**21 03 27.4**	**-0.3**
P40A				IAmb	IAmb	21 03 43.1	
	comp=Z,9.8nm,0.7s						
MDPB	**Devils Postpil**	**29.68**	**321**	IAmb	IAmb	21 04 33.9	
	comp=Z,6.8nm,1.0s						
AGMN	**Agassiz Nation**	**32.17**	**0**		**P**	**21 04 44.2**	**+0.4**

*IDC **16** 21:12:40.4±20.0, 13.15S×167.18E, h152km±181km, mb3.6/7, mbtmp4.0/7, Error ellipse: s-maj=57.0km s-min=33.1km az=74.0*
*NEIC **16** 21:12:45.6±1.4, 13.1S±0.2×167.2E±0.1, h206km±7km, mb4.3/15, Error ellipse: s-maj=27.7km s-min=12.3km az=139.0*

ISC 16 21:12:43.2±0.8, 12.9S±0.1×167.1E±0.1, h180km, n25, σ1s23/25, mb4.1/13, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**2.57**	**178**		**Pn**	**21 13 28.7**	**+2.0**
EIDS	**Eidsvold**	**19.57**	**228**	P	**P**	**21 16 57.9**	**+0.4**
EIDS				IAmb	IAmb	21 17 06.3	
	comp=Z,13nm,1.5s						
STKA	**Stephens Creek**	**30.11**	**227**	P	**P**	**21 18 35.4**	**-0.7**
	comp=Z,1.0nm,0.4s,baz=62,slow=8.6,SNR=3.1						
	comp=Z,1.0nm,0.4s						
STKA	**Stephens Creek**	**30.11**	**227**	P	**P**	**21 18 35.3**	**-0.7**
STKA				IAmb	IAmb	21 18 52.0	
	comp=Z,24nm,1.4s						
WR8	**Warramunga Arr**	**32.03**	**253**	P	**P**	**21 18 52.1**	**-0.9**
WR8				IAmb	IAmb	21 19 18.6	
	comp=Z,7.5nm,1.5s						
WB0	**Warramunga Arr**	**32.10**	**253**	P	**P**	**21 18 52.9**	**-0.8**
WB0				IAmb	IAmb	21 19 09.5	
	comp=Z,4.9nm,1.1s						
WRA	**Warramunga Arr**	**32.17**	**253**	P	**P**	**21 18 53.7**	**-0.6**
	comp=Z,1.3nm,0.9s,baz=86,slow=9.2,SNR=8.7						
	comp=Z,1.3nm,0.9s						
WRA	**Warramunga Arr**	**32.17**	**253**	P	**P**	**21 18 52.9**	**-1.4**
AS31	**Alice Springs**	**33.23**	**246**	P	**P**	**21 19 02.6**	**-1.0**
ASAR	**Alice Springs**	**33.23**	**246**	P	**P**	**21 19 02.4**	**-1.1**
	comp=Z,1.2nm,0.4s,baz=74,slow=9.5,SNR=32						
	comp=Z,1.2nm,0.4s						
BBOO	**Buckleboo**	**34.63**	**230**	P	**P**	**21 19 14.4**	**-1.0**
BBOO				IAmb	IAmb	21 19 21.8	
	comp=Z,29nm,1.5s						
KNRA	**Kununurra**	**37.24**	**261**	P	**P**	**21 19 37.7**	**-0.1**
KNRA				IAmb	IAmb	21 19 56.0	
	comp=Z,7.7nm,1.4s						
FITZ	**Fitzroy Crossi**	**40.24**	**257**	P	**P**	**21 20 02.0**	**-0.7**
UWE	**Uwekahuna**	**48.99**	**50**	P	**P**	**21 21 12

VYHS	**Vyhne**	**1.42**	**170**	*e*PG	**Pn**	**21**	**13**	**16.7 -0.3**
VYHS				*e*SG	**Sg**	**21**	**13**	**35.4 -0.1**
DPC	**Dobruska-Polom**	**1.46**	**289**	*e*PG	**Pn**	**21**	**13**	**17.6 -0.1**
DPC	comp=Z,13nm,0.3s			*e*SG	**Sn**	**21**	**13**	**38.0 +0.4**
DPC				AML	AML			
KRUC	**Moravsky**	**1.59**	**239**	*e*Pg	**Pn**	**21**	**13**	**19.4 0.0**
KRUC	baz=58			*e*Sg	**Sg**	**21**	**13**	**40.8 -0.2**
KRUC	8.5nm,0.5s,baz=58			AML	AML			
OSTC	**Ostas**	**1.60**	**296**	*e*PG	**Pb**	**21**	**13**	**20.0 -0.4**
OSTC				*e*SG	**Sg**	**21**	**13**	**41.8 +0.5**
KSP	**Ksiaz**	**1.69**	**305**	*e*Pg	**Pn**	**21**	**13**	**20.8 -0.1**
KSP				*e*Sg	**Sg**	**21**	**13**	**44.6 +0.2**
UPC	**Upice**	**1.70**	**292**	*e*PG	**Pb**	**21**	**13**	**21.9 -0.3**
MODS	**Modra-Piesok**	**1.71**	**208**	*e*SG	**Sn**	**21**	**13**	**43.3 -0.3**
KECS	**Kecovo**	**1.93**	**136**	*e*PG	**Pg**	**21**	**13**	**26.9 -0.1**
KECS				*e*SG	**Sn**	**21**	**13**	**49.3 +0.3**
ABNA	**Allensteig Bun**	**2.33**	**240**	*i* Pn	**Pn**	**21**	**13**	**30.0 +0.3**
ABNA	0.5nm,0.1s			*e*Sn	**Sb**	**21**	**14**	**02.1 -0.2**
ABNA	4.0nm,0.2s							
PVCC	**Panska Ves**	**2.59**	**286**	*e*SG	**Sg**	**21**	**14**	**12.4 -0.8**
PVCC	comp=Z,9.7nm,0.5s							
PVCC				AML	AML			
CONA	**Conrad Observa**	**2.61**	**222**	*i* Pn	**Pn**	**21**	**13**	**32.8 -0.7**
CONA	0.2nm,0.1s			*e*Sn	**Sn**	**21**	**14**	**05.8 -0.2**
CONA	1.4nm,0.3s							
RONA	**Rosalia, Austr**	**2.62**	**214**	*e*Pn	**Pn**	**21**	**13**	**33.8 +0.1**
	0.7nm,0.2s							
ZVC	**Zvikov**	**2.82**	**262**	*e*PN	**Pn**	**21**	**13**	**35.7 -0.6**
ZVC				*e*PG	**Pb**	**21**	**13**	**41.1 -0.1**
CKRC	**Cesky Krumlov**	**2.93**	**250**	*e*SG	**Sg**	**21**	**14**	**22.5 -1.5**
KHC	**Kasperske Hory**	**3.28**	**258**	*e*PN	**Pn**	**21**	**13**	**42.3 -0.4**
KHC				*e*PG	**Pb**	**21**	**13**	**50.0 +0.9**
KHC	comp=Z,3.5nm,0.4s			*e*SG	**Sg**	**21**	**14**	**33.5 -1.9**
KHC				AML	AML			
MOA	**Molln**	**3.45**	**235**	*i* Pn	**Pn**	**21**	**13**	**44.5 -0.5**
	0.4nm,0.2s							

*IDC **16** 21:39:51.6±0.9,5°.95N×127°.70E,h0km,mb4.1/9, mbtmp4.1/10,ML4.0/1,MS3.1/2,Error ellipse: s-maj=39.1km s-min=16.3km az=55.0*
*MAN **16** 21:39:53.0,5°.25N×126°.50E,h3km,MS3.9*
*NEIC **16** 21:40:00.3±2.4,5°.31N±0°.07×126°.2E±0°.1,h41km±11km, mb4.2/10,Error ellipse: s-maj=18.0km s-min=9.6km az=85.0*

ISC 16 21:39:58.2±1.3,**5°.38N**±0°.05×**126°.34E**±0°.08,**h33**km±4km, **n35**,σ1s**74**/38,**mb4.2**/15,**Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.95**	**319**	*e*P	**Pn**	**21 40 15.7**	**+0.5**
DDMP				*e*S	**Sb**	**21 40 28.3**	**-0.4**
GSPH	**General Santos**	**1.55**	**297**	*i* P	**Pb**	**21 40 27.3**	**+0.8**
GSPH				*i* S	**Sn**	**21 40 43.4**	**+0.8**
DAV	**Davao City (W)**	**1.84**	**336**	Pn	**Pb**	**21 40 32.6**	**+1.3**
DAV	33nm,0.3s,baz=172,slow=16,SNR=3.8			Sn	**Sb**	**21 40 58.7**	**+4.7**
DAV	30nm,0.3s,baz=308,slow=18,SNR=5.2			AML	AML		
DAV	**Davao City (W)**	**1.84**	**336**		**Pb**	**21 40 28.6**	**-2.7**
DMPH	**Davao City--Mi**	**1.89**	**334**	*e*P	**Pn**	**21 40 26.1**	**-2.0**
DMPH				*i* S	**Sb**	**21 40 58.9**	**+3.6**
KCP	**Kidapawan**	**2.04**	**323**	*i* P	**Pb**	**21 40 33.9**	**-0.8**
KCP				*e*S	**Sn**	**21 40 57.0**	**+2.3**
BIPH	**Bislig**	**2.79**	**0**	*e*P	**Pn**	**21 40 41.9**	**+1.4**
BIPH				*e*S	Sb	21 42 03.4	+42
CGP	**Cagayan de Oro**	**3.47**	**332**	*e*P	**Pb**	**21 40 56.6**	**-2.3**
CGP				*e*S	**Sb**	**21 41 41.0**	**+0.4**
TNTI	**Ternate**	**4.69**	**167**	Pn	**Pn**	**21 41 08.0**	**+1.4**
PLP	**Palo**	**5.91**	**347**	*e*P	Pn	21 41 27.2	+3.7
TOLI2	**Tolitoli**	**6.98**	**233**	Pn	**Pn**	**21 41 38.6**	**+0.4**
LUWI	**Luwuk**	**7.30**	**209**	Pn	**Pn**	**21 41 41.4**	**-1.2**
KNRA	**Kununurra**	**21.05**	**173**	P	**P**	**21 44 39.4**	**-0.1**
KNRA	comp=Z,5.6nm,1.1s			IAmb	IAmb	21 44 45.3	
FITZ	**Fitzroy Crossi**	**23.33**	**182**	P	**P**	**21 45 04.6**	**+1.0**
WB0	**Warramunga Arr**	**26.21**	**163**	P	**P**	**21 45 31.1**	**+0.9**
WB0	comp=Z,9.0nm,1.2s			IAmb	IAmb	21 45 59.4	
WRA	**Warramunga Arr**	**26.36**	**163**	P	**P**	**21 45 32.6**	**+1.1**
	comp=Z,0.7nm,0.4s,baz=346,slow=9.1,SNR=9.2 comp=Z,0.7nm,0.4s						
WRA	**Warramunga Arr**	**26.36**	**163**	P	**P**	**21 45 32.9**	**+1.4**
WR8	**Warramunga Arr**	**26.42**	**163**	P	**P**	**21 45 34.0**	**+2.0**
WR8	comp=Z,7.4nm,1.2s			IAmb	IAmb	21 45 44.8	
ASAR	**Alice Springs**	**29.79**	**166**	P	**P**	**21 46 01.5**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=348,slow=8.6,SNR=7.6 comp=Z,0.3nm,0.5s						
KSRS	**Korea Array**	**31.96**	**2**	LR	LR	22 00 32.7	
	comp=Z,6.4nm,19.2s,baz=305,slow=40						
MKAR	**Makanchi Array**	**55.99**	**325**	P	**P**	**21 49 32.8**	**-0.7**
	comp=Z,0.9nm,0.5s,baz=117,slow=7.6,SNR=17 comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**55.99**	**325**	P	**P**	**21 49 32.6**	**-1.0**
MAKZ	**Makanchi**	**56.18**	**325**	P	**P**	**21 49 34.4**	**-0.5**
MAKZ	comp=Z,6.1nm,1.1s			IAmb	IAmb	21 50 03.9	
ZALV	**Zalesovo Beam**	**58.95**	**333**	P	**P**	**21 49 54.1**	**-0.1**
	comp=Z,0.3nm,0.3s,baz=106,slow=5.1,SNR=2.6 comp=Z,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**60.15**	**327**	P	**P**	**21 50 04.1**	**+1.6**
	comp=Z,1.1nm,0.2s,baz=122,slow=7.0,SNR=2.5 comp=Z,1.1nm,0.2s						
KURK	**Kurchatov**	**60.15**	**327**	P	**P**	**21 50 01.4**	**-1.1**
KURK	comp=Z,1.6nm,0.7s			IAmb	IAmb	21 50 13.3	
SHEM	**Shemya Is, Ala**	**61.26**	**31**	P	**P**	**21 50 12.5**	**+2.5**
SMY	**Shemya**	**61.26**	**31**	P	**P**	**21 50 12.2**	**+2.2**
BVAR	**Borovoye Array**	**65.74**	**327**	P	**P**	**21 50 40.2**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=128,slow=6.3,SNR=1.5 comp=Z,0.5nm,0.5s						
NRIK	**Noril'sk**	**68.75**	**346**	P	**P**	**21 50 56.4**	**-2.0**
	comp=Z,2.5nm,0.5s,baz=108,slow=6.4,SNR=4.0 comp=Z,2.5nm,0.5s						
AB31	**Akbulak array**	**70.64**	**320**	P	**P**	**21 51 10.5**	**+0.1**
AB31	comp=Z,2.2nm,1.1s			IAmb	IAmb	21 51 21.2	
ABKAR	**Akbulak array**	**70.64**	**320**	P	**P**	**21 51 09.2**	**-1.2**
ARCES	**ARCESS Array B**	**88.78**	**340**	P	**P**	**21 52 46.5**	**-1.8**
	comp=Z,0.8nm,0.6s,baz=81,slow=7.5,SNR=5.0 comp=Z,0.8nm,0.6s						
KMBO	**Kilima Mbogo**	**89.19**	**269**	LR	LR	22 30 56.7	
	comp=Z,44nm,20.3s,baz=140,slow=34						
FINES	**FINESS Array B**	**90.21**	**332**	P	**P**	**21 52 53.7**	**-1.4**
	comp=Z,4.3nm,1.0s,baz=358,slow=5.7,SNR=5.7 comp=Z,4.3nm,1.0s						

*NOU **16** 22:18:32.0,40°.87S×175°.65E,h59km,MLv3.4/10,North Island, New Zealand*
*WEL **16** 22:18:32.7±0.2,41°.2°×17°.5E±°,h21km±2km,M3.5/24, ML3.5/25,MLv3.5/24,Error ellipse: s-maj=2.4km s-min=1.9km az=142.0*

ISC 16 22:18:33.2±0.8,**40°.75S**±0°.02×**175°.43E**±0°.02,**h32**km±5km, **n114**,σ1s**11**/144,**North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MRZ	**Mangatainoka R**	**0.14**	**52**	P	**Pb**	**22 18 38.8**	**-0.3**
MRZ				S	**Sb**	**22 18 43.0**	**-0.1**
MRZ				AML	AML		
MRZ				AML	AML		
HOWZ	**Holdsworth Sta**	**0.16**	**157**	P	**Pb**	**22 18 39.5**	**+0.2**
HOWZ				S	**Sb**	**22 18 44.3**	**+0.9**
HOWZ				AML	AML		
HOWZ				AML	AML		
HOCS	**Levin Horowhen**	**0.17**	**318**	P	**Pb**	**22 18 38.7**	**-0.6**
HOCS				S	**Sb**	**22 18 43.4**	**-0.1**
OGWZ	**Otaki Gorge**	**0.21**	**251**	P	**Pb**	**22 18 39.4**	**-0.3**
OGWZ				S	**Sb**	**22 18 43.8**	**-0.4**
OGWZ				AML	AML		
OGWZ				AML	AML		
OTKS	**Otaki School**	**0.22**	**268**	P	**Pb**	**22 18 39.4**	**-0.4**
OTKS				S	**Sb**	**22 18 44.3**	**0.0**
EKTS	**Eketahuna Scho**	**0.23**	**65**	P	**Pb**	**22 18 39.9**	**-0.1**
EKTS				S	**Sb**	**22 18 45.3**	**+0.8**
WRCS	**Masterton Wair**	**0.26**	**141**	P	**Pb**	**22 18 41.0**	**+0.7**
WRCS				S	**Sn**	**22 18 47.5**	**+1.6**
FXBS	**Foxton Beach S**	**0.33**	**331**	P	**Pb**	**22 18 40.5**	**-0.6**
FXBS				S	**Sb**	**22 18 46.4**	**-0.1**
TIWZ	**Tintock**	**0.35**	**95**	P	**Pb**	**22 18 41.9**	**+0.4**
TIWZ				S	**Sn**	**22 18 48.7**	**+0.7**
TIWZ				AML	AML		
TIWZ				AML	AML		
KIW	**Kapiti Island**	**0.41**	**254**	P	**Pb**	**22 18 42.0**	**-0.3**
KIW				S	**Sb**	**22 18 48.1**	**-0.6**
KIW				AML	AML		
KIW				AML	AML		
MTW	**Mount Morrison**	**0.41**	**173**	P	**Pb**	**22 18 42.9**	**+0.5**
MTW				S	**Sn**	**22 18 50.8**	**+1.2**
MTW				AML	AML		
MTW				AML	AML		
POWZ	**Post Office Ro**	**0.44**	**36**	P	**Pb**	**22 18 42.3**	**-0.5**
POWZ				AML	AML		
POWZ				AML	AML		
CAW	**Cannon Point**	**0.45**	**218**	P	**Pb**	**22 18 43.0**	**0.0**
CAW				S	**Sb**	**22 18 50.2**	**+0.5**
CAW				AML	AML		
CAW				AML	AML		
PRWZ	**Pori Road**	**0.45**	**65**	P	**Pb**	**22 18 43.3**	**+0.3**
PRWZ				S	**Sn**	**22 18 51.1**	**+0.5**
PRWZ				AML	AML		
PRWZ				AML	AML		
TMWZ	**Te Maipa**	**0.50**	**136**	P	**Pb**	**22 18 44.4**	**+0.7**
TMWZ				S	**Sn**	**22 18 54.0**	**+2.2**
TMWZ				AML	AML		
TMWZ				AML	AML		
OHWZ	**Ohakea**	**0.55**	**351**	P	**Pb**	**22 18 44.2**	**-0.3**
OHWZ				S	**Sb**	**22 18 52.6**	**+0.4**
OHWZ				AML	AML		
OHWZ				AML	AML		
CPWZ	**Castlepoint**	**0.61**	**106**	P	**Pn**	**22 18 46.2**	**+0.6**
CPWZ				S	**Sn**	**22 18 58.1**	**+3.7**
CPWZ				AML	AML		
CPWZ				AML	AML		
BFZ	**Birch Farm**	**0.62**	**84**	P	**Pb**	**22 18 45.8**	**0.0**
BFZ	**Birch Farm**	**0.62**	**84**	S	**Sn**	**22 18 55.2**	**+0.4**
BFZ	**Birch Farm**	**0.62**	**84**	P	**Pb**	**22 18 45.7**	**0.0**
BFZ				S	**Sn**	**22 18 56.0**	**+1.3**
BFZ				AML	AML		
BFZ				AML	AML		
PAWZ	**Paruwai Farm**	**0.63**	**180**	P	**Pb**	**22 18 45.9**	**0.0**
PAWZ				AML	AML		
PAWZ				AML	AML		
TRWZ	**Traveller**	**0.68**	**163**	P	**Pb**	**22 18 46.5**	**-0.2**
TRWZ				S	**Sn**	**22 18 58.6**	**+2.5**
TRWZ				AML	AML		
TRWZ				AML	AML		
MSWZ	**Moikau Station**	**0.68**	**192**	P	**Pb**	**22 18 46.5**	**-0.2**
MSWZ				S	**Sn**	**22 18 56.8**	**+0.6**
MSWZ				AML	AML		
MSWZ				AML	AML		
DVHZ	**Dannevirke**	**0.72**	**52**	P	**Pb**	**22 18 46.9**	**-0.4**
DVHZ				S	**Sb**	**22 18 57.4**	**+0.5**
DVHZ				AML	AML		
DVHZ				AML	AML		
WEL	**Wellington**	**0.73**	**223**	P	**Pb**	**22 18 47.5**	**-0.1**
WEL				S	**Sb**	**22 18 57.5**	**+0.2**
WEL				AML	AML		
WEL				AML	AML		
BHW	**Baring Head**	**0.78**	**213**	P	**Pb**	**22 18 48.1**	**-0.3**
BHW				S	**Sb**	**22 18 58.6**	**-0.1**
BHW				AML	AML		
BHW				AML	AML		
SNZO	**South Karori**	**0.79**	**224**	P	**Pb**	**22 18 48.1**	**-0.3**
TSZ	**Takapari Road**	**0.80**	**31**	P	**Pb**	**22 18 47.9**	**-0.8**
TSZ				S	**Sb**	**22 18 59.3**	**+0.1**
TSZ				AML	AML		
TSZ				AML	AML		
PLWZ	**Palliser**	**0.83**	**189**	P	**Pb**	**22 18 48.3**	**-1.0**
PLWZ				AML	AML		
PLWZ				AML	AML		
ANWZ	**Angora Road**	**0.85**	**70**	P	**Pb**	**22 18 48.9**	**-0.5**
ANWZ				S	**Sn**	**22 19 01.6**	**+1.4**
ANWZ				AML	AML		
ANWZ				AML	AML		
TCW	**Tory Channel**	**0.99**	**242**	P	**Pn**	**22 18 50.8**	**-0.1**
TCW				S	**Sb**	**22 19 03.8**	**-0.7**
TCW				AML	AML		
TCW				AML	AML		
PNHZ	**Pukenui**	**1.02**	**35**	P	**Pn**	**22 18 51.2**	**-0.2**
PNHZ				S	**Sn**	**22 19 05.9**	**+1.2**
PNHZ				AML	AML		
PNHZ				AML	AML		
WPHZ	**Waipukurau**	**1.03**	**49**	P	**Pn**	**22 18 51.3**	**-0.2**
WPHZ				AML	AML		
WPHZ				AML	AML		
PRHZ	**Porangahau**	**1.04**	**63**	P	**Pn**	**22 18 51.1**	**-0.5**
PRHZ				AML	AML		
PRHZ				AML	AML		
WAZ	**Wanganui**	**1.05**	**341**	P	**Pn**	**22 18 52.6**	**+0.8**
WAZ				S	**Sb**	**22 19 06.7**	**+0.4**
WAZ				AML	AML		
WAZ				AML	AML		
DUWZ	**D'Urville Isla**	**1.15**	**267**	P	**Pn**	**22 18 52.9**	**-0.2**
DUWZ				S	**Sn**	**22 19 08.3**	**+0.5**
DUWZ				AML	AML		
DUWZ				AML	AML		
PXZ	**Pawanui**	**1.31**	**57**	P	**Pn**	**22 18 54.7**	**-0.6**
TUWZ	**Tuamarina**	**1.31**	**238**	P	**Pn**	**22 18 55.4**	**0.0**
KRHZ	**Kereru**	**1.32**	**33**	P	**Pn**	**22 18 55.1**	**-0.4**
KRHZ				S	**Sn**	**22 19 12.7**	**+0.8**
BHHZ	**Black Hill Sta**	**1.35**	**21**	P	**Pn**	**22 18 55.9**	**0.0**
CMWZ	**Cape Campbell**	**1.36**	**222**	P	**Pb**	**22 18 59.4**	**+1.3**
CMWZ				AML	AML		
CMWZ				AML	AML		
MOVZ	**Moawhango**	**1.36**	**11**	P	**Pn**	**22 18 56.2**	**+0.1**
MOVZ				S	**Sn**	**22 19 14.1**	**+1.0**
MTVZ	**Mangateitei**	**1.36**	**1**	P	**Pn**	**22 18 57.0**	**+0.9**
WNVZ	**Wahianoa**	**1.43**	**5**	P	**Pn**	**22 18 57.6**	**+0.5**
TRVZ	**Turoa**	**1.45**	**4**	P	**Pn**	**22 18 58.2**	**+0.7**
PKVZ	**Pokaka**	**1.46**	**357**	P	**Pn**	**22 18 58.0**	**+0.6**
KAHZ	**Kahuranaki**	**1.46**	**50**	P	**Pn**	**22 18 56.8**	**-0.6**
WHVZ	**Whangaehu Hut**	**1.47**	**5**	P	**Pn**	**22 18 58.3**	**+0.5**
MAVZ	**Matarangi**	**1.48**	**4**	P	**Pn**	**22 18 58.9**	**+0.9**
TUVZ	**Tukino**	**1.49**	**7**	P	**Pn**	**22 18 58.6**	**+0.7**
FWVZ	**Far West T-bar**	**1.50**	**4**	P	**Pn**	**22 18 58.7**	**+0.6**
LREZ	**Lake Rotokare**	**1.51**	**328**	P	**Pn**	**22 18 59.4**	**+1.3**
BSWZ	**Blackbirch Sta**	**1.52**	**230**	P	**Pn**	**22 18 59.0**	**+0.8**
KWHZ	**Kaweka Forest**	**1.53**	**30**	P	**Pn**	**22 18 57.9**	**-0.5**
COVZ	**Chateau Observ**	**1.55**	**3**	P	**Pn**	**22 18 59.6**	**+0.9**
SNVZ	**South Ngauruho**	**1.57**	**6**	P	**Pn**	**22 18 59.7**	**+0.7**
NGZ	**Ngauruhoe**	**1.58**	**5**	P	**Pn**	**22 18 60.0**	**+0.8**
OTVZ	**Oturere**	**1.59**	**7**	P	**Pn**	**22 18 59.9**	**+0.5**
NNZ	**Nelson**	**1.62**	**253**	P	**Pn**	**22 19 00.3**	**+0.7**
NNZ				AML	AML		
NNZ				AML	AML		
ETVZ	**East Tongariro**	**1.62**	**8**	P	**Pn**	**22 19 00.2**	**+0.4**
MCHZ	**McNeill Hill**	**1.62**	**37**	P	**Pn**	**22 18 59.2**	**-0.4**
WTVZ	**West Tongariro**	**1.64**	**4**	P	**Pn**	**22 19 00.7**	**+0.8**
TMVZ	**Te Maari**	**1.65**	**7**	P	**Pn**	**22 19 00.4**	**+0.4**
NTVZ	**North Tongariro**	**1.66**	**7**	P	**Pn**	**22 19 00.8**	**+0.6**
KRVZ	**Karewarewa**	**1.66**	**6**	P	**Pn**	**22 19 01.0**	**+0.7**
CKHZ	**Cape Kidnapper**	**1.67**	**50**	P	**Pn**	**22 18 59.0**	**-1.2**
TWVZ	**Taurewa**	**1.68**	**0**	P	**Pn**	**22 19 01.0**	**+0.5**
VRZ	**Vera Road**	**1.70**	**342**	P	**Pn**	**22 19 01.8**	**+1.1**
PREZ	**Palmer Road**	**1.71**	**325**	P	**Pn**	**22 19 02.4**	**+1.6**
BKZ	**Black Stump Fm**	**1.78**	**28**	P	**Pn**	**22 19 01.0**	**-0.8**
BKZ	**Black Stump Fm**	**1.78**	**28**	S	**Sn**	**22 19 23.2**	**-0.2**
BKZ	**Black Stump Fm**	**1.78**	**28**	P	**Pn**	**22 19 01.0**	**-0.8**
KATZ	**Kakaramea**	**1.78**	**7**	P	**Pn**	**22 19 02.5**	**+0.5**
NMEZ	**Namu Road**	**1.79**	**318**	P	**Pn**	**22 19 03.6**	**+1.7**
NEZ	**North Egmont**	**1.80**	**325**	P	**Pn**	**22 19 03.6**	**+1.5**
RITZ	**Rihia Road**	**1.80**	**11**	P	**Pn**	**22 19 02.4**	**+0.3**
KHEZ	**Kahui Hut**	**1.81**	**323**	P	**Pn**	**22 19 04.0**	**+1.7**
KHEZ	**Kahui Hut**	**1.81**	**323**	S	**Sb**	**22 19 28.3**	**+0.1**
KHEZ	**Kahui Hut**	**1.81**	**323**	P	**Pn**	**22 19 04.0**	**+1.7**
DREZ	**Durham Road**	**1.82**	**328**	P	**Pn**	**22 19 04.7**	**+2.3**
TKNZ	**Takaka Hill**	**1.89**	**261**	P	**Pn**	**22 19 04.3**	**+0.9**
RATZ	**Rangitukua**	**1.90**	**8**	P	**Pn**	**22 19 04.0**	**+0.5**
NBEZ	**Newall Road No**	**1.91**	**320**	P	**Pn**	**22 19 05.5**	**+2.0**
PKE	**Pukeiti**	**1.91**	**324**	P	**Pn**	**22 19 05.7**	**+2.1**
ARHZ	**Aropaoanui**	**1.91**	**40**	P	**Pn**	**22 19 02.7**	**-0.9**
NMHZ	**Naumai**	**1.96**	**33**	P	**Pn**	**22 19 03.6**	**-0.8**
MRNZ	**Matariki Terra**	**2.12**	**251**	P	**Pn**	**22 19 08.5**	**+1.9**
THZ	**Tophouse**	**2.16**	**241**	P	**Pn**	**22 19 06.4**	**-0.7**
MTHZ	**Maungataniwha**	**2.18**	**30**	P	**Pn**	**22 19 06.1**	**-1.2**
KHZ	**Kahutara**	**2.19**	**220**	P	**Pn**	**22 19 06.4**	**-1.0**
KHZ	**Kahutara**	**2.19**	**220**	P	**Pn**	**22 19 06.6**	**-0.8**
QRZ	**Quartz Range**	**2.21**	**267**	P	**Pn**	**22 19 08.1**	**+0.5**
QRZ	**Quartz Range**	**2.21**	**267**	P	**Pn**	**22 19 07.4**	**-0.2**
RAHZ	**Arahi**	**2.23**	**35**	P	**Pn**	**22 19 06.8**	**-1.2**
HIZ	**Hauiti**	**2.28**	**349**	P	**Pn**	**22 19 09.1**	**+0.5**
HIZ	**Hauiti**	**2.28**	**349**	P	**Pn**	**22 19 09.3**	**+0.7**
TLZ	**Tolley Road**	**2.42**	**2**	P	**Pn**	**22 19 11.2**	**+0.6**
RTZ	**Ruatahuna**	**2.44**	**30**	P	**Pn**	**22 19 09.4**	**-1.6**
MHGZ	**Mahia Peninsul**	**2.48**	**51**	P	**Pn**	**22 19 09.9**	**-1.6**
MUGZ	**Murupara**	**2.49**	**25**	P	**Pn**	**22 19 09.7**	**-1.9**
TARZ	**Mount Tarawera**	**2.64**	**19**	P	**Pn**	**22 19 12.8**	**-1.0**
RAGZ	**Rawiri**	**2.72**	**35**	P	**Pn**	**22 19 12.7**	**-2.1**
URZ	**Urewera**	**2.81**	**28**	P	**Pn**	**22 19 13.5**	**-2.4**
MWZ	**Matawai**	**2.91**	**35**	P	**Pn**	**22 19 14.9**	**-2.4**
DSZ	**Denniston Nort**	**2.91**	**249**	P	**Pn**	**22 19 14.9**	**-2.5**
DSZ				AML	AML		
DSZ				AML	AML		
TOZ	**Tahuroa Road**	**3.01**	**1**	P	**Pn**	**22 19 18.9**	**+0.1**
LTZ	**Lake Taylor**	**3.12**	**228**	P	**Pn**	**22 19 21.1**	**+0.9**
TWGZ	**Tauwhareparae**	**3.24**	**38**	P	**Pn**	**22 19 20.1**	**-1.8**
RUGZ	**Raukumara Rang**	**3.28**	**33**	P	**Pn**	**22 19 20.1**	**-2.4**
OKCZ	**Okains Bay**	**3.46**	**210**	P	**Pn**	**22 19 22.9**	**-1.9**
HAZ	**Te Kaha**	**3.50**	**32**	P	**Pn**	**22 19 23.6**	**-1.8**
INZ	**Inchbonnie**	**3.58**	**235**	P	**Pn**	**22 19 23.7**	**-2.8**
INZ				AML	AML		
INZ				AML	AML		
WVZ	**Waitaha Valley**	**4.20**	**235**	P	Pn	22 19 40.1	+5.0
WVZ				S	**Sn**	**22 20 20.0**	**-3.1**
WVZ				AML	AML		
CTZ	**Chatham Island**	**6.61**	**119**	P	**Pn**	**22 20 07.1**	**-1.1**
CTZ				S	Sn	22 21 13.7	-8.7

*NAM **16** 22:26:55.6±9.0,34°.29S×18°.75E,h0km±999km,ML3.8, Presumed earthquake*
*PRE **16** 22:27:00.7±0.8,33°.69S×17°.71E,h5km,ML3.6,Presumed earthquake*
*NEIC **16** 22:27:03.2±1.7,33°.4S±0°.1×17°.9E±0°.1,h5km±2km, mb_Lg3.5/7,Error ellipse: s-maj=21.2km s-min=16.3km az=166.0*

ISC 16 22:27:03.3±3.1,**33°.48S**±0°.07×**17°.95E**±0°.09,**h2**km±19km, **n46**,σ2s**39**/72,**South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELIM	**Elim**	**1.86**	**127**	*e*P	**Pn**	**22 27 33.2**	**-3.1**
ELIM				*e*S	**Sn**	**22 27 57.4**	**-3.0**
ELIM	comp=Z,1μm,0.4s			IAML		22 28 02.6	
CVNA	**Calvinia**	**2.51**	**38**	*i* P	**Pn**	**22 27 46.2**	**+1.0**
CVNA				*i* S	**Sb**	**22 28 19.4**	**-1.1**
CVNA	comp=Z,43nm,0.5s			IAML		22 28 38.5	
CVNA	**Calvinia**	**2.51**	**38**	*e*P	**Pn**	**22 27 46.8**	**+1.6**
CVNA				*e*S	**Sb**	**22 28 21.2**	**+0.7**
CVNA	comp=Z,30nm,0.5s			IAML		22 28 38.3	
SUR	**Sutherland**	**2.65**	**66**	Pn	**Pn**	**22 27 47.6**	**+0.5**
SUR				Sn	**Sn**	**22 28 18.6**	**-1.4**
SUR	comp=Z,160nm,0.8s			IAmb_Lg		22 28 34.9	
SUR	**Sutherland**	**2.65**	**66**	*e*P	**Pn**	**22 27 48.5**	**+1.3**
SUR				*e*S	**Sb**	**22 28 23.8**	**-0.7**
SUR	comp=Z,190nm,0.8s			IAML		22 28 46.8	
MERW	**Merweville**	**3.11**	**76**	*e*P	**Pn**	**22 27 53.9**	**+0.5**
MERW				*e*S	**Sn**	**22 28 34.5**	**+3.3**
MERW	comp=Z,330nm,0.4s			IAML		22 28 48.4	
FRAZ	**Fraserburg**	**3.30**	**63**	*e*P	**Pn**	**22 27 58.1**	**+2.0**
FRAZ				*e*S	**Sn**	**22 28 39.2**	**+3.2**
FRAZ	comp=Z,153nm,0.8s			IAML		22 28 52.6	
KOMG	**Komaggas**	**3.69**	**354**	*i* P	**Pn**	**22 28 00.6**	**-0.8**
KOMG				*i* S	**Sg**	**22 29 01.5**	**-0.3**
KOMG	comp=Z,52nm,0.3s			IAML		22 29 10.1	
KOMG	**Komaggas**	**3.69**	**354**	*e*P	**Pn**	**22 28 02.4**	**+1.0**
KOMG				*e*S	**Sn**	**22 28 46.7**	**+1.2**
GRAN	**Grantham**	**3.74**	**73**	*e*P	**Pn**	**22 28 04.2**	**+2.0**
GRAN				*e*S	**Sn**	**22 28 49.9**	**+3.1**
GRAN	comp=Z,292nm,0.3s			IAML		22 29 10.7	
BRAK	**Brakfontein**	**4.50**	**69**	*e*P	**Pn**	**22 28 13.7**	**+1.0**
BRAK				*e*S	**Sn**	**22 29 08.1**	**+2.4**
BRAK	comp=Z,94nm,0.4s			IAML		22 29 37.7	
ALKP	**Alkanpan, Nort**	**5.08**	**47**	IAmb_Lg		22 29 48.4	
	comp=Z,82nm,0.8s						
ALKP	**Alkanpan, Nort**	**5.08**	**47**	*e*P	**Pn**	**22 28 22.7**	**+2.1**
ALKP				*e*S	**Sn**	**22 29 22.6**	**+2.7**
ALKP	comp=Z,58nm,0.9s			IAML		22 29 58.2	
BFON	**Badsfontein, M**	**5.12**	**73**	*e*P	**Pn**	**22 28 22.5**	**+1.3**
BFON				*e*S	**Sn**	**22 29 22.4**	**+1.3**
BFON	comp=Z,144n

KOOLE	Kule	10.63	11	Pn	Pn	22 29 34.5	-2.3
LBTB	Lobatse	10.75	40	Pn	Pn	22 29 36.7	-1.7
LBTB	Lobatse	10.75	40	*i* P	Pn	22 29 37.4	-1.0
LBTB				*i* S	Sn	22 31 42.1	+2.6
LBTB	Lobatse	10.75	40	*e*P	Pn	22 29 41.0	+2.6
LBTB				*e*S	Sn	22 31 37.8	-1.7
LBTB				IAML		22 33 02.1	
	comp=Z,17nm,0.7s						
WIN	Windhoek	10.89	356	Pn	Pn	22 29 39.4	-1.0
HRAO	HartRAO	11.35	51	*e*P	Pn	22 29 48.3	+1.7
HRAO				*e*S	Sn	22 31 51.5	-2.6
KDWAN	Kaudwane	11.66	32	Pn	Pn	22 29 48.9	-1.9
LEPH	Lephalale, Lim	12.90	45	*e*P	Pn	22 30 09.8	+2.0
LEPH				*e*S	Sn	22 32 28.5	-3.5
LEPH				IAML		22 33 59.3	
	comp=Z,21nm,0.5s						
POGA	Pongola	13.35	66	Pn	Pn	22 30 12.9	-0.9
CRAIL	Swartwater, Li	13.97	43	*e*P	Pn	22 30 25.0	+2.5
CRAIL				*e*S	Sn	22 32 54.6	-3.7
CRAIL				IAML		22 34 30.9	
	comp=Z,349nm,0.8s						
SOOWA	Sowa	14.81	32	*i* P	Pn	22 30 24.2	-10
SOOWA				*i* S	Sn	22 33 02.0	-17
SOOWA				IAML		22 35 16.9	
	comp=N,23nm,0.7s						
MOPA	Mopani	15.42	53	*i* P	Pn	22 30 31.5	-11
MOPA				*i* S	Sn	22 33 33.2	-0.2
MATP	Matopo	16.03	38	*i* P	Pn	22 30 41.8	-8.2
MATP				*i* S	Sn	22 33 52.4	+3.9
BLWY	Bulawayo	16.32	38	*i* P	Pn	22 30 44.3	-10
BLWY				*i* S	Sn	22 33 57.0	+1.4

MOS **16** *22:45:20.9±0.8, 6˚.92S×155˚.73E, h36km, mb5.6/46, MS5.1/19, Error ellipse: s-maj=7.5km s-min=5.4km az=121.7*

IDC **16** *22:45:22.8±1.4, 7˚.01S×155˚.85E, h44km±11km, mb4.9/27, mbtmp5.2/32, ML4.5/5, MS4.8/58, Error ellipse: s-maj=13.4km s-min=9.9km az=75.0*

NEIC **16** *22:45:22.4±2.0, 6˚.96S±0˚.08×155˚.74E±0˚.04, h33km±1km, mb5.4/258, Ms_20 5.3/436, Mwb5.6/68, Mww5.5/16, Error ellipse: s-maj=14.8km s-min=3.7km az=28.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr2.77; Mθθ-0.97; Mφφ-1.80; Mrθ-0.11; Mθφ0.83; Mφr-1.01; Fault plane solution: M₀2.76000×10¹⁷ NP1: φs319.81000°, δ36.82000°, λ73.99000°. NP2: φs159.53000°, δ54.82000°, λ101.67000°. Principal axes: T 3.0006, Plg77.0000°, Azm108.0000°; N -0.5642, Plg10.0000°, Azm333.0000°; P -2.4364, Plg9.0000°, Azm241.0000°;*

BJI **16** *22:45:23.6, 6˚.97S×155˚.96E, h78km, mB5.3/53, mb5.1/84, Ms5.1/79, Ms7 5.0/79*

GFZ **16** *22:45:24.3±0.1, 7˚S±2˚×15˚6E±˚, h49km, M5.3/77, mb5.4/77*

NEIC **16** *22:45:25.6, 7˚.07S×155˚.74E, h60km*

GCMT **16** *22:45:26.4±0.1, 7˚.18S±0˚.01×155˚.61E±0˚.01, h42km, MW5.6/157, Moment Tensor Solution. s157,c271; s150,c303; Duration: 1s5 Moment tensor: Scale 10¹⁷ Nm; Mrr2.33±.03; Mθθ-1.86±.02; Mφφ-0.47±.02; Mrθ-0.27±.03; Mθφ 1.58±.02; Mφr-0.60±.03; Best double couple: M₀2.71900×10¹⁷ NP1:φs286.00000°, δ47.00000°, λ65.00000°. NP2:φs140.00000°, δ49.00000°, λ114.00000°. Principal axes: T 2.5440, Plg72.0000°, Azm120.0000°; N 0.3460, Plg18.0000°, Azm304.0000°; P -2.8940, Plg1.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ **16** *22:45:26.3, 6˚.98S×155˚.67E, h48km, Mw5.5/102, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr1.89; Mθθ-1.63; Mφφ-0.25; Mrθ-0.33; Mθφ1.11; Mφr0.05; Fault plane solution: M₀2.11708×10¹⁷ NP1: φs123.35139°, δ40.85670°, λ96.34121°. NP2: φs294.99280°, δ49.44580°, λ84.54320°. Principal axes: T 1.9186, Plg84.0189°, Azm164.8030°; N 0.3527, Plg4.1434°, Azm298.5468°; P -2.2713, Plg4.3059°, Azm28.8594°;*

NEIC **16** *22:45:26.6, 7˚.13S×155˚.84E, h40km, Moment Tensor Solution. Duration: 2s2 Moment tensor: Scale 10¹⁷Nm; Mrr2.37; Mθθ-1.68; Mφφ-0.69; Mrθ0.08; Mθφ0.60; Mφr-0.30; Fault plane solution: M₀2.21000×10¹⁷ NP1: φs290.62000°, δ42.62000°, λ82.97000°. NP2: φs120.13000°, δ47.78000°, λ96.42000°. Principal axes: T 2.3970, Plg85.0000°, Azm87.0000°; N -0.4299, Plg5.0000°, Azm296.0000°; P -1.9671, Plg3.0000°, Azm206.0000°;*

NEIC **16** *22:45:26.3, 7˚.03S×155˚.74E, h67km*

DJA **16** *22:45:29.8±0.5, 7˚S±3˚×15˚6E±˚, h108km±5km, M5.3/126, mB5.8/91, mb5.5/126, MLv4.9/1, Mw(mB)5.4/91, MwMwp5.2/19, Mwp5.4/19*

ISC 16 22:45:23.8±0.2, 7˚.00S±0˚.03×155˚.74E±0˚.03, h53km±1km, h53km:pP-P, n1323, σ1935/1117, mb5.3/318, MS5.3/315, 86C-31D, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TATA	Tatamba Isabel	4.26	109	P	Pn	22 46 28.2	+2.0
TATA	Tatamba Isabel	4.26	109	S	Sn	22 47 18.3	+3.7
RABL	Rabaul	4.52	308		Pn	22 46 32.2	+2.5
KRVT	Keravat (AS076	4.56	306	P	Pn	22 46 31.9	+1.6
	169nm,0.3s,baz=277,slow=14,SNR=13						
KRVT				S	Sn	22 47 25.6	+3.5
	2μm,0.5s,baz=316,slow=22,SNR=3.7 172nm,0.5s						
KRVT				AML	AML		
SAVO	Savo Central	4.56	118	P	Pn	22 46 33.0	+2.6
I40PG	Keravat	4.58	306	I	I	23 07 20.0	
	baz=123,slow=314,SNR=2.8						
HNR	Honiara	4.82	120	P	Pn	22 46 35.9	+2.1
	1μm,0.9s,baz=300,slow=2.6,SNR=24						
HNR				S	Sn	22 47 32.8	+4.5
	3μm,0.9s,baz=134,slow=21,SNR=7.1						
HNR				LR	LR	22 48 36.3	
	comp=Z,26μm,18.4s,baz=36,slow=41						
HNR	Honiara	4.82	120	P	Pn	22 46 36.9	+3.1
HNR	Honiara	4.82	120	P	Pn	22 46 34.0	+0.2
HNR	Honiara	4.82	120	Pn	Pn	22 46 34.0	+0.2
HNR	Honiara	4.82	120	P	Pn	22 46 34.6	+0.8
HNR				S	Sn	22 47 32.6	+4.3
HNR				AML	AML		
HNR				AML	AML		
HNR	Honiara	4.82	120	P	Pn	22 46 37.2	+3.4
ALEG	Aligegeo Malai	5.21	110	P	Pn	22 46 39.7	+0.5
	2μm,0.9s						
ALEG				AML	AML		
NGOA	Tingoa Renbel	6.22	137	P	Pn	22 46 54.2	+1.1
	288nm,0.9s						
NGOA				AML	AML		
HURO	Huro Makira	7.00	120	P	Pn	22 47 05.3	+1.6
	430nm,1.0s						
HURO				AML	AML		
PMG	Port Moresby	8.82	254	P	Pn	22 47 30.8	+2.1
	66nm,0.3s,baz=58,slow=7.9,SNR=69						
PMG				S	Sn	22 49 09.0	+2.3
	228nm,0.9s,baz=83,slow=22,SNR=9.6						
PMG				LR	LR	22 50 43.6	
	comp=Z,13μm,21.3s,baz=57,slow=36 516nm,0.6s						
PMG				AML	AML		
PMG	Port Moresby	8.82	254	P	Pn	22 47 28.2	-0.6
	742nm,0.8s						
PMG	Port Moresby	8.82	254	*d*iP	Pn	22 47 30.0	+1.3
PMG				pmax	pmax		
	comp=Z,572nm,0.8s						
PMG	Port Moresby	8.82	254	Pn	Pn	22 47 28.1	-0.6
PMG	Port Moresby	8.82	254	P	Pn	22 47 31.2	+2.5
	comp=Z,742nm,0.8s						
MANU	Manus Island	9.69	300	Pn	Pn	22 47 41.6	+1.0
SANVU	Saraoutou	14.03	128	P	Pn	22 48 42.2	+2.4
	comp=Z,272nm,1.4s						
SANVU	Saraoutou	14.03	128	P	Pn	22 48 40.8	+1.0
SANVU	Saraoutou	14.03	128	P	P	22 48 43.6	-2.6
	comp=Z,272nm,1.4s						
COEN	Coen	14.15	240	P	Pn	22 48 44.1	+2.6
	comp=Z,78nm,1.1s						
COEN	Coen	14.15	240	P	Pn	22 48 44.2	+2.7
	comp=Z,78nm,1.1s						
AUAYR	Ayr State High	14.89	212	P	Pn	22 48 52.0	+0.8
	comp=Z,170nm,1.2s						
JAY	Jayapura	15.63	286	P	Pn	22 49 02.6	+1.8
	comp=Z,1.3nm,0.3s,baz=171,slow=4.8,SNR=5.3						
JAY				LR	LR	22 55 25.0	
	comp=Z,4μm,21.0s,baz=106,slow=38 comp=Z,27nm,0.8s						
JAY				AML	AML		
JAY	Jayapura	15.63	286	P	P	22 49 05.4	+1.3
MTSU	Mount Surprise	15.69	224	P	P	22 49 05.2	+0.4
	comp=Z,46nm,1.2s						
MTSU	Mount Surprise	15.69	224	P	P	22 49 03.9	-0.8
	comp=Z,46nm,1.2s						
MTSU	Mount Surprise	15.69	224	P	P	22 49 03.9	-0.8
	comp=Z,46nm,1.2s						
MTSU	Mount Surprise	15.69	224	P	Pn	22 49 03.4	+1.8
	comp=Z,46nm,1.2s						
MTSU	Mount Surprise	15.69	224	P	P	22 49 04.1	-0.7
	comp=Z,46nm,1.2s						
KOUNC	Koumac, New Ca	15.81	149	P	P	22 49 05.4	-0.6
	comp=Z,116nm,1.3s						
KOUNC	Koumac, New Ca	15.81	149	P	Pn	22 49 03.9	+0.8
CTA	Charters Tower	15.93	214	P	P	22 49 07.9	+0.5
	comp=Z,54nm,1.1s,comp=Z,0.0nm						
CTA	Charters Tower	15.93	214	P	P	22 49 06.8	-0.6
	comp=Z,54nm,1.1s,comp=Z,0.0nm						
CTA	Charters Tower	15.93	214	P	P	22 49 06.5	-0.9
	comp=Z,54nm,1.1s,comp=Z,0.0nm						
CTA	Charters Tower	15.93	214	P	P	22 49 06.5	-0.9
	comp=Z,1.3nm,0.3s,baz=31,slow=14,SNR=29						
CTA				LR	LR	22 54 40.0	
	comp=Z,8μm,19.6s,baz=70,slow=35 comp=Z,108nm,1.0s						
CTA				AML	AML		
CTA	Charters Tower	15.93	214	P	Pn	22 49 06.1	+1.5
	comp=Z,3.9nm,1.1s						
CTAO	Cters Tower	15.93	214	P	Pn	22 49 05.8	+1.1
	comp=Z,49nm,1.1s						
CTAO	Charters Tower	15.93	214	P	Pn	22 49 05.7	+1.1
CTAO				pmax	pmax		
	comp=Z,119nm,1.0s						
CTAO	Charters Tower	15.93	214	P	Pn	22 49 05.7	+1.1
CTAO	Charters Tower	15.93	214	P	P	22 49 06.5	-0.9
	comp=Z,136nm,1.1s						
GENI	Genyem	16.12	285	P	P	22 49 10.6	+1.1
	comp=Z,3μmcomp=Z,103nm,0.7s						
GENI	Genyem	16.12	285	P	Pn	22 49 07.3	+0.3
	comp=Z,104nm,0.7s						
DVP	Devils Point	16.16	132	P	P	22 49 09.8	-0.1
	comp=Z,2μm,1.7s						
RTV	Rentapao	16.38	132	P	P	22 49 12.0	-0.3
	comp=Z,441nm,1.6s						
NOUC	Port Laguerre	18.15	147	P	Pn	22 49 33.5	+1.4
	comp=Z,85nm,0.9s						
NOUC	Port Laguerre	18.15	147	P	Pn	22 49 33.3	+1.2
DZM	Mont Dzumac	18.20	147	P	Pn	22 49 32.9	+0.1
	comp=Z,1.9nm,0.3s,baz=350,slow=9.9,SNR=23 comp=Z,39nm,1.0s						
DZM				AML	AML		
ONTNC	Ouen Toro	18.39	147	P	Pn	22 49 37.8	+2.7
	comp=Z,126nm,1.6s						
ONTNC	Ouen Toro	18.39	147	P	P	22 49 34.3	-0.2
YATNC	Mamie plateau,	18.44	145	P	Pn	22 49 38.4	+2.8
	comp=Z,101nm,0.9s						
MARNC	Mare, Loyalty	18.66	142	P	Pn	22 49 40.8	+2.4
	comp=Z,415nm,1.1s						
MARNC	Mare, Loyalty	18.66	142	P	P	22 49 37.4	-0.2
OUENC	Ouen Island, N	18.70	146	P	P	22 49 37.9	0.0
OUENC				IAmb	IAmb	22 49 42.3	
	comp=Z,490nm,1.6s						
EIDS	Eidsvold	18.80	193	P	Pn	22 49 42.2	+2.3
	comp=Z,60nm,1.3s,comp=Z,0.0nm						
EIDS	Eidsvold	18.80	193	P	Pn	22 49 41.2	+1.3
	comp=Z,60nm,1.3s,comp=Z,0.0nm						
EIDS	Eidsvold	18.80	193	P	Pn	22 49 41.2	+1.3
	comp=Z,60nm,1.3s,comp=Z,0.0nm						
EIDS	Eidsvold	18.80	193	P	Pn	22 49 41.6	+1.6
	comp=Z,60nm,1.3s						
EIDS	Eidsvold	18.80	193	P	P	22 49 39.5	+0.5
EIDS	Eidsvold	18.80	193	P	Pn	22 49 41.6	+1.6
	comp=Z,60nm,1.3s						
TARA	Tarawa	19.05	65	P	Pn	22 49 43.3	+0.2
	comp=Z,409nm,1.1s						
TARA	Tarawa	19.05	65	P	Pn	22 49 44.9	+1.8
	comp=Z,418nm,1.1s						
PINNC	Pines Island,	19.19	145	P	Pn	22 49 45.8	+1.2
	comp=Z,212nm,1.0s						
PINNC	Pines Island,	19.19	145	P	P	22 49 43.0	-0.3
PINNC				IAmb	IAmb	22 49 53.4	
	comp=Z,242nm,1.1s						
BAKI	Biak	20.41	286	P	Pn	22 49 58.6	-0.5
	comp=Z,4μmcomp=Z,4μmcomp=Z,242nm,1.0s						
RMQ	Roma	20.48	198	P	Pn	22 50 01.1	+1.1
	comp=Z,44nm,1.3s						
RMQ	Roma	20.48	198	P	Pn	22 49 59.9	-0.1
	comp=Z,51nm,1.4s						
RMQ	Roma	20.48	198	P	P	22 49 55.8	-1.5
RMQ	Roma	20.48	198	P	Pn	22 49 59.7	-0.3
	comp=Z,52nm,1.4s						
RMQ	Roma	20.48	198	P	Pn	22 50 00.5	+0.5
	comp=Z,44nm,1.3s						
QIS	Mount Isa	20.64	228	P	Pn	22 50 02.4	+0.6
	comp=Z,87nm,0.9s,comp=Z,0.0nm						
QIS	Mount Isa	20.64	228	P	P	22 50 00.4	+1.4
	comp=Z,87nm,0.9s,comp=Z,0.0nm						
QIS	Mount Isa	20.64	228	P	Pn	22 50 01.8	0.0
	comp=Z,87nm,0.9s,comp=Z,0.0nm						
QIS	Mount Isa	20.64	228	P	P	22 50 00.2	+1.1
	comp=Z,87nm,0.9s						
QIS	Mount Isa	20.64	228	P	P	22 50 00.1	+1.1
	comp=Z,87nm,0.9s						
TW1H	Toowoomba 1 Ha	20.74	189	P	Pn	22 50 02.5	-0.5
	comp=Z,114nm,0.8s						
GC1S	Gold Coast 1 S	21.15	185	P	P	22 50 07.2	+2.7
	comp=Z,107nm,0.7s						
QLP	Quilpie	22.34	208	P	P	22 50 18.7	+1.4
	comp=Z,322nm,1.2s						
QLP	Quilpie	22.34	208	P	P	22 50 18.1	+0.9
	comp=Z,322nm,1.2s						
QLP				S	S	22 54 13.2	-6.5
QLP	Quilpie	22.34	208	P	P	22 50 18.5	+1.2
	comp=Z,322nm,1.2s						
QLP	Quilpie	22.34	208	P	P	22 50 18.2	+0.9
	comp=Z,322nm,1.2s						
GUMO	Guam	23.13	332	LR	LR	22 58 26.9	
	comp=Z,2μm,21.9s,baz=150,slow=34						
FUNA	Funafuti	23.29	95	P	P	22 50 29.2	+2.0
	comp=Z,144nm,1.9s						
FUNA	Funafuti	23.29	95	P	P	22 50 27.9	+0.7
FUNA	Funafuti	23.29	95	P	P	22 50 27.7	+0.5
	comp=Z,194nm,1.9s						
AULRC	Lightning Ridg	23.48	197	P	P	22 50 30.3	+1.5
	comp=Z,427nm,0.8s						
KDU	Kadu	23.60	254	P	P	22 50 30.9	+0.8
	comp=Z,69nm,1.2s						
KDU	Kakadu	23.60	254	P	P	22 50 30.1	0.0
	comp=Z,69nm,1.2s						
KDU	Kakadu	23.60	254	P	P	22 50 30.6	+0.5
	comp=Z,69nm,1.2s						
ARMA	Armidale	23.61	189	P	P	22 50 31.8	+1.6
	comp=Z,90nm,1.5s,comp=Z,0.0nm						
ARMA	Armidale	23.61	189	P	P	22 50 31.0	+0.9
	comp=Z,89nm,1.5s,comp=Z,0.0nm						
ARMA	Armidale	23.61	189	P	P	22 50 31.6	+1.4
	comp=Z,89nm,1.5s,comp=Z,0.0nm						
ARMA	Armidale	23.61	189	P	P	22 50 31.5	+1.3
	comp=Z,89nm,1.5s						
ARMA	Armidale	23.61	189	P	P	22 50 30.1	-0.1
ARMA	Armidale	23.61	189	P	P	22 50 31.8	+1.6
	comp=Z,90nm,1.5s						
FAKI	Fak Fak	23.74	279	P	P	22 50 32.0	+0.5
	comp=Z,152nm,1.9s						
FAKI	Fak Fak	23.74	279	P	P	22 50 31.3	-0.2
FAKI				IAmb	IAmb	22 50 56.5	
	comp=Z,120nm,1.0s						
FAKI	Fak Fak	23.74	279	P	P	22 50 32.0	+0.5
	comp=Z,4μmcomp=Z,3μmcomp=Z,151nm,1.8s						
FAKI	Fak Fak	23.74	279	P	P	22 50 31.7	+0.2
	comp=Z,152nm,1.9s						
MSVF	Nonsavu	24.23	118	LR	LR	22 59 21.8	
	comp=Z,4μm,19.7s,baz=300,slow=35						
MSVF	Nonsavu	24.23	118	P	P	22 50 37.6	+1.6
	comp=Z,534nm,1.2s						
MSVF	Nonsavu	24.23	118	*de*P	P	22 50 36.3	+0.3
MSVF				pmax	pmax		
	comp=Z,647nm,1.2s						
MSVF	Nonsavu	24.23	118	P	P	22 50 36.6	+0.6
MSVF	Nonsavu	24.23	118	P	P	22 50 36.8	+0.8
MSVF	Nonsavu	24.23	118	P	P	22 50 37.0	+1.0
	comp=Z,532nm,1.2s						
SAUI	Saumlaki	24.25	266	P	P	22 50 37.9	+1.8
SAUI	Saumlaki	24.25	266	P	P	22 50 38.3	+2.2
WR0	Warramunga Arr	24.26	236	P	P	22 50 36.9	+0.8
WR0	Warramunga Arr	24.26	236	P	P	22 50 36.3	+0.1
WR9	Warramunga Arr	24.28	236	P	P	22 50 36.9	+0.6
WR9	Warramunga Arr	24.28	236	P	P	22 50 37.0	+0.6
WB0	Warramunga Arr	24.29	236	P	P	22 50 36.8	+0.4
WR8	Warramunga Arr	24.29	236	IAmb	IAmb	22 50 50.6	
	comp=Z,94nm,1.3s						
WRAB	Tennant Creek	24.41	236	P	P	22 50 38.3	+0.8
	comp=Z,72nm,1.7s						
WRAB	Tennant Creek	24.41	236	*c* *i*P	P	22 50 37.5	0.0
WRAB				pmax	pmax		
	comp=Z,283nm,1.6s						
WRAB	Tennant Creek	24.41	236	P	P	22 50 38.0	+0.5
WRAB	Tennant Creek	24.41	236	P	P	22 50 38.8	+1.3
	comp=Z,136nm,1.8s						
WRA	Warramunga Arr	24.42	236	P	P	22 50 38.1	+0.5
	comp=Z,29nm,0.7s,baz=60,slow=9.3,SNR=45						
WRA				PcP	PcP	22 54 16.2	+0.5
	comp=Z,12nm,0.9s,baz=54,slow=2.0,SNR=6.8						
WRA				ScP	ScP	22 57 50.8	+0.6
	comp=Z,4.6nm,0.8s,baz=68,slow=3.1,SNR=6.4						
WRA				LR	LR	23 00 15.6	
	comp=Z,5μm,18.7s,baz=88,slow=36						
WRA				PKiKP	PKiKP	23 01 56.6	-1.6
	comp=Z,0.8nm,0.8s,baz=328,slow=0.8,SNR=4.7 comp=Z,29nm,0.7s						
WRA	Warramunga Arr	24.42	236	P	P	22 50 37.0	-0.6
LHI	Lord Howe Isla	24.59	173	P	P	22 50 39.9	+0.9
	comp=Z,48nm,1.6s						
LHI	Lord Howe Isla	24.59	173	P	P	22 50 40.2	+1.2
	comp=Z,48nm,1.6s						
LHI	Lord Howe Isla	24.59	173	P	P	22 50 39.2	+0.2
	comp=Z,56nm,1.6s						
LHI	Lord Howe Isla	24.59	173	P	P	22 50 39.2	+0.2
NFK	Norfolk Island	24.76	154	P	P	22 50 43.6	+3.0
	comp=Z,63nm,1.1s						
MTN	Manton Dam	24.91	255	P	P	22 50 43.3	+1.2
	comp=Z,107nm,1.0s,comp=Z,0.0nm						
MTN	Manton Dam	24.91	255	P	P	22 50 42.6	+0.5
	comp=Z,107nm,1.0s,comp=Z,0.0nm						
MTN	Manton Dam	24.91	255	P	P	22 50 42.8	+0.7
	comp=Z,107nm,1.0s,comp=Z,0.0nm						
MTN	Manton Dam	24.91	255	P	P	22 50 42.2	+0.1
MTN				IAmb	IAmb	22 50 44.3	
	comp=Z,84nm,0.9s						
INKA	Innaminka	25.05	213	P	P	22 50 43.0	-0.2
INKA				IAmb	IAmb	22 50 56.5	
	comp=Z,46nm,0.7s						
DRS	Darwin Rock St	25.06	256	P	P	22 50 44.7	+1.3
	comp=Z,96nm,0.9s						
SIJI	Sorong	25.15	283	P	P	22 50 45.1	+0.8
	comp=Z,2μmcomp=Z,165nm,0.7s						
DGTI	Dogotuki	25.23	114	P	P	22 50 45.3	+0.3
	comp=Z,120nm,1.5s						
TAVE	Taveuni	25.68	114	P	P	22 50 50.8	+1.7
	comp=Z,206nm,0.9s						
AUDCS	Dubbo College	25.96	194	P	P	22 50 52.8	+1.4
	comp=Z,88nm,1.2s						
CMSA	Cobar Meteorol	26.15	200	P	P	22 50 53.5	+0.3
	comp=Z,101nm,1.2s,comp=Z,0.0nm						
CMSA	Cobar Meteorol	26.15	200	P	P	22 50 53.4	+0.3
	comp=Z,101nm,1.2s,comp=Z,0.0nm						
CMSA	Cobar Meteorol	26.15	200	P	P	22 50 53.4	+0.3
	comp=Z,101nm,1.2s,comp=Z,0.0nm						
CMSA	Cobar Meteorol	26.15	200	P	P	22 50 53.7	+0.5
	comp=Z,101nm,1.2s						
CMSA	Cobar Meteorol	26.15	200	P	P	22 50 53.6	+0.3
	comp=Z,101nm,1.2s						
MGCD	Mangrove Creek	26.43	189	P	P	22 50 56.3	+0.6
	comp=Z,111nm,1.1s						
MGCD	Mangrove Creek	26.43	189	P	P	22 50 56.5	+0.8
	comp=Z,111nm,1.1s						
AS17	Alice Springs	26.66	229	P	P	22 50 58.2	+0.4
	comp=Z,28nm,1.0s						
AS17	Alice Springs	26.66	229	P	P	22 50 57.6	-0.3
	comp=Z,28nm,1.0s						
AS17	Alice Springs	26.66	229	P	P	22 50 58.0	+0.2
	comp=Z,28nm,1.0s						
AS06	Alice Springs	26.66	229	P	P	22 50 57.6	-0.3
	comp=Z,30nm,1.2s						
AS06	Alice Springs	26.66	229	P	P	22 50 58.1	+0.2
	comp=Z,30nm,1.2s						
FUTU	Fugatoga	26.68	108	P	P	22 51 00.6	+2.5
	comp=Z,616nm,1.2s						
FUTU	Fugatoga	26.68	108	P	P	22 50 59.3	+1.2
FUTU	Fugatoga	26.68	108	P	P	22 51 00.1	+2.0
	comp=Z,153nm,1.2s						
AS01	Alice Springs	26.69	229	P	P	22 50 58.4	+0.2
	comp=Z,28nm,0.8s						
AS01	Alice Springs	26.69	229	P	P	22 50 58.4	+0.2
	comp=Z,28nm,0.8s						
AS01	Alice Springs	26.69	229	P	P	22 50 59.7	+1.5
	comp=Z,28nm,0.8s						
AS15	Alice Springs	26.70	229	P	P	22 50 58.6	+0.3
	comp=Z,31nm,0.7s						
AS09	Alice Springs	26.71	229	P	P	22 50 58.8	+0.4
	comp=Z,31nm,0.7s						
AS31	Alice Springs	26.72	229	P	P	22 50 58.8	+0.3
	comp=Z,11nm,0.6s						
AS31	Alice Springs	26.72	229	P	P	22 50 58.7	+0.3
	comp=Z,11nm,0.6s						
AS31	Alice Springs	26.72	229	P	P	22 50 57.5	-0.9
ASAR	Alice Springs	26.72	229	P	P	22 50 58.2	-0.2
	comp=Z,4.9nm,0.3s,baz=59,slow=8.7,SNR=82						
ASAR				PcP	PcP	22 54 21.1	+0.2
	comp=Z,5.9nm,0.6s,baz=70,slow=2.7,SNR=6.3						
ASAR				ScP	ScP	22 57 57.9	+1.0
	comp=Z,2.8nm,0.7s,baz=58,slow=2.7,SNR=7.0						
ASAR				LR	LR	23 01 25.2	
	comp=Z,5μm,18.1s,baz=101,slow=36 comp=Z,4.9nm,0.3s						
ASAR	Alice Springs	26.72	229	P	P	22 50 57.8	-0.7
SYDH	Sydney Hard Ro	27.03	189	P	P	22 51 03.7	+2.7
	comp=Z,68nm,1.1s						
RIV	Riverview	27.03	188	P	P	22 51 02.3	+1.2
	comp=Z,141nm,1.7s						
LKBA	Tubou, Lakemba	27.18	117	P	P	22 51 02.6	0.0
	comp=Z,3.2nm,1.1s						
H11S3	WAKE ISLAND Hy	27.54	23	T	T	23 19 37.7	
	baz=202,slow=75,SNR=1388						
H11S2	WAKE ISLAND Hy	27.55	23	T	T	23 19 29.4	
	baz=202,slow=75,SNR=1107						
H11S1	WAKE ISLAND Hy	27.56	23	T	T	23 19 32.8	
	baz=202,slow=75,SNR=768

CNB	**Canberra Magne**	**28.78 191**	P	**P**	**22 51 18.3**	**+1.5**	
	comp=Z,60nm,1.4s						
CNB	**Canberra Magne**	**28.78 191**	P	**P**	**22 51 17.7**	**+1.0**	
	comp=Z,60nm,1.4s						
AUMTS	**Mt Stromlo**	**28.86 191**	P	**P**	**22 51 19.7**	**+2.3**	
	comp=Z,39nm,1.2s						
CAN	**Canberra**	**28.86 191**	P	**P**	**22 51 18.9**	**+1.5**	
	comp=Z,33nm,1.2s						
CAN	**Canberra**	**28.86 191**	P	**P**	**22 51 19.2**	**+1.8**	
	comp=Z,32nm,1.2s						
CAN	**Canberra**	**28.86 191**	P	**P**	**22 51 18.2**	**+0.7**	
	comp=Z,33nm,1.2s						
CAN	**Canberra**	**28.86 191**	P	**P**	**22 51 19.2**	**+1.8**	
	comp=Z,49nm,1.2s						
CAN	**Canberra**	**28.86 191**	P	**P**	**22 51 17.9**	**+0.5**	
CAN			pmax	pmax			
	comp=Z,111nm,1.6s						
CAN			MLR	MLR			
	comp=Z,7µm,18.0s						
CAN	**Canberra**	**28.86 191**	P	**P**	**22 51 17.9**	**+0.5**	
CAN			IAmb	IAmb	22 51 36.5		
	comp=Z,111nm,1.6s						
CAN			IAMs_20	IAMs_20	23 02 20.8		
	comp=Z,7µm,18.0s						
TNTI	**Ternate**	**29.34 284**	P	**P**	**22 51 22.6**	**+0.7**	
	comp=Z,45nm,1.5s						
TNTI	**Ternate**	**29.34 284**	P	**P**	**22 51 23.1**	**+1.1**	
TNTI			IAmb	IAmb	22 51 40.9		
	comp=Z,189nm,1.8s						
TNTI	**Ternate**	**29.34 284**	P	**P**	**22 51 22.8**	**+0.9**	
	comp=Z,45nm,1.5s						
SANI	**Sanana**	**30.05 278**	P	**P**	**22 51 29.4**	**+1.2**	
	comp=Z,62nm,1.0s						
SANI	**Sanana**	**30.05 278**	P	**P**	**22 51 29.4**	**+1.2**	
	comp=Z,1µmcomp=Z,1µmcomp=Z,62nm,0.9s						
SANI	**Sanana**	**30.05 278**	P	**P**	**22 51 28.2**	**0.0**	
	comp=Z,62nm,1.0s						
MILA	**Mila**	**30.51 190**	P	**P**	**22 51 33.9**	**+1.8**	
	comp=Z,23nm,1.2s						
MILA	**Mila**	**30.51 190**	P	**P**	**22 51 35.2**	**+3.1**	
	comp=Z,23nm,1.2s						
MILA	**Mila**	**30.51 190**	P	**P**	**22 51 33.0**	**+0.9**	
	comp=Z,23nm,1.2s						
HTT	**Hallett**	**30.57 208**	P	**P**	**22 51 33.4**	**+0.8**	
	comp=Z,17nm,1.1s						
HTT	**Hallett**	**30.57 208**	P	**P**	**22 51 33.6**	**+0.9**	
	comp=Z,17nm,1.1s						
HTT	**Hallett**	**30.57 208**	P	**P**	**22 51 33.2**	**+0.6**	
	comp=Z,17nm,1.1s						
HTT	**Hallett**	**30.57 208**	P	**P**	**22 51 33.4**	**+0.8**	
HTT	**Hallett**	**30.57 208**	P	**P**	**22 51 32.7**	**+0.1**	
	comp=Z,41nm,1.1s						
SOEI	**Soe**	**31.25 263**	P	**P**	**22 51 40.1**	**+1.2**	
	comp=Z,88nm,0.7s						
SOEI	**Soe**	**31.25 263**	IAmb	IAmb	22 51 53.4		
	comp=Z,66nm,0.8s						
SOEI	**Soe**	**31.25 263**	P	**P**	**22 51 40.4**	**+1.5**	
	comp=Z,1µmcomp=Z,85nm,0.9s						
SOEI	**Soe**	**31.25 263**	P	**P**	**22 51 40.2**	**+1.2**	
	comp=Z,88nm,0.7s						
FITZ	**Fitzroy Crossi**	**31.32 247**	P	**P**	**22 51 39.5**	**+0.1**	
	comp=Z,31nm,0.8s						
FITZ	**Fitzroy Crossi**	**31.32 247**	P	**P**	**22 51 39.3**	**-0.1**	
	comp=Z,31nm,0.8s						
FITZ	**Fitzroy Crossi**	**31.32 247**	P	**P**	**22 51 39.3**	**-0.1**	
	comp=Z,31nm,0.8s						
FITZ	**Fitzroy Crossi**	**31.32 247**	LR	LR	23 04 14.9		
	comp=Z,4µm,21.2s,baz=75,slow=36						
FITZ	**Fitzroy Crossi**	**31.32 247**	P	**P**	**22 51 38.9**	**-0.5**	
	comp=Z,305nm,0.8s						
FITZ	**Fitzroy Crossi**	**31.32 247**	P	**P**	**22 51 39.5**	**+0.1**	
	comp=Z,31nm,0.8s						
BBOO	**Buckleboo**	**31.52 213**	P	**P**	**22 51 41.1**	**+0.2**	
	comp=Z,33nm,1.2s						
BBOO	**Buckleboo**	**31.52 213**	P	**P**	**22 51 41.0**	**0.0**	
	comp=Z,33nm,1.2s						
BBOO	**Buckleboo**	**31.52 213**	P	**P**	**22 51 40.7**	**-0.3**	
	comp=Z,33nm,1.2s						
BBOO	**Buckleboo**	**31.52 213**	P	**P**	**22 51 41.4**	**+0.4**	
	comp=Z,33nm,1.2s						
BBOO	**Buckleboo**	**31.52 213**	IAmb	IAmb	22 51 41.8		
	comp=Z,74nm,1.4s						
WRKA	**Warakurna**	**31.78 233**	P	**P**	**22 51 43.0**	**-0.3**	
	comp=Z,20nm,1.1s						
WRKA	**Warakurna**	**31.78 233**	P	**P**	**22 51 43.4**	**0.0**	
	comp=Z,20nm,1.1s						
WRKA	**Warakurna**	**31.78 233**	P	**P**	**22 51 42.8**	**-0.6**	
	comp=Z,20nm,1.1s						
TOO	**Toolangi**	**31.82 196**	P	**P**	**22 51 45.0**	**+1.4**	
	comp=Z,12nm,0.8s						
TOO	**Toolangi**	**31.82 196**	P	**P**	**22 51 44.9**	**+1.4**	
	comp=Z,12nm,0.8s						
TOO	**Toolangi**	**31.82 196**	P	**P**	**22 51 44.8**	**+1.2**	
	comp=Z,12nm,0.8s						
AUMBR	**Murray Bridge**	**31.82 206**	P	**P**	**22 51 43.8**	**+0.2**	
	comp=Z,71nm,1.2s						
BATI	**Baumata**	**31.86 262**	LR	LR	23 06 46.6		
	comp=Z,4µm,18.9s,baz=112,slow=40						
BATI	**Baumata**	**31.86 262**	P	**P**	**22 51 45.9**	**+1.7**	
	comp=Z,57nm,0.8s						
MNI	**Manado**	**31.95 284**	P	**P**	**22 51 45.2**	**+0.2**	
MLBS	**Spotswood, Mel**	**32.23 196**	P	**P**	**22 51 49.9**	**+2.9**	
ARPS	**Mount Arapiles**	**32.23 201**	P	**P**	**22 51 47.9**	**+0.8**	
ARPS	**Mount Arapiles**	**32.23 201**	P	**P**	**22 51 48.0**	**+0.9**	
ARPS	**Mount Arapiles**	**32.23 201**	P	**P**	**22 51 47.7**	**+0.6**	
BRAT	**Ballarat**	**32.25 198**	P	**P**	**22 51 49.4**	**+2.2**	
AUMTC	**Mt Clear Colle**	**32.32 198**	P	**P**	**22 51 50.7**	**+2.9**	
OUZ	**Omahuta**	**32.53 152**	P	**P**	**22 51 51.5**	**+1.7**	
OUZ	**Omahuta**	**32.53 152**	P	**P**	**22 51 52.0**	**+2.2**	
	comp=Z,36nm,0.9s						
KMSI	**Cibinong**	**32.56 282**	P	**P**	**22 51 53.6**	**+3.3**	
AFI	**Afiamalu**	**32.65 105**	LR	LR	23 03 39.1		
	comp=Z,1µm,18.2s,baz=276,slow=34						
BBSI	**Bau Bau**	**33.00 271**	P	**P**	**22 51 56.8**	**+2.6**	
	comp=Z,4µmcomp=Z,195nm,1.1s						
KDI	**Kendari**	**33.10 273**	P	**P**	**22 51 57.3**	**+2.3**	
DAV	**Davao City (W)**	**33.17 294**	LR	LR	23 05 27.1		
	comp=Z,1µm,19.7s,baz=98,slow=36						
MMRI	**Maumere**	**33.22 265**	P	**P**	**22 51 56.5**	**+0.4**	
	comp=Z,250nm,1.0s						
MMRI	**Maumere**	**33.22 265**	P	**P**	**22 51 56.3**	**+0.2**	
MMRI	**Maumere**	**33.22 265**	P	**P**	**22 51 56.2**	**+0.2**	
	comp=Z,250nm,1.0s						
RAO	**Raoul Island**	**33.26 135**	LR	LR	23 04 25.4		
	comp=Z,1µm,19.1s,baz=324,slow=34						
RAO	**Raoul Island**	**33.26 135**	P	**P**	**22 51 58.4**	**+2.2**	
	comp=Z,753nm,1.0s						
RAO	**Raoul Island**	**33.26 135**	P	**P**	**22 51 56.2**	**0.0**	
RAO			pmax	pmax			
	comp=Z,563nm,0.9s						
RAO	**Raoul Island**	**33.26 135**	P	**P**	**22 51 56.2**	**0.0**	
RAO	**Raoul Island**	**33.26 135**	P	**P**	**22 51 57.0**	**+0.8**	
	comp=Z,750nm,1.0s						
RAO	**Raoul Island**	**33.26 135**	P	**P**	**22 51 56.7**	**+0.5**	
RAO			pP	**pP**	**22 52 07.2**	**-2.3**	
RAO			sP	**sP**	**22 52 12.0**	**-3.7**	
GLKZ	**Green Lake**	**33.26 135**	P	**P**	**22 51 56.2**	**0.0**	
LUWI	**Luwuk**	**33.40 279**	P	**P**	**22 51 58.1**	**+0.5**	
	comp=Z,127nm,1.3s						
LUWI	**Luwuk**	**33.40 279**	P	**P**	**22 51 58.4**	**+0.8**	
LUWI	**Luwuk**	**33.40 279**	P	**P**	**22 51 59.5**	**+1.9**	
	comp=Z,127nm,1.3s						
WCZ	**Waipu Caves**	**33.47 152**	P	**P**	**22 51 59.7**	**+1.8**	
GTOI	**Gorontalo**	**33.52 282**	P	**P**	**22 52 00.4**	**+1.7**	
	comp=Z,2µmcomp=Z,1µmcomp=Z,90nm,1.8s						
EDFI	**Ende, Flores**	**33.76 265**	P	**P**	**22 51 59.9**	**-1.0**	
	comp=Z,1µmcomp=Z,142nm,0.8s						
KKSI	**Kolaka, Sulawe**	**34.03 273**	P	**P**	**22 52 04.6**	**+1.4**	
	comp=Z,2µmcomp=Z,93nm,0.9s						
APSI	**Ampana**	**34.52 279**	P	**P**	**22 52 10.1**	**+2.7**	
	comp=Z,104nm,0.9s						
BSSI	**Bau Bau, Buton**	**35.02 269**	P	**P**	**22 52 12.6**	**+0.9**	
	comp=Z,3µmcomp=Z,265nm,1.4s						
FORT	**Forrest**	**35.09 224**	P	**P**	**22 52 12.5**	**+0.4**	
	comp=Z,46nm,0.7s						
FORT	**Forrest**	**35.09 224**	P	**P**	**22 52 11.9**	**-0.1**	
	comp=Z,47nm,0.7s						
FORT	**Forrest**	**35.09 224**	P	**P**	**22 52 12.3**	**+0.3**	
	comp=Z,46nm,0.7s						
FORT	**Forrest**	**35.09 224**	IAmb	IAmb	22 52 16.4		
	comp=Z,33nm,0.7s						
WSI	**Waingapu**	**35.15 263**	P	**P**	**22 52 13.0**	**+0.2**	
BKSI	**Bulukumba**	**35.44 271**	P	**P**	**22 52 15.4**	**+0.1**	
	comp=Z,3µmcomp=Z,870nmcomp=Z,56nm,0.9s						
NIUE	**Niue**	**35.46 113**	P	**P**	**22 52 16.3**	**+0.9**	
	comp=Z,125nm,1.2s						
TOZ	**Tahuroa Road**	**35.47 152**	P	**P**	**22 52 15.8**	**+0.6**	
TOZ			IAmb	IAmb	22 52 19.0		
	comp=Z,71nm,1.0s						
LBFI	**Labuhan Bajo,**	**35.54 265**	P	**P**	**22 52 16.4**	**+0.2**	
TOLI2	**Tolitoli**	**35.80 282**	P	**P**	**22 52 18.9**	**+0.5**	
	comp=Z,35nm,0.8s						
TOLI2	**Tolitoli**	**35.80 282**	P	**P**	**22 52 17.7**	**-0.7**	
TOLI2			IAmb	IAmb	22 52 36.6		
	comp=Z,27nm,0.9s						
TOLI2	**Tolitoli**	**35.80 282**	P	**P**	**22 52 17.5**	**-0.9**	
	comp=Z,35nm,0.8s						
HIZ	**Hauiti**	**35.82 154**	P	**P**	**22 52 20.2**	**+2.0**	
	comp=Z,103nm,1.5s						
KAPI	**Kappang**	**35.84 271**	P	**P**	**22 52 19.6**	**+0.9**	
	comp=Z,56nm,0.9s						
KAPI	**Kappang**	**35.84 271***c i*	P	**P**	**22 52 19.1**	**+0.4**	
KAPI			pmax	pmax			
	comp=Z,88nm,0.9s						
KAPI	**Kappang**	**35.84 271**	P	**P**	**22 52 18.6**	**-0.1**	
KAPI	**Kappang**	**35.84 271**	P	**P**	**22 52 19.0**	**+0.4**	
	comp=Z,56nm,0.9s						
KAPI	**Kappang**	**35.84 271**	P	**P**	**22 52 19.5**	**+0.9**	
KAPI	**Kappang**	**35.84 271**	P	**P**	**22 52 19.2**	**+0.5**	
	comp=Z,108nm,0.9s						
KAPI	**Kappang**	**35.84 271**	P	**P**	**22 52 19.2**	**+0.4**	
KAPI			pP	**pP**	**22 52 29.7**	**-2.7**	
KAPI			PcP	**PcP**	**22 54 46.1**	**+0.7**	
TTSI	**Tana Toraja**	**35.98 274**	P	**P**	**22 52 22.8**	**+2.8**	
	comp=Z,2µmcomp=Z,69nm,1.4s						
MOO	**Moorlands**	**36.09 191**	P	**P**	**22 52 22.1**	**+1.5**	
	comp=Z,89nm,2.8s						
MKS	**Makassar**	**36.10 271**	P	**P**	**22 52 20.7**	**-0.2**	
	comp=Z,2µmcomp=Z,149nm,1.3s						
PCI	**Palu**	**36.30 278**	P	**P**	**22 52 25.5**	**+2.8**	
	comp=Z,3µmcomp=Z,245nm,1.1s						
JCJ	**Chichijima**	**36.35 339**	LR	LR	23 05 31.1		
	comp=Z,472nm,19.8s,baz=141,slow=33						
TAU	**Tasmania Unive**	**36.52 190**	P	**P**	**22 52 26.9**	**+2.7**	
	comp=Z,76nm,1.3s						
TAU	**Tasmania Unive**	**36.52 190**	P	**P**	**22 52 24.9**	**+0.7**	
TAU			pmax	pmax			
	comp=Z,151nm,1.5s						
TAU	**Tasmania Unive**	**36.52 190**	P	**P**	**22 52 24.9**	**+0.7**	
TAU	**Tasmania Unive**	**36.52 190**	P	**P**	**22 52 25.6**	**+1.5**	
	comp=Z,78nm,1.3s						
HAZ	**Te Kaha**	**36.57 150**	P	**P**	**22 52 27.7**	**+3.1**	
URZ	**Urewera**	**36.64 151**	LR	LR	23 06 49.4		
	comp=Z,2µm,18.1s,baz=321,slow=35						
URZ	**Urewera**	**36.64 151**	P	**P**	**22 52 27.4**	**+2.1**	
URZ	**Urewera**	**36.64 151**	P	**P**	**22 52 26.0**	**+0.8**	
	comp=Z,47nm,1.0s						
RUGZ	**Raukumara Rang**	**36.69 150**	P	**P**	**22 52 27.6**	**+1.9**	
OTVZ	**Oturere**	**36.71 154**	P	**P**	**22 52 27.7**	**+1.7**	
SNVZ	**South Ngauruho**	**36.72 154**	P	**P**	**22 52 27.5**	**+1.4**	
FWVZ	**Far West T-bar**	**36.74 154**	P	**P**	**22 52 28.4**	**+2.0**	
RTZ	**Ruatahuna**	**36.87 152**	P	**P**	**22 52 27.7**	**+0.5**	
RTZ	**Ruatahuna**	**36.87 152**	P	**P**	**22 52 27.3**	**0.0**	
MWZ	**Matawai**	**36.90 151**	P	**P**	**22 52 29.7**	**+2.2**	
MMSI	**Mamuju**	**36.93 275**	P	**P**	**22 52 28.8**	**+0.7**	
	comp=Z,36nm,0.8s						
WMGZ	**Waiomatatini S**	**36.94 149**	P	**P**	**22 52 29.0**	**+1.2**	
MOVZ	**Moawhango**	**36.95 154**	P	**P**	**22 52 29.9**	**+2.0**	
RAGZ	**Rawiri**	**36.98 151**	P	**P**	**22 52 31.6**	**+3.4**	
MTHZ	**Maungataniwha**	**36.99 152**	P	**P**	**22 52 30.3**	**+2.0**	
TWGZ	**Tauwhareparae**	**37.00 150**	P	**P**	**22 52 30.0**	**+1.6**	
BKZ	**Black Stump Fm**	**37.08 153**	P	**P**	**22 52 29.7**	**+0.6**	
	comp=Z,38nm,0.8s						
BKZ	**Black Stump Fm**	**37.08 153**	P	**P**	**22 52 30.3**	**+1.3**	
BHHZ	**Black Hill Sta**	**37.15 154**	P	**P**	**22 52 30.3**	**+0.7**	
NMHZ	**Naumai**	**37.17 152**	P	**P**	**22 52 32.1**	**+2.2**	
CNGZ	**Carnagh Statio**	**37.35 150**	P	**P**	**22 52 32.3**	**+1.1**	
KRHZ	**Kereru**	**37.42 153**	P	**P**	**22 52 33.0**	**+1.2**	
DSZ	**Denniston Nort**	**37.43 160**	IAMs_20	IAMs_20	23 06 01.0		
	comp=Z,4µm,20.0s						
NNZ	**Nelson**	**37.52 158**	IAmb	IAmb	22 52 34.5		
	comp=Z,94nm,1.1s						
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 33.2**	**+0.1**	
	comp=Z,68nm,0.7s						
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 33.0**	**-0.1**	
	comp=Z,68nm,0.7s						
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 33.0**	**-0.1**	
	comp=Z,68nm,0.7s						
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 32.9**	**-0.1**	
	comp=Z,39nm,0.7s						
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 32.0**	**-1.1**	
MBWA			IAmb	IAmb	22 52 34.0		
	comp=Z,62nm,0.8s						
MBWA	**Marble Bar**	**37.53 244**	IAMs_20	IAMs_20	23 08 13.3		
	comp=Z,3µm,19.0s						
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 33.1**	**0.0**	
MBWA	**Marble Bar**	**37.53 244**	P	**P**	**22 52 33.2**	**+0.1**	
	comp=Z,68nm,0.7s						
PNHZ	**Pukenui**	**37.56 154**	P	**P**	**22 52 34.4**	**+1.3**	
TSZ	**Takapari Road**	**37.58 154**	P	**P**	**22 52 34.5**	**+1.3**	
PLAI	**Plampang**	**37.63 265**	P	**P**	**22 52 34.9**	**+0.9**	
	comp=Z,117nm,1.0s						
PLAI	**Plampang**	**37.63 265**	P	**P**	**22 52 33.9**	**-0.1**	
	comp=Z,1µmcomp=Z,118nm,1.0s						
PLAI	**Plampang**	**37.63 265**	P	**P**	**22 52 32.1**	**-1.9**	
	comp=Z,117nm,1.0s						
MHGZ	**Mahia Peninsul**	**37.73 151**	P	**P**	**22 52 35.4**	**+0.9**	
CKHZ	**Cape Kidnapper**	**37.75 153**	P	**P**	**22 52 36.3**	**+1.7**	
KAHZ	**Kahuranaki**	**37.77 153**	P	**P**	**22 52 36.2**	**+1.3**	
DVHZ	**Dannevirke**	**37.87 154**	P	**P**	**22 52 37.5**	**+1.9**	
OGWZ	**Otaki Gorge**	**37.88 156**	P	**P**	**22 52 37.0**	**+1.3**	
MRZ	**Mangatainoka R**	**37.92 155**	IAmb	IAmb	22 52 37.3		
	comp=Z,81nm,1.0s						
MRZ	**Mangatainoka R**	**37.92 155**	P	**P**	**22 52 36.8**	**+0.8**	
PXZ	**Pawanui**	**37.95 153**	P	**P**	**22 52 37.3**	**+1.0**	
PRHZ	**Porangahau**	**38.04 154**	P	**P**	**22 52 38.2**	**+1.1**	
HOWZ	**Woldsworth Sta**	**38.09 155**	P	**P**	**22 52 38.1**	**+0.6**	
SNZO	**South Karori**	**38.11 157**	P	**P**	**22 52 38.5**	**+0.9**	
SNZO	**South Karori**	**38.11 157**	P	**P**	**22 52 39.1**	**+1.6**	
SNZO	**South Karori**	**38.11 157**	P	**P**	**22 52 39.0**	**+1.4**	
SNZO			pP	**pP**	**22 52 49.6**	**-1.5**	
INZ	**Inchbonnie**	**38.19 161**	P	**P**	**22 52 38.3**	**+0.1**	
INZ			IAMs_20	IAMs_20	23 07 39.0		
	comp=Z,4µm,18.0s						
BFZ	**Birch Farm**	**38.22 154**	P	**P**	**22 52 39.9**	**+1.4**	
	comp=Z,60nm,1.3s						
BFZ	**Birch Farm**	**38.22 154**	IAmb	IAmb	22 52 40.8		
	comp=Z,76nm,1.2s						
BFZ	**Birch Farm**	**38.22 154**	P	**P**	**22 52 39.1**	**+0.5**	
BFZ	**Birch Farm**	**38.22 154**	P	**P**	**22 52 38.5**	**0.0**	
	comp=Z,60nm,1.3s						
MTW	**Mount Morrison**	**38.30 156**	P	**P**	**22 52 39.7**	**+0.4**	
MSWZ	**Moikau Station**	**38.42 156**	P	**P**	**22 52 39.8**	**-0.4**	
MSWZ	**Moikau Station**	**38.42 156**	P	**P**	**22 52 40.6**	**+0.3**	
TMWZ	**Te Maipa**	**38.42 155**	P	**P**	**22 52 41.9**	**+1.6**	
PAWZ	**Paruwai Farm**	**38.46 156**	P	**P**	**22 52 41.1**	**+0.5**	
LTZ	**Lake Taylor**	**38.51 160**	IAMs_20	IAMs_20	23 06 45.6		
	comp=Z,4µm,20.0s						
TWSI	**Taliwang, Sumb**	**38.52 265**	P	**P**	**22 52 40.0**	**-1.4**	
	comp=Z,71nm,1.2s						
PLWZ	**Palliser**	**38.55 156**	P	**P**	**22 52 41.7**	**+0.4**	
TRWZ	**Traveller**	**38.58 156**	P	**P**	**22 52 47.9**	**+6.3**	
KHZ	**Kahutara**	**38.62 159**	P	**P**	**22 52 42.0**	**+0.1**	
	comp=Z,291nm,0.8s						
OXZ	**Oxford**	**38.92 161**	P	**P**	**22 52 44.0**	**-0.3**	
OXZ			IAMs_20	IAMs_20	23 08 11.4		
	comp=Z,4µm,18.0s						
GVZ	**Greta Valley S**	**38.93 160**	IAMs_20	IAMs_20	23 07 08.8		
	comp=Z,3µm,18.0s						
RPZ	**Rata Peaks**	**38.96 162**	LR	LR	23 06 57.7		
	comp=Z,765nm,21.7s,baz=310,slow=33						
LBZ	**Lake Benmore**	**39.32 164**	IAmb	IAmb	22 52 49.8		
	comp=Z,42nm,0.9s						
LBZ			IAMs_20	IAMs_20	23 08 44.0		
	comp=Z,4µm,18.0s						
MQZ	**McQueen's Vall**	**39.46 161**	IAMs_20	IAMs_20	23 08 45.7		
	comp=Z,3µm,18.0s						
DCZ	**Deep Cove**	**39.58 167**	P	**P**	**22 52 49.9**	**+0.1**	
DCZ			IAmb	IAmb	22 52 51.1		
	comp=Z,61nm,1.1s						
MLZ	**Mavora Lakes**	**39.70 166**	IAMs_20	IAMs_20	23 06 49.1		
	comp=Z,4µm,21.0s						
KHKI	**Kahang-Kahang**	**39.78 265**	P	**P**	**22 52 53.8**	**+1.8**	
	comp=Z,1µmcomp=Z,55nm,0.9s						
KMBL	**Kambalda**	**39.84 228**	P	**P**	**22 52 52.5**	**+0.2**	
	comp=Z,33nm,1.1s						
KMBL	**Kambalda**	**39.84 228**	P	**P**	**22 52 52.5**	**+0.2**	
	comp=Z,33nm,1.1s						
KMBL	**Kambalda**	**39.84 228**	P	**P**	**22 52 52.6**	**+0.2**	
	comp=Z,33nm,1.1s						
ODZ	**Otahua Downs**	**40.05 164**	P	**P**	**22 52 53.5**	**-0.3**	
ODZ			IAmb	IAmb	22 52 55.2		
	comp=Z,149nm,1.7s						
ODZ			IAMs_20	IAMs_20	23 09 42.4		
	comp=Z,3µm,18.0s						
ODZ	**Otahua Downs**	**40.05 164**	P	**P**	**22 52 54.0**	**+0.1**	
	comp=Z,46nm,1.5s						
PYZ	**Puysegur Point**	**40.15 168**	IAMs_20	IAMs_20	23 05 58.8		
	comp=Z,4µm,22.0s						
WHZ	**Wether Hill Ro**	**40.16 167**	IAMs_20	IAMs_20	23 06 49.2		
	comp=Z,4µm,22.0s						
IGBI	**Denpasar**	**40.23 265**	P	**P**	**22 52 57.9**	**+2.2**	
	comp=Z,223nm,1.5s						
MEEK	**Meekatharra**	**40.32 237**	P	**P**	**22 52 56.6**	**+0.2**	
	comp=Z,57nm,1.0s						
MEEK	**Meekatharra**	**40.32 237**	P	**P**	**22 52 56.6**	**+0.2**	
	comp=Z,57nm,1.0s						
MEEK	**Meekatharra**	**40.32 237**	P	**P**	**22 52 56.4**	**0.0**	
	comp=Z,57nm,1.0s						
MEEK	**Meekatharra**	**40.32 237**	P	**P**	**22 52 56.6**	**+0.2**	
	comp=Z,57nm,1.0s						
MEEK	**Meekatharra**	**40.32 237**	P	**P**	**22 52 56.5**	**0.0**	
	comp=Z,57nm,1.0s						
JAGI	**Jajag, Banyuwa**	**41.22 265**	P	**P**	**22 53 04.4**	**+0.5**	
	comp=Z,85nm,1.3s						
KKM	**Kota Kinabalu**	**41.51 287**	P	**P**	**22 53 06.5**	**+0.1**	
	comp=Z,193nm,0.8s						
KKM	**Kota Kinabalu**	**41.51 287**	P	**P**	**22 53 06.3**	**-0.1**	
KKM	**Kota Kinabalu**	**41.51 287**	P	**P**	**22 53 06.5**	**+0.1**	
KKM	**Kota Kinabalu**	**41.51 287**	P	**P**	**22 53 06.8**	**+0.4**	
	comp=Z,193nm,0.8s						
JHJ	**Hachijo jima 2**	**42.69 340**	LR	LR	23 10 13.4		
	comp=Z,98nm,20.1s,baz=145,slow=35						
GIRL	**Giralia**	**42.85 244**	P	**P**	**22 53 18.7**	**+1.6**	
	comp=Z,97nm,1.3s						
GIRL	**Giralia**	**42.85 244**	P	**P**	**22 53 18.2**	**+1.1**	
GIRL			IAmb	IAmb	22 53 19.1		
	comp=Z,95nm,1.1s						
JOW	**Kunigami**	**42.89 323**	LR	LR	23 09 56.9		
	comp=Z,1µm,20.6s,baz=187,slow=34						
KLBR	**Kellerberrin**	**43.05 230**	P	**P**	**22 53 18.5**	**-0.1**	
	comp=Z,114nm,1.1s						
KLBR	**Kellerberrin**	**43.05 230**	P	**P**	**22 53 18.2**	**-0.4**	
	comp=Z,114nm,1.1s						
KLBR	**Kellerberrin**	**43.05 230**	P	**P**	**22 53 18.4**	**-0.1**	
	comp=Z,114nm,1.1s						
AUKUL	**Kulin High Sch**	**43.24 229**	P	**P**	**22 53 20.6**	**+0.5**	
	comp=Z,53nm,1.2s						
MORW	**Morawa**	**43.35 235**	P	**P**	**22 53 21.1**	**0.0**	
	comp=Z,66nm,1.1s						
MORW	**Morawa**	**43.35 235**	P	**P**	**22 53 21.3**	**+0.2**	
	comp=Z,67nm,1.1s						
MORW	**Morawa**	**43.35 235**	P	**P**	**22 53 20.3**	**-0.8**	
MORW			IAmb	IAmb	22 53 22.0		
	comp=Z,46nm,0.8s						
MORW	**Morawa**	**43.35 235**	P	**P**	**22 53 21.0**	**0.0**	
	comp=Z,66nm,1.1s						
MORW			pP	**pP**	**22 53 33.7**	**-1.1**	
BLDU	**Ballidu**	**43.43 232**	P	**P**	**22 53 22.0**	**+0.3**	
	comp=Z,45nm,1.4s						
BLDU	**Ballidu**	**43.43 232**	P	**P**	**22 53 22.5**	**+0.8**	
	comp=Z,45nm,1.4s						
BLDU	**Ballidu**	**43.43 232**	P	**P**	**22 53 21.1**	**-0.6**	
	comp=Z,45nm,1.4s						
PWJI	**Pagerwojo**	**43.55 266**	P	**P**	**22 53 22.6**	**-0.3**	
	comp=Z,118nm,1.0s						
SJI	**Sawahan**	**43.60 266**	P	**P**	**22 53 23.0**	**-0.3**	
	comp=Z,121nm,0.7s						
CTZ	**Chatham Island**	**43.88 151**	P	**P**	**22 53 27.7**	**+2.7**	
	comp=Z,91nm,1.0s						
CTZ	**Chatham Island**	**43.88 151**	P	**P**	**22 53 26.2**	**+1.2**	
CTZ			IAmb	IAmb	22 53 28.6		
	comp=Z,67nm,0.9s						
NWAO	**Narrogin (SRO)**	**44.04 229**	P	**P**	**22 53 27.1**	**+0.5**	
	comp=Z,67nm,1.5s						
NWAO	**Narrogin (SRO)**	**44.04 229**	P	**P**	**22 53 27.1**	**+0.5**	
NWAO	**Narrogin (SRO)**	**44.04 229**	LR	LR	23 11 37.4		
	comp=Z,3µm,20.4s,baz=68,slow=36						
NWAO	**Narrogin (SRO)**	**44.04 229**	P	**P**	**22 53 28.3**	**+1.8**	
	comp=Z,31nm,1.2s						
NWAO	**Narrogin (SRO)**	**44.04 229**	P	**P**	**22 53 28.5**	**+2.0**	
	comp=Z,31nm,1.2s						
NWAO	**Narrogin (SRO)**	**44.04 229**	P	**P**	**22 53 26.2**	**-0.3**	
NWAO			pmax	pmax			
	comp=Z,85nm,1.5s						
NWAO			MLR	MLR			
	comp=Z,4µm,20.0s						
NWAO	**Narrogin (SRO)**	**44.04 229**	P	**P**	**22 53 26.2**	**-0.3**	
NWAO			IAmb	IAmb	22 53 27.5		
	comp=Z,85nm,1.5s						
NWAO	**Narrogin (SRO)**	**44

comp=Z,69nm,0.7s
LEM Lembang 47.75 267 P **P** **22 53 56.0 -0.3**
comp=Z,86nm,1.3s
TPI Tanjungpandan 48.07 273 P **P** **22 53 59.0 +0.4**
comp=Z,2µmcomp=Z,1µmcomp=Z,79nm,0.9s
QZH2 Quanzhou 48.12 313 P **P** **22 54 00.8 +2.1**
QZH2 S **S** **23 00 55.5 +1.6**
QZH2 L L
comp=Z,1µm,19.6s
QZH2 L L
comp=Z,690nm,23.4s
QZH2 L L
comp=Z,2µm,26.8s
CBJI Citeko 48.54 268 P **P** **22 54 03.3 +1.2**
comp=Z,181nm,1.0s
CGJI Cibinong 49.67 267 P **P** **22 54 09.3 -1.5**
SSE Sheshan 50.27 321 P **P** **22 54 15.9 +0.9**
SSE S **S** **23 01 23.9 0.0**
SSE pmax pmax
comp=Z,16nm,0.7s
SSE pmax pmax
comp=Z,130nm,5.5s
SSE L L
comp=Z,270nm,22.0s
SSE L L
comp=Z,300nm,25.0s
DLV Lat 50.62 292 P **P** **22 54 19.5 +1.3**
comp=Z,264nm,0.9s
DLV Lat 50.62 292 P **P** **22 54 19.1 +0.9**
comp=Z,264nm,0.9s
TJN Taejon 50.70 330 P **P** **22 54 18.3 +0.1**
comp=Z,166nm,1.2s
TJN Taejon 50.70 330 P **P** **22 54 19.0 +0.8**
comp=Z,165nm,1.2s
KASI Kota Agung 50.94 269 P **P** **22 54 18.5 -1.9**
comp=Z,56nm,0.8s
KSRS Korea Array 51.29 332 P **P** **22 54 23.0 +0.4**
comp=Z,9.9nm,0.9s,baz=148,slow=8.0,SNR=24
KSRS PcP **PcP** **22 55 38.2 +1.2**
comp=Z,7.5nm,0.7s,baz=163,slow=3.7,SNR=11
KSRS LR LR 23 16 49.6
comp=Z,350nm,18.5s,baz=140,slow=37
comp=Z,9.9nm,0.9s
KSAR Wonju Array Be 51.30 332 P **P** **22 54 22.9 +0.3**
KSAR Wonju Array Be 51.30 332 P **P** **22 54 22.9 +0.3**
MDSI Maura Dua 51.34 270 P **P** **22 54 22.1 -1.3**
comp=Z,696nmcomp=Z,35nm,1.0s
INCN Inchon 51.93 331 P **P** **22 54 27.7 +0.3**
comp=Z,60nm,0.9s
INCN Inchon 51.93 331 P **P** **22 54 28.0 +0.6**
INCN pmax pmax
comp=Z,47nm,0.9s
INCN MLR MLR
comp=Z,700nm,20.0s
INCN Inchon 51.93 331 P **P** **22 54 28.0 +0.6**
INCN IAmb IAmb 22 54 29.0
comp=Z,47nm,0.9s
INCN Inchon 51.93 331 P **P** **22 54 28.1 +0.7**
comp=Z,63nm,0.9s
LHSI Lahat 52.05 271 P **P** **22 54 28.7 0.0**
comp=Z,35nm,1.1s
QIZ Qiongzhong 52.10 301 P **P** **22 54 29.9 +1.0**
comp=Z,88nm,0.9s
QIZ Qiongzhong 52.10 301 P **P** **22 54 30.8 +1.9**
QIZ pP **sP** **22 54 47.6 -1.8**
QIZ S **S** **23 01 51.9 +2.4**
QIZ pmax pmax
comp=Z,80nm,0.8s
QIZ L L
comp=Z,440nm,25.7s
QIZ L L
comp=Z,640nm,28.2s
QIZ L L
comp=Z,2µm,26.2s
QIZ Qiongzhong 52.10 301 P **P** **22 54 28.4 -0.5**
comp=Z,88nm,0.9s
JKA Kamikawa-asahi 52.25 348 IAmb IAmb 22 54 32.4
comp=Z,69nm,1.0s
ASAJ Asahikawa 52.25 348 LR LR 23 14 07.7
comp=Z,1µm,21.8s,baz=116,slow=33
NJ2 Nanjing 52.39 320 ⇓P **P** **22 54 32.0 +1.1**
NJ2 S **S** **23 01 55.9 +2.8**
NJ2 sS **sS** **23 02 24.3 +7.1**
NJ2 pmax pmax
comp=Z,11nm,0.6s
NJ2 pmax pmax
comp=Z,260nm,4.3s
NJ2 L L
comp=Z,690nm,20.4s
NJ2 L L
comp=Z,770nm,21.8s
NJ2 L L
comp=Z,3µm,17.1s
CNSH ChangSha 54.13 312 P **P** **22 54 45.3 +1.6**
CNSH S **S** **23 02 18.8 +2.0**
CNSH L L
comp=Z,430nm,24.1s
CNSH L L
comp=Z,540nm,24.1s
CNSH L L
comp=Z,890nm,28.7s
PPT Papeete 54.29 107 P **P** **22 54 45.7 +0.5**
comp=Z,120nm,0.9s,baz=350,slow=8.7,SNR=10
PPT LR LR 23 13 16.7
comp=Z,618nm,21.8s,baz=270,slow=31
comp=Z,120nm,0.9s
PPT2 Papeete2 54.29 107 *e*P **P** **22 54 43.8 -1.4**
comp=Z,124nm,1.1s
PPT2 *e*PP **PP** **22 56 43.6 -4.0**
comp=Z,128nm,27.8s
PPT2 *e*S **S** **23 02 16.7 -2.9**
comp=Z,572nm,25.5s
PPT2 *e*SS **SKiKP** **23 05 53.9 +2.0**
comp=Z,294nm,25.8s
PPT2 *e*LQ LQ 23 08 16.2
comp=Z,1µm,27.0s
PPT2 *e*LR LR 23 10 30.4
comp=Z,1µm,22.2s
PPT2 *e*LR LR 23 10 31.0
comp=Z,907nm,23.0s
PAE Paea 54.29 107 *e*P **P** **22 54 45.0 -0.1**
comp=Z,295nm,1.1s
PAE *e*LR LR 23 10 33.1
comp=Z,1µm,23.3s
PPTF Pamatai, Papee 54.30 107 P **P** **22 54 47.8 +2.5**
comp=Z,184nm,1.1s
PPTF Pamatai, Papee 54.30 107 P **P** **22 54 46.2 +0.9**
PPTF Pamatai, Papee 54.30 107 P **P** **22 54 45.6 +0.3**
comp=Z,184nm,1.1s
VLA Vladivostok 54.39 339 ⇓*e*P **P** **22 54 46.2 +0.9**
VLA pmax pmax
comp=Z,57nm,0.9s
WHN Wuhan 54.46 315 ⇓P **P** **22 54 46.8 +0.7**
WHN pP **pP** **22 55 03.0 +2.5**
WHN S **S** **23 02 25.8 +4.6**
WHN pmax pmax
comp=Z,70nm,0.7s
WHN L L
comp=Z,2µm,17.5s
WHN L L
comp=Z,3µm,21.3s
WHN L L
comp=Z,5µm,25.3s
TIAR Tiarei 54.51 106 *e*P **P** **22 54 47.1 +0.4**
comp=Z,2µm,1.0s
TIAR *e*LR LR 23 10 37.5
comp=Z,9µm,26.3s
TVO Taravao 54.61 107 *e*P **P** **22 54 47.8 +0.3**
comp=Z,259nm,0.9s
YSS Yuzhno-Sakhali 54.94 349 P **P** **22 54 50.0 +0.7**
comp=Z,68nm,1.1s
YSS Yuzhno-Sakhali 54.94 349 *e*P **P** **22 54 50.3 +1.0**
YSS *e**PP **pP** **22 55 07.2 +3.5**
YSS *e*S **S** **23 02 23.7 -3.4**
YSS pmax pmax
comp=Z,200nm,3.9s
YSS pmax pmax
comp=Z,60nm,1.1s
YSS MLR MLR
comp=N,1µm,18.0s
YSS MLR MLR
comp=Z,1µm,18.0s
YSS MLR MLR
comp=E,800nm,16.0s
YSS Yuzhno-Sakhali 54.94 349 P **P** **22 54 50.2 +1.0**
YSS Yuzhno-Sakhali 54.94 349 P **P** **22 54 50.9 +1.6**
comp=Z,63nm,1.1s

TBI Tubuai 55.00 114 *e*P **P** **22 54 51.2 +1.0**
comp=Z,310nm,1.1s
TBI *e*LQ LQ 23 08 35.0
comp=Z,6µm,38.5s
TBI *e*LR LR 23 10 53.1
comp=Z,16µm,28.5s
TBI *e*LR LR 23 10 58.0
comp=Z,3µm,32.2s
BKNI Bangkinang 55.04 275 P **P** **22 54 50.0 -0.7**
USA0B Ussuriysk Arra 55.29 339*c i*P **P** **22 54 52.4 +0.5**
USRK Ussuriysk Ar. 55.29 339 P **P** **22 54 52.6 +0.7**
comp=Z,8.5nm,0.5s,baz=151,slow=7.9,SNR=23
USRK LR LR 23 16 09.3
comp=Z,393nm,21.7s,baz=145,slow=33
comp=Z,8.5nm,0.5s
USRK Ussuriysk Ar. 55.29 339 P **P** **22 54 51.7 -0.2**
DL2 Dalian 55.56 328 P **P** **22 54 54.6 +0.7**
DL2 pP **sP** **22 55 16.4 +2.0**
DL2 sP pP 22 55 25.1 +17
DL2 PcP **PcP** **22 55 55.4 +2.2**
DL2 S **S** **23 02 33.9 -1.8**
DL2 pmax pmax
comp=Z,49nm,0.9s
DL2 pmax pmax
comp=Z,230nm,7.6s
DL2 L L
comp=Z,540nm,20.0s
DL2 L L
comp=Z,850nm,22.5s
DL2 L L
comp=Z,2µm,23.5s
PPI Padang Panjang 55.56 274 P **P** **22 54 53.0 -1.4**
comp=Z,1µmcomp=Z,112nm,0.8s
PMOR Pomariorio Ree 55.78 103 *e*P **P** **22 54 56.3 +0.4**
comp=Z,376nm,1.1s
IPM Ipoh 55.78 280 P **P** **22 54 56.1 +0.1**
comp=Z,119nm,0.8s
IPM Ipoh 55.78 280 P **P** **22 54 55.4 -0.6**
comp=Z,2µmcomp=Z,119nm,0.8s
IPM Ipoh 55.78 280 P **P** **22 54 55.7 -0.3**
comp=Z,119nm,0.8s
VAH Vaihoa 56.04 104 *e*P **P** **22 54 58.3 +0.5**
comp=Z,171nm,1.0s
TIA Tai'an 56.22 323 P **P** **22 54 58.0 -0.7**
TIA pmax pmax
comp=Z,12nm,1.2s
TIA pmax pmax
comp=Z,360nm,8.8s
TIA L L
comp=Z,460nm,20.6s
TIA L L
comp=Z,410nm,19.1s
TIA L L
comp=Z,870nm,21.1s
KULM Kulim 56.31 281 P **P** **22 55 01.0 +1.2**
comp=Z,82nm,1.0s
KULM Kulim 56.31 281 P **P** **22 54 58.6 -1.1**
KULM Kulim 56.31 281 P **P** **22 54 59.2 -0.5**
comp=Z,1µmcomp=Z,82nm,1.0s
KULM Kulim 56.31 281 P **P** **22 54 59.3 -0.5**
comp=Z,82nm,1.0s
MDJ Mudanjiang 56.52 338 P **P** **22 55 01.5 +0.8**
comp=Z,36nm,2.0s
MDJ Mudanjiang 56.52 338 P **P** **22 55 01.1 +0.5**
MDJ pP pP 22 55 18.9 +3.8
MDJ pmax pmax
comp=Z,22nm,1.1s
MDJ L L
comp=Z,790nm,22.6s
MDJ Mudanjiang 56.52 338 IAmb IAmb 22 55 19.1
comp=Z,35nm,1.1s
MDJ Mudanjiang 56.52 338 P **P** **22 55 01.5 +0.8**
comp=Z,36nm,2.0s
SISI Saibi 56.74 273 P **P** **22 55 01.4 -1.4**
comp=Z,49nm,0.6s
RPSI Rantau Prapat 57.51 278 P **P** **22 55 07.9 -0.4**
comp=Z,16nm,1.4s
CN2 Changchun 57.51 334 P **P** **22 55 08.3 +0.6**
CN2 sP sP 22 55 35.6 +7.3
CN2 PcP **PcP** **22 56 00.6 -0.1**
CN2 S **S** **23 02 59.5 -1.9**
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,200nm,4.0s
CN2 L L
comp=Z,300nm,22.0s
CN2 L L
comp=Z,300nm,22.0s
CN2 L L
comp=Z,300nm,25.0s
PSI Prapat 57.53 278 P **P** **22 55 09.3 +0.8**
comp=Z,17nm,1.4s
PSI Prapat 57.53 278 P **P** **22 55 06.7 -1.8**
PSI P pP 22 55 10.6 -12
ENH Enshi 57.78 312 P **P** **22 55 09.4 -0.5**
comp=Z,44nm,0.9s
ENH Enshi 57.78 312 IAmb IAmb 22 55 12.8
comp=Z,36nm,0.9s
ENH Enshi 57.78 312 P **P** **22 55 10.1 +0.1**
comp=Z,44nm,0.9s
ENH Enshi 57.78 312 P **P** **22 55 09.7 -0.2**
ENH PcP **PcP** **22 56 02.2 0.0**
GYA Guiyang 58.04 307 ⇓P **P** **22 55 12.8 +0.9**
GYA S **S** **23 03 10.4 +1.2**
GYA pmax pmax
comp=Z,15nm,0.8s
GYA L L
comp=Z,470nm,23.6s
GYA L L
comp=Z,700nm,21.8s
GYA L L
comp=Z,1µm,22.0s
LYN LuoYang 58.12 318 P **P** **22 55 11.4 -0.7**
LYN S **S** **23 03 09.9 +0.3**
LYN pmax pmax
comp=Z,32nm,1.3s
LYN pmax pmax
comp=Z,280nm,5.3s
LYN L L
comp=Z,860nm,24.6s
LYN L L
comp=Z,650nm,21.3s
LYN L L
comp=Z,2µm,27.5s
SLVN Son La 58.12 300 P **P** **22 55 13.5 +1.0**
comp=Z,42nm,1.8s
SLVN Son La 58.12 300 P **P** **22 55 13.5 +1.0**
comp=Z,42nm,1.8s
BNX BinXian 58.30 337 ⇓P **P** **22 55 13.5 +0.3**
BNX sP **sP** **22 55 41.1 +7.3**
BNX pmax pmax
comp=Z,35nm,1.7s
BNX pmax pmax
comp=Z,220nm,5.7s
BNX L L
comp=Z,350nm,21.9s
BNX L L
comp=Z,370nm,19.9s
BNX L L
comp=Z,400nm,20.3s
HNS HongShan 58.46 322 ⇑P **P** **22 55 14.4 0.0**
HNS S **S** **23 03 15.1 +1.2**
HNS SS **SS** **23 07 05.1 -2.2**
HNS pmax pmax
comp=Z,27nm,1.4s
HNS L L
comp=Z,200nm,15.6s
HNS L L
comp=Z,640nm,22.6s
HNS L L
comp=Z,810nm,24.5s
TYV Tymovskoe 58.73 350 *e*P P 22 55 10.8 -5.2
TYV pmax pmax
comp=Z,500nm,4.2s
TYV pmax pmax
comp=Z,35nm,1.3s
KCSI Kotacane, Aceh 58.79 278 P **P** **22 55 15.3 -1.9**
comp=Z,642nmcomp=Z,42nm,0.7s
BJI2 Beijing 59.33 325 P **P** **22 55 20.0 -0.4**
BJI2 pP **pP** **22 55 37.8 +2.8**
BJI2 PcP **PcP** **22 56 08.4 +0.4**
BJI2 S **S** **23 03 23.0 -2.2**
BJI2 pmax pmax
comp=Z,6.0nm,2.0s
BJI2 pmax pmax
comp=Z,170nm,5.8s

BJI2 L L
comp=Z,270nm,16.7s
BJI2 L L
comp=Z,400nm,17.6s
BJT Baijiatuau 59.33 325 P **P** **22 55 21.1 +0.7**
comp=Z,10nm,0.8s
KLR Kul'dur 59.80 342 LR LR 23 20 09.4
comp=Z,582nm,21.2s,baz=158,slow=35
KLR Kul'dur 59.80 342*c i*P **P** **22 55 24.1 +0.6**
KLR pmax pmax
comp=Z,49nm,1.3s
PET Petropavlovsk 59.85 2 *e*P **P** **22 55 25.5 +1.8**
PET *e*S **S** **23 03 34.8 +3.5**
PET *e*PS **PnS** **23 03 51.2 +0.4**
PET 23 10 05.8
PEA0B Petropavlovsk- 59.90 1 P **P** **22 55 25.2 +1.1**
PEA0B pmax pmax
comp=Z,142nm,1.5s
PEA0B Petropavlovsk- 59.90 1 P **P** **22 55 25.1 +1.1**
PETK Petropavlovsk- 59.90 1 P **P** **22 55 25.1 +1.0**
comp=Z,18nm,0.9s,baz=134,slow=6.4,SNR=11
PETK LR LR 23 17 30.9
comp=Z,872nm,21.5s,baz=178,slow=32
comp=Z,18nm,0.9s
PETK Petropavlovsk- 59.90 1 P **P** **22 55 24.1 -0.1**
GRNR Gornyy 59.91 346⇑*i*P **P** **22 55 25.0 +0.7**
GRNR pmax pmax
comp=Z,20nm,0.9s
GRNR MLR MLR
comp=E,260nm,19.0s
XAN Xi'an 60.22 316 ⇑P **P** **22 55 26.3 -0.5**
XAN S **S** **23 03 31.8 -5.2**
XAN pmax pmax
comp=E,25nm,0.8s
XAN pmax pmax
comp=E,410nm,4.5s
XAN L L
comp=E,530nm,20.6s
XAN L L
comp=E,610nm,24.4s
XAN L L
comp=E,1µm,22.7s
XAN Xi'an 60.22 316 P **P** **22 55 26.4 -0.4**
XAN pP **pP** **22 55 37.3 -4.1**
XAN sP **sP** **22 55 41.9 -5.5**
XAN PcP **PcP** **22 56 12.3 +0.5**
MLSI Meulaboh, Aceh 60.27 279 P **P** **22 55 26.1 -1.3**
DRV Dumont d'Urvil 60.55 187 P **P** **22 55 28.9 +0.5**
DRV sP **pP** **22 55 43.8 +1.2**
DRV PcP **PcP** **22 56 13.0 +0.6**
KMI2 Kunming 60.63 304 P **P** **22 55 30.8 +0.8**
KMI2 S **S** **23 03 43.3 +0.4**
KMI2 sS sS 23 04 16.6 +9.2
KMI2 pmax pmax
comp=E,37nm,0.8s
KMI2 pmax pmax
comp=E,360nm,3.5s
KMI2 L L
comp=E,350nm,21.7s
KMI2 L L
comp=E,760nm,21.0s
KMI2 L L
comp=E,1µm,25.8s
CM31 Chiang Mai Arr 61.45 295 P **P** **22 55 36.1 +0.8**
CMAR Chiang Mai Arr 61.45 295 P **P** **22 55 36.5 +1.2**
comp=E,58nm,0.8s,baz=119,slow=5.0,SNR=282
CMAR LR LR 23 22 09.6
comp=E,171nm,19.5s,baz=105,slow=36
comp=E,58nm,0.8s
CMAR Chiang Mai Arr 61.45 295 P **P** **22 55 35.9 +0.6**
SHEM Shemya Is, Ala 61.52 13 LR LR 23 18 05.6
comp=E,2µm,21.7s,baz=152,slow=32
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.5 +0.3**
comp=E,42nm,1.2s
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.5 +0.3**
CHTO pmax pmax
comp=Z,59nm,1.0s
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.5 +0.3**
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.4 +0.3**
comp=Z,1µmcomp=Z,71nm,1.2s
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.9 +0.8**
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.9 +0.8**
comp=Z,70nm,1.2s
CHTO pP **pP** **22 55 48.6 -2.1**
CHTO Chiang Mai 61.57 296 P **P** **22 55 36.8 +0.7**
CHTO pP **pP** **22 55 47.6 -3.2**
CHTO PcP **PcP** **22 56 17.7 +0.2**
PZH PanZhiHua 62.02 305 P **P** **22 55 39.0 -0.2**
PZH S **S** **23 03 59.4 -0.9**
PZH sS **sS** **23 04 31.8 +6.9**
PZH SS **SS** **23 07 59.8 -4.0**
PZH pmax pmax
comp=Z,30nm,0.9s
PZH pmax pmax
comp=Z,120nm,8.1s
PZH L L
comp=Z,470nm,22.2s
PZH L L
comp=Z,550nm,20.8s
PZH L L
comp=Z,680nm,20.7s
XLT XiLinHaoTe 62.05 329 *e*P **P** **22 55 39.3 +0.3**
XLT S **S** **23 04 05.3 +5.4**
XLT pmax pmax
comp=Z,39nm,1.2s
XLT pmax pmax
comp=Z,250nm,7.0s
XLT L L
comp=Z,580nm,23.0s
XLT L L
comp=Z,1µm,24.7s
HEH HeiHe 62.09 340 *e*P **P** **22 55 39.1 +0.1**
HEH pP **sP** **22 55 58.9 -0.8**
HEH sP PcP 22 56 07.3 -12
HEH PcP pP 22 56 15.4 +22
HEH S **S** **23 03 59.5 -0.5**
HEH pmax pmax
comp=Z,23nm,0.7s
HEH pmax pmax
comp=Z,220nm,5.2s
HEH L L
comp=Z,490nm,19.3s
HEH L L
comp=Z,430nm,20.6s
HEH L L
comp=Z,900nm,24.9s
CD2 Chengdu 62.38 310 P **P** **22 55 41.8 +0.4**
CD2 S **S** **23 04 04.5 0.0**
CD2 pmax pmax
comp=Z,120nm,0.7s
CD2 pmax pmax
comp=Z,230nm,5.7s
CD2 L L
comp=Z,980nm,23.7s
CD2 L L
comp=Z,1µm,24.7s
CD2 L L
comp=Z,1µm,24.5s
HHC Hu-ho-hao-te 62.54 323 *e*P **P** **22 55 43.1 +0.8**
HHC S **S** **23 04 04.3 -1.9**
HHC SS **SS** **23 08 14.8 +3.4**
HHC pmax pmax
comp=Z,14nm,0.7s
HHC pmax pmax
comp=Z,120nm,4.8s
HHC L L
comp=Z,510nm,18.0s
HHC L L
comp=Z,330nm,18.2s
HHC L L
comp=Z,590nm,18.7s
TAOE Nuku Hiva Isla 63.46 96 *e*S **S** **23 04 16.8 -1.9**
comp=Z,2µm,27.7s
TAOE *e*LR LR 23 14 44.4
comp=Z,1µm,22.6s
BTO2 Baotou 63.48 322 *e*P **P** **22 55 48.8 +0.2**
BTO2 S **S** **23 04 16.5 -1.6**
BTO2 pmax pmax
comp=Z,24nm,0.9s
BTO2 pmax pmax
comp=Z,240nm,7.9s
BTO2 L L
comp=Z,950nm,20.3s
BTO2 L L
comp=Z,1µm,19.0s
BTO2 L L

comp=Z,1µm,18.9s
TNCH TengChong 64.11 302 P **P** **22 55 53.9 +0.7**
TNCH S **S** **23 04 27.1 +0.5**
TNCH pmax pmax
comp=Z,74nm,0.8s
TNCH L L
comp=Z,200nm,14.7s
TNCH L L
comp=Z,380nm,19.1s
TNCH L L
comp=Z,850nm,30.9s
HIA Hailar 64.24 335 P **P** **22 55 54.4 +1.1**
comp=Z,40nm,1.0s
HIA Hailar 64.24 335 IAmb IAmb 22 55 55.6
comp=Z,26nm,0.8s
HIA Hailar 64.24 335 P **P** **22 55 54.1 +0.7**
comp=Z,40nm,1.0s
HIA Hailar 64.24 335 P **P** **22 55 54.0 +0.7**
HIA pP **pP** **22 56 05.2 -2.9**
NPW Naypyitaw 64.39 296 P **P** **22 55 56.0 +1.2**
comp=Z,152nm,0.9s
NPW pP **pP** **22 56 07.3 -2.2**
HILR Hailar Array B 64.46 335 P **P** **22 55 55.2 +0.5**
comp=Z,9.2nm,0.7s,baz=140,slow=9.4,SNR=10
HILR LR LR 23 20 19.0
comp=Z,231nm,21.3s,baz=70,slow=32
comp=Z,9.2nm,0.7s
LZH Lanzhou 64.84 315 *e*P **P** **22 55 58.3 +0.6**
LZH pP pP 22 56 13.6 +1.2
LZH S **S** **23 04 35.6 +0.5**
LZH sS sS 23 05 04.5 +4.6
LZH pmax pmax
comp=Z,40nm,1.0s
LZH pmax pmax
comp=Z,210nm,8.3s
LZH L L
comp=Z,370nm,21.3s
LZH L L
comp=Z,500nm,20.6s
LZH L L
comp=Z,1µm,21.1s
LZDM Lanzhou Array 64.88 315 P **P** **22 55 58.9 +0.8**
comp=Z,17nm,0.7s,baz=134,slow=6.4,SNR=23
LZDM LR LR 23 22 23.2
comp=Z,342nm,20.7s,baz=285,slow=34
comp=Z,17nm,0.7s
ZEA Zeya 65.11 342 *e*P **P** **22 56 00.0 +1.2**
ZEA pmax pmax
comp=E,20nm,0.7s
ZEA pmax pmax
comp=N,20nm,0.8s
ZEA pmax pmax
comp=Z,80nm,0.9s
MA2 Magadan 66.48 357 LR LR 23 22 18.1
comp=Z,711nm,21.7s,baz=184,slow=33
CASY Casey 66.81 198 P **P** **22 56 09.5 -0.1**
CASY IAmb IAmb 22 56 10.9
comp=Z,37nm,0.9s
CASY Casey 66.81 198 IAMs_20 IAMs_20 23 22 22.0
comp=Z,2µm,20.0s
CASY Casey 66.81 198 P **P** **22 56 09.6 -0.1**
RKT Rikitea 68.26 112 *e*LQ LQ 23 14 10.8
comp=Z,5µm,35.5s
RKT *e*LR LR 23 16 59.7
comp=Z,15µm,29.5s
UNV Unalaska Valle 68.44 23 IAMs_20 IAMs_20 23 19 34.4
comp=Z,2µm,22.0s
CIT Chita 68.94 334 *e*P **P** **22 56 24.1 +0.8**
CIT *e* 22 56 35.5
CIT *e* 22 56 46.9
CIT pmax pmax
comp=Z,75nm,1.3s
BRDH Bariadhala 69.26 297 LR LR 23 24 54.9
comp=Z,467nm,21.8s,baz=164,slow=34
GTA2 Gaotai 69.32 317 P **P** **22 56 26.8 +0.8**
GTA2 S **S** **23 05 25.3 -3.7**
GTA2 SS **SS** **23 09 54.4 -2.6**
GTA2 pmax pmax
comp=Z,27nm,1.0s
GTA2 pmax pmax
comp=Z,220nm,8.3s
GTA2 L L
comp=Z,440nm,20.9s
GTA2 L L
comp=Z,610nm,24.7s
GTA2 L L
comp=Z,1µm,24.4s
ULN Ulaanbaatar 69.41 327*c i*P **P** **22 56 27.3 +0.9**
ULN pmax pmax
comp=Z,57nm,1.3s
ULN Ulaanbaatar 69.41 327 P **P** **22 56 26.9 +0.5**
ULN IAmb IAmb 22 56 51.0
comp=Z,36nm,0.9s
ULN Ulaanbaatar 69.41 327 P **P** **22 56 27.2 +0.9**
comp=Z,2µmcomp=Z,163nm,1.2s
ULN Ulaanbaatar 69.41 327 P **P** **22 56 27.6 +1.2**
comp=Z,42nm,1.2s
ULN Ulaanbaatar 69.41 327 P **P** **22 56 27.4 +0.9**
ULN PcP **PcP** **22 56 49.7 +0.2**
SONM Songino Array 69.74 327 P **P** **22 56 29.2 +0.8**
comp=Z,28nm,0.9s,baz=137,slow=7.1,SNR=95
SONM PKPPKP **P'P'df** **23 24 33.9 +0.4**
comp=Z,3.3nm,1.0s,baz=222,slow=1.9,SNR=7.9
SONM LR LR 23 27 10.8
comp=Z,416nm,20.7s,baz=138,slow=36
comp=Z,28nm,0.9s
SONM Songino Array 69.74 327 P **P** **22 56 29.1 +0.7**
SONM IAmb IAmb 22 56 30.4
comp=Z,41nm,1.0s
SEY Seymchan 69.78 358⇓ *i*P **P** **22 56 28.9 +0.8**
SEY pmax pmax
comp=Z,51nm,1.6s
SHL Shillong 69.93 300 P **P** **22 56 29.6 -0.6**
SHL pmax pmax
comp=Z,50nm,0.9s
SHL Shillong 69.93 300 P **P** **22 56 29.6 -0.6**
SHL IAmb IAmb 22 56 53.1
comp=Z,50nm,0.9s
CCD Concordia, Ant 70.51 188 P **P** **22 56 33.6 +0.6**
CCD pP **pP** **22 56 45.5 -2.1**
VNDA Vanda 70.55 179 P **P** **22 56 33.3 +0.5**
comp=Z,15nm,0.8s,baz=330,slow=6.0,SNR=56
VNDA LR LR 23 21 56.5
comp=Z,1µm,20.9s,baz=6.5,slow=31
comp=Z,15nm,0.8s
VNDA Vanda 70.55 179 P **P** **22 56 33.1 +0.4**
VNDA IAmb IAmb 22 56 36.5
comp=Z,30nm,1.0s
VNDA Vanda 70.55 179 P **P** **22 56 33.8 +1.1**
comp=Z,39nm,1.3s
VNDA Vanda 70.55 179 P **P** **22 56 33.6 +0.9**
VNDA pP **pP** **22 56 44.8 -2.5**
SBA Scott Base 71.05 178 P **P** **22 56 36.8 +1.0**
SBA pmax pmax
comp=Z,58nm,1.3s
SBA MLR MLR
comp=Z,1µm,20.0s
SBA Scott Base 71.05 178 P **P** **22 56 36.8 +1.0**
SBA IAmb IAmb 22 56 39.2
comp=Z,57nm,1.2s
SBA Scott Base 71.05 178 P **P** **22 56 38.0 +2.2**
comp=Z,51nm,1.8s
GOMU GeErMu 71.40 312 P **P** **22 56 40.3 +1.2**
GOMU pmax pmax
comp=Z,6.0nm,0.9s
GOMU L L
comp=Z,300nm,19.4s
GOMU L L
comp=Z,720nm,19.4s
GOMU L L
comp=Z,1µm,19.0s
YAK Yakutsk 71.72 347 LR LR 23 26 11.5
comp=Z,388nm,21.7s,baz=145,slow=34
YAK Yakutsk 71.72 347 *e*P **P** **22 56 40.2 +0.3**
YAK *e* 22 56 58.5
YAK *e**PP **sP** **22 57 01.2 +0.3**
YAK *e* 22 59 17.0
YAK *e*S **S** **23 05 54.6 -1.1**
YAK *e**SS **SKSac** **23 06 30.8 -8.0**
YAK *e* 23 06 38.1
YAK *e*SS **SS** **23 10 32.9 +0.3**
YAK pmax pmax
comp=Z,28nm,0.8s
YAK pmax pmax
comp=N,8.0nm,1.9s
YAK pmax pmax
comp=E,11nm,1.8s
YAK pmax pmax
comp=N,193nm,4.1s
YAK pmax pmax
comp=E,260nm,3.8s
YAK pmax pmax
comp=Z,317nm,5.1s
YAK smax smax
comp=N,552nm,7.3s
YAK smax smax
comp=E,235nm,3.5s
YAK Yakutsk 71.72 347 P **P** **22 56 40.7 +0.7**
comp=Z,102nm,0.9s
LSA Lhasa 71.88 304 P **P** **22 56 38.0 -4.3**
LSA Lhasa 71.88 304 IAmb IAmb 22 57 01.5
comp=Z,54nm,1.4s
LSA Lhasa 71.88 304 P **P** **22 56 43.1 +0.9**
comp=Z,21nm,0.8s
LSA Lhasa 71.88 304 P **P** **22 56 42.8 +0.5**
LSA PcP **PcP** **22 57 01.2 +0.4**
ZAK Zakamensk 72.89 328 *e*P **P** **22 56 47.3 0.0**
ZAK pmax pmax
comp=Z,36nm,1.2s
TLY Talaya 73.44 329 P **P** **22 56 50.4 0.0**
comp=Z,17nm,0.9s,baz=149,slow=5.4,SNR=15
comp=Z,17nm,0.9s
TLY Talaya 73.44 329*c i*P **P** **22 56 50.5 0.0**
TLY pmax pmax
comp=Z,32nm,1.0s
TLY Talaya 73.44 329 P **P** **22 56 50.4 0.0**
TLY IAmb IAmb 22 56 52.7
comp=Z,26nm,1.0s
TLY Talaya 73.44 329 P **P** **22 56 51.2 +0.7**
comp=Z,29nm,1.0s
TLY Talaya 73.44 329 P **P** **22 56 50.8 +0.3**
TLY pP **PcP** **22 57 01.7 -4.7**
IRK Irkutsk 73.46 330 *e*P **P** **22 56 49.7 -0.8**
IRK pmax pmax
comp=Z,79nm,2.2s
O14K Tigyukauivet M 74.39 21 IAmb IAmb 22 57 51.5
comp=Z,78nm,1.4s
GAMB Gambell 74.74 14 IAMs_20 IAMs_20 23 24 50.8
MOY Mondy 74.81 328 *e*P **P** **22 56 58.8 +0.3**
MOY pmax pmax
comp=Z,56nm,3.3s
EVN Everest 74.97 301 IAmb IAmb 22 57 18.9
comp=Z,64nm,1.3s
EVN Everest 74.97 301 P **P** **22 57 01.2 +0.6**
comp=Z,38nm,1.2s
K13K Kusilvak Mount 75.23 18 IAMs_20 IAMs_20 23 25 01.7
comp=Z,2µm,21.0s
BILL Bilibino 75.23 4*c i*P **P** **22 57 01.1 +0.6**
BILL pmax pmax
comp=Z,77nm,1.1s
BILL Bilibino 75.23 4 P **P** **22 57 01.3 +0.8**
BILL IAmb IAmb 22 57 03.0
comp=Z,53nm,0.9s
BILI Bilibino, Chuk 75.27 4 P **P** **22 57 01.5 +0.8**
comp=Z,68nm,1.1s
L14K Kuka Creek 75.41 19 IAmb IAmb 22 57 25.2
comp=Z,31nm,1.1s
L14K IAMs_20 IAMs_20 23 24 33.7
comp=Z,2µm,22.0s
P16K Nushagak River 75.45 23 IAMs_20 IAMs_20 23 28 51.8
comp=Z,1µm,20.0s
O16K Kokwok River B 75.80 22 IAMs_20 IAMs_20 23 25 16.8
comp=Z,2µm,22.0s
KNGR Kungurtug, Tuv 76.12 326⇓ *e*P **P** **22 57 06.7 +0.6**
KNGR pmax pmax
comp=Z,33nm,1.1s
P17K Kvichak River 76.16 23 IAMs_20 IAMs_20 23 27 05.6
comp=Z,1µm,21.0s
PALK Pallekele 76.17 279 LR LR 23 34 18.6
comp=Z,286nm,19.8s,baz=114,slow=38
PALK Pallekele 76.17 279 P **P** **22 57 07.2 +0.1**
PALK pmax pmax
comp=Z,52nm,1.1s
PALK Pallekele 76.17 279 P **P** **22 57 07.2 +0.1**
PALK IAmb IAmb 22 57 26.3
comp=Z,52nm,1.1s
PALK Pallekele 76.17 279 P **P** **22 57 08.0 +0.9**
PALK Pallekele 76.17 279 P **P** **22 57 07.9 +0.8**
PALK Pallekele 76.17 279 P **P** **22 57 08.0 +0.9**
PALK pP **PcP** **22 57 19.0 0.0**
J14K Nanvaranak Lak 76.18 18 IAMs_20 IAMs_20 23 25 52.9
comp=Z,2µm,21.0s
M16K Timber Creek 76.46 21 IAmb IAmb 22 57 29.1
comp=Z,52nm,1.2s
K15K Wolf Creek Mou 76.48 19 IAmb IAmb 22 57 26.5
comp=Z,53nm,1.2s
K15K IAMs_20 IAMs_20 23 25 18.3
comp=Z,2µm,22.0s
MALK Mahakanadarawa 76.50 280 P **P** **22 57 08.1 -0.8**
comp=Z,67nm,1.2s
N17K Nushagak Hills 76.76 22 IAmb IAmb 22 57 31.9
comp=Z,86nm,1.9s
N17K IAMs_20 IAMs_20 23 26 08.3
comp=Z,2µm,21.0s
KDAK Kodiak Island 76.85 26 LR LR 23 28 49.4
comp=Z,426nm,19.3s,baz=220,slow=34
TNA Tin City 77.14 15 IAMs_20 IAMs_20 23 26 14.2
comp=Z,2µm,22.0s
M17K Holitna River 77.25 21 IAmb IAmb 22 57 20.9
comp=Z,105nm,1.9s
N18K Kilae Creek 77.34 22 IAMs_20 IAMs_20 23 25 52.8
comp=Z,2µm,22.0s
J16K Anvik River 77.49 19 IAmb IAmb 22 57 35.3
comp=Z,41nm,1.2s
J16K IAMs_20 IAMs_20 23 26 10.7
comp=Z,2µm,22.0s
K17K Iditarod 77.85 20 IAMs_20 IAMs_20 23 27 59.0
comp=Z,2µm,20.0s
I17K Unalakleet 77.90 18 IAMs_20 IAMs_20 23 27 17.3
comp=Z,2µm,22.0s
N19K Bonanza Creek 77.96 22 IAMs_20 IAMs_20 23 26 20.0
comp=Z,2µm,22.0s
J17K VABM Dome 78.06 19 IAmb IAmb 22 57 20.0
comp=Z,24nm,1.0s
J17K IAMs_20 IAMs_20 23 26 51.7
comp=Z,2µm,22.0s
L18K Granite Mounta 78.07 21 IAmb IAmb 22 57 36.3
comp=Z,35nm,1.2s
F15K North Star Dit 78.11 16 IAMs_20 IAMs_20 23 28 16.8
comp=Z,2µm,20.0s
CNPM China Poot 78.46 25 IAmb IAmb 22 57 37.9
comp=Z,37nm,0.9s
CNPM IAMs_20 IAMs_20 23 28 46.3
comp=Z,1µm,20.0s
G16K Koyuk River 78.50 17 IAmb IAmb 22 57 22.1
comp=Z,24nm,0.9s
G16K IAMs_20 IAMs_20 23 28 29.3
comp=Z,2µm,20.0s
M19K Big River Lodg 78.69 22 IAmb IAmb 22 57 47.1
comp=Z,40nm,1.0s
L19K White Mountain 78.69 21 P **P** **22 57 20.3 +0.2**
L19K IAmb IAmb 22 57 22.5
comp=Z,29nm,1.0s
BRLK Bradley Lake 78.74 24 IAMs_20 IAMs_20 23 29 05.4
comp=Z,1µm,21.0s
H17K Granite Mounta 78.89 18 IAMs_20 IAMs_20 23 27 36.4
comp=Z,2µm,21.0s
M20K Styx River 79.14 22 IAMs_20 IAMs_20 23 26 59.2
comp=Z,2µm,22.0s
WMQ Urumqi 79.33 317 *e*P **P** **22 57 24.8 +0.7**
WMQ PcP **PcP** **22 57 31.4 -0.7**
WMQ S **S** **23 07 22.4 +1.6**
WMQ pmax pmax
comp=Z,10.0nm,0.7s
WMQ L L
comp=Z,370nm,21.3s
WMQ L L
comp=Z,490nm,21.3s
WMQ L L
comp=Z,710nm,23.8s
H18K Honhosa River 79.51 18 IAMs_20 IAMs_20 23 29 59.9
comp=Z,1µm,20.0s
SEW Seward 79.53 25 IAMs_20 IAMs_20 23 29 28.6
comp=Z,1µm,19.0s
F17K Baldwin Pennin 79.58 16 IAmb IAmb 22 57 28.7
comp=Z,38nm,1.1s
F17K IAMs_20 IAMs_20 23 29 22.8
comp=Z,2µm,20.0s
J19K Poorman 79.60 20 IAMs_20 IAMs_20 23 27 15.5
comp=Z,2µm,22.0s
O22K Cooper Landing 79.63 24 IAmb IAmb 22 58 13.9
comp=Z,70nm,1.1s
O22K IAMs_20 IAMs_20 23 30 42.3
comp=Z,1µm,20.0s
SKT Skwentna 79.80 22 IAMs_20 IAMs_20 23 27 39.7
comp=Z,1µm,22.0s
G18K Tagagawik 79.94 17 IAMs_20 IAMs_20 23 27 36.1
comp=Z,2µm,21.0s
HYB Hyderabad 79.97 289 *e*P **P** **22 57 27.6 -0.4**
HYB IVmB_BB 22 57 27.8
HYB *e*S **S** **23 07 30.1 +1.7**
HYB IVMs_BB IVMs_BB 23 22 32.4
comp=Z,228nm,3.6s
PPLA Purkeypile 80.11 22 IAmb IAmb 22 57 51.3
comp=Z,45nm,1.4s
M22K Willow 80.21 23 P **P** **22 57 27.9 -0.3**
RDOG Red Dog Mine 80.34 15 IAmb IAmb 22 57 53.1
comp=Z,35nm,1.0s
RDOG IAMs_20 IAMs_20 23 27 16.7
comp=Z,1µm,22.0s
H19K Roundabout Mou 80.35 18 IAmb IAmb 22 57 32.6
comp=Z,86nm,1.4s
H19K IAMs_20 IAMs_20 23 28 44.2
comp=Z,1µm,21.0s
PWL Port Wells 80.41 24 IAmb IAmb 22 58 07.1
comp=Z,55nm,1.0s
TIXI Tiksi 80.47 352 P **P** **22 57 29.0 -0.5**
TIXI pmax pmax
comp=Z,19nm,1.1s
TIXI Tiksi 80.47 352 P **P** **22 57 29.0 -0.5**
TIXI Tiksi 80.47 352 P **P** **22 57 29.4 -0.1**
TIXI PcP **PcP** **22 57 36.4 +0.1**
TIXI sP **pP** **22 57 44.9 +0.2**
PMR Palmer 80.50 23 P **P** **22 57 30.9 +1.0**
comp=Z,14nm,1.0s
I20K Naaghedeneel 80.50 19 IAmb IAmb 22 57 34.3
comp=Z,50nm,1.1s
I20K IAMs_20 IAMs_20 23 28 38.2
comp=Z,2µm,21.0s
G19K Purcell Mounta 80.57 18 IAmb IAmb 22 57 34.0
comp=Z,48nm,1.2s
G19K IAMs_20 IAMs_20 23 28 08.0
comp=Z,2µm,22.0s
GHO Glory Hole Cre 80.69 23 IAmb IAmb 22 58 01.9
comp=Z,33nm,1.1s
GHO IAMs_20 IAMs_20 23 29 36.1
comp=Z,1µm,20.0s
F19K Shaleruckik Mo 80.84 17 IAMs_20 IAMs_20 23 28 59.1
comp=Z,1µm,21.0s
SML Sawmill 80.94 23 IAmb IAmb 22 58 09.0
comp=Z,34nm,0.9s
TRF Thorofare Moun 81.13 22 IAmb IAmb 22 57 35.4
comp=Z,25nm,0.9s
C18K Utukok River 81.21 15 IAMs_20 IAMs_20 23 28 31.7
comp=Z,1µm,22.0s
BPAW Bear Paw Mtn. 81.26 21 IAMs_20 IAMs_20 23 29 42.4
comp=Z,2µm,21.0s
EYAK Cordova Ski Ar 81.32 25 IAMs_20 IAMs_20 23 29 59.0
comp=Z,1µm,20.0s
E19K Redstone River 81.42 17 IAMs_20 IAMs_20 23 29 18.5
comp=Z,1µm,21.0s
IMAR Indian Mountai 81.50 19 P **P** **22 57 35.4 +0.2**
I21K Tanana 81.57 20 IAmb IAmb 22 57 38.5
comp=Z,28nm,1.0s
F20K Avaraart Lake 81.58 17 IAMs_20 IAMs_20 23 30 14.7
comp=Z,2µm,20.0s
DGZ Jazzator, Alta 81.60 322⇑ *i*P **P** **22 57 36.0 -0.2**
DGZ pmax pmax
comp=Z,9.0nm,0.9s
H21K Melozitna Rive 81.60 19 IAMs_20 IAMs_20 23 28 38.1
comp=Z,2µm,22.0s
RND Reindeer 81.64 22 IAmb IAmb 22 57 37.7
comp=Z,28nm,1.0s
RND IAMs_20 IAMs_20 23 28 40.1
comp=Z,2µm,22.0s
KLU Klutina 81.74 24 IAmb IAmb 22 57 40.8
comp=Z,38nm,1.1s
BWN Browne 81.85 21 IAMs_20 IAMs_20 23 29 09.4
comp=Z,2µm,21.0s
D19K Kuna River 81.89 16 IAmb IAmb 22 57 38.7
comp=Z,46nm,1.2s
G21K Allakaket 81.91 18 IAMs_20 IAMs_20 23 28 26.4
comp=Z,2µm,22.0s
DHY Denali Highway 82.01 23 P **P** **22 57 37.9 -0.2**
BMRM Bremner River 82.02 25 IAMs_20 IAMs_20 23 31 32.4
comp=Z,1µm,20.0s
H22K Ishtalitna Cre 82.21 19 IAmb IAmb 22 58 11.9
comp=Z,43nm,1.6s
NEA2 Nenana 82.23 21 IAmb IAmb 22 57 41.1
comp=Z,37nm,1.3s
NEA2 IAMs_20 IAMs_20 23 30 11.9
comp=Z,2µm,20.0s
F21K Alatna River 82.37 18 IAMs_20 IAMs_20 23 29 15.4
comp=Z,2µm,22.0s
ZSN Zaisan 82.42 320 *e*P **P** **22 57 40.6 +0.2**
ZSN Zaisan 82.42 320 *e*P **P** **22 57 40.6 +0.2**
D20K Etivluk River 82.45 16 IAmb IAmb 22 58 00.5
comp=Z,45nm,1.4s
D20K IAMs_20 IAMs_20 23 31 47.5
comp=Z,1µm,20.0s
HARP HAARP 82.52 24 IAmb IAmb 22 57 43.3
comp=Z,29nm,1.0s
CRQM Cirque 82.54 26 IAmb IAmb 22 57 42.2
comp=Z,30nm,1.1s
GLB Gilahina Butte 82.59 25 IAmb IAmb 22 57 44.8
comp=Z,33nm,1.2s
CCB Clear Creek Bu 82.71 21 IAMs_20 IAMs_20 23 29 43.7
comp=Z,2µm,21.0s
H23K Yukon River 82.78 20 IAmb IAmb 22 58 00.0
comp=Z,26nm,1.2s
COLA College 82.82 21 P **P** **22 57 41.9 -0.1**
comp=Z,17nm,0.8s
COLA College 82.82 21*c i*P **P** **22 57 40.8 -1.2**
COLA pmax pmax
comp=Z,42nm,1.2s
COLA College 82.82 21 P **P** **22 57 41.0 -1.0**
COLA IAmb IAmb 22 57 42.6
comp=Z,26nm,0.8s
COLA College 82.82 21 IAMs_20 IAMs_20 23 29 47.5
comp=Z,2µm,21.0s
COLA College 82.82 21 P **P** **22 57 41.5 -0.6**
COLA College 82.82 21 P **P** **22 57 41.1 -0.9**
comp=Z,30nm,0.8s
MCARA McCarthy VSAT 82.89 25 IAmb IAmb 22 58 20.0
comp=Z,24nm,1.0s
HDA Harding Lake 82.89 22 IAmb IAmb 22 57 59.6
comp=Z,51nm,1.7s
QSPA South Pole Qui 82.97 180 P **P** **22 57 42.8 -0.3**
comp=Z,51nm,1.0s,baz=351,slow=1.6,SNR=98
comp=Z,51nm,1.0s
QSPA South Pole Qui 82.97 180 P **P** **22 57 43.0 -0.1**
QSPA South Pole Qui 82.97 180 IAMs_20 IAMs_20 23 29 39.7
comp=Z,944nm,20.0s
QSPA South Pole Qui 82.97 180 P **P** **22 57 43.9 +0.8**
comp=Z,98nm,1.4s
QSPA South Pole Qui 82.97 180 P **P** **22 57 43.5 +0.4**
QSPA pP **pP** **22 57 55.6 -2.7**
K24K Donnelly Dome 83.01 22 IAmb IAmb 22 57 46.0
comp=Z,26nm,1.0s
K24K IAMs_20 IAMs_20 23 28 48.5
comp=Z,1µm,22.0s
POKR Poker Flat Res 83.11 21 IAMs_20 IAMs_20 23 29 12.0
comp=Z,2µm,22.0s
ILAR Eielson Array 83.11 21 P **P** **22 57 42.6 -1.0**
comp=Z,39nm,1.2s,baz=240,slow=4.0,SNR=54
ILAR LR LR 23 29 57.0
comp=Z,2µm,22.0s,baz=240,slow=32
comp=Z,39nm,1.2s
ILAR Eielson Array 83.11 21 P **P** **22 57 42.3 -1.3**
G23K Bananza Creek 83.14 19 IAMs_20 IAMs_20 23 30 20.8
comp=Z,2µm,21.0s
RIDG Independent Ri 83.33 23 IAmb IAmb 22 58 06.3
comp=Z,80nm,1.7s
MENT Mentasta 83.36 24 P **P** **22 57 46.5 +1.5**
comp=Z,22nm,0.7s
LOGN Logan Glacier 83.50 26 IAmb IAmb 22 57 53.4
comp=Z,44nm,1.6s
J25K Salcha River, 83.58 22 IAmb IAmb 22 58 03.8
comp=Z,28nm,1.0s
DOT Dot Lake 83.58 23 IAmb IAmb 22 57 47.2
comp=Z,25nm,1.1s
D22K Ayikyak River 83.64 17 IAMs_20 IAMs_20 23 31 23.2
comp=Z,2µm,21.0s
M27K Edge Creek, AK 83.83 25 IAmb IAmb 22 57 49.4
comp=Z,40nm,1.0s
MK31 Makanchi Array 83.90 319*c i*P **P** **22 57 47.9 -0.2**
MKAR Makanchi Array 83.90 319 P **P** **22 57 48.0 0.0**
comp=Z,27nm,0.8s,baz=104,slow=5.1,SNR=70

MKAR LR LR 23 35 24.9
comp=Z,303nm,20.2s,baz=88,slow=36
comp=Z,27nm,0.8s
MKAR Makanchi Array 83.90 319 P **P** **22 57 47.9 -0.2**
G24K Hadweenzic Riv 83.96 20 IAmb IAmb 22 57 51.3
comp=Z,26nm,1.1s
E23K Chandalar 84.05 18 IAmb IAmb 22 57 52.1
comp=Z,35nm,1.1s
E23K IAMs_20 IAMs_20 23 30 52.0
comp=Z,2µm,21.0s
MAKZ Makanchi 84.11 318 P **P** **22 57 48.7 -0.4**
MAKZ pmax pmax
comp=Z,38nm,0.9s
MAKZ MLR MLR
comp=Z,400nm,20.0s
MAKZ Makanchi 84.11 318 P **P** **22 57 48.7 -0.4**
MAKZ IAmb IAmb 22 57 51.4
comp=Z,38nm,0.9s
MAKZ Makanchi 84.11 318 P **P** **22 57 49.3 +0.1**
comp=Z,47nm,0.9s
MAKZ Makanchi 84.11 318 P **P** **22 57 49.2 +0.1**
MAKZ pP **pP** **22 58 00.2 -4.2**
BCAR Beaver Creek A 84.20 24 P **P** **22 57 49.5 +0.2**
D23K Nanushuk River 84.27 17 IAMs_20 IAMs_20 23 31 42.7
comp=Z,1µm,20.0s
F24K Squaw Lake 84.28 19 IAmb IAmb 22 57 52.8
comp=Z,19nm,1.0s
F24K IAMs_20 IAMs_20 23 30 47.1
comp=Z,2µm,21.0s
TOLK Toolik Lake Re 84.41 17 IAmb IAmb 22 57 53.0
comp=Z,23nm,0.9s
E24K Your Creek 84.41 18 IAMs_20 IAMs_20 23 30 41.4
comp=Z,2µm,22.0s
S31K Pelican 84.52 30 IAMs_20 IAMs_20 23 29 32.8
comp=Z,896nm,19.0s
K27K Chicken 84.54 23 IAmb IAmb 22 57 55.0
comp=Z,22nm,1.2s
K27K IAMs_20 IAMs_20 23 33 25.0
comp=Z,929nm,20.0s
WUS Wushi 84.54 313 IAmb IAmb 22 58 01.6
comp=Z,14nm,0.8s
WUS Wushi 84.54 313 P **P** **22 57 52.1 +0.5**
comp=Z,19nm,0.8s
ZAA0 Zalesovo Array 84.60 326 IAmb IAmb 22 57 52.0
comp=Z,43nm,1.4s
ZALV Zalesovo Beam 84.60 326 P **P** **22 57 50.5 -0.9**
comp=Z,9.3nm,0.5s,baz=114,slow=5.2,SNR=39
ZALV LR LR 23 36 31.5
comp=Z,278nm,20.7s,baz=106,slow=36
comp=Z,9.3nm,0.5s
ZALV Zalesovo Beam 84.60 326 P **P** **22 57 49.8 -1.6**
MAW Mawson 84.67 203 P **P** **22 57 52.4 +0.8**
comp=Z,13nm,1.6s
MAW Mawson 84.67 203 P **P** **22 57 51.7 +0.1**
comp=Z,44nm,1.1s,baz=96,slow=5.5,SNR=8.2
MAW LR LR 23 33 54.9
comp=Z,426nm,18.5s,baz=82,slow=34
comp=Z,44nm,1.1s
MAW Mawson 84.67 203 P **P** **22 57 51.7 +0.1**
MAW Mawson 84.67 203 P **P** **22 57 52.4 +0.8**
comp=Z,13nm,1.6s
SHLS Shalkode 84.85 314 *e*P **P** **22 57 51.4 -1.7**
SHLS Shalkode 84.85 314 *e*P **P** **22 57 51.5 -1.7**
D24K Happy Valley 84.92 17 IAMs_20 IAMs_20 23 32 05.0
comp=Z,2µm,20.0s
HYT Haines Junctio 85.05 27 IAmb IAmb 22 58 01.7
comp=Z,17nm,0.9s
UZB Uzynbulak 85.16 314 *e*P **P** **22 57 54.4 -0.2**
UZB Uzynbulak 85.16 314 *e*P **P** **22 57 54.5 -0.2**
S32K Killisnoo 85.17 31 IAMs_20 IAMs_20 23 28 31.9
comp=Z,1µm,20.0s
C24K Franklin Bluff 85.28 17 IAmb IAmb 22 58 00.1
comp=Z,23nm,0.8s
C24K IAMs_20 IAMs_20 23 30 38.5
comp=Z,1µm,22.0s
M29M Somme Creek 85.30 25 IAMs_20 IAMs_20 23 33 35.1
comp=Z,1µm,20.0s
BMAR Burnt Mountain 85.31 20 P **P** **22 57 54.9 +0.1**
BESE Bessie Mountai 85.43 29 IAMs_20 IAMs_20 23 29 50.7
comp=Z,922nm,20.0s
I27K Kandik River 85.45 22 IAmb IAmb 22 57 59.8
comp=Z,16nm,0.8s
KPKS Kokpek 85.47 315 *e*P **P** **22 57 56.1 -0.1**
KPKS Kokpek 85.47 315 *e*P **P** **22 57 56.1 -0.1**
SATY Saty 85.57 314 *e*P **P** **22 57 56.6 -0.1**
SATY Saty 85.57 314 *e*P **P** **22 57 56.7 -0.1**
F26K Sheenjek River 85.59 19 IAmb IAmb 22 58 00.2
comp=Z,18nm,1.1s
TARG Taragay, Kyrgy 85.70 313 P **P** **22 57 58.4 +0.7**
comp=Z,7.5nm,1.1s
L29M L29M 85.71 25 IAmb IAmb 22 58 01.9
comp=Z,25nm,1.4s
D25K Kavik River 85.74 18 IAmb IAmb 22 57 58.8
comp=Z,12nm,0.8s
D25K IAMs_20 IAMs_20 23 32 07.7
comp=Z,1µm,21.0s
H27K Steamboat Moun 85.78 21 IAmb IAmb 22 58 00.9
comp=Z,21nm,1.1s
G27K Doyon Strip 86.01 21 IAMs_20 IAMs_20 23 31 26.7
comp=Z,2µm,22.0s
TDK Taldyqorghan 86.04 316 *e*P **P** **22 57 58.8 0.0**
TDK pmax pmax
comp=Z,20nm,0.9s
TDK Taldyqorghan 86.04 316 *e*P **P** **22 57 58.9 0.0**
comp=Z,20nm,0.9s
N31M Braeburn, Yuko 86.08 27 IAmb IAmb 22 58 00.6
comp=Z,22nm,1.0s
SEM Semipalatinsk 86.21 322 *e*P **P** **22 57 59.4 -0.4**
SEM Semipalatinsk 86.21 322 *e*P **P** **22 57 59.5 -0.4**
J29N Klondike Camp 86.24 23 IAmb IAmb 22 58 21.4
comp=Z,41nm,1.4s
KDJ Kajisay 86.24 313 IAmb IAmb 22 58 06.6
comp=Z,30nm,1.1s
KDJ Kajisay 86.24 313 P **P** **22 58 01.3 +1.2**
comp=Z,29nm,1.0s
K29M Barlow Dome 86.26 24 IAmb IAmb 22 58 06.7
comp=Z,18nm,0.9s
ASAI AK-SAY(Kyrgyzs 86.46 312 P **P** **22 58 01.9 +0.4**
comp=Z,12nm,2.3s
C26K Camden Bay 86.50 17 IAMs_20 IAMs_20 23 31 48.5
comp=Z,2µm,22.0s
MDOK Medeo 86.56 314 *e*P **P** **22 58 01.7 +0.1**
MDOK Medeo 86.56 314 *e*P **P** **22 58 01.8 +0.1**
I29M Ogilvie Camp, 86.58 23 IAmb IAmb 22 58 32.5
comp=Z,26nm,1.1s
I29M IAMs_20 IAMs_20 23 31 33.0
comp=Z,1µm,22.0s
TNSS Tian-Shan 86.61 314 *e*P **P** **22 58 01.8 -0.4**
TNSS Tian-Shan 86.61 314 *e*P **P** **22 58 01.9 -0.4**
AAA Alma-Ata 86.67 314 *e*P **P** **22 58 02.2 +0.2**
AAA Alma-Ata 86.67 314 *e*P **P** **22 58 02.3 +0.2**
E27K Coleen River 86.67 19 IAmb IAmb 22 58 05.3
comp=Z,26nm,0.8s
C27K Jago River 86.71 18 IAmb IAmb 22 58 04.9
comp=Z,27nm,0.8s
C27K IAMs_20 IAMs_20 23 32 40.1
comp=Z,2µm,21.0s
KSH2 Kashi 86.81 310 P **P** **22 58 03.5 +0.5**
KSH2 S **S** **23 08 32.6 -4.5**
KSH2 pmax pmax
comp=Z,29nm,1.1s
KSH2 pmax pmax
comp=Z,250nm,4.9s
KSH2 L L
comp=Z,340nm,17.2s
KSH2 L L
comp=Z,360nm,17.9s
KSH2 L L
comp=Z,420nm,19.6s
Q32M Nakina River 86.82 30 IAMs_20 IAMs_20 23 32 22.7
comp=Z,891nm,20.0s
M31M Drury Creek, Y 86.95 26 IAmb IAmb 22 58 05.9
comp=Z,27nm,1.5s
P33M Teslin, Yukon 86.97 28 IAMs_20 IAMs_20 23 33 40.6
comp=Z,948nm,20.0s
F28M Old Crow 86.99 20 IAmb IAmb 22 58 06.2
comp=Z,14nm,0.8s
F28M IAMs_20 IAMs_20 23 32 38.8
comp=Z,1µm,21.0s
J30M Hart River 87.03 24 IAmb IAmb 22 58 11.8
comp=Z,15nm,0.8s
S34M Telegraph Cree 87.06 31 IAmb IAmb 22 58 25.0
comp=Z,46nm,1.4s
S34M IAMs_20 IAMs_20 23 29 29.9
comp=Z,936nm,20.0s
BBB Bella Bella 87.08 37 LR LR 23 30 43.7
comp=Z,2µm,20.4s,baz=282,slow=31

N32M Quiet Lake 87.17 27 IAMs_20 IAMs_20 23 35 24.7
comp=Z,951nm,19.0s
BOOM Boomskoye usch 87.22 313 IAmb IAmb 22 58 08.1
comp=Z,17nm,0.8s
BOOM Boomskoye usch 87.22 313 P **P** **22 58 05.2 +0.4**
comp=Z,24nm,0.8s
KUU Kurty 87.23 315 *e*P **P** **22 58 04.8 +0.1**
KUU Kurty 87.23 315 *e*P **P** **22 58 04.8 +0.1**
T35M Bob Quinn 87.23 32 IAMs_20 IAMs_20 23 31 18.5
comp=Z,1µm,21.0s
I30M Mount Dempster 87.27 23 IAmb IAmb 22 58 06.0
comp=Z,19nm,1.0s
I30M IAMs_20 IAMs_20 23 32 31.2
comp=Z,957nm,22.0s
KURK Kurchatov 87.29 322 P **P** **22 58 04.8 0.0**
KURK Kurchatov 87.29 322 P **P** **22 58 03.7 -1.1**
KURK IAmb IAmb 22 58 05.3
comp=Z,23nm,1.2s
KURK Kurchatov 87.29 322 P **P** **22 58 04.0 -0.8**
comp=Z,18nm,1.4s
KURBB Kurchatov Arra 87.33 322 P **P** **22 58 04.8 -0.1**
comp=Z,4.6nm,0.7s,baz=105,slow=3.4,SNR=29
KURBB PKKPbc **PKKPbc** **23 15 56.1 -1.3**
comp=Z,0.5nm,0.6s,baz=291,slow=2.9,SNR=4.4
KURBB PKPPKP **P'P'df** **23 24 04.7 +2.5**
comp=Z,0.2nm,0.3s,baz=291,slow=2.8,SNR=4.8
KURBB LR LR 23 37 12.5
comp=Z,206nm,20.8s,baz=156,slow=36
comp=Z,4.6nm,0.7s
FARB Farallon Islan 87.37 52 IAMs_20 IAMs_20 23 29 25.9
comp=Z,961nm,18.0s
E28M Babbage River 87.55 19 IAmb IAmb 22 58 07.2
comp=Z,20nm,0.8s
E28M IAMs_20 IAMs_20 23 33 39.3
comp=Z,2µm,20.0s
TKM2 Tokmak 2 87.55 314 P **P** **22 58 05.9 -0.6**
SNR=10.0
EPYK Eagle Plains 87.59 22 IAMs_20 IAMs_20 23 32 56.7
comp=Z,1µm,20.0s
R33M Jennings River 87.60 29 IAmb IAmb 22 58 20.5
comp=Z,51nm,1.9s
R33M IAMs_20 IAMs_20 23 35 36.1
comp=Z,903nm,20.0s
NIL Nilore 87.62 304 P **P** **22 58 05.6 -1.2**
NIL pmax pmax
comp=Z,44nm,0.9s
NIL MLR MLR
comp=Z,400nm,22.0s
NIL Nilore 87.62 304 P **P** **22 58 05.6 -1.2**
NIL Nilore 87.62 304 P **P** **22 58 06.5 -0.3**
comp=Z,71nm,0.9s
DLBC Dease Lake 87.77 30 P **P** **22 58 07.2 +0.1**
comp=Z,9.0nm,1.0s,baz=224,slow=8.3,SNR=7.4
DLBC LR LR 23 30 15.2
comp=Z,526nm,21.6s,baz=246,slow=31
comp=Z,9.0nm,1.0s
KBK Karagaybulak 87.97 313 P **P** **22 58 09.1 +0.6**
SNR=6.7
E29M Blow River 88.00 20 IAmb IAmb 22 58 09.2
comp=Z,12nm,0.7s
E29M IAMs_20 IAMs_20 23 32 05.3
comp=Z,1µm,22.0s
G30M tAoh Zraii Nji 88.02 21 IAmb IAmb 22 58 45.7
comp=Z,28nm,1.1s
G30M IAMs_20 IAMs_20 23 33 53.8
comp=Z,2µm,21.0s
CHMS Chumysh 88.18 314 P **P** **22 58 10.2 +1.0**
SNR=6.3
UCH Uchtor 88.20 313 P **P** **22 58 11.0 +1.1**
SNR=13
H31M Peel River 88.28 23 IAmb IAmb 22 58 10.0
comp=Z,13nm,0.8s
AAK Ala-Archa 88.29 313 P **P** **22 58 10.7 +0.7**
comp=Z,12nm,0.8s,baz=163,slow=3.4,SNR=8.2
AAK LR LR 23 39 48.7
comp=Z,179nm,19.3s,baz=89,slow=37
comp=Z,12nm,0.8s
AAK Ala-Archa 88.29 313 P **P** **22 58 10.7 +0.7**
SNR=6.4
AAK Ala-Archa 88.29 313*c i*P **P** **22 58 10.0 0.0**
AAK pmax pmax
comp=Z,12nm,0.8s
AAK Ala-Archa 88.29 313 P **P** **22 58 09.7 -0.3**
AAK IAmb IAmb 22 58 12.9
comp=Z,11nm,0.7s
AAK Ala-Archa 88.29 313 P **P** **22 58 10.0 0.0**
AAK Ala-Archa 88.29 313 P **P** **22 58 10.8 +0.8**
comp=Z,17nm,0.8s
YBH Yreka Blue Hor 88.35 48 P **P** **22 58 10.8 +0.6**
comp=Z,0.6nm,0.4s,baz=256,slow=8.6,SNR=1.8
YBH LR LR 23 33 30.8
comp=Z,1µm,18.9s,baz=272,slow=33
USP Ospenovka 88.41 314 P **P** **22 58 10.7 +0.3**
SNR=9.6
NLWA Neilton Lookou 88.64 42 IAMs_20 IAMs_20 23 32 36.4
comp=Z,2µm,20.0s
EKS2 Erkin-Say 88.82 313 P **P** **22 58 12.7 +0.3**
SNR=18
NRIK Noril'sk 88.98 341 P **P** **22 58 11.8 -0.6**
comp=Z,32nm,0.9s,baz=108,slow=4.6,SNR=28
NRIK LR LR 23 37 26.9
comp=Z,339nm,21.6s,baz=108,slow=35
comp=Z,32nm,0.9s
NRIK Noril'sk 88.98 341*c i*P **P** **22 58 11.6 -0.8**
NRIK pmax pmax
comp=Z,58nm,1.3s
OHH Osh 89.17 311 P **P** **22 58 13.4 -0.7**
comp=Z,51nm,1.2s
INK Inuvik 89.47 21 LR LR 23 34 07.5
comp=Z,2µm,21.9s,baz=241,slow=33
INK Inuvik 89.47 21 IAmb IAmb 22 58 15.8
comp=Z,35nm,1.3s
INK Inuvik 89.47 21 P **P** **22 58 14.2 -0.5**
comp=Z,20nm,1.0s
ELFS Eagle Lake Fie 89.63 49 IAMs_20 IAMs_20 23 30 59.5
comp=Z,1µm,21.0s
DRK Karamyk 89.75 310 P **P** **22 58 17.6 +0.5**
comp=Z,30nm,1.0s
KARE Kearney REC, C 89.94 53 IAMs_20 IAMs_20 23 31 57.2
comp=Z,1µm,20.0s
BTK Batken 90.58 310 P **P** **22 58 20.4 -0.3**
comp=Z,36nm,1.1s
DZA Taraz 90.63 313 *e*P **P** **22 58 20.7 0.0**
DZA Taraz 90.63 313 *e*P **P** **22 58 20.8 0.0**
BFSC Mount Baldy Ra 91.10 56 IAMs_20 IAMs_20 23 36 08.7
comp=Z,858nm,19.0s
NVAR Mina Array Bea 91.15 52 LR LR 23 32 45.1
comp=Z,546nm,21.6s,baz=274,slow=31
KBL Kabul 91.21 304 P **P** **22 58 22.2 -1.7**
KBL pmax pmax
comp=Z,21nm,0.8s
KBL Kabul 91.21 304 P **P** **22 58 22.2 -1.7**
KBL IAmb IAmb 22 58 23.6
comp=Z,21nm,0.8s
KBL Kabul 91.21 304 P **P** **22 58 22.7 -1.1**
comp=Z,28nm,0.8s
RPN Rapa Nui 91.21 117 LR LR 23 31 08.4
comp=Z,647nm,21.6s,baz=258,slow=30
KK31 Karatay Array 91.26 313 IAmb IAmb 22 58 25.9
comp=Z,19nm,1.2s
KKAR Karatay Array 91.26 313 P **P** **22 58 23.2 -0.5**
KKAR Karatay Array 91.26 313 P **P** **22 58 23.2 -0.5**
IUG luzhnay 91.47 312 *e*P **P** **22 58 24.6 -0.2**
IUG pmax pmax
comp=Z,24nm,1.8s
IUG luzhnay 91.47 312 *e*P **P** **22 58 24.6 -0.2**
comp=Z,24nm,1.8s
CHM Chimkent 91.81 312 *e*P **P** **22 58 26.1 -0.1**
CHM pmax pmax
comp=Z,12nm,1.0s
CHM Chimkent 91.81 312 *e*P **P** **22 58 26.2 -0.1**
comp=Z,12nm,1.0s
PFO Pinyon Flats O 92.00 57 LR LR 23 36 12.5
comp=Z,950nm,18.1s,baz=281,slow=33
PFO Pinyon Flats O 92.00 57 IAMs_20 IAMs_20 23 35 32.9
comp=Z,1µm,19.0s
SHOC Shoshone, Teco 92.43 54 IAMs_20 IAMs_20 23 33 02.9
comp=Z,1µm,20.0s
SYO Syowa Base 92.56 199⇑ *i*P **P** **22 58 29.0 -0.1**
SYO Syowa Base 92.56 199⇓ *i*P **P** **22 58 30.1 +1.0**
TPNV Topopah Spring 92.58 53 P **P** **22 58 30.5 +0.4**
TPNV pmax pmax
comp=Z,4.0nm,0.9s
TPNV Topopah Spring 92.58 53 P **P** **22 58 30.5 +0.4**
BMO Blue Mountains 92.73 45 IAMs_20 IAMs_20 23 35 45.4
comp=Z,805nm,19.0s
BVAR Borovoye Array 92.75 323 P **P** **22 58 29.5 -0.8**
comp=Z,24nm,0.8s,baz=104,slow=5.3,SNR=75
comp=Z,24nm,0.8s
BORK Borovoye 92.79 323 *i* P **P** **22 58 29.0 -1.5**
BORK pmax pmax
comp=Z,24nm,0.9s
BORK Borovoye 92.79 323 P **P** **22 58 29.2 -1.3**
BORK IAmb IAmb 22 58 30.4
comp=Z,16nm,0.8s
C36M Paulatuk 93.05 20 IAMs_20 IAMs_20 23 36 14.9
comp=Z,1µm,21.0s
IRM Iron Mountain 93.15 56 P **P** **22 58 31.7 -0.9**
IRM IAmb IAmb 22 58 57.0
comp=Z,14nm,1.1s
A36M Sachs Harbour 93.22 18 IAMs_20 IAMs_20 23 38 47.4
comp=Z,922nm,21.0s
NEW Newport 93.27 42 LR LR 23 34 43.7
comp=Z,1µm,19.8s,baz=261,slow=32
MFID Camas Ranch 93.62 47 IAMs_20 IAMs_20 23 34 00.1
comp=Z,1µm,20.0s
PLID Pearl Lake 93.68 45 IAMs_20 IAMs_20 23 32 39.5
comp=Z,910nm,21.0s
ELK Elko 93.78 50 P **P** **22 58 36.3 +0.6**
ELK pmax pmax
comp=Z,12nm,1.5s
ELK MLR MLR
comp=Z,1µm,21.0s
ELK Elko 93.78 50 P **P** **22 58 36.3 +0.6**
ELK IAMs_20 IAMs_20 23 33 43.4
comp=Z,1µm,21.0s
HLID Hailey 94.66 47 IAMs_20 IAMs_20 23 34 41.6
comp=Z,1µm,20.0s
MSO Missoula 95.27 44 IAMs_20 IAMs_20 23 34 08.9
comp=Z,2µm,22.0s
ELIB Princess Elisa 95.37 193 *d*P **P** **22 58 41.4 -0.8**
comp=Z,6.6nm,1.1s
YKA Yellowknife Ar 96.00 28 P **P** **22 58 44.8 -0.1**
comp=Z,6.0nm,0.8s,baz=269,slow=4.5,SNR=22
YKA PKKPbc **PKKPbc** **23 15 32.1 -3.4**
comp=Z,1.3nm,0.7s,baz=90,slow=3.0,SNR=5.8
YKA LR LR 23 38 45.0
comp=Z,566nm,19.2s,baz=274,slow=33
comp=Z,6.0nm,0.8s
YKA Yellowknife Ar 96.00 28 P **P** **22 58 44.3 -0.6**
WUAZ Wupatki 96.36 55 IAMs_20 IAMs_20 23 34 08.1
comp=Z,1µm,22.0s
LPIG La Paz 96.42 67 LR LR 23 34 51.8
comp=Z,1µm,20.5s,baz=251,slow=31
HWUT Hardware Ranch 96.61 49 IAMs_20 IAMs_20 23 35 24.4
comp=Z,954nm,21.0s
TUC Tucson 96.63 58 IAMs_20 IAMs_20 23 35 00.3
comp=Z,1µm,20.0s
HRA Herat 96.78 304 IAmb IAmb 22 58 49.4
comp=Z,15nm,0.8s
BOZ Bozeman (W) 96.79 45 IAMs_20 IAMs_20 23 34 51.1
comp=Z,1µm,21.0s
AHID Auburn Hatcher 97.02 48 IAMs_20 IAMs_20 23 38 22.5
comp=Z,809nm,20.0s
SNOW Snow King Moun 97.31 47 IAMs_20 IAMs_20 23 36 17.1
comp=Z,1µm,21.0s
BW06 Boulder Array 98.16 48 IAMs_20 IAMs_20 23 39 17.2
comp=Z,1µm,20.0s
PDAR Pinedale Array 98.16 48 P **P** **22 58 54.6 -0.9**
comp=Z,1.0nm,0.9s,baz=198,slow=2.8,SNR=5.2
PDAR LR LR 23 40 35.2
comp=Z,962nm,18.5s,baz=276,slow=34
comp=Z,1.0nm,0.9s
PDAR Pinedale Array 98.16 48 P **P** **22 58 54.2 -1.3**
EGMT Eagleton 98.17 43 IAMs_20 IAMs_20 23 37 56.5
comp=Z,1µm,20.0s
RLMT Red Lodge 98.44 45 IAMs_20 IAMs_20 23 35 56.4
comp=Z,839nm,19.0s
SVE Sverdlovsk 98.61 326 *e*P **P** **22 58 55.2 -1.7**
NVL N'lazarevskaya 98.72 191 *e*P P 22 58 47.5 -10
NVL pmax pmax
comp=Z,3.0nm,0.7s
NVL MLR MLR
comp=Z,645nm,16.0s
ABKAR Akbulak array 99.04 319 P **Pdif** **22 58 56.6 -2.4**
ARTI Arti 99.86 326 P **Pdif** **22 59 00.6 -1.9**
comp=Z,8.4nm,0.7s,baz=134,slow=3.3,SNR=16
ARTI LR LR 23 46 56.3
comp=Z,334nm,20.0s,baz=82,slow=37
comp=Z,8.4nm,0.7s
ARTI Arti 99.86 326 P **Pdif** **22 59 00.9 -1.6**
ARTI pmax pmax
comp=Z,14nm,0.7s
ARTI Arti 99.86 326 **Pdif** **22 59 00.8 -1.6**
SNAA Sanae 100.22 187 IAMs_20 IAMs_20 23 43 44.4
comp=Z,1µm,18.0s
AKTO Aktyubinsk 100.28 320 P **Pdif** **22 59 02.6 -1.9**
comp=Z,2.2nm,0.9s,baz=112,slow=3.7,SNR=5.6
LAO LASA Array 100.57 44 IAMs_20 IAMs_20 23 37 05.0
comp=Z,998nm,21.0s
SDCO Great Sand Dun 101.17 53 IAMs_20 IAMs_20 23 39 03.2
comp=Z,1µm,21.0s
T25A Trinidad 102.04 54 IAMs_20 IAMs_20 23 39 11.6
comp=Z,834nm,20.0s
RSSD Black Hills 102.18 46 IAMs_20 IAMs_20 23 40 43.5
comp=Z,1µm,20.0s
TXAR Lajitas Array 102.62 62 PKKPbc PKKPbc 23 15 15.3 -0.4
comp=Z,0.4nm,0.7s,baz=82,slow=2.7,SNR=3.9
KSCO Kaye Shedlock' 103.41 52 IAMs_20 IAMs_20 23 43 17.4
comp=Z,798nm,19.0s
OGNE Ogallala 103.79 50 IAMs_20 IAMs_20 23 40 20.3
comp=Z,1µm,21.0s
E28A Huff 104.38 44 IAMs_20 IAMs_20 23 40 10.8
comp=Z,898nm,20.0s
MDND Maddock 105.00 42 IAMs_20 IAMs_20 23 40 29.0
comp=Z,1µm,21.0s
ABPO Ambohimpanom 105.00 248 IAMs_20 IAMs_20 23 39 03.7
comp=Z,1µm,20.0s
CBKS Cedar Bluff 105.67 52 IAMs_20 IAMs_20 23 43 29.3
comp=Z,762nm,18.0s
SUSD Miller 105.80 46 IAMs_20 IAMs_20 23 41 30.2
comp=Z,1µm,21.0s
JCT Junction City 105.97 60 IAMs_20 IAMs_20 23 40 06.7
comp=Z,832nm,20.0s
ABTX Abilene, Hawle 106.05 58 IAMs_20 IAMs_20 23 39 18.6
comp=Z,1µm,22.0s
UNM Universidad Na 106.49 72 IAMs_20 IAMs_20 23 40 24.4
comp=Z,976nm,21.0s
OK038 West end E0370 106.61 54 IAMs_20 IAMs_20 23 43 32.2
comp=Z,1µm,21.0s
BGNE Belgrade 106.68 49 IAMs_20 IAMs_20 23 41 34.8
comp=Z,868nm,21.0s
AGMN Agassiz Nation 107.42 42 IAMs_20 IAMs_20 23 42 55.1
comp=Z,1µm,21.0s
F33A 5 Mile Ranch, 107.50 44 IAMs_20 IAMs_20 23 47 11.4
comp=Z,812nm,19.0s
ECSD EROS Data Cent 107.55 46 IAMs_20 IAMs_20 23 42 45.7
comp=Z,940nm,20.0s
KVTX Kingsville 107.71 63 IAMs_20 IAMs_20 23 49 30.7
comp=Z,920nm,18.0s
735A Kenedy 107.75 62 IAMs_20 IAMs_20 23 41 57.9
comp=Z,876nm,20.0s
WHTX Lake Whitney, 107.92 59 IAMs_20 IAMs_20 23 40 49.4
comp=Z,934nm,21.0s
L34A Svendsen Farm, 107.94 48 IAMs_20 IAMs_20 23 44 11.1
comp=Z,827nm,20.0s
Z35A Perchaven, San 108.02 57 IAMs_20 IAMs_20 23 40 10.8
comp=Z,1µm,22.0s
KSU1 Kansas State U 108.08 51 IAMs_20 IAMs_20 23 41 50.5
comp=Z,749nm,20.0s
APA Apatity 108.39 340 *e*P **Pdif** **22 59 40.0 -0.2**
APA *e* 23 04 10.8
APA pmax pmax
comp=Z,8.0nm,1.2s
APA MLR MLR
comp=Z,708nm,4.1s
KLMR Klimovskoe 108.68 332 *e*P **Pdif** **22 59 38.4 -3.2**
KLMR pmax pmax
comp=Z,27nm,1.5s
TUL3 Leonard 109.03 55 IAMs_20 IAMs_20 23 45 37.3
comp=Z,915nm,19.0s
ARCES ARCESS Array B 109.81 343 PKiKP **PKiKP** **23 03 48.2 -0.3**
comp=Z,5.1nm,0.7s,baz=82,slow=2.0,SNR=19
Z38A Mt. Pleasant 109.92 57 IAMs_20 IAMs_20 23 44 27.1
comp=Z,954nm,20.0s
SPMN Marine on St. 110.02 44 IAMs_20 IAMs_20 23 42 03.1
comp=Z,716nm,20.0s
U38A Gravette 110.11 54 IAMs_20 IAMs_20 23 46 12.9
comp=Z,1µm,20.0s
EYMN Ely 110.36 41 IAMs_20 IAMs_20 23 43 33.9
comp=Z,832nm,20.0s
P38A Dawn 110.38 50 IAMs_20 IAMs_20 23 43 43.9
comp=Z,1µm,22.0s
S39A Bolivar 110.80 52 IAMs_20 IAMs_20 23 44 58.2
comp=Z,974nm,19.0s

MIAR Mount Ida 110.97 56 IAMs_20 IAMs_20 23 43 29.7
comp=Z,845nm,22.0s
RAYN Ar Rayn 111.30 292 ⇓PKIKP **PKiKP 23 03 52.3 -0.4**
KIV Kislovodsk 111.37 314 *i* PKIKP **PKiKP 23 03 51.5 -0.8**
KIV *e* 23 04 33.2
KIV *e* 23 10 24.8
KIV *e*PS **PS 23 14 07.2 +1.3**
KIV *e*SS SS 23 20 03.1 -0.2
KIV pmax pmax
comp=Z,6.0nm,1.0s
KIV MLR MLR
comp=Z,195nm,21.0s
L40A Anamosa 111.72 48 IAMs_20 IAMs_20 23 43 17.2
comp=Z,945nm,22.0s
I40A Norwalk 111.81 46 IAMs_20 IAMs_20 23 51 25.2
comp=Z,1µm,20.0s
G40A Rib Lake 111.81 44 IAMs_20 IAMs_20 23 46 56.5
comp=Z,1µm,20.0s
OBN Obninsk 112.15 327 *i* PKIKP **PKiKP 23 03 54.6 +1.3**
OBN *e* 23 04 39.4
OBN *e*PPP PPP 23 07 02.2
OBN pmax pmax
comp=Z,4.0nm,0.9s
JFWS Jewell Farm 112.27 46 IAMs_20 IAMs_20 23 45 29.5
comp=Z,671nm,21.0s
CCM Cathedral Cave 112.38 52 IAMs_20 IAMs_20 23 49 46.9
comp=Z,815nm,19.0s
L42A Oliver, Polo 112.87 47 IAMs_20 IAMs_20 23 44 45.6
comp=Z,898nm,19.0s
143A Socs Landing, 112.97 58 IAMs_20 IAMs_20 23 45 53.9
comp=Z,915nm,20.0s
I42A Draeger Farm, 113.01 45 IAMs_20 IAMs_20 23 44 57.1
comp=Z,936nm,21.0s
F42A Maple Grove Fa 113.11 43 IAMs_20 IAMs_20 23 49 05.8
comp=Z,920nm,21.0s
HDIL Hopedale 113.44 49 IAMs_20 IAMs_20 23 44 16.6
comp=Z,857nm,22.0s
P43A Skaggs, Pawnee 113.44 50 IAMs_20 IAMs_20 23 45 59.7
comp=Z,702nm,20.0s
SOC Sochi 113.56 315 *i* PKIKP **PKiKP 23 03 54.6 -1.7**
SOC *e* 23 04 45.4
SOC *e*PPP PPP 23 07 11.6
SOC *e*SS SS 23 20 35.1 +3.1
SOC *e*SSS SSS 23 24 50.8
SOC MLR MLR
comp=Z,336nm,22.0s
VBMS Vicksburg 113.77 58 IAMs_20 IAMs_20 23 46 27.1
comp=Z,970nm,20.0s
FINES FINESS Array B 114.24 336 PKP PKPdf 23 03 56.4 -0.7
comp=Z,11nm,0.8s,baz=80,slow=2.6,SNR=23
OXF Oxford 114.38 55 IAMs_20 IAMs_20 23 50 48.2
comp=Z,816nm,20.0s
T45A Paducah 114.59 53 IAMs_20 IAMs_20 23 46 21.4
comp=Z,828nm,19.0s
WVT Waverly 115.39 53 IAMs_20 IAMs_20 23 46 53.8
comp=Z,831nm,20.0s
Z47A Carrollton 115.68 57 IAMs_20 IAMs_20 23 45 36.7
comp=Z,914nm,22.0s
POGA Pongola 116.03 235 P **PKiKP 23 04 01.9 +0.3**
N47A Urbana 116.03 48 IAMs_20 IAMs_20 23 49 54.3
comp=Z,726nm,21.0s
WCI Wyandotte Cave 116.19 51 IAMs_20 IAMs_20 23 50 46.5
comp=Z,876nm,19.0s
PLCA Paso Flores 116.27 142 PKP **PKPdf 23 04 01.5 -0.4**
comp=Z,1.0nm,0.5s,baz=220,slow=6.2,SNR=8.0
PLCA PKKPbc **PKKPbc 23 14 31.5 -0.9**
comp=Z,4.1nm,0.8s,baz=55,slow=5.4,SNR=7.7
V48A Smith Brothers 116.27 54 IAMs_20 IAMs_20 23 49 49.0
comp=Z,619nm,20.0s
X48A Hartselle 116.32 55 IAMs_20 IAMs_20 23 49 52.4
comp=Z,560nm,20.0s
P48A Milroy 116.57 49 IAMs_20 IAMs_20 23 47 47.6
comp=Z,1µm,20.0s
LRAL Lakeview Retre 116.60 57 IAMs_20 IAMs_20 23 45 52.9
comp=Z,1µm,22.0s
TEIG Tepich 116.75 71 IAMs_20 IAMs_20 23 44 41.5
comp=Z,702nm,21.0s
MNK Minsk 116.98 329 *i* PKIKP **PKPdf 23 04 02.3 -0.2**
MNK *i* 23 04 19.6
MNK *i* 23 05 14.3
MNK *i*PPP PPP 23 07 44.5
MNK *i* 23 11 08.7
MNK *i*SS SS 23 21 17.9 +2.0
MNK *i*SSS SSS 23 25 38.4
MNK pmax pmax
comp=N,17nm,0.8s
MNK pmax pmax
comp=E,24nm,0.9s
MNK pmax pmax
comp=Z,12nm,0.8s
MNK MLR MLR
comp=N,575nm,21.0s
MNK MLR MLR
comp=Z,577nm,23.0s
MNK MLR MLR
comp=E,677nm,24.0s
MNK Minsk 116.98 329 *i* PKP **PKPdf 23 04 02.4 -0.2**
comp=E,24nm,0.9s
MNK *i* PKP **PKPdf 23 04 02.4 -0.2**
comp=N,17nm,0.8s
MNK *i* PKP **PKPdf 23 04 02.4 -0.2**
comp=Z,12nm,0.8s,baz=62
MNK *i* pPKP pPKPdf 23 04 19.6 +1.1
MNK *i* PP **PP 23 05 14.3 +2.2**
MNK *i* PPP PPP 23 07 44.5
MNK *i* SKS **SKSdf 23 11 08.8 -1.4**
MNK *i* SS **SS 23 21 17.9 +2.0**
MNK *i* SKKS **SKKSdf 23 21 58.8 -6.4**
MNK *i* SSS SSS 23 25 38.5
MNK *i* LQ LQ 23 47 33.9
MNK *i* LRM MLR 23 54 34.9
comp=N,575nm,20.7s
MNK *i* LRM MLR 23 54 47.8
comp=Z,577nm,22.8s
MNK *i* LRM MLR 23 55 07.6
comp=E,677nm,23.5s
R49A Shelbyville 117.03 51 IAMs_20 IAMs_20 23 45 37.2
comp=Z,863nm,22.0s
KIBK Kibwezi 117.13 264 **PKPdf 23 04 03.8 -0.4**
N49A Columbus Grove 117.13 47 IAMs_20 IAMs_20 23 54 54.3
comp=Z,828nm,18.0s
250A Grady 117.38 58 IAMs_20 IAMs_20 23 47 47.6
comp=Z,999nm,21.0s
BNN Bunyan 117.51 310 PKPdf **PKPdf 23 04 03.4 -0.9**
W50A Signal Mountai 117.58 54 IAMs_20 IAMs_20 23 51 44.8
comp=Z,715nm,20.0s
R50A Paris 117.68 50 IAMs_20 IAMs_20 23 51 07.1
comp=Z,718nm,20.0s
M50A Fremont 117.83 47 IAMs_20 IAMs_20 23 57 06.9
comp=Z,618nm,18.0s
AKASG Malin Array Be 117.97 325 PKP **PKPdf 23 04 04.2 -0.4**
comp=Z,11nm,0.8s,baz=63,slow=2.3,SNR=33
AKBB Malin Array Si 117.97 325*c* *i*PKIKP **PKPdf 23 04 03.7 -0.9**
KIEV Kiev 117.98 325 ⇑PKIKP **PKPdf 23 04 04.0 -0.6**
KIEV Kiev 117.98 325 PKPdf **PKPdf 23 04 03.7 -1.0**
KIEV Kiev 117.98 325 ⇑P **PKPdf 23 04 04.0 -0.6**
X51A Calhoun 118.07 55 IAMs_20 IAMs_20 23 49 21.8
comp=Z,597nm,21.0s
KMBO Kilima Mbogo 118.10 265 PKIKP **PKPdf 23 04 05.9 -0.4**
KMBO MLR MLR
comp=Z,300nm,22.0s
KMBO Kilima Mbogo 118.10 265 PKPdf **PKPdf 23 04 05.9 -0.4**
S51A Beattyville 118.40 51 IAMs_20 IAMs_20 23 47 08.1
comp=Z,1µm,22.0s
PABE Paberze 118.41 331 IAMs_20 IAMs_20 23 57 18.4
comp=Z,958nm,21.0s
ILGA Ilgaz 118.51 313 **PKPdf 23 04 06.1 -0.1**
Y52A Lilburn 118.86 55 IAMs_20 IAMs_20 23 50 14.7
comp=Z,650nm,20.0s
KIRS Kirsehir-Merke 118.89 311 ⇑P **PKPdf 23 04 06.6 -0.3**
BR131 Keskin Array S 118.94 312 PKIKP **PKPdf 23 04 06.1 -1.0**
BR131 Keskin Array S 118.94 312 **PKPdf 23 04 06.1 -1.0**
BRTR Keskin Array B 118.94 312 PKP **PKPdf 23 04 06.2 -0.8**
comp=Z,3.4nm,0.9s,baz=101,slow=2.5,SNR=18
Q52A Bidwell 119.07 49 IAMs_20 IAMs_20 23 52 47.8
comp=Z,935nm,20.0s
O52A Adamsville 119.07 48 IAMs_20 IAMs_20 00 00 30.7
comp=Z,873nm,18.0s
MMAI Mount Meron Ar 119.14 304 PKP **PKPdf 23 04 06.9 -0.6**
comp=Z,3.5nm,0.8s,baz=46,slow=5.0,SNR=4.3
PURM Purcari 119.28 320 ⇑P **PKiKP 23 04 07.3 0.0**
GOGA Godfrey 119.44 56 IAMs_20 IAMs_20 23 48 39.0
comp=Z,766nm,21.0s
P53A Whipple 119.58 48 IAMs_20 IAMs_20 23 56 42.4
comp=Z,985nm,20.0s
SORM Soroca 119.58 322 ⇑PKIKP **PKPdf 23 04 07.1 -0.7**
SORM Soroca 119.58 322 ⇑P **PKPdf 23 04 07.1 -0.7**
SUW Suwalki 119.60 330 *e*PKP **PKiKP 23 04 08.1 +0.4**
HFS Hagfors 119.77 339 PKP **PKPdf 23 04 07.0 -0.8**
comp=Z,5.5nm,0.6s,baz=90,slow=3.0,SNR=17
HFS Hagfors 119.77 339 PKIKP **PKPdf 23 04 07.0 -0.8**
NB2 NORSAR Subarra 119.95 341 PKPdf **PKPdf 23 04 07.5 -0.7**
comp=Z,4.3nm,0.6s,baz=41,slow=1.9
NB2 PKKP **PKKPab 23 14 18.3 -0.7**
comp=Z,1.1nm,0.8s,baz=210,slow=3.6
NB2 NORSAR Subarra 119.95 341 PKPdf **PKPdf 23 04 07.0 -1.2**
NB2 AMP 23 04 07.0
NOA NORSAR Array B 119.95 341 PKP **PKPdf 23 04 07.6 -0.7**
comp=Z,5.4nm,0.7s,baz=44,slow=1.9,SNR=20
U54A Nelsons Funny 120.05 52 IAMs_20 IAMs_20 23 50 34.9
comp=Z,875nm,20.0s
S54A Dingess, Beckl 120.11 50 IAMs_20 IAMs_20 23 49 02.9
comp=Z,1µm,21.0s
TLCR 120.48 319 ⇑PKIKP **PKPdf 23 04 09.1 -0.5**
TLCR 120.48 319 ⇑P **PKPdf 23 04 09.1 -0.5**
LODK Lodwar 120.55 270 **PKPdf 23 04 10.7 -0.1**
BOSA Boshof 120.59 231 PKP **PKiKP 23 04 10.8 +0.1**
comp=Z,9.7nm,0.8s,baz=122,slow=1.2,SNR=24
BOSA Boshof 120.59 231 PKPdf **PKPdf 23 04 09.8 -0.7**
BOSA Boshof 120.59 231 PKP **PKPdf 23 04 09.7 -0.9**
BOSA Boshof 120.59 231 P **PKiKP 23 04 10.7 0.0**
SAHE Sakarya_HENDEK 120.63 314 ⇑P **PKPdf 23 04 09.4 -0.7**
NGRR Negresti 120.69 321 ⇑P **PKPdf 23 04 09.5 -0.5**
VLDR Vladesti 120.70 320 ⇑P **PKPdf 23 04 09.1 -0.9**
PDRR Padureni 120.71 321 ⇑P **PKPdf 23 04 09.5 -0.5**
TATR Tatarca 120.82 320 ⇑P **PKiKP 23 04 10.7 +0.4**
SCTR Scanteiesti 120.82 320 ⇑P **PKiKP 23 04 10.5 +0.1**
VA03 San Esteban 120.85 135 IAMs_20 IAMs_20 23 45 25.2
comp=Z,958nm,22.0s
CFR Carcaliu 120.93 319 ⇑PKIKP **PKPdf 23 04 10.3 -0.1**
CFR Carcaliu 120.93 319 ⇑P **PKPdf 23 04 10.3 -0.1**
NEGRR Negrea 120.95 320 ⇑P **PKPdf 23 04 10.5 0.0**
656A Willston 120.98 60 IAMs_20 IAMs_20 23 49 44.8
comp=Z,667nm,22.0s
GHRR 121.04 320 ⇓P **PKiKP 23 04 10.7 -0.1**
U56A King 121.21 52 IAMs_20 IAMs_20 23 50 40.7
comp=Z,939nm,21.0s
TLBR Topalu 121.24 319 ⇑P **PKiKP 23 04 11.5 +0.3**
HARR Harsova 121.26 319 ⇑PKIKP **PKiKP 23 04 11.3 0.0**
HARR Harsova 121.26 319 ⇑P **PKiKP 23 04 11.3 0.0**
TESR Tescani 121.32 321 ⇓P **PKPdf 23 04 11.0 -0.2**
Q56A Snyder Ridge, 121.35 48 IAMs_20 IAMs_20 23 56 51.9
comp=Z,770nm,20.0s
STRU Stroemstad 121.45 339 *i* P **PKPdf 23 04 10.9 -0.1**
BIZ Bicaz 121.47 322 ⇑P **PKiKP 23 04 12.0 +0.3**
VRI Vrincioaia 121.55 320 ⇑PKIKP **PKPdf 23 04 11.2 -0.5**
VRI Vrincioaia 121.55 320 ⇑P **PKPdf 23 04 11.2 -0.5**
ONER Baraj Valea Uz 121.56 321 ⇑P **PKiKP 23 04 11.8 0.0**
BLEU Blekinge 121.59 335 *i* P **PKPdf 23 04 10.9 -0.5**
PLOR Plostina 121.60 320 ⇑PKIKP **PKPdf 23 04 11.1 -0.7**
PLOR Plostina 121.60 320 ⇑P **PKPdf 23 04 11.1 -0.7**
SAHR Sahastru 121.63 320 ⇑P **PKPdf 23 04 11.7 -0.3**
BURAR Bucovina Array 121.70 323 ⇑PKIKP **PKiKP 23 04 12.5 +0.3**
BURAR Bucovina Array 121.70 323 ⇑P **PKiKP 23 04 12.5 +0.3**
SSPA Standing Stone 121.78 46 IAMs_20 IAMs_20 23 53 25.3
comp=Z,873nm,20.0s
COVR Voineasa-Covas 121.89 321 ⇑P **PKPdf 23 04 12.3 0.0**
LBTB Lobatse 121.98 235 PKIKP **PKPdf 23 04 13.1 -0.2**
LBTB Lobatse 121.98 235 PKPdf **PKPdf 23 04 13.1 -0.2**
LBTB Lobatse 121.98 235 P **PKiKP 23 04 13.6 +0.1**
NEHR Nehoiu 122.01 320 ⇑P **PKPdf 23 04 12.4 -0.2**
TJOU Tjoern 122.03 338 *i* P **PKPdf 23 04 11.8 -0.4**
OZUR 122.04 321 ⇓P **PKiKP 23 04 13.1 +0.3**
P57A Homestead Farm 122.07 47 IAMs_20 IAMs_20 23 55 16.0
comp=Z,800nm,20.0s
BOSR Bodos 122.13 321 ⇑P **PKiKP 23 04 13.1 +0.1**
KWP Kalwaria Pacla 122.17 326 *e*PKP **PKPdf 23 04 12.8 0.0**
NHSC New Hope 122.19 55 IAMs_20 IAMs_20 23 53 21.9
comp=Z,957nm,21.0s
MLR Muntele Rosu 122.20 320 ⇑PKIKP **PKPdf 23 04 12.6 -0.5**
MLR Muntele Rosu 122.20 320 PKPdf **PKPdf 23 04 12.7 -0.5**
MLR IAMs_20 IAMs_20 00 01 41.1
comp=Z,502nm,19.0s
MLR Muntele Rosu 122.20 320 ⇑P **PKPdf 23 04 12.6 -0.5**
MAKGR Makgori 122.26 234 P **PKiKP 23 04 14.1 +0.1**
DEL Delary 122.28 336 *i* P **PKPdf 23 04 12.7 0.0**
DOPR Dopca 122.35 321 ⇓P **PKiKP 23 04 13.8 +0.4**
FABU Falkenberg 122.36 337 *i* P **PKPdf 23 04 12.7 -0.2**
ONAU Onsala 122.38 338 *i* P **PKPdf 23 04 12.5 -0.3**
RAZG Razgrad 122.65 318 ⇑P **PKPdf 23 04 13.7 -0.2**
BSD Bornholm Skovb 122.77 334 *i* P **PKPdf 23 04 13.7 0.0**
KOLS Kolonicke sedl 122.77 325 *e*PKIKP **PKiKP 23 04 15.4 +1.2**
KOLS Kolonicke sedl 122.77 325 *e*PKP **PKiKP 23 04 15.4 +1.2**
VOIR 122.80 321 ⇑PKIKP **PKPdf 23 04 13.7 -0.5**
VOIR 122.80 321 ⇑P **PKPdf 23 04 13.7 -0.5**
GKP Gorka Klasztor 122.91 332 *e*PKP **PKiKP 23 04 15.0 +0.7**
HOMB Homborsund 122.95 340 *i* P **PKiKP 23 04 14.2 +0.1**
CBN Corbin Frederi 122.96 49 IAMs_20 IAMs_20 23 54 00.6
comp=Z,827nm,20.0s
LUNU Lund 123.03 336 *i* P **PKPdf 23 04 14.0 -0.2**
ARR Arges 123.09 321 ⇓P **PKiKP 23 04 15.1 +0.1**
CJR Cluj-Napoca 123.10 322 ⇑PKIKP **PKiKP 23 04 14.8 -0.1**
CJR Cluj-Napoca 123.10 322 ⇑P **PKiKP 23 04 14.8 -0.1**
TAVA DENIZLI_Tavas 123.14 310 ⇑P **PKPdf 23 04 15.2 0.0**
T59A Double "B" Far 123.21 50 IAMs_20 IAMs_20 23 55 45.4
comp=Z,837nm,20.0s
HUMR Humele 123.24 320 ⇑P **PKPdf 23 04 14.4 -0.5**
060A Indiantown 123.27 62 IAMs_20 IAMs_20 23 52 07.2
comp=Z,824nm,21.0s
MESR Meseseni 123.28 323 ⇑P **PKiKP 23 04 15.6 +0.4**
SNART Snartemo 123.33 341 *i* P **PKiKP 23 04 15.0 +0.1**
ELND Elena 123.33 318 ⇓P **PKPdf 23 04 15.1 0.0**
SOOWA Sowa 123.34 240 P **PKiKP 23 04 16.5 +0.3**
ZIMR 123.36 319 ⇑PKIKP **PKPdf 23 04 14.8 -0.4**
ZIMR 123.36 319 ⇑P **PKPdf 23 04 14.8 -0.4**
COP Copenhagen 123.41 336 *i* P **PKiKP 23 04 15.2 +0.1**
MARR Marisel-Cluj 123.41 323 ⇑P **PKPdf 23 04 15.3 -0.1**
OJC Ojcow 123.44 328 *e*PKP **PKPdf 23 04 15.2 +0.1**
KDWAN Kaudwane 123.47 236 P **PKiKP 23 04 16.7 +0.3**
SKOMA Sekoma 123.56 235 P **PKiKP 23 04 16.8 +0.2**
DRGR 123.60 323 ⇑PKIKP **PKPdf 23 04 15.2 -0.5**
DRGR 123.60 323 ⇑P **PKPdf 23 04 15.2 -0.5**
NIE Niedzica 123.61 327 *e*PKP **PKiKP 23 04 17.2 +1.4**
LTVH Ltavrtes, Hu 123.78 324 ⇑P **PKiKP 23 04 16.3 +0.2**
PLVB Pleven 123.97 319 ⇓P **PKiKP 23 04 16.6 0.0**
LANS Liptovska Anna 124.22 327 *e*PKIKP **PKiKP 23 04 18.2 +1.2**
LANS Liptovska Anna 124.22 327 *e*PKP **PKiKP 23 04 18.2 +1.2**
EZN Ezine 124.23 314 ⇑PKIKP **PKPdf 23 04 16.5 -0.4**
EZN Ezine 124.23 314 ⇑P **PKPdf 23 04 16.6 -0.4**
GZR Gura Zlata 124.23 321 ⇑PKIKP **PKPdf 23 04 16.4 -0.5**
GZR Gura Zlata 124.23 321 ⇑P **PKPdf 23 04 16.4 -0.5**
V61A Roper 124.32 51 IAMs_20 IAMs_20 23 52 41.0
comp=Z,963nm,22.0s
BDRM Kayabasi 124.38 310 ⇑P **PKPdf 23 04 16.8 -0.6**
SURR Surduc 124.46 322 ⇓P **PKPdf 23 04 16.9 -0.3**
SIRR Siria 124.49 323 ⇑P **PKiKP 23 04 17.3 -0.1**
PSZ Piszkesteto 124.66 325 ⇑PKIKP **PKPdf 23 04 17.3 -0.4**
PSZ Piszkesteto 124.66 325 PKPdf **PKPdf 23 04 16.8 -0.8**
PSZ IAMs_20 IAMs_20 00 01 34.1
comp=Z,661nm,20.0s
PSZ Piszkesteto 124.66 325 ⇑P **PKPdf 23 04 17.3 -0.4**
STEB Steborice 124.67 328 *e*PKPDF **PKiKP 23 04 18.2 +0.3**
HERR Herculane 124.70 321 ⇑P **PKPdf 23 04 17.1 -0.7**
BZS Buzias 124.84 322 ⇓PKIKP **PKPdf 23 04 17.9 -0.1**
BZS Buzias 124.84 322 ⇓P **PKPdf 23 04 17.9 -0.1**
KSP Ksiaz 124.88 330 *e*PKP **PKiKP 23 04 19.4 +1.2**
MORC Moravsky Berou 124.88 328 ⇑PKIKP **PKiKP 23 04 18.4 0.0**
MORC Moravsky Berou 124.88 328 *e*PKP **PKPdf 23 04 18.1 +0.1**
MORC *e* 23 04 30.4
MORC Moravsky Berou 124.88 328 ⇑P **PKiKP 23 04 18.4 0.0**
VYHS Vyhne 124.93 326 *e*PKIKP **PKPdf 23 04 17.7 -0.4**
VYHS Vyhne 124.93 326 *e*PKP **PKPdf 23 04 17.7 -0.4**
AMBH Ambrzfalva 125.00 323 ⇑P **PKiKP 23 04 18.6 0.0**
OSTC Ostas 125.09 330 *e*PKIKP **PKiKP 23 04 18.8 +0.1**
OSTC MLR MLR
comp=Z,800nm,19.1s
OSTC Ostas 125.09 330 *e*PKPDF **PKiKP 23 04 18.8 +0.1**
OSTC AMS AMS 23 58 50.0
comp=Z,800nm,19.1s
KRLC Kraliky 125.10 329 *e*PKIKP **PKiKP 23 04 18.7 -0.1**
KRLC MLR MLR
comp=Z,500nm,17.0s
KRLC Kraliky 125.10 329 *e*PKPDF **PKiKP 23 04 18.7 -0.1**
KRLC AMS AMS 23 58 10.0
comp=Z,500nm,17.0s
BLKB Belogradchik 125.13 320 ⇑P **PKPdf 23 04 18.5 -0.2**
CHVC Chvalec 125.15 330 *e*PKIKP **PKPdf 23 04 18.6 +0.1**
CHVC MLR MLR
comp=Z,800nm,20.2s
CHVC Chvalec 125.15 330 *e*PKPDF **PKPdf 23 04 18.6 +0.1**
CHVC AMS AMS 23 59 10.0
comp=Z,800nm,20.2s
DPC Dobruska-Polom 125.17 329 *e*PKIKP **PKiKP 23 04 19.0 +0.1**
DPC *e* 23 04 32.9
DPC MLR MLR
comp=Z,800nm,22.0s
DPC Dobruska-Polom 125.17 329 *e*PKPDF **PKiKP 23 04 19.0 +0.1**
DPC *e*pPKP **pPKPdf 23 04 32.9 -1.6**
DPC AMS AMS 23 58 40.0
comp=Z,800nm,22.0s
MDVR Moldovita 125.19 321 ⇑P **PKPdf 23 04 18.7 -0.1**
UPC Upice 125.22 330 AMS AMS 23 59 20.0
comp=Z,800nm,21.1s
JAVC Velka Javorina 125.35 327 *e*PKP **PKiKP 23 04 20.2 +0.9**
JAVC *e* 23 04 32.9
VRAC Vranov 125.66 328 PKP **PKiKP 23 04 20.0 +0.1**
comp=Z,8.7nm,0.9s,baz=88,slow=3.0,SNR=12
VRAC Vranov 125.66 328 *e*PKP **PKiKP 23 04 19.9 +0.1**
VRAC *e* 23 04 32.0
VRAC Vranov 125.66 328 ⇑P **PKiKP 23 04 19.9 0.0**
BOVS Bovan 125.75 320 ⇑P **PKPdf 23 04 19.7 -0.1**
PEHC Pehcevo 125.81 317 *i* P **PKPdf 23 04 19.6 -0.5**
MODS Modra-Piesok 125.85 327 *e*PKIKP **PKiKP 23 04 20.6 +0.3**
MODS Modra-Piesok 125.85 327 *e*PKP **PKiKP 23 04 20.6 +0.3**
KRUC Moravsky 125.91 328 *e*PKP **PKPdf 23 04 20.0 +0.1**
KRUC *e* 23 04 33.1
LKGWB Lokgwabe 125.93 234 P **PKPdf 23 04 20.7 -0.2**
PVCC Panska Ves 125.93 330 *e*PKIKP **PKiKP 23 04 20.4 +0.1**
PVCC Panska Ves 125.93 330 *e*PKPDF **PKiKP 23 04 20.4 +0.1**
CLL Collm 126.17 332 *i* PKIKP **PKiKP 23 04 20.8 0.0**
CLL *i* 23 04 33.4
CLL pmax pmax
comp=Z,26nm,0.8s
CLL Collm 126.17 332 *e*Pdif **Pdif 23 00 57.0 -2.6**
CLL *i* PKPdf **PKiKP 23 04 20.8 0.0**
comp=Z,26nm,0.8s
CLL *i* pPKPdf **pPKPdf 23 04 33.4 -2.9**
CLL *e*PP **PP 23 06 14.0 -0.5**
CLL *e*SKKSac SKKSac 23 13 05.0 -3.4
CLL *e*(Sdif) 23 14 03.0
CLL *e*PS **PS 23 16 17.0 -1.2**
CLL *e*PPS PPS 23 17 52.0
CLL *e*PPPrev 23 21 24.0
CLL *e*SS **SS 23 23 12.0 -0.9**
CLL *e*SSS SSS 23 28 06.0
CLL L L 23 38 00.0
CLL L L 23 47 00.0
CLL AMS AMS 00 00 00.0
comp=N,300nm,25.5s
CLL AMS AMS 00 00 00.0
comp=E,500nm,23.3s
CLL AMS AMS 00 00 00.0
comp=Z,500nm,22.5s
VAY Valandovo 126.24 317 *i* P **PKPdf 23 04 19.9 -0.9**
TREC Trest 126.24 329 *e*PKIKP **PKiKP 23 04 20.9 -0.1**
TREC Trest 126.24 329 *e*PKPDF **PKiKP 23 04 20.9 -0.1**
MORH Mrgy, Hungar 126.30 324 ⇑P **PKPdf 23 04 20.6 -0.1**
HSKC Hora Svate Kat 126.43 331 *e*PKPDF **PKPdf 23 04 20.4 -0.5**
ABNA Allensteig Bun 126.65 328 *i* PKP **PKiKP 23 04 21.6 -0.2**
comp=Z,14nm,1.1s
WINA Alland / Wiene 126.66 327 *i* PKiKP **PKiKP 23 04 22.0 +0.1**
comp=Z,17nm,0.8s,SNR=7.3
RONA Rosalia, Austr 126.78 327 *i* PKiKP **PKiKP 23 04 22.2 0.0**
comp=Z,14nm,0.9s
ZVC Zvikov 126.81 330 AMS AMS 23 59 50.0
comp=Z,700nm,18.5s
CONA Conrad Observa 126.88 327 *e*PKiKP **PKiKP 23 04 22.4 0.0**
comp=Z,14nm,0.9s,SNR=11
CKRC Cesky Krumlov 127.14 329 *e*PKIKP **PKiKP 23 04 22.9 0.0**
CKRC *e* 23 04 35.8
CKRC MLR MLR
comp=Z,600nm,19.6s
CKRC Cesky Krumlov 127.14 329 *e*PKPDF **PKiKP 23 04 22.9 0.0**
CKRC *e*pPKP **pPKPdf 23 04 35.8 -2.5**
CKRC AMS AMS 00 03 30.0
comp=Z,600nm,19.6s
GRTLG Ghanzi 127.22 237 P **PKiKP 23 04 24.1 +0.1**
KOOLE Kule 127.29 234 P **PKiKP 23 04 24.1 +0.1**
KHC Kasperske Hory 127.32 330 *e*PKIKP **PKiKP 23 04 23.1 -0.1**
KHC MLR MLR
comp=Z,1µm,26.6s
KHC Kasperske Hory 127.32 330 *e*PKPDF **PKiKP 23 04 23.1 -0.1**
KHC AMS AMS 00 00 10.0
comp=Z,1µm,26.6s
GERES GERESS Array B 127.44 329 PKP **PKiKP 23 04 23.3 -0.2**
comp=Z,14nm,0.8s,baz=90,slow=1.3,SNR=56
GERES GERESS Array B 127.44 329 PKPdf **PKPdf 23 04 22.2 -0.8**
ARSA Arzberg 127.47 327 *i* PKP **PKPdf 23 04 23.3 +0.2**
comp=Z,16nm,1.6s
OHR Ohrid 127.53 318 *i* P **PKiKP 23 04 23.9 0.0**
MOA Molln 127.77 328 *i* PKiKP **PKiKP 23 04 23.9 -0.3**
comp=Z,8.5nm,0.9s
PDG Podgorica 127.90 320 ⇑P **PKiKP 23 04 24.3 -0.2**
BLY Banja Luka 127.96 323 IAMs_20 IAMs_20 00 00 23.8
comp=Z,508nm,22.0s
BLY Banja Luka 127.96 323 ⇑P **PKPdf 23 04 23.8 -0.2**
SESA Seetaler Alpe, 128.07 327 *i* PKP **PKPdf 23 04 24.2 -0.2**
comp=Z,16nm,1.0s,SNR=4.6
SOKA Soboth 128.08 326 *i* PKP **PKPdf 23 04 24.2 -0.1**
comp=Z,15nm,1.1s
BIOA Bad Ischl, Aus 128.20 328 *i* PKP **PKPdf 23 04 24.2 -0.3**
comp=Z,12nm,1.2s
OBKA Obir 128.45 326 *i* PP **PP 23 06 28.9 -0.9**
comp=Z,10.0nm,1.2s
KBA Koelnbreinsper 128.75 328 *e*PKP **PKPdf 23 04 25.6 -0.1**
comp=Z,18nm,1.5s
MYKA Terra Mystica 128.87 327 *i* PKP **PKPdf 23 04 25.8 0.0**
comp=Z,17nm,1.5s
LESA Schwarzleotal 128.88 328 *i* PKP **PKPdf 23 04 25.6 -0.2**
comp=Z,9.8nm,0.7s
EKA Eskdalemuir Ar 128.94 345 PKP **PKPdf 23 04 25.1 -0.4**
comp=Z,4.4nm,0.5s,baz=20,slow=2.6,SNR=22
EKA SKPbc SKPbc 23 07 43.0
comp=Z,7.9nm,1.0s,baz=27,slow=2.0,SNR=4.9
ABTA Abfaltersbach 129.40 328 *i* PKP **PKPdf 23 04 26.4 -0.3**
comp=Z,16nm,1.3s
ABTA *e*PP **PP 23 06 35.4 -0.6**
comp=Z,11nm,1.5s
ABTA *i* SKP SKPbc 23 07 46.8 +2.6
comp=Z,8.6nm,1.2s
WATA Walderalm 129.50 329 *e*PKP **PKPdf 23 04 27.0 0.0**
comp=Z,25nm,1.2s,SNR=5.7
WATA *i* SKP SKPbc 23 07 52.5 +7.9
comp=Z,4.7nm,0.8s
WTTA Wattenberg 129.52 329 *e*PKiKP **PKPdf 23 04 27.5 +0.3**
comp=Z,34nm,1.1s,SNR=6.8
WTTA *i* SKP SKPbc 23 07 51.4 +6.6
comp=Z,7.6nm,0.9s
BOPT Opiter 129.53 336 *d*PKPdf **PKiKP 23 04 27.2 -0.2**
MOTA Moosalm 129.74 329 *i* PKiKP **PKPdf 23 04 27.7 +0.2**
comp=Z,15nm,0.8s
MOTA *i* SKP **SKPdf 23 07 53.6 -5.0**
comp=Z,9.5nm,1.2s
MEM Membach 129.76 335 *d*PKPdf **PKiKP 23 04 27.6 -0.4**
SQTA Sankt Quirin 129.77 329 *e*PKiKP **PKPdf 23 04 27.8 +0.3**
comp=Z,16nm,1.0s,SNR=6.2
SQTA *i* SKP **SKPdf 23 07 54.0 -4.5**
comp=Z,5.9nm,0.9s
RETA Reutte 129.81 330 *e*PKP **PKPdf 23 04 27.8 +0.2**
comp=Z,3.8nm,0.7s
WIN Windhoek 129.97 233 IAMs_20 IAMs_20 23 53 35.8
comp=Z,651nm,19.0s
FETA Feichten 130.14 329 *i* PKiKP **PKPdf 23 04 28.6 +0.3**
comp=Z,22nm,1.4s
FETA *e*SKP **SKPdf 23 07 56.6 -2.8**
comp=Z,11nm,1.1s
IDGL Inch Island, C 130.22 347 PKPdf **PKiKP 23 04 28.5 -0.3**
UCC Uccle 130.28 337 *d*PKPdf **PKPdf 23 04 28.3 +0.1**
DAVA Damuels 130.39 330 *i* PKiKP **PKPdf 23 04 29.1 +0.3**
comp=Z,8.9nm,0.7s
DAVA *i* SKP **SKPbc 23 07 54.3 +6.5**
comp=Z,8.5nm,1.0s
WLF Walferdange 130.41 334 *d*PKPdf **PKPdf 23 04 28.8 +0.3**
RCHB Rochefort 130.43 335 *d*PKiKP **PKiKP 23 04 30.1 +0.7**
PSAL Palomas, Salto 130.48 142 *e*P **PKiKP 23 04 30.4 +0.3**
BMRD Maredsous 130.50 336 *d*PKPdf **PKPdf 23 04 28.8 +0.2**
BMRD *d*PKiKP **PKiKP 23 04 30.0 +0.5**
BSKQ Steenkerk 130.51 337 *d*PKPdf **PKiKP 23 04 29.2 -0.2**
DOU Dourbes 130.73 336 *d*PKPdf **PKiKP 23 04 29.9 -0.1**
DAVOX Davos/Dischmat 130.74 329 PKP **PKPdf 23 04 28.7 -0.8**
comp=Z,7.9nm,0.6s,baz=28,slow=2.9,SNR=4.0
DAVOX SKPbc **SKPab 23 07 51.6 +2.4**
comp=Z,8.1nm,0.9s,baz=40,slow=7.8,SNR=10

LPAZ	**La Paz**	**130.81**	**118**	PKP		**PKPdf**	**23 04 29.8**	**-1.2**
	comp=Z,1.1nm,0.5s,baz=357,slow=3.5,SNR=4.4							
LPAZ				SKPbc		**SKPab**	**23 07 51.8**	**+0.8**
	comp=Z,1.2nm,0.5s,baz=243,slow=1.2,SNR=4.0							
ILTH	**Belurgan, Co L**	**130.92**	**346**	PKPdf		**PKiKP**	**23 04 29.9**	**-0.3**
TSUM	**Tsumeb**	**131.24**	**237**	PKPdf		**PKPdf**	**23 04 29.7**	**-1.4**
DSB	**Dublin**	**131.65**	**346**	PKPdf		**PKiKP**	**23 04 31.6**	**-0.1**
IGLA	**Glengowla, Co**	**132.16**	**348**	PKPdf		**PKiKP**	**23 04 33.2**	**+0.5**
IWEX	**Carrickbyrne,**	**132.54**	**346**	PKPdf		**PKPdf**	**23 04 32.9**	**+0.5**
CPSB	**Cacapava Do Su**	**133.48**	**145**	*eP*		**PKiKP**	**23 04 35.6**	**-0.5**
CPUP	**Vila Florida**	**133.86**	**137**	PKP		**PKPdf**	**23 04 34.1**	**-1.7**
	comp=Z,3.1nm,0.8s,baz=262,slow=2.3,SNR=5.7							
BBSR	**BB Station**	**134.74**	**51**	IAMs_20		IAMs_20	00 07 23.8	
	comp=Z,699nm,18.0s							
SIV	**San Ignacio**	**136.99**	**122**	PKhKP		PKPpre	23 04 32.6	
	comp=Z,0.8nm,0.7s,baz=255,slow=5.7,SNR=6.5							
SIV				SKPbc		**SKPbc**	**23 08 11.6**	**+1.0**
	comp=Z,1.4nm,0.6s,baz=242,slow=4.5,SNR=3.8							
SJG	**San Juan**	**137.75**	**71**	IAMs_20		IAMs_20	00 10 36.0	
	comp=Z,429nm,21.0s							
KEST	**Kesra**	**137.99**	**318**	PKhKP		PKPpre	23 04 39.8	
	comp=Z,10nm,1.0s,baz=322,slow=4.7,SNR=5.7							
AQDB	**Aquidauana**	**138.76**	**132**	PKP		**PKPdf**	**23 04 45.2**	**+0.2**
PTLB	**Pontes e Lacer**	**138.87**	**123**	*eP*		**PKPdf**	**23 04 44.3**	**-0.9**
VILB	**Vilhena**	**139.16**	**119**	PKP		**PKPdf**	**23 04 43.6**	**-2.3**
LDASE	**Londrina, Braz**	**139.98**	**140**	*eP*		**PKPdf**	**23 04 47.8**	**+0.6**
PP1B	**Ponte de Pedra**	**141.11**	**129**	*eP*		**PKPdf**	**23 04 48.3**	**-1.0**
SALV	**Santo Antonio**	**141.45**	**126**	PKP		**PKPdf**	**23 04 51.0**	**+1.1**
SALV	**Santo Antonio**	**141.45**	**126**	*eP*		**PKPdf**	**23 04 50.6**	**+0.7**
PET01	**Itanhaem-SP**	**141.64**	**145**	*eP*		**PKPdf**	**23 04 51.1**	**+1.0**
PBRG	**Braganca**	**142.01**	**339**	*e*PKPdf		**PKiKP**	**23 04 53.5**	**+0.2**
PGAV	**Gavieira, Arco**	**142.40**	**340**	*e*PKPdf		**PKPdf**	**23 04 48.6**	**-2.5**
PCAB	**Cabril**	**142.55**	**340**	*e*PKPdf		**PKPdf**	**23 04 51.8**	**+0.5**
ESDC	**Sonseca Array**	**142.71**	**334**	PKhKP		PKPpre	23 04 48.1	
	comp=Z,5.6nm,0.9s,baz=22,slow=2.7,SNR=32							
ESDC				PP		PP	23 07 51.1	-8.3
	comp=Z,1.4nm,0.8s,baz=33,slow=6.3,SNR=5.7							
POLO	**Lamas de Olo**	**142.76**	**339**	*e*PKPdf		**PKPdf**	**23 04 48.0**	**-3.7**
PDRB	**Porto dos Gac**	**142.78**	**120**	PKP		**PKPdf**	**23 04 50.0**	**-2.4**
VABB	**Valinhos**	**142.82**	**144**	PKP		**PKPdf**	**23 04 52.5**	**+0.1**
VAO	**Valinhos**	**142.82**	**144**	*eP*		**PKPdf**	**23 04 51.3**	**-1.0**
PVRL	**Vila Real**	**142.82**	**339**	*e*PKPdf		**PKPdf**	**23 04 50.7**	**-1.0**
PTO	**Porto**	**143.25**	**340**	*e*PKPdf		**PKPdf**	**23 04 51.2**	**-1.3**
BB19B	**Bebedouro**	**143.31**	**140**	PKP		**PKPdf**	**23 04 53.1**	**-0.1**
BB19B	**Bebedouro**	**143.31**	**140**	*eP*		**PKPdf**	**23 04 54.0**	**+0.8**
PARB	**Paraibuna**	**143.32**	**146**	PKP		**PKPdf**	**23 04 52.5**	**-0.7**
PARB	**Paraibuna**	**143.32**	**146**	*eP*		**PKPdf**	**23 04 54.0**	**+0.7**
PVIS	**Viseu**	**143.38**	**339**	*e*PKPdf		PKPbc	23 04 49.9	-0.1
MTE	**Manteigas**	**143.53**	**338**			PKPbc	23 04 50.7	+0.3
MTE	**Manteigas**	**143.53**	**338**	*e*PKPdf		PKPbc	23 04 51.1	+0.7
BOAV	**Boa Vista**	**143.59**	**95**	PKPdf		**PKPdf**	**23 04 53.1**	**-0.7**
BOAV	**Boa Vista**	**143.59**	**95**	PKP		**PKPdf**	**23 04 53.1**	**-0.7**
CLDB	**Colider**	**143.94**	**119**	PKP		PKPbc	23 04 52.5	+0.2
CLDB	**Colider**	**143.94**	**119**	*eP*		PKPbc	23 04 52.9	+0.6
PCBR	**Castelo Branco**	**144.00**	**338**	*e*PKPdf		PKPbc	23 04 51.8	+0.1
PMRV	**Marv??o**	**144.32**	**337**	*e*PKPdf		PKPbc	23 04 53.2	+0.4
PMRV				*etx*		tx	23 05 05.4	
PSARD	**Sardoal**	**144.46**	**338**	*e*PKPdf		PKPbc	23 04 53.7	+0.5
PSARD				*etx*		tx	23 05 06.2	
ARAG	**Araguaiana, MT**	**144.59**	**130**	PKP		**PKPdf**	**23 04 55.3**	**-0.2**
ARAG	**Araguaiana, MT**	**144.59**	**130**	*eP*		**PKPab**	**23 04 53.7**	**-0.4**
PSBE	**So Bento**	**144.77**	**339**	*e*PKPdf		**PKPdf**	**23 04 55.5**	**+0.3**
PSBE				*etx*		tx	23 05 07.3	
PESTR	**Estremoz**	**144.89**	**337**			PKPbc	23 04 54.9	+0.2
PESTR	**Estremoz**	**144.89**	**337**	*e*PKPdf		PKPbc	23 04 55.0	+0.3
PESTR				*etx*		tx	23 05 07.0	
PMTG	**Montargil**	**144.95**	**338**	*e*PKPdf		**PKPdf**	**23 04 55.1**	**-0.4**
PMTG				*etx*		tx	23 05 07.1	
ITU3	**Corumbazu**	**145.10**	**136**	PKP		**PKPbc**	**23 04 54.4**	**-1.5**
PARRA	**Arraiolos**	**145.10**	**338**	*e*PKPdf		**PKPab**	**23 04 55.4**	**+0.1**
PARRA				*etx*		tx	23 05 07.4	
CANS	**Sao Roque de M**	**145.23**	**142**	*eP*		**PKPdf**	**23 04 56.5**	**-0.2**
PBAR	**Barrancos**	**145.26**	**336**	*e*PKPdf		**PKPdf**	**23 04 56.2**	**+0.1**
PBAR				*etx*		tx	23 05 08.6	
EVO	**Evora**	**145.34**	**337**	*e*PKPdf		**PKPab**	**23 04 56.7**	**+0.5**
EVO				*etx*		tx	23 05 08.5	
VAS01	**Vassouras-RJ**	**145.36**	**148**	*eP*		**PKPab**	**23 04 57.1**	**+0.3**
PMAFR	**Mafra**	**145.44**	**339**	*e*PKPdf		**PKPab**	**23 04 57.8**	**+1.2**
PMAFR				*etx*		tx	23 05 09.4	
MOE	**Montemor**	**145.48**	**338**	*e*PKPdf		**PKPab**	**23 04 57.0**	**+0.3**
MOE				*etx*		tx	23 05 08.8	
EDA	**Edea**	**145.59**	**266**	PKPdf		**PKPdf**	**23 04 56.3**	**-1.0**
LIS	**Lisbon**	**145.60**	**339**	*e*PKP		**PKPab**	**23 04 57.7**	**+0.6**
IPMB	**Ipameri, GO**	**145.72**	**137**	PKP		**PKPdf**	**23 04 56.3**	**-1.2**
IPMB	**Ipameri, GO**	**145.72**	**137**	*eP*		**PKPdf**	**23 04 57.3**	**-0.2**
PBEJ	**Beja**	**145.72**	**337**	*e*PKPdf		**PKPab**	**23 04 58.0**	**+0.4**
PBEJ				*etx*		tx	23 05 10.2	
PLOUS	**Minas do Lousa**	**145.93**	**337**	*e*PKPdf		**PKPab**	**23 04 58.4**	**0.0**
PLOUS				*etx*		tx	23 05 11.2	
NPGB	**Novo Progresso**	**145.99**	**114**	PKP		**PKPab**	**23 04 59.6**	**+0.2**
NPGB	**Novo Progresso**	**145.99**	**114**	*eP*		**PKPdf**	**23 04 57.8**	**-0.3**
SIM2	**UHE Simplicio**	**145.99**	**148**	PKP		**PKPbc**	**23 04 58.2**	**-0.4**
MESJ	**Messejana**	**146.02**	**337**	*e*PKP		**PKPbc**	**23 04 58.4**	**+0.2**
MESJ	**Messejana**	**146.02**	**337**	*e*PKPdf		**PKPab**	**23 04 58.7**	**-0.1**
MESJ				*etx*		tx	23 05 11.9	
PCVE	**Castro Verde**	**146.13**	**337**	*e*PKPdf		**PKPab**	**23 04 59.1**	**-0.1**
PCVE				*etx*		tx	23 05 11.9	
PVAQ	**Vaqueiros**	**146.20**	**336**	*e*PKPdf		**PKPab**	**23 04 59.7**	**+0.2**
PVAQ				*etx*		tx	23 05 11.9	
PBDV	**Barranco-do-Ve**	**146.43**	**336**	*e*PKPdf		**PKPbc**	**23 04 59.5**	**+0.1**
PBDV				*etx*		tx	23 05 11.2	
PTEO	**Sao Teotonio**	**146.47**	**337**	*e*PKPdf		**PKPab**	**23 05 00.1**	**-0.4**
PTEO				*etx*		tx	23 05 13.1	
PMNB	**Patos De Minas**	**146.50**	**140**	PKP		**PKPdf**	**23 04 59.4**	**+0.6**
PMNB	**Patos De Minas**	**146.50**	**140**	*eP*		**PKPdf**	**23 04 59.2**	**+0.3**
ITTB	**Itaituba**	**146.62**	**109**	PKP		**PKPdf**	**23 04 59.6**	**+0.5**
ITTB	**Itaituba**	**146.62**	**109**	*eP*		**PKPdf**	**23 04 59.6**	**+0.5**
CAM01	**Campos-RJ**	**146.66**	**150**	PKP		**PKPdf**	**23 04 58.8**	**-0.1**
CAM01	**Campos-RJ**	**146.66**	**150**	*eP*		**PKPbc**	**23 04 59.7**	**-0.8**
MORF	**Marmelete**	**146.66**	**337**	*e*PKP		**PKPbc**	**23 04 59.4**	**-0.7**
MORF	**Marmelete**	**146.66**	**337**	*e*PKPdf		**PKPbc**	**23 04 59.4**	**-0.7**
MORF				*etx*		tx	23 05 12.9	
PFVI	**Vila Bisbo**	**146.88**	**337**	*e*PKPdf		**PKPbc**	**23 05 00.4**	**-0.3**
PFVI				*etx*		tx	23 05 14.0	
SNDB	**Serra Nova Dou**	**147.17**	**125**	PKP		**PKPdf**	**23 04 59.6**	**-0.3**
SNDB	**Serra Nova Dou**	**147.17**	**125**	*eP*		**PKPdf**	**23 05 00.1**	**+0.2**
TAM	**Tamanrasset**	**147.32**	**302**	IAMs_20		IAMs_20	00 23 34.7	
	comp=Z,459nm,20.0s							
BDFB	**Brasilia**	**147.45**	**134**	PKPbc		**PKPbc**	**23 05 02.3**	**-0.8**
	comp=Z,48nm,1.0s,baz=181,slow=3.3,SNR=32							
BDFB	**Brasilia**	**147.45**	**134**	PKPdf		**PKPdf**	**23 04 59.8**	**-0.7**
DIAM	**Diamantina, MG**	**148.40**	**143**	PKP		**PKPdf**	**23 05 03.2**	**+1.1**
DIAM	**Diamantina, MG**	**148.40**	**143**	*eP*		**PKPdf**	**23 05 02.9**	**+0.8**
MDT	**Midelt**	**148.48**	**327**	PKPbc		**PKPbc**	**23 05 05.8**	**+0.4**
	comp=Z,28nm,0.8s,baz=296,slow=1.9,SNR=8.8							
MAL2	**Monte Alegre,**	**148.83**	**106**	PKP		**PKPdf**	**23 05 02.9**	**+0.1**
RIB01	**Linhares ES**	**149.40**	**149**	PKP		**PKPbc**	**23 05 05.7**	**-2.2**
RIB01	**Linhares ES**	**149.40**	**149**	*eP*		**PKPdf**	**23 05 04.0**	**+0.5**
SJMB	**Sao Joao De Ma**	**149.49**	**147**	PKP		**PKPdf**	**23 05 05.1**	**+1.4**
SJMB	**Sao Joao De Ma**	**149.49**	**147**	*eP*		**PKPdf**	**23 05 04.1**	**+0.4**
AVE	**Averroes**	**149.52**	**331**			**PKPdf**	**23 05 01.8**	**-1.5**
BSFB	**Barra de Sao F**	**149.56**	**148**	PKP		**PKPbc**	**23 05 06.3**	**-2.0**
BSFB	**Barra de Sao F**	**149.56**	**148**	*eP*		**PKPdf**	**23 05 04.0**	**+0.2**
SDBA	**SAO DESIDERIO**	**151.84**	**133**	PKP		**PKPdf**	**23 05 07.0**	**-0.5**
SMTB	**Santa Maria do**	**151.91**	**124**	PKPdf		**PKPdf**	**23 05 06.3**	**-1.3**
GUA01	**Guaratinga, BA**	**151.97**	**147**	PKP		**PKPdf**	**23 05 08.1**	**+0.6**
GUA01	**Guaratinga, BA**	**151.97**	**147**	*eP*		**PKPdf**	**23 05 07.8**	**+0.3**
PMPST	**Porto Santo, M**	**153.03**	**345**	*etx*		tx	23 05 17.4	
PMPS	**Porto Santo**	**153.05**	**345**	*etx*		tx	23 05 17.2	
PMOZ	**Porto Moniz, M**	**153.48**	**347**	*etx*		tx	23 05 18.5	
PMAR	**Madeira**	**153.51**	**346**	*etx*		tx	23 05 18.6	
TORD	**Torodi Ar. Bea**	**153.74**	**286**	PKP		**PKPdf**	**23 05 09.5**	**-0.6**
	comp=Z,2.7nm,0.8s,baz=3.5,slow=1.4,SNR=8.9							
TORD				PKPbc		**PKPbc**	**23 05 17.2**	**-0.8**
	comp=Z,12nm,0.9s,baz=49,slow=1.7,SNR=25							
TORD				PKPab		**PKPab**	**23 05 30.2**	**-0.7**
	comp=Z,14nm,0.8s,baz=65,slow=2.9,SNR=4.9							
TORD	**Torodi Ar. Bea**	**153.74**	**286**	PKPdf		**PKPdf**	**23 05 08.6**	**-1.6**
TORD						**PKPab**	**23 05 29.7**	**-1.3**
DBIC	**Dimbokro**	**160.73**	**270**	PKP		**PKPdf**	**23 05 18.4**	**-0.5**
	comp=Z,13nm,1.0s,baz=242,slow=0.2,SNR=4.7							
DBIC				PKPab		**PKPab**	**23 06 01.4**	**+0.2**
	comp=Z,27nm,0.7s,baz=101,slow=4.0,SNR=15							
DBIC	**Dimbokro**	**160.73**	**270**	PKP		**PKPdf**	**23 05 19.1**	**+0.1**

*SOME **16** 22:48:16.5, 45˚.45N×84˚.65E, h5km*
*NNC **16** 22:48:17.3±1.1, 45˚.45N×84˚.66E, h0km, mb4.1, mpv3.7, Error ellipse: s-maj=9.5km s-min=3.7km az=115.0*
*ASRS **16** 22:48:26.1±0.5, 46˚N±3˚×8˚5E±˚, h8km, MLh4.0/9, Error ellipse: s-maj=3.6km s-min=3.3km az=150.1, confirmed*

ISC 16 22:48:16.6±1.0, **45˚.46N**±0˚.05×**84˚.68E**±0˚.05, **h10**km, **n39, σ2s91/72, 5C-6D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZSN	**Zaisan**	**2.00**	**4**	Pg	**Pb**	**22 48 53.7**	**+0.6**
	128nm,0.4s						
ZSN				Lg	Lg	22 49 20.8	
	281nm,0.4s						
ZSN	**Zaisan**	**2.00**	**4**	*eP*	**Pb**	**22 48 53.7**	**+0.6**
	128nm,0.4s						
ZSN				*eS*	**Sg**	**22 49 20.8**	**+0.1**
	281nm,0.4s						
MK31	**Makanchi Array**	**2.13**	**310**	⇑Pg	**Pb**	**22 48 56.1**	**+0.7**
	9.3nm,0.3s,baz=128,slow=15,SNR=1629						
MK31				⇓Lg	Lg	22 49 26.0	
	122nm,0.3s,baz=128,slow=28						
MAKZ	**Makanchi**	**2.32**	**307**	Pn	**Pb**	**22 48 59.7**	**+1.2**
MAKZ				Sg	**Sg**	**22 49 31.7**	**+0.7**
MAKZ				AML	AML		
DJR	**Jarkent**	**3.66**	**254**	Pg	**Pg**	**22 49 25.2**	**-1.4**
	20nm,0.3s						
DJR				Lg	Lg	22 50 14.5	
	24nm,0.4s						
DJR	**Jarkent**	**3.66**	**254**	*eP*	**Pg**	**22 49 25.2**	**-1.4**
	20nm,0.3s						
DJR				*eS*	**Sg**	**22 50 14.5**	**+0.5**
	24nm,0.4s						
KAPS	**Kapalarasan**	**3.76**	**269**	Pg	**Pb**	**22 49 25.8**	**+2.7**
	16nm,0.5s						
KAPS				Lg	Lg	22 50 15.7	
	67nm,0.4s						
KAPS	**Kapalarasan**	**3.76**	**269**	*eP*	**Pb**	**22 49 25.8**	**+2.7**
	16nm,0.5s						
KAPS				*eS*	**Sg**	**22 50 15.7**	**-1.6**
	67nm,0.4s						
PDGK	**Podgornoye**	**4.29**	**242**	⇓Pn	**Pn**	**22 49 24.3**	**+2.3**
	0.7nm,0.3s						
PDGK				⇑Pg	**Pb**	**22 49 34.2**	**+2.0**
	8.9nm,0.4s						
PDGK				⇓Lg	Lg	22 50 30.6	
	34nm,0.6s						
SHLS	**Shalkode**	**4.40**	**240**	Pg	**Pb**	**22 49 32.9**	**-1.2**
	16nm,0.2s						
SHLS				Lg	Lg	22 50 27.4	
	134nm,0.8s						
BLB	**Baldybastay**	**4.62**	**255**	Pg	**Pg**	**22 49 41.8**	**-3.4**
	21nm,0.4s						
BLB				Lg	Lg	22 50 44.0	
	49nm,0.7s						
DGZ	**Jazzator, Alta**	**4.63**	**23**	Pn	**Pn**	**22 49 29.8**	**+3.0**
DGZ				Pg	**Pg**	**22 49 43.0**	**-2.3**
DGZ				Sg	**Sg**	**22 50 42.1**	**-3.2**
DGZ				AML	AML		
UZB	**Uzynbulak**	**4.67**	**242**	Pg	**Pb**	**22 49 41.3**	**+2.5**
	6.8nm,0.5s						
UZB				Lg	Lg	22 50 41.8	
	27nm,0.6s						
UZB	**Uzynbulak**	**4.67**	**242**	*eP*	**Pb**	**22 49 41.3**	**+2.5**
	6.8nm,0.5s						
UZB				*eS*	**Sg**	**22 50 41.8**	**-5.0**
	27nm,0.6s						
KPKS	**Kokpek**	**4.74**	**247**	Pg	**Pb**	**22 49 41.8**	**+2.0**
	0.2nm,0.4s						
KPKS				Lg	Lg	22 50 42.8	
	60nm,0.7s						
KPKS	**Kokpek**	**4.74**	**247**	*eP*	**Pb**	**22 49 41.8**	**+2.0**
	0.2nm,0.4s						
KPKS				*eS*	**Sg**	**22 50 42.9**	**-5.8**
	60nm,0.7s						
TUNR	**Tungur**	**4.83**	**13**	Pn	**Pn**	**22 49 32.2**	**+2.7**
TUNR				Pg	**Pb**	**22 49 46.0**	**+4.6**
TUNR				Sg	**Sg**	**22 50 47.5**	**-4.2**
ARXS	**Arharly**	**5.03**	**258**	Pg	**Pg**	**22 49 49.5**	**-3.6**
	8.0nm,0.6s						
ARXS				Lg	Lg	22 50 56.1	
	43nm,0.3s						
ARXS	**Arharly**	**5.03**	**258**	*eP*	**Pg**	**22 49 49.5**	**-3.6**
	8.0nm,0.6s						
ARXS				*eS*	**Sg**	**22 50 56.1**	**-2.1**
	43nm,0.3s						
KURS	**Kuram**	**5.06**	**249**	Pg	**Pg**	**22 49 50.7**	**-2.9**
	6.7nm,0.7s						
KURS				Lg	Lg	22 50 57.9	
	30nm,0.9s						
KURS	**Kuram**	**5.06**	**249**	*eP*	**Pg**	**22 49 50.7**	**-2.9**
	6.7nm,0.7s						
KURS				*eS*	**Sg**	**22 50 57.9**	**-1.1**
	30nm,0.9s						
SATY	**Saty**	**5.11**	**244**	Pg	**Pb**	**22 49 49.5**	**+3.4**
	6.2nm,0.3s						
SATY				Lg	Lg	22 50 56.0	
	31nm,0.3s						
SATY	**Saty**	**5.11**	**244**	*eP*	**Pb**	**22 49 49.5**	**+3.4**
	6.2nm,0.3s						
SATY				*eS*	**Sg**	**22 50 56.0**	**-4.6**
	31nm,0.3s						
CHBI	**Chibit, Altay**	**5.21**	**20**	Pn	**Pn**	**22 49 37.7**	**+3.0**
CHBI				Pg	**Pg**	**22 49 53.7**	**-2.7**
CHBI				Sg	**Sg**	**22 50 59.5**	**-4.4**
CHBI				AML	AML		
CUR	**Chagan-Uzun**	**5.26**	**27**	Pn	**Pn**	**22 49 38.2**	**+2.8**
CUR				Pg	**Pg**	**22 49 54.7**	**-2.6**
CUR				Sg	**Sg**	**22 51 02.2**	**-3.2**
CUR				AML	AML		
ULGR	**Ulagan, Altay**	**5.61**	**22**	Pn	**Pn**	**22 49 44.3**	**+4.0**
ULGR				Pg	**Pg**	**22 50 02.1**	**-2.0**
ULGR				Sg	**Sg**	**22 51 13.7**	**-3.1**
ULGR				AML	AML		
SEM	**Semipalatinsk**	**5.78**	**331**	Pg	Pb	22 50 02.8	+5.2
	5.0nm,0.4s						
SEM				Lg	Lg	22 51 18.6	
	36nm,0.5s						
SEM	**Semipalatinsk**	**5.78**	**331**	*eP*	**Pg**	**22 50 03.5**	**-3.7**
	6.2nm,0.6s						
SEM				*eS*	**Sg**	**22 51 20.5**	**-1.5**
	36nm,0.5s						
ELDR	**Elanda**	**5.84**	**9**	Pn	**Pn**	**22 49 47.2**	**+4.0**
ELDR				Pg	**Pg**	**22 50 05.4**	**-2.9**
ELDR				Sg	**Sg**	**22 51 20.3**	**-3.6**
ELDR				AML	AML		
MDOK	**Medeo**	**5.94**	**250**	Pg	**Pg**	**22 50 06.9**	**-3.5**
	14nm,0.7s						
MDOK				Lg	Lg	22 51 27.2	
	24nm,0.6s						
MDOK	**Medeo**	**5.94**	**250**	*eP*	**Pg**	**22 50 06.9**	**-3.5**
	14nm,0.7s						
MDOK				*eS*	**Sg**	**22 51 26.9**	**-0.3**
	24nm,0.6s						
TNSS	**Tian-Shan**	**6.06**	**249**	Pg	**Pg**	**22 50 10.5**	**-2.3**
	1.4nm,0.3s						
TNSS				Lg	Lg	22 51 31.9	
	3.7nm,0.7s						
TNSS	**Tian-Shan**	**6.06**	**249**	*eP*	**Pg**	**22 50 10.5**	**-2.3**
	1.4nm,0.3s						
TNSS				*eS*	**Sg**	**22 51 31.9**	**+0.7**
	3.7nm,0.7s						
ARTR	**Artybash**	**6.57**	**14**	Pn	**Pn**	**22 49 55.9**	**+2.6**
ARTR				Pg	**Pg**	**22 50 19.7**	**-2.7**
ARTR				Sg	**Sg**	**22 51 43.3**	**-4.2**
ARTR				AML	AML		
YALR	**Yailyu, Altay**	**6.61**	**16**	Pn	**Pn**	**22 49 56.7**	**+3.0**
YALR				Pg	**Pg**	**22 50 21.3**	**-1.8**
YALR				Sg	**Sg**	**22 51 44.3**	**-4.2**
YALR				AML	AML		
KURBB	**Kurchatov Arra**	**6.61**	**324**	⇑Pn	**Pn**	**22 49 55.0**	**+1.2**
	3.3nm,0.4s						
KURBB				⇑Sn	**Sn**	**22 51 13.2**	**+4.1**
	14nm,0.7s						
KURBB				⇓Lg	Lg	22 51 45.4	
	148nm,0.7s						
KURK	**Kurchatov**	**6.64**	**325**	⇑Pn	**Pn**	**22 49 56.1**	**+1.8**
	0.6nm,0.5s						
KURK				⇓Sn	**Sn**	**22 51 14.0**	**+4.0**
	1.6nm,0.5s						
KURK				⇓Lg	Lg	22 51 45.6	
	28nm,0.8s						
KURK	**Kurchatov**	**6.64**	**325**	Pn	**Pn**	**22 49 57.0**	**+2.8**
KURK				Sg	**Sg**	**22 51 49.6**	**-0.1**
TEL	**Teeli**	**6.67**	**32**	Pn	**Pn**	**22 49 56.0**	**+1.3**
TEL				Pg	**Pg**	**22 50 21.8**	**-2.5**
TEL				Sg	**Sg**	**22 51 49.9**	**-0.7**
TEL				AML	AML		

*IDC **16** 23:05:58.5±1.2, 0˚.16N×125˚.76E, h0km, mb3.7/7, mbtmp3.7/7, Error ellipse: s-maj=146.7km s-min=19.9km az=67.0*
*DJA **16** 23:06:04.1±0.2, 0˚S±2˚×12˚5E±˚, h10km, M4.4/27, mB5.2/6, mb4.5/9, MLv4.2/27, Mw(mB)4.5/6*

ISC 16 23:06:04.7±0.9, **0˚.21S**±0˚.06×**125˚.20E**±0˚.06, **h35**km, **n22, σ2s13/22, mb3.8/7, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**1.45**	**303**	P	**Pn**	**23 06 27.2**	**-1.2**
KMSI				AML	AML		
MNI	**Manado**	**1.68**	**348**	P	**Pn**	**23 06 33.1**	**+1.5**
MNI				AML	AML		
SANI	**Sanana**	**1.99**	**157**	P	**Pn**	**23 06 35.8**	**-0.1**
GTOI	**Gorontalo**	**2.34**	**291**	P	**Pn**	**23 06 43.5**	**+2.8**
GTOI				AML	AML		
TNTI	**Ternate**	**2.38**	**66**	P	**Pn**	**23 06 45.1**	**+3.9**
TNTI				AML	AML		
LUWI	**Luwuk**	**2.56**	**251**	P	**Pn**	**23 06 48.0**	**+4.2**
GAMI	**Galela, Maluku**	**3.29**	**52**	P	**Pn**	**23 06 58.0**	**+4.2**
GAMI				AML	AML		
NLAI	**Namlea**	**3.56**	**148**	P	**Pn**	**23 06 58.6**	**+1.1**
NLAI				AML	AML		
APSI	**Ampana**	**3.62**	**259**	P	**Pn**	**23 06 59.2**	**+0.9**
KDI	**Kendari**	**4.53**	**215**	P	**Pn**	**23 07 11.7**	**+0.9**
MSAI	**Masohi**	**4.86**	**130**	P	**Pn**	**23 07 18.2**	**+2.8**
MSAI				AML	AML		
PCI	**Palu**	**5.41**	**263**	P	**Pn**	**23 07 23.8**	**+0.9**
	3μm65nm,1.1s						
TTSI	**Tana Toraja**	**6.07**	**242**	P	**Pn**	**23 07 32.7**	**+0.7**
	0.2nm37nm,0.5s						
TTSI				AML	AML		
SPSI	**Sidrap Palu**	**6.58**	**235**	P	**Pn**	**23 07 40.8**	**+1.7**
	0.1nm2μm21nm,0.5s						
SPSI				AML	AML		
BKSI	**Bulukumba**	**7.18**	**225**	P	**Pn**	**23 07 48.1**	**+0.9**
BKSI				AML	AML		
WRA	**Warramunga Arr**	**21.56**	**156**	P	**P**	**23 10 50.5**	**-0.8**
	0.5nm,0.5s,baz=338,slow=11,SNR=4.9						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**24.80**	**161**	P	**P**	**23 11 24.4**	**+0.8**
	0.4nm,0.5s,baz=336,slow=8.3,SNR=6.1						
	0.4nm,0.5s						
SONM	**Songino Array**	**50.57**	**344**	P	**P**	**23 14 59.1**	**-0.9**
	0.8nm,0.8s,baz=150,slow=9.9,SNR=3.5						
	0.8nm,0.8s						
MKAR	**Makanchi Array**	**59.96**	**327**	P	**P**	**23 16 06.3**	**-1.3**
	1.6nm,0.3s,baz=129,slow=7.8,SNR=34						
	1.6nm,0.3s						
ZALV	**Zalesovo Beam**	**63.42**	**335**	P	**P**	**23 16 28.8**	**-1.9**
	0.5nm,0.4s,baz=156,slow=7.1,SNR=3.0						
	0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**64.26**	**329**	P	**P**	**23 16 35.3**	**-1.0**
	0.5nm,0.3s,baz=132,slow=6.6,SNR=8.2						
	0.5nm,0.3s						
BVAR	**Borovoye Array**	**69.80**	**328**	P	**P**	**23 17 10.7**	**-0.8**
	0.3nm,0.4s,baz=118,slow=8.5,SNR=4.5						
	0.3nm,0.4s						

*IDC **16** 23:19:53.9±0.7, 6˚.73N×72˚.94

YOTC				S		Sn	23 21 48.4	+0.2	
GUVC	**San Jose del G**	**4.31**	**173**	P		Pn	23 20 56.7	-1.5	
GUVC				S		Sn	23 21 46.1	-2.3	
SMRC	**Santa Marta, M**	**4.42**	**346**			Pn	23 20 59.3	-0.3	
SMRC				Sn		Sn	23 21 48.7	-2.3	
SMRC	**Santa Marta, M**	**4.42**	**346**	P		Pn	23 20 59.5	-0.1	
SMRC				S		Sn	23 21 48.0	-3.0	
MACC	**Macarena, Meta**	**4.73**	**189**	P		Pn	23 21 01.7	-2.1	
MACC				S		Sn	23 21 53.9	-4.5	
BETC	**Betania**	**4.75**	**209**	P		Pn	23 21 03.0	-1.0	
BETC				S		Sn	23 21 55.3	-3.5	
URIC	**Uribia, Colomb**	**4.94**	**13**			Pn	23 21 05.4	-1.0	
URIC	**Uribia, Colomb**	**4.94**	**13**	P		Pn	23 21 05.2	-1.3	
URIC				S		Sn	23 21 59.7	-3.6	
URIC	**Uribia, Colomb**	**4.94**	**13**	*e*P		Pn	23 21 05.5	-1.0	
URIC				*e*S		Sn	23 21 58.7	-4.6	
JAMC	**Jamundi, Valle**	**5.06**	**225**	P		Pn	23 21 08.1	-0.2	
	2μm20nm,0.5s								
JAMC				S		Sn	23 22 05.6	-0.8	
	2μm20nm,0.5s								
JAMC				AML		AML			
UPD2	**Meteti**	**5.14**	**289**	P		Pn	23 21 07.6	-1.5	
UPD2				S		Sn	23 22 06.1	-1.8	
POPC	**Popayan, Colom**	**5.56**	**220**	P		Pn	23 21 14.3	-0.6	
	23nm,0.5s								
POPC				S		Sn	23 22 14.2	-4.2	
	23nm,0.5s								
POPC				AML		AML			
BBAC	**Balboa, Cauca**	**6.32**	**221**	P		Pn	23 21 25.4	+0.4	
BBAC				S		Sn	23 22 32.2	-4.3	
CRUC	**La Cruz**	**6.50**	**216**	P		Pn	23 21 29.9	+2.4	
OTAV	**Otavalo**	**8.46**	**219**			Pn	23 21 52.7	-1.0	
MTDJ	**Mount Denham**	**12.10**	**340**	*i* P		Pn	23 22 43.8	+2.5	
MTDJ				IAmb		IAmb	23 22 46.6		
	comp=Z,79nm,0.8s								
GTBY	**Guantanamo Bay**	**13.14**	**352**	*i* P		P	23 22 57.4	-1.6	
GTBY				IAmb		IAmb	23 23 02.5		
	comp=Z,57nm,1.3s								
MARVS	**Santiago de Cu**	**13.35**	**349**	*i* P		P	23 23 00.3	-1.0	
QMBU	**Quimbuelo**	**13.37**	**353**	*i* P		P	23 23 00.5	-1.1	
SABCS	**La Quijada**	**13.60**	**351**	*i* P		P	23 23 04.0	-0.2	
PILO	**Pilon**	**13.63**	**343**	*i* P		Pn	23 23 02.3	+1.4	
NMDO	**Nuevo Mundo**	**13.74**	**353**	*i* P		P	23 23 06.0	+0.2	
PINC	**Pinares de May**	**13.80**	**349**	*i* P		P	23 23 06.0	-0.4	
HLGC	**Holguin**	**14.24**	**349**	*i* P		Pn	23 23 14.1	+2.8	
ATAH	**Atahualpa**	**14.86**	**201**	P		Pn	23 23 15.8	-1.0	
	comp=Z,2.9nm,0.8s,baz=35,slow=16,SNR=3.8								
CCCC	**Cccc**	**14.96**	**343**	*i* P		P	23 23 23.6	+4.4	
CCCC				IAmb		IAmb	23 23 26.7		
	comp=Z,12nm,1.0s								
VILB	**Vilhena**	**23.49**	**147**			P	23 24 49.8	0.0	
VILB				IAmb		IAmb	23 24 50.5		
	comp=Z,15nm,0.8s								
LPAZ	**La Paz**	**23.52**	**168**	P		P	23 24 48.5	-2.1	
	comp=Z,1.3nm,0.4s,baz=347,slow=7.4,SNR=8.0								
	comp=Z,1.3nm,0.4s								
LPAZ	**La Paz**	**23.52**	**168**	P		P	23 24 50.0	-0.7	
Y58A	**Scranton**	**27.59**	**348**	P		P	23 25 25.8	-0.8	
250A	**Grady**	**27.85**	**336**	P		P	23 25 29.3	+0.4	
250A				IAmb		IAmb	23 25 31.8		
	comp=Z,7.8nm,0.7s								
V48A	**Smith Brothers**	**31.38**	**338**	P		P	23 26 00.9	+0.9	
V48A				IAmb		IAmb	23 26 02.6		
	comp=Z,6.8nm,0.9s								
CCM	**Cathedral Cave**	**35.14**	**335**	P		P	23 26 33.4	+0.7	
CCM				IAmb		IAmb	23 26 34.0		
	comp=Z,7.2nm,0.6s								
TXAR	**Lajitas Array**	**36.44**	**312**	P		P	23 26 44.8	+0.8	
	comp=Z,0.5nm,0.4s,baz=128,slow=8.1,SNR=5.7								
	comp=Z,0.5nm,0.4s								
ULM	**Lac du Bonnet**	**47.26**	**340**	P		P	23 28 11.0	-0.3	
	comp=Z,2.2nm,0.4s,baz=130,slow=7.3,SNR=10								
	comp=Z,2.2nm,0.4s								
ULM	**Lac du Bonnet**	**47.26**	**340**	P		P	23 28 10.7	-0.6	
SCHQ	**Schefferville**	**48.11**	**5**	P		P	23 28 18.3	+0.5	
	comp=Z,4.4nm,0.8s,baz=198,slow=13,SNR=1.3								
	comp=Z,4.4nm,0.8s								
SCHQ	**Schefferville**	**48.11**	**5**	P		P	23 28 17.9	+0.1	
SCHQ				IAmb		IAmb	23 28 19.6		
	comp=Z,5.1nm,0.9s								
YKA	**Yellowknife Ar**	**63.23**	**340**	P		P	23 30 05.3	-0.1	
	comp=Z,1.1nm,0.5s,baz=136,slow=6.5,SNR=19								
	comp=Z,1.1nm,0.5s								
PTCN	**Pitcairn Islan**	**63.85**	**238**	P		P	23 30 10.2	0.0	
HPAH	**Hawaii Prepara**	**80.74**	**289**	P		P	23 31 49.8	-0.8	
HPAH				IAmb		IAmb	23 31 57.6		
	comp=Z,54nm,0.5s								
ASAR	**Alice Springs**	**149.13**	**234**	PKPbc		**PKPdf**	23 39 22.6	+2.0	
	comp=Z,2.2nm,0.7s,baz=120,slow=3.5,SNR=18								
ASAR	**Alice Springs**	**149.13**	**234**			**PKPdf**	23 39 22.9	+2.3	
WR8	**Warramunga Arr**	**150.21**	**241**	PKPbc		**PKPbc**	23 39 26.0	-1.6	
WRA	**Warramunga Arr**	**150.36**	**241**	PKPbc		**PKPbc**	23 39 26.4	-1.4	
	comp=Z,1.4nm,0.5s,baz=109,slow=2.4,SNR=18								

*DJA **16** 23:24:38.9±0.8,5°S±5°×10°3E±°, h27km±6km, M4.2/25, mB4.8/1, mb4.2/5, MLv4.3/25, Mw(mB)4.1/1*
*NEIC **16** 23:24:39.6±0.9, 4°.76S±0°.07×102°.82E±0°.06, h58km±6km, mb4.4/20, Error ellipse: s-maj=11.1km s-min=7.9km az=212.0*
*IDC **16** 23:24:43.8±4.6, 4°.55S×103°.05E, h96km±39km, mb3.8/12, mbtmp4.1/13, Error ellipse: s-maj=48.6km s-min=13.4km az=57.0*

ISC 16 23:24:38.7±0.6,**4°.83S**±0°.07×**102°.77E**±0°.08,**h59**km,**n69,**
σ0§93/66,mb4.3/22,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNAI	**Manna**	**0.50**	**21**	P	**Pn**	**23 24 50.4**	**-0.2**
MNAI	**Manna**	**0.50**	**21**	Pn	**Pn**	**23 24 50.4**	**-0.2**
MNAI				Sn	**Sn**	**23 24 59.3**	**+0.1**
MNAI	**Manna**	**0.50**	**21**	P	**Pn**	**23 24 50.9**	**+0.3**
UBSI	**University, Be**	**1.18**	**335**	P	**Pn**	**23 24 59.8**	**+0.8**
UBSI				AML	AML		
KSI	**Kapahiang**	**1.19**	**351**	P	**Pn**	**23 25 00.2**	**+1.0**
KSI				AML	AML		
LHSI	**Lahat**	**1.25**	**37**	P	**Pn**	**23 25 00.5**	**+0.6**
MDSI	**Maura Dua**	**1.44**	**76**	P	**Pn**	**23 25 02.5**	**0.0**
MDSI				AML	AML		
MASI	**Maura Aman, Be**	**1.76**	**342**	P	**Pn**	**23 25 08.4**	**+1.5**
MASI				AML	AML		
KASI	**Kota Agung**	**1.85**	**112**	P	**Pn**	**23 25 07.6**	**-0.5**
KASI				AML	AML		
PMBI	**Palembang**	**2.75**	**47**	Pn	**Pn**	**23 25 19.3**	**-1.0**
CGJI	**Cibinong**	**3.40**	**122**	P	**Pn**	**23 25 29.2**	**-0.1**
CGJI				AML	AML		
DSRI	**Dabo**	**4.68**	**23**	P	**Pn**	**23 25 48.5**	**+1.6**
DSRI				AML	AML		
SISI	**Saibi**	**5.06**	**313**	P	**Pn**	**23 25 53.7**	**+1.6**
SISI				AML	AML		
LEM	**Lembang**	**5.21**	**113**	P	**Pn**	**23 25 58.2**	**+4.0**
	17nm,0.5s,baz=331,slow=23,SNR=3.6						
TPI	**Tanjungpandan**	**5.29**	**67**	P	**Pn**	**23 25 55.3**	**+0.2**
	15nm,0.8s						
BBJI	**Bungbulang**	**5.51**	**119**	P	**Pn**	**23 25 57.8**	**-0.5**
BBJI	**Bungbulang**	**5.51**	**119**	Pn	**Pn**	**23 25 58.6**	**+0.4**
BBJI	**Bungbulang**	**5.51**	**119**	P	**Pn**	**23 25 57.7**	**-0.5**
	0.1nm28nm,1.1s						
BBJI				AML	AML		
UGM	**Wanagama**	**8.29**	**112**	P	**Pn**	**23 26 36.9**	**+0.6**
UGM	**Wanagama**	**8.29**	**112**	Pn	**Pn**	**23 26 36.9**	**+0.6**
JAGI	**Jajag, Banyuwa**	**11.87**	**108**	P	**Pn**	**23 27 25.9**	**+0.7**
PLAI	**Plampang**	**15.41**	**106**	P	**Pn**	**23 28 13.9**	**+1.3**
TOLI2	**Tolitoli**	**18.93**	**72**	P	**P**	**23 28 55.8**	**+0.8**
TOLI2	**Tolitoli**	**18.93**	**72**	P	**P**	**23 28 54.8**	**-0.2**
CMAR	**Chiang Mai Arr**	**23.45**	**351**	P	**P**	**23 29 42.5**	**-0.4**
	0.8nm,0.4s,baz=181,slow=8.7,SNR=9.3						
	0.8nm,0.4s						
CMAR	**Chiang Mai Arr**	**23.45**	**351**	P	**P**	**23 29 41.8**	**-1.2**
FITZ	**Fitzroy Crossi**	**25.95**	**122**	P	**P**	**23 30 05.8**	**0.0**
KNRA	**Kununurra**	**27.71**	**115**	P	**P**	**23 30 20.7**	**-1.0**
KNRA				IAmb	IAmb	23 30 56.3	
	comp=Z,12nm,1.5s						
H08S2	**Diego Garcia H**	**30.23**	**263**	T	T	00 02 54.0	
	baz=86,slow=75,SNR=4.9						
H08S3	**Diego Garcia H**	**30.23**	**263**	T	T	00 02 40.3	
	baz=86,slow=75,SNR=11						
H08S1	**Diego Garcia H**	**30.24**	**263**	T	T	00 03 04.8	
	baz=86,slow=75,SNR=6.8						
H01W3	**Cape Leeuwin H**	**31.70**	**162**	T	T	00 04 36.8	
	baz=339,slow=76,SNR=14						
H01W2	**Cape Leeuwin H**	**31.71**	**162**	T	T	00 04 38.0	
	baz=339,slow=76,SNR=12						
H01W1	**Cape Leeuwin H**	**31.72**	**162**	T	T	00 04 37.8	
	baz=339,slow=76,SNR=16						
WB0	**Warramunga Arr**	**34.18**	**118**	P	**P**	**23 31 19.0**	**+0.4**
WB0				IAmb	IAmb	23 31 25.7	
	comp=Z,4.0nm,1.1s						
WRA	**Warramunga Arr**	**34.20**	**119**	P	**P**	**23 31 19.2**	**+0.4**
	comp=Z,0.7nm,0.5s,baz=293,slow=7.4,SNR=7.6						
	comp=Z,0.7nm,0.5s						
WRA	**Warramunga Arr**	**34.20**	**119**	P	**P**	**23 31 18.9**	**0.0**
WR8	**Warramunga Arr**	**34.34**	**119**	P	**P**	**23 31 20.3**	**+0.2**
AS31	**Alice Springs**	**35.37**	**125**	P	**P**	**23 31 29.2**	**+0.3**
ASAR	**Alice Springs**	**35.37**	**125**	P	**P**	**23 31 29.3**	**+0.4**
	comp=Z,0.7nm,0.4s,baz=297,slow=7.8,SNR=13						
ASAR				PcP	**PcP**	**23 33 59.0**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=313,slow=2.8,SNR=5.8						
	comp=Z,0.7nm,0.4s						
ASAR	**Alice Springs**	**35.37**	**125**	P	**P**	**23 31 29.7**	**+0.8**
ASAR				PcP	**PcP**	**23 33 59.3**	**+1.2**
LZDM	**Lanzhou Array**	**40.58**	**1**	P	**P**	**23 32 12.6**	**-0.4**
	comp=Z,0.7nm,0.3s,baz=179,slow=8.9,SNR=3.6						
	comp=Z,0.7nm,0.3s						
BBOO	**Buckleboo**	**41.70**	**136**	P	**P**	**23 32 22.0**	**+0.2**
CTAO	**Charters Tower**	**44.91**	**114**	P	**P**	**23 32 47.9**	**-0.1**
CTAO				IAmb	IAmb	23 32 49.1	
	comp=Z,7.6nm,0.9s						
STKA	**Stephens Creek**	**45.21**	**131**	P	**P**	**23 32 51.5**	**+1.3**
	comp=Z,5.4nm,0.8s,baz=274,slow=5.4,SNR=7.6						
	comp=Z,5.4nm,0.8s						
STKA	**Stephens Creek**	**45.21**	**131**	P	**P**	**23 32 51.2**	**+1.1**
MSEY	**Mahe Island**	**47.12**	**268**	P	**P**	**23 33 05.9**	**+0.4**
NIL	**Nilore**	**47.38**	**326**	P	**P**	**23 33 06.5**	**-0.6**
NIL				IAmb	IAmb	23 33 09.1	
	comp=Z,3.2nm,0.7s						
WUS	**Wushi**	**50.62**	**337**	P	**P**	**23 33 32.1**	**+0.1**
WUS				IAmb	IAmb	23 33 33.0	
	comp=Z,3.6nm,0.7s						
KDJ	**Kajisay**	**52.22**	**336**	P	**P**	**23 33 44.0**	**0.0**
PDGK	**Podgornoye**	**52.36**	**339**	P	**P**	**23 33 45.4**	**+0.5**
SONM	**Songino Array**	**52.54**	**3**	P	**P**	**23 33 46.1**	**0.0**
	comp=Z,1.9nm,0.6s,baz=183,slow=10.0,SNR=12						
	comp=Z,1.9nm,0.6s						
SONM	**Songino Array**	**52.54**	**3**	P	**P**	**23 33 46.3**	**+0.2**
MJAR	**Matsushiro Arr**	**52.82**	**36**	P	**P**	**23 33 45.3**	**-3.0**
	comp=Z,1.1nm,0.4s,baz=219,slow=6.2,SNR=2.0						
	comp=Z,1.1nm,0.4s						
ARSB	**Arslanbob**	**53.39**	**332**	P	**P**	**23 33 52.6**	**+0.1**
ARSB				IAmb	IAmb	23 33 56.7	
	comp=Z,6.8nm,1.4s						
MKAR	**Makanchi Array**	**54.51**	**343**	P	**P**	**23 34 00.3**	**-0.2**
	comp=Z,3.0nm,0.5s,baz=152,slow=8.8,SNR=28						
	comp=Z,3.0nm,0.5s						
MKAR	**Makanchi Array**	**54.51**	**343**	P	**P**	**23 34 00.2**	**-0.3**
KURBB	**Kurchatov Arra**	**59.05**	**342**	P	**P**	**23 34 32.0**	**-0.5**
	comp=Z,1.6nm,0.7s,baz=157,slow=6.6,SNR=12						
	comp=Z,1.6nm,0.7s						
KURK	**Kurchatov**	**59.11**	**342**	P	**P**	**23 34 32.8**	**-0.1**
KURK				IAmb	IAmb	23 34 34.0	
	comp=Z,3.2nm,0.9s						
ZAA0	**Zalesovo Array**	**60.47**	**348**	P	**P**	**23 34 42.0**	**-0.2**
ZAA0				IAmb	IAmb	23 34 42.8	
	comp=Z,3.9nm,0.9s						
ZALV	**Zalesovo Beam**	**60.47**	**348**	P	**P**	**23 34 41.6**	**-0.6**
	comp=Z,2.2nm,0.4s,baz=171,slow=4.9,SNR=17						
	comp=Z,2.2nm,0.4s						
BVAR	**Borovoye Array**	**63.79**	**339**	P	**P**	**23 35 03.9**	**-0.6**
	comp=Z,2.7nm,0.7s,baz=145,slow=8.5,SNR=17						
	comp=Z,2.7nm,0.7s						
AB31	**Akbulak array**	**65.44**	**331**	P	**P**	**23 35 15.4**	**+0.1**
AB31				IAmb	IAmb	23 35 17.7	
	comp=Z,3.8nm,1.1s						
ABKAR	**Akbulak array**	**65.44**	**331**	P	**P**	**23 35 14.4**	**-0.9**
ARTI	**Arti**	**70.94**	**336**	P	**P**	**23 35 48.7**	**-0.9**
ARTI				IAmb	IAmb	23 35 50.5	
	comp=Z,4.5nm,1.0s						
BRTR	**Keskin Array B**	**77.26**	**312**	P	**P**	**23 36 27.9**	**+0.8**
	comp=Z,0.5nm,0.6s,baz=160,slow=11,SNR=4.9						
	comp=Z,0.5nm,0.6s						
TX31	**Lajitas Ar. Si**	**145.07**	**43**	PKPbc	**PKPbc**	**23 44 09.1**	**-0.7**
TXAR	**Lajitas Array**	**145.07**	**43**	PKP	**PKPbc**	**23 44 10.3**	**+0.5**
	comp=Z,1.5nm,0.7s,baz=285,slow=1.4,SNR=19						
TXAR	**Lajitas Array**	**145.07**	**43**	PKPdf	**PKPbc**	**23 44 09.2**	**-0.5**

*SDD **16** 23:29:55.3±1.1, 18°.22N×71°.41W, h31km±7km, MD2.4, ML2.4, MW2.7, Presumed earthquake*
*OSPL **16** 23:29:56.7±1.0, 18°.29N×71°.50W, h10km±8km, ML2.0, Presumed earthquake*

ISC 16 23:29:56.9±1.1,**18°.27N**±0°.03×**71°.49W**±0°.05,**h6**km±11km,
n9,σ0§98/14,2C-2D,Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LODU1	**El Espartillar**	**0.09**	**11**	*i* P	**Pg**	**23 29 58.2**	**-0.7**
LODU1				*e*S	**Sg**	**23 30 00.4**	**+0.1**
LODU1				IAML		23 30 01.3	
	comp=Z,396nm,0.3s						
PODR	**Polo**	**0.22**	**116**	⇓*e*Pg	**Pg**	**23 30 00.8**	**-0.6**
PODR				*e*Sg	**Sg**	**23 30 05.5**	**+1.1**
PODR				IAML		23 30 07.9	
	comp=E,621nm,0.2s						
PODR				IAML		23 30 08.8	
	comp=N,424nm,0.3s						
PODR	**Polo**	**0.22**	**116**	*i* P	**Pg**	**23 30 00.8**	**-0.6**
PODR				*e*S	**Sg**	**23 30 05.2**	**+0.8**
PODR				IAML		23 30 07.5	
	comp=Z,3μm,0.3s						
NEDR	**Neiba UASD**	**0.23**	**18**	*e*Pg	**Pg**	**23 30 01.3**	**-0.1**
NEDR				⇓*e*Sg	**Sg**	**23 30 06.8**	**+2.4**
NEDR				IAML		23 30 07.8	
	comp=E,358nm,0.2s						
NEDR				IAML		23 30 07.9	
	comp=N,309nm,0.3s						
LONE3	**El Aguacate, B**	**0.34**	**5**	*i* P	**Pg**	**23 30 03.0**	**-0.6**
LONE3				IAML		23 30 10.8	
	comp=Z,87nm,0.5s						
JIDR	**Jimani**	**0.41**	**303**	*e*Pg	**Pg**	**23 30 04.7**	**-0.1**
JIDR				⇑*e*Sg	**Sb**	**23 30 12.5**	**-0.5**
LOBH	**Bahia de las A**	**0.42**	**199**	*i* P	**Pg**	**23 30 05.1**	**0.0**
LOBH				IAML		23 30 16.0	
	comp=Z,58nm,1.6s						
LOVI	**El Cajuil, Ovi**	**0.48**	**166**	*i* P	**Pg**	**23 30 05.8**	**-0.4**
LOVI				IAML		23 30 18.5	
	comp=Z,70nm,1.1s						
REDR	**Restauracion**	**0.90**	**6**	⇑*e*Pg	**Pb**	**23 30 14.5**	**-0.4**

*SOME **16** 23:31:07.9, 41°.95N×78°.52E, h5km*
*NNC **16** 23:31:08.1±1.5, 41°.96N×78°.61E, h0km, mb2.5, mpv2.6, Error ellipse: s-maj=9.0km s-min=8.5km az=165.0, Suspected Mining explosion.*
*KRNET **16** 23:31:08.5±0.1, 41°.88N×78°.47E, h17km, mb2.3*

ISC 16 23:31:08.3±1.2,**41°.97N**±0°.06×**78°.44E**±0°.05,**h0**km,**n21,**
σ1§15/39,10C-6D,Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PRZ	**Przheval'sk**	**0.51**	**357**	⇓*e*P	**Pb**	**23 31 20.5**	**+0.2**
PRZ				⇓*e*S	**Sb**	**23 31 28.9**	**+0.5**
TARG	**Taragay, Kyrgy**	**0.53**	**243**	⇑*i*P	**Pg**	**23 31 18.4**	**-0.2**
TARG				⇑*i*S	**Sg**	**23 31 26.2**	**+0.7**
KDJ	**Kajisay**	**0.95**	**280**	⇓*i*P	**Pb**	**23 31 27.4**	**-0.4**
KDJ				⇓*i*S	**Sb**	**23 31 40.7**	**-0.4**
ANVS	**Anan'yevo**	**0.99**	**325**	⇑*i*P	**Pn**	**23 31 29.3**	**-0.4**
ANVS				⇑*i*S	**Sn**	**23 31 44.3**	**-0.2**
SATY	**Saty**	**1.08**	**359**	P	**Pg**	**23 31 29.2**	**+0.1**
	2.5nm,0.6s						
SATY				S	**Sb**	**23 31 44.6**	**-0.3**
	14nm,0.1s						
SATY	**Saty**	**1.08**	**359**	*e*P	**Pg**	**23 31 29.2**	**+0.1**
	2.5nm,0.6s						
SATY				*e*S	**Sb**	**23 31 44.6**	**-0.3**
	14nm,0.1s						
UZB	**Uzynbulak**	**1.25**	**20**	P	**Pg**	**23 31 31.4**	**-0.9**
	1.8nm,0.2s						
UZB				S	**Sg**	**23 31 48.4**	**0.0**
	2.5nm,0.2s						
UZB	**Uzynbulak**	**1.25**	**20**	*e*P	**Pg**	**23 31 31.4**	**-0.9**
	1.8nm,0.2s						
UZB				*e*S	**Sg**	**23 31 48.5**	**0.0**
	2.5nm,0.2s						
SHLS	**Shalkode**	**1.40**	**32**	P	**Pb**	**23 31 36.7**	**+1.2**
	2.0nm,0.2s						
SHLS				S	**Sn**	**23 31 58.1**	**+3.5**
	8.8nm,0.2s						
SHLS	**Shalkode**	**1.40**	**32**	*e*P	**Pb**	**23 31 36.8**	**+1.2**
	2.0nm,0.2s						
SHLS				*e*S	**Sn**	**23 31 58.1**	**+3.5**
	8.8nm,0.2s						
KPKS	**Kokpek**	**1.50**	**7**	P	**Pn**	**23 31 36.5**	**-0.2**
	0.8nm,0.3s						
KPKS				S	**Sb**	**23 31 57.0**	**+0.2**
	5.5nm,0.2s						
KPKS	**Kokpek**	**1.50**	**7**	*e*P	**Pn**	**23 31 36.5**	**-0.2**
	0.8nm,0.3s						
KPKS				*e*S	**Sb**	**23 31 57.0**	**+0.2**
	5.5nm,0.2s						
PDGK	**Podgornoye**	**1.56**	**29**	⇑P	**Pn**	**23 31 35.2**	**-2.3**
	0.8nm,0.6s						
PDGK				⇑S	**Sn**	**23 31 56.3**	**-2.2**
	3.3nm,0.5s						
ULHL	**Ulahol**	**1.66**	**280**	⇑*i*P	**Pb**	**23 31 39.9**	**0.0**
ULHL				⇑*i*S	**Sg**	**23 32 02.8**	**+1.2**
NRN	**Naryn**	**1.91**	**254**	⇓*e*P	**Pb**	**23 31 44.0**	**-0.2**
NRN				⇓*e*S	**Sg**	**23 32 09.6**	**0.0**
BOOM	**Boomskoye usch**	**1.93**	**286**	⇑*i*P	**Pb**	**23 31 44.4**	**-0.1**
BOOM				⇑*i*S	**Sg**	**23 32 10.8**	**+0.5**
BLB	**Baldybastay**	**2.12**	**1**	Pg	**Pb**	**23 31 47.6**	**-0.1**
	3.1nm,0.2s						
BLB				Lg	Lg	23 32 16.5	
	7.1nm,0.4s						
ARXS	**Arharly**	**2.28**	**349**	Pg	**Pb**	**23 31 50.3**	**-0.2**
	1.1nm,0.2s						
ARXS				Lg	Lg	23 32 20.9	
	7.7nm,0.2s						
ARXS	**Arharly**	**2.28**	**349**	*e*P	**Pb**	**23 31 50.3**	**-0.2**
	1.1nm,0.2s						
ARXS				*e*S	**Sb**	**23 32 20.9**	**+1.6**
	7.7nm,0.2s						
DJR	**Jarkent**	**2.56**	**22**	Pg	**Pb**	**23 31 55.0**	**-0.1**
	1.6nm,0.4s						
DJR				Lg	Lg	23 32 28.9	
	8.5nm,0.3s						
DJR	**Jarkent**	**2.56**	**22**	*e*P	**Pb**	**23 31 55.0**	**-0.1**
	1.6nm,0.4s						
DJR				*e*S	**Sg**	**23 32 28.9**	**-1.5**
	8.5nm,0.3s						

*THE **16** 23:39:01.9, 38°N±1°×2°7E±°, h3km±3km, M2.4/7, MLh2.4/7*
*AFAD **16** 23:39:01.1, 37°.88N×26°.93E, h7km±3km, ML2.3*
*ISK **16** 23:39:01.5, 37°.89N×26°.95E, h5km, ML2.6/16*
*ATH **16** 23:39:01.9, 37°.88N×26°.95E, h10km±1km, ML2.3/11, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 16 23:39:01.9±0.8,**37.88N**±0°.02×**26°.95E**±0°.02,**h10**km±7km,
n58,σ0§57/88,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.18**	**343**	P	**Pg**	**23 39 05.0**	**-0.6**
DGB				IAML		23 39 07.0	
	comp=N,915nm,0.7s						
DGB				S	**Sg**	**23 39 07.3**	**-1.0**
GMLD	**Gumuldur**	**0.20**	**352**	Pg	**Pg**	**23 39 06.0**	**0.0**
GMLD				AML	AML		
SMG	**Samos**	**0.20**	**207**	P	**Pg**	**23 39 05.9**	**-0.1**
SMG				AML	AML		
SMG	**Samos**	**0.20**	**207**	P	**Pg**	**23 39 05.9**	**-0.1**
SMG				S	**Sg**	**23 39 09.2**	**+0.4**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.21**	**245**	P	**Pg**	**23 39 06.1**	**-0.2**
KRL1				S	**Sg**	**23 39 09.7**	**+0.4**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**95**	Pg	**Pg**	**23 39 07.3**	**0.0**
KUSD				Sg	**Sg**	**23 39 11.6**	**+0.6**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**129**	P	**Pg**	**23 39 07.6**	**-0.1**
GCAM				S	**Sg**	**23 39 11.5**	**-0.2**
GCAM				IAML		23 39 13.0	
	comp=E,731nm,0.3s						
GCAM	**G?zelcaml?**	**0.29**	**129**	Pg	**Pg**	**23 39 08.1**	**+0.4**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.29**	**245**	P	**Pg**	**23 39 07.3**	**-0.5**
SAM2				S	**Sg**	**23 39 11.9**	**+0.1**
SAM2				AML	AML		
BEYE	**izmir**	**0.34**	**357**	P	**Pg**	**23 39 08.3**	**-0.4**
BEYE				IAML		23 39 13.0	
	comp=E,321nm,0.3s						
BEYE				S	**Sg**	**23 39 13.1**	**-0.2**
DDIM	**Aydin, Didim**	**0.48**	**151**	P	**Pg**	**23 39 10.3**	**-1.1**
DDIM				S	**Sg**	**23 39 18.2**	**+0.5**
ZEYE	**Izmir, Urla-Ze**	**0.50**	**315**	P	**Pg**	**23 39 11.2**	**-0.5**
ZEYE				S	**Sg**	**23 39 18.3**	**0.0**
ZEYE				IAML		23 39 19.0	
	comp=N,166nm,0.1s						
ZEYE				IAML		23 39 19.0	
	comp=E,242

DKL	**Dikili**	**1.19**	**358**	P	**Pg**	**23 39 24.3**	**-0.4**
DKL				S	**Sg**	**23 39 40.0**	**-0.1**
KIRA	**zmir-Kiraz**	**1.19**	**74**	P	**Pg**	**23 39 24.4**	**-0.4**
AKHS	**Akhisar**	**1.20**	**34**	P	**Pg**	**23 39 24.2**	**-0.8**
AKS	**Akhisar**	**1.20**	**34**	Pn	**Pg**	**23 39 24.1**	**-0.9**
AKS				AML	AML		
KTTT	**Salihli**	**1.21**	**48**	P	**Pg**	**23 39 24.8**	**-0.3**
KTTT				S	**Sg**	**23 39 38.9**	**-1.9**
KTTT				IAML		23 39 43.0	
	comp=N,55nm,0.4s						
SOMA	**Soma-Manisa**	**1.35**	**20**	Pn	**Pg**	**23 39 27.8**	**0.0**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**235**	P	**Pn**	**23 39 25.9**	**-1.5**
APE				S	**Sb**	**23 39 46.2**	**+0.4**
APE				AML	AML		
MANT	**Manisa**	**1.41**	**64**	P	**Pb**	**23 39 28.6**	**+0.3**
GORD	**Gordes-Manisa**	**1.41**	**43**	Pn	**Pb**	**23 39 28.6**	**+0.3**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.44**	**352**	P	Pn	23 39 21.0	-6.9
SULTU	**Buldan**	**1.45**	**83**	P	**Pb**	**23 39 28.9**	**-0.1**
PRK	**Paraskevi**	**1.46**	**339**	P	**Pn**	**23 39 28.5**	**+0.2**
PRK				S	**Sn**	**23 39 47.6**	**+0.1**
BUHA	**Balikesir, Bur**	**1.62**	**4**	P	**Pn**	**23 39 30.6**	**+0.1**
BALB	**Balikesir**	**1.90**	**22**	P	**Pn**	**23 39 35.3**	**+0.9**
BALB				AML	AML		
ARG	**Arkhangelos**	**1.91**	**150**	P	**Pn**	**23 39 34.2**	**-0.3**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.92**	**218**	P	**Pn**	**23 39 35.1**	**+0.5**
THERA				AML	AML		
SNTS	**Nea Kammeni, S**	**1.93**	**221**	P	**Pn**	**23 39 36.0**	**+1.3**
KARY	**Karystos**	**1.99**	**275**	P	**Pn**	**23 39 35.8**	**+0.2**
DION	**Dionisos Attik**	**2.39**	**276**	P	**Pn**	**23 39 40.3**	**-0.8**
LIA	**Limnos Island**	**2.44**	**326**	P	**Pn**	**23 39 41.8**	**+0.1**

*BER **17** 00:28:40.6±3.1,80°.08N×0°.46E,h10km,Mw3.7, ML3.4(NAO),Confirmed Earthquake*
*DNK **17** 00:28:42.2±3.0,80°.06N×0°.70E,h36km±26km,ML2.2, Presumed earthquake*
ISC 17 00:28:28.5±1.6,81°.0N±0°.2×2°.19E±0°.10,h10km,n28, σ1§30/37,North of Svalbard

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KBS	**Kingsbay**	**2.68**	**136**	Pn		**Pg**	**00 29 18.1**	**-1.6**
KBS				Sn		**Sn**	**00 29 43.1**	**-0.9**
KBS	**Kingsbay**	**2.68**	**136**	*i* P		**Pg**	**00 29 18.2**	**-1.6**
KBS				*i* S		**Sn**	**00 29 43.2**	**-0.8**
KBS	**Kingsbay**	**2.68**	**136**	*i* P		**Pg**	**00 29 18.2**	**-1.6**
KBS				*i* S		**Sn**	**00 29 43.2**	**-0.8**
NOR	**Nord**	**2.93**	**291**	Pn		Pg	00 29 29.8	+5.3
NOR				Sn		**Sg**	**00 30 04.3**	**+1.8**
NOR	**Nord**	**2.93**	**291**	*i* P		Pg	00 29 29.7	+5.2
NOR				*i* S		**Sg**	**00 30 01.7**	**-0.7**
NOR				IAML			00 30 14.3	
	comp=Z,7.3nm,0.4s							
NOR	**Nord**	**2.93**	**291**	*i* P		Pg	00 29 29.7	+5.2
NOR				*i* S		**Sg**	**00 30 01.7**	**-0.7**
NOR				IAML			00 30 14.3	
	comp=Z,7.3nm,0.4s							
BRBB	**Barentsburg B**	**3.63**	**137**	Pn		**Pb**	**00 29 31.5**	**-1.1**
BRBB				Sn		**Sn**	**00 30 08.9**	**+1.5**
BRBB	**Barentsburg B**	**3.63**	**137**	*e*P		**Pb**	**00 29 31.5**	**-1.1**
BRBB				*e*S		**Sn**	**00 30 07.7**	**+0.3**
BRBA	**Barentsburg A**	**3.66**	**137**	Pn		**Pb**	**00 29 32.7**	**-0.4**
BRBA				Sn		**Sn**	**00 30 08.0**	**-0.2**
BRBA	**Barentsburg A**	**3.66**	**137**	*e*P		**Pb**	**00 29 32.9**	**-0.3**
BRBA				*e*S		**Sn**	**00 30 07.2**	**-1.0**
BRBA				IAML			00 30 14.1	
	comp=Z,21nm,0.4s							
SPA0	**Spitsbergen Ar**	**3.80**	**130**	Pn		**Pb**	**00 29 35.0**	**-0.6**
	baz=319,slow=7.9							
SPA0				Sn		**Sn**	**00 30 13.1**	**+1.3**
	baz=316,slow=12							
SPA0	**Spitsbergen Ar**	**3.80**	**130**	Pn		**Pb**	**00 29 35.0**	**-0.6**
SPA0				Sn		**Sn**	**00 30 13.1**	**+1.3**
DAG	**Danmarks Havn**	**5.79**	**234**	*i* P		**Pn**	**00 29 55.2**	**+0.8**
DAG				*i* S		Sn	00 30 47.3	-13
DAG				IAML			00 30 52.9	
	comp=Z,20nm,0.1s							
DAG	**Danmarks Havn**	**5.79**	**234**	*i* P		**Pn**	**00 29 55.2**	**+0.8**
DAG				*i* S		Sn	00 30 47.3	-13
DAG				IAML			00 30 52.9	
	comp=Z,20nm,0.1s							
HOPEN	**Hopen**	**6.27**	**124**	Pn		Pb	00 30 09.2	-8.4
HOPEN				Sn		**Sn**	**00 31 13.1**	**+0.7**
HOPEN	**Hopen**	**6.27**	**124**	*e*P		Pb	00 30 09.2	-8.4
HOPEN				*e*S		**Sn**	**00 31 12.1**	**-0.2**
HOPEN				IAML			00 31 16.2	
	comp=Z,19nm,0.5s							
BEAR	**Bear Island, N**	**7.38**	**143**	Pn		**Pn**	**00 30 19.4**	**+3.3**
	baz=334,slow=18							
DBG	**Daneborg**	**8.15**	**227**	Pn		**Pn**	**00 30 26.5**	**-0.1**
DBG				Sn		Sn	00 31 42.0	-17
DBG	**Daneborg**	**8.15**	**227**	*i* P		**Pn**	**00 30 26.5**	**-0.1**
DBG				*i* S		Sn	00 31 40.3	-18
DBG				IAML			00 31 45.5	
	comp=Z,7.5nm,0.3s							
DBG	**Daneborg**	**8.15**	**227**	*i* P		**Pn**	**00 30 26.5**	**-0.1**
DBG				*i* S		Sn	00 31 40.3	-18
DBG				IAML			00 31 45.5	
	comp=Z,7.5nm,0.3s							
NEEM	**North Greenlan**	**10.20**	**278**	*i* P		Pn	00 31 03.0	+8.0
NEEM				*i* S		**Sn**	**00 32 48.6**	**-0.6**
NEEM	**North Greenlan**	**10.20**	**278**	*i* P		Pn	00 31 03.0	+8.0
NEEM				*i* S		**Sn**	**00 32 48.6**	**-0.6**
SCO	**Scoresbysund**	**11.92**	**222**	*i* P		**Pn**	**00 31 17.6**	**-0.6**
SCO	**Scoresbysund**	**11.92**	**222**	*i* P		**Pn**	**00 31 17.6**	**-0.6**
SUMG	**Summit**	**12.13**	**249**	*i* P		**Pn**	**00 31 23.6**	**+2.1**
SUMG				*i* S		Sn	00 33 13.0	-24
SUMG	**Summit**	**12.13**	**249**	*i* P		**Pn**	**00 31 23.6**	**+2.1**
SUMG				*i* S		Sn	00 33 13.0	-24
KULLO	**Kullorsuaq**	**13.36**	**274**	*i* P		**Pn**	**00 31 35.5**	**-2.2**
KULLO				*i* S		Sn	00 33 46.4	-20
KULLO	**Kullorsuaq**	**13.36**	**274**	*i* P		**Pn**	**00 31 35.5**	**-2.2**
KULLO				*i* S		Sn	00 33 46.4	-20

*IDC **17** 00:28:45.0±0.9,9°.64S×119°.02E,h0km,mb4.0/5, mbtmp4.2/11,ML4.1/6,MS2.9/2,Error ellipse: s-maj=19.2km s-min=11.2km az=60.0*
*DJA **17** 00:28:47.8±0.3,10°.S±4°×11°.9E±°,h10km,M4.5/25, mB5.1/7,mb4.7/8,MLv4.4/25,Mw(mB)4.5/7*
ISC 17 00:28:49.1±0.7,9°.87S±0°.06×119°.10E±0°.04,h33km,n38, σ1§94/39,mb4.1/6,Sumba region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
WSI	**Waingapu**	**1.20**	**80**	P		**Pn**	**00 29 09.0**	**-0.6**
WSI				S		**Sb**	**00 29 25.9**	**-0.7**
WSI				AML		AML		
DBNI	**Kabupaten Domp**	**1.57**	**330**	P		**Pn**	**00 29 12.6**	**-2.1**
DBNI				AML		AML		
PLAI	**Plampang**	**1.67**	**308**	P		**Pn**	**00 29 14.1**	**-1.9**
PLAI				AML		AML		
TWSI	**Taliwang, Sumb**	**2.46**	**297**	P		**Pn**	**00 29 26.1**	**-0.9**
TWSI				AML		AML		
EDFI	**Ende, Flores**	**2.79**	**67**	P		**Pn**	**00 29 30.8**	**-0.8**
MMRI	**Maumere**	**3.33**	**69**	P		**Pn**	**00 29 39.1**	**+0.1**
MMRI				AML		AML		
KHKI	**Kahang-Kahang**	**3.76**	**293**	P		**Pn**	**00 29 45.8**	**+1.0**
KHKI				AML		AML		
BSSI	**Bau Bau, Buton**	**3.95**	**21**	P		**Pn**	**00 29 47.6**	**+0.1**
BSSI				AML		AML		
DNP	**Denpasar**	**4.02**	**287**	P		**Pn**	**00 29 48.7**	**+0.3**
IGBI	**Denpasar**	**4.04**	**285**	P		**Pn**	**00 29 48.9**	**+0.2**
SRBI	**Singaraja**	**4.23**	**295**	P		**Pn**	**00 29 51.9**	**+0.6**
SRBI				AML		AML		
RTBI	**Rangdo, Negare**	**4.34**	**289**	P		**Pn**	**00 29 53.8**	**+1.0**
BATI	**Baumata**	**4.51**	**95**	Pn		**Pn**	**00 29 57.2**	**+2.0**
	12nm,0.3s,baz=273,slow=7.9,SNR=6.6							
BATI				Sn		**Sn**	**00 30 49.5**	**+2.9**
	5.2nm,0.3s,baz=180,slow=20,SNR=3.6 39nm,0.4s							
BATI				AML		AML		
BATI	**Baumata**	**4.51**	**95**	P		**Pn**	**00 29 58.0**	**+2.8**
BATI				AML		AML		
BKSI	**Bulukumba**	**4.63**	**13**	P		**Pn**	**00 29 56.6**	**-0.3**
BKSI				AML		AML		
MKS	**Makassar**	**4.64**	**5**	P		**Pn**	**00 29 57.3**	**+0.4**
MKS				AML		AML		

KAPI	**Kappang**	**4.87**	**8**	Pn		**Pn**	**00 29 60.0**	**-0.2**
	6.0nm,0.3s,baz=188,slow=9.5,SNR=15							
KAPI				Sn		**Sn**	**00 30 52.8**	**-2.6**
	13nm,0.3s,baz=285,slow=20,SNR=7.1							
KAPI				LR		LR	00 32 01.3	
	comp=Z,165nm,21.7s,baz=189,slow=42 46nm,0.6s							
KAPI				AML		AML		
KAPI	**Kappang**	**4.87**	**8**	P		**Pn**	**00 30 00.2**	**+0.1**
KAPI				AML		AML		
JAGI	**Jajag, Banyuwa**	**5.08**	**286**	P		**Pn**	**00 30 03.2**	**+0.2**
	0.4nm2µm79nm,0.4s							
JAGI				AML		AML		
SOEI	**Soe**	**5.10**	**89**	P		**Pn**	**00 30 05.6**	**+2.2**
	0.6nm3µm73nm,0.6s							
SOEI				AML		AML		
BBSI	**Bau Bau**	**5.55**	**39**	P		Pb	00 30 19.8	-5.6
BLJI	**Banyuglugur**	**5.83**	**291**	P		**Pn**	**00 30 13.5**	**+0.1**
	0.3nm3µm65nm,0.6s							
BLJI				AML		AML		
SPSI	**Sidrap Palu**	**5.91**	**7**	P		**Pn**	**00 30 15.7**	**+1.3**
	0.2nm1µm30nm,0.6s							
SPSI				AML		AML		
TTSI	**Tana Toraja**	**6.82**	**6**	P		**Pn**	**00 30 27.6**	**+0.7**
	0.2nm34nm,0.5s							
TTSI				AML		AML		
PWJI	**Pagerwojo**	**7.44**	**284**	P		**Pn**	**00 30 37.2**	**+1.8**
FITZ	**Fitzroy Crossi**	**10.35**	**143**	Pn		**Pn**	**00 31 16.2**	**+0.8**
	0.7nm,0.3s,baz=325,slow=8.8,SNR=24							
FITZ				Sn		**Sn**	**00 33 05.6**	**-4.7**
	1.3nm,0.3s,baz=182,slow=18,SNR=6.4 2.8nm,0.5s							
FITZ				AML		AML		
SIJI	**Sorong**	**15.05**	**54**	Pn		**Pn**	**00 32 20.1**	**+0.6**
	1.8nm,0.3s,baz=250,slow=3.8,SNR=6.1 25nm,0.7s							
SIJI				AML		AML		
WRA	**Warramunga Arr**	**17.79**	**126**	P		**P**	**00 32 55.7**	**+0.8**
	0.6nm,0.3s,baz=307,slow=14,SNR=28							
WRA				S		Sn	00 36 00.5	-11
	0.7nm,0.6s,baz=303,slow=24,SNR=4.5 5.9nm,0.8s							
WRA				AML		AML		
ASAR	**Alice Springs**	**19.70**	**136**	P		**Pn**	**00 33 18.4**	**+0.9**
	0.4nm,0.3s,baz=318,slow=11,SNR=29							
ASAR				S		**S**	**00 36 49.3**	**-7.1**
	1.0nm,0.8s,baz=303,slow=21,SNR=4.5 2.8nm,0.8s							
ASAR				AML		AML		
CMAR	**Chiang Mai Arr**	**34.47**	**325**	P		**P**	**00 35 35.5**	**+1.4**
	1.5nm,0.3s,baz=138,slow=6.7,SNR=4.5							
CMAR				LR		LR	00 50 05.6	
	comp=Z,22nm,20.6s,baz=300,slow=37							
H08S2	**Diego Garcia H**	**46.09**	**269**	T		T	01 26 15.0	
	baz=96,slow=75,SNR=175							
H08S3	**Diego Garcia H**	**46.10**	**269**	T		T	01 26 15.8	
	baz=96,slow=75,SNR=190							
H08S1	**Diego Garcia H**	**46.10**	**269**	T		T	01 26 16.4	
	baz=96,slow=75,SNR=93							
SONM	**Songino Array**	**58.55**	**350**	P		**P**	**00 38 42.1**	**-0.5**
	0.9nm,0.5s,baz=169,slow=8.4,SNR=4.2 0.9nm,0.5s							
MKAR	**Makanchi Array**	**65.27**	**333**	P		**P**	**00 39 27.1**	**-0.6**
	1.0nm,0.6s,baz=158,slow=6.0,SNR=9.4 1.0nm,0.6s							
KURBB	**Kurchatov Arra**	**69.79**	**334**	P		**P**	**00 39 55.6**	**-0.5**
	0.4nm,0.5s,baz=141,slow=5.9,SNR=6.4 0.4nm,0.5s							
ZALV	**Zalesovo Beam**	**69.89**	**339**	P		**P**	**00 39 55.5**	**-1.1**
	1.1nm,0.4s,baz=138,slow=4.9,SNR=5.7 1.1nm,0.4s							
QSPA	**South Pole Qui**	**80.13**	**180**	P		**P**	**00 40 58.2**	**+2.4**
	1.6nm,0.7s,baz=245,slow=1.0,SNR=9.6 1.6nm,0.7s							

*IDC **17** 00:33:57.2±1.8,1°.61N×126°.25E,h0km,mb3.7/4, mbtmp3.7/4,Error ellipse: s-maj=184.5km s-min=21.5km az=66.0*
*DJA **17** 00:34:01.0±0.3,2°.N±5°×12°.7E±°,h10km,M3.4/11, MLv3.4/11*
ISC 17 00:34:03.3±1.1,1°.7N±0°.1×126°.54E±0°.07,h47km,n8, σ0§88/8,mb3.7/4,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.21**	**137**	P		**Pn**	**00 34 23.6**	**-0.2**
GAMI	**Galela, Maluku**	**1.27**	**82**	P		**Pn**	**00 34 24.8**	**+0.2**
GAMI				AML		AML		
MNI	**Manado**	**1.71**	**263**	P		**Pn**	**00 34 29.7**	**-0.9**
GTOI	**Gorontalo**	**3.67**	**254**	P		**Pn**	**00 34 58.7**	**+1.2**
GTOI				AML		AML		
WRA	**Warramunga Arr**	**22.79**	**161**	P		**P**	**00 39 01.3**	**-0.8**
	1.2nm,0.5s,baz=338,slow=10,SNR=6.2 1.2nm,0.5s							
ASAR	**Alice Springs**	**26.17**	**165**	P		**P**	**00 39 34.4**	**+0.9**
	0.3nm,0.5s,baz=344,slow=8.3,SNR=4.7 0.3nm,0.5s							
MKAR	**Makanchi Array**	**59.15**	**326**	P		**P**	**00 43 59.2**	**-0.1**
	0.4nm,0.4s,baz=119,slow=7.8,SNR=16 0.4nm,0.4s							
KURBB	**Kurchatov Arra**	**63.38**	**328**	P		**P**	**00 44 27.5**	**-0.3**
	0.6nm,0.6s,baz=126,slow=6.4,SNR=6.8 0.6nm,0.6s							

*AEIC **17** 00:37:12.4±1.4,54°.36N±0°.05×159°.68W±0°.07,h15km±6km, Error ellipse: s-maj=7.9km s-min=4.6km az=146.0*
NEIC 17 00:37:12.7±1.2,54°.44N±0°.04×159°.77W±0°.10, h23km±11km,ML3.5/30,MLv3.4(AEIC),Error ellipse: s-maj=8.9km s-min=4.8km az=118.0,South of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.40**	**15**	P		Pb	00 37 21.0	-0.1
CNBA				Sb		Sb	00 37 27.5	+0.6
SDPT	**Sand Point**	**1.00**	**336**	P		Pn	00 37 30.4	-0.9
SDPT				Sn		Sn	00 37 44.5	-0.2
SDPT				IAML			00 37 51.7	
	comp=E,839nm,0.8s							
DOL	**Dolgoi Island**	**1.41**	**301**	P		Pn	00 37 36.4	-0.5
DOL				Sn		Sn	00 37 53.8	-0.9
PVV	**Pavlof Volcano**	**1.50**	**310**	P		Pn	00 37 38.4	+0.3
PS1A	**Pavlof South-1**	**1.51**	**312**	P		Pn	00 37 38.5	+0.3
PS1A				Sb		Sb	00 37 59.5	+0.9
PS4A	**Pavlof South-4**	**1.51**	**308**	P		Pn	00 37 38.5	+0.2
DT1	**Dutton Round H**	**1.60**	**296**	P		Pn	00 37 38.9	-0.6
DT1				Sn		Sn	00 37 59.0	-0.5
DTNA	**Dutton South F**	**1.61**	**297**	P		Pn	00 37 39.3	-0.3
DTNA				Sn		Sn	00 38 00.0	+0.4
VNKR	**Veniaminof 5**	**1.62**	**8**	P		Pn	00 37 40.2	+0.4
PN7A	**Pavlof North-7**	**1.63**	**309**	P		Pn	00 37 40.6	+0.6
VNSW	**Veniaminof 7**	**1.65**	**4**	P		Pn	00 37 40.1	0.0
VNWF	**Veniaminof 8**	**1.72**	**4**	P		Pn	00 37 41.8	+0.5
VNSS	**Veniaminof 8**	**1.80**	**6**	P		Pn	00 37 42.8	+0.3
VNHG	**Veniaminof 1**	**1.82**	**11**	P		Pn	00 37 42.7	+0.1
S12K	**Black Hills**	**1.83**	**315**	P		Pn	00 37 42.8	+0.1
S12K				IAML			00 38 16.5	
	comp=N,529nm,0.6s							
CHGN	**Chignik**	**2.02**	**22**	P		Pn	00 37 44.6	-0.7
CHGN				IAML			00 38 21.6	
	comp=N,406nm,0.7s							
BPBCA	**Veniaminof**	**2.29**	**19**	P		Pn	00 37 48.5	-0.4
ISLZ	**Isanotski Laza**	**2.31**	**279**	P		Pn	00 37 49.7	+0.3
ISLZ				Sn		Sn	00 38 17.8	+0.7
SSLS	**Shishaldin Sou**	**2.48**	**278**	P		Pn	00 37 52.4	+0.8
ANPB	**Aniakchak Plen**	**2.52**	**19**	P		Pn	00 37 51.9	-0.3
WTUG	**Tugumak**	**2.72**	**281**	P		Pn	00 37 55.2	+0.4
CHIR	**Chirikof Islan**	**2.76**	**58**	P		Pn	00 37 53.8	-1.5
CHIR				IAML			00 38 46.4	
	comp=E,166nm,0.7s							
CHIR				IAML			00 38 48.5	
	comp=N,160nm,0.9s							
WESN	**West Dahl Nort**	**2.81**	**275**			Sn	00 38 30.4	+1.1
WESP	**Westdahl Peak**	**2.89**	**273**			Pn	00 37 57.9	+0.6
WECS	**Westdahl Cape**	**2.92**	**274**	Pn		Pn	00 37 57.6	-0.1
WECS				IAML			00 38 58.2	
	comp=E,125nm,1.0s							
WECS				IAML			00 39 14.9	
	comp=N,169nm,1.1s							
R16K	**Pilot Point**	**3.37**	**21**			Pn	00 38 03.4	-0.4
R16K	**Pilot Point**	**3.37**	**21**	IAML			00 39 15.9	
	comp=E,111nm,1.2s							
R16K				IAML			00 39 32.8	
	comp=N,107nm,1.1s							

AKUT	**Akutan**	**3.53**	**268**	Pn		Pn	00 38 05.9	-0.1
AKUT				IAML			00 38 35.1	
	comp=E,55nm,1.0s							
PLBL	**Peulik Blue Cr**	**3.67**	**26**			Pn	00 38 07.6	-0.2
R17L	**Mt. Peulik Vol**	**3.73**	**29**			Pn	00 38 09.0	+0.2
PLK3	**Peulik 3**	**3.81**	**30**			Pn	00 38 10.0	+0.2
PLK1	**Peulik 1**	**3.81**	**26**			Pn	00 38 09.6	-0.2
SII	**Sitkinak Islan**	**3.82**	**54**			Pn	00 38 08.9	-1.1
SII				IAML			00 39 28.7	
	comp=E,86nm,1.2s							
SII				IAML			00 39 40.4	
	comp=N,84nm,0.9s							
PLK5	**Peulik 5**	**3.92**	**23**			Pn	00 38 11.0	-0.3
UNV	**Unalaska Valle**	**4.01**	**264**	Pn		Pn	00 38 12.5	0.0
MNAT	**Makushin Natee**	**4.10**	**265**			Pn	00 38 14.0	+0.1
MSW	**Makushin Switc**	**4.16**	**266**			Pn	00 38 14.4	-0.2
CAHL	**Cahill**	**4.40**	**33**			Pn	00 38 17.4	-0.6
ANCK	**Angle Creek**	**4.46**	**30**			Pn	00 38 18.7	-0.1
OHAK	**Old Harbor**	**4.60**	**50**			Pn	00 38 18.9	-1.7
P16K	**Nushagak River**	**4.71**	**11**	Pn		Pn	00 38 20.8	-1.4
O15K	**Ungalikthiuk R**	**4.75**	**360**			Pn	00 38 22.7	-0.1
O15K	**Ungalikthiuk R**	**4.75**	**360**	IAML			00 39 51.0	
	comp=E,26nm,1.1s							
KAWH	**Katmai**	**4.82**	**33**			Pn	00 38 22.7	-1.1
O14K	**Tigyukauivet M**	**4.90**	**351**			Pn	00 38 24.8	0.0
O14K	**Tigyukauivet M**	**4.90**	**351**	IAML			00 39 57.8	
	comp=E,31nm,1.0s							
O14K				IAML			00 40 01.8	
	comp=N,23nm,1.0s							
KARR	**Katmai Rainbow**	**4.95**	**33**			Pn	00 38 24.7	-0.7
KAHG	**Katmai Hook Gl**	**4.99**	**33**			Pn	00 38 25.5	-0.7
KDAK	**Kodiak Island**	**5.24**	**47**	Pn		Pn	00 38 27.1	-2.3
KDAK				IAML			00 40 02.9	
	comp=N,13nm,0.8s							
O17K	**Koliganek Bris**	**5.55**	**14**			Pn	00 38 33.2	-0.5
P18K	**Big Mountain,**	**5.56**	**25**			Pn	00 38 33.1	-0.7
N14K	**Kuskokwak Cree**	**5.60**	**350**			Pn	00 38 34.3	-0.1
N15K	**Kwethluk River**	**5.75**	**358**	Pn		Pn	00 38 37.6	+1.1
N16K	**Nishlik Lake**	**6.08**	**5**			Pn	00 38 41.2	+0.2
M15K	**Kasigluk River**	**6.30**	**356**			Pn	00 38 44.0	+0.1
N18K	**Kilae Creek**	**6.60**	**17**	Pn		Pn	00 38 48.4	+0.3
M16K	**Timber Creek**	**6.62**	**3**	Pn		Pn	00 38 49.0	+0.6
ILSW	**Iliamna Southw**	**6.62**	**30**	Pn		Pn	00 38 47.7	-0.8
IVE	**Iliamna Volcan**	**6.69**	**30**			Pn	00 38 49.0	-0.5
ILIM	**Iliamna**	**6.75**	**30**			Pn	00 38 49.9	-0.4
CNPM	**China Poot**	**6.91**	**39**	Pn		Pn	00 38 52.6	+0.2
N19K	**Bonanza Creek**	**6.99**	**22**			Pn	00 38 53.5	-0.2
M17K	**Holitna River**	**7.09**	**9**			Pn	00 38 55.0	+0.1
L14K	**Kuka Creek**	**7.10**	**349**			Pn	00 38 55.1	+0.2
REF	**Redoubt East F**	**7.16**	**29**			Pn	00 38 55.4	-0.6
BRSE	**Bradley Lake S**	**7.24**	**39**			Pn	00 38 55.1	-1.8
SEW	**Seward**	**7.96**	**40**			Pn	00 39 05.3	-1.5
SLKM	**Skilak Lake**	**7.96**	**36**			Pn	00 39 05.9	-1.0
P23K	**Montague Islan**	**8.71**	**45**			Pn	00 39 15.6	-1.5
PWL	**Port Wells**	**8.88**	**39**			Pn	00 39 17.2	-2.2
KNK	**Knik Glacier**	**9.21**	**36**			Pn	00 39 21.9	-2.1
HIN	**Hinchinbrook I**	**9.31**	**45**			Pn	00 39 23.8	-1.5
GHO	**Glory Hole Cre**	**9.32**	**34**			Pn	00 39 24.2	-1.2
FID	**Port Fidalgo**	**9.52**	**43**			Pn	00 39 25.2	-3.0
SCM	**Sheep Creek Mo**	**9.90**	**36**			Pn	00 39 32.1	-1.3

*IDC **17** 00:58:14.1±1.4,37°.75N×26°.45E,h0km,mb3.6/4, mbtmp3.5/6,ML3.3/2,Error ellipse: s-maj=26.4km s-min=16.8km az=158.0*
*ISK **17** 00:58:14.9,37°.79N×26°.45E,h10km,ML3.7/17*
*ATH **17** 00:58:15.0,37°.80N×26°.45E,h16km±2km,ML3.4/36, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **17** 00:58:15.4,38°.N±1°×2°.6E±°,h10km±1km,M3.4/23, MLh3.4/23*
*AFAD **17** 00:58:16.3,37°.87N×26°.53E,h7km±4km,MW3.5*
ISC 17 00:58:15.2±0.9,37°.80N±0°.02×26°.44E±0°.02,h14km±6km, n129,σ0§75/151,mb3.4/3,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SAM2	**Drakei, Karlov**	**0.14**	**108**	P		**Pg**	**00 58 19.0**	**+0.2**
SAM2				AML		AML		
KRL1	**Karlovasi Samo**	**0.21**	**92**	P		**Pg**	**00 58 19.9**	**+0.1**
SMG	**Samos**	**0.33**	**106**	P		**Pg**	**00 58 22.4**	**-0.4**
SMG				S		**Sg**	**00 58 26.8**	**+0.5**
SMG				AML		AML		
SMG	**Samos**	**0.33**	**106**	P		**Pg**	**00 58 22.0**	**+0.2**
SMG				AML		AML		
DGB	**zmir**	**0.43**	**54**	P		**Pg**	**00 58 23.3**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.44**	**6**	P		**Pg**	**00 58 23.6**	**-0.3**
GMLD	**Gumuldur**	**0.46**	**53**	Pg		**Pg**	**00 58 24.1**	**-0.2**
GMLD				Sg		**Sg**	**00 58 30.8**	**+0.2**
GMLD				AML		AML		
CESE	**eme**	**0.54**	**348**	Pg		**Pb**	**00 58 26.3**	**-0.2**
CESE				AML		AML		
BEYE	**izmir**	**0.57**	**42**	P		**Pg**	**00 58 25.8**	**-0.6**
BEYE				S		**Sg**

IZMR				S	Sg	00 58 54.2	-1.0
IZMR				IAML		00 58 57.0	
	comp=N,829nm,0.4s						
IZMR				IAML		00 58 59.0	
	comp=N,878nm,0.4s						
ZEDA	**zmir-Bergama**	**1.27**	**23**	P	**Pg**	**00 58 39.3**	**-0.2**
ZEDA				S	**Sg**	**00 58 55.5**	**-0.5**
ZEDA				IAML		00 58 59.0	
	comp=N,866nm,0.3s						
ZEDA				IAML		00 59 00.0	
	comp=E,662nm,0.3s						
DKL	**Dikili**	**1.32**	**16**	Pn	**Pb**	**00 58 39.9**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.32**	**16**	P	**Pn**	**00 58 38.2**	**-1.0**
YAZI	**Mula-Dat§a-**	**1.38**	**144**	P	**Pn**	**00 58 39.3**	**-0.7**
DATC	**Datca-Mugla**	**1.42**	**137**	Pn	**Pn**	**00 58 40.9**	**+0.3**
PRK	**Paraskevi**	**1.45**	**355**	P	**Pn**	**00 58 40.4**	**-0.6**
PRK				S	**Sg**	**00 59 01.8**	**0.0**
PRK				AML	AML		
PRK	**Paraskevi**	**1.45**	**355**	P	**Pb**	**00 58 40.1**	**-0.9**
GOMA	**Golmarmara-Man**	**1.47**	**52**	Pn	**Pb**	**00 58 42.6**	**+0.3**
GOMA				AML	AML		
NAZL	**Nazilli-Aydin**	**1.47**	**83**	Pn	**Pn**	**00 58 41.3**	**0.0**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.51**	**90**	P	**Pn**	**00 58 41.2**	**-0.6**
ESEN				S	**Sn**	**00 59 01.9**	**+0.6**
ESEN				IAML		00 59 06.0	
	comp=N,161nm,0.6s						
AYVA	**Ayvalik**	**1.52**	**7**	P	**Pg**	**00 58 44.0**	**-0.3**
AKHS	**Akhisar**	**1.52**	**45**	P	**Pb**	**00 58 43.2**	**-0.1**
AKHS				S	**Sb**	**00 59 02.4**	**0.0**
AKHS				IAML		00 59 11.0	
	comp=N,867nm,0.4s						
AKS	**Akhisar**	**1.52**	**45**	Pn	**Pb**	**00 58 43.0**	**-0.2**
CMBO	**Columbo, Santo**	**1.57**	**212**	P	**Pn**	**00 58 42.4**	**-0.2**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.57**	**212**	P	**Pn**	**00 58 42.3**	**-0.3**
KTTT	**Salihli**	**1.57**	**55**	P	**Pg**	**00 58 45.1**	**-0.3**
KTTT				S	**Sn**	**00 59 01.9**	**-1.0**
KTTT				IAML		00 59 09.0	
	comp=N,503nm,0.3s						
THR2	**Thira island,**	**1.57**	**211**	P	**Pn**	**00 58 42.1**	**-0.6**
MULA	**Mugla, Merkez-**	**1.59**	**109**	P	**Pn**	**00 58 42.6**	**-0.4**
THR8	**Santorini-Mono**	**1.59**	**209**	P	**Pn**	**00 58 42.7**	**-0.2**
THR8	**Santorini-Mono**	**1.59**	**209**	P	**Pn**	**00 58 42.4**	**-0.6**
KIRA	**zmir-Kiraz**	**1.59**	**75**	P	**Pg**	**00 58 45.6**	**-0.2**
SOMA	**Soma-Manisa**	**1.60**	**32**	Pn	**Pb**	**00 58 44.2**	**-0.4**
SOMA				AML	AML		
THRA	**Thira**	**1.60**	**211**	P	**Pn**	**00 58 43.3**	**+0.1**
THRA				AML	AML		
THRA	**Thira**	**1.60**	**211**	P	**Pn**	**00 58 42.9**	**-0.2**
KARY	**Karystos**	**1.60**	**279**	P	**Pn**	**00 58 43.1**	**0.0**
KARY				AML	AML		
KARY	**Karystos**	**1.60**	**279**	P	**Pn**	**00 58 42.9**	**-0.2**
KARY				AML	AML		
YER	**Yerkesik**	**1.61**	**114**	P	**Pn**	**00 58 43.6**	**+0.4**
YER				AML	AML		
YER	**Yerkesik**	**1.61**	**114**	Pn	**Pn**	**00 58 43.6**	**+0.4**
THR3	**Thira Island,**	**1.62**	**211**	P	**Pn**	**00 58 43.3**	**-0.1**
THR3	**Thira Island,**	**1.62**	**211**	P	**Pn**	**00 58 42.8**	**-0.5**
SAP3	**Santorini-Thir**	**1.62**	**213**	P	**Pn**	**00 58 43.2**	**-0.2**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.62**	**213**	P	**Pn**	**00 58 42.8**	**-0.5**
SNT5	**Nea Kammeni, S**	**1.63**	**211**	P	**Pn**	**00 58 43.0**	**-0.4**
THERA	**Ancient Thera,**	**1.63**	**209**	P	**Pn**	**00 58 43.0**	**-0.4**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.63**	**209**	P	**Pn**	**00 58 42.8**	**-0.7**
THERA				AML	AML		
THR5	**Thira Island,**	**1.64**	**213**	P	**Pn**	**00 58 42.8**	**-0.7**
THR6	**Thira Island,**	**1.67**	**210**	P	**Pn**	**00 58 43.8**	**-0.2**
THR9	**Santorini-Faro**	**1.68**	**211**	P	**Pn**	**00 58 44.0**	**-0.2**
GORD	**Gordes-Manisa**	**1.75**	**50**	Pn	**Pb**	**00 58 46.4**	**-0.8**
GORD				AML	AML		
TURN	**Turunc**	**1.76**	**125**	Pn	**Pn**	**00 58 45.5**	**+0.2**
TURN				AML	AML		
BUHA	**Balikesir, Bur**	**1.77**	**16**	P	**Pb**	**00 58 47.3**	**-0.1**
BUHA				S	**Sg**	**00 59 11.0**	**-1.1**
BUHA				IAML		00 59 15.0	
	comp=E,756nm,0.5s						
BUHA				IAML		00 59 16.0	
	comp=N,885nm,0.5s						
MANT	**Manisa**	**1.80**	**67**	P	**Pb**	**00 58 48.7**	**+0.5**
MANT				S	**Sb**	**00 59 10.1**	**-0.6**
MANT				IAML		00 59 14.0	
	comp=N,387nm,0.5s						
MANT				IAML		00 59 17.0	
	comp=E,329nm,0.4s						
SKY	**Skiros Island**	**1.84**	**306**	P	**Pn**	**00 58 46.1**	**-0.2**
SKY				AML	AML		
SULTU	**Buldan**	**1.85**	**81**	P	**Pn**	**00 58 47.8**	**+1.1**
MILOS	**Milos**	**1.92**	**237**	P	**Pn**	**00 58 45.3**	**-2.2**
MILOS				AML	AML		
HARTU	**Esme**	**1.94**	**73**	P	**Pn**	**00 58 47.8**	**+0.1**
EZNE	**Ezine-Canakkal**	**1.95**	**358**	Pn	**Pn**	**00 58 49.3**	**+1.4**
MHLO	**Agia Marina, M**	**1.97**	**236**	P	**Pn**	**00 58 47.8**	**-0.4**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**1.97**	**236**	P	**Pn**	**00 58 47.4**	**-0.7**
MHLO				AML	AML		
DION	**Dionisos Attik**	**2.00**	**279**	P	**Pn**	**00 58 49.0**	**+0.3**
DION				AML	AML		
DION	**Dionisos Attik**	**2.00**	**279**	P	**Pn**	**00 58 48.8**	**+0.2**
DION				AML	AML		
KYMI	**Kymi, Euboea I**	**2.02**	**295**	P	**Pn**	**00 58 49.1**	**+0.2**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**2.02**	**295**	P	**Pn**	**00 58 48.4**	**-0.5**
PTL	**Penteli**	**2.06**	**278**	P	**Pn**	**00 58 49.7**	**+0.3**
PTL				AML	AML		
PTL	**Penteli**	**2.06**	**278**	P	**Pn**	**00 58 49.4**	**0.0**
PTL				AML	AML		
ARG	**Arkhangelos**	**2.08**	**139**	P	**Pn**	**00 58 50.1**	**+0.5**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.08**	**139**	P	**Pn**	**00 58 49.9**	**+0.3**
ARG				AML	AML		
VLY	**Voula,Athens**	**2.10**	**272**	P	**Pn**	**00 58 50.4**	**+0.4**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.11**	**275**	P	**Pn**	**00 58 50.3**	**+0.2**
ATHU				AML	AML		
ATHU	**Athens Univers**	**2.11**	**275**	P	**Pn**	**00 58 49.8**	**-0.3**
ATHP	**Athens-Neo Psi**	**2.12**	**276**	Pn_0		00 58 50.5	
ATH5	**Athens Parliam**	**2.15**	**275**	P	**Pn**	**00 58 50.1**	**-0.5**
ATH5				AML	AML		
BALB	**Balikesir**	**2.15**	**31**	Pn	**Pn**	**00 58 52.2**	**+1.5**
BALB				AML	AML		
ACHAR	**Athens-Acharne**	**2.15**	**278**	P	**Pn**	**00 58 51.1**	**+0.4**
ACHAR				AML	AML		
NOAC	**Athens-Thissio**	**2.16**	**275**	P	**Pn**	**00 58 51.0**	**+0.2**
NOAC				AML	AML		
ATH	**Athens Observa**	**2.17**	**275**	P	**Pn**	**00 58 51.3**	**+0.4**
ATH				AML	AML		
ATH	**Athens Observa**	**2.17**	**275**	P	**Pn**	**00 58 51.1**	**+0.2**
ATH				AML	AML		
LIA	**Limnos Island**	**2.31**	**335**	P	**Pn**	**00 58 52.9**	**0.0**
LIA	**Limnos Island**	**2.31**	**335**	P	**Pn**	**00 58 52.8**	**-0.1**
LIA				AML	AML		
STFN	**Stefani**	**2.32**	**280**	P	**Pn**	**00 58 53.2**	**+0.1**
STFN				AML	AML		
LMN1	**MIRINA LIMNOU**	**2.34**	**333**	P	**Pn**	**00 58 52.4**	**-0.8**
LMN1				AML	AML		
AOS2	**Alonissos-2**	**2.44**	**304**	P	**Pn**	**00 58 53.6**	**-1.1**
MET3	**Ano Fanari,Met**	**2.56**	**266**	P	**Pn**	**00 58 55.9**	**-0.4**
ZKR	**Zakros**	**2.69**	**184**	P	**Pn**	**00 58 58.0**	**0.0**
ZKR				AML	AML		
LOUT	**Loutraki**	**2.75**	**275**	P	**Pn**	**00 58 59.0**	**+0.1**
LOUT				AML	AML		
LTK	**Loutraki**	**2.76**	**276**	P	**Pn**	**00 58 58.8**	**-0.2**
LTK				AML	AML		
SMTH	**Samothraki Isl**	**2.76**	**345**	P	**Pn**	**00 58 58.5**	**-0.5**
IDI	**Anoyia**	**2.80**	**207**	P	**Pn**	**00 58 58.8**	**-0.9**
IDI				AML	AML		
ACOR	**Acrocorinthos**	**2.83**	**273**	P	**Pn**	**00 58 60.0**	**-0.1**
ACOR				AML	AML		
ATAL	**Atalanti**	**2.84**	**289**	P	**Pn**	**00 59 00.2**	**+0.1**
CHAN	**Chania**	**2.99**	**221**	P	**Pn**	**00 59 01.8**	**-0.3**
XOR	**Xorichti**	**2.99**	**303**	P	**Pn**	**00 59 01.3**	**-0.9**
VLI	**Veliai**	**3.00**	**250**	P	**Pn**	**00 59 01.9**	**-0.5**
VLI				AML	AML		
BRTR	**Keskin Array B**	**5.94**	**69**	Pn	**Pn**	**00 59 44.6**	**+1.7**
	0.1nm,0.3s,baz=255,slow=13,SNR=6.5						
BRTR				Lg	Lg	01 01 28.7	
	baz=259,slow=22 0.9nm,0.7s						
BRTR				AML	AML		
MMAI	**Mount Meron Ar**	**8.73**	**120**	Pn	**Pn**	**01 00 20.3**	**-0.9**
	2.2nm,0.3s,baz=312,slow=14,SNR=5.6						
MMAI				Sn	**Sn**	**01 01 54.5**	**-4.9**
	0.7nm,0.3s,baz=267,slow=24,SNR=1.5 1.7nm,0.3s						
MMAI				AML	AML		
TORD	**Torodi Ar. Bea**	**33.00**	**228**	P	**P**	**01 04 51.0**	**+1.1**
	0.7nm,0.5s,baz=35,slow=9.4,SNR=7.8 0.7nm,0.5s						
KURBB	**Kurchatov Arra**	**38.69**	**54**	P	**P**	**01 05 39.3**	**+1.0**
	0.2nm,0.4s,baz=278,slow=8.2,SNR=2.0 0.2nm,0.4s						
MKAR	**Makanchi Array**	**41.49**	**59**	P	**P**	**01 06 03.1**	**+1.4**
	1.0nm,1.0s,baz=268,slow=9.1,SNR=1.3 1.0nm,1.0s						
ZALV	**Zalesovo Beam**	**42.45**	**48**	P	**P**	**01 06 10.3**	**+0.8**
	0.3nm,0.4s,baz=279,slow=6.3,SNR=2.2 0.3nm,0.4s						

IDC ***17*** *00:59:09.2±2.4,21°.95S×179°.59W,h0km,mb4.3/4, mbtmp4.3/4, Error ellipse: s-maj=161.4km s-min=32.5km az=161.0*
NEIC ***17*** *01:00:05.1±1.2,23°.7S×0°.2×179°.67E±0°.05,h517km±7km, mb4.4/22, Error ellipse: s-maj=25.6km s-min=6.8km az=181.0*

ISC 17 01:00:04.8±0.8, 23°.6S×0°.2×179°.8E±0°.1, h535km, n41, σ0s.97/40, mb4.4/16, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**6.09**	**344**	P	**P**	**01 01 42.3**	**-1.4**
FUTU	**Fugatoga**	**9.47**	**12**	P	**P**	**01 02 16.6**	**-0.6**
NIUE	**Niue**	**10.58**	**67**	P	**P**	**01 02 29.6**	**+1.0**
PINNC	**Pines Island,**	**11.42**	**273**	P	**P**	**01 02 38.3**	**+1.0**
ARMA	**Armidale**	**25.96**	**249**	P	**P**	**01 04 54.5**	**-0.5**
ARMA				IAmb	IAmb	01 05 08.7	
	comp=Z,27nm,1.4s						
EIDS	**Eidsvold**	**26.18**	**260**	P	**P**	**01 04 56.7**	**-0.2**
EIDS				IAmb	IAmb	01 05 12.8	
	comp=Z,6.5nm,0.7s						
CAN	**Canberra**	**29.13**	**239**	P	**P**	**01 05 23.0**	**+0.3**
CTAO	**Charters Tower**	**31.30**	**270**	P	**P**	**01 05 42.0**	**+0.5**
TOO	**Toolangi**	**32.45**	**237**	P	**P**	**01 05 51.0**	**-0.2**
INKA	**Innaminka**	**35.34**	**255**	P	**P**	**01 06 16.2**	**+0.7**
BBOO	**Buckleboo**	**39.39**	**247**	P	**P**	**01 06 47.9**	**-0.7**
BBOO				IAmb	IAmb	01 06 49.4	
	comp=Z,25nm,1.5s						
AS31	**Alice Springs**	**41.91**	**260**	P	**P**	**01 07 08.8**	**0.0**
ASAR	**Alice Springs**	**41.91**	**260**	P	**P**	**01 07 08.8**	**-0.1**
	comp=Z,4.0nm,0.6s,baz=96,slow=7.8,SNR=36 comp=Z,4.0nm,0.6s						
ASAR	**Alice Springs**	**41.91**	**260**	P	**P**	**01 07 08.5**	**-0.3**
WR8	**Warramunga Arr**	**42.10**	**266**	P	**P**	**01 07 09.8**	**-0.5**
WR8				IAmb	IAmb	01 07 10.2	
	comp=Z,4.2nm,0.5s						
WB2	**Warramunga Arr**	**42.24**	**266**	P	**P**	**01 07 10.9**	**-0.5**
WB2				IAmb	IAmb	01 07 11.3	
	comp=Z,7.7nm,0.5s						
WB0	**Warramunga Arr**	**42.24**	**266**	P	**P**	**01 07 11.0**	**-0.5**
WB0				IAmb	IAmb	01 07 11.6	
	comp=Z,9.3nm,0.7s						
WRAB	**Tennant Creek**	**42.24**	**266**	P	**P**	**01 07 10.1**	**-1.4**
WRAB				IAmb	IAmb	01 07 42.9	
	comp=Z,12nm,0.8s						
WRA	**Warramunga Arr**	**42.25**	**266**	P	**P**	**01 07 11.0**	**-0.5**
	comp=Z,5.5nm,0.4s,baz=103,slow=8.0,SNR=36 comp=Z,5.5nm,0.4s						
WRA	**Warramunga Arr**	**42.25**	**266**	P	**P**	**01 07 10.9**	**-0.6**
FORT	**Forrest**	**46.25**	**249**		**P**	**01 07 41.1**	**-1.1**
FORT				IAmb	IAmb	01 07 42.1	
	comp=Z,7.8nm,0.6s						
KNRA	**Kununurra**	**48.52**	**270**	P	**P**	**01 07 59.6**	**+0.2**
FITZ	**Fitzroy Crossi**	**50.68**	**265**	P	**P**	**01 08 15.2**	**-0.1**
MBWA	**Marble Bar**	**55.25**	**260**	P	**P**	**01 08 47.2**	**-0.7**
MBWA				IAmb	IAmb	01 09 03.3	
	comp=Z,26nm,1.4s						
MORW	**Morawa**	**56.81**	**250**	P	**P**	**01 08 57.7**	**-0.8**
MORW				IAmb	IAmb	01 09 23.4	
	comp=Z,18nm,1.3s						
GIRL	**Giralia**	**59.81**	**257**	P	**P**	**01 09 17.6**	**-1.3**
TOLI2	**Tolitoli**	**62.34**	**285**	P	**P**	**01 09 36.0**	**+0.4**
TOLI2				IAmb	IAmb	01 09 37.4	
	comp=Z,5.3nm,0.6s						
JMZ	**Minamidaito 2**	**68.02**	**313**	P	**P**	**01 10 09.9**	**-1.1**
INU	**Inuyama**	**71.29**	**324**	P	**P**	**01 10 32.3**	**+1.9**
INU				IAmb	IAmb	01 10 33.0	
	comp=Z,18nm,1.3s						
YOJ	**Yonaguni jima**	**72.93**	**307**	P	**P**	**01 10 39.9**	**-0.2**
CMAR	**Chiang Mai Arr**	**89.27**	**290**	P	**P**	**01 12 06.1**	**+1.7**
	comp=Z,0.7nm,0.3s,baz=160,slow=2.6,SNR=4.4 comp=Z,0.7nm,0.3s						
TXAR	**Lajitas Array**	**90.43**	**58**	P	**P**	**01 12 07.6**	**-2.1**
	comp=Z,0.3nm,0.7s,baz=214,slow=5.8,SNR=5.0 comp=Z,0.3nm,0.7s						
R61A	**Willards**	**115.53**	**57**	PKPdf	**PKiKP**	**01 17 48.2**	**+2.0**
NPNY	**Mohonk Preserv**	**117.00**	**54**	PKPdf	**PKiKP**	**01 17 50.1**	**+1.1**
KSCT	**Kent School, K**	**117.49**	**54**	PKPdf	**PKiKP**	**01 17 50.8**	**+0.9**
NAO01	**NORSAR Array S**	**142.01**	**351**	PKPdf	**PKiKP**	**01 18 37.7**	**-1.4**
ARPR	**Arapgir-MALATY**	**143.96**	**305**	PKPbc	**PKPdf**	**01 18 39.4**	**-0.4**
AKASG	**Malin Array Be**	**144.64**	**327**	PKhKP	PKPpre	01 18 36.9	
	comp=Z,0.5nm,0.3s,baz=44,slow=3.9,SNR=4.4						
ILGA	**Ilgaz**	**146.76**	**310**	PKPdf	**PKPdf**	**01 18 45.2**	**+0.6**
BRTR	**Keskin Array B**	**147.27**	**307**	PKPbc	**PKPab**	**01 18 51.8**	**-0.4**
	comp=Z,0.9nm,0.6s,baz=85,slow=3.2,SNR=5.9						
BRTR	**Keskin Array B**	**147.27**	**307**		**PKPab**	**01 18 51.7**	**-0.5**

TRN 17 01:00:31.1, 16°.10N×61°.05W, h57km, MD3.7, East of Guadeloupe., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DSDZ	**La Diserade, G**	**0.21**	**357**	*e*P	Pn	01 00 41.8	+1.4
DSDZ				*e*S	Sn	01 00 49.0	+2.1
MAGL	**Barre de l'ile**	**0.27**	**235**	*e*P	Pn	01 00 42.5	+1.8
MAGL				*e*S	Sn	01 00 50.1	+2.5
DWS	**Wesley**	**0.59**	**205**	*e*P	Pn	01 00 45.1	+1.2
DWS				*e*S	Sn	01 00 55.4	+2.2
DHSZ	**Broadband at M**	**0.70**	**284**	*e*P	Pn	01 00 46.6	+1.3
DHSZ				*e*S	Sn	01 00 57.6	+2.0
DSLB	**Salisbury**	**0.75**	**208**	*e*P	Pn	01 00 47.4	+1.5
DSLB				*e*S	Sn	01 00 58.8	+2.2
DLPL	**La Plaine**	**0.79**	**194**	*e*P	Pn	01 00 47.9	+1.5
DLPL				*e*S	Sn	01 00 59.5	+2.0
SVN	**Savane Anatole**	**1.26**	**185**	*e*P	Pn	01 00 54.4	+1.8
SVN				*e*S	Sn	01 01 10.3	+1.7
ILAM	**Ilet Lapin Mar**	**1.33**	**173**	*e*P	Pn	01 00 54.9	+1.4
ILAM				*e*S	Sn	01 01 11.7	+1.4
BIM	**Bigot**	**1.58**	**181**	*e*P	Pn	01 00 58.4	+1.5
BIM				*e*S	Sn	01 01 17.7	+1.4
ANWB	**Willy Bob**	**1.71**	**336**	*e*P	Pn	01 00 59.0	+0.4
ANWB				*e*S	Sn	01 01 20.8	+1.5
SKI	**Saint Kitts**	**2.03**	**307**	*e*P	Pn	01 01 05.5	+2.6
SKI				*e*S	Sn	01 01 29.4	+2.2
SLBI	**Saint Lucia, B**	**2.07**	**178**	*e*P	Pn	01 01 05.2	+1.6
SLBI				*e*S	Sn	01 01 30.3	+2.1
SLCP	**Castries, St.**	**2.08**	**178**	*e*P	Pn	01 01 06.3	+2.6
SLCP				*e*S	Sn	01 01 30.5	+2.0
MCLT	**Moule a Chique**	**2.38**	**177**	*e*P	Pn	01 01 09.5	+1.7
MCLT				*e*S	Sn	01 01 37.5	+1.7
SVB	**Belmont**	**2.82**	**184**	*e*P	Pn	01 01 15.8	+2.0
SVB				*e*S	Sn	01 01 48.2	+1.5

IDC ***17*** *01:19:32.5±0.6,14°.88S×167°.91E,h0km,mb4.5/18, mbtmp4.5/21,ML4.8/3,MS3.7/7, Error ellipse: s-maj=14.8km s-min=13.1km az=110.0*
NOU ***17*** *01:19:34.6, 15°.01S×167°.94E, h7km, MLv4.9/17, Vanuatu Islands*
BJI ***17*** *01:19:34.9, 14°.50S×168°.34E, h28km, mB5.0/5, mb4.9/29*
NEIC ***17*** *01:19:34.8±1.7, 14°.88S±0°.05×167°.70E±0°.06, h10km±1km, mb4.9/60, Error ellipse: s-maj=12.7km s-min=2.9km az=131.0*

ISC 17 01:19:35.2±0.4, 14°.97S±0°.06×167°.73E±0°.05, h10km, n128, σ1s.25/90, mb4.9/52, MS3.7/6, 1C-2D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.70**	**227**	P	**Pg**	**01 19 49.5**	**+0.8**
SANVU	**Saraoutou**	**0.70**	**227**		**Pg**	**01 19 49.3**	**+0.6**
SANVU					**Sg**	**01 19 58.5**	**+0.7**

DVP	**Devils Point**	**2.78**	**171**	P	**Pn**	**01 20 18.3**	**-1.4**
RTV	**Rentapao**	**2.89**	**167**	P	Pn	01 20 18.3	-2.9
KOUNC	**Koumac, New Ca**	**6.45**	**210**	P	**Pn**	**01 21 11.3**	**+1.1**
KOUNC	**Koumac, New Ca**	**6.45**	**210**		**Pn**	**01 21 09.7**	**-0.5**
MARNC	**Mare, Loyalty**	**6.48**	**178**	P	**Pn**	**01 21 09.4**	**-1.3**
MARNC	**Mare, Loyalty**	**6.48**	**178**	Pn	**Pn**	**01 21 09.2**	**-1.5**
YATNC	**Mamie plateau,**	**7.10**	**186**	P	**Pn**	**01 21 18.4**	**-0.8**
DZM	**Mont Dzumac**	**7.17**	**190**	Pn	**Pn**	**01 21 20.4**	**+0.2**
	4.4nm,0.3s,baz=44,slow=17,SNR=24						
DZM				Sn	**Sn**	**01 22 40.5**	**-1.4**
	0.8nm,0.3s,baz=300,slow=20,SNR=1.1 12nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**7.22**	**191**	P	**Pn**	**01 21 21.5**	**+0.6**
HURO	**Huro Makira**	**7.24**	**308**	P	**Pn**	**01 21 23.6**	**+2.6**
ONTNC	**Ouen Toro**	**7.40**	**189**	P	**Pn**	**01 21 23.7**	**+0.4**
ONTNC	**Ouen Toro**	**7.40**	**189**	Pn	**Pn**	**01 21 22.5**	**-0.8**
OUENC	**Ouen Island, N**	**7.46**	**186**	P	**Pn**	**01 21 23.8**	**-0.3**
OUENC	**Ouen Island, N**	**7.46**	**186**		**Pn**	**01 21 24.9**	**+0.8**
PINNC	**Pines Island,**	**7.61**	**182**		**Pn**	**01 21 28.3**	**+2.1**
NGOA	**Tingoa Renbel**	**8.20**	**294**	P	**Pn**	**01 21 35.9**	**+1.6**
HNR	**Honiara**	**9.39**	**305**	Pn	**Pn**	**01 21 53.5**	**+2.9**
	13nm,0.3s,baz=100,slow=6.1,SNR=4.0						
HNR				LR	LR	01 25 35.2	
	comp=Z,171nm,18.4s,baz=218,slow=38 115nm,0.7s						
HNR				AML	AML		
HNR	**Honiara**	**9.39**	**305**		**Pn**	**01 21 50.1**	**-0.4**
SAVO	**Savo Central**	**9.66**	**306**	P	**Pn**	**01 21 57.8**	**+3.4**
TATA	**Tatamba Isabel**	**10.15**	**309**	P	**Pn**	**01 22 03.6**	**+2.6**
MSVF	**Nonsavu**	**10.28**	**107**	Pn	**Pn**	**01 22 03.6**	**+0.7**
	0.4nm,0.3s,baz=290,slow=9.3,SNR=11 15nm,0.9s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**10.28**	**107**		**Pn**	**01 22 05.1**	**+2.2**
EIDS	**Eidsvold**	**18.72**	**234**		**P**	**01 23 53.5**	**-0.6**
PMG	**Port Moresby**	**20.85**	**283**	P	**P**	**01 24 18.6**	**+1.3**
	5.2nm,0.3s,baz=353,slow=8.1,SNR=3.3						
PMG				LR	LR	01 31 41.8	
	comp=Z,510nm,18.1s,baz=31,slow=35 5.2nm,0.3s						
PMG	**Port Moresby**	**20.85**	**283**	P	**P**	**01 24 15.5**	**-1.9**
PMG	**Port Moresby**	**20.85**	**283**	P	**P**	**01 24 18.4**	**+1.1**
	25nm,1.3s						
CTA	**Charters Tower**	**21.10**	**253**	P	**P**	**01 24 21.6**	**+1.6**
	9.8nm,0.9s,baz=63,slow=12,SNR=8.1						
CTA				LR	LR	01 31 47.4	
	comp=Z,374nm,18.8s,baz=49,slow=34 9.8nm,0.9s						
ARMA	**Armidale**	**21.34**	**221**		**P**	**01 24 22.2**	**-0.4**
URZ	**Urewera**	**24.64**	**162**	LR	LR	01 32 45.4	
	comp=Z,202nm,20.7s,baz=345,slow=32						
MRNZ	**Matariki Terra**	**26.70**	**172**	P	**P**	**01 25 15.7**	**+1.1**
INKA	**Innaminka**	**28.09**	**239**		**P**	**01 25 26.2**	**-1.0**
INKA				IAmb	IAmb	01 25 29.5	
	comp=Z,16nm,0.8s						
STKA	**Stephens Creek**	**29.18**	**230**	P	**P**	**01 25 37.8**	**+0.9**
	comp=Z,14nm,1.0s,baz=37,slow=8.3,SNR=13						
STKA				LR	LR	01 37 37.8	
	comp=Z,167nm,18.4s,baz=100,slow=37 comp=Z,14nm,1.0s						
STKA	**Stephens Creek**	**29.18**	**230**		**P**	**01 25 36.3**	**-0.6**
RAR	**Rarotonga**	**31.47**	**106**	LR	LR	01 37 27.1	
	comp=Z,20nm,21.1s,baz=290,slow=34						
WR8	**Warramunga Arr**	**32.05**	**256**	P	**P**	**01 26 00.9**	**-1.5**
WB0	**Warramunga Arr**	**32.14**	**257**	P	**P**	**01 26 02.3**	**-0.9**
WB0				IAmb	IAmb	01 26 03.2	
	comp=Z,13nm,1.1s						
WRA	**Warramunga Arr**	**32.20**	**256**	P	**P**	**01 26 03.0**	**-0.7**
	comp=Z,4.1nm,0.8s,baz=86,slow=8.6,SNR=20 comp=Z,4.1nm,0.8s						
WRA	**Warramunga Arr**	**32.20**	**256**	P	**P**	**01 26 02.7**	**-1.1**
AS31	**Alice Springs**	**33.00**	**250**	P	**P**	**01 26 09.6**	**-1.2**
ASAR	**Alice Springs**	**33.01**	**250**	P	**P**	**01 26 10.3**	**-0.5**
	comp=Z,11nm,0.7s,baz=80,slow=9.1,SNR=85						
ASAR				LR	LR	01 38 55.4	
	comp=Z,296nm,19.0s,baz=122,slow=35 comp=Z,11nm,0.7s						
ASAR	**Alice Springs**	**33.01**	**250**		**P**	**01 26 09.3**	**-1.5**
BBOO	**Buckleboo**	**33.79**	**233**		**P**	**01 26 17.0**	**-0.4**
KNRA	**Kununurra**	**37.55**	**264**	P	**P**	**01 26 48.6**	**-1.3**
FORT	**Forrest**	**39.56**	**240**	P	**P**	**01 27 06.3**	**-0.4**
FORT				IAmb	IAmb	01 27 15.6	
	comp=Z,31nm,0.8s						
FITZ	**Fitzroy Crossi**	**40.41**	**260**	P	**P**	**01 27 13.9**	**+0.1**
	comp=Z,7.4nm,0.8s,baz=95,slow=8.7,SNR=13 comp=Z,7.4nm,0.8s						
FITZ	**Fitzroy Crossi**	**40.41**	**260**	P	**P**	**01 27 12.6**	**-1.3**
PPT2	**Papeete2**	**41.00**	**100**	*e*S	**S**	**

TRF					IAmb	IAmb	01 32 07.7	
	comp=Z,10nm,0.9s							
G19K	**Purcell Mounta**	**85.02**	**14**			**P**	01 32 08.9	-1.6
G19K					IAmb	IAmb	01 32 10.3	
	comp=Z,10.0nm,0.8s							
RND	**Reindeer**	**85.02**	**18**	P		P	01 32 07.4	-3.3
MCK	**McKinley**	**85.24**	**18**			P	01 32 09.7	-2.0
MCK					IAmb	IAmb	01 32 10.4	
	comp=Z,11nm,1.0s							
BWN	**Browne**	**85.42**	**17**	P		**P**	**01 32 12.3**	**-0.2**
F19K	**Shaleruckik Mo**	**85.44**	**13**			P	01 32 10.5	-2.0
F19K					IAmb	IAmb	01 32 11.7	
	comp=Z,8.7nm,0.9s							
I21K	**Tanana**	**85.50**	**16**	P		P	01 32 11.0	-1.8
H21K	**Melozitna Rive**	**85.66**	**15**	P		P	01 32 11.6	-2.1
H21K					IAmb	IAmb	01 32 13.0	
	comp=Z,6.0nm,0.9s							
IMAR	**Indian Mountai**	**85.68**	**15**	P		P	01 32 11.9	-1.9
F20K	**Avaraart Lake**	**86.08**	**14**	P		P	01 32 13.7	-2.0
F20K					IAmb	IAmb	01 32 15.1	
	comp=Z,11nm,1.0s							
E19K	**Redstone River**	**86.08**	**13**			P	01 32 14.0	-1.8
E19K					IAmb	IAmb	01 32 15.2	
	comp=Z,8.8nm,0.8s							
BEKR	**Beckworth**	**86.15**	**47**			**P**	**01 32 15.8**	**-1.1**
BEKR					IAmb	IAmb	01 32 20.0	
	comp=Z,12nm,1.6s							
G21K	**Allakaket**	**86.17**	**15**	P		**P**	**01 32 14.8**	**-1.4**
G21K					IAmb	IAmb	01 32 15.3	
	comp=Z,6.8nm,0.8s							
H22K	**Ishtalitna Cre**	**86.21**	**16**	P		P	01 32 14.6	-1.9
H22K					IAmb	IAmb	01 32 15.7	
	comp=Z,6.8nm,1.0s							
MDPB	**Devils Postpil**	**86.22**	**50**	P		**P**	**01 32 16.1**	**-1.4**
CCB	**Clear Creek Bu**	**86.25**	**18**			P	01 32 13.8	-2.8
CCB					IAmb	IAmb	01 33 08.4	
	comp=Z,12nm,1.7s							
WAKR	**Walker**	**86.29**	**49**			**P**	**01 32 16.6**	**-1.1**
WAKR					IAmb	IAmb	01 32 19.5	
	comp=Z,14nm,1.5s							
HDA	**Harding Lake**	**86.33**	**18**	P		P	01 32 14.8	-2.2
HDA					IAmb	IAmb	01 32 15.9	
	comp=Z,12nm,1.2s							
IL31		**86.61**	**18**			P	01 32 15.6	-2.8
IL31					IAmb	IAmb	01 32 16.3	
	comp=Z,5.0nm,0.8s							
ILAR	**Eielson Array**	**86.61**	**18**	P		P	01 32 14.8	-3.6
	comp=Z,4.0nm,0.8s,baz=236,slow=5.5,SNR=36							
	comp=Z,4.0nm,0.8s							
ILAR	**Eielson Array**	**86.61**	**18**	P		P	01 32 15.2	-3.2
CLC	**China Lake**	**86.67**	**52**	P		**P**	**01 32 18.4**	**-1.1**
F21K	**Alatna River**	**86.74**	**14**			P	01 32 17.4	-1.6
F21K					IAmb	IAmb	01 32 18.0	
	comp=Z,7.5nm,1.0s							
SCRK	**Sand Creek**	**86.94**	**19**	P		**P**	**01 32 18.9**	**-1.3**
SCRK					IAmb	IAmb	01 33 59.3	
	comp=Z,9.9nm,1.6s							
J25K	**Salcha River,**	**86.96**	**18**	P		P	01 32 18.1	-2.1
J25K					IAmb	IAmb	01 32 18.7	
	comp=Z,6.2nm,1.0s							
NVAR	**Mina Array Bea**	**87.09**	**49**	P		P	01 32 19.9	-1.7
	comp=Z,1.2nm,0.8s,baz=265,slow=4.6,SNR=6.4							
	comp=Z,1.2nm,0.8s							
NVAR	**Mina Array Bea**	**87.09**	**49**	P		P	01 32 18.8	-2.9
D20K	**Ettiluk River**	**87.26**	**12**	P		**P**	**01 32 20.8**	**-0.8**
D22K	**Ayikyak River**	**88.24**	**13**	P		**P**	**01 32 25.8**	**-0.4**
F24K	**Squaw Lake**	**88.35**	**16**	P		**P**	**01 32 25.3**	**-1.5**
SHPR	**Sheep Range**	**88.76**	**52**			**P**	**01 32 28.6**	**-1.0**
D23K	**Nanushuk River**	**88.76**	**14**	P		P	01 32 26.9	-1.8
D23K					IAmb	IAmb	01 32 28.3	
	comp=Z,8.3nm,1.1s							
SHUK	**Shuksan-Mt. Ba**	**88.89**	**39**	P		**P**	**01 32 29.3**	**-0.6**
G26K	**Porcupine Rive**	**89.06**	**17**			**P**	**01 32 30.0**	**-0.1**
EVN	**Everest**	**89.12**	**299**			P	01 32 30.4	-1.7
EVN					IAmb	IAmb	01 32 39.6	
	comp=Z,8.1nm,0.7s							
PRN	**Pahroc Range**	**89.14**	**51**			**P**	**01 32 30.9**	**-0.4**
PRN					IAmb	IAmb	01 32 32.1	
	comp=Z,7.4nm,1.1s							
LCMT	**Little Creek M**	**90.38**	**52**	P		**P**	**01 32 36.3**	**-0.9**
CCUT	**Cedar City**	**90.46**	**51**			**P**	**01 32 36.9**	**-0.7**
U15A	**North Rim**	**90.92**	**53**	P		**P**	**01 32 39.5**	**-0.4**
X16A	**Lo Mia Camp, P**	**90.98**	**55**	P		**P**	**01 32 39.7**	**-0.4**
WMQ	**Urumqi**	**93.21**	**314**	*eP*		**P**	**01 32 49.6**	**-0.4**
WMQ				pP		sP	01 32 56.5	+3.4
WMQ				pmax		pmax		
	comp=Z,14nm,0.9s							
RLMT	**Red Lodge**	**95.62**	**45**			**P**	**01 32 60.0**	**-1.3**
TXAR	**Lajitas Array**	**96.00**	**61**	P		P	01 33 00.6	-2.6
	comp=Z,0.2nm,0.8s,baz=210,slow=2.8,SNR=4.7							
	comp=Z,0.2nm,0.8s							
TXAR	**Lajitas Array**	**96.00**	**61**	P		P	01 32 60.0	-3.2
YKA	**Yellowknife Ar**	**97.55**	**27**	P		P	01 33 06.2	-3.0
	comp=Z,2.1nm,0.8s,baz=255,slow=4.5,SNR=6.5							
	comp=Z,2.1nm,0.8s							
YKA	**Yellowknife Ar**	**97.55**	**27**	P		P	01 33 06.5	-2.8
MKAR	**Makanchi Array**	**97.68**	**316**	P		**P**	**01 33 09.3**	**-1.0**
	comp=Z,3.2nm,0.7s,baz=96,slow=6.5,SNR=15							
	comp=Z,3.2nm,0.7s							
ZALV	**Zalesovo Beam**	**97.85**	**324**	P		P	01 33 08.6	-2.2
	comp=Z,1.9nm,0.8s,baz=101,slow=7.7,SNR=7.5							
	comp=Z,1.9nm,0.8s							
ARCES	**ARCESS Array B**	**120.59**	**346**	PKP		**PKPdf**	**01 38 25.3**	**-1.4**
	comp=Z,3.2nm,0.9s,baz=49,slow=1.9,SNR=4.9							
ARCES	**ARCESS Array B**	**120.59**	**346**			**PKPdf**	**01 38 25.7**	**-1.0**
ESDC	**Sonseca Array**	**154.33**	**345**	PKPbc		**PKPbc**	**01 39 36.9**	**+0.8**
	comp=Z,1.2nm,1.0s,baz=11,slow=4.5,SNR=4.8							

*IDC **17** 01:20:53.9±7.6, 18°.15S×175°.38W, h222km±33km, mb3.7/3, mbtmp4.4/4, Error ellipse: s-maj=297.2km s-min=26.2km az=146.0*
*NEIC **17** 01:20:55.1±1.0, 18°.1S±0°.1×175°.48W±0°.06, h218km±8km, mb4.4/19, Error ellipse: s-maj=16.5km s-min=3.7km az=154.0*

ISC 17 01:20:56.9±0.7, 18°.0S±0°.1×175°.4W±0°.1, h254km, n29, σ0s92/29, mb4.2/14, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
NIUE	**Niue**	**5.28**	**103**		Pn		**Pn**	**01 22 15.0**	**-1.3**
AFI	**Afiamalu**	**5.34**	**41**	P			**Pn**	**01 22 14.8**	**-2.3**
	25nm,0.3s,baz=225,slow=20,SNR=6.0								
AFI				S			S	01 23 12.8	-8.4
	23nm,0.3s,baz=37,slow=20,SNR=2.4								
DSZ	**Denniston Nort**	**26.09**	**202**	P			**P**	**01 26 07.4**	**-0.1**
KHZ	**Kahutara**	**26.11**	**199**	P			**P**	**01 26 07.9**	**+0.3**
KHZ					IAmb		IAmb	01 26 39.1	
	comp=Z,26nm,1.2s								
INZ	**Inchbonnie**	**27.08**	**202**	P			**P**	**01 26 16.0**	**-0.3**
WKZ	**Wanaka**	**29.77**	**203**	P			**P**	**01 26 38.9**	**-1.2**
EIDS	**Eidsvold**	**31.96**	**251**	P			**P**	**01 26 59.1**	**-0.4**
EIDS					IAmb		IAmb	01 27 32.9	
	comp=Z,10nm,1.3s								
ARMA	**Armidale**	**32.41**	**241**	P			**P**	**01 27 02.7**	**-0.8**
ARMA					IAmb		IAmb	01 27 17.1	
	comp=Z,13nm,1.2s								
PMG	**Port Moresby**	**37.32**	**278**	P			**P**	**01 27 45.2**	**-0.2**
PMG					IAmb		IAmb	01 28 20.4	
	comp=Z,19nm,1.1s								
BBOO	**Buckleboo**	**45.90**	**242**	P			**P**	**01 28 54.4**	**-0.1**
BBOO					IAmb		IAmb	01 29 37.5	
	comp=Z,28nm,1.5s								
MIDW	**Midway**	**45.98**	**358**	P			**P**	**01 28 56.8**	**+1.8**
WR8	**Warramunga Arr**	**47.30**	**259**	P			**P**	**01 29 04.7**	**-0.9**
WR8					IAmb		IAmb	01 29 33.7	
	comp=Z,11nm,1.4s								
WB0	**Warramunga Arr**	**47.42**	**259**	P			**P**	**01 29 05.5**	**-1.0**
WRA	**Warramunga Arr**	**47.45**	**259**	P			**P**	**01 29 06.1**	**-0.7**
	comp=Z,1.2nm,0.4s,baz=97,slow=7.1,SNR=18								
	comp=Z,1.2nm,0.4s								
WRA	**Warramunga Arr**	**47.45**	**259**	P			**P**	**01 29 06.1**	**-0.7**
AS31	**Alice Springs**	**47.54**	**254**	P			**P**	**01 29 07.3**	**-0.2**
ASAR	**Alice Springs**	**47.54**	**254**	P			**P**	**01 29 07.1**	**-0.4**
	comp=Z,6.6nm,0.5s,baz=93,slow=7.8,SNR=33								
	comp=Z,6.6nm,0.5s								
ASAR	**Alice Springs**	**47.54**	**254**	P			**P**	**01 29 07.3**	**-0.1**
FITZ	**Fitzroy Crossi**	**55.86**	**260**	P			**P**	**01 30 09.1**	**+0.3**
	comp=Z,0.7nm,0.4s,baz=108,slow=5.7,SNR=1.9								
	comp=Z,0.7nm,0.4s								
FITZ	**Fitzroy Crossi**	**55.86**	**260**	P			**P**	**01 30 09.1**	**+0.3**
SBA	**Scott Base**	**60.53**	**184**	P			**P**	**01 30 41.7**	**+1.7**
SBA					IAmb		IAmb	01 31 11.7	
	comp=Z,4.7nm,0.8s								
VNDA	**Vanda**	**60.62**	**186**	P			**P**	**01 30 41.6**	**+1.0**
VNDA					IAmb		IAmb	01 30 52.5	
	comp=Z,2.4nm,1.1s								
MBWA	**Marble Bar**	**60.85**	**255**	P			**P**	**01 30 42.7**	**-0.4**
MBWA					IAmb		IAmb	01 31 11.2	
	comp=Z,26nm,1.4s								
MORW	**Morawa**	**63.09**	**246**	P			**P**	**01 30 57.9**	**0.0**
MORW					IAmb		IAmb	01 31 05.6	
	comp=Z,28nm,1.5s								
PAHR	**Pah Rah Range**	**77.57**	**41**	P			**P**	**01 32 26.4**	**+1.2**
PAHR					IAmb		IAmb	01 32 30.8	
	comp=Z,4.8nm,1.1s								
BRTR	**Keskin Array B**	**146.86**	**317**	PKPbc			**PKPbc**	**01 40 09.8**	**+0.1**
	comp=Z,0.7nm,0.8s,baz=165,slow=3.2,SNR=4.3								
BRTR	**Keskin Array B**	**146.86**	**317**				**PKPbc**	**01 40 09.6**	**-0.2**
GERES	**GERESS Array B**	**148.36**	**349**	PKPbc			**PKPbc**	**01 40 13.9**	**+0.5**
	comp=Z,0.3nm,0.5s,baz=23,slow=3.4,SNR=2.1								
GERES	**GERESS Array B**	**148.36**	**349**				**PKPbc**	**01 40 14.0**	**+0.7**

*IDC **17** 01:22:06.2±3.6, 33°.26N×140°.74E, h0km, mb3.9/4, mbtmp3.8/5, ML2.8/1, Error ellipse: s-maj=145.2km s-min=15.6km az=69.0*
*NEIC **17** 01:22:10.9±1.8, 33°.42N±0°.08×141°.10E±0°.10, h35km±2km, mb4.7/22, Error ellipse: s-maj=16.0km s-min=11.3km az=138.0*
*JMA **17** 01:22:11.0±0.1, 33°.5N±0°.3×141°.1E±0°.2, h44km, MV3.4/37, E OFF HACHIJOJIMA ISLAND*

ISC 17 01:22:11.9±1.4, 33°.47N±0°.05×141°.02E±0°.08, h48km±13km, n52, σ0s91/56, mb4.6/16, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**1.07**	**251**				**Pn**	**01 22 30.4**	**-0.1**
JHJ2							**Sn**	**01 22 44.2**	**-0.1**
JHJ2	**Mitsune**	**1.07**	**251**	*eP*			**Pn**	**01 22 30.4**	**-0.1**
JHJ2				*eS*			**Sn**	**01 22 45.1**	**+0.8**
JHCJ	**Hachijojimakas**	**1.10**	**249**	P			**Pn**	**01 22 30.9**	**-0.1**
JHCJ				*eS*			**Sn**	**01 22 45.6**	**+0.6**
BSO1	**Boso 1**	**1.18**	**358**	*eP*			**Pn**	**01 22 30.2**	**-1.2**
BSO1				*eS*			**Sn**	**01 22 46.1**	**0.0**
JMKN	**Mikurajimanish**	**1.27**	**290**	P			**Pn**	**01 22 32.7**	**-0.4**
JMYK	**Miyake Tsubota**	**1.36**	**296**	*eP*			**Pn**	**01 22 34.3**	**-0.1**
BSO3	**Boso 3**	**1.39**	**342**	*eP*			**Pn**	**01 22 33.6**	**-1.0**
JAOM	**Aogashimamukai**	**1.46**	**227**	*eP*			**Pn**	**01 22 35.7**	**-0.1**
BSO4	**Boso 4**	**1.61**	**340**	P			**Pn**	**01 22 37.4**	**-0.5**
JKO	**Kozu shima**	**1.72**	**295**	*eP*			**Pn**	**01 22 39.2**	**-0.2**
JKO				*eS*			**Sn**	**01 23 00.6**	**+0.4**
JTHY	**Toshimahigashi**	**1.78**	**306**	P			**Pn**	**01 22 40.2**	**0.0**
JTHY				*eS*			**Sn**	**01 23 01.7**	**+0.1**
JIM2	**Oshima 3**	**1.81**	**314**	*eP*			**Pn**	**01 22 39.8**	**-0.9**
JKUC	**kamogawauchiur**	**1.81**	**338**	P			**Pn**	**01 22 39.6**	**-1.0**
JGF	**Kuroka**	**3.69**	**306**				**Pn**	**01 23 07.2**	**+0.7**
MJAR	**Matsushiro Arr**	**3.83**	**324**	Pn			**Pn**	**01 23 08.8**	**+0.4**
	0.7nm,0.3s,baz=144,slow=11,SNR=20								
MJAR				Sn			**Sn**	**01 23 52.0**	**-0.2**
	0.1nm,0.3s,baz=174,slow=23,SNR=5.3								
	9.9nm,0.6s								
MJAR				AML			AML		
MJAR	**Matsushiro Arr**	**3.83**	**324**				**Pn**	**01 23 08.3**	**-0.1**
MAJO	**Matsushiro**	**3.84**	**324**				**Pn**	**01 23 09.6**	**+1.2**
MJB9	**Matsu-Tunnel**	**3.84**	**324**				**Pn**	**01 23 10.8**	**+2.3**
PEA0B	**Petropavlovsk-**	**22.97**	**26**	P			**P**	**01 27 12.3**	**+0.2**
PEA0B					IAmb		IAmb	01 27 20.9	
	comp=Z,20nm,1.1s								
H11N2	**WAKE ISLAND Hy**	**26.79**	**114**	T			T	01 56 49.1	
	baz=305,slow=75,SNR=6.9								
H11N1	**WAKE ISLAND Hy**	**26.80**	**114**	T			T	01 56 50.2	
	baz=305,slow=75,SNR=5.9								
H11N3	**WAKE ISLAND Hy**	**26.81**	**114**	T			T	01 56 49.7	
	baz=305,slow=75,SNR=6.5								
ADK	**Adak**	**35.51**	**46**	P			**P**	**01 29 06.5**	**+2.6**
TNA	**Tin City**	**44.13**	**28**	P			**P**	**01 30 15.8**	**+0.7**
MKAR	**Makanchi Array**	**45.82**	**305**	P			**P**	**01 30 28.5**	**-0.5**
	comp=Z,0.2nm,0.5s,baz=85,slow=12,SNR=1.5								
	comp=Z,0.2nm,0.5s								
MKAR	**Makanchi Array**	**45.82**	**305**	P			**P**	**01 30 28.4**	**-0.6**
SOEI	**Soe**	**45.85**	**203**	P			**P**	**01 30 29.4**	**-0.2**
C18K	**Utukok River**	**47.62**	**25**	P			**P**	**01 30 44.6**	**+1.8**
C18K					IAmb		IAmb	01 31 01.1	
	comp=Z,10nm,1.0s								
KURK	**Kurchatov**	**47.94**	**311**	P			**P**	**01 30 45.0**	**-0.5**
KURBB	**Kurchatov Arra**	**48.00**	**311**	P			**P**	**01 30 45.7**	**-0.2**
	comp=Z,0.4nm,0.5s,baz=88,slow=7.8,SNR=4.3								
	comp=Z,0.4nm,0.5s								
MNAI	**Manna**	**52.07**	**231**	P			**P**	**01 31 16.2**	**-1.0**
D25K	**Kavik River**	**52.99**	**25**	P			**P**	**01 31 24.4**	**+1.1**
WB0	**Warramunga Arr**	**53.32**	**188**	P			**P**	**01 31 25.3**	**-0.9**
WB0					IAmb		IAmb	01 31 25.8	
	comp=Z,5.3nm,0.5s								
WR0	**Warramunga Arr**	**53.49**	**188**	P			**P**	**01 31 26.5**	**-1.0**
WR0					IAmb		IAmb	01 31 28.7	
	comp=Z,4.0nm,0.8s								
WR8	**Warramunga Arr**	**53.49**	**188**	P			**P**	**01 31 26.6**	**-0.9**
WR8					IAmb		IAmb	01 31 27.3	
	comp=Z,4.6nm,0.6s								
WB2	**Warramunga Arr**	**53.50**	**188**	P			**P**	**01 31 26.5**	**-1.1**
WB2					IAmb		IAmb	01 31 27.4	
	comp=Z,3.5nm,0.6s								
WRA	**Warramunga Arr**	**53.50**	**188**	P			**P**	**01 31 26.7**	**-0.8**
	comp=Z,4.2nm,0.5s,baz=5.4,slow=7.6,SNR=50								
	comp=Z,4.2nm,0.5s								
WRA	**Warramunga Arr**	**53.50**	**188**	P			**P**	**01 31 25.9**	**-1.7**
AS31	**Alice Springs**	**57.22**	**188**	P			**P**	**01 31 54.9**	**+0.6**
ASAR	**Alice Springs**	**57.23**	**188**	P			**P**	**01 31 53.8**	**-0.6**
	comp=Z,1.3nm,0.5s,baz=16,slow=12,SNR=15								
	comp=Z,1.3nm,0.5s								
ASAR	**Alice Springs**	**57.23**	**188**	P			**P**	**01 31 53.3**	**-1.0**
P29M	**Windy Craggy**	**57.48**	**37**	P			**P**	**01 31 55.1**	**-0.8**
P29M					IAmb		IAmb	01 32 13.3	
	comp=Z,12nm,1.1s								
H31M	**Peel River**	**57.83**	**29**	P			**P**	**01 31 58.8**	**+0.7**
H31M					IAmb		IAmb	01 31 59.5	
	comp=Z,4.7nm,1.0s								
ARTI	**Arti**	**58.95**	**320**	P			**P**	**01 32 05.1**	**-1.0**
ARTI					IAmb		IAmb	01 32 05.7	
	comp=Z,6.4nm,0.5s								
AB31	**Akbulak array**	**60.02**	**312**	P			**P**	**01 32 13.0**	**-0.5**
ABKAR	**Akbulak array**	**60.02**	**312**	P			**P**	**01 32 12.9**	**-0.7**
FORT	**Forrest**	**65.07**	**192**	P			**P**	**01 32 47.3**	**0.0**
FORT					IAmb		IAmb	01 33 04.5	
	comp=Z,9.6nm,1.1s								
BBOO	**Buckleboo**	**66.10**	**185**	P			**P**	**01 32 53.2**	**-0.6**
BBOO					IAmb		IAmb	01 32 56.2	
	comp=Z,6.3nm,1.1s								
KIV	**Kislovodsk**	**73.01**	**312**	P			**P**	**01 33 37.3**	**+0.5**
KIV					IAmb		IAmb	01 33 50.0	
	comp=Z,7.1nm,1.0s								
KVN	**Kaiserville**	**77.19**	**52**	P			**P**	**01 34 01.6**	**+0.6**
ILULI	**Ilulissat**	**77.23**	**4**	P			**P**	**01 33 58.9**	**-1.5**
TCW	**Tory Channel**	**80.38**	**155**	P			**P**	**01 34 18.6**	**+0.7**

NDI 17 01:27:26.2±1.1, 25°.66N×72°.72E, h23km±11km, ML3.4, MW3.7, Presumed earthquake, Northern India

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
AJM	**Ajmer**	**1.88**	**66**	*i* P			Pb	01 28 02.1	+2.3
AJM				*i* S			Sb	01 28 27.6	+4.6
JASL	**Jaisalmer**	**2.06**	**308**	*i* P			Pb	01 28 04.1	+1.1
JASL				*i* S			Sb	01 28 30.3	+2.1
BKNR	**BIKANER**	**2.41**	**12**	*i* P			Pb	01 28 09.5	+0.7
BKNR				*i* S			Sb	01 28 39.1	+1.0
BKNR				IAML				01 28 49.4	
	comp=N,715nm,0.5s								
BHUJ	**Bhuj**	**3.68**	**230**	*i* P			Pb	01 28 27.1	-3.4
BHUJ				*i* S			Sb	01 29 10.2	-4.5
BHUJ				IAML				01 29 17.4	
	comp=N,155nm,0.4s								
BHPL	**Bhopal**	**4.92**	**118**	*i* P			Pn	01 28 43.5	+4.8
BHPL				*i* S			Sn	01 29 39.2	+4.3
BHPL				IAML				01 29 48.2	
	comp=N,96nm,0.9s								
POO	**Poona**	**7.17**	**171**	*i* P			Pn	01 29 14.9	+5.1
POO				*i* S			Sn	01 30 32.6	+2.1

*BGR **17** 01:44:06.9, 3°.95S×99°.98E, h37km, mb5.8, Ms5.6*
*BJI **17** 01:44:07.2, 3°.24S×99°.27E, h36km, mB6.0/71, mb5.7/95, Ms6.1/99, Ms7 5.8/99*
*IDC **17** 01:44:07.4±0.3, 2°.73S×99°.22E, h0km, mb5.3/48, mbtmp5.3/49, ML5.1/2, MS5.4/72, Error ellipse: s-maj=10.7km s-min=6.9km az=59.0*
*GFZ **17** 01:44:09.4, 2°.79S×99°.27E, h29km, Mw5.9/164, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr=0.18; Mθθ=0.08; Mφφ=0.10; Mrθ=0.13; Mrφ=-0.91; Mθφ=-0.36; Fault plane solution: M₀ 1.00313×10¹⁸ NP1:φs89.43899°, δ68.67255°, λ179.32026°. NP2:φs179.68622°, δ89.36681°, λ21.32882°. Principal axes: T 1.0985, Plg15.3662°, Azm46.6002°; N -0.2311, Plg68.6622°, Azm181.3074°; P -0.8674, Plg14.4396°, Azm312.5425°;*
*DJA **17** 01:44:09.4±0.1, 3°.5S±1°×99°.6E±°, h10km, M5.9/174, mB6.3/161, mb6.0/174, MLv6.5/65, Mw5.9/172, Mw(mB)6.1/161, MwMwp5.7/130, Mwp5.8/130*
*MOS **17** 01:44:09.6±0.9, 2°.68S×99°.29E, h26km, mb6.0/88, MS5.4/53, Error ellipse: s-maj=6.9km s-min=3.7km az=113.9*
*IPGP **17** 01:44:09.0, 2°.70S×99°.31E, h4km, Mw6.0, Fault plane solution: NP1:φs359.00000°, δ90.00000°, λ-21.00000°. NP2:φs89.00000°, δ69.00000°, λ-180.00000°.*
*NEIC **17** 01:44:09.9, 2°.68S×99°.30E, h10km*
*PTWC **17** 01:44:09, 2°.80S×99°.30E, h10km, Mwp6.0/10*
*BKK **17** 01:44:11.1±1.3, 3°.S±3°×9°9E±°, h20km±8km, M5.7/67, mB6.1/61, mb5.6/67, Mjma6.3/9, ML6.6/2, MLv6.3/2, Mw(mB)5.8/61, MwMwp5.5/36, Mwp5.6/36*
*NEIC **17** 01:44:11.4±1.2, 2°.67S±0°.06×99°.32E±0°.07, h19km±1km, mb6.0/220, Ms_20 5.8/605, Mwb5.9/84, Mww6.0/37, Error ellipse: s-maj=13.4km s-min=9.0km az=237.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr=0.59; Mθθ=0.42; Mφφ1.01; Mrθ0.06; Mθφ-8.34; Mφr-1.94; Fault plane solution: M₀ 8.61000×10¹⁷ NP1:φs2.31000°, δ89.58000°, λ-13.08000°. NP2:φs92.41000°, δ76.92000°, λ-179.57000°. Principal axes: T 8.8952, Plg9.0000°, Azm48.0000°; N -0.6092, Plg77.0000°, Azm181.0000°; P -8.2860, Plg10.0000°, Azm317.0000°;*
*GFZ **17** 01:44:11.9±0.1, 3°.S±2°×9°9E±°, h27km±1km, M5.9/219, mB6.3/173, mb5.8/219, Mw(mB)6.0/173, MwMwp5.5/69, Mwp5.7/69 Error ellipse: s-maj=3.5km s-min=2.7km az=32.9, confirmed*
*NEIC **17** 01:44:11.4, 2°.67S×99°.32E, h19km*
*GCMT **17** 01:44:13.4±0.1, 2°.83S×99°.17E, h24km, MW6.0/167, Moment Tensor Solution. s163,c359; s167,c583; Duration: 2s4 Moment tensor: Scale 10¹⁸Nm; Mrr-0.13±.01; Mθθ0.02±.01; Mφφ0.10±.01; Mrθ-0.11±.01; Mθφ-1.09±.01; Mφr-0.31±.01; Best double couple: M₀ 1.14300×10¹⁸ NP1:φs92.00000°, δ73.00000°, λ-173.00000°. NP2:φs360.00000°, δ83.00000°, λ-17.00000°. Principal axes: T 1.1720, Plg7.0000°, Azm47.0000°; N -0.0590, Plg72.0000°, Azm158.0000°; P -1.1140, Plg17.0000°, Azm315.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*
*NEIC **17** 01:44:16.2, 3°.17S×99°.22E, h30km, Moment Tensor Solution. Duration: 5s2 Moment tensor: Scale 10¹⁸Nm; Mrr-0.05; Mθθ0.08; Mφφ-0.03; Mrθ-0.22; Mθφ-1.03; Mφr-0.59; Fault plane solution: M₀ 1.21000×10¹⁸ NP1: φs91.36000°, δ61.75000°, λ-170.96000°. NP2: φs357.06000°, δ82.04000°, λ-28.55000°. Principal axes: T 1.1139, Plg14.0000°, Azm47.0000°; N 0.1660, Plg60.0000°, Azm163.0000°; P -1.2800, Plg26.0000°, Azm311.0000°;*

ISC 17 01:44:12.0±0.3, 2°.73S±0°.03×99°.27E±0°.03, h31km±1km, h31km:pP-P, n1791, σ1s54/1563, mb5.8/503, MS5.8/438, 89C-104D, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SISI	**Saibi**	**1.40**	**352**	P			**Pn**	**01 44 34.9**	**-0.6**
SISI				S			**Sb**	**01 44 54.8**	**-0.3**
SISI	**Saibi**	**1.40**	**352**	⇓P			**Pn**	**01 44 34.9**	**-0.6**
KRJI	**Kerinci**	**2.28**	**74**	P			**Pn**	**01 44 47.4**	**-0.2**
KRJI				S			**Sn**	**01 45 15.3**	**+0.6**
KRJI				AML			AML		
PPI	**Padang Panjang**	**2.52**	**27**	P			**Pn**	**01 44 51.2**	**+0.3**
PPI				S			**Sn**	**01 45 22.0**	**+1.5**
PPI				AML			AML		
PBSI	**Pulau Batu**	**2.83**	**339**	P			**Pn**	**01 44 53.8**	**-1.4**
MASI	**Maura Aman, Be**	**2.99**	**98**	P			**Pn**	**01 44 57.3**	**-0.1**
MASI				AML			AML		
UBSI	**University, Be**	**3.17**	**109**	P			**Pn**	**01 44 59.0**	**-0.8**
UBSI				AML			AML		
KSI	**Kapahiang**	**3.44**	**106**	P			**Pn**	**01 45 03.5**	**-0.1**
KSI				AML			AML

BLSI Bandar Lampung 6.51 114 P **Pn 01 45 45.3 -0.5**
comp=Z,15nmcomp=Z,56µmcomp=Z,41µmcomp=Z,5µm,1.1s
BLSI AML AML
IPM Ipoh 7.37 14 Pn 01 45 56.4 -1.2
IPM Ipoh 7.37 14 P **Pn 01 45 58.4 +0.8**
IPM Ipoh 7.37 14 P **Pn 01 45 58.8 +1.2**
comp=Z,5.6nmcomp=Z,32µmcomp=Z,10µmcomp=Z,892nm,1.2s
IPM AML AML
IPM Ipoh 7.37 14 P **Pn 01 45 58.5 +0.8**
comp=Z,10µmcomp=Z,892nm,1.2s,comp=Z,32µmcomp=Z,10µm
CGJI Cibinong 7.47 121 P **Pn 01 45 56.0 -3.0**
MLSI Meulaboh, Aceh 7.51 338 P **Pn 01 45 58.1 -1.5**
comp=Z,15nmcomp=Z,17µmcomp=Z,1µm,1.1s
MLSI AML AML
SBJI Serang 7.62 116 P **Pn 01 45 59.7 -1.4**
comp=Z,11nmcomp=Z,59µmcomp=Z,31µmcomp=Z,3µm,1.0s
SBJI AML AML
KULM Kulim 8.08 10 Pn 01 46 06.5 -0.9
KULM Kulim 8.08 10 P **Pn 01 46 06.6 -0.8**
KULM Kulim 8.08 10 P **Pn 01 46 07.6 +0.2**
comp=Z,23µmcomp=Z,587nm,1.2s
KULM Kulim 8.08 10 P **Pn 01 46 06.6 -0.8**
comp=Z,22µmcomp=Z,7µmcomp=Z,336nm,1.4s
TNG Tangerang 8.11 115 P **Pn 01 46 08.1 +0.3**
TNG P **Pn 01 46 08.0 +0.3**
LHMI Lhok Sumawe 8.23 344 P **Pn 01 46 12.0 +2.5**
LHMI Lhok Sumawe 8.23 344 Pn **Pn 01 46 08.7 -0.8**
LHMI Lhok Sumawe 8.23 344 P **Pn 01 46 10.0 +0.5**
comp=Z,50µmcomp=Z,12µmcomp=Z,547nm,0.6s
LHMI Lhok Sumawe 8.23 344 P **Pn 01 46 11.5 +2.0**
comp=Z,11µmcomp=Z,547nm,0.6s,comp=Z,50µmcomp=Z,11µm
TPI Tanjungpandan 8.37 90 P **Pn 01 46 11.8 +0.4**
comp=Z,4.5nmcomp=Z,351nm,0.7s
TPI AML AML
SKJI Sukabumi 8.41 121 P **Pn 01 46 09.5 -2.4**
BSI Banda Aceh 9.08 334 P **Pn 01 46 18.8 -2.3**
comp=Z,19µmcomp=Z,2µm,1.0s
LEM Lembang 9.26 116 Pn **Pn 01 46 23.4 -0.3**
comp=Z,51nm,0.3s,baz=231,slow=7.2,SNR=209
LEM Sn **Sn 01 48 03.0 -3.9**
comp=Z,48nm,0.3s,baz=36,slow=23,SNR=1.2
LEM LR LR 01 50 33.8
comp=Z,47µm,19.5s,baz=278,slow=42
LEM AML AML
LEM Lembang 9.26 116 P **Pn 01 46 23.4 -0.3**
BBJI Bungbulang 9.58 120 P **Pn 01 46 25.5 -2.5**
BBJI Bungbulang 9.58 120 P **Pn 01 46 24.9 -3.2**
BBJI Bungbulang 9.58 120 P **Pn 01 46 24.8 -3.2**
comp=Z,26µmcomp=Z,3µm,0.9s,comp=Z,25µmcomp=Z,26µm
COCO West Island 9.71 194 P **Pn 01 46 26.4 -3.3**
COCO West Island 9.71 194 Pn 01 46 26.4 -3.3
COCO West Island 9.71 194 P **Pn 01 46 27.1 -2.6**
COCO West Island 9.71 194 P **Pn 01 46 29.8 +0.1**
comp=Z,17µmcomp=Z,6µmcomp=Z,524nm,1.0s
COCO West Island 9.71 194 P **Pn 01 46 26.3 -3.4**
comp=Z,34µmcomp=Z,1µmcomp=Z,1µm,1.0s,comp=Z,12µm
JCJI Jatiwangi 9.71 113 P **Pn 01 46 30.1 +0.3**
KPJI Karang Pucung 10.65 116 P **Pn 01 46 41.3 -1.3**
SCJI Gunung Srandil 11.01 117 P **Pn 01 46 45.4 -2.2**
comp=Z,25µmcomp=Z,9µmcomp=Z,1µm,1.1s
SMRI Semarang 11.93 112 P **Pn 01 46 59.3 -0.8**
SMRI Semarang 11.93 112 Pn 01 46 58.3 -1.8
SMRI Semarang 11.93 112 P **Pn 01 46 59.7 -0.4**
comp=Z,36µmcomp=Z,31µmcomp=Z,2µm,1.3s
SMRI Semarang 11.93 112 ⇓P **Pn 01 46 59.5 -0.6**
comp=Z,36µmcomp=Z,31µmcomp=Z,2µm,1.3s
RNTT Ranong 12.06 356 P **Pn 01 47 03.9 +2.0**
comp=Z,15nmcomp=Z,2µmcomp=Z,169nm,1.5s
YOGI Yogyakarta 12.08 115 P **Pn 01 47 00.1 -2.1**
UGM Wanagama 12.33 115 P **Pn 01 47 02.4 -3.2**
UGM Wanagama 12.33 115 Pn 01 47 02.4 -3.2
UGM Wanagama 12.33 115 P **Pn 01 47 02.8 -2.8**
UGM Wanagama 12.33 115 P **Pn 01 47 03.1 -2.5**
comp=Z,17µmcomp=Z,1µm,1.0s
UGM Wanagama 12.33 115 P **Pn 01 47 02.9 -2.8**
comp=Z,43µmcomp=Z,17µmcomp=Z,1µm,1.0s,comp=Z,17µm
WOJI Wonogiri, Jawa 12.66 114 P **Pn 01 47 07.5 -2.6**
comp=Z,38µmcomp=Z,20µmcomp=Z,2µm,1.3s
TBJI Tambak Boyo 13.17 108 P **Pn 01 47 17.8 +0.7**
comp=Z,24µmcomp=Z,23µmcomp=Z,882nm,0.9s
SJI Sawahan 13.40 112 P **Pn 01 47 18.2 -2.1**
SNJI Sawahan-Nganju 13.41 112 P **Pn 01 47 19.1 -1.4**
comp=Z,36µmcomp=Z,13µmcomp=Z,1µm,0.6s
GRJI Gresik 13.80 108 P **Pn 01 47 26.2 +0.5**
comp=Z,19µmcomp=Z,24µmcomp=Z,2µm,1.4s
BLJI Banyuglugur 15.11 110 P **Pn 01 47 42.2 -1.2**
comp=Z,22µmcomp=Z,9µmcomp=Z,458nm,1.2s
KMMI Kalianget 15.26 107 P **Pn 01 47 44.0 -1.4**
comp=Z,16µmcomp=Z,14µmcomp=Z,939nm,1.3s
PHET Kaeng Krachan 15.54 1 P **Pn 01 47 50.3 +1.2**
PBA Port Blair 15.69 336 P **Pn 01 47 52.7 +1.7**
PBA Port Blair 15.69 336 Pn Pn 01 47 50.1 -1.0
PBA Port Blair 15.69 336 P **P 01 47 54.7 -0.1**
PBA Port Blair 15.69 336 ⇓P **Pn 01 47 46.8 -4.3**
comp=Z,8µmcomp=Z,537nm,1.1s
ABJI Asem Bagus 15.72 109 P **Pn 01 47 51.3 -0.2**
comp=Z,19µmcomp=Z,16µmcomp=Z,1µm,0.9s
JAGI Jajag, Banyuwa 15.86 112 P **Pn 01 47 51.4 -1.9**
JAGI Jajag, Banyuwa 15.86 112 Pn 01 47 48.6 -4.7
JAGI Jajag, Banyuwa 15.86 112 P **Pn 01 47 49.0 -4.3**
JAGI Jajag, Banyuwa 15.86 112 P **Pn 01 47 49.1 -4.2**
comp=Z,21µmcomp=Z,7µmcomp=Z,284nm,0.8s
SRBI Singaraja 16.73 109 P **Pn 01 48 03.8 -0.6**
comp=Z,18µmcomp=Z,7µmcomp=Z,542nm,1.1s
IGBI Denpasar 16.91 112 P **Pn 01 48 03.8 -2.7**
comp=Z,6µmcomp=Z,492nm,1.1s
DNP Denpasar 16.92 111 P **P 01 48 08.2 -0.2**
comp=Z,40µmcomp=Z,651nm,1.1s
KHKI Kahang-Kahang 17.19 110 P **Pn 01 48 10.1 0.0**
comp=Z,225nm,0.9s
DLV Lat 17.21 32 P **Pn 01 48 09.0 -1.5**
comp=Z,10nmcomp=Z,368nm,1.7s
DLV Lat 17.21 32 Pn 01 48 09.7 -0.9
DLV Lat 17.21 32 ⇑P **Pn 01 48 09.6 -0.9**
comp=Z,38µmcomp=Z,364nm,1.8s
KHLT Khaolaem Dam 17.42 358 P **Pn 01 48 13.4 +0.5**
BKB Balikpapan 17.67 86 P **Pn 01 48 15.8 -0.3**
BKB Balikpapan 17.67 86 01 48 15.7 -0.4
BKB IAmb IAmb 01 48 23.9
comp=Z,2µm,1.9s
BKB Balikpapan 17.67 86 P **P 01 48 18.0 +1.2**
BKB Balikpapan 17.67 86 P **P 01 48 17.3 +0.5**
comp=Z,22µmcomp=Z,20µmcomp=Z,718nm,1.2s
BKB Balikpapan 17.67 86 ⇑P **P 01 48 16.8 0.0**
comp=Z,22µmcomp=Z,20µmcomp=Z,728nm,1.2s
TWSI Taliwang, Sumb 18.50 110 P **P 01 48 25.9 -0.1**
KKM Kota Kinabalu 19.03 63 P 01 48 31.3 -0.5
KKM Kota Kinabalu 19.03 63 P **Pn 01 48 32.4 -0.3**
KKM Kota Kinabalu 19.03 63 P **Pn 01 48 32.3 -0.5**
comp=Z,26µmcomp=Z,24µmcomp=Z,853nm,1.6s
KKM Kota Kinabalu 19.03 63 ⇑P **Pn 01 48 32.2 -0.5**
comp=Z,26µmcomp=Z,24µmcomp=Z,853nm,1.6s
PLAI Plampang 19.37 109 P **P 01 48 33.1 -2.4**
PLAI Plampang 19.37 109 P **P 01 48 32.8 -2.7**
comp=Z,12µmcomp=Z,6µmcomp=Z,269nm,0.6s
MMSI Mamuju 19.61 90 P **P 01 48 38.5 +0.3**
comp=Z,15µmcomp=Z,8µmcomp=Z,360nm,1.1s
PMSI Majene 19.63 93 P **Pn 01 48 39.9 0.0**
comp=Z,18µmcomp=Z,16µmcomp=Z,836nm,1.1s
UTTA Uttaradit 20.38 4 P Pn 01 48 48.4 -0.2
comp=Z,226nm,0.9s
TTSI Tana Toraja 20.52 91 P **P 01 48 48.4 +0.4**
comp=Z,16µmcomp=Z,14µmcomp=Z,1µm,1.4s
KAPI Kappang 20.56 97 P **P 01 48 47.8 -0.6**
comp=Z,34nm,0.5s,baz=292,slow=5.7,SNR=26
KAPI S **S 01 52 32.4 -4.5**
comp=Z,5.6nm,0.6s,baz=60,slow=20,SNR=0.8
KAPI LR LR 01 57 01.3
comp=Z,10µm,21.9s,baz=270,slow=38
comp=Z,34nm,0.5s
KAPI Kappang 20.56 97 P **P 01 48 47.8 -0.6**
KAPI Kappang 20.56 97 P **P 01 48 47.9 -0.6**
KAPI pmax pmax
comp=Z,976nm,1.3s
KAPI MLR MLR
comp=Z,14µm,21.0s
KAPI Kappang 20.56 97 P 01 48 47.9 -0.6
KAPI IAmb IAmb 01 48 59.5
comp=Z,976nm,1.2s
KAPI Kappang 20.56 97 P **P 01 48 47.8 -0.6**
comp=Z,421nm,1.2s
KAPI Kappang 20.56 97 ⇑P **P 01 48 47.3 -1.1**
comp=Z,10µmcomp=Z,808nm,1.2s
PCI Palu 20.63 85 P **P 01 48 49.8 +0.6**
comp=Z,17µmcomp=Z,17µmcomp=Z,1µm,1.4s
BKSI Bulukumba 20.96 98 P **P 01 48 52.0 -0.7**
comp=Z,9µmcomp=Z,13µmcomp=Z,1µm,1.1s
PALK Pallekele 21.03 298 P **P 01 48 55.0 +1.5**
comp=Z,492nm,1.0s,baz=114,slow=9.5,SNR=65
PALK S **S 01 52 37.8 -8.6**
comp=Z,12nm,0.8s,baz=194,slow=23,SNR=1.3
PALK LR LR 01 55 23.8
comp=Z,16µm,21.6s,baz=121,slow=32
PALK Pallekele 21.03 298 *i* P **P 01 48 55.5 +2.0**
SNR=93
PALK Pallekele 21.03 298 P **P 01 48 55.7 +2.2**
PALK Pallekele 21.03 298 P **P 01 48 53.3 -0.3**
PALK pmax pmax
comp=Z,1µm,1.2s
PALK MLR MLR
comp=Z,17µm,20.0s
PALK Pallekele 21.03 298 P **P 01 48 53.3 -0.3**
PALK Pallekele 21.03 298 P **P 01 48 55.7 +2.2**
PALK Pallekele 21.03 298 P **P 01 48 55.3 +1.7**
comp=Z,19µmcomp=Z,13µmcomp=Z,484nm,1.2s
PALK Pallekele 21.03 298 ⇓P **P 01 48 55.2 +1.7**
comp=Z,19µmcomp=Z,13µmcomp=Z,970nm,1.2s
CM31 Chiang Mai Arr 21.05 359 P **P 01 48 55.5 +1.8**
SNR=155
CM31 Chiang Mai Arr 21.05 359 P **P 01 48 51.6 -2.1**
CM31 IAmb IAmb 01 48 57.0
comp=Z,536nm,1.1s
CMAR Chiang Mai Arr 21.05 359 P **P 01 48 54.1 +0.4**
comp=Z,206nm,0.9s,baz=189,slow=8.8,SNR=318
CMAR S **S 01 52 48.5 +1.9**
comp=Z,7.1nm,1.1s,baz=187,slow=15,SNR=1.5
CMAR LR LR 01 58 20.9
comp=Z,10µm,19.1s,baz=200,slow=40
comp=Z,206nm,0.9s
CMAR Chiang Mai Arr 21.05 359 P **P 01 48 53.0 -0.7**
LAMP Lampang 21.12 1 P **P 01 48 53.7 -0.7**
comp=Z,9µmcomp=Z,748nm,1.3s
CHTO Chiang Mai 21.41 359 P **P 01 48 56.8 -0.7**
comp=Z,4µmcomp=Z,4µmcomp=Z,264nm,1.1s
CHTO Chiang Mai 21.41 359 P **P 01 48 58.9 +1.4**
CHTO Chiang Mai 21.41 359 P **P 01 48 56.6 -0.9**
CHTO pmax pmax
comp=Z,212nm,1.0s
CHTO MLR MLR
comp=Z,10µm,21.0s
CHTO Chiang Mai 21.41 359 P 01 48 56.6 -0.9
CHTO Chiang Mai 21.41 359 P **P 01 48 58.1 +0.6**
comp=Z,266nm,1.1s
CHTO Chiang Mai 21.41 359 ⇑P **P 01 48 56.8 -0.7**
comp=Z,4µmcomp=Z,4µmcomp=Z,264nm,1.1s
BSSI Bau Bau, Buton 21.42 100 P **P 01 48 59.3 +1.6**
comp=Z,9µmcomp=Z,8µmcomp=Z,547nm,1.5s
MALK Mahakanadarawa 21.70 301 P **P 01 49 02.0 +1.3**
MALK S Sn 01 53 12.8 +3.4
MALK Mahakanadarawa 21.70 301 P **P 01 49 03.1 +2.4**
MALK Mahakanadarawa 21.70 301 ⇓P **P 01 49 02.3 +1.6**
comp=Z,15µmcomp=Z,12µmcomp=Z,670nm,1.8s
TOLI2 Tolitoli 21.84 80 P **P 01 49 01.9 -0.3**
TOLI2 Tolitoli 21.84 80 P 01 49 01.6 -0.6
TOLI2 Tolitoli 21.84 80 P **P 01 49 01.6 -0.6**
TOLI2 Tolitoli 21.84 80 ⇑P **P 01 49 01.6 -0.6**
comp=Z,10µmcomp=Z,10µmcomp=Z,922nm,1.3s
WSI Waingapu 22.00 109 P **P 01 49 04.7 +0.8**
comp=Z,11µmcomp=Z,15µmcomp=Z,1µm,0.9s
KKSI Kolaka, Sulawe 22.38 94 P **P 01 49 09.5 +1.4**
comp=Z,7µmcomp=Z,10µmcomp=Z,737nm,1.2s
APSI Ampana 22.44 86 P **P 01 49 09.0 +0.4**
comp=Z,17µmcomp=Z,1µm,1.4s
NPW Naypyitaw 22.57 352 ⇓P **P 01 49 10.8 +0.8**
comp=Z,4µmcomp=Z,7µmcomp=Z,558nm,1.2s
PPR Puerto Princes 23.02 57 *i* P **P 01 49 14.5 -0.3**
EDFI Ende, Flores 23.08 106 P **P 01 49 14.0 -1.5**
KDI Kendari 23.34 94 P **P 01 49 17.9 -0.1**
comp=Z,8µmcomp=Z,21µmcomp=Z,318nm,1.1s
BBSI Bau Bau 23.40 97 P **P 01 49 18.9 +0.3**
comp=Z,9µmcomp=Z,11µmcomp=Z,623nm,1.1s
LUWI Luwuk 23.54 86 P **P 01 49 18.7 -1.3**
LUWI S **S 01 53 34.9 +2.6**
LUWI Luwuk 23.54 86 P **P 01 49 20.4 +0.4**
LUWI Luwuk 23.54 86 P **P 01 49 19.9 -0.1**
LUWI Luwuk 23.54 86 P **P 01 49 19.6 -0.4**
comp=Z,9µmcomp=Z,13µmcomp=Z,913nm,1.3s
LUWI Luwuk 23.54 86 ⇑P **P 01 49 18.8 -1.2**
comp=Z,9µmcomp=Z,13µmcomp=Z,912nm,1.3s
MMRI Maumere 23.58 105 P **P 01 49 19.6 -0.8**
MMRI Maumere 23.58 105 P **P 01 49 18.4 -2.0**
comp=Z,6µmcomp=Z,279nm,1.0s
MMRI Maumere 23.58 105 P **P 01 49 17.8 -2.6**
comp=Z,6µmcomp=Z,4µmcomp=Z,276nm,1.0s,comp=Z,4µm
GTOI Gorontalo 23.96 82 P **P 01 49 21.8 -2.2**
comp=Z,9µmcomp=Z,566nm,1.5s
QIZ Qiongzhong 23.99 25 P **P 01 49 24.6 +0.5**
QIZ S **S 01 53 40.4 +1.2**
QIZ pmax pmax
comp=Z,460nm,1.6s
QIZ pmax pmax
comp=Z,6µm,3.8s
QIZ L L
comp=Z,12µm,21.3s
QIZ L L
comp=Z,30µm,20.5s
QIZ L L
comp=Z,17µm,16.4s
QIZ Qiongzhong 23.99 25 P **P 01 49 23.4 -0.7**
QIZ Qiongzhong 23.99 25 ⇑P **P 01 49 24.2 +0.1**
comp=Z,10µmcomp=Z,10µmcomp=Z,442nm,1.3s
SLVN Son La 24.34 11 P **P 01 49 27.3 -0.1**
SLVN Son La 24.34 11 ⇑P **P 01 49 27.2 -0.1**
comp=Z,5µmcomp=Z,6µmcomp=Z,204nm,2.5s
GIRL Giralia 24.55 145 P **P 01 49 31.6 +2.4**
comp=Z,375nm,1.4s,comp=Z,0.0nm
GIRL Giralia 24.55 145 P **P 01 49 31.4 +2.2**
comp=Z,375nm,1.4s,comp=Z,0.0nm
GIRL Giralia 24.55 145 P 01 49 27.9 -1.3
MDRS Chennai 24.55 310 *i* P P 01 49 21.1 -8.2
KMSI Cibinong 24.92 83 P **P 01 49 33.9 +1.2**
comp=Z,6µmcomp=Z,19µmcomp=Z,902nm,0.9s
BATI Baumata 25.33 108 S **S 01 53 56.4 -4.7**
comp=Z,55nm,0.5s,baz=295,slow=24,SNR=7.7
BATI LR LR 02 02 47.8
comp=Z,19µm,18.1s,baz=314,slow=44
BATI Baumata 25.33 108 P **P 01 49 35.4 -1.1**
comp=Z,6µmcomp=Z,5µmcomp=Z,287nm,0.9s
SOEI Soe 25.79 107 P **P 01 49 35.8 -4.9**
SOEI S **S 01 53 58.6 -10**
SOEI Soe 25.79 107 P **P 01 49 40.5 -0.3**
SOEI Soe 25.79 107 P **P 01 49 39.0 -1.8**
SOEI IAmb IAmb 01 50 05.6
comp=Z,344nm,0.8s
SOEI IAMs_20 IAMs_20 02 01 40.1
comp=Z,29µm,22.0s
SOEI Soe 25.79 107 P **P 01 49 37.0 -3.7**
comp=Z,9µmcomp=Z,5µmcomp=Z,454nm,1.0s
MNI Manado 25.89 81 P **P 01 49 43.6 +2.0**
comp=Z,21µmcomp=Z,1µm,0.9s
BRDH Bariadhala 26.32 344 LR LR 02 01 51.4
comp=Z,25µm,20.6s,baz=162,slow=40
BWNR Bhubaneshwar 26.38 331 *i* P **P 01 49 45.7 -0.1**
VJD Vijayawada 26.54 317 *i* P **P 01 49 45.6 -1.7**
SANI Sanana 26.70 89 P **P 01 49 46.8 -2.1**
SANI S **S 01 54 16.9 -5.8**
SANI Sanana 26.70 89 P **P 01 49 48.6 -0.3**
SANI Sanana 26.70 89 P **P 01 49 47.8 -1.1**
comp=Z,6µmcomp=Z,3µmcomp=Z,176nm,1.2s
SANI Sanana 26.70 89 ⇑P **P 01 49 47.3 -1.5**
comp=Z,6µmcomp=Z,3µmcomp=Z,176nm,1.2s
RAGD RAYAGADA 26.81 325 *i* P **P 01 49 48.6 -1.1**
MBWA Marble Bar 27.06 134 P **P 01 49 52.7 +0.6**
comp=Z,172nm,1.2s,comp=Z,0.0nm
MBWA Marble Bar 27.06 134 P **P 01 49 52.1 0.0**
comp=Z,172nm,1.2s,comp=Z,0.0nm
MBWA Marble Bar 27.06 134 P **P 01 49 52.2 +0.2**
MBWA Marble Bar 27.06 134 P **P 01 49 52.2 +0.2**
MBWA Marble Bar 27.06 134 P **P 01 49 52.1 0.0**
comp=Z,8µmcomp=Z,3µmcomp=Z,172nm,1.2s
AZL Aizawl 27.07 347 *i* P **P 01 49 49.0 -3.2**
AZL IAmb IAmb 01 50 20.3
comp=Z,1µm,1.5s
H08S2 Diego Garcia H 27.11 259 T T 02 18 17.5
baz=80,slow=75,SNR=5351
H08S3 Diego Garcia H 27.11 259 T T 02 18 28.2
baz=80,slow=75,SNR=5757
H08S1 Diego Garcia H 27.12 259 T T 02 18 24.0
baz=80,slow=75,SNR=6483
MORE Moreh 27.23 350 P **P 01 49 52.8 -0.7**
TBP Tagbilaran 27.43 63 *i* P **P 01 49 55.2 -0.2**
KCP Kidapawan 27.52 69 *e*P **P 01 49 57.1 +0.8**

AGT Agartala 27.58 344 *i* P **P 01 49 53.7 -2.9**
AGT IAmb IAmb 01 50 18.6
comp=Z,700nm,1.1s
TNCH TengChong 27.60 359 P **P 01 49 59.3 +2.3**
TNCH S **S 01 54 38.5 +1.7**
TNCH sS sS 01 54 52.9 +2.0
TNCH pmax pmax
comp=Z,100nm,0.9s
TNCH L L
comp=Z,13µm,11.2s
TNCH L L
comp=Z,16µm,15.2s
TNCH L L
comp=Z,23µm,14.3s
LQP Lukban 27.70 52 *e*P **P 01 49 57.9 -0.1**
LLP Lapu-Lapu 27.79 62 *e*P **P 01 49 58.3 -0.3**
LLP *e*S **S 01 54 38.3 -1.5**
NLAI Namlea 27.79 92 P **P 01 50 00.5 +1.8**
comp=Z,5µmcomp=Z,3µmcomp=Z,179nm,0.9s
IMP Imphal 27.88 350 *i* P **P 01 49 54.3 -5.0**
IMP IAMs_20 IAMs_20 02 03 37.0
comp=N,21µm,16.2s
KMI2 Kunming 27.91 7 ⇑P **P 01 50 01.5 +1.7**
KMI2 sP sP 01 50 12.5 +1.2
KMI2 S **S 01 54 39.6 -2.3**
KMI2 pmax pmax
comp=N,110nm,1.4s
KMI2 pmax pmax
comp=N,2µm,5.4s
KMI2 L L
comp=N,5µm,18.7s
KMI2 L L
comp=N,29µm,23.1s
KMI2 L L
comp=N,10µm,18.5s
DAV Davao City (W) 28.00 70 LR LR 02 02 18.5
comp=N,9µm,21.8s,baz=230,slow=39
DAV Davao City (W) 28.00 70 P **P 01 49 58.0 -2.5**
SILR SILCHAR 28.05 347 *i* P **P 01 49 56.3 -4.5**
SILR IAML 01 50 30.7
comp=Z,532nm,1.1s
TNTI Ternate 28.30 83 P **P 01 50 02.8 -0.4**
TNTI Ternate 28.30 83 P **P 01 50 01.9 -1.3**
TNTI Ternate 28.30 83 P **P 01 50 00.6 -2.6**
comp=Z,2µmcomp=Z,3µmcomp=Z,81nm,1.3s
HYB Hyderabad 28.61 315 *e*P **P 01 50 06.7 +0.8**
HYB IVmBBB 01 50 07.4
comp=Z,3µm,2.6s
HYB *e*pP **pP 01 50 12.2 -1.7**
HYB *e*PcP **PcP 01 53 18.6 +1.8**
HYB *e*S **S 01 54 54.6 +2.0**
HYB IVMs_BB IVMs_BB 02 00 05.6
comp=Z,3µm,19.7s
HYB Hyderabad 28.61 315 *i* P **P 01 50 02.7 -3.2**
KOHI KOHIMA 28.72 350 *i* P P 01 50 01.2 -5.7
KOHI IAmb IAmb 01 50 15.6
comp=Z,552nm,1.2s
KOHI IAMs_20 IAMs_20 02 03 15.6
comp=N,21µm,22.6s
GAMI Galela, Maluku 28.86 81 P **P 01 50 08.9 +0.7**
comp=N,3µmcomp=N,190nm,1.1s
SZP Santa 29.02 45 P **P 01 50 09.1 -0.5**
SZP Santa 29.02 45 P **P 01 50 10.6 +1.1**
comp=Z,13µmcomp=Z,723nm,1.0s
PLP Palo 29.06 61 *e*P **P 01 50 09.5 -0.5**
PZH PanZhiHua 29.16 5 P **P 01 50 11.6 +0.8**
PZH S **S 01 55 00.6 -0.6**
PZH SS **SnSn 01 56 35.8 +8.5**
PZH pmax pmax
comp=Z,40nm,1.5s
PZH pmax pmax
comp=Z,510nm,4.3s
PZH L L
comp=Z,10µm,21.1s
PZH L L
comp=Z,20µm,19.2s
PZH L L
comp=Z,8µm,17.5s
BOK Bokaro 29.41 334 *i* P **P 01 50 10.1 -2.8**
GZH2 Guangzhou 29.72 27 P **P 01 50 16.6 +0.9**
GZH2 sP **pwP 01 50 26.1 -0.9**
GZH2 PP **PP 01 51 20.6 -2.6**
GZH2 S **S 01 55 11.5 +1.5**
GZH2 pmax pmax
comp=Z,110nm,1.3s
GZH2 pmax pmax
comp=Z,2µm,4.4s
GZH2 L L
comp=Z,14µm,19.0s
GZH2 L L
comp=Z,26µm,18.4s
GZH2 L L
comp=Z,29µm,16.2s
TEZP TEZPUR 29.83 348 *i* P P 01 50 10.5 -6.1
TEZP *i* P P 01 50 11.0 -5.6
TEZP IAmb IAmb 01 50 52.2
comp=N,191nm,0.3s
GULI GuiLin 29.86 20 P **P 01 50 19.8 +3.0**
GULI sP **pwP 01 50 31.0 +2.0**
GULI S **S 01 55 13.0 +1.0**
GULI pmax pmax
comp=N,86nm,1.5s
GULI L L
comp=N,12µm,16.8s
GULI L L
comp=N,8µm,13.6s
GULI L L
comp=N,16µm,19.5s
GYA Guiyang 29.88 13 ⇑P **P 01 50 17.8 +0.6**
GYA S **S 01 55 11.1 -1.5**
GYA pmax pmax
comp=N,130nm,1.0s
GYA pmax pmax
comp=N,1µm,3.5s
GYA L L
comp=N,9µm,15.2s
GYA L L
comp=N,25µm,14.8s
GYA L L
comp=N,16µm,20.7s
FITZ Fitzroy Crossi 30.02 122 P **P 01 50 18.3 -0.2**
comp=Z,35nm,0.9s
FITZ Fitzroy Crossi 30.02 122 P **P 01 50 18.1 -0.4**
comp=Z,35nm,0.9s
FITZ Fitzroy Crossi 30.02 122 S **S 01 55 16.9 +2.1**
comp=Z,31nm,1.2s,baz=325,slow=20,SNR=3.5
FITZ LR LR 02 03 47.4
comp=Z,10µm,20.1s,baz=336,slow=39
FITZ Fitzroy Crossi 30.02 122 P **P 01 50 17.9 -0.5**
FITZ Fitzroy Crossi 30.02 122 P **P 01 50 18.2 -0.3**
comp=Z,964nmcomp=Z,707nmcomp=Z,35nm,0.9s
MEEK Meekatharra 30.16 144 P **P 01 50 19.8 +0.3**
comp=Z,310nm,1.6s
MEEK Meekatharra 30.16 144 P **P 01 50 19.6 +0.1**
comp=Z,309nm,1.6s
MEEK Meekatharra 30.16 144 P **P 01 50 19.8 +0.3**
comp=Z,4µmcomp=Z,310nm,1.6s
JMUI Jamui 30.27 336 *i* P **P 01 50 17.6 -2.9**
COBR COOCHBEHAR 30.37 342 *i* P **P 01 50 16.6 -4.8**
ZIRO ZIRO 30.53 350 *i* P P 01 50 15.6 -7.4
GAYA Gaya 30.57 334 *i* P P 01 50 16.7 -6.5
MORW Morawa 30.67 150 P **P 01 50 24.9 +0.8**
comp=Z,146nm,1.5s
MORW Morawa 30.67 150 P **P 01 50 24.9 +0.8**
comp=Z,146nm,1.5s
MORW Morawa 30.67 150 P **P 01 50 24.6 +0.5**
MORW IAmb IAmb 01 50 37.8
comp=Z,303nm,1.4s
MORW Morawa 30.67 150 P **P 01 50 24.4 +0.4**
comp=Z,145nm,1.5s
LATR Latur 30.70 314 *i* P **P 01 50 20.0 -4.5**
PASG PASIGHAT 30.84 353 *i* P P 01 50 18.6 -7.0
PASG IAML 01 51 25.1
comp=Z,309nm,1.6s
NGP Nagpur 30.92 321 *i* P **P 01 50 21.8 -4.6**
KNRA Kununurra 31.76 116 P **P 01 50 33.8 -0.1**
comp=Z,63nm,1.0s
KNRA Kununurra 31.76 116 P **P 01 50 33.0 -0.8**
comp=Z,63nm,1.0s
KNRA Kununurra 31.76 116 P **P 01 50 33.7 -0.1**
AKL Akola 31.91 318 *i* P P 01 50 30.0 -5.0
SIJI Sorong 32.03 87 LR LR 02 05 55.9
comp=Z,3µm,21.1s,baz=267,slow=41
SIJI Sorong 32.03 87 P **P 01 50 35.1 -1.1**
comp=Z,3µmcomp=Z,347nm,1.2s
BLDU Ballidu 32.27 151 P **P 01 50 38.8 +0.6**

comp=Z,124nm,1.7s
BLDU Ballidu 32.27 151 P **P** 01 50 38.9 +0.8
comp=Z,124nm,1.7s
POO Poona 32.75 311 *i* P P 01 50 36.6 -5.9
EVN Everest 32.78 339 P **P** **01 50 42.4 -0.9**
EVN Everest 32.78 339 P **P** **01 50 44.9 +1.6**
comp=Z,2µmcomp=Z,56nm,1.1s
KNMB Chin-men Tao 32.80 33 P **P** **01 50 42.4 -0.4**
KNMB IAMs_20 IAMs_20 02 04 21.7
comp=Z,19µm,20.0s
KNMB Chin-men Tao 32.80 33 P **P** **01 50 43.5 +0.8**
comp=Z,4µmcomp=Z,6µmcomp=Z,321nm,1.3s
FAKI Fak Fak 32.94 91 P **P** **01 50 43.7 -0.5**
FAKI Fak Fak 32.94 91 P **P** **01 50 41.9 -2.3**
FAKI IAmb IAmb 01 51 01.0
comp=Z,293nm,1.3s
FAKI Fak Fak 32.94 91 P **P** **01 50 43.1 -1.1**
comp=Z,4µmcomp=Z,172nm,1.2s
FAKI Fak Fak 32.94 91 P **P** **01 50 42.6 -1.6**
comp=Z,2µmcomp=Z,172nm,1.4s
MTN Manton Dam 33.08 109 P **P** **01 50 45.2 -0.2**
comp=Z,45nm,1.3s,comp=Z,0.0nm
MTN Manton Dam 33.08 109 P **P** **01 50 44.0 -1.4**
comp=Z,45nm,1.3s,comp=Z,0.0nm
MTN Manton Dam 33.08 109 P **P** **01 50 44.6 -0.8**
TWG Pinlang 33.12 39 P **P** **01 50 45.5 -0.2**
TWG Pinlang 33.12 39 P **P** **01 50 46.1 +0.5**
comp=Z,8µmcomp=Z,8µmcomp=Z,228nm,2.8s
LSA Lhasa 33.17 347 *i* P **P** **01 50 47.8 +1.4**
SNR=12
LSA Lhasa 33.17 347 P **P** **01 50 43.5 -3.0**
LSA S **S** **01 56 00.0 -4.6**
LSA pmax pmax
comp=Z,90nm,1.1s
LSA L L
comp=Z,5µm,20.1s
LSA L L
comp=Z,6µm,19.6s
LSA L L
comp=Z,6µm,21.5s
LSA Lhasa 33.17 347 P **P** **01 50 45.9 -0.6**
LSA pmax pmax
comp=Z,341nm,1.3s
LSA MLR MLR
comp=Z,6µm,21.0s
LSA Lhasa 33.17 347 P **P** **01 50 45.9 -0.6**
LSA IAmb IAmb 01 51 07.2
comp=Z,341nm,1.3s
LSA Lhasa 33.17 347 P **P** **01 50 47.7 +1.2**
comp=Z,2µmcomp=Z,233nm,1.3s
TPUB Ta-pu 33.20 38 P **P** **01 50 46.3 -0.1**
TPUB Ta-pu 33.20 38 P **P** **01 50 46.2 -0.2**
comp=Z,6µmcomp=Z,7µmcomp=Z,487nm,1.3s
QZH2 Quanzhou 33.29 33 ⇑*i* P **P** **01 50 47.3 +0.2**
QZH2 sP **pwP** **01 50 57.3 -1.2**
QZH2 S **S** **01 56 04.3 -1.4**
QZH2 pmax pmax
comp=Z,120nm,1.7s
QZH2 pmax pmax
comp=Z,2µm,3.0s
QZH2 L L
comp=Z,23µm,17.2s
QZH2 L L
comp=Z,15µm,16.5s
QZH2 L L
comp=Z,24µm,18.9s
CNSH ChangSha 33.42 22 P **P** **01 50 48.9 +0.8**
CNSH S **S** **01 56 08.1 +0.5**
CNSH pmax pmax
comp=Z,120nm,1.4s
CNSH L L
comp=Z,14µm,14.1s
CNSH L L
comp=Z,21µm,17.3s
CNSH L L
comp=Z,18µm,16.8s
BHPL Bhopal 33.46 322 *i* P P 01 50 42.3 -6.3
KLBR Kellerberrin 33.58 151 P **P** **01 50 49.8 +0.3**
comp=Z,248nm,1.4s
KLBR Kellerberrin 33.58 151 P **P** **01 50 49.7 +0.1**
comp=Z,248nm,1.4s
KLBR Kellerberrin 33.58 151 P **P** **01 50 49.5 -0.1**
comp=Z,2µmcomp=Z,248nm,1.4s
YULB Yu-li 33.68 38 P **P** **01 50 50.1 -0.4**
YULB IAmb IAmb 01 51 08.9
comp=Z,159nm,1.0s
YULB Yu-li 33.68 38 P **P** **01 50 52.3 +1.8**
comp=Z,7µmcomp=Z,6µmcomp=Z,188nm,1.6s
CD2 Chengdu 33.72 7 ⇑P **P** **01 50 51.0 +0.2**
CD2 PP **PP** **01 52 07.8 +0.3**
CD2 S **S** **01 56 10.3 -2.0**
CD2 pmax pmax
comp=Z,80nm,0.9s
CD2 pmax pmax
comp=Z,1µm,5.3s
CD2 L L
comp=Z,16µm,18.1s
CD2 L L
comp=Z,58µm,24.5s
CD2 L L
comp=Z,13µm,12.8s
SSLB Suanglung 33.76 38 P **P** **01 50 51.0 -0.2**
SSLB Suanglung 33.76 38 P **P** **01 50 52.3 +1.1**
comp=Z,5µmcomp=Z,6µmcomp=Z,265nm,1.6s
ENH Enshi 34.23 16 P **P** **01 50 55.0 -0.2**
ENH Enshi 34.23 16 P **P** **01 50 55.3 +0.1**
comp=Z,4µmcomp=Z,271nm,1.5s
LKN LUCKNOW 34.28 330 *i* P P 01 50 48.9 -6.7
KDU Kakadu 34.31 109 P **P** **01 50 54.2 -1.9**
comp=Z,57nm,1.5s
KDU Kakadu 34.31 109 P **P** **01 50 54.2 -1.9**
comp=Z,57nm,1.5s
KMPI Kaimana, Papua 34.39 92 P **P** **01 50 56.6 -0.2**
comp=Z,2µmcomp=Z,208nm,1.0s
JHNI Jhansi 34.44 326 *i* P P 01 50 45.9 -11
NACB Ninganchiao 34.44 38 P **P** **01 50 56.5 -0.5**
NACB IAmb IAmb 01 51 12.0
comp=Z,222nm,1.0s
NACB Ninganchiao 34.44 38 P **P** **01 50 56.9 -0.2**
comp=Z,4µmcomp=Z,4µmcomp=Z,239nm,0.9s
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.5 +0.5**
comp=Z,627nm,1.3s
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.5 +0.5**
comp=Z,382nm,1.3s
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.3 +0.3**
comp=Z,627nm,1.3s
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.3 +0.3**
comp=Z,382nm,1.3s
NWAO Narrogin (SRO) 34.44 153 LR LR 02 03 02.5
comp=Z,13µm,21.0s,baz=326,slow=33
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.3 +0.3**
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.3 +0.3**
NWAO pmax pmax
comp=Z,723nm,1.4s
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.3 +0.3**
NWAO Narrogin (SRO) 34.44 153 P **P** **01 50 57.6 +0.6**
comp=Z,5µmcomp=Z,367nm,1.3s
YHNB Yeheng 34.68 37 P **P** **01 50 58.5 -0.7**
YHNB IAmb IAmb 01 51 16.7
comp=Z,251nm,1.1s
YHNB IAMs_20 IAMs_20 02 07 13.6
comp=Z,13µm,19.0s
YHNB Yeheng 34.68 37 P **P** **01 50 59.0 -0.2**
comp=Z,4µmcomp=Z,6µmcomp=Z,214nm,1.0s
H01W3 Cape Leeuwin H 34.85 158 T T 02 28 07.3
baz=335,slow=76,SNR=954
H01W2 Cape Leeuwin H 34.87 158 T T 02 27 59.7
baz=335,slow=76,SNR=2159
H01W1 Cape Leeuwin H 34.87 158 T T 02 27 57.6
baz=335,slow=76,SNR=1504
TATO Taipei 34.97 37 P **P** **01 51 04.1 +2.5**
TATO Taipei 34.97 37 P **P** **01 51 01.0 -0.7**
comp=Z,6µmcomp=Z,226nm,0.9s
YOJ Yonaguni jima 35.53 39 IAmb IAmb 01 51 25.5
comp=Z,313nm,1.2s
YOJ Yonaguni jima 35.53 39 P **P** **01 51 07.5 +1.0**
comp=Z,5µmcomp=Z,7µmcomp=Z,236nm,1.3s
KMBL Kambalda 35.59 146 P **P** **01 51 07.3 +0.4**
comp=Z,169nm,1.6s
KMBL Kambalda 35.59 146 P **P** **01 51 07.2 +0.3**
comp=Z,169nm,1.5s
WRKA Warakurna 35.69 131 P **P** **01 51 08.2 +0.2**
comp=Z,48nm,1.9s
RKGY Rocky Gully 35.75 155 P **P** **01 51 09.7 +1.4**
comp=Z,107nm,1.5s
RKGY Rocky Gully 35.75 155 P **P** **01 51 09.4 +1.2**
comp=Z,107nm,1.5s

BHV Bhavnagar 35.99 314 *i* P P 01 51 02.1 -8.4
WHN Wuhan 36.08 22 ⇑P **P** **01 51 12.1 +1.0**
WHN sP **sP** **01 51 22.8 +0.3**
WHN PP **PP** **01 52 40.4 +6.9**
WHN S **S** **01 56 49.3 +0.8**
WHN pmax pmax
comp=Z,1µm,1.4s
WHN pmax pmax
comp=Z,4µm,4.4s
WHN L L
comp=Z,36µm,11.9s
WHN L L
comp=Z,91µm,18.6s
UDPR Udaipur 36.79 319 *i* P P 01 51 09.0 -8.3
BAKI Biak 36.84 88 P **P** **01 51 17.4 -0.5**
comp=Z,136nm,1.1s
PTH Pithoragarh 36.95 332 *i* P P 01 51 09.5 -9.3
AJM Ajmer 37.51 322 *i* P P 01 51 15.1 -8.3
AYAN Aya Nagar 37.62 327 *i* P P 01 51 15.1 -9.2
LDR Lodi Road 37.65 327 *i* P P 01 51 15.1 -9.5
XAN Xi'an 37.68 13 ⇓P **P** **01 51 24.5 -0.3**
XAN S **S** **01 57 18.1 +5.1**
XAN SS **SS** **01 59 59.8 +0.5**
XAN pmax pmax
comp=Z,240nm,1.1s
XAN pmax pmax
comp=Z,2µm,4.0s
XAN L L
comp=Z,13µm,18.6s
XAN L L
comp=Z,10µm,21.3s
KUDL Kundal 37.71 326 *i* P P 01 51 13.5 -11
NDI New Delhi 37.73 327 *i* P P 01 51 15.3 -10
JOSI Joshimath 38.07 332 *i* P P 01 51 19.2 -9.1
WB0 Warramunga Arr 38.25 119 IAmb IAmb 01 51 47.4
comp=Z,183nm,0.8s
WRA Warramunga Arr 38.26 119 P **P** **01 51 29.4 -0.5**
comp=Z,46nm,0.8s,baz=296,slow=9.3,SNR=115
WRA S **S** **01 57 22.3 +0.1**
comp=Z,98nm,1.2s,baz=291,slow=14,SNR=24
WRA LR LR 02 09 46.0
comp=Z,4µm,19.9s,baz=296,slow=40
comp=Z,46nm,0.8s
WRA Warramunga Arr 38.26 119 P **P** **01 51 28.9 -1.0**
WRAB Tennant Creek 38.27 119 *d* P **P** **01 51 29.4 -0.6**
WRAB pmax pmax
comp=Z,127nm,0.9s
WRAB MLR MLR
comp=Z,4µm,17.0s
WRAB Tennant Creek 38.27 119 P **P** **01 51 30.2 +0.3**
WRAB Tennant Creek 38.27 119 P **P** **01 51 29.3 -0.6**
comp=Z,3µmcomp=Z,135nm,1.0s
WR8 Warramunga Arr 38.41 119 IAmb IAmb 01 52 14.0
comp=Z,199nm,1.1s
LZDM Lanzhou Array 38.70 6 P **P** **01 51 34.3 +0.7**
comp=Z,12nm,0.7s,baz=182,slow=10,SNR=15
LZDM LR LR 02 09 21.0
comp=Z,8µm,21.4s,baz=160,slow=39
comp=Z,12nm,0.7s
UTK UTTARKASHI 38.75 331 *i* P P 01 51 23.3 -11
LZH Lanzhou 38.85 6 *e*P **P** **01 51 35.8 +1.1**
LZH sP sP 01 51 45.6 -0.6
LZH S **S** **01 57 30.0 -0.8**
LZH SS **SnSn** **02 00 19.8 -2.4**
LZH pmax pmax
comp=Z,70nm,1.7s
LZH pmax pmax
comp=Z,810nm,4.5s
LZH L L
comp=Z,6µm,19.9s
LZH L L
comp=Z,30µm,20.4s
LZH L L
comp=Z,7µm,20.4s
GOMU GeErMu 38.95 354 P **P** **01 51 36.6 +0.9**
GOMU S **S** **01 57 29.3 -3.4**
GOMU pmax pmax
comp=Z,31nm,1.5s
GOMU L L
comp=Z,3µm,12.9s
GOMU L L
comp=Z,6µm,12.2s
GOMU L L
comp=Z,4µm,12.4s
FORT Forrest 38.97 139 P **P** **01 51 36.7 +1.1**
comp=Z,139nm,1.6s
FORT Forrest 38.97 139 P **P** **01 51 36.2 +0.6**
comp=Z,139nm,1.6s
LYN LuoYang 39.10 17 P **P** **01 51 37.8 +1.2**
LYN S **S** **01 57 32.0 -2.3**
LYN sS sS 01 57 55.3 +6.7
LYN pmax pmax
comp=Z,500nm,1.7s
LYN pmax pmax
comp=Z,3µm,3.5s
LYN L L
comp=Z,14µm,22.3s
LYN L L
comp=Z,24µm,21.3s
LYN L L
comp=Z,15µm,19.4s
NJ2 Nanjing 39.27 27 ⇑P **P** **01 51 38.8 +0.8**
NJ2 sP **pP** **01 51 47.3 +0.9**
NJ2 PP **PP** **01 53 16.8 +8.3**
NJ2 S **S** **01 57 37.3 +0.4**
NJ2 pmax pmax
comp=Z,55nm,1.2s
NJ2 pmax pmax
comp=Z,2µm,3.8s
NJ2 L L
comp=Z,8µm,12.9s
NJ2 L L
comp=Z,15µm,13.7s
NJ2 L L
comp=Z,9µm,16.1s
SMPI Sarmi 39.41 90 P **P** **01 51 41.5 +2.0**
comp=Z,3µmcomp=Z,2µmcomp=Z,150nm,1.3s
AS15 Alice Springs 39.42 125 P **P** **01 51 39.9 +0.3**
comp=Z,207nm,0.9s
AS15 Alice Springs 39.42 125 P **P** **01 51 39.5 -0.1**
comp=Z,207nm,0.9s
AS31 Alice Springs 39.43 125 P **P** **01 51 39.9 +0.2**
comp=Z,75nm,0.8s,comp=Z,0.0nm
AS31 Alice Springs 39.43 125 P **P** **01 51 40.1 +0.5**
comp=Z,75nm,0.8s,comp=Z,0.0nm
ASAR Alice Springs 39.43 125 P **P** **01 51 39.7 +0.1**
comp=Z,82nm,0.8s,baz=298,slow=7.6,SNR=288
ASAR S **S** **01 57 44.0 +4.3**
comp=Z,84nm,1.1s,baz=300,slow=15,SNR=16
ASAR LR LR 02 10 12.6
comp=Z,11µm,20.2s,baz=299,slow=40
comp=Z,82nm,0.8s
ASAR Alice Springs 39.43 125 P **P** **01 51 39.6 0.0**
AS09 Alice Springs 39.47 125 P **P** **01 51 40.2 +0.3**
comp=Z,213nm,0.8s
AS09 Alice Springs 39.47 125 P **P** **01 51 40.1 +0.2**
comp=Z,213nm,0.8s
AS17 Alice Springs 39.50 125 P **P** **01 51 40.5 +0.3**
comp=Z,225nm,0.8s
AS17 Alice Springs 39.50 125 P **P** **01 51 40.1 -0.1**
comp=Z,225nm,0.8s
KLP Kalpa 39.50 331 *i* P P 01 51 29.8 -11
SSE Sheshan 39.58 30 P **P** **01 51 42.4 +1.7**
SSE S **S** **01 57 44.8 +3.1**
SSE pmax pmax
comp=Z,91nm,1.7s
SSE pmax pmax
comp=Z,1µm,5.5s
SMLA Simla 39.71 330 *i* P P 01 51 31.2 -11
JASL Jaisalmer 40.23 319 *i* P P 01 51 34.9 -11
BHK Bhakra 40.32 329 *i* P P 01 51 33.0 -14
JOW Kunigami 40.59 42 P **P** **01 51 49.7 +0.6**
comp=Z,33nm,0.5s,baz=245,slow=8.6,SNR=10
JOW LR LR 02 08 27.9
comp=Z,5µm,21.9s,baz=204,slow=36
comp=Z,33nm,0.5s
JOW Kunigami 40.59 42 P **P** **01 51 49.1 0.0**
JOW IAmb IAmb 01 51 53.6
comp=Z,441nm,1.5s
JOW Kunigami 40.59 42 P **P** **01 51 50.9 +1.7**
comp=Z,7µmcomp=Z,208nm,1.5s
GENI Genyem 40.85 91 P **P** **01 51 51.3 -0.2**
GENI Genyem 40.85 91 P **P** **01 51 50.4 -1.1**
comp=Z,157nm,1.2s
GENI Genyem 40.85 91 P **P** **01 51 49.4 -2.1**
comp=Z,3µmcomp=Z,158nm,1.2s

JAY Jayapura 41.39 91 P **P** **01 51 56.4 +0.4**
JMZ Minamidaito 2 41.97 45 P **P** **01 51 59.6 -0.9**
comp=Z,608nm,1.3s
GTA2 Gaotai 42.01 1 P **P** **01 52 01.8 +1.1**
GTA2 pP pP 01 52 08.4 -0.6
GTA2 S **S** **01 58 17.0 -0.8**
GTA2 SS **SS** **02 01 21.8 -3.9**
GTA2 pmax pmax
comp=Z,54nm,1.2s
GTA2 pmax pmax
comp=Z,720nm,5.7s
GTA2 L L
comp=Z,6µm,24.4s
GTA2 L L
comp=Z,21µm,22.9s
GTA2 L L
comp=Z,6µm,23.8s
TIY Taiyuan 42.05 16 *e*P **P** **01 52 02.3 +1.3**
TIY S **S** **01 58 16.6 -1.7**
TIY SS **SS** **02 01 24.8 -1.7**
TIY pmax pmax
comp=Z,46nm,0.7s
TIY pmax pmax
comp=Z,850nm,4.9s
TIY L L
comp=Z,6µm,15.8s
TIY L L
comp=Z,10µm,15.1s
TIY L L
comp=Z,6µm,14.4s
TIA Tai'an 42.17 22 P **P** **01 52 01.9 -0.1**
TIA S **S** **01 58 16.6 -3.5**
TIA pmax pmax
comp=Z,62nm,1.4s
TIA pmax pmax
comp=Z,1µm,3.5s
TIA L L
comp=Z,21µm,17.2s
TIA L L
comp=Z,11µm,17.2s
TIA L L
comp=Z,33µm,17.2s
JMU Jammu 42.22 329 *i* P P 01 51 49.3 -13
ALCI Alchi Leh 42.22 332 *i* P P 01 51 49.8 -13
HNS HongShan 42.42 18 ⇑P **P** **01 52 04.8 +0.9**
HNS S **S** **01 58 22.5 -1.1**
HNS SS **SS** **02 01 30.8 -2.8**
HNS ScS **ScS** **02 02 02.1 -1.5**
HNS pmax pmax
comp=Z,96nm,1.7s
HNS pmax pmax
comp=Z,2µm,5.3s
HNS L L
comp=Z,6µm,20.5s
HNS L L
comp=Z,15µm,20.1s
HNS L L
comp=Z,11µm,16.5s
QIS Mount Isa 43.11 117 P **P** **01 52 10.1 +0.2**
comp=Z,117nm,0.8s,comp=Z,0.0nm
QIS Mount Isa 43.11 117 P **P** **01 52 10.2 +0.2**
comp=Z,3µmcomp=Z,2µmcomp=Z,118nm,0.8s
SRNI Srinagar 43.23 330 *i* P P 01 51 56.8 -14
NIL Nilore 43.72 328 P **P** **01 52 14.3 -0.3**
NIL Nilore 43.72 328 P **P** **01 52 13.7 -0.9**
NIL pmax pmax
comp=Z,211nm,1.0s
NIL Nilore 43.72 328 P **P** **01 52 13.7 -0.9**
NIL IAmb IAmb 01 52 15.4
comp=Z,211nm,1.0s
NIL Nilore 43.72 328 P **P** **01 52 13.7 -0.9**
comp=Z,3µmcomp=Z,5µmcomp=Z,225nm,1.1s
MSEY Mahe Island 43.74 266 P **P** **01 52 16.2 +1.0**
MSEY Mahe Island 43.74 266 P **P** **01 52 15.9 +0.8**
MSEY Mahe Island 43.74 266 P **P** **01 52 15.6 +0.5**
MSEY pmax pmax
comp=Z,149nm,1.5s
MSEY Mahe Island 43.74 266 P **P** **01 52 15.6 +0.5**
MSEY Mahe Island 43.74 266 P **P** **01 52 16.5 +1.4**
comp=Z,3µmcomp=Z,73nm,1.1s
BTO2 Baotou 44.33 12 *e*P **P** **01 52 20.3 +0.8**
BTO2 pP **pP** **01 52 24.8 -3.0**
BTO2 S **S** **01 58 53.3 +1.4**
BTO2 pmax pmax
comp=Z,87nm,1.8s
BTO2 pmax pmax
comp=Z,2µm,4.6s
BTO2 L L
comp=Z,18µm,19.6s
BTO2 L L
comp=Z,26µm,20.9s
HHC Hu-ho-hao-te 44.80 13 *e*P **P** **01 52 24.8 +1.6**
HHC S **S** **01 58 59.4 +0.8**
HHC SS **ScS** **02 02 13.8 -4.9**
HHC pmax pmax
comp=Z,44nm,1.1s
HHC L L
comp=Z,6µm,16.8s
HHC L L
comp=Z,6µm,17.6s
HHC L L
comp=Z,7µm,16.8s
JSU Suzuyama 45.14 39 P **P** **01 52 26.4 +0.4**
comp=Z,9µmcomp=Z,434nm,1.1s
BJT Baijiatuau 45.27 18 IAMs_20 IAMs_20 02 14 47.7
comp=Z,11µm,18.0s
BJT Baijiatuau 45.27 18 P **P** **01 52 28.3 +1.4**
comp=Z,2µmcomp=Z,4µmcomp=Z,238nm,1.5s
BJI2 Beijing 45.27 18 P **P** **01 52 28.1 +1.2**
BJI2 S **S** **01 59 04.3 -1.0**
BJI2 ScS **ScS** **02 02 21.3 -0.3**
BJI2 pmax pmax
comp=Z,83nm,1.2s
BJI2 pmax pmax
comp=Z,1.0nm,2.8s
BJI2 L L
comp=Z,5µm,21.0s
BJI2 L L
comp=Z,11µm,21.0s
BJI2 L L
comp=Z,14µm,15.7s
BBOO Buckleboo 45.64 135 P **P** **01 52 30.3 +0.4**
comp=Z,136nm,1.3s,comp=Z,0.0nm
BBOO Buckleboo 45.64 135 P **P** **01 52 30.2 +0.2**
BBOO IAmb IAmb 01 52 43.4
comp=Z,259nm,1.4s
BBOO Buckleboo 45.64 135 P **P** **01 52 30.6 +0.7**
comp=Z,4µmcomp=Z,3µmcomp=Z,137nm,1.3s
JLN Jalan Bani Buh 46.12 304 P **P** **01 52 35.0 +1.1**
SNR=24
DL2 Dalian 46.27 24 ⇑*i* P **P** **01 52 35.6 +0.9**
DL2 PP **PP** **01 54 22.3 -1.5**
DL2 S **S** **01 59 20.0 +0.3**
DL2 pmax pmax
comp=Z,540nm,1.4s
DL2 pmax pmax
comp=Z,3µm,5.0s
DL2 L L
comp=Z,8µm,21.1s
DL2 L L
comp=Z,16µm,21.3s
DL2 L L
comp=Z,12µm,17.8s
NGCH Negor - Chabah 46.31 309 P **P** **01 52 37.5 +2.2**
SNR=6.8
JNU Nakatsue 46.51 37 P **P** **01 52 37.1 +0.3**
comp=Z,222nm,1.1s,baz=221,slow=4.1,SNR=24
JNU LR LR 02 13 49.6
comp=Z,11µm,18.5s,baz=248,slow=38
comp=Z,222nm,1.1s
WBK Wadi Bani Khal 46.70 305 P **P** **01 52 39.4 +0.9**
SNR=14
KBL Kabul 46.70 325 P **P** **01 52 38.0 -0.5**
SNR=27
KBL Kabul 46.70 325 P **P** **01 52 37.3 -1.2**
KBL pmax pmax
comp=Z,100nm,1.5s
KBL Kabul 46.70 325 P **P** **01 52 37.3 -1.2**
KBL Kabul 46.70 325 P **P** **01 52 37.7 -0.8**
comp=Z,2µmcomp=Z,2µmcomp=Z,50nm,1.1s
MTSU Mount Surprise 46.70 112 P **P** **01 52 39.1 +0.6**
comp=Z,53nm,0.8s
MTSU Mount Surprise 46.70 112 P **P** **01 52 39.6 +1.0**
comp=Z,524nmcomp=Z,53nm,0.8s
DQM DQM 46.74 301 P **P** **01 52 39.9 +1.1**
SNR=17

INKA Innaminka 46.74 126 P **P** **01 52 39.4 +0.7**
INKA IAmb IAmb 01 52 59.6
comp=Z,108nm,0.9s
MHTO MHTO 46.81 302 P **P** **01 52 39.5 +0.2**
SNR=21
TJN Taejon 46.90 31*c* *i*P **P** **01 52 39.8 +0.1**
TJN Taejon 46.90 31 P **P** **01 52 40.0 +0.3**
comp=Z,14µmcomp=Z,606nm,1.6s
KSH2 Kashi 47.04 335 P **P** **01 52 40.4 -0.6**
KSH2 PP **PP** **01 54 35.3 +3.3**
KSH2 S **S** **01 59 30.3 -0.7**
KSH2 SS **SS** **02 02 52.6 -5.8**
KSH2 pmax pmax
comp=Z,110nm,1.2s
KSH2 pmax pmax
comp=Z,2µm,3.3s
KSH2 L L
comp=Z,4µm,18.5s
KSH2 L L
comp=Z,6µm,18.5s
KSH2 L L
comp=Z,6µm,21.6s
WSAR Wadi Sarin 47.26 305 LR LR 02 09 25.1
comp=Z,43nm,21.8s,baz=140,slow=32
WSAR Wadi Sarin 47.26 305 P **P** **01 52 44.2 +1.4**
SNR=16
JMDO Jabal Madar 47.30 304 P **P** **01 52 43.0 -0.1**
SNR=13
HJU Haeju 47.38 29 P **P** **01 52 43.1 -0.3**
HJU S **S** **01 59 32.2 -3.4**
HJU AmB
comp=Z,1µm,1.9s
HJU AMS AMS
comp=Z,7µm,14.6s
INCN Inchon 47.38 30 P **P** **01 52 43.6 +0.1**
INCN pmax pmax
comp=Z,134nm,1.0s
INCN MLR MLR
comp=Z,7µm,19.0s
INCN Inchon 47.38 30 P **P** **01 52 43.6 +0.1**
INCN IAmb IAmb 01 52 56.4
comp=Z,134nm,1.0s
INCN Inchon 47.38 30 P **P** **01 52 43.5 -0.1**
comp=Z,3µmcomp=Z,164nm,1.4s
WUS Wushi 47.38 339 IAmb IAmb 01 52 58.5
comp=Z,191nm,1.0s
WUS Wushi 47.38 339 P **P** **01 52 45.0 +1.4**
comp=Z,4µmcomp=Z,197nm,1.1s
WMQ Urumqi 47.49 349 ⇓*i*P **P** **01 52 46.1 +1.8**
WMQ S **S** **01 59 39.4 +2.3**
WMQ pmax pmax
comp=Z,340nm,1.1s
WMQ pmax pmax
comp=Z,1µm,3.7s
WMQ L L
comp=Z,5µm,21.1s
WMQ L L
comp=Z,5µm,24.1s
WMQ L L
comp=Z,7µm,24.0s
SMDO Samad 47.66 305 P **P** **01 52 46.0 0.0**
SNR=26
SHAO Shalim 47.68 297 *i*P **P** **01 52 47.5 +1.3**
SNR=15
SHAO Shalim 47.68 297 P **P** **01 52 46.4 +0.3**
SNR=11
BIDO Bidbid 47.80 305 P **P** **01 52 47.8 +0.8**
SNR=31
KSAR Wonju Array Be 47.98 31 P **P** **01 52 46.4 -1.7**
KSAR Wonju Array Be 47.98 31 P **P** **01 52 46.4 -1.7**
HTT Hallett 48.01 134 P **P** **01 52 49.7 +1.2**
comp=Z,99nm,1.2s
KSRS Korea Array 48.01 31 P **P** **01 52 49.1 +0.8**
comp=Z,43nm,0.7s,baz=223,slow=8.8,SNR=10
KSRS LR LR 02 14 10.8
comp=Z,5µm,18.3s,baz=215,slow=38
comp=Z,43nm,0.7s
KS19 Wonju Array Si 48.02 31 P **P** **01 52 48.8 +0.3**
PMG Port Moresby 48.04 100 LR LR 02 16 36.4
comp=Z,5µm,19.5s,baz=281,slow=40
PMG Port Moresby 48.04 100 P **P** **01 52 49.6 +0.6**
PMG Port Moresby 48.04 100 P **P** **01 52 48.7 -0.3**
PMG pmax pmax
comp=Z,104nm,1.0s
PMG MLR MLR
comp=Z,6µm,20.0s
PMG Port Moresby 48.04 100 P **P** **01 52 48.7 -0.3**
PMG IAmb IAmb 01 53 07.7
comp=Z,104nm,0.9s
PMG Port Moresby 48.04 100 P **P** **01 52 50.1 +1.1**
comp=Z,3µmcomp=Z,2µmcomp=Z,112nm,1.0s
PMG Port Moresby 48.04 100 P **P** **01 52 48.4 -0.6**
comp=Z,3µmcomp=Z,2µmcomp=Z,115nm,1.0s
GUMO Guam 48.04 69 LR LR 02 14 08.2
comp=Z,835nm,20.7s,baz=242,slow=37
ASAI AK-SAY(Kyrgyzs 48.14 337 P **P** **01 52 51.1 +1.3**
comp=Z,3µmcomp=Z,4µmcomp=Z,185nm,2.0s
DMTO DMTO 48.18 297 P **P** **01 52 50.8 +0.8**
SNR=8.5
PYAG Pyongyang 48.20 28 P **P** **01 52 49.8 0.0**
PYAG S **S** **01 59 43.7 -3.4**
PYAG AmB
comp=Z,797nm,1.5s
PYAG AMS AMS
comp=Z,13µm,13.1s
BSY Bisya 48.22 304 P **P** **01 52 51.2 +1.0**
SNR=41
TARG Taragay, Kyrgy 48.36 338 P **P** **01 52 50.6 -0.9**
TARG pmax pmax
comp=Z,233nm,1.1s
TARG Taragay, Kyrgy 48.36 338 P **P** **01 52 50.6 -0.9**
TARG Taragay, Kyrgy 48.36 338 P **P** **01 52 52.8 +1.3**
comp=Z,3µmcomp=Z,3µmcomp=Z,203nm,1.3s
SUJ Sinuiju 48.48 26 P **P** **01 52 52.0 0.0**
HOQ Hoqain 48.50 305 P **P** **01 52 53.5 +1.1**
SNR=25
JMN Monobe 48.77 39 P **P** **01 52 54.0 -0.3**
JMN Monobe 48.77 39 P **P** **01 52 55.4 +1.1**
comp=Z,8µmcomp=Z,449nm,1.4s,comp=Z,8µm
RBK Rabkut 48.77 296 P **P** **01 52 55.7 +1.1**
SNR=18
NRN Naryn 48.79 337 IAmb IAmb 01 52 56.9
comp=Z,160nm,1.0s
PRZ Przheval'sk 48.80 339 P **P** **01 52 56.6 +2.0**
comp=Z,7µmcomp=Z,342nm,1.7s
XLT XiLinHaoTe 48.81 16 *e*P **P** **01 52 55.3 +0.8**
XLT PP **PP** **01 54 50.5 +2.5**
XLT S **S** **01 59 56.3 +0.5**
XLT ScS **ScS** **02 02 38.5 -6.3**
XLT pmax pmax
comp=Z,58nm,1.3s
XLT pmax pmax
comp=Z,730nm,5.2s
XLT L L
comp=Z,9µm,17.4s
XLT L L
comp=Z,7µm,20.8s
KDJ Kajisay 48.94 338 P **P** **01 52 57.3 +1.7**
comp=Z,5µmcomp=Z,394nm,1.3s
CTA Charters Tower 48.95 114 P **P** **01 52 57.2 +1.2**
comp=Z,73nm,0.9s
CTA Charters Tower 48.95 114 S **S** **01 59 57.6 -0.9**
comp=Z,1.7nm,0.5s,baz=286,slow=19,SNR=1.8
CTA LR LR 02 16 47.7
comp=Z,6µm,20.5s,baz=284,slow=40
CTAO Charters Tower 48.95 114 P **P** **01 52 56.8 +0.8**
comp=Z,3µmcomp=Z,185nm,0.9s
DRK Karamyk 49.01 332 P **P** **01 52 56.9 +0.5**
comp=Z,6µmcomp=Z,420nm,1.1s
ARQ Aragi 49.04 304 P **P** **01 52 57.5 +1.0**
SNR=20
SHLS Shalkode 49.04 341*d* *i*P **P** **01 52 56.2 -0.2**
SHLS *e*S **S** **02 00 01.2 +2.0**
SHLS pmax pmax
comp=Z,94nm,1.0s
SHLS Shalkode 49.04 341 ⇓*i*P **P** **01 52 56.2 -0.2**
comp=Z,94nm,1.0s
SHLS *e*S **S** **02 00 01.3 +2.0**
JASK Jask - Hormozg 49.12 308 P **P** **01 52 59.0 +1.9**
SNR=18
QLP Quilpie 49.16 123 P **P** **01 52 59.1 +1.7**
comp=Z,520nm,0.8s
QLP Quilpie 49.16 123 P **P** **01 52 59.2 +1.7**
comp=Z,6µmcomp=Z,520nm,0.8s,comp=Z,6µm
UZB Uzunbulak 49.18 340*d* *i*P **P** **01 52 58.2 +0.7**
UZB *e*S **S** **02 00 04.6 +3.5**
UZB pmax pmax
comp=Z,270nm,2.0s
UZB Uzunbulak 49.18 340 ⇓*i*P **P** **01 52 58.2 +0.7**
comp=Z,270nm,2.0s
UZB *e*S **S** **02 00 04.7 +3.5**
PDGK Podgornoye 49.19 341 P **P** **01 52 57.7 +0.2**
PDGK pmax pmax
comp=Z,438nm,1.4s
STKA Stephens Creek 49.22 131 P **P** **01 52 57.8 0.0**
comp=Z,121nm,1.0s,baz=301,slow=7.4,SNR=96
STKA S **S** **02 00 06.3 +4.5**
comp=Z,5.4nm,1.1s,baz=315,slow=18,SNR=1.4
STKA LR LR 02 15 30.4
comp=Z,6µm,20.9s,baz=295,slow=38
comp=Z,121nm,1.0s
STKA Stephens Creek 49.22 131 P **P** **01 52 58.2 +0.4**
STKA pmax pmax
comp=Z,4µm,1.8s
STKA Stephens Creek 49.22 131 P **P** **01 52 58.2 +0.4**
STKA Stephens Creek 49.22 131 P **P** **01 52 58.5 +0.7**
comp=Z,17µmcomp=Z,1µm,1.4s
DOK Doka 49.22 297 P **P** **01 52 58.7 +0.7**
SNR=17
WHFO Wadi Hawf 49.30 296 P **P** **01 52 59.1 +0.4**
SNR=17
SATY Saty 49.31 340*d* *i*P **P** **01 52 59.3 +0.9**
SATY *e*S **S** **02 00 06.9 +3.9**
SATY pmax pmax
comp=Z,113nm,1.0s
SATY Saty 49.31 340 ⇓*i*P **P** **01 52 59.3 +0.9**
comp=Z,113nm,1.0s
SATY *e*S **S** **02 00 07.0 +3.9**
SOHO SOHO 49.38 305 *i* P **P** **01 52 59.5 +0.4**
SNR=17
SOHO SOHO 49.38 305 P **P** **01 52 59.7 +0.6**
SNR=19
OHH Osh 49.39 333 P **P** **01 52 58.5 -0.5**
comp=Z,160nm,1.9s
ULHL Ulahol 49.39 338 P **P** **01 52 59.8 +0.6**
SNR=22
SNY Shenyang 49.53 24 P **P** **01 52 59.8 -0.2**
SNY S **S** **02 00 02.6 -3.2**
SNY pmax pmax
comp=Z,180nm,1.3s
SNY pmax pmax
comp=Z,950nm,3.6s
SNY L L
comp=Z,4µm,17.5s
SNY L L
comp=Z,5µm,16.3s
SNY L L
comp=Z,4µm,14.3s
ABTO Aybut 49.54 295 P **P** **01 53 01.2 +0.7**
SNR=15
KPKS Kokpek 49.58 340 *e*P **P** **01 53 01.1 +0.7**
KPKS *e*S **S** **02 00 10.3 +3.7**
KPKS Kokpek 49.58 340 *e*P **P** **01 53 01.2 +0.7**
KPKS *e*S **S** **02 00 10.3 +3.7**
BOOM Boomskoye usch 49.71 337 P **P** **01 53 02.7 +1.1**
comp=Z,3µmcomp=Z,250nm,1.2s
HHU Hamhung 49.73 28 P **P** **01 53 01.6 +0.1**
HHU S **S** **02 00 05.6 -3.0**
HHU AmB
comp=Z,566nm,1.8s
HHU AMS AMS
comp=Z,3µm,15.5s
TNSS Tian-Shan 49.81 339 *e*P **P** **01 53 03.0 +0.5**
TNSS Tian-Shan 49.81 339 *e*P **P** **01 53 03.1 +0.5**
MDOK Medeo 49.88 339 *e*P **P** **01 53 03.6 +0.8**
MDOK *e*S **S** **02 00 14.8 +3.8**
MDOK Medeo 49.88 339 *e*P **P** **01 53 03.6 +0.8**
MDOK *e*S **S** **02 00 14.9 +3.8**
MDOK LR LR 02 16 52.2
UMZA Um Al Zommool 49.90 303 P **P** **01 53 03.7 +0.6**
BTK Batken 49.93 331 IAmb IAmb 01 53 18.5
comp=Z,215nm,1.2s
BTK Batken 49.93 331 P **P** **01 53 03.6 +0.5**
comp=Z,3µmcomp=Z,4µmcomp=Z,181nm,1.4s
AAA Alma-Ata 49.97 339 *e*P **P** **01 53 04.2 +0.9**
AAA pmax pmax
comp=Z,136nm,1.1s
AAA Alma-Ata 49.97 339 *e*P **P** **01 53 04.3 +0.9**
comp=Z,136nm,1.1s
AAA LR LR 02 16 49.3
ALNE Al Ain 49.98 305 *i* P **P** **01 53 04.6 +0.9**
SNR=42
ALNE Al Ain 49.98 305 P **P** **01 53 04.7 +0.9**
SNR=52
UOSS Minazif 50.01 306 *i* P **P** **01 53 03.8 -0.2**
SNR=14
UOSS Minazif 50.01 306 P **P** **01 53 03.9 0.0**
UOSS Minazif 50.01 306 P **P** **01 53 03.8 -0.2**
UOSS Minazif 50.01 306 P **P** **01 53 04.0 0.0**
comp=Z,3µmcomp=Z,2µmcomp=Z,70nm,2.1s
ASHO Ashiah 50.01 306 *i* P **P** **01 53 04.8 +0.7**
SNR=23
ASHO Ashiyiah 50.01 306 P **P** **01 53 04.8 +0.7**
SNR=14
HATD Hatta, Dubai 50.02 306 *i* P **P** **01 53 04.7 +0.7**
SNR=16
HATD Hatta, Dubai 50.02 306 P **P** **01 53 04.4 +0.4**
SNR=22
UCH Uchtor 50.05 336 P **P** **01 53 05.6 +1.1**
SNR=77
MDH Madha 50.10 306 *i* P **P** **01 53 04.2 -0.3**
SNR=12
MDH Madha 50.10 306 P **P** **01 53 04.2 -0.3**
SNR=12
TKM2 Tokmak 2 50.21 337 P **P** **01 53 05.8 +0.4**
SNR=192
MSFE Esma-Masafi 50.24 306 *i* P **P** **01 53 06.2 +0.5**
SNR=28
KBK Kagaybulak 50.24 337 P **P** **01 53 07.0 +1.5**
SNR=82
MASF Masafi 50.24 306 P **P** **01 53 05.7 0.0**
SNR=26
BANOM Banah 50.38 307 P **P** **01 53 07.3 +0.5**
AAK Ala-Archa 50.41 336 P **P** **01 53 08.1 +1.3**
SNR=26
AAK Ala-Archa 50.41 336 *i* P **P** **01 53 07.6 +0.8**
SNR=27
AAK Ala-Archa 50.41 336 P **P** **01 53 07.6 +0.8**
AAK Ala-Archa 50.41 336 P **P** **01 53 07.2 +0.4**
AAK pmax pmax
comp=Z,126nm,1.2s
AAK MLR MLR
comp=Z,6µm,22.0s
AAK Ala-Archa 50.41 336 P **P** **01 53 07.2 +0.4**
AAK Ala-Archa 50.41 336 P **P** **01 53 08.1 +1.3**
comp=Z,4µmcomp=Z,3µmcomp=Z,98nm,2.8s,comp=Z,3µm
FAQ Al Faqa, Dubai 50.42 305 *i* P **P** **01 53 07.7 +0.7**
SNR=15
FAQ Al Faqa, Dubai 50.42 305 P **P** **01 53 07.7 +0.7**
SNR=30
NAZ Nazwa, Dubai 50.47 306 *i* P **P** **01 53 08.1 +0.6**
SNR=23
NAZ Nazwa, Dubai 50.47 306 P **P** **01 53 08.0 +0.6**
SNR=17
FRU1 Bishkek 50.50 337 IAmb IAmb 01 53 10.0
comp=Z,203nm,1.2s
SHME Shamm 50.57 307 *i* P **P** **01 53 08.7 +0.6**
SNR=12
SHME Shamm 50.57 307 P **P** **01 53 08.8 +0.7**
SNR=7.7
ASUD Al Ashush, Dub 50.58 305 *i* P **P** **01 53 09.2 +0.9**
SNR=30
ASUD Al Ashush, Dub 50.58 305 P **P** **01 53 09.0 +0.8**
SNR=26
CHMS Chumysh 50.61 337 P **P** **01 53 08.4 +0.2**
SNR=47
UMQ Umm Al-Quwin 50.71 306 *i* P **P** **01 53 10.2 +1.0**
SNR=5.1
UMQ Umm Al-Quwin 50.71 306 P **P** **01 53 10.3 +1.0**
EKS2 Erkin-Say 50.72 336 P **P** **01 53 10.0 +0.9**
SNR=7.0
HRA Herat 50.73 320 P **P** **01 53 08.4 -1.1**
SONM Songino Array 50.73 6 P **P** **01 53 10.2 +1.0**
comp=Z,25nm,0.8s,baz=184,slow=9.7,SNR=110
SONM S **S** **02 00 27.2 +4.5**
comp=Z,2.3nm,1.1s,baz=174,slow=14,SNR=2.0
SONM LR LR 02 15 52.8
comp=Z,5µm,21.3s,baz=188,slow=38
comp=Z,25nm,0.8s
SONM Songino Array 50.73 6 P **P** **01 53 09.6 +0.4**
SONM IAmb IAmb 01 53 24.9
comp=Z,337nm,1.4s
AJN Ajban 50.83 305 *i* P **P** **01 53 10.4 +0.2**
SNR=9.1
AJN Ajban 50.83 305 P **P** **01 53 10.3 +0.2**
SNR=16
ULN Ulaanbaatar 50.84 7 P **P** **01 53 11.2 +1.1**
ULN Ulaanbaatar 50.84 7*c* *e*P **P** **01 53 11.1 +1.1**
ULN pmax pmax
comp=Z,72nm,1.4s
ULN MLR MLR
comp=Z,6µm,19.0s
ULN Ulaanbaatar 50.84 7 P **P** **01 53 10.2 +0.2**
ULN IAmb IAmb 01 53 25.6
comp=Z,277nm,1.3s
ULN Ulaanbaatar 50.84 7 P **P** **01 53 10.9 +0.9**
comp=Z,8µmcomp=Z,707nm,1.4s
ULN Ulaanbaatar 50.84 7 P **P** **01 53 11.4 +1.4**
comp=Z,2µmcomp=Z,4µmcomp=Z,180nm,1.4s
ULN pP **sP** **01 53 21.2 -0.6**
JCJ Chichijima 50.89 51 LR LR 02 14 26.0
comp=Z,3µm,20.6s,baz=248,slow=36
USP Osepenovka 50.93 337 P **P** **01 53 10.9 +0.3**
SNR=197
TDK Taldyqorghan 51.03 341 *e*P **P** **01 53 12.0 +0.7**
TDK pmax pmax
comp=Z,269nm,1.5s
TDK MLR MLR
comp=Z,3µm,20.0s
TDK Taldyqorghan 51.03 341 *e*P **P** **01 53 12.1 +0.7**
comp=Z,268nm,1.5s
TDK LR LR 02 17 24.0
comp=Z,3µm,20.1s
MZWR Madinat Zayed 51.41 303 P **P** **01 53 14.9 +0.4**
MZR Muzera 51.44 302 *i* P **P** **01 53 15.6 +0.9**
SNR=74
MZR Muzera 51.44 302 P **P** **01 53 15.6 +0.9**
SNR=36
MK31 Makanchi Array 51.53 345*d* *i*P **P** **01 53 15.1 0.0**
MKAR Makanchi Array 51.53 345 P **P** **01 53 15.3 +0.2**
comp=Z,94nm,0.7s,baz=155,slow=6.2,SNR=257
MKAR S **S** **02 00 35.9 +2.3**
comp=Z,3.5nm,1.1s,baz=149,slow=12,SNR=4.0
comp=Z,94nm,0.7s
MKAR Makanchi Array 51.53 345 P **P** **01 53 15.4 +0.4**
MKAR Makanchi Array 51.53 345 P **P** **01 53 15.4 +0.4**
ZSN Zaisan 51.54 348*d* *i*P **P** **01 53 16.2 +1.1**
ZSN *e*S **S** **02 00 37.8 +4.2**
ZSN pmax pmax
comp=Z,221nm,2.1s
ZSN Zaisan 51.54 348 ⇓*i*P **P** **01 53 16.2 +1.1**
comp=Z,221nm,2.1s
ZSN *e*S **S** **02 00 37.9 +4.2**
MAKZ Makanchi 51.63 345 P **P** **01 53 15.7 0.0**
MAKZ pmax pmax
comp=Z,98nm,1.1s
MAKZ MLR MLR
comp=Z,3µm,22.0s
MAKZ Makanchi 51.63 345 P **P** **01 53 15.7 0.0**
MAKZ Makanchi 51.63 345 P **P** **01 53 16.6 +0.8**
comp=Z,2µmcomp=Z,2µmcomp=Z,114nm,2.0s
ARPS Mount Arapiles 51.77 136 P **P** **01 53 18.7 +1.7**
comp=Z,38nm,1.8s
INU Inuyama 51.79 40 P **P** **01 53 18.5 +1.3**
INU Inuyama 51.79 40 P **P** **01 53 16.9 -0.3**
comp=Z,3µmcomp=Z,3µmcomp=Z,82nm,1.3s
IUG Iuzhnay 51.93 333*d* *i*P **P** **01 53 18.4 +0.2**
IUG pmax pmax
comp=Z,93nm,1.0s
IUG Iuzhnay 51.93 333 ⇓*i*P **P** **01 53 18.5 +0.2**
comp=Z,93nm,1.0s
CN2 Changchun 51.94 24 *e*P **P** **01 53 17.8 -0.3**
CN2 *es*P pwP **01 53 30.4 -0.1**
CN2 PP **PP** **01 55 16.1 -0.3**
CN2 *e*S **S** **02 00 37.4 -1.7**
CN2 pmax pmax
comp=Z,80nm,1.0s
CN2 pmax pmax
comp=Z,300nm,3.0s
CN2 L L
comp=Z,5µm,17.0s
CN2 L L
comp=Z,4µm,17.0s
CN2 L L
comp=Z,5µm,17.0s
JGF Kuroka 52.17 40 IAmb IAmb 01 53 36.2
comp=Z,163nm,1.3s
JGF Kuroka 52.17 40 P **P** **01 53 19.5 -0.5**
comp=Z,3µmcomp=Z,4µmcomp=Z,118nm,2.5s
CMSA Cobar Meteorol 52.23 129 P **P** **01 53 21.5 +1.0**
comp=Z,332nm,1.1s
CMSA Cobar Meteorol 52.23 129 P **P** **01 53 21.0 +0.5**
comp=Z,4µmcomp=Z,332nm,1.1s,comp=Z,4µm
CHM Chimkent 52.26 332 *e*P **P** **01 53 21.0 +0.4**
CHM pmax pmax
comp=Z,191nm,1.3s
CHM Chimkent 52.26 332 *e*P **P** **01 53 21.0 +0.4**
comp=Z,191nm,1.3s
CHM LR LR 02 18 16.0
comp=Z,3µm,28.9s
KK31 Karatay Array 52.47 334 *i* P **P** **01 53 21.0 -1.1**
KK31 pmax pmax
comp=Z,40nm,0.9s
KK31 Karatay Array 52.47 334 IAmb IAmb 01 53 23.7
comp=Z,376nm,1.9s
KKAR Karatay Array 52.47 334 P **P** **01 53 21.8 -0.3**
KKAR Karatay Array 52.47 334 P **P** **01 53 21.8 -0.3**
KRVT Keravat (AS076 52.67 93 LR LR 02 20 54.5
comp=Z,1µm,19.4s,baz=258,slow=42
JRN Qarnain Island 52.75 304 P **P** **01 53 25.1 +0.6**
SNR=9.2
RMQ Roma 52.95 121 P **P** **01 53 28.7 +2.7**
RMQ Roma 52.95 121 P **P** **01 53 28.7 +2.7**
comp=Z,829nmcomp=Z,50nm,1.3s,comp=Z,829nm
ZAK Zakamensk 53.01 3 *e*P **P** **01 53 26.5 +0.4**
ZAK pmax pmax
comp=Z,62nm,1.8s
KNGR Kungurtug, Tuv 53.14 359 ⇑*i*P **P** **01 53 29.4 +2.4**
KNGR pmax pmax
comp=Z,74nm,0.9s
KNGR MLR MLR
comp=Z,3µm,12.0s
DGZ Jazzator, Alta 53.21 350*d* *i*P **P** **01 53 29.1 +1.5**
DGZ pmax pmax
comp=Z,274nm,1.2s
MAJO Matsushiro 53.29 39*c* *i*P **P** **01 53 27.6 -0.7**
MAJO pmax pmax
comp=Z,141nm,1.4s
MAJO MLR MLR
comp=Z,6µm,18.0s
MAJO Matsushiro 53.29 39 P **P** **01 53 27.8 -0.5**
MAJO IAmb IAmb 01 53 33.2
comp=Z,161nm,1.4s
MAJO Matsushiro 53.29 39 P **P** **01 53 27.9 -0.4**
comp=Z,3µmcomp=Z,3µmcomp=Z,90nm,1.4s
MJAR Matsushiro Arr 53.29 39 P **P** **01 53 27.8 -0.5**
comp=Z,70nm,1.1s,baz=218,slow=7.4,SNR=69
comp=Z,70nm,1.1s
MJAR Matsushiro Arr 53.29 39 P **P** **01 53 27.8 -0.5**
MJAR IAmb IAmb 01 53 33.3
comp=Z,174nm,1.4s
SLWR Sila 53.36 303 P **P** **01 53 29.3 +0.4**
ABPO Ambohimpanom 53.38 248 P **P** **01 53 29.7 +0.3**
ABPO pmax pmax
comp=Z,169nm,1.5s
ABPO Ambohimpanom 53.38 248 P **P** **01 53 29.7 +0.3**
ABPO IAmb IAmb 01 53 37.7
comp=Z,169nm,1.5s
ABPO Ambohimpanom 53.38 248 IAMs_20 IAMs_20 02 12 36.1
comp=Z,8µm,18.0s
ABPO Ambohimpanom 53.38 248 P **P** **01 53 30.6 +1.1**
comp=Z,3µmcomp=Z,2µmcomp=Z,52nm,0.8s
ABPO Ambohimpanom 53.38 248 P **P** **01 53 30.0 +0.5**
MOY Mondy 54.21 1 *e*P **P** **01 53 35.0 +0.2**
MOY *e* 02 01 18.8
MOY pmax pmax
comp=Z,147nm,2.4s
VLA Vladivostok 54.27 29*d* *i*P **P** **01 53 36.4 +1.1**
VLA pmax pmax
comp=Z,263nm,1.4s
VLA MLR MLR
comp=Z,4µm,14.0s
BNX BinXian 54.33 24 ⇑P **P** **01 53 36.0 +0.4**
BNX pmax pmax
comp=Z,140nm,1.6s
BNX pmax pmax
comp=Z,1µm,3.8s
BNX L L
comp=Z,4µm,26.8s
BNX L L

comp=Z,7μm,26.8s
BNX L L
comp=Z,12μm,15.9s
TLY Talaya 54.33 3 P **P** **01 53 36.9 +1.4**
comp=Z,20nm,0.9s,baz=202,slow=8.4,SNR=15
comp=Z,20nm,0.9s
TLY Talaya 54.33 3*c i*P **P** **01 53 37.0 +1.4**
TLY pmax pmax
comp=Z,61nm,1.3s
TLY Talaya 54.33 3 P **P** **01 53 36.0 +0.4**
TLY IAmb IAmb 01 53 53.7
comp=Z,181nm,1.6s
TLY Talaya 54.33 3 P **P** **01 53 37.3 +1.7**
comp=Z,2μmcomp=Z,50nm,0.9s
MDJ Mudanjiang 54.35 26 P **P** **01 53 36.8 +1.0**
MDJ S **S** **02 01 17.9 +5.9**
MDJ pmax pmax
comp=Z,80nm,1.2s
MDJ L L
comp=Z,16μm,14.4s
MDJ Mudanjiang 54.35 26 IAmb IAmb 01 53 51.4
comp=Z,113nm,1.1s
MDJ IAMs_20 IAMs_20 02 17 54.1
comp=Z,7μm,19.0s
MDJ Mudanjiang 54.35 26 P **P** **01 53 36.9 +1.0**
comp=Z,3μmcomp=Z,4μmcomp=Z,117nm,1.1s
VOI Vohitsoka 54.38 245 P **P** **01 53 38.0 +1.3**
SNR=10.0
VOI Vohitsoka 54.38 245 P **P** **01 53 36.8 +0.2**
VOI IAmb IAmb 01 53 44.6
comp=Z,185nm,1.5s
VOI Vohitsoka 54.38 245 P **P** **01 53 37.8 +1.1**
comp=Z,3μmcomp=Z,2μmcomp=Z,83nm,1.5s,comp=Z,2μm
VOI Vohitsoka 54.38 245 P **P** **01 53 36.7 +0.2**
EIDS Eidsvold 54.63 119 P **P** **01 53 39.8 +1.5**
comp=Z,110nm,1.3s,comp=Z,0.0nm
EIDS Eidsvold 54.63 119 P **P** **01 53 39.0 +0.8**
EIDS IAmb IAmb 01 54 22.0
comp=Z,196nm,1.3s
EIDS Eidsvold 54.63 119 P **P** **01 53 39.8 +1.5**
comp=Z,3μmcomp=Z,2μmcomp=Z,110nm,1.3s,comp=Z,2μm
EIDS pP **pP** **01 53 45.2 -1.6**
TOO Toolangi 54.70 135 P **P** **01 53 39.8 +1.2**
comp=Z,27nm,1.3s
TOO Toolangi 54.70 135 P **P** **01 53 39.5 +0.9**
TOO pmax pmax
comp=Z,43nm,1.3s
TOO Toolangi 54.70 135 P **P** **01 53 39.5 +0.9**
HIA Hailar 54.74 16 IAmb IAmb 01 53 52.2
comp=Z,200nm,1.6s
HIA Hailar 54.74 16 P **P** **01 53 39.3 +0.7**
comp=Z,2μmcomp=Z,84nm,1.5s
IRK Irkutsk 54.93 4 *e*P **P** **01 53 39.8 -0.1**
IRK *e* 02 01 22.4
IRK pmax pmax
comp=Z,421nm,2.8s
FOMA Nahampoana Res 54.95 241 P **P** **01 53 41.8 +1.3**
comp=Z,54nm,1.3s
HILR Hailar Array B 55.00 16 P **P** **01 53 41.1 +0.5**
comp=Z,8.7nm,0.8s,baz=183,slow=8.9,SNR=8.5
comp=Z,8.7nm,0.8s
SAKB Bahrain 55.08 304 P **P** **01 53 41.1 -0.3**
USA0B Ussuriysk Arra 55.13 28*d i*P **P** **01 53 41.3 -0.2**
USRK Ussuriysk Ar. 55.13 28 P **P** **01 53 42.1 +0.6**
comp=Z,154nm,1.0s,baz=223,slow=6.2,SNR=112
USRK LR LR 02 17 35.6
comp=Z,7μm,20.3s,baz=220,slow=36
comp=Z,154nm,1.0s
USRK Ussuriysk Ar. 55.13 28 P **P** **01 53 41.6 +0.1**
SEM Semipalatinsk 55.39 345 *e*P **P** **01 53 44.4 +0.9**
SEM pmax pmax
comp=Z,226nm,2.1s
SEM Semipalatinsk 55.39 345 *e*P **P** **01 53 44.5 +0.9**
comp=Z,226nm,2.1s
SEM LR LR 02 20 02.9
CIT Chita 55.87 11 *e*P **P** **01 53 48.4 +1.6**
CIT *e* 01 54 00.6
CIT *e* 01 54 46.8
CIT *e* 01 57 13.8
CIT *e*S **S** **02 01 38.0 +5.8**
CIT pmax pmax
comp=Z,641nm,2.9s
KURBB Kurchatov Arra 56.04 344 P **P** **01 53 47.9 0.0**
comp=Z,41nm,0.8s,baz=162,slow=6.7,SNR=151
KURBB LR LR 02 22 20.4
comp=Z,2μm,18.6s,baz=162,slow=41
comp=Z,41nm,0.8s
KURBB Kurchatov Arra 56.04 344 P **P** **01 53 47.5 -0.4**
KURBB pmax pmax
comp=Z,253nm,1.4s
KURK Kurchatov 56.10 344*d i*P **P** **01 53 48.7 +0.4**
KURK pmax pmax
comp=Z,145nm,1.0s
KURK MLR MLR
comp=Z,6μm,24.0s
KURK Kurchatov 56.10 344 P **P** **01 53 48.6 +0.3**
KURK IAmb IAmb 01 54 03.0
comp=Z,196nm,1.1s
KURK Kurchatov 56.10 344 P **P** **01 53 48.3 0.0**
comp=Z,3μmcomp=Z,3μmcomp=Z,169nm,1.1s
KURK pP **pP** **01 53 57.2 +0.6**
CAN Canberra 56.27 131 P **P** **01 53 51.5 +1.6**
comp=Z,172nm,1.3s
CAN Canberra 56.27 131 P **P** **01 53 50.8 +0.8**
CAN Canberra 56.27 131 P **P** **01 53 50.7 +0.8**
CAN pmax pmax
comp=Z,193nm,1.1s
CAN MLR MLR
comp=Z,10μm,20.0s
CAN Canberra 56.27 131 P **P** **01 53 50.7 +0.7**
CAN IAmb IAmb 01 54 07.6
comp=Z,193nm,1.1s
CAN IAMs_20 IAMs_20 02 18 51.2
comp=Z,9μm,20.0s
CAN Canberra 56.27 131 P **P** **01 53 49.5 -0.5**
comp=Z,172nm,1.3s
CNB Canberra Magne 56.55 131 P **P** **01 53 53.0 +1.0**
comp=Z,66nm,1.3s
ARMA Armidale 56.58 125 P **P** **01 53 55.1 +2.7**
ARMA Armidale 56.58 125 P **P** **01 53 52.0 -0.3**
ARMA IAmb IAmb 01 54 02.5
comp=Z,351nm,1.6s
ARMA Armidale 56.58 125 P **P** **01 53 51.2 -1.1**
comp=Z,3μmcomp=Z,3μmcomp=Z,106nm,1.0s
JTM Tenmabayashi 57.67 37 P **P** **01 54 00.8 +1.1**
comp=Z,3μmcomp=Z,4μmcomp=Z,286nm,1.0s,comp=Z,4μm
ZALV Zalesovo Beam 57.75 350 P **P** **01 54 00.3 +0.3**
comp=Z,79nm,0.7s,baz=173,slow=5.3,SNR=244
ZALV S **S** **02 02 00.0 +3.2**
comp=Z,5.7nm,1.0s,baz=153,slow=14,SNR=6.5
ZALV LR LR 02 23 38.3
comp=Z,2μm,19.1s,baz=166,slow=41
ZALV PKPPKP **P'P'df** **02 23 48.6 +5.3**
comp=Z,4.1nm,1.0s,baz=297,slow=4.5,SNR=7.2
comp=Z,79nm,0.7s
ZALV Zalesovo Beam 57.75 350 *i* P **P** **01 54 00.0 +0.1**
ZALV pmax pmax
comp=Z,81nm,0.7s
ZALV Zalesovo Beam 57.75 350 P **P** **01 54 00.5 +0.6**
ATD Arta Tunnel 57.86 285 LR LR 02 13 22.0
comp=Z,117nm,21.7s,baz=101,slow=30
ATD Arta Tunnel 57.86 285 P **P** **01 54 02.8 +1.2**
comp=Z,2μmcomp=Z,75nm,1.3s
TEY Ternei 58.00 30⇑ *e*P P 01 53 51.9 -10
TEY *e* 01 54 04.8
TEY pmax pmax
comp=N,10.0nm,0.9s
TEY pmax pmax
comp=Z,20nm,1.3s
HEH HeiHe 58.05 21 *e*P **P** **01 54 02.5 +0.4**
HEH S **S** **02 02 00.1 -0.7**
HEH ScS **ScS** **02 03 45.6 -3.8**
HEH pmax pmax
comp=Z,62nm,1.6s
HEH pmax pmax
comp=Z,3μm,5.2s
HEH L L
comp=Z,10μm,18.9s
HEH L L
comp=Z,2μm,17.6s
HEH L L
comp=Z,18μm,17.8s
MOO Moorlands 58.18 140 P **P** **01 54 06.0 +2.7**
comp=Z,115nm,2.5s
RAYN Ar Rayn 58.46 300 *i* P **P** **01 54 05.7 +0.1**
SNR=39
RAYN Ar Rayn 58.46 300 P **P** **01 54 05.3 -0.3**
RAYN Ar Rayn 58.46 300 P **P** **01 54 05.7 +0.1**
RAYN pmax pmax
comp=Z,54nm,1.1s
RAYN Ar Rayn 58.46 300 P **P** **01 54 05.7 +0.1**
RAYN Ar Rayn 58.46 300 P **P** **01 54 05.2 -0.3**
comp=Z,3μmcomp=Z,2μmcomp=Z,76nm,2.2s
TAU Tasmania Unive 58.49 140 P **P** **01 54 05.9 +0.5**
TAU pmax pmax
comp=Z,245nm,1.3s
TAU MLR MLR
comp=Z,6μm,20.0s
TAU Tasmania Unive 58.49 140 P **P** **01 54 05.9 +0.5**
TAU IAmb IAmb 01 54 20.4
comp=Z,245nm,1.3s
TAU Tasmania Unive 58.49 140 IAMs_20 IAMs_20 02 19 33.0
comp=Z,6μm,20.0s
TAU Tasmania Unive 58.49 140 P **P** **01 54 07.7 +2.3**
comp=Z,155nm,1.3s
KLR Kul'dur 58.89 24 LR LR 02 22 00.3
comp=Z,14μm,18.0s,baz=226,slow=39
KLR Kul'dur 58.89 24*c i*P **P** **01 54 08.5 +0.5**
KLR pmax pmax
comp=Z,211nm,1.1s
KLR MLR MLR
comp=Z,13μm,17.0s
H04N2 CROZET ISLANDS 59.79 216 T T 02 59 41.1
baz=60,slow=75
H04N1 CROZET ISLANDS 59.80 216 T T 02 59 51.8
baz=60,slow=75
H04N3 CROZET ISLANDS 59.80 216 T T 02 59 50.5
baz=60,slow=75
H04S1 CROZET ISLANDS 60.08 216 T T 03 00 06.4
baz=54,slow=76,SNR=3444
H04S3 CROZET ISLANDS 60.09 216 T T 03 00 05.2
baz=54,slow=76,SNR=5731
H04S2 CROZET ISLANDS 60.10 216 T T 03 00 06.5
baz=54,slow=76,SNR=256
TATA Tatamba Isabel 60.46 98 P **P** **01 54 19.8 +0.3**
SAVO Savo Central 60.49 99 P **P** **01 54 20.4 +0.6**
BVA2 Borovoye Array 60.61 340 P **P** **01 54 17.8 -2.0**
BVA2 pmax pmax
comp=Z,51nm,0.8s
BVAR Borovoye Array 60.62 340 P **P** **01 54 19.3 -0.6**
comp=Z,71nm,0.7s,baz=145,slow=7.2,SNR=213
BVAR PKP2bc **P'P'bc** **02 23 49.9 +1.3**
comp=Z,1.6nm,1.0s,baz=302,slow=6.8,SNR=3.8
comp=Z,71nm,0.7s
ASAJ Asahikawa 60.62 35 P **P** **01 54 20.5 +0.5**
comp=Z,27nm,1.0s,baz=230,slow=24,SNR=4.0
ASAJ LR LR 02 21 59.8
comp=Z,3μm,18.4s,baz=260,slow=38
comp=Z,27nm,1.0s
JKA Kamikawa-asahi 60.62 35 IAmb IAmb 01 54 45.2
comp=Z,130nm,0.9s
JKA Kamikawa-asahi 60.62 35 P **P** **01 54 21.4 +1.3**
comp=Z,178nm,1.1s
HNR Honiara 60.63 99 LR LR 02 22 46.3
comp=Z,2μm,20.7s,baz=343,slow=38
HNR Honiara 60.63 99 P **P** **01 54 20.3 -0.4**
HNR pmax pmax
comp=Z,589nm,1.1s
HNR MLR MLR
comp=Z,2μm,18.0s
HNR Honiara 60.63 99 P **P** **01 54 20.3 -0.4**
HNR Honiara 60.63 99 P **P** **01 54 19.5 -1.2**
comp=Z,6μmcomp=Z,602nm,1.0s
HNR pP **pP** **01 54 27.0 -2.4**
BORK Borovoye 60.66 340 P **P** **01 54 19.4 -0.7**
BORK pmax pmax
comp=Z,94nm,1.0s
BORK MLR MLR
comp=Z,4μm,21.0s
BORK Borovoye 60.66 340 P **P** **01 54 19.4 -0.7**
BORK IAmb IAmb 01 54 20.8
comp=Z,94nm,0.9s
ZEA Zeya 60.92 19 *e*P **P** **01 54 22.7 +0.8**
ZEA *e* 01 54 36.2
ZEA *e* 01 56 36.3
ZEA *e*S **S** **02 02 37.4 -0.4**
ZEA pmax pmax
comp=Z,300nm,3.2s
ZEA pmax pmax
comp=E,30nm,1.2s
ZEA pmax pmax
comp=N,30nm,1.4s
ZEA pmax pmax
comp=Z,70nm,1.5s
ZEA pmax pmax
comp=E,200nm,3.0s
ZEA pmax pmax
comp=N,200nm,2.6s
ZEA smax smax
comp=N,900nm,6.8s
ZEA smax smax
comp=E,1μm,6.1s
ZEA MLR MLR
comp=N,3μm,16.0s
ZEA MLR MLR
comp=Z,3μm,20.0s
KIBK Kibwezi 61.16 269 P **P** **01 54 24.6 +0.1**
KIBK Kibwezi 61.16 269 P **P** **01 54 24.4 0.0**
KIBK IAmb IAmb 01 54 41.8
comp=Z,120nm,1.4s
KIBK Kibwezi 61.16 269 P **P** **01 54 24.9 +0.5**
comp=Z,2μmcomp=Z,59nm,1.4s,comp=Z,2μm
KIBK pP **pP** **01 54 31.4 -1.1**
FURI Furi 61.49 282 P **P** **01 54 28.4 +1.5**
comp=Z,2μmcomp=Z,2μmcomp=Z,69nm,1.1s
BOD Bodaibo 61.50 9 *e*P **P** **01 54 26.2 +0.5**
BOD pmax pmax
comp=Z,210nm,1.4s
AB31 Akbulak array 61.93 332 *i* P **P** **01 54 27.5 -1.3**
AB31 pmax pmax
comp=Z,199nm,1.1s
ABKAR Akbulak array 61.93 332 P **P** **01 54 28.1 -0.7**
KMBO Kilima Mbogo 62.00 270 P **P** **01 54 30.8 +0.5**
KMBO Kilima Mbogo 62.00 270 P **P** **01 54 30.4 +0.1**
KMBO pmax pmax
comp=Z,210nm,1.9s
KMBO Kilima Mbogo 62.00 270 P **P** **01 54 30.4 +0.1**
KMBO IAmb IAmb 01 54 48.9
comp=Z,210nm,1.9s
KMBO Kilima Mbogo 62.00 270 P **P** **01 54 30.9 +0.5**
comp=Z,1μmcomp=Z,46nm,1.9s,comp=Z,3μm
GRNR Gornyy 62.02 26⇑ *i*P **P** **01 54 30.3 +0.9**
GRNR pmax pmax
comp=Z,20nm,1.1s
GRNR MLR MLR
comp=E,1μm,14.0s
GRNR MLR MLR
comp=N,5μm,16.0s
GRNR MLR MLR
comp=Z,5μm,15.0s
YUK Yuzh-Kuril'sk 62.46 36 *e*P **P** **01 54 32.1 -0.3**
YUK 01 56 49.2
YUK *e*S **S** **02 03 00.1 +2.5**
YUK SS **SS** **02 06 56.8 -5.2**
YUK pmax pmax
comp=Z,491nm,1.1s
YSS Yuzhno-Sakhali 62.48 32*ce*P **P** **01 54 33.0 +0.5**
YSS *e**SP **pwP** **01 54 45.4 +0.3**
YSS *e* 01 55 09.9
YSS *e* 01 56 50.5
YSS *e*S **S** **02 02 55.1 -2.7**
YSS *e*PS **PnS** **02 03 13.0 -2.9**
YSS *e*SS **SS** **02 07 07.5 +5.3**
YSS pmax pmax
comp=Z,1μm,3.2s
YSS pmax pmax
comp=Z,150nm,1.1s
YSS smax smax
comp=N,2μm,7.6s
YSS smax smax
comp=E,1μm,4.3s
YSS MLR MLR
comp=Z,3μm,18.0s
YSS MLR MLR
comp=N,2μm,15.0s
YSS MLR MLR
comp=E,3μm,16.0s
YSS Yuzhno-Sakhali 62.48 32 P **P** **01 54 32.4 -0.1**
YSS Yuzhno-Sakhali 62.48 32 P **P** **01 54 32.7 +0.2**
comp=Z,4μmcomp=Z,228nm,1.3s
UGL Uglegorsk 63.49 30 *e*P **P** **01 54 39.5 +0.3**
UGL *e*S **S** **02 03 05.7 -4.6**
UGL pmax pmax
comp=Z,2μm,5.5s
UGL smax smax
comp=E,3μm,17.0s
UGL smax smax
comp=N,7μm,10.0s
AKTO Aktyubinsk 63.65 332 LR LR 02 25 53.5
comp=N,2μm,20.0s,baz=121,slow=39
AKTO Aktyubinsk 63.65 332 P **P** **01 54 38.2 -2.0**
AKTO pmax pmax
comp=Z,103nm,1.3s
CASY Casey 63.93 175 P **P** **01 54 45.1 +3.3**
comp=Z,2μmcomp=Z,130nm,1.4s
LODK Lodwar 64.17 275 P **P** **01 54 45.5 +1.1**
SNR=18
LODK Lodwar 64.17 275 P **P** **01 54 44.5 0.0**
LODK IAmb IAmb 01 55 03.7
comp=Z,128nm,1.5s
LODK Lodwar 64.17 275 P **P** **01 54 45.3 +0.9**
comp=Z,3μmcomp=Z,1μmcomp=Z,58nm,1.5s
LODK pP **pP** **01 54 52.5 -0.1**
TYV Tymovskoe 64.94 29 *e*P P 01 54 59.2 +11
TYV *e*S S 02 03 46.5 +18
TYV pmax pmax
comp=Z,70nm,1.5s
TYV pmax pmax
comp=Z,600nm,3.8s
TYV smax smax
comp=N,800nm,4.3s
TYV smax smax
comp=E,800nm,4.3s
TYV smax smax
comp=N,26nm,1.8s
TYV smax smax
comp=E,28nm,1.8s
MAK Makhachkala 65.06 321 *e*P P 01 54 41.4 -8.2
MAK *e* 01 57 10.2
MAK *e*S S 02 03 20.5 -9.5
MAK *e*SS **SS** **02 07 38.3 -4.4**
MAK pmax pmax
comp=Z,640nm,1.2s
MAK MLR MLR
comp=Z,2μm,20.0s
HAKT HAKKARI 65.15 314 P **P** **01 54 50.4 -0.3**
comp=Z,7μmcomp=Z,263nm,1.3s,comp=Z,7μm
OZAP Van, Ozalp-Mer 65.42 315⇑P **P** **01 54 51.0 -1.3**
GNI Garni 65.55 317 P **P** **01 54 53.1 0.0**
comp=Z,21nm,1.0s,baz=116,slow=1.0,SNR=20
GNI LR LR 02 23 51.0
comp=Z,2μm,20.9s,baz=128,slow=36
comp=Z,21nm,1.0s
GNI Garni 65.55 317 P **P** **01 54 53.4 +0.4**
GNI Garni 65.55 317 P **P** **01 54 52.9 -0.2**
GNI Garni 65.55 317*ce*P **P** **01 54 52.4 -0.6**
GNI pmax pmax
comp=Z,221nm,1.9s
GNI MLR MLR
comp=Z,2μm,18.0s
GNI Garni 65.55 317 P **P** **01 54 53.3 +0.2**
GNI IAmb IAmb 01 55 22.9
comp=Z,166nm,1.3s
GNI Garni 65.55 317 P **P** **01 54 52.5 -0.6**
comp=Z,2μmcomp=Z,89nm,1.6s
GNI Garni 65.55 317 P **P** **01 54 53.5 +0.4**
comp=Z,2μmcomp=Z,2μmcomp=Z,118nm,2.0s
KOUNC Koumac, New Ca 65.68 111 P **P** **01 54 54.8 +0.7**
KOUNC Koumac, New Ca 65.68 111 P **P** **01 54 54.2 +0.2**
DIGO Kars 66.60 316 P **P** **01 54 59.9 0.0**
comp=Z,6μmcomp=Z,185nm,2.2s,comp=Z,6μm
GURO Guroymak-BITLI 66.77 314 IAmb IAmb 01 55 02.1
comp=Z,111nm,1.2s
SVE Sverdlovsk 67.08 338*ce*P **P** **01 55 02.5 +0.2**
SVE *e*S **S** **02 03 52.7 -1.4**
SVE pmax pmax
comp=Z,356nm,1.5s
SVE MLR MLR
comp=Z,2μm,19.0s
HOMI Horasan 67.47 316⇓P **P** **01 55 05.6 +0.2**
EPOS Posof 67.52 317 P **P** **01 55 06.1 +0.5**
comp=Z,2μmcomp=Z,108nm,1.4s
ARTI Arti 67.62 337 LR LR 02 28 29.5
comp=Z,3μm,18.4s,baz=131,slow=39
ARTI Arti 67.62 337 P **P** **01 55 04.9 -0.9**
ARTI pmax pmax
comp=Z,172nm,1.1s
ARTI MLR MLR
comp=Z,3μm,19.0s
ARTI Arti 67.62 337 P **P** **01 55 04.8 -0.9**
ARTI IAmb IAmb 01 55 06.5
comp=Z,172nm,1.1s
NOUC Port Laguerre 67.72 113 P **P** **01 55 05.3 -1.8**
NCK Nalchik 67.82 320*d i*P **P** **01 55 07.4 +0.1**
NCK pmax pmax
comp=Z,115nm,1.2s
DZM Mont Dzumac 67.84 113 LR LR 02 28 13.5
comp=Z,2μm,18.4s,baz=294,slow=39
ONTNC Ouen Toro 67.88 113 P **P** **01 55 08.5 +0.4**
ONTNC IAmb IAmb 01 55 23.1
comp=Z,86nm,1.1s
SANVU Saraoutou 68.01 105 P P 01 55 03.5 -5.5
OUENC Ouen Island, N 68.25 113 P **P** **01 55 10.8 +0.4**
OUENC IAmb IAmb 01 55 31.5
comp=Z,193nm,1.5s
NEUR Neytrino 68.30 319 *i* P **P** **01 55 10.5 -0.1**
NEUR pmax pmax
comp=Z,96nm,1.5s
KBZ Khabaz 68.38 320 P **P** **01 55 10.4 -0.3**
comp=Z,56nm,0.9s,baz=114,slow=5.8,SNR=38
KBZ LR LR 02 26 19.7
comp=Z,1μm,21.9s,baz=104,slow=37
comp=Z,56nm,0.9s
KBZ Khabaz 68.38 320*d i*P **P** **01 55 11.1 +0.3**
KBZ pmax pmax
comp=Z,118nm,1.1s
KBZ MLR MLR
comp=Z,2μm,20.0s
ASF Jabal al Asfar 68.42 306 P **P** **01 55 11.9 +0.4**
comp=Z,54nm,1.0s,baz=129,slow=1.6,SNR=66
ASF LR LR 02 25 28.2
comp=Z,4μm,19.4s,baz=99,slow=36
comp=Z,54nm,1.0s
ASF Jabal al Asfar 68.42 306 P **P** **01 55 12.6 +1.2**
ASF AML AML
KOPT Kop Dagi 68.44 315 IAmb IAmb 01 55 14.0
comp=Z,240nm,1.7s
MBAR Mbarara 68.53 270 LR LR 02 19 19.3
comp=Z,3μm,21.7s,baz=90,slow=31
MBAR Mbarara 68.53 270 P **P** **01 55 13.0 +0.4**
MBAR Mbarara 68.53 270 P **P** **01 55 12.9 +0.4**
MBAR pmax pmax
comp=Z,118nm,1.6s
MBAR Mbarara 68.53 270 P **P** **01 55 12.8 +0.3**
MBAR IAmb IAmb 01 55 32.2
comp=Z,118nm,1.6s
MBAR Mbarara 68.53 270 P **P** **01 55 13.1 +0.5**
comp=Z,3μmcomp=Z,1μmcomp=Z,36nm,1.8s
MBAR Mbarara 68.53 270 P **P** **01 55 13.4 +0.9**
SHA1 Shidzhatmaz 68.54 319*d i*P **P** **01 55 12.2 +0.1**
KVAR Kislovodsk Arr 68.61 320 P **P** **01 55 13.3 +0.9**
comp=Z,24nm,1.0s,baz=90,slow=20,SNR=8.4
comp=Z,24nm,1.0s
KIV Kislovodsk 68.62 320 *i* P **P** **01 55 12.6 +0.1**
SNR=24
KIV Kislovodsk 68.62 320 P **P** **01 55 12.5 +0.1**
KIV Kislovodsk 68.62 320 P **P** **01 55 12.0 -0.4**
KIV Kislovodsk 68.62 320 P **P** **01 55 12.1 -0.3**
KIV IAmb IAmb 01 55 13.8
comp=Z,157nm,1.1s
KIV Kislovodsk 68.62 320⇑P **P** **01 55 12.1 -0.4**
KIV Kislovodsk 68.62 320 P **P** **01 55 11.9 -0.4**
comp=Z,2μmcomp=Z,127nm,1.3s
KIV Kislovodsk 68.62 320 P **P** **01 55 12.6 +0.1**
comp=Z,2μmcomp=Z,3μmcomp=Z,163nm,1.3s
YAK Yakutsk 68.62 15 LR LR 02 28 34.6
comp=Z,4μm,18.1s,baz=210,slow=39
YAK Yakutsk 68.62 15 *e*P **P** **01 55 11.3 -0.6**
YAK *e**PP **sP** **01 55 22.4 -1.4**
YAK *e* 01 55 35.9
YAK *e* 01 57 41.9
YAK *e*PPP PPP 01 59 23.9
YAK *e*S **S** **02 04 12.3 -0.1**
YAK *e**SS **sS** **02 04 30.2 +3.4**
YAK *e* 02 05 01.3
YAK *e*SS **SS** **02 08 32.8 -4.4**
YAK pmax pmax
comp=Z,134nm,1.1s
YAK pmax pmax

comp=N,47nm,1.4s
YAK pmax pmax
comp=E,50nm,1.8s
YAK pmax pmax
comp=Z,417nm,3.5s
YAK pmax pmax
comp=E,210nm,3.6s
YAK pmax pmax
comp=N,301nm,3.5s
YAK smax smax
comp=N,725nm,5.6s
YAK smax smax
comp=E,229nm,4.2s
YAK Yakutsk 68.62 15 P **P** **01 55 11.3 -0.6**
YAK Yakutsk 68.62 15 IAMs_20 IAMs_20 02 29 37.4
comp=Z,5µm,18.0s
YAK Yakutsk 68.62 15 P **P** **01 55 11.7 -0.2**
comp=Z,4µmcomp=Z,355nm,1.4s
HSNJ Maan 68.85 304 P **P** **01 55 15.6 +1.4**
HSNJ AML AML
POGA Pongola 68.86 242 IAmb IAmb 01 55 22.8
comp=Z,175nm,1.4s
POGA Pongola 68.86 242 P **P** **01 55 16.7 +2.5**
comp=Z,5µmcomp=Z,216nm,1.7s
HSUJ Al Zarqa 68.97 306 P **P** **01 55 16.2 +1.4**
HSUJ AML AML
AQBJ Aqaba 69.23 303 P **P** **01 55 17.6 +1.2**
AQBJ AML AML
GHAJ Ghor Haditha 69.25 305 IAmb IAmb 01 55 17.9
comp=Z,102nm,1.1s
GHAJ IAMs_20 IAMs_20 02 24 06.2
comp=Z,6µm,20.0s
GHAJ Ghor Haditha 69.25 305 P **P** **01 55 17.6 +1.2**
GHAJ AML AML
GHAJ Ghor Haditha 69.25 305 P **P** **01 55 16.9 +0.4**
comp=Z,2µmcomp=Z,3µmcomp=Z,140nm,1.8s
LISJ El Lisan 69.30 305 P **P** **01 55 18.3 +1.6**
LISJ AML AML
EIL Elat 69.30 303 P **P** **01 55 17.4 +0.6**
comp=Z,97nm,0.9s,baz=125,slow=2.0,SNR=46
EIL LR LR 02 24 58.8
comp=Z,6µm,19.5s,baz=110,slow=35
comp=Z,97nm,0.9s
EIL Elat 69.30 303 P **P** **01 55 17.6 +0.8**
EIL AML AML
EIL Elat 69.30 303 P **P** **01 55 17.0 +0.1**
comp=Z,2µmcomp=Z,3µmcomp=Z,172nm,1.6s
HRFI Mount Harif 69.33 303 P **P** **01 55 18.0 +1.0**
HRFI AML AML
HRFI Mount Harif 69.33 303 P **P** **01 55 17.7 +0.7**
comp=Z,2µmcomp=Z,4µmcomp=Z,249nm,1.5s
KTUT Trabzon 69.34 316 ⇓P **P** **01 55 16.6 -0.2**
KELT Kelkit 69.37 315 P **P** **01 55 17.8 +0.4**
comp=Z,6µmcomp=Z,258nm,1.9s
MAW Mawson 69.41 194 P **P** **01 55 18.6 +1.9**
comp=Z,19nm,1.1s
MAW Mawson 69.41 194 P **P** **01 55 17.9 +1.2**
comp=Z,23nm,1.0s,baz=31,slow=6.4,SNR=9.8
comp=Z,23nm,1.0s
MAW Mawson 69.41 194 P **P** **01 55 18.2 +1.5**
MSBI Mazada 69.42 305 P **P** **01 55 18.4 +0.9**
comp=Z,3µmcomp=Z,2µmcomp=Z,79nm,2.1s
PRNI Paran 69.44 304 P **P** **01 55 18.8 +1.1**
PRNI AML AML
UJAP Al Uja 69.52 305 P **P** **01 55 18.8 +0.7**
comp=Z,2µmcomp=Z,82nm,1.8s
QRNJ Al-Qirein 69.54 306 P **P** **01 55 19.7 +1.5**
QRNJ AML AML
KEMA Kemaliye 69.59 314 P **P** **01 55 19.1 +0.6**
comp=Z,7µmcomp=Z,472nm,0.9s
ARPR Arapgir-MALATY 69.64 313 IAmb IAmb 01 55 20.1
comp=Z,115nm,1.2s
MMLI Mount Malkishu 69.69 306 P **P** **01 55 19.7 +0.4**
comp=Z,3µmcomp=Z,117nm,2.0s
BEIL Beino 69.72 308 *e*P **P** **01 55 20.3 +0.9**
GEM Giv'at Ha'Em 69.73 307 P **P** **01 55 21.0 +1.6**
GEM AML AML
SALP Salfit 69.77 306 P **P** **01 55 21.0 +1.2**
SALP AML AML
GAZ Gaziantep 69.79 311 IAmb IAmb 01 55 21.1
comp=Z,132nm,1.1s
DRV Dumont d'Urvil 69.83 164 P **P** **01 55 18.1 -1.2**
HWQ Hawqa 69.83 308 *e*P **P** **01 55 20.7 +0.5**
MMAI Mount Meron Ar 69.88 307 P **P** **01 55 20.6 +0.2**
comp=Z,19nm,0.9s,baz=58,slow=11,SNR=21
MMAI LR LR 02 26 17.1
comp=Z,5µm,19.9s,baz=100,slow=36
comp=Z,19nm,0.9s
BHL Bhannes 69.94 308 *e*P **P** **01 55 21.7 +0.8**
BELG Belogornoye 69.97 329 *i* P **P** **01 55 19.4 -1.0**
BELG pmax pmax
comp=Z,50nm,1.0s
BELG MLR MLR
comp=Z,569nm,22.0s
KZIT Kziot 70.10 304 P **P** **01 55 22.9 +1.2**
KZIT AML AML
KZIT Kziot 70.10 304 P **P** **01 55 22.5 +0.8**
comp=Z,2µmcomp=Z,3µmcomp=Z,194nm,1.9s
VSLR Vesyoloye 70.15 318 *i* P **P** **01 55 21.8 0.0**
VSLR pmax pmax
comp=Z,138nm,1.2s
LABN Labinsk 70.19 320 *e*P **P** **01 55 22.0 0.0**
LABN *e* 01 57 55.6
LABN *e*S **S** **02 04 33.1 +1.6**
LABN pmax pmax
comp=Z,72nm,1.2s
LABN pmax pmax
comp=Z,1µm,3.0s
SOC Sochi 70.41 318 *e*P **P** **01 55 21.7 -1.6**
SOC *e* 01 57 55.4
SOC *e*PPP PPP 01 59 45.2
SOC *e*S **S** **02 04 33.1 -1.0**
SOC *e*SS **SS** **02 09 01.9 -3.6**
SOC pmax pmax
comp=Z,101nm,1.1s
SOC MLR MLR
comp=Z,2µm,23.0s
ANDN Andirin 70.58 311 P **P** **01 55 25.2 +0.6**
comp=Z,8µmcomp=Z,546nm,1.5s
ERBR Yeremizino-Bor 70.80 321 *d* iP **P** **01 55 24.9 -0.8**
ERBR *e* 01 57 58.8
ERBR *e*PPP PPP 01 59 51.0
ERBR *e*S **S** **02 04 36.9 -1.7**
ERBR pmax pmax
comp=Z,138nm,1.1s
ERBR pmax pmax
comp=Z,1µm,2.6s
ERBR MLR MLR
comp=Z,2µm,19.0s
MATP Matopo 71.04 249 LR LR 02 23 05.2
comp=Z,15µm,18.5s,baz=84,slow=33
SKR Severo-Kuril's 71.87 34 *e*P **P** **01 55 34.4 +2.4**
SKR pmax pmax
comp=Z,700nm,3.8s
CSS Mathiatis 72.09 308 IAmb IAmb 01 55 34.6
comp=Z,131nm,1.2s
CSS IAMs_20 IAMs_20 02 28 12.2
comp=Z,5µm,19.0s
CSS Mathiatis 72.09 308 P **P** **01 55 33.4 -0.4**
comp=Z,2µmcomp=Z,136nm,1.8s
CSS Mathiatis 72.09 308 P **P** **01 55 34.3 +0.5**
CSS AML AML
CSS Mathiatis 72.09 308 P **P** **01 55 34.0 +0.3**
comp=Z,2µmcomp=Z,2µmcomp=Z,136nm,1.8s
NRIK Noril'sk 72.36 356 P **P** **01 55 34.9 +0.2**
comp=Z,47nm,1.0s,baz=164,slow=4.9,SNR=42
NRIK LR LR 02 29 54.1
comp=Z,4µm,20.5s,baz=166,slow=38
comp=Z,47nm,1.0s
NRIK Noril'sk 72.36 356 *d* iP **P** **01 55 33.9 -0.7**
NRIK pmax pmax
comp=Z,186nm,1.5s
NRIK MLR MLR
comp=Z,4µm,19.0s
NRIK Noril'sk 72.36 356 IAmb IAmb 01 55 49.1
comp=Z,230nm,1.1s
ANN Anapa 72.39 319 *c* iP **P** **01 55 33.7 -1.6**
ANN *e* 01 58 13.4
ANN *e*S **S** **02 04 54.7 -2.3**
ANN pmax pmax
comp=Z,28nm,1.1s
ANN pmax pmax
comp=Z,472nm,3.6s
ANN MLR MLR
comp=Z,1µm,18.0s
VRH Novokhopyorsk 72.52 326 *e*P **P** **01 55 32.9 -3.0**
VRH *e**SP **pwP** **01 55 48.7 -0.2**
VRH pmax pmax
comp=Z,390nm,1.0s
KIRV Kirov 72.72 335 LR LR 02 32 24.1
comp=Z,3µm,19.2s,baz=120,slow=40
KIRV Kirov 72.72 335 *d* iP **P** **01 55 36.9 0.0**
KIRS Kirsehir-Merke 72.89 312 ⇓P **P** **01 55 36.9 -1.6**
SOOWA Sowa 73.19 249 P **P** **01 55 40.8 +0.2**
BR104 Keskin Array S 73.27 313 P **P** **01 55 38.8 -2.0**
comp=Z,369nmcomp=Z,40nm,0.9s
BR131 Keskin Array S 73.28 313 P **P** **01 55 39.5 -1.4**
SNR=36
BRTR Keskin Array B 73.28 313 P **P** **01 55 39.6 -1.3**
comp=Z,24nm,0.8s,baz=132,slow=7.1,SNR=125
BRTR LR LR 02 27 56.1
comp=Z,3µm,21.1s,baz=108,slow=36
comp=Z,24nm,0.8s
BRTR Keskin Array B 73.28 313 P **P** **01 55 39.7 -1.2**
BRTR Keskin Array B 73.28 313 P **P** **01 55 39.7 -1.2**
BR105 Keskin Array S 73.29 313 P **P** **01 55 39.3 -1.6**
comp=Z,408nmcomp=Z,40nm,0.9s
WHZ Wether Hill Ro 73.29 137 IAMs_20 IAMs_20 02 30 07.6
comp=Z,5µm,20.0s
BR106 Keskin Array S 73.29 313 P **P** **01 55 39.1 -1.9**
comp=Z,371nmcomp=Z,38nm,0.9s
ILGA Ilgaz 73.64 314 IAmb IAmb 01 55 59.0
comp=Z,102nm,1.0s
KKUL Konya-Kulu 73.64 312 P **P** **01 55 42.6 -0.4**
comp=Z,2µmcomp=Z,111nm,1.4s,comp=Z,2µm
BZK Bozkurt 73.73 315 IAmb IAmb 01 55 59.5
comp=Z,190nm,1.0s
BZK Bozkurt 73.73 315 ⇑P **P** **01 55 42.3 -0.9**
BZK Bozkurt 73.73 315 P **P** **01 55 42.8 -0.4**
comp=Z,3µmcomp=Z,207nm,1.0s
VORD Divnogorie 73.78 325 *e*P **P** **01 55 41.1 -2.2**
VORD *e**SP **sP** **01 55 54.2 -0.9**
VORD pmax pmax
comp=Z,140nm,0.9s
WKZ Wanaka 73.78 136 IAMs_20 IAMs_20 02 26 32.7
comp=Z,5µm,21.0s
PEA0B Petropavlovsk- 73.88 32 *i* P **P** **01 55 43.6 -0.3**
PETK Petropavlovsk- 73.88 32 P **P** **01 55 43.9 -0.1**
comp=Z,9.1nm,0.8s,baz=236,slow=1.3,SNR=7.4
PETK LR LR 02 28 24.1
comp=Z,2µm,20.8s,baz=254,slow=36
comp=Z,9.1nm,0.8s
PETK Petropavlovsk- 73.88 32 P **P** **01 55 44.1 +0.1**
PETK Petropavlovsk- 73.88 32 P **P** **01 55 44.1 +0.1**
VSR Storozhevoye 73.95 325 *e*P **P** **01 55 41.5 -2.9**
VSR *e**SP **sP** **01 55 54.7 -1.5**
VSR pmax pmax
comp=Z,260nm,1.0s
KEPZ Antalya-Kepez 73.98 310 ⇓P **P** **01 55 43.2 -1.7**
MA2 Magadan 73.99 24 *c* iP **P** **01 55 45.0 +0.6**
MA2 pmax pmax
comp=Z,188nm,1.2s
MA2 Magadan 73.99 24 P **P** **01 55 44.9 +0.5**
MA2 IAmb IAmb 01 56 14.5
comp=Z,180nm,1.2s
MA2 IAMs_20 IAMs_20 02 31 19.3
comp=Z,4µm,20.0s
MA2 Magadan 73.99 24 P **P** **01 55 45.8 +1.3**
comp=Z,2µmcomp=Z,104nm,1.5s
KSANE Kasane 74.05 252 IAmb IAmb 01 56 02.0
comp=Z,112nm,1.1s
KSANE Kasane 74.05 252 P **P** **01 55 46.4 +0.7**
LBTB Lobatse 74.06 245 LR LR 02 24 09.7
comp=Z,5µm,18.4s,baz=82,slow=32
LBTB Lobatse 74.06 245 P **P** **01 55 45.2 -0.5**
comp=Z,2µmcomp=Z,44nm,1.2s
LBTB pP **pP** **01 55 52.6 -1.5**
LBTB Lobatse 74.06 245 P **P** **01 55 46.0 +0.3**
FOZ Fox Glacier 74.07 135 IAMs_20 IAMs_20 02 25 59.4
comp=Z,6µm,22.0s
VORR Voronezh 74.13 326 *e*P **P** **01 55 41.5 -3.9**
VORR *e**SP **sP** **01 55 57.1 -0.1**
VORR pmax pmax
comp=Z,170nm,0.9s
GRHM Grahamstown, E 74.22 236 P **P** **01 55 46.7 +0.2**
GRHM IAmb IAmb 01 55 55.3
comp=Z,133nm,1.3s
PET Petropavlovsk 74.35 33 *e*P **P** **01 55 47.0 +0.3**
PET *e* 01 56 01.1
PET *e* 01 58 30.1
PET *i*S **S** **02 05 21.2 +2.3**
PET *e*PS **PnS** **02 05 59.8 +4.2**
PET *e*SS **SS** **02 10 11.4 +6.0**
PET pmax pmax
comp=Z,132nm,1.1s
PET pmax pmax
comp=Z,2µm,6.0s
PET pmax pmax
comp=Z,900nm,6.9s
PET Petropavlovsk 74.35 33 P **P** **01 55 46.9 +0.3**
PET Petropavlovsk 74.35 33 P **P** **01 55 46.0 -0.6**
comp=Z,4µmcomp=Z,208nm,1.5s
CIDE Kastamonu/Cide 74.45 315 ⇓P **P** **01 55 46.2 -1.3**
LBZ Lake Benmore 74.51 135 IAMs_20 IAMs_20 02 24 26.8
comp=Z,5µm,22.0s
LBZ Lake Benmore 74.51 135 P **P** **01 55 49.1 +1.3**
SIM Simferopol' 74.65 318 *e*P **P** **01 55 48.4 -0.2**
SIM 01 58 34.0
SIM *e*S **S** **02 05 22.0 -0.6**
SIM pmax pmax
comp=Z,100nm,1.0s
SIM pmax pmax
comp=Z,400nm,2.4s
SIM pmax pmax
comp=Z,340nm,6.0s
SIM smax smax
comp=E,420nm,7.2s
SIM MLR MLR
comp=Z,1µm,21.0s
BOSA Boshof 74.67 241 P **P** **01 55 48.8 -0.4**
comp=Z,16nm,0.8s,baz=93,slow=7.2,SNR=25
BOSA LR LR 02 24 38.4
comp=Z,3µm,18.1s,baz=92,slow=33
comp=Z,16nm,0.8s
BOSA Boshof 74.67 241 P **P** **01 55 49.6 +0.4**
comp=Z,59nm,1.2s
BOSA pP **pP** **01 55 55.6 -2.0**
BOSA Boshof 74.67 241 P **P** **01 55 49.0 -0.2**
LPSR Galich'ya Gora 74.69 327 *e*P **P** **01 55 46.3 -2.3**
LPSR *e**SP **sP** **01 56 00.8 +0.4**
LPSR pmax pmax
comp=Z,320nm,1.0s
KDWAN Kaudwane 74.80 247 P **P** **01 55 49.6 -0.5**
ODZ Otahua Downs 74.96 136 IAMs_20 IAMs_20 02 29 46.8
comp=Z,4µm,19.0s
RPZ Rata Peaks 74.99 135 LR LR 02 28 23.0
comp=Z,1µm,21.6s,baz=248,slow=35
ISP Isparta 75.06 310 IAMs_20 IAMs_20 02 31 47.0
comp=Z,3µm,19.0s
INZ Inchbonnie 75.09 133 IAmb IAmb 01 56 14.8
comp=Z,136nm,1.2s
INZ Inchbonnie 75.09 133 P **P** **01 55 52.3 +1.1**
ELL Elmali 75.25 309 IAmb IAmb 01 56 23.8
comp=Z,268nm,1.6s
MDUB Mudurnu 75.29 313 IAmb IAmb 01 55 53.1
comp=Z,187nm,1.0s
SKOMA Sekoma 75.54 246 P **P** **01 55 54.6 +0.3**
QRZ Quartz Range 75.57 131 P **P** **01 55 54.4 +0.3**
QRZ IAmb IAmb 01 56 09.6
comp=Z,157nm,1.2s
QRZ Quartz Range 75.57 131 pP pP 01 56 06.3 +3.3
OXZ Oxford 75.62 134 IAMs_20 IAMs_20 02 27 22.4
comp=Z,6µm,22.0s
OUZ Omahuta 75.63 126 P **P** **01 55 57.4 +2.9**
comp=Z,1µmcomp=Z,52nm,1.2s
SAHE Sakarya_HENDEK 75.64 313 ⇓P **P** **01 55 52.8 -1.7**
THZ Tophouse 76.00 132 P **P** **01 55 57.1 +0.5**
THZ IAmb IAmb 01 56 10.5
comp=Z,205nm,1.6s
THZ Tophouse 76.00 132 P **P** **01 55 59.4 +2.9**
MQZ McQueen's Vall 76.13 134 IAMs_20 IAMs_20 02 28 44.8
comp=Z,4µm,19.0s
TAVA DENIZLI Tavas 76.20 309 ⇑P **P** **01 55 56.5 -1.3**
GVZ Greta Valley S 76.28 133 IAMs_20 IAMs_20 02 27 52.9
comp=Z,6µm,21.0s
ARG Arkhangelos 76.51 308 IAmb IAmb 01 56 00.6
comp=Z,137nm,1.1s
ARG Arkhangelos 76.51 308 P **P** **01 55 58.6 -0.8**
comp=Z,2µmcomp=Z,132nm,1.4s
KHZ Kahutara 76.57 133 P **P** **01 56 00.3 +0.7**
KHZ IAmb IAmb 01 56 15.8
comp=Z,244nm,1.5s
KHZ Kahutara 76.57 133 P **P** **01 55 58.8 -0.8**
comp=Z,122nm,1.4s
SEY Seymchan 76.57 22 LR LR 02 33 28.9
comp=Z,4µm,18.3s,baz=233,slow=39
SEY Seymchan 76.57 22 ⇑*e*P **P** **01 55 59.6 +0.4**
SEY pmax pmax
comp=Z,216nm,1.5s
PHPEN Phepeng 76.57 245 P **P** **01 56 00.3 +0.1**
SILT Sile 76.61 313 ⇓P **P** **01 55 58.8 -1.0**
YLV Yalova 76.65 313 P **P** **01 55 59.0 -1.2**
comp=Z,2µmcomp=Z,164nm,1.3s
TIXI Tiksi 76.68 9 P **P** **01 55 59.4 -0.3**
TIXI pmax pmax
comp=Z,268nm,1.3s
TIXI Tiksi 76.68 9 P **P** **01 55 59.4 -0.3**
MOS Moscow 76.74 329 *d* iP **P** **01 55 59.8 -0.5**
MOS *e* 01 56 12.1
MOS *e* 01 58 49.5
MOS *e*S **S** **02 05 41.0 -4.2**
MOS *e* 02 06 10.2
MOS *e*SS **SS** **02 10 37.8 -3.8**
MOS *e*SSS SSS 02 13 57.2
MOS pmax pmax
comp=Z,401nm,1.2s
MOS pmax pmax
comp=E,109nm,1.1s
MOS pmax pmax
comp=N,68nm,1.0s
MOS pmax pmax
comp=Z,1µm,1.8s
MOS smax smax
comp=E,1µm,4.6s
MOS smax smax
comp=N,2µm,5.3s
SYO Syowa Base 76.95 199 ⇓*i* iP **P** **01 56 02.0 +0.8**
OBN Obninsk 77.03 328 P **P** **01 56 01.7 -0.2**
comp=N,110nm,0.8s,baz=115,slow=0.8,SNR=46
OBN LR LR 02 35 34.2
comp=N,2µm,18.9s,baz=107,slow=40
comp=N,110nm,0.8s
OBN Obninsk 77.03 328 *c* iP **P** **01 56 01.6 -0.2**
OBN *e* 01 56 13.4
OBN *e* 01 58 56.9
OBN *i*S **S** **02 05 48.0 -0.3**
OBN *i*SS **SS** **02 10 44.9 -0.9**
OBN pmax pmax
comp=Z,303nm,1.1s
OBN MLR MLR
comp=Z,3µm,21.0s
OBN Obninsk 77.03 328 P **P** **01 56 01.9 0.0**
OBN Obninsk 77.03 328 ⇑P **P** **01 56 00.8 -1.0**
OBN Obninsk 77.03 328 P **P** **01 56 01.2 -0.7**
comp=Z,4µmcomp=Z,280nm,1.4s
OBN Obninsk 77.03 328 P **P** **01 56 02.0 +0.1**
comp=Z,4µmcomp=Z,282nm,1.4s,comp=Z,4µm
HIZ Hauiti 77.03 129 IAmb IAmb 01 56 20.3
comp=Z,227nm,1.2s
HIZ Hauiti 77.03 129 P **P** **01 56 02.5 +0.1**
comp=Z,160nm,1.2s
AYDN Tasoluk 77.04 309 P **P** **01 56 02.2 -0.3**
comp=Z,6µmcomp=Z,293nm,2.0s
KLYT Kilyos 77.07 313 ⇑P **P** **01 56 01.7 -0.8**
KLYT Kilyos 77.07 313 P **P** **01 56 01.3 -1.2**
comp=Z,2µmcomp=Z,106nm,1.7s
KARP Karpathos 77.12 307 P **P** **01 56 02.2 -0.8**
comp=Z,4µmcomp=Z,330nm,1.1s
KARP Karpathos 77.12 307 P **P** **01 56 03.6 +0.6**
KARP Karpathos 77.12 307 P **P** **01 56 03.3 +0.3**
comp=Z,3µmcomp=Z,4µmcomp=Z,330nm,1.1s,comp=Z,4µm
BDRM Kayabasi 77.24 309 ⇓P **P** **01 56 02.7 -0.9**
ALKP Alkanpan, Nort 77.40 240 *e*P **P** **01 56 04.9 +0.2**
TOZ Tahuroa Road 77.45 128 IAMs_20 IAMs_20 02 28 43.8
comp=Z,4µm,22.0s
BALB Balikesir 77.52 311 IAmb IAmb 01 56 05.4
comp=Z,116nm,1.3s
BAND Balkesir-Ban 77.53 312 ⇑P **P** **01 56 03.7 -1.4**
FWVZ Far West T-bar 77.66 129 P **P** **01 56 07.3 +1.1**
MAVZ Matarangi 77.67 129 P **P** **01 56 08.3 +2.0**
CTYL Yalikoy Yolu 77.68 313 ⇓P **P** **01 56 04.9 -1.0**
WNVZ Wahianoa 77.70 130 P **P** **01 56 07.8 +1.5**
OTVZ Oturere 77.74 129 P **P** **01 56 08.5 +2.0**
BALY Balya 77.74 312 P **P** **01 56 06.1 -0.3**
comp=Z,6µmcomp=Z,240nm,2.2s,comp=Z,6µm
ZKR Zakros 77.78 307 P **P** **01 56 07.0 +0.4**
comp=Z,2µmcomp=Z,96nm,1.1s,comp=Z,2µm
GRTLG Ghanzi 77.89 249 IAmb IAmb 01 56 23.5
comp=Z,125nm,1.1s
GRTLG Ghanzi 77.89 249 P **P** **01 56 07.7 0.0**
PURM Purcari 77.97 319 ⇓P **P** **01 56 06.5 -0.8**
PURM Purcari 77.97 319 P **P** **01 56 06.1 -1.3**
comp=Z,3µmcomp=Z,229nm,1.1s
LKGWB Lokgwabe 77.99 246 IAmb IAmb 01 56 20.9
comp=Z,170nm,1.1s
LKGWB Lokgwabe 77.99 246 P **P** **01 56 05.6 -2.6**
SHAB Shabla 77.99 315 ⇑P **P** **01 56 07.2 -0.3**
MANR Mangalia 78.08 316 ⇑P **P** **01 56 07.3 -0.7**
BHHZ Black Hill Sta 78.08 130 P **P** **01 56 09.5 +1.2**
KLMR Klimovskoe 78.16 334 *e*P **P** **01 56 07.0 -1.1**
KLMR S **S** **02 06 00.4 0.0**
KLMR SS **SS** **02 11 08.3 +5.5**
KLMR pmax pmax
comp=Z,287nm,1.3s
KLMR MLR MLR
comp=Z,2µm,15.0s
PNHZ Pukenui 78.23 130 P **P** **01 56 10.7 +1.6**
MFTR Murfatlar 78.29 316 ⇓P **P** **01 56 08.4 -0.8**
TLCR 78.29 317 P **P** **01 56 08.6 -0.6**
TLCR 78.29 317 ⇓P **P** **01 56 08.6 -0.6**
BFZ Birch Farm 78.35 131 IAmb IAmb 01 56 39.9
comp=Z,231nm,1.3s
BFZ Birch Farm 78.35 131 P **P** **01 56 10.8 +1.1**
comp=Z,3µmcomp=Z,123nm,1.1s,comp=Z,3µm
TIRR Tirgusor 78.37 316 P **P** **01 56 09.3 -0.3**
TIRR Tirgusor 78.37 316 ⇓P **P** **01 56 09.4 -0.3**
TIRR Tirgusor 78.37 316 P **P** **01 56 08.4 -1.2**
comp=Z,2µmcomp=Z,103nm,1.1s
TIRR Tirgusor 78.37 316 P **P** **01 56 09.0 -0.6**
comp=Z,2µmcomp=Z,103nm,1.1s
BKZ Black Stump Fm 78.38 129 P **P** **01 56 10.3 +0.4**
KEIM Keimoes 78.44 241 *e*P **P** **01 56 08.9 -1.6**
TPGR Topolog 78.47 317 ⇑P **P** **01 56 09.8 -0.5**
MSVF Nonsavu 78.49 107 LR LR 02 33 27.9
comp=Z,1µm,18.7s,baz=270,slow=38
MSVF Nonsavu 78.49 107 P **P** **01 56 10.8 -0.1**
MSVF pmax pmax
comp=Z,125nm,1.3s
MSVF MLR MLR
comp=Z,2µm,20.0s
MSVF Nonsavu 78.49 107 P **P** **01 56 10.8 -0.1**
MSVF IAmb IAmb 01 56 26.7
comp=Z,126nm,1.3s
MSVF Nonsavu 78.49 107 P **P** **01 56 13.3 +2.3**
comp=Z,2µmcomp=Z,73nm,1.1s
MTHZ Maungataniwha 78.61 129 P **P** **01 56 12.1 +0.8**
THERA Ancient Thera, 78.63 308 P **P** **01 56 10.7 -0.6**
comp=Z,2µmcomp=Z,68nm,1.3s,comp=Z,2µm
TLBR Topalu 78.65 316 ⇑P **P** **01 56 10.7 -0.5**
RTZ Ruatahuna 78.70 129 P **P** **01 56 11.9 +0.2**
RTZ IAMs_20 IAMs_20 02 30 58.9
comp=Z,5µm,20.0s
EZN Ezine 78.73 311 P **P** **01 56 10.3 -1.4**
EZN Ezine 78.73 311 ⇑P **P** **01 56 10.4 -1.4**
EZN Ezine 78.73 311 P **P** **01 56 10.8 -0.9**
comp=Z,1µmcomp=Z,51nm,2.1s
APE Apeiranthos 78.74 308 P **P** **01 56 10.3 -1.6**
APE Apeiranthos 78.74 308 ⇑P **P** **01 56 10.3 -1.6**
PRD Provadia 78.74 315 *e*P **P** **01 56 12.3 +0.6**
KAHZ Kahuranaki 78.74 130 P **P** **01 56 13.2 +1.3**
CFR Carcaliu 78.75 317 P **P** **01 56 11.1 -0.6**
CFR Carcaliu 78.75 317 ⇑P **P** **01 56 11.2 -0.6**
HARR Harsova 78.77 316 P **P** **01 56 11.3 -0.5**
HARR Harsova 78.77 316 ⇓P **P** **01 56 11.4 -0.5**
URZ Urewera 78.77 128 LR LR 02 31 22.5
comp=Z,3µm,20.2s,baz=286,slow=36
URZ Urewera 78.77 128 P **P** **01 56 11.9 -0.1**
comp=Z,2µmcomp=Z,77nm,1.4s,comp=Z,2µm
KIS Kishinev 78.80 319 P **P** **01 56 11.0 -0.9**
comp=Z,1µmcomp=Z,86nm,0.8s
SUR Sutherland 78.80 238 LR LR 02 25 18.8
comp=Z,3µm,19.5s,baz=88,slow=31
SUR Sutherland 78.80 238 P **P** **01 56 13.1 +0.5**
SUR Sutherland 78.80 238 P **P** **01 56 13.8 +1.2**
SUR IAmb IAmb 01 56 31.0
comp=Z,160nm,1.1s
SUR Sutherland 78.80 238 IAMs_20 IAMs_20 02 24 41.3

comp=Z,3µm,20.0s
SUR Sutherland 78.80 238 P **P** **01 56 13.1 +0.5**
comp=Z,163nm,1.2s
SUR Sutherland 78.80 238 P **P** **01 56 13.6 +1.0**
IDI Anoyia 78.88 307 P **P** **01 56 12.2 -0.6**
comp=Z,44nm,0.9s,baz=104,slow=5.9,SNR=18
IDI LR LR 02 35 22.7
comp=Z,1µm,19.5s,baz=89,slow=39
comp=Z,44nm,0.9s
IDI Anoyia 78.88 307 P **P** **01 56 12.2 -0.6**
KOOLE Kule 78.89 247 IAmb IAmb 01 56 29.0
comp=Z,105nm,1.1s
KOOLE Kule 78.89 247 P **P** **01 56 13.1 -0.1**
VLDR Vladesti 78.97 318 ⇓P **P** **01 56 12.7 -0.3**
SCTR Scanteiesti 78.98 317 ⇓P **P** **01 56 12.8 -0.2**
AUGR Augrabies 78.98 242 *e*P **P** **01 56 13.6 +0.1**
SCHLR Schela 79.04 317 ⇑P **P** **01 56 13.0 -0.3**
CAVK Edirne/Enez-Ca 79.04 312 ⇓P **P** **01 56 12.7 -0.8**
MWZ Matawai 79.10 128 P **P** **01 56 14.2 +0.3**
VARL Varlezi 79.14 318 ⇓P **P** **01 56 13.9 0.0**
ALN Alexandroupoli 79.18 312 P **P** **01 56 13.4 -0.8**
comp=Z,2µmcomp=Z,2µmcomp=Z,57nm,1.0s,comp=Z,2µm
TUDR 79.18 317 ⇑P **P** **01 56 14.3 +0.2**
RUGZ Raukumara Rang 79.19 128 P **P** **01 56 13.9 -0.6**
JMB Yambol 79.20 314 *e*P **P** **01 56 14.6 +0.3**
HAZ Te Kaha 79.25 128 P **P** **01 56 14.7 0.0**
LOZB Loznitsa 79.37 315 ⇓P **P** **01 56 14.4 -0.8**
VASR Vaslui 79.38 318 ⇑P **P** **01 56 15.1 -0.1**
BIR Birlad 79.39 318 P **P** **01 56 15.0 -0.2**
BIR Birlad 79.39 318 ⇑P **P** **01 56 15.1 -0.2**
SORM Soroca 79.42 320 P **P** **01 56 14.3 -1.0**
SORM Soroca 79.42 320 ⇓P **P** **01 56 14.3 -1.0**
SORM Soroca 79.42 320 P **P** **01 56 14.4 -0.9**
comp=Z,3µmcomp=Z,213nm,1.7s
TWGZ Tauwhareparae 79.44 128 P **P** **01 56 16.4 +0.6**
RAZG Razgrad 79.47 315 ⇑P **P** **01 56 15.0 -0.8**
GHRR 79.48 318 ⇑P **P** **01 56 15.2 -0.5**
GHRR 79.48 318 P **P** **01 56 15.9 +0.2**
GHRR 79.48 318 P **P** **01 56 16.4 +0.7**
comp=Z,214nm,1.1s
ARMS Ukamas 79.48 242 *e*P **P** **01 56 16.2 -0.1**
AK09 Malin Array Si 79.55 323 P **P** **01 56 14.6 -1.4**
MNTR Muntenesti 79.58 318 ⇓P **P** **01 56 15.5 -0.8**
GRER 79.60 317 ⇑P **P** **01 56 16.6 +0.2**
AK05 Malin Array Si 79.60 322 P **P** **01 56 14.9 -1.4**
AK02 Malin Array Si 79.61 323 P **P** **01 56 14.9 -1.4**
AKASG Malin Array Be 79.61 323 P **P** **01 56 15.4 -0.9**
comp=Z,18nm,0.9s,baz=91,slow=4.7,SNR=91
AKASG PP PP 01 59 07.4 -10
comp=Z,6.4nm,0.9s,baz=97,slow=6.4,SNR=8.0
comp=Z,18nm,0.9s
AKBB Malin Array Si 79.61 323 *d* iP **P** **01 56 15.1 -1.2**
AKBB pmax pmax
comp=Z,66nm,1.1s
AKBB MLR MLR
comp=Z,3µm,23.0s
AKBB Malin Array Si 79.61 323 P **P** **01 56 14.9 -1.4**
KIEV Kiev 79.62 323 *i* P **P** **01 56 15.6 -0.8**
SNR=12
KIEV Kiev 79.62 323 P **P** **01 56 15.6 -0.8**
KIEV pmax pmax
comp=Z,48nm,1.1s
KIEV MLR MLR
comp=Z,2µm,22.0s
KIEV Kiev 79.62 323 P **P** **01 56 15.6 -0.8**
KIEV Kiev 79.62 323 ⇓P **P** **01 56 15.4 -0.9**
KIEV Kiev 79.62 323 P **P** **01 56 14.9 -1.5**
comp=Z,7µmcomp=Z,265nm,1.2s
KIEV Kiev 79.62 323 ⇓P **P** **01 56 15.4 -0.9**
comp=Z,2µmcomp=Z,67nm,1.2s
CVNA Calvinia 79.64 239 *e*P **P** **01 56 17.1 +0.1**
CVNA Calvinia 79.64 239 P **P** **01 56 16.0 -1.1**
comp=Z,1µmcomp=Z,74nm,1.2s
ODBI Odobesti 79.64 317 ⇑P **P** **01 56 16.4 -0.2**
IMMV Iera Moni Meta 79.64 307 ⇓P **P** **01 56 17.1 +0.3**
comp=Z,3µmcomp=Z,184nm,1.6s
CNGZ Carnagh Statio 79.65 128 P **P** **01 56 18.0 +1.2**
PDRR Padureni 79.65 318 ⇑P **P** **01 56 16.0 -0.6**
MXZ Matakaoa Point 79.65 128 IAMs_20 IAMs_20 02 35 51.1
comp=Z,3µm,19.0s
MXZ Matakaoa Point 79.65 128 P **P** **01 56 17.3 +0.4**
PUZ Puketiti 79.65 128 P **P** **01 56 17.8 +0.9**
NGRR Negresti 79.66 318 ⇓P **P** **01 56 16.0 -0.6**
IASR Iasi 79.66 319 ⇑P **P** **01 56 16.0 -0.7**
DMBR Dumbraveni 79.70 318 ⇑P **P** **01 56 16.3 -0.6**
ELND Elena 79.77 314 ⇓P **P** **01 56 16.3 -1.1**
SZH Strazhitsa 79.78 315 *e*P **P** **01 56 17.8 +0.4**
BISRR Bisoca 79.82 317 ⇑P **P** **01 56 18.1 +0.4**
ISR Istrita 79.83 317 P **P** **01 56 17.8 +0.1**
ISR Istrita 79.83 317 ⇓P **P** **01 56 17.9 +0.1**
ISR Istrita 79.83 317 P **P** **01 56 18.1 +0.4**
comp=Z,2µmcomp=Z,98nm,1.1s
SAHR Sahastru 79.88 317 ⇓P **P** **01 56 18.4 +0.4**
VRI Vrincioaia 79.89 317 P **P** **01 56 17.1 -0.9**
VRI Vrincioaia 79.89 317 ⇓P **P** **01 56 17.1 -0.9**
VRI Vrincioaia 79.89 317 P **P** **01 56 17.7 -0.3**
comp=Z,3µmcomp=Z,219nm,1.0s
VRI Vrincioaia 79.89 317 ⇓P **P** **01 56 18.5 +0.5**
comp=Z,3µmcomp=Z,218nm,1.0s
SULR 79.92 316 ⇓P **P** **01 56 18.7 +0.6**
comp=Z,13µmcomp=Z,159nm,1.6s
PLOR Plostina 79.94 317 P **P** **01 56 16.9 -1.3**
PLOR Plostina 79.94 317 ⇑P **P** **01 56 17.0 -1.3**
SGRR Singureni 80.00 316 ⇓P **P** **01 56 18.4 -0.2**
NEHR Nehoiu 80.07 317 ⇓P **P** **01 56 18.2 -0.8**
TESR Tescani 80.10 318 ⇓P **P** **01 56 18.5 -0.6**
TESR Tescani 80.10 318 P **P** **01 56 18.5 -0.6**
comp=Z,4µmcomp=Z,247nm,1.6s
TESR Tescani 80.10 318 ⇓P **P** **01 56 19.0 -0.1**
comp=Z,13µmcomp=Z,4µmcomp=Z,247nm,1.6s
ADZR Andozero 80.11 337 *e*P **P** **01 56 17.2 -1.5**
ADZR pmax pmax
comp=Z,208nm,1.3s
ADZR MLR MLR
comp=Z,4µm,19.0s
ONER Baraj Valea Uz 80.23 318 ⇑P **P** **01 56 19.7 -0.1**
COVR Voineasa-Covas 80.24 317 ⇑P **P** **01 56 19.3 -0.6**
LUBAR Lubar, Ukraine 80.29 322 P **P** **01 56 19.0 -1.0**
ZIMR 80.30 315 P **P** **01 56 19.9 -0.3**
ZIMR 80.30 315 ⇑P **P** **01 56 19.9 -0.3**
GIRR Girov 80.31 318 ⇓P **P** **01 56 20.4 +0.2**
PVL Pavlikeni 80.32 314 *e*P **P** **01 56 21.1 +0.8**
RZN Rozhen 80.32 313 *e*P **P** **01 56 21.1 +0.5**
MLR Muntele Rosu 80.33 317 P **P** **01 56 20.7 +0.2**
comp=Z,99nm,1.0s,baz=270,slow=23,SNR=70
comp=Z,99nm,1.0s
MLR Muntele Rosu 80.33 317 IAmb IAmb 01 56 22.2
comp=Z,217nm,1.1s
MLR Muntele Rosu 80.33 317 ⇑P **P** **01 56 19.6 -0.9**
MLR Muntele Rosu 80.33 317 P **P** **01 56 20.0 -0.5**
comp=Z,2µmcomp=Z,194nm,1.6s
MLR Muntele Rosu 80.33 317 ⇓P **P** **01 56 20.7 +0.2**
comp=Z,2µmcomp=Z,193nm,1.6s
MI29 MI29, Kamyanyy 80.37 322 P **P** **01 56 19.8 -0.6**
comp=Z,861nm,1.4s
PLD Plovdiv 80.41 313 *e*P **P** **01 56 20.9 +0.1**
TURR Turia 80.42 317 ⇓P **P** **01 56 20.7 -0.1**
KTHA Kythira Island 80.53 307 P **P** **01 56 21.3 -0.3**
comp=Z,2µmcomp=Z,122nm,1.3s,comp=Z,2µm
BIZ Bicaz 80.57 318 ⇓P **P** **01 56 21.6 0.0**
PRAR RASCA 80.60 319 ⇓P **P** **01 56 20.8 -0.9**
BOSR Bodos 80.66 317 ⇓P **P** **01 56 21.1 -1.1**
PAIG Paliouri 80.74 311 P **P** **01 56 21.8 -0.9**
comp=Z,725nmcomp=Z,36nm,1.9s,comp=Z,725nm
KMPD K-Podol'skiy 80.75 320 P **P** **01 56 20.8 -1.7**
HUMR Humele 80.77 316 ⇑P **P** **01 56 22.0 -0.7**
HUMR Humele 80.77 316 P **P** **01 56 22.5 -0.3**
comp=Z,188nm,1.8s
PLVB Pleven 80.77 315 ⇓P **P** **01 56 22.1 -0.7**
DOPR Dopca 80.82 317 ⇓P **P** **01 56 21.7 -1.3**
STFAR Stefanesti-Arg 80.86 316 ⇓P **P** **01 56 23.0 -0.3**
PGB Panagyurishte 80.90 314 *e*P **P** **01 56 23.7 +0.2**
VOIR 80.93 317 P **P** **01 56 21.4 -2.3**
VOIR 80.93 317 ⇓P **P** **01 56 21.4 -2.3**
VOIR 80.93 317 P **P** **01 56 23.1 -0.6**
comp=Z,1µmcomp=Z,29nm,1.6s
MMB Musomishta 81.01 313 *e*P **P** **01 56 24.3 +0.1**
VLAD Vladila 81.06 315 ⇑P **P** **01 56 24.1 -0.1**
SOH Sokhos 81.16 312 P **P** **01 56 24.2 -0.8**
comp=Z,1µmcomp=Z,49nm,1.3s,comp=Z,1µm
ARR Arges 81.20 317 ⇑P **P** **01 56 24.2 -0.8**
ARR Arges 81.20 317 P **P** **01 56 24.7 -0.4**
comp=Z,1µmcomp=Z,51nm,2.1s,comp=Z,1µm
ARR pP **pwP** **01 56 38.0 -0.1**

TSUM Tsumeb 81.26 251 LR LR 02 28 36.9
comp=Z,4µm,19.1s,baz=84,slow=33
TSUM Tsumeb 81.26 251 P **P** **01 56 26.4 +0.4**
TSUM Tsumeb 81.26 251 IAMs_20 IAMs_20 02 27 56.0
comp=Z,4µm,20.0s
TSUM Tsumeb 81.26 251 P **P** **01 56 26.1 +0.1**
comp=Z,998nmcomp=Z,42nm,1.2s
TSUM pP **pP** **01 56 33.8 -0.7**
TSUM Tsumeb 81.26 251 P **P** **01 56 26.4 +0.4**
BURAR Bucovina Array 81.32 319 P **P** **01 56 25.2 -0.5**
BURAR Bucovina Array 81.32 319 P **P** **01 56 26.6 +0.8**
BURAR IAmb IAmb 01 56 42.8
comp=Z,85nm,0.9s
BURAR Bucovina Array 81.32 319 ⇑P **P** **01 56 25.2 -0.5**
BUR08 Bucovina Ar. S 81.34 319 IAmb IAmb 01 56 43.1
comp=Z,141nm,1.1s
MPEP Malo Peshtene 81.39 314 *e*P **P** **01 56 26.7 +0.6**
THE Thessaloniki 81.41 312 P **P** **01 56 24.8 -1.4**
comp=Z,42nm,1.1s
PLNA Plana 81.44 313 *e*P **P** **01 56 27.1 +0.6**
MNK Minsk 81.51 326 *i* P **P** **01 56 26.1 -0.3**
MNK *i* 01 59 32.3
MNK *i* PPP PPP 02 01 22.5
MNK *i* S **S** **02 06 38.7 +2.7**
MNK *i* SS **SS** **02 11 56.6 +3.4**
MNK *i* SSS SSS 02 15 24.0
MNK pmax pmax
comp=Z,98nm,1.0s
MNK pmax pmax
comp=E,23nm,1.1s
MNK pmax pmax
comp=N,60nm,0.9s
MNK Minsk 81.51 326 *i* P **P** **01 56 26.2 -0.3**
comp=E,23nm,1.1s
MNK *i* P **P** **01 56 26.2 -0.3**
comp=N,60nm,0.9s
MNK *i* P **P** **01 56 26.2 -0.3**
comp=Z,98nm,1.0s,baz=107
MNK *i* PP **PP** **01 59 32.3 -0.7**
MNK *i* PPP PPP 02 01 22.5
MNK *i* S **S** **02 06 38.8 +2.7**
MNK *i* SS **SS** **02 11 56.7 +3.4**
MNK *i* SSS SSS 02 15 24.1
MNK *i* LQ LQ 02 27 30.7
MNK *i* LR LR 02 33 04.1
KKB Krupnik 81.53 313 *e*P **P** **01 56 26.8 0.0**
KNT Kendrikon 81.56 312 P **P** **01 56 26.3 -0.8**
comp=Z,1µmcomp=Z,42nm,2.5s,comp=Z,1µm
ITM Ithomi 81.58 308 IAmb IAmb 01 56 54.2
comp=Z,130nm,1.1s
ITM Ithomi 81.58 308 P **P** **01 56 26.8 -0.4**
comp=Z,2µmcomp=Z,2µmcomp=Z,114nm,1.3s,comp=Z,2µm
VNDA Vanda 81.59 169 P **P** **01 56 26.7 +0.2**
comp=Z,6.0nm,1.1s,baz=304,slow=6.3,SNR=17
VNDA LR LR 02 30 12.4
comp=Z,2µm,18.1s,baz=312,slow=34
comp=Z,6.0nm,1.1s
VNDA Vanda 81.59 169 P **P** **01 56 27.4 +0.9**
VNDA Vanda 81.59 169 P **P** **01 56 27.4 +0.9**
comp=Z,919nmcomp=Z,58nm,1.6s
VTS Vitosha 81.60 314 *e*P **P** **01 56 27.8 +0.4**
BLSH Balsha 81.62 314 *e*P **P** **01 56 28.1 +0.7**
LIT Litokhoron 81.67 311 P **P** **01 56 26.7 -0.9**
comp=Z,2µmcomp=Z,89nm,1.3s,comp=Z,2µm
VALD Valchedram 81.67 315 *e*P **P** **01 56 27.6 +0.1**
PEHC Pehcevo 81.68 313 *i* P **P** **01 56 27.0 -0.7**
WIN Windhoek 81.73 248 P **P** **01 56 28.6 0.0**
comp=Z,1µmcomp=Z,49nm,1.2s
WIN P **pP** **01 56 36.8 -0.2**
ARCR ARCALIA 81.77 318 ⇓P **P** **01 56 27.9 -0.1**
BAIL Bailesti 81.81 315 ⇓P **P** **01 56 26.6 -1.6**
LOT Lotru 81.81 316 ⇑P **P** **01 56 27.2 -1.1**
LOT Lotru 81.81 316 P **P** **01 56 27.6 -0.8**
comp=Z,922nmcomp=Z,34nm,2.1s,comp=Z,922nm
RNPP9 Sopachiv 81.83 323 P **P** **01 56 27.4 -0.8**
VAY Valandovo 81.84 312 *i* P **P** **01 56 27.3 -1.2**
GRG Griva 81.89 312 P **P** **01 56 27.5 -1.3**
comp=Z,4µmcomp=Z,125nm,2.2s,comp=Z,4µm
PUL Pulkovo 81.91 332 *i* P **P** **01 56 28.8 +0.4**
PUL pmax pmax
comp=Z,222nm,1.0s
SRE Strehaia 82.04 316 P **P** **01 56 29.6 +0.2**
SRE Strehaia 82.04 316 ⇑P **P** **01 56 29.6 +0.2**
FUTU Fugatoga 82.17 104 P P 01 56 37.3 +6.6
CJR Cluj-Napoca 82.20 318 P **P** **01 56 30.3 0.0**
CJR Cluj-Napoca 82.20 318 ⇑P **P** **01 56 30.3 0.0**
BLKB Belogradchik 82.20 315 ⇓P **P** **01 56 30.1 -0.3**
NACGM Naroch 82.24 326 ⇓*i*P **P** **01 56 30.4 +0.1**
comp=Z,118nm,1.0s,baz=106
RMGR Halanga-Turnu 82.39 316 ⇑P **P** **01 56 31.3 0.0**
RAO Raoul Island 82.40 119 IAMs_20 IAMs_20 02 34 46.0
comp=Z,3µm,19.0s
BMR Baia Mare 82.47 319 P **P** **01 56 31.8 +0.2**
BMR Baia Mare 82.47 319 ⇓P **P** **01 56 31.9 +0.2**
BMR Baia Mare 82.47 319 P **P** **01 56 32.4 +0.7**
comp=Z,3µmcomp=Z,192nm,1.5s,comp=Z,3µm
GZR Gura Zlata 82.48 316 P **P** **01 56 30.9 -0.9**
GZR Gura Zlata 82.48 316 ⇑P **P** **01 56 31.0 -0.9**
DEV Deva 82.49 317 P **P** **01 56 31.9 +0.1**
DEV Deva 82.49 317 ⇑P **P** **01 56 31.9 +0.1**
DEV Deva 82.49 317 P **P** **01 56 32.6 +0.8**
comp=Z,3µmcomp=Z,186nm,1.9s
MARR Marisel-Cluj 82.51 316 ⇑P **P** **01 56 31.9 -0.1**
HERR Herculane 82.63 316 ⇓P **P** **01 56 31.9 -0.6**
SBA Scott Base 82.69 169 P **P** **01 56 33.6 +1.4**
SBA pmax pmax
comp=Z,97nm,1.3s
SBA Scott Base 82.69 169 P **P** **01 56 33.6 +1.4**
SBA IAmb IAmb 01 56 46.9
comp=Z,97nm,1.2s
SBA Scott Base 82.69 169 P **P** **01 56 34.2 +2.0**
comp=Z,2µmcomp=Z,51nm,1.2s
MESR Meseseni 82.72 318 ⇓P **P** **01 56 32.5 -0.5**
DRGR 82.81 318 P **P** **01 56 32.8 -0.7**
DRGR 82.81 318 ⇑P **P** **01 56 32.9 -0.7**
DRGR 82.81 318 P **P** **01 56 33.8 +0.2**
comp=Z,2µmcomp=Z,76nm,2.6s
LKD2 Lefkada island 82.84 309 P **P** **01 56 33.9 +0.1**
comp=Z,67µmcomp=Z,3µmcomp=Z,156nm,1.3s,comp=Z,3µm
BOVS Bovan 82.90 314 ⇓P **P** **01 56 33.0 -0.9**
SURR Surduc 83.00 317 ⇓P **P** **01 56 34.5 0.0**
SHEM Shemya Is, Ala 83.02 36 LR LR 02 35 10.4
comp=Z,992nm,19.6s,baz=290,slow=37
ELIB Princess Elisa 83.07 198 *d*P **P** **01 56 35.6 +1.1**
comp=Z,42nm,1.1s
MDVR Moldovita 83.10 316 ⇓P **P** **01 56 34.9 -0.2**
OHR Ohrid 83.11 312 *i* P **P** **01 56 34.2 -1.0**
TRPA Tarpa 83.19 319 P **P** **01 56 35.8 +0.5**
comp=Z,2µmcomp=Z,83nm,2.2s
LVZ Lovozero 83.21 340 ⇓*e*P **P** **01 56 35.2 +0.1**
LVZ pmax pmax
comp=Z,117nm,1.7s
VSU Vasula 83.26 330 P **P** **01 56 33.9 -1.5**
comp=Z,3µmcomp=Z,131nm,1.3s
BZS Buzias 83.33 316 P **P** **01 56 35.1 -1.0**
BZS Buzias 83.33 316 ⇑P **P** **01 56 35.1 -1.0**
BZS Buzias 83.33 316 P **P** **01 56 36.3 +0.1**
comp=Z,1µmcomp=Z,58nm,1.9s
KWP Kalwaria Pacla 83.39 320 *e*P **P** **01 56 37.1 +0.7**
KWP Kalwaria Pacla 83.39 320 P **P** **01 56 36.0 -0.4**
SIRR Siria 83.42 317 ⇑P **P** **01 56 36.6 0.0**
UZHM Uzhgorod 83.46 319 P **P** **01 56 36.8 +0.1**
LTVH Ltavrtes, Hu 83.47 318 ⇑P **P** **01 56 37.0 +0.2**
LTVH Ltavrtes, Hu 83.47 318 P **P** **01 56 37.8 +1.0**
comp=Z,3µmcomp=Z,129nm,2.0s
BORR Bors 83.49 318 ⇓P **P** **01 56 37.2 +0.3**
APA Apatity 83.50 339 *e*P **P** **01 56 35.8 -0.8**
APA *e* 01 59 47.2
APA *e*S **S** **02 06 55.2 -0.7**
APA *e*SS **SS** **02 12 28.7 +6.5**
APA pmax pmax
comp=Z,45nm,1.1s
APA MLR MLR
comp=Z,3µm,22.8s
SRN Sarande 83.52 310 P **P** **01 56 36.9 -0.3**
comp=Z,912nmcomp=Z,50nm,1.3s
KOLS Kolonicke sedl 83.53 320 *e*P **P** **01 56 38.0 +0.9**
KOLS pmax pmax
comp=Z,45nm,1.0s
KOLS Kolonicke sedl 83.53 320 *e*P **P** **01 56 38.0 +0.9**
KOLS Kolonicke sedl 83.53 320 P **P** **01 56 38.3 +1.2**
comp=Z,1µmcomp=Z,134nm,0.9s,comp=Z,1µm
CTZ Chatham Island 83.87 134 IAMs_20 IAMs_20 02 32 09.5
comp=Z,4µm,21.0s

ARBE Arbavere 83.91 331 P **P** **01 56 40.0 +1.2**
comp=Z,400nm,1.6s
PABE Paberze 83.95 326 IAMs_20 IAMs_20 02 40 24.7
comp=Z,3µm,18.0s
PABE Paberze 83.95 326 P **P** **01 56 39.3 +0.2**
comp=Z,200nm,1.5s
SUW Suwalki 84.06 325 *e*P **P** **01 56 39.9 +0.2**
AMBH Ambrzfalva 84.07 317 P **P** **01 56 40.8 +0.9**
comp=Z,4µmcomp=Z,75nm,2.6s
SJES Sjenica 84.07 314 ⇓*i*P **P** **01 56 39.5 -0.7**
ABAH Abaujker 84.08 319 P **P** **01 56 40.2 +0.3**
comp=Z,2µmcomp=Z,52nm,2.3s,comp=Z,2µm
BILL Bilibino 84.08 20 ⇑*e*P **P** **01 56 39.0 -0.5**
BILL pmax pmax
comp=Z,54nm,1.6s
BILL MLR MLR
comp=Z,4µm,19.0s
BILL Bilibino 84.08 20 P **P** **01 56 40.4 +0.9**
BILL IAMs_20 IAMs_20 02 36 39.1
comp=Z,3µm,19.0s
BILI Bilibino, Chuk 84.15 20 P **P** **01 56 43.1 +3.2**
comp=Z,2µmcomp=Z,27nm,2.4s
FINES FINESS Array B 84.41 332 P **P** **01 56 41.0 -0.2**
comp=Z,27nm,0.9s,baz=102,slow=5.9,SNR=30
FINES LR LR 02 36 43.3
comp=Z,2µm,21.9s,baz=98,slow=37
comp=Z,27nm,0.9s
FINES FINESS Array B 84.41 332 P **P** **01 56 41.8 +0.5**
PDG Podgorica 84.47 313 IAmb IAmb 01 56 44.0
comp=Z,124nm,1.4s
PDG Podgorica 84.47 313 ⇓P **P** **01 56 40.4 -1.6**
PDG Podgorica 84.47 313 ⇓*i*P **P** **01 56 40.8 -1.2**
PDG Podgorica 84.47 313 P **P** **01 56 41.7 -0.3**
comp=Z,2µmcomp=Z,90nm,1.3s
DRME Dracevica, Mon 84.48 313 ⇓*i*P **P** **01 56 41.1 -1.0**
FRGS Fruska Gora 84.50 316 ⇓*i*P **P** **01 56 41.6 -0.6**
MSF Maaselka 84.52 337 P **P** **01 56 42.5 +0.7**
comp=Z,106nm,1.8s
BBLS Lazi&#263i 84.58 314 ⇓*i*P **P** **01 56 42.6 -0.1**
TEKS Tekeris 84.60 315 ⇓*i*P **P** **01 56 41.4 -1.3**
KECS Kecoo 84.61 319 P **P** **01 56 43.5 +0.9**
comp=Z,25nm,0.9s
MTSE Matsula 84.80 330 P **P** **01 56 43.8 +0.5**
comp=Z,380nm,0.9s
UPM Unac-Piva 84.84 314 *e*P **P** **01 56 43.6 -0.5**
NIE Niedzica 84.89 320 *e*P **P** **01 56 45.5 +1.4**
PSZ Piszkesteto 84.90 318 P **P** **01 56 43.7 -0.5**
PSZ Piszkesteto 84.90 318 IAmb IAmb 01 57 04.3
comp=Z,103nm,1.3s
PSZ Piszkesteto 84.90 318 ⇓P **P** **01 56 43.8 -0.5**
PSZ Piszkesteto 84.90 318 P **P** **01 56 44.3 +0.1**
comp=Z,1µmcomp=Z,70nm,2.4s,comp=Z,1µm
BEL Belsk 85.03 322 *e*P **P** **01 56 45.5 +0.9**
HCY Herceg Novi 85.03 313 *e*P **P** **01 56 43.2 -1.7**
BRY Bratogost 85.06 313 *e*P **P** **01 56 43.8 -1.4**
KLINJ Klinje 85.06 314 *e*P **P** **01 56 44.6 -0.6**
TREB Trebinje 85.17 313 *e*P **P** **01 56 44.6 -1.0**
PBUR Paburge 85.19 327 P **P** **01 56 44.6 -0.7**
comp=Z,5µmcomp=Z,333nm,1.0s
OJC Ojcow 85.35 321 *e*P **P** **01 56 47.2 +0.9**
OJC Ojcow 85.35 321 P **P** **01 56 46.7 +0.4**
comp=Z,1µmcomp=Z,64nm,1.4s
LANS Liptovska Anna 85.39 320 *e*P **P** **01 56 46.9 +0.3**
LANS pmax pmax
comp=Z,1.0nm,0.7s
LANS Liptovska Anna 85.39 320 *e*P **P** **01 56 46.9 +0.3**
BUD Budapest 85.41 318 P **P** **01 56 46.4 -0.3**
comp=Z,1µmcomp=Z,40nm,2.7s
MORH Mrgy, Hungar 85.47 317 ⇓P **P** **01 56 45.9 -1.1**
MORH Mrgy, Hungar 85.47 317 ⇓*i*P **P** **01 56 45.8 -1.2**
MORH Mrgy, Hungar 85.47 317 P **P** **01 56 47.0 +0.1**
comp=Z,2µmcomp=Z,2µmcomp=Z,57nm,2.1s,comp=Z,2µm
OUL Oulu 85.51 336 P **P** **01 56 47.5 +0.8**
comp=Z,73nm,1.3s
VYHS Vyhne 85.69 319 *e*P **P** **01 56 48.0 -0.1**
VYHS pmax pmax
comp=Z,80nm,1.6s
VYHS Vyhne 85.69 319 *e*P **P** **01 56 48.0 -0.1**
VYHS Vyhne 85.69 319 P **P** **01 56 48.4 +0.4**
comp=Z,9.6nm,1.3s
VADS Vadso 85.81 341 *e*P **P** **01 56 49.0 +0.9**
TIP Timpagrande 85.90 309 IAmb IAmb 01 57 17.8
comp=Z,99nm,1.5s
TIP Timpagrande 85.90 309 ⇑P **P** **01 56 49.3 -0.1**
TIP Timpagrande 85.90 309 P **P** **01 56 50.2 +0.8**
comp=Z,2µmcomp=Z,1µmcomp=Z,52nm,2.2s,comp=Z,1µm
SRO Srobarova 85.93 318 *e*P **P** **01 56 49.8 +0.6**
SRO pmax pmax
comp=Z,83nm,1.4s
SRO Srobarova 85.93 318 *e*P **P** **01 56 49.8 +0.6**
SRO Srobarova 85.93 318 P **P** **01 56 50.5 +1.3**
comp=Z,1µmcomp=Z,75nm,1.7s
SGF Sodankyl 85.94 338 P **P** **01 56 49.4 +0.6**
comp=Z,94nm,2.0s
MATE Matera 86.12 311 ⇑P **P** **01 56 50.1 -0.2**
MATE Matera 86.12 311 P **P** **01 56 49.5 -0.8**
comp=Z,2µmcomp=Z,2µmcomp=Z,70nm,1.2s
BLY Banja Luka 86.28 315 IAmb IAmb 01 57 11.3
comp=Z,124nm,1.2s
BLY Banja Luka 86.28 315 ⇑P **P** **01 56 50.6 -0.4**
BLY Banja Luka 86.28 315 ⇓*i*P **P** **01 56 51.1 +0.1**
BLY Banja Luka 86.28 315 P **P** **01 56 51.4 +0.3**
comp=Z,2µmcomp=Z,101nm,1.8s
OKC Ostrava-Krasne 86.34 320 *e*P **P** **01 56 51.0 -0.2**
OKC *e* 02 07 13.4
OKC MLR MLR
comp=Z,1µm,17.6s
OKC Ostrava-Krasne 86.34 320 *e*P **P** **01 56 51.0 -0.2**
OKC *e*SKS **SKSac** **02 07 13.4 -2.0**
OKC AMS AMS 02 39 20.0
comp=Z,1µm,17.6s
OKC Ostrava-Krasne 86.34 320 P **P** **01 56 51.9 +0.6**
comp=Z,1µmcomp=Z,64nm,1.4s
MPLH Magyarpolny 86.36 317 P **P** **01 56 52.0 +0.7**
comp=Z,3µmcomp=Z,118nm,1.2s,comp=Z,3µm
CEL Celeste 86.47 308 IAmb IAmb 01 57 13.0
comp=Z,97nm,1.1s
CEL Celeste 86.47 308 P **P** **01 56 52.8 +0.6**
comp=Z,2µmcomp=Z,2µmcomp=Z,95nm,1.2s
JAVC Velka Javorina 86.51 319 *e*P **P** **01 56 53.2 +1.1**
JAVC Velka Javorina 86.51 319 P **P** **01 56 53.4 +1.3**
comp=Z,2µmcomp=Z,2µmcomp=Z,62nm,1.5s,comp=Z,2µm
STEB Steborice 86.60 320 *e*P **P** **01 56 52.8 +0.3**
STEB *ex* x 01 57 06.1
NVL N'lazarevskaya 86.60 199 *e*P P 01 56 58.0 +6.0
NVL *e*S **S** **02 07 24.5 -2.0**
NVL pmax pmax
comp=Z,34nm,1.0s
NVL MLR MLR
comp=Z,1µm,18.0s
SMOL Smolenice 86.62 319 *e*P **P** **01 56 52.9 +0.3**
SMOL pmax pmax
comp=Z,4.0nm,1.3s
MODS Modra-Piesok 86.70 319 *e*P **P** **01 56 53.3 +0.3**
MODS pmax pmax
comp=Z,557nm,2.0s
MODS Modra-Piesok 86.70 319 *e*P **P** **01 56 53.3 +0.3**
MODS Modra-Piesok 86.70 319 P **P** **01 56 53.4 +0.3**
comp=Z,4µmcomp=Z,138nm,2.1s
MORC Moravsky Berou 86.72 320 P **P** **01 56 52.5 -0.6**
MORC Moravsky Berou 86.72 320 *e*P **P** **01 56 53.4 +0.2**
MORC *e* 01 57 08.7
MORC Moravsky Berou 86.72 320 ⇑P **P** **01 56 52.5 -0.6**
MORC Moravsky Berou 86.72 320 P **P** **01 56 53.6 +0.5**
comp=Z,64nm,2.3s
MARCO Tramutola 86.76 310 P **P** **01 56 54.5 +0.9**
comp=Z,2µmcomp=Z,76nm,1.4s
BEHE Becsehely 86.79 317 ⇓*i*P **P** **01 56 53.9 +0.4**
BEHE Becsehely 86.79 317 P **P** **01 56 54.4 +0.9**
comp=Z,1µmcomp=Z,50nm,1.1s
ZST Bratislava 86.79 318 P **P** **01 56 54.4 +1.0**
comp=Z,1µm,1.1s
ARA0 ARCESS Array S 86.91 340 *e*P **P** **01 56 54.2 +0.6**
ARCES ARCESS Array B 86.91 340 P **P** **01 56 54.3 +0.7**
comp=Z,35nm,1.0s,baz=119,slow=3.6,SNR=24
ARCES LR LR 02 39 04.7
comp=Z,2µm,20.8s,baz=94,slow=38
comp=Z,35nm,1.0s
ARCES ARCESS Array B 86.91 340 P **P** **01 56 53.6 0.0**
ARCES pmax pmax
comp=Z,196nm,1.4s
ARCES ARCESS Array B 86.91 340 P **P** **01 56 53.6 0.0**
KOGS Kog 87.15 317 *e*P **P** **01 56 55.0 -0.2**
QSPA South Pole Qui 87.24 180 P **P** **01 56 55.3 -0.2**
comp=Z,9.8nm,0.8s,baz=307,slow=1.8,SNR=17

QSPA LR LR 02 32 28.8
comp=Z,3µm,19.8s,baz=314,slow=33
comp=Z,9.8nm,0.8s
QSPA South Pole Qui 87.24 180 P **P** **01 56 56.2 +0.7**
QSPA IAmb IAmb 01 57 10.1
comp=Z,134nm,1.2s
QSPA South Pole Qui 87.24 180 IAMs_20 IAMs_20 02 32 18.5
comp=Z,3µm,19.0s
QSPA South Pole Qui 87.24 180 P **P** **01 56 56.6 +1.1**
comp=Z,2µmcomp=Z,137nm,1.6s
KRLC Kraliky 87.25 320 *e*P **P** **01 56 56.4 +0.7**
KRLC *e* 01 57 09.3
KRLC *e* 02 07 19.5
KRLC MLR MLR
comp=Z,1µm,19.3s
KRLC Kraliky 87.25 320 *e*P **P** **01 56 56.4 +0.7**
KRLC *ex* x 01 57 09.3
KRLC *e*SKS **SKSac** **02 07 19.5 -1.6**
KRLC AMS AMS 02 40 50.0
comp=Z,1µm,19.3s
KRLC Kraliky 87.25 320 P **P** **01 56 56.5 +0.8**
comp=Z,2µmcomp=Z,102nm,1.3s,comp=Z,2µm
ZAG Zagreb 87.25 316 P **P** **01 56 57.0 +1.2**
comp=Z,4µmcomp=Z,222nm,1.1s
RONA Rosalia, Austr 87.27 318 *e*P **P** **01 56 55.7 -0.1**
comp=Z,25nm,1.6s
VRAC Vranov 87.27 319 P **P** **01 56 56.1 +0.3**
comp=Z,5.8nm,1.1s,baz=96,slow=4.6,SNR=12
VRAC LR LR 02 39 12.2
comp=Z,829nm,21.1s,baz=80,slow=38
comp=Z,5.8nm,1.1s
VRAC Vranov 87.27 319 *e*P **P** **01 56 56.4 +0.6**
VRAC *e* 01 57 11.2
VRAC Vranov 87.27 319 P **P** **01 56 56.2 +0.4**
comp=Z,588nmcomp=Z,7.6nm,2.3s
KRUC Moravsky 87.37 319 *e*P **P** **01 56 56.7 +0.4**
KRUC *e* 01 57 11.5
KRUC Moravsky 87.37 319 P **P** **01 56 56.5 +0.3**
comp=Z,25nm,2.4s
GKP Gorka Klasztor 87.40 323 *e*P **P** **01 56 57.0 +0.8**
WINA Aland Wiene 87.47 318 *i* P **P** **01 56 56.7 0.0**
comp=Z,24nm,1.4s
KTK1 Kautokeino 87.55 340 *e*P **P** **01 56 57.3 +0.6**
VAE Valguarnera 87.56 308 P **P** **01 56 58.9 +1.4**
comp=Z,16nm,0.9s,baz=9.0,slow=4.1,SNR=6.9
comp=Z,16nm,0.9s
DPC Dobruska-Polom 87.58 320 *e*P **P** **01 56 57.8 +0.5**
DPC *e* 01 57 12.6
DPC *e* 02 07 17.0
DPC MLR MLR
comp=Z,2µm,19.9s
DPC Dobruska-Polom 87.58 320 *e*P **P** **01 56 57.8 +0.5**
DPC *ex* x 01 57 12.6
DPC *e*SKS **SKSac** **02 07 17.0 -6.1**
DPC AMS AMS 02 41 50.0
comp=Z,2µm,19.9s
DPC Dobruska-Polom 87.58 320 P **P** **01 56 58.4 +1.1**
comp=Z,2µmcomp=Z,73nm,2.2s
CONA Conrad Observa 87.58 318 *e*P **P** **01 56 57.4 -0.1**
comp=Z,20nm,1.2s,SNR=6.5
KSP Ksiaz 87.66 321 *e*P **P** **01 56 59.1 +1.5**
OSTC Ostas 87.67 321 *e*P **P** **01 56 58.3 +0.6**
OSTC MLR MLR
comp=Z,2µm,17.5s
OSTC Ostas 87.67 321 *e*P **P** **01 56 58.3 +0.6**
OSTC AMS AMS 02 42 00.0
comp=Z,2µm,17.5s
ARSA Arzberg 87.74 317 *e*P **P** **01 56 58.0 -0.1**
comp=Z,52nm,1.3s,SNR=12
ARSA Arzberg 87.74 317 P **P** **01 56 58.4 +0.3**
comp=Z,2µmcomp=Z,102nm,2.6s
PAOL Paolisi 87.77 311 IAmb IAmb 01 57 15.0
comp=Z,150nm,1.5s
CHVC Chvalec 87.78 321 *e*P **P** **01 56 58.9 +0.7**
CHVC *e* 01 57 12.6
CHVC MLR MLR
comp=Z,2µm,17.7s
CHVC Chvalec 87.78 321 *e*P **P** **01 56 58.9 +0.7**
CHVC *ex* x 01 57 12.6
CHVC AMS AMS 02 42 00.0
comp=Z,2µm,17.7s
UPC Upice 87.79 321 *e*P **P** **01 56 59.0 +0.7**
UPC *e* 02 07 22.2
UPC MLR MLR
comp=Z,2µm,19.7s
UPC Upice 87.79 321 *e*P **P** **01 56 59.0 +0.7**
UPC *e*SKS **SKSac** **02 07 22.2 -2.1**
UPC AMS AMS 02 42 00.0
comp=Z,2µm,19.7s
UPC Upice 87.79 321 P **P** **01 56 59.2 +0.9**
comp=Z,1µmcomp=Z,44nm,1.2s
HAMF Hammerfest 87.80 341 *e*P **P** **01 56 59.4 +1.5**
ABNA Allensteig Bun 87.95 319 *i* P **P** **01 56 58.9 -0.2**
comp=Z,20nm,1.3s
TREC Trest 87.99 319 *e*P **P** **01 56 59.6 +0.4**
TREC *e* 02 07 25.6
TREC MLR MLR
comp=Z,1µm,17.5s
TREC Trest 87.99 319 *e*P **P** **01 56 59.6 +0.4**
TREC *e*SKS **SKSac** **02 07 25.6 0.0**
TREC AMS AMS 02 42 10.0
comp=Z,1µm,17.5s
TREC Trest 87.99 319 P **P** **01 56 59.9 +0.6**
comp=Z,34nm,1.2s
SOKA Soboth 88.01 317 *e*P **P** **01 56 59.7 +0.3**
comp=Z,99nm,1.7s,SNR=17
LJU Ljubljana 88.29 316 *i* P **P** **01 57 01.3 +0.6**
LJU *e* 01 57 14.8
LJU *e*S **S** **02 07 44.0 +0.3**
OBKA Obir 88.32 317 *e*P **P** **01 57 00.9 -0.1**
comp=Z,46nm,1.4s
OBKA Obir 88.32 317 P **P** **01 57 01.6 +0.6**
comp=Z,3µmcomp=Z,97nm,2.8s
AFI Afiamalu 88.33 104 LR LR 02 38 07.8
comp=Z,698nm,19.2s,baz=269,slow=37
SESA Seetaler Alpe, 88.37 317 *e*P **P** **01 57 01.0 -0.3**
comp=Z,49nm,1.2s,SNR=16
BLEU Blekinge 88.61 326 *i* P **P** **01 57 02.0 0.0**
MOA Molln 88.64 318 *e*P **P** **01 57 02.4 0.0**
comp=Z,22nm,1.2s,SNR=6.2
MOA Molln 88.64 318 P **P** **01 57 02.4 0.0**
comp=Z,44nm,1.6s
CKRC Cesky Krumlov 88.71 319 *e*P **P** **01 57 03.4 +0.7**
CKRC *e* 01 57 15.7
CKRC *e* 02 07 24.5
CKRC MLR MLR
comp=Z,1µm,18.7s
CKRC Cesky Krumlov 88.71 319 *e*P **P** **01 57 03.4 +0.7**
CKRC *ex* x 01 57 15.7
CKRC *e*SKS **SKSac** **02 07 24.5 -5.4**
CKRC AMS AMS 02 41 40.0
comp=Z,1µm,18.7s
PVCC Panska Ves 88.71 321 *e*P **P** **01 57 03.4 +0.8**
PVCC *e* 01 57 17.9
PVCC MLR MLR
comp=Z,2µm,21.5s
PVCC Panska Ves 88.71 321 *e*P **P** **01 57 03.4 +0.8**
PVCC *ex* x 01 57 17.9
PVCC AMS AMS 02 42 30.0
comp=Z,2µm,21.5s
PVCC Panska Ves 88.71 321 P **P** **01 57 03.5 +1.0**
comp=Z,1µmcomp=Z,95nm,1.3s
AQU L'Aquila 88.76 312 P **P** **01 57 02.7 -0.4**
AQU L'Aquila 88.76 312 ⇓*i*P **P** **01 57 02.9 -0.2**
AQU L'Aquila 88.76 312 P **P** **01 57 04.2 +1.1**
comp=Z,2µmcomp=Z,138nm,1.7s
ZVC Zvikov 88.85 319 *e*P **P** **01 57 03.5 +0.2**
ZVC AMS AMS 02 42 40.0
comp=Z,2µm,17.8s
DRE Drenchia 88.92 316 P **P** **01 57 03.8 0.0**
comp=Z,2µmcomp=Z,67nm,2.4s
MYKA Terra Mystica 88.96 317 *e*P **P** **01 57 03.9 0.0**
comp=Z,87nm,2.0s,SNR=7.4
BSD Bornholm Skovb 88.98 325 *i* P **P** **01 57 04.3 +0.6**
BSD IAmb IAmb 01 57 05.3
comp=Z,71nm,1.0s
PRED Cave del Predi 88.99 316 IAmb IAmb 01 57 30.3
comp=Z,79nm,1.1s
PRED Cave del Predi 88.99 316 P **P** **01 57 04.5 +0.4**
comp=Z,1µmcomp=Z,71nm,1.2s
RICC Richard 89.01 321 AMS AMS 02 42 40.0
comp=Z,2µm,19.2s
NRCA Norcia 89.01 313 IAmb IAmb 01 57 05.7
comp=Z,72nm,1.1s
ACOM Acomizza, Ital 89.04 316 P **P** **01 57 04.9 +0.4**
comp=Z,2µmcomp=Z,119nm,1.5s

BIOA Bad Ischl, Aus 89.05 318 *e*P **P** **01 57 04.1 -0.2**
comp=Z,26nm,1.1s,SNR=7.5
GEC2 GERESS Array S 89.11 319 *e*P **P** **01 57 05.1 +0.4**
comp=Z,317nm,1.8s,baz=94,slow=4.6
GEC2 *es*P **pwP** **01 57 20.1 +1.6**
baz=94,slow=4.6
GEC2 GERESS Array S 89.11 319 P **P** **01 57 05.2 +0.6**
comp=Z,µmcomp=Z,103nm,1.8s,comp=Z,2µm
GERES GERESS Array B 89.11 319 P **P** **01 57 04.8 +0.1**
comp=Z,16nm,0.9s,baz=111,slow=3.4,SNR=86
GERES LR LR 02 41 56.9
comp=Z,928nm,19.3s,baz=86,slow=39
comp=Z,16nm,0.9s
GERES GERESS Array B 89.11 319 P **P** **01 57 05.1 +0.4**
TRO Tromso 89.17 340 *e*P **P** **01 57 05.0 +0.7**
KBA Koelnbreinsper 89.20 317 *e*P **P** **01 57 05.0 -0.2**
comp=Z,26nm,1.0s
KHC Kasperske Hory 89.22 319 *e*P **P** **01 57 05.3 +0.2**
KHC *e* 01 57 18.5
KHC *e* 02 07 30.2
KHC MLR MLR
comp=Z,2µm,18.8s
KHC Kasperske Hory 89.22 319 IAmb IAmb 01 57 07.2
comp=Z,139nm,2.0s
KHC Kasperske Hory 89.22 319 *e*P **P** **01 57 05.3 +0.2**
KHC *ex* x 01 57 18.5
KHC *e*SKS **SKSac** **02 07 30.2 -2.8**
KHC AMS AMS 02 45 10.0
comp=Z,2µm,18.8s
KHC Kasperske Hory 89.22 319 P **P** **01 57 05.5 +0.4**
comp=Z,27nm,1.5s
LNIZ Loecknitz 89.23 323 P **P** **01 57 06.0 +1.1**
comp=Z,203nm,0.9s
EDA Edea 89.30 274 IAmb IAmb 01 57 21.3
comp=Z,88nm,1.4s
RUE Ruedersdorf 89.39 322 *e*P **P** **01 57 06.1 +0.4**
comp=Z,179nm,1.2s,baz=94,slow=4.6
RUE *es*P **pwP** **01 57 21.3 +2.5**
baz=94,slow=4.6
RUE Ruedersdorf 89.39 322 P **P** **01 57 06.6 +0.9**
comp=Z,3µmcomp=Z,200nm,1.2s
HSKC Hora Svate Kat 89.44 321 *e*P **P** **01 57 07.3 +1.2**
HSKC *e*SKS **SKSac** **02 07 32.2 -2.0**
HSKC AMS AMS 02 43 00.0
comp=Z,3µm,22.2s
HSKC Hora Svate Kat 89.44 321 P **P** **01 57 06.8 +0.7**
comp=Z,1µmcomp=Z,46nm,1.1s
TROLL Troll, Antarti 89.52 198 P **P** **01 57 08.1 +1.9**
comp=Z,2µm,1.1s
STAL STALIGIAL 89.57 316 IAmb IAmb 01 57 32.3
comp=Z,146nm,1.2s
RJOB Jochberg 89.62 318 P **P** **01 57 05.5 -1.6**
comp=Z,29nm,1.1s
WET Wettzell 89.68 319 *e*P **P** **01 57 07.6 +0.4**
comp=Z,76nm,1.3s,baz=94,slow=4.6
WET *es*P **pwP** **01 57 22.7 +1.6**
baz=94,slow=4.6
WET Wettzell 89.68 319 P **P** **01 57 07.9 +0.7**
comp=Z,2µmcomp=Z,51nm,1.6s
LESA Schwarzleotal 89.68 317 *e*P **P** **01 57 06.8 -0.5**
comp=Z,34nm,1.1s,SNR=11
DEL Delary 89.70 326 *i* P **P** **01 57 07.5 +0.5**
ABTA Abfaltersbach 89.74 317 *e*P **P** **01 57 07.2 -0.5**
comp=Z,33nm,1.1s,SNR=7.3
CLL Collm 89.77 321 *i* P **P** **01 57 07.1 -0.4**
CLL *i* 01 57 16.5
CLL *e* 02 07 36.0
CLL *e*S **S** **02 07 59.0 +1.7**
CLL pmax pmax
comp=Z,202nm,2.2s
CLL Collm 89.77 321 *e*P **P** **01 57 07.6 0.0**
comp=Z,44nm,1.2s,baz=94,slow=4.6
CLL *es*P **pwP** **01 57 22.7 +1.3**
baz=94,slow=4.6
CLL Collm 89.77 321 P **P** **01 57 07.4 -0.1**
comp=Z,1µmcomp=Z,53nm,1.3s
CLL Collm 89.77 321 *i* P **P** **01 57 07.1 -0.4**
comp=Z,202nm,2.2s
CLL *i* sP **pP** **01 57 16.5 +0.4**
CLL *i* x 01 57 22.7
comp=Z,84nm,1.3s
CLL *e*SKSac **SKSac** **02 07 36.0 0.0**
CLL *e*S **S** **02 07 59.0 +1.7**
CLL *e*PS **PnS** **02 09 04.0 -2.5**
CLL *e*SS **SS** **02 13 57.0 +2.3**
CLL *e*SSS SSS 02 17 30.0
CLL *e*SSSS 02 20 42.0
CLL LH 02 25 00.0
CLL L L 02 27 00.0
CLL AMS AMS 02 41 00.0
comp=N,2µm,22.7s
CLL AMS AMS 02 41 00.0
comp=E,1µm,25.4s
CLL AMS AMS 02 43 00.0
comp=N,600nm,21.3s
CLL AMS AMS 02 43 00.0
comp=E,2µm,23.9s
CLL AMS AMS 02 43 00.0
comp=Z,2µm,22.6s
RGN Rugen 89.84 324 *e*P **P** **01 57 08.4 +0.6**
comp=Z,288nm,1.4s,baz=94,slow=4.6
LUNU Lund 89.87 326 *i* P **P** **01 57 08.7 +0.8**
NKC Novy Kostel 90.04 320 AMS AMS 02 43 40.0
comp=Z,2µm,18.9s
NKC Novy Kostel 90.04 320 P **P** **01 57 09.5 +0.6**
comp=Z,1µmcomp=Z,44nm,1.1s
TANN Tannenbergstha 90.04 320 *e*P **P** **01 57 09.3 +0.3**
comp=Z,54nm,1.4s,baz=94,slow=4.6
TANN *es*P **pwP** **01 57 24.4 +1.6**
baz=94,slow=4.6
TANN Tannenbergstha 90.04 320 P **P** **01 57 09.5 +0.6**
comp=Z,56nm,1.2s
HFS Hagfors 90.13 330 P **P** **01 57 09.2 +0.1**
comp=Z,12nm,1.0s,baz=80,slow=17,SNR=7.9
HFS LR LR 02 42 03.9
comp=Z,1µm,18.9s,baz=90,slow=39
comp=Z,12nm,1.0s
CGRP Cima Grappa 90.17 316 P **P** **01 57 10.8 +1.0**
comp=Z,2µmcomp=Z,124nm,1.2s
TEOL Teolo 90.23 315 IAmb IAmb 01 57 11.7
comp=Z,131nm,1.4s
PLN Plauen 90.24 320 *e*P **P** **01 57 10.2 +0.4**
comp=Z,17nm,1.3s,baz=94,slow=4.6
PLN *es*P **pwP** **01 57 25.3 +1.7**
baz=94,slow=4.6
STEI Steigen 90.26 338 *e*P **P** **01 57 09.5 +0.1**
CTI Castel Tesino 90.29 316 IAmb IAmb 01 57 12.2
comp=Z,121nm,1.1s
WTTA Wattenberg 90.37 317 *e*P **P** **01 57 10.3 -0.4**
comp=Z,22nm,1.0s,SNR=14
WTTA Wattenberg 90.37 317 P **P** **01 57 10.5 -0.2**
comp=Z,70nm,1.0s
FABU Falkenberg 90.38 327 *i* P **P** **01 57 10.4 +0.1**
GRB3 Grafenberg Arr 90.39 319 P **P** **01 57 11.4 +0.9**
comp=Z,2µmcomp=Z,130nm,1.2s
WATA Walderalm 90.42 317 *e*P **P** **01 57 10.4 -0.4**
comp=Z,41nm,1.1s,SNR=11
GRB5 Grafenberg Arr 90.46 319 P **P** **01 57 11.3 +0.4**
comp=Z,32nm,0.9s
GRB2 Grafenberg Arr 90.48 319 P **P** **01 57 12.1 +1.2**
comp=Z,86nm,1.4s
GRB1 Grafenberg Arr 90.50 319 P **P** **01 57 12.1 +1.1**
comp=Z,2µmcomp=Z,132nm,1.1s
GRC3 Grafenberg Arr 90.51 319 P **P** **01 57 11.0 -0.1**
comp=Z,41nm,2.3s
NEUB Neuenburg 90.53 321 *e*P **P** **01 57 11.3 +0.2**
comp=Z,81nm,1.1s,baz=94,slow=4.6
NEUB *es*P **pwP** **01 57 26.5 +1.5**
baz=94,slow=4.6
NEUB Neuenburg 90.53 321 P **P** **01 57 11.7 +0.6**
comp=Z,2µmcomp=Z,118nm,1.3s
GRC1 Grafenberg Arr 90.56 319 P **P** **01 57 11.6 +0.3**
comp=Z,1µmcomp=Z,52nm,2.2s
GRC4 Grafenberg Arr 90.56 319 P **P** **01 57 12.1 +0.8**
comp=Z,41nm,0.9s
GRB4 Grafenberg Arr 90.56 319 P **P** **01 57 12.3 +1.0**
comp=Z,2µmcomp=Z,116nm,1.5s
RAUS Rausandaksla 90.56 336 *e*P **P** **01 57 11.4 +0.4**
MOX Moxa 90.60 320 *e*P **P** **01 57 11.8 +0.3**
comp=Z,86nm,1.6s,baz=94,slow=4.6
MOX *es*P **pwP** **01 57 27.0 +1.7**
baz=94,slow=4.6
MOX *e*L L 02 44 09.9
comp=Z,3µm,21.7s
MOX Moxa 90.60 320 P **P** **01 57 11.7 +0.3**
comp=Z,45nm,1.9s
GRC2 Grafenberg Arr 90.65 319 P **P** **01 57 12.3 +0.6**
comp=Z,31nm,2.4s
SQTA Sankt Quirin 90.66 317 *e*P **P** **01 57 11.5 -0.4**
comp=Z,40nm,1.1s,SNR=11
FUR Furstenfeldbru 90.67 318 *e*P **P** **01 57 11.7 -0.2**
comp=Z,42nm,1.1s,baz=94,slow=4.6
FUR *es*P **pwP** **01 57 26.8 +1.1**
baz=94,slow=4.6
FUR Furstenfeldbru 90.67 318 P **P** **01 57 11.9 +0.1**
comp=Z,43nm,1.6s
GRA2 Grafenberg Arr 90.70 319 P **P** **01 57 13.0 +1.0**
comp=Z,1µmcomp=Z,62nm,1.4s
WIMM Wimmelburg 90.72 321 P **P** **01 57 12.5 +0.6**
comp=Z,3µmcomp=Z,174nm,1.5s
GRA3 Grafenberg Arr 90.73 320 P **P** **01 57 13.2 +1.1**
comp=Z,2µmcomp=Z,79nm,2.2s
MOTA Moosalm 90.74 317 *e*P **P** **01 57 11.6 -0.8**
comp=Z,46nm,1.0s,SNR=11
GRA1 Grafenberg Arr 90.79 320 IAmb IAmb 01 57 29.1
comp=Z,66nm,1.0s
GRA1 Grafenberg Arr 90.79 320 P **P** **01 57 13.3 +0.9**
comp=Z,2µmcomp=Z,78nm,2.0s
GRF Grafenberg Arr 90.79 320 *e*P **P** **01 57 13.1 +0.7**
comp=Z,100nm,1.3s,baz=94,slow=4.6
GRF *es*P **pwP** **01 57 28.2 +2.0**
baz=94,slow=4.6
GRF *e*L L 02 44 27.3
comp=Z,2µm,20.9s
GRFO Grafenberg 90.80 320 P **P** **01 57 13.7 +1.3**
GRFO Grafenberg 90.80 320 P **P** **01 57 13.7 +1.3**
VAGH Vaagaholmen 90.90 337 *e* sP 01 57 29.4 +5.0
LEIR Leirfjorden 90.91 336 *e*P **P** **01 57 13.3 +0.8**
LEIR *e* 01 57 29.1
LOF Lofoten 90.91 338 *e* sP 01 57 25.2 +0.9
GORT1 Trebel 90.93 323 *e*P **P** **01 57 13.3 +0.4**
comp=Z,253nm,2.0s,baz=94,slow=4.6
GORT1 *es*P **pwP** **01 57 28.4 +2.4**
baz=94,slow=4.6
GORT1 Trebel 90.93 323 P **P** **01 57 13.2 +0.4**
comp=Z,2µmcomp=Z,70nm,2.7s
FLTG Flechtingen 90.93 322 *e*P **P** **01 57 12.6 -0.3**
comp=Z,50nm,1.4s,baz=94,slow=4.6
FLTG *es*P **pwP** **01 57 27.7 +1.7**
baz=94,slow=4.6
FLTG Flechtingen 90.93 322 P **P** **01 57 11.6 -1.3**
comp=Z,32nm,2.7s
KONS Konsvik 90.94 336 *e* sP 01 57 29.6 +5.0
FETA Feichten 90.98 317 *e*P **P** **01 57 13.2 -0.3**
comp=Z,42nm,1.1s,SNR=14
RETA Reutte 90.98 317 *e*P **P** **01 57 13.0 -0.4**
comp=Z,44nm,1.1s,SNR=14
VLC Villacollemand 91.08 314 P **P** **01 57 12.5 -1.4**
SPA0 Spitsbergen Ar 91.19 348 *e* sP 01 57 27.5 +1.6
SPITS Spitsbergen Ar 91.19 348 P **P** **01 57 13.6 -0.1**
comp=Z,14nm,0.8s,baz=126,slow=7.3,SNR=4.8
SPITS LR LR 02 44 44.9
comp=Z,2µm,20.8s,baz=73,slow=40
comp=Z,14nm,0.8s
SNAA Sanae 91.23 198 P **P** **01 57 14.4 +0.4**
comp=Z,4.7nm,0.3s,baz=82,slow=4.2,SNR=3.0
SNAA LR LR 02 32 57.0
comp=Z,2µm,19.3s,baz=99,slow=32
comp=Z,4.7nm,0.3s
NC602 NORSAR Array S 91.24 331 *e*P **P** **01 57 14.6 +0.4**
NC602 *e* 01 57 28.3
ASSE Asse, Remlinge 91.27 322 *e*P **P** **01 57 14.8 +0.4**
comp=Z,53nm,1.2s,baz=94,slow=4.6
ASSE *es*P **pwP** **01 57 29.9 +1.6**
baz=94,slow=4.6
ASSE Asse, Remlinge 91.27 322 P **P** **01 57 15.6 +1.2**
comp=Z,64nm,1.7s
NSS Namsos 91.28 334 *e*P **P** **01 57 15.5 +1.3**
FUORN Ofenpass-Fuorn 91.28 316 P **P** **01 57 15.8 +0.7**
comp=Z,2µmcomp=Z,93nm,1.9s
NB2 NORSAR Subarra 91.42 331 P **P** **01 57 15.0 -0.1**
comp=Z,3.0nm,0.8s,baz=96,slow=4.6
NB2 NORSAR Subarra 91.42 331 P **P** **01 57 15.0 -0.1**
NB2 AMP 01 57 15.0
NOA NORSAR Array B 91.42 331 P **P** **01 57 14.7 -0.3**
comp=Z,6.3nm,0.9s,baz=94,slow=4.8,SNR=11
NOA LR LR 02 41 51.4
comp=Z,1µm,21.3s,baz=90,slow=38
comp=Z,6.3nm,0.9s
UBR Ueberruh 91.43 317 *e*P **P** **01 57 15.4 -0.1**
comp=Z,49nm,1.3s,baz=94,slow=4.6
UBR *es*P **pwP** **01 57 30.4 +1.1**
baz=94,slow=4.6
UBR Ueberruh 91.43 317 P **P** **01 57 16.1 +0.6**
comp=Z,51nm,1.1s
CLZ Clausthal 91.44 322 *e*P **P** **01 57 15.8 +0.4**
comp=Z,60nm,1.2s,baz=94,slow=4.6
CLZ *es*P **pwP** **01 57 30.9 +1.7**
baz=94,slow=4.6
CLZ Clausthal 91.44 322 P **P** **01 57 16.0 +0.7**
comp=Z,48nm,1.1s
KEST Kesra 91.51 306 P **P** **01 57 16.5 +0.4**
comp=Z,53nm,0.9s,baz=49,slow=1.3,SNR=38
KEST LR LR 02 38 57.2
comp=Z,1µm,21.9s,baz=88,slow=36
comp=Z,53nm,0.9s
KEST Kesra 91.51 306 P **P** **01 57 17.1 +0.9**
SNR=8.6
KEST Kesra 91.51 306 IAmb IAmb 01 57 18.9
comp=Z,95nm,1.1s
DAVOX Davos/Dischmat 91.55 317 P **P** **01 57 16.2 +0.1**
comp=Z,32nm,0.9s,baz=120,slow=5.4,SNR=33
DAVOX LR LR 02 43 44.7
comp=Z,1µm,19.0s,baz=60,slow=39
comp=Z,32nm,0.9s
BSEG Bad Segeberg 91.57 324 *e*P **P** **01 57 16.4 +0.6**
comp=Z,304nm,2.7s,baz=94,slow=4.6
BSEG *es*P **pwP** **01 57 31.6 +2.7**
baz=94,slow=4.6
BSEG Bad Segeberg 91.57 324 P **P** **01 57 16.7 +0.9**
comp=Z,47nm,1.7s
DAVA Damuels 91.57 317 *e*P **P** **01 57 16.0 -0.2**
comp=Z,71nm,1.1s,SNR=14
DAVA Damuels 91.57 317 P **P** **01 57 16.7 +0.5**
comp=Z,2µmcomp=Z,112nm,1.5s,comp=Z,2µm
GTTG Gottingen 91.68 321 *e*P **P** **01 57 16.8 +0.3**
comp=Z,39nm,1.1s,baz=94,slow=4.6
GTTG *es*P **pwP** **01 57 31.9 +1.6**
baz=94,slow=4.6
GTTG Gottingen 91.68 321 P **P** **01 57 17.1 +0.6**
comp=Z,86nm,1.3s
TUE Stuetta 91.91 316 P **P** **01 57 17.9 0.0**
comp=Z,1µmcomp=Z,40nm,1.6s
STU Stuttgart 92.08 319 *e*P **P** **01 57 18.5 +0.1**
comp=Z,74nm,1.1s,baz=94,slow=4.6
STU *es*P **pwP** **01 57 33.5 +1.3**
baz=94,slow=4.6
RETH Rethem/Aller, 92.09 323 *e*P **P** **01 57 18.7 +0.5**
comp=Z,42nm,1.4s,baz=94,slow=4.6
RETH *es*P **pwP** **01 57 33.8 +2.4**
baz=94,slow=4.6
SLE Schleitheim 92.52 318 P **P** **01 57 20.7 +0.2**
comp=Z,9.3nm,1.0s
BNALP Bannalp 92.55 317 P **P** **01 57 21.0 +0.2**
comp=Z,38nm,1.7s
TNS Taunus Mts 92.61 320 *e*P **P** **01 57 21.2 +0.3**
comp=Z,38nm,1.0s,baz=94,slow=4.6
TNS *es*P **pwP** **01 57 36.3 +1.6**
baz=94,slow=4.6
TNS Taunus Mts 92.61 320 P **P** **01 57 21.6 +0.8**
comp=Z,1µmcomp=Z,56nm,1.3s
KASTN Kahler Asten 92.64 321 *e*P **P** **01 57 21.2 +0.3**
comp=Z,76nm,1.5s,baz=94,slow=4.6
KASTN *es*P **pwP** **01 57 36.4 +1.5**
baz=94,slow=4.6
BFO Black Forest 92.64 318 P **P** **01 57 21.6 +0.6**
BFO pmax pmax
comp=Z,60nm,1.5s
BFO Black Forest 92.64 318 P **P** **01 57 21.6 +0.6**
BFO IAmb IAmb 01 57 48.7
comp=Z,60nm,1.5s
BFO Black Forest 92.64 318 *e*P **P** **01 57 20.8 -0.3**
comp=Z,18nm,1.2s,baz=94,slow=4.6
BFO *es*P **pwP** **01 57 35.9 +1.0**
baz=94,slow=4.6
SKAR Skarslia 92.83 330 *e*P **P** **01 57 23.0 +1.4**
VNA2 Neumayer--Watz 92.84 198 ⇑pP pP 01 57 36.1 +5.8
comp=Z,11nm,0.8s,baz=58,slow=5.0
IBBN Ibbenburen 93.07 322 *e*P **P** **01 57 23.2 +0.4**
comp=Z,40nm,1.1s,baz=94,slow=4.6
IBBN *es*P **pwP** **01 57 38.2 +1.5**
baz=94,slow=4.6
VNA1 Neumayer--Stat 93.20 199 pP pP 01 57 38.0 +6.1
comp=Z,20nm,0.9s
SENIN Lac Senin/Sane 93.32 316 IAmb IAmb 01 57 45.8

BUG **Bochum--Univer** 93.36 321 *e*P P 01 57 24.4 +0.2
comp=Z,147nm,1.9s
comp=Z,123nm,2.2s,baz=94,slow=4.6
BUG *e*sP **pwP** 01 57 39.5 +1.5
baz=94,slow=4.6
ECH **Echery** 93.43 318 IAmb IAmb 01 57 44.4
comp=Z,93nm,1.8s
ECH **Echery** 93.43 318 P P 01 57 24.9 +0.3
comp=Z,20nm,2.7s
VNA3 **Neumayer Olymp** 93.45 198 P P 01 57 25.7 +1.4
comp=Z,7.1nm,0.8s
VNA3 ⇑pP **pwP** 01 57 37.9 +0.7
comp=Z,7.9nm,1.0s
TNA **Tin City** 93.63 25 IAMs_20 IAMs_20 02 45 45.4
comp=Z,3µm,19.0s
WLF **Walferdange** 94.08 319 P P 01 57 26.3 -1.3
WLF **Walferdange** 94.08 319 *e*P P 01 57 28.0 +0.4
comp=Z,41nm,1.4s,baz=94,slow=4.6
WLF *e*sP **pwP** 01 57 43.1 +1.7
baz=94,slow=4.6
TAM **Tamanrasset** 94.50 293 IAMs_20 IAMs_20 02 41 28.8
comp=Z,2µm,18.0s
TAM **Tamanrasset** 94.50 293 P P 01 57 31.2 +0.9
comp=Z,9.7nm,2.0s
ANM **Nome** 94.75 26 IAMs_20 IAMs_20 02 46 25.2
comp=Z,3µm,18.0s
F15K **North Star Dit** 94.98 24 IAMs_20 IAMs_20 02 41 08.1
comp=Z,3µm,20.0s
MAHO **Mahon** 95.58 310 P P 01 57 34.9 +0.3
LOR **Lormes** 95.67 317 P P 01 57 35.3 +0.4
comp=Z,24nm,2.2s
J14K **Nanvaranak Lak** 95.70 27 IAMs_20 IAMs_20 02 41 35.4
comp=Z,2µm,20.0s
G16K **Koyuk River** 95.96 25 IAMs_20 IAMs_20 02 41 47.1
comp=Z,3µm,22.0s
C18K **Utukok River** 96.00 21 IAmb IAmb 01 57 57.9
comp=Z,93nm,1.5s
L14K **Kuka Creek** 96.24 29 IAMs_20 IAMs_20 02 44 36.8
comp=Z,2µm,22.0s
F17K **Baldwin Pennin** 96.28 24 IAMs_20 IAMs_20 02 47 13.5
comp=Z,3µm,18.0s
NOR **Nord** 96.37 352 P P 01 57 37.2 -0.1
comp=Z,28nm,1.7s
K15K **Wolf Creek Mou** 96.68 28 IAMs_20 IAMs_20 02 47 15.4
comp=Z,3µm,19.0s
J16K **Anvik River** 96.98 27 IAMs_20 IAMs_20 02 49 07.1
comp=Z,2µm,18.0s
H17K **Granite Mounta** 97.04 25 IAMs_20 IAMs_20 02 46 26.7
comp=Z,3µm,19.0s
D19K **Kuna River** 97.14 21 IAMs_20 IAMs_20 02 47 37.4
comp=Z,3µm,19.0s
O14K **Tigyukauivet M** 97.17 31 IAMs_20 IAMs_20 02 47 53.5
comp=Z,3µm,18.0s
F19K **Shaleruckik Mo** 97.58 23 IAmb IAmb 01 58 04.7
comp=Z,46nm,1.4s
D20K **Etivluk River** 97.64 21 IAMs_20 IAMs_20 02 40 49.3
comp=Z,4µm,21.0s
J17K **VABM Dome** 97.64 26 IAMs_20 IAMs_20 02 48 12.7
comp=Z,3µm,19.0s
N15K **Kwethluk River** 97.65 30 IAMs_20 IAMs_20 02 45 50.0
comp=Z,3µm,21.0s
H18K **Honhosa River** 97.65 25 IAMs_20 IAMs_20 02 44 13.9
comp=Z,3µm,20.0s
O15K **Ungalikthiuk R** 97.92 31 IAMs_20 IAMs_20 02 47 52.2
comp=Z,2µm,18.0s
G19K **Purcell Mounta** 97.99 24 IAMs_20 IAMs_20 02 49 39.7
comp=Z,2µm,18.0s
TORD **Torodi Ar. Bea** 97.99 283 P P 01 57 45.6 -0.5
comp=Z,1.3nm,0.8s,baz=222,slow=2.0,SNR=4.9
TORD PP **PP** 02 01 46.5 +1.2
comp=Z,1.8nm,0.8s,baz=102,slow=4.1,SNR=3.6
TORD LR LR 02 40 31.5
comp=Z,2µm,19.1s,baz=84,slow=35
comp=Z,1.3nm,0.8s
M16K **Timber Creek** 98.07 29 IAMs_20 IAMs_20 02 47 58.2
comp=Z,3µm,19.0s
K17K **Iditarod** 98.10 27 IAmb IAmb 01 58 05.3
comp=Z,66nm,1.1s
K17K IAMs_20 IAMs_20 02 49 19.9
comp=Z,3µm,18.0s
JMIC **Jan Mayen** 98.31 342 LR LR 02 46 13.2
comp=Z,2µm,21.4s,baz=70,slow=38
F20K **Avaraart Lake** 98.33 23 IAmb IAmb 01 58 05.1
comp=Z,39nm,1.1s
F20K IAMs_20 IAMs_20 02 45 03.6
comp=Z,2µm,21.0s
E21K **Killik River** 98.64 21 IAMs_20 IAMs_20 02 46 47.1
comp=Z,3µm,19.0s
J18K **Innoko River** 98.67 26 IAmb IAmb 01 58 09.4
comp=Z,39nm,1.2s
J18K IAMs_20 IAMs_20 02 45 29.0
comp=Z,2µm,20.0s
O16K **Kokwok River B** 98.73 30 IAMs_20 IAMs_20 02 50 20.7
comp=Z,3µm,18.0s
M17K **Holitna River** 98.74 28 IAMs_20 IAMs_20 02 46 14.7
comp=Z,3µm,21.0s
DAG **Danmarks Havn** 98.84 348 P P 01 57 48.4 -0.2
comp=Z,29nm,1.2s
L18K **Granite Mounta** 98.93 27 IAMs_20 IAMs_20 02 49 54.8
comp=Z,3µm,19.0s
D22K **Ayikyak River** 98.98 20 IAMs_20 IAMs_20 02 41 52.9
comp=Z,4µm,20.0s
N17K **Nushagak Hills** 99.02 29 IAMs_20 IAMs_20 02 48 39.1
comp=Z,3µm,19.0s
J19K **Poorman** 99.04 26 IAmb IAmb 01 58 12.0
comp=Z,41nm,1.2s
F21K **Alatna River** 99.14 22 IAMs_20 IAMs_20 02 49 13.0
comp=Z,3µm,19.0s
RAR **Rarotonga** 99.21 112 LR LR 02 44 28.4
comp=Z,771nm,19.6s,baz=258,slow=36
EKA **Eskdalemuir Ar** 99.30 326 LR LR 02 49 43.4
comp=Z,672nm,18.1s,baz=68,slow=40
G21K **Allakaket** 99.31 23 IAmb IAmb 01 58 12.9
comp=Z,76nm,1.2s
G21K IAMs_20 IAMs_20 02 42 51.6
comp=Z,2µm,22.0s
I20K **Naaghedeneel** 99.34 25 IAMs_20 IAMs_20 02 47 58.6
comp=Z,3µm,19.0s
IMAR **Indian Mountai** 99.35 23 P Pdif 01 57 51.6 +0.5
J20K **Nowinta River** 99.63 25 IAMs_20 IAMs_20 02 48 35.2
comp=Z,2µm,20.0s
P17K **Kvichak River** 99.63 30 IAMs_20 IAMs_20 02 46 53.6
comp=Z,3µm,21.0s
N17K **Nushagak Hills** 99.02 29 IAMs_20 IAMs_20 02 48 39.1
comp=Z,3µm,19.0s
J19K **Poorman** 99.04 26 IAmb IAmb 01 58 12.0
comp=Z,41nm,1.2s
F21K **Alatna River** 99.14 22 IAMs_20 IAMs_20 02 49 13.0
comp=Z,3µm,19.0s
RAR **Rarotonga** 99.21 112 LR LR 02 44 28.4
comp=Z,771nm,19.6s,baz=258,slow=36
EKA **Eskdalemuir Ar** 99.30 326 LR LR 02 49 43.4
comp=Z,672nm,18.1s,baz=68,slow=40
G21K **Allakaket** 99.31 23 IAmb IAmb 01 58 12.9
comp=Z,76nm,1.2s
G21K IAMs_20 IAMs_20 02 42 51.6
comp=Z,2µm,22.0s
I20K **Naaghedeneel** 99.34 25 IAMs_20 IAMs_20 02 47 58.6
comp=Z,3µm,19.0s
IMAR **Indian Mountai** 99.35 23 P Pdif 01 57 51.6 +0.5
J20K **Nowinta River** 99.63 25 IAMs_20 IAMs_20 02 48 35.2
comp=Z,2µm,20.0s
P17K **Kvichak River** 99.63 30 IAMs_20 IAMs_20 02 46 53.6
comp=Z,3µm,21.0s
L19K **White Mountain** 99.78 27 IAMs_20 IAMs_20 02 50 32.2
comp=Z,3µm,19.0s
H21K **Melozitna Rive** 99.81 24 IAMs_20 IAMs_20 02 52 03.9
comp=Z,2µm,20.0s
M19K **Big River Lodg** 100.06 27 IAMs_20 IAMs_20 02 44 32.7
comp=Z,3µm,22.0s
L20K **Farewell, AK** 100.15 27 IAMs_20 IAMs_20 02 50 00.1
comp=Z,3µm,19.0s
M20K **Styx River** 100.64 27 IAMs_20 IAMs_20 02 45 01.0
comp=Z,3µm,21.0s
CAST **Castle Rocks** 100.71 26 IAMs_20 IAMs_20 02 52 15.7
comp=Z,3µm,20.0s
MLY **Manley** 100.82 24 IAMs_20 IAMs_20 02 49 57.5
comp=Z,3µm,20.0s
BPAW **Bear Paw Mtn.** 100.99 25 IAMs_20 IAMs_20 02 49 08.0
comp=Z,2µm,19.0s
H23K **Yukon River** 101.05 23 IAMs_20 IAMs_20 02 44 05.6
comp=Z,2µm,21.0s
C26K **Camden Bay** 101.22 18 IAMs_20 IAMs_20 02 45 40.9
comp=Z,4µm,21.0s
SKT **Skwentna** 101.34 27 IAMs_20 IAMs_20 02 50 39.6
comp=Z,3µm,19.0s
SII **Sitkinak Islan** 101.35 33 IAMs_20 IAMs_20 02 53 05.1
comp=Z,2µm,20.0s
G24K **Hadweenzic Riv** 101.55 22 IAMs_20 IAMs_20 02 52 31.7
comp=Z,3µm,21.0s
BWN **Browne** 101.60 25 IAMs_20 IAMs_20 02 50 45.1
comp=Z,3µm,18.0s
NEA2 **Nenana** 101.63 24 IAMs_20 IAMs_20 02 50 51.1
comp=Z,3µm,18.0s
H24K **Noodor Dome** 101.69 23 IAMs_20 IAMs_20 02 51 56.6
comp=Z,3µm,19.0s
CUT **Chulitna** 101.79 26 IAMs_20 IAMs_20 02 52 56.5
comp=Z,3µm,18.0s
F25K **Christian Rive** 101.89 21 IAMs_20 IAMs_20 02 50 10.6
comp=Z,3µm,19.0s
KDAK **Kodiak Island** 101.92 31 IAMs_20 IAMs_20 02 46 56.0
comp=Z,3µm,22.0s
ESDC **Sonseca Array** 101.92 310 P Pdif 01 58 02.8 -0.4
comp=Z,0.3nm,0.7s,baz=79,slow=6.4,SNR=2.9
ESDC PP **PP** 02 02 10.5 -4.0
comp=Z,2.6nm,1.1s,baz=88,slow=5.5,SNR=5.2
ESDC **Sonseca Array** 101.92 310 Pdif 01 58 02.3 -0.9
MCK **McKinley** 101.96 25 IAMs_20 IAMs_20 02 49 49.8
comp=Z,2µm,20.0s
COLA **College** 102.03 24 IAMs_20 IAMs_20 02 50 59.5
comp=Z,2µm,20.0s
WRH **Wood River Hil** 102.07 24 IAMs_20 IAMs_20 02 50 55.7
comp=Z,3µm,20.0s
RND **Reindeer** 102.10 25 IAMs_20 IAMs_20 02 51 39.5
comp=Z,2µm,18.0s
CCB **Clear Creek Bu** 102.13 24 IAMs_20 IAMs_20 02 50 55.2
comp=Z,2µm,20.0s
CNPM **China Poot** 102.15 29 IAMs_20 IAMs_20 02 49 53.0
comp=Z,3µm,20.0s
BRLK **Bradley Lake** 102.26 29 IAMs_20 IAMs_20 02 50 03.7
comp=Z,2µm,20.0s
RC01 **Rabbit Creek A** 102.42 28 IAMs_20 IAMs_20 02 53 14.1
comp=Z,3µm,18.0s
FYU **Fort Yukon** 102.43 22 IAMs_20 IAMs_20 02 50 14.0
comp=Z,3µm,20.0s
ILAR **Eielson Array** 102.46 24 P Pdif 01 58 04.9 0.0
comp=Z,0.2nm,0.6s,baz=313,slow=6.0,SNR=2.1
ILAR PP **PP** 02 02 11.9 -5.7
comp=Z,2.0nm,0.9s,baz=305,slow=8.0,SNR=5.6
ILAR PKKPbc **PKKPbc** 02 14 05.8 -2.6
comp=Z,0.4nm,0.8s,baz=135,slow=2.2,SNR=5.0
ILAR **Eielson Array** 102.46 24 Pdif 01 58 03.7 -1.2
HDA **Harding Lake** 102.56 24 IAMs_20 IAMs_20 02 50 59.5
comp=Z,2µm,20.0s
GHO **Glory Hole Cre** 102.59 27 IAMs_20 IAMs_20 02 51 28.4
comp=Z,2µm,19.0s
O22K **Cooper Landing** 102.61 28 IAMs_20 IAMs_20 02 46 10.1
comp=Z,3µm,21.0s
PRP **Porcupine Dome** 102.72 23 IAMs_20 IAMs_20 02 51 39.7
comp=Z,2µm,19.0s
D27M **Malcolm River** 102.76 18 IAMs_20 IAMs_20 02 49 01.6
comp=Z,4µm,21.0s
DHY **Denali Highway** 102.84 25 IAMs_20 IAMs_20 02 50 18.1
comp=Z,2µm,20.0s
SML **Sawmill** 102.84 27 IAMs_20 IAMs_20 02 51 44.2
comp=Z,3µm,19.0s
SEW **Seward** 102.85 29 IAMs_20 IAMs_20 02 46 29.5
comp=Z,2µm,22.0s
KNK **Knik Glacier** 102.91 27 IAMs_20 IAMs_20 02 51 33.0
comp=Z,2µm,18.0s
J25K **Salcha River,** 103.12 24 IAMs_20 IAMs_20 02 47 19.4
comp=Z,2µm,20.0s
PWL **Port Wells** 103.15 28 IAMs_20 IAMs_20 02 51 51.3
comp=Z,2µm,20.0s
K24K **Donelly Dome** 103.26 24 IAMs_20 IAMs_20 02 51 51.0
comp=Z,3µm,18.0s
SCM **Sheep Creek Mo** 103.28 27 IAMs_20 IAMs_20 02 50 54.9
comp=Z,2µm,20.0s
XMAS **Kiritimati** 103.36 89 IAMs_20 IAMs_20 02 41 52.8
comp=Z,3µm,21.0s
G27K **Doyon Strip** 103.63 21 IAMs_20 IAMs_20 02 49 22.6
comp=Z,3µm,20.0s
PAX **Paxson** 103.69 25 IAMs_20 IAMs_20 02 51 01.6
comp=Z,2µm,20.0s
GLI **Glacier Island** 103.71 27 IAMs_20 IAMs_20 02 52 09.2
comp=Z,3µm,20.0s
I26K **Coal Creek Min** 103.72 23 IAMs_20 IAMs_20 02 51 44.2
comp=Z,2µm,20.0s
P23K **Montague Islan** 103.86 28 IAMs_20 IAMs_20 02 47 08.2
comp=Z,3µm,21.0s
H27K **Steamboat Moun** 103.93 21 IAMs_20 IAMs_20 02 50 06.6
comp=Z,3µm,20.0s
KLU **Klutina** 104.03 27 IAMs_20 IAMs_20 02 51 28.6
comp=Z,2µm,20.0s
HARP **HAARP** 104.04 26 IAMs_20 IAMs_20 02 54 20.8
comp=Z,2µm,19.0s
HIN **Hinchinbrook I** 104.15 28 IAMs_20 IAMs_20 02 52 33.8
comp=Z,3µm,19.0s
L26K **Log Cabin Wild** 104.57 25 IAMs_20 IAMs_20 02 52 43.6
comp=Z,3µm,18.0s
K27K **Chicken** 104.67 24 IAMs_20 IAMs_20 02 55 12.5
comp=Z,3µm,20.0s
BMRM **Bremner River** 104.82 27 IAMs_20 IAMs_20 02 48 09.4
comp=Z,3µm,22.0s
G29M **Pine Creek** 104.85 20 IAMs_20 IAMs_20 02 48 14.8
comp=Z,3µm,21.0s
I28M **Miner Creek** 104.87 22 IAMs_20 IAMs_20 02 49 04.4
comp=Z,3µm,21.0s
M26K **Nabesna, AK** 104.97 25 IAMs_20 IAMs_20 02 51 44.2
comp=Z,2µm,18.0s
GLB **Gilahina Butte** 104.99 26 IAMs_20 IAMs_20 02 51 33.0
comp=Z,2µm,18.0s
H29M **Whitestone** 105.07 21 IAMs_20 IAMs_20 02 51 08.7
comp=Z,3µm,20.0s
L27K **Beaver Creek,** 105.18 24 IAMs_20 IAMs_20 02 50 24.9
comp=Z,2µm,20.0s
EVO **Evora** 105.19 309 PKP **PKiKP** 02 02 32.6 +0.7
VRDI **Verde Repeater** 105.24 26 IAMs_20 IAMs_20 02 51 41.4
comp=Z,2µm,19.0s
MCARA **McCarthy VSAT** 105.36 26 IAMs_20 IAMs_20 02 52 10.8
comp=Z,2µm,21.0s
TRIS **Tristan da Cun** 105.40 230 IAMs_20 IAMs_20 02 41 35.1
comp=Z,2µm,18.0s
M27K **Edge Creek, AK** 105.46 25 IAMs_20 IAMs_20 02 52 54.3
comp=Z,3µm,20.0s
SUMG **Summit** 105.53 348 IAMs_20 IAMs_20 02 53 22.3
comp=Z,2µm,21.0s
EPYK **Eagle Plains** 105.57 20 IAMs_20 IAMs_20 02 50 00.9
comp=Z,2µm,20.0s
TIO **Tio** 105.57 301 PKP **PKiKP** 02 02 36.5 +3.4
BARN **Barnard Glacie** 106.10 26 IAMs_20 IAMs_20 02 56 27.2
comp=Z,2µm,20.0s
LOGN **Logan Glacier** 106.49 26 IAMs_20 IAMs_20 02 56 59.5
comp=Z,3µm,21.0s
K29M **Barlow Dome** 106.55 23 IAMs_20 IAMs_20 02 56 50.9
comp=Z,3µm,19.0s
J30M **Hart River** 106.63 22 IAMs_20 IAMs_20 02 51 41.0
comp=Z,3µm,21.0s
L29M **L29M** 106.66 24 IAMs_20 IAMs_20 02 49 18.0
comp=Z,2µm,22.0s
H31M **Peel River** 106.69 20 IAMs_20 IAMs_20 02 49 31.6
comp=Z,3µm,22.0s
M29M **Somme Creek** 106.85 24 IAMs_20 IAMs_20 02 53 10.9
comp=Z,2µm,19.0s
O28M **Mount Upton** 106.87 26 IAMs_20 IAMs_20 02 50 11.7
comp=Z,3µm,20.0s
PCA **Pinnacle** 107.14 27 IAMs_20 IAMs_20 02 55 40.8
comp=Z,2µm,19.0s
BCPM **Bancas Point** 107.48 27 IAMs_20 IAMs_20 02 55 58.0
comp=Z,2µm,18.0s
C36M **Paulatuk** 107.57 15 IAMs_20 IAMs_20 02 51 30.6
comp=Z,3µm,21.0s
O29M **Mount Kennedy** 107.80 26 IAMs_20 IAMs_20 02 54 29.1
comp=Z,2µm,20.0s
N30M **Aishikik Lake** 107.89 25 IAMs_20 IAMs_20 02 57 38.5
comp=Z,2µm,20.0s
TBI **Tubuai** 108.32 116 *e*PP **PKiKP** 02 02 42.3 +4.1
comp=Z,816nm,26.5s
TBI *e*S **Sdif** 02 10 22.7 -15
comp=Z,2µm,26.5s
TBI *e*SS **SS** 02 18 09.7 -6.1
comp=Z,5µm,34.2s
N31M **Braeburn, Yuko** 108.42 24 IAMs_20 IAMs_20 02 54 08.5
comp=Z,3µm,20.0s
O30N **Mendenhall** 108.65 25 IAMs_20 IAMs_20 02 58 03.6
comp=Z,2µm,20.0s
PAE **Paea** 109.23 110 *e*LR LR 02 34 45.3
comp=Z,2µm,23.5s
PPT2 **Papeete2** 109.24 110 *e*P **Pdif** 01 58 35.5 -0.7
comp=Z,43nm,22.8s
PPT2 *e*PP PP 02 02 59.5 -10
comp=Z,136nm,24.2s
PPT2 *e*LQ LQ 02 30 11.1
comp=Z,4µm,35.5s
PPT2 *e*LR LR 02 34 44.1
comp=Z,2µm,31.8s
PPT2 *e*LR LR 02 34 48.8
comp=Z,3µm,24.0s
TVO **Taravao** 109.52 110 *e*LR LR 02 34 51.9
comp=Z,4µm,28.7s
N32M **Quiet Lake** 109.70 24 IAMs_20 IAMs_20 02 57 32.6
comp=Z,2µm,20.0s
S31K **Pelican** 109.97 28 IAMs_20 IAMs_20 02 56 23.6
comp=Z,2µm,19.0s
BESE **Bessie Mountai** 110.30 27 IAMs_20 IAMs_20 02 56 17.2
comp=Z,3µm,19.0s
P33M **Teslin, Yukon** 110.33 25 IAMs_20 IAMs_20 02 55 07.9
comp=Z,2µm,20.0s
R32K **Eaglecrest** 110.60 27 IAMs_20 IAMs_20 02 56 27.4
comp=Z,3µm,19.0s
ILULI **Ilulissat** 110.74 349 IAMs_20 IAMs_20 02 53 56.8
comp=Z,3µm,22.0s
PMOR **Pomariorio Ree** 111.25 107 *e*LR LR 02 35 49.4
comp=Z,3µm,23.2s
VAH **Vaihoa** 111.47 107 *e*LR LR 02 35 50.7
comp=Z,3µm,24.4s
R33M **Jennings River** 111.56 25 IAMs_20 IAMs_20 02 55 37.5
comp=Z,2µm,19.0s
WRAK **Wrangell Islan** 112.58 28 IAMs_20 IAMs_20 02 59 42.6
comp=Z,2µm,19.0s
T35M **Bob Quinn** 113.24 27 IAMs_20 IAMs_20 03 01 34.0
comp=Z,2µm,19.0s
V35K **Ketchikan** 113.51 29 IAMs_20 IAMs_20 02 56 32.3
comp=Z,2µm,20.0s
YKA **Yellowknife Ar** 115.27 17 PKP **PKiKP** 02 02 49.8 -0.4
comp=Z,1.7nm,0.9s,baz=313,slow=2.0,SNR=3.8
YKA PKKPbc **PKKPbc** 02 13 25.6 -1.8
comp=Z,1.8nm,0.9s,baz=152,slow=3.6,SNR=3.7
TAOE **Nuku Hiva Isla** 119.67 102 *e*PP **PP** 02 04 19.4 -3.8
comp=Z,159nm,23.9s
TAOE *e*LR LR 02 39 36.6
comp=Z,2µm,33.5s
RKT **Rikitea** 121.26 119 *e*LR LR 02 40 18.5
comp=Z,21µm,38.2s
NEW **Newport** 124.92 29 IAMs_20 IAMs_20 03 08 18.1
comp=Z,2µm,19.0s
FFC **Flin Flon** 125.35 15 IAMs_20 IAMs_20 03 02 12.5
comp=Z,3µm,22.0s
O02D **Mt. Diablo Mer** 126.77 40 IAMs_20 IAMs_20 03 02 27.1
comp=Z,2µm,20.0s
SCHQ **Schefferville** 126.84 350 PKP **PKiKP** 02 03 13.4 +0.2
comp=Z,6.3nm,0.9s,baz=342,slow=3.2,SNR=4.0
SCHQ **Schefferville** 126.84 350 **PKPdf** 02 03 12.8 0.0
BMO **Blue Mountains** 127.14 32 IAMs_20 IAMs_20 03 10 20.1
comp=Z,2µm,20.0s
MOD **Modoc Plateau** 127.31 37 IAMs_20 IAMs_20 03 04 20.2
comp=Z,2µm,22.0s
MSO **Missoula** 127.45 28 IAMs_20 IAMs_20 03 10 10.2
comp=Z,3µm,18.0s
PLID **Pearl Lake** 127.66 31 IAMs_20 IAMs_20 03 07 30.9
comp=Z,2µm,20.0s
WVOR **Wild Horse Val** 127.97 35 IAMs_20 IAMs_20 03 07 16.3
comp=Z,2µm,20.0s
EGMT **Eagleton** 128.41 25 IAMs_20 IAMs_20 03 10 13.2
comp=Z,2µm,19.0s
AFDM **Forest Hills D** 128.62 40 **PKiKP** 02 03 17.3 0.0
DLMT **Dillon** 129.16 29 IAMs_20 IAMs_20 03 06 25.4
comp=Z,2µm,20.0s
BOZ **Bozeman (W)** 129.45 28 IAMs_20 IAMs_20 03 10 43.9
comp=Z,2µm,20.0s
CMB **Columbia Colle** 129.51 41 PKIKP **PKiKP** 02 03 19.4 +0.2
CMB MLR MLR
comp=Z,1µm,22.0s
CMB **Columbia Colle** 129.51 41 **PKiKP** 02 03 19.4 +0.2
HLID **Hailey** 129.54 32 IAMs_20 IAMs_20 02 58 50.6
comp=Z,2µm,22.0s
DGMT **Dagmar** 130.17 20 IAMs_20 IAMs_20 03 10 18.3
comp=Z,2µm,19.0s
NVAR **Mina Array Bea** 130.62 39 PKP **PKiKP** 02 03 21.5 -0.1
comp=Z,1.1nm,0.7s,baz=287,slow=1.9,SNR=8.5
NVAR PP **PP** 02 05 36.3 +1.1
comp=Z,0.3nm,0.4s,baz=302,slow=6.2,SNR=1.8
RLMT **Red Lodge** 130.89 27 IAMs_20 IAMs_20 03 08 14.9
comp=Z,2µm,21.0s
LAO **LASA Array** 130.91 23 IAMs_20 IAMs_20 03 07 21.3
comp=Z,2µm,20.0s
ULM **Lac du Bonnet** 130.93 13 PKP **PKPdf** 02 03 20.9 +0.2
comp=Z,2.7nm,0.6s,baz=4.1,slow=5.1,SNR=6.7
ELK **Elko** 131.00 35 IAMs_20 IAMs_20 03 06 25.6
comp=Z,2µm,21.0s
AHID **Auburn Hatcher** 131.80 30 IAMs_20 IAMs_20 03 12 25.4
comp=Z,2µm,18.0s
MDND **Maddock** 132.19 17 IAMs_20 IAMs_20 03 05 34.6
comp=Z,1µm,21.0s
HWUT **Hardware Ranch** 132.41 31 IAMs_20 IAMs_20 03 06 59.5
comp=Z,2µm,20.0s
MPMC **Manual Prospec** 132.54 41 IAMs_20 IAMs_20 03 06 22.0
comp=Z,2µm,20.0s
BW06 **Boulder Array** 132.56 29 IAMs_20 IAMs_20 03 09 29.2
comp=Z,2µm,20.0s
PDAR **Pinedale Array** 132.56 29 PKP **PKiKP** 02 03 25.1 -0.3
comp=Z,0.5nm,0.5s,baz=75,slow=1.7,SNR=5.9
PDAR PP **PP** 02 05 48.9 +1.6
comp=Z,4.2nm,1.1s,baz=298,slow=3.2,SNR=4.2
PDAR **Pinedale Array** 132.56 29 **PKPdf** 02 03 24.3 0.0
E28A **Huff** 132.99 19 IAMs_20 IAMs_20 03 06 34.8
comp=Z,2µm,22.0s
RSSD **Black Hills** 133.90 23 PKIKP **PKPdf** 02 03 27.1 +0.3
RSSD **Black Hills** 133.90 23 **PKPdf** 02 03 27.1 +0.3
RSSD **Black Hills** 133.90 23 IAMs_20 IAMs_20 03 10 45.4
comp=Z,2µm,22.0s
GO07 **Milladeo Hill,** 133.93 187 IAMs_20 IAMs_20 03 01 57.5
comp=Z,2µm,19.0s
K22A **Casper** 134.06 27 IAMs_20 IAMs_20 03 13 20.7
comp=Z,1µm,19.0s
RCBR **Riachuelo** 134.43 259 IAMs_20 IAMs_20 03 02 07.8
comp=Z,2µm,18.0s
F33A **5 Mile Ranch,** 134.95 15 IAMs_20 IAMs_20 03 07 41.5
comp=Z,2µm,21.0s
O20A **White River Ci** 135.19 30 IAMs_20 IAMs_20 03 15 09.1
comp=Z,2µm,19.0s
LL03 **Petrohue** 135.69 189 IAMs_20 IAMs_20 03 02 30.5
comp=Z,2µm,20.0s
PLCA **Paso Flores** 135.76 191 PKP **PKiKP** 02 03 31.8 0.0
comp=Z,2.4nm,1.0s,baz=329,slow=3.7,SNR=3.9
PV18 **Skein Mesa, Pa** 136.25 33 **PKPdf** 02 03 32.1 +0.8
SPMN **Marine on St.** 136.36 12 IAMs_20 IAMs_20 03 12 21.8
comp=Z,2µm,20.0s
E46A **Sault Ste Mari** 136.42 4 IAMs_20 IAMs_20 03 03 34.3
comp=Z,2µm,22.0s
ECSD **EROS Data Cent** 136.80 17 IAMs_20 IAMs_20 03 14 09.6
comp=Z,2µm,20.0s
MVCO **Mesa Verde** 137.23 33 IAMs_20 IAMs_20 03 15 42.6
comp=Z,2µm,19.0s
OGNE **Ogallala** 137.37 24 IAMs_20 IAMs_20 03 13 31.3
comp=Z,2µm,21.0s
Q24A **Divide** 137.62 29 IAMs_20 IAMs_20 03 17 04.0
comp=Z,1µm,19.0s
LONY **Lake Ozonia** 137.93 353 IAMs_20 IAMs_20 03 09 42.5
comp=Z,2µm,22.0s
DIAM **Diamantina, MG** 137.96 239 *e*P **PKPdf** 02 03 34.6 -0.3
VT1 **Waterbury** 137.97 351 IAMs_20 IAMs_20 03 06 33.0
comp=Z,2µm,22.0s
VAO **Valinhos** 138.32 230 *e*P **PKPdf** 02 03 35.7 +0.4
SPB **Sao Paulo** 138.34 229 IAMs_20 IAMs_20 03 04 11.1
comp=Z,1µm,19.0s
SDCO **Great Sand Dun** 138.40 30 IAMs_20 IAMs_20 03 17 50.9
comp=Z,2µm,20.0s
L34A **Svendsen Farm,** 138.49 18 IAMs_20 IAMs_20 03 12 36.2
comp=Z,2µm,20.0s
HNH **Hanover** 138.51 351 IAMs_20 IAMs_20 03 12 57.1
comp=Z,2µm,21.0s
WCNY **West Carthage** 138.67 354 IAMs_20 IAMs_20 03 14 11.1
comp=Z,2µm,20.0s
KSCO **Kaye Shedlock'** 138.74 26 IAMs_20 IAMs_20 03 09 42.5
comp=Z,2µm,20.0s
J61A **Chester** 138.90 351 IAMs_20 IAMs_20 03 12 56.4
comp=Z,2µm,20.0s
J59A **Piesco** 139.06 353 IAMs_20 IAMs_20 03 10 03.4
comp=Z,2µm,22.0s
TUC **Tucson** 139.22 40 IAMs_20 IAMs_20 03 12 15.8
comp=Z,1µm,20.0s
J57A **Williamstown** 139.27 355 IAMs_20 IAMs_20 03 12 39.9
comp=Z,2µm,20.0s
T25A **Trinidad** 139.41 30 IAMs_20 IAMs_20 03 10 44.7
comp=Z,2µm,19.0s
K62A **Royalston** 139.51 350 IAMs_20 IAMs_20 03 09 39.7
comp=Z,2µm,22.0s
J55A **Hilton** 139.55 357 IAMs_20 IAMs_20 03 15 34.2
comp=Z,2µm,20.0s
L61B **Northampton** 139.80 351 IAMs_20 IAMs_20 03 07 17.1
comp=Z,2µm,21.0s
K57A **Scipio Center** 139.99 355 IAMs_20 IAMs_20 03 13 08.0
comp=Z,2µm,20.0s
TASM **ASL Pad, Albuq** 140.01 34 IAMs_20 IAMs_20 03 12 39.9
comp=Z,2µm,19.0s
TASM **ASL Pad, Albuq** 140.01 34 IAMs_20 IAMs_20 03 12 39.9
comp=Z,2µm,19.0s
TASM **ASL Pad, Albuq** 140.01 34 IAMs_20 IAMs_20 03 12 39.9
comp=Z,2µm,19.0s
TASM **ASL Pad, Albuq** 140.01 34 IAMs_20 IAMs_20 03 12 39.9
comp=Z,2µm,19.0s
ANMO **Albuquerque** 140.01 34 IAMs_20 IAMs_20 03 12 39.9
comp=Z,2µm,19.0s
ABQ **Albuquerque** 140.01 34 IAMs_20 IAMs_20 03 12 40.0
comp=Z,2µm,19.0s
ALQ **Albuquerque** 140.01 34 IAMs_20 IAMs_20 03 12 40.0
comp=Z,2µm,19.0s
ALQ **Albuquerque** 140.01 34 IAMs_20 IAMs_20 03 12 40.0
comp=Z,2µm,19.0s
MMNY **Mt. Morris Dam** 140.09 357 IAMs_20 IAMs_20 03 05 10.5
comp=Z,2µm,22.0s
CBKS **Cedar Bluff** 140.11 23 IAMs_20 IAMs_20 03 17 18.7
comp=Z,2µm,18.0s
L44A **Lake County Fo** 140.19 8 IAMs_20 IAMs_20 03 11 49.2

	comp=Z,2μm,20.0s							
L59A	**Walton**	140.38	353	IAMs_20	IAMs_20	03 09 30.3		
	comp=Z,2μm,22.0s							
N38A	**Joes South For**	140.46	15	IAMs_20	IAMs_20	03 11 49.3		
	comp=Z,2μm,22.0s							
AAM	**Ann Arbor**	140.51	3	IAMs_20	IAMs_20	03 11 28.6		
	comp=Z,2μm,20.0s							
L56A	**Greenwood**	140.66	356	IAMs_20	IAMs_20	03 07 49.6		
	comp=Z,2μm,20.0s							
M63A	**Gales Ferry**	140.71	350	IAMs_20	IAMs_20	03 05 58.3		
	comp=Z,2μm,21.0s							
ERPA	**Erie**	140.78	359	IAMs_20	IAMs_20	03 05 42.6		
	comp=Z,2μm,21.0s							
M44A	**Midewin, Midew**	140.95	9	IAMs_20	IAMs_20	03 17 52.1		
	comp=Z,2μm,19.0s							
KSU1	**Kansas State U**	141.01	20	IAMs_20	IAMs_20	03 14 36.1		
	comp=Z,2μm,19.0s							
N41A	**Harden Midland**	141.10	12	IAMs_20	IAMs_20	03 13 45.1		
	comp=Z,2μm,20.0s							
M52A	**Chesterland**	141.35	1	IAMs_20	IAMs_20	03 06 07.8		
	comp=Z,2μm,21.0s							
N62A	**Caumsett State**	141.41	351	IAMs_20	IAMs_20	03 08 11.6		
	comp=Z,2μm,22.0s							
M50A	**Fremont**	141.44	3	IAMs_20	IAMs_20	03 13 32.0		
	comp=Z,2μm,20.0s							
P38A	**Dawn**	141.47	16	IAMs_20	IAMs_20	03 14 58.2		
	comp=Z,2μm,20.0s							
BRNJ	**Basking Ridge**	141.81	352	IAMs_20	IAMs_20	03 09 04.2		
	comp=Z,2μm,22.0s							
N49A	**Columbus Grove**	141.85	4	IAMs_20	IAMs_20	03 15 39.9		
	comp=Z,2μm,20.0s							
N58A	**Sunbury**	141.88	355	IAMs_20	IAMs_20	03 14 27.1		
	comp=Z,2μm,20.0s							
P40A	**Paris**	141.95	14	IAMs_20	IAMs_20	03 09 18.7		
	comp=Z,2μm,21.0s							
SSPA	**Standing Stone**	142.17	356	IAMs_20	IAMs_20	03 14 44.7		
	comp=Z,2μm,20.0s							
EPT	**El Paso**	142.26	37	IAMs_20	IAMs_20	03 16 31.1		
	comp=Z,2μm,21.0s							
OK038	**West end E0370**	142.52	24	IAMs_20	IAMs_20	03 17 56.5		
	comp=Z,2μm,20.0s							
AMTX	**Amarillo**	142.54	29	IAMs_20	IAMs_20	03 21 45.4		
	comp=Z,1μm,19.0s							
BDFB	**Brasilia**	142.85	240	PKP	**PKPdf**	**02 03 43.4**		**-0.3**
	comp=Z,1.9nm,0.5s,baz=97,slow=3.5,SNR=3.2							
MNTX	**Cornudas Mount**	142.99	36	IAMs_20	IAMs_20	03 17 18.1		
	comp=Z,2μm,22.0s							
T35A	**Sooner Cattle**	143.00	21	IAMs_20	IAMs_20	03 18 00.9		
	comp=Z,2μm,19.0s							
R40A	**Maddies Statio**	143.06	15	IAMs_20	IAMs_20	03 09 57.2		
	comp=Z,2μm,22.0s							
P48A	**Milroy**	143.19	6	IAMs_20	IAMs_20	03 17 35.3		
	comp=Z,2μm,19.0s							
OK048	**Pawnee Station**	143.28	22	IAMs_20	IAMs_20	03 20 04.5		
	comp=Z,2μm,19.0s							
CPUP	**Villa Florida**	143.31	217	PKP	**PKPdf**	**02 03 43.9**		**-0.2**
	comp=Z,2.1nm,0.7s,baz=116,slow=5.7,SNR=7.3							
P57A	**Homestead Farm**	143.33	356	IAMs_20	IAMs_20	03 17 58.3		
	comp=Z,2μm,20.0s							
S39A	**Bolivar**	143.33	17	IAMs_20	IAMs_20	03 15 14.5		
	comp=Z,2μm,21.0s							
OK029	**Liberty Lake**	143.63	23	IAMs_20	IAMs_20	03 16 09.8		
	comp=Z,2μm,20.0s							
Q51A	**Peebles**	143.79	3	IAMs_20	IAMs_20	03 13 40.4		
	comp=Z,2μm,21.0s							
Q56A	**Snyder Ridge,**	143.83	358	IAMs_20	IAMs_20	03 07 39.4		
	comp=Z,2μm,21.0s							
Q52A	**Bidwell**	143.91	2	IAMs_20	IAMs_20	03 11 31.4		
	comp=Z,1μm,21.0s							
WMOK	**Wichita Mounta**	143.99	26	IAMs_20	IAMs_20	03 12 58.6		
	comp=Z,2μm,20.0s							
ZON	**Zonda**	144.04	198	PKIKP	**PKPdf**	**02 03 44.6**		**-0.8**
ZON	**Zonda**	144.04	198		**PKPdf**	**02 03 44.6**		**-0.8**
FNO	**Franklin**	144.12	24		PKPbc	02 03 43.8		+0.4
U38A	**Gravette**	144.16	19	IAMs_20	IAMs_20	03 15 15.5		
	comp=Z,2μm,22.0s							
CO04	**Los Peladeros**	144.20	194		**PKPdf**	**02 03 45.2**		**-0.7**
R49A	**Shelbyville**	144.37	6	IAMs_20	IAMs_20	03 17 16.6		
	comp=Z,2μm,21.0s							
X34A	**Smith Ranch, M**	144.51	25		**PKPdf**	**02 03 45.4**		**-0.7**
CBN	**Corbin Frederi**	144.56	355	IAMs_20	IAMs_20	03 18 48.8		
	comp=Z,2μm,19.0s							
R55A	**Marlinton**	144.61	359		PKPbc	02 03 45.2		+0.4
R58B	**Mineral**	144.83	356	IAMs_20	IAMs_20	03 13 38.1		
	comp=Z,2μm,21.0s							
S57A	**Dark Hollow, R**	145.09	358		**PKPab**	**02 03 46.5**		**+0.1**
T45A	**Paducah**	145.10	11	IAMs_20	IAMs_20	03 15 17.2		
	comp=Z,2μm,20.0s							
ABTX	**Abilene, Hawle**	145.36	29	IAMs_20	IAMs_20	03 11 26.1		
	comp=Z,2μm,21.0s							
T50A	**Nancy**	145.66	6	IAMs_20	IAMs_20	03 22 18.8		
	comp=Z,2μm,18.0s							
BLA	**Blacksburg**	145.68	360	IAMs_20	IAMs_20	03 16 02.4		
	comp=Z,2μm,20.0s							
TXAR	**Lajitas Array**	145.72	37	PKPbc	**PKPab**	**02 03 49.2**		**+0.1**
	comp=Z,15nm,0.5s,baz=230,slow=0.8,SNR=233							
TXAR	**Lajitas Array**	145.72	37	PKP2	**PKPdf**	**02 03 48.3**		**-0.1**
TXAR	**Lajitas Array**	145.72	37		**PKPdf**	**02 03 48.3**		**-0.1**
T59A	**Double "B" Far**	145.79	355	IAMs_20	IAMs_20	03 08 20.6		
	comp=Z,2μm,22.0s							
Z35A	**Perchaven, San**	145.85	25	IAMs_20	IAMs_20	03 15 59.7		
	comp=Z,2μm,21.0s							
U49A	**Red Boiling Sp**	146.06	7	IAMs_20	IAMs_20	03 18 03.3		
	comp=Z,2μm,21.0s							
WVT	**Waverly**	146.12	10	PKP2	**PKPdf**	**02 03 48.8**		**+0.1**
WVT	**Waverly**	146.12	10		**PKPdf**	**02 03 48.8**		**+0.1**
AQDB	**Aquidauana**	146.32	226		**PKPdf**	**02 03 49.6**		**0.0**
U56A	**King**	146.54	359	IAMs_20	IAMs_20	03 11 14.2		
	comp=Z,2μm,22.0s							
V61A	**Roper**	146.87	354	IAMs_20	IAMs_20	03 19 47.2		
	comp=Z,2μm,18.0s							
BBSR	**BB Station**	146.88	335	IAMs_20	IAMs_20	03 23 22.3		
	comp=Z,1μm,20.0s							
WHTX	**Lake Whitney,**	146.90	27	IAMs_20	IAMs_20	03 14 50.8		
	comp=Z,2μm,21.0s							
LCO	**Las Campanas**	147.01	196	PKIKP	**PKPdf**	**02 03 50.4**		**-0.5**
LCO	**Las Campanas**	147.01	196		**PKPdf**	**02 03 50.4**		**-0.5**
JCT	**Junction City**	147.01	31	IAMs_20	IAMs_20	03 20 14.2		
	comp=Z,1μm,21.0s							
TKL	**Tuckaleechee C**	147.11	5	PKPbc	**PKPdf**	**02 03 51.3**		**+0.8**
	comp=Z,24nm,0.8s,baz=130,slow=4.0,SNR=34							
W50A	**Signal Mountai**	147.41	7	IAMs_20	IAMs_20	03 18 54.1		
	comp=Z,2μm,20.0s							
X58A	**Rowland**	148.31	358	IAMs_20	IAMs_20	03 19 10.0		
	comp=Z,2μm,20.0s							
Y52A	**Lilburn**	148.86	5	IAMs_20	IAMs_20	03 16 56.6		
	comp=Z,1μm,20.0s							
Z47A	**Carrollton**	148.91	12	IAMs_20	IAMs_20	03 17 04.0		
	comp=Z,2μm,21.0s							
VBMS	**Vicksburg**	149.25	16	IAMs_20	IAMs_20	03 19 54.2		
	comp=Z,2μm,21.0s							
735A	**Kenedy**	149.34	30	IAMs_20	IAMs_20	03 20 16.8		
	comp=Z,2μm,20.0s							
GOGA	**Godfrey**	149.37	4	IAMs_20	IAMs_20	03 17 22.9		
	comp=Z,2μm,20.0s							
HKT	**Hockley**	149.37	26	PKIKP	**PKPdf**	**02 03 54.6**		**+0.4**
HKT	**Hockley**	149.37	26	PKPdf	**PKPdf**	**02 03 54.6**		**+0.4**
346A	**Big Creek Wild**	150.32	15	IAMs_20	IAMs_20	03 19 05.5		
	comp=Z,2μm,20.0s							
KVTX	**Kingsville**	150.36	32	IAMs_20	IAMs_20	03 20 57.8		
	comp=Z,2μm,21.0s							
TIGA	**Tifton**	151.31	5	IAMs_20	IAMs_20	03 15 35.4		
	comp=Z,2μm,22.0s							
656A	**Willston**	153.45	4	IAMs_20	IAMs_20	03 19 20.0		
	comp=Z,1μm,20.0s							
PB07	**IPOC Station P**	153.49	203	PKPdf	**PKPdf**	**02 04 00.7**		**-0.4**
PB11	**IPOC Station P**	155.15	205	IAMs_20	IAMs_20	03 17 25.2		
	comp=Z,1μm,19.0s							
UNM	**Universidad Na**	155.55	46	IAMs_20	IAMs_20	03 23 03.1		
	comp=Z,2μm,21.0s							
ANWB	**Willy Bob**	156.21	310	IAMs_20	IAMs_20	03 14 30.3		
	comp=Z,1μm,21.0s							
GDSD	**La Dsirade Is**	156.41	306	IAMs_20	IAMs_20	03 11 48.2		
	comp=Z,1μm,21.0s							
ABD	**La Joyeuse, An**	156.66	307	IAMs_20	IAMs_20	03 25 34.7		
	comp=Z,1μm,21.0s							
MAGL	**Barre de l'ile**	156.78	306	IAMs_20	IAMs_20	03 26 30.1		
	comp=Z,1μm,21.0s							
SMRT	**St. Maarten**	156.94	313	IAMs_20	IAMs_20	03 14 14.3		
	comp=Z,1μm,21.0s							
CBE	**Ff, Capester**	156.98	306	IAMs_20	IAMs_20	03 18 16.3		
	comp=Z,2μm,22.0s							
GDHS	**Morne Mazeau,**	156.99	307	IAMs_20	IAMs_20	03 13 36.3		
	comp=Z,1μm,21.0s							
SEUS	**St. Eustatius**	157.22	311	IAMs_20	IAMs_20	03 14 46.9		
	comp=Z,1μm,20.0s							
FDFM	**Morne la Roset**	157.31	303	IAMs_20	IAMs_20	03 28 21.3		
	comp=Z,1μm,20.0s							
BIM	**Bigot**	157.34	302	IAMs_20	IAMs_20	03 15 30.2		
	comp=Z,1μm,22.0s							
SABA	**Saba**	157.34	312	IAMs_20	IAMs_20	03 14 02.8		
	comp=Z,1μm,22.0s							
LPAZ	**La Paz**	157.38	213	PKP	**PKPdf**	**02 04 07.0**		**0.0**
	comp=Z,3.0nm,1.0s,baz=71,slow=2.0,SNR=8.1							
LPAZ	**La Paz**	157.38	213	PKIKP	**PKPdf**	**02 04 07.0**		**0.0**
GRTK	**Grand Turk**	159.12	334	IAMs_20	IAMs_20	03 23 04.6		
	comp=Z,2μm,20.0s							
RUSC	**La Rusia**	171.75	293		**PKPdf**	**02 04 18.4**		**-1.0**

PRU 17 01:48:23.0, 50.19N×19.03E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STEB	**Steborice**	**0.85**	**253**	*e*SG	Sg	01 48 51.0	+0.7
MORC	**Moravsky Berou**	**1.05**	**247**	*e*PG	Pg	01 48 42.7	-0.3
MORC				*e*SG	Sg	01 48 56.8	+0.2
LANS	**Liptovska Anna**	**1.08**	**165**	*e*PG	Pg	01 48 43.9	+0.3
LANS				*e*SG	Sg	01 48 58.3	+0.7
LANS				*e*LG	Lg	01 49 00.7	
KRLC	**Kraliky**	**1.45**	**266**	*e*PG	Pn	01 48 48.6	-1.9
KRLC				*e*SG	Sg	01 49 08.7	-0.9
	comp=Z,1.5nm,0.3s						
KRLC				AML	AML		
VYHS	**Vyhne**	**1.70**	**184**	*e*SG	Sn	01 49 16.6	+0.2
DPC	**Dobruska-Polom**	**1.75**	**276**	*e*PG	Pn	01 48 54.1	-0.5
DPC				*e*SG	Sb	01 49 18.3	-0.1

MOS ***17*** *01:49:29.5±1.1, 38.28N×21.75E, h14km, mb4.8/6, Error ellipse: s-maj=7.3km s-min=4.4km az=77.4*

IDC ***17*** *01:49:30.8±0.6, 38.48N×21.95E, h0km, mb4.1/17, mbtmp4.0/29, ML3.4/8, Error ellipse: s-maj=11.5km s-min=8.7km az=33.0*

TIR ***17*** *01:49:30.9, 38.40N×21.90E, h6km±2km, ML4.1, ML4.1, Presumed earthquake*

MED_RC ***17*** *01:49:30.0, 38.40N×21.85E, h12km, Mw4.1, Moment Tensor Solution. Moment tensor: Scale 10^15Nm; Mrr-1.41±.31; Mθθ 1.71±.22; Mϕϕ 0.00±.19; Mrθ-0.39±.27; Mθϕ-0.29±.14; Mϕr 0.41±.31; Fault plane solution: M0 1.69000×10^15 NP1:ϕs262.00000°, δ40.00000°, λ-115.00000°. NP2:ϕs113.00000°, δ55.00000°, λ-71.00000°. Principal axes: T 1.8100, Plg8.0000°, Azm189.0000°; N -0.2400, Plg16.0000°, Azm281.0000°; P -1.5700, Plg72.0000°, Azm73.0000°.*

NAO ***17*** *01:49:31.8, 39.48N×26.71E, h10km, MB4.1*

NEIC ***17*** *01:49:31.3±1.2, 38.35N±0.04×21.86E±0.06, h10km±1km, mb4.5/17, Error ellipse: s-maj=8.9km s-min=6.6km az=229.0*

ATH ***17*** *01:49:31.1, 38.40N×21.85E, h8km, ML3.9/73, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

UPSL ***17*** *01:49:31.1, 38.40N×21.85E, h8km, Mw3.9, Moment Tensor Solution. s8 Moment tensor: Mrr-4.46; Mθθ 4.34; Mϕϕ 0.12; Mrθ-6.07; Mθϕ 0.26; Mϕr 0.29; Fault plane solution: NP1:ϕs262.00000°, δ18.00000°, λ-99.00000°. NP2: ϕs92.00000°, δ72.00000°, λ-87.00000°.*

THE ***17*** *01:49:31.3, 38.4N±0.5×21.9E±0.5, h4km±1km, M3.8/42, MLh3.8/42*

GFZ ***17*** *01:49:32.5±0.2, 38°N±2°×2°2E±°, h10km, M4.0/25, MLv3.8/25, Error ellipse: s-maj=5.3km s-min=4.7km az=15.8, confirmed*

SOF ***17*** *01:49:34.5, 38.67N±0.05×22.31E±0.03, h1km±6km, MD4.1/8*

PDG ***17*** *01:49:35.7±1.0, 38.63N×21.72E, h16km±3km, ML3.9/13, Error ellipse: s-maj=5.7km s-min=5.6km az=90.0*

ISC 17 01:49:31.5±0.6, 38.38N±0.01×21.85E±0.01, h9km±3km, n457, σ1s29/564, mb4.4/25, 46C-17D, Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VVK	**Vomvokou**	**0.05**	**319**	P	**Pg**	**01 49 32.9**	**-0.5**
VVK				S	**Sg**	**01 49 34.2**	**-0.5**
VVK				AML	AML		
VVK	**Vomvokou**	**0.05**	**319**	P	**Pg**	**01 49 32.9**	**-0.5**
VVK				S	**Sg**	**01 49 34.3**	**-0.5**
VVK				AML	AML		
EFP	**Efpalio**	**0.06**	**44**	P	**Pg**	**01 49 33.0**	**-0.4**
EFP				S	**Sg**	**01 49 34.4**	**-0.4**
EFP				AML	AML		
EFP	**Efpalio**	**0.06**	**44**	P	**Pg**	**01 49 33.0**	**-0.4**
EFP				S	**Sg**	**01 49 34.4**	**-0.4**
MG00	**Magoula, Dorid**	**0.08**	**67**	P	**Pg**	**01 49 33.3**	**-0.3**
MG00				S	**Sg**	**01 49 35.1**	**-0.1**
RIOA	**Rio**	**0.10**	**209**	P	**Pg**	**01 49 34.0**	**+0.1**
RIOA				S	**Sg**	**01 49 35.9**	**+0.3**
RIOA				AML	AML		
AGRP	**Agrapidokambos**	**0.10**	**277**	P	**Pg**	**01 49 33.7**	**-0.3**
AGRP				S	**Sg**	**01 49 36.0**	**+0.2**
AGRP				AML	AML		
PATC	**Patra C**	**0.14**	**213**	P	**Pg**	**01 49 34.6**	**+0.1**
PATC				S	**Sg**	**01 49 37.1**	**+0.5**
PATC				AML	AML		
SERG	**Sergoula**	**0.16**	**80**	P	**Pg**	**01 49 34.6**	**-0.3**
SERG				S	**Sg**	**01 49 37.4**	**0.0**
SERG				AML	AML		
SERG	**Sergoula**	**0.16**	**80**	P	**Pg**	**01 49 34.8**	**-0.2**
SERG				S	**Sg**	**01 49 37.6**	**+0.2**
SERG				AML	AML		
TRIZ	**Trizonia**	**0.17**	**96**	P	**Pg**	**01 49 35.3**	**+0.2**
TRIZ				S	**Sg**	**01 49 38.4**	**+0.8**
LAKA	**Lakka**	**0.17**	**146**	P	**Pg**	**01 49 34.8**	**-0.3**
LAKA				S	**Sg**	**01 49 36.9**	**-0.8**
LAKA				AML	AML		
LAKA	**Lakka**	**0.17**	**146**	P	**Pg**	**01 49 34.9**	**-0.2**
LAKA				S	**Sg**	**01 49 36.9**	**-0.8**
PATG	**Patra B**	**0.18**	**215**	P	**Pg**	**01 49 35.5**	**+0.3**
PATG				S	**Sg**	**01 49 37.3**	**-0.3**
PATG				AML	AML		
AGEO	**AgiosGiorgios,**	**0.20**	**126**	P	**Pg**	**01 49 35.5**	**-0.1**
AGEO				S	**Sg**	**01 49 38.6**	**+0.1**
ANX	**Ano Chora**	**0.21**	**14**	P	**Pg**	**01 49 35.8**	**-0.1**
ANX				S	**Sg**	**01 49 39.4**	**+0.4**
ANX				AML	AML		
ANX	**Ano Chora**	**0.21**	**14**	P	**Pg**	**01 49 35.8**	**-0.1**
ANX				S	**Sg**	**01 49 39.4**	**+0.4**
KALE	**Kalithea**	**0.23**	**88**	P	**Pg**	**01 49 35.7**	**-0.3**
KALE				S	**Sg**	**01 49 39.6**	**+0.4**
KALE				AML	AML		
KALE	**Kalithea**	**0.23**	**88**	P	**Pg**	**01 49 35.8**	**-0.3**
KALE				S	**Sg**	**01 49 39.6**	**+0.4**
TEME	**Temeni, Aigial**	**0.26**	**126**	P	**Pg**	**01 49 36.6**	**0.0**
TEME				S	**Sg**	**01 49 40.0**	**-0.1**
MSL1	**Messolongi**	**0.34**	**268**	P	**Pg**	**01 49 38.0**	**-0.1**
MSL1				S	**Sg**	**01 49 42.3**	**-0.3**
MSL1				AML	AML		
PVO	**Paravola**	**0.35**	**312**	P	**Pg**	**01 49 38.2**	**-0.1**
PVO				S	**Sg**	**01 49 43.6**	**+0.7**
PVO				AML	AML		
PVO	**Paravola**	**0.35**	**312**	P	**Pg**	**01 49 38.2**	**-0.1**
PVO				S	**Sg**	**01 49 43.1**	**+0.1**
PVO				AML	AML		
PLEV	**Plevrona-Mesol**	**0.35**	**275**	P	**Pg**	**01 49 37.6**	**-0.8**
PLEV				S	**Sg**	**01 49 42.8**	**-0.3**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**0.35**	**275**	P	**Pg**	**01 49 37.8**	**-0.6**
PLEV				S	**Sg**	**01 49 42.5**	**-0.6**
PLEV				AML	AML		
KLV1	**Kalavrita**	**0.40**	**150**	P	**Pg**	**01 49 39.0**	**-0.4**
KLV1				S	**Sg**	**01 49 44.9**	**+0.1**
KLV1				AML	AML		
KLV	**Kalavryta, Ach**	**0.41**	**145**	P	**Pg**	**01 49 39.0**	**-0.5**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**0.41**	**145**	Pg	**Pg**	**01 49 39.0**	**-0.5**
KLV				Sg	**Sg**	**01 49 45.4**	**+0.4**
KLV	**Kalavryta, Ach**	**0.41**	**145**	P	**Pg**	**01 49 39.0**	**-0.5**
KLV				S	**Sg**	**01 49 45.3**	**+0.3**
AXS	**Araxos**	**0.42**	**244**	P	**Pg**	**01 49 39.6**	**-0.1**
AXS				S	**Sg**	**01 49 45.6**	**+0.4**
AXS				AML	AML		
AXS	**Araxos**	**0.42**	**244**	P	**Pg**	**01 49 39.6**	**-0.1**
AXS				S	**Sg**	**01 49 45.5**	**+0.3**
DRO	**Drossia**	**0.45**	**195**	P	**Pg**	**01 49 39.8**	**-0.4**
DRO				S	**Sg**	**01 49 46.3**	**+0.3**
DRO				AML	AML		
DRO	**Drossia**	**0.45**	**195**	P	**Pg**	**01 49 39.9**	**-0.3**
DRO				S	**Sg**	**01 49 46.2**	**+0.1**
DRO				AML	AML		
RLS	**Riolos of Patr**	**0.45**	**223**	P	**Pg**	**01 49 40.1**	**-0.1**
RLS				S	**Sb**	**01 49 47.2**	**-1.1**
RLS				AML	AML		
RLS	**Riolos of Patr**	**0.45**	**223**	P	**Pg**	**01 49 40.0**	**-0.1**
RLS				S	**Sg**	**01 49 46.2**	**+0.2**
DLFA	**Delphi**	**0.51**	**79**	P	**Pg**	**01 49 40.6**	**-0.8**
DLFA				S	**Sg**	**01 49 48.5**	**+0.3**
EVR	**Evrytania**	**0.53**	**356**	P	**Pg**	**01 49 41.3**	**-0.5**
EVR				S	**Sg**	**01 49 49.7**	**+0.9**
EVR				AML	AML		
EVR	**Evrytania**	**0.53**	**356**	P	**Pg**	**01 49 41.4**	**-0.4**
EVR				S	**Sg**	**01 49 48.5**	**-0.4**
EVR				AML	AML		
PDO	**Prodromos**	**0.57**	**292**	P	**Pg**	**01 49 41.3**	**-1.2**
PDO				S	**Sb**	**01 49 50.8**	**-1.0**
PDO				AML	AML		
PDO	**Prodromos**	**0.57**	**292**	P	**Pg**	**01 49 42.0**	**-0.5**
PDO				S	**Sg**	**01 49 49.3**	**-0.6**
PDO				AML	AML		
GUR	**Goura**	**0.59**	**139**	P	**Pg**	**01 49 41.9**	**-1.0**
GUR				AML	AML		
LCHA	**Lechaina**	**0.64**	**226**	P	**Pg**	**01 49 43.7**	**-0.2**
LCHA				AML	AML		
THAL	**Thalero**	**0.73**	**118**	P	**Pg**	**01 49 44.6**	**-0.8**
THAL				AML	AML		
THAL	**Thalero**	**0.73**	**118**	P	**Pg**	**01 49 44.8**	**-0.7**
AMPL	**Ampelaki**	**0.73**	**317**	P	**Pg**	**01 49 44.1**	**-1.5**
AMPL				S	**Sb**	**01 49 56.8**	**+0.2**
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.73**	**317**	P	**Pg**	**01 49 44.1**	**-1.5**
AMPL				S	**Sg**	**01 49 55.5**	**+0.2**
AMPL				AML	AML		
AGG	**Agios Georgios**	**0.74**	**30**	P	**Pg**	**01 49 44.4**	**-1.3**
AGG				S	**Sb**	**01 49 56.2**	**-0.5**
AGG				AML	AML		
AGG	**Agios Georgios**	**0.74**	**30**	P	**Pg**	**01 49 44.5**	**-1.3**
AGG				AML	AML		
AGG	**Agios Georgios**	**0.74**	**30**	P	**Pg**	**01 49 44.5**	**-1.2**
AGG				S	**Sg**	**01 49 55.0**	**-0.3**
AGG				AML	AML		
AXAR	**Agios Charalam**	**0.74**	**59**	P	**Pg**	**01 49 44.5**	**-1.2**
AXAR				S	**Sb**	**01 49 56.6**	**-0.2**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**0.74**	**59**	P	**Pg**	**01 49 44.5**	**-1.2**
AXAR				S	**Sg**	**01 49 54.8**	**-0.5**
CLEM	**Kyllini,Ilia,G**	**0.75**	**229**	P	**Pg**	**01 49 45.9**	**0.0**
KIAA	**Kiato**	**0.80**	**117**	P	**Pg**	**01 49 46.8**	**0.0**
AMT	**Artemida-Makis**	**0.86**	**188**	P	**Pg**	**01 49 47.4**	**-0.6**
AMT				AML	AML		
AMT	**Artemida-Makis**	**0.86**	**188**	P	**Pg**	**01 49 47.5**	**-0.5**
AMT				S	**Sb**	**01 50 00.3**	**+0.1**
AMT				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.91**	**250**	P	**Pg**	**01 49 48.5**	**-0.4**
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.91**	**250**	P	**Pg**	**01 49 48.5**	**-0.4**
RTZL				S	**Sg**	**01 50 01.0**	**+0.3**
RTZL				AML	AML		
ZARO	**Zacharo**	**0.91**	**190**	P	**Pg**	**01 49 48.6**	**-0.4**
ZARO				S	**Sb**	**01 50 01.4**	**-0.3**
ZARO				AML	AML		
ACOR	**Acrocorinthos**	**0.94**	**121**	P	**Pg**	**01 49 48.4**	**-1.1**
ACOR				S	**Sb**	**01 50 03.0**	**+0.5**
ACOR				AML	AML		
LTK	**Loutraki**	**0.95**	**112**	P	**Pg**	**01 49 48.6**	**-1.1**
LTK				AML	AML		
LTK	**Loutraki**	**0.95**	**112**	P	**Pg**	**01 49 48.9**	**-0.8**
LTK				AML	AML		
NYDR	**Nydri-Lefkada**	**0.96**	**290**	P	**Pg**	**01 49 48.9**	**-1.1**
NYDR				S	**Sn**	**01 50 04.2**	**-0.8**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.96**	**290**	P	**Pg**	**01 49 49.4**	**-0.6**
NYDR				S	**Sg**	**01 50 01.6**	**-1.0**
ATAL	**Atalanti**	**0.97**	**71**	P	**Pg**	**01 49 48.4**	**-1.7**
LOUT	**Loutraki**	**0.97**	**114**	P	**Pg**	**01 49 49.5**	**-0.5**
LOUT				AML	AML		
EVGI	**Lefkada island**	**0.97**	**284**	P	**Pg**	**01 49 49.0**	**-1.1**
EVGI				AML	AML		
EVGI	**Lefkada island**	**0.97**	**284**	P	**Pg**	**01 49 49.2**	**-0.9**
EVGI				AML	AML		
SOFA	**Sofades**	**0.97**	**11**	P	**Pg**	**01 49 49.8**	**-0.4**
KYPS	**Kipseli, Zakin**	**0.99**	**236**	P	**Pg**	**01 49 50.0**	**-0.5**
ART2	**Arta**	**1.02**	**319**	P	**Pg**	**01 49 49.7**	**-1.3**
ART2				AML	AML		
VLS	**Valsamata**	**1.02**	**259**	P	**Pg**	**01 49 49.7**	**-1.2**
VLS				S	**Sb**	**01 50 05.4**	**+0.7**
VLS				AML	AML		
VLS	**Valsamata**	**1.02**	**259**	P	**Pg**	**01 49 49.8**	**-1.2**
VLS				S	**Sg**	**01 50 04.0**	**-0.2**
VLS				AML	AML		
ARS1	**Argos**	**1.02**	**137**	P	**Pn**

TYRN Tyrnavos 1.36 12 P Pn 01 49 55.9 -0.8
ELFA Athens-Elefsin 1.37 104 P Pn 01 49 56.9 +0.1
ELFA AML AML
MET2 Kameni Chora, 1.40 123 P Pn 01 49 56.7 -0.4
MET2 AML AML
MET5 Makryloggos,Me 1.41 122 P Pn 01 49 57.5 +0.2
NEO Neokhori 1.41 49 P Pn 01 49 57.1 -0.3
NEO AML AML
NEO Neokhori 1.41 49 P Pn 01 49 57.1 -0.3
NEO AML AML
MET6 Megalochori,Me 1.43 123 P Pn 01 49 57.5 0.0
MET6 AML AML
XOR Xorichti 1.43 46 P Pn 01 49 57.3 -0.4
XOR AML AML
XOR Xorichti 1.43 46 P Pn 01 49 57.3 -0.4
XOR AML AML
XOR Xorichti 1.43 46 P Pn 01 49 57.3 -0.4
XOR AML AML
PRGA Parga 1.45 309 P Pn 01 49 57.8 0.0
PRGA AML AML
MET1 Methana Town, 1.45 123 P Pn 01 49 57.7 -0.2
MET1 AML AML
PYL1 Pylos 1.47 185 P Pn 01 49 57.6 -0.5
MSVA Metsovo 1.48 340 P Pb 01 49 58.9 -0.4
JAN Janina 1.49 329 P Pn 01 49 58.8 +0.3
JAN AML AML
ACHAR Athens-Acharne 1.52 101 P Pn 01 49 58.3 -0.5
ACHAR AML AML
ATH Athens Observa 1.52 105 P Pn 01 49 59.0 +0.1
ATH AML AML
NOAC Athens-Thissio 1.52 105 P Pn 01 49 59.0 +0.1
NOAC AML AML
ATH5 Athens Parliam 1.54 105 P Pn 01 49 58.1 -1.0
ATH5 AML AML
ATHP Athens-Neo Psi 1.56 104 P Pn 01 49 58.9 -0.5
ATHP AML AML
MTHA Methoni 1.57 184 P Pb 01 50 00.1 -0.5
ATHU Athens Univers 1.58 105 P Pn 01 49 59.4 -0.2
KPRO Kipourio 1.61 346 P Pb 01 50 00.9 -0.6
KPRO AML AML
PTL Penteli 1.62 101 P Pn 01 50 00.2 0.0
PTL S Sn 01 50 20.8 -0.4
PTL AML AML
PTL Penteli 1.62 101 P Pn 01 50 00.2 0.0
PTL AML AML
VLY Voula,Athens 1.62 109 P Pn 01 50 00.3 +0.1
VLY S Sn 01 50 20.9 -0.3
VLY AML AML
VLY Voula,Athens 1.62 109 P Pn 01 50 00.1 -0.1
VLY AML AML
YDRA Hydra 1.64 129 P Pn 01 50 00.1 -0.4
YDRA AML AML
IGT Igoumenitsa 1.65 315 Pn Pg 01 50 02.7 -0.4
IGT Sn Sg 01 50 28.2 +3.7
IGT IAML 01 50 35.3
1µm,0.6s
IGT Igoumenitsa 1.65 315 P Pb 01 50 01.8 -0.2
IGT AML AML
DION Dionisos Attik 1.67 100 P Pn 01 50 01.0 +0.1
DION AML AML
AOS2 Alonissos-2 1.73 63 P Pn 01 50 01.2 -0.6
AOS Alonnisos 1.77 63 P Pn 01 50 01.1 -1.1
AOS AML AML
KYMI Kymi, Euboea I 1.78 81 P Pn 01 50 02.2 -0.2
KYMI AML AML
KYMI Kymi, Euboea I 1.78 81 P Pn 01 50 01.9 -0.5
KYMI AML AML
LIT Litokhoron 1.78 16 P Pn 01 50 02.2 -0.3
LIT Litokhoron 1.78 16 Pn 01 50 02.1 -0.3
LIT Litokhoron 1.78 16 P Pn 01 50 02.8 +0.2
LIT AML AML
LIT Litokhoron 1.78 16 P Pn 01 50 02.2 -0.3
LIT AML AML
VLI Veliai 1.87 152 P Pn 01 50 03.4 -0.3
VLI AML AML
PENT Pentalofos 1.89 343 P Pb 01 50 06.1 -0.2
KZN Kozani 1.92 358 P Pn 01 50 05.2 +0.8
KZN Kozani 1.92 358 P Pn 01 50 05.0 +0.5
KZN AML AML
LSK Leskovik 2.01 332 Pn Pb 01 50 08.7 +0.4
LSK Sn Sg 01 50 37.1 +0.9
KARY Karystos 2.06 99 P Pn 01 50 06.3 -0.1
KARY AML AML
SRN Sarande 2.08 317 Pn Pb 01 50 08.5 -0.8
SRN Sn Sg 01 50 38.8 +0.6
SRN IAML 01 50 58.0
1µm,0.9s
SRN Sarande 2.08 317 P Pb 01 50 08.8 -0.5
SRN AML AML
KEK Kerkira 2.08 310 Pn 01 50 05.4 -1.2
KEK Kerkira 2.08 310 P Pn 01 50 06.5 0.0
KEK AML AML
KEK Kerkira 2.08 310 P Pn 01 50 05.8 -0.7
KEK AML AML
PAIG Paliouri 2.10 42 P Pn 01 50 06.1 -0.7
PAIG AML AML
NPS1 Neapolis Lacon 2.10 152 P Pn 01 50 07.0 +0.2
NPS1 AML AML
NEST Nestorio 2.12 343 Pn Pb 01 50 10.3 +0.1
NEST Nestorio 2.12 343 P Pb 01 50 09.1 -1.0
NEST AML AML
SKY Skiros Island 2.17 76 P Pn 01 50 07.2 -0.6
SKY AML AML
KTHA Kythira Island 2.33 155 P Pn 01 50 10.4 +0.3
PLG Polygyros 2.34 31 P Pn 01 50 08.8 -1.4
KBN Korca 2.38 340 Pn Pg 01 50 15.9 -1.2
KBN Sn Sb 01 50 46.0 +1.9
KBN IAML 01 51 06.4
821nm,1.4s
THE Thessaloniki 2.40 21 Pn Pn 01 50 10.1 -0.9
THE Thessaloniki 2.40 21 P Pn 01 50 10.3 -0.7
THE AML AML
THE Thessaloniki 2.40 21 P Pn 01 50 09.9 -1.1
OUR Ouranopolis 2.55 40 P Pn 01 50 12.6 -0.4
GRG Griva 2.60 9 P Pn 01 50 14.9 +1.1
GRG AML AML
GRG Griva 2.60 9 P Pn 01 50 14.4 +0.6
MHLO Agia Marina, M 2.64 129 P Pn 01 50 14.8 +0.6
SOH Sokhos 2.70 25 P Pn 01 50 15.4 +0.4
SOH AML AML
SOH Sokhos 2.70 25 P Pn 01 50 15.1 0.0
EFSA Agios Efstrati 2.70 64 P Pn 01 50 14.7 -0.4
BERA Berati 2.74 328 Pn Pb 01 50 18.2 -2.5
TNSA Tinos 2.75 107 P Pn 01 50 15.9 +0.2
ANKY Antikythira Is 2.77 155 P Pn 01 50 16.6 +0.7
VLO Vlora 2.77 319 Pn Pb 01 50 18.7 -2.5
VLO Vlora 2.77 319 P Pn 01 50 18.5 +2.5
VLO AML AML
OHR Ohrid 2.84 344 *i* Pn Pb 01 50 20.7 -1.7
KNT Kendrikon 2.89 16 P Pn 01 50 18.1 +0.4
KNT AML AML
KNT Kendrikon 2.89 16 P Pn 01 50 18.1 +0.4
VAY Valandovo 2.98 10 *i* Pn Pn 01 50 20.0 +1.0
LIA Limnos Island 3.00 59 P Pn 01 50 18.4 -0.7
SRS Serrai 3.04 26 P Pn 01 50 20.1 +0.3
SRS AML AML
SRS Serrai 3.04 26 P Pn 01 50 19.9 +0.2
THAS Thassos island 3.14 44 P Pn 01 50 19.7 -1.3
APE Apeiranthos 3.20 113 P Pn 01 50 23.1 +1.1
APE Apeiranthos 3.20 113 ⇑P Pn 01 50 23.1 +1.1
APE Apeiranthos 3.20 113 P Pn 01 50 22.8 +0.9
APE AML AML
APE Apeiranthos 3.20 113 P Pn 01 50 22.0 0.0
APE AML AML
RODP Rodopos 3.20 151 P Pn 01 50 22.5 +0.5
KAVA Kavala 3.32 37 P Pn 01 50 22.6 -1.0
NVR Nevrokopi 3.34 27 P Pn 01 50 23.9 0.0
EAG2 Marmaro, Chios 3.34 86 P Pn 01 50 22.7 -1.2
CHAN Chania 3.35 148 P Pn 01 50 24.3 +0.2
IMMV Iera Moni Meta 3.38 149 P Pn 01 50 25.4 +0.9
IMMV AML AML
IMMV Iera Moni Meta 3.38 149 P Pn 01 50 24.8 +0.4
SAP3 Santorini-Thir 3.39 124 P Pn 01 50 25.3 +0.7
KNDR Palaiochora Ch 3.45 155 P Pn 01 50 26.6 +1.2
PHP Peshkopia 3.47 342 Pn Pn 01 50 28.2 +2.4
MMB Musomishta 3.48 24 P Pn 01 50 26.4 +0.6
PEHC Pehcevo 3.48 13 *i* Pn Pn 01 50 26.5 +0.5
VAM Vamos 3.52 147 P Pn 01 50 25.6 -0.7
THERA Ancient Thera, 3.52 124 P Pn 01 50 26.5 +0.2
THERA AML AML
THERA Ancient Thera, 3.52 124 P Pn 01 50 26.8 +0.4
SMTH Samothraki Isl 3.53 53 P Pn 01 50 25.1 -1.4
PRK Paraskevi 3.56 75 P Pn 01 50 26.6 -0.3
KKB Krupnik 3.59 15 P Pn 01 50 28.2 +0.9
KKB S Sn 01 51 09.2 -0.6
SKO Skopje 3.60 355 *i* Pn Pn 01 50 30.3 +2.9
EZN Ezine 3.77 66 P Pn 01 50 31.1 +1.4
MESG Mesagne 3.80 307 P Pn 01 50 30.6 +0.4
SAM2 Drakei, Karlov 3.81 98 P Pn 01 50 30.7 +0.4
IDI Anoyia 3.94 141 Pn Pn 01 50 32.6 +0.5
12nm,0.4s,baz=314,slow=16,SNR=22
IDI Sn Sn 01 51 19.7 +1.3
7.4nm,0.3s,baz=273,slow=23,SNR=4.4
IDI Anoyia 3.94 141 Pn 01 50 31.2 -0.9
RZN Rozhen 3.98 33 P Pn 01 50 33.2 +0.4
TIP Timpagrande 4.06 283 Pn 01 50 34.0 +0.1
TIP Timpagrande 4.06 283 ⇑P Pn 01 50 35.0 +1.2
TIP Timpagrande 4.06 283 P Pn 01 50 36.6 +2.7
TIP AML AML
ALN Alexandroupoli 4.09 51 P Pn 01 50 33.9 -0.3
ALN Alexandroupoli 4.09 51 Pn 01 50 33.9 -0.3
ALN Alexandroupoli 4.09 51 P Pn 01 50 33.0 -1.3
ALN AML AML
ULC Ulcinj 4.10 332 ⇓*i* Pn Pn 01 50 35.6 +1.3
ULC *i* Sn Sn 01 51 20.2 -2.1
KDZ Kurdzhali 4.20 38 P Pn 01 50 35.5 -0.3
PLNA Plana 4.26 16 P Pn 01 50 37.8 +1.2
DRME Dracevica, Mon 4.31 333 *e*Pn Pn 01 50 38.9 +1.7
DRME Dracevica, Mon 4.31 333 ⇑*i* Pn Pn 01 50 38.5 +1.3
DRME *i* Sn Sn 01 51 25.5 -2.1
NPS Neapolis 4.34 135 P Pn 01 50 38.1 +0.5
VTS Vitosha 4.36 14 P Pn 01 50 38.9 +0.9
VTS S Sn 01 51 29.5 +0.5
PVY Plav 4.45 342 ⇓*i* Pn Pn 01 50 42.3 +3.1
PVY *i* Sn Sn 01 51 28.8 -2.4
PDG Podgorica 4.50 335 Pn 01 50 40.0 +0.2
PDG Podgorica 4.50 335 ⇑P Pn 01 50 42.0 +2.2
PDG Podgorica 4.50 335 *e*Pn Pn 01 50 41.2 +1.4
PDG Podgorica 4.50 335 P Pn 01 50 41.7 +1.9
PDG AML AML
PDG Podgorica 4.50 335 P Pn 01 50 40.4 +0.6
PDG Podgorica 4.50 335 ⇓*i* Pn Pn 01 50 40.7 +0.9
PDG *i* Sn Sn 01 51 30.3 -2.0
BUM Brajici-Budva 4.52 331 ⇓*i* Pn Pn 01 50 40.3 +0.2
BUM *i* Sn Sn 01 51 30.5 -2.3
MATE Matera 4.58 301 ⇑P Pn 01 50 42.2 +1.4
BLSH Balsha 4.60 13 P Pn 01 50 42.9 +1.7
BDRM Kayabasi 4.62 105 ⇑P Pn 01 50 42.3 +0.7
BALY Balya 4.69 71 P Pn 01 50 42.6 +0.2
BALY AML AML
CEL Celeste 4.69 270 Pn Pn 01 50 42.4 -0.1
CEL Celeste 4.69 270 P Pn 01 50 44.6 +2.1
CEL AML AML
CEL Celeste 4.69 270 P Pn 01 50 42.8 +0.4
CEME Cevo 4.72 333 ⇓*i* Pn Pn 01 50 44.0 +1.1
CEME *i* Sn Sn 01 51 35.9 -1.9
IVA Berane 4.72 342 ⇓*i* Pn Pn 01 50 45.4 +2.4
IVA *i* Sn Sn 01 51 35.5 -2.4
HCY Herceg Novi 4.80 329 *e*Pn Pn 01 50 43.8 -0.1
HCY Herceg Novi 4.80 329 ⇓*i* Pn Pn 01 50 44.4 +0.5
HCY *i* Sn Sn 01 51 38.1 -1.6
KOME Kolasin 4.80 339 ⇑*i* Pn Pn 01 50 44.9 +0.8
KOME *i* Sn Sn 01 51 37.7 -2.2
BALB Balikesir 4.86 73 Pn 01 50 45.2 +0.4
NKME Niksic 4.90 334 ⇑*i* Pn Pn 01 50 46.2 +0.8
NKME *i* Sn Sn 01 51 40.8 -1.5
CUC Castrocucco 4.96 291 Pn 01 50 46.1 0.0
CUC Castrocucco 4.96 291 P Pn 01 50 49.1 +2.9
CUC AML AML
CUC Castrocucco 4.96 291 P Pn 01 50 47.8 +1.6
MARCO Tramutola 5.06 294 P Pn 01 50 49.6 +2.0
MARCO AML AML
SJES Sjenica 5.08 344 *e*Pn Pn 01 50 49.9 +2.1
TREB Trebinje 5.08 329 *e*Pn Pn 01 50 48.1 +0.3
KARP Karpathos 5.11 122 Pn Pn 01 50 47.2 -0.9
ACER Acerenza 5.16 300 Pn 01 50 48.8 -0.1
MPEP Malo Peshtene 5.17 15 P Pn 01 50 50.4 +1.4
BRY Bratogost 5.17 332 *e*Pn Pn 01 50 49.6 +0.5
BRY Bratogost 5.17 332 ⇑*i* Pn Pn 01 50 49.7 +0.6
BRY *i* Sn Sn 01 51 46.0 -3.0
BOVS Bovan 5.25 359 ⇑P Pn 01 50 51.9 +1.8
MANT Manisa 5.26 87 Pn 01 50 49.9 -0.7
BLKB Belogradchik 5.27 7 ⇓P Pn 01 50 52.2 +1.7
PLE Pljevlja 5.28 340 ⇓*i* Pn Pn 01 50 52.2 +1.5
PLE *i* Sn Sn 01 51 48.9 -2.8
UPM Unac-Piva 5.31 336 *e*Pn Pn 01 50 52.6 +1.5
UPM Unac-Piva 5.31 336 ⇓*i* Pn Pn 01 50 51.5 +0.4
UPM *i* Sn Sn 01 51 50.3 -2.2
KLINJ Klinje 5.38 334 *e*Pn Pn 01 50 53.9 +1.8
CAPA Cerignola FG 5.41 303 P Pn 01 50 53.0 +0.6
PLVB Pleven 5.42 22 ⇑P Pn 01 50 55.4 +2.9
ARG Arkhangelos 5.45 111 P Pn 01 50 51.8 -1.0
ARG Arkhangelos 5.45 111 Pn 01 50 51.8 -1.0
TAVA DENIZLI_Tavas 5.66 97 ⇑P Pn 01 50 57.5 +1.7
BBLS Lazi&#263i 5.78 342 *e*Pn Pn 01 50 58.3 +0.8
BBLS Lazi&#263i 5.78 342 P Pn 01 50 58.4 +1.0
BBLS AML AML
CTYL Yalikoy Yolu 5.83 56 ⇑P Pn 01 51 00.3 +2.2
VLAD Vladila 5.93 18 ⇑P Pn 01 51 01.9 +2.5
VAE Valguarnera 5.95 264 Pn Pn 01 51 02.4 +2.6
5.4nm,0.9s,baz=10,slow=11,SNR=6.4
VAE Sn Sn 01 52 09.6 +1.4
1.9nm,0.3s,baz=155,slow=6.1,SNR=4.2
LOZB Loznitsa 6.14 34 ⇑P Pn 01 51 05.2 +2.9
PAOL Paolisi 6.21 297 Pn 01 51 03.3 -0.1
COPA Copaceanca 6.28 23 ⇑P Pn 01 51 05.9 +1.7
TEKS Tekeris 6.40 345 *e*Pn Pn 01 51 05.6 -0.4
HERR Herculane 6.50 4 ⇑P Pn 01 51 09.3 +1.9
HUMR Humele 6.57 20 ⇑P Pn 01 51 11.7 +3.4
HUMR Humele 6.57 20 P Pn 01 51 09.3 +1.0
HUMR AML AML
ELL Elmali 6.60 102 P Pn 01 51 08.2 -0.6
ELL Elmali 6.60 102 Pn Pn 01 51 08.2 -0.6
FRGS Fruska Gora 6.94 348 *e*Pn Pn 01 51 14.3 +1.0
GZR Gura Zlata 7.04 5 P Pn 01 51 17.7 +3.0
GZR Gura Zlata 7.04 5 ⇑P Pn 01 51 17.7 +3.0
INTR Introdacqua 7.08 303 Pn 01 51 15.0 -0.4
LOT Lotru 7.20 11 P Pn 01 51 17.0 0.0
LOT AML AML
BZS Buzias 7.23 359 P Pn 01 51 19.9 +2.7
BZS Buzias 7.23 359 ⇑P Pn 01 51 20.0 +2.7
BZS Buzias 7.23 359 P Pn 01 51 18.4 +1.2
BLY Banja Luka 7.26 333 Pn 01 51 17.9 +0.2
BLY Banja Luka 7.26 333 ⇑P Pn 01 51 19.7 +2.0
BLY Banja Luka 7.26 333 *e*Pn Pn 01 51 17.8 +0.2
BLY Banja Luka 7.26 333 P Pn 01 51 18.7 +1.1
BLY AML AML
ARR Arges 7.28 16 ⇑P Pn 01 51 19.8 +1.8
ARR Arges 7.28 16 P Pn 01 51 19.3 +1.2
ARR AML AML
SURR Surduc 7.37 1 ⇑P Pn 01 51 21.5 +2.4
VOIR 7.44 18 P Pn 01 51 22.0 +1.8
VOIR 7.44 18 ⇑P Pn 01 51 22.0 +1.8
VOIR 7.44 18 P Pn 01 51 21.3 +1.0
MDUB Mudurnu 7.53 71 Pn Pn 01 51 21.2 -0.3
AQU L'Aquila 7.57 304 *e*Pn Pn 01 51 23.5 +1.4
ISR Istrita 7.59 26 P Pn 01 51 25.0 +2.8
ISR Istrita 7.59 26 ⇑P Pn 01 51 25.1 +2.8
MLR Muntele Rosu 7.73 22 Pn Pn 01 51 24.8 +0.6
8.6nm,0.7s,baz=91,slow=18,SNR=14
MLR Muntele Rosu 7.73 22 P Pn 01 51 27.0 +2.8
MLR Muntele Rosu 7.73 22 Pn Pn 01 51 24.3 +0.1
MLR Muntele Rosu 7.73 22 ⇑P Pn 01 51 27.1 +2.8
NEHR Nehoiu 7.78 24 ⇑P Pn 01 51 27.5 +2.7
SIRR Siria 7.88 359 ⇓P Pn 01 51 28.6 +2.4
NRCA Norcia 8.00 307 Pn Pn 01 51 28.1 +0.2
BISRR Bisoca 8.02 25 ⇑P Pn 01 51 31.6 +3.5
DOPR Dopca 8.02 18 ⇑P Pn 01 51 29.9 +1.8
FDMO Fiordimonte 8.12 308 Pn Pn 01 51 29.6 +0.1
COVR Voineasa-Covas 8.12 22 ⇑P Pn 01 51 32.1 +2.5
SAHR Sahastru 8.17 25 ⇑P Pn 01 51 32.5 +2.3
MORH Mrgy, Hungar 8.18 344 *e*Pn Pn 01 51 29.6 -0.7
MORH Mrgy, Hungar 8.18 344 P Pn 01 51 29.9 -0.4
BOSR Bodos 8.19 19 ⇓P Pn 01 51 32.9 +2.5
OZUR 8.24 19 ⇑P Pn 01 51 34.4 +3.2
CFR Carcaliu 8.25 33 P Pn 01 51 34.2 +3.0
CFR Carcaliu 8.25 33 ⇑P Pn 01 51 34.2 +3.0
TURR Turia 8.26 21 ⇑P Pn 01 51 34.7 +3.2
PLOR Plostina 8.27 24 P Pn 01 51 34.5 +3.0
PLOR Plostina 8.27 24 ⇑P Pn 01 51 34.6 +3.0
VRI Vrincioaia 8.30 24 P Pn 01 51 35.0 +2.9
VRI Vrincioaia 8.30 24 ⇑P Pn 01 51 35.0 +2.9
ODBI Odobesti 8.32 26 ⇓P Pn 01 51 35.6 +3.3
MARR Marisel-Cluj 8.34 6 ⇑P Pn 01 51 36.1 +3.5
DRGR 8.43 4 P Pn 01 51 37.0 +3.3
DRGR 8.43 4 ⇑P Pn 01 51 37.1 +3.3
ONER Baraj Valea Uz 8.62 21 ⇑P Pn 01 51 39.4 +3.0
VLDR Vladesti 8.77 30 ⇑P Pn 01 51 40.9 +2.5
TESR Tescani 8.86 22 ⇓P Pn 01 51 43.1 +3.5
ARCR ARCALIA 8.89 11 ⇓P Pn 01 51 42.8 +2.8
BEHE Becsehely 8.91 337 Pn Pn 01 51 40.8 +0.5
BEHE Becsehely 8.91 337 *e*Pn Pn 01 51 37.9 -2.4
BR131 Keskin Array S 9.27 78 P Pn 01 51 44.9 -0.5
BR131 Keskin Array S 9.27 78 Pn Pn 01 51 44.9 -0.5
BRTR Keskin Array B 9.27 78 Pn Pn 01 51 47.1 +1.7
0.8nm,0.3s,baz=253,slow=12,SNR=22
2.5nm,0.6s
BRTR AML AML
BRTR Keskin Array B 9.27 78 Pn Pn 01 51 45.1 -0.2
MPLH Magyarpolny 9.33 342 P Pn 01 51 47.9 +1.7
BURAR Bucovina Array 9.55 14 P Pn 01 51 51.4 +2.2
BURAR Bucovina Array 9.55 14 ⇑P Pn 01 51 51.4 +2.2
BUR08 Bucovina Ar. S 9.57 14 Pn Pn 01 51 49.7 +0.2
PSZ Piszkesteto 9.64 352 P Pn 01 51 53.4 +3.1
PSZ Piszkesteto 9.64 352 Pn Pn 01 51 50.7 +0.3
PSZ Piszkesteto 9.64 352 ⇑P Pn 01 51 53.5 +3.1
SOKA Soboth 9.69 331 *e*Pn Pn 01 51 50.6 -0.6
1.0nm,0.2s
SOKA *e*Sn Sn 01 53 37.6 -2.6
3.3nm,0.7s
OBKA Obir 9.74 329 *i* Pn Pn 01 51 51.1 -0.8
0.2nm,0.1s
OBKA *e*Sn Sn 01 53 41.5 0.0
15nm,0.6s
ARSA Arzberg 10.00 334 *e*Pn Pn 01 51 56.3 +1.0
1.9nm,0.4s
ARSA *e*Sn Sn 01 53 48.6 +0.9
1.5nm,0.5s
ACOM Acomizza, Ital 10.22 326 P Pn 01 51 59.2 +0.8
MYKA Terra Mystica 10.22 326 *e*Pn Pn 01 51 59.1 +0.7
2.0nm,0.4s
MYKA *e*Sn Sn 01 53 54.2 +1.0
3.3nm,0.5s
KEST Kesra 10.34 259 Pn Pn 01 52 03.2 +3.2
0.1nm,0.3s,baz=66,slow=13,SNR=1.8
2.3nm,0.7s
KEST AML AML
KEST Kesra 10.34 259 Pn Pn 01 51 58.0 -2.0
CTI Castel Tesino 10.76 319 P Pn 01 52 04.8 -0.9
CTI Castel Tesino 10.76 319 Pn Pn 01 52 04.8 -0.9
ABTA Abfaltersbach 10.82 324 *e*Pn Pn 01 52 06.1 -0.6
3.4nm,0.4s
ABTA *e*Sn Sn 01 54 05.1 -2.8
4.5nm,0.6s
MOA Molln 10.96 332 *i* Pn Pn 01 52 09.8 +1.4
0.5nm,0.2s
MOA *e*Sg Sn 01 54 09.9 -1.2
0.6nm,0.2s
BIOA Bad Ischl, Aus 11.07 330 *e*Pn Pn 01 52 09.9 0.0
1.4nm,0.3s
BIOA *e*Sn Sn 01 54 12.8 -1.0
3.3nm,0.7s
LESA Schwarzleotal 11.26 326 *e*Pn Pn 01 52 11.9 -0.6
3.1nm,0.6s
LESA *e*Sn Sn 01 54 16.4 -2.1
1.8nm,0.5s
RJOB Jochberg 11.45 328 P Pn 01 52 16.7 +1.5
VRAC Vranov 11.56 343 Pn Pn 01 52 15.6 -1.0
0.1nm,0.3s,baz=212,slow=19,SNR=1.6
1.5nm,0.8s
VRAC AML AML
WTTA Wattenberg 11.61 323 *i* Pn Pn 01 52 18.0 +0.5
0.8nm,0.2s
WTTA *e*Sn Sn 01 54 24.6 -2.7
8.1nm,0.8s
WTTA Wattenberg 11.61 323 P Pn 01 52 18.6 +1.1
WATA Walderalm 11.69 323 *e*Pn Pn 01 52 18.5 0.0
3.2nm,0.4s
WATA *e*Sn Sn 01 54 26.3 -2.9
6.7nm,0.8s
SQTA Sankt Quirin 11.78 322 *i* Pn Pn 01 52 19.2 -0.6
2.2nm,0.4s
SQTA *e*Sn Sn 01 54 30.1 -1.3
5.2nm,0.6s
FETA Feichten 11.88 320 *e*Pn Pn 01 52 22.4 +1.2
0.9nm,0.4s
FETA *e*Sn Sn 01 54 34.5 +0.6
1.8nm,0.6s
MOTA Moosalm 11.92 322 *e*Pn Pn 01 52 21.2 -0.5
6.4nm,0.7s
MOTA *e*Sn Sn 01 54 34.2 -0.6
2.7nm,0.6s
GERES GERESS Array B 12.00 333 Pn Pn 01 52 21.7 -1.0
baz=156,slow=13,SNR=7.1
GERES Sn Sn 01 54 33.9 -2.9
baz=150,slow=25,SNR=3.6
0.8nm,0.6s
GERES GERESS Array B 12.00 333 Pn 01 52 21.9 -0.9
DAVOX Davos/Dischmat 12.16 317 Pn Pn 01 52 25.9 +0.8
0.5nm,0.3s,baz=109,slow=19,SNR=7.2
DAVOX Sn Sn 01 54 37.8 -3.1
0.3nm,0.3s,baz=306,slow=16,SNR=3.2
1.3nm,0.4s
DAVOX AML AML
RETA Reutte 12.19 322 *e*Pn Pn 01 52 27.5 +2.2
0.4nm,0.2s
RETA *e*Sn Sn 01 54 39.3 -2.0
6.3nm,0.7s
MMAI Mount Meron Ar 12.24 112 Pn Pn 01 52 26.5 +0.4
0.8nm,0.3s,baz=334,slow=15,SNR=4.9
0.5nm,0.3s
MMAI AML AML
KHC Kasperske Hory 12.29 334 *e*P Pn 01 52 29.0 +2.4
KHC *e* 01 54 42.8
KHC Kasperske Hory 12.29 334 *e*PN Pn 01 52 29.0 +2.4
KHC *e*SN Sn 01 54 42.8 -0.8
DAVA Damuels 12.49 319 *e*Pn Pn 01 52 29.7 +0.2
1.9nm,0.5s
DAVA *e*Sn Sn 01 54 47.5 -1.4
1.6nm,0.3s
AKASG Malin Array Be 13.38 21 Pn Pn 01 52 40.2 -1.2
0.3nm,0.3s,baz=211,slow=8.6,SNR=1.1
0.2nm,0.3s
AKASG AML AML
AKBB Malin Array Si 13.38 21 ⇑*e*P Pn 01 52 43.3 +1.9
ASF Jabal al Asfar 13.72 112 Pn Pn 01 52 48.0 +1.3
0.2nm,0.3s,baz=333,slow=9.0,SNR=1.8
0.8nm,0.4s
ASF AML AML
CLL Collm 14.35 337 *e*P P 01 53 05.0 +3.2
CLL Collm 14.35 337 *e*PP P 01 53 05.0 +3.2
SOC Sochi 14.45 63 *e*P Pn 01 52 58.4 +2.3
SOC *e* 01 55 41.9
SOC MLR MLR
comp=Z,151nm,9.0s
VSLR Vesyoloye 14.64 64 ⇓*e*P Pn 01 52 58.2 -0.6
SUW Suwalki 15.66 3 P P 01 53 15.7 -0.6
SUW Suwalki 15.66 3 P 01 53 15.7 -0.6
NEUR Neytrino 16.50 66 ⇑*e*P Pn 01 53 24.2 +0.9
MNK Minsk 16.64 12 *i* P Pn 01 53 24.4 -0.3
MNK *i* S Sn 01 56 29.7 +0.3
MNK pmax pmax
comp=N,8.0nm,0.6s
MNK pmax pmax
comp=E,18nm,0.9s
MNK pmax pmax
comp=Z,5.0nm,0.5s
MNK MLR MLR
comp=E,706nm,17.0s
MNK MLR MLR
comp=N,543nm,18.0s
MNK MLR MLR
comp=Z,54nm,14.0s
MNK Minsk 16.64 12 *i* P Pn 01 53 24.4 -0.3
comp=E,18nm,0.9s
MNK *i* P Pn 01 53 24.4 -0.3
comp=N,8.0nm,0.6s
MNK *i* P Pn 01 53 24.4 -0.3
comp=Z,5.0nm,0.5s,baz=197
MNK *i* PP PnPn 01 53 33.6 -0.3
MNK *i* PPP PPP 01 53 41.4
MNK *i* S Sn 01 56 29.7 +0.3
MNK *i* SS SnSn 01 56 44.2 +1.7
MNK *i* SSS SSS 01 56 56.9
MNK *i* LQ LQ 01 57 59.5

MNK				*i* LR	LR	01 59 34.8	
MNK				*i* LRM	MLR	02 00 30.9	
	comp=E,706nm,17.4s						
MNK				*i* LRM	MLR	02 00 32.1	
	comp=N,543nm,17.8s						
MNK				*i* LRM	MLR	02 00 43.5	
	comp=Z,54nm,13.7s						
KBZ	**Khabaz**	**16.73**	**65**	Pn	**P**	**01 53 28.5**	**+0.2**
	baz=264.slow=17,SNR=2.5						
PABE	**Paberze**	**17.19**	**4**		**Pn**	**01 53 32.3**	**+0.7**
PABE				IAmb	IAmb	01 53 36.7	
	comp=Z,19nm,0.7s						
OBN	**Obninsk**	**19.47**	**26**	P	**P**	**01 53 58.0**	**-0.4**
	comp=Z,13nm,0.4s,baz=296,slow=7.4,SNR=4.6						
OBN	**Obninsk**	**19.47**	**26⇑**	*eP*	**P**	**01 53 57.9**	**-0.4**
OBN				*eS*	**Sn**	**01 57 37.3**	**-0.5**
OBN				pmax	pmax		
	comp=E,58nm,2.9s						
OBN				MLR	MLR		
	comp=Z,140nm,14.0s						
OBN	**Obninsk**	**19.47**	**26**	P	**P**	**01 53 56.5**	**-1.8**
ESBB	**Sonseca Array**	**20.08**	**282**	P	**P**	**01 54 04.3**	**-1.0**
ESDC	**Sonseca Array**	**20.08**	**282**	P	Pn	01 54 06.4	-0.6
	comp=Z,2.6nm,0.7s,baz=77,slow=11,SNR=25						
	comp=Z,2.6nm,0.7s						
ESDC	**Sonseca Array**	**20.08**	**282**	P	**P**	**01 54 04.3**	**-0.9**
MOS	**Moscow**	**20.33**	**26**	*eP*	Pn	01 54 10.2	+0.5
MOS				pmax	pmax		
	comp=Z,30nm,0.6s						
VSU	**Vasula**	**20.34**	**7**	P	**P**	**01 54 07.6**	**-0.2**
PAB	**San Pablo**	**20.39**	**281**	P	**P**	**01 54 08.0**	**-0.6**
PAB				pmax	pmax		
	comp=Z,4.0nm,0.8s						
PAB	**San Pablo**	**20.39**	**281**	P	**P**	**01 54 08.0**	**-0.6**
ARBE	**Arbavere**	**21.24**	**6**	P	**P**	**01 54 16.9**	**-0.6**
MD01	**Midelt array s**	**22.28**	**264**	P	**P**	**01 54 27.7**	**-1.4**
HFS	**Hagfors**	**22.38**	**349**	P	**P**	**01 54 29.1**	**-0.7**
	comp=Z,2.7nm,0.5s,baz=165,slow=12,SNR=12						
	comp=Z,2.7nm,0.5s						
BELG	**Belogornoye**	**22.73**	**44⇑**	*eP*	**P**	**01 54 34.4**	**+0.9**
BELG				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	**23.23**	**5**	P	**P**	**01 54 37.2**	**-1.5**
	comp=Z,4.1nm,0.7s,baz=180,slow=9.2,SNR=19						
	comp=Z,4.1nm,0.7s						
FIA1	**FINESS Array S**	**23.23**	**5**	P	**P**	**01 54 37.2**	**-1.5**
FIA1				IAmb	IAmb	01 54 56.0	
	comp=Z,35nm,1.0s						
NC602	**NORSAR Array S**	**23.30**	**347**	P	**P**	**01 54 38.1**	**-1.2**
NAO01	**NORSAR Array S**	**23.51**	**346**	P	**P**	**01 54 40.5**	**-1.0**
NAO01				IAmb	IAmb	01 54 48.1	
	comp=Z,21nm,1.1s						
NB2	**NORSAR Subarra**	**23.64**	**347**	P	**P**	**01 54 41.6**	**-1.2**
	comp=Z,4.8nm,0.8s,baz=149,slow=10						
NOA	**NORSAR Array B**	**23.64**	**347**	P	**P**	**01 54 41.8**	**-1.0**
	comp=Z,0.7nm,0.4s,baz=160,slow=10,SNR=6.7						
	comp=Z,0.7nm,0.4s						
EKA	**Eskdalemuir Ar**	**23.88**	**323**	P	**P**	**01 54 44.5**	**-0.6**
	comp=Z,6.1nm,0.8s,baz=122,slow=10,SNR=9.8						
	comp=Z,6.1nm,0.8s						
EKA	**Eskdalemuir Ar**	**23.88**	**323**	P	**P**	**01 54 44.9**	**-0.2**
EKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NC204	**NORSAR Array S**	**23.94**	**347**	P	**P**	**01 54 45.4**	**-0.4**
NC204				IAmb	IAmb	01 55 00.1	
	comp=Z,7.6nm,0.9s						
KLMR	**Klimovskoe**	**25.07**	**21**	*eP*	**P**	**01 54 54.5**	**-1.4**
KLMR				pmax	pmax		
	comp=Z,16nm,0.7s						
KIRV	**Kirov**	**26.91**	**32⇓**	*eP*	**P**	**01 55 11.8**	**-0.8**
TORD	**Torodi Ar. Bea**	**30.86**	**221⇓**	P	**P**	**01 55 49.8**	**+1.7**
	comp=Z,1.1nm,0.5s,baz=30,slow=8.7,SNR=3.0						
	comp=Z,1.1nm,0.5s						
ARCES	**ARCESS Array B**	**31.27**	**2**	P	**P**	**01 55 50.7**	**-0.6**
	comp=Z,3.4nm,0.7s,baz=188,slow=7.4,SNR=9.6						
	comp=Z,3.4nm,0.7s						
ARCES	**ARCESS Array B**	**31.27**	**2**	P	**P**	**01 55 50.5**	**-0.8**
KK31	**Karatay Array**	**36.75**	**67**	P	**P**	**01 56 39.4**	**+0.2**
KK31				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KK31	**Karatay Array**	**36.75**	**67**	P	**P**	**01 56 39.4**	**+0.2**
KK31				IAmb	IAmb	01 56 44.1	
	comp=Z,8.5nm,0.8s						
KKAR	**Karatay Array**	**36.75**	**67**	P	**P**	**01 56 38.6**	**-0.6**
KKAR	**Karatay Array**	**36.75**	**67**	P	**P**	**01 56 38.6**	**-0.6**
SPITS	**Spitsbergen Ar**	**39.97**	**358**	P	**P**	**01 57 05.8**	**-0.1**
	comp=Z,9.5nm,0.9s,baz=154,slow=10,SNR=4.8						
	comp=Z,9.5nm,0.9s						
BOOM	**Boomskoye usch**	**40.79**	**66**	P	**P**	**01 57 13.6**	**+0.4**
BOOM				pmax	pmax		
	comp=Z,13nm,1.0s						
BOOM	**Boomskoye usch**	**40.79**	**66**	P	**P**	**01 57 13.6**	**+0.4**
BOOM				IAmb	IAmb	01 57 23.0	
	comp=Z,13nm,1.0s						
NRN	**Naryn**	**41.08**	**68**	P	**P**	**01 57 15.4**	**-0.4**
NRN				pmax	pmax		
	comp=Z,13nm,1.1s						
NRN	**Naryn**	**41.08**	**68**	P	**P**	**01 57 15.4**	**-0.4**
NRN				IAmb	IAmb	01 57 20.6	
	comp=Z,13nm,1.1s						
PDGK	**Podgornoye**	**43.13**	**64**	P	**P**	**01 57 31.9**	**-0.4**
PDGK	**Podgornoye**	**43.13**	**64**	P	**P**	**01 57 31.9**	**-0.4**
MKAR	**Makanchi Array**	**44.30**	**59**	P	**P**	**01 57 41.3**	**-0.2**
	comp=Z,5.3nm,0.4s,baz=276,slow=7.3,SNR=22						
MKAR				PcP	**PcP**	**01 59 25.5**	**-0.2**
	comp=Z,1.0nm,0.7s,baz=318,slow=3.4,SNR=1.6						
	comp=Z,5.3nm,0.4s						
MKAR	**Makanchi Array**	**44.30**	**59**	P	**P**	**01 57 41.9**	**+0.3**
MKAR	**Makanchi Array**	**44.30**	**59**	P	**P**	**01 57 41.9**	**+0.3**
ZALV	**Zalesovo Beam**	**44.77**	**48**	P	**P**	**01 57 44.6**	**-0.5**
	comp=Z,3.0nm,0.4s,baz=272,slow=8.6,SNR=6.1						
	comp=Z,3.0nm,0.4s						
ZALV	**Zalesovo Beam**	**44.77**	**48**	P	**P**	**01 57 43.4**	**-1.7**
WMQ	**Urumqi**	**48.74**	**61**	*eP*	**P**	**01 58 17.3**	**+0.8**
WMQ				pP	sP	01 58 23.1	+2.7
WMQ				pmax	pmax		
	comp=Z,20nm,1.3s						
SCHQ	**Schefferville**	**59.02**	**318**	P	**P**	**01 59 31.1**	**-0.3**
	comp=Z,5.3nm,0.8s,baz=31,slow=5.9,SNR=5.4						
	comp=Z,5.3nm,0.8s						
SCHQ	**Schefferville**	**59.02**	**318**	P	**P**	**01 59 31.5**	**+0.1**
ILON	**Igloolik, Nuna**	**59.18**	**336**	P	**P**	**01 59 32.4**	**+0.2**
SONM	**Songino Array**	**59.52**	**51**	P	**P**	**01 59 35.1**	**0.0**
	comp=Z,2.3nm,1.0s,baz=270,slow=6.2,SNR=1.8						
	comp=Z,2.3nm,1.0s						
SONM	**Songino Array**	**59.52**	**51**	P	**P**	**01 59 34.0**	**-1.1**
SONM				IAmb	IAmb	01 59 38.1	
	comp=Z,4.1nm,1.1s						
HHC	**Hu-ho-hao-te**	**66.05**	**56**	*eP*	**P**	**02 00 17.5**	**-1.3**
HHC				pmax	pmax		
	comp=Z,12nm,0.5s						
HHC				pmax	pmax		
	comp=Z,280nm,5.1s						
YKA	**Yellowknife Ar**	**73.55**	**341**	P	**P**	**02 01 04.4**	**0.0**
	comp=Z,1.0nm,0.8s,baz=37,slow=5.5,SNR=4.5						
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**73.55**	**341**	P	**P**	**02 01 03.7**	**-0.7**
ULM	**Lac du Bonnet**	**76.15**	**324**	P	**P**	**02 01 19.7**	**+0.1**
	comp=Z,1.7nm,0.8s,baz=56,slow=3.6,SNR=1.5						
	comp=Z,1.7nm,0.8s						
ULM	**Lac du Bonnet**	**76.15**	**324**	P	**P**	**02 01 19.1**	**-0.5**
ILAR	**Eielson Array**	**76.80**	**355**	P	**P**	**02 01 23.6**	**+0.5**
	comp=Z,0.5nm,0.7s,baz=353,slow=6.2,SNR=4.7						
	comp=Z,0.5nm,0.7s						
ILAR	**Eielson Array**	**76.80**	**355**	P	**P**	**02 01 23.3**	**+0.2**
PDAR	**Pinedale Array**	**87.96**	**326**	P	**P**	**02 02 22.1**	**0.0**
	comp=Z,0.4nm,0.6s,baz=60,slow=6.4,SNR=3.9						
	comp=Z,0.4nm,0.6s						
PDAR	**Pinedale Array**	**87.96**	**326**	P	**P**	**02 02 21.1**	**-1.0**
TXAR	**Lajitas Array**	**95.58**	**314**	P	**P**	**02 02 59.4**	**+1.9**
	comp=Z,0.2nm,0.6s,baz=91,slow=2.5,SNR=3.4						
	comp=Z,0.2nm,0.6s						

NOU 17 02:09:11.0,11°82S×165°50E,h10km,MLv4.5/9,Santa Cruz Islands,Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HURO	**Huru Makira**	**3.78**	**291**	P	Pn	02 10 09.0	-0.3
HURO	**Huru Makira**	**3.78**	**291**	P	Sn	02 10 55.1	+1.2
SANVU	**Saraoutou**	**3.97**	**156**	P	Pn	02 10 11.4	-0.5
NGOA	**Tingoa Renbel**	**5.33**	**272**	P	Pn	02 10 31.2	+0.5
NGOA	**Tingoa Renbel**	**5.33**	**272**	P	Sn	02 11 33.2	+0.9
SAVO	**Savo Central**	**6.19**	**295**	P	Pn	02 10 43.0	+0.4
TATA	**Tatamba Isabel**	**6.56**	**301**	P	Pn	02 10 47.3	-0.4

*BUT **17** 02:20:03.4±2.4,44°33N±0°02×115°03W±0°04,h7km±6km, Error ellipse: s-maj=4.3km s-min=3.0km az=51.0*
NEIC 17 02:20:02.5±1.6,**44°35N**±0°01×**115°06W**±0°03,**h10**km±2km, **ML3.4**/128,**ML3.8**/33(BUT),**Error ellipse: s-maj=4.0km s-min=3.1km az=67.0,Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.91**	**149**		Pg	02 20 19.8	-0.3
HLID				Sg	Sg	02 20 31.5	-0.5
HLID				IAML		02 20 32.7	
	946nm,0.2s						
PLID	**Pearl Lake**	**1.00**	**318**		Pg	02 20 21.5	-0.2
PLID				Sg	Sb	02 20 35.0	-0.3
PLID				IAML		02 20 41.0	
	1μm,0.4s						
PLID				IAML		02 20 41.5	
	891nm,0.5s						
MFID	**Camas Ranch**	**1.09**	**211**		Sn	02 20 39.0	-0.1
MFID	**Camas Ranch**	**1.09**	**211**		Pb	02 20 23.6	+0.1
BCYI	**Bear Canyon**	**1.19**	**91**		Pg	02 20 25.3	0.0
ICI	**Italian Canyon**	**1.52**	**90**		Pb	02 20 30.9	+0.1
MCMT	**McKenzie Canyo**	**1.65**	**72**		Pn	02 20 31.1	-0.5
BMO	**Blue Mountains**	**1.68**	**288**		Pn	02 20 32.3	+0.2
MOMT	**Monida**	**1.92**	**82**		Pb	02 20 38.1	+0.4
DLMT	**Dillon**	**2.02**	**59**		Pn	02 20 36.9	+0.2
DLMT				IAML		02 21 09.9	
	433nm,0.5s						
VCMT	**Victor**	**2.18**	**16**		Pn	02 20 40.4	+1.5
F10A	**Beach Ranch, E**	**2.23**	**317**		Pn	02 20 40.0	+0.4
HBMT	**Mount Humbug**	**2.25**	**49**		Pn	02 20 41.4	+1.3
BGMT	**Barton Gulch**	**2.32**	**67**		Pn	02 20 42.6	+1.7
LRM	**Limekiln Ridge**	**2.36**	**51**		Pn	02 20 42.7	+1.3
BPMT	**Black Pine Rid**	**2.37**	**28**		Pn	02 20 43.1	+1.4
BUT	**Butte**	**2.42**	**46**		Pn	02 20 43.7	+1.4
BUT	**Butte**	**2.42**	**46**	IAML		02 21 20.0	
	comp=E,228nm,0.6s						
BUT				IAML		02 21 23.4	
	comp=N,209nm,0.6s						
MSO	**Missoula**	**2.60**	**17**		Pn	02 20 46.2	+1.5
MSO	**Missoula**	**2.60**	**17**	IAML		02 21 38.3	
	comp=N,233nm,1.3s						
MSO				IAML		02 21 39.8	
	comp=N,143nm,0.9s						
QLMT	**Earthquake Lak**	**2.63**	**78**	Pn	Pn	02 20 45.2	0.0
J08A	**Circle Bar Ran**	**2.67**	**249**		Pn	02 20 45.5	0.0
BOZ	**Bozeman (W)**	**2.73**	**62**		Pn	02 20 48.0	+1.4
LNOR	**Lincton Mounta**	**2.75**	**305**		Pn	02 20 46.4	-0.2
LNOR				IAML		02 21 38.8	
	comp=N,104nm,1.3s						
MKMT	**Mink Peak**	**2.75**	**359**		Pn	02 20 48.3	+1.5
YHB	**Horse Butte**	**2.79**	**80**	Pn	Pn	02 20 46.9	-0.5
YHB				IAML		02 21 33.2	
	comp=E,107nm,0.6s						
YHB				IAML		02 21 33.6	
	comp=N,172nm,0.7s						
YHL	**Hebgen Lake**	**2.81**	**78**		Pn	02 20 47.3	-0.4
ELMT	**Elliston**	**2.82**	**39**		Pn	02 20 48.6	+0.8
CHMT	**Chamberlain Mo**	**2.86**	**26**		Pn	02 20 49.5	+1.2
G08A	**Pilot Rock**	**2.93**	**290**		Pn	02 20 48.1	-1.1
YMR	**Madison River**	**2.94**	**82**		Pn	02 20 49.5	0.0
PCMT	**Pistol Creek**	**2.95**	**14**		Pn	02 20 51.2	+1.6
YFT	**Old Faithful**	**3.03**	**87**	IAML		02 21 48.3	
	comp=E,80nm,0.9s						
YHH	**Holmes Hill**	**3.04**	**80**	IAML		02 21 39.0	
	comp=E,144nm,0.8s						
E09A	**Wood Farm, Sta**	**3.07**	**316**	IAML		02 21 40.7	
	comp=E,102nm,0.8s						
E09A				IAML		02 21 45.3	
	comp=N,111nm,0.7s						
SLMT	**Seeley Lake**	**3.09**	**20**		Pn	02 20 52.6	+1.1
GBMT	**Granite Butte,**	**3.10**	**35**	IAML		02 21 43.3	
	comp=E,119nm,0.7s						
GBMT				IAML		02 21 43.8	
	comp=N,114nm,0.7s						
YNM	**Yellowstone No**	**3.13**	**82**	IAML		02 21 41.4	
	comp=E,120nm,0.6s						
YNM				IAML		02 21 44.5	
	comp=N,137nm,0.5s						
YNR	**Norris Junctio**	**3.15**	**82**	IAML		02 21 43.8	
	comp=E,74nm,0.6s						
YNR				IAML		02 21 47.2	
	comp=N,128nm,1.0s						
SNOW	**Snow King Moun**	**3.23**	**104**	IAML		02 21 52.2	
	comp=N,74nm,0.7s						
SNOW				IAML		02 21 52.4	
	comp=N,81nm,0.9s						
WVOR	**Wild Horse Val**	**3.24**	**235**	IAML		02 21 47.4	
	comp=N,77nm,0.8s						
WVOR				IAML		02 21 53.0	
	comp=N,74nm,0.7s						
AHID	**Auburn Hatcher**	**3.28**	**118**	IAML		02 21 56.0	
	comp=N,84nm,0.6s						
JTMT	**Jette**	**3.44**	**9**		Pn	02 20 57.9	+1.7
E08A	**Dider Farm, El**	**3.54**	**309**	IAML		02 22 01.8	
	comp=N,63nm,1.6s						
SPUT	**South Promonto**	**3.59**	**147**	IAML		02 21 59.3	
	comp=E,67nm,0.6s						
SPUT				IAML		02 22 00.9	
	comp=N,64nm,0.6s						
YNE	**Yellowstone No**	**3.66**	**78**	IAML		02 21 56.4	
	comp=N,84nm,0.5s						
YNE				IAML		02 22 07.7	
	comp=E,53nm,0.8s						
BGU	**Big Grassy Mou**	**3.73**	**156**	IAML		02 22 02.5	
	comp=N,60nm,0.8s						
BGU				IAML		02 22 03.2	
	comp=E,74nm,1.3s						
HWUT	**Hardware Ranch**	**3.75**	**136**	IAML		02 22 02.0	
	comp=E,43nm,1.1s						
F07A	**Phinny Hill Vi**	**3.78**	**296**	IAML		02 22 09.2	
	comp=E,80nm,0.9s						
F07A				IAML		02 22 10.9	
	comp=N,83nm,1.0s						
D08A	**Wollman Farm,**	**3.83**	**316**	IAML		02 22 12.0	
	comp=E,63nm,1.0s						
D08A				IAML		02 22 12.6	
	comp=N,53nm,0.9s						
E07A	**Sunnyside**	**4.03**	**305**	IAML		02 22 26.1	
	comp=E,71nm,0.7s						
E07A				IAML		02 22 34.1	
	comp=N,59nm,0.8s						
BMN	**Battle Mountai**	**4.23**	**203**	IAML		02 22 14.3	
	comp=N,57nm,0.8s						
BMN				IAML		02 22 18.6	
	comp=E,67nm,0.8s						
PINE	**Pine Mountain**	**4.28**	**265**	IAML		02 23 01.4	
	comp=N,46nm,4.8s						
PINE				IAML		02 23 38.1	
	comp=E,30nm,5.0s						
MXC	**Moxie City**	**4.30**	**303**	IAML		02 22 28.9	
	comp=N,39nm,1.8s						
MXC				IAML		02 22 34.6	
	comp=E,28nm,2.5s						
EPH	**Ephrata**	**4.37**	**315**	IAML		02 22 25.7	
	comp=E,35nm,1.5s						
DUG	**Dugway, Tooele**	**4.47**	**157**	IAML		02 22 31.9	
	comp=E,41nm,1.1s						
DUG				IAML		02 22 32.4	
	comp=E,50nm,1.0s						
I05D	**Terrebonne, OR**	**4.51**	**272**	IAML		02 21 53.4	
	comp=N,51nm,4.8s						
I05D				IAML		02 22 35.6	
	comp=E,52nm,5.0s						
K05A	**Summer Lake**	**4.54**	**251**	IAML		02 22 40.5	
	comp=E,41nm,4.7s						
K05A				IAML		02 23 34.7	
	comp=N,33nm,4.5s						
MOD	**Modoc Plateau**	**4.55**	**239**	IAML		02 22 36.9	
	comp=E,30nm,1.1s						
MOD				IAML		02 22 38.4	
	comp=N,37nm,1.5s						
J05D	**Fort Rock, OR**	**4.60**	**259**	IAML		02 22 36.6	
	comp=N,40nm,3.7s						
J05D				IAML		02 22 58.5	
	comp=E,42nm,4.7s						
LTY	**Liberty**	**4.88**	**308**	IAML		02 22 49.4	
	comp=N,28nm,1.3s						
LTY				IAML		02 23 00.6	
	comp=E,30nm,3.3s						
NLU	**North Lily Min**	**4.92**	**152**	IAML		02 22 40.6	
	comp=E,18nm,0.9s						

*CATAC **17** 02:32:08.8±0.5, 11°N±2°×8°7W±°, h27km±5km, M3.5/12, MLv3.5/12, Error ellipse: s-maj=6.5km s-min=3.2km az=43.7, confirmed*
*UCR **17** 02:32:09.5±0.7, 10°94N×86°55W, h13km±9km, MW3.7, Presumed earthquake*
ISC 17 02:32:10.2±1.4, **10°95N**±0°04×**86°57W**±0°06, **h22**km±6km, **n54**,σ0°91/78,**3C-13D**,**Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LCRUZ	**La Cruz**	**0.93**	**82**	*eP*	**Pb**	**02 32 27.0**	**-0.6**
LCRUZ				*eS*	**Sn**	**02 32 40.9**	**+0.2**
NADN	**Granada**	**0.95**	**33**	⇓P	**Pb**	**02 32 27.3**	**-0.8**
NADN				S	**Sn**	**02 32 41.9**	**+0.6**
NADN	**Granada**	**0.95**	**33**	*eP*	**Pb**	**02 32 27.3**	**-0.8**
NADN				*eS*	**Sn**	**02 32 41.8**	**+0.6**
CARN	**Rivas**	**1.06**	**77**	⇑P	**Pn**	**02 32 29.2**	**-0.5**
CARN				S	**Sn**	**02 32 45.1**	**+1.3**
CARN	**Rivas**	**1.06**	**77**	*eP*	**Pn**	**02 32 28.7**	**-1.0**
CARN				*eS*	**Sn**	**02 32 45.1**	**+1.3**
ALIBA	**Liberia Airpor**	**1.07**	**109**	*eP*	**Pb**	**02 32 29.6**	**-0.4**
ALIBA				*eS*	**Sn**	**02 32 44.8**	**+0.8**
NANN	**Nandasmo**	**1.08**	**24**	⇓P	**Pb**	**02 32 30.6**	**+0.4**
NANN				S	**Sn**	**02 32 46.1**	**+1.7**
SABN	**Sabanita**	**1.08**	**22**	⇓P	**Pn**	**02 32 29.0**	**-1.1**
MORN	**Al O del Volca**	**1.08**	**57**	⇑P	**Pn**	**02 32 29.5**	**-0.6**
CONN	**Concepcion**	**1.11**	**56**	⇓P	**Pn**	**02 32 29.2**	**-1.3**
CONN				S	**Sn**	**02 32 45.8**	**+0.6**
MASN	**Masaya**	**1.11**	**22**	P	**Pn**	**02 32 30.0**	**-0.5**
MASN				S	**Sn**	**02 32 46.3**	**+1.1**
DELF	**Filadelfia**	**1.12**	**116**	*eP*	**Pb**	**02 32 33.7**	**+2.9**
DELF				*eS*	**Sb**	**02 32 44.3**	**-0.6**
LAPC	**Finca la Perla**	**1.13**	**99**	*eP*	**Pn**	**02 32 30.2**	**-0.6**
MAS3	**Al N del Volca**	**1.14**	**20**	⇓P	**Pn**	**02 32 30.0**	**-0.8**
MAS3				S	**Sn**	**02 32 46.4**	**+0.6**
VRLE	**La Escondida,**	**1.19**	**98**	*eP*	**Pn**	**02 32 31.0**	**-0.7**
VORI	**VORI**	**1.21**	**96**	*eP*	**Pn**	**02 32 31.5**	**-0.5**
GPS2	**Hotel Rincn d**	**1.21**	**99**	*eP*	**Pn**	**02 32 31.3**	**-0.7**
TISN	**Laguna Tiscapa**	**1.22**	**14**	⇓P	**Pn**	**02 32 31.0**	**-1.0**
WILN	**Americas 2**	**1.26**	**17**	P	**Pn**	**02 32 32.3**	**-0.3**
WILN				S	**Sb**	**02 32 50.1**	**+1.0**
APQ2	**Apoyeque**	**1.27**	**11**	P	**Pn**	**02 32 31.7**	**-0.9**
APQ2	**Apoyeque**	**1.27**	**11**	⇓P	**Pn**	**02 32 31.9**	**-0.7**
APQ2				S	**Sn**	**02 32 49.4**	**+0.5**
APQ2				S	**Sb**	**02 32 50.1**	**+0.9**
MESS	**Mesas**	**1.37**	**99**	*eP*	**Pn**	**02 32 34.2**	**+0.1**
COLC	**Colonia**	**1.37**	**102**	*eP*	**Pn**	**02 32 33.7**	**-0.4**
CLARA	**Aguas Claras**	**1.38**	**97**	*eP*	**Pn**	**02 32 34.3**	**+0.1**
HORNC	**Hornillas**	**1.39**	**100**	*eP*	**Pn**	**02 32 33.9**	**-0.4**
CUI	**Cuipilapa**	**1.41**	**102**	*eP*	**Pn**	**02 32 34.2**	**-0.4**
LEVN	**Ruinas Leon Vi**	**1.45**	**358**	⇓P	**Pn**	**02 32 35.0**	**-0.1**
LEVN				S	**Sb**	**02 32 54.5**	**+0.1**
CMARA	**Lajas Hojancha**	**1.46**	**129**	S	**Sn**	**02 32 50.8**	**-3.0**
CMARA	**Lajas Hojancha**	**1.46**	**129**	*eP*	**Pb**	**02 32 36.9**	**+0.3**
MOM2	**El Cardon**	**1.48**	**3**	⇓P	**Pn**	**02 32 35.0**	**-0.6**
MOM2				S	**Sb**	**02 32 55.4**	**-0.1**
CNGA	**Al SSO del Vol**	**1.54**	**355**	⇑P	**Pn**	**02 32 36.3**	**-0.2**
CNGA				S	**Sn**	**02 32 56.8**	**+0.9**
CNGN	**Cerro Negro**	**1.55**	**355**	P	**Pn**	**02 32 36.4**	**-0.1**
CNGN				S	**Sb**	**02 32 57.2**	**-0.2**
MOM3	**MOM3**	**1.56**	**2**	⇓P	**Pn**	**02 32 36.1**	**-0.5**
MOM3				S	**Sn**	**02 32 57.2**	**+1.1**
PACN	**Al O del Volca**	**1.56**	**352**	P	**Pn**	**02 32 36.2**	**0.0**
PACN				S	**Sb**	**02 32 57.4**	**-0.3**
TIMP	**Tierras Morena**	**1.57**	**103**	*eP*	**Pb**	**02 32 37.4**	**-1.2**
ROCN	**Rota Cerro Neg**	**1.57**	**354**	⇓P	**Pn**	**02 32 35.3**	**-1.6**
ROCN				S	**Sn**	**02 32 56.4**	**-0.1**
TENO	**El Achiote**	**1.58**	**99**	*eP*	**Pn**	**02 32 36.7**	**-0.3**
NYURE	**Nandayure**	**1.60**	**126**	*eP*	**Pn**	**02 32 37.3**	**+0.1**
TEL3	**Telica 3**	**1.64**	**351**	⇓P	**Pn**	**02 32 37.7**	**0.0**
PLRN	**Geotermica Pol**	**1.64**	**353**	P	**Pn**	**02 32 36.9**	**-0.9**
PLRN				S	**Sn**	**02 32 58.0**	**-0.2**
QUEN	**Al S del Volca**	**1.66**	**350**	P	**Pn**	**02 32 38.4**	**+0.3**
QUEN				S	**Sn**	**02 32 59.3**	**+0.6**
QUEB	**Quebradon, Cot**	**1.68**	**101**	*eP*	**Pb**	**02 32 40.1**	**-0.3**
ACON	**Acoyapa**	**1.70**	**53**	S	**Sn**	**02 33 00.7**	**+1.0**
JTS	**Las Juntas de**	**1.72**	**112**	S	**Sn**	**02 32 59.5**	**-0.7**
JTS	**Las Juntas de**	**1.72**	**112**	*eP*	**Pn**	**02 32 39.0**	**+0.2**
BOAB	**BOACO BROADBAN**	**1.73**	**31**	⇓P	**Pn**	**02 32 38.3**	**-0.7**
BOAB				S	**Sn**	**02 32 59.0**	**+1.4**
CRIN	**San Cristobal**	**1.80**	**345**	P	**Pn**	**02 32 38.4**	**+1.6**
MTEVE	**Monteverde**	**1.82**	**110**	*eP*	**Pn**	**02 32 40.6**	**+0.2**
VARE2	**V. Arenal**	**1.88**	**105**	*eP*	**Pb**	**02 32 43.2**	**-0.7**
CEDE	**Laguna Cedeo**	**1.89**	**104**	*eP*	**Pn**	**02 32 41.0**	**-0.3**
FORC	**Fortuna**	**1.93**	**104**	*eP*	**Pb**	**02 32 43.8**	**-0.9**
QUEU	**Ciudad Quesada**	**2.19**	**106**	*eP*	**Pn**	**02 32 44.3**	**-1.1**
LCR2	**La Lucha 2**	**2.79**	**115**	*eP*	**Pn**	**02 32 55.0**	**+1.2**
PIEC	**Cerro El Cedra**	**2.89**	**117**	*eP*	**Pn**	**02 32 56.3**	**+1.1**

*CATAC **17** 03:10:12.9±0.4, 10°N±2°×8°6W±°

NADN S Sb 03 10 52.6 -1.2
NADN Granada 1.31 351 *e*P Pn 03 10 35.4 +0.3
PALD Palmares 1.42 106 *e*P Pn 03 10 36.9 +0.2
VPL1 V. Platanar 1.45 97 *e*P Pn 03 10 37.3 +0.2
TRB2 Turrubares 1.45 111 P Pn 03 10 37.6 +0.6
TRB2 S Sb 03 10 56.3 -1.4
ATEO Atenas 1.49 108 *e*P Pn 03 10 37.6 0.0
NANN Nandasmo 1.52 349 P Pb 03 10 39.3 -1.3
NANN S Sb 03 10 58.7 -0.8
TCS1 Tacares 1.55 105 P Pn 03 10 39.4 +1.0
VPS8 V Poas 1.58 99 *e*P Pn 03 10 39.7 +0.7
ARTO Ro Cuarto 1.58 93 *e*P Pn 03 10 38.6 -0.3
ACON Acoyapa 1.65 23 P Pn 03 10 40.5 +0.9
ACON S Sn 03 11 00.6 +1.0
ACON Acoyapa 1.65 23 *e*P Pn 03 10 39.8 +0.2
BELE Belen 1.68 106 *e*P Pn 03 10 40.6 +0.4
VBV1 V. Barva 1.73 101 *e*P Pn 03 10 41.3 +0.2
HDC Heredia 1.74 104 P Pn 03 10 40.8 -0.2
WILN Americas 2 1.74 348 S Sb 03 11 04.0 -2.0
TISN Laguna Tiscapa 1.75 346 P Pn 03 10 41.6 +0.6
APQ2 Apoyeque 1.81 344 S Sb 03 11 05.9 -2.1
LCR2 La Lucha 2 1.92 111 P Pn 03 10 44.4 +0.7
LCR2 La Lucha 2 1.92 111 *e*P Pn 03 10 44.1 +0.4
VICA Volcano Irazu 2.00 103 *e*P Pn 03 10 45.8 +0.9
PIEC Cerro El Cedra 2.01 114 *e*P Pn 03 10 45.8 +0.9
CVTG V. Turrialba, 2.04 98 *e*P Pn 03 10 46.2 +1.1
CVTQ Turrialba Volc 2.07 102 *e*P Pn 03 10 46.5 +0.7
CVTV Tajo 2.09 102 *e*P Pn 03 10 47.2 +1.1
LEVN Ruinas Leon Vi 2.10 338 P Pn 03 10 47.5 +1.7
LEVN S Sn 03 11 12.2 +1.4
ABRB Las Abras (San 2.12 102 *e*P Pn 03 10 46.8 +0.4
MOM3 MOM3 2.17 342 P Pn 03 10 48.0 +1.2
EGUB Earth Gu¡pi 2.21 96 *e*P Pn 03 10 52.8 +0.5
ROCN Rota Cerro Neg 2.25 337 P Pn 03 10 48.4 +0.3

*IDC **17** 03:28:20.2±1.2, 13°.59N×92°.45E, h0km, mb3.6/7, mbtmp3.6/8, ML3.9/1, Error ellipse: s-maj=30.0km s-min=22.0km az=47.0*
*NEIC **17** 03:28:22.7±1.3, 13°.74N±0°.03×92°.4E±0°.1, h10km±1km, mb4.3/12, Error ellipse: s-maj=17.2km s-min=4.4km az=281.0*
ISC 17 03:28:24.4±0.7, **13°.73N**±0°.09×**92°.42E**±0°.10, **h29km, n31, σ1s28/25, mb3.8/12, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBA	**Port Blair**	**2.09**	**171**	Pn	**Pn**	**03 28 57.9**	**+0.3**
CMAR	**Chiang Mai Arr**	**7.83**	**52**	Pn	**Pn**	**03 30 17.1**	**+0.5**
	0.4nm,0.3s,baz=243,slow=15,SNR=6.2						
CMAR				Sn	Sn	03 31 35.1	-9.3
	0.5nm,0.3s,baz=245,slow=22,SNR=4.9						
	0.8nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**7.83**	**52**		**Pn**	**03 30 17.2**	**+0.6**
EVN	**Everest**	**15.09**	**341**	Pn	**Pn**	**03 31 53.3**	**-3.0**
H08S3	**Diego Garcia H**	**29.02**	**224**	T	T	04 05 26.8	
	baz=42,slow=76,SNR=6.7						
H08S2	**Diego Garcia H**	**29.02**	**224**	T	T	04 05 24.7	
	baz=42,slow=76,SNR=7.0						
H08S1	**Diego Garcia H**	**29.04**	**224**	T	T	04 05 33.4	
	baz=42,slow=76,SNR=8.5						
UOSS	**Minazif**	**35.84**	**294**	P	**P**	**03 35 20.4**	**-1.5**
UOSS				IAmb	IAmb	03 36 00.1	
	comp=Z,11nm,1.4s						
JOW	**Kunigami**	**35.94**	**63**	P	**P**	**03 35 20.3**	**-2.3**
SONM	**Songino Array**	**35.94**	**16**	P	**P**	**03 35 24.3**	**+1.8**
	comp=Z,0.2nm,0.4s,baz=190,slow=7.5,SNR=4.0						
	comp=Z,0.2nm,0.4s						
SONM	**Songino Array**	**35.94**	**16**	P	**P**	**03 35 23.2**	**+0.7**
KURBB	**Kurchatov Arra**	**38.49**	**346**	P	**P**	**03 35 46.5**	**+2.6**
	comp=Z,0.2nm,0.3s,baz=167,slow=8.4,SNR=3.3						
	comp=Z,0.2nm,0.3s						
TJN	**Taejon**	**38.54**	**48**	P	**P**	**03 35 44.6**	**0.0**
KURK	**Kurchatov**	**38.55**	**346**	P	**P**	**03 35 45.1**	**+0.7**
KURK				IAmb	IAmb	03 36 04.7	
	comp=Z,3.5nm,1.1s						
KS19	**Wonju Array Si**	**39.41**	**47**	P	**P**	**03 35 52.5**	**+0.7**
ZALV	**Zalesovo Beam**	**40.57**	**353**	P	**P**	**03 36 00.8**	**-0.4**
	comp=Z,0.6nm,0.4s,baz=184,slow=10.0,SNR=2.3						
	comp=Z,0.6nm,0.4s						
ZALV	**Zalesovo Beam**	**40.57**	**353**	P	**P**	**03 36 01.6**	**+0.4**
MTN	**Manton Dam**	**46.57**	**123**	P	**P**	**03 36 51.2**	**+1.1**
MTN				IAmb	IAmb	03 37 22.1	
	comp=Z,7.0nm,1.2s						
WB0	**Warramunga Arr**	**53.05**	**128**	P	**P**	**03 37 38.5**	**-0.8**
WB0				IAmb	IAmb	03 38 02.3	
	comp=Z,3.5nm,1.1s						
WRA	**Warramunga Arr**	**53.11**	**128**	P	**P**	**03 37 39.1**	**-0.7**
	comp=Z,0.5nm,0.7s,baz=310,slow=7.6,SNR=3.2						
	comp=Z,0.5nm,0.7s						
WRA	**Warramunga Arr**	**53.11**	**128**	P	**P**	**03 37 39.5**	**-0.3**
ASAR	**Alice Springs**	**55.02**	**132**	P	**P**	**03 37 53.0**	**-0.6**
	comp=Z,0.4nm,0.4s,baz=306,slow=6.9,SNR=5.7						
	comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	**55.02**	**132**	P	**P**	**03 37 53.5**	**-0.2**
KMBO	**Kilima Mbogo**	**56.61**	**259**	P	**P**	**03 38 05.3**	**-0.2**
KMBO				IAmb	IAmb	03 38 08.0	
	comp=Z,1.8nm,1.1s						
BRTR	**Keskin Array B**	**57.41**	**308**	P	**P**	**03 38 12.0**	**+1.2**
	comp=Z,0.8nm,0.8s,baz=87,slow=6.4,SNR=4.8						
	comp=Z,0.8nm,0.8s						
BRTR	**Keskin Array B**	**57.41**	**308**	P	**P**	**03 38 11.8**	**+1.1**
H04N2	**CROZET ISLANDS**	**69.94**	**209**	T	T	04 56 36.3	
	baz=44,slow=75,SNR=6.6						
H04N1	**CROZET ISLANDS**	**69.94**	**209**	T	T	04 56 35.9	
	baz=44,slow=75,SNR=6.6						
H04N3	**CROZET ISLANDS**	**69.95**	**209**	T	T	04 56 37.8	
	baz=44,slow=75,SNR=7.3						
GERES	**GERESS Array B**	**72.38**	**317**	P	**P**	**03 39 48.4**	**+0.4**
	comp=Z,0.3nm,0.6s,baz=96,slow=7.1,SNR=3.9						
	comp=Z,0.3nm,0.6s						
GERES	**GERESS Array B**	**72.38**	**317**	P	**P**	**03 39 49.0**	**+1.0**

*NNC **17** 03:31:05.0±1.2, 51°.12N×73°.84E, h0km, mb3.2, mpv2.9, Error ellipse: s-maj=25.2km s-min=3.2km az=25.0, Suspected Mining explosion.*
*IDC **17** 03:31:05.2±1.5, 51°.09N×73°.81E, h0km, mbtmp2.7/4, ML1.8/4, Error ellipse: s-maj=22.7km s-min=9.6km az=32.0.*
ISC 17 03:31:06.3±1.0, **51°.15N**±0°.10×**73°.90E**±0°.05, **h0km, n9, σ1s66/11, 4C-3D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BVA0	**Borovoye Array**	**2.87**	**312**	⇓Pg	**Pb**	**03 31 57.2**	**-1.0**
	baz=133,slow=17,SNR=10						
BVA0				⇓Lg	Lg	03 32 35.4	
	baz=128,slow=30,SNR=12						
BVAR	**Borovoye Array**	**2.87**	**312**	Pn	**Pn**	**03 31 53.6**	**+0.3**
	0.1nm,0.3s,baz=128,slow=17,SNR=9.7						
BVAR				Lg	Lg	03 32 36.6	
	0.3nm,0.3s,baz=130,slow=29,SNR=8.2						
	2.5nm,0.6s						
BVAR				AML	AML		
KURBB	**Kurchatov Arra**	**2.98**	**98**	Pn	**Pn**	**03 31 55.1**	**+0.4**
	0.1nm,0.3s,baz=279,slow=14,SNR=23						
KURBB				Pg	**Pg**	**03 32 01.5**	**-1.8**
	0.3nm,0.3s,baz=281,slow=14,SNR=9.3						
KURBB				Lg	Lg	03 32 40.4	
	0.7nm,0.3s,baz=278,slow=30,SNR=12						
	2.7nm,0.6s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**2.98**	**98**	⇑Pg	**Pb**	**03 32 00.1**	**-0.1**
	7.8nm,0.6s						
KURBB				⇓Lg	Lg	03 32 39.4	
	58nm,0.7s						
KURK	**Kurchatov**	**3.02**	**96**	⇑Pg	**Pb**	**03 32 00.7**	**-0.1**
	1.0nm,0.5s						
KURK				⇑Lg	Lg	03 32 42.6	
	6.2nm,0.6s						
MK31	**Makanchi Array**	**7.03**	**125**	⇑Lg	Lg	03 34 47.0	
	4.1nm,0.7s,baz=309,slow=27,SNR=4.7						
MKAR	**Makanchi Array**	**7.03**	**125**	Pn	**Pn**	**03 32 50.5**	**0.0**
	baz=316,slow=10,SNR=2.3						
MKAR				Pg	**Pb**	**03 33 12.3**	**+3.1**
	0.2nm,0.3s,baz=304,slow=13,SNR=5.8						
MKAR				Sn	**Sn**	**03 34 10.1**	**-1.0**
	0.1nm,0.3s,baz=329,slow=18,SNR=1.5						
MKAR				Lg	Lg	03 34 43.7	
	0.4nm,0.3s,baz=311,slow=28,SNR=6.4						
	0.1nm,0.4s						
I46RU	**ZALESOVO INFRA**	**7.22**	**63**	I	I	04 16 00.0	
	baz=247,slow=323,SNR=2.1						
ZALV	**Zalesovo Beam**	**7.22**	**63**	Pn	**Pn**	**03 32 55.5**	**+2.5**
	0.1nm,0.3s,baz=244,slow=16,SNR=2.3						
ZALV				Sn	**Sn**	**03 34 14.8**	**-0.8**
	0.2nm,0.3s,baz=276,slow=26,SNR=1.0						
	0.5nm,0.4s						
ZALV				AML	AML		

*IDC **17** 03:50:22.8±1.4, 13°.44N×92°.20W, h0km, mb3.9/4, mbtmp3.9/8, ML3.5/4, Error ellipse: s-maj=27.1km s-min=15.5km az=21.0*
*MEX **17** 03:50:25.0±0.9, 13°.49N×92°.26W, h10km, MD4.4, Presumed earthquake*
*NEIC **17** 03:50:27.6±1.6, 13°.78N±0°.04×92°.02W±0°.06, h10km±1km, mb4.2/54, Md4.4/57(MEX), Error ellipse: s-maj=11.4km s-min=5.3km az=240.0*
*CATAC **17** 03:50:28.5±0.7, 14°.N±4°.×9°.2W±°, h23km±6km, M4.2/18, MLv4.2/18, Error ellipse: s-maj=12.5km s-min=4.0km az=44.5, confirmed*
*GCG **17** 03:50:28.5±1.9, 13°.78N×91°.91W, h13km±25km, MD4.6, Presumed earthquake*
ISC 17 03:50:24.0±2.1, **13°.68N**±0°.05×**92°.14W**±0°.03, **h6km**±12km, **n158, σ2s06/205, mb4.2/21, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RTAL	**Retalhuleu**	**0.94**	**27**	P	**Pn**	**03 50 44.2**	**+0.3**
RTAL	**Retalhuleu**	**0.94**	**27**		**Pn**	**03 50 44.3**	**+0.5**
RTAL					**Sg**	**03 50 54.0**	**-0.4**
RTAL	**Retalhuleu**	**0.94**	**27**	*e*P	**Pn**	**03 50 44.1**	**+0.3**
RTAL				*e*S	**Sn**	**03 50 58.0**	**+0.4**
STG8	**El Palmar, Qui**	**1.08**	**45**	*i* P	**Pn**	**03 50 46.8**	**+0.9**
THIG		**1.23**	**354**		**Pn**	**03 50 47.5**	**-0.2**
THIG					**Sn**	**03 51 04.3**	**-0.4**
THIG		**1.23**	**354**	*i* P	**Pn**	**03 50 47.9**	**+0.2**
THIG		**1.23**	**354**	*e*P	**Pn**	**03 50 47.5**	**-0.2**
THIG				*e*S	**Sn**	**03 51 04.3**	**-0.4**
QUIG	**Labor Ovalle**	**1.33**	**27**	*i* P	**Pn**	**03 50 49.4**	**-0.1**
CHUJ	**Union Juarez**	**1.41**	**1**	*e*P	**Pn**	**03 50 49.8**	**-0.6**
CHUJ				*e*S	**Sg**	**03 51 09.9**	**+0.6**
PATR	**El Naranjo**	**1.43**	**356**		**Pn**	**03 50 50.0**	**-0.8**
PATR					**Sg**	**03 51 10.3**	**+0.2**
PATR	**El Naranjo**	**1.43**	**356**	*e*P	**Pn**	**03 50 50.0**	**-0.8**
PATR				*e*S	**Sg**	**03 51 10.3**	**+0.2**
PAVE	**Pavencul**	**1.51**	**359**		**Pn**	**03 50 51.2**	**-0.6**
PAVE					**Sn**	**03 51 10.9**	**-0.9**
PAVE	**Pavencul**	**1.51**	**359**	*e*P	**Pn**	**03 50 51.2**	**-0.6**
PAVE				*e*S	**Sn**	**03 51 10.9**	**-0.9**
FG08	**Yepocapa, Chim**	**1.64**	**69**	*i* P	**Pn**	**03 50 49.4**	**-4.0**
FG16	**Alotenango, Sa**	**1.69**	**69**	*i* P	**Pn**	**03 50 50.6**	**-3.6**
HUEH	**Huehuetenango**	**1.74**	**21**	P	**Pb**	**03 50 56.3**	**-0.2**
HUEH	**Huehuetenango**	**1.74**	**21**		**Pb**	**03 50 55.9**	**-0.7**
HUEH	**Huehuetenango**	**1.74**	**21**		**Sg**	**03 51 21.0**	**+0.9**
HUEH	**Huehuetenango**	**1.74**	**21**	*i* P	**Pb**	**03 50 56.1**	**-0.5**
HUEH	**Huehuetenango**	**1.74**	**21**	*e*P	**Pb**	**03 50 56.1**	**-0.5**
HUEH				*e*S	**Sg**	**03 51 21.0**	**+0.9**
PCG5	**San Vicente Pa**	**1.79**	**72**	*i* P	**Pn**	**03 50 52.7**	**-2.9**
FAME	**Alcaldia de Sa**	**2.07**	**85**	P	**Pn**	**03 50 58.1**	**-1.1**
FAME				S	**Sn**	**03 51 23.6**	**-1.8**
APG	**El Apazote**	**2.09**	**51**	Pn	**Pb**	**03 51 01.2**	**-1.3**
	1.9nm,0.3s,baz=211,slow=16,SNR=115						
APG				Sn	**Sg**	**03 51 29.1**	**-2.1**
	4.7nm,0.3s,baz=232,slow=19,SNR=7.4						
	21nm,0.7s						
APG				AML	AML		
PCIG		**2.27**	**333**		**Pn**	**03 51 02.2**	**+0.1**
PCIG					**Sn**	**03 51 29.4**	**-1.0**
PCIG		**2.27**	**333**	*e*P	**Pn**	**03 51 02.2**	**+0.1**
PCIG				*e*S	**Sn**	**03 51 29.4**	**-1.0**
NUBE	**Las Nubes**	**2.30**	**84**	P	**Pn**	**03 51 02.3**	**-0.3**
NUBE				S	**Sn**	**03 51 28.5**	**-2.9**
NUBE	**Las Nubes**	**2.30**	**84**	*i* P	**Pn**	**03 51 02.1**	**-0.5**
LOAL	**Lomas de Alarc**	**2.31**	**82**	P	**Pn**	**03 51 02.6**	**-0.1**
LOAL				S	**Sn**	**03 51 29.0**	**-2.5**
SLOZ	**Alcaldia de Sa**	**2.31**	**81**	P	**Pn**	**03 51 02.5**	**-0.2**
JUAM	**Asuncion Mita**	**2.45**	**74**	*i* P	**Pn**	**03 51 04.8**	**+0.2**
UNIC	**Universidad Ca**	**2.53**	**83**	P	**Pn**	**03 51 05.9**	**+0.2**
UNIC				S	**Sn**	**03 51 34.9**	**-2.0**
CCIG	**Comitan**	**2.59**	**0**		**Pn**	**03 51 09.0**	**+2.4**
CCIG	**Comitan**	**2.59**	**0**		**Sb**	**03 51 40.4**	**-2.7**
CCIG	**Comitan**	**2.59**	**0**	*i* P	**Pb**	**03 51 10.1**	**-0.8**
CCIG	**Comitan**	**2.59**	**0**	*e*P	**Pb**	**03 51 10.1**	**-0.8**
CCIG				*e*S	**Sb**	**03 51 40.4**	**-2.7**
JAYA	**Jayaque - finc**	**2.61**	**90**	P	**Pn**	**03 51 05.8**	**-1.1**
JAYA				S	**Sn**	**03 51 36.5**	**-2.5**
PMON	**Piamonte**	**2.74**	**89**	P	**Pn**	**03 51 04.1**	**+0.4**
PMON				S	**Sn**	**03 51 40.2**	**-2.0**
UEES	**Universidad Ev**	**2.82**	**89**	S	**Sn**	**03 51 41.7**	**-2.3**
ESQI	**Esquipulas**	**2.85**	**72**	P	**Pn**	**03 51 10.3**	**+0.2**
ESQI	**Esquipulas**	**2.85**	**72**		**Pn**	**03 51 10.2**	**+0.1**
PANCS	**Alcalda de**	**2.88**	**91**	S	**Sn**	**03 51 43.0**	**-2.4**
LOMA	**Loma Larga**	**2.88**	**90**	P	**Pn**	**03 51 10.9**	**+0.3**
LOMA				S	**Sn**	**03 51 43.7**	**-2.1**
PAVA	**Las Pavas**	**3.11**	**89**	P	**Pn**	**03 51 14.4**	**+0.6**
COEG	**Centro de Oper**	**3.17**	**91**	P	**Pn**	**03 51 15.1**	**+0.7**
COEG				S	**Sn**	**03 51 51.2**	**-1.4**
TGIG		**3.23**	**343**		**Pn**	**03 51 16.1**	**+0.8**
TGIG					**Sn**	**03 51 55.3**	**+1.3**
TGIG		**3.23**	**343**	*e*P	**Pn**	**03 51 16.1**	**+0.8**
TGIG				*e*S	**Sn**	**03 51 55.3**	**+1.3**
SARH	**Santa Rosa de**	**3.45**	**71**	*i* P	**Pn**	**03 51 18.7**	**+0.3**
ALJI	**Alcalda de J**	**3.49**	**95**	S	**Sn**	**03 51 57.3**	**-3.1**
PACA	**Pacayal**	**3.71**	**93**	S	**Sn**	**03 52 04.7**	**-1.6**
RANC	**El Ranchito**	**3.75**	**93**	S	**Sn**	**03 52 05.0**	**-2.2**
PETF	**Flores**	**3.89**	**34**	P	**Pn**	**03 51 26.0**	**+1.6**
PETF	**Flores**	**3.89**	**34**		**Pn**	**03 51 25.8**	**+1.4**
PETF	**Flores**	**3.89**	**34**		**Sb**	**03 52 15.1**	**-5.4**
PETF	**Flores**	**3.89**	**34**	*e*P	**Pn**	**03 51 25.4**	**+1.0**
PETF				*e*S	**Sb**	**03 52 15.1**	**-5.4**
UXUV	**UXUV**	**4.10**	**332**		**Pn**	**03 51 30.3**	**+3.0**
UXUV					**Sn**	**03 52 13.3**	**-2.3**
UXUV	**UXUV**	**4.10**	**332**	*e*P	**Pn**	**03 51 30.3**	**+3.0**
UXUV				*e*S	**Sn**	**03 52 13.3**	**-2.3**
LCND	**La Caada**	**4.15**	**95**	P	**Pn**	**03 51 28.1**	**+0.2**
CNCH	**Conchagua**	**4.21**	**95**	P	**Pn**	**03 51 28.8**	**0.0**
CNCH				S	**Sn**	**03 52 15.2**	**-3.2**
CMIG	**Matias Romero**	**4.30**	**322**	Pn	**Pn**	**03 51 31.3**	**+1.3**
	2.1nm,0.3s,baz=142,slow=11,SNR=14						
CMIG				Sn	**Sn**	**03 52 20.4**	**-0.2**
	4.1nm,0.3s,baz=133,slow=18,SNR=4.6						
	4.9nm,0.4s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**4.30**	**322**		**Pn**	**03 51 29.4**	**-0.6**
CMIG					**Sn**	**03 52 22.7**	**+2.1**
CMIG	**Matias Romero**	**4.30**	**322**	*e*P	**Pn**	**03 51 29.4**	**-0.6**
CMIG				*e*S	**Sn**	**03 52 22.7**	**+2.1**
HUIG	**Huatulco**	**4.37**	**299**		**Pn**	**03 51 31.2**	**+0.3**
HUIG					**Sn**	**03 52 19.3**	**-2.9**
HUIG	**Huatulco**	**4.37**	**299**	*e*P	**Pn**	**03 51 31.2**	**+0.3**
HUIG				*e*S	**Sn**	**03 52 19.3**	**-2.9**
TGUH	**Tegucigalpa,Un**	**4.74**	**85**	Pn	**Pn**	**03 51 37.0**	**+0.9**
NEUV	**Arroyo Zacate**	**5.34**	**319**		**Pn**	**03 51 43.4**	**-0.9**
NEUV					**Sn**	**03 52 42.3**	**-3.9**
NEUV	**Arroyo Zacate**	**5.34**	**319**	*e*P	**Pn**	**03 51 43.4**	**-0.9**
NEUV				*e*S	**Sn**	**03 52 42.3**	**-3.9**
PEIG	**Puerto Escondi**	**5.37**	**296**		**Pn**	**03 51 43.8**	**-0.8**
PEIG					**Sn**	**03 52 42.4**	**-4.4**
PEIG	**Puerto Escondi**	**5.37**	**296**	*e*P	**Pn**	**03 51 43.8**	**-0.8**
PEIG				*e*S	**Sn**	**03 52 42.4**	**-4.4**
OXIG	**Oaxaca**	**5.57**	**308**		**Pn**	**03 51 45.4**	**-2.3**
OXIG					Sn	03 52 44.2	-7.9
VHO	**Vista Hermosa**	**5.57**	**308**	*e*P	**Pn**	**03 51 45.4**	**-2.3**
VHO				*e*S	Sn	03 52 44.2	-7.9
YOIG	**Yosondua**	**6.10**	**302**		Pn	03 51 51.0	-4.0
YOIG					**Sn**	**03 53 03.2**	**-2.1**
YOIG	**Yosondua**	**6.10**	**302**	*e*P	Pn	03 51 51.0	-4.0
YOIG				*e*S	**Sn**	**03 53 03.2**	**-2.1**
PNIG	**Pinotepa**	**6.38**	**296**		**Pn**	**03 51 58.1**	**-0.6**
PNIG					**Sn**	**03 53 07.9**	**-4.0**
PNIG	**Pinotepa**	**6.38**	**296**	*e*P	**Pn**	**03 51 58.1**	**-0.6**
PNIG				*e*S	**Sn**	**03 53 07.9**	**-4.0**
TOIG	**Toxpalan**	**6.46**	**313**		Pn	03 51 56.0	-3.8
TOIG					**Sn**	**03 53 10.9**	**-3.1**
TOIG	**Toxpalan**	**6.46**	**313**	*e*P	Pn	03 51 56.0	-3.8
TOIG				*e*S	**Sn**	**03 53 10.9**	**-3.1**
TXIG	**Tlaxiaco**	**6.49**	**304**		**Pn**	**03 52 02.3**	**+2.0**
TXIG					**Sn**	**03 53 14.3**	**-0.6**
TXIG	**Tlaxiaco**	**6.49**	**304**	*e*P	**Pn**	**03 52 02.3**	**+2.0**
TXIG				*e*S	**Sn**	**03 53 14.3**	**-0.6**
HLIG	**Huajuapan de L**	**6.84**	**308**		**Pn**	**03 52 07.8**	**+2.7**
HLIG					**Sn**	**03 53 23.9**	**+0.4**
HLIG	**Huajuapan de L**	**6.84**	**308**	*e*P	**Pn**	**03 52 07.8**	**+2.7**
HLIG				*e*S	**Sn**	**03 53 23.9**	**+0.4**
TPIG	**Tehuac#an**	**6.89**	**314**		**Pn**	**03 52 04.8**	**-0.9**
TPIG					**Sn**	**03 53 24.0**	**-0.6**
TPIG	**Tehuac#an**	**6.89**	**314**	*e*P	**Pn**	**03 52 04.8**	**-0.9**
TPIG				*e*S	**Sn**	**03 53 24.0**	**-0.6**
FTIG	**Fresnillo de T**	**7.14**	**307**		**Pn**	**03 52 11.2**	**+2.0**
FTIG					**Sn**	**03 53 23.9**	**-6.8**
FTIG	**Fresnillo de T**	**7.14**	**307**	*e*P	**Pn**	**03 52 11.2**	**+2.0**
FTIG				*e*S	**Sn**	**03 53 23.9**	**-6.8**
JAUV	**Jalcomulco**	**7.21**	**322**		**Pn**	**03 52 10.3**	**+0.3**
JAUV					**Sn**	**03 53 28.1**	**-4.2**
JAUV	**Jalcomulco**	**7.21**	**322**	*e*P	**Pn**	**03 52 10.3**	**+0.3**
JAUV				*e*S	**Sn**	**03 53 28.1**	**-4.2**
TLIG	**Tlapa**	**7.30**	**303**		**Pn**	**03 52 15.1**	**+3.7**
TLIG					**Sn**	**03 53 32.3**	**-2.3**
TLIG	**Tlapa**	**7.30**	**303**	*e*P	**Pn**	**03 52 15.1**	**+3.7**
TLIG				*e*S	**Sn**	**03 53 32.3**	**-2.3**
CRIG	**Cruz Grande**	**7.40**	**295**		**Pn**	**03 52 13.8**	**+1.2**
CRIG					Sn	03 53 28.5	-8.5
CRIG	**Cruz Grande**	**7.40**	**295**	*e*P	**Pn**	**03 52 13.8**	**+1.2**
CRIG				*e*S	Sn	03 53 28.5	-8.5
TEIG	**Tepich**	**7.49**	**29**		**Pn**	**03 52 13.5**	**-0.3**
JTS	**Las Juntas de**	**7.79**	**115**	Pn	**Pn**	**03 52 19.2**	**+1.2**
	1.5nm,0.3s,baz=305,slow=19,SNR=5.0						
	2.9nm,0.3s						
JTS				AML	AML		
JTS	**Las Juntas de**	**7.79**	**115**		**Pn**	**03 52 20.8**	**+2.8**
PPM	**Popocatepetl**	**8.21**	**312**	*e*P	**Pn**	**03 52 22.2**	**-2.0**
PPIG	**Popocatepetl**	**8.21**	**312**		**Pn**	**03 52 22.2**	**-2.0**
SAND	**Sanderson**	**18.64**	**332**		**Pn**	**03 54 45.4**	**+2.5**
TXAR	**Lajitas Array**	**18.89**	**327**	P	**Pn**	**03 54 47.8**	**+1.9**
	0.1nm,0.3s,baz=152,slow=11,SNR=23						
	4.3nm,0.9s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**18.89**	**327**		**P**	**03 54 46.7**	**+1.3**
TX31	**Lajitas Ar. Si**	**18.89**	**327**		**P**	**03 54 45.5**	**+0.1**
OZNA	**Ozona**	**19.05**	**336**		**Pn**	**03 54 49.7**	**+1.8**
ALPN	**Alpine**	**19.72**	**329**	P	**Pn**	**03 54 58.1**	**+2.2**
PLPT	**Palo Pinto**	**19.86**	**345**	P	**P**	**03 54 57.2**	**+1.3**
PLPT				IAmb	IAmb	03 55 23.1	
	comp=Z,7.4nm,1.1s						
SGCY	**Sterling City**	**19.93**	**337**	P	**Pn**	**03 54 59.1**	**+0.7**
SGCY				IAmb	IAmb	03 54 59.8	
	comp=Z,12nm,1.1s						
TMB01	**Midkiff**	**20.10**	**335**	P	Pn	03 55 00.7	+0.3
MNHN	**Monahans**	**20.11**	**333**		Pn	03 55 01.2	+0.7
MNHN				IAmb	IAmb	03 55 04.4	
	comp=Z,10nm,0.8s						
229A	**Bryant Ranch,**	**20.25**	**336**	P	Pn	03 55 02.4	+0.3
TPB01	**Permian Basin**	**20.25**	**330**	P	Pn	03 55 03.6	+1.4
TPB01				IAmb	IAmb	03 55 06.2	
	comp=Z,4.0nm,0.7s						
RUSC	**La Rusia**	**20.30**	**111**	P	**P**	**03 55 02.1**	**+0.9**
RUSC				IAmb	IAmb	03 55 12.3	
	comp=Z,13nm,1.1s						
VHRN	**Van Horn**	**20.74**	**327**		**P**	**03 55 07.5**	**+1.9**
MIAR	**Mount Ida**	**20.82**	**357**	P	**P**	**03 55 07.0**	**+0.8**
MIAR				IAmb	IAmb	03 55 47.9	
	comp=Z,15nm,1.4s						
APMT	**Aspermont**	**20.87**	**341**		**P**	**03 55 08.1**	**+1.2**
APMT				IAmb	IAmb	03 55 08.8	
	comp=Z,7.9nm,0.8s						
128A	**Castleberry Fa**	**21.09**	**335**	P	**P**	**03 55 09.9**	**+0.6**
128A				IAmb	IAmb	03 55 12.5	
	comp=Z,7.0nm,0.9s						
POST	**Post**	**21.10**	**338**		**P**	**03 55 10.1**	**+0.7**
POST				IAmb	IAmb	03 55 11.4	
	comp=Z,12nm,0.8s						
TPB11	**China Draw**	**21.19**	**331**	P	**P**	**03 55 12.8**	**+2.4**
TPB11				IAmb	IAmb	03 55 17.6	
	comp=Z,9.7nm,1.0s						
TPB28		**21.20**	**330**	P	**P**	**03 55 10.6**	**+0.1**
TPB28				IAmb	IAmb	03 55 11.8	
	comp=Z,13nm,0.4s						
CLNB	**Carlsbad**	**21.39**	**332**	P	**P**	**03 55 14.7**	**+2.1

AFAD 17 04:05:26.5, 38˚01N×27˚23E, h7km±7km, ML1.6, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUVT	**Torbali**	**0.27**	**40**	P	Pg	04 05 30.9	-0.9
DUVT				S	Sb	04 05 37.3	-1.3
DGB	**zmir**	**0.28**	**279**	P	Pg	04 05 32.5	+0.6
DGB				S	Sb	04 05 37.2	-1.4
DGB				IAML		04 05 38.0	
	comp=N,169nm,0.1s						
GCAM	**G?zelcaml?**	**0.31**	**179**	P	Pg	04 05 32.5	0.0
GCAM				S	Sb	04 05 38.5	-1.1
GCAM	**G?zelcaml?**	**0.31**	**179**	P	Sb	04 05 38.2	-1.4
GCAM	**G?zelcaml?**	**0.31**	**179**	Pg	Sb	04 05 38.4	-1.2
BEYE	**izmir**	**0.32**	**312**	P	Pg	04 05 31.7	-1.1
BEYE				IAML		04 05 40.0	
	comp=N,74nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.61**	**292**	P	Pg	04 05 36.8	-1.6
ZEYE				S	Sg	04 05 44.1	-2.3

AFAD 17 04:05:30.9, 38˚04N×27˚11E, h7km±4km, ML1.7

ISK 17 04:05:30.7, 38˚03N×27˚09E, h5km, ML2.0/9, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GMLD	**Gumuldur**	**0.15**	**288**	Pg	Pg	04 05 34.7	+1.0
GMLD				Sg	Sg	04 05 37.8	+2.1
GMLD				AML	AML		
DGB	**zmir**	**0.17**	**277**	P	Pg	04 05 35.5	+1.4
KUSD	**Kusadasi-Aydin**	**0.23**	**138**	Pg	Pg	04 05 35.5	+0.3
KUSD				AML	AML		
BEYE	**izmir**	**0.23**	**326**	P	Pg	04 05 34.9	-0.4
BEYE				S	Sg	04 05 39.3	+0.9
BEYE	**izmir**	**0.23**	**326**	S	Sg	04 05 39.0	+0.6
DUVT	**Torbali**	**0.34**	**56**	P	Pg	04 05 38.0	+0.7
DUVT				S	Sg	04 05 41.6	-0.1
DUVT				IAML		04 05 43.0	
	comp=E,93nm,0.2s						
GCAM	**G?zelcaml?**	**0.35**	**162**	S	Sg	04 05 42.8	+0.7
GCAM				IAML		04 05 44.0	
	comp=N,96nm,0.4s						
GCAM	**G?zelcaml?**	**0.35**	**162**	Sg	Sg	04 05 43.4	+1.4
GCAM				AML	AML		
BLCB	**Balcova**	**0.35**	**353**	Pg	Pg	04 05 38.5	+0.9
BLCB				Sg	Sg	04 05 43.6	+1.3
ZEYE	**Izmir, Urla-Ze**	**0.51**	**294**	P	Pb	04 05 41.6	-0.5
ZEYE				S	Sg	04 05 48.3	+1.2
DAGE	**izmir**	**0.52**	**93**	P	Pb	04 05 41.6	-0.7
DAGE				S	Sg	04 05 47.7	+0.2
DAGE				IAML		04 05 48.0	
	comp=N,48nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.64**	**97**	Pg	Pg	04 05 43.4	+0.5
AYDB				AML	AML		
BAGT	**Foa**	**0.65**	**343**	P	Pb	04 05 44.4	-0.2
BAGT	**Foa**	**0.65**	**343**	P	Pb	04 05 44.1	-0.4
BAGT				IAML		04 05 52.0	
	comp=N,41nm,1.3s						
BAGT				S	Sb	04 05 52.9	-1.0
FOCM	**Foa**	**0.74**	**337**	Pg	Pg	04 05 45.4	+0.5
FOCM				Sg	Sb	04 05 56.1	-0.3
FOCM				AML	AML		
CHOS	**Chios island**	**0.89**	**294**	Pg	Pb	04 05 48.3	-0.4
CHOS				AML	AML		
MLSB	**Milas**	**0.91**	**143**	Pg	Pg	04 05 48.5	+0.3
MLSB				AML	AML		
BODT	**Bodrum**	**0.98**	**170**	Pg	Pb	04 05 50.0	-0.2
DKL	**Dikili**	**1.05**	**352**	Pg	Pb	04 05 51.1	-0.2
DKL				AML	AML		

NEIC 17 04:46:07.9±2.0, 5˚70S±0˚05×140˚7E±0˚2, h10km±1km, mb4.1/12, Error ellipse: s-maj=27.5km s-min=5.7km az=105.0
IDC 17 04:46:08.2±1.6, 5˚51S×140˚66E, h0km, mb3.8/1, mbtmp3.6/4, ML3.5/3, Error ellipse: s-maj=80.6km s-min=15.8km az=100.0

ISC 17 04:46:10.4±0.8, 5˚72S±0˚07×140˚6E±0˚2, h35km, n19, σ1º41/22, mb4.2/4, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAY	**Jayapura**	**3.19**	**2**	Pn	**Pn**	**04 46 57.0**	**-1.1**
	5.6nm,0.3s,baz=187,slow=11,SNR=14						
JAY				Sn	**Sn**	**04 47 34.7**	**-0.2**
	4.1nm,0.3s,baz=321,slow=23,SNR=6.0 15nm,0.4s						
JAY				AML	AML		
MTN	**Manton Dam**	**11.73**	**232**	Pn	**Pn**	**04 48 56.0**	**+0.6**
WB0	**Warramunga Arr**	**15.22**	**203**	Pn	**Pn**	**04 49 44.2**	**+1.3**
WB0				IAmb	IAmb	04 49 53.1	
	comp=Z,5.8nm,1.1s						
KNRA	**Kununurra**	**15.27**	**229**	Pn	**Pn**	**04 49 44.9**	**+1.4**
KNRA				IAmb	IAmb	04 50 21.0	
	comp=Z,6.5nm,1.1s						
WR8	**Warramunga Arr**	**15.35**	**202**	Pn	**Pn**	**04 49 44.2**	**-0.4**
WR8				IAmb	IAmb	04 50 06.8	
	comp=Z,4.8nm,1.1s						
WB2	**Warramunga Arr**	**15.39**	**203**	Pn	**Pn**	**04 49 46.0**	**+0.9**
WRA	**Warramunga Arr**	**15.40**	**203**	Pn	**Pn**	**04 49 46.6**	**+1.5**
	comp=Z,0.2nm,0.3s,baz=21,slow=13,SNR=4.9						
WRA				Sn	**Sn**	**04 52 33.5**	**-1.2**
	baz=24,slow=21,SNR=2.4 comp=Z,0.6nm,0.7s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**15.40**	**203**	Pn	**Pn**	**04 49 43.8**	**-1.4**
AS31	**Alice Springs**	**18.97**	**199**	P	**Pn**	**04 50 31.1**	**+1.2**
ASAR	**Alice Springs**	**18.98**	**199**	P	**Pn**	**04 50 33.2**	**+3.4**
	comp=Z,0.3nm,0.3s,baz=33,slow=9.8,SNR=15						
ASAR				S	**Sn**	**04 54 00.7**	**-0.8**
	comp=Z,0.5nm,0.6s,baz=16,slow=28,SNR=3.3 comp=Z,0.8nm,0.4s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**18.98**	**199**	P	**Pn**	**04 49 29.7**	**-0.2**
GUMO	**Guam**	**19.64**	**12**		**P**	**04 50 35.5**	**-0.8**
EIDS	**Eidsvold**	**21.96**	**154**	P	**P**	**04 51 00.9**	**-0.4**
EIDS				IAmb	IAmb	04 51 32.4	
	comp=Z,3.1nm,0.8s						
STKA	**Stephens Creek**	**26.04**	**178**	P	**P**	**04 51 38.8**	**-1.7**
STKA				IAmb	IAmb	04 52 06.5	
	comp=Z,17nm,1.3s						
JAGI	**Jajag, Banyuwa**	**26.39**	**263**	P	**P**	**04 51 44.2**	**+0.3**
JAGI				IAmb	IAmb	04 52 03.7	
	comp=Z,33nm,1.1s						
GIRL	**Giralia**	**30.52**	**234**	P	**P**	**04 52 20.1**	**-0.4**
TAU	**Tasmania Unive**	**37.51**	**172**	P	**P**	**04 53 21.0**	**0.0**
ILAR	**Eielson Array**	**87.78**	**24**	P	**P**	**04 58 58.1**	**+2.6**
	comp=Z,0.4nm,0.7s,baz=258,slow=5.7,SNR=5.5 comp=Z,0.4nm,0.7s						
ILAR	**Eielson Array**	**87.78**	**24**	P	**P**	**04 58 57.0**	**+1.4**

IDC 17 04:52:22.7±7.7, 14˚95S×165˚44E, h0km, mb4.0/4, mbtmp4.0/5, ML3.9/1, Error ellipse: s-maj=135.6km s-min=21.9km az=55.0
NOU 17 04:52:26.5, 14˚95S×167˚40E, h89km, MLv4.4/18, Vanuatu Islands

ISC 17 04:52:11.7±3.3, 13˚9S±0˚2×167˚1E±0˚3, h35km, n14, σ0º95/12, mb4.0/4, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**1.53**	**177**	P	Pn	04 52 43.7	+7.1
SANVU	**Saraoutou**	**1.53**	**177**	S	**Sn**	**04 52 54.9**	**-0.4**
DVP	**Devils Point**	**3.93**	**165**	P	**Pn**	**04 53 09.9**	**+0.3**
DVP	**Devils Point**	**3.93**	**165**	S	Sn	04 53 44.7	-10
YATNC	**Mamie plateau,**	**8.11**	**181**	P	**Pn**	**04 54 06.6**	**-0.4**
	14nm,1.8s						
YATNC				AML	AML		
DZM	**Mont Dzumac**	**8.14**	**184**	Pn	**Pn**	**04 54 07.6**	**0.0**
	2.3nm,0.3s,baz=352,slow=14,SNR=34						
DZM				Sn	Sn	04 55 27.1	-11
	baz=66,slow=20 5.2nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**8.18**	**185**	P	**Pn**	**04 54 08.7**	**+0.7**
	10.0nm,0.5s						
NOUC				AML	AML		
ONTNC	**Ouen Toro**	**8.38**	**184**	P	**Pn**	**04 54 12.3**	**+1.6**
	24nm,0.7s						
ONTNC				AML	AML		
OUENC	**Ouen Island, N**	**8.47**	**182**	P	**Pn**	**04 54 13.4**	**+1.5**
PINNC	**Pines Island,**	**8.66**	**178**	P	**Pn**	**04 54 14.4**	**-0.2**
	28nm,1.8s						
PINNC				AML	AML		
STKA	**Stephens Creek**	**29.42**	**228**	P	**P**	**04 58 11.1**	**-0.9**
	1.7nm,0.4s,baz=44,slow=9.0,SNR=5.0 1.7nm,0.4s						
WRA	**Warramunga Arr**	**31.89**	**255**	P	**P**	**04 58 34.1**	**+0.1**
	0.5nm,0.7s,baz=87,slow=5.6,SNR=1.6 0.5nm,0.7s						
ASAR	**Alice Springs**	**32.84**	**248**	P	**P**	**04 58 41.6**	**-0.7**
	0.7nm,0.4s,baz=78,slow=9.1,SNR=6.0 0.7nm,0.4s						
FITZ	**Fitzroy Crossi**	**40.03**	**258**	P	**P**	**04 59 44.7**	**+1.0**
	1.7nm,0.6s,baz=80,slow=9.2,SNR=1.9 1.7nm,0.6s						

BJI 17 04:55:52.2, 18˚35N×146˚06E, h108km, mB5.0/5, mb4.7/14
NEIC 17 04:55:52.7±1.5, 18˚48N±0˚07×146˚2E±0˚1, h95km±5km, mb4.8/212, Error ellipse: s-maj=15.8km s-min=10.3km az=81.0
IDC 17 04:55:54.1±0.6, 18˚49N×146˚16E, h114km±5km, mb4.2/23, mbtmp4.5/25, MS3.4/7, Error ellipse: s-maj=15.7km s-min=7.9km az=97.0

ISC 17 04:55:51.0±0.5, 18˚54N±0˚05×146˚29E±0˚08, h84km±3km, h84km:pP-P,n235, σ1º14/180, mb4.8/118, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DPSS	**Saipan**	**3.31**	**188**		**Pn**	**04 56 42.0**	**+1.3**
GUMO	**Guam**	**5.11**	**196**	P	**Pn**	**04 57 07.8**	**+2.7**
	152nm,0.3s,baz=17,slow=12,SNR=4.9						
GUMO				S	**Sn**	**04 58 04.9**	**+2.1**
	239nm,0.5s,baz=190,slow=19,SNR=4.8						
GUMO	**Guam**	**5.11**	**196**	Pn	**Pn**	**04 57 05.9**	**+0.8**
JCJ	**Chichijima**	**9.32**	**337**	P	**Pn**	**04 58 02.4**	**-0.1**
	76nm,0.7s,baz=139,slow=19,SNR=2.0						
JCJ				S	**Sn**	**04 59 39.9**	**-5.7**
	56nm,0.4s,baz=290,slow=23,SNR=4.8						
JCJ	**Chichijima**	**9.32**	**337**	Pn	**Pn**	**04 58 04.6**	**+2.1**
PATS	**Pohnpei**	**16.51**	**133**	Pn	**Pn**	**04 59 36.9**	**-0.7**
JYT	**Yasato**	**18.42**	**344**	P	**Pn**	**05 00 01.4**	**+0.7**
JGF	**Kuroka**	**18.74**	**337**	P	**P**	**05 00 03.2**	**-0.1**
MJAR	**Matsushiro Arr**	**19.29**	**340**	P	**P**	**05 00 09.9**	**+0.7**
	1.5nm,0.3s,baz=173,slow=12,SNR=5.3						
MJAR	**Matsushiro Arr**	**19.29**	**340**	P	**P**	**05 00 09.7**	**+0.4**
H11S3	**WAKE ISLAND Hy**	**19.35**	**87**	T	T	05 21 05.0	
	baz=274,slow=75,SNR=20						
H11S1	**WAKE ISLAND Hy**	**19.36**	**87**	T	T	05 21 05.2	
	baz=274,slow=75,SNR=21						
H11S2	**WAKE ISLAND Hy**	**19.37**	**87**	T	T	05 21 06.3	
	baz=274,slow=75,SNR=28						
H11N1	**WAKE ISLAND Hy**	**19.51**	**83**	T	T	05 21 19.4	
	baz=267,slow=74,SNR=20						
H11N2	**WAKE ISLAND Hy**	**19.51**	**83**	T	T	05 21 19.9	
	baz=267,slow=74,SNR=14						
H11N3	**WAKE ISLAND Hy**	**19.52**	**83**	T	T	05 21 20.6	
	baz=267,slow=74,SNR=15						
JNU	**Nakatsue**	**20.04**	**319**	LR	LR	05 06 45.5	
	comp=Z,59nm,18.8s,baz=298,slow=33						
RABL	**Rabaul**	**23.32**	**165**	P	**P**	**05 00 50.8**	**-1.3**
ASAJ	**Asahikawa**	**25.69**	**354**	LR	LR	05 11 09.7	
	comp=Z,19nm,21.2s,baz=96,slow=36						
NJ2	**Nanjing**	**28.12**	**304**	*eP*	**P**		**05 01 35.3**	**+0.2**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HNR	**Honiara**	**30.89**	**153**	LR	LR	05 12 42.1	
	comp=Z,62nm,21.9s,baz=34,slow=33						
KLR	**Kul'dur**	**32.79**	**342**	P	**P**	**05 02 17.0**	**+0.9**
	7.3nm,0.5s,baz=149,slow=7.3,SNR=26 7.3nm,0.5s						
KAPI	**Kappang**	**35.10**	**231**	P	**P**	**05 02 37.2**	**+0.7**
	5.6nm,0.5s,baz=333,slow=2.4,SNR=4.2 5.6nm,0.5s						
KAPI	**Kappang**	**35.10**	**231**	P	**P**	**05 02 36.2**	**-0.4**
KAPI				IAmb	IAmb	05 03 18.3	
	comp=Z,20nm,1.4s						
KAPI	**Kappang**	**35.10**	**231**	P	**P**	**05 02 37.5**	**+1.0**
PETK	**Petropavlovsk-**	**35.63**	**12**	P	**P**	**05 02 42.7**	**+2.0**
	comp=Z,5.3nm,0.8s,baz=228,slow=11,SNR=3.7 comp=Z,5.3nm,0.8s						
PETK	**Petropavlovsk-**	**35.63**	**12**	P	**P**	**05 02 41.1**	**+0.5**
XAN	**Xi'an**	**36.65**	**302**	P	**P**	**05 02 52.6**	**+2.9**
HHC	**Hu-ho-hao-te**	**37.11**	**314**	*eP*	**P**	**05 02 54.8**	**+1.2**
HHC				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC				pmax	pmax		
	comp=Z,110nm,5.4s						
WB0	**Warramunga Arr**	**39.82**	**198**		**P**	**05 03 14.8**	**-1.5**
WRAB	**Tennant Creek**	**39.99**	**198**	P	**P**	**05 03 17.0**	**-0.7**
WRAB				IAmb	IAmb	05 03 25.6	
	comp=Z,19nm,1.1s						
WRAB	**Tennant Creek**	**39.99**	**198**	P	**P**	**05 03 17.3**	**-0.4**
WRAB				pP	**pP**	**05 03 37.8**	**+1.1**
WRA	**Warramunga Arr**	**40.00**	**198**	P	**P**	**05 03 17.0**	**-0.8**
	comp=Z,1.6nm,0.3s,baz=16,slow=8.8,SNR=15						
WRA				PcP	**PcP**	**05 05 20.4**	**-1.1**
	comp=Z,0.4nm,0.4s,baz=13,slow=3.2,SNR=4.7 comp=Z,1.6nm,0.3s						
WRA	**Warramunga Arr**	**40.00**	**198**	P	**P**	**05 03 16.1**	**-1.7**
LZH	**Lanzhou**	**41.20**	**304**	*eP*	**P**	**05 03 28.8**	**+1.0**
LZH				pmax	pmax		
	comp=Z,17nm,0.9s						
FITZ	**Fitzroy Crossi**	**41.68**	**210**	P	**P**	**05 03 31.0**	**-0.6**
	comp=Z,2.7nm,0.3s,baz=42,slow=10,SNR=26 comp=Z,2.7nm,0.3s						
FITZ	**Fitzroy Crossi**	**41.68**	**210**	P	**P**	**05 03 31.0**	**-0.6**
SONM	**Songino Array**	**43.61**	**321**	P	**P**	**05 03 47.2**	**0.0**
	comp=Z,0.7nm,0.6s,baz=137,slow=9.6,SNR=5.6 comp=Z,0.7nm,0.6s						
SONM	**Songino Array**	**43.61**	**321**	P	**P**	**05 03 47.1**	**-0.1**
ASAR	**Alice Springs**	**43.66**	**197**	P	**P**	**05 03 46.2**	**-1.4**
	comp=Z,0.8nm,0.5s,baz=15,slow=7.2,SNR=11						
ASAR				PcP	**PcP**	**05 05 33.0**	**-0.5**
	comp=Z,0.8nm,0.7s,baz=27,slow=4.9,SNR=4.5						
ASAR				S	**S**	**05 10 07.9**	**-3.5**
	comp=Z,1.3nm,0.9s,baz=25,slow=16,SNR=7.8 comp=Z,0.8nm,0.5s						
ASAR	**Alice Springs**	**43.66**	**197**	P	**P**	**05 03 47.4**	**-0.2**
CMAR	**Chiang Mai Arr**	**44.79**	**278**	P	**P**	**05 03 58.8**	**+2.0**
	comp=Z,1.0nm,0.4s,baz=61,slow=6.3,SNR=4.3						
CMAR				pP	**pwP**	**05 04 21.1**	**+1.4**
	comp=Z,0.7nm,0.3s,baz=68,slow=6.6,SNR=1.5						
CMAR	**Chiang Mai Arr**	**44.79**	**278**	P	**P**	**05 03 55.9**	**-0.9**
DZM	**Mont Dzumac**	**44.92**	**153**	P	**P**	**05 03 58.0**	**+0.2**
	comp=Z,6.6nm,0.6s,baz=347,slow=8.5,SNR=8.6 comp=Z,6.6nm,0.6s						
YAK	**Yakutsk**	**44.98**	**349**	P	**P**	**05 03 58.5**	**+0.9**
	comp=Z,42nm,0.7s,baz=92,slow=1.9,SNR=6.6 comp=Z,42nm,0.7s						
YAK	**Yakutsk**	**44.98**	**349**	P	**P**	**05 03 58.6**	**+0.9**
YAK	**Yakutsk**	**44.98**	**349**	P	**P**	**05 03 58.5**	**+0.9**
BILL	**Bilibino**	**51.08**	**10**	P	**P**	**05 04 46.9**	**+2.2**
BILL				IAmb	IAmb	05 04 47.6	
	comp=Z,20nm,1.4s						
WMQ	**Urumqi**	**54.83**	**311**	*eP*	**P**	**05 05 14.4**	**+1.7**
J17K	**VABM Dome**	**58.03**	**26**	P	**P**	**05 05 36.4**	**+1.3**
K17K	**Iditarod**	**58.08**	**27**	P	**P**	**05 05 36.6**	**+1.2**
ZALV	**Zalesovo Beam**	**58.48**	**322**	P	**P**	**05 05 37.5**	**-0.8**
	comp=Z,1.1nm,0.5s,baz=116,slow=6.8,SNR=5.8 comp=Z,1.1nm,0.5s						
ZALV	**Zalesovo Beam**	**58.48**	**322**	P	**P**	**05 05 38.8**	**+0.6**
MKAR	**Makanchi Array**	**58.97**	**314**	P	**P**	**05 05 41.2**	**-0.7**
	comp=Z,1.6nm,0.7s,baz=93,slow=8.8,SNR=9.0 comp=Z,1.6nm,0.7s						
MKAR	**Makanchi Array**	**58.97**	**314**	P	**P**	**05 05 41.6**	**-0.3**
KDAK	**Kodiak Island**	**59.19**	**33**	LR	LR	05 28 28.6	
	comp=Z,38nm,20.9s,baz=243,slow=33						
MAKZ	**Makanchi**	**59.19**	**314**	P	**P**	**05 05 43.5**	**+0.1**
G18K	**Tagagawik**	**59.25**	**23**	P	**P**	**05 05 44.4**	**+1.0**
G18K				IAmb	IAmb	05 05 45.5	
	comp=Z,9.3nm,0.9s						
G18K				PcP	**PcP**	**05 06 31.5**	**+0.7**
J19K	**Poorman**	**59.69**	**26**	P	**P**	**05 05 47.5**	**+1.0**
J19K				IAmb	IAmb	05 05 48.7	
	comp=Z,7.7nm,0.8s						
H19K	**Roundabout Mou**	**59.93**	**24**	P	**P**	**05 05 49.2**	**+1.2**
H19K				IAmb	IAmb	05 05 50.4	
	comp=Z,8.0nm,0.8s						
G19K	**Purcell Mounta**	**59.94**	**23**		**P**	**05 05 48.7**	**+0.6**
G19K				IAmb	IAmb	05 05 49.8	
	comp=Z,7.5nm,0.9s						
M20K	**Styx River**	**60.06**	**28**	P	**P**	**05 05 49.9**	**+0.8**
K20K	**Telida**	**60.12**	**27**	P	**P**	**05 05 51.2**	**+1.8**
K20K				IAmb	IAmb	05 05 52.1	
	comp=Z,10nm,0.9s						
J20K	**Nowinta River**	**60.36**	**26**	P	**P**	**05 05 52.7**	**+1.7**
SKT	**Skwentna**	**60.81**	**29**	P	**P**	**05 05 54.6**	**+0.4**
SKT				IAmb	IAmb	05 05 54.8	
	comp=Z,6.1nm,0.8s						
CAST	**Castle Rocks**	**60.98**	**27**		**P**	**05 05 56.4**	**+1.1**
H21K	**Melozitna Rive**	**61.39**	**24**	P	**P**	**05 05 59.5**	**+1.4**
H21K				IAmb	IAmb	05 06 00.5	
	comp=Z,12nm,1.3s						
I21K	**Tanana**	**61.56**	**25**	P	**P**	**05 06 00.7**	**+1.5**
I21K				IAmb	IAmb	05 06 01.7	
	comp=Z,7.6nm,0.8s						
BPAW	**Bear Paw Mtn.**	**61.65**	**26**		**P**	**05 06 01.1**	**+1.3**
BPAW				PcP	**PcP**	**05 06 41.9**	**+1.4**
F21K	**Alatna River**	**61.67**	**23**		**P**	**05 06 01.1**	**+1.2**
F21K				IAmb	IAmb	05 06 14.4	
	comp=Z,19nm,1.9s						
KURK	**Kurchatov**	**61.76**	**318**		**P**	**05 06 00.5**	**-0.2**
TRF	**Thorofare Moun**	**61.77**	**27**		**P**	**05 06 01.2**	**+0.5**
KURBB	**Kurchatov Arra**	**61.81**	**318**	P	**P**	**05 06 00.5**	**-0.5**
	comp=Z,5.3nm,0.7s,baz=97,slow=7.1,SNR=33 comp=Z,5.3nm,0.7s						
MLY	**Manley**	**62.02**	**25**		**P**	**05 06 03.6**	**+1.3**
MLY				IAmb	IAmb	05 06 04.4	
	comp=Z,11nm,0.9s						
KNK	**Knik Glacier**	**62.09**	**30**	P	**P**	**05 06 03.7**	**+0.9**
KNK				IAmb	IAmb	05 06 04.4	
	comp=Z,11nm,0.8s						
SML	**Sawmill**	**62.24**	**29**		**P**	**05 06 05.0**	**+1.1**
BWN	**Browne**	**62.31**	**26**	P	**P**	**05 06 05.1**	**+0.9**
RND	**Reindeer**	**62.38**	**27**	P	**P**	**05 06 04.7**	**0.0**
NEA2	**Nenana**	**62.59**	**26**	P	**P**	**05 06 06.5**	**+0.5**
NEA2				IAmb	IAmb	05 06 08.0	
	comp=Z,7.2nm,0.9s						
I23K	**Minto, Yukon-K**	**62.62**	**25**	P	**P**	**05 06 06.5**	**+0.4**
I23K				IAmb	IAmb	05 06 08.5	
	comp=Z,7.5nm,0.7s						
WRH	**Wood River Hil**	**62.97**	**26**	P	**P**	**05 06 08.4**	**-0.1**
WRH				IAmb	IAmb	05 06 09.6	
	comp=Z,6.0nm,0.8s						
COLA	**College**	**63.16**	**26**	P	**P**	**05 06 12.3**	**+2.5**
D23K	**Nanushuk River**	**63.25**	**21**	P	**P**	**05 06 11.6**	**+1.2**
E23K	**Chandalar**	**63.34**	**22**	P	**P**	**05 06 12.6**	**+1.5**
HDA	**Harding Lake**	**63.43**	**26**	IAmb	IAmb	05 06 59.7	
	comp=Z,36nm,2.0s						
ILAR	**Eielson Array**	**63.54**	**26**	P	**P**	**05 06 11.8**	**-0.6**
	comp=Z,5.1nm,0.9s,baz=252,slow=4.8,SNR=42			pP	**sP**	**05 06 40.7**	**-0.7**
ILAR							
	comp=Z,0.8nm,0.7s,baz=250,slow=3.8,SNR=2.5 comp=Z,5.1nm,0.9s						
ILAR	**Eielson Array**	**63.54**	**26**	P	**P**	**05 06 11.9**	**-0.4**
E24K	**Your Creek**	**63.76**	**22**	IAmb	IAmb	05 06 16.2	
	comp=Z,5.3nm,0.6s						
PAX	**Paxson**	**63.78**	**28**	IAmb	IAmb	05 06 15.7	
	comp=Z,8.1nm,0.6s						
RIDG	**Independent Ri**	**64.20**	**27**	IAmb	IAmb	05 06 18.4	
	comp=Z,10nm,0.8s						
GLB	**Gilahina Butte**	**64.29**	**30**	IAmb	IAmb	05 06 20.0	
	comp=Z,12nm,1.0s						
DOT	**Dot Lake**	**64.53**	**28**	IAmb	IAmb	05 06 20.3	
	comp=Z,10nm,0.7s						
SCRK	**Sand Creek**	**64.62**	**27**	IAmb	IAmb	05 06 21.1	
	comp=Z,12nm,1.1s						
D25K	**Kavik River**	**64.83**	**21**		**P**	**05 06 21.8**	**+1.0**
D25K				IAmb	IAmb	05 06 23.2	
	comp=Z,16nm,1.2s						
BMAR	**Burnt Mountain**	**65.04**	**23**		**P**	**05 06 23.3**	**+1.1**
G26K	**Porcupine Rive**	**65.25**	**24**	IAmb	IAmb	05 06 26.1	
	comp=Z,27nm,1.6s						
BCAR	**Beaver Creek A**	**65.46**	**28**	P	**P**	**05 06 25.9**	**+1.0**
O28M	**Mount Upton**	**65.96**	**31**	IAmb	IAmb	05 06 30.8	
	comp=Z,14nm,0.9s						
H27K	**Steamboat Moun**	**66.01**	**25**		**P**	**05 06 29.6**	**+1.2**
H27K				IAmb	IAmb	05 06 30.7	
	comp=Z,23nm,1.6s						
M29M	**Somme Creek**	**66.91**	**29**	IAmb	IAmb	05 06 37.4	
	comp=Z,10nm,0.8s						
BVAR	**Borovoye Array**	**66.95**	**320**	P	**P**	**05 06 34.4**	**-0.3**
	comp=Z,8.4nm,0.5s,baz=91,slow=7.6,SNR=31						
BVAR				pP	**PcP**	**05 07 01.6**	**-0.9**
	comp=Z,5.2nm,0.6s,baz=85,slow=6.9,SNR=5.1 comp=Z,8.4nm,0.5s						
BORK	**Borovoye**	**66.99**	**320**		**P**	**05 06 35.0**	**+0.1**
BORK				IAmb	IAmb	05 06 35.9	
	comp=Z,7.2nm,0.6s						
E28M	**Babbage River**	**67.11**	**23**		**P**	**05 06 36.9**	**+1.5**
L29M	**L29M**	**67.11**	**29**	IAmb	IAmb	05 06 38.3	
	comp=Z,14nm,0.8s						
HYT	**Haines Junctio**	**67.28**	**31**	IAmb	IAmb	05 06 39.5	
	comp=Z,15nm,0.9s						
KK31	**Karatay Array**	**67.30**	**310**		**P**	**05 06 37.2**	**+0.2**
KKAR	**Karatay Array**	**67.30**	**310**	P	**P**	**05 06 36.4**	**-0.6**
K29M	**Barlow Dome**	**67.44**	**28**	IAmb	IAmb	05 06 40.1	
	comp=Z,9.8nm,0.8s						
N30M	**Aishikik Lake**	**67.50**	**30**	IAmb	IAmb	05 06 40.6	
	comp=Z,8.8nm,0.7s						
ARTI	**Arti**	**73.62**	**325**		**P**	**05 07 14.8**	**-0.4**
AB31	**Akbulak array**	**73.83**	**317**		**P**	**05 07 15.4**	**-1.2**
ABKAR	**Akbulak array**	**73.83**	**317**	P	**P**	**05 07 15.7**	**-0.9**
HRA	**Herat**	**74.98**	**302**	P	**P**	**05 07 22.2**	**-1.6**
YKAW3	**Yellowknife Wh**	**77.85**	**28**	IAmb	IAmb	05 07 40.4	
	comp=Z,9.2nm,0.8s						
YKA	**Yellowknife Ar**	**77.87**	**28**	P	**P**	**05 07 39.6**

GBMT	**Granite Butte,** comp=Z,12nm,1.3s	**84.10**	**43**	IAmb	IAmb	05 08 15.6		
LRMC	**Laurel Mtn Rad** comp=Z,6.8nm,0.7s	**84.19**	**55**	IAmb	IAmb	05 08 15.2		
ELK	**Elko** comp=Z,6.0nm,0.7s	**84.31**	**49**	IAmb	IAmb	05 08 16.1		
CCCA	**Chr Cany lake** comp=Z,9.3nm,0.7s	**84.42**	**55**	IAmb	IAmb	05 08 16.8		
FURC	**Furnace Creek,** comp=Z,7.0nm,0.8s	**84.50**	**54**	IAmb	IAmb	05 08 16.7		
WCT	**Wildcat Mounta** comp=Z,7.9nm,0.8s	**84.58**	**53**	IAmb	IAmb	05 08 17.1		
TPNV	**Topopah Spring** comp=Z,8.2nm,0.7s	**84.81**	**53**	IAmb	IAmb	05 08 18.4		
BOZ	**Bozeman (W)** comp=Z,5.5nm,0.7s	**85.09**	**44**	IAmb	IAmb	05 08 19.7		
PRN	**Pahroc Range** comp=Z,7.5nm,1.1s	**85.56**	**52**	IAmb	IAmb	05 08 22.5		
YHB	**Horse Butte** comp=Z,12nm,1.0s	**85.69**	**44**	IAmb	IAmb	05 08 23.6		
OBN	**Obninsk** comp=Z,45nm,20.5s,baz=7.5,slow=36	**85.71**	**327**	LR	LR	05 47 33.5		
PFO	**Pinyon Flats O**	**85.75**	**56**		**P**	**05 08 21.1**	**-0.4**	
PFO	**Pinyon Flats O**	**85.75**	**56**	P	**P**	**05 08 21.9**	**+0.4**	
PFO				pP	**pwP**	**05 08 46.2**	**-1.5**	
XPFO	**Pinon Flat**	**85.75**	**56**	P	**P**	**05 08 21.9**	**+0.4**	
XPFO				pP	**pwP**	**05 08 46.2**	**-1.5**	
YMR	**Madison River** comp=Z,11nm,0.8s	**85.87**	**44**	IAmb	IAmb	05 08 24.7		
YHH	**Holmes Hill** comp=Z,21nm,1.4s	**85.90**	**44**	IAmb	IAmb	05 08 24.7		
YFT	**Old Faithful** comp=Z,13nm,0.8s	**86.04**	**44**	IAmb	IAmb	05 08 26.6		
PSUT	**Pine Spring** comp=Z,5.6nm,0.7s	**86.06**	**51**	IAmb	IAmb	05 08 24.7		
SPUT	**South Promonto** comp=Z,12nm,1.3s	**86.09**	**48**	IAmb	IAmb	05 08 24.9		
H17A	**Grant Village** comp=Z,12nm,0.9s	**86.23**	**44**	IAmb	IAmb	05 08 28.2		
DUG	**Dugway, Tooele** comp=Z,5.3nm,0.8s	**86.23**	**49**	IAmb	IAmb	05 08 25.1		
AHID	**Auburn Hatcher** comp=Z,14nm,1.1s	**86.49**	**46**	P	**P**	**05 08 25.6**	**+0.6**	
AHID				IAmb	IAmb	05 08 26.9		
BC3	**Big Chuckawall** comp=Z,6.0nm,0.9s	**86.52**	**56**		**P**	**05 08 25.3**	**0.0**	
BC3				IAmb	IAmb	05 08 26.8		
IRM	**Iron Mountain**	**86.59**	**55**		**P**	**05 08 25.1**	**-0.4**	
HWUT	**Hardware Ranch** comp=Z,13nm,0.9s	**86.60**	**47**		**P**	**05 08 25.9**	**+0.3**	
HWUT				IAmb	IAmb	05 08 27.3		
ESJX	**Sierra Juarez**	**86.69**	**57**	P	**P**	**05 08 26.1**	**-0.1**	
GNI	**Garni** comp=Z,33nm,18.3s,baz=269,slow=39	**86.71**	**311**	LR	LR	05 51 53.8		
CCUT	**Cedar City**	**86.77**	**52**		**P**	**05 08 26.1**	**-0.5**	
RLMT	**Red Lodge** comp=Z,8.6nm,0.7s	**86.81**	**43**		**P**	**05 08 26.1**	**-0.5**	
RLMT				IAmb	IAmb	05 08 29.2		
NLU	**North Lily Min**	**86.85**	**49**		**P**	**05 08 26.3**	**-0.6**	
TCUT	**Toone Canyon** comp=Z,10nm,0.7s	**86.89**	**48**	P	**P**	**05 08 26.9**	**-0.2**	
TCUT				IAmb	IAmb	05 08 28.6		
FFC	**Flin Flon**	**86.93**	**33**	P	**P**	**05 08 26.8**	**+0.1**	
FFC	**Flin Flon**	**86.93**	**33**	P	**P**	**05 08 27.2**	**+0.6**	
FFC				pP	**pwP**	**05 08 51.5**	**-1.3**	
SZCU	**Shurtz Canyon** comp=Z,15nm,1.6s	**86.96**	**51**	P	**P**	**05 08 27.8**	**+0.3**	
LCMT	**Little Creek M**	**87.05**	**52**	P	**P**	**05 08 28.3**	**+0.4**	
LCMT				IAmb	IAmb	05 08 30.0		
FINES	**FINESS Array B** comp=Z,4.7nm,0.6s,baz=69,slow=5.5,SNR=19 comp=Z,4.7nm,0.6s	**87.26**	**335**	P	**P**	**05 08 26.4**	**-1.7**	
BW06	**Boulder Array** comp=Z,19nm,1.9s	**87.54**	**46**	IAmb	IAmb	05 08 59.4		
PD31	**Pinedale Array** comp=Z,21nm,1.9s	**87.54**	**46**		**P**	**05 08 29.3**	**-0.9**	
PD31				IAmb	IAmb	05 08 59.5		
PDAR	**Pinedale Array** comp=Z,1.5nm,0.6s,baz=156,slow=0.7,SNR=19 comp=Z,1.5nm,0.6s	**87.54**	**46**	P	**P**	**05 08 30.4**	**+0.2**	
PDAR	**Pinedale Array**	**87.54**	**46**	P	**P**	**05 08 29.3**	**-0.9**	
TMUT	**Trail Mountain**	**87.71**	**49**	P	**P**	**05 08 31.1**	**-0.1**	
Q16A	**Castle Valley**	**87.88**	**50**	P	**P**	**05 08 31.3**	**-0.5**	
U15A	**North Rim** comp=Z,11nm,1.2s	**87.98**	**52**	IAmb	IAmb	05 08 34.6		
LAO	**LASA Array** comp=Z,15nm,1.1s	**88.11**	**41**	IAmb	IAmb	05 08 34.4		
RDMU	**Red Mountain**	**88.39**	**48**	P	**P**	**05 08 34.0**	**-0.3**	
HMU	**Henry Mountain** comp=Z,7.5nm,0.7s	**88.56**	**50**	IAmb	IAmb	05 08 36.5		
WUAZ	**Wupatki** comp=Z,12nm,1.1s	**89.00**	**53**	IAmb	IAmb	05 08 40.1		
O20A	**White River Ci** comp=Z,9.3nm,1.0s	**89.49**	**48**	P	**P**	**05 08 39.2**	**-0.2**	
O20A				IAmb	IAmb	05 08 40.9		
PV07	**Paradox Valley**	**89.89**	**49**	P	**P**	**05 08 41.3**	**0.0**	
PV01	**Paradox Valley**	**90.06**	**50**	P	**P**	**05 08 42.4**	**+0.2**	
MVCO	**Mesa Verde**	**90.49**	**50**		**P**	**05 08 44.1**	**0.0**	
MVCO				IAmb	IAmb	05 08 46.7		
TUC	**Tucson** comp=Z,12nm,1.6s	**90.67**	**56**		**P**	**05 08 44.9**	**+0.1**	
TUC				IAmb	IAmb	05 08 47.7		
ISCO	**Idaho Springs** comp=Z,5.6nm,1.1s	**91.47**	**47**		**P**	**05 08 48.6**	**-0.1**	
ISCO				IAmb	IAmb	05 08 51.3		
HSIG		**91.78**	**59**	P	**P**	**05 08 49.6**	**-0.4**	
HSIG				IAmb	IAmb	05 08 51.9		
DUN6	**Lazy B Ranch** comp=Z,4.5nm,0.8s	**91.89**	**55**	P	**P**	**05 08 49.0**	**-1.6**	
ULM	**Lac du Bonnet** comp=Z,4.7nm,0.8s,baz=275,slow=1.9,SNR=4.1 comp=Z,4.7nm,0.8s	**92.41**	**35**	P	**P**	**05 08 52.0**	**-0.4**	
SDCO	**Great Sand Dun** comp=Z,4.2nm,0.9s	**92.43**	**49**	P	**P**	**05 08 53.1**	**-0.1**	
SDCO				IAmb	IAmb	05 08 54.8		
SBM	**South Baldy**	**92.78**	**53**	P	**P**	**05 08 55.4**	**+0.4**	
121A	**Cookes Peak, D**	**92.91**	**54**	P	**P**	**05 08 54.9**	**-0.5**	
NOA	**NORSAR Array B** comp=Z,0.8nm,0.7s,baz=37,slow=4.6,SNR=1.7 comp=Z,0.8nm,0.7s	**92.91**	**340**	P	**P**	**05 08 53.0**	**-1.6**	
TASM	**ASL Pad, Albuq** comp=Z,6.0nm,1.4s	**92.92**	**52**	P	**P**	**05 08 53.3**	**-2.1**	
TASM				IAmb	IAmb	05 08 57.8		
TASM	**ASL Pad, Albuq** comp=Z,4.8nm,1.3s	**92.92**	**52**	P	**P**	**05 08 53.5**	**-1.9**	
TASM				IAmb	IAmb	05 08 58.8		
ANMO	**Albuquerque** comp=Z,4.6nm,1.2s	**92.92**	**52**	P	**P**	**05 08 54.0**	**-1.4**	
ANMO				IAmb	IAmb	05 08 57.8		
ALQ	**Albuquerque** comp=Z,6.0nm,1.3s	**92.92**	**52**		**P**	**05 08 56.2**	**+0.8**	
ALQ				IAmb	IAmb	05 08 57.8		
ALQ	**Albuquerque** comp=Z,5.5nm,1.3s	**92.92**	**52**		**P**	**05 08 56.4**	**+1.0**	
ALQ				IAmb	IAmb	05 08 57.8		
LPIG	**La Paz** comp=Z,19nm,19.9s,baz=345,slow=30	**94.17**	**63**	LR	LR	05 42 59.2		
MNTX	**Cornudas Mount**	**95.11**	**54**		**P**	**05 09 05.9**	**+0.6**	
ECSD	**EROS Data Cent**	**95.48**	**40**	P	**P**	**05 09 09.1**	**+2.3**	
BURAR	**Bucovina Array**	**95.65**	**324**	P	**P**	**05 09 06.3**	**-1.3**	
TXAR	**Lajitas Array** comp=Z,0.7nm,1.0s,baz=223,slow=3.1,SNR=3.9 comp=Z,0.7nm,1.0s	**97.47**	**56**	P	Pdif	05 09 17.4	+1.2	
TXAR	**Lajitas Array**	**97.47**	**56**	P	**P**	**05 09 16.5**	**+0.4**	
ELIS	**Ellis County**	**97.53**	**48**	P	**P**	**05 09 16.7**	**+0.5**	
OK051	**E0350 and S346**	**99.11**	**47**	P	**Pdif**	**05 09 22.0**	**-1.2**	
CLL	**Collm**	**99.34**	**332**	L	L	05 43 00.0		
CLL				LV		05 50 00.0		
Q56A	**Snyder Ridge,**	**108.65**	**36**	Pdif	**Pdif**	**05 10 05.9**	**+0.2**	
MTE	**Manteigas**	**116.50**	**338**	PKPdf	**PKPdf**	**05 14 25.1**	**-0.5**	
SOR	**Soroa**	**116.70**	**52**	PKPdf	**PKPdf**	**05 14 25.5**	**-0.9**	
MESJ	**Messejana**	**119.01**	**337**	PKPdf	**PKPdf**	**05 14 30.2**	**-0.3**	
SFS	**San Fernando**	**119.43**	**335**	PKPdf	**PKPdf**	**05 14 30.8**	**-0.5**	
BELA	**Belgrano 2**	**120.63**	**180**	PKPdf	**PKPdf**	**05 14 30.7**	**-1.6**	
PLCA	**Paso Flores** comp=Z,1.0nm,0.5s,baz=266,slow=4.8,SNR=8.3	**141.49**	**133**	PKhKP	PKPpre	05 15 07.3		
MT13	**San Alfonso**	**144.06**	**122**	PKPdf	PKPbc	05 15 16.4	+0.7	
AC05	**El Transito**	**145.11**	**114**	PKPbc	**PKPbc**	**05 15 19.0**	**-0.2**	
AC06	**Mina Casimiro**	**145.24**	**111**		**PKPbc**	**05 15 19.6**	**+0.1**	
PB05	**IPOC Station P**	**145.66**	**104**	PKPdf	**PKPdf**	**05 15 19.4**	**-1.2**	
PB11	**IPOC Station P**	**146.06**	**98**	PKPdf	**PKPdf**	**05 15 20.6**	**-0.8**	
BOAV	**Boa Vista**	**146.40**	**55**	PKPdf	**PKPdf**	**05 15 20.7**	**-1.3**	
PB08	**IPOC Station P**	**146.56**	**99**	PKPdf	**PKPdf**	**05 15 20.7**	**-1.9**	
LPAZ	**La Paz** comp=Z,5.9nm,0.9s,baz=316,slow=3.1,SNR=14	**147.11**	**91**	PKPbc	**PKPdf**	**05 15 24.3**	**+0.5**	
LPAZ				pPKPbc	**sPKPbc**	**05 15 56.2**	**-0.2**	
LPAZ	**La Paz** comp=Z,2.7nm,0.7s,baz=281,slow=5.6,SNR=2.8	**147.11**	**91**	PKPdf	**PKPdf**	**05 15 21.9**	**-1.9**	

*NOU **17** 05:39:24.3,21°.94S×179°.38W,h592km,mb4.7/23,Fiji Islands Region*
*NEIC **17** 05:39:26.0±1.1,21°.9S±0°.1×179°.5W±0°.1,h594km±7km, mb4.3/118,Error ellipse: s-maj=16.9km s-min=14.9km az=158.0*
*IDC **17** 05:39:26.1±1.0,21°.80S×179°.61W,h600km±10km, mb3.7/12,mbtmp4.6/14,Error ellipse: s-maj=14.1km s-min=10.7km az=151.0*
*GFZ **17** 05:39:29.4±1.2,22°S±11°×18°0W±1°5,h626km,M4.6/16, mb4.6/16,confirmed*

ISC 17 05:39:24.5±0.4,21°.95S±0°.05×179°.42W±0°.06,h592km, n193,σ1°19/186,mb4.4/90,1C-1D,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
MSVF	**Nonsavu** 200nm,0.4s,baz=183,slow=5.7,SNR=466	**4.82**	**330**	P	**P**	**05 40 55.8**	**+0.1**
MSVF				S	**S**	**05 42 10.2**	**+0.3**
	61nm,1.0s,baz=313,slow=23,SNR=8.7						
MSVF	**Nonsavu**	**4.82**	**330**	P	**P**	**05 40 55.5**	**-0.2**
MSVF	**Nonsavu**	**4.82**	**330**	S	**S**	**05 42 10.2**	**+0.3**
MSVF	**Nonsavu**	**4.82**	**330**		**P**	**05 40 55.8**	**+0.1**
MSVF				S	**S**	**05 42 10.6**	**+0.6**
TAVE	**Taveuni** 59nm,0.7s	**5.23**	**355**	P	**P**	**05 40 58.6**	**-0.3**
TAVE				AML	AML		
TAVE	**Taveuni** 59nm,0.7s	**5.23**	**355**	S	**S**	**05 42 16.2**	**+0.4**
TAVE				AML	AML		
RAO	**Raoul Island** 162nm,0.3s,baz=269,slow=22,SNR=4.7	**7.40**	**170**	P	**P**	**05 41 16.7**	**-1.0**
RAO				S	**S**	**05 42 47.8**	**-2.8**
	277nm,0.6s,baz=94,slow=22,SNR=4.3						
RAO	**Raoul Island**	**7.40**	**170**	P	**P**	**05 41 17.0**	**-0.7**
FUTU	**Fugatoga**	**7.70**	**9**	P	**P**	**05 41 19.3**	**-1.5**
NIUE	**Niue**	**9.34**	**74**	P	**P**	**05 41 35.9**	**-0.8**
AFI	**Afiamalu** 15nm,0.4s,baz=60,slow=15,SNR=1.9	**10.80**	**44**	S	**S**	**05 43 47.1**	**-4.8**
MARNC	**Mare, Loyalty** 485nm,0.8s	**11.67**	**270**	P	**P**	**05 41 59.8**	**-0.2**
MARNC	**Mare, Loyalty**	**11.67**	**270**		**P**	**05 42 00.1**	**+0.1**
PINNC	**Pines Island,**	**12.18**	**264**	P	**P**	**05 42 05.5**	**+0.4**
YATNC	**Mamie plateau,** 16nm,0.7s	**12.70**	**267**	P	**P**	**05 42 10.0**	**-0.4**
OUENC	**Ouen Island, N**	**12.74**	**265**	P	**P**	**05 42 10.8**	**0.0**
ONTNC	**Ouen Toro**	**13.10**	**266**	P	**P**	**05 42 14.2**	**-0.2**
DZM	**Mont Dzumac** 26nm,0.7s,baz=105,slow=16,SNR=14	**13.11**	**267**	P	**P**	**05 42 14.1**	**-0.5**
SANVU	**Saraoutou** 90nm,1.2s	**14.22**	**295**	P	**P**	**05 42 25.5**	**-0.2**
SANVU	**Saraoutou**	**14.22**	**295**	P	**P**	**05 42 25.6**	**-0.2**
SANVU	**Saraoutou** comp=Z,90nm,1.2s	**14.22**	**295**	P	**P**	**05 42 25.8**	**0.0**
OUZ	**Omahuta** comp=Z,18nm,1.8s	**14.57**	**203**	P	**P**	**05 42 28.9**	**+0.1**
KOUNC	**Koumac, New Ca**	**15.25**	**272**	P	**P**	**05 42 36.2**	**+0.8**
URZ	**Urewera** comp=Z,3.6nm,0.3s,baz=52,slow=1.7,SNR=7.7	**16.53**	**190**	P	**P**	**05 42 44.8**	**-2.1**
URZ				S	**S**	**05 45 24.9**	**-6.7**
	comp=Z,4.0nm,0.5s,baz=330,slow=23,SNR=12						
URZ	**Urewera**	**16.53**	**190**	P	**P**	**05 42 46.1**	**-0.8**
QRZ	**Quartz Range** comp=Z,23nm,1.7s	**20.02**	**198**	P	**P**	**05 43 18.2**	**-0.4**
KHZ	**Kahutara** comp=Z,20nm,0.4s	**21.25**	**195**	P	**P**	**05 43 29.3**	**-0.3**
TATA	**Tatamba Isabel** comp=Z,53nm,1.1s	**24.11**	**301**	P	**P**	**05 43 54.4**	**-1.1**
JCZ	**Jackson Bay** comp=Z,51nm,1.7s	**24.13**	**201**	P	**P**	**05 43 55.3**	**-0.1**
EIDS	**Eidsvold** comp=Z,29nm,1.2s	**27.21**	**257**	P	**P**	**05 44 22.8**	**+0.2**
EIDS	**Eidsvold**	**27.21**	**257**		**P**	**05 44 23.0**	**+0.4**
EIDS	**Eidsvold** comp=Z,29nm,1.2s	**27.21**	**257**	P	**P**	**05 44 23.0**	**+0.4**
ARMA	**Armidale** comp=Z,35nm,1.9s	**27.26**	**246**	P	**P**	**05 44 23.1**	**0.0**
ARMA	**Armidale**	**27.26**	**246**	P	**P**	**05 44 24.7**	**+1.6**
ARMA	**Armidale** comp=Z,34nm,1.9s	**27.26**	**246**	P	**P**	**05 44 24.5**	**+1.4**
CAN	**Canberra**	**30.61**	**237**	P	**P**	**05 44 53.3**	**+1.3**
CTAO	**Charters Tower** comp=Z,17nm,0.7s	**32.06**	**267**	P	**P**	**05 45 04.8**	**+0.4**
CTAO	**Charters Tower**	**32.06**	**267**		**P**	**05 45 04.3**	**-0.1**
CTAO	**Charters Tower** comp=Z,47nm,0.7s	**32.06**	**267**	P	**P**	**05 45 04.8**	**+0.4**
CMSA	**Cobar Meteorol** comp=Z,28nm,1.0s	**32.47**	**245**	P	**P**	**05 45 08.4**	**+0.7**
CMSA	**Cobar Meteorol** comp=Z,28nm,1.0s	**32.47**	**245**	P	**P**	**05 45 08.6**	**+0.8**
QLP	**Quilpie** comp=Z,52nm,0.8s	**33.38**	**255**	P	**P**	**05 45 15.9**	**+0.5**
TOO	**Toolangi** comp=Z,15nm,1.4s	**33.98**	**235**	P	**P**	**05 45 21.2**	**+0.9**
TOO				IAmb	IAmb	05 45 22.7	
MTSU	**Mount Surprise** comp=Z,24nm,0.7s	**34.23**	**270**	P	**P**	**05 45 22.9**	**+0.3**
PMG	**Port Moresby**	**34.42**	**286**		**P**	**05 45 24.2**	**0.0**
PMG	**Port Moresby** comp=Z,57nm,1.1s	**34.42**	**286**	P	**P**	**05 45 24.6**	**+0.4**
STKA	**Stephens Creek** comp=Z,11nm,0.5s,baz=95,slow=9.7,SNR=27 comp=Z,11nm,0.5s	**35.98**	**246**	P	**P**	**05 45 37.5**	**+0.6**
STKA	**Stephens Creek**	**35.98**	**246**		**P**	**05 45 37.5**	**+0.6**
STKA	**Stephens Creek** comp=Z,100nm,0.9s	**35.98**	**246**	P	**P**	**05 45 37.9**	**+1.0**
INKA	**Innaminka** comp=Z,6.7nm,0.9s	**36.49**	**253**		**P**	**05 45 42.0**	**+0.8**
INKA				IAmb	IAmb	05 45 42.9	
MANU	**Manus Island** comp=Z,20nm,1.4s	**37.87**	**297**	P	**P**	**05 45 51.9**	**-0.7**
MANU				IAmb	IAmb	05 45 52.0	
QIS	**Mount Isa** comp=Z,7.9nm,1.1s	**38.13**	**264**	P	**P**	**05 45 54.1**	**-0.6**
BBOO	**Buckleboo**	**40.73**	**245**		**P**	**05 46 15.4**	**+0.1**
BBOO	**Buckleboo** comp=Z,20nm,1.1s	**40.73**	**245**	P	**P**	**05 46 15.3**	**0.0**
AS31	**Alice Springs**	**42.91**	**258**		**P**	**05 46 32.5**	**-0.2**
AS31				IAmb	IAmb	05 46 33.7	
ASAR	**Alice Springs** comp=Z,24nm,0.8s,baz=92,slow=8.2,SNR=185	**42.91**	**258**	P	**P**	**05 46 32.5**	**-0.1**
ASAR				ScP	**ScP**	**05 51 05.8**	**+0.9**
	comp=Z,1.4nm,0.8s,baz=112,slow=4.0,SNR=5.7						
ASAR				S	**S**	**05 52 14.4**	**-1.4**
	comp=Z,1.1nm,0.8s,baz=98,slow=14,SNR=7.2 comp=Z,24nm,0.8s						
WR8	**Warramunga Arr**	**42.96**	**264**		**P**	**05 46 32.4**	**-0.6**
WB0	**Warramunga Arr**	**43.09**	**264**	P	**P**	**05 46 33.3**	**-0.7**
WRAB	**Tennant Creek** comp=Z,33nm,0.9s	**43.10**	**264**	P	**P**	**05 46 31.5**	**-2.6**
WRA	**Warramunga Arr** comp=Z,18nm,0.8s,baz=97,slow=7.8,SNR=102	**43.11**	**264**	P	**P**	**05 46 33.5**	**-0.7**
WRA				ScP	**ScP**	**05 51 06.3**	**+0.5**
	comp=Z,2.6nm,0.9s,baz=95,slow=4.3,SNR=9.1						
WRA				S	**S**	**05 52 15.3**	**-3.4**
	comp=Z,0.7nm,0.9s,baz=98,slow=14,SNR=3.3 comp=Z,18nm,0.8s						
WRA	**Warramunga Arr**	**43.11**	**264**		**P**	**05 46 33.4**	**-0.7**
FORT	**Forrest**	**47.52**	**248**		**P**	**05 47 07.6**	**+0.1**
MTN	**Manton Dam**	**47.87**	**272**	P	**P**	**05 47 10.1**	**-0.3**
MTN				IAmb	IAmb	05 47 10.3	
	comp=Z,8.0nm,0.6s						
KNRA	**Kununurra**	**49.26**	**268**		**P**	**05 47 20.7**	**+0.1**
KNRA				IAmb	IAmb	05 47 21.3	
	comp=Z,9.7nm,0.7s						
FITZ	**Fitzroy Crossi**	**51.54**	**264**		**P**	**05 47 37.2**	**0.0**
FITZ	**Fitzroy Crossi** comp=Z,3.1nm,1.7s	**51.54**	**264**	P	**P**	**05 47 37.8**	**+0.6**
SOEI	**Soe**	**55.24**	**273**		**P**	**05 48 02.7**	**-0.8**
SOEI	**Soe** comp=Z,71nm,0.7s	**55.24**	**273**	P	**P**	**05 48 05.1**	**+1.6**
MEEK	**Meekatharra** comp=Z,14nm,3.0s	**56.20**	**252**	P	**P**	**05 48 09.4**	**-0.5**
MBWA	**Marble Bar**	**56.26**	**259**		**P**	**05 48 09.9**	**-0.3**
MBWA				IAmb	IAmb	05 48 10.7	
	comp=Z,19nm,0.7s						
MBWA	**Marble Bar** comp=Z,32nm,0.8s	**56.26**	**259**	P	**P**	**05 48 09.9**	**-0.3**
SBA	**Scott Base**	**56.35**	**183**	P	**P**	**05 48 12.0**	**+2.0**
SBA	**Scott Base** comp=Z,7.1nm,1.1s	**56.35**	**183**	P	**P**	**05 48 13.0**	**+3.1**
VNDA	**Vanda** comp=Z,1.8nm,0.7s,baz=8.2,slow=6.8,SNR=19 comp=Z,1.8nm,0.7s	**56.36**	**185**	P	**P**	**05 48 12.3**	**+2.3**
VNDA	**Vanda**	**56.36**	**185**		**P**	**05 48 12.2**	**+2.2**
LUWI	**Luwuk**	**59.92**	**282**	P	**P**	**05 48 35.6**	**+0.6**
LUWI	comp=Z,29nm,1.0s			IAmb	IAmb	05 48 36.2	
LUWI	**Luwuk** comp=Z,33nm,0.8s	**59.92**	**282**	P	**P**	**05 48 35.3**	**+0.3**
PLAI	**Plampang** comp=Z,39nm,0.8s	**61.57**	**272**	P	**P**	**05 48 45.6**	**-0.3**
TOLI2	**Tolitoli**	**62.62**	**283**		**P**	**05 48 52.3**	**-0.4**
TOLI2	comp=Z,11nm,0.6s			IAmb	IAmb	05 48 54.5	
TOLI2	**Tolitoli** comp=Z,15nm,0.7s	**62.62**	**283**	P	**P**	**05 48 52.2**	**-0.4**
QSPA	**South Pole Qui** comp=Z,12nm,0.8s,baz=34,slow=3.3,SNR=61 comp=Z,12nm,0.8s	**68.13**	**180**	P	**P**	**05 49 27.7**	**+1.4**
QSPA	**South Pole Qui**	**68.13**	**180**	P	**P**	**05 49 27.8**	**+1.5**
QSPA	comp=Z,13nm,0.9s			IAmb	IAmb	05 49 28.7	
MJAR	**Matsushiro Arr** comp=Z,2.9nm,0.7s,baz=158,slow=5.5,SNR=5.6 comp=Z,2.9nm,0.7s	**70.60**	**325**	P	**P**	**05 49 41.0**	**-0.3**
MJAR	**Matsushiro Arr**	**70.60**	**325**	P	**P**	**05 49 41.3**	**0.0**
PEA0B	**Petropavlovsk-**	**77.33**	**346**	P	**P**	**05 50 18.3**	**-0.5**
PETK	**Petropavlovsk-**	**77.33**	**346**	P	**P**	**05 50 18.8**	**0.0**
BELA	**Belgrano 2** comp=Z,10nm,0.9s	**78.30**	**173**	P	**P**	**05 50 24.2**	**+0.4**
BELA				IAmb	IAmb	05 50 25.0	
CVS	**Carmenet Viney** comp=Z,17nm,1.1s	**80.30**	**42**	P	**P**	**05 50 36.2**	**+1.3**
CVS				IAmb	IAmb	05 50 36.6	
CBX	**Cerro Bola** comp=Z,11nm,1.3s	**80.67**	**50**	P	**P**	**05 50 38.4**	**+1.3**
CBX				IAmb	IAmb	05 51 05.7	
DPP	**Dos Picos Cty** comp=Z,7.1nm,0.9s	**80.85**	**49**	P	**P**	**05 50 39.4**	**+1.5**
DPP				IAmb	IAmb	05 50 39.8	
ESJX	**Sierra Juarez**	**81.01**	**50**	P	**P**	**05 50 40.7**	**+1.8**
TPO	**Tropico Hills** comp=Z,5.5nm,0.9s	**81.01**	**47**	P	**P**	**05 50 40.4**	**+1.7**
TPO				IAmb	IAmb	05 50 40.5	
O02D	**Mt. Diablo Mer** comp=Z,13nm,1.0s	**81.23**	**40**		**P**	**05 50 41.7**	**+1.9**
O02D				IAmb	IAmb	05 50 42.8	
ISA	**Isabella, Lake** comp=Z,8.0nm,1.0s	**81.29**	**46**	P	**P**	**05 50 41.3**	**+1.2**
ISA				IAmb	IAmb	05 50 42.3	
CMB	**Columbia Colle**	**81.42**	**43**		**P**	**05 50 42.0**	**+1.3**
AFDM	**Forest Hills D**	**81.59**	**42**		**P**	**05 50 43.2**	**+1.6**
OHAK	**Old Harbor**	**81.86**	**14**	P	**P**	**05 50 42.8**	**+0.4**
Q03E	**Paynes Creek**	**81.90**	**41**		**P**	**05 50 44.0**	**+0.8**
CCCA	**Chr Cany lake** comp=Z,12nm,1.2s	**81.96**	**47**	P	**P**	**05 50 44.2**	**+0.6**
CCCA				IAmb	IAmb	05 50 45.8	
CLC	**China Lake** comp=Z,8.9nm,1.1s	**81.96**	**46**	P	**P**	**05 50 45.0**	**+1.4**
CLC				IAmb	IAmb	05 50 45.6	
CWC	**Cottonwood Cre**	**81.99**	**46**		**P**	**05 50 45.0**	**+1.2**
MDPB	**Devils Postpil**	**82.02**	**44**	P	**P**	**05 50 45.5**	**+1.5**
BELC	**Belle Mtn. Jos**	**82.05**	**49**	P	**P**	**05 50 46.0**	**+1.8**
MPMC	**Manual Prospec**	**82.17**	**46**	P	**P**	**05 50 46.2**	**+1.5**
GSC	**Goldstone, Bar**	**82.21**	**47**	P	**P**	**05 50 46.0**	**+1.1**
TIN	**Tinemaha, Big** comp=Z,12nm,1.0s	**82.24**	**45**	P	**P**	**05 50 46.3**	**+1.3**
TIN				IAmb	IAmb	05 50 47.1	
BC3	**Big Chuckawall**	**82.25**	**49**	P	**P**	**05 50 46.0**	**+0.9**
WAKR	**Walker** comp=Z,5.0nm,0.7s	**82.30**	**43**	P	**P**	**05 50 47.0**	**+1.6**
WAKR				IAmb	IAmb	05 50 47.2	
M03C	**McCloud**	**82.31**	**40**	P	**P**	**05 50 45.9**	**+0.6**
MPK	**Martis Peak** comp=Z,18nm,1.3s	**82.39**	**42**	P	**P**	**05 50 47.3**	**+1.4**
MPK				IAmb	IAmb	05 50 48.1	
BEKR	**Beckworth**	**82.52**	**42**		**P**	**05 50 47.3**	**+0.9**
PNTR	**Pine Nut**	**82.54**	**43**		**P**	**05 50 47.7**	**+1.1**
IRM	**Iron Mountain** comp=Z,13nm,1.4s	**82.73**	**49**		**P**	**05 50 48.9**	**+1.5**
IRM				IAmb	IAmb	05 50 50.0	
LHV	**Little Huntoon** comp=Z,6.2nm,0.9s	**82.75**	**44**	P	**P**	**05 50 48.6**	**+1.2**
LHV				IAmb	IAmb	05 50 49.7	
GRAC	**Grapevine Rang** comp=Z,5.0nm,0.8s	**82.78**	**45**	P	**P**	**05 50 48.6**	**+1.0**
GRAC				IAmb	IAmb	05 50 49.9	
GWY	**Greenwater Val**	**82.79**	**46**		**P**	**05 50 48.6**	**+0.7**
FURC	**Furnace Creek,** comp=Z,5.7nm,1.0s	**82.82**	**46**	P	**P**	**05 50 48.7**	**+1.0**
FURC				IAmb	IAmb	05 50 49.6	
SHOC	**Shoshone, Teco** comp=Z,7.5nm,1.1s	**82.90**	**47**	P	**P**	**05 50 49.3**	**+1.0**
SHOC				IAmb	IAmb	05 50 50.1	
113A	**Mohawk Valley,**	**82.97**	**51**		**P**	**05 50 49.5**	**+0.8**
NVAR	**Mina Array Bea** comp=Z,2.6nm,0.7s,baz=225,slow=9.1,SNR=15 comp=Z,2.6nm,0.7s	**82.98**	**44**	P	**P**	**05 50 49.6**	**+0.8**
NVAR	**Mina Array Bea**	**82.98**	**44**	P	**P**	**05 50 49.3**	**+0.5**
PAHR	**Pah Rah Range** comp=Z,8.2nm

TX31	**Lajitas Ar. Si**	**88.95**	**58**			**P**		**05 51 18.3**	**+0.9**
TX31					IAmb	IAmb		05 51 19.6	
	comp=Z,3.3nm,0.8s								
TXAR	**Lajitas Array**	**88.95**	**58**	P		**P**		**05 51 18.9**	**+1.6**
	comp=Z,2.9nm,0.9s,baz=216,slow=5.9,SNR=22								
	comp=Z,2.9nm,0.9s								
TXAR	**Lajitas Array**	**88.95**	**58**			**P**		**05 51 18.3**	**+1.0**
BSUT	**Blindstream Ca**	**89.03**	**45**			**P**		**05 51 18.9**	**+1.1**
HWUT	**Hardware Ranch**	**89.05**	**44**	P		**P**		**05 51 18.0**	**+0.3**
HWUT					IAmb	IAmb		05 51 19.0	
	comp=Z,3.0nm,0.8s								
PLCA	**Paso Flores**	**89.24**	**134**	P		**P**		**05 51 19.9**	**+1.3**
	comp=Z,2.3nm,0.7s,baz=215,slow=4.6,SNR=5.4								
	comp=Z,2.3nm,0.7s								
ALQ	**Albuquerque**	**89.33**	**52**			**P**		**05 51 20.2**	**+1.0**
ALQ					IAmb	IAmb		05 51 20.6	
	comp=Z,2.2nm,0.8s								
TASM	**ASL Pad, Albuq**	**89.33**	**52**	P		**P**		**05 51 20.2**	**+1.0**
TASM					IAmb	IAmb		05 51 21.5	
	comp=Z,7.2nm,1.5s								
ANMO	**Albuquerque**	**89.34**	**52**	P		**P**		**05 51 20.0**	**+0.8**
CMAR	**Chiang Mai Arr**	**89.35**	**290**	P		**P**		**05 51 21.1**	**+1.7**
	comp=Z,1.9nm,0.3s,baz=133,slow=3.1,SNR=15								
	comp=Z,1.9nm,0.3s								
CMAR	**Chiang Mai Arr**	**89.35**	**290**	P		**P**		**05 51 19.6**	**+0.2**
HHC	**Hu-ho-hao-te**	**89.42**	**315**	*eP*		**P**		**05 51 18.5**	**-0.8**
HHC					pmax	pmax			
	comp=Z,16nm,0.5s								
HHC					pmax	pmax			
	comp=Z,86nm,5.0s								
TPB01	**Permian Basin**	**89.56**	**56**	IAmb		IAmb		05 51 22.1	
	comp=Z,4.3nm,0.7s								
MCMT	**McKenzie Canyo**	**89.91**	**41**	P		**P**		**05 51 22.6**	**+0.9**
AHID	**Auburn Hatcher**	**89.93**	**43**	P		**P**		**05 51 23.0**	**+1.2**
AHID					IAmb	IAmb		05 51 24.3	
	comp=Z,4.4nm,0.8s								
ILAR	**Eielson Array**	**90.01**	**13**	P		**P**		**05 51 21.0**	**-0.3**
	comp=Z,0.6nm,0.6s,baz=218,slow=5.0,SNR=8.6								
	comp=Z,0.6nm,0.6s								
ILAR	**Eielson Array**	**90.01**	**13**	P		**P**		**05 51 21.1**	**-0.2**
CLNB	**Carlsbad**	**90.06**	**55**	P		**P**		**05 51 23.4**	**+1.0**
PD31	**Pinedale Array**	**90.92**	**44**			**P**		**05 51 27.1**	**+0.8**
PD31					IAmb	IAmb		05 51 30.3	
	comp=Z,5.1nm,1.4s								
PDAR	**Pinedale Array**	**90.92**	**44**	P		**P**		**05 51 26.8**	**+0.4**
	comp=Z,1.5nm,0.9s,baz=224,slow=4.0,SNR=11								
	comp=Z,1.5nm,0.9s								
PDAR	**Pinedale Array**	**90.92**	**44**	P		**P**		**05 51 26.9**	**+0.6**
DAWY	**Dawson**	**91.21**	**16**	P		**P**		**05 51 27.7**	**+0.7**
DAWY					IAmb	IAmb		05 52 06.6	
	comp=Z,4.7nm,1.4s								
SDCO	**Great Sand Dun**	**91.30**	**50**	P		**P**		**05 51 29.9**	**+1.6**
LZH	**Lanzhou**	**92.60**	**308**	*eP*		**P**		**05 51 32.3**	**-1.8**
LZH					pmax	pmax			
	comp=Z,22nm,1.4s								
BVAR	**Borovoye Array**	**119.32**	**319**	PKP		**PKPdf**		**05 57 06.5**	**-0.5**
	comp=Z,1.0nm,0.4s,baz=137,slow=2.4,SNR=3.8								
ARCES	**ARCESS Array B**	**130.09**	**349**	PKP		**PKPdf**		**05 57 26.9**	**-0.4**
	comp=Z,4.1nm,1.0s,baz=4.1,slow=1.7,SNR=4.5								
FINES	**FINESS Array B**	**136.76**	**342**	PKP		**PKPdf**		**05 57 40.3**	**+0.4**
	comp=Z,4.0nm,0.9s,baz=318,slow=1.9,SNR=2.2								
HFS	**Hagfors**	**140.73**	**350**	PKhKP		PKPpre		05 57 40.6	
	comp=Z,2.6nm,0.8s,baz=304,slow=3.1,SNR=6.0								
AKASG	**Malin Array Be**	**143.60**	**329**	PKP		PKPab		05 57 50.9	-0.7
	comp=Z,0.8nm,0.3s,baz=43,slow=4.1,SNR=12								
KIEV	**Kiev**	**143.61**	**329**	PKPbc		PKPab		05 57 51.1	-0.4
EKA	**Eskdalemuir Ar**	**146.54**	**4**	PKPbc		**PKPbc**		**05 57 59.7**	**-0.4**
	comp=Z,2.9nm,0.8s,baz=344,slow=1.8,SNR=4.5								
BR131	**Keskin Array S**	**146.78**	**310**	PKPbc		**PKPbc**		**05 58 01.5**	**+0.1**
BRTR	**Keskin Array B**	**146.78**	**310**	PKPbc		**PKPbc**		**05 58 01.2**	**-0.2**
	comp=Z,0.8nm,0.5s,baz=131,slow=4.5,SNR=4.7								
BRTR	**Keskin Array B**	**146.78**	**310**	PKPbc		**PKPbc**		**05 58 01.5**	**+0.1**
BUR08	**Bucovina Ar. S**	**147.61**	**328**	PKPbc		**PKPbc**		**05 58 03.7**	**+0.4**
BURAR	**Bucovina Array**	**147.62**	**328**	PKPbc		**PKPbc**		**05 58 03.7**	**+0.4**
BISRR	**Bisoca**	**148.22**	**324**	PKP		PKPab		05 58 18.4	+8.3
CLL	**Collm**	**149.13**	**345**	*i* PKPbc		**PKPbc**		**05 58 07.1**	**+0.4**
	comp=Z,8.0nm,1.1s								
CLL				*i* PKPab		**PKPab**		**05 58 13.8**	**+0.2**
	comp=Z,4.0nm,0.6s								
MORC	**Moravsky Berou**	**149.16**	**338**	*e*PKP		**PKPbc**		**05 58 07.4**	**+0.5**
VRAC	**Vranov**	**149.88**	**339**	*e*PKP		**PKPbc**		**05 58 08.6**	**0.0**
JAVC	**Velka Javorina**	**149.89**	**337**	*e*PKP		**PKiKP**		**05 58 10.2**	**+0.9**
KRUC	**Moravsky**	**150.16**	**339**	*e*PKP		**PKPbc**		**05 58 09.1**	**-0.1**
GERES	**GERESS Array B**	**151.19**	**342**	PKPbc		**PKPbc**		**05 58 11.7**	**-0.1**
	comp=Z,1.7nm,0.7s,baz=45,slow=2.1,SNR=7.8								

TEH ***17*** *06:25:14.3,33˚.26N×46˚.48E,h8km±3.43km, ML2.9, Presumed earthquake*
ISN ***17*** *06:25:17.0±1.1,33˚.30N×46˚.49E,h23km±12km, ML3.0, Presumed earthquake*

ISC 17 06:25:14.3±1.6, 33.17N±0˚.09×46.46E±0˚.06, h13km, n12, σ1s 49/14, Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IBDR	**Badra**	**0.45**	**263**	*e*Pg	**Pn**	**06 25 27.0**	**+0.6**
	baz=68						
IBDR				*e*Sg	**Sn**	**06 25 34.5**	**+0.2**
IBDR				AML	AML	06 25 36.5	
	comp=N,945nm,0.4s						
IBDR				AML	AML	06 25 38.8	
	comp=E,816nm,0.4s						
ILBA	**Ilam Banvizeh**	**0.50**	**335**	Pg	**Pg**	**06 25 22.9**	**-1.3**
IGHG	**Ghaleghazi**	**1.16**	**4**	Pg	**Pb**	**06 25 35.1**	**-1.3**
KCHF	**Cheshme Sefid,**	**1.21**	**23**	Pg	**Pn**	**06 25 36.0**	**-1.0**
IKFM	**Kafar-mosalman**	**1.22**	**73**	Pg	**Pn**	**06 25 37.1**	**+0.1**
IDHR	**Dehrash**	**1.53**	**358**	Pg	**Pn**	**06 25 41.8**	**+0.3**
IDOB	**Doab**	**1.56**	**66**	Pg	**Pn**	**06 25 43.1**	**+1.2**
IBZA	**Bozab**	**1.75**	**42**	Pg	**Pn**	**06 25 45.6**	**+1.1**
SNQR	**Sonqor, Kerman**	**1.95**	**30**	Pn	**Pn**	**06 25 49.3**	**+2.0**
SNJK	**Sanadaj _Korde**	**2.32**	**13**	Pn	**Pn**	**06 25 54.2**	**+1.8**
IKRK	**Kirkuk**	**2.84**	**322**	*e*Pn	**Pn**	**06 26 01.0**	**+1.7**
IKRK				*e*Sn	**Sn**	**06 26 35.0**	**+1.7**
IKRK				AML	AML	06 26 40.9	
	comp=E,98nm,0.4s						
IKRK				AML	AML	06 26 44.6	
	comp=N,94nm,0.2s						
HGHA	**Hamedan- Ghaye**	**3.05**	**40**	Pn	**Pn**	**06 26 04.4**	**+2.0**

IDC 17 06:27:44.6±3.0, 3.66N×94.58E, h0km, mb3.4/4, mbtmp3.5/5, ML4.5/1, Error ellipse: s-maj=95.5km s-min=25.6km az=68.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.31**	**16**	Pn	P	06 31 25.0	-2.2
	0.6nm,0.3s,baz=203,slow=12,SNR=4.1						
	0.7nm,0.3s						
CMAR				AML	AML		
H08S2	**Diego Garcia H**	**24.73**	**243**	T	T	06 58 00.9	
	baz=64,slow=75,SNR=18						
H08S3	**Diego Garcia H**	**24.73**	**243**	T	T	06 58 02.6	
	baz=64,slow=75,SNR=29						
H08S1	**Diego Garcia H**	**24.75**	**243**	T	T	06 57 59.5	
	baz=64,slow=75,SNR=14						
H01W3	**Cape Leeuwin H**	**42.53**	**156**	T	T	07 20 42.5	
	baz=331						
H01W2	**Cape Leeuwin H**	**42.54**	**156**	T	T	07 20 40.8	
	baz=331						
H01W1	**Cape Leeuwin H**	**42.54**	**156**	T	T	07 20 30.9	
	baz=331						
MKAR	**Makanchi Array**	**44.27**	**348**	P	P	06 35 56.1	+0.1
	0.8nm,0.7s,baz=170,slow=7.4,SNR=3.6						
	0.8nm,0.7s						
SONM	**Songino Array**	**45.17**	**11**	P	P	06 36 02.2	-1.1
	0.2nm,0.5s,baz=184,slow=8.7,SNR=1.7						
	0.2nm,0.5s						
WRA	**Warramunga Ar**	**45.56**	**123**	P	P	06 36 05.3	-1.4
	0.5nm,0.9s,baz=294,slow=7.7,SNR=2.2						
	0.5nm,0.9s						
ASAR	**Alice Springs**	**46.96**	**127**	P	P	06 36 19.0	+1.3
	0.3nm,0.8s,baz=301,slow=8.9,SNR=2.3						
	0.3nm,0.8s						
H04N2	**CROZET ISLANDS**	**62.39**	**212**	T	T	07 45 25.3	
	baz=50,slow=76,SNR=5.0						
H04N1	**CROZET ISLANDS**	**62.40**	**212**	T	T	07 45 30.1	
	baz=50,slow=76,SNR=4.9						
H04N3	**CROZET ISLANDS**	**62.41**	**212**	T	T	07 45 21.7	
	baz=50,slow=76,SNR=5.4						

IDC ***17*** *07:18:32.0±0.7,27˚.61N×129˚.80E, h0km, mb4.2/21, mbtmp4.2/25, ML3.5/4, MS3.3/9, Error ellipse: s-maj=22.6km s-min=12.1km az=91.0*
NEIC ***17*** *07:18:34.4±1.7,27˚.66N±0˚.05×129˚.90E±0˚.07, h10km±1km, mb4.6/13, Error ellipse: s-maj=10.3km s-min=8.3km az=94.0*
JMA ***17*** *07:18:35.9±0.2,28˚.N±1˚.×129˚.9E±1˚.0, h62km±4km, MV3.6/19, NEAR AMAMI-OSHIMA ISLAND*

ISC 17 07:18:35.7±1.6, 27.60N±0˚.03×129.89E±0˚.04, h24km±12km, n73, σ1s 04/73, mb4.3/28, MS3.0/7, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.71**	**6**	P	**Pb**	**07 18 49.8**	**+0.3**
JAM	**Amami Oshima**	**0.84**	**343**	*i* P	**Pn**	**07 18 51.2**	**-0.9**
JAM				*e*S	**Sn**	**07 19 02.4**	**-1.4**
JTK	**Tokunoshima**	**0.85**	**282**	*i* P	**Pb**	**07 18 52.2**	**+0.3**
JTK				*e*S	**Sn**	**07 19 03.9**	**-0.1**
JAMN	**Amaminishikomi**	**0.90**	**315**	*i* P	**Pn**	**07 18 52.0**	**-0.9**
JOKE	**Okinoerabujima**	**1.20**	**259**	P	**Pn**	**07 18 57.1**	**+0.1**
JYRO	**Yoronjima**	**1.41**	**246**	*i* P	**Pn**	**07 18 60.0**	**+0.1**
JOW	**Kunigami**	**1.63**	**242**		**Pn**	**07 19 03.0**	**0.0**
JOW	**Kunigami**	**1.63**	**242**	P	**Pn**	**07 19 02.9**	**0.0**
JTAJ	**Takarajima**	**1.66**	**339**	P	**Pn**	**07 19 02.2**	**-1.1**
JIH	**Iheya**	**1.80**	**252**	P	**Pn**	**07 19 05.5**	**+0.2**
JNTH	**Nagotoyohara**	**1.99**	**237**	P	**Pn**	**07 19 07.8**	**-0.1**
JNTH				*e*S	**Sn**	**07 19 31.4**	**-0.5**
JKDJ	**Kitadaitoujima**	**2.07**	**142**	*e*P	**Pn**	**07 19 09.0**	**-0.1**
JKDJ				*e*S	**Sn**	**07 19 32.9**	**-1.2**
JMZ	**Minamidaito 2**	**2.14**	**146**	Pn	**Pn**	**07 19 09.6**	**-0.4**
JMZ	**Minamidaito 2**	**2.14**	**146**	P	**Pn**	**07 19 08.8**	**-1.2**
JMZ				*e*S	**Sn**	**07 19 32.9**	**-2.9**
JAGN	**Aguni-jima**	**2.57**	**247**	P	**Pn**	**07 19 16.3**	**+0.5**
JYAK	**Yakushimahirau**	**2.68**	**12**	P	**Pn**	**07 19 16.8**	**-0.7**
JMTN	**Minamitane**	**2.92**	**17**	P	**Pn**	**07 19 20.2**	**-0.5**
JKE	**Kume jima 2**	**3.05**	**246**	P	**Pn**	**07 19 21.8**	**-0.7**
JKE				*e*S	**Sn**	**07 19 58.1**	**-0.1**
JTN	**Tanegashima 3**	**3.19**	**17**	*e*P	**Pn**	**07 19 24.0**	**-0.4**
JTN				S	**Sn**	**07 20 01.0**	**-0.6**
JSU	**Suzuyama**	**3.92**	**7**		**Pn**	**07 19 33.3**	**-1.2**
JNU	**Nakatsue**	**5.56**	**9**	Pn	**Pn**	**07 19 57.4**	**+0.3**
	3.9nm,0.3s,baz=174,slow=7.1,SNR=22						
JNU				Sn	**Sn**	**07 20 58.8**	**-1.6**
	baz=189,slow=19						
	34nm,0.7s						
JNU				AML	AML		
JMN	**Monobe**	**7.00**	**28**	Pn	**Pn**	**07 20 16.2**	**-0.6**
TPUB	**Ta-pu**	**9.40**	**245**	Pn	**Pn**	**07 20 47.6**	**-2.2**
KSRS	**Korea Array**	**9.96**	**351**	Pn	**Pn**	**07 20 59.6**	**+2.3**
	0.2nm,0.3s,baz=162,slow=14,SNR=6.1						
KSRS				LR	LR	07 25 17.0	
	comp=Z,142nm,19.3s,baz=170,slow=41						
	1.1nm,0.8s						
KSRS				AML	AML		
MJAR	**Matsushiro Arr**	**11.36**	**36**	Pn	**Pn**	**07 21 19.5**	**+2.9**
	0.1nm,0.3s,baz=233,slow=15,SNR=2.3						
	0.6nm,0.4s						
MJAR				AML	AML		
USRK	**Ussuriysk Ar.**	**16.65**	**5**	Pn	**Pn**	**07 22 27.1**	**-0.4**
	0.2nm,0.3s,baz=188,slow=15,SNR=1.5						
	1.1nm,0.7s						
USRK				AML	AML		
GUMO	**Guam**	**19.75**	**132**	LR	LR	07 28 60.0	
	comp=Z,48nm,20.3s,baz=346,slow=32						
KLR	**Kul'dur**	**21.64**	**3**	P	**P**	**07 23 22.3**	**-1.9**
	1.6nm,0.6s,baz=171,slow=13,SNR=2.9						
KLR				LR	LR	07 32 15.6	
	comp=Z,71nm,18.9s,baz=176,slow=38						
	1.6nm,0.6s						
LZDM	**Lanzhou Array**	**23.72**	**297**	P	**P**	**07 23 46.0**	**-0.4**
	2.0nm,0.3s,baz=119,slow=12,SNR=4.0						
	2.0nm,0.3s						
SONM	**Songino Array**	**27.26**	**324**	P	**P**	**07 24 18.5**	**+0.3**
	0.7nm,0.7s,baz=136,slow=11,SNR=4.7						
SONM				LR	LR	07 36 06.8	
	comp=Z,71nm,18.7s,baz=170,slow=39						
	0.7nm,0.7s						
SIJI	**Sorong**	**28.34**	**177**	LR	LR	07 35 06.0	
	comp=Z,31nm,19.0s,baz=284,slow=35						
CMAR	**Chiang Mai Arr**	**29.83**	**259**	P	**P**	**07 24 41.2**	**-0.1**
	1.6nm,0.3s,baz=72,slow=10,SNR=1.3						
	1.6nm,0.3s						
JAY	**Jayapura**	**31.70**	**159**	LR	LR	07 36 46.7	
	comp=Z,31nm,19.3s,baz=358,slow=34						
PETK	**Petropavlovsk-**	**32.76**	**31**	LR	LR	07 39 21.8	
	comp=Z,31nm,18.9s,baz=229,slow=38						
H11N2	**WAKE ISLAND Hy**	**34.69**	**95**	T	T	08 02 02.3	
	baz=290,slow=75,SNR=4.9						
H11N1	**WAKE ISLAND Hy**	**34.69**	**95**	T	T	08 02 00.0	
	baz=290,slow=75,SNR=4.3						
H11N3	**WAKE ISLAND Hy**	**34.70**	**95**	T	T	08 02 05.8	
	baz=290,slow=75,SNR=3.8						
MA2	**Magadan**	**35.04**	**18**	LR	LR	07 40 44.6	
	comp=Z,28nm,18.0s,baz=310,slow=38						
MKAR	**Makanchi Array**	**41.75**	**310**	PcP	**PcP**	**07 28 20.0**	**+0.9**
	0.5nm,0.6s,baz=90,slow=1.4,SNR=1.3						
ZALV	**Zalesovo Beam**	**42.08**	**321**	P	**P**	**07 26 24.6**	**-0.9**
	0.9nm,0.5s,baz=106,slow=11,SNR=1.3						
	0.9nm,0.5s						
KNRA	**Kununurra**	**43.04**	**182**	P	**P**	**07 26 34.2**	**+0.5**
KNRA				IAmb	IAmb	07 26 35.1	
	comp=Z,10.0nm,0.8s						
KURBB	**Kurchatov Arra**	**44.90**	**315**	P	**P**	**07 26 47.2**	**-1.2**
	comp=Z,0.8nm,0.6s,baz=102,slow=8.6,SNR=4.6						
KURBB				PcP	**PcP**	**07 28 30.6**	**+1.0**
	comp=Z,0.3nm,0.6s,baz=93,slow=3.1,SNR=2.5						
	comp=Z,0.8nm,0.6s						
FITZ	**Fitzroy Crossi**	**45.62**	**186**	P	**P**	**07 26 55.2**	**+0.9**
WB0	**Warramunga Arr**	**47.29**	**174**	P	**P**	**07 27 07.8**	**+0.3**
WB0				IAmb	IAmb	07 27 08.6	
	comp=Z,7.4nm,0.8s						
WRAB	**Tennant Creek**	**47.45**	**174**	P	**P**	**07 27 09.4**	**+0.7**
WRAB				IAmb	IAmb	07 27 10.0	
	comp=Z,6.7nm,0.8s						
WRA	**Warramunga Arr**	**47.46**	**174**	P	**P**	**07 27 08.5**	**-0.3**
	comp=Z,5.4nm,0.6s,baz=354,slow=7.9,SNR=53						
	comp=Z,5.4nm,0.6s						
WRA	**Warramunga Arr**	**47.46**	**174**		**P**	**07 27 08.2**	**-0.5**
WR8	**Warramunga Arr**	**47.49**	**174**		**P**	**07 27 09.5**	**+0.5**
NRIK	**Noril'sk**	**48.41**	**341**	P	**P**	**07 27 15.0**	**-0.6**
	comp=Z,6.3nm,1.0s,baz=131,slow=8.3,SNR=4.3						
	comp=Z,6.3nm,1.0s						
CTAO	**Charters Tower**	**49.99**	**160**	P	**P**	**07 27 29.3**	**+1.1**
CTAO				IAmb	IAmb	07 27 30.4	
	comp=Z,9.6nm,0.8s						
BVAR	**Borovoye Array**	**50.25**	**317**	P	**P**	**07 27 28.2**	**-1.7**
	comp=Z,1.3nm,0.5s,baz=79,slow=8.7,SNR=5.5						
BVAR				PcP	**PcP**	**07 28 48.8**	**+0.1**
	comp=Z,1.0nm,0.6s,baz=90,slow=5.8,SNR=1.3						
	comp=Z,1.3nm,0.5s						
AS31	**Alice Springs**	**51.12**	**175**		**P**	**07 27 37.5**	**+0.8**
AS31				IAmb	IAmb	07 27 39.4	
	comp=Z,1.6nm,0.5s						
ASAR	**Alice Springs**	**51.12**	**175**	P	**P**	**07 27 36.8**	**+0.1**
	comp=Z,3.8nm,0.8s,baz=356,slow=7.7,SNR=61						
	comp=Z,3.8nm,0.8s						
AB31	**Akbulak array**	**56.80**	**313**	P	**P**	**07 28 17.6**	**-0.4**
ABKAR	**Akbulak array**	**56.80**	**313**	P	**P**	**07 28 17.4**	**-0.5**
STKA	**Stephens Creek**	**60.19**	**169**	P	**P**	**07 28 41.3**	**-0.4**
	comp=Z,1.0nm,0.6s,baz=351,slow=13,SNR=2.9						
	comp=Z,1.0nm,0.6s						
MLY	**Manley**	**60.87**	**29**	P	**P**	**07 28 47.1**	**+1.0**
MLY				IAmb	IAmb	07 28 59.4	
	comp=Z,2.8nm,1.0s						
F24K	**Squaw Lake**	**61.86**	**26**	P	**P**	**07 28 53.8**	**+1.0**
F24K				IAmb	IAmb	07 28 57.2	
	comp=Z,4.5nm,1.4s						
BMAR	**Burnt Mountain**	**63.13**	**26**	P	**P**	**07 29 03.1**	**+1.8**
SPITS	**Spitsbergen Ar**	**67.79**	**348**	P	**P**	**07 29 30.5**	**-0.7**
	comp=Z,11nm,1.0s,baz=80,slow=9.1,SNR=7.8						
	comp=Z,11nm,1.0s						
ARCES	**ARCESS Array B**	**69.27**	**339**	P	**P**	**07 29 40.2**	**-0.3**
	comp=Z,6.5nm,1.1s,baz=59,slow=4.4,SNR=7.7						
	comp=Z,6.5nm,1.1s						
ARCES	**ARCESS Array B**	**69.27**	**339**	IAmb	IAmb	07 29 46.5	
	comp=Z,14nm,1.1s						
KBZ	**Khabaz**	**69.44**	**309**	P	**P**	**07 29 41.1**	**-0.9**
	comp=Z,4.6nm,0.9s,baz=61,slow=19,SNR=4.1						
	comp=Z,4.6nm,0.9s						
DLBC	**Dease Lake**	**71.92**	**33**	LR	LR	08 03 25.8	
	comp=Z,92nm,18.0s,baz=258,slow=37						
FINES	**FINESS Array B**	**72.40**	**331**	P	**P**	**07 29 59.4**	**-0.2**
	comp=Z,3.8nm,0.5s,baz=62,slow=5.5,SNR=27						
	comp=Z,3.8nm,0.5s						
AKASG	**Malin Array Be**	**75.45**	**320**	P	**P**	**07 30 16.8**	**-0.9**
	comp=Z,1.7nm,0.5s,baz=62,slow=6.1,SNR=5.7						
	comp=Z,1.7nm,0.5s						
BRTR	**Keskin Array B**	**77.36**	**308**	P	**P**	**07 30 29.6**	**+0.7**
	comp=Z,1.6nm,1.0s,baz=76,slow=6.1,SNR=5.2						
	comp=Z,1.6nm,1.0s						
HFS	**Hagfors**	**78.29**	**333**	P	**P**	**07 30 32.9**	**-0.6**
	comp=Z,1.8nm,0.5s,baz=55,slow=11,SNR=6.7						
	comp=Z,1.8nm,0.5s						
NB2	**NORSAR Subarr**	**78.73**	**334**	P	**P**	**07 30 35.7**	**-0.3**
	comp=Z,5.5nm,0.7s,baz=52,slow=5.9						
NOA	**NORSAR Array B**	**78.73**	**334**	P	**P**	**07 30 35.5**	**-0.5**
	comp=Z,3.2nm,0.6s,baz=52,slow=5.6,SNR=12						
	comp=Z,3.2nm,0.6s						
CLL	**Collm**	**83.86**	**326**	*i* P	**P**	**07 31 05.6**	**+2.2**
GERES	**GERESS Array B**	**84.99**	**323**	P	**P**	**07 31 10.4**	**+1.1**
	comp=Z,1.0nm,0.8s,baz=46,slow=2.8,SNR=5.2						
	comp=Z,1.0nm,0.8s						
EKA	**Eskdalemuir Ar**	**88.16**	**335**	P	**P**	**07 31 26.0**	**+1.5**
	comp=Z,0.7nm,0.5s,baz=40,slow=3.8,SNR=4.5						
	comp=Z,0.7nm,0.5s						

PAS ***17*** *07:19:21.2±1.3,34˚.07N±0˚.01×116˚.72W±0˚.01, h5km±6km, Error ellipse: s-maj=2.2km s-min=1.3km az=205.0*

NEIC 17 07:19:20.3±1.5, 34.06N±0˚.01×116.709W±0˚.010, h5km±2km, ML3.5/108, Mwr3.5/4(PAS), Error ellipse: s-maj=3.0km s-min=2.6km az=312.0, Southern California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLL	**Mill Creek**	**0.19**	**278**		Pg	07 19 24.9	+0.8
MLL					Sg	07 19 27.8	+1.2
VG2	**Vista Grande**	**0.25**	**200**		Pg	07 19 26.2	+1.1
BBRC	**Big Bear Solar**	**0.27**	**318**		Pg	07 19 26.1	+0.6
BBRC					Sg	07 19 30.1	+1.0
BBSC	**Beaumont Base**	**0.27**	**238**		Pg	07 19 26.4	+0.9
BBSC					Sb	07 19 31.0	-1.5
EW2	**E Wide Canyon**	**0.28**	**116**		Pb	07 19 26.9	-0.9
EW2					Sb	07 19 31.3	-1.5
SIL	**Silver Peak**	**0.30**	**341**		Pg	07 19 26.8	+0.6
SIL					Sg	07 19 31.1	+0.9
SVD	**Seven Oaks Dam**	**0.33**	**278**		Sg	07 19 31.9	+1.0
CFT	**Crafton Hills**	**0.34**	**265**		Sg	07 19 32.7	+1.4
GTM	**Goat Mountain**	**0.37**	**52**		Pg	07 19 28.0	+0.5
GTM					Sg	07 19 33.2	+0.8
GVDA	**Garner Valley**	**0.40**	**176**		Pg	07 19 28.7	+0.8
GVDA					Sg	07 19 34.1	+0.9
PEC	**Perris**	**0.41**	**246**		Pg	07 19 29.0	+0.7
PEC					Sg	07 19 34.6	+0.9
POB	**Polly Butte**	**0.42**	**205**		Pb	07 19 29.3	-0.9
POB					Sg	07 19 35.1	+1.3
HLNC	**Highland**	**0.43**	**278**		Pg	07 19 29.2	+0.7
HLNC					Sg	07 19 35.4	+1.3
HMTC	**Hemet**	**0.43**	**215**		Pg	07 19 29.5	+0.9
HMTC					Sg	07 19 35.3	+1.0
CFSC	**Central Fire S**	**0.48**	**275**		Sb	07 19 37.3	-1.2
DGR	**Domenigoni Val**	**0.48**	**211**		Sg	07 19 36.9	+1.0
PFO	**Pinyon Flats O**	**0.50**	**155**		Pg	07 19 30.7	+0.8
PFO	**Pinyon Flats O**	**0.50**	**155**		Sg	07 19 37.3	+1.0
CRY	**Cary Ranch**	**0.50**	**183**		Sg	07 19 37.7	+1.3
XPFO	**Pinon Flat**	**0.50**	**155**		Sg	07 19 37.0	+0.6
DNR	**Dunn Ranch,Anz**	**0.50**	**173**		Pb	07 19 30.9	-0.8
DNR				IAML		07 19 44.4	
	comp=E,4µm,0.5s						
DNR				IAML		07 19 45.2	
	comp=N,4µm,0.7s						
DNR	**Dunn Ranch,Anz**	**0.50**	**173**		Sb	07 19 38.1	-1.2
CLTC	**Calectric**	**0.51**	**273**		Pb	07 19 30.9	-0.8
CLTC					Sg	07 19 38.5	-0.8
RSBC	**Riverside Bore**	**0.52**	**260**		Pg	07 19 30.8	+0.4
RSBC					Sg	07 19 37.5	+0.4
RSBC	**Riverside Bore**	**0

CBX	**Cerro Bola**	**1.75**	**179**			Pn	07 19 51.9	+0.5
OSI	**Osito Audit: C**	**1.75**	**289**			Pb	07 19 52.5	-0.5
OSI					IAML		07 20 20.8	
	comp=N,550nm,0.7s							
OSI					IAML		07 20 21.9	
	comp=E,686nm,0.7s							
BLYC	**Blythe**	**1.84**	**99**			Pn	07 19 51.8	-0.8
BLYC					IAML		07 20 24.5	
	comp=E,328nm,0.5s							
BLYC					IAML		07 20 25.4	
	comp=N,336nm,0.8s							
SHOC	**Shoshone, Teco**	**1.87**	**11**			Pn	07 19 52.9	0.0
GLA	**Glamis**	**1.87**	**122**			Pn	07 19 52.6	-0.4
GLA					IAML		07 20 27.2	
	comp=N,349nm,0.5s							
GLA					IAML		07 20 31.4	
	comp=E,432nm,0.6s							
CLC	**China Lake**	**1.89**	**338**		IAML		07 20 21.8	
	comp=E,231nm,0.6s							
MPMC	**Manual Prospec**	**2.09**	**342**			Pn	07 19 56.8	+0.6
MPMC					IAML		07 20 28.3	
	comp=N,222nm,0.6s							
MPMC					IAML		07 20 37.5	
	comp=E,242nm,0.7s							
GWY	**Greenwater Val**	**2.12**	**1**			Pn	07 19 56.4	-0.1
ESJX	**Sierra Juarez**	**2.15**	**163**			Pn	07 19 57.4	+0.4
ESJX					IAML		07 20 28.9	
	comp=N,162nm,0.6s							
ESJX					IAML		07 20 29.4	
	comp=E,289nm,0.7s							
ISA	**Isabella, Lake**	**2.16**	**318**			Pn	07 19 56.5	-0.5
CCX	**Cicese**	**2.19**	**179**			Pn	07 19 58.3	+0.9
CCX					IAML		07 20 30.8	
	comp=N,349nm,0.5s							
CCX					IAML		07 20 30.9	
	comp=E,290nm,0.6s							
FURC	**Furnace Creek,**	**2.40**	**357**			Pn	07 20 01.8	+1.6
VES	**Vestal, Richgr**	**2.64**	**313**			Pn	07 20 04.2	+0.7
VES					IAML		07 20 52.4	
	comp=E,260nm,0.9s							
VES					IAML		07 20 55.3	
	comp=N,208nm,0.8s							
SHPR	**Sheep Range**	**2.75**	**27**			Pn	07 20 05.7	+0.5
SHPR					IAML		07 20 55.9	
	comp=E,111nm,0.6s							
VTX	**Valle De La Tr**	**2.78**	**163**			Pn	07 20 06.0	+0.5
VTX					IAML		07 20 49.4	
	comp=N,229nm,0.8s							
VTX					IAML		07 20 50.0	
	comp=E,186nm,0.7s							
TPNV	**Topopah Spring**	**2.90**	**7**			Pn	07 20 08.8	+1.4
TPNV					IAML		07 20 55.0	
	comp=E,198nm,0.4s							
GRAC	**Grapevine Rang**	**2.97**	**350**			Pn	07 20 08.8	+0.7
GRAC					IAML		07 21 00.9	
	comp=N,177nm,0.7s							
GRAC					IAML		07 21 03.8	
	comp=E,134nm,0.6s							
S11A	**Rachel**	**3.66**	**12**			Pn	07 20 19.5	+1.8
TPH	**Tonopah**	**4.02**	**354**			Pn	07 20 24.8	+2.0
X16A	**Lo Mia Camp, P**	**4.38**	**84**			Pn	07 20 28.1	+0.5
LHV	**Little Huntoon**	**4.42**	**341**			Pn	07 20 29.6	+1.6
NV11	**Mina Array Sit**	**4.51**	**345**	Pn		Pn	07 20 27.6	-1.8
NVAR	**Mina Array Bea**	**4.54**	**344**	Pn		Pn	07 20 31.4	+1.4
WUAZ	**Wupatki**	**4.62**	**70**			Pn	07 20 32.4	+1.5
WUAZ					IAML		07 21 59.9	
	comp=E,24nm,0.8s							
WUAZ					IAML		07 22 08.5	
	comp=E,29nm,1.1s							
TUC	**Tucson**	**5.26**	**108**	Pn		Pn	07 20 38.8	-1.0
PV17	**East Wray Mesa**	**7.55**	**54**	Pn		Pn	07 21 12.2	+1.0
PV18	**Skein Mesa, Pa**	**7.56**	**54**			Pn	07 21 13.1	+1.7
PV22	**Blue Mesa, Par**	**7.80**	**53**			Pn	07 21 16.4	+1.8

*NNC **17** 07:22:12.1±1.0,49.°93N×78.°52E, h0km, mb2.9, mpv2.6, Error ellipse: s-maj=21.8km s-min=4.1km az=83.0, Suspected Mining explosion.*

*IDC **17** 07:22:13.5±1.1,50.°04N×78.°75E, h0km, mbtmp2.8/3, ML2.1/3, Error ellipse: s-maj=12.9km s-min=8.3km az=52.0*

ISC 17 07:22:13.9±0.9, 50.°01N±0.°05×78.°58E±0.°08, h0km, n17, σ0s75/30, 13C-12D, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUR07	**Kurchatov Arra**	**0.58**	**356**	⇑P	**Pg**	**07 22 25.0**	**0.0**
KUR07				⇓S	**Sb**	**07 22 34.7**	**-1.0**
KUR06	**Kurchatov Arra**	**0.59**	**356**	⇑P	**Pg**	**07 22 25.4**	**0.0**
KUR06				⇑S	**Sb**	**07 22 35.3**	**-0.9**
KUR14	**Kurchatov Arra**	**0.60**	**1**	⇑P	**Pg**	**07 22 25.1**	**-0.5**
KUR14				⇓S	**Sg**	**07 22 34.4**	**+1.0**
KUR15	**Kurchatov Arra**	**0.61**	**359**	⇑P	**Pg**	**07 22 25.5**	**-0.2**
KUR15				⇓S	**Sb**	**07 22 35.8**	**-0.8**
KURBB	**Kurchatov Arra**	**0.61**	**357**	Pg	**Pg**	**07 22 25.5**	**-0.2**
	1.8nm,0.3s,baz=166,slow=18,SNR=11.3						
KURBB				Lg	Lg	07 22 34.9	
	4.0nm,0.3s,baz=165,slow=31,SNR=42						
KURBB	**Kurchatov Arra**	**0.61**	**357**	⇓P	**Pg**	**07 22 25.5**	**-0.2**
	18nm,0.5s						
KURBB				⇑S	**Sb**	**07 22 36.1**	**-0.7**
	88nm,0.5s						
KUR16	**Kurchatov Arra**	**0.62**	**355**	⇓P	**Pg**	**07 22 26.0**	**+0.1**
KUR16				⇓S	**Sb**	**07 22 35.9**	**-1.0**
KUR17	**Kurchatov Arra**	**0.63**	**353**	⇑P	**Pg**	**07 22 26.3**	**+0.4**
KUR17				⇓S	**Sb**	**07 22 36.4**	**-0.8**
KUR05	**Kurchatov Arra**	**0.63**	**357**	⇑P	**Pg**	**07 22 25.9**	**-0.2**
KUR05				⇑S	**Sg**	**07 22 35.2**	**+0.9**
KUR04	**Kurchatov Arra**	**0.65**	**358**	⇑P	**Pg**	**07 22 26.3**	**-0.1**
KUR04				⇓S	**Sg**	**07 22 35.5**	**+0.5**
KURK	**Kurchatov**	**0.71**	**2**	⇓P	**Pg**	**07 22 26.8**	**-0.7**
	5.3nm,0.8s						
KURK				⇑S	**Sb**	**07 22 38.3**	**-1.2**
	34nm,0.7s						
MAKZ	**Makanchi**	**3.92**	**144**	⇓Pg	**Pb**	**07 23 23.5**	**-0.5**
	1.3nm,0.6s						
MAKZ				⇓Lg	Lg	07 24 13.0	
	21nm,0.8s						
MK31	**Makanchi Array**	**4.06**	**141**	⇓Pn	**Pn**	**07 23 17.6**	**+0.3**
	0.1nm,0.3s,baz=323,slow=9.9,SNR=10						
MK31				⇑Pg	**Pb**	**07 23 26.6**	**+0.4**
	1.0nm,0.5s,baz=323,slow=14,SNR=12						
MK31				⇑Lg	Lg	07 24 20.9	
	10nm,0.6s,baz=337,slow=26,SNR=16						
MKAR	**Makanchi Array**	**4.06**	**141**	Pn	**Pn**	**07 23 17.8**	**+0.5**
	0.2nm,0.3s,baz=321,slow=10,SNR=10						
MKAR				Pg	**Pb**	**07 23 24.3**	**-1.9**
	0.8nm,0.3s,baz=323,slow=13,SNR=15						
MKAR				Sn	**Sn**	**07 24 05.9**	**+0.5**
	0.3nm,0.3s,baz=330,slow=12,SNR=4.3						
MKAR				Lg	Lg	07 24 18.4	
	2.4nm,0.3s,baz=329,slow=25,SNR=16						
	0.4nm,0.5s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**5.51**	**42**	I	I	07 53 50.0	
	0.1nm,0.8s,baz=222,slow=333,SNR=4.9						
ZALV	**Zalesovo Beam**	**5.51**	**42**	Pn	**Pn**	**07 23 37.8**	**+0.6**
	0.3nm,0.3s,baz=229,slow=14,SNR=5.6						
ZALV				Lg	Lg	07 25 03.8	
	1.5nm,0.3s,baz=227,slow=14,SNR=14						
	0.8nm,0.2s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**5.94**	**304**	Pn	**Pn**	**07 23 42.8**	**-0.3**
	baz=116,slow=9.8,SNR=2.6						
BVAR				Sn	**Sn**	**07 24 52.8**	**+1.0**
	0.1nm,0.3s,baz=115,slow=22,SNR=4.0						
BVAR				Lg	Lg	07 25 24.9	
	0.1nm,0.3s,baz=117,slow=28,SNR=2.6						
	0.4nm,0.4s						

RSNC 17 07:23:10.6±0.0, 8.°N±2.°×7.°4W±.°, h93km±3km, M1.5, ML1.4, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGCC	**Aguachica**	**0.20**	**7**	P	Pn	07 23 23.1	-1.0
AGCC				S	Sn	07 23 33.3	-0.7
OCAC	**Ocana**	**0.30**	**104**	P	Pn	07 23 23.5	-1.0
OCAC				S	Sn	07 23 34.8	-0.1
OCAC	**Ocana**	**0.30**	**104**	P	Pn	07 23 23.6	-0.9
OCAC				S	Sn	07 23 34.7	-0.2
VMM05	**San Martn**	**0.40**	**173**	P	Pn	07 23 24.5	-0.5
VMM05				S	Sn	07 23 35.6	-0.1
VMM09	**Lebrija**	**1.22**	**165**	P	Pn	07 23 32.2	-1.0
VMM09				S	Sn	07 23 48.6	-1.6
UREC	**San Jos de Ur**	**1.98**	**254**	P	Pn	07 23 43.2	+0.5
UREC				S	Sn	07 24 10.3	+3.1
UREC	**San Jos de Ur**	**1.98**	**254**	P	Pn	07 23 43.3	+0.6
UREC				S	Sn	07 24 09.9	+2.7
SJCC	**San Jacinto, C**	**2.21**	**316**	P	Pn	07 23 45.2	-0.6
SJCC				S	Sn	07 24 13.2	+0.6
SJCC	**San Jacinto, C**	**2.21**	**316**	P	Pn	07 23 45.2	-0.6
SJCC				S	Sn	07 24 11.0	-1.6

*NEIC **17** 07:26:41.8±1.8, 22.°7S±0.°1×179.°4E±0.°1, h566km±12km, mb4.2/19, Error ellipse: s-maj=20.4km s-min=13.3km az=174.0*

*IDC **17** 07:26:42.8±1.1, 22.°51S×179.°22E, h578km±13km, mb3.3/6, mbtmp4.2/9, Error ellipse: s-maj=20.0km s-min=17.2km az=28.0*

*NOU **17** 07:26:42.6, 22.°50S×179.°34E, h601km, mb4.5/13, South of Fiji Islands*

ISC 17 07:26:42.6±0.7, 22.°54S±0.°07×179.°38E±0.°09, h591km, n71, σ1s70/78, mb4.1/16, 1D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LKBA	**Tubou, Lakemba**	**4.60**	**22**	P	**P**	**07 28 12.0**	**+0.1**
MSVF	**Nonsavu**	**4.94**	**345**	P	**P**	**07 28 14.2**	**-0.5**
	10nm,0.4s,baz=221,slow=11,SNR=21						
MSVF				S	**S**	**07 29 29.2**	**-0.3**
	7.2nm,0.7s,baz=163,slow=18,SNR=1.5						
MSVF	**Nonsavu**	**4.94**	**345**	P	**P**	**07 28 14.3**	**-0.3**
MSVF	**Nonsavu**	**4.94**	**345**	P	**P**	**07 28 14.5**	**-0.1**
TAVE	**Taveuni**	**5.84**	**7**	P	**P**	**07 28 22.7**	**+0.8**
DGTI	**Dogotuki**	**6.21**	**3**	P	**P**	**07 28 25.4**	**+0.2**
FUTU	**Fugatoga**	**8.52**	**17**	P	**P**	**07 28 46.0**	**+0.6**
FUTU	**Fugatoga**	**8.52**	**17**	P	**P**	**07 28 46.0**	**-0.8**
NIUE	**Niue**	**10.58**	**73**	P	**P**	**07 29 04.4**	**-2.6**
MARNC	**Mare, Loyalty**	**10.58**	**274**	P	**P**	**07 29 06.9**	**-0.1**
MARNC	**Mare, Loyalty**	**10.58**	**274**	P	**P**	**07 29 06.4**	**-0.6**
DZM	**Mont Dzumac**	**11.98**	**270**	P	**P**	**07 29 19.3**	**-1.9**
	3.0nm,0.8s,baz=104,slow=18,SNR=1.6						
AFI	**Afiamalu**	**12.00**	**46**	P	**P**	**07 29 21.0**	**-0.5**
	11nm,0.4s,baz=184,slow=16,SNR=2.3						
SANVU	**Saraoutou**	**13.50**	**299**	P	**P**	**07 29 36.4**	**-0.2**
SANVU	**Saraoutou**	**13.50**	**299**	P	**P**	**07 29 35.0**	**-1.6**
OUZ	**Omahuta**	**13.61**	**201**	P	**P**	**07 29 38.5**	**+1.0**
OUZ	**Omahuta**	**13.61**	**201**	P	**P**	**07 29 38.7**	**+1.2**
WCZ	**Waipu Caves**	**14.06**	**197**	P	**P**	**07 29 42.9**	**+1.0**
MKAZ	**Moumakai**	**14.97**	**193**	P	**P**	**07 29 51.8**	**+1.3**
HAZ	**Te Kaha**	**15.23**	**185**	P	**P**	**07 29 51.7**	**-1.3**
RUGZ	**Raukumara Rang**	**15.45**	**185**	P	**P**	**07 29 53.7**	**-1.5**
TOZ	**Tahuroa Road**	**15.51**	**192**	P	**P**	**07 29 56.3**	**+0.8**
TOZ	**Tahuroa Road**	**15.51**	**192**	P	**P**	**07 29 58.4**	**+2.9**
URZ	**Urewera**	**15.79**	**187**	P	**P**	**07 29 55.1**	**-3.1**
	23nm,0.8s,baz=10,slow=9.4,SNR=12						
URZ				S	**S**	**07 32 32.4**	**-5.3**
	8.3nm,0.7s,baz=73,slow=19,SNR=7.2						
URZ	**Urewera**	**15.79**	**187**	P	**P**	**07 29 55.8**	**-2.4**
MWZ	**Matawai**	**15.83**	**185**	P	**P**	**07 29 57.2**	**-1.4**
RTZ	**Ruatahuna**	**16.16**	**187**	P	**P**	**07 29 59.8**	**-1.8**
RTZ				IAmb	IAmb	07 30 01.1	
	comp=Z,12nm,0.7s						
RTZ	**Ruatahuna**	**16.16**	**187**	P	**P**	**07 30 00.2**	**-1.5**
NMHZ	**Naumai**	**16.66**	**187**	P	**P**	**07 30 05.0**	**-1.2**
TMVZ	**Te Maari**	**16.82**	**190**	P	**P**	**07 30 07.0**	**-0.7**
ETVZ	**East Tongariro**	**16.84**	**190**	P	**P**	**07 30 07.4**	**-0.6**
WNVZ	**Wahianoa**	**17.05**	**190**	P	**P**	**07 30 08.3**	**-1.6**
BHHZ	**Black Hill Sta**	**17.14**	**189**	P	**P**	**07 30 08.5**	**-2.1**
PKE	**Pukeiti**	**17.23**	**194**	P	**P**	**07 30 15.6**	**+4.2**
KAHZ	**Kahuranaki**	**17.34**	**186**	P	**P**	**07 30 11.5**	**-0.8**
MRZ	**Mangatainoka R**	**18.36**	**189**	P	**P**	**07 30 19.9**	**-1.7**
OGWZ	**Otaki Gorge**	**18.57**	**190**	P	**P**	**07 30 23.0**	**-0.5**
DUWZ	**D'Urville Isla**	**18.79**	**193**	P	**P**	**07 30 24.9**	**-0.6**
CAW	**Cannon Point**	**18.87**	**190**	P	**P**	**07 30 25.7**	**-0.6**
TRWZ	**Traveller**	**19.06**	**189**	P	**P**	**07 30 33.8**	**+5.8**
TCW	**Tory Channel**	**19.11**	**192**	P	**P**	**07 30 27.3**	**-1.1**
QRZ	**Quartz Range**	**19.13**	**196**	P	**P**	**07 30 28.5**	**-0.1**
MSWZ	**Moikau Station**	**19.14**	**190**	P	**P**	**07 30 28.1**	**-0.7**
KHZ	**Kahutara**	**20.42**	**192**	P	**P**	**07 30 38.7**	**-1.5**
LTZ	**Lake Taylor**	**21.04**	**195**	P	**P**	**07 30 44.7**	**-1.2**
OXZ	**Oxford**	**21.61**	**195**	P	**P**	**07 30 49.7**	**-1.3**
JCZ	**Jackson Bay**	**23.19**	**200**	P	**P**	**07 31 05.1**	**0.0**
TATA	**Tatamba Isabel**	**23.49**	**304**	P	**P**	**07 31 07.0**	**-1.0**
CTAO	**Charters Tower**	**30.92**	**268**	P	**P**	**07 32 13.5**	**+0.7**
CTAO				IAmb	IAmb	07 32 14.2	
	comp=Z,8.7nm,0.7s						
TOO	**Toolangi**	**32.73**	**235**	P	**P**	**07 32 28.5**	**+0.5**
TOO				IAmb	IAmb	07 32 29.1	
	comp=Z,3.3nm,0.7s						
STKA	**Stephens Creek**	**34.72**	**246**	P	**P**	**07 32 44.4**	**-0.3**
	comp=Z,3.7nm,0.4s,baz=94,slow=9.6,SNR=17						
	comp=Z,3.7nm,0.4s						
STKA	**Stephens Creek**	**34.72**	**246**	P	**P**	**07 32 44.8**	**+0.1**
BBOO	**Buckleboo**	**39.47**	**245**	P	**P**	**07 33 23.2**	**-0.2**
BBOO				IAmb	IAmb	07 33 49.1	
	comp=Z,14nm,1.4s						
AS31	**Alice Springs**	**41.71**	**259**	P	**P**	**07 33 41.3**	**0.0**
ASAR	**Alice Springs**	**41.71**	**259**	P	**P**	**07 33 41.1**	**-0.2**
	comp=Z,3.6nm,0.7s,baz=98,slow=7.7,SNR=38						
ASAR				PcP	**PcP**	**07 35 24.5**	**+0.9**
	comp=Z,0.3nm,0.5s,baz=104,slow=3.7,SNR=2.4						
ASAR				ScP	**ScP**	**07 38 21.5**	**+3.2**
	comp=Z,0.4nm,0.8s,baz=107,slow=4.0,SNR=3.1						
ASAR				S	**S**	**07 39 12.6**	**-4.2**
	comp=Z,0.7nm,0.9s,baz=100,slow=14,SNR=5.3						
	comp=Z,3.6nm,0.7s						
WR8	**Warramunga Arr**	**41.79**	**265**	P	**P**	**07 33 41.5**	**-0.5**
WR8				IAmb	IAmb	07 34 05.9	
	comp=Z,11nm,1.5s						
WB0	**Warramunga Arr**	**41.93**	**265**	P	**P**	**07 33 42.7**	**-0.4**
WB0				IAmb	IAmb	07 33 43.4	
	comp=Z,6.0nm,1.1s						
WRA	**Warramunga Arr**	**41.95**	**265**	P	**P**	**07 33 42.2**	**-1.0**
	comp=Z,2.1nm,0.6s,baz=102,slow=4.9,SNR=22						
WRA				PcP	**pP**	**07 35 25.3**	**+1.3**
	comp=Z,0.2nm,0.6s,baz=96,slow=3.2,SNR=1.8						
WRA				ScP	**ScP**	**07 38 22.5**	**+3.3**
	comp=Z,0.5nm,0.7s,baz=104,slow=3.4,SNR=3.3						
WRA				S	**S**	**07 39 20.4**	**+0.2**
	comp=Z,0.7nm,1.0s,baz=101,slow=14,SNR=3.0						
	comp=Z,2.1nm,0.6s						
WRA	**Warramunga Arr**	**41.95**	**265**	P	**P**	**07 33 42.4**	**-0.8**
FORT	**Forrest**	**46.27**	**248**	P	**P**	**07 34 16.1**	**-0.1**
FORT				IAmb	IAmb	07 34 16.5	
	comp=Z,7.5nm,0.6s						
FITZ	**Fitzroy Crossi**	**50.38**	**265**	P	**P**	**07 34 47.4**	**+0.6**
MBWA	**Marble Bar**	**55.05**	**259**	P	**P**	**07 35 19.9**	**-0.1**
MBWA				IAmb	IAmb	07 35 36.0	
	comp=Z,31nm,1.5s						
VNDA	**Vanda**	**55.69**	**185**	P	**P**	**07 35 25.2**	**+1.7**
	comp=Z,0.5nm,0.6s,baz=18,slow=7.8,SNR=5.2						
	comp=Z,0.5nm,0.6s						
VNDA	**Vanda**	**55.69**	**185**	P	**P**	**07 35 24.8**	**+1.4**
SBA	**Scott Base**	**55.70**	**183**	P	**P**	**07 35 26.1**	**+2.5**
SBA				IAmb	IAmb	07 35 27.4	
	comp=Z,3.5nm,0.8s						
MORW	**Morawa**	**56.81**	**249**	P	**P**	**07 35 31.6**	**-0.5**
MORW				IAmb	IAmb	07 35 39.1	
	comp=Z,15nm,1.2s						
QSPA	**South Pole Qui**	**67.54**	**180**	P	**P**	**07 36 42.3**	**+1.5**
	comp=Z,4.9nm,0.7s,baz=41,slow=2.5,SNR=50						
	comp=Z,4.9nm,0.7s						
QSPA	**South Pole Qui**	**67.54**	**180**	P	**P**	**07 36 42.3**	**+1.5**
QSPA				IAmb	IAmb	07 36 43.1	
	comp=Z,5.5nm,0.8s						
MJAR	**Matsushiro Arr**	**70.45**	**326**	P	**P**	**07 36 58.5**	**0.0**
	comp=Z,1.3nm,0.7s,baz=149,slow=7.1,SNR=1.4						
	comp=Z,1.3nm,0.7s						
ELIB	**Princess Elisa**	**84.34**	**187**	*d*P	**P**	**07 38 13.0**	**-0.1**
	comp=Z,1.3nm,0.6s						
AKASG	**Malin Array Be**	**143.52**	**328**	PKP	PKPab	07 45 09.7	+0.3
	comp=Z,0.8nm,0.4s,baz=46,slow=3.9,SNR=5.7						

IDC 17 07:32:37.3±3.1, 32.°16S×178.°17W, h0km, mb3.6/2, mbtmp3.6/3, Error ellipse: s-maj=72.8km s-min=37.1km az=116.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**7.21**	**211**	Pn	Pn	07 34 24.5	+0.6
	2.9nm,0.6s,baz=32,slow=15,SNR=1.1						
URZ				Sn	Sn	07 35 46.4	-0.1
	1.8nm,0.3s,baz=229,slow=5.9,SNR=7.3						
ASAR	**Alice Springs**	**42.90**	**269**	P	P	07 40 37.7	-0.1
	0.3nm,0.4s,baz=111,slow=8.0,SNR=5.6						
	0.3nm,0.4s						
WRA	**Warramunga Arr**	**44.05**	**274**	P	P	07 40 47.0	-0.1
	0.5nm,0.4s,baz=116,slow=8.2,SNR=7.5						
	0.5nm,0.4s						
FINES	**FINESS Array B**	**146.73**	**339**	PKPbc	PKPdf	07 52 19.4	+0.8
	4.9nm,0.9s,baz=48,slow=2.1,SNR=6.4						

*BJI **17** 07:35:17.8, 38.°49N×70.°15E, h7km, mB4.9/12, mb4.6/37, ML4.6/3, Ms4.5/30, Ms7 4.3/30*

*IDC **17** 07:35:17.6±0.5, 38.°09N×70.°28E, h0km, mb4.4/28, mbtmp4.4/36, ML4.2/8, MS3.9/43, Error ellipse: s-maj=10.8km s-min=8.9km az=155.0*

*MOS **17** 07:35:18.1±1.0, 38.°11N×70.°23E, h10km, mb4.8/30, MS4.1/4, Error ellipse: s-maj=6.0km s-min=3.7km az=73.4*

*NNC **17** 07:35:19.3±4.9, 38.°10N×70.°02E, h19km±19km, mb5.1, mpv5.1, Error ellipse: s-maj=33.0km s-min=18.8km az=20.0*

*NEIC **17** 07:35:20.5±1.8, 38.°15N±0.°05×70.°21E±0.°05, h10km±1km, mb4.8/77, Error ellipse: s-maj=10.3km s-min=3.8km az=148.0*

*GFZ **17** 07:35:21.6±0.2, 38.°N±3.°×7.°0E±.°, h10km, M4.7/18, mb4.8/18*

ISC 17 07:35:19.9±0.3, 38.°14N±0.°03×70.°20E±0.°03, h12km, n373, σ1s83/353, mb4.7/106, MS4.0/49, 8C-12D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DRK	**Karamyk**	**1.83**	**43**	PN	**Pb**	**07 35 52.5**	**-1.0**
DRK	**Karamyk**	**1.83**	**43**		**Pb**	**07 35 52.5**	**-1.0**
DRK	**Karamyk**	**1.83**	**43**	P	**Pb**	**07 35 52.5**	**-1.0**
BTK	**Batken**	**1.97**	**14**	PN	**Pb**	**07 35 55.3**	**-0.5**
BTK	**Batken**	**1.97**	**14**		**Pb**	**07 35 55.3**	**-0.5**
BTK	**Batken**	**1.97**	**14**	P	**Pb**	**07 35 55.5**	**-0.3**
OHH	**Osh**	**3.11**	**39**	P	**Pn**	**07 36 09.9**	**+1.1**
KBL	**Kabul**	**3.71**	**195**	P	**Pn**	**07 36 20.8**	**+3.5**
KBL	SNR=130			S	**Sn**	**07 37 04.0**	**+3.0**
KBL	**Kabul**	**3.71**	**195**	PN	**Pb**	**07 36 21.1**	**-4.4**
KBL	**Kabul**	**3.71**	**195**		**Pb**	**07 36 21.1**	**-4.4**
KBL	**Kabul**	**3.71**	**195**	P	**Pn**	**07 36 20.7**	**+3.5**
ARSB	**Arslanbob**	**3.83**	**33**	PN	**Pn**	**07 36 20.2**	**+1.3**
ARSB	**Arslanbob**	**3.83**	**33**	Pn	**Pn**	**07 36 20.2**	**+1.3**
IUG	**Iuzhnay**	**4.00**	**358**	Pg	**Pb**	**07 36 32.8**	**+2.4**
	937nm,0.5s						
IUG				Lg	Lg	07 37 27.5	
	2μm,0.8s						
IUG	**Iuzhnay**	**4.00**	**358**	*e*PN	**Pn**	**07 36 22.9**	**+1.8**
IUG				*e*S	**Sn**	**07 37 07.5**	**-0.5**
IUG	**Iuzhnay**	**4.00**	**358**	*e*P	**Pn**	**07 36 22.9**	**+1.8**
IUG				*e*S	**Sn**	**07 37 07.6**	**-0.5**
CHM	**Chimkent**	**4.20**	**354**	*e*PN	**Pn**	**07 36 26.1**	**+2.4**
CHM	**Chimkent**	**4.20**	**354**	*e*P	**Pn**	**07 36 26.1**	**+2.4**
KSH2	**Kashi**	**4.32**	**75**	Pn	**Pn**	**07 36 28.4**	**+2.9**
KSH2				sPn	Pb	07 36 37.0	+1.1
KSH2				pmax	pmax		
	comp=Z,760nm,1.0s						
KSH2				L	L		
	comp=N,7μm,6.0s						
KSH2				L	L		
	comp=E,10μm,8.8s						
KSH2				L	L		
	comp=Z,3μm,4.6s						
DZA	**Taraz**	**4.82**	**10**	Pg	**Pb**	**07 36 47.5**	**+3.2**
	350nm,0.6s						
DZA				Lg	Lg	07 37 51.8	
	842nm,0.6s						
DZA	**Taraz**	**4.82**	**10**	*e*PN	**Pn**	**07 36 34.0**	**+1.7**
DZA				*e*S	**Sn**	**07 37 27.3**	**-0.8**
DZA	**Taraz**	**4.82**	**10**	*e*P	**Pn**	**07 36 34.0**	**+1.7**
DZA				*e*S	**Sn**	**07 37 27.3**	**-0.8**
KK31	**Karatay Array**	**4.96**	**3**	⇓Pn	**Pn**	**07 36 36.0**	**+1.7**
	15nm,0.3s,baz=169,slow=12,SNR=256						
KK31				⇓Pg	**Pg**	**07 36 50.7**	**-4.2**
	237nm,0.8s,baz=188,slow=17,SNR=9.2						
KK31				⇑Lg	Lg	07 37 56.1	
	1μm,1.2s,baz=182,slow=29,SNR=3.5						
KK31	**Karatay Array**	**4.96**	**3**	PN	**Pn**	**07 36 35.9**	**+1.7**
KK31				pmax	pmax		
	comp=Z,11nm,0.3s						
KK31	**Karatay Array**	**4.96**	**3**		**Pn**	**07 36 35.5**	**+1.3**
KKAR	**Karatay Array**	**4.96**	**3**	PN	**Pn**	**07 36 35.5**	**+1.3**
KKAR	**Karatay Array**	**4.96**	**3**		**Pn**	**07 36 35.5**	**+1.3**
NIL	**Nilore**	**5.12**	**150**	P	**Pn**	**07 36 39.8**	**+3.3**
NIL	**Nilore**	**5.12**	**150**	PN	**Pn**	**07 36 38.2**	**+1.8**
NIL	**Nilore**	**5.12**	**150**		**Pn**	**07 36 38.2**	**+1.8**
NIL	**Nilore**	**5.12**	**150**	P	**Pn**	**07 36 40.1**	**+3.6**
	comp=Z,909nm,0.8s						
MRKS	**Merke**	**5

MDOK eS Sn 07 38 26.5 -1.0
MDOK Medeo 7.23 44 eP Pn 07 37 07.2 +1.7
MDOK eS Sn 07 38 26.6 -1.0
HRA Herat 7.44 242 Pn 07 37 09.1 +0.7
WUS Wushi 7.60 63 Pn 07 37 11.2 +0.6
DHRM DHARAMSHALA 7.71 138 i P Pn 07 37 16.4 +4.2
DHRM i S Sn 07 38 41.7 +2.1
SATY Saty 7.94 49 eP Pn 07 37 17.0 +1.8
SATY Saty 7.94 49 eP Pn 07 37 17.0 +1.8
KPKS Kokpek 8.35 48 eP Pn 07 37 22.1 +1.4
KPKS Kokpek 8.35 48 eP Pn 07 37 22.1 +1.4
UZB Uzynbulak 8.36 51 eP Pn 07 37 22.4 +1.4
UZB Uzynbulak 8.36 51 eP Pn 07 37 22.5 +1.4
BHK Bhakra 8.44 141 i P Pn 07 37 23.9 +2.0
BHK i S Sn 07 38 54.9 -2.2
BHK IAML 07 39 06.7
comp=N,237nm,0.9s
SHLS Shalkode 8.64 52 eP Pn 07 37 29.8 +5.0
SHLS Shalkode 8.64 52 eP Pn 07 37 29.9 +5.1
PDGK Podgornoye 8.75 51 P Pn 07 37 27.3 +1.0
PDGK Podgornoye 8.75 51 Pn 07 37 27.3 +1.0
SMLA Simla 9.05 139 i P Pn 07 37 30.1 -0.2
SMLA i S Sn 07 39 11.4 -0.7
TDK Taldyqorghan 9.21 39 eP Pn 07 37 33.7 +1.3
TDK Taldyqorghan 9.21 39 eP Pn 07 37 33.7 +1.3
JOSI Joshimath 10.82 132 i P Pn 07 38 00.8 +6.1
JOSI i P 07 38 01.0
JOSI IAML 07 38 07.5
comp=N,110nm,0.4s
MAKZ Makanchi 12.26 41 ⇑P Pn 07 38 13.9 -0.4
comp=N,74nm,1.4s
MAKZ Makanchi 12.26 41 P Pn 07 38 14.6 +0.4
MAKZ Makanchi 12.26 41 Pn 07 38 14.6 +0.4
AJM Ajmer 12.27 161 i P Pn 07 38 06.1 -8.3
AJM i S Sn 07 40 06.1 -25
MK31 Makanchi Array 12.41 42 ⇓P Pn 07 38 15.9 -0.4
comp=N,40nm,0.9s,baz=228,slow=9.7,SNR=130
MK31 Makanchi Array 12.41 42 i P Pn 07 38 16.8 +0.4
MK31 pmax pmax
comp=Z,40nm,0.9s
MK31 Makanchi Array 12.41 42 Pn Pn 07 38 16.7 +0.4
MKAR Makanchi Array 12.41 42 Pn Pn 07 38 16.0 -0.4
comp=Z,1.1nm,0.3s,baz=233,slow=14,SNR=141
MKAR Lg Lg 07 41 47.7
comp=Z,0.2nm,0.3s,baz=240,slow=26,SNR=3.2
comp=Z,35nm,0.8s
MKAR AML AML
MKAR Makanchi Array 12.41 42 P Pn 07 38 16.0 -0.4
MKAR Makanchi Array 12.41 42 Pn 07 38 16.6 +0.3
AB31 Akbulak array 13.34 330 ⇓P Pn 07 38 26.9 -2.0
comp=Z,6.2nm,0.5s,baz=135,slow=12,SNR=94
AB31 ⇓S Sn 07 40 54.1 -3.0
comp=Z,15nm,0.7s,baz=144,slow=19,SNR=5.3
AB31 Akbulak array 13.34 330 P Pn 07 38 26.6 -2.4
AB31 pmax pmax
comp=Z,6.0nm,0.5s
AB31 Akbulak array 13.34 330 Pn 07 38 27.0 -2.0
ABKAR Akbulak array 13.34 330 Pn 07 38 26.9 -2.0
KURBB Kurchatov Arra 13.81 23 Pn Pn 07 38 32.6 -2.8
comp=Z,0.4nm,0.3s,baz=212,slow=12,SNR=40
KURBB Sn Sn 07 41 05.8 -2.8
baz=221,slow=28,SNR=3.2
KURBB Lg Lg 07 42 28.4
baz=211,slow=30,SNR=4.2
comp=Z,5.3nm,0.6s
KURBB AML AML
KURBB Kurchatov Arra 13.81 23 ⇑P Pn 07 38 31.8 -3.7
comp=Z,23nm,1.1s
KURBB Kurchatov Arra 13.81 23 P Pn 07 38 31.7 -3.7
KURBB pmax pmax
comp=Z,13nm,0.7s
KURK Kurchatov 13.92 23 ⇑P Pn 07 38 34.1 -2.8
comp=Z,5.7nm,1.1s
KURK Kurchatov 13.92 23 P Pn 07 38 34.3 -2.6
KURK S Sn 07 41 11.7 +0.4
KURK Kurchatov 13.92 23 P Pn 07 38 32.6 -4.3
KURK 07 41 05.8
KURK Kurchatov 13.92 23 Pn 07 38 34.0 -2.8
KURK Kurchatov 13.92 23 P Pn 07 38 33.7 -3.2
comp=Z,18nm,1.3s
ZSN Zaisan 14.21 44 eP Pn 07 38 42.3 +1.5
ZSN Zaisan 14.21 44 eP Pn 07 38 42.4 +1.5
WMQ Urumqi 14.37 61 eP Pn 07 38 43.1 -0.1
WMQ pP P 07 38 48.8 -1.4
WMQ S Sn 07 41 21.3 -1.2
WMQ pmax pmax
comp=Z,18nm,1.7s
WMQ L L
comp=Z,1μm,11.1s
WMQ L L
comp=Z,2μm,8.3s
WMQ L L
comp=Z,540nm,16.1s
NGCH Negor - Chabah 14.88 214 P Pn 07 38 49.4 -0.7
BVA0 Borovoye Array 14.88 0 P Pn 07 38 48.1 -1.9
comp=Z,0.3nm,0.9s,baz=236,slow=39,SNR=50
BVAR Borovoye Array 14.88 0 Pn Pn 07 38 47.0 -3.0
comp=Z,0.1nm,0.3s,baz=176,slow=13,SNR=11
BVAR Lg Lg 07 43 02.1
baz=160,slow=26
comp=Z,2.2nm,0.3s
BVAR AML AML
BORK Borovoye 14.91 0 P Pn 07 38 49.7 -0.6
BORK Borovoye 14.91 0 Pn 07 38 49.7 -0.6
AKTO Aktyubinsk 15.04 329 Pn Pn 07 38 49.5 -2.7
comp=Z,3.1nm,0.3s,baz=138,slow=10.0,SNR=18
AKTO Sn Sn 07 41 33.4 -5.2
comp=Z,0.3nm,0.3s,baz=128,slow=19,SNR=1.5
AKTO Lg Lg 07 43 17.8
comp=Z,0.2nm,0.3s,baz=76,slow=17,SNR=1.6
AKTO LR LR 07 44 34.5
comp=Z,239nm,18.7s,baz=180,slow=37
comp=Z,3.4nm,0.9s
AKTO AML AML
AKTO Aktyubinsk 15.04 329 ⇑P Pn 07 38 48.5 -3.7
comp=Z,27nm,0.8s
AKTO Aktyubinsk 15.04 329 P P 07 38 55.4 -2.1
AKTO pmax pmax
comp=Z,25nm,0.8s
JASK Jask - Hormozg 16.08 224 P P 07 39 08.0 -1.2
SHME Shamm 16.92 229 Pn P 07 39 17.8 -0.7
SHME Shamm 16.92 229 P P 07 39 18.5 0.0
BANOM Banah 16.92 228 Pn P 07 39 19.5 +1.0
BANOM Banah 16.92 228 P P 07 39 19.9 +1.4
EVN Everest 17.22 121 Pn Pn 07 39 18.5 -2.4
EVN Everest 17.22 121 P Pn 07 39 18.5 -2.4
comp=Z,22nm,0.8s
MDH Madha 17.40 227 P P 07 39 25.9 +2.1
MASF Masafi 17.43 227 P P 07 39 26.5 +2.3
MSFE Esma-Masafi 17.43 227 Pn Pn 07 39 23.1 +0.1
UOSS Minazif 17.73 226 Pn Pn 07 39 26.8 +0.1
UOSS Minazif 17.73 226 P P 07 39 30.0 +2.6
UOSS Minazif 17.73 226 P P 07 39 29.0 +1.6
comp=Z,13nm,1.0s
WSAR Wadi Sarin 17.85 217 P P 07 39 30.5 +1.7
MAK Makhachkala 17.89 293 d iP Pn 07 39 25.2 -3.2
MAK eS Sn 07 42 42.4 -5.3
MAK pmax pmax
comp=Z,583nm,1.1s
MAK MLR MLR
comp=Z,921nm,13.0s
NAZ Nazwa, Dubai 18.01 227 Pn P 07 39 30.7 +0.2
NAZ Nazwa, Dubai 18.01 227 P P 07 39 33.1 +2.6
SNR=6.4
ASHO Ashiyiah 18.02 226 Pn Pn 07 39 30.2 0.0
ASHO Ashiyiah 18.02 226 P P 07 39 31.0 +0.4
SOHO SOHO 18.18 224 P P 07 39 34.6 +2.2
HOQ Hoqain 18.22 221 P P 07 39 35.0 +2.2
WBK Wadi Bani Khal 18.24 215 P P 07 39 34.2 +1.1
SNR=10
JLN Jalan Bani Buh 18.44 213 P Pn 07 39 36.3 +0.9
SNR=8.7
ASUD Al Ashush, Dub 18.48 227 P Pn 07 39 35.8 0.0
ASUD Al Ashush, Dub 18.48 227 P Pn 07 39 38.3 +2.5
SNR=6.8
ALNE Al Ain 18.68 225 i P Pn 07 39 37.9 -0.4
SNR=5.4
ALNE Al Ain 18.68 225 P Pn 07 39 39.5 +1.2
SNR=8.9
ZAA0 Zalesovo Array 18.72 28 ⇓P P 07 39 36.7 -1.5
comp=Z,14nm,0.8s
ZALV Zalesovo Beam 18.72 28 P P 07 39 36.7 -1.5
comp=Z,3.2nm,0.3s,baz=218,slow=11,SNR=45
ZALV Sn Sn 07 43 07.2 -0.6
comp=Z,1.1nm,0.3s,baz=216,slow=28,SNR=8.9
ZALV Lg Lg 07 45 12.4
baz=222,slow=23
ZALV LR LR 07 47 34.2
comp=Z,262nm,19.8s,baz=217,slow=39
comp=Z,12nm,0.4s
ZALV AML AML
ZALV Zalesovo Beam 18.72 28 eP P 07 39 37.4 -0.8
ZALV pmax pmax
comp=Z,3.0nm,0.3s
AJN Ajban 18.73 228 i P P 07 39 38.3 -0.1
SNR=5.2
ARQ Araqi 18.83 222 P Pn 07 39 42.2 +2.0
SNR=6.3
JMDO Jabal Madar 18.84 217 P Pn 07 39 41.0 +0.7
SNR=8.1
BSY Bisya 18.97 220 P Pn 07 39 43.1 +1.3
SNR=7.4
LSA Lhasa 19.29 110 P Pn 07 39 45.1 -1.0
LSA pmax pmax
comp=Z,9.0nm,0.8s
LSA Lhasa 19.29 110 P Pn 07 39 45.1 -1.0
GOMU GeErMu 19.70 88 P Pn 07 39 52.0 +1.1
GOMU pP sP 07 39 55.3 0.0
GOMU sP pP 07 39 59.3 +5.8
GOMU pmax pmax
comp=Z,4.0nm,0.7s
SVE Sverdlovsk 19.74 344 eP P 07 39 49.2 -0.1
SVE eS S 07 43 26.6 -4.9
SVE pmax pmax
comp=Z,53nm,1.4s
SVE MLR MLR
comp=Z,2μm,10.0s
GNI Garni 19.83 284 P P 07 39 50.8 +0.2
comp=Z,1.5nm,0.3s,baz=108,slow=3.2,SNR=3.8
GNI LR LR 07 49 17.6
comp=Z,155nm,18.1s,baz=96,slow=42
comp=Z,7.6nm,0.3s
GNI AML AML
GNI Garni 19.83 284 eP Pn 07 39 53.4 +1.2
GNI pmax pmax
comp=Z,17nm,0.8s
GNI Garni 19.83 284 P Pn 07 39 53.5 +1.4
comp=Z,29nm,1.0s
ARTI Arti 19.88 340 P P 07 39 50.7 -0.1
comp=Z,2.0nm,0.3s,baz=153,slow=9.1,SNR=9.9
ARTI S S 07 43 21.8 -13
comp=Z,3.8nm,0.8s,baz=112,slow=18,SNR=1.8
ARTI Lg Lg 07 45 51.6
comp=Z,0.2nm,0.3s,baz=204,slow=19,SNR=1.5
ARTI LR LR 07 48 27.9
comp=Z,801nm,21.1s,baz=156,slow=40
comp=Z,7.5nm,0.4s
ARTI AML AML
ARTI Arti 19.88 340 P 07 39 50.8 -0.1
UMZA Um Al Zommool 20.07 224 P P 07 39 53.1 0.0
MHTO MHTO 20.10 215 P Pn 07 39 54.9 -0.4
SNR=8.4
SAKB Bahrain 20.56 240 P Pn 07 40 01.8 +1.1
MZR Muzera 20.80 228 P P 07 40 00.0 -1.1
MZR Muzera 20.80 228 P P 07 40 00.6 -0.5
SNR=17
DIGO Kars 20.86 285 P Pn 07 40 04.8 +0.4
comp=Z,89nm,1.0s
HAKT HAKKARI 20.91 277 P Pn 07 40 05.2 +0.3
comp=Z,56nm,1.1s
DQM DQM 21.22 215 P P 07 40 06.1 +0.6
BELG Belogornoye 21.22 319 P P 07 40 05.4 +0.1
comp=Z,65nm,0.9s,baz=139,slow=20,SNR=14
BELG LR LR 07 49 56.0
comp=Z,274nm,20.4s,baz=122,slow=41
comp=Z,65nm,0.9s
BELG Belogornoye 21.22 319 eP P 07 40 06.6 +1.3
BELG pmax pmax
comp=Z,20nm,0.9s
GEVA Gevas 21.30 279 P P 07 40 06.0 -0.5
KBZ Khabaz 21.32 294 P P 07 40 06.3 -0.2
comp=Z,25nm,0.9s,baz=105,slow=12,SNR=22
KBZ LR LR 07 50 26.6
comp=Z,242nm,18.4s,baz=92,slow=42
comp=Z,25nm,0.9s
KBZ Khabaz 21.32 294 eP P 07 40 06.5 +0.1
KBZ pmax pmax
comp=Z,27nm,0.9s
EPOS Posof 21.33 288 P P 07 40 09.3 +2.5
comp=Z,27nm,1.4s
NEUR Neytrino 21.42 293 eP P 07 40 12.4 +4.6
NEUR pmax pmax
comp=Z,13nm,1.1s
SHA1 Shidzhatmaz 21.49 294 eP P 07 40 11.5 +2.9
KIV Kislovodsk 21.49 294 P P 07 40 11.8 +3.3
KIV Kislovodsk 21.49 294 P P 07 40 08.8 +0.3
KIV IAmb IAmb 07 40 22.6
comp=Z,51nm,0.8s
KIV Kislovodsk 21.49 294 P P 07 40 12.2 +3.7
comp=Z,60nm,1.0s
HYB Hyderabad 21.91 158 eP P 07 40 13.8 +0.7
HYB eS S 07 44 17.2 +2.3
HYB IVMs_BB IVMs_BB 08 16 35.1
comp=Z,178nm,3.2s
SHL Shillong 22.22 118 P P 07 40 15.6 -0.9
SHL pmax pmax
comp=Z,21nm,0.9s
SHL Shillong 22.22 118 P P 07 40 15.6 -0.9
TEZP TEZPUR 22.22 115 IAML 07 38 13.4
comp=N,300nm,0.1s
LABN Labinsk 22.97 296 eP P 07 40 28.4 +4.3
LABN pmax pmax
comp=Z,21nm,0.5s
KNGR Kungurtug, Tuv 23.01 48 eP P 07 40 26.8 +2.1
KNGR pmax pmax
comp=Z,37nm,1.1s
GTA2 Gaotai 23.03 77 P P 07 40 24.9 -0.1
GTA2 sP sP 07 40 31.8 +0.9
GTA2 pmax pmax
comp=Z,15nm,1.3s
GTA2 pmax pmax
comp=Z,190nm,7.9s
GTA2 L L
comp=Z,400nm,11.1s
GTA2 L L
comp=Z,430nm,12.1s
GTA2 L L
comp=Z,570nm,12.7s
ERBR Yeremizino-Bor 23.27 298 eP P 07 40 28.4 +1.2
ERBR e 07 40 59.8
ERBR eS S 07 44 38.4 -0.8
ERBR pmax pmax
comp=Z,23nm,0.8s
ERBR MLR MLR
comp=Z,187nm,12.0s
VRH Novokhopyorsk 23.92 312 eP P 07 40 38.6 +5.1
VRH pmax pmax
comp=Z,30nm,1.0s
DOK Doka 23.98 220 P P 07 40 34.2 -0.1
SNR=5.3
BRDH Bariadhala 23.99 124 LR LR 07 52 35.4
comp=Z,270nm,19.9s,baz=318,slow=43
KELT Kelkit 24.02 285 P P 07 40 38.5 +3.6
comp=Z,66nm,1.5s
DMTO DMTO 24.34 217 P P 07 40 37.0 -0.6
KIRV Kirov 24.49 333 LR LR 07 50 40.3
comp=Z,222nm,21.2s,baz=135,slow=38
KIRV Kirov 24.49 333 eP P 07 40 39.0 +0.4
KEMA Kemaliye 24.70 283 P P 07 40 44.2 +3.3
comp=Z,57nm,0.9s
WHFO Wadi Hawf 24.75 220 P P 07 40 40.9 -0.5
ARPR Arapgir-MALATY 24.85 282 P P 07 40 44.3 +2.0
VORD Divnogorie 25.27 310 eP P 07 40 45.5 -0.3
VORD pmax pmax
comp=Z,10.0nm,1.0s
ANN Anapa 25.32 296 eP P 07 40 48.9 +2.6
ANN pmax pmax
comp=Z,26nm,0.9s
VSR Storozhevoye 25.43 311 eP P 07 40 46.6 -0.6
VSR pmax pmax
comp=Z,20nm,1.0s
MOY Mondy 25.44 48 eP P 07 40 47.4 -0.1
MOY pmax pmax
comp=Z,33nm,1.3s
ABTO Aybut 25.46 220 P P 07 40 47.2 -0.7
SNR=7.6
VORR Voronezh 25.56 312 eP P 07 40 48.1 -0.3
VORR pmax pmax
comp=Z,10.0nm,0.9s
RAYN Ar Rayn 25.63 242 i P P 07 40 50.0 +0.6
SNR=22
RAYN Ar Rayn 25.63 242 P P 07 40 50.2 +0.9
RAYN Ar Rayn 25.63 242 P P 07 40 49.9 +0.6
RAYN pmax pmax
comp=Z,28nm,0.7s
RAYN Ar Rayn 25.63 242 P 07 40 49.9 +0.5
RAYN Ar Rayn 25.63 242 P P 07 40 50.1 +0.6
LPSR Galich'ya Gora 26.04 314 eP P 07 40 59.3 +6.5
LPSR pmax pmax
comp=Z,30nm,1.0s
ZAK Zakamensk 26.43 52 eP P 07 40 56.4 -0.1
ZAK pmax pmax
comp=Z,19nm,1.2s
LZDM Lanzhou Array 26.75 84 P P 07 40 58.9 -0.8
comp=Z,1.6nm,0.4s,baz=259,slow=2.2,SNR=3.9
comp=Z,1.6nm,0.4s
LZH Lanzhou 26.83 84 eP P 07 41 02.9 +2.6
LZH sP sP 07 41 12.9 +6.6
LZH pmax pmax
comp=Z,22nm,1.0s
LZH L L
comp=Z,330nm,19.2s
LZH L L
comp=Z,390nm,14.1s
LZH L L
comp=Z,560nm,17.5s
ASF Jabal al Asfar 27.77 268 LR LR 07 54 35.3
comp=Z,187nm,19.2s,baz=44,slow=42
SONM Songino Array 27.97 58 P P 07 41 09.5 -0.8
comp=Z,1.9nm,0.6s,baz=263,slow=8.6,SNR=10
SONM LR LR 07 53 22.8
comp=Z,826nm,18.8s,baz=274,slow=39
comp=Z,1.9nm,0.6s
SONM Songino Array 27.97 58 P P 07 41 09.6 -0.8
SONM pmax pmax
comp=Z,6.0nm,1.1s
SONM Songino Array 27.97 58 P P 07 41 09.6 -0.8
MOS Moscow 27.99 320 eP P 07 41 12.4 +2.1
MOS e 07 42 03.5
MOS e 07 42 16.0
OBN Obninsk 28.28 318 LR LR 07 53 13.1
comp=Z,120nm,19.4s,baz=146,slow=38
BR131 Keskin Array S 28.36 285 P P 07 41 14.8 +0.9
BR131 pmax pmax
comp=Z,4.0nm,0.9s
BR131 Keskin Array S 28.36 285 P P 07 41 14.8 +0.9
BRTR Keskin Array B 28.36 285 P P 07 41 14.1 +0.2
comp=Z,1.1nm,0.5s,baz=91,slow=7.4,SNR=7.0
comp=Z,1.1nm,0.5s
BRTR Keskin Array B 28.36 285 P P 07 41 14.5 +0.5
BRTR Keskin Array B 28.36 285 P P 07 41 14.5 +0.5
BR106 Keskin Array S 28.38 285 P P 07 41 14.9 +0.8
comp=Z,3.6nm,0.9s
ULN Ulaanbaatar 28.41 58 deP P 07 41 14.3 0.0
ULN pmax pmax
comp=Z,12nm,1.4s
ULN Ulaanbaatar 28.41 58 P 07 41 13.6 -0.8
ULN IAmb IAmb 07 41 15.1
comp=Z,30nm,1.9s
ULN Ulaanbaatar 28.41 58 P P 07 41 15.2 +0.9
comp=Z,28nm,1.4s
ULN Ulaanbaatar 28.41 58 P P 07 41 14.3 0.0
comp=Z,7.2nm,1.4s
CD2 Chengdu 28.46 95 eP P 07 41 15.1 +0.3
CD2 S S 07 46 06.4 +4.3
CD2 pmax pmax
comp=Z,150nm,5.5s
CD2 L L
comp=Z,520nm,12.2s
CD2 L L
comp=Z,360nm,9.0s
MMAI Mount Meron Ar 28.65 270 LR LR 07 55 29.9
comp=Z,228nm,19.8s,baz=203,slow=42
KLMR Klimovskoe 29.74 330 eP P 07 41 26.0 +0.2
KLMR pmax pmax
comp=Z,30nm,1.8s
EIL Elat 30.31 264 LR LR 07 56 35.7
comp=Z,521nm,19.0s,baz=86,slow=42
AK09 Malin Array Si 31.38 307 P P 07 41 41.3 +0.9
AK10 Malin Array Si 31.40 307 P P 07 41 41.0 +0.4
XAN Xi'an 31.40 86 P P 07 41 40.3 -0.5
XAN pmax pmax
comp=Z,18nm,0.5s
XAN pmax pmax
comp=Z,120nm,4.1s
XAN L L
comp=Z,430nm,13.1s
XAN L L
comp=Z,440nm,13.1s
XAN L L
comp=Z,550nm,13.1s
AKASG Malin Array Be 31.43 307 P P 07 41 40.9 +0.1
comp=Z,1.2nm,0.5s,baz=85,slow=7.0,SNR=7.8
AKASG LR LR 07 55 23.3
comp=Z,130nm,18.8s,baz=59,slow=38
comp=Z,1.2nm,0.5s
AKASG Malin Array Be 31.43 307 eP P 07 41 41.7 +0.9
AKASG pmax pmax
comp=Z,3.0nm,0.7s
AKBB Malin Array Si 31.43 307 eP P 07 41 42.2 +1.4
AKBB pmax pmax
comp=Z,9.0nm,0.9s
AK06 Malin Array Si 31.43 307 P P 07 41 41.1 +0.3
AK05 Malin Array Si 31.44 307 P P 07 41 41.6 +0.7
AK02 Malin Array Si 31.44 307 P P 07 41 41.7 +0.8
KIEV Kiev 31.44 307 P P 07 41 42.4 +1.5
KIEV pmax pmax
comp=Z,7.0nm,0.9s
KIEV Kiev 31.44 307 P P 07 41 42.4 +1.5
YLV Yalova 31.46 287 P P 07 41 42.2 +0.9
comp=Z,12nm,1.0s
CMAR Chiang Mai Arr 31.82 120 P P 07 41 43.1 -1.4
comp=Z,1.3nm,0.3s,baz=310,slow=8.5,SNR=1.4
CMAR PcP PcP 07 44 36.8 +1.3
comp=Z,0.9nm,0.3s,baz=315,slow=2.7,SNR=6.2
CMAR ScP ScP 07 48 21.4 +2.8
comp=Z,0.7nm,0.4s,baz=292,slow=1.8,SNR=4.5
CMAR LR LR 07 58 14.6
comp=Z,94nm,18.6s,baz=310,slow=43
comp=Z,1.3nm,0.3s
HHC Hu-ho-hao-te 31.83 72 eP P 07 41 44.3 -0.3
HHC S S 07 46 53.5 -1.3
HHC pmax pmax
comp=Z,8.0nm,0.6s
HHC pmax pmax
comp=Z,89nm,5.7s
HHC L L
comp=Z,160nm,13.8s
HHC L L
comp=Z,310nm,15.3s
HHC L L
comp=Z,410nm,14.5s
PALK Pallekele 32.17 160 LR LR 07 55 18.4
comp=Z,308nm,19.9s,baz=344,slow=37
PALK Pallekele 32.17 160 P P 07 41 47.7 0.0
PALK pmax pmax
comp=Z,94nm,1.7s
PALK Pallekele 32.17 160 P P 07 41 47.6 0.0
NRIK Noril'sk 32.64 11 P P 07 41 50.9 -0.3
comp=Z,6.8nm,0.8s,baz=216,slow=6.1,SNR=6.2
NRIK LR LR 07 54 55.2
comp=Z,238nm,18.5s,baz=204,slow=36
comp=Z,6.8nm,0.8s
NRIK Noril'sk 32.64 11 eP P 07 41 51.3 +0.1
NRIK pmax pmax
comp=Z,7.0nm,0.8s
NRIK Noril'sk 32.64 11 P 07 41 51.1 -0.1
NRIK IAmb IAmb 07 42 00.5
comp=Z,16nm,1.2s
MNK Minsk 32.90 314 i P P 07 41 55.7 +2.1
MNK i 07 43 06.3
MNK i i 07 44 38.7
MNK i S S 07 47 09.8 -1.1
MNK i SS SnSn 07 49 13.0 +5.4
MNK i 07 52 17.6
MNK pmax pmax
comp=N,11nm,0.6s
MNK pmax pmax
comp=Z,13nm,0.7s
MNK pmax pmax
comp=E,5.0nm,0.6s
MNK MLR MLR
comp=Z,175nm,15.0s
MNK MLR MLR
comp=E,560nm,16.0s
MNK MLR MLR

comp=N,929nm,18.0s
MNK Minsk 32.90 314 *i* P **P 07 41 55.7 +2.1**
comp=E,5.0nm,0.6s
MNK *i* P **P 07 41 55.7 +2.1**
comp=N,11nm,0.6s
MNK *i* P **P 07 41 55.7 +2.1**
comp=Z,13nm,0.7s,baz=102
MNK *i* pP sP 07 42 10.6 +11
MNK *i* PP **PP 07 43 06.4 -1.5**
MNK *i* S **S 07 47 09.8 -1.1**
MNK *i* sS sS 07 47 35.8 +18
MNK *i* SS **SnSn 07 49 13.0 +5.4**
MNK *i* LR LR 07 54 39.5
MNK *i* LRM MLR 07 57 31.8
comp=Z,175nm,15.4s
MNK *i* LRM MLR 07 57 48.9
comp=E,560nm,16.2s
MNK *i* LRM MLR 07 57 52.7
comp=N,929nm,18.1s
KMPD K-Podol'skiy 33.05 303 P **P 07 41 55.4 +0.4**
MLR Muntele Rosu 33.44 297 LR LR 07 57 46.8
comp=N,163nm,21.3s,baz=183,slow=40
MLR Muntele Rosu 33.44 297 P **P 07 41 59.0 +0.3**
MLR pmax pmax
comp=Z,11nm,0.8s
MLR Muntele Rosu 33.44 297 **P 07 41 59.0 +0.3**
MLR IAmb IAmb 07 42 09.8
comp=Z,11nm,0.8s
MLR Muntele Rosu 33.44 297 P **P 07 42 00.8 +2.1**
comp=Z,15nm,1.5s
MLR Muntele Rosu 33.44 297 P **P 07 42 01.6 +2.9**
comp=Z,14nm,1.0s
RNPP5 Staryi Chortor 33.59 307 P **P 07 41 59.8 +0.1**
BURAR Bucovina Array 33.88 301 **P 07 42 03.5 +1.1**
EZN Ezine 33.89 287 P **P 07 42 03.2 +0.7**
VOIR 34.08 297 P **P 07 42 04.4 +0.2**
comp=Z,6.8nm,3.0s
BOD Bodaibo 34.50 41 *e*P **P 07 42 06.9 -0.7**
BOD pmax pmax
comp=Z,25nm,1.2s
LOT Lotru 34.97 297 P **P 07 42 14.2 +2.2**
comp=Z,8.3nm,1.0s
BJI2 Beijing 35.43 72 P **P 07 42 18.1 +2.3**
BJI2 pmax pmax
comp=Z,4.0nm,0.5s
DRGR 35.61 300 P **P 07 42 19.4 +2.0**
comp=Z,6.1nm,0.9s
FIA1 FINESS Array S 35.77 325 P **P 07 42 18.7 +0.3**
FINES FINESS Array B 35.77 325 P **P 07 42 18.7 +0.3**
comp=Z,2.4nm,0.5s,baz=110,slow=8.7,SNR=13
FINES LR LR 07 59 11.8
comp=Z,64nm,21.9s,baz=37,slow=40
comp=Z,2.4nm,0.5s
APA Apatity 35.88 337 *e*P **P 07 42 20.8 +1.5**
APA *e* 07 43 39.0
APA *e*S **S 07 47 51.1 -5.5**
APA *e*SS **SnSn 07 50 21.1 +1.6**
APA pmax pmax
comp=Z,9.0nm,1.3s
APA MLR MLR
comp=Z,2μm,5.6s
ATD Arta Tunnel 36.05 230 LR LR 08 00 53.0
comp=Z,10.0nm,19.6s,baz=32,slow=43
IDI Anoyia 36.16 280 P **P 07 42 23.0 +0.8**
WHN Wuhan 36.96 88 P **P 07 42 31.3 +2.4**
TIA Tai'an 37.13 78 P **P 07 42 31.1 +0.7**
TIA pmax pmax
comp=Z,17nm,1.2s
ITM Ithomi 37.88 284 P **P 07 42 37.2 +0.4**
ITM IAmb IAmb 07 43 32.5
comp=Z,23nm,1.2s
QIZ Qiongzhong 39.31 108 P **P 07 42 50.4 +1.5**
QIZ S **S 07 48 50.0 +0.2**
QIZ L L
comp=Z,290nm,17.1s
QIZ L L
comp=Z,260nm,17.5s
QIZ L L
comp=Z,200nm,17.7s
ARCES ARCESS Array B 39.38 337 P **P 07 42 48.7 -0.3**
comp=Z,4.6nm,0.7s,baz=117,slow=8.5,SNR=13
ARCES LR LR 08 00 14.5
comp=Z,583nm,20.0s,baz=150,slow=38
comp=Z,4.6nm,0.7s
VRAC Vranov 39.53 304 LR LR 08 00 12.2
comp=Z,102nm,18.5s,baz=98,slow=38
NJ2 Nanjing 39.90 84 *e*P **P 07 42 53.4 -0.3**
NJ2 pmax pmax
comp=Z,8.0nm,0.5s
HFS Hagfors 41.39 321 P **P 07 43 05.1 -0.5**
comp=Z,4.4nm,0.4s,baz=98,slow=10,SNR=22
HFS LR LR 07 59 31.1
comp=Z,48nm,21.6s,baz=84,slow=35
comp=Z,4.4nm,0.4s
GERES GERESS Array B 41.47 304 P **P 07 43 06.6 0.0**
comp=Z,0.6nm,0.6s,baz=77,slow=7.8,SNR=1.9
comp=Z,0.6nm,0.6s
CLL Collm 41.67 307 *e*SSS SSS 07 52 56.0
CLL LH 07 55 00.0
CLL LV 07 57 00.0
CLL AMS AMS 08 00 00.0
comp=N,300nm,19.4s
CLL AMS AMS 08 03 00.0
comp=Z,200nm,17.4s
HEH HeiHe 41.78 54 *e*P **P 07 43 09.3 +0.3**
HEH pmax pmax
comp=Z,12nm,0.5s
BNX BinXian 42.43 61 ↓P **P 07 43 14.3 0.0**
BNX pmax pmax
comp=Z,5.0nm,0.9s
NC303 NORSAR Array S 42.63 322 **P 07 43 16.3 +0.5**
NC303 IAmb IAmb 07 43 26.6
comp=Z,18nm,0.9s
NB2 NORSAR Subarra 42.69 322 P **P 07 43 15.9 -0.4**
comp=Z,5.4nm,0.7s,baz=95,slow=8.6
NOA NORSAR Array B 42.69 322 P **P 07 43 16.2 -0.1**
comp=Z,2.5nm,0.5s,baz=94,slow=8.1,SNR=12
NOA LR LR 08 03 18.8
comp=Z,129nm,18.7s,baz=95,slow=39
comp=Z,2.5nm,0.5s
NC204 NORSAR Array S 42.93 322 P **P 07 43 18.8 +0.6**
YAK Yakutsk 43.02 37 *e*P **P 07 43 17.7 -1.1**
YAK *e**PP **pP 07 43 22.9 -0.4**
YAK *e* 07 44 54.8
YAK *e* 07 45 06.6
YAK *e*PPP PPP 07 45 29.4
YAK *e*S **S 07 49 43.2 -0.6**
YAK *e**SS **sS 07 49 51.0 -0.1**
YAK *e*SS **SS 07 52 57.0 +1.5**
YAK *e* 07 53 18.4
YAK pmax pmax
comp=Z,30nm,1.2s
YAK pmax pmax
comp=N,5.0nm,1.1s
YAK pmax pmax
comp=E,10.0nm,1.2s
YAK pmax pmax
comp=Z,117nm,4.3s
YAK pmax pmax
comp=N,128nm,3.3s
YAK pmax pmax
comp=E,97nm,3.4s
YAK smax smax
comp=E,145nm,3.5s
YAK smax smax
comp=N,163nm,3.2s
YAK MLR MLR
comp=Z,168nm,18.0s
YAK MLR MLR
comp=N,138nm,25.0s
YAK MLR MLR
comp=E,107nm,22.0s
PSI Prapat 43.91 136 LR LR 08 02 43.6
comp=E,86nm,20.5s,baz=243,slow=38
TIXI Tiksi 44.50 23 P **P 07 43 30.4 -0.2**
TIXI pmax pmax
comp=Z,22nm,0.9s
TIXI Tiksi 44.50 23 P **P 07 43 30.4 -0.2**
KLR Kul'dur 44.71 55 LR LR 08 04 36.0
comp=Z,180nm,21.9s,baz=322,slow=39
KLR Kul'dur 44.71 55 *e*P **P 07 43 34.4 +1.7**
KLR pmax pmax
comp=Z,4.0nm,1.1s
KSRS Korea Array 44.97 72 P **P 07 43 34.6 -0.3**
comp=Z,1.5nm,0.6s,baz=271,slow=6.0,SNR=5.8
KSRS LR LR 08 04 35.5
comp=Z,266nm,18.9s,baz=285,slow=39
comp=Z,1.5nm,0.6s
SPITS Spitsbergen Ar 45.75 347 P **P 07 43 41.8 +1.2**
comp=Z,8.8nm,0.9s,baz=116,slow=13,SNR=5.3
SPITS LR LR 08 05 18.9
comp=Z,255nm,18.4s,baz=102,slow=39
comp=Z,8.8nm,0.9s
USRK Ussuriysk Ar. 45.94 62 P **P 07 43 43.3 +0.8**
comp=Z,1.6nm,0.6s,baz=289,slow=9.0,SNR=3.0
USRK LR LR 08 04 57.8
comp=Z,344nm,19.4s,baz=282,slow=39
comp=Z,1.6nm,0.6s
LODK Lodwar 46.96 231 **P 07 43 51.1 +0.3**
LODK IAmb IAmb 07 43 53.4
comp=Z,9.2nm,1.4s
KEST Kesra 47.93 287 P **P 07 44 00.2 +1.9**
comp=Z,5.5nm,0.7s,baz=94,slow=13,SNR=3.6
comp=Z,5.5nm,0.7s
KMBO Kilima Mbogo 49.49 226 P **P 07 44 11.9 +1.3**
KIBK Kibwezi 50.05 224 P **P 07 44 15.8 +1.1**
KIBK Kibwezi 50.05 224 **P 07 44 15.8 +1.1**
KIBK IAmb IAmb 07 44 16.2
comp=Z,10nm,0.8s
EKA Eskdalemuir Ar 50.67 315 P **P 07 44 18.8 0.0**
comp=Z,6.0nm,0.8s,baz=71,slow=7.2,SNR=8.1
EKA LR LR 08 06 15.2
comp=Z,104nm,18.1s,baz=179,slow=37
comp=Z,6.0nm,0.8s
MAJO Matsushiro 52.96 69 *e*P **P 07 44 37.3 +1.1**
MAJO pmax pmax
comp=Z,5.0nm,1.0s
MJAR Matsushiro Arr 52.96 69 P **P 07 44 36.0 -0.2**
comp=Z,7.0nm,1.1s,baz=294,slow=9.5,SNR=8.7
MJAR LR LR 08 08 01.2
comp=Z,93nm,18.1s,baz=37,slow=37
comp=Z,7.0nm,1.1s
MJAR Matsushiro Arr 52.96 69 P **P 07 44 36.0 -0.2**
MBAR Mbarara 52.96 233 LR LR 08 10 06.8
comp=Z,224nm,18.3s,baz=16,slow=39
MBAR Mbarara 52.96 233 P **P 07 44 37.4 +0.8**
ASAJ Asahikawa 53.24 59 LR LR 08 08 41.9
comp=Z,247nm,20.7s,baz=68,slow=38
ESBB Sonseca Array 56.14 297 P **P 07 45 00.2 +0.9**
ESBB IAmb IAmb 07 45 01.2
comp=Z,5.7nm,0.8s
ESDC Sonseca Array 56.14 297 P **P 07 44 59.6 +0.3**
comp=Z,3.3nm,0.5s,baz=70,slow=7.4,SNR=27
comp=Z,3.3nm,0.5s
ESDC Sonseca Array 56.14 297 **P 07 45 00.0 +0.7**
PETK Petropavlovsk- 59.24 44 P **P 07 45 21.5 +0.6**
comp=Z,6.3nm,1.0s,baz=309,slow=6.9,SNR=2.2
comp=Z,6.3nm,1.0s
NEEM North Greenlan 59.29 347 *i* P **P 07 45 21.1 -0.1**
SUMG Summit 59.30 341 P **P 07 45 22.4 +0.9**
SUMG pmax pmax
comp=Z,13nm,0.8s
SUMG Summit 59.30 341 **P 07 45 22.4 +0.9**
SUMG Summit 59.30 341 *i* P **P 07 45 22.0 +0.5**
EDA Edea 64.33 254 P **P 07 45 55.7 0.0**
TORD Torodi Ar. Bea 65.14 267 P **P 07 46 00.2 -0.7**
comp=Z,5.5nm,0.9s,baz=46,slow=8.3,SNR=21
comp=Z,5.5nm,0.9s
TOLK Toolik Lake Re 69.50 14 IAmb IAmb 07 46 35.3
comp=Z,9.1nm,0.8s
C27K Jago River 69.70 12 IAmb IAmb 07 46 33.4
comp=Z,5.5nm,1.0s
G19K Purcell Mounta 69.86 19 IAmb IAmb 07 46 37.0
comp=Z,10nm,1.0s
E23K Chandalar 69.98 15 IAmb IAmb 07 46 36.7
comp=Z,8.5nm,1.1s
MATP Matopo 70.20 222 LR LR 08 21 32.3
comp=Z,205nm,19.1s,baz=58,slow=40
G23K Bananza Creek 71.04 16 IAmb IAmb 07 46 45.1
comp=Z,11nm,1.3s
F25K Christian Rive 71.16 14 IAmb IAmb 07 46 46.0
comp=Z,6.8nm,1.0s
F26K Sheenjek River 71.34 13 IAmb IAmb 07 46 42.2
comp=Z,8.2nm,1.3s
E29M Blow River 71.72 11 IAmb IAmb 07 46 49.2
comp=Z,11nm,1.4s
J20K Nowinta River 72.18 19 IAmb IAmb 07 46 52.2
comp=Z,16nm,1.3s
H24K Noodor Dome 72.24 15 IAmb IAmb 07 47 01.1
comp=Z,7.3nm,1.1s
I23K Minto, Yukon-K 72.51 16 IAmb IAmb 07 47 02.0
comp=Z,11nm,1.1s
K20K Telida 72.88 19 IAmb IAmb 07 46 53.8
comp=Z,12nm,1.2s
BPAW Bear Paw Mtn. 73.03 18 P **P 07 46 50.2 +1.0**
BPAW IAmb IAmb 07 46 56.0
comp=Z,7.3nm,1.1s
F31M Tsiigehtchic 73.18 9 IAmb IAmb 07 46 51.5
comp=Z,19nm,1.4s
CAST Castle Rocks 73.33 18 **P 07 46 51.6 +0.6**
CAST IAmb IAmb 07 46 57.3
comp=Z,12nm,1.1s
IL31 73.37 16 P **P 07 46 52.2 +1.0**
IL31 IAmb IAmb 07 46 53.9
comp=Z,15nm,1.6s
ILAR Eielson Array 73.37 16 P **P 07 46 50.2 -1.0**
comp=Z,2.4nm,1.0s,baz=334,slow=5.0,SNR=16
ILAR LR LR 08 24 48.6
comp=Z,67nm,18.0s,baz=271,slow=40
comp=Z,2.4nm,1.0s
ILAR Eielson Array 73.37 16 P **P 07 46 51.1 -0.1**
ILAR Eielson Array 73.37 16 P **P 07 46 51.1 -0.1**
I28M Miner Creek 74.11 13 IAmb IAmb 07 47 00.5
comp=Z,33nm,2.0s
DBIC Dimbokro 74.16 266 LR LR 08 24 41.4
comp=Z,165nm,18.6s,baz=52,slow=40
K24K Donnelly Dome 74.46 16 IAmb IAmb 07 47 04.1
comp=Z,14nm,1.0s
SKT Skwentna 74.68 19 IAmb IAmb 07 47 05.8
comp=Z,20nm,1.3s
SCRK Sand Creek 74.68 15 **P 07 46 59.0 0.0**
SCRK IAmb IAmb 07 47 05.8
comp=Z,13nm,1.5s
RIDG Independent Ri 74.71 15 P **P 07 46 58.5 -0.6**
RIDG IAmb IAmb 07 47 12.7
comp=Z,13nm,1.3s
DHY Denali Highway 74.74 17 IAmb IAmb 07 48 21.6
comp=Z,22nm,1.7s
I30M Mount Dempster 74.89 11 IAmb IAmb 07 47 03.4
comp=Z,12nm,1.2s
K27K Chicken 75.01 14 IAmb IAmb 07 47 04.4
comp=Z,16nm,1.5s
PAX Paxson 75.26 16 IAmb IAmb 07 47 05.1
comp=Z,16nm,1.4s
L27K Beaver Creek, 75.93 14 IAmb IAmb 07 47 21.5
comp=Z,24nm,1.9s
K29M Barlow Dome 76.00 12 IAmb IAmb 07 47 14.7
comp=Z,14nm,1.5s
M27K Edge Creek, AK 76.56 15 P **P 07 47 10.8 +0.9**
M27K IAmb IAmb 07 47 18.4
comp=Z,8.8nm,1.0s
L29M L29M 76.57 13 P **P 07 47 11.0 +1.2**
L29M IAmb IAmb 07 47 15.4
comp=Z,22nm,1.6s
KDAK Kodiak Island 77.92 22 P **P 07 47 16.7 -0.6**
comp=Z,12nm,0.9s,baz=333,slow=2.3,SNR=2.3
comp=Z,12nm,0.9s
BOSA Boshof 78.60 219 P **P 07 47 22.3 +0.8**
comp=Z,1.3nm,0.6s,baz=28,slow=9.0,SNR=3.5
BOSA LR LR 08 24 54.8
comp=Z,46nm,18.3s,baz=22,slow=38
comp=Z,1.3nm,0.6s
BOSA Boshof 78.60 219 IAmb IAmb 07 47 42.0
comp=Z,19nm,1.5s
YKA Yellowknife Ar 79.63 2 P **P 07 47 26.6 -0.1**
comp=Z,1.9nm,0.5s,baz=356,slow=5.4,SNR=12
comp=Z,1.9nm,0.5s
WRA Warramunga Arr 83.40 122 P **P 07 47 44.8 -2.3**
comp=Z,0.8nm,0.7s,baz=311,slow=4.9,SNR=6.5
comp=Z,0.8nm,0.7s
WRA Warramunga Arr 83.40 122 P **P 07 47 44.9 -2.3**
WRA pmax pmax
comp=Z,86nm,0.8s
SUR Sutherland 83.89 220 LR LR 08 28 08.3
comp=Z,66nm,18.6s,baz=358,slow=38
ASAR Alice Springs 85.71 124 P **P 07 47 56.5 -2.4**
comp=Z,1.0nm,0.6s,baz=313,slow=5.0,SNR=18
comp=Z,1.0nm,0.6s
ULM Lac du Bonnet 91.13 351 LR LR 08 33 00.3
comp=Z,100nm,18.3s,baz=10.0,slow=38
SADO Sadowa 92.95 339 LR LR 08 30 31.1
comp=Z,76nm,18.4s,baz=43,slow=36
NEW Newport 93.72 5 LR LR 08 36 36.8
comp=Z,84nm,18.1s,baz=348,slow=39
PDAR Pinedale Array 99.47 360 LR LR 08 38 40.5
comp=Z,115nm,18.3s,baz=357,slow=38
YBH Yreka Blue Hor 99.64 10 LR LR 08 40 09.0
comp=Z,27nm,19.4s,baz=1.0,slow=39
TROLL Troll, Antarti 119.44 199 PKPdf **PKiKP 07 54 08.4 +0.1**
comp=Z,79nm,0.5s
CPUP Villa Florida 134.62 269 PKhKP PKPpre 07 54 27.7
comp=Z,1.4nm,1.0s,baz=200,slow=8.4,SNR=2.8
PPT2 Papeete2 139.71 71 *e*LR LR 08 40 01.3
comp=Z,88nm,29.0s
PPT2 *e*LR LR 08 40 04.3
comp=Z,60nm,26.0s
TAOE Nuku Hiva Isla 140.04 51 *e*LR LR 08 40 12.7
comp=Z,118nm,26.4s
PLCA Paso Flores 149.75 253 PKPbc **PKiKP 07 55 10.1 -0.3**
comp=Z,4.5nm,0.9s,baz=127,slow=2.1,SNR=7.4

IDC ***17*** *07:46:52.3±0.7, 52.89N×167.26W, h0km, mb4.3/31, mbtmp4.3/32, ML3.9/1, MS3.6/19, Error ellipse: s-maj=20.0km s-min=10.5km az=173.0*
AEIC ***17*** *07:46:53.4±3.2, 52.41N±0.06×167.07W±0.06, h24km±4km, Error ellipse: s-maj=9.0km s-min=5.8km az=186.0*
NEIC ***17*** *07:46:57.4±2.5, 52.61N±0.07×167.21W±0.08, h43km±7km, mb4.3/139, ML4.0/20, ML3.8(AEIC), Error ellipse: s-maj=10.1km s-min=6.4km az=166.0*
ISC 17 07:46:55.2±1.5, 52.56N±0.06×167.16W±0.04, h28km±9km, n271, σ1$48/199, mb4.4/91, MS3.6/19, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKFG	**Magazine Ridge**	**0.97**	**332**		**Pn**	**07 47 13.1**	**+0.2**
OKFG					**Sn**	**07 47 28.4**	**+2.7**
OKSP	**Okmok Steeple**	**0.98**	**316**		**Pn**	**07 47 12.7**	**-0.3**
OKTU	**Okmok Mt. Tuli**	**0.99**	**328**		**Pn**	**07 47 13.4**	**+0.3**
OKCE	**Okmok Cone E**	**1.06**	**326**		**Pn**	**07 47 14.5**	**+0.3**
OKNC	**Okmok New Cone**	**1.07**	**327**		**Pn**	**07 47 14.7**	**+0.4**
OKNC				IAML		07 47 50.6	
	comp=N,4μm,1.3s						
OKNC				IAML		07 47 56.1	
	comp=E,3μm,1.6s						
OKRE	**Okmok R'deer P**	**1.14**	**328**		**Pb**	**07 47 15.5**	**-0.7**
MGOD	**Makushin Gods**	**1.25**	**8**		**Pb**	**07 47 16.9**	**-1.3**
MGOD					**Sn**	**07 47 35.6**	**+2.9**
MAPS	**Pakushin South**	**1.26**	**6**		**Pb**	**07 47 17.1**	**-1.2**
MAPS					**Sn**	**07 47 35.1**	**+2.3**
MREP	**Makushin Rep't**	**1.28**	**11**		**Pb**	**07 47 17.5**	**-1.2**
UNV	**Unalaska Valle**	**1.35**	**17**	P	**Pb**	**07 47 18.4**	**-1.4**
UNV	**Unalaska Valle**	**1.35**	**17**	S	**Sb**	**07 47 38.6**	**+2.0**
UNV	**Unalaska Valle**	**1.35**	**17**		**Pb**	**07 47 18.1**	**-1.6**
UNV	**Unalaska Valle**	**1.35**	**17**		**Sb**	**07 47 38.2**	**+1.6**
MNAT	**Makushin Natee**	**1.36**	**12**		**Pb**	**07 47 18.5**	**-1.5**
MSW	**Makushin Switc**	**1.38**	**9**		**Pb**	**07 47 18.8**	**-1.5**
MSW					**Sb**	**07 47 39.5**	**+2.0**
MTBL	**Makushin Table**	**1.44**	**11**		**Pb**	**07 47 19.9**	**-1.5**
CLCO	**Concord Point,**	**1.58**	**279**		**Pn**	**07 47 20.6**	**-0.6**
CLCO					**Sb**	**07 47 42.0**	**-1.2**
CLES	**Cleveland East**	**1.69**	**280**		**Pn**	**07 47 22.3**	**-0.4**
CLES				IAML		07 47 57.3	
	comp=N,2μm,0.8s						
CLES	**Cleveland East**	**1.69**	**280**		**Sb**	**07 47 45.2**	**-1.1**
ZRO	**Akutan Zero**	**1.69**	**24**		**Pn**	**07 47 23.1**	**+0.3**
AKRB	**Akutan Reef Bi**	**1.71**	**22**		**Pb**	**07 47 23.6**	**-2.2**
AKRB					**Sb**	**07 47 46.7**	**-0.2**
AKBBA	**Akutan Broad B**	**1.71**	**25**		**Pn**	**07 47 23.1**	**0.0**
AKV	**Akutan Volcano**	**1.73**	**24**		**Pn**	**07 47 23.5**	**+0.1**
LVA	**Lava Point**	**1.74**	**22**		**Pb**	**07 47 24.7**	**-1.7**
LVA				IAML		07 48 03.9	
	comp=E,2μm,0.8s						
AHB	**Akutan Harbor**	**1.76**	**27**		**Pn**	**07 47 24.1**	**+0.4**
AKLV	**Akutan Long Va**	**1.76**	**24**		**Pn**	**07 47 23.9**	**0.0**
AKUT	**Akutan**	**1.79**	**27**	P	**Pn**	**07 47 24.7**	**+0.6**
AKUT	**Akutan**	**1.79**	**27**	S	**Sb**	**07 47 48.8**	**-0.3**
AKUT	**Akutan**	**1.79**	**27**		**Pb**	**07 47 24.8**	**-2.4**
AKUT				IAML		07 47 52.5	
	comp=N,668nm,0.6s						
AKGG	**Akutan Green G**	**1.79**	**23**		**Pn**	**07 47 24.6**	**+0.5**
WESP	**Westdahl Peak**	**2.42**	**36**		**Pn**	**07 47 33.4**	**+0.5**
WESP					**Sn**	**07 48 03.1**	**+1.4**
WECS	**Westdahl Cape**	**2.44**	**35**		**Pn**	**07 47 34.0**	**+1.0**
WECS				IAML		07 48 28.8	
	comp=E,812nm,0.9s						
WESN	**West Dahl Nort**	**2.53**	**36**		**Pn**	**07 47 35.6**	**+1.2**
SSLN	**Shishaldin Nor**	**2.94**	**39**		**Pn**	**07 47 40.9**	**+0.9**
ISLZ	**Isanotski Laza**	**2.99**	**42**		**Pn**	**07 47 41.4**	**+0.8**
DT1	**Dutton Round H**	**3.86**	**47**		**Pn**	**07 47 53.1**	**+0.5**
DTNA	**Dutton South F**	**3.90**	**46**		**Pn**	**07 47 53.8**	**+0.7**
DOL	**Dolgoi Island**	**4.07**	**48**		**Pn**	**07 47 55.8**	**+0.3**
PS4A	**Pavlof South-4**	**4.20**	**46**		**Pn**	**07 47 58.4**	**+1.2**
ATKA	**Atka Island**	**4.33**	**268**	P	**Pn**	**07 47 59.7**	**+0.7**
ATKA	**Atka Island**	**4.33**	**268**	S	**Sn**	**07 48 49.2**	**+0.8**
ATKA	**Atka Island**	**4.33**	**268**		**Pn**	**07 47 59.3**	**+0.3**
ATKA	**Atka Island**	**4.33**	**268**	IAML		07 48 40.1	
	comp=E,169nm,3.7s						
ATKA				IAML		07 49 57.9	
	comp=N,170nm,2.4s						
S12K	**Black Hills**	**4.35**	**42**		**Pn**	**07 47 59.8**	**+0.5**
S12K	**Black Hills**	**4.35**	**42**	IAML		07 49 50.9	
	comp=E,151nm,2.8s						
S12K				IAML		07 50 05.5	
	comp=N,159nm,2.5s						
SDPT	**Sand Point**	**4.84**	**52**	P	**Pn**	**07 48 06.7**	**+0.7**
SDPT	**Sand Point**	**4.84**	**52**		**Pn**	**07 48 06.0**	**0.0**
CNBA	**Chernabura Isl**	**5.04**	**60**		**Pn**	**07 48 08.4**	**-0.3**
GSIG	**Igitkin Island**	**5.41**	**267**		**Pn**	**07 48 13.8**	**-0.1**
GSTR	**Great Sitkin T**	**5.48**	**269**	Pn	**Pn**	**07 48 14.4**	**-0.4**
GSCK	**Great Sitkin C**	**5.55**	**268**		**Pn**	**07 48 16.0**	**+0.1**
ETKA	**Kagalaska Isla**	**5.73**	**267**		**Pn**	**07 48 18.3**	**+0.1**
ADK	**Adak**	**5.89**	**267**	P	**Pn**	**07 48 20.9**	**+0.4**
ADK	**Adak**	**5.89**	**267**	S	**Sn**	**07 49 27.3**	**+0.3**
ADK	**Adak**	**5.89**	**267**	Pn	**Pn**	**07 48 20.6**	**+0.1**
KIKV	**Kanaga Island**	**6.19**	**268**		**Pn**	**07 48 25.1**	**+0.5**
CHGN	**Chignik**	**6.33**	**50**		**Pn**	**07 48 27.4**	**+0.9**
CHIR	**Chirikof Islan**	**7.51**	**60**	P	**Pn**	**07 48 43.2**	**+0.5**
CHIR	**Chirikof Islan**	**7.51**	**60**		**Pn**	**07 48 43.0**	**+0.3**
SII	**Sitkinak Islan**	**8.54**	**57**	P	**Pn**	**07 48 57.1**	**+0.3**
N15K	**Kwethluk River**	**8.57**	**24**		**Pn**	**07 49 00.6**	**+3.4**
O16K	**Kokwok River B**	**8.68**	**32**		**Pn**	**07 49 00.0**	**+1.4**
OHAK	**Old Harbor**	**9.25**	**54**	P	**Pn**	**07 49 06.8**	**+0.3**
OHAK	**Old Harbor**	**9.25**	**54**	Pn	**Pn**	**07 49 06.9**	**+0.4**
KDAK	**Kodiak Island**	**9.84**	**52**	Pn	**Pn**	**07 49 13.3**	**-1.2**
	comp=N,1.0nm,0.3s,baz=245,slow=9.3,SNR=17						
KDAK					Sn	**07 50 58.4**	**-5.5**
	comp=N,0.2nm,0.3s,baz=276,slow=14,SNR=1.9 comp=N,5.7nm,0.5s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**9.84**	**52**	Pn	**Pn**	**07 49 14.8**	**+0.3**
K15K	**Wolf Creek Mou**	**10.22**	**15**	Pn	**Pn**	**07 49 22.2**	**+2.4**
N19K	**Bonanza Creek**	**10.80**	**35**		**Pn**	**07 49 30.4**	**+2.6**
L19K	**White Mountain**	**11.69**	**30**		**Pn**	**07 49 43.3**	**+3.4**
M20K	**Styx River**	**12.02**	**33**		**Pn**	**07 49 47.8**	**+3.4**
L20K	**Farewell, AK**	**12.21**	**30**		**Pn**	**07 49 49.6**	**+2.6**
J18K	**Innoko River**	**12.24**	**23**		**Pn**	**07 49 48.8**	**+1.4**
SUA	**Susitna One**	**12.60**	**38**	Pn	**Pn**	**07 49 54.3**	**+1.9**
SKT	**Skwentna**	**12.64**	**36**	Pn	**Pn**	**07 49 55.8**	**+3.0**
PPLA	**Purkeypile**	**13.05**	**32**		**Pn**	**07 50 02.0**	**+3.5**
CAST	**Castle Rocks**	**13.46**	**30**		**Pn**	**07 50 05.5**	**+1.4**
J20K	**Nowinta River**	**13.46**	**25**		**Pn**	**07 50 07.1**	**+3.1**
TRF	**Thorofare Moun**	**14.05**	**32**	Pn	**Pn**	**07 50 13.1**	**+0.8**
H19K	**Roundabout Mou**	**14.09**	**19**	Pn	**Pn**	**07 50 14.3**	**+1.7**
BPAW	**Bear Paw Mtn.**	**14.29**	**30**		**Pn**	**07 50 17.2**	**+1.8**
I21K	**Tanana**	**14.83**	**26**	P	**P**	**07 50 26.8**	**-1.4**
IMAR	**Indian Mountai**	**15.05**	**21**	P	**P**	**07 50 29.1**	**-1.5**
HARP	**HAARP**	**15.31**	**41**	Pn	**P**	**07 50 31.9**	**-1.7**
CRQM	**Cirque**	**15.47**	**49**		**P**	**07 50 35.3**	**-0.3**
VRDI	**Verde Repeater**	**15.51**	**47**	Pn	**Pn**	**07 50 31.2**	**-0.6**
VRDI				IAmb	IAmb	07 50 40.1	
	comp=Z,28nm,0.8s						
I23K	**Minto, Yukon-K**	**15.54**	**29**		**Pn**	**07 50 33.2**	**+1.3**
I23K				IAmb	IAmb	07 50 36.3	
	comp=Z,14nm,0.9s						
H22K	**Ishtalitna Cre**	**15.55**	**25**	IAmb	IAmb	07 50 39.0	
	comp=Z,37nm,1.1s						
F20K	**Avaraart Lake**	**15.59**	**17**		**P**	**07 50 36.3**	**-0.2**
E19K	**Redstone River**	**15.71**	**14**	IAmb	IAmb	07 50 42.1	
	comp=Z,22nm,0.9s						
MCARA	**McCarthy VSAT**	**15.76**	**46**	Pn	**P**	**07 50 36.9**	**-1.6**
H23K	**Yukon River**	**15.98**	**27**	IAmb	IAmb	07 50 43.4	
	comp=Z,19nm,1.1s						
IL31		**16.05**	**32**		**P**	**07 50 40.0**	**-1.7**
ILAR	**Eielson Array**	**16.05**	**32**	Pn	**Pn**	**07 50 35.3**	**-3.3**
	comp=Z,0.2nm,0.3s,baz=231,slow=12,SNR=14						

ILAR LR LR 07 57 01.0
comp=Z,177nm,20.1s,baz=232,slow=38
ILAR Eielson Array 16.05 32 Pn **P 07 50 40.0 -1.8**
F21K Alatna River 16.16 19 IAmb IAmb 07 50 46.7
comp=Z,16nm,1.0s
BARN Barnard Glacie 16.25 48 P **P 07 50 44.6 +0.4**
BARN IAmb IAmb 07 50 48.0
comp=Z,37nm,1.4s
L26K Log Cabin Wild 16.35 41 IAmb IAmb 07 50 46.2
comp=Z,29nm,1.2s
DOT Dot Lake 16.39 38 P **P 07 50 45.0 -0.5**
H24K Noodor Dome 16.46 29 **Pn 07 50 44.3 +0.4**
LOGN Logan Glacier 16.48 50 IAmb IAmb 07 50 51.1
comp=Z,17nm,1.0s
G23K Bananza Creek 16.53 24 IAmb IAmb 07 50 50.2
comp=Z,23nm,1.0s
M27K Edge Creek, AK 16.65 44 IAmb IAmb 07 50 53.5
comp=Z,36nm,1.3s
O28M Mount Upton 16.84 50 **Pn 07 50 49.5 +0.6**
PNL Peninsula 16.94 54 P **P 07 50 51.2 -0.4**
D20K Etivluk River 16.97 13 IAmb IAmb 07 50 54.9
comp=Z,19nm,0.7s
O29M Mount Kennedy 17.49 52 P **P 07 50 58.3 +0.5**
O29M IAmb IAmb 07 51 16.9
comp=Z,28nm,1.3s
F24K Squaw Lake 17.69 25 P **P 07 51 00.8 +1.0**
E24K Your Creek 17.97 23 IAmb IAmb 07 51 08.4
comp=Z,14nm,0.8s
HYT Haines Junctio 18.13 51 **P 07 51 07.8 +3.0**
HYT IAmb IAmb 07 51 15.0
comp=Z,29nm,0.8s
M29M Somme Creek 18.16 46 IAmb IAmb 07 51 10.7
comp=Z,22nm,0.8s
TOLK Toolik Lake Re 18.17 21 IAmb IAmb 07 51 23.5
comp=Z,14nm,0.7s
D23K Nanushuk River 18.21 19 IAmb IAmb 07 51 15.4
comp=Z,18nm,1.1s
F25K Christian Rive 18.34 27 IAmb IAmb 07 51 10.2
comp=Z,24nm,1.1s
G26K Porcupine Rive 18.44 30 **Pn 07 51 08.0 -0.2**
BMAR Burnt Mountain 18.52 28 **Pn 07 51 10.8 +1.5**
L29M L29M 18.54 44 IAmb IAmb 07 51 25.0
comp=Z,19nm,0.9s
H27K Steamboat Moun 18.71 33 **P 07 51 10.4 -0.7**
D24K Happy Valley 18.75 21 IAmb IAmb 07 51 18.8
comp=Z,12nm,0.8s
O30N Mendenhall 18.79 52 IAmb IAmb 07 51 19.7
comp=Z,32nm,1.0s
M30M Minto, Yukon 18.94 46 IAmb IAmb 07 51 19.0
comp=Z,20nm,1.0s
SKAG Skagway 18.95 56 P **Pn 07 51 15.6 +1.2**
SKAG IAmb IAmb 07 51 38.8
comp=Z,18nm,1.0s
K29M Barlow Dome 19.07 42 IAmb IAmb 07 51 20.4
comp=Z,20nm,0.9s
I29M Ogilvie Camp, 19.40 38 **Pn 07 51 19.9 -0.1**
P32M Atlin 19.78 56 IAmb IAmb 07 51 26.8
comp=Z,22nm,1.0s
H29M Whitestone 19.79 35 IAmb IAmb 07 51 40.2
comp=Z,14nm,0.8s
M31M Drury Creek, Y 19.91 48 P **Pn 07 51 27.0 +1.0**
C26K Camden Bay 20.21 22 Pn 07 51 29.0 -0.4
G29M Pine Creek 20.26 34 IAmb IAmb 07 51 29.2
comp=Z,17nm,0.8s
P33M Teslin, Yukon 20.30 54 P Pn 07 51 31.4 +0.8
P33M IAmb IAmb 07 51 49.1
comp=Z,12nm,0.8s
EPYK Eagle Plains 20.45 36 P **P 07 51 29.8 -0.3**
Q32M Nakina River 20.47 58 P Pn 07 51 33.1 +0.4
Q32M IAmb IAmb 07 51 36.9
comp=Z,20nm,1.1s
G30M tAoh Zrail Nji 20.91 34 IAmb IAmb 07 51 38.2
comp=Z,21nm,1.1s
H31M Peel River 21.08 38 IAmb IAmb 07 51 37.5
comp=Z,23nm,1.1s
E29M Blow River 21.10 30 IAmb IAmb 07 51 42.2
comp=Z,13nm,0.8s
PETK Petropavlovsk- 21.11 286 P **P 07 51 37.0 -0.3**
comp=Z,6.6nm,0.5s,baz=73,slow=11,SNR=11
comp=Z,6.6nm,0.5s
R33M Jennings River 21.16 57 **P 07 51 40.6 +2.7**
R33M IAmb IAmb 07 51 45.9
comp=Z,15nm,0.9s
DLBC Dease Lake 21.63 59 P **P 07 51 42.9 +0.1**
comp=Z,2.4nm,1.0s,baz=253,slow=14,SNR=5.6
comp=Z,2.4nm,1.0s
F31M Tsiigehtchic 21.98 35 IAmb IAmb 07 51 51.3
comp=Z,14nm,1.3s
INK Inuvik 22.45 33 P **P 07 51 49.0 -2.4**
comp=Z,8.8nm,0.8s,baz=241,slow=9.9,SNR=19
INK S **S 07 55 49.9 -6.1**
comp=Z,0.7nm,0.8s,baz=256,slow=17,SNR=1.8
INK LR LR 08 01 32.9
comp=Z,323nm,19.3s,baz=236,slow=40
comp=Z,8.8nm,0.8s
INK Inuvik 22.45 33 IAmb IAmb 07 51 56.6
comp=Z,10.0nm,0.8s
SEY Seymchan 23.54 312 P **P 07 52 02.2 -0.5**
comp=Z,7.5nm,0.8s,baz=87,slow=17,SNR=7.2
comp=Z,7.5nm,0.8s
MA2 Magadan 24.16 304 **P 07 52 07.9 -0.6**
comp=Z,11nm,0.6s,baz=143,slow=15,SNR=2.5
MA2 LR LR 08 01 36.2
comp=Z,146nm,18.7s,baz=103,slow=37
comp=Z,11nm,0.6s
A36M Sachs Harbour 26.62 28 **P 07 52 31.2 +0.6**
YKA Yellowknife Ar 29.10 49 P **P 07 52 52.3 -0.6**
comp=Z,0.6nm,0.4s,baz=272,slow=8.7,SNR=6.4
YKA LR LR 08 06 00.2
comp=Z,146nm,19.4s,baz=268,slow=40
comp=Z,0.6nm,0.4s
YBH Yreka Blue Hor 31.63 92 LR LR 08 03 11.8
comp=Z,75nm,19.5s,baz=316,slow=31
NEW Newport 31.65 77 LR LR 08 04 35.9
comp=Z,80nm,20.2s,baz=301,slow=34
PAHR Pah Rah Range 34.87 92 IAmb IAmb 07 53 48.1
comp=Z,7.4nm,1.1s
WAKR Walker 35.58 94 IAmb IAmb 07 53 55.0
comp=Z,5.3nm,0.9s
RES Resolute Bay 35.62 26 LR LR 08 10 25.2
comp=Z,103nm,20.0s,baz=311,slow=40
NVAR Mina Array Bea 36.32 93 P **P 07 53 58.3 +1.9**
comp=Z,4.0nm,0.8s,baz=314,slow=6.1,SNR=18
comp=Z,4.0nm,0.8s
NVAR Mina Array Bea 36.32 93 P **P 07 53 58.1 +1.6**
MDPB Devils Postpil 36.35 95 P **P 07 53 56.9 +0.1**
NV11 Mina Array Sit 36.41 93 P **P 07 53 57.8 +0.6**
NV11 IAmb IAmb 07 54 20.9
comp=Z,2.8nm,1.0s
YHH Holmes Hill 37.13 79 **P 07 54 04.8 +1.4**
YHH IAmb IAmb 07 54 06.4
comp=Z,5.8nm,1.0s
GMN Gold Mountain 37.67 94 IAmb IAmb 07 54 12.0
comp=Z,3.8nm,0.9s
MPMC Manual Prospec 38.34 95 IAmb IAmb 07 54 22.2
comp=Z,4.8nm,1.1s
CLC China Lake 38.44 96 IAmb IAmb 07 54 18.1
comp=Z,3.5nm,1.0s
H11N2 WAKE ISLAND Hy 38.47 221 T T 08 35 55.3
baz=25,slow=76,SNR=21
H11N3 WAKE ISLAND Hy 38.47 221 T T 08 35 37.1
baz=25,slow=76,SNR=31
H11N1 WAKE ISLAND Hy 38.48 221 T T 08 35 48.7
baz=25,slow=76,SNR=18
GWY Greenwater Val 38.76 94 IAmb IAmb 07 54 20.5
comp=Z,4.7nm,0.9s
PRN Pahroc Range 38.95 92 IAmb IAmb 07 54 27.2
comp=Z,6.8nm,1.0s
PDAR Pinedale Array 39.04 81 P **P 07 54 20.1 +0.6**
comp=Z,1.6nm,1.0s,baz=310,slow=8.3,SNR=7.6
comp=Z,1.6nm,1.0s
BFSC Mount Baldy Ra 39.46 98 IAmb IAmb 07 54 36.0
comp=Z,6.2nm,1.0s
H11S1 WAKE ISLAND Hy 39.65 221 T T 08 37 23.7
baz=24,slow=76,SNR=20
H11S2 WAKE ISLAND Hy 39.66 221 T T 08 37 24.5
baz=24,slow=76,SNR=14
H11S3 WAKE ISLAND Hy 39.66 221 T T 08 37 40.0
baz=24,slow=76,SNR=11
ELS Elsinore Mount 40.01 98 P **P 07 54 28.7 +1.3**
ELS IAmb IAmb 07 54 43.0
comp=Z,9.7nm,1.2s
DNR Dunn Ranch,Anz 40.54 97 P **P 07 54 33.1 +1.2**
PFO Pinyon Flats O 40.62 97 LR LR 08 07 51.7
comp=Z,25nm,19.7s,baz=304,slow=31
PFO Pinyon Flats O 40.62 97 **P 07 54 33.9 +1.4**
PFO IAmb IAmb 07 55 00.6
comp=Z,5.5nm,1.2s
BELC Belle Mtn. Jos 40.63 96 P **P 07 54 33.2 +0.6**
BELC IAmb IAmb 07 54 40.4
comp=Z,3.6nm,0.8s
DPP Dos Picos Cty 40.75 98 IAmb IAmb 07 54 48.7
comp=Z,8.2nm,1.2s
BORC Borrego Spring 40.88 98 IAmb IAmb 07 54 42.6
comp=Z,5.2nm,0.8s
IRM Iron Mountain 41.04 96 IAmb IAmb 07 54 44.1
comp=Z,6.0nm,1.1s
MJAR Matsushiro Arr 41.05 269 P **P 07 54 35.3 -0.7**
comp=Z,1.5nm,0.7s,baz=42,slow=6.2,SNR=5.1
comp=Z,1.5nm,0.7s
MJAR Matsushiro Arr 41.05 269 IAmb IAmb 07 54 38.3
comp=Z,5.2nm,1.5s
BAR Barrett 41.13 98 IAmb IAmb 07 54 40.5
comp=Z,5.4nm,0.9s
U15A North Rim 41.27 91 IAmb IAmb 07 54 50.8
comp=Z,7.2nm,1.3s
O20A White River Ci 41.40 83 IAmb IAmb 07 55 09.9
comp=Z,8.1nm,1.0s
YUH Yuha Desert 41.61 98 IAmb IAmb 07 54 55.3
comp=Z,8.2nm,1.3s
BLYC Blythe 41.70 95 IAmb IAmb 07 54 49.4
comp=Z,6.2nm,0.8s
ESJX Sierra Juarez 42.04 99 IAmb IAmb 07 54 52.8
comp=Z,8.2nm,1.0s
PV02 Paradox Valley 42.30 86 P **P 07 54 46.8 +0.4**
PV02 IAmb IAmb 07 55 07.9
comp=Z,7.0nm,0.8s
PV01 Paradox Valley 42.44 86 IAmb IAmb 07 55 09.0
comp=Z,5.9nm,0.8s
KSRS Korea Array 46.72 278 P **P 07 55 22.0 +0.6**
comp=Z,4.9nm,1.0s,baz=55,slow=7.8,SNR=12
comp=Z,4.9nm,1.0s
KSAR Wonju Array Be 46.75 278 P **P 07 55 20.8 -0.8**
NRIK Noril'sk 46.90 332 P **P 07 55 20.4 -2.0**
comp=Z,4.1nm,0.9s,baz=44,slow=6.7,SNR=2.5
comp=Z,4.1nm,0.9s
NRIK Noril'sk 46.90 332 IAmb IAmb 07 55 24.2
comp=Z,9.2nm,1.2s
MNTX Cornudas Mount 48.68 90 IAmb IAmb 07 55 51.2
comp=Z,3.0nm,0.9s
TPB28 49.24 89 IAmb IAmb 07 55 44.8
comp=Z,4.2nm,1.0s
VHRN Van Horn 49.56 91 IAmb IAmb 07 56 01.7
comp=Z,5.5nm,1.1s
TPB01 Permian Basin 50.19 89 IAmb IAmb 07 55 51.0
comp=Z,4.3nm,0.9s
SUMG Summit 50.20 18 **P 07 55 48.8 +0.6**
MNHN Monahans 50.53 88 IAmb IAmb 07 55 53.1
comp=Z,4.2nm,0.8s
ALPN Alpine 50.67 90 IAmb IAmb 07 55 54.5
comp=Z,2.6nm,0.8s
TMB01 Midkiff 50.72 87 IAmb IAmb 07 55 55.0
comp=Z,4.2nm,1.1s
LPIG La Paz 51.19 101 LR LR 08 14 46.0
comp=Z,19nm,19.6s,baz=340,slow=33
TX31 Lajitas Ar. Si 51.39 91 IAmb IAmb 07 56 04.3
comp=Z,3.6nm,0.9s
TXAR Lajitas Array 51.39 91 P **P 07 55 58.4 +0.9**
comp=Z,2.5nm,0.8s,baz=318,slow=7.5,SNR=23
comp=Z,2.5nm,0.8s
ULN Ulaanbaatar 52.00 302 **P 07 56 00.9 -0.8**
SONM Songino Array 52.36 302 P **P 07 56 04.3 -0.1**
comp=Z,4.1nm,1.0s,baz=64,slow=6.6,SNR=17
SONM PcP **PcP 07 57 15.4 +0.3**
comp=Z,1.1nm,0.9s,baz=67,slow=3.7,SNR=2.2
comp=Z,4.1nm,1.0s
SONM Songino Array 52.36 302 IAmb IAmb 07 56 05.4
comp=Z,4.9nm,1.1s
TIA Tai'an 54.01 284 P **P 07 56 12.9 -3.7**
TIA pmax pmax
comp=Z,13nm,1.0s
HHC Hu-ho-hao-te 54.11 292 *e*P **P 07 56 17.4 +0.1**
HHC pmax pmax
comp=Z,10.0nm,0.6s
HHC pmax pmax
comp=Z,360nm,6.4s
ARCES ARCESS Array B 57.87 355 P **P 07 56 42.5 -1.2**
comp=Z,3.7nm,0.8s,baz=15,slow=7.3,SNR=4.7
comp=Z,3.7nm,0.8s
ZALV Zalesovo Beam 58.19 319 P **P 07 56 45.7 -0.4**
comp=Z,2.0nm,0.7s,baz=38,slow=7.3,SNR=8.5
comp=Z,2.0nm,0.7s
ZALV Zalesovo Beam 58.19 319 **P 07 56 45.4 -0.7**
GTA2 Gaotai 61.56 299 P **P 07 57 09.8 +0.1**
GTA2 pP pP 07 57 15.8 -1.6
GTA2 pmax pmax
comp=Z,12nm,1.0s
LZH Lanzhou 61.77 293 *e*P **P 07 57 11.8 +0.6**
LZH pP pwP 07 57 23.9 +0.3
LZH pmax pmax
comp=Z,24nm,1.0s
LZH LR LR
comp=E,170nm,18.5s
LZH LR LR
comp=Z,170nm,16.8s
LZDM Lanzhou Array 61.94 293 P **P 07 57 12.8 +0.2**
comp=Z,1.7nm,0.3s,baz=56,slow=16,SNR=3.7
comp=Z,1.7nm,0.3s
KURK Kurchatov 63.12 319 **P 07 57 19.5 -0.2**
KURBB Kurchatov Arra 63.23 319 P **P 07 57 20.1 -0.4**
comp=Z,6.2nm,0.8s,baz=48,slow=7.2,SNR=56
comp=Z,6.2nm,0.8s
BVAR Borovoye Array 64.33 326 P **P 07 57 27.7 0.0**
comp=Z,9.7nm,0.8s,baz=49,slow=6.5,SNR=23
comp=Z,9.7nm,0.8s
MKAR Makanchi Array 64.65 315 P **P 07 57 28.8 -1.1**
comp=Z,4.0nm,0.8s,baz=40,slow=6.1,SNR=25
comp=Z,4.0nm,0.8s
MKAR Makanchi Array 64.65 315 **P 07 57 29.1 -0.9**
ARTI Arti 65.14 334 LR LR 08 28 31.8
comp=Z,66nm,18.4s,baz=32,slow=39
TAOE Nuku Hiva Isla 65.39 150 *e*LR LR 08 17 04.5
comp=Z,41nm,26.7s
FINES FINESS Array B 65.86 353 P **P 07 57 36.1 -1.3**
comp=Z,8.7nm,0.9s,baz=12,slow=8.5,SNR=13
comp=Z,8.7nm,0.9s
AFI Afiamalu 66.31 185 LR LR 08 27 51.6
comp=Z,31nm,18.1s,baz=19,slow=37
GOMU GeErMu 66.63 299 P **P 07 57 43.3 0.0**
GOMU pP pP 07 57 46.5 -4.5
GOMU sP sP 07 57 50.5 -3.4
GOMU pmax pmax
comp=Z,7.0nm,0.6s
NB2 NORSAR Subarra 66.75 1 P **P 07 57 43.2 0.0**
comp=Z,0.8nm,0.6s,baz=356,slow=6.2
NOA NORSAR Array B 66.75 1 P **P 07 57 41.7 -1.5**
comp=Z,2.9nm,0.9s,baz=359,slow=7.0,SNR=4.2
NOA LR LR 08 30 07.8
comp=Z,32nm,18.0s,baz=55,slow=39
comp=Z,2.9nm,0.9s
HFS Hagfors 67.66 360 P **P 07 57 48.6 -0.4**
comp=Z,1.9nm,0.4s,baz=29,slow=3.3,SNR=8.1
HFS LR LR 08 29 24.4
comp=Z,40nm,18.5s,baz=335,slow=38
comp=Z,1.9nm,0.4s
AKTO Aktyubinsk 70.51 331 LR LR 08 33 09.1
comp=Z,67nm,18.3s,baz=236,slow=40
MSVF Nonsavu 71.16 195 LR LR 08 23 48.9
comp=Z,31nm,21.6s,baz=165,slow=31
AAK Ala-Archa 71.30 317 P **P 07 58 12.5 +0.5**
comp=Z,9.4nm,0.7s,baz=66,slow=12,SNR=6.3
AAK LR LR 08 31 42.2
comp=Z,73nm,18.2s,baz=10.0,slow=38
comp=Z,9.4nm,0.7s
AAK Ala-Archa 71.30 317 P **P 07 58 13.0 +1.0**
PPT Papeete 71.48 162 LR LR 08 23 25.8
comp=Z,47nm,20.8s,baz=296,slow=30
PPT2 Papeete2 71.50 162 *e*LR LR 08 19 54.0
comp=Z,77nm,26.2s
PPT2 *e*LR LR 08 20 01.2
comp=Z,38nm,21.5s
EKA Eskdalemuir Ar 71.66 10 P **P 07 58 12.8 -0.9**
comp=Z,1.5nm,0.6s,baz=346,slow=6.9,SNR=1.9
comp=Z,1.5nm,0.6s
KSH2 Kashi 73.72 314 P **P 07 58 27.3 +0.9**
KSH2 pmax pmax
comp=Z,17nm,0.9s
RNPP5 Staryi Chortor 76.00 352 P **P 07 58 39.6 +0.4**
AKASG Malin Array Be 76.19 349 P **P 07 58 40.0 -0.2**
comp=Z,8.7nm,0.8s,baz=15,slow=5.6,SNR=20
comp=Z,8.7nm,0.8s
AKBB Malin Array Si 76.19 349 P **P 07 58 40.2 0.0**
AK19 Malin Array Si 76.19 349 P **P 07 58 40.2 -0.1**
KIEV Kiev 76.20 349 P **P 07 58 40.0 -0.3**
comp=Z,56nm,0.9s
AK01 Malin Array Si 76.20 349 P **P 07 58 39.6 -0.7**
CLL Collm 76.51 360 *i* P **P 07 58 42.9 +0.8**
CLL LV 08 44 00.0
LUBAR Lubar, Ukraine 77.12 350 P **P 07 58 44.8 -0.7**
DPC Dobruska-Polom 77.43 358 P **P 07 58 48.1 +0.8**
comp=Z,6.1nm,1.2s
CMAR Chiang Mai Arr 77.89 284 P **P 07 58 50.4 +0.1**
comp=Z,1.1nm,0.3s,baz=39,slow=6.0,SNR=7.3
comp=Z,1.1nm,0.3s
MORC Moravsky Berou 77.96 357 *e*P **P 07 58 50.3 0.0**
VRAC Vranov 78.46 357 *e*P **P 07 58 54.1 +1.1**
KMPD K-Podol'skiy 78.59 351 P **P 07 58 53.4 -0.3**
KRUC Moravsky 78.71 358 *e*P **P 07 58 55.5 +1.1**
JAVC Velka Javorina 78.88 357 *e*P **P 07 58 57.0 +1.6**
GERES GERESS Array B 78.97 359 P **P 07 58 55.7 -0.3**
comp=Z,1.5nm,0.8s,baz=350,slow=3.0,SNR=6.3
comp=Z,1.5nm,0.8s
ABNA Allensteig Bun 79.12 358 *e*P **P 07 58 58.1 +1.4**
comp=Z,5.9nm,1.1s
CONA Conrad Observa 79.86 358 *i* P **P 07 59 02.0 +1.2**
comp=Z,7.7nm,1.2s
RONA Rosalia, Austr 80.08 358 *e*P **P 07 59 04.0 +2.0**
comp=Z,9.2nm,1.6s
BIOA Bad Ischl, Aus 80.13 359 *i* P **P 07 59 03.3 +1.1**
comp=Z,9.3nm,1.0s
RETA Reutte 80.32 1 *e*P **P 07 59 03.7 +0.4**
comp=Z,3.3nm,0.7s
MOTA Moosalm 80.47 1 *e*P **P 07 59 05.7 +1.5**
comp=Z,12nm,1.1s
WATA Walderalm 80.48 1 *e*P **P 07 59 05.8 +1.6**
comp=Z,7.1nm,0.9s
ARSA Arzberg 80.54 358 *i* P **P 07 59 06.4 +2.0**
comp=Z,9.0nm,1.1s
WTTA Wattenberg 80.55 1 *i* P **P 07 59 06.5 +1.8**
comp=Z,9.5nm,1.2s
SQTA Sankt Quirin 80.59 1 *e*P **P 07 59 06.1 +1.3**
comp=Z,12nm,1.1s
SESA Seetaler Alpe, 80.70 359 *i* PcP **P 07 59 07.2 +1.8**
comp=Z,8.0nm,1.2s
KBA Koelnbreinsper 80.74 360 *i* P **P 07 59 07.4 +1.7**
comp=Z,8.9nm,0.8s
FETA Feichten 80.78 1 *e*P **P 07 59 07.3 +1.5**
comp=Z,11nm,1.0s
ABTA Abfaltersbach 81.07 0 *i* P **P 07 59 08.9 +1.5**
comp=Z,12nm,1.3s
SOKA Soboth 81.12 358 *e*PcP **P 07 59 09.3 +1.7**
comp=Z,17nm,1.2s
MYKA Terra Mystica 81.19 359 *e*P **P 07 59 08.1 +0.1**
comp=Z,14nm,1.5s
BRTR Keskin Array B 86.33 344 P **P 07 59 35.4 +0.9**
comp=Z,2.8nm,0.8s,baz=90,slow=0.5,SNR=9.8
comp=Z,2.8nm,0.8s
ESDC Sonseca Array 86.99 13 P **P 07 59 38.0 +0.4**
comp=Z,1.1nm,0.9s,baz=337,slow=2.8,SNR=4.9
comp=Z,1.1nm,0.9s
WRA Warramunga Ar 88.19 233 P **P 07 59 47.5 +4.2**
comp=Z,0.5nm,0.6s,baz=33,slow=5.1,SNR=4.7
comp=Z,0.5nm,0.6s
VAE Valguarnera 90.33 359 LR LR 08 44 05.8
comp=Z,76nm,18.6s,baz=344,slow=38
ASAR Alice Springs 91.56 232 P **P 08 00 02.5 +3.5**
comp=Z,0.7nm,0.7s,baz=30,slow=5.1,SNR=9.6
comp=Z,0.7nm,0.7s
MMAI Mount Meron Ar 92.53 341 LR LR 08 45 05.8
comp=Z,38nm,21.9s,baz=250,slow=38
QSPA South Pole Qui 142.32 180 PKhKP PKPpre 08 06 19.5
comp=Z,1.1nm,0.9s,baz=62,slow=0.6,SNR=5.1

AFAD ***17*** *07:56:08.8, 37.70N×27.03E, h6km±2km, ML2.3*
ISK ***17*** *07:56:08.6, 37.72N×27.04E, h7km, ML2.6/10*
THE ***17*** *07:56:09.3, 38.2N×27.7E, h7km±2km, M2.5/6, MLh2.5/6*
ISC 17 07:56:09.1±0.8, 37.69N±0.02×27.05E±0.02, h15km±5km, n33, σ0.93/57, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.15**	**85**	P		**Pg**	**07 56 12.6**	**-0.3**
GCAM					IAML		07 56 15.0	
	comp=N,2μm,0.1s							
GCAM					IAML		07 56 15.0	
	comp=E,2μm,0.2s							
GCAM					S	**Sg**	**07 56 15.1**	**-0.4**
GCAM	**G?zelcaml?**	**0.15**	**85**		Pg	**Pg**	**07 56 12.6**	**-0.3**
GCAM					Sg	**Sg**	**07 56 15.0**	**-0.5**
GCAM					AML	AML		
SMG	**Samos**	**0.17**	**277**	P		**Pg**	**07 56 13.0**	**-0.3**
SMG					S	**Sg**	**07 56 15.9**	**-0.2**
SMG					AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**48**		Pg	**Pg**	**07 56 14.0**	**-0.6**
KUSD					Sg	**Sg**	**07 56 17.5**	**-0.9**
KUSD					AML	AML		
DDIM	**Aydin, Didim**	**0.28**	**147**	P		**Pg**	**07 56 15.1**	**+0.1**
DDIM					S	**Sg**	**07 56 19.8**	**+0.8**
DDIM					IAML		07 56 20.0	
	comp=N,888nm,0.3s							
DDIM					IAML		07 56 20.0	
	comp=E,660nm,0.4s							
DIDI	**Didim-Aydin**	**0.35**	**154**		Pg	**Pg**	**07 56 16.3**	**+0.1**
DIDI					Sg	**Sb**	**07 56 22.3**	**+0.1**
DIDI					AML	AML		
DGB	**zmir**	**0.39**	**340**	P		**Pg**	**07 56 16.5**	**-0.4**
DGB					S	**Sg**	**07 56 21.5**	**-0.8**
DGB					IAML		07 56 22.0	
	comp=N,190nm,0.2s							
DGB					IAML		07 56 22.0	
	comp=E,309nm,0.2s							
GMLD	**Gumuldur**	**0.40**	**345**		Pg	**Pg**	**07 56 16.4**	**-0.8**
GMLD					Sg	**Sg**	**07 56 22.3**	**-0.4**
GMLD					AML	AML		
BEYE	**izmir**	**0.55**	**350**	P		**Pg**	**07 56 19.3**	**-0.6**
BEYE					S	**Sg**	**07 56 26.9**	**-0.3**
BEYE					IAML		07 56 28.0	
	comp=N,168nm,0.4s							
BEYE					IAML		07 56 31.0	
	comp=E,219nm,0.5s							
DUVT	**Torbali**	**0.62**	**31**	P		**Pg**	**07 56 20.9**	**-0.3**
DUVT					S	**Sg**	**07 56 28.8**	**-0.6**
DUVT					IAML		07 56 33.0	
	comp=E,349nm,0.6s							
DAGE	**izmir**	**0.64**	**60**	P		**Pb**	**07 56 22.1**	**+0.1**
DAGE					S	**Sg**	**07 56 29.1**	**-1.0**
DAGE					IAML		07 56 33.0	
	comp=N,186nm,0.2s							
DAGE					IAML		07 56 33.0	
	comp=E,230nm,0.2s							
AYDN	**Tasoluk**	**0.66**	**92**	P		**Pg**	**07 56 21.0**	**-1.0**
AYDN					S	**Sg**	**07 56 29.5**	**-1.2**
AYDN					IAML		07 56 32.0	
	comp=E,98nm,0.2s							
AYDN					IAML		07 56 37.0	
	comp=N,106nm,0.3s							
BLCB	**Balcova**	**0.69**	**359**		Pg	**Pg**	**07 56 21.9**	**-0.8**
ZEYE	**Izmir, Urla-Ze**	**0.70**	**322**	P		**Pg**	**07 56 21.6**	**-1.2**
ZEYE					IAML		07 56 32.0	
	comp=N,420nm,0.2s							
ZEYE					S	**Sb**	**07 56 32.4**	**-0.1**
ZEYE					IAML		07 56 35.0	
	comp=E,227nm,0.2s							
IZMR	**zmir-demi**	**0.84**	**58**	P		**Pg**	**07 56 25.3**	**-0.1**
IZMR					S	**Sg**	**07 56 35.0**	**-1.5**
IZMR					IAML		07 56 38.0	
	comp=N,93nm,0.5s							
IZMR					IAML		07 56 39.0	
	comp=E,57nm,0.5s							
CESE	**eme**	**0.87**	**317**		Pg	**Pg**	**07 56 24.8**	**-1.2**
KRBN	**Karaburun**	**0.98**	**337**		Pg	**Pg**	**07 56 27.3**	**-0.9**
KRBN					AML	AML		
ESEN	**Aydn-Nazilli**	**1.03**	**84**	P		**Pg**	**07 56 28.5**	**-0.6**
ESEN					S	**Sb**	**07 56 43.3**	**+1.2**
CHOS	**Chios island**	**1.05**	**312**	P		**Pb**	**07 56 29.0**	**0.0**
CHOS					S	**Sb**	**07 56 43.6**	**+1.0**
CHOS					AML	AML		
CHOS	**Chios island**	**1.05**	**312**		Pg	**Pg**	**07 56 28.7**	**-0.7**
CHOS					AML	AML		
FOCM	**Foa**	**1.05**	**346**		Pg	**Pg**	**07 56 28.6**	**-0.9**
FOCM					AML	AML		
YAZI	**Mula-Dat§a-**	**1.06**	**162**	P		**Pg**	**07 56 26.2**	**-3.3**
YAZI					S	**Sb**	**07 56 43.6**	**+0.9**
CAMT	**Merkez**	**1.08**	**11**	P		**Pg**	**07 56 29.0**	**-0.9**
CAMT					S	**Sb**	**07 56 44.3**	**+0.9**
CAMT					IAML		07 56 47.0	
	comp=E,130nm,0.3s							
CAMT					IAML		07 56 49.0	
	comp=N,98nm,0.3s							

KARB	**zmir-Karabur**	**1.09**	**333**	P	**Pg**	**07 56 28.7**	**-1.5**
KARB				S	**Sb**	**07 56 44.4**	**+0.5**
KARB				IAML		07 56 48.0	
	comp=N,70nm,0.4s						
KARB				IAML		07 56 49.0	
	comp=E,84nm,0.6s						
MULA	**Mugla, Merkez-**	**1.10**	**113**	P	**Pg**	**07 56 30.1**	**-0.3**
MULA				S	**Sg**	**07 56 44.4**	**-0.3**
MULA				IAML		07 56 48.0	
	comp=E,52nm,0.5s						
KIRA	**zmir-Kiraz**	**1.18**	**64**	P	**Pg**	**07 56 30.9**	**-1.0**
KIRA				S	**Sg**	**07 56 46.0**	**-1.4**
ZEDA	**zmir-Bergama**	**1.28**	**1**	P	**Pn**	**07 56 32.7**	**+0.4**
ZEDA				S	**Sn**	**07 56 50.9**	**+1.7**
ZEDA				IAML		07 56 55.0	
	comp=N,44nm,0.4s						
ZEDA				IAML		07 56 55.0	
	comp=E,47nm,0.4s						
KTTT	**Salihli**	**1.29**	**39**	P	**Pg**	**07 56 33.7**	**-0.3**
KTTT				S	**Sb**	**07 56 49.3**	**-0.2**
KTTT				IAML		07 56 52.0	
	comp=N,45nm,0.5s						
APE	**Apeiranthos**	**1.36**	**243**	P	**Pn**	**07 56 33.8**	**+0.3**
MANT	**Manisa**	**1.43**	**56**	P	**Pb**	**07 56 36.0**	**+0.3**
MANT				S	**Sb**	**07 56 52.5**	**-1.4**
MANT				IAML		07 56 59.0	
	comp=N,23nm,0.6s						
SOMA	**Soma-Manisa**	**1.51**	**14**	Pn	**Pb**	**07 56 36.7**	**-0.2**
SOMA				AML	AML		
YAYO	**Edremit-Balk**	**1.92**	**1**	Pn	**Pn**	**07 56 42.2**	**+1.0**
YAYO				AML	AML		
EZN	**Ezine**	**2.21**	**345**	Pn	**Pn**	**07 56 46.1**	**+0.9**

NEIC ***17*** *07:57:16.0±0.9,57˚.81N±0˚.05×156˚.56W±0˚.08, h143km±4km, ML2.9/68, ML2.9(AEIC), Error ellipse: s-maj=8.3km s-min=6.1km az=153.0*
AEIC ***17*** *07:57:17.5±1.3,57˚.85N±0˚.05×156˚.61W±0˚.09, h137km±4km, Error ellipse: s-maj=8.4km s-min=5.9km az=140.0*
IDC ***17*** *07:57:20.2±4.9,58˚.24N×155˚.97W, h134km±23km, mb2.9/3, mbtmp3.4/5, Error ellipse: s-maj=54.4km s-min=20.0km az=74.0*

ISC 17 07:57:16.6±0.9,**57˚.88N**±0˚.05×**156˚.52W**±0˚.05, **h142**km±6km,**n119,**σ1**9**15**/123,**mb3.1**/3,**Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLK1	**Peulik 1**	**0.09**	**210**		**Pn**	**07 57 35.1**	**-0.5**
PLK1					**Sn**	**07 57 49.3**	**-0.7**
PLK5	**Peulik 5**	**0.22**	**301**		**Pn**	**07 57 35.6**	**-0.2**
PLK5					**Sn**	**07 57 50.1**	**-0.4**
PLK3	**Peulik 3**	**0.24**	**145**		**Pn**	**07 57 35.6**	**-0.3**
PLK3					**Sn**	**07 57 50.3**	**-0.3**
PLBL	**Peulik Blue Cr**	**0.24**	**221**		**Pn**	**07 57 35.4**	**-0.6**
PLBL					**Sn**	**07 57 49.7**	**-1.0**
R17L	**Mt. Peulik Vol**	**0.27**	**161**		**Pn**	**07 57 35.7**	**-0.3**
R17L					**Sn**	**07 57 50.1**	**-0.7**
Q17K	**Contact Creek**	**0.51**	**41**		**Pn**	**07 57 37.0**	**-0.1**
Q17K					**Sn**	**07 57 52.0**	**-0.7**
ANCK	**Angle Creek**	**0.63**	**59**		**Pn**	**07 57 38.0**	**+0.2**
R16K	**Pilot Point**	**0.65**	**241**	Pn	**Pn**	**07 57 36.8**	**-0.9**
R16K	**Pilot Point**	**0.65**	**241**		**Sn**	**07 57 52.7**	**-1.1**
ACHA	**Angle Creek He**	**0.71**	**62**		**Pn**	**07 57 38.4**	**+0.1**
ACHA	**Angle Creek He**	**0.71**	**62**		**Sn**	**07 57 54.8**	**-0.1**
KAWH	**Katmai**	**1.04**	**60**		**Sn**	**07 57 59.9**	**+0.4**
Q18K	**Katmai Hardscr**	**1.11**	**45**		**Pn**	**07 57 41.9**	**+0.3**
Q18K					**Sn**	**07 58 00.6**	**-0.2**
KAHG	**Katmai Hook Gl**	**1.21**	**59**		**Pn**	**07 57 43.2**	**+0.6**
P17K	**Kvichak River**	**1.32**	**2**		**Pn**	**07 57 43.8**	**+0.3**
P17K				IAML		07 58 05.4	
	comp=E,125nm,0.7s						
P17K				IAML		07 58 05.6	
	comp=N,153nm,1.1s						
AZAC	**Aniakchak**	**1.35**	**224**		**Pn**	**07 57 43.1**	**-1.0**
P16K	**Nushagak River**	**1.39**	**327**		**Pn**	**07 57 43.8**	**-0.4**
P16K				IAML		07 58 06.5	
	comp=N,63nm,1.2s						
P16K				IAML		07 58 11.9	
	comp=E,64nm,1.3s						
ANPB	**Aniakchak Plen**	**1.44**	**222**		**Pn**	**07 57 43.5**	**-1.4**
P18K	**Big Mountain,**	**1.66**	**23**		**Pn**	**07 57 47.5**	**+0.3**
BPBCA	**Veniaminof**	**1.67**	**220**		**Pn**	**07 57 46.0**	**-1.3**
SII	**Sitkinak Islan**	**1.84**	**135**	P	**Pn**	**07 57 48.2**	**-1.1**
SII	**Sitkinak Islan**	**1.84**	**135**		**Pn**	**07 57 48.5**	**-0.7**
OHAK	**Old Harbor**	**1.86**	**109**	P	**Pn**	**07 57 48.7**	**-0.8**
OHAK	**Old Harbor**	**1.86**	**109**		**Pn**	**07 57 49.1**	**-0.4**
OHAK				IAML		07 58 14.2	
	comp=N,137nm,0.4s						
OHAK				IAML		07 58 14.7	
	comp=E,146nm,0.2s						
CHGN	**Chignik**	**1.89**	**214**		**Pn**	**07 57 48.4**	**-1.5**
O16K	**Kokwok River B**	**1.90**	**335**		**Pn**	**07 57 49.7**	**-0.3**
O16K				IAML		07 58 16.3	
	comp=E,38nm,1.1s						
O17K	**Koliganek Bris**	**1.92**	**351**		**Pn**	**07 57 50.1**	**0.0**
KDAK	**Kodiak Island**	**2.11**	**91**	P	**Pn**	**07 57 52.5**	**+0.1**
	comp=E,30nm,0.2s,baz=286,slow=7.1,SNR=1689						
KDAK				S	**Sn**	**07 58 17.8**	**-2.1**
	comp=E,34nm,0.3s,baz=343,slow=19,SNR=18						
KDAK	**Kodiak Island**	**2.11**	**91**		**Pn**	**07 57 52.6**	**+0.3**
CHIR	**Chirikof Islan**	**2.12**	**166**	P	**Pn**	**07 57 50.7**	**-1.9**
CHIR	**Chirikof Islan**	**2.12**	**166**	Pn	**Pn**	**07 57 51.0**	**-1.6**
CHIR				IAML		07 58 18.2	
	comp=E,128nm,0.7s						
CHIR				IAML		07 58 27.9	
	comp=N,103nm,0.5s						
O15K	**Ugaliktiuk R**	**2.17**	**308**		**Pn**	**07 57 52.9**	**-0.2**
O15K				IAML		07 58 21.5	
	comp=N,36nm,0.9s						
O15K				IAML		07 58 22.0	
	comp=E,61nm,1.2s						
VNHG	**Veniaminof 1**	**2.21**	**222**		**Pn**	**07 57 52.8**	**-0.9**
P19K	**Oil Pt**	**2.47**	**43**		**Pn**	**07 57 58.1**	**+1.3**
O19K	**Port Alsworth**	**2.58**	**25**		**Pn**	**07 57 58.8**	**+0.6**
O19K	**Port Alsworth**	**2.58**	**25**	IAML		07 58 39.1	
	comp=N,21nm,0.4s						
O19K				IAML		07 58 57.0	
	comp=E,31nm,0.5s						
N17K	**Nushagak Hills**	**2.68**	**353**		**Pn**	**07 57 59.6**	**+0.2**
ILSW	**Iliamna Southw**	**2.74**	**38**	Pn	**Pn**	**07 58 01.1**	**+0.7**
ILSW				IAML		07 58 35.4	
	comp=N,22nm,1.3s						
IVE	**Iliamna Volcan**	**2.81**	**39**		**Pn**	**07 58 02.1**	**+0.9**
O14K	**Tigyukauivet M**	**2.84**	**301**		**Pn**	**07 58 01.2**	**-0.3**
O14K	**Tigyukauivet M**	**2.84**	**301**	IAML		07 58 37.3	
	comp=N,28nm,1.4s						
O14K				IAML		07 58 37.3	
	comp=E,33nm,1.3s						
N16K	**Nishlik Lake**	**2.85**	**337**		**Pn**	**07 58 01.3**	**-0.2**
ILIM	**Iliamna**	**2.87**	**38**		**Pn**	**07 58 03.0**	**+1.1**
N15K	**Kwethluk River**	**2.94**	**323**		**Pn**	**07 58 02.6**	**-0.2**
N15K	**Kwethluk River**	**2.94**	**323**	IAML		07 58 36.1	
	comp=E,19nm,1.3s						
N15K				IAML		07 58 56.0	
	comp=N,13nm,1.4s						
O20K	**Slope Mountain**	**2.99**	**41**		**Pn**	**07 58 04.2**	**+0.8**
N19K	**Bonanza Creek**	**3.12**	**19**		**Pn**	**07 58 06.4**	**+1.2**
RED	**Redoubt Volcan**	**3.19**	**36**	Pn	**Pn**	**07 58 06.5**	**+0.4**
CNPM	**China Poot**	**3.21**	**57**	Pn	**Pn**	**07 58 06.8**	**+0.6**
CNPM				IAML		07 58 44.9	
	comp=N,30nm,0.7s						
CNPM				IAML		07 58 50.3	
	comp=E,23nm,1.1s						
RDWB	**Redoubt West**	**3.23**	**34**		**Pn**	**07 58 07.1**	**+0.5**
SDPT	**Sand Point**	**3.35**	**222**		**Pn**	**07 58 06.3**	**-1.7**
SDPT	**Sand Point**	**3.35**	**222**	IAML		07 58 43.5	
	comp=E,28nm,1.4s						
SDPT				IAML		07 59 36.7	
	comp=N,32nm,1.3s						
N14K	**Kuskokwak Cree**	**3.37**	**310**	Pn	**Pn**	**07 58 08.4**	**+0.2**
N14K				IAML		07 58 51.2	
	comp=E,35nm,1.4s						
N14K				IAML		07 58 59.7	
	comp=N,38nm,1.5s						
RDT	**Redoubt**	**3.43**	**36**		**Pn**	**07 58 09.8**	**+0.7**
BRLK	**Bradley Lake**	**3.48**	**55**	Pn	**Pn**	**07 58 10.2**	**+0.4**
BRLK				IAML		07 58 51.7	
	comp=N,32nm,0.8s						
BRLK				IAML		07 58 57.3	
	comp=E,31nm,0.4s						
CNBA	**Chernabura Isl**	**3.51**	**210**		**Pn**	**07 58 07.3**	**-2.9**
CNBA	**Chernabura Isl**	**3.51**	**210**	IAML		07 59 19.5	
	comp=E,37nm,0.9s						
BRSE	**Bradley Lake S**	**3.54**	**56**		**Pn**	**07 58 10.8**	**+0.4**
M15K	**Kasigluk River**	**3.54**	**325**		**Pn**	**07 58 10.2**	**-0.2**
M18K	**Stony River**	**3.64**	**5**		**Pn**	**07 58 12.3**	**+0.6**
CKL	**Chakachamna La**	**3.95**	**31**		**Pn**	**07 58 16.7**	**+0.8**
SPNN	**North Nagishla**	**4.00**	**27**		**Pn**	**07 58 17.7**	**+1.1**
M14K	**Bethel**	**4.01**	**318**		**Pn**	**07 58 16.1**	**-0.4**
DOL	**Dolgoi Island**	**4.03**	**229**		**Pn**	**07 58 16.3**	**-0.7**
SPCP	**Crater Peak Br**	**4.06**	**31**		**Pn**	**07 58 16.8**	**+1.3**
SLKM	**Skilak Lake**	**4.17**	**48**	Pn	**Pn**	**07 58 19.6**	**+0.8**
SLKM				IAML		07 59 05.9	
	comp=N,25nm,0.2s						
SLKM				IAML		07 59 06.2	
	comp=E,22nm,0.3s						
M19K	**Big River Lodg**	**4.17**	**14**		**Pn**	**07 58 20.0**	**+1.2**
DT1	**Dutton Round H**	**4.23**	**231**		**Pn**	**07 58 18.8**	**-0.8**
SEW	**Seward**	**4.28**	**56**	Pn	**Pn**	**07 58 21.1**	**+1.0**
STLK	**Strandline Lak**	**4.34**	**31**	Pn	**Pn**	**07 58 22.9**	**+2.0**
M20K	**Styx River**	**4.36**	**22**		**Pn**	**07 58 22.8**	**+1.5**
M20K				IAML		07 59 09.3	
	comp=N,4.4nm,1.4s						
L19K	**White Mountain**	**4.39**	**10**		**Pn**	**07 58 21.9**	**+0.2**
L15K	**Ungalak Mounta**	**4.56**	**329**		**Pn**	**07 58 23.5**	**-0.3**
SUA	**Susitna One**	**4.63**	**37**		**Pn**	**07 58 25.5**	**+0.6**
SUA				IAML		07 59 19.5	
	comp=N,17nm,1.4s						
SUA				IAML		07 59 41.8	
	comp=E,14nm,1.4s						
RC01	**Rabbit Creek A**	**4.72**	**44**	Pn	**Pn**	**07 58 26.5**	**+0.5**
SKT	**Skwentna**	**4.81**	**29**	Pn	**Pn**	**07 58 27.9**	**+0.7**
SKT				IAML		07 59 26.8	
	comp=E,6.0nm,0.3s						
SKT				IAML		07 59 37.4	
	comp=N,5.4nm,1.5s						
ISLZ	**Isanotski Laza**	**5.10**	**235**		**Pn**	**07 58 30.2**	**-0.9**
PMR	**Palmer**	**5.27**	**42**	P	**Pn**	**07 58 34.2**	**+0.9**
KNK	**Knik Glacier**	**5.41**	**46**		**Pn**	**07 58 34.9**	**-0.3**
GHO	**Glory Hole Cre**	**5.47**	**41**	Pn	**Pn**	**07 58 35.5**	**-0.4**
CUT	**Chulitna**	**5.51**	**32**		**Pn**	**07 58 36.9**	**+0.5**
K20K	**Telida**	**5.62**	**11**	Pn	**Pn**	**07 58 39.4**	**+1.4**
GLI	**Glacier Island**	**5.68**	**54**		**Pn**	**07 58 38.5**	**-0.2**
SML	**Sawmill**	**5.70**	**43**	Pn	**Pn**	**07 58 38.3**	**-0.8**
J16K	**Anvik River**	**5.78**	**341**	Pn	**Pn**	**07 58 41.0**	**+0.9**
CAST	**Castle Rocks**	**5.97**	**20**	Pn	**Pn**	**07 58 43.9**	**+1.3**
EYAK	**Cordova Ski Ar**	**6.14**	**60**	Pn	**Pn**	**07 58 44.7**	**-0.1**
DIV	**Divide**	**6.37**	**55**		**Pn**	**07 58 48.0**	**+0.1**
TRF	**Thorofare Moun**	**6.37**	**26**	Pn	**Pn**	**07 58 48.1**	**0.0**
KLU	**Klutina**	**6.47**	**52**		**Pn**	**07 58 49.3**	**-0.1**
BPAW	**Bear Paw Mtn.**	**6.79**	**21**	Pn	**Pn**	**07 58 53.7**	**+0.1**
BMRM	**Bremner River**	**6.82**	**58**		**Pn**	**07 58 54.1**	**+0.1**
DHY	**Denali Highway**	**6.89**	**37**	Pn	**Pn**	**07 58 54.2**	**-0.9**
UNV	**Unalaska Valle**	**6.92**	**238**	P	**Pn**	**07 58 53.8**	**-1.6**
UNV	**Unalaska Valle**	**6.92**	**238**		**Pn**	**07 58 54.0**	**-1.4**
MCK	**McKinley**	**6.94**	**29**		**Pn**	**07 58 55.6**	**0.0**
MSW	**Makushin Switc**	**7.00**	**240**		**Pn**	**07 58 55.2**	**-1.3**
HARP	**HAARP**	**7.25**	**47**		**Pn**	**07 59 00.5**	**+0.7**
GLB	**Gilahina Butte**	**7.36**	**56**		**Pn**	**07 59 01.3**	**+0.1**
WASW	**Wrangell South**	**7.41**	**52**		**Pn**	**07 59 02.8**	**+0.7**
CRQM	**Cirque**	**7.43**	**62**	Pn	**Pn**	**07 59 02.5**	**+0.2**
VRDI	**Verde Repeater**	**7.43**	**58**		**Pn**	**07 59 02.7**	**+0.3**
TGL	**Tana Glacier**	**7.57**	**62**		**Pn**	**07 59 04.7**	**+0.5**
MCARA	**McCarthy VSAT**	**7.69**	**57**		**Pn**	**07 59 05.9**	**+0.4**
MLY	**Manley**	**7.69**	**19**	Pn	**Pn**	**07 59 05.4**	**-0.2**
PTPK	**Patty Peak**	**7.87**	**59**		**Pn**	**07 59 08.4**	**+0.2**
BALM	**Baldy**	**7.88**	**60**		**Pn**	**07 59 08.6**	**+0.3**
RIDG	**Independent Ri**	**8.18**	**39**	Pn	**Pn**	**07 59 12.1**	**-0.1**
IMAR	**Indian Mountai**	**8.23**	**8**	Pn	**Pn**	**07 59 14.2**	**+1.3**
IL31		**8.31**	**30**		**Pn**	**07 59 12.4**	**-1.4**
ILAR	**Eielson Array**	**8.31**	**30**	P	**Pn**	**07 59 11.7**	**-2.2**
	comp=N,1.6nm,0.5s,baz=217,slow=13,SNR=41						
ILAR				S	**Sn**	**08 00 39.0**	**-7.1**
	comp=N,0.5nm,0.5s,baz=218,slow=22,SNR=10						
ILAR	**Eielson Array**	**8.31**	**30**	Pn	**Pn**	**07 59 12.5**	**-1.4**
J25K	**Salcha River,**	**8.62**	**34**	Pn	**Pn**	**07 59 16.7**	**-1.4**
YUK3	**Moose Creek**	**8.97**	**57**		**Pn**	**07 59 23.1**	**+0.1**
YUK8	**Steele Glacier**	**9.15**	**61**		**Pn**	**07 59 25.4**	**0.0**
INK	**Inuvik**	**14.63**	**35**	P	**Pn**	**08 00 34.3**	**-2.0**
	comp=N,1.4nm,1.1s,baz=236,slow=11,SNR=4.0						
YKA	**Yellowknife Ar**	**21.05**	**60**	P	**P**	**08 01 48.4**	**-0.5**
	comp=N,1.5nm,0.9s,baz=277,slow=11,SNR=4.3						
	comp=N,1.5nm,0.9s						
PDAR	**Pinedale Array**	**32.82**	**97**	P	**P**	**08 03 39.0**	**+2.6**
	comp=N,0.2nm,0.5s,baz=314,slow=8.1,SNR=3.8						
	comp=N,0.2nm,0.5s						
TXAR	**Lajitas Array**	**46.08**	**105**	P	**P**	**08 05 28.5**	**+2.4**
	comp=N,0.4nm,0.9s,baz=330,slow=8.0,SNR=3.2						
	comp=N,0.4nm,0.9s						

MEX ***17*** *08:00:24.0±1.0, 15˚.46N×92˚.52W, h152km±6km, MD4.3, Presumed earthquake*
GCG ***17*** *08:00:24.7±1.7, 15˚.57N×92˚.34W, h131km±16km, MD4.2, Presumed earthquake*

ISC 17 08:00:20.3±1.5,**15˚.45N**±0˚.05×**92˚.53W**±0˚.04,**h165**km±8km, **n30,**σ2**9**19**/58,Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PAVE	**Pavencul**	**0.42**	**126**	*eP*	**Pn**	**08 00 43.9**	**+0.5**
PAVE				*eS*	**Sn**	**08 00 59.6**	**-1.2**
PATR	**El Naranjo**	**0.43**	**139**	*eP*	**Pn**	**08 00 43.8**	**+0.4**
PATR				*eS*	**Sn**	**08 00 59.4**	**-1.6**
CHUJ	**Union Juarez**	**0.54**	**131**	*eP*	**Pn**	**08 00 44.6**	**+0.8**
CHUJ				*eS*	**Sn**	**08 01 01.6**	**-0.2**
THIG		**0.59**	**154**	*i P*	**Pn**	**08 00 45.0**	**+1.1**
THIG				*i S*	**Sn**	**08 01 01.2**	**-0.6**
THIG		**0.59**	**154**	*eP*	**Pn**	**08 00 44.9**	**+1.1**
THIG				*eS*	**Sn**	**08 01 00.7**	**-1.2**
PCIG		**0.71**	**291**	*eP*	**Pn**	**08 00 45.8**	**+1.3**
PCIG				*eS*	**Sn**	**08 01 02.3**	**-0.6**
CCIG	**Comitan**	**0.91**	**24**	*i P*	**Pn**	**08 00 47.7**	**+1.6**
CCIG	**Comitan**	**0.91**	**24**	*eP*	**Pn**	**08 00 47.4**	**+1.3**
CCIG				*eS*	**Sn**	**08 01 05.4**	**-0.4**
HUEH	**Huehuetenango**	**1.00**	**97**	*i P*	**Pn**	**08 00 47.8**	**+1.0**
HUEH				*i S*	**Sn**	**08 01 05.2**	**-1.7**
HUEH	**Huehuetenango**	**1.00**	**97**	*eP*	**Pn**	**08 00 47.4**	**+0.6**
HUEH				*eS*	**Sn**	**08 01 05.0**	**-2.0**
RTAL	**Retalhuleu**	**1.22**	**139**	*eP*	**Pn**	**08 00 49.9**	**+1.5**
RTAL				*eS*	**Sn**	**08 01 10.6**	**+0.7**
TGIG		**1.44**	**337**	*i P*	**Pn**	**08 00 52.2**	**+1.7**
TGIG				*i S*	**Sn**	**08 01 12.7**	**-1.1**
TGIG		**1.44**	**337**	*eP*	**Pn**	**08 00 52.1**	**+1.7**
TGIG				*eS*	**Sn**	**08 01 13.1**	**-0.7**
APG	**El Apazote**	**2.04**	**102**	*i P*	**Pn**	**08 00 58.3**	**+1.2**
APG				*i S*	**Sn**	**08 01 23.7**	**-1.7**
CMIG	**Matias Romero**	**2.79**	**306**	*eP*	**Pn**	**08 01 08.0**	**+2.3**
CMIG				*eS*	**Sn**	**08 01 39.4**	**-1.5**
PETF	**Flores**	**2.95**	**60**	*eP*	**Pn**	**08 01 08.1**	**+0.4**
PETF				*eS*	**Sn**	**08 01 41.4**	**-3.0**
HUIG	**Huatulco**	**3.46**	**276**	*eP*	**Pn**	**08 01 15.5**	**+1.4**
HUIG				*eS*	**Sn**	**08 01 51.7**	**-4.2**
SCIG	**Sabancuy**	**3.73**	**20**	*eP*	**Pn**	**08 01 17.6**	**+0.1**
SCIG				*eS*	**Sn**	**08 02 02.8**	**+0.7**
NEUV	**Arroyo Zacate**	**3.86**	**306**	*eP*	**Pn**	**08 01 20.9**	**+1.7**
NEUV				*eS*	**Sn**	**08 01 59.9**	**-5.2**
VHO	**Vista Hermosa**	**4.35**	**292**	*eP*	**Pn**	**08 01 29.7**	**+4.0**
VHO				*eS*	**Sn**	**08 02 13.4**	**-3.2**
PEIG	**Puerto Escondi**	**4.48**	**278**	*eP*	**Pn**	**08 01 29.0**	**+1.8**
PEIG				*eS*	**Sn**	**08 02 15.6**	**-3.9**
YOIG	**Yosondua**	**5.02**	**287**	*eP*	**Pn**	**08 01 36.4**	**+1.9**
YOIG				*eS*	**Sn**	**08 02 30.8**	**-1.8**
TOIG	**Toxpalan**	**5.08**	**302**	*eP*	**Pn**	**08 01 37.2**	**+2.0**
TOIG				*eS*	**Sn**	**08 02 33.1**	**-0.6**
TXIG	**Tlaxiaco**	**5.34**	**290**	*eP*	**Pn**	**08 01 42.6**	**+3.8**
TXIG				*eS*	**Sn**	**08 02 38.0**	**-2.1**
PNIG	**Pinotepa**	**5.47**	**281**	*eP*	**Pn**	**08 01 43.0**	**+2.8**
PNIG				*eS*	**Sn**	**08 02 39.1**	**-3.6**
TPIG	**Tehuac#an**	**5.49**	**303**	*eP*	**Pn**	**08 01 43.0**	**+2.4**
TPIG				*eS*	**Sn**	**08 02 42.6**	**-0.9**
HLIG	**Huajuapan de L**	**5.58**	**296**	*eP*	**Pn**	**08 01 46.0**	**+4.2**
HLIG				*eS*	**Sn**	**08 02 43.4**	**-2.4**
JAUV	**Jalcomulco**	**5.64**	**314**	*eP*	**Pn**	**08 01 43.8**	**+1.3**
JAUV				*eS*	**Sn**	**08 02 44.5**	**-2.4**
FTIG	**Fresnillo de T**	**5.90**	**295**	*eP*	Pn	08 01 51.0	+5.1
FTIG				*eS*	**Sn**	**08 02 49.8**	**-3.4**
CXUV	**Coxquihui**	**6.73**	**315**	*eP*	**Pn**	**08 01 59.3**	**+2.4**
CXUV				*eS*	**Sn**	**08 03 11.5**	**-1.4**

IDC ***17*** *08:41:22.2±0.8, 0˚.21N×125˚.87E, h0km, mb4.1/9, mbtmp4.1/10, ML3.5/1, Error ellipse: s-maj=56.4km s-min=15.1km az=70.0*
DJA ***17*** *08:41:27.5±0.2, 0˚.N±4˚×12˚6E±˚, h10km, M4.2/13, mb4.5/1, MLv4.0/13*
NEIC ***17*** *08:41:28.6±2.3, 0˚.33N±0˚.08×126˚.29E±0˚.07, h35km±2km, mb4.1/12, Error ellipse: s-maj=14.1km s-min=10.7km az=156.0*

ISC 17 08:41:28.9±0.7,**0˚.33N**±0˚.07×**126˚.33E**±0˚.08,**h47**km,**n31,** σ1**9**04**/29,mb4.1/13,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.12**	**67**		**Pn**	**08 41 49.0**	**+0.8**
TNTI	**Ternate**	**1.12**	**67**	P	**Pn**	**08 41 48.9**	**+0.6**
MNI	**Manado**	**1.86**	**307**	P	**Pn**	**08 41 57.2**	**-1.1**
MNI				AML	AML		
GAMI	**Galela, Maluku**	**2.09**	**44**	P	**Pn**	**08 42 02.4**	**+0.9**
GAMI				AML	AML		
KMSI	**Cibinong**	**2.36**	**276**	P	**Pn**	**08 42 06.0**	**+0.7**
GTOI	**Gorontalo**	**3.34**	**275**	P	**Pn**	**08 42 20.7**	**+2.1**
GTOI				AML	AML		
TOLI2	**Tolitoli**	**5.60**	**278**		**Pn**	**08 42 49.2**	**-0.6**
DAV	**Davao City (W)**	**6.74**	**354**	Pn	**Pn**	**08 43 06.0**	**+0.7**
KAPI	**Kappang**	**8.45**	**231**	Pn	**Pn**	**08 43 29.7**	**+0.8**
KNRA	**Kununurra**	**16.09**	**172**	Pn	**Pn**	**08 45 12.4**	**+0.5**
KNRA				IAmb	IAmb	08 45 13.3	
	comp=Z,12nm,1.2s						
FITZ	**Fitzroy Crossi**	**18.33**	**182**	P	**P**	**08 45 37.6**	**-1.8**
	comp=Z,0.1nm,0.3s,baz=6.6,slow=6.7,SNR=1.5						
	comp=Z,2.1nm,1.0s						
FITZ				AML	AML		
WB0	**Warramunga Arr**	**21.48**	**159**		**P**	**08 46 13.9**	**+0.1**
WB0				IAmb	IAmb	08 46 50.5	
	comp=Z,6.4nm,1.0s						
WRAB	**Tennant Creek**	**21.62**	**159**	P	**P**	**08 46 14.7**	**-0.5**
WRAB				IAmb	IAmb	08 46 32.9	
	comp=Z,7.0nm,1.1s						
WRA	**Warramunga Arr**	**21.62**	**159**	P	**P**	**08 46 14.0**	**-1.3**
	comp=Z,2.1nm,0.4s,baz=338,slow=10,SNR=21						
	comp=Z,2.1nm,0.4s						
WR8	**Warramunga Arr**	**21.69**	**159**		**P**	**08 46 15.2**	**-0.8**
WR8				IAmb	IAmb	08 46 18.8	
	comp=Z,4.7nm,0.7s						
AS31	**Alice Springs**	**24.96**	**163**	P	**P**	**08 46 48.3**	**+0.1**
ASAR	**Alice Springs**	**24.96**	**163**	P	**P**	**08 46 47.9**	**-0.3**
	comp=Z,2.4nm,0.5s,baz=341,slow=8.0,SNR=41						
	comp=Z,2.4nm,0.5s						
FORT	**Forrest**	**30.98**	**177**	P	**P**	**08 47 42.0**	**+0.1**
FORT				IAmb	IAmb	08 47 53.3	
	comp=Z,9.2nm,1.2s						
BBOO	**Buckleboo**	**34.22**	**165**	P	**P**	**08 48 10.2**	**0.0**
STKA	**Stephens Creek**	**35.14**	**157**	P	**P**	**08 48 18.1**	**-0.1**
	comp=Z,1.6nm,0.7s,baz=338,slow=10,SNR=6.9						
	comp=Z,1.6nm,0.7s						
SONM	**Songino Array**	**50.39**	**343**	P	**P**	**08 50 22.0**	**+0.4**
	comp=Z,0.8nm,0.5s,baz=143,slow=8.1,SNR=4.2						
	comp=Z,0.8nm,0.5s						
SONM	**Songino Array**	**50.39**	**343**	P	**P**	**08 50 22.0**	**+0.4**
SONM	**Songino Array**	**50.39**	**343**	IAmb	IAmb	08 50 24.9	
	comp=Z,2.3nm,1.3s						
PETK	**Petropavlovsk-**	**58.71**	**22**	P	**P**	**08 51 23.6**	**+1.8**
	comp=Z,3.8nm,0.8s,baz=213,slow=7.6,SNR=5.9						
	comp=Z,3.8nm,0.8s						
MKAR	**Makanchi Array**	**60.13**	**327**	P	**P**	**08 51 30.4**	**-1.3**
	comp=Z,2.1nm,0.5s,baz=126,slow=7.5,SNR=19						
	comp=Z,2.1nm,0.5s						
MKAR	**Makanchi Array**	**60.13**	**327**	P	**P**	**08 51 30.8**	**-0.9**
ZALV	**Zalesovo Beam**	**63.43**	**334**	P	**P**	**08 51 53.1**	**-0.7**
	comp=Z,0.7nm,0.4s,baz=123,slow=10,SNR=0.9						
	comp=Z,0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**64.39**	**328**	P	**P**	**08 51 58.5**	**-1.6**
	comp=Z,3.0nm,0.7s,baz=133,

POWZ				AML	AML				
CPWZ	**Castlepoint**	**0.87**	**80**	P	Pn	08 46 30.4	+0.5		
CPWZ				AML	AML				
CPWZ				AML	AML				
OHWZ	**Ohakea**	**0.88**	**12**	P	Pn	08 46 30.9	+0.9		
OHWZ				AML	AML				
DUWZ	**D'Urville Isla**	**0.91**	**286**	P	Pn	08 46 30.8	+0.4		
DUWZ				AML	AML				
DUWZ				AML	AML				
TUWZ	**Tuamarina**	**0.93**	**246**	P	Pn	08 46 30.7	+0.1		
TUWZ				AML	AML				
CMWZ	**Cape Campbell**	**0.94**	**223**	P	Pn	08 46 31.4	+0.6		
CMWZ				AML	AML				
BFZ	**Birch Farm**	**0.97**	**67**	P	Pb	08 46 30.6	-0.5		
BFZ				AML	AML				
BFZ				AML	AML				
BSWZ	**Blackbirch Sta**	**1.11**	**234**	P	Pn	08 46 32.9	-0.3		
BSWZ				AML	AML				
DVHZ	**Dannevirke**	**1.13**	**48**	P	Pn	08 46 32.8	-0.6		
DVHZ				AML	AML				
TSZ	**Takapari Road**	**1.21**	**34**	P	Pn	08 46 34.7	+0.1		
TSZ				AML	AML				
ANWZ	**Angora Road**	**1.23**	**61**	P	Pn	08 46 33.9	-0.8		
ANWZ				AML	AML				
NNZ	**Nelson**	**1.28**	**263**	P	Pn	08 46 35.8	+0.3		
NNZ				AML	AML				
WAZ	**Wanganui**	**1.31**	**357**	P	Pb	08 46 38.0	+1.2		
WAZ				AML	AML				
PRHZ	**Porangahau**	**1.43**	**57**	P	Pn	08 46 36.5	-1.1		
PRHZ				AML	AML				
PNHZ	**Pukenui**	**1.44**	**37**	P	Pn	08 46 37.3	-0.4		
PNHZ				AML	AML				
WPHZ	**Waipukurau**	**1.44**	**47**	P	Pn	08 46 37.7	-0.1		
WPHZ				AML	AML				
TKNZ	**Takaka Hill**	**1.59**	**270**	P	Pn	08 46 40.6	+0.7		
TKNZ				AML	AML				
LREZ	**Lake Rotokare**	**1.68**	**342**	P	Pb	08 46 43.9	+0.8		
LREZ				AML	AML				
MTVZ	**Mangateitei**	**1.70**	**11**	P	Pb	08 46 42.7	-0.9		
MTVZ				AML	AML				
PXZ	**Pawanui**	**1.71**	**54**	P	Pn	08 46 40.3	-1.1		
PXZ				AML	AML				
KRHZ	**Kereru**	**1.73**	**35**	P	Pn	08 46 41.3	-0.5		
KRHZ				AML	AML				
MOVZ	**Moawhango**	**1.73**	**18**	P	Pn	08 46 42.3	+0.5		
MOVZ				AML	AML				
BHHZ	**Black Hill Sta**	**1.75**	**26**	P	Pn	08 46 42.0	0.0		
BHHZ				AML	AML				
THZ	**Tophouse**	**1.77**	**246**	P	Pn	08 46 41.8	-0.5		
THZ				AML	AML				
KHZ	**Kahutara**	**1.77**	**220**	P	Pn	08 46 41.0	-1.2		
KHZ				AML	AML				
MRNZ	**Matariki Terra**	**1.77**	**258**	P	Pn	08 46 42.6	+0.3		
MRNZ				AML	AML				
WNVZ	**Wahianoa**	**1.78**	**13**	P	Pn	08 46 43.5	+1.0		
WNVZ				AML	AML				
PKVZ	**Pokaka**	**1.78**	**7**	P	Pb	08 46 43.9	-1.1		
PKVZ				AML	AML				
TRVZ	**Turoa**	**1.80**	**12**	P	Pn	08 46 44.0	+1.2		
TRVZ				AML	AML				
WHVZ	**Whangaehu Hut**	**1.82**	**13**	P	Pn	08 46 44.4	+1.2		
WHVZ				AML	AML				
MAVZ	**Matarangi**	**1.83**	**12**	P	Pn	08 46 44.6	+1.2		
MAVZ				AML	AML				
FWVZ	**Far West T-bar**	**1.84**	**12**	P	Pn	08 46 44.7	+1.2		
FWVZ				AML	AML				
TUVZ	**Tukino**	**1.85**	**14**	P	Pn	08 46 44.6	+1.2		
TUVZ				AML	AML				
PREZ	**Palmer Road**	**1.85**	**338**	P	Pb	08 46 46.3	+0.1		
PREZ				AML	AML				
KAHZ	**Kahuranaki**	**1.87**	**48**	P	Pn	08 46 42.7	-1.0		
KAHZ				AML	AML				
NMEZ	**Namu Road**	**1.88**	**331**	P	Pb	08 46 47.0	+0.4		
COVZ	**Chateau Observ**	**1.90**	**11**	P	Pb	08 46 45.5	-1.3		
COVZ				AML	AML				
SNVZ	**South Ngauruho**	**1.92**	**13**	P	Pb	08 46 47.8	+0.4		
SNVZ				AML	AML				
NGZ	**Ngauruhoe**	**1.93**	**12**	P	Pn	08 46 45.8	+1.3		
NGZ				AML	AML				
KWHZ	**Kaweka Forest**	**1.94**	**33**	P	Pn	08 46 44.2	-0.4		
KWHZ				AML	AML				
QRZ	**Quartz Range**	**1.94**	**276**	P	Pn	08 46 45.6	+1.1		
QRZ				AML	AML				
NEZ	**North Egmont**	**1.94**	**337**	P	Pb	08 46 47.4	-0.2		
NEZ				AML	AML				
KHEZ	**Kahui Hut**	**1.94**	**335**	P	Pb	08 46 47.4	-0.3		
KHEZ				AML	AML				
VRZ	**Vera Road**	**1.95**	**353**	P	Pb	08 46 47.3	-0.5		
VRZ				AML	AML				
OTVZ	**Oturere**	**1.95**	**14**	P	Pn	08 46 46.2	+1.3		
OTVZ				AML	AML				
WTVZ	**West Tongariro**	**1.98**	**12**	P	Pn	08 46 46.7	+1.4		
WTVZ				AML	AML				
DREZ	**Durham Road**	**1.99**	**340**	P	Pb	08 46 48.3	-0.1		
DREZ				AML	AML				
ETVZ	**East Tongariro**	**1.99**	**15**	P	Pn	08 46 46.5	+1.1		
ETVZ				AML	AML				
TMVZ	**Te Maari**	**2.00**	**14**	P	Pn	08 46 46.5	+0.9		
TMVZ				AML	AML				
TWVZ	**Taurewa**	**2.01**	**8**	P	Pn	08 46 46.8	+1.1		
TWVZ				AML	AML				
KRVZ	**Karewarewa**	**2.01**	**13**	P	Pb	08 46 48.8	-0.1		
KRVZ				AML	AML				
NBEZ	**Newall Road No**	**2.01**	**332**	P	Pb	08 46 48.6	-0.2		
NBEZ				AML	AML				
NTVZ	**North Tongarir**	**2.02**	**14**	P	Pn	08 46 46.7	+1.0		
NTVZ				AML	AML				
PKE	**Pukeiti**	**2.04**	**336**	P	Pb	08 46 48.7	-0.6		
PKE				AML	AML				
KATZ	**Kakaramea**	**2.14**	**13**	P	Pb	08 46 51.7	+0.7		
KATZ				AML	AML				
RITZ	**Rihia Road**	**2.17**	**16**	P	Pb	08 46 50.1	-1.4		
RITZ				AML	AML				
BKZ	**Black Stump Fm**	**2.19**	**30**	P	Pn	08 46 47.2	-0.8		
BKZ				AML	AML				
RATZ	**Rangitukua**	**2.26**	**14**	P	Pb	08 46 53.5	+0.5		
RATZ				AML	AML				
NMHZ	**Naumai**	**2.37**	**35**	P	Pn	08 46 50.0	-0.6		
NMHZ				AML	AML				
WATZ	**Wairara**	**2.41**	**12**	P	Pb	08 46 55.4	-0.2		
WATZ				AML	AML				
GVZ	**Greta Valley S**	**2.43**	**218**	P	Pn	08 46 49.7	-1.7		
MRHZ	**Matea Rd**	**2.46**	**25**	P	Pn	08 46 51.4	-0.3		
MRHZ				AML	AML				
DSZ	**Denniston Nort**	**2.55**	**253**	P	Pn	08 46 52.6	-0.4		
HIZ	**Hauiti**	**2.55**	**356**	P	Pn	08 46 54.6	+1.6		
HIZ				AML	AML				
MTHZ	**Maungataniwha**	**2.59**	**32**	P	Pn	08 46 52.9	-0.7		
MTHZ				AML	AML				
KUTZ	**Kaahu Road**	**2.63**	**13**	P	Pb	08 47 00.5	+1.1		
KUTZ				AML	AML				
ALRZ	**Allen Road**	**2.68**	**22**	P	Pb	08 46 58.3	-1.9		
ALRZ				AML	AML				
TLZ	**Tolley Road**	**2.75**	**8**	P	Pn	08 46 58.1	+2.3		
TLZ				AML	AML				
INZ	**Inchbonnie**	**3.17**	**237**	P	Pn	08 47 00.3	-1.3		
MQZ	**McQueen's Vall**	**3.19**	**213**	P	Pn	08 46 58.6	-3.2		
OXZ	**Oxford**	**3.19**	**224**	P	Pn	08 46 59.0	-2.8		
URZ	**Urewera**	**3.21**	**30**	P	Pn	08 47 03.5	+1.5		
AKCZ	**Akaroa Harbour**	**3.23**	**209**	P	Pn	08 46 59.7	-2.6		
TOZ	**Tahuroa Road**	**3.34**	**6**	P	Pn	08 47 06.6	+2.8		
TOZ				AML	AML				
HAZ	**Te Kaha**	**3.91**	**33**	P	Pn	08 47 11.6	-0.1		
MKAZ	**Moumakai**	**3.95**	**1**	P	Pn	08 47 16.2	+4.0		
MKAZ				AML	AML				
AWAZ	**Awhitu Peninsu**	**4.01**	**355**	P	Pn	08 47 17.5	+4.5		
AWAZ				AML	AML				
CTZ	**Chatham Island**	**6.71**	**116**	P	Pn	08 47 48.3	-1.8		

*IDC **17** 09:00:08.5±5.7, 36°.52N×70°.40E, h236km±50km, mb3.0/4, mbtmp3.7/7, Error ellipse: s-maj=47.4km s-min=40.7km az=48.0*

ISC 17 09:00:06.0±1.4, **36°.46N**±0°.08×**70°.2E**±0°.1, **h213**km, **n15**, σ1°.**35**/21, **mb3.3**/3, **3C-1D**, **Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMU	**Jammu**	**5.29**	**133**	*i* S	**S**	**09 02 26.4**	**+0.3**
TSSA	**Tissa**	**6.08**	**125**	*i* P	**Pn**	**09 01 33.8**	**-1.0**
TSSA				*i* S	**S**	**09 02 44.5**	**-0.4**
TSSA				IAML		09 03 05.9	
	comp=N,51nm,0.3s						
DHRM	**DHARAMSHALA**	**6.55**	**128**	*i* S	**S**	**09 02 55.7**	**-0.3**
KK31	**Karatay Array**	**6.64**	**2**	⇓P	**Pn**	**09 01 42.6**	**+1.0**
	comp=N,1.2nm,0.3s,baz=190,slow=14,SNR=18						
KK31				⇑S	**S**	**09 02 54.2**	**-3.4**
	comp=N,3.6nm,0.4s,baz=192,slow=18,SNR=5.2						
AAK	**Ala-Archa**	**7.00**	**27**	P	**Pn**	**09 01 48.7**	**+2.3**
	comp=N,6.2nm,0.4s,baz=207,slow=11,SNR=18						
AAK				S	**S**	**09 03 06.0**	**-0.2**
	comp=N,5.9nm,0.3s,baz=184,slow=19,SNR=13						
AAK	**Ala-Archa**	**7.00**	**27**	⇑P	**Pn**	**09 01 48.8**	**+2.4**
	comp=N,1.4nm,0.4s						
AAK				⇑S	**S**	**09 03 05.3**	**-0.9**
	comp=N,3.2nm,0.4s						
SMLA	**Simla**	**7.86**	**131**	*i* P	**Pn**	**09 01 58.5**	**+1.1**
SMLA				*i* S	**S**	**09 03 25.2**	**-1.1**
HNLY	**HANLEY**	**8.10**	**114**	*i* P	**Pn**	**09 02 02.3**	**+1.2**
UTK	**UTTARKASHI**	**8.93**	**127**	*i* P	**Pn**	**09 02 12.0**	**+0.6**
UTK				*i* S	**S**	**09 03 50.8**	**-1.2**
MKAR	**Makanchi Array**	**13.70**	**37**	P	**Pn**	**09 03 11.3**	**-0.4**
	comp=N,0.9nm,0.8s,baz=229,slow=13,SNR=4.5						
AKTO	**Aktyubinsk**	**16.51**	**332**	P	**Pn**	**09 03 45.8**	**+0.2**
	comp=N,2.0nm,0.7s,baz=144,slow=11,SNR=5.1						
ZALV	**Zalesovo Beam**	**20.22**	**26**	P	**P**	**09 04 24.2**	**-0.4**
	comp=N,1.3nm,0.5s,baz=216,slow=12,SNR=6.0						
	comp=N,1.3nm,0.5s						
SONM	**Songino Array**	**28.88**	**55**	P	**P**	**09 05 45.0**	**+0.1**
	comp=N,0.3nm,0.5s,baz=258,slow=7.2,SNR=2.2						
	comp=N,0.3nm,0.5s						
WRA	**Warramunga Arr**	**82.51**	**121**	P	**P**	**09 12 04.4**	**-0.6**
	comp=N,0.5nm,0.8s,baz=314,slow=5.6,SNR=2.7						
	comp=N,0.5nm,0.8s						
ASAR	**Alice Springs**	**84.75**	**124**	P	**P**	**09 12 15.5**	**-0.8**
	comp=N,0.3nm,0.6s,baz=317,slow=5.8,SNR=4.1						
	comp=N,0.3nm,0.6s						

IDC 17 09:13:21.9±35.0, **21°.36S×177°.09W, h683**km±94km, **mb2.6**/3, **mbtmp3.8**/4, **Error ellipse: s-maj=687.9km s-min=121.1km az=88.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.83**	**307**	P	P	09 15 06.2	-0.1
	7.2nm,0.4s,baz=101,slow=14,SNR=13						
STKA	**Stephens Creek**	**38.19**	**245**	P	P	09 19 46.9	-0.5
	1.1nm,0.7s,baz=90,slow=13,SNR=2.1						
	1.1nm,0.7s						
ASAR	**Alice Springs**	**45.16**	**257**	P	P	09 20 42.1	+0.4
	0.9nm,0.6s,baz=97,slow=8.3,SNR=15						
	0.9nm,0.6s						
WRA	**Warramunga Arr**	**45.33**	**263**	P	P	09 20 42.7	-0.3
	0.2nm,0.3s,baz=97,slow=8.0,SNR=11						
	0.2nm,0.3s						

*SNET **17** 09:15:00.6±1.6, 13°.25N×89°.30W, h74km, ML2.6, Presumed earthquake*
*CATAC **17** 09:15:00.5±1.1, 13°N±7°×8°.9W±°, h16km±8km, M2.6/8, MLv2.6/8, Error ellipse: s-maj=14.1km s-min=7.2km az=2.4, confirmed*

ISC 17 09:14:59.4±2.4, **13°.0N**±0°.1×**89°.34W**±0°.06, **h17**km±12km, **n14**, σ0°.**73**/21, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LALI	**Alcalda de L**	**0.48**	**2**	P	**Pg**	**09 15 08.3**	**-0.8**
JAYA	**Jayaque - finc**	**0.65**	**351**	P	**Pn**	**09 15 14.2**	**+0.2**
JAYA				S	**Sn**	**09 15 23.6**	**-0.4**
LOMA	**Loma Larga**	**0.66**	**14**	P	**Pn**	**09 15 14.1**	**+0.1**
PMON	**Piamonte**	**0.70**	**2**	P	**Pn**	**09 15 14.6**	**0.0**
PMON				S	**Sb**	**09 15 23.0**	**+0.4**
BOQS	**Boqueron**	**0.73**	**5**	*e*P	**Pn**	**09 15 15.1**	**0.0**
COEG	**Centro de Oper**	**0.76**	**36**	P	**Pb**	**09 15 14.6**	**+0.5**
COEG				S	**Sb**	**09 15 23.9**	**-0.3**
COEG	**Centro de Oper**	**0.76**	**36**	*e*P	**Pb**	**09 15 14.8**	**+0.6**
COEG				*e*S	**Sb**	**09 15 24.7**	**+0.5**
TECO	**Alcaldia de Te**	**0.76**	**46**	P	**Pb**	**09 15 14.7**	**+0.5**
TECO				S	**Sb**	**09 15 24.1**	**-0.1**
PAVA	**Las Pavas**	**0.80**	**29**	P	**Pb**	**09 15 15.6**	**+0.6**
PAVA				S	**Sn**	**09 15 26.3**	**-1.4**
ALJI	**Alcalda de J**	**0.81**	**67**	*e*S	**Sn**	**09 15 27.0**	**-0.7**
ALJI				*e*S	**Sb**	**09 15 27.5**	**+1.7**
NUBE	**Las Nubes**	**0.99**	**334**	P	**Pb**	**09 15 18.7**	**+0.5**
UNIC	**Universidad Ca**	**0.99**	**348**	P	**Pg**	**09 15 19.0**	**+0.3**
FAME	**Alcaldia de Sa**	**1.06**	**322**	P	**Pb**	**09 15 19.4**	**+0.1**
INTP	**Intipuca**	**1.27**	**81**	*i* Sg	**Sb**	**09 15 37.9**	**-0.9**

*TEH **17** 10:14:59.3, 29°.25N×55°.31E, h12km±26km, ML3.6, Presumed earthquake*
*DSN **17** 10:15:01.9±0.9, 28°.92N×55°.09E, h10km, ML3.2/12, Error ellipse: s-maj=11.6km s-min=5.7km az=42.0*
*OMAN **17** 10:15:03.6±1.2, 28°.71N×55°.07E, h10km, mb3.2/9, ml3.3/8, Error ellipse: s-maj=10.1km s-min=6.5km az=24.0*

ISC 17 10:14:58.7±1.1, **29°.08N**±0°.06×**55°.28E**±0°.04, **h10**km, **n54**, σ1°.**75**/75, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHRM	**Jahrom**	**1.60**	**249**	Pg	**Pg**	**10 15 30.1**	**+0.7**
KHGB	**Koh Gabri**	**1.66**	**39**	Pg	**Pn**	**10 15 26.6**	**-1.5**
IBND	**Bandar-abas**	**1.97**	**145**	Pn	**Pg**	**10 15 37.2**	**+0.7**
CHMN	**Cheshme madani**	**2.12**	**68**	Pn	**Pn**	**10 15 35.5**	**+1.0**
ZRDN	**Zarand Kerman**	**2.18**	**30**	Pn	**Pn**	**10 15 35.8**	**+0.6**
KRM1	**Kerman Provinc**	**2.24**	**50**	Pn	**Pn**	**10 15 37.4**	**+1.3**
KHL1	**Khalili_Fars**	**2.26**	**231**	Pn	**Pb**	**10 15 41.3**	**+1.7**
IMEH	**Mehriz**	**2.37**	**346**	Pn	**Pn**	**10 15 38.6**	**+0.7**
KHNJ	**Kahnooj**	**2.42**	**117**	Pn	**Pb**	**10 15 41.5**	**-0.8**
SHI	**Shiraz**	**2.48**	**284**	Pn	**Pn**	**10 15 42.2**	**+2.9**
IBAF	**Bafgh**	**2.52**	**6**	Pn	**Pn**	**10 15 40.4**	**+0.6**
KBAM	**BAM**	**2.78**	**88**	Pn	**Pn**	**10 15 46.1**	**+2.7**
TAFT	**Taft - Yazd**	**2.80**	**340**	Pn	**Pn**	**10 15 45.0**	**+1.2**
DOBD	**Dorbid, Yazd**	**2.98**	**347**	Pn	**Pn**	**10 15 46.8**	**+0.7**
SHME	**Shamm**	**3.12**	**166**	P	**Pn**	**10 15 49.0**	**+1.1**
SHME	**Shamm**	**3.12**	**166**	P	**Pn**	**10 15 50.0**	**+2.1**
BANOM	**Banah**	**3.27**	**164**	P	**Pn**	**10 15 51.9**	**+1.8**
BANOM	**Banah**	**3.27**	**164**	P	**Pn**	**10 15 53.2**	**+3.0**
IRAM	**Ramesheh**	**3.69**	**318**	Pn	**Pn**	**10 15 56.5**	**+0.5**
MASF	**Masafi**	**3.78**	**168**	P	**Pn**	**10 15 59.5**	**+2.4**
	SNR=5.3						
MASF				S	**Sn**	**10 16 41.9**	**+0.3**
MSFE	**Esma-Masafi**	**3.79**	**168**	P	**Pn**	**10 15 58.6**	**+1.4**
MDH	**Madha**	**3.88**	**166**	P	**Pn**	**10 15 59.9**	**+1.6**
MDH	**Madha**	**3.88**	**166**	P	**Pn**	**10 16 00.2**	**+1.8**
MDH				S	**Sn**	**10 16 44.9**	**+1.0**
JASK	**Jask - Hormozg**	**3.94**	**144**	P	**Pn**	**10 16 01.7**	**+2.4**
NAZ	**Nazwa, Dubai**	**4.09**	**175**	P	**Pn**	**10 16 03.7**	**+2.4**
UOSS	**Minazif**	**4.20**	**168**	P	**Pn**	**10 16 04.4**	**+1.6**
UOSS	**Minazif**	**4.20**	**168**	P	**Pn**	**10 16 04.5**	**+1.6**
UOSS				S	**Sn**	**10 16 52.0**	**0.0**
HATD	**Hatta, Dubai**	**4.31**	**170**	P	**Pn**	**10 16 05.7**	**+1.4**
HATD				S	**Sn**	**10 16 56.0**	**+1.4**
FAQ	**Al Faqa, Dubai**	**4.33**	**176**	P	**Pn**	**10 16 05.6**	**+1.0**
ASHO	**Ashiyiah**	**4.43**	**171**	P	**Pn**	**10 16 07.9**	**+1.8**
ASHO				S	**Sn**	**10 16 58.8**	**+1.0**
ASHO	**Ashiyiah**	**4.43**	**171**	P	**Pn**	**10 16 08.2**	**+2.1**
	SNR=43						
ASHO				S	**Sn**	**10 16 58.9**	**+1.0**
ASUD	**Al Ashush, Dub**	**4.44**	**179**	P	**Pn**	**10 16 08.6**	**+2.5**
IKOO	**Kooshah**	**4.63**	**43**	Pn	**Pn**	**10 16 09.9**	**+1.0**
ALNE	**Al Ain**	**5.02**	**175**	P	**Pn**	**10 16 16.1**	**+1.9**
SOHO	**SOHO**	**5.05**	**167**	P	**Pn**	**10 16 15.3**	**+0.7**
SOHO				S	**Sn**	**10 17 12.5**	**-0.5**
SAKB	**Bahrain**	**5.22**	**235**	P	**Pn**	**10 16 18.2**	**+1.3**
SAKB				S	**Sn**	**10 17 16.1**	**-1.1**
MZWR	**Madinat Zayed**	**5.44**	**194**	P	**Pn**	**10 16 21.3**	**+1.4**
HOQ	**Hoqain**	**5.77**	**161**	P	**Pn**	**10 16 24.8**	**+0.4**
HOQ				S	**Sn**	**10 17 30.7**	**-0.1**
ARQ	**Araqi**	**5.83**	**169**	P	**Pn**	**10 16 26.3**	**+1.1**
	SNR=6.3						
ARQ				S	**Sn**	**10 17 32.1**	**-0.1**
BIDO	**Bidbid**	**6.10**	**155**	P	**Pn**	**10 16 29.5**	**+0.6**
MZR	**Muzera**	**6.26**	**195**	P	**Pn**	**10 16 32.3**	**+1.1**
MZR				S	**Sn**	**10 17 41.9**	**-1.0**
UMZA	**Um Al Zommool**	**6.34**	**181**	P	**Pn**	**10 16 33.6**	**+1.3**
UMZA				S	**Sn**	**10 17 42.3**	**-2.5**
SMDO	**Samad**	**6.49**	**157**	P	**Pn**	**10 16 35.4**	**+1.0**
SMDO				S	**Sn**	**10 17 48.8**	**+0.1**
BSY	**Bisya**	**6.54**	**164**	P	**Pn**	**10 16 36.3**	**+1.2**
BSY				S	**Sn**	**10 17 48.3**	**-1.5**
WSAR	**Wadi Sarin**	**6.55**	**152**	P	**Pn**	**10 16 35.9**	**+0.7**
	SNR=7.1						
WSAR				S	**Sn**	**10 17 49.4**	**-0.6**
WBK	**Wadi Bani Khal**	**7.25**	**152**	P	**Pn**	**10 16 45.2**	**+0.4**
	SNR=11						
JLN	**Jalan Bani Buh**	**7.84**	**151**	P	**Pn**	**10 16 53.4**	**+0.5**
JLN				S	**Sn**	**10 18 20.0**	**-1.8**
MHTO	**MHTO**	**8.42**	**163**	P	**Pn**	**10 17 01.2**	**+0.4**
MHTO				S	**Sn**	**10 18 33.5**	**-2.5**
RAYN	**Ar Rayn**	**10.37**	**240**	P	**Pn**	**10 17 27.2**	**-0.4**
RAYN	**Ar Rayn**	**10.37**	**240**	P	**Pn**	**10 17 27.2**	**-0.4**
RAYN				S	**Sn**	**10 19 19.6**	**-4.2**
DOK	**Doka**	**10.47**	**186**	P	**Pn**	**10 17 29.0**	**+0.1**
DOK				S	**Sn**	**10 19 22.0**	**-4.3**
WHFO	**Wadi Hawf**	**11.20**	**187**	P	**Pn**	**10 17 37.8**	**-1.1**
DMTO	**DMTO**	**11.32**	**182**	P	**Pn**	**10 17 38.9**	**-1.6**
DMTO				P		10 17 39.6	
DMTO				S	**Sn**	**10 19 42.8**	**-4.3**
DMTO				S		10 19 44.3	
ABTO	**Aybut**	**11.81**	**189**	P	**Pn**	**10 17 46.1**	**-1.3**
ABTO				S	**Sn**	**10 19 54.3**	**-5.1**
ABTO				S		10 19 55.2	

*MAN **17** 10:28:47.0, 10°.58N×126°.40E, h18km, MS4.5*
*NEIC **17** 10:28:48.4±1.2, 10°.46N±0°.10×126°.2E±0°.2, h46km±9km, mb4.4/18, Error ellipse: s-maj=25.2km s-min=14.1km az=85.0*
*IDC **17** 10:28:49.3±0.8, 10°.54N×126°.21E, h39km±6km, mb3.7/10, mbtmp3.9/10, MS2.9/4, Error ellipse: s-maj=60.3km s-min=12.6km az=66.0*

ISC 17 10:28:47.6±0.5, **10°.61N**±0°.05×**126°.53E**±0°.07, **h35**km, **n47**, σ2°.**08**/54, **mb4.3**/19, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLP	**Palo**	**1.62**	**290**	*e*P	**Pn**	**10 29 12.8**	**-1.0**
PLP				*e*S	**Sn**	**10 29 32.6**	**-0.8**
BIPH	**Bislig**	**2.41**	**184**	*i* P	**Pn**	**10 29 26.6**	**+2.0**
BIPH				*e*S	**Sn**	**10 29 51.6**	**-1.3**
LLP	**Lapu-Lapu**	**2.54**	**264**	*e*P	Pn	10 29 29.1	+2.7
LLP				*e*S	Sn	10 30 05.6	+9.5
TBP	**Tagbilaran**	**2.78**	**251**	*e*P	**Pn**	**10 29 31.7**	**+2.0**
TBP				*i* S	**Sn**	**10 30 03.6**	**+1.5**
CGP	**Cagayan de Oro**	**2.80**	**220**	*i* P	**Pn**	**10 29 28.8**	**-1.1**
CGP				*i* S	**Sn**	**10 30 06.6**	**+4.0**
DAV	**Davao City (W)**	**3.64**	**195**	LR	LR	10 30 46.8	
	comp=Z,81nm,19.6s,baz=153,slow=34						
DAV	**Davao City (W)**	**3.64**	**195**	Pn	**Pn**	**10 29 39.1**	**-2.3**
DCPH	**Dipolog City**	**3.73**	**238**	*i* P	**Pn**	**10 29 44.2**	**+1.5**
DCPH				*i* S	**Sn**	**10 30 27.2**	**+1.8**
GUMO	**Guam**	**18.17**	**79**	LR	LR	10 38 55.3	
	comp=Z,37nm,19.3s,baz=194,slow=33						
SAUI	**Saumlaki**	**19.07**	**165**	P	**P**	**10 33 05.1**	**-2.0**
JAY	**Jayapura**	**19.21**	**132**	LR	LR	10 40 02.3	
	comp=Z,60nm,21.7s,baz=296,slow=35						
KSRS	**Korea Array**	**26.76**	**2**	LR	LR	10 45 05.8	
	comp=Z,26nm,20.5s,baz=40,slow=36						
CM31	**Chiang Mai Arr**	**27.80**	**289**	P	**P**	**10 34 29.6**	**-4.0**
CM31				IAmb	IAmb	10 35 05.5	
	comp=Z,3.8nm,0.5s						
CMAR	**Chiang Mai Arr**	**27.80**	**289**	P	**P**	**10 34 32.5**	**-1.1**
	comp=Z,0.7nm,0.6s,baz=103,slow=7.3,SNR=5.2						
	comp=Z,0.7nm,0.6s						
CMAR	**Chiang Mai Arr**	**27.80**	**289**	P	**P**	**10 34 29.2**	**-4.4**
MAJO	**Matsushiro**	**27.90**	**20**	P	**P**	**10 34 34.6**	**+0.3**
MJB9	**Matsu-Tunnel**	**27.90**	**20**	P	**P**	**10 34 36.1**	**+1.8**
MJB9				IAmb	IAmb	10 35 05.8	
	comp=Z,12nm,1.4s						
WB0	**Warramunga Arr**	**31.16**	**166**	P	**P**	**10 35 02.6**	**-0.8**
WB0				IAmb	IAmb	10 35 06.1	
	comp=Z,6.5nm,1.4s						
WRA	**Warramunga Arr**	**31.32**	**166**	P	**P**	**10 35 05.7**	**+0.9**
	comp=Z,0.2nm,0.6s,baz=344,slow=8.8,SNR=4.7						
WRA				pP	**pP**	**10 35 16.6**	**+4.0**
	comp=Z,0.3nm,0.5s,baz=331,slow=11,SNR=2.3						
WRA				PcP	**PcP**	**10 38 00.3**	**+1.8**
	comp=Z,0.2nm,0.6s,baz=337,slow=3.5,SNR=1.7						
	comp=Z,0.2nm,0.6s						
MBWA	**Marble Bar**	**32.27**	**192**	P	**P**	**10 35 10.3**	**-2.8**
AS31	**Alice Springs**	**34.82**	**168**	P	P	10 35 32.1	-3.2
ASAR	**Alice Springs**	**34.82**	**168**	P	**P**	**10 35 36.4**	**+1.1**
	comp=Z,0.5nm,0.3s,baz=345,slow=8.4,SNR=4.5						
ASAR				PcP	**PcP**	**10 38 09.5**	**+1.2**
	comp=Z,0.2nm,0.6s,baz=346,slow=2.9,SNR=1.6						
	comp=Z,0.5nm,0.

JMST	**Minamisoumatoc**	**0.13**	**131**	*i* P		**Pn**	**10 29 09.3**	**+0.2**
JMST				S		**Sn**	**10 29 18.6**	**+0.2**
JOTO	**OTAMA OYAMA**	**0.42**	**234**	*i* P		**Pn**	**10 29 10.7**	**+0.1**
JOTO				S		**Sn**	**10 29 21.3**	**+0.3**
JFK	**Kawauchi**	**0.45**	**169**	*i* P		**Pn**	**10 29 11.1**	**+0.3**
JFK				S		**Sn**	**10 29 21.5**	**+0.3**
JOU	**Okura**	**0.56**	**352**	*i* P		**Pn**	**10 29 12.2**	**+0.5**
JOU				S		**Sn**	**10 29 23.9**	**+1.0**
JYS	**Shirataka**	**0.69**	**307**	*i* P		**Pn**	**10 29 13.0**	**+0.2**
JYS				S		**Sn**	**10 29 25.2**	**+0.3**
JIO	**Ouri**	**0.79**	**35**	*i* P		**Pn**	**10 29 14.2**	**+0.4**
JIO				S		**Sn**	**10 29 26.8**	**+0.1**
JFY	**Yanaizu**	**0.93**	**245**	*i* P		**Pn**	**10 29 15.6**	**+0.2**
JFY				S		**Sn**	**10 29 29.4**	**-0.1**
JYA	**Atsumi**	**1.14**	**314**	*i* P		**Pn**	**10 29 18.0**	**+0.3**
JYA				S		**Sn**	**10 29 34.1**	**+0.4**
JNS	**Sasagawa**	**1.15**	**271**	P		**Pn**	**10 29 17.9**	**0.0**
JNS				S		**Sn**	**10 29 33.7**	**-0.1**
JYK	**Kaneyama**	**1.15**	**344**	*i* P		**Pn**	**10 29 18.4**	**+0.5**
JYK				S		**Sn**	**10 29 34.2**	**+0.3**
JMK	**Ichinoseki**	**1.20**	**17**	*i* P		**Pn**	**10 29 19.1**	**+0.7**
JMK				S		**Sn**	**10 29 35.9**	**+1.0**
JAW	**Awa shima**	**1.36**	**299**	*e*P		**Pn**	**10 29 20.4**	**0.0**
JUON	**Uonuma**	**1.49**	**247**	P		**Pn**	**10 29 22.3**	**+0.3**
JUON				S		**Sn**	**10 29 41.4**	**+0.1**
JKT	**Katashina**	**1.59**	**230**	P		**Pn**	**10 29 24.2**	**+0.7**
JAG	**Ashikaga**	**1.73**	**218**	*i* P		**Pn**	**10 29 25.9**	**+0.7**
MJAR	**Matsushiro Arr**	**2.40**	**239**	P		**Pn**	**10 29 34.8**	**+0.7**
	6.3nm,0.4s,baz=43,slow=12,SNR=46							
MJAR				S		**Sn**	**10 30 05.1**	**+2.4**
	1.9nm,0.4s,baz=26,slow=27,SNR=7.3							
JHJ	**Hachijo jima 2**	**4.75**	**190**	P		**Pn**	**10 30 06.1**	**+0.4**
	28nm,0.9s,baz=37,slow=20,SNR=2.2							
JHJ				S		**Sn**	**10 30 56.6**	**-2.8**
	16nm,1.0s,baz=56,slow=22,SNR=1.1							
ASAJ	**Asahikawa**	**6.45**	**12**	P		**Pn**	**10 30 27.8**	**-1.0**
	2.9nm,0.4s,baz=198,slow=12,SNR=8.6							
ASAJ				S		**Sn**	**10 31 39.6**	**-1.3**
	5.5nm,0.8s,baz=49,slow=29,SNR=1.5							
SONM	**Songino Array**	**26.93**	**303**	P		**P**	**10 34 31.2**	**+1.6**
	0.2nm,0.4s,baz=87,slow=7.4,SNR=1.7							
	0.2nm,0.4s							
H11N2	**WAKE ISLAND Hy**	**28.99**	**121**	T		T	11 05 12.9	
	baz=315,slow=76,SNR=14							
H11N1	**WAKE ISLAND Hy**	**29.00**	**121**	T		T	11 05 13.2	
	baz=315,slow=76,SNR=15							
H11N3	**WAKE ISLAND Hy**	**29.00**	**121**	T		T	11 05 12.8	
	baz=315,slow=76,SNR=11							
H11S1	**WAKE ISLAND Hy**	**29.71**	**123**	T		T	11 06 06.0	
	baz=316,slow=76,SNR=8.6							
H11S3	**WAKE ISLAND Hy**	**29.71**	**123**	T		T	11 06 07.8	
	baz=316,slow=76,SNR=9.1							
H11S2	**WAKE ISLAND Hy**	**29.73**	**123**	T		T	11 06 08.7	
	baz=316,slow=76,SNR=4.1							
KURBB	**Kurchatov Arra**	**45.12**	**307**	P		**P**	**10 37 02.9**	**-1.0**
	0.5nm,0.5s,baz=84,slow=8.5,SNR=5.0							
	0.5nm,0.5s							
ILAR	**Eielson Array**	**49.12**	**33**	P		**P**	**10 37 34.2**	**-0.6**
	0.5nm,0.9s,baz=269,slow=8.4,SNR=4.6							
	0.5nm,0.9s							
WRA	**Warramunga Arr**	**57.76**	**187**	P		**P**	**10 38 37.9**	**-0.5**
	0.5nm,0.9s,baz=6.4,slow=6.9,SNR=5.7							
	0.5nm,0.9s							

*IDC **17** 10:57:44.3±1.1,0.°31N×126.°11E,h0km,mb3.9/4, mbtmp3.9/5,ML3.2/1,MS2.7/1,Error ellipse: s-maj=41.3km s-min=18.6km az=53.0*

ISC 17 10:57:49.7±1.3,0.°3N±0.°2×126.°1E±0.°2,h44km,n7,σ1s43/7, mb4.0/6,2C-1D,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**5.29**	**103**	Pn		**Pn**	**Pn**	**10 59 06.3**	**0.0**
	0.9nm,0.3s,baz=61,slow=24,SNR=2.0								
SIJI				LR		LR	LR	11 01 18.0	
	comp=Z,79nm,20.1s,baz=246,slow=40								
	3.1nm,0.3s								
SIJI				AML		AML			
WRA	**Warramunga Arr**	**21.67**	**159**	P		**P**	**11 02 35.8**	**-1.0**	
	0.8nm,0.4s,baz=338,slow=10,SNR=22								
	0.8nm,0.4s								
ASAR	**Alice Springs**	**25.00**	**163**	P		**P**	**11 03 10.8**	**+1.2**	
	1.5nm,0.5s,baz=342,slow=10,SNR=28								
	1.5nm,0.5s								
MK31	**Makanchi Array**	**60.03**	**327**	⇓Pg		**P**	**11 07 52.2**	**0.0**	
	0.5nm,0.7s,baz=194,slow=17,SNR=7.8								
MK31				⇑Lg		Lg	11 08 30.3		
	2.4nm,1.1s,baz=173,slow=28,SNR=4.0								
MKAR	**Makanchi Array**	**60.03**	**327**	P		**P**	**11 07 52.9**	**+0.7**	
	1.1nm,0.7s,baz=119,slow=8.7,SNR=7.9								
	1.1nm,0.7s								
MAKZ	**Makanchi**	**60.21**	**327**	Pg		**P**	**11 07 51.2**	**-2.1**	
	1.4nm,0.8s								
MAKZ				⇑Lg		Lg	11 08 30.8		
	3.4nm,1.1s								
KURBB	**Kurchatov Arra**	**64.30**	**329**	P		**P**	**11 08 21.4**	**+0.9**	
	1.4nm,0.6s,baz=125,slow=6.5,SNR=13								
	1.4nm,0.6s								

KRSZO 17 11:00:09.8±1.1,48.°18N×16.°96E,h0km,Error ellipse: s-maj=8.1km s-min=5.7km az=168.0,Suspected Explosion.,Austria

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ZST	**Bratislava**	**0.10**	**82**	Pg		Pg	Pg	11 00 12.6	+0.9
ZST				Lg		Lg	Lg	11 00 14.6	
MODS	**Modra-Piesok**	**0.29**	**48**	Pg		Pg	Pg	11 00 16.2	+0.9
MODS				Lg		Lg	Lg	11 00 20.6	
MODS	**Modra-Piesok**	**0.29**	**48**	*e*PG		Pg	Pg	11 00 16.2	+0.9
MODS				*e*SG		Sb	Sb	11 00 21.2	-2.0
CONA	**Conrad Observa**	**0.78**	**251**	Lg		Lg	Lg	11 00 35.0	
JAVC	**Velka Javorina**	**0.83**	**35**	Pg		Pb	Pb	11 00 26.9	-0.1
JAVC				AML		AML			
JAVC	**Velka Javorina**	**0.83**	**35**	*e*PG		Pn	Pn	11 00 28.7	-0.1
KRUC	**Moravsky**	**0.96**	**337**	*e*PG		Pn	Pn	11 00 30.5	0.0
KRUC				*e*SG		Sb	Sb	11 00 42.2	-0.2
VRAC	**Vranov**	**1.15**	**348**	Lg		Lg	Lg	11 00 48.8	
VRAC	**Vranov**	**1.15**	**348**	*e*PG		Pn	Pn	11 00 33.1	-0.1
VRAC				*e*SG		Sb	Sb	11 00 48.6	+0.5
VYHS	**Vyhne**	**1.29**	**75**	Sn		Sg	Sg	11 00 51.6	+0.3
ARSA	**Arzberg**	**1.34**	**227**	Pn		Pg	Pg	11 00 35.4	-0.1
ARSA				AML		AML			

VIE 17 11:01:04.8±0.2,47.°84N×16.°01E,h0km,ml1.1/3,Error ellipse: s-maj=1.5km s-min=1.1km az=73.0 12 km W of Bad Fischau Suspected Mining explosion.,Austria

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CONA	**Conrad Observa**	**0.14**	**312**	*e*Pg		Pg	Pg	11 01 07.3	-0.1
	0.7nm,0.1s								
CONA				*e*Sg		Sg	Sg	11 01 09.7	+0.5
	6.3nm,0.3s								
RONA	**Rosalia, Austr**	**0.24**	**126**	*e*Pg		Pg	Pg	11 01 09.1	-0.3
	0.9nm,0.1s								
RONA				*e*Sg		Sg	Sg	11 01 13.1	+0.6
	1.6nm,0.1s								
WINA	**Alland / Wiene**	**0.27**	**9**	*e*Pg		Pg	Pg	11 01 09.9	-0.2
	2.3nm,0.2s								
WINA				*e*Sg		Sg	Sg	11 01 14.2	+0.6
	5.7nm,0.3s								

*MAN **17** 11:21:39.0,5.°41N×126.°36E,h15km,MS4.0*
*IDC **17** 11:21:40.4±2.6,4.°95N×125.°19E,h35km±20km,mb3.9/11, mbtmp4.1/13,ML3.9/2,MS3.0/6,Error ellipse: s-maj=40.3km s-min=11.9km az=71.0*
*NEIC **17** 11:21:40.8±1.6,5.°44N±0.°05×126.°18E±0.°07,h43km±8km, mb4.2/13,Error ellipse: s-maj=11.6km s-min=6.0km az=120.0*

ISC 17 11:21:41.6±1.2,5.°30N±0.°05×126.°21E±0.°09,h52km±11km, n48,σ1s73/55,mb4.2/17,MS2.9/5,Mindanao

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
GSPH	**General Santos**	**1.48**	**302**	*i* P		**Pn**	**Pn**	**11 22 06.4**	**+0.5**
GSPH				*i* S		**Sn**	**Sn**	**11 22 21.2**	**-3.1**
DAV	**Davao City (W)**	**1.86**	**340**	Pn		**Pn**	**Pn**	**11 22 14.0**	**+2.9**
	70nm,0.3s,baz=156,slow=3.6,SNR=5.5								
DAV				Sn		**Sn**	**Sn**	**11 22 38.3**	**+4.8**
	73nm,0.3s,baz=314,slow=21,SNR=8.6								
DAV				LR		LR	LR	11 23 07.1	
	comp=Z,314nm,20.5s,baz=172,slow=40								
	163nm,0.4s								
DAV				AML		AML			
DAV	**Davao City (W)**	**1.86**	**340**	Pn		**Pn**	**Pn**	**11 22 08.5**	**-2.6**
DMPH	**Davao City--Mi**	**1.90**	**339**	*e*P		**Pn**	**Pn**	**11 22 11.6**	**0.0**
DMPH				*i* S		Sn	Sn	11 22 41.8	+7.3
KCP	**Kidapawan**	**2.03**	**327**	*e*P		**Pn**	**Pn**	**11 22 13.6**	**+0.2**
KCP				*i* S		**Sn**	**Sn**	**11 22 43.8**	**+6.1**
BIPH	**Bislig**	**2.87**	**3**	*e*P		**Pn**	**Pn**	**11 22 23.7**	**-1.2**
BIPH				*i* S		**Sn**	**Sn**	**11 22 56.8**	**-1.3**
CGP	**Cagayan de Oro**	**3.47**	**334**	*e*P		**Pn**	**Pn**	**11 22 33.7**	**+0.5**
CGP				*e*S		Sn	Sn	11 23 21.9	+8.8
TNTI	**Ternate**	**4.65**	**166**	Pn		**Pn**	**Pn**	**11 22 50.2**	**+0.8**
PLP	**Palo**	**5.95**	**348**	*e*P		Pn	Pn	11 23 08.9	+1.7
PLP				*e*S		Sn	Sn	11 24 31.1	+17
TOLI2	**Tolitoli**	**6.83**	**233**	Pn		**Pn**	**Pn**	**11 23 20.2**	**+0.9**
LUWI	**Luwuk**	**7.18**	**209**	Pn		**Pn**	**Pn**	**11 23 22.4**	**-1.6**
SIJI	**Sorong**	**7.95**	**140**	Pn		Pn	Pn	11 23 42.0	+7.4
	0.8nm,0.3s,baz=323,slow=20,SNR=1.6								
	2.4nm,0.3s								
SIJI				AML		AML			
KNRA	**Kununurra**	**21.00**	**173**	P		**P**		**11 26 21.2**	**+0.4**
KNRA				IAmb		IAmb		11 26 44.0	
	comp=Z,17nm,1.4s								
FITZ	**Fitzroy Crossi**	**23.26**	**181**	LR		LR		11 36 36.0	
	comp=Z,58nm,18.6s,baz=143,slow=39								
WB0	**Warramunga Arr**	**26.18**	**162**	P		**P**		**11 27 12.4**	**+0.9**
WB0				IAmb		IAmb		11 27 28.8	
	comp=Z,6.5nm,1.1s								
WRAB	**Tennant Creek**	**26.33**	**163**	P		**P**		**11 27 14.1**	**+1.3**
WRAB				IAmb		IAmb		11 27 33.9	
	comp=Z,8.4nm,1.2s								
WRA	**Warramunga Arr**	**26.33**	**163**	P		**P**		**11 27 14.2**	**+1.4**
	comp=Z,0.6nm,0.5s,baz=345,slow=10.0,SNR=9.0								
WRA				ScP		**ScP**		**11 34 16.3**	**+2.7**
	comp=Z,0.2nm,0.6s,baz=342,slow=2.8,SNR=5.2								
	comp=Z,0.6nm,0.5s								
WRA	**Warramunga Arr**	**26.33**	**163**	P		**P**		**11 27 12.7**	**-0.1**
KRVT	**Keravat (AS076**	**27.50**	**110**	LR		LR		11 38 38.1	
	comp=Z,28nm,18.0s,baz=294,slow=36								
CMAR	**Chiang Mai Arr**	**29.65**	**298**	LR		LR		11 40 00.8	
	comp=Z,15nm,18.0s,baz=115,slow=38								
AS31	**Alice Springs**	**29.76**	**166**	P		**P**		**11 27 43.6**	**+0.2**
ASAR	**Alice Springs**	**29.76**	**166**	P		**P**		**11 27 42.6**	**-0.7**
	comp=Z,0.3nm,0.8s,baz=343,slow=6.7,SNR=7.7								
ASAR				PcP		**PcP**		**11 30 45.7**	**-0.7**
	comp=Z,0.3nm,0.7s,baz=356,slow=1.9,SNR=5.4								
ASAR				ScP		**ScP**		**11 34 26.6**	**+2.5**
	comp=Z,0.4nm,0.8s,baz=347,slow=2.8,SNR=5.8								
	comp=Z,0.3nm,0.8s								
ASAR	**Alice Springs**	**29.76**	**166**	P		**P**		**11 27 43.3**	**0.0**
ASAR				PcP		**PcP**		**11 30 46.6**	**+0.3**
MJAR	**Matsushiro Arr**	**32.98**	**18**	LR		LR		11 41 59.1	
	comp=Z,11nm,18.7s,baz=192,slow=36								
STKA	**Stephens Creek**	**39.78**	**159**	P		**P**		**11 29 09.9**	**+0.4**
	comp=Z,2.4nm,0.9s,baz=338,slow=10,SNR=4.0								
	comp=Z,2.4nm,0.9s								
STKA	**Stephens Creek**	**39.78**	**159**	P		**P**		**11 29 10.3**	**+0.7**
ULN	**Ulaanbaatar**	**45.47**	**342**	P		**P**		**11 29 54.0**	**-1.7**
ULN				IAmb		IAmb		11 29 56.5	
	comp=Z,2.7nm,1.0s								
SONM	**Songino Array**	**45.65**	**341**	P		**P**		**11 29 56.8**	**-0.4**
	comp=Z,0.4nm,0.4s,baz=148,slow=6.8,SNR=4.0								
SONM				PcP		**PcP**		**11 31 35.3**	**+0.6**
	comp=Z,0.4nm,0.4s,baz=134,slow=5.5,SNR=3.7								
	comp=Z,0.4nm,0.4s								
SONM	**Songino Array**	**45.65**	**341**	P		**P**		**11 29 54.5**	**-2.6**
MKAR	**Makanchi Array**	**55.98**	**325**	P		**P**		**11 31 14.4**	**-0.3**
	comp=Z,1.3nm,0.5s,baz=117,slow=7.7,SNR=14								
MKAR				PcP		**PcP**		**11 32 13.2**	**+0.5**
	comp=Z,0.6nm,0.7s,baz=144,slow=4.1,SNR=2.2								
	comp=Z,1.3nm,0.5s								
MKAR	**Makanchi Array**	**55.98**	**325**	P		**P**		**11 31 13.3**	**-1.5**
MKAR				P		**PcP**		**11 32 12.2**	**-0.5**
ZAA0	**Zalesovo Array**	**58.96**	**333**	P		**P**		**11 31 33.3**	**-2.3**
ZAA0				IAmb		IAmb		11 31 52.1	
	comp=Z,2.5nm,0.9s								
ZALV	**Zalesovo Beam**	**58.96**	**333**	P		**P**		**11 31 34.6**	**-0.9**
	comp=Z,1.0nm,0.5s,baz=132,slow=7.1,SNR=5.0								
ZALV				LR		LR		11 56 37.8	
	comp=Z,23nm,18.9s,baz=82,slow=36								
	comp=Z,1.0nm,0.5s								
ZALV	**Zalesovo Beam**	**58.96**	**333**	P		**P**		**11 31 33.5**	**-2.1**
ZALV				PcP		**PcP**		**11 32 22.4**	**-1.8**
KURBB	**Kurchatov Arra**	**60.14**	**327**	P		**P**		**11 31 42.3**	**-1.4**
	comp=Z,1.1nm,0.5s,baz=128,slow=5.8,SNR=5.2								
	comp=Z,1.1nm,0.5s								
KURK	**Kurchatov**	**60.14**	**327**	P		**P**		**11 31 42.3**	**-1.4**
BVAR	**Borovoye Array**	**65.73**	**327**	P		**P**		**11 32 19.7**	**-1.1**
	comp=Z,1.6nm,0.7s,baz=123,slow=5.3,SNR=1.7								
BVAR				PcP		**PcP**		**11 32 53.1**	**+1.4**
	comp=Z,1.7nm,0.6s,baz=76,slow=18,SNR=6.1								
	comp=Z,1.6nm,0.7s								
NRIK	**Noril'sk**	**68.79**	**346**	P		**P**		**11 32 40.2**	**+0.3**
	comp=Z,2.8nm,0.7s,baz=144,slow=8.7,SNR=3.6								
	comp=Z,2.8nm,0.7s								
AB31	**Akbulak array**	**70.61**	**321**	P		**P**		**11 32 50.4**	**-1.1**
AB31				IAmb		IAmb		11 33 31.8	
	comp=Z,3.1nm,1.2s								
ABKAR	**Akbulak array**	**70.61**	**321**	P		**P**		**11 32 50.1**	**-1.4**
IMAR	**Indian Mountai**	**81.13**	**24**	P		**P**		**11 33 50.1**	**-1.0**
H24K	**Noodor Dome**	**83.52**	**24**	P		**P**		**11 34 04.4**	**+0.6**
H24K				IAmb		IAmb		11 34 26.6	
	comp=Z,3.4nm,1.3s								
BMAR	**Burnt Mountain**	**84.84**	**23**	P		**P**		**11 34 10.6**	**+0.2**
BCAR	**Beaver Creek A**	**86.22**	**27**	P		**P**		**11 34 18.2**	**+0.8**
ARCES	**ARCESS Array B**	**88.80**	**340**	P		**P**		**11 34 30.1**	**+0.5**
	comp=Z,4.4nm,0.9s,baz=78,slow=5.0,SNR=4.5								
	comp=Z,4.4nm,0.9s								
ARCES	**ARCESS Array B**	**88.80**	**340**	P		**P**		**11 34 29.4**	**-0.2**
FINES	**FINESS Array B**	**90.21**	**332**	P		**P**		**11 34 35.8**	**-0.5**
	comp=Z,4.5nm,1.0s,baz=64,slow=4.4,SNR=6.3								
	comp=Z,4.5nm,1.0s								
FINES	**FINESS Array B**	**90.21**	**332**	P		**P**		**11 34 36.4**	**+0.1**

*NEIC **17** 11:36:28.8±0.7,17.°88N±0.°09×68.°55W±0.°02,h89km±12km, ML3.2/39,Md3.6/12(RSPR),Error ellipse: s-maj=13.4km s-min=3.0km az=182.0*
*SDD **17** 11:36:30.2±1.8,17.°83N×68.°56W,h80km±12km,MD3.1, ML3.1,MW3.1,Presumed earthquake*
*OSPL **17** 11:36:30.4±1.3,17.°73N×68.°58W,h36km±16km,ML3.2, Presumed earthquake*
*RSPR **17** 11:36:31.2,18.°16N×68.°37W,h93km±2km,MD3.5/12*

ISC 17 11:36:28.3±1.3,17.°86N±0.°06×68.°55W±0.°03,h86km±10km, n56,σ0s93/85,17C-15D,Mona Passage

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SADR	**Isla Saona**	**0.40**	**327**	⇑*i*P		**Pn**	**Pn**	**11 36 42.1**	**+0.3**
SADR				⇓*i*S		**Sn**	**Sn**	**11 36 52.0**	**+0.2**
SADR				IAML				11 36 52.4	
	comp=N,924nm,0.8s								
PCDR	**Punta Cana, DR**	**0.67**	**14**			**Pn**		**11 36 44.5**	**+0.4**
PCDR						**Sn**		**11 36 56.0**	**+0.1**
PCDR	**Punta Cana, DR**	**0.67**	**14**	IAML				11 36 58.1	
	comp=E,708nm,0.7s								
PCDR	**Punta Cana, DR**	**0.67**	**14**	⇑*i*P		**Pn**		**11 36 44.5**	**+0.4**
PCDR				⇓*i*S		**Sn**		**11 36 56.4**	**+0.5**
PCDR				IAML				11 36 57.2	
	comp=N,1μm,0.7s								
PCDR	**Punta Cana, DR**	**0.67**	**14**	⇑*e*P		**Pn**		**11 36 44.5**	**+0.4**
PCDR				*e*S		**Sn**		**11 36 56.0**	**+0.1**
PCDR	**Punta Cana, DR**	**0.67**	**14**	*i* P		**Pn**		**11 36 44.5**	**+0.4**
PCDR				*e*S		**Sn**		**11 36 54.7**	**-1.2**
PCDR				IAML				11 36 59.9	
	comp=Z,312nm,0.5s								
HIDR	**Higuey Centro**	**0.74**	**348**	⇑*i*P		**Pn**		**11 36 44.8**	**-0.1**
HIDR				⇓*i*S		**Sn**		**11 36 56.5**	**-0.7**
HIDR				IAML				11 36 57.2	
	comp=N,2μm,0.3s								
IDE	**Isla Desecheo**	**1.15**	**63**			**Pn**		**11 36 50.0**	**+0.5**
IDE						**Sn**		**11 37 05.4**	**0.0**
IDE	**Isla Desecheo**	**1.15**	**63**	⇓*e*P		**Pn**		**11 36 50.0**	**+0.5**
IDE				*e*S		**Sn**		**11 37 05.4**	**0.0**
DR12	**Loma Pena Alta**	**1.21**	**320**			**Pn**		**11 36 49.6**	**-0.7**
CRPR	**Cabo Rojo, PR**	**1.38**	**84**			**Pn**		**11 36 52.7**	**+0.4**
CRPR				IAML				11 37 11.5	
	comp=N,263nm,0.4s								
CRPR				IAML				11 37 12.5	
	comp=N,337nm,0.4s								
CRPR	**Cabo Rojo, PR**	**1.38**	**84**			**Sn**		**11 37 09.8**	**-0.6**
CRPR	**Cabo Rojo, PR**	**1.38**	**84**	⇑*i*P		**Pn**		**11 36 52.6**	**+0.4**
CRPR				⇓*i*S		**Sn**		**11 37 10.2**	**-0.3**
CRPR				IAML				11 37 11.5	
	comp=N,283nm,0.2s								
CRPR	**Cabo Rojo, PR**	**1.38**	**84**	⇑*e*P		**Pn**		**11 36 52.8**	**+0.4**
CRPR	**Cabo Rojo, PR**	**1.38**	**84**	*i* P		**Pn**		**11 36 52.6**	**+0.4**
PRSN	**Puerto Rico Se**	**1.39**	**75**			**Pn**		**11 36 52.8**	**+0.4**
PRSN				IAML				11 37 15.9	
	comp=N,423nm,0.3s								
SDD	**Santo Domingo**	**1.42**	**295**	⇑*i*P		**Pn**		**11 36 53.1**	**+0.3**
SDD				⇑*i*S		**Sn**		**11 37 10.8**	**-0.7**
SDD				IAML				11 37 17.3	
	comp=N,70nm,0.4s								
SDD	**Santo Domingo**	**1.42**	**295**	*i* P		**Pn**		**11 36 53.1**	**+0.3**
SDD				*e*S		**Sn**		**11 37 10.2**	**-1.2**
SDD				IAML				11 37 14.8	
	comp=Z,127nm,1.1s								
MLPR	**Magueyes Islan**	**1.44**	**85**			**Sn**		**11 37 11.1**	**-0.7**
MLPR	**Magueyes Islan**	**1.44**	**85**	Pn		**Pn**		**11 36 53.4**	**+0.3**
MLPR	**Magueyes Islan**	**1.44**	**85**	IAML				11 37 13.8	
	comp=Z,200nm,0.5s								
MLPR				IAML				11 37 14.8	
	comp=Z,159nm,0.3s								
MLPR	**Magueyes Islan**	**1.44**	**85**	⇑*i*P		**Pn**		**11 36 53.2**	**+0.2**
MLPR				⇑*i*S		**Sn**		**11 37 11.8**	**0.0**
MLPR				IAML				11 37 14.4	
	comp=N,50nm,0.3s								
MLPR	**Magueyes Islan**	**1.44**	**85**	⇓*e*P		**Pn**		**11 36 53.5**	**+0.5**
AGPR	**Aguadilla, PR**	**1.50**	**66**	Pn		**Pn**		**11 36 54.3**	**+0.5**
AGPR				IAML				11 37 15.4	
	comp=N,218nm,0.8s								
AGPR				IAML				11 37 15.7	
	comp=N,314nm,0.5s								
SMDR	**Samana, DR**	**1.54**	**337**			**Pn**		**11 36 54.3**	**-0.1**
SMDR						**Sn**		**11 37 13.4**	**-0.8**
SMDR	**Samana, DR**	**1.54**	**337**	⇑*i*P		**Pn**		**11 36 54.7**	**+0.3**
SMDR				⇑*i*S		**Sn**		**11 37 14.6**	**+0.4**
SMDR				IAML				11 37 16.6	
	comp=N,226nm,0.8s								
SMDR	**Samana, DR**	**1.54**	**337**	⇓*e*P		**Pn**		**11 36 54.3**	**-0.1**
SMDR				*e*S		**Sn**		**11 37 13.4**	**-0.8**
GBPR	**Guanica, Bosqu**	**1.60**	**86**			**Pn**		**11 36 57.0**	**+2.0**
GBPR						**Sn**		**11 37 14.6**	**-0.7**
GBPR	**Guanica, Bosqu**	**1.60**	**86**	⇓*e*P		**Pn**		**11 36 57.0**	**+2.0**
GBPR				*e*S		**Sn**		**11 37 14.6**	**-0.7**
AOPR	**Arecibo Observ**	**1.78**	**74**			**Pn**		**11 36 57.9**	**+0.4**
AOPR						**Sn**		**11 37 17.2**	**-2.4**
AOPR	**Arecibo Observ**	**1.78**	**74**	⇓*i*P		**Pn**		**11 36 57.7**	**+0.2**
AOPR				⇑*i*S		**Sn**		**11 37 19.4**	**-0.3**
AOPR				IAML				11 37 25.8	
	comp=N,360nm,0.3s								
AOPR	**Arecibo Observ**	**1.78**	**74**	⇓*e*P		**Pn**		**11 36 57.9**	**+0.4**
BANI	**BANI**	**1.80**	**287**	⇓*i*P		**Pn**		**11 36 58.8**	**+1.0**
BANI				⇑*i*S		**Sn**		**11 37 21.0**	**+0.8**
BANI				IAML				11 37 23.4	
	comp=N,271nm,0.5s								
OBIP	**Obispado Ponce**	**1.86**	**84**			**Pn**		**11 36 59.2**	**+0.6**
OBIP						**Sn**		**11 37 19.7**	**-1.8**
OBIP	**Obispado Ponce**	**1.86**	**84**	⇑*e*P		**Pn**		**11 36 59.2**	**+0.6**
OBIP				*e*S		**Sn**		**11 37 19.7**	**-1.8**
OBIP	**Obispado Ponce**	**1.86**	**84**	*i* P		**Pn**		**11 36 59.1**	**+0.6**
OBIP				*e*S		**Sn**		**11 37 21.1**	**-0.5**
OBIP				IAML				11 37 24.1	
	comp=Z,237nm,0.2s								
CELP	**Cerrillos**	**1.89**	**83**			**Pn**		**11 36 59.2**	**+0.4**
CELP				IAML				11 37 22.8	
	comp=Z,206nm,0.6s								
CELP			

comp=Z,85nm,21.6s,baz=182,slow=30

*IDC **17** 11:51:03.9±4.9, 18°.74S×176°.90W, h128km±42km, mb3.4/6, mbtmp3.7/7, Error ellipse: s-maj=40.8km s-min=25.9km az=138.0*

ISC 17 11:51:06.3±1.1, 18°.7S±0°.2×177°.1W±0°.2, h150km, n7, σ1°07, mb3.5/6, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.75**	**280**	P	**Pn**	**11 52 15.8**	**-0.7**
	6.6nm,0.9s,baz=98,slow=18,SNR=2.0						
STKA	**Stephens Creek**	**39.41**	**242**	P	**P**	**11 58 21.3**	**-0.3**
	2.2nm,0.9s,baz=56,slow=7.9,SNR=3.1						
	2.2nm,0.9s						
WRA	**Warramunga Arr**	**45.77**	**260**	P	**P**	**11 59 13.9**	**+0.7**
	0.5nm,0.8s,baz=96,slow=7.1,SNR=6.7						
	0.5nm,0.8s						
ASAR	**Alice Springs**	**45.84**	**255**	P	**P**	**11 59 14.3**	**+0.7**
	2.8nm,0.9s,baz=86,slow=8.0,SNR=12						
	2.8nm,0.9s						
VNDA	**Vanda**	**59.81**	**185**	P	**P**	**12 00 55.3**	**+0.1**
	0.7nm,0.9s,baz=18,slow=7.6,SNR=4.6						
	0.7nm,0.9s						
TXAR	**Lajitas Array**	**85.31**	**57**	P	**P**	**12 03 25.6**	**-1.2**
	0.4nm,0.9s,baz=278,slow=4.1,SNR=4.0						
	0.4nm,0.9s						
ILAR	**Eielson Array**	**86.34**	**12**	P	**P**	**12 03 32.1**	**+1.2**
	0.6nm,1.1s,baz=218,slow=6.0,SNR=5.3						
	0.6nm,1.1s						

*NIED **17** 11:55:11.5, 25°.21N×143°.13E, h86km, MW4.7, Moment Tensor Solution. s2 Moment tensor: Scale 10^16^Nm; Mrr0.31; Mθθ-0.10; Mφφ-0.21; Mrθ0.60; Mθφ-0.02; Mφr-1.20; Fault plane solution: M0 1.36000×10^16^ NP1: φs358.00000°, δ6.00000°, λ114.00000°. NP2: φs154.00000°, δ85.00000°, λ88.00000°.*

*IDC **17** 11:55:11.4±0.5, 25°.37N×142°.54E, h0km, mb4.3/26, mbtmp4.3/29, ML3.7/3, MS3.5/22 Error ellipse: s-maj=17.7km s-min=10.9km az=80.0*

*JMA **17** 11:55:11.5±0.2, 25°.2N±0°.5×14°3E±°, h86km, MV4.8/25, IOTO ISLANDS REGION*

*NEIC **17** 11:55:13.2±1.7, 25°.38N±0°.08×142°.4E±0°.2, h10km±1km, mb4.7/59, Error ellipse: s-maj=23.6km s-min=14.2km az=88.0*

*BJI **17** 11:55:16.6, 25°.36N×142°.38E, h41km, mB4.8/7, mb4.5/27, Ms4.1/5, Ms7 3.9/6*

ISC 17 11:55:16.6±0.5, 25°.31N±0°.08×142°.55E±0°.09, h38km±3km, n136, σ1°43/119, mb4.6/64, MS3.6/20, 1D, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHH2	**Haha-jima-NKT2**	**1.36**	**346**	P	**Pn**	**11 55 39.4**	**+0.3**
JHH2				A	A	11 55 39.4	
	comp=N,17nm,0.4s,comp=E,18nm,0.4s						
JHH2				S	**Sn**	**11 56 00.9**	**+4.9**
JCJ	**Chichijima**	**1.81**	**350**	Pn	**Pn**	**11 55 40.7**	**-4.6**
	comp=E,528nm,0.3s,baz=130,slow=11,SNR=155						
JCJ				Sn	**Sn**	**11 56 05.6**	**-1.4**
	comp=E,192nm,0.3s,baz=112,slow=21,SNR=4.3						
JCJ	**Chichijima**	**1.81**	**350**		**Pn**	**11 55 44.6**	**-0.7**
CBIJ	**Chichi jima**	**1.81**	**350**	P	**Pn**	**11 55 45.2**	**-0.2**
CBIJ				S	**Sn**	**11 56 10.4**	**+3.4**
BSO3	**Boso 3**	**9.63**	**350**	*eP*	**Pn**	**11 57 32.0**	**-0.4**
JOD2	**Odawara 2**	**10.37**	**344**	*eP*	**Pn**	**11 57 42.7**	**0.0**
INU	**Inuyama**	**11.09**	**336**	Pn	**Pn**	**11 57 49.7**	**-2.9**
JRY	**Ryogami san**	**11.13**	**344**	*eP*	**Pn**	**11 57 52.6**	**-0.6**
JGF	**Kuroka**	**11.19**	**338**	Pn	**Pn**	**11 57 50.9**	**-3.2**
JHO	**Hitachi**	**11.40**	**352**	*eP*	**Pn**	**11 57 55.0**	**-1.8**
JAG	**Ashikaga**	**11.40**	**347**	*eP*	**Pn**	**11 57 55.1**	**-1.8**
MJAR	**Matsushiro Arr**	**11.80**	**343**	Pn	**Pn**	**11 57 59.4**	**-3.0**
	comp=E,0.1nm,0.3s,baz=237,slow=25,SNR=7.8						
MJAR				Sn	Sn	11 59 57.6	-15
	baz=130,slow=39						
MJAR				LR	LR	12 02 30.4	
	comp=E,259nm,18.9s,baz=144,slow=37						
	comp=E,1.1nm,0.4s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**11.80**	**343**	Pn	**Pn**	**11 58 00.5**	**-1.9**
MAJO	**Matsushiro**	**11.80**	**343**	Pn	**Pn**	**11 58 01.3**	**-1.1**
MJB9	**Matsu-Tunnel**	**11.81**	**343**	Pn	**Pn**	**11 58 00.7**	**-1.8**
GUMO	**Guam**	**11.86**	**169**	LR	LR	12 01 38.1	
	comp=E,114nm,18.4s,baz=337,slow=32						
JNU	**Nakatsue**	**12.82**	**310**	LR	LR	12 02 35.2	
	comp=E,193nm,21.8s,baz=102,slow=35						
JTM	**Tenmabayashi**	**15.49**	**356**	Pn	**Pn**	**11 58 50.0**	**-2.2**
JTM				IAmb	IAmb	11 59 06.7	
	comp=Z,35nm,1.2s						
KSRS	**Korea Array**	**17.37**	**318**	Pn	**P**	**11 59 16.7**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=123,slow=10,SNR=7.0						
KSRS				LR	LR	12 05 05.0	
	comp=Z,232nm,21.7s,baz=135,slow=34						
	comp=Z,1.2nm,0.6s						
KSRS				AML	AML		
ASAJ	**Asahikawa**	**18.77**	**0**	P	**P**	**11 59 31.6**	**-0.8**
	comp=Z,0.9nm,0.3s,baz=239,slow=8.5,SNR=7.4						
ASAJ				LR	LR	12 11 24.1	
	comp=Z,34nm,18.1s,baz=231,slow=52						
	comp=Z,11nm,1.1s						
ASAJ				AML	AML		
JKA	**Kamikawa-asahi**	**18.77**	**0**	P	**P**	**11 59 29.9**	**-2.5**
JKA				IAmb	IAmb	11 59 42.9	
	comp=Z,54nm,1.5s						
USA0B	**Ussuriysk Arra**	**20.72**	**338**	P	**P**	**11 59 53.3**	**-0.3**
USRK	**Ussuriysk Ar.**	**20.72**	**338**	P	**P**	**11 59 53.1**	**-0.6**
	comp=Z,3.5nm,0.7s,baz=164,slow=11,SNR=8.8						
USRK				LR	LR	12 07 35.7	
	comp=Z,134nm,18.2s,baz=151,slow=36						
	comp=Z,3.5nm,0.7s						
USRK	**Ussuriysk Ar.**	**20.72**	**338**	P	**P**	**11 59 52.6**	**-1.1**
NJ2	**Nanjing**	**21.83**	**293**	*eP*	**P**	**12 00 06.3**	**+0.6**
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
H11N1	**WAKE ISLAND Hy**	**23.14**	**99**	T	T	12 24 11.9	
	baz=289,slow=75,SNR=8.3						
H11N2	**WAKE ISLAND Hy**	**23.14**	**99**	T	T	12 24 14.7	
	baz=289,slow=75,SNR=11						
H11N3	**WAKE ISLAND Hy**	**23.16**	**99**	T	T	12 24 10.1	
	baz=289,slow=75,SNR=10						
H11S3	**WAKE ISLAND Hy**	**23.37**	**102**	T	T	12 24 24.7	
	baz=292,slow=75,SNR=37						
H11S1	**WAKE ISLAND Hy**	**23.38**	**102**	T	T	12 24 25.8	
	baz=292,slow=75,SNR=27						
H11S2	**WAKE ISLAND Hy**	**23.39**	**102**	T	T	12 24 26.1	
	baz=292,slow=75,SNR=33						
BNX	**BinXian**	**23.75**	**333**	⇓P	**P**	**12 00 27.3**	**+2.0**
BNX				pmax	pmax		
	comp=Z,10.0nm,1.6s						
DAV	**Davao City (W)**	**24.33**	**225**	LR	LR	12 08 16.4	
	comp=Z,89nm,21.8s,baz=94,slow=32						
TIA	**Tai'an**	**24.34**	**303**	P	**P**	**12 00 28.5**	**-2.4**
TIA				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KLR	**Kul'dur**	**25.33**	**343**	LR	LR	12 09 42.9	
	comp=Z,150nm,19.8s,baz=157,slow=34						
HEH	**HeiHe**	**27.52**	**339**	*eP*	**P**	**12 00 59.8**	**+0.3**
HEH				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HEH				L	L		
	comp=Z,260nm,20.6s						
HEH				L	L		
	comp=Z,310nm,14.7s						
HEH				L	L		
	comp=Z,310nm,14.8s						
PEA0B	**Petropavlovsk-**	**30.01**	**18**	P	**P**	**12 01 20.3**	**-1.3**
PETK	**Petropavlovsk-**	**30.01**	**18**	P	**P**	**12 01 21.5**	**-0.1**
	comp=Z,14nm,1.2s,baz=199,slow=12,SNR=5.3						
	comp=Z,14nm,1.2s						
PETK	**Petropavlovsk-**	**30.01**	**18**	P	**P**	**12 01 20.5**	**-1.2**
HHC	**Hu-ho-hao-te**	**30.05**	**309**	*eP*	**P**	**12 01 21.9**	**-0.3**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,96nm,4.7s						
PET	**Petropavlovsk**	**30.22**	**19**	P	**P**	**12 01 23.0**	**-0.4**
XAN	**Xi'an**	**30.38**	**295**	P	**P**	**12 01 25.5**	**+0.3**
XAN				pmax	pmax		
	comp=Z,6.0nm,0.6s						
KRVT	**Keravat (AS076**	**30.84**	**161**	LR	LR	12 12 42.0	
	comp=Z,41nm,19.7s,baz=45,slow=34						
LZH	**Lanzhou**	**34.77**	**297**	*eP*	**P**	**12 02 02.1**	**-1.6**
LZH				pP	sP	12 02 18.4	+0.7
LZH				pmax	pmax		
	comp=Z,15nm,1.3s						
LZDM	**Lanzhou Array**	**34.88**	**297**	P	**P**	**12 02 04.9**	**+0.1**
	comp=Z,1.7nm,0.3s,baz=126,slow=7.5,SNR=4.9						
	comp=Z,1.7nm,0.3s						
SONM	**Songino Array**	**36.24**	**318**	P	**P**	**12 02 15.0**	**-1.2**
	comp=Z,0.6nm,0.4s,baz=122,slow=10,SNR=4.0						
SONM				PcP	**PcP**	**12 04 41.7**	**+1.0**
	comp=Z,0.5nm,0.4s,baz=134,slow=4.2,SNR=2.2						
SONM				LR	LR	12 17 06.5	
	comp=Z,164nm,19.7s,baz=138,slow=36						
	comp=Z,0.6nm,0.4s						
SONM	**Songino Array**	**36.24**	**318**	P	**P**	**12 02 14.7**	**-1.5**
YAK	**Yakutsk**	**37.73**	**350**	LR	LR	12 16 46.3	
	comp=Z,63nm,21.7s,baz=170,slow=34						
GTA2	**Gaotai**	**38.44**	**302**	*eP*	**P**	**12 02 37.4**	**+2.5**
GTA2				pP	pP	12 02 43.5	-1.5
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TLY	**Talaya**	**39.54**	**322**	LR	LR	12 20 19.3	
	comp=Z,170nm,18.8s,baz=120,slow=38						
CMAR	**Chiang Mai Arr**	**40.90**	**269**	P	**P**	**12 02 56.8**	**+1.3**
	comp=Z,0.6nm,0.4s,baz=55,slow=7.5,SNR=5.7						
	comp=Z,0.6nm,0.4s						
GOMU	**GeErMu**	**42.07**	**297**	P	**P**	**12 03 03.8**	**-1.5**
GOMU				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WB0	**Warramunga Arr**	**45.50**	**191**	P	**P**	**12 03 33.0**	**+0.5**
WB0				IAmb	IAmb	12 03 37.4	
	comp=Z,8.1nm,0.9s						
WR8	**Warramunga Arr**	**45.67**	**191**	P	**P**	**12 03 34.8**	**+1.1**
WRAB	**Tennant Creek**	**45.67**	**191**	P	**P**	**12 03 34.4**	**+0.6**
WRA	**Warramunga Arr**	**45.68**	**191**	P	**P**	**12 03 35.1**	**+1.2**
	comp=Z,4.4nm,0.5s,baz=10,slow=8.5,SNR=50						
WRA				PcP	**PcP**	**12 05 10.5**	**-1.0**
	comp=Z,0.6nm,0.6s,baz=29,slow=3.3,SNR=0.7						
	comp=Z,4.4nm,0.5s						
WRA	**Warramunga Arr**	**45.68**	**191**		**P**	**12 03 33.3**	**-0.6**
FITZ	**Fitzroy Crossi**	**46.18**	**203**	P	**P**	**12 03 37.6**	**-0.2**
WMQ	**Urumqi**	**47.90**	**307**	*eP*	**P**	**12 03 54.0**	**+2.8**
WMQ				pmax	pmax		
	comp=Z,13nm,0.9s						
WMQ				L	L		
	comp=Z,83nm,24.3s						
AS31	**Alice Springs**	**49.40**	**190**		**P**	**12 04 02.7**	**0.0**
ASAR	**Alice Springs**	**49.40**	**190**	P	**P**	**12 04 03.8**	**+1.0**
	comp=Z,0.9nm,0.6s,baz=13,slow=7.2,SNR=14						
ASAR				PcP	**PcP**	**12 05 25.2**	**+0.5**
	comp=Z,0.3nm,0.4s,baz=16,slow=4.5,SNR=1.4						
	comp=Z,0.9nm,0.6s						
ASAR	**Alice Springs**	**49.40**	**190**	P	**P**	**12 04 02.1**	**-0.7**
ASAR					**PcP**	**12 05 25.4**	**+0.6**
EVN	**Everest**	**49.53**	**286**	P	**P**	**12 04 02.1**	**-2.5**
EVN				IAmb	IAmb	12 04 14.0	
	comp=Z,3.9nm,0.7s						
ZALV	**Zalesovo Beam**	**51.06**	**320**	P	**P**	**12 04 13.2**	**-1.7**
	comp=Z,0.7nm,0.4s,baz=111,slow=8.3,SNR=3.7						
ZALV				PcP	**PcP**	**12 05 30.4**	**0.0**
	comp=Z,1.0nm,0.4s,baz=127,slow=4.4,SNR=4.3						
ZALV				LR	LR	12 27 30.2	
	comp=Z,90nm,19.0s,baz=83,slow=38						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**51.06**	**320**	P	**P**	**12 04 12.7**	**-2.3**
ZALV					**PcP**	**12 05 30.3**	**-0.2**
MBWA	**Marble Bar**	**51.23**	**208**	P	**P**	**12 04 15.7**	**-0.9**
MKAR	**Makanchi Array**	**51.88**	**311**	P	**P**	**12 04 20.0**	**-1.3**
	comp=Z,0.8nm,0.5s,baz=86,slow=8.9,SNR=8.2						
MKAR				PcP	**PcP**	**12 05 34.4**	**+0.7**
	comp=Z,1.1nm,0.7s,baz=85,slow=3.6,SNR=2.2						
MKAR				LR	LR	12 28 50.5	
	comp=Z,44nm,18.5s,baz=69,slow=39						
	comp=Z,0.8nm,0.5s						
NRIK	**Noril'sk**	**54.43**	**339**	P	**P**	**12 04 40.2**	**+0.6**
	comp=Z,5.4nm,0.7s,baz=103,slow=12,SNR=6.6						
NRIK				LR	LR	12 29 36.1	
	comp=Z,45nm,20.5s,baz=104,slow=38						
	comp=Z,5.4nm,0.7s						
NRIK	**Noril'sk**	**54.43**	**339**	P	**P**	**12 04 38.2**	**-1.5**
NRIK				IAmb	IAmb	12 04 46.4	
	comp=Z,6.7nm,0.7s						
KURK	**Kurchatov**	**54.48**	**315**	P	**P**	**12 04 39.2**	**-1.1**
KURK				IAmb	IAmb	12 04 47.2	
	comp=Z,5.3nm,0.8s						
KURBB	**Kurchatov Arra**	**54.53**	**315**	P	**P**	**12 04 39.3**	**-1.4**
	comp=Z,5.5nm,0.6s,baz=92,slow=8.2,SNR=24						
	comp=Z,5.5nm,0.6s						
KDAK	**Kodiak Island**	**55.60**	**36**	LR	LR	12 25 30.3	
	comp=Z,27nm,21.6s,baz=213,slow=33						
J20K	**Nowinta River**	**55.92**	**28**	IAmb	IAmb	12 04 52.8	
	comp=Z,5.8nm,0.8s						
CAST	**Castle Rocks**	**56.67**	**29**		**P**	**12 04 56.6**	**+0.7**
CAST				IAmb	IAmb	12 04 57.7	
	comp=Z,5.2nm,0.8s						
STKA	**Stephens Creek**	**56.87**	**181**	P	**P**	**12 04 58.6**	**+1.0**
	comp=Z,1.9nm,0.4s,baz=7.5,slow=5.2,SNR=5.3						
	comp=Z,1.9nm,0.4s						
KSH2	**Kashi**	**57.15**	**302**	P	**P**	**12 05 00.5**	**+0.6**
KSH2				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FORT	**Forrest**	**57.47**	**195**		**P**	**12 05 03.3**	**+1.5**
TRF	**Thorofare Moun**	**57.47**	**29**	P	**P**	**12 05 02.1**	**+0.4**
AAK	**Ala-Archa**	**57.56**	**306**	LR	LR	12 32 41.8	
	comp=Z,28nm,18.4s,baz=72,slow=39						
G23K	**Bananza Creek**	**58.11**	**26**	IAmb	IAmb	12 05 08.5	
	comp=Z,6.2nm,1.0s						
D23K	**Nanushuk River**	**58.31**	**23**	P	**P**	**12 05 08.7**	**+1.4**
D23K				IAmb	IAmb	12 05 10.0	
	comp=Z,7.0nm,0.8s						
E23K	**Chandalar**	**58.51**	**24**	IAmb	IAmb	12 05 11.5	
	comp=Z,7.8nm,0.9s						
E24K	**Your Creek**	**58.93**	**24**	IAmb	IAmb	12 05 14.2	
	comp=Z,6.4nm,0.9s						
IL31		**59.12**	**28**	IAmb	IAmb	12 05 13.0	
	comp=Z,4.6nm,1.0s						
ILAR	**Eielson Array**	**59.12**	**28**	P	**P**	**12 05 12.6**	**-0.4**
	comp=Z,2.2nm,0.8s,baz=258,slow=5.9,SNR=20						
	comp=Z,2.2nm,0.8s						
BVAR	**Borovoye Array**	**59.59**	**318**	P	**P**	**12 05 16.2**	**-0.2**
	comp=Z,8.6nm,0.5s,baz=90,slow=7.7,SNR=51						
	comp=Z,8.6nm,0.5s						
BORK	**Borovoye**	**59.63**	**318**	P	**P**	**12 05 16.5**	**-0.2**
SCRK	**Sand Creek**	**60.32**	**29**		**P**	**12 05 21.9**	**+0.5**
SCRK				IAmb	IAmb	12 05 33.5	
	comp=Z,4.7nm,0.8s						
KK31	**Karatay Array**	**60.41**	**307**	IAmb	IAmb	12 05 33.1	
	comp=Z,4.0nm,0.8s						
KKAR	**Karatay Array**	**60.41**	**307**	P	**P**	**12 05 21.6**	**-0.6**
G26K	**Porcupine Rive**	**60.59**	**26**	P	**P**	**12 05 24.0**	**+1.0**
G26K				IAmb	IAmb	12 05 27.7	
	comp=Z,9.7nm,1.3s						
C27K	**Jago River**	**60.86**	**23**	IAmb	IAmb	12 05 44.3	
	comp=Z,8.4nm,1.2s						
BCAR	**Beaver Creek A**	**61.28**	**30**	P	**P**	**12 05 28.5**	**+0.6**
H27K	**Steamboat Moun**	**61.45**	**27**	IAmb	IAmb	12 05 31.4	
	comp=Z,0.9nm,0.9s						
E28M	**Babbage River**	**62.29**	**24**	IAmb	IAmb	12 05 44.1	
	comp=Z,8.2nm,1.2s						
AB31	**Akbulak array**	**66.58**	**315**	P	**P**	**12 06 01.5**	**-1.4**
AB31				IAmb	IAmb	12 06 10.0	
	comp=Z,4.7nm,1.1s						
ABKAR	**Akbulak array**	**66.58**	**315**	P	**P**	**12 06 02.2**	**-0.7**
AKTO	**Aktyubinsk**	**67.55**	**316**	LR	LR	12 37 56.8	
	comp=Z,55nm,19.4s,baz=28,slow=38						
URZ	**Urewera**	**71.05**	**152**	LR	LR	12 35 49.8	
	comp=Z,50nm,18.5s,baz=13,slow=34						
YKA	**Yellowknife Ar**	**73.55**	**28**	P	**P**	**12 06 45.5**	**+0.1**
	comp=Z,3.2nm,0.6s,baz=296,slow=6.3,SNR=25						
	comp=Z,3.2nm,0.6s						
YKA	**Yellowknife Ar**	**73.55**	**28**	P	**P**	**12 06 44.7**	**-0.7**
YKAW1	**Yellowknife Wh**	**73.61**	**28**	P	**P**	**12 06 45.7**	**0.0**
YKAW1				IAmb	IAmb	12 06 46.9	
	comp=Z,6.2nm,0.8s						
ARCES	**ARCESS Array B**	**75.33**	**341**	P	**P**	**12 06 55.5**	**-0.2**
	comp=Z,2.3nm,0.7s,baz=69,slow=6.9,SNR=7.6						
	comp=Z,2.3nm,0.7s						
ARCES	**ARCESS Array B**	**75.33**	**341**	P	**P**	**12 06 55.7**	**+0.1**
KBZ	**Khabaz**	**79.47**	**313**	P	**P**	**12 07 20.0**	**+0.8**
	comp=Z,2.3nm,0.6s,baz=118,slow=4.8,SNR=7.7						
KBZ				LR	LR	12 45 21.0	
	comp=Z,60nm,20.3s,baz=51,slow=38						
	comp=Z,2.3nm,0.6s						
FINES	**FINESS Array B**	**79.69**	**334**	P	**P**	**12 07 20.0**	**-0.1**
	comp=Z,7.8nm,0.5s,baz=64,slow=5.5,SNR=70						
	comp=Z,7.8nm,0.5s						
CMB	**Columbia Colle**	**80.04**	**53**		**P**	**12 07 23.7**	**+1.2**
CMB				IAmb	IAmb	12 07 30.0	
	comp=Z,7.0nm,1.1s						
NVAR	**Mina Array Bea**	**81.36**	**52**	P	**P**	**12 07 30.2**	**+0.4**
	comp=Z,1.8nm,0.8s,baz=276,slow=4.6,SNR=9.3						
	comp=Z,1.8nm,0.8s						
NVAR	**Mina Array Bea**	**81.36**	**52**	P	**P**	**12 07 29.7**	**-0.1**
ELK	**Elko**	**82.47**	**49**	P	**P**	**12 07 35.3**	**-0.4**
MNK	**Minsk**	**82.82**	**328**	*i* P	**P**	**12 07 37.7**	**+0.9**
	comp=E,14nm,0.8s						
MNK				*i* P	**P**	**12 07 37.7**	**+0.9**
	comp=N,13nm,0.8s						
MNK				*i* P	**P**	**12 07 37.7**	**+0.9**
	comp=Z,8.0nm,0.6s,baz=56						
MNK				*i* PcP	**PcP**	**12 07 42.2**	**+0.6**
MNK				*i* PP	**PP**	**12 10 48.0**	**+1.2**
MNK				*i* PPP	PPP	12 12 39.5	
MNK				*i* S	**S**	**12 17 54.5**	**+2.2**
MNK				*i* ScS	**ScS**	**12 18 08.0**	**+1.2**
MNK				*i* SS	**SS**	**12 23 18.6**	**+4.1**
MNK				*i* SSS	SSS	12 26 47.7	
MNK				*i* LQ	LQ	12 39 39.7	
MNK				*i* LR	LR	12 45 28.1	
MNK				*i* LRM	MLR	12 46 48.7	
	comp=E,564nm,14.1s						
MNK				*i* LRM	MLR	12 46 49.3	
	comp=N,636nm,18.4s						
MNK				*i* LRM	MLR	12 46 51.9	
	comp=Z,79nm,13.7s						
WCT	**Wildcat Mounta**	**83.27**	**53**	IAmb	IAmb	12 08 07.0	
	comp=Z,5.8nm,1.4s						
TPNV	**Topopah Spring**	**83.47**	**52**	IAmb	IAmb	12 07 47.7	
	comp=Z,3.8nm,0.9s						
GWY	**Greenwater Val**	**83.51**	**53**	IAmb	IAmb	12 07 53.5	
	comp=Z,3.1nm,0.8s						
AKASG	**Malin Array Be**	**84.25**	**324**	P	**P**	**12 07 44.6**	**+0.4**
	comp=Z,3.4nm,0.6s,baz=53,slow=5.2,SNR=15						
	comp=Z,3.4nm,0.6s						
KIEV	**Kiev**	**84.27**	**324**	P	**P**	**12 07 44.4**	**+0.1**
HFS	**Hagfors**	**85.19**	**337**	P	**P**	**12 07 48.5**	**-0.3**
	comp=Z,2.6nm,0.6s,baz=85,slow=3.1,SNR=6.7						
	comp=Z,2.6nm,0.6s						
PDAR	**Pinedale Array**	**85.25**	**45**	P	**P**	**12 07 50.0**	**+0.3**
	comp=Z,0.7nm,0.7s,baz=302,slow=3.3,SNR=6.4						
	comp=Z,0.7nm,0.7s						
PDAR	**Pinedale Array**	**85.25**	**45**	P	**P**	**12 07 49.5**	**-0.2**
NB2	**NORSAR Subarra**	**85.39**	**338**	P	**P**	**12 07 49.4**	**-0.5**
	comp=Z,5.6nm,0.8s,baz=47,slow=5.1						
NOA	**NORSAR Array B**	**85.39**	**338**	P	**P**	**12 07 49.7**	**-0.1**
	comp=Z,2.4nm,0.7s,baz=47,slow=4.7,SNR=7.2						
NOA				LR	LR	12 47 54.5	
	comp=Z,24nm,18.8s,baz=25,slow=37						
	comp=Z,2.4nm,0.7s						
RAYN	**Ar Rayn**	**86.17**	**294**		**P**	**12 07 53.6**	**-0.9**
RDMU	**Red Mountain**	**86.34**	**47**	IAmb	IAmb	12 08 03.7	
	comp=Z,7.0nm,1.1s						
SRU	**San Rafael Swe**	**86.44**	**48**	IAmb	IAmb	12 07 56.7	
	comp=Z,3.6nm,0.7s						
U15A	**North Rim**	**86.53**	**51**	IAmb	IAmb	12 08 03.6	
	comp=Z,4.8nm,1.1s						
HMU	**Henry Mountain**	**86.87**	**49**	IAmb	IAmb	12 08 00.5	
	comp=Z,3.2nm,0.8s						
BRTR	**Keskin Array B**	**87.46**	**313**	P	**P**	**12 08 02.1**	**+1.5**
	comp=Z,1.0nm,0.7s,baz=307,slow=37,SNR=2.6						
BRTR				LR	LR	12 51 12.4	
	comp=Z,24nm,19.4s,baz=343,slow=38						
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**87.46**	**313**	P	**P**	**12 07 59.8**	**-0.8**
ALQ	**Albuquerque**	**91.37**	**50**	IAmb	IAmb	12 08 21.2	
	comp=Z,1.6nm,0.8s						
GERES	**GERESS Array B**	**93.21**	**329**	P	**P**	**12 08 26.9**	**-0.2**
	comp=Z,0.9nm,0.7s,baz=44,slow=5.9,SNR=5.5						
	comp=Z,0.9nm,0.7s						
GERES	**GERESS Array B**	**93.21**	**329**	P	**P**	**12 08 26.1**	**-1.1**
TX31	**Lajitas Ar. Si**	**96.40**	**54**	P	**P**	**12 08 41.9**	**-0.3**
TX31				IAmb	IAmb	12 08 45.9	
	comp=Z,2.5nm,1.3s						
TXAR	**Lajitas Array**	**96.40**	**54**	P	**P**	**12 08 43.8**	**+1.6**
	comp=Z,0.4nm,0.8s,baz=336,slow=2.7,SNR=4.8						
	comp=Z,0.4nm,0.8s						
TXAR	**Lajitas Array**	**96.40**	**54**	P	**P**	**12 08 41.9**	**-0.3**
PLCA	**Paso Flores**	**148.49**	**127**	PKPbc	**PKPbc**	**12 15 00.1**	**+0.6**
	comp=Z,0.8nm,0.6s,baz=268,slow=3.4,SNR=4.1						
LPAZ	**La Paz**	**150.00**	**79**	PKPbc	**PKiKP**	**12 15 05.2**	**-0.2**
	comp=Z,1.7nm,0.5s,baz=336,slow=4.8,SNR=6.3						

*GCMT **17** 12:06:42.0±0.4, 19°.28S±0°.02×176°.13W±0°.02, h16km±2km, MW4.8/80, Moment Tensor Solution. s9,c12; s80,c106; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr-0.09±.10; Mθθ-1.25±.10; Mφφ 1.34±.09; Mrθ-0.45±.27; Mθφ-0.96±.06; Mφr-0.29±.22; Best double couple: M0 1.70200×10^16^ NP1:φs118.00000°, δ74.00000°, λ-171.00000°. NP2: φs25.00000°, δ81.00000°, λ-16.00000°. Principal axes: T 1.6700, Plg5.0000°, Azm72.0000°; N 0.0640, Plg72.0000°, Azm177.0000°; P -1.7340, Plg18.0000°, Azm341.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

JTS	**Las Juntas de**	**91.13**	**80**	LR	LR	12 51 42.9		
	comp=Z,39nm,21.3s,baz=342,slow=30							
YAK	**Yakutsk**	**91.44**	**337**	LR	LR	12 54 18.7		
	comp=Z,39nm,20.7s,baz=136,slow=32							
ULM	**Lac du Bonnet**	**95.42**	**39**	LR	LR	12 56 25.8		
	comp=Z,114nm,19.0s,baz=198,slow=32							
TIXI	**Tiksi**	**97.38**	**344**	LR	LR	12 58 08.1		
	comp=Z,84nm,21.2s,baz=156,slow=32							
ARCES	**ARCESS Array B**	**126.98**	**352**	PKP	PKPdf	12 25 13.4		-0.3
	7.7nm,1.1s,baz=29,slow=2.8,SNR=4.6							

BKK ***17*** *12:12:50.4±1.4,2.2°N±9.9°×9.5°E±1.0°,h10km,M4.6/13, mB5.2/10,mb4.7/11,Mjma4.1/13,ML5.0/7,MLv4.8/3, Mw(mB)4.5/10,MwMwp6.0/1,Mwp6.1/1*

IDC ***17*** *12:13:00.6±1.0,2.99N×96.15E,h0km,mb4.4/9, mbtmp4.4/10,ML4.6/1,MS3.0/4,Error ellipse: s-maj=24.9km s-min=11.6km az=34.0*

NEIC ***17*** *12:13:04.6±0.9,2.85N±0.04°×95.8E±0.1,h27km±5km, mb4.3/25,Error ellipse: s-maj=18.6km s-min=5.0km az=78.0*

DJA ***17*** *12:13:05.9±0.8,3.3°N±3.9°×9.6°E±1.2°,h24km±7km,M4.6/24, mB5.1/6,mb4.7/6,MLv4.6/24,Mw(mB)4.5/6*

ISC 17 12:13:05.0±0.6,2.93N±0.06°×95.84E±0.09,h31km,n80, σ1.9s05/70,mb4.4/23,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SNSI	**Sinabang, Aceh**	**0.71**	**136**	P	**Pn**	**12 13 20.3**	**+1.3**
SNSI				S	**Sn**	**12 13 30.2**	**+1.3**
TPTI		**1.38**	**76**	P	**Pn**	**12 13 28.2**	**0.0**
TPTI				AML	AML		
MLSI	**Meulaboh, Aceh**	**1.45**	**23**	P	**Pn**	**12 13 30.3**	**+1.2**
MLSI				AML	AML		
KCSI	**Kotacane, Aceh**	**2.02**	**73**	P	**Pn**	**12 13 38.3**	**+1.3**
LHMI	**Lhok Sumawe**	**2.54**	**26**		**Pn**	**12 13 46.2**	**+2.0**
LHMI	**Lhok Sumawe**	**2.54**	**26**	P	**Pn**	**12 13 46.5**	**+2.4**
LHMI				AML	AML		
BSI	**Banda Aceh**	**2.61**	**348**	P	**Pn**	**12 13 46.0**	**+0.9**
BSI				AML	AML		
PSI	**Prapat**	**3.09**	**92**	Pg	**Pn**	**12 13 52.9**	**+1.1**
	16nm,0.3s,baz=283,slow=9.4,SNR=40						
PSI				Sn	Sn	12 14 18.2	-10
	8.0nm,0.3s,baz=314,slow=16,SNR=11						
PSI				Lg	Lg	12 14 29.1	
	34nm,0.3s,baz=336,slow=19,SNR=12						
PSI				LR	LR	12 14 46.9	
	comp=Z,48nm,18.4s,baz=202,slow=38						
PSI	**Prapat**	**3.09**	**92**	P	**Pn**	**12 13 52.9**	**+1.1**
PSI				P	Pb	12 13 53.4	-6.0
RPSI	**Rantau Prapat**	**3.09**	**94**		**Pn**	**12 13 52.2**	**+0.5**
PBSI	**Pulau Batu**	**3.84**	**140**	P	**Pn**	**12 14 03.0**	**+1.0**
PBSI				AML	AML		
SISI	**Saibi**	**5.33**	**142**	P	**Pn**	**12 14 24.2**	**+1.6**
	0.4nm2µm22nm,0.6s						
SISI				AML	AML		
KULM	**Kulim**	**5.34**	**64**		**Pn**	**12 14 22.7**	**-0.1**
KULM	**Kulim**	**5.34**	**64**	P	**Pn**	**12 14 23.9**	**+1.2**
	0.3nm66nm,0.7s						
KULM				AML	AML		
IPM	**Ipoh**	**5.40**	**73**		**Pn**	**12 14 24.0**	**+0.5**
IPM	**Ipoh**	**5.40**	**73**	P	**Pn**	**12 14 24.3**	**+0.7**
IPM				AML	AML		
RNTT	**Ranong**	**6.94**	**22**	P	**Pn**	**12 14 45.5**	**+0.9**
	0.5nm0.2nm2µm55nm,0.7s						
RNTT				AML	AML		
MNAI	**Manna**	**10.15**	**135**	Pn	**Pn**	**12 15 27.8**	**-1.0**
PHET	**Kaeng Krachan**	**10.60**	**21**	P	**Pn**	**12 15 36.9**	**+2.0**
KHLT	**Khaolaem Dam**	**12.10**	**13**	P	**Pn**	**12 15 55.5**	**0.0**
CM31	**Chiang Mai Arr**	**15.73**	**11**	Pn	**Pn**	**12 16 43.9**	**-0.6**
CM31				IAmb	IAmb	12 16 51.3	
	comp=Z,8.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**15.73**	**11**	Pn	**Pn**	**12 16 44.9**	**+0.4**
	comp=Z,0.8nm,0.3s,baz=198,slow=11,SNR=29						
CMAR				LR	LR	12 23 00.2	
	comp=Z,49nm,18.7s,baz=300,slow=38						
	comp=Z,4.4nm,0.6s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**15.73**	**11**	Pn	**Pn**	**12 16 45.0**	**+0.5**
CHTO	**Chiang Mai**	**16.08**	**11**	P	**Pn**	**12 16 48.7**	**-0.3**
CHTO	**Chiang Mai**	**16.08**	**11**		**Pn**	**12 16 48.8**	**-0.3**
MORE	**Moreh**	**21.23**	**356**		**P**	**12 17 46.7**	**-1.9**
SHL	**Shillong**	**22.83**	**351**		**P**	**12 18 04.1**	**-1.7**
H08S2	**Diego Garcia H**	**25.55**	**246**	T	T	12 44 49.0	
	baz=66,slow=76,SNR=333						
H08S3	**Diego Garcia H**	**25.55**	**246**	T	T	12 44 49.1	
	baz=66,slow=76,SNR=606						
H08S1	**Diego Carcia H**	**25.57**	**246**	T	T	12 44 50.3	
	baz=66,slow=76,SNR=186						
EVN	**Everest**	**26.34**	**342**	P	**P**	**12 18 39.6**	**+0.6**
EVN				IAmb	IAmb	12 19 07.2	
	comp=Z,3.3nm,0.9s						
LSA	**Lhasa**	**27.00**	**351**	P	**P**	**12 18 44.7**	**-0.1**
LSA				IAmb	IAmb	12 18 49.3	
	comp=Z,5.8nm,0.5s						
TNTI	**Ternate**	**31.59**	**93**	P	**P**	**12 19 26.0**	**+0.7**
LZDM	**Lanzhou Array**	**33.66**	**12**	P	**P**	**12 19 42.7**	**-0.8**
	comp=Z,1.4nm,0.3s,baz=175,slow=6.5,SNR=2.3						
	comp=Z,1.4nm,0.3s						
LZH	**Lanzhou**	**33.82**	**12**	*e*P	**P**	**12 19 43.0**	**-1.7**
LZH				pmax	pmax		
	comp=Z,18nm,1.4s						
GTA2	**Gaotai**	**36.56**	**5**	*e*P	**P**	**12 20 07.5**	**-0.8**
GTA2				pP	pP	12 20 13.0	-4.3
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
HHC	**Hu-ho-hao-te**	**40.33**	**19**	*e*P	**P**	**12 20 43.8**	**+3.9**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,110nm,4.7s						
KSH2	**Kashi**	**40.50**	**335**	P	**P**	**12 20 42.8**	**+1.4**
KSH2				sP	sP	12 20 54.8	+0.6
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
WUS	**Wushi**	**40.93**	**341**	P	**P**	**12 20 44.8**	**-0.1**
WUS				IAmb	IAmb	12 21 00.7	
	comp=Z,3.6nm,0.8s						
BJT	**Baijiatuan**	**41.26**	**24**	P	**P**	**12 20 47.1**	**-0.3**
H01W3	**Cape Leeuwin H**	**41.35**	**157**	T	T	13 04 26.1	
	baz=332,slow=76,SNR=45						
H01W2	**Cape Leeuwin H**	**41.37**	**157**	T	T	13 04 34.0	
	baz=332,slow=76,SNR=36						
H01W1	**Cape Leeuwin H**	**41.37**	**157**	T	T	13 04 27.5	
	baz=332,slow=76,SNR=41						
NRN	**Naryn**	**42.28**	**338**	P	**P**	**12 20 56.0**	**-0.1**
WB0	**Warramunga Arr**	**44.07**	**122**	P	**P**	**12 21 09.5**	**-1.1**
WRA	**Warramunga Arr**	**44.11**	**123**	P	**P**	**12 21 09.6**	**-1.3**
	comp=Z,2.1nm,0.5s,baz=299,slow=9.2,SNR=30						
WRA				PcP	**PP**	**12 22 54.6**	**+0.5**
	comp=Z,0.3nm,0.7s,baz=316,slow=3.0,SNR=4.6						
	comp=Z,2.1nm,0.5s						
WRA	**Warramunga Arr**	**44.11**	**123**	P	**P**	**12 21 09.6**	**-1.3**
WR8	**Warramunga Arr**	**44.25**	**123**	P	**P**	**12 21 11.1**	**-0.9**
MKAR	**Makanchi Array**	**45.25**	**347**	P	**P**	**12 21 19.9**	**+0.3**
	comp=Z,3.2nm,0.3s,baz=164,slow=8.0,SNR=60						
	comp=Z,3.2nm,0.3s						
MKAR	**Makanchi Array**	**45.25**	**347**		**P**	**12 21 19.5**	**-0.1**
MAKZ	**Makanchi**	**45.34**	**347**		**P**	**12 21 20.6**	**+0.3**
AS31	**Alice Springs**	**45.52**	**128**	P	**P**	**12 21 21.4**	**-0.8**
ASAR	**Alice Springs**	**45.52**	**128**	P	**P**	**12 21 21.1**	**-1.0**
	comp=Z,2.1nm,0.6s,baz=298,slow=7.8,SNR=55						
ASAR				PcP	**PcP**	**12 23 00.0**	**-0.7**
	comp=Z,0.6nm,0.6s,baz=306,slow=3.7,SNR=6.8						
	comp=Z,2.1nm,0.6s						
ASAR	**Alice Springs**	**45.52**	**128**	P	**P**	**12 21 21.4**	**-0.8**
ASAR				PcP	**PcP**	**12 22 59.0**	**-1.6**
SONM	**Songino Array**	**45.66**	**10**	P	**P**	**12 21 23.0**	**+0.1**
	comp=Z,3.2nm,0.6s,baz=188,slow=9.5,SNR=15						
SONM				LR	LR	12 42 03.2	
	comp=Z,60nm,21.1s,baz=84,slow=38						
	comp=Z,3.2nm,0.6s						
SONM	**Songino Array**	**45.66**	**10**	P	**P**	**12 21 22.9**	**0.0**
SONM				IAmb	IAmb	12 21 23.7	
	comp=Z,2.4nm,0.7s						
ULN	**Ulaanbaatar**	**45.80**	**11**	P	**P**	**12 21 24.0**	**-0.1**
ULN				IAmb	IAmb	12 21 25.4	
	comp=Z,4.0nm,1.2s						
KK31	**Karatay Array**	**45.91**	**334**	P	**P**	**12 21 25.9**	**+1.0**
KK31				IAmb	IAmb	12 21 31.1	
	comp=Z,1.5nm,0.6s						
KKAR	**Karatay Array**	**45.91**	**334**	P	**P**	**12 21 25.0**	**+0.1**
KURBB	**Kurchatov Arra**	**49.72**	**346**	P	**P**	**12 21 54.9**	**+0.7**
	comp=Z,3.3nm,0.6s,baz=166,slow=7.0,SNR=40						
	comp=Z,3.3nm,0.6s						
KURK	**Kurchatov**	**49.79**	**346**		**P**	**12 21 55.0**	**+0.3**
KURK				IAmb	IAmb	12 21 56.5	
	comp=Z,3.0nm,0.7s						
ZAA0	**Zalesovo Array**	**51.66**	**352**	IAmb	IAmb	12 22 10.0	
	comp=Z,3.8nm,0.6s						
ZALV	**Zalesovo Beam**	**51.66**	**352**	P	**P**	**12 22 08.8**	**+0.1**
	comp=Z,3.8nm,0.5s,baz=179,slow=7.5,SNR=22						
	comp=Z,3.8nm,0.5s						
ZALV	**Zalesovo Beam**	**51.66**	**352**		**P**	**12 22 08.7**	**-0.1**
JYT	**Yasato**	**52.61**	**45**	P	**P**	**12 22 16.4**	**+0.2**
BVAR	**Borovoye Array**	**54.18**	**341**	P	**P**	**12 22 27.2**	**-0.2**
	comp=Z,2.1nm,0.5s,baz=146,slow=9.1,SNR=9.6						
	comp=Z,2.1nm,0.5s						
BORK	**Borovoye**	**54.22**	**341**		**P**	**12 22 27.7**	**0.0**
BORK				IAmb	IAmb	12 22 29.9	
	comp=Z,2.9nm,0.6s						
AB31	**Akbulak array**	**55.36**	**332**	P	**P**	**12 22 35.6**	**-0.4**
AB31				IAmb	IAmb	12 22 51.5	
	comp=Z,2.6nm,1.1s						
ABKAR	**Akbulak array**	**55.36**	**332**	P	**P**	**12 22 36.0**	**0.0**
H04N2	**CROZET ISLANDS**	**62.45**	**213**	T	T	13 31 04.3	
	baz=54,slow=75,SNR=324						
H04N1	**CROZET ISLANDS**	**62.46**	**213**	T	T	13 31 00.7	
	baz=54,slow=75,SNR=282						
H04N3	**CROZET ISLANDS**	**62.47**	**213**	T	T	13 30 59.0	
	baz=54,slow=75,SNR=309						
H04S1	**CROZET ISLANDS**	**62.81**	**212**	T	T	13 31 23.6	
	baz=49,slow=75,SNR=121						
H04S3	**CROZET ISLANDS**	**62.82**	**212**	T	T	13 31 28.9	
	baz=49,slow=75,SNR=126						
H04S2	**CROZET ISLANDS**	**62.83**	**212**	T	T	13 31 31.3	
	baz=49,slow=75,SNR=103						
MMAI	**Mount Meron Ar**	**63.80**	**305**	LR	LR	12 54 19.0	
	comp=Z,24nm,18.1s,baz=15,slow=39						
FINES	**FINESS Array B**	**77.85**	**333**	P	**P**	**12 24 59.3**	**-0.1**
	comp=Z,3.5nm,0.9s,baz=90,slow=4.3,SNR=1.2						
	comp=Z,3.5nm,0.9s						
FINES	**FINESS Array B**	**77.85**	**333**	P	**P**	**12 24 59.1**	**-0.2**
QSPA	**South Pole Qui**	**92.86**	**180**	P	**P**	**12 26 15.2**	**+0.6**
QSPA				IAmb	IAmb	12 26 57.5	
	comp=Z,2.2nm,1.4s						
IMAR	**Indian Mountai**	**95.53**	**23**	P	**P**	**12 26 26.0**	**-0.8**

HEL 17 12:23:46.1±0.1,62.40N×26.36E,h0km,ML1.2, Explosion,Finland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KAF	**Kangasniemi**	**0.29**	**185**	PG	Pg	12 23 51.1	-0.5
KAF				SG	Sg	12 23 53.9	-1.4
KAF				MSG		12 23 56.2	
	comp=Z,14nm,0.2s						
SUF	**Sumiainen**	**0.34**	**343**	*e*P	Pg	12 23 51.5	-1.0
SUF	**Sumiainen**	**0.34**	**343**	PG	Pg	12 23 51.6	-0.9
	baz=165						
SUF				SG	Sg	12 23 56.2	-0.7
SUF				MSG		12 23 57.5	
	comp=Z,3.2nm,0.2s						
KEF	**Keuruu**	**0.73**	**252**	*e*P	Pg	12 23 59.1	-1.1
KEF	**Keuruu**	**0.73**	**252**	PG	Pg	12 23 59.2	-0.9
KEF				SG	Sg	12 24 08.9	-0.7
KEF				MSG		12 24 09.2	
	comp=Z,1.7nm,0.2s						
FIA0	**FINESS Array S**	**0.97**	**188**	PG	Pg	12 24 03.6	-1.0
FIA0				MSG		12 24 15.9	
	comp=Z,1.0nm,0.2s						
FIA0				SB	Sb	12 24 18.2	-0.8
NIF	**Nilsia**	**1.20**	**33**	PG	Pg	12 24 07.8	-1.2
	baz=212						
NIF				MSG		12 24 22.4	
	comp=Z,1.0nm,0.2s						
NIF				SB	Sg	12 24 24.3	-0.2
RUF	**Ruokolahti**	**1.57**	**127**	PN	Pn	12 24 14.7	-0.5
	baz=305						
RUF				MSG		12 24 33.0	
	comp=Z,0.7nm,0.2s						
VAF	**Ylistaro**	**1.82**	**292**	*e*P	Pn	12 24 15.4	-3.1
VAF	**Ylistaro**	**1.82**	**292**	PG	Pn	12 24 18.8	+0.2
VAF				MSG		12 24 40.5	
	comp=Z,0.8nm,0.2s						
VAF				SN	Sb	12 24 43.4	-0.1
PVF	**Pernaja**	**1.88**	**188**	PG	Pn	12 24 19.9	+0.5
	baz=9.0						
PVF				MSG		12 24 41.8	
	comp=Z,2.7nm,0.2s						
VJF	**Virojoki**	**1.95**	**162**	MSG		12 24 44.1	
	comp=Z,1.1nm,0.2s						
VJF				SG	Sg	12 24 48.0	-0.7
KPF	**Kankaanpaa**	**2.10**	**256**	PG	Pb	12 24 24.1	-0.8
KPF				MSG		12 24 48.3	
	comp=Z,0.8nm,0.2s						
KPF				SG	Sb	12 24 50.9	-0.5
OUF	**Merijarvi**	**2.11**	**340**	PG	Pb	12 24 24.0	-1.2
OUF				MSG		12 24 48.6	
	comp=Z,0.7nm,0.2s						
OBF0	**Syolatti, Pyha**	**2.31**	**337**	SN	Sn	12 24 51.8	-2.7
OBF0				MSG		12 24 54.5	
	comp=Z,1.5nm,0.2s						
JOF	**Joensuu**	**2.34**	**75**	*e*P	Pb	12 24 27.6	-1.5
JOF	**Joensuu**	**2.34**	**75**	SG	Sb	12 24 58.2	-0.4
MEF	**Metsahovi**	**2.39**	**204**	MSG		12 24 56.6	
	comp=Z,1.8nm,0.2s						
MEF				SG	Sb	12 24 59.2	-0.6
OBF4	**Vikkela, Lumij**	**2.49**	**347**	PG	Pb	12 24 31.8	+0.2
OBF4				MSG		12 24 59.4	
	comp=Z,1.5nm,0.2s						
RAF	**Rauma**	**2.59**	**240**	MSG		12 25 02.5	
	comp=Z,1.1nm,0.2s						
RAF				SG	Sb	12 25 05.3	-0.3
OUL	**Oulu**	**2.71**	**356**	SB	Sb	12 25 08.0	-1.0
ARBE	**Arbavere**	**2.98**	**184**	PG	Pb	12 24 39.9	-0.1
ARBE				SG	Sb	12 25 16.6	-0.2
BURU	**Burvik**	**3.13**	**317**	PN	Pn	12 24 34.5	-2.1
KU6	**Riekki**	**3.95**	**21**	PN	Pn	12 24 47.5	-0.4

NEIC ***17*** *12:25:48.6±1.4,6.42S±0.08°×154.66E±0.10,h10km±1km, mb4.6/29,Error ellipse: s-maj=16.4km s-min=14.2km az=88.0*

IDC ***17*** *12:25:55.2±2.6,6.38S×154.53E,h61km±21km,mb4.0/18, mbtmp4.3/21,ML3.4/3,MS3.4/6,Error ellipse: s-maj=19.8km s-min=10.9km az=86.0*

ISC 17 12:25:53.2±0.5,6.41S±0.06°×154.60E±0.08,h48km,n67, σ0.98s/69,mb4.4/28,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RABL	**Rabaul**	**3.28**	**312**	Pn	**Pn**	**12 26 40.1**	**-2.0**
KRVT	**Keravat (AS076**	**3.31**	**309**	P	**Pn**	**12 26 44.0**	**+1.5**
KRVT				S	**Sn**	**12 27 21.6**	**+1.1**
	539nm,0.4s,baz=301,slow=22,SNR=8.0						
KRVT				LR	LR	12 28 14.4	
	comp=Z,382nm,18.7s,baz=73,slow=43						
HNR	**Honiara**	**6.09**	**120**	LR	LR	12 29 52.3	
	comp=Z,500nm,19.6s,baz=8.5,slow=38						
PMG	**Port Moresby**	**7.95**	**248**	P	**Pn**	**12 27 47.6**	**+1.4**
	3.3nm,0.3s,baz=73,slow=6.3,SNR=11						
PMG				S	**Sn**	**12 29 16.1**	**+1.2**
	39nm,0.7s,baz=332,slow=16,SNR=5.6						
PMG				LR	LR	12 31 13.4	
	comp=Z,264nm,18.8s,baz=354,slow=40						
	42nm,0.8s						
PMG				AML	AML		
PMG	**Port Moresby**	**7.95**	**248**	Pn	**Pn**	**12 27 44.5**	**-1.7**
MANU	**Manus Island**	**8.42**	**301**	Pn	**Pn**	**12 27 52.9**	**+0.3**
PATS	**Pohnpei**	**13.67**	**16**	Pn	**Pn**	**12 29 03.9**	**-0.6**
CTA	**Charters Tower**	**15.83**	**210**	P	**P**	**12 29 36.0**	**0.0**
	0.3nm,0.3s,baz=22,slow=10,SNR=7.1						
CTA				LR	LR	12 34 17.3	
	comp=Z,74nm,21.2s,baz=60,slow=32						
	4.4nm,0.7s						
CTA				AML	AML		
CTAO	**Charters Tower**	**15.83**	**210**	P	**P**	**12 29 35.6**	**-0.4**
DZM	**Mont Dzumac**	**19.32**	**145**	P	**Pn**	**12 30 17.0**	**+1.0**
	0.7nm,0.3s,baz=206,slow=9.7,SNR=8.4						
	5.2nm,0.6s						
DZM				AML	AML		
WB0	**Warramunga Arr**	**23.70**	**234**		**P**	**12 30 59.9**	**-1.0**
WB0				IAmb	IAmb	12 31 02.2	
	comp=Z,11nm,0.9s						
WR8	**Warramunga Arr**	**23.72**	**234**	P	**P**	**12 31 00.8**	**-0.2**
WR8				IAmb	IAmb	12 31 17.2	
	comp=Z,13nm,0.8s						
WRA	**Warramunga Arr**	**23.84**	**234**	P	**P**	**12 31 02.5**	**+0.4**
	comp=Z,12nm,0.9s,baz=60,slow=10,SNR=31						
WRA				PcP	**PcP**	**12 34 46.0**	**+1.4**
	comp=Z,1.6nm,0.4s,baz=58,slow=2.5,SNR=16						
	comp=Z,12nm,0.9s						
WRA	**Warramunga Arr**	**23.84**	**234**		**P**	**12 31 00.9**	**-1.3**
MTN	**Manton Dam**	**23.99**	**253**	P	**P**	**12 31 03.7**	**+0.1**
MTN				IAmb	IAmb	12 31 40.6	
	comp=Z,18nm,1.4s						
ARMA	**Armidale**	**24.05**	**186**	P	**P**	**12 31 02.5**	**-1.6**
ARMA				IAmb	IAmb	12 31 30.0	
	comp=Z,13nm,1.2s						
INKA	**Innaminka**	**24.96**	**210**		**P**	**12 31 11.6**	**-0.7**
INKA				IAmb	IAmb	12 31 32.0	
	comp=Z,7.1nm,0.9s						
MSVF	**Nonsavu**	**25.50**	**118**	LR	LR	12 40 37.4	
	comp=Z,77nm,19.0s,baz=301,slow=34						
AS31	**Alice Springs**	**26.27**	**227**	P	**P**	**12 31 23.9**	**-0.4**
ASAR	**Alice Springs**	**26.28**	**227**	P	**P**	**12 31 24.0**	**-0.3**
	comp=Z,1.9nm,0.6s,baz=58,slow=9.0,SNR=49						
ASAR				PcP	**PcP**	**12 34 51.3**	**+1.4**
	comp=Z,1.4nm,0.5s,baz=59,slow=2.7,SNR=13						
	comp=Z,1.9nm,0.6s						
ASAR	**Alice Springs**	**26.28**	**227**	P	**P**	**12 31 23.1**	**-1.2**
ASAR				PcP	**PcP**	**12 34 51.0**	**+1.0**
STKA	**Stephens Creek**	**28.10**	**204**	P	**P**	**12 31 39.9**	**-0.7**
	comp=Z,2.1nm,0.6s,baz=10,slow=8.3,SNR=5.7						
STKA				PcP	**PcP**	**12 34 54.3**	**+0.2**
	comp=Z,1.1nm,0.5s,baz=275,slow=3.9,SNR=4.0						
	comp=Z,2.1nm,0.6s						
STKA	**Stephens Creek**	**28.10**	**204**	P	**P**	**12 31 40.2**	**-0.3**
STKA				IAmb	IAmb	12 32 01.5	
	comp=Z,14nm,0.8s						
FITZ	**Fitzroy Crossi**	**30.54**	**245**	P	**P**	**12 32 01.7**	**-0.6**
	comp=Z,4.6nm,0.9s,baz=68,slow=7.3,SNR=6.6						
	comp=Z,4.6nm,0.9s						
FITZ	**Fitzroy Crossi**	**30.54**	**245**	P	**P**	**12 32 02.1**	**-0.2**
BBOO	**Buckleboo**	**31.43**	**211**	P	**P**	**12 32 09.2**	**-0.9**
BBOO				IAmb	IAmb	12 32 29.2	
	comp=Z,13nm,1.3s						
AFI	**Afiamalu**	**33.89**	**105**	LR	LR	12 44 33.5	
	comp=Z,82nm,18.3s,baz=276,slow=33						
TOLI2	**Tolitoli**	**34.58**	**281**	P	**P**	**12 32 36.6**	**-1.1**
TOLI2				IAmb	IAmb	12 32 38.4	
	comp=Z,7.0nm,0.9s						
RTZ	**Ruatahuna**	**37.92**	**151**	P	**P**	**12 33 04.2**	**-1.9**
RTZ				IAmb	IAmb	12 33 33.1	
	comp=Z,12nm,1.0s						
YULB	**Yu-li**	**44.00**	**313**	P	**P**	**12 33 56.5**	**+0.4**
YULB				IAmb	IAmb	12 33 59.4	
	comp=Z,14nm,0.7s						
KSRS	**Korea Array**	**50.24**	**332**	P	**P**	**12 34 44.1**	**-0.4**
	comp=Z,1.1nm,0.6s,baz=151,slow=7.9,SNR=5.2						
	comp=Z,1.1nm,0.6s						
KULM	**Kulim**	**55.09**	**281**	P	**P**	**12 35 20.2**	**-0.7**
PEA0B	**Petropavlovsk-**	**59.35**	**2**	P	**P**	**12 35 48.5**	**-1.7**
PETK	**Petropavlovsk-**	**59.35**	**2**	P	**P**	**12 35 50.6**	**+0.4**
	comp=Z,3.0nm,0.8s,baz=157,slow=6.3,SNR=9.5						
	comp=Z,3.0nm,0.8s						
PETK	**Petropavlovsk-**	**59.35**	**2**	P	**P**	**12 35 49.2**	**-1.0**
CMAR	**Chiang Mai Arr**	**60.18**	**295**	P	**P**	**12 35 58.2**	**+1.6**
	comp=Z,1.5nm,0.6s,baz=125,slow=5.3,SNR=11						
	comp=Z,1.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**60.18**	**295**	P	**P**	**12 35 56.4**	**-0.3**
UNV	**Unalaska Valle**	**68.34**	**24**	P	**P**	**12 36 49.9**	**+0.5**
SONM	**Songino Array**	**68.64**	**327**	P	**P**	**12 36 51.8**	**+0.3**
	comp=Z,0.9nm,0.6s,baz=129,slow=5.1,SNR=4.6						
	comp=Z,0.9nm,0.6s						
SONM	**Songino Array**	**68.64**	**327**	P	**P**	**12 36 50.8**	**-0.7**
VNDA	**Vanda**	**71.17**	**178**	P	**P**	**12 37 07.3**	**+0.8**
	comp=Z,1.4nm,0.7s,baz=333,slow=6.6,SNR=16						
	comp=Z,1.4nm,0.7s						
VNDA	**Vanda**	**71.17**	**178**	P	**P**	**12 37 07.9**	**+1.4**
VNDA				IAmb	IAmb	12 37 08.6	
	comp=Z,2.3nm,0.8s						
S12K	**Black Hills**	**71.47**	**24**	P	**P**	**12 37 09.7**	**+1.1**
SBA	**Scott Base**	**71.69**	**177**	P	**P**	**12 37 10.5**	**+0.9**
O15K	**Ungalikthiuk R**	**74.74**	**22**	P	**P**	**12 37 27.1**	**-0.7**
K15K	**Wolf Creek Mou**	**76.30**	**19**	P	**P**	**12 37 37.1**	**+0.4**
H17K	**Granite Mounta**	**78.67**	**18**	P	**P**	**12 37 51.3**	**+1.4**
H17K				IAmb	IAmb	12 38 28.7	
	comp=Z,14nm,1.3s						
D19K	**Kuna River**	**81.63**	**16**	P	**P**	**12 38 06.7**	**+0.8**
MK31	**Makanchi Array**	**82.71**	**319**	P	**P**	**12 38 11.8**	**-0.1**
MKAR	**Makanchi Array**	**82.71**	**319**	P	**P**	**12 38 12.4**	**+0.5**
	comp=Z,0.7nm,0.4s,baz=92,slow=8.0,SNR=22						
	comp=Z,0.7nm,0.4s						
MKAR	**Makanchi Array**	**82.71**	**319**	P	**P**	**12 38 12.1**	**+0.1**
ILAR	**Eielson Array**	**82.97**	**22**	P	**P**	**12 38 12.3**	**-0.6**
	comp=Z,1.1nm,0.8s,baz=246,slow=4.9,SNR=21						
	comp=Z,1.1nm,0.8s						
ILAR	**Eielson Array**	**82.97**	**22**	P	**P**	**12 38 11.4**	**-1.4**
ZALV	**Zalesovo Beam**	**83.48**	**326**	P	**P**	**12 38 15.1**	**-0.6**
	comp=Z,1.1nm,0.5s,baz=108,slow=5.3,SNR=

SLOZ				*eS*		**Sb**	**12 32 56.3**	**+0.8**
PANCS	**Alcalda de**	**1.14**	**54**	P		**Pn**	**12 32 39.1**	**-0.6**
PANCS				S		**Sb**	**12 32 56.4**	**+0.7**
UEES	**Universidad Ev**	**1.16**	**48**	P		**Pn**	**12 32 39.8**	**-0.2**
UEES	**Universidad Ev**	**1.16**	**48**	*i* P		**Pn**	**12 32 39.5**	**-0.5**
LOMA	**Loma Larga**	**1.17**	**53**	P		**Pb**	**12 32 40.0**	**-1.7**
LOMA				S		**Sb**	**12 32 58.1**	**+1.5**
LOMA	**Loma Larga**	**1.17**	**53**	*i* P		**Pb**	**12 32 40.1**	**-1.6**
LOMA				*eS*		**Sb**	**12 32 57.2**	**+0.7**
UNIC	**Universidad Ca**	**1.18**	**28**	P		**Pn**	**12 32 40.0**	**-0.2**
UNIC				S		**Sb**	**12 32 58.5**	**+1.6**
RBDL	**Robledal**	**1.25**	**20**	*i* P		**Pb**	**12 32 41.7**	**-1.3**
RBDL				*eS*		**Sb**	**12 33 00.2**	**+1.3**
LFU	**La Fuente**	**1.28**	**51**	*i* P		**Pb**	**12 32 41.8**	**-1.6**
COEG	**Centro de Oper**	**1.39**	**61**	P		**Pn**	**12 32 42.9**	**-0.3**
COEG	**Centro de Oper**	**1.39**	**61**	*i* P		**Pn**	**12 32 43.1**	**0.0**
COEG				*eS*		**Sb**	**12 33 03.1**	**+0.2**
PAVA	**Las Pavas**	**1.40**	**56**	P		**Pb**	**12 32 43.6**	**-1.9**
PAVA				S		**Sb**	**12 33 06.2**	**+3.3**
TECO	**Alcaldia de Te**	**1.44**	**65**	P		**Pn**	**12 32 43.1**	**-0.7**
JUAM	**Asuncion Mita**	**1.45**	**16**	*i* S		**Sn**	**12 33 02.4**	**+0.5**
LLGN	**La Laguna**	**1.68**	**43**	P		**Pn**	**12 32 47.3**	**+0.2**
TECA	**Tecapa**	**1.68**	**70**	*i* P		**Pn**	**12 32 46.0**	**-1.1**
ESQI	**Esquipulas**	**1.79**	**25**	P		**Pn**	**12 32 49.5**	**+0.9**
PACA	**Pacayal**	**1.84**	**73**	P		**Pn**	**12 32 49.1**	**-0.2**
PACA				S		**Sb**	**12 33 16.6**	**+1.0**
PACA	**Pacayal**	**1.84**	**73**	*i* P		**Pn**	**12 32 49.7**	**+0.4**
JUCU	**Jucuarįn**	**1.86**	**80**	*i* P		**Pn**	**12 32 49.5**	**-0.1**
RANC	**El Ranchito**	**1.86**	**74**	P		**Pn**	**12 32 49.7**	**+0.1**
APG	**El Apazote**	**2.08**	**351**	*i* P		**Pn**	**12 32 53.1**	**+0.3**
LCND	**La Caada**	**2.21**	**80**	P		**Pn**	**12 32 54.4**	**0.0**
LCND	**La Caada**	**2.21**	**80**	*i* P		**Pn**	**12 32 54.5**	**+0.1**
CNCH	**Conchagua**	**2.26**	**81**	*i* P		**Pn**	**12 32 54.6**	**-0.6**
CNCH				S		**Sn**	**12 33 23.8**	**+1.8**
CNCH	**Conchagua**	**2.26**	**81**	*i* P		**Pn**	**12 32 54.7**	**-0.5**
CSGN	**Cosiguina Volc**	**2.51**	**89**	P		**Pn**	**12 32 57.6**	**-0.9**
PACN	**Al O del Volca**	**3.29**	**97**	P		**Pn**	**12 33 08.5**	**-0.7**
PACN				S		**Sn**	**12 33 46.8**	**-0.3**
MOM3	**MOM3**	**3.55**	**96**	P		**Pn**	**12 33 11.3**	**-1.5**
MOM3				S		**Sn**	**12 33 53.4**	**-0.2**
BOAB	**BOACO BROADBAN**	**3.38**	**96**	P		**Pn**	**12 33 22.5**	**-1.7**
LAPC	**Finca la Perla**	**5.08**	**115**	*eP*		**Pn**	**12 33 33.8**	**0.0**
CUI	**Cuipilapa**	**5.36**	**114**	*eP*		**Pn**	**12 33 38.0**	**+0.3**
JTS	**Las Juntas de**	**5.71**	**117**	*eP*		**Pn**	**12 33 42.9**	**+0.3**
CASO	**Castillo**	**5.84**	**115**	*eP*		**Pn**	**12 33 44.7**	**+0.4**
VARE2	**V. Arenal**	**5.84**	**114**	*eP*		**Pn**	**12 33 44.9**	**+0.5**
CEDE	**Laguna Cedeo**	**5.84**	**114**	*eP*		**Pn**	**12 33 44.6**	**+0.2**
LCR2	**La Lucha 2**	**6.79**	**117**	*eP*		**Pn**	**12 33 58.1**	**+0.6**
PIEC	**Cerro El Cedra**	**6.89**	**118**	*eP*		**Pn**	**12 34 00.6**	**+1.6**
SAJE	**San Jernim**	**7.41**	**118**	*eP*		**Pn**	**12 34 06.9**	**+0.9**

NNC 17 12:39:06.7±2.6, 38°.91N×70°.10E, h0km, mb3.8, mpv3.3, 4C-3D, Error ellipse: s-maj=19.5km s-min=14.7km az=3.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	**Karatay Array**	**4.20**	**4**	Pn	Pn	12 40 12.7	+0.6
	1.8nm,0.2s,baz=167,slow=11,SNR=44						
KK31				⇑Pg	Pb	12 40 22.8	+1.3
	3.5nm,0.3s,baz=169,slow=10,SNR=7.1						
KK31				⇑Sn	Sn	12 41 03.5	+1.7
	1.7nm,0.3s						
KK31				Lg	Lg	12 41 18.2	
	74nm,0.8s,baz=174,slow=32,SNR=30						
AAK	**Ala-Archa**	**5.00**	**40**	⇑Pn	Pn	12 40 23.0	-0.1
	1.2nm,0.4s						
AAK				⇓Sn	Sn	12 41 23.0	+1.3
	2.7nm,0.7s						
AAK				⇓Lg	Lg	12 41 42.4	
	4.6nm,0.6s						
AB31	**Akbulak array**	**12.64**	**328**	⇓Pn	Pn	12 42 06.0	-1.7
	0.9nm,0.5s,baz=147,slow=11,SNR=24						
AB31				⇑Sn	Sn	12 44 30.0	+0.9
	0.6nm,0.5s,baz=153,slow=22,SNR=7.8						

IDC 17 12:50:25.2±1.4, 5°.95S×154°.08E, h0km, mb3.7/5, mbtmp3.8/7, ML1.4/1, MS4.2/1, Error ellipse: s-maj=23.5km s-min=19.7km az=72.0

ISC 17 12:50:32.3±1.3, 5°.89S±0°.09×153°.9E±0°.1, h48km, n8, σ1§47/10, mb3.6/5, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**2.45**	**310**	Pn	**Pn**	**12 51 08.0**	**-1.8**
	35nm,0.3s,baz=135,slow=14,SNR=6.8						
KRVT				Sn	**Sn**	**12 51 40.2**	**+1.6**
	30nm,0.3s,baz=345,slow=23,SNR=7.1						
KRVT				LR	LR	12 52 06.6	
	comp=Z,86nm,20.6s,baz=42,slow=39						
PMG	**Port Moresby**	**7.54**	**242**	Pn	**Pn**	**12 52 18.6**	**-1.2**
	0.3nm,0.3s,baz=75,slow=16,SNR=3.0						
PMG				Sn	**Sn**	**12 53 45.5**	**+1.5**
	0.7nm,0.3s,baz=192,slow=19,SNR=1.6						
	9.9nm,0.7s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**23.60**	**232**	P	**P**	**12 55 37.9**	**-1.2**
	0.7nm,0.7s,baz=59,slow=9.0,SNR=6.9						
WRA				PcP	**PcP**	**12 59 24.6**	**+1.5**
	0.3nm,1.0s,baz=58,slow=2.7,SNR=1.4						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**26.13**	**225**	P	**P**	**12 56 01.1**	**-1.0**
	0.9nm,0.7s,baz=55,slow=9.4,SNR=11						
	0.9nm,0.7s						
MKAR	**Makanchi Array**	**81.87**	**319**	P	**P**	**13 02 47.6**	**+0.9**
	0.6nm,0.8s,baz=108,slow=5.6,SNR=4.4						
	0.6nm,0.8s						
ZALV	**Zalesovo Beam**	**82.67**	**326**	P	**P**	**13 02 50.7**	**+0.1**
	0.3nm,0.5s,baz=123,slow=5.3,SNR=1.8						
	0.3nm,0.5s						
QSPA	**South Pole Qui**	**84.07**	**180**	P	**P**	**13 02 58.2**	**+0.3**
	1.6nm,0.9s,baz=3.1,slow=7.1						
	1.6nm,0.9s						
ELK	**Elko**	**94.45**	**50**	LR	LR	13 37 19.6	
	comp=Z,125nm,21.7s,baz=206,slow=30						

IDC 17 13:05:59.5±0.7, 28°.05S×176°.58W, h0km, mb4.2/15, mbtmp4.1/17, ML4.2/2, MS3.9/18, Error ellipse: s-maj=23.0km s-min=20.4km az=156.0

NEIC 17 13:06:01.4±1.3, 28°.08S±0°.09×176°.6W±0°.1, h10km±1km, mb4.8/23, Error ellipse: s-maj=20.4km s-min=13.7km az=113.0

ISC 17 13:06:04.8±0.6, 28°.08S±0°.07×176°.6W±0°.1, h37km, n67, σ1§69/51, mb4.4/22, MS4.1/16, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.63**	**224**	Pn	**Pn**	**13 06 31.6**	**+0.7**
	276nm,0.3s,baz=105,slow=23,SNR=8.3						
RAO				Sn	**Sn**	**13 06 57.5**	**+6.9**
	233nm,0.3s,baz=237,slow=23,SNR=8.8						
RAO	**Raoul Island**	**1.63**	**224**		**Pn**	**13 06 29.9**	**-1.0**
MSVF	**Nonsavu**	**11.40**	**333**	Pn	**Pn**	**13 08 42.3**	**-3.0**
	0.2nm,0.3s,baz=100,slow=22,SNR=2.6						
	3.1nm,1.0s						
MSVF				AML	AML		
URZ	**Urewera**	**11.42**	**206**	Pn	Pn	13 08 38.0	-7.3
	0.2nm,0.3s,baz=341,slow=23,SNR=1.3						
URZ				Sn	**Sn**	**13 10 44.4**	**-7.2**
	1.1nm,0.3s,baz=167,slow=22,SNR=10						
RTZ	**Ruatahuna**	**11.78**	**205**	Pn	Pn	13 08 43.6	-6.8
MRZ	**Mangatainoka R**	**14.09**	**205**	Pn	Pn	13 09 15.7	-6.2
DZM	**Mont Dzumac**	**16.46**	**288**	Pn	**Pn**	**13 09 51.8**	**-1.3**
	0.1nm,0.3s,baz=111,slow=11,SNR=2.0						
DZM				LR	LR	13 14 55.1	
	comp=Z,353nm,20.8s,baz=124,slow=32						
	5.0nm,1.0s						
DZM				AML	AML		
RPZ	**Rata Peaks**	**18.48**	**209**	LR	LR	13 17 43.9	
	comp=Z,53nm,20.4s,baz=272,slow=38						
ODZ	**Otahua Downs**	**19.73**	**208**	P	**P**	**13 10 29.5**	**-1.7**
ODZ				IAmb	IAmb	13 10 44.7	
	comp=Z,36nm,1.1s						
HNR	**Honiara**	**28.82**	**306**	LR	LR	13 22 56.9	
	comp=Z,192nm,18.1s,baz=240,slow=35						
EIDS	**Eidsvold**	**28.92**	**268**	P	**P**	**13 12 00.9**	**+0.3**
EIDS				IAmb	IAmb	13 12 06.2	
	comp=Z,21nm,1.6s						
CTA	**Charters Tower**	**34.70**	**275**	P	**P**	**13 12 52.0**	**+0.7**
	comp=Z,2.6nm,0.5s,baz=120,slow=10,SNR=2.7						
CTA				LR	LR	13 26 40.1	
	comp=Z,473nm,18.3s,baz=64,slow=36						
	comp=Z,2.6nm,0.5s						
STKA	**Stephens Creek**	**36.23**	**254**	P	**P**	**13 13 04.7**	**+0.4**
	comp=Z,3.5nm,0.7s,baz=75,slow=8.6,SNR=7.0						
STKA				LR	LR	13 27 46.3	
	comp=Z,282nm,18.4s,baz=47,slow=36						
	comp=Z,3.5nm,0.7s						
STKA	**Stephens Creek**	**36.23**	**254**	IAmb	IAmb	13 13 07.3	
	comp=Z,30nm,1.1s						
BBOO	**Buckleboo**	**40.80**	**251**	P	**P**	**13 13 42.7**	**0.0**
BBOO				IAmb	IAmb	13 14 10.7	
	comp=Z,18nm,1.2s						
AS31	**Alice Springs**	**44.49**	**264**	P	**P**	**13 14 12.5**	**-0.3**
ASAR	**Alice Springs**	**44.49**	**264**	P	**P**	**13 14 13.3**	**+0.5**
	comp=Z,3.4nm,0.8s,baz=92,slow=7.1,SNR=42						
ASAR				LR	LR	13 31 13.6	
	comp=Z,132nm,20.1s,baz=97,slow=34						
	comp=Z,3.4nm,0.8s						
ASAR	**Alice Springs**	**44.49**	**264**	P	**P**	**13 14 12.5**	**-0.3**
WR8	**Warramunga Arr**	**45.12**	**269**	P	**P**	**13 14 18.0**	**0.0**
WR8				IAmb	IAmb	13 14 29.5	
	comp=Z,24nm,1.8s						
WRAB	**Tennant Creek**	**45.27**	**269**	P	**P**	**13 14 18.9**	**-0.1**
WRAB				IAmb	IAmb	13 14 21.8	
	comp=Z,6.8nm,1.1s						
WRA	**Warramunga Arr**	**45.27**	**269**	P	**P**	**13 14 19.5**	**+0.4**
	comp=Z,3.3nm,0.8s,baz=110,slow=6.4,SNR=24						
	comp=Z,3.3nm,0.8s						
WRA	**Warramunga Arr**	**45.27**	**269**	P	**P**	**13 14 19.1**	**0.0**
WB0	**Warramunga Arr**	**45.28**	**269**	P	**P**	**13 14 19.2**	**0.0**
WB0				IAmb	IAmb	13 14 21.9	
	comp=Z,10nm,1.1s						
JAY	**Jayapura**	**47.97**	**294**	LR	LR	13 34 33.0	
	comp=Z,15nm,18.4s,baz=42,slow=36						
VNDA	**Vanda**	**50.52**	**186**	P	**P**	**13 14 59.8**	**+0.9**
	comp=Z,0.3nm,0.8s,baz=0.3,slow=5.6,SNR=4.0						
	comp=Z,0.3nm,0.8s						
FITZ	**Fitzroy Crossi**	**53.61**	**268**	P	**P**	**13 15 21.7**	**-1.0**
	comp=Z,2.5nm,0.8s,baz=165,slow=12,SNR=3.6						
	comp=Z,2.5nm,0.8s						
FITZ	**Fitzroy Crossi**	**53.61**	**268**	P	**P**	**13 15 22.7**	**0.0**
GUMO	**Guam**	**55.73**	**313**	LR	LR	13 38 13.3	
	comp=Z,45nm,19.1s,baz=146,slow=35						
SIJI	**Sorong**	**56.66**	**289**	P	**P**	**13 15 44.2**	**-0.5**
	comp=Z,13nm,0.6s,baz=109,slow=7.5,SNR=9.4						
SIJI				LR	LR	13 39 53.2	
	comp=Z,62nm,18.6s,baz=87,slow=36						
	comp=Z,13nm,0.6s						
BATI	**Baumata**	**58.59**	**275**	LR	LR	13 42 28.3	
	comp=Z,397nm,18.3s,baz=142,slow=37						
QSPA	**South Pole Qui**	**62.02**	**180**	P	**P**	**13 16 21.5**	**+0.3**
	comp=Z,2.2nm,1.0s,baz=60,slow=1.7,SNR=5.3						
	comp=Z,2.2nm,1.0s						
QSPA	**South Pole Qui**	**62.02**	**180**	P	**P**	**13 16 21.3**	**+0.1**
QSPA				IAmb	IAmb	13 16 38.6	
	comp=Z,11nm,1.3s						
KAPI	**Kappang**	**64.42**	**278**	LR	LR	13 46 33.3	
	comp=Z,58nm,18.7s,baz=130,slow=38						
LEM	**Lembang**	**74.27**	**271**	LR	LR	13 51 32.6	
	comp=Z,60nm,18.7s,baz=151,slow=37						
MJAR	**Matsushiro Arr**	**77.05**	**324**	P	**P**	**13 17 54.2**	**+0.2**
	comp=Z,3.5nm,0.9s,baz=159,slow=4.9,SNR=6.8						
	comp=Z,3.5nm,0.9s						
MJAR	**Matsushiro Arr**	**77.05**	**324**	IAmb	IAmb	13 17 56.2	
	comp=Z,3.6nm,0.9s						
TROLL	**Troll, Antarti**	**80.18**	**180**	P	**P**	**13 18 10.6**	**-0.4**
	comp=Z,150nm,1.0s						
SHEM	**Shemya Is, Ala**	**80.87**	**354**	P	**P**	**13 18 14.3**	**-0.2**
SMY	**Shemya**	**80.87**	**354**	P	**P**	**13 18 14.3**	**-0.2**
LPIG	**La Paz**	**82.29**	**58**	LR	LR	13 52 52.5	
	comp=Z,122nm,18.0s,baz=216,slow=34						
KSRS	**Korea Array**	**83.38**	**319**	P	**P**	**13 18 30.1**	**+2.0**
	comp=Z,2.8nm,0.9s,baz=140,slow=6.0,SNR=4.1						
	comp=Z,2.8nm,0.9s						
PFO	**Pinyon Flats O**	**83.75**	**47**	LR	LR	13 51 02.5	
	comp=Z,131nm,18.3s,baz=228,slow=32						
GLA	**Glamis**	**84.46**	**48**	P	**P**	**13 18 34.1**	**+0.3**
GLA				IAmb	IAmb	13 21 27.2	
	comp=Z,6.3nm,1.0s						
SPIA	**Saint Paul Isl**	**85.09**	**3**	P	**P**	**13 18 37.3**	**+1.0**
NVAR	**Mina Array Bea**	**85.72**	**42**	P	**P**	**13 18 40.6**	**+0.4**
	comp=Z,0.4nm,0.6s,baz=261,slow=5.5,SNR=2.1						
NVAR				LR	LR	13 52 51.5	
	comp=Z,199nm,18.1s,baz=199,slow=33						
	comp=Z,0.4nm,0.6s						
NVAR	**Mina Array Bea**	**85.72**	**42**	P	**P**	**13 18 40.2**	**0.0**
USRK	**Ussuriysk Ar.**	**85.91**	**326**	P	**P**	**13 18 42.0**	**+1.3**
	comp=Z,3.1nm,0.9s,baz=145,slow=5.3,SNR=4.1						
	comp=Z,3.1nm,0.9s						
PRN	**Pahroc Range**	**87.04**	**45**	IAmb	IAmb	13 19 00.0	
	comp=Z,8nm,1.2s						
ILSW	**Iliana Southw**	**89.85**	**12**	P	**P**	**13 18 59.3**	**0.0**
N18K	**Kilae Creek**	**90.05**	**10**	P	**P**	**13 19 01.1**	**+1.0**
TXAR	**Lajitas Array**	**90.12**	**57**	P	**P**	**13 19 01.2**	**-0.2**
	comp=Z,0.3nm,0.8s,baz=242,slow=4.9,SNR=3.1						
	comp=Z,0.3nm,0.8s						
N19K	**Bonanza Creek**	**90.40**	**11**	P	**P**	**13 19 02.7**	**+0.8**
ANMO	**Albuquerque**	**91.19**	**51**	LR	LR	13 52 40.1	
	comp=Z,74nm,20.0s,baz=251,slow=31						
NEW	**Newport**	**92.80**	**35**	LR	LR	13 57 41.0	
	comp=Z,148nm,18.0s,baz=230,slow=33						
PDAR	**Pinedale Array**	**93.63**	**43**	LR	LR	13 58 41.2	
	comp=Z,125nm,18.1s,baz=246,slow=34						
CMAR	**Chiang Mai Arr**	**93.78**	**289**	P	**P**	**13 19 20.8**	**+2.3**
	comp=Z,0.4nm,0.4s,baz=136,slow=2.9,SNR=5.8						
	comp=Z,0.4nm,0.4s						
CMAR	**Chiang Mai Arr**	**93.78**	**289**	P	**P**	**13 19 18.7**	**+0.3**
ILAR	**Eielson Array**	**95.41**	**12**	P	**P**	**13 19 24.9**	**+0.2**
	comp=Z,0.2nm,0.6s,baz=231,slow=5.2,SNR=4.5						
	comp=Z,0.2nm,0.6s						
MKAR	**Makanchi Array**	**117.19**	**311**	PKP	**PKPdf**	**13 24 45.2**	**-0.6**
	comp=Z,0.8nm,0.8s,baz=124,slow=0.4,SNR=5.1						
KURK	**Kurchatov**	**120.30**	**315**		**PKPdf**	**13 24 51.3**	**-0.3**
KURBB	**Kurchatov Arra**	**120.34**	**314**	PKP	**PKPdf**	**13 24 51.3**	**-0.4**
	comp=Z,2.4nm,0.2s,baz=100,slow=2.2,SNR=4.6						
BVAR	**Borovoye Array**	**125.56**	**317**	PKP	**PKPdf**	**13 25 01.2**	**-0.5**
	comp=Z,1.6nm,0.8s,baz=11,slow=3.0,SNR=5.3						
NB2	**NORSAR Subarra**	**146.62**	**353**	PKP	**PKPbc**	**13 25 42.2**	**+0.3**
	comp=Z,1.1nm,0.6s,baz=24,slow=3.5						
NOA	**NORSAR Array B**	**146.62**	**353**	PKPbc	**PKPbc**	**13 25 41.9**	**0.0**
	comp=Z,3.2nm,0.9s,baz=17,slow=4.6,SNR=4.2						
HFS	**Hagfors**	**147.19**	**350**	PKPbc	**PKPbc**	**13 25 42.7**	**-0.8**
	comp=Z,4.3nm,0.7s,baz=252,slow=2.9,SNR=4.2						
AKASG	**Malin Array Be**	**150.12**	**326**	PKPbc	**PKPbc**	**13 25 51.7**	**+0.4**
	comp=Z,3.8nm,0.7s,baz=46,slow=3.0,SNR=13						
AKBB	**Malin Array Si**	**150.12**	**326**	P	**PKiKP**	**13 25 53.5**	**+1.4**

NEIC 17 13:09:51.6±2.4, 22°.28N±0°.04×107°.80W±0°.09, h10km±2km, mb4.1/53, Md4.2/21(MEX), Error ellipse: s-maj=16.2km s-min=3.0km az=244.0

IDC 17 13:09:54.0±3.9, 22°.98N×108°.22W, h0km, mb3.3/1, mbtmp3.3/6, ML3.8/5, MS3.3/6, Error ellipse: s-maj=48.7km s-min=18.9km az=163.0

MEX 17 13:09:53.1±0.6, 21°.93N×108°.14W, h10km, MD4.2, Presumed earthquake

ISC 17 13:09:49.3±1.1, 22°.21N±0°.09×108°.0W±0°.1, h10km, n61, σ1§72/54, mb4.1/3, MS3.2/3, Off coast of central Mexico

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	**La Paz**	**2.84**	**312**	Pn	**Pn**	**13 10 31.9**	**-2.8**
	19nm,0.3s,baz=32,slow=1.0,SNR=3.5						
LPIG				Sn	Sn	13 10 56.7	-12
	baz=166,slow=5.6						
	30nm,0.3s						
LPIG				AML	AML		
YELA	**Yelapa**	**2.92**	**126**		**Pn**	**13 10 34.4**	**-1.5**
YELA					**Sn**	**13 11 07.4**	**-3.7**
YELA	**Yelapa**	**2.92**	**126**	*eP*	**Pn**	**13 10 34.4**	**-1.5**
YELA				*eS*	**Sn**	**13 11 07.4**	**-3.7**
ESTA	**Talpa de Allen**	**3.44**	**121**		**Pn**	**13 10 44.0**	**+0.9**
ESTA					**Sn**	**13 11 24.2**	**0.0**
ESTA	**Talpa de Allen**	**3.44**	**121**	*eP*	**Pn**	**13 10 44.0**	**+0.9**
ESTA				*eS*	**Sn**	**13 11 24.2**	**0.0**
TSIG	**Topolobambo**	**3.51**	**344**		**Pb**	**13 10 50.2**	**-1.3**
TSIG					**Sb**	**13 11 32.8**	**-1.4**
TSIG	**Topolobambo**	**3.51**	**344**	*eP*	**Pb**	**13 10 50.2**	**-1.3**
TSIG				*eS*	**Sb**	**13 11 32.8**	**-1.4**
CJM	**Chamela**	**3.86**	**134**	*eP*	**Pn**	**13 10 48.1**	**-0.6**
CJM				*eS*	**Sn**	**13 11 32.1**	**-2.0**
CIHU	**Emiliano Zapat**	**4.23**	**133**		**Pn**	**13 10 53.8**	**-0.1**
CIHU					**Sn**	**13 11 42.3**	**-1.0**
CIHU	**Emiliano Zapat**	**4.23**	**133**	*eP*	**Pn**	**13 10 53.8**	**-0.1**
CIHU				*eS*	**Sn**	**13 11 42.3**	**-1.0**
CSIG	**Choix**	**4.61**	**356**		**Pn**	**13 11 01.4**	**+2.3**
CSIG	**Choix**	**4.61**	**356**	*eP*	**Pn**	**13 11 01.4**	**+2.3**
CEGR	**Campo Tres**	**4.78**	**125**		**Pn**	**13 11 03.8**	**+2.3**
CEGR					**Sn**	**13 11 58.9**	**+1.8**
CEGR	**Campo Tres**	**4.78**	**125**	*eP*	**Pn**	**13 11 03.8**	**+2.3**
CEGR				*eS*	**Sn**	**13 11 58.9**	**+1.8**
INCO	**Volcan de Coli**	**4.90**	**122**	*eP*	**Pn**	**13 11 04.2**	**+0.9**
INCO				*eS*	**Sn**	**13 12 03.9**	**+3.5**
ZAIG	**Zacatecas**	**5.05**	**83**		**Pn**	**13 11 04.0**	**-1.3**
HPIG		**5.16**	**24**		**Pn**	**13 11 05.9**	**-0.9**
SRIG	**Santa Rosalia**	**6.39**	**324**	Pn	**Pn**	**13 11 25.7**	**+2.2**
TX31	**Lajitas Ar. Si**	**8.10**	**28**		**Pn**	**13 11 45.7**	**-1.3**
TXAR	**Lajitas Array**	**8.10**	**28**	Pn	**Pn**	**13 11 45.8**	**-1.3**
	0.4nm,0.3s,baz=207,slow=13,SNR=55						
TXAR				Lg	Lg	13 13 54.1	
	0.2nm,0.3s,baz=201,slow=28,SNR=3.9						
TXAR				LR	LR	13 14 56.6	
	comp=Z,302nm,20.2s,baz=248,slow=40						
	7.2nm,0.8s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**8.10**	**28**		**Pn**	**13 11 45.6**	**-1.4**
VHRN	**Van Horn**	**8.96**	**17**		**Pn**	**13 11 57.8**	**-1.1**
SAND	**Sanderson**	**9.34**	**33**		**Pn**	**13 12 02.2**	**-1.9**
TPB01	**Permian Basin**	**9.48**	**23**		**Pn**	**13 12 05.7**	**-0.4**
TPB05	**Hovey Rd**	**9.63**	**25**		**Pn**	**13 12 07.5**	**-0.5**
SGCY	**Sterling City**	**11.44**	**31**		**Pn**	**13 12 32.1**	**-0.7**
BRDY	**Brady**	**12.09**	**40**	Pn	**Pn**	**13 12 40.9**	**-0.8**
ANMO	**Albuquerque**	**12.76**	**6**	LR	LR	13 17 13.1	
	comp=Z,138nm,18.2s,baz=186,slow=36						
PFO	**Pinyon Flats O**	**13.60**	**328**	Pn	Pn	13 12 57.3	-5.0
	0.1nm,0.3s,baz=149,slow=13,SNR=4.4						
	1.0nm,0.9s						
PFO				AML	AML		
PFO	**Pinyon Flats O**	**13.60**	**328**		**Pn**	**13 13 03.0**	**+0.7**
WMOK	**Wichita Mounta**	**14.87**	**31**	P	**P**	**13 13 26.0**	**+0.6**
GSC	**Goldstone, Bar**	**15.15**	**331**	IAmb	IAmb	13 13 28.7	
	comp=Z,14nm,1.5s						
SHOC	**Shoshone, Teo**	**15.43**	**334**	IAmb	IAmb	13 13 35.8	
	comp=Z,21nm,1.5s						
SDCO	**Great Sand Dun**	**15.63**	**7**	P	**P**	**13 13 35.1**	**+0.9**
SDCO				IAmb	IAmb	13 13 37.2	
	comp=Z,6.7nm,1.0s						
HMU	**Henry Mountain**	**15.86**	**352**	IAmb	IAmb	13 14 04.1	
	comp=Z,13nm,1.4s						
PV03	**Paradox Valley**	**16.01**	**358**	IAmb	IAmb	13 13 43.1	
	comp=Z,15nm,1.2s						
PV12	**Saucer Basin,**	**16.07**	**358**	P	**P**	**13 13 40.5**	**+1.5**
PV12				IAmb	IAmb	13 13 44.6	
	comp=Z,21nm,1.4s						
PV15	**Paradox Valley**	**16.09**	**359**	IAmb	IAmb	13 13 43.7	
	comp=Z,29nm,1.5s						
W35A	**Tecumseh**	**16.16**	**35**	IAmb	IAmb	13 13 41.0	
	comp=Z,20nm,1.0s						
PV07	**Paradox Valley**	**16.19**	**358**	IAmb	IAmb	13 13 44.4	
	comp=Z,16nm,1.5s						
PV22	**Blue Mesa, Par**	**16.29**	**358**	IAmb	IAmb	13 13 46.1	
	comp=Z,14nm,1.2s						
OK048	**Pawnee Station**	**17.11**	**32**	IAmb	IAmb	13 13 52.6	
	comp=Z,14nm,0.8s						
P18A	**Preston Nutter**	**17.47**	**354**	P	**P**	**13 13 56.7**	**+2.1**
P18A				IAmb	IAmb	13 13 58.6	
	comp=Z,11nm,1.2s						
O20A	**White River Ci**	**17.87**	**359**	P	**P**	**13 14 00.3**	**+1.4**
O20A				IAmb	IAmb	13 14 25.4	
	comp=Z,15nm,1.4s						
NVAR	**Mina Array Bea**	**18.43**	**334**	P	**P**	**13 14 02.1**	**-3.0**
	comp=Z,0.1nm,0.3s,baz=159,slow=12,SNR=6.7						
	comp=Z,0.2nm,0.4s						
NVAR				AML	AML		
U38A	**Gravette**	**18.46**	**37**	IAmb	IAmb	13 14 05.2	
	comp=Z,29nm,1.5s						

KURBB				PcP	**PcP**	**13 22 40.3**	**-0.3**
	comp=Z,0.6nm,0.2s,baz=164,slow=1.8,SNR=4.0						
	comp=Z,0.9nm,0.6s						
KURK	**Kurchatov**	**44.73**	**346**	P	**P**	**13 20 58.0**	**-0.8**
KURK	**Kurchatov**	**44.73**	**346**		**PcP**	**13 22 40.3**	**-0.5**
NWAO	**Narrogin (SRO)**	**46.12**	**152**	P	**P**	**13 21 09.6**	**-0.4**
ZAA0	**Zalesovo Array**	**46.72**	**353**	P	**P**	**13 21 13.6**	**-0.8**
ZAA0				IAmb	IAmb	13 21 15.6	
	comp=Z,6.5nm,1.1s						
ZALV	**Zalesovo Beam**	**46.72**	**353**	P	**P**	**13 21 13.6**	**-0.8**
	comp=Z,2.4nm,0.4s,baz=169,slow=8.5,SNR=18						
	comp=Z,2.4nm,0.4s						
WB0	**Warramunga Arr**	**48.38**	**125**	P	**P**	**13 21 27.0**	**-0.9**
WB0				IAmb	IAmb	13 21 51.1	
	comp=Z,7.0nm,0.7s						
WRA	**Warramunga Arr**	**48.43**	**125**	P	**P**	**13 21 27.5**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=306,slow=8.3,SNR=20						
	comp=Z,0.3nm,0.3s						
WRA	**Warramunga Arr**	**48.43**	**125**	P	**P**	**13 21 27.2**	**-1.0**
WRAB	**Tennant Creek**	**48.43**	**125**	P	**P**	**13 21 27.5**	**-0.7**
WR8	**Warramunga Arr**	**48.57**	**125**	P	**P**	**13 21 28.5**	**-0.7**
RAYN	**Ar Rayn**	**48.85**	**295**	P	**P**	**13 21 33.0**	**+1.6**
RAYN				IAmb	IAmb	13 21 35.2	
	comp=Z,4.2nm,0.6s						
AS31	**Alice Springs**	**50.05**	**130**	P	**P**	**13 21 39.7**	**-0.9**
AS31				IAmb	IAmb	13 22 20.8	
	comp=Z,0.8nm,0.5s						
ASAR	**Alice Springs**	**50.05**	**130**	P	**P**	**13 21 39.8**	**-0.8**
	comp=Z,0.4nm,0.4s,baz=302,slow=8.2,SNR=29						
	comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	**50.05**	**130**	P	**P**	**13 21 40.0**	**-0.6**
AB31	**Akbulak array**	**50.25**	**332**	P	**P**	**13 21 41.8**	**+0.1**
ABKAR	**Akbulak array**	**50.25**	**332**	P	**P**	**13 21 41.8**	**+0.2**
ERM	**Erimo**	**55.30**	**43**	P	**P**	**13 22 17.7**	**-1.4**
BBOO	**Buckleboo**	**56.89**	**137**	P	**P**	**13 22 30.2**	**-0.5**
BBOO				IAmb	IAmb	13 23 11.6	
	comp=Z,16nm,1.4s						
H04N2	**CROZET ISLANDS**	**65.36**	**211**	T	T	14 34 19.1	
	baz=49,slow=75,SNR=12						
H04N1	**CROZET ISLANDS**	**65.37**	**211**	T	T	14 34 20.4	
	baz=49,slow=75,SNR=23						
H04N3	**CROZET ISLANDS**	**65.38**	**211**	T	T	14 34 22.6	
	baz=49,slow=75,SNR=20						
TIXI	**Tiksi**	**67.51**	**11**	P	**P**	**13 23 40.2**	**-1.0**
TIXI				IAmb	IAmb	13 24 00.1	
	comp=Z,4.2nm,0.6s						
BURAR	**Bucovina Array**	**69.97**	**318**	P	**P**	**13 23 57.4**	**+0.3**
FIA1	**FINESS Array S**	**72.73**	**332**	P	**P**	**13 24 12.9**	**-0.4**
FINES	**FINESS Array B**	**72.73**	**332**	P	**P**	**13 24 13.0**	**-0.4**
	comp=Z,3.4nm,0.7s,baz=88,slow=3.6,SNR=6.8						
	comp=Z,3.4nm,0.7s						
FINES	**FINESS Array B**	**72.73**	**332**	P	**P**	**13 24 12.9**	**-0.5**
GERES	**GERESS Array B**	**77.75**	**318**	P	**P**	**13 24 42.7**	**0.0**
	comp=Z,0.6nm,0.4s,baz=66,slow=3.3,SNR=6.7						
	comp=Z,0.6nm,0.4s						
GERES	**GERESS Array B**	**77.75**	**318**	P	**P**	**13 24 42.5**	**-0.2**
NRCA	**Norcia**	**78.00**	**312**	P	**P**	**13 24 43.8**	**-0.4**
HFS	**Hagfors**	**78.46**	**330**	P	**P**	**13 24 45.8**	**-0.5**
	comp=Z,3.2nm,0.9s,baz=72,slow=16,SNR=4.2						
	comp=Z,3.2nm,0.9s						
NC303	**NORSAR Array S**	**79.68**	**331**	P	**P**	**13 24 53.3**	**+0.4**
NOA	**NORSAR Array B**	**79.74**	**331**	P	**P**	**13 24 51.6**	**-1.7**
	comp=Z,1.6nm,0.8s,baz=93,slow=5.4,SNR=3.6						
	comp=Z,1.6nm,0.8s						
E18K	**Tukpahlearik C**	**88.91**	**22**	P	**P**	**13 25 39.0**	**-0.6**
ESDC	**Sonseca Array**	**91.08**	**310**	P	**P**	**13 25 51.1**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=52,slow=5.1,SNR=4.9						
	comp=Z,0.5nm,0.5s						
G21K	**Allakaket**	**91.84**	**22**		**P**	**13 25 53.8**	**+0.5**
G21K				IAmb	IAmb	13 26 00.3	
	comp=Z,4.4nm,1.0s						
IMAR	**Indian Mountai**	**91.96**	**22**		**P**	**13 25 54.6**	**+0.8**

*IDC **17** 13:16:42.4±2.2,4.°26S×152.°86E,h48km±19km,mb3.8/7, mbtmp4.1/7,Error ellipse: s-maj=31.6km s-min=24.6km az=178.0*
*NEIC **17** 13:16:42.5±1.0,4.°2S±0.°1×152.°89E±0.°07,h48km±7km, mb4.6/20,Error ellipse: s-maj=15.5km s-min=10.3km az=164.0*

ISC 17 13:16:41.0±0.6,**4.°26S**±0.°09×**152.°94E**±0.°08,**h35**km,**n31,** σ0.°**79**/32,**mb4.4**/16,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RABL	**Rabaul**	**0.78**	**275**		**Pn**	**13 16 56.0**	**+0.5**
KRVT	**Keravat (AS076**	**0.91**	**267**	P	**Pn**	**13 16 57.8**	**+0.4**
	852nm,0.4s,baz=257,slow=0.7,SNR=33						
KRVT				S	**Sn**	**13 17 10.2**	**+0.8**
	10μm,0.4s,baz=84,slow=23,SNR=19						
MANU	**Manus Island**	**5.99**	**291**	Pn	**Pn**	**13 18 07.9**	**+0.7**
PATS	**Pohnpei**	**12.26**	**26**	Pn	**Pn**	**13 19 33.6**	**+0.5**
DZM	**Mont Dzumac**	**22.02**	**145**	P	**P**	**13 21 32.9**	**+0.2**
	4.4nm,0.5s,baz=312,slow=9.9,SNR=12						
	4.4nm,0.5s						
OUENC	**Ouen Island, N**	**22.52**	**145**	P	**P**	**13 21 38.1**	**+0.2**
OUENC				IAmb	IAmb	13 21 56.6	
	comp=Z,27nm,1.2s						
MTN	**Manton Dam**	**23.17**	**247**	P	**P**	**13 21 43.7**	**-1.1**
WB0	**Warramunga Arr**	**23.76**	**228**		**P**	**13 21 49.5**	**-1.0**
WR8	**Warramunga Arr**	**23.80**	**228**		**P**	**13 21 49.8**	**-1.0**
WR8				IAmb	IAmb	13 21 51.5	
	comp=Z,7.5nm,0.7s						
WRAB	**Tennant Creek**	**23.89**	**228**	P	**P**	**13 21 50.9**	**-0.8**
WRAB				IAmb	IAmb	13 21 52.7	
	comp=Z,9.4nm,0.7s						
WRA	**Warramunga Arr**	**23.91**	**228**	P	**P**	**13 21 50.0**	**-1.9**
	comp=Z,6.7nm,0.6s,baz=53,slow=9.6,SNR=14						
	comp=Z,6.7nm,0.6s						
KNRA	**Kununurra**	**26.34**	**243**	P	**P**	**13 22 14.7**	**+0.7**
KNRA				IAmb	IAmb	13 22 16.3	
	comp=Z,24nm,1.5s						
AS31	**Alice Springs**	**26.64**	**222**	P	**P**	**13 22 16.2**	**-0.5**
ASAR	**Alice Springs**	**26.64**	**222**	P	**P**	**13 22 16.1**	**-0.6**
	comp=Z,1.3nm,0.5s,baz=55,slow=9.1,SNR=36						
	comp=Z,1.3nm,0.5s						
FITZ	**Fitzroy Crossi**	**30.04**	**241**	P	**P**	**13 22 46.4**	**-0.7**
	comp=Z,2.9nm,0.6s,baz=45,slow=8.6,SNR=9.7						
	comp=Z,2.9nm,0.6s						
FITZ	**Fitzroy Crossi**	**30.04**	**241**	P	**P**	**13 22 46.3**	**-0.7**
FORT	**Forrest**	**35.30**	**219**	P	**P**	**13 23 32.0**	**-0.8**
FORT				IAmb	IAmb	13 24 09.2	
	comp=Z,10nm,1.3s						
MBWA	**Marble Bar**	**36.36**	**240**	P	**P**	**13 23 40.6**	**-1.5**
MBWA				IAmb	IAmb	13 24 12.9	
	comp=Z,15nm,1.1s						
TAU	**Tasmania Unive**	**38.81**	**187**	P	**P**	**13 24 02.8**	**+0.3**
TAU				IAmb	IAmb	13 24 25.9	
	comp=Z,25nm,1.1s						
RTZ	**Ruatahuna**	**40.59**	**151**	P	**P**	**13 24 17.9**	**+0.3**
RTZ				IAmb	IAmb	13 24 59.7	
	comp=Z,31nm,1.5s						
TUWZ	**Tuamarina**	**41.52**	**156**	P	**P**	**13 24 24.9**	**0.0**
LTZ	**Lake Taylor**	**42.04**	**159**	P	**P**	**13 24 30.0**	**+0.7**
KHZ	**Kahutara**	**42.20**	**157**	P	**P**	**13 24 30.8**	**+0.3**
JKA	**Kamikawa-asahi**	**49.04**	**350**	P	**P**	**13 25 23.8**	**-0.7**
VNDA	**Vanda**	**73.36**	**178**	P	**P**	**13 28 09.3**	**+0.5**
	comp=Z,0.9nm,0.8s,baz=344,slow=8.7,SNR=7.1						
	comp=Z,0.9nm,0.8s						
J18K	**Innoko River**	**77.29**	**21**	P	**P**	**13 28 31.5**	**-0.1**
J18K				IAmb	IAmb	13 28 51.9	
	comp=Z,6.4nm,1.4s						
ILAR	**Eielson Array**	**81.61**	**22**	P	**P**	**13 28 54.5**	**-0.5**
	comp=Z,0.2nm,0.6s,baz=228,slow=5.1,SNR=1.7						
	comp=Z,0.2nm,0.6s						
WHY	**Whitehorse**	**85.06**	**28**	P	**P**	**13 29 12.3**	**-0.7**
QSPA	**South Pole Qui**	**85.70**	**180**	P	**P**	**13 29 17.4**	**+1.2**
	comp=Z,2.6nm,0.9s,baz=322,slow=0.9,SNR=9.5						
	comp=Z,2.6nm,0.9s						
QSPA	**South Pole Qui**	**85.70**	**180**	P	**P**	**13 29 15.7**	**-0.5**
QSPA				IAmb	IAmb	13 29 18.3	
	comp=Z,4.3nm,1.1s						
C36M	**Paulatuk**	**91.48**	**21**	P	**P**	**13 29 43.6**	**+0.2**

*IDC **17** 13:17:53.1±1.5,19.°56S×176.°66W,h0km,mb3.8/6, mbtmp3.8/6,ML3.6/1,MS3.6/8,Error ellipse: s-maj=77.5km s-min=22.7km az=160.0*
*NEIC **17** 13:17:54.9±1.1,19.°5S±0.°1×176.°6W±0.°1,h10km±1km, mb4.6/6,Error ellipse: s-maj=19.4km s-min=16.0km az=205.0*

ISC 17 13:17:57.9±0.6,**19.°5S**±0.°1×**176.°64W**±0.°09,**h35**km,**n27,** σ1**8.°27**/21,**mb4.0**/9,**MS3.5**/4,**1D**,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.34**	**289**	Pn	**Pn**	**13 19 14.2**	**-1.0**
	0.1nm,0.3s,baz=138,slow=18,SNR=5.0						
MSVF				LR	LR	13 21 15.0	
	comp=Z,695nm,20.9s,baz=70,slow=38						
MSVF				AML	AML		
MSVF	**Nonsavu**	**5.34**	**289**		**Pn**	**13 19 14.1**	**-1.2**
NIUE	**Niue**	**6.35**	**87**	Pn	**Pn**	**13 19 26.3**	**-2.8**
RAO	**Raoul Island**	**9.75**	**187**	Pn	**Pn**	**13 20 15.1**	**-0.6**
RAR	**Rarotonga**	**15.90**	**99**	LR	LR	13 28 03.0	
	comp=Z,76nm,18.3s,baz=274,slow=38						
SANVU	**Saraoutou**	**15.94**	**282**	Pn	**Pn**	**13 21 39.3**	**-0.3**
SANVU				IAmb	IAmb	13 21 46.3	
	comp=Z,54nm,1.1s						
DZM	**Mont Dzumac**	**16.02**	**258**	LR	LR	13 26 56.8	
	comp=Z,341nm,18.7s,baz=118,slow=34						
URZ	**Urewera**	**19.44**	**195**	LR	LR	13 28 58.0	
	comp=Z,234nm,19.1s,baz=44,slow=34						
MRZ	**Mangatainoka R**	**22.10**	**196**	P	**P**	**13 22 50.4**	**+0.4**
MRZ				IAmb	IAmb	13 23 04.6	
	comp=Z,22nm,1.2s						
MRNZ	**Matariki Terra**	**23.60**	**200**	P	**P**	**13 23 04.9**	**-0.6**
HNR	**Honiara**	**24.76**	**291**	LR	LR	13 32 38.2	
	comp=Z,52nm,18.4s,baz=205,slow=36						
PPT	**Papeete**	**25.72**	**90**	LR	LR	13 30 36.9	
	comp=Z,79nm,19.5s,baz=274,slow=30						
CTA	**Charters Tower**	**34.87**	**263**	LR	LR	13 37 20.2	
	comp=Z,130nm,20.6s,baz=55,slow=34						
ASAR	**Alice Springs**	**45.99**	**256**	P	**P**	**13 26 18.0**	**-0.2**
	comp=Z,0.9nm,1.0s,baz=89,slow=8.4,SNR=16						
	comp=Z,0.9nm,1.0s						
WRA	**Warramunga Arr**	**46.01**	**261**	P	**P**	**13 26 18.3**	**-0.1**
	comp=Z,0.8nm,1.0s,baz=97,slow=7.2,SNR=4.4						
	comp=Z,0.8nm,1.0s						
FITZ	**Fitzroy Crossi**	**54.43**	**261**	LR	LR	13 48 58.2	
	comp=Z,94nm,19.4s,baz=145,slow=34						
MMRI	**Maumere**	**60.00**	**271**	P	**P**	**13 28 00.2**	**-1.4**
NVAR	**Mina Array Bea**	**79.44**	**43**	P	**P**	**13 30 01.9**	**+0.9**
	comp=Z,1.0nm,0.8s,baz=233,slow=12,SNR=4.7						
	comp=Z,1.0nm,0.8s						
SRU	**San Rafael Swe**	**84.93**	**46**	P	**P**	**13 30 29.7**	**0.0**
SRU				IAmb	IAmb	13 30 32.2	
	comp=Z,3.1nm,0.9s						
TXAR	**Lajitas Array**	**85.45**	**57**	P	**P**	**13 30 34.0**	**+1.5**
	comp=Z,0.9nm,0.9s,baz=210,slow=7.1,SNR=7.3						
	comp=Z,0.9nm,0.9s						
BCAR	**Beaver Creek A**	**86.75**	**15**	P	**P**	**13 30 38.1**	**+0.1**
I23K	**Minto, Yukon-K**	**86.95**	**11**	P	**P**	**13 30 39.8**	**+0.9**
ILAR	**Eielson Array**	**87.09**	**12**	P	**P**	**13 30 40.2**	**+0.7**
	comp=Z,1.8nm,1.0s,baz=228,slow=5.9,SNR=8.7						
	comp=Z,1.8nm,1.0s						
PDAR	**Pinedale Array**	**87.38**	**43**	P	**P**	**13 30 41.3**	**-0.4**
	comp=Z,0.4nm,0.8s,baz=268,slow=3.1,SNR=2.0						
	comp=Z,0.4nm,0.8s						
ELIB	**Princess Elisa**	**87.75**	**186**	*d*P	**P**	**13 30 45.7**	**+2.7**
	comp=Z,1.3nm,1.3s						
CLL	**Collm**	**147.38**	**349**	*i* PKPbc	**PKPab**	**13 37 39.8**	**+0.1**
	comp=Z,5.0nm,0.8s						
CLL				*i* PKiKP	**PKiKP**	**13 37 42.1**	**+2.1**
	comp=Z,6.0nm,0.7s						
GERES	**GERESS Array B**	**149.59**	**346**	PKPbc	**PKiKP**	**13 37 45.1**	**+0.3**
	comp=Z,0.6nm,0.6s,baz=335,slow=1.4,SNR=5.5						

*MDD **17** 13:41:08.7±0.8,36.°62N×12.°55W,h86km±30km,Mb3.6/12, Error ellipse: s-maj=7.8km s-min=5.2km az=94.0*
*INMG **17** 13:41:09.9±1.1,36.°59N×12.°72W,h10km±7km,ML2.7, Error ellipse: s-maj=3.8km s-min=3.6km az=102.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
*IGIL **17** 13:41:10.2,36.°58N×12.°71W,h11km,ML2.5*
*CNRM **17** 13:41:14.7,36.°35N×11.°82W,h50km,ML3.3*

ISC 17 13:41:03.2±1.8,**36.°58N**±0.°05×**12.°49W**±0.°09,**h10**km,**n67,** σ2.°**88**/124,**13C-2D, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**2.99**	**78**	Pn	**Pn**	**13 41 53.9**	**+3.4**
PFVI				Sn	**Sn**	**13 42 26.6**	**+0.2**
PFVI	**Vila Bisbo**	**2.99**	**78**	P	**Pn**	**13 41 54.0**	**+3.4**
PFVI				S	**Sn**	**13 42 25.3**	**-1.2**
PFVI	**Vila Bisbo**	**2.99**	**78**	*e*P	**Pn**	**13 41 53.9**	**+3.4**
PFVI				*e*S	**Sn**	**13 42 26.6**	**+0.2**
PFVI				IAML		13 42 28.5	
PFVI				IAML		13 42 28.5	
PFVI				IAML		13 42 30.4	
MORF	**Marmelete**	**3.15**	**76**	*e*P	**Pn**	**13 41 56.2**	**+3.3**
MORF				*e*S	**Sn**	**13 42 30.5**	**-0.2**
MORF				IAML		13 42 32.7	
	comp=N,33nm,0.2s						
MORF	**Marmelete**	**3.15**	**76**	*e*P	**Pn**	**13 41 56.2**	**+3.3**
MORF				*e*S	**Sn**	**13 42 31.1**	**+0.4**
MORF				IAML		13 42 32.4	
MORF				IAML		13 42 35.4	
MORF				IAML		13 42 38.1	
PTEO	**Sao Teotonio**	**3.16**	**71**	*e*P	**Pn**	**13 41 56.2**	**+3.2**
PTEO				*e*S	**Sn**	**13 42 30.8**	**+0.1**
PTEO				IAML		13 42 33.6	
PTEO				IAML		13 42 33.7	
PTEO				IAML		13 42 33.8	
PTEO	**Sao Teotonio**	**3.16**	**71**	P	**Pn**	**13 41 56.2**	**+3.2**
PTEO				S	**Sn**	**13 42 29.9**	**-0.8**
PMONC	**Monchique**	**3.24**	**76**	*e*S	**Sn**	**13 42 32.9**	**+0.1**
PMONC				IAML		13 42 35.7	
PMONC				IAML		13 42 36.1	
PMONC				IAML		13 42 36.4	
PMAFR	**Mafra**	**3.47**	**46**	Pn	**Pn**	**13 41 59.8**	**+2.6**
PMAFR				Sn	**Sn**	**13 42 37.8**	**-0.6**
PMAFR	**Mafra**	**3.47**	**46**	*e*P	**Pn**	**13 41 59.9**	**+2.6**
PMAFR				*e*S	**Sn**	**13 42 37.9**	**-0.6**
PMAFR				IAML		13 42 40.0	
PMAFR				IAML		13 42 40.1	
PMAFR				IAML		13 42 40.3	
PLOUS	**Minas do Lousa**	**3.55**	**65**	*e*P	**Pn**	**13 42 01.5**	**+3.2**
PLOUS				*e*S	**Sn**	**13 42 39.7**	**-0.6**
PLOUS				IAML		13 42 42.4	
PLOUS				IAML		13 42 42.8	
PLOUS				IAML		13 42 42.9	
MESJ	**Messejana**	**3.63**	**68**	*e*P	**Pn**	**13 42 02.5**	**+3.1**
MESJ				*e*S	**Sn**	**13 42 41.2**	**-1.1**
MESJ				IAML		13 42 44.0	
	comp=N,4.3nm,0.2s						
MESJ	**Messejana**	**3.63**	**68**	*e*P	**Pn**	**13 42 02.6**	**+3.1**
MESJ				*e*S	**Sn**	**13 42 42.1**	**-0.3**
PCVE	**Castro Verde**	**3.71**	**72**	Pn	**Pn**	**13 42 03.8**	**+3.3**
PCVE				Sn	**Sn**	**13 42 43.6**	**-0.7**
PCVE	**Castro Verde**	**3.71**	**72**	*e*P	**Pn**	**13 42 03.8**	**+3.3**
PCVE				*e*S	**Sn**	**13 42 43.8**	**-0.4**
PCVE				IAML		13 42 45.6	
PCVE				IAML		13 42 45.9	
PCVE				IAML		13 42 46.5	
PBDV	**Barranco-do-Ve**	**3.71**	**78**	Pn	**Pn**	**13 42 04.9**	**+4.4**
PBDV				Sn	**Sn**	**13 42 44.7**	**+0.4**
PBDV	**Barranco-do-Ve**	**3.71**	**78**	*e*P	**Pn**	**13 42 04.2**	**+3.6**
PBDV				*e*S	**Sn**	**13 42 45.0**	**+0.7**
PBDV				IAML		13 42 47.0	
PBDV				IAML		13 42 51.1	
PBDV				IAML		13 42 51.4	
MOE	**Montemor**	**3.82**	**58**	*i*P	**Pn**	**13 42 04.7**	**+2.7**
MOE				*e*S	**Sn**	**13 42 46.0**	**-0.9**
MOE				IAML		13 42 47.4	
MOE				IAML		13 42 49.4	
MOE				IAML		13 42 53.0	
PVAQ	**Vaqueiros**	**3.91**	**76**	*e*P	**Pn**	**13 42 06.9**	**+3.7**
PVAQ				*e*S	**Sn**	**13 42 49.1**	**0.0**
PVAQ				IAML		13 42 51.8	
PVAQ				IAML		13 42 52.2	
PVAQ				IAML		13 42 53.9	
PBEJ	**Beja**	**3.96**	**67**	*e*S	**Sn**	**13 42 49.3**	**-1.0**
PBEJ				IAML		13 42 51.4	
PBEJ				IAML		13 42 51.4	
PBEJ				IAML		13 42 51.7	
EVO	**Evora**	**4.05**	**60**	Pn	**Pn**	**13 42 08.8**	**+3.5**
EVO				Sn	**Sn**	**13 42 51.1**	**-1.6**
EVO	**Evora**	**4.05**	**60**	*e*P	**Pn**	**13 42 08.7**	**+3.5**
EVO				*e*S	**Sn**	**13 42 51.6**	**-1.2**
EVO				IAML		13 42 54.8	
EVO				IAML		13 42 55.5	
EVO				IAML		13 42 55.6	
EGRO	**El Granado**	**4.11**	**75**	Pn	**Pn**	**13 42 09.8**	**+3.8**
EGRO				Sn	**Sn**	**13 42 53.0**	**-1.2**
EGRO	**El Granado**	**4.11**	**75**	P	**Pn**	**13 42 09.8**	**+3.8**
EGRO				⇑IVmb_VC		13 42 13.0	
	comp=N,177nm,SNR=2.6						
EGRO				S	**Sn**	**13 42 53.2**	**-1.0**
PSBE	**So Bento**	**4.13**	**44**	*e*P	**Pn**	**13 42 09.2**	**+2.8**
PSBE				*e*S	**Sn**	**13 42 54.3**	**-0.5**
PARRA	**Arraiolos**	**4.17**	**56**	*e*P	**Pn**	**13 42 09.2**	**+2.3**
PARRA				*e*S	**Sn**	**13 42 53.9**	**-1.8**
PARRA				IAML		13 42 54.7	
PARRA				IAML		13 42 56.4	
PARRA				IAML		13 42 56.4	
PMTG	**Montargil**	**4.19**	**52**	*e*P	**Pn**	**13 42 09.5**	**+2.3**
PMTG				*e*S	**Sn**	**13 42 55.0**	**-1.1**
PMTG				IAML		13 42 59.5	
PMTG				IAML		13 42 59.6	
PMTG				IAML		13 42 59.8	
PMTG	**Montargil**	**4.19**	**52**	P	**Pn**	**13 42 09.4**	**+2.3**
PMTG				S	**Sn**	**13 42 55.0**	**-1.1**
PESTR	**Estremoz**	**4.50**	**58**	Pn	**Pn**	**13 42 14.3**	**+2.9**
PESTR				Sn	**Sn**	**13 43 01.6**	**-2.3**
PESTR	**Estremoz**	**4.50**	**58**	P	**Pn**	**13 42 14.9**	**+3.5**
PESTR				S	**Sn**	**13 43 02.8**	**-1.1**
PESTR	**Estremoz**	**4.50**	**58**	*e*P	**Pn**	**13 42 14.4**	**+2.9**
PESTR				*e*S	**Sn**	**13 43 02.1**	**-1.8**
PESTR				IAML		13 43 02.6	
PESTR				IAML		13 43 04.1	
PESTR				IAML		13 43 04.6	
PSARD	**Sardoal**	**4.55**	**47**	*e*P	**Pn**	**13 42 14.6**	**+2.5**
PSARD				*e*S	**Sn**	**13 43 03.9**	**-1.2**
PSARD				IAML		13 43 05.2	
PSARD				IAML		13 43 06.1	
PSARD				IAML		13 43 06.5	
PBAR	**Barrancos**	**4.62**	**68**	Pn	**Pn**	**13 42 15.9**	**+2.9**
PBAR				Sn	**Sn**	**13 43 04.8**	**-1.9**
PBAR	**Barrancos**	**4.62**	**68**	*e*S	**Sn**	**13 43 05.4**	**-1.3**
PBAR				IAML		13 43 06.9	
PBAR				IAML		13 43 07.8	
PBAR				IAML		13 43 08.2	
PMPST	**Porto Santo, M**	**4.71**	**223**	*e*P	**Pn**	**13 42 12.5**	**-1.8**
PMPST				*e*S	Sn	13 43 00.6	-8.4
PMPST				IAML		13 43 01.1	
PMPST				IAML		13 43 01.5	
PMPST				IAML		13 43 03.5	
EMIN	**Mina Concepcio**	**4.79**	**74**	Pn	**Pn**	**13 42 18.3**	**+3.0**
EMIN				Sn	**Sn**	**13 43 09.6**	**-1.3**
EMIN	**Mina Concepcio**	**4.79**	**74**	P	**Pn**	**13 42 18.8**	**+3.4**
EMIN				⇑IVmb_VC		13 42 19.7	
	comp=N,231nm,SNR=2.2						
EMIN				S	**Sn**	**13 43 09.7**	**-1.3**
EBAD	**Badajoz**	**4.86**	**62**	Pn	**Pn**	**13 42 19.0**	**+2.7**
EBAD				Sn	**Sn**	**13 43 10.9**	**-1.6**
EBAD	**Badajoz**	**4.86**	**62**	P	**Pn**	**13 42 19.0**	**+2.7**
EBAD				⇑IVmb_VC		13 42 20.9	
	comp=N,328nm,SNR=4.6						
EBAD				S	**Sn**	**13 43 10.5**	**-2.0**
PMRV	**Marv??o**	**4.93**	**53**	*e*P	**Pn**	**13 42 19.6**	**+2.3**
PMRV				*e*S	**Sn**	**13 43 11.8**	**-2.5**
PMRV				IAML		13 43 14.3	
PMRV				IAML		13 43 14.4	
PMRV				IAML		13 43 14.5	
PCBR	**Castelo Branco**	**5.11**	**49**	*e*P	**Pn**	**13 42 22.4**	**+2.6**
PMOZ	**Porto Moniz, M**	**5.39**	**227**	Pn	**Pn**	**13 42 21.3**	**-2.4**
PMOZ				Sn	**Sn**	**13 43 17.8**	**-8.1**
SRHM	**Skhour des Reh**	**5.58**	**136**	P	**Pn**	**13 42 28.0**	**+1.8**
SRHM				S	**Sn**	**13 43 28.4**	**-2.1**
ZHG	**ZHG**	**5.72**	**121**	P	**Pn**	**13 42 29.9**	**+1.6**
ZHG				S	**Sn**	**13 43 28.4**	**-5.6**
ECAB	**El Cabril**	**5.83**	**73**	Pn	**Pn**	**13 42 32.9**	**+3.3**
ECAB				Sn	**Sn**	**13 43 33.9**	**-2.6**
ECAB	**El Cabril**	**5.83**	**73**	P	**Pn**	**13 42 32.3**	**+2.7**
ECAB				⇑IVmb_VC		13 42 34.0	
	comp=N,114nm,SNR=1.9						
ECAB				S	**Sn**	**13 43 33.7**	**-2.8**
EPLA	**Plasencia**	**6.12**	**53**	P	**Pn**	**13 42 36.4**	**+2.7**
EPLA				⇑IVmb_VC		13 42 36.5	
	comp=N,161nm,SNR=2.1						
EPLA				S	**Sn**	**13 43 40.4**	**-3.4**
PCAB	**Cabril**	**6.18**	**33**	*e*P	**Pn**	**13 42 37.0**	**+2.4**
PGAV	**Gavieira, Arco**	**6.29**	**30**	*e*P	**Pn**	**13 42 38.2**	**+2.1**
PGAV				*e*S	**Sn**	**13 43 44.1**	**-4.0**
PGAV				IAML		13 43 45.3	
PGAV				IAML		13 43 47.8	
PGAV				IAML		13 43 52.6	
ELOB	**Lobios**	**6.30**	**32**	P	**Pn**	**13 42 38.0**	**+1.8**
ELOB				⇑IVmb_VC		13 42 40.9	
	comp=N,242nm,SNR=2.0						
ELOB				S	**Sn**	**13 43 43.9**	**-4.3**
CIBOR	**Castaar de Ib**	**6.35**	**59**	P	**Pn**	**13 42 39.1**	**+2.3**
CIBOR				S	**Sn**	**13 43 45.5**	**-3.9**
EADA	**Adamuz**	**6.50**	**74**	Pn	**Pn**	**13 42 41.7

STKA	Stephens Creek	39.49	244	P		P	14 05 19.9	-1.3
AS31	Alice Springs	46.17	256	P		P	14 06 14.5	-1.0
AS31				IAmb		IAmb	14 07 22.3	
	comp=Z,4.2nm,1.6s							
ASAR	Alice Springs	46.17	256	P		P	14 06 14.2	-1.3
	comp=Z,1.2nm,0.6s,baz=90,slow=8.2,SNR=26							
	comp=Z,1.2nm,0.6s							
ASAR	Alice Springs	46.17	256	P		P	14 06 14.0	-1.5
WB0	Warramunga Arr	46.18	261	P		P	14 06 15.0	-0.6
WB0				IAmb		IAmb	14 06 54.7	
	comp=Z,8.4nm,0.9s							
WRA	Warramunga Arr	46.21	261	P		P	14 06 13.4	-2.4
	comp=Z,1.2nm,1.0s,baz=94,slow=7.6,SNR=5.0							
	comp=Z,1.2nm,1.0s							
FITZ	Fitzroy Crossi	54.63	261	LR		LR	14 29 57.6	
	comp=Z,86nm,18.2s,baz=129,slow=35							
BATI	Baumata	58.42	270	LR		LR	14 33 00.4	
	comp=Z,36nm,18.6s,baz=122,slow=36							
MORW	Morawa	61.53	247	P		P	14 08 07.7	-0.1
ASAJ	Asahikawa	73.75	331	LR		LR	14 33 30.9	
	comp=Z,43nm,21.9s,baz=82,slow=29							
PETK	Petropavlovsk-	75.89	344	LR		LR	14 35 40.7	
	comp=Z,39nm,21.2s,baz=117,slow=30							
LPIG	La Paz	77.70	59	LR		LR	14 37 53.6	
	comp=Z,30nm,19.7s,baz=297,slow=31							
NVAR	Mina Array Bea	79.41	43	P		P	14 09 56.1	-0.9
NVAR				LR		LR	14 37 53.2	
	comp=Z,64nm,19.3s,baz=342,slow=30							
	comp=Z,0.3nm,0.5s							
O16K	Kokwok River B	80.40	9	P		P	14 10 01.7	+0.2
O28M	Mount Upton	85.33	17	P		P	14 10 27.1	-0.4
TXAR	Lajitas Array	85.35	57	P		P	14 10 28.2	+0.1
	comp=Z,0.6nm,0.9s,baz=197,slow=3.9,SNR=3.6							
	comp=Z,0.6nm,0.9s							
ANMO	Albuquerque	85.73	51	LR		LR	14 41 37.6	
	comp=Z,27nm,18.5s,baz=354,slow=31							
G19K	Purcell Mounta	86.81	8	P		P	14 10 34.5	+0.3
ILAR	Eielson Array	87.20	12	P		P	14 10 36.5	+0.3
	comp=Z,1.1nm,1.0s,baz=234,slow=5.7,SNR=5.9							
	comp=Z,1.1nm,1.0s							
ELIB	Princess Elisa	87.61	186	*d*P		P	14 10 40.5	+2.0
G26K	Porcupine Rive	89.73	12	P		P	14 10 48.4	+0.3
G26K				IAmb		IAmb	14 10 50.3	
	comp=Z,16nm,1.8s							
TIXI	Tiksi	98.36	345	LR		LR	14 48 43.8	
	comp=Z,42nm,20.8s,baz=136,slow=31							
CLL	Collm	147.59	349	*i* PKPbc		PKiKP	14 17 36.5	-0.3
	comp=Z,18nm,1.3s							
CLL				*i* (PKPab)		sPKPbc	14 17 38.5	+0.3
GERES	GERESS Array B	149.79	347	PKPbc		PKPbc	14 17 40.6	+0.1
	comp=Z,0.9nm,0.8s,baz=349,slow=4.1,SNR=5.2							

IDC ***17*** *13:58:22.6±1.0, 24.8°S×122.7°E, h0km, mb3.7/9, mbtmp3.7/10, ML3.2/1, MS3.5/24, Error ellipse: s-maj=31.0km s-min=16.7km az=75.0*
TAP ***17*** *13:58:23.6, 24.86°N×122.79°E, h6km±1km, ML4.7, D*
JMA ***17*** *13:58:24.9±0.1, 25.5°N±1.5°×122.5°E±0.6, h33km±2km, MV3.2/15, NW OFF ISHIGAKIJIMA IS*
ISC 17 13:58:23.4±1.1, **24.86N**±0.03°×**122.84E**±0.02, **h4**km±8km, **n187**, σ1**s06**/278, **mb3.6**/9, **MS3.5**/20, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
JYNG	Yonagunijimaku	0.42	167	*i* P		Pb	13 58 33.2	-0.1
JYNG					eS	Sb	13 58 39.0	-1.0
YOJ	Yonaguni jima	0.42	159	P		Pb	13 58 33.1	-0.3
YOJ	Yonaguni jima	0.42	159	P		Pn	13 58 39.2	+2.9
YOJ	Yonaguni jima	0.42	159	*i* P		Pb	13 58 33.2	-0.2
YOJ				*i* S		Sb	13 58 39.7	-0.5
YOJ	Yonaguni jima	0.42	159	*i* P		Pb	13 58 33.3	-0.2
YOJ				S		Pn	13 58 39.2	+2.9
EOS2	EOS2	0.71	232	P		Pb	13 58 38.6	+0.4
EOS2				S		Sb	13 58 49.0	+0.7
EOS3	EOS3	0.74	220	*i* P		Pb	13 58 39.2	+0.4
EOS3				S		Sb	13 58 49.9	+0.5
TWB1	Santiao Chiao	0.79	281	*i* P		Pg	13 58 38.8	+0.2
TWB1				*i* S		Sg	13 58 48.8	-0.1
EGS		0.83	269	P		Pg	13 58 39.9	+0.6
EOS4	EOS4	0.88	213	P		Pb	13 58 41.1	+0.1
EOS4				S		Sg	13 58 52.0	+0.4
SXI1	Grass Mountain	0.91	285	*i* P		Pg	13 58 41.1	+0.3
TIPB	Shuangxi	0.93	277	*i* P		Pg	13 58 41.1	-0.1
TWC	Suao	0.94	255	*e*P		Pg	13 58 41.1	-0.3
TWC				S		Sg	13 58 53.2	-0.3
ESAO	Su ao	0.95	253	*e*P		Pg	13 58 41.8	+0.2
ESAO				*e*S		Sg	13 58 53.9	-0.1
IRIF	Iriomote-Funau	0.96	123	*i* P		Pg	13 58 41.7	-0.1
IRIF				S		Sg	13 58 54.3	0.0
NWF	Wu-fen Shan	0.99	283	P		Pg	13 58 42.9	+0.5
NWF				*e*S		Sg	13 58 55.7	+0.5
WFSB	Wu-fen Shan	0.99	283	P		Pg	13 58 42.5	+0.2
ILA	Ilan	1.00	265	*e*P		Pn	13 58 44.5	+0.3
ILA				*e*S		Sb	13 58 56.4	-0.5
TNQU	National Taiwa	1.01	287	P		Pg	13 58 42.8	0.0
PCYT	Pengchaiyu	1.04	318	P		Pg	13 58 43.6	+0.3
NDS	Dongshan	1.05	258	P		Pg	13 58 43.2	-0.4
NDS				*i* S		Sg	13 58 56.7	-0.5
EWUT	Wuta	1.05	247	*e*P		Pg	13 58 43.2	-0.4
EWUT				*i* S		Sg	13 58 56.5	-0.8
TWE	Neicheng	1.08	263	P		Pg	13 58 43.7	-0.4
TWE				S		Sb	13 58 59.0	-0.1
ENA	Nanau	1.09	247	*e*P		Pg	13 58 43.8	-0.5
ENA				*e*S		Sg	13 58 57.9	-0.6
EAHA	Aohua	1.14	243	P		Pg	13 58 44.8	-0.4
EAHA				S		Sg	13 58 59.4	-0.5
FUSB	Fushanzhiwuyua	1.15	265	*e*P		Pg	13 58 45.1	-0.2
FUSB				*e*S		Sg	13 59 00.5	+0.2
TWA	Mucha	1.15	276	*e*P		Pg	13 58 45.1	-0.4
ENTT	Nioudou	1.18	260	*e*P		Pg	13 58 45.8	-0.3
ENTT				*e*S		Sg	13 59 00.9	-0.5
YM08	YM08	1.18	286	*e*P		Pg	13 58 45.3	-0.8
HATJ	Hateruma jima	1.19	132	P		Pg	13 58 45.5	-0.6
HATJ				*e*S		Sg	13 58 59.7	-1.8
YM01	YM01	1.19	284	*e*P		Pg	13 58 45.6	-0.6
NHDH	Xindian Distri	1.20	275	*e*P		Pg	13 58 46.0	-0.4
TWY	Chenhua	1.20	290	*e*P		Pg	13 58 45.8	-0.7
TWY				*e*S		Sg	13 59 01.8	-0.2
ZUZH	Zhuzihu	1.22	285	*e*P		Pg	13 58 46.1	-0.6
NWLT	Wulai	1.22	266	*e*P		Pg	13 58 46.2	-0.6
NWLT				*e*S		Sg	13 59 02.2	-0.4
JKRS	Kuro-shima	1.23	120	P		Pg	13 58 45.9	-1.0
NDT	Datong Townshi	1.24	258	*e*P		Pg	13 58 47.0	-0.1
NDT				*e*S		Sg	13 59 03.1	-0.1
TATO	Taipei	1.24	276	P		Pg	13 58 46.5	-0.6
LATG	Datong	1.24	255	*e*P		Pg	13 58 46.7	-0.5
LATG				*e*S		Sg	13 59 02.6	-0.7
JJ	Ishigaki jima	1.28	112	P		Pn	13 58 46.2	-1.9
NTST	Danshui	1.30	284	*e*P		Pn	13 58 47.3	-1.1
ETL	Fush Village	1.31	238	*e*P		Pg	13 58 49.3	+0.7
ETL				*e*S		Sb	13 59 04.0	-1.9
NACB	Ninganchiao	1.33	239	P		Pn	13 58 47.7	-1.0
NACB	Ninganchiao	1.33	239	S		Sb	13 59 03.5	-2.7
NACB	Ninganchiao	1.33	239	*e*P		Pn	13 58 47.8	-0.9
NACB				S		Sb	13 59 05.2	-1.0
YHNB	Yeheng	1.35	262	P		Pn	13 58 48.5	-0.6
YHNB	Yeheng	1.35	262	S		Sb	13 59 05.7	-1.2
YHNB	Yeheng	1.35	262	*e*P		Pn	13 58 48.3	-0.8
YHNB				*e*S		Sb	13 59 05.3	-1.7
JISG	Ishigakijimahi	1.36	101	P		Pn	13 58 47.5	-1.7
NSK	Sanguang	1.36	263	*e*P		Pn	13 58 48.6	-0.6
NSK				*e*S		Sb	13 59 06.0	-1.4
TWD	Chiawan	1.38	236	*e*P		Pn	13 58 49.0	-0.3
TWD				*e*S		Sb	13 59 07.4	-0.3
NNSB	Datong	1.40	252	*e*P		Pn	13 58 49.3	-0.5
NNSB				*e*S		Sb	13 59 07.8	-0.6
ETLH	Xiulin Townshi	1.40	243	*e*P		Pn	13 58 49.5	-0.3
ETLH				S		Sb	13 59 07.4	-1.0
NNS	Nan Shan	1.40	253	*e*P		Pn	13 58 49.4	-0.4
NNS				*e*S		Sb	13 59 07.9	-0.6
HWA	Hwalien	1.43	232	*e*P		Pg	13 58 52.1	+1.3
TEYL	Yanliau Villag	1.50	229	*e*P		Pn	13 58 48.9	-2.2
TEYL				*e*S		Sn	13 59 10.8	-0.4
KSHI	Guanxi Townshi	1.52	267	*e*P		Pn	13 58 51.4	0.0
KSHI				*e*S		Sn	13 59 10.8	-0.7
ETM	Tongmen	1.52	234	*e*P		Pn	13 58 51.0	-0.4
ETM				*e*S		Sn	13 59 11.0	-0.6
LXIB	Xiulin Townshi	1.55	238	P		Pn	13 58 51.6	-0.3
LXIB				*e*S		Sg	13 59 14.3	+1.2
FUSS	Fushou	1.58	248	*e*P		Pn	13 58 52.8	+0.4
FUSS				S		Sn	13 59 13.0	-0.4
SHUL	Shoufeng	1.58	228	*e*P		Pn	13 58 51.8	-0.5
SHUL				S		Sn	13 59 12.2	-1.0
NFF	Wufeng Townshi	1.59	262	*e*P		Pn	13 58 52.1	-0.3
NFF				*e*S		Sn	13 59 12.6	-0.7
WHF	Hehuan Shan	1.60	244	*i* P		Pn	13 58 53.3	+0.3
WHF				S		Sn	13 59 13.9	-0.4
TWT	Tachien	1.63	249	*e*P		Pb	13 58 54.2	0.0
TWT				S		Sb	13 59 15.2	0.0
TDCB	Techi	1.65	249	P		Pb	13 58 54.3	-0.1
TDCB				S		Sn	13 59 14.9	-0.1
TEGC	Jichi Village	1.65	226	P		Pn	13 58 52.3	-0.8
TEGC				*e*S		Sb	13 59 15.3	-0.3
ESL	Shilin	1.66	231	*e*P		Pn	13 58 52.7	-0.5
ESL				S		Sn	13 59 13.5	-1.5
LIOB	Emei	1.68	263	*e*P		Pn	13 58 53.4	-0.2
LIOB				*e*S		Sn	13 59 13.8	-1.7
SBCB	Hsinchu	1.69	268	*e*P		Pn	13 58 53.1	-0.6
SBCB				*e*S		Sn	13 59 14.3	-1.5
NSTT	Nanjuang	1.69	263	*e*P		Pn	13 58 53.9	+0.2
NSTT				*e*S		Sn	13 59 14.9	-1.0
JTJ	Tarama	1.70	97	P		Pn	13 58 54.0	+0.1
HSN	Hsinchu	1.70	268	*e*P		Pb	13 58 55.0	-0.3
WARBT	Fenglin Townsh	1.75	230	P		Pn	13 58 53.9	-0.7
WARBT				*e*S		Sn	13 59 15.8	-1.6
OWD	Renai	1.77	240	*e*P		Pn	13 58 55.0	+0.1
OWD				S		Sn	13 59 17.0	-0.9
WUSB	Renai	1.79	242	P		Pn	13 58 55.7	+0.4
WUSB				S		Sn	13 59 17.7	-0.9
WHP	Taichung City	1.82	252	*e*P		Pb	13 58 57.0	-0.3
WHP				S		Sb	13 59 20.0	-0.6
HGSD	Ruisui	1.88	224	*e*P		Pn	13 58 55.8	-0.5
HGSD				*e*S		Sn	13 59 19.5	-1.0
NMLH	Miaoli	1.90	261	*e*P		Pn	13 58 56.6	+0.1
NMLH				*e*S		Sn	13 59 20.7	-0.1
EHYH	Wanrong	1.93	226	*e*P		Pn	13 58 56.6	-0.4
EHYH				*e*S		Sn	13 59 19.6	-2.1
WCS	Beigang Elemen	1.93	246	*e*P		Pb	13 58 58.8	-0.4
WCS				S		Sn	13 59 22.5	+0.7
EHY	Hungye	1.94	226	*e*P		Pn	13 58 56.4	-0.7
EHY				*e*S		Sn	13 59 20.7	-1.2
TWQ1	Liyutan	1.95	255	*e*P		Pn	13 58 57.6	+0.3
TWQ1				*e*S		Sn	13 59 22.1	-0.2
ECBN	Changbin	2.00	220	*e*P		Pn	13 58 56.4	-1.5
ECBN				S		Sn	13 59 22.0	-1.3
SMLT	Sun Moon Lake	2.02	242	P		Pn	13 58 59.1	+0.7
SMLT				S		Sn	13 59 24.7	+0.5
SSLB	Suanglung	2.03	239	P		Pn	13 58 58.7	+0.3
SSLB	Suanglung	2.03	239	P		Pn	13 58 58.6	+0.3
SSLB				S		Sn	13 59 23.7	-0.5
YULB	Yu-li	2.03	224	P		Pn	13 58 58.1	-0.3
YULB	Yu-li	2.03	224	P		Pn	13 58 57.5	-1.0
YULB				S		Sn	13 59 22.0	-2.3
TYC	Yuchr	2.05	243	*e*P		Pb	13 58 60.0	-1.2
TYC				*i* S		Sn	13 59 24.6	0.0
EYUL	Yuli	2.05	223	*e*P		Pn	13 58 58.5	-0.2
TWF1	Yuli	2.06	224	P		Pn	13 58 58.3	-0.5
WDJ	Dajia District	2.07	256	*e*P		Pn	13 58 58.4	-0.5
WDJ				*e*S		Sn	13 59 25.0	-0.2
TCU	Taichung	2.10	251	*e*P		Pn	13 58 59.5	+0.2
TCU				*e*S		Sn	13 59 26.9	+1.0
CHKH	Chenggong	2.12	219	*e*P		Pn	13 58 58.5	-1.1
CHKH				*e*S		Sn	13 59 24.4	-2.1
WHYT	Xinyi Township	2.15	238	*e*P		Pn	13 59 01.1	+0.9
WHYT				*e*S		Sn	13 59 27.4	0.0
FULB	Fuli	2.18	221	*e*P		Pn	13 58 59.8	-0.6
FULB				*e*S		Sn	13 59 27.5	-0.4
WJS	Zhushan	2.19	242	*e*P		Pb	13 59 02.7	-0.8
WJS				*e*S		Sn	13 59 27.5	-0.6
CHKT	Chengkung	2.21	218	*e*P		Pn	13 58 59.6	-1.3
CHKT				*e*S		Sn	13 59 27.6	-1.2
WCHH	Zhanghua	2.22	250	*e*P		Pn	13 59 00.7	-0.4
WCHH				*e*S		Sn	13 59 29.6	+0.6
JMJ	Miyako jima 2	2.23	91	P		Pg	13 59 07.1	+1.0
EHD	Haiduan	2.27	222	*e*P		Pn	13 59 01.0	-0.7
ALS	Alishan	2.30	235	*e*P		Pn	13 59 03.1	+0.7
ALS				*i* S		Sn	13 59 31.3	+0.1
ECS	Chishang	2.30	221	*e*P		Pn	13 59 02.2	+0.1
ECS				*e*S		Sn	13 59 29.6	-1.4
CHN5	Tsauling	2.34	238	P		Pb	13 59 04.6	-1.7
CHN5				*e*S		Sn	13 59 31.7	-0.4
EDH	Donghe	2.35	217	*e*P		Pn	13 59 02.1	-0.6
EDH				*e*S		Sn	13 59 30.2	-1.9
ELDTW	Lidau	2.36	226	P		Pn	13 59 02.4	-0.6
ELDTW				*e*S		Sn	13 59 31.5	-1.0
WGK	Gukeng	2.39	241	*e*P		Pn	13 59 03.3	0.0
WGK				*e*S		Sn	13 59 31.9	-1.1
WDL	Douliou City	2.39	242	*e*P		Pn	13 59 03.8	+0.4
WDL				*e*S		Sn	13 59 34.6	+1.5
WDLH	Douliu	2.41	242	*e*P		Pn	13 59 04.8	+1.2
WDLH				*e*S		Sb	13 59 36.0	-1.3
RLNB	Erlin	2.46	247	*e*S		Sn	13 59 36.0	+1.1
WCKO	Fanlu	2.49	236	*e*P		Pn	13 59 06.3	+1.6
WCKO				S		Sb	13 59 38.0	-1.7
LONT	Longtian	2.50	219	*e*P		Pn	13 59 03.7	-1.2
LDUT	Ludao	2.51	210	*e*P		Pn	13 59 04.4	-0.6
LDUT				*e*S		Sn	13 59 33.9	-2.3
WTK	Tuku	2.53	243	*e*P		Pn	13 59 06.2	+1.0
WTK				S		Sn	13 59 38.0	+1.5
STYH	Taoyuan	2.53	229	P		Pn	13 59 05.8	+0.5
STYH				S		Sn	13 59 37.6	+1.1
CHN2	Minshiung	2.54	239	*e*S		Sb	13 59 39.0	-2.0
CHN4	Tsaushan	2.55	234	P		Pn	13 59 07.2	+1.7
CHN4				*e*S		Sn	13 59 38.1	+1.3
TPUB	Ta-pu	2.55	233	P		Pn	13 59 06.5	+1.0
TPUB	Ta-pu	2.55	233	P		Pn	13 59 06.5	+0.9
TPUB				*e*S		Sn	13 59 38.3	+1.2
CHY	Chiayi	2.59	239	*e*P		Pn	13 59 07.9	+1.8
CHY				*e*S		Sn	13 59 39.5	+1.4
WTP	Ta-pu	2.59	232	*e*P		Pn	13 59 07.4	+1.2
WTP				*e*S		Sn	13 59 38.9	+0.6
TWGBT	Beinan	2.60	219	P		Pn	13 59 04.9	-1.2
TWGBT				*e*S		Sn	13 59 37.1	-1.1
TWG	Pinlang	2.60	219	P		Pn	13 59 05.2	-1.0
TWG				*e*S		Sn	13 59 36.6	-1.7
TWK	Hsinying	2.67	234	*e*P		Pn	13 59 08.4	+1.1
TWK				*e*S		Sn	13 59 42.1	+1.9
WSF	Szhu	2.68	244	*e*S		Sn	13 59 41.1	+0.8
CHN1	Nanshi	2.69	232	P		Pn	13 59 09.9	+2.3
CHN1				*e*S		Sn	13 59 42.0	+1.4
SGST	Jiashian	2.72	230	P		Pn	13 59 09.2	+1.3
SGST				*e*S		Sn	13 59 42.1	+0.8
WSL	Shuilin Townsh	2.73	241	P		Pn	13 59 10.2	+2.1
WSL				*e*S		Sn	13 59 41.4	-0.2
SLGT	Liugui	2.74	228	*e*P		Pn	13 59 10.2	+2.1
SLGT				S		Sn	13 59 41.9	+0.2
ICHU	Yijhu	2.78	238	*e*P		Pn	13 59 09.5	+0.8
ICHU				*i* S		Sn	13 59 44.1	+1.4
CHN8	Yiju	2.84	238	*e*P		Pn	13 59 09.3	-0.2
CHN8				*e*S		Sn	13 59 43.9	-0.3
ECL	Taimali	2.84	218	P		Pn	13 59 08.3	-1.3
ECL				*e*S		Sn	13 59 43.8	-0.4
SSHA	Shanhua	2.90	234	*e*P		Pn	13 59 09.7	-0.6
SSHA				*e*S		Sn	13 59 45.2	-0.4
SCST	Cishan	2.91	228	P		Pn	13 59 13.0	+2.4
SCST				S		Sn	13 59 48.0	+1.9
MATB	Ma-tsu	2.92	297	*e*P		Pn	13 59 10.3	-0.3
SSD	Sandimen	2.92	224	P		Pn	13 59 12.7	+2.0
SSD				S		Sn	13 59 47.6	+1.4
TSMG	Majia	2.94	224	P		Pn	13 59 12.6	+1.6
TSMG				*e*S		Sn	13 59 47.8	+1.1
SCLT	Jiali	2.95	236	S		Sn	13 59 48.4	+1.5
TWM1	Shoushan	3.00	228	*e*P		Pn	13 59 13.1	+1.3
TWM1				*e*S		Sn	13 59 50.0	+1.7
MASBT	Mashibuluo	3.02	223	*e*P		Pn	13 59 12.8	+0.8
MASBT				*e*S		Sn	13 59 50.4	+1.8
TSCK	Chigu Township	3.04	237	P		Pn	13 59 13.8	+1.4
TSCK				*e*S		Sn	13 59 50.4	+1.1
LAY	Lan-yu	3.05	203	*e*P		Pn	13 59 12.3	-0.1
LAY				*e*S		Sn	13 59 47.4	-2.0
EAST	Anshuo	3.07	217	*e*P		Pn	13 59 12.5	-0.2
LYUB	Lan-yu	3.07	202	*e*P		Pn	13 59 10.5	-2.2
LYUB				*e*S		Sn	13 59 49.3	-0.6
VWUC	VWUC	3.08	273	*e*P		Pn	13 59 12.4	-0.5
SSPT	Xinbi	3.15	222	*e*P		Pn	13 59 14.6	+0.8
SSPT				*e*S		Sn	13 59 52.0	0.0
SCZT	Fangliau	3.21	220	*e*P		Pn	13 59 16.2	+1.6
SCZT				*e*S		Sn	13 59 54.9	+1.6
SLIU	Shizi	3.23	216	*e*P		Pn	13 59 14.3	-0.7
PNG	Penghu	3.27	247	*e*P		Pn	13 59 15.7	+0.3
PNG				*e*S		Sn	13 59 53.0	-1.8
WDGT	Dungji	3.32	242	*e*P		Pn	13 59 16.6	+0.6
WDGT				*e*S		Sn	13 59 55.2	-0.7
SMST	Manzhou Townsh	3.37	214	*e*P		Pn	13 59 16.6	-0.3
HEN	Hengchun	3.44	215	*e*P		Pn	13 59 20.2	+2.4
HEN				*e*S		Sn	13 59 58.5	-0.4
TWKBT	Hengchun	3.45	213	*e*P		Pn	13 59 18.3	+0.3
TWK1	Hengchun	3.45	213	*e*S		Sn	13 59 57.8	-1.6
VCHM	Qimei	3.53	243	*e*P		Pn	13 59 19.2	+0.3
VCHM				*e*S		Sn	14 00 00.2	-1.0
KNMB	Chin-men Tao	4.07	265	*e*P		Pn	13 59 26.4	-0.1
KNMB				*e*S		Sn	14 00 12.6	-2.1
JNU	Nakatsue	10.82	39	LR		LR	14 06 26.5	
	comp=Z,219nm,18.4s,baz=224,slow=45							
KSRS	Korea Array	13.28	18	Pn		Pn	14 01 36.1	+3.4
	0.1nm,0.3s,baz=194,slow=12,SNR=8.7							
KSRS				LR		LR	14 07 19.4	
	comp=Z,267nm,18.1s,baz=200,slow=41							
	1.7nm,1.0s							
KSRS				AML		AML		
MJAR	Matsushiro Arr	17.59	45	LR		LR	14 09 11.1	
	comp=Z,104nm,21.7s,baz=224,slow=37							
DAV	Davao City (W)	17.88	171	LR		LR	14 09 04.6	
	comp=Z,96nm,21.3s,baz=346,slow=36							
USRK	Ussuriysk Ar.	20.69	19	LR		LR	14 11 18.4	
	comp=Z,111nm,18.0s,baz=203,slow=38							
CMAR	Chiang Mai Arr	23.09	259	P		P	14 03 32.6	+2.2
	0.6nm,0.3s,baz=64,slow=7.0,SNR=6.2							
CMAR				LR		LR	14 13 27.9	
	comp=Z,153nm,21.4s,baz=70,slow=39							
	0.6nm,0.3s							
GUMO	Guam	23.59	114	LR		LR	14 12 19.4	
	comp=Z,52nm,19.1s,baz=302,slow=36							
ASAJ	Asahikawa	25.07	35	LR		LR	14 13 35.2	
	comp=Z,192nm,18.6s,baz=244,slow=36							
KLR	Kul'dur	25.31	14	LR		LR	14 13 25.2	
	comp=Z,128nm,21.4s,baz=198,slow=36							
SONM	Songino Array	26.37	335	P		P	14 04 00.9	+0.1
	0.7nm,0.8s,baz=144,slow=8.6,SNR=3.6							
SONM				LR		LR	14 15 42.3	
	comp=Z,81nm,18.8s,baz=121,slow=39							
	0.7nm,0.8s							
SIJI	Sorong	26.85	161	LR		LR	14 14 33.6	
	comp=Z,42nm,19.5s,baz=335,slow=36							
BRDH	Bariadhala	28.61	272	LR		LR	14 17 55.3	
	comp=Z,108nm,20.2s,baz=142,slow=41							
KAPI	Kappang	29.85	186	LR		LR	14 17 30.6	
	comp=Z,41nm,18.5s,baz=360,slow=38							
YAK	Yakutsk	37.45	5	LR		LR	14 22 38.7	
	comp=Z,132nm,18.6s,baz=180,slow=39							
PETK	Petropavlovsk-	38.47	34	LR		LR	14 21 56.8	
	comp=Z,109nm,18.3s,baz=222,slow=37							
MKAR	Makanchi Array	38.92	315	P		P	14 05 50.7	+0.4
	0.7nm,0.7s,baz=104,slow=10,SNR=8.3							
	0.7nm,0.7s							
MA2	Magadan	39.79	22	LR		LR	14 24 10.4	
	comp=Z,99nm,18.6s,baz=242,slow=39							
ZALV	Zalesovo Beam	40.52	326	P		P	14 06 01.8	-1.6
	0.5nm,0.6s,baz=137,slow=7.7,SNR=4.6							
	0.5nm,0.6s							
KURBB	Kurchatov Arra	42.58	319	P		P	14 06 20.4	+0.1
	0.3nm,0.3s,baz=112,slow=7.5,SNR=6.5							
	0.3nm,0.3s							
AAK	Ala-Archa	43.31	307	LR		LR	14 25 01.5	
	comp=Z,122nm,19.2s,baz=105,slow=37							
WRA	Warramunga Arr	45.92	165	P		P	14 06 46.7	-0.7
	2.5nm,0.8s,baz=347,slow=8.7,SNR=16							
	2.5nm,0.8s							
TIXI

CHUJ	**Union Juarez**	**2.95**	**125**	*eP*		**Pn**	14 05 38.7	**-0.2**
CHUJ				eS		**Sn**	**14 06 10.9**	**-2.6**
TXIG	**Tlaxiaco**	**3.04**	**279**			**Pn**	14 05 42.0	**+1.8**
TXIG						**Sn**	**14 06 15.1**	**-0.8**
TXIG	**Tlaxiaco**	**3.04**	**279**	*eP*		**Pn**	14 05 42.0	**+1.8**
TXIG				eS		**Sn**	**14 06 15.1**	**-0.8**
TPIG	**Tehuac#an**	**3.07**	**302**			**Sn**	**14 06 09.9**	**-6.5**
TPIG	**Tehuac#an**	**3.07**	**302**	*eP*		Pn	14 05 34.9	-5.7
TPIG				eS		**Sn**	**14 06 09.9**	**-6.5**
HLIG	**Huajuapan de L**	**3.21**	**289**			**Pn**	**14 05 41.5**	**-1.0**
HLIG						**Sn**	**14 06 17.4**	**-2.5**
HLIG	**Huajuapan de L**	**3.21**	**289**	*eP*		**Pn**	**14 05 41.5**	**-1.0**
HLIG				eS		**Sn**	**14 06 17.4**	**-2.5**
JAUV	**Jalcomulco**	**3.30**	**321**			**Pn**	**14 05 42.8**	**-0.8**
JAUV						**Sn**	**14 06 16.6**	**-5.1**
JAUV	**Jalcomulco**	**3.30**	**321**	*eP*		**Pn**	**14 05 42.8**	**-0.8**
JAUV				eS		**Sn**	**14 06 16.6**	**-5.1**
PNIG	**Pinotepa**	**3.38**	**264**			**Pn**	14 05 42.2	**-2.5**
PNIG						**Sn**	**14 06 19.3**	**-4.6**
PNIG	**Pinotepa**	**3.38**	**264**	*eP*		**Pn**	14 05 42.2	**-2.5**
PNIG				eS		**Sn**	**14 06 19.3**	**-4.6**
FTIG	**Fresnillo de T**	**3.53**	**289**			**Pn**	**14 05 49.3**	**+2.5**
FTIG						**Sn**	**14 06 24.8**	**-2.9**
FTIG	**Fresnillo de T**	**3.53**	**289**	*eP*		**Pn**	**14 05 49.3**	**+2.5**
FTIG				eS		**Sn**	**14 06 24.8**	**-2.9**
RTAL	**Retalhuleu**	**3.61**	**128**	*eP*		**Pn**	**14 05 49.3**	**+1.5**
RTAL				eS		**Sn**	**14 06 26.1**	**-3.4**
TLIG	**Tlapa**	**3.85**	**282**			**Sn**	**14 06 33.7**	**-1.8**
TLIG	**Tlapa**	**3.85**	**282**			**Pn**	**14 05 51.3**	**+0.2**
TLIG	**Tlapa**	**3.85**	**282**	*eP*		**Pn**	14 05 50.3	**-0.8**
TLIG				eS		**Sn**	**14 06 33.7**	**-1.8**
SCIG	**Sabancuy**	**3.93**	**56**			**Sn**	**14 06 32.7**	**-4.5**
SCIG	**Sabancuy**	**3.93**	**56**	*eP*		Pn	14 05 46.4	-5.7
SCIG				eS		**Sn**	**14 06 32.7**	**-4.5**
CRIG	**Cruz Grande**	**4.32**	**270**			**Pn**	14 05 53.7	**-3.9**
CRIG						**Sn**	**14 06 45.8**	**-1.2**
CRIG	**Cruz Grande**	**4.32**	**270**	*eP*		**Pn**	14 05 53.7	**-3.9**
CRIG				eS		**Sn**	**14 06 45.8**	**-1.2**
CXUV	**Coxquihui**	**4.39**	**321**			**Sn**	**14 06 48.0**	**-0.7**
CXUV	**Coxquihui**	**4.39**	**321**	*eP*		Pn	14 05 52.6	-5.9
CXUV				eS		**Sn**	**14 06 48.0**	**-0.7**
PPM	**Popocatepetl**	**4.43**	**301**	*eP*		**Pn**	**14 06 01.5**	**+1.9**
PPM				eS		**Sn**	**14 06 45.0**	**-5.5**
PPIG	**Popocatepetl**	**4.43**	**301**			**Pn**	**14 06 01.5**	**+1.9**
PPIG						**Sn**	**14 06 45.0**	**-5.5**
DAIG	**Los Arroyos**	**4.82**	**273**			**Pn**	**14 06 05.3**	**+0.9**
DAIG						**Sn**	**14 06 56.2**	**-3.1**
DAIG	**Los Arroyos**	**4.82**	**273**	*eP*		**Pn**	**14 06 05.3**	**+0.9**
DAIG				eS		**Sn**	**14 06 56.2**	**-3.1**
MEIG	**Mezcala**	**4.90**	**284**			**Pn**	**14 06 03.9**	**-1.7**
MEIG						**Sn**	**14 06 57.4**	**-4.1**
MEIG	**Mezcala**	**4.90**	**284**	*eP*		**Pn**	**14 06 03.9**	**-1.7**
MEIG				eS		**Sn**	**14 06 57.4**	**-4.1**
PLIG	**Platanillo**	**4.92**	**290**			Pn	14 06 00.2	-5.7
PLIG						**Sn**	**14 06 56.3**	**-5.6**
PLIG	**Platanillo**	**4.92**	**290**	*eP*		Pn	14 06 00.2	-5.7
PLIG				eS		**Sn**	**14 06 56.3**	**-5.6**
CAIG	**El Cayaco**	**5.41**	**274**			**Pn**	**14 06 08.2**	**-4.4**
CAIG						**Sn**	**14 07 16.0**	**+2.2**
CAIG	**El Cayaco**	**5.41**	**274**	*eP*		**Pn**	**14 06 08.2**	**-4.4**
CAIG				eS		**Sn**	**14 07 16.0**	**+2.2**
ARIG	**Puente Sto Nin**	**5.66**	**286**			**Pn**	**14 06 14.3**	**-1.7**
ARIG						**Sn**	**14 07 19.3**	**-0.7**
ARIG	**Puente Sto Nin**	**5.66**	**286**	*eP*		**Pn**	**14 06 14.3**	**-1.7**
ARIG				eS		**Sn**	**14 07 19.3**	**-0.7**
TEIG	**Tepich**	**6.92**	**59**	Pn		**Pn**	**14 06 33.8**	**+0.4**
833A	**Chaparral WMA,**	**12.29**	**340**	Pn		**Pn**	**14 07 48.9**	**+1.9**
TX31	**Lajitas Ar. Si**	**15.00**	**328**	Pn		**Pn**	**14 08 25.6**	**+1.7**
MTDJ	**Mount Denham**	**16.36**	**82**	Pn		**Pn**	**14 08 42.3**	**+0.7**
GTBY	**Guantanamo Bay**	**18.78**	**77**	P		**Pn**	**14 09 11.3**	**-0.2**
X18A	**Snowflake**	**22.38**	**325**	P		**P**	**14 09 50.2**	**+0.3**
X18A				IAmb		IAmb	14 09 50.5	
	comp=Z,3.8nm,0.4s							
N47A	**Urbana**	**25.22**	**16**	P		**P**	**14 10 18.8**	**+1.8**
ILAR	**Eielson Array**	**59.29**	**337**	P		**P**	**14 14 54.4**	**+1.8**

*IDC **17** 14:09:16.9±1.0, 19°.64N×121°.47E, h0km, mb3.5/7, mbtmp3.6/8, ML3.7/1, Error ellipse: s-maj=41.3km s-min=17.8km az=67.0*
*MAN **17** 14:09:21.0, 19°.83N×121°.11E, h14km, MS3.5*
ISC 17 14:09:17.0±0.9, 19°.57N±0°.08×121°.8E±0°.1, h10km, n18, σ2§16/14, mb3.5/7, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
PIP	**Pasuquin**	**1.65**	**222**	*eP*		**Pg**	**14 09 49.0**	**+0.3**
PIP				eS		**Sg**	**14 10 12.4**	**+2.2**
SIPP	**Brgy, Tapao**	**2.06**	**218**	*eP*		**Pb**	**14 09 55.3**	**+0.8**
SIPP				eS		**Sg**	**14 10 23.4**	**+0.2**
PCPS	**Palayan City**	**4.94**	**188**	*eP*		**Pn**	**14 10 27.5**	**-3.8**
PCPS				eS		Sn	14 11 17.8	-11
LQP	**Lukban**	**5.43**	**182**	*eP*		**Pn**	**14 10 35.1**	**-3.1**
KSRS	**Korea Array**	**18.61**	**15**	P		**Pn**	**14 13 35.2**	**+0.5**
	0.2nm,0.3s,baz=197,slow=11,SNR=5.1 0.7nm,0.5s							
KSRS					AML	AML		
CMAR	**Chiang Mai Arr**	**21.61**	**271**	P		**P**	**14 14 05.8**	**-1.6**
	0.2nm,0.3s,baz=74,slow=10,SNR=5.3 0.2nm,0.3s							
SONM	**Songino Array**	**30.84**	**340**	P		**P**	**14 15 33.7**	**+0.3**
	0.2nm,0.3s,baz=150,slow=12,SNR=2.1 0.2nm,0.3s							
WRA	**Warramunga Arr**	**41.15**	**162**	P		**P**	**14 17 04.2**	**+2.5**
	0.8nm,0.6s,baz=343,slow=9.0,SNR=12 0.8nm,0.6s							
MKAR	**Makanchi Array**	**42.10**	**319**	P		**P**	**14 17 08.2**	**-1.1**
	0.7nm,0.7s,baz=114,slow=11,SNR=5.2 0.7nm,0.7s							
H11S3	**WAKE ISLAND Hy**	**42.38**	**84**	T		T	15 02 59.1	
	baz=275,slow=74,SNR=6.7							
H11S1	**WAKE ISLAND Hy**	**42.39**	**84**	T		T	15 02 59.5	
	baz=275,slow=74,SNR=7.9							
H11N1	**WAKE ISLAND Hy**	**42.39**	**82**	T		T	15 02 59.4	
	baz=280,slow=74,SNR=4.5							
H11N2	**WAKE ISLAND Hy**	**42.40**	**82**	T		T	15 02 59.9	
	baz=280,slow=74,SNR=4.1							
H11S2	**WAKE ISLAND Hy**	**42.40**	**84**	T		T	15 03 02.0	
	baz=275							
H11N3	**WAKE ISLAND Hy**	**42.41**	**82**	T		T	15 03 00.1	
	baz=280							
ZALV	**Zalesovo Beam**	**44.44**	**330**	P		**P**	**14 17 29.1**	**+1.1**
	0.4nm,0.4s,baz=120,slow=8.5,SNR=1.6 0.4nm,0.4s							
ASAR	**Alice Springs**	**44.57**	**164**	P		**P**	**14 17 32.2**	**+2.8**
	0.4nm,0.3s,baz=341,slow=6.8,SNR=28 0.4nm,0.3s							
KURBB	**Kurchatov Arra**	**46.04**	**323**	P		**P**	**14 17 39.4**	**-1.4**
	0.2nm,0.3s,baz=119,slow=7.8,SNR=2.4 0.2nm,0.3s							

*IDC **17** 14:27:11.8±0.8, 3°.17N×122°.82E, h550km±10km, mb3.5/16, mbtmp4.5/20, Error ellipse: s-maj=15.8km s-min=6.6km az=76.0*
*DJA **17** 14:27:11.3±0.4, 3°.N±5°×12°.3E±°, h514km±4km, M4.2/37, mb4.5/28, mB4.7/23, MLv4.8/37, Mw(mB)4.0/23*
*NEIC **17** 14:27:11.2±1.4, 3°.18N±0°.09×122°.67E±0°.10, h532km±4km, mb4.5/53, Error ellipse: s-maj=14.4km s-min=12.0km az=69.0*
ISC 17 14:27:11.7±0.3, 3°.14N±0°.04×122°.67E±0°.06, h552km, n149, σ1§46/157, mb4.3/40, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ID ISC	Time h m s	Res ISC
GTOI	**Gorontalo**	**2.51**	**172**	P		**P**	**14 28 20.8**	**-3.4**
MNI	**Manado**	**2.74**	**128**	P		**P**	**14 28 23.1**	**-2.4**
MNI				S		**S**	**14 29 20.9**	**-4.5**
MNI				AML		AML		
TOLI2	**Tolitoli**	**2.76**	**223**	P		**P**	**14 28 22.1**	**-3.5**
TOLI2	**Tolitoli**	**2.76**	**223**	S		**S**	**14 29 20.0**	**-5.5**
TOLI2	**Tolitoli**	**2.76**	**223**			**P**	**14 28 22.5**	**-3.0**
KMSI	**Cibinong**	**2.86**	**153**	P		**P**	**14 28 24.4**	**-1.8**
KMSI				AML		AML		
APSI	**Ampana**	**4.15**	**194**	P		**P**	**14 28 33.5**	**-1.4**
APSI				AML		AML		
LUWI	**Luwuk**	**4.15**	**179**	P		**P**	**14 28 31.4**	**-3.6**
LUWI	**Luwuk**	**4.15**	**179**	S		**S**	**14 29 37.5**	**-5.2**
LUWI	**Luwuk**	**4.15**	**179**	P		**P**	**14 28 32.0**	**-3.0**
LUWI	**Luwuk**	**4.15**	**179**	P		**P**	**14 28 31.9**	**-3.0**
LUWI				AML		AML		
KCP	**Kidapawan**	**4.54**	**32**	*i* P		**P**	**14 28 38.0**	**-0.1**
DAV	**Davao City (W)**	**4.86**	**36**	P		**P**	**14 28 39.8**	**-0.8**
	222nm,0.6s,baz=68,slow=0.2,SNR=5.5							
DAV					S	**S**	**14 29 51.3**	**-1.8**
	270nm,0.6s,baz=99,slow=24,SNR=9.4							
DAV	**Davao City (W)**	**4.86**	**36**	P		**P**	**14 28 38.6**	**-2.0**
PCI	**Palu**	**4.92**	**215**	P		**P**	**14 28 39.2**	**-1.9**
	0.5nm3µm73nm,0.6s							
PCI					AML	AML		
TNTI	**Ternate**	**5.24**	**117**	P		**P**	**14 28 40.8**	**-3.1**
TNTI	**Ternate**	**5.24**	**117**	P		**P**	**14 28 40.7**	**-3.1**
TNTI	**Ternate**	**5.24**	**117**	P		**P**	**14 28 44.4**	**+0.6**
	0.7nm2µm64nm,0.5s							
TNTI					AML	AML		
GAMI	**Galela, Maluku**	**5.27**	**104**	P		**P**	**14 28 42.7**	**-1.4**
GAMI					AML	AML		
SANI	**Sanana**	**6.12**	**147**	P		**P**	**14 28 47.8**	**-3.9**
SANI	**Sanana**	**6.12**	**147**	P		**P**	**14 28 47.5**	**-4.2**
	1.1nm2µm35nm,0.7s							
SANI					AML	AML		
BIPH	**Bislig**	**6.21**	**36**	*eP*		**P**	**14 28 49.9**	**-2.5**
TBP	**Tagbilaran**	**6.62**	**10**	*i* P		**P**	**14 28 54.1**	**-2.1**
TTSI	**Tana Toraja**	**6.77**	**205**	P		**P**	**14 28 58.0**	**+0.3**
	0.6nm2µm195nm,0.9s							
TTSI					AML	AML		
MMSI	**Mamuju**	**6.90**	**213**	P		**P**	**14 28 59.1**	**+0.1**
	0.2nm650nm37nm,0.5s							
MMSI					AML	AML		
KDI	**Kendari**	**7.05**	**180**	P		**P**	**14 29 00.4**	**+0.1**
	0.2nm50nm,1.0s							
KDI					AML	AML		
KKM	**Kota Kinabalu**	**7.06**	**294**	P		**P**	**14 28 58.2**	**-2.3**
KKM	**Kota Kinabalu**	**7.06**	**294**			**P**	**14 28 58.5**	**-2.1**
KKM	**Kota Kinabalu**	**7.06**	**294**	P		**P**	**14 28 58.4**	**-2.1**
	0.2nm51nm,0.8s							
KKM					AML	AML		
NLAI	**Namlea**	**7.72**	**145**	P		**P**	**14 29 07.2**	**+0.3**
	2µm185nm,0.9s							
KAPI	**Kappang**	**8.61**	**200**	P		**P**	**14 29 16.8**	**+1.2**
	39nm,0.6s,baz=24,slow=4.2,SNR=15							
KAPI	**Kappang**	**8.61**	**200**	P		**P**	**14 29 17.0**	**+1.4**
	0.1nm33nm,0.9s							
KAPI					AML	AML		
BKSI	**Bulukumba**	**8.78**	**197**	P		**P**	**14 29 18.8**	**+1.4**
	0.1nm35nm,0.7s							
BKSI					AML	AML		
SIJI	**Sorong**	**9.46**	**115**	P		**P**	**14 29 23.6**	**-0.8**
	5.0nm,0.4s,baz=328,slow=17,SNR=14							
BNDI	**Bandanaira**	**10.49**	**136**	P		**P**	**14 29 33.8**	**-1.0**
BNDI	**Bandanaira**	**10.49**	**136**	S		**S**	**14 31 31.5**	**-0.9**
BNDI	**Bandanaira**	**10.49**	**136**	P		**P**	**14 29 34.1**	**-0.7**
LQP	**Lukban**	**10.96**	**354**	*eP*		**P**	**14 29 38.0**	**-1.9**
FAKI	**Fak Fak**	**11.30**	**122**	P		**P**	**14 29 42.0**	**-1.2**
FAKI	**Fak Fak**	**11.30**	**122**	S		**S**	**14 31 47.0**	**-0.8**
FAKI	**Fak Fak**	**11.30**	**122**	P		**P**	**14 29 42.4**	**-0.8**
STKI	**Sintang**	**11.60**	**255**	P		**P**	**14 29 46.4**	**+0.1**
PLAI	**Plampang**	**12.85**	**202**	P		**P**	**14 29 58.3**	**-0.8**
PLAI	**Plampang**	**12.85**	**202**	S		**S**	**14 32 17.0**	**+0.1**
SOEI	**Soe**	**12.90**	**173**	P		**P**	**14 29 58.9**	**-0.9**
BATI	**Batimata**	**13.29**	**176**	P		**P**	**14 30 03.6**	**-0.2**
	96nm,0.3s,baz=328,slow=1.7,SNR=15							
JAGI	**Jajag, Banyuwa**	**14.32**	**216**	P		**P**	**14 30 14.1**	**-0.3**
JAGI	**Jajag, Banyuwa**	**14.32**	**216**	P		**P**	**14 30 15.0**	**+0.6**
DRS	**Darwin Rock St**	**17.49**	**152**	P		**P**	**14 30 45.3**	**+0.3**
MTN	**Manton Dam**	**17.96**	**152**			**P**	**14 30 49.0**	**-0.3**
LEM	**Lembang**	**18.00**	**237**	P		**P**	**14 30 50.6**	**+0.8**
	22nm,0.4s,baz=35,slow=8.1,SNR=6.6							
BBJI	**Bungbulang**	**18.32**	**235**	P		**P**	**14 30 52.8**	**+0.1**
BBJI	**Bungbulang**	**18.32**	**235**	P		**P**	**14 30 52.5**	**-0.2**
BBJI					IAmb	IAmb	14 30 54.1	
	comp=Z,16nm,0.8s							
TWGBT	**Beinan**	**19.63**	**356**	P		**P**	**14 31 03.5**	**-0.9**
TWG	**Pinlang**	**19.63**	**356**	P		**P**	**14 31 04.2**	**-0.2**
KNRA	**Kununurra**	**19.64**	**162**			**P**	**14 31 04.7**	**+0.2**
KNRA					IAmb	IAmb	14 31 06.9	
	comp=Z,9.4nm,0.5s							
TPUB	**Ta-pu**	**20.14**	**355**	P		**P**	**14 31 09.3**	**+0.2**
TPUB	**Ta-pu**	**20.14**	**355**	P		**P**	**14 31 09.1**	**0.0**
YULB	**Yu-li**	**20.18**	**356**	P		**P**	**14 31 08.6**	**-0.8**
SSLB	**Suanglung**	**20.60**	**356**	P		**P**	**14 31 13.0**	**-0.2**
SSLB	**Suanglung**	**20.60**	**356**	P		**P**	**14 31 13.5**	**+0.3**
SSLB					IAmb	IAmb	14 31 22.3	
	comp=Z,15nm,0.8s							
FITZ	**Fitzroy Crossi**	**21.30**	**172**	P		**P**	**14 31 19.7**	**+0.2**
	comp=Z,11nm,0.4s,baz=6.2,slow=8.4,SNR=77 comp=Z,11nm,0.4s							
FITZ	**Fitzroy Crossi**	**21.30**	**172**	P		**P**	**14 31 19.7**	**+0.2**
IPM	**Ipoh**	**21.64**	**274**	P		**P**	**14 31 23.1**	**+0.4**
IPM					IAmb	IAmb	14 31 54.0	
	comp=Z,23nm,1.2s							
MBWA	**Marble Bar**	**24.32**	**187**	P		**P**	**14 31 46.9**	**+0.5**
MBWA	**Marble Bar**	**24.32**	**187**	P		**P**	**14 31 46.3**	**-0.1**
MBWA					IAmb	IAmb	14 32 01.7	
	comp=Z,31nm,1.4s							
WB0	**Warramunga Arr**	**25.51**	**154**			**P**	**14 31 56.3**	**-0.7**
WRAB	**Tennant Creek**	**25.63**	**154**	P		**P**	**14 31 57.9**	**-0.2**
WRAB	**Tennant Creek**	**25.63**	**154**	P		**P**	**14 31 57.6**	**-0.5**
WRAB					IAmb	IAmb	14 31 58.2	
	comp=Z,18nm,0.8s							
WRA	**Warramunga Arr**	**25.64**	**154**	P		**P**	**14 31 57.6**	**-0.6**
	comp=Z,9.8nm,0.3s,baz=338,slow=9.2,SNR=320							
WRA					S	**S**	**14 35 45.2**	**-2.8**
	comp=Z,1.0nm,0.6s,baz=333,slow=16,SNR=5.4							
WRA					ScP	**ScP**	**14 37 59.1**	**+1.4**
	comp=Z,1.6nm,0.5s,baz=339,slow=3.0,SNR=15 comp=Z,9.8nm,0.3s							
WR8	**Warramunga Arr**	**25.72**	**154**			**P**	**14 31 58.3**	**-0.6**
WR8					IAmb	IAmb	14 31 59.0	
	comp=Z,11nm,0.5s							
CMAR	**Chiang Mai Arr**	**27.78**	**305**	P		**P**	**14 32 18.0**	**+1.0**
	comp=Z,0.6nm,0.3s,baz=132,slow=8.3,SNR=5.6							
CMAR					PcP	**PcP**	**14 35 16.4**	**+1.0**
	comp=Z,0.5nm,0.4s,baz=150,slow=1.3,SNR=5.0 comp=Z,0.6nm,0.3s							
CMAR	**Chiang Mai Arr**	**27.78**	**305**	P		**P**	**14 32 17.7**	**+0.7**
AS31	**Alice Springs**	**28.80**	**158**			**P**	**14 32 25.9**	**+0.1**
AS31					IAmb	IAmb	14 32 26.9	
	comp=Z,3.7nm,0.5s							
ASAR	**Alice Springs**	**28.80**	**158**	P		**P**	**14 32 26.1**	**+0.3**
	comp=Z,5.5nm,0.3s,baz=338,slow=7.8,SNR=474							
ASAR					S	**S**	**14 36 37.0**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=352,slow=24,SNR=5.3							
ASAR					ScP	**ScP**	**14 38 08.9**	**+1.6**
	comp=Z,2.8nm,0.7s,baz=337,slow=3.0,SNR=17 comp=Z,5.5nm,0.3s							
AS01	**Alice Springs**	**28.82**	**158**	P		**P**	**14 32 26.1**	**+0.1**
QIS	**Mount Isa**	**28.82**	**146**	P		**P**	**14 32 26.4**	**+0.4**
ENH	**Enshi**	**29.74**	**337**	P		**P**	**14 32 34.3**	**+0.4**
ENH					IAmb	IAmb	14 32 35.0	
	comp=Z,6.6nm,0.7s							
MEEK	**Meekatharra**	**29.86**	**187**	P		**P**	**14 32 34.9**	**-0.1**
JMN	**Monobe**	**32.19**	**18**	P		**P**	**14 32 54.5**	**-0.3**
JMN	**Monobe**	**32.19**	**18**	P		**P**	**14 32 54.5**	**-0.3**
MORW	**Morawa**	**32.65**	**191**	P		**P**	**14 32 59.1**	**+0.4**
MORW	**Morawa**	**32.65**	**191**	P		**P**	**14 32 59.1**	**+0.4**
MORW					IAmb	IAmb	14 33 38.1	
	comp=Z,28nm,1.4s							
BLDU	**Ballidu**	**34.04**	**189**	P		**P**	**14 33 10.7**	**+0.3**
FORT	**Forrest**	**34.11**	**172**	P		**P**	**14 33 11.7**	**+0.7**
KSRS	**Korea Array**	**34.49**	**7**	P		**P**	**14 33 14.4**	**+0.3**
	comp=Z,2.7nm,0.6s,baz=188,slow=9.7,SNR=14 comp=Z,2.7nm,0.6s							
INU	**Inuyama**	**34.70**	**21**	P		**P**	**14 33 15.1**	**-0.8**
INU					IAmb	IAmb	14 33 15.8	
	comp=Z,16nm,1.2s							
KLBR	**Kellerberrin**	**34.85**	**187**	P		**P**	**14 33 17.4**	**+0.2**
JGF	**Kuroka**	**35.05**	**21**	P		**P**	**14 33 18.5**	**-0.4**
INKA	**Innaminka**	**35.29**	**152**			**P**	**14 33 22.3**	**+1.4**
INKA					IAmb	IAmb	14 33 23.2	
	comp=Z,7.0nm,0.6s							
QLP	**Quilpie**	**36.16**	**146**	P		**P**	**14 33 28.9**	**+0.8**
MAJO	**Matsushiro**	**36.20**	**21**	P		**P**	**14 33 27.0**	**-1.3**
MJAR	**Matsushiro Arr**	**36.20**	**21**	P		**P**	**14 33 26.9**	**-1.5**
	comp=Z,2.9nm,0.6s,baz=190,slow=8.8,SNR=9.2 comp=Z,2.9nm,0.6s							
MJAR	**Matsushiro Arr**	**36.20**	**21**	P		**P**	**14 33 27.0**	**-1.3**
NWAO	**Narrogin (SRO)**	**36.23**	**188**	P		**P**	**14 33 29.2**	**+0.6**
NWAO	**Narrogin (SRO)**	**36.23**	**188**	P		**P**	**14 33 29.4**	**+0.8**
NWAO					IAmb	IAmb	14 33 30.5	
	comp=Z,9.5nm,0.7s							
BBOO	**Buckleboo**	**37.93**	**162**	P		**P**	**14 33 43.1**	**+0.5**
BBOO	**Buckleboo**	**37.93**	**162**	P		**P**	**14 33 43.2**	**+0.7**
BBOO					IAmb	IAmb	14 33 43.8	
	comp=Z,10nm,0.6s							
STKA	**Stephens Creek**	**39.19**	**154**	P		**P**	**14 33 54.0**	**+1.2**
	comp=Z,6.0nm,0.4s,baz=327,slow=7.3,SNR=33 comp=Z,6.0nm,0.4s							
STKA	**Stephens Creek**	**39.19**	**154**			**P**	**14 33 53.6**	**+0.8**
HTT	**Hallett**	**39.48**	**158**	P		**P**	**14 33 56.5**	**+1.4**
EIDS	**Eidsvold**	**39.52**	**137**	P		**P**	**14 33 56.1**	**+0.6**
EIDS					IAmb	IAmb	14 34 05.3	
	comp=Z,7.1nm,1.1s							
CMSA	**Cobar Meteorol**	**40.85**	**149**	P		**P**	**14 34 07.3**	**+1.3**
HURO	**Huro Makira**	**41.32**	**110**	P		**P**	**14 34 11.7**	**+1.6**
USA0B	**Ussuriysk Arra**	**41.72**	**10**	P		**P**	**14 34 13.0**	**+0.4**
USA0B					IAmb	IAmb	14 34 13.6	
	comp=Z,5.4nm,0.7s							
USRK	**Ussuriysk Ar.**	**41.72**	**10**	P		**P**	**14 34 12.6**	**0.0**
	comp=Z,5.2nm,0.6s,baz=201,slow=6.1,SNR=11 comp=Z,5.2nm,0.6s							
MDJ	**Mudanjiang**	**41.76**	**7**	P		**P**	**14 34 13.5**	**+0.5**
MDJ					IAmb	IAmb	14 34 13.7	
	comp=Z,12nm,0.7s							
PALK	**Pallekele**	**41.99**	**277**	P		**P**	**14 34 16.0**	**+0.7**
EVN	**Everest**	**42.16**	**309**			**P**	**14 34 17.7**	**+0.4**
EVN					IAmb	IAmb	14 34 19.3	
	comp=Z,9.3nm,1.0s							
ARMA	**Armidale**	**43.33**	**142**	P		**P**	**14 34 26.2**	**+0.5**
MGBR	**Mount Gambier**	**43.92**	**159**	P		**P**	**14 34 31.7**	**+1.8**
MGBR					IAmb	IAmb	14 34 46.3	
	comp=Z,28nm,1.2s							
JKA	**Kamikawa-asahi**	**44.45**	**21**	P		**P**	**14 34 34.1**	**+0.2**
CAN	**Canberra**	**45.53**	**149**	P		**P**	**14 34 44.0**	**+1.6**
CAN	**Canberra**	**45.53**	**149**	P		**P**	**14 34 44.2**	**+1.8**
TOO	**Toolangi**	**45.71**	**155**	P		**P**	**14 34 45.7**	**+1.9**
HILR	**Hailar Array B**	**46.32**	**357**	P		**P**	**14 34 48.0**	**-0.2**
	comp=Z,8.9nm,0.4s,baz=175,slow=9.5,SNR=11 comp=Z,8.9nm,0.4s							
ULN	**Ulaanbaatar**	**46.55**	**346**	P		**P**	**14 34 49.7**	**-0.5**
SONM	**Songino Array**	**46.69**	**345**	P		**P**	**14 34 51.3**	**+0.2**
	comp=Z,1.7nm,0.7s,baz=162,slow=8.9,SNR=11 comp=Z,1.7nm,0.7s							
SONM	**Songino Array**	**46.69**	**345**	P		**P**	**14 34 50.8**	**-0.4**
YSS	**Yuzhno-Sakhali**	**47.00**	**19**	P		**P**	**14 34 53.5**	**+0.2**
YSS					IAmb	IAmb	14 35 19.1	
	comp=Z,31nm,1.5s							
PDGK	**Podgornoye**	**55.36**	**323**	P		**P**	**14 35 54.6**	**+0.6**
MKAR	**Makanchi Array**	**55.80**	**327**	P		**P**	**14 35 57.5**	**+0.5**
	comp=Z,1.2nm,0.4s,baz=125,slow=8.1,SNR=20							
MKAR					PcP	**PcP**	**14 36 47.9**	**+0.1**
	comp=Z,1.7nm,0.6s,baz=120,slow=4.7,SNR=10 comp=Z,1.2nm,0.4s							
MAKZ	**Makanchi**	**55.98**	**327**	P		**P**	**14 35 58.6**	**+0.4**
PETK	**Petropavlovsk-**	**57.57**	**24**	P		**P**	**14 36 07.8**	**-1.1**
	comp=Z,4.6nm,0.9s,baz=212,slow=5.9,SNR=5.9 comp=Z,4.6nm,0.9s							
KBL	**Kabul**	**58.70**	**309**	P		**P**	**14 36 17.6**	**+0.3**
KBL					IAmb	IAmb	14 36 18.0	
	comp=Z,6.0nm,0.5s							
ZALV	**Zalesovo Beam**	**59.35**	**335**	P		**P**	**14 36 21.1**	**+0.3**
	comp=Z,0.4nm,0.4s,baz=99,slow=4.5,SNR=2.4 comp=Z,0.4nm,0.4s							
ZALV	**Zalesovo Beam**	**59.35**	**335**	P		**P**	**14 36 20.9**	**+0.1**
KURBB	**Kurchatov Arra**	**60.11**	**329**	P		**P**	**14 36 26.1**	**0.0**
	comp=Z,1.3nm,0.6s,baz=130,slow=6.0,SNR=22							
KURBB					PcP	**PcP**	**14 37 04.7**	**-0.2**
	comp=Z,0.1nm,0.3s,baz=123,slow=3.7,SNR=4.0

H04S1	**CROZET ISLANDS**	**48.47**	**121**	T		T		15 42 27.9	
	baz=251,slow=76,SNR=14								
DBIC	**Dimbokro**	**48.53**	**16**	LR		LR		15 05 15.7	
	comp=Z,59nm,20.9s,baz=146,slow=30								
PB08	**IPOC Station P**	**48.84**	**279**	P		**P**		**14 50 10.7**	**+0.3**
PB08				IAmb		IAmb		14 50 12.2	
	comp=Z,12nm,1.1s								
GO01	**Chusmiza**	**49.16**	**279**	P		**P**		**14 50 12.6**	**-0.4**
GO01				IAmb		IAmb		14 50 14.4	
	comp=Z,8.0nm,0.9s								
MAW	**Mawson**	**49.16**	**150**	LR		LR		15 06 45.0	
	comp=Z,75nm,20.6s,baz=261,slow=31								
QSPA	**South Pole Qui**	**49.42**	**180**	P		**P**		**14 50 13.8**	**-0.3**
	comp=Z,3.1nm,1.0s,baz=207,slow=3.1,SNR=10								
QSPA				LR		LR		15 11 00.7	
	comp=Z,49nm,18.1s,baz=189,slow=36								
	comp=Z,3.1nm,1.0s								
QSPA	**South Pole Qui**	**49.42**	**180**	P		**P**		**14 50 13.7**	**-0.3**
QSPA				IAmb		IAmb		14 50 18.4	
	comp=Z,5.1nm,1.1s								
LPAZ	**La Paz**	**50.46**	**283**	LR		LR		15 11 47.8	
	comp=Z,91nm,18.3s,baz=120,slow=36								
MDP	**Montagnes des**	**56.30**	**315**	LR		LR		15 13 40.9	
	comp=Z,112nm,18.1s,baz=112,slow=34								
TORD	**Torodi Ar. Bea**	**56.38**	**22**	P		**P**		**14 51 06.7**	**+1.0**
	comp=Z,0.9nm,0.7s,baz=201,slow=4.4,SNR=1.5								
	comp=Z,0.9nm,0.7s								
TORD	**Torodi Ar. Bea**	**56.38**	**22**	P		**P**		**14 51 05.5**	**-0.2**
MBAR	**Mbarara**	**58.72**	**60**	LR		LR		15 14 05.1	
	comp=Z,111nm,19.3s,baz=354,slow=33								
NNA	**Nana**	**59.68**	**281**	LR		LR		15 16 47.3	
	comp=Z,126nm,20.1s,baz=149,slow=36								
VNDA	**Vanda**	**61.91**	**180**	P		**P**		**14 51 43.4**	**0.0**
	comp=Z,0.9nm,1.0s,baz=193,slow=9.8,SNR=3.9								
	comp=Z,0.9nm,1.0s								
VNDA	**Vanda**	**61.91**	**180**	P		**P**		**14 51 43.6**	**+0.2**
VNDA				IAmb		IAmb		14 51 54.8	
	comp=Z,2.9nm,1.1s								
KMBO	**Kilima Mbogo**	**62.72**	**66**	LR		LR		15 16 35.7	
	comp=Z,142nm,21.3s,baz=100,slow=34								
ATAH	**Atahualpa**	**64.01**	**284**	LR		LR		15 19 45.8	
	comp=Z,84nm,19.8s,baz=151,slow=36								
RUSC	**La Rusia**	**69.38**	**298**	P		**P**		**14 52 32.4**	**-0.7**
RUSC				IAmb		IAmb		14 52 36.0	
	comp=Z,4.2nm,0.9s								
ROSC	**El Rosal**	**69.44**	**296**	LR		LR		15 21 45.0	
	comp=Z,281nm,19.1s,baz=155,slow=35								
MDT	**Midelt**	**74.15**	**11**	LR		LR		15 20 46.0	
	comp=Z,73nm,21.8s,baz=220,slow=32								
KEST	**Kesra**	**79.89**	**21**	LR		LR		15 25 13.3	
	comp=Z,62nm,20.4s,baz=300,slow=33								
JTS	**Las Juntas de**	**80.68**	**292**	LR		LR		15 29 16.2	
	comp=Z,43nm,18.2s,baz=58,slow=36								
ESDC	**Sonseca Array**	**80.98**	**10**	P		**P**		**14 53 39.2**	**+0.4**
	comp=Z,1.5nm,0.9s,baz=183,slow=5.6,SNR=7.5								
ESDC				LR		LR		15 26 13.8	
	comp=Z,24nm,18.6s,baz=172,slow=33								
	comp=Z,1.5nm,0.9s								
ESDC	**Sonseca Array**	**80.98**	**10**	P		**P**		**14 53 39.9**	**+1.1**
VAE	**Valguarnera**	**83.01**	**25**	LR		LR		15 26 49.2	
	comp=Z,35nm,19.1s,baz=132,slow=33								
MMAI	**Mount Meron Ar**	**87.84**	**42**	LR		LR		15 31 21.0	
	comp=Z,42nm,20.3s,baz=232,slow=34								
H01W2	**Cape Leeuwin H**	**92.14**	**142**	T		T		16 37 52.2	
	baz=216,slow=75,SNR=16								
H01W1	**Cape Leeuwin H**	**92.16**	**142**	T		T		16 37 49.2	
	baz=216,slow=75,SNR=18								
H01W3	**Cape Leeuwin H**	**92.16**	**142**	T		T		16 37 45.3	
	baz=216,slow=75,SNR=15								
CMIG	**Matias Romero**	**92.34**	**291**	LR		LR		15 34 05.5	
	comp=Z,18nm,18.8s,baz=192,slow=34								
GNI	**Garni**	**98.11**	**43**	LR		LR		15 38 31.5	
	comp=Z,48nm,19.4s,baz=267,slow=35								
ILAR	**Eielson Array**	**142.95**	**327**	PKHKP		PKPpre		15 00 53.8	
	comp=Z,0.6nm,0.8s,baz=50,slow=1.5,SNR=7.1								
ILAR	**Eielson Array**	**142.95**	**327**	PKPpre		PKPpre		15 00 52.8	
MLY	**Manley**	**144.43**	**328**	PKPdf		**PKPab**		**15 00 57.5**	**-0.5**

*IDC **17** 14:45:17.0±2.8, 10°.76N×86°.38W, h0km, mb3.1/2, mbtmp3.1/2, Error ellipse: s-maj=183.2km s-min=66.1km az=55.0*
*CATAC **17** 14:45:21.6±0.6, 11°.N±3°×8°.7W±°, h34km±13km, M4.0/29, MLv4.0/29, Error ellipse: s-maj=8.3km s-min=3.0km az=49.3, confirmed*
*UCR **17** 14:45:21.4±0.9, 10°.63N×86°.77W, h21km±5km, MW4.2, Presumed earthquake*

ISC 17 14:45:20.7±1.6, 10°.60N±0°.04×86°.79W±0°.04, h19km±4km, n62, σ0963/81, 4C, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALIBA	**Liberia Airpor**	**1.23**	**90**	*eP*	**Pn**	**14 45 42.5**	**-0.3**
LCRUZ	**La Cruz**	**1.23**	**67**	⇑*eP*	**Pn**	**14 45 42.4**	**-0.6**
LCRUZ				*eS*	**Sn**	**14 45 59.6**	**+0.4**
LAPC	**Finca la Perla**	**1.35**	**83**	*eP*	**Pn**	**14 45 43.8**	**-0.7**
NADN	**Granada**	**1.36**	**33**	*eP*	**Pn**	**14 45 45.1**	**+0.4**
CARN	**Rivas**	**1.38**	**65**	P	**Pn**	**14 45 45.0**	**+0.1**
CARN				S	**Sg**	**14 46 05.5**	**+0.2**
CARN	**Rivas**	**1.38**	**65**	*eP*	**Pn**	**14 45 44.8**	**-0.1**
VRLE	**La Escondida,**	**1.41**	**82**	*eP*	**Pn**	**14 45 45.0**	**-0.5**
VRLE				*eS*	**Sb**	**14 46 04.2**	**-0.1**
VORI	**VORI**	**1.44**	**81**	*eP*	**Pn**	**14 45 45.3**	**-0.6**
BUAI	**Buenos Aires**	**1.46**	**79**	*eP*	**Pn**	**14 45 46.2**	**+0.1**
MORN	**Al O del Volca**	**1.46**	**50**	P	**Pb**	**14 45 47.2**	**-0.1**
MORN				S	**Sg**	**14 46 07.4**	**-0.7**
CMARA	**Lajas Hojancha**	**1.47**	**113**	P	**Pn**	**14 45 46.4**	**+0.2**
INDI	**Punta indio, G**	**1.47**	**120**	P	**Pn**	**14 45 45.9**	**-0.2**
INDI				S	**Sn**	**14 46 04.6**	**-0.2**
MASN	**Masaya**	**1.51**	**24**	P	**Pn**	**14 45 47.5**	**+0.7**
MAS3	**Al N del Volca**	**1.54**	**23**	P	**Pn**	**14 45 47.7**	**+0.5**
MESS	**Mesas**	**1.58**	**85**	*eP*	**Pn**	**14 45 47.2**	**-0.5**
ABCN	**Banco Central**	**1.58**	**17**	P	**Pb**	**14 45 48.6**	**-0.7**
HORNC	**Hornillas**	**1.59**	**86**	⇑*iP*	**Pn**	**14 45 47.5**	**-0.4**
CLARA	**Aguas Claras**	**1.60**	**83**	*eP*	**Pn**	**14 45 47.9**	**-0.1**
CUI	**Cuipilapa**	**1.60**	**88**	⇑*eP*	**Pn**	**14 45 47.8**	**-0.2**
TISN	**Laguna Tiscapa**	**1.61**	**18**	P	**Pn**	**14 45 48.6**	**+0.4**
AERN	**Aeropuerto Man**	**1.65**	**22**	P	**Pn**	**14 45 49.3**	**+0.6**
APQ2	**Apoyeque**	**1.65**	**16**	P	**Pn**	**14 45 48.9**	**+0.2**
APQ2	**Apoyeque**	**1.65**	**16**	P	**Pn**	**14 45 49.2**	**+0.5**
APQ2				S	**Sb**	**14 46 10.8**	**-0.1**
WILN	**Americas 2**	**1.66**	**21**	P	**Pn**	**14 45 49.2**	**+0.5**
WILN				S	**Sb**	**14 46 11.3**	**+0.1**
AMTN	**Mateare**	**1.66**	**12**	P	**Pn**	**14 45 49.6**	**+0.8**
VMAR	**Armenia, Volca**	**1.66**	**83**	*eP*	**Pn**	**14 45 49.0**	**+0.1**
CANAL	**Canalete**	**1.72**	**82**	*eP*	**Pn**	**14 45 49.8**	**+0.1**
TENO	**El Achiote**	**1.79**	**87**	⇑*iP*	**Pn**	**14 45 50.1**	**-0.5**
LEVN	**Ruinas Leon Vi**	**1.79**	**5**	P	**Pn**	**14 45 51.4**	**+0.8**
LEVN				S	**Sb**	**14 46 14.6**	**-0.5**
JTS	**Las Juntas de**	**1.84**	**100**	P	**Pn**	**14 45 51.8**	**-0.4**
JTS				S	**Sn**	**14 46 14.6**	**+0.6**
COTE	**Lago Cote**	**1.84**	**91**	*eP*	**Pn**	**14 45 51.7**	**+0.3**
MOM2	**El Cardon**	**1.85**	**9**	P	**Pn**	**14 45 51.5**	**+0.1**
MOM2				S	**Sb**	**14 46 15.9**	**-0.7**
QUEB	**Quebradon, Cot**	**1.86**	**89**	*eP*	**Pn**	**14 45 51.8**	**+0.2**
PACN	**Al O del Volca**	**1.89**	**360**	P	**Pn**	**14 45 52.3**	**+0.4**
PACN				S	**Sn**	**14 46 15.3**	**+0.1**
CNGN	**Cerro Negro**	**1.89**	**3**	P	**Pn**	**14 45 52.5**	**+0.5**
CNGN				S	**Sn**	**14 46 16.1**	**+0.8**
MOM3	**MOM3**	**1.92**	**8**	P	**Pn**	**14 45 52.7**	**+0.4**
MOM3				S	**Sb**	**14 46 17.5**	**-1.1**
PLRN	**Geotermica Pol**	**1.97**	**1**	P	**Pn**	**14 45 53.1**	**0.0**
PLRN				S	**Sn**	**14 46 16.6**	**-0.6**
TELN	**Telica**	**1.99**	**359**	P	**Pn**	**14 45 54.3**	**+0.9**
HERN	**Volcan Telica**	**1.99**	**359**	P	**Pn**	**14 45 54.3**	**+0.9**
HERN				S	**Sn**	**14 46 19.1**	**+1.1**
HERN	**Volcan Telica**	**1.99**	**359**	*eP*	**Pn**	**14 45 54.4**	**+0.9**
CEDE	**Laguna Cedeo**	**2.06**	**93**	*eP*	**Pn**	**14 45 54.7**	**+0.4**
ACON	**Acoyapa**	**2.09**	**49**	P	**Pn**	**14 45 55.0**	**+0.3**
ACON				S	**Sn**	**14 46 21.8**	**+1.6**
CRIN	**San Cristobal**	**2.10**	**353**	P	**Pn**	**14 45 55.4**	**+0.5**
CRIN				S	**Sn**	**14 46 21.3**	**+0.8**
CRIN	**San Cristobal**	**2.10**	**353**		**Pn**	**14 45 55.0**	**0.0**
BOAB	**BOACO BROADBAN**	**2.14**	**31**	P	**Pn**	**14 45 55.9**	**+0.4**
BOAB				S	**Sb**	**14 46 23.5**	**-1.6**
CSGN	**Cosiguina Volc**	**2.48**	**342**	P	**Pn**	**14 46 00.7**	**+0.6**
POTN	**Potosi Cosigui**	**2.48**	**344**	P	**Pn**	**14 46 00.7**	**+0.6**
ABE2	**San Pablo**	**2.84**	**108**	*eP*	**Pn**	**14 46 06.1**	**+0.9**
CNCH	**Conchagua**	**2.84**	**339**	P	**Pn**	**14 46 05.4**	**+0.1**
LCR2	**La Lucha 2**	**2.87**	**107**	P	**Pn**	**14 46 06.9**	**+1.2**
LCR2				S	**Sn**	**14 46 40.3**	**+0.4**
LCR2	**La Lucha 2**	**2.87**	**107**	*eP*	**Pn**	**14 46 06.7**	**+1.0**
PIEC	**Cerro El Cedra**	**2.96**	**109**	*eP*	**Pn**	**14 46 07.4**	**+0.5**
RCPN	**Sur Rio San Ju**	**2.98**	**13**	P	**Pn**	**14 46 07.8**	**+0.6**
TGUH	**Tegucigalpa,Un**	**3.46**	**352**	P	**Pn**	**14 46 14.2**	**+0.4**
PIRO	**Carate, Puerto**	**4.05**	**122**	P	**Pn**	**14 46 23.1**	**+1.5**
PIRO	**Carate, Puerto**	**4.05**	**122**	*eP*	**Pn**	**14 46 22.6**	**+0.9**
FAME	**Alcaldia de Sa**	**4.50**	**316**	P	**Pn**	**14 46 27.6**	**-0.4**
TXAR	**Lajitas Array**	**24.41**	**322**	P	**P**	**14 50 38.6**	**+0.3**
	0.1nm,0.3s,baz=131,slow=9.6,SNR=4.5						
	0.1nm,0.3s						
ILAR	**Eielson Array**	**67.96**	**336**	P	**P**	**14 56 17.9**	**-0.2**
	0.2nm,0.9s,baz=116,slow=6.9,SNR=4.8						
	0.2nm,0.9s						
ASAR	**Alice Springs**	**139.15**	**246**	PKP	**PKPdf**	**15 04 47.0**	**-0.2**
	0.5nm,1.0s,baz=90,slow=2.0,SNR=5.6						
WRA	**Warramunga Arr**	**139.34**	**252**	PKP	**PKPdf**	**15 04 47.3**	**-0.3**
	0.3nm,0.8s,baz=93,slow=2.4,SNR=2.1						
CMAR	**Chiang Mai Arr**	**150.57**	**349**	PKPbc	**PKPbc**	**15 05 11.4**	**-0.9**
	0.4nm,0.4s,baz=338,slow=2.7,SNR=4.2						

*IDC **17** 14:47:14.8±6.5, 36°.49N×71°.78E, h249km±52km, mb3.0/2, mbtmp3.7/7, Error ellipse: s-maj=89.7km s-min=39.0km az=78.0*
*NNC **17** 14:47:15.2±2.1, 36°.92N×71°.10E, h0km, mb3.8, mpv3.4, Error ellipse: s-maj=17.6km s-min=16.1km az=98.0*

ISC 17 14:47:13.4±1.8, 36°.6N±0°.1×71°.2E±0°.2, h250km, n14, σ1919/17, 3C-1D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UCH	**Uchtor**	**6.17**	**24**	P	**Pn**	**14 48 44.5**	**+0.4**
	SNR=29						
EKS2	**Erkin-Say**	**6.37**	**18**	P	**Pn**	**14 48 47.5**	**+1.4**
	SNR=10						
KK31	**Karatay Array**	**6.50**	**356**	⇑P	**Pn**	**14 48 48.3**	**+0.6**
	0.8nm,0.2s,baz=174,slow=10,SNR=7.7						
KK31				⇑S	**S**	**14 50 00.4**	**-2.9**
	5.6nm,0.5s,baz=177,slow=16,SNR=11						
AAK	**Ala-Archa**	**6.54**	**22**	P	**Pn**	**14 48 49.5**	**+1.3**
	7.1nm,0.4s,baz=165,slow=4.1,SNR=24						
AAK				S	**S**	**14 50 04.4**	**+0.1**
	3.9nm,0.4s,baz=335,slow=23,SNR=12						
AAK	**Ala-Archa**	**6.54**	**22**	P	**Pn**	**14 48 48.6**	**+0.4**
	SNR=5.4						
AAK	**Ala-Archa**	**6.54**	**22**	⇓P	**Pn**	**14 48 48.8**	**+0.5**
	1.7nm,0.4s						
AAK				⇑S	**S**	**14 50 03.1**	**-1.3**
	2.3nm,0.5s						
KBK	**Karagaybulak**	**6.70**	**25**	P	**Pn**	**14 48 51.3**	**+1.0**
	SNR=5.4						
TKM2	**Tokmak 2**	**7.16**	**27**	P	**Pn**	**14 48 56.8**	**+0.7**
	SNR=14						
MKAR	**Makanchi Array**	**13.12**	**36**	P	**Pn**	**14 50 10.0**	**-0.6**
	1.0nm,0.5s,baz=219,slow=16,SNR=13						
KURBB	**Kurchatov Arra**	**14.97**	**18**	P	**Pn**	**14 50 32.7**	**-0.3**
	1.2nm,0.6s,baz=207,slow=12,SNR=8.2						
BVAR	**Borovoye Array**	**16.42**	**358**	P	**Pn**	**14 50 51.3**	**+1.1**
	1.1nm,0.5s,baz=164,slow=10,SNR=7.8						
ZALV	**Zalesovo Beam**	**19.75**	**24**	P	**P**	**14 51 25.6**	**+1.2**
	0.8nm,0.3s,baz=219,slow=11,SNR=6.0						
WRA	**Warramunga Arr**	**81.93**	**122**	P	**P**	**14 59 04.3**	**-1.0**
	0.3nm,0.5s,baz=324,slow=4.9,SNR=12						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**84.20**	**125**	P	**P**	**14 59 16.3**	**-0.6**
	0.3nm,0.6s,baz=312,slow=5.2,SNR=9.7						
	0.3nm,0.6s						

*HLW **17** 15:27:20.5, 27°.78N×34°.41E, h28km±2km, Ml2.6*
*SGS **17** 15:27:21.8, 27°.86N×34°.52E, h20km, Ml2.1*

ISC 17 15:27:19.5±0.9, 27°.81N±0°.04×34°.44E±0°.03, h15km, n21, σ0968/25, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TR1	**Tor 1**	**0.48**	**294**	P	**Pg**	**15 27 29.9**	**+0.9**
RSHS		**0.58**	**33**	P	**Pg**	**15 27 31.7**	**+0.8**
RSHS				S	**Sg**	**15 27 39.3**	**+0.6**
KRABS	**KRABS**	**0.77**	**68**	P	**Pg**	**15 27 34.6**	**0.0**
KRABS				S	**Sg**	**15 27 44.1**	**-0.7**
HKAT	**Jabal Katrina**	**0.81**	**331**	P	**Pg**	**15 27 36.0**	**+0.6**
HKAT				S	**Sg**	**15 27 46.7**	**+0.5**
AYUS	**`Aynunah**	**0.82**	**63**	P	**Pg**	**15 27 35.4**	**-0.1**
BDAS	**Al Bad'**	**0.85**	**43**	P	**Pg**	**15 27 35.6**	**-0.4**
TR2	**Tor 2**	**0.86**	**312**	P	**Pb**	**15 27 36.6**	**+0.5**
HDHB	**Dhahab**	**0.92**	**10**	P	**Pb**	**15 27 37.0**	**-0.2**
HHRG	**Al Ghardaqah**	**0.97**	**233**	P	**Pb**	**15 27 38.0**	**-0.1**
HHRG				S	**Sb**	**15 27 50.4**	**-0.4**
NUB	**Nuweibaa**	**1.23**	**8**	P	**Pn**	**15 27 40.7**	**-1.4**
HAQS	**Haql**	**1.30**	**19**	P	**Pn**	**15 27 42.5**	**-0.7**
JLOS		**1.30**	**45**	P	**Pn**	**15 27 42.8**	**-0.6**
HRDS	**Abu Rudays**	**1.35**	**312**	P	**Pn**	**15 27 43.2**	**-0.7**
GRB	**Gharib**	**1.54**	**288**	P	**Pn**	**15 27 45.7**	**-0.7**
DESA	**DESA**	**1.56**	**101**	P	**Pn**	**15 27 46.9**	**+0.2**
HQLS		**1.58**	**20**	P	**Pn**	**15 27 46.5**	**-0.6**
TBKS	**Tabuk**	**1.90**	**77**	P	**Pn**	**15 27 52.3**	**+0.9**
BIDS	**Bi'r al Bayda'**	**2.43**	**112**	P	**Pn**	**15 27 59.0**	**+0.4**
NADB	**Abo Dabab**	**2.46**	**179**	P	**Pn**	**15 27 58.2**	**-0.9**
URD04	**Abu Rakah**	**2.61**	**106**	P	**Pn**	**15 28 02.0**	**+0.7**
BRNS	**Bernies**	**3.95**	**184**	P	**Pn**	**15 28 19.1**	**-0.5**

*SJA **17** 15:46:20.8±0.6, 36°.16S×71°.56W, h108km±6km, ML3.8, MW3.7*
*NEIC **17** 15:46:21.6±1.0, 36°.19S±0°.06×71°.6W±0°.1, h100km±6km, mb4.2/8, ML4.0(GUC), Error ellipse: s-maj=12.9km s-min=6.5km az=119.0*
*GUC **17** 15:46:22.0±0.8, 36°.19S×71°.48W, h98km±3km, ML4.0, Presumed earthquake*
*IDC **17** 15:46:23.4±2.3, 36°.27S×70°.84W, h96km±19km, mb3.6/6, mbtmp3.9/9, Error ellipse: s-maj=36.1km s-min=15.5km az=100.0*

ISC 17 15:46:21.7±0.7, 36°.19S±0°.03×71°.50W±0°.05, h99km±5km, n96, σ1913/121, mb4.0/5, 2C-5D, Central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ML02	**Panimavida**	**0.43**	**9**	*eP*	Pn	15 46 32.1	-4.8
ML02				*eP*		15 46 34.2	
ML02				IAML		15 46 49.8	
	comp=Z,6μm,0.3s						
ML02	**Panimavida**	**0.43**	**9**		**Pn**	**15 46 37.2**	**+0.3**
ML02				Sn	**Sn**	**15 46 48.5**	**+0.2**
ML02	**Panimavida**	**0.43**	**9**	⇑*iP*	**Pn**	**15 46 37.2**	**+0.3**
ML02				*i* S	**Sn**	**15 46 48.0**	**-0.3**
ML02				IAML		15 46 49.9	
	comp=E,28μm,0.5s						
BI02	**San Fabin de**	**0.51**	**159**	*eP*	**Pn**	**15 46 37.7**	**+0.2**
BI02				IAML		15 46 51.7	
	comp=Z,1μm,0.4s						
BI02	**San Fabin de**	**0.51**	**159**		**Pn**	**15 46 37.3**	**-0.2**
BI02				Sn	**Sn**	**15 46 49.4**	**0.0**
BI02	**San Fabin de**	**0.51**	**159**	⇓*iP*	**Pn**	**15 46 37.4**	**-0.2**
BI02				*i* S	**Sn**	**15 46 49.0**	**-0.4**
GO05	**Hualane**	**1.23**	**343**	*eP*	**Pn**	**15 46 45.2**	**+0.5**
GO05				*eS*	**Sn**	**15 47 02.4**	**+0.5**
GO05				IAML		15 47 02.8	
	comp=Z,2μm,0.2s						
GO05	**Hualane**	**1.23**	**343**		**Pn**	**15 46 44.9**	**+0.3**
GO05	**Hualane**	**1.23**	**343**	⇑*iP*	**Pn**	**15 46 45.0**	**+0.3**
GO05				*eS*	**Sn**	**15 47 01.7**	**-0.3**
GO05				IAML		15 47 04.5	
	comp=E,3μm,0.3s						
BI05	**Punta Hualpn**	**1.47**	**247**	*eP*	**Pn**	**15 46 47.9**	**+0.5**
BI05				IAML		15 47 09.7	
	comp=Z,1μm,0.1s						
BI05	**Punta Hualpn**	**1.47**	**247**		**Pn**	**15 46 47.5**	**0.0**
BI05	**Punta Hualpn**	**1.47**	**247**	*eP*	**Pn**	**15 46 47.5**	**0.0**
BI05				*eS*	**Sn**	**15 47 06.8**	**-0.3**
BI05				IAML		15 47 07.8	
	comp=N,8μm,0.2s						
BO02	**Sierra Bellavi**	**1.51**	**23**	*eP*	**Pn**	**15 46 48.8**	**+0.7**
BO02				*eS*	**Sn**	**15 47 11.2**	**+3.1**
BO02				IAML		15 47 12.8	
	comp=Z,2μm,0.2s						
BO02	**Sierra Bellavi**	**1.51**	**23**		**Pn**	**15 46 48.8**	**+0.7**
BO02	**Sierra Bellavi**	**1.51**	**23**	⇓*iP*	**Pn**	**15 46 48.8**	**+0.7**
BO02				*eS*	**Sn**	**15 47 08.2**	**+0.1**
BO02				IAML		15 47 12.3	
	comp=N,3μm,0.2s						
BO03	**Pichilemu**	**1.73**	**347**	*eP*	**Pn**	**15 46 51.3**	**+0.5**
BO03				*eS*	**Sn**	**15 47 12.7**	**-0.2**
CANA	**Caviahue**	**1.73**	**168**	*eP*	**Pn**	**15 46 46.9**	**-4.1**
CANA				*eP*		15 46 52.6	
EDS3	**Malargue**	**1.76**	**77**	*eP*	**Pn**	**15 46 52.3**	**+1.1**
EDS3				*eS*	Sn	15 47 00.3	-13
BO01	**Tunca**	**1.82**	**11**	*eP*	**Pn**	**15 46 52.1**	**+0.2**
BO01				*eS*	**Sn**	**15 47 15.0**	**0.0**
BO01				IAML		15 47 17.2	
	comp=Z,595nm,0.4s						
BO01	**Tunca**	**1.82**	**11**		**Pn**	**15 46 52.2**	**+0.2**
BO01	**Tunca**	**1.82**	**11**	⇓*iP*	**Pn**	**15 46 52.2**	**+0.2**
BO01				*eS*	**Sn**	**15 47 13.8**	**-1.2**
BO01				IAML		15 47 17.6	
	comp=E,802nm,0.5s						
BO04	**La Punta**	**2.31**	**19**		**Pn**	**15 46 58.3**	**0.0**
BO04	**La Punta**	**2.31**	**19**	*eP*	**Pn**	**15 46 58.7**	**+0.3**
BO04				*i* S	**Sn**	**15 47 26.5**	**+0.1**
BO04				IAML		15 47 31.6	
	comp=N,302nm,0.3s						
MT01	**Popeta**	**2.33**	**5**	*eP*	**Pn**	**15 46 58.6**	**+0.1**
MT01				*eS*	**Sn**	**15 47 27.1**	**+0.3**
MT01				IAML		15 47 35.2	
	comp=Z,535nm,0.3s						
MT01	**Popeta**	**2.33**	**5**		**Pn**	**15 46 58.5**	**0.0**
MT01	**Popeta**	**2.33**	**5**	*eP*	**Pn**	**15 46 58.6**	**+0.1**
MT09	**Talagante**	**2.44**	**10**		**Pn**	**15 47 00.0**	**-0.1**
MT09	**Talagante**	**2.44**	**10**	⇓*iP*	**Pn**	**15 47 00.1**	**-0.1**
MT09				*eS*	**Sn**	**15 47 27.7**	**-1.9**
MT09				IAML		15 47 32.5	
	comp=N,928nm,0.3s						
VA05	**Santo Domingo**	**2.53**	**358**		**Pn**	**15 47 00.5**	**-0.6**
VA05	**Santo Domingo**	**2.53**	**358**	*eP*	**Pn**	**15 47 00.6**	**-0.6**
LMEL	**Las Melosas**	**2.57**	**25**	*eP*	**Pn**	**15 47 02.8**	**+1.0**
MT12	**Pirque**	**2.57**	**18**	*eP*	**Pn**	**15 47 01.9**	**+0.2**
MT12				*i* S	**Sn**	**15 47 32.0**	**-0.5**
MT12				IAML		15 47 37.4	
	comp=N,577nm,0.5s						
MT13	**San Alfonso**	**2.63**	**23**	*eP*	**Pn**	**15 47 03.8**	**+1.1**
MT13				*eS*	**Sn**	**15 47 36.3**	**+2.1**
MT13				IAML		15 47 37.9	
	comp=Z,333nm,0.6s						
MT13	**San Alfonso**	**2.63**	**23**		**Pn**	**15 47 03.3**	**+0.7**
MT13	**San Alfonso**	**2.63**	**23**	*eP*	**Pn**	**15 47 03.6**	**+1.0**
MT13				*eS*	**Sn**	**15 47 32.6**	**-1.5**
MT15	**Las Vizcachas**	**2.71**	**18**	*eP*	**Pn**	**15 47 03.9**	**+0.3**
MT15				*i* S	**Sn**	**15 47 34.8**	**-1.0**
MT15				IAML		15 47 38.2	
	comp=N,740nm,0.3s						
LC01	**Cunco**	**2.72**	**186**	*eP*	**Pn**	**15 47 03.9**	**+0.2**
LC01				*eS*	**Sn**	**15 47 35.4**	**-0.5**
LC01				IAML		15 47 42.9	
	comp=E,199nm,0.1s						
MT03	**Universidad Ad**	**2.81**	**17**	*eP*	**Pn**	**15 47 05.7**	**+0.7**
MT03				*eS*	**Sn**	**15 47 39.1**	**+0.9**
MT03				IAML		15 47 43.3	
	comp=Z,402nm,0.2s						
MT03	**Universidad Ad**	**2.81**	**17**		**Pn**	**15 47 05.1**	**+0.1**
MT03	**Universidad Ad**	**2.81**	**17**	*eP*	**Pn**	**15 47 04.9**	**-0.1**
RFA	**San Rafael**	**2.85**	**61**	*eP*	**Pn**	**15 47 06.3**	**+0.8**
RFA				*eS*	Sn	15 47 27.9	-11
MT05	**Renca**	**2.86**	**13**	*eP*	**Pn**	**15 47 06.1**	**+0.5**
MT05				*eS*	**Sn**	**15 47 39.5**	**+0.1**
MT05				IAML		15 47 41.3	
	comp=Z,371nm,0.4s						
MT05	**Renca**	**2.86**	**13**		**Pn**	**15 47 05.8**	**+0.2**
MT05	**Renca**	**2.86**	**13**	*eP*	**Pn**	**15 47 05.7**	**0.0**
MT05				*eS*	**Sn**	**15 47 35.4**	**-4.0**
MT05				IAML		15 47 44.0	
	comp=E,902nm,0.4s						
MT16	**CCHEN**	**2.87**	**17**		**Pn**	**15 47 05.9**

BOSA	**Boshof**	**78.67**	**117**	IAmb	IAmb	15 58 14.2	
	comp=Z,5.8nm,1.1s						
TORD	**Torodi Ar. Bea**	**84.55**	**70**	P	**P**	**15 58 44.2**	**+0.1**
	comp=Z,1.0nm,0.7s,baz=235,slow=6.1,SNR=2.9						
	comp=Z,1.0nm,0.7s						
TORD	**Torodi Ar. Bea**	**84.55**	**70**	IAmb	IAmb	15 58 44.8	
	comp=Z,1.6nm,0.8s						
BVAR	**Borovoye Array**	**148.54**	**46**	PKPbc	**PKPbc**	**16 05 57.2**	**+0.9**
	comp=Z,0.6nm,0.5s,baz=288,slow=1.9,SNR=4.3						

*IDC **17** 16:07:52.0±1.1, 16°.22S×173°.34W, h0km, mb3.8/6, mbtmp3.8/6, MS3.1/8, Error ellipse: s-maj=44.2km s-min=26.6km az=140.0*
*NEIC **17** 16:07:54.4±1.2, 16°.6S±0°.1×173°.1W±0°.1, h22km±6km, mb4.6/15, Error ellipse: s-maj=21.7km s-min=15.3km az=214.0*

ISC 17 16:07:55.3±0.7, **16°.6S**±0°.1×**173°.1W**±0°.1, **h32**km, **n33, s51/26, mb4.3/11, MS3.1/6, 1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIUE	**Niue**	**3.90**	**129**		**Pn**	**16 08 53.2**	**+0.2**
NIUE				Sn	**Sn**	**16 09 35.5**	**-2.2**
MSVF	**Nonsavu**	**8.52**	**261**	LR	LR	16 12 55.7	
	comp=Z,153nm,19.6s,baz=111,slow=36						
RAR	**Rarotonga**	**13.42**	**112**	LR	LR	16 15 13.6	
	comp=Z,37nm,21.9s,baz=324,slow=32						
OUENC	**Ouen Island, N**	**19.75**	**250**	P	**P**	**16 12 21.1**	**-1.5**
OUENC				IAmb	IAmb	16 12 28.5	
	comp=Z,16nm,1.1s						
DZM	**Mont Dzumac**	**20.03**	**251**	LR	LR	16 18 55.9	
	comp=Z,109nm,18.8s,baz=58,slow=33						
PPT	**Papeete**	**22.52**	**96**	LR	LR	16 19 08.7	
	comp=Z,30nm,21.1s,baz=245,slow=30						
HNR	**Honiara**	**27.18**	**282**	LR	LR	16 22 36.3	
	comp=Z,96nm,20.6s,baz=206,slow=33						
KRVT	**Keravat (AS076**	**36.32**	**286**	LR	LR	16 27 29.4	
	comp=Z,32nm,20.6s,baz=208,slow=33						
CTA	**Charters Tower**	**38.66**	**258**	LR	LR	16 28 30.5	
	comp=Z,44nm,18.9s,baz=305,slow=32						
STKA	**Stephens Creek**	**43.68**	**241**	P	**P**	**16 15 59.1**	**+1.7**
	comp=Z,1.1nm,0.6s,baz=76,slow=12,SNR=3.1						
	comp=Z,1.1nm,0.6s						
STKA	**Stephens Creek**	**43.68**	**241**	P	**P**	**16 15 56.9**	**-0.5**
INKA	**Innaminka**	**43.91**	**247**	P	**P**	**16 15 59.1**	**-0.2**
INKA				IAmb	IAmb	16 16 03.7	
	comp=Z,2.8nm,1.2s						
WRAB	**Tennant Creek**	**49.84**	**258**	P	**P**	**16 16 45.4**	**-0.4**
WRAB				IAmb	IAmb	16 17 56.5	
	comp=Z,13nm,1.7s						
WRA	**Warramunga Arr**	**49.84**	**258**	P	**P**	**16 16 46.2**	**+0.4**
	comp=Z,0.6nm,0.6s,baz=94,slow=7.5,SNR=10						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	**49.84**	**258**	P	**P**	**16 16 45.8**	**0.0**
AS31	**Alice Springs**	**50.01**	**253**	P	**P**	**16 16 46.7**	**-0.3**
ASAR	**Alice Springs**	**50.01**	**253**	P	**P**	**16 16 47.6**	**+0.6**
	comp=Z,2.7nm,0.6s,baz=88,slow=8.4,SNR=60						
	comp=Z,2.7nm,0.6s						
ASAR	**Alice Springs**	**50.01**	**253**	P	**P**	**16 16 46.5**	**-0.6**
QSPA	**South Pole Qui**	**73.44**	**180**	P	**P**	**16 19 28.2**	**+3.9**
	comp=Z,1.2nm,0.8s,baz=134,slow=0.4,SNR=8.2						
	comp=Z,1.2nm,0.8s						
QSPA	**South Pole Qui**	**73.44**	**180**	P	**P**	**16 19 27.4**	**+3.1**
QSPA				IAmb	IAmb	16 21 09.5	
	comp=Z,11nm,1.6s						
YHNB	**Yeheng**	**75.90**	**301**	P	**P**	**16 19 37.2**	**-2.0**
KSRS	**Korea Array**	**77.22**	**316**	LR	LR	16 48 32.0	
	comp=Z,4.9nm,21.9s,baz=345,slow=32						
M20K	**Styx River**	**79.83**	**9**	P	**P**	**16 19 58.9**	**-1.3**
CAST	**Castle Rocks**	**81.44**	**9**	P	**P**	**16 20 08.8**	**-0.1**
DHY	**Denali Highway**	**81.94**	**12**	P	**P**	**16 20 11.8**	**+0.1**
DHY				IAmb	IAmb	16 22 35.9	
	comp=Z,14nm,1.6s						
PDAR	**Pinedale Array**	**82.98**	**42**	P	**P**	**16 20 19.2**	**+1.6**
	comp=Z,0.1nm,0.4s,baz=248,slow=4.6,SNR=2.0						
	comp=Z,0.1nm,0.4s						
PDAR	**Pinedale Array**	**82.98**	**42**	P	**P**	**16 20 17.2**	**-0.5**
I21K	**Tanana**	**83.12**	**9**	P	**P**	**16 20 19.0**	**+1.5**
CCB	**Clear Creek Bu**	**83.30**	**11**	P	**P**	**16 20 19.1**	**+0.7**
CCB				IAmb	IAmb	16 21 45.6	
	comp=Z,18nm,2.0s						
ILAR	**Eielson Array**	**83.58**	**11**	P	**P**	**16 20 19.4**	**-0.4**
	comp=Z,0.4nm,0.7s,baz=224,slow=6.7,SNR=7.7						
	comp=Z,0.4nm,0.7s						
I30M	**Mount Dempster**	**86.21**	**15**	P	**P**	**16 20 33.9**	**+0.6**
I30M				IAmb	IAmb	16 21 41.4	
	comp=Z,20nm,1.9s						
H29M	**Whitestone**	**86.58**	**13**	P	**P**	**16 20 35.7**	**+0.8**
ELIB	**Princess Elisa**	**90.95**	**185**	*dP*	**P**	**16 20 54.1**	**-1.8**

*NEIC **17** 16:17:08.9±1.3, 24°.26S±0°.07×67°.12W±0°.10, h139km±6km, mb4.3/8, Error ellipse: s-maj=13.6km s-min=8.6km az=112.0*
*IDC **17** 16:17:09.0±2.1, 24°.28S×67°.00W, h144km±23km, mb3.5/1, mbtmp3.9/6, Error ellipse: s-maj=42.7km s-min=17.7km az=110.0*
*SJA **17** 16:17:09.5±0.7, 24°.22S×67°.31W, h175km±8km, ML3.7, MW3.7*

ISC 17 16:17:10.2±0.8, **24°.18S**±0°.04×**67°.35W**±0°.05, **h167**km±8km, **n55, s49/73, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**0.92**	**93**	*eP*	**Pn**	**16 17 36.8**	**+0.2**
SALTA				*eP*		16 17 36.9	
AF01	**San Pedro de A**	**1.44**	**328**	Pn	**Pn**	**16 17 39.0**	**-1.8**
AF01	**San Pedro de A**	**1.44**	**328**	*eS*	**Sn**	**16 18 06.8**	**+2.4**
FSA	**Cafayete**	**2.29**	**147**	*eP*	**Pn**	**16 17 50.1**	**+0.2**
PB06	**IPOC Station P**	**2.51**	**305**	*eP*	**Pn**	**16 17 53.9**	**+1.4**
PB06				*eS*	**Sn**	**16 18 26.7**	**+1.5**
PB06				IAML		16 18 29.4	
	comp=Z,292nm,0.1s						
PB06	**IPOC Station P**	**2.51**	**305**		**Pn**	**16 17 53.4**	**+0.9**
PB06	**IPOC Station P**	**2.51**	**305**	*eP*	**Pn**	**16 17 53.8**	**+1.4**
PB06				*eS*	**Sn**	**16 18 24.6**	**-0.6**
PB06				IAML		16 18 28.4	
	comp=E,394nm,0.2s						
PB14	**IPOC Station P**	**2.82**	**260**	*eP*	**Pn**	**16 17 56.9**	**+0.6**
PB14				*eS*	**Sn**	**16 18 32.4**	**+0.3**
PB14				IAML		16 18 33.4	
	comp=Z,102nm,0.7s						
PB14	**IPOC Station P**	**2.82**	**260**		**Pn**	**16 17 56.8**	**+0.4**
PB05	**IPOC Station P**	**2.93**	**296**	*eP*	**Pn**	**16 17 58.5**	**+1.0**
PB05				*eS*	**Sn**	**16 18 34.5**	**+0.2**
PB05				IAML		16 18 36.6	
	comp=Z,173nm,0.4s						
PB05	**IPOC Station P**	**2.93**	**296**		**Pn**	**16 17 58.7**	**+1.1**
PB05	**IPOC Station P**	**2.93**	**296**	*eP*	**Pn**	**16 17 58.6**	**+1.1**
PB05				*eS*	**Sn**	**16 18 33.6**	**-0.6**
PB05				IAML		16 18 36.7	
	comp=E,197nm,0.5s						
PB09	**IPOC Station P**	**2.94**	**323**	*eP*	**Pn**	**16 17 59.8**	**+2.1**
PB09				*eS*	**Sn**	**16 18 36.8**	**+2.2**
PB09				IAML		16 18 39.4	
	comp=Z,118nm,0.7s						
PB09	**IPOC Station P**	**2.94**	**323**		**Pn**	**16 17 59.0**	**+1.3**
PB09	**IPOC Station P**	**2.94**	**323**	*eP*	**Pn**	**16 17 59.5**	**+1.8**
PB09				*eS*	**Sn**	**16 18 35.3**	**+0.7**
PB09				IAML		16 18 42.9	
	comp=N,168nm,0.5s						
PB10	**IPOC Station P**	**3.01**	**282**	*eP*	**Pn**	**16 17 59.5**	**+1.1**
PB10				*eS*	**Sn**	**16 18 36.6**	**+0.9**
PB10				IAML		16 18 39.2	
	comp=Z,159nm,0.4s						
PB10	**IPOC Station P**	**3.01**	**282**		**Pn**	**16 17 59.6**	**+1.3**
PB10	**IPOC Station P**	**3.01**	**282**	*eP*	**Pn**	**16 17 59.5**	**+1.1**
PB10				*eS*	**Sn**	**16 18 34.6**	**-1.1**
PB10				IAML		16 18 41.0	
	comp=N,256nm,0.4s						
PB03	**IPOC Station P**	**3.06**	**313**	*eP*	**Pn**	**16 18 00.2**	**+1.1**
PB03				*eS*	**Sn**	**16 18 37.8**	**+0.6**
PB03				IAML		16 18 39.8	
	comp=Z,226nm,0.6s						
PB03	**IPOC Station P**	**3.06**	**313**		**Pn**	**16 18 00.3**	**+1.1**
AC02	**Maricunga**	**3.10**	**211**	*eP*	**Pn**	**16 18 00.7**	**+0.8**
PB07	**IPOC Station P**	**3.38**	**316**	*eP*	**Pn**	**16 18 04.3**	**+1.1**
PB07				*eS*	**Sn**	**16 18 44.2**	**-0.1**
PB07				IAML		16 18 45.2	
	comp=Z,372nm,0.5s						
PB07	**IPOC Station P**	**3.38**	**316**		**Pn**	**16 18 04.2**	**+1.1**
PB07	**IPOC Station P**	**3.38**	**316**	*eP*	**Pn**	**16 18 04.1**	**+0.9**
PB07				*eS*	**Sn**	**16 18 43.4**	**-1.0**
AC01	**Pan de Azucar**	**3.54**	**236**	*eP*	**Pn**	**16 18 04.3**	**-0.7**
AC01				*eP*		16 18 04.4	
AC01				*eS*	**Sn**	**16 18 46.2**	**-1.5**
AC01				IAML		16 18 49.1	
	comp=Z,57nm,0.6s						
AC01	**Pan de Azucar**	**3.54**	**236**		**Pn**	**16 18 04.5**	**-0.5**
PB02	**IPOC Station P**	**3.69**	**320**	*eP*	**Pn**	**16 18 08.0**	**+0.9**
PB02				*eS*	**Sn**	**16 18 51.7**	**+0.4**
PB02				IAML		16 18 54.8	
	comp=Z,335nm,0.5s						
PB02	**IPOC Station P**	**3.69**	**320**		**Pn**	**16 18 07.5**	**+0.5**
TINO	**Tinogasta**	**3.88**	**183**	*eP*	**Pn**	**16 18 10.1**	**+0.7**
TINO				*eS*	**Sn**	**16 19 02.8**	**+7.1**
AC06	**Mina Casimiro**	**4.17**	**220**		**Pn**	**16 18 11.9**	**-1.1**
GO03	**Copiapo**	**4.28**	**217**	*eP*	**Pn**	**16 18 13.6**	**-0.9**
GO03				*eS*	**Sn**	**16 19 03.1**	**-1.8**
GO03				IAML		16 19 05.4	
	comp=Z,69nm,0.1s						
GO03	**Copiapo**	**4.28**	**217**		**Pn**	**16 18 13.3**	**-1.3**
PB08	**IPOC Station P**	**4.35**	**337**		**Pn**	**16 18 16.6**	**+0.8**
TA01	**Diego Aracena**	**4.45**	**323**	*eP*	**Pn**	**16 18 17.7**	**+1.0**
TA01				*eS*	**Sn**	**16 19 09.3**	**+0.6**
TA01				IAML		16 19 33.2	
	comp=Z,36nm,0.5s						
GO01	**Chusmiza**	**4.80**	**339**	*eP*	**Pn**	**16 18 23.0**	**+1.2**
GO01				*eS*	**Sn**	**16 19 19.0**	**+1.3**
GO01				IAML		16 19 23.4	
	comp=Z,30nm,0.5s						
GO01	**Chusmiza**	**4.80**	**339**		**Pn**	**16 18 21.9**	**+0.1**
PB11	**IPOC Station P**	**4.89**	**334**		**Pn**	**16 18 22.1**	**-0.5**
AC05	**El Transito**	**5.33**	**209**		**Pn**	**16 18 26.6**	**-1.7**
PB16	**IPOC Station P**	**6.15**	**341**		**Pn**	**16 18 40.4**	**+0.7**
CFA	**Coronel Fontan**	**7.44**	**186**	P	**Pn**	**16 18 54.0**	**-2.2**
	comp=Z,1.4nm,0.4s,baz=334,slow=18,SNR=11						
LPAZ	**La Paz**	**7.88**	**355**	P	**Pn**	**16 19 03.9**	**+1.3**
	comp=Z,2.0nm,0.3s,baz=176,slow=6.5,SNR=14						
LPAZ	**La Paz**	**7.88**	**355**		**Pn**	**16 19 03.1**	**+0.5**
SIV	**San Ignacio**	**10.05**	**37**	P	**Pn**	**16 19 27.4**	**-3.3**
	comp=Z,2.0nm,0.5s,baz=206,slow=13,SNR=7.9						
GO06	**Curarrehue**	**15.75**	**192**		**Pn**	**16 20 42.2**	**-0.9**
PLCA	**Paso Flores**	**16.73**	**188**	P	**P**	**16 20 54.7**	**+0.5**
	comp=Z,0.7nm,0.4s,baz=350,slow=16,SNR=3.0						
LL02	**Futaleuf**	**19.33**	**190**		**Pn**	**16 21 24.8**	**-0.6**
LL02				IAmb	IAmb	16 21 26.7	
	comp=Z,12nm,0.9s						
BDFB	**Brasilia**	**20.05**	**69**	P	**P**	**16 21 28.9**	**-1.8**
	comp=Z,10nm,0.7s,baz=240,slow=12,SNR=13						
BDFB	**Brasilia**	**20.05**	**69**	P	**P**	**16 21 28.7**	**-1.9**
BDFB				IAmb	IAmb	16 21 30.3	
	comp=Z,13nm,0.8s						
AY02	**Valle Explorad**	**22.75**	**190**	P	**P**	**16 21 58.8**	**+0.9**
SMTB	**Santa Maria do**	**24.25**	**54**	P	**P**	**16 22 11.6**	**-0.4**
SMTB				IAmb	IAmb	16 22 12.2	
	comp=Z,12nm,1.1s						
SHEL	**Horse Pasture**	**58.06**	**94**	P	**P**	**16 26 45.2**	**-1.0**
WHTX	**Lake Whitney,**	**62.83**	**331**	P	**P**	**16 27 20.1**	**+2.0**
QSPA	**South Pole Qui**	**66.03**	**180**	P	**P**	**16 27 39.4**	**+0.8**
	comp=Z,0.8nm,0.5s,baz=124,slow=1.5,SNR=14						
	comp=Z,0.8nm,0.5s						
QSPA	**South Pole Qui**	**66.03**	**180**	P	**P**	**16 27 39.6**	**+1.0**
QSPA				IAmb	IAmb	16 27 47.4	
	comp=Z,5.9nm,1.5s						
MKAR	**Makanchi Array**	**146.86**	**39**	PKPbc	**PKPbc**	**16 36 33.0**	**+0.4**
	comp=Z,0.6nm,0.7s,baz=304,slow=3.4,SNR=5.8						

*AZER **17** 16:30:20.0, 41°.08N×44°.46E, h9km, ml1.8*
*NORS **17** 16:30:20.2, 41°.03N×44°.13E, h23km, MPVA3.5*

ISC 17 16:30:19.2±1.2, **41°.21N**±0°.03×**44°.42E**±0°.04, **h18**km±6km, **n12, s88/22, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QZX	**Qazax, Azerbai**	**0.74**	**102**	P	**Pg**	**16 30 34.0**	**+0.4**
QZX				S	**Sn**	**16 30 44.7**	**-0.7**
GNI	**Garni**	**1.09**	**167**	*e*Pg	**Pg**	**16 30 40.6**	**+0.3**
GNI				*e*Sg	**Sg**	**16 30 55.1**	**+0.4**
GDB	**GEDABAY**	**1.12**	**116**	P	**Pn**	**16 30 39.7**	**-0.5**
GDB				S	**Sg**	**16 30 55.3**	**-0.4**
IGDI	**IGDIR**	**1.37**	**191**	P	**Pn**	**16 30 43.3**	**-0.2**
IGDI				S	**Sb**	**16 31 01.2**	**-0.3**
GANJ	**Ganja**	**1.55**	**111**	Pn	**Pb**	**16 30 47.3**	**0.0**
GANJ				Sn	**Sg**	**16 31 07.9**	**-1.3**
LACR	**Lac**	**1.61**	**357**	*e*Pg	**Pb**	**16 30 49.6**	**+1.1**
LACR				*e*Sg	**Sg**	**16 31 10.7**	**-0.6**
ZKTA	**Zakatala**	**1.71**	**75**	Pn	**Pb**	**16 30 50.9**	**+0.8**
ZKTA				Sn	**Sg**	**16 31 14.9**	**+0.6**
DIGR	**Digorskoe uzhe**	**1.80**	**340**	*e*Pg	**Pb**	**16 30 52.7**	**+1.0**
DIGR				*e*Sg	**Sg**	**16 31 16.0**	**-1.2**
SBZ	**Shahbuz**	**2.01**	**154**	Pg	**Pg**	**16 30 58.8**	**+1.0**
SBZ				Sg	**Sg**	**16 31 23.3**	**-0.6**
SEKA	**Sheki**	**2.10**	**89**	Sn	**Sg**	**16 31 27.9**	**+1.3**
DVE	**Vedeno**	**2.16**	**36**	*e*Pn	**Pg**	**16 30 59.7**	**-0.8**
DVE				*e*Sn	**Sg**	**16 31 29.0**	**+0.4**
ORD	**Ordubad**	**2.58**	**152**	Sg	**Sg**	**16 31 40.8**	**-1.4**

*UPA **17** 16:54:02.3±0.8, 7°.89N×79°.26W, h10km±21km, MD3.5, MW3.2, Presumed earthquake*

RSNC 17 16:54:32.4±0.0, **7°N**±1°×**7°5W**±°, **h5**km±3km, **M2.9, ML2.6, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UREC	**San Jos de Ur**	**0.60**	**324**	P	Pg	16 54 43.5	-0.5
UREC				S	Sg	16 54 52.3	+0.5
UREC	**San Jos de Ur**	**0.60**	**324**	*eP*	Pg	16 54 43.5	-0.5
UREC				*eS*	Sg	16 54 52.4	+0.5
PTBC	**PUERTO BERRIO,**	**1.01**	**135**	P	Pg	16 54 49.8	-2.1
PTBC				S	Sg	16 55 03.4	-1.7
HELC	**Santa Helena**	**1.12**	**198**	P	Pg	16 54 51.7	-2.2
HELC				S	Sg	16 55 06.8	-1.6
HELC	**Santa Helena**	**1.12**	**198**	*eP*	Pg	16 54 51.7	-2.2
HELC				*eS*	Sg	16 55 08.3	-0.1
BRJC	**Barrancabermej**	**1.45**	**101**	P	Pn	16 54 57.4	-2.0
BRJC				S	Sb	16 55 18.0	-0.8
APAC	**Apartado, Choc**	**1.53**	**295**	P	Pn	16 54 58.5	-1.9
APAC				S	Sn	16 55 18.2	-2.4
CBOC	**Ciudad Bolivar**	**1.61**	**211**	P	Pn	16 54 59.8	-1.9
CBOC				S	Sn	16 55 20.0	-3.0
NORC	**Norcasia**	**1.71**	**170**	P	Pn	16 55 00.7	-2.3
SPBC	**San Pablo de B**	**1.94**	**145**	P	Pn	16 55 04.5	-1.6
SPBC				S	Sn	16 55 28.9	-2.1
LCBC	**Los crdobas,**	**1.98**	**324**	P	Pn	16 55 04.6	-1.9
GUY2C	**Guyana, Caldas**	**2.03**	**185**	P	Pn	16 55 06.7	-1.0
GUY2C				S	Sn	16 55 33.5	-0.2
OCAC	**Ocana**	**2.08**	**62**	P	Pn	16 55 06.5	-1.7
OCAC				S	Sn	16 55 33.2	-1.4
BARC	**Barichara**	**2.09**	**108**	P	Pn	16 55 07.3	-1.1
BARC				S	Sn	16 55 34.2	-0.7
RUSC	**La Rusia**	**2.49**	**123**	P	Pn	16 55 12.4	-1.6
RUSC				S	Sn	16 55 43.8	-1.2
SJCC	**San Jacinto, C**	**2.62**	**0**	P	Pn	16 55 13.5	-2.0
CHIC	**Chingaza**	**2.98**	**151**	P	Pn	16 55 20.6	-0.2
CHIC				S	Sn	16 55 58.5	+1.3
ORTC	**Ortega, Tolima**	**3.33**	**181**	P	Pb	16 55 29.2	-2.8
YOTC	**Yotoco, Valle**	**3.46**	**200**	P	Pn	16 55 24.6	-2.4
TAMC	**Tame, Arauca**	**3.46**	**103**	P	Pn	16 55 26.4	-0.7
PRAC	**Prado**	**3.54**	**175**	P	Pn	16 55 28.0	-0.1
URMC	**La Uribe, Meta**	**4.07**	**169**	P	Pb	16 55 43.9	-0.7

NOU 17 17:05:10.8, 10°.46S×161°.32E, h12km, **MLv4.4/18, Solomon Islands, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HURO	**Huro Makira**	**0.57**	**91**	P	Pb	17 05 22.4	-0.4
HURO	**Huro Makira**	**0.57**	**91**	S	Sb	17 05 30.3	-0.6
NGOA	**Tingoa Renbel**	**1.65**	**228**	P	Pn	17 05 38.9	-0.7
NGOA	**Tingoa Renbel**	**1.65**	**228**	S	Sn	17 05 59.3	-1.4
HNR	**Honiara**	**1.69**	**307**	P	Pn	17 05 39.6	-0.6
HNR	**Honiara**	**1.69**	**307**	S	Sn	17 06 02.5	+0.6
SAVO	**Savo Central**	**1.98**	**311**	P	Pn	17 05 44.3	+0.2
SAVO	**Savo Central**	**1.98**	**311**	S	Sn	17 06 09.6	+0.8
TATA	**Tatamba Isabel**	**2.55**	**324**	P	Pn	17 05 52.5	+1.0
TATA	**Tatamba Isabel**	**2.55**	**324**	S	Sn	17 06 23.5	+0.6
SANVU	**Saraoutou**	**7.58**	**131**	P	Pn	17 07 02.1	+0.9
SANVU	**Saraoutou**	**7.58**	**131**	S	Sn	17 08 26.2	-0.9
NOUC	**Port Laguerre**	**12.52**	**158**	P	Pn	17 08 10.1	+1.2
MARNC	**Mare, Loyalty**	**12.71**	**150**	P	Pn	17 08 12.6	+1.1

*TRN **17** 17:22:40.0, 11°.21N×61°.49W, h63km, MD3.1, North of Trinidad.*
*FUNV **17** 17:22:49.7, 11°.22N×61°.46W, h33km, MW3.7, Presumed earthquake*

ISC 17 17:22:47.6±2.0, **11°.29N**±0°.02×**61°.2W**±0°.2, **h12**km±12km, **n18, s64/32, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TRN	**Trinidad (W)**	**0.66**	**197**	*eP*	**Pn**	**17 23 01.9**	**-0.8**
TRN				*eS*	**Sb**	**17 23 09.9**	**-0.4**
TRN	**Trinidad (W)**	**0.66**	**197**	*eP*	**Pn**	**17 23 02.0**	**-0.8**
TRN				*eS*	**Sb**	**17 23 10.9**	**+0.7**
DMDM	**Guralp CMG5TDE**	**0.68**	**210**	*eP*	**Pb**	**17 23 01.3**	**0.0**
DMDM				*eS*	**Sg**	**17 23 10.2**	**+0.5**
PSQC	**Port of Spain**	**0.69**	**207**	*eP*	**Pb**	**17 23 02.2**	**+0.7**
PSQC				*eS*	**Sb**	**17 23 10.9**	**-0.1**
PSGH	**Port of Spain**	**0.69**	**206**	*eP*	**Pb**	**17 23 01.8**	**+0.2**
PSGH				*eS*	**Sb**	**17 23 10.9**	**-0.1**
PSMG	**Mucurapo Girls**	**0.69**	**208**	*eP*	**Pb**	**17 23 01.4**	**-0.2**
PSMG				*eS*	**Sg**	**17 23 10.7**	**+0.6**
PSNL	**Port of Spain**	**0.70**	**206**	*eP*	**Pb**	**17 23 02.4**	**+0.8**
PSNL				*eS*	**Sb**	**17 23 11.9**	**+0.6**
GRGR	**Grenville**	**0.95**	**332**	*eP*	**Pg**	**17 23 05.8**	**-0.2**
GRGR				*eS*	**Sg**	**17 23 18.4**	**0.0**
GRGR	**Grenville**	**0.95**	**332**	*eP*	**Pb**	**17 23 06.0**	**-0.1**
GRGR				*eS*	**Sb**	**17 23 19.1**	**+0.5**
GRW	**Mount Saint Ca**	**0.98**	**333**	*eP*	**Pb**	**17 23 06.4**	**-0.1**
GRW				*eS*	**Sb**	**17 23 20.3**	**+0.9**
GRHS	**Sauteurs**	**1.03**	**335**	*eP*	**Pg**	**17 23 06.8**	**-0.6**
GRHS				*eS*	**Sg**	**17 23 20.6**	**-0.2**
GRSS	**Sisters**	**1.08**	**338**	*eP*	**Pb**	**17 23 08.2**	**-0.1**
GRSS				*eS*	**Sb**	**17 23 23.0**	**+0.6**
SVB	**Belmont**	**1.98**	**359**	*eP*	**Pn**	**17 23 20.4**	**-0.5**
SVB				*eS*	**Sn**	**17 23 45.3**	**-0.3**
SVB	**Belmont**	**1.98**	**359**	*eP*	**Pn**	**17 23 21.5**	**+0.6**
SVB				*eS*	**Sb**	**17 23 46.9**	**-1.2**
MCLT	**Moule a Chique**	**2.42**	**6**	*eP*	**Pn**	**17 23 27.7**	**+0.6**
MCLT				*eS*	**Sn**	**17 23 56.8**	**+0.1**
SLBI	**Saint Lucia, B**	**2.73**	**5**	*eP*	**Pn**	**17 23 32.7**	**+1.5**
SLBI				*eS*	**Sn**	**17 24 03.5**	**-0.7**
PCRV	**Puerto La Cruz**	**3.55**	**252**	*eP*	Pn	17 23 37.5	-5.1
PCRV				*eS*	Sn	17 24 12.9	-12
CACV	**CAICARA DEL OR**	**6.43**	**235**	*eP*	Pn	17 24 11.4	-11
CACV				*eS*	Sn	17 25 11.6	-24

*DNK **17** 17:31:44.7±2.7, 79°.34N×18°.18W, h20km±19km, ML2.3, Presumed earthquake*
*BER **17** 17:31:46.4±2.4, 79°.32N×18°.05W, h15km, Mw4.0, ML2.3(DNK), Confirmed Earthquake*

ISC 17 17:31:39.1±0.8, **79°.38N**±0°.04×**18°.44W**±0°.06, **h10**km, **n12, s29/56/24, Eastern Kalaallit Nunaat**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NOR	**Nord**	**2.25**	**7**	*i* P	**Pg**	**17 32 21.9**	**-0.3**
NOR				*i* S	**Sg**	**17 32 50.1**	**-1.3**
NOR				IAML		17 32 55.1	
	comp=Z,80nm,0.3s						
NOR	**Nord**	**2.25**	**7**	*i* P	**Pg**	**17 32 21.9**	**-0.3**
NOR				*i* S	**Sg**	**17 32 50.1**	**-1.3**
NOR				IAML		17 32 55.1	
	comp=Z,80nm,0.3s						
DAG	**Danmarks Havn**	**2.62**	**181**	*eP*	**Pb**	**17 32 26.1**	**+0.1**
DAG				*i* S	**Sb**	**17 32 55.5**	**-2.7**
DAG				IAML		17 33 05.5	
	comp=Z,59nm,0.2s						
DAG	**Danmarks Havn**	**2.62**	**181**	*eP*	**Pb**	**17 32 26.1**	**+0.1**
DAG				*i* S	**Sb**	**17 32 55.5**	**-2.7**
DAG				IAML		17 33 05.5	
	comp=Z,59nm,0.2s						
DBG	**Daneborg**	**5.12**	**185**	*i* P	**Pn**	**17 32 59.1**	**+3.5**
DBG				*i* S	**Sn**	**17 33 53.5**	**-1.1**
DBG				IAML		17 34 24.6	
	comp=Z,12nm,0.3s						
DBG	**Daneborg**	**5.12**	**185**	*i* P	**Pn**	**17 32 59.1**	**+3.5**
DBG				*i* S	**Sn**	**17 33 53.5**	**-1.1**
DBG				IAML		17 34 24.6	
	comp=Z,12nm,0.3s						
KBS	**Kingsbay**	**5.71**	**79**	*i* P	**Pn**	**17 33 05.7**	**+2.0**
KBS				*i* S	**Sn**	**17 34 06.8**	**-2.3**
KBS	**Kingsbay**	**5.71**	**79**	*i* P	**Pn**	**17 33 05.7**	**+2.0**
KBS				*i* S	**Sn**	**17 34 06.8**	**-2.3**

CCCA	**Chr Cany lake**	**1.07 308**			Pg		17 32 52.6	-0.1
CCCA				Sg	Sg		17 33 07.0	+0.4
VG2	**Vista Grande**	**1.10 201**			Pg		17 32 52.9	-0.4
VG2					Sg		17 33 07.9	+0.3
PEC	**Perris**	**1.19 216**			Pg		17 32 55.1	+0.1
IRM	**Iron Mountain**	**1.21 125**			Pg		17 32 53.8	-1.5
IRM					Sg		17 33 10.6	-0.4
IRM				IAML			17 33 12.2	
	comp=N,551nm,0.6s							
IRM				IAML			17 33 16.5	
	comp=E,818nm,0.4s							
RVR	**Riverside**	**1.23 225**			Pg		17 32 55.0	-0.6
TMC	**Table Mountain**	**1.23 247**			Pg		17 32 55.0	-0.7
CTCC	**Cactus City**	**1.24 167**			Pn		17 32 56.4	+0.2
SBB	**Saddle Back Bu**	**1.24 262**			Pg		17 32 54.8	-1.2
SBB					Sg		17 33 11.6	-0.5
PFO	**Pinyon Flats O**	**1.25 185**			Pg		17 32 55.1	-1.1
PFO				Sg	Sg		17 33 11.2	-1.3
PFO				IAML			17 33 18.7	
	comp=E,752nm,1.6s							
PFO	**Pinyon Flats O**	**1.25 185**			Pg		17 32 55.6	-0.6
XPFO	**Pinon Flat**	**1.25 185**			Pg		17 32 55.3	-0.9
XPFO					Sg		17 33 11.6	-0.8
BFSC	**Mount Baldy Ra**	**1.26 241**			Pg		17 32 55.4	-1.0
BFSC				Sg	Sg		17 33 11.1	-1.6
BFSC				IAML			17 33 14.5	
	comp=E,511nm,0.6s							
BFSC				IAML			17 33 17.9	
	comp=N,608nm,1.0s							
LRMC	**Laurel Mtn Rad**	**1.27 299**			Pg		17 32 55.8	-0.7
LRMC					Sg		17 33 12.3	-0.6
LRMC				IAML			17 33 15.2	
	comp=N,2µm,0.5s							
LRMC				IAML			17 33 15.5	
	comp=E,2µm,0.5s							
POB	**Polly Butte**	**1.27 203**			Pg		17 32 55.9	-0.7
POB					Sg		17 33 12.9	-0.2
HMTC	**Hemet**	**1.28 206**			Pg		17 32 55.9	-0.8
HMTC					Sb		17 33 13.7	+0.2
DTP	**Desert Tortois**	**1.31 288**			Pn		17 32 56.8	-0.3
HOLC	**Holcomb Ridge**	**1.31 252**			Pn		17 32 56.0	-1.3
DNR	**Dunn Ranch,Anz**	**1.32 191**			Pn		17 32 56.6	-0.7
SNDA	**J Saunders Pla**	**1.33 190**			Pn		17 32 57.0	-0.5
DGR	**Domenigoni Val**	**1.33 205**			Pn		17 32 56.7	-0.8
CRY	**Cary Ranch**	**1.34 195**			Pg		17 32 57.8	0.0
GWY	**Greenwater Val**	**1.35 348**			Pn		17 32 56.8	-1.0
GWY				IAML			17 33 21.9	
	comp=E,1µm,0.8s							
EDW2	**Edwards Air Fo**	**1.37 271**			Pn		17 32 58.1	+0.1
BACC	**Bachelor Mtn.**	**1.38 205**			Pn		17 32 57.3	-0.8
FRD	**Ford Ranch, An**	**1.39 189**			Pn		17 32 58.0	-0.2
FRD	**Ford Ranch, An**	**1.39 189**			Pn		17 32 58.1	-0.1
JNH	**Juniper Hills**	**1.40 253**			Pn		17 32 57.2	-1.3
JNH					Sb		17 33 16.6	-0.5
CLC	**China Lake**	**1.41 313**			Pn		17 32 56.9	-1.6
CLC	**China Lake**	**1.41 313**			Sn		17 33 17.7	+0.2
BC3	**Big Chuckawall**	**1.41 149**			Pn		17 32 56.8	-1.8
BC3				IAML			17 33 25.9	
	comp=E,454nm,0.9s							
BC3				IAML			17 33 27.9	
	comp=N,648nm,0.5s							
CCAC	**Calif City Air**	**1.41 282**			Pb		17 32 58.8	-0.2
SRTC	**Snort**	**1.42 306**			Pn		17 32 58.1	-0.6
LRRC	**Littlerock Res**	**1.44 257**			Pn		17 32 58.9	0.0
LRRC					Sb		17 33 17.7	-0.3
PSRC	**Puddingstone R**	**1.44 238**			Pn		17 32 58.4	-0.6
PSRC					Sg		17 33 18.8	+0.3
MURC	**Murrieta**	**1.45 210**			Pn		17 32 58.6	-0.4
CHFC	**Chilao Flat St**	**1.50 250**			Pn		17 32 58.8	-1.0
CHFC					Sb		17 33 20.0	+0.1
COY	**Coyote Mountai**	**1.50 179**			Pn		17 32 58.6	-1.1
TOW	**Tower One**	**1.50 309**			Pg		17 33 00.9	0.0
ELS	**Elsinore Mount**	**1.52 217**			Pn		17 32 59.0	-1.0
ELS	**Elsinore Mount**	**1.52 217**			Sn		17 33 20.2	0.0
MPMC	**Manual Prospec**	**1.52 322**			Pn		17 32 59.0	-1.2
RCWM	**Renegade Canyo**	**1.53 316**			Pn		17 33 00.4	+0.3
CJV	**Casa Juvan**	**1.53 258**			Pb		17 33 00.7	-0.4
TPO	**Tropico Hills**	**1.56 271**			Pn		17 33 00.1	-0.5
MWC	**Mount Wilson**	**1.56 246**			Pn		17 32 59.7	-1.1
MWC				IAML			17 33 26.9	
	comp=E,999nm,0.6s							
FRK	**Frink**	**1.57 158**			Pg		17 33 02.1	-0.1
PLM	**Palomar**	**1.57 196**			Pn		17 33 00.1	-0.7
LVN	**Las Vegas**	**1.58 38**			Pn		17 33 00.5	-0.4
LEOC	**Leona Valley**	**1.64 262**			Pb		17 33 02.8	-0.2
JRC2	**Joshua Ridge**	**1.64 313**			Pn		17 33 01.5	-0.3
JRC2					Sg		17 33 25.1	+0.1
FURC	**Furnace Creek,**	**1.66 345**			Pb		17 33 02.8	-0.3
PASC	**Pasadena Art C**	**1.68 246**			Pn		17 33 01.3	-0.9
PASC				IAML			17 33 27.0	
	comp=E,470nm,0.7s							
PASC				IAML			17 33 30.9	
	comp=N,607nm,0.7s							
MATG	**Mataguay Scout**	**1.68 189**			Pg		17 33 04.0	-0.4
JUEM	**Julian Eagle M**	**1.79 187**			Pb		17 33 05.8	+0.3
SLVP	**Salvation Pass**	**1.83 152**			Pn		17 33 02.6	-1.6
WHFM	**Hanning Flat**	**1.85 297**			Pn		17 33 06.7	+0.2
GORC	**Green Oak Ranc**	**1.86 204**			Sb		17 33 29.8	-0.4
BLYC	**Blythe**	**1.86 126**			Pn		17 33 03.1	-1.6
BLYC				IAML			17 33 35.6	
	comp=E,444nm,0.6s							
BLYC				IAML			17 33 41.7	
	comp=N,438nm,0.6s							
SHPR	**Sheep Range**	**1.90 30**			Pn		17 33 04.2	-1.1
DJJ	**Donna J Jenkin**	**1.91 247**			Pb		17 33 07.3	-0.1
THC	**Tehachapi Micr**	**1.92 272**			Pg		17 33 08.4	-0.5
ISA	**Isabella, Lake**	**1.93 295**			Pn		17 33 04.0	-1.7
ISA				IAML			17 33 35.4	
	comp=E,437nm,0.5s							
ISA				IAML			17 33 41.3	
	comp=N,237nm,0.6s							
DPP	**Dos Picos Cty**	**1.93 195**			Pn		17 33 06.0	+0.4
WCT	**Wildcat Mounta**	**1.94 353**			Pn		17 33 05.1	-0.8
WCT				IAML			17 33 35.1	
	comp=N,212nm,0.7s							
WCT				IAML			17 33 42.1	
	comp=E,326nm,0.6s							
TEJ	**El Tejon**	**1.97 281**			Pb		17 33 08.8	+0.3
OSI	**Osito Audit: C**	**1.99 263**			Pn		17 33 05.8	-0.7
OSI				IAML			17 33 39.2	
	comp=E,687nm,0.7s							
OSI				IAML			17 33 41.7	
	comp=N,364nm,0.7s							
TPRS	**Tripped Ranch**	**2.02 248**			Pb		17 33 09.9	+0.6
W13A	**Hualapai Mount**	**2.02 83**			Pn		17 33 05.8	-1.3
W13A				IAML			17 33 37.5	
	comp=E,354nm,0.5s							
TPNV	**Topopah Spring**	**2.08 2**			Pn		17 33 07.3	-0.6
TPNV				IAML			17 33 40.1	
	comp=E,501nm,0.5s							
TPNV				IAML			17 33 43.4	
	comp=E,339nm,0.6s							
CWC	**Cottonwood Cre**	**2.12 318**			Pn		17 33 07.7	-0.7
SDMC	**San Diego Miss**	**2.18 198**			Pn		17 33 09.4	+0.3
BAR	**Barrett**	**2.20 188**			Pn		17 33 09.4	+0.1
GLA	**Glamis**	**2.20 145**			Pn		17 33 07.6	-1.7
GLA				IAML			17 33 49.5	
	comp=N,415nm,0.7s							
GLA				IAML			17 33 52.4	
	comp=E,442nm,0.6s							
YUH	**Yuha Desert**	**2.24 171**			Pn		17 33 09.1	-0.8
SPG2	**Springville 2**	**2.39 305**			Pn		17 33 12.7	+0.7
TJX	**Tijuana**	**2.42 195**	Pn	Pn	Pn		17 33 11.7	-0.7
TJX				IAML			17 33 55.4	
	comp=N,373nm,1.0s							
VES	**Vestal, Richgr**	**2.45 294**			Pn		17 33 12.3	-0.5
VES				IAML			17 33 53.7	
	comp=E,417nm,0.7s							
GMN	**Gold Mountain**	**2.54 343**			Pn		17 33 13.2	-1.1
GMN				IAML			17 33 56.3	
	comp=E,151nm,0.6s							
GMN				IAML			17 34 04.7	
	comp=N,169nm,0.7s							
CBX	**Cerro Bola**	**2.56 186**			Pn		17 33 14.3	-0.1
CBX				IAML			17 34 05.4	
	comp=N,300nm,1.0s							
CPBX	**Cerro Prieto**	**2.58 160**			Pn		17 33 14.6	-0.1
CPBX				IAML			17 34 20.8	
	comp=N,371nm,0.7s							
TIN	**Tinemaha, Big**	**2.67 325**			Pn		17 33 13.7	-2.3
TIN				IAML			17 34 11.1	
	comp=N,272nm,1.3s							
TIN				IAML			17 34 12.4	
	comp=E,189nm,1.0s							
PRN	**Pahroc Range**	**2.74 22**			Pn		17 33 16.2	-0.7
PRN				IAML			17 34 10.4	
	comp=N,266nm,0.7s							
PRN				IAML			17 34 11.5	
	comp=E,332nm,0.9s							
S11A	**Rachel**	**2.81 9**			Pn		17 33 16.2	-1.8
S11A				IAML			17 34 16.9	
	comp=E,266nm,0.7s							
ESJX	**Sierra Juarez**	**2.87 173**			Pn		17 33 17.3	-1.4
113A	**Mohawk Valley,**	**2.99 134**			Pn		17 33 17.7	-2.4
TPH	**Tonopah**	**3.28 348**			Pn		17 33 24.0	-0.4
TPH				IAML			17 34 21.6	
	comp=N,98nm,0.9s							
TPH				IAML			17 34 26.2	
	comp=E,71nm,0.9s							
LCMT	**Little Creek M**	**3.30 49**			Pn		17 33 24.4	-0.2
VTX	**Valle De La Tr**	**3.49 172**			Pn		17 33 27.2	0.0
KNB	**Kanab**	**3.57 52**			Pn		17 33 28.1	-0.2
KNB				IAML			17 34 26.8	
	comp=E,67nm,0.8s							
KNB				IAML			17 34 32.6	
	comp=N,112nm,0.8s							
CCUT	**Cedar City**	**3.60 41**			Pn		17 33 28.8	0.0
PKD	**Bear Valley Ra**	**3.60 289**			Pn		17 33 29.2	+0.5
PKD				IAML			17 34 37.7	
	comp=N,60nm,1.3s							
PKD				IAML			17 34 38.8	
	comp=E,69nm,1.1s							
U15A	**North Rim**	**3.64 63**			Pn		17 33 29.2	-0.2
U15A				IAML			17 34 32.6	
	comp=E,150nm,1.3s							
SZCU	**Shurtz Canyon**	**3.78 43**		IAML			17 34 44.8	
	comp=E,54nm,0.9s							
LHV	**Little Huntoon**	**3.81 333**			Pn		17 33 32.1	+0.7
LHV				IAML			17 34 39.7	
	comp=N,83nm,1.7s							
LHV				IAML			17 34 40.4	
	comp=E,72nm,2.0s							
PMPB	**Monarch Peak**	**3.89 292**		IAML			17 34 52.4	
	comp=E,115nm,1.3s							
PMPB				IAML			17 34 54.2	
	comp=N,102nm,1.0s							
NVAR	**Mina Array Bea**	**3.90 337**			Pn		17 33 34.5	+1.6
X16A	**Lo Mia Camp, P**	**4.06 95**			Pn		17 33 34.5	-0.5
PIX	**Pinacate**	**4.08 143**			Pn		17 33 34.9	-0.3
PKCU	**Pink Cliffs**	**4.15 50**			Pn		17 33 37.2	+0.7
PKCU				IAML			17 34 53.3	
	comp=N,93nm,1.2s							
RYN	**Ryan**	**4.15 336**		IAML			17 34 58.5	
	comp=E,47nm,1.1s							
PSUT	**Pine Spring**	**4.17 28**			Pn		17 33 36.4	-0.2
PSUT				IAML			17 34 56.5	
	comp=E,70nm,1.3s							
PSUT				IAML			17 34 59.5	
	comp=N,48nm,1.4s							
BBGB	**Big Mountain B**	**4.20 295**			Pn		17 33 36.2	-0.6
WAKR	**Walker**	**4.41 326**		IAML			17 35 16.1	
	comp=E,25nm,1.4s							
CMB	**Columbia Colle**	**4.55 315**		IAML			17 35 01.9	
	comp=E,31nm,0.8s							
CMB				IAML			17 35 08.1	
	comp=N,30nm,0.8s							
SAO	**San Andreas Ge**	**4.57 296**			Pn		17 33 42.0	0.0
TCRU	**Three Creeks R**	**4.87 39**		IAML			17 35 22.6	
	comp=E,23nm,1.6s							
TCRU				IAML			17 35 49.0	
	comp=N,22nm,1.4s							
MHC	**Mount Hamilton**	**4.96 301**		Pn	Pn		17 33 47.0	-0.4
MHC				IAML			17 34 36.5	
	comp=E,29nm,5.0s							
MHC				IAML			17 35 16.4	
	comp=N,27nm,1.1s							
X18A	**Snowflake**	**5.27 92**		Pn	Pn		17 33 50.3	-1.4
TUC	**Tucson**	**5.28 117**			Pn		17 33 49.7	-2.2
TUC				IAML			17 35 24.6	
	comp=N,17nm,1.0s							
TUC				IAML			17 35 26.8	
	comp=N,17nm,0.9s							
W18A	**Petrified Fore**	**5.42 85**			Pn		17 33 50.8	-3.0
AFDM	**Forest Hills D**	**5.52 319**			Pn		17 33 51.2	-3.8
TMUT	**Trail Mountain**	**6.03 41**			Pn		17 33 59.0	-3.3
NLU	**North Lily Min**	**6.11 32**			Pn		17 34 01.0	-2.2
DUN6	**Lazy B Ranch**	**6.46 109**			Pn		17 34 05.4	-2.6
BSUT	**Blindstream Ca**	**7.18 36**			Pn		17 34 15.5	-2.6
121A	**Cookes Peak, D**	**7.49 106**			Pn		17 34 20.2	-2.1

*IDC **17** 17:37:08.6±3.0,21°.43S×179°.25W,h613^{km}×23^{km},mb3.2/6, mbtmp4.2/7,Error ellipse: s-maj=74.5km s-min=22.6km az=151.0*
*NEIC **17** 17:37:09.1±1.1,21°.4S±0°.3×179°.30W±0°.10,h612^{km}±10^{km}, mb4.1/15,Error ellipse: s-maj=49.0km s-min=10.6km az=169.0*

ISC 17 17:37:08.1±1.3,21°.6S±0°.2×179°.3W±0°.2,h604^{km},n28, σ0°60/29,mb4.1/15,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.62**	**326**	P	**P**	**17 38 39.1**	**+0.6**
	8.6nm,0.3s,baz=261,slow=24,SNR=35						
MSVF	**Nonsavu**	**4.62**	**326**	P	**P**	**17 38 38.3**	**-0.2**
MARNC	**Mare, Loyalty**	**11.83**	**268**	P	**P**	**17 39 45.0**	**-0.2**
EIDS	**Eidsvold**	**27.43**	**256**	P	**P**	**17 42 07.7**	**+0.2**
CTA	**Charters Tower**	**32.23**	**266**	P	**P**	**17 42 49.1**	**+0.4**
	3.2nm,0.4s,baz=91,slow=10,SNR=15						
	3.2nm,0.4s						
CTAO	**Charters Tower**	**32.23**	**266**	P	**P**	**17 42 48.6**	**-0.1**
STKA	**Stephens Creek**	**36.25**	**245**	P	**P**	**17 43 23.3**	**+1.2**
	1.4nm,0.5s,baz=95,slow=12,SNR=4.6						
	1.4nm,0.5s						
STKA	**Stephens Creek**	**36.25**	**245**	P	**P**	**17 43 22.7**	**+0.7**
INKA	**Innaminka**	**36.73**	**252**	P	**P**	**17 43 26.9**	**+0.9**
INKA				IAmb	IAmb	17 43 28.4	
	comp=Z,0.9nm,0.6s						
BBOO	**Buckleboo**	**41.01**	**244**	P	**P**	**17 44 00.4**	**+0.1**
BBOO				IAmb	IAmb	17 44 15.5	
	comp=Z,7.7nm,1.1s						
AS31	**Alice Springs**	**43.13**	**258**		**P**	**17 44 17.0**	**-0.1**
ASAR	**Alice Springs**	**43.13**	**258**	P	**P**	**17 44 17.2**	**+0.1**
	comp=Z,5.2nm,0.8s,baz=92,slow=7.9,SNR=124						
ASAR				PcP	**PcP**	**17 45 52.8**	**0.0**
	comp=Z,0.4nm,0.6s,baz=112,slow=3.8,SNR=4.6						
ASAR				ScP	**ScP**	**17 48 47.8**	**+0.5**
	comp=Z,0.4nm,0.8s,baz=104,slow=5.0,SNR=4.8						
	comp=Z,5.2nm,0.8s						
ASAR	**Alice Springs**	**43.13**	**258**	P	**P**	**17 44 16.9**	**-0.2**
WR8	**Warramunga Arr**	**43.14**	**263**	P	**P**	**17 44 16.3**	**-0.9**
WR8				IAmb	IAmb	17 44 18.0	
	comp=Z,4.3nm,1.1s						
WB0	**Warramunga Arr**	**43.28**	**264**	P	**P**	**17 44 17.8**	**-0.5**
WB0				IAmb	IAmb	17 44 18.3	
	comp=Z,4.8nm,0.6s						
WRA	**Warramunga Arr**	**43.29**	**263**	P	**P**	**17 44 17.8**	**-0.6**
	comp=Z,3.0nm,0.7s,baz=97,slow=7.5,SNR=59						
	comp=Z,3.0nm,0.7s						
WRA	**Warramunga Arr**	**43.29**	**263**	P	**P**	**17 44 17.9**	**-0.5**
FORT	**Forrest**	**47.78**	**248**	P	**P**	**17 44 52.2**	**-0.1**
FORT				IAmb	IAmb	17 44 60.0	
	comp=Z,13nm,1.2s						
MTN	**Manton Dam**	**48.01**	**272**	P	**P**	**17 44 53.0**	**-1.1**
MTN				IAmb	IAmb	17 45 06.2	
	comp=Z,12nm,1.4s						
KNRA	**Kununurra**	**49.42**	**268**	P	**P**	**17 45 03.8**	**-0.7**
KNRA				IAmb	IAmb	17 45 11.4	
	comp=Z,17nm,1.5s						
FITZ	**Fitzroy Crossi**	**51.72**	**264**	P	**P**	**17 45 21.1**	**0.0**
MBWA	**Marble Bar**	**56.47**	**258**	P	**P**	**17 45 53.5**	**-0.9**
MBWA				IAmb	IAmb	17 46 02.1	
	comp=Z,30nm,1.5s						
MORW	**Morawa**	**58.32**	**248**	P	**P**	**17 46 06.4**	**-0.5**
MORW				IAmb	IAmb	17 46 13.5	
	comp=Z,12nm,1.4s						
TXAR	**Lajitas Array**	**88.64**	**58**	P	**P**	**17 48 58.1**	**-0.3**
	comp=Z,0.3nm,0.7s,baz=247,slow=9.4,SNR=3.7						
	comp=Z,0.3nm,0.7s						
CMAR	**Chiang Mai Arr**	**89.38**	**290**	P	**P**	**17 49 02.9**	**+0.8**
	comp=Z,1.0nm,1.0s,baz=120,slow=3.1,SNR=6.5						
	comp=Z,1.0nm,1.0s						
CMAR	**Chiang Mai Arr**	**89.38**	**290**	P	**P**	**17 49 01.8**	**-0.2**
AKASG	**Malin Array Be**	**143.39**	**329**	PKP	PKPab	17 55 31.6	-1.5
	comp=Z,1.1nm,0.5s,baz=45,slow=4.1,SNR=7.8						
BRTR	**Keskin Array B**	**146.69**	**310**	PKPbc	**PKPdf**	**17 55 41.2**	**+0.4**
	comp=Z,0.7nm,0.8s,baz=52,slow=8.0,SNR=3.6						

*IDC **17** 17:47:30.0±2.8,54°.26S×5°.49E,h0^{km},mb4.0/4, mbtmp4.0/4,MS4.1/1,Error ellipse: s-maj=103.9km s-min=28.3km az=59.0*

ISC 17 17:47:31.6±2.2,54°.3S±0°.2×5°.5E±0°.4,h10^{km},n15,σ0°76/8, mb4.0/4,Bouvet Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA2	**Neumayer--Watz**	**17.61**	**194**	P	**Pn**	**17 51 36.6**	**-0.1**
	comp=Z,1.8nm,0.3s,baz=27,slow=14						
TROLL	**Troll, Antarti**	**17.80**	**183**	P	**Pn**	**17 51 38.4**	**-0.8**
	comp=Z,45nm,0.3s						
VNA3	**Neumayer Olymp**	**18.23**	**196**	P	**Pn**	**17 51 44.3**	**-0.1**
	comp=Z,0.5nm,0.3s						
H04S2	**CROZET ISLANDS**	**29.93**	**95**	T	T	18 25 36.5	
	baz=239,slow=75,SNR=34						
H04S3	**CROZET ISLANDS**	**29.94**	**95**	T	T	18 25 39.3	
	baz=239,slow=75,SNR=44						
H04S1	**CROZET ISLANDS**	**29.95**	**95**	T	T	18 25 34.7	
	baz=239,slow=75,SNR=67						
PMSA	**Palmer Station**	**34.91**	**225**	LR	LR	18 06 29.1	
	comp=Z,314nm,20.4s,baz=208,slow=33						
QSPA	**South Pole Qui**	**35.92**	**180**	P	**P**	**17 54 32.1**	**+0.3**
	comp=Z,0.9nm,0.6s,baz=226,slow=3.0,SNR=9.8						
	comp=Z,0.9nm,0.6s						
VNDA	**Vanda**	**47.60**	**173**	P	**P**	**17 56 07.5**	**+0.5**
	comp=Z,0.7nm,0.8s,baz=202,slow=7.5,SNR=6.1						
	comp=Z,0.7nm,0.8s						
BDFB	**Brasilia**	**56.43**	**292**	P	**P**	**17 57 14.3**	**+0.8**
	comp=Z,1.4nm,0.3s,baz=150,slow=8.1,SNR=1.4						
	comp=Z,1.4nm,0.3s						
LPAZ	**La Paz**	**67.37**	**274**	P	**P**	**17 58 27.1**	**-0.6**
	comp=Z,0.6nm,0.3s,baz=142,slow=5.8,SNR=4.2						
	comp=Z,0.6nm,0.3s						
H01W2	**Cape Leeuwin H**	**72.09**	**125**	T	T	19 18 47.6	
	baz=216,slow=75,SNR=13						
H01W1	**Cape Leeuwin H**	**72.11**	**125**	T	T	19 18 49.0	
	baz=216,slow=75,SNR=13						
H01W3	**Cape Leeuwin H**	**72.11**	**125**	T	T	19 18 47.1	
	baz=216,slow=75,SNR=12						
YKA	**Yellowknife Ar**	**148.66**	**309**	PKPbc	**PKPbc**	**18 07 16.6**	**-0.9**
	comp=Z,1.9nm,0.8s,baz=111,slow=2.8,SNR=6.0						

*IDC **17** 17:48:22.9±2.0,54°.37S×5°.14E,h0^{km},mb3.8/3, mbtmp3.8/3,Error ellipse: s-maj=106.3km s-min=45.5km az=78.0*

ISC 17 17:48:24.2±1.9,54°.3S±0°.2×5°.5E±0°.5,h10^{km},n7,σ0°89/7, mb3.8/3,Bouvet Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA2	**Neumayer--Watz**	**17.64**	**194**	P	**Pn**	**17 52 29.9**	**+0.2**
	comp=Z,2.2nm,0.4s,baz=20,slow=14						
TROLL	**Troll, Antarti**	**17.83**	**183**	P	**Pn**	**17 52 31.3**	**-0.9**
	comp=Z,85nm,0.2s						
VNA3	**Neumayer Olymp**	**18.26**	**196**	P	**P**	**17 52 38.6**	**+1.0**
	comp=Z,0.2nm,0.1s						
QSPA	**South Pole Qui**	**35.95**	**180**	P	**P**	**17 55 24.1**	**-0.6**
	comp=Z,1.1nm,0.8s,baz=235,slow=4.9,SNR=5.6						
	comp=Z,1.1nm,0.8s						
VNDA	**Vanda**	**47.63**	**173**	P	**P**	**17 56 59.5**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=201,slow=6.8,SNR=3.7						
	comp=Z,0.6nm,0.8s						
ASAR	**Alice Springs**	**90.61**	**134**	P	**P**	**18 01 27.6**	**+0.7**
	comp=Z,0.6nm,0.9s,baz=209,slow=4.8,SNR=4.1						
	comp=Z,0.6nm,0.9s						
YKA	**Yellowknife Ar**	**148.64**	**309**	PKPbc	**PKPbc**	**18 08 09.5**	**-0.6**
	comp=Z,1.4nm,0.9s,baz=98,slow=2.2,SNR=3.7						

*IDC **17** 17:52:30.0±10.0,0°.49N×96°.67E,h0^{km},mb3.4/4, mbtmp3.4/4,Error ellipse: s-maj=499.3km s-min=25.7km az=55.0*
*DJA **17** 17:52:33.3±1.1,1°.5±9°.7E±°,h35^{km}±20^{km},M3.4/17, MLv3.4/17*

ISC 17 17:52:34.7±1.2,0°.92N±0°.08×97°.15E±0°.10,h25^{km},n22, σ1°79/13,mb3.3/4,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**1.49**	**130**	P	**Pn**	**17 52 59.3**	**-0.6**
PBSI				AML	AML		
SNSI	**Sinabang, Aceh**	**1.69**	**331**	P	**Pn**	**17 53 01.4**	**-1.3**
SNSI				S	**Sn**	**17 53 24.4**	**+0.8**
TPTI		**2.33**	**1**	P	**Pn**	**17 53 11.8**	**+0.4**
PSI	**Prapat**	**2.58**	**44**	P	**Pb**	**17 53 16.4**	**-4.0**
PSI				P	**Pn**	**17 53 16.0**	**+1.0**
KCSI	**Kotacane, Aceh**	**2.66**	**14**	P	**Pn**	**17 53 18.0**	**+2.0**
KCSI				AML	AML		
PPI	**Padang Panjang**	**3.53**	**113**	P	**Pn**	**17 53 28.2**	**+0.3**
PPI				S	**Sn**	**17 54 10.4**	**+1.5**
PPI				AML	AML		
H08S2	**Diego Garcia H**	**26.02**	**250**	T	T	18 24 51.9	
	baz=72,slow=76,SNR=165						
H08S3	**Diego Garcia H**	**26.02**	**251**	T	T	18 24 52.2	
	baz=72,slow=76,SNR=183						
H08S1	**Diego Garcia H**	**26.04**	**251**	T	T	18 24 53.2	
	baz=72,slow=76,SNR=112						
H01W3	**Cape Leeuwin H**	**39.01**	**158**	T	T	18 41 12.0	
	baz=333,slow=76,SNR=127						
H01W2	**Cape Leeuwin H**	**39.02**	**158**	T	T	18 41 09.0	
	baz=333,slow=76,SNR=108						
H01W1	**Cape Leeuwin H**	**39.02**	**158**	T	T	18 41 13.2	
	baz=333,slow=76,SNR=121						
**

GCAM			S	**Sg**	**18 00 02.5 -0.2**
GCAM			IAML		18 00 03.0
	comp=N,5μm,0.5s				
GCAM			IAML		18 00 03.0
	comp=E,4μm,0.4s				
GCAM	**G?zelcaml?**	**0.35 160**	Pg	**Pb**	**17 59 58.1 +0.1**
GCAM			Sg	**Sb**	**18 00 03.4 +0.2**
GCAM			AML	AML	
BLCB	**Balcova**	**0.36 354**	P	**Pb**	**17 59 58.4 +0.1**
BLCB			S	**Sb**	**18 00 03.8 +0.1**
BLCB			AML	AML	
BLCB	**Balcova**	**0.36 354**	Pg	**Pb**	**17 59 58.3 0.0**
SMG	**Samos**	**0.37 212**	P	**Pb**	**17 59 59.0 +0.4**
SMG			S	**Sb**	**18 00 04.7 +0.6**
SMG			AML	AML	
SMG	**Samos**	**0.37 212**	P	**Pb**	**17 59 58.9 +0.4**
SMG			S	**Sb**	**18 00 05.3 +1.2**
SMG			AML	AML	
KRL1	**Karlovasi Samo**	**0.38 233**	P	**Pb**	**17 59 59.3 +0.6**
KRL1			S	**Sb**	**18 00 05.4 +1.2**
SAM2	**Drakei, Karlov**	**0.46 235**	P	**Pb**	**18 00 00.7 +0.6**
SAM2			S	**Sb**	**18 00 07.3 +0.8**
SAM2			AML	AML	
ZEYE	**Izmir, Urla-Ze**	**0.51 295**	P	**Pb**	**18 00 01.4 +0.7**
ZEYE			S	**Sb**	**18 00 08.5 +0.7**
ZEYE			IAML		18 00 09.0
	comp=N,6μm,0.5s				
ZEYE			IAML		18 00 15.0
	comp=E,2μm,0.3s				
DDIM	**Aydin, Didim**	**0.58 168**	P	**Pb**	**18 00 02.5 +0.6**
AYDB	**Zeytinkoy-Aydi**	**0.64 97**	Pg	**Pb**	**18 00 03.8 +0.8**
BAGT	**Foa**	**0.66 344**	P	**Pn**	**18 00 04.5 -0.3**
BAGT			S	**Sb**	**18 00 12.6 +0.6**
BAGT			IAML		18 00 14.0
	comp=N,1μm,0.4s				
BAGT			IAML		18 00 17.0
	comp=E,2μm,0.6s				
DIDI	**Didim-Aydin**	**0.66 169**	Pg	**Pb**	**18 00 04.0 +0.7**
CESE	**eme**	**0.69 296**	Pg	**Pb**	**18 00 04.3 +0.4**
CESE			Sg	**Sn**	**18 00 14.4 -1.1**
CESE			AML	AML	
IZMR	**zmir-demi**	**0.69 81**	P	**Pb**	**18 00 04.5 +0.6**
KRBN	**Karaburun**	**0.70 324**	Pg	**Pn**	**18 00 04.7 -0.7**
KRBN			Sg	**Sn**	**18 00 14.9 -0.9**
AYDN	**Tasoluk**	**0.73 120**	P	**Pn**	**18 00 05.7 -0.1**
FOCM	**Foa**	**0.74 338**	Pg	**Pn**	**18 00 05.4 -0.5**
FOCM			Sg	**Sn**	**18 00 15.9 -0.8**
FOCM			AML	AML	
CAMT	**Merkez**	**0.74 14**	P	**Pn**	**18 00 05.9 0.0**
KARB	**zmir-Karabur**	**0.83 320**	P	**Pn**	**18 00 07.3 +0.2**
CHOS	**Chios island**	**0.89 294**	P	**Pn**	**18 00 08.8 +0.8**
CHOS			S	**Sn**	**18 00 21.8 +1.3**
CHOS			AML	AML	
CHOS	**Chios island**	**0.89 294**	Pg	**Pn**	**18 00 08.1 +0.1**
CHOS	**Chios island**	**0.89 294**	P	**Pn**	**18 00 08.8 +0.8**
CHOS			S	**Sn**	**18 00 21.0 +0.5**
CHOS			AML	AML	
MLSB	**Milas**	**0.91 143**	Pg	**Pn**	**18 00 08.8 +0.5**
YKAV	**Yalikavak-Bodr**	**0.91 170**	Pg	**Pn**	**18 00 08.8 +0.5**
EAG2	**Marmaro, Chios**	**0.93 304**	P	**Pn**	**18 00 09.2 +0.7**
EAG2			S	**Sn**	**18 00 21.9 +0.6**
ZEDA	**zmir-Bergama**	**0.94 360**	P	**Pn**	**18 00 09.3 +0.7**
GOMA	**Golmarmara-Man**	**0.94 44**	Pg	**Pn**	**18 00 09.3 +0.6**
GOMA			AML	AML	
NAZL	**Nazilli-Aydin**	**0.95 93**	Pg	**Pn**	**18 00 09.6 +0.7**
NAZL			AML	AML	
BODT	**Bodrum**	**0.98 169**	P	**Pn**	**18 00 10.2 +0.9**
BODT			S	**Sn**	**18 00 24.1 +1.5**
BODT			AML	AML	
BODT	**Bodrum**	**0.98 169**	Pg	**Pn**	**18 00 09.9 +0.7**
BODT			AML	AML	
BDRM	**Kayabasi**	**1.00 163**	P	**Pn**	**18 00 10.4 +0.8**
ESEN	**Aydn-Nazilli**	**1.02 102**	P	**Pg**	**18 00 10.6 +0.3**
AKHS	**Akhisar**	**1.02 34**	P	**Pg**	**18 00 10.7 +0.4**
AKS	**Akhisar**	**1.02 34**	Pg	**Pg**	**18 00 10.8 +0.5**
AKS			AML	AML	
BODA	**Bodrum-Mula**	**1.03 164**	Pg	**Pg**	**18 00 10.9 +0.6**
KTTT	**Salihli**	**1.03 50**	P	**Pg**	**18 00 11.1 +0.7**
KIRA	**zmir-Kiraz**	**1.05 80**	P	**Pg**	**18 00 11.1 +0.4**
DKL	**Dikili**	**1.05 352**	Pg	**Pg**	**18 00 11.2 +0.4**
DKL			AML	AML	
DKL	**Dikili**	**1.05 352**	P	**Pg**	**18 00 11.4 +0.6**
DKL			S	**Sn**	**18 00 25.0 +0.6**
KLNA	**Kalymnos**	**1.07 185**	P	**Pb**	**18 00 09.7 -0.7**
KLNA			S	**Sb**	**18 00 23.8 -0.2**
KLNA			AML	AML	
SOMA	**Soma-Manisa**	**1.18 17**	Pn	**Pg**	**18 00 13.7 +0.4**
SOMA			AML	AML	
GORD	**Gordes-Manisa**	**1.23 44**	Pn	**Pg**	**18 00 14.6 +0.4**
GORD			AML	AML	
MULA	**Mugla, Merkez-**	**1.25 128**	P	**Pg**	**18 00 16.1 +1.6**
MANT	**Manisa**	**1.25 68**	P	**Pg**	**18 00 15.5 +0.9**
YER	**Yerkesik**	**1.30 133**	P	**Pg**	**18 00 15.5 -0.1**
YER			S	**Sg**	**18 00 32.6 0.0**
AYVA	**Ayvalik**	**1.32 346**	P	**Pg**	**18 00 16.6 +0.8**
SULTU	**Buldan**	**1.33 88**	P	**Pg**	**18 00 15.9 -0.2**
DAT	**Datca**	**1.35 163**	P	**Pg**	**18 00 16.0 -0.5**
DAT			S	**Sg**	**18 00 34.2 0.0**
DAT			AML	AML	
YAZI	**Mula-Datşa-**	**1.37 168**	P	**Pg**	**18 00 17.9 +1.0**
PRK	**Paraskevi**	**1.38 333**	P	**Pg**	**18 00 16.3 -0.6**
PRK			S	**Sg**	**18 00 34.9 0.0**
PRK			AML	AML	
PRK	**Paraskevi**	**1.38 333**	P	**Pn**	**18 00 14.9 +0.2**
PRK			S	**Sg**	**18 00 33.8 -1.1**
HARTU	**Esme**	**1.39 76**	P	**Pb**	**18 00 16.6 +0.9**
STEP	**BALIKESIR_Sava**	**1.44 20**	P	**Pg**	**18 00 17.5 -0.6**
BUHA	**Balikesir, Bur**	**1.47 360**	P	**Pg**	**18 00 19.4 +0.6**
TAVA	**DENIZLI_Tavas**	**1.55 111**	P	**Pb**	**18 00 19.0 +0.4**
TURN	**Turunc**	**1.55 143**	P	**Pb**	**18 00 18.9 +0.3**
APE	**Apeiranthos**	**1.56 233**	P	**Pb**	**18 00 18.1 -0.7**
APE			S	**Sg**	**18 00 40.3 -0.6**
APE			AML	AML	
APE	**Apeiranthos**	**1.56 233**	P	**Pn**	**18 00 17.2 -0.1**
APE			S	**Sn**	**18 00 37.1 0.0**
APE			AML	AML	
ASTA	**Astypalaia**	**1.59 202**	P	**Pn**	**18 00 17.0 -0.6**
ASTA			S	**Sn**	**18 00 37.2 -0.5**
ASTA			AML	AML	
DNIZ	**Denizli-Tavas-**	**1.60 104**	P	**Pg**	**18 00 22.4 +1.3**
TNSA	**Tinos**	**1.60 253**	P	**Pn**	**18 00 17.6 -0.2**
TNSA			S	**Sb**	**18 00 38.4 -0.8**
TNSA			AML	AML	
DEMI	**Demirci**	**1.63 51**	P	**Pg**	**18 00 22.6 +0.8**
KOCA	**Canakkale, Ayv**	**1.65 334**	P	**Pg**	**18 00 21.4 -0.8**
USAK	**Uak-Merkez**	**1.67 65**	P	**Pb**	**18 00 20.5 0.0**
BALB	**Balikesir**	**1.73 21**	P	**Pn**	**18 00 19.7 +0.2**
BALB			S	**Sn**	**18 00 41.0 0.0**
BALB			AML	AML	
BALY	**Balya**	**1.76 13**	P	**Pb**	**18 00 21.5 -0.7**
BAYC	**CANAKKALE_Bayr**	**1.76 346**	P	**Pb**	**18 00 21.4 -0.7**
RDI1	**Rhodes Town Ha**	**1.81 150**	P	**Pn**	**18 00 19.6 -1.1**
RDI1			S	**Sn**	**18 00 42.0 -1.2**
RDI1			AML	AML	
EZN	**Ezine**	**1.89 342**	P	**Pb**	**18 00 24.8 +0.4**
EZN			S	**Sb**	**18 00 48.7 +1.0**
EZN			AML	AML	
ARG	**Arkhangelos**	**1.99 155**	P	**Pn**	**18 00 22.0 -1.1**
ARG			S	**Sn**	**18 00 45.9 -1.6**
ARG			AML	AML	
CMBO	**Columbo, Santo**	**2.05 221**	P	**Pn**	**18 00 23.8 -0.1**
CMBO			S	**Sn**	**18 00 48.3 -0.8**
THR2	**Thira island,**	**2.06 220**	P	**Pn**	**18 00 23.6 -0.4**
THR2			S	**Sn**	**18 00 49.3 +0.2**
THR8	**Santorini-Mono**	**2.06 219**	P	**Pn**	**18 00 23.9 -0.2**
THR8			S	**Sn**	**18 00 49.8 +0.4**
KARY	**Karystos**	**2.09 271**	P	**Pn**	**18 00 24.6 +0.1**
KARY			S	**Sn**	**18 00 49.6 -0.5**
THERA	**Ancient Thera,**	**2.10 218**	P	**Pn**	**18 00 26.0 +1.4**
THERA			AML	AML	
THERA	**Ancient Thera,**	**2.10 218**	P	**Pn**	**18 00 24.2 -0.4**
THERA			S	**Sn**	**18 00 50.2 0.0**
THERA			AML	AML	
THR3	**Thira Island,**	**2.10 220**	P	**Pn**	**18 00 24.1 -0.5**
THR3			S	**Sn**	**18 00 50.2 -0.1**
SNT5	**Nea Kammeni, S**	**2.11 220**	P	**Pn**	**18 00 24.7 0.0**
SNT5			S	**Sn**	**18 00 50.4 0.0**
SAP3	**Santorini-Thir**	**2.11 222**	P	**Pn**	**18 00 24.3 -0.4**
SAP3			S	**Sn**	**18 00 50.7 +0.2**
THR5	**Thira Island,**	**2.12 221**	P	**Pn**	**18 00 25.1 +0.1**
THR5			S	**Sn**	**18 00 49.6 -1.2**
THR6	**Thira Island,**	**2.15 219**	P	**Pn**	**18 00 25.1 -0.1**
THR6			S	**Sn**	**18 00 50.4 -1.0**
THR9	**Santorini-Faro**	**2.16 220**	P	**Pn**	**18 00 25.1 -0.4**
THR9			S	**Sn**	**18 00 51.3 -0.5**
GADA	**Gvkgeada**	**2.35 337**	P	**Pn**	**18 00 30.0 +2.0**
GADA			AML	AML	
LIA	**Limnos Island**	**2.39 322**	P	**Pb**	**18 00 30.7 -2.1**
LIA			AML	AML	
LIA	**Limnos Island**	**2.39 322**	P	**Pn**	**18 00 29.0 +0.5**
LIA			S	**Sn**	**18 00 58.1 +0.8**
LIA			AML	AML	
KYMI	**Kymi, Euboea I**	**2.43 285**	P	**Pn**	**18 00 29.6 +0.5**
KYMI			S	**Sn**	**18 00 59.7 +1.4**
KARP	**Karpathos**	**2.48 179**	P	**Pn**	**18 00 31.3 +1.5**
KARP	**Karpathos**	**2.48 179**	P	**Pn**	**18 00 29.1 -0.7**
KARP			S	**Sn**	**18 00 57.6 -2.0**
KARP			AML	AML	
DION	**Dionisos Attik**	**2.49 272**	P	**Pn**	**18 00 30.2 +0.2**
DION			S	**Sn**	**18 01 00.7 +0.8**
DION			AML	AML	
ELL	**Elmali**	**2.58 119**	P	**Pn**	**18 00 30.0 -1.4**
ELL			S	**Sn**	**18 01 00.9 -1.5**
ELL			AML	AML	
ISP	**Isparta**	**2.72 93**	P	**Pn**	**18 00 31.3 -2.0**
ISP			S	**Sn**	**18 01 04.3 -1.5**
SMTH	**Samothraki Isl**	**2.72 334**	P	**Pn**	**18 00 33.1 -0.1**
SMTH			S	**Sn**	**18 01 06.8 +1.1**
SMTH			AML	AML	
ZKR	**Zakros**	**2.99 194**	P	**Pn**	**18 00 36.3 -0.5**
ZKR			AML	AML	
VIL2	**Platees**	**3.02 275**	P	**Pn**	**18 00 36.8 -0.4**
VIL2			AML	AML	
IDI	**Anoyia**	**3.25 214**	P	**Pn**	**18 00 39.5 -1.0**
IDI			AML	AML	
ATAL	**Atalanti**	**3.27 283**	P	**Pn**	**18 00 41.4 +0.7**
AXAR	**Agios Charalam**	**3.56 283**	P	**Pn**	**18 00 44.6 -0.1**
KLV	**Kalavryta, Ach**	**3.90 272**	P	**Pn**	**18 00 49.5 +0.1**
LAKA	**Lakka**	**4.03 275**	P	**Pn**	**18 00 51.4 +0.1**
ANX	**Ano Chora**	**4.10 280**	P	**Pn**	**18 00 52.3 0.0**
EVR	**Evrytania**	**4.24 284**	P	**Pn**	**18 00 53.4 -0.7**
DRO	**Drossia**	**4.25 271**	P	**Pn**	**18 00 54.4 +0.2**
PVO	**Paravola**	**4.41 279**	P	**Pn**	**18 00 55.9 -0.5**
RLS	**Riolos of Patr**	**4.44 272**	P	**Pn**	**18 00 57.1 +0.4**
AXS	**Araxos**	**4.51 274**	P	**Pn**	**18 00 57.1 -0.6**
AMPL	**Ampelaki**	**4.70 283**	P	**Pn**	**18 00 57.1 +0.4**

*SJA **17** 18:11:24.1±0.6,22.°91S×69.°35W,h89km±3km, ML3.4, MW3.5*
*GUC **17** 18:11:25.6±0.8,22.°98S×69.°25W,h76km±4km, ML3.3, Presumed earthquake*
ISC 17 18:11:25.9±1.4,22.°91S±0.°03×69.°35W±0.°05,h83km±9km, n25,σ0s91/45,2C,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB06	**IPOC Station P**	**0.29**	**315**	*e*P	**Pn**	**18 11 38.1**	**-0.6**
PB06				*e*S	**Sn**	**18 11 48.3**	**+0.2**
PB06				IAML		18 11 48.5	
	comp=Z,3μm,0.1s						
PB06	**IPOC Station P**	**0.29**	**315**	*i* P	**Pn**	**18 11 38.0**	**-0.7**
PB06				*e*S	**Sn**	**18 11 47.8**	**-0.2**
PB05	**IPOC Station P**	**0.79**	**274**	*e*P	**Pn**	**18 11 42.4**	**-0.5**
PB05				*e*S	**Sn**	**18 11 56.3**	**+0.9**
PB05				IAML		18 11 57.7	
	comp=Z,418nm,0.2s						
PB05	**IPOC Station P**	**0.79**	**274**	*i* P	**Pn**	**18 11 42.6**	**-0.3**
PB05				*e*S	**Sn**	**18 11 56.0**	**+0.6**
PB05				IAML		18 11 56.7	
	comp=N,566nm,0.2s						
PB03	**IPOC Station P**	**0.94**	**337**	*e*P	**Pn**	**18 11 44.1**	**-0.4**
PB03				*e*S	**Sn**	**18 11 58.8**	**+0.4**
PB03				IAML		18 11 58.9	
	comp=Z,1μm,0.2s						
PB03	**IPOC Station P**	**0.94**	**337**	↑*i*P	**Pn**	**18 11 44.2**	**-0.4**
PB03				*e*S	**Sn**	**18 11 58.4**	**0.0**
PB03				IAML		18 11 59.2	
	comp=N,2μm,0.4s						
AF01	**San Pedro de A**	**1.08**	**92**	*e*P	**Pn**	**18 11 45.9**	**-0.5**
AF01				*e*S	**Sn**	**18 12 02.3**	**+0.6**
AF01				IAML		18 12 18.1	
	comp=Z,1μm,0.5s						
AF01	**San Pedro de A**	**1.08**	**92**	*e*P	**Pn**	**18 11 46.1**	**-0.3**
PB09	**IPOC Station P**	**1.11**	**5**	*e*P	**Pn**	**18 11 46.6**	**-0.1**
PB09				*e*S	**Sn**	**18 12 03.6**	**+1.4**
PB09				IAML		18 12 04.0	
	comp=Z,560nm,0.4s						
PB09	**IPOC Station P**	**1.11**	**5**	↑*i*P	**Pn**	**18 11 46.6**	**-0.1**
PB09				*e*S	**Sn**	**18 12 03.3**	**+1.1**
PB09				IAML		18 12 04.9	
	comp=E,805nm,0.4s						
PB10	**IPOC Station P**	**1.26**	**241**	*e*P	**Pn**	**18 11 47.9**	**-0.4**
PB10				*e*S	**Sn**	**18 12 05.3**	**+0.2**
PB10	**IPOC Station P**	**1.26**	**241**	*e*P	**Pn**	**18 11 49.1**	**+0.8**
PB10				*e*S	**Sn**	**18 12 05.1**	**0.0**
PB10				IAML		18 12 10.3	
	comp=E,772nm,0.1s						
PB07	**IPOC Station P**	**1.28**	**337**	*e*P	**Pn**	**18 11 48.3**	**-0.4**
PB07				*e*S	**Sn**	**18 12 06.0**	**+0.2**
PB07				IAML		18 12 06.4	
	comp=Z,616nm,0.1s						
PB07	**IPOC Station P**	**1.28**	**337**	*e*P	**Pn**	**18 11 48.4**	**-0.4**
PB07				*i* S	**Sn**	**18 12 06.1**	**+0.3**
PB07				IAML		18 12 07.2	
	comp=E,934nm,0.2s						
PB02	**IPOC Station P**	**1.66**	**342**	*e*P	**Pn**	**18 11 53.2**	**-0.3**
PB02				*e*S	**Sn**	**18 12 15.5**	**+0.9**
PB02				IAML		18 12 17.1	
	comp=Z,842nm,0.3s						
PB02	**IPOC Station P**	**1.66**	**342**	*e*P	**Pn**	**18 11 53.4**	**-0.2**
PB02				*e*S	**Sn**	**18 12 15.4**	**+0.9**
PB14	**IPOC Station P**	**1.96**	**209**	*e*P	**Pn**	**18 11 57.5**	**-0.1**
PB14				*e*S	**Sn**	**18 12 22.3**	**+0.5**
PB14				IAML		18 12 26.2	
	comp=Z,184nm,0.4s						
PB14	**IPOC Station P**	**1.96**	**209**	*e*P	**Pn**	**18 11 57.6**	**-0.1**
PB14				*i* S	**Sn**	**18 12 21.7**	**-0.1**
PB14				IAML		18 12 28.8	
	comp=E,151nm,0.5s						
TA01	**Diego Aracena**	**2.46**	**342**	*e*P	**Pn**	**18 12 02.8**	**-1.2**
TA01				*e*S	**Sn**	**18 12 35.5**	**+2.3**
TA01				IAML		18 12 42.0	
	comp=Z,170nm,0.8s						
TA01	**Diego Aracena**	**2.46**	**342**	*i* S	**Sn**	**18 12 34.2**	**+1.0**
TA01				IAML		18 12 44.5	
	comp=E,227nm,0.2s						
PB11	**IPOC Station P**	**3.15**	**355**	*e*P	**Pn**	**18 12 12.2**	**-1.3**
PB11				IAML		18 13 19.4	
	comp=Z,84nm,0.4s						
PB11	**IPOC Station P**	**3.15**	**355**	*e*P	**Pn**	**18 12 11.8**	**-1.7**
PB11				*i* S	**Sn**	**18 12 51.1**	**+1.0**
GO01	**Chusmiza**	**3.23**	**3**	*e*P	**Pn**	**18 12 14.0**	**-0.9**
GO01				IAML		18 13 11.9	
	comp=Z,62nm,0.3s						
GO01	**Chusmiza**	**3.23**	**3**	*e*P	**Pn**	**18 12 13.9**	**-1.0**
GO01				*i* S	**Sn**	**18 12 54.2**	**+1.6**
PSGCX	**Pisagua**	**3.38**	**348**	*e*P	**Pn**	**18 12 14.2**	**-2.3**
PSGCX				*e*S	Sn	18 12 43.7	-12
PSGCX				IAML		18 13 16.0	
	comp=Z,49nm,0.3s						

*IDC **17** 18:32:18.8±0.6,24.°43S×115.°92W,h0km,mb4.2/11, mbtmp4.2/11,MS4.3/45,Error ellipse: s-maj=25.9km s-min=18.3km az=84.0*
*NEIC **17** 18:32:21.1±1.3,24.°4S±0.°1×116.°09W±0.°10,h10km±1km, mb4.9/101,Error ellipse: s-maj=20.0km s-min=13.5km az=205.0*
*GFZ **17** 18:32:21.5±0.2,24.°5S±4.°×11.°6W±.°,h10km,M4.7/22, mb4.7/22*
*BJI **17** 18:32:22.0,24.°40S×116.°00W,h10km,mB5.2/3,Ms5.3/5, Ms7 5.2/5*
*GCMT **17** 18:32:25.1±0.2,24.°52S±0.°01×116.°09W±0.°01,h21km±1km, MW5.1/130,Moment Tensor Solution. s68,c86; s130,c198; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.86±.14; $M_{\theta\theta}$-4.16±.12; $M_{\phi\phi}$5.02±.14; $M_{r\theta}$-0.47±.22; $M_{\theta\phi}$3.60±.11; $M_{r\phi}$0.98±.23; Best double couple: M_o5.93800×10^{16} NP1:φs64.00000°,δ79.00000°, λ-2.00000°. NP2:φs154.00000°,δ88.00000°, λ-169.00000°. Principal axes: T 6.3470, Plg6.0000°, Azm289.0000°; N -0.8220, Plg79.0000°, Azm166.0000°; P -5.5300, Plg9.0000°, Azm20.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 17 18:32:20.5±0.3,24.°38S±0.°08×116.°04W±0.°07,h12km, n215,σ1s27/162,mb4.9/73,MS4.4/46,1D,Southern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VA02	**Isla de Pascua**	**6.57**	**116**	Pn	**Pn**	**18 33 56.0**	**-1.0**
RPN	**Rapa Nui**	**6.64**	**116**	LR	LR	18 35 49.5	
	comp=Z,4μm,19.9s,baz=271,slow=32						
PTCN	**Pitcairn Islan**	**12.79**	**264**	P	**Pn**	**18 35 25.4**	**+3.1**
	comp=Z,131nm,1.4s						
RKT	**Rikitea**	**17.38**	**270**	*e*LR	LR	18 40 21.1	
	comp=Z,21μm,26.0s						
TAOE	**Nuku Hiva Isla**	**27.71**	**300**	P	**P**	**18 38 07.5**	**-1.5**
TBI	**Tubuai**	**30.54**	**265**	*e*LR	LR	18 46 15.7	
	comp=Z,2μm,27.0s						
TBI				*e*LR	LR	18 46 21.6	
	comp=Z,4μm,26.0s						
PPTF	**Pamatai, Papee**	**31.96**	**276**	P	**P**	**18 38 47.9**	**+1.2**
	comp=Z,81nm,2.4s						
PPT2	**Papeete2**	**31.97**	**276**	*e*S	**S**	**18 43 52.3**	**-6.0**
	comp=Z,142nm,25.5s						
PPT2				*e*LR	LR	18 46 58.1	
	comp=Z,2μm,27.2s						
PPT2				*e*LR	LR	18 46 59.3	
	comp=Z,1μm,29.5s						
PPT	**Papeete**	**31.98**	**276**	LR	LR	18 47 50.7	
	comp=Z,612nm,20.4s,baz=138,slow=29						
H03N2	**Juan Fernandez**	**33.57**	**114**	T	T	19 14 27.2	
	baz=282,slow=74,SNR=142						
H03N1	**Juan Fernandez**	**33.59**	**114**	T	T	19 14 27.6	
	baz=340,slow=74,SNR=156						
NNA	**Nana**	**39.09**	**79**	LR	LR	18 51 48.0	
	comp=Z,714nm,19.2s,baz=245,slow=30						
NNA	**Nana**	**39.09**	**79**	P	**P**	**18 39 45.9**	**-2.2**
	comp=Z,40nm,2.8s						
GO05	**Hualane**	**39.48**	**116**	P	**P**	**18 39 50.1**	**-0.9**
	comp=Z,38nm,2.0s						
VA01	**Torpederas**	**39.64**	**113**	P	**P**	**18 39 53.0**	**+0.7**
	comp=Z,43nm,1.3s						
LL03	**Petrohue**	**39.87**	**126**	P	**P**	**18 39 54.8**	**+0.7**
LL03	**Petrohue**	**39.87**	**126**	P	**P**	**18 39 55.0**	**+0.8**
	comp=Z,100nm,1.0s						
ATAH	**Atahualpa**	**39.91**	**71**	LR	LR	18 52 33.4	
	comp=Z,444nm,18.8s,baz=241,slow=30						
BI02	**San Fabin de**	**40.13**	**119**	P	**P**	**18 39 55.7**	**-0.8**
	comp=Z,6.0nm,0.9s						
CO02	**Combarbal**	**40.21**	**110**	P	**P**	**18 39 57.4**	**+0.2**
CO02				IAmb	IAmb	18 40 01.9	
	comp=Z,56nm,1.6s						
CO02	**Combarbal**	**40.21**	**110**	P	**P**	**18 39 56.9**	**-0.4**
CO04	**Los Peladeros**	**40.21**	**111**	P	**P**	**18 39 57.6**	**+0.2**
CO04				IAmb	IAmb	18 40 01.1	
	comp=Z,55nm,1.6s						
CO04	**Los Peladeros**	**40.21**	**111**	P	**P**	**18 39 57.9**	**+0.4**
	comp=Z,28nm,2.8s						
GO06	**Curarrehue**	**40.31**	**123**	P	**P**	**18 39 56.8**	**-1.2**
RAR	**Rarotonga**	**40.32**	**265**	LR	LR	18 51 49.2	
	comp=Z,303nm,20.7s,baz=108,slow=29						
PEL	**Peldehue**	**40.45**	**113**	P	**P**	**18 40 00.0**	**+0.8**
	comp=Z,13nm,0.5s						
CO03	**El Pedregal**	**40.49**	**110**	P	**P**	**18 39 59.3**	**-0.2**
CO03	**El Pedregal**	**40.49**	**110**	P	**P**	**18 39 59.5**	**-0.1**
AC05	**El Transito**	**40.97**	**107**	P	**P**	**18 40 04.8**	**+1.2**
	comp=Z,12nm,1.8s						
CO01	**Juntas del Tor**	**41.05**	**108**	P	**P**	**18 40 04.1**	**-0.3**
CO01	**Juntas del Tor**	**41.05**	**108**	P	**P**	**18 40 04.7**	**+0.4**
AC06	**Mina Casimiro**	**41.05**	**104**	P	**P**	**18 40 04.6**	**+0.5**
GO03	**Copiapo**	**41.13**	**105**	P	**P**	**18 40 05.1**	**+0.3**
GO03				IAmb	IAmb	18 40 12.8	
	comp=Z,39nm,1.9s						
PLCA	**Paso Flores**	**41.19**	**125**	P	**P**	**18 40 05.0**	**-0.2**
	comp=Z,3.2nm,1.1s,baz=292,slow=13,SNR=3.9						
PLCA				LR	LR	18 52 48.8	
	comp=Z,764nm,21.2s,baz=274,slow=30						
PLCA	**Paso Flores**	**41.19**	**125**	P	**P**	**18 40 05.3**	**+0.2**
PLCA				IAmb	IAmb	18 40 35.1	
	comp=Z,9.9nm,1.2s						
PLCA	**Paso Flores**	**41.19**	**125**	P	**P**	**18 40 05.3**	**+0.2**
ZON	**Zonda**	**42.18**	**111**		**P**	**18 40 13.8**	**+0.4**
ZON				IAmb	IAmb	18 40 34.0	
	comp=Z,30nm,1.4s						
ZON	**Zonda**	**42.18**	**111**	P	**P**	**18 40 15.0**	**+1.6**
	comp=E,15nm,1.7s						
CFA	**Coronel Fontan**	**42.55**	**111**	LR	LR	18 53 38.1	
	comp=E,552nm,22.0s,baz=254,slow=30						
TLIG	**Tlapa**	**45.04**	**24**	P	**P**	**18 40 36.2**	**-0.3**
TLIG				IAmb	IAmb	18 40 41.0	
	comp=Z,13nm,1.1s						
LPAZ	**La Paz**	**45.46**	**89**	P	**P**	**18 40 40.3**	**-0.3**
	comp=Z,6.5nm,1.0s,baz=253,slow=5.7,SNR=11						
LPAZ				LR	LR	18 55 52.4	
	comp=Z,310nm,18.4s,baz=242,slow=31						
	comp=Z,6.5nm,1.0s						
LPAZ	**La Paz**	**45.46**	**89**		**P**	**18 40 39.8**	**-0.8**
LPAZ				IAmb	IAmb	18 40 49.1	
	comp=Z,14nm,1.3s						
LPAZ	**La Paz**	**45.46**	**89**	P	**P**	**18 40 40.7**	**+0.1**
	comp=Z,9.2nm,1.3s						
JTS	**Las Juntas de**	**45.92**	**45**	LR	LR	18 54 51.2	
	comp=Z,258nm,22.0s,baz=229,slow=30						
CMIG	**Matias Romero**	**46.10**	**29**	LR	LR	18 55 51.0	
	comp=Z,485nm,21.9s,baz=182,slow=31						
TGUH	**Tegucigalpa,Un**	**47.42**	**39**	P	**P**	**18 40 55.5**	**+0.2**
TGUH	**Tegucigalpa,Un**	**47.42**	**39**	P	**P**	**18 40 56.5**	**+1.2**
	comp=Z,30nm,2.4s						
LPIG	**La Paz**	**48.52**	**7**	LR	LR	18 56 27.1	
	comp=Z,487nm,20.7s,baz=214,slow=30						
ZAIG	**Zacatecas**	**48.66**	**17**	P	**P**	**18 41 06.2**	**+1.3**
	comp=Z,4.5nm,1.2s						
SRIG	**Santa Rosalia**	**51.53**	**4**	P	**P**	**18 41 26.7**	**+0.4**
SRIG

MNTX	**Cornudas Mount**	**56.69**	**11**			**P**		**18 42 04.8 +0.9**
MNTX				IAmb		IAmb		18 42 23.3
	comp=Z,21nm,1.5s							
MNTX	**Cornudas Mount**	**56.69**	**11**	P		**P**		**18 42 05.9 +2.0**
	comp=Z,8.7nm,1.4s							
YUH	**Yuha Desert**	**56.71**	**0**	P		**P**		**18 42 04.8 +0.7**
JCT	**Junction City**	**56.73**	**17**	P		**P**		**18 42 05.3 +1.0**
OZNA	**Ozona**	**56.82**	**15**	P		**P**		**18 42 05.7 +0.8**
OZNA				IAmb		IAmb		18 42 13.7
	comp=Z,12nm,1.3s							
TPB28		**56.82**	**12**	P		**P**		**18 42 06.2 +1.3**
TPB28				IAmb		IAmb		18 42 34.2
	comp=Z,54nm,0.4s							
113A	**Mohawk Valley,**	**56.87**	**2**	P		**P**		**18 42 06.2 +1.0**
113A				IAmb		IAmb		18 42 23.8
	comp=Z,15nm,1.6s							
DUN6	**Lazy B Ranch**	**57.00**	**7**	P		**P**		**18 42 07.2 +0.9**
GLA	**Glamis**	**57.12**	**1**	P		**P**		**18 42 07.5 +0.5**
GLA				IAmb		IAmb		18 42 59.7
	comp=Z,9.1nm,0.6s							
121A	**Cookes Peak, D**	**57.14**	**8**			**P**		**18 42 07.7 +0.4**
TPB11	**China Draw**	**57.16**	**12**	P		**P**		**18 42 07.9 +0.5**
TPB11				IAmb		IAmb		18 42 34.5
	comp=Z,21nm,1.3s							
GDL2	**Guadalupe Moun**	**57.36**	**12**	P		**P**		**18 42 09.3 +0.5**
HKT	**Hockley**	**57.40**	**21**	P		**P**		**18 42 09.7 +0.8**
HKT	**Hockley**	**57.40**	**21**	P		**P**		**18 42 10.4 +1.5**
	comp=Z,10nm,2.9s							
URZ	**Urewera**	**57.63**	**239**	LR		LR		19 01 00.5
	comp=Z,131nm,19.6s,baz=96,slow=30							
ODSA	**Odessa**	**57.65**	**14**	P		**P**		**18 42 11.4 +0.6**
ODSA				IAmb		IAmb		18 42 13.9
	comp=Z,11nm,0.6s							
PFO	**Pinyon Flats O**	**57.67**	**360**	LR		LR		19 00 51.6
	comp=Z,206nm,18.1s,baz=226,slow=30							
BRDY	**Brady**	**57.71**	**17**			**P**		**18 42 12.1 +0.9**
BC3	**Big Chuckawall**	**57.72**	**1**	P		**P**		**18 42 12.2 +0.9**
SGCY	**Sterling City**	**57.77**	**15**			**P**		**18 42 12.2 +0.5**
SGCY				IAmb		IAmb		18 42 15.1
	comp=Z,14nm,1.0s							
BELC	**Belle Mtn. Jos**	**58.06**	**0**			**P**		**18 42 14.7 +0.9**
BFSC	**Mount Baldy Ra**	**58.32**	**358**	P		**P**		**18 42 16.2 +0.7**
BFSC				IAmb		IAmb		18 42 44.0
	comp=Z,24nm,1.7s							
CLDB	**Colider**	**58.57**	**88**	P		**P**		**18 42 18.0 +0.4**
	comp=Z,9.7nm,1.4s							
Y22A	**Socorro**	**58.63**	**9**	P		**P**		**18 42 17.9 +0.1**
Y22A				IAmb		IAmb		18 42 21.7
	comp=Z,11nm,1.0s							
SBM	**South Baldy**	**58.64**	**9**	P		**P**		**18 42 18.4 +0.2**
CRNM	**Carthage**	**58.68**	**9**	P		**P**		**18 42 19.0 +0.9**
X18A	**Snowflake**	**58.87**	**6**	P		**P**		**18 42 20.4 +0.9**
X18A				IAmb		IAmb		18 42 25.6
	comp=Z,11nm,0.9s							
TPO	**Tropico Hills**	**58.97**	**358**	P		**P**		**18 42 21.5 +1.5**
TPO				IAmb		IAmb		18 42 46.4
	comp=Z,14nm,1.3s							
APMT	**Aspermont**	**59.36**	**15**	P		**P**		**18 42 22.8 +0.1**
APMT				IAmb		IAmb		18 42 25.6
	comp=Z,8.4nm,0.9s							
TASM	**ASL Pad, Albuq**	**59.70**	**9**	P		**P**		**18 42 25.4 +0.2**
TASM	**ASL Pad, Albuq**	**59.70**	**9**	P		**P**		**18 42 25.3 +0.1**
TASM				IAmb		IAmb		18 42 36.5
	comp=Z,2.1nm,0.9s							
ANMO	**Albuquerque**	**59.70**	**9**	LR		LR		19 03 44.0
	comp=Z,248nm,18.6s,baz=196,slow=32							
ANMO	**Albuquerque**	**59.70**	**9**	P		**P**		**18 42 26.0 +0.8**
ANMO	**Albuquerque**	**59.70**	**9**	P		**P**		**18 42 26.2 +1.0**
	comp=Z,4.1nm,1.3s							
ISA	**Isabella, Lake**	**59.76**	**358**	P		**P**		**18 42 26.2 +0.8**
ISA				IAmb		IAmb		18 42 33.0
	comp=Z,12nm,1.4s							
MPMC	**Manual Prospec**	**60.13**	**359**	P		**P**		**18 42 27.8 -0.3**
SHPR	**Sheep Range**	**60.56**	**1**	P		**P**		**18 42 31.0 0.0**
SHPR				IAmb		IAmb		18 42 51.5
	comp=Z,17nm,1.4s							
MSVF	**Nonsavu**	**61.38**	**262**	LR		LR		19 03 26.6
	comp=Z,87nm,21.2s,baz=109,slow=30							
PRN	**Pahroc Range**	**61.47**	**1**	P		**P**		**18 42 38.0 +0.9**
PRN				IAmb		IAmb		18 42 57.1
	comp=Z,22nm,1.6s							
RPZ	**Rata Peaks**	**61.51**	**232**	LR		LR		19 04 36.2
	comp=Z,16nm,18.6s,baz=316,slow=32							
CCUT	**Cedar City**	**61.65**	**2**	P		**P**		**18 42 39.0 +0.5**
CCUT				IAmb		IAmb		18 42 44.4
	comp=Z,20nm,1.8s							
SZCU	**Shurtz Canyon**	**61.71**	**3**	P		**P**		**18 42 40.7 +1.9**
WLAR	**White Oak Lake**	**61.73**	**22**	P		**P**		**18 42 39.6 +0.8**
HMU	**Henry Mountain**	**62.19**	**5**	IAmb		IAmb		18 43 00.5
	comp=Z,16nm,1.3s							
NV11	**Mina Array Sit**	**62.51**	**358**	P		**P**		**18 42 47.1 +3.0**
NV11				IAmb		IAmb		18 43 10.4
	comp=Z,12nm,1.4s							
NVAR	**Mina Array Bea**	**62.52**	**358**	P		**P**		**18 42 45.4 +1.2**
	comp=Z,3.4nm,1.0s,baz=191,slow=8.9,SNR=8.0							
NVAR				LR		LR		19 04 11.7
	comp=Z,346nm,18.2s,baz=118,slow=31							
	comp=Z,3.4nm,1.0s							
NVAR	**Mina Array Bea**	**62.52**	**358**	P		**P**		**18 42 47.4 +3.2**
Q16A	**Castle Valley**	**63.13**	**4**	P		**P**		**18 42 49.7 +1.4**
Q16A				IAmb		IAmb		18 42 52.0
	comp=Z,19nm,1.5s							
SRU	**San Rafael Swe**	**63.37**	**5**	P		**P**		**18 42 50.5 +0.6**
SRU				IAmb		IAmb		18 43 16.1
	comp=Z,8.2nm,1.0s							
SBA	**Scott Base**	**63.64**	**193**	P		**P**		**18 42 51.5 +0.5**
SBA				IAmb		IAmb		18 43 01.5
	comp=Z,7.8nm,1.1s							
SBA	**Scott Base**	**63.64**	**193**	P		**P**		**18 42 51.3 +0.2**
	comp=Z,7.5nm,1.2s							
P17A	**Butcher Ranch,**	**63.71**	**5**	P		**P**		**18 42 52.8 +0.6**
P17A				IAmb		IAmb		18 43 11.0
	comp=Z,14nm,1.1s							
P18A	**Preston Nutter**	**63.91**	**5**	IAmb		IAmb		18 42 59.6
	comp=Z,5.8nm,0.8s							
BDFB	**Brasilia**	**63.98**	**96**	P		**P**		**18 42 53.0 -1.4**
	comp=Z,1.1nm,0.4s,baz=268,slow=3.2,SNR=3.6							
BDFB				LR		LR		19 07 07.9
	comp=Z,314nm,21.6s,baz=249,slow=33							
	comp=Z,1.1nm,0.4s							
BDFB	**Brasilia**	**63.98**	**96**	P		**P**		**18 42 54.1 -0.3**
BDFB				IAmb		IAmb		18 43 02.8
	comp=Z,11nm,1.1s							
NLU	**North Lily Min**	**64.11**	**3**	P		**P**		**18 42 54.7 -0.1**
DUG	**Dugway, Tooele**	**64.31**	**3**	P		**P**		**18 42 56.0 0.0**
DUG				IAmb		IAmb		18 43 16.0
	comp=Z,12nm,1.2s							
DUG	**Dugway, Tooele**	**64.31**	**3**	P		**P**		**18 42 56.4 +0.4**
	comp=Z,6.7nm,1.0s							
BELA	**Belgrano 2**	**64.53**	**167**	P		**P**		**18 42 58.0 +1.1**
ISCO	**Idaho Springs**	**64.59**	**9**	IAmb		IAmb		18 43 08.9
	comp=Z,8.9nm,1.1s							
ISCO	**Idaho Springs**	**64.59**	**9**	P		**P**		**18 43 00.6 +2.6**
	comp=Z,8.4nm,1.6s							
VNDA	**Vanda**	**64.66**	**194**	P		**P**		**18 42 57.8 0.0**
	comp=Z,0.4nm,0.8s,baz=84,slow=2.1,SNR=6.0							
VNDA				LR		LR		19 03 48.0
	comp=Z,251nm,20.5s,baz=102,slow=29							
	comp=Z,0.4nm,0.8s							
VNDA	**Vanda**	**64.66**	**194**	P		**P**		**18 42 59.1 +1.3**
	comp=Z,3.9nm,2.8s							
BSUT	**Blindstream Ca**	**64.77**	**4**	P		**P**		**18 42 59.8 +0.5**
BGU	**Big Grassy Mou**	**65.03**	**3**	P		**P**		**18 43 00.9 +0.2**
BGU				IAmb		IAmb		18 43 20.5
	comp=Z,13nm,1.3s							
QSPA	**South Pole Qui**	**65.77**	**180**	P		**P**		**18 43 04.6 -0.7**
	comp=Z,2.3nm,0.9s,baz=130,slow=2.5,SNR=6.1							
QSPA				LR		LR		19 07 13.3
	comp=Z,346nm,18.9s,baz=95,slow=32							
	comp=Z,2.3nm,0.9s							
QSPA	**South Pole Qui**	**65.77**	**180**	P		**P**		**18 43 05.1 -0.2**
QSPA				IAmb		IAmb		18 43 19.0
	comp=Z,14nm,1.1s							
QSPA	**South Pole Qui**	**65.77**	**180**	P		**P**		**18 43 06.7 +1.4**
	comp=Z,17nm,1.3s							
SWET	**Sewanee**	**65.78**	**27**	P		**P**		**18 43 05.8 +0.3**
HWUT	**Hardware Ranch**	**65.78**	**4**	P		**P**		**18 43 05.2 -0.5**
	comp=Z,10.0nm,1.0s							
YBH	**Yreka Blue Hor**	**66.07**	**355**	LR		LR		19 05 22.0
	comp=Z,219nm,20.0s,baz=180,slow=30							
SMTB	**Santa Maria do**	**66.81**	**89**	P		**P**		**18 43 12.1 -0.6**
AHID	**Auburn Hatcher**	**66.97**	**4**	P		**P**		**18 43 14.9 +1.7**
	comp=Z,7.7nm,2.0s							
TKL	**Tuckaleechee C**	**67.07**	**28**	LR		LR		19 09 19.2
	comp=Z,114nm,20.2s,baz=202,slow=33							
PDAR	**Pinedale Array**	**67.08**	**5**	P		**P**		**18 43 13.8 -0.2**
	comp=Z,1.9nm,0.6s,baz=175,slow=6.6,SNR=12							
PDAR				LR		LR		19 07 27.3
	comp=Z,154nm,20.4s,baz=168,slow=31							
	comp=Z,1.9nm,0.6s							
PDAR	**Pinedale Array**	**67.08**	**5**	P		**P**		**18 43 13.6 -0.4**
HLID	**Hailey**	**67.62**	**1**	IAmb		IAmb		18 43 37.2
	comp=Z,12nm,1.4s							
HLID	**Hailey**	**67.62**	**1**	P		**P**		**18 43 17.1 -0.2**
	comp=Z,5.7nm,1.0s							
MDP	**Montagnes des**	**68.26**	**74**	LR		LR		19 10 42.9
	comp=Z,208nm,18.3s,baz=226,slow=34							
YHH	**Holmes Hill**	**69.00**	**4**	P		**P**		**18 43 26.1 0.0**
YHH				IAmb		IAmb		18 43 44.7
	comp=Z,14nm,1.5s							
YHL	**Hebgen Lake**	**69.04**	**4**	IAmb		IAmb		18 43 29.9
	comp=Z,8.7nm,1.0s							
GBMT	**Granite Butte,**	**70.98**	**3**	P		**P**		**18 43 38.3 +0.2**
GBMT				IAmb		IAmb		18 43 41.7
	comp=Z,22nm,1.6s							
LAO	**LASA Array**	**71.29**	**7**	IAmb		IAmb		18 43 58.5
	comp=Z,20nm,1.2s							
VNA3	**Neumayer Olymp**	**72.22**	**161**	P		**P**		**18 43 45.8 +0.6**
	comp=Z,4.4nm,0.8s							
NEW	**Newport**	**72.32**	**359**	P		**P**		**18 43 46.7 +0.8**
	comp=Z,4.0nm,1.0s,baz=180,slow=5.2,SNR=3.9							
NEW				LR		LR		19 10 33.1
	comp=Z,299nm,18.3s,baz=185,slow=32							
	comp=Z,4.0nm,1.0s							
SNAA	**Sanae**	**73.99**	**162**	LR		LR		19 12 13.1
	comp=Z,55nm,18.9s,baz=212,slow=32							
TROLL	**Troll, Antarti**	**75.25**	**164**	P		**P**		**18 44 07.6 +4.5**
	comp=Z,206nm,1.0s							
ULM	**Lac du Bonnet**	**76.42**	**13**	LR		LR		19 14 07.0
	comp=Z,177nm,19.9s,baz=188,slow=33							
SADO	**Sadowa**	**76.63**	**26**	LR		LR		19 15 31.6
	comp=Z,158nm,20.3s,baz=218,slow=34							
ELIB	**Princess Elisa**	**79.97**	**168**	*dP*		**P**		**18 44 27.8 -1.6**
	comp=Z,2.9nm,0.9s							
HNR	**Honiara**	**80.75**	**264**	LR		LR		19 12 26.3
	comp=Z,184nm,21.7s,baz=202,slow=30							
DLBC	**Dease Lake**	**83.32**	**353**	LR		LR		19 14 35.1
	comp=Z,65nm,21.8s,baz=352,slow=30							
H11S2	**WAKE ISLAND Hy**	**86.47**	**292**	T		T		20 20 28.4
	baz=118,slow=75,SNR=132							
H11S1	**WAKE ISLAND Hy**	**86.48**	**292**	T		T		20 20 30.7
	baz=118,slow=75,SNR=110							
H11S3	**WAKE ISLAND Hy**	**86.49**	**292**	T		T		20 20 26.4
	baz=118,slow=75,SNR=90							
YKA	**Yellowknife Ar**	**86.58**	**1**	P		**P**		**18 45 03.3 +0.2**
	comp=Z,2.9nm,0.8s,baz=178,slow=5.0,SNR=12							
YKA				LR		LR		19 19 28.9
	comp=Z,207nm,18.1s,baz=266,slow=33							
	comp=Z,2.9nm,0.8s							
YKA	**Yellowknife Ar**	**86.58**	**1**	P		**P**		**18 45 03.6 +0.5**
H11N3	**WAKE ISLAND Hy**	**86.85**	**293**	T		T		20 21 05.0
	baz=112,slow=74,SNR=9.7							
H11N1	**WAKE ISLAND Hy**	**86.87**	**293**	T		T		20 21 01.0
	baz=112,slow=74,SNR=11							
H11N2	**WAKE ISLAND Hy**	**86.87**	**293**	T		T		20 21 01.8
	baz=112,slow=74,SNR=18							
STKA	**Stephens Creek**	**87.15**	**236**	P		**P**		**18 45 07.6 +0.7**
	comp=Z,2.6nm,1.0s,baz=65,slow=5.7,SNR=3.1							
	comp=Z,2.6nm,1.0s							
STKA	**Stephens Creek**	**87.15**	**236**	IAmb		IAmb		18 45 08.2
	comp=Z,55nm,1.6s							
KDAK	**Kodiak Island**	**87.37**	**341**	LR		LR		19 16 35.7
	comp=Z,76nm,18.5s,baz=160,slow=30							
KDAK	**Kodiak Island**	**87.37**	**341**	P		**P**		**18 45 07.9 +0.8**
MAW	**Mawson**	**88.29**	**180**	LR		LR		19 19 24.9
	comp=Z,228nm,21.5s,baz=174,slow=32							
CTA	**Charters Tower**	**88.55**	**249**	LR		LR		19 16 37.7
	comp=Z,122nm,21.8s,baz=42,slow=30							
SCHQ	**Scheffervilla**	**89.44**	**26**	LR		LR		19 22 26.4
	comp=Z,63nm,19.8s,baz=266,slow=34							
INKA	**Innaminka**	**89.69**	**240**	P		**P**		**18 45 18.2 -0.8**
INKA				IAmb		IAmb		18 45 21.7
	comp=Z,22nm,1.8s							
KRVT	**Keravat (AS076**	**90.00**	**265**	LR		LR		19 19 36.2
	comp=Z,129nm,19.4s,baz=124,slow=32							
PMG	**Port Moresby**	**92.28**	**259**	LR		LR		19 20 16.4
	comp=Z,279nm,19.9s,baz=102,slow=31							
INK	**Inuk**	**93.31**	**354**	LR		LR		19 20 23.6
	comp=Z,116nm,19.0s,baz=262,slow=31							
ASAR	**Alice Springs**	**97.06**	**240**	LR		LR		19 23 14.5
	comp=Z,89nm,21.2s,baz=110,slow=32							
SHEM	**Shemya Is, Ala**	**97.75**	**325**	LR		LR		19 20 29.1
	comp=Z,60nm,19.4s,baz=290,slow=30							
WR0	**Warramunga Arr**	**98.39**	**244**	P		**P**		**18 45 57.1 -1.9**
WR8	**Warramunga Arr**	**98.42**	**244**	P		**P**		**18 45 57.5 -1.7**
RES	**Resolute Bay**	**99.77**	**6**	LR		LR		19 28 12.7
	comp=Z,135nm,18.0s,baz=28,slow=34							
NJ2	**Nanjing**	**131.46**	**292**	*e*PKP		**PKPdf**		**18 51 33.3 0.0**
CLL	**Collm**	**132.85**	**42**	LH				19 41 00.0
CLL				LV				19 42 00.0
HHC	**Hu-ho-hao-te**	**137.21**	**304**	*e*P		**PKPdf**		**18 51 40.3 -3.7**
SONM	**Songino Array**	**139.18**	**316**	PKP		**PKiKP**		**18 51 49.4 -0.3**
	comp=Z,1.3nm,1.1s,baz=133,slow=2.7,SNR=4.2							
LZH	**Lanzhou**	**143.85**	**298**	*e*P		PKPab		18 51 51.1 -2.2
IDI	**Anoyia**	**144.61**	**63**	PKPdf		**PKPab**		**18 51 55.8 -0.3**
KMI2	**Kunming**	**144.85**	**280**	PKP		**PKPdf**		**18 51 58.8 +0.4**
GTA2	**Gaotai**	**146.34**	**305**	*e*PKPbc		**PKPbc**		**18 52 02.3 +0.7**
GTA2				L		L		
	comp=Z,140nm,15.6s							
GTA2				L		L		
	comp=Z,160nm,16.2s							
GTA2				L		L		
	comp=Z,230nm,20.9s							
ZAA0	**Zalesovo Array**	**146.59**	**338**			**PKPdf**		**18 51 58.8 -1.4**
ZALV	**Zalesovo Beam**	**146.59**	**338**	PKPbc		**PKPdf**		**18 52 01.3 +1.2**
	comp=Z,2.8nm,0.6s,baz=9.2,slow=2.7,SNR=15							
CMAR	**Chiang Mai Arr**	**146.96**	**267**	PKPbc		**PKPbc**		**18 52 04.8 +1.0**
	comp=Z,1.5nm,0.7s,baz=102,slow=1.2,SNR=16							
CMAR	**Chiang Mai Arr**	**146.96**	**267**			**PKPdf**		**18 51 58.9 -2.9**
ELL	**Elmali**	**148.36**	**59**	PKPdf		**PKPdf**		**18 52 01.7 -2.1**
BR131	**Keskin Array S**	**150.27**	**52**	PKPdf		**PKPdf**		**18 52 04.2 -2.6**
BR131				PKPbc		**sPKPdf**		**18 52 11.2 +0.5**
BRTR	**Keskin Array B**	**150.27**	**52**	PKPbc		**PKPbc**		**18 52 11.7 -0.3**
	comp=Z,2.3nm,1.0s,baz=222,slow=1.7,SNR=11							
BRTR	**Keskin Array B**	**150.27**	**52**	PKPdf		**PKPdf**		**18 52 04.0 -2.9**
BRTR				PKPbc		**sPKPdf**		**18 52 11.5 +0.8**
BVAR	**Borovoye Array**	**150.99**	**352**	PKPbc		**PKPbc**		**18 52 12.6 -0.4**
	comp=Z,1.9nm,0.7s,baz=305,slow=1.1,SNR=9.8							
GOMU	**GeErMu**	**150.99**	**301**	PKPbc		**PKPdf**		**18 52 07.5 -0.8**
KURK	**Kurchatov**	**151.36**	**340**			**PKPbc**		**18 52 14.8 +0.8**
KURBB	**Kurchatov Arra**	**151.47**	**340**	PKPbc		**PKPbc**		**18 52 13.8 -0.4**
	comp=Z,3.2nm,0.9s,baz=28,slow=1.9,SNR=11							
WMQ	**Urumqi**	**152.55**	**321**	*e*PKPbc		**PKPdf**		**18 52 10.1 0.0**
MK31	**Makanchi Array**	**153.25**	**331**	PKPdf		**PKPdf**		**18 52 09.7 -1.2**
MKAR	**Makanchi Array**	**153.25**	**331**	PKPbc		**PKPbc**		**18 52 19.1 +0.7**
	comp=Z,1.1nm,0.7s,baz=39,slow=1.6,SNR=11							
MKAR	**Makanchi Array**	**153.25**	**331**	PKPdf		**PKPdf**		**18 52 08.7 -2.3**
KOPT	**Kop Dagi**	**154.87**	**46**	PKPdf		**PKPdf**		**18 52 12.5 -1.3**

IDC 17 18:51:39.5±4.3, 18°.75S×176°.70W, h624km±34km, mb3.0/5, mbtmp4.0/6, Error ellipse: s-maj=117.8km s-min=29.7km az=28.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.09**	**281**	P	P	18 53 14.6	-0.1
	2.6nm,0.5s,baz=128,slow=18,SNR=4.3						
STKA	**Stephens Creek**	**39.66**	**242**	P	P	18 58 20.2	+0.3
	1.7nm,0.7s,baz=95,slow=6.9,SNR=6.6						
	1.7nm,0.7s						
WRA	**Warramunga Arr**	**46.08**	**260**	P	P	18 59 09.3	-0.5
	0.8nm,0.3s,baz=97,slow=7.7,SNR=46						
	0.8nm,0.3s						
ASAR	**Alice Springs**	**46.13**	**255**	P	P	18 59 10.2	0.0
	1.4nm,0.5s,baz=87,slow=8.4,SNR=41						
	1.4nm,0.5s						
FITZ	**Fitzroy Crossi**	**54.49**	**261**	P	P	19 00 11.5	+0.7
	3.5nm,1.0s,baz=90,slow=10,SNR=2.2						
	3.5nm,1.0s						
QSPA	**South Pole Qui**	**71.31**	**180**	P	P	19 01 57.6	+0.1
	0.4nm,0.3s,baz=266,slow=5.7,SNR=10						
	0.4nm,0.3s						

*NEIC **17** 18:57:21.5±2.7, 37°.52N±0°.06×72°.58E±0°.09, h196km±7km, mb4.1/11, Error ellipse: s-maj=10.5km s-min=8.0km az=98.0*
*NNC **17** 18:57:23.1±4.7, 38°.65N×72°.52E, h0km, mb4.2, mpv3.7, Error ellipse: s-maj=33.9km s-min=23.0km az=170.0*
*IDC **17** 18:57:28.4±21.0, 37°.62N×72°.61E, h250km±135km, mb3.6/1, mbtmp3.7/5, MS3.9/5, Error ellipse:*
s-maj=220.1km s-min=87.2km az=2.0

ISC 17 18:57:20.9±0.6, 37°.50N±0°.05×72°.58E±0°.07, h200km, n46, σ1882/47, mb4.1/6, 3C-2D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**2.07**	**343**		Pn		**18 58 01.3 +0.9**
DRK				Sn	Sn		**18 58 28.7 -2.6**
BTK	**Batken**	**2.90**	**332**		Pn		**18 58 10.4 +0.9**
BTK				Sn	Sn		**18 58 44.7 -2.8**
ARSB	**Arslanbob**	**3.83**	**5**	Pn	Pn		**18 58 21.3 +0.6**
NIL	**Nilore**	**3.88**	**172**	Pn	Pn		**18 58 22.8 +1.5**
NIL				Sn	Sn		**18 59 09.1 +0.5**
KBL	**Kabul**	**4.11**	**225**	Pn	Pn		**18 58 23.7 -0.6**
KBL				Sn	Sn		**18 59 10.8 -3.2**
NRN	**Naryn**	**4.74**	**33**	Pn	Pn		**18 58 32.1 -0.2**
NRN				Sn	Sn		**18 59 26.6 -1.8**
IUG	**Iuzhnay**	**5.04**	**338**	Pg	Pn		**18 58 36.6 +0.7**
	78nm,0.3s						
IUG				Lg	Lg		18 59 30.5
	70nm,0.2s						
MRKS	**Merke**	**5.27**	**5**	Pg	Pn		**18 58 40.0 +1.3**
	16nm,0.2s						
MRKS				Lg	Lg		18 59 36.8
	42nm,0.4s						
AAK	**Ala-Archa**	**5.34**	**15**	⇑Pg	Pn		**18 58 41.7 +2.0**
	1.8nm,0.4s						
AAK				⇓Lg	Lg		18 59 41.0
	5.3nm,0.8s						
AAK	**Ala-Archa**	**5.34**	**15**	Pn	Pn		**18 58 40.8 +1.1**
AAK				Sn	Sn		**18 59 41.9 -0.2**
KK31	**Karatay Array**	**5.82**	**345**	⇑Pg	Pn		**18 58 46.2 +0.4**
	1.4nm,0.2s,baz=163,slow=12,SNR=30						
KK31				⇑Lg	Lg		18 59 49.2
	10.0nm,0.5s,baz=154,slow=15,SNR=14						
KK31	**Karatay Array**	**5.82**	**345**		Pn		**18 58 45.4 -0.3**
KK31				Sn	Sn		**18 59 47.5 -5.4**
KKAR	**Karatay Array**	**5.82**	**345**		Pn		**18 58 45.8 +0.1**
TARG	**Taragay, Kyrgy**	**5.84**	**42**	Pn	Pn		**18 58 42.8 -3.7**
KST	**Kastek**	**6.12**	**24**	Pg	Pn		18 58 54.3 +4.6
	0.2nm,0.1s						
KST				Lg	Lg		19 00 01.4
	7.0nm,0.6s						
MAKZ	**Makanchi**	**11.62**	**34**	Pn	Pn		**19 00 00.5 -0.3**
MKAR	**Makanchi Array**	**11.75**	**35**	P	P		**19 00 07.2 -0.4**
	0.2nm,0.3s,baz=214,slow=9.9,SNR=6.1						
KURBB	**Kurchatov Arra**	**13.80**	**16**	P	P		**19 00 32.2 +2.0**
	0.9nm,0.6s,baz=207,slow=11,SNR=7.9						
KURK	**Kurchatov**	**13.90**	**16**	P	P		**19 00 31.8 +0.4**
AB31	**Akbulak array**	**14.89**	**326**	⇓P	P		**19 00 43.0 +0.7**
	0.5nm,0.6s,baz=134,slow=12,SNR=18						
AB31	**Akbulak array**	**14.89**	**326**		P		**19 00 43.2 +0.9**
ABKAR	**Akbulak array**	**14.89**	**326**		P		**19 00 43.1 +0.8**
EVN	**Everest**	**15.29**	**124**		P		**19 00 47.0 -0.7**
BVAR	**Borovoye Array**	**15.60**	**355**	P	Pn		**19 00 53.2 +3.0**
	0.4nm,0.5s,baz=158,slow=9.1,SNR=4.2						
ZAA0	**Zalesovo Array**	**18.49**	**23**	P	Pn		**19 01 22.0 -2.4**
ZAA0				IAmb	IAmb		19 01 25.5
	comp=Z,3.2nm,0.7s						
ZALV	**Zalesovo Beam**	**18.49**	**23**	P	Pn		**19 01 24.8 +0.4**
	comp=Z,3.4nm,0.6s,baz=224,slow=9.9,SNR=17						
ZALV	**Zalesovo Beam**	**18.49**	**23**	P	Pn		**19 01 22.0 -2.4**
CMAR	**Chiang Mai Arr**	**29.87**	**122**	P	P		**19 03 09.2 -0.6**
ARCES	**ARCESS Array B**	**40.72**	**337**	P	P		**19 04 43.5 +1.9**
	comp=Z,3.6nm,1.0s,baz=120,slow=8.5,SNR=1.3						
	comp=Z,3.6nm,1.0s						
ARCES	**ARCESS Array B**	**40.72**	**337**	P	P		**19 04 42.2 +0.6**
PRED	**Cave del Predi**	**43.86**	**301**	P	P		**19 05 06.6 -0.7**
PRED				IAmb	IAmb		19 05 28.5
	comp=Z,13nm,1.4s						
CEL	**Celeste**	**44.13**

KUSD				AML	AML				
BEYE	**izmir**	**0.42**	**6**	P	**Pg**	**19 35 23.1**	**+0.1**		
BEYE				S	**Sg**	**19 35 28.3**	**-0.3**		
BEYE				IAML		19 35 34.0			
	comp=N,199nm,0.3s								
DDIM	**Aydin, Didim**	**0.46**	**140**	P	**Pb**	**19 35 24.3**	**-0.5**		
ZEYE	**Izmir, Urla-Ze**	**0.52**	**326**	P	**Pg**	**19 35 24.6**	**-0.2**		
ZEYE				S	**Sg**	**19 35 31.5**	**-0.1**		
ZEYE				IAML		19 35 33.0			
	comp=E,207nm,0.2s								
ZEYE				IAML		19 35 33.0			
	comp=N,435nm,0.3s								
BLCB	**Balcova**	**0.60**	**13**	P	**Pg**	**19 35 26.3**	**+0.1**		
BLCB				S	**Sg**	**19 35 34.2**	**+0.2**		
BLCB				AML	AML				
BLCB	**Balcova**	**0.60**	**13**	Pg	**Pg**	**19 35 26.4**	**+0.2**		
DUVT	**Torbali**	**0.62**	**48**	P	**Pg**	**19 35 26.8**	**+0.2**		
CESE	**eme**	**0.69**	**320**	Pg	**Pb**	**19 35 28.9**	**0.0**		
CESE				AML	AML				
DAGE	**izmir**	**0.72**	**74**	P	**Pb**	**19 35 29.5**	**+0.1**		
YKAV	**Yalikavak-Bodr**	**0.75**	**154**	Pg	**Pb**	**19 35 30.5**	**+0.6**		
YKAV				AML	AML				
AYDN	**Tasoluk**	**0.81**	**100**	P	**Pg**	**19 35 30.6**	**+0.4**		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**80**	Pg	**Pb**	**19 35 31.2**	**+0.1**		
AYDB				AML	AML				
BODT	**Bodrum**	**0.82**	**155**	P	**Pg**	**19 35 30.4**	**0.0**		
BODT				S	**Sb**	**19 35 43.3**	**+1.1**		
BODT				AML	AML				
BODT	**Bodrum**	**0.82**	**155**	Pg	**Pb**	**19 35 31.3**	**+0.3**		
BODT				AML	AML				
KRBN	**Karaburun**	**0.83**	**342**	Pg	**Pb**	**19 35 30.8**	**-0.3**		
KRBN				AML	AML				
BAGT	**Foa**	**0.85**	**359**	P	**Pg**	**19 35 31.0**	**0.0**		
BAGT				S	**Sb**	**19 35 43.3**	**+0.3**		
BAGT				IAML		19 35 46.0			
	comp=N,195nm,0.7s								
BAGT				IAML		19 35 46.0			
	comp=E,100nm,0.7s								
BDRM	**Kayabasi**	**0.87**	**148**	P	**Pb**	**19 35 31.5**	**-0.3**		
CHOS	**Chios island**	**0.87**	**312**	P	**Pg**	**19 35 31.3**	**-0.1**		
CHOS				S	**Sb**	**19 35 43.9**	**+0.2**		
CHOS	**Chios island**	**0.87**	**312**	Pg	**Pb**	**19 35 32.2**	**+0.3**		
CHOS				AML	AML				
MLSB	**Milas**	**0.88**	**125**	Pg	**Pb**	**19 35 32.1**	**0.0**		
MLSB				AML	AML				
FOCM	**Foa**	**0.91**	**353**	Pg	**Pg**	**19 35 32.1**	**-0.1**		
IZMR	**zmir-demi**	**0.92**	**68**	P	**Pn**	**19 35 33.5**	**-0.1**		
KARB	**zmir-Karabur**	**0.93**	**337**	P	**Pg**	**19 35 32.0**	**-0.5**		
CAMT	**Merkez**	**1.00**	**20**	P	**Pb**	**19 35 34.4**	**+0.2**		
NAZL	**Nazilli-Aydin**	**1.14**	**81**	Pn	**Pn**	**19 35 36.9**	**+0.2**		
NAZL				AML	AML				
ESEN	**Aydn-Nazilli**	**1.17**	**90**	P	**Pg**	**19 35 37.1**	**0.0**		
ESEN				S	**Sg**	**19 35 52.1**	**-0.1**		
ZEDA	**zmir-Bergama**	**1.17**	**8**	P	**Pn**	**19 35 37.5**	**+0.3**		
YAZI	**Mula-Datşa-**	**1.21**	**157**	P	**Pg**	**19 35 37.6**	**-0.3**		
GOMA	**Golmarmara-Man**	**1.22**	**42**	Pn	**Pb**	**19 35 37.7**	**-0.2**		
GOMA				AML	AML				
DKL	**Dikili**	**1.27**	**1**	Pn	**Pn**	**19 35 38.5**	**0.0**		
DKL				AML	AML				
KIRA	**zmir-Kiraz**	**1.27**	**72**	P	**Pg**	**19 35 40.1**	**+1.1**		
AKHS	**Akhisar**	**1.30**	**34**	P	**Pg**	**19 35 39.9**	**+0.2**		
KTTT	**Salihli**	**1.31**	**47**	P	**Pg**	**19 35 39.8**	**+0.1**		
MANT	**Manisa**	**1.50**	**62**	P	**Pg**	**19 35 44.0**	**+0.7**		
GORD	**Gordes-Manisa**	**1.51**	**43**	Pn	**Pg**	**19 35 43.4**	**-0.1**		
GORD				AML	AML				
AYVA	**Ayvalik**	**1.51**	**355**	P	**Pg**	**19 35 44.3**	**+0.7**		
SULTU	**Buldan**	**1.52**	**80**	P	**Pg**	**19 35 44.8**	**+1.0**		
BUHA	**Balikesir, Bur**	**1.70**	**5**	P	**Pn**	**19 35 44.5**	**0.0**		

*IDC **17** 20:48:39.6±1.9, 0°.26S×124°.00E, h0km, mb3.1/3, mbtmp3.1/3, MS3.2/1, Error ellipse: s-maj=190.0km s-min=28.1km az=62.0*

DJA 17 20:48:48.4±0.4, 1°N±4°×12°8E±°, h10km, M2.6/6, MLv2.6/6, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**0.53**	**255**	P	Pg	20 48 58.7	-0.1
TNTI				AML	AML		
GAMI	**Galela, Maluku**	**0.93**	**354**	P	Pg	20 49 05.0	-1.3
GAMI				AML	AML		
LEM	**Lembang**	**21.63**	**249**	LR	LR	20 59 43.9	
	comp=Z,82nm,19.5s,baz=242,slow=38						
WRA	**Warramunga Arr**	**21.67**	**163**	P	P	20 53 35.7	-3.7
	0.2nm,0.3s,baz=331,slow=11,SNR=18						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**25.12**	**167**	P	P	20 54 07.3	-6.4
	0.1nm,0.3s,baz=343,slow=10,SNR=5.2						
	0.1nm,0.3s						
MKAR	**Makanchi Array**	**60.51**	**326**	P	P	20 58 43.7	-15
	0.1nm,0.3s,baz=134,slow=8.0,SNR=1.7						
	0.1nm,0.3s						

*IDC **17** 20:50:54.5±1.1, 63°.53N×126°.27W, h0km, mb2.9/1, mbtmp3.4/6, ML3.4/5, MS3.3/2, Error ellipse: s-maj=15.9km s-min=11.7km az=29.0*

*NEIC **17** 20:50:55.2±1.4, 63°.57N±0°.06×126°.3W±0°.1, h9km±5km, mb4.4/11, Error ellipse: s-maj=9.2km s-min=6.4km az=194.0*

*PGC **17** 20:50:56.1±0.0, 63°.56N×126°.25W, h1km, ML3.8/14, 135km west of Wrigley, Nt Nw Territories - Nunavut, Canada*

ISC 17 20:50:54.7±0.6, 63°.62N±0°.04×126°.11W±0°.04, h10km, n132, σ1$23/145, mb4.6/6, Northwest Territories

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRGLY	**Wrigley**	**1.25**	**107**		**Pn**	**20 51 20.1**	**+1.8**
WRGLY				Sn	**Sb**	**20 51 36.7**	**+2.1**
TGTN	**Hyland Airport**	**2.33**	**206**	Pn	**Pn**	**20 51 33.4**	**+0.3**
NAHA	**Nahanni Butte**	**2.89**	**153**	Pn	**Pn**	**20 51 41.9**	**+1.2**
WTLY	**Watson Lake, Y**	**3.74**	**201**		**Pn**	**20 51 52.5**	**0.0**
M31M	**Drury Creek, Y**	**4.04**	**253**		**Pn**	**20 51 56.0**	**-0.7**
M31M				Sn	**Sn**	**20 52 41.2**	**-2.8**
M31M	**Drury Creek, Y**	**4.04**	**253**	Pn	**Pn**	**20 51 56.7**	**0.0**
N32M	**Quiet Lake**	**4.08**	**236**		**Pn**	**20 51 55.1**	**-2.0**
NBC1	**NorthernBC 1**	**4.12**	**164**	Pn	**Pn**	**20 51 58.3**	**+0.6**
NBC1				Sn	**Sn**	**20 52 44.7**	**-1.2**
H31M	**Peel River**	**4.16**	**306**		**Pn**	**20 51 56.4**	**-1.8**
H31M				Sn	**Sn**	**20 52 45.4**	**-1.4**
H31M	**Peel River**	**4.16**	**306**	Pn	**Pn**	**20 51 59.0**	**+0.9**
J30M	**Hart River**	**4.59**	**287**		**Pn**	**20 52 03.0**	**-1.2**
P33M	**Teslin, Yukon**	**4.66**	**226**		**Pn**	**20 52 04.7**	**-0.4**
P33M	**Teslin, Yukon**	**4.66**	**226**	Pn	**Pn**	**20 52 05.2**	**+0.1**
P33M				Sg	**Sb**	**20 53 17.3**	**+4.7**
I30M	**Mount Dempster**	**4.73**	**294**		**Pn**	**20 52 06.4**	**+0.2**
I30M	**Mount Dempster**	**4.73**	**294**	Pn	**Pn**	**20 52 06.7**	**+0.5**
R33M	**Jennings River**	**4.83**	**211**		**Pn**	**20 52 07.3**	**-0.2**
N31M	**Braeburn, Yuko**	**4.96**	**249**		**Pn**	**20 52 08.9**	**-0.3**
N31M	**Braeburn, Yuko**	**4.96**	**249**	Pn	**Pn**	**20 52 10.5**	**+1.3**
N31M				Pg	**Pb**	**20 52 23.0**	**+1.4**
M30M	**Minto, Yukon**	**4.96**	**263**		**Pn**	**20 52 08.6**	**-0.7**
M30M	**Minto, Yukon**	**4.96**	**263**	Pn	**Pn**	**20 52 10.1**	**+0.8**
F31M	**Tsiigehtchic**	**4.98**	**324**		**Pn**	**20 52 09.8**	**+0.5**
F31M	**Tsiigehtchic**	**4.98**	**324**	Pn	**Pn**	**20 52 10.8**	**+1.5**
F31M				Sn	**Sn**	**20 53 06.5**	**-0.3**
WHY	**Whitehorse**	**5.07**	**238**		**Pn**	**20 52 10.3**	**-0.5**
K29M	**Barlow Dome**	**5.08**	**278**		**Pn**	**20 52 10.2**	**-0.7**
EPYK	**Eagle Plains**	**5.28**	**306**		**Pn**	**20 52 14.0**	**+0.4**
EPYK	**Eagle Plains**	**5.28**	**306**	Pn	**Pn**	**20 52 14.7**	**+1.1**
EPYK				Sn	**Sn**	**20 53 14.6**	**+0.2**
YKAW3	**Yellowknife Wh**	**5.33**	**96**		**Pn**	**20 52 16.1**	**+1.9**
YKA	**Yellowknife Ar**	**5.35**	**97**	Pn	**Pn**	**20 52 16.3**	**+1.8**
	0.9nm,0.3s,baz=282,slow=12,SNR=25						
YKA				Sn	**Sn**	**20 53 14.9**	**-1.2**
	2.8nm,0.3s,baz=284,slow=23,SNR=5.6						
YKA				Lg	Lg	20 53 40.5	
	2.2nm,0.3s,baz=278,slow=25,SNR=6.7						
	1.2nm,0.4s						
YKA				AML	AML		
YKA	**Yellowknife Ar**	**5.35**	**97**		**Pn**	**20 52 15.0**	**+0.5**
J29N	**Klondike Camp**	**5.39**	**284**		**Pn**	**20 52 14.5**	**-0.6**
YKAW1	**Yellowknife Wh**	**5.41**	**97**		**Pn**	**20 52 17.6**	**+2.3**
G30M	**tAoh Zraii Nji**	**5.42**	**313**		**Pn**	**20 52 15.5**	**+0.1**
G30M	**tAoh Zraii Nji**	**5.42**	**313**	Pn	**Pn**	**20 52 16.3**	**+0.8**
G30M				Sn	**Sn**	**20 53 16.4**	**-1.4**
P32M	**Atlin**	**5.43**	**225**		**Pn**	**20 52 15.5**	**-0.2**
L29M	**L29M**	**5.43**	**270**		**Pn**	**20 52 15.1**	**-0.6**
L29M	**L29M**	**5.43**	**270**	Pn	**Pn**	**20 52 16.0**	**+0.3**
O30N	**Mendenhall**	**5.47**	**243**		**Pn**	**20 52 16.0**	**-0.3**
N30M	**Aishikik Lake**	**5.52**	**252**		**Pn**	**20 52 17.0**	**+0.1**
N30M	**Aishikik Lake**	**5.52**	**252**	Pn	**Pn**	**20 52 17.3**	**+0.3**
DLBC	**Dease Lake**	**5.54**	**202**	Pn	**Pn**	**20 52 16.4**	**-0.7**
	0.4nm,0.3s,baz=114,slow=13,SNR=9.9						
DLBC				Lg	Lg	20 53 39.4	
	1.7nm,0.3s,baz=337,slow=16,SNR=3.5						
	4.8nm,0.5s						
DLBC				AML	AML		
Q32M	**Nakina River**	**5.54**	**215**		**Pn**	**20 52 17.0**	**-0.2**
I29M	**Ogilvie Camp,**	**5.55**	**294**	Pn	**Pn**	**20 52 20.5**	**+3.2**
INK	**Inuvik**	**5.60**	**331**	Pn	**Pn**	**20 52 18.4**	**+0.6**
	2.2nm,0.3s,baz=140,slow=10,SNR=45						
INK				Sn	**Sn**	**20 53 20.3**	**-1.8**
	0.8nm,0.3s,baz=142,slow=17,SNR=3.1						
INK				Lg	Lg	20 53 47.0	
	1.8nm,0.3s,baz=176,slow=16,SNR=3.1						
	4.5nm,0.3s						
INK				AML	AML		
INK	**Inuvik**	**5.60**	**331**		**Pn**	**20 52 19.5**	**+1.7**
INK	**Inuvik**	**5.60**	**331**	Pn	**Pn**	**20 52 19.8**	**+2.0**
F30M	**Barrier River**	**5.67**	**319**		**Pn**	**20 52 19.2**	**+0.4**
F30M	**Barrier River**	**5.67**	**319**	Pn	**Pn**	**20 52 19.3**	**+0.5**
F30M				Sn	**Sn**	**20 53 24.9**	**+1.0**
M29M	**Somme Creek**	**5.75**	**264**		**Pn**	**20 52 20.5**	**+0.4**
C36M	**Paulatuk**	**5.81**	**7**		**Pn**	**20 52 22.6**	**+1.8**
H29M	**Whitestone**	**5.83**	**302**		**Pn**	**20 52 21.3**	**+0.2**
H29M	**Whitestone**	**5.83**	**302**	Pn	**Pn**	**20 52 21.3**	**+0.2**
H29M				Sn	**Sn**	**20 53 24.6**	**-3.3**
DAWY	**Dawson**	**5.89**	**280**		**Pn**	**20 52 21.9**	**-0.1**
G29M	**Pine Creek**	**5.99**	**309**		**Pn**	**20 52 24.0**	**+0.7**
G29M	**Pine Creek**	**5.99**	**309**	Pn	**Pn**	**20 52 23.9**	**+0.6**
HYT	**Haines Junctio**	**6.02**	**247**		**Pn**	**20 52 24.0**	**+0.3**
HYT	**Haines Junctio**	**6.02**	**247**	Pn	**Pn**	**20 52 24.1**	**+0.3**
SKAG	**Skagway**	**6.07**	**231**	Pn	**Pn**	**20 52 23.5**	**-0.8**
KUKN	**Kugluktuk,NWT**	**6.20**	**42**	Pn	**Pn**	**20 52 29.2**	**+3.1**
P30M	**Million Dollar**	**6.21**	**241**	Pn	**Pn**	**20 52 26.8**	**+0.4**
S34M	**Telegraph Cree**	**6.23**	**206**	Pn	**Pn**	**20 52 26.5**	**0.0**
I28M	**Miner Creek**	**6.24**	**293**		**Pn**	**20 52 26.6**	**-0.2**
I28M	**Miner Creek**	**6.24**	**293**	Pn	**Pn**	**20 52 28.4**	**+1.6**
YUK4	**Talbot Arm**	**6.24**	**254**	Pn	**Pn**	**20 52 26.4**	**-0.6**
YUK6	**Outpost Mounta**	**6.31**	**250**	Pn	**Pn**	**20 52 29.0**	**+1.0**
PLBC	**Pleasant Camp**	**6.43**	**234**	Pn	**Pn**	**20 52 29.2**	**-0.2**
YUK7	**Dusty Glacier**	**6.44**	**247**	Pn	**Pn**	**20 52 30.8**	**+1.1**
YUK7				Sn	**Sn**	**20 53 43.2**	**0.0**
R32K	**Eaglecrest**	**6.74**	**221**	Pn	**Pn**	**20 52 31.6**	**-2.0**
O29M	**Mount Kennedy**	**6.75**	**246**	Pn	**Pn**	**20 52 31.7**	**-2.2**
E29M	**Blow River**	**6.78**	**320**		**Pn**	**20 52 33.1**	**-0.9**
YUK3	**Moose Creek**	**6.85**	**261**	Pn	**Pn**	**20 52 36.1**	**+0.7**
I27K	**Kandik River**	**6.96**	**294**		**Pn**	**20 52 36.2**	**-0.4**
F28M	**Old Crow**	**6.96**	**311**		**Pn**	**20 52 36.4**	**-0.2**
F28M	**Old Crow**	**6.96**	**311**	Pn	**Pn**	**20 52 37.7**	**+1.1**
YUK2	**White River**	**7.02**	**261**	Pn	**Pn**	**20 52 38.6**	**+1.1**
H27K	**Steamboat Moun**	**7.05**	**299**		**Pn**	**20 52 38.3**	**+0.4**
H27K	**Steamboat Moun**	**7.05**	**299**	Pn	**Pn**	**20 52 39.4**	**+1.5**
BCAR	**Beaver Creek A**	**7.08**	**273**	Pn	**Pn**	**20 52 36.8**	**-1.4**
K27K	**Chicken**	**7.08**	**280**	Pn	**Pn**	**20 52 37.6**	**-0.5**
L27K	**Beaver Creek,**	**7.09**	**273**		**Pn**	**20 52 37.9**	**-0.6**
O28M	**Mount Upton**	**7.17**	**253**	Pn	**Pn**	**20 52 38.7**	**-1.1**
G27K	**Doyon Strip**	**7.27**	**303**		**Pn**	**20 52 41.2**	**+0.3**
M27K	**Edge Creek, AK**	**7.29**	**267**	Pn	**Pn**	**20 52 41.6**	**+0.4**
E28M	**Babbage River**	**7.39**	**318**		**Pn**	**20 52 42.0**	**-0.4**
LOGN	**Logan Glacier**	**7.50**	**255**	Pn	**Pn**	**20 52 43.5**	**-0.7**
I26K	**Coal Creek Min**	**7.55**	**291**	Pn	**Pn**	**20 52 44.6**	**-0.1**
D28M	**Stokes Point**	**7.63**	**324**	Sn	**Sn**	**20 54 11.6**	**-0.4**
BARN	**Barnard Glacie**	**7.67**	**258**	Pn	**Pn**	**20 52 46.0**	**-0.5**
M26K	**Nabesna, AK**	**7.78**	**269**	Pn	**Pn**	**20 52 46.0**	**-1.9**
E27K	**Coleen River**	**7.81**	**313**		**Pn**	**20 52 47.8**	**-0.4**
GRNC	**Granite Creek**	**7.87**	**256**	Pn	**Pn**	**20 52 48.5**	**-0.7**
SCRK	**Sand Creek**	**7.92**	**281**	Pn	**Pn**	**20 52 48.8**	**-1.0**
DOT	**Dot Lake**	**7.99**	**278**		**Pn**	**20 52 50.6**	**-0.1**
G26K	**Porcupine Rive**	**8.11**	**302**	Pn	**Pn**	**20 52 53.2**	**+0.9**
MCARA	**McCarthy VSAT**	**8.14**	**262**	Pn	**Pn**	**20 52 52.3**	**-0.5**
D27M	**Malcolm River**	**8.18**	**320**	Pn	**Pn**	**20 52 54.0**	**+0.6**
A36M	**Sachs Harbour**	**8.42**	**2**		**Pn**	**20 52 57.8**	**+1.3**
A36M	**Sachs Harbour**	**8.42**	**2**	Pn	**Pn**	**20 52 58.2**	**+1.7**
F26K	**Sheenjek River**	**8.48**	**307**	Pn	**Pn**	**20 52 57.9**	**+0.4**
BMAR	**Burnt Mountain**	**8.55**	**305**		**Pn**	**20 52 58.3**	**-0.2**
F25K	**Christian Rive**	**8.99**	**305**	Pn	**Pn**	**20 53 04.5**	**0.0**
ILAR	**Eielson Array**	**9.13**	**287**	Pn	**Pn**	**20 53 06.3**	**+0.1**
	0.1nm,0.3s,baz=92,slow=11,SNR=5.5						
ILAR				Lg	Lg	20 55 39.1	
	0.1nm,0.3s,baz=86,slow=31,SNR=5.3						
	0.3nm,0.6s						
ILAR				AML	AML		
E23K	**Chandalar**	**10.57**	**305**		**Pn**	**20 53 26.2**	**+0.1**
D24K	**Happy Valley**	**10.61**	**311**	Pn	**Pn**	**20 53 27.6**	**+1.1**
TOLK	**Toolik Lake Re**	**10.71**	**308**	Pn	**Pn**	**20 53 29.6**	**+1.7**
MLY	**Manley**	**10.75**	**289**	Pn	**Pn**	**20 53 29.6**	**+1.0**
D23K	**Nanushuk River**	**11.19**	**309**	Pn	**Pn**	**20 53 34.7**	**+0.3**
D22K	**Ayikyak River**	**11.86**	**308**	Pn	**Pn**	**20 53 43.5**	**-0.2**
G21K	**Allakaket**	**11.87**	**296**	Pn	**Pn**	**20 53 43.5**	**-0.2**
F21K	**Alatna River**	**11.89**	**300**	Pn	**Pn**	**20 53 43.9**	**-0.3**
IMAR	**Indian Mountai**	**11.96**	**294**	Pn	**Pn**	**20 53 44.7**	**-0.3**
CAPN	**Captain Cook N**	**12.00**	**268**	Pn	**Pn**	**20 53 45.0**	**-0.6**
STLK	**Strandline Lak**	**12.02**	**271**	Pn	**Pn**	**20 53 45.3**	**-0.6**
EDM	**Edmonton**	**12.35**	**142**	Pn	**Pn**	**20 53 49.5**	**-0.9**
BLKN	**Baker Lake**	**13.18**	**73**	Pn	**Pn**	**20 54 01.7**	**+0.1**
J18K	**Innoko River**	**13.58**	**283**	Pn	**Pn**	**20 54 04.8**	**-2.3**
D19K	**Kuna River**	**13.76**	**305**	Pn	**Pn**	**20 54 08.1**	**-1.4**
C18K	**Utukok River**	**14.90**	**305**	Pn	**Pn**	**20 54 24.2**	**-0.9**
FFC	**Flin Flon**	**15.15**	**115**	Pn	**Pn**	**20 54 26.1**	**-2.3**
FFC				IAmb	IAmb	20 54 33.4	
	comp=Z,16nm,1.1s						
RES	**Resolute Bay**	**15.41**	**31**	Pn	**Pn**	**20 54 30.3**	**-1.5**
	comp=Z,0.5nm,0.3s,baz=234,slow=14,SNR=13						
RES				Sn	Sn	20 57 14.2	-8.1
	comp=Z,0.6nm,0.3s,baz=129,slow=23,SNR=5.9						
	comp=Z,5.3nm,0.7s						
RES				AML	AML		
RES	**Resolute Bay**	**15.41**	**31**		**Pn**	**20 54 31.0**	**-0.9**
FCC	**Fort Churchill**	**16.06**	**93**	Pn	**Pn**	**20 54 40.2**	**-0.1**
FCC				IAmb	IAmb	20 54 57.9	
	comp=Z,44nm,1.2s						
EGMT	**Eagleton**	**18.03**	**142**	P	**Pn**	**20 55 01.6**	**-3.6**
ILON	**Igloolik, Nuna**	**18.21**	**52**	P	**Pn**	**20 55 07.4**	**+0.3**
ILON				IAmb	IAmb	20 55 13.7	
	comp=Z,30nm,1.4s						
PDAR	**Pinedale Array**	**22.98**	**147**	P	**P**	**20 56 00.8**	**+1.4**
	comp=Z,0.3nm,0.7s,baz=348,slow=9.7,SNR=2.7						
PDAR				LR	LR	21 05 03.9	
	comp=Z,102nm,19.9s,baz=58,slow=37						
	comp=Z,0.3nm,0.7s						
EYMN	**Ely**	**24.57**	**113**	P	**P**	**20 56 13.9**	**-0.5**
EYMN				IAmb	IAmb	20 56 18.9	
	comp=Z,12nm,1.0s						
PV10	**Paradox Valley**	**27.28**	**150**	P	**P**	**20 56 39.0**	**-0.3**
PV02	**Paradox Valley**	**27.51**	**149**	P	**P**	**20 56 39.9**	**-1.4**
PV02				IAmb	IAmb	20 56 51.9	
	comp=Z,12nm,1.5s						
ANMO	**Albuquerque**	**31.15**	**148**	LR	LR	21 10 28.0	
	comp=Z,48nm,20.0s,baz=10,slow=38						
NC204	**NORSAR Array S**	**51.26**	**25**	P	**P**	**20 59 59.3**	**+1.3**
HHC	**Hu-ho-hao-te**	**66.32**	**316**	*eP*	**P**	**21 01 43.0**	**-0.1**
HHC				pmax	pmax		
	comp=Z,16nm,0.5s						
HHC				pmax	pmax		
	comp=Z,120nm,5.4s						
WMQ	**Urumqi**	**69.60**	**335**	*eP*	**P**	**21 02 04.3**	**+0.7**
WMQ				pmax	pmax		
	comp=Z,8.0nm,1.5s						
LZH	**Lanzhou**	**73.03**	**320**	*eP*	**P**	**21 02 22.0**	**-2.6**
LZH				sP	pP	21 02 29.0	+0.8
LZH				pmax	pmax		
	comp=Z,31nm,1.4s						

*NOU **17** 21:16:57.0, 38°.77S×175°.71E, h157km, MLv3.6/19, North Island, New Zealand*

*WEL **17** 21:17:00.6±0.8, 39°S±6°×17°6E±°, h132km±7km, M3.4/72, ML2.1/7, MLv3.4/72, Error ellipse: s-maj=8.5km s-min=5.9km az=147.7*

ISC 17 21:16:55.2±1.6, 38.71S±0.05×175.65E±0.04, h177km±8km, n127, σ1$47/134, North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WATZ	**Wairara**	**0.06**	**86**	P	**Pn**	**21 17 19.5**	**+1.0**
WATZ				AML	AML		
WATZ				AML	AML		
RATZ	**Rangitukua**	**0.18**	**149**	P	**Pn**	**21 17 19.5**	**+0.8**
RATZ				AML	AML		
RATZ				AML	AML		
KATZ	**Kakaramea**	**0.26**	**173**	P	**Pn**	**21 17 19.9**	**+1.0**
KATZ				AML	AML		
KATZ				AML	AML		
RITZ	**Rihia Road**	**0.31**	**149**	P	**Pn**	**21 17 20.2**	**+1.3**
RITZ				AML	AML		
RITZ				AML	AML		
KRVZ	**Karewarewa**	**0.38**	**182**	P	**Pn**	**21 17 20.3**	**+1.1**
KRVZ				AML	AML		
NTVZ	**North Tongarir**	**0.39**	**178**	P	**Pn**	**21 17 20.6**	**+1.3**
NTVZ				AML	AML		
NTVZ				AML	AML		
TLZ	**Tolley Road**	**0.39**	**347**	P	**Pn**	**21 17 20.1**	**+0.9**
TLZ				S	**Sn**	**21 17 36.4**	**-1.3**
TLZ				AML	AML		
TWVZ	**Taurewa**	**0.40**	**205**	P	**Pn**	**21 17 20.4**	**+1.1**
TWVZ				AML	AML		
TWVZ				AML	AML		
TMVZ	**Te Maari**	**0.40**	**175**	P	**Pn**	**21 17 20.5**	**+1.2**
TMVZ				AML	AML		
TMVZ				AML	AML		
WTVZ	**West Tongariro**	**0.41**	**187**	P	**Pn**	**21 17 20.5**	**+1.2**
WTVZ				AML	AML		
ETVZ	**East Tongariro**	**0.42**	**174**	P	**Pn**	**21 17 20.7**	**+1.3**
ETVZ				AML	AML		
OTVZ	**Oturere**	**0.45**	**179**	P	**Pn**	**21 17 20.7**	**+1.2**
OTVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.46**	**185**	P	**Pn**	**21 17 20.8**	**+1.2**
NGZ				AML	AML		
SNVZ	**South Ngauruho**	**0.47**	**181**	P	**Pn**	**21 17 21.2**	**+1.5**
SNVZ				S	**Sn**	**21 17 37.5**	**-1.1**
SNVZ				AML	AML		
COVZ	**Chateau Observ**	**0.49**	**190**	P	**Pn**	**21 17 20.9**	**+1.3**
COVZ				AML	AML		
COVZ				AML	AML		
FWVZ	**Far West T-bar**	**0.55**	**188**	P	**Pn**	**21 17 21.2**	**+1.1**
FWVZ				AML	AML		
TUVZ	**Tukino**	**0.55**	**180**	P	**Pn**	**21 17 21.4**	**+1.5**
TUVZ				AML	AML		
MAVZ	**Matarangi**	**0.56**	**187**	P	**Pn**	**21 17 21.4**	**+1.2**
MAVZ				AML	AML		
ALRZ	**Allen Road**	**0.56**	**75**	P	**Pn**	**21 17 20.6**	**+0.8**
ALRZ				S	**Sn**	**21 17 37.2**	**-1.5**
ALRZ				AML	AML		
WHVZ	**Whangaehu Hut**	**0.57**	**185**	P	**Pn**	**21 17 21.4**	**+1.3**
WHVZ				S	**Sn**	**21 17 38.0**	**-1.5**
WHVZ				AML	AML		
TRVZ	**Turoa**	**0.59**	**188**	P	**Pn**	**21 17 21.7**	**+1.5**
TRVZ				AML	AML		
MRHZ	**Matea Rd**	**0.61**	**102**	P	**Pn**	**21 17 20.9**	**+0.7**
MRHZ				AML	AML		
WNVZ	**Wahianoa**	**0.61**	**184**	P	**Pn**	**21 17 21.7**	**+1.4**
WNVZ				AML	AML		
HIZ	**Hauiti**	**0.66**	**287**	P	**Pn**	**21 17 21.2**	**+0.9**
HIZ	**Hauiti**	**0.66**	**287**	S	**Sn**	**21 17 39.3**	**-0.3**
HIZ	**Hauiti**	**0.66**	**287**	P	**Pn**	**21 17 21.5**	**+1.2**
HIZ				AML	AML		
MTVZ	**Mangateitei**	**0.69**	**192**	P	**Pn**	**21 17 22.1**	**+1.6**
MTVZ				AML	AML		
MTVZ				AML	AML		
MOVZ	**Moawhango**	**0.70**	**174**	P	**Pn**	**21 17 21.8**	**+1.2**
MOVZ				S	**Sn**	**21 17 37.7**	**-2.7**
MOVZ				AML	AML		
RRRZ	**Republican Roa**	**0.77**	**61**	P	**Pn**	**21 17 21.8**	**+0.8**
RRRZ				AML	AML		
BKZ	**Black Stump Fm**	**0.80**	**125**	P	**Pn**	**21 17 22.0**	**+0.8**
BKZ	**Black Stump Fm**	**0.80**	**125**	S	**Sn**	**21 17 39.6**	**-1.6**
BKZ	**Black Stump Fm**	**0.80**	**125**	P	**

TWGZ				AML	AML		
HAZ	**Te Kaha**	**1.93**	**61**	P	**Pn**	**21 17 31.7**	**+0.5**
HAZ				AML	AML		
MRZ	**Mangatainoka R**	**1.95**	**182**	P	**Pn**	**21 17 32.8**	**+1.4**
MRZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.01**	**84**	P	**Pn**	**21 17 34.1**	**+2.0**
CNGZ				AML	AML		
BFZ	**Birch Farm**	**2.02**	**167**	P	**Pn**	**21 17 33.5**	**+1.4**
BFZ	**Birch Farm**	**2.02**	**167**	P	**Sn**	**21 18 00.3**	**-0.7**
BFZ	**Birch Farm**	**2.02**	**167**	P	**Pn**	**21 17 33.6**	**+1.5**
BFZ				AML	AML		
OGWZ	**Otaki Gorge**	**2.13**	**190**	P	**Pn**	**21 17 35.0**	**+1.5**
OGWZ				AML	AML		
PUZ	**Puketiti**	**2.14**	**73**	P	**Pn**	**21 17 34.8**	**+1.3**
PUZ				AML	AML		
HOWZ	**Holdsworth Sta**	**2.19**	**183**	P	**Pn**	**21 17 35.2**	**+1.2**
HOWZ				AML	AML		
KIW	**Kapiti Island**	**2.22**	**195**	P	**Pn**	**21 17 35.6**	**+1.2**
KIW				AML	AML		
CPWZ	**Castlepoint**	**2.23**	**169**	P	**Pn**	**21 17 36.6**	**+2.1**
CPWZ				AML	AML		
WMGZ	**Waiomatatini S**	**2.35**	**69**	P	**Pn**	**21 17 37.0**	**+1.1**
WMGZ				AML	AML		
MXZ	**Matakaoa Point**	**2.39**	**62**	P	**Pn**	**21 17 37.6**	**+1.3**
MXZ	**Matakaoa Point**	**2.39**	**62**	S	**Sn**	**21 18 07.6**	**-0.6**
MXZ	**Matakaoa Point**	**2.39**	**62**	P	**Pn**	**21 17 37.8**	**+1.5**
TMWZ	**Te Maipa**	**2.40**	**176**	P	**Pn**	**21 17 37.7**	**+1.2**
TMWZ				AML	AML		
CAW	**Cannon Point**	**2.43**	**191**	P	**Pn**	**21 17 38.1**	**+1.3**
CAW				AML	AML		
MTW	**Mount Morrison**	**2.44**	**183**	P	**Pn**	**21 17 37.9**	**+1.0**
MTW				AML	AML		
DUWZ	**D'Urville Isla**	**2.48**	**212**	P	**Pn**	**21 17 38.5**	**+1.1**
DUWZ				AML	AML		
WEL	**Wellington**	**2.66**	**195**	P	**Pn**	**21 17 40.6**	**+1.2**
WEL				AML	AML		
PAWZ	**Paruwai Farm**	**2.67**	**184**	P	**Pn**	**21 17 40.5**	**+0.8**
PAWZ				AML	AML		
TRWZ	**Traveller**	**2.68**	**179**	P	**Pn**	**21 17 40.8**	**+1.0**
TRWZ				AML	AML		
SNZO	**South Karori**	**2.69**	**195**	P	**Pn**	**21 17 40.3**	**+0.4**
SNZO	**South Karori**	**2.69**	**195**	P	**Sn**	**21 18 13.3**	**-1.5**
TCW	**Tory Channel**	**2.71**	**203**	P	**Pn**	**21 17 41.1**	**+1.0**
TCW				AML	AML		
MSWZ	**Moikau Station**	**2.72**	**186**	P	**Pn**	**21 17 41.0**	**+0.8**
MSWZ				AML	AML		
BHW	**Baring Head**	**2.76**	**192**	P	**Pn**	**21 17 41.5**	**+0.8**
BHW				AML	AML		
PLWZ	**Palliser**	**2.87**	**186**	P	**Pn**	**21 17 42.7**	**+0.6**
PLWZ				AML	AML		
TUWZ	**Tuamarina**	**3.01**	**205**	P	**Pn**	**21 17 45.1**	**+1.3**
TUWZ				AML	AML		
NNZ	**Nelson**	**3.05**	**214**	P	**Pn**	**21 17 45.0**	**+0.8**
TKNZ	**Takaka Hill**	**3.11**	**221**	P	**Pn**	**21 17 45.6**	**+0.7**
TKNZ				AML	AML		
QRZ	**Quartz Range**	**3.20**	**228**	P	**Pn**	**21 17 46.4**	**+0.4**
QRZ	**Quartz Range**	**3.20**	**228**	S	**Sn**	**21 18 24.7**	**-1.1**
QRZ	**Quartz Range**	**3.20**	**228**	P	**Pn**	**21 17 46.4**	**+0.4**
BSWZ	**Blackbirch Sta**	**3.29**	**204**	P	**Pn**	**21 17 48.1**	**+0.9**
MRNZ	**Matariki Terra**	**3.48**	**219**	P	**Pn**	**21 17 50.2**	**+0.6**
MRNZ				AML	AML		
THZ	**Tophouse**	**3.70**	**214**	P	**Pn**	**21 17 52.9**	**+0.5**
THZ				AML	AML		
KHZ	**Kahutara**	**4.04**	**203**	P	**Pn**	**21 17 57.1**	**+0.6**
KHZ	**Kahutara**	**4.04**	**203**	S	**Sn**	**21 18 44.2**	**-0.4**
KHZ	**Kahutara**	**4.04**	**203**	P	**Pn**	**21 17 57.4**	**+0.9**
KHZ				AML	AML		
DSZ	**Denniston Nort**	**4.22**	**223**	P	**Pn**	**21 17 59.3**	**+0.2**
GVZ	**Greta Valley S**	**4.69**	**204**	P	**Pn**	**21 18 05.5**	**+0.5**
LTZ	**Lake Taylor**	**4.81**	**211**	P	**Pn**	**21 18 07.4**	**+0.8**
OKCZ	**Okains Bay**	**5.37**	**201**	P	**Pn**	**21 18 13.5**	**-0.4**
OKCZ				AML	AML		
AKCZ	**Akaroa Harbour**	**5.55**	**201**	P	**Pn**	**21 18 15.9**	**-0.3**
AKCZ				AML	AML		
TMZ	**Timaru**	**6.65**	**210**	P	**Pn**	**21 18 30.8**	**+0.2**
ODZ	**Otahua Downs**	**7.35**	**209**	P	**Pn**	**21 18 40.1**	**+0.4**

*IDC **17** 21:17:23.3±3.2,5.75N×127.10E,h0km,mb3.3/3, mbtmp3.3/3,MS2.2/1,Error ellipse: s-maj=268.7km s-min=28.1km az=66.0*
*MAN **17** 21:17:24.0,5.24N×126.61E,h6km,MS3.5*
ISC 17 21:17:26.1±1.3,**5.48N**±0.09×**126.27E**±0.09,**h10**km,**n7,** σ1§**20/7,mb3.3/3,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSPH	**General Santos**	**1.45**	**295**	*i* P	**Pg**	**21 17 54.7**	**+0.7**
GSPH				*i* S	**Sg**	**21 18 11.7**	**-1.1**
DAV	**Davao City (W)**	**1.72**	**336**	LR	LR	21 18 51.1	
	comp=Z,53nm,18.3s,baz=132,slow=44						
BIPH	**Bislig**	**2.69**	**2**	*e*P	**Pb**	**21 18 14.6**	**+0.3**
BIPH				*e*S	**Sb**	**21 18 46.7**	**-0.7**
CGP	**Cagayan de Oro**	**3.34**	**332**	*e*P	Pg	21 18 40.9	+11
WRA	**Warramunga Arr**	**26.48**	**163**	P	**P**	**21 23 02.0**	**-1.8**
	0.3nm,0.4s,baz=344,slow=9.7,SNR=10						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**29.91**	**166**	P	**P**	**21 23 34.6**	**+0.2**
	0.3nm,0.7s,baz=347,slow=8.1,SNR=2.0						
	0.3nm,0.7s						
MKAR	**Makanchi Array**	**55.87**	**325**	P	**P**	**21 27 04.6**	**+0.6**
	0.2nm,0.6s,baz=118,slow=8.5,SNR=4.4						
	0.2nm,0.6s						

*IDC **17** 21:36:11.7±1.6,6.23S×129.76E,h136km±22km,mb3.1/1, mbtmp4.3/6,Error ellipse: s-maj=29.5km s-min=13.0km az=112.0*
*DJA **17** 21:36:14.2±0.3,6˚S±3˚×13˚0E±˚,h189km±10km,M4.3/13, mB4.8/7,mb4.2/9,MLv4.6/13,Mw(mB)4.1/7*
ISC 17 21:36:11.6±0.8,**6.44S**±0.06×**129.95E**±0.08,**h146**km,**n15,** σ3§**06/18,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**1.91**	**359**	P	Pn	21 36 48.8	+3.3
BNDI				AML	AML		
FAKI	**Fak Fak**	**4.19**	**33**	P	**Pn**	**21 37 14.8**	**+0.5**
FAKI				AML	AML		
KMPI	**Kaimana, Papua**	**4.65**	**54**	P	**Pn**	**21 37 23.1**	**+2.7**
SIJI	**Sorong**	**5.69**	**13**	P	**Pn**	**21 37 33.9**	**-0.4**
	31nm,0.3s,baz=210,slow=22,SNR=5						
SIJI				S	**Sn**	**21 38 33.9**	**-5.0**
	37nm,0.2s,baz=273,slow=22,SNR=10						
SIJI	**Sorong**	**5.69**	**13**	P	**Pn**	**21 37 33.9**	**-0.4**
SIJI				AML	AML		
SOEI	**Soe**	**6.51**	**239**	P	**Pn**	**21 37 48.0**	**+2.6**
	0.2nm32nm,0.6s						
SOEI				AML	AML		
MWPI	**Manokwari, Pap**	**6.83**	**37**	P	**Pn**	**21 37 51.5**	**+2.0**
	0.5nm2μm97nm,0.9s						
MWPI				AML	AML		
BATI	**Baumata**	**7.25**	**239**	P	**Pn**	**21 37 56.1**	**+1.0**
	53nm,0.4s,baz=2.5,slow=2.1,SNR=14						
BATI				S	**Sn**	**21 39 15.6**	**-0.8**
	12nm,0.4s,baz=279,slow=14,SNR=1.5						
BATI	**Baumata**	**7.25**	**239**	P	**Pn**	**21 37 57.3**	**+2.1**
	0.3nm2μm65nm,0.5s						
BATI				AML	AML		
BAKI	**Biak**	**8.06**	**50**	P	**Pn**	**21 38 09.8**	**+3.9**
	124nm,0.7s						
EDFI	**Ende, Flores**	**8.50**	**254**	P	**Pn**	**21 38 14.0**	**+2.1**
FITZ	**Fitzroy Crossi**	**12.32**	**200**	P	**Pn**	**21 39 02.7**	**+0.4**
	6.6nm,0.3s,baz=25,slow=12,SNR=50						
FITZ				S	Sn	21 41 09.5	-9.0
	4.9nm,0.3s,baz=84,slow=23,SNR=8.0						
WRA	**Warramunga Arr**	**14.08**	**163**	P	**Pn**	**21 39 26.8**	**+2.0**
	1.4nm,0.3s,baz=344,slow=14,SNR=32						
WRA				S	**Sn**	**21 41 54.7**	**-6.1**
	3.1nm,0.4s,baz=337,slow=24,SNR=9.0						
ASAR	**Alice Springs**	**17.54**	**168**	P	**Pn**	**21 40 10.9**	**+3.6**
	2.8nm,0.4s,baz=345,slow=9.2,SNR=44						
ASAR				S	**S**	**21 43 17.4**	**-4.0**
	1.5nm,0.7s,baz=357,slow=23,SNR=7.7						
MKAR	**Makanchi Array**	**67.73**	**327**	P	**P**	**21 46 52.9**	**-0.6**
	0.3nm,0.6s,baz=123,slow=6.9,SNR=4.3						
	0.3nm,0.6s						

*SKHL **17** 21:52:10.1±0.3,44˚10N×148˚30E,h62km±5km,mb4.7/3*
*JMA **17** 21:52:11.5±0.3,44˚N±2˚×14˚8E±˚,h86km,MV3.5/25,SE OFF ETOROFU*
ISC 17 21:52:09.7±3.0,**44˚1N**±0˚1×**148˚3E**±0˚2,**h47**km,**n13,** σ0§**90/25,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**1.15**	**346**	*i* P	**Pn**	**21 52 29.5**	**+0.1**
KUR				AMB	AMB	21 52 29.8	
	440nm,0.3s						
KUR				*i* S	**Sn**	**21 52 43.6**	**-0.4**
KUR				A	A	21 52 44.0	
	2μm,0.4s						
KUR				A	A	21 52 44.0	
	750nm,0.4s						
YUK	**Yuzh-Kuril'sk**	**1.73**	**268**	*i* P	**Pn**	**21 52 37.5**	**+0.2**
YUK				AMB	AMB	21 52 38.3	
	180nm,0.2s						
YUK				*i* S	**Sn**	**21 52 57.4**	**-0.8**
YUK				A	A	21 52 58.8	
	570nm,0.4s						
YUK				A	A	21 52 58.8	
	970nm,0.4s						
NEM2	**Nemuro 2**	**1.97**	**249**	P	**Pn**	**21 52 41.5**	**+0.9**
NEM2				*e*S	**Sn**	**21 53 03.9**	**-0.2**
NMR	**Nemuro--Hokkai**	**1.98**	**249**	*i* P	**Pn**	**21 52 41.3**	**+0.6**
NMR				*i* S	**Sn**	**21 53 04.0**	**-0.3**
JRA	**Rausu**	**2.27**	**267**	*e*P	**Pn**	**21 52 45.5**	**+0.8**
JRA				*e*S	**Sn**	**21 53 12.1**	**+0.7**
JNSB	**Nemuroshibetsu**	**2.38**	**263**	*e*P	**Pn**	**21 52 47.1**	**+0.9**
JNSB				*e*S	**Sn**	**21 53 14.4**	**+0.4**
JKHN	**Kushirohamanak**	**2.48**	**246**	*e*P	**Pn**	**21 52 48.3**	**+0.8**
JKHN				*e*S	**Sn**	**21 53 16.1**	**-0.4**
JNK	**Nakash**	**2.62**	**260**	*e*P	**Pn**	**21 52 49.8**	**+0.4**
JNK				*e*S	**Sn**	**21 53 19.2**	**-0.8**
AKK	**Akkeshi**	**2.72**	**247**	*i* P	**Pn**	**21 52 51.1**	**+0.3**
JAK	**Akkeshi**	**2.82**	**248**	*e*P	**Pn**	**21 52 52.5**	**+0.3**
JAK				*e*S	**Sn**	**21 53 23.4**	**-1.6**
JAR	**Ashorobuto**	**3.36**	**257**	*e*P	**Pn**	**21 53 00.8**	**+1.2**
JAR				*e*S	**Sn**	**21 53 37.8**	**-0.5**
JOB	**Onbets**	**3.44**	**251**	*e*P	**Pn**	**21 53 01.5**	**+0.8**
JOB				*e*S	**Sn**	**21 53 39.0**	**-1.3**
JCH	**Churui**	**3.87**	**249**	*e*P	**Pn**	**21 53 07.3**	**+0.6**
JCH				*e*S	**Sn**	**21 53 48.7**	**-2.2**

*IDC **17** 21:56:52.0±3.6, 12˚71S×167˚07E,h313km±37km,mb3.3/7, mbtmp4.0/9,Error ellipse: s-maj=31.5km s-min=19.6km az=171.0*
ISC 17 21:56:50.9±0.9,**12˚6S**±0˚1×**167˚0E**±0˚1,**h300**km,**n10,** σ0§**93/10,mb3.6/7,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**9.43**	**183**	P	**Pn**	**21 59 01.9**	**-0.1**
	3.5nm,0.5s,baz=8.6,slow=9.7,SNR=8.8						
MSVF	**Nonsavu**	**11.79**	**117**	P	**Pn**	**21 59 31.8**	**+0.8**
	1.4nm,0.2s,baz=242,slow=14,SNR=3.7						
CTA	**Charters Tower**	**21.26**	**247**	P	**P**	**22 01 14.5**	**+0.2**
	1.8nm,0.4s,baz=77,slow=11,SNR=2.3						
	1.8nm,0.4s						
WRA	**Warramunga Arr**	**32.17**	**253**	P	**P**	**22 02 51.1**	**-0.4**
	0.7nm,0.5s,baz=84,slow=8.8,SNR=16						
	0.7nm,0.5s						
ASAR	**Alice Springs**	**33.26**	**246**	P	**P**	**22 03 00.5**	**-0.4**
	1.1nm,0.7s,baz=72,slow=9.2,SNR=15						
	1.1nm,0.7s						
CMAR	**Chiang Mai Arr**	**73.89**	**294**	P	**P**	**22 07 55.5**	**+1.6**
	0.6nm,0.3s,baz=120,slow=4.8,SNR=6.4						
	0.6nm,0.3s						
QSPA	**South Pole Qui**	**77.41**	**180**	P	**P**	**22 08 12.4**	**-0.6**
	0.9nm,0.7s,baz=79,slow=2.3,SNR=6.1						
	0.9nm,0.7s						
ILAR	**Eielson Array**	**84.59**	**18**	P	**P**	**22 08 49.0**	**-1.4**
	0.7nm,0.7s,baz=250,slow=4.8,SNR=7.4						
	0.7nm,0.7s						
MKAR	**Makanchi Array**	**95.51**	**317**	P	**P**	**22 09 42.3**	**+0.2**
	0.7nm,0.6s,baz=81,slow=7.5,SNR=6.7						
	0.7nm,0.6s						
ARCES	**ARCESS Array B**	**118.15**	**346**	PKP	**PKPdf**	**22 15 01.7**	**-0.1**
	2.7nm,0.8s,baz=39,slow=2.5,SNR=4.4						

*FUNV **17** 22:03:36.9, 12˚51N×73˚25W,h1km,MW3.6, Presumed earthquake*
*RSNC **17** 22:03:40.5±0.0, 12˚N±1˚×7˚3W±˚, h36km±6km, M2.5, ML2.4*
ISC 17 22:03:38.0±2.3,**12˚3N**±0˚1×**73˚49W**±0˚06,**h22**km±9km,**n9,** σ1§**06/18,Caribbean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMRC	**Santa Marta, M**	**1.30**	**214**	P	**Pn**	**22 04 01.1**	**+0.1**
SMRC				S	**Sn**	**22 04 17.1**	**-0.6**
CRJC	**Cerrejon, Guaj**	**1.36**	**154**	P	**Pn**	**22 04 01.8**	**-0.1**
CRJC				S	**Sn**	**22 04 17.6**	**-1.7**
URIC	**Uribia, Colomb**	**1.56**	**110**	P	**Pn**	**22 04 05.5**	**+1.0**
URIC				S	**Sn**	**22 04 24.1**	**0.0**
URIC	**Uribia, Colomb**	**1.56**	**110**	*e*P	**Pn**	**22 04 05.1**	**+0.6**
URIC				*e*S	**Sn**	**22 04 24.2**	**+0.1**
ARGC	**Ariguani, Magd**	**2.50**	**197**	P	**Pn**	**22 04 17.4**	**0.0**
ARGC				S	**Sn**	**22 04 48.6**	**+1.4**
SJCC	**San Jacinto, C**	**2.87**	**216**	P	**Pn**	**22 04 23.1**	**+0.5**
SJCC				S	**Sn**	**22 04 56.5**	**-0.1**
SJCC	**San Jacinto, C**	**2.87**	**216**	*e*P	**Pb**	**22 04 26.9**	**-1.7**
SJCC				*e*S	**Sb**	**22 05 05.5**	**+2.1**
OCAC	**Ocana**	**3.99**	**178**	P	**Pn**	**22 04 39.3**	**+1.2**
OCAC				S	**Sn**	**22 05 24.7**	**+0.3**
SDV	**Santo Domingo**	**4.37**	**140**	*e*P	**Pn**	**22 04 43.5**	**+0.2**
SDV				*e*S	**Sn**	**22 05 33.4**	**-0.3**

*BJI **17** 22:09:36.1,28˚73N×128˚79E,h157km,mB4.7/8,mb4.5/48*
*NEIC **17** 22:09:36.5±1.5,28˚76N±0˚06×128˚71E±0˚10, h140km±6km,mb4.5/114,Error ellipse: s-maj=12.8km s-min=9.3km az=99.0*
*JMA **17** 22:09:36.8±0.2,28˚8N±0˚8×12˚9E±˚,h139km±2km, MD4.0/28,MV4.2/28,NEAR TOKARA ISLANDS*
JMA Felt I J1 at NEAR TOKARA ISLANDS .
*NIED **17** 22:09:36.8,28˚75N×128˚65E,h139km,MW4.2,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr0.55; Mθθ-1.32; Mφφ0.77; Mrθ1.38; Mθφ-0.34; Mφr1.49; Fault plane solution: M₀2.36000×10¹⁵ NP1: ϕs300.00000°,δ27.00000°,λ163.00000°. NP2: ϕs45.00000°,δ82.00000°,λ64.00000°.*
*GFZ **17** 22:09:37.7±0.3,29˚N±4˚×12˚9E±˚,h153km,M4.5/12, mb4.5/12,confirmed*
*IDC **17** 22:09:37.2±1.7,28˚80N×128˚67E,h154km±15km, mb3.9/23,mbtmp4.3/28,MS2.5/1,Error ellipse: s-maj=13.4km s-min=11.1km az=70.0*
ISC 17 22:09:36.5±0.6,**28.72N**±0.03×**128.75E**±0.04,**h146**km±5km, **n232,** σ1§**10/228,mb4.4/110,2C-1D,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTAJ	**Takarajima**	**0.58**	**43**	*i* P	**Pn**	**22 09 58.1**	**+0.2**
JTAJ				S	**Sn**	**22 10 13.6**	**-0.6**
JAMN	**Amaminishikomi**	**0.61**	**142**	*i* P	**Pn**	**22 09 58.1**	**+0.1**
JAMN				A	A	22 09 58.1	
	comp=N,14nm,0.3s,comp=E,14nm,0.3s						
JAMN				S	**Sn**	**22 10 13.9**	**-0.4**
JAM	**Amami Oshima**	**0.81**	**112**	*i* P	**Pn**	**22 09 59.4**	**0.0**
JAM				S	**Sn**	**22 10 16.3**	**-0.5**
JTK	**Tokunoshima**	**0.95**	**169**	*i* P	**Pn**	**22 10 00.9**	**+0.3**
JTK				A	A	22 10 00.9	
	comp=N,14nm,0.8s,comp=E,9.0nm,0.6s						
JTK				S	**Sn**	**22 10 18.2**	**-0.6**
JZK	**Kikaishima**	**1.15**	**110**	*i* P	**Pn**	**22 10 03.8**	**+1.5**
JZK				*e*S	**Sn**	**22 10 24.2**	**+2.3**
JOKE	**Okinoerabujima**	**1.36**	**187**	*i* P	**Pn**	**22 10 04.5**	**+0.1**
JOKE				S	**Sn**	**22 10 24.9**	**-0.8**
JYRO	**Yoronjima**	**1.71**	**189**	*i* P	**Pn**	**22 10 08.1**	**0.0**
JYRO				S	**Sn**	**22 10 31.0**	**-1.4**
JIH	**Iheya**	**1.82**	**203**	*i* P	**Pn**	**22 10 09.5**	**+0.1**
JIH				A	A	22 10 09.5	
	comp=N,2.0nm,0.6s,comp=E,2.0nm,2.0s						
JIH				S	**Sn**	**22 10 33.6**	**-0.9**
JOW	**Kunigami**	**1.93**	**193**		**Pn**	**22 10 10.3**	**-0.4**
JOW	**Kunigami**	**1.93**	**193**	P	**Pn**	**22 10 10.7**	**0.0**
JOW	**Kunigami**	**1.93**	**193**	*i* P	**Pn**	**22 10 10.4**	**-0.2**
JOW				*e*S	**Sn**	**22 10 35.6**	**-1.2**
JKC	**Kuchinoerabu**	**2.14**	**36**	P	**Pn**	**22 10 13.7**	**+0.6**
JKC				*e*S	**Sn**	**22 10 40.5**	**-0.7**
JYAK	**Yakushimahirau**	**2.15**	**45**	P	**Pn**	**22 10 12.8**	**-0.4**
JYAK				S	**Sn**	**22 10 39.9**	**-1.5**
JNTH	**Nagotoyohara**	**2.29**	**197**	*i* P	**Pn**	**22 10 14.9**	**0.0**
JNTH				*e*S	**Sn**	**22 10 42.8**	**-1.6**
JMTN	**Minamitane**	**2.51**	**48**	P	**Pn**	**22 10 17.5**	**-0.1**
JMTN				*e*S	**Sn**	**22 10 47.3**	**-1.9**
JAGN	**Aguni-jima**	**2.51**	**213**	P	**Pn**	**22 10 17.4**	**-0.2**
JAGN				S	**Sn**	**22 10 48.6**	**-0.6**
JJT3	**Tamagusuku3**	**2.71**	**199**	P	**Pn**	**22 10 20.6**	**+0.5**
JJT3				S	**Sn**	**22 10 53.5**	**-0.2**
JTN	**Tanegashima 3**	**2.73**	**45**	P	**Pn**	**22 10 20.3**	**0.0**
JKE	**Kume jima 2**	**2.96**	**217**	P	**Pn**	**22 10 22.7**	**-0.6**
JKE				*e*S	**Sn**	**22 10 58.3**	**-0.9**
JSU	**Suzuyama**	**3.14**	**28**	Pn	**Pn**	**22 10 25.5**	**-0.1**
JSU	**Suzuyama**	**3.14**	**28**	P	**Pn**	**22 10 26.4**	**+0.8**
JKDJ	**Kitadaitoujima**	**3.57**	**140**	P	**Pn**	**22 10 31.7**	**+0.6**
JKDJ				S	**Sn**	**22 11 11.8**	**-1.6**
JMZ	**Minamidaito 2**	**3.63**	**142**	Pn	**Pn**	**22 10 31.8**	**-0.2**
JMZ	**Minamidaito 2**	**3.63**	**142**	P	**Pn**	**22 10 32.8**	**+0.9**
JMZ	**Minamidaito 2**	**3.63**	**142**	P	**Pn**	**22 10 32.1**	**+0.2**
JMZ				*e*S	**Sn**	**22 11 12.3**	**-2.5**
JNU	**Nakatsue**	**4.75**	**22**	P	**Pn**	**22 10 48.1**	**+1.5**
	comp=E,195nm,0.8s,baz=293,slow=4.1,SNR=53						
JNU				S	**Sn**	**22 11 40.8**	**-0.5**
	comp=E,31nm,0.6s,baz=1.0,slow=20,SNR=3.2						
JTU	**Tsushima**	**5.81**	**5**	Pn	**Pn**	**22 11 00.7**	**+0.1**
JMN	**Monobe**	**6.65**	**40**	Pn	**Pn**	**22 11 10.9**	**-0.9**
YHNB	**Yeheng**	**7.73**	**240**	Pn	**Pn**	**22 11 27.2**	**+0.7**
NACB	**Ninganchiao**	**7.85**	**236**	Pn	**Pn**	**22 11 24.3**	**-3.7**
YULB	**Yu-li**	**8.55**	**233**	Pn	**Pn**	22 11 32.5	-4.8
SSLB	**Suanglung**	**8.55**	**237**	Pn	**Pn**	**22 11 36.0**	**-1.4**
NJ2	**Nanjing**	**9.17**	**294**	*e*P	**Pn**	**22 11 44.5**	**-1.0**
NJ2				pmax	pmax		
	comp=E,6.0nm,0.6s						
INU	**Inuyama**	**9.63**	**45**	Pn	**Pn**	**22 11 52.9**	**+1.2**
JGF	**Kuroka**	**10.01**	**45**	Pn	**Pn**	**22 11 58.5**	**+1.8**
JHJ	**Hachijo jima 2**	**10.44**	**62**	P	**Pn**	**22 12 05.2**	**+2.9**
	comp=E,29nm,1.0s,baz=240,slow=20,SNR=5.7						
JHJ2	**Mitsune**	**10.46**	**63**	Pn	**Pn**	**22 12 06.7**	**+4.0**
MJAR	**Matsushiro Arr**	**11.15**	**43**	P	**Pn**	**22 12 14.2**	**+2.5**
	comp=E,1.4nm,0.5s,baz=244,slow=14,SNR=4.5						
MJAR				LR	LR	22 16 41.2	
	comp=E,22nm,18.1s,baz=70,slow=38						
DL2	**Dalian**	**11.75**	**332**	*e*P	**Pn**	**22 12 19.3**	**-0.3**
DL2				pmax	pmax		
	comp=E,45nm,1.1s						
HNS	**HongShan**	**14.60**	**310**	⇑P	**P**	**22 12 57.4**	**-1.1**
HNS				pmax	pmax		
	comp=E,16nm,1.0s						
LYN	**LuoYang**	**15.03**	**297**	P	**Pn**	**22 13 01.6**	**+0.1**
LYN				pmax	pmax		
	comp=E,12nm,0.6s						
CN2	**Changchun**	**15.28**	**351**	*e*P	**Pn**	**22 13 02.8**	**-1.7**
CN2				pmax	pmax		
	comp=E,10.0nm,0.6s						
BJI2	**Beijing**	**15.31**	**321**	P	**P**	**22 13 09.6**	**+3.3**
BJI2				pmax	pmax		
	comp=E,30nm,0.8s						
BJI2				pmax	pmax		
	comp=E,140nm,5.3s						
BJT	**Baijiatuau**	**15.31**	**321**		**P**	**22 13 08.4**	**+2.1**
BJT				IAmb	IAmb	22 13 10.3	
	comp=Z,26nm,0.7s						
BJT	**Baijiatuau**	**15.31**	**321**	P	**P**	**22 13 09.8**	**+3.4**
	comp=Z,51nm,0.8s						
USRK	**Ussuriysk Ar.**	**15.66**	**9**	P	**P**	**22 13 10.0**	**-0.2**
	comp=Z,1.7nm,0.6s,baz=196,slow=11,SNR=2.2						
ENH	**Enshi**	**16.84**	**280**	P	**P**	**22 13 22.1**	**-1.3**
ENH	**Enshi**	**16.84**	**280**	P	**Pn**	**22 13 25.0**	**+1.2**
	comp=Z,17nm,0.8s						
BNX	**BinXian**	**17.02**	**357**	⇓P	**Pn**	**22 13 27.4**	**+1.7**
BNX				pmax	pmax		
	comp=Z,8.0nm,0.8s						
XAN	**Xi'an**	**17.73**	**292**	⇑P	**Pn**	**22 13 34.5**	**+0.1**
XAN				pmax	pmax		
	comp=Z,240nm,4.1s						
XLT	**XiLinHaoTe**	**18.23**	**330**	*e*P	**Pn**	**22 13 39.8**	**-0.5**
XLT				pmax	pmax		
	comp=Z,16nm,1.0s						
HHC	**Hu-ho-hao-te**	**18.55**	**315**	*e*P	**P**	**22 13 42.0**	**-0.1**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,140nm,4.8s						
ASAJ	**Asahikawa**	**18.94**	**32**	P	**Pn**	**22 13 47.4**	**-1.0**
	comp=Z,3.9nm,0.6s,baz=214,slow=18,SNR=1.3						
JKA	**Kamikawa-asahi**	**18.94**	**32**	P	**P**	**22 13 45.7**	**-0.4**
KLR	**Kul'dur**	**20.61**	**6**	P	**P**	**22 14 01.7**	**-2.4**
	comp=Z,0.6nm,0.4s,baz=198,slow=8.0,SNR=4.1						
LZH	**Lanzhou**	**22.24**	**296**	*e*P	**P**	**22 14 22.0**	**+0.4**
LZH				pP	pP	22 14 50.0	+1.9
LZH				pmax	pmax		
	comp=Z,19nm,1.3s						
LZDM	**Lanzhou Array**	**22.33**	**295**	P	**P**	**22 14 22.6**	**0.0**
	comp=Z,9.5nm,0.5s,baz=111,slow=7.9,SNR=20						
	comp=Z,9.5nm,0.5s						
KMI2	**Kunming**	**23.44**	**267**	P	**P**	**22 14 35.4**	**+2.4**
KMI2				pmax	pmax		
	comp=Z,11nm,0.9s				

KURBB	**Kurchatov Arra**	**43.41**	**315**	P	**P**		**22 17 22.6**	**-1.9**	
	comp=Z,3.9nm,0.6s,baz=102,slow=8.9,SNR=27								
KURBB				PcP	**PcP**		**22 19 09.5**	**-0.7**	
	comp=Z,0.2nm,0.3s,baz=104,slow=3.7,SNR=4.2								
	comp=Z,3.9nm,0.6s								
KDJ	**Kajisay**	**43.48**	**302**	P	**P**		**22 17 25.6**	**+0.1**	
KDJ				IAmb	IAmb		22 17 28.4		
	comp=Z,12nm,0.8s								
ASAI	**AK-SAY(Kyrgyzs**	**43.98**	**300**	P	**P**		**22 17 29.0**	**-0.6**	
	comp=Z,5.1nm,0.7s								
KNRA	**Kununurra**	**44.14**	**180**	P	**P**		**22 17 30.9**	**+0.3**	
KNRA				IAmb	IAmb		22 17 32.1		
	comp=Z,4.4nm,0.6s								
NRN	**Naryn**	**44.36**	**301**	P	**P**		**22 17 31.5**	**-1.2**	
NRN				IAmb	IAmb		22 17 35.0		
	comp=Z,6.8nm,0.5s								
KSH2	**Kashi**	**44.77**	**298**	P	**P**		**22 17 37.8**	**+2.0**	
KSH2				pmax	pmax				
	comp=Z,6.0nm,0.4s								
AAK	**Ala-Archa**	**45.47**	**303**	P	**P**		**22 17 40.7**	**-0.6**	
ARSB	**Arslanbob**	**46.64**	**301**	P	**P**		**22 17 49.8**	**-0.6**	
FITZ	**Fitzroy Crossi**	**46.64**	**184**	P	**P**		**22 17 51.5**	**+1.2**	
NRIK	**Noril'sk**	**47.04**	**341**	PcP	**PcP**		**22 19 22.6**	**+0.1**	
	comp=Z,2.8nm,0.6s,baz=149,slow=5.9,SNR=3.9								
BTK	**Batken**	**48.37**	**300**	P	**P**		**22 18 03.7**	**0.0**	
KKAR	**Karatay Array**	**48.38**	**304**	P	**P**		**22 18 03.1**	**-0.5**	
WB0	**Warramunga Arr**	**48.51**	**173**	P	**P**		**22 18 04.8**	**+0.1**	
WRAB	**Tennant Creek**	**48.67**	**173**	P	**P**		**22 18 06.2**	**+0.2**	
WRA	**Warramunga Arr**	**48.68**	**173**	P	**P**		**22 18 05.8**	**-0.2**	
	comp=Z,2.5nm,0.7s,baz=353,slow=8.1,SNR=21								
	comp=Z,5nm,0.7s								
WRA	**Warramunga Arr**	**48.68**	**173**	P	**P**		**22 18 06.2**	**+0.1**	
WR8	**Warramunga Arr**	**48.71**	**173**	P	**P**		**22 18 06.0**	**-0.3**	
BVAR	**Borovoye Array**	**48.75**	**317**	P	**P**		**22 18 04.9**	**-1.4**	
	comp=Z,4.1nm,0.5s,baz=90,slow=9.0,SNR=13								
BVAR				PcP	**PcP**		**22 19 28.5**	**-0.5**	
	comp=Z,2.4nm,0.5s,baz=88,slow=4.3,SNR=7.4								
	comp=Z,4.1nm,0.5s								
QIS	**Mount Isa**	**50.10**	**167**	P	**P**		**22 18 17.4**	**+0.6**	
	comp=Z,6.6nm,1.0s								
KBL	**Kabul**	**50.54**	**293**	P	**P**		**22 18 22.1**	**+1.7**	
KBL	**Kabul**	**50.54**	**293**	P	**P**		**22 18 21.7**	**+1.4**	
	comp=Z,13nm,0.6s								
ASAR	**Alice Springs**	**52.32**	**174**	P	**P**		**22 18 33.5**	**+0.2**	
	comp=Z,1.0nm,0.8s,baz=1.5,slow=13,SNR=9.0								
	comp=Z,1.0nm,0.8s								
AB31	**Akbulak array**	**55.30**	**312**	P	**P**		**22 18 53.8**	**-1.0**	
ABKAR	**Akbulak array**	**55.30**	**312**	P	**P**		**22 18 53.4**	**-1.3**	
K15K	**Wolf Creek Mou**	**55.60**	**32**	P	**P**		**22 18 57.8**	**+1.1**	
K15K				IAmb	IAmb		22 18 59.8		
	comp=Z,12nm,1.2s								
N15K	**Kwethluk River**	**56.23**	**35**	P	**P**		**22 19 01.8**	**+0.6**	
C18K	**Utukok River**	**56.32**	**24**	P	**P**		**22 19 02.0**	**+0.2**	
C18K				IAmb	IAmb		22 19 19.7		
	comp=Z,9.3nm,1.1s								
O15K	**Ungalikthiuk R**	**56.37**	**36**	P	**P**		**22 19 02.6**	**+0.5**	
G18K	**Tagagawik**	**57.06**	**28**	P	**P**		**22 19 07.5**	**+0.5**	
G18K				IAmb	IAmb		22 19 09.7		
	comp=Z,3.7nm,0.9s								
P16K	**Nushagak River**	**57.31**	**36**	P	**P**		**22 19 09.5**	**+0.7**	
D20K	**Etivluk River**	**57.99**	**25**	P	**P**		**22 19 12.9**	**-0.6**	
D20K				IAmb	IAmb		22 19 14.8		
	comp=Z,3.9nm,0.8s								
J20K	**Nowinta River**	**58.96**	**30**	IAmb	IAmb		22 19 22.3		
	comp=Z,9.3nm,1.0s								
IMAR	**Indian Mountai**	**59.07**	**28**	P	**P**		**22 19 21.1**	**+0.1**	
H21K	**Melozitna Rive**	**59.47**	**28**	IAmb	IAmb		22 19 25.7		
	comp=Z,7.8nm,1.0s								
PPLA	**Purkeypile**	**59.91**	**31**	P	**P**		**22 19 27.9**	**+0.9**	
PPLA				IAmb	IAmb		22 19 29.2		
	comp=Z,6.8nm,0.8s								
CAST	**Castle Rocks**	**59.92**	**31**	P	**P**		**22 19 27.6**	**+0.7**	
CAST				IAmb	IAmb		22 19 28.8		
	comp=Z,8.3nm,1.0s								
H22K	**Ishtalitna Cre**	**60.04**	**28**	P	**P**		**22 19 28.8**	**+1.1**	
SPU	**Mount Spurr**	**60.13**	**33**	IAmb	IAmb		22 19 30.8		
	comp=Z,4.0nm,0.9s								
STLK	**Strandline Lak**	**60.21**	**33**	P	**P**		**22 19 29.1**	**+0.2**	
STLK				IAmb	IAmb		22 19 30.0		
	comp=Z,3.4nm,0.6s								
KDAK	**Kodiak Island**	**60.25**	**37**	P	**P**		**22 19 29.1**	**0.0**	
KDAK	**Kodiak Island**	**60.25**	**37**	P	**P**		**22 19 29.3**	**+0.2**	
	comp=Z,33nm,2.8s								
SKT	**Skwentna**	**60.30**	**32**	P	**P**		**22 19 29.2**	**-0.2**	
MLY	**Manley**	**60.37**	**29**	P	**P**		**22 19 30.7**	**+0.7**	
G23K	**Bananza Creek**	**60.53**	**27**	IAmb	IAmb		22 19 33.2		
	comp=Z,4.5nm,1.1s								
E23K	**Chandalar**	**60.59**	**25**	IAmb	IAmb		22 19 33.3		
	comp=Z,7.3nm,0.8s								
TRF	**Thorofare Moun**	**60.72**	**31**	P	**P**		**22 19 32.8**	**+0.3**	
TRF				IAmb	IAmb		22 19 58.2		
	comp=Z,4.6nm,1.1s								
SUA	**Susitna One**	**60.73**	**33**	P	**P**		**22 19 32.6**	**+0.1**	
I23K	**Minto, Yukon-K**	**60.94**	**29**	P	**P**		**22 19 34.2**	**+0.5**	
I23K				IAmb	IAmb		22 19 38.8		
	comp=Z,3.1nm,0.8s								
SLKM	**Skilak Lake**	**61.10**	**34**	P	**P**		**22 19 35.2**	**+0.3**	
SLKM				IAmb	IAmb		22 20 14.4		
	comp=Z,3.9nm,0.9s								
MCK	**McKinley**	**61.29**	**30**	P	**P**		**22 19 35.9**	**-0.2**	
MCK				IAmb	IAmb		22 19 37.9		
	comp=Z,6.1nm,0.7s								
H24K	**Noodor Dome**	**61.48**	**28**	IAmb	IAmb		22 19 39.6		
	comp=Z,6.7nm,0.8s								
STKA	**Stephens Creek**	**61.49**	**168**	P	**P**		**22 19 37.6**	**-0.1**	
	comp=Z,1.8nm,0.7s,baz=327,slow=6.8,SNR=4.8								
	comp=Z,1.8nm,0.7s								
STKA	**Stephens Creek**	**61.49**	**168**	P	**P**		**22 19 38.5**	**+0.8**	
G24K	**Hadweenzic Riv**	**61.54**	**27**	IAmb	IAmb		22 19 39.9		
	comp=Z,7.5nm,0.9s								
GHO	**Glory Hole Cre**	**61.55**	**32**	P	**P**		**22 19 38.0**	**+0.1**	
GHO				IAmb	IAmb		22 19 39.4		
	comp=Z,8.6nm,1.0s								
D25K	**Kavik River**	**61.66**	**24**	IAmb	IAmb		22 19 40.0		
	comp=Z,4.0nm,0.7s								
CCB	**Clear Creek Bu**	**61.66**	**29**	IAmb	IAmb		22 19 39.5		
	comp=Z,3.8nm,0.6s								
POKR	**Poker Plat Res**	**61.76**	**29**	P	**P**		**22 19 40.2**	**+1.0**	
IL31		**62.04**	**29**	IAmb	IAmb		22 19 43.2		
	comp=Z,4.4nm,0.6s								
ILAR	**Eielson Array**	**62.04**	**29**	P	**P**		**22 19 39.8**	**-1.2**	
	comp=Z,1.8nm,0.6s,baz=280,slow=7.9,SNR=36								
	comp=Z,1.8nm,0.6s								
ILAR	**Eielson Array**	**62.04**	**29**	P	**P**		**22 19 40.5**	**-0.6**	
DHY	**Denali Highway**	**62.07**	**31**	IAmb	IAmb		22 19 43.5		
	comp=Z,4.9nm,1.0s								
F25K	**Christian Rive**	**62.14**	**26**	IAmb	IAmb		22 19 44.2		
	comp=Z,6.8nm,0.8s								
SCM	**Sheep Creek Mo**	**62.29**	**32**	P	**P**		**22 19 43.2**	**+0.3**	
SCM				IAmb	IAmb		22 19 43.8		
	comp=Z,5.3nm,0.6s								
PRP	**Porcupine Dome**	**62.49**	**28**	IAmb	IAmb		22 19 46.7		
	comp=Z,5.8nm,0.8s								
C27K	**Jago River**	**62.55**	**23**	IAmb	IAmb		22 19 46.0		
	comp=Z,4.0nm,0.6s								
BMAR	**Burnt Mountain**	**62.57**	**26**	P	**P**		**22 19 46.1**	**+1.5**	
F26K	**Sheenjek River**	**62.69**	**25**	IAmb	IAmb		22 19 47.9		
	comp=Z,9.2nm,0.9s								
PAX	**Paxson**	**62.95**	**31**	P	**P**		**22 19 48.4**	**+1.1**	
SCRK	**Sand Creek**	**63.41**	**30**	IAmb	IAmb		22 19 51.2		
	comp=Z,5.2nm,0.6s								
DOT	**Dot Lake**	**63.45**	**30**	P	**P**		**22 19 50.0**	**-0.4**	
DOT				IAmb	IAmb		22 19 51.2		
	comp=Z,5.8nm,0.7s								
I26K	**Coal Creek Min**	**63.51**	**28**	IAmb	IAmb		22 19 51.5		
	comp=Z,4.0nm,0.8s								
E27K	**Coleen River**	**63.55**	**25**	IAmb	IAmb		22 19 53.1		
	comp=Z,5.1nm,0.7s								
D27M	**Malcolm River**	**63.57**	**23**	IAmb	IAmb		22 19 53.7		
	comp=Z,7.3nm,1.1s								
H27K	**Steamboat Moun**	**63.98**	**27**	IAmb	IAmb		22 19 55.9		
	comp=Z,3.6nm,0.6s								
GLB	**Gilahina Butte**	**64.02**	**32**	P	**P**		**22 19 54.9**	**+0.7**	
GLB				IAmb	IAmb		22 19 55.5		
	comp=Z,4.0nm,0.5s								
I27K	**Kandik River**	**64.07**	**28**	IAmb	IAmb		22 19 56.8		
	comp=Z,8.8nm,0.9s								
E28M	**Babbage River**	**64.21**	**24**	IAmb	IAmb		22 19 57.7		
	comp=Z,4.2nm,0.8s								
F28M	**Old Crow**	**64.31**	**25**	P	**P**		**22 19 56.6**	**+0.6**	
F28M				IAmb	IAmb		22 19 58.1		
	comp=Z,7.0nm,1.0s								
BCAR	**Beaver Creek A**	**64.57**	**30**	P	**P**		**22 19 58.3**	**+0.5**	
EPYK	**Eagle Plains**	**65.82**	**26**	P	**P**		**22 20 06.4**	**+0.6**	
L29M	**L29M**	**66.17**	**30**	IAmb	IAmb		22 20 10.2		
	comp=Z,5.1nm,0.6s								

I30M	**Mount Dempster**	**66.29**	**27**	IAmb	IAmb		22 20 10.2		
	comp=Z,5.2nm,0.5s								
INK	**Inuvik**	**66.43**	**24**	P	**P**		**22 20 09.7**	**+0.1**	
INK	**Inuvik**	**66.43**	**24**	P	**P**		**22 20 09.9**	**+0.3**	
H31M	**Peel River**	**66.92**	**26**	IAmb	IAmb		22 20 14.1		
	comp=Z,7.3nm,0.7s								
HYT	**Haines Junctio**	**67.13**	**32**	P	**P**		**22 20 15.5**	**+1.2**	
HYT				IAmb	IAmb		22 20 16.1		
	comp=Z,4.2nm,0.9s								
KBZ	**Khabaz**	**67.95**	**309**	P	**P**		**22 20 19.9**	**+0.3**	
	comp=Z,2.4nm,0.8s,baz=88,slow=5.4,SNR=5.9								
	comp=Z,2.4nm,0.8s								
C36M	**Paulatuk**	**69.21**	**21**	P	**P**		**22 20 27.4**	**+0.4**	
FINES	**FINESS Array B**	**70.93**	**330**	P	**P**		**22 20 35.9**	**-1.7**	
	comp=Z,2.7nm,0.6s,baz=73,slow=6.0,SNR=12								
	comp=Z,2.7nm,0.6s								
FINES	**FINESS Array B**	**70.93**	**330**	P	**P**		**22 20 36.5**	**-1.1**	
RES	**Resolute Bay**	**73.02**	**11**	P	**P**		**22 20 49.2**	**-0.6**	
RES				IAmb	IAmb		22 21 00.8		
	comp=Z,6.7nm,1.1s								
RES	**Resolute Bay**	**73.02**	**11**	P	**P**		**22 20 49.6**	**-0.2**	
RAYN	**Ar Rayn**	**73.47**	**288**	P	**P**		**22 20 53.9**	**+0.5**	
AKASG	**Malin Array Be**	**73.95**	**319**	P	**P**		**22 20 54.7**	**-1.0**	
	comp=Z,2.4nm,0.6s,baz=60,slow=6.0,SNR=8.2								
	comp=Z,2.4nm,0.6s								
KIEV	**Kiev**	**73.96**	**319**	P	**P**		**22 20 55.2**	**-0.6**	
	comp=Z,6.2nm,1.4s								
BRTR	**Keskin Array B**	**75.88**	**308**	P	**P**		**22 21 06.6**	**-0.6**	
	comp=Z,1.6nm,0.6s,baz=105,slow=4.6,SNR=9.1								
	comp=Z,1.6nm,0.6s								
BRTR	**Keskin Array B**	**75.88**	**308**	P	**P**		**22 21 06.8**	**-0.4**	
YKAW3	**Yellowknife Wh**	**76.04**	**25**	P	**P**		**22 21 08.2**	**+0.8**	
YKA	**Yellowknife Ar**	**76.08**	**25**	P	**P**		**22 21 07.8**	**+0.1**	
	comp=Z,2.7nm,0.6s,baz=306,slow=6.0,SNR=17								
	comp=Z,2.7nm,0.6s								
YKA	**Yellowknife Ar**	**76.08**	**25**	P	**P**		**22 21 08.0**	**+0.3**	
YKAW1	**Yellowknife Wh**	**76.13**	**25**	P	**P**		**22 21 08.4**	**+0.4**	
YKAW1				IAmb	IAmb		22 21 48.3		
	comp=Z,7.5nm,1.1s								
HFS	**Hagfors**	**76.84**	**332**	P	**P**		**22 21 10.9**	**-1.1**	
	comp=Z,8.0nm,1.2s,baz=188,slow=6.0,SNR=6.2								
	comp=Z,8.0nm,1.2s								
POIN	**Pond Inlet**	**77.21**	**8**	P	**P**		**22 21 12.9**	**-0.9**	
NOA	**NORSAR Array B**	**77.29**	**334**	P	**P**		**22 21 13.1**	**-1.5**	
	comp=Z,1.0nm,0.7s,baz=50,slow=5.5,SNR=4.8								
	comp=Z,1.0nm,0.7s								
BUR08	**Bucovina Ar. S**	**77.70**	**318**	P	**P**		**22 21 17.1**	**0.0**	
BURAR	**Bucovina Array**	**77.70**	**318**	P	**P**		**22 21 16.7**	**-0.5**	
MLR	**Muntele Rosu**	**78.29**	**316**	P	**P**		**22 21 20.8**	**+0.2**	
ARR	**Arges**	**79.16**	**316**	P	**P**		**22 21 26.4**	**+1.2**	
	comp=Z,6.9nm,1.1s								
ELL	**Elmali**	**79.84**	**306**	P	**P**		**22 21 28.9**	**-0.2**	
ELL				IAmb	IAmb		22 21 29.9		
	comp=Z,5.7nm,0.6s								
MORC	**Moravsky Berou**	**80.91**	**322**	*e*P	**P**		**22 21 34.9**	**+0.4**	
JAVC	**Velka Javorina**	**81.35**	**321**	*e*P	**P**		**22 21 39.9**	**+3.1**	
VRAC	**Vranov**	**81.68**	**322**	*e*P	**P**		**22 21 38.8**	**+0.3**	
KRUC	**Moravsky**	**81.93**	**322**	*e*P	**P**		**22 21 41.0**	**+1.2**	
KARP	**Karpathos**	**82.37**	**306**	P	**P**		**22 21 43.4**	**+1.0**	
CLL	**Collm**	**82.38**	**325**	*i* P	**P**		**22 21 42.7**	**+0.7**	
	comp=Z,5.0nm,0.7s								
ABNA	**Allensteig Bun**	**82.67**	**322**	*e*P	**P**		**22 21 44.8**	**+1.1**	
	comp=Z,1.4nm,0.5s								
CONA	**Conrad Observa**	**82.87**	**321**	*e*P	**P**		**22 21 45.9**	**+1.1**	
	comp=Z,5.0nm,1.2s								
LIT	**Litokhoron**	**83.22**	**312**	P	**P**		**22 21 46.2**	**-0.4**	
LIT				IAmb	IAmb		22 21 47.0		
	comp=Z,9.2nm,0.8s								
GERES	**GERESS Array B**	**83.50**	**323**	P	**P**		**22 21 48.2**	**+0.2**	
	comp=Z,2.1nm,0.7s,baz=41,slow=4.3,SNR=22								
	comp=Z,2.1nm,0.7s								
GERES	**GERESS Array B**	**83.50**	**323**	P	**P**		**22 21 48.4**	**+0.4**	
MOA	**Molln**	**83.79**	**322**	*e*P	**P**		**22 21 50.2**	**+0.8**	
	comp=Z,4.4nm,1.2s								
SESA	**Seetaler Alpe,**	**84.06**	**321**	*e*P	**P**		**22 21 51.7**	**+0.6**	
	comp=Z,12nm,1.0s								
IDI	**Anoyia**	**84.10**	**307**	P	**P**		**22 21 50.4**	**-0.9**	
IDI				IAmb	IAmb		22 21 59.7		
	comp=Z,5.3nm,0.7s								
OBKA	**Obir**	**84.43**	**321**	*e*PcP	**P**		**22 21 53.6**	**+0.8**	
	comp=Z,2.9nm,0.6s								
KBA	**Koelnbreinsper**	**84.75**	**322**	*e*P	**P**		**22 21 54.5**	**0.0**	
	comp=Z,1.9nm,0.5s								
LESA	**Schwarzleotal**	**84.90**	**322**	*e*P	**P**		**22 21 55.1**	**-0.1**	
	comp=Z,3.8nm,0.5s								
ITM	**Ithomi**	**85.14**	**310**	P	**P**		**22 21 55.1**	**-1.4**	
ABTA	**Abfaltersbach**	**85.41**	**322**	*e*P	**P**		**22 21 57.3**	**-0.3**	
	comp=Z,4.8nm,0.7s								
WATA	**Walderalm**	**85.55**	**323**	*e*P	**P**		**22 21 58.1**	**-0.3**	
	comp=Z,2.3nm,0.7s								
WTTA	**Wattenberg**	**85.56**	**323**	*e*P	**P**		**22 21 58.1**	**-0.4**	
	comp=Z,1.1nm,0.5s								
STAL	**STALIGIAL**	**85.60**	**321**	P	**P**		**22 21 58.3**	**-0.2**	
STAL				IAmb	IAmb		22 21 59.1		
	comp=Z,14nm,1.2s								
MOTA	**Moosalm**	**85.79**	**323**	*i* P	**P**		**22 21 59.0**	**-0.7**	
	comp=Z,3.1nm,1.0s								
SQTA	**Sankt Quirin**	**85.81**	**323**	*e*P	**P**		**22 21 59.3**	**-0.4**	
	comp=Z,3.6nm,1.0s								
FETA	**Feichten**	**86.19**	**323**	*e*P	**P**		**22 22 01.5**	**-0.2**	
	comp=Z,1.9nm,0.6s								
DAVA	**Damuels**	**86.47**	**323**	*i* P	**P**		**22 22 02.6**	**-0.4**	
	comp=Z,1.9nm,0.4s								
FUORN	**Ofenpass-Fuorn**	**86.70**	**323**	P	**P**		**22 22 03.9**	**-0.3**	
FUORN				IAmb	IAmb		22 22 05.3		
	comp=Z,7.2nm,1.0s								
EKA	**Eskdalemuir Ar**	**86.72**	**335**	P	**P**		**22 22 02.6**	**-1.2**	
	comp=Z,1.5nm,0.3s,baz=47,slow=4.3,SNR=17								
	comp=Z,1.5nm,0.3s								
TUE	**Stuetta**	**87.28**	**323**	P	**P**		**22 22 07.7**	**+0.7**	
RAFF	**Raffo Rosso**	**90.09**	**313**	P	**P**		**22 22 20.6**	**+0.5**	
PDAR	**Pinedale Array**	**90.94**	**39**	P	**P**		**22 22 24.8**	**+0.5**	
	comp=Z,0.6nm,0.7s,baz=270,slow=0.4,SNR=4.4								
	comp=Z,0.6nm,0.7s								
PDAR	**Pinedale Array**	**90.94**	**39**	P	**P**		**22 22 25.1**	**+0.9**	
ULM	**Lac du Bonnet**	**91.99**	**27**	P	**P**		**22 22 28.4**	**-0.3**	
	comp=Z,5.8nm,0.9s,baz=323,slow=8.3,SNR=4.7								
	comp=Z,5.8nm,0.9s								
ULM	**Lac du Bonnet**	**91.99**	**27**	P	**P**		**22 22 28.2**	**-0.5**	
ESDC	**Sonseca Array**	**98.96**	**325**	P	**P**		**22 22 59.5**	**-1.2**	
	comp=Z,0.5nm,0.9s,baz=33,slow=8.5,SNR=2.5								
	comp=Z,0.5nm,0.9s								
QSPA	**South Pole Qui**	**118.49**	**180**	PKP	**PKPdf**		**22 28 05.6**	**-0.5**	
	comp=Z,0.5nm,0.8s,baz=15,slow=2.5,SNR=1.2								
QSPA	**South Pole Qui**	**118.49**	**180**		**PKPdf**		**22 28 05.8**	**-0.3**	

*BJI **17** 22:22:04.7, 14°.53S×168°.26E, h9km, mB5.2/10, mb5.0/54*
*MOS **17** 22:22:04.7±0.8, 14°.86S×167°.86E, h7km, mb5.1/22, Error ellipse: s-maj=11.4km s-min=9.0km az=-33.7*
*IDC **17** 22:22:04.5±0.6, 14°.91S×168°.00E, h0km, mb4.8/19, mbtmp4.7/21, ML4.5/2, MS3.8/40, Error ellipse: s-maj=16.8km s-min=14.1km az=97.0*
*NOU **17** 22:22:07.3, 14°.99S×167°.92E, h6km, MLv5.1/35, Vanuatu Islands*
*NEIC **17** 22:22:07.1±2.6, 15°.02S±0°.02×167°.87E±0°.04, h10km±1km, mb5.1/120, Error ellipse: s-maj=6.7km s-min=2.8km az=67.0*
*GFZ **17** 22:22:08.5±0.3, 15°S±4°×16°8E±°, h10km, M5.3/21, mb5.0/21, Mw4.9/14*
*GCMT **17** 22:22:09.1±0.2, 15°.00S±0°.02×167°.87E±0°.01, h14km, MW4.9/84, Moment Tensor Solution. s31,c39; s84,c119; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr2.29±.13; Mθθ-0.23±.09; Mφφ-2.06±.09; Mrθ0.88±.18; Mφθ0.79±.06; Mφr-0.08±.15; Best double couple: Mo2.47700×10^16^ NP1:φs356.00000°, δ43.00000°, λ116.00000°. NP2: φs143.00000°, δ52.00000°, λ68.00000°. Principal axes: T 2.5700, Plg72.0000°, Azm353.0000°; N -0.1890, Plg17.0000°, Azm157.0000°; P -2.3840, Plg5.0000°, Azm248.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 17 22:22:06.9±0.3, 14°.91S±0°.04×167°.88E±0°.04, h10km, n345, σ1§37/274, mb5.1/138, MS3.9/39, 5C-3D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**0.84**	**230**	P	**Pg**	**22 22 22.6**	**-0.6**
SANVU	**Saraoutou**	**0.84**	**230**	S	**Sb**	**22 22 34.6**	**-0.4**
SANVU	**Saraoutou**	**0.84**	**230**		**Pg**	**22 22 22.0**	**-1.1**
SANVU				Sg	**Sg**	**22 22 31.4**	**-2.7**
SANVU	**Saraoutou**	**0.84**	**230**	P	**Pg**	**22 22 22.6**	**-0.6**
DVP	**Devils Point**	**2.81**	**174**	P	**Pn**	**22 22 52.4**	**+0.4**

DVP	**Devils Point**	**2.81**	**174**	S	**Sn**		**22 23 25.3**	**-0.7**	
RTV	**Rentapao**	**2.91**	**170**	P	**Pn**		**22 22 52.1**	**-1.3**	
MARNC	**Mare, Loyalty**	**6.54**	**179**	P	**Pn**		**22 23 42.9**	**-0.3**	
MARNC	**Mare, Loyalty**	**6.54**	**179**	Pn	**Pn**		**22 23 43.0**	**-0.3**	
KOUNC	**Koumac, New Ca**	**6.57**	**211**	P	**Pn**		**22 23 44.9**	**+1.2**	
KOUNC	**Koumac, New Ca**	**6.57**	**211**		**Pn**		**22 23 43.9**	**+0.3**	
YATNC	**Mamie plateau,**	**7.17**	**187**	P	**Pn**		**22 23 51.3**	**-0.6**	
DZM	**Mont Dzumac**	**7.25**	**191**	Pn	**Pn**		**22 23 52.5**	**-0.6**	
	5.4nm,0.3s,baz=67,slow=18,SNR=32								
DZM				Sn	**Sn**		**22 25 13.4**	**-2.2**	
	4.7nm,0.3s,baz=315,slow=23,SNR=4.3								
DZM				LR	LR		22 25 26.5		
	comp=Z,118nm,21.3s,baz=84,slow=28								
	26nm,0.5s								
DZM				AML	AML				
NOUC	**Port Laguerre**	**7.30**	**192**	P	**Pn**		**22 23 53.8**	**0.0**	
HURO	**Huro Makira**	**7.31**	**306**	P	**Pn**		**22 23 56.8**	**+2.9**	
ONTNC	**Ouen Toro**	**7.48**	**190**	P	**Pn**		**22 23 56.1**	**-0.1**	
ONTNC	**Ouen Toro**	**7.48**	**190**		**Pn**		**22 23 56.3**	**+0.1**	
OUENC	**Ouen Island, N**	**7.53**	**187**	P	**Pn**		**22 23 57.2**	**+0.3**	
OUENC	**Ouen Island, N**	**7.53**	**187**		**Pn**		**22 23 57.9**	**+1.0**	
PINNC	**Pines Island,**	**7.67**	**183**		**Pn**		**22 23 59.3**	**+0.5**	
NGOA	**Tingoa Renbel**	**8.30**	**293**	P	**Pn**		**22 24 08.9**	**+1.4**	
HNR	**Honiara**	**9.47**	**304**	Pn	**Pn**		**22 24 25.2**	**+1.7**	
	7.4nm,0.3s,baz=117,slow=9.0,SNR=2.4								
HNR				Sn	**Sn**		**22 26 11.7**	**+1.6**	
	5.4nm,0.3s,baz=42,slow=18,SNR=2.4								
HNR				LR	LR		22 27 49.2		
	comp=Z,368nm,20.9s,baz=216,slow=36								
	101nm,0.6s								
HNR				AML	AML				
SAVO	**Savo Central**	**9.74**	**305**	P	**Pn**		**22 24 29.9**	**+2.6**	
MSVF	**Nonsavu**	**10.16**	**107**	Pn	**Pn**		**22 24 35.2**	**+2.1**	
	baz=290,slow=11								
MSVF				LR	LR		22 27 27.9		
	comp=Z,639nm,18.7s,baz=303,slow=32								
MSVF	**Nonsavu**	**10.16**	**107**	*i* P	**Pn**		**22 24 35.5**	**+2.4**	
MSVF	**Nonsavu**	**10.16**	**107**		**Pn**		**22 24 37.6**	**+4.5**	
MSVF	**Nonsavu**	**10.16**	**107**	P	Pn		22 24 38.2	+5.1	
	comp=Z,29nm,1.2s								
TATA	**Tatamba Isabel**	**10.22**	**308**	P	**Pn**		**22 24 35.5**	**+1.7**	
EIDS	**Eidsvold**	**18.87**	**234**	P	**Pn**		**22 26 29.4**	**+1.4**	
	comp=Z,36nm,1.0s								
EIDS	**Eidsvold**	**18.87**	**234**	P	**Pn**		**22 26 29.1**	**+1.0**	
	comp=Z,36nm,1.0s								
EIDS	**Eidsvold**	**18.87**	**234**		**Pn**		**22 26 29.7**	**+1.7**	
EIDS	**Eidsvold**	**18.87**	**234**	P	**Pn**		**22 26 29.9**	**+1.9**	
	comp=Z,36nm,1.0s								
PMG	**Port

WB0 Warramunga Arr 32.29 257 P **P** 22 28 34.9 -1.4
WB0 IAmb IAmb 22 28 36.2
comp=Z,15nm,0.7s
WRAB Tennant Creek 32.34 256 P **P** 22 28 35.9 -0.8
WRAB Tennant Creek 32.34 256 *ce*P **P** 22 28 36.3 -0.4
WRAB pmax pmax
comp=Z,12nm,1.3s
WRAB Tennant Creek 32.34 256 P **P** 22 28 34.5 -2.2
WRAB Tennant Creek 32.34 256 P **P** 22 28 35.4 -1.4
comp=Z,16nm,2.1s
WRA Warramunga Arr 32.35 256 P **P** 22 28 35.6 -1.2
comp=Z,8.0nm,0.7s,baz=85,slow=8.9,SNR=70
WRA PcP **PcP** 22 31 23.5 -1.2
comp=Z,2.2nm,1.0s,baz=94,slow=2.4,SNR=6.3
WRA ScP **ScP** 22 35 07.8 -0.9
comp=Z,1.7nm,1.0s,baz=87,slow=2.8,SNR=5.8
comp=Z,8.0nm,0.7s
WRA Warramunga Arr 32.35 256 P **P** 22 28 35.2 -1.6
MOO Moorlands 32.71 209 P **P** 22 28 40.4 +0.7
comp=Z,53nm,1.2s
MOO Moorlands 32.71 209 P **P** 22 28 40.0 +0.3
comp=Z,53nm,1.2s
AS17 Alice Springs 33.08 249 P **P** 22 28 42.7 -0.5
comp=Z,37nm,0.9s
AS17 Alice Springs 33.08 249 P **P** 22 28 42.9 -0.3
comp=Z,37nm,0.9s
AS01 Alice Springs 33.11 250 P **P** 22 28 43.3 -0.2
AS09 Alice Springs 33.13 249 P **P** 22 28 43.6 0.0
comp=Z,59nm,0.8s
AS09 Alice Springs 33.13 249 P **P** 22 28 43.5 -0.2
comp=Z,59nm,0.8s
AS15 Alice Springs 33.14 250 P **P** 22 28 43.3 -0.5
comp=Z,36nm,1.0s
AS15 Alice Springs 33.14 250 P **P** 22 28 43.5 -0.2
comp=Z,36nm,1.0s
AS31 Alice Springs 33.16 250 P **P** 22 28 43.8 0.0
comp=Z,12nm,0.7s
AS31 Alice Springs 33.16 250 P **P** 22 28 43.7 -0.2
comp=Z,12nm,0.7s
AS31 Alice Springs 33.16 250 P **P** 22 28 43.2 -0.7
ASAR Alice Springs 33.16 250 P **P** 22 28 43.3 -0.6
comp=Z,25nm,0.8s,baz=79,slow=9.0,SNR=194
ASAR PcP **PcP** 22 31 25.9 -1.1
comp=Z,1.9nm,0.9s,baz=84,slow=3.5,SNR=5.1
ASAR S **S** 22 34 00.5 -3.1
comp=Z,0.5nm,0.7s,baz=80,slow=16,SNR=5.0
ASAR ScP **ScP** 22 35 11.7 +0.2
comp=Z,1.1nm,0.9s,baz=92,slow=3.0,SNR=6.9
ASAR LR LR 22 41 28.2
comp=Z,699nm,20.2s,baz=86,slow=35
comp=Z,25nm,0.8s
BBOO Buckleboo 33.93 233 P **P** 22 28 50.9 +0.4
comp=Z,85nm,0.8s
BBOO Buckleboo 33.93 233 P **P** 22 28 51.1 +0.7
comp=Z,85nm,0.8s
BBOO Buckleboo 33.93 233 P **P** 22 28 51.5 +1.0
BBOO Buckleboo 33.93 233 P **P** 22 28 49.9 -0.6
BBOO Buckleboo 33.93 233 P **P** 22 28 50.4 -0.1
comp=Z,85nm,0.8s
KDU Kakadu 34.43 269 P **P** 22 28 54.3 -0.7
comp=Z,5.1nm,1.5s
MTN Manton Dam 35.70 269 P **P** 22 29 03.3 -2.7
comp=Z,8.3nm,1.6s
GUMO Guam 36.34 320 LR LR 22 42 28.7
comp=Z,133nm,19.1s,baz=142,slow=34
KNRA Kununurra 37.70 264 P **P** 22 29 23.3 +0.3
comp=Z,13nm,1.2s
KNRA Kununurra 37.70 264 P **P** 22 29 22.8 -0.2
comp=Z,13nm,0.8s
KNRA Kununurra 37.70 264 P **P** 22 29 22.4 -0.6
WRKA Warakurna 38.41 248 P **P** 22 29 28.5 -0.5
comp=Z,17nm,1.1s
WRKA Warakurna 38.41 248 P **P** 22 29 28.6 -0.4
comp=Z,17nm,1.1s
SIJI Sorong 38.76 288 LR LR 22 46 11.5
comp=Z,240nm,18.2s,baz=222,slow=37
SIJI Sorong 38.76 288 P **P** 22 29 34.3 +2.4
comp=Z,20nm,1.2s
FORT Forrest 39.71 240 P **P** 22 29 39.9 +0.2
comp=Z,72nm,0.8s
FORT Forrest 39.71 240 P **P** 22 29 40.4 +0.7
comp=Z,72nm,0.8s
FORT Forrest 39.71 240 P **P** 22 29 39.9 +0.2
FITZ Fitzroy Crossi 40.56 260 P **P** 22 29 46.6 -0.3
comp=Z,5.3nm,0.9s
FITZ Fitzroy Crossi 40.56 260 P **P** 22 29 47.1 +0.2
comp=Z,5.3nm,0.9s
FITZ Fitzroy Crossi 40.56 260 LR LR 22 46 19.9
comp=Z,762nm,18.6s,baz=84,slow=36
FITZ Fitzroy Crossi 40.56 260 P **P** 22 29 47.3 +0.4
FITZ Fitzroy Crossi 40.56 260 P **P** 22 29 46.6 -0.3
FITZ Fitzroy Crossi 40.56 260 P **P** 22 29 47.2 +0.4
comp=Z,5.3nm,0.9s
PPT2 Papeete2 40.88 100 *e*P **P** 22 29 53.1 +3.5
comp=Z,38nm,33.5s
PPT2 *e*S **S** 22 35 54.5 -6.9
comp=Z,85nm,24.8s
PPT2 *e*LQ LQ 22 39 10.3
comp=Z,303nm,28.2s
PPT2 *e*LR LR 22 40 58.4
comp=Z,391nm,29.5s
PPT2 *e*LR LR 22 40 59.0
comp=Z,187nm,31.5s
TBI Tubuai 41.05 108 *e*LQ LQ 22 39 18.7
comp=Z,2μm,30.2s
NLAI Namlea 41.81 282 P **P** 22 29 59.1 +1.8
SOEI Soe 42.86 272 P **P** 22 30 06.3 +0.4
SANI Sanana 43.25 283 P **P** 22 30 12.2 +3.2
comp=Z,21nm,0.9s
BATI Baumata 43.35 271 LR LR 22 47 38.5
comp=Z,145nm,18.2s,baz=139,slow=35
BATI Baumata 43.35 271 P **P** 22 30 13.9 +4.1
comp=Z,33nm,0.9s
KMBL Kambalda 45.01 240 P **P** 22 30 23.0 0.0
comp=Z,19nm,1.4s
KMBL Kambalda 45.01 240 P **P** 22 30 22.9 0.0
comp=Z,19nm,1.4s
BBSI Bau Bau 45.48 277 P P 22 30 31.8 +5.0
comp=Z,42nm,1.2s
MBWA Marble Bar 46.06 255 P **P** 22 30 31.3 -0.1
MBWA IAmb IAmb 22 30 32.6
comp=Z,21nm,0.9s
MEEK Meekatharra 47.26 247 P **P** 22 30 40.7 0.0
comp=Z,32nm,0.9s
MEEK Meekatharra 47.26 247 P **P** 22 30 41.2 +0.5
DAV Davao City (W) 47.28 295 LR LR 22 49 04.1
comp=Z,39nm,20.1s,baz=126,slow=34
LBFI Labuhan Bajo, 47.35 272 P **P** 22 30 43.6 +2.1
KLBR Kellerberrin 48.53 241 P **P** 22 30 49.9 -0.6
comp=Z,27nm,0.8s
NWAO Narrogin (SRO) 49.16 239 LR LR 22 51 35.1
comp=Z,397nm,19.1s,baz=82,slow=36
MORW Morawa 49.72 244 P **P** 22 30 59.8 +0.2
comp=Z,19nm,0.9s
MORW Morawa 49.72 244 P **P** 22 30 58.1 -1.5
MORW IAmb IAmb 22 31 01.4
comp=Z,15nm,0.9s
TWSI Taliwang, Sumb 50.20 271 P **P** 22 31 04.9 +1.4
TAOE Nuku Hiva Isla 51.13 89 *e*LR LR 22 45 41.7
comp=Z,264nm,30.9s
JGF Kuroka 57.96 331 P **P** 22 31 59.3 -0.5
JGF IAmb IAmb 22 32 55.6
comp=Z,54nm,1.9s
JMN Monobe 58.22 327 P **P** 22 32 01.6 -0.1
MJAR Matsushiro Arr 58.34 332 P **P** 22 32 00.8 -1.5
comp=Z,7.5nm,0.9s,baz=167,slow=8.2,SNR=23
MJAR LR LR 22 55 23.8
comp=Z,21nm,20.9s,baz=149,slow=34
comp=Z,7.5nm,0.9s
MJAR Matsushiro Arr 58.34 332 P **P** 22 32 01.7 -0.7
MJAR pmax pmax
comp=Z,9.0nm,1.0s
MJAR Matsushiro Arr 58.34 332 P **P** 22 32 01.7 -0.7
MAJO Matsushiro 58.34 332 *i* P **P** 22 32 02.1 -0.3
MAJO pmax pmax
comp=Z,13nm,0.9s
MAJO Matsushiro 58.34 332 P **P** 22 32 01.7 -0.7
MAJO IAmb IAmb 22 32 02.7
comp=Z,20nm,1.1s
MAJO Matsushiro 58.34 332 P **P** 22 32 01.9 -0.5
comp=Z,18nm,0.9s
MJB9 Matsu-Tunnel 58.34 332 IAmb IAmb 22 32 04.0
comp=Z,18nm,1.1s
JNU Nakatsue 59.41 324 P **P** 22 32 09.0 -0.9
comp=Z,20nm,0.8s,baz=135,slow=6.8,SNR=8.6
comp=Z,20nm,0.8s
JNU Nakatsue 59.41 324 IAmb IAmb 22 33 11.7
comp=Z,14nm,0.7s
LEM Lembang 59.57 271 LR LR 22 58 51.1
comp=Z,42nm,18.3s,baz=180,slow=37
VNDA Vanda 62.70 181 LR LR 22 57 07.7
comp=Z,57nm,18.5s,baz=347,slow=34
SBA Scott Base 62.96 180 P **P** 22 32 37.5 +4.3
comp=Z,8.7nm,0.9s
JKA Kamikawa-asahi 63.11 340 P **P** 22 32 34.9 +0.2
ASAJ Asahikawa 63.11 340 LR LR 22 54 26.1
comp=Z,99nm,21.8s,baz=98,slow=31
ASAJ Asahikawa 63.11 340 P **P** 22 32 34.9 +0.2
ASAJ pmax pmax
comp=Z,209nm,1.9s
KSRS Korea Array 64.22 325 P **P** 22 32 41.4 -0.8
comp=Z,3.3nm,0.8s,baz=131,slow=6.8,SNR=11
comp=Z,3.3nm,0.8s
YSS Yuzhno-Sakhali 65.59 341 *e*P **P** 22 32 51.2 +0.4
YSS pmax pmax
comp=Z,30nm,0.8s
YSS MLR MLR
comp=Z,200nm,19.0s
NJ2 Nanjing 66.22 316 *e*P **P** 22 32 55.8 +0.6
NJ2 pmax pmax
comp=Z,13nm,0.7s
USA0B Ussuriysk Arra 67.31 333 *i* P **P** 22 33 02.8 +0.8
USRK Ussuriysk Ar. 67.31 333 P **P** 22 33 02.5 +0.6
comp=Z,14nm,1.1s,baz=159,slow=5.7,SNR=13
comp=Z,14nm,1.1s
USRK Ussuriysk Ar. 67.31 333 P **P** 22 33 01.6 -0.3
PETK Petropavlovsk- 68.31 353 LR LR 22 59 21.6
comp=Z,55nm,18.7s,baz=148,slow=33
WHN Wuhan 68.50 312 *e*P **P** 22 33 09.8 +0.1
DL2 Dalian 68.80 323 P **P** 22 33 12.9 +1.5
DL2 pmax pmax
comp=Z,22nm,0.8s
TIA Tai'an 69.86 318 P **P** 22 33 17.3 -0.8
TIA pmax pmax
comp=Z,13nm,0.9s
CN2 Changchun 70.10 329 *e*P **P** 22 33 18.8 -0.6
CN2 pmax pmax
comp=Z,10.0nm,0.9s
BNX BinXian 70.58 331 ⇓P **P** 22 33 22.3 0.0
BNX pmax pmax
comp=Z,16nm,0.8s
KLR Kul'dur 71.41 336 *i* P **P** 22 33 27.7 +0.5
KLR pmax pmax
comp=Z,26nm,1.7s
ENH Enshi 71.93 309 IAmb IAmb 22 33 31.4
comp=Z,18nm,1.0s
ENH Enshi 71.93 309 P **P** 22 33 30.8 -0.1
comp=Z,19nm,1.2s
LYN LuoYang 72.02 314 P **P** 22 33 31.3 0.0
LYN pmax pmax
comp=Z,28nm,0.9s
HNS HongShan 72.13 318 ⇑P **P** 22 33 32.1 +0.3
HNS pmax pmax
comp=Z,13nm,1.1s
BJI2 Beijing 72.76 321 P **P** 22 33 35.8 +0.2
BJI2 pmax pmax
comp=Z,8.0nm,0.8s
XAN Xi'an 74.24 312 ⇓P **P** 22 33 44.1 -0.4
XAN pmax pmax
comp=Z,13nm,0.9s
KMI2 Kunming 74.90 302 P **P** 22 33 50.3 +1.6
KMI2 pmax pmax
comp=Z,14nm,1.2s
QSPA South Pole Qui 75.12 180 P **P** 22 33 48.2 -1.0
comp=Z,3.8nm,0.8s,baz=354,slow=2.5,SNR=12
QSPA LR LR 23 07 12.8
comp=Z,22nm,18.1s,baz=50,slow=36
comp=Z,3.8nm,0.8s
QSPA South Pole Qui 75.12 180 P **P** 22 33 47.8 -1.3
XLT XiLinHaoTe 75.19 324 *e*P **P** 22 33 50.5 +0.7
XLT pP pwP 22 33 56.3 +0.7
XLT pmax pmax
comp=Z,12nm,0.7s
MA2 Magadan 75.52 351 LR LR 23 01 43.5
comp=Z,38nm,20.4s,baz=200,slow=32
CM31 Chiang Mai Arr 75.56 294 P **P** 22 33 52.6 +0.3
CMAR Chiang Mai Arr 75.56 294 P **P** 22 33 53.0 +0.7
comp=Z,1.3nm,0.3s,baz=114,slow=4.0,SNR=21
comp=Z,1.3nm,0.3s
CMAR Chiang Mai Arr 75.56 294 P **P** 22 33 52.3 -0.1
CMAR Chiang Mai Arr 75.56 294 P **P** 22 33 52.3 -0.1
CHTO Chiang Mai 75.69 294 P **P** 22 33 53.1 0.0
CHTO pmax pmax
comp=Z,8.0nm,1.1s
CHTO Chiang Mai 75.69 294 P **P** 22 33 53.1 0.0
CHTO Chiang Mai 75.69 294 P **P** 22 33 54.2 +1.1
CHTO Chiang Mai 75.69 294 P **P** 22 33 54.2 +1.1
comp=Z,8.2nm,1.3s
HHC Hu-ho-hao-te 76.10 319 *e*P **P** 22 33 55.5 +0.4
HHC pmax pmax
comp=Z,10.0nm,0.7s
HHC pmax pmax
comp=Z,140nm,5.1s
CD2 Chengdu 76.58 307 *e*P **P** 22 33 58.0 0.0
HIA Hailar 76.74 330 *i* P **P** 22 33 58.6 +0.2
HIA pmax pmax
comp=Z,5.0nm,0.9s
NPW Naypyitaw 78.50 294 P **P** 22 34 10.2 +1.3
comp=Z,21nm,1.0s
SEY Seymchan 78.53 353 *i* P **P** 22 34 07.9 -0.2
SEY pmax pmax
comp=Z,8.0nm,1.0s
LZH Lanzhou 78.88 312 *e*P **P** 22 34 12.0 +1.1
LZH sP PcP 22 34 22.8 +3.3
LZH pmax pmax
comp=Z,23nm,1.1s
LZDM Lanzhou Array 78.92 312 P **P** 22 34 11.9 +0.6
comp=Z,1.3nm,0.4s,baz=108,slow=9.5,SNR=5.3
comp=Z,1.3nm,0.4s
KDAK Kodiak Island 79.43 20 LR LR 23 03 21.1
comp=Z,66nm,19.4s,baz=213,slow=31
MORE Moreh 81.65 298 P **P** 22 34 23.6 -2.2
MAW Mawson 81.94 202 LR LR 23 07 11.3
comp=Z,48nm,19.1s,baz=93,slow=33
YAK Yakutsk 82.37 343 LR LR 23 10 59.7
comp=Z,51nm,18.4s,baz=134,slow=36
YAK Yakutsk 82.37 343 *e*P **P** 22 34 26.8 -2.0
YAK *e* 22 34 31.5
YAK *e* 22 37 35.6
YAK *e*PPP PPP 22 39 28.6
YAK *e*S **S** 22 44 41.3 -3.3
YAK *e*SS **SS** 22 50 01.1 -4.6
YAK *e*SSS SSS 22 53 37.8
YAK pmax pmax
comp=Z,27nm,1.0s
YAK pmax pmax
comp=N,7.0nm,1.1s
YAK pmax pmax
comp=E,6.0nm,1.3s
YAK pmax pmax
comp=Z,178nm,4.4s
YAK pmax pmax
comp=N,72nm,3.5s
YAK pmax pmax
comp=E,166nm,4.2s
YAK smax smax
comp=N,57nm,2.3s
YAK smax smax
comp=E,120nm,3.8s
YAK Yakutsk 82.37 343 P **P** 22 34 27.9 -0.9
YAK Yakutsk 82.37 343 P **P** 22 34 27.8 -0.9
comp=Z,36nm,1.1s
ULN Ulaanbaatar 82.63 324 *ce*P **P** 22 34 30.2 -0.5
ULN pmax pmax
comp=Z,28nm,1.3s
ULN Ulaanbaatar 82.63 324 P **P** 22 34 30.1 -0.6
ULN Ulaanbaatar 82.63 324 P **P** 22 34 30.9 +0.2
comp=Z,24nm,1.1s
BILL Bilibino 82.73 359 *ce*P **P** 22 34 29.6 -0.9
BILL pmax pmax
comp=Z,16nm,1.7s
L20K Farewell, AK 82.75 17 IAmb IAmb 22 34 31.3
comp=Z,19nm,1.0s
SUA Susitna One 82.88 19 IAmb IAmb 22 34 31.5
comp=Z,15nm,1.0s
RC01 Rabbit Creek A 82.91 19 P **P** 22 34 30.5 -1.1
SONM Songino Array 82.99 323 P **P** 22 34 32.3 -0.2
comp=Z,11nm,1.1s,baz=136,slow=5.2,SNR=29
comp=Z,11nm,1.1s
SONM Songino Array 82.99 323 P **P** 22 34 32.1 -0.4
SONM pmax pmax
comp=Z,16nm,1.2s
SONM Songino Array 82.99 323 P **P** 22 34 32.1 -0.4
SONM IAmb IAmb 22 34 33.7
comp=Z,16nm,1.2s
GTA2 Gaotai 83.29 314 P **P** 22 34 34.8 +0.6
GTA2 pP pP 22 34 37.1 +0.3
GTA2 pmax pmax
comp=Z,18nm,1.0s
M22K Willow 83.29 19 P **P** 22 34 31.8 -1.7
PMR Palmer 83.48 19 P **P** 22 34 33.5 -1.0
PMR pmax pmax
comp=Z,52nm,1.7s
PMR Palmer 83.48 19 P **P** 22 34 33.5 -1.0
CAST Castle Rocks 84.00 17 P **P** 22 34 35.6 -1.6
J20K Nowinta River 84.04 16 IAmb IAmb 22 34 37.7
comp=Z,13nm,1.1s
SHL Shillong 84.17 298 P **P** 22 34 39.4 +0.3
SCM Sheep Creek Mo 84.24 20 P **P** 22 34 37.7 -0.8
SCM pmax pmax
comp=Z,20nm,1.0s
SCM Sheep Creek Mo 84.24 20 P **P** 22 34 37.7 -0.8
O02D Mt. Diablo Mer 84.43 46 P **P** 22 34 41.4 +1.3
TRF Thorofare Moun 84.53 18 P **P** 22 34 38.5 -1.6
H19K Roundabout Mou 84.57 14 IAmb IAmb 22 34 41.5
comp=Z,9.0nm,0.9s
RND Reindeer 84.92 18 P **P** 22 34 40.8 -1.2
RND pmax pmax
comp=Z,22nm,1.0s
RND Reindeer 84.92 18 P **P** 22 34 40.8 -1.2
YBH Yreka Blue Hor 85.13 45 LR LR 23 03 33.9
comp=Z,51nm,21.5s,baz=269,slow=29
GLB Gilahina Butte 85.14 21 P **P** 22 34 42.2 -0.9
GLB IAmb IAmb 22 34 43.2
comp=Z,9.0nm,0.9s
MCK McKinley 85.15 18 IAmb IAmb 22 34 43.4
comp=Z,17nm,1.0s
E18K Tukpahlearik C 85.28 12 IAmb IAmb 22 34 44.7
comp=Z,15nm,0.9s
F19K Shaleruckik Mo 85.36 13 IAmb IAmb 22 34 44.7
comp=Z,18nm,0.9s
I21K Tanana 85.40 16 P **P** 22 34 44.0 -0.1
H21K Melozitna Rive 85.57 15 IAmb IAmb 22 34 46.0
comp=Z,13nm,1.0s
IMAR Indian Mountai 85.59 15 P **P** 22 34 44.0 -1.1
MLY Manley 85.62 16 IAmb IAmb 22 34 44.8
comp=Z,16nm,1.5s
BARN Barnard Glacie 85.65 22 IAmb IAmb 22 34 46.7
comp=Z,12nm,1.0s
NEA2 Nenana 85.75 17 IAmb IAmb 22 34 46.2
comp=Z,15nm,1.5s
F20K Avaraart Lake 85.99 13 IAmb IAmb 22 34 48.0
comp=Z,16nm,1.0s
ZAK Zakamensk 86.04 325 *e*P **P** 22 34 47.2 -0.6
ZAK pmax pmax
comp=Z,13nm,1.3s
G21K Allakaket 86.08 15 IAmb IAmb 22 34 48.3
comp=Z,16nm,0.9s
H22K Ishtalitna Cre 86.12 16 IAmb IAmb 22 34 48.7
comp=Z,11nm,1.0s
K24K Donnelly Dome 86.16 19 P **P** 22 34 47.5 -0.6
K24K IAmb IAmb 22 34 47.9
comp=Z,11nm,0.9s
HDA Harding Lake 86.24 18 IAmb IAmb 22 34 48.4
comp=Z,19nm,1.0s
L26K Log Cabin Wild 86.39 20 IAmb IAmb 22 37 59.8
comp=Z,25nm,1.8s
RIDG Independent Ri 86.40 19 IAmb IAmb 22 34 59.9
comp=Z,13nm,1.1s
ESJX Sierra Juarez 86.48 56 IAmb IAmb 22 35 19.3
comp=Z,23nm,1.8s
IL31 86.52 18 IAmb IAmb 22 34 49.3
comp=Z,10nm,0.8s
ILAR Eielson Array 86.52 18 P **P** 22 34 47.9 -1.9
comp=Z,8.6nm,0.8s,baz=236,slow=5.5,SNR=76
ILAR LR LR 23 06 46.7
comp=Z,58nm,21.7s,baz=256,slow=31
comp=Z,8.6nm,0.8s
ILAR Eielson Array 86.52 18 P **P** 22 34 47.3 -2.5
CLC China Lake 86.52 52 IAmb IAmb 22 34 52.4
comp=Z,27nm,1.6s
H23K Yukon River 86.55 16 IAmb IAmb 22 34 51.3
comp=Z,30nm,2.0s
DOT Dot Lake 86.59 19 IAmb IAmb 22 34 50.4
comp=Z,12nm,1.1s
POKR Poker Plat Res 86.61 17 IAmb IAmb 22 37 59.7
comp=Z,13nm,1.4s
PFO Pinyon Flats O 86.63 54 LR LR 23 04 54.4
comp=Z,91nm,20.4s,baz=234,slow=30
PFO Pinyon Flats O 86.63 54 *i* P **P** 22 34 54.3 +3.1
PFO pmax pmax
comp=Z,4.0nm,1.1s
F21K Alatna River 86.65 14 IAmb IAmb 22 34 51.0
comp=Z,9.8nm,0.8s
MPMC Manual Prospec 86.69 52 IAmb IAmb 22 34 53.2
comp=Z,17nm,1.7s
J25K Salcha River, 86.86 18 IAmb IAmb 22 34 52.1
comp=Z,9.8nm,1.0s
NVAR Mina Array Bea 86.95 49 P **P** 22 34 52.5 -0.3
comp=Z,2.7nm,0.8s,baz=230,slow=8.2,SNR=9.3
NVAR LR LR 23 05 29.4
comp=Z,67nm,22.0s,baz=286,slow=30
comp=Z,2.7nm,0.8s
BELC Belle Mtn. Jos 87.12 54 P **P** 22 34 54.4 +0.8
G24K Hadweenzic Riv 87.77 16 IAmb IAmb 22 34 57.7
comp=Z,9.6nm,1.0s
IRM Iron Mountain 87.84 54 P **P** 22 34 57.5 +0.6
IRM IAmb IAmb 22 35 17.2
comp=Z,11nm,1.5s
I26K Coal Creek Min 88.02 18 IAmb IAmb 22 34 58.1
comp=Z,19nm,1.6s
BMN Battle Mountai 88.45 47 IAmb IAmb 22 35 01.4
comp=Z,9.4nm,1.1s
SHPR Sheep Range 88.61 52 P **P** 22 35 01.1 +0.4
SHPR IAmb IAmb 22 35 03.4
comp=Z,12nm,1.2s
D23K Nanushuk River 88.67 14 IAmb IAmb 22 35 01.8
comp=Z,10nm,0.9s
LPIG La Paz 88.75 65 LR LR 23 05 18.2
comp=Z,37nm,21.1s,baz=216,slow=29
DLBC Dease Lake 88.83 28 LR LR 23 05 44.4
comp=Z,53nm,21.9s,baz=296,slow=30
PRN Pahroc Range 89.00 51 P **P** 22 35 03.0 +0.5
PRN IAmb IAmb 22 35 05.2
comp=Z,11nm,1.0s
G08A Pilot Rock 89.05 43 IAmb IAmb 22 37 19.2
comp=Z,6.4nm,0.7s
W13A Hualapai Mount 89.13 53 IAmb IAmb 22 35 05.9
comp=Z,9.7nm,1.2s
PALK Pallekele 89.13 278 LR LR 23 14 59.4
comp=Z,46nm,21.1s,baz=118,slow=36
EVN Everest 89.22 299 P **P** 22 35 03.7 -0.6
EVN IAmb IAmb 22 35 05.1
comp=Z,14nm,0.9s
EVN Everest 89.22 299 P **P** 22 35 04.3 0.0
comp=Z,19nm,1.1s
C24K Franklin Bluff 89.70 14 IAmb IAmb 22 35 06.6
comp=Z,16nm,1.1s
ELIB Princess Elisa 90.14 190 *d*P **P** 22 35 04.7 -2.5
comp=Z,1.2nm,1.0s
LCMT Little Creek M 90.23 52 IAmb IAmb 22 35 10.8
comp=Z,9.2nm,1.2s
KNB Kanab 90.55 52 IAmb IAmb 22 35 13.3
comp=Z,17nm,1.4s
C26K Camden Bay 90.75 15 IAmb IAmb 22 35 13.2
comp=Z,9.7nm,0.8s
U15A North Rim 90.78 53 IAmb IAmb 22 35 13.8
comp=Z,14nm,1.3s
PLID Pearl Lake 90.93 43 IAmb IAmb 22 35 12.7
comp=Z,10nm,1.2s
NEW Newport 91.32 40 LR LR 23 11 11.2
comp=Z,28nm,18.8s,baz=272,slow=32
HLID Hailey 91.49 45 P **P** 22 35 15.4 +1.4
INK Inuvik 92.87 19 LR LR 23 13 58.0
comp=Z,55nm,18.3s,baz=341,slow=34
WMQ Urumqi 93.27 314 *e*P **P** 22 35 22.0 -0.1
WMQ pmax pmax
comp=Z,12nm,1.3s
PDAR Pinedale Array 94.64 47 P **P** 22 35 28.6 0.0
comp=Z,0.6nm,0.8s,baz=262,slow=4.1,SNR=3.8
PDAR LR LR 23 19 03.8
comp=Z,36nm,18.4s,baz=246,slow=36
comp=Z,0.6nm,0.8s
PDAR Pinedale Array 94.64 47 P **P** 22 35 27.8 -0.8
ANMO Albuquerque 94.92 55 LR LR 23 09 43.5
comp=Z,61nm,21.6s,baz=251,slow=30
TXAR Lajitas Array 95.85 61 P **P** 22 35 34.4 +0.1
comp=Z,0.4nm,0.7s,baz=218,slow=4.8,SNR=5.4
TXAR LR LR 23 12 47.9
comp=Z,29nm,18.2s,baz=221,slow=32

	comp=Z,0.4nm,0.7s								
TXAR	**Lajitas Array**		95.85	61	P		P	22 35 33.5	-0.8
TXAR	**Lajitas Array**		95.85	61	P		P	22 35 33.5	-0.8
YKA	**Yellowknife Ar**		97.44	27	P		P	22 35 38.6	-1.9
	comp=Z,4.1nm,0.8s,baz=255,slow=4.6,SNR=14								
YKA					LR		LR	23 11 05.2	
	comp=Z,36nm,20.8s,baz=282,slow=30								
	comp=Z,4.1nm,0.8s								
YKA	**Yellowknife Ar**		97.44	27	P		P	22 35 38.4	-2.2
MKAR	**Makanchi Array**		97.74	316	P		P	22 35 42.1	-0.2
	comp=Z,6.6nm,0.8s,baz=97,slow=6.1,SNR=52								
	comp=Z,6.6nm,0.8s								
MKAR	**Makanchi Array**		97.74	316	P		P	22 35 42.0	-0.4
ZAA0	**Zalesovo Array**		97.88	324	IAmb		IAmb	22 35 42.4	
	comp=Z,5.7nm,0.9s								
ZALV	**Zalesovo Beam**		97.88	324	P		P	22 35 41.1	-1.7
	comp=Z,4.0nm,0.8s,baz=106,slow=4.9,SNR=16								
ZALV					LR		LR	23 20 21.4	
	comp=Z,11nm,19.5s,baz=68,slow=36								
	comp=Z,4.0nm,0.8s								
ZALV	**Zalesovo Beam**		97.88	324	*e*P		P	22 35 41.5	-1.3
ZALV					pmax		pmax		
	comp=Z,4.0nm,0.8s								
MAKZ	**Makanchi**		97.95	316	P		P	22 35 42.8	-0.5
MAKZ					pmax		pmax		
	comp=Z,9.0nm,1.1s								
MAKZ	**Makanchi**		97.95	316	P		P	22 35 42.8	-0.5
MAKZ	**Makanchi**		97.95	316	P		P	22 35 43.3	0.0
	comp=Z,9.9nm,1.2s								
NRIK	**Noril'sk**		100.45	339	*i* P		Pdif	22 35 53.2	-0.7
NRIK					pmax		pmax		
	comp=Z,4.0nm,1.1s								
KURK	**Kurchatov**		100.92	320	*i* P		Pdif	22 35 56.0	-0.4
KURK					pmax		pmax		
	comp=Z,2.0nm,1.1s								
KURBB	**Kurchatov Arra**		100.96	320	P		Pdif	22 35 55.7	-0.9
	comp=Z,0.5nm,0.8s,baz=98,slow=5.3,SNR=3.7								
OBN	**Obninsk**		125.16	328‖	*e*PKIKP		PKiKP	22 41 10.2	+2.3
OBN					*e*			22 42 56.8	
OBN					pmax		pmax		
	comp=Z,4.0nm,0.9s								
OBN					MLR		MLR		
	comp=Z,31nm,12.0s								
KBZ	**Khabaz**		125.30	313	PKP		PKPdf	22 41 08.5	+0.4
	comp=Z,1.5nm,0.8s,baz=90,slow=7.1,SNR=1.8								
KIV	**Kislovodsk**		125.39	314	PKIKP		PKPdf	22 41 09.0	+0.5
AKBB	**Malin Array Si**		131.21	326	PKP		PKPdf	22 41 18.1	-1.1
AK01	**Malin Array Si**		131.22	326	PKP		PKPdf	22 41 17.5	-1.8
KIEV	**Kiev**		131.22	326	PKP		PKPdf	22 41 18.0	-1.3
LUBAR	**Lubar, Ukraine**		132.43	326	PKP		PKPdf	22 41 20.4	-1.2
CLL	**Collm**		138.46	336	*e*PKIKP		PKPdf	22 41 34.0	+1.2
CLL	**Collm**		138.46	336	*e*PKPdf		PKPdf	22 41 34.0	+1.2
CLL					LV			23 57 00.0	
GERES	**GERESS Array B**		140.07	333	PKhKP		PKPpre	22 41 30.9	
	comp=Z,0.6nm,0.7s,baz=127,slow=1.5,SNR=5.2								
ABTA	**Abfaltersbach**		142.18	332	*i* PKP		PKPdf	22 41 39.4	-0.4
	comp=Z,3.5nm,0.7s								
MOTA	**Moosalm**		142.34	334	*e*PKP		PKPpre	22 41 35.9	
	comp=Z,7.3nm,1.1s								
FETA	**Feichten**		142.75	334	*i* PKP		PKPpre	22 41 37.4	
	comp=Z,5.6nm,0.9s								
FUORN	**Ofenpass-Fuorn**		143.26	334			PKPbc	22 41 39.0	+0.1
INTR	**Introdacqua**		144.87	325			PKPab	22 41 42.9	-0.9
AQU	**L'Aquila**		144.91	326	PKIKP		PKPab	22 41 42.9	-0.9
BNI	**Bardonecchia**		146.00	336	PKP2		PKPdf	22 41 47.5	+0.9
ORIF	**Oris-en-Rattie**		146.43	337	PKP2		PKPbc	22 41 48.8	+0.2
SSB	**Saint Sauveur**		146.61	338	PKP2		PKPbc	22 41 49.2	+0.2
RAFF	**Raffo Rosso**		147.64	318			PKPbc	22 41 52.0	-0.1
MTLF	**Montolieu**		149.12	339	PKP2		PKPbc	22 41 55.0	-0.8
KEST	**Kesra**		151.72	321	PKPbc		PKPbc	22 42 00.9	-1.4
	comp=Z,4.8nm,0.7s,baz=51,slow=2.9,SNR=6.3								
ESDC	**Sonseca Array**		154.31	345	PKPbc		PKPbc	22 42 06.3	-1.6
	comp=Z,0.7nm,0.9s,baz=14,slow=4.1,SNR=4.7								
ESDC	**Sonseca Array**		154.31	345	PKPbc		PKPbc	22 42 06.0	-1.9

TAP ***17*** *22:28:37.0, 24.82N×122.35E, h14km, ML3.9, C*
JMA ***17*** *22:28:37.2±0.1, 25.1°N×122.4E±0.5, h45km±3km, MV2.9/10, NW OFF ISHIGAKIJIMA IS*

ISC 17 22:28:34.2±1.1, 24.82N±0.02×122.51E±0.02, h8km±9km, n145, σ0.88/270, 1C-2D, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
EOS2	**EOS2**	0.47	212	*i* P		Pb	22 28 45.7	+1.0
EOS2				*e*S		Sb	22 28 52.3	+0.4
TWB1	**Santiao Chiao**	0.51	291	*i* P		Pb	22 28 45.1	-0.3
TWB1				*i* S		Sg	22 28 50.4	-0.3
EGS		0.52	273	⇓*i* P		Pg	22 28 45.2	-0.5
EGS				S		Sg	22 28 51.1	-0.1
JYNG	**Yonagunijimaku**	0.54	133	*i* P		Pn	22 28 48.9	+0.6
JYNG				S		Sn	22 28 57.9	+0.4
EOS3	**EOS3**	0.56	198	*i* P		Pn	22 28 47.7	-0.6
EOS3				*i* S		Sn	22 28 57.0	-0.8
YOJ	**Yonaguni jima**	0.58	128	P		Pn	22 28 49.8	+1.0
YOJ	**Yonaguni jima**	0.58	128	S		Sn	22 28 58.6	+0.1
YOJ	**Yonaguni jima**	0.58	128	*i* P		Pn	22 28 49.8	+1.0
YOJ				*e*S		Sn	22 28 58.7	+0.1
YOJ	**Yonaguni jima**	0.58	128	*e*P		Pn	22 28 49.6	+0.8
YOJ				*e*S		Sn	22 28 58.0	-0.5
NTC	**Toucheng**	0.62	273	*i* P		Pb	22 28 47.2	-0.1
NTC				S		Sg	22 28 54.5	+0.3
SXI1	**Grass Mountain**	0.63	295	*i* P		Pb	22 28 47.9	+0.2
SXI1				*i* S		Sg	22 28 55.0	+0.2
TWC	**Suao**	0.64	251	⇓*i* P		Pg	22 28 46.7	+0.2
TWC				S		Sg	22 28 54.0	-0.8
TIPB	**Shuangxi**	0.64	284	*i* P		Pb	22 28 47.5	-0.1
TIPB				*i* S		Sg	22 28 54.4	-0.5
ESAO	**Su ao**	0.65	248	*i* P		Pb	22 28 47.4	-0.5
ESAO				*i* S		Sg	22 28 54.7	-0.6
ILA	**Ilan**	0.69	265	*i* P		Pg	22 28 47.8	+0.2
ILA				*i* S		Sg	22 28 56.8	+0.2
NWF	**Wu-fen Shan**	0.70	291	*i* P		Pb	22 28 49.2	+0.4
NWF				*i* S		Sg	22 28 57.2	+0.2
WFSB	**Wu-fen Shan**	0.70	291	*i* P		Pb	22 28 49.4	+0.7
WFSB				S		Sg	22 28 56.8	-0.2
EOS4	**EOS4**	0.72	194	*i* P		Pn	22 28 50.9	+0.6
EOS4				*i* S		Sn	22 29 00.7	-0.7
TNOU	**National Taiwa**	0.74	296	*i* P		Pb	22 28 49.8	+0.4
TNOU				*i* S		Sg	22 28 58.0	-0.2
NDS	**Dongshan**	0.74	256	*i* P		Pg	22 28 48.9	+0.3
NDS				*i* S		Sg	22 28 57.5	-0.8
EWUT	**Wuta**	0.76	241	*i* P		Pb	22 28 49.5	-0.2
EWUT				*i* S		Sg	22 28 59.0	+0.1
TWE	**Neicheng**	0.77	263	*i* P		Pg	22 28 49.3	+0.2
TWE				*i* S		Sg	22 28 58.5	-0.7
ENA	**Nanau**	0.80	241	*i* P		Pg	22 28 50.0	+0.4
ENA				*i* S		Sg	22 28 59.0	-1.1
FUSB	**Fushanzhiwuyua**	0.84	266	*i* P		Pg	22 28 50.6	+0.3
FUSB				*i* S		Sg	22 29 01.1	-0.2
TWA	**Mucha**	0.85	281	*i* P		Pn	22 28 52.0	-0.6
TWA				S		Sg	22 29 02.2	+0.4
EAHA	**Aohua**	0.85	235	*i* P		Pb	22 28 51.3	0.0
EAHA				S		Sg	22 29 01.2	-0.5
NWRT	**Kuosheng**	0.86	296	*i* P		Pn	22 28 51.9	-0.7
NWRT				*i* S		Sg	22 29 02.2	+0.3
ENTT	**Nioudou**	0.88	258	*i* P		Pg	22 28 51.3	+0.2
ENTT				*i* S		Sg	22 29 02.4	-0.1
PCYT	**Pengchaiyu**	0.90	334	*i* P		Pn	22 28 52.9	-0.2
PCYT				*e*S		Sn	22 29 06.9	+0.6
NHDH	**Xindian Distri**	0.90	279	*i* P		Pn	22 28 52.8	+0.5
NHDH				*i* S		Sg	22 29 02.4	-0.7
YM08	**YM08**	0.91	294	*i* P		Pb	22 28 52.4	+0.2
YM08				*i* S		Sg	22 29 03.3	-0.2
YM01	**YM01**	0.91	291	*i* P		Pn	22 28 52.7	-0.7
YM01				*i* S		Sg	22 29 03.5	-0.1
NWLT	**Wulai**	0.92	267	*i* P		Pb	22 28 52.2	-0.1
NWLT				*i* S		Sg	22 29 02.8	-0.9
NDT	**Datong Townshi**	0.93	257	*i* P		Pb	22 28 52.7	0.0
NDT				*i* S		Sg	22 29 04.0	-0.3
TAP	**Taipei**	0.94	284	*i* P		Pn	22 28 53.6	0.0
TAP				*i* S		Sg	22 29 04.7	+0.4
LATG	**Datong**	0.94	252	*i* P		Pg	22 28 52.5	+0.3
LATG				*i* S		Sg	22 29 04.0	-0.4
ZUZH	**Zhuzihu**	0.94	291	*i* P		Pb	22 28 52.8	0.0
ZUZH				*i* S		Sg	22 29 04.4	-0.1
TATO	**Taipei**	0.94	280	P		Pb	22 28 53.0	+0.2
TATO	**Taipei**	0.94	280	S		Sg	22 29 04.1	-0.4
TATO	**Taipei**	0.94	280	*i* P		Pb	22 28 52.5	-0.2
TATO				*i* S		Sg	22 29 04.3	-0.1
TWY	**Chenhua**	0.94	299	*i* P		Pn	22 28 53.4	-0.4
TWY				*i* S		Sb	22 29 05.6	+0.2
ANP	**Anpu**	0.97	292	*i* P		Pg	22 28 52.8	0.0
ANP				*e*S		Sg	22 29 05.9	+0.5
NTST	**Danshui**	1.02	290	*e*P		Pn	22 28 54.6	-0.2
NTST				*e*S		Sg	22 29 06.9	-0.2
TWS1	**Kuangyinshan**	1.03	286	*i* P		Pn	22 28 55.2	+0.3
TWS1				*i* S		Sg	22 29 07.5	+0.2
YHNB	**Yeheng**	1.04	262	P		Pb	22 28 54.5	-0.1
YHNB	**Yeheng**	1.04	262	S		Sg	22 29 07.0	-0.8
YHNB	**Yeheng**	1.04	262	*i* P		Pg	22 28 54.2	0.0
YHNB				S		Sg	22 29 06.5	-1.2
ETL	**Fush Village**	1.04	231	*i* P		Pb	22 28 54.6	0.0
ETL				S		Sg	22 29 08.3	+0.6
NACB	**Ninganchiao**	1.05	232	P		Pb	22 28 54.6	-0.1
NACB	**Ninganchiao**	1.05	232	S		Sg	22 29 07.4	-0.7
NACB	**Ninganchiao**	1.05	232	*i* P		Pb	22 28 54.7	-0.1
NACB				S		Sg	22 29 06.8	-1.3
NSK	**Sanguang**	1.05	262	*i* P		Pg	22 28 54.3	-0.2
NSK				*i* S		Sg	22 29 06.5	-1.7
NNSB	**Datong**	1.10	249	*i* P		Pg	22 28 55.1	-0.2
NNSB				*i* S		Sg	22 29 08.9	-0.7
NNSH	**Datong**	1.10	249	*i* P		Pb	22 28 55.5	0.0
NNSH				*i* S		Sg	22 29 08.9	-0.6
NNS	**Nan Shan**	1.10	250	*i* P		Pg	22 28 55.0	-0.4
NNS				*i* S		Sg	22 29 09.3	-0.4
TWD	**Chiawan**	1.11	229	*i* P		Pn	22 28 56.3	+0.2
TWD				*i* S		Sg	22 29 10.5	+0.5
NTY	**Taoyuan**	1.11	279	*e*P		Pn	22 28 57.0	+0.9
NTY				*e*S		Sg	22 29 09.9	-0.2
ETLH	**Xiulin Townshi**	1.12	237	*i* P		Pn	22 28 56.2	-0.1
ETLH				*i* S		Sg	22 29 09.9	-0.3
HWA	**Hwalien**	1.18	225	*e*P		Pn	22 28 56.8	-0.2
HWA				*e*S		Sn	22 29 15.1	+1.9
NCU	**National Centr**	1.21	277	*e*P		Pg	22 28 57.8	+0.4
NCU				*e*S		Sb	22 29 13.1	0.0
KSHI	**Guanxi Townshi**	1.21	268	*i* P		Pg	22 28 58.7	+1.2
KSHI				S		Sb	22 29 13.2	-0.1
IRIF	**Iriomote-Funau**	1.21	113	P		Pn	22 28 58.7	+1.2
ETM	**Tongmen**	1.26	228	*i* P		Pg	22 28 58.8	+0.4
ETM				*e*S		Sn	22 29 16.7	+1.4
TEYL	**Yanliau Villag**	1.26	221	*e*P		Pg	22 29 00.4	+1.9
TEYL				*e*S		Sn	22 29 16.2	+0.9
LXIB	**Xiulin Townshi**	1.28	232	*i* P		Pb	22 28 58.7	0.0
LXIB				*e*S		Sb	22 29 14.9	-0.4
NFF	**Wufeng Townshi**	1.28	262	*i* P		Pg	22 28 59.6	+0.8
NFF				*i* S		Sb	22 29 15.1	-0.1
FUSS	**Fushou**	1.29	244	*i* P		Pg	22 28 59.1	+0.2
FUSS				*i* S		Sb	22 29 14.7	-0.9
NJD	**Zhudong**	1.29	266	*e*P		Pg	22 29 01.5	+2.5
NJD				*e*S		Sb	22 29 16.1	+0.5
WHF	**Hehuan Shan**	1.32	239	*i* P		Pg	22 28 59.8	+0.2
WHF				*i* S		Sb	22 29 16.0	-0.8
TWT	**Tachien**	1.34	245	*i* P		Pg	22 29 00.5	+0.6
TWT				*i* S		Sg	22 29 17.9	+0.6
SHUL	**Shoufeng**	1.34	220	*i* P		Pg	22 29 01.0	+1.0
SHUL				*e*S		Sg	22 29 19.6	+2.1
TDCB	**Techi**	1.35	246	*i* P		Pg	22 29 00.3	+0.1
TDCB				*i* S		Sb	22 29 16.7	-0.8
LIOB	**Emei**	1.37	263	*e*P		Pg	22 29 01.4	+0.9
LIOB				*e*S		Sb	22 29 18.1	+0.3
NSTT	**Nanjuang**	1.38	262	*e*P		Pg	22 29 01.9	+1.1
NSTT				*e*S		Sg	22 29 19.2	+0.4
SBCB	**Hsinchu**	1.38	269	*e*P		Pg	22 29 01.2	+0.4
SBCB				S		Sn	22 29 17.3	-1.1
HSN	**Hsinchu**	1.40	269	*e*P		Pg	22 29 01.4	+0.3
HSN				*e*S		Sn	22 29 17.3	-1.4
ESL	**Shilin**	1.40	225	*i* P		Pg	22 29 02.2	+1.0
ESL				*e*S		Sb	22 29 19.3	+0.5
HATJ	**Hateruma jima**	1.41	123	*e*S		Sg	22 29 19.3	-0.2
JKRS	**Kuro-shima**	1.49	113	*e*P		Pg	22 29 03.0	+0.3
OWD	**Renai**	1.49	235	*i* P		Pb	22 29 02.3	0.0
OWD				S		Sn	22 29 21.5	+0.3
WARBT	**Fenglin Townsh**	1.50	223	*i* P		Pb	22 29 02.5	+0.1
WARBT				*e*S		Sg	22 29 22.7	+0.1
WUSB	**Renai**	1.51	237	*i* P		Pg	22 29 03.4	+0.1
WUSB				*i* S		Sn	22 29 21.6	-0.1
EGFH	**Guangfu**	1.51	221	*e*P		Pb	22 29 02.6	0.0
EGFH				*e*S		Sg	22 29 23.6	+0.7
WHP	**Taichung City**	1.52	249	*i* P		Pg	22 29 03.9	+0.5
WHP				*i* S		Sn	22 29 22.1	+0.2
JJJ	**Ishigaki jima**	1.56	107	*e*P		Pg	22 29 03.5	-0.5
NMLH	**Miaoli**	1.59	260	*e*P		Pg	22 29 05.6	+0.9
NMLH				*e*S		Sg	22 29 25.2	-0.1
VWDT	**VWDT**	1.64	230	*e*P		Pg	22 29 05.9	+0.2
VWDT				S		Sb	22 29 25.6	0.0
NSY	**Sanyi**	1.64	256	*e*P		Pg	22 29 04.9	+1.3
WCS	**Beigang Elemen**	1.64	243	*i* P		Pg	22 29 05.6	+0.2
WCS				*e*S		Sb	22 29 25.9	+0.3
TWQ1	**Liyutan**	1.65	254	*e*P		Pg	22 29 06.6	+0.7
TWQ1				S		Sb	22 29 26.1	+0.2
HGSD	**Ruisui**	1.65	217	*i* P		Pb	22 29 04.5	-0.5
HGSD				*e*S		Sb	22 29 26.1	+0.1
EHYH	**Wanrong**	1.70	219	*e*P		Pg	22 29 06.2	-0.6
EHYH				S		Sb	22 29 26.9	-0.3
EHY	**Hungye**	1.70	220	*i* P		Pb	22 29 05.0	-0.8
EHY				*e*S		Sb	22 29 28.1	+0.8
SMLT	**Sun Moon Lake**	1.74	238	*i* P		Pg	22 29 07.7	+0.1
SMLT				*e*S		Sg	22 29 30.0	-0.2
SSLB	**Suanglung**	1.75	234	P		Pg	22 29 07.9	+0.1
SSLB	**Suanglung**	1.75	234	S		Sb	22 29 29.0	+0.1
SSLB	**Suanglung**	1.75	234	*e*P		Pg	22 29 07.7	-0.1
SSLB				*e*S		Sb	22 29 29.3	+0.5
TYC	**Yuchr**	1.76	239	*i* P		Pg	22 29 08.7	0.0
TYC				S		Sb	22 29 29.7	+0.6
WDJ	**Dajia District**	1.77	255	*e*P		Pg	22 29 08.2	+0.1
WDJ				*e*S		Sb	22 29 29.8	+0.6
TCU	**Taichung**	1.80	248	*i* P		Pg	22 29 08.2	-0.5
TCU				S		Sb	22 29 30.6	+0.5
YULB	**Yu-li**	1.80	218	P		Pn	22 29 06.3	+0.7
YULB	**Yu-li**	1.80	218	*i* P		Pn	22 29 05.7	0.0
YULB				*e*S		Sn	22 29 29.0	+0.2
EYUL	**Yuli**	1.83	217	*i* P		Pn	22 29 06.4	+0.5
EYUL				*e*S		Sb	22 29 30.9	-0.1
TWF1	**Yuli**	1.83	217	*i* P		Pb	22 29 07.0	-1.0
TWF1				*e*S		Sn	22 29 29.4	-0.1
WHYT	**Xinyi Township**	1.88	234	*i* P		Pb	22 29 09.6	+0.7
WHYT				S		Sg	22 29 34.3	-0.4
WJS	**Zhushan**	1.91	239	*i* P		Pb	22 29 09.3	0.0
WJS				*i* S		Sg	22 29 36.0	+0.5
CHKH	**Chenggong**	1.92	212	P		Pb	22 29 08.3	-1.1
CHKH				*e*S		Sn	22 29 30.1	+0.6
CHKT	**Chengkung**	2.01	212	*i* P		Pn	22 29 09.4	+1.0
CHKT				S		Sn	22 29 33.3	-0.5
ALS	**Alishan**	2.03	230	*i* P		Pb	22 29 11.7	+0.1
ALS				S		Sb	22 29 36.9	-0.2
EHD	**Haiduan**	2.05	216	*i* P		Pn	22 29 10.0	+1.0
EHD				*e*S		Sn	22 29 34.6	-0.2
CHN5	**Tsauling**	2.07	234	*e*P		Pg	22 29 13.8	-0.1
CHN5				*e*S		Sg	22 29 39.8	-0.9
WGK	**Gukeng**	2.11	238	*e*P		Pg	22 29 14.4	-0.2
WGK				S		Sb	22 29 39.9	+0.9
ELDTW	**Lidau**	2.12	220	*i* P		Pb	22 29 11.8	-1.2
WDLH	**Douliu**	2.12	238	*e*P		Pg	22 29 14.4	-0.6
WDLH				*e*S		Sb	22 29 41.3	+1.8
EDH	**Donghe**	2.15	211	P		Pn	22 29 11.1	+0.8
EDH				*e*S		Sn	22 29 34.5	-2.7
WCKO	**Fanlu**	2.22	232	*e*P		Pb	22 29 15.3	+0.7
WCKO				*e*S		Sb	22 29 43.8	+1.5
WTK	**Tuku**	2.24	240	*e*P		Pb	22 29 15.3	+0.4
WTK				*e*S		Sb	22 29 43.1	+0.2
CHN4	**Tsaushan**	2.28	230	*e*P		Pb	22 29 16.5	+0.8
CHN4				S		Sb	22 29 44.0	-0.1
STYH	**Taoyuan**	2.28	224	*i* P		Pb	22 29 14.7	-1.0
STYH				S		Sn	22 29 42.3	+1.8
LONT	**Longtian**	2.29	214	*e*P		Pb	22 29 14.2	-1.6
TPUB	**Ta-pu**	2.29	229	P		Pb	22 29 15.3	-0.5
TPUB	**Ta-pu**	2.29	229	*i* P		Pb	22 29 15.8	0.0
TPUB				*e*S		Sb	22 29 44.8	+0.4
WTP	**Ta-pu**	2.34	228	*i* P		Pb	22 29 16.8	+0.1
WTP				S		Sb	22 29 45.4	-0.4
TWGBT	**Beinan**	2.39	214	P		Pb	22 29 16.7	-0.8
TWGBT	**Beinan**	2.39	214	*e*P		Pn	22 29 14.5	+0.8
TWGBT				S		Sn	22 29 42.5	-0.7
TWG	**Pinlang**	2.39	214	*e*P		Pb	22 29 15.5	-2.0
TWG				S		Sn	22 29 42.5	-0.7
TWK	**Hsinying**	2.41	230	*i* P		Pb	22 29 17.6	-0.3
TWK				*e*S		Sb	22 29 48.6	+0.8
CHN1	**Nanshi**	2.44	228	*i* P		Pb	22 29 18.4	0.0
CHN1				*e*S		Sb	22 29 49.0	+0.4
WSL	**Shuilin Townsh**	2.45	239	P		Pb	22 29 17.1	-1.4
WSL				*e*S		Sb	22 29 47.9	-1.1
SGST	**Jiashian**	2.47	226	*e*P		Pn	22 29 16.1	+1.2
SGST				*i* S		Sb	22 29 48.5	-1.0
ICHU	**Yijhu**	2.50	235	P		Pb	22 29 18.9	-0.5
ICHU				*e*S		Sb	22 29 50.4	0.0
ECL	**Taimali**	2.63	213	*e*P		Pb	22 29 19.7	-2.0
ECL				*e*S		Sn	22 29 47.4	-1.8
SSD	**Sandimen**	2.69	220	*i* P		Pb	22 29 21.4	-1.2
SSD				S		Sb	22 29 53.6	-2.2
TSMG	**Majia**	2.71	219	P		Pb	22 29 21.7	-1.3
TSMG				*e*S		Sb	22 29 55.2	-1.2
MASBT	**Mashibuluo**	2.79	218	*e*P		Pn	22 29 20.8	+1.5
MASBT				*e*S		Sn	22 29 55.7	+2.6
EAST	**Anshuo**	2.87	212	*e*P		Pb	22 29 23.4	-2.3
EAST				*e*S		Sn	22 29 53.0	-2.0
LYUB	**Lan-yu**	2.93	197	*e*P		Pn	22 29 20.4	-0.8
LYUB				*e*S		Sn	22 29 53.9	-2.7
PNG	**Penghu**	2.97	246	*i* P		Pn	22 29 23.5	+1.8
PNG				*e*S		Sn	22 29 57.0	-0.5
PHUB	**P'eng-hu**	2.98	245	*e*P		Pn	22 29 23.6	+1.8
PHUB				*e*S		Sn	22 29 56.2	-1.6
SCZT	**Fangliau**	2.99	216	P		Pn	22 29 23.4	+1.4
SCZT				*e*S		Sn	22 29 60.0	+1.9
LYJJ	**Jianjiangzhen**	3.02	305	*e*P		Pn	22 29 22.6	+0.2
LYJJ				*e*S		Sn	22 29 56.9	-1.7
PTMZ	**Houxiangcun**	3.08	275	*e*P		Pb	22 29 27.3	-2.1
PTMZ				*e*S		Sn	22 30 00.2	-0.1
VCHM	**Qimei**	3.24	241	P		Pn	22 29 27.5	+2.1
VCHM				*e*S		Sn	22 30 06.7	+2.5
MHZQ	**Yeshan**	3.39	293	P		Pn	22 29 29.9	+2.5
MHZQ				*e*S		Sn	22 30 05.6	-2.3
KNMB	**Chin-men Tao**	3.77	265	P		Pn	22 29 33.3	+0.7
KNMB				*e*S		Sn	22 30 16.5	-0.7

GII ***17*** *22:33:49.1±0.0, 40.555N±0.003×40.356E±0.001, h0km, Mws3.9, confirmed*
IDC ***17*** *22:34:21.2±2.5, 37.00N×38.30E, h0km, mb3.3/4, mbtmp3.4/5, ML3.3/1, MS2.9/5, Error ellipse: s-maj=55.8km s-min=16.1km az=17.0*
ISK ***17*** *22:34:24.9, 38.17N×38.64E, h5km, ML3.9/8*
AFAD ***17*** *22:34:26.1, 38.17N×38.66E, h6km±1km, MW3.8*

ISC 17 22:34:26.1±1.1, 38.17N±0.02×38.65E±0.02, h3km±9km, n68, σ1.919/78, mb3.4/3, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
MAYA	**Malatya/Merkez**	0.24	311	P		Pg	22 34 31.4	+0.7
MAYA				S		Sg	22 34 34.3	+0.5
MAYA				IAML			22 34 36.0	
	comp=E,2μm,0.2s							
MAYA				IAML			22 34 38.0	
	comp=N,1μm,0.3s							
NARI	**Adyaman-Kaht**	0.30	163	P		Pg	22 34 32.1	+0.3
ELZG	**Elazig**	0.42	38	P		Pg	22 34 34.3	+0.1
ELZG				S		Sg	22 34 39.7	0.0
ELZG				IAML			22 34 44.0	
	comp

comp=Z,39nm,19.4s,baz=48,slow=37
GERES GERESS Array B 20.92 309 P Pn 22 39 11.0 -1.2
0.9nm,0.8s,baz=113,slow=10,SNR=7.3
0.9nm,0.8s
ARTI Arti 22.47 29 LR LR 22 51 35.0
comp=Z,27nm,19.7s,baz=215,slow=44
KURBB Kurchatov Arra 30.72 53 P **P** **22 40 44.5 +2.5**
0.3nm,0.6s,baz=264,slow=8.6,SNR=4.0
0.3nm,0.6s
MKAR Makanchi Array 32.96 61 P **P** **22 41 05.6 +3.7**
0.6nm,0.7s,baz=274,slow=6.9,SNR=4.0
0.6nm,0.7s
ESDC Sonseca Array 32.97 286 P **P** **22 40 57.4 -4.7**
0.3nm,0.8s,baz=84,slow=12,SNR=2.0
0.3nm,0.8s

ROM 17 22:40:53.8±0.2, 43°46'9"N±0.004×12°42'4"E±0.006, h6km, ML0.5/4, Error ellipse: s-maj=0.5km s-min=0.2km az=312.0, Central Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATPI	**Pietralunga -**	**0.02**	**222**	P	Pg	22 40 54.9	0.0
ATPI				S	Sg	22 40 55.7	-0.1
ATPI				AML	AML		
	comp=E,270μm,0.3s						
ATPI				AML	AML		
	comp=N,152μm,0.3s						
ATPI				AML	AML		
	comp=E,293μm,0.3s						
ATPC	**Poggio Castell**	**0.03**	**63**	P	Pg	22 40 55.0	+0.1
ATPC				S	Sg	22 40 55.9	+0.1
ATVO	**AVT- Monte Val**	**0.09**	**188**	P	Pg	22 40 56.0	+0.3
ATVO				S	Sg	22 40 57.7	+0.7
ATVO				AML	AML		
	comp=E,50μm,0.2s						
ATVO				AML	AML		
	comp=N,48μm,0.4s						
APEC	**Apecchio**	**0.09**	**358**	P	Pg	22 40 56.1	+0.3
APEC				S	Sg	22 40 58.1	+0.9
APEC				AML	AML		
	comp=E,51μm,0.1s						
APEC				AML	AML		
	comp=N,35μm,0.2s						
ATBU	**Serra di Buran**	**0.09**	**85**	P	Pg	22 40 56.2	+0.4
ATBU				S	Sg	22 40 58.2	+0.9
BADI	**Badiali**	**0.14**	**288**	P	Pg	22 40 57.0	+0.4
BADI				S	Sg	22 40 59.6	+1.1
NARO	**Abbazia di Nar**	**0.18**	**39**	P	Pg	22 40 57.6	+0.2
NARO				S	Sg	22 41 00.7	+0.9

*IDC **17** 22:41:02.9±0.9, 27°56N×59°46E, h0km, mb4.1/22, mbtmp4.1/23, ML4.4/1, MS3.1/3, Error ellipse: s-maj=21.1km s-min=15.0km az=157.0*
*DSN **17** 22:41:08.0±0.9, 27°68N×59°57E, h10km, mb4.6/1, ML4.5/19, Error ellipse: s-maj=22.5km s-min=8.8km az=129.0*
*THR **17** 22:41:08.9±0.0, 27°49N×59°55E, h15km±6km, ML4.5, Presumed earthquake*
*NEIC **17** 22:41:10.3±1.4, 27°5N±0°1×59°44E±0°10, h61km±6km, mb4.2/28, Error ellipse: s-maj=16.5km s-min=11.1km az=150.0*
*GFZ **17** 22:41:11.5±0.5, 28°N±7°×6°0E±°, h55km, M4.5/15, mb4.5/15, confirmed*
*TEH **17** 22:41:11.8, 27°54N×59°50E, h70km, ML4.5, Presumed earthquake*
*OMAN **17** 22:41:18.1±0.3, 26°94N×59°14E, h10km, mb4.2/9, ml4.4/18, Error ellipse: s-maj=4.0km s-min=2.5km az=16.0*

ISC 17 22:41:10.0±0.4, 27°51N±0°04×59°48E±0°04, h50km, n170, σ2s33/187, mb4.2/46, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KHNJ	**Kahnooj**	**1.63**	**286**	Pg	**Pn**	**22 41 39.7**	**+3.4**
KBAM	**BAM**	**1.85**	**331**	Pn	**Pn**	**22 41 42.4**	**+2.9**
CHBR	**Chabahar**	**2.11**	**154**	*e*Pn	**Pn**	**22 41 45.6**	**+2.7**
CHBR				*e*Sg	**Sn**	**22 42 11.4**	**+3.5**
CHBR				IAML		22 42 12.1	
	comp=Z,4μm,1.0s						
CHBR	**Chabahar**	**2.11**	**154**	Pn	**Pn**	**22 41 45.6**	**+2.7**
JASK	**Jask - Hormozg**	**2.18**	**222**	P	**Pn**	**22 41 48.4**	**+4.5**
	SNR=605						
JASK				S	**Sn**	**22 42 09.5**	**-0.2**
	SNR=11						
JASK	**Jask - Hormozg**	**2.18**	**222**	Pn	**Pn**	**22 41 48.1**	**+4.3**
SRVN	**Saravan**	**2.60**	**92**	Pn	Pn	22 41 53.4	+3.7
IBND	**Bandar-abas**	**2.61**	**269**	Pn	**Pn**	**22 41 54.4**	**+4.7**
NGCH	**Negor - Chabah**	**2.61**	**145**	Pn	**Pn**	**22 41 52.7**	**+3.0**
CHMN	**Cheshme madani**	**2.89**	**324**	Pn	**Pn**	**22 41 57.3**	**+3.4**
BNDS	**Bandar-Abbas**	**2.94**	**269**	*e*Pn	**Pn**	**22 41 58.4**	**+4.0**
BNDS				IAML		22 43 22.5	
	comp=Z,370nm,1.0s						
BANOM	**Banah**	**3.25**	**242**	*i* P	**Pn**	**22 42 01.7**	**+3.1**
	SNR=74						
BANOM	**Banah**	**3.25**	**242**	P	**Pn**	**22 42 02.0**	**+3.4**
	SNR=74						
SHME	**Shamm**	**3.32**	**245**	*i* P	**Pn**	**22 42 03.3**	**+3.9**
	SNR=147						
SHME	**Shamm**	**3.32**	**245**	P	**Pn**	**22 42 03.3**	**+3.9**
	SNR=147						
SHME				S	**Sn**	**22 42 40.2**	**+2.6**
KRM1	**Kerman Provinc**	**3.55**	**328**	Pn	**Pn**	**22 42 06.2**	**+3.3**
MDH	**Madha**	**3.60**	**233**	*i* P	**Pn**	**22 42 05.5**	**+2.2**
	SNR=96						
MDH	**Madha**	**3.60**	**233**	P	**Pn**	**22 42 05.6**	**+2.2**
	SNR=96						
MDH				S	**Sn**	**22 42 43.0**	**-1.7**
	SNR=17						
MASF	**Masafi**	**3.66**	**235**	P	**Pn**	**22 42 06.6**	**+2.4**
	SNR=16						
MASF				S	**Sn**	**22 42 43.9**	**-2.2**
MSFE	**Esma-Masafi**	**3.67**	**235**	*i* P	**Pn**	**22 42 06.7**	**+2.5**
	SNR=16						
KHGB	**Koh Gabri**	**3.88**	**318**	Pn	**Pn**	**22 42 10.9**	**+3.5**
UOSS	**Minazif**	**3.89**	**230**	*i* P	**Pn**	**22 42 09.1**	**+1.8**
	SNR=36						
UOSS	**Minazif**	**3.89**	**230**	P	**Pn**	**22 42 09.1**	**+1.8**
UOSS				S	**Sn**	**22 42 47.6**	**-4.3**
UOSS	**Minazif**	**3.89**	**230**		**Pn**	**22 42 07.0**	**-0.4**
UOSS	**Minazif**	**3.89**	**230**	P	**Pn**	**22 42 10.3**	**+2.9**
	comp=Z,47nm,0.6s						
NHDN	**Nehbandan**	**3.90**	**7**	Pn	**Pn**	**22 42 10.1**	**+2.5**
UMQ	**Umm Al-Quwin**	**3.95**	**241**	P	Pn	22 42 13.8	+5.7
	SNR=11						
HATD	**Hatta, Dubai**	**4.02**	**229**	*i* P	**Pn**	**22 42 11.4**	**+2.3**
	SNR=8.1						
BIDO	**Bidbid**	**4.16**	**197**	P	**Pn**	**22 42 12.3**	**+1.4**
	SNR=15						
BIDO				S	**Sn**	**22 42 55.7**	**-2.6**
ASHO	**Ashiyiah**	**4.17**	**228**	*i* P	**Pn**	**22 42 13.7**	**+2.5**
	SNR=47						
ASHO	**Ashiyiah**	**4.17**	**228**	P	**Pn**	**22 42 13.6**	**+2.4**
	SNR=47						
ASHO				S	**Sn**	**22 42 59.9**	**+1.2**
	SNR=5.6						
NAZ	**Nazwa, Dubai**	**4.25**	**235**	*i* P	**Pn**	**22 42 16.9**	**+4.7**
	SNR=39						
SOHO	**SOHO**	**4.28**	**219**	*i* P	**Pn**	**22 42 14.3**	**+1.7**
	SNR=386						
SOHO	**SOHO**	**4.28**	**219**	P	**Pn**	**22 42 14.3**	**+1.7**
	SNR=386						
SOHO				S	**Sn**	**22 42 59.5**	**-1.8**
WSAR	**Wadi Sarin**	**4.32**	**190**	P	**Pn**	**22 42 15.7**	**+2.4**
WSAR				S	**Sn**	**22 43 01.2**	**-1.2**
HOQ	**Hoqain**	**4.37**	**207**	P	**Pn**	**22 42 15.4**	**+1.4**
	SNR=214						
HOQ				S	**Sn**	**22 43 01.3**	**-2.4**
FAQ	**Al Faqa, Dubai**	**4.45**	**233**	*i* P	**Pn**	**22 42 19.5**	**+4.5**
	SNR=72						
SMDO	**Samad**	**4.62**	**197**	P	**Pn**	**22 42 19.5**	**+2.1**
	SNR=136						
SMDO				S	**Sn**	**22 43 06.5**	**-3.2**
ASUD	**Al Ashush, Dub**	**4.71**	**233**	*i* P	Pn	22 42 23.7	+5.2
	SNR=180						
ALNE	**Al Ain**	**4.81**	**225**	*i* P	**Pn**	**22 42 24.4**	**+4.5**
	SNR=21						
ALNE	**Al Ain**	**4.81**	**225**	P	**Pn**	**22 42 24.4**	**+4.5**
	SNR=18						
ALNE				S	**Sn**	**22 43 15.1**	**+0.8**
	SNR=8.6						
WBK	**Wadi Bani Khal**	**4.90**	**185**	P	**Pn**	**22 42 23.0**	**+1.8**
	SNR=1957						
WBK				S	**Sn**	**22 43 15.1**	**-1.5**
	SNR=15						
IKOO	**Kooshah**	**4.91**	**355**	Pn	**Pn**	**22 42 24.2**	**+2.6**
ARQ	**Araqi**	**4.94**	**213**	P	**Pn**	**22 42 26.3**	**+4.5**
	SNR=130						
ARQ				S	**Sn**	**22 43 16.3**	**-1.3**
AJN	**Ajban**	**4.99**	**235**	*i* P	**Pn**	**22 42 26.4**	**+4.0**
	SNR=33						
AJN	**Ajban**	**4.99**	**235**	P	**Pn**	**22 42 26.7**	**+4.3**
	SNR=33						
AJN				S	**Sn**	**22 43 19.8**	**+0.9**
BSY	**Bisya**	**5.17**	**204**	P	**Pn**	**22 42 28.8**	**+3.9**
	SNR=71						
JMDO	**Jabal Madar**	**5.27**	**194**	P	**Pn**	**22 42 29.7**	**+3.4**
	SNR=270						
JHRM	**Jahrom**	**5.31**	**282**	Pn	**Pn**	**22 42 30.3**	**+3.5**
JLN	**Jalan Bani Buh**	**5.34**	**181**	P	**Pn**	**22 42 28.0**	**+0.9**
	SNR=371						
JLN				S	**Sn**	**22 43 25.0**	**-2.4**
	SNR=12						
LMD1	**Lamerd**	**5.61**	**270**	*e*Pn	**Pn**	**22 42 34.0**	**+3.0**
LMD1				IAML_BB		22 42 36.4	
	comp=Z,12μm,1.0s						
LMD1	**Lamerd**	**5.61**	**270**	Pn	**Pn**	**22 42 34.0**	**+3.0**
IMEH	**Mehriz**	**5.74**	**314**	Pn	**Pn**	**22 42 36.1**	**+3.3**
SHRT	**Shahrakht**	**6.16**	**6**	*e*Pn	**Pn**	**22 42 41.0**	**+2.6**
UMZA	**Um Al Zommool**	**6.17**	**220**	P	**Pn**	**22 42 41.3**	**+2.7**
UMZA				S	**Sn**	**22 43 47.7**	**-0.2**
MZWR	**Madinat Zayed**	**6.28**	**235**	P	**Pn**	**22 42 43.6**	**+3.5**
MZWR				S	**Sn**	**22 43 50.1**	**-0.4**
TABS	**Tabas**	**6.45**	**342**	*e*Pn	**Pn**	**22 42 45.7**	**+3.3**
TABS				IAML		22 44 41.5	
	comp=Z,84nm,1.0s						
YZKH	**Yazd**	**6.45**	**320**	*e*Pn	**Pn**	**22 42 46.6**	**+4.1**
YZKH				IAML		22 45 00.9	
	comp=Z,33nm,1.0s						
JRN	**Qarnain Island**	**6.48**	**248**	P	**Pn**	**22 42 45.2**	**+2.4**
	SNR=5.3						
JRN				S	**Sn**	**22 43 54.2**	**-1.2**
SHI	**Shiraz**	**6.48**	**291**	Pn	**Pn**	**22 42 45.9**	**+2.9**
MHTO	**MHTO**	**6.64**	**192**	P	**Pn**	**22 42 48.2**	**+3.2**
	SNR=196						
MHTO				S	**Sn**	**22 43 59.1**	**-0.3**
MZR	**Muzera**	**7.04**	**232**	*i* P	**Pn**	**22 42 52.5**	**+1.9**
	SNR=7.6						
MZR	**Muzera**	**7.04**	**232**	P	**Pn**	**22 42 52.6**	**+2.0**
	SNR=7.6						
MZR				S	**Sn**	**22 44 07.5**	**-1.8**
	SNR=12						
HRA	**Herat**	**7.25**	**18**		**Pn**	**22 42 55.9**	**+2.3**
KLNJ	**Kolanjah**	**7.72**	**299**	*e*Pn	**Pn**	**22 43 03.2**	**+3.1**
KLNJ				IAML		22 43 07.4	
	comp=Z,120nm,1.0s						
DQM	**DQM**	**7.75**	**194**	P	**Pn**	**22 43 02.4**	**+2.1**
	SNR=56						
SHRO	**Shahrood**	**8.95**	**342**	IAML		22 43 20.5	
	comp=Z,5.7nm,0.6s						
SHRO				*e*Pn	Pn	22 43 21.7	+4.9
SBZV	**Sabzevar**	**8.99**	**350**	*e*Pn	**Pn**	**22 43 21.3**	**+3.9**
SBZV				IAML_BB		22 43 22.1	
	comp=Z,490nm,1.0s						
DOK	**Doka**	**10.13**	**210**	P	**Pn**	**22 43 34.4**	**+1.6**
	SNR=40						
BJRD	**Bojnurd**	**10.31**	**351**	*i* P	**Pn**	**22 43 39.5**	**+4.2**
MRVT	**Maraveh tapeh**	**10.51**	**345**	*i* P	**Pn**	**22 43 42.4**	**+4.3**
DMTO	**DMTO**	**10.61**	**204**	P	**Pn**	**22 43 40.5**	**+1.2**
	SNR=22						
WHFO	**Wadi Hawf**	**10.90**	**210**	P	**Pn**	**22 43 44.1**	**+0.7**
	SNR=28						
RBK	**Rabkut**	**11.09**	**207**	P	**Pn**	**22 43 47.9**	**+1.9**
ABTO	**Aybut**	**11.61**	**211**	P	**Pn**	**22 43 54.0**	**+0.9**
	SNR=47						
RAYN	**Ar Rayn**	**13.23**	**256**	*i* P	**Pn**	**22 44 13.9**	**-1.3**
	SNR=15						
RAYN	**Ar Rayn**	**13.23**	**256**	Pn	**Pn**	**22 44 13.6**	**-1.7**
RAYN	**Ar Rayn**	**13.23**	**256**	P	**Pn**	**22 44 13.7**	**-1.5**
	comp=Z,17nm,0.5s						
NIL	**Nilore**	**13.35**	**59**	P	**Pn**	**22 44 18.4**	**+1.6**
	comp=Z,15nm,0.8s						
BTK	**Batken**	**15.65**	**34**		**Pn**	**22 44 47.2**	**-0.1**
BTK				IAmb	IAmb	22 44 52.0	
	comp=Z,13nm,0.8s						
BTK	**Batken**	**15.65**	**34**	P	**Pn**	**22 44 47.4**	**+0.1**
	comp=Z,21nm,0.7s						
DRK	**Karamyk**	**15.73**	**38**	P	**P**	**22 44 51.2**	**-0.6**
DRK	**Karamyk**	**15.73**	**38**	P	**P**	**22 44 51.9**	**+0.2**
	comp=Z,28nm,0.7s						
HAKT	**HAKKARI**	**16.63**	**311**	P	**Pn**	**22 45 00.2**	**+0.3**
	comp=Z,18nm,1.2s						
ARSB	**Arslanbob**	**17.69**	**35**		**Pn**	**22 45 12.8**	**0.0**
KSH2	**Kashi**	**17.73**	**45**	P	**Pn**	**22 45 13.0**	**-0.4**
KSH2				S	**Sn**	**22 48 25.8**	**-4.3**
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
KK31	**Karatay Array**	**17.95**	**27**	P	**Pn**	**22 45 15.2**	**-0.7**
KKAR	**Karatay Array**	**17.95**	**27**	P	**Pn**	**22 45 15.9**	**0.0**
GURO	**Guroymak-BITLI**	**18.27**	**311**	P	**P**	**22 45 20.2**	**+0.5**
ASAI	**AK-SAY(Kyrgyzs**	**19.38**	**42**	P	**Pn**	**22 45 33.2**	**-0.3**
	comp=Z,7.2nm,0.7s						
NRN	**Naryn**	**19.41**	**40**	P	**P**	**22 45 31.5**	**-0.8**
AAK	**Ala-Archa**	**19.42**	**35**	Pn	**P**	**22 45 32.6**	**+0.4**
	comp=Z,1.1nm,0.3s,baz=191,slow=4.9,SNR=12						
AAK				LR	LR	22 54 11.4	
	comp=Z,24nm,20.8s,baz=256,slow=41						
	comp=Z,5.8nm,0.5s						
AAK				AML	AML		
AAK	**Ala-Archa**	**19.42**	**35**	P	**P**	**22 45 32.6**	**+0.4**
AAK	**Ala-Archa**	**19.42**	**35**	P	**P**	**22 45 32.5**	**+0.4**
AAK				IAmb	IAmb	22 45 37.2	
	comp=Z,6.5nm,0.6s						
AAK	**Ala-Archa**	**19.42**	**35**	P	**P**	**22 45 32.7**	**+0.4**
	comp=Z,9.8nm,0.6s						
ASF	**Jabal al Asfar**	**20.12**	**289**	P	**P**	**22 45 41.6**	**+1.7**
	comp=Z,14nm,0.6s,baz=94,slow=8.1,SNR=36						
ASF	**Jabal al Asfar**	**20.12**	**289**	P	**P**	**22 45 43.2**	**+3.3**
ASF				AML	AML		
KDJ	**Kajisay**	**20.53**	**40**	P	**P**	**22 45 44.9**	**+0.6**
KDJ				IAmb	IAmb	22 46 22.5	
	comp=Z,22nm,1.2s						
KEMA	**Kemaliye**	**21.03**	**309**	P	**P**	**22 45 49.6**	**0.0**
	comp=Z,42nm,1.0s						
GHAJ	**Ghor Haditha**	**21.16**	**286**	P	**P**	**22 45 51.0**	**+0.1**
GHAJ	**Ghor Haditha**	**21.16**	**286**	P	**P**	**22 45 52.9**	**+1.9**
	comp=Z,16nm,0.9s						
WUS	**Wushi**	**21.20**	**45**	P	**P**	**22 45 50.6**	**-0.9**
WUS				IAmb	IAmb	22 45 53.7	
	comp=Z,5.5nm,0.7s						
UJAP	**Al Uja**	**21.30**	**288**	P	**P**	**22 45 55.0**	**+2.5**
	comp=Z,9.6nm,0.8s						
MMAI	**Mount Meron Ar**	**21.48**	**291**	P	**P**	**22 45 53.4**	**-1.2**
	comp=Z,2.7nm,0.6s,baz=80,slow=15,SNR=11						
	comp=Z,2.7nm,0.6s						
AQBJ	**Aqaba**	**21.55**	**282**	P	**P**	**22 45 59.9**	**+4.7**
	comp=Z,0.2nmcomp=Z,1μmcomp=Z,49nm,0.8s						
AQBJ				AML	AML		
HRFI	**Mount Harif**	**21.56**	**283**	P	**P**	**22 45 59.2**	**+3.9**
	comp=Z,42nm,1.1s						
PRNI	**Paran**	**21.59**	**283**	P	**P**	**22 46 00.1**	**+4.4**
PRNI				AML	AML		
EIL	**Elat**	**21.63**	**282**	P	**P**	**22 45 56.4**	**+0.3**
	comp=Z,20nm,0.8s,baz=70,slow=5.1,SNR=12						
	comp=Z,20nm,0.8s						
EIL	**Elat**	**21.63**	**282**	P	**P**	**22 46 00.5**	**+4.4**
EIL				AML	AML		
EIL	**Elat**	**21.63**	**282**	P	**P**	**22 45 59.1**	**+3.0**
	comp=Z,25nm,1.2s						
AB31	**Akbulak array**	**21.71**	**1**	P	**P**	**22 45 56.5**	**-0.2**
AB31				IAmb	IAmb	22 45 57.6	
	comp=Z,8.7nm,0.9s						
ABKAR	**Akbulak array**	**21.71**	**1**	P	**P**	**22 45 56.5**	**-0.2**
ANDN	**Andirin**	**21.88**	**303**	P	**P**	**22 46 01.3**	**+2.5**
	comp=Z,45nm,1.2s						
KZIT	**Kziot**	**22.14**	**285**	P	**P**	**22 46 04.1**	**+2.6**
	comp=Z,48nm,0.8s						
PDGK	**Podgornoye**	**22.61**	**41**	P	**P**	**22 46 05.2**	**-1.4**
AKTO	**Aktyubinsk**	**22.92**	**358**	P	**P**	**22 46 08.5**	**-1.1**
	comp=Z,3.2nm,0.4s,baz=174,slow=8.3,SNR=13						
	comp=Z,3.2nm,0.4s						
CSS	**Mathiatis**	**23.51**	**295**	P	**P**	**22 46 15.1**	**-0.5**
CSS				IAmb	IAmb	22 46 39.8	
	comp=Z,10nm,0.9s						
EVN	**Everest**	**24.19**	**83**	P	**P**	**22 46 21.9**	**-0.7**
EVN				IAmb	IAmb	22 46 26.8	
	comp=Z,7.3nm,0.9s						
BRTR	**Keskin Array B**	**24.63**	**306**	P	**P**	**22 46 25.8**	**-0.2**
	comp=Z,1.1nm,0.7s,baz=125,slow=11,SNR=6.6						
	comp=Z,1.1nm,0.7s						
BRTR	**Keskin Array B**	**24.63**	**306**	P	**P**	**22 46 25.2**	**-0.8**
MAKZ	**Makanchi**	**26.16**	**37**	P	**P**	**22 46 39.7**	**+0.1**
MAKZ				IAmb	IAmb	22 46 41.9	
	comp=Z,5.9nm,0.7s						
MAKZ	**Makanchi**	**26.16**	**37**	P	**P**	**22 46 39.8**	**+0.3**
	comp=Z,11nm,0.9s						
MKAR	**Makanchi Array**	**26.32**	**37**	P	**P**	**22 46 41.0**	**0.0**
	comp=Z,3.4nm,0.4s,baz=226,slow=7.9,SNR=49						
	comp=Z,3.4nm,0.4s						
MKAR	**Makanchi Array**	**26.32**	**37**	P	**P**	**22 46 40.7**	**-0.3**
BVAR	**Borovoye Array**	**26.75**	**15**	P	**P**	**22 46 44.3**	**-0.5**
	comp=Z,1.7nm,0.4s,baz=191,slow=7.6,SNR=10						
	comp=Z,1.7nm,0.4s						
BORK	**Borovoye**	**26.75**	**15**	P	**P**	**22 46 44.7**	**-0.1**
KURBB	**Kurchatov Arra**	**27.26**	**27**	P	**P**	**22 46 48.9**	**-0.4**
	comp=Z,1.6nm,0.5s,baz=225,slow=8.6,SNR=28						
	comp=Z,1.6nm,0.5s						
KURK	**Kurchatov**	**27.36**	**27**	P	**P**	**22 46 50.0**	**-0.3**
KURK	**Kurchatov**	**27.36**	**27**	P	**P**	**22 46 50.3**	**-0.1**
	comp=Z,2.9nm,1.2s						
WMQ	**Urumqi**	**27.93**	**47**	*e*P	**P**	**22 47 00.8**	**+5.2**
WMQ				pmax	pmax		
	comp=Z,11nm,1.1s						
IDI	**Anoyia**	**30.41**	**293**	P	**P**	**22 47 17.6**	**0.0**
ZAA0	**Zalesovo Array**	**32.32**	**28**	P	**P**	**22 47 33.3**	**-0.8**
ZALV	**Zalesovo Beam**	**32.32**	**28**	P	**P**	**22 47 33.6**	**-0.5**
	comp=Z,5.1nm,0.3s,baz=229,slow=9.0,SNR=50						
	comp=Z,5.1nm,0.3s						
ZALV	**Zalesovo Beam**	**32.32**	**28**	P	**P**	**22 47 33.3**	**-0.8**
AKASG	**Malin Array Be**	**32.59**	**324**	P	**P**	**22 47 36.0**	**-0.6**
	comp=Z,0.4nm,0.4s,baz=129,slow=8.1,SNR=2.4						
	comp=Z,0.4nm,0.4s						
KIEV	**Kiev**	**32.60**	**323**	P	**P**	**22 47 35.8**	**-0.8**
	comp=Z,3.3nm,1.2s						
BURAR	**Bucovina Array**	**33.38**	**316**	P	**P**	**22 47 41.9**	**-1.7**
BUR08	**Bucovina Ar. S**	**33.41**	**316**	P	**P**	**22 47 41.8**	**-2.1**
GTA2	**Gaotai**	**35.38**	**60**	*e*P	**P**	**22 48 02.9**	**+1.8**
GTA2				pP	sP	22 48 18.8	-1.5
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
LZH	**Lanzhou**	**38.40**	**66**	*e*P	**P**	**22 48 27.6**	**+0.8**
LZH				sP	sP	22 48 43.9	-2.2
LZH				pmax	pmax		
	comp=Z,20nm,1.3s						
FINES	**FINESS Array B**	**40.60**	**336**	P	**P**	**22 48 42.9**	**-1.7**
	comp=Z,2.6nm,0.8s,baz=137,slow=8.1,SNR=7.2						
	comp=Z,2.6nm,0.8s						
FINES	**FINESS Array B**	**40.60**	**336**	P	**P**	**22 48 43.2**	**-1.4**
SONM	**Songino Array**	**41.56**	**48**	P	**P**	**22 48 53.5**	**+0.7**
	comp=Z,1.1nm,0.8s,baz=255,slow=8.1,SNR=6.5						
	comp=Z,1.1nm,0.8s						
SONM	**Songino Array**	**41.56**	**48**	P	**P**	**22 48 52.0**	**-0.9**
HHC	**Hu-ho-hao-te**	**44.49**	**59**	*e*P	**P**	**22 49 17.4**	**+0.8**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,44nm,4.9s						
HFS	**Hagfors**	**44.94**	**329**	P	**P**	**22 49 18.7**	**-1.0**
	comp=Z,1.5nm,0.6s,baz=123,slow=5.5,SNR=4.2						
	comp=Z,1.5nm,0.6s						
BNI	**Bardonecchia**	**45.19**	**307**	P	**P**	**22 49 20.4**	**-1.8**
BNI				IAmb	IAmb	22 49 28.4	
	comp=Z,7.0nm,1.4s						
ARCES	**ARCESS Array B**	**46.43**	**344**	P	**P**	**22 49 29.8**	**-1.6**
	comp=Z,1.1nm,0.4s,baz=134,slow=8.4,SNR=17						
	comp=Z,1.1nm,0.4s						
ARCES	**ARCESS Array B**	**46.43**	**344**	P	**P**	**22 49 30.1**	**-1.3**
NOA	**NORSAR Array B**	**46.44**	**330**	P	**P**	**22 49 29.8**	**-1.8**
	comp=Z,1.0nm,0.8s,baz=115,slow=7.9,SNR=3.3						
	comp=Z,1.0nm,0.8s						
ESDC	**Sonseca Array**	**53.22**	**300**	P	**P**	**22 50 23.0**	**-0.5**
	comp=Z,0.2nm,0.4s,baz=78,slow=7.1,SNR=6.7						
	comp=Z,0.2nm,0.4s						
SPITS	**Spitsbergen Ar**	**54.32**	**350**	P	**P**	**22 50 29.3**	**-1.6**
	comp=Z,11nm,0.9s,baz=138,slow=13,SNR=4.1						
	comp=Z,11nm,0.9s						
TORD	**Torodi Ar. Bea**	**55.59**	**267**	P	**P**	**22 50 40.9**	**-0.1**
	comp=Z,0.7nm,0.5s,baz=58,slow=5.2,SNR=2.5						
	comp=Z,0.7nm,0.5s						
KSRS	**Korea Array**	**57.46**	**61**	P	**P**	**22 50 53.2**	**-0.7**
	comp=Z,0.7nm,0.6s,baz=270,slow=6.5,SNR=3.8						
	comp=Z,0.7nm,0.6s						
LEM	**Lembang**	**57.70**	**119**	LR	LR	23 15 29.2	
	comp=Z,28nm,20.6s,baz=158,slow=36						
BOSA	**Boshof**	**64.73**	**213**	P	**P**	**22 51 43.6**	**+0.3**
	comp=Z,1.8nm,0.9s,baz=90,slow=5.1,SNR=7.5						
	comp=Z,1.8nm,0.9s						
JTM	**Tenmabayashi**	**66.57**	**55**	P	**P**	**22 51 53.9**	**-1.1**
	comp=Z,21nm,1.2s						
SFJD	**Kangerlussuaq**	**72.39**	**337**	LR	LR	23 24 52.6	
	comp=Z,20nm,19.2s,baz=320,slow=36						
C18K	**Hukok River**	**79.58**	**14**	P	**P**	**22 53 10.7**	**-0.7**
E18K	**Tukpahlearik C**	**80.71**	**15**	P	**P**	**22 53 16.6**	**-0.9**
D23K	**Nanushuk River**	**81.30**	**11**	P	**P**	**22 53 20.0**	**-0.6**
D23K				IAmb	IAmb	22 53 42.8	
	comp=Z,3.9nm,1.4s						
IMAR	**Indian Mountai**	**83.39**	**13**	P	**P**	**22 53 30.6**	**-0.9**
H22K	**Ishtalitna Cre**	**83.93**	**12**	P	**P**	**22 53 33.6**	**-0.8**
H22K				IAmb	IAmb	22 53 35.1	
	comp=Z,3.0nm,0.7s						
MLY	**Manley**	**84.82**	**12**	P	**P**	**22 53 38.1**	**-0.8**
MLY				IAmb	IAmb	22 53 46.3	
	comp=Z,5.7nm,1.5s						
ILAR	**Eielson Array**	**85.75**	**11**	P	**P**	**22 53 41.8**	**-1.7**
	comp=Z,0.6nm,0.6s,baz=319,slow=5.3,SNR=10				

UPC	**Upice**	**1.19**	**182**	*e*PG	**Pg**	**22**	**45**	**03.9 -0.1**
UPC				*e*SG	**Sg**	**22**	**45**	**18.3 -1.1**
	comp=Z,30nm,0.5s							
UPC				AML	AML			
DPC	**Dobruska-Polom**	**1.35**	**173**	*e*PG	**Pg**	**22**	**45**	**06.8 -0.4**
DPC				*e*SG	**Sg**	**22**	**45**	**23.3 -1.4**
	comp=Z,16nm,0.4s							
DPC				AML	AML			
PVCC	**Panska Ves**	**1.51**	**220**	*e*PG	**Pn**	**22**	**45**	**09.5 0.0**
PVCC				*e*SG	**Sg**	**22**	**45**	**28.9 -0.7**
	comp=Z,66nm,0.5s							
PVCC				AML	AML			
PIVO	**Bartosovice**	**1.54**	**169**	*e*Pg	**Pn**	**22**	**45**	**09.8 -0.2**
	baz=349							
PIVO				*e*Sg	**Sg**	**22**	**45**	**28.9 -1.7**
	21nm,0.2s,baz=349							
PIVO				AML	AML			
KRLC	**Kraliky**	**1.68**	**164**	*e*PG	**Pn**	**22**	**45**	**11.9 -0.1**
KRLC				*e*SG	**Sn**	**22**	**45**	**34.1 -0.1**
	comp=Z,25nm,0.3s							
KRLC				AML	AML			
ANAC	**Anensky vrch**	**1.82**	**153**	*e*Pn	**Pn**	**22**	**45**	**13.8 -0.1**
	baz=333							
ANAC				*e*Sg	**Sn**	**22**	**45**	**37.6 0.0**
	12nm,0.3s,baz=333							
ANAC				AML	AML			
CLL	**Collm**	**1.96**	**260**	*i* Pn	**Pn**	**22**	**45**	**15.4 -0.4**
CLL				*e*Pg	**Pb**	**22**	**45**	**18.0 +0.2**
CLL				*i* x	x	22	45	22.2
CLL				*e*Sg	**Sb**	**22**	**45**	**44.0 +1.2**
	comp=Z,7.0nm,0.7s							
HSKC	**Hora Svate Kat**	**1.99**	**238**	*e*PG	**Pn**	**22**	**45**	**17.6 +1.4**
HSKC				*e*SG	**Sb**	**22**	**45**	**43.3 -0.4**
	comp=Z,21nm,0.5s							
HSKC				AML	AML			
STEB	**Steborice**	**2.06**	**148**	*e*PG	**Pb**	**22**	**45**	**19.8 +0.2**
STEB				*e*SG	**Sg**	**22**	**45**	**47.1 -0.4**
	comp=Z,40nm,0.5s							
STEB				AML	AML			
MORC	**Moravsky Berou**	**2.13**	**154**	*e*Pn	**Pn**	**22**	**45**	**18.1 -0.1**
	baz=334							
MORC				*e*Sg	**Sb**	**22**	**45**	**47.5 -0.3**
	comp=Z,13nm,0.4s,baz=334							
MORC				AML	AML			
MORC	**Moravsky Berou**	**2.13**	**154**	*e*PN	**Pn**	**22**	**45**	**18.2 0.0**
MORC				*e*SG	**Sb**	**22**	**45**	**47.6 -0.3**
OKC	**Ostrava-Krasne**	**2.28**	**144**	*e*SG	**Sg**	**22**	**45**	**53.0 -1.3**
VRAC	**Vranov**	**2.41**	**172**	*e*Pn	**Pn**	**22**	**45**	**22.2 +0.2**
	baz=352							
VRAC				*e*Sg	**Sb**	**22**	**45**	**56.0 +0.2**
	comp=Z,6.8nm,0.5s,baz=352							
VRAC				AML	AML			
TREC	**Trest**	**2.43**	**189**	*e*SG	**Sb**	**22**	**45**	**56.6 +0.2**
ZVC	**Zvikov**	**2.56**	**209**	*e*SG	**Sb**	**22**	**46**	**00.5 +0.5**
KRUC	**Moravsky**	**2.64**	**175**	*e*Pn	**Pn**	**22**	**45**	**25.3 +0.2**
	baz=356							
KRUC				*e*Sg	**Sb**	**22**	**46**	**03.5 +1.1**
	comp=Z,10nm,0.7s,baz=356							
KRUC				AML	AML			
NKC	**Novy Kostel**	**2.72**	**239**	*e*PG	**Pb**	**22**	**45**	**31.5 +0.7**
	comp=Z,17nm,0.7s							
NKC				*e*SG	**Sb**	**22**	**46**	**06.5 +1.8**
OJC	**Ojcow**	**2.78**	**121**	*e*Pg	**Pg**	**22**	**45**	**35.2 +0.7**
OJC				*e*Sg	**Sg**	**22**	**46**	**11.0 +0.6**
JAVC	**Velka Javorina**	**3.02**	**160**	*e*Pn	**Pn**	**22**	**45**	**30.3 0.0**
	baz=341							
KHC	**Kasperske Hory**	**3.02**	**213**	*e*PN	**Pn**	**22**	**45**	**30.5 +0.1**
KHC				*e*PG	**Pb**	**22**	**45**	**36.1 +0.1**
KHC				*e*SG	**Sb**	**22**	**46**	**15.1 +1.7**
ABNA	**Allensteig Bun**	**3.06**	**188**	*e*Pn	**Pn**	**22**	**45**	**31.2 +0.3**
	comp=Z,0.6nm,0.1s							
CKRC	**Cesky Krumlov**	**3.09**	**202**	*e*PG	**Pb**	**22**	**45**	**37.8 +0.6**
	comp=Z,8.3nm,0.5s							
CKRC				*e*SG	**Sb**	**22**	**46**	**15.8 +0.4**
	comp=Z,8.3nm,0.5s							
CKRC				AML	AML			
LANS	**Liptovska Anna**	**3.34**	**138**	*e*PG	**Pg**	**22**	**45**	**46.4 +1.1**
LANS				*e*SG	**Sg**	**22**	**46**	**28.7 +0.1**
LANS				*e*LG	Lg	22	46	31.8
BSD	**Bornholm Skovb**	**3.50**	**349**	*i* P	**Pn**	**22**	**45**	**36.3 -0.5**
BSD				*i* S	**Sn**	**22**	**46**	**17.4 -1.5**
BSD				IAML		22	46	39.2
	comp=Z,24nm,0.9s							
MOA	**Molln**	**4.02**	**198**	*e*Pn	**Pn**	**22**	**45**	**44.8 +0.7**
	comp=Z,1.6nm,0.4s							
LUNU	**Lund**	**4.25**	**339**	*i* P	**Pn**	**22**	**45**	**47.5 +0.4**
LUNU				*i* S	**Sn**	**22**	**46**	**36.2 -1.2**
BLEU	**Blekinge**	**4.62**	**358**	*i* P	**Pn**	**22**	**45**	**54.3 +2.0**
BLEU				*i* S	**Sn**	**22**	**46**	**47.4 +0.7**
DEL	**Delary**	**4.96**	**346**	*i* P	**Pn**	**22**	**45**	**57.1 +0.2**
DEL				*i* S	**Sn**	**22**	**46**	**50.8 -4.2**

ATH 17 23:00:03.1,38°.27N×21°.99E,h14km,ML1.0/9,Latitude uncertainty: 0 km; Longitude uncertainty: 0 km,Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGEO	**AgiosGiorgios,**	**0.06**	**94**	P	Pg	23 00 05.6	-0.3
AIOA	**Agios Ioannis,**	**0.09**	**144**	P	Pg	23 00 06.2	+0.1
AIOA				S	Sg	23 00 08.3	+0.1
MG00	**Magoula, Dorid**	**0.15**	**347**	P	Pg	23 00 06.9	0.0
MG00				S	Sg	23 00 09.7	+0.2
MG00				AML	AML		
SERG	**Sergoula**	**0.15**	**20**	P	Pg	23 00 07.0	0.0
SERG				S	Sg	23 00 10.0	+0.3
SERG				AML	AML		
EFP	**Efpalio**	**0.17**	**337**	P	Pg	23 00 07.2	0.0
EFP				S	Sg	23 00 10.3	+0.4
EFP				AML	AML		
KALE	**Kalithea**	**0.17**	**44**	P	Pg	23 00 07.6	+0.3
KALE				S	Sg	23 00 10.4	+0.3
KALE				AML	AML		
VVK	**Vomvokou**	**0.21**	**318**	P	Pg	23 00 08.0	+0.2
VVK				AML	AML		
AGRP	**Agrapidokambos**	**0.24**	**301**	P	Pg	23 00 08.5	+0.1
AGRP				S	Sg	23 00 12.3	+0.3
AGRP				AML	AML		
KLV	**Kalavryta, Ach**	**0.26**	**150**	P	Pg	23 00 09.1	+0.4
ANX	**Ano Chora**	**0.33**	**351**	P	Pg	23 00 10.2	+0.3
ANX				AML	AML		
DRO	**Drossia**	**0.39**	**215**	P	Pb	23 00 11.5	-0.2
DRO				AML	AML		
GUR	**Goura**	**0.43**	**140**	P	Pg	23 00 12.1	+0.3
GUR				AML	AML		
RLS	**Riolos of Patr**	**0.46**	**243**	P	Pb	23 00 13.2	+0.2
PLEV	**Plevrona-Mesol**	**0.48**	**288**	P	Pb	23 00 13.3	0.0

*IDC **17** 23:00:52.6±0.8,37°.65N×27°.00E,h0km,mb3.3/5, mbtmp3.4/13,ML3.4/5,Error ellipse: s-maj=11.9km s-min=10.2km az=153.0*
*AFAD **17** 23:00:53.9,37°.69N×27°.07E,h10km±1km,MW3.8*
*ATH **17** 23:00:53.5,37°.70N×27°.13E,h8km±2km,ML3.8/4,Latitude uncertainty: 0 km; Longitude uncertainty: 2 km*
*ISK **17** 23:00:53.5,37°.71N×27°.06E,h4km,ML3.9/16*
*THE **17** 23:00:53.9,37°.7N±1.0×2°.7E±°,h6km±1km,M3.5/20, MLh3.5/20*
*GII **17** 23:00:57.5±0.0,37°.201N±0°.004×27°.068E±0°.001,h0km, confirmed*
*SOF **17** 23:01:15.5,39°.1N±0°.3×26°.73E±0°.09,h46km±6km, MD3.3/6*

ISC 17 23:00:53.8±0.7,37°.70N±0°.02×27°.06E±0°.02,h16km±4km, n134,σ1°69/170,mb3.2/5,14C-10D,Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GCAM	**G?zelcaml?**	**0.14**	**88**	P	**Pg**	**23 00 57.4**	**-0.2**
GCAM				S	**Sg**	**23 00 59.5**	**-0.6**
GCAM				IAML		23 01 00.0	
	comp=N,2μm,0.2s						
GCAM				IAML		23 01 00.0	
	comp=E,3μm,0.2s						
GCAM	**G?zelcaml?**	**0.14**	**88**	Pg	**Pg**	**23 00 57.4**	**-0.2**
GCAM				Sg	**Sg**	**23 00 59.6**	**-0.5**
GCAM				AML	AML		
SMG	**Samos**	**0.18**	**274**	P	**Pg**	**23 00 57.7**	**-0.5**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**274**	P	**Pg**	**23 00 57.7**	**-0.5**
SMG				S	**Sg**	**23 01 01.0**	**-0.1**
KUSD	**Kusadasi-Aydin**	**0.24**	**47**	P	**Pg**	**23 00 59.2**	**0.0**
KUSD				AML	AML		

DDIM	**Aydin, Didim**	**0.28**	**149**	P	**Pb**	**23**	**01**	**00.2 -0.2**
DDIM				IAML		23	01	04.0
	comp=N,2μm,0.4s							
DDIM				IAML		23	01	04.0
	comp=E,2μm,0.4s							
DDIM				S	**Sg**	**23**	**01**	**04.2 +0.4**
DIDI	**Didim-Aydin**	**0.35**	**156**	Pg	**Pb**	**23**	**01**	**01.5 -0.2**
DIDI				Sg	**Sb**	**23**	**01**	**07.4 +0.4**
DIDI				AML	AML			
SAM2	**Drakei, Karlov**	**0.36**	**280**	P	**Pg**	**23**	**01**	**01.0 -0.3**
SAM2				S	**Sg**	**23**	**01**	**06.4 0.0**
DGB	**zmir**	**0.38**	**338**	P	**Pg**	**23**	**01**	**01.6 0.0**
DGB				S	**Sg**	**23**	**01**	**06.3 -0.6**
DGB				IAML		23	01	07.0
	comp=N,3μm,0.7s							
DGB				IAML		23	01	07.0
	comp=E,3μm,0.3s							
GMLD	**Gumuldur**	**0.40**	**343**	Pg	**Pg**	**23**	**01**	**02.1 +0.2**
GMLD				Sg	**Sg**	**23**	**01**	**07.4 0.0**
GMLD				AML	AML			
BEYE	**izmir**	**0.54**	**349**	P	**Pg**	**23**	**01**	**04.5 0.0**
BEYE				S	**Sg**	**23**	**01**	**11.1 -0.7**
BEYE				IAML		23	01	16.0
	comp=E,3μm,0.4s							
BEYE				IAML		23	01	18.0
	comp=N,2μm,0.3s							
YKAV	**Yalıkavak-Bodr**	**0.60**	**163**	Pg	**Pg**	**23**	**01**	**05.5 -0.1**
YKAV				AML	AML			
DUVT	**Torbali**	**0.61**	**30**	P	**Pg**	**23**	**01**	**05.6 -0.2**
AYDN	**Tasoluk**	**0.65**	**93**	P	**Pg**	**23**	**01**	**06.6 0.0**
BODT	**Bodrum**	**0.66**	**162**	P	**Pg**	**23**	**01**	**06.7 0.0**
BODT				S	**Sb**	**23**	**01**	**16.2 +0.2**
BODT				AML	AML			
BODT	**Bodrum**	**0.66**	**162**	Pg	**Pg**	**23**	**01**	**06.8 0.0**
BODT				AML	AML			
BLCB	**Balcova**	**0.69**	**359**	P	**Pg**	**23**	**01**	**07.0 -0.2**
BLCB				S	**Sg**	**23**	**01**	**16.1 -0.3**
BLCB				AML	AML			
BLCB	**Balcova**	**0.69**	**359**	Pg	**Pg**	**23**	**01**	**07.1 -0.2**
MLSB	**Milas**	**0.70**	**125**	Pg	**Pg**	**23**	**01**	**07.2 -0.2**
ZEYE	**Izmir, Urla-Ze**	**0.70**	**321**	P	**Pg**	**23**	**01**	**07.7 +0.2**
ZEYE				S	**Sg**	**23**	**01**	**16.4 -0.3**
ZEYE				IAML		23	01	19.0
	comp=N,8μm,0.7s							
ZEYE				IAML		23	01	22.0
	comp=E,5μm,0.9s							
BDRM	**Kayabasi**	**0.70**	**154**	P	**Pg**	**23**	**01**	**07.5 0.0**
BDRM				S	**Sb**	**23**	**01**	**17.0 -0.1**
BDRM				IAML		23	01	20.0
	comp=E,5μm,0.4s							
BDRM				IAML		23	01	21.0
	comp=N,6μm,0.6s							
BDRM	**Kayabasi**	**0.70**	**154**	⇑P	**Pg**	**23**	**01**	**07.3 -0.2**
AYDB	**Zeytinkoy-Aydi**	**0.70**	**69**	Pg	**Pg**	**23**	**01**	**07.6 0.0**
AYDB				AML	AML			
BODA	**Bodrum-Mula**	**0.72**	**156**	Pg	**Pg**	**23**	**01**	**07.9 0.0**
KLNA	**Kalymnos**	**0.74**	**185**	P	**Pg**	**23**	**01**	**08.1 -0.1**
IZMR	**zmir-demi**	**0.83**	**58**	P	**Pb**	**23**	**01**	**10.0 +0.1**
CESE	**eme**	**0.87**	**317**	Pg	**Pg**	**23**	**01**	**10.9 +0.1**
CESE				Sg	**Sn**	**23**	**01**	**23.5 -0.4**
CESE				AML	AML			
BAGT	**Foa**	**0.97**	**350**	P	**Pg**	**23**	**01**	**12.8 +0.1**
KRBN	**Karaburun**	**0.98**	**336**	Pg	**Pg**	**23**	**01**	**12.9 +0.1**
KRBN				AML	AML			
NAZL	**Nazilli-Aydin**	**1.01**	**74**	Pg	**Pg**	**23**	**01**	**13.5 +0.1**
ESSN	**Aydn-Nazilli**	**1.03**	**84**	P	**Pb**	**23**	**01**	**13.5 +0.2**
FOCM	**Foa**	**1.05**	**346**	Pg	**Pn**	**23**	**01**	**14.1 +0.2**
FOCM				AML	AML			
DAT	**Datca**	**1.05**	**157**	P	**Pg**	**23**	**01**	**14.2 +0.1**
DAT				S	**Sn**	**23**	**01**	**29.4 +1.0**
DAT				AML	AML			
CHOS	**Chios island**	**1.05**	**311**	P	**Pb**	**23**	**01**	**13.6 -0.1**
CHOS				S	**Sg**	**23**	**01**	**28.2 +0.3**
CHOS				AML	AML			
CHOS	**Chios island**	**1.05**	**311**	Pg	**Pn**	**23**	**01**	**14.1 +0.1**
CHOS				Sg	**Sn**	**23**	**01**	**29.3 +0.9**
CHOS				AML	AML			
CHOS	**Chios island**	**1.05**	**311**	P	**Pg**	**23**	**01**	**14.5 +0.3**
CHOS				S	**Sn**	**23**	**01**	**28.4 -0.1**
CHOS				AML	AML			
YAZI	**Mula-Dat§a-**	**1.06**	**163**	P	**Pn**	**23**	**01**	**14.0 0.0**
CAMT	**Merkez**	**1.07**	**11**	P	**Pn**	**23**	**01**	**14.4 +0.2**
KARB	**zmir-Karabur**	**1.09**	**332**	P	**Pn**	**23**	**01**	**14.8 +0.3**
MULA	**Mugla, Merkez-**	**1.09**	**113**	P	**Pg**	**23**	**01**	**15.1 +0.2**
YER	**Yerkesik**	**1.12**	**120**	P	**Pn**	**23**	**01**	**15.1 +0.1**
EAG2	**Marmaro, Chios**	**1.13**	**319**	P	**Pg**	**23**	**01**	**15.9 +0.3**
EAG2				S	**Sg**	**23**	**01**	**31.2 +0.8**
KIRA	**zmir-Kiraz**	**1.17**	**64**	P	**Pb**	**23**	**01**	**15.9 +0.1**
GOMA	**Golmarmara-Man**	**1.22**	**33**	Pn	**Pg**	**23**	**01**	**17.1 -0.2**
GOMA				AML	AML			
ZEDA	**zmir-Bergama**	**1.27**	**1**	P	**Pb**	**23**	**01**	**17.6 +0.2**
ASTA	**Astypalaia**	**1.28**	**206**	P	**Pb**	**23**	**01**	**17.8 +0.2**
ASTA				S	**Sg**	**23**	**01**	**35.1 -0.1**
ASTA				AML	AML			
KTTT	**Salihli**	**1.28**	**39**	P	**Pn**	**23**	**01**	**17.3 +0.1**
TURN	**Turunc**	**1.32**	**134**	P	**Pb**	**23**	**01**	**18.7 +0.5**
AKS	**Akhisar**	**1.32**	**26**	Pn	**Pg**	**23**	**01**	**19.1 -0.2**
AKS				AML	AML			
AKHS	**Akhisar**	**1.32**	**26**	P	**Pg**	**23**	**01**	**19.3 0.0**
APE	**Apeiranthos**	**1.37**	**243**	P	**Pn**	**23**	**01**	**18.3 -0.1**
APE				AML	AML			
APE	**Apeiranthos**	**1.37**	**243**	⇑P	**Pb**	**23**	**01**	**19.6 +0.4**
APE	**Apeiranthos**	**1.37**	**243**	P	**Pg**	**23**	**01**	**19.8 -0.4**
APE				S	**Sg**	**23**	**01**	**39.2 +1.2**
APE				AML	AML			
DKL	**Dikili**	**1.38**	**355**	Pn	**Pg**	**23**	**01**	**20.0 -0.4**
DKL				AML	AML			
DKL	**Dikili**	**1.38**	**355**	P	**Pn**	**23**	**01**	**18.8 +0.4**
DKL				S	**Sg**	**23**	**01**	**37.9 -0.4**
SULTU	**Buldan**	**1.40**	**75**	P	**Pb**	**23**	**01**	**19.7 0.0**
MANT	**Manisa**	**1.42**	**56**	P	**Pg**	**23**	**01**	**21.6 +0.3**
TAVA	**DENIZLI_Tavas**	**1.49**	**98**	P	**Pb**	**23**	**01**	**21.2 0.0**
GORD	**Gordes-Manisa**	**1.50**	**36**	Pn	**Pb**	**23**	**01**	**21.7 +0.4**
GORD				AML	AML			
SOMA	**Soma-Manisa**	**1.50**	**14**	Pn	**Pb**	**23**	**01**	**21.9 +0.5**
SOMA				AML	AML			
HARTU	**Esme**	**1.52**	**64**	P	**Pg**	**23**	**01**	**23.1 +0.1**
DALY	**Dalyan (Mula)**	**1.54**	**124**	P	**Pg**	**23**	**01**	**24.2 +0.7**
DNZL	**Denizli-Tavas-**	**1.57**	**92**	P	**Pb**	**23**	**01**	**22.5 -0.1**
DNZT	**Denizli-Tavas-**	**1.62**	**104**	P	**Pb**	**23**	**01**	**23.1 +0.3**
AYVA	**Ayvalik**	**1.64**	**350**	P	**Pg**	**23**	**01**	**24.9 -0.3**
PRK	**Paraskevi**	**1.67**	**338**	P	**Pn**	**23**	**01**	**22.8 +0.4**
PRK				S	**Sb**	**23**	**01**	**44.7 -0.2**
PRK				AML	AML			
ARG	**Arkhangelos**	**1.71**	**150**	P	**Pn**	**23**	**01**	**23.8 +0.9**
ARG				AML	AML			
SABU	**Mula-Dalaman**	**1.75**	**119**	P	**Pb**	**23**	**01**	**26.4 +0.8**
STEP	**BALIKESIR_Sava**	**1.76**	**17**	P	**Pg**	**23**	**01**	**26.8 -0.7**
BUHA	**Balikesir, Bur**	**1.80**	**0**	P	**Pn**	**23**	**01**	**25.4 +1.1**
THR8	**Santorini-Mono**	**1.80**	**225**	P	**Pn**	**23**	**01**	**24.8 +0.5**
THERA	**Ancient Thera,**	**1.83**	**224**	P	**Pn**	**23**	**01**	**25.2 +0.4**
THERA				AML	AML			
USAK	**Uak-Merkez**	**1.85**	**56**	P	**Pg**	**23**	**01**	**29.0 -0.3**
DEMI	**Demirci**	**1.87**	**44**	P	**Pg**	**23**	**01**	**29.3 -0.5**
CAEL	**Denizli, Camel**	**1.89**	**107**	P	**Pg**	**23**	**01**	**30.5 +0.4**
KARY	**Karystos**	**2.10**	**280**	P	**Pn**	**23**	**01**	**29.0 +0.6**
KARY				AML	AML			
KARP	**Karpathos**	**2.15**	**178**	P	**Pn**	**23**	**01**	**29.3 +0.3**
KARP				AML	AML			
EZN	**Ezine**	**2.20**	**345**	P	**Pn**	**23**	**01**	**30.3 +0.5**
EZN				AML	AML			
EZN	**Ezine**	**2.20**	**345**	⇓P	**Pn**	**23**	**01**	**30.2 +0.4**
DION	**Dionisos Attik**	**2.50**	**280**	P	**Pn**	**23**	**01**	**34.7 +0.8**
DION				AML	AML			
KYMI	**Kymi, Euboea I**	**2.51**	**293**	P	**Pn**	**23**	**01**	**34.7 +0.7**
KYMI				AML	AML			
PTL	**Penteli**	**2.55**	**279**	P	**Pn**	**23**	**01**	**35.3 +0.7**
PTL				AML	AML			
ATHU	**Athens Univers**	**2.61**	**277**	P	**Pn**	**23**	**01**	**36.1 +0.8**
BAND	**Balkesir-Ban**	**2.78**	**17**	⇑P	**Pb**	**23**	**01**	**43.0 -0.1**
IDI	**Anoyia**	**2.97**	**217**	Pn	**Pn**	**23**	**01**	**40.4 0.0**
	10nm,0.5s,baz=43,slow=5.5,SNR=19							
IDI				Sn	**Sn**	**23**	**02**	**14.9 -0.9**
	11nm,0.3s,baz=107,slow=21,SNR=7.0							
IDI				Lg	Lg	23	02	29.1
	10nm,0.3s,baz=34,slow=20,SNR=5.8							
CAVK	**Edirne/Enez-Ca**	**3.07**	**347**	⇓P	**Pn**	**23**	**01**	**42.7 +1.0**
KEPZ	**Antalya-Kepez**	**3.71**	**101**	⇑P	**Pn**	**23**	**01**	**53.3 +2.8**
KLYT	**Kilyos**	**3.87**	**23**	⇑P	**Pb**	**23**	**01**	**57.7 -4.0**
KLYT	**Kilyos**	**3.87**	**23**	⇑P	**Pb**	**23**	**01**	**57.7 -4.0**
CTYL	**Yalıkoy Yolu**	**3.89**	**14**	⇓P	**Pb**	**23**	**01**	**59.1 -3.0**

PHSR	**Pinarhisar**	**3.95**	**5**	⇑P	**Pn**	**23**	**01**	**56.3 +2.6**
KDZ	**Kurdzhali**	**4.15**	**342**	*i* P	**Pn**	**23**	**01**	**57.5 +1.0**
RZN	**Rozhen**	**4.38**	**337**	*i* P	**Pn**	**23**	**02**	**01.3 +1.5**
MMB	**Musomishta**	**4.62**	**327**	P	**Pn**	**23**	**02**	**04.8 +1.8**
PLD	**Plovdiv**	**4.79**	**339**	P	**Pn**	**23**	**02**	**06.7 +1.4**
JMB	**Yambol**	**4.81**	**355**	P	**Pn**	**23**	**02**	**06.1 +0.5**
KKB	**Krupnik**	**5.13**	**325**	P	**Pn**	**23**	**02**	**14.0 +4.0**
BRTR	**Keskin Array B**	**5.53**	**66**	Pn	**Pn**	**23**	**02**	**18.3 +2.6**
	0.8nm,0.3s,baz=248,slow=14,SNR=20							
BRTR				Sn	**Sn**	**23**	**03**	**20.7 +1.7**
	baz=257,slow=21							
	5.1nm,0.7s							
BRTR				AML	AML			
NEF	**NEVSHA**	**5.56**	**2**	P	**Pn**	**23**	**02**	**17.8 +1.8**
KIRS	**Kirsehir-Merke**	**5.57**	**73**	⇓P	**Pn**	**23**	**02**	**16.3 +0.1**
LOZB	**Loznitsa**	**5.68**	**357**	⇓P	**Pn**	**23**	**02**	**18.3 +0.7**
CSS	**Mathiatis**	**5.75**	**116**	P	**Pn**	**23**	**02**	**21.2 +2.6**
CSS				S	**Sn**	**23**	**03**	**24.5 +0.2**
RAZG	**Razgrad**	**5.88**	**356**	⇓P	**Pn**	**23**	**02**	**20.8 +0.5**
PLVB	**Pleven**	**5.98**	**343**	⇓P	**Pn**	**23**	**02**	**26.4 +4.7**
ICOR	**Ion Corvin**	**6.44**	**5**	⇑P	**Pn**	**23**	**02**	**29.6 +1.6**
BLKB	**Belogradchik**	**6.79**	**332**	⇓P	**Pn**	**23**	**02**	**34.6 +1.7**
BOVS	**Bovan**	**7.19**	**327**	⇑P	**Pn**	**23**	**02**	**39.9 +1.6**
MLR	**Muntele Rosu**	**7.83**	**354**	Pn	**Pn**	**23**	**02**	**48.9 +1.6**
	0.4nm,0.3s,baz=248,slow=19,SNR=1.6							
	1.1nm,0.4s							
MLR				AML	AML			
VOIR		**7.88**	**350**	⇑P	**Pn**	**23**	**02**	**49.0 +1.2**
LOT	**Lotru**	**8.13**	**343**	⇓P	**Pn**	**23**	**02**	**51.7 +0.5**
TIP	**Timpagrande**	**8.22**	**284**	⇑P	**Pn**	**23**	**02**	**54.5 +1.9**
MMA0B	**Mount Meron ar**	**8.26**	**122**	P	**Pn**	**23**	**02**	**54.1 +1.0**
MMA0B				S	**Sn**	**23**	**04**	**23.7 -2.4**
MMAI	**Mount Meron Ar**	**8.26**	**122**	Pn	**Pn**	**23**	**02**	**52.7 -0.4**
	2.6nm,0.4s,baz=327,slow=15,SNR=15							
MMAI				Sn	**Sn**	**23**	**04**	**18.3 -7.8**
	4.3nm,0.3s,baz=317,slow=14,SNR=8.8							
GEM	**Giv'at Ha'Em**	**8.32**	**120**	P	**Pn**	**23**	**02**	**55.0 +1.2**
GEM				S	**Sn**	**23**	**04**	**25.9 -1.6**
TURR	**Turia**	**8.39**	**355**	⇑P	**Pn**	**23**	**02**	**57.4 +2.6**
BOSR	**Bodos**	**8.44**	**353**	⇓P	**Pn**	**23**	**02**	**57.7 +2.2**
KNHM	**Kefar Nahum**	**8.46**	**122**	P	**Pn**	**23**	**02**	**56.9 +1.2**
KNHM				S	**Sn**	**23**	**04**	**28.7 -2.1**
ROII	**Roi**	**8.79**	**126**	P	**Pn**	**23**	**03**	**01.8 +1.5**
ROII				S	**Sn**	**23**	**04**	**36.3 -2.8**
BZS	**Buzias**	**8.90**	**335**	⇑P	**Pn**	**23**	**03**	**02.3 +0.6**
KZIT	**Kziot**	**9.09**	**136**	P	**Pn**	**23**	**03**	**04.9 +0.5**
KZIT				S	**Sn**	**23**	**04**	**42.1 -4.3**
BIZ	**Bicaz**	**9.26**	**356**	⇑P	**Pn**	**23**	**03**	**09.0 +2.3**
RMNI	**Mount Ramon**	**9.53**	**136**	P	**Pn**	**23**	**03**	**10.9 +0.4**
RMNI				S	**Sn**	**23**	**04**	**53.0 -4.3**
ASF	**Jabal al Asfar**	**9.74**	**122**	Pn	**Pn**	**23**	**03**	**14.5 +0.7**
	0.5nm,0.3s,baz=316,slow=24,SNR=5.1							
ASF				Sn	**Sn**	**23**	**04**	**59.0 -4.4**
	0.4nm,0.3s,baz=293,slow=21,SNR=3.1							
	1.5nm,0.5s							
ASF				AML	AML			
VAE	**Valguarnera**	**10.04**	**273**	Pn	**Pn**	**23**	**03**	**19.6 +2.1**
	1.5nm,0.5s,baz=85,slow=14,SNR=1.5							
HRFI	**Mount Harif**	**10.11**	**137**	P	**Pn**	**23**	**03**	**19.2 +0.7**
HRFI				S	**Sn**	**23**	**05**	**06.2 -5.4**
EIL	**Elat**	**10.35**	**138**	Pn	**Pn**	**23**	**03**	**22.1 +0.4**
	0.6nm,0.3s,baz=329,slow=12,SNR=5.3							
EIL				Sn	**Sn**	**23**	**05**	**09.1 -8.4**
	1.3nm,0.3s,baz=350,slow=17,SNR=5.3							
	1.8nm,0.5s							
EIL				AML	AML			
EIL	**Elat**	**10.35**	**138**	P	**Pn**	**23**	**03**	**22.0 +0.2**
EIL				S	**Sn**	**23**	**05**	**11.7 -5.7**
GERES	**GERESS Array B**	**14.77**	**323**	Pn	**Pn**	**23**	**04**	**22.0 -0.1**
	baz=141,slow=32,SNR=1.6							
	0.2nm,0.6s							
ESDC	**Sonseca Array**	**24.24**	**284**	P	**P**	**23**	**06**	**10.3 +0.2**
	0.2nm

KAPI	Kappang	4.57	9	P		Pn	23 05 49.5	+2.1
KAPI	Kappang	4.57	9	Pn		Pn	23 05 48.9	+1.5
KAPI	Kappang	4.57	9	P		Pn	23 05 49.4	+2.1
KAPI				AML		AML		
KAPI	Kappang	4.57	9	P		Pn	23 05 49.8	+2.4
JAGI	Jajag, Banyuwa	4.98	282	P		Pn	23 05 53.6	+0.6
JAGI	Jajag, Banyuwa	4.98	282	Pn		Pn	23 05 53.3	+0.3
JAGI	Jajag, Banyuwa	4.98	282	P		Pn	23 05 53.7	+0.7
JAGI				AML		AML		
JAGI	Jajag, Banyuwa	4.98	282	P		Pn	23 05 54.1	+1.0
ABJI	Asem Bagus	5.09	290	P		Pn	23 05 58.9	+4.3
	0.7nm87nm,1.1s							
ABJI				AML		AML		
ABJI	Asem Bagus	5.09	290	P		Pn	23 05 55.7	+1.1
	comp=Z,103nm,0.7s							
SOEI	Soe	5.13	93	P		Pn	23 05 57.6	+2.5
SOEI	Soe	5.13	93	Pn		Pn	23 05 58.0	+2.9
SOEI	Soe	5.13	93	P		Pn	23 05 59.1	+4.0
	comp=Z,1.3nmcomp=Z,4µmcomp=Z,334nm,0.6s							
SOEI				AML		AML		
SOEI	Soe	5.13	93	P		Pn	23 05 57.7	+2.6
	comp=Z,332nm,0.7s							
BBSI	Bau Bau	5.33	41	P		Pn	23 06 00.3	+2.4
	comp=Z,0.4nmcomp=Z,95nm,0.8s							
BBSI				AML		AML		
BBSI	Bau Bau	5.33	41	P		Pn	23 05 58.9	+1.0
	comp=Z,56nm,0.8s							
GMJI	Gumukmas	5.71	283	P		Pn	23 06 03.2	+0.2
	comp=Z,88nm,0.7s							
BLJI	Banyuglugur	5.71	288	P		Pn	23 06 04.3	+1.3
	comp=Z,0.8nmcomp=Z,2µmcomp=Z,97nm,0.5s							
BLJI				AML		AML		
BLJI	Banyuglugur	5.71	288	P		Pn	23 06 03.3	+0.3
	comp=Z,123nm,0.6s							
KKSI	Kolaka, Sulawe	5.94	26	P		Pn	23 06 06.4	+0.2
	comp=Z,0.8nmcomp=Z,3µmcomp=Z,154nm,0.4s							
KKSI				AML		AML		
PMSI	Majene	6.03	359	P		Pn	23 06 09.9	+2.5
	comp=Z,0.4nmcomp=Z,1µmcomp=Z,91nm,0.5s							
PMSI				AML		AML		
PMSI	Majene	6.03	359	P		Pn	23 06 09.7	+2.3
	comp=Z,84nm,0.6s							
TTSI	Tana Toraja	6.52	7	P		Pn	23 06 18.3	+4.2
	comp=Z,0.4nmcomp=Z,2µmcomp=Z,126nm,0.7s							
TTSI				AML		AML		
TTSI	Tana Toraja	6.52	7	P		Pn	23 06 17.4	+3.3
	comp=Z,45nm,0.9s							
KDI	Kendari	6.59	33	P		Pn	23 06 19.1	+4.0
KDI				AML		AML		
MMSI	Mamuju	6.83	359	P		Pn	23 06 21.0	+2.5
	comp=Z,0.2nmcomp=Z,52nm,0.6s							
MMSI				AML		AML		
MMSI	Mamuju	6.83	359	P		Pn	23 06 20.6	+2.1
	comp=Z,699nm,0.6s							
PWJI	Pagerwojo	7.34	281	P		Pn	23 06 29.6	+4.1
	comp=Z,106nm,0.6s							
PWJI	Pagerwojo	7.34	281	P		Pn	23 06 26.9	+1.4
	comp=Z,48nm,0.8s							
SNJI	Sawahan-Nganju	7.44	283	P		Pn	23 06 29.0	+2.0
	comp=Z,0.4nmcomp=Z,58nm,0.8s							
SNJI				AML		AML		
WOJI	Wonogiri, Jawa	8.23	281	P		Pn	23 06 40.4	+2.7
	comp=Z,49nm,1.0s							
UGM	Wanagama	8.61	280	P		Pn	23 06 45.9	+3.1
UGM	Wanagama	8.61	280	Pn		Pn	23 06 44.9	+2.0
UGM	Wanagama	8.61	280	P		Pn	23 06 45.5	+2.7
	comp=Z,96nm,1.6s							
PCI	Palu	8.63	5	P		Pn	23 06 46.3	+3.1
	comp=Z,2µmcomp=Z,50nm,0.9s							
LUWI	Luwuk	9.23	24	P		Pn	23 06 54.3	+3.0
	comp=Z,42nm,0.9s							
FITZ	Fitzroy Crossi	10.61	144	P		Pn	23 07 10.8	+0.5
	comp=Z,7.6nm,0.5s,baz=341,slow=8.5,SNR=47							
FITZ				S		Sn	23 09 01.7	-6.0
	comp=Z,23nm,0.5s,baz=172,slow=21,SNR=14							
FITZ				LR		LR	23 11 22.3	
	comp=Z,81nm,20.3s,baz=338,slow=37							
FITZ	Fitzroy Crossi	10.61	144	P		Pn	23 07 10.4	+0.2
	comp=Z,2.7nm,0.8s							
KNRA	Kununurra	11.24	124	Pn		Pn	23 07 19.5	+0.7
MBWA	Marble Bar	11.55	177	P		Pn	23 07 24.1	+1.1
MBWA	Marble Bar	11.55	177	Pn		Pn	23 07 21.2	-1.8
DRS	Darwin Rock St	11.96	105	P		Pn	23 07 28.1	-0.5
SAUI	Saumlaki	12.19	84	P		Pn	23 07 32.8	+1.0
SAUI	Saumlaki	12.19	84	Pn		Pn	23 07 32.6	+0.8
SAUI	Saumlaki	12.19	84	P		Pn	23 07 33.4	+1.6
SAUI	Saumlaki	12.19	84	P		Pn	23 07 32.9	+1.1
	comp=Z,375nm,0.6s							
MTN	Manton Dam	12.27	107	Pn		Pn	23 07 31.9	-1.0
GIRL	Giralia	13.81	199	Pn		Pn	23 07 53.6	-0.3
FAKI	Fak Fak	14.66	64	P		Pn	23 08 04.9	-0.5
FAKI	Fak Fak	14.66	64	Pn		Pn	23 08 04.3	-1.2
FAKI	Fak Fak	14.66	64	P		Pn	23 08 05.6	+0.2
	comp=Z,34nm,0.7s							
FAKI	Fak Fak	14.66	64	P		Pn	23 08 04.5	-1.0
	comp=Z,35nm,0.7s							
SIJI	Sorong	14.89	55	P		Pn	23 08 08.6	+0.1
	comp=Z,23nm,0.7s,baz=219,slow=14,SNR=6.3							
SIJI				LR		LR	23 13 57.5	
	comp=Z,128nm,20.9s,baz=72,slow=38							
SIJI	Sorong	14.89	55	P		Pn	23 08 08.6	+0.1
	comp=Z,30nm,0.7s							
SIJI	Sorong	14.89	55	P		Pn	23 08 08.6	+0.1
	comp=Z,28nm,1.0s							
MEEK	Meekatharra	16.99	181	P		P	23 08 37.5	+1.0
DAV	Davao City (W)	17.75	22	LR		LR	23 17 18.7	
	comp=Z,40nm,18.4s,baz=158,slow=43							
WB0	Warramunga Arr	17.95	126	P		Pn	23 08 47.5	+0.5
WRA	Warramunga Arr	18.00	127	P		Pn	23 08 48.1	+0.4
	comp=Z,1.0nm,0.3s,baz=301,slow=14,SNR=35							
WRA				S		Sn	23 11 54.1	-14
	comp=Z,2.4nm,0.7s,baz=289,slow=24,SNR=6.3							
WRA	Warramunga Arr	18.00	127	P		Pn	23 08 47.6	-0.1
WRAB	Tennant Creek	18.00	127	P		Pn	23 08 48.3	+0.6
WRAB	Tennant Creek	18.00	127	P		Pn	23 08 47.3	-0.4
WR8	Warramunga Arr	18.13	126	P		Pn	23 08 50.1	+0.8
WR8				IAmb		IAmb	23 08 55.6	
	comp=Z,8.1nm,0.6s							
KRJI	Kerinci	19.02	292	P		P	23 08 57.5	-1.6
	comp=Z,106nm,0.7s							
MORW	Morawa	19.61	188	P		Pn	23 09 08.7	+1.7
AS31	Alice Springs	19.94	136	P		Pn	23 09 10.7	-0.3
ASAR	Alice Springs	19.94	137	P		P	23 09 10.7	+1.6
	comp=Z,3.3nm,0.6s,baz=310,slow=9.7,SNR=31							
ASAR				S		S	23 12 45.5	-5.6
	comp=Z,2.4nm,0.8s,baz=306,slow=22,SNR=8.9							
	comp=Z,3.3nm,0.6s							
AS01	Alice Springs	19.97	136	P		Pn	23 09 11.9	+0.6
SMPI	Sarmi	20.92	70	P		P	23 09 19.1	-0.7
	comp=Z,38nm,1.1s							
BLDU	Balidu	21.06	186	P		P	23 09 23.6	+2.6
KLBR	Kellerberrin	21.95	183	P		P	23 09 34.1	+3.5
QIS	Mount Isa	22.61	121	P		P	23 09 40.3	+2.5
QIS	Mount Isa	22.61	121	P		P	23 09 36.1	-1.7
	comp=Z,8.6nm,0.8s							
NWAO	Narrogin (SRO)	23.31	184	P		P	23 09 48.4	+3.6
BBOO	Buckleboo	27.95	148	P		P	23 10 27.4	+0.4
CTA	Charters Tower	28.24	115	LR		LR	23 24 10.1	
	comp=Z,39nm,20.6s,baz=223,slow=41							
STKA	Stephens Creek	30.48	140	P		P	23 10 50.9	+1.5
	comp=Z,2.2nm,0.5s,baz=302,slow=8.2,SNR=5.7							
	comp=Z,2.2nm,0.5s							
STKA	Stephens Creek	30.48	140	P		P	23 10 51.3	+1.9
CMAR	Chiang Mai Arr	34.20	324	P		P	23 11 21.6	-0.5
	comp=Z,0.5nm,0.5s,baz=157,slow=6.0,SNR=5.6							
	comp=Z,0.5nm,0.5s							
CMAR	Chiang Mai Arr	34.20	324	P		P	23 11 20.6	-1.6
HNR	Honiara	40.30	93	LR		LR	23 29 08.7	
	comp=Z,22nm,21.8s,baz=331,slow=36							
ENH	Enshi	40.66	347	P		P	23 12 15.6	-1.1
	comp=Z,12nm,0.9s							
MOO	Moorlands	40.98	148	P		P	23 12 15.2	-4.0
	comp=Z,43nm,1.4s							
H08S2	Diego Garcia H	46.07	269	T		T	00 02 20.4	
	baz=95,slow=76,SNR=59							
H08S3	Diego Garcia H	46.08	269	T		T	00 02 23.9	
	baz=95,slow=76,SNR=70							
H08S1	Diego Carcia H	46.09	269	T		T	00 02 24.5	
	baz=95,slow=76,SNR=56							
KSRS	Korea Array	47.50	10	P		P	23 13 10.1	-1.2
	comp=Z,1.6nm,0.7s,baz=180,slow=8.1,SNR=6.0							
KSRS				LR		LR	23 32 09.7	
	comp=Z,6.7nm,21.6s,baz=330,slow=35							
	comp=Z,1.6nm,0.7s							
LZDM	Lanzhou Array	47.54	343	P		P	23 13 11.9	-0.2
	comp=Z,1.8nm,0.4s,baz=159,slow=7.9,SNR=5.5							
	comp=Z,1.8nm,0.4s							
LZH	Lanzhou	47.62	343	*e*P		P	23 13 17.5	+5.0
LZH				sP		sP	23 13 37.3	+6.8
LZH				pmax		pmax		
	comp=Z,18nm,1.2s							
EVN	Everest	48.63	321	P		P	23 13 21.3	+0.2
EVN				IAmb		IAmb	23 13 23.5	
	comp=Z,5.8nm,1.1s							
MJAR	Matsushiro Arr	49.27	20	P		P	23 13 22.5	-2.5
	comp=Z,4.3nm,1.0s,baz=188,slow=7.4,SNR=5.5							
MJAR				LR		LR	23 33 21.1	
	comp=Z,11nm,22.0s,baz=180,slow=35							
	comp=Z,4.3nm,1.0s							
HHC	Hu-ho-hao-te	50.64	353	*e*P		P	23 13 38.1	+2.7
HHC				pmax		pmax		
	comp=Z,9.0nm,0.6s							
HHC				pmax		pmax		
	comp=Z,74nm,5.1s							
GTA2	Gaotai	51.99	341	*e*P		P	23 13 46.3	+0.7
GTA2				pP		sP	23 14 02.0	-1.7
GTA2				pmax		pmax		
	comp=Z,7.0nm,1.0s							
USA0B	Ussuriysk Arra	54.78	11	P		P	23 14 04.7	-1.1
USRK	Ussuriysk Ar.	54.78	11	P		P	23 14 04.3	-1.5
	comp=Z,2.4nm,0.5s,baz=198,slow=8.1,SNR=5.1							
	comp=Z,2.4nm,0.5s							
USRK	Ussuriysk Ar.	54.78	11	P		P	23 14 04.6	-1.2
SONM	Songino Array	58.24	350	P		P	23 14 30.2	-0.4
	comp=Z,2.6nm,0.5s,baz=168,slow=8.4,SNR=29							
	comp=Z,2.6nm,0.5s							
SONM	Songino Array	58.24	350	P		P	23 14 30.4	-0.2
SONM				IAmb		IAmb	23 14 31.8	
	comp=Z,2.5nm,0.6s							
WMQ	Urumqi	60.29	334	*e*P		P	23 14 45.1	+0.4
WMQ				pmax		pmax		
	comp=Z,13nm,0.7s							
KSH2	Kashi	63.10	323	P		P	23 15 05.4	+1.6
KSH2				pmax		pmax		
	comp=Z,3.0nm,0.9s							
PDGK	Podgornoye	63.78	329	P		P	23 15 07.8	-0.4
KBL	Kabul	64.54	316	P		P	23 15 12.7	-0.8
KBL	Kabul	64.54	316	P		P	23 15 10.7	-2.8
	comp=Z,7.3nm,0.7s							
KBL				pP		pP	23 15 29.5	+2.9
MKAR	Makanchi Array	64.99	333	P		P	23 15 15.1	-0.9
	comp=Z,2.3nm,0.7s,baz=148,slow=6.5,SNR=21							
	comp=Z,2.3nm,0.7s							
MKAR	Makanchi Array	64.99	333	P		P	23 15 14.8	-1.1
H04N2	CROZET ISLANDS baz=81	67.45	224	T		T	00 29 15.2	
H04N1	CROZET ISLANDS baz=81	67.46	224	T		T	00 29 17.2	
H04N3	CROZET ISLANDS baz=81	67.46	224	T		T	00 29 12.6	
KURBB	Kurchatov Arra	69.50	334	P		P	23 15 43.2	-1.2
	comp=Z,0.6nm,0.5s,baz=137,slow=5.5,SNR=9.3							
	comp=Z,0.6nm,0.5s							
KURK	Kurchatov	69.53	334	P		P	23 15 43.6	-1.0
KURK				IAmb		IAmb	23 15 45.5	
	comp=Z,3.5nm,1.2s							
ZAA0	Zalesovo Array	69.59	339	P		P	23 15 44.4	-0.5
ZAA0				IAmb		IAmb	23 16 06.4	
	comp=Z,7.1nm,1.5s							
ZALV	Zalesovo Beam	69.59	339	P		P	23 15 43.6	-1.2
	comp=Z,0.9nm,0.4s,baz=132,slow=4.3,SNR=6.9							
	comp=Z,0.9nm,0.4s							
BVAR	Borovoye Array	74.82	332	P		P	23 16 14.8	-1.4
	comp=Z,1.6nm,0.7s,baz=138,slow=6.9,SNR=9.0							
	comp=Z,1.6nm,0.7s							
AB31	Akbulak array	78.06	325	P		P	23 16 33.9	-0.7
AB31				IAmb		IAmb	23 16 34.6	
	comp=Z,4.0nm,0.8s							
ABKAR	Akbulak array	78.06	325	P		P	23 16 33.3	-1.2
AKTO	Aktyubinsk	79.73	325	P		P	23 16 43.1	-0.6
	comp=Z,4.2nm,0.7s,baz=115,slow=4.0,SNR=13							
	comp=Z,4.2nm,0.7s							
QSPA	South Pole Qui	80.43	180	P		P	23 16 47.1	-0.3
	comp=Z,0.7nm,0.8s,baz=311,slow=2.5,SNR=5.2							
	comp=Z,0.7nm,0.8s							
QSPA	South Pole Qui	80.43	180	P		P	23 16 48.8	+1.3
QSPA				IAmb		IAmb	23 17 04.9	
	comp=Z,6.0nm,1.5s							
ARTI	Arti	82.45	331	P		P	23 16 56.5	-1.6
	comp=Z,2.2nm,0.7s,baz=117,slow=5.4,SNR=3.5							
	comp=Z,2.2nm,0.7s							
ARTI	Arti	82.45	331	P		P	23 16 56.5	-1.6
ARTI				IAmb		IAmb	23 17 19.6	
	comp=Z,8.9nm,1.3s							
BRTR	Keskin Array B	92.55	310	LR		LR	00 03 48.6	
	comp=Z,14nm,18.4s,baz=208,slow=38							
H09N1	TRISTAN DA CUNI SNR=6.1	14.99	221	T		T	01 28 59.7	

MCSM **17** *23:05:42.6±1.5, 40˚N±7˚×3˚5E±1˚4, h10km, mb5.0, mB5.1, MLv4.5, Mw(mB)4.5*
IDC **17** *23:05:46.6±0.5, 40.50N×34.38E, h0km, mb4.1/18, mbtmp4.0/27, ML4.0/6, MS3.1/9, Error ellipse: s-maj=10.7km s-min=6.3km az=131.0*
MOS **17** *23:05:46.6±1.1, 40.56N×34.32E, h10km, mb4.6/9, Error ellipse: s-maj=5.9km s-min=3.8km az=87.5*
MED_RC **17** *23:05:47.0, 40.49N×34.32E, h16km, Mw4.2, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr1.54±.61; Mθθ-1.23±.40; Mϕϕ0.00±.30; Mrθ0.96±.58; Mθϕ-1.25±.18; Mϕr-1.19±.54; Fault plane solution: M₀2.38000×10¹⁵ NP1:φ205.00000°, δ53.00000°, λ43.00000°. NP2:φ86.00000°, δ57.00000°, λ134.00000°. Principal axes: T 2.6600, Plg54.0000°, Azm53.0000°; N -0.5500, Plg36.0000°, Azm238.0000°; P -2.1100, Plg2.0000°, Azm146.0000°;*
ISK **17** *23:05:47.2, 40.50N×34.32E, h6km, ML4.1/24*
AFAD **17** *23:05:47.6, 40.50N×34.34E, h1¹km±2km, MW4.2*
NEIC **17** *23:05:48.9±1.9, 40.52N±0.03×34.31E±0.04, h10km±1km, mb4.5/26, Error ellipse: s-maj=5.8km s-min=4.0km az=221.0*
CFUSG **17** *23:05:50.5, 40.65N×34.68E, h25km, Mb3.5/9, MD3.3/7, MSH3.2/7*

ISC 17 23:05:47.8±1.0, 40.51N±0.02×34.34E±0.02, h5km±7km, n314, σ1$28/339, mb4.4/35, 22C-30D, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SUNG	orum-Sungurl	0.33	193	P		Pb	23 05 55.0	-1.2
YENC	ankr-Yen	0.42	295	P		Pg	23 05 56.2	+0.3
AYAZ	Ayas K¶y, M	0.43	66	P		Pg	23 05 56.3	+0.3
AYAZ				S		Sg	23 06 02.4	+0.7
AYAZ				IAML			23 06 03.0	
	comp=N,10µm,0.4s							
AYAZ				IAML			23 06 08.0	
	comp=E,8µm,0.4s							
COAL	Corum-Alaca	0.55	117	P		Pg	23 05 58.7	+0.2
COAL				S		Sg	23 06 06.7	+1.1
COAL				IAML			23 06 07.0	
	comp=E,7µm,0.4s							
COAL				IAML			23 06 16.0	
	comp=N,6µm,0.9s							
CANT	Cankiri	0.56	280	Pg		Pg	23 05 58.8	+0.2
CANT				AML		AML		
TOS	Tosya	0.58	335	Pg		Pg	23 05 59.0	0.0
TOS				AML		AML		
DELI	KIRIKKALE	0.60	213	P		Pg	23 05 59.0	-0.4
KAGI	orum-Kargı	0.64	9	P		Pg	23 05 59.9	-0.2
KRGN	Kargin	0.65	250	P		Pg	23 06 00.0	-0.2
ELDT	Eldivan	0.70	269	P		Pg	23 06 01.3	0.0
ILGA	Ilgaz	0.72	319	P		Pb	23 06 02.2	-0.8
ILGA	Ilgaz	0.72	319	Pg		Pg	23 06 01.7	0.0
ILGA				Sg		Sg	23 06 11.1	0.0
GOKD	Ankara-Kalecik	0.79	237	P		Pg	23 06 02.8	-0.2
YOZG	Bozok Univ. Me	0.81	154	P		Pg	23 06 03.1	-0.2
YOZG				S		Sg	23 06 12.7	-1.0
YOZG				IAML			23 06 20.0	
	comp=N,2µm,0.5s							
YOZG				IAML			23 06 32.0	
	comp=E,1µm,0.5s							
CDAG	Cicekdag	0.88	179	P		Pg	23 06 04.7	-0.1
CDAG				S		Sg	23 06 15.7	-0.6
CDAG				IAML			23 06 21.0	
	comp=N,4µm,0.6s							
BR131	Keskin Array S	0.95	215	P		Pg	23 06 05.4	-0.6
BR131							23 06 23.8	
BR131	Keskin Array S	0.95	215	Pg		Pg	23 06 05.4	-0.6
BR131						Sn	23 06 23.8	+1.9
BR131	Keskin Array S	0.95	215	Pg		Pg	23 06 05.5	-0.6
BR131				Sg		Sg	23 06 18.3	-0.1
BR131				AML		AML		
BRTR	Keskin Array B	0.95	215	Pg		Pg	23 06 05.0	-1.0
	67nm,0.3s,baz=344,slow=25,SNR=566							
BRTR				Lg		Lg	23 06 20.1	
	160nm,0.3s,baz=293,slow=30,SNR=16							
BRTR	Keskin Array B	0.95	215	P		Pg	23 06 05.0	-1.0
BRTR	Keskin Array B	0.95	215	Pg		Pg	23 06 06.0	-0.1
BR106	Keskin Array S	0.95	216	P		Pg	23 06 05.9	-0.2
BR106				AML		AML		
KMON	Kastamonu	0.96	334	Pg		Pg	23 06 05.9	-0.4
KMON				Sg		Sb	23 06 19.5	-0.6
KMON				AML		AML		
BR105	Keskin Array S	0.97	215	P		Pg	23 06 06.2	-0.1
BR105				AML		AML		
CKRK	Yozgat, Cekere	0.99	116	P		Pb	23 06 07.4	0.0
AKPI	Kirsehir/Akpin	1.04	195	P		Pg	23 06 06.9	-0.8
KESK	Krkkale-Ke	1.05	214	P		Pg	23 06 07.2	-0.8
BOYA	Sinop/Boyabat-	1.05	14	P		Pg	23 06 07.6	-0.4
YALI	Yalozu-CANKI	1.07	284	Pg		Pg	23 06 07.9	-0.4
YALI				AML		AML		
PELI	Kastamonı-Ara	1.11	316	P		Pb	23 06 09.4	-0.2
YOZ	Yozgat	1.15	139	Pn		Pg	23 06 09.6	-0.2
YOZ				AML		AML		
HAVZ	Havza	1.19	61	P		Pg	23 06 10.5	-0.1
YARM	Yarimca-Ladik(	1.20	69	Pn		Pb	23 06 10.9	-0.2
YARM				AML		AML		
SEYI	Kastamonu-Seyd	1.21	338	P		P	23 06 10.7	-0.4
KAMT	Kaman	1.24	203	Pn		Pg	23 06 10.7	-0.8
KAMT				AML		AML		
KIZO	Buyukkizoglu-L	1.27	72	Pn		Pn	23 06 12.5	+0.2
KIZO				AML		AML		
SIRC	Yozgat	1.32	152	P		Pg	23 06 12.2	-1.0
HACI	Hacifakili, Ak	1.33	127	P		Pb	23 06 13.7	+0.3
BBAL	Bala	1.34	225	P		Pn	23 06 12.8	-0.6
MCUR	KIREHR	1.35	174	P		Pn	23 06 12.4	-1.1
KOZK	Kozakli-Nevseh	1.36	163	Pn		Pn	23 06 12.9	-0.6
KOZK				AML		AML		
LOD	Lodumlu	1.36	243	Pn		Pn	23 06 12.8	-0.7
LOD				AML		AML		
KIRS	Kirsehir-Merke	1.41	194	P		Pn	23 06 13.3	-0.9
KIRS	Kirsehir-Merke	1.41	194	⇑P		Pn	23 06 13.3	-0.9
KIRS				⇓S		Sn	23 06 34.2	+0.9
AFSR	Afar-Bala (An	1.44	223	Pn		Pn	23 06 14.3	-0.4
AFSR				AML		AML		
SAFT	Safranbolu	1.45	301	Pn		Pn	23 06 14.6	-0.1
SAFT				AML		AML		
BZK	Bozkurt	1.47	350			Pb	23 06 15.6	-0.1
BZK				Sg		Sg	23 06 36.0	+0.9
BZK	Bozkurt	1.47	350	⇑P		Pg	23 06 15.7	-0.4
BZK				⇑S		Sg	23 06 34.9	-0.2
BZK	Bozkurt	1.47	350	Pn		Pn	23 06 15.1	+0.1
BZK				AML		AML		
SAMS	Samsun-Alacam	1.64	58	P		Pb	23 06 18.5	0.0
TOKA	Tokat	1.64	96	P		Pb	23 06 18.5	-0.1
TOKA				S		Sg	23 06 40.6	0.0
TOKA				IAML			23 06 45.0	
	comp=E,1µm,0.6s							
TOKA				IAML			23 06 50.0	
	comp=N,2µm,1.1s							
TOKA	Tokat	1.64	96	Pn		Pb	23 06 17.9	-0.7
SNOP	Sinop	1.64	23	Pn		Pn	23 06 17.2	-0.1
SNOP	Sinop	1.64	23	Pn		Pn	23 06 17.7	+0.4
SNOP				AML		AML		
SERE	Sereflikochisa	1.67	201	Pn		Pn	23 06 17.9	+0.1
SERE				AML		AML		
TOKT	Tokat	1.69	96	Pn		Pb	23 06 18.9	-0.5
TOKT				AML		AML		
CIDE	Kastamonu/Cide	1.73	323	⇓P		Pn	23 06 18.3	-0.2
AVNS	Nevsehir-Avano	1.74	167	P		Pg	23 06 20.6	-0.6
KULU	Kulu	1.79	216	Pn		Pn	23 06 19.3	-0.2
KULU				AML		AML		
KURC	Kurucasile-Bar	1.80	318	Pn		Pn	23 06 19.8	+0.3
KURC				AML		AML		
CUSAR	Sarkisla-SIVAS	1.82	126	P		Pb	23 06 21.5	-0.2
ERBA	Erbaa	1.84	84	P		Pb	23 06 21.3	-0.8
POLA	Polatl-ANKAR	1.85	245	Pn		Pn	23 06 20.1	-0.2
POLA				AML		AML		
GUNE	Kayseri	1.89	148	P		Pg	23 06 23.4	-0.6
RUZG	Kolk¶y-BOLU	1.95	277	Pn		Pn	23 06 21.8	+0.1
RUZG				AML		AML		
YUVA	Yuva-Kibriscik	2.03	268	Pn		Pn	23 06 22.7	-0.1
YUVA				AML		AML		
CUAYA	Sivas-Altinyay	2.23	123	P		Pb	23 06 27.5	-1.1
MDUB	Mudurnu	2.40	270	Pn		Pn	23 06 27.5	-0.3
MDUB	Mudurnu	2.40	270	Pn		Pn	23 06 27.9	+0.1
SVRH	Sivrihisar-ESK	2.41	245	Pn		Pn	23 06 27.7	-0.3
SVRH				AML		AML		
UVEZ	Uvezbeli-DUZCE	2.65	280	Pn		Pn	23 06 31.5	+0.4
UVEZ				AML		AML		
SAHE	Sakarya_HENDEK	2.68	279	⇑P		Pn	23 06 31.7	+0.2
ARPR	Arapgir-MALATY	3.38	113	Pn		Pn	23 06 41.8	+0.4
YLV	Yalova	3.79	272	P		Pn	23 06 46.4	-0.5
YLV				AML		AML		
YAL	Yalta	3.98	358	*e*P		Pn	23 06 49.8	+0.4
YAL				*e*S		Sn	23 07

MANT	**Manisa**		**4.91**	**248**	Pn	**Pn**	**23 07 02.6**	**+0.2**
DNZ2	**Donuzlav2**		**4.93**	**351**	*e*P	**Pn**	**23 07 04.1**	**+1.6**
DNZ2					pmax	pmax	23 07 06.7	
	comp=Z,83nm,0.3s							
DNZ2					*e*S	**Sn**	**23 08 00.8**	**+0.9**
DNZ2					smax	smax	23 08 09.2	
	comp=N,25nm,0.6s							
DNZ2					smax	smax	23 08 09.2	
	comp=E,33nm,0.5s							
KERU	**Kerch**		**5.04**	**17**	*e*P	**Pn**	**23 07 06.4**	**+2.4**
KERU	**Kerch**		**5.04**	**17**	*e*P	**Pn**	**23 07 06.4**	**+2.4**
KERU					pmax	pmax	23 07 07.3	
	comp=Z,87nm,0.6s							
SOC	**Sochi**		**5.04**	**51**	*e*P	**Pn**	**23 07 02.5**	**-1.6**
SOC					*e*		23 07 59.9	
SOC					pmax	pmax		
	comp=Z,23nm,0.8s							
SOC					MLR	MLR		
	comp=Z,36nm,8.0s							
TARU	**Tarkhankut**		**5.04**	**345**	*e*P	**Pn**	**23 07 06.6**	**+2.6**
TARU					pmax	pmax	23 07 14.5	
	comp=Z,20nm,0.4s							
TARU					*e*S	**Sn**	**23 08 03.5**	**+0.9**
TARU					smax	smax	23 08 03.9	
	comp=N,28nm,0.6s							
TARU					smax	smax	23 08 03.9	
	comp=E,15nm,0.6s							
ELL	**Elmali**		**5.11**	**224**	P	**Pn**	**23 07 07.7**	**+2.6**
ELL	**Elmali**		**5.11**	**224**	Pn	**Pn**	**23 07 07.7**	**+2.6**
TAVA	**DENIZLI_Tavas**		**5.21**	**236**	⇑P	**Pn**	**23 07 06.8**	**+0.3**
CSS	**Mathiatis**		**5.59**	**189**	Pn	**Pn**	**23 07 14.0**	**+2.3**
CSS	**Mathiatis**		**5.59**	**189**	P	Pn	23 07 18.0	+6.3
CSS					AML	AML		
AKAS	**Kas**		**5.66**	**223**	Pn	**Pn**	**23 07 14.7**	**+2.0**
PRD	**Provadia**		**5.82**	**299**	P	**Pn**	**23 07 17.5**	**+2.8**
TIRR	**Tirgusor**		**5.90**	**314**	P	**Pn**	**23 07 16.0**	**+0.2**
TIRR	**Tirgusor**		**5.90**	**314**	Pn	**Pn**	**23 07 16.0**	**+0.2**
TIRR	**Tirgusor**		**5.90**	**314**	⇑P	**Pn**	**23 07 15.3**	**-0.5**
NEF	**NEVSHA**		**5.95**	**300**	P	**Pn**	**23 07 17.3**	**+0.8**
ICOR	**Ion Corvin**		**6.04**	**309**	⇓P	**Pn**	**23 07 17.8**	**0.0**
TPGR	**Topolog**		**6.16**	**317**	⇓P	**Pn**	**23 07 18.3**	**-1.1**
EZN	**Ezine**		**6.18**	**266**	P	**Pn**	**23 07 19.9**	**+0.3**
EZN	**Ezine**		**6.18**	**266**	⇓P	**Pn**	**23 07 19.9**	**+0.3**
EZN	**Ezine**		**6.18**	**266**	P	**Pn**	**23 07 19.4**	**-0.2**
	comp=E,0.1nmcomp=E,1μmcomp=E,26nm,0.7s							
EZN					AML	AML		
LABN	**Labinsk**		**6.26**	**47**	*e*P	**Pn**	**23 07 21.6**	**+0.8**
LABN					*e*S	**Sn**	**23 08 33.6**	**+0.9**
LABN					pmax	pmax		
	comp=Z,42nm,0.7s							
HARR	**Harsova**		**6.31**	**314**	P	**Pn**	**23 07 20.2**	**-1.2**
HARR	**Harsova**		**6.31**	**314**	⇓P	**Pn**	**23 07 20.2**	**-1.2**
ALN	**Alexandroupoli**		**6.32**	**276**	P	**Pn**	**23 07 21.9**	**+0.4**
ALN	**Alexandroupoli**		**6.32**	**276**	Pn	**Pn**	**23 07 21.9**	**+0.4**
BDRM	**Kayabasi**		**6.39**	**240**	⇓P	**Pn**	**23 07 21.9**	**-0.7**
NEUR	**Neytrino**		**6.82**	**63**	*i* P	**Pn**	**23 07 29.0**	**+0.4**
SZH	**Strazhitsa**		**6.82**	**297**	P	**Pn**	**23 07 27.9**	**-0.6**
PURM	**Purcari**		**6.84**	**333**	⇓P	**Pn**	**23 07 27.9**	**-0.7**
ERBR	**Yeremizino-Bor**		**6.87**	**39**	*e*P	**Pn**	**23 07 29.2**	**0.0**
ERBR					*e*S	**Sn**	**23 08 47.9**	**+0.2**
ERBR					pmax	pmax		
	comp=Z,23nm,0.6s							
KDZ	**Kurdzhali**		**6.90**	**282**	P	**Pn**	**23 07 30.5**	**+1.0**
IZVR	**Izvoarele**		**6.96**	**318**	⇑P	**Pn**	**23 07 30.4**	**0.0**
SHA1	**Shidzhatmaz**		**6.97**	**60**	*i* P	**Pn**	**23 07 31.5**	**+0.7**
VLDR	**Vladesti**		**7.03**	**321**	⇓P	**Pn**	**23 07 30.5**	**-0.7**
TUDR			**7.05**	**318**	⇓P	**Pn**	**23 07 31.3**	**-0.3**
KIV	**Kislovodsk**		**7.08**	**58**	P	**Pn**	**23 07 33.0**	**+0.9**
KIV	**Kislovodsk**		**7.08**	**58**	Pn	**Pn**	**23 07 32.2**	**0.0**
KIV	**Kislovodsk**		**7.08**	**58**	⇓P	**Pn**	**23 07 33.1**	**+0.9**
KBZ	**Khabaz**		**7.13**	**60**	Pn	**Pn**	**23 07 33.2**	**+0.6**
	comp=Z,0.8nm,0.3s,baz=250,slow=14,SNR=32							
KBZ					Sn	**Sn**	**23 08 54.1**	**+0.2**
	comp=Z,0.4nm,0.3s,baz=72,slow=18,SNR=1.8							
	comp=Z,5.0nm,0.5s							
KBZ					AML	AML		
KBZ	**Khabaz**		**7.13**	**60**	*e*P	**Pn**	**23 07 32.7**	**+0.1**
KBZ					pmax	pmax		
	comp=Z,1.0nm,0.3s							
VARL	**Varlezi**		**7.18**	**321**	⇑P	**Pn**	**23 07 33.2**	**-0.1**
PVL	**Pavlikeni**		**7.33**	**294**	*i* P	**Pn**	**23 07 35.2**	**-0.3**
RZN	**Rozhen**		**7.35**	**282**	*i* P	**Pn**	**23 07 35.6**	**-0.3**
ISR	**Istrita**		**7.35**	**311**	P	**Pn**	**23 07 36.3**	**+0.5**
ISR	**Istrita**		**7.35**	**311**	⇓P	**Pn**	**23 07 36.4**	**+0.5**
ISR	**Istrita**		**7.35**	**311**	P	**Pn**	**23 07 36.1**	**+0.3**
	comp=Z,0.3nmcomp=Z,91nm,0.6s							
ISR					AML	AML		
GEM	**Giv'at Ha'Em**		**7.36**	**171**	P	**Pn**	**23 07 39.7**	**+3.8**
GEM					AML	AML		
ODBI	**Odobesti**		**7.48**	**317**	⇓P	**Pn**	**23 07 37.7**	**+0.3**
GHRR			**7.51**	**320**	⇓P	**Pn**	**23 07 37.9**	**+0.1**
GHRR			**7.51**	**320**	P	**Pn**	**23 07 38.1**	**+0.2**
BISRR	**Bisoca**		**7.52**	**315**	⇑P	**Pn**	**23 07 38.3**	**+0.1**
BISRR	**Bisoca**		**7.52**	**315**	P	**Pn**	**23 07 39.3**	**+1.1**
	comp=Z,0.4nmcomp=Z,78nm,0.6s							
BISRR					AML	AML		
KARP	**Karpathos**		**7.53**	**231**	Pn	**Pn**	**23 07 40.1**	**+1.9**
MMAI	**Mount Meron Ar**		**7.53**	**173**	Pn	**Pn**	**23 07 39.0**	**+0.8**
	comp=Z,4.3nm,0.3s,baz=358,slow=17,SNR=16							
MMAI					LR	LR	23 11 09.8	
	comp=Z,147nm,18.8s,baz=358,slow=43							
	comp=Z,3.6nm,0.5s							
MMAI					AML	AML		
BIR	**Birlad**		**7.55**	**322**	P	**Pn**	**23 07 37.5**	**-0.9**
BIR	**Birlad**		**7.55**	**322**	⇓P	**Pn**	**23 07 37.5**	**-0.9**
SAHR	**Sahastru**		**7.65**	**315**	⇓P	**Pn**	**23 07 40.0**	**+0.1**
NEHR	**Nehoiu**		**7.68**	**312**	⇓P	**Pn**	**23 07 40.4**	**+0.2**
VRI	**Vrincioaia**		**7.72**	**316**	P	**Pn**	**23 07 40.5**	**-0.3**
VRI	**Vrincioaia**		**7.72**	**316**	⇑P	**Pn**	**23 07 40.5**	**-0.3**
PLOR	**Plostina**		**7.75**	**316**	P	**Pn**	**23 07 41.2**	**0.0**
PLOR	**Plostina**		**7.75**	**316**	⇑P	**Pn**	**23 07 41.3**	**0.0**
MLR	**Muntele Rosu**		**7.91**	**312**	Pn	**Pn**	**23 07 43.5**	**-0.1**
	comp=Z,0.9nm,0.3s,baz=158,slow=18,SNR=5.7							
MLR					LR	LR	23 11 41.7	
	comp=Z,146nm,19.4s,baz=82,slow=45							
	comp=Z,5.7nm,0.4s							
MLR					AML	AML		
MLR	**Muntele Rosu**		**7.91**	**312**	P	**Pn**	**23 07 43.8**	**+0.2**
MLR	**Muntele Rosu**		**7.91**	**312**	Pn	**Pn**	**23 07 43.4**	**-0.2**
MLR	**Muntele Rosu**		**7.91**	**312**	⇑P	**Pn**	**23 07 43.8**	**+0.2**
MNTR	**Muntenesti**		**7.96**	**324**	⇓P	**Pn**	**23 07 42.6**	**-1.5**
COVR	**Voineasa-Covas**		**7.99**	**315**	⇑P	**Pn**	**23 07 44.4**	**-0.1**
PDRR	**Padureni**		**8.02**	**324**	⇓P	**Pn**	**23 07 43.8**	**-1.1**
DMBR	**Dumbraveni**		**8.05**	**323**	⇓P	**Pn**	**23 07 44.3**	**-1.0**
TESR	**Tescani**		**8.20**	**320**	⇑P	**Pn**	**23 07 46.7**	**-0.7**
TESR	**Tescani**		**8.20**	**320**	P	**Pn**	**23 07 46.5**	**-0.9**
ONER	**Baraj Valea Uz**		**8.21**	**318**	⇓P	**Pn**	**23 07 47.2**	**-0.3**
TURR	**Turia**		**8.22**	**315**	⇑P	**Pn**	**23 07 47.8**	**+0.1**
IASR	**Iasi**		**8.27**	**326**	⇓P	**Pn**	**23 07 47.2**	**-1.1**
OZUR			**8.37**	**315**	⇓P	**Pn**	**23 07 49.0**	**-0.7**
DOPR	**Dopca**		**8.51**	**313**	⇑P	**Pn**	**23 07 50.9**	**-0.8**
ASF	**Jabal al Asfar**		**8.56**	**166**	Pn	**Pn**	**23 07 52.9**	**+0.3**
	comp=Z,0.5nm,0.3s,baz=348,slow=14,SNR=1.6							
ASF					LR	LR	23 11 42.0	
	comp=Z,210nm,19.2s,baz=332,slow=42							
GIRR	**Girov**		**8.59**	**321**	⇓P	**Pn**	**23 07 51.5**	**-1.2**
SORM	**Soroca**		**8.75**	**333**	P	**Pn**	**23 07 52.5**	**-2.3**
SORM	**Soroca**		**8.75**	**333**	⇑P	**Pn**	**23 07 52.5**	**-2.3**
SORM	**Soroca**		**8.75**	**333**	P	**Pn**	**23 07 52.5**	**-2.3**
BIZ	**Bicaz**		**8.77**	**320**	⇓P	**Pn**	**23 07 54.0**	**-1.2**
PRAR	**RASCA**		**9.01**	**322**	⇑P	**Pn**	**23 07 57.1**	**-1.3**
LIT	**Litokhoron**		**9.07**	**271**	P	**Pn**	**23 07 59.8**	**+0.5**
LIT	**Litokhoron**		**9.07**	**315**	Pn	**Pn**	**23 07 59.8**	**+0.5**
IDI	**Anoyia**		**9.11**	**238**	Pn	**Pn**	**23 08 00.8**	**+0.9**
	comp=Z,4.5nm,0.6s,baz=58,slow=13,SNR=7.4							
LOT	**Lotru**		**9.19**	**306**	⇓P	**Pn**	**23 08 00.3**	**-0.7**
BURAR	**Bucovina Array**		**9.67**	**320**	P	**Pn**	**23 08 06.6**	**-1.0**
BURAR	**Bucovina Array**		**9.67**	**320**	Pn	**Pn**	**23 08 06.4**	**-1.2**
BURAR	**Bucovina Array**		**9.67**	**320**	⇓P	**Pn**	**23 08 06.7**	**-1.0**
BUR08	**Bucovina Ar. S**		**9.70**	**320**	Pn	**Pn**	**23 08 06.5**	**-1.5**
GZR	**Gura Zlata**		**9.78**	**304**	P	**Pn**	**23 08 08.8**	**-0.3**
GZR	**Gura Zlata**		**9.78**	**304**	⇑P	**Pn**	**23 08 08.9**	**-0.3**
KMPD	**K-Podol'skiy**		**9.82**	**328**	P	**Pn**	**23 08 09.0**	**-0.5**
MARR	**Marisel-Cluj**		**10.21**	**311**	⇑P	**Pn**	**23 08 14.3**	**-0.6**
DRGR			**10.51**	**311**	P	**Pn**	**23 08 18.2**	**-0.8**
DRGR			**10.51**	**311**	⇓P	**Pn**	**23 08 18.2**	**-0.8**
AK06	**Malin Array Si**		**10.70**	**342**	P	**Pn**	**23 08 18.9**	**-2.7**
AK10	**Malin Array Si**		**10.70**	**342**	P	**Pn**	**23 08 18.7**	**-2.9**
AK09	**Malin Array Si**		**10.71**	**342**	P	**Pn**	**23 08 19.0**	**-2.7**
AK05	**Malin Array Si**		**10.73**	**342**	P	**Pn**	**23 08 19.2**	**-2.8**
AK08	**Malin Array Si**		**10.73**	**342**	P	**Pn**	**23 08 19.6**	**-2.4**
AK13	**Malin Array Si**		**10.76**	**342**	P	**Pn**	**23 08 19.5**	**-2.9**
AK14	**Malin Array Si**		**10.76**	**342**	P	**Pn**	**23 08 19.8**	**-2.7**
AK12	**Malin Array Si**		**10.76**	**342**	P	**Pn**	**23 08 19.7**	**-2.8**
KIEV	**Kiev**		**10.80**	**342**	P	**Pn**	**23 08 22.3**	**-0.7**
KIEV	**Kiev**		**10.80**	**342**	Pn	**Pn**	**23 08 22.3**	**-0.7**
KIEV	**Kiev**		**10.80**	**342**	⇑P	**Pn**	**23 08 22.2**	**-0.7**
AKASG	**Malin Array Be**		**10.80**	**342**	Pn	**Pn**	**23 08 20.5**	**-2.5**
	comp=Z,2.4nm,0.3s,baz=156,slow=13,SNR=8.1							
AKASG					LR	LR	23 13 19.9	
	comp=Z,109nm,19.4s,baz=183,slow=42							
	comp=Z,1.4nm,0.4s							
AKASG					AML	AML		
AKBB	**Malin Array Si**		**10.80**	**342**	*i* P	**Pn**	**23 08 22.8**	**-0.2**
EIL	**Elat**		**10.83**	**177**	LR	LR	23 13 01.6	
	comp=Z,62nm,18.4s,baz=49,slow=40							
VORD	**Divnogorie**		**11.01**	**17**	*e*P	**Pn**	**23 08 27.4**	**+1.6**
VORD					pmax	pmax		
	comp=Z,6.0nm,0.8s							
VSR	**Storozhevoye**		**11.22**	**16**	*e*P	**Pn**	**23 08 26.4**	**-2.3**
VSR					pmax	pmax		
	comp=Z,7.0nm,0.8s							
MNK	**Minsk**		**14.65**	**345**	*i* P	**Pn**	**23 09 15.7**	**+0.1**
MNK					*i* S	**Sn**	**23 11 58.2**	**0.0**
MNK					pmax	pmax		
	comp=E,12nm,1.0s							
MNK					pmax	pmax		
	comp=N,6.0nm,0.8s							
MNK					pmax	pmax		
	comp=Z,10.0nm,0.8s							
MNK					MLR	MLR		
	comp=Z,73nm,17.0s							
MNK					MLR	MLR		
	comp=N,396nm,22.0s							
MNK					MLR	MLR		
	comp=E,408nm,21.0s							
MNK	**Minsk**		**14.65**	**345**	*i* P	**Pn**	**23 09 15.7**	**+0.1**
	comp=E,12nm,1.0s							
MNK					*i* P	**Pn**	**23 09 15.7**	**+0.1**
	comp=N,6.0nm,0.8s							
MNK					*i* P	**Pn**	**23 09 15.7**	**+0.1**
	comp=Z,10.0nm,0.8s,baz=160							
MNK					*i* PP	**PnPn**	**23 09 23.7**	**+0.2**
MNK					*i* PPP	PPP	23 09 31.4	
MNK					*i* S	**Sn**	**23 11 58.3**	**0.0**
MNK					*i* SS	**SnSn**	**23 12 12.1**	**+1.3**
MNK					*i* SSS	SSS	23 12 24.6	
MNK					*i* LQ	LQ	23 13 32.1	
MNK					*i* LR	LR	23 14 48.1	
MNK					*i* LRM	MLR	23 15 45.1	
	comp=Z,73nm,17.0s							
MNK					*i* LRM	MLR	23 16 11.0	
	comp=E,408nm,20.6s							
MNK					*i* LRM	MLR	23 16 11.0	
	comp=N,396nm,22.1s							
OBN	**Obninsk**		**14.69**	**5**	Pn	**Pn**	**23 09 14.0**	**-2.1**
	comp=N,1.6nm,0.3s,baz=179,slow=18,SNR=1.8							
OBN					LR	LR	23 15 18.6	
	comp=N,63nm,21.1s,baz=239,slow=39							
	comp=N,7.1nm,0.5s							
OBN					AML	AML		
OBN	**Obninsk**		**14.69**	**5**	⇓*e*P	**Pn**	**23 09 16.6**	**+0.6**
OBN					pmax	pmax		
	comp=Z,14nm,0.9s							
OBN	**Obninsk**		**14.69**	**5**		**Pn**	**23 09 14.5**	**-1.6**
RONA	**Rosalia, Austr**		**14.80**	**305**	*e*P	**P**	**23 09 25.7**	**+1.9**
	comp=Z,2.6nm,0.8s							
BELG	**Belogornoye**		**14.97**	**33**	*i* P	**Pn**	**23 09 20.2**	**+0.3**
MORC	**Moravsky Berou**		**15.02**	**314**	P	**P**	**23 09 27.0**	**+0.8**
MORC	**Moravsky Berou**		**15.02**	**314**		**P**	**23 09 27.0**	**+0.8**
MORC	**Moravsky Berou**		**15.02**	**314**	*e*P	**P**	**23 09 28.1**	**+1.9**
WINA	**Alland / Wiene**		**15.10**	**306**	*e*pP	**P**	**23 09 30.1**	**+3.0**
	comp=Z,13nm,1.7s							
CONA	**Conrad Observa**		**15.16**	**305**	*e*pP	**P**	**23 09 30.9**	**+3.1**
	comp=Z,5.4nm,1.0s							
NACGM	**Naroch**		**15.26**	**343**	*e*P	**Pn**	**23 09 21.5**	**-2.2**
	comp=Z,17nm,0.9s,baz=158							
KRUC	**Moravsky**		**15.32**	**310**	*e*P	**P**	**23 09 30.6**	**+1.2**
VRAC	**Vranov**		**15.32**	**311**	LR	LR	23 16 17.5	
	comp=Z,50nm,19.9s,baz=132,slow=41							
VRAC	**Vranov**		**15.32**	**311**	*e*P	**P**	**23 09 30.2**	**+0.7**
MOS	**Moscow**		**15.39**	**7**	*e*P	**Pn**	**23 09 26.2**	**+0.7**
SUW	**Suwalki**		**15.46**	**335**	P	**P**	**23 09 31.3**	**+0.3**
SUW	**Suwalki**		**15.46**	**335**	P	**P**	**23 09 31.3**	**+0.3**
KRLC	**Kraliky**		**15.59**	**314**	*e*P	**P**	**23 09 34.5**	**+1.9**
KRLC	**Kraliky**		**15.59**	**314**	*e*P	**P**	**23 09 34.5**	**+1.9**
SESA	**Seetaler Alpe,**		**15.71**	**301**	*e*pP	**P**	**23 09 37.2**	**+3.2**
	comp=Z,5.4nm,1.3s							
ABNA	**Allensteig Bun**		**15.72**	**308**	*e*pP	**P**	**23 09 36.2**	**+2.2**
	comp=Z,6.0nm,1.2s							
DPC	**Dobruska-Polom**		**15.99**	**314**	*e*P	**P**	**23 09 40.5**	**+3.6**
DPC	**Dobruska-Polom**		**15.99**	**314**	*e*P	**P**	**23 09 40.5**	**+3.6**
MOA	**Molln**		**16.14**	**304**	*e*pP	**P**	**23 09 40.8**	**+2.2**
	comp=Z,5.5nm,1.1s							
GERES	**GERESS Array B**		**16.84**	**307**	Pn	**Pn**	**23 09 44.1**	**-0.2**
	comp=Z,0.9nm,0.9s,baz=107,slow=11,SNR=6.1							
KHC	**Kasperske Hory**		**17.03**	**307**	*e*P	**P**	**23 09 48.4**	**0.0**
KHC	**Kasperske Hory**		**17.03**	**307**	*e*P	**P**	**23 09 48.4**	**0.0**
LESA	**Schwarzleotal**		**17.03**	**301**	*e*pP	**P**	**23 09 51.3**	**+2.8**
	comp=Z,5.8nm,1.4s							
CLL	**Collm**		**18.29**	**313**	*i* P	**P**	**23 10 04.0**	**+1.7**
CLL	**Collm**		**18.29**	**313**	*i* Px	Px	23 10 04.0	
CLL					LV		23 15 00.0	
AKTO	**Aktyubinsk**		**19.27**	**51**	P	**P**	**23 10 12.3**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=243,slow=10,SNR=8.5							
	comp=Z,3.2nm,0.6s							
AKTO					AML	AML		
RAYN	**Ar Rayn**		**19.37**	**148**	P	**Pn**	**23 10 15.9**	**+0.4**
RAYN					pmax	pmax		
	comp=Z,3.0nm,1.0s							
RAYN	**Ar Rayn**		**19.37**	**148**	P	**Pn**	**23 10 15.9**	**+0.4**
AB31	**Akbulak array**		**20.06**	**56**	P	**P**	**23 10 21.2**	**-0.5**
ABKAR	**Akbulak array**		**20.06**	**56**	P	**P**	**23 10 22.3**	**+0.6**
KEST	**Kesra**		**20.21**	**264**	P	Pn	23 10 25.1	-0.4
	comp=Z,11nm,0.9s,baz=80,slow=5.5,SNR=5.5							
	comp=Z,11nm,0.9s							
KEST	**Kesra**		**20.21**	**264**		Pn	23 10 25.2	-0.3
KEST						IAmb	IAmb	23 10 53.5
	comp=Z,42nm,1.5s							
SENIN	**Lac Senin/Sane**		**20.44**	**296**	P	**P**	**23 10 25.8**	**-0.3**
KLMR	**Klimovskoe**		**20.62**	**7**	*e*P	**P**	**23 10 26.2**	**-1.5**
KLMR					pmax	pmax		
	comp=Z,39nm,1.2s							
BNI	**Bardonecchia**		**20.76**	**292**	P	Pn	23 10 31.6	-0.3
BNI					pmax	pmax		
	comp=Z,12nm,1.1s							
BNI	**Bardonecchia**		**20.76**	**292**	P	Pn	23 10 31.6	-0.3
BNI					IAmb	IAmb	23 10 42.9	
	comp=Z,12nm,1.1s							
FINES	**FINESS Array B**		**21.56**	**349**	P	**P**	**23 10 37.7**	**-0.2**
	comp=Z,5.2nm,0.8s,baz=145,slow=11,SNR=6.8							
	comp=Z,5.2nm,0.8s							
FINES	**FINESS Array B**		**21.56**	**349**	P	**P**	**23 10 37.3**	**-0.6**
FIA1	**FINESS Array S**		**21.57**	**349**	P	**P**	**23 10 37.3**	**-0.6**
ARTI	**Arti**		**22.33**	**37**	P	**P**	**23 10 45.4**	**-0.8**
	comp=Z,6.7nm,0.5s,baz=237,slow=7.8,SNR=12							
	comp=Z,6.7nm,0.5s							
ARTI	**Arti**		**22.33**	**37**	P	**P**	**23 10 44.7**	**-1.5**
ARTI					pmax	pmax		
	comp=Z,18nm,0.4s							
ARTI	**Arti**		**22.33**	**37**	P	**P**	**23 10 44.7**	**-1.5**
HFS	**Hagfors**		**23.47**	**334**	P	**P**	**23 10 58.7**	**+0.8**
	comp=Z,3.4nm,0.7s,baz=199,slow=14,SNR=4.4							
	comp=Z,3.4nm,0.7s							
SVE	**Sverdlovsk**		**23.61**	**37**	*e*P	**P**	**23 10 59.7**	**+0.3**
UOSS	**Minazif**		**23.97**	**124**	P	**P**	**23 11 02.3**	**-0.8**
UOSS					IAmb	IAmb	23 11 09.3	
	comp=Z,13nm,1.2s							
NOA	**NORSAR Array B**		**24.98**	**333**	P	**P**	**23 11 13.3**	**+1.3**
	comp=Z,1.4nm,0.8s,baz=133,slow=9.2,SNR=3.5							
NOA					LR	LR	23 23 09.3	
	comp=Z,33nm,18.5s,baz=5.0,slow=42							
	comp=Z,1.4nm,0.8s							
KK31	**Karatay Array**		**26.95**	**72**	P	**P**	**23 11 30.4**	**+0.2**
KK31					pmax	pmax		
	comp=Z,7.0nm,1.5s							
KK31	**Karatay Array**		**26.95**	**72**	P	**P**	**23 11 30.4**	**+0.2**
KK31					IAmb	IAmb	23 11 32.0	
	comp=Z,7.1nm,1.4s							
KKAR	**Karatay Array**		**26.95**	**72**	P	**P**	**23 11 30.0**	**-0.1**
KKAR	**Karatay Array**		**26.95**	**72**	P	**P**	**23 11 30.0**	**-0.1**
BVAR	**Borovoye Array**		**27.37**	**51**	P	**P**	**23 11 33.6**	**-0.2**
	comp=Z,1.0nm,0.8s,baz=264,slow=8.0,SNR=2.6							
	comp=Z,1.0nm,0.8s							
ARSB	**Arslanbob**		**29.05**	**76**	P	**P**	**23 11 51.0**	**+2.0**
ARSB					pmax	pmax		
	comp=Z,6.0nm,1.0s							
ARSB	**Arslanbob**		**29.05**	**76**	P	**P**	**23 11 51.0**	**+2.0**
ARSB					IAmb	IAmb	23 11 56.3	
	comp=Z,6.1nm,1.0s							
ESBB	**Sonseca Array**		**29.16**	**281**	P	**P**	**23 11 49.1**	**-0.8**
ESBB					IAmb	IAmb	23 11 50.3	
	comp=Z,4.0nm,0.9s							
ESDC	**Sonseca Array**		**29.17**	**281**	P	**P**	**23 11 49.3**	**-0.7**
	comp=Z,1.4nm,0.7s,baz=67,slow=9.0,SNR=17							
	comp=Z,1.4nm,0.7s							
ESDC	**Sonseca Array**		**29.17**	**281**	P	**P**	**23 11 48.8**	**-1.2**
ARCES	**ARCESS Array B**		**29.46**	**354**	P	**P**	**23 11 52.0**	**-0.2**
	comp=Z,2.3nm,0.7s,baz=167,slow=7.1,SNR=9.6							
ARCES					LR	LR	23 24 48.0	
	comp=Z,70nm,18.1s,baz=174,slow=39							
	comp=Z,2.3nm,0.7s							
ARCES	**ARCESS Array B**		**29.46**	**354**	P	**P**	**23 11 52.5**	**+0.3**
ARCES					pmax	pmax		
	comp=Z,14nm,1.2s							
ARCES	**ARCESS Array B**		**29.46**	**354**	P	**P**	**23 11 52.5**	**+0.3**
ARCES					IAmb	IAmb	23 11 53.2	
	comp=Z,14nm,1.2s							
TAM	**Tamanrasset**		**30.04**	**243**	P	**P**	**23 11 58.4**	**+0.5**
TAM					pmax	pmax		
	comp=Z,22nm,0.3s							
TAM	**Tamanrasset**		**30.04**	**243**	P	**P**	**23 11 58.4**	**+0.5**
KSH2	**Kashi**		**31.49**	**79**	P	**P**	**23 12 12.1**	**+1.5**
KSH2					pmax	pmax		
	comp=Z,3.0nm,1.6s							
KURBB	**Kurchatov Arra**		**32.11**	**57**	P	**P**	**23 12 15.8**	**+0.1**
	comp=Z,1.2nm,0.7s,baz=274,slow=8.9,SNR=10							
	comp=Z,1.2nm,0.7s							
KURK	**Kurchatov**		**32.17**	**56**	P	**P**	**23 12 15.8**	**-0.4**
KURK	**Kurchatov**		**32.17**	**56**	P	**P**	**23 12 15.5**	**-0.7**
PDGK	**Podgornoye**		**33.40**	**70**	P	**P**	**23 12 27.5**	**+0.2**
PDGK	**Podgornoye**		**33.40**	**70**	P	**P**	**23 12 27.5**	**+0.2**
WUS	**Wushi**		**33.66**	**74**	P	**P**	**23 12 31.2**	**+1.6**
WUS					IAmb	IAmb	23 12 31.9	
	comp=Z,6.5nm,1.1s							
MKAR	**Makanchi Array**		**34.81**	**63**	P	**P**	**23 12 39.5**	**+0.1**
	comp=Z,1.5nm,0.8s,baz=264,slow=8.9,SNR=9.0							
	comp=Z,1.5nm,0.8s							
MKAR	**Makanchi Array**		**34.81**	**63**	P	**P**	**23 12 40.1**	**+0.7**
ZAA0	**Zalesovo Array**		**36.03**	**51**	P	**P**	**23 12 49.7**	**0.0**
ZALV	**Zalesovo Beam**		**36.03**	**51**	P	**P**	**23 12 49.2**	**-0.5**
	comp=Z,1.1nm,0.6s,baz=264,slow=12,SNR=6.2							
	comp=Z,1.1nm,0.6s							
ZALV	**Zalesovo Beam**		**36.03**	**51**	*e*P	**P**	**23 12 49.6**	**-0.1**
ZALV					pmax	pmax		
	comp=Z,1.0nm,0.5s							
WMQ	**Urumqi**		**39.12**	**67**

RANF	**Ranua**	**2.70**	**113**	SG	**Sb**	**23**	**11**	**52.2 -0.4**
ARA0	**ARCESS Array S**	**2.97**	**35**	SB	**Sb**	**23**	**11**	**58.7 -1.6**
OBF8	**Ulkokalla**	**3.08**	**157**	PG	**Pb**	**23**	**11**	**25.5 +0.2**
	baz=335							
OLKF	**Oulanka, Finla**	**3.56**	**100**	PN	**Pn**	**23**	**11**	**25.7 -0.6**

*ISK **17** 23:21:39.2, 37.82N×26.99E, h10km, ML3.0/19*
*THE **17** 23:21:39.7, 37.8N±1.0×27.0E±0.5, h7km±1km, M2.7/14, MLh2.7/14*
*ATH **17** 23:21:39.6, 37.80N×27.00E, h9km, ML2.9/8, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*AFAD **17** 23:21:39.3, 37.83N×26.98E, h7km±3km, ML2.6*
ISC 17 23:21:39.7±0.8, **37.82N**±0.01×**26.98E**±0.01, **h12**km±5km, **n88**, σ0**39**/134, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**228**	P	**Pg**	**23 21 43.0**	**-0.3**
SMG				S	**Sg**	**23 21 45.5**	**-0.4**
SMG				AML	AML		
SMG	**Samos**	**0.16**	**228**	P	**Pg**	**23 21 43.2**	**-0.1**
SMG				S	**Sg**	**23 21 45.6**	**-0.3**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.22**	**265**	P	**Pg**	**23 21 44.2**	**-0.1**
KRL1				S	**Sg**	**23 21 48.0**	**+0.4**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**120**	P	**Pg**	**23 21 44.7**	**+0.2**
GCAM				S	**Sg**	**23 21 48.2**	**+0.4**
GCAM				IAML		23 21 49.0	
	comp=E,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.23**	**120**	Pg	**Pg**	**23 21 44.7**	**+0.2**
GCAM				Sg	**Sg**	**23 21 48.2**	**+0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**79**	Pg	**Pg**	**23 21 44.7**	**-0.1**
KUSD				Sg	**Sg**	**23 21 48.1**	**-0.2**
KUSD				AML	AML		
DGB	**zmir**	**0.25**	**341**	P	**Pg**	**23 21 44.7**	**-0.2**
DGB				S	**Sg**	**23 21 47.6**	**-0.8**
DGB				IAML		23 21 48.0	
	comp=E,2μm,0.2s						
GMLD	**Gumuldur**	**0.27**	**348**	Pg	**Pg**	**23 21 45.1**	**-0.1**
GMLD				Sg	**Sg**	**23 21 49.0**	**+0.1**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.30**	**259**	P	**Pg**	**23 21 45.5**	**-0.3**
SAM2				S	**Sg**	**23 21 50.1**	**+0.2**
SAM2				AML	AML		
DDIM	**Aydin, Didim**	**0.41**	**150**	P	**Pg**	**23 21 48.2**	**+0.4**
DDIM				S	**Sg**	**23 21 53.7**	**+0.4**
BEYE	**izmir**	**0.41**	**354**	P	**Pg**	**23 21 47.7**	**-0.2**
BEYE				S	**Sg**	**23 21 53.4**	**0.0**
BEYE				IAML		23 21 54.0	
	comp=N,740nm,0.3s						
DIDI	**Didim-Aydin**	**0.48**	**155**	Pg	**Pg**	**23 21 49.3**	**+0.2**
DIDI				Sg	**Sb**	**23 21 56.5**	**-0.6**
DIDI				AML	AML		
DUVT	**Torbali**	**0.55**	**42**	P	**Pg**	**23 21 50.1**	**-0.2**
DUVT				S	**Sg**	**23 21 57.1**	**-0.5**
DUVT				IAML		23 21 58.0	
	comp=E,733nm,0.1s						
ZEYE	**Izmir, Urla-Ze**	**0.57**	**318**	P	**Pg**	**23 21 50.4**	**-0.4**
ZEYE				S	**Sg**	**23 21 58.6**	**+0.3**
ZEYE				IAML		23 21 59.0	
	comp=N,2μm,0.3s						
BLCB	**Balcova**	**0.57**	**5**	P	**Pg**	**23 21 50.6**	**-0.2**
BLCB				S	**Sg**	**23 21 58.5**	**0.0**
BLCB	**Balcova**	**0.57**	**5**	Pg	**Pg**	**23 21 50.6**	**-0.2**
BLCB				Sg	**Sg**	**23 21 58.6**	**+0.2**
AYDN	**Tasoluk**	**0.73**	**102**	P	**Pg**	**23 21 53.7**	**0.0**
YKAV	**Yalikavak-Bodr**	**0.73**	**161**	Pg	**Pg**	**23 21 53.1**	**-0.7**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.73**	**79**	Pg	**Pg**	**23 21 53.8**	**0.0**
CESE	**eme**	**0.75**	**314**	Pg	**Pg**	**23 21 54.3**	**+0.2**
CESE				Sg	**Sb**	**23 22 04.9**	**+0.2**
CESE				AML	AML		
BODT	**Bodrum**	**0.80**	**161**	P	**Pg**	**23 21 54.8**	**-0.3**
BODT				S	**Sg**	**23 22 05.7**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**161**	Pg	**Pg**	**23 21 54.9**	**-0.2**
BODT				Sg	**Sb**	**23 22 06.5**	**+0.3**
BODT				AML	AML		
MLSB	**Milas**	**0.82**	**129**	Pg	**Pg**	**23 21 55.5**	**0.0**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.83**	**67**	P	**Pb**	**23 21 56.1**	**+0.1**
IZMR				S	**Sg**	**23 22 05.6**	**-1.0**
BDRM	**Kayabasi**	**0.83**	**154**	P	**Pg**	**23 21 55.5**	**-0.2**
BDRM				S	**Sg**	**23 22 06.9**	**+0.2**
BDRM				IAML		23 22 10.0	
	comp=E,301nm,0.6s						
BDRM				IAML		23 22 10.0	
	comp=N,338nm,0.3s						
BAGT	**Foa**	**0.84**	**353**	P	**Pg**	**23 21 55.4**	**-0.6**
BAGT				S	**Sg**	**23 22 06.7**	**-0.4**
BAGT				IAML		23 22 11.0	
	comp=N,209nm,0.2s						
BAGT				IAML		23 22 12.0	
	comp=E,322nm,0.6s						
KRBN	**Karaburun**	**0.85**	**337**	Pg	**Pb**	**23 21 56.6**	**+0.3**
BODA	**Bodrum-Mula**	**0.86**	**155**	Pg	**Pg**	**23 21 56.1**	**-0.1**
KLNA	**Kalymnos**	**0.86**	**181**	P	**Pg**	**23 21 55.9**	**-0.3**
KLNA				S	**Sg**	**23 22 06.7**	**-0.7**
FOCM	**Foa**	**0.92**	**348**	Pg	**Pb**	**23 21 57.6**	**+0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.93**	**308**	P	**Pb**	**23 21 58.0**	**+0.2**
CHOS				S	**Sb**	**23 22 10.7**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.93**	**308**	Pg	**Pb**	**23 21 57.8**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.93**	**308**	P	**Pb**	**23 21 58.2**	**+0.4**
CHOS				S	**Sb**	**23 22 10.2**	**+0.1**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**332**	P	**Pg**	**23 21 57.8**	**-0.4**
KARB				S	**Sg**	**23 22 10.4**	**-0.3**
KARB				IAML		23 22 14.0	
	comp=E,186nm,0.5s						
KARB				IAML		23 22 14.0	
	comp=N,387nm,0.5s						
CAMT	**Merkez**	**0.97**	**15**	P	**Pb**	**23 21 58.5**	**+0.1**
CAMT				S	**Sb**	**23 22 11.1**	**0.0**
CAMT				IAML		23 22 14.0	
	comp=E,649nm,0.4s						
CAMT				IAML		23 22 14.0	
	comp=N,527nm,0.3s						
EAG2	**Marmaro, Chios**	**1.00**	**317**	P	**Pn**	**23 21 59.7**	**+0.1**
EAG2				S	**Sg**	**23 22 11.9**	**-0.1**
NAZL	**Nazilli-Aydin**	**1.04**	**81**	Pg	**Pg**	**23 21 59.5**	**-0.3**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.08**	**90**	P	**Pb**	**23 22 00.5**	**+0.2**
ESEN				S	**Sg**	**23 22 13.3**	**-1.2**
ESEN				IAML		23 22 17.0	
	comp=N,43nm,0.3s						
ESEN				IAML		23 22 20.0	
	comp=E,58nm,0.4s						
ZEDA	**zmir-Bergama**	**1.15**	**4**	P	**Pb**	**23 22 01.3**	**-0.2**
ZEDA				S	**Sb**	**23 22 16.8**	**+0.4**
ZEDA				IAML		23 22 19.0	
	comp=E,396nm,0.4s						
ZEDA				IAML		23 22 19.0	
	comp=N,200nm,0.6s						
GOMA	**Golmarmara-Man**	**1.16**	**39**	Pn	**Pn**	**23 22 02.2**	**+0.5**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.18**	**71**	P	**Pb**	**23 22 02.0**	**-0.1**
KIRA				S	**Sg**	**23 22 17.2**	**-0.6**
KIRA				IAML		23 22 20.0	
	comp=N,110nm,0.6s						
KIRA				IAML		23 22 21.0	
	comp=E,59nm,0.3s						
DAT	**Datca**	**1.18**	**156**	P	**Pb**	**23 22 01.6**	**-0.5**
DAT				S	**Sg**	**23 22 17.9**	**+0.1**
DAT				AML	AML		
DAT	**Datca**	**1.18**	**156**	Pn	**Pb**	**23 22 01.8**	**-0.3**
YAZI	**Mula-Dat§a-**	**1.19**	**162**	P	**Pb**	**23 22 01.9**	**-0.3**
YAZI				IAML		23 22 22.0	
	comp=N,76nm,0.3s						
YAZI				IAML		23 22 24.0	
	comp=E,76nm,0.4s						
MULA	**Mugla, Merkez-**	**1.20**	**117**	P	**Pb**	**23 22 02.4**	**0.0**
MULA				S	**Sb**	**23 22 17.8**	**-0.1**
MULA				IAML		23 22 20.0	
	comp=N,119nm,0.4s						
MULA				IAML		23 22 21.0	
	comp=E,126nm,0.4s						
KTTT	**Salihli**	**1.23**	**45**	P	**Pn**	**23 22 02.4**	**-0.4**
YER	**Yerkesik**	**1.24**	**123**	P	**Pn**	**23 22 02.9**	**+0.1**
YER				S	**Sb**	**23 22 19.1**	**+0.2**
YER	**Yerkesik**	**1.24**	**123**	Pn	**Pn**	**23 22 02.9**	**+0.1**
YER				AML	AML		
AKHS	**Akhisar**	**1.25**	**31**	P	**Pn**	**23 22 03.1**	**+0.2**
AKHS				S	**Sg**	**23 22 19.6**	**-0.2**
AKHS				IAML		23 22 22.0	
	comp=N,369nm,0.7s						
AKS	**Akhisar**	**1.25**	**31**	Pn	**Pn**	**23 22 03.0**	**+0.1**
AKS				AML	AML		
DKL	**Dikili**	**1.26**	**357**	Pn	**Pn**	**23 22 03.1**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.26**	**357**	P	**Pn**	**23 22 03.0**	**-0.1**
DKL				S	**Sn**	**23 22 20.2**	**+0.4**
APE	**Apeiranthos**	**1.38**	**238**	P	**Pn**	**23 22 03.6**	**-1.2**
APE				S	**Sg**	**23 22 24.0**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.38**	**238**	P	**Pb**	**23 22 05.6**	**+0.2**
APE				S	**Sb**	**23 22 23.2**	**+0.2**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.41**	**18**	Pn	**Pb**	**23 22 05.9**	**0.0**
SOMA				AML	AML		
MANT	**Manisa**	**1.41**	**61**	P	**Pg**	**23 22 06.8**	**-0.1**
MANT				S	**Sb**	**23 22 23.4**	**-0.8**
SULTU	**Buldan**	**1.43**	**80**	P	**Pn**	**23 22 05.5**	**0.0**
SULTU				IAML		23 22 28.0	
	comp=E,72nm,0.6s						
SULTU				IAML		23 22 30.0	
	comp=N,62nm,1.0s						
GORD	**Gordes-Manisa**	**1.44**	**40**	Pn	**Pb**	**23 22 06.7**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.45**	**136**	P	**Pn**	**23 22 05.4**	**-0.1**
TURN	**Turunc**	**1.45**	**136**	Pn	**Pn**	**23 22 05.5**	**-0.1**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.49**	**62**	Pn	**Pn**	**23 22 06.2**	**-0.2**
KULA				AML	AML		
AYVA	**Ayvalik**	**1.51**	**351**	P	**Pg**	**23 22 08.1**	**-0.5**
HARTU	**Esme**	**1.52**	**69**	P	**Pn**	**23 22 06.9**	**0.0**
HARTU				IAML		23 22 19.0	
	comp=E,22nm,0.5s						
HARTU				IAML		23 22 29.0	
	comp=N,29nm,0.4s						
PRK	**Paraskevi**	**1.53**	**339**	P	**Pn**	**23 22 07.3**	**+0.4**
PRK				S	**Sb**	**23 22 27.6**	**+0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.53**	**339**	P	**Pn**	**23 22 07.3**	**+0.4**
PRK				S	**Sb**	**23 22 27.9**	**+0.5**
PRK				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.57**	**102**	P	**Pn**	**23 22 07.7**	**+0.2**
DNIZ	**Denizli-Tavas-**	**1.64**	**96**	P	**Pn**	**23 22 09.0**	**+0.5**
DNIZ				S	**Sg**	**23 22 33.4**	**+0.9**
DNIZ				IAML		23 22 37.0	
	comp=N,78nm,0.3s						
DNIZ				IAML		23 22 38.0	
	comp=E,88nm,0.3s						
DALY	**Dalyan (Mula)**	**1.66**	**126**	P	**Pb**	**23 22 10.1**	**-0.1**
STEP	**BALIKESIR_Sava**	**1.66**	**20**	P	**Pg**	**23 22 10.9**	**-0.7**
STEP				IAML		23 22 37.0	
	comp=E,165nm,0.3s						
STEP				IAML		23 22 37.0	
	comp=N,126nm,0.3s						
BUHA	**Balikesir, Bur**	**1.69**	**2**	P	**Pn**	**23 22 09.2**	**+0.2**
BUHA				IAML		23 22 36.0	
	comp=E,152nm,0.4s						
BUHA				IAML		23 22 36.0	
	comp=N,114nm,0.3s						
DNZT	**Denizli-Tavas-**	**1.71**	**108**	P	**Pn**	**23 22 09.8**	**+0.4**
DNZT				S	**Sg**	**23 22 33.9**	**-0.8**
DNZT				IAML		23 22 42.0	
	comp=N,20nm,0.8s						
DNZT				IAML		23 22 43.0	
	comp=E,15nm,0.5s						
KOCA	**Canakkale, Ayv**	**1.81**	**339**	P	**Pg**	**23 22 13.9**	**-0.5**
KOCA				IAML		23 22 42.0	
	comp=N,87nm,0.4s						
KOCA				IAML		23 22 46.0	
	comp=E,92nm,0.6s						
DEMI	**Demirci**	**1.83**	**47**	P	**Pg**	**23 22 15.4**	**+0.6**
ARG	**Arkhangelos**	**1.84**	**150**	P	**Pn**	**23 22 11.5**	**+0.4**
ARG				S	**Sn**	**23 22 34.8**	**+0.6**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.88**	**220**	P	**Pn**	**23 22 12.2**	**+0.5**
THERA				S	**Sn**	**23 22 34.9**	**-0.5**
THERA				AML	AML		
THR5	**Thira Island,**	**1.91**	**224**	P	**Pn**	**23 22 13.1**	**+1.0**
BAYC	**CANAKKALE_Bayr**	**1.95**	**350**	P	**Pn**	**23 22 12.3**	**-0.3**
BALY	**Balya**	**1.98**	**14**	P	**Pb**	**23 22 16.3**	**+0.6**
BALY				S	**Sn**	**23 22 38.2**	**+0.2**
BALY				IAML		23 22 45.0	
	comp=E,79nm,0.3s						
BALY				IAML		23 22 45.0	
	comp=N,100nm,0.5s						
KARY	**Karystos**	**2.03**	**277**	P	**Pn**	**23 22 13.9**	**+0.3**
KARY				AML	AML		
BKES	**Balkesir-Mer**	**2.05**	**21**	P	**Pb**	**23 22 17.0**	**+0.2**
SIMV	**Simav**	**2.06**	**50**	P	**Pg**	**23 22 19.4**	**+0.2**
KARP	**Karpathos**	**2.27**	**176**	P	**Pn**	**23 22 16.7**	**-0.3**
KARP				AML	AML		
KARP	**Karpathos**	**2.27**	**176**	P	**Pn**	**23 22 16.8**	**-0.2**
DION	**Dionisos Attik**	**2.43**	**277**	P	**Pn**	**23 22 19.0**	**-0.2**
DION				AML	AML		
DION	**Dionisos Attik**	**2.43**	**277**	P	**Pn**	**23 22 18.9**	**-0.2**
LIA	**Limnos Island**	**2.51**	**326**	P	**Pn**	**23 22 20.3**	**0.0**
LIA				AML	AML		
ATHU	**Athens Univers**	**2.54**	**274**	P	**Pn**	**23 22 20.7**	**0.0**
ATHU	**Athens Univers**	**2.54**	**274**	P	**Pn**	**23 22 21.2**	**+0.5**

*IDC **17** 23:32:12.6±3.3, 1.44S×99.76E, h0km, mb3.4/5, mbtmp3.4/6, ML4.8/1, Error ellipse: s-maj=151.7km s-min=22.1km az=56.0*
*DJA **17** 23:32:15.6±0.4, 1.5±2.2×9.9±., h11km±4km, M3.8/19, MLv3.8/19*
ISC 17 23:32:16.4±0.9, **1.41S**±0.08×**99.37E**±0.06, **h30**km, **n24**, σ1§**47**/14, **mb3.4/5**, **Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SISI	**Saibi**	**0.29**	**287**	P	**Pb**	**23 32 22.9**	**-0.9**
PPI	**Padang Panjang**	**1.40**	**47**	P	**Pn**	**23 32 39.7**	**-0.2**
PPI				S	**Sb**	**23 32 59.3**	**-0.1**
PPI				AML	AML		
PBSI	**Pulau Batu**	**1.73**	**321**	P	**Pn**	**23 32 45.1**	**+0.6**
PBSI				S	**Sb**	**23 33 08.8**	**-0.2**
KRJI	**Kerinci**	**2.20**	**108**	P	**Pn**	**23 32 52.0**	**+1.0**
KRJI				AML	AML		
MASI	**Maura Aman, Be**	**3.34**	**121**	P	**Pn**	**23 33 08.1**	**+1.4**
CMAR	**Chiang Mai Arr**	**19.75**	**359**	P	**P**	**23 36 44.3**	**+0.3**
	1.1nm,0.3s,baz=177,slow=11,SNR=5.0						
	1.1nm,0.3s						
CMAR				AML	AML		
H08S2	**Diego Garcia H**	**27.48**	**256**	T	T	00 05 58.9	
	baz=78,slow=76,SNR=12						
H08S3	**Diego Garcia H**	**27.49**	**256**	T	T	00 06 04.3	
	baz=78,slow=76,SNR=14						
H08S1	**Diego Garcia H**	**27.50**	**256**	T	T	00 06 04.7	
	baz=78,slow=76,SNR=8.9						
H01W3	**Cape Leeuwin H**	**36.03**	**159**	T	T	00 16 58.2	
	baz=335,slow=76,SNR=14						
H01W2	**Cape Leeuwin H**	**36.05**	**159**	T	T	00 16 59.2	
	baz=335,slow=76,SNR=15						
H01W1	**Cape Leeuwin H**	**36.05**	**159**	T	T	00 16 59.4	
	baz=335,slow=76,SNR=12						
WRA	**Warramunga Arr**	**38.83**	**121**	P	**P**	**23 39 37.0**	**-2.2**
	0.7nm,0.8s,baz=301,slow=9.1,SNR=5.9						
	0.7nm,0.8s						
ASAR	**Alice Springs**	**40.10**	**126**	P	**P**	**23 39 47.7**	**-2.1**
	0.2nm,0.6s,baz=299,slow=7.9,SNR=2.7						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**50.30**	**345**	P	**P**	**23 41 11.9**	**+1.6**
	0.3nm,0.8s,baz=159,slow=8.4,SNR=4.5						
	0.3nm,0.8s						
KURBB	**Kurchatov Arra**	**54.81**	**344**	P	**P**	**23 41 45.9**	**+2.4**
	0.2nm,0.6s,baz=162,slow=6.6,SNR=1.8						
	0.2nm,0.6s						
ZALV	**Zalesovo Beam**	**56.48**	**350**	P	**P**	**23 41 57.0**	**+1.5**
	0.4nm,0.6s,baz=167,slow=6.8,SNR=1.9						
	0.4nm,0.6s						
H04N2	**CROZET ISLANDS**	**60.90**	**216**	T	T	00 48 00.1	
	baz=58,slow=75,SNR=108						
H04N1	**CROZET ISLANDS**	**60.91**	**216**	T	T	00 48 01.6	
	baz=58,slow=75,SNR=106						
H04N3	**CROZET ISLANDS**	**60.91**	**216**	T	T	00 48 00.3	
	baz=58,slow=75,SNR=98						
H04S1	**CROZET ISLANDS**	**61.20**	**215**	T	T	00 48 20.6	
	baz=55,slow=74,SNR=22						
H04S3	**CROZET ISLANDS**	**61.21**	**215**	T	T	00 48 18.3	
	baz=55,slow=74,SNR=29						
H04S2	**CROZET ISLANDS**	**61.21**	**215**	T	T	00 48 19.7	
	baz=55,slow=74,SNR=17						
TXAR	**Lajitas Array**	**144.61**	**36**	PKP	**PKPab**	**23 51 49.1**	**-0.4**
	0.3nm,0.4s,baz=318,slow=2.0,SNR=4.0						

*THE **17** 23:40:14.7, 38°N±2°×26.8E±0.6, h14km±1km, M2.6/10, MLh2.6/10*
*AFAD **17** 23:40:14.4, 37.87N×26.82E, h7km±3km, ML2.5*
*ISK **17** 23:40:14.3, 37.87N×26.84E, h8km, ML2.8/14*
*ATH **17** 23:40:14.9, 37.85N×26.83E, h12km±1km, ML2.7/7, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 17 23:40:14.6±0.8, **37.87N**±0.02×**26.83E**±0.02, **h13**km±5km, **n63**, σ0**42**/92, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.13**	**233**	P	**Pg**	**23 40 18.0**	**+0.1**
KRL1				S	**Sg**	**23 40 20.1**	**-0.1**
SMG	**Samos**	**0.16**	**179**	P	**Pg**	**23 40 18.7**	**+0.2**
SMG				S	**Sg**	**23 40 21.1**	**-0.1**
SMG				AML	AML		
SMG	**Samos**	**0.16**	**179**	P	**Pg**	**23 40 18.6**	**+0.2**
SMG				S	**Sg**	**23 40 20.9**	**-0.2**
DGB	**zmir**	**0.18**	**12**	P	**Pg**	**23 40 18.8**	**0.0**
DGB				IAML		23 40 21.0	
	comp=E,2μm,0.2s						
DGB				S	**Sg**	**23 40 21.0**	**-0.7**
DGB				IAML		23 40 22.0	
	comp=N,2μm,0.2s						
SAM2	**Drakei, Karlov**	**0.21**	**238**	P	**Pg**	**23 40 19.3**	**+0.1**
SAM2				S	**Sg**	**23 40 22.0**	**-0.3**
SAM2				AML	AML		
GMLD	**Gumuldur**	**0.21**	**17**	Pg	**Pg**	**23 40 19.2**	**-0.1**
GMLD				Sg	**Sg**	**23 40 22.9**	**+0.4**
KUSD	**Kusadasi-Aydin**	**0.36**	**92**	Pg	**Pg**	**23 40 21.6**	**-0.2**
KUSD				Sg	**Sg**	**23 40 26.9**	**+0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.36**	**118**	P	**Pg**	**23 40 22.1**	**+0.3**
GCAM				S	**Sg**	**23 40 27.2**	**+0.5**
GCAM				IAML		23 40 31.0	
	comp=N,383nm,0.2s						
GCAM	**G?zelcaml?**	**0.36**	**118**	Pg	**Pg**	**23 40 22.1**	**+0.3**
GCAM				Sg	**Sg**	**23 40 27.1**	**+0.4**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**12**	P	**Pg**	**23 40 21.8**	**-0.1**
BEYE				S	**Sg**	**23 40 26.4**	**-0.5**
BEYE				IAML		23 40 30.0	
	comp=N,448nm,0.4s						
BEYE				IAML		23 40 30.0	
	comp=E,476nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.45**	**325**	P	**Pg**	**23 40 23.4**	**-0.1**
ZEYE				S	**Sg**	**23 40 29.4**	**-0.2**
ZEYE				IAML		23 40 30.0	
	comp=N,500nm,0.4s						
ZEYE				IAML		23 40 31.0	
	comp=E,318nm,0.2s						
DDIM	**Aydin, Didim**	**0.53**	**142**	P	**Pg**	**23 40 25.3**	**+0.4**
DDIM				S	**Sg**	**23 40 32.2**	**+0.4**
DDIM				IAML		23 40 36.0	
	comp=E,280nm,0.6s						
BLCB	**Balcova**	**0.54**	**18**	P	**Pg**	**23 40 25.0**	**-0.1**
BLCB				S	**Sg**	**23 40 32.4**	**+0.1**
BLCB	**Balcova**	**0.54**	**18**	Pg	**Pg**	**23 40 25.1**	**-0.1**
BLCB				Sg	**Sg**	**23 40 32.5**	**+0.1**
DUVT	**Torbali**	**0.60**	**54**	P	**Pg**	**23 40 26.3**	**0.0**
CESE	**eme**	**0.62**	**318**	Pg	**Pg**	**23 40 26.8**	**0.0**
CESE				Sg	**Sg**	**23 40 35.4**	**+0.4**
CESE				AML	AML		
KRBN	**Karaburun**	**0.75**	**343**	Pg	**Pg**	**23 40 29.1**	**-0.1**
KRBN				Sg	**Sb**	**23 40 40.3**	**+0.5**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**1**	P	**Pn**	**23 40 31.0**	**-0.3**
BAGT				S	**Sb**	**23 40 41.1**	**+0.5**
CHOS	**Chios island**	**0.80**	**310**	P	**Pb**	**23 40 30.8**	**+0.4**
CHOS				S	**Sb**	**23 40 41.8**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.80**	**310**	Pg	**Pb**	**23 40 30.8**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.80**	**310**	P	**Pn**	**23 40 31.9**	**+0.2**
CHOS				S	**Sb**	**23 40 41.7**	**+0.5**
CHOS				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**154**	Pg	**Pg**	**23 40 30.4**	**-0.2**
AYDB	**Zeytinkoy-Aydi**	**0.84**	**85**	Pg	**Pb**	**23 40 31.2**	**+0.1**
FOCM	**Foa**	**0.84**	**355**	Pg	**Pb**	**23 40 31.2**	**+0.1**
FOCM				AML	AML		
AYDN	**Tasoluk**	**0.85**	**104**	P	**Pb**	**23 40 31.7**	**+0.4**
KARB	**zmir-Karabur**	**0.86**	**337**	P	**Pg**	**23 40 30.8**	**-0.4**
KARB				S	**Sg**	**23 40 42.6**	**+0.1**
KARB				IAML		23 40 45.0	
	comp=N,192nm,0.5s						
KARB				IAML		23 40 47.0	
	comp=E,231nm,0.4s						
EAG2	**Marmaro, Chios**	**0.88**	**320**	P	**Pb**	**23 40 32.1**	**+0.4**
EAG2				S	**Sb**	**23 40 43.5**	**+0.1**
BODT	**Bodrum**	**0.89**	**155**	P	**Pg**	**23 40 31.5**	**-0.4**
BODT				S	**Sb**	**23 40 44.1**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**155**	Pg	**Pg**	**23 40 31.6**	**-0.2**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.92**	**173**	P	**Pg**	**23 40 32.5**	**+0.1**
KLNA				S	**Sg**	**23 40 44.6**	**+0.2**
KLNA				AML	AML		
IZMR	**zmir-demi**	**0.92**	**73**	P	**Pb**	**23 40 32.7**	**+0.3**
IZMR				S	**Sg**	**23 40 42.5**	**-2.0**
IZMR				IAML		23 40 47.0	
	comp=E,120nm,0.7s						
BDRM	**Kayabasi**	**0.94**	**149**	P	**Pg**	**23 40 32.9**	**+0.1**
BDRM				S	**Sg**	**23 40 45.1**	**+0.1**
BDRM				IAML		23 40 48.0	
	comp=E,150nm,0.5s						
BDRM				IAML		23 40 48.0	
	comp=N,103nm,0.3s						
MLSB	**Milas**	**0.94**	**127**	Pg	**Pg**	**23 40 32.7**	**-0.1**
MLSB				AML	AML		
CAMT	**Merkez**	**0.95**	**23**	P	**Pb**	**23 40 33.4**	**+0.4**
BODA	**Bodrum-Mula**	**0.96**	**150**	Pg	**Pg**	**23 40 33.1**	**0.0**
ZEDA	**zmir-Bergama**	**1.11**	**10**	P	**Pb**	**23 40 35.6**	**-0.

DION	**Dionisos Attik**	**2.30**	**276**	P	**Pn**	**23 40 52.0**	**-0.2**
DION				AML	AML		
KARP	**Karpathos**	**2.33**	**173**	P	**Pn**	**23 40 52.0**	**-0.7**
KARP				AML	AML		
LIA	**Limnos Island**	**2.40**	**328**	P	**Pn**	**23 40 53.4**	**-0.1**

MEX ***17*** *23:55:53.8±0.8, 15°.39N×94°.59W, h16*$^{km}_{\pm}$*131km, MD4.7, Presumed earthquake*

IDC ***17*** *23:55:54.3±2.1, 15°.48N×94°.54W, h49*$^{km}_{\pm}$*17km, mb3.8/14, mbtmp4.1/17, ML3.7/3, MS3.4/16, Error ellipse: s-maj=27.9km s-min=8.0km az=48.0*

NEIC ***17*** *23:55:54.2±2.7, 15°.47N±0°.06×94°.55W±0°.04, h35*$^{km}_{\pm}$*2km, mb4.3/64, Md4.7/132(MEX), Error ellipse: s-maj=10.1km s-min=6.1km az=207.0*

ISC 17 23:55:53.0±0.7, **15°.37N**±0°.04×**94°.60W**±0°.03, **h37**$^{km}_{\pm}$**1km, n215, σ2ᵠ03/265, mb4.2**/30, **MS3.4**/15, **Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.38**	**76**		**Pn**	**23 56 14.9**	**-0.8**
PCIG					**Sn**	**23 56 30.2**	**-2.4**
PCIG		**1.38**	**76**	*eP*	**Pn**	**23 56 14.9**	**-0.8**
PCIG				*eS*	**Sn**	**23 56 30.2**	**-2.4**
HUIG	**Huatulco**	**1.50**	**285**		**Pn**	**23 56 16.9**	**-0.5**
HUIG	**Huatulco**	**1.50**	**285**	*eP*	**Pn**	**23 56 16.9**	**-0.5**
HUIG				*eS*	**Sn**	**23 56 33.3**	**-2.5**
CMIG	**Matias Romero**	**1.73**	**351**	P	**Pn**	**23 56 20.1**	**-0.5**
	249nm,0.2s,baz=185,slow=13,SNR=1519						
CMIG				S	**Sn**	**23 56 40.3**	**-1.1**
	1μm,0.8s,baz=220,slow=21,SNR=5.7						
CMIG	**Matias Romero**	**1.73**	**351**		**Pn**	**23 56 19.8**	**-0.8**
CMIG					**Sn**	**23 56 38.9**	**-2.5**
CMIG	**Matias Romero**	**1.73**	**351**	*eP*	**Pn**	**23 56 19.8**	**-0.8**
CMIG				*eS*	**Sn**	**23 56 38.9**	**-2.5**
TGIG		**1.99**	**45**		**Pn**	**23 56 24.1**	**-0.2**
TGIG					**Sn**	**23 56 46.9**	**-1.1**
TGIG		**1.99**	**45**	*eP*	**Pn**	**23 56 24.1**	**-0.2**
TGIG				*eS*	**Sn**	**23 56 46.9**	**-1.1**
PATR	**El Naranjo**	**2.30**	**96**		**Pn**	**23 56 27.9**	**-0.8**
PATR	**El Naranjo**	**2.30**	**96**	*eP*	**Pn**	**23 56 27.9**	**-0.8**
PATR				*eS*	**Sn**	**23 56 53.4**	**-2.5**
THIG		**2.31**	**101**		**Pn**	**23 56 27.7**	**-0.8**
THIG		**2.31**	**101**	*eP*	**Pn**	**23 56 27.7**	**-0.8**
THIG				*eS*	**Sn**	**23 56 53.2**	**-2.3**
PAVE	**Pavencul**	**2.35**	**94**		**Pn**	**23 56 29.2**	**-0.1**
PAVE					**Sn**	**23 56 55.5**	**-1.5**
PAVE	**Pavencul**	**2.35**	**94**	*eP*	**Pn**	**23 56 29.2**	**-0.1**
PAVE				*eS*	**Sn**	**23 56 55.5**	**-1.5**
CHUJ	**Union Juarez**	**2.42**	**96**	*eP*	**Pn**	**23 56 29.8**	**-0.5**
CHUJ				*eS*	**Sn**	**23 56 57.0**	**-1.9**
PEIG	**Puerto Escondi**	**2.53**	**285**		**Pn**	**23 56 31.4**	**-0.1**
PEIG	**Puerto Escondi**	**2.53**	**285**	*eP*	**Pn**	**23 56 31.4**	**-0.1**
PEIG				*eS*	**Sn**	**23 56 58.5**	**-2.6**
CCIG	**Comitan**	**2.54**	**69**		**Pn**	**23 56 31.9**	**0.0**
CCIG	**Comitan**	**2.54**	**69**		**Sn**	**23 57 03.6**	**+2.0**
CCIG	**Comitan**	**2.54**	**69**	*eP*	**Pn**	**23 56 32.1**	**+0.2**
CCIG				*eS*	**Sn**	**23 57 03.6**	**+2.0**
NEUV	**Arroyo Zacate**	**2.59**	**334**		**Pn**	**23 56 32.3**	**-0.1**
NEUV					**Sn**	**23 57 01.9**	**-0.8**
NEUV	**Arroyo Zacate**	**2.59**	**334**	*eP*	**Pn**	**23 56 32.3**	**-0.1**
NEUV				*eS*	**Sn**	**23 57 01.9**	**-0.8**
OXLC	**Oaxaca**	**2.63**	**310**		**Pn**	**23 56 34.0**	**+0.9**
OXLC					**Sn**	**23 57 03.1**	**-0.7**
OXLC	**Oaxaca**	**2.63**	**310**	*eP*	**Pn**	**23 56 34.0**	**+0.9**
OXLC				*eS*	**Sn**	**23 57 03.1**	**-0.7**
OXBJ	**Oaxaca**	**2.64**	**310**		**Pn**	**23 56 32.4**	**-0.9**
OXBJ					**Sn**	**23 57 03.7**	**-0.5**
OXBJ	**Oaxaca**	**2.64**	**310**	*eP*	**Pn**	**23 56 32.4**	**-0.9**
OXBJ				*eS*	**Sn**	**23 57 03.7**	**-0.5**
TUIG	**Tuzandepetl**	**2.65**	**4**		**Pn**	**23 56 33.0**	**-0.3**
TUIG					**Sn**	**23 57 01.8**	**-2.3**
TUIG	**Tuzandepetl**	**2.65**	**4**	*eP*	**Pn**	**23 56 33.0**	**-0.3**
TUIG				*eS*	**Sn**	**23 57 01.8**	**-2.3**
OXIG	**Oaxaca**	**2.65**	**310**		**Pn**	**23 56 35.1**	**+1.6**
OXIG					**Sn**	**23 57 03.7**	**-0.8**
VHO	**Vista Hermosa**	**2.65**	**310**	*eP*	**Pn**	**23 56 35.1**	**+1.6**
VHO				*eS*	**Sn**	**23 57 03.7**	**-0.8**
RTAL	**Retalhuleu**	**2.94**	**106**	Pn	**Pn**	**23 56 36.9**	**-0.3**
RTAL	**Retalhuleu**	**2.94**	**106**	*eP*	**Pn**	**23 56 36.2**	**-0.9**
RTAL				*eS*	**Sn**	**23 57 09.6**	**-1.6**
HUEH	**Huehuetenango**	**2.99**	**91**	Pn	**Pn**	**23 56 39.3**	**+1.1**
HUEH	**Huehuetenango**	**2.99**	**91**		**Sn**	**23 57 13.2**	**+0.3**
HUEH	**Huehuetenango**	**2.99**	**91**	*eP*	**Pn**	**23 56 38.9**	**+0.8**
HUEH				*eS*	**Sn**	**23 57 13.2**	**+0.3**
YOIG	**Yosondua**	**3.19**	**298**		**Pn**	**23 56 42.6**	**+1.7**
YOIG	**Yosondua**	**3.19**	**298**	*eP*	**Pn**	**23 56 42.6**	**+1.7**
YOIG				*eS*	**Sn**	**23 57 15.1**	**-2.8**
PMUV	**Sontecomapan**	**3.19**	**351**		**Pn**	**23 56 39.1**	**-1.7**
PMUV	**Sontecomapan**	**3.19**	**351**	*eP*	**Pn**	**23 56 39.1**	**-1.7**
PMUV				*eS*	**Sn**	**23 57 10.7**	**-6.9**
PNIG	**Pinotepa**	**3.54**	**287**		**Pn**	**23 56 46.1**	**+0.6**
PNIG	**Pinotepa**	**3.54**	**287**	*eP*	**Pn**	**23 56 46.1**	**+0.6**
PNIG				*eS*	**Sn**	**23 57 22.8**	**-3.3**
TXIG	**Tlaxiaco**	**3.57**	**302**		**Pn**	**23 56 48.1**	**+2.0**
TXIG					**Sn**	**23 57 26.4**	**-0.7**
TXIG	**Tlaxiaco**	**3.57**	**302**	*eP*	**Pn**	**23 56 48.1**	**+2.0**
TXIG				*eS*	**Sn**	**23 57 26.4**	**-0.7**
TOIG	**Toxpalan**	**3.59**	**319**		**Pn**	**23 56 47.4**	**+1.1**
TOIG					**Sn**	**23 57 26.8**	**-0.6**
TOIG	**Toxpalan**	**3.59**	**319**	*eP*	**Pn**	**23 56 47.4**	**+1.1**
TOIG				*eS*	**Sn**	**23 57 26.8**	**-0.6**
HLIG	**Huajuapan de L**	**3.92**	**309**		**Pn**	**23 56 53.6**	**+2.7**
HLIG					**Sn**	**23 57 37.0**	**+1.2**
HLIG	**Huajuapan de L**	**3.92**	**309**	*eP*	**Pn**	**23 56 53.6**	**+2.7**
HLIG				*eS*	**Sn**	**23 57 37.0**	**+1.2**
APG	**El Apazote**	**4.01**	**95**	P	**Pn**	**23 56 52.6**	**+0.5**
	1.6nm,0.3s,baz=204,slow=14,SNR=36						
APG				S	**Sn**	**23 57 39.5**	**+1.3**
	32nm,0.6s,baz=226,slow=19,SNR=5.3						
	3.8nm,0.3s						
APG				AML	AML		
TPIG	**Tehuac#an**	**4.02**	**319**		**Pn**	**23 56 50.2**	**-2.0**
TPIG					**Sn**	**23 57 35.9**	**-2.2**
TPIG	**Tehuac#an**	**4.02**	**319**	*eP*	**Pn**	**23 56 50.2**	**-2.0**
TPIG				*eS*	**Sn**	**23 57 35.9**	**-2.2**
FTIG	**Fresnillo de T**	**4.22**	**307**		**Pn**	**23 56 57.1**	**+2.2**
FTIG	**Fresnillo de T**	**4.22**	**307**	*eP*	**Pn**	**23 56 57.1**	**+2.2**
FTIG				*eS*	**Sn**	**23 57 37.1**	**-5.9**
TLIG	**Tlapa**	**4.38**	**300**	Pn	**Pn**	**23 56 59.1**	**+1.9**
TLIG	**Tlapa**	**4.38**	**300**	*eP*	**Pn**	**23 56 59.8**	**+2.7**
TLIG				*eS*	**Sn**	**23 57 44.8**	**-2.3**
JAUV	**Jalcomulco**	**4.49**	**332**		**Pn**	**23 56 56.6**	**-2.0**
JAUV					**Sn**	**23 57 47.8**	**-1.8**
JAUV	**Jalcomulco**	**4.49**	**332**	*eP*	**Pn**	**23 56 56.6**	**-2.0**
JAUV				*eS*	**Sn**	**23 57 47.8**	**-1.8**
CRIG	**Cruz Grande**	**4.56**	**288**		**Pn**	**23 57 00.5**	**+1.0**
CRIG	**Cruz Grande**	**4.56**	**288**	*eP*	**Pn**	**23 57 00.5**	**+1.0**
CRIG				*eS*	**Sn**	**23 57 47.2**	**-4.1**
PETF	**Flores**	**4.80**	**71**	Pn	**Pn**	**23 57 02.9**	**+0.1**
PETF	**Flores**	**4.80**	**71**	*eP*	**Pn**	**23 57 03.1**	**+0.3**
PETF				*eS*	**Sn**	**23 57 52.4**	**-4.8**
SCIG	**Sabancuy**	**4.84**	**42**		**Pn**	**23 57 02.0**	**-1.4**
SCIG	**Sabancuy**	**4.84**	**42**	*eP*	**Pn**	**23 57 02.0**	**-1.4**
SCIG				*eS*	**Sn**	**23 57 53.0**	**-5.2**
PPAX	**Atlixo**	**5.08**	**315**		**Pn**	**23 58 03.7**	**-0.6**
PPAX	**Atlixo**	**5.08**	**315**	*eP*	**Pn**	**23 57 11.2**	**+4.4**
PPAX				*eS*	**Sn**	**23 58 03.7**	**-0.6**
DAIG	**Los Arroyos**	**5.12**	**289**		**Pn**	**23 57 08.0**	**+0.8**
DAIG	**Los Arroyos**	**5.12**	**289**	*eP*	**Pn**	**23 57 08.0**	**+0.8**
DAIG				*eS*	**Sn**	**23 58 00.7**	**-4.4**
ESQI	**Esquipulas**	**5.15**	**98**	Pn	**Pn**	**23 57 08.3**	**+0.5**
PPCL	**Tochimilco**	**5.21**	**313**		**Sn**	**23 58 06.4**	**-1.2**
PPCL	**Tochimilco**	**5.21**	**313**	*eP*	**Pn**	**23 57 12.6**	**+3.9**
PPCL				*eS*	**Sn**	**23 58 06.4**	**-1.2**
PPPT	**Popocatepetl**	**5.25**	**314**		**Sn**	**23 58 06.4**	**-2.7**
PPPT	**Popocatepetl**	**5.25**	**314**	*eP*	**Pn**	**23 57 13.9**	**+4.4**
PPPT				*eS*	**Sn**	**23 58 06.4**	**-2.7**
PPCU	**Popocatapetl**	**5.27**	**314**		**Pn**	**23 57 13.2**	**+3.5**
PPCU					**Sn**	**23 58 10.4**	**+0.9**
PPCU	**Popocatapetl**	**5.27**	**314**	*eP*	**Pn**	**23 57 13.2**	**+3.5**
PPCU				*eS*	**Sn**	**23 58 10.4**	**+0.9**
PBXN	**Popocatepetl**	**5.30**	**314**	*eP*	**Pn**	**23 57 14.6**	**+4.4**
PBPN	**Popocatepetl**	**5.30**	**314**	*eP*	Pn	23 57 15.2	+5.1
PBPN				*eS*	**Sn**	**23 58 09.0**	**-1.2**
PPM	**Popocatepetl**	**5.32**	**314**	*eP*	**Pn**	**23 57 13.9**	**+3.5**
PPM				*eS*	**Sn**	**23 58 09.1**	**-1.6**
PPIG	**Popocatepetl**	**5.32**	**314**		**Pn**	**23 57 13.9**	**+3.5**
PPIG					**Sn**	**23 58 09.1**	**-1.6**
MEIG	**Mezcala**	**5.44**	**299**		**Pn**	**23 57 14.0**	**+2.4**
MEIG	**Mezcala**	**5.44**	**299**	*eP*	**Pn**	**23 57 14.0**	**+2.4**
MEIG				*eS*	**Sn**	**23 58 10.0**	**-3.0**
YAIG	**Yautepec**	**5.50**	**310**		**Pn**	**23 57 15.9**	**+3.4**
YAIG					**Sn**	**23 58 12.2**	**-2.5**
YAIG	**Yautepec**	**5.50**	**310**	*eP*	**Pn**	**23 57 15.9**	**+3.4**
YAIG				*eS*	**Sn**	**23 58 12.2**	**-2.5**
CXUV	**Coxquihui**	**5.56**	**330**	*eP*	**Pn**	**23 57 16.6**	**+3.3**
CXUV				*eS*	**Sn**	**23 58 09.7**	**-6.2**
PLIG	**Platanillo**	**5.57**	**303**		**Pn**	**23 57 16.8**	**+3.4**
PLIG	**Platanillo**	**5.57**	**303**	*eP*	**Pn**	**23 57 16.8**	**+3.4**
PLIG				*eS*	**Sn**	**23 58 13.3**	**-3.0**
CAIG	**El Cayaco**	**5.69**	**288**		**Pn**	**23 57 16.4**	**+1.4**
CAIG	**El Cayaco**	**5.69**	**288**	*eP*	**Pn**	**23 57 16.4**	**+1.4**
CAIG				*eS*	**Sn**	**23 58 15.3**	**-3.8**
TLVM	**San Miguel Top**	**5.78**	**312**		**Sn**	**23 58 21.7**	**-0.2**
TLVM	**San Miguel Top**	**5.78**	**312**	*eS*	**Sn**	**23 58 21.7**	**-0.2**
MAVM	**Malinalco, Edo**	**5.88**	**308**		**Sn**	**23 58 21.7**	**-2.4**
MAVM	**Malinalco, Edo**	**5.88**	**308**	*eS*	**Sn**	**23 58 21.7**	**-2.4**
UNM	**Universidad Na**	**5.88**	**313**	Pn	**Pn**	**23 57 20.0**	**+2.1**
VTVM	**Tizayuca**	**5.91**	**318**		**Sn**	**23 58 23.0**	**-2.0**
VTVM	**Tizayuca**	**5.91**	**318**	*eS*	**Sn**	**23 58 23.0**	**-2.0**
AOVM	**Tlapan**	**5.94**	**311**		**Sn**	**23 58 25.0**	**-1.0**
AOVM	**Tlapan**	**5.94**	**311**	*eS*	**Sn**	**23 58 25.0**	**-1.0**
PTVM	**Pico Tres Padr**	**6.01**	**315**		**Sn**	**23 58 26.3**	**-1.1**
PTVM	**Pico Tres Padr**	**6.01**	**315**	*eS*	**Sn**	**23 58 26.3**	**-1.1**
ARIG	**Puente Sto Nin**	**6.21**	**299**		**Pn**	**23 57 25.2**	**+3.0**
ARIG	**Puente Sto Nin**	**6.21**	**299**	*eP*	**Pn**	**23 57 25.2**	**+3.0**
ARIG				*eS*	**Sn**	**23 58 25.7**	**-6.4**
ZIIG	**Zihuatanejo**	**6.95**	**290**		**Pn**	**23 57 34.0**	**+1.7**
ZIIG					**Sn**	**23 58 49.7**	**-0.4**
ZIIG	**Zihuatanejo**	**6.95**	**290**	*eP*	**Pn**	**23 57 34.0**	**+1.7**
ZIIG				*eS*	**Sn**	**23 58 49.7**	**-0.4**
TGUH	**Tegucigalpa,Un**	**7.21**	**100**	Pn	**Pn**	**23 57 37.5**	**+1.4**
MOIG	**Morelia**	**7.60**	**305**		**Sn**	**23 59 08.5**	**+2.0**
MOIG	**Morelia**	**7.60**	**305**	Pn	**Pn**	**23 57 43.9**	**+2.4**
MOIG	**Morelia**	**7.60**	**305**	*eP*	**Pn**	**23 57 45.1**	**+3.6**
MOIG				*eS*	**Sn**	**23 59 08.5**	**+2.0**
TEIG	**Tepich**	**7.72**	**50**	Pn	**Pn**	**23 57 42.0**	**-0.9**
TEIG	**Tepich**	**7.72**	**50**	*eP*	**Pn**	**23 57 39.1**	**-3.8**
TEIG				*eS*	**Sn**	**23 59 02.9**	**-6.2**
MMIG	**Aquila**	**8.86**	**290**		**Pn**	**23 57 59.6**	**+1.1**
MMIG	**Aquila**	**8.86**	**290**	*eP*	**Pn**	**23 57 59.6**	**+1.1**
MMIG				*eS*	**Sn**	**23 59 30.6**	**-6.5**
INCO	**Volcan de Coli**	**9.53**	**297**	*eP*	**Pn**	**23 58 08.7**	**+0.6**
INCO				*eS*	**Sn**	**23 59 57.7**	**+3.5**
CEGR	**Campo Tres**	**9.69**	**296**		**Sn**	**23 59 56.4**	**-1.6**
CEGR	**Campo Tres**	**9.69**	**296**	*eP*	**Pn**	**23 58 14.7**	**+4.5**
CEGR				*eS*	**Sn**	**23 59 56.4**	**-1.6**
CIHU	**Emiliano Zapat**	**10.42**	**293**		**Pn**	**23 58 22.7**	**+2.7**
CIHU	**Emiliano Zapat**	**10.42**	**293**	*eP*	**Pn**	**23 58 22.7**	**+2.7**
JTS	**Las Juntas de**	**10.68**	**117**	P	**Pn**	**23 58 25.9**	**+2.4**
	1.8nm,0.3s,baz=311,slow=17,SNR=5.1						
JTS				S	**Sn**	**00 00 21.4**	**-0.5**
	3.7nm,0.3s,baz=326,slow=19,SNR=2.2						
JTS				LR	LR	00 01 19.9	
	comp=Z,13nm,18.3s,baz=327,slow=30						
	4.8nm,0.3s						
JTS				AML	AML		
JTS				AML	AML		
JTS	**Las Juntas de**	**10.68**	**117**	Pn	**Pn**	**23 58 25.2**	**+1.6**
CJM	**Chamela**	**10.77**	**294**	*eP*	**Pn**	**23 58 29.0**	**+4.2**
CJM				*eS*	**Sn**	**00 00 22.7**	**-1.4**
LCR2	**La Lucha 2**	**11.76**	**117**	Pn	**Pn**	**23 58 40.7**	**+2.1**
PIRO	**Carate, Puerto**	**13.02**	**121**	Pn	**Pn**	**23 58 57.6**	**+2.1**
SOR	**Soroa**	**13.21**	**54**	Pn	**Pn**	**23 58 55.6**	**-2.5**
833A	**Chaparral WMA,**	**13.63**	**342**	Pn	**Pn**	**23 59 05.9**	**+2.1**
435B	**Jarrell**	**15.58**	**350**	Pn	**Pn**	**23 59 29.1**	**-0.8**
435B				IAmb	IAmb	23 59 43.7	
	comp=Z,25nm,0.8s						
JCT	**Junction City**	**15.77**	**343**	Pn	**Pn**	**23 59 33.9**	**+1.5**
JCT				IAmb	IAmb	23 59 59.0	
	comp=Z,10nm,0.3s						
TX31	**Lajitas Ar. Si**	**16.21**	**330**	Pn	**Pn**	**23 59 38.9**	**+0.7**
TXAR	**Lajitas Array**	**16.21**	**330**	P	**Pn**	**23 59 38.6**	**+0.4**
	comp=Z,0.1nm,0.3s,baz=153,slow=14,SNR=12						
	comp=Z,5.3nm,1.2s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**16.21**	**330**	Pn	**Pn**	**23 59 38.9**	**+0.7**
BRDY	**Brady**	**16.34**	**347**		**Pn**	**23 59 40.9**	**+1.2**
OZNA	**Ozona**	**16.59**	**340**	Pn	**Pn**	**23 59 43.2**	**+0.3**
WHTX	**Lake Whitney,**	**16.75**	**352**	Pn	**Pn**	**23 59 44.3**	**-0.5**
WHTX				IAmb	IAmb	23 59 52.4	
	comp=Z,15nm,0.7s						
FW13	**Cleburne**	**17.10**	**352**		**Pn**	**23 59 49.2**	**+0.1**
FW13				IAmb	IAmb	23 59 57.4	
	comp=Z,22nm,0.7s						
LPIG	**La Paz**	**17.13**	**303**	LR	LR	00 06 09.5	
	comp=Z,62nm,20.7s,baz=122,slow=36						
MNHN	**Monahans**	**17.56**	**336**		**P**	**23 59 56.1**	**+0.4**
TMB01	**Midkiff**	**17.60**	**338**		**P**	**23 59 56.6**	**+0.4**
ABTX	**Abilene, Hawle**	**17.77**	**346**		**P**	**23 59 58.6**	**+0.5**
229A	**Bryant Ranch,**	**17.78**	**340**		**Pn**	**23 59 57.9**	**+0.2**
VHRN	**Van Horn**	**18.05**	**330**		**P**	**00 00 02.2**	**+0.9**
128A	**Castleberry Fa**	**18.61**	**339**	P	**P**	**00 00 07.4**	**+0.1**
GDL2	**Guadalupe Moun**	**18.96**	**334**	P	**P**	**00 00 11.8**	**+0.5**
MNTX	**Cornudas Mount**	**19.00**	**331**	P	**Pn**	**00 00 12.4**	**0.0**
DKNS	**Dickens**	**19.09**	**344**	IAmb	IAmb	00 00 16.1	
	comp=Z,12nm,0.8s						
152A	**Waverly Hall**	**19.42**	**26**	P	**Pn**	**00 00 18.0**	**+0.5**
152A				IAmb	IAmb	00 00 19.7	
	comp=Z,22nm,1.3s						
MSTX	**Muleshoe**	**19.93**	**340**	P	**Pn**	**00 00 23.7**	**0.0**
MSTX				IAmb	IAmb	00 00 26.7	
	comp=Z,11nm,1.1s						
FCAR	**Ozark Folk Cen**	**20.55**	**6**	P	**P**	**00 00 28.2**	**-0.2**
Y52A	**Lilburn**	**20.73**	**25**	P	Pn	00 00 32.1	-0.7
Y52A				IAmb	IAmb	00 00 35.8	
	comp=Z,12nm,0.7s						
121A	**Cookes Peak, D**	**20.87**	**327**	P	Pn	00 00 34.0	-0.7
121A				IAmb	IAmb	00 00 35.4	
	comp=Z,11nm,0.9s						
Y22A	**Socorro**	**21.59**	**331**	P	**P**	**00 00 41.1**	**+1.2**
Y22A				IAmb	IAmb	00 00 57.4	
	comp=Z,9.5nm,1.1s						
RTBA	**Rita Blanca**	**22.20**	**342**	IAmb	IAmb	00 01 21.4	
	comp=Z,11nm,1.0s						
ALQ	**Albuquerque**	**22.21**	**333**	P	**P**	**00 00 47.4**	**+0.9**
ANMO	**Albuquerque**	**22.21**	**333**	P	**P**	**00 00 46.9**	**+0.5**
	comp=Z,1.7nm,0.8s,baz=136,slow=12,SNR=4.9						
	comp=Z,1.7nm,0.8s						
ANMO	**Albuquerque**	**22.21**	**333**	P	**P**	**00 00 47.5**	**+1.0**
TASM	**ASL Pad, Albuq**	**22.21**	**333**	P	**P**	**00 00 47.1**	**+0.6**
TUC	**Tucson**	**22.38**	**322**	P	**P**	**00 00 48.3**	**0.0**
TUC				IAmb	IAmb	00 01 04.5	
	comp=Z,12nm,1.2s						
TKL	**Tuckaleechee C**	**22.41**	**24**	P	**P**	**00 00 47.4**	**-1.0**
	comp=Z,3.9nm,1.0s,baz=216,slow=12,SNR=4.7						
TKL				LR	LR	00 11 11.9	
	comp=Z,71nm,19.2s,baz=203,slow=41						
	comp=Z,3.9nm,1.0s						
ROSC	**El Rosal**	**22.52**	**116**	P	**P**	**00 00 50.4**	**+0.2**
	comp=Z,4.4nm,0.4s,baz=324,slow=8.4,SNR=5.0						
	comp=Z,4.4nm,0.4s						
ROSC	**El Rosal**	**22.52**	**116**	P	**P**	**00 00 49.6**	**-0.6**
RUSC	**La Rusia**	**23.13**	**112**	P	**P**	**00 00 56.7**	**0.0**
RUSC				IAmb	IAmb	00 01 00.5	
	comp=Z,30nm,1.4s						
T25A	**Trinidad**	**23.36**	**340**	P	**P**	**00 00 59.7**	**+1.2**
T25A				IAmb	IAmb	00 01 01.7	
	comp=Z,9.1nm,0.9s						
X16A	**Lo Mia Camp, P**	**24.28**	**324**	IAmb	IAmb	00 01 11.4	
	comp=Z,6.5nm,1.0s						
SDV	**Santo Domingo**	**24.29**	**103**	LR	LR	00 11 50.4	
	comp=Z,91nm,19.0s,baz=279,slow=39						
113A	**Mohawk Valley,**	**24.55**	**318**	P	**P**	**00 01 10.4**	**+1.1**
113A				IAmb	IAmb	00 01 13.0	
	comp=Z,5.6nm,0.9s						
PV01	**Paradox Valley**	**25.81**	**334**	P	**P**	**00 01 22.3**	**+1.3**
PV01				IAmb	IAmb	00 01 23.4	
	comp=Z,12nm,1.1s						
PV03	**Paradox Valley**	**26.03**	**334**	P	**P**	**00 01 23.9**	**+1.0**
PV03				IAmb	IAmb	00 01 25.1	
	comp=Z,10nm,1.0s						
PV22	**Blue Mesa, Par**	**26.24**	**334**	P	**P**	**00 01 25.7**	**+0.8**
PV22				IAmb	IAmb	00 01 27.1	
	comp=Z,12nm,1.0s						
PFO	**Pinyon Flats O**	**26.83**	**317**	LR	LR	00 11 27.6	
	comp=Z,92nm,19.6s,baz=300,slow=35						
PDAR	**Pinedale Array**	**30.17**	**338**	P	**P**	**00 01 59.6**	**-0.2**
	comp=Z,0.6nm,0.7s,baz=151,slow=9.5,SNR=6.3						
	comp=Z,0.6nm,0.7s						
PDAR	**Pinedale Array**	**30.17**	**338**	P	**P**	**00 02 00.6**	**+0.7**
ELK	**Elko**	**30.99**	**329**	LR	LR	00 16 44.1	
	comp=Z,128nm,19.5s,baz=144,slow=40						
NVAR	**Mina Array Bea**	**31.04**	**322**	P	**P**	**00 02 09.2**	**+1.6**
	comp=Z,2.3nm,0.9s,baz=136,slow=8.9,SNR=6.3						
NVAR				LR	LR	00 14 34.3	
	comp=Z,67nm,19.8s,baz=228,slow=36						
	comp=Z,2.3nm,0.9s						
NVAR	**Mina Array Bea**	**31.04**	**322**	P	**P**	**00 02 08.1**	**+0.4**
SADO	**Sadowa**	**32.09**	**21**	LR	LR	00 17 06.4	
	comp=Z,65nm,18.6s,baz=356,slow=40						
HLID	**Hailey**	**32.79**	**333**	P	**P**	**00 02 23.8**	**+0.9**
HLID				IAmb	IAmb	00 02 27.1	
	comp=Z,3.9nm,0.8s						
BCYI	**Bear Canyon**	**32.97**	**335**	P	**P**	**00 02 25.8**	**+1.3**
BCYI				IAmb	IAmb	00 03 03.0	
	comp=Z,4.5nm,1.4s						
DLMT	**Dillon**	**33.52**	**337**	P	**P**	**00 02 30.5**	**+1.3**
PLID	**Pearl Lake**	**34.69**	**333**	P	**P**	**00 02 40.6**	**+1.1**
PLID				IAmb	IAmb	00 02 41.0	
	comp=Z,5.1nm,0.8s						
YBH	**Yreka Blue Hor**	**35.75**	**323**	LR	LR	00 19 27.0	
	comp=Z,59nm,20.0s,baz=168,slow=40						
LPAZ	**La Paz**	**40.90**	**139**	LR	LR	00 18 55.2	
	comp=Z,55nm,20.0s,baz=163,slow=34						
MDP	**Montagnes des**	**42.46**	**99**	LR	LR	00 21 54.8	
	comp=Z,56nm,20.7s,baz=283,slow=37						
AC02	**Maricunga**	**48.71**	**149**	P	**P**	**00 04 35.6**	**+1.1**
AC02				IAmb	IAmb	00 05 02.7	
	comp=Z,6.2nm,1.1s						
YKA	**Yellowknife Ar**	**49.14**	**348**	P	**P**	**00 04 35.7**	**-1.1**
	comp=Z,1.8nm,0.7s,baz=156,slow=7.5,SNR=7.9						
	comp=Z,1.8nm,0.7s						
MT02	**Curacav**	**53.30**	**155**	P	**P**	**00 05 09.3**	**+0.9**
MT09	**Talagante**	**53.81**	**156**	P	**P**	**00 05 12.3**	**0.0**
CPUP	**Villa Florida**	**55.06**	**138**	P	**P**	**00 05 21.5**	**+0.2**
	comp=Z,0.6nm,0.5s,baz=319,slow=11,SNR=3.2						
	comp=Z,0.6nm,0.5s						
CPUP	**Villa Florida**	**55.06**	**138**	IAmb	IAmb	00 05 38.4	
	comp=Z,5.6nm,1.2s						
BDFB	**Brasilia**	**55.38**	**122**	P	**P**	**00 05 24.8**	**+0.8**
	comp=Z,4.4nm,0.9s,baz=302,slow=6.9,SNR=4.5						
	comp=Z,4.4nm,0.9s						
F30M	**Barrier River**	**58.57**	**343**	P	**P**	**00 05 45.1**	**-0.5**
G29M	**Pine Creek**	**58.77**	**342**	P	**P**	**00 05 46.7**	**-0.4**
G29M				IAmb	IAmb	00 06 01.6	
	comp=Z,6.7nm,1.2s						
SFJD	**Kangerlussuaq**	**59.00**	**19**	LR	LR	00

OXIG					Sn	23 58 58.4	+0.4
VHO	**Vista Hermosa**	**2.64**	**309**	*eP*	**Pb**	**23 58 29.4**	**-1.8**
VHO				*eS*	**Sn**	**23 58 58.4**	**+0.5**
RTAL	**Retalhuleu**	**2.93**	**107**	Pn	**Pn**	**23 58 31.4**	**+1.4**
RTAL	**Retalhuleu**	**2.93**	**107**	*eP*	**Pn**	**23 58 30.6**	**+0.7**
RTAL				*eS*	**Sn**	**23 59 05.2**	**+0.5**
HUEH	**Huehuetenango**	**2.97**	**91**	Pn	**Pn**	**23 58 33.6**	**+2.8**
HUEH	**Huehuetenango**	**2.97**	**91**	*eP*	**Pn**	**23 58 32.0**	**+1.2**
HUEH				*eS*	**Sn**	**23 59 09.2**	**+3.1**
PMUV	**Sontecomapan**	**3.15**	**351**		**Pn**	**23 58 36.3**	**+3.1**
PMUV					**Sn**	**23 59 09.3**	**-1.2**
PMUV	**Sontecomapan**	**3.15**	**351**	*eP*	**Pn**	**23 58 36.3**	**+3.1**
PMUV				*eS*	**Sn**	**23 59 09.3**	**-1.2**
YOIG	**Yosondua**	**3.19**	**297**		**Pn**	**23 58 36.3**	**+2.5**
YOIG					**Sn**	**23 59 09.4**	**-2.1**
YOIG	**Yosondua**	**3.19**	**297**	*eP*	**Pn**	**23 58 36.3**	**+2.5**
YOIG				*eS*	**Sn**	**23 59 09.4**	**-2.1**
PNIG	**Pinotepa**	**3.55**	**286**		**Pn**	**23 58 39.8**	**+1.3**
PNIG	**Pinotepa**	**3.55**	**286**	*eP*	**Pn**	**23 58 39.8**	**+1.3**
PNIG				*eS*	**Sn**	**23 59 15.5**	**-4.6**
TXIG	**Tlaxiaco**	**3.56**	**301**		**Pn**	**23 58 39.1**	**+0.2**
TXIG					**Sn**	**23 59 19.2**	**-1.6**
TXIG	**Tlaxiaco**	**3.56**	**301**	*eP*	**Pn**	**23 58 39.1**	**+0.2**
TXIG				*eS*	**Sn**	**23 59 19.2**	**-1.6**
TOIG	**Toxpalan**	**3.57**	**319**		**Sn**	**23 59 20.4**	**-0.5**
TOIG	**Toxpalan**	**3.57**	**319**	*eP*	**Pb**	**23 58 44.9**	**-2.1**
TOIG				*eS*	**Sn**	**23 59 20.4**	**-0.5**
HLIG	**Huajuapan de L**	**3.91**	**308**		**Sn**	**23 59 29.2**	**-0.1**
HLIG	**Huajuapan de L**	**3.91**	**308**	*eP*	**Pb**	**23 58 48.6**	**-4.2**
HLIG				*eS*	**Sn**	**23 59 29.2**	**-0.1**
TPIG	**Tehuac#an**	**4.00**	**319**		**Pn**	**23 58 48.8**	**+3.9**
TPIG					**Sn**	**23 59 34.4**	**+2.9**
TPIG	**Tehuac#an**	**4.00**	**319**	*eP*	**Pn**	**23 58 48.8**	**+3.9**
TPIG				*eS*	**Sn**	**23 59 34.4**	**+2.9**
FTIG	**Fresnillo de T**	**4.21**	**307**		**Pn**	**23 58 50.0**	**+2.3**
FTIG	**Fresnillo de T**	**4.21**	**307**	*eP*	**Pn**	**23 58 50.0**	**+2.3**
FTIG				*eS*	**Sn**	**23 59 33.6**	**-2.9**
TLIG	**Tlapa**	**4.38**	**300**	Pn	**Pn**	**23 58 52.7**	**+2.6**
TLIG	**Tlapa**	**4.38**	**300**	*eP*	**Pn**	**23 58 53.5**	**+3.5**
TLIG				*eS*	**Sn**	**23 59 40.7**	**-0.1**
JAUV	**Jalcomulco**	**4.46**	**332**		**Pn**	**23 58 52.6**	**+1.5**
JAUV	**Jalcomulco**	**4.46**	**332**	*eP*	**Pn**	**23 58 52.6**	**+1.5**
JAUV				*eS*	**Sn**	**23 59 38.1**	**-4.6**
JAUV						23 59 43.1	
CRIG	**Cruz Grande**	**4.57**	**287**		**Pn**	**23 58 54.8**	**+2.3**
CRIG	**Cruz Grande**	**4.57**	**287**	*eP*	**Pn**	**23 58 54.8**	**+2.3**
CRIG				*eS*	**Sn**	**23 59 40.6**	**-4.6**
PETF	**Flores**	**4.77**	**71**	Pn	**Pn**	**23 58 56.7**	**+1.3**
PETF	**Flores**	**4.77**	**71**	*eP*	**Pn**	**23 58 57.3**	**+2.0**
PETF				*eS*	**Sn**	**23 59 47.8**	**-2.5**
SCIG	**Sabancuy**	**4.80**	**42**		**Pn**	**23 58 56.8**	**+1.1**
SCIG	**Sabancuy**	**4.80**	**42**	*eP*	**Pn**	**23 58 56.8**	**+1.1**
SCIG				*eS*	**Sn**	**23 59 46.8**	**-4.1**
DAIG	**Los Arroyos**	**5.12**	**289**		**Pn**	**23 59 01.9**	**+1.7**
DAIG	**Los Arroyos**	**5.12**	**289**	*eP*	**Pn**	**23 59 01.9**	**+1.7**
DAIG				*eS*	**Sn**	**23 59 54.7**	**-4.3**
PPM	**Popocatepetl**	**5.30**	**314**	*eP*	Pn	23 59 08.8	+5.7
PPM				*eS*	**Sn**	**23 59 59.6**	**-4.5**
MEIG	**Mezcala**	**5.43**	**298**		**Pn**	**23 59 08.0**	**+3.5**
MEIG					**Sn**	**00 00 04.7**	**-2.0**
MEIG	**Mezcala**	**5.43**	**298**	*eP*	**Pn**	**23 59 08.0**	**+3.5**
MEIG				*eS*	**Sn**	**00 00 04.7**	**-2.0**
YAIG	**Yautepec**	**5.49**	**309**		**Sn**	**00 00 06.8**	**-1.4**
YAIG	**Yautepec**	**5.49**	**309**	*eP*	**Pn**	**23 59 09.9**	**+4.5**
YAIG				*eS*	**Sn**	**00 00 06.8**	**-1.4**
CXUV	**Coxquihui**	**5.53**	**329**		**Pn**	**23 59 09.9**	**+4.1**
CXUV					**Sn**	**00 00 09.0**	**0.0**
CXUV	**Coxquihui**	**5.53**	**329**	*eP*	**Pn**	**23 59 09.9**	**+4.1**
CXUV				*eS*	**Sn**	**00 00 09.0**	**0.0**
PLIG	**Platanillo**	**5.56**	**303**	*eP*	**Pn**	**23 59 04.2**	**-2.1**
PLIG				*eS*	**Sn**	**00 00 07.1**	**-2.8**
CAIG	**El Cayaco**	**5.70**	**287**		**Pn**	**23 59 10.6**	**+2.5**
CAIG	**El Cayaco**	**5.70**	**287**	*eP*	**Pn**	**23 59 10.6**	**+2.5**
CAIG				*eS*	**Sn**	**00 00 07.5**	**-5.5**
ARIG	**Puente Sto Nin**	**6.21**	**298**		**Sn**	**00 00 23.4**	**-2.4**
ARIG	**Puente Sto Nin**	**6.21**	**298**	*eP*	Pn	23 59 20.0	+4.8
ARIG				*eS*	**Sn**	**00 00 23.4**	**-2.4**
ZIIG	**Zihuatanejo**	**6.95**	**289**		**Pn**	**23 59 29.0**	**+3.7**
ZIIG	**Zihuatanejo**	**6.95**	**289**	*eP*	**Pn**	**23 59 29.0**	**+3.7**
ZIIG				*eS*	Sn	00 00 37.2	-6.8
MOIG	**Morelia**	**7.59**	**305**	Pn	Pn	23 59 40.1	+5.7
MOIG	**Morelia**	**7.59**	**305**	*eP*	Pn	23 59 39.5	+5.1
TEIG	**Tepich**	**7.68**	**51**	Pn	**Pn**	**23 59 36.9**	**+1.6**
TEIG	**Tepich**	**7.68**	**51**	*eP*	**Pn**	**23 59 37.1**	**+1.9**
TEIG				*eS*	**Sn**	**00 00 58.9**	**-3.4**
MMIG	**Aquila**	**8.86**	**290**		**Pn**	**23 59 54.9**	**+3.4**
MMIG	**Aquila**	**8.86**	**290**	*eP*	**Pn**	**23 59 54.9**	**+3.4**
INCO	**Volcan de Coli**	**9.53**	**297**	*eP*	Pn	00 00 08.1	+7.1
CEGR	**Campo Tres**	**9.70**	**295**	*eP*	Pn	00 00 09.0	+5.8
CIHU	**Emiliano Zapat**	**10.42**	**293**		**Pn**	**00 00 16.7**	**+3.7**
CIHU	**Emiliano Zapat**	**10.42**	**293**	*eP*	**Pn**	**00 00 16.7**	**+3.7**
CIHU	**Emiliano Zapat**	**10.42**	**293**	*eS*	**Pn**	**00 00 16.3**	**+3.3**
CIHU	**Emiliano Zapat**	**10.42**	**293**		**Pn**	**00 00 16.3**	**+3.3**
CJM	**Chamela**	**10.78**	**294**	*eP*	**Pn**	**00 00 21.8**	**+4.0**
YELA	**Yelapa**	**11.51**	**298**	*eP*	Pn	00 00 33.3	+5.4
SOR	**Soroa**	**13.17**	**54**	Pn	**Pn**	**00 00 48.6**	**-1.9**
833A	**Chaparral WMA,**	**13.60**	**342**	Pn	**Pn**	**00 01 00.4**	**+4.1**
LCCY	**Blossom Villag**	**14.46**	**71**	Pn	**Pn**	**00 01 08.7**	**+0.6**
HNDO	**Hondo**	**14.70**	**344**	Pn	**Pn**	**00 01 12.4**	**+0.9**
CAIB	**Caibarien**	**15.92**	**61**	P	**Pn**	**00 01 29.0**	**+1.5**
BRDY	**Brady**	**16.31**	**346**	P	**P**	**00 01 35.4**	**0.0**
WHTX	**Lake Whitney,**	**16.71**	**351**	P	**P**	**00 01 41.2**	**+1.5**
WHTX				IAmb	IAmb	00 01 45.6	
	comp=Z,8.8nm,0.5s						
PLPT	**Palo Pinto**	**17.65**	**350**		**P**	**00 01 51.2**	**+1.0**
PLPT				IAmb	IAmb	00 02 10.6	
	comp=Z,5.9nm,0.7s						
LRAL	**Lakeview Retre**	**18.84**	**20**	P	**P**	**00 02 03.7**	**+0.4**
LRAL				IAmb	IAmb	00 02 05.4	
	comp=Z,7.0nm,1.2s						
SMWD	**Samnorwood**	**20.25**	**346**	P	**P**	**00 02 19.8**	**+1.0**
SMWD				IAmb	IAmb	00 02 23.1	
	comp=Z,7.7nm,0.5s						
FPAL	**Fort Paine**	**20.69**	**21**	P	**P**	**00 02 24.3**	**+0.8**
RTBA	**Rita Blanca**	**22.16**	**342**	P	**P**	**00 02 40.0**	**+0.5**
RTBA				IAmb	IAmb	00 03 08.0	
	comp=Z,14nm,1.3s						
BOZ	**Bozeman (W)**	**33.33**	**338**	P	**P**	**00 04 21.0**	**-0.3**

JMA 18 00:06:47.7±0.1, 37°3N±0°2×144°1E±0°4, h52km, MV4.3/39, FAR E OFF NORTH HONSHU, Off east coast of Honshu

TAP 18 00:09:52.6,23°96N×122°55E,h26km±1km,ML2.7,D
JMA 18 00:09:53.5±0.3,24°N±2°×12°3E±°, h36km, MV1.8/6, NW OFF ISHIGAKIJIMA IS

ISC 18 00:09:52.9±1.1, 23°97N±0°04×122°56E±0°04, h32km±10km, n35, σ0°59/60, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.27**	**304**	P	**Pn**	**00 10 00.7**	**+0.4**
EOS4				S	**Sn**	**00 10 04.7**	**-0.5**
EOS3	**EOS3**	**0.39**	**325**	P	**Pn**	**00 10 01.9**	**-0.3**
EOS3				S	**Sb**	**00 10 07.6**	**0.0**
EOS2	**EOS2**	**0.54**	**326**	*eP*	**Pn**	**00 10 04.5**	**+0.2**
EOS2				S	**Sn**	**00 10 13.1**	**+0.8**
JYNG	**Yonagunijimaku**	**0.59**	**36**	*eP*	**Pb**	**00 10 05.0**	**+0.1**
JYNG				*eS*	**Sb**	**00 10 12.7**	**-0.5**
YOJ	**Yonaguni jima**	**0.64**	**40**	P	**Pb**	**00 10 05.9**	**+0.1**
YOJ				S	**Sb**	**00 10 14.0**	**-0.5**
YOJ	**Yonaguni jima**	**0.64**	**40**	*eP*	**Pb**	**00 10 05.8**	**+0.1**
YOJ				*eS*	**Sb**	**00 10 14.0**	**-0.5**
EWUT	**Wuta**	**0.86**	**304**	*eP*	**Pb**	**00 10 09.7**	**+0.3**
ENA	**Nanau**	**0.88**	**302**	P	**Pn**	**00 10 09.3**	**+0.3**
ENA				*eS*	**Sn**	**00 10 20.3**	**-0.5**
ETL	**Fush Village**	**0.88**	**283**	*eS*	**Sn**	**00 10 20.9**	**+0.1**
TWD	**Chiawan**	**0.89**	**277**	*eP*	**Pb**	**00 10 09.7**	**-0.2**
NACB	**Ninganchiao**	**0.91**	**283**	*eP*	**Pn**	**00 10 08.5**	**-0.9**
NACB				*eS*	**Sn**	**00 10 20.5**	**-1.0**
TWC	**Suao**	**0.91**	**315**	*eP*	**Pn**	**00 10 09.6**	**+0.1**
TWC				S	**Sn**	**00 10 20.9**	**-0.6**
SHUL	**Shoufeng**	**0.93**	**259**	*eS*	**Sb**	**00 10 23.1**	**+0.4**
ETLH	**Xiulin Townshi**	**1.01**	**284**	*eP*	**Pn**	**00 10 09.8**	**-1.2**
ETLH				*eS*	**Sn**	**00 10 23.2**	**-1.0**
NDS	**Dongshan**	**1.02**	**311**	*eP*	**Pn**	**00 10 10.8**	**-0.1**
NDS				*eS*	**Sb**	**00 10 25.4**	**+0.3**
LATG	**Datong**	**1.10**	**301**	*eP*	**Pb**	**00 10 13.9**	**+0.4**
LATG				*i S*	**Sb**	**00 10 27.5**	**-0.1**
WARBT	**Fenglin Townsh**	**1.10**	**257**	*eS*	**Sn**	**00 10 26.3**	**-0.1**
ENTT	**Nioudou**	**1.13**	**307**	*eP*	**Pn**	**00 10 12.8**	**+0.3**
ENTT				*eS*	**Sb**	**00 10 29.1**	**+0.9**
HGSD	**Ruisui**	**1.15**	**246**	*eP*	**Pb**	**00 10 14.3**	**+0.2**
FUSB	**Fushanzhiwuyua**	**1.19**	**312**	*eP*	**Pb**	**00 10 15.2**	**+0.3**
FUSB				*eS*	**Sb**	**00 10 30.2**	**+0.2**
WHF	**Hehuan Shan**	**1.20**	**279**	*eP*	**Pn**	**00 10 13.4**	**-0.4**
WHF				*eS*	**Sn**	**00 10 29.5**	**+0.2**
TIPB	**Shuangxi**	**1.20**	**326**	P	**Pb**	**00 10 15.4**	**+0.2**
TIPB				*eS*	**Sb**	**00 10 30.3**	**-0.1**
EHYH	**Wanrong**	**1.21**	**247**	*eP*	**Pn**	**00 10 13.3**	**-0.3**
FUSS	**Fushou**	**1.24**	**283**	*eP*	**Pn**	**00 10 14.5**	**+0.3**
FUSS				*eS*	**Sn**	**00 10 30.0**	**+0.1**
NWLT	**Wulai**	**1.26**	**310**	*eP*	**Pb**	**00 10 16.5**	**+0.4**
NWLT				*i S*	**Sb**	**00 10 31.2**	**-0.7**
OWD	**Renai**	**1.27**	**270**	*eP*	**Pn**	**00 10 13.4**	**-1.1**
OWD				*eS*	**Sn**	**00 10 30.0**	**-0.6**
SXI1	**Grass Mountain**	**1.28**	**331**	*eP*	**Pn**	**00 10 14.8**	**0.0**
YHNB	**Yeheng**	**1.29**	**303**	*eP*	**Pn**	**00 10 15.6**	**+0.8**
YHNB				*eS*	**Sn**	**00 10 31.8**	**+0.8**
YULB	**Yu-li**	**1.29**	**244**	P	**Pn**	**00 10 14.8**	**0.0**
YULB				S	**Sn**	**00 10 30.5**	**-0.6**
TWF1	**Yuli**	**1.31**	**242**	P	**Pn**	**00 10 15.0**	**0.0**
TWF1				S	**Sn**	**00 10 32.1**	**+0.6**
VWDT	**VWDT**	**1.32**	**261**	P	**Pn**	**00 10 16.1**	**+1.0**
VWDT				S	**Sn**	**00 10 31.1**	**-0.5**
WUSB	**Renai**	**1.32**	**271**	*eP*	**Pn**	**00 10 15.7**	**+0.4**
WUSB				S	**Sb**	**00 10 33.1**	**-0.7**
FULB	**Fuli**	**1.39**	**237**	*eP*	**Pn**	**00 10 17.3**	**+1.1**
WCS	**Beigang Elemen**	**1.51**	**274**	*eP*	**Pb**	**00 10 19.2**	**-1.1**
ALS	**Alishan**	**1.67**	**255**	*eP*	**Pn**	**00 10 21.4**	**+1.2**
ALS				*eS*	**Sn**	**00 10 41.5**	**+0.7**

SJA 18 00:10:36.6±0.7, 22°23S×69°20W, h95km±3km, ML3.4, MW3.5
GUC 18 00:10:38.1±0.8, 22°23S×69°20W, h92km±3km, ML3.1, Presumed earthquake

ISC 18 00:10:36.7±1.4, 22°27S±0°03×69°24W±0°05, h102km±8km, n30, σ1°24/48, 5C-3D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.47**	**359**	*eP*	**Pn**	**00 10 52.3**	**-0.5**
PB09				*eS*	**Sn**	**00 11 03.8**	**-1.0**
PB09				IAML		00 11 05.1	
	comp=Z,1μm,0.2s						
PB09	**IPOC Station P**	**0.47**	**359↓**	*eP*	**Pn**	**00 10 52.6**	**-0.2**
PB09				*eS*	**Sn**	**00 11 03.6**	**-1.2**
PB09				IAML		00 11 06.5	
	comp=E,1μm,0.3s						
PB03	**IPOC Station P**	**0.53**	**295**	*eP*	**Pn**	**00 10 53.0**	**-0.1**
PB03				*eS*	**Sn**	**00 11 05.5**	**0.0**
PB03				IAML		00 11 05.5	
	comp=Z,3μm,0.3s						
PB03	**IPOC Station P**	**0.53**	**295↓**	*i P*	**Pn**	**00 10 53.3**	**+0.2**
PB03				*eS*	**Sn**	**00 11 05.0**	**-0.4**
PB03				IAML		00 11 05.6	
	comp=N,3μm,0.2s						
PB06	**IPOC Station P**	**0.53**	**216**	*eP*	**Pn**	**00 10 53.3**	**+0.1**
PB06				*eS*	**Sn**	**00 11 05.7**	**+0.2**
PB06				IAML		00 11 06.0	
	comp=Z,1μm,0.3s						
PB06	**IPOC Station P**	**0.53**	**216↑**	*eP*	**Pn**	**00 10 53.3**	**+0.1**
PB06				*eS*	**Sn**	**00 11 05.4**	**-0.1**
PB06				IAML		00 11 06.2	
	comp=E,3μm,0.3s						
PB07	**IPOC Station P**	**0.81**	**312**	*eP*	**Pn**	**00 10 55.7**	**+0.2**
PB07				*eS*	**Sn**	**00 11 10.1**	**+0.4**
PB07				IAML		00 11 10.4	
	comp=Z,428nm,0.1s						
PB07	**IPOC Station P**	**0.81**	**312↑**	*eP*	**Pn**	**00 10 55.8**	**+0.2**
PB07				*i S*	**Sn**	**00 11 09.5**	**-0.3**
PB07				IAML		00 11 10.4	
	comp=N,889nm,0.3s						
PB05	**IPOC Station P**	**1.06**	**237**	*eP*	**Pn**	**00 10 58.8**	**+0.7**
PB05				*eS*	**Sn**	**00 11 15.4**	**+1.2**
PB05				*eS*		00 11 15.9	
PB05	**IPOC Station P**	**1.06**	**237↑**	*eP*	**Pn**	**00 10 58.6**	**+0.5**
PB05				*i S*	**Sn**	**00 11 14.8**	**+0.6**
PB05				IAML		00 11 17.3	
	comp=E,258nm,0.3s						
PB02	**IPOC Station P**	**1.13**	**327**	*eP*	**Pn**	**00 10 59.1**	**+0.3**
PB02				*eS*	**Sn**	**00 11 15.9**	**+0.4**
PB02				IAML		00 11 19.9	
	comp=Z,385nm,0.2s						
PB02	**IPOC Station P**	**1.13**	**327↑**	*eP*	**Pn**	**00 10 59.1**	**+0.3**
PB02				*eS*	**Sn**	**00 11 15.7**	**+0.2**
PB02				IAML		00 11 17.6	
	comp=E,539nm,0.2s						
AF01	**San Pedro de A**	**1.19**	**125**	*eP*	**Pn**	**00 11 00.5**	**+0.8**
AF01	**San Pedro de A**	**1.19**	**125**	*eP*	**Pn**	**00 11 00.3**	**+0.6**
AF01				*i S*	**Sn**	**00 11 17.5**	**+0.4**
PB10	**IPOC Station P**	**1.73**	**224**	*eP*	**Pn**	**00 11 07.8**	**+1.9**
PB10	**IPOC Station P**	**1.73**	**224**	*eP*	**Pn**	**00 11 06.5**	**+0.5**
PB10				*i S*	**Sn**	**00 11 27.7**	**-0.5**
PB10				IAML		00 11 44.0	
	comp=E,77nm,0.4s						
TA01	**Diego Aracena**	**1.91**	**332**	*eP*	**Pn**	**00 11 09.7**	**+1.5**
TA01	**Diego Aracena**	**1.91**	**332**	*eP*	**Pn**	**00 11 08.0**	**-0.3**
TA01				*i S*	**Sn**	**00 11 31.7**	**-0.6**
TA01				IAML		00 11 34.3	
	comp=E,84nm,0.3s						
PB08	**IPOC Station P**	**2.12**	**2**	*eP*	**Pn**	**00 11 11.7**	**+0.4**
PB08				*eS*	**Sn**	**00 11 38.9**	**+1.2**
PB08	**IPOC Station P**	**2.12**	**2↑**	*eP*	**Pn**	**00 11 11.5**	**+0.2**
PB11	**IPOC Station P**	**2.53**	**351**	*eP*	**Pn**	**00 11 16.3**	**-0.2**
PB11				*eS*	**Sn**	**00 11 47.0**	**+0.1**
PB11	**IPOC Station P**	**2.53**	**351**	*eP*	**Pn**	**00 11 16.1**	**-0.4**
PB11				IAML		00 11 49.1	
	comp=N,115nm,0.4s						
PB14	**IPOC Station P**	**2.58**	**204**	*eP*	**Pn**	**00 11 19.4**	**+2.2**
PB14	**IPOC Station P**	**2.58**	**204**	*eP*	**Pn**	**00 11 17.1**	**0.0**
PB14				*i S*	**Sn**	**00 11 41.6**	**-6.6**
PB14				IAML		00 11 55.1	
	comp=E,31nm,0.3s						
GO01	**Chusmiza**	**2.59**	**1**	*eP*	**Pn**	**00 11 17.9**	**+0.3**
GO01	**Chusmiza**	**2.59**	**1↓**	*iP*	**Pn**	**00 11 17.6**	**0.0**
PSGCX	**Pisagua**	**2.79**	**343**	*eP*	**Pn**	**00 11 18.8**	**-1.0**
PSGCX	**Pisagua**	**2.79**	**343**	*eP*	**Pn**	**00 11 18.4**	**-1.4**
PB12	**IPOC Station P**	**3.78**	**344**	*eP*	**Pn**	**00 11 33.8**	**+0.7**
AC02	**Maricunga**	**4.54**	**179**	*eP*	**Pn**	**00 11 44.4**	**+0.7**

IDC 18 00:12:19.3±1.7, 2°25N×125°01E, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=183.6km s-min=22.2km az=65.0
DJA 18 00:12:22.2±1.1, 3°N±9°×12°6E±°, h40km±11km, M4.6/13, mb4.9/3, mB6.1/4, MLv4.0/13, Mw(mB)5.8/4

ISC 18 00:12:23.9±1.3, 3°1N±0°1×126°16E±0°08, h35km, n10, σ2°9/10, mb3.6/4, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GAMI	**Galela, Maluku**	**2.04**	**127**	P	**Pn**	**00 12 56.2**	**+0.5**
MNI	**Manado**	**2.09**	**219**	P	**Pn**	**00 12 57.2**	**+0.8**
MNI				AML	AML		
TNTI	**Ternate**	**2.58**	**152**	P	**Pn**	**00 13 05.3**	**+2.0**
TNTI				AML	AML		
KMSI	**Cibinong**	**3.30**	**221**	P	**Pn**	**00 13 14.5**	**+1.4**
KMSI				AML	AML		
LBMI	**Labuha**	**3.92**	**160**	P	**Pn**	**00 13 23.8**	**+2.1**
GTOI	**Gorontalo**	**3.97**	**232**	P	**Pn**	**00 13 22.9**	**+0.6**
GTOI				AML	AML		
WRA	**Warramunga Arr**	**24.24**	**161**	P	**P**	**00 17 34.3**	**-3.5**
	1.0nm,0.4s,baz=336,slow=11,SNR=27						
WRA				S	S	00 21 42.7	-12
	0.2nm,0.7s,baz=327,slow=21,SNR=1.7 1.0nm,0.4s						
ASAR	**Alice Springs**	**27.63**	**165**	P	**P**	**00 18 05.5**	**-2.8**
	0.8nm,0.4s,baz=339,slow=7.3,SNR=17 0.8nm,0.4s						
MKAR	**Makanchi Array**	**57.77**	**326**	P	**P**	**00 22 12.1**	**+0.6**
	0.3nm,0.7s,baz=108,slow=8.1,SNR=1.5 0.3nm,0.7s						
KURBB	**Kurchatov Arra**	**61.98**	**328**	P	**P**	**00 22 41.6**	**+1.2**
	0.2nm,0.5s,baz=127,slow=5.8,SNR=2.0 0.2nm,0.5s						

IDC 18 00:26:47.3±1.7, 7°42S×129°30E, h127km±16km, mb3.6/5, mbtmp4.1/11, Error ellipse: s-maj=21.2km s-min=13.5km az=109.0
DJA 18 00:26:50.5±0.8, 7°S±5°×12°9E±°, h157km±23km, M4.4/6, mB5.5/2, MLv4.4/6, Mw(mB)4.9/2

ISC 18 00:26:48.2±0.7, 7°51S±0°05×129°29E±0°08, h150km, n13, σ2°79/18, mb3.7/5, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**2.04**	**103**	P	**Pn**	**00 27 28.0**	**+4.2**
SAUI				AML	AML		
FAKI	**Fak Fak**	**5.43**	**33**	P	**Pn**	**00 28 06.6**	**-0.8**
BATI	**Baumata**	**6.17**	**244**	P	**Pn**	**00 28 18.7**	**+1.4**
	32nm,0.5s,baz=85,slow=2.8,SNR=4.3						
BATI				S	**Sn**	**00 29 25.2**	**-1.8**
	122nm,0.6s,baz=60,slow=19,SNR=11						
SIJI	**Sorong**	**6.89**	**17**	P	**Pn**	**00 28 25.3**	**-1.5**
	8.2nm,0.2s,baz=225,slow=20,SNR=10						
SIJI				S	**Sn**	**00 29 40.0**	**-4.1**
	6.9nm,0.3s,baz=237,slow=23,SNR=2.1						
KAPI	**Kappang**	**9.80**	**284**	P	**Pn**	**00 29 06.9**	**+1.2**
	2.5nm,0.3s,baz=163,slow=14,SNR=2.4						
FITZ	**Fitzroy Crossi**	**11.11**	**198**	P	**Pn**	**00 29 23.2**	**+0.4**
	11nm,0.5s,baz=24,slow=14,SNR=62						
FITZ				S	**Sn**	**00 31 21.1**	**-4.6**
	4.0nm,0.4s,baz=111,slow=11,SNR=3.9						
WRA	**Warramunga Arr**	**13.29**	**159**	P	**Pn**	**00 29 51.4**	**+0.2**
	3.6nm,0.5s,baz=345,slow=13,SNR=27						
WRA				S	**Sn**	**00 32 13.2**	**-5.1**
	11nm,0.7s,baz=330,slow=24,SNR=12						
ASAR	**Alice Springs**	**16.66**	**165**	P	**P**	**00 30 34.9**	**+2.0**
	2.4nm,0.7s,baz=336,slow=9.8,SNR=26						
ASAR				S	**S**	**00 33 35.2**	**-3.1**
	1.1nm,0.8s,baz=343,slow=17,SNR=4.9						
CMAR	**Chiang Mai Arr**	**39.53**	**311**	P	**P**	**00 34 05.8**	**+1.1**
	1.1nm,0.3s,baz=122,slow=7.9,SNR=3.6 1.1nm,0.3s						
MKAR	**Makanchi Array**	**68.27**	**327**	P	**P**	**00 37 34.0**	**+1.0**
	0.7nm,0.5s,baz=129,slow=7.0,SNR=12 0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**71.73**	**334**	P	**P**	**00 37 54.4**	**+0.6**
	0.5nm,0.3s,baz=148,slow=6.3,SNR=1.8 0.5nm,0.3s						
KURBB	**Kurchatov Arra**	**72.58**	**329**	P	**P**	**00 38 00.1**	**+1.2**
	0.5nm,0.4s,baz=126,slow=5.1,SNR=7.5 0.5nm,0.4s						
QSPA	**South Pole Qui**	**82.47**	**180**	P	**P**	**00 38 56.6**	**+2.8**
	1.3nm,1.1s,baz=310,slow=3.0,SNR=2.0 1.3nm,1.1s						

NEIC 18 00:28:48.3±1.8, 11°16S±0°07×112°11E±0°08, h10km±1km, mb4.5/11, Error ellipse: s-maj=13.5km s-min=11.4km az=235.0
DJA 18 00:28:52.5±0.5, 11°S±4°×11°2E±°, h69km±10km, M5.0/35, mb4.8/9, mB5.6/4, MLv5.0/35, Mw(mB)5.1/4
IDC 18 00:28:53.5±2.6, 11°09S×112°16E, h51km±22km, mb3.9/20, mbtmp4.2/22, ML4.2/2, MS2.9/4, Error ellipse: s-maj=18.8km s-min=11.2km az=54.0

ISC 18 00:28:51.2±0.4, 11°15S±0°06×112°01E±0°06, h35km, n75, σ1°44/76, mb4.3/25, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PWJI	**Pagerwojo**	**3.12**	**356**	P	**Pn**	**00 29 36.5**	**-1.4**
PWJI				S	**Sn**	**00 30 13.1**	**-0.9**
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**3.36**	**356**	P	**Pn**	**00 29 41.1**	**-0.3**
SNJI				AML	AML		
JAGI	**Jajag, Banyuwa**	**3.40**	**39**		**Pn**	**00 29 43.0**	**+1.1**
JAGI	**Jajag, Banyuwa**	**3.40**	**39**	P	**Pn**	**00 29 43.2**	**+1.3**
JAGI				AML	AML		
SJI	**Sawahan**	**3.41**	**356**	P	**Pn**	**00 29 41.5**	**-0.5**
WOJI	**Wonogiri, Jawa**	**3.46**	**342**	P	**Pn**	**00 29 41.6**	**-1.1**
WOJI				AML	AML		
UGM	**Wanagama**	**3.54**

SONM PcP **PcP** **00 39 36.4 +0.4**
comp=Z,0.5nm,0.5s,baz=181,slow=2.3,SNR=2.4
comp=Z,0.8nm,0.8s
SONM Songino Array 58.94 356 P **P** **00 38 47.1 +0.1**
SONM IAmb IAmb 00 39 13.5
comp=Z,3.0nm,1.4s
MKAR Makanchi Array 63.52 338 P **P** **00 39 18.8 +0.8**
comp=Z,1.0nm,0.6s,baz=146,slow=7.9,SNR=8.8
comp=Z,1.0nm,0.6s
MKAR Makanchi Array 63.52 338 P **P** **00 39 18.0 +0.1**
KKAR Karatay Array 65.95 328 P **P** **00 39 34.9 +0.9**
KURBB Kurchatov Area 68.08 338 P **P** **00 39 47.9 +0.6**
comp=Z,0.9nm,0.8s,baz=154,slow=5.4,SNR=6.4
comp=Z,0.9nm,0.8s
ZALV Zalesovo Beam 68.84 343 P **P** **00 39 52.4 +0.5**
comp=Z,1.9nm,0.6s,baz=158,slow=3.8,SNR=13
comp=Z,1.9nm,0.6s
ZALV Zalesovo Beam 68.84 343 P **P** **00 39 51.5 -0.4**
CTZ Chatham Island 68.93 133 P **P** **00 39 52.5 -0.3**
VNDA Vanda 71.02 170 P **P** **00 40 04.9 -0.2**
comp=Z,1.2nm,0.9s,baz=298,slow=6.7,SNR=6.3
comp=Z,1.2nm,0.9s
VNDA Vanda 71.02 170 P **P** **00 40 06.1 +1.0**
VNDA IAmb IAmb 00 40 06.8
comp=Z,2.1nm,0.9s
BVAR Borovoye Array 73.14 335 P **P** **00 40 18.3 +0.2**
comp=Z,0.7nm,0.7s,baz=200,slow=35,SNR=2.8
comp=Z,0.7nm,0.7s
RAYN Ar Rayn 73.57 299 P **P** **00 40 21.8 +0.5**
YAK Yakutsk 74.26 9 P **P** **00 40 24.3 -0.1**
comp=Z,12nm,0.5s,baz=157,slow=4.5,SNR=4.4
AB31 Akbulak array 75.52 328 P **P** **00 40 32.8 +0.8**
AB31 IAmb IAmb 00 40 34.1
comp=Z,3.0nm,0.9s
ABKAR Akbulak array 75.52 328 P **P** **00 40 32.3 +0.3**
POGA Pongola 76.41 244 P **P** **00 40 38.3 +0.6**
POGA IAmb IAmb 00 41 12.2
comp=Z,14nm,1.1s
AKTO Aktyubinsk 77.22 328 P **P** **00 40 42.2 +0.6**
comp=Z,1.0nm,0.6s,baz=41,slow=1.6,SNR=4.8
comp=Z,1.0nm,0.6s
QSPA South Pole Qui 78.86 180 P **P** **00 40 51.2 +0.5**
comp=Z,4.0nm,0.8s,baz=286,slow=0.6,SNR=12
comp=Z,4.0nm,0.8s
QSPA South Pole Qui 78.86 180 P **P** **00 40 51.0 +0.3**
QSPA IAmb IAmb 00 40 52.6
comp=Z,5.0nm,0.9s
ARTI Arti 80.56 333 P **P** **00 41 00.3 +0.5**
comp=Z,1.9nm,0.6s,baz=161,slow=3.5,SNR=4.0
comp=Z,1.9nm,0.6s
KBZ Khabaz 83.03 317 P **P** **00 41 14.4 +1.4**
comp=Z,2.5nm,0.9s,baz=151,slow=4.4,SNR=4.2
comp=Z,2.5nm,0.9s
MMAI Mount Meron Ar 85.02 305 P **P** **00 41 24.5 +0.8**
comp=Z,0.2nm,0.3s,baz=104,slow=12,SNR=1.4
comp=Z,0.2nm,0.3s
SNAA Sanae 87.03 197 P **P** **00 41 33.5 +0.7**
comp=Z,1.1nm,0.4s,baz=198,slow=4.8,SNR=3.6
comp=Z,1.1nm,0.4s
BRTR Keskin Array B 88.27 311 P **P** **00 41 40.0 +0.6**
comp=Z,2.1nm,0.8s,baz=145,slow=7.6,SNR=14
comp=Z,2.1nm,0.8s
BELA Belgrano 2 89.17 187 P **P** **00 41 43.3 +0.5**
BELA IAmb IAmb 00 41 45.1
comp=Z,5.6nm,1.4s
YKA Yellowknife Ar 118.90 23 PKP **PKiKP** **00 47 36.0 +0.2**
comp=Z,0.8nm,0.7s,baz=313,slow=1.0,SNR=4.8
YKA Yellowknife Ar 118.90 23 **PKiKP** **00 47 36.3 +0.6**
TXAR Lajitas Array 142.17 56 PKhKP PKPpre 00 48 16.2
comp=Z,0.3nm,0.7s,baz=243,slow=2.1,SNR=4.4
TXAR Lajitas Array 142.17 56 PKPpre 00 48 15.3
SIV San Ignacio 152.17 194 PKPbc **PKiKP** **00 48 45.0 +0.5**
comp=Z,0.8nm,0.6s,baz=148,slow=5.2,SNR=3.2

*RSNC **18** 00:48:59.7±0.4,4˚S±3˚×7˚7W±˚, h0^{km}, M4.5, mB5.0, mb4.7, ML3.5, Mw(mB)4.3*
*NEIC **18** 00:49:03.0±1.6, 3˚.99S±0˚.07×76˚.9W±0˚.1, h106^{km}±3^{km}, mb4.5/29, Error ellipse: s-maj=14.8km s-min=9.4km az=80.0*
*IDC **18** 00:49:03.8±1.9, 4˚.01S×76˚.88W, h123^{km}±19^{km}, mb3.5/8, mbtmp4.0/14, Error ellipse: s-maj=24.1km s-min=15.8km az=52.0*

ISC 18 00:49:02.2±0.5, 4˚.02S±0˚.05×76˚.87W±0˚.07, h109^{km}, n82, σ1§26/87, mb4.2/21, Northern Peru

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
PIAT	**Ana Tenorio**	**3.31**	**335**	P		**Pn**		**00 49 51.9**	**-0.9**
PIAT				S		**Sn**		**00 50 28.3**	**-3.4**
ATAH	**Atahualpa**	**3.44**	**206**	P		**Pn**		**00 49 56.5**	**+1.9**
	196nm,0.6s,baz=26,slow=9.8,SNR=197								
ATAH				S		**Sn**		**00 50 32.0**	**-2.9**
	131nm,0.8s,baz=299,slow=6.6,SNR=6.1								
SLOR	**San Lorenzo -**	**3.66**	**333**			**Pn**		**00 49 57.5**	**0.0**
CASC	**Dorado de Casc**	**4.16**	**353**	P		**Pn**		**00 50 02.8**	**-1.1**
OTAV	**Otavalo**	**4.52**	**339**	Pn		**Pn**		**00 50 08.8**	**-0.2**
OTAV	**Otavalo**	**4.52**	**339**	P		**Pn**		**00 50 08.9**	**-0.2**
PTLC	**Puerto Leguiza**	**4.65**	**26**	P		**Pn**		**00 50 06.5**	**-3.9**
PAC1	**Pacto, Paraso**	**4.68**	**336**	P		**Pn**		**00 50 11.8**	**+0.9**
FLF1	**Flavio Alfaro-**	**4.70**	**321**	P		**Pn**		**00 50 10.3**	**-0.8**
TULM	**Tulcn-Chalpat**	**4.80**	**349**	P		**Pn**		**00 50 13.0**	**+0.2**
CZSB	**Cruzeiro do Su**	**5.54**	**132**	Pn		**Pn**		**00 50 24.9**	**+2.5**
CZSB	**Cruzeiro do Su**	**5.54**	**132**	P		**Pn**		**00 50 25.0**	**+2.6**
	43nm,0.6s								
CZSB				AML		AML			
BBAC	**Balboa, Cauca**	**6.02**	**356**	P		**Pn**		**00 50 28.8**	**-0.3**
	665nm49nm,0.6s								
BBAC				AML		AML			
POPC	**Popayan, Colom**	**6.52**	**2**	P		**Pn**		**00 50 35.9**	**0.0**
	29nm,0.7s								
MACC	**Macarena, Meta**	**6.83**	**26**	P		**Pn**		**00 50 38.2**	**-1.7**
	1μm87nm,0.6s								
JAMC	**Jamundi, Valle**	**7.19**	**2**	P		**Pn**		**00 50 46.5**	**+1.5**
	41nm,0.9s								
URMC	**La Uribe, Meta**	**7.64**	**19**	P		**Pn**		**00 50 50.1**	**-0.8**
	2μm125nm,0.9s								
NNA	**Nana**	**7.91**	**180**	P		**Pn**		**00 50 56.5**	**+1.8**
	43nm,0.3s,baz=360,slow=7.4,SNR=28								
NNA				S		**Sn**		**00 52 17.4**	**-5.2**
	43nm,0.4s,baz=301,slow=20,SNR=5.2								
NNA	**Nana**	**7.91**	**180**	Pn		**Pn**		**00 50 55.6**	**+1.0**
NNA	**Nana**	**7.91**	**180**	P		**Pn**		**00 50 55.9**	**+1.3**
	56nm,0.6s								
PRAC	**Prado**	**7.94**	**14**	P		**Pn**		**00 50 54.0**	**-1.0**
YOTC	**Yotoco, Valle**	**7.97**	**4**	P		**Pn**		**00 50 56.1**	**+0.6**
	24nm,0.8s								
ORTC	**Ortega, Tolima**	**8.04**	**12**	P		**Pn**		**00 50 56.1**	**-0.3**
	27nm,1.1s								
CHIC	**Chingaza**	**9.15**	**20**	P		**Pn**		**00 51 11.5**	**-0.2**
	27nm,0.7s								
ROSC	**El Rosal**	**9.16**	**16**	P		**Pn**		**00 51 13.4**	**+1.5**
	4.9nm,0.4s,baz=199,slow=21,SNR=1.8								
ROSC	**El Rosal**	**9.16**	**16**	Pn		**Pn**		**00 51 12.9**	**+1.0**
GUY2C	**Guyana, Caldas**	**9.31**	**9**	P		**Pn**		**00 51 16.1**	**+2.1**
	16nm,1.4s								
CBOC	**Ciudad Bolivar**	**9.86**	**5**	P		**Pn**		**00 51 21.8**	**+0.6**
	23nm,0.6s								
RUSC	**La Rusia**	**10.55**	**21**	Pn		**Pn**		**00 51 31.2**	**+0.4**
RUSC	**La Rusia**	**10.55**	**21**	P		**Pn**		**00 51 30.7**	**-0.1**
	19nm,0.6s								
PTBC	**PUERTO BERRIO,**	**10.77**	**13**	P		**Pn**		**00 51 32.6**	**-0.7**
SDV	**Santo Domingo**	**14.25**	**26**	P		**Pn**		**00 52 20.3**	**+1.0**
	2.5nm,0.4s,baz=170,slow=6.1,SNR=1.6								
LPAZ	**La Paz**	**14.91**	**145**	P		**Pn**		**00 52 27.9**	**-0.2**
	0.4nm,0.5s,baz=311,slow=11,SNR=2.5								
LPAZ	**La Paz**	**14.91**	**145**	Pn		**Pn**		**00 52 27.5**	**-0.5**
PB16	**IPOC Station P**	**15.94**	**154**	P		**Pn**		**00 52 42.8**	**+1.8**
URIC	**Uribia, Colomb**	**16.36**	**17**	Pn		**Pn**		**00 52 45.2**	**-0.4**
URIC				IAmb		IAmb		00 52 58.0	
	comp=Z,21nm,1.3s								
BOAV	**Boa Vista**	**17.53**	**69**	P		**P**		**00 53 00.8**	**+1.3**
SIV	**San Ignacio**	**19.56**	**129**	P		**P**		**00 53 21.7**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=317,slow=13,SNR=3.3								
DR12	**Loma Pena Alta**	**23.84**	**18**	P		**P**		**00 54 06.9**	**+1.3**
PDPR	**Patillas Dam,**	**24.37**	**26**	P		**P**		**00 54 11.6**	**+1.3**
PDPR				IAmb		IAmb		00 54 43.5	
	comp=Z,18nm,1.1s								
GCPR	**Guaynabo City**	**24.61**	**25**	P		**P**		**00 54 13.2**	**+0.8**
GCPR				IAmb		IAmb		00 54 21.2	
	comp=Z,22nm,1.2s								
BDFB	**Brasilia**	**30.63**	**114**	P		**P**		**00 55 08.4**	**+1.9**
	comp=Z,0.9nm,0.4s,baz=288,slow=5.2,SNR=3.2								
	comp=Z,0.9nm,0.4s								
TXAR	**Lajitas Array**	**41.97**	**324**	P		**P**		**00 56 43.3**	**+0.5**
	comp=Z,0.5nm,0.5s,baz=147,slow=8.3,SNR=8.1								
TXAR				PcP		**PcP**		**00 58 36.3**	**+0.1**
	comp=Z,0.5nm,0.7s,baz=140,slow=4.9,SNR=4.5								
	comp=Z,0.5nm,0.5s								
TXAR	**Lajitas Array**	**41.97**	**324**	P		**P**		**00 56 42.6**	**-0.1**
TX31	**Lajitas Ar. Si**	**41.97**	**324**	P		**P**		**00 56 43.0**	**+0.2**
R55A	**Marlinton**	**42.20**	**356**	P		**P**		**00 56 44.1**	**-0.4**
R55A				IAmb		IAmb		00 56 58.0	
	comp=Z,18nm,1.4s								
VHRN	**Van Horn**	**43.81**	**324**	P		**P**		**00 56 57.7**	**0.0**
SMWD	**Somorwood**	**44.69**	**332**	P		**P**		**00 57 04.8**	**+0.3**
PAOC	**Oil Creek Stat**	**45.40**	**357**	P		**P**		**00 57 09.7**	**-0.1**
ALQ	**Albuquerque**	**47.71**	**327**	P		**P**		**00 57 28.7**	**+0.4**
ALQ				IAmb		IAmb		00 57 29.8	
	comp=Z,3.9nm,0.8s								
ALQ	**Albuquerque**	**47.71**	**327**	P		**P**		**00 57 28.7**	**+0.4**
ALQ				IAmb		IAmb		00 57 29.8	
	comp=Z,3.7nm,0.8s								
TASM	**ASL Pad, Albuq**	**47.71**	**327**	P		**P**		**00 57 28.7**	**+0.4**
TASM				IAmb		IAmb		00 57 29.8	
	comp=Z,3.5nm,0.8s								
SDCO	**Great Sand Dun**	**49.34**	**330**	P		**P**		**00 57 41.4**	**+0.5**
E62A	**Clayton Lake**	**50.84**	**7**	P		**P**		**00 57 52.6**	**+0.9**
PV02	**Paradox Valley**	**51.36**	**328**	P		**P**		**00 57 55.8**	**-0.2**
PV13	**Radium Mtn., P**	**51.37**	**328**	P		**P**		**00 57 55.5**	**-0.6**
PV18	**Skein Mesa, Pa**	**51.48**	**328**	P		**P**		**00 57 56.7**	**-0.2**
PV18				IAmb		IAmb		00 57 58.2	
	comp=Z,9.1nm,0.9s								
RDMU	**Red Mountain**	**53.54**	**329**	P		**P**		**00 58 11.7**	**-0.4**
RDMU				IAmb		IAmb		00 58 13.2	
	comp=Z,5.8nm,0.9s								
PDAR	**Pinedale Array**	**55.17**	**331**	P		**P**		**00 58 23.8**	**-0.1**
	comp=Z,0.9nm,0.6s,baz=128,slow=8.5,SNR=11								
PDAR				PcP		**PcP**		**00 59 22.9**	**-0.9**
	comp=Z,0.3nm,0.5s,baz=134,slow=4.3,SNR=3.1								
	comp=Z,0.9nm,0.6s								
PDAR	**Pinedale Array**	**55.17**	**331**	P		**P**		**00 58 23.1**	**-0.8**
HWUT	**Hardware Ranch**	**55.32**	**329**	P		**P**		**00 58 24.8**	**-0.1**
HWUT				IAmb		IAmb		00 58 25.7	
	comp=Z,2.9nm,0.8s								
NVAR	**Mina Array Bea**	**57.03**	**322**	P		**P**		**00 58 37.5**	**+0.4**
	comp=Z,1.2nm,0.7s,baz=142,slow=8.2,SNR=4.1								
	comp=Z,1.2nm,0.7s								
YHL	**Hebgen Lake**	**57.52**	**332**	P		**P**		**00 58 42.2**	**+1.7**
YHL				IAmb		IAmb		00 58 42.5	
	comp=Z,3.4nm,0.6s								
YKA	**Yellowknife Ar**	**72.27**	**343**	P		**P**		**01 00 14.3**	**-1.1**
	comp=Z,1.0nm,0.6s,baz=141,slow=6.4,SNR=5.8								
	comp=Z,1.0nm,0.6s								
DBIC	**Dimbokro**	**72.66**	**82**	P		**P**		**01 00 18.4**	**-0.4**
	comp=Z,3.3nm,0.8s,baz=287,slow=6.1,SNR=3.9								
	comp=Z,3.3nm,0.8s								
ESDC	**Sonseca Array**	**79.51**	**49**	P		**P**		**01 00 58.0**	**+0.8**
	comp=Z,0.3nm,0.7s,baz=276,slow=5.4,SNR=2.0								
	comp=Z,0.3nm,0.7s								
I30M	**Mount Dempster**	**81.37**	**338**	P		**P**		**01 01 07.0**	**+0.3**
INK	**Inuvik**	**82.00**	**342**	P		**P**		**01 01 09.5**	**-0.2**
F30M	**Barrier River**	**82.36**	**341**	P		**P**		**01 01 11.7**	**0.0**
F30M				IAmb		IAmb		01 01 36.0	
	comp=Z,6.8nm,1.3s								
E29M	**Blow River**	**83.44**	**341**	P		**P**		**01 01 16.7**	**-0.5**
E29M				IAmb		IAmb		01 01 17.9	
	comp=Z,2.7nm,0.8s								
ILAR	**Eielson Array**	**85.23**	**336**	P		**P**		**01 01 25.9**	**-0.5**
	comp=Z,0.4nm,0.6s,baz=116,slow=3.3,SNR=4.2								
	comp=Z,0.4nm,0.6s								
BMAR	**Burnt Mountain**	**85.31**	**339**	P		**P**		**01 01 27.1**	**+0.4**
C26K	**Camden Bay**	**86.36**	**341**	P		**P**		**01 01 33.0**	**+1.2**
C26K				IAmb		IAmb		01 01 41.5	
	comp=Z,14nm,1.4s								
C24K	**Franklin Bluff**	**87.53**	**341**	P		**P**		**01 01 38.0**	**+0.5**
IMAR	**Indian Mountai**	**88.33**	**336**	P		**P**		**01 01 41.3**	**-0.1**
ARCES	**ARCESS Array B**	**98.07**	**20**	P		**P**		**01 02 24.6**	**-1.5**
	comp=Z,7.8nm,0.9s,baz=291,slow=2.8,SNR=3.3								
FINES	**FINESS Array B**	**99.70**	**28**	P		**Pdif**		**01 02 33.5**	**0.0**
	comp=Z,8.1nm,1.0s,baz=260,slow=8.3,SNR=2.9								
ZALV	**Zalesovo Beam**	**128.03**	**14**	PKP		**PKPdf**		**01 07 55.2**	**-0.1**
	comp=Z,0.6nm,0.4s,baz=270,slow=2.9,SNR=5.5								
KURBB	**Kurchatov Area**	**129.16**	**20**	PKP		**PKPdf**		**01 07 57.1**	**-0.5**
	comp=Z,0.6nm,0.6s,baz=323,slow=2.5,SNR=6.5								
MKAR	**Makanchi Array**	**133.72**	**20**	PKP		**PKPdf**		**01 08 06.4**	**0.0**
	comp=Z,0.4nm,0.6s,baz=316,slow=3.3,SNR=3.7								
ASAR	**Alice Springs**	**139.29**	**226**	PKP		**PKPdf**		**01 08 16.7**	**-0.8**
	comp=Z,0.4nm,0.6s,baz=132,slow=2.2,SNR=4.8								
ASAR	**Alice Springs**	**139.29**	**226**			**PKPdf**		**01 08 16.9**	**-0.6**

*BGR **18** 00:59:58.7, 30˚.65N×139˚.41E, h33^{km}, mb5.5*
*MOS **18** 01:00:43.9±0.8, 32˚.19N×137˚.86E, h367^{km}, mb5.0/63, Error ellipse: s-maj=7.1km s-min=3.7km az=117.3*
*BJI **18** 01:00:43.0, 32˚.24N×137˚.91E, h365^{km}, mB5.1/36, mb5.0/80*
*JMA **18** 01:00:43.6±0.2, 32˚N±2˚×13˚8E±˚, h394^{km}, MD5.1/29, MW5.1/29, FAR S OFF TOKAI DISTRICT*
JMA Felt I J1 at FAR S OFF TOKAI DISTRICT.
*NIED **18** 01:00:43.6, 32˚.25N×138˚.12E, h394^{km}, MW5.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.86; $M_{\theta\theta}$-0.87; $M_{\phi\phi}$2.73; $M_{r\theta}$-2.77; $M_{\theta\phi}$-1.00; $M_{\phi r}$-5.13; Fault plane solution: $M_0$6.37000×10^{16} NP1: ϕ_s136.00000°, δ20.00000°, λ-156.00000°. NP2: ϕ_s23.00000°, δ82.00000°, λ-71.00000°.*
*GFZ **18** 01:00:45.9±0.2, 32˚N±2˚×13˚8E±˚, h374km±1km, M4.9/205, mb5.0/205 Error ellipse: s-maj=4.9km s-min=3.1km az=114.1, confirmed*
*IDC **18** 01:00:45.2±0.5, 32˚.22N×137˚.91E, h366^{km}±3^{km}, mb4.4/32, mbtmp5.1/39, Error ellipse: s-maj=8.8km s-min=7.0km az=70.0*
*NEIC **18** 01:00:45.2±1.3, 32˚.18N±0˚.07×137˚.90E±0˚.09, h366^{km}±4^{km}, mb5.0/171, Mww5.1/17, Error ellipse: s-maj=10.6km s-min=9.7km az=84.0*
*NEIC **18** 01:00:45.2, 32˚.19N×137˚.91E, h366^{km}*
*NEIC **18** 01:00:45.8, 31˚.99N×138˚.15E, h380^{km}, Moment Tensor Solution. Duration: 1§8 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.93; $M_{\theta\theta}$0.43; $M_{\phi\phi}$ 1.50; $M_{r\theta}$-2.24; $M_{\theta\phi}$-0.28; $M_{\phi r}$-5.30; Fault plane solution: $M_0$6.02000×10^{16} NP1: ϕ_s164.31000°, δ9.44000°, λ-126.38000°. NP2:ϕ_s21.07000°, δ82.41000°, λ-84.36000°. Principal axes: T 5.6030, Plg37.0000°, Azm106.0000°; N 0.7631, Plg6.0000°, Azm200.0000°; P -6.3661, Plg52.0000°, Azm298.0000°;*
*GFZ **18** 01:00:45.9, 32˚.20N×137˚.89E, h375^{km}, Mw5.1/42, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-1.58; $M_{\theta\theta}$-0.58; $M_{\phi\phi}$2.16; $M_{r\theta}$-2.31; $M_{\theta\phi}$-0.63; $M_{\phi r}$-4.83; Fault plane solution: $M_0$5.73378×10^{16} NP1: ϕ_s139.59183°, δ16.38782°, λ-151.83261°. NP2: ϕ_s22.40185°, δ82.34645°, λ-75.46566°. Principal axes: T 5.5814, Plg35.7469°, Azm99.7722°; N 0.2936, Plg14.4021°, Azm200.4243°; P -5.8749, Plg50.5838°, Azm308.6310°;*
*GCMT **18** 01:00:48.3±0.4, 32˚.21N±0˚.04×137˚.53E±0˚.04, h368^{km}±2^{km}, MW5.2/60, Moment Tensor Solution. s60, c80; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.19±.25; $M_{\theta\theta}$0.86±.44; $M_{\phi\phi}$2.33±.38; $M_{r\theta}$-2.12±.39; $M_{\theta\phi}$-0.77±.32; $M_{\phi r}$-6.43±.33; Best double couple: $M_0$7.29500×10^{16} NP1:ϕ_s154.00000°, δ13.00000°, λ-129.00000°. NP2:ϕ_s14.00000°, δ80.00000°, λ-81.00000°. Principal axes: T 6.6190, Plg34.0000°, Azm97.0000°; N 1.3550, Plg8.0000°, Azm193.0000°; P -7.9720, Plg55.0000°, Azm295.0000°; nsta1 refers to body waves, cutoff=40s. Triangular moment-rate function*

ISC 18 01:00:45.7±0.3, 32˚.22N±0˚.03×137˚.87E±0˚.03, h375^{km}±2^{km}, h375^{km}:pP-P, n1161, σ1§11/1304, mb5.0/401, 67C-108D, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	**1.62**	**81**	‖*eP*		**Pn**		**01 01 36.5**	**-0.5**
JAOM				A		A		01 01 36.5	
	comp=N,13nm,3.2s,comp=E,17nm,4.9s								
TTO2	**TONANKAI O.B.S**	**1.67**	**335**	A		A		01 01 38.4	
	comp=N,30nm,3.6s,comp=E,22nm,3.1s								
TTO1	**TONANKAI O.B.S**	**1.67**	**327**	*eP*		**Pn**		**01 01 38.0**	**+1.1**
TTO1				A		A		01 01 38.0	
	comp=N,22nm,3.4s,comp=E,24nm,3.5s								
TTO3	**TONANKAI O.B.S**	**1.69**	**347**	*eP*		**Pn**		**01 01 38.2**	**+1.1**
TTO3				A		A		01 01 38.2	
	comp=N,37nm,3.9s,comp=E,32nm,2.7s								
TTO3				S		**S**		**01 02 21.2**	**+2.6**
TTO4	**TONANKAI O.B.S**	**1.81**	**351**	A		A		01 01 38.4	
	comp=N,21nm,3.3s,comp=E,36nm,2.9s								
JHCJ	**Hachijojimakas**	**1.84**	**62**	*eP*		**Pn**		**01 01 37.2**	**-1.0**
JHCJ				*eS*		**S**		**01 02 19.4**	**-1.1**
JHJ	**Hachijo jima 2**	**1.85**	**60**	P		**Pn**		**01 01 37.5**	**-0.8**
	comp=E,297nm,0.3s,baz=49,slow=2.6,SNR=256								
JHJ				S		**S**		**01 02 17.6**	**-3.1**
	comp=E,214nm,0.5s,baz=255,slow=20,SNR=4.7								
JHJ2	**Mitsune**	**1.87**	**61**	P		**Pn**		**01 01 37.1**	**-1.3**
JHJ2	**Mitsune**	**1.87**	**61**	S		**S**		**01 02 17.9**	**-3.0**
JHJ2	**Mitsune**	**1.87**	**61**			**Pn**		**01 01 37.1**	**-1.3**
JHJ2				Sn		**S**		**01 02 18.6**	**-2.3**
JHJ2	**Mitsune**	**1.87**	**61**	P		**Pn**		**01 01 37.4**	**-1.0**
JHJ2	**Mitsune**	**1.87**	**61**	*eP*		**Pn**		**01 01 37.4**	**-1.0**
JHJ2				A		A		01 01 37.4	
	comp=N,10.0nm,5.0s,comp=E,10.0nm,4.2s								
TTO5	**TONANKAI O.B.S**	**2.03**	**356**	A		A		01 01 39.8	
	comp=N,11nm,4.6s,comp=E,32nm,3.6s								
JMYK	**Miyake Tsubota**	**2.32**	**37**	A		A		01 01 40.3	
	comp=N,10.0nm,3.6s,comp=E,8.0nm,4.4s								
JIE	**Ise**	**2.38**	**336**	*i* P		**Pn**		**01 01 42.5**	**+0.6**
JSG	**Sagara**	**2.46**	**6**	P		**Pn**		**01 01 42.5**	**0.0**
JSG				Sn		**S**		**01 02 28.1**	**-0.3**
JSG	**Sagara**	**2.46**	**6**	P		**Pn**		**01 01 43.3**	**+0.8**
JTNC	**Tanabenakahech**	**2.48**	**311**	*eP*		**Pn**		**01 01 43.2**	**+0.5**
JAA	**Atsumi**	**2.48**	**346**	A		A		01 01 42.8	
	comp=N,3.0nm,1.1s,comp=E,8.0nm,3.9s								
JKKS	**Kakegawashinom**	**2.53**	**2**	A		A		01 01 42.6	
	comp=N,9.0nm,4.5s,comp=E,15nm,4.5s								
JIZS	**Izushimoda**	**2.63**	**18**	A		A		01 01 43.0	
	comp=N,5.0nm,5.4s,comp=E,6.0nm,6.2s								
JWY	**Kouya**	**2.76**	**317**	*eP*		**Pn**		**01 01 46.0**	**+1.1**
JWY				*eS*		**S**		**01 02 33.6**	**+0.9**
JIM2	**Oshima 3**	**2.82**	**27**	A		A		01 01 44.2	
	comp=N,8.0nm,1.0s,comp=E,9.0nm,3.1s								
SHZ3	**Shizuoka 3**	**2.86**	**6**	A		A		01 01 45.2	
	comp=N,7.0nm,3.9s,comp=E,10.0nm,4.0s								
INU	**Inuyama**	**3.20**	**347**	P		**Pn**		**01 01 48.9**	**+0.3**
INU	**Inuyama**	**3.20**	**347**	S		**S**		**01 02 40.0**	**+0.5**
INU	**Inuyama**	**3.20**	**347**			**Pn**		**01 01 49.1**	**+0.5**
INU	**Inuyama**	**3.20**	**347**	P		**Pn**		**01 01 49.1**	**+0.5**
JOD2	**Odawara 2**	**3.20**	**18**	*eP*		**Pn**		**01 01 47.8**	**-0.9**
JOD2				*eS*		**S**		**01 02 37.3**	**-2.2**
JAI	**Aioi**	**3.27**	**300**	*eP*		**Pn**		**01 01 50.1**	**+0.8**
JYN	**Shimob**	**3.32**	**10**	*i* P		**Pn**		**01 01 49.9**	**+0.1**
JGF	**Kuroka**	**3.40**	**353**	P		**Pn**		**01 01 50.1**	**-0.4**
JGF	**Kuroka**	**3.40**	**353**			**Pn**		**01 01 50.3**	**-0.1**
JGF	**Kuroka**	**3.40**	**353**	P		**Pn**		**01 01 50.6**	**+0.1**
JMIK	**Miki**	**3.49**	**318**	A		A		01 01 52.0	
	comp=N,4.0nm,5.7s,comp=E,5.0nm,2.8s								
JYTA	**Yamagatataniai**	**3.50**	**345**	*eP*		**Pn**		**01 01 51.7**	**+0.5**
JKUC	**kamogawauchiur**	**3.52**	**33**	A		A		01 01 49.9	
	comp=N,11nm,3.0s,comp=E,9.0nm,0.5s								
BSO1	**Boso 1**	**3.56**	**46**	P		**Pn**		**01 01 48.5**	**-2.7**
BSO1				*eS*		**S**		**01 02 39.7**	**-4.6**
JMN	**Monobe**	**3.67**	**295**	P		**Pn**		**01 01 53.8**	**+0.8**
JMN	**Monobe**	**3.67**	**295**			**Pn**		**01 01 53.8**	**+0.8**
JMN	**Monobe**	**3.67**	**295**	P		**Pn**		**01 01 54.2**	**+1.2**
JMN	**Monobe**	**3.67**	**295**	*eP*		**Pn**		**01 01 54.3**	**+1.2**
JWT	**Wachi**	**3.68**	**327**	*eP*		**Pn**		**01 01 53.8**	**+0.8**
JCCN	**Chibachonan**	**3.72**	**31**	A		A		01 01 51.8	
	comp=N,12nm,0.4s,comp=E,14nm,0.4s								
TOK	**Tokyo**	**3.80**	**24**	A		A		01 01 52.7	
	comp=N,42nm,0.5s,comp=E,30nm,0.6s								
JRY	**Ryogami san**	**3.89**	**12**	‖*iP*		**Pn**		**01 01 54.6**	**-0.4**
JRY				‖*eS*		**S**		**01 02 49.7**	**-1.4**
JSMT	**Sammumatsuo**	**4.04**	**31**	A		A		01 01 54.6	
	comp=N,11nm,0.7s,comp=E,12nm,0.9s								
MJAR	**Matsushiro Arr**	**4.32**	**4**	P		**Pn**		**01 01 58.4**	**-1.0**
	comp=E,129nm,0.5s,baz

YUK pmax pmax
comp=Z,98nm,0.2s
YUK pmax pmax
comp=N,76nm,0.1s
YUK pmax pmax
comp=E,38nm,0.1s
MDJ Mudanjiang 13.96 335 P **P** **01 03 47.8 +0.1**
MDJ pmax pmax
comp=E,51nm,0.7s
MDJ Mudanjiang 13.96 335 P **P** **01 03 47.4 -0.3**
MDJ Mudanjiang 13.96 335 P **P** **01 03 47.6 -0.1**
comp=Z,34nm,0.6s
DL2 Dalian 14.80 301 P **P** **01 03 57.8 +0.9**
DL2 *e*sP 01 05 18.9
DL2 S **S** **01 06 35.3 +0.1**
DL2 pmax pmax
comp=Z,120nm,1.5s
DL2 pmax pmax
comp=Z,720nm,5.0s
CN2 Changchun 15.13 323 P **P** **01 04 00.8 +0.4**
CN2 sP sP 01 05 25.6 -15
CN2 S **S** **01 06 40.5 -1.3**
CN2 pmax pmax
comp=Z,20nm,0.8s
CN2 pmax pmax
comp=Z,200nm,3.0s
YOJ Yonaguni jima 15.18 243 P **P** **01 03 59.7 -1.5**
YOJ pmax pmax
comp=Z,112nm,1.1s
YOJ Yonaguni jima 15.18 243 P **P** **01 03 59.7 -1.5**
YOJ IAmb IAmb 01 04 16.7
comp=Z,112nm,1.1s
YOJ Yonaguni jima 15.18 243 P **P** **01 03 59.9 -1.3**
comp=Z,140nm,1.8s
YSS Yuzhno-Sakhali 15.19 13 P **Pn** **01 04 02.5 -1.2**
YSS Yuzhno-Sakhali 15.19 13 ⇓*i*P **P** **01 04 01.8 +0.8**
YSS *e*S **S** **01 06 42.3 -0.5**
YSS pmax pmax
comp=Z,500nm,3.4s
YSS smax smax
comp=N,600nm,5.2s
YSS smax smax
comp=E,800nm,7.5s
YSS smax smax
comp=N,100nm,0.7s
YSS smax smax
comp=E,100nm,0.9s
YSS Yuzhno-Sakhali 15.19 13 P **P** **01 04 01.8 +0.8**
YSS Yuzhno-Sakhali 15.19 13 P **P** **01 04 01.7 +0.8**
comp=Z,714nm,0.9s
BNX BinXian 15.74 332 ⇓P **P** **01 04 07.0 0.0**
BNX S **S** **01 06 45.8 -8.1**
BNX pmax pmax
comp=Z,220nm,0.6s
BNX pmax pmax
comp=Z,640nm,3.6s
BNX L L
comp=Z,330nm,15.3s
BNX L L
comp=Z,360nm,13.1s
BNX L L
comp=Z,340nm,13.0s
TATO Taipei 16.08 247 P **P** **01 04 10.4 -0.6**
comp=Z,122nm,0.6s
NJ2 Nanjing 16.11 274 ⇑P **P** **01 04 11.3 +0.1**
NJ2 pmax pmax
comp=Z,27nm,0.9s
YHNB Yeheng 16.33 247 P **P** **01 04 12.1 -1.6**
YHNB IAmb IAmb 01 04 52.0
comp=Z,77nm,1.5s
YHNB Yeheng 16.33 247 P **P** **01 04 12.8 -0.9**
comp=Z,44nm,0.8s
NACB Ninganchiao 16.42 245 P **P** **01 04 13.7 -0.9**
NACB Ninganchiao 16.42 245 P **P** **01 04 13.0 -1.6**
NACB Ninganchiao 16.42 245 P **P** **01 04 13.1 -1.5**
comp=Z,15nm,0.5s
YULB Yu-li 17.08 243 P **P** **01 04 21.4 -0.3**
YULB Yu-li 17.08 243 P **P** **01 04 22.0 +0.3**
comp=Z,36nm,1.1s
SSLB Suanglung 17.12 245 P **P** **01 04 21.5 -0.7**
SSLB Suanglung 17.12 245 **P** **01 04 21.1 -1.1**
SSLB IAmb IAmb 01 04 24.2
comp=Z,33nm,0.9s
SSLB Suanglung 17.12 245 P **P** **01 04 21.1 -1.1**
comp=Z,50nm,1.9s
TWG Pinlang 17.57 242 P **P** **01 04 27.0 0.0**
comp=Z,47nm,0.5s
KLR Kul'dur 17.61 347 P **P** **01 04 26.6 -0.3**
comp=Z,182nm,0.5s,baz=171,slow=8.6,SNR=625
KLR S **S** **01 07 28.3 -2.0**
comp=Z,4.6nm,0.9s,baz=162,slow=19,SNR=6.4
KLR ScP **ScP** **01 11 45.3 +0.8**
comp=Z,15nm,0.9s,baz=191,slow=2.4,SNR=17
KLR Kul'dur 17.61 347*d i*P **P** **01 04 26.2 -0.8**
KLR pmax pmax
comp=Z,180nm,0.6s
TIA Tai'an 17.61 289 P **P** **01 04 27.3 +0.1**
TIA S **S** **01 07 29.3 -1.4**
TIA PcP **PcP** **01 08 43.8 -2.2**
TIA ScP **ScP** **01 11 46.4 +1.6**
TIA pmax pmax
comp=Z,52nm,1.5s
TIA pmax pmax
comp=Z,460nm,3.5s
TPUB Ta-pu 17.64 244 P **P** **01 04 26.9 -0.8**
TPUB IAmb IAmb 01 04 33.4
comp=Z,195nm,1.4s
TPUB Ta-pu 17.64 244 P **P** **01 04 27.6 -0.1**
comp=Z,108nm,1.4s
GRNR Gornyy 18.57 357 ⇑*i*P **P** **01 04 36.7 -0.5**
GRNR pmax pmax
comp=Z,20nm,1.0s
GRNR MLR MLR
comp=E,280nm,20.0s
GRNR MLR MLR
comp=N,300nm,14.0s
GRNR MLR MLR
comp=Z,190nm,12.0s
TYV Tymovskoe 18.96 9 *e*P **P** **01 04 41.4 +0.1**
TYV *e*S **S** **01 07 48.8 -6.9**
TYV pmax pmax
comp=Z,300nm,3.4s
TYV pmax pmax
comp=Z,67nm,0.7s
TYV smax smax
comp=N,800nm,5.3s
TYV smax smax
comp=E,400nm,5.3s
TYV smax smax
comp=N,33nm,1.7s
BJI2 Beijing 19.15 300 P **P** **01 04 42.3 -1.1**
BJI2 S **S** **01 07 58.9 -0.3**
BJI2 ScP **ScP** **01 11 49.6 +1.5**
BJI2 ScS **ScS** **01 15 27.5 -2.6**
BJI2 pmax pmax
comp=N,63nm,0.6s
BJI2 pmax pmax
comp=N,460nm,4.2s
BJT Baijiatuan 19.15 300 P **P** **01 04 42.5 -1.0**
BJT pmax pmax
comp=Z,58nm,0.5s
BJT Baijiatuan 19.15 300 **P** **01 04 42.5 -1.0**
BJT IAmb IAmb 01 04 45.5
comp=Z,58nm,0.5s
BJT Baijiatuan 19.15 300 P **P** **01 04 43.6 +0.2**
comp=Z,91nm,0.8s
GUMO Guam 19.62 159 P **P** **01 04 48.0 -0.4**
comp=Z,108nm,0.5s,baz=28,slow=20,SNR=3.6
GUMO Guam 19.62 159 P **P** **01 04 47.3 -1.1**
HEH HeiHe 19.62 340 *e*P **P** **01 04 46.8 -1.2**
HEH sP **sP** **01 06 28.8 -0.4**
HEH S **S** **01 08 07.1 +0.4**
HEH ScP **ScP** **01 11 49.4 +0.4**
HEH pmax pmax
comp=Z,150nm,1.1s
HNS HongShan 19.69 292 ⇓P **P** **01 04 46.8 -2.1**
HNS sP **sP** **01 06 31.6 +0.5**
HNS S **S** **01 08 07.3 -0.8**
HNS ScP **ScP** **01 11 51.9 +2.5**
HNS pmax pmax
comp=Z,21nm,0.7s
HNS L L
comp=Z,250nm,8.6s
HNS L L
comp=Z,340nm,10.8s
HNS L L
comp=Z,270nm,11.5s
WHN Wuhan 20.14 271 ⇓P **P** **01 04 53.5 +0.2**
WHN sP **sP** **01 06 34.9 -1.4**
WHN S **S** **01 08 19.8 +4.3**
WHN ScP **ScP** **01 11 52.8 +2.2**
WHN pmax pmax
comp=Z,580nm,1.2s
XLT XiLinHaoTe 20.68 311 *e*P **P** **01 04 57.3 -0.8**
XLT S **S** **01 08 25.5 +1.4**
XLT ScP **ScP** **01 11 52.8 +1.0**
XLT pmax pmax
comp=Z,100nm,1.1s
XLT pmax pmax
comp=Z,460nm,5.9s
XLT L L
comp=Z,27nm,9.7s
XLT L L
comp=Z,220nm,7.5s
XLT L L
comp=Z,340nm,10.8s
LYN LuoYang 21.32 283 ⇓P **P** **01 05 03.3 -0.6**
LYN sP sP 01 06 48.6 -0.6
LYN S **S** **01 08 31.8 -2.8**
LYN ScP **ScP** **01 11 54.5 +1.0**
LYN pmax pmax
comp=Z,120nm,1.2s
LYN pmax pmax
comp=Z,660nm,4.3s
HIA Hailar 21.78 327 P **P** **01 05 08.3 +0.3**
HIA pmax pmax
comp=Z,89nm,0.7s
HIA Hailar 21.78 327 **P** **01 05 08.3 +0.3**
HIA Hailar 21.78 327 P **P** **01 05 08.8 +0.8**
comp=Z,167nm,1.0s
HILR Hailar Array B 21.98 327 P **P** **01 05 10.4 +0.6**
comp=Z,64nm,0.5s,baz=130,slow=11,SNR=63
HILR ScP **ScP** **01 11 55.6 +0.7**
comp=Z,3.1nm,0.5s,baz=142,slow=7.4,SNR=4.2
comp=Z,64nm,0.5s
HHC Hu-ho-hao-te 22.76 300 *e*P **P** **01 05 17.1 +0.1**
HHC sP sP 01 06 59.3 -5.8
HHC S **S** **01 08 56.4 -1.3**
HHC pmax pmax
comp=Z,58nm,0.8s
HHC pmax pmax
comp=Z,450nm,4.1s
ZEA Zeya 22.82 344 *e*P **P** **01 05 18.1 +0.8**
ZEA *e*S **S** **01 08 54.9 -3.1**
ZEA pmax pmax
comp=N,100nm,2.2s
ZEA pmax pmax
comp=Z,200nm,2.4s
ZEA pmax pmax
comp=E,20nm,0.4s
ZEA pmax pmax
comp=N,50nm,1.1s
ZEA pmax pmax
comp=Z,100nm,1.0s
ZEA smax smax
comp=E,200nm,7.6s
ZEA smax smax
comp=N,200nm,16.8s
ZEA MLR MLR
comp=N,100nm,16.0s
ZEA MLR MLR
comp=Z,200nm,13.0s
BTO2 Baotou 23.98 299 *e*P **P** **01 05 28.3 +0.2**
BTO2 pmax pmax
comp=Z,250nm,0.9s
BTO2 pmax pmax
comp=Z,1μm,6.9s
XAN Xi'an 24.28 282 ⇓P **P** **01 05 30.3 -0.4**
XAN S **S** **01 09 20.0 -1.7**
XAN pmax pmax
comp=Z,150nm,1.3s
XAN pmax pmax
comp=Z,240nm,4.2s
XAN L L
comp=Z,310nm,11.0s
XAN L L
comp=Z,320nm,6.2s
XAN L L
comp=Z,330nm,9.6s
ENH Enshi 24.32 273 P **P** **01 05 30.2 -0.9**
ENH IAmb IAmb 01 05 32.8
comp=Z,87nm,1.1s
ENH Enshi 24.32 273 P **P** **01 05 30.6 -0.5**
comp=Z,85nm,1.4s
PETK Petropavlovsk- 25.31 29 ScP **ScP** **01 12 03.5 -0.4**
comp=Z,13nm,0.7s,baz=179,slow=2.2,SNR=8.1
CIT Chita 26.56 325 *e*P **P** **01 05 50.6 -0.2**
CIT *e* 01 06 59.0
CIT pmax pmax
comp=Z,162nm,1.2s
GYA Guiyang 27.74 266 P **P** **01 05 59.5 -2.2**
GYA pP pP 01 07 10.3 +0.9
GYA PcP **PcP** **01 09 08.5 +1.1**
GYA S **S** **01 10 15.4 -1.0**
GYA ScP **ScP** **01 12 13.9 +2.1**
GYA PcS **PcS** **01 12 50.8 +0.8**
GYA ScS **ScS** **01 16 05.8 +0.9**
GYA pmax pmax
comp=Z,11nm,0.7s
GYA pmax pmax
comp=Z,96nm,3.1s
GYA L L
comp=Z,290nm,12.3s
ULN Ulaanbaatar 28.06 313 P **P** **01 06 05.5 +1.2**
ULN pmax pmax
comp=Z,272nm,1.6s
ULN Ulaanbaatar 28.06 313 **P** **01 06 05.5 +1.2**
ULN Ulaanbaatar 28.06 313 P **P** **01 06 05.1 +0.8**
ULN Ulaanbaatar 28.06 313 P **P** **01 06 05.5 +1.2**
comp=Z,88nm,0.9s
LZH Lanzhou 28.33 287 P **P** **01 06 06.8 -0.1**
LZH pP PP 01 07 18.3 -1.9
LZH sP sP 01 07 56.1 -3.1
LZH S **S** **01 10 21.1 -4.5**
LZH sS sS 01 12 32.3 +2.0
LZH pmax pmax
comp=Z,53nm,1.3s
QIZ Qiongzhong 28.38 249 P **P** **01 06 05.9 -1.3**
QIZ sP **sP** **01 08 00.0 +2.2**
QIZ S **S** **01 10 29.0 +2.7**
QIZ pmax pmax
comp=Z,100nm,5.2s
LZDM Lanzhou Array 28.46 287 P **P** **01 06 08.2 0.0**
comp=Z,14nm,0.7s,baz=109,slow=8.0,SNR=18
LZDM ScP **ScP** **01 12 14.3 +0.2**
comp=Z,2.8nm,0.4s,baz=143,slow=3.0,SNR=4.1
comp=Z,14nm,0.7s
SONM Songino Array 28.46 312 P **P** **01 06 08.8 +1.1**
comp=Z,15nm,0.4s,baz=122,slow=8.5,SNR=161
SONM pP **pP** **01 07 15.3 -1.2**
comp=Z,10nm,1.0s,baz=125,slow=13,SNR=2.2
SONM PcP **PcP** **01 09 09.5 +0.8**
comp=Z,4.0nm,0.8s,baz=150,slow=9,SNR=4.3
SONM ScP **ScP** **01 12 14.7 +1.0**
comp=Z,5.1nm,0.7s,baz=142,slow=4.2,SNR=14
SONM PKPPKP **P'P'df** **01 40 11.6 -5.2**
comp=Z,0.2nm,0.5s,baz=43,slow=11,SNR=3.5
comp=Z,15nm,0.4s
SONM Songino Array 28.46 312 P **P** **01 06 08.8 +1.1**
SONM IAmb IAmb 01 06 10.0
comp=Z,72nm,1.3s
SONM **PcP** **01 09 09.3 +0.5**
SONM **ScP** **01 12 13.7 0.0**
MA2 Magadan 28.69 14 P **P** **01 06 09.8 +0.4**
comp=Z,34nm,0.9s,baz=190,slow=8.3,SNR=7.2
comp=Z,34nm,0.9s
MA2 Magadan 28.69 14*ce*P **P** **01 06 10.2 +0.7**
MA2 pmax pmax
comp=Z,53nm,1.0s
MA2 Magadan 28.69 14 P **P** **01 06 09.8 +0.4**
MA2 IAmb IAmb 01 06 11.0
comp=Z,67nm,1.0s
MA2 Magadan 28.69 14 P **P** **01 06 09.9 +0.5**
comp=Z,82nm,1.4s
YAK Yakutsk 30.29 352 P **P** **01 06 23.2 -0.3**
comp=Z,86nm,0.8s,baz=156,slow=3.9,SNR=26
YAK PcP **PcP** **01 09 12.5 -0.5**
comp=Z,16nm,0.5s,baz=37,slow=3.7,SNR=2.1
YAK S **S** **01 10 51.1 -3.9**
comp=Z,14nm,0.5s,baz=241,slow=23,SNR=5.7
YAK ScP **ScP** **01 12 18.5 -0.6**
comp=Z,22nm,0.8s,baz=15,slow=7.0,SNR=4.4
comp=Z,86nm,0.8s
YAK Yakutsk 30.29 352*d i*P **P** **01 06 23.1 -0.3**
YAK *e**PP **pP** **01 07 31.9 -0.9**
YAK *e* 01 07 41.9
YAK *e* 01 09 12.7
YAK *e*S **S** **01 10 55.4 +0.3**
YAK *e* 01 12 55.1
YAK *e*SS **SS** **01 13 24.4 +0.3**
YAK *e* 01 16 15.1
YAK pmax pmax
comp=Z,104nm,0.9s
YAK pmax pmax
comp=E,7.0nm,1.1s
YAK pmax pmax
comp=N,30nm,1.0s
YAK pmax pmax
comp=Z,173nm,3.3s
YAK pmax pmax
comp=E,166nm,3.1s
YAK pmax pmax
comp=N,141nm,3.4s
YAK smax smax
comp=N,277nm,2.5s
YAK smax smax
comp=E,235nm,3.0s
YAK Yakutsk 30.29 352 P **P** **01 06 22.8 -0.6**
YAK IAmb IAmb 01 06 24.2
comp=Z,154nm,1.1s
YAK **PcP** **01 09 12.8 -0.2**
YAK **ScP** **01 12 18.5 -0.6**
YAK Yakutsk 30.29 352 P **P** **01 06 23.1 -0.4**
comp=Z,142nm,0.9s
YAK Yakutsk 30.29 352 P **P** **01 06 22.8 -0.6**
BOD Bodaibo 30.34 335 *e*P **P** **01 06 23.1 -0.8**
BOD pmax pmax
comp=Z,35nm,1.3s
ZAK Zakamensk 31.31 316 *e*P **P** **01 06 33.0 +0.4**
ZAK pmax pmax
comp=Z,65nm,1.3s
GTA2 Gaotai 31.55 294 P **P** **01 06 35.0 +0.1**
GTA2 PcP **PcP** **01 09 18.3 +1.2**
GTA2 S **S** **01 11 10.5 -5.0**
GTA2 ScP **ScP** **01 12 24.9 +0.9**
GTA2 SS **SS** **01 13 45.3 -4.9**
GTA2 ScS **ScS** **01 16 21.6 -1.3**
GTA2 pmax pmax
comp=Z,61nm,1.1s
GTA2 pmax pmax
comp=Z,240nm,9.5s
GTA2 L L
comp=Z,190nm,12.7s
GTA2 L L
comp=Z,190nm,15.6s
GTA2 L L
comp=Z,250nm,15.9s
TLY Talaya 31.62 318*de*P **P** **01 06 36.3 +1.1**
TLY pmax pmax
comp=Z,41nm,1.0s
TLY Talaya 31.62 318 P **P** **01 06 35.9 +0.7**
TLY IAmb IAmb 01 06 37.8
comp=Z,208nm,1.6s
TLY Talaya 31.62 318 P **P** **01 06 36.4 +1.3**
comp=Z,64nm,1.4s
PATS Pohnpei 31.63 139 P **P** **01 06 34.8 -0.9**
comp=Z,141nm,1.9s
SLVN Son La 32.08 259 **P** **01 06 39.7 +0.1**
SLVN PcP **PcP** **01 09 19.7 +1.0**
SLVN Son La 32.08 259 P **P** **01 06 39.8 +0.2**
comp=Z,13nm,1.3s
SEY Seymchan 32.09 12 P **P** **01 06 38.8 -0.3**
comp=Z,3.3nm,0.5s,baz=207,slow=9.0,SNR=8.0
comp=Z,3.3nm,0.5s
MOY Mondy 33.13 317 *e*P **P** **01 06 49.0 +0.7**
MOY pmax pmax
comp=Z,80nm,2.2s
TOLI2 Tolitoli 34.88 211 P **P** **01 07 02.6 -0.9**
TOLI2 Tolitoli 34.88 211 P **P** **01 07 02.9 -0.5**
comp=Z,13nm,1.3s
TNCH TengChong 35.13 268 P **P** **01 07 05.8 +0.1**
TNCH sP sP 01 08 55.4 -2.2
TNCH S **S** **01 12 11.9 +1.3**
TNCH pmax pmax
comp=Z,93nm,1.1s
MANU Manus Island 35.24 163 P **P** **01 07 05.2 -1.3**
GOMU GeErMu 35.61 289 P **P** **01 07 10.4 +0.5**
GOMU pmax pmax
comp=Z,140nm,1.3s
SANI Sanana 35.89 201 P P 01 07 16.8 +4.8
comp=Z,22nm,0.5s
SANI Sanana 35.89 201 P **P** **01 07 11.0 -0.9**
comp=Z,21nm,0.7s
CHTO Chiang Mai 37.37 259 P **P** **01 07 25.3 +1.0**
CHTO Chiang Mai 37.37 259 P **P** **01 07 24.1 -0.2**
CHTO IAmb IAmb 01 07 26.5
comp=Z,50nm,1.0s
CHTO PcP **PcP** **01 09 34.4 +0.1**
CHTO Chiang Mai 37.37 259 P **P** **01 07 24.6 +0.3**
comp=Z,608nmcomp=Z,61nm,1.2s
CHTO Chiang Mai 37.37 259 P **P** **01 07 24.4 +0.1**
comp=Z,60nm,1.2s
CHTO Chiang Mai 37.37 259 P **P** **01 07 24.6 +0.3**
CHTO PcP **PcP** **01 09 34.0 -0.2**
CM31 Chiang Mai Arr 37.54 258 P **P** **01 07 25.4 -0.3**
CMAR Chiang Mai Arr 37.54 258 P **P** **01 07 25.9 +0.2**
comp=Z,5.7nm,0.6s,baz=46,slow=7.9,SNR=55
CMAR PcP **PcP** **01 09 35.0 +0.2**
comp=Z,1.5nm,0.3s,baz=22,slow=1.4,SNR=8.0
CMAR ScP **S** **01 12 47.8 +1.1**
comp=Z,6.9nm,0.9s,baz=29,slow=3.1,SNR=18
comp=Z,5.7nm,0.6s
CMAR Chiang Mai Arr 37.54 258 P **P** **01 07 25.2 -0.6**
CMAR **PcP** **01 09 35.4 +0.6**
CMAR **S** **01 12 47.4 +0.6**
MORE Moreh 38.99 270 **P** **01 07 36.0 -1.6**
MORE IAmb IAmb 01 07 40.2
comp=Z,79nm,1.4s
NPW Naypyitaw 39.27 262 P **P** **01 07 40.7 +0.8**
comp=Z,111nm,1.1s
BILL Bilibino 39.46 16*de*P **P** **01 07 41.7 +0.9**
BILL pmax pmax
comp=Z,93nm,1.0s
BILL Bilibino 39.46 16 P **P** **01 07 41.3 +0.5**
BILL IAmb IAmb 01 07 42.9
comp=Z,85nm,0.9s
BILL Bilibino 39.46 16 P **P** **01 07 41.7 +0.9**
BILL ScP **ScP** **01 12 52.9 +0.7**
BILI Bilibino, Chuk 39.52 16 P **P** **01 07 41.6 +0.3**
comp=Z,118nm,1.1s
TIXI Tiksi 39.79 356*ce*P **P** **01 07 43.0 -0.4**
TIXI pmax pmax
comp=Z,37nm,1.0s
TIXI Tiksi 39.79 356 **P** **01 07 42.7 -0.7**
TIXI IAmb IAmb 01 07 44.2
comp=Z,73nm,1.2s
TIXI Tiksi 39.79 356 P **P** **01 07 43.0 -0.4**
comp=Z,62nm,1.1s
TIXI Tiksi 39.79 356 P **P** **01 07 43.1 -0.4**
TIXI sP **sP** **01 09 37.6 -1.4**
TIXI PcP **PcP** **01 09 41.4 +0.4**
TIXI ScP **ScP** **01 12 54.8 +1.4**
LSA Lhasa 39.90 279 P **P** **01 07 41.0 -4.5**
LSA Lhasa 39.90 279 P **P** **01 07 45.8 +0.3**
LSA pmax pmax
comp=Z,92nm,1.5s
LSA Lhasa 39.90 279 **P** **01 07 45.8 +0.3**
LSA IAmb IAmb 01 07 48.0
comp=Z,92nm,1.5s
LSA Lhasa 39.90 279 P **P** **01 07 46.5 +1.0**
comp=Z,40nm,1.1s
STKI Sintang 40.54 223 P **P** **01 07 52.4 +2.1**
STKI Sintang 40.54 223 P **P** **01 07 51.2 +0.9**
WMQ Urumqi 40.62 301 ⇓P **P** **01 07 51.5 +0.8**
WMQ sP PcP 01 09 44.6 +0.3
WMQ ScP **ScP** **01 12 58.8 +1.4**
WMQ pmax pmax
comp=Z,110nm,1.3s
WMQ pmax pmax
comp=Z,410nm,3.7s
KAPI Kappang 40.84 208 P **P** **01 07 51.2 -1.5**
KAPI pmax pmax
comp=Z,69nm,1.6s
KAPI Kappang 40.84 208 **P** **01 07 51.2 -1.5**
KAPI IAmb IAmb 01 07 54.9
comp=Z,69nm,1.6s
KAPI Kappang 40.84 208 P **P** **01 07 53.7 +1.0**

KAPI Kappang 40.84 208 P **P** 01 07 53.1 +0.5
comp=Z,27nm,1.1s
BBKI Banjar Baru 41.68 216 P **P** 01 08 01.1 +1.6
BBKI Banjar Baru 41.68 216 P **P** 01 07 59.1 -0.3
comp=Z,34nm,0.4s
ZAA0 Zalesovo Array 43.18 316 **P** 01 08 11.0 +0.1
ZAA0 IAmb IAmb 01 08 12.0
comp=Z,85nm,1.3s
ZALV Zalesovo Beam 43.18 316 P **P** 01 08 10.8 -0.1
comp=Z,21nm,0.4s,baz=77,slow=8.9,SNR=132
ZALV PcP **PcP** 01 09 52.6 +0.1
comp=Z,20nm,0.8s,baz=101,slow=3.4,SNR=16
ZALV ScP **ScP** 01 13 07.5 +0.1
comp=Z,5.7nm,0.7s,baz=113,slow=4.1,SNR=9.5
comp=Z,21nm,0.4s
ZALV Zalesovo Beam 43.18 316 P **P** 01 08 10.9 -0.1
ZALV Zalesovo Beam 43.18 316 P **P** 01 08 10.8 -0.1
ZALV **PcP** 01 09 52.4 -0.2
ZALV **ScP** 01 13 06.7 -0.6
KULM Kulim 43.88 240 P **P** 01 08 16.8 -0.2
KULM Kulim 43.88 240 P **P** 01 08 18.6 +1.6
comp=Z,36nm,1.3s
KULM Kulim 43.88 240 P **P** 01 08 17.5 +0.6
comp=Z,36nm,1.3s
EVN Everest 44.04 278 **P** 01 08 19.4 +0.5
EVN IAmb IAmb 01 08 20.2
comp=Z,47nm,0.6s
EVN Everest 44.04 278 P **P** 01 08 19.6 +0.7
comp=Z,78nm,0.6s
IPM Ipoh 44.15 239 P **P** 01 08 18.3 -0.8
IPM IAmb IAmb 01 08 20.1
comp=Z,57nm,1.2s
IPM Ipoh 44.15 239 P **P** 01 08 19.4 +0.3
comp=Z,42nm,1.2s
IPM Ipoh 44.15 239 P **P** 01 08 18.8 -0.3
comp=Z,42nm,1.2s
MKAR Makanchi Array 44.38 306 P **P** 01 08 21.0 +0.5
comp=Z,31nm,0.6s,baz=85,slow=10,SNR=385
MKAR pP **pP** 01 09 34.8 +0.2
comp=Z,8.8nm,0.8s,baz=91,slow=11,SNR=3.1
MKAR PcP **PcP** 01 09 57.0 +0.1
comp=Z,11nm,0.8s,baz=94,slow=5.3,SNR=6.5
MKAR ScP **ScP** 01 13 12.8 +0.3
comp=Z,8.5nm,0.7s,baz=82,slow=5.1,SNR=19
MKAR S **S** 01 14 25.0 -1.1
comp=Z,1.6nm,0.9s,baz=95,slow=17,SNR=2.4
comp=Z,31nm,0.6s
MAKZ Makanchi 44.59 306 P **P** 01 08 22.8 +0.6
MAKZ pmax pmax
comp=Z,177nm,1.7s
MAKZ Makanchi 44.59 306 **P** 01 08 22.8 +0.6
MAKZ IAmb IAmb 01 08 24.0
comp=Z,177nm,1.7s
MAKZ Makanchi 44.59 306 P **P** 01 08 22.7 +0.5
comp=Z,60nm,1.4s
MAKZ Makanchi 44.59 306 P **P** 01 08 22.7 +0.5
MAKZ pP **pP** 01 09 36.9 +0.5
MAKZ PcP **PcP** 01 09 57.8 +0.1
MAKZ ScP **ScP** 01 13 13.4 +0.1
TPI Tanjungpandan 45.06 225 P **P** 01 08 27.0 +0.8
comp=Z,686nmcomp=Z,66nm,1.0s
PLAI Plampang 45.10 209 P **P** 01 08 24.8 -1.6
comp=Z,31nm,1.5s
AKUT Akutan 45.15 44 P **P** 01 08 26.3 0.0
MTN Manton Dam 45.27 189 P P 01 08 20.5 -7.1
comp=Z,6.9nm,1.0s
MTN Manton Dam 45.27 189 P **P** 01 08 26.9 -0.7
comp=Z,7.0nm,1.0s
MTN Manton Dam 45.27 189 P **P** 01 08 26.7 -1.0
TWSI Taliwang, Sumb 45.39 210 P **P** 01 08 28.3 -0.4
comp=Z,25nm,1.1s
KHKI Kahang-Kahang 45.61 212 P P 01 08 22.0 -8.3
SEM Semipalatinsk 45.72 311 *d* iP **P** 01 08 31.1 +0.1
SEM pmax pmax
comp=Z,80nm,1.6s
SEM Semipalatinsk 45.72 311 ‖ *i* P **P** 01 08 31.2 +0.1
comp=Z,80nm,1.6s
RTBI Rangdo, Negare 45.99 212 P **P** 01 08 33.6 +0.2
NRIK Noril'sk 46.52 338 P **P** 01 08 37.0 +0.3
comp=Z,30nm,0.5s,baz=112,slow=9.3,SNR=49
NRIK PcP **PcP** 01 10 04.0 0.0
comp=Z,14nm,1.0s,baz=108,slow=3.2,SNR=3.8
NRIK ScP **ScP** 01 13 21.2 +0.4
comp=Z,2.5nm,0.4s,baz=70,slow=3.7,SNR=4.8
comp=Z,30nm,0.5s
NRIK Noril'sk 46.52 338 P **P** 01 08 36.9 +0.3
NRIK 01 10 04.5
NRIK pmax pmax
comp=Z,52nm,0.8s
NRIK Noril'sk 46.52 338 **P** 01 08 36.9 +0.3
NRIK IAmb IAmb 01 08 38.2
comp=Z,52nm,0.8s
NRIK **PcP** 01 10 04.5 +0.6
NRIK **ScP** 01 13 21.4 +0.6
PDGK Podgornoye 46.60 301 P **P** 01 08 37.9 0.0
PDGK Podgornoye 46.60 301 P **P** 01 08 37.9 0.0
SHLS Shalkode 46.64 301 *d* iP **P** 01 08 35.9 -2.3
SHLS Shalkode 46.64 301 ‖ *i* P **P** 01 08 35.9 -2.3
KURK Kurchatov 46.76 311 P **P** 01 08 38.7 -0.1
KURK Kurchatov 46.76 311 *ce* P **P** 01 08 38.6 -0.2
KURK pmax pmax
comp=Z,107nm,1.1s
KURK Kurchatov 46.76 311 **P** 01 08 38.8 -0.1
KURK IAmb IAmb 01 08 40.4
comp=Z,199nm,1.3s
KURK **ScP** 01 13 21.6 -0.6
KURK Kurchatov 46.76 311 P **P** 01 08 38.7 -0.1
comp=Z,120nm,1.2s
KURK Kurchatov 46.76 311 P **P** 01 08 38.6 -0.1
KURK PcP **PcP** 01 10 05.2 +0.1
KURK sP **sP** 01 10 34.7 -1.6
KURBB Kurchatov Arra 46.81 311 P **P** 01 08 39.1 -0.1
comp=Z,29nm,0.6s,baz=92,slow=7.1,SNR=243
KURBB PcP **PcP** 01 10 05.1 -0.2
comp=Z,8.6nm,0.8s,baz=88,slow=3.9,SNR=8.9
KURBB PP **PP** 01 10 36.1 +2.7
comp=Z,4.3nm,0.8s,baz=90,slow=9.0,SNR=5.4
KURBB ScP **ScP** 01 13 21.9 -0.6
comp=Z,2.2nm,1.0s,baz=96,slow=4.4,SNR=5.2
KURBB S **S** 01 14 58.2 -2.2
comp=Z,0.3nm,0.4s,baz=90,slow=12,SNR=2.8
comp=Z,29nm,0.6s
PSI Prapat 46.82 239 P **P** 01 08 39.4 -0.5
PSI pmax pmax
comp=Z,24nm,1.2s
PSI Prapat 46.82 239 P **P** 01 08 40.0 +0.1
comp=Z,16nm,1.2s,comp=Z,18nm,1.3s
PSI P P 01 08 40.4 +0.5
comp=Z,16nm,1.2s,comp=Z,18nm,1.3s
RPSI Rantau Prapat 46.90 239 P **P** 01 08 39.4 -0.9
RPSI Rantau Prapat 46.90 239 P **P** 01 08 39.5 -0.9
comp=Z,11nm,1.3s
RPSI Rantau Prapat 46.90 239 P **P** 01 08 40.1 -0.2
comp=Z,18nm,1.3s
SNJI Sawahan-Nganju 46.93 217 P **P** 01 08 42.7 +2.0
comp=Z,46nm,1.4s
UZB Uzynbulak 46.96 301 *d* iP **P** 01 08 40.7 0.0
UZB Uzynbulak 46.96 301 ‖ *i* P **P** 01 08 40.7 0.0
PMBI Palembang 46.98 228 P **P** 01 08 40.8 -0.1
PMBI Palembang 46.98 228 P **P** 01 08 42.3 +1.3
comp=Z,296nm,0.4s
BKNI Bangkinang 47.04 235 P **P** 01 08 41.6 +0.1
BKNI Bangkinang 47.04 235 P **P** 01 08 42.0 +0.6
comp=Z,66nm,0.6s
WUS Wushi 47.08 298 **P** 01 08 42.1 +0.4
WUS IAmb IAmb 01 08 43.9
comp=Z,82nm,1.1s
WUS Wushi 47.08 298 P **P** 01 08 42.4 +0.8
comp=Z,70nm,1.3s
WUS Wushi 47.08 298 P **P** 01 08 42.1 +0.4
WUS pP **pP** 01 09 58.0 +1.6
WUS PcP **PcP** 01 10 06.8 +0.1
WUS ScP **ScP** 01 13 24.5 +0.5
PWJI Pagerwojo 47.11 216 P **P** 01 08 41.9 -0.1
PWJI Pagerwojo 47.11 216 P **P** 01 08 41.8 -0.1
comp=Z,62nm,1.0s
KPKS Kokpek 47.17 301 *eP* **P** 01 08 42.5 +0.4
KPKS Kokpek 47.17 301 *eP* **P** 01 08 42.6 +0.4
TDK Taldyqorghan 47.20 304 *c* iP **P** 01 08 42.7 +0.4
TDK pmax pmax
comp=Z,33nm,0.8s
TDK Taldyqorghan 47.20 304 ‖ *i* P **P** 01 08 42.7 +0.4
comp=Z,33nm,0.8s
ANM Nome 47.22 29 P **P** 01 08 43.0 +0.9
ANM pmax pmax
comp=Z,233nm,1.5s
ANM Nome 47.22 29 P **P** 01 08 43.0 +0.9
ANM IAmb IAmb 01 09 25.1
comp=Z,233nm,1.5s
SATY Saty 47.42 301 *d* iP **P** 01 08 44.3 +0.2
SATY Saty 47.42 301 ‖ *i* P **P** 01 08 44.3 +0.2
PRZ Przheval'sk 47.50 300 P **P** 01 08 45.3 +0.4
PRZ pmax pmax
comp=Z,94nm,0.8s
PRZ Przheval'sk 47.50 300 P **P** 01 08 45.3 +0.4
PRZ IAmb IAmb 01 08 46.8
comp=Z,94nm,0.8s
PRZ Przheval'sk 47.50 300 P **P** 01 08 46.2 +1.3
comp=Z,132nm,1.3s
CTJI Waduk Cacaban 47.64 220 P **P** 01 08 46.8 +0.9
comp=Z,67nm,1.1s
UGM Wanagama 47.68 218 P **P** 01 08 45.3 -0.9
SDSI Sungai Dareh 47.68 233 P **P** 01 08 46.5 +0.2
comp=Z,37nm,1.4s
F15K North Star Dit 47.81 28 P **P** 01 08 47.3 +0.7
F15K IAmb IAmb 01 08 48.8
comp=Z,105nm,1.7s
KPJI Karang Pucung 48.04 220 P **P** 01 08 49.6 +0.6
comp=Z,67nm,0.9s
KPJI Karang Pucung 48.04 220 P **P** 01 08 49.0 0.0
comp=Z,38nm,0.9s
TARG Taragay, Kyrgy 48.05 299 P **P** 01 08 49.7 +0.4
TARG pmax pmax
comp=Z,92nm,1.2s
TARG Taragay, Kyrgy 48.05 299 P **P** 01 08 49.7 +0.4
TARG IAmb IAmb 01 08 51.6
comp=Z,92nm,1.2s
TARG Taragay, Kyrgy 48.05 299 P **P** 01 08 50.3 +1.0
comp=Z,64nm,1.1s
SDPT Sand Point 48.29 42 P **P** 01 08 49.4 -0.9
SDPT IAmb IAmb 01 09 50.4
comp=Z,116nm,1.3s
LEM Lembang 48.36 222 P **P** 01 08 52.1 +0.6
comp=Z,135nm,0.9s
MDOK Medeo 48.39 301 *eP* **P** 01 08 51.7 +0.2
MDOK Medeo 48.39 301 *eP* **P** 01 08 51.8 +0.2
KNRA Kunounrra 48.41 192 P **P** 01 08 49.8 -1.9
comp=Z,8.0nm,0.7s
KNRA Kunounrra 48.41 192 P **P** 01 08 51.2 -0.5
KDJ Kajisay 48.45 300 P **P** 01 08 52.3 +0.3
KDJ pmax pmax
comp=Z,43nm,1.2s
KDJ Kajisay 48.45 300 **P** 01 08 52.3 +0.3
KDJ Kajisay 48.45 300 P **P** 01 08 52.7 +0.6
comp=Z,35nm,1.4s
LHSI Lahat 48.46 229 P **P** 01 08 53.4 +1.2
comp=Z,4µmcomp=Z,112nm,1.1s
LHSI Lahat 48.46 229 P **P** 01 08 52.8 +0.6
comp=Z,69nm,1.1s
AAA Alma-Ata 48.48 301 *eP* **P** 01 08 52.3 +0.2
AAA pmax pmax
comp=Z,108nm,1.3s
AAA Alma-Ata 48.48 301 *eP* **P** 01 08 52.4 +0.2
comp=Z,108nm,1.3s
TNSS Tian-Shan 48.48 301 *eP* **P** 01 08 52.3 -0.2
TNSS Tian-Shan 48.48 301 *eP* **P** 01 08 52.4 -0.2
MDSI Maura Dua 48.55 228 P **P** 01 08 52.8 -0.1
comp=Z,1µmcomp=Z,99nm,1.1s
MDSI Maura Dua 48.55 228 P **P** 01 08 52.7 -0.1
comp=Z,94nm,1.1s
MASI Maura Aman, Be 48.77 231 P **P** 01 08 55.5 +0.9
MASI Maura Aman, Be 48.77 231 P **P** 01 08 54.8 +0.2
comp=Z,109nm,1.1s
CNBA Chernabura Isl 48.79 43 P **P** 01 08 53.6 -0.5
CNBA IAmb IAmb 01 09 23.1
comp=Z,95nm,1.4s
BBJI Bungbulang 48.86 222 P **P** 01 08 53.9 -1.4
ULHL Ulahol 49.12 300 P **P** 01 08 57.8 +0.7
SNR=5.0
ASAI AK-SAY(Kyrgyzs 49.14 298 P **P** 01 08 58.3 +0.9
comp=Z,38nm,1.2s
TKM2 Tokmak 2 49.48 301 P **P** 01 09 00.8 +1.0
SNR=27
KBK Karagaybulak 49.99 301 P **P** 01 09 04.5 +0.9
SNR=21
CHMS Chumysh 50.08 301 P **P** 01 09 04.5 +0.5
SNR=8.6
KSH2 Kashi 50.21 296 P **P** 01 09 06.3 +1.1
KSH2 pmax pmax
comp=Z,39nm,1.1s
USP Ospenovka 50.22 302 P **P** 01 09 05.5 +0.5
SNR=14
AAK Ala-Archa 50.33 301 P **P** 01 09 06.6 +0.6
SNR=7.8
AAK Ala-Archa 50.33 301 *i* P **P** 01 09 06.7 +0.6
SNR=8.3
AAK Ala-Archa 50.33 301 P **P** 01 09 06.3 +0.3
AAK Ala-Archa 50.33 301 *ce* P **P** 01 09 06.3 +0.3
AAK pmax pmax
comp=Z,18nm,1.0s
AAK Ala-Archa 50.33 301 P **P** 01 09 06.0 0.0
AAK Ala-Archa 50.33 301 P **P** 01 09 06.5 +0.5
comp=Z,28nm,1.6s
AAK Ala-Archa 50.33 301 P **P** 01 09 06.1 0.0
AAK PcP **PcP** 01 10 17.9 -0.6
AAK ScP **ScP** 01 13 38.0 +0.2
UCH Uchtor 50.39 300 P **P** 01 09 08.1 +1.3
SNR=26
EKS2 Erkin-Say 50.84 301 P **P** 01 09 10.3 +0.5
SNR=9.6
CHIR Chirikof Islan 51.05 42 P **P** 01 09 11.2 +0.3
CHIR IAmb IAmb 01 09 12.9
comp=Z,117nm,1.1s
ARSB Arslanbob 51.69 300 P **P** 01 09 16.6 +0.6
ARSB pmax pmax
comp=Z,88nm,1.2s
ARSB Arslanbob 51.69 300 P **P** 01 09 16.6 +0.6
ARSB IAmb IAmb 01 09 18.2
comp=Z,88nm,1.2s
BVAR Borovoye Array 51.76 315 P **P** 01 09 16.3 +0.1
comp=Z,30nm,0.5s,baz=103,slow=6.6,SNR=136
BVAR PcP **PcP** 01 10 24.1 +0.7
comp=Z,21nm,0.8s,baz=64,slow=3.4,SNR=12
BVAR ScP **ScP** 01 13 43.3 -0.3
comp=Z,5.4nm,0.6s,baz=90,slow=5.0,SNR=8.0
BVAR S **S** 01 16 05.5 -3.0
comp=Z,0.6nm,0.6s,baz=94,slow=13,SNR=2.1
comp=Z,30nm,0.5s
WB0 Warramunga Arr 51.80 184 P **P** 01 09 16.0 -0.8
BORK Borovoye 51.80 315 P **P** 01 09 16.9 +0.5
BORK pmax pmax
comp=Z,93nm,1.3s
BORK Borovoye 51.80 315 **P** 01 09 16.9 +0.5
BORK IAmb IAmb 01 09 17.9
comp=Z,92nm,1.2s
WRA Warramunga Arr 51.97 184 P **P** 01 09 17.6 -0.5
comp=Z,3.8nm,0.4s,baz=0.6,slow=7.6,SNR=84
WRA ScP **ScP** 01 13 45.4 +0.6
comp=Z,3.6nm,0.8s,baz=1.3,slow=4.5,SNR=5.6
WRA S **S** 01 16 08.2 -3.8
comp=Z,1.7nm,1.0s,baz=21,slow=11,SNR=5.3
comp=Z,3.8nm,0.4s
WRA Warramunga Arr 51.97 184 P **P** 01 09 17.2 -0.9
WRA **ScP** 01 13 45.2 +0.3
OHH Osh 52.00 299 P **P** 01 09 17.3 -1.0
comp=Z,32nm,1.3s
IMAR Indian Mountai 52.27 29 P **P** 01 09 20.1 +0.4
QIS Mount Isa 52.50 178 P **P** 01 09 21.9 0.0
comp=Z,19nm,1.1s
QIS Mount Isa 52.50 178 P **P** 01 09 21.6 -0.3
comp=Z,19nm,1.1s
DZA Taraz 52.57 302 *eP* **P** 01 09 22.4 +0.2
DZA Taraz 52.57 302 *eP* **P** 01 09 22.5 +0.2
CTAO Charters Tower 52.62 170 P **P** 01 09 22.2 -0.6
CTAO pmax pmax
comp=Z,37nm,1.3s
CTAO Charters Tower 52.62 170 P **P** 01 09 22.2 -0.6
CTAO Charters Tower 52.62 170 P **P** 01 09 22.3 -0.6
comp=Z,26nm,1.6s
KDAK Kodiak Island 52.65 39 P **P** 01 09 22.5 0.0
KDAK pmax pmax
comp=Z,150nm,1.7s
KDAK Kodiak Island 52.65 39 P **P** 01 09 22.5 0.0
KDAK IAmb IAmb 01 11 10.3
comp=Z,150nm,1.7s
PPLA Purkeypile 52.79 33 P **P** 01 09 24.4 +0.8
PPLA IAmb IAmb 01 11 15.8
comp=Z,57nm,1.7s
CAST Castle Rocks 52.85 32 **P** 01 09 24.6 +0.7
DRK Karamyk 52.98 298 P **P** 01 09 25.8 +0.2
DRK pmax pmax
comp=Z,74nm,1.3s
DRK Karamyk 52.98 298 **P** 01 09 25.8 +0.2
DRK IAmb IAmb 01 09 27.7
comp=Z,74nm,1.3s
DRK Karamyk 52.98 298 P **P** 01 09 26.4 +0.8
comp=Z,42nm,1.9s
KK31 Karatay Array 53.11 302 P **P** 01 09 26.5 +0.3
KK31 pmax pmax
comp=Z,116nm,1.3s
KK31 Karatay Array 53.11 302 **P** 01 09 26.5 +0.3
KK31 IAmb IAmb 01 09 27.7
comp=Z,116nm,1.3s
KKAR Karatay Array 53.11 302 P **P** 01 09 26.4 +0.2
KKAR Karatay Array 53.11 302 **P** 01 09 26.4 +0.2
NIL Nilore 53.43 290 P **P** 01 09 29.9 +1.2
NIL Nilore 53.43 290 P **P** 01 09 29.1 +0.4
NIL pmax pmax
comp=Z,109nm,1.1s
NIL Nilore 53.43 290 **P** 01 09 29.1 +0.4
NIL IAmb IAmb 01 09 30.9
comp=Z,109nm,1.1s
NIL Nilore 53.43 290 P **P** 01 09 29.6 +0.9
comp=Z,132nm,1.7s
SUA Susitna One 53.47 34 P **P** 01 09 28.8 +0.3
BTK Batken 53.57 299 P **P** 01 09 29.2 -0.4
BTK pmax pmax
comp=Z,30nm,1.1s
BTK Batken 53.57 299 **P** 01 09 29.2 -0.4
BTK Batken 53.57 299 P **P** 01 09 29.7 +0.1
comp=Z,32nm,1.6s
BRLS Borolday 53.61 302 *d* iP **P** 01 09 31.2 +1.5
BRLS Borolday 53.61 302 ‖ *i* P **P** 01 09 31.3 +1.5
CHM Chimkent 53.94 302 *eP* **P** 01 09 32.5 +0.4
CHM Chimkent 53.94 302 *eP* **P** 01 09 32.5 +0.4
MCK McKinley 54.26 32 P **P** 01 09 34.2 +0.2
MCK pmax pmax
comp=Z,9.0nm,0.8s
MCK McKinley 54.26 32 P **P** 01 09 34.2 +0.2
RND Reindeer 54.30 32 P **P** 01 09 34.2 -0.2
RND pmax pmax
comp=Z,18nm,0.7s
RND Reindeer 54.30 32 **P** 01 09 34.2 -0.2
COLA College 54.70 30 P **P** 01 09 38.9 +1.8
comp=Z,20nm,0.6s
SCM Sheep Creek Mo 55.08 34 P **P** 01 09 40.3 +0.3
SCM Sheep Creek Mo 55.08 34 P **P** 01 09 40.3 +0.3
SANVU Saraoutou 55.10 145 P **P** 01 09 39.8 -0.8
SANVU Saraoutou 55.10 145 P **P** 01 09 40.9 +0.4
comp=Z,136nm,1.0s
ILAR Eielson Array 55.12 30 P **P** 01 09 40.1 0.0
comp=Z,4.8nm,0.7s,baz=279,slow=5.6,SNR=14
comp=Z,4.8nm,0.7s
ILAR Eielson Array 55.12 30 P **P** 01 09 40.3 +0.2
ILAR Eielson Array 55.12 30 P **P** 01 09 40.2 +0.2
F25K Christian Rive 55.53 27 **P** 01 09 44.8 +1.7
AS15 Alice Springs 55.67 184 P **P** 01 09 44.7 +0.2
comp=Z,6.0nm,0.8s
AS17 Alice Springs 55.69 184 P **P** 01 09 44.7 0.0
comp=Z,5.2nm,1.1s
AS31 Alice Springs 55.70 184 **P** 01 09 44.2 -0.5
ASAR Alice Springs 55.70 184 P **P** 01 09 44.8 0.0
comp=Z,3.9nm,0.7s,baz=19,slow=11,SNR=34
ASAR ScP **ScP** 01 14 02.1 +1.0
comp=Z,3.3nm,0.8s,baz=7.3,slow=4.4,SNR=9.0
ASAR S **S** 01 17 00.6 -0.9
comp=Z,1.4nm,0.9s,baz=359,slow=11,SNR=5.6
ASAR PKP2bc **P'P'bc** 01 39 54.1 +2.6
comp=Z,0.5nm,0.7s,baz=202,slow=1.5,SNR=5.3
comp=Z,3.9nm,0.7s
ASAR Alice Springs 55.70 184 **P** 01 09 43.8 -0.9
ASAR **ScP** 01 14 01.1 0.0
AS09 Alice Springs 55.73 184 P **P** 01 09 44.9 -0.1
comp=Z,8.7nm,0.9s
C26K Camden Bay 55.76 24 **P** 01 09 45.9 +1.4
MBWA Marble Bar 55.84 201 P **P** 01 09 41.7 -4.0
MBWA Marble Bar 55.84 201 P **P** 01 09 45.2 -0.5
MBWA IAmb IAmb 01 11 49.4
comp=Z,97nm,1.9s
MBWA Marble Bar 55.84 201 P **P** 01 09 45.5 -0.2
comp=Z,20nm,0.7s
BMAR Burnt Mountain 55.95 27 P **P** 01 09 47.5 +1.5
KBL Kabul 56.48 293 P **P** 01 09 50.8 +0.4
SNR=29
KBL Kabul 56.48 293 P **P** 01 09 50.0 -0.4
KBL pmax pmax
comp=Z,71nm,1.1s
KBL Kabul 56.48 293 P **P** 01 09 50.0 -0.4
KBL IAmb IAmb 01 09 51.8
comp=Z,71nm,1.1s
KBL Kabul 56.48 293 P **P** 01 09 50.6 +0.1
comp=Z,61nm,1.1s
MENT Mentasta 56.66 32 P **P** 01 09 51.5 +0.6
SVE Sverdlovsk 56.89 320 *c* iP **P** 01 09 53.2 +0.6
SVE pmax pmax
comp=Z,89nm,1.2s
BCAR Beaver Creek A 57.52 32 P **P** 01 09 57.5 +0.6
WRKA Warakurna 57.66 190 P **P** 01 09 58.8 +0.5
comp=Z,6.8nm,1.8s
BARN Barnard Glacie 57.87 35 P **P** 01 10 00.1 +0.5
MALK Mahakanadarawa 58.01 259 P **P** 01 10 01.8 +0.8
comp=Z,60nm,1.1s
ARTI Arti 58.20 320 P **P** 01 10 01.7 +0.1
ARTI pmax pmax
comp=Z,111nm,0.5s
ARTI Arti 58.20 320 **P** 01 10 01.7 +0.1
ARTI Arti 58.20 320 P **P** 01 10 01.6 -0.1
ARTI ScP **ScP** 01 14 11.0 -0.8
PALK Pallekele 58.49 258 P **P** 01 10 05.1 +0.8
PALK Pallekele 58.49 258 P **P** 01 10 04.4 +0.1
PALK pmax pmax
comp=Z,45nm,1.0s
PALK Pallekele 58.49 258 **P** 01 10 04.4 +0.1
PALK IAmb IAmb 01 10 06.2
comp=Z,45nm,0.9s
PALK Pallekele 58.49 258 P **P** 01 10 06.0 +1.7
comp=Z,29nm,2.7s
PALK Pallekele 58.49 258 P **P** 01 10 05.0 +0.7
comp=Z,58nm,2.7s
EIDS Eidsvold 58.64 166 P **P** 01 10 01.4 -3.5
comp=Z,13nm,1.1s
EIDS Eidsvold 58.64 166 P **P** 01 10 05.1 +0.1
EIDS Eidsvold 58.64 166 P **P** 01 10 05.2 +0.3
comp=Z,13nm,1.1s
QLP Quilpie 58.79 173 P **P** 01 10 05.9 -0.1
comp=Z,31nm,1.2s
QLP Quilpie 58.79 173 P **P** 01 10 05.5 -0.4
comp=Z,31nm,1.2s
AB31 Akbulak array 58.87 312 **P** 01 10 06.7 +0.4
ABKAR Akbulak array 58.87 312 **P** 01 10 06.6 +0.3
INKA Innaminka 59.69 177 **P** 01 10 12.1 +0.1
HYT Haines Junctio 59.91 34 P **P** 01 10 14.5 +1.1
H31M Peel River 60.21 28 P **P** 01 10 15.8 +0.7
H31M IAmb IAmb 01 10 17.1
comp=Z,19nm,0.7s
NOUC Port Laguerre 60.48 150 P **P** 01 10 18.8 +1.4
NOUC ScP **ScP** 01 14 23.7 +1.4
ONTNC Ouen Toro 60.72 149 P **P** 01 10 18.8 -0.3
ONTNC IAmb IAmb 01 10 21.2
comp=Z,45nm,0.9s
WHY Whitehorse 61.20 34 P **P** 01 10 23.3 +1.4
WHY IAmb IAmb 01 10 24.2
comp=Z,23nm,0.7s
A36M Sachs Harbour 61.80 21 **P** 01 10 26.4 +0.8
A36M IAmb IAmb 01 10 28.1
comp=Z,42nm,0.8s
HRA Herat 61.81 295 **P** 01 10 27.0 +0.4
HRA IAmb IAmb 01 10 28.7
comp=Z,38nm,0.9s
MSVF Nonsavu 62.83 136 P **P** 01 10 33.6 +0.4
MSVF pmax pmax
comp=Z,51nm,1.2s
MSVF Nonsavu 62.83 136 **P** 01 10 33.6 +0.4
MSVF IAmb IAmb 01 10 37.1
comp=Z,51nm,1.2s
MSVF Nonsavu 62.83 136 P **P** 01 10 35.8 +2.6
comp=Z,46nm,1.6s
C36M Paulatuk 63.01 23 **P** 01 10 34.1 +0.7
C36M IAmb IAmb 01 10 35.1
comp=Z,27nm,0.8s
FORT Forrest 63.34 189 P **P** 01 10 35.6 -0.5
ARMA Armidale 63.65 167 P **P** 01 10 38.1 -0.2
ARMA IAmb IAmb 01 10 40.2
comp=Z,19nm,1.1s
CMSA Cobar Meteorol 63.84 173 P **P** 01 10 40.5 +1.2
comp=Z,23nm,1.2s
CMSA Cobar Meteorol 63.84 173 P **P** 01 10 40.3 +0.9

comp=Z,23nm,1.2s
STKA Stephens Creek 63.85 176 P **P** **01 10 39.8 +0.4**
comp=Z,8.7nm,0.7s,baz=338,slow=7.8,SNR=16
comp=Z,8.7nm,0.7s
STKA Stephens Creek 63.85 176 **P** **01 10 39.0 -0.4**
STKA IAmb IAmb 01 10 40.8
comp=Z,62nm,1.0s
STKA Stephens Creek 63.85 176 P **P** **01 10 39.7 +0.3**
MORW Morawa 64.38 201 P **P** **01 10 42.8 -0.1**
MORW IAmb IAmb 01 12 20.2
comp=Z,38nm,1.6s
MORW Morawa 64.38 201 P **P** **01 10 42.9 0.0**
comp=Z,15nm,1.7s
SPB2 Spitsbergen Ar 64.67 349 P **P** **01 10 44.6 +0.4**
SPA0 Spitsbergen Ar 64.67 349 *e*P **P** **01 10 45.2 +1.0**
SPA0 IAmb IAmb 01 10 46.2
comp=Z,161nm,1.6s
SPITS Spitsbergen Ar 64.67 349 P **P** **01 10 44.6 +0.4**
comp=Z,7.3nm,0.6s,baz=84,slow=7.6,SNR=15
comp=Z,7.3nm,0.6s
BBOO Buckleboo 64.70 182 P **P** **01 10 44.7 -0.2**
BBOO IAmb IAmb 01 12 27.7
comp=Z,48nm,1.8s
BBOO Buckleboo 64.70 182 P **P** **01 10 44.9 0.0**
comp=Z,12nm,0.8s
KBS Kingsbay 64.89 350 P **P** **01 10 46.4 +0.9**
comp=Z,60nm,1.2s
KBS Kingsbay 64.89 350 *i* P **P** **01 10 46.6 +1.1**
ALE Alert 65.07 3 P **P** **01 10 47.5 +0.9**
LVZ Lovozero 65.31 336 *ce*P **P** **01 10 49.4 +1.0**
LVZ pmax pmax
comp=Z,81nm,2.5s
LVZ Lovozero 65.31 336 P **P** **01 10 47.6 -0.8**
LVZ IAmb IAmb 01 10 49.4
comp=Z,65nm,1.2s
BLDU Ballidu 65.63 200 P **P** **01 10 50.8 -0.1**
comp=Z,22nm,2.7s
NOR Nord 65.65 356 P **P** **01 10 50.7 +0.3**
NOR Nord 65.65 356 *i* P **P** **01 10 50.7 +0.3**
NOR IAmb IAmb 01 10 51.7
comp=Z,18nm,1.1s
APA Apatity 65.88 336 *e*P **P** **01 10 50.1 -1.8**
APA *e* 01 11 18.4
APA *e**PP **pP** **01 12 12.0 -1.0**
APA *e* 01 13 20.6
APA *e*S **S** **01 19 01.3 -6.6**
APA pmax pmax
comp=Z,46nm,1.1s
VADS Vadso 66.01 339 *e*P **P** **01 10 53.9 +1.1**
VADS IAmb IAmb 01 10 54.0
comp=Z,72nm,1.1s
KLBR Kellerberrin 66.26 199 P **P** **01 10 54.6 -0.1**
comp=Z,24nm,0.9s
KLMR Klimovskoe 66.27 328 *e*P **P** **01 10 52.5 -2.0**
KLMR pmax pmax
comp=Z,90nm,1.4s
KEV Kevo 66.90 339 P **P** **01 10 58.6 +0.3**
KEV pmax pmax
comp=Z,73nm,1.1s
KEV Kevo 66.90 339 P **P** **01 10 58.5 +0.3**
KEV Kevo 66.90 339 P **P** **01 10 58.5 +0.2**
comp=Z,77nm,2.9s
KEV Kevo 66.90 339 P **P** **01 10 58.6 +0.3**
HAMF Hammerfest 67.39 341 *e*P **P** **01 11 01.8 +0.4**
HAMF IAmb IAmb 01 11 02.6
comp=Z,166nm,1.7s
ARA0 ARCESS Array S 67.47 339 *e*P **P** **01 11 02.4 +0.5**
ARCES ARCESS Array B 67.47 339 P **P** **01 11 02.4 +0.5**
comp=Z,25nm,0.7s,baz=66,slow=9.0,SNR=71
comp=Z,25nm,0.7s
ARCES ARCESS Array B 67.47 339 **P** **01 11 02.2 +0.3**
ARCES IAmb IAmb 01 11 03.0
comp=Z,38nm,0.9s
NWAO Narrogin (SRO) 67.66 199 P P 01 10 58.6 -4.9
NWAO Narrogin (SRO) 67.66 199 P **P** **01 11 03.1 -0.4**
NWAO pmax pmax
comp=Z,111nm,1.8s
NWAO Narrogin (SRO) 67.66 199 P **P** **01 11 03.1 -0.4**
NWAO Narrogin (SRO) 67.66 199 P **P** **01 11 03.9 +0.4**
comp=Z,23nm,1.6s
RES Resolute Bay 67.96 13 P **P** **01 11 05.3 +0.5**
comp=Z,34nm,1.2s
MSF Maaselka 68.19 335 P **P** **01 11 06.7 +0.3**
comp=Z,63nm,1.4s
SGF Sodankyl 68.25 337 P **P** **01 11 07.1 +0.4**
comp=Z,52nm,2.0s
KTK1 Kautokeino 68.43 339 *e*P **P** **01 11 08.4 +0.6**
KTK1 IAmb IAmb 01 11 09.1
comp=Z,50nm,1.1s
JASK Jask - Hormozg 68.73 288 P **P** **01 11 11.7 +1.3**
ARPS Mount Arapiles 68.73 177 P **P** **01 11 10.3 +0.4**
comp=Z,4.5nm,1.5s
RNF Rovaniemi 68.87 337 P **P** **01 11 10.9 +0.4**
comp=Z,35nm,1.2s
JETT Jettan, Norway 68.94 340 *e*P **P** **01 11 11.5 +0.5**
JLN Jalan Bani Buh 69.14 284 P **P** **01 11 13.0 0.0**
VRH Novokhopyorsk 69.19 318 *e*P **P** **01 11 08.9 -3.8**
VRH pmax pmax
comp=Z,50nm,0.9s
WSAR Wadi Sarin 69.28 285 P **P** **01 11 14.3 +0.5**
WBK Wadi Bani Khal 69.29 284 P **P** **01 11 14.8 +0.9**
SNR=6.4
TRO Tromso 69.31 341 *e*P **P** **01 11 13.2 +0.2**
TRO IAmb IAmb 01 11 14.1
comp=Z,75nm,1.1s
MOS Moscow 69.37 324 *e*P **P** **01 11 14.2 +0.5**
MOS *e* 01 11 34.8
MOS *e**PP **pP** **01 12 36.3 +1.0**
MOS *e* 01 13 52.6
MOS *e*PPP PPP 01 15 38.3
MOS *e*S **S** **01 19 49.6 +0.2**
MOS *e* 01 20 34.4
MOS *e*SS **SS** **01 24 23.2 -1.0**
MOS pmax pmax
comp=Z,158nm,1.2s
MOS pmax pmax
comp=N,66nm,0.8s
MOS pmax pmax
comp=E,38nm,0.9s
MOS pmax pmax
comp=Z,200nm,1.3s
MOS pmax pmax
comp=N,100nm,1.0s
MOS smax smax
comp=E,100nm,0.9s
YKA Yellowknife Ar 69.43 28 P **P** **01 11 14.3 +0.3**
comp=E,6.4nm,0.7s,baz=301,slow=6.2,SNR=21
comp=E,6.4nm,0.7s
YKA Yellowknife Ar 69.43 28 P **P** **01 11 13.8 -0.2**
BIDO Bidbid 69.57 285 P **P** **01 11 16.6 +1.1**
SNR=12
OUL Oulu 69.74 335 P **P** **01 11 16.1 +0.3**
comp=Z,59nm,1.3s
SMDO Samad 69.84 285 P **P** **01 11 17.9 +0.6**
SNR=9.1
BANOM Banah 69.96 289 P **P** **01 11 18.4 +0.4**
SHME Shamm 70.03 289 *i* P **P** **01 11 19.2 +0.9**
SNR=5.6
SHME Shamm 70.03 289 P **P** **01 11 19.5 +1.2**
SNR=5.6
JMDO Jabal Madar 70.11 284 P **P** **01 11 19.1 +0.3**
LPSR Galich'ya Gora 70.12 320 *e*P **P** **01 11 13.8 -4.5**
LPSR pmax pmax
comp=Z,100nm,1.0s
OBN Obninsk 70.19 323 *d* *i*P **P** **01 11 18.5 -0.2**
OBN *e* 01 11 38.9
OBN *e**PP **pP** **01 12 39.9 -0.6**
OBN *i* 01 14 00.1
OBN *e*S **S** **01 19 58.3 -0.6**
OBN pmax pmax
comp=Z,114nm,1.1s
OBN Obninsk 70.19 323 **P** **01 11 18.2 -0.5**
OBN Obninsk 70.19 323 P **P** **01 11 18.7 0.0**
comp=Z,119nm,1.2s
OBN Obninsk 70.19 323 P **P** **01 11 18.6 0.0**
comp=Z,119nm,1.2s
HOQ Hoqain 70.20 286 P **P** **01 11 20.2 +0.8**
SNR=19
TULEG Thule 70.22 6 P **P** **01 11 18.8 +0.3**
comp=Z,41nm,0.9s
DAG Danmarks Havn 70.29 354 P **P** **01 11 19.2 +0.3**
comp=Z,56nm,1.2s
DAG Danmarks Havn 70.29 354 *i* P **P** **01 11 19.3 +0.3**
DAG IAmb IAmb 01 11 20.2
comp=Z,51nm,1.0s
MASF Masafi 70.33 288 P **P** **01 11 20.6 +0.4**
MSFE Esma-Masafi 70.33 288 *i* P **P** **01 11 20.9 +0.8**
SNR=6.2
VORR Voronezh 70.39 319 *e*P **P** **01 11 15.6 -4.3**
VORR pmax pmax
comp=Z,70nm,1.0s
NEEM North Greenlan 70.46 2 *i* P **P** **01 11 21.0 +0.7**
NEEM IAmb IAmb 01 11 22.4
comp=Z,40nm,0.8s
UOSS Minazif 70.48 288 P **P** **01 11 21.2 +0.2**
UOSS Minazif 70.48 288 P **P** **01 11 21.7 +0.7**
UOSS Minazif 70.48 288 **P** **01 11 20.5 -0.6**
UOSS IAmb IAmb 01 11 22.3
comp=Z,39nm,1.2s
UOSS Minazif 70.48 288 P **P** **01 11 21.3 +0.3**
comp=Z,28nm,1.2s
SOHO SOHO 70.58 287 *i* P **P** **01 11 22.0 +0.4**
SNR=34
SOHO SOHO 70.58 287 P **P** **01 11 22.3 +0.7**
SNR=20
HATD Hatta, Dubai 70.59 288 *i* P **P** **01 11 22.5 +0.7**
SNR=12
VSR Storozhevoye 70.62 319 *e*P **P** **01 11 18.4 -2.9**
VSR pmax pmax
comp=Z,110nm,1.0s
VORD Divnogorie 70.66 318 *e*P **P** **01 11 20.1 -1.5**
VORD pmax pmax
comp=Z,70nm,1.0s
BSY Bisya 70.68 285 P **P** **01 11 22.9 +0.7**
SNR=11
ASHO Ashiyiah 70.72 287 *i* P **P** **01 11 23.0 +0.6**
SNR=12
ASHO Ashiyiah 70.72 287 P **P** **01 11 23.1 +0.6**
SNR=12
PUL Pulkovo 70.83 329 *ce*P **P** **01 11 23.2 +0.8**
PUL pmax pmax
comp=Z,76nm,1.1s
MHTO MHTO 70.86 283 P **P** **01 11 23.7 +0.3**
SNR=8.6
NAZ Nazwa, Dubai 70.90 288 *i* P **P** **01 11 24.0 +0.5**
SNR=6.8
ARQ Araqi 70.96 286 P **P** **01 11 24.7 +0.8**
SNR=17
FAQ Al Faqa, Dubai 71.07 288 P **P** **01 11 24.7 +0.2**
ALNE Al Ain 71.25 287 *i* P **P** **01 11 26.3 +0.6**
SNR=12
ALNE Al Ain 71.25 287 P **P** **01 11 26.5 +0.9**
SNR=14
ASUD Al Ashush, Dub 71.33 288 *i* P **P** **01 11 26.8 +0.7**
SNR=8.7
STEI Steigen 71.43 340 *e*P **P** **01 11 26.1 +0.3**
STEI IAmb IAmb 01 11 27.4
comp=Z,470nm,2.3s
NCK Nalchik 71.46 310 *d* *i*P **P** **01 11 27.4 +0.9**
NCK pmax pmax
comp=Z,32nm,1.0s
AJN Ajban 71.64 288 *i* P **P** **01 11 28.0 +0.1**
SNR=5.1
FIA1 FINESS Array S 71.69 332 **P** **01 11 27.5 0.0**
FINES FINESS Array B 71.69 332 P **P** **01 11 27.6 +0.1**
comp=Z,27nm,0.4s,baz=60,slow=5.6,SNR=292
comp=Z,27nm,0.4s
LLLB Lillooet 71.77 41 **P** **01 11 28.7 +0.4**
LLLB IAmb IAmb 01 13 03.8
comp=Z,59nm,2.0s
FAUS Fauske 71.78 340 *e*P **P** **01 11 27.9 +0.1**
FAUS IAmb IAmb 01 11 29.1
comp=Z,83nm,1.0s
KBZ Khabaz 71.81 311 P **P** **01 11 29.4 +0.9**
comp=Z,77nm,0.9s,baz=78,slow=4.6,SNR=91
comp=Z,77nm,0.9s
KIV Kislovodsk 71.84 311 *i* P **P** **01 11 29.9 +1.0**
SNR=34
KIV Kislovodsk 71.84 311 ⇓P **P** **01 11 30.1 +1.2**
KIV Kislovodsk 71.84 311 **P** **01 11 29.2 +0.3**
KIV Kislovodsk 71.84 311 ⇓P **P** **01 11 30.1 +1.2**
KIV Kislovodsk 71.84 311 P **P** **01 11 29.8 +1.0**
comp=Z,1µmcomp=Z,116nm,1.2s
KIV Kislovodsk 71.84 311 **P** **01 11 29.7 +0.8**
comp=Z,149nm,1.2s
KIV Kislovodsk 71.84 311 P **P** **01 11 29.5 +0.7**
GNI Garni 72.22 307 *ce*P **P** **01 11 32.6 +1.3**
GNI pmax pmax
comp=Z,27nm,1.2s
GNI Garni 72.22 307 **P** **01 11 31.8 +0.5**
GNI IAmb IAmb 01 11 34.0
comp=Z,73nm,1.2s
GNI Garni 72.22 307 P **P** **01 11 32.5 +1.3**
comp=Z,635nmcomp=Z,45nm,1.1s
GNI Garni 72.22 307 P **P** **01 11 32.6 +1.3**
comp=Z,45nm,1.1s
UMZA Um Al Zommool 72.36 286 P **P** **01 11 32.3 +0.2**
ERBR Yeremizino-Bor 72.41 313 *e*P **P** **01 11 32.7 +0.7**
ERBR *e**PP **pwP** **01 12 55.6 -1.4**
ERBR pmax pmax
comp=Z,289nm,1.5s
DBG Daneborg 72.75 354 P **P** **01 11 33.6 +0.1**
comp=Z,17nm,1.5s
DBG Daneborg 72.75 354 *i* P **P** **01 11 33.8 +0.3**
DBG IAmb IAmb 01 11 34.6
comp=Z,14nm,1.1s
LABN Labinsk 72.77 312 *e*P **P** **01 11 34.6 +0.5**
LABN *e**PP **pwP** **01 12 58.0 -1.3**
LABN pmax pmax
comp=Z,25nm,0.9s
LABN pmax pmax
comp=Z,309nm,2.8s
RAUS Rausandaksla 72.78 340 *e*P **P** **01 11 33.7 -0.1**
RAUS IAmb IAmb 01 11 35.1
comp=Z,31nm,0.8s
KHAM Kharkiv 72.83 319 P **P** **01 11 34.8 +0.3**
MOR8 Moi Rana 72.84 339 *e*P **P** **01 11 33.3 -0.8**
MOR8 IAmb IAmb 01 11 33.9
comp=Z,136nm,1.1s
ARBE Arbavere 72.87 330 P **P** **01 11 35.0 +0.6**
comp=Z,297nm,1.0s
EPOS Posof 72.95 309 P **P** **01 11 36.8 +1.3**
comp=Z,77nm,1.2s
KONS Konsvik 73.00 340 *e*P **P** **01 11 35.8 +0.7**
KONS IAmb IAmb 01 11 36.7
comp=Z,56nm,1.1s
KULLO Kullorsuaq 73.01 4 *i* P **P** **01 11 35.1 +0.2**
KULLO IAmb IAmb 01 11 36.2
comp=Z,52nm,1.4s
DIGO Kars 73.03 307 P **P** **01 11 37.1 +1.0**
comp=Z,120nm,1.6s
VSU Vasula 73.10 329 P **P** **01 11 35.2 -0.6**
comp=Z,115nm,1.1s
JRN Qarnain Island 73.18 289 P **P** **01 11 35.8 -1.1**
LEIR Leirfjorden 73.27 340 *e*P **P** **01 11 36.9 +0.3**
LEIR IAmb IAmb 01 11 42.0
comp=Z,166nm,1.6s
OZAP Van, Ozalp-Mer 73.43 305 ⇓P **P** **01 11 40.2 +1.8**
MZR Muzera 73.59 287 *i* P **P** **01 11 39.5 +0.2**
SNR=29
MZR Muzera 73.59 287 P **P** **01 11 39.6 +0.4**
SNR=13
SOC Sochi 73.91 312 *e*P **P** **01 11 40.4 -0.4**
SOC *e*PPP PPP 01 16 14.7
SOC *i* S **S** **01 20 40.3 -0.9**
SOC *e*SS **SS** **01 25 35.6 +1.8**
SOC *e*SSS SSS 01 28 58.3
SOC pmax pmax
comp=Z,36nm,0.9s
HAKT HAKKARI 74.15 305 P **P** **01 11 42.8 +0.3**
comp=Z,96nm,1.1s
HOMI Horasan 74.19 307 ⇑P **P** **01 11 43.8 +1.0**
MTSE Matsula 74.20 330 P **P** **01 11 42.5 +0.4**
comp=Z,433nm,1.0s
SHAO Shalim 74.21 282 P **P** **01 11 43.4 +0.4**
GEVA Gevas 74.24 305 **P** **01 11 42.6 -0.4**
GEVA IAmb IAmb 01 11 45.1
comp=Z,64nm,1.1s
SAKB Bahrain 74.53 291 P **P** **01 11 44.8 +0.2**
NSS Namsos 74.72 339 *e*P **P** **01 11 44.9 0.0**
NSS IAmb IAmb 01 11 46.2
comp=Z,23nm,0.8s
ANN Anapa 74.73 313 *e*P **P** **01 11 44.9 -0.5**
ANN *e**PP **pwP** **01 13 11.8 +0.7**
ANN *e*S **S** **01 20 50.5 +0.3**
ANN pmax pmax
comp=Z,134nm,1.0s
ANN pmax pmax
comp=Z,257nm,1.2s
MNK Minsk 74.81 325 *i* P **P** **01 11 46.6 +1.0**
MNK *i**PP **pwP** **01 13 10.3 -1.1**
MNK *i* 01 14 40.3
MNK *i* PPP PPP 01 16 28.2
MNK *i* S **S** **01 20 53.7 +3.0**
MNK *i* SSS SSS 01 29 17.3
MNK pmax pmax
comp=Z,93nm,0.9s
MNK pmax pmax
comp=N,42nm,1.0s
MNK pmax pmax
comp=E,58nm,0.9s
MNK Minsk 74.81 325 *i* P **P** **01 11 46.7 +1.0**
comp=E,58nm,0.9s
MNK *i* P **P** **01 11 46.7 +1.0**
comp=N,42nm,1.0s
MNK *i* P **P** **01 11 46.7 +1.0**
comp=Z,93nm,0.9s,baz=55
MNK *i* pP **pwP** **01 13 10.3 -1.1**
MNK *i* PP **PP** **01 14 40.3 +2.0**
MNK *i* PPP PPP 01 16 28.3
MNK *i* S **S** **01 20 53.8 +3.0**
MNK *i* sS **sS** **01 23 23.0 +5.3**
MNK *i* SS SS 01 26 39.6 +53
MNK *i* SSS SSS 01 29 17.4
GURO Guroymak-BITLI 74.83 306 P **P** **01 11 46.8 +0.5**
DMTO DMTO 74.93 282 P **P** **01 11 46.7 -0.3**
KOPT Kop Dagi 75.15 308 **P** **01 11 49.3 +1.1**
KOPT IAmb IAmb 01 11 51.0
comp=Z,56nm,1.2s
DOK Doka 75.16 283 P **P** **01 11 48.3 0.0**
SUMG Summit 75.46 359 P **P** **01 11 50.0 +0.5**
SUMG pmax pmax
comp=Z,37nm,1.0s
SUMG Summit 75.46 359 **P** **01 11 50.0 +0.5**
SUMG IAmb IAmb 01 11 52.0
comp=Z,37nm,1.0s
SUMG Summit 75.46 359 P **P** **01 11 51.2 +1.7**
comp=Z,46nm,1.3s
SUMG Summit 75.46 359 *i* P **P** **01 11 50.8 +1.3**
SUMG IAmb IAmb 01 11 51.3
comp=Z,33nm,0.9s
SLIT Slitere, Latvi 75.50 330 P **P** **01 11 49.1 -0.3**
comp=Z,563nm,1.1s
RBK Rabkut 75.65 282 P **P** **01 11 50.5 -0.6**
WHFO Wadi Hawf 75.80 282 P **P** **01 11 51.5 -0.5**
KELT Kelkit 75.91 309 P **P** **01 11 53.5 +1.1**
comp=Z,151nm,1.3s
PABE Paberze 76.06 328 **P** **01 11 52.6 0.0**
PABE Paberze 76.06 328 P **P** **01 11 53.2 +0.6**
AKASG Malin Array Be 76.28 322 P **P** **01 11 54.1 +0.1**
comp=Z,14nm,0.4s,baz=50,slow=5.9,SNR=131
comp=Z,14nm,0.4s
AKBB Malin Array Si 76.28 322 P **P** **01 11 54.0 0.0**
AK01 Malin Array Si 76.29 322 P **P** **01 11 54.1 0.0**
KIEV Kiev 76.29 322 *i* P **P** **01 11 54.2 +0.2**
SNR=35
KIEV Kiev 76.29 322 ⇑P **P** **01 11 53.9 -0.2**
KIEV Kiev 76.29 322 **P** **01 11 54.1 0.0**
KIEV Kiev 76.29 322 ⇑P **P** **01 11 53.9 -0.2**
KIEV Kiev 76.29 322 P **P** **01 11 53.9 -0.2**
comp=Z,366nm,1.6s
KIEV Kiev 76.29 322 P **P** **01 11 54.1 0.0**
comp=Z,93nm,1.6s
KIEV Kiev 76.29 322 P **P** **01 11 54.0 -0.2**
AK09 Malin Array Si 76.30 322 P **P** **01 11 54.2 +0.1**
AK23 Malin Array Si 76.30 322 P **P** **01 11 54.1 0.0**
ABTO Aybut 76.47 282 P **P** **01 11 55.6 -0.2**
SCO Scoresbysund 76.57 353 P **P** **01 11 55.8 +0.6**
SCO pmax pmax
comp=Z,47nm,1.1s
SCO Scoresbysund 76.57 353 **P** **01 11 55.8 +0.6**
SCO IAmb IAmb 01 11 57.8
comp=Z,47nm,1.1s
SCO Scoresbysund 76.57 353 P **P** **01 11 56.6 +1.4**
comp=Z,51nm,1.4s
SCO Scoresbysund 76.57 353 *i* P **P** **01 11 56.7 +1.5**
SCO IAmb IAmb 01 11 57.5
comp=Z,43nm,1.1s
PBUR Paburge 76.65 329 P **P** **01 11 56.4 +0.5**
comp=Z,131nm,1.1s
SIM Simferopol' 76.67 315 *e*P **P** **01 11 56.4 +0.1**
SIM 01 14 52.4
SIM *e*S **S** **01 21 09.5 -1.8**
SIM pmax pmax
comp=Z,78nm,0.8s
SIM smax smax
comp=N,20nm,0.9s
KEMA Kemaliye 76.86 308 P **P** **01 11 58.8 +1.2**
comp=Z,141nm,1.0s
ARPR Arapgir-MALATY 77.06 308 P **P** **01 11 59.5 +0.7**
ARPR Arapgir-MALATY 77.06 308 P **P** **01 12 00.2 +1.4**
comp=Z,68nm,1.6s
HFS Hagfors 77.23 335 P **P** **01 11 59.0 -0.1**
comp=Z,21nm,0.8s,baz=64,slow=3.4,SNR=23
comp=Z,21nm,0.8s
HFS Hagfors 77.23 335 P **P** **01 11 59.0 -0.1**
NC405 NORSAR Array S 77.23 336 **P** **01 11 59.0 -0.1**
SUW Suwalki 77.33 327 *e*P **P** **01 12 00.3 +0.6**
SUW Suwalki 77.33 327 P **P** **01 11 59.6 -0.1**
SUW Suwalki 77.33 327 **P** **01 11 59.6 -0.1**
DOMB Dombas 77.43 338 *e*P **P** **01 12 00.3 +0.1**
DOMB IAmb IAmb 01 12 01.2
comp=Z,47nm,0.8s
NB2 NORSAR Subarra 77.45 336 P **P** **01 12 00.0 -0.4**
comp=Z,70nm,1.0s,baz=45,slow=5.6
NB2 NORSAR Subarra 77.45 336 **P** **01 12 00.0 -0.4**
NB2 AMP 01 12 00.0
NOA NORSAR Array B 77.45 336 P **P** **01 12 00.3 -0.1**
comp=Z,30nm,0.8s,baz=44,slow=5.5,SNR=66
comp=Z,30nm,0.8s
LUBAR Lubar, Ukraine 77.50 322 P **P** **01 12 01.0 +0.2**
NC602 NORSAR Array S 77.56 336 *e*P **P** **01 12 00.3 -0.6**
NC602 IAmb IAmb 01 12 00.9
comp=Z,48nm,1.3s
RNPP9 Sopachiv 77.59 324 P **P** **01 12 01.5 +0.3**
TOKA Tokat 77.64 310 P **P** **01 12 02.3 +0.5**
TOKA IAmb IAmb 01 12 04.0
comp=Z,44nm,1.1s
RNPP8 Varash 77.65 323 P **P** **01 12 01.8 +0.3**
RNPP5 Staryi Chortor 77.70 323 P **P** **01 12 02.0 +0.2**
NAO01 NORSAR Array S 77.71 336 P **P** **01 12 01.5 -0.2**
comp=Z,18nm,1.2s
WVOR Wild Horse Val 77.86 47 P **P** **01 12 04.2 +1.1**
comp=Z,14nm,2.5s
SORM Soroca 78.21 320 ⇓P **P** **01 12 04.7 0.0**
SORM Soroca 78.21 320 ⇓P **P** **01 12 04.7 0.0**
SORM Soroca 78.21 320 P **P** **01 12 04.4 -0.3**
comp=Z,75nm,1.1s
PURM Purcari 78.29 318 ⇑P **P** **01 12 05.3 +0.2**
PURM Purcari 78.29 318 P **P** **01 12 05.3 +0.2**
comp=Z,2µmcomp=Z,166nm,1.1s
OSL Oslo 78.42 336 *e*P **P** **01 12 05.0 -0.5**
OSL IAmb IAmb 01 12 07.0
comp=Z,54nm,1.1s
KIS Kishinev 78.61 319 ⇑P **P** **01 12 07.2 +0.3**
KIS Kishinev 78.61 319 ⇑P **P** **01 12 07.2 +0.3**
ILULI Ilulissat 78.66 3 *i* P **P** **01 12 07.3 +0.7**
ILULI IAmb IAmb 01 12 08.2
comp=Z,26nm,1.1s
SKAR Skarslia 78.69 337 *e*P **P** **01 12 08.0 +0.9**
SKAR IAmb IAmb 01 12 09.0
comp=Z,30nm,1.0s
GAZ Gaziantep 78.81 307 **P** **01 12 08.6 +0.3**
GAZ IAmb IAmb 01 12 10.6
comp=Z,39nm,1.0s
BNN Bunyan 78.83 309 **P** **01 12 08.7 +0.3**
STRU Stroemstad 78.91 335 *i* P **P** **01 12 08.2 -0.1**
KMPD K-Podol'skiy 78.98 321 P **P** **01 12 08.6 -0.2**
HYA Hoyanger 79.00 338 *e*P **P** **01 12 09.0 +0.3**
HYA IAmb IAmb 01 12 10.3
comp=Z,122nm,1.4s
KONO Kongsberg 79.02 336 *e*P **P** **01 12 09.3 +0.5**
MFID Camas Ranch 79.05 45 **P** **01 12 09.9 +0.4**
BLEU Blekinge 79.06 331 *i* P **P** **01 12 08.4 -0.6**
CMB Columbia Colle 79.09 52 P **P** **01 12 09.6 -0.1**
CMB pmax pmax
comp=Z,5.0nm,0.7s
CMB Columbia Colle 79.09 52 P **P** **01 12 09.6 -0.1**
ANDN Andirin 79.18 308 P **P** **01 12 11.3 +1.0**
comp=Z,212nm,1.1s
FFC Flin Flon 79.33 31 P **P** **01 12 10.9 +0.4**
comp=Z,22nm,1.0s
FFC Flin Flon 79.33 31 P **P** **01 12 10.6 0.0**
MNTR Muntenesti 79.47 319 ⇓P **P** **01 12 12.2 +0.7**
TJOU Tjoern 79.48 334 *i* P **P** **01 12 10.8 -0.4**
PDRR Padureni 79.50 319 ⇓P **P** **01 12 11.9 +0.2**

DMBR Dumbraveni 79.57 319 ⇓P P 01 12 12.7 +0.6
TLCR 79.66 317 ⇓P P 01 12 12.8 +0.3
TLCR 79.66 317 ⇓P P 01 12 12.8 +0.3
VLDR Vladesti 79.70 318 ⇑P P 01 12 14.0 +1.3
BIR Birlad 79.71 319 ⇑P P 01 12 14.3 +1.6
BIR Birlad 79.71 319 ⇑P P 01 12 14.3 +1.6
RAYN Ar Rayn 79.72 291 *i* P P 01 12 14.1 +0.7
SNR=77
RAYN Ar Rayn 79.72 291 P P 01 12 13.9 +0.6
RAYN Ar Rayn 79.72 291 ⇓P P 01 12 14.1 +0.7
RAYN Ar Rayn 79.72 291 P P 01 12 13.7 +0.4
RAYN Ar Rayn 79.72 291 P P 01 12 14.0 +0.7
comp=Z,90nm,1.2s
RAYN Ar Rayn 79.72 291 P P 01 12 13.8 +0.4
RAYN pP **pP 01 13 37.3 +0.5**
DEL Delary 79.73 332 *i* P **P 01 12 12.2 -0.4**
VARL Varlezi 79.80 318 ⇓P P 01 12 14.0 +0.7
BR131 Keskin Array S 79.80 311 P P 01 12 14.3 +0.8
SNR=26
BR131 Keskin Array S 79.80 311 P P 01 12 13.6 0.0
BR131 pmax pmax
comp=Z,66nm,1.1s
BR131 Keskin Array S 79.80 311 P 01 12 13.6 0.0
BRTR Keskin Array B 79.80 311 P P 01 12 14.1 +0.5
comp=Z,33nm,0.9s,baz=106,slow=3.8,SNR=138
comp=Z,33nm,0.9s
BRTR Keskin Array B 79.80 311 P 01 12 13.8 +0.2
FABU Falkenberg 79.80 333 *i* P **P 01 12 12.9 -0.1**
BR104 Keskin Array S 79.81 311 P P 01 12 14.1 +0.5
comp=Z,368nmcomp=Z,51nm,1.0s
BR106 Keskin Array S 79.81 311 P P 01 12 14.1 +0.5
comp=Z,326nmcomp=Z,47nm,1.0s
HLID Hailey 79.82 45 P 01 12 14.4 +0.7
HLID Hailey 79.82 45 P P 01 12 14.9 +1.3
comp=Z,6.9nm,0.8s
BR105 Keskin Array S 79.82 311 P P 01 12 14.1 +0.4
comp=Z,390nmcomp=Z,55nm,1.0s
BEL Belsk 79.82 326 *eP* **P 01 12 14.4 +1.2**
BEL Belsk 79.82 326 P P 01 12 14.2 +0.9
comp=Z,18µm,0.9s
ONAU Onsala 79.82 334 *i* P **P 01 12 12.8 -0.3**
EGMT Eagleton 79.83 39 P 01 12 14.0 +0.5
EGMT IAmb IAmb 01 12 15.5
comp=Z,10nm,0.8s
PRAR RASCA 79.83 320 ⇓P P 01 12 13.4 0.0
SCTR Scanteiesti 79.85 318 ⇑P P 01 12 14.1 +0.6
TATR Tatarca 79.86 318 ⇑P P 01 12 14.6 +1.1
JURR Jurilovca 79.87 317 ⇑P P 01 12 12.7 -1.0
GIRR Girov 79.92 320 ⇑P P 01 12 14.7 +0.8
KIRS Kirsehir-Merke 79.95 310 ⇑P P 01 12 15.2 +0.9
GHRR 79.95 319 ⇑P P 01 12 15.1 +1.1
GHRR 79.95 319 P P 01 12 15.3 +1.3
comp=Z,125nm,1.8s
CFR Carcaliu 80.06 317 ⇓P P 01 12 15.1 +0.5
CFR Carcaliu 80.06 317 ⇓P P 01 12 15.1 +0.5
TPGR Topolog 80.08 317 ⇓P P 01 12 15.8 +1.0
PKD Bear Valley Ra 80.10 54 P P 01 12 15.2 +0.1
TESR Tescani 80.11 319 ⇓P P 01 12 14.8 -0.1
TESR Tescani 80.11 319 P P 01 12 15.2 +0.3
comp=Z,71nm,1.0s
TESR Tescani 80.11 319 P P 01 12 15.2 +0.3
comp=Z,71nm,1.0s
BIZ Bicaz 80.15 320 ⇑P P 01 12 16.3 +1.2
PANC Panciu 80.21 318 ⇓P P 01 12 17.0 +1.6
BUR08 Bucovina Ar. S 80.21 321 P 01 12 16.0 +0.4
BUR08 IAmb IAmb 01 12 17.5
comp=Z,36nm,1.0s
BURAR Bucovina Array 80.22 321 P 01 12 16.1 +0.4
BURAR IAmb IAmb 01 12 17.9
comp=Z,32nm,0.9s
BURAR Bucovina Array 80.22 321 ⇓P P 01 12 16.6 +1.0
BSD Bornholm Skovb 80.25 331 P P 01 12 15.4 0.0
comp=Z,68nm,1.1s
BSD Bornholm Skovb 80.25 331 *i* P **P 01 12 15.5 0.0**
BSD IAmb IAmb 01 12 15.6
comp=Z,58nm,1.0s
BOZ Bozeman (W) 80.25 42 P P 01 12 16.0 +0.1
BOZ IAmb IAmb 01 14 55.4
comp=Z,22nm,1.4s
NVAR Mina Array Bea 80.25 51 P P 01 12 16.9 +0.8
comp=Z,2.8nm,0.6s,baz=292,slow=5.4,SNR=12
NVAR pP **pP 01 13 40.9 +0.2**
comp=Z,1.0nm,0.7s,baz=309,slow=7.0,SNR=2.5
comp=Z,2.8nm,0.6s
NVAR Mina Array Bea 80.25 51 P P 01 12 16.3 +0.2
KWP Kalwaria Pacla 80.28 323 *eP* **P 01 12 17.1 +1.4**
KWP Kalwaria Pacla 80.28 323 P P 01 12 16.7 +0.9
comp=Z,135nm,1.3s
TIRR Tirgusor 80.32 317 ⇑P P 01 12 16.3 +0.3
TIRR Tirgusor 80.32 317 P P 01 12 16.8 +0.8
comp=Z,42nm,2.0s
ODBI Odobesti 80.32 318 ⇓P P 01 12 18.3 +2.3
ONER Baraj Valea Uz 80.35 319 ⇓P P 01 12 18.3 +2.1
HOMB Homborsund 80.43 336 *i* P **P 01 12 16.1 -0.2**
VRI Vrincioaia 80.45 319 ⇓P P 01 12 17.7 +1.0
VRI Vrincioaia 80.45 319 P P 01 12 17.8 +1.1
comp=Z,82nm,1.5s
HARR Harsova 80.46 317 ⇓P P 01 12 17.8 +1.0
MFTR Murfatlar 80.48 317 ⇓P P 01 12 18.2 +1.3
TLBR Topalu 80.48 317 ⇑P P 01 12 18.0 +1.1
LUNU Lund 80.49 332 *i* P **P 01 12 17.1 +0.4**
PLOR Plostina 80.50 319 ⇓P P 01 12 17.5 +0.5
GKP Gorka Klasztor 80.51 328 *eP* **P 01 12 17.6 +0.7**
OVD Ostervraa, Den 80.52 334 *i* P **P 01 12 16.3 -0.5**
OVD IAmb IAmb 01 12 17.3
comp=Z,124nm,0.9s
SAHR Sahastru 80.55 319 ⇓P P 01 12 19.0 +1.7
KKUL Konya-Kulu 80.57 310 P P 01 12 18.6 +0.9
comp=Z,66nm,1.2s
GRER 80.60 318 ⇓P P 01 12 20.1 +2.6
BISRR Bisoca 80.65 318 ⇑P P 01 12 19.7 +1.9
TURR Turia 80.73 319 ⇓P P 01 12 19.9 +1.6
COVR Voineasa-Covas 80.75 319 ⇓P P 01 12 19.3 +1.0
SNART Snartemo 80.82 336 *i* P **P 01 12 17.0 -1.4**
OZUR 80.83 319 ⇓P P 01 12 19.9 +1.1
COP Copenhagen 80.85 332 *i* P **P 01 12 18.8 +0.2**
COP IAmb IAmb 01 12 19.7
comp=Z,176nm,0.9s
PGOR Pogoanele 80.87 318 ⇑P P 01 12 20.8 +1.9
ICOR Ion Corvin 80.88 317 ⇓P P 01 12 19.3 +0.4
SFJD Kangerlussuaq 80.89 3 P P 01 12 18.9 +0.3
comp=Z,25nm,1.6s
SFJD Kangerlussuaq 80.89 3 *i* P **P 01 12 19.4 +0.9**
SFJD IAmb IAmb 01 12 20.2
comp=Z,21nm,0.9s
BOSR Bodos 80.92 319 ⇓P P 01 12 20.8 +1.6
ELK Elko 80.92 47 P 01 12 20.2 +0.6
SAHE Sakarya_HENDEK 80.93 313 ⇓P P 01 12 18.8 -0.6
KOLS Kolonicke sedl 80.94 323 *eP* **P 01 12 20.0 +0.7**
KOLS Kolonicke sedl 80.94 323 P P 01 12 19.8 +0.5
comp=Z,15nm,1.1s
NEHR Nehoiu 80.95 318 ⇓P P 01 12 21.5 +2.1
ISR Istrita 81.00 318 ⇑P P 01 12 20.5 +0.8
ARCR ARCALIA 81.01 321 ⇓P P 01 12 21.1 +1.5
BMR Baia Mare 81.10 321 ⇓P P 01 12 21.4 +1.3
BMR Baia Mare 81.10 321 P P 01 12 21.2 +1.1
comp=Z,62nm,1.3s
MLR Muntele Rosu 81.11 319 ⇑P P 01 12 21.2 +0.9
MLR Muntele Rosu 81.11 319 P P 01 12 20.7 +0.4
MLR Muntele Rosu 81.11 319 P P 01 12 20.8 +0.4
comp=Z,38nm,1.3s
UZHM Uzhgorod 81.13 323 P P 01 12 20.7 +0.5
DOPR Dopca 81.13 319 ⇓P P 01 12 21.7 +1.4
TPH Tonopah 81.16 51 P P 01 12 20.8 -0.1
TPH IAmb IAmb 01 12 23.0
comp=Z,20nm,1.5s
LEHL Lehliu 81.23 317 ⇑P P 01 12 22.3 +1.6
TRPA Tarpa 81.32 322 P P 01 12 22.1 +1.0
comp=Z,87nm,1.1s
OJC Ojcow 81.35 325 *eP* P 01 12 22.2 +0.9
OJC Ojcow 81.35 325 P 01 12 21.7 +0.5
OJC Ojcow 81.35 325 P P 01 12 21.8 +0.5
comp=Z,74nm,1.3s
SULR 81.43 318 ⇑P P 01 12 23.0 +1.2
SULR 81.43 318 P P 01 12 22.7 +0.9
comp=Z,121nm,1.0s
MUD Monsted U'grnd 81.54 334 *i* P **P 01 12 22.8 +0.7**
MUD IAmb IAmb 01 12 23.2
comp=Z,53nm,1.1s
MDB Medias 81.58 320 ⇑P P 01 12 24.5 +1.9
NIE Niedzica 81.63 324 *eP* **P 01 12 24.5 +1.6**
VOIR 81.64 319 ⇑P P 01 12 24.0 +1.0
VOIR 81.64 319 P P 01 12 23.5 +0.5
comp=Z,15nm,1.0s

CJR Cluj-Napoca 81.65 321 ⇑P P 01 12 24.3 +1.3
PRD Provadia 81.67 316 P P 01 12 24.3 +1.2
LNIZ Loecknitz 81.68 330 P P 01 12 23.6 +0.8
comp=Z,171nm,1.0s
ASF Jabal al Asfar 81.70 303 P P 01 12 24.7 +1.1
MESR Meseseni 81.72 321 ⇓P P 01 12 24.8 +1.5
BUC1 Bucharest 81.76 318 ⇑P P 01 12 26.5 +3.0
SGRR Singureni 81.86 318 ⇓P P 01 12 24.4 +0.3
ABAH Abaujker 81.88 323 P P 01 12 24.9 +0.8
comp=Z,47nm,1.4s
ARR Arges 81.92 319 ⇑P P 01 12 25.5 +1.0
ARR Arges 81.92 319 P P 01 12 25.8 +1.4
comp=Z,151nm,1.2s
MARR Marisel-Cluj 81.93 321 ⇓P P 01 12 25.4 +0.8
TNR Turnu Rosu 81.94 320 ⇑P P 01 12 25.5 +1.0
TNR Turnu Rosu 81.94 320 ⇑P P 01 12 25.5 +1.0
RAZG Razgrad 81.95 317 ⇓P P 01 12 25.6 +1.0
BORG Borgarnes 81.99 351 P P 01 12 26.6 +2.3
GEM Giv'at Ha'Em 82.01 304 P P 01 12 26.9 +1.8
LOZB Loznitsa 82.02 317 ⇑P P 01 12 26.0 +1.1
DRGR 82.07 321 ⇓P P 01 12 26.0 +0.8
DRGR 82.07 321 ⇓P P 01 12 26.0 +0.8
DRGR 82.07 321 P P 01 12 25.8 +0.5
comp=Z,33nm,1.5s
LTVH Ltavrtes, Hu 82.12 322 P P 01 12 26.3 +1.0
comp=Z,30nm,1.0s
KECS Kecovo 82.14 323 P P 01 12 26.4 +0.9
comp=Z,12nm,1.0s
BGU Big Grassy Mou 82.18 46 P P 01 12 26.5 +0.5
LANS Liptovska Anna 82.21 324 *eP* **P 01 12 27.9 +2.0**
LANS pmax pmax
comp=Z,21nm,1.6s
LANS Liptovska Anna 82.21 324 *eP* **P 01 12 27.9 +2.0**
HUMR Humele 82.24 318 ⇓P P 01 12 24.9 -1.1
HUMR Humele 82.24 318 P P 01 12 25.7 -0.3
comp=Z,113nm,1.4s
AHID Auburn Hatcher 82.25 44 P P 01 12 27.4 +1.1
comp=Z,6.9nm,1.0s
MMAI Mount Meron Ar 82.30 304 P P 01 12 27.7 +1.1
comp=Z,17nm,0.8s,baz=25,slow=16,SNR=17
comp=Z,17nm,0.8s
LOT Lotru 82.34 320 ⇓P P 01 12 27.6 +0.9
LOT Lotru 82.34 320 P P 01 12 27.3 +0.6
comp=Z,39nm,1.8s
COPA Copaceanca 82.35 318 ⇓P P 01 12 27.1 +0.5
BORR Bors 82.37 322 ⇑P P 01 12 28.4 +1.8
OKC Ostrava-Krasne 82.40 325 *eP* **P 01 12 27.0 +0.3**
OKC Ostrava-Krasne 82.40 325⇓ *eP* **P 01 12 27.0 +0.3**
OKC Ostrava-Krasne 82.40 325 P P 01 12 27.3 +0.6
comp=Z,55nm,1.1s
SZH Strazhitsa 82.44 317 P P 01 12 28.1 +1.0
STEB Steborice 82.52 326⇓ *eP* **P 01 12 27.8 +0.5**
PHSR Pinarhisar 82.52 315 ⇓P P 01 12 28.4 +0.9
DEV Deva 82.54 320 P P 01 12 28.1 +0.6
comp=Z,46nm,1.2s
QRNJ Al-Qirein 82.55 303 P P 01 12 29.2 +1.4
RUE Ruedersdorf 82.58 329 *eP* **P 01 12 28.1 +0.6**
comp=Z,74nm,0.9s,baz=43,slow=4.8
RUE Ruedersdorf 82.58 329 P P 01 12 28.1 +0.6
comp=Z,98nm,1.0s
JMB Yambol 82.59 316 P P 01 12 28.8 +0.9
KSP Ksiaz 82.59 327 *eP* **P 01 12 28.6 +0.9**
MMLI Mount Malkishu 82.60 304 P P 01 12 28.8 +0.7
comp=Z,69nm,1.4s
CSS Mathiatis 82.65 307 P 01 12 28.1 -0.3
CSS Mathiatis 82.65 307 P P 01 12 28.6 +0.2
comp=Z,83nm,1.1s
HWUT Hardware Ranch 82.67 45 P 01 12 29.2 +0.7
HWUT Hardware Ranch 82.67 45 P P 01 12 30.4 +1.9
comp=Z,13nm,1.2s
KEPZ Antalya-Kepez 82.71 309 ⇓P P 01 12 28.2 -0.5
MORC Moravsky Berou 82.73 326 ⇓P P 01 12 29.0 +0.5
MORC Moravsky Berou 82.73 326 P P 01 12 28.6 +0.1
MORC IAmb IAmb 01 12 30.3
comp=Z,32nm,1.0s
MORC Moravsky Berou 82.73 326 *eP* **P 01 12 28.9 +0.5**
MORC Moravsky Berou 82.73 326 ⇓P P 01 12 29.0 +0.5
MORC Moravsky Berou 82.73 326 P P 01 12 29.0 +0.5
comp=Z,35nm,1.2s
DUG Dugway, Tooele 82.75 47 P P 01 12 29.7 +0.8
DUG pmax pmax
comp=Z,9.0nm,0.9s
DUG Dugway, Tooele 82.75 47 P 01 12 29.7 +0.8
DUG Dugway, Tooele 82.75 47 P P 01 12 29.7 +0.8
comp=Z,13nm,0.8s
PSZ Piszkesteto 82.81 323 ⇑P P 01 12 29.9 +0.9
PSZ Piszkesteto 82.81 323 P 01 12 28.9 0.0
PSZ IAmb IAmb 01 12 30.9
comp=Z,43nm,1.0s
PSZ Piszkesteto 82.81 323 ⇑P P 01 12 29.9 +0.9
PSZ Piszkesteto 82.81 323 P P 01 12 29.4 +0.4
comp=Z,48nm,1.4s
OSTC Ostas 82.83 327 *eP* **P 01 12 29.5 +0.6**
OSTC Ostas 82.83 327⇓ *eP* **P 01 12 29.5 +0.6**
UJAP Al Uja 82.84 303 P P 01 12 30.7 +1.4
UJAP Al Uja 82.84 303 P P 01 12 29.8 +0.5
comp=Z,58nm,1.2s
CHVC Chvalec 82.88 327 *eP* **P 01 12 29.7 +0.5**
CHVC Chvalec 82.88 327 *eP* **P 01 12 29.7 +0.5**
KRLC Kraliky 82.89 326⇓ *eP* **P 01 12 29.6 +0.3**
KRLC Kraliky 82.89 326⇓ *eP* **P 01 12 29.6 +0.3**
KRLC Kraliky 82.89 326 P P 01 12 29.8 +0.5
comp=Z,36nm,1.2s
VLAD Vladila 82.89 318 ⇓P P 01 12 30.1 +0.8
DPC Dobruska-Polom 82.92 327 *eP* **P 01 12 30.0 +0.6**
DPC Dobruska-Polom 82.92 327 *eP* **P 01 12 30.0 +0.6**
DPC Dobruska-Polom 82.92 327 P P 01 12 30.3 +0.9
comp=Z,62nm,1.0s
GZR Gura Zlata 82.92 320 ⇑P P 01 12 30.2 +0.6
GZR Gura Zlata 82.92 320 ⇑P P 01 12 30.2 +0.6
BAND Balkesir-Ban 82.93 314 ⇓P P 01 12 30.6 +0.9
UPC Upice 82.95 327 *eP* **P 01 12 30.1 +0.5**
UPC Upice 82.95 327⇓ *eP* **P 01 12 30.1 +0.5**
UPC Upice 82.95 327 P P 01 12 30.3 +0.7
comp=Z,66nm,1.0s
VYHS Vyhne 82.96 324 *eP* **P 01 12 30.5 +0.9**
VYHS pmax pmax
comp=Z,15nm,0.8s
VYHS Vyhne 82.96 324 *eP* **P 01 12 30.5 +0.9**
VYHS Vyhne 82.96 324 P P 01 12 30.5 +0.9
comp=Z,16nm,1.1s
SIRR Siria 82.97 321 ⇑P P 01 12 30.2 +0.5
BSEG Bad Segeberg 82.97 332 *eP* **P 01 12 29.9 +0.4**
comp=Z,88nm,0.9s,baz=43,slow=4.8
BSEG Bad Segeberg 82.97 332 P P 01 12 29.9 +0.4
comp=Z,98nm,1.0s
SALP Salfit 82.97 303 P P 01 12 31.1 +1.1
PVL Pavlikeni 83.00 317 P P 01 12 30.9 +1.0
BSZH Besenyszg 83.00 323 ⇑P P 01 12 30.6 +0.6
SURR Surduc 83.05 321 ⇓P P 01 12 30.6 +0.5
GHAJ Ghor Haditha 83.12 303 P 01 12 30.6 -0.1
GHAJ Ghor Haditha 83.12 303 P P 01 12 31.8 +1.1
GHAJ Ghor Haditha 83.12 303 P P 01 12 31.3 +0.5
comp=Z,89nm,1.1s
PD31 Pinedale Array 83.15 43 P 01 12 30.8 -0.3
PDAR Pinedale Array 83.15 43 P P 01 12 31.8 +0.8
comp=Z,2.5nm,0.7s,baz=286,slow=2.8,SNR=26
comp=Z,2.5nm,0.7s
PDAR Pinedale Array 83.15 43 P P 01 12 31.1 +0.1
SRE Strehaia 83.15 319 ⇓P P 01 12 32.2 +1.5
SRE Strehaia 83.15 319 ⇓P P 01 12 32.2 +1.5
PLVB Pleven 83.15 318 ⇓P P 01 12 30.6 -0.1
LISJ El Lisan 83.22 303 P P 01 12 33.1 +1.9
GORT1 Trebel 83.26 331 *eP* **P 01 12 31.4 +0.5**
comp=Z,88nm,1.2s,baz=43,slow=4.8
GORT1 Trebel 83.26 331 P P 01 12 31.4 +0.5
comp=Z,77nm,1.3s
MSBI Mazada 83.27 303 P P 01 12 31.9 +0.5
comp=Z,38nm,1.3s
JAVC Velka Javorina 83.29 325 *eP* **P 01 12 33.0 +1.6**
JAVC Velka Javorina 83.29 325 P P 01 12 32.9 +1.6
comp=Z,60nm,1.4s
BZS Buzias 83.41 321 ⇑P P 01 12 32.3 +0.4
BZS Buzias 83.41 321 ⇑P P 01 12 32.3 +0.4
BZS Buzias 83.41 321 P P 01 12 31.9 0.0
comp=Z,25nm,1.7s
DIM Dimitrovgrad 83.42 316 P P 01 12 33.0 +0.9
HERR Herculane 83.44 320 ⇓P P 01 12 32.3 +0.1
AMAZ Amatzia 83.46 303 P P 01 12 33.6 +1.1
AMAZ Amatzia 83.46 303 P P 01 12 33.0 +0.5
comp=Z,123nm,1.2s
BAIL Bailesti 83.48 319 ⇑P P 01 12 32.8 +0.5
BALB Balikesir 83.49 313 P P 01 12 32.7 +0.2
VRAC Vranov 83.50 326 ⇓P P 01 12 33.4 +1.0

VRAC Vranov 83.50 326 *eP* **P 01 12 32.9 +0.5**
VRAC Vranov 83.50 326 ⇓P P 01 12 33.4 +1.0
VRAC Vranov 83.50 326 P P 01 12 33.0 +0.6
comp=Z,16nm,1.1s
BUD Budapest 83.54 323 P P 01 12 32.7 +0.1
comp=Z,15nm,1.1s
PUNG Punghina 83.54 319 ⇓P P 01 12 34.6 +1.9
BALY Balya 83.59 313 P P 01 12 33.3 +0.3
comp=Z,278nm,1.1s
PVCC Panska Ves 83.60 328 *eP* **P 01 12 33.4 +0.6**
PVCC Panska Ves 83.60 328⇓ *eP* **P 01 12 33.4 +0.6**
PVCC Panska Ves 83.60 328 P P 01 12 33.3 +0.4
comp=Z,79nm,1.0s
HSNJ Maan 83.61 302 P P 01 12 35.1 +1.7
SMOL Smolenice 83.64 325 *eP* **P 01 12 34.0 +0.9**
SMOL pmax pmax
comp=Z,12nm,0.9s
MPEP Malo Peshtene 83.67 318 P P 01 12 34.6 +1.3
MANT Manisa 83.75 312 P 01 12 33.9 -0.2
MANT IAmb IAmb 01 12 35.4
comp=Z,52nm,1.1s
CLL Collm 83.75 329⇓ *iP* **P 01 12 33.6 +0.1**
CLL *e*PP **pP 01 13 59.0 +0.4**
CLL *e*SP **sP 01 14 39.0 +1.3**
CLL pmax pmax
comp=Z,65nm,1.1s
CLL Collm 83.75 329 P 01 12 33.3 -0.2
CLL Collm 83.75 329 *eP* **P 01 12 33.6 +0.1**
comp=Z,45nm,0.9s,baz=43,slow=4.8
CLL Collm 83.75 329 P P 01 12 33.5 0.0
comp=Z,55nm,1.2s
CLL Collm 83.75 329⇓ *iP* **P 01 12 33.6 +0.1**
comp=Z,65nm,1.1s
CLL *e*pP **pP 01 13 59.0 +0.4**
CLL *e*sP **sP 01 14 39.0 +1.3**
CLL *e*PP **PP 01 15 50.0 -1.9**
CLL *e*(SKSac) 01 22 13.0
CLL *e*S **S 01 22 23.0 -1.0**
CLL *e*SSSS 01 34 42.0
KRUC Moravsky 83.77 326 *eP* **P 01 12 34.1 +0.4**
KRUC Moravsky 83.77 326 P P 01 12 34.1 +0.4
comp=Z,46nm,1.6s
FLTG Flechtingen 83.77 330 *eP* **P 01 12 33.4 -0.2**
comp=Z,63nm,1.0s,baz=43,slow=4.8
FLTG Flechtingen 83.77 330 P P 01 12 33.3 -0.2
comp=Z,67nm,1.1s
MODS Modra-Piesok 83.81 325 *eP* **P 01 12 35.1 +1.2**
MODS pmax pmax
comp=Z,67nm,1.2s
MODS Modra-Piesok 83.81 325 *eP* **P 01 12 35.1 +1.2**
MODS Modra-Piesok 83.81 325 P P 01 12 34.9 +0.9
comp=Z,59nm,1.4s
KDZ Kurdzhali 83.82 316 P P 01 12 34.9 +0.8
ALN Alexandroupoli 83.85 315 P P 01 12 34.3 +0.1
ALN pmax pmax
comp=Z,10.0nm,0.9s
ALN Alexandroupoli 83.85 315 P 01 12 34.3 +0.1
ALN Alexandroupoli 83.85 315 P P 01 12 34.3 +0.1
comp=Z,36nm,1.4s
MDVR Moldovita 83.89 320 ⇑P P 01 12 34.8 +0.3
ELL Elmali 83.91 310 P P 01 12 34.6 -0.2
ELL pmax pmax
comp=Z,52nm,1.0s
ELL Elmali 83.91 310 P 01 12 34.5 -0.2
PGB Panagyurishte 83.95 317 P P 01 12 36.4 +1.6
TREC Trest 84.04 326 P P 01 12 35.4 +0.3
comp=Z,32nm,1.1s
PRNI Paran 84.05 302 P P 01 12 36.4 +0.9
HSKC Hora Svate Kat 84.06 328 P P 01 12 35.4 +0.3
comp=Z,38nm,1.4s
BLKB Belogradchik 84.10 319 ⇓P P 01 12 36.6 +1.1
TAVA DENİZLİ_Tavas 84.13 311 ⇓P P 01 12 36.3 +0.5
RZN Rozhen 84.13 316 P P 01 12 37.2 +1.3
ASSE Asse, Remlinge 84.15 330 *eP* **P 01 12 35.5 +0.1**
comp=Z,51nm,1.4s,baz=43,slow=4.8
ASSE Asse, Remlinge 84.15 330 P P 01 12 35.4 0.0
comp=Z,25nm,2.9s
BIGH Upper Bighouse 84.16 341 P P 01 12 38.2 +2.8
comp=E,159nm,2.8s
KZIT Kziot 84.18 303 P P 01 12 36.8 +0.7
KZIT Kziot 84.18 303 P P 01 12 36.2 +0.1
comp=Z,99nm,1.1s
PFO Pinyon Flats O 84.19 54 P P 01 12 36.5 +0.2
PFO pmax pmax
comp=Z,9.0nm,0.8s
PFO Pinyon Flats O 84.19 54 P 01 12 36.5 +0.2
PFO IAmb IAmb 01 12 38.1
comp=Z,8.8nm,0.8s
PFO Pinyon Flats O 84.19 54 P P 01 12 36.8 +0.5
comp=Z,14nm,1.0s
HRFI Mount Harif 84.20 302 P P 01 12 36.9 +0.6
HRFI Mount Harif 84.20 302 P P 01 12 36.3 0.0
comp=Z,56nm,1.2s
RETH Rethem/Aller, 84.24 331 *eP* **P 01 12 36.0 +0.1**
comp=Z,58nm,1.3s,baz=43,slow=4.8
RETH Rethem/Aller, 84.24 331 P P 01 12 35.9 0.0
comp=Z,42nm,1.4s
WIMM Wimmelburg 84.25 330 P P 01 12 35.9 -0.1
comp=Z,75nm,1.5s
EZN Ezine 84.33 314 ⇑P P 01 12 37.6 +1.0
EZN Ezine 84.33 314 ⇑P P 01 12 37.6 +1.0
NEUB Neuenburg 84.36 329 *eP* **P 01 12 36.6 0.0**
comp=Z,43nm,1.0s,baz=43,slow=4.8
NEUB Neuenburg 84.36 329 P P 01 12 36.7 +0.1
comp=Z,51nm,1.1s
AQBJ Aqaba 84.36 302 P P 01 12 38.3 +1.3
AKAS Kas 84.41 310 P P 01 12 36.4 -1.0
AKAS Kas 84.41 310 P P 01 12 36.3 -1.0
comp=Z,203nm,1.2s
VTS Vitosha 84.42 318 P P 01 12 38.5 +1.2
EIL Elat 84.47 302 P P 01 12 38.1 +0.5
EIL Elat 84.47 302 P P 01 12 37.4 -0.1
comp=Z,35nm,1.3s
CLZ Clausthal 84.49 330 *eP* **P 01 12 37.7 +0.4**
comp=Z,65nm,1.5s,baz=43,slow=4.8
CLZ Clausthal 84.49 330 P P 01 12 37.7 +0.4
comp=Z,30nm,1.3s
ABNA Allensteig Bun 84.50 326 *eP* **P 01 12 37.3 -0.1**
comp=Z,24nm,0.9s
MPLH Magyarpolny 84.50 324 P P 01 12 37.6 +0.2
ZVC Zvikov 84.54 327⇓ *eP* **P 01 12 37.6 +0.1**
BEO Beograd 84.55 321 P P 01 12 37.5 -0.2
comp=Z,144nm,0.8s
MORH Mrgy, Hungar 84.58 323 ⇓P P 01 12 37.1 -0.7
MORH Mrgy, Hungar 84.58 323 *eP* **P 01 12 36.9 -0.9**
MORH Mrgy, Hungar 84.58 323 P P 01 12 37.6 -0.2
comp=Z,14nm,1.2s
WINA Alland / Wiene 84.58 325 *eP* **P 01 12 37.5 -0.3**
comp=Z,22nm,1.0s,SNR=7.4
TANN Tannenbergstha 84.63 328 P P 01 12 38.3 +0.2
comp=Z,31nm,1.5s
SOP Sopron 84.64 325 P P 01 12 38.4 +0.3
comp=Z,14nm,1.4s
BOVS Bovan 84.64 319 ⇓P P 01 12 38.0 -0.1
AYDN Tasoluk 84.67 311 P P 01 12 39.1 +0.7
comp=Z,168nm,1.6s
FRGS Fruska Gora 84.67 321⇑ *iP* **P 01 12 37.4 -0.9**
FRGS Fruska Gora 84.67 321 P P 01 12 38.2 -0.1
comp=Z,40nm,1.2s
PLN Plauen 84.71 329 *eP* **P 01 12 38.6 +0.2**
comp=Z,60nm,2.6s,baz=43,slow=4.8
RONA Rosalia, Austr 84.75 325 *eP* **P 01 12 38.5 -0.1**
comp=Z,14nm,1.2s,SNR=9.2
NKC Novy Kostel 84.77 328 P P 01 12 38.8 +0.2
comp=Z,27nm,1.3s
MMB Musomishta 84.80 317 P P 01 12 39.7 +0.7
CONA Conrad Observa 84.81 325 *eP* **P 01 12 39.0 0.0**
comp=Z,16nm,1.0s,SNR=7.9
MOX Moxa 84.83 329 *eP* **P 01 12 38.9 -0.1**
comp=Z,11nm,1.0s,baz=43,slow=4.8
MOX Moxa 84.83 329 P P 01 12 39.0 0.0
comp=Z,16nm,1.1s
GTTG Gottingen 84.88 330 P P 01 12 39.3 +0.1
comp=Z,28nm,1.4s
CKRC Cesky Krumlov 84.92 326 *eP* **P 01 12 39.2 -0.3**
CKRC Cesky Krumlov 84.92 326 *eP* **P 01 12 39.2 -0.3**
KKB Krupnik 84.98 317 P P 01 12 40.8 +0.9
KHC Kasperske Hory 85.04 327 *eP* **P 01 12 40.1 0.0**
KHC Kasperske Hory 85.04 327 P P 01 12 39.9 -0.1
KHC IAmb IAmb 01 12 41.3
comp=Z,21nm,1.0s
KHC Kasperske Hory 85.04 327 *eP* **P 01 12 40.1 0.0**
KHC Kasperske Hory 85.04 327 P P 01 12 40.1 0.0
comp=Z,25nm,1.4s
ULM Lac du Bonnet 85.13 31 P P 01 12 41.2 +0.8

comp=Z,7.0nm,0.8s,baz=293,slow=2.7,SNR=8.1
comp=Z,7.0nm,0.8s
ULM Lac du Bonnet 85.13 31 P **P** **01 12 40.4 0.0**
ULM IAmb IAmb 01 15 46.2
comp=Z,46nm,1.8s
PEHC Pehcevo 85.15 317 *i* P **P** **01 12 41.0 +0.2**
SRS Serrai 85.17 316 P **P** **01 12 41.1 +0.3**
comp=Z,33nm,1.0s
GEC2 GERESS Array S 85.19 327 **P** **01 12 40.1 -0.7**
GEC2 IAmb IAmb 01 12 41.7
comp=Z,13nm,1.0s
GEC2 GERESS Array S 85.19 327 *eP* **P** **01 12 40.7 -0.2**
comp=Z,13nm,1.0s,baz=43,slow=4.8
GEC2 GERESS Array S 85.19 327 P **P** **01 12 40.6 -0.2**
comp=Z,16nm,1.0s
GERES GERESS Array B 85.19 327 P **P** **01 12 40.6 -0.2**
comp=Z,5.5nm,0.7s,baz=41,slow=4.3,SNR=53
GERES PP **PP** **01 15 57.8 -6.0**
comp=Z,0.9nm,0.7s,baz=46,slow=6.5,SNR=4.5
comp=Z,5.5nm,0.7s
GERES GERESS Array B 85.19 327 P **P** **01 12 40.5 -0.4**
IBBN Ibbenburen 85.21 332 *eP* **P** **01 12 40.6 -0.2**
comp=Z,46nm,1.0s,baz=43,slow=4.8
IBBN Ibbenburen 85.21 332 P **P** **01 12 40.5 -0.2**
comp=Z,52nm,1.2s
TEKS Tekeris 85.22 321 *eP* **P** **01 12 39.8 -1.2**
PPT2 Papeete2 85.24 114 eLR LR 01 40 04.8
comp=Z,109nm,26.8s
PPT2 eLR LR 01 40 10.3
comp=Z,40nm,24.8s
BDRM Kayabasi 85.31 311 ⇑P **P** **01 12 41.4 -0.1**
WET Wettzell 85.36 327 *eP* **P** **01 12 41.5 -0.1**
comp=Z,15nm,1.2s,baz=43,slow=4.8
WET Wettzell 85.36 327 P **P** **01 12 41.5 -0.1**
comp=Z,9.3nm,1.9s
BEHE Becsehely 85.36 324 *eP* **P** **01 12 37.2 -4.4**
ARG Arkhangelos 85.38 310 P **P** **01 12 41.6 -0.3**
ARG pmax pmax
comp=Z,50nm,1.1s
ARG Arkhangelos 85.38 310 P **P** **01 12 41.6 -0.3**
ARG Arkhangelos 85.38 310 P **P** **01 12 41.6 -0.3**
comp=Z,47nm,1.2s
RSSD Black Hills 85.38 40 P **P** **01 12 42.8 +0.7**
comp=Z,6.4nm,1.5s
ARSA Arzberg 85.44 325 *eP* **P** **01 12 41.6 -0.4**
comp=Z,13nm,1.3s
ARSA Arzberg 85.44 325 P **P** **01 12 42.0 -0.1**
comp=Z,12nm,0.6s
ESJX Sierra Juarez 85.46 55 P **P** **01 12 43.1 +0.4**
SOH Sokhos 85.49 316 P **P** **01 12 42.4 0.0**
comp=Z,18nm,1.1s
KNT Kendrikon 85.54 317 P **P** **01 12 42.1 -0.5**
comp=Z,18nm,1.2s
GRA3 Grafenberg Arr 85.61 328 P **P** **01 12 43.0 +0.2**
comp=Z,37nm,1.3s
MOA Molln 85.63 326 *eP* **P** **01 12 42.5 -0.5**
comp=Z,7.3nm,0.9s
MOA Molln 85.63 326 P **P** **01 12 42.9 0.0**
comp=Z,11nm,1.8s
VAY Valandovo 85.63 317 *i* P **P** **01 12 43.0 0.0**
GRA2 Grafenberg Arr 85.67 328 P **P** **01 12 43.2 +0.1**
comp=Z,18nm,1.4s
GRB3 Grafenberg Arr 85.70 328 P **P** **01 12 43.3 +0.1**
comp=Z,24nm,1.2s
GRA1 Grafenberg Arr 85.70 328 **P** **01 12 43.2 -0.1**
GRA1 Grafenberg Arr 85.70 328 P **P** **01 12 43.5 +0.3**
comp=Z,36nm,1.4s
GRF Grafenberg Arr 85.70 328 P **P** **01 12 43.2 -0.1**
GRF pmax pmax
comp=Z,62nm,1.4s
GRF Grafenberg Arr 85.70 328 *eP* **P** **01 12 43.2 -0.1**
comp=Z,74nm,1.5s,baz=43,slow=4.8
GRFO Grafenberg 85.71 328 P **P** **01 12 43.7 +0.4**
GRB4 Grafenberg Arr 85.72 328 P **P** **01 12 43.2 -0.1**
comp=Z,16nm,1.5s
GRB1 Grafenberg Arr 85.73 328 P **P** **01 12 43.4 0.0**
comp=Z,20nm,1.4s
BBLS Lazi&#263i 85.75 320 *eP* **P** **01 12 43.0 -0.7**
BBLS Lazi&#263i 85.75 320 P **P** **01 12 43.4 -0.3**
comp=Z,22nm,1.1s
GRB2 Grafenberg Arr 85.81 328 P **P** **01 12 43.9 +0.1**
comp=Z,19nm,1.1s
SJES Sjenica 85.83 320 *eP* **P** **01 12 44.4 +0.2**
SKO Skopje 85.86 318 *i* P **P** **01 12 46.0 +1.9**
PAIG Paliouri 85.86 315 P **P** **01 12 43.5 -0.7**
comp=Z,12nm,1.0s
GRB5 Grafenberg Arr 85.92 328 P **P** **01 12 43.9 -0.4**
comp=Z,19nm,1.3s
GRG Griva 85.96 317 P **P** **01 12 44.3 -0.5**
comp=Z,28nm,1.1s
SESA Seetaler Alpe, 86.00 325 *eP* **P** **01 12 44.5 -0.5**
comp=Z,13nm,1.0s,SNR=5.6
GRC4 Grafenberg Arr 86.01 328 P **P** **01 12 44.4 -0.3**
comp=Z,15nm,1.3s
BIOA Bad Ischl, Aus 86.04 326 *eP* **P** **01 12 44.6 -0.4**
comp=Z,10nm,1.1s
MSEY Mahe Island 86.05 262 P **P** **01 12 46.6 +1.1**
MSEY Mahe Island 86.05 262 P **P** **01 12 46.2 +0.7**
comp=Z,53nm,1.7s
BUG Bochum--Univer 86.07 332 P **P** **01 12 44.3 -0.6**
comp=Z,18nm,1.2s
GRC1 Grafenberg Arr 86.08 328 P **P** **01 12 44.7 -0.4**
comp=Z,18nm,1.3s
SOKA Soboth 86.08 325 *i* P **P** **01 12 44.6 -0.7**
comp=Z,4.2nm,0.8s,SNR=5.9
GRC3 Grafenberg Arr 86.13 328 P **P** **01 12 44.9 -0.4**
comp=Z,15nm,1.3s
GRC2 Grafenberg Arr 86.24 328 P **P** **01 12 45.8 -0.1**
comp=Z,15nm,1.1s
BLY Banja Luka 86.33 322 ⇑P **P** **01 12 46.6 +0.3**
BLY Banja Luka 86.33 322 ⇑*i*P **P** **01 12 44.8 -1.5**
BLY Banja Luka 86.33 322 P **P** **01 12 46.4 0.0**
comp=Z,18nm,1.2s
RJOB Jochberg 86.41 326 P **P** **01 12 46.7 -0.1**
comp=Z,16nm,1.0s
KARP Karpathos 86.41 310 **P** **01 12 46.4 -0.5**
KARP Karpathos 86.41 310 P **P** **01 12 46.2 -0.7**
comp=Z,61nm,0.9s
OBKA Obir 86.44 325 *eP* **P** **01 12 46.3 -0.7**
comp=Z,8.9nm,1.0s,SNR=4.1
OBKA Obir 86.44 325 P **P** **01 12 46.3 -0.7**
comp=Z,14nm,2.8s
LIT Litokhoron 86.46 316 P **P** **01 12 46.3 -0.8**
LIT pmax pmax
comp=Z,30nm,0.9s
LIT Litokhoron 86.46 316 P **P** **01 12 46.3 -0.8**
LIT IAmb IAmb 01 12 47.2
comp=Z,30nm,0.9s
LIT Litokhoron 86.46 316 P **P** **01 12 46.1 -1.0**
comp=Z,38nm,1.0s
XOR Xorichti 86.51 315 P **P** **01 12 46.0 -1.4**
comp=Z,23nm,0.9s
AGMN Agassiz Nation 86.56 33 P **P** **01 12 47.0 -0.3**
comp=Z,14nm,2.6s
KBA Koelnbreinsper 86.62 326 *eP* **P** **01 12 47.1 -0.9**
comp=Z,4.4nm,0.9s
EKA Eskdalemuir Ar 86.62 339 P **P** **01 12 47.3 -0.2**
comp=Z,5.2nm,0.8s,baz=40,slow=5.1,SNR=6.4
comp=Z,5.2nm,0.8s
LESA Schwarzleotal 86.69 326 *eP* **P** **01 12 47.3 -0.9**
comp=Z,14nm,0.9s
PDG Podgorica 86.78 319 ⇓P **P** **01 12 47.2 -1.4**
PDG Podgorica 86.78 319 *eP* **P** **01 12 46.5 -2.0**
PDG Podgorica 86.78 319 P **P** **01 12 48.2 -0.3**
comp=Z,22nm,1.1s
OHR Ohrid 86.78 318 *i* P **P** **01 12 48.7 0.0**
MYKA Terra Mystica 86.80 325 *eP* **P** **01 12 47.8 -0.8**
comp=Z,8.4nm,0.9s
FUR Furstenfeldbru 86.80 327 *eP* **P** **01 12 48.7 +0.1**
comp=Z,26nm,0.9s,baz=43,slow=4.8
FUR Furstenfeldbru 86.80 327 P **P** **01 12 48.5 0.0**
comp=Z,38nm,1.4s
BRY Bratogost 86.86 320 *eP* **P** **01 12 48.0 -1.1**
ACOM Acomizza, Ital 86.92 325 P **P** **01 12 48.2 -1.2**
comp=Z,24nm,1.4s
KBN Korca 87.11 317 P **P** **01 12 49.2 -1.0**
comp=Z,26nm,1.2s
AGG Agios Georgios 87.25 315 P **P** **01 12 49.1 -1.7**
comp=Z,16nm,1.1s
ABTA Abfaltersbach 87.25 326 *eP* **P** **01 12 49.8 -1.0**
comp=Z,19nm,1.0s,SNR=17
FUSE Fusea 87.26 325 P **P** **01 12 49.0 -1.8**
comp=Z,23nm,1.1s
WATA Walderalm 87.27 327 *eP* **P** **01 12 50.1 -0.8**
comp=Z,8.4nm,0.9s,SNR=5.0
STU Stuttgart 87.28 329 P **P** **01 12 50.8 0.0**
comp=Z,14nm,0.8s
ZKR Zakros 87.28 310 P **P** **01 12 50.6 -0.5**
comp=Z,32nm,1.1s
WTTA Wattenberg 87.29 327 *eP* **P** **01 12 50.2 -0.9**
comp=Z,14nm,1.0s,SNR=6.2
WTTA Wattenberg 87.29 327 P **P** **01 12 50.5 -0.6**
comp=Z,15nm,1.1s
MOTA Moosalm 87.48 327 *eP* **P** **01 12 51.0 -0.9**
comp=Z,12nm,1.0s
SQTA Sankt Quirin 87.52 327 *i* P **P** **01 12 51.8 -0.3**
comp=Z,5.3nm,0.7s
RETA Reutte 87.53 327 *eP* **P** **01 12 51.7 -0.4**
comp=Z,16nm,1.0s
UBR Ueberruh 87.69 328 P **P** **01 12 52.2 -0.6**
comp=Z,18nm,1.5s
RCHB Rochefort 87.89 332 *dP* **P** **01 12 52.8 -0.8**
comp=Z,7.0nm,0.9s
RCHB Rochefort 87.89 332 P **P** **01 12 53.0 -0.6**
comp=Z,11nm,0.9s
FETA Feichten 87.89 327 *eP* **P** **01 12 52.2 -1.7**
comp=Z,15nm,0.9s,SNR=8.0
BMRD Maredsous 87.95 332 *dP* **P** **01 12 53.5 -0.4**
comp=Z,9.8nm,0.9s
TAOE Nuku Hiva Isla 87.96 102 *e*LR LR 01 41 24.9
comp=Z,286nm,31.5s
BFO Black Forest 87.99 329 *eP* **P** **01 12 53.9 -0.3**
comp=Z,12nm,0.8s,baz=43,slow=4.8
BFO Black Forest 87.99 329 P **P** **01 12 54.1 -0.1**
BFO Black Forest 87.99 329 P **P** **01 12 53.8 -0.3**
SRN Sarande 88.05 317 P **P** **01 12 53.7 -0.8**
DAVA Damuels 88.08 328 *eP* **P** **01 12 54.1 -0.7**
comp=Z,31nm,1.0s,SNR=8.4
DAVA Damuels 88.08 328 P **P** **01 12 54.5 -0.3**
comp=Z,45nm,1.0s
ATD Arta Tunnel 88.13 282 **P** **01 12 55.7 +0.2**
ATD IAmb IAmb 01 12 58.2
comp=Z,46nm,1.7s
ATD Arta Tunnel 88.13 282 P **P** **01 12 56.3 +0.9**
comp=Z,15nm,1.4s
CGRP Cima Grappa 88.22 326 P **P** **01 12 54.2 -1.3**
comp=Z,26nm,1.2s
SLE Schleitheim 88.35 329 P **P** **01 12 54.7 -1.2**
comp=Z,5.8nm,1.1s
FUORN Ofenpass-Fuorn 88.40 327 **P** **01 12 56.2 -0.2**
FUORN Ofenpass-Fuorn 88.40 327 P **P** **01 12 56.3 -0.2**
comp=Z,62nm,1.0s
IMMV Iera Moni Meta 88.50 312 P **P** **01 12 56.1 -0.7**
comp=Z,35nm,1.3s
ECH Echery 88.58 330 P **P** **01 12 56.3 -0.6**
comp=Z,14nm,2.8s
TEOL Teolo 88.66 325 P **P** **01 12 57.2 -0.2**
TEOL IAmb IAmb 01 12 58.0
comp=Z,26nm,0.8s
ITM Ithomi 88.67 314 **P** **01 12 56.9 -0.7**
ITM Ithomi 88.67 314 P **P** **01 12 56.3 -1.3**
comp=Z,79nm,1.4s
TBI Tubuai 88.69 119 *e*LR LR 01 41 46.2
comp=Z,2μm,37.8s
TBI *e*LR LR 01 41 50.1
comp=Z,1μm,32.5s
SDCO Great Sand Dun 88.73 45 P **P** **01 12 58.0 -0.2**
TUE Stuetta 88.93 327 **P** **01 12 58.7 -0.2**
TUE IAmb IAmb 01 12 59.7
comp=Z,20nm,0.9s
TUE Stuetta 88.93 327 P **P** **01 12 58.4 -0.5**
comp=Z,31nm,1.1s
BNALP Bannalp 89.05 328 P **P** **01 12 58.9 -0.4**
comp=Z,20nm,1.1s
BOURR Bourignon 89.18 329 P **P** **01 13 00.7 +0.8**
comp=Z,26nm,2.2s
DSB Dublin 89.39 339 P **P** **01 13 00.4 -0.1**
E38A The Farm, Brul 89.76 32 P **P** **01 13 02.2 -0.3**
E38A IAmb IAmb 01 13 04.0
comp=Z,16nm,0.7s
AQU L'Aquila 89.97 322 *eP* **P** **01 13 03.5 -0.1**
AQU L'Aquila 89.97 322 P **P** **01 13 03.6 +0.1**
comp=Z,44nm,1.3s
GIMEL St. Georges / 90.27 329 P **P** **01 13 04.5 -0.5**
LOR Lormes 90.72 331 P **P** **01 13 06.3 -0.6**
comp=Z,24nm,2.4s
BNI Bardonecchia 91.23 328 P **P** **01 13 08.6 -0.8**
BNI pmax pmax
comp=Z,9.0nm,1.0s
BNI Bardonecchia 91.23 328 P **P** **01 13 08.6 -0.8**
BNI IAmb IAmb 01 13 13.9
comp=Z,8.6nm,1.0s
CEL Celeste 91.50 318 P **P** **01 13 09.9 -0.8**
CEL Celeste 91.50 318 P **P** **01 13 10.5 -0.2**
comp=Z,34nm,1.1s
SAOF Saorge 91.64 327 P **P** **01 13 10.2 -1.0**
ESCA l'Escarene 91.84 327 P **P** **01 13 11.2 -1.0**
comp=Z,23nm,1.9s
SSB Saint Sauveur 92.00 329 P **P** **01 13 11.9 -1.0**
SSB pmax pmax
comp=Z,13nm,0.9s
SSB Saint Sauveur 92.00 329 **P** **01 13 11.9 -1.0**
SSB IAmb IAmb 01 13 13.7
comp=Z,12nm,0.9s
SSB Saint Sauveur 92.00 329 P **P** **01 13 12.3 -0.6**
comp=Z,21nm,1.0s
ROSF Rosenen 92.59 335 P **P** **01 13 15.7 +0.2**
comp=Z,40nm,1.0s
MNTX Cornudas Mount 92.74 50 P **P** **01 13 17.2 +0.7**
MFF Saint Martin d 92.87 332 P **P** **01 13 17.0 +0.2**
comp=Z,9.0nm,2.1s
AMTX Amarillo 92.93 45 P **P** **01 13 17.9 +0.5**
AMTX IAmb IAmb 01 13 19.7
comp=Z,11nm,0.9s
TXAR Lajitas Array 95.40 50 P **P** **01 13 29.9 +1.0**
comp=Z,3.6nm,0.6s,baz=301,slow=2.9,SNR=47
TXAR pP **pP** **01 14 55.5 -0.1**
comp=Z,1.3nm,0.8s,baz=288,slow=2.9,SNR=5.9
comp=Z,3.6nm,0.6s
TXAR Lajitas Array 95.40 50 P **P** **01 13 29.5 +0.7**
RKT Rikitea 99.70 111 *e*LR LR 01 46 51.4
comp=Z,2μm,38.0s
ESDC Sonseca Array 100.19 331 PP PP 01 17 47.5 -13
comp=Z,1.8nm,1.1s,baz=34,slow=7.1,SNR=4.9
MAW Mawson 113.95 204 PKIKP **PKiKP** **01 18 39.5 -0.2**
comp=Z,1.7nm,1.0s,baz=73,slow=6.0,SNR=4.3
MAW SKP **SKPdf** **01 21 40.3 +1.6**
comp=Z,2.1nm,0.9s,baz=2.0,slow=9.5,SNR=4.9
MAW Mawson 113.95 204 *i* PKIKP **PKiKP** **01 18 40.8 +1.1**
MAW Mawson 113.95 204 **PKiKP** **01 18 40.8 +1.1**
TORD Torodi Ar. Bea 118.41 310 PKP **PKPdf** **01 18 49.1 -0.8**
comp=Z,1.3nm,0.6s,baz=26,slow=3.8,SNR=5.4
TORD SKP **SKPdf** **01 21 49.6 +0.6**
comp=Z,0.4nm,0.5s,baz=7.1,slow=3.5,SNR=2.3
LBTB Lobatse 120.97 258 PKiKP **PKiKP** **01 18 55.4 +0.6**
LBTB Lobatse 120.97 258 **PKiKP** **01 18 55.4 +0.6**
KDWAN Kaudwane 121.08 260 PKPdf **PKiKP** **01 18 55.5 +0.4**
MAKGR Makgori 121.34 258 **PKiKP** **01 18 56.8 +0.1**
QSPA South Pole Qui 121.97 180 PKP **PKPdf** **01 18 55.1 -0.1**
comp=Z,4.8nm,0.9s,baz=300,slow=0.6,SNR=26
QSPA SKP **SKPdf** **01 21 54.0 -0.3**
comp=Z,2.4nm,1.0s,baz=178,slow=1.4,SNR=3.6
QSPA South Pole Qui 121.97 180 **PKPdf** **01 18 55.3 +0.1**
BOSA Boshof 122.64 255 PKP **PKiKP** **01 18 57.9 -0.1**
comp=Z,4.6nm,0.8s,baz=55,slow=2.5,SNR=5.2
DBIC Dimbokro 127.50 311 PKP **PKiKP** **01 19 07.7 -0.3**
comp=Z,3.8nm,0.6s,baz=115,slow=4.9,SNR=4.7
DBIC SKPbc SKiKP 01 21 49.5 -18
comp=Z,5.4nm,0.7s,baz=42,slow=4.9,SNR=4.9
DBIC SKP **SKPdf** **01 22 06.3 0.0**
comp=Z,4.4nm,0.7s,baz=74,slow=2.2,SNR=4.3
TROLL Troll, Antarti 133.76 198 ⇑PKPdf **PKiKP** **01 19 20.2 +1.2**
comp=Z,254nm,0.6s
TROLL ⇓SKPbc **SKPbc** **01 22 12.1 +1.5**
comp=Z,2μm,0.9s
SNAA Sanae 135.31 197 ⇑PKPdf **PKPdf** **01 19 20.9 +0.5**
comp=Z,43nm,0.6s
SNAA ⇓SKPbc **SKPbc** **01 22 16.3 +0.9**
comp=Z,322nm,0.8s
SNAA Sanae 135.31 197 PKP **PKPdf** **01 19 20.1 -0.4**
comp=Z,1.7nm,0.6s,baz=202,slow=5.4,SNR=3.6
SNAA SKPbc **SKPbc** **01 22 15.8 +0.4**
comp=Z,17nm,0.9s,baz=117,slow=3.1,SNR=20
VNA2 Neumayer--Watz 136.89 196 ⇑PKPdf **PKiKP** **01 19 24.3 -0.9**
comp=Z,6.8nm,0.8s,baz=99,slow=1.9
VNA2 ⇓SKPbc **SKPbc** **01 22 21.4 +1.3**
comp=Z,35nm,0.7s,baz=123,slow=1.8
VNA3 Neumayer Olymp 137.17 195 ⇑PKPdf **PKPdf** **01 19 24.4 +0.6**
comp=Z,4.1nm,0.8s
VNA3 ⇓SKPbc **SKPbc** **01 22 21.8 +0.8**
comp=Z,18nm,0.7s
VNA1 Neumayer--Stat 137.29 196 ⇑PKPdf **PKPdf** **01 19 24.3 +0.3**
comp=Z,6.6nm,1.0s
VNA1 ⇓SKPbc **SKPbc** **01 22 22.5 +1.3**
comp=Z,34nm,1.0s
ITTB Itaituba 149.50 28 *eP* **PKPdf** **01 19 47.8 +0.8**
LPAZ La Paz 151.59 62 PKPbc **PKiKP** **01 19 58.0 +0.2**
comp=Z,7.1nm,0.8s,baz=2.7,slow=3.8,SNR=22
LPAZ La Paz 151.59 62 PKIKP **PKiKP** **01 19 58.0 +0.2**
LPAZ La Paz 151.59 62 *eP* **PKPdf** **01 19 50.3 -0.6**
NBPS Pedro II - PI 152.31 359 *eP* **PKPdf** **01 19 52.8 +1.4**
PLCA Paso Flores 155.70 119 PKPab **PKPab** **01 20 24.1 +0.1**
comp=Z,1.8nm,0.7s,baz=261,slow=3.9,SNR=4.2
SMTB Santa Maria do 156.22 13 *eP* **PKPdf** **01 19 58.2 +1.5**
PTLB Pontes e Lacer 157.24 47 **PKPab** **01 20 28.8 -2.2**
BDFB Brasilia 162.65 19 PKPab **PKPab** **01 20 54.6 0.0**
comp=Z,7.8nm,0.9s,baz=261,slow=2.3,SNR=9.8

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*JMA **18** 01:22:56.3±0.1,25°N±1°×122°7E±0°4, h99km±1km, MV3.6/18, NW OFF ISHIGAKIJIMA IS*
*TAP **18** 01:22:56.1,24°57N×122°72E, h102km, ML4.9, C*
*IDC **18** 01:22:59.9±5.8,24°64N×122°56E, h140km±57km, mb3.4/8, mbtmp3.9/9, Error ellipse: s-maj=40.3km s-min=15.3km az=68.0*

ISC 18 01:22:55.9±0.7,**24°53N**±0°03×**122°70E**±0°02,**h106**km±4km, **n190**,σ1°**08**/**331**,**mb3.7**/**8**,**38C**,**Taiwan region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res h m s	ISC
JYNG	**Yonagunijimaku**	**0.24**	**110**	*i* P	**Pn**	**01 23 10.8**	**-0.1**	
JYNG				S	**Sn**	**01 23 21.3**	**-0.8**	
YOJ	**Yonaguni jima**	**0.29**	**104**	P	**Pn**	**01 23 10.3**	**-0.8**	
YOJ	**Yonaguni jima**	**0.29**	**104**	⇑P	**Pn**	**01 23 11.0**	**-0.1**	
YOJ				S	**Sn**	**01 23 21.7**	**-0.7**	
YOJ	**Yonaguni jima**	**0.29**	**104**	*e*P	**Pn**	**01 23 10.9**	**-0.1**	
YOJ				*e*S	**Sn**	**01 23 21.4**	**-1.0**	
EOS3	**EOS3**	**0.43**	**235**	⇑P	**Pn**	**01 23 12.3**	**+0.7**	
EOS3				S	**Sn**	**01 23 24.4**	**+1.0**	
EOS2	**EOS2**	**0.44**	**255**	⇑P	**Pn**	**01 23 12.2**	**+0.5**	
EOS2				*i* S	**Sn**	**01 23 24.3**	**+0.7**	
EOS4	**EOS4**	**0.54**	**221**	⇑P	**Pn**	**01 23 12.4**	**+0.3**	
EOS4				S	**Sn**	**01 23 25.0**	**+0.8**	
EGS		**0.77**	**294**	*i* P	**Pn**	**01 23 14.8**	**+0.4**	
TWC	**Suao**	**0.78**	**276**	⇑P	**Pn**	**01 23 14.4**	**-0.2**	
TWC				*i* S	**Sn**	**01 23 27.1**	**-1.4**	
ESAO	**Su ao**	**0.78**	**273**	*e*P	**Pn**	**01 23 14.7**	**+0.2**	
ESAO				S	**Sn**	**01 23 27.8**	**-0.8**	
TWB1	**Santiao Chiao**	**0.80**	**306**	⇑P	**Pn**	**01 23 14.8**	**+0.1**	
TWB1				S	**Sn**	**01 23 27.8**	**-1.1**	
EWUT	**Wuta**	**0.85**	**264**	P	**Pn**	**01 23 15.2**	**+0.1**	
EWUT				*i* S	**Sn**	**01 23 29.2**	**-0.5**	
NTC	**Toucheng**	**0.86**	**292**	*e*P	**Pn**	**01 23 14.5**	**-0.7**	
NTC				*e*S	**Sn**	**01 23 29.4**	**-0.4**	
ENA	**Nanau**	**0.88**	**263**	*i* P	**Pn**	**01 23 15.7**	**+0.2**	
ENA				*i* S	**Sn**	**01 23 30.4**	**+0.1**	
ILA	**Ilan**	**0.90**	**285**	P	**Pn**	**01 23 15.6**	**-0.1**	
ILA				S	**Sn**	**01 23 29.7**	**-0.9**	
EAHA	**Aohua**	**0.90**	**257**	*e*P	**Pn**	**01 23 15.8**	**+0.1**	
EAHA				*e*S	**Sn**	**01 23 30.8**	**+0.2**	
EHP	**Heping Village**	**0.90**	**256**	*e*P	**Pn**	**01 23 15.9**	**+0.2**	
EHP				*e*S	**Sn**	**01 23 31.3**	**+0.6**	
NDS	**Dongshan**	**0.90**	**277**	*e*P	**Pn**	**01 23 16.0**	**+0.2**	
NDS				*e*S	**Sn**	**01 23 29.8**	**-0.9**	
TIPB	**Shuangxi**	**0.91**	**299**	⇑*i*P	**Pn**	**01 23 16.1**	**+0.2**	
TIPB				*i* S	**Sn**	**01 23 29.7**	**-1.2**	
SXI1	**Grass Mountain**	**0.94**	**307**	⇑*i*P	**Pn**	**01 23 16.5**	**+0.3**	
SXI1				S	**Sn**	**01 23 31.4**	**-0.1**	
IRIF	**Iriomote-Funau**	**0.96**	**102**	*e*P	**Pn**	**01 23 16.5**	**+0.2**	
IRIF				*e*S	**Sn**	**01 23 31.0**	**-0.7**	
TWE	**Neicheng**	**0.96**	**282**	⇑P	**Pn**	**01 23 16.6**	**+0.3**	
TWE				*e*S	**Sn**	**01 23 30.8**	**-0.9**	
NWF	**Wu-fen Shan**	**0.99**	**303**	P	**Pn**	**01 23 17.2**	**+0.5**	
NWF				S	**Sn**	**01 23 31.6**	**-0.9**	
WFSB	**Wu-fen Shan**	**0.99**	**303**	P	**Pn**	**01 23 17.2**	**+0.6**	
WFSB				S	**Sn**	**01 23 32.2**	**-0.2**	
ENTT	**Nioudou**	**1.04**	**276**	*e*P	**Pn**	**01 23 17.7**	**+0.5**	
FUSB	**Fushanzhiwuyua**	**1.04**	**283**	⇑*i*P	**Pn**	**01 23 17.8**	**+0.5**	
FUSB				*i* S	**Sn**	**01 23 33.0**	**-0.4**	
TNOU	**National Taiwa**	**1.04**	**306**	*e*P	**Pn**	**01 23 17.3**	**+0.1**	
TNOU				*e*S	**Sn**	**01 23 32.6**	**-0.7**	
ETL	**Fush Village**	**1.05**	**250**	P	**Pn**	**01 23 17.2**	**-0.1**	
ETL				*e*S	**Sn**	**01 23 33.1**	**-0.4**	
LATG	**Datong**	**1.07**	**270**	⇑*i*P	**Pn**	**01 23 18.1**	**+0.4**	
LATG				S	**Sn**	**01 23 34.1**	**+0.1**	
NACB	**Ninganchiao**	**1.07**	**251**	P	**Pn**	**01 23 16.6**	**-0.9**	
NACB	**Ninganchiao**	**1.07**	**251**	⇑*i*P	**Pn**	**01 23 17.3**	**-0.2**	
NACB				*e*S	**Sn**	**01 23 33.4**	**-0.4**	
NDT	**Datong Townshi**	**1.08**	**274**	P	**Pn**	**01 23 18.5**	**+0.8**	
NDT				*e*S	**Sn**	**01 23 34.1**	**0.0**	
TWD	**Chiawan**	**1.10**	**246**	⇑*i*P	**Pn**	**01 23 17.8**	**-0.1**	
TWD				*i* S	**Sn**	**01 23 33.7**	**-0.7**	
TWA	**Mucha**	**1.11**	**294**	⇑*i*P	**Pn**	**01 23 18.3**	**+0.3**	
TWA				*i* S	**Sn**	**01 23 33.6**	**-1.0**	
HATJ	**Hateruma jima**	**1.11**	**115**	*e*P	**Pn**	**01 23 18.7**	**+0.8**	
HATJ				*e*S	**Sn**	**01 23 35.3**	**+0.7**	
NWLT	**Wulai**	**1.12**	**283**	⇑*i*P	**Pn**	**01 23 18.5**	**+0.4**	
NWLT				S	**Sn**	**01 23 33.9**	**-0.9**	
HWA	**Hwalien**	**1.14**	**241**	P	**Pn**	**01 23 18.6**	**+0.3**	
HWA				*i* S	**Sn**	**01 23 35.7**	**+0.5**	
NHY	**Taipei**	**1.15**	**296**	*e*S	**Sn**	**01 23 35.1**	**-0.1**	
NHDH	**Xindian Distri**	**1.15**	**292**	P	**Pn**	**01 23 18.9**	**+0.5**	
NHDH				*e*S	**Sn**	**01 23 34.6**	**-0.8**	
ETLH	**Xiulin Townshi**	**1.16**	**254**	⇑P	**Pn**	**01 23 18.6**	**0.0**	
ETLH				*i* S	**Sn**	**01 23 34.8**	**-0.9**	
TATO	**Taipei**	**1.19**	**292**	P	**Pn**	**01 23 18.7**	**-0.1**	
YM01	**YM01**	**1.20**	**301**	⇑*i*P	**Pn**	**01 23 19.4**	**+0.4**	
YM01				*i* S	**Sn**	**01 23 35.8**	**-0.5**	
TAP	**Taipei**	**1.20**	**295**	*e*P	**Pn**	**01 23 19.0**	**+0.1**	
TAP				*e*S	**Sn**	**01 23 35.4**	**-0.9**	
YM08	**YM08**	**1.20**	**303**	*i* P	**Pn**	**01 23 19.1**	**+0.1**	
YM08				*e*S	**Sn**	**01 23 36.2**	**-0.2**	
TEYL	**Yanliau Villag**	**1.21**	**237**	⇑*i*P	**Pn**	**01 23 19.1**	**+0.1**	
TEYL				*i* S	**Sn**	**01 23 36.0**	**-0.4**	
NNSB	**Datong**	**1.21**	**265**	*i* P	**Pn**	**01 23 19.4**	**+0.3**	
NNSB				*e*S	**Sn**	**01 23 35.7**	**-1.0**	
NNS	**Nan Shan**	**1.21**	**266**	P	**Pn**	**01 23 19.5**	**+0.3**	
NNS				*e*S	**Sn**	**01 23 36.4**	**-0.5**	
YHNB	**Yeheng**	**1.22**	**277**	P	**Pn**	**01 23 19.3**	**+0.1**	
YHNB	**Yeheng**	**1.22**	**277**	⇑*i*P	**Pn**	**01 23 19.9**	**+0.7**	
YHNB				S	**Sn**	**01 23 36.5**	**-0.3**	
ZUZH	**Zhuzihu**	**1.22**	**301**	⇑*i*P	**Pn**	**01 23 19.6**	**+0.3**	
ZUZH				S	**Sn**	**01 23 36.1**	**-0.8**	
JKRS	**Kuro-shima**	**1.23**	**104**	*e*P	**Pn**	**01 23 19.9**	**+0.6**	
JKRS				*e*S	**Sn**	**01 23 37.2**	**+0.3**	
NSK	**Sanguang**	**1.23**	**277**	⇑*i*P	**Pn**	**01 23 20.0**	**+0.7**	
NSK				S	**Sn**	**01 23 36.5**	**-0.6**	
PCYT	**Pengchaiyu**	**1.23**	**333**	P	**Pn**	**01 23 20.1**	**+0.8**	
PCYT				S	**Sn**	**01 23 38.3**	**+1.3**	
ETM	**Tongmen**	**1.24**	**243**	⇑*i*P	**Pn**	**01 23 19.4**	**0.0**	
ETM				S	**Sn**	**01 23 36.5**	**-0.7**	
TWY	**Chenhua**	**1.25**	**307**	*e*P	**Pn**	**01 23 20.2**	**+0.7**	
TWY				*e*S	**Sn**	**01 23 37.2**	**0.0**	
ANP	**Anpu**	**1.26**	**302**	*e*P	**Pn**	**01 23 19.5**	**-0.1**	
SHUL	**Shoufeng**	**1.28**	**235**	⇑*i*P	**Pn**	**01 23 20.1**	**+0.2**	
SHUL				*i* S	**Sn**	**01 23 38.1**	**+0.2**	
LXIB	**Xiulin Townshi**	**1.28**	**247**	⇑*i*P	**Pn**	**01 23 19.9**	**+0.1**	
LXIB				*e*S	**Sn**	**01 23 37.2**	**-1.0**	
TWS1	**Kuangyinshan**	**1.30**	**296**	⇑*i*P	**Pn**	**01 23 20.6**	**+0.6**	
TWS1				S	**Sn**	**01 23 37.6**	**-0.7**	
NTST	**Danshui**	**1.30**	**299**	P	**Pn**	**01 23 20.8**	**+0.7**	
NTST				*i* S	**Sn**	**01 23 38.2**	**-0.2**	
JIJ	**Ishigaki jima**	**1.32**	**97**	*i* P	**Pn**	**01 23

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WARBT				eS	Sn	01 23 40.5	-1.1
JISG	Ishigakijimahi	1.47	88	P	Pn	01 23 22.4	+0.4
JISG				S	Sn	01 23 41.0	-0.8
OWD	Renai	1.51	248	⇑P	Pn	01 23 23.1	+0.4
OWD				S	Sn	01 23 42.1	-0.9
LIOB	Emei	1.54	275	⇑iP	Pn	01 23 23.8	+0.9
LIOB				eS	Sn	01 23 42.9	-0.6
WUSB	Renai	1.54	250	⇑P	Pn	01 23 23.9	+0.8
WUSB				S	Sn	01 23 43.2	-0.5
NSTT	Nanjuang	1.55	274	P	Pn	01 23 23.8	+0.7
NSTT				iS	Sn	01 23 43.7	0.0
HGSD	Ruisui	1.56	229	⇑iP	Pn	01 23 23.4	+0.2
HGSD				S	Sn	01 23 44.7	+0.8
SBCB	Hsinchu	1.58	280	eP	Pn	01 23 23.8	+0.4
SBCB				S	Sn	01 23 44.2	-0.2
HSN	Hsinchu	1.60	280	eP	Pn	01 23 24.1	+0.4
HSN				iS	Sn	01 23 44.4	-0.4
EHYH	Wanrong	1.61	230	eP	Pn	01 23 23.8	-0.1
EHYH				S	Sn	01 23 44.1	-1.0
WHP	Taichung City	1.62	261	eP	Pn	01 23 25.7	+1.7
WHP				eS	Sn	01 23 45.9	+0.5
VWDT	VWDT	1.62	242	⇑iP	Pn	01 23 24.8	+0.8
VWDT				iS	Sn	01 23 45.5	+0.2
EHY	Hungye	1.62	231	eP	Pn	01 23 23.9	-0.1
EHY				eS	Sn	01 23 44.0	-1.4
ECBN	Changbin	1.67	224	eP	Pn	01 23 24.7	+0.2
ECBN				eS	Sn	01 23 45.8	-0.4
WCS	Beigang Elemen	1.70	254	P	Pn	01 23 26.2	+1.3
WCS				eS	Sn	01 23 48.0	+1.0
YULB	Yu-li	1.71	229	P	Pn	01 23 24.5	-0.6
YULB	Yu-li	1.71	229	S	Sn	01 23 45.0	-2.4
YULB	Yu-li	1.71	229	⇑P	Pn	01 23 25.1	0.0
YULB				eS	Sn	01 23 45.8	-1.6
EYUL	Yuli	1.73	227	P	Pn	01 23 25.8	+0.4
EYUL				eS	Sn	01 23 46.7	-1.0
NMLH	Miaoli	1.74	271	iP	Pn	01 23 26.5	+1.1
NMLH				S	Sn	01 23 48.6	+0.7
TWF1	Yuli	1.74	228	⇑iP	Pn	01 23 25.6	+0.2
TWF1				iS	Sn	01 23 47.5	-0.5
SSLB	Suanglung	1.76	245	P	Pn	01 23 25.8	+0.1
SSLB	Suanglung	1.76	245	S	Sn	01 23 46.6	-1.8
SSLB	Suanglung	1.76	245	iP	Pn	01 23 26.5	+0.7
SSLB				eS	Sn	01 23 47.8	-0.7
SMLT	Sun Moon Lake	1.77	249	iP	Pn	01 23 26.9	+1.1
SMLT				S	Sn	01 23 51.0	+2.3
TWQ1	Liyutan	1.77	264	iP	Pn	01 23 26.8	+1.0
TWQ1				eS	Sn	01 23 48.7	+0.2
CHKH	Chenggong	1.79	222	iP	Pn	01 23 25.8	-0.3
CHKH				S	Sn	01 23 47.4	-1.6
TYC	Yuchr	1.80	250	eP	Pn	01 23 27.3	+1.2
TYC				eS	Sn	01 23 50.5	+1.4
JTJ	Tarama	1.82	86	P	Pn	01 23 27.1	+0.7
JTJ				S	Sn	01 23 49.8	+0.1
FULB	Fuli	1.85	224	iP	Pn	01 23 27.1	+0.2
FULB				eS	Sn	01 23 50.1	-0.3
CHKT	Chengkung	1.88	221	iP	Pn	01 23 26.8	-0.3
CHKT				S	Sn	01 23 49.0	-2.0
WHYT	Xinyi Township	1.88	244	iP	Pn	01 23 28.8	+1.5
WHYT				S	Sn	01 23 52.2	+1.0
TCU	Taichung	1.89	259	eP	Pn	01 23 28.1	+0.9
TCU				S	Sn	01 23 52.1	+0.9
WDJ	Dajia District	1.89	265	eP	Pn	01 23 28.2	+0.9
WDJ				S	Sn	01 23 52.4	+1.1
WJS	Zhushan	1.94	249	P	Pn	01 23 29.7	+1.8
WJS				S	Sn	01 23 54.6	+2.3
EHD	Haiduan	1.94	225	iP	Pn	01 23 28.1	+0.1
EHD				iS	Sn	01 23 51.6	-0.8
ECS	Chishang	1.97	224	P	Pn	01 23 29.0	+0.6
ECS				S	Sn	01 23 54.1	+1.0
WCHH	Zhanghua	2.01	257	eP	Pn	01 23 29.1	+0.4
WCHH				eS	Sn	01 23 54.2	+0.4
ALS	Alishan	2.01	240	⇑iP	Pn	01 23 30.5	+1.3
ALS				eS	Sn	01 23 55.4	+1.0
EDH	Donghe	2.01	220	iP	Pn	01 23 28.8	-0.1
EDH				S	Sn	01 23 53.1	-0.9
WCH1	Changhua City	2.02	257	eS	Sn	01 23 54.2	0.0
ELDTW	Lidau	2.04	229	eP	Pn	01 23 29.2	-0.1
ELDTW				eS	Sn	01 23 53.8	-1.1
CHN5	Tsauling	2.07	244	eP	Pn	01 23 31.3	+1.6
CHN5				eS	Sn	01 23 56.9	+1.4
WGK	Gukeng	2.13	247	eP	Pn	01 23 32.6	+2.2
WGK				eS	Sn	01 23 58.9	+2.2
WDL	Douliou City	2.14	248	eP	Pn	01 23 32.6	+2.2
WDL				eS	Sn	01 23 59.5	+2.6
WDLH	Douliu	2.15	247	eP	Pn	01 23 32.2	+1.6
WDLH				eS	Sn	01 23 59.1	+2.0
LONT	Longtian	2.17	222	eP	Pn	01 23 31.0	+0.1
LONT				eS	Sn	01 23 57.0	-0.6
LDUT	Ludao	2.17	212	iP	Pn	01 23 30.6	-0.2
LDUT				eS	Sn	01 23 55.6	-2.0
WCKO	Fanlu	2.21	241	P	Pn	01 23 33.0	+1.7
WCKO				S	Sn	01 23 59.9	+1.4
STYH	Taoyuan	2.22	233	P	Pn	01 23 33.0	+1.4
STYH				S	Sn	01 23 59.4	+0.5
RLNB	Erlin	2.23	254	eP	Pn	01 23 32.5	+0.9
RLNB				S	Sn	01 23 59.5	+0.4
TPUB	Ta-pu	2.26	238	P	Pn	01 23 33.3	+1.2
TPUB	Ta-pu	2.26	238	S	Sn	01 23 58.5	-1.3
TPUB	Ta-pu	2.26	238	P	Pn	01 23 33.3	+1.2
TPUB				eS	Sn	01 24 01.9	+2.1
CHN4	Tsaushan	2.26	239	P	Pn	01 23 33.8	+1.8
CHN4				S	Sn	01 24 02.2	+2.4
TWGBT	Beinan	2.26	221	P	Pn	01 23 31.7	-0.4
TWGBT	Beinan	2.26	221	S	Sn	01 23 58.3	-1.6
TWGBT	Beinan	2.26	221	iP	Pn	01 23 32.3	+0.1
TWGBT				S	Sn	01 23 58.2	-1.7
CHN2	Minshiung	2.27	244	eP	Pn	01 23 34.4	+2.2
CHN2				eS	Sn	01 24 02.3	+2.4
TWG	Pinlang	2.27	222	eP	Pn	01 23 32.1	-0.1
TWG				iS	Sn	01 23 58.7	-1.2
WTK	Tuku	2.27	249	P	Pn	01 23 33.1	+0.9
WTK				eS	Sn	01 24 01.0	+1.0
JIRJ	Irabujima	2.29	82	P	Pn	01 23 33.1	+0.7
JIRJ				S	Sn	01 23 59.5	-0.8
WTP	Ta-pu	2.30	237	P	Pn	01 23 34.4	+1.8
WTP				S	Sn	01 24 02.2	+1.4
CHY	Chiayi	2.32	244	P	Pn	01 23 34.2	+1.4
CHY				S	Sn	01 24 02.8	+1.6
JIKM	Ikemajima	2.35	80	P	Pn	01 23 34.1	+1.0
JIKM				S	Sn	01 24 01.5	-0.2
TWK	Hsinying	2.39	239	eP	Pn	01 23 35.3	+1.5
TWK				eS	Sn	01 24 03.9	+1.1
JMJ2	Miyako jima3	2.40	84	eS	Sn	01 24 02.6	-0.4
CHN1	Nanshi	2.40	236	iP	Pn	01 23 35.7	+1.8
CHN1				S	Sn	01 24 04.9	+1.8
SGST	Jiashian	2.42	234	iP	Pn	01 23 35.4	+1.3
SGST				iS	Sn	01 24 04.9	+1.4
SLGT	Liugui	2.43	231	P	Pn	01 23 36.6	+2.4
SLGT				eS	Sn	01 24 06.0	+2.3
WSF	Szhu	2.44	249	eP	Pn	01 23 34.7	+0.4
WSF				eS	Sn	01 24 04.2	+0.4
JOGS	Gusukube	2.47	84	eP	Pn	01 23 35.9	+1.1
JOGS				eS	Sn	01 24 04.5	-0.2
WSL	Shuilin Townsh	2.48	247	P	Pn	01 23 36.1	+1.2
WSL				eS	Sn	01 24 06.0	+1.2
ICHU	Yijhu	2.50	243	P	Pn	01 23 36.6	+1.4
ICHU				eS	Sn	01 24 06.4	+1.0
ECL	Taimali	2.51	220	eP	Pn	01 23 35.3	0.0
ECL				eS	Sn	01 24 04.1	-1.4
SSD	Sandimen	2.60	227	P	Pn	01 23 38.0	+1.5
SSD				eS	Sn	01 24 09.1	+1.4
SCST	Cishan	2.60	231	eP	Pn	01 23 38.7	+2.1
SCST				eS	Sn	01 24 10.9	+3.2
TSMG	Majia	2.62	226	eP	Pn	01 23 38.7	+1.9
TSMG				eS	Sn	01 24 09.1	+0.9
SCLT	Jiali	2.66	240	eS	Sn	01 24 11.5	+2.3
MASBT	Mashibuluo	2.69	225	P	Pn	01 23 39.5	+1.7
MASBT				eS	Sn	01 24 10.1	+0.2
LAY	Lan-yu	2.70	203	iP	Pn	01 23 37.6	-0.3
LAY				S	Sn	01 24 06.5	-3.5
LYUB	Lan-yu	2.72	202	iP	Pn	01 23 37.2	-0.9
LYUB				iS	Sn	01 24 07.8	-2.7
EAST	Anshuo	2.73	219	eP	Pn	01 23 38.2	-0.1
TSCK	Chigu Township	2.76	241	eP	Pn	01 23 39.5	+0.9
TSCK				eS	Sn	01 24 11.2	-0.3
SCZT	Fangliau	2.88	222	eP	Pn	01 23 41.7	+1.5
SCZT				eS	Sn	01 24 15.2	+1.0
SLIU	Shizi	2.89	218	eP	Pn	01 23 40.5	0.0
SLIU				eS	Sn	01 24 13.8	-0.9
MATB	Ma-tsu	2.97	303	eP	Pn	01 23 41.2	-0.2
MATB				eS	Sn	01 24 14.6	-1.8
VWUC	VWUC	2.99	279	iP	Pn	01 23 41.5	-0.2
SMST	Manzhou Townsh	3.03	215	eP	Pn	01 23 43.5	+1.3
SMST				eS	Sn	01 24 17.1	-0.8
PNG	Penghu	3.03	252	eP	Pn	01 23 42.1	-0.1
PNG				S	Sn	01 24 16.5	-1.5
PHUB	P'eng-hu	3.04	251	iP	Pn	01 23 42.3	+0.1
PHUB				eS	Sn	01 24 15.7	-2.3
TSEB	Hengchuen, Pin	3.10	213	eS	Sn	01 24 20.1	+0.5
TWKBT	Hengchun	3.11	214	eP	Pn	01 23 44.6	+1.3
TWKBT				eS	Sn	01 24 19.4	-0.4
TWK1	Hengchun	3.11	214	eS	Sn	01 24 19.5	-0.3
VCHM	Qimei	3.27	247	iP	Pn	01 23 46.2	+0.8
VCHM				eS	Sn	01 24 22.0	-1.7
XPSS	Dashiqiu	3.29	317	eP	Pn	01 23 45.4	-0.2
PTMZ	Houxiangcun	3.29	280	iP	Pn	01 23 45.9	+0.2
LYJJ	Jianjiangzhen	3.33	308	eP	Pn	01 23 46.4	+0.2
MHZQ	Yeshan	3.67	296	eP	Pn	01 23 51.3	+0.5
KNM	Kinmen	3.89	269	eP	Pn	01 23 55.3	+1.6
KNMB	Chin-men Tao	3.93	270	P	Pn	01 23 54.2	0.0
KNMB				eS	Sn	01 24 37.2	-2.2
BBP	Basco	4.13	190	iP	Pn	01 23 57.3	+0.4
BBP				iS	Sn	01 24 41.0	-3.3
AXDP	Jialang	4.32	276	P	Pn	01 23 59.2	-0.3
AXDP				S	Sn	01 24 45.9	-2.9
ZPLA	Ao Xicun	4.56	263	P	Pn	01 24 02.4	-0.3
ZPLA				eS	Sn	01 24 51.1	-3.6
DSXP	Dongshan	4.89	261	eP	Pn	01 24 06.9	-0.3
DSXP				eS	Sn	01 24 59.6	-3.1
KSRS	Korea Array	13.63	18	P	Pn	01 26 06.4	+1.6
	9.8nm,0.7s,baz=197,slow=12,SNR=31						
SONM	Songino Array	26.61	335	P	P	01 28 24.0	-0.5
	1.2nm,0.7s,baz=158,slow=9.7,SNR=6.4						
	1.2nm,0.7s						
MKAR	Makanchi Array	39.06	315	P	P	01 30 12.1	-0.4
	0.3nm,0.3s,baz=96,slow=8.0,SNR=6.3						
	0.3nm,0.3s						
ZALV	Zalesovo Beam	40.72	326	P	P	01 30 24.4	-1.6
	0.7nm,0.5s,baz=108,slow=9.5,SNR=3.9						
	0.7nm,0.5s						
H11N1	WAKE ISLAND Hy	41.09	88	T	T	02 16 09.9	
	baz=281						
H11N2	WAKE ISLAND Hy	41.09	88	T	T	02 16 11.2	
	baz=281,slow=74,SNR=4.2						
H11N3	WAKE ISLAND Hy	41.10	88	T	T	02 16 09.9	
	baz=281,slow=74,SNR=4.0						
H11S3	WAKE ISLAND Hy	41.23	90	T	T	02 16 17.6	
	baz=284,slow=75,SNR=6.3						
H11S1	WAKE ISLAND Hy	41.24	90	T	T	02 16 16.9	
	baz=284,slow=75,SNR=4.7						
H11S2	WAKE ISLAND Hy	41.25	90	T	T	02 16 15.2	
	baz=284,slow=75,SNR=4.6						
KURBB	Kurchatov Arra	42.74	319	P	P	01 30 41.6	-1.0
	0.6nm,0.2s,baz=116,slow=9.4,SNR=2.7						
	0.6nm,0.2s						
WRA	Warramunga Arr	45.63	165	P	P	01 31 06.9	+1.0
	0.9nm,0.5s,baz=346,slow=8.6,SNR=11						
	0.9nm,0.5s						
ASAR	Alice Springs	49.13	166	P	P	01 31 35.0	+2.0
	0.2nm,0.3s,baz=342,slow=7.6,SNR=5.5						
	0.2nm,0.3s						
FINES	FINESS Array B	71.84	330	P	P	01 34 05.9	-1.1
	1.0nm,0.4s,baz=59,slow=6.1,SNR=8.1						
	1.0nm,0.4s						
YKA	Yellowknife Ar	82.11	23	P	P	01 35 04.4	-0.1
	0.6nm,0.6s,baz=309,slow=5.0,SNR=8.4						
	0.6nm,0.6s						

NOU ***18*** *01:39:46.3, 36.23S×178.89W, h0km, MLv4.4/8, East of North Island, N.Z.*
IDC ***18*** *01:40:04.7±3.0, 36.11S×178.68E, h0km, mb3.5/2, mbtmp3.6/4, ML3.3/2, Error ellipse: s-maj=66.2km s-min=21.8km az=102.0*
WEL ***18*** *01:40:08.8±0.8, 37°S±5°×17°9E±°, h132km±8km, M3.7/25, ML3.7/31, MLv3.7/25, Error ellipse: s-maj=9.6km s-min=5.6km az=58.8*
ISC 18 01:40:09.7±1.8, **36.76S**±0.09×**179.31E**±0.10, **h92**km±12km, **n79**, σ**1.82**/84, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.13	225	P	Pn	01 40 28.5	-2.5
MXZ	Matakaoa Point	1.13	225	P	Pn	01 40 28.7	-2.3
MXZ				S	Sn	01 40 43.5	-3.5
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	1.28	214	P	Pn	01 40 33.2	+0.5
WMGZ				S	Sn	01 40 51.3	+1.2
WMGZ				AML	AML		
WMGZ				AML	AML		
PUZ	Puketiti	1.56	212	P	Pn	01 40 36.8	+0.6
PUZ				S	Sn	01 40 56.7	+0.4
PUZ				AML	AML		
PUZ				AML	AML		
HAZ	Te Kaha	1.57	230	P	Pn	01 40 35.3	-1.1
HAZ				S	Sn	01 41 00.4	+3.7
HAZ				AML	AML		
HAZ				AML	AML		
TWGZ	Tauwhareparae	1.77	216	P	Pn	01 40 39.9	+0.9
TWGZ				AML	AML		
TWGZ				AML	AML		
RUGZ	Raukumara Rang	1.77	227	P	Pn	01 40 39.5	+0.4
RUGZ				S	Sn	01 41 04.5	+3.0
RUGZ				AML	AML		
RUGZ				AML	AML		
WIZ	White Island	1.86	245	P	Pn	01 40 38.3	-1.8
WIZ				AML	AML		
WIZ				AML	AML		
CNGZ	Carnagh Statio	1.93	207	P	Pn	01 40 42.1	+1.0
CNGZ				S	Sn	01 41 08.8	+3.9
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	2.04	214	P	Pn	01 40 42.9	+0.5
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	2.12	221	P	Pn	01 40 43.9	+0.4
MWZ				AML	AML		
MWZ				AML	AML		
RAGZ	Rawiri	2.29	220	P	Pn	01 40 46.2	+0.3
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	2.30	212	P	Pn	01 40 46.1	+0.2
RIGZ				AML	AML		
RIGZ				AML	AML		
URZ	Urewera	2.30	229	Pn	Pn	01 40 45.7	-0.2
	18nm,0.3s,baz=352,slow=4.4,SNR=46						
URZ				Sn	Sn	01 41 14.4	+0.8
	22nm,0.3s,baz=72,slow=20,SNR=9.3						
	44nm,0.3s						
URZ				AML	AML		
URZ	Urewera	2.30	229	P	Pn	01 40 45.7	-0.2
URZ	Urewera	2.30	229	P	Pn	01 40 45.7	-0.2
URZ				AML	AML		
URZ				AML	AML		
MARZ	Manawahe	2.43	239	P	Pn	01 40 47.9	+0.3
MARZ				AML	AML		
MARZ				AML	AML		
PRGZ	Paritu Road	2.44	207	P	Pn	01 40 48.3	+0.6
PRGZ				AML	AML		
PRGZ				AML	AML		
OPRZ	Ohinepanea	2.45	243	P	Pn	01 40 47.8	0.0
OPRZ				AML	AML		
OPRZ				AML	AML		
MYRZ	Mayor Island	2.51	257	P	Pn	01 40 46.5	-2.1
MYRZ				AML	AML		
MYRZ				AML	AML		
KNZ	Kokohu	2.60	209	P	Pn	01 40 49.3	-0.6
KNZ				AML	AML		
RTZ	Ruatahuna	2.62	224	P	Pn	01 40 50.0	-0.2
RTZ				AML	AML		
RTZ				AML	AML		
MUGZ	Murupara	2.65	229	P	Pn	01 40 50.2	-0.3
MUGZ				AML	AML		
MUGZ				AML	AML		
TARZ	Mount Tarawera	2.67	236	P	Pn	01 40 52.6	+1.7
TARZ				AML	AML		
TARZ				AML	AML		
RAHZ	Arahi	2.78	219	P	Pn	01 40 53.1	+0.8
RAHZ				AML	AML		
RAHZ				AML	AML		
MTHZ	Maungataniwha	2.86	222	P	Pn	01 40 53.6	+0.2
MTHZ				AML	AML		
MTHZ				AML	AML		
ALRZ	Allen Road	2.96	232	P	Pn	01 40 54.8	0.0
ALRZ				AML	AML		
ALRZ				AML	AML		
NMHZ	Naumai	3.06	220	P	Pn	01 40 56.3	+0.2
NMHZ				AML	AML		
NMHZ				AML	AML		
ARHZ	Aropaoanui	3.10	215	P	Pn	01 40 56.4	-0.1
ARHZ				AML	AML		
ARHZ				AML	AML		
GRZ	Great Barrier	3.14	278	P	Pn	01 40 55.1	-2.1
GRZ				AML	AML		
TOZ	Tahuroa Road	3.19	251	P	Pn	01 40 56.1	-1.6
TOZ				AML	AML		
BKZ	Black Stump Fm	3.27	222	P	Pn	01 40 58.3	-0.7
BKZ	Black Stump Fm	3.27	222	P	Pn	01 40 59.3	+0.3
BKZ				AML	AML		
BKZ				AML	AML		
MKAZ	Moumakai	3.34	263	P	Pn	01 40 58.1	-1.7
MKAZ				AML	AML		
MCHZ	McNeill Hill	3.38	217	P	Pn	01 41 00.9	+0.5
MCHZ				AML	AML		
MCHZ				AML	AML		
CKHZ	Cape Kidnapper	3.39	211	P	Pn	01 40 59.6	-0.8
CKHZ				AML	AML		
CKHZ				AML	AML		
KWHZ	Kaweka Forest	3.50	220	P	Pn	01 41 01.8	-0.3
KWHZ				AML	AML		
KWHZ				AML	AML		
RITZ	Rihia Road	3.52	230	P	Pn	01 41 04.1	+1.9
RITZ				AML	AML		
RITZ				AML	AML		
ETAZ	East Tamaki Re	3.52	266	P	Pn	01 41 00.9	-1.3
ETAZ				AML	AML		
ETAZ				AML	AML		
MBAZ	Motutapu North	3.54	269	P	Pn	01 41 00.8	-1.7
MBAZ				AML	AML		
MBAZ				AML	AML		
KAHZ	Kahuranaki	3.58	212	P	Pn	01 41 02.2	-0.9
KAHZ				AML	AML		
KAHZ				AML	AML		
KRHZ	Kereru	3.69	218	P	Pn	01 41 04.0	-0.6
TMVZ	Te Maari	3.69	229	P	Pn	01 41 04.5	-0.3
NTVZ	North Tongarir	3.70	230	P	Pn	01 41 07.4	+2.6
ETVZ	East Tongariro	3.70	229	P	Pn	01 41 04.7	-0.2
KRVZ	Karewarewa	3.72	230	P	Pn	01 41 07.6	+2.6
BHHZ	Black Hill Sta	3.74	222	P	Pn	01 41 04.7	-0.6
OTVZ	Oturere	3.75	229	P	Pn	01 41 05.3	-0.2
AWAZ	Awhitu Peninsu	3.75	264	P	Pn	01 41 04.6	-0.8
WTVZ	West Tongariro	3.77	230	P	Pn	01 41 05.9	+0.2
PXZ	Pawanui	3.79	210	P	Pn	01 41 03.9	-2.0
PXZ				S	Sn	01 41 47.9	-1.5
RVAZ	Riverhead Bore	3.80	268	P	Pn	01 41 04.9	-1.0
WTAZ	Waiatarua	3.80	266	P	Pn	01 41 04.9	-1.1
TWVZ	Taurewa	3.83	232	P	Pn	01 41 06.7	+0.2
MOVZ	Moawhango	3.85	226	P	Pn	01 41 06.0	-0.8
WHVZ	Whangaehu Hut	3.87	228	P	Pn	01 41 09.3	+2.1
MAVZ	Matarangi	3.88	229	P	Pn	01 41 09.5	+2.1
WNVZ	Wahianoa	3.89	228	P	Pn	01 41 06.8	-0.7
HIZ	Hauiti	3.94	242	P	Pn	01 41 08.8	+0.8
HIZ	Hauiti	3.94	242	P	Pn	01 41 08.8	+0.8
PRHZ	Porangahau	4.08	210	P	Pn	01 41 08.0	-1.9
WCZ	Waipu Caves	4.09	280	P	Pn	01 41 07.0	-2.9
WCZ				AML	AML		
TSZ	Takapari Road	4.21	218	P	Pn	01 41 10.9	-0.8
VRZ	Vera Road	4.30	235	P	Pn	01 41 13.9	+1.1
BFZ	Birch Farm	4.59	210	P	Pn	01 41 14.1	-2.6
BFZ	Birch Farm	4.59	210	P	Pn	01 41 14.3	-2.4
BFZ				S	Sn	01 42 05.9	-2.9
MRZ	Mangatainoka R	4.87	216	P	Pn	01 41 18.1	-2.3
OUZ	Omahuta	4.88	287	P	Pn	01 41 18.9	-1.8
OUZ	Omahuta	4.88	287	P	Pn	01 41 18.6	-2.0
OUZ				AML	AML		
KHEZ	Kahui Hut	4.89	237	P	Pn	01 41 22.6	+1.8
OGWZ	Otaki Gorge	5.18	217	P	Pn	01 41 21.6	-3.2
OGWZ				S	Sn	01 42 20.0	-3.2
OGWZ				AML	AML		
TCW	Tory Channel	5.92	220	P	Pn	01 41 34.3	-0.6
TCW				S	Sn	01 42 35.9	-5.5
QRZ	Quartz Range	6.67	230	P	Pn	01 41 46.3	+1.3
CTZ	Chatham Island	7.63	157	P	Pn	01 41 57.7	-0.4
CTZ				S	Sn	01 43 19.5	-3.4
CTZ				AML	AML		
MQZ	McQueen's Vall	8.60	214	P	Pn	01 42 08.1	-3.1
MQZ				S	Sn	01 43 36.2	-10
RPZ	Rata Peaks	9.38	220	Pn	Pn	01 42 20.2	-1.8
	0.1nm,0.3s,baz=40,slow=16,SNR=1.5						
RPZ				Sn	Sn	01 43 54.5	-11
	0.3nm,0.3s,baz=301,slow=21,SNR=6.6						
	1.7nm,0.8s						
RPZ				AML	AML		
ASAR	Alice Springs	40.99	276	P	P	01 47 45.0	+1.2
	0.4nm,0.5s,baz=116,slow=7.7,SNR=6.7						
	0.4nm,0.5s						
WRA	Warramunga Arr	42.56	281	P	P	01 47 57.4	+0.7
	0.3nm,0.4s,baz=120,slow=7.6,SNR=4.8						
	0.3nm,0.4s						
FINES	FINESS Array B	150.12	334	PKPbc	PKiKP	01 59 54.0	+4.3
	2.2nm,0.8s,baz=68,slow=5.9,SNR=0.7						

SNET ***18*** *01:44:01.7±2.4, 14.10N×91.44W, h53km, ML3.5, Presumed earthquake*
GCG ***18*** *01:44:01.8±1.0, 14.13N×91.42W, h55km±9km, MD4.3, ML4.2, Presumed earthquake*
ISC 18 01:44:05.5±1.7, **14.3N**±0.1×**91.17W**±0.07, **h49**km±13km, **n14**, σ**2.60**/23, **1C, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STG8	El Palmar, Qui	0.24	312	iP	Pn	01 44 15.2	+0.8
STG8				iS	Sn	01 44 25.4	+4.8
STG8				IAML		01 44 26.4	
	comp=E,9μm,0.5s						
RTAL	Retalhuleu	0.56	295	iP	Pn	01 44 13.6	-3.9
FG8	Yepocapa, Chim	0.59	93	eP	Pn	01 44 14.5	-3.4
FG8				eS	Sn	01 44 24.7	-2.2
FG16	Alotenango, Sa	0.64	92	eP	Pn	01 44 15.4	-3.2
FG16				eS	Sn	01 44 26.4	-1.7
QUEO	Labor Ovalle	0.67	330	iP	Pn	01 44 17.5	-1.6
PCG5	San Vicente Pa	0.77	95	eP	Pn	01 44 17.4	-2.9
PCG5				iS	Sn	01 44 29.3	-1.8
PCG5				IAML		01 44 33.0	
	comp=N,10μm,0.4s						
APG	El Apazote	0.98	44	iP	Pn	01 44 23.9	+0.7
SLOZ	Alcaldia de Sa	1.37	101	iP	Pn	01 44 27.8	-0.5
SLOZ				eS	Sn	01 44 50.1	+4.7
NUBE	Las Nubes	1.40	106	eP	Pn	01 44 28.3	-0.6
NUBE	Las Nubes	1.40	106	iP	Pn	01 44 28.4	-0.4
NUBE				eS	Sn	01 44 48.0	+1.7
SBLS	San Blas	1.57	106	iP	Pn	01 44 31.7	+0.5
SBLS				eS	Sn	01 44 52.6	+2.2
JAYA	Jayaque - finc	1.79	111	iP	Pn	01 44 34.1	0.0
JAYA				eS	Sn	01 44 55.3	-0.4
CCIG	Comitan	2.19	335	⇑iP	Pn	01 44 38.1	-1.6
COEG	Centro de Oper	2.32	106	iP	Pn	01 44 41.9	+0.6
COEG				eS	Sn	01 45 11.9	+3.2

IDC ***18*** *02:38:07.3±0.6, 44.15N×84.87E, h0km, mb4.1/16, mbtmp4.0/24, ML3.4/7, MS3.4/4, Error ellipse: s-maj=12.4km s-min=8.0km az=51.0*
NEIC ***18*** *02:38:08.9±0.8, 44.19N±0.06×84.96E±0.09, h10km±1km, mb4.4/26, Error ellipse: s-maj=11.3km s-min=10.7km az=116.0*
SOME ***18*** *02:38:13.1, 44.15N×84.58E, h5km*
NNC ***18*** *02:38:15.3±1.6, 44.26N×84.47E, h22km±8km, mb4.5, mpv4.1, Error ellipse: s-maj=12.8km s-min=5.0km az=123.0*
ISC 18 02:38:09.3±0.4, **44.20N**±0.04×**85.11E**±0.04, **h10**km, **n132**, σ**2.62**/144, **mb4.3**/29, **MS3.7**/3, **8C-8D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	1.91	101	Pg	Pb	02 38 47.1	+2.9
WMQ				Sg	Sg	02 39 15.8	+5.3
WMQ				smax	smax		
	comp=N,740nm,0.5s						

WMQ smax smax
comp=E,760nm,0.7s
ZSN Zaisan 3.25 357 Pg **Pg 02 39 15.8 +4.1**
comp=E,17nm,0.2s
ZSN Lg Lg 02 40 00.9
comp=E,424nm,0.3s
ZSN Zaisan 3.25 357 *e*P **Pg 02 39 15.8 +4.1**
comp=E,17nm,0.2s
ZSN *e*S **Sg 02 40 00.9 +7.1**
comp=E,424nm,0.3s
MK31 Makanchi Array 3.26 324 ⇓Pn **Pn 02 39 00.7 +0.1**
comp=E,0.2nm,0.1s,baz=144,slow=14,SNR=1848
MK31 ⇓Pg **Pb 02 39 07.6 +0.4**
comp=E,26nm,0.3s,baz=139,slow=16,SNR=9.9
MK31 ⇑Lg Lg 02 39 49.2
comp=E,135nm,0.5s,baz=141,slow=29,SNR=12
MKAR Makanchi Array 3.26 324 Pn **Pn 02 39 00.6 +0.1**
comp=E,2.2nm,0.3s,baz=147,slow=14,SNR=65
MKAR Pg **Pb 02 39 07.5 +0.3**
comp=E,61nm,0.3s,baz=139,slow=17,SNR=232
MKAR Lg Lg 02 39 48.7
comp=E,141nm,0.3s,baz=138,slow=29,SNR=21
comp=E,3.8nm,0.3s
MKAR AML AML
MKAR Makanchi Array 3.26 324 Pn 02 38 59.9 -0.6
MAKZ Makanchi 3.41 321 ⇓Pn **Pn 02 39 02.7 +0.1**
comp=E,2.3nm,0.3s
MAKZ ⇑Pg **Pb 02 39 10.7 +0.9**
comp=E,34nm,0.5s
MAKZ ⇓Lg Lg 02 39 53.7
comp=E,108nm,0.5s
MAKZ Makanchi 3.41 321 Pn 02 39 02.1 -0.4
KTMS Ketmen 3.52 259 Pg Pn 02 38 52.6 -12
KTMS Lg Lg 02 39 32.8
DJR Jarkent 3.82 274 Pg **Pb 02 39 17.1 +0.3**
comp=E,104nm,0.8s
DJR Lg Lg 02 40 03.0
comp=E,161nm,0.6s
DJR Jarkent 3.82 274 *e*P **Pb 02 39 17.1 +0.3**
comp=E,104nm,0.8s
DJR *e*S **Sb 02 40 03.0 -0.2**
comp=E,161nm,0.6s
PDGK Podgornoye 4.16 260 ⇑Pn **Pn 02 39 12.5 -0.4**
comp=E,10nm,0.5s
PDGK ⇓Pg **Pb 02 39 22.1 -0.6**
comp=E,35nm,0.4s
PDGK ⇑Lg Lg 02 40 11.7
comp=E,129nm,0.5s
PDGK Podgornoye 4.16 260 Pn 02 39 11.3 -1.7
SHLS Shalkode 4.22 258 Pg **Pn 02 39 18.0 +4.2**
comp=E,116nm,0.5s
SHLS Lg Lg 02 40 04.8
comp=E,502nm,0.7s
UZB Uzynbulak 4.54 259 Pg **Pb 02 39 30.3 +1.2**
comp=E,43nm,0.6s
UZB Lg Lg 02 40 25.1
comp=E,109nm,0.7s
UZB Uzynbulak 4.54 259 *e*P **Pb 02 39 30.3 +1.2**
comp=E,43nm,0.6s
UZB *e*S **Sb 02 40 25.1 +1.2**
comp=E,109nm,0.7s
KPKS Kokpek 4.70 263 Pg **Pb 02 39 32.4 +0.5**
comp=E,0.3nm,0.2s
KPKS Lg Lg 02 40 29.4
comp=E,204nm,0.7s
KPKS Kokpek 4.70 263 *e*P **Pb 02 39 32.4 +0.5**
comp=E,0.3nm,0.2s
KPKS *e*S **Sb 02 40 29.4 +0.8**
comp=E,204nm,0.7s
BLB Baldybastay 4.77 271 Pg **Pb 02 39 34.7 +1.6**
comp=E,90nm,0.4s
BLB Lg Lg 02 40 33.6
comp=E,234nm,0.6s
TDK Taldyqorghan 4.85 282 Pg **Pb 02 39 37.0 +2.7**
comp=E,137nm,0.7s
TDK Lg Lg 02 40 37.7
comp=E,3.6nm,0.7s
TDK Taldyqorghan 4.85 282 *e*P **Pb 02 39 37.0 +2.7**
comp=E,137nm,0.7s
TDK *e*S **Sb 02 40 37.7 +4.9**
comp=E,3.6nm,0.7s
SATY Saty 5.00 259 Pg **Pb 02 39 39.7 +2.8**
comp=E,41nm,0.6s
SATY Lg Lg 02 40 42.1
comp=E,219nm,0.6s
SATY Saty 5.00 259 *e*P **Pb 02 39 39.7 +2.8**
comp=E,41nm,0.6s
SATY *e*S **Sb 02 40 42.1 +5.1**
comp=E,219nm,0.6s
KURS Kuram 5.07 264 Pg **Pb 02 39 41.7 +3.7**
comp=E,14nm,0.6s
KURS Lg Lg 02 40 45.6
comp=E,71nm,0.9s
KURS Kuram 5.07 264 *e*P **Pb 02 39 41.8 +3.7**
comp=E,14nm,0.6s
KURS *e*S **Sb 02 40 45.6 +6.6**
comp=E,71nm,0.9s
PRZ Przheval'sk 5.18 253 Pn 02 39 23.3 -3.8
ARXS Arharly 5.23 273 Pg **Pb 02 39 43.1 +2.3**
comp=E,41nm,0.5s
ARXS Lg Lg 02 40 47.8
comp=E,193nm,0.8s
ARXS Arharly 5.23 273 *e*P **Pb 02 39 43.1 +2.3**
comp=E,41nm,0.5s
ARXS *e*S **Sb 02 40 47.8 +4.0**
comp=E,193nm,0.8s
WUS Wushi 5.27 237 Pn 02 39 26.4 -1.8
KOTS Kotyrbulak 5.87 263 Pg **Pb 02 39 55.6 +3.8**
comp=E,21nm,0.5s
KOTS Lg Lg 02 41 09.5
comp=E,145nm,0.7s
KOTS Kotyrbulak 5.87 263 *e*P **Pb 02 39 55.6 +3.8**
comp=E,21nm,0.5s
KOTS *e*S **Sb 02 41 09.5 +7.2**
comp=E,145nm,0.7s
TARG Taragay, Kyrgy 5.90 248 Pn 02 39 35.3 -1.8
MDOK Medeo 5.94 263 Pg **Pb 02 39 55.5 +2.6**
comp=E,30nm,0.6s
MDOK Lg Lg 02 41 09.7
comp=E,88nm,0.8s
MDOK Medeo 5.94 263 *e*P **Pb 02 39 55.5 +2.6**
comp=E,30nm,0.6s
MDOK *e*S **Sb 02 41 09.8 +5.7**
comp=E,88nm,0.8s
KNDC Almaty 5.98 263 ⇑Pg **Pb 02 39 54.7 +1.1**
comp=E,65nm,0.6s
KNDC ⇓Lg Lg 02 41 11.5
comp=E,360nm,1.1s
TNSS Tian-Shan 6.04 262 Pg **Pb 02 39 58.8 +4.1**
comp=E,4.0nm,0.4s
TNSS Lg Lg 02 41 15.0
comp=E,15nm,0.9s
TNSS Tian-Shan 6.04 262 *e*P **Pb 02 39 58.9 +4.1**
comp=E,4.0nm,0.4s
TNSS *e*S **Sb 02 41 15.0 +7.8**
comp=E,15nm,0.9s
KDJ Kajisay 6.15 253 Pn **Pn 02 39 38.2 -2.2**
KUU Kurty 6.33 270 Pg **Pb 02 40 02.0 +2.5**
comp=E,3.3nm,0.1s
KUU Lg Lg 02 41 21.6
comp=E,38nm,0.3s
KUU Kurty 6.33 270 *e*P **Pb 02 40 03.0 +3.5**
comp=E,3.3nm,0.1s
KUU *e*S **Sb 02 41 21.6 +6.5**
comp=E,38nm,0.3s
MTBS Maitube 6.38 263 Pg **Pb 02 40 03.2 +2.7**
comp=E,15nm,0.5s
MTBS Lg Lg 02 41 22.8
comp=E,51nm,0.4s
MTBS Maitube 6.38 263 *e*P **Pb 02 40 03.2 +2.7**
comp=E,15nm,0.5s
MTBS *e*S **Sb 02 41 22.8 +5.9**
comp=E,51nm,0.4s
KRBS Karabastau 6.83 269 Pg **Pb 02 40 12.3 +4.3**
comp=E,7.2nm,0.5s
KRBS Lg Lg 02 41 37.7
comp=E,47nm,0.8s
KRBS Karabastau 6.83 269 *e*P **Pb 02 40 12.3 +4.3**
comp=E,7.2nm,0.5s
KRBS *e*S **Sb 02 41 37.7 +8.1**
comp=E,47nm,0.8s
KURBB Kurchatov Arra 7.82 328 Pn **Pn 02 40 02.2 -0.8**
comp=E,0.6nm,0.3s,baz=138,slow=13,SNR=20
KURBB Sn **Sn 02 41 27.7 -3.8**
comp=E,0.6nm,0.3s,baz=132,slow=26,SNR=6.0
KURBB Lg Lg 02 42 07.2
comp=E,1.1nm,0.3s,baz=144,slow=29,SNR=6.7
comp=E,3.0nm,0.5s
KURBB AML AML
KURBB Kurchatov Arra 7.82 328 ⇑Pn **Pn 02 40 01.8 -1.2**
comp=E,7.5nm,0.5s
KURK Kurchatov 7.86 328 Pn 02 40 02.3 -1.3
AAK Ala-Archa 7.88 262 Pn **Pn 02 40 01.8 -2.2**
comp=E,0.9nm,0.3s,baz=106,slow=8.3,SNR=5.2
AAK Pg **Pb 02 40 28.4 +2.4**
comp=E,1.4nm,0.3s,baz=86,slow=9.9,SNR=4.5
AAK Lg Lg 02 42 06.5
baz=37,slow=20
comp=E,2.1nm,0.4s
AAK AML AML
AAK Ala-Archa 7.88 262 ⇑Pg **Pb 02 40 29.1 +3.1**
comp=E,60nm,0.6s
AAK ⇑Lg Lg 02 42 12.6
comp=E,131nm,0.7s
AAK Ala-Archa 7.88 262 Pn Pn 02 40 03.7 -0.4
BTLS Baital 7.94 280 Pg Pb 02 40 33.7 +6.8
BTLS Lg Lg 02 42 14.5
BTLS Baital 7.94 280 *e*P Pb 02 40 33.7 +6.8
BTLS *e*S Sg 02 42 14.5 -9.4
KSH2 Kashi 8.74 238 P **Pn 02 40 16.8 +0.9**
KSH2 sP Pg 02 40 23.4 -33
KSH2 pmax pmax
comp=E,6.0nm,0.7s
MRKS Merke 8.76 265 Pg Pg 02 40 49.3 -7.7
comp=E,4.5nm,0.6s
MRKS Lg Lg 02 42 42.0
comp=E,13nm,0.8s
MRKS Merke 8.76 265 *e*P Pg 02 40 49.3 -7.7
comp=E,4.5nm,0.6s
MRKS *e*S Sg 02 42 42.0 -8.4
comp=E,13nm,0.8s
ARSB Arslanbob 9.37 256 Pn Pn 02 40 22.4 -2.1
ZAA0 Zalesovo Array 9.76 359 Pn 02 40 28.8 -0.7
ZALV Zalesovo Beam 9.76 359 Pn **Pn 02 40 29.2 -0.3**
comp=E,1.4nm,0.3s,baz=179,slow=14,SNR=13
ZALV Sn **Sn 02 42 17.0 -2.1**
comp=E,6.6nm,0.3s,baz=175,slow=26,SNR=20
ZALV Lg Lg 02 43 13.3
comp=E,1.1nm,0.3s,baz=187,slow=22,SNR=4.2
comp=E,4.6nm,0.4s
ZALV AML AML
ZALV Zalesovo Beam 9.76 359 Pn 02 40 28.7 -0.9
KK31 Karatay Array 10.64 269 ⇓Pg Pn 02 41 18.5 +37
comp=E,0.6nm,0.5s,baz=52,slow=9.7,SNR=5.9
KK31 ⇓Lg Lg 02 43 36.4
comp=E,7.7nm,0.6s,baz=71,slow=29,SNR=4.3
KK31 Karatay Array 10.64 269 Pn Pn 02 40 39.5 -2.2
KKAR Karatay Array 10.64 269 Pn Pn 02 40 40.0 -1.6
GOMU GeErMu 10.90 134 P **Pn 02 40 46.1 +0.4**
GOMU pP 02 40 49.8
GOMU sP 02 40 53.4
GOMU pmax pmax
comp=E,6.0nm,0.5s
BVAR Borovoye Array 13.12 317 Pn Pn 02 41 12.8 -2.8
comp=E,0.1nm,0.3s,baz=112,slow=13,SNR=9.3
BVAR Sn Sn 02 43 30.9 -11
baz=125,slow=21
BVAR Lg Lg 02 44 52.9
comp=E,0.1nm,0.3s,baz=108,slow=28,SNR=1.7
comp=E,1.5nm,0.4s
BVAR AML AML
BORK Borovoye 13.17 317 Pn Pn 02 41 12.7 -3.5
NIL Nilore 13.99 225 Pn Pn 02 41 23.6 -3.9
SONM Songino Array 15.22 69 Pn Pn 02 41 46.7 +2.4
comp=E,0.2nm,0.3s,baz=261,slow=13,SNR=10
SONM Lg Lg 02 46 11.1
comp=E,0.2nm,0.3s,baz=222,slow=37,SNR=2.3
SONM LR LR 02 48 29.8
comp=E,56nm,18.1s,baz=248,slow=40
comp=E,1.5nm,0.6s
SONM AML AML
SONM Songino Array 15.22 69 Pn Pn 02 41 45.1 +0.8
EVN Everest 16.27 175 Pn 02 41 57.3 -1.2
LZDM Lanzhou Array 16.41 114 Pn **Pn 02 41 59.3 -0.7**
comp=E,1.0nm,0.3s,baz=220,slow=8.8,SNR=1.6
LZH Lanzhou 16.44 113 *e*P **Pn 02 42 00.1 0.0**
LZH sP sP 02 42 09.5 +2.1
LZH pmax pmax
comp=E,20nm,1.3s
AB31 Akbulak array 17.94 295 Pn 02 42 15.3 -3.3
ABKAR Akbulak array 17.94 295 Pn **Pn 02 42 15.3 -3.3**
AKTO Aktyubinsk 19.33 298 P **P 02 42 32.4 -2.1**
comp=E,2.2nm,0.3s,baz=312,slow=4.2,SNR=2.4
comp=E,0.5nm,0.4s
AKTO AML AML
SHL Shillong 19.39 161 P **P 02 42 35.4 -0.1**
HHC Hu-ho-hao-te 19.75 91 *e*P **P 02 42 41.8 +2.4**
HHC pmax pmax
comp=E,19nm,0.5s
HHC pmax pmax
comp=E,71nm,4.6s
ARTI Arti 20.82 315 P **P 02 42 48.9 -1.8**
comp=E,4.2nm,0.4s,baz=139,slow=6.6,SNR=11
comp=E,4.2nm,0.4s
ARTI Arti 20.82 315 P **P 02 42 48.7 -2.0**
ARTI IAmb IAmb 02 42 53.8
comp=E,12nm,0.8s
MORE Moreh 21.29 156 P **P 02 42 55.8 -0.1**
NRIK Noril'sk 25.24 2 P **P 02 43 34.6 -0.3**
comp=E,2.9nm,0.5s,baz=164,slow=3.8,SNR=3.7
comp=E,2.9nm,0.5s
NRIK Noril'sk 25.24 2 P **P 02 43 34.8 -0.2**
NRIK IAmb IAmb 02 43 41.1
comp=E,4.2nm,0.7s
CMAR Chiang Mai Arr 28.17 151 P **P 02 44 01.4 -0.5**
comp=E,1.2nm,0.3s,baz=331,slow=7.8,SNR=4.7
comp=E,1.2nm,0.3s
ILGA Ilgaz 37.44 284 P **P 02 45 21.4 -1.5**
ILGA IAmb IAmb 02 45 23.7
comp=E,7.6nm,0.9s
BR131 Keskin Array S 38.02 282 P **P 02 45 25.8 -1.8**
BR131 IAmb IAmb 02 45 28.1
comp=E,2.6nm,0.8s
BRTR Keskin Array B 38.02 282 P **P 02 45 26.6 -1.1**
comp=E,1.7nm,0.7s,baz=88,slow=6.8,SNR=10
comp=E,1.7nm,0.7s
BRTR Keskin Array B 38.02 282 P P 02 45 26.1 -1.6
FINES FINESS Array B 38.08 318 P **P 02 45 26.4 -1.4**
comp=E,4.7nm,1.0s,baz=69,slow=6.3,SNR=9.5
FINES PcP **PcP 02 47 44.0 +1.4**
comp=E,3.8nm,0.9s,baz=107,slow=2.0,SNR=5.4
comp=E,4.7nm,1.0s
FINES FINESS Array B 38.08 318 P P 02 45 26.6 -1.1
JOW Kunigami 38.68 102 P P 02 45 33.0 -0.2
ARCES ARCESS Array B 38.89 331 P **P 02 45 33.8 -0.7**
comp=E,1.0nm,0.4s,baz=64,slow=5.5,SNR=14
comp=E,1.0nm,0.4s
ARCES ARCESS Array B 38.89 331 P P 02 45 33.7 -0.7
ARCES IAmb IAmb 02 46 10.7
comp=E,11nm,1.1s
BURAR Bucovina Array 40.91 297 P P 02 45 49.6 -2.1
BUR08 Bucovina Ar. S 40.91 297 P **P 02 45 50.0 -1.7**
BUR08 IAmb IAmb 02 46 24.5
comp=E,3.7nm,1.2s
ELL Elmali 41.96 279 P P 02 45 59.0 -1.5
ELL IAmb IAmb 02 46 09.1
comp=E,5.5nm,1.0s
HFS Hagfors 44.26 317 P **P 02 46 17.5 -1.0**
comp=E,3.0nm,0.8s,baz=101,slow=7.7,SNR=7.7
comp=E,3.0nm,0.8s
NC602 NORSAR Array S 45.16 318 P P 02 46 24.1 -1.6
NB2 NORSAR Subarra 45.25 319 P P 02 46 25.4 -1.1
comp=E,1.2nm,0.5s,baz=78,slow=7.9
NOA NORSAR Array B 45.25 319 P **P 02 46 25.4 -1.1**
comp=E,1.1nm,0.5s,baz=77,slow=7.7,SNR=7.5
comp=E,1.1nm,0.5s
GERES GERESS Array B 47.69 302 P **P 02 46 45.0 -1.0**
comp=E,0.3nm,0.5s,baz=68,slow=5.8,SNR=2.7
comp=E,0.3nm,0.5s
WTTA Wattenberg 49.60 301 *e*pP **P 02 47 00.1 -0.6**
comp=E,2.1nm,0.4s
SQTA Sankt Quirin 49.88 301 *e*pP **P 02 47 02.0 -0.8**
comp=E,2.9nm,0.4s
MOTA Moosalm 49.90 301 *e*P **P 02 47 01.7 -1.2**
comp=E,0.8nm,0.4s
FETA Feichten 50.27 301 *e*P **P 02 47 03.3 -2.4**
comp=E,2.3nm,0.8s
FUORN Ofenpass-Fuorn 50.73 301 P **P 02 47 08.2 -1.2**
FUORN IAmb IAmb 02 47 11.1
comp=E,2.8nm,0.8s
TUE Stuetta 51.36 301 P **P 02 47 12.5 -1.5**
TUE IAmb IAmb 02 47 13.5
comp=E,3.2nm,0.8s
BNI Bardonecchia 53.68 300 P **P 02 47 29.5 -1.7**
BNI IAmb IAmb 02 47 33.0
comp=E,11nm,1.3s
LEM Lembang 54.71 152 LR LR 03 14 29.6
comp=E,79nm,18.9s,baz=140,slow=40
IMAR Indian Mountai 61.21 24 P **P 02 48 24.1 +0.4**
BMAR Burnt Mountain 62.53 19 P **P 02 48 33.3 +0.6**
ESDC Sonseca Array 63.20 300 P **P 02 48 36.4 -1.3**
comp=E,1.3nm,0.5s,baz=52,slow=6.3,SNR=31
comp=E,1.3nm,0.5s
ESDC Sonseca Array 63.20 300 P P 02 48 36.0 -1.6
F28M Old Crow 63.46 18 P **P 02 48 39.6 +0.8**
F28M IAmb IAmb 02 49 02.0
comp=E,5.3nm,1.4s
PAB San Pablo 63.52 300 P P 02 48 38.3 -1.4
PPLA Purkeypile 63.92 25 P P 02 48 42.3 +0.2
ILAR Eielson Array 64.03 22 P **P 02 48 42.6 0.0**
comp=E,0.6nm,0.7s,baz=311,slow=4.8,SNR=7.6
comp=E,0.6nm,0.7s
INK Inuvik 64.15 15 P **P 02 48 43.5 +0.2**
INK IAmb IAmb 02 48 53.1
comp=E,4.2nm,1.1s
FITZ Fitzroy Crossi 72.22 140 P **P 02 49 34.5 0.0**
comp=E,2.8nm,1.0s,baz=316,slow=4.6,SNR=5.7
comp=E,2.8nm,1.0s
FITZ Fitzroy Crossi 72.22 140 P P 02 49 34.3 -0.2
WB0 Warramunga Arr 77.98 133 P P 02 50 07.6 -0.2
WB0 IAmb IAmb 02 50 42.7
comp=E,5.0nm,1.2s
WRA Warramunga Arr 78.10 133 P **P 02 50 08.5 +0.1**
comp=E,2.6nm,0.5s,baz=333,slow=5.0,SNR=46
comp=E,2.6nm,0.5s
WRA Warramunga Arr 78.10 133 P P 02 50 07.9 -0.5
ASAR Alice Springs 80.96 136 P P 02 50 24.0 0.0
comp=E,1.6nm,0.8s,baz=334,slow=5.4,SNR=15
comp=E,1.6nm,0.8s
ASAR Alice Springs 80.96 136 P P 02 50 23.7 -0.3
FFC Flin Flon 81.26 4 P **P 02 50 24.5 -0.7**
FFC IAmb IAmb 02 50 28.7
comp=E,13nm,1.4s
DBIC Dimbokro 85.38 275 P P 02 50 46.1 -1.0
comp=E,1.8nm,0.4s,baz=31,slow=5.2,SNR=5.1
comp=E,1.8nm,0.4s
DBIC Dimbokro 85.38 275 P P 02 50 45.1 -2.0
ULM Lac du Bonnet 85.93 1 LR LR 03 30 53.6
comp=E,29nm,18.4s,baz=7.0,slow=37
SADO Sadowa 90.31 349 LR LR 03 34 37.1
comp=E,13nm,19.6s,baz=334,slow=38
PDAR Pinedale Array 92.43 11 P **P 02 51 20.4 -0.1**
comp=E,0.1nm,0.5s,baz=27,slow=6.8,SNR=2.4
comp=E,0.1nm,0.5s
CPUP Villa Florida 144.90 288 PKP **PKPab 02 57 44.0 -1.7**
comp=E,1.6nm,0.8s,baz=117,slow=4.5,SNR=3.1
CPUP Villa Florida 144.90 288 PKPdf **PKPab 02 57 44.7 -1.0**
PB11 IPOC Station P 147.81 311 PKPbc **PKPdf 02 57 53.4 +1.5**

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*OSPL **18** 02:57:39.9±1.0, 18°.29N×71°.53W, h5km±7km, ML2.0, Presumed earthquake*
*SDD **18** 02:57:39.7±1.9, 18°.18N×71°.49W, h20km±16km, MD2.3, ML2.2, MW2.5, Presumed earthquake*
ISC 18 02:57:37.7±1.3, 18°.20N±0°.05×71°.54W±0°.06, h13km±8km, n8, σ0s87/15, 5C-3D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LODU1	**El Espartillar**	**0.16**	**23**	*i* P	**Pg**	**02 57 41.2**	**-0.3**
LODU1				*e*S	**Sg**	**02 57 43.0**	**-1.3**
LODU1				IAML		02 57 44.4	
comp=Z,433nm,0.3s							
PODR	**Polo**	**0.25**	**99**	⇑*e*Pg	**Pg**	**02 57 43.9**	**+0.8**
PODR				⇓*e*Sg	**Sb**	**02 57 48.9**	**+0.4**
PODR				IAML		02 57 51.6	
comp=N,339nm,0.5s							
PODR	**Polo**	**0.25**	**99**	*i* P	**Pg**	**02 57 44.0**	**+0.8**
PODR				*e*S	**Sb**	**02 57 48.7**	**+0.1**
PODR				IAML		02 57 50.8	
comp=Z,3μm,0.2s							
NEDR	**Neiba UASD**	**0.30**	**23**	⇑*e*Pg	**Pb**	**02 57 44.8**	**-0.2**
NEDR				⇓*e*Sg	**Sb**	**02 57 50.0**	**+0.1**
NEDR				IAML		02 57 51.0	
comp=N,265nm,0.3s							
LONE3	**El Aguacate, B**	**0.41**	**11**	*i* P	**Pg**	**02 57 46.1**	**+0.3**
LONE3				IAML		02 57 55.0	
comp=Z,80nm,0.5s							
JIDR	**Jimani**	**0.41**	**314**	⇑*e*Pg	**Pb**	**02 57 47.8**	**+1.0**
JIDR				⇑*e*Sg	**Sn**	**02 57 55.9**	**-0.9**
LOVI	**El Cajuil, Ovi**	**0.44**	**158**	*i* P	**Pn**	**02 57 49.2**	**-0.4**
LOVI				*e*S	**Sn**	**02 57 56.1**	**-1.3**
LOVI				IAML		02 58 06.4	
comp=Z,74nm,1.2s							
SDDR	**Presa de Saban**	**0.81**	**17**	⇑*e*Pg	**Pn**	**02 57 54.8**	**-0.1**
SDDR				⇓*e*Sg	**Sg**	**02 58 05.2**	**+1.1**

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*NEIC **18** 03:12:59.5±1.7, 21°.98N±0°.06×107°.72W±0°.06, h10km±2km, mb4.1/9, Md4.5/14(MEX), Error ellipse: s-maj=12.7km s-min=6.7km az=222.0*
*MEX **18** 03:13:03.6±0.6, 22°.35N×108°.18W, h10km, MD4.5, Presumed earthquake*
ISC 18 03:12:58.9±1.2, 22°.00N±0°.07×107°.77W±0°.10, h10km, n30, σ1s20/39, Off coast of central Mexico

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YELA	**Yelapa**	**2.63**	**125**		**Pg**	**03 13 50.1**	**+0.7**
YELA	**Yelapa**	**2.63**	**125**	*e*P	**Pg**	**03 13 50.1**	**+0.7**
YELA				*e*S	**Sg**	**03 14 26.3**	**+2.7**
SSIG	**Sanalona**	**2.86**	**12**		**Pn**	**03 13 43.0**	**-1.6**
SSIG	**Sanalona**	**2.86**	**12**	*e*P	**Pn**	**03 13 43.0**	**-1.6**
ESTA	**Talpa de Allen**	**3.16**	**120**		**Pg**	**03 13 58.6**	**-0.9**
ESTA	**Talpa de Allen**	**3.16**	**120**	*e*P	**Pg**	**03 13 58.6**	**-0.9**
ESTA				*e*S	**Sg**	**03 14 40.4**	**-0.1**
CJM	**Chamela**	**3.56**	**134**	*e*P	**Pb**	**03 14 03.8**	**+1.7**
CJM				*e*S	**Sb**	**03 14 47.9**	**+2.5**
PDIG	**Papasquiaro**	**3.73**	**35**		**Pn**	**03 13 58.0**	**+1.3**
PDIG					**Sn**	**03 14 41.5**	**+0.7**
PDIG	**Papasquiaro**	**3.73**	**35**	*e*P	**Pn**	**03 13 58.0**	**+1.3**
PDIG				*e*S	**Sn**	**03 14 41.5**	**+0.7**
CIHU	**Emiliano Zapat**	**3.94**	**133**		**Pb**	**03 14 08.5**	**+0.1**
CIHU					**Sb**	**03 14 54.0**	**-2.1**
CIHU	**Emiliano Zapat**	**3.94**	**133**	*e*P	**Pb**	**03 14 08.5**	**+0.1**
CIHU				*e*S	**Sb**	**03 14 54.0**	**-2.1**
CEGR	**Campo Tres**	**4.49**	**125**		**Pb**	**03 14 17.8**	**-0.1**
CEGR					**Sb**	**03 15 11.7**	**-0.5**
CEGR	**Campo Tres**	**4.49**	**125**	*e*P	**Pb**	**03 14 17.8**	**-0.1**
CEGR				*e*S	**Sb**	**03 15 11.7**	**-0.5**
CSIG	**Choix**	**4.84**	**354**		**Pn**	**03 14 12.0**	**+0.2**
CSIG	**Choix**	**4.84**	**354**	*e*P	**Pn**	**03 14 12.0**	**+0.2**
ZAIG	**Zacatecas**	**4.87**	**80**		**Pn**	**03 14 11.8**	**-0.7**
HPIG		**5.27**	**21**		**Pn**	**03 14 17.7**	**-0.3**
TX31	**Lajitas Ar. Si**	**8.18**	**26**		**Pn**	**03 14 58.8**	**+1.0**
TXAR	**Lajitas Array**	**8.18**	**26**		**Pn**	**03 14 58.5**	**+0.7**
TPB01	**Permian Basin**	**9.59**	**21**	Pn	**Pn**	**03 15 18.1**	**+0.9**
PIX	**Pinacate**	**10.79**	**333**		**Pn**	**03 15 34.5**	**+1.1**
113A	**Mohawk Valley,**	**11.97**	**335**		**Pn**	**03 15 50.6**	**+1.0**
X16A	**Lo Mia Camp, P**	**12.79**	**346**		**Pn**	**03 16 02.6**	**+1.7**
BLYC	**Blythe**	**13.13**	**334**		**Pn**	**03 16 07.0**	**+1.5**
PFO	**Pinyon Flats O**	**13.88**	**328**	Pn	**Pn**	**03 16 16.1**	**+0.3**
SDCO	**Great Sand Dun**	**15.81**	**7**	Pn	**Pn**	**03 16 41.3**	**-0.7**
PV13	**Radium Mtn., P**	**16.13**	**357**	Pn	**Pn**	**03 16 46.1**	**+0.1**
PV13				IAmb	IAmb	03 16 57.9	
comp=Z,18nm,1.3s							
P18A	**Preston Nutter**	**17.70**	**354**	P	**Pn**	**03 17 06.8**	**+1.0**
U38A	**Gravette**	**18.50**	**36**	P	**P**	**03 17 14.0**	**-1.2**
U38A				IAmb	IAmb	03 17 22.3	
comp=Z,16nm,1.3s							
OTAV	**Otavalo**	**35.84**	**123**	P	**P**	**03 19 58.7**	**-0.8**
OTAV				IAmb	IAmb	03 20 03.7	
comp=Z,2.0nm,0.9s							

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*IDC **18** 03:21:38.9±1.4, 55°.05N×164°.28E, h0km, mb3.3/2, mbtmp3.2/3, ML2.1/1, MS2.6/1, Error ellipse: s-maj=120.1km s-min=16.7km az=154.0*
*KRSC **18** 03:21:40.1±1.0, 54°.85N×164°.43E, h44km±21km, Ml3.6*
ISC 18 03:21:41.8±1.0, 54°.88N±0°.07×164°.53E±0°.05, h27km, n23, σ1s47/26, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BKI	**Bering**	**0.89**	**68**	*e*P	**Pn**	**03 21 57.7**	**-0.8**
BKI				*e*S	**Sb**	**03 22 09.4**	**-0.7**
KBTR	**Krutoberegovo**	**1.65**	**325**	*e*P	**Pn**	**03 22 07.9**	**-1.2**

KBTR				*e*S		**Sn**	**03 22 26.7**	**-2.6**
MKZ	**Mys Kozlova**	**1.66**	**260**	*e*P		**Pn**	**03 22 08.3**	**-0.8**
MKZ				*e*S		**Sn**	**03 22 27.2**	**-2.2**
TUMD	**Tumrok D**	**2.40**	**279**	*e*P		**Pn**	**03 22 19.7**	**+0.3**
TUMD				*e*S		**Sn**	**03 22 47.1**	**-0.8**
SMKR	**Semkarok**	**2.43**	**316**	*e*P		**Pn**	**03 22 20.5**	**+0.6**
KZV	**Kizimen**	**2.45**	**277**	*e*P		**Pn**	**03 22 20.5**	**+0.3**
KMNR	**Kamenistaya**	**2.61**	**291**	*e*P		**Pn**	**03 22 24.1**	**+1.9**
SPN	**Mys Shipunski**	**3.21**	**238**	*e*P		**Pn**	**03 22 30.3**	**0.0**
SPN				*e*S		**Sn**	**03 23 04.6**	**-3.0**
ESO	**Esso**	**3.49**	**290**	*e*P		**Pn**	**03 22 35.3**	**+1.0**
SDLR	**Sedlovina**	**3.69**	**247**	*e*P		**Pn**	**03 22 37.8**	**+0.6**
SDLR				*e*S		**Sn**	**03 23 17.9**	**-1.9**
SMAR	**Somma**	**3.74**	**247**	*e*P		**Pn**	**03 22 38.6**	**+0.6**
UGLR	**Uglovaya**	**3.76**	**246**	*e*P		**Pn**	**03 22 39.4**	**+1.4**
AVH	**Avacha**	**3.78**	**247**	*e*P		**Pn**	**03 22 39.4**	**+1.1**
KRX	**Arik**	**3.78**	**249**	*e*P		**Pn**	**03 22 39.3**	**+0.8**
KOK	**Koryaka**	**3.82**	**248**	*e*P		**Pn**	**03 22 40.0**	**+1.1**
GNL	**Ganaly**	**4.04**	**256**	*e*P		**Pn**	**03 22 43.2**	**+1.3**
PETK	**Petropavlovsk-**	**4.41**	**249**	Pn		**Pn**	**03 22 46.0**	**-0.9**
	0.5nm,0.3s,baz=67,slow=17,SNR=8.0							
PETK					Sn	**Sn**	**03 23 35.4**	**-1.9**
	0.9nm,0.3s,baz=54,slow=20,SNR=5.9							
	2.0nm,0.7s							
PETK				AML	AML			
ILAR	**Eielson Array**	**25.68**	**48**	P		**P**	**03 27 10.2**	**+1.0**
	0.5nm,0.8s,baz=249,slow=8.4,SNR=4.3							
	0.5nm,0.8s							
INK	**Inuvik**	**30.83**	**40**	LR	LR	LR	03 39 41.3	
	comp=Z,12nm,21.1s,baz=274,slow=35							
H11N2	**WAKE ISLAND Hy**	**35.13**	**176**	T	T	T	04 05 49.8	
	baz=358							
H11N3	**WAKE ISLAND Hy**	**35.15**	**176**	T	T	T	04 05 54.6	
	baz=358,slow=74							
H11N1	**WAKE ISLAND Hy**	**35.15**	**176**	T	T	T	04 05 52.7	
	baz=358,slow=74							
TXAR	**Lajitas Array**	**67.55**	**71**	P		**P**	**03 32 37.6**	**+2.0**
	0.2nm,0.5s,baz=294,slow=5.2,SNR=5.3							
	0.2nm,0.5s							

*NNC **18** 03:29:13.5±2.6, 44°.26N×84°.55E, h12km±17km, mb3.7, mpv3.4, Error ellipse: s-maj=19.7km s-min=9.6km az=118.0*
*SOME **18** 03:29:13.1, 44°.08N×84°.62E, h10km*
ISC 18 03:29:11.5±3.0, 44°.2N±0°.1×84°.6E±0°.1, h10km, n12, σ2$37/14, 4C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MK31	**Makanchi Array**	**3.11**	**329**	Pn		**Pn**	**03 30 00.7**	**0.0**
	baz=144,slow=15,SNR=233							
MK31				⇑Pg		**Pb**	**03 30 07.5**	**+0.6**
	1.5nm,0.3s,baz=138,slow=17,SNR=35							
MK31				⇓Lg		Lg	03 30 49.3	
	3.4nm,0.3s,baz=142,slow=29,SNR=12							
DJR	**Jarkent**	**3.48**	**275**	Pg		**Pg**	**03 30 17.5**	**-0.7**
	5.8nm,0.2s							
DJR				Lg		Lg	03 31 03.8	
	11nm,0.3s							
DJR	**Jarkent**	**3.48**	**275**	*e*P		**Pg**	**03 30 17.5**	**-0.7**
	5.8nm,0.2s							
DJR				*e*S		**Sg**	**03 31 03.8**	**+0.6**
	11nm,0.3s							
PDGK	**Podgornoye**	**3.81**	**259**	⇑Pg		**Pg**	**03 30 23.1**	**-1.4**
	3.0nm,0.5s							
PDGK				⇑Lg		Lg	03 31 15.4	
	6.8nm,0.5s							
SHLS	**Shalkode**	**3.87**	**257**	Pg		**Pb**	**03 30 18.4**	**-1.6**
	6.5nm,0.4s							
SHLS				Lg		Lg	03 31 05.6	
	22nm,0.6s							
KPKS	**Kokpek**	**4.35**	**263**	Pg		**Pb**	**03 30 30.7**	**+2.6**
	0.5nm,0.1s							
KPKS				Lg		Lg	03 31 26.9	
	11nm,0.4s							
KPKS	**Kokpek**	**4.35**	**263**	*e*P		**Pb**	**03 30 32.6**	**+4.5**
	0.4nm,0.1s							
KPKS				*e*S		**Sg**	**03 31 29.6**	**-1.7**
	10.0nm,0.3s							
BLB	**Baldybastay**	**4.42**	**271**	Pg		**Pb**	**03 30 33.3**	**+4.0**
	6.1nm,0.3s							
BLB				Lg		Lg	03 31 31.4	
ARXS	**Arharly**	**4.89**	**273**	Pg		**Pg**	**03 30 42.9**	**-2.2**
	2.3nm,0.4s							
ARXS				Lg		Lg	03 31 47.5	
	13nm,0.7s							
ARXS	**Arharly**	**4.89**	**273**	*e*P		**Pg**	**03 30 42.9**	**-2.2**
	2.3nm,0.4s							
ARXS				*e*S		**Sg**	**03 31 47.5**	**-0.9**
	13nm,0.7s							
KURBB	**Kurchatov Arra**	**7.68**	**330**	⇓Lg		Lg	03 33 13.1	
	15nm,0.8s							
KURK	**Kurchatov**	**7.72**	**330**	⇑Lg		Lg	03 33 13.3	
	3.8nm,0.8s							

*SNET **18** 03:51:04.8±1.8, 12°.78N×88°.35W, h40km, ML3.3, ML3.6, Presumed earthquake*
*CATAC **18** 03:51:05.2±0.4, 13°N±4°×8°8W±°, h35km±4km, M3.6/25, MLv3.6/25, Error ellipse: s-maj=8.7km s-min=1.9km az=28.3, confirmed*
ISC 18 03:51:05.1±1.3, 12°.77N±0°.10×88°.37W±0°.05, h51km±22km, n42, σ0$47/66, 4C-5D, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JUCU	**Jucuarįn**	**0.49**	**14**	*i* P		**Pn**	**03 51 16.3**	**-0.2**
JUCU				IAML			03 51 25.7	
	comp=Z,2µm,0.2s							
INTP	**Intipuca**	**0.52**	**36**	*i* P		**Pn**	**03 51 16.6**	**-0.2**
INTP				IAML			03 51 29.0	
	comp=Z,402nm,0.2s							
ALJI	**Alcalda de J**	**0.59**	**341**	⇓P		**Pn**	**03 51 17.5**	**0.0**
ALJI				S		**Sn**	**03 51 26.7**	**+0.3**
RANC	**El Ranchito**	**0.66**	**7**	⇑P		**Pn**	**03 51 18.6**	**0.0**
RANC	**El Ranchito**	**0.66**	**7**	*i* P		**Pn**	**03 51 18.8**	**+0.1**
RANC				*e*S		**Sn**	**03 51 28.7**	**+0.3**
RANC				IAML			03 51 33.5	
	comp=Z,2µm,0.2s							
PACA	**Pacayal**	**0.69**	**4**	⇓P		**Pn**	**03 51 19.0**	**-0.1**
PACA	**Pacayal**	**0.69**	**4**	*i* P		**Pn**	**03 51 19.0**	**-0.1**
PACA				*e*S		**Sn**	**03 51 29.2**	**+0.1**
PACA				IAML			03 51 31.5	
	comp=Z,4µm,0.3s							
LCND	**La Caada**	**0.71**	**41**	⇓P		**Pn**	**03 51 18.7**	**-0.4**
LCND	**La Caada**	**0.71**	**41**	*i* P		**Pn**	**03 51 18.8**	**-0.4**
LCND				IAML			03 51 33.2	
	comp=Z,1µm,0.3s							
CNCH	**Conchagua**	**0.72**	**46**	P		**Pn**	**03 51 19.2**	**-0.2**
CNCH				S		**Sn**	**03 51 29.9**	**+0.1**
CNCH	**Conchagua**	**0.72**	**46**	*i* P		**Pn**	**03 51 19.7**	**+0.3**
CNCH				IAML			03 51 33.8	
	comp=Z,5µm,0.2s							
TECA	**Tecapa**	**0.73**	**350**	*i* P		**Pn**	**03 51 19.4**	**-0.1**
CSGN	**Cosiguina Volc**	**0.82**	**75**	P		**Pn**	**03 51 20.3**	**-0.3**
CSGN				S		**Sn**	**03 51 31.9**	**+0.1**
TECO	**Alcaldia de Te**	**0.86**	**332**	P		**Pn**	**03 51 20.9**	**-0.2**
TECO				S		**Sn**	**03 51 32.6**	**-0.1**
COEG	**Centro de Oper**	**0.98**	**330**	P		**Pn**	**03 51 22.2**	**-0.5**
COEG				S		**Sn**	**03 51 35.8**	**+0.2**
COEG	**Centro de Oper**	**0.98**	**330**	*i* P		**Pn**	**03 51 22.4**	**-0.3**
COEG				IAML			03 51 45.2	
	comp=Z,787nm,0.3s							
SCLA	**Alcaldia de Sa**	**0.99**	**339**	*i* P		**Pn**	**03 51 22.9**	**+0.1**
SCLA				*e*S		**Sn**	**03 51 36.0**	**+0.2**
SCLA				IAML			03 51 38.0	
	comp=N,210nm,0.2s							
SJTE	**Alcalda de S**	**1.04**	**324**	*i* P		**Pn**	**03 51 23.6**	**0.0**
SJTE				*e*S		**Sn**	**03 51 37.0**	**-0.2**
SJTE				IAML			03 51 40.1	
	comp=Z,608nm,0.2s							
PAVA	**Las Pavas**	**1.09**	**330**	P		**Pn**	**03 51 24.2**	**0.0**
PAVA				S		**Sn**	**03 51 38.8**	**+0.5**
PANCS	**Alcalda de**	**1.15**	**317**	S		**Sn**	**03 51 39.8**	**+0.1**
LOMA	**Loma Larga**	**1.17**	**318**	P		**Pn**	**03 51 25.1**	**-0.2**
LOMA				S		**Sn**	**03 51 40.7**	**+0.4**
LOMA	**Loma Larga**	**1.17**	**318**	*i* P		**Pn**	**03 51 25.6**	**+0.3**
LOMA				*e*S		**Sn**	**03 51 39.7**	**-0.6**
IGN	**Direccin Gen**	**1.22**	**320**	S		**Sn**	**03 51 41.9**	**+0.5**
UTEC	**Universidad Te**	**1.23**	**319**	S		**Sn**	**03 51 41.3**	**-0.3**
SEMO	**Seminario San**	**1.25**	**318**	P		**Pn**	**03 51 26.6**	**+0.3**
SEMO				S		**Sn**	**03 51 42.0**	**0.0**
UEES	**Universidad Ev**	**1.26**	**318**	P		**Pn**	**03 51 26.7**	**+0.2**
UEES				S		**Sn**	**03 51 42.5**	**0.0**
CRIN	**San Cristobal**	**1.29**	**93**	⇑P		**Pn**	**03 51 27.4**	**+0.5**
CRIN				S		**Sn**	**03 51 43.7**	**+0.5**
PMON	**Piamonte**	**1.31**	**316**	P		**Pn**	**03 51 27.2**	**0.0**
PMON				S		**Sn**	**03 51 44.7**	**+1.0**
PMON	**Piamonte**	**1.31**	**316**	*i* P		**Pn**	**03 51 26.8**	**-0.4**
PMON				*e*S		**Sn**	**03 51 43.1**	**-0.6**
QUEN	**Al S del Volca**	**1.49**	**97**	⇑P		**Pn**	**03 51 29.8**	**+0.1**
TELN	**Telica**	**1.51**	**96**	⇓P		**Pn**	**03 51 29.7**	**-0.2**
PACN	**Al O del Volca**	**1.56**	**100**	⇑P		**Pn**	**03 51 29.8**	**-0.8**
PACN				S		**Sn**	**03 51 49.4**	**-0.4**
PLRN	**Geotermica Pol**	**1.57**	**97**	P		**Pn**	**03 51 30.6**	**-0.1**
PLRN				S		**Sn**	**03 51 49.4**	**-0.6**
CNGA	**Al SSO del Vol**	**1.65**	**99**	P		**Pn**	**03 51 31.7**	**-0.1**
CNGN	**Cerro Negro**	**1.65**	**99**	P		**Pn**	**03 51 31.9**	**+0.1**
CNGN				S		**Sn**	**03 51 52.2**	**+0.2**
TGUH	**Tegucigalpa,Un**	**1.67**	**40**	⇓P		**Pn**	**03 51 32.0**	**-0.1**
LEVN	**Ruinas Leon Vi**	**1.75**	**102**	P		**Pn**	**03 51 34.3**	**+1.2**
LEVN				S		**Sn**	**03 51 55.8**	**+1.5**
NUBE	**Las Nubes**	**1.77**	**309**	P		**Pn**	**03 51 33.7**	**+0.1**
NUBE				S		**Sn**	**03 51 55.2**	**+0.2**
MOM3	**MOM3**	**1.83**	**98**	P		**Pn**	**03 51 34.0**	**-0.2**
FAME	**Alcaldia de Sa**	**1.92**	**304**	P		**Pn**	**03 51 35.6**	**+0.1**
FAME				S		**Sn**	**03 51 57.7**	**-0.8**
MAS3	**Al N del Volca**	**2.27**	**109**	P		**Pn**	**03 51 40.4**	**+0.2**
MAS3				S		**Sn**	**03 52 05.2**	**-1.8**
RCVN	**Varillal2**	**2.27**	**69**	P		**Pn**	**03 51 40.3**	**-0.1**

*NSSP **18** 04:00:01.8, 38°.42N×44°.58E, h10km, Ms3.0*
*AZER **18** 04:00:02.1, 38°.56N×44°.37E, h5km, ml3.3*
*TEH **18** 04:00:05.7, 38°.50N×44°.69E, h6km, ML2.9, Presumed earthquake*
ISC 18 04:00:03.7±1.2, 38°.46N±0°.03×44°.56E±0°.03, h8km±10km, n38, σ1$66/66, 9C-3D, Turkey-Iran border region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
IMRD	**Marand**	**0.93**	**74**	Pg		**Pg**	**04 00 21.3**	**-0.2**
NAX	**Nakhchivan**	**1.02**	**46**	P		**Pg**	**04 00 22.6**	**-0.6**
NAX				S		**Sn**	**04 00 38.1**	**-0.8**
HAKT	**HAKKARI**	**1.13**	**217**	P		**Pg**	**04 00 24.5**	**-0.8**
HAKT				S		**Sn**	**04 00 44.7**	**+2.9**
SBZ	**Shahbuz**	**1.21**	**39**	P		**Pn**	**04 00 25.8**	**-1.2**
SBZ				S		**Sn**	**04 00 44.4**	**+0.7**
ORD	**Ordubad**	**1.22**	**67**	Pg		**Pb**	**04 00 26.4**	**-0.5**
ORD				Sg		**Sn**	**04 00 44.3**	**+0.6**
HYR	**Heyderabad**	**1.27**	**10**	P		**Pn**	**04 00 26.7**	**-1.2**
HYR				S		**Sg**	**04 00 45.5**	**+0.8**
IAZR	**Azarshahr**	**1.37**	**125**	Pg		**Pg**	**04 00 29.9**	**0.0**
IGDI	**IGDIR**	**1.45**	**345**	P		**Pn**	**04 00 29.0**	**-1.3**
IGDI				S		**Sn**	**04 00 49.4**	**-0.2**
ALVK	**Alvank**	**1.48**	**71**	⇑*i*P		**Pb**	**04 00 30.5**	**-1.0**
ALVK				⇓*i*S		**Sg**	**04 00 51.7**	**+0.4**
GNI	**Garni**	**1.69**	**5**	⇑*i*P		**Pb**	**04 00 35.0**	**-0.1**
GNI				⇑*i*S		**Sg**	**04 00 57.8**	**-0.2**
GNI	**Garni**	**1.69**	**5**	Pg		**Pg**	**04 00 36.1**	**0.0**
EGVZ	**Egvard**	**1.73**	**63**	⇑*i*P		**Pb**	**04 00 34.8**	**-0.9**
EGVZ				⇑*i*S		**Sg**	**04 00 58.9**	**-0.2**
GRS	**Goris**	**1.73**	**53**	⇓*i*P		**Pg**	**04 00 39.0**	**+2.2**
GRS				⇑*i*S		**Sg**	**04 01 03.0**	**+3.8**
VNNZ	**Vanand**	**1.73**	**341**	*e*P		**Pb**	**04 00 35.3**	**-0.5**
VNNZ				*e*S		**Sg**	**04 01 01.0**	**+1.6**
ARUZ	**Aruch**	**1.85**	**349**	*e*P		**Pb**	**04 00 37.8**	**-0.1**
ARUZ				*e*S		**Sg**	**04 01 05.7**	**+2.5**
KAPZ	**Kaputan**	**1.86**	**3**	*e*P		**Pb**	**04 00 37.6**	**-0.4**
KAPZ				*e*S		**Sg**	**04 01 04.2**	**+0.7**
AYRK	**Ayrk**	**1.91**	**30**	⇑*i*P		**Pb**	**04 00 37.7**	**-1.2**
AYRK				⇑*i*S		**Sb**	**04 01 03.6**	**+0.7**
IHRS	**Heris**	**1.96**	**93**	Pn		**Pg**	**04 00 39.8**	**-1.4**
QRD	**Qoradiz**	**2.37**	**64**	S		**Sg**	**04 01 20.6**	**+0.7**
IHSH	**Hashtrud**	**2.43**	**118**	Pn		**Pb**	**04 00 46.8**	**-1.1**
GDB	**GEDABAY**	**2.44**	**22**	Pg		**Pb**	**04 00 46.1**	**-1.8**
GDB				S		**Sg**	**04 01 20.5**	**-1.5**
LSVT	**Lusahovit**	**2.50**	**11**	⇑*i*P		**Pb**	**04 00 47.0**	**-1.8**
LSVT				⇓*i*S		**Sb**	**04 01 21.7**	**+1.9**
ISRB	**Sarab**	**2.53**	**104**	Pn		**Pb**	**04 00 47.8**	**-1.7**
AGDM	**Agdam**	**2.57**	**50**	Pg		**Pb**	**04 00 50.3**	**+0.2**
AGDM				Sg		**Sg**	**04 01 25.9**	**-0.4**
GANJ	**Ganja**	**2.57**	**31**	Pg		**Pb**	**04 00 48.3**	**-1.7**
GANJ				S		**Sg**	**04 01 25.5**	**-0.8**
GRMI	**Germi**	**2.63**	**81**	Pn		**Pb**	**04 00 49.6**	**-1.6**
BLQ	**Beylaqan**	**2.65**	**61**	Pg		**Pb**	**04 00 51.4**	**0.0**
BLQ				Sg		**Sg**	**04 01 29.0**	**+0.2**
QZX	**Qazax, Azerbai**	**2.67**	**13**	Pg		**Pb**	**04 00 52.7**	**+1.0**
QZX				Sg		**Sg**	**04 01 28.7**	**-0.7**
BRDA	**Brd**	**2.71**	**48**	Pg		**Pb**	**04 00 53.4**	**+1.0**
BRDA				S		**Sg**	**04 01 37.6**	**+6.8**
YRD	**Yardimli**	**2.92**	**80**	Pg		**Pb**	**04 00 54.6**	**-1.5**
YRD				Sg		**Sg**	**04 01 37.0**	**-0.3**
LRK	**Lerik**	**2.97**	**85**	Pg		**Pb**	**04 00 57.5**	**+0.5**
LRK				Sg		**Sg**	**04 01 39.8**	**+0.7**
ZRD	**Zardab**	**3.02**	**52**	Sg		**Sg**	**04 01 41.6**	**+0.7**
GLBA	**Clilabad**	**3.09**	**74**	Pg		**Pg**	**04 01 00.9**	**-2.0**
GLBA				Sg		**Sg**	**04 01 43.2**	**+0.2**
LKRN	**Lenkeran, Azer**	**3.32**	**84**	Pg		**Pb**	**04 01 04.2**	**+1.5**
LKRN				Sg		**Sg**	**04 01 52.4**	**+2.2**
ASTR	**Astara**	**3.32**	**87**	Pg		**Pb**	**04 01 04.0**	**+1.1**
ASTR				Sg		**Sg**	**04 01 52.4**	**+2.0**
SEKA	**Sheki**	**3.41**	**36**	Pg		**Pg**	**04 01 08.1**	**-1.0**
SEKA				Sg		**Sg**	**04 01 57.5**	**+4.2**
QBL	**Gabala**	**3.54**	**45**	Pg		**Pb**	**04 01 08.2**	**+1.6**
QBL				Sg		**Sg**	**04 01 57.7**	**+0.3**
ZKTA	**Zakatala**	**3.54**	**26**	Pg		**Pg**	**04 01 09.3**	**-2.2**

*IDC **18** 04:07:37.1±0.7, 2°.57S×139°.35E, h0km, mb4.0/9, mbtmp4.0/10, ML4.1/1, MS3.0/9, Error ellipse: s-maj=18.0km s-min=17.1km az=41.0*
*NEIC **18** 04:07:42.6±1.6, 2°.6S±0°.1×139°.40E±0°.03, h35km±2km, mb4.0/13, Error ellipse: s-maj=21.8km s-min=4.0km az=174.0*
*DJA **18** 04:07:42.8±0.5, 3°S±5°×13°9E±°, h13km±6km, M4.4/11, mb4.5/5, mB5.7/2, MLv4.4/11, Mw(mB)5.3/2*
ISC 18 04:07:40.7±0.6, 2°.48S±0°.06×139°.37E±0°.05, h27km, n41, σ1$77/33, mb4.0/11, MS2.9/3, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
GENI	**Genyem**	**0.81**	**98**	P		**Pn**	**04 07 58.1**	**+1.8**
GENI				AML		AML		
SMPI	**Sarmi**	**0.82**	**307**	P		**Pb**	**04 07 59.8**	**+3.4**
SMPI				AML		AML		
JAY	**Jayapura**	**1.33**	**91**	Pg		**Pb**	**04 08 04.7**	**-0.4**
	94nm,0.3s,baz=229,slow=11,SNR=131							
JAY				Lg		Lg	04 08 22.2	
	159nm,0.3s,baz=121,slow=16,SNR=8.3							
JAY				LR		LR	04 08 53.8	
	comp=Z,472nm,18.2s,baz=177,slow=57							
JAY	**Jayapura**	**1.33**	**91**	P		**Pb**	**04 08 05.5**	**+0.3**
WAMI	**Wamena**	**1.54**	**205**	P		**Pb**	**04 08 12.2**	**+3.6**
WAMI				AML		AML		
BAKI	**Biak**	**3.50**	**291**	P		**Pb**	**04 08 38.7**	**-3.4**
BAKI				AML		AML		
SIJI	**Sorong**	**8.26**	**281**	LR		LR	04 13 16.6	
	comp=Z,151nm,20.6s,baz=19,slow=41							
PMG	**Port Moresby**	**10.36**	**132**	LR		LR	04 14 07.2	
	comp=Z,79nm,21.8s,baz=172,slow=38							
DAV	**Davao City (W)**	**16.72**	**305**	LR		LR	04 19 09.7	
	comp=Z,23nm,18.5s,baz=138,slow=41							
KNRA	**Kununurra**	**16.77**	**218**	Pn		**Pn**	**04 11 32.6**	**-1.2**
GUMO	**Guam**	**16.88**	**19**	LR		LR	04 18 17.9	
	comp=Z,43nm,19.2s,baz=77,slow=38							
WB0	**Warramunga Arr**	**17.85**	**195**			**Pn**	**04 11 46.3**	**-1.0**
WB0						IAmb	IAmb	04 12 00.2
	comp=Z,6.9nm,0.8s							
WR8	**Warramunga Arr**	**18.00**	**195**			**Pn**	**04 11 48.8**	**-0.4**
WR8						IAmb	IAmb	04 12 02.0
	comp=Z,6.5nm,0.6s							
WRA	**Warramunga Arr**	**18.03**	**195**	P		**P**	**04 11 49.6**	**-0.3**
	comp=Z,0.6nm,0.3s,baz=18,slow=12,SNR=15							
WRA				S		Sn	04 14 54.4	-16
	comp=Z,0.8nm,0.7s,baz=14,slow=24,SNR=2.2							
	comp=Z,1.5nm,0.4s							
WRA				AML		AML		
WRA	**Warramunga Arr**	**18.03**	**195**			**Pn**	**04 11 46.3**	**-3.3**
CTA	**Charters Tower**	**18.75**	**159**	LR		LR	04 19 37.2	
	comp=Z,118nm,19.1s,baz=40,slow=39							
TOLI2	**Tolitoli**	**18.92**	**281**	Pn		**Pn**	**04 12 01.4**	**+0.9**
TOLI2				IAmb		IAmb	04 12 22.2	
	comp=Z,6.6nm,1.0s							
KAPI	**Kappang**	**19.73**	**262**	LR		LR	04 19 52.8	
	comp=Z,26nm,21.4s,baz=44,slow=37							
FITZ	**Fitzroy Crossi**	**20.54**	**220**	P		**P**	**04 12 16.6**	**-0.7**
	comp=Z,1.0nm,0.5s,baz=33,slow=15,SNR=5.1							
FITZ				S		S	04 15 54.7	-11
	comp=Z,4.9nm,0.8s,baz=159,slow=9.5,SNR=5.3							
FITZ				LR		LR	04 21 09.4	
	comp=Z,55nm,21.9s,baz=7.0,slow=40							
	comp=Z,1.0nm,0.5s							
FITZ	**Fitzroy Crossi**	**20.54**	**220**	P		**P**	**04 12 18.0**	**+0.6**
AS31	**Alice Springs**	**21.71**	**194**			**P**	**04 12 28.2**	**-1.7**
AS31						IAmb	IAmb	04 12 42.0
	comp=Z,4.9nm,1.1s							
ASAR	**Alice Springs**	**21.71**	**194**	P		**P**	**04 12 29.1**	**-0.9**
	comp=Z,0.9nm,0.5s,baz=19,slow=9.2,SNR=13							
ASAR				S		**S**	**04 16 24.5**	**-4.6**
	comp=Z,0.3nm,0.4s,baz=17,slow=28,SNR=1.3							
	comp=Z,0.9nm,0.5s							
STKA	**Stephens Creek**	**29.31**	**176**	LR		LR	04 26 26.0	
	comp=Z,131nm,19.1s,baz=16,slow=39							
KSRS	**Korea Array**	**41.13**	**346**	LR		LR	04 29 53.3	
	comp=Z,9.5nm,21.9s,baz=345,slow=32							
PALK	**Pallekele**	**59.34**	**280**	P		**P**	**04 17 39.9**	**-1.1**
MKAR	**Makanchi Array**	**70.01**	**322**	P		**P**	**04 18 52.3**	**+2.1**
	comp=Z,2.1nm,0.7s,baz=114,slow=8.1,SNR=16							
	comp=Z,2.1nm,0.7s							
MKAR	**Makanchi Array**	**70.01**	**322**	P		**P**	**04 18 50.7**	**+0.6**
MAKZ	**Makanchi**	**70.21**	**322**	P		**P**	**04 18 51.3**	**0.0**
ZALV	**Zalesovo Beam**	**72.07**	**330**	P		**P**	**04 19 02.3**	**-0.2**
	comp=Z,0.8nm,0.5s,baz=114,slow=7.4,SNR=4.7							
	comp=Z,0.8nm,0.5s							
ZALV	**Zalesovo Beam**	**72.07**	**330**	P		**P**	**04 19 03.4**	**+0.9**
KURK	**Kurchatov**	**73.91**	**325**	P		**P**	**04 19 14.2**	**+0.9**
KURK				IAmb		IAmb	04 19 16.2	
	comp=Z,1.8nm,0.7s							
KURBB	**Kurchatov Arra**	**73.92**	**325**	P		**P**	**04 19 14.5**	**+1.0**
	comp=Z,1.2nm,0.7s,baz=113,slow=5.4,SNR=12							
	comp=Z,1.2nm,0.7s							
VNDA	**Vanda**	**75.95**	**175**	P		**P**	**04 19 25.0**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=326,slow=6.3,SNR=11							
	comp=Z,0.9nm,0.5s							
VNDA	**Vanda**	**75.95**	**175**	P		**P**	**04 19 25.1**	**+0.4**
VNDA				IAmb		IAmb	04 19 39.7	
	comp=Z,2.2nm,1.2s							
BVAR	**Borovoye Array**	**79.50**	**325**	P		**P**	**04 19 45.8**	**+0.9**
	comp=Z,3.4nm,0.6s,baz=110,slow=7.2,SNR=14							
	comp=Z,3.4nm,0.6s							
BORK	**Borovoye**	**79.55**	**325**	P		**P**	**04 19 46.9**	**+1.7**
BORK				IAmb		IAmb	04 19 47.7	
	comp=Z,3.3nm,0.6s							
ILAR	**Eielson Array**	**85.36**	**24**	P		**P**	**04 20 16.4**	**+1.1**
	comp=Z,0.7nm,0.7s,baz=270,slow=4.7,SNR=6.7							
	comp=Z,0.7nm,0.7s							
ILAR	**Eielson Array**	**85.36**	**24**	P		**P**	**04 20 15.9**	**+0.6**
QSPA	**South Pole Qui**	**87.46**	**180**	P		**P**	**04 20 25.4**	**-0.4**
	comp=Z,2.1nm,1.0s,baz=310,slow=0.9,SNR=13							
	comp=Z,2.1nm,1.0s							
QSPA	**South Pole Qui**	**87.46**	**180**	P		**P**	**04 20 25.4**	**-0.4**
DBIC	**Dimbokro**	**144.11**	**278**	PKP		PKPbc	04 27 13.4	+0.2
	comp=Z,3.3nm,0.5s,baz=93,slow=4.3,SNR=13							

*MOS **18** 04:41:53.0±0.9, 1°.70S×100°.51E, h11km, mb5.6/51, Error ellipse: s-maj=8.9km s-min=4.3km az=115.1*
*GFZ **18** 04:41:55.0, 1°.88S×100°.34E, h52km, Mw5.0/131, Moment Tensor Solution. Moment tensor: Scale 10^16 Nm; Mrr=2.31; Mθθ=0.88; Mϕϕ=-1.43; Mrθ=3.03; Mrϕ=1.23; Mθϕ=-2.82; Fault plane solution: M0=4.77328×10^16 NP1: ϕs=133.99343°, δ75.25252°, λ86.11243°. NP2: ϕs=328.94014°, δ15.24028°, λ104.44342°. Principal axes: T 4.7390, Plg59.5690°, Azm38.5622°; N 0.0679, Plg3.7593°, Azm134.9845°; P -4.8069, Plg30.1482°,

BTDF Bukit Timah Da 4.61 47 P **Pn** **04 43 08.9 +1.5**
BTDF Bukit Timah Da 4.61 47 P **Pn** **04 43 08.7 +1.3**
RPSI Rantau Prapat 4.74 342 **Pn** **04 43 05.5 -3.6**
RPSI Rantau Prapat 4.74 342 P **Pn** **04 43 09.9 +0.8**
LWLI Liwa 4.82 131 P **Pn** **04 43 12.3 +2.0**
PSI Prapat 4.84 342 P **Pn** **04 43 09.1 -1.5**
28nm,0.3s,baz=155,slow=15,SNR=68
PSI LR LR 04 45 18.5
comp=Z,7μm,21.4s,baz=161,slow=43
379nm,1.0s
PSI AML AML
PSI Prapat 4.84 342 P **Pn** **04 43 08.9 -1.7**
PSI Prapat 4.84 342 P **Pn** **04 43 09.3 -1.3**
PSI P 04 43 10.1
TPRI Tanjung Pinang 4.92 56 P **Pn** **04 43 13.0 +1.3**
TPRI AML AML
KLI Kotabumi 5.35 124 P **Pn** **04 43 19.6 +2.0**
KASI Kota Agung 5.48 132 P **Pn** **04 43 21.0 +1.7**
3.4nm4μm467nm,0.8s
KASI AML AML
TSI Tuntungan 5.61 341 P **Pn** **04 43 21.9 +0.8**
2.1nm605nm,0.8s
TSI AML AML
PPBI Pangkal Pinang 5.72 93 P **Pn** **04 43 25.6 +3.0**
SNSI Sinabang, Aceh 5.87 316 P **Pn** **04 43 25.2 +0.5**
2.9nm5μm573nm,0.9s
SNSI AML AML
KCSI Kotacane, Aceh 5.94 333 P **Pn** **04 43 26.7 +1.1**
3.0nm5μm395nm,0.8s
KCSI AML AML
BLSI Bandar Lampung 5.96 126 P Pn 04 43 47.5 +22
TPTI 6.00 327 P **Pn** **04 43 28.1 +1.6**
3.1nm3μm269nm,0.8s
TPTI AML AML
IPM Ipoh 6.29 5 P **Pn** **04 43 32.0 +1.5**
IPM Ipoh 6.29 5 **Pn** **04 43 31.1 +0.6**
IPM Ipoh 6.29 5 P **Pn** **04 43 33.0 +2.5**
4μm221nm,0.6s
KULM Kulim 7.07 2 P **Pn** **04 43 43.2 +2.0**
KULM Kulim 7.07 2 **Pn** **04 43 41.5 +0.4**
KULM Kulim 7.07 2 P **Pn** **04 43 42.6 +1.4**
1.0nm3μm272nm,1.2s
KULM AML AML
KULM Kulim 7.07 2 P **Pn** **04 43 43.2 +2.0**
comp=Z,272nm,1.2s
CGJI Cibinong 7.08 132 P **Pn** **04 43 41.3 0.0**
comp=Z,2.7nmcomp=Z,6μmcomp=Z,363nm,1.0s
CGJI AML AML
SBJI Serang 7.11 127 P Pn 04 44 05.0 +23
MLSI Meulaboh, Aceh 7.26 326 P **Pn** **04 43 43.0 -0.8**
MLSI AML AML
TPI Tanjungpandan 7.28 97 P **Pn** **04 43 45.6 +1.6**
comp=Z,0.9nmcomp=Z,3μmcomp=Z,136nm,1.0s
TPI AML AML
CNJI Cibinong 8.62 129 P **Pn** **04 44 02.8 +0.5**
comp=Z,3μmcomp=Z,246nm,1.1s
LEM Lembang 8.72 125 P **Pn** **04 44 03.2 -0.7**
comp=Z,6.3nm,0.3s,baz=253,slow=7.2,SNR=6.2
LEM LR LR 04 47 45.4
comp=Z,2μm,21.9s,baz=205,slow=40
comp=Z,29nm,0.3s
LEM AML AML
LEM Lembang 8.72 125 P **Pn** **04 44 06.1 +2.2**
comp=Z,2μmcomp=Z,190nm,1.5s
BSI Banda Aceh 8.90 325 P **Pn** **04 44 05.9 -0.3**
comp=Z,3μmcomp=Z,108nm,0.7s
BBJI Bungbulang 9.12 128 P **Pn** **04 44 08.8 -0.5**
BBJI Bungbulang 9.12 128 P **Pn** **04 44 10.6 +1.3**
comp=Z,89nm,0.8s
BBJI Bungbulang 9.12 128 P **Pn** **04 44 08.6 -0.6**
comp=Z,101nm,0.6s
CMJI Cimerak 9.95 127 P **Pn** **04 44 20.6 +0.1**
comp=Z,172nm,1.0s
KPJI Karang Pucung 10.09 123 P **Pn** **04 44 24.8 +2.4**
comp=Z,120nm,0.8s
CTJI Waduk Cacaban 10.13 121 P **Pn** **04 44 24.7 +1.6**
comp=Z,184nm,0.9s
COCO West Island 10.89 199 P **Pn** **04 44 32.1 -1.3**
COCO West Island 10.89 199 P **Pn** **04 44 31.9 -1.5**
COCO West Island 10.89 199 P **Pn** **04 44 30.5 -2.9**
COCO West Island 10.89 199 **Pn** **04 44 30.5 -2.9**
COCO West Island 10.89 199 P **Pn** **04 44 34.3 +0.9**
comp=Z,176nm,0.9s
COCO West Island 10.89 199 P **Pn** **04 44 32.4 -1.1**
comp=Z,346nm,0.9s
STKI Sintang 11.21 80 P Pn 04 44 43.3 +5.5
SMRI Semarang 11.25 118 P **Pn** **04 44 39.0 +0.6**
SMRI Semarang 11.25 118 **Pn** **04 44 38.0 -0.3**
SMRI Semarang 11.25 118 P **Pn** **04 44 41.1 +2.7**
comp=Z,245nm,0.8s
RNTT Ranong 11.31 350 P **Pn** **04 44 40.1 +0.9**
UGM Wanagama 11.73 121 Pn **Pn** **04 44 43.7 -1.3**
UGM Wanagama 11.73 121 P **Pn** **04 44 44.9 -0.1**
comp=Z,157nm,1.0s
WOJI Wonogiri, Jawa 12.04 120 P **Pn** **04 44 50.9 +1.8**
comp=Z,148nm,0.9s
NGJI Ngawi 12.30 117 P **Pn** **04 44 55.3 +2.7**
comp=Z,195nm,0.8s
TBJI Tambak Boyo 12.42 114 P **Pn** **04 44 56.4 +2.1**
comp=Z,143nm,0.9s
SJI Sawahan 12.73 118 P **Pn** **04 45 00.1 +1.4**
comp=Z,207nm,0.9s
SNJI Sawahan-Nganju 12.75 118 P **Pn** **04 45 00.3 +1.4**
comp=Z,111nm,0.8s
PWJI Pagerwojo 12.90 119 P **Pn** **04 45 01.8 +1.0**
comp=Z,128nm,0.9s
GRJI Gresik 13.04 113 P **Pn** **04 45 05.4 +2.7**
comp=Z,157nm,0.8s
KMMI Kalianget 14.46 111 P **Pn** **04 45 22.8 +0.9**
comp=Z,201nm,0.9s
BBKI Banjar Baru 14.49 97 P **Pn** **04 45 24.0 +1.7**
comp=Z,145nm,0.9s
ABJI Asem Bagus 14.98 114 P **Pn** **04 45 29.7 +1.1**
comp=Z,112nm,0.8s
JAGI Jajag, Banyuwa 15.18 116 **Pn** **04 45 30.2 -1.0**
JAGI Jajag, Banyuwa 15.18 116 P **Pn** **04 45 33.0 +1.8**
DLV Lat 15.85 30 P **P** **04 45 41.6 -1.3**
DLV Lat 15.85 30 P **P** **04 45 42.0 -0.8**
DLV Lat 15.85 30 P **Pn** **04 45 40.4 +0.3**
comp=Z,54nm,1.0s
SRBI Singaraja 15.98 113 P **P** **04 45 43.8 -0.3**
comp=Z,146nm,0.8s
KHKI Kahang-Kahang 16.45 114 P **P** **04 45 49.6 +0.3**
comp=Z,115nm,0.9s
BKB Balikpapan 16.48 88 P **P** **04 45 49.7 +0.1**
BKB Balikpapan 16.48 88 P **P** **04 45 50.0 +0.4**
comp=Z,11μmcomp=Z,202nm,1.2s
BKB Balikpapan 16.48 88 P **Pn** **04 45 46.9 -0.8**
comp=Z,201nm,1.2s
KKM Kota Kinabalu 17.60 64 P **P** **04 46 03.7 +1.6**
KKM Kota Kinabalu 17.60 64 P **P** **04 46 02.7 +0.6**
KKM Kota Kinabalu 17.60 64 P **P** **04 46 04.2 +2.1**
comp=Z,2μmcomp=Z,127nm,1.3s
KKM Kota Kinabalu 17.60 64 P **P** **04 46 02.0 -0.1**
comp=Z,127nm,1.3s
MMSI Mamuju 18.49 93 P **Pn** **04 46 14.1 +1.5**
comp=Z,2μmcomp=Z,221nm,1.1s
PMSI Majene 18.55 96 P **Pn** **04 46 15.6 +2.4**
comp=Z,2μmcomp=Z,299nm,1.0s
PLAI Plampang 18.61 113 P **Pn** **04 46 13.8 -0.2**
PLAI Plampang 18.61 113 P **P** **04 46 13.2 0.0**
comp=Z,79nm,0.7s
PLAI Plampang 18.61 113 P **P** **04 46 13.6 +0.4**
comp=Z,80nm,0.8s
DBNI Kabupaten Domp 19.00 111 P **Pn** **04 46 19.5 +0.8**
MKS Makassar 19.30 101 P **Pn** **04 46 23.8 +1.5**
comp=Z,3μmcomp=Z,316nm,1.3s
TTSI Tana Toraja 19.41 94 P **Pn** **04 46 23.9 +0.3**
comp=Z,2μmcomp=Z,159nm,1.0s
PCI Palu 19.43 88 P **Pn** **04 46 23.3 -0.5**
comp=Z,5μmcomp=Z,228nm,1.1s
SPSI Sidrap Palu 19.43 97 P **Pn** **04 46 23.7 -0.1**
UTTA Uttaradit 19.45 0 P **P** **04 46 22.2 0.0**
comp=Z,0.1nmcomp=Z,43nm,1.0s
KAPI Kappang 19.55 100 P **P** **04 46 24.1 +0.7**
comp=Z,3.6nm,0.3s,baz=270,slow=10,SNR=37
KAPI LR LR 04 54 45.0
comp=Z,958nm,20.1s,baz=267,slow=39
comp=Z,119nm,0.8s
KAPI AML AML
KAPI Kappang 19.55 100 P **Pn** **04 46 24.9 -0.3**
KAPI Kappang 19.55 100 P **Pn** **04 46 24.3 -0.9**
KAPI Kappang 19.55 100 P **P** **04 46 22.8 -0.6**
KAPI IAmb IAmb 04 46 28.7
comp=Z,223nm,1.1s

KAPI Kappang 19.55 100 P **Pn** **04 46 26.8 +1.6**
comp=Z,123nm,1.2s
KAPI Kappang 19.55 100 P **Pn** **04 46 24.8 -0.4**
comp=Z,237nm,1.2s
BKSI Bulukumba 19.96 101 P **P** **04 46 28.7 +0.8**
CM31 Chiang Mai Arr 20.21 356 P **P** **04 46 31.1 +0.5**
SNR=26
CM31 S Sn 04 50 18.3 -1.7
CM31 Chiang Mai Arr 20.21 356 P **P** **04 46 29.5 -1.1**
CMAR Chiang Mai Arr 20.21 356 P **P** **04 46 28.1 -2.4**
comp=Z,28nm,0.7s,baz=186,slow=9.6,SNR=122
CMAR PcP **PcP** **04 50 43.9 +0.7**
comp=Z,5.5nm,0.8s,baz=219,slow=3.0,SNR=8.1
CMAR LR LR 04 55 01.6
comp=Z,1μm,18.6s,baz=175,slow=39
comp=Z,28nm,0.7s
CMAR Chiang Mai Arr 20.21 356 **P** **04 46 27.5 -3.1**
CMAR **PcP** **04 50 44.3 +1.1**
LAMP Lampang 20.24 358 P Pn 04 46 32.2 -1.0
comp=Z,487nmcomp=Z,36nm,0.8s
BSSI Bau Bau, Buton 20.47 103 P Pn 04 46 35.0 -1.0
comp=Z,113nm,0.8s
LBFI Labuhan Bajo, 20.47 110 P Pn 04 46 49.0 +13
CHTO Chiang Mai 20.56 356 P **P** **04 46 34.0 -0.4**
CHTO Chiang Mai 20.56 356 P **P** **04 46 34.6 +0.2**
CHTO Chiang Mai 20.56 356 P **P** **04 46 34.5 +0.1**
CHTO S **S** **04 50 24.6 +3.2**
CHTO Chiang Mai 20.56 356 P **P** **04 46 32.5 -1.9**
CHTO pmax pmax
comp=Z,15nm,0.8s
CHTO Chiang Mai 20.56 356 **P** **04 46 32.5 -1.9**
CHTO Chiang Mai 20.56 356 P **P** **04 46 33.9 -0.4**
CHTO Chiang Mai 20.56 356 P **P** **04 46 33.4 -0.9**
comp=Z,25nm,1.0s
TOLI2 Tolitoli 20.56 82 P **P** **04 46 35.5 +1.1**
TOLI2 Tolitoli 20.56 82 **P** **04 46 34.8 +0.3**
TOLI2 IAmb IAmb 04 46 37.1
comp=Z,223nm,1.0s
TOLI2 Tolitoli 20.56 82 P Pn 04 46 36.1 -1.1
comp=Z,224nm,1.0s
APSI Ampana 21.24 88 P **P** **04 46 43.7 +2.0**
comp=Z,3μmcomp=Z,229nm,0.9s
KKSI Kolaka, Sulawe 21.32 97 P **P** **04 46 45.3 +2.7**
comp=Z,193nm,1.4s
PPR Puerto Princes 21.57 57 *i* P **P** **04 46 44.1 -1.1**
PALK Pallekele 21.66 295 P **P** **04 46 44.6 -1.6**
comp=Z,17nm,1.1s,baz=111,slow=9.3,SNR=4.1
PALK LR LR 04 54 06.4
comp=Z,747nm,21.4s,baz=110,slow=34
comp=Z,17nm,1.1s
PALK Pallekele 21.66 295 P **P** **04 46 47.1 +0.9**
PALK S **S** **04 50 41.3 -1.9**
PALK Pallekele 21.66 295 P **P** **04 46 45.0 -1.2**
PALK pmax pmax
comp=Z,110nm,1.7s
PALK Pallekele 21.66 295 P **P** **04 46 45.0 -1.2**
PALK Pallekele 21.66 295 P **P** **04 46 48.3 +2.1**
NPW Naypyitaw 21.88 349 P **P** **04 46 49.0 +0.6**
comp=Z,101nm,1.0s
EDFI Ende, Flores 22.25 109 P **P** **04 46 51.4 -1.3**
KDI Kendari 22.27 96 P **P** **04 46 54.9 +2.1**
LUWI Luwuk 22.35 88 P **P** **04 46 55.1 +1.4**
LUWI Luwuk 22.35 88 **P** **04 46 54.3 +0.6**
LUWI IAmb IAmb 04 46 56.1
comp=Z,256nm,1.0s
LUWI Luwuk 22.35 88 P **P** **04 46 55.8 +2.1**
comp=Z,3μmcomp=Z,258nm,1.2s
LUWI Luwuk 22.35 88 P **P** **04 46 55.1 +1.4**
comp=Z,260nm,1.2s
BBSI Bau Bau 22.39 100 P **P** **04 46 55.9 +1.8**
comp=Z,2μmcomp=Z,221nm,1.0s
QIZ Qiongzhong 22.70 24 P **P** **04 46 59.0 +1.7**
QIZ Qiongzhong 22.70 24 P **P** **04 46 57.8 +0.5**
QIZ S **S** **04 51 01.3 -0.5**
QIZ pmax pmax
comp=Z,310nm,4.2s
QIZ L L
comp=Z,680nm,17.2s
QIZ L L
comp=Z,270nm,11.0s
QIZ L L
comp=Z,830nm,21.3s
QIZ Qiongzhong 22.70 24 P **P** **04 46 55.8 -1.5**
QIZ Qiongzhong 22.70 24 P **P** **04 46 59.1 +1.8**
comp=Z,63nm,1.3s
GTOI Gorontalo 22.71 84 P **P** **04 46 56.5 -1.0**
comp=Z,2μmcomp=Z,194nm,0.8s
SLVN Son La 23.27 8 P **P** **04 47 02.0 -1.1**
SLVN Son La 23.27 8 **P** **04 47 01.5 -1.5**
SLVN Son La 23.27 8 P **P** **04 47 02.8 -0.3**
comp=Z,45nm,1.0s
KMSI Cibinong 23.67 84 P **P** **04 47 08.6 +1.7**
MNI Manado 24.63 83 P **P** **04 47 17.8 +2.2**
MDRS Chennai 24.90 307 *i* P **P** **04 47 14.5 -3.5**
SOEI Soe 24.98 109 P **P** **04 47 19.8 +0.9**
SOEI Soe 24.98 109 P **P** **04 47 17.5 -1.4**
SOEI IAmb IAmb 04 47 34.5
comp=Z,73nm,0.9s
SOEI Soe 24.98 109 P **P** **04 47 17.6 -1.3**
comp=Z,87nm,0.9s
DCPH Dipolog City 25.09 65 *i* P **P** **04 47 22.9 +3.1**
SANI Sanana 25.55 91 P **P** **04 47 23.7 -0.3**
SANI Sanana 25.55 91 P **P** **04 47 23.5 -0.5**
comp=Z,33nm,0.8s
SANI Sanana 25.55 91 P **P** **04 47 23.7 -0.3**
comp=Z,33nm,0.8s
BRDH Bariadhala 25.82 341 LR LR 05 00 00.6
comp=Z,1μm,18.8s,baz=167,slow=42
TBP Tagbilaran 26.00 63 *eP* **P** **04 47 28.5 +0.5**
KCP Kidapawan 26.13 70 *eP* **P** **04 47 31.0 +1.7**
BWNR Bhubaneshwar 26.20 328 *i* P **P** **04 47 26.3 -3.4**
LQP Lukban 26.24 52 *eP* **P** **04 47 30.9 +0.4**
LLP Lapu-Lapu 26.36 62 *eP* **P** **04 47 32.0 +0.8**
AZL Aizawl 26.50 344 *i* P **P** **04 47 26.0 -6.6**
AZL *i* S **S** **04 52 04.5 +1.6**
MORE Moreh 26.58 347 P **P** **04 47 31.6 -1.5**
MORE IAmb IAmb 04 47 33.4
comp=Z,116nm,1.0s
DAV Davao City (W) 26.61 70 LR LR 04 59 36.1
comp=Z,603nm,19.8s,baz=262,slow=40
DAV Davao City (W) 26.61 70 P **P** **04 47 34.0 +0.4**
NLAI Namlea 26.69 94 P **P** **04 47 35.3 +1.1**
comp=Z,669nmcomp=Z,37nm,0.8s
RAGD RAYAGADA 26.77 322 *i* P **P** **04 47 32.3 -2.6**
RAGD IAmb IAmb 04 47 45.2
comp=Z,29nm,1.1s
MBWA Marble Bar 26.90 137 P **P** **04 47 37.0 +0.9**
comp=Z,28nm,1.1s
MBWA Marble Bar 26.90 137 P **P** **04 47 36.8 +0.7**
MBWA Marble Bar 26.90 137 P **P** **04 47 35.6 -0.4**
KMI2 Kunming 26.91 5 ⇑P **P** **04 47 36.6 +0.2**
KMI2 pmax pmax
comp=Z,25nm,1.0s
KMI2 pmax pmax
comp=Z,140nm,4.2s
KMI2 L L
comp=Z,990nm,21.6s
KMI2 L L
comp=Z,470nm,16.2s
KMI2 L L
comp=Z,1μm,23.0s
TNTI Ternate 27.06 85 P **P** **04 47 38.5 +0.9**
TNTI Ternate 27.06 85 P **P** **04 47 35.3 -2.3**
TNTI IAmb IAmb 04 48 02.6
comp=Z,189nm,1.8s
TNTI Ternate 27.06 85 P **P** **04 47 38.0 +0.4**
comp=Z,51nm,1.6s
IMP Imphal 27.23 347 *i* P P 04 47 29.3 -10
PLP Palo 27.62 62 *eP* **P** **04 47 42.7 +0.1**
PZH PanZhiHua 28.19 3 P **P** **04 47 46.3 -1.4**
PZH S **S** **04 52 35.4 +5.8**
PZH pmax pmax
comp=Z,10.0nm,1.0s
PZH pmax pmax
comp=Z,140nm,5.9s
PZH L L
comp=Z,420nm,23.7s
PZH L L
comp=Z,440nm,19.0s
PZH L L
comp=Z,770nm,16.9s
H08S2 Diego Garcia H 28.42 257 T T 05 16 40.4
baz=80,slow=75,SNR=176
H08S3 Diego Garcia H 28.42 257 T T 05 17 01.0
baz=80,slow=75,SNR=229

H08S1 Diego Carcia H 28.43 257 T T 05 16 58.4
baz=80,slow=75,SNR=620
SHL Shillong 28.46 344 P **P** **04 47 50.1 -0.1**
SNR=23
SHL Shillong 28.46 344 P **P** **04 47 48.8 -1.4**
SHL Shillong 28.46 344 P **P** **04 47 48.8 -1.4**
SHL Shillong 28.46 344 *i* P P 04 47 43.2 -6.9
SHL IAmb IAmb 04 47 51.4
comp=Z,77nm,1.2s
MOKO MOKOCHONG 28.56 349 *i* P P 04 47 42.6 -8.4
MOKO IAmb IAmb 04 48 07.1
comp=Z,70nm,0.8s
MOKO *i* S **S** **04 52 29.9 -5.4**
GYA Guiyang 28.76 12 ⇓P **P** **04 47 52.8 +0.1**
GYA pmax pmax
comp=Z,34nm,1.0s
GYA pmax pmax
comp=Z,200nm,4.0s
GYA L L
comp=Z,640nm,15.3s
GYA L L
comp=Z,1μm,17.8s
GYA L L
comp=Z,1μm,16.4s
BOK Bokaro 29.13 332 *i* P **P** **04 47 52.2 -3.7**
BOK *i* S **S** **04 52 49.1 +4.9**
TEZP TEZPUR 29.22 346 *i* P P 04 47 49.1 -7.6
FITZ Fitzroy Crossi 29.56 125 P **P** **04 47 59.3 -0.5**
comp=Z,12nm,1.0s
FITZ Fitzroy Crossi 29.56 125 P **P** **04 47 59.9 +0.1**
comp=Z,12nm,1.0s
FITZ Fitzroy Crossi 29.56 125 P **P** **04 47 59.3 -0.5**
comp=Z,12nm,1.0s
FITZ Fitzroy Crossi 29.56 125 PcP **PcP** **04 51 04.4 +0.5**
comp=Z,11nm,0.8s,baz=124,slow=1.9,SNR=4.7
FITZ LR LR 05 00 28.8
comp=Z,226nm,20.9s,baz=310,slow=38
FITZ Fitzroy Crossi 29.56 125 P **P** **04 47 59.0 -0.8**
FITZ Fitzroy Crossi 29.56 125 P **P** **04 47 58.5 -1.3**
FITZ **PcP** **04 51 04.1 +0.2**
FITZ **ScP** **04 54 41.5 +0.3**
FITZ Fitzroy Crossi 29.56 125 P **P** **04 47 59.4 -0.4**
comp=Z,12nm,1.0s
FITZ Fitzroy Crossi 29.56 125 ScP **ScP** **04 54 41.2 0.0**
comp=Z,2.5nm,0.4s,baz=69,slow=9.8,SNR=11
FITZ Fitzroy Crossi 29.56 125 P **ScP** **04 54 40.8 -0.4**
MEEK Meekatharra 30.23 146 P **P** **04 48 07.8 +2.1**
comp=Z,20nm,1.1s
MEEK Meekatharra 30.23 146 P **P** **04 48 07.3 +1.5**
comp=Z,20nm,1.0s
MEEK Meekatharra 30.23 146 P **P** **04 48 07.2 +1.5**
GAYA Gaya 30.30 332 *i* P **P** **04 48 02.1 -4.1**
SIJI Sorong 30.85 89 P **P** **04 48 11.4 +0.1**
comp=Z,966nmcomp=Z,83nm,1.2s
MORW Morawa 30.91 153 P P 04 48 28.3 +17
MORW Morawa 30.91 153 P **P** **04 48 12.7 +1.1**
comp=Z,20nm,1.2s
MORW Morawa 30.91 153 P **P** **04 48 13.3 +1.7**
KNRA Kununurra 31.14 118 P **P** **04 48 12.1 -1.7**
comp=Z,9.1nm,0.8s
KNRA Kununurra 31.14 118 P **P** **04 48 11.2 -2.6**
comp=Z,8.8nm,0.8s
KNRA Kununurra 31.14 118 P **P** **04 48 11.2 -2.6**
TWGBT Beinan 31.71 38 P **P** **04 48 20.8 +2.0**
TPUB Ta-pu 31.80 37 P **P** **04 48 20.0 +0.5**
TPUB Ta-pu 31.80 37 P **P** **04 48 19.3 -0.2**
TPUB Ta-pu 31.80 37 P **P** **04 48 20.8 +1.2**
comp=Z,135nm,0.7s
FAKI Fak Fak 31.82 93 P **P** **04 48 17.8 -2.0**
FAKI IAmb IAmb 04 48 20.4
comp=Z,50nm,0.9s
STMR SITAMARHI 31.95 334 *i* P P 04 48 14.8 -6.0
AKL Akola 32.05 315 *i* P **P** **04 48 17.5 -4.2**
YULB Yu-li 32.27 38 P **P** **04 48 24.9 +1.2**
YULB Yu-li 32.27 38 IAmb IAmb 04 48 26.2
comp=Z,38nm,0.9s
YULB Yu-li 32.27 38 P **P** **04 48 25.3 +1.6**
comp=Z,47nm,1.0s
MTN Manton Dam 32.32 111 P **P** **04 48 22.3 -1.9**
comp=Z,13nm,0.5s
MTN Manton Dam 32.32 111 P **P** **04 48 22.5 -1.7**
comp=Z,13nm,0.5s
SSLB Suanglung 32.36 37 P **P** **04 48 25.5 +1.0**
SSLB Suanglung 32.36 37 P **P** **04 48 24.4 -0.1**
SSLB IAmb IAmb 04 48 27.4
comp=Z,60nm,1.0s
SSLB Suanglung 32.36 37 P **P** **04 48 25.7 +1.2**
comp=Z,60nm,1.2s
EVN Everest 32.37 337 P **P** **04 48 25.3 +0.1**
EVN IAmb IAmb 04 48 27.6
comp=Z,50nm,1.1s
EVN Everest 32.37 337 P **P** **04 48 26.6 +1.3**
comp=Z,44nm,0.9s
BLDU Ballidu 32.53 153 P **P** **04 48 26.1 +0.3**
comp=Z,25nm,2.5s
LSA Lhasa 32.58 345 P **P** **04 48 27.7 +0.9**
LSA Lhasa 32.58 345 P P 04 48 21.9 -4.9
LSA pmax pmax
comp=Z,98nm,1.1s
LSA Lhasa 32.58 345 IAmb IAmb 04 48 29.5
comp=Z,77nm,0.8s
LSA Lhasa 32.58 345 P **P** **04 48 27.9 +1.0**
comp=Z,107nm,1.1s
CD2 Chengdu 32.71 5 P **P** **04 48 25.8 -1.7**
CD2 pmax pmax
comp=Z,30nm,0.4s
CD2 pmax pmax
comp=Z,280nm,5.3s
CD2 L L
comp=Z,1μm,19.0s
CD2 L L
comp=Z,1μm,16.7s
CD2 L L
comp=Z,2μm,15.9s
NACB Ninganchiao 33.03 37 P **P** **04 48 32.5 +2.2**
NACB Ninganchiao 33.03 37 IAmb IAmb 04 48 35.4
comp=Z,54nm,1.2s
NACB Ninganchiao 33.03 37 P **P** **04 48 31.1 +0.8**
ENH Enshi 33.07 14 P **P** **04 48 29.3 -1.3**
ENH Enshi 33.07 14 P **P** **04 48 29.4 -1.2**
comp=Z,71nm,1.1s
YHNB Yeheng 33.27 36 P **P** **04 48 34.2 +1.7**
YHNB Yeheng 33.27 36 P **P** **04 48 31.8 -0.7**
YHNB IAmb IAmb 04 48 35.3
comp=Z,98nm,1.4s
YHNB Yeheng 33.27 36 P **P** **04 48 31.9 -0.7**
comp=Z,35nm,1.1s
BHPL Bhopal 33.51 319 *i* P **P** **04 48 30.0 -4.5**
KDU Kakadu 33.52 110 P **P** **04 48 34.0 -0.7**
comp=Z,8.9nm,1.3s
KDU Kakadu 33.52 110 P **P** **04 48 31.8 -2.9**
comp=Z,8.9nm,1.3s
KLBR Kellerberrin 33.83 153 P **P** **04 48 36.6 -0.6**
comp=Z,46nm,1.1s
KLBR Kellerberrin 33.83 153 P **P** **04 48 39.2 +2.1**
comp=Z,46nm,1.1s
KLBR Kellerberrin 33.83 153 P **P** **04 48 39.2 +2.1**
KLBR Kellerberrin 33.83 153 P **P** **04 48 39.3 +2.1**
comp=Z,46nm,1.1s
JHNI Jhansi 34.38 323 *i* P P 04 48 36.5 -5.4
NWAO Narrogin (SRO) 34.73 155 P P 04 48 51.7 +6.8
comp=Z,37nm,1.4s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 45.5 +0.5**
comp=Z,53nm,0.8s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 46.0 +1.0**
comp=Z,38nm,1.4s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 44.9 -0.1**
comp=Z,63nm,1.4s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 48.0 +3.0**
comp=Z,37nm,1.8s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 45.6 +0.6**
comp=Z,33nm,0.8s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 46.9 +1.9**
comp=Z,19nm,0.8s,baz=326,slow=9.7,SNR=8.3
NWAO LR LR 05 01 39.6
comp=Z,583nm,21.4s,baz=304,slow=34
comp=Z,19nm,0.8s
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 47.1 +2.1**
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 45.5 +0.5**
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 46.8 +1.8**
NWAO Narrogin (SRO) 34.73 155 P **P** **04 48 46.3 +1.3**
WHN Wuhan 34.82 21 ⇑P **P** **04 48 46.3 +0.6**
WHN pmax pmax
comp=Z,150nm,1.2s
H01W3 Cape Leeuwin H 35.28 160 T T 05 26 02.2
baz=335,slow=75,SNR=20

H01W2 **Cape Leeuwin H** 35.30 160 T T 05 26 02.2
baz=335,slow=75,SNR=22
H01W1 **Cape Leeuwin H** 35.30 160 T T 05 26 02.2
baz=335,slow=75,SNR=23
WRKA **Warakurna** 35.43 133 P **P** **04 48 51.7 +0.5**
comp=Z,12nm,0.9s
WRKA **Warakurna** 35.43 133 P **P** **04 48 51.9 +0.7**
comp=Z,8.2nm,2.2s
KMBL **Kambalda** 35.70 148 P **P** **04 48 54.9 +1.5**
comp=Z,20nm,1.6s
KMBL **Kambalda** 35.70 148 P **P** **04 48 53.8 +0.4**
comp=Z,20nm,1.6s
RKGY **Rocky Gully** 36.09 156 P **P** **04 48 58.3 +1.8**
comp=Z,17nm,1.2s
XAN **Xi'an** 36.56 12 ⇓P **P** **04 48 59.1 -1.6**
XAN pmax pmax
comp=Z,130nm,0.5s
XAN pmax pmax
comp=Z,150nm,3.6s
XAN L L
comp=Z,1μm,19.9s
XAN L L
comp=Z,420nm,11.7s
XAN L L
comp=Z,1μm,22.0s
PTH **Pithoragarh** 36.74 330 *i* P P 04 48 55.7 -6.7
PTH IAmb IAmb 04 49 19.8
comp=Z,60nm,0.5s
AJM **Ajmer** 37.54 320 *i* P P 04 49 02.9 -6.2
NDI **New Delhi** 37.63 325 *i* P P 04 49 02.7 -7.1
KUDL **Kundal** 37.64 324 *i* P P 04 49 04.7 -5.1
LZDM **Lanzhou Array** 37.71 4 P **P** **04 49 10.2 -0.5**
comp=Z,12nm,0.5s,baz=185,slow=8.9,SNR=21
LZDM PcP **PcP** **04 51 27.5 +0.5**
comp=Z,21nm,0.9s,baz=200,slow=3.9,SNR=7.7
LZDM LR LR 05 06 06.3
comp=Z,1μm,20.6s,baz=205,slow=38
comp=Z,12nm,0.5s
WRA **Warramunga Arr** 37.72 121 P **P** **04 49 09.5 -1.2**
comp=Z,29nm,0.8s,baz=297,slow=9.4,SNR=67
WRA PcP **PcP** **04 51 27.2 +0.2**
comp=Z,6.3nm,0.8s,baz=306,slow=2.7,SNR=5.6
WRA S **S** **04 54 52.8 -4.4**
comp=Z,6.0nm,1.1s,baz=296,slow=16,SNR=6.4
comp=Z,29nm,0.8s
WRA **Warramunga Arr** 37.72 121 P **P** **04 49 09.5 -1.2**
WRA PcP **PcP** **04 51 27.1 +0.1**
WRAB **Tennant Creek** 37.72 121 P **P** **04 49 09.7 -1.0**
WRAB **Tennant Creek** 37.72 121 P **P** **04 49 10.3 -0.5**
comp=Z,51nm,0.9s
WB2 **Warramunga Arr** 37.73 121 P **P** **04 49 10.2 -0.6**
WB2 **Warramunga Arr** 37.73 121 P **P** **04 49 09.9 -0.8**
LZH **Lanzhou** 37.85 5 P **P** **04 49 11.3 -0.4**
LZH S S 04 54 49.4 -10
LZH pmax pmax
comp=Z,56nm,1.0s
LZH L L
comp=Z,1μm,18.6s
LZH L L
comp=Z,640nm,19.9s
LZH L L
comp=Z,1μm,19.6s
WR8 **Warramunga Arr** 37.86 121 IAmb IAmb 04 49 11.9
comp=Z,45nm,0.7s
LYN **LuoYang** 37.91 16 ⇑P **P** **04 49 12.5 +0.4**
LYN pP pP 04 49 28.3 +1.7
LYN S **S** **04 54 57.3 -2.5**
LYN pmax pmax
comp=Z,270nm,0.9s
LYN L L
comp=Z,880nm,18.2s
LYN L L
comp=Z,580nm,15.5s
LYN L L
comp=Z,1μm,22.0s
NJ2 **Nanjing** 37.96 26 ⇓P **P** **04 49 13.4 +0.9**
NJ2 pmax pmax
comp=Z,25nm,0.7s
GOMU **GeErMu** 38.19 353 P **P** **04 49 15.6 +0.8**
GOMU S **S** **04 55 00.8 -3.9**
GOMU pmax pmax
comp=Z,11nm,0.8s
GOMU L L
comp=Z,290nm,15.5s
GOMU L L
comp=Z,220nm,15.5s
GOMU L L
comp=Z,450nm,15.2s
SSE **Sheshan** 38.24 29 P **P** **04 49 16.3 +1.5**
SSE S **S** **04 55 02.4 -2.3**
SSE pmax pmax
comp=Z,20nm,1.1s
SSE pmax pmax
comp=Z,130nm,3.1s
SSE L L
comp=Z,220nm,20.8s
SSE L L
comp=Z,350nm,17.5s
UTK **UTTARKASHI** 38.56 329 *i* P P 04 49 10.6 -7.1
FORT **Forrest** 38.90 141 P **P** **04 49 22.6 +2.1**
comp=Z,31nm,1.6s
FORT **Forrest** 38.90 141 P **P** **04 49 22.4 +1.9**
comp=Z,31nm,1.6s
FORT **Forrest** 38.90 141 P **P** **04 49 20.9 +0.4**
AS15 **Alice Springs** 39.00 126 P **P** **04 49 21.9 +0.4**
comp=Z,123nm,0.9s
AS15 **Alice Springs** 39.00 126 P **P** **04 49 21.6 +0.1**
comp=Z,123nm,0.9s
AUALC **St Philip's Co** 39.01 127 P **P** **04 49 21.6 +0.1**
ASAR **Alice Springs** 39.01 127 P **P** **04 49 21.6 0.0**
comp=Z,84nm,0.8s,baz=305,slow=8.0,SNR=340
ASAR PcP **PcP** **04 51 31.4 +0.4**
comp=Z,14nm,0.8s,baz=309,slow=2.8,SNR=8.9
ASAR S **S** **04 55 13.0 -3.8**
comp=Z,2.5nm,1.0s,baz=296,slow=18,SNR=5.4
ASAR LR LR 05 05 49.5
comp=Z,365nm,21.6s,baz=297,slow=37
comp=Z,84nm,0.8s
ASAR **Alice Springs** 39.01 127 P **P** **04 49 21.2 -0.4**
ASAR PcP **PcP** **04 51 31.4 +0.4**
AS31 **Alice Springs** 39.01 127 P **P** **04 49 22.1 +0.5**
comp=Z,39nm,0.9s
AS31 **Alice Springs** 39.01 127 P **P** **04 49 21.6 +0.1**
comp=Z,39nm,0.9s
AS01 **Alice Springs** 39.05 126 P **P** **04 49 21.7 -0.1**
comp=Z,132nm,0.9s
AS01 **Alice Springs** 39.05 126 P **P** **04 49 22.2 +0.3**
AS09 **Alice Springs** 39.06 127 P **P** **04 49 22.3 +0.4**
comp=Z,130nm,1.0s
AS17 **Alice Springs** 39.08 126 P **P** **04 49 22.5 +0.4**
comp=Z,122nm,0.9s
KLP **Kalpa** 39.30 329 *i* P P 04 49 16.6 -7.5
GENI **Genyem** 39.72 92 P **P** **04 49 26.4 -1.1**
GENI **Genyem** 39.72 92 P **P** **04 49 25.9 -1.6**
GENI **Genyem** 39.72 92 P **P** **04 49 26.5 -1.1**
comp=Z,70nm,0.9s
HNLY **HANLEY** 39.95 331 *i* P P 04 49 21.5 -8.3
HNLY IAmb IAmb 04 49 32.4
comp=Z,100nm,1.4s
JAY **Jayapura** 40.26 92 LR LR 05 09 36.4
comp=Z,165nm,20.9s,baz=318,slow=41
DHRM **DHARAMSHALA** 40.88 328 *i* P P 04 49 30.1 -7.0
TIY **Taiyuan** 40.88 15 P **P** **04 49 36.3 -0.6**
TIY S **S** **04 55 48.3 +3.9**
TIY pmax pmax
comp=Z,200nm,4.1s
TIY L L
comp=Z,500nm,17.2s
TIY L L
comp=Z,430nm,15.1s
TIY L L
comp=Z,280nm,22.0s
TIA **Tai'an** 40.92 21 P **P** **04 49 36.4 -0.7**
TIA PcP **PcP** **04 51 38.1 +1.3**
TIA pmax pmax
comp=Z,21nm,0.9s
TIA L L
comp=Z,930nm,16.1s
TIA L L
comp=Z,440nm,15.5s
TIA L L
comp=Z,1μm,16.1s
GTA2 **Gaotai** 41.12 359 P **P** **04 49 38.3 -0.5**
GTA2 PcP **PcP** **04 51 37.9 +0.4**
GTA2 PcS **PcS** **04 55 28.3 -0.4**
GTA2 S **S** **04 55 49.6 +1.6**
GTA2 pmax pmax
comp=Z,19nm,1.3s
GTA2 pmax pmax
comp=Z,200nm,7.9s
GTA2 L L
comp=Z,430nm,20.6s
GTA2 L L
comp=Z,400nm,19.0s
GTA2 L L
comp=Z,720nm,23.2s
HNS **HongShan** 41.22 17 ⇑P **P** **04 49 39.8 +0.3**
HNS pP **pP** **04 49 55.5 +1.4**
HNS PcP **PcP** **04 51 38.3 +0.6**
HNS S **S** **04 55 45.3 -3.9**
HNS pmax pmax
comp=Z,50nm,0.9s
HNS L L
comp=Z,390nm,16.5s
HNS L L
comp=Z,230nm,17.9s
HNS L L
comp=Z,360nm,21.8s
ALCI **Alchi Leh** 41.98 331 *i* P P 04 49 37.1 -9.2
ALCI IAmb IAmb 04 50 08.5
comp=Z,42nm,0.9s
QIS **Mount Isa** 42.52 119 P **P** **04 49 50.3 -0.2**
comp=Z,28nm,0.7s
QIS **Mount Isa** 42.52 119 P **P** **04 49 49.2 -1.3**
BTO2 **Baotou** 43.24 10 *e*P **P** **04 49 56.3 +0.2**
BTO2 pmax pmax
comp=Z,49nm,1.6s
BTO2 pmax pmax
comp=Z,380nm,8.7s
BTO2 L L
comp=Z,2μm,20.3s
BTO2 L L
comp=Z,2μm,16.5s
BTO2 L L
comp=Z,2μm,22.2s
NIL **Nilore** 43.59 326 P **P** **04 49 58.8 -0.1**
NIL **Nilore** 43.59 326 P **P** **04 49 58.5 -0.5**
NIL pmax pmax
comp=Z,102nm,0.7s
NIL **Nilore** 43.59 326 P **P** **04 49 58.5 -0.5**
NIL IAmb IAmb 04 50 00.0
comp=Z,102nm,0.7s
NIL **Nilore** 43.59 326 P **P** **04 49 59.3 +0.3**
comp=Z,180nm,0.8s
HHC **Hu-ho-hao-te** 43.67 12 *e*P **P** **04 50 00.1 +0.5**
HHC pmax pmax
comp=Z,22nm,0.6s
HHC pmax pmax
comp=Z,87nm,4.8s
HHC L L
comp=Z,650nm,18.3s
HHC L L
comp=Z,410nm,17.0s
HHC L L
comp=Z,570nm,18.3s
JSU **Suzuyama** 43.73 38 P **P** **04 50 00.8 +0.7**
BJT **Baijiatuan** 44.07 17 P **P** **04 50 02.7 +0.1**
BJT **Baijiatuan** 44.07 17 IAmb IAmb 04 50 04.2
comp=Z,64nm,1.2s
BJT **Baijiatuan** 44.07 17 P **P** **04 50 03.4 +0.7**
comp=Z,46nm,1.3s
BJI2 **Beijing** 44.07 17 P **P** **04 50 03.3 +0.7**
BJI2 S **S** **04 56 35.4 +4.3**
BJI2 pmax pmax
comp=Z,33nm,1.0s
BJI2 L L
comp=Z,550nm,17.1s
BJI2 L L
comp=Z,320nm,16.9s
BJI2 L L
comp=Z,690nm,16.4s
DL2 **Dalian** 44.99 24 P **P** **04 50 10.8 +0.8**
DL2 *e*pP **pP** **04 50 22.3 -2.4**
DL2 *e*S **S** **04 56 44.5 +0.1**
DL2 pmax pmax
comp=Z,65nm,0.8s
DL2 pmax pmax
comp=Z,660nm,4.1s
DL2 L L
comp=Z,860nm,20.1s
DL2 L L
comp=Z,1μm,20.9s
DL2 L L
comp=Z,890nm,20.8s
JNU **Nakatsue** 45.10 37 LR LR 05 11 00.5
comp=Z,386nm,18.1s,baz=224,slow=39
BBOO **Buckleboo** 45.48 137 P **P** **04 50 15.0 +1.0**
comp=Z,40nm,1.4s
BBOO **Buckleboo** 45.48 137 P **P** **04 50 14.6 +0.6**
BBOO **Buckleboo** 45.48 137 P **P** **04 50 14.2 +0.2**
BBOO **Buckleboo** 45.48 137 P **P** **04 50 14.7 +0.7**
comp=Z,40nm,1.4s
MTSU **Mount Surprise** 45.99 114 P **P** **04 50 17.7 -0.6**
comp=Z,18nm,0.9s
MTSU **Mount Surprise** 45.99 114 P **P** **04 50 17.8 -0.6**
MTSU **Mount Surprise** 45.99 114 P **P** **04 50 17.7 -0.6**
comp=Z,18nm,0.9s
INKA **Innaminka** 46.36 128 P **P** **04 50 21.1 +0.1**
INKA IAmb IAmb 04 50 22.9
comp=Z,42nm,0.9s
JLN **Jalan Bani Buh** 46.58 303 P **P** **04 50 23.1 +0.3**
KBL **Kabul** 46.65 324 P **P** **04 50 23.6 +0.1**
SNR=15
KBL S **S** **04 57 10.1 +1.2**
KBL **Kabul** 46.65 324 P **P** **04 50 22.5 -0.9**
KBL pmax pmax
comp=Z,19nm,0.8s
KBL **Kabul** 46.65 324 P **P** **04 50 22.5 -0.9**
KBL **Kabul** 46.65 324 P **P** **04 50 23.5 +0.1**
comp=Z,29nm,1.6s
GUMO **Guam** 46.65 69 LR LR 05 09 50.9
comp=Z,154nm,21.7s,baz=234,slow=36
KSRS **Korea Array** 46.66 30 P **P** **04 50 22.8 -0.3**
comp=Z,15nm,0.4s,baz=224,slow=8.0,SNR=28
KSRS LR LR 05 10 37.8
comp=Z,292nm,19.4s,baz=220,slow=37
comp=Z,15nm,0.4s
KS19 **Wonju Array Si** 46.66 30 P **P** **04 50 22.4 -0.8**
KS19 IAmb IAmb 04 50 24.4
comp=Z,47nm,1.2s
KSH2 **Kashi** 46.74 333 P **P** **04 50 24.0 0.0**
KSH2 S **S** **04 57 10.3 +0.3**
KSH2 pmax pmax
comp=Z,30nm,1.0s
KSH2 pmax pmax
comp=Z,260nm,5.7s
WMQ **Urumqi** 46.86 347 ⇑P **P** **04 50 25.8 +1.1**
WMQ S **S** **04 57 12.8 +1.5**
WMQ pmax pmax
comp=Z,190nm,1.1s
WMQ pmax pmax
comp=Z,510nm,3.8s
WMQ L L
comp=Z,280nm,24.0s
WUS **Wushi** 46.97 338 P **P** **04 50 27.0 +1.3**
comp=Z,227nm,1.0s
WBK **Wadi Bani Khal** 47.15 303 P **P** **04 50 28.3 +1.0**
MHTO **MHTO** 47.33 301 P **P** **04 50 28.6 -0.1**
JMN **Monobe** 47.35 39 P **P** **04 50 29.9 +1.2**
JMN **Monobe** 47.35 39 IAmb IAmb 04 50 30.6
comp=Z,39nm,0.9s
JMN **Monobe** 47.35 39 P **P** **04 50 29.5 +0.8**
comp=Z,53nm,1.1s
XLT **XiLinHaoTe** 47.64 15 *e*P **P** **04 50 30.8 0.0**
XLT pP pP 04 50 48.0 +2.3
XLT PcP **PcP** **04 52 00.3 +0.6**
XLT pmax pmax
comp=Z,30nm,1.0s
XLT pmax pmax
comp=Z,88nm,3.6s
XLT L L
comp=Z,40nm,17.6s
XLT L L
comp=Z,160nm,13.4s
XLT L L
comp=Z,530nm,17.5s
JMDO **Jabal Madar** 47.77 303 P **P** **04 50 32.3 +0.2**
ASAI **AK-SAY(Kyrgyzs** 47.79 336 P **P** **04 50 33.8 +1.5**
comp=Z,36nm,2.0s
HTT **Hallett** 47.82 135 P **P** **04 50 33.5 +1.1**
comp=Z,71nm,1.0s
HTT **Hallett** 47.82 135 P **P** **04 50 34.0 +1.6**
comp=Z,28nm,1.0s
HTT **Hallett** 47.82 135 P **P** **04 50 33.4 +1.1**
TARG **Taragay, Kyrgy** 47.96 337 P **P** **04 50 34.6 +0.8**
TARG pmax pmax
comp=Z,83nm,0.9s
TARG **Taragay, Kyrgy** 47.96 337 P **P** **04 50 34.6 +0.8**
TARG **Taragay, Kyrgy** 47.96 337 P **P** **04 50 35.4 +1.7**
comp=Z,118nm,0.9s
SMDO **Samad** 48.11 303 P **P** **04 50 35.3 +0.5**
BIDO **Bidbid** 48.24 304 P **P** **04 50 36.2 +0.5**
SNR=8.0
CTA **Charters Tower** 48.29 115 P **P** **04 50 36.0 -0.2**
comp=Z,13nm,1.0s
CTA **Charters Tower** 48.29 115 LR LR 05 11 57.4
comp=Z,242nm,21.5s,baz=229,slow=37
CTA **Charters Tower** 48.29 115 P **P** **04 50 35.8 -0.3**
CTAO **Charters Tower** 48.29 115 P **P** **04 50 35.8 -0.3**
CTAO **Charters Tower** 48.29 115 P **P** **04 50 35.2 -1.0**
CTAO pmax pmax
comp=Z,24nm,0.9s
CTAO **Charters Tower** 48.29 115 P **P** **04 50 35.1 -1.0**
CTAO **Charters Tower** 48.29 115 P **P** **04 50 35.6 -0.5**
comp=Z,32nm,0.9s
SHAO **Shalim** 48.31 296 P **P** **04 50 37.2 +0.9**
PRZ **Przheval'sk** 48.39 338 P **P** **04 50 37.7 +0.9**
PRZ pmax pmax
comp=Z,322nm,1.2s
PRZ **Przheval'sk** 48.39 338 P **P** **04 50 37.7 +0.9**
PRZ **Przheval'sk** 48.39 338 P **P** **04 50 39.2 +2.5**
comp=Z,261nm,1.4s
KDJ **Kajisay** 48.55 337 P **P** **04 50 39.8 +1.8**
comp=Z,271nm,1.4s
SHLS **Shalkode** 48.59 340 *e*P **P** **04 50 38.5 +0.3**
SHLS pmax pmax
comp=Z,27nm,1.0s
SHLS **Shalkode** 48.59 340 *e*P **P** **04 50 38.5 +0.3**
comp=Z,27nm,1.0s
BSY **Bisya** 48.69 303 P **P** **04 50 39.9 +0.7**
SNR=6.8
QLP **Quilpie** 48.70 124 P **P** **04 50 39.7 +0.5**
comp=Z,142nm,1.0s
QLP **Quilpie** 48.70 124 P **P** **04 50 39.9 +0.7**
QLP **Quilpie** 48.70 124 P **P** **04 50 39.9 +0.7**
comp=Z,142nm,1.0s
PDGK **Podgornoye** 48.73 340 P **P** **04 50 40.1 +0.8**
PDGK pmax pmax
comp=Z,291nm,1.1s
UZB **Uzynbulak** 48.74 339 *e*P **P** **04 50 40.6 +1.2**
UZB *e*S **S** **04 57 39.8 +1.6**
UZB pmax pmax
comp=Z,9.0nm,0.6s
UZB **Uzynbulak** 48.74 339 *e*P **P** **04 50 40.6 +1.2**
comp=Z,8.7nm,0.6s
UZB *e*S **S** **04 57 39.9 +1.6**
DRK **Karamyk** 48.78 330 P **P** **04 50 41.3 +1.4**
comp=Z,271nm,1.1s
HOQ **Hoqain** 48.94 304 P **P** **04 50 42.2 +1.1**
SNR=5.5
STKA **Stephens Creek** 48.95 132 P **P** **04 50 41.9 +0.8**
comp=Z,267nm,1.0s
STKA **Stephens Creek** 48.95 132 P **P** **04 50 42.6 +1.6**
comp=Z,266nm,1.0s
STKA **Stephens Creek** 48.95 132 P **P** **04 50 41.5 +0.4**
comp=Z,39nm,0.8s,baz=306,slow=7.6,SNR=67
STKA LR LR 05 14 47.6
comp=Z,221nm,19.5s,baz=315,slow=40
comp=Z,39nm,0.8s
STKA **Stephens Creek** 48.95 132 P **P** **04 50 41.8 +0.8**
STKA **Stephens Creek** 48.95 132 P **P** **04 50 41.4 +0.3**
STKA PcP **PcP** **04 52 04.5 0.0**
STKA **Stephens Creek** 48.95 132 P **P** **04 50 41.8 +0.8**
comp=Z,267nm,1.0s
AUMBR **Murray Bridge** 49.00 137 P **P** **04 50 42.8 +1.4**
ULHL **Ulahol** 49.02 336 P **P** **04 50 42.8 +1.2**
SNR=8.3
OHH **Osh** 49.12 332 P **P** **04 50 42.1 -0.1**
comp=Z,103nm,1.3s
KPKS **Kokpek** 49.14 339 *e*P **P** **04 50 43.6 +1.3**
KPKS **Kokpek** 49.14 339 *e*P **P** **04 50 43.7 +1.3**
TNSS **Tian-Shan** 49.41 337 *e*P **P** **04 50 45.9 +1.1**
TNSS **Tian-Shan** 49.41 337 *e*P **P** **04 50 46.0 +1.1**
MDOK **Medeo** 49.48 338 *e*P **P** **04 50 46.3 +1.3**
MDOK *e*S **S** **04 57 50.0 +1.4**
MDOK **Medeo** 49.48 338 *e*P **P** **04 50 46.4 +1.3**
MDOK *e*S **S** **04 57 50.0 +1.4**
AAA **Alma-Ata** 49.57 337 *e*P **P** **04 50 47.0 +1.4**
AAA **Alma-Ata** 49.57 337 *e*P **P** **04 50 47.0 +1.4**
BTK **Batken** 49.71 330 IAmb IAmb 04 50 48.6
comp=Z,44nm,0.6s
BTK **Batken** 49.71 330 P **P** **04 50 48.1 +1.4**
comp=Z,68nm,1.4s
UCH **Uchtor** 49.72 335 P **P** **04 50 48.6 +1.3**
SNR=71
SONM **Songino Array** 49.73 5 P **P** **04 50 47.2 +0.4**
comp=Z,24nm,0.5s,baz=187,slow=10,SNR=182
SONM PcP **PcP** **04 52 07.5 +0.3**
comp=Z,7.1nm,0.5s,baz=189,slow=4.7,SNR=8.6
SONM LR LR 05 14 21.6
comp=Z,412nm,19.6s,baz=176,slow=39
comp=Z,24nm,0.5s
SONM **Songino Array** 49.73 5 P **P** **04 50 46.7 -0.2**
SONM IAmb IAmb 04 50 48.3
comp=Z,73nm,1.2s
SONM PcP **PcP** **04 52 07.3 +0.1**
SOHO **SOHO** 49.82 304 P **P** **04 50 48.6 +0.9**
ULN **Ulaanbaatar** 49.83 6 P **P** **04 50 47.9 +0.3**
ULN **Ulaanbaatar** 49.83 6 P **P** **04 50 47.4 -0.2**
ULN 04 52 07.7
ULN pmax pmax
comp=Z,64nm,1.3s
ULN **Ulaanbaatar** 49.83 6 P **P** **04 50 47.4 -0.2**
ULN IAmb IAmb 04 50 49.0
comp=Z,64nm,1.3s
ULN PcP **PcP** **04 52 07.7 +0.1**
ULN **Ulaanbaatar** 49.83 6 P **P** **04 50 47.8 +0.1**
comp=Z,38nm,1.2s
TKM2 **Tokmak 2** 49.84 336 P **P** **04 50 49.2 +1.3**
SNR=176
DOK **Doka** 49.85 296 P **P** **04 50 48.1 +0.1**
KBK **Karagaybulak** 49.89 335 P **P** **04 50 50.0 +1.8**
SNR=38
WHFO **Wadi Hawf** 49.95 295 P **P** **04 50 48.8 -0.1**
AAK **Ala-Archa** 50.06 335 P **P** **04 50 51.0 +1.5**
SNR=16
AAK **Ala-Archa** 50.06 335 *i* P **P** **04 50 51.1 +1.5**
SNR=17
AAK **Ala-Archa** 50.06 335 P **P** **04 50 50.6 +1.1**
AAK **Ala-Archa** 50.06 335 *ce*P **P** **04 50 51.0 +1.5**
AAK pmax pmax
comp=Z,145nm,2.5s
AAK **Ala-Archa** 50.06 335 P **P** **04 50 49.9 +0.3**
AAK IAmb IAmb 04 50 51.9
comp=Z,38nm,0.9s
AAK **Ala-Archa** 50.06 335 P **P** **04 50 51.1 +1.5**
comp=Z,61nm,1.0s
ABTO **Aybut** 50.20 294 P **P** **04 50 50.3 -0.6**
CHMS **Chumysh** 50.26 336 P **P** **04 50 51.8 +1.0**
SNR=17
EKS2 **Erkin-Say** 50.39 335 P **P** **04 50 53.5 +1.5**
SNR=20
ALNE **Al Ain** 50.44 304 P **P** **04 50 52.6 +0.1**
SNR=9.5
ALNE S **S** **04 58 01.9 -0.3**
HATD **Hatta, Dubai** 50.44 305 *i* P **P** **04 50 53.2 +0.7**
SNR=14
ASHO **Ashiyiah** 50.44 304 P **P** **04 50 52.4 -0.2**
MDH **Madha** 50.51 305 P **P** **04 50 52.8 -0.2**
TDK **Taldyqorghan** 50.58 340 *e*P **P** **04 50 54.0 +0.9**
TDK **Taldyqorghan** 50.58 340 *e*P **P** **04 50 54.0 +0.9**
USP **Ospenovka** 50.58 336 P **P** **04 50 54.3 +1.0**
SNR=96
MASF **Masafi** 50.65 305 S **S** **04 58 04.9 -0.4**
CN2 **Changchun** 50.66 23 ⇑*i*P **P** **04 50 53.3 -0.5**
CN2 PcP **PcP** **04 52 10.8 +0.3**
CN2 pmax pmax
comp=Z,20nm,0.5s
CN2 L L
comp=Z,200nm,16.0s
CN2 L L
comp=Z,200nm,16.0s
CN2 L L
comp=Z,200nm,16.0s
HRA **Herat** 50.81 319 P **P** **04 50 54.7 -0.7**
HRA PcP **PcP** **04 52 12.0 +0.4**
JHJ **Hachijo jima 2** 50.85 43 LR LR 05 13 10.9

comp=Z,10nm,19.0s,baz=208,slow=37
MK31 Makanchi Array 50.98 344 *i* P **P** **04 50 56.2 0.0**
MK31 pmax pmax
comp=Z,49nm,0.7s
MKAR Makanchi Array 50.98 344 P **P** **04 50 56.5 +0.4**
comp=Z,96nm,0.7s,baz=148,slow=8.0,SNR=562
MKAR LR LR 05 16 42.1
comp=Z,229nm,21.8s,baz=151,slow=41
comp=Z,96nm,0.7s
MAKZ Makanchi 51.08 344 P **P** **04 50 56.7 -0.2**
MAKZ pmax pmax
comp=Z,88nm,1.1s
MAKZ Makanchi 51.08 344 P **P** **04 50 56.7 -0.2**
MAKZ IAmb IAmb 04 50 58.3
comp=Z,88nm,1.1s
MAKZ Makanchi 51.08 344 P **P** **04 50 57.2 +0.3**
comp=Z,92nm,1.1s
KRVT Keravat (AS076 51.58 94 LR LR 05 16 15.2
comp=Z,57nm,20.5s,baz=218,slow=40
ARPS Mount Arapiles 51.63 137 P **P** **04 51 02.4 +1.2**
comp=Z,9.3nm,1.7s
MAJO Matsushiro 51.88 39 P **P** **04 51 03.0 -0.1**
MAJO Matsushiro 51.88 39 P **P** **04 51 02.6 -0.5**
MAJO 04 52 15.9
MAJO pmax pmax
comp=Z,35nm,1.3s
MAJO Matsushiro 51.88 39 P **P** **04 51 02.6 -0.5**
MAJO PcP **PcP** **04 52 15.9 +0.7**
MAJO Matsushiro 51.88 39 P **P** **04 51 02.8 -0.3**
comp=Z,21nm,2.0s
MJAR Matsushiro Arr 51.88 39 P **P** **04 51 02.2 -0.9**
comp=Z,19nm,1.0s,baz=215,slow=7.6,SNR=31
MJAR PcP **PcP** **04 52 15.7 +0.5**
comp=Z,7.0nm,0.8s,baz=224,slow=5.0,SNR=4.9
MJAR LR LR 05 14 29.3
comp=Z,276nm,19.5s,baz=228,slow=38
comp=Z,19nm,1.0s
MJAR Matsushiro Arr 51.88 39 P **P** **04 51 02.0 -1.0**
MJAR **PcP** **04 52 15.7 +0.5**
CMSA Cobar Meteorol 51.89 130 P **P** **04 51 04.4 +1.1**
comp=Z,76nm,1.1s
CMSA Cobar Meteorol 51.89 130 P **P** **04 51 03.8 +0.5**
CMSA Cobar Meteorol 51.89 130 P **P** **04 51 04.3 +1.1**
comp=Z,76nm,1.1s
MZR Muzera 51.94 301 *i* P **P** **04 51 04.9 +1.1**
SNR=6.7
MZR Muzera 51.94 301 P **P** **04 51 04.6 +0.8**
CHM Chimkent 52.02 331 *eP* **P** **04 51 05.0 +0.9**
CHM pmax pmax
comp=Z,28nm,0.8s
CHM Chimkent 52.02 331 *eP* **P** **04 51 05.0 +0.9**
comp=Z,28nm,0.8s
ZAK Zakamensk 52.06 2 *eP* **P** **04 51 03.8 -0.5**
ZAK pmax pmax
comp=Z,10.0nm,1.2s
KK31 Karatay Array 52.20 332 *i* P **P** **04 51 05.0 -0.3**
KK31 pmax pmax
comp=Z,29nm,1.0s
KK31 Karatay Array 52.20 332 IAmb IAmb 04 51 06.8
comp=Z,137nm,1.9s
KKAR Karatay Array 52.20 332 P **P** **04 51 05.3 0.0**
KKAR Karatay Array 52.20 332 P **P** **04 51 05.3 0.0**
AULRC Lightning Ridg 52.85 126 P **P** **04 51 11.0 +0.6**
BNX BinXian 53.05 23 ⇓P **P** **04 51 11.8 +0.3**
BNX pmax pmax
comp=Z,28nm,0.6s
TLY Talaya 53.38 2 P **P** **04 51 14.7 +0.8**
TLY Talaya 53.38 2*ceP* **P** **04 51 14.3 +0.4**
TLY pmax pmax
comp=Z,16nm,1.0s
TLY Talaya 53.38 2 P **P** **04 51 14.2 +0.4**
AUMTC Mt Clear Colle 53.46 137 P **P** **04 51 15.6 +0.9**
BRAT Ballarat 53.46 137 P **P** **04 51 15.4 +0.7**
HIA Hailar 53.56 16 P **P** **04 51 14.7 -0.6**
HIA Hailar 53.56 16 P **P** **04 51 14.6 -0.7**
comp=Z,18nm,1.1s
USRK Ussuriysk Ar. 53.81 28 P **P** **04 51 17.4 +0.3**
comp=Z,68nm,0.7s,baz=223,slow=5.5,SNR=116
USRK LR LR 05 16 23.7
comp=Z,416nm,19.3s,baz=216,slow=38
comp=Z,68nm,0.7s
USRK Ussuriysk Ar. 53.81 28 P **P** **04 51 17.2 +0.1**
HILR Hailar Array B 53.83 15 P **P** **04 51 17.4 +0.1**
comp=Z,13nm,0.5s,baz=196,slow=10.0,SNR=17
HILR PcP **PcP** **04 52 21.8 -0.5**
comp=Z,4.9nm,0.6s,baz=183,slow=5.6,SNR=4.6
comp=Z,13nm,0.5s
EIDS Eidsvold 54.08 120 P **P** **04 51 19.9 +0.4**
comp=Z,30nm,1.4s
EIDS Eidsvold 54.08 120 P **P** **04 51 18.6 -0.8**
comp=Z,30nm,1.4s
EIDS Eidsvold 54.08 120 P **P** **04 51 19.8 +0.4**
EIDS Eidsvold 54.08 120 IAmb IAmb 04 51 20.7
comp=Z,42nm,1.2s
EIDS Eidsvold 54.08 120 P **P** **04 51 19.6 +0.1**
comp=Z,30nm,1.4s
AUDCS Dubbo College 54.45 129 P **P** **04 51 23.1 +1.0**
TOO Toolangi 54.54 136 P **P** **04 51 25.4 +2.7**
comp=Z,9.5nm,1.2s
TOO Toolangi 54.54 136 P **P** **04 51 23.6 +0.9**
TOO pmax pmax
comp=Z,7.0nm,1.0s
TOO Toolangi 54.54 136 P **P** **04 51 23.6 +0.9**
OPO Ambohidratompo 54.73 249 LR LR 05 12 08.3
comp=Z,111nm,18.0s,baz=270,slow=33
SEM Semipalatinsk 54.83 344 *eP* **P** **04 51 25.4 +0.7**
SEM pmax pmax
comp=Z,17nm,0.8s
SEM Semipalatinsk 54.83 344 *eP* **P** **04 51 25.4 +0.7**
comp=Z,17nm,0.8s
KURBB Kurchatov Arra 55.51 343 P **P** **04 51 29.5 +0.1**
comp=Z,57nm,0.8s,baz=162,slow=6.7,SNR=240
KURBB LR LR 05 18 37.6
comp=Z,177nm,20.7s,baz=166,slow=40
comp=Z,57nm,0.8s
KURBB Kurchatov Arra 55.51 343 P **P** **04 51 29.4 +0.1**
KURBB pmax pmax
comp=Z,82nm,0.8s
KURK Kurchatov 55.56 343 P **P** **04 51 30.2 +0.4**
KURK Kurchatov 55.56 343*ceP* **P** **04 51 29.9 +0.1**
KURK pmax pmax
comp=Z,125nm,1.0s
KURK Kurchatov 55.56 343 P **P** **04 51 29.8 +0.1**
KURK Kurchatov 55.56 343 P **P** **04 51 30.1 +0.4**
comp=Z,160nm,1.1s
CAN Canberra 56.01 132 P **P** **04 51 35.0 +1.7**
comp=Z,49nm,1.2s
CAN Canberra 56.01 132 P **P** **04 51 34.8 +1.4**
CAN Canberra 56.01 132 IAmb IAmb 04 51 35.7
comp=Z,58nm,1.1s
CAN Canberra 56.01 132 P **P** **04 51 34.6 +1.3**
comp=Z,49nm,1.2s
AUMTS Mt Stromlo 56.01 132 P **P** **04 51 34.8 +1.5**
ARMA Armidale 56.16 126 P **P** **04 51 36.4 +1.9**
comp=Z,53nm,1.5s
ARMA Armidale 56.16 126 P **P** **04 51 36.1 +1.5**
ARMA Armidale 56.16 126 IAmb IAmb 04 51 36.8
comp=Z,32nm,0.9s
ARMA Armidale 56.16 126 P **P** **04 51 36.4 +1.9**
comp=Z,53nm,1.5s
JTM Tenmabayashi 56.27 36 IAmb IAmb 04 51 35.5
comp=Z,49nm,1.1s
HEH HeiHe 56.81 20 *eP* **P** **04 51 38.5 -0.1**
HEH pmax pmax
comp=Z,38nm,1.5s
HEH L L
comp=Z,540nm,20.3s
HEH L L
comp=Z,320nm,16.5s
HEH L L
comp=Z,680nm,22.9s
ZALV Zalesovo Beam 57.08 349 P **P** **04 51 40.4 -0.1**
comp=Z,123nm,0.7s,baz=163,slow=5.7,SNR=449
ZALV LR LR 05 19 33.1
comp=Z,206nm,20.2s,baz=148,slow=40
comp=Z,123nm,0.7s
ZALV Zalesovo Beam 57.08 349 P **P** **04 51 40.8 +0.3**
ZALV Zalesovo Beam 57.08 349 P **P** **04 51 40.8 +0.3**
KLR Kul'dur 57.60 24 LR LR 05 18 18.5
comp=Z,676nm,18.5s,baz=217,slow=38
KLR Kul'dur 57.60 24*c iP* **P** **04 51 44.4 +0.2**
KLR pmax pmax
comp=Z,90nm,1.8s
RAYN Ar Rayn 59.02 299 *i* P **P** **04 51 55.1 +0.4**
SNR=6.4
RAYN Ar Rayn 59.02 299 P **P** **04 51 54.6 -0.1**
RAYN Ar Rayn 59.02 299 P **P** **04 51 54.3 -0.5**
RAYN pmax pmax
comp=Z,12nm,1.0s
RAYN Ar Rayn 59.02 299 P **P** **04 51 54.3 -0.5**
RAYN Ar Rayn 59.02 299 P **P** **04 51 55.2 +0.4**
comp=Z,16nm,1.2s
KBD Kabd 59.07 306 P **P** **04 51 55.4 +0.5**
ASAJ Asahikawa 59.23 34 LR LR 05 19 49.9
comp=Z,88nm,18.2s,baz=258,slow=38
JKA Kamikawa-asahi 59.23 34 IAmb IAmb 04 52 45.2
comp=Z,99nm,1.6s
HNR Honiara 59.65 100 LR LR 05 21 40.1
comp=Z,66nm,18.5s,baz=346,slow=40
ZEA Zeya 59.71 18 *eP* **P** **04 51 59.2 +0.4**
ZEA pmax pmax
comp=N,20nm,0.7s
ZEA pmax pmax
comp=E,20nm,0.7s
ZEA pmax pmax
comp=Z,30nm,0.8s
ZEA MLR MLR
comp=N,400nm,16.0s
ZEA MLR MLR
comp=Z,300nm,18.0s
BVAR Borovoye Array 60.17 340 P **P** **04 52 01.5 -0.5**
comp=Z,19nm,0.5s,baz=142,slow=7.5,SNR=121
comp=Z,19nm,0.5s
BOD Bodaibo 60.45 8 *eP* **P** **04 52 03.6 -0.2**
BOD pmax pmax
comp=Z,87nm,1.2s
YSS Yuzhno-Sakhali 61.11 32 P **P** **04 52 09.1 +0.6**
YSS Yuzhno-Sakhali 61.11 32 *eP* **P** **04 52 08.2 -0.3**
YSS *eS* **S** **05 00 15.7 -7.8**
YSS pmax pmax
comp=Z,50nm,1.1s
YSS MLR MLR
comp=Z,200nm,22.0s
YSS Yuzhno-Sakhali 61.11 32 P **P** **04 52 09.1 +0.6**
YSS Yuzhno-Sakhali 61.11 32 P **P** **04 52 08.9 +0.5**
comp=Z,53nm,1.0s
H04N2 CROZET ISLANDS 61.19 217 T T 05 57 47.6
baz=58,slow=74,SNR=1259
H04N1 CROZET ISLANDS 61.20 217 T T 05 57 56.6
baz=58,slow=74,SNR=924
H04N3 CROZET ISLANDS 61.20 217 T T 05 57 55.2
baz=58,slow=74,SNR=1222
H04S1 CROZET ISLANDS 61.47 216 T T 05 58 02.9
baz=58,slow=76,SNR=274
H04S3 CROZET ISLANDS 61.49 216 T T 05 58 15.8
baz=58,slow=76,SNR=569
H04S2 CROZET ISLANDS 61.49 216 T T 05 58 04.9
baz=58,slow=76,SNR=294
AB31 Akbulak array 61.69 331 *i* P **P** **04 52 11.8 -0.6**
AB31 pmax pmax
comp=Z,34nm,0.6s
ABKAR Akbulak array 61.69 331 P **P** **04 52 12.1 -0.3**
KMBO Kilima Mbogo 63.15 270 LR LR 05 14 48.2
comp=Z,230nm,20.6s,baz=98,slow=31
KMBO Kilima Mbogo 63.15 270 P **P** **04 52 22.0 -1.1**
KMBO pmax pmax
comp=Z,5.0nm,0.9s
KMBO Kilima Mbogo 63.15 270 P **P** **04 52 22.0 -1.1**
KMBO Kilima Mbogo 63.15 270 P **P** **04 52 23.9 +0.7**
comp=Z,5.9nm,1.3s
AKTO Aktyubinsk 63.41 331 LR LR 05 23 18.0
comp=Z,141nm,21.1s,baz=60,slow=39
AKTO Aktyubinsk 63.41 331 P **P** **04 52 23.2 -0.6**
AKTO pmax pmax
comp=Z,60nm,1.3s
TYV Tymovskoe 63.61 28 *eP* **P** **04 52 26.8 +1.7**
TYV pmax pmax
comp=Z,37nm,1.4s
TYV pmax pmax
comp=Z,600nm,4.4s
MAK Makhachkala 65.11 320*c i*P **P** **04 52 35.9 +0.8**
MAK *e* 04 55 01.8
MAK *eS* **S** **05 01 15.4 +1.8**
MAK *eSS* **SS** **05 05 31.5 +4.6**
MAK pmax pmax
comp=Z,590nm,1.3s
LODK Lodwar 65.24 275 P **P** **04 52 37.7 +1.1**
LODK Lodwar 65.24 275 P **P** **04 52 39.7 +3.1**
comp=Z,7.7nm,1.4s
HAKT HAKKARI 65.38 313 P **P** **04 52 37.5 +0.3**
comp=Z,92nm,1.7s
GNI Garni 65.70 316 LR LR 05 23 18.5
comp=Z,45nm,21.9s,baz=111,slow=38
GNI Garni 65.70 316*ceP* **P** **04 52 40.1 +0.9**
GNI pmax pmax
comp=Z,32nm,1.0s
GNI Garni 65.70 316 P **P** **04 52 38.9 -0.3**
GNI IAmb IAmb 04 53 03.8
comp=Z,40nm,0.9s
GNI Garni 65.70 316 P **P** **04 52 40.4 +1.2**
comp=Z,49nm,1.2s
SVE Sverdlovsk 66.69 337*deP* **P** **04 52 45.2 +0.3**
SVE pmax pmax
comp=Z,137nm,1.0s
DIGO Kars 66.76 316 P **P** **04 52 46.8 +0.7**
comp=Z,65nm,1.1s
GURO Guroymak-BITLI 66.98 313 IAmb IAmb 04 52 49.6
comp=Z,68nm,1.3s
DZM Mont Dzumac 67.13 113 LR LR 05 25 13.4
comp=Z,165nm,18.9s,baz=256,slow=39
ARTI Arti 67.26 336 LR LR 05 24 30.4
comp=Z,153nm,21.6s,baz=144,slow=38
ARTI Arti 67.26 336 P **P** **04 52 47.6 -1.0**
ARTI pmax pmax
comp=Z,73nm,0.9s
ARTI Arti 67.26 336 P **P** **04 52 47.6 -1.0**
YAK Yakutsk 67.47 14 P **P** **04 52 48.2 -1.5**
comp=Z,143nm,0.9s,baz=214,slow=3.1,SNR=27
YAK LR LR 05 25 18.5
comp=Z,388nm,18.1s,baz=207,slow=39
comp=Z,143nm,0.9s
YAK Yakutsk 67.47 14 *eP* **P** **04 52 48.9 -0.9**
YAK *e* 04 53 16.4
YAK *e* 04 55 16.3
YAK *eS* **S** **05 01 40.9 -0.6**
YAK *eSS* **sS** **05 02 09.2 +0.8**
YAK *e* 05 02 41.9
YAK *eSS* **SS** **05 06 04.6 +1.8**
YAK pmax pmax
comp=Z,196nm,1.1s
YAK pmax pmax
comp=N,70nm,1.1s
YAK pmax pmax
comp=E,60nm,1.3s
YAK pmax pmax
comp=Z,183nm,3.5s
YAK pmax pmax
comp=E,45nm,2.4s
YAK pmax pmax
comp=N,64nm,1.8s
YAK smax smax
comp=N,118nm,2.6s
YAK smax smax
comp=E,76nm,3.0s
YAK Yakutsk 67.47 14 P **P** **04 52 49.3 -0.4**
YAK Yakutsk 67.47 14 P **P** **04 52 49.2 -0.6**
comp=Z,202nm,1.1s
HOMI Horasan 67.64 315 ⇑P **P** **04 52 52.9 +1.2**
EPOS Posof 67.65 317 P **P** **04 52 52.8 +1.2**
comp=Z,53nm,1.5s
NCK Nalchik 67.90 319*c iP* **P** **04 52 53.7 +0.8**
NCK pmax pmax
comp=Z,47nm,0.9s
KBZ Khabaz 68.46 319 P **P** **04 52 57.0 +0.7**
comp=Z,43nm,0.8s,baz=112,slow=5.5,SNR=56
KBZ LR LR 05 26 31.7
comp=Z,72nm,20.9s,baz=116,slow=39
comp=Z,43nm,0.8s
KOPT Kop Dagi 68.63 314 P **P** **04 52 58.4 +0.5**
KOPT IAmb IAmb 04 53 01.4
comp=Z,32nm,1.1s
KVAR Kislovodsk Arr 68.69 319 LR LR 05 26 45.0
comp=Z,36nm,20.0s,baz=208,slow=39
KIV Kislovodsk 68.69 319 *i* P **P** **04 52 58.7 +0.7**
SNR=10
KIV Kislovodsk 68.69 319 P **P** **04 52 58.7 +0.7**
KIV Kislovodsk 68.69 319 P **P** **04 52 58.0 0.0**
KIV Kislovodsk 68.69 319 ⇑P **P** **04 52 58.7 +0.7**
KIV Kislovodsk 68.69 319 P **P** **04 52 58.7 +0.7**
comp=Z,71nm,1.2s
ASF Jabal al Asfar 68.83 306 LR LR 05 24 27.9
comp=Z,108nm,18.6s,baz=94,slow=37
ASF Jabal al Asfar 68.83 306 P **P** **04 53 01.1 +2.0**
ASF AML AML
KELT Kelkit 69.57 314 P **P** **04 53 04.8 +1.1**
comp=Z,78nm,1.5s
MBAR Mbarara 69.68 270 LR LR 05 18 24.5
comp=Z,224nm,21.9s,baz=84,slow=31
MBAR Mbarara 69.68 270 P **P** **04 53 05.0 +0.2**
MBAR Mbarara 69.68 270 P **P** **04 53 05.0 +0.2**
MBAR pmax pmax
comp=Z,44nm,0.3s
MBAR Mbarara 69.68 270 P **P** **04 53 05.0 +0.2**
MBAR Mbarara 69.68 270 P **P** **04 53 07.4 +2.7**
comp=Z,12nm,1.3s
GHAJ Ghor Haditha 69.69 304 P **P** **04 53 04.5 +0.3**
GHAJ IAmb IAmb 04 53 06.7
comp=Z,51nm,1.1s
GHAJ Ghor Haditha 69.69 304 P **P** **04 53 05.8 +1.6**
comp=Z,54nm,1.1s
AQBJ Aqaba 69.72 303 P **P** **04 53 07.2 +2.7**
AQBJ AML AML
EIL Elat 69.79 302 LR LR 05 23 51.5
comp=Z,221nm,19.0s,baz=110,slow=36
EIL Elat 69.79 302 P **P** **04 53 06.6 +1.7**
EIL AML AML
EIL Elat 69.79 302 P **P** **04 53 06.3 +1.4**
comp=Z,56nm,1.5s
EIL pP **pP** **04 53 18.9 -1.3**
BELG Belogornoye 69.80 329 LR LR 05 27 37.5
comp=Z,233nm,20.5s,baz=98,slow=39
HRFI Mount Harif 69.81 303 P **P** **04 53 06.9 +1.8**
HRFI AML AML
HRFI Mount Harif 69.81 303 P **P** **04 53 06.7 +1.6**
comp=Z,93nm,1.3s
HRFI pP **pP** **04 53 19.4 -1.0**
KEMA Kemaliye 69.81 313 P **P** **04 53 06.2 +1.2**
comp=Z,186nm,0.9s
ARPR Arapgir-MALATY 69.87 313 IAmb IAmb 04 53 07.8
comp=Z,56nm,1.2s
ARPR Arapgir-MALATY 69.87 313 P **P** **04 53 06.6 +1.2**
comp=Z,46nm,1.3s
PRNI Paran 69.91 303 P **P** **04 53 07.6 +1.9**
PRNI AML AML
UJAP Al Uja 69.94 305 P **P** **04 53 07.2 +1.4**
comp=Z,23nm,1.2s
QRNJ Al-Qirein 69.96 305 P **P** **04 53 09.1 +3.2**
QRNJ AML AML
SALP Salfit 70.20 305 P **P** **04 53 09.8 +2.3**
MMAI Mount Meron Ar 70.28 306 P **P** **04 53 09.4 +1.4**
comp=Z,11nm,0.8s,baz=51,slow=15,SNR=9.3
MMAI LR LR 05 24 01.0
comp=Z,133nm,21.7s,baz=103,slow=36
comp=Z,11nm,0.8s
SOC Sochi 70.51 318*c iP* **P** **04 53 08.7 -0.4**
SOC *eS* **S** **05 02 18.0 -0.2**
SOC *eSS* **SS** **05 06 49.3 -1.2**
SOC pmax pmax
comp=Z,52nm,0.9s
MAW Mawson 70.56 194 P **P** **04 53 10.6 +1.7**
comp=Z,8.4nm,1.1s
MAW Mawson 70.56 194 P **P** **04 53 05.4 -3.4**
comp=Z,12nm,0.8s,baz=13,slow=6.2,SNR=11
MAW LR LR 05 17 25.9
comp=Z,417nm,21.8s,baz=31,slow=30
MAW Mawson 70.56 194 P **P** **04 53 08.9 0.0**
MAW pmax pmax
comp=Z,9.0nm,1.1s
MAW Mawson 70.56 194 P **P** **04 53 08.9 0.0**
MAW Mawson 70.56 194 P **P** **04 53 10.6 +1.7**
comp=Z,8.4nm,1.1s
KZIT Kziot 70.56 304 P **P** **04 53 11.0 +1.3**
comp=Z,75nm,1.3s
ERBR Yeremizino-Bor 70.84 320 *eP* **P** **04 53 12.5 +1.4**
ERBR *e*PP* **pP** **04 53 25.5 -1.1**
ERBR pmax pmax
comp=E,22nm,0.6s
ANDN Andirin 70.86 311 P **P** **04 53 12.6 +1.1**
comp=Z,202nm,1.1s
CY604 RAF Akrotiri, 71.35 307 P **P** **04 53 14.3 +0.3**
CY604 IAmb IAmb 04 53 16.8
comp=Z,72nm,1.2s
NRIK Noril'sk 71.57 355 P **P** **04 53 13.3 -1.7**
comp=Z,31nm,0.5s,baz=164,slow=5.4,SNR=31
NRIK LR LR 05 28 14.8
comp=Z,227nm,18.5s,baz=164,slow=39
comp=Z,31nm,0.5s
NRIK Noril'sk 71.57 355*c iP* **P** **04 53 14.2 -0.7**
NRIK pmax pmax
comp=Z,79nm,1.1s
NRIK Noril'sk 71.57 355 IAmb IAmb 04 53 15.5
comp=Z,72nm,0.9s
KIRV Kirov 72.40 335 LR LR 05 27 46.0
comp=Z,120nm,21.3s,baz=131,slow=38
VRH Novokhopyorsk 72.42 326 *eP* **P** **04 53 18.2 -2.2**
VRH pmax pmax
comp=Z,100nm,0.9s
MATP Matopo 72.43 249 LR LR 05 19 46.6
comp=Z,2µm,21.7s,baz=70,slow=31
CSS Mathiatis 72.45 307 IAmb IAmb 04 53 23.0
comp=Z,57nm,1.0s
CSS Mathiatis 72.45 307 P **P** **04 53 22.0 +1.0**
comp=Z,59nm,1.3s
ANN Anapa 72.49 318 *eP* **P** **04 53 23.2 +2.3**
ANN *e*PP* **pP** **04 53 36.1 -0.3**
ANN *eS* **S** **05 02 44.3 +3.4**
PETK Petropavlovsk- 72.51 32 P **P** **04 53 20.6 -0.3**
comp=Z,13nm,0.9s,baz=280,slow=1.5,SNR=7.8
PETK LR LR 05 25 49.9
comp=Z,122nm,20.6s,baz=241,slow=36
comp=Z,13nm,0.9s
PETK Petropavlovsk- 72.51 32 P **P** **04 53 20.8 -0.2**
PETK Petropavlovsk- 72.51 32 P **P** **04 53 20.8 -0.2**
MA2 Magadan 72.70 24 P **P** **04 53 22.0 +0.1**
comp=Z,22nm,0.5s,baz=229,slow=6.8,SNR=6.8
comp=Z,22nm,0.5s
MA2 Magadan 72.70 24 P **P** **04 53 22.6 +0.7**
MA2 Magadan 72.70 24*ceP* **P** **04 53 23.4 +1.5**
MA2 pmax pmax
comp=Z,76nm,1.3s
MA2 Magadan 72.70 24 P **P** **04 53 22.9 +1.0**
MA2 IAmb IAmb 04 53 23.7
comp=Z,86nm,1.1s
PET Petropavlovsk 72.98 32*ceP* **P** **04 53 23.8 +0.1**
PET pmax pmax
comp=Z,74nm,1.2s
KIRS Kirsehir-Merke 73.14 312 ⇑P **P** **04 53 24.9 -0.2**
BR131 Keskin Array S 73.52 312 P **P** **04 53 27.2 -0.2**
SNR=8.9
BR131 Keskin Array S 73.52 312 P **P** **04 53 26.9 -0.5**
BR131 pmax pmax
comp=Z,20nm,0.9s
BR131 Keskin Array S 73.52 312 P **P** **04 53 26.9 -0.5**
BRTR Keskin Array B 73.52 312 P **P** **04 53 26.9 -0.5**
comp=Z,13nm,0.8s,baz=128,slow=7.0,SNR=36
BRTR PKKP **PKKPdf** **05 12 49.0 -0.5**
comp=Z,1.5nm,1.1s,baz=317,slow=7.9,SNR=3.7
BRTR LR LR 05 25 35.4
comp=Z,39nm,21.7s,baz=124,slow=36
comp=Z,13nm,0.8s
BRTR Keskin Array B 73.52 312 P **P** **04 53 27.1 -0.2**
BRTR Keskin Array B 73.52 312 P **P** **04 53 27.1 -0.3**
VORD Divnogorie 73.70 325 *eP* **P** **04 53 25.9 -2.1**
VORD pmax pmax
comp=Z,50nm,1.0s
ILGA Ilgaz 73.85 314 IAmb IAmb 04 53 30.8
comp=Z,65nm,1.2s
VSR Storozhevoye 73.88 325 *eP* **P** **04 53 25.3 -3.7**
VSR pmax pmax
comp=Z,60nm,1.0s
KKUL Konya-Kulu 73.90 312 P **P** **04 53 29.8 +0.2**
comp=Z,49nm,0.9s
VORR Voronezh 74.04 325 *eP* **P** **04 53 27.6 -2.4**
VORR pmax pmax
comp=Z,60nm,0.9s
KEPZ Antalya-Kepez 74.30 309 ⇑P **P** **04 53 31.7 -0.2**
LPSR Galich'ya Gora 74.58 326 *eP* **P** **04 53 30.9 -2.2**
LPSR pmax pmax
comp=Z,60nm,0.9s
SIM Simferopol' 74.76 318 *eP* **P** **04 53 33.5 -0.8**
SIM *eS* **S** **05 03 01.1 -5.5**
SIM pmax pmax
comp=Z,32nm,0.8s
SIM smax smax
comp=N,21nm,1.1s
RPZ Rata Peaks 74.80 135 LR LR 05 24 57.3
comp=N,53nm,21.2s,baz=260,slow=34
KHAM Kharkiv 75.12 323 P **P** **04 53 35.9 -0.4**

SEY	**Seymchan**	**75.31**	**22**	P		**P**	**04 53 36.3**	**-0.7**
	comp=N,31nm,0.8s,baz=248,slow=5.4,SNR=33								
	comp=N,31nm,0.8s								
LBTB	**Lobatse**	**75.48**	**245**	LR		LR	05 22 23.2		
	comp=N,466nm,19.6s,baz=86,slow=32								
MDUB	**Mudurnu**	**75.53**	**313**	IAmb		IAmb	04 53 40.0		
	comp=Z,82nm,1.2s								
TIXI	**Tiksi**	**75.62**	**9**	P		**P**	**04 53 37.7**	**-1.0**	
	comp=Z,56nm,0.5s,baz=175,slow=2.5,SNR=94								
TIXI				LR		LR	05 30 14.1		
	comp=Z,702nm,20.8s,baz=205,slow=38								
	comp=Z,56nm,0.5s								
TIXI	**Tiksi**	**75.62**	**9**	*ce*P		**P**	**04 53 37.9**	**-0.8**	
TIXI				pmax		pmax			
	comp=Z,237nm,1.7s								
TIXI	**Tiksi**	**75.62**	**9**	P		**P**	**04 53 38.1**	**-0.6**	
TIXI	**Tiksi**	**75.62**	**9**	P		**P**	**04 53 38.1**	**-0.6**	
	comp=Z,183nm,1.7s								
BOSA	**Boshof**	**76.11**	**241**	P		**P**	**04 53 43.8**	**+1.2**	
	comp=Z,4.0nm,0.6s,baz=109,slow=3.1,SNR=11								
BOSA				LR		LR	05 22 25.3		
	comp=Z,297nm,19.2s,baz=76,slow=32								
	comp=Z,4.0nm,0.6s								
KDWAN	**Kaudwane**	**76.21**	**247**	P		**P**	**04 53 43.6**	**+0.4**	
TAVA	**DENIZLI_Tavas**	**76.53**	**309**	⇑P		**P**	**04 53 44.5**	**-0.2**	
MOS	**Moscow**	**76.57**	**329**	*e*P		**P**	**04 53 44.6**	**+0.2**	
MOS				*e*			04 53 57.0		
MOS				*e*			04 56 34.2		
MOS				*e*PPP		PPP	04 58 20.3		
MOS				*e*S		**S**	**05 03 22.3**	**-3.8**	
MOS				*e**SS		**pS**	**05 03 46.9**	**+1.5**	
MOS				*e*SSS		SSS	05 11 41.4		
MOS				pmax		pmax			
	comp=Z,120nm,0.8s								
MOS				MLR		MLR			
	comp=Z,800nm,21.0s								
ARG	**Arkhangelos**	**76.87**	**308**	IAmb		IAmb	04 53 48.1		
	comp=Z,74nm,1.1s								
OBN	**Obninsk**	**76.87**	**328**	*ce*P		**P**	**04 53 46.3**	**+0.2**	
OBN				*e*			04 56 38.2		
OBN				*e*S		**S**	**05 03 30.3**	**+0.9**	
OBN				*e*SS		**SS**	**05 08 29.0**	**+2.1**	
OBN				pmax		pmax			
	comp=Z,93nm,1.1s								
OBN				MLR		MLR			
	comp=Z,105nm,21.0s								
OBN	**Obninsk**	**76.87**	**328**	P		**P**	**04 53 45.7**	**-0.4**	
OBN	**Obninsk**	**76.87**	**328**	P		**P**	**04 53 46.5**	**+0.4**	
	comp=Z,83nm,1.0s								
YLV	**Yalova**	**76.89**	**312**	P		**P**	**04 53 46.1**	**-0.6**	
	comp=Z,782nmcomp=Z,62nm,1.1s								
AYDN	**Tasoluk**	**77.37**	**309**	P		**P**	**04 53 50.2**	**+0.8**	
	comp=Z,108nm,1.3s								
KARP	**Karpathos**	**77.50**	**307**	P		**P**	**04 53 51.0**	**+0.9**	
	comp=Z,166nm,1.0s								
MSVF	**Nonsavu**	**77.66**	**108**	LR		LR	05 32 42.0		
	comp=Z,47nm,18.6s,baz=182,slow=39								
MSVF	**Nonsavu**	**77.66**	**108**	P		**P**	**04 53 52.0**	**+0.6**	
MSVF	**Nonsavu**	**77.66**	**108**	P		**P**	**04 53 51.5**	**+0.1**	
MSVF				pmax		pmax			
	comp=Z,38nm,1.3s								
MSVF	**Nonsavu**	**77.66**	**108**	P		**P**	**04 53 51.5**	**+0.1**	
MSVF				IAmb		IAmb	04 53 53.3		
	comp=Z,38nm,1.2s								
MSVF	**Nonsavu**	**77.66**	**108**	P		**P**	**04 53 52.4**	**+1.0**	
	comp=Z,29nm,1.3s								
BALB	**Balikesir**	**77.80**	**311**	IAmb		IAmb	04 53 53.1		
	comp=Z,71nm,1.3s								
KLMR	**Klimovskoe**	**77.86**	**334**	*e*P		**P**	**04 53 50.2**	**-1.3**	
KLMR				*e**PP		**PcP**	**04 54 03.3**	**+2.1**	
KLMR				pmax		pmax			
	comp=Z,119nm,1.4s								
BALY	**Balya**	**78.01**	**311**	P		**P**	**04 53 53.2**	**+0.3**	
	comp=Z,100nm,1.0s								
BKZ	**Black Stump Fm**	**78.05**	**130**	P		**P**	**04 53 53.9**	**+0.7**	
RTZ	**Ruatahuna**	**78.36**	**129**	P		**P**	**04 53 54.2**	**-0.7**	
RTZ				IAmb		IAmb	04 53 55.8		
	comp=Z,48nm,1.0s								
URZ	**Urewera**	**78.42**	**129**	LR		LR	05 28 57.9		
	comp=Z,128nm,21.1s,baz=279,slow=36								
TLCR		**78.43**	**317**	⇓P		**P**	**04 53 55.1**	**+0.1**	
TLCR		**78.43**	**317**	⇓P		**P**	**04 53 55.1**	**+0.1**	
CFR	**Carcaliu**	**78.89**	**317**	⇓P		**P**	**04 53 57.9**	**+0.4**	
CFR	**Carcaliu**	**78.89**	**317**	⇓P		**P**	**04 53 57.9**	**+0.4**	
HARR	**Harsova**	**78.92**	**316**	⇑P		**P**	**04 53 57.8**	**+0.1**	
HARR	**Harsova**	**78.92**	**316**	⇑P		**P**	**04 53 57.8**	**+0.1**	
DGTI	**Dogotuki**	**79.23**	**106**	P		**P**	**04 54 01.5**	**+1.5**	
IDI	**Anoyia**	**79.28**	**306**	P		**P**	**04 54 00.2**	**+0.2**	
IDI				IAmb		IAmb	04 54 01.8		
	comp=Z,31nm,0.9s								
ALN	**Alexandroupoli**	**79.43**	**312**	P		**P**	**04 53 59.7**	**-0.9**	
	comp=Z,36nm,1.3s								
SORM	**Soroca**	**79.48**	**320**	⇑P		**P**	**04 54 01.4**	**+0.7**	
SORM	**Soroca**	**79.48**	**320**	⇑P		**P**	**04 54 01.4**	**+0.7**	
AK10	**Malin Array Si**	**79.56**	**322**	P		**P**	**04 54 00.6**	**-0.5**	
GHRR		**79.60**	**317**	⇓P		**P**	**04 54 01.5**	**+0.1**	
AKASG	**Malin Array Be**	**79.61**	**322**	P		**P**	**04 54 00.4**	**-1.0**	
	comp=Z,4.8nm,0.8s,baz=89,slow=4.8,SNR=23								
AKASG				PP		**PP**	**04 57 01.7**	**-1.0**	
	comp=Z,0.2nm,0.3s,baz=99,slow=7.5,SNR=4.4								
AKASG				LR		LR	05 33 52.3		
	comp=Z,75nm,19.9s,baz=94,slow=39								
	comp=Z,4.8nm,0.8s								
AKBB	**Malin Array Si**	**79.61**	**322**	P		**P**	**04 54 01.1**	**-0.2**	
KIEV	**Kiev**	**79.62**	**322**	P		**P**	**04 54 01.2**	**-0.1**	
KIEV	**Kiev**	**79.62**	**322**	P		**P**	**04 54 00.6**	**-0.8**	
KIEV				pmax		pmax			
	comp=Z,60nm,1.7s								
KIEV	**Kiev**	**79.62**	**322**	P		**P**	**04 54 00.6**	**-0.8**	
KIEV				IAmb		IAmb	04 54 02.0		
	comp=Z,60nm,1.7s								
KIEV	**Kiev**	**79.62**	**322**	P		**P**	**04 54 01.0**	**-0.4**	
	comp=Z,74nm,1.3s								
KIEV	**Kiev**	**79.62**	**322**	P		**P**	**04 54 01.1**	**-0.3**	
	comp=Z,19nm,1.3s								
MNTR	**Muntenesti**	**79.68**	**318**	⇑P		**P**	**04 54 02.3**	**+0.4**	
PDRR	**Padureni**	**79.75**	**318**	⇑P		**P**	**04 54 02.3**	**+0.1**	
NGRR	**Negresti**	**79.89**	**317**	⇓P		**P**	**04 54 00.9**	**-1.3**	
DMBR	**Dumbraveni**	**79.81**	**318**	⇓P		**P**	**04 54 02.8**	**+0.3**	
SAHR	**Sahastru**	**80.01**	**317**	⇓P		**P**	**04 54 04.9**	**+1.2**	
VRI	**Vrincioaia**	**80.01**	**317**	⇑P		**P**	**04 54 04.8**	**+1.1**	
VRI	**Vrincioaia**	**80.01**	**317**	⇑P		**P**	**04 54 04.8**	**+1.1**	
VRI	**Vrincioaia**	**80.01**	**317**	P		**P**	**04 54 04.9**	**+1.1**	
	comp=Z,61nm,1.2s								
PLOR	**Plostina**	**80.06**	**317**	⇓P		**P**	**04 54 04.8**	**+0.8**	
PLOR	**Plostina**	**80.06**	**317**	⇓P		**P**	**04 54 04.8**	**+0.8**	
NEHR	**Nehoiu**	**80.21**	**317**	⇓P		**P**	**04 54 05.6**	**+0.8**	
TESR	**Tescani**	**80.21**	**318**	⇑P		**P**	**04 54 05.1**	**+0.4**	
TESR	**Tescani**	**80.21**	**318**	P		**P**	**04 54 05.6**	**+0.9**	
	comp=Z,94nm,1.2s								
SUR	**Sutherland**	**80.25**	**238**	LR		LR	05 23 21.6		
	comp=Z,578nm,19.8s,baz=99,slow=31								
SUR	**Sutherland**	**80.25**	**238**	P		**P**	**04 54 05.7**	**+0.2**	
SUR	**Sutherland**	**80.25**	**238**	P		**P**	**04 54 05.1**	**-0.4**	
SUR				IAmb		IAmb	04 56 35.9		
	comp=Z,137nm,1.8s								
MI30	**MI30,Zelenitsa**	**80.25**	**322**	P		**P**	**04 54 04.5**	**-0.3**	
	comp=Z,40nm,1.2s								
LUBAR	**Lubar, Ukraine**	**80.31**	**321**	P		**P**	**04 54 04.8**	**-0.4**	
ONER	**Baraj Valea Uz**	**80.35**	**317**	⇓P		**P**	**04 54 06.7**	**+1.2**	
COVR	**Voineasa-Covas**	**80.37**	**317**	⇑P		**P**	**04 54 06.0**	**+0.3**	
MI29	**MI29, Kamyanyy**	**80.38**	**322**	P		**P**	**04 54 04.5**	**-1.0**	
	comp=Z,243nm,1.2s								
MLR	**Muntele Rosu**	**80.47**	**317**	⇑P		**P**	**04 54 07.1**	**+0.8**	
MLR	**Muntele Rosu**	**80.47**	**317**	P		**P**	**04 54 06.8**	**+0.5**	
MLR				IAmb		IAmb	04 54 08.4		
	comp=Z,81nm,1.2s								
MLR	**Muntele Rosu**	**80.47**	**317**	⇑P		**P**	**04 54 06.7**	**+0.4**	
MLR	**Muntele Rosu**	**80.47**	**317**	⇑P		**P**	**04 54 07.1**	**+0.8**	
MLR	**Muntele Rosu**	**80.47**	**317**	P		**P**	**04 54 07.3**	**+1.0**	
	comp=Z,58nm,1.3s								
PVL	**Pavlikeni**	**80.52**	**314**	P		**P**	**04 54 05.9**	**-0.5**	
PLD	**Plovdiv**	**80.64**	**313**	P		**P**	**04 54 07.0**	**-0.1**	
BIZ	**Bicaz**	**80.67**	**318**	⇓P		**P**	**04 54 07.7**	**+0.5**	
PRAR	**RASCA**	**80.69**	**318**	⇑P		**P**	**04 54 08.0**	**+0.7**	
KMPD	**K-Podol'skiy**	**80.81**	**320**	P		**P**	**04 54 07.6**	**-0.2**	
DOPR	**Dopca**	**80.95**	**317**	⇑P		**P**	**04 54 09.2**	**+0.5**	
PLVB	**Pleven**	**80.97**	**314**	⇓P		**P**	**04 54 09.0**	**+0.2**	
VOIR		**81.07**	**316**	⇑P		**P**	**04 54 09.2**	**-0.3**	
VOIR		**81.07**	**316**	⇑P		**P**	**04 54 09.2**	**-0.3**	
VOIR		**81.07**	**316**	⇑P		**P**	**04 54 09.2**	**-0.3**	
VOIR		**81.07**	**316**	P		**P**	**04 54 09.4**	**-0.1**	
	comp=Z,8.4nm,1.9s								
PGB	**Panagyurishte**	**81.12**	**313**	P		**P**	**04 54 09.7**	**0.0**	
SRS	**Serrai**	**81.30**	**312**	P		**P**	**04 54 10.4**	**-0.3**	
	comp=Z,13nm,0.8s								
ARR	**Arges**	**81.34**	**316**	⇑P		**P**	**04 54 11.0**	**+0.1**	
ARR	**Arges**	**81.34**	**316**	P		**P**	**04 54 11.2**	**+0.3**	
	comp=Z,15nm,1.8s								
BURAR	**Bucovina Array**	**81.41**	**319**	⇑P		**P**	**04 54 12.9**	**+1.7**	
BURAR	**Bucovina Array**	**81.41**	**319**	P		**P**	**04 54 11.8**	**+0.5**	
BURAR				IAmb		IAmb	04 54 13.5		
	comp=Z,32nm,0.9s								
BURAR	**Bucovina Array**	**81.41**	**319**	⇑P		**P**	**04 54 12.9**	**+1.7**	
MNK	**Minsk**	**81.42**	**326**	*d*P		**P**	**04 54 11.0**	**+0.1**	
MNK	**Minsk**	**81.42**	**326**	*i*P		**P**	**04 54 11.0**	**+0.1**	
	comp=E,14nm,0.8s								
MNK				*i*P		**P**	**04 54 11.0**	**+0.1**	
	comp=N,37nm,1.0s								
MNK				*i*P		**P**	**04 54 11.0**	**+0.1**	
	comp=Z,58nm,0.9s,baz=105								
MNK				*i*pP		**pP**	**04 54 26.5**	**-0.1**	
MNK				*i*sP		**sP**	**04 54 32.3**	**-0.5**	
MNK				*i*PP		PP	04 57 02.0	-16	
MNK				*i*PPP		PPP	04 58 51.2		
MNK				*i*S		**S**	**05 04 16.5**	**-1.3**	
MNK				*i*sS		**sS**	**05 04 43.7**	**-0.8**	
MNK				*i*SS		SS	05 08 41.2	-54	
MNK				*i*SSS		SSS	05 11 59.5		
SOH	**Sokhos**	**81.42**	**312**	P		**P**	**04 54 11.3**	**-0.1**	
	comp=Z,28nm,1.2s								
BUR08	**Bucovina Ar. S**	**81.43**	**319**	P		**P**	**04 54 12.5**	**+1.2**	
MPEP	**Malo Peshtene**	**81.59**	**314**	P		**P**	**04 54 12.9**	**+0.8**	
SHEM	**Shemya Is, Ala**	**81.62**	**36**	LR		LR	05 33 40.0		
	comp=Z,39nm,19.4s,baz=296,slow=38								
PUL	**Pulkovo**	**81.67**	**331**	*ce*P		**P**	**04 54 13.2**	**+1.0**	
PUL				pmax		pmax			
	comp=Z,31nm,0.4s								
RNPP5	**Staryi Chortor**	**81.78**	**322**	P		**P**	**04 54 12.6**	**-0.4**	
KNT	**Kendrikon**	**81.82**	**312**	P		**P**	**04 54 13.4**	**-0.1**	
	comp=Z,16nm,1.6s								
VTS	**Vitosha**	**81.82**	**313**	P		**P**	**04 54 13.7**	**+0.1**	
RAO	**Raoul Island**	**81.83**	**119**	LR		LR	05 32 48.1		
	comp=Z,125nm,19.2s,baz=228,slow=37								
BLSH	**Balsha**	**81.83**	**314**	P		**P**	**04 54 13.9**	**+0.4**	
PEHC	**Pehcevo**	**81.92**	**312**	*i*P		**P**	**04 54 10.4**	**-3.6**	
ITM	**Ithomi**	**81.94**	**308**	IAmb		IAmb	04 54 15.3		
	comp=Z,58nm,1.3s								
LIT	**Litokhoron**	**81.96**	**311**	IAmb		IAmb	04 54 14.8		
	comp=Z,58nm,1.1s								
LIT	**Litokhoron**	**81.96**	**311**	P		**P**	**04 54 14.0**	**-0.2**	
	comp=Z,57nm,1.2s								
LOT	**Lotru**	**81.96**	**316**	⇓P		**P**	**04 54 14.4**	**+0.2**	
LOT	**Lotru**	**81.96**	**316**	P		**P**	**04 54 14.3**	**+0.1**	
	comp=Z,8.6nm,1.8s								
VAY	**Valandovo**	**82.09**	**312**	*i*P		**P**	**04 54 14.3**	**-0.5**	
NACGM	**Naroch**	**82.14**	**326**	*e*P		**P**	**04 54 15.5**	**+0.8**	
	comp=Z,125nm,0.9s,baz=105								
GRG	**Griva**	**82.16**	**312**	P		**P**	**04 54 14.9**	**-0.3**	
	comp=Z,73nm,1.1s								
VNDA	**Vanda**	**82.25**	**169**	P		**P**	**04 54 16.1**	**+1.2**	
	comp=Z,3.3nm,0.7s,baz=296,slow=5.6,SNR=19								
	comp=Z,3.3nm,0.7s								
VNDA	**Vanda**	**82.25**	**169**	P		**P**	**04 54 16.0**	**+1.1**	
VNDA	**Vanda**	**82.25**	**169**	P		**P**	**04 54 16.7**	**+1.8**	
	comp=Z,13nm,1.2s								
CJR	**Cluj-Napoca**	**82.31**	**317**	⇑P		**P**	**04 54 17.1**	**+1.2**	
CJR	**Cluj-Napoca**	**82.31**	**317**	⇑P		**P**	**04 54 17.1**	**+1.2**	
BLKB	**Belogradchik**	**82.40**	**314**	⇓P		**P**	**04 54 16.7**	**+0.2**	
BMR	**Baia Mare**	**82.56**	**318**	⇑P		**P**	**04 54 18.1**	**+1.0**	
BMR	**Baia Mare**	**82.56**	**318**	⇑P		**P**	**04 54 18.1**	**+1.0**	
BMR	**Baia Mare**	**82.56**	**318**	P		**P**	**04 54 18.5**	**+1.4**	
	comp=Z,54nm,0.9s								
MARR	**Marisel-Cluj**	**82.63**	**317**	⇑P		**P**	**04 54 18.3**	**+0.7**	
GZR	**Gura Zlata**	**82.64**	**316**	⇑P		**P**	**04 54 16.9**	**-0.7**	
GZR	**Gura Zlata**	**82.64**	**316**	⇑P		**P**	**04 54 16.9**	**-0.7**	
GZR	**Gura Zlata**	**82.64**	**316**	⇑P		**P**	**04 54 16.9**	**-0.7**	
TSUM	**Tsumeb**	**82.64**	**251**	LR		LR	05 26 36.6		
	comp=Z,381nm,21.2s,baz=140,slow=32								
HERR	**Herculane**	**82.80**	**315**	⇓P		**P**	**04 54 19.5**	**+1.1**	
MESR	**Meseseni**	**82.83**	**318**	⇓P		**P**	**04 54 19.6**	**+1.1**	
BILL	**Bilibino**	**82.85**	**20**	⇓P		**P**	**04 54 18.1**	**-0.1**	
BILL	**Bilibino**	**82.85**	**20**	P		**P**	**04 54 18.5**	**+0.3**	
BILI	**Bilibino, Chuk**	**82.92**	**20**	P		**P**	**04 54 18.4**	**-0.1**	
	comp=Z,19nm,2.0s								
DRGR		**82.93**	**317**	P		**P**	**04 54 20.3**	**+1.1**	
	comp=Z,24nm,2.0s								
APA	**Apatity**	**83.08**	**339**	*e*P		**P**	**04 54 21.9**	**+2.5**	
APA				*e*			04 57 32.0		
APA				pmax		pmax			
	comp=Z,19nm,1.0s								
BOVS	**Bovan**	**83.10**	**314**	⇓P		**P**	**04 54 19.8**	**-0.1**	
SURR	**Surduc**	**83.15**	**316**	⇓P		**P**	**04 54 20.9**	**+0.7**	
MDVR	**Moldovita**	**83.28**	**315**	⇓P		**P**	**04 54 21.2**	**+0.3**	
TRPA	**Tarpa**	**83.28**	**319**	P		**P**	**04 54 21.8**	**+1.0**	
	comp=Z,23nm,0.9s								
SBA	**Scott Base**	**83.34**	**169**	P		**P**	**04 54 21.6**	**+1.0**	
SBA				pmax		pmax			
	comp=Z,14nm,0.9s								
SBA	**Scott Base**	**83.34**	**169**	P		**P**	**04 54 21.6**	**+1.0**	
SBA	**Scott Base**	**83.34**	**169**	P		**P**	**04 54 23.3**	**+2.8**	
	comp=Z,21nm,0.9s								
OHR	**Ohrid**	**83.38**	**312**	*i*P		**P**	**04 54 21.4**	**-0.2**	
KWP	**Kalwaria Pacla**	**83.44**	**320**	*e*P		**P**	**04 54 22.8**	**+1.1**	
BZS	**Buzias**	**83.48**	**316**	⇓P		**P**	**04 54 22.1**	**+0.2**	
BZS	**Buzias**	**83.48**	**316**	⇓P		**P**	**04 54 22.1**	**+0.2**	
BZS	**Buzias**	**83.48**	**316**	P		**P**	**04 54 22.6**	**+0.7**	
	comp=Z,22nm,0.9s								
SIRR	**Siria**	**83.55**	**317**	⇓P		**P**	**04 54 22.3**	**0.0**	
KOLS	**Kolonicke sedl**	**83.60**	**320**	*e*P		**P**	**04 54 23.9**	**+1.4**	
KOLS				pmax		pmax			
	comp=Z,22nm,1.0s								
KOLS	**Kolonicke sedl**	**83.60**	**320**	*e*P		**P**	**04 54 23.9**	**+1.4**	
KOLS	**Kolonicke sedl**	**83.60**	**320**	P		**P**	**04 54 24.1**	**+1.6**	
	comp=Z,60nm,0.8s								
PABE	**Paberze**	**83.85**	**326**	P		**P**	**04 54 24.4**	**+0.8**	
	comp=Z,134nm,1.1s								
SUW	**Suwalki**	**83.99**	**325**	*e*P		**P**	**04 54 25.0**	**+0.7**	
FINES	**FINESS Array B**	**84.16**	**332**	P		**P**	**04 54 25.4**	**+0.4**	
	comp=Z,28nm,0.9s,baz=108,slow=5.6,SNR=66								
FINES				LR		LR	05 36 46.3		
	comp=Z,100nm,19.3s,baz=88,slow=39								
	comp=Z,28nm,0.9s								
ABAH	**Abaujker**	**84.17**	**319**	P		**P**	**04 54 26.2**	**+0.9**	
	comp=Z,29nm,1.1s								
ELIB	**Princess Elisa**	**84.27**	**198**	*d*P		**P**	**04 54 28.5**	**+2.9**	
	comp=Z,16nm,1.0s								
ELIB				*dx*		x	04 54 44.1		
SJES	**Sjenica**	**84.29**	**314**	*e*P		**P**	**04 54 27.0**	**+0.7**	
FRGS	**Fruska Gora**	**84.67**	**315**	*e*P		**P**	**04 54 27.9**	**-0.1**	
PDG	**Podgorica**	**84.70**	**313**	IAmb		IAmb	04 54 28.9		
	comp=Z,23nm,0.7s								
PDG	**Podgorica**	**84.70**	**313**	⇑P		**P**	**04 54 27.2**	**-1.0**	
PDG	**Podgorica**	**84.70**	**313**	⇑*i*P		**P**	**04 54 28.2**	**0.0**	
DRME	**Dracevica, Mon**	**84.72**	**312**	*e*P		**P**	**04 54 28.2**	**-0.1**	
BBLS	**Lazi&#263i**	**84.78**	**314**	⇑*i*P		**P**	**04 54 29.3**	**+0.6**	
TEKS	**Tekeris**	**84.78**	**315**	⇑*i*P		**P**	**04 54 28.9**	**+0.3**	
NIE	**Niedzica**	**84.95**	**320**	*e*P		**P**	**04 54 30.4**	**+1.1**	
PSZ	**Piszkesteto**	**85.00**	**318**	⇑P		**P**	**04 54 29.7**	**0.0**	
PSZ	**Piszkesteto**	**85.00**	**318**	IAmb		IAmb	04 54 30.9		
	comp=Z,20nm,1.0s								
PSZ	**Piszkesteto**	**85.00**	**318**	⇑P		**P**	**04 54 29.7**	**0.0**	
PSZ	**Piszkesteto**	**85.00**	**318**	P		**P**	**04 54 28.9**	**-0.7**	
	comp=Z,22nm,2.8s								
BEL	**Belsk**	**85.02**	**322**	*e*P		**P**	**04 54 31.7**	**+2.1**	
OUL	**Oulu**	**85.17**	**336**	P		**P**	**04 54 31.2**	**+1.2**	
KLINJ	**Klinje**	**85.28**	**313**	*e*P		**P**	**04 54 31.9**	**+0.7**	
BRY	**Bratogost**	**85.29**	**313**	*e*P		**P**	**04 54 30.4**	**-0.9**	
VADS	**Vadso**	**85.34**	**341**	*e*P		**P**	**04 54 31.5**	**+0.7**	
OJC	**Ojcow**	**85.39**	**321**	*e*P		**P**	**04 54 32.3**	**+0.8**	
OJC	**Ojcow**	**85.39**	**321**	P		**P**	**04 54 32.3**	**+0.8**	
	comp=Z,25nm,1.1s								
TREB	**Trebinje**	**85.40**	**313**	*e*P		**P**	**04 54 31.0**	**-0.7**	
MORH	**Mrgy, Hungar**	**85.62**	**316**	⇓P		**P**	**04 54 33.1**	**+0.4**	
MORH	**Mrgy, Hungar**	**85.62**	**316**	⇑P		**P**	**04 54 33.0**	**+0.3**	
VYHS	**Vyhne**	**85.78**	**319**	*e*P		**P**	**04 54 33.8**	**+0.3**	
VYHS				pmax		pmax			
	comp=Z,16nm,1.4s								
VYHS	**Vyhne**	**85.78**	**319**	*e*P		**P**	**04 54 33.8**	**+0.3**	
VYHS	**Vyhne**	**85.78**	**319**	P		**P**	**04 54 34.4**	**+0.9**	
	comp=Z,4.8nm,1.8s								
SRO	**Srobarova**	**86.04**	**318**	*e*P		**P**	**04 54 35.8**	**+1.1**	
SRO				pmax		pmax			
	comp=Z,19nm,0.9s								
SRO	**Srobarova**	**86.04**	**318**	*e*P		**P**	**04 54 35.8**	**+1.1**	
SRO	**Srobarova**	**86.04**	**318**	P		**P**	**04 54 36.3**	**+1.6**	
	comp=Z,25nm,1.2s								
OKC	**Ostrava-Krasne**	**86.40**	**320**	P		**P**	**04 54 37.7**	**+1.2**	
	comp=Z,23nm,0.9s								
ARA0	**ARCESS Array S**	**86.46**	**340**	*e*P		**P**	**04 54 37.0**	**+0.7**	
ARCES	**ARCESS Array B**	**86.46**	**340**	P		**P**	**04 54 36.9**	**+0.5**	
	comp=Z,5.9nm,0.5s,baz=99,slow=5.3,SNR=50								
ARCES				LR		LR	05 38 55.4		
	comp=Z,109nm,18.2s,baz=106,slow=40								
	comp=Z,5.9nm,0.5s								
ARCES	**ARCESS Array B**	**86.46**	**340**	P		**P**	**04 54 36.3**	**0.0**	
ARCES				IAmb		IAmb	04 54 58.0		
	comp=Z,34nm,0.9s								
BLY	**Banja Luka**	**86.47**	**315**	IAmb		IAmb	04 54 39.0		
	comp=Z,33nm,1.1s								
BLY	**Banja Luka**	**86.47**	**315**	⇓P		**P**	**04 54 37.6**	**+0.6**	
BLY	**Banja Luka**	**86.47**	**315**	⇑*i*P		**P**	**04 54 37.5**	**+0.6**	
BLY	**Banja Luka**	**86.47**	**315**	P		**P**	**04 54 38.0**	**+1.1**	
	comp=Z,31nm,1.2s								
MPLH	**Magyarpolny**	**86.48**	**317**	P		**P**	**04 54 38.2**	**+1.2**	
	comp=Z,41nm,0.9s								
JAVC	**Velka Javorina**	**86.59**	**319**	*e*P		**P**	**04 54 39.0**	**+1.5**	
JAVC	**Velka Javorina**	**86.59**	**319**	P		**P**	**04 54 37.5**	**-0.1**	
	comp=Z,18nm,1.0s								
STEB	**Steborice**	**86.65**	**320**	*e*P		**P**	**04 54 39.0**	**+1.3**	
MORC	**Moravsky Berou**	**86.78**	**320**	⇑P		**P**	**04 54 39.5**	**+1.1**	
MORC	**Moravsky Berou**	**86.78**	**320**	IAmb		IAmb	04 54 40.8		
	comp=Z,50nm,1.6s								
MORC	**Moravsky Berou**	**86.78**	**320**	*e*P		**P**	**04 54 39.2**	**+0.8**	
MORC	**Moravsky Berou**	**86.78**	**320**	⇑P		**P**	**04 54 39.5**	**+1.1**	
MORC	**Moravsky Berou**	**86.78**	**320**	P		**P**	**04 54 39.6**	**+1.2**	
	comp=Z,22nm,1.6s								
MODS	**Modra-Piesok**	**86.79**	**318**	*e*P		**P**	**04 54 39.0**	**+0.5**	
MODS				pmax		pmax			
	comp=Z,27nm,0.4s								
MODS	**Modra-Piesok**	**86.79**	**318**	*e*P		**P**	**04 54 38.9**	**+0.5**	
MODS	**Modra-Piesok**	**86.79**	**318**	P		**P**	**04 54 40.0**	**+1.6**	
	comp=Z,22nm,0.8s								
CEL	**Celeste**	**86.82**	**308**	IAmb		IAmb	04 54 41.6		
	comp=Z,39nm,1.0s								
CEL	**Celeste**	**86.82**	**308**	P		**P**	**04 54 40.9**	**+2.0**	
	comp=Z,48nm,1.2s								
BEHE	**Becsehely**	**86.93**	**317**	⇑*i*P		**P**	**04 54 40.4**	**+1.2**	
BEHE	**Becsehely**	**86.93**	**317**	P		**P**	**04 54 40.6**	**+1.4**	
	comp=Z,25nm,1.0s								
KTK1	**Kautokeino**	**87.12**	**339**	*e*P		**P**	**04 54 40.0**	**+0.4**	
KOGS	**Kog**	**87.29**	**316**	*i*P		**P**	**04 54 41.7**	**+0.8**	
KRLC	**Kraliky**	**87.30**	**320**	*e*P		**P**	**04 54 41.9**	**+1.0**	
KRLC	**Kraliky**	**87.30**	**320**	*e*P		**P**	**04 54 41.9**	**+1.0**	
KRLC	**Kraliky**	**87.30**	**320**	P		**P**	**04 54 42.4**	**+1.5**	
	comp=Z,30nm,0.9s								
HAMF	**Hammerfest**	**87.33**	**341**	*e*P		**P**	**04 54 41.0**	**+0.5**	
VRAC	**Vranov**	**87.34**	**319**	*e*P		**P**	**04 54 41.6**	**+0.5**	
GKP	**G

RJOB	Jochberg	89.74	318	P		P	04 54 53.3	+0.7
WET	Wettzell	89.76	319	*e*P		P	04 54 53.7	+1.1
	comp=Z,64nm,1.6s,baz=90,slow=4.8							
WET				*e*pP		pP	04 55 09.0	+0.5
WET	Wettzell	89.76	319	P		P	04 54 53.7	+1.1
	comp=Z,24nm,1.7s							
CLL	Collm	89.80	321	*i* P		P	04 54 53.2	+0.6
CLL				pmax		pmax		
	comp=Z,25nm,1.3s							
CLL	Collm	89.80	321	*e*P		P	04 54 53.3	+0.7
	comp=Z,19nm,1.1s,baz=90,slow=4.8							
CLL				*e*pP		pP	04 55 09.0	+0.5
CLL	Collm	89.80	321	P		P	04 54 53.5	+0.9
	comp=Z,18nm,1.1s							
CLL	Collm	89.80	321	*i* P		P	04 54 53.2	+0.6
	comp=Z,25nm,1.3s							
CLL				*i* pP		PcP	04 54 59.5	+5.6
CLL				*i* x		x	04 55 08.6	
CLL				L		L	05 31 00.0	
CLL				AMS		AMS	05 39 00.0	
FAUS	Fauske	89.80	337	*e*P		P	04 54 53.1	+0.9
LESA	Schwarzleotal	89.80	317	*e*P		P	04 54 53.0	+0.1
	comp=Z,18nm,1.3s,SNR=7.0							
STEI	Steigen	89.86	338	*e*P		P	04 54 52.9	+0.3
ABTA	Abfaltersbach	89.88	317	P		P	04 54 53.5	+0.2
	comp=Z,14nm,1.2s,SNR=5.0							
HFS	Hagfors	89.94	330	P		P	04 54 53.9	+0.8
	comp=Z,9.6nm,0.8s,baz=151,slow=3.4,SNR=19							
HFS				LR		LR	05 40 17.9	
	comp=Z,132nm,19.4s,baz=64,slow=39							
	comp=Z,9.6nm,0.8s							
MOR8	Moi Rana	90.03	336	*e*P		P	04 54 53.4	-0.1
NKC	Novy Kostel	90.09	320	P		P	04 54 55.3	+1.2
	comp=Z,14nm,1.4s							
TANN	Tannenbergstha	90.09	320	*e*P		P	04 54 55.1	+1.0
	comp=Z,33nm,1.6s,baz=90,slow=4.8							
TANN	Tannenbergstha	90.09	320	P		P	04 54 55.2	+1.1
	comp=Z,23nm,1.4s							
CGRP	Cima Grappa	90.34	316	P		P	04 54 56.5	+0.9
	comp=Z,37nm,1.5s							
TEOL	Teolo	90.41	315	IAmb		IAmb	04 54 57.8	
	comp=Z,47nm,1.3s							
CTI	Castel Tesino	90.45	316	P		P	04 54 56.4	+0.4
CTI				pmax		pmax		
	comp=Z,54nm,1.1s							
CTI	Castel Tesino	90.45	316	P		P	04 54 56.4	+0.4
CTI				IAmb		IAmb	04 54 58.3	
	comp=Z,54nm,1.1s							
GRB3	Grafenberg Arr	90.47	319	P		P	04 54 57.4	+1.6
	comp=Z,38nm,1.2s							
WTTA	Wattenberg	90.50	317	*e*P		P	04 54 56.6	+0.3
	comp=Z,24nm,1.1s,SNR=6.4							
WTTA	Wattenberg	90.50	317	P		P	04 54 56.5	+0.3
	comp=Z,23nm,1.2s							
WATA	Walderalm	90.55	317	*e*P		P	04 54 56.7	+0.3
	comp=Z,6.6nm,0.6s							
SPA0	Spitsbergen Ar	90.55	348	*e*P		P	04 54 55.3	-0.4
SPITS	Spitsbergen Ar	90.55	348	P		P	04 54 55.0	-0.7
	comp=Z,3.3nm,0.4s,baz=101,slow=8.6,SNR=13							
SPITS				LR		LR	05 42 13.4	
	comp=Z,160nm,18.2s,baz=73,slow=40							
	comp=Z,3.3nm,0.4s							
SPITS	Spitsbergen Ar	90.55	348	P		P	04 54 55.0	-0.7
GRB2	Grafenberg Arr	90.56	319	P		P	04 54 57.6	+1.4
	comp=Z,24nm,1.2s							
NEUB	Neuenburg	90.56	321	*e*P		P	04 54 57.4	+1.2
	comp=Z,48nm,1.2s,baz=90,slow=4.8							
NEUB	Neuenburg	90.56	321	P		P	04 54 57.4	+1.2
	comp=Z,36nm,1.1s							
LEIR	Leirfjorden	90.56	336	*e*P		P	04 54 56.6	+0.7
GRB1	Grafenberg Arr	90.57	319	P		P	04 54 57.9	+1.6
	comp=Z,45nm,1.7s							
GRB4	Grafenberg Arr	90.63	319	P		P	04 54 58.1	+1.5
	comp=Z,46nm,1.3s							
MOX	Moxa	90.64	320	*e*P		P	04 54 57.7	+1.1
	comp=Z,33nm,1.5s,baz=90,slow=4.8							
MOX				*e*L		L	05 39 44.8	
	comp=Z,108nm,20.2s							
WIMM	Wimmelburg	90.74	321	P		P	04 54 58.1	+1.1
	comp=Z,57nm,1.6s							
GRA2	Grafenberg Arr	90.77	319	P		P	04 54 58.8	+1.6
	comp=Z,25nm,1.4s							
SQTA	Sankt Quirin	90.79	317	*e*P		P	04 54 57.8	+0.2
	comp=Z,18nm,1.1s,SNR=5.1							
GRA3	Grafenberg Arr	90.80	320	P		P	04 54 59.4	+2.0
	comp=Z,26nm,1.7s							
GRA1	Grafenberg Arr	90.86	320	IAmb		IAmb	04 55 00.3	
	comp=Z,37nm,1.3s							
GRA1	Grafenberg Arr	90.86	320	P		P	04 54 58.3	+0.7
	comp=Z,23nm,1.4s							
GRF	Grafenberg Arr	90.86	320	*e*P		P	04 54 58.8	+1.1
	comp=Z,150nm,2.1s,baz=90,slow=4.8							
GRF				*e*L		L	05 32 01.4	
	comp=Z,102nm,20.6s							
MOTA	Moosalm	90.87	317	*e*P		P	04 54 58.5	+0.6
	comp=Z,22nm,1.0s,SNR=6.9							
TJOU	Tjoern	90.90	328	*i* P		P	04 54 55.9	-1.7
NC602	NORSAR Array S	91.03	331	*e*P		P	04 54 58.7	+0.5
RETA	Reutte	91.10	317	*e*P		P	04 54 59.5	+0.5
	comp=Z,12nm,0.9s,SNR=5.4							
FETA	Feichten	91.11	317	*e*P		P	04 54 59.6	+0.5
	comp=Z,17nm,1.2s,SNR=6.9							
NB2	NORSAR Subarra	91.20	331	P		P	04 54 59.0	0.0
	comp=Z,5.3nm,0.8s,baz=95,slow=4.6							
NB2	NORSAR Subarra	91.20	331	P		P	04 54 59.0	0.0
NB2				AMP			04 54 59.0	
NOA	NORSAR Array B	91.20	331	P		P	04 54 58.7	-0.3
	comp=Z,5.4nm,0.8s,baz=93,slow=4.7,SNR=13							
NOA				LR		LR	05 40 00.8	
	comp=Z,91nm,21.0s,baz=115,slow=38							
	comp=Z,5.4nm,0.8s							
NC204	NORSAR Array S	91.42	331	IAmb		IAmb	04 55 01.0	
	comp=Z,30nm,1.1s							
FUORN	Ofenpass-Fuorn	91.43	316	IAmb		IAmb	04 55 03.0	
	comp=Z,35nm,1.1s							
FUORN	Ofenpass-Fuorn	91.43	316	P		P	04 55 02.0	+1.4
	comp=Z,33nm,1.2s							
CLZ	Clausthal	91.45	322	*e*P		P	04 55 01.6	+1.2
	comp=Z,65nm,1.8s,baz=90,slow=4.8							
CLZ	Clausthal	91.45	322	P		P	04 55 02.1	+1.7
	comp=Z,15nm,1.3s							
DAVA	Damuels	91.70	317	*e*P		P	04 55 02.2	+0.4
	comp=Z,28nm,0.9s,SNR=7.2							
DAVA	Damuels	91.70	317	P		P	04 55 02.6	+0.8
	comp=Z,40nm,0.9s							
KEST	Kesra	91.93	306	P		P	04 55 04.4	+1.4
	comp=Z,31nm,0.9s,baz=41,slow=3.6,SNR=17							
	comp=Z,31nm,0.9s							
KEST	Kesra	91.93	306	P		P	04 55 04.3	+1.2
SSRD	Sdr. Stenderup	91.94	325	*i* P		P	04 55 01.8	-0.6
TUE	Stuetta	92.06	316	P		P	04 55 03.8	+0.2
TUE				IAmb		IAmb	04 55 06.0	
	comp=Z,21nm,1.4s							
TUE	Stuetta	92.06	316	P		P	04 55 04.5	+1.0
	comp=Z,10nm,1.0s							
DOMB	Dombas	92.24	332	*e*P		P	04 55 04.4	+0.6
SNAA	Sanae	92.44	198	LR		LR	05 29 32.4	
	comp=Z,250nm,21.9s,baz=12,slow=31							
SKAR	Skarslia	92.62	331	*e*P		P	04 55 06.6	+1.0
TNS	Taunus Mts	92.66	320	P		P	04 55 07.5	+1.4
	comp=Z,17nm,1.4s							
MOL	Molde	92.94	332	*e*P		P	04 55 08.1	+1.2
AKN	Aaknes	93.21	332	*e*P		P	04 55 08.5	+0.3
NOR	Nord	95.64	352	P		P	04 55 19.0	0.0
	comp=Z,14nm,1.2s							
H17K	Granite Mounta	95.75	25	IAmb		IAmb	04 55 21.6	
	comp=Z,37nm,1.2s							
D19K	Kuna River	95.89	21	IAmb		IAmb	04 55 41.0	
	comp=Z,29nm,0.9s							
F19K	Shaleruckik Mo	96.31	23	IAmb		IAmb	04 55 25.0	
	comp=Z,31nm,1.4s							
J17K	VABM Dome	96.33	26	IAmb		IAmb	04 55 24.3	
	comp=Z,31nm,1.2s							
E19K	Redstone River	96.41	22	IAmb		IAmb	04 55 25.9	
	comp=Z,21nm,1.1s							
G19K	Purcell Mounta	96.71	24	IAmb		IAmb	04 55 44.7	
	comp=Z,16nm,0.8s							
F20K	Avaraart Lake	97.06	23	IAmb		IAmb	04 55 27.1	
	comp=Z,28nm,1.2s							
F21K	Alatna River	97.88	22	IAmb		IAmb	04 55 49.7	
	comp=Z,13nm,1.0s							
IMAR	Indian Mountai	98.08	23	P		P	04 55 29.6	-0.7
DAG	Danmarks Havn	98.20	348	P		P	04 55 29.4	-1.2
	comp=Z,10nm,1.4s							
J20K	Nowinta River	98.33	25	IAmb		IAmb	04 55 33.3	
	comp=Z,26nm,1.2s							
D23K	Nanushuk River	98.42	20	IAmb		IAmb	04 55 52.8	
	comp=Z,26nm,1.4s							
RAR	Rarotonga	98.48	112	LR		LR	05 41 57.1	
	comp=Z,34nm,19.8s,baz=256,slow=36							
H21K	Melozitna Rive	98.53	24	IAmb		IAmb	04 55 34.9	
	comp=Z,27nm,1.2s							
K20K	Telida	98.55	26	IAmb		IAmb	04 55 34.4	
	comp=Z,23nm,1.1s							
TOLK	Toolik Lake Re	98.90	20	IAmb		IAmb	04 55 36.4	
	comp=Z,16nm,1.2s							
TORD	Torodi Ar. Bea	98.91	283	P		P	04 55 35.2	0.0
	comp=Z,1.2nm,0.4s,baz=76,slow=6.3,SNR=4.2							
TORD				LR		LR	05 40 42.0	
	comp=Z,72nm,18.8s,baz=68,slow=36							
	comp=Z,1.2nm,0.4s							
I21K	Tanana	98.99	24	IAmb		IAmb	04 55 55.3	
	comp=Z,15nm,1.0s							
H22K	Ishtalitna Cre	99.04	23	IAmb		IAmb	04 55 37.3	
	comp=Z,26nm,1.3s							
E23K	Chandalar	99.07	21	IAmb		IAmb	04 55 37.4	
	comp=Z,26nm,1.4s							
G23K	Bananza Creek	99.33	22	IAmb		IAmb	04 55 56.7	
	comp=Z,14nm,1.2s							
CAST	Castle Rocks	99.41	26	P		Pdif	04 55 35.7	-0.7
CAST				IAmb		IAmb	04 55 38.4	
	comp=Z,15nm,1.1s							
ILAR	Eielson Array	101.18	24	P		Pdif	04 55 42.4	-1.8
	comp=Z,0.4nm,0.6s,baz=301,slow=4.9,SNR=4.5							
ILAR				PKKPbc		PKKPbc	05 11 55.1	-2.0
	comp=Z,1.3nm,0.7s,baz=122,slow=1.9,SNR=13							
ILAR	Eielson Array	101.18	24	P		Pdif	04 55 42.8	-1.4
ILAR	Eielson Array	101.18	24			Pdif	04 55 42.8	-1.4
INK	Inuvik	104.36	18	Pdiff		Pdif	04 55 56.5	-1.7
	comp=Z,2.4nm,1.1s,baz=264,slow=29,SNR=4.2							
PPT2	Papeete2	108.45	109	*e*LQ		LQ	05 27 32.2	
	comp=Z,215nm,32.2s							
PPT2				*e*LR		LR	05 32 13.9	
	comp=Z,94nm,22.0s							
YKA	Yellowknife Ar	114.08	17	PKiKP		PKPdf	05 00 31.8	-0.9
	comp=Z,2.1nm,1.0s,baz=276,slow=3.0,SNR=8.9							
TAOE	Nuku Hiva Isla	118.72	101	*e*LR		LR	05 36 51.4	
	comp=Z,115nm,24.5s							
NEW	Newport	123.58	29	PKP		PKiKP	05 00 52.0	+0.2
	comp=Z,4.2nm,0.8s,baz=329,slow=2.7,SNR=8.0							
HAWA	Hanford	123.58	32			PKiKP	05 00 52.0	+0.2
SCHQ	Schefferville	126.15	351	PKP		PKPdf	05 00 55.4	-0.8
	comp=Z,13nm,1.0s,baz=334,slow=4.3,SNR=5.0							
SCHQ	Schefferville	126.15	351			PKPdf	05 00 56.1	-0.1
AFDM	Forest Hills D	127.19	40			PKiKP	05 00 59.7	+0.5
NVAR	Mina Array Bea	129.20	39	PKP		PKiKP	05 01 04.1	+0.5
	comp=Z,2.3nm,0.8s,baz=266,slow=2.1,SNR=9.4							
NVAR	Mina Array Bea	129.20	39			PKiKP	05 01 03.8	+0.2
ULM	Lac du Bonnet	129.80	14	PKP		PKPdf	05 01 02.9	-0.4
	comp=Z,6.4nm,0.6s,baz=82,slow=1.3,SNR=12							
PDAR	Pinedale Array	131.22	29	PKP		PKPdf	05 01 06.0	-0.6
	comp=Z,1.5nm,0.8s,baz=183,slow=2.1,SNR=8.8							
PDAR	Pinedale Array	131.22	29			PKiKP	05 01 07.1	-0.4
RSSD	Black Hills	132.63	24	PKIKP		PKPdf	05 01 09.2	+0.1
RSSD	Black Hills	132.63	24			PKPdf	05 01 09.2	+0.1
PFO	Pinyon Flats O	133.21	43	PKIKP		PKiKP	05 01 11.4	-0.2
PFO	Pinyon Flats O	133.21	43			PKiKP	05 01 11.4	-0.2
PLCA	Paso Flores	136.85	190	PKIKP		PKPdf	05 01 17.7	+0.7
PLCA	Paso Flores	136.85	190			PKPdf	05 01 17.7	+0.7
PLCA	Paso Flores	136.85	190	*e*P		PKPdf	05 01 16.4	-0.6
SDBA	SAO DESIDERIO	142.78	247	*e*P		PKPdf	05 01 26.3	-2.1
PEL	Peldehue	144.22	193	PKIKP		PKPbc	05 01 29.5	+0.8
PEL	Peldehue	144.22	193			PKPbc	05 01 29.5	+0.8
BDFB	Brasilia	144.29	240	PKP		PKPdf	05 01 30.4	-0.7
	comp=Z,9.9nm,0.7s,baz=114,slow=3.9,SNR=17							
TXAR	Lajitas Array	144.31	38	PKP		PKPbc	05 01 29.8	+0.7
	comp=Z,52nm,0.9s,baz=261,slow=1.5,SNR=384							
TXAR				SKPbc		SKPbc	05 05 04.9	-0.4
	comp=Z,0.6nm,0.8s,baz=8.6,slow=4.9,SNR=2.0							
VA01	Torpederas	144.54	192			PKPbc	05 01 30.2	+0.6
HPIG		144.65	43			PKPbc	05 01 30.5	+0.1
CPUP	Villa Florida	144.71	216	PKP		PKPdf	05 01 31.5	0.0
	comp=Z,33nm,0.8s,baz=135,slow=2.5,SNR=76							
CPUP	Villa Florida	144.71	216			PKPdf	05 01 31.0	-0.4
SJPY	San Joaquin	144.94	219	*e*P		PKPab	05 01 29.2	-2.0
T59A	Double "B" Far	144.98	357			PKPab	05 01 29.9	-0.9
WVT	Waverly	145.02	12	PKIKP		PKPbc	05 01 30.1	-1.0
WVT	Waverly	145.02	12			PKPbc	05 01 30.1	-1.0
SMTB	Santa Maria do	146.40	251	*e*P		PKPdf	05 01 32.9	-1.7
BBSR	BB Station	146.54	337			PKPbc	05 01 35.2	-0.6
C2SB	Chapadao do Su	146.68	231	*e*P		PKPdf	05 01 32.9	-2.0
ARAG	Aragoiana, MT	147.49	237	*e*P		PKPdf	05 01 34.8	-1.6
AQDB	Aquidauana	147.77	225			PKPdf	05 01 36.5	-0.3
AQDB	Aquidauana	147.77	225	*e*P		PKPdf	05 01 35.2	-1.5
LCO	Las Campanas	148.18	195	PKIKP		PKPdf	05 01 38.2	+0.6
LCO	Las Campanas	148.18	195			PKPdf	05 01 38.2	+0.6
BDQN	Bodoquena, MS	148.53	224	*e*P		PKPdf	05 01 36.7	-1.3
SNDB	Serra Nova Dou	148.73	243	*e*P		PKPdf	05 01 36.9	-1.6
CLDB	Colider	153.19	241	*e*P		PKPdf	05 01 43.6	-1.7
BBSD	Serra de San D	153.41	224	*e*P		PKPdf	05 01 43.5	-2.1
PTLB	Pontes e Lacer	153.48	229	*e*P		PKPdf	05 01 43.5	-2.2
PDRB	Porto dos Gac	153.66	239	*e*P		PKPdf	05 01 43.1	-2.9
NPGB	Novo Progresso	154.28	250	*e*P		PKPdf	05 01 44.5	-2.5
ITTB	Itaituba	155.39	255	*e*P		PKPdf	05 01 45.4	-3.1
VILB	Vilhena	155.81	232	*e*P		PKPdf	05 01 44.7	-4.3
LPAZ	La Paz	158.75	212	PKP		PKPdf	05 01 54.1	+0.7
	comp=Z,6.0nm,0.9s,baz=84,slow=2.0,SNR=21							
LPAZ	La Paz	158.75	212	*e*P		PKPdf	05 01 49.9	-3.5
BOAV	Boa Vista	160.95	272	*e*P		PKPdf	05 01 52.1	-3.2
RUSC	La Rusia	172.37	302			PKPdf	05 02 02.6	-1.9
ROSC	El Rosal	173.96	300	PKP		PKPdf	05 02 05.1	0.0
	comp=Z,8.0nm,0.7s,baz=79,slow=16,SNR=5.1							

*IDC **18** 04:47:49.1±8.7,9.38S×160.24E,h0km,mb4.1/3, mbtmp4.1/3,Error ellipse: s-maj=248.0km s-min=47.6km az=119.0*
*NOU **18** 04:47:51.0,10.43S×161.42E,h18km,MLv4.6/15, Solomon Islands*
*NEIC **18** 04:48:00.7±1.7,9.6S±0.1×160.8E±0.1,h121km±7km, mb4.1/11,Error ellipse: s-maj=19.3km s-min=17.1km az=193.0*

ISC 18 04:47:50.9±0.7,10.33S±0.07×161.52E±0.06,h61km,n28, σ1s97/27,mb4.1/8,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
HURO	Huro Makira	0.40	109	P		Pn	04 48 00.8	-1.1
HURO	Huro Makira	0.40	109	S		Sn	04 48 09.7	-0.2
HNR	Honiara	1.79	300	P		Pn	04 48 21.5	+1.9
HNR	Honiara	1.79	300	S		Sn	04 48 43.3	+1.9
HNR	Honiara	1.79	300	Pn		Pn	04 48 21.4	+1.8
HNR				Sn		Sn	04 48 36.4	-5.0
NGOA	Tingoa Renbel	1.88	230	P		Pn	04 48 20.1	-0.7
NGOA	Tingoa Renbel	1.88	230	S		Sn	04 48 42.1	-1.3
SAVO	Savo Central	2.06	305	P		Pn	04 48 24.5	+1.3
TATA	Tatamba Isabel	2.57	319	P		Pn	04 48 31.4	+1.2
TATA	Tatamba Isabel	2.57	319	S		Sn	04 49 03.5	+3.1
SANVU	Saraoutou	7.52	133	P		Pn	04 49 39.4	+1.5
NOUC	Port Laguerre	12.57	159	P		Pn	04 50 49.1	+2.2
MARNC	Mare, Loyalty	12.72	151	P		Pn	04 50 50.6	+1.5
OUENC	Ouen Island, N	13.05	158	P		Pn	04 50 55.4	+1.8
CTAO	Charters Tower	17.63	235	P		P	04 51 55.7	+3.1
CTAO				IAmb		IAmb	04 52 05.5	
	comp=Z,18nm,1.1s							
WR0	Warramunga Arr	27.71	247	P		P	04 53 31.9	-1.8
WR0				IAmb		IAmb	04 53 40.3	
	comp=Z,8.2nm,1.1s							
WB0	Warramunga Arr	27.79	247	P		P	04 53 33.2	-1.3
WB0				IAmb		IAmb	04 53 40.7	
	comp=Z,5.5nm,1.1s							
WRA	Warramunga Arr	27.89	247	P		P	04 53 34.2	-1.2
	comp=Z,0.8nm,0.5s,baz=71,slow=8.5,SNR=3.7							
	comp=Z,0.8nm,0.5s							
WRA	Warramunga Arr	27.89	247	P		P	04 53 34.8	-0.5
KNRA	Kununurra	32.34	257	P		P	04 54 12.4	-2.2
KNRA				IAmb		IAmb	04 54 13.7	
	comp=Z,2.9nm,0.9s							
LTZ	Lake Taylor	33.66	166	P		P	04 54 38.4	+12
SONM	Songino Array	75.68	325	P		P	04 59 28.8	-1.0
	comp=Z,2.3nm,0.6s,baz=144,slow=6.3,SNR=10							
	comp=Z,2.3nm,0.6s							
SONM	Songino Array	75.68	325	P		P	04 59 28.3	-1.6
SONM				IAmb		IAmb	04 59 29.6	
	comp=Z,2.4nm,0.7s							
L18K	Granite Mounta	79.26	19	P		P	04 59 49.5	+0.1
L18K				IAmb		IAmb	04 59 50.5	
	comp=Z,4.2nm,1.0s							
M19K	Big River Lodg	79.77	20	P		P	04 59 52.0	-0.1
M19K				IAmb		IAmb	05 00 07.1	
	comp=Z,1.4nm,1.0s							
L19K	White Mountain	79.82	19	P		P	04 59 52.8	+0.3
MKAR	Makanchi Array	90.18	318	P		P	05 00 42.6	-2.2
	comp=Z,0.4nm,0.4s,baz=87,slow=6.3,SNR=4.4							
	comp=Z,0.4nm,0.4s							
VHRN	Van Horn	98.18	60	P		Pdif	05 01 23.9	+1.9

ATH 18 04:52:01.9,38.42N×21.94E,h10km,ML1.3/7,Latitude uncertainty: 0 km; Longitude uncertainty: 0 km,Greece

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
MG00	Magoula, Dorid	0.01	91	P		Pg	04 52 03.6	0.0
MG00				S		Sg	04 52 05.0	+0.2
EFP	Efpalio	0.03	294	P		Pg	04 52 03.7	0.0
EFP				S		Sg	04 52 04.9	-0.1
EFP				AML		AML		
SERG	Sergoula	0.09	91	P		Pg	04 52 04.7	+0.2
SERG				S		Sg	04 52 06.5	+0.3
SERG				AML		AML		
VVK	Vomvokou	0.10	274	P		Pg	04 52 04.5	-0.1
VVK				S		Sg	04 52 06.5	+0.1
KALE	Kalithea	0.16	99	P		Pg	04 52 05.6	+0.2
KALE				S		Sg	04 52 08.3	+0.4
KALE				AML		AML		
AGRP	Agrapidokambos	0.17	264	P		Pg	04 52 05.7	+0.1
AGRP				S		Sg	04 52 08.6	+0.4
AGRP				AML		AML		
LAKA	Lakka	0.18	170	P		Pg	04 52 05.9	+0.2
LAKA				S		Sg	04 52 08.7	+0.3
AGEO	AgiosGiorgios,	0.18	147	P		Pg	04 52 06.0	+0.3
ANX	Ano Chora	0.18	355	P		Pg	04 52 05.8	0.0
ANX				S		Sg	04 52 08.9	+0.4
ANX				AML		AML		
PVO	Paravola	0.38	302	P		Pg	04 52 09.5	+0.1
PVO				S		Sg	04 52 15.2	+0.7
KLV	Kalavryta, Ach	0.41	156	P		Pg	04 52 09.8	-0.1
KLV				S		Sg	04 52 15.9	+0.6
PLEV	Plevrona-Mesol	0.42	270	P		Pg	04 52 09.6	-0.5
PLEV				S		Sg	04 52 15.8	+0.1
AXS	Araxos	0.49	244	P		Pg	04 52 12.0	+0.5
AXS				S		Sg	04 52 18.6	+0.6
DRO	Drossia	0.50	201	P		Pg	04 52 11.6	+0.1
DRO				S		Sg	04 52 18.8	+0.7
EVR	Evrytania	0.51	349	P		Pg	04 52 11.8	-0.1
EVR				S		Sg	04 52 19.6	+0.9
EVR				AML		AML		
RLS	Riolos of Patr	0.52	226	P		Pg	04 52 12.2	+0.2
RLS				S		Sg	04 52 18.7	0.0
GUR	Goura	0.57	146	P		Pg	04 52 13.0	-0.1
GUR				S		Sg	04 52 21.0	+0.4
GUR				AML		AML		
PDO	Prodromos	0.62	287	P		Pg	04 52 14.3	+0.3
AXAR	Agios Charalam	0.66	58	P		Pg	04 52 14.4	-0.4
AXAR				S		Sb	04 52 24.2	-0.7
AGG	Agios Georgios	0.68	27	P		Pg	04 52 14.3	-0.7
AGG				S		Sg	04 52 24.6	+0.7
AMPL	Ampelaki	0.76	312	P		Pg	04 52 16.7	+0.1
AMT	Artemida-Makis	0.90	192	P		Pg	04 52 19.2	0.0

*NAO **18** 05:31:12.5±0.9,79.91N×20.00E,h10km,ML3.1*
*BER **18** 05:31:14.0±2.6,79.88N×20.30E,h20km±14km,ML2.5, ML3.1(NAO),Confirmed Earthquake*

ISC 18 05:31:13.8±3.6,79.86N±0.08×19.65E±0.07,h15km±27km, n12,σ1s63/27,Svalbard region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KBS	Kingsbay	1.71	240	Pn		Pn	05 31 44.0	+1.0
KBS				Sg		Sb	05 32 07.0	+0.9
KBS	Kingsbay	1.71	240	Pn		Pn	05 31 44.0	+1.0
KBS				Sg		Sb	05 32 07.0	+0.9
SPA0	Spitsbergen Ar	1.81	202	Pn		Pn	05 31 43.9	-0.4
	baz=21,slow=18							
SPA0				Pg		Pb	05 31 47.0	+0.5
	baz=22,slow=18							
SPA0				Sg		Sb	05 32 10.7	+1.7
	baz=29,slow=28							
SPA0	Spitsbergen Ar	1.81	202	*e*P		Pn	05 31 44.1	-0.2
SPA0				*e*S		Sn	05 32 08.4	+1.4
SPA0	Spitsbergen Ar	1.81	202	Pn		Pn	05 31 43.9	-0.4
SPA0				Pg	

comp=N,4µm,0.2s
CO03 El Pedregal 1.09 157 *e*P **Pn** **05 31 57.4 -0.1**
CO03 eS **Sb** **05 32 12.4 +0.6**
CO03 IAML 05 32 13.2
comp=E,3µm,0.1s
CO03 El Pedregal 1.09 157 Pn **Pb** **05 31 57.8 -0.2**
CO03 Sn **Sn** **05 32 11.0 -0.8**
CO03 El Pedregal 1.09 157 *i* P **Pn** **05 31 57.2 -0.2**
CO03 eS **Sb** **05 32 11.4 -0.4**
CO03 IAML 05 32 13.3
comp=E,12µm,0.1s
AC05 El Transito 1.27 39 *e*P Pn 05 31 55.0 -4.9
AC05 *e*P **Pb** **05 32 00.5 -0.5**
AC05 eS **Sb** **05 32 17.6 +0.6**
AC05 IAML 05 32 17.9
comp=Z,996nm,0.7s
AC05 El Transito 1.27 39 Pn **Pb** **05 32 00.6 -0.5**
AC05 Sn **Sb** **05 32 17.1 +0.1**
AC05 IAML 05 32 17.8
comp=N,3µm,0.5s
AC05 IAML 05 32 18.2
comp=E,2µm,0.4s
AC05 El Transito 1.27 39 *i* P **Pb** **05 32 00.6 -0.5**
AC05 IAML 05 32 18.1
comp=N,2µm,0.2s
CO02 Combarbal 1.38 174 *e*P **Pn** **05 32 01.9 +0.5**
CO02 eS **Sb** **05 32 20.3 +0.2**
CO02 IAML 05 32 21.6
comp=Z,4µm,0.1s
CO02 Combarbal 1.38 174 **Pn** **05 32 01.8 +0.5**
CO02 Combarbal 1.38 174 *i* P **Pn** **05 32 01.9 +0.5**
CO02 eS **Sn** **05 32 19.4 +0.5**
CO02 IAML 05 32 21.0
comp=N,11µm,0.2s
AROD Rodeo 1.52 103 *e*P **Pb** **05 32 05.5 0.0**
AC04 Llanos de Chal 1.62 3 *e*P **Pn** **05 32 06.0 +1.3**
AC04 eS **Sb** **05 32 27.0 -0.1**
AC04 IAML 05 32 29.7
comp=Z,815nm,0.2s
AC04 Llanos de Chal 1.62 3 Pn **Pn** **05 32 06.1 +1.3**
AC04 IAML 05 32 30.1
comp=N,2µm,0.2s
AC04 IAML 05 32 30.3
comp=E,1µm,0.2s
AC04 Llanos de Chal 1.62 3 *e*P **Pn** **05 32 05.8 +1.1**
AC04 IAML 05 32 30.1
comp=N,2µm,0.1s
ACDV Cuesta del Vie 1.82 101 *e*P **Pb** **05 32 10.9 +0.5**
ACDV eS **Sb** **05 32 34.5 +1.6**
ACDV IAML 05 32 34.7
comp=Z,759nm,0.4s
ACCO Cerro Coronel 1.98 113 *e*P **Pb** **05 32 13.7 +0.4**
ACCO eS **Sb** **05 32 40.0 +2.3**
CO04 Los Peladeros 2.21 175 Pn **Pn** **05 32 14.0 +0.9**
CO04 IAML 05 32 53.2
comp=E,973nm,0.7s
CO04 Los Peladeros 2.21 175 *i* P **Pn** **05 32 13.9 +0.9**
CO04 IAML 05 32 48.2
comp=N,1µm,0.3s
GO03 Copiapo 2.38 21 *e*P **Pn** **05 32 17.3 +2.1**
GO03 eS **Sb** **05 32 48.7 -0.2**
GO03 IAML 05 32 52.8
comp=Z,442nm,0.5s
GO03 Copiapo 2.38 21 Pn **Pn** **05 32 17.2 +2.1**
GO03 Copiapo 2.38 21 *e*P **Pn** **05 32 17.1 +1.9**
GO03 IAML 05 32 54.1
comp=N,1µm,0.2s
RTLS Leoncito 2.54 141 *e*P **Pb** **05 32 21.8 -1.1**
RTLS eS **Sb** **05 32 51.6 -2.2**
RTLS IAML 05 33 01.5
comp=Z,653nm,0.3s
AC06 Mina Casimiro 2.57 17 Pn **Pn** **05 32 20.0 +2.3**
AC06 IAML 05 32 58.7
comp=E,504nm,0.7s
AC06 Mina Casimiro 2.57 17 *e*P **Pn** **05 32 19.4 +1.6**
AC06 IAML 05 32 58.4
comp=E,350nm,0.3s
ZON Zonda 2.75 129 *e*P **Pn** **05 32 20.8 +0.5**
ZON eS **Sb** **05 32 58.2 -1.4**
RTLL Cerro Villicun 2.77 123 *e*P **Pb** **05 32 25.0 -1.6**
RTLL eS **Sb** **05 32 57.3 -2.9**
RTLL IAML 05 33 04.2
comp=Z,254nm,0.5s
RTLL Cerro Villicun 2.77 123 *e*P **Pb** **05 32 23.9 -2.7**
SJA San Juan 2.82 127 *e*P **Pn** **05 32 22.4 +1.2**
SJA IAML 05 33 06.3
comp=Z,103nm,0.3s
VCA Vinchina 2.82 68 *e*P **Pb** **05 32 26.6 -1.0**
VCA eS **Sb** **05 33 02.4 +0.7**
VCA IAML 05 33 08.7
comp=Z,677nm,0.4s
VCA Vinchina 2.82 68 *e*P **Pb** **05 32 26.6 -1.0**
VA03 San Esteban 2.97 170 *e*P **Pn** **05 32 25.4 +2.0**
VA03 eS **Sb** **05 33 03.6 -2.3**
VA03 IAML 05 33 12.8
comp=Z,359nm,0.2s
VA03 San Esteban 2.97 170 Pn **Pn** **05 32 25.1 +1.8**
VA03 San Esteban 2.97 170 *e*P **Pn** **05 32 25.0 +1.7**
VA03 IAML 05 33 12.1
comp=E,648nm,0.3s
CFA Coronel Fontan 3.09 126 *e*P **Pb** **05 32 28.1 -3.9**
CFA eS **Sn** **05 32 54.0 -7.1**
CFA IAML 05 32 59.1
comp=Z,210nm,0.8s
ROCH El Roble 3.13 177 *e*P **Pn** **05 32 27.1 +1.5**
ROCH *e*P Pb 05 32 27.4 -5.5
ROCH IAML 05 33 19.2
comp=N,650nm,0.4s
VA01 Torpederas 3.21 187 *e*P **Pn** **05 32 25.0 -1.4**
VA01 IAML 05 33 19.5
comp=Z,101nm,0.7s
VA01 Torpederas 3.21 187 Pn **Pn** **05 32 27.6 +1.1**
VA01 IAML 05 33 19.4
comp=E,269nm,0.7s
AVFE Valle Fertil 3.33 105 *e*P **Pn** **05 32 31.4 +3.2**
AVFE eS **Sb** **05 33 13.0 -3.2**
AVFE IAML 05 33 24.8
comp=Z,145nm,0.9s
PEL Peldehue 3.33 173 *e*P **Pn** **05 32 30.4 +2.2**
PEL eS **Sb** **05 33 22.6 +6.4**
PEL IAML 05 33 34.0
comp=Z,186nm,0.9s
PEL Peldehue 3.33 173 Pn **Pn** **05 32 29.9 +1.7**
PEL IAML 05 33 24.1
comp=E,223nm,0.5s
PEL IAML 05 33 27.1
comp=N,266nm,0.5s
PEL Peldehue 3.33 173 *e*P **Pn** **05 32 30.0 +1.7**
PEL IAML 05 33 24.5
comp=E,281nm,0.4s
MT02 Curacav 3.42 179 *e*P **Pn** **05 32 30.9 +1.6**
MT02 eS **Sb** **05 33 14.0 -4.6**
MT02 IAML 05 33 25.8
comp=Z,206nm,0.3s
MT02 Curacav 3.42 179 Pn **Pn** **05 32 30.5 +1.1**
MT02 IAML 05 33 23.0
comp=E,255nm,0.6s
MT02 Curacav 3.42 179 *e*P **Pn** **05 32 30.8 +1.4**
MT02 IAML 05 33 27.2
comp=E,179nm,0.3s
MT10 Hacienda Santa 3.47 171 *e*P **Pn** **05 32 32.2 +2.0**
AC02 Maricunga 3.49 32 *e*P **Pn** **05 32 33.7 +2.9**
AC02 eS **Sb** **05 33 28.9 +7.6**
AC02 IAML 05 33 32.1
comp=Z,398nm,0.8s
AC02 Maricunga 3.49 32 Pn **Pn** **05 32 33.0 +2.2**
AC02 IAML 05 33 33.2
comp=N,284nm,0.5s
AC02 Maricunga 3.49 32 *e*P **Pn** **05 32 33.4 +2.6**
ARCO CERRO ARCO 3.56 148 *e*P **Pb** **05 32 37.0 -3.2**
ARCO eS **Sb** **05 33 17.8 -5.3**
ARCO IAML 05 33 36.0
comp=Z,72nm,0.6s
FCH Farellones 3.57 168 *e*P **Pn** **05 32 34.6 +2.9**
FCH IAML 05 33 33.5
comp=E,154nm,0.3s
MT05 Renca 3.57 174 *e*P **Pn** **05 32 35.4 +3.9**
MT05 eS **Sb** **05 33 30.3 +7.2**
MT05 IAML 05 33 32.3
comp=Z,287nm,1.6s
MT05 Renca 3.57 174 Pn **Pn** **05 32 33.6 +2.1**
MT05 Renca 3.57 174 *e*P **Pn** **05 32 34.4 +2.9**
MT14 Cerro Cal¡n 3.59 171 *e*P **Pn** **05 32 34.9 +3.0**
MT14 IAML 05 33 36.4
comp=E,519nm,0.5s
TINO Tinogasta 3.62 62 *e*P **Pn** **05 32 35.7 +3.4**
MT16 CCHEN 3.63 171 Pn **Pn** **05 32 34.7 +2.4**
MT16 CCHEN 3.63 171 *e*P **Pn** **05 32 35.1 +2.8**
MT04 Ro Olivares 3.67 166 *e*P **Pn** **05 32 36.7 +3.6**
MT04 eS Sb 05 33 36.5 +10
MT04 IAML 05 33 38.8
comp=Z,92nm,0.5s
MT04 Ro Olivares 3.67 166 *e*P **Pn** **05 32 36.5 +3.4**
MT03 Universidad Ad 3.69 171 *e*P **Pn** **05 32 36.4 +3.1**
MT03 eS **Sb** **05 33 22.9 -3.8**
MT03 IAML 05 33 35.8
comp=Z,286nm,0.7s
MT03 Universidad Ad 3.69 171 Pn **Pn** **05 32 35.8 +2.6**
MT03 Universidad Ad 3.69 171 *e*P **Pn** **05 32 36.5 +3.2**
ACLC CERRO LA CRUZ 3.70 85 *e*P **Pn** **05 32 36.7 +3.2**
ACLC eS **Sb** **05 33 34.6 +7.4**
ACLC IAML 05 33 34.6
comp=Z,46nm,0.5s
AC01 Pan de Azucar 3.71 8 *e*P **Pn** **05 32 34.2 +0.8**
AC01 eS **Sb** **05 33 23.2 -3.9**
AC01 IAML 05 33 33.2
comp=Z,133nm,0.4s
AC01 Pan de Azucar 3.71 8 Pn **Pn** **05 32 34.0 +0.6**
AC01 IAML 05 33 36.3
comp=N,139nm,0.5s
AC01 IAML 05 33 37.5
comp=E,191nm,0.7s
AC01 Pan de Azucar 3.71 8 *e*P **Pn** **05 32 34.0 +0.6**
MT08 Bocatoma Ro 3.74 165 *e*P **Pn** **05 32 33.2 -0.8**
MT08 *e*P Pb 05 32 37.9 -5.3
MT08 eS **Sb** **05 33 33.2 +5.1**
MT08 IAML 05 33 38.8
comp=Z,83nm,0.5s
MT08 Bocatoma Ro 3.74 165 Pn **Pn** **05 32 35.6 +1.6**
MT08 Bocatoma Ro 3.74 165 *e*P **Pn** **05 32 37.8 +3.8**
MT15 Las Vizcachas 3.80 171 *e*P **Pn** **05 32 37.7 +3.1**
AAGR Agrelo 3.81 149 *e*P **Pb** **05 32 40.3 -4.2**
AAGR IAML 05 33 51.7
comp=Z,63nm,0.6s
VA05 Santo Domingo 3.83 185 Pn **Pn** **05 32 35.9 +0.8**
VA05 IAML 05 33 40.3
comp=E,234nm,0.4s
VA05 IAML 05 33 47.8
comp=N,235nm,0.5s
VA05 Santo Domingo 3.83 185 *e*P **Pn** **05 32 36.0 +1.0**
MT12 Pirque 3.93 172 *e*P **Pn** **05 32 39.2 +2.8**
MT09 Talagante 3.94 178 Pn **Pn** **05 32 38.5 +1.9**
MT09 IAML 05 33 42.1
comp=E,224nm,0.7s
MT09 IAML 05 33 44.3
comp=N,238nm,0.5s
MT09 Talagante 3.94 178 *e*P **Pn** **05 32 39.0 +2.4**
MT13 San Alfonso 3.97 169 *e*P **Pn** **05 32 40.6 +3.5**
MT13 eS **Sb** **05 33 39.8 +4.9**
MT13 IAML 05 33 47.9
comp=Z,78nm,0.4s
MT13 San Alfonso 3.97 169 Pn **Pn** **05 32 39.8 +2.7**
MT13 IAML 05 33 44.7
comp=E,162nm,0.4s
MT13 IAML 05 33 45.9
comp=N,139nm,0.5s
MT13 San Alfonso 3.97 169 *e*P **Pn** **05 32 40.5 +3.5**
MT01 Popeta 4.02 181 *e*P **Pn** **05 32 39.5 +1.8**
MT01 eS **Sb** **05 33 39.8 +3.7**
MT01 IAML 05 33 44.6
comp=Z,104nm,0.6s
MT01 Popeta 4.02 181 Pn **Pn** **05 32 39.0 +1.4**
MT01 IAML 05 33 44.7
comp=E,115nm,0.5s
MT01 Popeta 4.02 181⇑ *e*P **Pn** **05 32 39.3 +1.7**
LMEL Las Melosas 4.09 169 *e*P **Pn** **05 32 42.7 +4.0**
BO04 La Punta 4.17 173 Pn **Pn** **05 32 41.6 +1.8**
BO04 IAML 05 33 50.9
comp=N,125nm,0.5s
BO04 IAML 05 33 51.2
comp=E,182nm,0.7s
ACAN Cantantal 4.20 126 *e*P **Pn** **05 32 43.3 +3.1**
ACAN IAML 05 33 55.3
comp=Z,166nm,0.4s
BO01 Tunca 4.55 179 *e*P **Pn** **05 32 46.8 +1.9**
BO01 eS **Sb** **05 33 57.3 +6.1**
BO01 IAML 05 34 07.0
comp=Z,51nm,0.6s
BO01 Tunca 4.55 179 Pn **Pn** **05 32 46.1 +1.2**
CYA Choya 4.91 75 *e*P **Pn** **05 32 52.3 +2.4**
CYA eS **Sb** **05 34 05.1 +3.5**
CYA Choya 4.91 75⇑ *e*P **Pn** **05 32 52.1 +2.3**
BO02 Sierra Bellavi 4.96 176 *e*P **Pn** **05 32 53.2 +2.6**
BO02 eS **Sb** **05 34 04.8 +1.8**
BO02 IAML 05 34 11.7
comp=Z,75nm,0.9s
BO02 Sierra Bellavi 4.96 176 Pn **Pn** **05 32 52.2 +1.6**
BO02 IAML 05 34 13.9
comp=N,110nm,0.6s
BO02 IAML 05 34 16.1
comp=E,99nm,0.5s
GO05 Hualane 5.20 187 Pn **Pn** **05 32 53.6 -0.3**
PB14 IPOC Station P 5.23 8 Pn **Pn** **05 32 57.2 +2.6**
PB14 IAML 05 34 23.5
comp=E,79nm,0.6s
PB14 IAML 05 34 29.9
comp=N,56nm,0.9s
TCA Tanti 5.87 106 *e*P **Pn** **05 33 04.3 +1.1**
ML02 Panimavida 5.92 182 Pn **Pn** **05 33 04.6 +0.9**
BI02 San Fabin de 6.81 181 Pn **Pn** **05 33 17.6 +1.5**
PB05 IPOC Station P 7.01 7 Pn **Pn** **05 33 21.1 +2.2**
PB03 IPOC Station P 7.86 10 Pn **Pn** **05 33 30.9 +0.4**
PB09 IPOC Station P 8.19 13 Pn **Pn** **05 33 37.3 +2.2**
GO01 Chusmiza 10.28 11 Pn **Pn** **05 34 03.1 -1.0**
LPAZ La Paz 13.77 12 Pn **Pn** **05 34 50.9 -1.0**

NEIC ***18*** *05:51:08.1±2.0,54.˚30N±0.˚04×159.˚65W±0.˚06, h23km±7km, mb3.5/12, ML3.4/36, ML3.4(AEIC), Error ellipse: s-maj=6.9km s-min=3.9km az=206.0*
AEIC ***18*** *05:51:09±1.7, 54.˚26N±0.˚06×159.˚62W±0.˚08, h30km±6km, Error ellipse: s-maj=8.9km s-min=6.4km az=153.0*
ISC 18 05:51:05.6±3.0, 54.˚22N±0.˚06×159.˚59W±0.˚04, h13km±20km, n119, σ1.9/14.4/138, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.60**	**0**		**Pn**	**05 51 19.4**	**-0.5**
CNBA				Sg	**Sn**	**05 51 28.3**	**-1.1**
CNBA				IAML		05 51 30.5	
comp=N,3µm,0.3s							
CHNA	**Chernabura Isl**	**0.61**	**360**	P	**Pb**	**05 51 18.9**	**+0.8**
SDPT	**Sand Point**	**1.25**	**336**	P	**Pn**	**05 51 27.8**	**-0.8**
SDPT	**Sand Point**	**1.25**	**336**	S	**Sb**	**05 51 43.1**	**-1.7**
SDPT	**Sand Point**	**1.25**	**336**		**Pn**	**05 51 28.5**	**-0.2**
SDPT					**Sb**	**05 51 43.9**	**-0.9**
SDPT				IAML		05 51 48.0	
comp=E,681nm,0.6s							
DOL	**Dolgoi Island**	**1.62**	**306**		**Pn**	**05 51 33.5**	**-0.3**
DOL					**Sn**	**05 51 52.7**	**-1.7**
PVV	**Pavlof Volcano**	**1.72**	**313**		**Pn**	**05 51 35.5**	**+0.3**
PS4A	**Pavlof South-4**	**1.73**	**312**		**Pn**	**05 51 35.5**	**+0.2**
PS4A					**Sn**	**05 51 56.8**	**-0.5**
PS4A					**Sb**	**05 51 57.0**	**-1.9**
PS1A	**Pavlof South-1**	**1.73**	**315**		**Pn**	**05 51 35.8**	**+0.4**
PS1A					**Sn**	**05 51 56.0**	**-1.3**
PS1A					**Sb**	**05 51 56.9**	**-2.0**
HAG	**Hague Volcano**	**1.74**	**310**		**Pn**	**05 51 35.6**	**+0.2**
HAG					**Pb**	**05 51 35.7**	**-1.5**
DT1	**Dutton Round H**	**1.80**	**301**		**Pn**	**05 51 35.9**	**-0.3**
DT1					**Sn**	**05 51 57.6**	**-1.3**
DTNA	**Dutton South F**	**1.81**	**302**		**Sn**	**05 51 58.0**	**-1.1**
PN7A	**Pavlof North-7**	**1.85**	**312**		**Sn**	**05 51 59.5**	**-0.8**
VNSS	**Veniaminof 8**	**2.02**	**2**		**Pn**	**05 51 40.1**	**+0.7**
S12K	**Black Hills**	**2.06**	**317**		**Pn**	**05 51 40.6**	**+0.7**
S12K					**Sn**	**05 52 05.4**	**0.0**
VNFG	**Fog Glacier, M**	**2.07**	**1**		**Pn**	**05 51 41.0**	**+1.0**
CHGN	**Chignik**	**2.19**	**17**		**Pn**	**05 51 41.2**	**-0.4**
CHGN					**Sn**	**05 52 07.0**	**-1.6**
ISLZ	**Isanotski Laza**	**2.46**	**284**		**Pn**	**05 51 46.0**	**+0.6**
ISLZ					**Sn**	**05 52 14.7**	**-0.6**
BPBCA	**Veniaminof**	**2.46**	**15**		**Pn**	**05 51 45.6**	**+0.2**
SSLS	**Shishaldin Sou**	**2.62**	**283**		**Pn**	**05 51 48.7**	**+1.1**
SSLS					**Sn**	**05 52 19.5**	**+0.2**
SSLN	**Shishaldin Nor**	**2.64**	**285**		**Pn**	**05 51 48.8**	**+1.0**
SSLN					**Pb**	**05 51 49.0**	**-3.6**
SSLN					**Sn**	**05 52 20.5**	**+0.9**
ANPB	**Aniakchak Plen**	**2.69**	**15**		**Pn**	**05 51 49.1**	**+0.5**
CHIR	**Chirikof Islan**	**2.79**	**53**	P	**Pn**	**05 51 48.9**	**-1.0**
CHIR	**Chirikof Islan**	**2.79**	**53**	S	**Sn**	**05 52 20.1**	**-3.3**
WTUG	**Tugumak**	**2.87**	**285**		**Pn**	**05 51 51.8**	**+0.9**
WESN	**West Dahl Nort**	**2.94**	**279**		**Pn**	**05 51 52.8**	**+0.9**
WESN					**Sn**	**05 52 27.0**	**-0.2**
WEBT	**Westdahl Beart**	**3.04**	**279**		**Pn**	**05 51 54.2**	**+0.9**
WECS	**Westdahl Cape**	**3.05**	**278**	Pn	**Pn**	**05 51 53.9**	**+0.4**
WECS				IAML		05 52 35.9	
comp=E,146nm,0.8s							
WECS				IAML		05 52 36.9	
comp=N,176nm,0.9s							
R16K	**Pilot Point**	**3.54**	**18**		**Pn**	**05 52 00.6**	**+0.4**
R16K				IAML		05 52 42.9	
comp=N,102nm,0.7s							
R16K				IAML		05 52 43.6	
comp=E,84nm,0.7s							
R16K	**Pilot Point**	**3.54**	**18**		**Sn**	**05 52 40.0**	**-1.9**
AKUT	**Akutan**	**3.63**	**271**	P	**Pn**	**05 52 02.7**	**+1.3**
AKUT	**Akutan**	**3.63**	**271**	Pn	**Pn**	**05 52 02.3**	**+0.9**
AKUT				IAML		05 52 43.9	
comp=N,84nm,0.4s							
AKUT				IAML		05 52 45.1	
comp=E,100nm,0.5s							
AKBBA	**Akutan Broad B**	**3.73**	**271**		**Pn**	**05 52 03.6**	**+0.8**
ZRO	**Akutan Zero**	**3.76**	**271**		**Pn**	**05 52 03.6**	**+0.5**
ZRO					**Sn**	**05 52 45.4**	**-1.9**
LVA	**Lava Point**	**3.79**	**272**	Pn	**Pn**	**05 52 03.7**	**+0.1**
LVA				IAML		05 52 52.2	
comp=E,66nm,0.6s							
PLBL	**Peulik Blue Cr**	**3.82**	**23**		**Pn**	**05 52 04.2**	**+0.2**
PLBL					Pb	05 52 04.4	-8.4
PLBL					**Sn**	**05 52 46.5**	**-2.4**
SII	**Sitkinak Islan**	**3.87**	**51**	P	**Pn**	**05 52 04.0**	**-0.7**
SII	**Sitkinak Islan**	**3.87**	**51**	Pn	**Pn**	**05 52 04.1**	**-0.7**
SII				IAML		05 52 53.1	
comp=E,93nm,1.0s							
R17L	**Mt. Peulik Vol**	**3.87**	**27**		**Pn**	**05 52 05.5**	**+0.8**
UNV	**Unalaska Valle**	**4.09**	**268**	P	**Pn**	**05 52 08.2**	**+0.4**
UNV	**Unalaska Valle**	**4.09**	**268**		**Sn**	**05 52 52.6**	**-2.9**
UNV	**Unalaska Valle**	**4.09**	**268**	Pn	**Pn**	**05 52 08.4**	**+0.6**
UNV				IAML		05 52 54.4	
comp=E,45nm,1.0s							
MNAT	**Makushin Natee**	**4.20**	**268**		**Pn**	**05 52 09.3**	**+0.1**
MNAT					Pb	05 52 09.4	-10
MNAT					**Sn**	**05 52 55.4**	**-2.6**
MSW	**Makushin Switc**	**4.25**	**269**		**Pn**	**05 52 10.2**	**+0.2**
MSW					Pb	05 52 10.6	-10
MGOD	**Makushin Gods**	**4.32**	**267**		**Pn**	**05 52 11.4**	**+0.5**
KJL	**Kejulik**	**4.45**	**29**		**Pn**	**05 52 12.8**	**0.0**
CAHL	**Cahill**	**4.53**	**30**		**Pn**	**05 52 13.6**	**-0.2**
Q17K	**Contact Creek**	**4.55**	**25**		**Pn**	**05 52 14.0**	**-0.1**
ANCK	**Angle Creek**	**4.60**	**28**		**Pn**	**05 52 14.7**	**0.0**
ACHA	**Angle Creek He**	**4.66**	**29**		**Pn**	**05 52 15.5**	**0.0**
OHAK	**Old Harbor**	**4.66**	**47**	P	**Pn**	**05 52 14.4**	**-1.2**
OHAK	**Old Harbor**	**4.66**	**47**	Pn	**Pn**	**05 52 14.6**	**-1.0**
OHAK				IAML		05 53 06.4	
comp=N,23nm,0.2s							
P16K	**Nushagak River**	**4.91**	**10**	Pn	**Pn**	**05 52 19.2**	**+0.4**
P16K				IAML		05 53 39.4	
comp=N,39nm,1.1s							
P16K				IAML		05 53 43.7	
comp=E,35nm,1.1s							
KAWH	**Katmai**	**4.95**	**31**		**Pn**	**05 52 18.9**	**-0.7**
O15K	**Ungalikthiuk R**	**4.97**	**359**	Pn	**Pn**	**05 52 19.8**	**0.0**
O15K				IAML		05 53 17.1	
comp=E,20nm,0.8s							
KARR	**Katmai Rainbow**	**5.08**	**30**		**Pn**	**05 52 20.7**	**-0.6**
Q18K	**Katmai Hardscr**	**5.12**	**28**		**Pn**	**05 52 21.8**	**-0.1**
KAHG	**Katmai Hook Gl**	**5.12**	**31**		**Pn**	**05 52 21.5**	**-0.5**
O14K	**Tigyukauivet M**	**5.13**	**350**	Pn	**Pn**	**05 52 20.5**	**-1.5**
O14K				IAML		05 54 02.7	
comp=N,17nm,1.1s							
P17K	**Kvichak River**	**5.28**	**18**	Pn	**Pn**	**05 52 24.6**	**+0.5**
KDAK	**Kodiak Island**	**5.31**	**45**	Pn	**Pn**	**05 52 23.4**	**-1.1**
KDAK				IAML		05 53 25.2	
comp=N,24nm,1.1s							
KDAK				IAML		05 53 29.2	
comp=N,16nm,1.1s							
O16K	**Kokwok River B**	**5.45**	**8**	Pn	**Pn**	**05 52 26.2**	**-0.2**
O17K	**Koliganek Bris**	**5.73**	**13**		**Pn**	**05 52 30.1**	**-0.1**
N14K	**Kuskokwak Cree**	**5.83**	**350**	Pn	**Pn**	**05 52 32.2**	**+0.6**
N15K	**Kwethluk River**	**5.97**	**358**	Pn	**Pn**	**05 52 34.1**	**+0.5**
N16K	**Nishlik Lake**	**6.29**	**4**		**Pn**	**05 52 38.3**	**+0.4**
N17K	**Nushagak Hills**	**6.46**	**11**	Pn	**Pn**	**05 52 40.6**	**+0.4**
M15K	**Kasigluk River**	**6.52**	**355**		**Pn**	**05 52 40.7**	**-0.4**
M14K	**Bethel**	**6.67**	**350**		**Pn**	**05 52 43.1**	**0.0**
N18K	**Kilae Creek**	**6.78**	**16**	Pn	**Pn**	**05 52 45.3**	**+0.6**
O20K	**Slope Mountain**	**6.99**	**30**		**Pn**	**05 52 47.2**	**-0.4**
CNPM	**China Poot**	**7.01**	**37**		**Pn**	**05 52 47.0**	**-0.9**
M11K	**Mekoryuk**	**7.14**	**333**		**Pn**	**05 52 49.7**	**+0.2**
M17K	**Holitna River**	**7.29**	**8**		**Pn**	**05 52 51.0**	**-0.7**
BRSE	**Bradley Lake S**	**7.35**	**38**		**Pn**	**05 52 51.1**	**-1.3**
L15K	**Ungalak Mounta**	**7.55**	**353**		**Pn**	**05 52 54.3**	**-0.8**
L17K	**Donlin**	**7.97**	**4**		**Pn**	**05 53 00.5**	**-0.4**
SEW	**Seward**	**8.07**	**39**		**Pn**	**05 52 59.9**	**-2.3**
SLKM	**Skilak Lake**	**8.08**	**35**		**Pn**	**05 53 01.0**	**-1.5**
L18K	**Granite Mounta**	**8.17**	**10**	Pn	**Pn**	**05 53 03.6**	**0.0**
K13K	**Kusilvak Mount**	**8.19**	**343**	Pn	**Pn**	**05 53 04.1**	**+0.2**
L19K	**White Mountain**	**8.37**	**15**	Pn	**Pn**	**05 53 07.2**	**+0.8**
K17K	**Iditarod**	**8.55**	**4**	Pn	**Pn**	**05 53 08.7**	**-0.2**
L20K	**Farewell, AK**	**8.81**	**18**	Pn	**Pn**	**05 53 13.7**	**+1.3**
PWL	**Port Wells**	**8.99**	**38**		**Pn**	**05 53 12.6**	**-2.3**
J16K	**Anvik River**	**9.11**	**357**	Pn	**Pn**	**05 53 17.0**	**+0.5**
PPLA	**Purkeypile**	**9.52**	**21**	Pn	**Pn**	**05 53 24.5**	**+2.3**
CAST	**Castle Rocks**	**10.01**	**20**	Pn	**Pn**	**05 53 29.3**	**+0.5**
SCM	**Sheep Creek Mo**	**10.01**	**35**		**Pn**	**05 53 27.3**	**-1.7**
J19K	**Poorman**	**10.01**	**10**	Pn	**Pn**	**05 53 29.9**	**+1.0**
J20K	**Nowinta River**	**10.37**	**13**	Pn	**Pn**	**05 53 35.0**	**+1.3**
HARP	**HAARP**	**11.15**	**37**	Pn	**Pn**	**05 53 45.1**	**+0.6**
GRNC	**Granite Creek**	**11.58**	**49**	Pn	**Pn**	**05 53 50.9**	**+0.3**
K24K	**Donnelly Dome**	**11.93**	**31**	Pn	**Pn**	**05 53 56.2**	**+1.1**
IMAR	**Indian Mountai**	**12.15**	**11**	Pn	**Pn**	**05 53 59.1**	**+1.0**
O29M	**Mount Kennedy**	**12.87**	**53**	Pn	**Pn**	**05 54 09.9**	**+1.9**
F20K	**Avaraart Lake**	**13.01**	**7**	Pn	**Pn**	**05 54 11.1**	**+1.3**
M29M	**Somme Creek**	**13.76**	**45**	Pn	**Pn**	**05 54 20.9**	**+0.7**
WHY	**Whitehorse**	**14.72**	**54**	Pn	**Pn**	**05 54 35.4**	**+2.0**
E24K	**Your Creek**	**14.86**	**16**	Pn	**Pn**	**05 54 34.9**	**-0.2**
I28M	**Miner Creek**	**14.89**	**33**	Pn	**Pn**	**05 54 36.1**	**+0.6**
TOLK	**Tolik Lake Re**	**15.21**	**14**	P	**P**	**05 54 45.7**	**+1.0**
D23K	**Nanushuk River**	**15.36**	**12**	P	**P**	**05 54 46.8**	**+0.4**
D23K				IAmb	IAmb	05 55 02.8	
comp=Z,3.0nm,1.1s							
H29M	**Whitestone**	**15.88**	**32**	P	**P**	**05 54 52.9**	**+0.7**
I30M	**Mount Dempster**	**15.96**	**37**	P	**P**	**05 54 54.5**	**+1.3**
I30M				IAmb	IAmb	05 54 57.8	
comp=Z,3.4nm,0.6s							
DIB	**Dawson Inlet,**	**16.05**	**83**	P	**P**	**05 54 56.5**	**+2.4**
G29M	**Pine Creek**	**16.43**	**31**	P	**P**	**05 54 58.8**	**+0.6**
EPYK	**Eagle Plains**	**16.50**	**33**	P	**P**	**05 55 00.9**	**+1.9**
H31M	**Peel River**	**16.99**	**37**	P	**P**	**05 55 06.0**	**+1.5**
H31M				IAmb	IAmb	05 55 20.1	
comp=Z,3.4nm,1.0s							
G30M	**tAoh Zraii Nji**	**17.02**	**32**	P	**P**	**05 55 06.0**	**+1.2**
G30M				IAmb	IAmb	05 55 07.2	
comp=Z,4.0nm,0.8s							
C26K	**Camden Bay**	**17.10**	**17**	P	**P**	**05 55 05.2**	**-0.3**
C26K				IAmb	IAmb	05 55 10.2	
comp=Z,3.8nm,1.2s							
F30M	**Barrier River**	**17.55**	**31**	P	**P**	**05 55 12.4**	**+1.8**
F31M	**Tsiigehtchic**	**18.08**	**33**	P	**P**	**05 55 17.4**	**+1.0**
INK	**Inuvik**	**18.65**	**31**	P	**P**	**05 55 22.4**	**-0.2**
C36M	**Paulatuk**	**22.13**	**33**	P	**P**	**05 55 59.8**	**-0.6**
C36M				IAmb	IAmb	05 56 00.9	
comp=Z,1.1nm,0.8s							
A36M	**Sachs Harbour**	**23.06**	**27**	P	**P**	**05 56 11.4**	**+1.2**
PETK	**Petropavlovsk-**	**25.05**	**285**	P	**P**	**05 56 30.9**	**+1.6**
MKAR	**Makanchi Array**	**66.55**	**319**	P	**P**	**06 01 54.6**	**-0.3**
ABKAR	**Akbulak array**	**71.66**	**334**	P	**P**	**06 02 26.3**	**-0.2**

IDC ***18*** *05:59:45.2±1.0, 2.˚51S×139.˚60E, h0km, mb3.9/4, mbtmp3.9/5, ML4.1/1, MS3.0/3, Error ellipse: s-maj=16.6km s-min=14.1km az=163.0*
DJA ***18*** *05:59:48.5±0.8, 2.˚5S×9.˚14˚0E±.˚, h10km, M3.9/7, MLv3.9/7*
**

GENI AML AML
SMPI Sarmi 1.07 303 P **Pn** **06 00 07.8 -0.6**
SMPI AML AML
JAY Jayapura 1.09 87 Pg **Pn** **06 00 08.0 -0.7**
110nm,0.3s,baz=236,slow=9.8,SNR=135
JAY Lg Lg 06 00 22.6
144nm,0.3s,baz=129,slow=22,SNR=13
JAY Jayapura 1.09 87 P **Pn** **06 00 08.0 -0.7**
WAMI Wamena 1.58 215 P Pb 06 00 25.5 +7.8
SIJI Sorong 8.51 281 LR LR 06 05 43.9
comp=Z,80nm,19.9s,baz=46,slow=42
GUMO Guam 16.88 18 LR LR 06 10 11.5
comp=Z,38nm,18.8s,baz=112,slow=37
WRA Warramunga Arr 18.02 196 P **Pn** **06 03 59.2 +1.5**
0.7nm,0.3s,baz=16,slow=12,SNR=19
WRA S **Sn** **06 07 13.0 -5.1**
1.1nm,0.8s,baz=12,slow=23,SNR=5.1
1.0nm,0.4s
WRA AML AML
FITZ Fitzroy Crossi 20.63 221 LR LR 06 13 26.9
comp=Z,77nm,20.4s,baz=25,slow=40
ASAR Alice Springs 21.68 194 P **P** **06 04 38.0 0.0**
0.6nm,0.4s,baz=21,slow=10,SNR=26
ASAR S **S** **06 08 41.1 +4.2**
0.7nm,0.8s,baz=18,slow=25,SNR=3.6
0.6nm,0.4s
CMAR Chiang Mai Arr 45.16 299 P **P** **06 08 03.9 0.0**
1.1nm,0.3s,baz=104,slow=9.5,SNR=4.6
1.1nm,0.3s
MKAR Makanchi Array 70.23 322 P **P** **06 10 59.5 -0.4**
0.8nm,0.7s,baz=103,slow=7.8,SNR=6.5
0.8nm,0.7s
BVAR Borovoye Array 79.72 325 P **P** **06 11 55.0 +0.5**
0.8nm,0.4s,baz=101,slow=6.2,SNR=2.6
0.8nm,0.4s

VAO ***18*** *06:02:50.7±1.0,29.°13S×69.°15W,h10km,mb4.4, Presumed earthquake*
SJA ***18*** *06:03:03.3±1.2,29.°07S×68.°54W,h122km±5km,ML4.5, MW4.3*
GFZ ***18*** *06:03:03.9±0.2,29.°S±2.°×6.°9W±.°,h165km±7km,M4.7/14, mb4.7/14*
NEIC ***18*** *06:03:04.6±1.8,29.°10S±0.°05×68.°49W±0.°08,h97km±5km, mb4.7/62,Mwr4.4/14,Error ellipse: s-maj=9.9km s-min=6.9km az=96.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=4.36; Mθθ2.52; Mϕϕ 1.84; Mrθ0.58; Mθϕ-2.26; Mϕr0.61; Fault plane solution: Mo4.50000×10¹⁵ NP1:ϕs141.36000°,δ45.73000°, λ-74.83000°. NP2:ϕs300.13000°,δ46.28000°, λ-105.03000°. Principal axes: T 4.4722, Plg0.0000°, Azm41.0000°; N 0.0527, Plg11.0000°, Azm311.0000°; P -4.5249, Plg79.0000°, Azm132.0000°;*
NEIC ***18*** *06:03:04.8,29.°10S×68.°49W,h101km*
IDC ***18*** *06:03:05.3±0.5,29.°12S×68.°46W,h107km±4km,mb4.1/13, mbtmp4.5/14,Error ellipse: s-maj=18.3km s-min=7.9km az=85.0*

ISC 18 06:03:04.3±0.5,29.°07S±0.°03×68.°55W±0.°03,h105km±4km, n252,σ1ᵍ81/278,mb4.7/32,San Juan Province

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
VCA	**Vinchina**	**0.45**	**42**	*i* P		**Pn**	**06 03 21.7**	**+1.2**
VCA				*i* S		**Sn**	**06 03 35.3**	**+2.7**
VCA				IAML			06 03 37.9	
	comp=Z,23μm,0.3s							
ACDV	**Cuesta del Vie**	**1.21**	**204**	*i* P		**Pn**	**06 03 29.1**	**+1.6**
ACDV				*i* S		**Sn**	**06 03 47.3**	**+2.2**
ACDV				IAML			06 03 47.8	
	comp=Z,13μm,0.6s							
TINO	**Tinogasta**	**1.32**	**41**	*i* P		**Pn**	**06 03 30.0**	**+1.2**
TINO				*i* S		**Sn**	**06 03 49.0**	**+1.7**
TINO				IAML			06 03 50.8	
	comp=Z,5μm,0.5s							
AROD	**Rodeo**	**1.36**	**216**	*i* P		**Pn**	**06 03 31.1**	**+1.6**
ACLC	**CERRO LA CRUZ**	**1.44**	**105**	*i* P		**Pn**	**06 03 31.3**	**+1.1**
ACLC				*i* S		**Sn**	**06 03 51.2**	**+1.3**
ACLC				IAML			06 03 52.7	
	comp=Z,6μm,0.5s							
AC05	**El Transito**	**1.53**	**278**	*i* P		**Pn**	**06 03 33.0**	**+1.7**
AC05				*i* S		**Sn**	**06 03 53.9**	**+2.1**
AC05				IAML			06 03 56.4	
	comp=Z,2μm,1.2s							
AC05	**El Transito**	**1.53**	**278**			**Pn**	**06 03 32.9**	**+1.7**
AC05					Sn	**Sn**	**06 03 54.1**	**+2.3**
AC05	**El Transito**	**1.53**	**278**		P	**Pn**	**06 03 33.0**	**+1.7**
ACCO	**Cerro Coronel**	**1.58**	**196**	*i* P		**Pn**	**06 03 33.5**	**+1.3**
ACCO				*i* S		**Sn**	**06 03 55.2**	**+2.0**
ACCO				IAML			06 03 56.7	
	comp=Z,5μm,0.4s							
CO01	**Juntas del Tor**	**1.62**	**236**	*i* P		**Pn**	**06 03 34.8**	**+2.2**
CO01				*i* S		**Sn**	**06 03 57.4**	**+3.3**
CO01				IAML			06 03 58.2	
	comp=Z,3μm,0.9s							
CO01	**Juntas del Tor**	**1.62**	**236**			**Pn**	**06 03 34.8**	**+2.2**
CO01					Sn	**Sn**	**06 03 57.7**	**+3.6**
CO01	**Juntas del Tor**	**1.62**	**236**		P	**Pn**	**06 03 34.9**	**+2.3**
AVFE	**Valle Fertil**	**1.85**	**149**	*i* P		**Pn**	**06 03 36.3**	**+1.0**
AVFE				*i* S		**Sn**	**06 03 59.5**	**+0.8**
AVFE				IAML			06 04 00.7	
	comp=Z,10μm,0.5s							
LCO	**Las Campanas**	**1.89**	**271**	*i* P		**Pn**	**06 03 36.8**	**+0.9**
LCO				IAML			06 04 06.0	
	comp=Z,5μm,0.5s							
LCO	**Las Campanas**	**1.89**	**271**			**Pn**	**06 03 36.8**	**+0.9**
LCO					Sn	**Sn**	**06 04 00.6**	**+0.7**
GO03	**Copiapo**	**2.09**	**314**	*i* P		**Pn**	**06 03 39.2**	**+0.9**
GO03				IAML			06 04 06.7	
	comp=Z,1μm,0.5s							
GO03	**Copiapo**	**2.09**	**314**			**Pn**	**06 03 39.1**	**+0.8**
GO03					Sn	**Sn**	**06 04 04.5**	**+0.2**
GO03	**Copiapo**	**2.09**	**314**		P	**Pn**	**06 03 39.1**	**+0.9**
GO04	**Tololo Observa**	**2.25**	**240**	*i* P		**Pn**	**06 03 41.3**	**+0.7**
GO04				IAML			06 04 11.4	
	comp=Z,4μm,0.4s							
GO04	**Tololo Observa**	**2.25**	**240**			**Pn**	**06 03 41.2**	**+0.7**
GO04					Sn	**Sn**	**06 04 09.6**	**+1.4**
GO04	**Tololo Observa**	**2.25**	**240**		P	**Pn**	**06 03 41.3**	**+0.7**
RTLL	**Cerro Villicun**	**2.25**	**178**	*i* P		**Pn**	**06 03 41.5**	**+1.1**
RTLL				*i* S		**Sn**	**06 04 08.8**	**+0.7**
RTLL				IAML			06 04 11.0	
	comp=Z,7μm,0.4s							
AC02	**Maricunga**	**2.28**	**347**	*i* P		**Pn**	**06 03 43.5**	**+2.3**
AC02				IAML			06 04 16.9	
	comp=Z,630nm,0.8s							
AC02	**Maricunga**	**2.28**	**347**			**Pn**	**06 03 43.5**	**+2.3**
AC02					Sn	**Sn**	**06 04 12.0**	**+2.6**
AC02	**Maricunga**	**2.28**	**347**		P	**Pn**	**06 03 43.6**	**+2.3**
AC06	**Mina Casimiro**	**2.33**	**316**			**Pn**	**06 03 41.8**	**+0.4**
AC06					Sn	**Sn**	**06 04 09.7**	**-0.1**
AC04	**Llanos de Chal**	**2.38**	**291**	*i* P		**Pn**	**06 03 42.1**	**0.0**
AC04				*i* S		**Sn**	**06 04 09.8**	**-1.1**
AC04				IAML			06 04 11.2	
	comp=Z,666nm,0.4s							
AC04	**Llanos de Chal**	**2.38**	**291**			**Pn**	**06 03 42.0**	**0.0**
AC04	**Llanos de Chal**	**2.38**	**291**	P		**Pn**	**06 03 42.2**	**+0.2**
SJA	**San Juan**	**2.45**	**180**	*i* P		**Pn**	**06 03 44.3**	**+1.3**
SJA				*i* S		**Sn**	**06 04 13.5**	**+0.9**
SJA				IAML			06 04 18.7	
	comp=Z,891nm,0.2s							
ZON	**Zonda**	**2.47**	**183**	*i* P		**Pn**	**06 03 44.0**	**+0.7**
ZON				*i* S		**Sn**	**06 04 14.1**	**+0.9**
ZON				IAML			06 04 18.9	
	comp=Z,1μm,0.5s							
ZON	**Zonda**	**2.47**	**183**			**Pn**	**06 03 44.1**	**+0.8**
ZON	**Zonda**	**2.47**	**183**	P		**Pn**	**06 03 44.3**	**+1.0**
CYA	**Choya**	**2.49**	**76**	*i* P		**Pn**	**06 03 44.6**	**+1.2**
CYA				*i* S		**Sn**	**06 04 12.3**	**-1.2**
CYA				IAML			06 04 14.9	
	comp=Z,2μm,0.7s							
CFA	**Coronel Fontan**	**2.54**	**174**	P		**Pn**	**06 03 44.6**	**+0.5**
	comp=Z,472nm,0.3s,baz=1.3,slow=11,SNR=8234							
CFA				S		**Sn**	**06 04 14.7**	**-0.1**
	comp=Z,1μm,0.4s,baz=15,slow=12,SNR=74							
CFA	**Coronel Fontan**	**2.54**	**174**	*i* P		**Pn**	**06 03 45.1**	**+1.0**
CFA				*i* S		**Sn**	**06 04 15.7**	**+0.9**
CFA				IAML			06 04 16.3	
	comp=Z,2μm,0.4s							
CO03	**El Pedregal**	**2.56**	**226**	*i* P		**Pn**	**06 03 45.3**	**+0.8**
CO03				IAML			06 04 24.5	
	comp=Z,1μm,0.3s							
CO03	**El Pedregal**	**2.56**	**226**			**Pn**	**06 03 45.3**	**+0.8**
CO03	**El Pedregal**	**2.56**	**226**	P		**Pn**	**06 03 45.4**	**+0.8**
RTLS	**Leoncito**	**2.80**	**193**	*i* P		**Pn**	**06 03 49.0**	**+1.2**
RTLS				*i* S		**Sn**	**06 04 22.6**	**+1.4**
CO02	**Combarbal**	**3.01**	**224**	*i* P		**Pn**	**06 03 50.4**	**0.0**
CO02				IAML			06 04 38.7	
	comp=Z,1μm,0.3s							
CO02	**Combarbal**	**3.01**	**224**			**Pn**	**06 03 50.4**	**0.0**
CO02	**Combarbal**	**3.01**	**224**	P		**Pn**	**06 03 50.4**	**0.0**
CO06	**Fray Jorge**	**3.12**	**238**			**Pn**	**06 03 50.4**	**-1.4**
ACAN	**Cantantal**	**3.40**	**160**	*i* P		**Pn**	**06 03 56.3**	**+0.7**
ACAN				*i* S		**Sn**	**06 04 34.1**	**-1.2**
ACAN				IAML			06 04 38.8	
	comp=Z,4μm,0.6s							
AC01	**Pan de Azucar**	**3.43**	**327**	*i* P		**Pn**	**06 03 55.9**	**0.0**
AC01				IAML			06 04 43.4	
	comp=Z,359nm,0.5s							
AC01	**Pan de Azucar**	**3.43**	**327**			**Pn**	**06 03 56.0**	**0.0**
AC01	**Pan de Azucar**	**3.43**	**327**	P		**Pn**	**06 03 57.6**	**+1.7**
CO04	**Los Peladeros**	**3.63**	**215**			**Pn**	**06 03 58.5**	**-0.4**
CO04	**Los Peladeros**	**3.63**	**215**	P		**Pn**	**06 03 58.5**	**-0.4**
FSA	**Cafayete**	**3.72**	**38**	*i* P		**Pn**	**06 04 01.8**	**+1.8**
FSA				*i* S		**Sn**	**06 04 44.9**	**+1.8**
ARCO	**CERRO ARCO**	**3.78**	**185**	*i* P		**Pn**	**06 04 01.6**	**+0.8**
ARCO				IAML			06 04 51.1	
	comp=Z,651nm,0.4s							
AAGR	**Agrelo**	**4.01**	**183**	*i* P		**Pn**	**06 04 04.5**	**+0.6**
AAGR				*i* S		**Sn**	**06 04 49.0**	**-0.9**
AAGR				IAML			06 04 58.8	
	comp=Z,331nm,0.3s							
VA03	**San Esteban**	**4.07**	**205**	*i* P		**Pn**	**06 04 04.6**	**0.0**
VA03				IAML			06 05 23.4	
	comp=Z,846nm,0.6s							
VA03	**San Esteban**	**4.07**	**205**			**Pn**	**06 04 04.7**	**+0.2**
VA03	**San Esteban**	**4.07**	**205**	P		**Pn**	**06 04 04.8**	**+0.2**
TCA	**Tanti**	**4.10**	**124**	*i* P		**Pn**	**06 04 04.5**	**-0.5**
TCA				IAML			06 05 33.5	
	comp=Z,334nm,0.8s							
AVIZ	**Vizcacheras**	**4.39**	**180**	*i* P		**Pn**	**06 04 08.9**	**0.0**
PEL	**Peldehue**	**4.46**	**204**			**Pn**	**06 04 09.1**	**-0.7**
PEL	**Peldehue**	**4.46**	**204**	P		**Pn**	**06 04 09.2**	**-0.6**
MT04	**Ro Olivares**	**4.53**	**197**	*i* P		**Pn**	**06 04 11.7**	**+0.7**
MT04				IAML			06 05 37.4	
	comp=Z,245nm,1.0s							
MT08	**Bocatoma Ro**	**4.54**	**196**	*i* P		**Pn**	**06 04 11.8**	**+0.7**
MT08				IAML			06 05 10.8	
	comp=Z,159nm,0.3s							
MT08	**Bocatoma Ro**	**4.54**	**196**			**Pn**	**06 04 11.8**	**+0.7**
MT16	**CCHEN**	**4.67**	**201**			**Pn**	**06 04 12.4**	**-0.2**
MT05	**Renca**	**4.70**	**203**	*i* P		**Pn**	**06 04 12.0**	**-1.1**
MT05				IAML			06 05 40.7	
	comp=Z,387nm,1.8s							
MT05	**Renca**	**4.70**	**203**			**Pn**	**06 04 12.3**	**-0.8**
MT03	**Universidad Ad**	**4.72**	**200**	*i* P		**Pn**	**06 04 13.0**	**-0.3**
MT03				IAML			06 05 10.8	
	comp=Z,377nm,0.3s							
MT03	**Universidad Ad**	**4.72**	**200**			**Pn**	**06 04 13.1**	**-0.3**
PB14	**IPOC Station P**	**4.72**	**339**	*i* P		**Pn**	**06 04 13.5**	**-0.1**
PB14				IAML			06 05 16.5	
	comp=Z,337nm,1.4s							
PB14	**IPOC Station P**	**4.72**	**339**			**Pn**	**06 04 13.9**	**+0.2**
PB14	**IPOC Station P**	**4.72**	**339**	P		**Pn**	**06 04 14.7**	**+1.1**
MT02	**Curacav**	**4.73**	**207**	*i* P		**Pn**	**06 04 11.9**	**-1.5**
MT02				IAML			06 05 41.4	
	comp=Z,261nm,0.5s							
MT02	**Curacav**	**4.73**	**207**			**Pn**	**06 04 11.5**	**-1.9**
VA01	**Torpederas**	**4.76**	**213**	*i* P		**Pn**	**06 04 10.8**	**-2.9**
VA01				IAML			06 05 39.1	
	comp=Z,213nm,0.5s							
VA01	**Torpederas**	**4.76**	**213**			**Pn**	**06 04 11.0**	**-2.7**
VA01	**Torpederas**	**4.76**	**213**	P		**Pn**	**06 04 11.0**	**-2.7**
MT13	**San Alfonso**	**4.89**	**197**	*i* P		**Pn**	**06 04 15.4**	**-0.3**
MT13				IAML			06 05 26.3	
	comp=Z,221nm,0.4s							
MT13	**San Alfonso**	**4.89**	**197**			**Pn**	**06 04 15.8**	**+0.1**
SLA	**San Lorenzo**	**5.11**	**33**	*i* P		**Pn**	**06 04 20.1**	**+1.3**
MT09	**Talagante**	**5.14**	**203**			**Pn**	**06 04 16.9**	**-2.2**
SALTA		**5.21**	**23**	*i* P		**Pn**	**06 04 22.8**	**+2.4**
SALTA		**5.21**	**23**	P		**Pn**	**06 04 22.9**	**+2.4**
	comp=Z,29nm,0.7s							
BO04	**La Punta**	**5.21**	**199**			**Pn**	**06 04 18.7**	**-1.3**
VA05	**Santo Domingo**	**5.27**	**209**			**Pn**	**06 04 17.7**	**-3.1**
VA05	**Santo Domingo**	**5.27**	**209**	P		**Pn**	**06 04 17.6**	**-3.1**
MT01	**Popeta**	**5.31**	**205**	*i* P		**Pn**	**06 04 18.5**	**-2.8**
MT01				IAML			06 05 50.8	
	comp=Z,146nm,0.7s							
MT01	**Popeta**	**5.31**	**205**			**Pn**	**06 04 18.8**	**-2.4**
BO01	**Tunca**	**5.73**	**202**			**Pn**	**06 04 23.8**	**-3.2**
BO01	**Tunca**	**5.73**	**202**	P		**Pn**	**06 04 24.2**	**-2.8**
	comp=Z,94nm,0.5s							
PB10	**IPOC Station P**	**5.82**	**342**			**Pn**	**06 04 27.0**	**-1.2**
PB10	**IPOC Station P**	**5.82**	**342**	P		**Pn**	**06 04 30.2**	**+2.1**
	comp=Z,207nm,0.7s							
BO02	**Sierra Bellavi**	**6.02**	**198**			**Pn**	**06 04 28.9**	**-2.0**
BO02	**Sierra Bellavi**	**6.02**	**198**	P		**Pn**	**06 04 29.1**	**-1.8**
	comp=Z,101nm,0.6s							
AF01	**San Pedro de A**	**6.10**	**3**			**Pn**	**06 04 32.7**	**+0.4**
PB05	**IPOC Station P**	**6.37**	**346**			**Pn**	**06 04 33.9**	**-1.8**
PB05	**IPOC Station P**	**6.37**	**346**	P		**Pn**	**06 04 35.4**	**-0.3**
	comp=Z,227nm,0.7s							
PB06	**IPOC Station P**	**6.40**	**351**			**Pn**	**06 04 35.3**	**-1.0**
PB06	**IPOC Station P**	**6.40**	**351**	P		**Pn**	**06 04 35.7**	**-0.6**
	comp=Z,88nm,1.0s							
GO05	**Hualane**	**6.58**	**205**			**Pn**	**06 04 35.1**	**-3.4**
GO05	**Hualane**	**6.58**	**205**	P		**Pn**	**06 04 35.3**	**-3.2**
	comp=Z,145nm,1.1s							
PB03	**IPOC Station P**	**7.07**	**351**			**Pn**	**06 04 43.8**	**-1.7**
PB03	**IPOC Station P**	**7.07**	**351**	P		**Pn**	**06 04 43.7**	**-1.7**
	comp=Z,72nm,0.5s							
ML02	**Panimavida**	**7.10**	**199**			**Pn**	**06 04 41.9**	**-3.6**
ML02	**Panimavida**	**7.10**	**199**	P		**Pn**	**06 04 41.8**	**-3.8**
PB09	**IPOC Station P**	**7.27**	**355**			**Pn**	**06 04 47.4**	**-0.6**
PB09	**IPOC Station P**	**7.27**	**355**	P		**Pn**	**06 04 47.4**	**-0.6**
	comp=Z,58nm,0.5s							
PB07	**IPOC Station P**	**7.41**	**350**			**Pn**	**06 04 47.6**	**-2.3**
PB07	**IPOC Station P**	**7.41**	**350**	P		**Pn**	**06 04 49.9**	**-0.1**
	comp=Z,55nm,0.6s							
PB02	**IPOC Station P**	**7.81**	**351**			**Pn**	**06 04 53.0**	**-2.4**
PB02	**IPOC Station P**	**7.81**	**351**	P		**Pn**	**06 04 53.2**	**-2.2**
	comp=Z,81nm,0.6s							
BI02	**San Fabin de**	**7.91**	**196**			**Pn**	**06 04 54.2**	**-2.4**
BI02	**San Fabin de**	**7.91**	**196**	P		**Pn**	**06 04 54.3**	**-2.4**
	comp=Z,45nm,0.7s							
TA01	**Diego Aracena**	**8.59**	**350**	Pn		**Pn**	**06 05 02.9**	**-3.0**
BI05	**Punta Hualpn**	**8.60**	**206**			**Pn**	**06 05 02.0**	**-3.8**
PB08	**IPOC Station P**	**8.90**	**356**			**Pn**	**06 05 08.0**	**-2.5**
PB08	**IPOC Station P**	**8.90**	**356**	P		**Pn**	**06 05 11.0**	**+0.5**
	comp=Z,29nm,0.8s							
PB11	**IPOC Station P**	**9.32**	**354**	Pn		**Pn**	**06 05 12.1**	**-3.8**
GO01	**Chusmiza**	**9.38**	**356**	Pn		**Pn**	**06 05 13.8**	**-3.1**
PSGCX	**Pisagua**	**9.54**	**351**	Pn		**Pn**	**06 05 15.6**	**-3.2**
PSAL	**Palomas, Salto**	**9.69**	**105**	*eP*		**Pn**	**06 05 16.9**	**-3.8**
H03N1	**Juan Fernandez**	**9.88**	**241**	P		**Pn**	**06 05 21.0**	**-2.1**
	baz=32,slow=24,SNR=25							
H03N2	**Juan Fernandez**	**9.90**	**241**	P		**Pn**	**06 05 20.9**	**-2.3**
	baz=32,slow=24,SNR=18							
H03N3	**Juan Fernandez**	**9.90**	**241**	P		**Pn**	**06 05 21.8**	**-1.5**
	baz=32,slow=24,SNR=11							
CPUP	**Villa Florida**	**10.31**	**77**	P		**Pn**	**06 05 25.6**	**-3.6**
	comp=Z,4.9nm,0.4s,baz=241,slow=12,SNR=34							
CPUP				S		**Sn**	**06 07 27.0**	**+4.2**
	comp=Z,8.3nm,0.6s,baz=183,slow=13,SNR=1.2							
CPUP	**Villa Florida**	**10.31**	**77**			**Pn**	**06 05 26.1**	**-3.1**
ITQB	**Itaqui**	**10.42**	**96**	*eP*		**Pn**	**06 05 27.8**	**-2.8**
PB16	**IPOC Station P**	**10.72**	**355**			**Pn**	**06 05 32.5**	**-2.9**
GO06	**Curarrehue**	**10.77**	**192**			**Pn**	**06 05 30.9**	**-4.5**
GO06	**Curarrehue**	**10.77**	**192**	P		**Pn**	**06 05 32.0**	**-3.4**
	comp=Z,22nm,0.5s							
LR03	**Panguipulli**	**10.99**	**196**			**Pn**	**06 05 34.1**	**-4.3**
PB18	**Visviri**	**11.46**	**356**	Pn		**Pn**	**06 05 41.5**	**-3.8**
LR05	**Currie**	**11.49**	**193**			**Pn**	**06 05 40.7**	**-4.3**
LR04	**Corral**	**11.51**	**199**			Pn	**06 05 39.4**	**-5.8**
PLCA	**Paso Flores**	**11.75**	**187**	P		**Pn**	**06 05 45.1**	**-3.5**
	comp=Z,4.4nm,0.6s,baz=0.1,slow=10,SNR=32							
PLCA	**Paso Flores**	**11.75**	**187**			**Pn**	**06 05 45.4**	**-3.2**
SJPY	**San Joaquin**	**11.81**	**73**	*eP*		**Pn**	**06 05 46.8**	**-2.6**
LL04	**Puerto Octay**	**12.23**	**194**	P		**Pn**	**06 05 51.6**	**-3.2**
	comp=Z,20nm,0.6s							
MURT	**Porto Murtinho**	**12.33**	**56**	*eP*		**Pn**	**06 05 53.4**	**-2.9**
LPAZ	**La Paz**	**12.72**	**2**	P		**Pn**	**06 06 00.0**	**-2.1**
	comp=Z,4.5nm,0.6s,baz=186,slow=5.8,SNR=22							
LPAZ	**La Paz**	**12.72**	**2**			**Pn**	**06 06 00.8**	**-1.3**
LL05	**Los Muermos**	**12.95**	**197**	Pn		**Pn**	**06 05 59.7**	**-4.5**
CPSB	**Cacapava Do Su**	**13.20**	**100**			**Pn**	**06 06 06.0**	**-1.6**
CPSB	**Cacapava Do Su**	**13.20**	**100**	*eP*		**Pn**	**06 06 04.8**	**-2.8**
COIM	**Forte Coimbra**	**13.37**	**49**	*eP*		**Pn**	**06 06 06.5**	**-3.4**
LL06	**Loncomilla**	**13.75**	**196**	Pn		**Pn**	**06 06 12.2**	**-2.5**
BBSD	**Serra de San D**	**13.89**	**33**	*eP*		**Pn**	**06 06 13.2**	**-3.5**
LL02	**Futaleuf**	**14.34**	**190**	Pn		**Pn**	**06 06 17.6**	**-4.7**
AQDB	**Aquidauana**	**14.46**	**57**			**Pn**	**06 06 22.0**	**-2.0**
AQDB	**Aquidauana**	**14.46**	**57**	P		**Pn**	**06 06 22.3**	**-1.8**
	comp=Z,13nm,0.8s							
AQDB	**Aquidauana**	**14.46**	**57**	*eP*		**Pn**	**06 06 22.2**	**-1.8**
ITAB	**Concordia**	**14.60**	**87**	*eP*		**Pn**	**06 06 25.2**	**-0.5**
GO07	**Milladeo Hill,**	**14.61**	**195**	Pn		**Pn**	**06 06 21.5**	**-4.2**
SIV	**San Ignacio**	**14.72**	**29**	P		**Pn**	**06 06 24.1**	**-3.3**
	comp=Z,4.9nm,0.5s,baz=223,slow=7.8,SNR=22							
PTGB	**Pitanga**	**15.33**	**77**	*eP*		**Pn**	**06 06 32.8**	**-2.3**
CNLB	**Canela**	**15.46**	**95**	*eP*		**Pn**	**06 06 36.7**	**+0.1**
PTLB	**Pontes e Lacer**	**16.10**	**35**			**Pn**	**06 06 43.0**	**-1.6**
PTLB	**Pontes e Lacer**	**16.10**	**35**	*eP*		**Pn**	**06 06 42.7**	**-1.9**
LDASE	**Londrina, Braz**	**16.62**	**74**	*eP*		**Pn**	**06 06 49.9**	**-1.2**
COYC	**Coyhaique**	**16.71**	**189**			**P**	**06 06 52.0**	**-0.5**
COYC					IAmb	IAmb	06 06 54.4	
	comp=Z,29nm,0.9s							
PP1B	**Ponte de Pedra**	**16.95**	**51**	*eP*		**Pn**	**06 06 52.7**	**-2.4**
C2SB	**Chapadao do Su**	**17.63**	**58**	*eP*		**P**	**06 07 02.4**	**-0.4**
SALV	**Santo Antonio**	**17.66**	**45**	*eP*		**P**	**06 07 01.8**	**-1.4**
AY02	**Valle Explorad**	**17.77**	**191**	P		**Pn**	**06 07 04.2**	**-0.5**
VILB	**Vilhena**	**17.81**	**28**			**P**	**06 07 04.5**	**-0.5**
VILB	**Vilhena**	**17.81**	**28**	*eP*		**P**	**06 07 03.0**	**-1.9**
AY03	**Cochrane**	**18.43**	**189**	P		**Pn**	**06 07 11.6**	**-1.1**
AY03					IAmb	IAmb	06 07 14.3	
	comp=Z,35nm,0.8s							
GO08	**Villa O'Higgin**	**19.61**	**188**	P		**Pn**	**06 07 25.2**	**-1.5**
GO08					IAmb	IAmb	06 07 29.0	
	comp=Z,29nm,0.8s							
SPB	**Sao Paulo**	**19.69**	**79**	P		**P**	**06 07 25.9**	**+0.6**
BB19B	**Bebedouro**	**19.79**	**71**	*eP*		**P**	**06 07 25.1**	**-1.3**
ARAG	**Araguaiana, MT**	**20.37**	**53**	*eP*		**P**	**06 07 32.6**	**-0.1**
PDRB	**Porto dos Gac**	**20.57**	**35**	*eP*		**P**	**06 07 34.1**	**-0.8**
PARB	**Paraibuna**	**21.33**	**80**	*eP*		**P**	**06 07 44.7**	**+1.6**
CZSB	**Cruzeiro do Su**	**21.58**	**349**			**P**	**06 07 47.3**	**+1.6**
CZSB	**Cruzeiro do Su**	**21.58**	**349**	*eP*		**P**	**06 07 39.8**	**-6.0**
IPMB	**Ipameri, GO**	**21.63**	**64**	*eP*		**P**	**06 07 45.3**	**-1.0**
CLDB	**Colider**	**21.67**	**36**	P		**P**	**06 07 46.7**	**0.0**
	comp=Z,12nm,0.9s							
CLDB	**Colider**	**21.67**	**36**	*eP*		**P**	**06 07 46.4**	**-0.3**
CANS	**Sao Roque de M**	**21.92**	**72**	*eP*		**P**	**06 07 50.7**	**+1.3**
BDFB	**Brasilia**	**23.17**	**59**	P		**P**	**06 08 01.7**	**-0.3**
	comp=Z,8.1nm,0.7s,baz=204,slow=8.6,SNR=10							
	comp=Z,8.1nm,0.7s							
BDFB	**Brasilia**	**23.17**	**59**	P		**P**	**06 08 02.1**	**+0.1**
SNDB	**Serra Nova Dou**	**23.40**	**47**	*eP*		**P**	**06 08 02.7**	**-1.4**
DIAM	**Diamantina, MG**	**25.12**	**70**	*eP*		**P**	**06 08 21.1**	**+1.3**
NPGB	**Novo Progresso**	**25.19**	**32**	*eP*		**P**	**06 08 20.3**	**0.0**
ITTB	**Itaituba**	**27.41**	**29**	*eP*		**P**	**06 08 40.3**	**-0.1**
SMTB	**Santa Maria do**	**28.13**	**49**	P		**P**	**06 08 46.9**	**+0.2**
RUSC	**La Rusia**	**35.03**	**352**			**P**	**06 09 48.0**	**+0.4**
RUSC					IAmb	IAmb	06 09 48.9	
	comp=Z,8.6nm,0.7s							
SDV	**Santo Domingo**	**37.78**	**357**	P		**P**	**06 10 10.3**	**-0.4**
SDV					IAmb	IAmb	06 10 11.3	
	comp=Z,7.2nm,0.8s							
MPOM	**Morne Pois Mar**	**43.89**	**11**	P		**P**	**06 10 59.9**	**-0.6**
BIM	**Bigot**	**43.93**	**10**	P		**P**	**06 11 00.4**	**

	comp=Z,12nm,0.7s							
NVAR	**Mina Array Bea**	**81.66**	**323**	P		**P**	06 15 12.2	**+1.1**
	comp=Z,0.9nm,0.5s,baz=148,slow=6.5,SNR=5.3							
	comp=Z,0.9nm,0.5s							
NVAR	**Mina Array Bea**	**81.66**	**323**	P		**P**	06 15 12.4	**+1.3**
ELK	**Elko**	**81.84**	**326**	P		**P**	06 15 13.0	**+1.0**
ULM	**Lac du Bonnet**	**82.61**	**343**	P		**P**	06 15 15.5	**+0.1**
	comp=Z,7.0nm,0.9s,baz=147,slow=8.7,SNR=6.3							
	comp=Z,7.0nm,0.9s							
ULM	**Lac du Bonnet**	**82.61**	**343**	IAmb		IAmb	06 15 44.0	
	comp=Z,14nm,1.3s							
HLID	**Hailey**	**83.61**	**328**	P		**P**	06 15 22.8	**+1.7**
PINE	**Pine Mountain**	**86.93**	**325**	P		**P**	06 15 38.9	**+1.3**
PINE				IAmb		IAmb	06 15 40.0	
	comp=Z,10nm,0.8s							
LDM	**Libby Dam**	**87.79**	**331**	P		**P**	06 15 42.5	**+1.1**
LDM				IAmb		IAmb	06 15 43.0	
	comp=Z,6.2nm,0.7s							
YKA	**Yellowknife Ar**	**98.40**	**340**	P		Pdif	06 16 29.4	-0.4
	comp=Z,1.0nm,0.7s,baz=145,slow=4.9,SNR=7.2							
	comp=Z,1.0nm,0.7s							
ASAR	**Alice Springs**	**123.29**	**205**	PKP		**PKiKP**	06 21 49.0	**-0.8**
	comp=Z,1.6nm,0.4s,baz=131,slow=1.7,SNR=29							
ASAR				pPKP		**pPKPdf**	06 22 17.7	**-1.2**
	comp=Z,0.5nm,0.6s,baz=126,slow=1.8,SNR=2.4							
WRA	**Warramunga Arr**	**126.50**	**207**	PKP		**PKiKP**	06 21 55.7	**-0.6**
	comp=Z,4.2nm,0.5s,baz=163,slow=1.8,SNR=66							
WRA	**Warramunga Arr**	**126.50**	**207**	PKP		**PKiKP**	06 21 55.9	**-0.4**
BVAR	**Borovoye Array**	**141.62**	**40**	PKP		**PKPdf**	06 22 22.8	**0.0**
	comp=Z,0.4nm,0.4s,baz=309,slow=7.1,SNR=4.0							
KURBB	**Kurchatov Arra**	**147.21**	**40**	PKPbc		**PKPbc**	06 22 35.4	**+0.4**
	comp=Z,11nm,0.6s,baz=301,slow=3.2,SNR=54							
KURBB				pPKPbc		**pPKPbc**	06 23 04.0	**+0.1**
	comp=Z,1.8nm,0.4s,baz=303,slow=3.4,SNR=3.7							
KURK	**Kurchatov**	**147.22**	**40**			**PKPab**	06 22 36.1	**-0.9**
ZALV	**Zalesovo Beam**	**148.48**	**30**	PKPbc		**PKiKP**	06 22 39.1	**-0.7**
	comp=Z,19nm,0.4s,baz=304,slow=3.5,SNR=74							
ZALV				pPKPbc		**pPKPbc**	06 23 07.7	**0.0**
	comp=Z,4.6nm,0.4s,baz=312,slow=3.9,SNR=4.5							
KSH2	**Kashi**	**148.81**	**62**	PKPbc		**PKPbc**	06 22 39.8	**-0.1**
MK31	**Makanchi Array**	**151.22**	**44**	PKPbc		**PKiKP**	06 22 46.0	**+0.3**
MKAR	**Makanchi Array**	**151.22**	**44**	PKPbc		**PKiKP**	06 22 45.9	**+0.1**
	comp=Z,12nm,0.6s,baz=306,slow=2.1,SNR=87							
MKAR	**Makanchi Array**	**151.22**	**44**			**PKiKP**	06 22 46.0	**+0.3**
KLR	**Kul'dur**	**154.59**	**328**	PKPbc		**PKiKP**	06 22 52.7	**+0.1**
	comp=Z,1.2nm,0.6s,baz=0.0,slow=2.0,SNR=4.1							
SONM	**Songino Array**	**160.85**	**10**	PKPab		**PKPab**	06 23 35.6	**+0.8**
	comp=Z,0.4nm,0.6s,baz=353,slow=2.2,SNR=4.7							

*IDC **18** 06:07:50.0±1.0, 7.°61S×154.°93E, h0km, mb3.8/7, mbtmp3.8/7, MS2.9/2, Error ellipse: s-maj=30.6km s-min=25.3km az=104.0*

ISC 18 06:07:54.8±0.9, 7.°6S±0.°2×154.°9E±0.°2, h31km, n10, σ1§40/8, mb3.9/8, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**14.97**	**213**	LR	LR	06 16 30.8	
	comp=Z,28nm,18.6s,baz=69,slow=35						
WRA	**Warramunga Arr**	**23.41**	**236**	P	**P**	06 12 59.9	**-1.6**
	2.2nm,0.8s,baz=59,slow=9.8,SNR=12						
	2.2nm,0.8s						
MSVF	**Nonsavu**	**24.65**	**116**	LR	LR	06 22 54.7	
	comp=Z,50nm,19.3s,baz=164,slow=37						
ASAR	**Alice Springs**	**25.71**	**229**	P	**P**	06 13 22.4	**-0.2**
	0.7nm,0.7s,baz=63,slow=8.8,SNR=9.9						
	0.7nm,0.7s						
RAO	**Raoul Island**	**33.38**	**134**	P	**P**	06 14 29.8	**-0.8**
	134nm,0.3s,baz=64,slow=24,SNR=4.2						
SONM	**Songino Array**	**69.84**	**327**	P	**P**	06 19 03.9	**+1.2**
	0.3nm,0.3s,baz=118,slow=4.6,SNR=1.7						
	0.3nm,0.3s						
QSPA	**South Pole Qui**	**82.34**	**180**	P	**P**	06 20 15.3	**+1.8**
	1.3nm,0.9s,baz=299,slow=3.3,SNR=2.9						
	1.3nm,0.9s						
MKAR	**Makanchi Array**	**83.85**	**319**	P	**P**	06 20 21.7	**+0.2**
	0.7nm,0.8s,baz=97,slow=6.2,SNR=4.3						
	0.7nm,0.8s						
ILAR	**Eielson Array**	**83.99**	**21**	P	**P**	06 20 21.3	**-0.5**
	0.5nm,0.9s,baz=237,slow=6.0,SNR=5.2						
	0.5nm,0.9s						
ZALV	**Zalesovo Beam**	**84.68**	**326**	P	**P**	06 20 24.2	**-1.3**
	0.7nm,0.6s,baz=111,slow=7.9,SNR=2.2						
	0.7nm,0.6s						

*IDC **18** 06:08:11.5±1.5, 53.°30N×161.°54W, h0km, mb3.9/7, mbtmp3.8/9, ML3.4/2, MS2.6/1, Error ellipse: s-maj=31.9km s-min=18.5km az=152.0*

*AEIC **18** 06:08:14.0±2.8, 53.°01N±0.°08×161.°26W±0.°08, h5km±5km, Error ellipse: s-maj=11.6km s-min=6.6km az=161.0*

*NEIC **18** 06:08:14.6±2.4, 53.°31N±0.°03×161.°44W±0.°07, h20km±6km, ML3.5/22, ML3.5(AEIC), Error ellipse: s-maj=6.4km s-min=4.7km az=71.0*

ISC 18 06:08:10.1±2.6, 53.°25N±0.°06×161.°35W±0.°04, h1km±15km, n89, σ1§89/101, mb4.0/6, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**1.89**	**33**		**Pn**	06 08 44.6	**+1.1**
CNBA					**Sn**	06 09 08.4	**+0.5**
CHNA	**Chernabura Isl**	**1.90**	**33**	P	**Pn**	06 08 44.2	**+0.6**
CHNA	**Chernabura Isl**	**1.90**	**33**	S	**Sb**	06 09 09.3	**-0.3**
DOL	**Dolgoi Island**	**1.93**	**351**		**Pn**	06 08 45.6	**+1.6**
DOL					**Sb**	06 09 10.4	**-0.2**
DT1	**Dutton Round H**	**1.94**	**344**		**Pn**	06 08 45.7	**+1.5**
DT1					**Sb**	06 09 10.5	**-0.5**
DTNA	**Dutton South F**	**1.98**	**345**		**Pb**	06 08 46.5	**-0.3**
DTNA					**Sb**	06 09 12.0	**0.0**
DTNA					**Sg**	06 09 12.1	**-1.4**
ISLZ	**Isanotski Laza**	**2.03**	**318**		**Pn**	06 08 46.6	**+1.1**
ISLZ					**Sb**	06 09 12.3	**-1.3**
HAG	**Hague Volcano**	**2.10**	**351**		**Pb**	06 08 48.7	**-0.2**
HAG					**Pn**	06 08 48.9	**+2.5**
PS4A	**Pavlof South-4**	**2.12**	**352**		**Pb**	06 08 49.0	**-0.3**
PS4A					**Pn**	06 08 49.2	**+2.5**
PS4A					**Sb**	06 09 16.8	**+0.6**
SSLS	**Shishaldin Sou**	**2.14**	**314**		**Pn**	06 08 48.5	**+1.5**
SSLS					**Sn**	06 09 14.6	**+0.3**
SDPT	**Sand Point**	**2.17**	**13**	P	**Pn**	06 08 48.8	**+1.5**
SDPT	**Sand Point**	**2.17**	**13**	S	**Sn**	06 09 15.3	**+0.5**
SDPT	**Sand Point**	**2.17**	**13**		**Sb**	06 08 48.7	**+1.5**
SDPT					**Pn**	06 08 48.9	**+1.5**
SDPT					**Sn**	06 09 15.6	**+0.9**
PS1A	**Pavlof South-1**	**2.19**	**354**		**Pb**	06 08 49.9	**-0.6**
PS1A					**Pn**	06 08 50.1	**+2.5**
PS1A					**Sb**	06 09 18.1	**0.0**
PN7A	**Pavlof North-7**	**2.22**	**350**		**Pn**	06 08 50.2	**+2.1**
PN7A					**Pb**	06 08 51.1	**0.0**
SSBA	**Shishaldin**	**2.24**	**314**		**Pn**	06 08 49.9	**+1.5**
WESN	**West Dahl Nort**	**2.32**	**306**		**Pn**	06 08 51.0	**+1.5**
WESN					**Sn**	06 09 19.3	**+0.6**
WESP	**Westdahl Peak**	**2.35**	**303**		**Pn**	06 08 50.7	**+0.8**
WESP					**Pb**	06 08 50.8	**-2.5**
WESP					**Sn**	06 09 19.2	**-0.2**
WECS	**Westdahl Cape**	**2.40**	**304**		**Pn**	06 08 51.7	**+1.2**
WECS	**Westdahl Cape**	**2.40**	**304**	IAML		06 09 24.8	
	comp=E,267nm,0.6s						
S12K	**Black Hills**	**2.49**	**351**		**Pn**	06 08 54.2	**+2.4**
S12K					**Pb**	06 08 54.5	**-1.1**
S12K					**Sb**	06 09 25.9	**-1.0**
S12K	**Black Hills**	**2.49**	**351**	IAML		06 09 27.9	
	comp=N,195nm,0.5s						
AKUT	**Akutan**	**2.77**	**290**	P	**Pn**	06 08 56.5	**+0.9**
AKUT	**Akutan**	**2.77**	**290**	S	**Sn**	06 09 29.4	**-0.3**
AKUT	**Akutan**	**2.77**	**290**	IAML		06 09 29.8	
	comp=E,215nm,0.5s						
AKUT				IAML		06 09 32.1	
	comp=N,152nm,0.7s						
AHB	**Akutan Harbor**	**2.79**	**290**		**Pn**	06 08 56.9	**+1.0**
AKBBA	**Akutan Broad B**	**2.85**	**289**		**Pn**	06 08 57.7	**+0.9**
ZRO	**Akutan Zero**	**2.88**	**289**		**Sn**	06 09 31.2	**-1.1**
AKLV	**Akutan Long Va**	**2.88**	**290**		**Pn**	06 08 58.0	**+0.9**
AKLV					**Sn**	06 09 31.6	**-0.9**
LVA	**Lava Point**	**2.93**	**290**	IAML		06 09 36.4	
	comp=E,171nm,0.7s						
LVA				IAML		06 09 46.9	
	comp=N,217nm,0.8s						
VNKR	**Veniaminof 5**	**3.02**	**22**		**Pn**	06 09 01.4	**+2.4**
UNV	**Unalaska Valle**	**3.13**	**283**	P	**Pn**	06 09 00.5	**0.0**
UNV	**Unalaska Valle**	**3.13**	**283**		**Sn**	06 09 36.0	**-2.5**
UNV	**Unalaska Valle**	**3.13**	**283**		**Pn**	06 09 00.8	**+0.3**
UNV				IAML		06 09 38.6	
	comp=E,86nm,1.0s						
MNAT	**Makushin Natee**	**3.24**	**283**		**Sn**	06 09 39.2	**-2.1**
MTBL	**Makushin Table**	**3.25**	**285**		**Pn**	06 09 03.2	**+0.9**
MSW	**Makushin Switc**	**3.30**	**284**		**Pn**	06 09 03.5	**+0.6**
CHGN	**Chignik**	**3.50**	**28**		**Pn**	06 09 07.9	**+2.3**
CHGN				IAML		06 09 52.0	
	comp=E,144nm,0.1s						
CHGN				IAML		06 09 53.5	
	comp=N,72nm,0.3s						
BPBCA	**Veniaminof**	**3.74**	**25**		**Pn**	06 09 11.7	**+2.7**
ANPB	**Aniakchak Plen**	**3.98**	**25**		**Pn**	06 09 14.8	**+2.6**
OKTU	**Okmok Mt. Tuli**	**4.01**	**275**		**Pn**	06 09 13.5	**+0.8**
OKCE	**Okmok Cone E**	**4.09**	**275**		**Pn**	06 09 14.8	**+1.1**
CHIR	**Chirikof Islan**	**4.22**	**50**	P	**Pn**	06 09 16.3	**+0.9**
CHIR	**Chirikof Islan**	**4.22**	**50**	Pn	**Pn**	06 09 16.3	**+0.9**
CHIR				IAML		06 10 34.4	
	comp=N,78nm,1.4s						
CHIR				IAML		06 11 25.2	
	comp=E,65nm,1.3s						
R16K	**Pilot Point**	**4.83**	**25**		**Pn**	06 09 26.1	**+2.2**
R16K	**Pilot Point**	**4.83**	**25**	IAML		06 12 01.9	
	comp=E,54nm,1.4s						
CLCO	**Concord Point,**	**5.07**	**268**		**Pn**	06 09 27.9	**+0.7**
R17L	**Mt. Peulik Vol**	**5.23**	**31**		**Pn**	06 09 30.3	**+0.9**
R17L					**Pb**	06 09 31.7	**-11**
SII	**Sitkinak Islan**	**5.30**	**48**	P	**Pn**	06 09 31.5	**+1.1**
SII	**Sitkinak Islan**	**5.30**	**48**	Pn	**Pn**	06 09 31.5	**+1.1**
Q17K	**Contact Creek**	**5.90**	**29**		**Pn**	06 09 40.4	**+1.7**
Q17K					**Pb**	06 09 40.6	**-13**
CAHL	**Cahill**	**5.91**	**33**		**Pn**	06 09 39.6	**+0.8**
CAHL					**Pb**	06 09 40.5	**-13**
ANCK	**Angle Creek**	**5.96**	**31**		**Pn**	06 09 41.3	**+1.8**
ANCK					**Pb**	06 09 41.5	**-13**
O15K	**Ungalikthiuk R**	**6.00**	**8**		**Pn**	06 09 41.8	**+1.8**
O14K	**Tigyukauivet M**	**6.02**	**0**		**Pn**	06 09 42.8	**+2.6**
OHAK	**Old Harbor**	**6.09**	**46**	P	**Pn**	06 09 41.8	**+0.6**
OHAK	**Old Harbor**	**6.09**	**46**	Pn	**Pn**	06 09 42.0	**+0.8**
P16K	**Nushagak River**	**6.09**	**17**	Pn	**Pn**	06 09 44.1	**+3.0**
KARR	**Katmai Rainbow**	**6.45**	**33**		**Pn**	06 09 47.7	**+1.5**
O16K	**Kokwok River B**	**6.61**	**15**	Pn	**Pn**	06 09 50.3	**+2.0**
N14K	**Kuskokwak Cree**	**6.70**	**359**		**Pn**	06 09 51.8	**+2.4**
KDAK	**Kodiak Island**	**6.74**	**44**	Pn	**Pn**	06 09 50.7	**+0.6**
	comp=E,1.0nm,0.3s,baz=201,slow=0.9,SNR=54						
KDAK				Sn	**Sn**	06 11 01.0	**-6.4**
	comp=E,1.1nm,0.3s,baz=32,slow=23,SNR=6.7						
KDAK				LR	LR	06 11 54.1	
	comp=E,42nm,18.2s,baz=251,slow=33						
	comp=E,4.3nm,0.4s						
KDAK				AML	AML		
N15K	**Kwethluk River**	**6.97**	**5**		**Pn**	06 09 56.0	**+2.7**
N16K	**Nishlik Lake**	**7.38**	**10**		**Pn**	06 10 01.1	**+2.2**
N17K	**Nushagak Hills**	**7.64**	**16**	Pn	**Pn**	06 10 05.3	**+2.8**
ATKA	**Atka Island**	**7.87**	**267**	P	**Pn**	06 10 06.8	**+1.2**
M16K	**Timber Creek**	**7.90**	**9**		**Pn**	06 10 08.4	**+2.4**
O20K	**Slope Mountain**	**8.36**	**32**		**Pn**	06 10 14.9	**+2.5**
CNPM	**China Poot**	**8.42**	**38**		**Pn**	06 10 15.1	**+1.9**
L15K	**Ungalak Mounta**	**8.45**	**360**		**Pn**	06 10 15.8	**+2.3**
L17K	**Donlin**	**9.06**	**9**		**Pn**	06 10 23.6	**+1.8**
ETKA	**Kagalaska Isla**	**9.28**	**267**		**Pn**	06 10 25.4	**+0.5**
L18K	**Granite Mounta**	**9.33**	**14**		**Pn**	06 10 27.9	**+2.3**
SLKM	**Skilak Lake**	**9.48**	**35**		**Pn**	06 10 28.0	**+0.3**
PWL	**Port Wells**	**10.40**	**38**		**Pn**	06 10 40.0	**-0.2**
ILAR	**Eielson Array**	**13.70**	**27**	Pn	**Pn**	06 11 22.6	**-2.7**
	comp=E,0.1nm,0.3s,baz=220,slow=12,SNR=7.4						
ILAR				Sn	**Sn**	06 13 49.1	**-8.8**
	baz=320,slow=31,SNR=0.9						
	comp=E,0.2nm,0.3s						
ILAR				AML	AML		
INK	**Inuvik**	**20.02**	**30**	P	**Pn**	06 12 46.4	**+0.8**
	comp=E,1.3nm,0.5s,baz=214,slow=12,SNR=14						
	comp=E,1.3nm,0.5s						
PETK	**Petropavlovsk-**	**24.31**	**286**	P	**P**	06 13 29.5	**+0.6**
	comp=E,3.5nm,0.7s,baz=72,slow=11,SNR=1.3						
	comp=E,3.5nm,0.7s						
YKA	**Yellowknife Ar**	**25.96**	**51**	P	**P**	06 13 45.5	**+1.8**
	comp=E,0.8nm,0.5s,baz=269,slow=8.9,SNR=9.2						
	comp=E,0.8nm,0.5s						
H11N2	**WAKE ISLAND Hy**	**41.44**	**228**	T	T	07 01 31.1	
	baz=26						
H11N3	**WAKE ISLAND Hy**	**41.45**	**228**	T	T	07 01 33.1	
	baz=26						
H11N1	**WAKE ISLAND Hy**	**41.46**	**228**	T	T	07 01 32.8	
	baz=26						
H11S1	**WAKE ISLAND Hy**	**42.60**	**228**	T	T	07 03 05.8	
	baz=26,slow=76,SNR=22						
H11S2	**WAKE ISLAND Hy**	**42.62**	**228**	T	T	07 03 11.0	
	baz=26,slow=76,SNR=17						
H11S3	**WAKE ISLAND Hy**	**42.62**	**228**	T	T	07 03 08.1	
	baz=26,slow=76,SNR=21						
TXAR	**Lajitas Array**	**47.93**	**96**	P	**P**	06 16 52.0	**+1.9**
	comp=E,7.0nm,0.8s,baz=299,slow=5.5,SNR=6.1						
	comp=E,0.7nm,0.8s						
BVAR	**Borovoye Array**	**65.65**	**329**	P	**P**	06 18 55.7	**+0.1**
	comp=E,0.7nm,0.4s,baz=70,slow=7.1,SNR=2.2						
	comp=E,0.7nm,0.4s						
HFS	**Hagfors**	**66.90**	**3**	P	**P**	06 19 04.5	**+1.1**
	comp=E,2.3nm,0.7s,baz=345,slow=4.9,SNR=4.4						
	comp=E,2.3nm,0.7s						
AKASG	**Malin Array Be**	**76.04**	**353**	P	**P**	06 19 59.8	**+1.1**
	comp=E,0.4nm,0.4s,baz=12,slow=6.1,SNR=1.5						
	comp=E,0.4nm,0.4s						

*IDC **18** 06:11:21.9±2.3, 23.°55S×179.°76W, h549km±27km, mb3.3/8, mbtmp4.2/9, Error ellipse: s-maj=22.7km s-min=17.9km az=151.0*

ISC 18 06:11:21.8±0.8, 23.°5S±0.°1×179.°8W±0.°1, h550km, n13, σ0§75/11, mb3.9/8, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**6.12**	**340**	P	**P**	06 13 01.5	**-0.2**
	10.0nm,0.3s,baz=137,slow=23,SNR=6.5						
CTA	**Charters Tower**	**31.69**	**270**	P	**P**	06 17 01.7	**+0.8**
	10nm,0.3s,baz=92,slow=10.0,SNR=23						
	10nm,0.3s						
STKA	**Stephens Creek**	**35.06**	**248**	P	**P**	06 17 28.8	**-0.3**
	1.6nm,0.5s,baz=102,slow=10,SNR=4.4						
	1.6nm,0.5s						
ASAR	**Alice Springs**	**42.31**	**260**	P	**P**	06 18 28.1	**+0.2**
	2.3nm,0.4s,baz=94,slow=7.5,SNR=35						
	2.3nm,0.4s						
WRA	**Warramunga Arr**	**42.65**	**266**	P	**P**	06 18 30.4	**-0.2**
	4.1nm,0.5s,baz=92,slow=8.4,SNR=85						
	4.1nm,0.5s						
VNDA	**Vanda**	**54.77**	**185**	P	**P**	06 19 59.0	**-0.4**
	0.5nm,0.7s,baz=16,slow=5.9,SNR=2.7						
	0.5nm,0.7s						
QSPA	**South Pole Qui**	**66.56**	**180**	P	**P**	06 21 17.6	**+0.3**
	2.4nm,0.7s,baz=324,slow=0.6,SNR=14						
	2.4nm,0.7s						
TXAR	**Lajitas Array**	**90.05**	**58**	P	**P**	06 23 24.2	**+0.7**
	0.8nm,0.7s,baz=213,slow=6.3,SNR=12						
	0.8nm,0.7s						
PDAR	**Pinedale Array**	**92.27**	**44**	P	**P**	06 23 34.0	**+0.3**
	0.3nm,0.6s,baz=228,slow=4.7,SNR=2.8						
	0.3nm,0.6s						
ARCES	**ARCESS Array B**	**131.56**	**348**	PKP	**PKPdf**	06 29 29.9	**-1.5**
	3.7nm,0.8s,baz=9.5,slow=1.5,SNR=4.4						
HFS	**Hagfors**	**142.22**	**349**	PKhKP	PKPpre	06 29 46.7	
	1.7nm,0.4s,baz=44,slow=5.0,SNR=9.3						
AKASG	**Malin Array Be**	**144.77**	**328**	PKP	PKPbc	06 29 55.5	-0.9
	0.7nm,0.4s,baz=43,slow=3.5,SNR=4.3						
EKA	**Eskdalemuir Ar**	**148.13**	**4**	PKPbc	**PKPbc**	06 30 04.8	**-0.7**
	1.7nm,0.7s,baz=358,slow=2.2,SNR=3.4						

*NIED **18** 06:18:03.2, 37.°41N×141.°51E, h40km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^14 Nm; Mrr=2.44; Mθθ=0.91; Mφφ=1.53; Mrθ=3.51; Mrφ=1.04; Mθφ=3.73; Fault plane solution: M0=5.64000×10^14 NP1:φs=32.00000°, δ=13.00000°, λ=-101.00000°. NP2:φs=223.00000°, δ=78.00000°, λ=-88.00000°.*

*JMA **18** 06:18:03.2±0.1, 37.°4N±0.°2×141.°5E±0.°2, h40km, MD4.0/40, MV4.3/40, E OFF FUKUSHIMA PREF*

JMA Felt II J1 at E OFF FUKUSHIMA PREF .

*IDC **18** 06:18:05.9±2.8, 37.°26N×141.°38E, h65km±25km, mb3.5/11, mbtmp3.8/15, ML3.1/4, MS2.6/4, Error ellipse: s-maj=26.6km s-min=13.6km az=75.0*

ISC 18 06:18:03.3±0.7, 37.°38N±0.°04×141.°54E±0.°09, h39km±6km, n35, σ1§36/32, mb3.7/11, 2D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JFK	**Kawauchi**	**0.53**	**268**	*i* P	**Pn**	06 18 14.0	**-0.6**
JFK				A	A	06 18 14.0	
	comp=N,6.0nm,0.3s,comp=E,11nm,0.9s						
JFK				S	**Sn**	06 18 21.2	**-1.2**
JMST	**Minamisoumatoc**	**0.62**	**303**	*i* P	**Pn**	06 18 14.9	**-0.8**
JMST				A	A	06 18 14.9	
	comp=N,30nm,0.2s,comp=E,13nm,0.3s						
JMST				*e*S	**Sn**	06 18 23.0	**-1.5**
ONAJ	**Iwakimizuishiy**	**0.66**	**245**	*i* P	**Pn**	06 18 15.7	**-0.5**
ONAJ				A	A	06 18 15.7	
	comp=N,11nm,0.3s,comp=E,13nm,0.3s						
ONAJ				S	**Sn**	06 18 24.2	**-1.2**
JMM	**Marumori**	**0.77**	**309**	*i* P	**Pn**	06 18 17.0	**-0.6**
JMM				*e*S	**Sn**	06 18 27.0	**-1.0**
JOTO	**OTAMA OYAMA**	**0.98**	**281**	*i* P	**Pn**	06 18 20.9	**+0.3**
JOTO				S	**Sn**	06 18 33.4	**+0.2**
JIO	**Ouri**	**1.08**	**352**	⇓*e*P	Pn	06 18 21.3	-0.6
JIO				⇓S	**Sn**	06 18 34.1	**-1.5**
JHO	**Hitachi**	**1.10**	**226**	*i* P	**Pn**	06 18 21.4	**-0.7**
JHO				*e*S	**Sn**	06 18 34.8	**-1.3**
JOU	**Okura**	**1.20**	**325**	*i* P	**Pn**	06 18 23.7	**+0.1**
JOU				A	A	06 18 23.7	
	comp=N,7.0nm,0.3s,comp=E,8.0nm,0.6s						
JOU				S	**Sn**	06 18 38.8	**0.0**
JYAR	**Yonezawaarcadi**	**1.23**	**296**	A	A	06 18 23.9	
	comp=N,7.0nm,0.3s,comp=E,8.0nm,1.3s						
MJAR	**Matsushiro Arr**	**2.80**	**254**	P	**Pn**	06 18 46.4	**+0.8**
	comp=E,1.1nm,0.3s,baz=84,slow=17,SNR=18						
MJAR				S	**Sn**	06 19 22.1	**+3.9**
	comp=E,21nm,0.6s,baz=85,slow=26,SNR=3.5						
MJAR				LR	LR	06 20 15.3	
	comp=E,131nm,18.3s,baz=34,slow=49						
	comp=E,5.6nm,0.3s						
MJAR				AML	AML		
JHJ	**Hachijo jima 2**	**4.49**	**199**	P	**Pn**	06 19 09.6	**+0.8**
	comp=E,2.8nm,0.3s,baz=91,slow=22,SNR=12						
JHJ				S	**Sn**	06 19 58.7	**-1.1**
	comp=E,9.4nm,0.3s,baz=241,slow=24,SNR=7.8						
	comp=E,5.6nm,0.3s						
JHJ				AML	AML		
USRK	**Ussuriysk Ar.**	**9.94**	**316**	P	**Pn**	06 20 27.1	**+3.6**
	comp=E,0.3nm,0.3s,baz=125,slow=13,SNR=5.7						
	comp=E,2.4nm,0.6s						
USRK				AML	AML		
KSRS	**Korea Array**	**10.84**	**275**	P	**Pn**	06 20 35.0	**-0.7**
	comp=E,0.3nm,0.3s,baz=92,slow=13,SNR=2.2						
KSRS				LR	LR	06 24 34.1	
	comp=E,24nm,18.9s,baz=100,slow=36						
	comp=E,14nm,0.5s						
KSRS				AML	AML		
KLR	**Kul'dur**	**13.81**	**332**	LR	LR	06 25 53.6	
	comp=E,29nm,19.8s,baz=348,slow=34						
HHC	**Hu-ho-hao-te**	**23.46**	**288**	*e*P	P	06 22 58.3	-11
SONM	**Songino Array**	**27.68**	**303**	P	**P**	06 23 47.3	**-0.3**
	comp=E,0.7nm,0.6s,baz=105,slow=9.1,SNR=4.9						
	comp=E,0.7nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**28.24**	**122**	T	T	06 53 26.7	
	baz=314,slow=76						
H11N1	**WAKE ISLAND Hy**	**28.25**	**122**	T	T	06 53 29.4	
	baz=314						
H11N3	**WAKE ISLAND Hy**	**28.26**	**122**	T	T	06 53 33.2	
	baz=314,slow=76						
H11S1	**WAKE ISLAND Hy**	**28.96**	**124**	T	T	06 54 18.7	
	baz=316,slow=76,SNR=225						
H11S3	**WAKE ISLAND Hy**	**28.96**	**124**	T	T	06 54 19.8	
	baz=316,slow=76,SNR=196						
H11S2	**WAKE ISLAND Hy**	**28.98**	**124**	T	T	06 54 27.4	
	baz=316,slow=76,SNR=202						
CMAR	**Chiang Mai Arr**	**41.69**	**255**	LR	LR	06 45 03.8	
	comp=E,7.6nm,18.4s,baz=345,slow=39						
ZALV	**Zalesovo Beam**	**41.76**	**312**	P	**P**	06 25 47.8	**-0.6**
	comp=E,0.7nm,0.3s,baz=81,slow=9.3,SNR=3.1						
	comp

	comp=N,669nm,0.8s							
SDDR	**Presa de Saban**	**1.30**	**205**	⇓*e*Pg		**Pb**	**06 43 56.1**	**+0.2**
SDDR				⇑*e*Sg		**Sn**	**06 44 14.3**	**+0.5**
SDDR				IAML			06 44 17.3	
	comp=N,252nm,0.5s							
SDDR	**Presa de Saban**	**1.30**	**205**	*e*P		**Pg**	**06 43 55.6**	**-0.3**
SDDR				*e*S		**Sg**	**06 44 11.7**	**-1.0**
SDDR				IAML			06 44 14.5	
	comp=N,258nm,0.5s							
SDDR				IAML			06 44 16.0	
	comp=N,207nm,0.6s							
SDDR	**Presa de Saban**	**1.30**	**205**	*i* P		**Pb**	**06 43 56.2**	**+0.2**
SDDR				*e*S		**Sn**	**06 44 13.7**	**-0.2**
SDDR				IAML			06 44 14.4	
	comp=Z,136nm,0.5s							
ABDR	**Alto Bandera**	**1.35**	**177**	⇓*e*Pg		**Pb**	**06 43 57.7**	**+0.6**
ABDR				⇓*e*Sg		**Sn**	**06 44 15.5**	**0.0**
ABDR				IAML			06 44 18.0	
	comp=N,271nm,0.7s							
GRTK	**Grand Turk**	**1.40**	**344**	*e*P		**Pg**	**06 43 58.2**	**+0.4**
GRTK				*e*S		**Sb**	**06 44 15.7**	**-0.1**
GRTK				IAML			06 44 20.3	
	comp=N,567nm,0.3s							
GRTK				IAML			06 44 21.0	
	comp=N,673nm,0.3s							
GRTK	**Grand Turk**	**1.40**	**344**	*i* P		**Pg**	**06 43 58.4**	**+0.7**
GRTK				*e*S		**Sn**	**06 44 16.4**	**+0.2**
GRTK				IAML			06 44 22.5	
	comp=Z,245nm,0.5s							
LONE3	**El Aguacate, B**	**1.71**	**205**	*i* P		**Pg**	**06 44 03.4**	**-0.3**
LONE3				*e*S		**Sb**	**06 44 25.2**	**+0.3**
LONE3				IAML			06 44 28.4	
	comp=Z,108nm,0.6s							
BANI	**BANI**	**1.79**	**169**	⇑*e*Pg		**Pg**	**06 44 05.5**	**+0.1**
BANI				IAML			06 44 34.7	
	comp=N,232nm,0.8s							
NEDR	**Neiba UASD**	**1.80**	**202**	⇓*e*Pg		**Pb**	**06 44 05.0**	**+0.4**
NEDR				IAML			06 44 44.9	
	comp=N,73nm,0.8s							
HATOM	**Hato Mayor del**	**1.86**	**137**	⇓*e*Pg		**Pb**	**06 44 05.5**	**-0.1**
HATOM				*i* Pg		**Pg**	**06 44 06.5**	**-0.1**
HATOM				⇓*e*Sg		**Sg**	**06 44 31.2**	**+0.4**
HATOM				IAML			06 44 43.0	
	comp=N,57nm,0.8s							
SDD	**Santo Domingo**	**1.86**	**156**	*i* P		**Pb**	**06 44 05.9**	**+0.3**
SDD				*e*S		**Sb**	**06 44 29.1**	**0.0**
SDD				IAML			06 44 32.6	
	comp=Z,61nm,0.5s							
LODU1	**El Espartillar**	**1.94**	**202**	*i* P		**Pg**	**06 44 07.7**	**-0.5**
LODU1				IAML			06 44 34.9	
	comp=Z,325nm,0.5s							
JIDR	**Jimani**	**1.98**	**213**	⇑*e*Pg		**Pb**	**06 44 08.2**	**+0.5**
JIDR				⇑*e*Sg		**Sg**	**06 44 35.7**	**+1.0**
JIDR				IAML			06 44 35.8	
	comp=N,369nm,0.6s							
PODR	**Polo**	**2.06**	**195**	⇑*e*Pg		**Pg**	**06 44 10.2**	**-0.3**
PODR				IAML			06 44 47.6	
	comp=N,259nm,0.7s							
PODR	**Polo**	**2.06**	**195**	*i* P		**Pb**	**06 44 09.5**	**+0.3**
PODR				IAML			06 44 40.1	
	comp=Z,677nm,0.6s							
LGNH	**Logne**	**2.43**	**228**	*i* P		**Pb**	**06 44 14.4**	**-0.9**
LGNH				IAML			06 44 51.6	
	comp=Z,25nm,1.6s							
HIDR	**Higuey Centro**	**2.45**	**129**	⇓*e*Pg		**Pb**	**06 44 14.7**	**-1.0**
HIDR				IAML			06 44 55.2	
	comp=N,73nm,0.7s							
QMBU	**Quimbuelo**	**3.85**	**271**	*e*P		**Pn**	**06 44 30.4**	**-0.8**
MOAC	**Moa**	**4.02**	**278**	*e*P		**Pn**	**06 44 32.0**	**-1.3**
NMDO	**Nuevo Mundo**	**4.03**	**276**	*e*P		**Pn**	**06 44 32.0**	**-1.5**
GTBY	**Guantanamo Bay**	**4.14**	**267**	*e*P		**Pn**	**06 44 34.6**	**-0.5**
SABCS	**La Quijada**	**4.33**	**273**	*e*P		**Pn**	**06 44 37.5**	**-0.2**
PINC	**Pinares de May**	**4.78**	**275**	*e*P		**Pn**	**06 44 42.9**	**-0.9**
MARVS	**Santiago de Cu**	**4.88**	**269**	*e*P		**Pn**	**06 44 45.3**	**+0.1**

*ISK **18** 07:29:19.4, 37.°83N×26.°95E, h11km, ML3.3/32*
*ATH **18** 07:29:19.7, 37.°82N×26.°98E, h11km±1km, ML3.2/10,*
Latitude uncertainty: 1 km; Longitude uncertainty: 0 km
*AFAD **18** 07:29:20.0, 37.°84N×26.°96E, h7km±2km, ML3.1*
*THE **18** 07:29:20.2, 37.°8N±0.°8×27.°0E±0.°7, h7km±1km, M3.2/16, MLh3.2/16*

ISC 18 07:29:20.1±0.8, **37.°82N**±0.°02×**26.°96E**±0.°02, **h12**km±5km, **n82**, σ0**s43**/108, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**220**	P	**Pg**	**07 29 23.5**	**-0.2**
SMG				S	**Sg**	**07 29 26.1**	**-0.2**
SMG				AML	AML		
SMG	**Samos**	**0.15**	**220**	P	**Pg**	**07 29 23.5**	**-0.2**
SMG				S	**Sg**	**07 29 26.0**	**-0.2**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.20**	**262**	P	**Pg**	**07 29 24.6**	**+0.1**
KRL1				S	**Sg**	**07 29 27.8**	**+0.3**
KRL1				AML	AML		
DGB	**zmir**	**0.24**	**346**	P	**Pg**	**07 29 24.7**	**-0.4**
DGB				S	**Sg**	**07 29 28.0**	**-0.5**
DGB				IAML		07 29 28.0	
	comp=N,2μm,0.6s						
DGB				IAML		07 29 29.0	
	comp=E,2μm,0.6s						
GCAM	**G?zelcaml?**	**0.25**	**119**	P	**Pg**	**07 29 25.5**	**+0.1**
GCAM				IAML		07 29 29.0	
	comp=E,5μm,0.4s						
GCAM				S	**Sg**	**07 29 29.5**	**+0.6**
GCAM				IAML		07 29 31.0	
	comp=N,3μm,0.1s						
GCAM	**G?zelcaml?**	**0.25**	**119**	Pg	**Pg**	**07 29 25.4**	**+0.1**
GCAM				Sg	**Sg**	**07 29 29.2**	**+0.3**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.26**	**353**	Pg	**Pg**	**07 29 25.1**	**-0.3**
GMLD				Sg	**Sg**	**07 29 28.9**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**82**	Pg	**Pg**	**07 29 25.5**	**-0.1**
KUSD				Sg	**Sg**	**07 29 29.3**	**0.0**
KUSD				AML	AML		
SAM2	**Drakei, Karlov**	**0.28**	**257**	P	**Pg**	**07 29 25.8**	**-0.1**
SAM2				S	**Sg**	**07 29 30.0**	**+0.2**
SAM2				AML	AML		
BEYE	**izmir**	**0.40**	**357**	P	**Pg**	**07 29 27.9**	**-0.2**
BEYE				S	**Sg**	**07 29 33.8**	**+0.3**
BEYE				IAML		07 29 34.0	
	comp=N,2μm,0.4s						
BEYE				IAML		07 29 34.0	
	comp=E,2μm,0.5s						
DDIM	**Aydin, Didim**	**0.43**	**148**	P	**Pg**	**07 29 28.9**	**+0.3**
DDIM				IAML		07 29 35.0	
	comp=E,2μm,0.3s						
DDIM				IAML		07 29 38.0	
	comp=N,3μm,0.5s						
DIDI	**Didim-Aydin**	**0.50**	**153**	Pg	**Pg**	**07 29 30.2**	**+0.3**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.55**	**319**	P	**Pg**	**07 29 30.4**	**-0.4**
ZEYE				S	**Sg**	**07 29 38.5**	**+0.4**
ZEYE				IAML		07 29 42.0	
	comp=E,2μm,0.2s						
DUVT	**Torbali**	**0.56**	**44**	P	**Pg**	**07 29 30.4**	**-0.5**
DUVT				S	**Sg**	**07 29 38.0**	**-0.3**
DUVT				IAML		07 29 42.0	
	comp=E,2μm,0.5s						
BLCB	**Balcova**	**0.56**	**7**	P	**Pg**	**07 29 30.7**	**-0.5**
BLCB				S	**Sg**	**07 29 38.9**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**7**	Pg	**Pg**	**07 29 30.8**	**-0.3**
BLCB				AML	AML		
CESE	**eme**	**0.72**	**314**	Pg	**Pg**	**07 29 34.1**	**-0.1**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.74**	**160**	Pg	**Pg**	**07 29 34.1**	**-0.4**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**80**	Pg	**Pb**	**07 29 35.0**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**102**	P	**Pg**	**07 29 34.5**	**-0.2**
AYDN				S	**Sb**	**07 29 45.3**	**0.0**
AYDN				IAML		07 29 51.0	
	comp=N,546nm,1.1s						
AYDN				IAML		07 29 52.0	
	comp=E,584nm,0.7s						
BODT	**Bodrum**	**0.81**	**160**	P	**Pg**	**07 29 35.5**	**-0.3**
BODT				S	**Sb**	**07 29 47.3**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**160**	Pg	**Pg**	**07 29 35.6**	**-0.2**
BODT				AML	AML		
KRBN	**Karaburun**	**0.83**	**338**	Pg	**Pg**	**07 29 35.9**	**-0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**354**	P	**Pg**	**07 29 36.0**	**-0.2**
BAGT				S	**Sb**	**07 29 47.9**	**+0.2**
BAGT				IAML		07 29 48.0	
	comp=E,765nm,0.5s						
BAGT				IAML		07 29 50.0	
	comp=N,1μm,0.7s						
MLSB	**Milas**	**0.84**	**129**	Pg	**Pg**	**07 29 35.9**	**-0.4**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.85**	**68**	P	**Pg**	**07 29 35.8**	**-0.6**
IZMR				S	**Sg**	**07 29 45.7**	**-1.8**
IZMR				IAML		07 29 49.0	
	comp=N,506nm,0.5s						
IZMR				IAML		07 29 49.0	
	comp=E,404nm,0.6s						
BDRM	**Kayabasi**	**0.85**	**153**	P	**Pg**	**07 29 36.2**	**-0.3**
BDRM				S	**Sn**	**07 29 49.7**	**-0.5**
BDRM				IAML		07 29 51.0	
	comp=E,1μm,0.4s						
BDRM				IAML		07 29 52.0	
	comp=N,658nm,0.3s						
KLNA	**Kalymnos**	**0.86**	**179**	P	**Pg**	**07 29 36.3**	**-0.5**
KLNA				S	**Sg**	**07 29 48.2**	**+0.1**
BODA	**Bodrum-Mula**	**0.87**	**154**	Pg	**Pg**	**07 29 36.8**	**-0.1**
FOCM	**Foa**	**0.91**	**349**	Pg	**Pg**	**07 29 36.9**	**-0.7**
FOCM				AML	AML		
CHOS	**Chios island**	**0.91**	**309**	P	**Pg**	**07 29 37.2**	**-0.4**
CHOS				S	**Sb**	**07 29 50.4**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**309**	Pg	**Pg**	**07 29 37.3**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**309**	P	**Pg**	**07 29 37.1**	**-0.5**
CHOS				S	**Sb**	**07 29 50.1**	**+0.3**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**333**	P	**Pb**	**07 29 38.5**	**+0.1**
KARB				S	**Sb**	**07 29 51.4**	**+0.7**
KARB				IAML		07 29 53.0	
	comp=N,1μm,0.4s						
KARB				IAML		07 29 58.0	
	comp=E,674nm,0.7s						
CAMT	**Merkez**	**0.96**	**17**	P	**Pb**	**07 29 38.5**	**-0.2**
CAMT				S	**Sn**	**07 29 53.7**	**+0.7**
CAMT				IAML		07 29 58.0	
	comp=N,1μm,0.5s						
EAG2	**Marmaro, Chios**	**0.98**	**317**	P	**Pg**	**07 29 38.6**	**-0.4**
EAG2				S	**Sb**	**07 29 51.9**	**0.0**
NAZL	**Nazilli-Aydin**	**1.06**	**82**	Pg	**Pb**	**07 29 40.3**	**-0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.10**	**91**	P	**Pg**	**07 29 41.2**	**-0.1**
ESEN				S	**Sn**	**07 29 56.5**	**+0.1**
ZEDA	**zmir-Bergama**	**1.15**	**5**	P	**Pb**	**07 29 41.2**	**-0.5**
ZEDA				S	**Sn**	**07 29 57.8**	**+0.3**
ZEDA				IAML		07 29 59.0	
	comp=N,396nm,0.4s						
ZEDA				IAML		07 29 59.0	
	comp=E,397nm,0.6s						
GOMA	**Golmarmara-Man**	**1.16**	**40**	Pn	**Pn**	**07 29 42.1**	**0.0**
GOMA				AML	AML		
DAT	**Datca**	**1.20**	**155**	P	**Pg**	**07 29 43.1**	**-0.1**
DAT				AML	AML		
DAT	**Datca**	**1.20**	**155**	Pn	**Pn**	**07 29 42.6**	**-0.1**
DAT				AML	AML		
KIRA	**zmir-Kiraz**	**1.20**	**71**	P	**Pb**	**07 29 42.0**	**-0.7**
DATC	**Datca-Mugla**	**1.20**	**152**	Pn	**Pn**	**07 29 42.4**	**-0.2**
DATC				AML	AML		
MULA	**Mugla, Merkez-**	**1.22**	**117**	P	**Pn**	**07 29 42.7**	**-0.3**
DKL	**Dikili**	**1.25**	**358**	Pn	**Pb**	**07 29 43.5**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**358**	P	**Pn**	**07 29 43.2**	**-0.1**
AKS	**Akhisar**	**1.25**	**32**	Pn	**Pb**	**07 29 43.4**	**-0.2**
AKS				AML	AML		
AKHS	**Akhisar**	**1.25**	**32**	P	**Pn**	**07 29 43.3**	**0.0**
YER	**Yerkesik**	**1.26**	**123**	P	**Pn**	**07 29 43.6**	**0.0**
YER	**Yerkesik**	**1.26**	**123**	Pn	**Pn**	**07 29 43.5**	**0.0**
YER				AML	AML		
APE	**Apeiranthos**	**1.36**	**237**	P	**Pn**	**07 29 45.0**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.36**	**237**	Pn	**Pn**	**07 29 44.7**	**-0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.36**	**237**	P	**Pn**	**07 29 43.6**	**-1.3**
APE				AML	AML		
ASTA	**Astypalaia**	**1.36**	**201**	P	**Pn**	**07 29 45.4**	**+0.5**
ASTA				AML	AML		
SOMA	**Soma-Manisa**	**1.41**	**19**	Pn	**Pb**	**07 29 46.0**	**-0.2**
SOMA				AML	AML		
MANT	**Manisa**	**1.43**	**62**	P	**Pg**	**07 29 48.7**	**+1.1**
GORD	**Gordes-Manisa**	**1.45**	**41**	Pn	**Pn**	**07 29 46.3**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.47**	**135**	Pn	**Pn**	**07 29 46.1**	**-0.2**
TURN				AML	AML		
AYVA	**Ayvalik**	**1.50**	**352**	P	**Pb**	**07 29 48.0**	**+0.3**
KULA	**Kula-Manisa**	**1.51**	**62**	Pn	**Pb**	**07 29 47.5**	**-0.6**
KULA				AML	AML		
PRK	**Paraskevi**	**1.52**	**339**	P	**Pn**	**07 29 46.9**	**-0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.52**	**339**	P	**Pn**	**07 29 47.4**	**+0.3**
PRK				AML	AML		
DALY	**Dalyan (Mula)**	**1.69**	**126**	Pn	**Pn**	**07 29 49.9**	**+0.6**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**3**	Pn	**Pn**	**07 29 50.9**	**+0.2**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.86**	**149**	P	**Pn**	**07 29 52.1**	**+0.4**
ARG				AML	AML		
THERA	**Ancient Thera,**	**1.88**	**220**	P	**Pn**	**07 29 52.0**	**+0.1**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.88**	**220**	P	**Pn**	**07 29 50.9**	**-1.1**
THERA				AML	AML		
BALB	**Balikesir**	**1.95**	**21**	Pn	**Pn**	**07 29 53.5**	**+0.5**
BALB				AML	AML		
KARY	**Karystos**	**2.00**	**277**	P	**Pn**	**07 29 54.1**	**+0.4**
KARY	**Karystos**	**2.00**	**277**	P	**Pn**	**07 29 53.2**	**-0.5**
SIMA	**Simav-Kutahya**	**2.03**	**51**	Pn	**Pn**	**07 29 54.7**	**+0.6**
SIMA				AML	AML		
EZN	**Ezine**	**2.06**	**346**	P	**Pn**	**07 29 54.9**	**+0.5**
EZN				AML	AML		
EZN	**Ezine**	**2.06**	**346**	Pn	**Pn**	**07 29 54.9**	**+0.5**
EZN				AML	AML		
YENI	**Yenice-Canakka**	**2.12**	**6**	Pn	**Pn**	**07 29 55.5**	**+0.2**
BOZC	**Bozcaada**	**2.14**	**341**	Pn	**Pn**	**07 29 55.5**	**0.0**
BOZC				AML	AML		
CANM	**Can-anakkale**	**2.19**	**2**	Pn	**Pn**	**07 29 56.5**	**+0.3**
CANM				AML	AML		
KARP	**Karpathos**	**2.28**	**176**	P	**Pn**	**07 29 57.8**	**+0.3**
KARP				AML	AML		
KARP	**Karpathos**	**2.28**	**176**	P	**Pn**	**07 29 57.4**	**-0.1**
KARP				AML	AML		
DION	**Dionisos Attik**	**2.40**	**277**	P	**Pn**	**07 29 59.5**	**+0.3**
DION				AML	AML		
DION	**Dionisos Attik**	**2.40**	**277**	P	**Pn**	**07 29 59.2**	**0.0**
ALN	**Alexandroupoli**	**3.15**	**347**	P	**Pn**	**07 30 09.6**	**+0.1**

*ASRS **18** 07:30:04.0±1.1, 54.°27N×86.°16E, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 18 07:30:01.3±4.4, **54.°33N×86.°42E, h0km, mbtmp2.9**/2, **ML2.4**/2, **Error ellipse: s-maj=36.1km s-min=14.9km az=62.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.01**	**248**	I	I	07 34 50.0	
	baz=68,slow=348,SNR=4.6						
ZALV	**Zalesovo Beam**	**1.01**	**248**	Pg	Pg	07 30 20.8	0.0
	0.7nm,0.3s,baz=64,slow=17,SNR=7.2						
ZALV				Lg	Lg	07 30 34.6	
	3.4nm,0.3s,baz=69,slow=28,SNR=8.7						
KURBB	**Kurchatov Arra**	**6.08**	**236**	Pn	Pn	07 31 31.7	-0.6
	baz=51,slow=13,SNR=1.3						
	0.6nm,0.2s						
MKAR	**Makanchi Array**	**7.99**	**201**	Pn	Pn	07 32 00.4	+1.8
	0.1nm,0.3s,baz=24,slow=13,SNR=4.6						
	0.2nm,0.3s						
MKAR				AML	AML		

*AFAD **18** 07:34:18.5, 37.°82N×26.°94E, h7km±2km, ML2.6*
*ISK **18** 07:34:18.3, 37.°82N×26.°95E, h8km, ML2.6/29*
*THE **18** 07:34:19.1, 37.°8N±0.°8×27.°0E±0.°6, h8km±1km, M2.6/9, MLh2.6/9*

ISC 18 07:34:19.0±0.8, **37.°82N**±0.°02×**26.°96E**±0.°02, **h13**km±6km,

n54, σ0**s62**/79, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**221**	P	**Pg**	**07 34 22.5**	**-0.2**
SMG				S	**Sg**	**07 34 25.2**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**344**	P	**Pg**	**07 34 23.6**	**-0.4**
DGB				S	**Sg**	**07 34 26.7**	**-0.8**
DGB				IAML		07 34 27.0	
	comp=E,950nm,0.2s						
GCAM	**G?zelcaml?**	**0.25**	**120**	P	**Pg**	**07 34 24.2**	**0.0**
GCAM				IAML		07 34 28.0	
	comp=E,2μm,0.4s						
GCAM				S	**Sg**	**07 34 28.1**	**+0.4**
GCAM				IAML		07 34 29.0	
	comp=N,3μm,0.3s						
GCAM	**G?zelcaml?**	**0.25**	**120**	Pg	**Pg**	**07 34 24.4**	**+0.2**
GCAM				Sg	**Sg**	**07 34 28.2**	**+0.5**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.26**	**351**	Pg	**Pg**	**07 34 24.1**	**-0.3**
GMLD				Sg	**Sg**	**07 34 27.9**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**82**	Pg	**Pg**	**07 34 24.2**	**-0.2**
KUSD				Sg	**Sg**	**07 34 27.9**	**-0.2**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**356**	P	**Pg**	**07 34 26.7**	**-0.4**
BEYE				S	**Sg**	**07 34 32.5**	**-0.1**
BEYE				IAML		07 34 33.0	
	comp=N,381nm,0.5s						
BEYE				IAML		07 34 33.0	
	comp=E,366nm,0.3s						
DDIM	**Aydin, Didim**	**0.43**	**149**	P	**Pg**	**07 34 27.6**	**+0.1**
DDIM				IAML		07 34 34.0	
	comp=N,794nm,0.4s						
DDIM				IAML		07 34 34.0	
	comp=E,656nm,0.2s						
DDIM				S	**Sb**	**07 34 34.1**	**-0.7**
DIDI	**Didim-Aydin**	**0.50**	**154**	Pg	**Pg**	**07 34 28.3**	**-0.5**
DUVT	**Torbali**	**0.55**	**44**	P	**Pg**	**07 34 29.3**	**-0.5**
DUVT				S	**Sg**	**07 34 36.5**	**-0.6**
DUVT				IAML		07 34 41.0	
	comp=E,646nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.55**	**319**	P	**Pg**	**07 34 29.2**	**-0.6**
ZEYE				S	**Sb**	**07 34 37.5**	**-0.8**
ZEYE				IAML		07 34 38.0	
	comp=N,863nm,0.3s						
ZEYE				IAML		07 34 41.0	
	comp=E,650nm,0.2s						
BLCB	**Balcova**	**0.56**	**6**	P	**Pg**	**07 34 29.7**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.56**	**6**	Pg	**Pg**	**07 34 29.6**	**-0.4**
BLCB				Sg	**Sg**	**07 34 37.9**	**+0.4**
CESE	**eme**	**0.73**	**314**	Pg	**Pg**	**07 34 32.8**	**-0.3**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.74**	**160**	Pg	**Pg**	**07 34 33.1**	**-0.3**
YKAV				Sg	**Sb**	**07 34 43.8**	**0.0**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**80**	Pg	**Pg**	**07 34 33.3**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.74**	**102**	P	**Pg**	**07 34 33.2**	**-0.3**
AYDN				S	**Sb**	**07 34 44.5**	**+0.6**
AYDN				IAML		07 34 48.0	
	comp=N,188nm,0.2s						
AYDN				IAML		07 34 51.0	
	comp=E,142nm,0.3s						
BODT	**Bodrum**	**0.81**	**160**	P	**Pg**	**07 34 34.4**	**-0.2**
BODT				S	**Sb**	**07 34 45.8**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**160**	Pg	**Pg**	**07 34 34.4**	**-0.2**
BODT				AML	AML		
KRBN	**Karaburun**	**0.83**	**337**	Pg	**Pg**	**07 34 34.8**	**-0.3**
KRBN				AML	AML		
MLSB	**Milas**	**0.83**	**129**	Pg	**Pg**	**07 34 34.7**	**-0.4**
MLSB				AML	AML		
BAGT	**Foa**	**0.83**	**354**	P	**Pg**	**07 34 34.3**	**-0.9**
BAGT				S	**Sb**	**07 34 47.0**	**+0.5**
BAGT				IAML		07 34 49.0	
	comp=N,232nm,0.7s						
BAGT				IAML		07 34 53.0	
	comp=E,200nm,0.6s						
IZMR	**zmir-demi**	**0.84**	**68**	P	**Pg**	**07 34 34.9**	**-0.4**
IZMR				P	**Pb**	**07 34 35.5**	**0.0**
IZMR				S	**Sg**	**07 34 44.9**	**-1.4**
IZMR				S	**Sb**	**07 34 45.0**	**-1.7**
IZMR				IAML		07 34 48.0	
	comp=N,108nm,0.4s						
IZMR				IAML		07 34 48.0	
	comp=N,133nm,0.5s						
BDRM	**Kayabasi**	**0.85**	**153**	P	**Pg**	**07 34 34.8**	**-0.6**
BDRM				S	**Sb**	**07 34 47.2**	**+0.3**
BDRM				IAML		07 34 50.0	
	comp=E,251nm,0.3s						
BDRM				IAML		07 34 52.0	
	comp=N,202nm,0.3s						
BODA	**Bodrum-Mula**	**0.87**	**155**	Pg	**Pg**	**07 34 34.6**	**-1.2**
FOCM	**Foa**	**0.91**	**348**	Pg	**Pg**	**07 34 36.1**	**-0.4**
FOCM				AML	AML		
CHOS	**Chios island**	**0.91**	**308**	P	**Pb**	**07 34 36.7**	**-0.1**
CHOS				S	**Sb**	**07 34 49.8**	**+1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**308**	Pg	**Pb**	**07 34 36.4**	**-0.3**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**333**	P	**Pg**	**07 34 36.3**	**-0.9**
KARB				S	**Sb**	**07 34 49.8**	**+0.2**
KARB				IAML		07 34 52.0	
	comp=N,264nm,0.4s						
KARB				IAML		07 34 53.0	
	comp=E,97nm,0.1s						
CAMT	**Merkez**	**0.96**	**16**	P	**Pg**	**07 34 37.1**	**-0.5**
CAMT				S	**Sb**	**07 34 51.2**	**+1.0**
CAMT				IAML		07 34 53.0	
	comp=N,281nm,0.3s						
CAMT				IAML		07 34 53.0	
	comp=E,472nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.06**	**82**	Pg	**Pb**	**07 34 39.3**	**+0.1**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.14**	**4**	P	**Pg**	**07 34 39.8**	**-1.2**
ZEDA				S	**Sn**	**07 34 57.2**	**+1.0**
ZEDA				IAML		07 34 58.0	
	comp=N,118nm,0.4s						
ZEDA				IAML		07 34 58.0	
	comp=E,128nm,0.3s						
GOMA	**Golmarmara-Man**	**1.16**	**40**	Pn	**Pn**	**07 34 41.1**	**+0.2**
GOMA				AML	AML		
DAT	**Datca**	**1.20**	**156**	P	**Pg**	**07 34 41.2**	**-0.9**
DAT				AML	AML		
DAT	**Datca**	**1.20**	**156**	Pn	**Pg**	**07 34 41.4**	**-0.7**
DAT				AML	AML		
KTTT	**Salihli**	**1.24**	**45**	P	**Pn**	**07 34 41.5**	**-0.6**
KTTT				S	**Sb**	**07 34 57.8**	**-0.3**

EZN	**Ezine**	**2.06**	**346**	Pn	**Pn**	**07 34 54.4**	**+1.1**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.14**	**341**	Pn	**Pn**	**07 34 54.9**	**+0.5**
BOZC				AML	AML		
CANM	**Can-anakkale**	**2.19**	**2**	Pn	**Pn**	**07 34 56.3**	**+1.3**
CANM				AML	AML		

*DNK **18** 07:40:18.8±0.4,51.54N×16.03E,h0km,ML2.3,Suspected explosion*
*PRU **18** 07:40:19.4,51.41N×16.34E,h0km*
*VIE **18** 07:40:20.3±0.5,51.31N×16.51E,h0km,mb2.5/3,ml2.7/6, ml2.6/6,Error ellipse: s-maj=3.2km s-min=2.9km az=52.0 42 km NW of Wroclaw Suspected Mining induced.*

ISC 18 07:40:17.7±0.8,51.48N±0.03×16.29E±0.03,h0km,n30, σ1s62/57,Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.64**	**180**	*e*Pg	**Pg**	**07 40 29.9**	**-0.1**
KSP				*e*Sg	**Sg**	**07 40 37.6**	**-0.7**
CHVC	**Chvalec**	**0.91**	**190**	*e*PG	**Pg**	**07 40 35.0**	**-0.1**
CHVC				*e*SG	**Sg**	**07 40 47.0**	**+0.2**
OSTC	**Ostas**	**0.93**	**183**	*e*PG	**Pg**	**07 40 35.2**	**-0.3**
OSTC				*e*SG	**Sg**	**07 40 46.8**	**-0.7**
	comp=Z,20nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**0.99**	**190**	*e*PG	**Pg**	**07 40 35.9**	**-0.8**
UPC				*e*SG	**Sg**	**07 40 49.5**	**0.0**
	comp=Z,24nm,0.4s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.13**	**179**	*e*PG	**Pg**	**07 40 38.7**	**-0.7**
DPC				*e*SG	**Sg**	**07 40 53.2**	**-0.9**
	comp=Z,11nm,0.2s						
DPC				AML	AML		
KRLC	**Kraliky**	**1.44**	**167**	*e*PG	**Pn**	**07 40 44.4**	**-0.7**
KRLC				*e*SG	**Sg**	**07 41 02.4**	**-1.6**
	comp=Z,14nm,0.3s						
KRLC				AML	AML		
PVCC	**Panska Ves**	**1.45**	**229**	*e*PG	**Pg**	**07 40 45.3**	**-0.2**
PVCC				*e*SG	**Sn**	**07 41 04.6**	**-0.3**
	comp=Z,147nm,0.5s						
PVCC				AML	AML		
STEB	**Steborice**	**1.81**	**148**	*e*PG	**Pb**	**07 40 51.2**	**-0.5**
STEB				*e*SG	**Sn**	**07 41 13.7**	**-0.1**
	comp=Z,21nm,0.4s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**1.88**	**155**	*e*PN	**Pn**	**07 40 50.7**	**-0.5**
MORC				*e*SG	**Sn**	**07 41 13.8**	**-1.9**
HSKC	**Hora Svate Kat**	**2.01**	**245**	*e*SG	**Sg**	**07 41 22.3**	**+0.1**
CLL	**Collm**	**2.07**	**266**	*e*Pn	**Pn**	**07 40 54.0**	**+0.3**
CLL				*i* Pg	**Pg**	**07 40 56.8**	**-0.5**
CLL				*ex*	x	07 41 11.0	
CLL				*e*Sg	**Sb**	**07 41 23.0**	**+0.7**
	comp=Z,15nm,0.6s						
VRAC	**Vranov**	**2.19**	**175**	*e*PN	**Pn**	**07 40 56.1**	**+0.8**
VRAC				*e*SG	**Sb**	**07 41 24.4**	**-1.3**
KRUC	**Moravsky**	**2.42**	**178**	*e*PN	**Pn**	**07 40 59.7**	**+1.1**
KRUC				*e*SG	**Sb**	**07 41 32.0**	**-0.6**
ZVC	**Zvikov**	**2.45**	**214**	*e*PG	**Pb**	**07 41 02.9**	**+0.3**
ZVC				*e*SG	**Sg**	**07 41 36.1**	**-0.2**
	comp=Z,6.3nm,0.3s						
ZVC				AML	AML		
OJC	**Ojcow**	**2.56**	**118**	*e*Pg	**Pg**	**07 41 07.2**	**+0.5**
OJC				*e*Sg	**Sg**	**07 41 41.0**	**+1.3**
JAVC	**Velka Javorina**	**2.77**	**161**	*e*PN	**Pn**	**07 41 03.5**	**+0.1**
ABNA	**Allensteig Bun**	**2.87**	**191**	*e*Pn	**Pn**	**07 41 05.0**	**+0.3**
	comp=Z,1.3nm,0.1s						
ABNA				*e*Sg	**Sg**	**07 41 50.4**	**+0.6**
	comp=Z,10nm,0.4s						
KHC	**Kasperske Hory**	**2.93**	**218**	*e*PN	**Pn**	**07 41 05.9**	**+0.4**
KHC				*e*PG	**Pb**	**07 41 11.4**	**+0.6**
KHC				*e*SN	**Sn**	**07 41 41.3**	**-0.1**
KHC				*e*SG	**Sg**	**07 41 51.4**	**-0.3**
	comp=Z,8.1nm,0.3s						
KHC				AML	AML		
LANS	**Liptovska Anna**	**3.10**	**138**	*e*PG	**Pg**	**07 41 18.3**	**+1.3**
LANS				*e*SG	**Sg**	**07 41 56.9**	**-0.2**
LANS				*e*LG	Lg	07 41 59.9	
MODS	**Modra-Piesok**	**3.18**	**168**	*e*PG	**Pg**	**07 41 18.3**	**-0.2**
MODS				*e*SG	**Sg**	**07 42 01.5**	**+1.8**
WINA	**Alland / Wiene**	**3.38**	**183**	*e*Pn	**Pn**	**07 41 12.3**	**+0.6**
	comp=Z,0.8nm,0.1s						
WINA				*e*Sg	**Sg**	**07 42 04.7**	**-1.6**
	comp=Z,6.3nm,0.3s						
CONA	**Conrad Observa**	**3.57**	**185**	*e*Pn	**Pn**	**07 41 14.4**	**0.0**
	comp=Z,3.6nm,1.2s						
CONA				*e*Sn	**Sn**	**07 41 56.4**	**-0.8**
	comp=Z,3.8nm,0.6s,SNR=15						
BSD	**Bornholm Skovb**	**3.73**	**348**	*i* P	**Pn**	**07 41 16.8**	**+0.3**
BSD				*i* S	**Sn**	**07 41 58.6**	**-2.5**
BSD				IAML		07 42 03.0	
	comp=Z,3.7nm,0.2s						
RONA	**Rosalia, Austr**	**3.79**	**180**	*e*Sg	**Sg**	**07 42 17.7**	**-1.6**
	comp=Z,9.1nm,1.0s						
BLEU	**Blekinge**	**4.84**	**357**	*i* P	**Pn**	**07 41 32.2**	**+0.6**
BLEU				*i* S	**Sn**	**07 42 26.1**	**-2.3**
DEL	**Delary**	**5.20**	**345**	*i* P	**Pn**	**07 41 36.8**	**+0.1**
DEL				*i* S	**Sn**	**07 42 33.9**	**-3.3**
RICI	**Ricice**	**8.01**	**176**	*e*Pg	**Pg**	**07 42 49.7**	**-1.4**
RICI				Sg	**Pg**	**07 42 54.5**	**+3.4**
STON	**Ston**	**8.67**	**173**	*e*Pg	Pg	07 42 54.5	-9.1
STON				Sg	**Pg**	**07 43 02.2**	**-1.5**
STON	**Ston**	**8.67**	**173**	Sg	**Sn**	**07 44 11.1**	**+8.5**
DBRK	**Dubrovnik**	**8.91**	**171**	Sg	**Sn**	**07 44 07.3**	**-1.2**

*IDC **18** 08:00:38.4±3.2,6.05S×134.50E,h0km,mb3.5/1, mbtmp3.4/3,ML3.6/2,Error ellipse: s-maj=145.4km s-min=22.2km az=81.0*
*DJA **18** 08:00:41.9±0.8,5.5S±8.3×13.2E±.1°,h10km,M3.9/6,MLv3.9/6*

ISC 18 08:00:35.6±1.2,6.20S±0.08×132.1E±0.2,h35km,n6, σ2s52/7,Tanimbar Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**2.73**	**308**	P	**Pn**	**08 01 16.8**	**-0.1**
BNDI				AML	AML		
FAKI	**Fak Fak**	**3.26**	**3**	P	**Pn**	**08 01 24.5**	**+0.2**
FAKI				AML	AML		
SIJI	**Sorong**	**5.36**	**351**	P	**Pn**	**08 01 51.4**	**-1.7**
WRA	**Warramunga Arr**	**13.84**	**171**	Pn	**Pn**	**08 03 51.2**	**+1.8**
	0.3nm,0.3s,baz=360,slow=13,SNR=8.1						
WRA				Sn	**Sn**	**08 06 19.7**	**-2.2**
	0.5nm,0.3s,baz=1.6,slow=23,SNR=7.7						
	0.3nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.46**	**174**	Pn	**P**	**08 04 39.0**	**+1.6**
	0.2nm,0.3s,baz=360,slow=12,SNR=16						
ASAR				Sn	**Sn**	**08 07 46.5**	**-3.4**
	0.1nm,0.3s,baz=359,slow=27,SNR=5.6						
	0.3nm,0.5s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.71**	**326**	P	P	08 11 52.0	+16
	0.4nm,0.8s,baz=120,slow=5.8,SNR=3.7						
	0.4nm,0.8s						

*OSPL **18** 08:11:17.8±0.7,17.87N×67.39W,h31km±3km,ML3.1, Presumed earthquake*
*NEIC **18** 08:11:17.5±2.5,18.17N±0.04×67.41W±0.02,h10km±1km, ML3.4/41,Md3.6/14(RSPR),Error ellipse: s-maj=6.9km s-min=2.8km az=18.0*
*RSPR **18** 08:11:18.4,18.15N×67.40W,h11km,MD3.6/14*
*SDD **18** 08:11:19.3±1.5,18.15N×67.35W,h24km±9km,MD3.1, ML3.2,MW3.5,Presumed earthquake*

ISC 18 08:11:17.0±0.9,18.16N±0.05×67.38W±0.02,h29km±8km, n59,σ1s00/77,9C-17D,Mona Passage

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PRSN	**Puerto Rico Se**	**0.23**	**75**		**Pn**	**08 11 23.6**	**-0.9**
PRSN				IAML		08 11 29.0	
	7µm,0.3s						
PRSN	**Puerto Rico Se**	**0.23**	**75**	↓*e*Pg	**Pn**	**08 11 23.9**	**-0.6**
PRSN				↓*e*Sg	**Sb**	**08 11 28.6**	**+0.8**
PRSN				IAML		08 11 31.8	
	comp=N,6µm,0.2s						
PRSN	**Puerto Rico Se**	**0.23**	**75**	↓*i*P	**Pn**	**08 11 23.8**	**-0.7**
IDE	**Isla Desecheo**	**0.24**	**338**		**Pn**	**08 11 23.6**	**-1.1**
IDE				*e*S	**Sb**	**08 11 27.6**	**-0.5**
IDE	**Isla Desecheo**	**0.24**	**338**	↓*i*P	**Pn**	**08 11 23.6**	**-1.1**
CRPR	**Cabo Rojo, PR**	**0.30**	**121**		**Pn**	**08 11 24.8**	**-0.6**
CRPR	**Cabo Rojo, PR**	**0.30**	**121**	↑*e*Pg	**Pn**	**08 11 25.0**	**-0.4**
CRPR				↓*e*Sg	**Sn**	**08 11 30.6**	**-0.3**
CRPR				IAML		08 11 32.9	
	comp=N,2µm,0.2s						
CRPR	**Cabo Rojo, PR**	**0.30**	**121**	↓*i*P	**Pn**	**08 11 24.8**	**-0.6**
CRPR	**Cabo Rojo, PR**	**0.30**	**121**	*i* P	**Pn**	**08 11 24.7**	**-0.6**
CRPR				*e*S	**Sn**	**08 11 29.9**	**-1.0**
MLPR	**Magueyes Islan**	**0.37**	**121**		**Pn**	**08 11 26.0**	**-0.5**
MLPR	**Magueyes Islan**	**0.37**	**121**		**Sn**	**08 11 31.6**	**-1.1**
MLPR	**Magueyes Islan**	**0.37**	**121**	↓*e*Pg	**Pn**	**08 11 25.9**	**-0.5**
MLPR				↓*e*Sg	**Sn**	**08 11 31.8**	**-0.8**
MLPR				IAML		08 11 32.5	
	comp=N,572nm,0.2s						
MLPR	**Magueyes Islan**	**0.37**	**121**	↓*i*P	**Pn**	**08 11 25.9**	**-0.5**
AGPR	**Aguadilla, PR**	**0.40**	**39**	Pg	**Pn**	**08 11 26.1**	**-0.7**
AGPR				IAML		08 11 32.6	
	comp=N,3µm,0.3s						
AGPR				IAML		08 11 32.7	
	comp=N,4µm,0.4s						
GBPR	**Guanica, Bosqu**	**0.51**	**111**		**Pn**	**08 11 28.3**	**0.0**
GBPR					**Sn**	**08 11 36.0**	**0.0**
GBPR	**Guanica, Bosqu**	**0.51**	**111**	↓*i*P	**Pn**	**08 11 28.3**	**0.0**
GBPR				*e*S	**Sn**	**08 11 36.0**	**0.0**
AOPR	**Arecibo Observ**	**0.62**	**72**		**Pn**	**08 11 29.8**	**-0.1**
AOPR	**Arecibo Observ**	**0.62**	**72**		**Sn**	**08 11 38.4**	**-0.6**
AOPR	**Arecibo Observ**	**0.62**	**72**	↑*e*Pg	**Pn**	**08 11 29.8**	**-0.1**
AOPR				↓*e*Sg	**Sn**	**08 11 38.5**	**-0.4**
AOPR				IAML		08 11 41.3	
	comp=N,3µm,0.2s						
AOPR	**Arecibo Observ**	**0.62**	**72**	↑*i*P	**Pn**	**08 11 29.8**	**-0.1**
OBIP	**Obispado Ponce**	**0.74**	**99**		**Pn**	**08 11 30.8**	**-0.8**
OBIP	**Obispado Ponce**	**0.74**	**99**		**Sn**	**08 11 41.5**	**-0.3**
OBIP	**Obispado Ponce**	**0.74**	**99**	↑*e*P	**Pn**	**08 11 31.1**	**-0.4**
OBIP				*e*S	**Sn**	**08 11 41.5**	**-0.3**
OBIP	**Obispado Ponce**	**0.74**	**99**	*i* P	**Pn**	**08 11 30.8**	**-0.8**
OBIP				*e*S	**Sn**	**08 11 41.3**	**-0.6**
OBIP				IAML		08 11 46.7	
	comp=Z,2µm,0.2s						
CELP	**Cerrillos**	**0.76**	**96**		**Pn**	**08 11 31.7**	**-0.2**
CELP				IAML		08 11 43.8	
	comp=Z,1µm,0.3s						
CELP	**Cerrillos**	**0.76**	**96**		**Sn**	**08 11 43.2**	**+0.8**
CELP	**Cerrillos**	**0.76**	**96**	↑*e*Pg	**Pn**	**08 11 32.2**	**+0.3**
CELP				↓*e*Sg	**Sn**	**08 11 42.9**	**+0.5**
CELP				IAML		08 11 43.7	
	comp=N,394nm,0.2s						
CELP	**Cerrillos**	**0.76**	**96**	↑*i*P	**Pn**	**08 11 32.0**	**+0.1**
ECPR	**Experimental S**	**0.98**	**81**		**Pn**	**08 11 35.0**	**+0.2**
ECPR	**Experimental S**	**0.98**	**81**		**Sn**	**08 11 49.6**	**+1.9**
ECPR	**Experimental S**	**0.98**	**81**	↑*i*P	**Pn**	**08 11 35.5**	**+0.7**
PCDR	**Punta Cana, DR**	**1.02**	**290**		**Pb**	**08 11 35.2**	**-0.9**
PCDR	**Punta Cana, DR**	**1.02**	**290**		**Sn**	**08 11 50.0**	**+1.3**
PCDR	**Punta Cana, DR**	**1.02**	**290**	↓*e*Pg	**Pb**	**08 11 36.8**	**+0.8**
PCDR				↓*e*Sg	**Sn**	**08 11 51.2**	**+2.5**
PCDR				IAML		08 11 55.1	
	comp=N,241nm,0.9s						
PCDR	**Punta Cana, DR**	**1.02**	**290**	↑*i*P	**Pb**	**08 11 35.2**	**-0.9**
PCDR				*e*S	**Sn**	**08 11 50.0**	**+1.3**
PCDR	**Punta Cana, DR**	**1.02**	**290**	*i* P	**Pb**	**08 11 36.6**	**+0.5**
PCDR				*e*S	**Sn**	**08 11 49.6**	**+0.9**
PCDR				IAML		08 11 53.8	
	comp=Z,110nm,0.5s						
IGPR	**InterUniversit**	**1.22**	**99**		**Pb**	**08 11 39.8**	**+0.3**
IGPR					**Sb**	**08 11 56.1**	**+1.2**
IGPR	**InterUniversit**	**1.22**	**99**	↑*e*P	**Pb**	**08 11 39.8**	**+0.3**
GCPR	**Guaynabo City**	**1.24**	**83**		**Pb**	**08 11 39.8**	**0.0**
GCPR				IAML		08 11 58.1	
	comp=Z,787nm,0.2s						
GCPR				IAML		08 11 58.6	
	comp=Z,868nm,0.2s						
PDPR	**Patillas Dam,**	**1.30**	**96**		**Pb**	**08 11 41.4**	**+0.6**
PDPR				IAML		08 12 00.8	
	comp=Z,766nm,0.1s						
PDPR				IAML		08 12 03.2	
	comp=Z,566nm,0.2s						
PDPR	**Patillas Dam,**	**1.30**	**96**		**Sb**	**08 11 59.0**	**+2.0**
PDPR	**Patillas Dam,**	**1.30**	**96**	↑*i*P	**Pb**	**08 11 41.3**	**+0.6**
SADR	**Isla Saona**	**1.33**	**272**	↓*e*Pg	**Pb**	**08 11 43.0**	**+1.6**
SADR				IAML		08 12 06.5	
	comp=N,650nm,0.7s						
HIDR	**Higuey Centro**	**1.34**	**289**	↑*e*Pg	**Pb**	**08 11 43.3**	**+1.7**
HIDR				↓*e*Sg	**Sb**	**08 11 59.0**	**+0.7**
HIDR				IAML		08 12 04.5	
	comp=N,443nm,0.2s						
HIDR	**Higuey Centro**	**1.34**	**289**	↑*i*P	**Pb**	**08 11 40.4**	**-1.2**
HIDR				*e*S	**Sb**	**08 11 56.7**	**-1.7**
HUMP	**Col San Antoni**	**1.45**	**90**		**Pb**	**08 11 43.3**	**-0.1**
HUMP				IAML		08 12 05.3	
	comp=N,488nm,0.3s						
HUMP				IAML		08 12 05.4	
	comp=N,569nm,0.2s						
HUMP	**Col San Antoni**	**1.45**	**90**		**Sb**	**08 12 00.7**	**-0.8**
HUMP	**Col San Antoni**	**1.45**	**90**	↑*e*P	**Pb**	**08 11 43.6**	**+0.2**
DR12	**Loma Pena Alta**	**2.00**	**288**	Pn	**Pn**	**08 11 49.6**	**+0.6**
HATOM	**Hato Mayor del**	**2.00**	**288**	↓*e*Pg	**Pb**	**08 11 52.0**	**-0.8**
HATOM				IAML		08 12 26.6	
	comp=N,104nm,0.8s						
BANI	**BANI**	**2.84**	**275**	Pn	**Pn**	**08 12 01.6**	**+1.0**
BANI	**BANI**	**2.84**	**275**	↑*e*Pg	**Pb**	**08 12 05.5**	**-1.7**
BANI				IAML		08 12 52.0	
	comp=N,193nm,0.6s						
ABDR	**Alto Bandera**	**3.15**	**282**	↑*e*Pg	**Pb**	**08 12 10.3**	**-2.3**
ABDR				IAML		08 13 03.2	
	comp=N,68nm,0.9s						
SC01	**Santiago de lo**	**3.42**	**292**	Pn	**Pn**	**08 12 06.3**	**-2.1**
SDDR	**Presa de Saban**	**3.80**	**283**		**Pn**	**08 12 15.0**	**+1.3**
SDDR				IAML		08 13 20.6	
	comp=N,46nm,0.7s						
SDDR				IAML		08 13 23.3	
	comp=N,54nm,1.0s						
LODA1	**ITESIL, Dajabo**	**4.32**	**289**	Pn	**Pn**	**08 12 21.3**	**+0.5**
GRTK	**Grand Turk**	**4.86**	**314**	Pn	**Pn**	**08 12 28.8**	**+0.6**
CBE	**Ff, Capester**	**5.89**	**110**	Pn	**Pn**	**08 12 41.2**	**-1.3**
URIC	**Uribia, Colomb**	**7.82**	**215**	Pn	**Pn**	**08 13 06.6**	**-2.3**

*IDC **18** 08:11:18.6±4.5,53.83N×91.33E,h0km,mbtmp3.0/2, ML2.8/2,Error ellipse: s-maj=36.3km s-min=31.8km az=105.0*

ASRS 18 08:11:20.0±1.4,53.77N×91.08E,h0km,M2.6(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**3.71**	**275**	I	I	08 33 30.0	
	baz=90,slow=350,SNR=4.1						
ZALV	**Zalesovo Beam**	**3.71**	**275**	Pg	Pb	08 12 26.9	+0.5
	1.1nm,0.3s,baz=90,slow=14,SNR=9.1						
KURBB	**Kurchatov Arra**	**8.33**	**253**	Pn	Pn	08 13 24.6	+2.7
	0.1nm,0.3s,baz=66,slow=14,SNR=4.3						
KURBB				Sn	Sn	08 14 58.7	+2.0
	baz=67,slow=25,SNR=5.0						
KURBB				Lg	Lg	08 15 49.0	
	baz=69,slow=30,SNR=5.0						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.97**	**222**	Pn	Pn	08 13 34.2	+3.5
	0.1nm,0.3s,baz=36,slow=12,SNR=3.0						
MKAR				Lg	Lg	08 16 02.0	
	0.1nm,0.3s,baz=44,slow=30,SNR=2.4						
	0.2nm,0.4s						
MKAR				AML	AML		

*VAO **18** 08:26:27.1±0.5,20.46S×70.00W,h10km,mb4.8, Presumed earthquake*
*SJA **18** 08:26:44.7±0.7,20.32S×68.99W,h113km±3km,ML4.4, MW4.4*
*NEIC **18** 08:26:46.4,20.32S×68.99W,h102km*
*NEIC **18** 08:26:46.3±1.3,20.32S±0.04×68.98W±0.06,h101km±4km, mb4.8/32,Mwr4.4/23,Mwr4.5(GUC),Error ellipse: s-maj=8.5km s-min=5.7km az=89.0,Moment Tensor Solution. Moment tensor: Scale 10^15Nm; Mrr-0.99; Mθθ-2.94; Mϕϕ3.92; Mrθ3.38; Mϕr-1.24; Mθr-1.59; Fault plane solution: M0 5.29000×10^15 NP1:ϕs209.78000°, δ45.26000°, λ-11.77000°. NP2:ϕs308.13000°, δ81.67000°, λ-134.65000°. Principal axes: T 5.0765, Plg23.0000°, Azm71.0000°; N 0.4035, Plg44.0000°, Azm316.0000°; P -5.4799, Plg37.0000°, Azm180.0000°;*
*GUC **18** 08:26:46.9±0.7,20.31S×69.07W,h97km±3km,ML4.4, Presumed earthquake*
*GFZ **18** 08:26:47.0±0.2,20.2S×69.9W±.1°,h106km±4km,M4.6/12, mb4.8/12*
*IDC **18** 08:26:47.1±0.7,20.22S×68.80W,h111km±6km,mb4.2/8, mbtmp4.5/12,MS3.1/2,Error ellipse: s-maj=18.2km s-min=11.6km az=98.0*

ISC 18 08:26:45.7±0.5,20.32S±0.03×68.98W±0.04,h103km±4km, n189,σ1s46/212,mb4.7/15,3C-2D,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**0.24**	**318**	*e*P	**Pn**	**08 27 01.7**	**+0.7**
PB08				*e*S	**Sn**	**08 27 13.6**	**+1.2**
PB08				IAML		08 27 14.6	
	comp=Z,6µm,0.2s						
PB08	**IPOC Station P**	**0.24**	**318**		**Pn**	**08 27 01.7**	**+0.7**
PB08				Sn	**Sn**	**08 27 12.7**	**+0.4**
PB08	**IPOC Station P**	**0.24**	**318**	*i* P	**Pn**	**08 27 01.7**	**+0.7**
PB08				*e*S	**Sn**	**08 27 12.8**	**+0.4**
PB08				IAML		08 27 15.1	
	comp=E,14µm,0.2s						
PB08	**IPOC Station P**	**0.24**	**318**	P	**Pn**	**08 27 01.7**	**+0.7**
GO01	**Chusmiza**	**0.68**	**343**	*e*P	**Pn**	**08 27 04.5**	**+0.7**
GO01				*e*S	**Sn**	**08 27 19.5**	**+2.1**
GO01				IAML		08 27 20.3	
	comp=Z,9µm,0.7s						
GO01	**Chusmiza**	**0.68**	**343**		**Pn**	**08 27 04.5**	**+0.7**
GO01				Sn	**Sn**	**08 27 17.9**	**+0.5**
GO01	**Chusmiza**	**0.68**	**343**	*i* P	**Pn**	**08 27 04.7**	**+0.9**
GO01				*e*S	**Sn**	**08 27 18.2**	**+0.9**
GO01				IAML		08 27 19.5	
	comp=E,17µm,0.3s						
GO01	**Chusmiza**	**0.68**	**343**	P	**Pn**	**08 27 04.8**	**+0.9**
PB11	**IPOC Station P**	**0.84**	**311**	*e*P	**Pn**	**08 27 05.4**	**+0.5**
PB11				IAML		08 27 27.4	
	comp=Z,5µm,0.4s						
PB11	**IPOC Station P**	**0.84**	**311**		**Pn**	**08 27 05.1**	**+0.1**
PB11				Sn	**Sn**	**08 27 19.7**	**+0.3**
PB11	**IPOC Station P**	**0.84**	**311**	*i* P	**Pn**	**08 27 05.4**	**+0.5**
PB11				*e*S	**Sn**	**08 27 19.8**	**+0.3**
PB11				IAML		08 27 22.1	
	comp=E,20µm,0.5s						
PB11	**IPOC Station P**	**0.84**	**311**	P	**Pn**	**08 27 05.5**	**+0.5**
TA02	**Huaiquique**	**1.08**	**272**	*e*P	**Pn**	**08 27 07.6**	**+0.3**
TA02				*e*S	**Sn**	**08 27 24.4**	**+0.9**
TA02				IAML		08 27 25.6	
	comp=Z,10µm,0.6s						
TA02	**Huaiquique**	**1.08**	**272**	*i* P	**Pn**	**08 27 07.5**	**+0.3**
TA02				*e*S	**Sn**	**08 27 23.6**	**+0.1**
TA02				IAML		08 27 25.1	
	comp=N,18µm,0.1s						
TA01	**Diego Aracena**	**1.15**	**257**	*e*P	**Pn**	**08 27 08.1**	**+0.1**
TA01				*e*S	**Sn**	**08 27 26.1**	**+1.2**
TA01				IAML		08 27 30.3	
	comp=Z,3µm,0.5s						
TA01	**Diego Aracena**	**1.15**	**257**		**Pn**	**08 27 07.6**	**-0.4**
TA01				Sn	**Sn**	**08 27 23.9**	**-1.0**
TA01	**Diego Aracena**	**1.15**	**257**	↑*i*P	**Pn**	**08 27 08.1**	**+0.1**
TA01				*e*S	**Sn**	**08 27 24.6**	**-0.3**
TA01	**Diego Aracena**	**1.15**	**257**	P	**Pn**	**08 27 08.2**	**+0.1**
PSGCX	**Pisagua**	**1.29**	**304**	*e*P	**Pn**	**08 27 10.0**	**+0.2**
PSGCX				IAML		08 27 30.1	
	comp=Z,9µm,0.6s						
PSGCX	**Pisagua**	**1.29**	**304**		**Pn**	**08 27 10.1**	**+0.2**
PSGCX				Sn	**Sn**	**08 27 27.5**	**-0.5**
PSGCX	**Pisagua**	**1.29**	**304**	*i* P	**Pn**	**08 27 09.9**	**+0.2**
PSGCX				*e*S	**Sn**	**08 27 27.3**	**-0.6**
PSGCX	**Pisagua**	**1.29**	**304**	P	**Pn**	**08 27 10.1**	**+0.2**
PB02	**IPOC Station P**	**1.31**	**221**	*e*P	**Pn**	**08 27 10.7**	**+0.7**
PB02				*e*S	**Sn**	**08 27 30.0**	**+1.6**
PB02				IAML		08 27 37.3	
	comp=Z,6µm,0.9s						
PB02	**IPOC Station P**	**1.31**	**221**		**Pn**	**08 27 10.6**	**+0.5**
PB02				Sn	**Sn**	**08 27 28.8**	**+0.4**
PB02	**IPOC Station P**	**1.31**	**221**	*i* P	**Pn**	**08 27 10.7**	**+0.7**
PB02				*e*S	**Sn**	**08 27 29.1**	**+0.7**
PB02				IAML		08 27 31.2	
	comp=E,11µm,0.6s						
PB02	**IPOC Station P**	**1.31**	**221**	P	**Pn**	**08 27 10.9**	**+0.8**
PB09	**IPOC Station P**	**1.49**	**189**	*e*P	**Pn**	**08 27 13.8**	**+1.6**
PB09				IAML		08 27 41.7	
	comp=Z,3µm,0.7s						
PB09	**IPOC Station P**	**1.49**	**189**		**Pn**	**08 27 13.7**	**+1.5**
PB09	**IPOC Station P**	**1.49**	**189**	*i* P	**Pn**	**08 27 13.7**	**+1.5**
PB09				*i* S	**Sn**	**08 27 34.1**	**+1.8**
PB09	**IPOC Station P**	**1.49**	**189**	P	**Pn**	**08 27 13.9**	**+1.7**
PB07	**IPOC Station P**	**1.64**	**211**	*e*P	**Pn**	**08 27 14.3**	**+0.3**
PB07				*e*S	**Sn**	**08 27 37.0**	**+1.5**
PB07				IAML		08 27 42.2	
	comp=Z,4µm,0.8s						
PB07	**IPOC Station P**	**1.64**	**211**		**Pn**	**08 27 14.4**	**+0.4**
PB07	**IPOC Station P**	**1.64**	**211**	P	**Pn**	**08 27 14.6**	**+0.6**
PX02	**IPOC Station P**	**1.77**	**319**	*e*P	**Pn**	**08 27 15.1**	**-0.6**
PB03	**IPOC Station P**	**1.87**	**203**	*e*P	**Pn**	**08 27 17.4**	**+0.5**
PB03				*e*S	**Sn**	**08 27 41.4**	**+0.8**
PB03				IAML		08 27 42.8	
	comp=Z,2µm,0.5s						
PB03	**IPOC Station P**	**1.87**	**203**		**Pn**	**08 27 17.5**	**+0.7**
PB03	**IPOC Station P**	**1.87**	**203**	↑*e*P	**Pn**	**08 27 17.4**	**+0.5**
PB03	**IPOC Station P

LPAZ S Sn 08 28 33.5 -0.5
comp=N,43nm,0.7s,baz=194,slow=6.9,SNR=3.7
LPAZ La Paz 4.09 12 Pn 08 27 49.5 +2.8
PB14 IPOC Station P 4.48 197 Pn 08 27 53.0 +1.3
PB14 IPOC Station P 4.48 197 *eP* Pn 08 27 57.6 +5.9
PB14 IPOC Station P 4.48 197 P Pn 08 27 56.9 +5.2
SALTA 4.59 148 P Pn 08 27 56.2 +2.8
SLA San Lorenzo 5.43 144↓ *eP* **Pn 08 28 07.0 +2.5**
AC01 Pan de Azucar 5.99 194 Pn 08 28 10.5 -1.4
AC02 Maricunga 6.49 181 P **Pn 08 28 19.5 +0.4**
comp=Z,53nm,0.5s
BBSD Serra de San D 8.52 70 *eP* **Pn 08 28 44.6 -1.8**
SIV San Ignacio 8.66 61 P **Pn 08 28 46.7 -1.6**
comp=Z,31nm,0.5s,baz=257,slow=9.5,SNR=132
COIM Forte Coimbra 10.52 90 *eP* **Pn 08 29 09.7 -3.9**
PTLB Pontes e Lacer 10.55 64 *eP* **Pn 08 29 11.7 -2.2**
MURT Porto Murtinho 10.71 99 *eP* **Pn 08 29 14.1 -1.9**
VILB Vilhena 11.15 50 *eP* **Pn 08 29 18.9 -3.2**
NNA Nana 11.21 316 P **Pn 08 29 23.3 +0.5**
comp=Z,8.1nm,0.7s,baz=153,slow=11,SNR=2.5
CFA Coronel Fontan 11.26 177 P **Pn 08 29 19.7 -3.8**
comp=Z,1.0nm,0.3s,baz=357,slow=17,SNR=14
CFA S Sn 08 31 17.0 -10
comp=Z,2.1nm,0.7s,baz=252,slow=23,SNR=1.6
BDQN Bodoquena, MS 11.47 93 *eP* **Pn 08 29 22.9 -3.4**
CPUP Villa Florida 12.26 121 P **Pn 08 29 36.7 0.0**
comp=Z,4.7nm,0.7s,baz=306,slow=13,SNR=19
CPUP Villa Florida 12.26 121 *eP* Pn 08 29 32.4 -4.3
AQDB Aquidauana 12.46 93 P **Pn 08 29 38.8 -0.6**
comp=Z,30nm,1.2s
AQDB Aquidauana 12.46 93 *eP* **Pn 08 29 37.6 -1.8**
VA03 San Esteban 12.47 186 Pn 08 29 39.3 -0.4
VA03 San Esteban 12.47 186 P **Pn 08 29 40.8 +1.1**
comp=Z,42nm,0.8s
SJPY San Joaquin 12.77 114 *eP* **Pn 08 29 41.3 -2.2**
MT02 Curacav 13.03 188 Pn 08 29 46.9 0.0
SALV Santo Antonio 13.37 73 *eP* **Pn 08 29 50.6 -0.8**
MT13 San Alfonso 13.42 185 Pn 08 29 52.5 +0.4
MT09 Talagante 13.52 187 Pn 08 29 52.9 -0.5
PP1B Ponte de Pedra 13.61 81 *eP* **Pn 08 29 53.6 -1.0**
MT01 Popeta 13.64 188 Pn 08 29 54.1 -0.7
BO04 La Punta 13.69 186 Pn 08 29 55.2 -0.4
BO01 Tunca 14.14 187 Pn 08 30 01.6 +0.3
BO01 Tunca 14.14 187 P **Pn 08 30 01.3 0.0**
comp=Z,62nm,0.8s
BO02 Sierra Bellavi 14.51 186 P **Pn 08 30 06.4 +0.4**
comp=Z,68nm,0.8s
ITQB Itaqui 14.56 132 *eP* Pn 08 30 01.1 -5.5
PDRB Porto dos Gac 14.61 56 *eP* **Pn 08 30 03.5 -4.0**
C2SB Chapadao do Su 15.30 87 P **P 08 30 20.4 +1.9**
comp=Z,102nm,1.4s
C2SB Chapadao do Su 15.30 87 *eP* **Pn 08 30 15.8 -0.3**
ML02 Panimavida 15.54 187 Pn 08 30 18.6 -0.3
ML02 IAmb IAmb 08 30 23.7
comp=Z,78nm,0.8s
ML02 Panimavida 15.54 187 P **Pn 08 30 18.8 -0.1**
comp=Z,101nm,1.0s
CLDB Colider 15.78 55 P **P 08 30 23.3 -0.7**
comp=Z,21nm,0.7s
CLDB Colider 15.78 55 *eP* **Pn 08 30 21.7 -0.5**
PTGB Pitanga 16.23 109 *eP* **Pn 08 30 27.8 +0.1**
BI02 San Fabin de 16.41 187 P **P 08 30 30.6 -0.3**
BI02 IAmb IAmb 08 30 31.5
comp=Z,21nm,0.7s
BI02 San Fabin de 16.41 187 P **Pn 08 30 30.1 +0.2**
comp=Z,35nm,0.9s
LDASE Londrina, Braz 16.86 104 *eP* **P 08 30 35.6 -0.3**
ITAB Concordia 16.88 117 P 08 30 36.3 +0.3
ITAB Concordia 16.88 117 *eP* **Pn 08 30 33.5 -2.2**
ARAG Araguaiana, MT 16.96 77 *eP* **P 08 30 37.9 +0.9**
CPSB Cacapava Do Su 17.25 129 *eP* **P 08 30 37.1 -2.9**
NPGB Novo Progresso 18.67 47 *eP* **P 08 30 54.1 -1.7**
CNLB Canela 18.72 122 *eP* **P 08 30 54.8 -1.5**
SNDB Serra Nova Dou 18.89 67 *eP* **P 08 30 57.9 -0.4**
BB19B Bebedouro 19.15 96 *eP* **P 08 31 00.8 -0.2**
GO06 Curarrehue 19.32 186 P 08 31 03.4 +0.6
GO06 IAmb IAmb 08 31 06.4
comp=Z,44nm,0.9s
GO06 Curarrehue 19.32 186 P **Pn 08 31 04.3 -0.6**
comp=Z,49nm,1.1s
LR03 Panguipulli 19.46 188 P P 08 31 04.6 +0.3
LR03 IAmb IAmb 08 31 06.2
comp=Z,35nm,0.9s
IPMB Ipameri, GO 19.76 87 *eP* **P 08 31 07.3 -0.4**
LR05 Currie 20.01 187 P 08 31 10.3 +0.1
LR05 IAmb IAmb 08 31 12.5
comp=Z,61nm,0.7s
PLCA Paso Flores 20.39 183 P **P 08 31 15.6 +1.2**
comp=Z,25nm,0.9s,baz=9.4,slow=12,SNR=49
comp=Z,25nm,0.9s
PLCA Paso Flores 20.39 183 P P 08 31 15.2 +0.8
PLCA IAmb IAmb 08 31 19.4
comp=Z,35nm,0.9s
PLCA Paso Flores 20.39 183 *eP* P 08 31 02.1 -12
ITTB Itaituba 20.44 41 *eP* **P 08 31 12.9 -2.1**
BDFB Brasilia 20.47 80 P **P 08 31 14.0 -1.5**
comp=Z,13nm,0.5s,baz=257,slow=11,SNR=30
BDFB LR LR 08 40 46.9
comp=Z,58nm,19.9s,baz=34,slow=41
comp=Z,13nm,0.5s
BDFB Brasilia 20.47 80 P 08 31 14.9 -0.6
VAO Valinhos 20.63 101 *eP* **P 08 31 16.2 -1.0**
LL03 Petrohue 20.96 187 P P 08 31 21.0 +0.7
LL03 Petrohue 20.96 187 P Pn 08 31 23.2 -0.7
comp=Z,106nm,0.8s
CANS Sao Roque de M 21.19 94 *eP* **P 08 31 22.2 -0.9**
PMNB Patos De Minas 21.33 89 P **P 08 31 23.8 -0.9**
comp=Z,42nm,0.6s
PMNB Patos De Minas 21.33 89 *eP* **P 08 31 23.7 -0.9**
PARB Paraibuna 21.89 102 *eP* **P 08 31 29.5 -1.1**
OTAV Otavalo 22.43 334 P P 08 31 36.5 -0.2
OTAV Otavalo 22.43 334 *eP* P 08 31 24.1 -13
BSCB Bom Sucesso 22.66 96 *eP* **P 08 31 37.8 -0.8**
LL02 Futaleuf 22.93 185 P **P 08 31 41.3 +0.4**
SMTB Santa Maria do 23.59 64 P 08 31 46.8 -0.5
SMTB Santa Maria do 23.59 64 *eP* **P 08 31 46.6 -0.7**
DIAM Diamantina, MG 23.96 89 *eP* **P 08 31 48.2 -2.6**
BOAV Boa Vista 24.05 21 P **P 08 31 51.3 -0.1**
BOAV IAmb IAmb 08 31 52.1
comp=Z,26nm,1.0s
BOAV Boa Vista 24.05 21 *eP* **P 08 31 47.4 -4.0**
SDBA SAO DESIDERIO 24.38 75 *eP* **P 08 31 53.6 -1.0**
COYC Coyhaique 25.32 185 P **P 08 32 03.3 +0.7**
COYC IAmb IAmb 08 32 04.0
comp=Z,16nm,0.7s
COYC Coyhaique 25.32 185 P **P 08 32 01.4 -1.2**
comp=Z,24nm,0.8s
ARCA Araçuai, MG 25.83 87 *eP* **P 08 32 07.0 -0.6**
SJMB Sao Joao De Ma 26.24 91 *eP* **P 08 32 09.9 -1.4**
RUSC La Rusia 26.36 351 P **P 08 32 12.9 +0.1**
RUSC IAmb IAmb 08 32 16.0
comp=Z,35nm,1.0s
BSFB Barra de Sao F 26.54 92 *eP* **P 08 32 14.1 +0.1**
RIB01 Linhares ES 26.90 93 *eP* **P 08 32 17.1 -0.1**
GO08 Villa O'Higgin 28.23 185 P P 08 32 30.5 +1.8
CMC01 Camacan, BA 28.45 85 *eP* **P 08 32 29.9 -1.2**
SDV Santo Domingo 29.07 357 LR LR 08 44 37.1
comp=Z,34nm,21.4s,baz=91,slow=37
NBPN Ponto Novo - B 29.24 76 *eP* **P 08 32 36.7 -1.4**
NBPS Pedro II - PI 31.12 63 *eP* **P 08 32 53.8 -1.0**
NBTA Tacaratu-PE 31.84 74 *eP* **P 08 33 01.0 -0.1**
NBMA Muriti-CE 31.97 71 *eP* **P 08 33 02.4 +0.3**
OBIP Obispado Ponce 38.20 4 P P 08 33 54.5 -1.0
PDPR Patillas Dam, 38.21 5 P P 08 33 54.0 -1.6
DWPF Disney Wildern 49.63 346 P P 08 35 26.4 -0.3
456A Hilliard 52.28 346 P P 08 35 47.0 +0.5
RGRS Roger Stewart 54.00 348 P P 08 35 59.0 -0.2
SWET Sewanee 57.53 344 P P 08 36 23.9 -0.4
SWET IAmb IAmb 08 36 47.0
comp=Z,20nm,1.5s
S54A Dingess, Beckl 58.96 349 P P 08 36 34.7 +0.4
S54A IAmb IAmb 08 37 15.4
comp=Z,16nm,1.1s
MIAR Mount Ida 59.37 336 P P 08 36 37.1 0.0
MIAR IAmb IAmb 08 37 16.2
comp=Z,6.7nm,1.4s
TXAR Lajitas Array 59.63 325 P **P 08 36 39.8 +0.6**
comp=Z,0.3nm,0.8s,baz=162,slow=4.4,SNR=2.6
BELA Belgrano 2 59.92 172 P P 08 36 42.1 +1.7
BELA IAmb IAmb 08 36 43.1
comp=Z,8.5nm,1.4s
Q54A Coxs Mills 60.03 349 P P 08 36 41.9 +0.3
Q54A IAmb IAmb 08 37 09.9
comp=Z,13nm,1.2s

DBIC Dimbokro 68.47 74 P P 08 37 36.8 -0.5
comp=Z,15nm,0.7s,baz=240,slow=6.8,SNR=16
comp=Z,15nm,0.7s
DBIC Dimbokro 68.47 74 P **P 08 37 36.6 -0.5**
DBIC IAmb IAmb 08 37 37.5
comp=Z,19nm,0.8s
QSPA South Pole Qui 69.87 180 P **P 08 37 46.9 +1.8**
comp=Z,3.0nm,0.6s,baz=166,slow=1.0,SNR=29
QSPA pP **pP 08 38 14.8 +2.3**
comp=Z,1.9nm,0.8s,baz=157,slow=5.4,SNR=2.8
comp=Z,3.0nm,0.6s
QSPA South Pole Qui 69.87 180 P **P 08 37 47.0 +1.8**
TORD Torodi Ar. Bea 77.03 71 P **P 08 38 27.1 -0.7**
comp=Z,4.3nm,0.5s,baz=250,slow=5.5,SNR=16
TORD pP **pP 08 38 55.8 0.0**
comp=Z,6.9nm,0.8s,baz=250,slow=5.2,SNR=9.8
comp=Z,4.3nm,0.5s
VNDA Vanda 78.00 190 P **P 08 38 33.9 +1.7**
comp=Z,0.8nm,0.7s,baz=92,slow=4.2,SNR=5.2
comp=Z,0.8nm,0.7s
MAW Mawson 85.47 163 P **P 08 39 12.6 +1.0**
comp=Z,1.9nm,0.7s,baz=221,slow=9.1,SNR=4.7
comp=Z,1.9nm,0.7s
MAW Mawson 85.47 163 IAmb IAmb 08 39 21.5
comp=Z,1.6nm,1.5s
YKA Yellowknife Ar 90.06 341 P **P 08 39 34.1 +0.8**
comp=Z,1.5nm,0.8s,baz=132,slow=4.5,SNR=8.6
YKA pP **pP 08 40 02.0 +0.4**
comp=Z,3.0nm,0.9s,baz=137,slow=4.7,SNR=6.2
comp=Z,1.5nm,0.8s
ASAR Alice Springs 130.92 208 PKP **PKiKP 08 45 46.3 -0.5**
comp=Z,0.8nm,0.5s,baz=127,slow=1.7,SNR=16
WRA Warramunga Arr 133.93 211 PKP **PKiKP 08 45 51.7 -1.2**
comp=Z,0.9nm,0.6s,baz=157,slow=1.7,SNR=10.0
MKAR Makanchi Array 144.71 35 PKP **PKPdf 08 46 09.8 -0.6**
comp=Z,0.9nm,0.8s,baz=298,slow=5.1,SNR=4.9
MKAR pPKP **pPKPdf 08 46 39.2 -0.8**
comp=Z,0.6nm,0.5s,baz=335,slow=5.4,SNR=3.3
WMQ Urumqi 149.54 34 *e*PKPbc **PKPdf 08 46 19.8 +1.2**
WMQ PKPab **PKPab 08 46 32.5 +4.1**
HHC Hu-ho-hao-te 159.53 359 *eP* **PKPdf 08 46 31.4 -1.1**
LZH Lanzhou 163.08 20 *eP* **PKPdf 08 46 35.5 -0.9**
NJ2 Nanjing 166.37 331 *eP* **PKPdf 08 46 39.5 +0.3**
NJ2 pmax pmax
comp=Z,19nm,0.5s

*RSPR **18** 08:40:02.5, 18°.17N×67°.39W, h16km, MD2.8/5*
*SDD **18** 08:40:02.5±0.5, 18°.18N×67°.40W, h21km±4km, MD2.7, ML2.2, MW2.3, Presumed earthquake*
ISC 18 08:40:02.0±1.1, 18°.16N±0°.06×67°.38W±0°.04, h18km±3km, n19, σ0°.74/25, 10C-9D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC	h m s	ISC
PRSN	**Puerto Rico Se**	**0.23**	**75**↑	*e*Pg	**Pg**	**08 40 07.7**	**+0.1**
PRSN			↓	*e*Sg	**Sg**	**08 40 11.9**	**+0.6**
PRSN				IAML		08 40 13.4	
comp=N,304nm,0.3s							
PRSN	**Puerto Rico Se**	**0.23**	**75**↓	*e*P	**Pg**	**08 40 08.0**	**+0.4**
IDE	**Isla Desecheo**	**0.24**	**339**↑	*i*P	**Pb**	**08 40 07.5**	**-0.3**
IDE				*e*S	**Sg**	**08 40 11.5**	**-0.1**
CRPR	**Cabo Rojo, PR**	**0.30**	**120**↑	*e*Pg	**Pg**	**08 40 08.8**	**+0.2**
CRPR			↓	*e*Sg	**Sb**	**08 40 14.5**	**+1.0**
CRPR	**Cabo Rojo, PR**	**0.30**	**120**↑	*e*P	**Pg**	**08 40 08.9**	**+0.2**
MLPR	**Magueyes Islan**	**0.37**	**120**↑	*e*Pg	**Pg**	**08 40 09.9**	**+0.1**
MLPR				*e*Sg	**Sg**	**08 40 15.9**	**+0.8**
MLPR	**Magueyes Islan**	**0.37**	**120**↑	*e*P	**Pg**	**08 40 09.8**	**0.0**
AOPR	**Arecibo Observ**	**0.63**	**72**↓	*e*Pg	**Pb**	**08 40 13.8**	**-0.6**
AOPR			↓	*e*Sg	**Sb**	**08 40 22.6**	**-0.2**
AOPR				IAML		08 40 25.3	
comp=N,168nm,0.3s							
AOPR	**Arecibo Observ**	**0.63**	**72**↓	*e*P	**Pb**	**08 40 13.7**	**-0.6**
OBIP	**Obispado Ponce**	**0.75**	**99**↓	*e*P	**Pb**	**08 40 15.3**	**-1.2**
OBIP				*e*S	**Sb**	**08 40 25.3**	**-1.1**
CELP	**Cerrillos**	**0.77**	**96**↓	*e*Pg	**Pb**	**08 40 16.4**	**-0.4**
CELP			↓	*e*Sg	**Sb**	**08 40 26.9**	**-0.1**
CELP	**Cerrillos**	**0.77**	**96**↓	*e*P	**Pb**	**08 40 16.1**	**-0.8**
ECPR	**Experimental S**	**0.98**	**80**↓	*e*P	**Pb**	**08 40 19.4**	**-1.1**
PCDR	**Punta Cana, DR**	**1.01**	**291**	*e*Pg	**Pb**	**08 40 20.0**	**-1.1**
PCDR				IAML		08 40 47.5	
comp=N,84nm,1.5s							
PCDR	**Punta Cana, DR**	**1.01**	**291**↑	*e*P	**Pb**	**08 40 19.9**	**-1.1**
IGPR	**InterUniversit**	**1.23**	**99**↑	*e*P	**Pn**	**08 40 24.8**	**+0.5**
HIDR	**Higuey Centro**	**1.34**	**289**	IAML		08 40 52.2	
comp=N,26nm,0.8s							
HUMP	**Cap San Antoni**	**1.46**	**90**↑		**Pn**	**08 40 27.4**	**0.0**
HATOM	**Hato Mayor del**	**2.00**	**289**	*e*Pg	**Pn**	**08 40 35.8**	**+0.9**
HATOM				IAML		08 41 06.8	
comp=N,24nm,3.0s							

*IDC **18** 09:04:56.9±8.5, 2°.37N×76°.40W, h150km±87km, mb2.8/1, mbtmp3.4/2, Error ellipse: s-maj=95.8km s-min=72.4km az=55.0*
*RSNC **18** 09:04:58.9±0.0, 3°.1N±5°.5×77°.7W±°, h133km±6km, M3.1, ML2.4*
ISC 18 09:04:59.4±1.1, 2°.80N±0°.05×76°.56W±0°.05, h134km±8km, n18, σ0°95/32, Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC	h m s	ISC
POPC	**Popayan, Colom**	**0.28**	**204**	P	**Pn**	**09 05 18.2**	**-0.1**
POPC				S	**Sn**	**09 05 32.7**	**+0.1**
JAMC	**Jamundi, Valle**	**0.42**	**345**	P	**Pn**	**09 05 19.2**	**+0.3**
JAMC				S	**Sn**	**09 05 34.4**	**+0.8**
BBAC	**Balboa, Cauca**	**1.04**	**222**	P	**Pn**	**09 05 23.2**	**-0.1**
BBAC				S	**Sn**	**09 05 41.4**	**0.0**
BETC	**Betania**	**1.12**	**96**	P	**Pn**	**09 05 24.3**	**+0.4**
YOTC	**Yotoco, Valle**	**1.19**	**10**	P	**Pn**	**09 05 24.4**	**-0.3**
YOTC				S	**Sn**	**09 05 43.6**	**-0.4**
ORTC	**Ortega, Tolima**	**1.71**	**50**	P	**Pn**	**09 05 30.1**	**-0.1**
ORTC				S	**Sn**	**09 05 53.5**	**-0.3**
PRAC	**Prado**	**1.90**	**62**	P	**Pn**	**09 05 32.4**	**-0.1**
PRAC				S	**Sn**	**09 05 58.7**	**+0.9**
ARMEC	**Armenia, Quind**	**1.96**	**27**	P	**Pn**	**09 05 32.9**	**-0.4**
ARMEC				S	**Sn**	**09 05 58.4**	**-0.9**
URMC	**La Uribe, Meta**	**2.22**	**78**	P	**Pn**	**09 05 36.3**	**-0.1**
URMC				S	**Sn**	**09 06 04.4**	**-0.4**
TULM	**Tulcn-Chalpat**	**2.41**	**211**	P	**Pn**	**09 05 40.9**	**+1.8**
TULM				S	**Sn**	**09 06 08.7**	**-0.9**
GUY2C	**Guyana, Caldas**	**2.69**	**26**	P	**Pn**	**09 05 42.3**	**-0.3**
GUY2C				S	**Sn**	**09 06 15.1**	**-0.7**
MACC	**Macarena, Meta**	**2.79**	**103**	P	**Pn**	**09 05 42.8**	**-0.7**
MACC				S	**Sn**	**09 06 16.5**	**-0.9**
ROSC	**El Rosal**	**3.02**	**48**	P	**Pn**	**09 05 47.4**	**+0.6**
ROSC	16nm,0.5s,baz=172,slow=19,SNR=5.9			S	**Sn**	**09 06 27.0**	**+3.8**
	9.5nm,0.5s,baz=146,slow=23,SNR=6.5						
ROSC	**El Rosal**	**3.02**	**48**	P	**Pn**	**09 05 47.9**	**+1.2**
ROSC				S	**Sn**	**09 06 23.3**	**+0.1**
CUSE	**Cuicocha Este**	**3.09**	**217**	P	**Pn**	**09 05 47.9**	**+0.2**
CUSE				S	**Sn**	**09 06 25.1**	**+0.1**
OTAV	**Otavalo**	**3.17**	**217**	P	**Pn**	**09 05 49.0**	**+0.2**
OTAV				S	**Sn**	**09 06 26.8**	**-0.2**
TXAR	**Lajitas Array**	**36.87**	**318**	P	**P**	**09 11 54.7**	**-0.4**
	0.2nm,0.6s,baz=128,slow=6.3,SNR=3.9						
	0.2nm,0.6s						
ASAR	**Alice Springs**	**143.97**	**232**	PKP	PKPab	09 24 14.7	-2.8
	0.1nm,0.5s,baz=109,slow=3.6,SNR=4.9						

*OSPL **18** 09:21:57.1±1.2, 19°.53N×72°.79W, h0km±15km, ML2.0, Presumed earthquake*
SSNC 18 09:21:56.1±0.5, 19°.24N×73°.36W, h11km±4km, MD3.3, ML1.7, Presumed earthquake, Haiti region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC	h m s	ISC
LGNH	**Logne**	**1.02**	**135**	*e*S	**Sb**	**09 22 29.1**	**0.0**
QMBU	**Quimbuelo**	**1.67**	**305**	*e*P	Pn	**09 22 23.1**	**-2.2**
QMBU				IAML		09 22 42.0	
comp=E,12nm,0.3s							
QMBU				IAML		09 22 42.5	
comp=N,12nm,0.3s							
GTBY	**Guantanamo Bay**	**1.79**	**293**	*e*P	Pn	09 22 24.3	-2.7
GTBY				*e*S	Sn	09 22 45.5	-4.2
GTBY				IAML		09 22 48.9	
comp=N,5.8nm,0.2s							
GTBY				IAML		09 22 49.2	
comp=N,4.3nm,0.2s							
NMDO	**Nuevo Mundo**	**2.02**	**311**	*e*P	Pn	09 22 27.3	-2.8
NMDO				*e*S	Sn	09 22 50.8	-4.5
NMDO				*e*Sg	Sn	09 22 53.8	-1.5
NMDO				IAML		09 22 54.0	
comp=N,2.6nm,0.2s							
NMDO				IAML		09 22 54.6	
comp=E,4.8nm,0.3s							
MOAC	**Moa**	**2.06**	**313**	*e*P	Pn	09 22 28.4	-2.4
MOAC				*e*S	Sn	09 22 52.1	-4.4
MOAC				IAML		09 22 55.6	
comp=E,4.5nm,0.2s							
MOAC				IAML		09 22 55.8	
comp=N,3.8nm,0.1s							
SABCS	**La Quijada**	**2.15**	**302**	*e*P	Pn	09 22 29.8	-2.2
MARVS	**Santiago de Cu**	**2.51**	**288**	*e*P	Pn	09 22 34.9	-2.0
MARVS				IAML		09 23 07.7	
comp=N,2.7nm,0.3s							
MARVS				IAML		09 23 09.2	
comp=E,3.9nm,0.2s							
PINC	**Pinares de May**	**2.60**	**299**	*e*P	Pn	09 22 36.1	-2.1
HLGC	**Holguin**	**3.02**	**303**	*e*P	Pn	09 22 43.8	-0.2
LMGC	**Las Mercedes**	**3.53**	**284**	*e*P	Pn	09 22 48.6	-2.4
PILO	**Pilon**	**3.87**	**281**	*e*P	Pn	09 22 53.5	-2.2
CCCC	**Cccc**	**4.58**	**296**	*e*P	Pn	09 22 59.3	-6.0

*IDC **18** 09:33:33.1±3.6, 4°.65S×153°.71E, h104km±28km, mb3.7/10, mbtmp4.2/11, MS2.5/2, Error ellipse: s-maj=38.4km s-min=15.4km az=99.0*
ISC 18 09:33:32.6±0.8, 4°.59S±0°.09×153°.8E±0°.1, h100km, n22, σ1°20/22, mb3.8/10, New Ireland region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.78**	**279**	P	**Pn**	**09 34 02.4**	**0.0**
	212nm,0.3s,baz=16,slow=8.2,SNR=12							
KRVT				S	**Sn**	**09 34 23.9**	**-1.3**
	269nm,0.4s,baz=346,slow=20,SNR=4.3							
TATA	**Tatamba Isabel**	**7.07**	**123**	P	Pn	09 35 20.4	+7.0
PMG	**Port Moresby**	**8.14**	**234**	P	**Pn**	**09 35 28.6**	**+0.6**
	80nm,0.6s,baz=50,slow=8.4,SNR=22							
PMG				S	**Sn**	**09 36 58.9**	**+0.6**
	34nm,0.8s,baz=335,slow=10,SNR=4.1							
PMG				LR	LR	09 38 39.4	
	comp=Z,51nm,21.2s,baz=108,slow=38							
PMG	**Port Moresby**	**8.14**	**234**	S	**Sn**	**09 37 00.0**	**+1.6**
PMG	**Port Moresby**	**8.14**	**234**	P	**Pn**	**09 35 30.1**	**+2.1**
PMG	**Port Moresby**	**8.14**	**234**	S	**Sn**	**09 37 00.2**	**+1.8**
GUMO	**Guam**	**20.12**	**334**	LR	LR	09 44 22.8	
	comp=Z,11nm,20.6s,baz=149,slow=32							
QIS	**Mount Isa**	**21.03**	**220**	P	**P**	**09 38 09.2**	**+0.7**
QIS	**Mount Isa**	**21.03**	**220**	S	**S**	**09 41 55.1**	**-2.2**
QLP	**Quilpie**	**23.70**	**202**	P	**P**	**09 38 35.5**	**0.0**
WRAB	**Tennant Creek**	**24.31**	**230**	P	**P**	**09 38 40.4**	**-0.7**
WRA	**Warramunga Arr**	**24.33**	**230**	P	**P**	**09 38 41.6**	**+0.4**
	6.8nm,0.6s,baz=55,slow=10,SNR=69							
	6.8nm,0.6s							
AS01	**Alice Springs**	**26.94**	**223**	P	**P**	**09 39 04.0**	**-0.9**
ASAR	**Alice Springs**	**26.98**	**223**	P	**P**	**09 39 04.4**	**-0.8**
	1.0nm,0.4s,baz=55,slow=8.9,SNR=32							
	1.0nm,0.4s							
STKA	**Stephens Creek**	**29.46**	**201**	P	**P**	**09 39 25.9**	**-1.2**
	2.2nm,0.9s,baz=351,slow=7.8,SNR=4.6							
	2.2nm,0.9s							
PETK	**Petropavlovsk-**	**57.58**	**3**	P	**P**	**09 43 13.8**	**+2.0**
	4.2nm,0.8s,baz=196,slow=7.3,SNR=2.3							
	4.2nm,0.8s							
SONM	**Songino Array**	**66.68**	**327**	P	**P**	**09 44 12.9**	**0.0**
	0.6nm,0.5s,baz=141,slow=5.5,SNR=4.6							
	0.6nm,0.5s							
MKAR	**Makanchi Array**	**80.82**	**319**	P	**P**	**09 45 35.3**	**-0.2**
	0.4nm,0.5s,baz=91,slow=7.2,SNR=2.6							
	0.4nm,0.5s							
ILAR	**Eielson Array**	**81.60**	**22**	P	**P**	**09 45 39.7**	**+0.6**
	0.2nm,0.7s,baz=271,slow=6.1,SNR=2.2							
	0.2nm,0.7s							
KURBB	**Kurchatov Arra**	**84.25**	**322**	P	**P**	**09 45 53.1**	**0.0**
	0.2nm,0.3s,baz=81,slow=5.7,SNR=1.2							
	0.2nm,0.3s							
QSPA	**South Pole Qui**	**85.37**	**180**	P	**P**	**09 45 57.9**	**-0.7**
	0.9nm,0.4s,baz=190,slow=1.3,SNR=27							
	0.9nm,0.4s							
MAW	**Mawson**	**86.14**	**203**	P	**P**	**09 46 01.1**	**-1.2**
	2.6nm,0.6s,baz=93,slow=5.9,SNR=9.8							
	2.6nm,0.6s							

*IDC **18** 09:59:14.8±1.9, 4°.41S×154°.08E, h445km±14km, mb2.8/5, mbtmp3.6/5, Error ellipse: s-maj=52.0km s-min=24.2km az=112.0*
ISC 18 09:59:15.2±1.3, 4°.4S±0°.2×154°.0E±0°.2, h450km, n6, σ0°44/7, mb3.2/5, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**2.00**	**273**	P	**P**	**10 00 15.5**	**-0.2**
	195nm,0.3s,baz=23,slow=0.2,SNR=6.7							
KRVT				S	**S**	**10 01 04.3**	**-0.5**
	96nm,0.5s,baz=13,slow=22,SNR=4.1							

WRA	**Warramunga Arr**	**24.62**	**230**	P	**P**	**10 03 58.8**	**+0.3**
	0.4nm,0.5s,baz=53,slow=9.3,SNR=2.9						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**27.27**	**224**	P	**P**	**10 04 22.0**	**+0.2**
	0.1nm,0.4s,baz=45,slow=9.3,SNR=3.1						
	0.1nm,0.4s						
MKAR	**Makanchi Array**	**80.85**	**319**	P	**P**	**10 10 41.7**	**+0.6**
	0.4nm,0.5s,baz=103,slow=5.1,SNR=4.4						
	0.4nm,0.5s						
ILAR	**Eielson Array**	**81.34**	**22**	P	**P**	**10 10 43.1**	**-0.2**
	0.4nm,0.8s,baz=258,slow=5.1,SNR=5.1						
	0.4nm,0.8s						
QSPA	**South Pole Qui**	**85.54**	**180**	P	**P**	**10 11 04.4**	**-0.1**
	0.6nm,0.5s,baz=22,slow=0.3,SNR=8.4						
	0.6nm,0.5s						

*IDC **18** 10:23:29.9±1.3,5°.99S×147°.91E,h79km±12km,mb4.0/15, mbtmp4.3/19,MS3.2/18,Error ellipse: s-maj=15.9km s-min=8.7km az=113.0*
*NEIC **18** 10:23:31.7±1.7,6°.14S±0°.06×148°.16E±0°.04,h97km±6km, mb4.6/41,Error ellipse: s-maj=9.4km s-min=5.4km az=163.0*
*GFZ **18** 10:23:32.0±0.3,6°.S±4°×14°.8E±°,h116km,M4.8/13, mb4.8/13*

ISC 18 10:23:31.5±0.4,6°.16S±0°.05×148°.10E±0°.06,h100km,n109, σ1s41/103,mb4.5/38,1D,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.36**	**196**	P	**Pn**	**10 24 22.3**	**+0.1**
	94nm,0.5s,baz=40,slow=5.6,SNR=28						
PMG				S	**Sn**	**10 25 01.6**	**+0.4**
	852nm,0.6s,baz=76,slow=18,SNR=6.9						
PMG				LR	LR	10 26 18.5	
	comp=Z,295nm,20.6s,baz=356,slow=48						
PMG	**Port Moresby**	**3.36**	**196**		**Pn**	**10 24 21.8**	**-0.3**
PMG				Sn	**Sn**	**10 25 00.5**	**-0.7**
PMG	**Port Moresby**	**3.36**	**196**	P	**Pn**	**10 24 22.1**	**-0.1**
MANU	**Manus Island**	**4.15**	**350**	Pn	**Pn**	**10 24 31.8**	**-1.0**
KRVT	**Keravat (AS076**	**4.32**	**65**	P	**Pn**	**10 24 33.8**	**-1.3**
	714nm,0.5s,baz=293,slow=11,SNR=18						
KRVT				S	**Sn**	**10 25 27.1**	**+2.6**
	479nm,0.7s,baz=224,slow=20,SNR=7.9						
RABL	**Rabaul**	**4.49**	**64**	Pn	**Pn**	**10 24 36.1**	**-1.4**
GENI	**Genyem**	**8.66**	**294**	P	**Pn**	**10 25 37.8**	**+3.7**
	comp=Z,54nm,0.8s						
HNR	**Honiara**	**12.18**	**106**	LR	LR	10 30 40.6	
	comp=Z,35nm,20.1s,baz=359,slow=35						
HNR	**Honiara**	**12.18**	**106**	P	Pn	10 26 16.1	-5.6
	comp=Z,200nm,1.0s						
CTA	**Charters Tower**	**13.96**	**187**	P	**Pn**	**10 26 46.7**	**+1.6**
	comp=Z,4.2nm,0.8s,baz=3.7,slow=16,SNR=2.0						
CTAO	**Charters Tower**	**13.96**	**187**	Pn	**Pn**	**10 26 42.9**	**-2.2**
FAKI	**Fak Fak**	**16.12**	**281**	Pn	**Pn**	**10 27 12.2**	**-0.2**
QIS	**Mount Isa**	**16.52**	**209**	P	**Pn**	**10 27 17.6**	**+0.3**
	comp=Z,38nm,0.9s						
SIJI	**Sorong**	**17.60**	**287**	P	**P**	**10 27 28.8**	**-1.4**
	comp=Z,4.5nm,0.5s,baz=96,slow=14,SNR=3.7						
SIJI				LR	LR	10 35 54.4	
	comp=Z,62nm,20.8s,baz=113,slow=43						
MTN	**Manton Dam**	**18.00**	**247**		**P**	**10 27 34.9**	**+0.3**
WB0	**Warramunga Arr**	**18.99**	**223**	P	**P**	**10 27 45.3**	**-0.1**
WB0				IAmb	IAmb	10 27 49.4	
	comp=Z,12nm,0.7s						
WR0	**Warramunga Arr**	**19.02**	**223**	P	**P**	**10 27 46.4**	**+0.7**
WR0				IAmb	IAmb	10 27 55.0	
	comp=Z,21nm,0.3s						
WR8	**Warramunga Arr**	**19.05**	**223**		**P**	**10 27 46.6**	**+0.6**
WR8				IAmb	IAmb	10 27 54.0	
	comp=Z,24nm,0.4s						
WRAB	**Tennant Creek**	**19.13**	**223**	P	**P**	**10 27 47.4**	**+0.5**
WRAB				IAmb	IAmb	10 27 54.6	
	comp=Z,17nm,0.6s						
WRAB	**Tennant Creek**	**19.13**	**223**	P	**P**	**10 27 47.3**	**+0.3**
	comp=Z,30nm,0.7s						
WB2	**Warramunga Arr**	**19.14**	**223**	P	**P**	**10 27 47.6**	**+0.6**
WB2				IAmb	IAmb	10 27 54.8	
	comp=Z,26nm,0.5s						
WRA	**Warramunga Arr**	**19.15**	**223**	P	**P**	**10 27 47.5**	**+0.3**
	comp=Z,9.0nm,0.4s,baz=43,slow=12,SNR=120						
WRA				S	**S**	**10 31 17.3**	**-1.7**
	comp=Z,9.7nm,1.1s,baz=43,slow=21,SNR=12						
WRA				PcP	**PcP**	**10 32 08.1**	**+0.8**
	comp=Z,2.1nm,0.8s,baz=37,slow=1.7,SNR=4.3						
WRA				ScP	**ScP**	**10 35 38.2**	**+3.9**
	comp=Z,0.8nm,0.8s,baz=46,slow=2.7,SNR=2.5						
WRA	**Warramunga Arr**	**19.15**	**223**	P	**P**	**10 27 47.1**	**0.0**
EIDS	**Eidsvold**	**19.32**	**172**	P	**P**	**10 27 46.9**	**-2.0**
EIDS				IAmb	IAmb	10 28 14.8	
	comp=Z,17nm,1.1s						
GUMO	**Guam**	**19.88**	**351**	LR	LR	10 35 28.9	
	comp=Z,18nm,18.8s,baz=159,slow=36						
QLP	**Quilpie**	**20.64**	**190**	P	**P**	**10 28 05.0**	**+1.8**
	comp=Z,104nm,0.7s						
KNRA	**Kununurra**	**21.19**	**242**		**P**	**10 28 09.1**	**-0.1**
AS31	**Alice Springs**	**22.12**	**217**		**P**	**10 28 20.3**	**+1.2**
ASAR	**Alice Springs**	**22.13**	**217**	P	**P**	**10 28 20.6**	**+1.5**
	comp=Z,111nm,0.4s,baz=52,slow=8.8,SNR=416						
ASAR				PcP	**PcP**	**10 32 14.7**	**+1.8**
	comp=Z,2.0nm,0.7s,baz=50,slow=3.2,SNR=6.0						
ASAR				ScP	**ScP**	**10 35 46.3**	**+4.9**
	comp=Z,1.3nm,0.9s,baz=43,slow=2.4,SNR=5.5						
ASAR				LR	LR	10 38 46.4	
	comp=Z,47nm,18.7s,baz=89,slow=41						
	comp=Z,11nm,0.4s						
ASAR	**Alice Springs**	**22.13**	**217**		**P**	**10 28 20.7**	**+1.6**
INKA	**Innaminka**	**22.57**	**197**		**P**	**10 28 24.3**	**+0.7**
DZM	**Mont Dzumac**	**23.76**	**134**	LR	LR	10 36 43.4	
	comp=Z,74nm,21.3s,baz=250,slow=33						
ARMA	**Armidale**	**24.36**	**173**	P	**P**	**10 28 39.0**	**-1.5**
BATI	**Baumata**	**24.51**	**259**	LR	LR	10 40 26.6	
	comp=Z,157nm,18.1s,baz=144,slow=42						
FITZ	**Fitzroy Crossi**	**24.92**	**240**	LR	LR	10 39 48.2	
	comp=Z,77nm,20.1s,baz=61,slow=39						
FITZ	**Fitzroy Crossi**	**24.92**	**240**	P	**P**	**10 28 46.8**	**+1.3**
FITZ				IAmb	IAmb	10 28 48.8	
	comp=Z,15nm,0.8s						
FITZ	**Fitzroy Crossi**	**24.92**	**240**	P	**P**	**10 28 46.2**	**+0.7**
	comp=Z,21nm,1.0s						
STKA	**Stephens Creek**	**26.30**	**193**	P	**P**	**10 28 59.9**	**+2.0**
	comp=Z,4.3nm,0.8s,baz=35,slow=13,SNR=8.0						
STKA				LR	LR	10 39 41.5	
	comp=Z,109nm,18.6s,baz=198,slow=37						
	comp=Z,4.3nm,0.8s						
STKA	**Stephens Creek**	**26.30**	**193**	P	**P**	**10 28 57.9**	**0.0**
STKA	**Stephens Creek**	**26.30**	**193**	P	**P**	**10 29 00.0**	**+2.2**
	comp=Z,65nm,1.6s						
EDFI	**Ende, Flores**	**26.31**	**263**	P	**P**	**10 28 56.8**	**-1.5**
	comp=Z,16nm,0.6s						
KAPI	**Kappang**	**28.23**	**271**	LR	LR	10 42 37.9	
	comp=Z,27nm,19.2s,baz=108,slow=41						
BBOO	**Buckleboo**	**28.79**	**201**	P	**P**	**10 29 20.3**	**+0.1**
BBOO				IAmb	IAmb	10 29 42.0	
	comp=Z,18nm,1.1s						
MBWA	**Marble Bar**	**31.25**	**239**		**P**	**10 29 42.0**	**0.0**
MBWA				IAmb	IAmb	10 29 43.7	
	comp=Z,26nm,1.3s						
MEEK	**Meekatharra**	**34.69**	**231**	P	**P**	**10 30 12.7**	**+0.7**
	comp=Z,14nm,0.9s						
WOJI	**Wonogiri, Jawa**	**36.93**	**265**	P	**P**	**10 30 29.1**	**-2.1**
	comp=Z,53nm,1.8s						
UGM	**Wanagama**	**37.33**	**265**	P	**P**	**10 30 33.4**	**-1.2**
	comp=Z,169nm,2.0s						
MORW	**Morawa**	**37.89**	**229**	P	**P**	**10 30 38.2**	**-0.9**
KLBR	**Kellerberrin**	**38.02**	**224**	P	**P**	**10 30 40.2**	**0.0**
	comp=Z,54nm,0.8s						
NWAO	**Narrogin (SRO)**	**39.16**	**223**	P	**P**	**10 30 48.8**	**-0.9**
YULB	**Yu-li**	**39.34**	**319**	P	**P**	**10 30 51.2**	**-0.1**
YULB				IAmb	IAmb	10 30 56.2	
	comp=Z,14nm,1.1s						
TPUB	**Ta-pu**	**39.72**	**318**	P	**P**	**10 30 53.4**	**-1.0**
BBJI	**Bungbulang**	**40.17**	**266**	P	**P**	**10 30 57.7**	**-0.8**
BBJI				IAmb	IAmb	10 31 18.9	
	comp=Z,15nm,0.8s						
LEM	**Lembang**	**40.22**	**267**	LR	LR	10 50 00.4	
	comp=Z,44nm,21.1s,baz=86,slow=40						
BHW	**Baring Head**	**42.44**	**150**	P	**P**	**10 31 14.8**	**-1.7**
JGF	**Kuroka**	**42.75**	**347**	P	**P**	**10 31 19.0**	**-0.1**
JGF				IAmb	IAmb	10 31 28.5	
	comp=Z,6.7nm,0.9s						
JGF	**Kuroka**	**42.75**	**347**	P	**P**	**10 31 18.8**	**-0.3**
	comp=Z,13nm,2.9s						
MJAR	**Matsushiro Arr**	**43.47**	**348**	P	**P**	**10 31 23.5**	**-1.4**
	comp=Z,12nm,1.0s,baz=171,slow=8.5,SNR=19						
MJAR				LR	LR	10 46 39.9	
	comp=Z,26nm,21.9s,baz=186,slow=32						
	comp=Z,12nm,1.0s						
MJAR	**Matsushiro Arr**	**43.47**	**348**	P	**P**	**10 31 25.1**	**+0.2**
MJAR				IAmb	IAmb	10 31 26.5	
	comp=Z,6.7nm,0.9s						
MAJO	**Matsushiro**	**43.48**	**348**	P	**P**	**10 31 24.0**	**-0.9**
MAJO	**Matsushiro**	**43.48**	**348**	P	**P**	**10 31 24.5**	**-0.4**
	comp=Z,18nm,1.0s						
MJB9	**Matsu-Tunnel**	**43.48**	**348**	P	**P**	**10 31 25.1**	**+0.1**
JTU	**Tsushima**	**44.15**	**338**	P	**P**	**10 31 30.2**	**-0.1**
NJ2	**Nanjing**	**47.12**	**326**	*e*P	**P**	**10 31 56.8**	**+3.1**
NJ2				pmax	pmax		
	comp=Z,19nm,0.6s						
KSRS	**Korea Array**	**47.30**	**338**	P	**P**	**10 31 54.7**	**-0.3**
	comp=Z,1.7nm,0.6s,baz=155,slow=8.3,SNR=6.1						
	comp=Z,1.7nm,0.6s						
PSI	**Prapat**	**49.90**	**279**	LR	LR	10 58 17.1	
	comp=Z,42nm,18.4s,baz=104,slow=42						
USA0B	**Ussuriysk Arra**	**52.19**	**345**	P	**P**	**10 32 32.4**	**+0.4**
USA0B				IAmb	IAmb	10 32 42.8	
	comp=Z,6.2nm,1.2s						
USRK	**Ussuriysk Ar.**	**52.19**	**345**	P	**P**	**10 32 32.1**	**+0.2**
	comp=Z,2.2nm,0.6s,baz=168,slow=7.0,SNR=12						
	comp=Z,2.2nm,0.6s						
USRK	**Ussuriysk Ar.**	**52.19**	**345**	P	**P**	**10 32 32.0**	**+0.1**
LZH	**Lanzhou**	**59.04**	**319**	*e*P	**P**	**10 33 20.8**	**-0.7**
LZH				sP	pP	10 33 51.8	+5.9
LZH				pmax	pmax		
	comp=Z,12nm,1.6s						
PEA0B	**Petropavlovsk-**	**59.60**	**7**	P	**P**	**10 33 24.0**	**-0.7**
PETK	**Petropavlovsk-**	**59.60**	**7**	P	**P**	**10 33 25.0**	**+0.3**
	comp=Z,6.8nm,0.8s,baz=162,slow=5.2,SNR=6.7						
PETK				LR	LR	10 52 59.7	
	comp=Z,24nm,21.0s,baz=127,slow=30						
	comp=Z,6.8nm,0.8s						
PETK	**Petropavlovsk-**	**59.60**	**7**	P	**P**	**10 33 24.5**	**-0.2**
SONM	**Songino Array**	**65.08**	**330**	P	**P**	**10 34 01.6**	**+0.1**
	comp=Z,2.1nm,0.8s,baz=149,slow=6.3,SNR=8.9						
	comp=Z,2.1nm,0.8s						
SONM	**Songino Array**	**65.08**	**330**	P	**P**	**10 34 01.7**	**+0.2**
MA2	**Magadan**	**65.56**	**1**	LR	LR	10 58 58.4	
	comp=Z,12nm,21.7s,baz=326,slow=32						
EVN	**Everest**	**68.10**	**303**	P	**P**	**10 34 21.8**	**-0.1**
	comp=Z,2.7nm,0.6s						
VNDA	**Vanda**	**71.69**	**177**	P	**P**	**10 34 44.2**	**+2.0**
	comp=Z,1.1nm,0.8s,baz=318,slow=5.8,SNR=6.6						
	comp=Z,1.1nm,0.8s						
VNDA	**Vanda**	**71.69**	**177**	P	**P**	**10 34 43.1**	**+0.9**
VNDA	**Vanda**	**71.69**	**177**	P	**P**	**10 34 44.9**	**+2.7**
	comp=Z,1.9nm,1.7s						
WECS	**Westdahl Cape**	**72.08**	**27**	P	**P**	**10 34 45.8**	**+1.0**
S12K	**Black Hills**	**74.03**	**27**	P	**P**	**10 34 57.5**	**+1.3**
MKAR	**Makanchi Array**	**78.31**	**320**	P	**P**	**10 35 19.6**	**-1.2**
	comp=Z,0.5nm,0.4s,baz=110,slow=6.6,SNR=3.7						
	comp=Z,0.5nm,0.4s						
ACHA	**Angle Creek He**	**78.49**	**27**	P	**P**	**10 35 21.9**	**+0.3**
ACHA				IAmb	IAmb	10 35 26.4	
	comp=Z,11nm,1.4s						
KDAK	**Kodiak Island**	**79.52**	**28**	LR	LR	11 04 03.4	
	comp=Z,29nm,20.0s,baz=244,slow=31						
ZALV	**Zalesovo Beam**	**79.73**	**328**	P	**P**	**10 35 26.2**	**-2.1**
	comp=Z,1.0nm,0.5s,baz=114,slow=5.6,SNR=5.4						
	comp=Z,1.0nm,0.5s						
ZALV	**Zalesovo Beam**	**79.73**	**328**	P	**P**	**10 35 27.0**	**-1.3**
KURBB	**Kurchatov Arra**	**82.01**	**323**	P	**P**	**10 35 38.7**	**-1.8**
	comp=Z,0.6nm,0.6s,baz=92,slow=5.6,SNR=4.1						
	comp=Z,0.6nm,0.6s						
QSPA	**South Pole Qui**	**83.81**	**180**	P	**P**	**10 35 51.0**	**+1.3**
	comp=Z,3.5nm,0.7s,baz=313,slow=0.9,SNR=35						
	comp=Z,3.5nm,0.7s						
QSPA	**South Pole Qui**	**83.81**	**180**	P	**P**	**10 35 51.1**	**+1.3**
QSPA				IAmb	IAmb	10 35 52.0	
	comp=Z,4.2nm,0.8s						
RND	**Reindeer**	**83.82**	**24**	P	**P**	**10 35 48.7**	**-1.0**
RND				IAmb	IAmb	10 36 13.4	
	comp=Z,11nm,1.3s						
MCK	**McKinley**	**83.93**	**23**	P	**P**	**10 35 49.3**	**-0.9**
MCK				IAmb	IAmb	10 35 52.7	
	comp=Z,6.2nm,1.0s						
I23K	**Minto, Yukon-K**	**84.42**	**22**	P	**P**	**10 35 52.0**	**-0.5**
I23K				IAmb	IAmb	10 36 00.3	
	comp=Z,5.0nm,1.2s						
IL31		**85.20**	**23**	P	**P**	**10 35 55.6**	**-0.9**
ILAR	**Eielson Array**	**85.20**	**23**	P	**P**	**10 35 55.0**	**-1.5**
	comp=Z,2.2nm,0.8s,baz=256,slow=4.9,SNR=25						
	comp=Z,2.2nm,0.8s						
ILAR	**Eielson Array**	**85.20**	**23**	P	**P**	**10 35 55.8**	**-0.7**
J25K	**Salcha River,**	**85.72**	**23**	IAmb	IAmb	10 36 01.1	
	comp=Z,4.5nm,0.7s						
M27K	**Edge Creek, AK**	**86.32**	**26**	IAmb	IAmb	10 36 05.4	
	comp=Z,6.1nm,0.8s						
BMAR	**Burnt Mountain**	**87.15**	**21**	P	**P**	**10 36 06.5**	**+0.3**
BVAR	**Borovoye Array**	**87.54**	**324**	P	**P**	**10 36 05.9**	**-2.3**
	comp=Z,1.6nm,0.6s,baz=91,slow=6.3,SNR=5.2						
	comp=Z,1.6nm,0.6s						
YBH	**Yreka Blue Hor**	**93.45**	**49**	LR	LR	11 10 52.5	
	comp=Z,24nm,20.0s,baz=356,slow=30						
ELIB	**Princess Elisa**	**94.33**	**195**	*d*P	**P**	**10 36 40.6**	**+0.9**
	comp=Z,1.6nm,0.6s						
NEW	**Newport**	**97.74**	**42**	P	**P**	**10 36 55.2**	**-0.3**
	comp=Z,0.9nm,0.6s,baz=292,slow=5.4,SNR=2.2						
NEW				LR	LR	11 12 11.7	
	comp=Z,21nm,20.1s,baz=38,slow=30						
	comp=Z,0.9nm,0.6s						
PLCA	**Paso Flores**	**121.39**	**146**	PKP	**PKiKP**	**10 42 15.1**	**+1.3**
	comp=Z,0.6nm,0.5s,baz=255,slow=2.7,SNR=5.7						
GERES	**GERESS Array B**	**122.65**	**326**	PKP	**PKPdf**	**10 42 15.4**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=54,slow=1.7,SNR=1.8						
LPAZ	**La Paz**	**137.78**	**122**	PKP	**PKPdf**	**10 42 47.0**	**+0.9**
	comp=Z,1.8nm,0.7s,baz=241,slow=3.7,SNR=5.3						
RUSC	**La Rusia**	**139.05**	**88**	PKPdf	**PKPdf**	**10 42 44.3**	**-4.0**
TORD	**Torodi Ar. Bea**	**146.19**	**284**	PKPbc	**PKPbc**	**10 43 01.2**	**-0.2**
	comp=Z,0.9nm,0.5s,baz=55,slow=2.4,SNR=3.1						
BDFB	**Brasilia**	**153.10**	**144**	PKPbc	**PKPbc**	**10 43 18.8**	**0.0**
	comp=Z,1.6nm,0.3s,baz=217,slow=5.1,SNR=4.7						

*IDC **18** 10:31:37.8±2.4,16°.81S×75°.29W,h0km,mb3.7/2, mbtmp3.8/6,ML3.8/4,MS3.3/1,Error ellipse: s-maj=40.6km s-min=13.3km az=37.0*

ISC 18 10:31:39.6±2.0,16°.7S±0°.2×75°.3W±0°.1,h10km,n7,σ2s08/9, Off coast of Peru

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**4.91**	**342**	Pn	**Pn**	**10 32 53.6**	**+0.1**
	9.0nm,0.3s,baz=166,slow=12,SNR=14						
NNA				Sn	**Sn**	**10 33 47.1**	**-3.4**
	71nm,0.3s,baz=356,slow=4.5,SNR=14						
	23nm,0.3s						
NNA				AML	AML		
LPAZ	**La Paz**	**6.86**	**88**	Pn	**Pn**	**10 33 23.0**	**+2.1**
	0.8nm,0.3s,baz=275,slow=11,SNR=19						
LPAZ				Sn	**Sn**	**10 34 39.0**	**-0.3**
	baz=0.0,slow=20						
	3.1nm,0.4s						
LPAZ				AML	AML		
ATAH	**Atahualpa**	**9.97**	**342**	Pn	**Pn**	**10 34 05.5**	**+2.1**
	1.0nm,0.3s,baz=95,slow=1.6,SNR=4.5						
ATAH				Sn	**Sn**	**10 35 57.2**	**+1.6**
	0.8nm,0.3s,baz=12,slow=12,SNR=4.2						
	2.9nm,0.5s						
ATAH				AML	AML		
SIV	**San Ignacio**	**13.64**	**89**	Pn	**Pn**	**10 34 52.3**	**-1.0**
	baz=258,slow=14,SNR=2.2						
	0.7nm,0.4s						
PLCA	**Paso Flores**	**24.32**	**171**	LR	LR	10 45 16.8	
	comp=Z,63nm,18.2s,baz=194,slow=34						
TXAR	**Lajitas Array**	**53.33**	**329**	P	**P**	**10 40 59.2**	**-0.1**
	0.1nm,0.5s,baz=144,slow=7.1,SNR=4.3						
	0.1nm,0.5s						
TORD	**Torodi Ar. Bea**	**81.59**	**74**	P	**P**	**10 43 57.3**	**-1.2**
	1.1nm,0.5s,baz=258,slow=3.6,SNR=2.6						
	1.1nm,0.5s						

*BJI **18** 10:33:45.4,36°.32N×69°.82E,h130km,mB4.7/8,mb4.6/32*
*MOS **18** 10:33:46.2±1.1,36°.30N×69°.96E,h137km,mb4.5/13,Error ellipse: s-maj=7.4km s-min=3.9km az=75.6*
*GFZ **18** 10:33:47.5±0.2,36°.N±3°×7°.0E±°,h132km,M4.4/19, mb4.6/19*
*NEIC **18** 10:33:47.7±1.8,36°.30N±0°.06×69°.86E±0°.09,h137km±8km, mb4.5/39,Error ellipse: s-maj=11.1km s-min=9.2km az=99.0*
*IDC **18** 10:33:47.4±0.7,36°.23N×70°.08E,h135km±6km,mb3.9/20, mbtmp4.4/24,MS2.5/2,Error ellipse: s-maj=13.0km s-min=10.5km az=44.0*
*NNC **18** 10:33:49.1±3.1,36°.61N×69°.63E,h131km±26km,mb4.1, mpv5.2,Error ellipse: s-maj=27.9km s-min=19.1km az=17.0*
*NDI **18** 10:33:55.6±5.0,34°.82N×70°.22E,h6km±179km,ML4.4, MW3.7,Presumed earthquake*

ISC 18 10:33:47.1±0.4,36°.29N±0°.04×69°.95E±0°.04,h132km±4km, h132km:pP-P,n260,σ1s29/279,mb4.4/57,2C-6D,Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**1.89**	**203**	P	**Pn**	**10 34 20.9**	**+0.8**
KBL				S	**Sn**	**10 34 46.2**	**+0.9**
KBL	**Kabul**	**1.89**	**203**	PN	**Pn**	**10 34 20.9**	**+0.8**
KBL						10 34 46.2	
KBL	**Kabul**	**1.89**	**203**		**Pn**	**10 34 20.9**	**+0.8**
KBL				Sn	**Sn**	**10 34 46.1**	**+0.9**
KBL	**Kabul**	**1.89**	**203**	P	**Pn**	**10 34 20.7**	**+0.6**
DRK	**Karamyk**	**3.51**	**24**	PN	**Pn**	**10 34 41.7**	**+1.1**
DRK	**Karamyk**	**3.51**	**24**		**Pn**	**10 34 41.7**	**+1.1**
DRK	**Karamyk**	**3.51**	**24**	P	**Pn**	**10 34 41.7**	**+1.1**
NIL	**Nilore**	**3.78**	**133**	PN	**Pn**	**10 34 45.9**	**+1.9**
NIL	**Nilore**	**3.78**	**133**		**Pn**	**10 34 45.9**	**+1.9**
NIL	**Nilore**	**3.78**	**133**	P	**Pn**	**10 34 45.9**	**+1.9**
BTK	**Batken**	**3.83**	**10**	PN	**Pn**	**10 34 44.9**	**+0.3**
BTK	**Batken**	**3.83**	**10**		**Pn**	**10 34 44.9**	**+0.3**
BTK	**Batken**	**3.83**	**10**	P	**Pn**	**10 34 45.6**	**+1.0**
OHH	**Osh**	**4.78**	**27**	P	**Pn**	**10 34 56.5**	**-0.8**
KSH2	**Kashi**	**5.29**	**56**	P	**Pn**	**10 35 06.9**	**+2.7**
KSH2				S	**Sn**	**10 36 08.4**	**+4.2**
JMU	**Jammu**	**5.33**	**130**	*i* P	**Pn**	**10 35 02.4**	**-2.3**
JMU				*i* S	Sn	10 35 54.3	-11
JMU				IAML		10 36 09.9	
	comp=N,711nm,0.2s						
ARSB	**Arslanbob**	**5.56**	**24**	PN	**Pn**	**10 35 07.6**	**-0.2**
ARSB	**Arslanbob**	**5.56**	**24**		**Pn**	**10 35 07.5**	**-0.2**
IUG	**luzhnay**	**5.85**	**1**	*e*PN	**Pn**	**10 35 11.6**	**-0.1**
IUG	**luzhnay**	**5.85**	**1**	*e*P	**Pn**	**10 35 11.6**	**-0.1**
CHM	**Chimkent**	**6.03**	**358**	*e*PN	**Pn**	**10 35 14.0**	**0.0**
CHM	**Chimkent**	**6.03**	**358**	*e*P	**Pn**	**10 35 14.0**	**0.0**
ALCI	**Alchi Leh**	**6.27**	**107**	*i* P	**Pn**	**10 35 21.8**	**+4.2**
ALCI				*i* P	**Pn**	**10 35 21.8**	**+4.2**
HRA	**Herat**	**6.58**	**256**		**Pn**	**10 35 19.8**	**-1.7**
BRLS	**Boroldaу**	**6.74**	**359**	Pg	**Pn**	**10 35 19.2**	**-4.3**
	comp=N,216nm,0.7s						
BRLS				Lg	Lg	10 36 27.0	
	comp=N,122nm,0.5s						
BRLS	**Boroldaу**	**6.74**	**359**	*e*PN	**Pn**	**10 35 19.1**	**-4.3**
BRLS	**Boroldaу**	**6.74**	**359**	*e*P	**Pn**	**10 35 19.1**	**-4.3**
KK31	**Karatay Array**	**6.82**	**3**	P	**Pn**	**10 35 23.9**	**-0.8**
	comp=N,164nm,0.6s,baz=193,slow=14,SNR=1369						
KK31				⇓S	**Sn**	**10 36 37.3**	**-3.6**
	comp=N,22nm,0.3s,baz=195,slow=24,SNR=5.1						
KK31	**Karatay Array**	**6.82**	**3**	PN	**Pn**	**10 35 24.1**	**-0.5**
KK31	**Karatay Array**	**6.82**	**3**		**Pn**	**10 35 24.1**	**-0.5**
KKAR	**Karatay Array**	**6.82**	**3**	PN	**Pn**	**10 35 24.2**	**-0.4**
KKAR	**Karatay Array**	**6.82**	**3**		**Pn**	**10 35 24.2**	**-0.4**
UCH	**Uchtor**	**6.91**	**29**	P	**Pn**	**10 35 26.3**	**+0.1**
	SNR=207						
ASAI	**AK-SAY(Kyrgyzs**	**6.92**	**46**	P	**Pn**	**10 35 26.2**	**0.0**
	comp=Z,105nm,1.1s						
MRKS	**Merke**	**6.93**	**20**	Lg	Lg	10 36 38.7	
	comp=Z,272nm,0.5s						
NRN	**Naryn**	**6.98**	**41**	PN	**Pn**	**10 35 26.0**	**-1.0**
NRN	**Naryn**	**6.98**	**41**		**Pn**	**10 35 26.0**	**-1.0**
EKS2	**Erkin-Say**	**7.02**	**24**	P	**Pn**	**10 35 27.3**	**0.0**
	SNR=85						
BHK	**Bhakra**	**7.24**	**131**	*i* P	**Pn**	**10 35 33.1**	**+2.8**
BHK				*i* S	**Sn**	**10 36 48.1**	**-3.0**
BHK				IAML		10 36 51.3	
	comp=N,431nm,0.4s						
AAK	**Ala-Archa**	**7.25**	**28**	P	**Pn**	**10 35 30.1**	**-0.4**
	comp=N,111nm,0.4s,baz=200,slow=5.8,SNR=216						
AAK				S	**Sn**	**10 36 49.9**	**-1.6**
	comp=N,173nm,0.7s,baz=87,slow=12,SNR=7.7						
AAK				LR	LR	10 37 47.4	
	comp=N,22nm,18.3s,baz=183,slow=33						
AAK	**Ala-Archa**	**7.25**	**28**	P	**Pn**	**10 35 30.7**	**+0.2**

TDK	Taldyqorghan	10.81	34	eP		Pn	10 36 18.1	0.0	
JHNI	Jhansi	13.10	143	i S		Sn	10 39 02.9	-10	
GUNA	GUNA	13.22	149	i P		Pn	10 36 44.3	-5.6	
GUNA				i S		Sn	10 38 54.1	-22	
MAKZ	Makanchi	13.82	37	P		Pn	10 36 56.7	-0.7	
MAKZ	Makanchi	13.82	37			Pn	10 36 56.7	-0.7	
MAKZ	Makanchi	13.82	37	P		Pn	10 36 56.8	-0.7	
	comp=Z,72nm,0.9s								
MK31	Makanchi Array	13.97	37	P		Pn	10 36 58.9	-0.3	
	comp=Z,10nm,0.6s,baz=200,slow=8.0,SNR=113								
MKAR	Makanchi Array	13.97	37	P		Pn	10 36 58.2	-1.0	
	comp=Z,4.3nm,0.7s,baz=225,slow=12,SNR=20								
AB31	Akbulak array	14.88	334	P		Pn	10 37 08.5	-2.1	
	comp=Z,5.7nm,0.3s,baz=150,slow=12,SNR=334								
AB31				S		Sn	10 39 44.4	-11	
	comp=Z,15nm,0.5s,baz=155,slow=21,SNR=8.9								
AB31	Akbulak array	14.88	334			Pn	10 37 08.6	-2.0	
ABKAR	Akbulak array	14.88	334			Pn	10 37 08.5	-2.1	
ALBI	Allahabad	14.94	134	i P		Pn	10 37 12.2	+0.6	
WMQ	Urumqi	15.51	56	eP		Pn	10 37 17.6	-1.1	
WMQ				S		Sn	10 40 09.3	-1.5	
WMQ				pmax	pmax				
	comp=Z,21nm,0.7s								
WMQ				pmax	pmax				
	comp=Z,120nm,4.7s								
KURBB	Kurchatov Arra	15.61	21	P		Pn	10 37 17.5	-2.2	
	comp=Z,11nm,0.9s,baz=213,slow=12,SNR=45								
KURBB	Kurchatov Arra	15.61	21	⇓P		Pn	10 37 17.4	-2.3	
	comp=Z,30nm,0.7s								
KURK	Kurchatov	15.72	21	P		Pn	10 37 19.2	-1.9	
KURK	Kurchatov	15.72	21	deP		Pn	10 37 18.5	-2.5	
KURK				pmax	pmax				
	comp=Z,18nm,1.0s								
KURK	Kurchatov	15.72	21			Pn	10 37 19.0	-2.0	
KURK				IAmb	IAmb		10 37 25.9		
	comp=Z,29nm,0.8s								
SEM	Semipalatinsk	15.96	25	eP		Pn	10 37 24.2	0.0	
SEM	Semipalatinsk	15.96	25	eP		Pn	10 37 24.3	0.0	
UOSS	Minazif	16.34	230	P		Pn	10 37 27.8	-1.2	
UOSS	Minazif	16.34	230	P		Pn	10 37 27.9	-1.0	
UOSS				S		S	10 40 34.8	+2.4	
UOSS	Minazif	16.34	230			Pn	10 37 27.4	-1.5	
UOSS				IAmb	IAmb		10 37 31.1		
	comp=Z,10nm,0.7s								
UOSS	Minazif	16.34	230	P		Pn	10 37 27.9	-1.0	
	comp=Z,20nm,1.0s								
EVN	Everest	16.51	115			Pn	10 37 30.3	-1.3	
EVN	Everest	16.51	115	P		Pn	10 37 30.8	-0.9	
	comp=Z,36nm,0.6s								
AKTO	Aktyubinsk	16.56	332	P		Pn	10 37 30.7	-0.7	
	comp=Z,30nm,0.8s,baz=138,slow=11,SNR=67								
AKTO				S		Sn	10 40 22.6	-13	
	comp=Z,12nm,0.6s,baz=241,slow=22,SNR=6.0								
AKTO	Aktyubinsk	16.56	332	⇑P		Pn	10 37 29.9	-1.5	
	comp=Z,23nm,0.8s								
ASHO	Ashiyiah	16.62	230	P		Pn	10 37 32.4	-0.1	
ASHO	Ashiyiah	16.62	230	P		P	10 37 33.1	+0.5	
WBK	Wadi Bani Khal	16.63	218	P		Pn	10 37 31.5	-1.0	
AKL	Akola	16.71	156	i P		Pn	10 37 31.6	-1.9	
AKL				i S		Sn	10 40 23.2	-17	
HOQ	Hoqain	16.72	224	P		P	10 37 35.2	+1.6	
SMDO	Samad	16.73	221	P		P	10 37 37.2	+3.4	
BVA0	Borovoye Array	16.74	1	P		Pn	10 37 32.3	-1.3	
	comp=Z,1.1nm,0.9s,baz=174,slow=11,SNR=51								
BVAR	Borovoye Array	16.74	1	P		Pn	10 37 33.2	-0.3	
	comp=Z,12nm,0.6s,baz=173,slow=13,SNR=30								
BORK	Borovoye	16.76	1	P		Pn	10 37 32.5	-1.3	
BORK				pmax	pmax				
	comp=Z,15nm,0.8s								
BORK	Borovoye	16.76	1	P		Pn	10 37 32.5	-1.3	
BORK				IAmb	IAmb		10 37 39.9		
	comp=Z,15nm,0.8s								
JLN	Jalan Bani Buh	16.81	216	P		Pn	10 37 35.0	+0.4	
JMDO	Jabal Madar	17.27	220	P		Pn	10 37 41.8	+1.6	
ALNE	Al Ain	17.28	229	P		Pn	10 37 40.4	+0.1	
ALNE	Al Ain	17.28	229	P		Pn	10 37 40.6	+0.3	
BSY	Bisya	17.45	223	P		Pn	10 37 43.9	+1.5	
MHTO	MHTO	18.49	218	P		Pn	10 37 56.4	+1.6	
	SNR=6.3								
UMZA	Um Al Zommool	18.64	228	P		P	10 37 55.6	+0.9	
LSA	Lhasa	18.94	104	P		P	10 37 57.7	-0.7	
LSA				pmax	pmax				
	comp=Z,15nm,0.7s								
LSA	Lhasa	18.94	104	P		P	10 37 57.6	-0.7	
LSA				IAmb	IAmb		10 38 05.2		
	comp=Z,15nm,0.7s								
LSA	Lhasa	18.94	104	P		P	10 37 59.7	+1.3	
	comp=Z,21nm,0.8s								
GHWR	Ruwais	19.17	235	P		P	10 38 00.1	-0.3	
MZR	Muzera	19.46	232	P		P	10 38 02.9	-0.7	
MZR	Muzera	19.46	232	P		P	10 38 02.8	-0.8	
GOMU	GeErMu	20.05	83	P		P	10 38 11.6	+1.4	
GNI	Garni	20.16	289	i P		Pn	10 38 13.3	-1.0	
GNI				pmax	pmax				
	comp=Z,19nm,0.9s								
GNI	Garni	20.16	289	P		P	10 38 10.1	-1.0	
GNI				IAmb	IAmb		10 38 19.0		
	comp=Z,30nm,1.1s								
GNI	Garni	20.16	289	P		Pn	10 38 19.2	+4.9	
GNI	Garni	20.16	289	P		P	10 38 10.9	-0.2	
	comp=Z,23nm,0.9s								
HYB	Hyderabad	20.28	156	eP		P	10 38 12.1	-0.4	
ZAA0	Zalesovo Array	20.47	26	P		P	10 38 14.8	+0.7	
ZAA0	Zalesovo Array	20.47	26	P		P	10 38 14.9	+0.8	
ZALV	Zalesovo Beam	20.47	26	P		P	10 38 15.3	+1.2	
	comp=Z,91nm,0.6s,baz=224,slow=11,SNR=112								
ZALV				S		S	10 41 54.6	-1.2	
	comp=Z,6.0nm,0.9s,baz=213,slow=18,SNR=4.7								
	comp=Z,91nm,0.6s								
ZALV	Zalesovo Beam	20.47	26	P		P	10 38 14.9	+0.8	
SVE	Sverdlovsk	21.48	346	eP		P	10 38 25.6	+0.6	
SVE				pmax	pmax				
	comp=Z,39nm,0.8s								
ARTI	Arti	21.58	342	P		P	10 38 26.7	+0.7	
	comp=Z,17nm,0.8s,baz=151,slow=5.1,SNR=14								
	comp=Z,17nm,0.8s								
ARTI	Arti	21.58	342	P		P	10 38 25.2	-0.8	
ARTI				pmax	pmax				
	comp=Z,19nm,0.7s								
ARTI	Arti	21.58	342	P		P	10 38 25.2	-0.8	
ARTI				IAmb	IAmb		10 38 31.3		
	comp=Z,19nm,0.7s								
SHL	Shillong	21.59	114	P		P	10 38 26.0	-0.6	
SHL	Shillong	21.59	114	P		P	10 38 26.0	-0.6	
KBZ	Khabaz	21.95	298	P		P	10 38 30.3	+0.3	
	comp=Z,3.9nm,0.8s,baz=151,slow=6.9,SNR=5.1								
	comp=Z,3.9nm,0.8s								
KIV	Kislovodsk	22.14	299	P		P	10 38 30.2	-1.9	
KIV	Kislovodsk	22.14	299	P		P	10 38 30.7	-1.4	
	comp=Z,13nm,0.8s								
DOK	Doka	22.46	223	P		P	10 38 35.5	+0.2	
BELG	Belogornoye	22.54	323	P		P	10 38 35.9	+0.2	
	comp=Z,7.8nm,0.4s,baz=298,slow=2.8,SNR=4.6								
	comp=Z,7.8nm,0.4s								
WHFO	Wadi Hawf	23.22	222	P		P	10 38 42.3	-0.3	
RBK	Rabkut	23.33	221	P		P	10 38 43.3	-0.3	
LABN	Labinsk	23.66	300	eP		P	10 38 46.3	0.0	
LABN				e*PP		pP	10 39 13.4	+0.7	
LABN				eS		S	10 42 49.1	-2.1	
LABN				pmax	pmax				
	comp=Z,25nm,0.6s								
GTA2	Gaotai	23.69	73	eP		P	10 38 49.3	+2.4	
GTA2				pP	pP		10 39 09.6	-4.7	
GTA2				pmax	pmax				
	comp=Z,6.0nm,1.2s								
ABTO	Aybut	23.94	222	P		P	10 38 49.4	+0.2	
	SNR=14								
ERBR	Yeremizino-Bor	24.04	302	eP		P	10 38 48.5	-1.3	
ERBR				e*PP		pP	10 39 17.3	+0.6	
ERBR				pmax	pmax				
	comp=Z,11nm,0.7s								
KELT	Kelkit	24.36	288	P		P	10 38 52.6	-0.4	
	comp=Z,24nm,1.1s								
RAYN	Ar Rayn	24.64	246	P		P	10 38 55.5	+0.1	
RAYN	Ar Rayn	24.64	246	P		P	10 38 54.4	-1.1	
RAYN				pmax	pmax				
	comp=Z,7.0nm,0.6s								
RAYN	Ar Rayn	24.64	246	P		P	10 38 54.4	-1.1	
RAYN				IAmb	IAmb		10 38 57.7		
	comp=Z,7.4nm,0.6s								
RAYN	Ar Rayn	24.64	246	P		P	10 38 55.6	+0.1	
	comp=Z,16nm,1.0s								
ANN	Anapa	26.00	299	eP		P	10 39 07.3	-0.2	
ANN				e*PP		pP	10 39 36.8	+1.2	
ANN				eS		S	10 43 27.2	-1.1	
ANN				pmax	pmax				
	comp=Z,14nm,0.7s								
KIRV	Kirov	26.07	335	P		P	10 39 09.5	+1.6	
	comp=Z,30nm,0.4s,baz=130,slow=3.2,SNR=11								
VSR	Storozhevoye	26.54	314	eP		P	10 39 12.7	+0.4	
VSR				pmax	pmax				
	comp=Z,3.0nm,0.9s								
LZH	Lanzhou	27.28	80	eP		P	10 39 20.3	+1.0	
LZH				sP	sP		10 40 02.6	-1.9	
LZH				pmax	pmax				
	comp=Z,13nm,0.9s								
BRTR	Keskin Array B	28.69	288	P		P	10 39 33.0	+1.2	
	comp=Z,0.9nm,0.5s,baz=107,slow=9.5,SNR=2.6								
	comp=Z,0.9nm,0.5s								
BRTR	Keskin Array B	28.69	288	P		P	10 39 33.0	+1.2	
CY604	RAF Akrotiri,	28.89	277	P		P	10 39 32.5	-0.6	
SONM	Songino Array	29.15	55	P		P	10 39 37.2	+1.4	
	comp=Z,3.2nm,0.9s,baz=249,slow=9.5,SNR=12								
	comp=Z,3.2nm,0.9s								
SONM	Songino Array	29.15	55	P		P	10 39 36.4	+0.6	
ULN	Ulaanbaatar	29.59	55	P		P	10 39 38.8	-0.9	
ULN				pmax	pmax				
	comp=Z,3.0nm,0.8s								
ULN	Ulaanbaatar	29.59	55	P		P	10 39 38.8	-0.9	
ULN	Ulaanbaatar	29.59	55	P		P	10 39 39.0	-0.8	
	comp=Z,5.6nm,0.8s								
CSS	Mathiatis	29.69	278	P		P	10 39 39.0	-1.5	
	comp=Z,11nm,0.7s								
CHTO	Chiang Mai	30.87	117	P		P	10 39 52.0	+0.9	
	comp=Z,3.4nm,0.6s								
CMAR	Chiang Mai Arr	31.10	117	P		P	10 39 51.7	-1.4	
	comp=Z,7.1nm,0.3s,baz=303,slow=6.7,SNR=11								
CMAR				LR	LR		10 56 18.8		
	comp=Z,10nm,18.4s,baz=185,slow=44								
	comp=Z,7.1nm,0.3s								
AK09	Malin Array Si	32.37	309	P		P	10 40 03.1	-0.7	
AK10	Malin Array Si	32.39	309	P		P	10 40 03.7	-0.3	
AK07	Malin Array Si	32.41	309	P		P	10 40 03.5	-0.7	
AK06	Malin Array Si	32.42	309	P		P	10 40 04.1	-0.2	
AKASG	Malin Array Be	32.42	309	P		P	10 40 05.2	+0.9	
	comp=Z,0.9nm,0.4s,baz=83,slow=7.8,SNR=6.6								
	comp=Z,0.9nm,0.4s								
AKBB	Malin Array Si	32.42	309	P		P	10 40 03.9	-0.4	
KIEV	Kiev	32.43	309	P		P	10 40 05.3	+0.9	
KIEV	Kiev	32.43	309	P		P	10 40 04.0	-0.4	
	comp=Z,29nm,2.0s								
KIEV	Kiev	32.43	309	P		P	10 40 04.7	+0.3	
AK12	Malin Array Si	32.45	309	P		P	10 40 05.0	+0.4	
HHC	Hu-ho-hao-te	32.63	69	eP		P	10 40 08.4	+2.0	
HHC				pmax	pmax				
	comp=Z,10.0nm,0.5s								
HHC				pmax	pmax				
	comp=Z,77nm,4.5s								
ENH	Enshi	33.42	89	P		P	10 40 14.0	+0.7	
	comp=Z,8.3nm,1.1s								
MLR	Muntele Rosu	34.15	299	P		P	10 40 19.8	+0.3	
	comp=Z,9.6nm,1.6s								
NRIK	Noril'sk	34.49	11	P		P	10 40 23.9	+1.8	
	comp=Z,9.1nm,0.6s,baz=202,slow=5.1,SNR=12								
	comp=Z,9.1nm,0.6s								
NRIK	Noril'sk	34.49	11	P		P	10 40 22.4	+0.4	
NRIK				IAmb	IAmb		10 40 24.8		
	comp=Z,13nm,0.9s								
BURAR	Bucovina Array	34.69	303	P		P	10 40 23.6	-0.5	
BUR08	Bucovina Ar. S	34.70	303	P		P	10 40 23.1	-1.2	
BUR08				IAmb	IAmb		10 40 46.4		
	comp=Z,12nm,1.4s								
LIT	Litokhoron	37.15	291	P		P	10 40 43.6	-1.5	
LIT				pmax	pmax				
	comp=Z,18nm,1.4s								
LIT	Litokhoron	37.15	291	P		P	10 40 43.6	-1.5	
LIT				IAmb	IAmb		10 40 57.7		
	comp=Z,18nm,1.4s								
FIA1	FINESS Array S	37.19	327	P		P	10 40 44.4	-0.7	
FINES	FINESS Array B	37.19	327	P		P	10 40 46.2	+1.1	
	comp=Z,2.5nm,0.6s,baz=109,slow=11,SNR=8.6								
	comp=Z,2.5nm,0.6s								
FINES	FINESS Array B	37.19	327	P		P	10 40 44.7	-0.4	
NJ2	Nanjing	40.34	81	eP		P	10 41 11.8	0.0	
NJ2				pmax	pmax				
	comp=Z,11nm,0.5s								
ARCES	ARCESS Array B	41.02	338	P		P	10 41 18.2	+1.4	
	comp=Z,1.3nm,0.3s,baz=118,slow=7.7,SNR=29								
	comp=Z,1.3nm,0.3s								
ARCES	ARCESS Array B	41.02	338	P		P	10 41 17.2	+0.3	
CN2	Changchun	42.46	62	P		P	10 41 38.3	+9.4	
CN2				pmax	pmax				
	comp=Z,10.0nm,0.5s								
CLL	Collm	42.67	309	eP		P	10 41 31.0	+0.6	
CLL	Collm	42.67	309	eP		P	10 41 31.0	+0.6	
HFS	Hagfors	42.71	322	P		P	10 41 31.6	+0.9	
	comp=Z,3.3nm,0.5s,baz=115,slow=6.7,SNR=10								
	comp=Z,3.3nm,0.5s								
PSI	Prapat	42.73	135	P		P	10 41 32.6	+1.1	
PSI				pmax	pmax				
	comp=Z,9.0nm,1.3s								
RPSI	Rantau Prapat	42.81	135	P		P	10 41 32.6	+0.6	
RPSI				IAmb	IAmb		10 41 51.7		
	comp=Z,8.8nm,1.3s								
HEH	HeiHe	43.05	52	eP		P	10 41 35.1	+1.6	
HEH				pmax	pmax				
	comp=Z,27nm,0.8s								
NC405	NORSAR Array S	43.81	323			P	10 41 39.1	-0.4	
NC405				IAmb	IAmb		10 42 05.7		
	comp=Z,11nm,1.3s								
NC303	NORSAR Array S	43.99	324	P		P	10 41 41.4	+0.4	
NC303				IAmb	IAmb		10 41 43.9		
	comp=Z,19nm,1.2s								
NOA	NORSAR Array B	44.04	323	P		P	10 41 41.0	-0.4	
	comp=Z,1.8nm,0.5s,baz=99,slow=7.9,SNR=9.0								
	comp=Z,1.8nm,0.5s								
NOA	NORSAR Array B	44.04	323	P		P	10 41 41.0	-0.4	
NBO00	NORSAR Array S	44.25	323	P		P	10 41 42.4	-0.6	
NBO00				IAmb	IAmb		10 41 45.6		
	comp=Z,5.0nm,0.8s								
NC204	NORSAR Array S	44.29	324	P		P	10 41 42.9	-0.5	
YAK	Yakutsk	44.63	35	eP		P	10 41 46.7	+0.7	
YAK				e*PP		pP	10 42 17.7	+1.2	
YAK				e			10 43 27.5		
YAK				e			10 43 36.5		
YAK				eS		S	10 48 12.2	+0.4	
YAK				e*SS		sS	10 49 05.9	+1.2	
YAK				e			10 51 29.8		
YAK				pmax	pmax				
	comp=Z,20nm,1.0s								
YAK				pmax	pmax				
	comp=N,6.0nm,1.3s								
YAK				pmax	pmax				
	comp=E,3.0nm,1.3s								
YAK				pmax	pmax				
	comp=Z,149nm,3.5s								
YAK				pmax	pmax				
	comp=E,121nm,3.7s								
YAK				pmax	pmax				
	comp=N,84nm,3.5s								
YAK				smax	smax				
	comp=E,236nm,3.5s								
YAK				smax	smax				
	comp=N,183nm,2.8s								
KSRS	Korea Array	45.75	70	P		P	10 41 53.9	-1.2	
	comp=N,0.7nm,0.6s,baz=277,slow=7.0,SNR=2.5								
	comp=N,0.7nm,0.6s								
KLR	Kul'dur	45.95	53	⇑eP		P	10 41 58.2	+1.6	
KLR				pmax	pmax				
	comp=Z,4.0nm,0.9s								
TIXI	Tiksi	46.29	22	eP		P	10 41 59.6	+0.7	
TIXI				pmax	pmax				
	comp=Z,18nm,0.8s								
TIXI	Tiksi	46.29	22	P		P	10 41 59.5	+0.7	
TIXI	Tiksi	46.29	22	P		P	10 42 00.4	+1.5	
	comp=Z,29nm,0.9s								
TOLK	Toolik Lake Re	71.34	14	P		P	10 44 53.1	+1.1	
TOLK				IAmb	IAmb		10 44 54.7		
	comp=Z,10nm,0.8s								
A36M	Sachs Harbour	71.49	5	P		P	10 44 53.9	+1.1	
C27K	Jago River	71.55	12	P		P	10 44 55.0	+1.7	
G19K	Purcell Mounta	71.68	18	P		P	10 44 54.6	+0.5	
G19K				IAmb	IAmb		10 44 56.0		
	comp=Z,6.2nm,0.8s								
E27K	Coleen River	73.19	12	P		P	10 45 04.3	+1.3	
C36M	Paulatuk	74.17	5	P		P	10 45 08.9	+0.3	
C36M				IAmb	IAmb		10 45 10.6		
	comp=Z,6.8nm,0.7s								
INK	Inuvik	74.25	9	P		P	10 45 10.2	+1.1	
	comp=Z,2.5nm,0.7s,baz=360,slow=7.3,SNR=19								
INK				pP		pP	10 45 43.1	+0.8	
	comp=Z,0.8nm,0.6s,baz=332,slow=5.5,SNR=1.3								
	comp=Z,2.5nm,0.7s								
INK	Inuvik	74.25	9	P		P	10 45 10.2	+1.1	
G27K	Doyon Strip	74.42	12	P		P	10 45 12.0	+1.8	
G27K				IAmb	IAmb		10 45 13.5		
	comp=Z,3.8nm,0.8s								
COLA	College	74.91	16	P		P	10 45 14.0	+1.0	
	comp=Z,8.8nm,0.8s								
F31M	Tsiigehtchic	75.04	9	P		P	10 45 14.5	+0.8	
ILAR	Eielson Array	75.21	15	P		P	10 45 14.7	-0.1	
	comp=Z,1.3nm,0.8s,baz=320,slow=4.3,SNR=20								
	comp=Z,1.3nm,0.8s								
H31M	Peel River	76.50	10	P		P	10 45 22.7	+0.6	
H31M				IAmb	IAmb		10 45 32.9		
	comp=Z,16nm,1.4s								
KDAK	Kodiak Island	79.71	22	P		P	10 45 40.0	+0.2	
	comp=Z,8.1nm,0.9s,baz=342,slow=9.6,SNR=7.8								
	comp=Z,8.1nm,0.9s								
YKA	Yellowknife Ar	81.49	2	P		P	10 45 49.7	+0.4	
	comp=Z,2.3nm,0.8s,baz=350,slow=5.3,SNR=7.8								
YKA				pP		pP	10 46 23.6	+0.7	
	comp=Z,0.4nm,0.5s,baz=352,slow=5.5,SNR=1.3								
	comp=Z,2.3nm,0.8s								
YKA	Yellowknife Ar	81.49	2	P		P	10 45 49.2	0.0	
WB0	Warramunga Arr	82.52	121	P		P	10 45 54.5	-0.8	
WRA	Warramunga Arr	82.60	121	P		P	10 45 54.0	-1.8	
	comp=Z,0.8nm,0.7s,baz=320,slow=4.7,SNR=11								
WRA				pP		pP	10 46 29.9	-0.5	
	comp=Z,0.6nm,0.8s,baz=317,slow=5.3,SNR=2.7								
	comp=Z,0.8nm,0.7s								
WR8	Warramunga Arr	82.72	121	P		P	10 45 54.8	-1.5	
WR8				IAmb	IAmb		10 46 07.7		
	comp=Z,5.7nm,1.4s								
ASAR	Alice Springs	84.83	124	P		P	10 46 05.8	-1.2	
	comp=Z,1.0nm,0.7s,baz=312,slow=5.1,SNR=21								
ASAR				pP		pP	10 46 39.7	-2.0	
	comp=Z,0.8nm,0.7s,baz=324,slow=5.5,SNR=4.2								
	comp=Z,1.0nm,0.7s								
ASAR	Alice Springs	84.83	124	P		P	10 46 06.1	-0.9	
ASAR	Alice Springs	84.83	124	P		P	10 46 06.1	-0.9	

IDC ***18*** *10:44:58.0±2.6, 62.29N×152.32W, h90km±37km, mb3.2/1, mbtmp3.7/5, MS3.5/1, Error ellipse: s-maj=48.1km s-min=17.7km az=117.0*
NEIC ***18*** *10:44:59.3±1.2, 62.16N±0.03×152.13W±0.07, h113km±5km, ML3.3/208, ML3.1(AEIC), Error ellipse: s-maj=5.1km s-min=4.9km az=219.0*
AEIC ***18*** *10:45:00.8±0.8, 62.17N±0.03×152.09W±0.07, h103km±5km, Error ellipse: s-maj=4.8km s-min=4.5km az=126.0*

ISC 18 10:44:58.9±0.8, 62.15N±0.03×152.11W±0.03, h116km±7km, n225, σ0.78/221, Central Alaska

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SKT	Skwentna	0.32	122			Pn	10 45 15.1	-0.4
SKT	Skwentna	0.32	122			Sn	10 45 27.0	-1.0
M20K	Styx River	0.55	241			Pn	10 45 16.5	-0.3
M20K						Sn	10 45 29.4	-1.0
M20K	Styx River	0.55	241	IAML			10 45 29.7	
	comp=E,450nm,0.7s							
M20K				IAML			10 45 29.9	
	comp=N,399nm,0.8s							
STLK	Strandline Lak	0.67	168			Pn	10 45 17.3	-0.4
STLK					Sn	Sn	10 45 30.7	-1.1
PPLA	Purkeypile	0.75	357			Pn	10 45 18.6	+0.1
PPLA					Sn	Sn	10 45 32.5	-0.7
PPLA				IAML			10 45 33.2	
PPLA	comp=E,596nm,0.8s			IAML			10 45 33.6	
	comp=N,523nm,0.8s							
SPCG	Spurr Capps Gl	0.86	177			Pn	10 45 19.4	0.0
SPCG						Sn	10 45 34.4	-0.4
SPCP	Crater Peak Br	0.89	181			Pn	10 45 19.7	0.0
SPCP						Sn	10 45 35.1	-0.2
L20K	Farewell, AK	0.89	293			Sn	10 45 34.0	-1.1
CUT	Chulitna	0.90	73			Pn	10 45 19.8	+0.2
CUT	Chulitna	0.90	73			Sn	10 45 35.8	+0.6
SPBG	Spurr Blockage	0.90	188			Pn	10 45 20.0	+0.3
SPBG						Sn	10 45 35.8	+0.3
SUA	Susitna One	0.95	136			Pn	10 45 20.4	+0.2
SUA	Susitna One	0.95	136			Sn	10 45 35.8	-0.4
SUA	Susitna One	0.95	136	IAML			10 45 36.5	
SUA	comp=E,628nm,0.5s			IAML			10 45 36.7	
	comp=N,623nm,0.7s							
SPU	Mount Spurr	0.97	178			Pn	10 45 20.1	-0.2
SPU				IAML			10 45 38.2	
SPU	comp=E,245nm,0.4s			IAML			10 45 38.5	
	comp=N,295nm,0.3s							
SPU	Mount Spurr	0.97	178			Sn	10 45 36.1	-0.5
M22K	Willow	1.02	112			Pn	10 45 20.7	0.0
M22K	Willow	1.02	112			Sn	10 45 37.5	+0.2
M19K	Big River Lodg	1.10	258			Pn	10 45 21.6	0.0
M19K						Sn	10 45 37.9	-0.9
M19K	Big River Lodg	1.10	258	IAML			10 45 39.8	
	comp=E,270nm,1.0s							
CAST	Castle Rocks	1.27	1	Pn		Pn	10 45 23.4	-0.1
L19K	White Mountain	1.29	273			Pn	10 45 23.8

O22K	Cooper Landing	2.03	144			Pn	10 45 33.3	+0.8
O22K	Cooper Landing	2.03	144			Sn	10 45 57.7	-0.5
O22K	Cooper Landing	2.03	144	IAML			10 46 05.2	
	comp=E,809nm,0.5s							
O22K				IAML			10 46 10.4	
	comp=N,1μm,0.6s							
WAT6	Susitna Watana	2.08	76			Pn	10 45 33.2	-0.1
O20K	Slope Mountain	2.09	187			Pn	10 45 34.4	+1.1
M23K	Glacier View	2.10	98			Pn	10 45 33.2	-0.2
M23K						Sn	10 45 59.6	-0.2
ILIM	Iliamna	2.12	192			Pn	10 45 34.5	+0.8
L18K	Granite Mounta	2.15	274			Pn	10 45 34.5	+0.5
MCK	McKinley	2.15	41			Pn	10 45 34.8	+0.7
MCK				IAML			10 46 02.6	
	comp=E,115nm,0.7s							
MCK				IAML			10 46 03.7	
	comp=N,117nm,0.6s							
IVE	Iliamna Volcan	2.19	192			Pn	10 45 35.3	+0.7
PWL	Port Wells	2.23	124			Pn	10 45 34.3	-0.7
PWL				IAML			10 46 14.7	
	comp=N,260nm,0.5s							
PWL	Port Wells	2.23	124			Sn	10 46 01.7	-1.0
ILSW	Iliamna Southw	2.23	193			Pn	10 45 36.2	+1.0
ILSW				IAML			10 46 09.5	
	comp=N,79nm,0.8s							
ILSW				IAML			10 46 11.9	
	comp=E,82nm,0.8s							
J20K	Nowinta River	2.23	336			Pn	10 45 35.3	+0.3
J20K				IAML			10 46 03.5	
	comp=N,103nm,0.9s							
J20K				IAML			10 46 05.7	
	comp=E,81nm,0.5s							
O19K	Port Alsworth	2.23	210			Pn	10 45 35.8	+0.7
O19K				IAML			10 46 04.7	
	comp=E,126nm,0.5s							
O19K				IAML			10 46 16.9	
	comp=N,122nm,0.4s							
ILS	Iliamna Low So	2.25	192			Pn	10 45 36.4	+1.0
SCM	Sheep Creek Mo	2.28	96			Pn	10 45 35.6	-0.1
N18K	Kilae Creek	2.34	233			Pn	10 45 36.8	+0.3
BWN	Browne	2.36	29			Pn	10 45 37.8	+1.2
BWN				IAML			10 46 13.0	
	comp=N,104nm,0.6s							
BWN				IAML			10 46 30.4	
	comp=E,114nm,0.9s							
DHY	Denali Highway	2.38	65			Pn	10 45 37.7	+0.7
DHY				IAML			10 46 09.2	
	comp=E,177nm,0.7s							
DHY				IAML			10 46 09.4	
	comp=N,184nm,0.7s							
SEW	Seward	2.42	147			Pn	10 45 37.9	+0.4
SEW				IAML			10 46 16.6	
	comp=N,199nm,0.5s							
SEW				IAML			10 46 17.8	
	comp=E,203nm,0.6s							
J19K	Poorman	2.44	321			Pn	10 45 38.1	+0.3
BRLK	Bradley Lake	2.47	165			Pn	10 45 38.1	0.0
BRLK				IAML			10 46 14.3	
	comp=E,203nm,0.4s							
J18K	Innoko River	2.49	304			Pn	10 45 38.8	+0.5
BRSE	Bradley Lake S	2.51	164			Pn	10 45 38.5	-0.1
P19K	Oil Pt	2.57	193			Pn	10 45 40.8	+1.4
M17K	Holitna River	2.64	256			Pn	10 45 40.4	+0.1
M17K	Holitna River	2.64	256	IAML			10 46 12.6	
	comp=N,101nm,1.0s							
M17K				IAML			10 46 32.0	
	comp=E,102nm,0.8s							
CNPM	China Poot	2.67	170			Pn	10 45 40.6	-0.1
CNPM				IAML			10 46 14.0	
	comp=N,181nm,0.4s							
GLI	Glacier Island	2.72	116	Pn		Pn	10 45 40.2	-1.2
GLI				IAML			10 46 14.0	
	comp=N,158nm,0.3s							
NEA2	Nenana	2.81	28			Pn	10 45 42.4	-0.1
NEA2				IAML			10 46 16.7	
	comp=N,61nm,0.6s							
I20K	Naaghedeneel	2.86	339			Pn	10 45 43.7	+0.5
L17K	Donlin	2.91	272			Pn	10 45 44.4	+0.6
K17K	Iditarod	2.93	284			Pn	10 45 44.7	+0.6
K17K	Iditarod	2.93	284	IAML			10 46 20.9	
	comp=E,82nm,1.1s							
K17K				IAML			10 46 23.6	
	comp=N,47nm,0.9s							
N17K	Nushagak Hills	2.94	239			Pn	10 45 44.8	+0.6
VMT	TAPS TI Valdez	2.94	109			Pn	10 45 43.3	-0.9
WRH	Wood River Hil	2.95	36			Pn	10 45 44.4	+0.1
WRH				IAML			10 46 20.7	
	comp=N,45nm,0.5s							
MLY	Manley	2.96	11			Pn	10 45 44.8	+0.4
MLY				IAML			10 46 20.9	
	comp=E,69nm,0.9s							
MLY				IAML			10 46 21.5	
	comp=N,61nm,1.2s							
KLU	Klutina	3.01	100			Pn	10 45 44.9	-0.3
KLU				IAML			10 46 38.1	
	comp=E,111nm,0.5s							
I21K	Tanana	3.04	1			Pn	10 45 45.8	+0.3
I21K				IAML			10 46 22.2	
	comp=N,55nm,0.7s							
I21K				IAML			10 46 23.3	
	comp=E,113nm,0.8s							
FID	Port Fidalgo	3.05	115			Pn	10 45 44.3	-1.3
P23K	Montague Islan	3.15	131	Pn		Pn	10 45 45.2	-1.8
P23K				IAML			10 46 41.5	
	comp=N,123nm,1.0s							
CCB	Clear Creek Bu	3.17	36			Pn	10 45 47.4	+0.2
CCB				IAML			10 46 28.7	
	comp=E,37nm,0.6s							
PS10	TAPS Pump St10	3.18	64			Pn	10 45 48.3	+0.9
PAX	Paxson	3.18	72			Pn	10 45 48.1	+0.6
DIV	Divide	3.19	106			Pn	10 45 46.8	-0.9
DIV				IAML			10 46 38.0	
	comp=E,78nm,0.6s							
DIV				IAML			10 46 43.0	
	comp=N,106nm,0.7s							
HIN	Hinchinbrook I	3.23	121			Pn	10 45 47.4	-0.7
HIN				IAML			10 46 39.5	
	comp=E,96nm,0.8s							
HIN				IAML			10 46 48.7	
	comp=N,104nm,0.7s							
I23K	Minto, Yukon-K	3.25	21			Pn	10 45 48.7	+0.5
I23K				IAML			10 46 27.0	
	comp=E,44nm,0.9s							
I23K				IAML			10 46 28.0	
	comp=N,62nm,1.1s							
HDA	Harding Lake	3.25	44			Pn	10 45 48.5	+0.2
HARP	HAARP	3.26	83	Pn		Pn	10 45 49.3	+0.8
K24K	Donnelly Dome	3.33	57			Pn	10 45 50.7	+1.3
COLA	College	3.33	33			Pn	10 45 49.9	+0.6
COLA				IAML			10 46 33.2	
	comp=N,112nm,0.6s							
PS12	TAPS Pump St12	3.38	98			Pn	10 45 49.4	-0.6
J17K	VABM Dome	3.44	294			Pn	10 45 51.0	+0.2
EYAK	Cordova Ski Ar	3.46	115	Pn		Pn	10 45 50.8	-0.2
EYAK				IAML			10 46 50.7	
	comp=N,53nm,0.8s							
EYAK				IAML			10 46 55.9	
	comp=E,53nm,1.1s							
M16K	Timber Creek	3.46	254			Pn	10 45 51.6	+0.5
M16K				IAML			10 46 31.8	
	comp=E,30nm,1.0s							
M16K				IAML			10 46 32.1	
	comp=N,32nm,0.8s							
L16K	Owhat River	3.51	266			Pn	10 45 52.3	+0.6
IL31		3.52	39			Pn	10 45 52.1	+0.3
ILAR	Eielson Array	3.52	39	P		Pn	10 45 51.9	-0.1
	comp=N,25nm,0.4s,baz=226,slow=14,SNR=202							
ILAR				S		Sn	10 46 29.9	-3.0
	comp=N,4.3nm,0.4s,baz=228,slow=15,SNR=6.3							
H20K	Anotleneega Mo	3.57	341			Pn	10 45 52.9	+0.3
PS07	TAPS Pump Stn7	3.60	27			Pn	10 45 53.3	+0.4
N16K	Nishlik Lake	3.62	245			Pn	10 45 53.9	+0.6
POKR	Poker Plat Res	3.64	33			Pn	10 45 53.9	+0.5
POKR				IAML			10 46 38.4	
	comp=N,30nm,0.7s							
P17K	Kvichak River	3.65	218			Pn	10 45 54.7	+1.1
P17K				IAML			10 47 20.5	
	comp=E,87nm,1.2s							
P17K				IAML			10 48 08.8	
	comp=N,87nm,0.8s							
RIDG	Independent Ri	3.68	61			Pn	10 45 55.0	+1.0
H22K	Ishtalitna Cre	3.77	5			Pn	10 45 55.7	+0.4
H22K				IAML			10 46 39.5	
	comp=E,47nm,0.9s							
H22K				IAML			10 46 40.9	
	comp=N,35nm,0.9s							
Q18K	Katmai Hardscr	3.80	204			Pn	10 45 56.5	+0.8
H23K	Yukon River	3.86	16			Pn	10 45 57.2	+0.8
H23K	Yukon River	3.86	16	IAML			10 46 42.7	
	comp=N,59nm,0.7s							
KAHG	Katmai Hook Gl	3.86	199			Pn	10 45 57.6	+1.0
KARR	Katmai Rainbow	3.88	201			Pn	10 45 57.8	+1.0
O16K	Kokwok River B	3.89	231			Pn	10 45 57.4	+0.6
H19K	Roundabout Mou	3.90	332			Pn	10 45 57.2	+0.3
J25K	Salcha River,	3.91	48			Pn	10 45 57.3	+0.2
J25K				IAML			10 46 45.1	
	comp=N,54nm,0.3s							
IMAR	Indian Mountai	3.92	350			Pn	10 45 57.4	+0.3
DOT	Dot Lake	3.98	64			Pn	10 45 58.1	+0.2
GLB	Gilahina Butte	4.00	97			Pn	10 45 57.9	-0.5
GLB				IAML			10 47 02.5	
	comp=N,55nm,0.6s							
GLB				IAML			10 47 03.7	
	comp=E,49nm,0.6s							
KAWH	Katmai	4.01	201			Pn	10 45 59.6	+1.1
J16K	Anvik River	4.07	290			Pn	10 45 59.6	+0.4
H18K	Honhosa River	4.10	320			Pn	10 46 00.1	+0.5
SCRK	Sand Creek	4.13	60			Pn	10 46 00.1	0.0
SCRK				IAML			10 46 55.2	
	comp=E,44nm,1.0s							
H24K	Noodor Dome	4.14	25			Pn	10 46 00.7	+0.5
VRDI	Verde Repeater	4.23	99			Pn	10 46 01.0	-0.5
VRDI				IAML			10 47 08.7	
	comp=E,27nm,0.7s							
VRDI				IAML			10 47 14.3	
	comp=N,50nm,0.9s							
P16K	Nushagak River	4.26	225			Pn	10 46 03.0	+1.2
P16K	Nushagak River	4.26	225	IAML			10 47 18.4	
	comp=E,45nm,1.1s							
P16K				IAML			10 47 46.0	
	comp=N,45nm,1.2s							
ACHA	Angle Creek He	4.27	204			Pn	10 46 03.2	+1.2
I17K	Unalakleet	4.28	298			Pn	10 46 03.0	+1.0
I17K	Unalakleet	4.28	298	IAML			10 47 46.0	
	comp=E,18nm,1.1s							
ANCK	Angle Creek	4.31	205			Pn	10 46 04.2	+1.7
Q17K	Contact Creek	4.33	207			Pn	10 46 03.8	+1.0
N15K	Kwethluk River	4.35	246			Pn	10 46 03.7	+0.8
M15K	Kasigluk River	4.37	254			Pn	10 46 03.7	+0.5
MCARA	McCarthy VSAT	4.38	96			Pn	10 46 03.2	-0.2
KDAK	Kodiak Island	4.39	183	P		Pn	10 46 03.3	-0.2
	comp=E,4.7nm,0.3s,baz=350,slow=12,SNR=16							
KDAK				S		Sn	10 46 50.6	-3.0
	comp=E,9.3nm,0.3s,baz=260,slow=7.6,SNR=10							
KDAK	Kodiak Island	4.39	183	Pn		Pn	10 46 03.0	-0.5
KDAK				IAML			10 47 07.9	
	comp=E,32nm,0.9s							
KDAK				IAML			10 47 08.0	
	comp=E,38nm,1.2s							
CAHL	Cahill	4.41	203			Pn	10 46 05.5	+1.6
K15K	Wolf Creek Mou	4.41	276			Pn	10 46 04.5	+0.8
L15K	Ungalak Mounta	4.46	268			Pn	10 46 04.8	+0.4
PRP	Porcupine Dome	4.46	38			Pn	10 46 05.0	+0.4
PRP				IAML			10 47 01.7	
	comp=N,21nm,0.7s							
PRP				IAML			10 47 04.9	
	comp=E,18nm,0.6s							
H17K	Granite Mounta	4.47	312			Pn	10 46 05.3	+0.7
CRQM	Cirque	4.53	104			Pn	10 46 05.7	+0.2
G19K	Purcell Mounta	4.56	334			Pn	10 46 05.9	+0.1
G23K	Bananza Creek	4.67	10			Pn	10 46 08.1	+0.8
G23K				IAML			10 47 03.6	
	comp=N,21nm,0.7s							
G23K				IAML			10 47 14.3	
	comp=E,21nm,1.0s							
TGL	Tana Glacier	4.67	103			Pn	10 46 07.2	-0.2
G18K	Tagagawik	4.73	325			Pn	10 46 08.7	+0.7
M27K	Edge Creek, AK	4.79	83			Pn	10 46 09.4	+0.4
M27K	Edge Creek, AK	4.79	83	IAML			10 47 04.6	
	comp=N,20nm,0.9s							
M27K				IAML			10 47 28.2	
	comp=E,23nm,0.8s							
O15K	Ungalikthiuk R	4.83	235			Pn	10 46 10.1	+0.7
O15K	Ungalikthiuk R	4.83	235	IAML			10 47 58.7	
	comp=N,11nm,1.0s							
KIAG	Kiagna River	4.83	100			Pn	10 46 08.8	-0.8
L27K	Beaver Creek,	4.84	75			Pn	10 46 09.5	-0.1
L27K				IAML			10 47 06.9	
	comp=E,15nm,0.9s							
L27K				IAML			10 47 27.8	
	comp=N,11nm,0.9s							
K27K	Chicken	4.93	63			Pn	10 46 11.0	+0.2
K27K	Chicken	4.93	63	IAML			10 47 16.1	
	comp=E,23nm,0.8s							
K27K				IAML			10 47 18.9	
	comp=N,23nm,0.8s							
H25L	Birch Creek	4.96	31			Pn	10 46 12.0	+0.9
OHAK	Old Harbor	4.98	187			Pn	10 46 10.5	-0.9
OHAK	Old Harbor	4.98	187	IAML			10 47 05.7	
	comp=N,19nm,1.2s							
OHAK				IAML			10 47 19.9	
	comp=E,19nm,1.1s							
G24K	Hadweenzic Riv	4.99	22			Pn	10 46 11.9	+0.4
G24K	Hadweenzic Riv	4.99	22	IAML			10 47 10.9	
	comp=N,13nm,0.8s							
G24K				IAML			10 47 20.8	
	comp=E,13nm,1.1s							
BARN	Barnard Glacie	5.11	98			Pn	10 46 13.3	0.0
BARN	Barnard Glacie	5.11	98	IAML			10 47 38.7	
	comp=N,26nm,0.7s							
F21K	Alatna River	5.13	354			Pn	10 46 14.5	+1.1
F21K	Alatna River	5.13	354	IAML			10 47 13.5	
	comp=N,8.9nm,0.5s							
F21K				IAML			10 47 29.3	
	comp=E,13nm,0.9s							
F20K	Avaraart Lake	5.16	344			Pn	10 46 14.4	+0.7
F20K	Avaraart Lake	5.16	344	IAML			10 47 15.4	
	comp=E,10nm,0.5s							
GRNC	Granite Creek	5.17	101			Pn	10 46 13.6	-0.6
GRNC	Granite Creek	5.17	101	IAML			10 47 36.8	
	comp=N,29nm,1.1s							
GRNC				IAML			10 47 45.3	
	comp=E,15nm,0.8s							
F22K	John River	5.38	360			Pn	10 46 18.2	+1.4
LOGN	Logan Glacier	5.49	99			Pn	10 46 18.2	-0.2
YUK3	Moose Creek	5.51	89			Pn	10 46 18.8	0.0
F24K	Squaw Lake	5.68	17			Pn	10 46 21.7	+0.8
E19K	Redstone River	5.76	340			Pn	10 46 23.4	+1.5
I27K	Kandik River	5.79	49			Pn	10 46 23.2	+0.9
F17K	Baldwin Pennin	5.86	321			Pn	10 46 25.0	+1.8
O28M	Mount Upton	5.88	98			Pn	10 46 24.5	+0.7
YUK8	Steele Glacier	5.94	93			Pn	10 46 25.2	+0.6
DAWY	Dawson	6.08	66			Pn	10 46 26.2	-0.1
PCA	Pinnacle	6.10	104			Pn	10 46 26.8	+0.1
F25K	Christian Rive	6.12	24			Pn	10 46 27.5	+0.7
E24K	Your Creek	6.14	13			Pn	10 46 28.1	+1.0
H27K	Steamboat Moun	6.17	44			Pn	10 46 28.0	+0.5
BRWY	Burwash Landin	6.26	91			Pn	10 46 29.2	+0.5
I28M	Miner Creek	6.32	53			Pn	10 46 30.0	+0.4
E20K	Nigu River	6.37	346			Pn	10 46 32.0	+1.8
M29M	Somme Creek	6.37	81			Pn	10 46 30.9	+0.6
G27K	Doyon Strip	6.50	39			Pn	10 46 31.4	-0.5
F26K	Sheenjek River	6.51	28			Pn	10 46 32.4	+0.4
L29M	L29M	6.52	75			Pn	10 46 32.4	+0.2
F15K	North Star Dit	6.57	308			Pn	10 46 34.5	+1.6
CHGN	Chignik	6.70	212	Pn		Pn	10 46 36.0	+1.4
O29M	Mount Kennedy	6.79	100	Pn		Pn	10 46 35.7	-0.3
YUK5	Granite Creek	6.87	92			Pn	10 46 36.9	-0.1
I29M	Ogilvie Camp,	6.91	56	Pn		Pn	10 46 37.5	0.0
HYT	Haines Junctio	7.12	94	Pn		Pn	10 46 40.4	0.0
N30M	Aishikik Lake	7.15	89	Pn		Pn	10 46 40.2	-0.6
E27K	Coleen River	7.49	32	Pn		Pn	10 46 44.8	-0.5
J30M	Hart River	7.50	64			Pn	10 46 46.3	+0.8
F28M	Old Crow	7.55	38	Pn		Pn	10 46 45.5	-0.6
G29M	Pine Creek	7.71	46			Pn	10 46 48.6	+0.3
O30N	Mendenhall	7.80	93	Pn		Pn	10 46 49.0	-0.6
EPYK	Eagle Plains	7.91	51			Pn	10 46 51.2	+0.2
B22K	Teshekpuk Lake	8.24	357			Pn	10 46 54.0	-1.4
G30M	tAoh Zraii Nji	8.37	48			Pn	10 46 56.6	-0.5
WHY	Whitehorse	8.40	93	Pn		Pn	10 46 57.4	-0.3
H31M	Peel River	8.62	57	Pn		Pn	10 47 00.1	-0.4
G31M	Satah River	9.03	50			Pn	10 47 05.1	-0.9
F31M	Tsiigehtchic	9.44	48	Pn		Pn	10 47 10.6	-0.9
SIT	Sitka	9.91	113			Pn	10 47 18.3	+0.4
INK	Inuvik	9.91	44	P		Pn	10 47 18.0	+0.1
	comp=E,2.0nm,0.5s,baz=245,slow=16,SNR=12							
INK				S		Sn	10 49 04.8	-2.3
	comp=E,0.9nm,0.7s,baz=170,slow=15,SNR=1.5							
INK	Inuvik	9.91	44	Pn		Pn	10 47 18.6	+0.7
A36M	Sachs Harbour	14.21	35	Pn		Pn	10 48 13.2	-1.3
YKAW3	Yellowknife Wh	17.25	72	P		P	10 48 51.9	-0.1
YKA	Yellowknife Ar	17.27	72	P		Pn	10 48 53.8	+1.3
	comp=E,0.9nm,0.6s,baz=289,slow=10,SNR=9.4							
TXAR	Lajitas Array	45.39	113	LR		LR	11 13 34.6	
	comp=E,57nm,19.3s,baz=26,slow=38							
MKAR	Makanchi Array	63.02	321	P		P	10 55 13.7	+0.7
	comp=E,0.3nm,0.6s,baz=42,slow=6.7,SNR=2.8							
	comp=E,0.3nm,0.6s							

KRNET ***18*** *11:02:02.9±0.1,40.98N×69.38E,mb3.0*
SOME ***18*** *11:02:03.9,40.78N×70.37E,h5km*
ISU ***18*** *11:02:06,40.69N×69.71E,h10km*

ISC 18 11:02:07.4±1.5,40.96N±0.04×69.47E±0.04,h16km±10km, n18,σ1§70/35,12C-6D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TVKS	Tavaksay	0.63	12	P	Pn	11 02 21.0	-0.8
TVKS				S	Sn	11 02 33.6	+2.0
CHMG	Chimgan	0.72	34	P	Pg	11 02 20.6	-0.9
CHMG				S	Sn	11 02 33.7	-0.2
PSK	Pskem	1.18	35	P	Pg	11 02 30.7	+0.4
PSK				S	Sn	11 02 49.2	+3.9
IUG	Iuzhnay	1.26	19	*e*P	Pg	11 02 31.0	-0.8
	176nm,0.3s						
IUG				*e*S	Sg	11 02 50.0	+1.8
	89nm,0.4s						
BTK	Batken	1.36	131	⇓*i*P	Pn	11 02 29.9	-1.9
BTK				⇓*i*S	Sn	11 02 49.5	-0.1
TRKS	Terek-Say	1.38	65	⇓*e*P	Pn	11 02 30.2	-2.0
TRKS				⇓*i*S	Sb	11 02 49.8	-0.6
FRG	Fergana	1.85	108	S	Sb	11 03 04.6	+0.8
BRLS	Borolday	2.09	7	*e*P	Pn	11 02 41.5	-0.3
	5.4nm,0.3s						
BRLS				*e*S	Sb	11 03 08.4	-2.3
	52nm,0.3s						
KK31	Karatay Array	2.28	19	⇑Pn	Pb	11 02 48.6	+0.4
	1.3nm,0.2s,baz=202,slow=17,SNR=9.9						
KK31				⇑Sn	Sg	11 03 21.7	+0.9
	4.1nm,0.3s,baz=197,slow=28,SNR=3.5						
DRK	Karamyk	2.31	129	⇑*i*P	Pn	11 02 45.5	+0.4
DRK				⇑*i*S	Sn	11 03 15.7	+2.3
TSTA	Tashata	2.31	98	P	Pn	11 02 44.6	-0.3
TSTA				S	Sn	11 03 10.5	-2.5
AGL	Agalyk	2.45	235	P	Pn	11 02 47.1	+0.3
AGL				S	Sn	11 03 16.1	-0.4
OHH	Osh	2.55	99	⇑*e*P	Pn	11 02 48.3	+0.1
OHH				⇑*e*S	Sb	11 03 21.7	-2.4
ARSB	Arslanbob	2.67	81	⇑*e*P	Pn	11 02 50.1	+0.1
ARSB				⇑*e*S	Sb	11 03 24.8	-2.9
MNAS	Manas	2.74	55	⇓*e*P	Pn	11 02 50.9	+0.1
MNAS				⇓*i*S	Sn	11 03 25.6	+2.0
SFK	Sufi-Kurgan	3.21	106	⇑*e*P	Pn	11 02 58.0	+0.5
SFK				⇑*e*S	Sn	11 03 38.7	+3.2
SALK	Salom-Alik	3.29	90	⇑*e*P	Pn	11 02 58.9	+0.4
SALK				⇑*e*S	Sn	11 03 39.9	+2.5
MRKS	Merke	3.33	56	*e*P	Pn	11 02 57.8	-1.1
	1.6nm,0.2s						
MRKS				*e*S	Sn	11 03 36.4	-1.6
	1.6nm,0.2s						

IDC 18 11:31:03.5±1.7,32.78N×97.54E,h0km,mb3.3/2, mbtmp3.5/4,ML3.8/2,MS2.9/2,Error ellipse: s-maj=35.7km s-min=22.5km az=83.0,Xizang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LZDM	Lanzhou Array	6.00	56	Pn	Pn	11 32 34.8	+0.9
	baz=243,slow=9.4						
LZDM				Sn	Sn	11 33 43.5	+0.1
	baz=240,slow=20						
	2.8nm,0.4s						
CMAR	Chiang Mai Arr	14.31	175	Pn	Pn	11 34 28.4	+1.0
	0.1nm,0.3s,baz=353,slow=12,SNR=8.7						
CMAR				LR	LR	11 40 26.7	
	comp=Z,27nm,19.7s,baz=25,slow=39						
	0.5nm,0.4s						
CMAR				AML	AML		
KURBB	Kurchatov Arra	22.68	327	P	P	11 36 06.6	+0.3
	0.5nm,0.8s,baz=138,slow=9.9,SNR=4.4						
	0.5nm,0.8s						
ZALV	Zalesovo Beam	23.03	341	P	P	11 36 09.5	-0.5
	2.2nm,0.9s,baz=148,slow=8.5,SNR=2.6						
	2.2nm,0.9s						
KLR	Kul'dur	30.28	47	LR	LR	11 52 05.4	
	comp=Z,38nm,18.7s,baz=146,slow=42						

TAP ***18*** *11:36:20.2,24.84N×122.79E,h9km±1km,ML3.6,D*
JMA ***18*** *11:36:21.2±0.1,24.8N±1.0×122.9E±0.5,h32km±1km, MV2.6/14,NW OFF ISHIGAKIJIMA IS*

ISC 18 11:36:19.1±1.1,24.76N±0.03×122.86E±0.02,h7km±9km, n110,σ1§16/187,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JYNG	Yonagunijimaku	0.32	165	P	Pn	11 36 29.3	-0.8
JYNG				S	Sb	11 36 35.1	+2.7
YOJ	Yonaguni jima	0.33	154	P	Pn	11 36 29.7	-0.6
YOJ	Yonaguni jima	0.33	154	P	Pn	11 36 35.6	+5.3
YOJ	Yonaguni jima	0.33	154	*i* P	Pn	11 36 29.5	-0.8
YOJ				*i* S	Sb	11 36 35.5	+2.7
YOJ	Yonaguni jima	0.33	154	P	Pn	11 36 29.4	-0.8
YOJ				S	Sb	11 36 35.4	+2.7
EOS2	EOS2	0.66	239	*i* P	Pn	11 36 34.5	-0.3
EOS2				S	Sn	11 36 44.7	-0.6
EOS3	EOS3	0.68	226	*i* P	Pn	11 36 35.1	+0.2
EOS3				*i* S	Sn	11 36 45.5	-0.2
EOS4	EOS4	0.80	218	P	Pn	11 36 37.1	+0.7
EOS4				S	Sn	11 36 47.1	-1.4
TWB1	Santiao Chiao	0.83	288	*i* P	Pg	11 36 35.0	0.0
TWB1				*i* S

NACB				S		Sn	11 37 01.2	+0.1	
TWD	**Chiawan**	**1.33**	**240**	*eP*		**Pg**	**11 36 45.8**	**+1.2**	
JISG	**Ishigakijimahi**	**1.33**	**97**	P		**Pb**	**11 36 44.0**	**-0.5**	
NTST	**Danshui**	**1.34**	**288**	P		**Pg**	**11 36 45.8**	**+1.0**	
YHNB	**Yeheng**	**1.35**	**267**	P		**Pg**	**11 36 47.2**	**+2.2**	
YHNB	**Yeheng**	**1.35**	**267**	S		**Sg**	**11 37 05.1**	**+2.6**	
YHNB	**Yeheng**	**1.35**	**267**	P		**Pg**	**11 36 45.4**	**+0.4**	
YHNB				*eS*		**Sb**	**11 37 02.2**	**0.0**	
NSK	**Sanguang**	**1.36**	**267**	P		**Pg**	**11 36 46.3**	**+1.1**	
NSK				S		**Sb**	**11 37 02.9**	**+0.2**	
ETLH	**Xiulin Townshi**	**1.37**	**247**	P		**Pg**	**11 36 46.4**	**+1.0**	
ETLH				*eS*		**Sg**	**11 37 03.5**	**+0.4**	
NNSB	**Datong**	**1.38**	**257**	P		**Pg**	**11 36 46.0**	**+0.5**	
NNSB				S		**Sg**	**11 37 04.0**	**+0.5**	
NNS	**Nan Shan**	**1.39**	**257**	P		**Pg**	**11 36 46.8**	**+1.1**	
NNS				S		**Sn**	**11 37 03.4**	**-0.2**	
ETM	**Tongmen**	**1.47**	**238**	P		**Pg**	**11 36 47.1**	**-0.2**	
LXIB	**Xiulin Townshi**	**1.50**	**241**	P		**Pg**	**11 36 48.0**	**0.0**	
SHUL	**Shoufeng**	**1.52**	**231**	*eP*		**Pg**	**11 36 48.3**	**0.0**	
KSHI	**Guanxi Townshi**	**1.53**	**271**	*eP*		**Pn**	**11 36 47.2**	**+0.4**	
KSHI				*eS*		**Sn**	**11 37 06.8**	**-0.2**	
FUSS	**Fushou**	**1.55**	**251**	P		**Pg**	**11 36 50.1**	**+1.2**	
FUSS				*eS*		**Sg**	**11 37 09.5**	**+0.4**	
WHF	**Hehuan Shan**	**1.57**	**248**	P		**Pg**	**11 36 49.4**	**+0.1**	
WHF				*eS*		**Sg**	**11 37 10.8**	**+1.2**	
NFF	**Wufeng Townshi**	**1.58**	**266**	*eP*		**Pn**	**11 36 48.2**	**+0.5**	
NFF				*eS*		**Sn**	**11 37 08.6**	**+0.1**	
ESL	**Shilin**	**1.60**	**234**	P		**Pb**	**11 36 48.6**	**-0.4**	
TWT	**Tachien**	**1.61**	**252**	*eP*		**Pg**	**11 36 51.6**	**+1.6**	
TWT				*eS*		**Sg**	**11 37 11.5**	**+0.6**	
TDCB	**Techi**	**1.62**	**252**	*eP*		**Pg**	**11 36 50.6**	**+0.3**	
TDCB				*eS*		**Sb**	**11 37 10.6**	**+0.2**	
LJOB	**Emei**	**1.68**	**267**	*eP*		**Pg**	**11 36 51.2**	**-0.1**	
JTJ	**Tarama**	**1.68**	**94**	P		**Pb**	**11 36 50.4**	**0.0**	
NSTT	**Nanjuang**	**1.69**	**266**	*eP*		**Pb**	**11 36 50.0**	**-0.6**	
NSTT				*eS*		**Sn**	**11 37 11.6**	**+0.5**	
WARBT	**Fenglin Townsh**	**1.69**	**233**	P		**Pb**	**11 36 49.8**	**-0.9**	
WARBT				*eS*		**Sb**	**11 37 11.7**	**-0.4**	
OWD	**Renai**	**1.73**	**243**	P		**Pb**	**11 36 51.4**	**+0.2**	
OWD				*eS*		**Sb**	**11 37 13.6**	**+0.3**	
WUSB	**Renai**	**1.76**	**245**	P		**Pb**	**11 36 52.2**	**+0.4**	
WUSB				S		**Sb**	**11 37 14.7**	**+0.6**	
WHP	**Taichung City**	**1.80**	**255**	*eP*		**Pg**	**11 36 54.3**	**+0.6**	
WHP				*eS*		**Sg**	**11 37 17.0**	**-0.1**	
HGSD	**Ruisui**	**1.81**	**226**	P		**Pb**	**11 36 51.8**	**-0.9**	
HGSD				*eS*		**Sb**	**11 37 15.6**	**0.0**	
VWDT	**VWDT**	**1.86**	**238**	P		**Pb**	**11 36 52.7**	**-0.7**	
VWDT				S		**Sb**	**11 37 16.2**	**-0.6**	
EHYH	**Wanrong**	**1.87**	**228**	P		**Pb**	**11 36 52.7**	**-0.8**	
EHYH				S		**Sb**	**11 37 16.7**	**-0.4**	
NMLH	**Miaoli**	**1.89**	**264**	*eP*		**Pn**	**11 36 52.6**	**+0.8**	
NMLH				*eS*		**Sb**	**11 37 17.0**	**-0.8**	
WCS	**Beigang Elemen**	**1.90**	**249**	*eP*		**Pg**	**11 36 55.1**	**-0.5**	
WCS				*eS*		**Sb**	**11 37 19.1**	**+1.0**	
TWQ1	**Liyutan**	**1.94**	**258**	*eP*		**Pb**	**11 36 53.8**	**-1.0**	
TWQ1				*eS*		**Sb**	**11 37 18.1**	**-1.1**	
YULB	**Yu-li**	**1.97**	**227**	P		**Pb**	**11 36 54.5**	**-0.8**	
YULB	**Yu-li**	**1.97**	**227**	S		**Sb**	**11 37 18.5**	**-1.5**	
YULB	**Yu-li**	**1.97**	**227**	P		**Pn**	**11 36 53.7**	**+0.8**	
YULB				*eS*		**Sn**	**11 37 18.1**	**+0.3**	
EYUL	**Yuli**	**1.98**	**225**	P		**Pb**	**11 36 54.7**	**-0.9**	
EYUL				*eS*		**Sb**	**11 37 19.8**	**-0.7**	
SMLT	**Sun Moon Lake**	**1.98**	**244**	*eP*		**Pb**	**11 36 55.0**	**-0.6**	
SMLT				*eS*		**Sb**	**11 37 19.6**	**-1.0**	
SSLB	**Suanglung**	**1.98**	**241**	P		**Pg**	**11 36 57.7**	**+0.5**	
SSLB	**Suanglung**	**1.98**	**241**	S		**Sb**	**11 37 20.6**	**0.0**	
SSLB	**Suanglung**	**1.98**	**241**	*eP*		**Pb**	**11 36 54.9**	**-0.7**	
SSLB				*eS*		**Sb**	**11 37 21.1**	**+0.5**	
TWF1	**Yuli**	**2.00**	**226**	P		**Pb**	**11 36 54.3**	**-1.4**	
TYC	**Yuchr**	**2.01**	**245**	*eP*		**Pb**	**11 36 56.3**	**+0.3**	
TYC				*eS*		**Sb**	**11 37 21.7**	**+0.4**	
FULB	**Fuli**	**2.11**	**223**	*eP*		**Pn**	**11 36 55.5**	**+0.6**	
FULB				*eS*		**Sb**	**11 37 23.1**	**-1.0**	
WHYT	**Xinyi Township**	**2.11**	**240**	P		**Pb**	**11 36 57.7**	**0.0**	
WHYT				S		**Sb**	**11 37 24.5**	**+0.3**	
JIRJ	**Irabujima**	**2.13**	**87**	*eP*		**Pb**	**11 36 56.9**	**-1.1**	
ALS	**Alishan**	**2.25**	**237**	*eP*		**Pb**	**11 36 59.4**	**-0.8**	
ELDTW	**Lidau**	**2.29**	**228**	*eP*		**Pn**	**11 36 58.4**	**+0.9**	
CHN5	**Tsauling**	**2.30**	**240**	*eP*		**Pb**	**11 36 60.0**	**-1.0**	
CHN5				*eS*		**Sb**	**11 37 29.4**	**-0.2**	
WDLH	**Douliu**	**2.37**	**244**	*eP*		**Pb**	**11 37 00.9**	**-1.2**	
WDLH				*eS*		**Sb**	**11 37 31.2**	**-0.3**	
LDUT	**Ludao**	**2.43**	**212**	*eP*		**Pn**	**11 36 59.6**	**+0.4**	
LDUT				*eS*		**Sn**	**11 37 29.5**	**+0.2**	
WCKO	**Fanlu**	**2.44**	**238**	*eP*		**Pb**	**11 37 01.6**	**-1.7**	
WCKO				*eS*		**Sb**	**11 37 32.4**	**-1.2**	
STYH	**Taoyuan**	**2.47**	**231**	P		**Pb**	**11 37 02.1**	**-1.8**	
STYH				S		**Sn**	**11 37 31.8**	**+1.5**	
WTK	**Tuku**	**2.49**	**245**	*eP*		**Pn**	**11 37 01.8**	**+1.7**	
WTK				*eS*		**Sb**	**11 37 33.8**	**-1.3**	
CHN4	**Tsaushan**	**2.50**	**236**	*eP*		**Pb**	**11 37 03.7**	**-0.6**	
CHN4				*eS*		**Sb**	**11 37 34.4**	**-0.8**	
TPUB	**Ta-pu**	**2.50**	**235**	P		**Pb**	**11 37 03.2**	**-1.1**	
TPUB	**Ta-pu**	**2.50**	**235**	P		**Pb**	**11 37 02.9**	**-1.4**	
TPUB				S		**Sb**	**11 37 34.4**	**-1.0**	
TWGBT	**Beinan**	**2.52**	**220**	*eP*		**Pn**	**11 37 01.7**	**+1.2**	
TWGBT				*eS*		**Sb**	**11 37 33.4**	**-2.7**	
TWG	**Pinlang**	**2.53**	**221**	*eP*		**Pn**	**11 37 01.6**	**+1.0**	
TWG				*eS*		**Sn**	**11 37 32.5**	**+0.8**	
WTP	**Ta-pu**	**2.54**	**234**	*eP*		**Pb**	**11 37 03.5**	**-1.6**	
WTP				*eS*		**Sb**	**11 37 34.9**	**-1.7**	
TWK	**Hsinying**	**2.62**	**236**	*eP*		**Pb**	**11 37 05.0**	**-1.5**	
TWK				*eS*		**Sb**	**11 37 37.6**	**-1.4**	
CHN1	**Nanshi**	**2.64**	**234**	*eP*		**Pb**	**11 37 05.0**	**-1.8**	
CHN1				*eS*		**Sb**	**11 37 36.6**	**-2.9**	
SGST	**Jiashian**	**2.67**	**232**	P		**Pb**	**11 37 05.1**	**-2.0**	
SGST				*eS*		**Sb**	**11 37 38.6**	**-1.6**	
ECL	**Taimali**	**2.77**	**219**	*eP*		**Pn**	**11 37 04.6**	**+0.7**	
ECL				*eS*		**Sn**	**11 37 38.2**	**+0.6**	
SCST	**Cishan**	**2.85**	**230**	*eP*		**Pb**	**11 37 07.5**	**-2.9**	
SCST				*eS*		**Sn**	**11 37 41.9**	**+2.2**	
SSD	**Sandimen**	**2.86**	**226**	P		**Pb**	**11 37 08.6**	**-1.8**	
SSD				*eS*		**Sb**	**11 37 43.1**	**-2.5**	
TSMG	**Majia**	**2.88**	**225**	P		**Pb**	**11 37 09.1**	**-1.6**	
TSMG				S		**Sb**	**11 37 44.5**	**-1.7**	
MASBT	**Mashibuluo**	**2.95**	**224**	*eP*		**Pb**	**11 37 09.9**	**-2.1**	
MASBT				*eS*		**Sb**	**11 37 47.0**	**-1.3**	
LAY	**Lan-yu**	**2.96**	**204**	*eP*		**Pn**	**11 37 07.8**	**+1.3**	
LAY				*eS*		**Sn**	**11 37 44.6**	**+2.2**	
LYUB	**Lan-yu**	**2.98**	**203**	*eP*		**Pb**	**11 37 09.4**	**-3.1**	
LYUB				*eS*		**Sn**	**11 37 44.1**	**+1.3**	
VWUC	**VWUC**	**3.10**	**275**	*eP*		**Pn**	**11 37 09.6**	**+1.1**	
VWUC				*eS*		**Sn**	**11 37 46.6**	**+0.8**	
SCZT	**Fangliau**	**3.14**	**221**	*eP*		**Pb**	**11 37 13.2**	**-2.1**	
SCZT				*eS*		**Sb**	**11 37 50.0**	**-3.7**	

DJA ***18*** *11:37:53.2±0.2,5˚S±3˚×10˚3E±˚, h64km±3km, M5.1/70, mB5.6/41, mb5.3/70, MLv5.2/52, Mw(mB)5.1/41, MwMwp5.0/2, Mwp5.3/2*

IDC ***18*** *11:37:54.4±0.6, 4˚.50S×102˚.98E, h72km±4km, mb4.3/29, mbtmp4.6/32, MS3.3/17, Error ellipse: s-maj=14.9km s-min=8.0km az=60.0*

NEIC ***18*** *11:37:55.0±1.6, 4˚.71S±0˚.07×102˚.86E±0˚.08, h84km±4km, mb4.7/55, Error ellipse: s-maj=11.9km s-min=9.5km az=64.0*

BJI ***18*** *11:37:54.0, 4˚.70S×102˚.90E, h80km, mB5.0/5, mb4.8/27*

GFZ ***18*** *11:37:55.7±0.3, 5˚S±3˚×10˚3E±˚, h79km±2km, M5.0/33, mb4.8/33, Error ellipse: s-maj=9.2km s-min=4.8km az=44.4, confirmed*

ISC 18 11:37:54.9±0.3, **4.70S**±0˚.05×**102˚.87E**±0˚.05, **h84**km, **n293, s1§60**/288, **mb4.7**/89, **1C-1D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNAI	**Manna**	**0.35**	**14**	P	**Pn**	**11 38 07.8**	**-0.1**
MNAI	**Manna**	**0.35**	**14**	S	**Sn**	**11 38 17.3**	**-0.3**
MNAI	**Manna**	**0.35**	**14**		**Pn**	**11 38 07.8**	**-0.1**
MNAI				Sn	**Sn**	**11 38 17.8**	**+0.2**
MNAI	**Manna**	**0.35**	**14**	P	**Pn**	**11 38 07.3**	**-0.6**
MNAI	**Manna**	**0.35**	**14**	P	**Pn**	**11 38 08.1**	**+0.1**
MNAI				S	**Sn**	**11 38 17.4**	**-0.1**
KSI	**Kapahiang**	**1.08**	**345**	P	**Pn**	**11 38 15.8**	**+0.6**
KSI				AML	AML		
UBSI	**University, Be**	**1.11**	**327**	P	**Pn**	**11 38 15.8**	**+0.3**
UBSI				AML	AML		
UBSI	**University, Be**	**1.11**	**327**	P	**Pn**	**11 38 16.2**	**+0.7**
MDSI	**Maura Dua**	**1.32**	**81**	P	**Pn**	**11 38 17.9**	**-0.2**
MDSI				AML	AML		
MDSI	**Maura Dua**	**1.32**	**81**	P	**Pn**	**11 38 18.0**	**0.0**
MASI	**Maura Aman, Be**	**1.67**	**338**	P	**Pn**	**11 38 23.9**	**+1.3**
MASI				AML	AML		
PMBI	**Palembang**	**2.59**	**47**	P	**Pn**	**11 38 38.8**	**+4.0**
PMBI	**Palembang**	**2.59**	**47**	Pn	**Pn**	**11 38 34.2**	**-0.5**
PMBI	**Palembang**	**2.59**	**47**	P	Pn	11 38 54.8	+20
KRJI	**Kerinci**	**2.95**	**331**	P	**Pn**	**11 38 41.2**	**+1.5**
KRJI				AML	AML		
JMBI	**JAMBI**	**3.14**	**14**	P	**Pn**	**11 38 43.2**	**+1.0**
JMBI	**JAMBI**	**3.14**	**14**	P	**Pn**	**11 38 44.1**	**+1.8**
CGJI	**Cibinong**	**3.39**	**124**	P	**Pn**	**11 38 44.6**	**-1.0**
SBJI	**Serang**	**3.54**	**114**	P	**Pn**	**11 38 48.3**	**+0.7**
SBJI				AML	AML		
TNG	**Tangerang**	**4.03**	**111**	P	**Pn**	**11 38 55.1**	**+0.8**
TNG				P		11 38 55.3	
TNG				AML	AML		
CBJI	**Citeko**	**4.31**	**114**	P	**Pn**	**11 39 01.5**	**+3.4**
CBJI				AML	AML		
SKJI	**Sukabumi**	**4.32**	**122**	P	**Pn**	**11 38 57.9**	**-0.4**
SKJI				AML	AML		
PPI	**Padang Panjang**	**4.88**	**330**	P	**Pn**	**11 39 05.8**	**-0.1**
TPI	**Tanjungpandan**	**5.15**	**68**	P	**Pn**	**11 39 11.0**	**+1.5**
LEM	**Lembang**	**5.17**	**114**	P	**Pn**	**11 39 09.4**	**-0.7**
	126nm,0.5s,baz=287,slow=2.7,SNR=26						
LEM				LR	LR	11 41 44.7	
	comp=Z,246nm,19.5s,baz=312,slow=45						
LEM	**Lembang**	**5.17**	**114**	P	**Pn**	**11 39 11.6**	**+1.6**
	1.6nm5μm470nm,0.9s						
LEM				AML	AML		
BKNI	**Bangkinang**	**5.32**	**340**	P	**Pn**	**11 39 13.1**	**+1.3**
BKNI	**Bangkinang**	**5.32**	**340**		**Pn**	**11 39 12.5**	**+0.7**
BKNI	**Bangkinang**	**5.32**	**340**	P	**Pn**	**11 39 12.8**	**+1.0**
	2.1nm320nm,0.7s						
BKNI				AML	AML		
BKNI	**Bangkinang**	**5.32**	**340**	P	**Pn**	**11 39 13.2**	**+1.4**
	comp=Z,331nm,0.7s						
BBJI	**Bungbulang**	**5.49**	**120**	P	**Pn**	**11 39 13.0**	**-1.2**
BBJI	**Bungbulang**	**5.49**	**120**		**Pn**	**11 39 13.0**	**-1.2**
BBJI	**Bungbulang**	**5.49**	**120**	P	**Pn**	**11 39 13.1**	**-1.2**
	comp=Z,1.6nmcomp=Z,4μmcomp=Z,458nm,0.6s						
BBJI				AML	AML		
BBJI	**Bungbulang**	**5.49**	**120**	P	**Pn**	**11 39 13.4**	**-0.9**
	comp=Z,449nm,0.6s						
JCJI	**Jatiwangi**	**5.66**	**109**	P	Pn	11 39 21.4	+4.9
TPRI	**Tanjung Pinang**	**5.82**	**17**	P	**Pn**	**11 39 21.7**	**+3.0**
	comp=Z,1.4nmcomp=Z,9μmcomp=Z,231nm,0.4s						
TPRI				AML	AML		
BTDF	**Bukit Timah Da**	**6.09**	**9**	P	**Pn**	**11 39 25.3**	**+3.0**
BTDF	**Bukit Timah Da**	**6.09**	**9**	P	**Pn**	**11 39 25.3**	**+3.0**
	comp=Z,117nm,0.6s						
CMJI	**Cimerak**	**6.33**	**119**	P	**Pn**	**11 39 24.7**	**-1.0**
	comp=Z,10μmcomp=Z,486nm,0.6s						
PBSI	**Pulau Batu**	**6.50**	**315**	P	**Pn**	**11 39 27.8**	**-0.2**
	comp=Z,1.1nmcomp=Z,4μmcomp=Z,231nm,0.6s						
PBSI				AML	AML		
KPJI	**Karang Pucung**	**6.57**	**114**	P	**Pn**	**11 39 29.9**	**+1.0**
	comp=Z,1.1nmcomp=Z,3μmcomp=Z,262nm,0.7s						
KPJI				AML	AML		
CTJI	**Waduk Cacaban**	**6.69**	**110**	P	**Pn**	**11 39 31.8**	**+1.3**
	comp=Z,0.6nmcomp=Z,2μmcomp=Z,103nm,0.7s						
CTJI				AML	AML		
SMRI	**Semarang**	**7.88**	**108**	P	**Pn**	**11 39 47.7**	**+0.8**
SMRI	**Semarang**	**7.88**	**108**		**Pn**	**11 39 46.7**	**-0.2**
SMRI	**Semarang**	**7.88**	**108**	P	**Pn**	**11 39 49.2**	**+2.3**
	comp=Z,216nm,0.9s						
YOGI	**Yogyakarta**	**8.00**	**113**	P	**Pn**	**11 39 49.8**	**+1.3**
	comp=Z,7μmcomp=Z,181nm,0.9s						
UGM	**Wanagama**	**8.25**	**113**		**Pn**	**11 39 51.4**	**-0.5**
UGM	**Wanagama**	**8.25**	**113**	P	**Pn**	**11 39 51.6**	**-0.3**
	comp=Z,171nm,0.7s						
RPSI	**Rantau Prapat**	**8.34**	**332**		**Pn**	**11 39 51.4**	**-1.7**
RPSI	**Rantau Prapat**	**8.34**	**332**	P	**Pn**	**11 39 51.9**	**-1.2**
	comp=Z,20nm,0.9s						
PSI	**Prapat**	**8.43**	**332**	P	**Pn**	**11 39 51.4**	**-3.1**
	comp=Z,10.0nm,0.3s,baz=98,slow=12,SNR=5.9						
PSI				LR	LR	11 43 40.1	
	comp=Z,229nm,20.8s,baz=146,slow=42						
PSI	**Prapat**	**8.43**	**332**	P	**Pn**	**11 39 52.1**	**-2.3**
PSI	**Prapat**	**8.43**	**332**	P		11 39 52.4	
PSI				P	**Pn**	**11 39 52.1**	**-2.3**
WOJI	**Wonogiri, Jawa**	**8.59**	**112**	P	**Pn**	**11 39 56.8**	**+0.3**
	comp=Z,140nm,0.8s						
IPM	**Ipoh**	**9.30**	**349**	P	**Pn**	**11 40 09.5**	**+3.3**
IPM	**Ipoh**	**9.30**	**349**		**Pn**	**11 40 06.1**	**-0.1**
IPM	**Ipoh**	**9.30**	**349**	P	**Pn**	**11 40 09.6**	**+3.3**
IPM	**Ipoh**	**9.30**	**349**	P	**Pn**	**11 40 07.1**	**+0.9**
	comp=Z,44nm,1.1s						
SJI	**Sawahan**	**9.34**	**109**	P	**Pn**	**11 40 07.7**	**+0.8**
SNJI	**Sawahan-Nganju**	**9.35**	**110**	P	**Pn**	**11 40 08.2**	**+1.2**
PWJI	**Pagerwojo**	**9.47**	**111**	P	**Pn**	**11 40 08.2**	**-0.3**
	comp=Z,115nm,0.8s						
COCO	**West Island**	**9.54**	**218**	Pn	**Pn**	**11 40 06.9**	**-2.6**
SNSI	**Sinabang, Aceh**	**9.62**	**317**	P	**Pn**	**11 40 08.4**	**-2.2**
	comp=Z,162nm,0.6s						
KCSI	**Kotacane, Aceh**	**9.62**	**328**	P	**Pn**	**11 40 08.7**	**-2.0**
TPTI		**9.74**	**324**	P	**Pn**	**11 40 09.7**	**-2.5**
	comp=Z,804nmcomp=Z,52nm,0.6s						
KULM	**Kulim**	**10.17**	**347**	P	**Pn**	**11 40 20.7**	**+2.7**
KULM	**Kulim**	**10.17**	**347**		**Pn**	**11 40 17.8**	**-0.3**
KULM	**Kulim**	**10.17**	**347**	P	**Pn**	**11 40 18.3**	**+0.3**
	comp=Z,3μmcomp=Z,35nm,0.7s						
KULM	**Kulim**	**10.17**	**347**	P	**Pn**	**11 40 17.6**	**-0.5**
	comp=Z,35nm,0.7s						
MLSI	**Meulaboh, Aceh**	**11.00**	**324**	P	**Pn**	**11 40 26.6**	**-2.8**
	comp=Z,2μmcomp=Z,181nm,1.0s						
BLJI	**Banyuglugur**	**11.08**	**106**	P	**Pn**	**11 40 31.9**	**+1.4**
KMMI	**Kalianget**	**11.28**	**102**	P	**Pn**	**11 40 34.4**	**+1.2**
	comp=Z,2μmcomp=Z,90nm,0.6s						
LHMI	**Lhok Sumawe**	**11.50**	**329**	Pn	**Pn**	**11 40 34.1**	**-2.0**
ABJI	**Asem Bagus**	**11.71**	**106**	P	**Pn**	**11 40 41.0**	**+2.0**
JAGI	**Jajag, Banyuwa**	**11.81**	**109**	P	**Pn**	**11 40 38.7**	**-1.8**
JAGI	**Jajag, Banyuwa**	**11.81**	**109**		**Pn**	**11 40 38.5**	**-2.0**
JAGI	**Jajag, Banyuwa**	**11.81**	**109**	P	**Pn**	**11 40 39.4**	**-1.1**
	comp=Z,3μmcomp=Z,251nm,0.7s						
JAGI	**Jajag, Banyuwa**	**11.81**	**109**	P	**Pn**	**11 40 39.4**	**-1.1**
	comp=Z,251nm,0.7s						
RTBI	**Rangdo, Negare**	**12.56**	**108**	P	**Pn**	**11 40 50.7**	**+0.2**
	comp=Z,123nm,0.6s						
BSI	**Banda Aceh**	**12.64**	**323**	P	**Pn**	**11 40 47.5**	**-4.1**
	comp=Z,64nm,0.8s						
SRBI	**Singaraja**	**12.72**	**106**	P	**Pn**	**11 40 53.0**	**+0.4**
	comp=Z,2μmcomp=Z,115nm,0.5s						
IGBI	**Denpasar**	**12.86**	**109**	P	**Pn**	**11 40 52.6**	**-1.9**
	comp=Z,186nm,0.7s						
KHKI	**Kahang-Kahang**	**13.17**	**107**	P	**Pn**	**11 40 59.2**	**+0.6**
	comp=Z,109nm,0.7s						
PLAI	**Plampang**	**15.36**	**106**	P	**Pn**	**11 41 23.4**	**-3.6**
	comp=Z,2μmcomp=Z,115nm,0.6s						
DBNI	**Kabupaten Domp**	**15.79**	**105**	P	**P**	**11 41 34.5**	**-0.2**
	comp=Z,44nm,0.6s						
KAPI	**Kappang**	**16.82**	**92**	P	**Pn**	**11 41 44.0**	**-1.3**
	comp=Z,8.1nm,0.4s,baz=272,slow=16,SNR=5.0						
KAPI				LR	LR	11 48 46.6	
	comp=Z,68nm,18.8s,baz=268,slow=39						
TTSI	**Tana Toraja**	**16.99**	**85**	P	**P**	**11 41 51.4**	**+3.4**
KKM	**Kota Kinabalu**	**17.07**	**51**		**P**	**11 41 49.9**	**+1.0**
BKSI	**Bulukumba**	**17.20**	**93**	P	**P**	**11 41 51.4**	**+1.1**
	comp=Z,31nm,0.7s						
TOLI2	**Tolitoli**	**18.80**	**73**	P	**P**	**11 42 08.5**	**+0.6**
TOLI2				IAmb	IAmb	11 42 15.2	
	comp=Z,23nm,0.7s						
TOLI2	**Tolitoli**	**18.80**	**73**	P	**Pn**	**11 42 10.1**	**+0.8**
	comp=Z,33nm,0.7s						
EDFI	**Ende, Flores**	**19.11**	**103**	P	**P**	**11 42 11.1**	**-0.4**
	comp=Z,31nm,0.5s						
MMRI	**Maumere**	**19.63**	**103**		**P**	**11 42 16.1**	**-0.8**
KDI	**Kendari**	**19.71**	**89**	P	**Pn**	**11 42 21.9**	**+1.9**
	comp=Z,43nm,0.9s						
GTOI	**Gorontalo**	**20.81**	**76**	P	**P**	**11 42 31.0**	**+1.3**
BATI	**Baumata**	**21.32**	**106**	P	**P**	**11 42 34.5**	**-0.7**
	comp=Z,55nm,0.4s,baz=218,slow=1.0,SNR=8.0						
BATI				S	**S**	**11 46 20.4**	**-7.2**
	comp=Z,33nm,0.6s,baz=82,slow=20,SNR=2.0						
	comp=Z,55nm,0.4s						
BATI	**Baumata**	**21.32**	**106**	P	**P**	**11 42 37.7**	**+2.5**
	comp=Z,1μmcomp=Z,127nm,0.8s						
KMSI	**Cibinong**	**21.73**	**77**	P	P	11 42 24.4	-15
SOEI	**Soe**	**21.81**	**105**	P	**P**	**11 42 43.3**	**+2.8**
SOEI	**Soe**	**21.81**	**105**		**P**	**11 42 39.0**	**-1.5**
SOEI				IAmb	IAmb	11 42 57.1	
	comp=Z,45nm,0.6s						
SOEI	**Soe**	**21.81**	**105**	P	**P**	**11 42 41.6**	**+1.1**
	comp=Z,63nm,0.8s						
SOEI	**Soe**	**21.81**	**105**	P	**P**	**11 42 39.7**	**-0.8**
	comp=Z,63nm,0.7s						
MBWA	**Marble Bar**	**23.14**	**136**	P	**P**	**11 42 53.7**	**-0.6**
MBWA				IAmb	IAmb	11 43 10.3	
	comp=Z,17nm,0.6s						
MBWA	**Marble Bar**	**23.14**	**136**	P	**P**	**11 42 54.7**	**+0.5**
	comp=Z,24nm,0.7s						
CM31	**Chiang Mai Arr**	**23.33**	**351**	P	**P**	**11 42 54.4**	**-1.5**
CMAR	**Chiang Mai Arr**	**23.33**	**351**	P	**P**	**11 42 54.7**	**-1.3**
	comp=Z,2.2nm,0.6s,baz=184,slow=9.2,SNR=19						
CMAR				PcP	**PcP**	**11 46 42.3**	**+1.6**
	comp=Z,1.9nm,0.5s,baz=201,slow=2.7,SNR=11						
CMAR				ScP	**ScP**	**11 50 12.2**	**+0.7**
	comp=Z,0.6nm,0.4s,baz=208,slow=4.1,SNR=6.4						
CMAR				LR	LR	11 51 01.3	
	comp=Z,43nm,21.5s,baz=180,slow=34						
	comp=Z,2.2nm,0.6s						
CHTO	**Chiang Mai**	**23.68**	**351**	P	**P**	**11 43 04.8**	**+5.7**
CHTO	**Chiang Mai**	**23.68**	**351**	P	**P**	**11 42 57.8**	**-1.3**
CHTO	**Chiang Mai**	**23.68**	**351**	P	**P**	**11 43 00.5**	**+1.4**
	comp=Z,7.0nm,0.8s						
PALK	**Pallekele**	**25.12**	**298**	LR	LR	11 51 57.4	
	comp=Z,37nm,21.9s,baz=122,slow=34						
DAV	**Davao City (W)**	**25.50**	**63**	LR	LR	11 54 05.9	
	comp=Z,47nm,18.4s,baz=256,slow=38						
DAV	**Davao City (W)**	**25.50**	**63**	P	**P**	**11 43 22.7**	**+7.0**
DAV	**Davao City (W)**	**25.50**	**63**	P	**P**	**11 43 15.1**	**-0.6**
DAV	**Davao City (W)**	**25.50**	**63**	P	P	11 43 26.1	+10
SLVN	**Son La**	**25.89**	**2**	P	**P**	**11 43 19.4**	**+0.2**
FITZ	**Fitzroy Crossi**	**25.94**	**123**	P	**P**	**11 43 19.2**	**-0.3**
	comp=Z,17nm,0.7s,baz=295,slow=7.9,SNR=20						
	comp=Z,17nm,0.7s						
FITZ	**Fitzroy Crossi**	**25.94**	**123**	P	**P**	**11 43 20.6**	**+1.0**
FITZ	**Fitzroy Crossi**	**25.94**	**123**		**P**	**11 43 19.3**	**-0.3**
FITZ	**Fitzroy Crossi**	**25.94**	**123**	P	**P**	**11 43 20.3**	**+0.6**
	comp=Z,5.5nm,0.8s						
KNRA	**Kununurra**	**27.68**	**115**		**P**	**11 43 34.5**	**-0.7**
MTN	**Manton Dam**	**29.05**	**108**	P	**P**	**11 43 46.5**	**-1.0**
BRDH	**Bariadhala**	**29.34**	**338**	LR	LR	11 57 28.1	
	comp=Z,98nm,18.7s,baz=154,slow=40						
FAKI	**Fak Fak**	**29.36**	**88**	P	**P**	**11 43 49.6**	**-0.7**
FAKI				IAmb	IAmb	11 43 50.0	
	comp=Z,25nm,1.1s						
H08S2	**Diego Garcia H**	**30.34**	**263**	T	T	12 16 21.4	
	ba

TARG	**Taragay, Kyrgy**	**51.55**	**336**		**P**	**11 46 51.8**	**-1.0**
TARG				IAmb	IAmb	11 47 05.0	
	comp=Z,18nm,1.5s						
NRN	**Naryn**	**52.06**	**334**	P	**P**	**11 46 55.6**	**-0.9**
NRN				IAmb	IAmb	11 47 00.2	
	comp=Z,7.2nm,0.9s						
KDJ	**Kajisay**	**52.14**	**336**	P	**P**	**11 46 57.6**	**+0.7**
KDJ	**Kajisay**	**52.14**	**336**	P	**P**	**11 46 57.6**	**+0.7**
	comp=Z,29nm,0.7s						
PDGK	**Podgornoye**	**52.27**	**339**		**P**	**11 46 58.2**	**+0.4**
CN2	**Changchun**	**52.39**	**21**	P	**P**	**11 46 57.8**	**-0.8**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
SONM	**Songino Array**	**52.40**	**3**	P	**P**	**11 46 59.4**	**+0.7**
	comp=Z,6.6nm,0.6s,baz=182,slow=10,SNR=30						
SONM				PcP	**PcP**	**11 48 08.8**	**+0.3**
	comp=Z,3.6nm,0.7s,baz=175,slow=4.6,SNR=4.2						
SONM				LR	LR	12 13 32.6	
	comp=Z,17nm,19.0s,baz=236,slow=41						
	comp=Z,6.6nm,0.6s						
SONM	**Songino Array**	**52.40**	**3**		**P**	**11 46 59.3**	**+0.6**
SONM				IAmb	IAmb	11 47 00.1	
	comp=Z,6.0nm,0.7s						
ULN	**Ulaanbaatar**	**52.47**	**4**		**P**	**11 46 59.5**	**+0.2**
ULN				IAmb	IAmb	11 47 00.5	
	comp=Z,3.9nm,0.8s						
ULN	**Ulaanbaatar**	**52.47**	**4**	P	**P**	**11 46 59.5**	**+0.2**
	comp=Z,6.5nm,1.4s						
MAJO	**Matsushiro**	**52.66**	**36**	P	**P**	**11 46 58.3**	**-2.4**
	comp=Z,6.7nm,1.1s						
MJAR	**Matsushiro Arr**	**52.66**	**36**	P	**P**	**11 46 59.1**	**-1.6**
	comp=Z,7.4nm,0.9s,baz=213,slow=6.9,SNR=19						
MJAR				PcP	**PcP**	**11 48 09.7**	**+0.1**
	comp=Z,1.8nm,0.8s,baz=228,slow=4.7,SNR=2.8						
	comp=Z,7.4nm,0.9s						
MJAR	**Matsushiro Arr**	**52.66**	**36**		**P**	**11 46 59.3**	**-1.4**
MJAR				IAmb	IAmb	11 46 59.5	
	comp=Z,4.5nm,1.0s						
BOOM	**Boomskoye usch**	**52.95**	**335**	P	**P**	**11 47 03.2**	**+0.3**
AAK	**Ala-Archa**	**53.69**	**334**	LR	LR	12 13 48.3	
	comp=Z,16nm,18.5s,baz=156,slow=40						
AAK	**Ala-Archa**	**53.69**	**334**	P	**P**	**11 47 08.4**	**+0.1**
AAK				IAmb	IAmb	11 47 10.9	
	comp=Z,4.0nm,0.9s						
MKAR	**Makanchi Array**	**54.41**	**343**	P	**P**	**11 47 13.2**	**-0.2**
	comp=Z,4.8nm,0.6s,baz=145,slow=7.6,SNR=21						
MKAR				pP	**pP**	**11 47 31.4**	**-2.9**
	comp=Z,2.6nm,0.5s,baz=148,slow=9.5,SNR=5.1						
MKAR				LR	LR	12 17 06.6	
	comp=Z,14nm,18.0s,baz=100,slow=43						
	comp=Z,4.8nm,0.6s						
MKAR	**Makanchi Array**	**54.41**	**343**		**P**	**11 47 13.4**	**0.0**
MAKZ	**Makanchi**	**54.52**	**342**		**P**	**11 47 13.6**	**-0.5**
MAKZ	**Makanchi**	**54.52**	**342**	P	**P**	**11 47 13.3**	**-0.8**
	comp=Z,2.7nm,2.4s						
BNX	**BinXian**	**54.77**	**21**	⇓P	**P**	**11 47 15.6**	**-0.3**
BNX				pmax	pmax		
	comp=Z,15nm,0.8s						
USA0B	**Ussuriysk Arra**	**55.27**	**25**	P	**P**	**11 47 18.5**	**-1.0**
USRK	**Ussuriysk Ar.**	**55.27**	**25**	P	**P**	**11 47 19.1**	**-0.4**
	comp=Z,10nm,0.6s,baz=214,slow=5.8,SNR=20						
	comp=Z,10nm,0.6s						
USRK	**Ussuriysk Ar.**	**55.27**	**25**	P	**P**	**11 47 18.9**	**-0.6**
HIA	**Hailar**	**55.72**	**13**	P	**P**	**11 47 21.6**	**-1.0**
HIA				IAmb	IAmb	11 47 24.3	
	comp=Z,5.2nm,0.6s						
KK31	**Karatay Array**	**55.86**	**332**	P	**P**	**11 47 22.9**	**-0.9**
KKAR	**Karatay Array**	**55.86**	**332**	P	**P**	**11 47 23.4**	**-0.5**
HILR	**Hailar Array B**	**55.99**	**13**	P	**P**	**11 47 24.1**	**-0.5**
	comp=Z,3.4nm,0.5s,baz=222,slow=9.7,SNR=4.6						
	comp=Z,3.4nm,0.5s						
JTM	**Tenmabayashi**	**57.19**	**34**	P	**P**	**11 47 32.4**	**-0.9**
KURBB	**Kurchatov Arra**	**58.96**	**342**	P	**P**	**11 47 45.0**	**-0.4**
	comp=Z,5.1nm,0.8s,baz=160,slow=6.6,SNR=30						
KURBB				pP	**pP**	**11 48 03.4**	**-3.2**
	comp=Z,3.0nm,0.7s,baz=159,slow=6.9,SNR=2.8						
KURBB				PcP	**PcP**	**11 48 34.1**	**+0.5**
	comp=Z,4.2nm,0.7s,baz=154,slow=3.4,SNR=11						
KURBB				S	**S**	**11 55 41.9**	**-3.3**
	comp=Z,0.4nm,0.8s,baz=144,slow=15,SNR=4.9						
	comp=Z,5.1nm,0.8s						
KURK	**Kurchatov**	**59.01**	**342**		**P**	**11 47 45.6**	**-0.2**
KURK				IAmb	IAmb	11 47 46.2	
	comp=Z,6.7nm,0.8s						
KURK	**Kurchatov**	**59.01**	**342**	P	**P**	**11 47 45.9**	**+0.1**
	comp=Z,11nm,0.8s						
JKA	**Kamikawa-asahi**	**60.29**	**32**	P	**P**	**11 47 54.2**	**-0.5**
JKA				IAmb	IAmb	11 47 56.7	
	comp=Z,8.0nm,0.8s						
JKA	**Kamikawa-asahi**	**60.29**	**32**	P	**P**	**11 47 54.4**	**-0.3**
	comp=Z,12nm,0.9s						
ZAA0	**Zalesovo Array**	**60.36**	**348**		**P**	**11 47 54.5**	**-0.5**
ZAA0				IAmb	IAmb	11 47 55.8	
	comp=Z,7.5nm,0.9s						
ZALV	**Zalesovo Beam**	**60.36**	**348**	P	**P**	**11 47 54.6**	**-0.4**
	comp=Z,4.4nm,0.4s,baz=159,slow=4.6,SNR=30						
ZALV				pP	**pP**	**11 48 12.8**	**-3.5**
	comp=Z,3.8nm,0.5s,baz=159,slow=6.2,SNR=3.5						
ZALV				S	**S**	**11 55 58.9**	**-4.3**
	comp=Z,0.8nm,0.5s,baz=164,slow=12,SNR=4.0						
	comp=Z,4.4nm,0.4s						
H04N2	**CROZET ISLANDS**	**60.41**	**218**	T	T	12 53 41.7	
	baz=64,slow=75,SNR=306						
H04N1	**CROZET ISLANDS**	**60.42**	**218**	T	T	12 53 41.7	
	baz=64,slow=75,SNR=314						
H04N3	**CROZET ISLANDS**	**60.43**	**218**	T	T	12 53 37.5	
	baz=64,slow=75,SNR=327						
H04S1	**CROZET ISLANDS**	**60.65**	**218**	T	T	12 54 00.4	
	baz=61,slow=75,SNR=42						
H04S3	**CROZET ISLANDS**	**60.66**	**218**	T	T	12 54 00.4	
	baz=61,slow=75,SNR=156						
H04S2	**CROZET ISLANDS**	**60.67**	**218**	T	T	12 54 00.4	
	baz=61,slow=75,SNR=65						
YSS	**Yuzhno-Sakhali**	**62.31**	**30**	P	**P**	**11 48 08.0**	**-0.3**
YSS	**Yuzhno-Sakhali**	**62.31**	**30**	P	**P**	**11 48 06.7**	**-1.6**
BVAR	**Borovoye Array**	**63.70**	**339**	P	**P**	**11 48 16.7**	**-0.7**
	comp=Z,8.9nm,0.5s,baz=142,slow=8.5,SNR=41						
BVAR				pP	**pP**	**11 48 36.1**	**-2.8**
	comp=Z,4.5nm,0.5s,baz=143,slow=8.9,SNR=5.0						
	comp=Z,8.9nm,0.5s						
BORK	**Borovoye**	**63.75**	**339**	P	**P**	**11 48 17.2**	**-0.5**
BORK				IAmb	IAmb	11 48 17.7	
	comp=Z,8.2nm,0.6s						
KIBK	**Kibwezi**	**64.73**	**270**	P	**P**	**11 48 27.8**	**+2.8**
	comp=Z,7.0nm,1.0s						
AB31	**Akbulak array**	**65.38**	**331**	P	**P**	**11 48 28.1**	**-0.3**
AB31				IAmb	IAmb	11 48 48.7	
	comp=Z,8.1nm,0.7s						
ABKAR	**Akbulak array**	**65.38**	**331**	P	**P**	**11 48 28.3**	**0.0**
KMBO	**Kilima Mbogo**	**65.61**	**271**	P	**P**	**11 48 33.8**	**+2.9**
	comp=Z,5.2nm,1.1s						
AKTO	**Aktyubinsk**	**67.09**	**331**	P	**P**	**11 48 38.9**	**-0.5**
	comp=Z,1.2nm,0.3s,baz=153,slow=0.8,SNR=3.6						
	comp=Z,1.2nm,0.3s						
MAW	**Mawson**	**68.42**	**195**	P	**P**	**11 48 49.4**	**+2.0**
	comp=Z,3.2nm,0.7s,baz=49,slow=7.0,SNR=9.5						
	comp=Z,3.2nm,0.7s						
MAW	**Mawson**	**68.42**	**195**	P	**P**	**11 48 49.9**	**+2.6**
	comp=Z,1.4nm,0.9s						
YAK	**Yakutsk**	**69.66**	**13**	LR	LR	12 20 05.1	
	comp=Z,24nm,20.3s,baz=196,slow=36						
YAK	**Yakutsk**	**69.66**	**13**	P	**P**	**11 48 54.2**	**-0.8**
	comp=Z,24nm,0.7s						
ARTI	**Arti**	**70.86**	**336**	LR	LR	12 23 18.8	
	comp=Z,19nm,18.4s,baz=90,slow=38						
ARTI	**Arti**	**70.86**	**336**	P	**P**	**11 49 02.2**	**-0.4**
POGA	**Pongola**	**71.13**	**243**	P	**P**	**11 49 07.5**	**+2.6**
	comp=Z,41nm,1.2s						
KBZ	**Khabaz**	**72.21**	**319**	P	**P**	**11 49 11.8**	**+0.8**
	comp=Z,3.9nm,0.8s,baz=120,slow=6.4,SNR=6.1						
	comp=Z,3.9nm,0.8s						
KIV	**Kislovodsk**	**72.45**	**319**	P	**P**	**11 49 12.8**	**+0.3**
	comp=Z,13nm,0.6s						
EIL	**Elat**	**73.38**	**303**	LR	LR	12 19 58.5	
	comp=Z,18nm,21.3s,baz=121,slow=34						
EIL	**Elat**	**73.38**	**303**	P	**P**	**11 49 20.8**	**+2.6**
	comp=Z,11nm,0.8s						
PETK	**Petropavlovsk-**	**73.67**	**31**	P	**P**	**11 49 18.0**	**-1.3**
	comp=Z,3.5nm,0.8s,baz=126,slow=9.5,SNR=4.3						
	comp=Z,3.5nm,0.8s						
PETK	**Petropavlovsk-**	**73.67**	**31**	P	**P**	**11 49 18.5**	**-0.9**
NRIK	**Noril'sk**	**74.63**	**354**	P	**P**	**11 49 23.2**	**-1.4**
	comp=Z,1.9nm,0.3s,baz=70,slow=3.1,SNR=4.0						
	comp=Z,1.9nm,0.3s						
URZ	**Urewera**	**74.73**	**128**	LR	LR	12 26 26.7	
	comp=Z,59nm,18.7s,baz=232,slow=39						
BOSA	**Boshof**	**76.90**	**242**	P	**P**	**11 49 40.4**	**+1.8**
	comp=Z,6.5nm,0.7s,baz=91,slow=3.9,SNR=7.8						
	comp=Z,6.5nm,0.7s						
BOSA	**Boshof**	**76.90**	**242**	P	**P**	**11 49 38.6**	**0.0**
BOSA				IAmb	IAmb	11 49 49.7	
	comp=Z,12nm,1.3s						
BOSA	**Boshof**	**76.90**	**242**	P	**P**	**11 49 40.7**	**+2.1**
	comp=Z,22nm,0.9s						
BR104	**Keskin Array S**	**77.24**	**312**	P	**P**	**11 49 39.9**	**-0.4**
	comp=Z,4.5nm,0.9s						
BR131	**Keskin Array S**	**77.25**	**312**	P	**P**	**11 49 39.4**	**-1.0**
BRTR	**Keskin Array B**	**77.25**	**312**	P	**P**	**11 49 40.5**	**+0.2**
	comp=Z,2.7nm,0.7s,baz=127,slow=6.0,SNR=8.9						
	comp=Z,2.7nm,0.7s						
BRTR	**Keskin Array B**	**77.25**	**312**	P	**P**	**11 49 38.7**	**-1.7**
BR105	**Keskin Array S**	**77.26**	**312**	P	**P**	**11 49 40.1**	**-0.3**
	comp=Z,4.7nm,0.9s						
BR106	**Keskin Array S**	**77.26**	**312**	P	**P**	**11 49 39.7**	**-0.7**
	comp=Z,3.8nm,0.8s						
VNDA	**Vanda**	**78.98**	**169**	P	**P**	**11 49 50.5**	**+1.5**
	comp=Z,2.6nm,0.7s,baz=314,slow=6.2,SNR=24						
	comp=Z,2.6nm,0.7s						
VNDA	**Vanda**	**78.98**	**169**		**P**	**11 49 49.0**	**-0.1**
VNDA				IAmb	IAmb	11 49 51.9	
	comp=Z,10nm,1.4s						
VNDA	**Vanda**	**78.98**	**169**	P	**P**	**11 49 50.9**	**+1.9**
	comp=Z,6.7nm,1.1s						
SBA	**Scott Base**	**80.07**	**169**	P	**P**	**11 49 57.8**	**+2.8**
	comp=Z,7.3nm,2.2s						
KARP	**Karpathos**	**81.17**	**307**	P	**P**	**11 50 01.5**	**-0.2**
AK09	**Malin Array Si**	**83.30**	**322**	P	**P**	**11 50 11.8**	**-0.6**
AK10	**Malin Array Si**	**83.31**	**322**	P	**P**	**11 50 11.9**	**-0.6**
AK08	**Malin Array Si**	**83.32**	**322**	P	**P**	**11 50 11.9**	**-0.6**
AK07	**Malin Array Si**	**83.33**	**322**	P	**P**	**11 50 12.0**	**-0.5**
AK06	**Malin Array Si**	**83.34**	**322**	P	**P**	**11 50 12.1**	**-0.5**
AK05	**Malin Array Si**	**83.35**	**322**	P	**P**	**11 50 12.8**	**+0.2**
AK02	**Malin Array Si**	**83.36**	**322**	P	**P**	**11 50 12.5**	**-0.2**
AKASG	**Malin Array Be**	**83.36**	**322**	P	**P**	**11 50 12.8**	**+0.1**
	comp=Z,2.0nm,0.6s,baz=90,slow=4.7,SNR=7.0						
	comp=Z,2.0nm,0.6s						
AK03	**Malin Array Si**	**83.37**	**322**	P	**P**	**11 50 12.1**	**-0.6**
KIEV	**Kiev**	**83.37**	**322**	P	**P**	**11 50 13.1**	**+0.4**
KIEV				IAmb	IAmb	11 50 44.2	
	comp=Z,9.6nm,1.3s						
AK12	**Malin Array Si**	**83.39**	**322**	P	**P**	**11 50 12.3**	**-0.5**
AK11	**Malin Array Si**	**83.39**	**322**	P	**P**	**11 50 12.3**	**-0.5**
AK04	**Malin Array Si**	**83.40**	**322**	P	**P**	**11 50 12.3**	**-0.6**
VRI	**Vrincioaia**	**83.77**	**317**	P	**P**	**11 50 16.7**	**+1.7**
	comp=Z,13nm,1.5s						
TESR	**Tescani**	**83.97**	**318**	P	**P**	**11 50 17.1**	**+1.2**
	comp=Z,16nm,0.9s						
TSUM	**Tsumeb**	**84.03**	**251**	P	**P**	**11 50 19.2**	**+2.2**
	comp=Z,8.9nm,1.6s						
LUBAR	**Lubar, Ukraine**	**84.06**	**321**	P	**P**	**11 50 15.6**	**-0.7**
MLR	**Muntele Rosu**	**84.22**	**316**	P	**P**	**11 50 19.3**	**+1.9**
	comp=Z,14nm,2.3s						
BUR08	**Bucovina Ar. S**	**85.18**	**318**	P	**P**	**11 50 21.6**	**-0.6**
BUR08				IAmb	IAmb	11 50 28.9	
	comp=Z,7.3nm,1.2s						
QSPA	**South Pole Qui**	**85.28**	**180**	P	**P**	**11 50 24.0**	**+1.7**
	comp=Z,2.9nm,0.5s,baz=319,slow=3.1,SNR=65						
	comp=Z,2.9nm,0.5s						
QSPA	**South Pole Qui**	**85.28**	**180**	P	**P**	**11 50 24.1**	**+1.8**
QSPA				IAmb	IAmb	11 50 25.1	
	comp=Z,7.2nm,1.2s						
LIT	**Litokhoron**	**85.67**	**311**	P	**P**	**11 50 25.1**	**+0.4**
	comp=Z,13nm,0.8s						
KOLS	**Kolonicke sedl**	**87.35**	**319**	P	**P**	**11 50 35.0**	**+2.3**
	comp=Z,11nm,0.8s						
PABE	**Paberze**	**87.58**	**326**	P	**P**	**11 50 34.6**	**+1.1**
	comp=Z,23nm,1.7s						
KEK	**Kerkira**	**87.65**	**310**	P	**P**	**11 50 33.4**	**-0.9**
	comp=Z,23nm,2.3s						
FINES	**FINESS Array B**	**87.82**	**332**	P	**P**	**11 50 34.7**	**+0.1**
	comp=Z,2.7nm,0.5s,baz=108,slow=6.2,SNR=14						
	comp=Z,2.7nm,0.5s						
FINES	**FINESS Array B**	**87.82**	**332**	P	**P**	**11 50 34.5**	**-0.1**
RNF	**Rovaniemi**	**89.09**	**337**	P	**P**	**11 50 41.6**	**+1.1**
	comp=Z,28nm,2.1s						
MORH	**Mrgy, Hungar**	**89.37**	**316**	P	**P**	**11 50 43.4**	**+1.2**
	comp=Z,6.3nm,0.9s						
ARCES	**ARCESS Array B**	**89.97**	**340**	P	**P**	**11 50 44.5**	**-0.1**
	comp=Z,2.4nm,0.6s,baz=90,slow=2.4,SNR=5.5						
	comp=Z,2.4nm,0.6s						
ARCES	**ARCESS Array B**	**89.97**	**340**	P	**P**	**11 50 44.2**	**-0.4**
GERES	**GERESS Array B**	**92.95**	**319**	P	**P**	**11 50 59.5**	**+0.5**
	comp=Z,0.6nm,0.5s,baz=72,slow=4.3,SNR=4.8						
GERES				LR	LR	12 37 46.9	
	comp=Z,21nm,19.3s,baz=66,slow=39						
	comp=Z,0.6nm,0.5s						
YKA	**Yellowknife Ar**	**116.06**	**18**	PKP	**PKiKP**	**11 56 26.6**	**-1.3**
	comp=Z,0.6nm,0.7s,baz=301,slow=0.4,SNR=4.6						
YKA	**Yellowknife Ar**	**116.06**	**18**		**PKiKP**	**11 56 26.8**	**-1.1**
SCHQ	**Schefferville**	**129.33**	**352**	PKP	**PKPdf**	**11 56 54.1**	**+0.5**
	comp=Z,2.9nm,0.4s,baz=152,slow=4.3,SNR=7.9						
NVAR	**Mina Array Bea**	**129.76**	**42**	PKP	**PKiKP**	**11 56 56.5**	**+0.5**
	comp=Z,0.7nm,0.6s,baz=333,slow=4.1,SNR=4.1						
ULM	**Lac du Bonnet**	**131.94**	**16**	PKP	**PKPdf**	**11 56 59.3**	**+0.6**
	comp=Z,3.0nm,0.6s,baz=347,slow=5.3,SNR=6.6						
PDAR	**Piedalen Array**	**132.42**	**32**	PKP	**PKPdf**	**11 57 00.6**	**+0.4**
	comp=Z,0.4nm,0.5s,baz=244,slow=1.3,SNR=4.8						
PLCA	**Paso Flores**	**134.39**	**187**	PKP	**PKiKP**	**11 57 05.4**	**+0.2**
	comp=Z,1.2nm,1.1s,baz=256,slow=4.2,SNR=3.0						
CPUP	**Villa Florida**	**143.68**	**211**	PKP	**PKPdf**	**11 57 20.6**	**-0.4**
	comp=Z,2.7nm,0.7s,baz=333,slow=2.3,SNR=8.0						
BDFB	**Brasilia**	**144.80**	**234**	PKPbc	**PKPdf**	**11 57 24.1**	**+0.8**
	comp=Z,21nm,0.5s,baz=116,slow=2.6,SNR=23						
TXAR	**Lajitas Array**	**144.91**	**43**	PKP	**PKPdf**	**11 57 23.1**	**-0.1**
	comp=Z,7.3nm,0.6s,baz=271,slow=0.8,SNR=98						

*CATAC **18** 11:48:57.7±0.6, 11°N±5°×8°6W±°, h166km±4km, M2.9/16, MLv2.9/16, Error ellipse: s-maj=14.3km s-min=5.5km az=50.0, confirmed*
*UCR **18** 11:48:58.2±0.8, 11°39N×85°83W, h160km±8km, MW3.5, Presumed earthquake*
ISC 18 11:48:57.4±2.5, 11°42N±0°08×85°8W±0°1, h174km±15km, n33, σ0°47/43, 1C, Nicaragua

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MORN	**Al O del Volca**	**0.20**	**50**	P	**Pn**	**11 49 21.5**	**+0.8**
CONN	**Concepcion**	**0.23**	**50**	P	**Pn**	**11 49 20.7**	**0.0**
CARN	**Rivas**	**0.36**	**130**	P	**Pn**	**11 49 21.2**	**+0.2**
CARN				S	**Sn**	**11 49 39.8**	**+0.7**
CARN	**Rivas**	**0.36**	**130**	*e*P	**Pn**	**11 49 21.1**	**+0.1**
LCRUZ	**La Cruz**	**0.38**	**153**	*e*P	**Pn**	**11 49 20.8**	**-0.3**
LCRUZ				*e*S	**Sn**	**11 49 39.0**	**-0.3**
NADN	**Granada**	**0.40**	**326**	P	**Pn**	**11 49 21.0**	**-0.1**
NADN				S	**Sn**	**11 49 39.7**	**+0.3**
MAS3	**Al N del Volca**	**0.70**	**329**	P	**Pn**	**11 49 22.6**	**-0.1**
MAS3				S	**Sn**	**11 49 42.6**	**+0.5**
PEJA	**Penjamo Buenos**	**0.71**	**137**	*e*P	**Pn**	**11 49 22.8**	**+0.2**
BUAI	**Buenos Aires**	**0.71**	**139**	*e*P	**Pn**	**11 49 22.7**	**+0.1**
LAPC	**Finca la Perla**	**0.74**	**151**	*i*P	**Pn**	**11 49 22.6**	**-0.3**
VRLE	**La Escondida,**	**0.76**	**145**	*e*P	**Pn**	**11 49 23.4**	**+0.3**
ACON	**Acoyapa**	**0.82**	**48**	P	**Pn**	**11 49 23.1**	**-0.2**
ACON				S	**Sn**	**11 49 43.0**	**-0.3**
WILN	**Americas 2**	**0.83**	**333**	P	**Pn**	**11 49 23.5**	**+0.2**
WILN				S	**Sn**	**11 49 43.7**	**+0.3**
MGAN	**Managua**	**0.84**	**329**	P	**Pn**	**11 49 23.5**	**+0.1**
TISN	**Laguna Tiscapa**	**0.85**	**328**	P	**Pn**	**11 49 23.1**	**-0.4**
ALIBA	**Liberia Airpor**	**0.86**	**163**	*e*P	**Pn**	**11 49 24.1**	**+0.5**
MESS	**Mesas**	**0.90**	**138**	*e*P	**Pn**	**11 49 23.9**	**0.0**
APQ2	**Apoyeque**	**0.93**	**327**	P	**Pn**	**11 49 24.3**	**+0.3**
APQ2				S	**Sn**	**11 49 45.0**	**+0.4**
CUI	**Cuipilapa**	**0.98**	**140**	*e*P	**Pn**	**11 49 24.7**	**+0.2**
BOAB	**BOACO BROADBAN**	**.03**	**7**	P	**Pn**	**11 49 24.6**	**-0.2**
BOAB				S	**Sn**	**11 49 45.6**	**-0.5**
TIMP	**Tierras Morena**	**1.13**	**137**	*e*P	**Pn**	**11 49 25.7**	**0.0**
QUEB	**Quebradon, Cot**	**1.19**	**131**	*e*P	**Pn**	**11 49 26.2**	**+0.1**
MOM3	**MOM3**	**1.29**	**327**	P	**Pn**	**11 49 26.8**	**-0.1**
CNGN	**Cerro Negro**	**1.39**	**321**	P	**Pn**	**11 49 27.4**	**-0.5**
CNGN				S	**Sn**	**11 49 51.5**	**0.0**
JTS	**Las Juntas de**	**1.40**	**143**	P	**Pn**	**11 49 27.6**	**-0.4**
JTS				S	**Sn**	**11 49 49.7**	**-1.9**
JTS	**Las Juntas de**	**1.40**	**143**	*e*P	**Pn**	**11 49 27.9**	**-0.1**
CEDE	**Laguna Cedeo**	**1.42**	**130**	*e*P	**Pn**	**11 49 28.9**	**+0.6**
VARE2	**V. Arenal**	**1.43**	**132**	*e*P	**Pn**	**11 49 28.7**	**+0.3**
CASO	**Castillo**	**1.44**	**133**	*e*P	**Pn**	**11 49 28.6**	**+0.3**
CMARA	**Lajas Hojancha**	**1.44**	**165**	*e*P	**Pn**	**11 49 28.4**	**0.0**
VACR	**Volcan Arenal**	**1.45**	**130**	*e*P	**Pn**	**11 49 28.9**	**+0.4**
LCR2	**La Lucha 2**	**2.43**	**133**	*e*P	**Pn**	**11 49 39.8**	**+0.6**
PIEC	**Cerro El Cedra**	**2.54**	**134**	*e*P	**Pn**	**11 49 41.2**	**+0.6**

*IDC **18** 11:51:54.7±1.1, 0°82N×121°24E, h0km, mb3.8/5, mbtmp3.8/5, Error ellipse: s-maj=235.7km s-min=19.7km az=61.0*
*DJA **18** 11:52:00.1±0.6, 1°N±6°×12°2E±°, h10km, M3.8/18, MLv3.8/18*
ISC 18 11:52:01.2±1.2, 11°1N±0°1×121°49E±0°09, h35km, n10, σ2°56/10, mb3.9/5, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APSI	**Ampana**	**2.00**	**175**	P	**Pn**	**11 52 33.8**	**+1.3**
LUWI	**Luwuk**	**2.48**	**149**	P	**Pn**	**11 52 40.3**	**+1.2**
LUWI				AML	AML		
KMSI	**Cibinong**	**2.55**	**102**	P	**Pn**	**11 52 43.2**	**+3.2**
KMSI				AML	AML		
PCI	**Palu**	**2.58**	**220**	P	**Pn**	**11 52 42.7**	**+2.2**
PCI				AML	AML		
TTSI	**Tana Toraja**	**4.43**	**202**	P	**Pn**	**11 53 08.8**	**+2.8**
TTSI				AML	AML		
WRA	**Warramunga Arr**	**24.41**	**150**	P	**P**	**11 57 13.6**	**-3.0**
	1.0nm,0.7s,baz=327,slow=9.5,SNR=21						
	1.0nm,0.7s						
ASAR	**Alice Springs**	**27.41**	**155**	P	**P**	**11 57 41.5**	**-2.2**
	0.3nm,0.6s,baz=336,slow=9.7,SNR=12						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	**56.90**	**329**	P	**P**	**12 01 43.8**	**+1.1**
	0.7nm,0.5s,baz=132,slow=8.3,SNR=9.2						
	0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**60.70**	**336**	P	**P**	**12 02 06.9**	**-2.1**
	0.3nm,0.3s,baz=137,slow=6.7,SNR=2.1						
	0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**61.27**	**330**	P	**P**	**12 02 12.2**	**-0.7**
	0.9nm,0.2s,baz=123,slow=6.8,SNR=1.8						
	0.9nm,0.2s						

*JMA **18** 11:54:45.6±0.2, 23°.82N±0°.9×122°.5E±0°.5, h22km, MV2.6/12, NW OFF ISHIGAKIJIMA IS*
*TAP **18** 11:54:45.8, 23°.82N×122°.54E, h29km, ML3.3, C*
ISC 18 11:54:45.3±1.0, 23°.77N±0°.02×122°.54E±0°.02, h30km±10km, n135, σ0°95/232, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
EOS4	**EOS4**	**0.40**	**330**	*i*P	**Pb**	**11 54 53.7**	**-0.3**
EOS4				*i*S	**Sb**	**11 54 59.9**	**0.0**
EOS3	**EOS3**	**0.55**	**339**	*i*P	**Pn**	**11 54 56.8**	**-0.3**
EOS3				S	**Sn**	**11 55 05.0**	**-0.2**
EOS2	**EOS2**	**0.70**	**337**	*i*P	**Pn**	**11 54 59.8**	**+0.6**
EOS2				S	**Sn**	**11 55 09.3**	**+0.3**
JYNG	**Yonagunijimaku**	**0.78**	**29**	P	**Pn**	**11 55 00.1**	**-0.1**
JYNG				*e*S	**Sn**	**11 55 10.3**	**-0.6**
YOJ	**Yonaguni jima**	**0.82**	**32**	P	**Pb**	**11 54 59.2**	**-1.7**
YOJ				S	**Sb**	**11 55 11.1**	**-0.5**
TEYL	**Yanliau Villag**	**0.86**	**277**	*i*P	**Pn**	**11 55 01.6**	**+0.1**
TEYL				S	**Sb**	**11 55 13.3**	**+0.2**
HWA	**Hwalien**	**0.88**	**284**	S	**Sn**	**11 55 13.9**	**+0.5**
SHUL	**Shoufeng**	**0.89**	**271**	P	**Pn**	**11 55 01.7**	**-0.1**
SHUL				S	**Sb**	**11 55 13.4**	**-0.5**
EHP	**Heping Village**	**0.91**	**307**	P	**Pn**	**11 55 02.0**	**0.0**
EHP				S	**Sn**	**11 55 14.2**	**+0.1**
TWD	**Chiawan**	**0.91**	**290**	P	**Pn**	**11 55 01.6**	**-0.5**
TWD				S	**Sb**	**11

WPL				S	Sn	11 55 28.6	+0.6
LDUT	**Ludao**	**1.47 222**		P	Pn	11 55 09.4	-0.4
LDUT				S	Sn	11 55 26.4	-1.5
TWA	**Mucha**	**1.49 324**	*eP*		Pb	11 55 12.1	-0.2
TWA				*eS*	Sb	11 55 31.3	+0.4
DPDB	**Guoxing**	**1.50 280**	*eP*		Pn	11 55 11.2	+1.0
SMLT	**Sun Moon Lake**	**1.50 275**		P	Pn	11 55 11.3	+1.0
SMLT				S	Sn	11 55 28.6	-0.3
ELDTW	**Lidau**	**1.51 248**	*eP*		Pn	11 55 10.5	0.0
ELDTW				*eS*	Sn	11 55 28.5	-0.7
WCS	**Beigang Elemen**	**1.51 281**		P	Pn	11 55 11.4	+1.0
WCS				*eS*	Sn	11 55 29.8	+0.7
TATO	**Taipei**	**1.54 322**		P	Pb	11 55 12.8	-0.3
TATO	**Taipei**	**1.54 322**		P	Pn	11 55 11.3	+0.6
TATO				*eS*	Sn	11 55 30.3	+0.7
WHP	**Taichung City**	**1.54 290**	*eP*		Pb	11 55 13.3	0.0
WHP				*eS*	Sb	11 55 32.9	+0.5
TNOU	**National Taiwa**	**1.54 333**	*eP*		Pb	11 55 13.4	+0.1
TYC	**Yuchr**	**1.54 275**		P	Pn	11 55 11.9	+1.1
TYC				S	Sn	11 55 28.7	-1.1
WHYT	**Xinyi Township**	**1.54 268**	*eP*		Pn	11 55 12.1	+1.2
WHYT				S	Sn	11 55 30.1	+0.2
LONT	**Longtian**	**1.55 237**	*eS*		Sn	11 55 30.0	0.0
NFF	**Wufeng Townshi**	**1.56 304**	*eP*		Pb	11 55 12.8	-0.7
JIJ	**Ishigaki jima**	**1.58 68**		P	Pb	11 55 13.4	-0.5
KSHI	**Guanxi Townshi**	**1.60 309**	*eP*		Pb	11 55 13.8	-0.4
KSHI				*eS*	Sb	11 55 35.1	+1.1
ALS	**Alishan**	**1.61 261**	*eP*		Pn	11 55 13.3	+1.4
YM01	**YM01**	**1.63 328**	*eP*		Pn	11 55 13.0	+1.0
YM01				*eS*	Sb	11 55 33.6	-1.3
TWGBT	**Beinan**	**1.64 235**		P	Pn	11 55 12.5	+0.4
TWGBT				S	Sn	11 55 32.0	-0.2
LIOB	**Emei**	**1.64 302**		P	Pb	11 55 14.5	-0.5
LIOB				S	Sb	11 55 34.7	-0.5
TWG	**Pinlang**	**1.64 235**	*i* P		Pn	11 55 12.6	+0.4
TWG				S	Sn	11 55 32.1	-0.2
NSTT	**Nanjuang**	**1.64 302**	*eP*		Pb	11 55 14.2	-0.8
NSTT				*eS*	Sb	11 55 34.4	-0.9
ZUZH	**Zhuzihu**	**1.66 327**	*eP*		Pb	11 55 13.7	-1.5
WJS	**Zhushan**	**1.66 272**	*eP*		Pb	11 55 15.3	+0.1
WJS				*eS*	Sb	11 55 35.7	0.0
WNT	**Mingjian**	**1.70 274**	*eP*		Pb	11 55 15.5	-0.4
WNT				*eS*	Sb	11 55 36.5	-0.4
CHN5	**Tsauling**	**1.71 265**	*eP*		Pn	11 55 15.2	+2.0
CHN5				*eS*	Sn	11 55 34.2	+0.1
TWQ1	**Liyutan**	**1.71 290**		P	Pb	11 55 15.5	-0.7
TWQ1				*eS*	Sb	11 55 37.7	+0.4
STYH	**Taoyuan**	**1.72 250**	*eP*		Pn	11 55 14.4	+1.1
STYH				*eS*	Sn	11 55 35.3	+1.1
TCU	**Taichung**	**1.74 283**	*eS*		Sb	11 55 38.6	+0.7
WCKO	**Fanlu**	**1.80 260**	*eP*		Pn	11 55 15.9	+1.6
WCKO				S	Sb	11 55 38.9	-0.9
TPUB	**Ta-pu**	**1.81 255**		P	Pn	11 55 16.8	+2.3
TPUB	**Ta-pu**	**1.81 255**		P	Pn	11 55 16.7	+2.3
TPUB				*eS*	Sb	11 55 39.4	-0.7
WGK	**Gukeng**	**1.81 268**	*eS*		Sb	11 55 39.4	-0.7
JISG	**Ishigakijimahi**	**1.81 63**	*eS*		Sb	11 55 39.0	-1.2
CHN4	**Tsaushan**	**1.83 257**	*eP*		Pb	11 55 17.9	-0.3
CHN4				*eS*	Sb	11 55 39.9	-0.8
WDLH	**Douliu**	**1.83 268**	*eP*		Pn	11 55 16.8	+2.0
WDLH				*eS*	Sb	11 55 39.6	-1.1
WCHH	**Zhanghua**	**1.84 280**	*eS*		Sb	11 55 40.7	-0.1
WTP	**Ta-pu**	**1.84 254**	*eP*		Pb	11 55 17.4	-0.9
WTP				*eS*	Sb	11 55 40.6	-0.4
ECL	**Taimali**	**1.86 232**	S		Sn	11 55 36.6	-1.2
SLGT	**Liugui**	**1.90 246**	*eS*		Sb	11 55 41.8	-0.9
SGST	**Jiashian**	**1.92 250**	*eP*		Pn	11 55 17.6	+1.6
SGST				*eS*	Sb	11 55 42.0	+2.8
CHN1	**Nanshi**	**1.93 253**	*eP*		Pb	11 55 19.5	-0.4
CHN1				*i* S	Sb	11 55 43.5	-0.1
TWK	**Hsinying**	**1.94 256**	*eP*		Pb	11 55 19.4	-0.7
TWK				S	Sn	11 55 41.8	+1.9
LAY	**Lan-yu**	**1.95 208**	*eS*		Sn	11 55 38.8	-1.0
CHY	**Chiayi**	**1.96 263**	*eS*		Sb	11 55 43.4	-0.8
WTK	**Tuku**	**1.97 268**	*eS*		Sb	11 55 44.9	+0.2
WRL	**Guolierlin Hig**	**1.98 274**	*eP*		Pb	11 55 19.2	-1.5
WRL				*eS*	Sb	11 55 43.6	-1.4
RLNB	**Erlin**	**2.00 274**	*eP*		Pn	11 55 19.4	+2.4
RLNB				*eS*	Sb	11 55 44.9	-0.5
SSD	**Sandimen**	**2.02 240**	*eP*		Pn	11 55 19.1	+1.6
SSD				*eS*	Sn	11 55 42.1	+0.4
TSMG	**Majia**	**2.04 239**	*eP*		Pn	11 55 17.3	-0.3
TSMG				*eS*	Sn	11 55 42.6	+0.6
SCST	**Cishan**	**2.07 245**	*eP*		Pn	11 55 20.8	+2.7
SCST				*eS*	Sb	11 55 42.3	+0.6
EAST	**Anshuo**	**2.08 229**	*eP*		Pn	11 55 18.2	+0.5
MASBT	**Mashibuluo**	**2.10 237**	*eP*		Pn	11 55 19.4	+1.0
MASBT				*eS*	Sn	11 55 44.1	+0.6
ICHU	**Yijhu**	**2.11 259**	*eS*		Sb	11 55 47.3	-1.4
WSF	**Szhu**	**2.12 267**	*eS*		Sb	11 55 47.4	-1.7
WSL	**Shuilin Townsh**	**2.13 264**	*eS*		Sn	11 55 47.2	+2.9
CHN8	**Yiju**	**2.17 259**	*eS*		Sb	11 55 48.8	-1.8
SSPT	**Xinbi**	**2.22 235**	*eP*		Pn	11 55 21.3	+1.2
SSPT				*eS*	Sn	11 55 47.4	+0.9
SCZT	**Fangliau**	**2.25 232**	*eP*		Pn	11 55 21.7	+1.3
SCZT				*eS*	Sn	11 55 47.8	+0.7
TWKBT	**Hengchun**	**2.42 221**	*eP*		Pn	11 55 24.2	+1.4
TWKBT				*eS*	Sn	11 55 52.8	+1.4
WDGT	**Dungji**	**2.69 260**	*eP*		Pn	11 55 28.4	+1.9
WDGT				*eS*	Sn	11 55 59.0	+0.9
PNG	**Penghu**	**2.74 266**	*eP*		Pn	11 55 28.7	+1.5
PNG				*eS*	Sn	11 56 01.0	+1.6
VCHM	**Qimei**	**2.91 260**	*eP*		Pn	11 55 32.4	+2.9
VCHM				*eS*	Sn	11 56 03.6	+0.1
VWUC	**VWUC**	**3.07 294**	*eP*		Pn	11 55 32.5	+0.8
VWUC				*eS*	Sn	11 56 06.3	-1.1
PTMZ	**Houxiangcun**	**3.36 293**	*eP*		Pn	11 55 36.8	+1.0
PTMZ				*eS*	Sn	11 56 14.0	-0.7
XPSS	**Dashiqiu**	**3.80 327**	*eP*		Pn	11 55 42.5	+0.7
KNMB	**Chin-men Tao**	**3.85 281**	*eP*		Pn	11 55 43.0	+0.4
KNMB				*eS*	Sn	11 56 25.8	-1.0
AXDP	**Jialang**	**4.31 286**	*eP*		Pn	11 55 49.9	+1.0
AXDP				*eS*	Sn	11 56 37.5	-0.8
ZPLA	**Ao Xicun**	**4.38 273**	*eP*		Pn	11 55 51.1	+1.2
ZPLA				*eS*	Sn	11 56 39.2	-0.8

*RSNC **18** 11:59:04.6±1.6, 19°N±6°×6°5W±°, h24km±12km, M4.7, mB5.2, mb4.8, ML4.0, Mw(mB)4.6*
*CATAC **18** 11:59:04.5±2.8, 19°N±33°×6°5W±°, h10km, M4.8/5, mb4.8/5, mB5.1/4, MLv5.0/3, Mw(mB)4.5/4, confirmed*
*TRN **18** 11:59:05.6, 19.07N×65.13W, h81km, MD0.0, North of the Virgin Islands.*
*GFZ **18** 11:59:07.2±0.2, 19°N±4°×6°5W±°, h34km, M4.7/18, mb4.7/18, confirmed*
*NEIC **18** 11:59:08.1±1.4, 18.96N±0.04×65.12W±0.04, h37km±5km, mb4.6/116, ML4.6/57, Mwr4.3/56, ML4.5/13(RSPR), Error ellipse: s-maj=8.1km s-min=1.3km az=131.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm: M_{rr}0.09; $M_{\theta\theta}$-0.13; $M_{\phi\phi}$0.04; $M_{r\theta}$-0.43; $M_{\theta\phi}$2.63; $M_{r\phi}$2.47; Fault plane solution: M_o3.64000×10¹⁵ NP1: ϕ_s177.67000°, δ89.64000°, λ-136.64000°. NP2: ϕ_s87.33000°, δ46.64000°, λ-0.50000°. Principal axes: T 3.4125, Plg29.0000°, Azm304.0000°; N 0.4178, Plg47.0000°, Azm178.0000°; P -3.8303, Plg29.0000°, Azm52.0000°;*
*RSPR **18** 11:59:09.1, 18.96N×65.10W, h31km±29km, MD4.2/13*
*NEIC **18** 11:59:09.1, 18.88N×65.14W, h38km*
*IDC **18** 11:59:10.3±2.0, 18.85N×65.08W, h67km±19km, mb3.9/19, mbtmp4.3/22, MS3.5/29, Error ellipse: s-maj=13.7km s-min=10.8km az=26.0*
ISC 18 11:59:05.9±0.8, 18.96N±0.04×65.13W±0.03, h29km±6km, n296, σ1s97/276, mb4.6/78, MS3.5/26, 7C-8D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
MTP	**Monte Pirata**	**0.95**	**205**	Pn			**Pb**	**11 59 25.0**	**+1.2**
HUMP	**Col San Antoni**	**1.06**	**220**				**Pn**	**11 59 26.1**	**+1.3**
HUMP							**Sn**	**11 59 39.1**	**+0.4**
HUMP				IAML				11 59 41.1	
	11µm,0.2s								
HUMP	**Col San Antoni**	**1.06**	**220**		*e*	P	**Pb**	**11 59 26.3**	**+0.6**
GCPR	**Guaynabo City**	**1.11**	**234**				**Pn**	**11 59 26.5**	**+1.0**
PDPR	**Patillas Dam,**	**1.26**	**222**				**Pn**	**11 59 29.0**	**+1.4**
PDPR							**Sn**	**11 59 44.6**	**+1.0**
PDPR	**Patillas Dam,**	**1.26**	**222**		*e*	P	**Pn**	**11 59 29.1**	**+1.5**
ECPR	**Experimental S**	**1.33**	**241**				**Pn**	**11 59 29.8**	**+1.3**
ECPR	**Experimental S**	**1.33**	**241**		*e*	P	**Pn**	**11 59 30.2**	**+1.7**
IGPR	**InterUniversit**	**1.36**	**223**				**Pn**	**11 59 30.6**	**+1.8**
IGPR							**Sn**	**11 59 46.4**	**+0.5**
IGPR	**InterUniversit**	**1.36**	**223**		*e*	P	**Pn**	**11 59 30.6**	**+1.8**
CELP	**Cerrillos**	**1.63**	**237**				**Pn**	**11 59 34.5**	**+1.9**
CELP							**Sn**	**11 59 54.1**	**+1.4**
CELP				IAML				11 59 59.0	
	4µm,0.4s								
CELP	**Cerrillos**	**1.63**	**237**		*i*	P	**Pn**	**11 59 34.6**	**+1.9**
AOPR	**Arecibo Observ**	**1.66**	**248**				**Pn**	**11 59 34.6**	**+1.6**
AOPR				IAML				12 00 17.0	
	8µm,0.5s								
AOPR	**Arecibo Observ**	**1.66**	**248**		*e*	P	**Pn**	**11 59 34.7**	**+1.7**
OBIP	**Obispado Ponce**	**1.67**	**237**				**Pn**	**11 59 35.0**	**+1.8**
OBIP							**Sn**	**11 59 55.1**	**+1.5**
OBIP	**Obispado Ponce**	**1.67**	**237**		*e*	P	**Pn**	**11 59 35.2**	**+2.0**
OBIP					*e*	S	**Sn**	**11 59 53.3**	**-0.4**
GBPR	**Guanica, Bosqu**	**1.93**	**240**				**Pn**	**11 59 39.3**	**+2.6**
GBPR							**Sn**	**12 00 02.1**	**+2.2**
GBPR	**Guanica, Bosqu**	**1.93**	**240**		*e*	P	**Pn**	**11 59 39.3**	**+2.6**
GBPR					*e*	S	**Sn**	**12 00 02.1**	**+2.2**
AGPR	**Aguadilla, PR**	**1.94**	**256**				**Pn**	**11 59 38.4**	**+1.5**
AGPR				IAML				12 00 04.6	
	4µm,0.6s								
AGPR				IAML				12 00 04.7	
	3µm,0.7s								
PRSN	**Puerto Rico Se**	**2.05**	**249**				**Pn**	**11 59 40.0**	**+1.7**
PRSN	**Puerto Rico Se**	**2.05**	**249**		*e*	P	**Pn**	**11 59 40.1**	**+1.7**
MLPR	**Magueyes Islan**	**2.07**	**242**				**Pn**	**11 59 40.9**	**+2.2**
MLPR	**Magueyes Islan**	**2.07**	**242**		*e*	P	**Pn**	**11 59 40.8**	**+2.2**
CRPR	**Cabo Rojo, PR**	**2.10**	**243**				**Pn**	**11 59 41.2**	**+2.1**
CRPR				IAML				12 00 15.3	
	2µm,0.7s								
CRPR	**Cabo Rojo, PR**	**2.10**	**243**		*i*	P	**Pn**	**11 59 41.4**	**+2.2**
SMRT	**St. Maarten**	**2.15**	**115**				**Pn**	**11 59 41.2**	**+1.4**
SMRT	**St. Maarten**	**2.15**	**115**		*e*	P	**Pn**	**11 59 41.2**	**+1.4**
SMRT					*e*	S	**Sn**	**12 00 07.7**	**+2.1**
SMRT	**St. Maarten**	**2.15**	**115**			P	**Pn**	**11 59 41.4**	**+1.5**
SABA	**Saba**	**2.24**	**126**			P	**Pn**	**11 59 42.8**	**+1.8**
SABA	**Saba**	**2.24**	**126**				**Pn**	**11 59 42.4**	**+1.4**
SABA				IAML				12 00 22.8	
	comp=N,4µm,0.8s								
SABA	**Saba**	**2.24**	**126**		*e*	P	**Pn**	**11 59 42.6**	**+1.6**
SABA					*e*	S	**Sb**	**12 00 11.6**	**-1.4**
SABA	**Saba**	**2.24**	**126**			P	**Pn**	**11 59 42.8**	**+1.8**
IDE	**Isla Desecheo**	**2.29**	**256**				**Pn**	**11 59 43.4**	**+1.6**
IDE							**Sn**	**12 00 09.7**	**+0.7**
IDE	**Isla Desecheo**	**2.29**	**256**		*e*	P	**Pn**	**11 59 43.4**	**+1.6**
IDE					*e*	S	**Sn**	**12 00 09.7**	**+0.7**
SEUS	**St. Eustatius**	**2.52**	**125**				**Pn**	**11 59 46.6**	**+1.8**
SEUS				IAML				12 00 45.6	
	comp=N,4µm,0.6s								
SEUS				IAML				12 00 50.1	
	comp=E,2µm,0.5s								
SEUS	**St. Eustatius**	**2.52**	**125**		*e*	P	**Pn**	**11 59 47.1**	**+2.3**
SEUS					*e*	S	**Sn**	**12 00 15.9**	**+1.4**
SEUS	**St. Eustatius**	**2.52**	**125**		P		**Pn**	**11 59 46.8**	**+2.0**
SKI	**Saint Kitts**	**2.79**	**125**		*e*	P	**Pn**	**11 59 51.3**	**+2.6**
SKI					*e*	S	**Sn**	**12 00 23.8**	**+2.3**
PCDR	**Punta Cana, DR**	**3.11**	**262**				**Pn**	**11 59 55.2**	**+2.3**
PCDR				IAML				12 00 53.4	
	comp=N,2µm,1.1s								
PCDR	**Punta Cana, DR**	**3.11**	**262**		*e*	P	**Pn**	**11 59 55.3**	**+2.3**
PCDR					*e*	S	**Sn**	**12 00 31.6**	**+2.5**
ANWB	**Willy Bob**	**3.43**	**112**		P		**Pn**	**11 59 59.3**	**+1.8**
ANWB	**Willy Bob**	**3.43**	**112**				**Pn**	**11 59 58.2**	**+0.8**
ANWB				IAML				12 00 56.0	
	comp=N,707nm,0.9s								
ANWB	**Willy Bob**	**3.43**	**112**		P		**Pn**	**11 59 57.1**	**-0.3**
ANWB					S		**Sn**	**12 00 35.6**	**-1.5**
ANWB	**Willy Bob**	**3.43**	**112**		*e*	P	**Pn**	**11 59 58.3**	**+0.9**
ANWB					*e*	S	**Sn**	**12 00 38.0**	**+0.9**
ANWB	**Willy Bob**	**3.43**	**112**		P		**Pn**	**11 59 59.2**	**+1.8**
SMDR	**Samana, DR**	**3.85**	**275**				**Pn**	**12 00 04.5**	**+1.4**
SMDR	**Samana, DR**	**3.85**	**275**		*e*	P	**Pn**	**12 00 04.5**	**+1.4**
DR12	**Loma Pena Alta**	**4.03**	**268**				**Pn**	**12 00 08.1**	**+2.5**
DHSZ	**Broadband at M**	**4.18**	**129**		*e*	P	**Pn**	**12 00 09.5**	**+1.8**
DHSZ					*e*	S	**Sn**	**12 00 56.6**	**+0.9**
GDHS	**Morne Mazeau,**	**4.18**	**129**				**Pn**	**12 00 09.3**	**+1.6**
GDHS	**Morne Mazeau,**	**4.18**	**129**		P		**Pn**	**12 00 09.6**	**+1.9**
ABD	**La Joyeuse, An**	**4.27**	**125**				**Pn**	**12 00 10.6**	**+1.7**
ABD				IAML				12 01 21.8	
	comp=N,612nm,0.6s								
ABD				IAML				12 01 36.5	
	comp=E,723nm,1.2s								
ABD	**La Joyeuse, An**	**4.27**	**125**		*e*	P	**Pn**	**12 00 11.4**	**+2.5**
ABD					*e*	S	**Sn**	**12 00 58.6**	**+0.8**
ABD	**La Joyeuse, An**	**4.27**	**125**		P		**Pn**	**12 00 10.9**	**+2.0**
CBE	**Ff, Capester**	**4.43**	**130**		P		**Pn**	**12 00 13.5**	**+2.3**
CBE	**Ff, Capester**	**4.43**	**130**				**Pn**	**12 00 13.2**	**+2.0**
CBE	**Ff, Capester**	**4.43**	**130**		P		**Pn**	**12 00 13.1**	**+2.0**
SDD	**Santo Domingo**	**4.56**	**264**		Pn		**Pn**	**12 00 14.6**	**+1.7**
SDD				IAML				12 01 35.0	
	comp=E,682nm,1.5s								
SDD				IAML				12 01 36.9	
	comp=N,729nm,1.2s								
DSDZ	**La Diserade, G**	**4.69**	**124**		*e*	P	**Pn**	**12 00 17.0**	**+2.3**
DSDZ					*e*	S	**Sn**	**12 01 07.9**	**-0.3**
GDSD	**La Dsirade Is**	**4.69**	**124**				**Pn**	**12 00 15.5**	**+0.7**
GDSD				IAML				12 01 46.3	
	comp=N,276nm,1.3s								
GDSD	**La Dsirade Is**	**4.69**	**124**		P		**Pn**	**12 00 16.4**	**+1.7**
H05N1	**Guadeloupe/Mar** SNR=8.3	**4.70**	**123**		P		**Pn**	**12 00 16.0**	**+1.2**
H05N1					S		**Sn**	**12 01 10.9**	**+2.5**
MAGL	**Barre de l'ile**	**4.74**	**129**				**Pn**	**12 00 17.3**	**+1.9**
MAGL				IAML				12 01 17.8	
	comp=E,535nm,0.5s								
MAGL				IAML				12 01 24.9	
	comp=N,602nm,1.1s								
MAGL	**Barre de l'ile**	**4.74**	**129**		*e*	P	**Pn**	**12 00 17.4**	**+1.9**
MAGL					*e*	S	**Sn**	**12 01 10.1**	**+0.5**
MAGL	**Barre de l'ile**	**4.74**	**129**		P		**Pn**	**12 00 18.3**	**+2.8**
DWS	**Wesley**	**4.97**	**132**		*e*	P	**Pn**	**12 00 20.8**	**+2.2**
DWS					*e*	S	**Sn**	**12 01 15.2**	**0.0**
BANI	**BANI**	**4.99**	**264**				**Pn**	**12 00 22.2**	**+3.3**
DSLB	**Salisbury**	**4.99**	**134**		*e*	P	**Pn**	**12 00 20.8**	**+2.0**
DSLB					*e*	S	**Sn**	**12 01 16.4**	**+0.8**
DLPL	**La Plaine**	**5.18**	**134**		*e*	P	**Pn**	**12 00 23.8**	**+2.3**
DLPL					*e*	S	**Sn**	**12 01 19.4**	**-0.9**
SCO1	**Santiago de lo**	**5.31**	**276**				**Pn**	**12 00 24.6**	**+1.3**
SVN	**Savane Anatole**	**5.59**	**137**				**Pn**	**12 00 28.1**	**+1.0**
SVN	**Savane Anatole**	**5.59**	**137**		*e*	P	**Pn**	**12 00 28.6**	**+1.5**
SVN					*e*	S	**Sn**	**12 01 29.8**	**-0.6**
SVN	**Savane Anatole** comp=Z,340nm,0.4s	**5.59**	**137**		P		**Pn**	**12 00 29.2**	**+2.1**
CXM	**Morne La Croix**	**5.61**	**137**				**Pn**	**12 00 28.9**	**+1.4**
FDFM	**Morne la Roset**	**5.67**	**137**				**Pn**	**12 00 29.9**	**+1.6**
SDDR	**Presa de Saban**	**5.82**	**271**				**Pn**	**12 00 33.5**	**+3.1**
SDDR	**Presa de Saban** comp=Z,3µmcomp=Z,286nm,1.0s	**5.82**	**271**		P		**Pn**	**12 00 33.0**	**+2.6**
SDDR	comp=Z,3µmcomp=Z,286nm,1.0s				S		**Sn**	**12 01 37.4**	**+1.1**
SDDR					AML	AML			
SDDR	**Presa de Saban**	**5.82**	**271**		*e*	P	**Pn**	**12 00 33.4**	**+3.1**
SDDR					IVmB_BB			12 00 42.8	
	comp=Z,3µm,1.0s								
SDDR					*e*	S	**Sn**	**12 01 40.5**	**+4.3**
SDDR				IAML				12 02 04.7	
	comp=Z,290nm,1.1s								
SDDR				IAML				12 02 10.8	
	comp=Z,317nm,2.2s								
ILAM	**Ilet Lapin Mar**	**5.83**	**135**		Pn		**Pn**	**12 00 32.0**	**+1.6**
ILAM	**Ilet Lapin Mar**	**5.83**	**135**		*e*	P	**Pn**	**12 00 32.7**	**+2.3**
PODR	**Polo**	**5.88**	**263**		Pn		**Pn**	**12 00 33.0**	**+1.7**
BIM	**Bigot**	**5.89**	**138**				**Pn**	**12 00 32.6**	**+1.3**
BIM	**Bigot**	**5.89**	**138**		*e*	P	**Pn**	**12 00 32.5**	**+1.3**
BIM					*e*	S	**Sn**	**12 01 37.2**	**-0.7**
BIM	**Bigot** comp=Z,230nm,0.7s	**5.89**	**138**		P		**Pn**	**12 00 32.6**	**+1.3**
MPOM	**Morne Pois Mar**	**6.08**	**137**				**Pn**	**12 00 35.5**	**+1.7**
H05S1	**Guadeloupe/Mar**	**6.11**	**137**		P		**Pn**	**12 00 35.8**	**+1.6**
H05S1					S		**Sn**	**12 01 42.8**	**-0.4**
GRTK	**Grand Turk**	**6.18**	**295**		Pn		**Pn**	**12 00 35.3**	**+0.2**
LODA1	**ITESIL, Dajabo**	**6.24**	**276**				**Pn**	**12 00 37.4**	**+1.4**
SLBI	**Saint Lucia, B**	**6.33**	**140**		*e*	P	**Pn**	**12 00 38.4**	**+1.1**
SLBI					*e*	S	**Sn**	**12 01 46.9**	**-1.7**
MCLT	**Moule a Chique**	**6.59**	**142**		*e*	P	**Pn**	**12 00 43.7**	**+2.8**
SVB	**Belmont**	**6.78**	**146**		*e*	P	**Pn**	**12 00 44.9**	**+1.5**
TRN	**Trinidad (W)**	**9.02**	**156**		*e*	P	**Pn**	**12 01 14.8**	**+0.6**
QMBU	**Quimbuelo**	**9.21**	**279**		*e*	P	**Pn**	**12 01 14.4**	**-2.4**
QMBU					*e*	S	**Sn**	**12 02 52.4**	**-7.1**
MOAC	**Moa**	**9.40**	**282**		*e*	P	**Pn**	**12 01 15.8**	**-3.6**
MOAC					*e*	S	**Sn**	**12 02 58.1**	**-6.1**
NMDO	**Nuevo Mundo**	**9.41**	**281**				**Pn**	**12 01 17.4**	**-2.2**
NMDO	**Nuevo Mundo**	**9.41**	**281**		*e*	P	**Pn**	**12 01 16.8**	**-2.8**
NMDO					*e*	S	**Sn**	**12 02 58.6**	**-5.8**
GTBY	**Guantanamo Bay**	**9.46**	**277**	Pn			**Pn**	**12 01 19.0**	**-1.3**
GTBY	**Guantanamo Bay** comp=Z,37nm,1.4s	**9.46**	**277**		P		**Pn**	**12 01 18.7**	**-1.6**
GTBY	**Guantanamo Bay**	**9.46**	**277**		*e*	P	**Pn**	**12 01 18.4**	**-1.9**
GTBY					*e*	S	**Sn**	**12 02 57.4**	**-8.3**
GTBY	**Guantanamo Bay** comp=Z,38nm,1.4s	**9.46**	**277**		P		**Pn**	**12 01 19.0**	**-1.3**
SABCS	**La Quijada**	**9.69**	**280**		*e*	P	**Pn**	**12 01 20.7**	**-2.8**
SABCS					*e*	S	**Sn**	**12 03 06.3**	**-5.1**
URIC	**Uribia, Colomb**	**9.79**	**223**				**Pn**	**12 01 23.5**	**-1.3**
URIC	**Uribia, Colomb** comp=Z,14nm,0.5s	**9.79**	**223**		P		**Pn**	**12 01 23.3**	**-1.5**
PINC	**Pinares de May**	**10.15**	**280**		*e*	P	**Pn**	**12 01 26.2**	**-3.5**
PINC					*e*	S	**Sn**	**12 03 14.7**	**-8.0**
MARVS	**Santiago de Cu**	**10.21**	**278**		*e*	P	**Pn**	**12 01 28.1**	**-2.4**
MARVS					*e*	S	**Sn**	**12 03 17.9**	**-6.1**
HLGC	**Holguin**	**10.46**	**282**		*e*	P	**Pn**	**12 01 32.5**	**-1.4**
HLGC					*e*	S	**Sn**	**12 03 29.3**	**-0.9**
CRJC	**Cerrejon, Guaj**	**10.88**	**225**		P		**Pn**	**12 01 39.9**	**+0.1**
LMGC	**Las Mercedes**	**11.25**	**278**		*e*	P	**Pn**	**12 01 41.5**	**-3.3**
LMGC					*e*	S	**Sn**	**12 03 42.2**	**-7.4**
SDV	**Santo Domingo** comp=Z,20nm,0.3s,baz=6.5,slow=7.2,SNR=3.4	**11.35**	**209**		P		**Pn**	**12 01 50.2**	**+3.8**
SDV					S		**Sn**	**12 03 49.0**	**-3.4**
	comp=Z,15nm,0.5s,baz=338,slow=18,SNR=2.0								
SDV					LR	LR		12 06 36.6	
	comp=Z,204nm,18.6s,baz=65,slow=40								
SDV	**Santo Domingo**	**11.35**	**209**	Pn			**Pn**	**12 01 47.5**	**+1.1**
PILO	**Pilon**	**11.62**	**277**		*e*	P	**Pn**	**12 01 47.0**	**-2.8**
PILO					*e*	S	Sn	12 03 47.6	-11
SMRC	**Santa Marta, M** comp=Z,28nm,1.8s	**11.71**	**230**		P		**Pn**	**12 01 52.2**	**+1.1**
MTDJ	**Mount Denham**	**11.78**	**268**	Pn			**Pn**	**12 01 52.8**	**+0.6**
CCCC	**Cccc**	**12.08**	**283**		*e*	P	Pn	12 01 47.5	-8.5
CCCC					*e*	S	Sn	12 03 52.4	-17
SJCC	**San Jacinto, C**	**13.26**	**229**		P		**Pn**	**12 02 11.9**	**-0.4**
SJCC	**San Jacinto, C**	**13.26**	**229**				**Pn**	**12 02 13.0**	**+0.7**
SJCC	**San Jacinto, C** comp=Z,44nm,1.0s	**13.26**	**229**		P		**Pn**	**12 02 13.0**	**+0.7**
OCAC	**Ocana** comp=Z,2µmcomp=Z,146nm,0.5s	**13.30**	**218**		P		**Pn**	**12 02 14.4**	**+1.5**
BBSR	**BB Station** comp=Z,43nm,2.5s	**13.36**	**2**		P		**Pn

	comp=Z,4.2nm,0.7s					
TXAR	**Lajitas Array**	**36.50 294**	P	**P**	**12 06 10.1**	**+1.2**
	comp=Z,3.1nm,0.8s,baz=118,slow=10,SNR=31					
TXAR			PcP	**PcP**	**12 08 32.5**	**+0.1**
	comp=Z,0.5nm,0.8s,baz=54,slow=5.1,SNR=3.0					
	comp=Z,3.1nm,0.8s					
TXAR	**Lajitas Array**	**36.50 294**	P	**P**	**12 06 09.5**	**+0.6**
ALPN	**Alpine**	**36.62 296**	IAmb	IAmb	12 06 12.2	
	comp=Z,6.5nm,0.8s					
PB16	**IPOC Station P**	**37.31 187**	P	**P**	**12 06 13.7**	**-2.7**
	comp=Z,8.2nm,1.6s					
VHRN	**Van Horn**	**37.84 296**	IAmb	IAmb	12 06 23.2	
	comp=Z,9.7nm,0.8s					
HPIG		**38.03 290**	P	**P**	**12 06 23.6**	**+1.6**
	comp=Z,5.8nm,0.8s					
HPIG			pP	**sP**	**12 06 32.5**	**-0.2**
BDFB	**Brasilia**	**38.30 153**	P	**P**	**12 06 23.3**	**-0.9**
	comp=Z,0.9nm,0.3s,baz=30,slow=8.1,SNR=1.2					
	comp=Z,0.9nm,0.3s					
MNTX	**Cornudas Mount**	**38.31 297**		**P**	**12 06 25.8**	**+1.6**
MNTX	**Cornudas Mount**	**38.31 297**	P	**P**	**12 06 26.0**	**+1.8**
GO01	**Chusmiza**	**38.60 186**	P	**P**	**12 06 24.9**	**-2.2**
GO01			IAmb	IAmb	12 06 46.1	
	comp=Z,12nm,1.1s					
GO01	**Chusmiza**	**38.60 186**	P	**P**	**12 06 24.3**	**-2.8**
	comp=Z,12nm,0.5s					
PSGCX	**Pisagua**	**38.63 188**	P	**P**	**12 06 24.3**	**-2.7**
	comp=Z,24nm,2.0s					
T25A	**Trinidad**	**38.77 306**	IAmb	IAmb	12 06 31.8	
	comp=Z,10nm,1.0s					
PB08	**IPOC Station P**	**39.06 186**	P	**P**	**12 06 28.9**	**-1.9**
PB08			IAmb	IAmb	12 06 43.4	
	comp=Z,10nm,0.8s					
PB08	**IPOC Station P**	**39.06 186**	P	**P**	**12 06 28.4**	**-2.5**
	comp=Z,14nm,1.0s					
ULM	**Lac du Bonnet**	**39.66 329**	P	**P**	**12 06 35.7**	**+0.6**
	comp=Z,4.2nm,0.6s,baz=115,slow=8.6,SNR=6.3					
ULM			LR	LR	12 23 41.4	
	comp=Z,42nm,19.9s,baz=18,slow=37					
	comp=Z,4.2nm,0.6s					
ULM	**Lac du Bonnet**	**39.66 329**	P	**P**	**12 06 35.8**	**+0.7**
ULM			IAmb	IAmb	12 06 43.2	
	comp=Z,10nm,1.0s					
SDCO	**Great Sand Dun**	**39.78 307**	P	**P**	**12 06 38.2**	**+1.5**
ALQ	**Albuquerque**	**39.82 302**	IAmb	IAmb	12 06 40.2	
	comp=Z,2.0nm,0.9s					
ANMO	**Albuquerque**	**39.82 302**	LR	LR	12 26 52.4	
	comp=Z,37nm,18.2s,baz=116,slow=42					
TASM	**ASL Pad, Albuq**	**39.82 302**	IAmb	IAmb	12 06 40.2	
	comp=Z,2.1nm,0.9s					
PB02	**IPOC Station P**	**40.31 187**	P	**P**	**12 06 39.8**	**-1.1**
	comp=Z,18nm,1.3s					
ISCO	**Idaho Springs**	**40.49 310**		**P**	**12 06 43.0**	**+0.4**
ISCO			IAmb	IAmb	12 06 45.7	
	comp=Z,9.4nm,1.1s					
ISCO	**Idaho Springs**	**40.49 310**	P	**P**	**12 06 45.0**	**+2.5**
	comp=Z,7.7nm,1.0s					
PB07	**IPOC Station P**	**40.71 187**	P	**P**	**12 06 42.0**	**-2.3**
PB07			IAmb	IAmb	12 06 56.7	
	comp=Z,16nm,0.8s					
PB07	**IPOC Station P**	**40.71 187**	P	**P**	**12 06 41.1**	**-3.1**
	comp=Z,23nm,0.7s					
DUN6	**Lazy B Ranch**	**41.55 298**	IAmb	IAmb	12 07 18.8	
	comp=Z,11nm,1.0s					
LPIG	**La Paz**	**42.20 285**	LR	LR	12 28 47.2	
	comp=Z,32nm,18.1s,baz=112,slow=42					
PV07	**Paradox Valley**	**42.36 307**	IAmb	IAmb	12 07 00.6	
	comp=Z,12nm,0.8s					
PV02	**Paradox Valley**	**42.37 306**	IAmb	IAmb	12 07 01.0	
	comp=Z,15nm,0.8s					
PV03	**Paradox Valley**	**42.46 306**	IAmb	IAmb	12 07 01.6	
	comp=Z,14nm,0.8s					
PV22	**Blue Mesa, Par**	**42.49 307**	IAmb	IAmb	12 07 01.4	
	comp=Z,8.6nm,0.9s					
PV16	**Nyswonger Mesa**	**42.53 306**	IAmb	IAmb	12 07 02.0	
	comp=Z,15nm,0.7s					
PV17	**East Wray Mesa**	**42.55 306**	IAmb	IAmb	12 07 02.2	
	comp=Z,14nm,0.8s					
PV20	**West Nyswonger**	**42.58 306**	IAmb	IAmb	12 07 02.4	
	comp=Z,15nm,0.8s					
PV05	**Paradox Valley**	**42.61 306**	IAmb	IAmb	12 07 02.1	
	comp=Z,14nm,0.8s					
PV10	**Paradox Valley**	**42.64 306**	IAmb	IAmb	12 07 02.8	
	comp=Z,9.3nm,0.9s					
SALTA		**42.94 182**	P	**P**	**12 07 01.5**	**-1.4**
	comp=Z,7.5nm,1.1s					
TUC	**Tucson**	**42.94 297**	P	**P**	**12 07 03.6**	**+1.1**
WUAZ	**Wupatki**	**43.88 302**	IAmb	IAmb	12 07 13.5	
	comp=Z,13nm,1.1s					
PDAR	**Pinedale Array**	**44.25 312**	P	**P**	**12 07 14.6**	**+1.5**
	comp=Z,1.4nm,0.5s,baz=105,slow=8.7,SNR=17					
PDAR			PcP	**PcP**	**12 08 58.0**	**+0.8**
	comp=Z,1.2nm,0.6s,baz=114,slow=5.4,SNR=5.8					
	comp=Z,1.4nm,0.5s					
PDAR	**Pinedale Array**	**44.25 312**		**P**	**12 07 14.0**	**+0.9**
AHID	**Auburn Hatcher**	**45.34 312**	IAmb	IAmb	12 07 24.3	
	comp=Z,6.3nm,0.9s					
AHID	**Auburn Hatcher**	**45.34 312**	P	**P**	**12 07 23.4**	**+1.7**
	comp=Z,8.4nm,1.1s					
HWUT	**Hardware Ranch**	**45.34 310**	P	**P**	**12 07 23.0**	**+1.3**
CPUP	**Villa Florida**	**45.66 170**	P	**P**	**12 07 22.0**	**-2.0**
	comp=Z,2.5nm,0.7s,baz=348,slow=12,SNR=8.7					
	comp=Z,2.5nm,0.7s					
CPUP	**Villa Florida**	**45.66 170**		**P**	**12 07 22.2**	**-1.8**
CPUP	**Villa Florida**	**45.66 170**	P	**P**	**12 07 21.6**	**-2.4**
	comp=Z,5.9nm,0.9s					
AC02	**Maricunga**	**45.69 185**		**P**	**12 07 23.5**	**-1.4**
AC02			IAmb	IAmb	12 07 26.3	
	comp=Z,5.9nm,0.8s					
AC02	**Maricunga**	**45.69 185**	P	**P**	**12 07 23.5**	**-1.4**
	comp=Z,9.2nm,1.0s					
DUG	**Dugway, Tooele**	**45.91 308**	P	**P**	**12 07 28.0**	**+1.8**
	comp=Z,8.8nm,0.8s					
YHB	**Horse Butte**	**46.01 315**	IAmb	IAmb	12 07 34.0	
	comp=Z,4.8nm,0.8s					
YHL	**Hebgen Lake**	**46.03 315**	IAmb	IAmb	12 07 32.1	
	comp=Z,5.5nm,0.9s					
BLYC	**Blythe**	**46.22 299**	IAmb	IAmb	12 07 32.1	
	comp=Z,6.2nm,0.8s					
BGU	**Big Grassy Mou**	**46.24 309**	IAmb	IAmb	12 07 31.6	
	comp=Z,7.3nm,1.0s					
BOZ	**Bozeman (W)**	**46.57 315**	IAmb	IAmb	12 07 35.0	
	comp=Z,7.6nm,1.2s					
MTPC	**Mountain Pass**	**47.25 301**	IAmb	IAmb	12 07 40.3	
	comp=Z,4.8nm,0.8s					
ESJX	**Sierra Juarez**	**47.28 296**	IAmb	IAmb	12 07 40.5	
	comp=Z,5.7nm,0.8s					
BELC	**Belle Mtn. Jos**	**47.47 299**	IAmb	IAmb	12 07 42.1	
	comp=Z,4.8nm,0.8s					
BORC	**Borrego Spring**	**47.76 298**	IAmb	IAmb	12 07 44.2	
	comp=Z,7.4nm,1.0s					
PFO	**Pinyon Flats O**	**47.82 298**	LR	LR	12 33 11.8	
	comp=Z,42nm,18.1s,baz=103,slow=43					
ELK	**Elko**	**47.84 308**	IAmb	IAmb	12 07 44.0	
	comp=Z,5.2nm,1.1s					
BAR	**Barrett**	**47.93 297**	IAmb	IAmb	12 07 45.5	
	comp=Z,9.8nm,1.1s					
TPNV	**Topopah Spring**	**47.99 303**	IAmb	IAmb	12 07 46.8	
	comp=Z,5.2nm,0.8s					
DPP	**Dos Picos Cty**	**48.18 298**	IAmb	IAmb	12 07 47.5	
	comp=Z,8.6nm,0.8s					
GSC	**Goldstone, Bar**	**48.25 301**	IAmb	IAmb	12 07 48.1	
	comp=Z,6.2nm,0.9s					
WCT	**Wildcat Mounta**	**48.27 303**	IAmb	IAmb	12 07 48.3	
	comp=Z,7.5nm,1.1s					
ELS	**Elsinore Mount**	**48.62 298**	IAmb	IAmb	12 07 50.3	
	comp=Z,5.2nm,0.8s					
MFID	**Camas Ranch**	**48.85 312**	IAmb	IAmb	12 07 52.6	
	comp=Z,6.2nm,1.2s					
BFSC	**Mount Baldy Ra**	**48.86 299**	IAmb	IAmb	12 07 52.0	
	comp=Z,3.4nm,0.6s					
BMN	**Battle Mountai**	**49.27 307**	IAmb	IAmb	12 07 55.0	
	comp=Z,7.3nm,0.9s					
NV11	**Mina Array Sit**	**49.68 305**	IAmb	IAmb	12 07 59.0	
	comp=Z,11nm,1.1s					
NVAR	**Mina Array Bea**	**49.80 305**	P	**P**	**12 07 58.1**	**+1.7**
	comp=Z,2.5nm,0.6s,baz=95,slow=7.4,SNR=13					
	comp=Z,2.5nm,0.6s					
NVAR	**Mina Array Bea**	**49.80 305**	P	**P**	**12 07 56.1**	**-0.3**
ZON	**Zonda**	**50.34 184**	IAmb	IAmb	12 08 01.4	
	comp=Z,6.0nm,0.6s					
ZON	**Zonda**	**50.34 184**	P	**P**	**12 08 00.2**	**-0.1**
	comp=E,8.8nm,0.6s					
NEW	**Newport**	**50.97 317**	LR	LR	12 32 23.1	
	comp=E,32nm,18.8s,baz=86,slow=39					
NEW	**Newport**	**50.97 317**	IAmb	IAmb	12 08 07.3	
	comp=Z,4.7nm,0.7s					
NEW	**Newport**	**50.97 317**	P	**P**	**12 08 05.7**	**+0.8**
BO02	**Sierra Bellavi**	**53.73 186**	P	**P**	**12 08 25.9**	**+0.4**
BO02			IAmb	IAmb	12 08 27.2	
	comp=Z,6.7nm,0.8s					
BO02	**Sierra Bellavi**	**53.73 186**	P	**P**	**12 08 25.3**	**-0.1**
	comp=Z,10nm,1.4s					
YKA	**Yellowknife Ar**	**55.14 335**	P	**P**	**12 08 35.8**	**+0.5**
	comp=Z,1.2nm,0.5s,baz=105,slow=7.2,SNR=10					
	comp=Z,1.2nm,0.5s					
YKA	**Yellowknife Ar**	**55.14 335**	P	**P**	**12 08 36.5**	**+1.3**
MD01	**Midelt array s**	**55.38 63**		**P**	**12 08 36.8**	**-0.9**
MD31	**MD31**	**55.38 63**		**P**	**12 08 37.1**	**-0.6**
MDT	**Midelt**	**55.51 63**	LR	LR	12 27 16.1	
	comp=Z,69nm,21.7s,baz=250,slow=30					
ESDC	**Sonseca Array**	**56.11 55**	P	**P**	**12 08 43.3**	**+0.5**
	comp=Z,1.9nm,0.9s,baz=263,slow=7.6,SNR=8.8					
ESDC			LR	LR	12 27 05.7	
	comp=Z,57nm,21.4s,baz=265,slow=30					
	comp=Z,1.9nm,0.8s					
EKA	**Eskdalemuir Ar**	**58.72 36**	LR	LR	12 28 58.9	
	comp=Z,36nm,20.0s,baz=4.5,slow=30					
PLCA	**Paso Flores**	**59.60 185**	P	**P**	**12 09 06.5**	**-0.6**
	comp=Z,2.0nm,0.8s,baz=352,slow=5.4,SNR=5.6					
	comp=Z,2.0nm,0.8s					
DBIC	**Dimbokro**	**59.78 93**	P	**P**	**12 09 09.0**	**+0.2**
	comp=Z,2.9nm,0.8s,baz=276,slow=9.2,SNR=2.2					
DBIC			LR	LR	12 30 01.9	
	comp=Z,67nm,21.8s,baz=301,slow=31					
	comp=Z,2.9nm,0.8s					
DLBC	**Dease Lake**	**60.93 327**	LR	LR	12 37 22.6	
	comp=Z,42nm,18.1s,baz=275,slow=38					
TORD	**Torodi Ar. Bea**	**64.17 84**	P	**P**	**12 09 38.6**	**+0.3**
	comp=Z,2.3nm,0.7s,baz=285,slow=7.0,SNR=9.8					
	comp=Z,2.3nm,0.7s					
TORD	**Torodi Ar. Bea**	**64.17 84**	P	**P**	**12 09 35.0**	**-3.2**
KEST	**Kesra**	**66.81 59**	P	**P**	**12 09 55.6**	**+0.5**
	comp=Z,3.6nm,0.6s,baz=236,slow=7.3,SNR=4.5					
	comp=Z,3.6nm,0.6s					
GERES	**GERESS Array B**	**68.68 44**	P	**P**	**12 10 07.1**	**+0.4**
	comp=Z,0.4nm,0.2s,baz=251,slow=5.9,SNR=1.8					
	comp=Z,0.4nm,0.2s					
ILAR	**Eielson Array**	**69.51 333**	P	**P**	**12 10 12.0**	**+0.5**
	comp=Z,0.8nm,0.8s,baz=103,slow=4.1,SNR=23					
	comp=Z,0.8nm,0.8s					
ARCES	**ARCESS Array B**	**72.62 22**	P	**P**	**12 10 30.4**	**+0.1**
	comp=Z,3.8nm,1.0s,baz=294,slow=6.8,SNR=1.8					
	comp=Z,3.8nm,1.0s					
F20K	**Avaraart Lake**	**72.94 336**	P	**P**	**12 10 33.1**	**+0.9**
FINES	**FINESS Array B**	**74.12 30**	P	**P**	**12 10 39.6**	**+0.4**
	comp=Z,2.2nm,0.7s,baz=316,slow=5.8,SNR=3.9					
FINES			LR	LR	12 39 37.2	
	comp=Z,22nm,20.5s,baz=264,slow=33					
	comp=Z,2.2nm,0.7s					
FINES	**FINESS Array B**	**74.12 30**	P	**P**	**12 10 39.8**	**+0.6**
BRTR	**Keskin Array B**	**84.59 50**	P	**P**	**12 11 36.4**	**-0.5**
	comp=Z,1.0nm,0.7s,baz=298,slow=6.0,SNR=3.2					
BRTR			LR	LR	12 45 25.7	
	comp=Z,14nm,20.9s,baz=9.5,slow=33					
	comp=Z,1.0nm,0.7s					
EIL	**Elat**	**89.15 59**	LR	LR	12 50 45.8	
	comp=Z,22nm,18.1s,baz=264,slow=35					
KBZ	**Khabaz**	**89.42 44**	LR	LR	12 48 32.4	
	comp=Z,15nm,22.0s,baz=298,slow=33					
TSUM	**Tsumeb**	**89.56 110**	LR	LR	12 44 26.5	
	comp=Z,44nm,21.5s,baz=182,slow=30					
NRIK	**Noril'sk**	**89.80 9**	LR	LR	12 54 20.4	
	comp=Z,17nm,19.4s,baz=320,slow=37					
ARTI	**Arti**	**91.27 28**	LR	LR	12 48 28.7	
	comp=Z,27nm,21.7s,baz=325,slow=32					
MBAR	**Mbarara**	**95.75 89**	LR	LR	12 55 39.7	
	comp=Z,26nm,18.9s,baz=218,slow=35					
SUR	**Sutherland**	**96.64 122**	LR	LR	12 51 02.3	
	comp=Z,41nm,18.2s,baz=174,slow=32					
MATP	**Matopo**	**99.69 108**	LR	LR	12 51 51.4	
	comp=Z,109nm,18.2s,baz=216,slow=32					
HHC	**Hu-ho-hao-te**	**120.42 3**	*eP*	**PKiKP**	**12 17 56.4**	**+1.4**
MAW	**Mawson**	**121.44 159**	PKP	**PKPdf**	**12 17 56.4**	**+0.6**
	comp=Z,1.0nm,0.5s,baz=180,slow=4.0,SNR=2.6					
LZH	**Lanzhou**	**124.26 11**	*eP*	**PKiKP**	**12 18 04.8**	**+2.0**
NJ2	**Nanjing**	**129.13 356**	*eP*	**PKiKP**	**12 18 13.0**	**+0.6**
NJ2			pmax	pmax		
	comp=Z,16nm,0.5s					
CMAR	**Chiang Mai Arr**	**139.66 24**	PKP	**PKPdf**	**12 18 30.4**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=332,slow=2.1,SNR=2.9					
STKA	**Stephens Creek**	**152.73 237**	PKPbc	**PKPdf**	**12 18 57.4**	**+4.1**
	comp=Z,2.1nm,0.5s,baz=112,slow=1.7,SNR=4.7					
WRA	**Warramunga Arr**	**161.61 264**	PKP	**PKPdf**	**12 19 04.5**	**-0.3**
	comp=Z,1.1nm,1.0s,baz=50,slow=1.2,SNR=4.1					
WRA			PKPab	**PKPab**	**12 19 49.6**	**-0.2**
	comp=Z,1.2nm,0.8s,baz=82,slow=4.4,SNR=7.9					
ASAR	**Alice Springs**	**161.66 252**	PKP	**PKPdf**	**12 19 04.3**	**-0.5**
	comp=Z,0.7nm,1.0s,baz=180,slow=2.5,SNR=4.5					
ASAR			PKPab	**PKPab**	**12 19 49.5**	**-0.5**
	comp=Z,1.5nm,0.8s,baz=117,slow=3.9,SNR=9.3					
ASAR	**Alice Springs**	**161.66 252**		**PKPab**	**12 19 50.3**	**+0.3**

TAP 18 12:10:34.0, 22.85N × 120.87E, h4 km, ML1.4, C, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TWG	**Pinlang**	**0.19**	**97**	*eP*			Pg	12 10 37.8	+0.1
TWG				*i*	S		Sg	12 10 41.8	+1.7
TWGBT	**Beinan**	**0.20**	**98**	P			Pg	12 10 37.8	0.0
TWGBT				*i*	S		Sg	12 10 41.9	+1.5
SSD	**Sandimen**	**0.24**	**246**	P			Pg	12 10 39.3	+0.7
SSD				S			Sg	12 10 42.4	+0.7
LONT	**Longtian**	**0.25**	**76**	P			Pg	12 10 39.9	+1.1
LONT				S			Sg	12 10 43.0	+1.0
TSMG	**Majia**	**0.25**	**236**	*i*	P		Pg	12 10 39.4	+0.6
TSMG				*i*	S		Sg	12 10 42.6	+0.6
SLGT	**Liugui**	**0.25**	**306**	*eP*			Pg	12 10 38.6	-0.3
SLGT				S			Sg	12 10 43.4	+1.2
ECL	**Taimali**	**0.26**	**162**	P			Pg	12 10 40.1	+1.1
ECL				S			Sb	12 10 44.3	-1.7
TTN	**Taitung**	**0.27**	**109**	P			Pb	12 10 40.8	-0.6
TTN				*i*	S		Sb	12 10 45.7	-0.7
MASBT	**Mashibuluo**	**0.32**	**223**	P			Pg	12 10 41.0	+0.8
MASBT				S			Sg	12 10 45.3	+1.0
STYT	**Tauyuan**	**0.33**	**342**	P			Pb	12 10 41.6	-1.0
STYT				*i*	S		Sg	12 10 46.1	+1.3
STYH	**Taoyuan**	**0.34**	**345**	P			Pb	12 10 41.6	-0.9
STYH				S			Sg	12 10 46.4	+1.6
SCST	**Cishan**	**0.35**	**277**	P			Pb	12 10 42.2	-0.5
SCST				S			Sb	12 10 48.1	-0.5
SGST	**Jiashian**	**0.35**	**312**	P			Pg	12 10 41.4	+0.6
SGST				S			Sg	12 10 46.8	+1.3
ELDTW	**Lidau**	**0.37**	**22**	P			Pg	12 10 41.9	+0.8
ELDTW				S			Sg	12 10 47.0	+1.1
EHD	**Haiduan**	**0.43**	**46**	P			Pb	12 10 43.9	-0.4
EHD				S			Sg	12 10 49.4	+1.4
SSPT	**Xinbi**	**0.46**	**218**	P			Pb	12 10 44.2	-0.3
SSPT				*eS*			Sb	12 10 51.5	-0.1
TPUB	**Ta-pu**	**0.50**	**334**	P			Pb	12 10 45.2	-0.2
TPUB				S			Sb	12 10 52.6	-0.6
CHKT	**Chengkung**	**0.52**	**61**	P			Pb	12 10 45.9	+0.1
CHKT				S			Sb	12 10 54.3	+0.6
FULB	**Fuli**	**0.53**	**48**	P			Pb	12 10 45.3	-0.5
FULB				*eS*			Sb	12 10 53.9	+0.1
YULB	**Yu-li**	**0.67**	**36**	*eP*			Pb	12 10 48.0	-0.3
YULB				S			Sg	12 10 56.7	+1.1

IDC ***18*** *12:10:41.0, 24.0, 23.58N × 122.06E, h0 km, mb3.7/5, mbtmp3.7/6, ML3.4/1, MS3.1/5, Error ellipse: s-maj=435.9km s-min=43.5km az=145.0*

JMA ***18*** *12:10:45.3, 0.2, 24.N × 122.5E, 0.6, h30 km, MV3.3/11, NW OFF ISHIGAKIJIMA IS*

TAP ***18*** *12:10:45.3, 23.79N × 122.54E, h46 km, ML4.1, D*

ISC 18 12:10:43.4, 1.1, 23.70N, 0.02 × 122.54E, 0.02, h25 km, 9 km, n210, σ1, 01/377, mb3.6/5, MS3.0/4, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.46**	**335**	*eP*			**Pb**	**12 10 52.8**	**-0.1**
EOS4				*eS*			**Sb**	**12 10 59.0**	**-0.3**
EOS3	**EOS3**	**0.62**	**341**	*eP*			**Pb**	**12 10 55.9**	**+0.3**
EOS3				*eS*			**Sb**	**12 11 04.1**	**+0.2**
EOS2	**EOS2**	**0.77**	**339**	*i*	P		**Pn**	**12 10 58.9**	**+0.3**
EOS2				S			**Sn**	**12 11 09.7**	**+0.5**
JYNG	**Yonagunijimaku**	**0.84**	**27**	P			**Pb**	**12 10 59.5**	**+0.1**
JYNG				S			**Sb**	**12 11 09.0**	**-1.2**
YOJ	**Yonaguni jima**	**0.87**	**30**	*i*	P		**Pn**	**12 11 00.5**	**+0.3**
YOJ				*eS*			**Sb**	**12 11 10.4**	**-0.9**
YOJ	**Yonaguni jima**	**0.87**	**30**	P			**Pn**	**12 11 00.4**	**+0.3**
YOJ				S			**Sb**	**12 11 10.3**	**-0.9**
TEYL	**Yanliau Villag**	**0.88**	**281**	*eP*			**Pn**	**12 11 00.6**	**+0.5**
TEYL				*i*	S		**Sn**	**12 11 11.9**	**-0.2**
HWA	**Hwalien**	**0.90**	**288**	P			**Pn**	**12 11 00.6**	**+0.2**
HWA				S			**Sn**	**12 11 13.1**	**+0.6**
SHUL	**Shoufeng**	**0.90**	**276**	P			**Pn**	**12 11 00.9**	**+0.5**
SHUL				*eS*			**Sn**	**12 11 12.5**	**0.0**
TEGC	**Jichi Village**	**0.91**	**271**	*eP*			**Pb**	**12 11 00.0**	**-0.6**
TEGC				S			**Sn**	**12 11 14.0**	**+1.1**
TWD	**Chiawan**	**0.94**	**294**	*eP*			**Pb**	**12 11 00.8**	**-0.3**
TWD				*eS*			**Sb**	**12 11 11.9**	**-1.2**
ETL	**Fush Village**	**0.95**	**299**	*eP*			**Pb**	**12 11 01.6**	**+0.2**
ETL				*eS*			**Sb**	**12 11 13.2**	**-0.3**
EAHA	**Aohua**	**0.96**	**311**	*eP*			**Pb**	**12 11 01.8**	**+0.3**
EAHA				*eS*			**Sn**	**12 11 14.0**	**-0.2**
NACB	**Ninganchiao**	**0.98**	**299**	P			**Pn**	**12 11 01.1**	**-0.5**
NACB	**Ninganchiao**	**0.98**	**299**	*eP*			**Pn**	**12 11 01.4**	**-0.2**
NACB				S			**Sb**	**12 11 13.7**	**-0.6**
ETM	**Tongmen**	**0.99**	**286**	*eP*			**Pn**	**12 11 01.6**	**-0.1**
ETM				S			**Sn**	**12 11 14.9**	**0.0**
EWUT	**Wuta**	**1.01**	**317**	*eP*			**Pb**	**12 11 02.2**	**-0.1**
EWUT				S			**Sn**	**12 11 15.8**	**+0.3**
EGFH	**Guangfu**	**1.02**	**269**	P			**Pb**	**12 11 02.9**	**+0.5**
EGFH				*eS*			**Sn**	**12 11 16.9**	**+1.3**
ESL	**Shilin**	**1.02**	**277**	*i*	P		**Pn**	**12 11 01.9**	**-0.2**
ESL				*eS*			**Sb**	**12 11 14.7**	**-0.7**
ENA	**Nanau**	**1.03**	**315**	*eP*			**Pb**	**12 11 02.7**	**+0.1**
ENA				*eS*			**Sn**	**12 11 16.7**	**+0.9**
HGSD	**Ruisui**	**1.04**	**259**	*eP*			**Pb**	**12 11 03.0**	**+0.2**
HGSD				*eS*			**Sb**	**12 11 15.4**	**-0.6**
WARBT	**Fenglin Townsh**	**1.05**	**271**	*i*	P		**Pb**	**12 11 02.7**	**-0.3**
WARBT				*eS*			**Sb**	**12 11 13.4**	**-3.0**
ECBN	**Changbin**	**1.07**	**249**	*eP*			**Pb**	**12 11 04.1**	**+0.8**
ECBN				*i*	S		**Sn**	**12 11 17.0**	**+0.3**
LXIB	**Xiulin Townshi**	**1.08**	**288**	*eP*			**Pb**	**12 11 03.3**	**-0.2**
LXIB				*eS*			**Sb**	**12 11 16.6**	**-0.7**
ESAO	**Su ao**	**1.08**	**324**	*eP*			**Pb**	**12 11 04.3**	**+0.8**
ESAO				*eS*			**Sn**	**12 11 17.8**	**+0.7**
ETLH	**Xiulin Townshi**	**1.09**	**298**	*eP*			**Pn**	**12 11 03.0**	**-0.1**
ETLH				*eS*			**Sb**	**12 11 16.4**	**-1.1**
TWC	**Suao**	**1.10**	**325**	*eP*			**Pn**	**12 11 03.3**	**0.0**
TWC				*eS*			**Sb**	**12 11 18.1**	**+0.3**
EHYH	**Wanrong**	**1.11**	**260**	*eP*			**Pn**	**12 11 03.3**	**-0.1**
EHYH				*eS*			**Sb**	**12 11 19.2**	**+1.1**
EHY	**Hungye**	**1.13**	**260**	*eP*			**Pb**	**12 11 04.7**	**+0.3**
EHY				S			**Sb**	**12 11 18.9**	**+0.3**
CHKH	**Chenggong**	**1.16**	**244**	*eP*			**Pb**	**12 11 05.2**	**+0.3**
CHKH				*eS*			**Sn**	**12 11 18.4**	**-0.8**
EYUL	**Yuli**	**1.17**	**253**	*eP*			**Pn**	**12 11 02.6**	**-1.6**
EYUL				*eS*			**Sb**	**12 11 20.1**	**+0.4**
YULB	**Yu-li**	**1.18**	**255**	P			**Pb**	**12 11 05.2**	**+0.1**
YULB	**Yu-li**	**1.18**	**255**	S			**Sn**	**12 11 17.9**	**-1.6**
YULB	**Yu-li**	**1.18**	**255**	*eP*			**Pb**	**12 11 05.4**	**+0.2**
YULB				*i*	S		**Sb**	**12 11 20.9**	**+0.9**
TWF1	**Yuli**	**1.19**	**253**	*i*	P		**Pb**	**12 11 06.0**	**+0.7**
TWF1				*eS*			**Sb**	**12 11 21.8**	**+1.5**
NDS	**Dongshan**	**1.19**	**321**	*eP*			**Pb**	**12 11 05.7**	**+0.3**
NDS				*eS*			**Sb**	**12 11 20.6**	**+0.1**
CHKT	**Chengkung**	**1.23**	**241**	*eP*			**Pn**	**12 11 04.5**	**-0.5**
CHKT				*eS*			**Sn**	**12 11 20.5**	**-0.3**
LATG	**Datong**	**1.24**	**312**	*eP*			**Pb**	**12 11 05.9**	**-0.4**
LATG				S			**Sb**	**12 11 21.8**	**-0.2**
FULB	**Fuli**	**1.24**	**247**	*eP*			**Pb**	**12 11 06.3**	**0.0**
FULB				*eS*			**Sn**	**12 11 21.2**	**0.0**
WHF	**Hehuan Shan**	**1.24**	**291**	*eP*			**Pn**	**12 11 05.7**	**+0.1**
IRIF	**Iriomote-Funau**	**1.26**	**60**	P			**

TNOU	**National Taiwa**	**1.60**	**334**	*eP*	**Pb**	**12 11 12.6 +0.2**	**TSEB**	**Hengchuen, Pin**	**2.34**	**220**	*eP*	**Pb**	**12 11 24.8 -0.2**	BLCB				S	**Sg**	**12 17 32.9 +0.3**
TNOU				*eS*	**Sb**	**12 11 31.6 -0.6**	TSEB				*eS*	**Sb**	**12 11 53.1 -0.4**	BLCB				AML	AML	
TWG	**Pinlang**	**1.60**	**237**	*eP*	**Pb**	**12 11 12.4 0.0**	**WSSB**	**Gushan**	**2.34**	**244**	P	**Pb**	**12 11 23.4 -1.6**	**BLCB**	**Balcova**	**0.55**	**10**	Pg	**Pg**	**12 17 25.4 +0.1**
TWG				S	**Sb**	**12 11 31.1 -1.1**	WSSB				*eS*	**Sb**	**12 11 52.5 -1.1**	BLCB				AML	AML	
JIJ	**Ishigaki jima**	**1.61**	**65**	P	**Pb**	**12 11 12.6 +0.1**	**HEN**	**Hengchun**	**2.36**	**225**	*eP*	**Pb**	**12 11 24.8 -0.6**	**DUVT**	**Torbali**	**0.56**	**48**	P	**Pg**	**12 17 25.4 -0.2**
TAP	**Taipei**	**1.63**	**325**	P	**Pn**	**12 11 11.4 +0.8**	HEN				*eS*	**Sb**	**12 11 52.2 -2.0**	DUVT				S	**Sg**	**12 17 33.0 0.0**
TAP				S	**Sb**	**12 11 31.8 -1.3**	**TWKBT**	**Hengchun**	**2.37**	**223**	S	**Sb**	**12 11 51.7 -2.4**	DUVT				IAML		12 17 37.0
BACT	**New Taipei Cit**	**1.63**	**323**	*eP*	**Pn**	**12 11 10.9 +0.4**	**TWK1**	**Hengchun**	**2.37**	**223**	*eP*	**Pb**	**12 11 24.5 -0.9**		comp=E,495nm,0.5s					
KSHI	**Guanxi Townshi**	**1.64**	**311**	*eP*	**Pb**	**12 11 13.2 +0.1**	TWK1				*eS*	**Sb**	**12 11 52.6 -1.5**	**DAGE**	**izmir**	**0.68**	**76**	P	**Pb**	**12 17 28.2 -0.1**
KSHI				*eS*	**Sb**	**12 11 32.4 -0.9**	**WDGT**	**Dungji**	**2.68**	**261**	*i* P	**Pb**	**12 11 27.7 -3.0**	DAGE				S	**Sg**	**12 17 36.4 -0.3**
WJS	**Zhushan**	**1.66**	**275**	P	**Pb**	**12 11 13.7 +0.4**	WDGT				*eS*	**Sn**	**12 11 58.1 +1.6**	DAGE				IAML		12 17 40.0
WJS				S	**Sb**	**12 11 35.2 +1.3**	**PNG**	**Penghu**	**2.74**	**268**	*eP*	**Pn**	**12 11 28.5 +2.8**		comp=N,244nm,0.3s					
NJD	**Zhudong**	**1.68**	**308**	P	**Pb**	**12 11 12.7 -0.9**	PNG				*eS*	**Sn**	**12 12 00.0 +2.0**	DAGE				IAML		12 17 40.0
NJD				*eS*	**Sb**	**12 11 34.6 +0.3**	**JMJ**	**Miyako jima 2**	**2.75**	**66**	*eP*	**Pb**	**12 11 29.5 -2.4**		comp=E,373nm,0.3s					
LIOB	**Emei**	**1.68**	**304**	*eP*	**Pb**	**12 11 13.8 +0.1**	**VCHM**	**Qimei**	**2.89**	**261**	*eP*	**Pn**	**12 11 30.7 +2.8**	**YKAV**	**Yalikavak-Bodr**	**0.77**	**158**	Pg	**Pg**	**12 17 29.4 -0.1**
LIOB				S	**Sb**	**12 11 33.0 -1.4**	VCHM				S	**Sn**	**12 12 04.3 +2.4**	YKAV				AML	AML	
NSTT	**Nanjuang**	**1.68**	**304**	*i* P	**Pb**	**12 11 13.6 -0.1**	**VWUC**	**VWUC**	**3.10**	**295**	*eP*	**Pn**	**12 11 31.5 +0.8**	**AYDB**	**Zeytinkoy-Aydi**	**0.78**	**82**	Pg	**Pg**	**12 17 29.8 +0.2**
NSTT				*eS*	**Sb**	**12 11 34.7 +0.2**	VWUC				*eS*	**Sn**	**12 12 05.6 -1.3**	AYDB				AML	AML	
YM01	**YM01**	**1.69**	**329**	*eP*	**Pb**	**12 11 13.3 -0.6**	**PTMZ**	**Houxiangcun**	**3.39**	**294**	P	**Pn**	**12 11 35.6 +0.9**	**AYDN**	**Tasoluk**	**0.78**	**103**	P	**Pg**	**12 17 29.5 -0.2**
NWRT	**Kuosheng**	**1.70**	**332**	*eP*	**Pb**	**12 11 13.0 -1.0**	PTMZ				*eS*	**Sn**	**12 12 12.6 -1.5**	AYDN				S	**Sg**	**12 17 40.2 +0.2**
STYH	**Taoyuan**	**1.70**	**252**	*eP*	**Pb**	**12 11 13.7 -0.3**	**MATB**	**Ma-tsu**	**3.39**	**317**	*eP*	**Pn**	**12 11 34.9 +0.2**	AYDN				IAML		12 17 44.0
STYH				*eS*	**Sb**	**12 11 34.7 -0.3**	MATB				*eS*	**Sn**	**12 12 11.7 -2.5**		comp=E,377nm,0.4s					
WNT	**Mingjian**	**1.71**	**276**	*eP*	**Pb**	**12 11 14.5 +0.3**	**LYJJ**	**Jianjiangzhen**	**3.79**	**319**	P	**Pn**	**12 11 41.1 +0.9**	AYDN				IAML		12 17 45.0
WNT				S	**Sb**	**12 11 35.2 0.0**	LYJJ				*eS*	**Sn**	**12 12 21.6 -2.4**		comp=N,182nm,0.6s					
CHN5	**Tsauling**	**1.71**	**267**	*eP*	**Pb**	**12 11 14.6 +0.4**	**KNM**	**Kinmen**	**3.82**	**282**	*eP*	**Pn**	**12 11 42.9 +2.3**	**KRBN**	**Karaburun**	**0.80**	**339**	Pg	**Pg**	**12 17 30.2 +0.1**
CHN5				*eS*	**Sb**	**12 11 37.3 +2.0**	KNM				S	**Sn**	**12 12 27.2 +2.5**	KRBN				AML	AML	
WNT1	**Nantou City**	**1.71**	**277**	P	**Pb**	**12 11 14.6 +0.4**	**XPSS**	**Dashiqiu**	**3.85**	**327**	*eP*	**Pn**	**12 11 41.4 +0.3**	**BODT**	**Bodrum**	**0.84**	**158**	P	**Pg**	**12 17 30.5 -0.3**
WNT1				*eS*	**Sb**	**12 11 37.0 +1.6**	XPSS				S	**Sn**	**12 12 25.1 -0.5**	BODT				S	**Sb**	**12 17 42.9 +0.6**
ZUZH	**Zhuzihu**	**1.71**	**328**	*eP*	**Pn**	**12 11 12.8 +1.1**	**KNMB**	**Chin-men Tao**	**3.87**	**282**	P	**Pn**	**12 11 42.2 +0.9**	BODT				AML	AML	
ZUZH				S	**Sn**	**12 11 31.6 -1.2**	KNMB				*eS*	**Sn**	**12 12 24.3 -1.6**	**BODT**	**Bodrum**	**0.84**	**158**	Pg	**Pb**	**12 17 31.0 -0.1**
YM08	**YM08**	**1.71**	**330**	*eP*	**Pb**	**12 11 13.5 -0.8**	**MHZQ**	**Yeshan**	**3.98**	**308**	P	**Pn**	**12 11 43.2 +0.4**	BODT				AML	AML	
YM08				*eS*	**Sn**	**12 11 33.4 +0.6**	**AXDP**	**Jialang**	**4.33**	**287**	P	**Pn**	**12 11 48.7 +1.0**	**IZMR**	**zmir-demi**	**0.87**	**70**	P	**Pg**	**12 17 31.1 -0.2**
WWF	**Wufeng**	**1.72**	**282**	*eP*	**Pb**	**12 11 15.4 +1.1**	AXDP				S	**Sn**	**12 12 36.0 -1.5**	IZMR				P	**Pb**	**12 17 31.7 +0.1**
WWF				*eS*	**Sb**	**12 11 37.9 +2.4**	**ZPLA**	**Ao Xicun**	**4.39**	**274**	*eP*	**Pn**	**12 11 49.8 +1.3**	IZMR				S	**Sg**	**12 17 41.9 -0.8**
NTY	**Taoyuan**	**1.72**	**319**	P	**Pn**	**12 11 12.8 +1.1**	ZPLA				*eS*	**Sn**	**12 12 37.9 -0.9**	IZMR				S	**Sb**	**12 17 42.3 -0.8**
NTY				S	**Sn**	**12 11 33.0 +0.1**	**DSXP**	**Dongshan**	**4.68**	**271**	P	**Pn**	**12 11 53.5 +1.0**	IZMR				IAML		12 17 44.0
STYT	**Tauyuan**	**1.72**	**252**	P	**Pb**	**12 11 14.2 -0.2**	DSXP				S	**Sn**	**12 12 46.5 +0.5**		comp=N,71nm,0.4s					
STYT				S	**Sb**	**12 11 35.0 -0.6**	**SXFK**	**Yanhouchang**	**5.19**	**302**	P	**Pn**	**12 11 59.6 +0.1**	IZMR				IAML		12 17 44.0
TWS1	**Kuangyinshan**	**1.73**	**324**	P	**Pn**	**12 11 12.2 +0.4**	SXFK				*eS*	**Sn**	**12 12 58.0 -0.5**		comp=N,72nm,0.4s					
TWS1				*eS*	**Sb**	**12 11 34.7 -1.1**	**JOW**	**Kunigami**	**6.06**	**58**	P	**Pn**	**12 12 15.3 +3.8**	IZMR				IAML		12 17 46.0
TWQ1	**Liyutan**	**1.74**	**292**	*eP*	**Pb**	**12 11 14.7 +0.1**	JOW				S	**Sn**	**12 13 18.4 -1.6**		comp=E,92nm,0.4s					
TWQ1				*eS*	**Sb**	**12 11 37.1 +1.1**	**KSRS**	**Korea Array**	**14.47**	**17**	Pn	**P**	**12 14 13.1 0.0**	IZMR				IAML		12 17 46.0
ANP	**Anpu**	**1.75**	**328**	*eP*	**Pb**	**12 11 14.0 -0.9**		0.1nm,0.3s,baz=197,slow=12,SNR=6.1							comp=E,105nm,0.8s					
ANP				*eS*	**Sn**	**12 11 33.1 -0.6**	KSRS				LR	LR	12 20 30.7	**MLSB**	**Milas**	**0.87**	**128**	Pg	**Pg**	**12 17 31.4 0.0**
HSN1	**Hsinchu**	**1.75**	**308**	P	**Pb**	**12 11 13.9 -1.0**		comp=Z,64nm,19.3s,baz=185,slow=40 2.3nm,0.8s						MLSB				AML	AML	
HSN1				*eS*	**Sn**	**12 11 34.6 +0.9**	KSRS				AML	AML		**BDRM**	**Kayabasi**	**0.88**	**151**	P	**Pb**	**12 17 32.3 +0.5**
TCU	**Taichung**	**1.76**	**285**	*eP*	**Pb**	**12 11 15.8 +0.7**	**ASAJ**	**Asahikawa**	**26.18**	**34**	LR	LR	12 26 21.8	BDRM				S	**Sb**	**12 17 44.2 +0.7**
TCU				S	**Sb**	**12 11 37.3 +0.6**		comp=Z,31nm,20.4s,baz=211,slow=36						BDRM				IAML		12 17 47.0
NTST	**Danshui**	**1.76**	**326**	P	**Pn**	**12 11 13.4 +1.1**	**KLR**	**Kul'dur**	**26.50**	**14**	LR	LR	12 27 56.1		comp=E,86nm,0.2s					
NTST				*eS*	**Sn**	**12 11 34.7 +0.8**		comp=Z,54nm,18.2s,baz=196,slow=39						BDRM				IAML		12 17 48.0
NCU	**National Centr**	**1.76**	**316**	P	**Pb**	**12 11 13.7 -1.4**	**SONM**	**Songino Array**	**27.30**	**336**	P	**P**	**12 16 26.6 +0.5**		comp=N,126nm,0.6s					
NCU				S	**Sb**	**12 11 35.0 -1.8**		0.7nm,0.6s,baz=148,slow=9.5,SNR=3.9						**FOCM**	**Foa**	**0.88**	**350**	Pg	**Pg**	**12 17 31.5 -0.1**
NSY	**Sanyi**	**1.77**	**294**	P	**Pb**	**12 11 15.7 +0.4**	SONM				LR	LR	12 27 51.4	FOCM				AML	AML	
NSY				S	**Sb**	**12 11 35.9 -1.2**		comp=Z,27nm,19.3s,baz=238,slow=38 0.7nm,0.6s						**BODA**	**Bodrum-Mula**	**0.90**	**153**	Pg	**Pg**	**12 17 31.9 -0.1**
SBCB	**Hsinchu**	**1.79**	**308**	*eP*	**Pb**	**12 11 15.5 0.0**	**MKAR**	**Makanchi Array**	**39.55**	**316**	P	**P**	**12 18 13.1 +0.7**	**KARB**	**zmir-Karabur**	**0.91**	**334**	P	**Pg**	**12 17 31.4 -0.8**
SBCB				*eS*	**Sn**	**12 11 35.5 +1.0**		2.4nm,0.9s,baz=101,slow=6.7,SNR=13						KARB				S	**Sb**	**12 17 45.2 +0.8**
TWY	**Chenhua**	**1.79**	**332**	*eP*	**Pb**	**12 11 14.8 -0.7**	MKAR				LR	LR	12 36 13.0	KARB				IAML		12 17 46.0
WCKO	**Fanlu**	**1.79**	**262**	*eP*	**Pb**	**12 11 16.3 +0.7**		comp=Z,33nm,20.6s,baz=319,slow=39 2.4nm,0.9s							comp=N,252nm,0.4s					
WCKO				S	**Sb**	**12 11 38.2 +0.6**	**ZALV**	**Zalesovo Beam**	**41.32**	**327**	P	**P**	**12 18 25.6 -1.2**	KARB				IAML		12 17 48.0
TPUB	**Ta-pu**	**1.79**	**258**	P	**Pb**	**12 11 15.7 0.0**		0.6nm,0.4s,baz=112,slow=6.4,SNR=4.1 0.6nm,0.4s							comp=E,170nm,0.5s					
TPUB	**Ta-pu**	**1.79**	**258**	*eP*	**Pb**	**12 11 16.0 +0.4**	**KURBB**	**Kurchatov Arra**	**43.27**	**320**	P	**P**	**12 18 42.0 -0.8**	**CAMT**	**Merkez**	**0.96**	**19**	P	**Pb**	**12 17 33.2 +0.1**
TPUB				*eS*	**Sb**	**12 11 38.2 +0.4**		0.5nm,0.9s,baz=116,slow=8.3,SNR=2.4 0.5nm,0.9s						CAMT				S	**Sn**	**12 17 47.3 -0.1**
NMLH	**Miaoli**	**1.80**	**298**	P	**Pb**	**12 11 15.1 -0.7**	**BVAR**	**Borovoye Array**	**48.83**	**321**	P	**P**	**12 19 26.8 +0.3**	CAMT				IAML		12 17 48.0
NMLH				S	**Sb**	**12 11 36.2 -1.6**		0.4nm,0.5s,baz=109,slow=7.8,SNR=2.7 0.4nm,0.5s							comp=N,422nm,0.4s					
HSN	**Hsinchu**	**1.80**	**308**	*eP*	**Pb**	**12 11 15.4 -0.4**								CAMT				IAML		12 17 50.0
HSN				*eS*	**Sb**	**12 11 37.6 -0.3**									comp=E,262nm,0.3s					
NJN	**Zhunan**	**1.81**	**303**	*eP*	**Pn**	**12 11 13.6 +0.6**								**NAZL**	**Nazilli-Aydin**	**1.09**	**83**	Pn	**Pg**	**12 17 35.3 -0.3**
NJN				*eS*	**Sn**	**12 11 35.3 +0.2**								NAZL				AML	AML	
WGK	**Gukeng**	**1.81**	**270**	P	**Pb**	**12 11 16.0 +0.1**								**ZEDA**	**zmir-Bergama**	**1.13**	**6**	P	**Pg**	**12 17 35.3 -1.1**
WGK				S	**Sb**	**12 11 38.2 0.0**								ZEDA				S	**Sn**	**12 17 53.0 +1.3**
WYL	**Yuanlin Townsh**	**1.81**	**279**	P	**Pb**	**12 11 16.0 +0.1**								ZEDA				IAML		12 17 53.0
WYL				*eS*	**Sb**	**12 11 39.7 +1.5**									comp=N,146nm,0.4s					
CHN4	**Tsaushan**	**1.82**	**259**	*eP*	**Pb**	**12 11 16.9 +0.8**								ZEDA				IAML		12 17 54.0
CHN4				*eS*	**Sb**	**12 11 39.5 +1.1**									comp=E,72nm,0.3s					
WTP	**Ta-pu**	**1.82**	**256**	*eP*	**Pb**	**12 11 15.1 -1.0**								**GOMA**	**Golmarmara-Man**	**1.17**	**42**	Pn	**Pg**	**12 17 36.6 -0.4**
WTP				*eS*	**Sb**	**12 11 39.9 +1.3**								**DAT**	**Datca**	**1.23**	**154**	P	**Pg**	**12 17 36.8 -1.4**
ECL	**Taimali**	**1.82**	**233**	*eP*	**Pb**	**12 11 16.3 +0.1**								DAT				S	**Sg**	**12 17 54.0 -0.2**
ECL				*eS*	**Sn**	**12 11 35.8 +0.4**								DAT				AML	AML	
WDL	**Douliou City**	**1.83**	**271**	P	**Pb**	**12 11 15.7 -0.6**								**DAT**	**Datca**	**1.23**	**154**	Pn	**Pg**	**12 17 37.4 -0.8**
WDL				*eS*	**Sb**	**12 11 40.9 +2.1**								DAT				AML	AML	
WDLH	**Douliu**	**1.83**	**270**	*eP*	**Pb**	**12 11 17.5 +1.2**								**DKL**	**Dikili**	**1.23**	**360**	Pn	**Pb**	**12 17 37.5 -0.2**
WDLH				*eS*	**Sb**	**12 11 40.9 +2.1**								DKL				AML	AML	
JISG	**Ishigakijimahi**	**1.85**	**61**	P	**Pn**	**12 11 15.0 +1.5**								**AKS**	**Akhisar**	**1.25**	**34**	Pn	**Pn**	**12 17 37.7 -0.2**
WCHH	**Zhanghua**	**1.85**	**282**	*eP*	**Pb**	**12 11 17.0 +0.5**								AKS				AML	AML	
WCHH				*eS*	**Sb**	**12 11 41.6 +2.3**								**YER**	**Yerkesik**	**1.29**	**123**	P	**Pn**	**12 17 38.4 -0.1**
WDJ	**Dajia District**	**1.85**	**291**	P	**Pb**	**12 11 15.8 -0.7**								YER				S	**Sn**	**12 17 56.7 +0.9**
WDJ				*eS*	**Sb**	**12 11 38.9 -0.4**								**YER**	**Yerkesik**	**1.29**	**123**	Pn	**Pn**	**12 17 38.4 -0.1**
WCH1	**Changhua City**	**1.86**	**282**	P	**Pb**	**12 11 15.7 -1.0**								YER				AML	AML	
WCH1				*eS*	**Sb**	**12 11 40.9 +1.4**								**APE**	**Apeiranthos**	**1.35**	**236**	P	**Pn**	**12 17 38.8 -0.4**
SLGT	**Liugui**	**1.87**	**248**	P	**Pb**	**12 11 16.9 -0.1**								APE				AML	AML	
SLGT				*eS*	**Sb**	**12 11 41.4 +1.4**								**APE**	**Apeiranthos**	**1.35**	**236**	Pn	**Pn**	**12 17 39.5 +0.3**
NHW	**Xinwu Township**	**1.88**	**314**	P	**Pb**	**12 11 15.4 -1.7**								APE				AML	AML	
NHW				*eS*	**Sn**	**12 11 37.9 +1.0**								**SOMA**	**Soma-Manisa**	**1.40**	**20**	Pn	**Pn**	**12 17 39.8 -0.1**
LAY	**Lan-yu**	**1.89**	**209**	*eP*	**Pn**	**12 11 15.0 +0.9**								SOMA				AML	AML	
LAY				*eS*	**Sb**	**12 11 39.7 -0.6**								**GORD**	**Gordes-Manisa**	**1.45**	**42**	Pn	**Pn**	**12 17 40.7 0.0**
SGST	**Jiashian**	**1.90**	**251**	*eP*	**Pb**	**12 11 17.6 +0.2**								GORD				AML	AML	
SGST				*i* S	**Sb**	**12 11 41.0 +0.3**								**PRK**	**Paraskevi**	**1.49**	**340**	P	**Pb**	**12 17 42.2 0.0**
CHN2	**Minshiung**	**1.90**	**265**	P	**Pb**	**12 11 17.2 -0.2**								PRK				S	**Sg**	**12 18 02.2 -0.4**
CHN2				S	**Sb**	**12 11 39.8 -0.9**								**TURN**	**Turunc**	**1.50**	**135**	Pn	**Pn**	**12 17 40.8 -0.5**
LYUB	**Lan-yu**	**1.90**	**208**	*eP*	**Pb**	**12 11 16.8 -0.7**								TURN				AML	AML	
LYUB				*eS*	**Sb**	**12 11 39.2 -1.6**								**KULA**	**Kula-Manisa**	**1.53**	**63**	Pn	**Pn**	**12 17 41.7 -0.1**
CHN1	**Nanshi**	**1.91**	**255**	*eP*	**Pb**	**12 11 17.9 +0.2**								KULA				AML	AML	
CHN1				*eS*	**Sb**	**12 11 43.0 +1.8**								**APMY**	**Acipayam-Deniz**	**1.93**	**100**	Pn	**Pn**	**12 17 47.4 +0.2**
TWK	**Hsinying**	**1.93**	**258**	*eP*	**Pb**	**12 11 18.1 +0.1**								APMY				AML	AML	
TWK				*eS*	**Sb**	**12 11 42.3 +0.7**														
SNST	**Tainan City**	**1.93**	**256**	P	**Pb**	**12 11 18.1 +0.1**														
SNST				S	**Sb**	**12 11 41.7 +0.1**														
CHY	**Chiayi**	**1.95**	**265**	P	**Pb**	**12 11 16.9 -1.4**														
CHY				*eS*	**Sb**	**12 11 44.1 +2.0**														
PCYT	**Pengchaiyu**	**1.97**	**348**	*eP*	**Pn**	**12 11 16.4 +1.2**														
PCYT				*eS*	**Sn**	**12 11 39.4 +0.3**														
WTK	**Tuku**	**1.97**	**270**	*eP*	**Pb**	**12 11 18.7 +0.1**														
WTK				*eS*	**Sb**	**12 11 43.2 +0.5**														
WRL	**Guolierlin Hig**	**1.99**	**276**	*eP*	**Pb**	**12 11 18.6 -0.4**														
WRL				S	**Sb**	**12 11 42.9 -0.3**														
SSD	**Sandimen**	**1.99**	**242**	*eP*	**Pb**	**12 11 20.0 +1.0**														
TSMG	**Majia**	**2.00**	**241**	*eP*	**Pb**	**12 11 18.6 -0.5**														
RLNB	**Erlin**	**2.00**	**276**	*eP*	**Pb**	**12 11 18.9 -0.2**														
RLNB				*eS*	**Sb**	**12 11 43.7 0.0**														
TAW	**Tawu**	**2.02**	**229**	*eP*	**Pb**	**12 11 19.1 -0.3**														
TAW				S	**Sn**	**12 11 41.6 -1.4**														
EAST	**Anshuo**	**2.03**	**230**	*eP*	**Pb**	**12 11 18.8 -0.9**														
EAST				*eS*	**Sb**	**12 11 44.0 -0.7**														
TAWH	**Dawu Township**	**2.03**	**229**	*eP*	**Pb**	**12 11 19.7 0.0**														
TAWH				*eS*	**Sn**	**12 11 41.0 +0.3**														
SCST	**Cishan**	**2.04**	**247**	*eP*	**Pb**	**12 11 20.8 +0.9**														
SCST				*eS*	**Sb**	**12 11 46.4 +1.5**														
MASBT	**Mashibuluo**	**2.06**	**239**	*eP*	**Pb**	**12 11 20.0 -0.1**														
MASBT				*eS*	**Sb**	**12 11 43.4 -1.9**														
WTCT	**Ta-ch'eng**	**2.07**	**275**	P	**Pb**	**12 11 18.6 -1.7**														
WTCT				*eS*	**Sb**	**12 11 46.6 +0.9**														
CHN3	**Shinhua**	**2.09**	**253**	P	**Pb**	**12 11 19.7 -1.0**														
CHN3				*eS*	**Sb**	**12 11 49.5 +3.4**														
ICHU	**Yijhu**	**2.10**	**261**	*eP*	**Pb**	**12 11 20.5 -0.3**														
ICHU				*eS*	**Sb**	**12 11 45.9 -0.6**														
SGLT	**Jiouru**	**2.12**	**243**	P	**Pb**	**12 11 20.1 -1.0**														
WSF	**Szhu**	**2.12**	**269**	P	**Pb**	**12 11 19.4 -1.8**														
WSF				*eS*	**Sb**	**12 11 46.6 +0.5**														
WSL	**Shuilin Townsh**	**2.12**	**266**	*eP*	**Pb**	**12 11 20.7 -0.5**														
WSL				S	**Sb**	**12 11 46.0 -1.2**														
TWM1	**Shoushan**	**2.13**	**246**	*eP*	**Pn**	**12 11 19.2 +1.8**														
TWM1				*eS*	**Sb**	**12 11 46.2 -1.2**														
CHN8	**Yiju**	**2.16**	**261**	P	**Pn**	**12 11 19.4 +1.6**														
CHN8				*eS*	**Sb**	**12 11 48.2 -0.1**														
SLIU	**Shizi**	**2.18**	**228**	*eP*	**Pb**	**12 11 20.5 -1.7**														
SLIU				S	**Sb**	**12 11 47.6 -1.2**														
SSPT	**Xinbi**	**2.18**	**237**	*eP*	**Pb**	**12 11 22.4 +0.2**														
SCZT	**Fangliau**	**2.20**	**234**	*eP*	**Pb**	**12 11 22.9 +0.2**														
SCLT	**Jiali**	**2.21**	**257**	P	**Pb**	**12 11 21.3 -1.4**														
SCLT				*eS*	**Sb**	**12 11 50.1 +0.4**														
TAI1	**Yung-k'ang**	**2.22**	**253**	*eP*	**Pb**	**12 11 21.0 -1.8**														
TAI1				*eS*	**Sb**	**12 11 47.7 -2.2**														
SNJT	**Kaohsiung City**	**2.23**	**245**	*eP*	**Pb**	**12 11 24.5 +1.4**														
TAI	**Tainan**	**2.26**	**252**	P	**Pb**	**12 11 21.9 -1.7**														
TAI				*eS*	**Sb**	**12 11 49.6 -1.5**														
SMST	**Manzhou Townsh**	**2.29**	**223**	*eP*	**Pb**	**12 11 23.3 -0.8**														
SMST				*eS*	**Sb**	**12 11 49.4 -2.6**														
TSCK	**Chigu Township**	**2.32**	**257**	*eP*	**Pb**	**12 11 23.9 -0.7**														
TSCK				*eS*	**Sb**	**12 11 51.5 -1.2**														

*THE **18** 12:17:14.6,38˚N±2˚×2˚7E±˚, h4km±2km, M2.8/7, MLh2.8/7*
*AFAD **18** 12:17:14.4,37˚.85N×26˚.92E, h7km±3km, ML2.4*
*ISK **18** 12:17:14.2,37˚.85N×26˚.93E, h13km, ML2.6/23*

ISC 18 12:17:14.6±0.8,37°.84N±0°.02×26°.92E±0°.02,h12km±6km, n44,σ0°48/68, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**206**	P	**Pg**	**Pg**	**12 17 17.8**	**-0.3**
SMG				S	**Sg**	**Sg**	**12 17 20.2**	**-0.3**
SMG				AML	AML			
DGB	**zmir**	**0.21**	**352**	P	**Pg**	**Pg**	**12 17 19.0**	**-0.1**
DGB				S	**Sg**	**Sg**	**12 17 22.1**	**-0.2**
DGB				IAML			12 17 24.0	
	comp=N,526nm,0.1s							
DGB				IAML			12 17 29.0	
	comp=E,648nm,0.2s							
GMLD	**Gumuldur**	**0.23**	**359**	Pg	**Pg**	**Pg**	**12 17 19.6**	**+0.1**
GMLD				AML	AML			
GCAM	**G?zelcaml?**	**0.29**	**119**	P	**Pg**	**Pg**	**12 17 20.6**	**+0.2**
GCAM				IAML			12 17 25.0	
	comp=N,2μm,0.3s							
GCAM				IAML			12 17 25.0	
	comp=E,1μm,0.3s							
GCAM				S	**Sb**	**Sb**	**12 17 25.5**	**-0.9**
GCAM	**G?zelcaml?**	**0.29**	**119**	Pg	**Pg**	**Pg**	**12 17 20.6**	**+0.2**
GCAM				Sg	**Sg**	**Sg**	**12 17 25.0**	**+0.7**
GCAM				AML	AML			
KUSD	**Kusadasi-Aydin**	**0.29**	**86**	Pg	**Pg**	**Pg**	**12 17 20.3**	**-0.2**
KUSD				Sg	**Sg**	**Sg**	**12 17 24.8**	**+0.3**
KUSD				AML	AML			
BEYE	**izmir**	**0.39**	**1**	P	**Pg**	**Pg**	**12 17 21.8**	**-0.4**
BEYE				S	**Sg**	**Sg**	**12 17 28.1**	**+0.7**
BEYE				IAML			12 17 29.0	
	comp=E,533nm,0.2s							
BEYE				IAML			12 17 30.0	
	comp=N,301nm,0.2s							
DDIM	**Aydin, Didim**	**0.46**	**146**	P	**Pg**	**Pg**	**12 17 23.6**	**-0.1**
DDIM				S	**Sb**	**Sb**	**12 17 30.9**	**-0.5**
DDIM				IAML			12 17 31.0	
	comp=N,235nm,0.4s							
DDIM				IAML			12 17 32.0	
	comp=E,305nm,0.5s							
ZEYE	**Izmir, Urla-Ze**	**0.52**	**321**	P	**Pg**	**Pg**	**12 17 24.3**	**-0.4**
ZEYE				IAML			12 17 32.0	
	comp=N,2μm,0.2s							
ZEYE				S	**Sg**	**Sg**	**12 17 32.1**	**+0.6**
ZEYE				IAML			12 17 35.0	
	comp=E,385nm,0.2s							
DIDI	**Didim-Aydin**	**0.53**	**151**	Pg	**Pg**	**Pg**	**12 17 24.9**	**0.0**
DIDI				Sg	**Sb**	**Sb**	**12 17 32.9**	**-0.5**
DIDI				AML	AML			
BLCB	**Balcova**	**0.55**	**10**	P	**Pg**	**Pg**	**12 17 25.3**	**-0.1**

*IDC **18** 12:21:17.9±2.4,6˚.96N×126˚.84E, h61km±20km, mb3.8/12, mbtmp4.1/13, MS2.9/7, Error ellipse: s-maj=26.7km s-min=11.1km az=58.0*
*MAN **18** 12:21:19.

FITZ	**Fitzroy Crossi**	**24.89**	**183**	P	**P**	**12 26 36.6**	**+1.7**
	comp=Z,5.2nm,0.7s,baz=337,slow=5.2,SNR=11						
	comp=Z,5.2nm,0.7s						
FITZ	**Fitzroy Crossi**	**24.89**	**183**	P	**P**	**12 26 35.3**	**+0.5**
WB0	**Warramunga Arr**	**27.54**	**165**	P	**P**	**12 26 59.3**	**+0.6**
WB0				IAmb	IAmb	12 27 19.7	
	comp=Z,11nm,1.4s						
WRA	**Warramunga Arr**	**27.69**	**165**	P	**P**	**12 27 00.9**	**+0.7**
	comp=Z,0.4nm,0.6s,baz=346,slow=10.0,SNR=12						
	comp=Z,0.4nm,0.6s						
WRA	**Warramunga Arr**	**27.69**	**165**	P	**P**	**12 27 01.0**	**+0.9**
WR8	**Warramunga Arr**	**27.74**	**164**		**P**	**12 27 01.5**	**+0.9**
WR8				IAmb	IAmb	12 27 43.8	
	comp=Z,9.3nm,1.4s						
CMAR	**Chiang Mai Arr**	**29.51**	**295**	PcP	**PcP**	**12 30 22.1**	**+1.4**
	comp=Z,0.5nm,0.3s,baz=149,slow=0.9,SNR=7.4						
CMAR				LR	LR	12 41 01.3	
	comp=Z,15nm,19.1s,baz=150,slow=40						
KSRS	**Korea Array**	**30.41**	**2**	LR	LR	12 41 00.5	
	comp=Z,7.2nm,18.8s,baz=5.0,slow=39						
AS31	**Alice Springs**	**31.17**	**167**	P	**P**	**12 27 32.2**	**+1.2**
ASAR	**Alice Springs**	**31.17**	**167**	P	**P**	**12 27 31.4**	**+0.4**
ASAR				PcP	**PcP**	**12 30 24.9**	**0.0**
	comp=Z,0.2nm,0.5s,baz=358,slow=2.5,SNR=4.1						
ASAR				ScP	**ScP**	**12 34 01.9**	**-1.2**
	comp=Z,0.5nm,0.7s,baz=353,slow=3.9,SNR=4.5						
	comp=Z,0.5nm,0.4s						
ASAR	**Alice Springs**	**31.17**	**167**	P	**P**	**12 27 32.1**	**+1.2**
INKA	**Innaminka**	**36.98**	**159**	P	**P**	**12 28 22.3**	**+1.2**
INKA				IAmb	IAmb	12 28 49.4	
	comp=Z,2.0nm,1.1s						
BBOO	**Buckleboo**	**40.47**	**168**		**P**	**12 28 50.2**	**-0.2**
NWAO	**Narrogin (SRO)**	**40.68**	**192**	P	**P**	**12 28 52.2**	**+0.1**
STKA	**Stephens Creek**	**41.06**	**161**	P	**P**	**12 28 54.3**	**-1.0**
	comp=Z,1.0nm,0.5s,baz=330,slow=5.5,SNR=3.6						
	comp=Z,1.0nm,0.5s						
EVN	**Everest**	**43.28**	**304**	P	**P**	**12 29 13.6**	**-0.6**
EVN				IAmb	IAmb	12 29 16.8	
	comp=Z,3.0nm,0.7s						
SONM	**Songino Array**	**44.35**	**340**	P	**P**	**12 29 21.1**	**-0.8**
	comp=Z,0.3nm,0.4s,baz=146,slow=10,SNR=2.0						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**44.35**	**340**	P	**P**	**12 29 21.4**	**-0.5**
PALK	**Pallekele**	**45.80**	**273**	LR	LR	12 49 25.6	
	comp=Z,33nm,18.8s,baz=128,slow=37						
MKAR	**Makanchi Array**	**55.05**	**324**	P	**P**	**12 30 41.8**	**-1.5**
	comp=Z,2.3nm,0.6s,baz=118,slow=8.2,SNR=24						
MKAR				PcP	**PcP**	**12 31 43.8**	**-0.3**
	comp=Z,1.9nm,0.6s,baz=120,slow=3.4,SNR=7.9						
	comp=Z,2.3nm,0.6s						
MKAR	**Makanchi Array**	**55.05**	**324**		**P**	**12 30 42.1**	**-1.1**
PDGK	**Podgornoye**	**55.08**	**319**	P	**P**	**12 30 44.0**	**+0.4**
MAKZ	**Makanchi**	**55.24**	**324**		**P**	**12 30 43.6**	**-0.9**
MAKZ				IAmb	IAmb	12 30 46.0	
	comp=Z,2.6nm,0.8s						
ZAA0	**Zalesovo Array**	**57.84**	**332**	P	**P**	**12 31 03.3**	**+0.5**
ZAA0				IAmb	IAmb	12 31 04.1	
	comp=Z,1.9nm,1.1s						
ZALV	**Zalesovo Beam**	**57.84**	**332**	P	**P**	**12 31 02.5**	**-0.3**
	comp=Z,1.1nm,0.5s,baz=114,slow=6.7,SNR=6.2						
	comp=Z,1.1nm,0.5s						
KURK	**Kurchatov**	**59.16**	**326**	P	**P**	**12 31 12.4**	**+0.3**
KURBB	**Kurchatov Arra**	**59.16**	**326**	P	**P**	**12 31 12.9**	**+0.8**
	comp=Z,6.3nm,0.7s,baz=126,slow=6.2,SNR=59						
	comp=Z,6.3nm,0.7s						
KK31	**Karatay Array**	**61.03**	**316**	P	**P**	**12 31 23.7**	**-1.4**
KK31				IAmb	IAmb	12 31 25.6	
	comp=Z,2.4nm,1.0s						
KKAR	**Karatay Array**	**61.03**	**316**	P	**P**	**12 31 25.3**	**+0.1**
AFI	**Afiamalu**	**64.30**	**109**	LR	LR	12 56 28.8	
	comp=Z,24nm,19.8s,baz=243,slow=33						
BVAR	**Borovoye Array**	**64.75**	**326**	P	**P**	**12 31 50.0**	**+0.4**
	comp=Z,3.2nm,0.7s,baz=118,slow=8.6,SNR=16						
BVAR				PcP	**PcP**	**12 32 23.2**	**+0.4**
	comp=Z,1.2nm,0.6s,baz=119,slow=1.8,SNR=4.2						
	comp=Z,3.2nm,0.7s						
AB31	**Akbulak array**	**69.80**	**320**	P	**P**	**12 32 21.4**	**-0.2**
AB31				IAmb	IAmb	12 32 22.7	
	comp=Z,1.9nm,0.8s						
ABKAR	**Akbulak array**	**69.80**	**320**	P	**P**	**12 32 21.3**	**-0.3**
ILAR	**Eielson Array**	**82.18**	**26**	P	**P**	**12 33 30.7**	**-1.1**
	comp=Z,0.2nm,0.7s,baz=247,slow=4.6,SNR=5.7						
	comp=Z,0.2nm,0.7s						
ARCES	**ARCESS Array B**	**87.52**	**340**	P	**P**	**12 34 00.1**	**+1.6**
	comp=Z,2.6nm,0.8s,baz=78,slow=5.8,SNR=1.6						
	comp=Z,2.6nm,0.8s						
BRTR	**Keskin Array B**	**88.11**	**310**	LR	LR	13 17 55.7	
	comp=Z,13nm,18.1s,baz=10.0,slow=39						
FINES	**FINESS Array B**	**89.10**	**332**	P	**P**	**12 34 07.2**	**+1.1**
	comp=Z,3.9nm,0.9s,baz=80,slow=4.6,SNR=6.6						
	comp=Z,3.9nm,0.9s						
FINES	**FINESS Array B**	**89.10**	**332**	P	**P**	**12 34 06.5**	**+0.4**

*IDC **18** 12:27:44.9±2.8, 6°.79S×129°.44E, h127km±38km, mb3.4/1, mbtmp3.7/5, Error ellipse: s-maj=64.3km s-min=16.5km az=93.0*

ISC 18 12:27:43.2±1.0, 6°.91S±0°.07×129°.4E±0°.2, h100km, n5, σ2s40/8, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SIJI	**Sorong**	**6.29**	**17**	P		**Pn**	**12 29 15.4**	**+1.8**
	3.7nm,0.3s,baz=197,slow=23,SNR=9.2							
SIJI				S		**Sn**	**12 30 22.1**	**-1.9**
	6.2nm,0.2s,baz=249,slow=23,SNR=8.0							
FITZ	**Fitzroy Crossi**	**11.70**	**198**	P		**Pn**	**12 30 29.1**	**+2.1**
	1.5nm,0.9s,baz=4.1,slow=14,SNR=9.3							
FITZ				S		**Sn**	**12 32 33.4**	**-2.3**
	1.5nm,0.3s,baz=269,slow=23,SNR=5.8							
WRA	**Warramunga Arr**	**13.81**	**160**	P		**Pn**	**12 30 54.9**	**0.0**
	0.4nm,0.6s,baz=341,slow=12,SNR=9.3							
WRA				S		Sn	12 33 16.5	-11
	0.7nm,0.5s,baz=338,slow=23,SNR=11							
ASAR	**Alice Springs**	**17.21**	**166**	P		**P**	**12 31 40.0**	**+2.4**
	1.8nm,0.6s,baz=341,slow=9.3,SNR=32							
ASAR				S		**Sn**	**12 34 47.4**	**-1.8**
	0.3nm,0.4s,baz=348,slow=26,SNR=2.8							
MKAR	**Makanchi Array**	**67.82**	**327**	P		**P**	**12 38 28.8**	**-1.9**
	0.3nm,0.3s,baz=117,slow=8.1,SNR=8.1							
	0.3nm,0.3s							

*TAP **18** 12:40:08.8, 23°.33N×122°.77E, h56km, ML3.4, D*
*JMA **18** 12:40:08.2±0.2, 23°.N±1°×122°.7E±0°.6, h58km, MV2.5/15, NEAR ISHIGAKIJIMA ISLAND*

ISC 18 12:40:08.1±1.3, 23°.31N±0°.03×122°.71E±0°.02, h24km±14km, n138, σ1s04/266, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
EOS4	**EOS4**	**0.89**	**336**	*i* P		**Pn**	**12 40 24.6**	**-0.1**
EOS4				S		**Sb**	**12 40 36.0**	**+0.2**
EOS3	**EOS3**	**1.04**	**340**	P		**Pn**	**12 40 27.3**	**+0.3**
EOS3				*e*S		**Sn**	**12 40 40.0**	**-0.7**
TEGC	**Jichi Village**	**1.15**	**291**	P		**Pb**	**12 40 29.9**	**+0.7**
TEGC				*e*S		**Sb**	**12 40 44.9**	**+1.2**
JYNG	**Yonagunijimaku**	**1.16**	**11**	P		**Pn**	**12 40 29.4**	**+0.6**
JYNG				*e*S		**Sn**	**12 40 44.3**	**+0.4**
SHUL	**Shoufeng**	**1.16**	**295**	*e*P		**Pn**	**12 40 28.6**	**-0.2**
SHUL				*e*S		**Sn**	**12 40 42.7**	**-1.2**
ECBN	**Changbin**	**1.16**	**271**	P		**Pn**	**12 40 28.6**	**-0.2**
ECBN				*e*S		**Sn**	**12 40 42.6**	**-1.4**
TEYL	**Yanliau Villag**	**1.16**	**299**	P		**Pn**	**12 40 29.7**	**+0.8**
TEYL				*e*S		**Sb**	**12 40 46.8**	**+2.6**
YOJ	**Yonaguni jima**	**1.18**	**13**	*e*P		**Pn**	**12 40 29.9**	**+0.8**
YOJ	**Yonaguni jima**	**1.18**	**13**	P		**Pn**	**12 40 29.6**	**+0.5**
YOJ				*e*S		**Sn**	**12 40 45.0**	**+0.6**
EOS2	**EOS2**	**1.19**	**338**	*e*P		**Pn**	**12 40 29.9**	**+0.7**
EOS2				S		**Sn**	**12 40 45.1**	**+0.6**
HGSD	**Ruisui**	**1.20**	**279**	P		**Pn**	**12 40 28.8**	**-0.6**
HGSD				*e*S		**Sn**	**12 40 43.4**	**-1.5**
HWA	**Hwalien**	**1.21**	**303**	P		**Pn**	**12 40 30.0**	**+0.4**
HWA				*e*S		**Sn**	**12 40 46.0**	**+0.7**
CHKH	**Chenggong**	**1.22**	**265**	P		Pn	12 40 28.3	-1.3
CHKH				*e*S		**Sn**	**12 40 43.3**	**-2.0**
EGFH	**Guangfu**	**1.23**	**287**	P		**Pn**	**12 40 29.6**	**-0.3**
EGFH				*e*S		**Sn**	**12 40 46.0**	**+0.2**
HATJ	**Hateruma jima**	**1.25**	**53**	P		**Pn**	**12 40 30.3**	**+0.2**
HATJ				S		**Sn**	**12 40 45.8**	**-0.3**
CHKT	**Chengkung**	**1.26**	**261**	*e*P		**Pn**	**12 40 31.2**	**+1.0**
CHKT				*e*S		**Sn**	**12 40 43.9**	**-2.5**
EHYH	**Wanrong**	**1.27**	**279**	*e*P		**Pn**	**12 40 30.4**	**0.0**
EHYH				S		**Sn**	**12 40 46.6**	**-0.1**
ESL	**Shilin**	**1.28**	**293**	*e*P		**Pn**	**12 40 29.6**	**-0.9**
ESL				*e*S		**Sn**	**12 40 44.0**	**-2.8**
TWD	**Chiawan**	**1.28**	**307**	P		**Pn**	**12 40 29.7**	**-0.8**
TWD				*e*S		**Sn**	**12 40 47.3**	**+0.4**
EYUL	**Yuli**	**1.28**	**272**	*i* P		**Pn**	**12 40 30.4**	**-0.1**
EYUL				*e*S		**Sn**	**12 40 46.6**	**-0.4**
WARBT	**Fenglin Townsh**	**1.28**	**289**	*i* P		**Pn**	**12 40 30.1**	**-0.5**
WARBT				*e*S		**Sn**	**12 40 45.9**	**-1.1**
EHY	**Hungye**	**1.29**	**279**	*e*P		**Pn**	**12 40 30.6**	**-0.1**
EHY				S		**Sn**	**12 40 46.2**	**-1.1**
ETM	**Tongmen**	**1.29**	**301**	*e*P		**Pn**	**12 40 30.1**	**-0.6**
ETM				*e*S		**Sn**	**12 40 45.2**	**-2.1**
TWF1	**Yuli**	**1.30**	**272**	*i* P		**Pn**	**12 40 30.6**	**-0.2**
TWF1				S		**Sn**	**12 40 47.4**	**-0.1**
YULB	**Yu-li**	**1.30**	**274**	*e*P		**Pn**	**12 40 30.9**	**+0.1**
YULB				S		**Sn**	**12 40 47.4**	**-0.2**
ETL	**Fush Village**	**1.31**	**310**	P		**Pn**	**12 40 30.2**	**-0.7**
ETL				S		**Sn**	**12 40 48.1**	**+0.4**
FULB	**Fuli**	**1.31**	**265**	*e*P		**Pn**	**12 40 30.5**	**-0.5**
FULB				*e*S		**Sn**	**12 40 45.3**	**-2.4**
LDUT	**Ludao**	**1.31**	**241**	*e*P		**Pn**	**12 40 30.5**	**-0.4**
LDUT				*i* S		**Sn**	**12 40 47.1**	**-0.5**
EHP	**Heping Village**	**1.34**	**318**	P		**Pn**	**12 40 32.1**	**+0.8**
EHP				S		**Sn**	**12 40 48.4**	**+0.1**
NACB	**Ninganchiao**	**1.34**	**310**	*e*P		**Pn**	**12 40 30.6**	**-0.6**
NACB				S		**Sn**	**12 40 46.5**	**-1.8**
EDH	**Donghe**	**1.34**	**256**	*e*P		**Pn**	**12 40 31.7**	**+0.4**
EDH				*e*S		**Sn**	**12 40 46.6**	**-1.8**
EAHA	**Aohua**	**1.35**	**319**	*e*P		**Pb**	**12 40 33.0**	**+0.3**
EAHA				S		**Sn**	**12 40 49.8**	**+1.1**
IRIF	**Iriomote-Funau**	**1.38**	**42**	P		**Pn**	**12 40 32.3**	**+0.4**
IRIF				*e*S		**Sn**	**12 40 49.8**	**+0.4**
LXIB	**Xiulin Townshi**	**1.39**	**301**	*e*P		**Pn**	**12 40 31.8**	**+0.3**
LXIB				S		**Sn**	**12 40 49.4**	**-0.4**
ECS	**Chishang**	**1.39**	**261**	P		**Pn**	**12 40 32.9**	**+0.8**
ECS				S		**Sn**	**12 40 50.5**	**+0.9**
EHD	**Haiduan**	**1.40**	**264**	*e*P		**Pn**	**12 40 32.4**	**+0.3**
EHD				*e*S		**Sn**	**12 40 48.6**	**-1.2**
EWUT	**Wuta**	**1.42**	**323**	*e*P		**Pn**	**12 40 33.2**	**+0.8**
EWUT				S		**Sn**	**12 40 50.1**	**-0.2**
ENA	**Nanau**	**1.43**	**322**	P		**Pn**	**12 40 33.2**	**+0.7**
ENA				*e*S		**Sn**	**12 40 48.7**	**-1.9**
ETLH	**Xiulin Townshi**	**1.44**	**309**	*e*P		**Pn**	**12 40 32.3**	**-0.4**
ETLH				*e*S		**Sn**	**12 40 49.6**	**-1.4**
JKRS	**Kuro-shima**	**1.50**	**52**	P		**Pn**	**12 40 34.2**	**+0.6**
JKRS				*e*S		**Sn**	**12 40 52.1**	**-0.4**
VWDT	**VWDT**	**1.51**	**287**	P		**Pn**	**12 40 34.0**	**+0.4**
VWDT				S		**Sn**	**12 40 52.2**	**-0.3**
LONT	**Longtian**	**1.51**	**255**	P		**Pn**	**12 40 34.7**	**+1.0**
LONT				S		**Sn**	**12 40 52.5**	**-0.1**
TWC	**Suao**	**1.52**	**329**	P		**Pn**	**12 40 34.1**	**+0.4**
TWC				S		**Sn**	**12 40 51.7**	**-1.1**
OWD	**Renai**	**1.55**	**295**	*e*P		**Pn**	**12 40 34.3**	**0.0**
OWD				*e*S		**Sn**	**12 40 52.2**	**-1.5**
ELDTW	**Lidau**	**1.56**	**266**	P		**Pn**	**12 40 34.3**	**-0.2**
ELDTW				*e*S		**Sn**	**12 40 52.1**	**-2.0**
WHF	**Hehuan Shan**	**1.57**	**302**	*e*P		**Pn**	**12 40 34.7**	**-0.1**
WHF				S		**Sn**	**12 40 53.4**	**-1.2**
TWGBT	**Beinan**	**1.58**	**252**	P		**Pn**	**12 40 34.9**	**+0.2**
TWGBT				*e*S		**Sn**	**12 40 54.3**	**-0.1**
TWG	**Pinlang**	**1.59**	**252**	*e*P		**Pn**	**12 40 35.4**	**+0.6**
TWG				*e*S		**Sn**	**12 40 53.9**	**-0.6**
NDS	**Dongshan**	**1.60**	**326**	*e*P		**Pn**	**12 40 35.9**	**+0.9**
NDS				*i* S		**Sn**	**12 40 54.8**	**-0.1**
WUSB	**Renai**	**1.61**	**295**	*i* P		**Pn**	**12 40 35.6**	**+0.4**
WUSB				*e*S		**Sn**	**12 40 54.7**	**-0.6**
LATG	**Datong**	**1.63**	**319**	P		**Pn**	**12 40 35.6**	**+0.2**
LATG				S		**Sn**	**12 40 56.3**	**+0.1**
FUSS	**Fushou**	**1.64**	**305**	*i* P		**Pn**	**12 40 35.9**	**+0.3**
FUSS				*e*S		**Sn**	**12 40 55.2**	**-0.9**
NNSB	**Datong**	**1.65**	**313**	P		**Pn**	**12 40 36.3**	**+0.6**
NNSB				*e*S		**Sn**	**12 40 54.6**	**-1.7**
NNSH	**Datong**	**1.65**	**313**	P		**Pn**	**12 40 36.2**	**+0.5**
NNSH				S		**Sn**	**12 40 56.0**	**-0.3**
LAY	**Lan-yu**	**1.66**	**221**	P		**Pn**	**12 40 35.4**	**-0.3**
LAY				*e*S		**Sn**	**12 40 54.2**	**-2.1**
NNS	**Nan Shan**	**1.66**	**313**	P		**Pn**	**12 40 36.7**	**+0.8**
NNS				S		**Sn**	**12 40 56.9**	**+0.3**
LYUB	**Lan-yu**	**1.67**	**219**	P		**Pn**	**12 40 35.2**	**-0.6**
JIJ	**Ishigaki jima**	**1.68**	**51**	P		**Pn**	**12 40 36.1**	**+0.2**
JIJ				S		**Sn**	**12 40 56.0**	**-0.7**
SSLB	**Suanglung**	**1.68**	**287**	P		**Sn**	**12 40 36.4**	**+0.3**
SSLB				S		**Sn**	**12 40 56.5**	**-0.4**
ENTT	**Nioudou**	**1.69**	**322**	*e*P		**Pn**	**12 40 37.0**	**+0.9**
ENTT				*e*S		**Sn**	**12 40 57.5**	**+0.4**
NDT	**Datong Townshi**	**1.69**	**320**	P		**Pn**	**12 40 37.1**	**+0.9**
NDT				S		**Sn**	**12 40 57.8**	**+0.6**
TWT	**Tachien**	**1.69**	**304**	P		**Pn**	**12 40 36.5**	**+0.1**
TWT				S		**Sn**	**12 40 57.8**	**+0.4**
TWE	**Neicheng**	**1.70**	**326**	*e*P		**Pn**	**12 40 37.2**	**+0.9**
TWE				*e*S		**Sn**	**12 40 57.5**	**+0.2**
TDCB	**Techi**	**1.71**	**304**	*e*P		**Pn**	**12 40 37.1**	**+0.6**
TDCB				S		**Sn**	**12 40 57.4**	**-0.3**
WHYT	**Xinyi Township**	**1.75**	**283**	P		**Pn**	**12 40 37.5**	**+0.5**
WHYT				S		**Sn**	**12 40 58.9**	**+0.3**
WPL	**Puli Township**	**1.75**	**294**	P		**Pn**	**12 40 38.1**	**+1.0**
WPL				*e*S		**Sn**	**12 40 59.9**	**+1.2**
SMLT	**Sun Moon Lake**	**1.76**	**289**	*e*P		**Pn**	**12 40 38.1**	**+0.9**
SMLT				*e*S		**Sn**	**12 41 00.5**	**+1.6**
ALS	**Alishan**	**1.76**	**277**	*i* P		**Pn**	**12 40 38.6**	**+1.2**
ALS				*i* S		**Sn**	**12 40 59.8**	**+0.5**
ECL	**Taimali**	**1.77**	**247**	*e*P		**Pn**	**12 40 37.5**	**+0.2**
ECL				*e*S		**Sn**	**12 40 58.7**	**-0.3**
FUSB	**Fushanzhiwuyua**	**1.77**	**325**	P		**Pn**	**12 40 38.7**	**+1.4**
FUSB				S		**Sn**	**12 40 59.1**	**-0.1**
STYH	**Taoyuan**	**1.79**	**266**	P		**Pn**	**12 40 38.1**	**+0.6**
STYH				S		**Sn**	**12 40 59.6**	**+0.1**
DPDB	**Guoxing**	**1.79**	**294**	P		**Pn**	**12 40 38.6**	**+1.0**
DPDB				*e*S		**Sn**	**12 41 00.3**	**+0.7**
TYC	**Yuchr**	**1.80**	**290**	P		**Pn**	**12 40 38.7**	**+1.1**
TYC				*e*S		**Sn**	**12 41 01.1**	**+1.3**
STYT	**Tauyuan**	**1.81**	**266**	P		**Pn**	**12 40 38.3**	**+0.5**
STYT				S		**Sn**	**12 40 59.5**	**-0.5**
WCS	**Beigang Elemen**	**1.81**	**295**	P		**Pn**	**12 40 38.6**	**+0.8**
WCS				*e*S		**Sn**	**12 41 02.1**	**+2.1**
YHNB	**Yeheng**	**1.82**	**318**	P		**Pn**	**12 40 38.5**	**+0.4**
YHNB				S		**Sn**	**12 41 00.8**	**+0.3**
NWLT	**Wulai**	**1.83**	**323**	P		**Pn**	**12 40 38.8**	**+0.7**
NWLT				S		**Sn**	**12 41 00.2**	**-0.4**
NSG	**Sanguang**	**1.84**	**318**	P		**Pn**	**12 40 38.8**	**+0.5**
NSG				S		**Sn**	**12 41 01.1**	**+0.2**
TIPB	**Shuangxi**	**1.84**	**334**	*e*P		**Pn**	**12 40 39.7**	**+1.4**
TIPB				S		**Sn**	**12 41 00.7**	**-0.1**
WHP	**Taichung City**	**1.88**	**301**	*e*P		**Pb**	**12 40 41.3**	**-0.6**
WHP				S		**Sn**	**12 41 02.4**	**+0.5**
CHN5	**Tsauling**	**1.89**	**279**	*e*P		**Pb**	**12 40 41.2**	**-0.7**
CHN5				*e*S		**Sn**	**12 41 04.1**	**+2.0**
WJS	**Zhushan**	**1.89**	**286**	*e*P		**Pn**	**12 40 39.7**	**+0.8**
TPUB	**Ta-pu**	**1.92**	**270**	*e*P		**Pn**	**12 40 41.2**	**+1.9**
TPUB				*e*S		**Sn**	**12 41 04.5**	**+1.8**
SLGT	**Liugui**	**1.93**	**261**	P		**Pn**	**12 40 40.7**	**+1.3**
SLGT				S		**Sn**	**12 41 04.2**	**+1.3**
WTP	**Ta-pu**	**1.93**	**269**	*e*P		**Pn**	**12 40 41.4**	**+1.9**
WTP				S		**Sn**	**12 41 05.3**	**+2.2**
SXI1	**Grass Mountain**	**1.93**	**337**	P		**Pn**	**12 40 39.8**	**+0.2**
SXI1				S		**Sn**	**12 41 02.5**	**-0.7**
JISG	**Ishigakijimahi**	**1.94**	**49**	P		**Pn**	**12 40 39.6**	**+0.1**
JISG				*e*S		**Sn**	**12 41 02.6**	**-0.6**
TAWH	**Dawu Township**	**1.94**	**241**	P		**Pn**	**12 40 40.3**	**+0.7**
WCKO	**Fanlu**	**1.94**	**274**	*e*P		**Pb**	**12 40 42.5**	**-0.3**
WCKO				*e*S		**Sb**	**12 41 06.6**	**+0.1**
WNT	**Mingjian**	**1.94**	**287**	*e*P		**Pn**	**12 40 40.6**	**+1.0**
WNT				*e*S		**Sn**	**12 41 04.7**	**+1.3**
CHN4	**Tsaushan**	**1.95**	**272**	P		**Pb**	**12 40 42.0**	**-0.9**
CHN4				S		**Sn**	**12 41 05.2**	**+1.8**
NWF	**Wu-fen Shan**	**1.95**	**334**	P		**Pn**	**12 40 39.8**	**0.0**
NWF				S		**Sn**	**12 41 03.1**	**-0.5**
WFSB	**Wu-fen Shan**	**1.95**	**334**	P		**Pn**	**12 40 39.7**	**0.0**
WFSB				S		**Sn**	**12 41 02.5**	**-0.9**
EAST	**Anshuo**	**1.95**	**242**	P		**Pn**	**12 40 40.1**	**+0.3**
WNT1	**Nantou City**	**1.96**	**288**	*e*P		**Pn**	**12 40 40.2**	**+0.4**
WNT1				*e*S		**Sn**	**12 41 04.8**	**+1.1**
NFF	**Wufeng Townshi**	**1.96**	**312**	*e*P		**Pb**	**12 40 42.3**	**-0.9**
NFF				*e*S		**Sb**	**12 41 06.9**	**-0.4**
SGST	**Jiashian**	**1.97**	**264**	P		**Pn**	**12 40 41.3**	**+1.2**
SGST				S		**Sn**	**12 41 05.7**	**+1.7**
WWF	**Wufeng**	**1.99**	**292**	*e*P		**Pb**	**12 40 43.8**	**+0.3**
WWF				S		**Sn**	**12 41 06.1**	**+1.7**
SSD	**Sandimen**	**2.00**	**254**	*e*P		**Pb**	**12 40 43.7**	**0.0**
TATO	**Taipei**	**2.00**	**326**	*e*P		**Pn**	**12 40 42.4**	**+2.0**
TATO				S		**Sn**	**12 41 05.0**	**+0.3**
CHN1	**Nanshi**	**2.01**	**267**	*e*P		**Pb**	**12 40 43.2**	**-0.8**
CHN1				*i* S		**Sb**	**12 41 08.0**	**-0.6**
KSHI	**Guanxi Townshi**	**2.03**	**316**	*e*P		**Pn**	**12 40 43.1**	**+2.4**
KSHI				*e*S		**Sb**	**12 41 08.2**	**-0.9**
WDLH	**Douliu**	**2.03**	**281**	*e*P		**Pb**	**12 40 43.8**	**-0.5**
WDLH				*e*S		**Sb**	**12 41 09.5**	**+0.3**
MASBT	**Mashibuluo**	**2.04**	**251**	*e*P		**Pn**	**12 40 42.3**	**+1.4**
MASBT				S		**Sn**	**12 41 05.7**	**0.0**
SNST	**Tainan City**	**2.04**	**268**	*e*P		**Pb**	**12 40 44.2**	**-0.2**
SNST				*e*S		**Sb**	**12 41 10.1**	**+0.7**
LIOB	**Emei**	**2.04**	**311**	*e*P		**Pb**	**12 40 43.5**	**-1.0**
LIOB				*e*S		**Sb**	**12 41 08.6**	**-1.0**
NSTT	**Nanjuang**	**2.04**	**310**	*e*P		**Pb**	**12 40 43.7**	**-0.8**
NSTT				*e*S		**Sn**	**12 41 08.1**	**+2.2**
TWK	**Hsinying**	**2.05**	**269**	*e*P		**Pn**	**12 40 43.5**	**+2.4**
TWK				*i* S		**Sn**	**12 41 08.5**	**+2.5**
NJD	**Zhudong**	**2.06**	**314**	*e*P		**Pn**	**12 40 41.8**	**+0.6**
NJD				*e*S		**Sn**	**12 41 06.2**	**+0.1**
TWQ1	**Liyutan**	**2.06**	**301**	P		**Pn**	**12 40 43.4**	**+2.2**
TWQ1				S		**Sn**	**12 41 07.1**	**+1.0**
SLIU	**Shizi**	**2.07**	**239**	P		**Pn**	**12 40 42.0**	**+0.6**
SLIU				S		**Sn**	**12 41 07.4**	**+0.9**
SCST	**Cishan**	**2.09**	**259**	P		**Pb**	**12 40 44.4**	**-0.9**
SCST				*e*S		**Sb**	**12 41 12.1**	**+1.4**
YM01	**YM01**	**2.10**	**331**	*e*P		**Pn**	**12 40 43.4**	**+1.5**
YM01				*e*S		**Sn**	**12 41 07.5**	**+0.2**
WCHH	**Zhanghua**	**2.12**	**292**	P		**Pn**	**12 40 43.6**	**+1.6**
WCHH				*e*S		**Sn**	**12 41 08.5**	**+0.9**
ZUZH	**Zhuzihu**	**2.13**	**330**	*e*P		**Pn**	**12 40 43.8**	**+1.6**
ZUZH				*e*S		**Sn**	**12 41 08.8**	**+0.4**
YM08	**YM08**	**2.13**	**332**	P		**Pn**	**12 40 42.9**	**+0.6**
YM08				*e*S		**Sn**	**12 41 08.0**	**-0.1**
TSPT	**Pingtung City**	**2.14**	**253**	P		**Pn**	**12 40 43.9**	**+1.6**
SCZT	**Fangliau**	**2.14**	**245**	P		**Pn**	**12 40 43.8**	**+1.5**
SCZT				S		**Sn**	**12 41 08.7**	**+0.5**
SMST	**Manzhou Townsh**	**2.15**	**234**	P		**Pn**	**12 40 44.2**	**+1.7**
SMST				S		**Sn**	**12 41 09.2**	**+0.7**
TWY	**Chenhua**	**2.21**	**333**	P		**Pn**	**12 40 44.0**	**+0.8**
TWY				S		**Sn**	**12 41 09.0**	**-0.7**
TWKBT	**Hengchun**	**2.22**	**233**	P		**Pn**	**12 40 44.8**	**+1.3**
TWKBT				*e*S		**Sn**	**12 41 09.6**

	3.8nm,0.4s,baz=154,slow=14,SNR=15							
MJAR				S	Sn	12 51 32.0	0.0	
	2.8nm,0.5s,baz=152,slow=21,SNR=5.5							
H11N2	WAKE ISLAND Hy	27.18	114	T	T	13 24 30.1		
	baz=306,slow=75,SNR=8.7							
H11N1	WAKE ISLAND Hy	27.19	114	T	T	13 24 30.6		
	baz=306,slow=75,SNR=5.8							
H11N3	WAKE ISLAND Hy	27.20	114	T	T	13 24 29.2		
	baz=306,slow=75,SNR=5.5							
WRA	Warramunga Arr	53.67	187	P	P	12 59 17.1	-0.6	
	0.6nm,0.5s,baz=4.6,slow=7.6,SNR=17							
	0.6nm,0.5s							
ASAR	Alice Springs	57.40	187	P	P	12 59 44.4	-0.1	
	0.3nm,0.6s,baz=16,slow=12,SNR=4.8							
	0.3nm,0.6s							

*IDC **18** 12:51:45.8±7.2,20°.50S×175°.55W,h229km±50km, mb3.7/7, mbtmp4.2/8, MS3.1/3, Error ellipse: s-maj=76.0km s-min=22.3km az=128.0*
*NOU **18** 12:51:52.0, 19°.60S×175°.60W, h282km, mb4.7/14, Tonga Islands*
ISC 18 12:51:50.5±0.7, 19°.7S±0°.1×175°.55W±0°.08, h250km, n29, σ1§77/25, mb3.8/7, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LKBA	Tubou, Lakemba	3.42	295	P	Pn	12 52 49.4	+1.7
TAVE	Taveuni	5.10	305	P	Pn	12 53 09.9	+2.3
NIUE	Niue	5.34	84	P	Pn	12 53 12.7	+2.1
DGTI	Dogotuki	5.62	306	P	Pn	12 53 16.1	+2.1
MSVF	Nonsavu	6.37	287	P	Pn	12 53 22.4	-1.0
	14nm,0.7s,baz=118,slow=17,SNR=12						
MSVF				LR	LR	12 55 33.6	
	comp=Z,88nm,18.5s,baz=68,slow=34						
MSVF	Nonsavu	6.37	287	P	Pn	12 53 24.9	+1.4
AFI	Afiamalu	6.80	33	P	Pn	12 53 29.7	+0.8
	7.1nm,0.7s,baz=174,slow=18,SNR=1.5						
AFI				S	S	12 54 44.7	-3.0
	29nm,0.4s,baz=58,slow=21,SNR=11						
MARNC	Mare, Loyalty	15.48	261	P	P	12 55 13.3	-2.4
DVP	Devils Point	15.53	275	P	P	12 55 17.1	+0.8
PINNC	Pines Island,	16.12	257	P	P	12 55 21.3	-1.4
YATNC	Mamie plateau,	16.57	259	P	P	12 55 28.2	+0.5
DZM	Mont Dzumac	16.99	259	P	P	12 55 30.8	-1.6
	16nm,0.7s,baz=83,slow=19,SNR=12						
QRZ	Quartz Range	23.39	203	P	P	12 56 37.4	+0.3
PPT	Papeete	24.70	89	LR	LR	13 06 42.5	
	comp=Z,19nm,18.1s,baz=153,slow=36						
TATA	Tatamba Isabel	26.38	292	P	P	12 57 02.7	-1.6
PYZ	Puysegur Point	30.17	205	P	P	12 57 38.3	+0.8
PMG	Port Moresby	37.44	280	LR	LR	13 12 00.7	
	comp=Z,84nm,18.1s,baz=166,slow=32						
STKA	Stephens Creek	40.20	244	P	P	12 58 56.0	-7.1
	1.2nm,0.6s,baz=98,slow=6.2,SNR=3.6						
	1.2nm,0.6s						
ASAR	Alice Springs	46.94	256	P	P	12 59 52.6	-4.2
	5.0nm,0.7s,baz=94,slow=8.1,SNR=54						
ASAR				PcP	PcP	13 01 23.0	-2.1
	0.8nm,0.6s,baz=105,slow=3.9,SNR=6.6						
	5.0nm,0.7s						
WRA	Warramunga Arr	46.99	261	P	P	12 59 52.9	-4.3
	2.2nm,0.6s,baz=98,slow=8.8,SNR=39						
WRA				PcP	PcP	13 01 22.8	-2.5
	0.4nm,0.5s,baz=101,slow=3.1,SNR=2.6						
	2.2nm,0.6s						
MJAR	Matsushiro Arr	70.97	322	P	P	13 02 41.4	+0.3
	1.3nm,0.5s,baz=156,slow=5.8,SNR=5.1						
	1.3nm,0.5s						
PETK	Petropavlovsk-	76.12	344	P	P	13 03 12.6	+2.0
	6.5nm,0.9s,baz=157,slow=5.4,SNR=3.6						
	6.5nm,0.9s						
H03S2	Juan Fernandez	84.53	124	T	T	14 36 60.0		
	baz=247,slow=74						
H03S1	Juan Fernandez	84.55	124	T	T	14 36 59.1		
	baz=247,slow=74							
H03S3	Juan Fernandez	84.55	124	T	T	14 36 55.3		
	baz=247,slow=74							
ILAR	Eielson Array	87.05	12	P	P	13 04 08.1	+0.7	
	0.4nm,0.7s,baz=217,slow=4.8,SNR=11							
	0.4nm,0.7s							
CMAR	Chiang Mai Arr	92.03	289	P	P	13 04 31.8	+0.1	
	0.3nm,0.3s,baz=93,slow=3.3,SNR=4.8							
	0.3nm,0.3s							
BRTR	Keskin Array B	147.96	315	PKPbc	PKPdf	13 11 05.1	+1.8	
	1.8nm,0.6s,baz=65,slow=4.1,SNR=5.4							
GERES	GERESS Array B	149.99	348	PKP	PKPdf	13 11 03.7	-2.5	
	0.9nm,0.7s,baz=0.0,slow=2.0,SNR=5.4							
GERES				PKPbc	PKPbc	13 11 10.8	-0.6	
	0.7nm,0.4s,baz=340,slow=2.8,SNR=3.6							

*DSN **18** 13:00:01.8±1.0,26°.98N×55°.87E, h0km, ML3.6/12, Error ellipse: s-maj=15.5km s-min=4.7km az=56.0*
*TEH **18** 13:00:03.8,26°.87N×56°.01E, h17km±61km, ML3.4, Presumed earthquake*
*OMAN **18** 13:00:04.4±1.0,26°.92N×55°.93E, h18km±10km, ml3.2/16, Error ellipse: s-maj=8.7km s-min=5.6km az=147.0*
ISC 18 13:00:03.1±1.5, 26°.87N±0°.05×55°.95E±0°.06, h5km±11km, n41, σ1§22/56, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IBND	Bandar-abas	0.78	42	Pg	Pg	13 00 18.4	+0.3
SHME	Shamm	0.83	168	eP	Pg	13 00 20.1	+1.0
	SNR=80						
SHME				S	Sn	13 00 34.6	+0.5
SHME	Shamm	0.83	168	P	Pn	13 00 20.5	-1.0
	SNR=83						
SHME				S	Sn	13 00 33.7	-0.4
BANOM	Banah	0.99	162	eP	Pn	13 00 23.2	-0.4
	SNR=154						
BANOM				S	Sn	13 00 38.1	0.0
BANOM	Banah	0.99	162	P	Pn	13 00 23.2	-0.4
	SNR=151						
BANOM				S	Sn	13 00 38.3	+0.2
MASF	Masafi	1.50	173	P	Pg	13 00 32.1	+0.3
	SNR=34						
MASF				S	Sg	13 00 52.2	+0.9
MSFE	Esma-Masafi	1.51	173	eP	Pb	13 00 32.0	+0.3
	SNR=34						
MDH	Madha	1.59	169	eP	Pb	13 00 33.2	+0.2
	SNR=25						
MDH	Madha	1.59	169	P	Pb	13 00 33.2	+0.2
	SNR=25						
MDH				S	Sg	13 00 53.9	-0.3
NAZ	Nazwa, Dubai	1.89	188	P	Pb	13 00 37.4	-0.7
KHNJ	Kahnooj	1.89	55	Pn	Pn	13 00 36.0	-0.1
UOSS	Minazif	1.93	173	eP	Pb	13 00 37.7	-1.0
	SNR=17						
UOSS	Minazif	1.93	173	P	Pb	13 00 38.1	-0.7
JASK	Jask - Hormozg	1.98	120	P	Pb	13 00 39.5	-0.1
	SNR=6.0						
JASK	Jask - Hormozg	1.98	120	Pn	Pb	13 00 37.3	-2.3
HATD	Hatta, Dubai	2.04	175	P	Pb	13 00 40.0	-0.6
ASHO	Ashiyiah	2.17	177	eP	Pb	13 00 41.5	-1.4
	SNR=37						
ASHO	Ashiyiah	2.17	177	P	Pb	13 00 41.5	-1.4
	SNR=37						
AJN	Ajban	2.45	201	P	Pb	13 00 46.0	-1.7
SOHO	SOHO	2.77	169	eP	Pn	13 00 49.0	+0.8
	SNR=12						
SOHO	SOHO	2.77	169	P	Pn	13 00 49.0	+0.8
	SNR=12						
ALNE	Al Ain	2.80	184	P	Pn	13 00 50.2	+1.6
ALNE				S	Sb	13 01 24.8	-3.5
HOQ	Hoqain	3.49	159	P	Pn	13 00 59.4	+1.3
HOQ				S	Sn	13 01 41.2	+1.4
ARQ	Araqi	3.55	172	P	Pn	13 01 00.3	+1.3
	SNR=10						
ARQ				S	Sn	13 01 43.9	+2.6
UMZA	Um Al Zommool	4.20	190	P	Pn	13 01 08.0	+0.3
UMZA				S	Sn	13 01 57.9	+0.8
SMDO	Samad	4.24	153	P	Pn	13 01 10.3	+1.8
SMDO				S	Sn	13 01 60.0	+1.5
BSY	Bisya	4.26	164	P	Pn	13 01 09.9	+1.2
BSY				S	Sn	13 02 00.8	+2.1
CHBR	Chabahar	4.26	106	Pn	Pn	13 01 09.4	+0.8
WSAR	Wadi Sarin	4.35	146	P	Pn	13 01 10.7	+0.7
WSAR				S	Sn	13 02 00.2	-0.9
JMDO	Jabal Madar	4.88	156	P	Pn	13 01 19.0	+1.8
JMDO				S	Sn	13 02 16.1	+1.9
NGCH	Negor - Chabah	4.90	107	P	Pn	13 01 18.4	+1.0
NGCH				S	Sn	13 02 14.9	+0.5
WBK	Wadi Bani Khal	5.05	146	P	Pn	13 01 19.8	+0.3
JLN	Jalan Bani Buh	5.65	145	P	Pn	13 01 27.5	-0.3
IRAM	Ramesheh	5.83	329	Pn	Pn	13 01 32.3	+1.9
MHTO	MHTO	6.14	162	P	Pn	13 01 35.1	+0.7
DQM	DQM	7.06	168	P	Pn	13 01 47.9	+0.8
DOK	Doka	8.38	192	P	Pn	13 02 06.0	+0.7
SHAO	Shalim	8.81	182	P	Pn	13 02 09.9	-1.2
WHFO	Wadi Hawf	9.13	193	P	Pn	13 02 15.9	+0.3
DMTO	DMTO	9.15	186	P	Pn	13 02 15.1	-0.8
ABTO	Aybut	9.78	195	P	Pn	13 02 23.9	-0.6

*RSNC **18** 13:20:31.2±1.0, 9°.N±2°.×7°.1W±°, h22km±12km, M3.0, mb3.8, ML2.7*
*FUNV **18** 13:20:32.8, 8°.61N×71°.42W, h6km, MW3.5, Presumed earthquake*
ISC 18 13:20:30.0±0.9, 8°.64N±0°.04×71°.42W±0°.03, h8km, n31, σ1§70/41, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SDV	Santo Domingo	0.82	72	P	Pg	13 20 46.1	+0.4
SDV				S	Sg	13 20 57.0	+0.6
CAPV	Capacho	1.17	229	eS	Sg	13 21 09.6	+1.8
OCAC	Ocana	1.92	258	P	Pn	13 21 03.3	+0.2
OCAC				S	Sn	13 21 28.5	+0.9
TAMC	Tame, Arauca	2.22	190	P	Pn	13 21 08.4	+1.3
BARC	Barichara	2.68	221	P	Pn	13 21 16.5	+2.8
CRJC	Cerrejon, Guaj	2.77	329	P	Pn	13 21 13.6	-1.2
CRJC				S	Sn	13 21 46.4	-2.1
URIC	Uribia, Colomb	3.10	350	P	Pn	13 21 16.4	-2.8
URIC	Uribia, Colomb	3.10	350	eP	Pn	13 21 21.8	+2.6
URIC				eS	Sn	13 21 57.6	+1.2
MAPV	Macapo	3.16	68	eP	Pn	13 21 22.3	+2.2
MAPV				eS	Sn	13 21 58.8	+0.8
RUSC	La Rusia	3.19	211	P	Pn	13 21 22.9	+2.0
RUSC				S	Sn	13 22 01.3	+2.0
RUSC	La Rusia	3.19	211	eP	Pn	13 21 22.6	+1.8
RUSC				eS	Sn	13 21 58.8	-0.6
BAUV	El Baul	3.35	85	eS	Sn	13 22 03.2	+0.4
JACV	Jacura	3.53	46	eP	Pn	13 21 27.8	+2.6
PTBC	PUERTO BERRIO,	3.66	235	P	Pn	13 21 25.4	-1.6
SMRC	Santa Marta, M	3.73	312	P	Pn	13 21 25.9	-2.0
SJCC	San Jacinto, C	3.92	289	P	Pn	13 21 31.2	+0.7
SJCC				S	Sn	13 22 16.9	+0.2
SJCC	San Jacinto, C	3.92	289	eP	Pn	13 21 31.4	+0.9
SJCC				eS	Sn	13 22 17.1	+0.4
SPBC	San Pablo de B	3.96	222	P	Pn	13 21 31.7	+0.5
TURV	Turiamo	3.96	63	eP	Pn	13 21 33.1	+2.0
TURV				eS	Sn	13 22 17.8	0.0
BENV	Beln	4.00	70	eP	Pn	13 21 33.7	+2.0
BENV				eS	Sn	13 22 18.3	-0.4
TACV	Tcata	4.58	71	eP	Pn	13 21 42.0	+2.2
TACV				eS	Sn	13 22 31.9	-1.3
NORC	Norcasia	4.59	228	P	Pn	13 21 40.3	+0.6
CHIC	Chingaza	4.60	210	P	Pn	13 21 41.5	+1.3
HELC	Santa Helena	4.74	239	eS	Sn	13 22 35.7	-1.9
FUNV	FUNVISIS	4.90	68	eS	Sn	13 22 39.2	-1.9
CACV	CAICARA DEL OR	4.95	102	eP	Pb	13 21 53.6	-3.4
CACV				eS	Sb	13 22 53.1	-3.5
MERV	Las Mercedes	5.10	83	eP	Pn	13 21 47.6	+0.9
MERV				eS	Sn	13 22 43.7	-2.2
GUY2C	Guyana, Caldas	5.18	229	P	Pn	13 21 49.4	+1.1
	7.1nm,0.7s						
GUY2C				AML	AML		
ORTC	Ortega, Tolima	6.04	219	P	Pn	13 21 58.6	-1.2
URMC	La Uribe, Meta	6.11	209	P	Pn	13 22 01.5	+0.8
PCRV	Puerto La Cruz	6.87	77	eS	Sn	13 23 26.5	-3.0

*OSPL **18** 13:33:42.4±0.9, 18°.61N×69°.30W, h97km±7km, ML2.8, Presumed earthquake*
*SDD **18** 13:33:44.4±2.2, 18°.63N×69°.42W, h95km±7km, MD3.4, ML3.2, MW3.5, Presumed earthquake*
ISC 18 13:33:43.3±1.5, 18°.62N±0°.06×69°.43W±0°.03, h91km±9km, n26, σ0§88/38, 2C-2D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HATOM	Hato Mayor del	0.17	14	⇑iP	Pn	13 33 55.5	-0.9
HATOM				iS	Sn	13 34 06.2	+0.1
HATOM				IAML		13 34 07.8	
	comp=N,342nm,0.2s						
SDD	Santo Domingo	0.49	251	iP	Pn	13 33 57.7	-0.3
SDD				iS	Sn	13 34 09.3	+0.2
SDD				IAML		13 34 10.4	
	comp=N,289nm,0.1s						
SDD	Santo Domingo	0.49	251	iP	Pn	13 33 58.0	0.0
SDD				eS	Sn	13 34 09.2	+0.2
HIDR	Higuey Centro	0.67	92	iP	Pn	13 33 59.4	-0.3
HIDR				iS	Sn	13 34 12.8	+1.0
HIDR				IAML		13 34 14.4	
	comp=N,1μm,0.3s						
SMDR	Samana, DR	0.70	19	iP	Pn	13 33 58.8	-1.2
SMDR				iS	Sn	13 34 12.8	+0.5
SMDR				IAML		13 34 16.8	
	comp=N,2μm,0.7s						
SADR	Isla Saona	0.75	125	iP	Pn	13 34 00.9	+0.6
SADR				iS	Sn	13 34 12.8	-0.3
SADR				IAML		13 34 15.8	
	comp=N,456nm,0.9s						
BANI	BANI	0.91	256	iP	Pn	13 34 03.3	+1.0
BANI				iS	Sn	13 34 17.7	+1.3
BANI				IAML		13 34 20.4	
	comp=N,750nm,0.2s						
PCDR	Punta Cana, DR	1.00	96	⇓iP	Pn	13 34 03.0	0.0
PCDR				iS	Sn	13 34 16.8	-1.1
PCDR				IAML		13 34 21.6	
	comp=N,265nm,0.8s						
SFDR	San Fco. de Ma	1.02	311	iP	Pn	13 34 03.7	+0.4
SFDR				iS	Sn	13 34 19.1	+0.8
SFDR				IAML		13 34 19.5	
	comp=N,1μm,0.5s						
CADR	Cabrera	1.15	335	iP	Pn	13 34 05.7	+0.8
CADR				IAML		13 34 26.0	
	comp=N,532nm,0.2s						
ABDR	Alto Bandera	1.15	280	iP	Pn	13 34 05.2	-0.1
ABDR				iS	Sn	13 34 21.6	-0.1
ABDR				IAML		13 34 24.2	
	comp=N,466nm,0.8s						
SODR	Sosua Marina B	1.57	316	iP	Pn	13 34 10.6	+0.6
SODR				IAML		13 34 44.0	
	comp=N,301nm,0.8s						
SDDR	Presa de Saban	1.80	282	iP	Pn	13 34 13.2	+0.2
SDDR				IAML		13 34 42.0	
	comp=N,176nm,0.6s						
PODR	Polo	1.82	256	⇓iP	Pn	13 34 13.1	-0.3
PODR				IAML		13 34 39.1	
	comp=N,218nm,0.9s						
MADR	Mao Valverde	1.84	301	iP	Pn	13 34 13.0	-0.5
MADR				iS	Sn	13 34 34.6	-1.9
MADR				IAML		13 34 41.9	
	comp=N,318nm,0.5s						
LUDR	Luperon	1.92	312	iP	Pn	13 34 13.7	-0.8
REDR	Restauracion	1.94	287	iP	Pn	13 34 17.4	+2.6
REDR				IAML		13 34 50.8	
	comp=N,141nm,0.2s						
LODU1	El Espartillar	1.96	263	iP	Pn	13 34 15.2	+0.1
LOVI	El Cajuil, Ovi	2.02	246	iP	Pn	13 34 15.0	-0.8
LOVI				eS	Sn	13 34 39.3	-1.3
AGPR	Aguadilla, PR	2.20	94	iP	Pn	13 34 17.9	-0.3
AGPR				IAML		13 34 57.3	
	comp=N,102nm,0.3s						
PRSN	Puerto Rico Se	2.20	100	iP	Pn	13 34 18.7	+0.5
PRSN				IAML		13 34 56.0	
	comp=N,414nm,0.3s						
CRPR	Cabo Rojo, PR	2.28	105	iP	Pn	13 34 19.9	+0.5
CRPR				IAML		13 34 59.5	
	comp=N,49nm,0.2s						
JIDR	Jimani	2.30	267	iP	Pn	13 34 19.1	-0.5
JIDR				IAML		13 34 50.4	
	comp=N,78nm,0.7s						
MLPR	Magueyes Islan	2.35	106	iP	Pn	13 34 19.3	-0.9
MLPR				IAML		13 34 56.1	
	comp=N,15nm,0.4s						
AOPR	Arecibo Observ	2.55	96	⇑iP	Pn	13 34 23.7	+0.8
AOPR				IAML		13 35 04.6	
	comp=N,275nm,0.2s						
CELP	Cerrillos	2.76	101	iP	Pn	13 34 26.3	+0.6
CELP				IAML		13 35 08.8	
	comp=N,43nm,0.5s						

*MDD **18** 13:50:16.1±1.3, 37°.22N×14°.07W, h12km±65km, Mb4.1/4, M_mb3.4/4, Error ellipse: s-maj=72.0km s-min=14.3km az=74.0*
*IGIL **18** 13:50:19.8, 37°.09N×14°.20W, h36km, ML2.3*
*INMG **18** 13:50:20.2±1.2, 37°.13N×14°.16W, h60km±16km, ML2.2, Error ellipse: s-maj=11.8km s-min=9.4km az=160.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Josephine*
ISC 18 13:50:16.7±2.3, 37°.2N±0°.1×13°.9W±0°.1, h22km, n31, σ1§66/48, 4C, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	Vila Bisbo	4.06	89	S	Sn	13 52 02.3	-2.0
PFVI	Vila Bisbo	4.06	89	eS	Sn	13 52 04.2	-0.1
PMAFR	Mafra	4.07	62	P	Pn	13 51 17.4	-0.1
PMAFR				S	Sn	13 52 05.8	+1.3
PMAFR	Mafra	4.07	62	eS	Sn	13 52 07.1	+2.6
MORF	Marmelete	4.19	86	eP	Pn	13 51 21.4	+2.0
MORF				eS	Sn	13 52 05.9	-1.8
MORF				IAML		13 52 10.8	
	comp=N,5.9nm,0.3s						
MORF	Marmelete	4.19	86	eP	Pn	13 51 21.6	+2.2
MORF				eS	Sn	13 52 06.8	-0.9
PLOUS	Minas do Lousa	4.44	77	eP	Pn	13 51 24.6	+1.9
PLOUS				eS	Sn	13 52 12.7	-1.0
PLOUS				IAML		13 52 13.4	
PLOUS				IAML		13 52 17.6	
PLOUS				IAML		13 52 19.3	
MESJ	Messejana	4.57	80	eS	Sn	13 52 17.5	+0.6
MOE	Montemor	4.60	71	eP	Pn	13 51 26.9	+1.9
MOE				eS	Sn	13 52 16.8	-0.9
MOE				IAML		13 52 19.5	
MOE				IAML		13 52 21.2	
MOE				IAML		13 52 22.4	
PCVE	Castro Verde	4.70	82	P	Pn	13 51 28.3	+2.1
PCVE				S	Sn	13 52 18.5	-1.5
PCVE	Castro Verde	4.70	82	eS	Sn	13 52 18.4	-1.6
PBDV	Barranco-do-Ve	4.77	87	S	Sn	13 52 23.5	+1.6
EVO	Evora	4.86	72	eS	Sn	13 52 23.2	-0.9
EVO				IAML		13 52 25.3	
EVO				IAML		13 52 27.1	
PMTG	Montargil	4.87	65	eP	Pn	13 51 30.1	+1.5
PMTG				eS	Sn	13 52 22.7	-1.5
PMTG				IAML		13 52 24.9	
PMTG				IAML		13 52 26.4	
PMTG				IAML		13 52 29.5	
PMTG	Montargil	4.87	65	P	Pn	13 51 29.4	+0.8
PMTG				S	Sn	13 52 22.9	-1.3
PARRA	Arraiolos	4.92	69	eP	Pn	13 51 30.9	+1.6
PARRA				eS	Sn	13 52 23.7	-1.8
PARRA				IAML		13 52 27.0	
PARRA				IAML		13 52 27.8	
PARRA				IAML		13 52 30.9	
PVAQ	Vaqueiros	4.94	85	eS	Sn	13 52 25.4	-0.6
PVAQ				IAML		13 52 26.2	
PVAQ				IAML		13 52 28.3	
PMOZ	Porto Moniz, M	5.10	213	P	Pn	13 51 30.6	-1.3
PSARD	Sardoal	5.13	60	eS	Sn	13 52 29.5	-1.2
PSARD				IAML		13 52 33.1	
PSARD				IAML		13 52 33.6	
EGRO	El Granado	5.13	84	P	Pn	13 51 33.7	+1.5
EGRO				S	Sn	13 52 29.6	-1.2
EGRO	El Granado	5.13	84	P	Pn	13 51 34.0	+1.8
EGRO				⇑IVmb_VC		13 51 35.0	
	comp=N,136nm,SNR=1.5						
EGRO				S	Sn	13 52 28.9	-1.8
PESTR	Estremoz	5.27	69	S	Sn	13 52 35.4	+1.2
PBAR	Barrancos	5.54	77	S	Sn	13 52 40.9	0.0
PBAR	Barrancos	5.54	77	eS	Sn	13 52 39.3	-1.5
PBAR				IAML		13 52 45.6	
PBAR				IAML		13 52 45.8	
PBAR				IAML		13 52 48.2	
PMRV	Marv??o	5.60	64	eP	Pn	13 51 40.8	+2.1
PMRV				eS	Sn	13 52 40.9	-1.5
PMRV				IAML		13 52 43.2	
PMRV				IAML		13 52 43.5	
PMRV				IAML		13 52 44.2	
EBAD	Badajoz	5.67	72	P	Pn	13 51 41.1	+1.4
EBAD				S	Sn	13 52 42.0	-2.1
EBAD	Badajoz	5.67	72	P	Pn	13 51 41.0	+1.4
EBAD				⇑IVmb_VC		13 51 49.0	
	comp=N,85nm,SNR=1.0						
EBAD				S	Sn	13 52 41.7	-2.4
EPLA	Plasencia	6.78	62	S	Sn	13 53 07.9	-3.5
ECAB	El Cabril	6.80	80	P	Pn	13 51 56.9	+1.7
ECAB				S	Sn	13 53 12.2	+0.3
ECAB	El Cabril	6.80	80	P	Pn	13 51 55.8	+0.7
ECAB				⇑IVmb_VC		13 52 03.8	
	comp=N,84nm,SNR=1.6						
ECAB				S	Sn	13 53 09.2	-2.7
EADA	Adamuz	7.47	79	P	Pn	13 52 03.7	-0.7
EADA				⇑IVmb_VC		13 52 07.9	
	comp=N,67nm,SNR=1.1						
EADA				S	Sn	13 53 26.7	-1.7

*IDC **18** 14:23:21.1±1.2, 32°.36N×142°.10E, h0km, mb3.8/5, mbtmp3.8/8, MLB3.4/4, MS2.8/2, Error ellipse: s-maj=30.0km s-min=11.1km az=69.0*
*NEIC **18** 14:23:22.8±1.1, 32°.32N±0°.07×142°.0E±0°.1, h10km±1km, mb4.3/7, Error ellipse: s-maj=15.5km s-min=12.0km az=65.0*
*NIED **18** 14:23:25.7, 32°.39N×141°.78E, h63km, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}2.95; $M_{\theta\theta}$0.41; $M_{\phi\phi}$-3.36; $M_{r\theta}$3.88; $M_{\theta\phi}$0.36; $M_{\phi r}$0.56; Fault plane solution: $M_0$4.61000×10^{14} NP1: ϕ_s147.00000°, δ51.00000°, λ41.00000°. NP2:ϕ_s28.00000°, δ59.00000°, λ133.00000°.*
*JMA **18** 14:23:25.7±0.2, 32°.4N±0°.7×141°.8E±0°.8, h63km±4km, MV3.5/33, E OFF HACHIJOJIMA ISLAND*
ISC 18 14:23:26.0±0.9, 32°.36N±0°.07×141°.92E±0°.09, h39km, n47, σ1§29/49, mb4.1/9, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAOM	Aogashimamukai	1.83	274	P	Pn	14 23 54.1	-0.8
JHCJ	Hachijojimakas	1.93	292	P	Pn	14 23 55.0	-1.2
JHCJ				eS	Sn	14 24 17.8	-1.4
JHJ2	Mitsune	1.93	294		Pn	14 23 55.3	-0.9
JHJ2	Mitsune	1.93	294	P	Pn	14 23 55.1	-1.1
JHJ	Hachijo jima 2	1.96	293	Pn	Pn	14 23 55.2	-1.4
	8.6nm,0.3s,baz=44,slow=23,SNR=106						
JHJ				Sn	Sn	14 24 18.6	-1.3
	6.8nm,0.3s,baz=29,slow=24,SNR=6.0						
JHJ				AML	AML		
BSO1	Boso 1	2.42	341	eP	Pn	14 24 02.6	+0.1
BSO1				eS	Sn	14 24 32.0	+1.3
JMKN	Mikurajimanish	2.48	309	P	Pn	14 24 03.3	-0.6
JMYK	Miyake Tsubota	2.62	311	eS	Sn	14 24 34.8	-1.4
BSO3	Boso 3

JSU	**Suzuyama**	**9.78**	**268**	Pn	**Pn**	**14 25 45.0**	**+0.9**
JKA	**Kamikawa-asahi**	**11.75**	**2**	Pn	**Pn**	**14 26 09.6**	**-1.4**
ASAJ	**Asahikawa**	**11.75**	**2**	Pn	**Pn**	**14 26 07.4**	**-3.6**
	0.3nm,0.3s,baz=179,slow=14,SNR=1.5						
ASAJ				Sn	Sn	14 28 09.8	-11
	0.1nm,0.3s,baz=321,slow=20,SNR=1.2						
	3.8nm,0.9s						
ASAJ				AML	AML		
KSRS	**Korea Array**	**12.56**	**298**	LR	LR	14 31 09.1	
	comp=Z,30nm,18.8s,baz=120,slow=37						
SONM	**Songino Array**	**30.94**	**310**	P	**P**	**14 29 41.1**	**+1.8**
	0.8nm,0.5s,baz=125,slow=11,SNR=4.8						
	0.8nm,0.5s						
SONM	**Songino Array**	**30.94**	**310**	P	**P**	**14 29 39.4**	**+0.2**
SONM				IAmb	IAmb	14 29 43.4	
	comp=Z,0.9nm,0.8s						
MKAR	**Makanchi Array**	**47.08**	**306**	P	**P**	**14 31 54.7**	**+0.9**
	comp=Z,1.2nm,0.8s,baz=90,slow=8.9,SNR=7.2						
	comp=Z,1.2nm,0.8s						
MKAR	**Makanchi Array**	**47.08**	**306**	P	**P**	**14 31 54.6**	**+0.8**
ACHA	**Angle Creek He**	**48.93**	**39**	P	**P**	**14 32 06.6**	**-1.4**
KURK	**Kurchatov**	**49.24**	**311**	P	**P**	**14 32 11.7**	**+1.3**
KURK				IAmb	IAmb	14 32 14.1	
	comp=Z,2.6nm,0.9s						
KURBB	**Kurchatov Arra**	**49.30**	**311**	P	**P**	**14 32 11.5**	**+0.6**
	comp=Z,1.0nm,0.5s,baz=90,slow=7.6,SNR=16						
	comp=Z,1.0nm,0.5s						
WB0	**Warramunga Arr**	**52.33**	**189**	P	**P**	**14 32 34.0**	**+0.1**
WB0				IAmb	IAmb	14 33 02.1	
	comp=Z,12nm,1.5s						
WR8	**Warramunga Arr**	**52.50**	**189**	P	**P**	**14 32 35.5**	**+0.3**
WR8				IAmb	IAmb	14 32 49.0	
	comp=Z,2.7nm,0.6s						
WRA	**Warramunga Arr**	**52.51**	**189**	P	**P**	**14 32 35.4**	**+0.2**
	comp=Z,0.8nm,0.5s,baz=5.0,slow=7.6,SNR=21						
	comp=Z,0.8nm,0.5s						
WRA	**Warramunga Arr**	**52.51**	**189**	P	**P**	**14 32 33.9**	**-1.4**
KKAR	**Karatay Array**	**55.93**	**303**	P	**P**	**14 33 01.8**	**+1.7**
ASAR	**Alice Springs**	**56.23**	**189**	P	**P**	**14 33 03.3**	**+1.0**
	comp=Z,0.1nm,0.3s,baz=1.5,slow=6.5,SNR=5.4						
	comp=Z,0.1nm,0.3s						
ASAR	**Alice Springs**	**56.23**	**189**	P	**P**	**14 33 01.8**	**-0.5**
AB31	**Akbulak array**	**61.33**	**312**	P	**P**	**14 33 38.9**	**+1.4**
AB31				IAmb	IAmb	14 33 56.0	
	comp=Z,3.6nm,1.4s						
ABKAR	**Akbulak array**	**61.33**	**312**	P	**P**	**14 33 38.5**	**+1.0**

*AEIC **18** 14:54:04.3±2.9,51°.24N±0°.06×178°.44W±0°.05,h23km±6km, Error ellipse: s-maj=8.2km s-min=4.4km az=178.0*

NEIC 18 14:54:01.4±1.4,51°.07N±0°.05×178°.57W±0°.03,h35km±2km, mb3.6/31,ML3.6/14,ML3.0(AEIC),Error ellipse: s-maj=8.7km s-min=3.0km az=165.0,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GAKI	**Gareloi-Kavalg**	**0.51**	**343**		Pn	14 54 12.8	+0.6
GAKI					Sn	14 54 19.3	-0.4
GALAA	**Gareloi Lava P**	**0.70**	**350**		Pn	14 54 16.0	+1.1
GALAA					Sn	14 54 25.0	+0.5
GAEA	**Gareloi East**	**0.72**	**351**		Pn	14 54 16.1	+1.0
GAEA					Sn	14 54 25.1	+0.2
GANO	**Gareloi North**	**0.77**	**349**	Pn	Pn	14 54 15.7	-0.1
GANO				IAML		14 54 31.0	
	comp=N,3μm,0.3s						
TAFL	**Tanaga Flats**	**0.81**	**31**		Pn	14 54 16.6	+0.3
TAFL					Sn	14 54 26.3	-0.7
TASE	**Tanaga Southea**	**0.84**	**23**		Pn	14 54 17.1	+0.4
TASE					Sn	14 54 27.7	-0.1
TAPA	**Tanaga Point A**	**0.89**	**32**		Pn	14 54 17.8	+0.4
TAPA					Sn	14 54 28.8	-0.3
KIMD	**Kanaga Island**	**1.09**	**50**		Pn	14 54 20.9	+0.8
KIMD					Sn	14 54 33.4	-0.5
KIWB	**Kanaga Island**	**1.19**	**48**		Pn	14 54 21.6	+0.1
KIWB					Sn	14 54 36.3	-0.1
KIKV	**Kanaga Island**	**1.20**	**47**		Sn	14 54 36.8	+0.2
ADK	**Adak**	**1.44**	**55**		Pn	14 54 25.8	+0.9
ADK				IAML		14 54 45.2	
	comp=N,753nm,0.5s						
ADK				IAML		14 54 46.8	
	comp=N,867nm,0.2s						
ADK	**Adak**	**1.44**	**55**		Sn	14 54 43.5	+1.0
ADAG	**Mount Adagdak**	**1.53**	**53**		Pn	14 54 27.9	+1.7
ETKA	**Kagalaska Isla**	**1.57**	**59**		Pn	14 54 28.0	+1.3
GSTD	**Great Sitkin T**	**1.81**	**56**		Pn	14 54 32.0	+1.8
GSMY	**Great Sitkin M**	**1.85**	**57**		Pn	14 54 32.5	+1.9
GSMY					Sn	14 54 55.3	+2.6
GSTR	**Great Sitkin T**	**1.88**	**56**	Pn	Pn	14 54 32.1	+1.1
GSTR				IAML		14 55 05.5	
	comp=E,923nm,0.7s						
ATKA	**Atka Island**	**2.95**	**66**	Pn	Pn	14 54 46.8	+1.0
ATKA				IAML		14 55 30.0	
	comp=E,169nm,0.6s						
KOWE	**Korovin West**	**2.98**	**63**		Pn	14 54 48.5	+2.3
SHEM	**Shemya Is, Ala**	**4.83**	**293**	Pn	Pn	14 55 12.3	+0.8
SHEM				IAML		14 56 45.1	
	comp=E,44nm,0.8s						
SHEM				IAML		14 57 01.5	
	comp=N,37nm,0.7s						
SMY	**Shemya**	**4.83**	**293**	Pn	Pn	14 55 12.5	+1.0
SMY				IAML		14 56 44.9	
	comp=N,68nm,0.8s						
SDPT	**Sand Point**	**11.66**	**61**	Pn	Pn	14 56 46.8	+1.8
PET	**Petropavlovsk**	**14.14**	**287**	Pn	Pn	14 57 19.4	+0.5
PETK	**Petropavlovsk-**	**14.71**	**287**	Pn	Pn	14 57 28.2	+1.5
ACHA	**Angle Creek He**	**15.18**	**53**	Pn	Pn	14 57 32.6	-0.5
ACHA				IAmb	IAmb	14 57 42.3	
	comp=Z,3.0nm,1.1s						
N17K	**Nushagak Hills**	**15.23**	**43**	Pn	Pn	14 57 32.6	-1.0
N17K				IAmb	IAmb	14 57 49.8	
	comp=Z,2.0nm,0.9s						
SII	**Sitkinak Islan**	**15.37**	**60**	Pn	Pn	14 57 36.0	+0.6
I17K	**Unalakleet**	**15.96**	**30**	Pn	Pn	14 57 42.4	-0.6
OHAK	**Old Harbor**	**15.98**	**58**	Pn	Pn	14 57 43.4	+0.1
K17K	**Iditarod**	**15.99**	**35**	Pn	Pn	14 57 42.9	-0.6
K17K				IAmb	IAmb	14 57 48.1	
	comp=Z,5.0nm,1.0s						
L18K	**Granite Mounta**	**16.32**	**38**	Pn	Pn	14 57 47.0	-0.5
KDAK	**Kodiak Island**	**16.48**	**56**	Pn	Pn	14 57 49.4	-0.1
J18K	**Innoko River**	**17.02**	**35**	Pn	Pn	14 57 55.7	-0.7
L19K	**White Mountain**	**17.03**	**40**	Pn	Pn	14 57 56.3	-0.3
L19K				IAmb	IAmb	14 58 02.9	
	comp=Z,5.6nm,1.0s						
L20K	**Farewell, AK**	**17.57**	**40**		P	14 58 03.8	-0.3
L20K				IAmb	IAmb	14 58 11.4	
	comp=Z,4.9nm,1.2s						
M20K	**Styx River**	**17.61**	**42**		Pn	14 58 03.5	-0.2
J19K	**Poorman**	**17.73**	**34**		Pn	14 58 05.4	+0.2
J19K				IAmb	IAmb	14 58 09.3	
	comp=Z,3.1nm,1.2s						
BRLK	**Bradley Lake**	**17.84**	**50**		Pn	14 58 06.1	-0.6
PWL	**Port Wells**	**19.38**	**48**	P	P	14 58 23.1	-0.7
F21K	**Alatna River**	**20.43**	**28**	P	P	14 58 34.5	-0.8
F21K				IAmb	IAmb	14 58 41.9	
	comp=Z,2.5nm,1.0s						
D20K	**Etivluk River**	**20.62**	**23**	P	P	14 58 36.6	-0.7
D20K				IAmb	IAmb	14 58 41.9	
	comp=Z,3.1nm,1.0s						
H24K	**Noodor Dome**	**21.50**	**35**	P	P	14 58 47.1	+0.3
D22K	**Ayikyak River**	**21.75**	**25**	P	P	14 58 49.8	+0.3
D22K				IAmb	IAmb	14 58 60.0	
	comp=Z,3.2nm,1.1s						
VRDI	**Verde Repeater**	**21.77**	**49**	P	P	14 58 49.5	-0.4
VRDI				IAmb	IAmb	14 59 03.2	
	comp=Z,2.4nm,0.9s						
G24K	**Hadweenzic Riv**	**22.07**	**33**	P	P	14 58 53.1	+0.2
D23K	**Nanushuk River**	**22.36**	**26**	P	P	14 58 56.1	+0.2
TOLK	**Toolik Lake Re**	**22.47**	**28**	P	P	14 58 56.8	-0.4
K27K	**Chicken**	**23.09**	**42**	P	P	14 59 01.9	-1.7
K27K				IAmb	IAmb	14 59 04.9	
	comp=Z,3.2nm,1.1s						
G26K	**Porcupine Rive**	**23.48**	**34**	P	P	14 59 07.7	+0.2
G26K				IAmb	IAmb	14 59 11.6	
	comp=Z,2.2nm,1.0s						
I28M	**Miner Creek**	**24.39**	**39**	P	P	14 59 16.0	-0.1
C26K	**Camden Bay**	**24.57**	**27**	P	P	14 59 18.0	+0.5
C26K				IAmb	IAmb	14 59 33.5	
	comp=Z,2.9nm,1.2s						
K29M	**Barlow Dome**	**24.99**	**44**	P	P	14 59 21.9	+0.3
F28M	**Old Crow**	**25.14**	**34**	P	P	14 59 23.3	+0.5
F28M				IAmb	IAmb	14 59 24.6	
	comp=Z,0.8nm,0.8s						
I30M	**Mount Dempster**	**25.77**	**41**	P	P	14 59 28.0	-0.6
I30M				IAmb	IAmb	14 59 40.3	
	comp=Z,1.4nm,1.1s						
YKAW3	**Yellowknife Wh**	**35.33**	**46**	P	P	15 00 50.7	-2.1
NVAR	**Mina Array Bea**	**43.45**	**83**	P	P	15 02 00.4	-0.7
TX31	**Lajitas Ar. Si**	**58.56**	**81**	P	P	15 03 53.7	-0.8
TXAR	**Lajitas Array**	**58.56**	**81**	P	P	15 03 54.1	-0.5
AB31	**Akbulak array**	**68.27**	**323**	P	P	15 04 57.9	-0.4
ABKAR	**Akbulak array**	**68.27**	**323**	P	P	15 04 57.6	-0.7

IDC 18 14:59:22.7±9.3,13°.47S×165°.99E,h0km,mb3.5/3, mbtmp3.6/4,ML3.0/1,Error ellipse: s-maj=158.2km s-min=26.7km az=60.0,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**8.57**	**177**	Pn	Pn	15 01 27.7	-0.5
	0.2nm,0.3s,baz=286,slow=2.0,SNR=2.4						
DZM				Sn	Sn	15 03 01.2	-4.5
	0.1nm,0.3s,baz=267,slow=22,SNR=1.3						
	6.2nm,0.9s						
DZM				AML	AML		
STKA	**Stephens Creek**	**28.91**	**227**	P	P	15 05 23.4	-0.2
	1.0nm,0.7s,baz=84,slow=18,SNR=1.9						
	1.0nm,0.7s						
WRA	**Warramunga Arr**	**30.96**	**254**	P	P	15 05 41.9	0.0
	0.4nm,0.9s,baz=84,slow=9.3,SNR=2.3						
	0.4nm,0.9s						
ASAR	**Alice Springs**	**32.00**	**247**	P	P	15 05 51.1	+0.1
	0.3nm,0.5s,baz=75,slow=9.4,SNR=9.1						
	0.3nm,0.5s						

*IDC **18** 15:04:27.3±0.8,3°.87S×81°.89W,h0km,mb3.9/5, mbtmp3.8/7,ML3.5/2,MS3.4/8,Error ellipse: s-maj=44.0km s-min=15.6km az=50.0*

ISC 18 15:04:28.7±0.7,3°.9S×82°.9W±0°.2,h10km,n23, σ1°.03/17,mb3.9/5,MS3.4/5,Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**4.72**	**133**	Pn	**Pn**	**15 05 41.7**	**+1.3**
	1.0nm,0.3s,baz=321,slow=8.2,SNR=6.5						
ATAH				Sn	**Sn**	**15 06 33.4**	**-2.0**
	5.9nm,0.3s,baz=336,slow=18,SNR=4.4						
ATAH				LR	LR	15 07 42.5	
	comp=Z,505nm,18.0s,baz=346,slow=41						
	8.8nm,0.6s						
ATAH				AML	AML		
JTS	**Las Juntas de**	**14.44**	**348**	LR	LR	15 12 05.7	
	comp=Z,80nm,20.6s,baz=164,slow=32						
SDV	**Santo Domingo**	**16.96**	**41**	LR	LR	15 15 52.8	
	comp=Z,83nm,19.4s,baz=276,slow=40						
LPAZ	**La Paz**	**18.27**	**133**	P	**Pn**	**15 08 44.2**	**+1.0**
	0.1nm,0.3s,baz=318,slow=12,SNR=3.6						
	1.7nm,0.8s						
LPAZ				AML	AML		
CMIG	**Matias Romero**	**24.51**	**329**	LR	LR	15 17 09.6	
	comp=Z,57nm,21.0s,baz=192,slow=31						
MDP	**Montagnes des**	**30.55**	**73**	LR	LR	15 24 07.4	
	comp=Z,78nm,19.6s,baz=274,slow=39						
CPUP	**Villa Florida**	**32.40**	**136**	LR	LR	15 24 42.5	
	comp=Z,48nm,19.1s,baz=253,slow=38						
TXAR	**Lajitas Array**	**39.11**	**329**	PcP	**PcP**	**15 14 07.6**	**+1.2**
	0.1nm,0.3s,baz=127,slow=4.0,SNR=3.6						
PDAR	**Pinedale Array**	**52.79**	**335**	P	**P**	**15 13 43.9**	**-0.6**
	0.5nm,0.8s,baz=138,slow=8.2,SNR=4.0						
	0.5nm,0.8s						
NVAR	**Mina Array Bea**	**53.95**	**325**	P	**P**	**15 13 53.4**	**+0.4**
	0.3nm,0.3s,baz=128,slow=7.6,SNR=2.3						
	0.3nm,0.3s						
DBIC	**Dimbokro**	**77.61**	**82**	LR	LR	15 50 26.4	
	comp=Z,35nm,18.1s,baz=348,slow=36						
ILAR	**Eielson Array**	**83.14**	**337**	P	**P**	**15 16 54.1**	**-0.5**
	0.8nm,0.9s,baz=134,slow=2.6,SNR=6.8						
	0.8nm,0.9s						
KDAK	**Kodiak Island**	**83.14**	**329**	LR	LR	15 50 40.9	
	comp=Z,33nm,19.2s,baz=43,slow=33						
ESDC	**Sonseca Array**	**83.22**	**49**	P	**P**	**15 16 56.5**	**+0.8**
	1.1nm,0.7s,baz=257,slow=4.8,SNR=6.2						
	1.1nm,0.7s						
QSPA	**South Pole Qui**	**86.16**	**180**	P	**P**	**15 17 09.6**	**-0.5**
	2.0nm,1.0s,baz=138,slow=3.1,SNR=4.1						
	2.0nm,1.0s						
BVAR	**Borovoye Array**	**125.98**	**20**	PKP	**PKPdf**	**15 23 30.3**	**-0.9**
	1.4nm,0.9s,baz=343,slow=4.5,SNR=4.1						
ZALV	**Zalesovo Beam**	**128.95**	**10**	PKP	**PKPdf**	**15 23 36.4**	**-0.4**
	0.6nm,0.3s,baz=333,slow=1.6,SNR=6.4						
KURBB	**Kurchatov Arra**	**130.62**	**16**	PKP	**PKPdf**	**15 23 40.5**	**+0.4**
	0.8nm,0.5s,baz=334,slow=2.5,SNR=9.6						
MKAR	**Makanchi Array**	**135.14**	**15**	PKP	**PKPdf**	**15 23 47.1**	**-1.7**
	0.7nm,0.7s,baz=5.0,slow=2.7,SNR=3.9						
ASAR	**Alice Springs**	**135.64**	**230**	PKhKP	PKPpre	15 23 44.0	
	0.4nm,0.8s,baz=122,slow=3.6,SNR=7.0						
ASAR				PKP	**PKPdf**	**15 23 50.2**	**-0.2**
	0.8nm,1.0s,baz=116,slow=1.8,SNR=7.7						
SONM	**Songino Array**	**135.67**	**352**	PKP	**PKPdf**	**15 23 49.1**	**-0.8**
	0.6nm,0.7s,baz=356,slow=1.9,SNR=2.6						
WRA	**Warramunga Arr**	**137.24**	**235**	PKP	**PKPdf**	**15 23 53.6**	**+0.2**
	1.3nm,0.8s,baz=117,slow=1.6,SNR=12						
FITZ	**Fitzroy Crossi**	**145.14**	**230**	PKPbc	**PKPbc**	**15 24 07.6**	**+0.6**
	8.8nm,0.9s,baz=120,slow=5.5,SNR=11						

*IDC **18** 15:09:14.9±2.1,1°.96N×127°.76E,h0km,mb3.6/4, mbtmp3.7/4,Error ellipse: s-maj=178.2km s-min=24.7km az=66.0*

*DJA **18** 15:09:32.6±0.6,2°.N±5°×12°.7E±°,h122km±7km,M3.6/12, mB4.9/1,mb3.7/2,MLv3.6/12,Mw(mB)4.2/1*

ISC 18 15:09:30.8±1.4,1°.6N±0°.1×127°.46E±0°.09,h128km,n10, σ1°.32/11,mb3.5/4,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**0.85**	**186**	P	**Pn**	**15 09 54.9**	**+2.6**
MNI	**Manado**	**2.62**	**266**	P	Pn	15 10 03.7	-8.8
KMSI	**Cibinong**	**3.63**	**253**	P	**Pn**	**15 10 26.0**	**+0.4**
KMSI				S	**Sn**	**15 11 07.8**	**-0.3**
SANI	**Sanana**	**3.93**	**202**	P	**Pn**	**15 10 30.4**	**+0.7**
SANI				AML	AML		
GTOI	**Gorontalo**	**4.55**	**258**	P	**Pn**	**15 10 39.8**	**+1.9**
GTOI				S	**Sn**	**15 11 30.7**	**+0.6**
GTOI				AML	AML		
LUWI	**Luwuk**	**5.38**	**241**	P	**Pn**	**15 10 49.3**	**+0.2**
	0.3nm2μm24nm,0.8s						
LUWI				AML	AML		
WRA	**Warramunga Arr**	**22.47**	**163**	P	**P**	**15 14 18.8**	**-0.9**
	1.7nm,0.6s,baz=342,slow=10.0,SNR=18						
	1.7nm,0.6s						
ASAR	**Alice Springs**	**25.91**	**166**	P	**P**	**15 14 50.3**	**-0.9**
	0.2nm,0.4s,baz=340,slow=8.8,SNR=7.2						
	0.2nm,0.4s						
STKA	**Stephens Creek**	**35.92**	**159**	P	**P**	**15 16 18.1**	**-0.8**
	1.1nm,0.4s,baz=322,slow=7.2,SNR=6.6						
	1.1nm,0.4s						
MKAR	**Makanchi Array**	**59.69**	**326**	P	**P**	**15 19 21.5**	**-0.4**
	0.2nm,0.5s,baz=118,slow=8.2,SNR=4.7						
	0.2nm,0.5s						

PRE 18 15:16:07.6±1.2,26°.02S×29°.00E,h0km,ML1.9, Suspected explosion,South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRLN	**Carolina, Mapu**	**0.92**	**89**	*e*P	Pg	15 16 24.9	-0.4
CRLN				*e*S	Sb	15 16 38.7	-0.7
CRLN				IAML		15 16 50.7	
	comp=Z,8.0nm,0.4s						
HRAO	**HartRAO**	**1.19**	**276**	*e*P	Pg	15 16 29.5	-1.0
HRAO				*e*S	Sn	15 16 50.5	+1.9
HRAO	**HartRAO**	**1.19**	**276**	*e*P	Pg	15 16 29.7	-0.7
HRAO				*e*S	Sb	15 16 47.2	+0.1
WTBG	**Waterberg Wild**	**1.80**	**357**	*e*P	Pn	15 16 35.8	-4.3
WTBG				*e*S	Sn	15 17 01.9	-1.8
LEPH	**Lephalale, Lim**	**2.41**	**333**	*e*P	Pn	15 16 45.9	-2.5
LEPH	**Lephalale, Lim**	**2.41**	**333**	*e*P	Pn	15 16 49.0	+0.6
LEPH				*e*S	Sn	15 17 20.2	+1.5
LEPH				IAML		15 17 28.3	
	comp=Z,4.0nm,0.3s						
CRAIL	**Swartwater, Li**	**3.27**	**348**	*e*P	Pn	15 17 00.1	-0.1
CRAIL				*e*S	Sn	15 17 39.3	-0.7
CRAIL				IAML		15 20 06.4	
	comp=Z,130nm,0.2s						
MPHEP	**Siloam, Limpop**	**3.28**	**19**	*e*P	Pn	15 17 01.6	+1.3
MPHEP				*e*S	Sn	15 17 40.4	+0.4
MPHEP				IAML		15 17 54.6	
	comp=Z,2.4nm,0.4s						
MOPA	**Mopani**	**3.31**	**42**	*e*P	Pn	15 17 00.9	+0.2
MOPA				*e*S	Sn	15 17 40.3	-0.4
MOPA				IAML		15 17 45.8	
	comp=Z,8.5nm,0.5s						
MUSN	**Musina, Limpop**	**3.79**	**12**	*e*P	Pn	15 17 02.5	-4.9
MUSN				*e*S	Sn	15 17 47.4	-5.4
BOSA	**Boshof**	**4.22**	**231**	*e*P	Pn	15 17 14.5	+1.2
BOSA				*e*S	Sn	15 18 02.4	-1.0
BOSA				IAML		15 18 19.8	
	comp=Z,2.9nm,0.5s						

*BUL **18** 15:19:10.4±1.7,25°.80S×29°.27E,h10km,MD3.2, Presumed earthquake*

PRE 18 15:19:07.4±8.9,25°.73S×28°.86E,h0km,ML1.8, Suspected explosion,South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HRAO	**HartRAO**	**1.07**	**261**	*e*P	Pg	15 19 27.8	-0.1
HRAO				*e*S	Sb	15 19 42.8	-0.7
HRAO	**HartRAO**	**1.07**	**261**	*e*P	Pb	15 19 28.8	-0.1
HRAO				*e*S	Sn	15 19 45.5	0.0
CRLN	**Carolina, Mapu**	**1.08**	**104**	*e*P	Pg	15 19 22.9	-5.2
CRLN				*e*S	Sg	15 19 37.2	-5.0
CRLN				IAML		15 19 46.0	
	comp=Z,16nm,0.2s						
WTBG	**Waterberg Wild**	**1.51**	**1**	IAML		15 17 08.0	
	comp=Z,6.9nm,0.6s						
WTBG				*e*P	Pn	15 19 35.0	-0.9
WTBG				*e*S	Sn	15 19 57.2	+0.8
WTBG	**Waterberg Wild**	**1.51**	**1**	*e*P	Pb	15 19 36.6	+0.1
WTBG				*e*S	Sn	15 19 59.2	+2.8
WTBG				IAML		15 20 15.5	
	comp=Z,13nm,0.3s						
LEPH	**Lephalale, Lim**	**2.10**	**332**	*e*P	Pn	15 19 32.8	-11
LEPH				*e*S	Sb	15 20 13.3	+0.2
LEPH				IAML		15 20 19.5	
	comp=Z,14nm,0.3s						
LEPH	**Lephalale, Lim**	**2.10**	**332**	*e*P	Pb	15 19 45.6	-0.8
LEPH				*e*S	Sg	15 20 14.7	-0.2
LEPH				IAML		15 20 23.4	
	comp=Z,15nm,0.3s						
CRAIL	**Swartwater, Li**	**2.97**	**349**	*e*P	Pn	15 19 57.8	+1.9
CRAIL				*e*S	Sn	15 20 31.0	-1.3
CRAIL	**Swartwater, Li**	**2.97**	**349**	*e*P	Pn	15 19 56.6	+0.7
CRAIL				*e*S	Sb	15 20 35.4	-2.7
CRAIL				IAML		15 20 56.3	
	comp=Z,384nm,0.2s						
LBTB	**Lobatse**	**3.04**	**283**	*i* P	Pb	15 20 02.1	-0.3
LBTB				*i* S	Sb	15 20 42.1	+2.0
MPHEP	**Siloam, Limpop**	**3.06**	**23**	*e*P	Pn	15 19 59.4	+2.3
MPHEP				*e*S	Sb	15 20 42.1	+1.4
MOPA	**Mopani**	**3.19**	**47**	*i* P	Pn	15 19 56.0	-3.0
MOPA				*i* S	Sn	15 20 32.3	-5.4
MOPA	**Mopani**	**3.19**	**47**	*e*P	Pn	15 19 56.1	-2.8
MOPA				*e*S	Sn	15 20 35.4	-2.3
MOPA	**Mopani**	**3.19**	**47**	*e*P	Pn	15 19 57.1	-1.8
MOPA				*e*S	Sn	15 20 36.5	-1.2
MOPA				IAML		15 20 59.2	
	comp=Z,14nm,0.5s						
MUSN	**Musina, Limpop**	**3.55**	**15**	*i* P	Pn	15 20 05.7	+1.9
MUSN				*i* S	Sn	15 20 45.7	-0.8
MUSN	**Musina, Limpop**	**3.55**	**15**	IAML		15 18 08.3	
	comp=Z,4.5nm,0.4s						
MUSN				*e*P	Pn	15 20 06.6	+2.8
MUSN				*e*S	Sn	15 20 50.4	+3.9
MUSN	**Musina, Limpop**	**3.55**	**15**	*e*P	Pn	15 20 05.0	+1.2
MUSN				*e*S	Sn	15 20 46.4	-0.1
MUSN				IAML		15 21 20.8	
	comp=Z,2.5nm,0.3s						
BOSA	**Boshof**	**4.31**	**227**	*i* P	Pb	15 20 19.7	-4.4
BOSA				*i* S	Sn	15 21 09.2	+3.8
BOSA	**Boshof**	**4.31**	**227**	*e*P	Pn	15 20 14.6	+0.3
BOSA				*e*S	Sn	15 21 04.6	-0.8
BOSA				IAML		15 21 17.4	
	comp=Z,6.9nm,0.3s						
MATP	**Matopo**	**5.29**	**356**	*i* P	Pn	15 20 28.9	+1.0
MATP				*i* S	Sn	15 21 29.1	-0.5
BLWY	**Bulawayo**	**5.57**	**358**	*i* P	Pn	15 20 34.8	+3.0
BLWY				*i* S	Sn	15 21 35.9	-0.7

*IDC **18** 15:22:02.8±1.8,33°.66N×141°.10E,h0km,mb3.3/2, mbtmp3.2/3,ML2.2/1,MS1.9/1,Error ellipse: s-maj=28.5km s-min=17.8km az=71.0*

*JMA **18** 15:22:10.4±0.1,33°.7N±0°.2×140°.6E±0°.2,h52km,MV2.8/34, E OFF HACHIJOJIMA ISLAND*

ISC 18 15:22:10.3±1.4,33.70N±0°.04×140°.61E±0°.10,h55km±16km, n17,σ0°.43/23,Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMKN	**Mikurajimanish**	**0.87**	**283**	*i* P	**Pn**	**15 22 26.4**	**0.0**
JHJ2	**Mitsune**	**0.88**	**229**	*i* P	**Pn**	**15 22 26.9**	**+0.2**
JHJ2				S	**Sn**	**15 22 38.9**	**+0.3**
JHJ	**Hachijo jima 2**	**0.90**	**230**	Pn	**Pn**	**15 22 26.9**	**+0.1**
	5.4nm,0.3s,baz=49,slow=19,SNR=145						
JHJ				Sn	**Sn**	**15 22 38.7**	**-0.3**
	13nm,0.3s,baz=72,slow=19,SNR=31						
JHCJ	**Hachijojimakas**	**0.92**	**228**	P	**Pn**	**15 22 27.1**	**0.0**
JHCJ				S	**Sn**	**15 22

KU6				SB	Sn	15 31 03.1	+1.2
MSF	**Maaselka**	**2.72**	**216**	PG	Pb	15 30 39.0	-0.7
MSF				SG	Sb	15 31 13.5	-0.1
ARCES	**ARCESS Array B**	**3.02**	**301**	P	Pg	15 30 49.6	+1.5
ARCES				S	Sg	15 31 32.3	+5.0
RNF	**Rovaniemi**	**3.09**	**243**	PG	Pb	15 30 45.6	-0.4
RNF				SG	Sb	15 31 26.3	+2.2
KLF	**Kolari**	**3.54**	**259**	PG	Pb	15 30 53.8	+0.1

*IDC **18** 15:35:36.7±1.1, 12°.06N×140°.81E, h0km, mb3.6/8, mbtmp3.6/8, MS3.2/4, Error ellipse: s-maj=38.1km s-min=22.5km az=92.0*

ISC 18 15:35:41.8±1.2, 12°.0N±0°.2×140°.8E±0°.3, h34km, n13, σ0s67/9, mb4.0/9, MS3.4/3, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**19.68**	**145**		LR	LR	15 47 06.8	
	comp=Z,52nm,18.6s,baz=208,slow=35							
KSRS	**Korea Array**	**27.83**	**338**		LR	LR	15 50 41.7	
	comp=Z,114nm,20.4s,baz=165,slow=33							
CTA	**Charters Tower**	**32.36**	**170**		LR	LR	15 55 24.7	
	comp=Z,114nm,18.1s,baz=216,slow=37							
WRA	**Warramunga Arr**	**32.41**	**191**	P		**P**	**15 42 08.8**	**+0.1**
	0.6nm,1.1s,baz=7.8,slow=8.7,SNR=2.2							
	0.6nm,1.1s							
ASAR	**Alice Springs**	**36.12**	**191**	P		**P**	**15 42 40.7**	**-0.2**
	0.1nm,0.6s,baz=15,slow=12,SNR=1.3							
	0.1nm,0.6s							
KLR	**Kul'dur**	**37.84**	**350**	P		**P**	**15 42 55.5**	**+0.3**
	1.3nm,0.6s,baz=190,slow=6.1,SNR=4.3							
	1.3nm,0.6s							
CMAR	**Chiang Mai Arr**	**40.84**	**284**	P		**P**	**15 43 21.5**	**+0.8**
	0.2nm,0.3s,baz=89,slow=8.1,SNR=4.3							
	0.2nm,0.3s							
MKAR	**Makanchi Array**	**59.91**	**317**	P		**P**	**15 45 44.0**	**-0.5**
	0.2nm,0.5s,baz=99,slow=7.4,SNR=2.1							
	0.2nm,0.5s							
KURBB	**Kurchatov Arra**	**63.30**	**321**	P		**P**	**15 46 06.2**	**-1.0**
	1.0nm,0.7s,baz=106,slow=6.8,SNR=7.2							
	1.0nm,0.7s							
BVAR	**Borovoye Array**	**68.72**	**322**	P		**P**	**15 46 41.9**	**-0.2**
	0.8nm,0.6s,baz=97,slow=8.0,SNR=6.3							
	0.8nm,0.6s							
ILAR	**Eielson Array**	**71.65**	**25**	P		**P**	**15 47 00.3**	**+0.5**
	1.1nm,0.6s,baz=262,slow=6.0,SNR=20							
	1.1nm,0.6s							
FINES	**FINESS Array B**	**90.87**	**334**	P		**P**	**15 48 41.1**	**-0.6**
	1.5nm,0.7s,baz=57,slow=5.1,SNR=5.8							
ASF	**Jabal al Asfar**	**95.16**	**304**	LR		LR	16 37 37.6	
	comp=Z,12nm,18.1s,baz=97,slow=39							

*IDC **18** 15:39:23.4±1.6, 0°.00N×126°.91E, h0km, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=180.3km s-min=20.0km az=65.0*

*DJA **18** 15:39:39.9±0.4, 0°.5±2°.×12°.7E±°, h102km±5km, M3.9/18, mB4.7/1, mb4.0/3, MLv3.9/18, Mw(mB)3.9/1*

ISC 18 15:39:37.8±0.9, 0°.10S±0°.06×127°.24E±0°.07, h100km, n15, σ2s31/19, mb4.0/4, Halmahera

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**0.88**	**9**	P	P	**Pn**	**15 39 59.1**	**+2.2**
TNTI				S	S	**Sn**	**15 40 14.3**	**+3.1**
SANI	**Sanana**	**2.30**	**213**	P	P	**Pn**	**15 40 16.6**	**+2.3**
SANI				S	S	**Sn**	**15 40 44.1**	**+1.8**
SANI				AML	AML			
MNI	**Manado**	**2.84**	**303**	P	P	**Pn**	**15 40 21.8**	**+0.3**
MNI				S	S	**Sn**	**15 40 54.0**	**-1.1**
KMSI	**Cibinong**	**3.32**	**282**	P	P	**Pn**	**15 40 28.5**	**+0.7**
KMSI				S	S	**Sn**	**15 41 06.1**	**-0.4**
GTOI	**Gorontalo**	**4.29**	**280**	P	P	**Pn**	**15 40 43.7**	**+2.9**
GTOI				S	S	**Sn**	**15 41 32.4**	**+2.6**
GTOI				AML	AML			
LUWI	**Luwuk**	**4.56**	**258**	P	P	**Pn**	**15 40 45.0**	**+0.5**
LUWI				AML	AML			
APSI	**Ampana**	**5.64**	**262**	P	P	**Pn**	**15 41 00.1**	**+0.8**
	789nm24nm,0.5s							
SJI	**Sawahan**	**17.19**	**243**	P	P		**15 43 33.4**	**+1.5**
WRA	**Warramunga Arr**	**20.91**	**161**	P	P		**15 44 11.3**	**-1.1**
	1.2nm,0.4s,baz=340,slow=9.8,SNR=13							
	1.2nm,0.4s							
SKJI	**Sukabumi**	**21.74**	**251**	P	P		**15 44 18.9**	**-2.4**
ASAR	**Alice Springs**	**24.30**	**165**	P	P		**15 44 43.2**	**-3.0**
	0.5nm,0.4s,baz=340,slow=11,SNR=24							
	0.5nm,0.4s							
KRJI	**Kerinci**	**25.84**	**265**	P	P		**15 45 04.2**	**+3.9**
STKA	**Stephens Creek**	**34.40**	**158**	P	P		**15 46 14.5**	**-1.0**
	2.0nm,0.8s,baz=350,slow=11,SNR=3.8							
	2.0nm,0.8s							
MKAR	**Makanchi Array**	**60.98**	**326**	P	P		**15 49 37.3**	**-3.4**
	0.5nm,0.4s,baz=118,slow=7.2,SNR=11							
	0.5nm,0.4s							
KURBB	**Kurchatov Arra**	**65.23**	**328**	P	P		15 50 04.9	-3.6
	1.1nm,0.3s,baz=132,slow=6.3,SNR=1.9							
	1.1nm,0.3s							

*IDC **18** 15:45:24.5±2.1, 21°.89N×142°.46E, h191km±31km, mb3.2/7, mbtmp3.8/8, Error ellipse: s-maj=91.1km s-min=13.1km az=82.0*

ISC 18 15:45:25.2±1.8, 21°.91N±0°.09×142°.5E±0°.5, h200km, n8, σ0s86/9, mb3.4/7, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**5.17**	**357**	P	P	**Pn**	**15 46 42.4**	**+0.7**
	126nm,1.1s,baz=223,slow=19,SNR=1.4							
JCJ				S	S	**Sn**	**15 47 41.2**	**-1.1**
	105nm,1.0s,baz=202,slow=11,SNR=1.6							
WRA	**Warramunga Arr**	**42.35**	**191**	P	P		**15 52 59.5**	**-0.3**
	0.6nm,0.7s,baz=9.8,slow=7.8,SNR=18							
	0.6nm,0.7s							
FITZ	**Fitzroy Crossi**	**43.05**	**204**	P	P		**15 53 05.7**	**+0.3**
	2.4nm,0.9s,baz=8.1,slow=8.2,SNR=10							
	2.4nm,0.9s							
ASAR	**Alice Springs**	**46.06**	**191**	P	P		**15 53 28.5**	**-0.7**
	0.3nm,0.6s,baz=9.6,slow=6.9,SNR=8.3							
	0.3nm,0.6s							
MKAR	**Makanchi Array**	**54.08**	**313**	P	P		**15 54 28.9**	**-0.4**
	0.2nm,0.7s,baz=91,slow=8.9,SNR=1.9							
	0.2nm,0.7s							
KURBB	**Kurchatov Arra**	**56.93**	**317**	P	P		**15 54 48.5**	**-1.0**
	0.4nm,0.5s,baz=95,slow=7.6,SNR=4.9							
	0.4nm,0.5s							
BVAR	**Borovoye Array**	**62.09**	**319**	P	P		**15 55 25.5**	**+0.8**
	1.4nm,0.3s,baz=98,slow=6.9,SNR=14							
	1.4nm,0.3s							
FINES	**FINESS Array B**	**82.71**	**334**	P	P		**15 57 26.7**	**+0.5**
	1.5nm,0.9s,baz=48,slow=4.5,SNR=4.6							
	1.5nm,0.9s							

*GCG **18** 16:03:14.8±1.0, 13°.88N×89°.68W, h3km±11km, MD3.7, ML3.7, Presumed earthquake*

*SNET **18** 16:03:15.0±0.8, 13°.88N×89°.68W, h3km±1km, ML3.1, Presumed earthquake*

*CATAC **18** 16:03:15.7±0.2, 14°.N±1°.×9°.0W±°, h4km, M3.2/18, MLv3.2/18, Error ellipse: s-maj=3.4km s-min=2.0km az=27.8, confirmed*

ISC 18 16:03:15.2±0.9, 13°.85N±0°.03×89°.69W±0°.03, h9km±5km, n42, σ0s93/64, 3C-7D, El Salvador

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
RTR	**El Retiro**	**0.06**	**46**	*i* P		**Pg**	**16 03 17.1**	**-0.3**
SBLS	**San Blas**	**0.07**	**102**	*e*P		**Pg**	**16 03 17.3**	**-0.2**
SBLS				*e*S		**Sg**	**16 03 18.7**	**-0.5**
CEVE	**Cerro Verde**	**0.07**	**111**	P		**Pg**	**16 03 17.6**	**0.0**
CEVE				S		**Sg**	**16 03 19.5**	**+0.4**
CEVE	**Cerro Verde**	**0.07**	**111**	⇓*i* P		**Pg**	**16 03 17.6**	**0.0**
SNJE	**San Jose**	**0.09**	**80**	⇑*e*P		**Pg**	**16 03 17.6**	**-0.1**
NUBE	**Las Nubes**	**0.10**	**299**	P		**Pg**	**16 03 18.0**	**+0.2**
NUBE				S		**Sg**	**16 03 20.0**	**+0.4**
NUBE	**Las Nubes**	**0.10**	**299**	*i* P		**Pg**	**16 03 18.0**	**+0.2**
NUBE				*i* S		**Sg**	**16 03 19.4**	**-0.2**
NUBE				IAML			16 03 20.2	
	comp=N,15μm,0.5s							
NUBE	**Las Nubes**	**0.10**	**299**	⇑*e*P		**Pg**	**16 03 18.0**	**+0.2**
NUBE				*e*S		**Sg**	**16 03 19.7**	**+0.1**
LOAL	**Lomas de Alarc**	**0.17**	**329**	P		**Pg**	**16 03 19.2**	**+0.4**
LOAL				S		**Sg**	**16 03 22.0**	**+0.7**
LOAL	**Lomas de Alarc**	**0.17**	**329**	⇓*e*P		**Pg**	**16 03 19.2**	**+0.4**
UNIC	**Universidad Ca**	**0.19**	**47**	P		**Pg**	**16 03 19.1**	**-0.1**
UNIC	**Universidad Ca**	**0.19**	**47**	*e*P		**Pg**	**16 03 19.1**	**-0.1**
UNIC				*e*S		**Sg**	**16 03 21.8**	**-0.1**
SLOZ	**Alcaldia de Sa**	**0.19**	**332**	P		**Pg**	**16 03 19.6**	**+0.3**
SLOZ	**Alcaldia de Sa**	**0.19**	**332**	⇓*i* P		**Pg**	**16 03 19.6**	**+0.3**
RBDL	**Robledal**	**0.26**	**1**	⇓*e*P		**Pg**	**16 03 20.7**	**+0.2**
CEDA	**San Andres**	**0.29**	**100**	P		**Pb**	**16 03 21.8**	**-1.0**
CEDA				S		**Sg**	**16 03 26.1**	**+1.1**
JAYA	**Jayaque - finc**	**0.31**	**130**	P		**Pg**	**16 03 21.8**	**+0.4**
JAYA	**Jayaque - finc**	**0.31**	**130**	*i* P		**Pg**	**16 03 21.8**	**+0.4**
JAYA				*i* S		**Sg**	**16 03 26.7**	**+1.2**
JAYA				IAML			16 03 28.1	
	comp=N,21μm,0.3s							
JAYA	**Jayaque - finc**	**0.31**	**130**	⇓*i* P		**Pg**	**16 03 21.8**	**+0.4**
FAME	**Alcaldia de Sa**	**0.31**	**268**	P		**Pg**	**16 03 22.2**	**+0.7**
PMON	**Piamonte**	**0.39**	**111**	P		**Pg**	**16 03 23.6**	**+0.6**
PMON				S		**Sb**	**16 03 29.4**	**-1.2**
PMON	**Piamonte**	**0.39**	**111**	⇓*e*P		**Pg**	**16 03 23.5**	**+0.6**
BOQS	**Boqueron**	**0.42**	**106**	⇓*e*P		**Pb**	**16 03 24.2**	**-0.7**
UEES	**Universidad Ev**	**0.46**	**107**	P		**Pg**	**16 03 24.8**	**+0.6**
UEES				S		**Sb**	**16 03 31.5**	**-1.1**
JUAM	**Asuncion Mita**	**0.48**	**358**	*e*P		**Pg**	**16 03 24.4**	**-0.2**
JUAM				*e*S		**Sb**	**16 03 31.4**	**-1.8**
LALI	**Alcalda de L**	**0.51**	**135**	*i* P		**Pg**	**16 03 21.6**	**-3.6**
LALI				*i* S		**Sg**	**16 03 28.6**	**-3.3**
LOMA	**Loma Larga**	**0.55**	**112**	P		**Pg**	**16 03 26.3**	**+0.4**
LOMA				S		**Sg**	**16 03 34.0**	**+1.0**
LOMA	**Loma Larga**	**0.55**	**112**	*e*P		**Pg**	**16 03 26.1**	**+0.2**
PANCS	**Alcalda de**	**0.55**	**116**	P		**Pb**	**16 03 26.6**	**-0.6**
PANCS				S		**Sg**	**16 03 34.1**	**+0.8**
LFU	**La Fuente**	**0.57**	**100**	*e*P		**Pb**	**16 03 26.8**	**-0.7**
MTO3	**Montecristo**	**0.63**	**31**	S		**Sg**	**16 03 35.8**	**0.0**
PAVA	**Las Pavas**	**0.75**	**101**	P		**Pb**	**16 03 30.3**	**-0.2**
PAVA				S		**Sb**	**16 03 40.4**	**-0.5**
ESQI	**Esquipulas**	**0.78**	**26**	P		**Pb**	**16 03 30.2**	**-0.9**
ESQI				S		**Sb**	**16 03 40.9**	**-0.9**
ESQI	**Esquipulas**	**0.78**	**26**	*e*P		**Pg**	**16 03 29.9**	**-0.4**
LLGN	**La Laguna**	**0.79**	**67**	P		**Pg**	**16 03 30.4**	**-0.1**
LLGN				S		**Sb**	**16 03 41.1**	**-1.0**
COEG	**Centro de Oper**	**0.82**	**106**	P		**Pb**	**16 03 32.0**	**+0.3**
TECO	**Alcaldia de Te**	**0.94**	**109**	P		**Pb**	**16 03 33.6**	**-0.2**
TECO				S		**Sb**	**16 03 47.2**	**+0.8**
APG	**El Apazote**	**1.37**	**327**	*e*P		**Pg**	**16 03 40.6**	**-0.9**
PACA	**Pacayal**	**1.38**	**106**	P		**Pn**	**16 03 41.0**	**+0.1**
PACA				S		**Sb**	**16 03 59.6**	**+0.4**
CNCH	**Conchagua**	**1.90**	**107**	P		**Pn**	**16 03 48.7**	**+0.8**
CNCH				S		**Sb**	**16 04 13.9**	**-0.1**
CSGN	**Cosiguina Volc**	**2.25**	**113**	S		**Sb**	**16 04 23.1**	**-1.1**
TGUH	**Tegucigalpa,Un**	**2.36**	**85**	P		**Pn**	**16 03 55.3**	**+1.0**
TGUH				S		**Sn**	**16 04 25.4**	**+1.9**

*NOU **18** 16:11:22.8, 18°.06S×175°.54W, h661km, mb4.4/17, Tonga Islands*

*NEIC **18** 16:11:34.0±2.3, 19°.29S±0°.09×177°.4W±0°.1, h542km±6km, mb4.3/70, Error ellipse: s-maj=16.8km s-min=12.6km az=105.0*

*IDC **18** 16:11:37.3±1.4, 19°.30S×177°.70W, h576km±15km, mb3.4/14, mbtmp4.3/17, Error ellipse: s-maj=14.0km s-min=11.3km az=135.0*

ISC 18 16:11:34.5±0.4, 19°.27S±0°.07×177°.47W±0°.07, h550km, n167, σ1s25/173, mb4.2/52, 11C-1D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
LKBA	**Tubou, Lakemba**	**1.64**	**309**	P	P	**P**	**16 12 46.2**	**+3.4**
TAVE	**Taveuni**	**3.45**	**317**	P	P	**P**	**16 12 56.0**	**+3.5**
DGTI	**Dogotuki**	**3.98**	**318**	P	P	**P**	**16 12 59.2**	**+2.9**
MSVF	**Nonsavu**	**4.52**	**289**	P	P	**P**	**16 13 03.6**	**+3.1**
	6.1nm,0.3s,baz=123,slow=17,SNR=22							
MSVF	**Nonsavu**	**4.52**	**289**	P	P	**P**	**16 13 04.2**	**+3.7**
FUTU	**Fugatoga**	**4.98**	**353**	P	P	**P**	**16 13 06.3**	**+2.0**
NIUE	**Niue**	**7.13**	**90**	P	P	**P**	**16 13 25.0**	**+1.3**
AFI	**Afiamalu**	**7.63**	**46**	P	P	**P**	**16 13 28.7**	**-0.1**
	12nm,0.4s,baz=274,slow=19,SNR=8.3							
AFI				S	S	**S**	**16 14 59.0**	**-3.3**
	59nm,0.5s,baz=255,slow=20,SNR=12							
RAO	**Raoul Island**	**9.94**	**182**	P	P	**P**	**16 13 50.8**	**-0.9**
	213nm,0.3s,baz=90,slow=20,SNR=2.9							
PINNC	**Pines Island,**	**14.48**	**254**	P	P	**P**	**16 14 43.3**	**+4.7**
DZM	**Mont Dzumac**	**15.31**	**257**	P	P	**P**	**16 14 48.5**	**+1.2**
	4.5nm,0.7s,baz=102,slow=18,SNR=6.8							
OUZ	**Omahuta**	**17.74**	**205**	P	P	**P**	**16 15 11.4**	**+1.5**
TOZ	**Tahuroa Road**	**19.39**	**197**	P	P	**P**	**16 15 26.1**	**+1.2**
URZ	**Urewera**	**19.50**	**193**	P	P	**P**	**16 15 24.8**	**-1.1**
	10nm,0.3s,baz=29,slow=15,SNR=18							
URZ	**Urewera**	**19.50**	**193**	P	P	**P**	**16 15 24.7**	**-1.1**
RTZ	**Ruatahuna**	**19.87**	**193**	P	P	**P**	**16 15 26.9**	**-2.4**
BKZ	**Black Stump Fm**	**20.50**	**194**	P	P	**P**	**16 15 33.8**	**-1.2**
BFZ	**Birch Farm**	**22.01**	**193**	P	P	**P**	**16 15 47.1**	**-1.4**
MRZ	**Mangatainoka R**	**22.14**	**194**	P	P	**P**	**16 15 47.3**	**-2.3**
QRZ	**Quartz Range**	**23.13**	**200**	P	P	**P**	**16 15 58.2**	**-0.2**
QRZ	**Quartz Range**	**23.13**	**200**	P	P	**P**	**16 15 58.3**	**-0.2**
THZ	**Tophouse**	**23.87**	**198**	P	P	**P**	**16 16 03.8**	**-1.3**
KHZ	**Kahutara**	**24.30**	**196**	P	P	**P**	**16 16 07.8**	**-1.0**
JCZ	**Jackson Bay**	**27.28**	**202**	P	P	**P**	**16 16 34.5**	**-0.7**
MLZ	**Mavora Lakes**	**28.64**	**201**	P	P	**P**	**16 16 46.8**	**-0.2**
WHZ	**Wether Hill Ro**	**29.15**	**201**	P	P	**P**	**16 16 52.4**	**+0.9**
CTA	**Charters Tower**	**34.13**	**262**	P	P	**P**	**16 17 33.1**	**-1.2**
CTAO	**Charters Tower**	**34.13**	**262**	P	P	**P**	**16 17 33.0**	**-1.2**
CTAO	**Charters Tower**	**34.13**	**262**	P	P	**P**	**16 17 34.1**	**-0.1**
CTAO				IAmb	IAmb		16 17 35.3	
	comp=Z,17nm,0.9s							
QLP	**Quilpie**	**35.91**	**251**	P	P	**P**	**16 17 48.6**	**-0.4**
MTSU	**Mount Surprise**	**36.17**	**265**	P	P	**P**	**16 17 50.4**	**-0.8**
TOO	**Toolangi**	**37.03**	**233**	P	P	**P**	**16 17 57.9**	**-0.1**
MANU	**Manus Island**	**38.43**	**292**	P	P	**P**	**16 18 11.2**	**+1.5**
STKA	**Stephens Creek**	**38.78**	**243**	P	P	**P**	**16 18 12.0**	**-0.3**
	comp=Z,8nm,0.6s,baz=82,slow=10.0,SNR=5.9							
	comp=Z,8nm,0.6s							
STKA	**Stephens Creek**	**38.78**	**243**	P	P	**P**	**16 18 12.7**	**+0.3**
INKA	**Innaminka**	**39.09**	**250**	P	P	**P**	**16 18 14.4**	**-0.4**
BBOO	**Buckleboo**	**43.55**	**242**	P	P	**P**	**16 18 49.7**	**-0.4**
BBOO				IAmb	IAmb		16 19 12.9	
	comp=Z,25nm,1.4s							
WR8	**Warramunga Arr**	**45.13**	**261**	P	P	**P**	**16 19 01.1**	**-1.3**
WR8				IAmb	IAmb		16 19 05.0	
	comp=Z,9.8nm,1.4s							
WB0	**Warramunga Arr**	**45.25**	**261**	P	P	**P**	**16 19 02.3**	**-1.1**
WB0				IAmb	IAmb		16 19 03.3	
	comp=Z,9.8nm,1.2s							
WRAB	**Tennant Creek**	**45.27**	**261**	P	P	**P**	**16 19 02.6**	**-0.9**
WRAB				IAmb	IAmb		16 19 34.6	
	comp=Z,11nm,1.4s							
WRA	**Warramunga Arr**	**45.28**	**261**	P	P	**P**	**16 19 02.7**	**-0.9**
	comp=Z,3.0nm,0.3s,baz=97,slow=8.2,SNR=129							
WRA				PcP	**PcP**	**PcP**	**16 20 31.3**	**-0.5**
	comp=Z,2.0nm,0.7s,baz=97,slow=3.3,SNR=8.8							
WRA				S	S	**S**	**16 24 59.6**	**-4.8**
	comp=Z,0.6nm,0.9s,baz=98,slow=14,SNR=3.3							
	comp=Z,3.0nm,0.3s							
WRA	**Warramunga Arr**	**45.28**	**261**	P	P	**P**	**16 19 02.2**	**-1.5**
AS31	**Alice Springs**	**45.30**	**255**	P	P	**P**	**16 19 03.1**	**-0.6**
ASAR	**Alice Springs**	**45.30**	**255**	P	P	**P**	**16 19 03.5**	**-0.3**
	comp=Z,5.1nm,0.5s,baz=91,slow=7.8,SNR=233							
ASAR				PcP	**PcP**	**PcP**	**16 20 31.4**	**-0.5**
	comp=Z,2.8nm,0.6s,baz=93,slow=3.7,SNR=13							
ASAR				S	S	**S**	**16 25 00.8**	**-3.8**
	comp=Z,1.0nm,0.9s,baz=90,slow=14,SNR=9.6							
	comp=Z,5.1nm,0.5s							
ASAR	**Alice Springs**	**45.30**	**255**	P	P	**P**	**16 19 02.8**	**-1.0**
MTN	**Manton Dam**	**49.66**	**269**	P	P	**P**	**16 19 35.8**	**-0.8**
FORT	**Forrest**	**50.25**	**246**	P	P	**P**	**16 19 39.5**	**-1.1**
FORT				IAmb	IAmb		16 19 40.5	
	comp=Z,11nm,0.8s							
KNRA	**Kununurra**	**51.25**	**265**	P	P	**P**	**16 19 47.2**	**-0.9**
FITZ	**Fitzroy Crossi**	**53.70**	**261**	P	P	**P**	**16 20 04.9**	**-0.6**
SOEI	**Soe**	**56.98**	**271**	P	P	**P**	**16 20 30.2**	**+1.6**
MBWA	**Marble Bar**	**58.62**	**257**	P	P	**P**	**16 20 38.6**	**-0.9**
MBWA				IAmb	IAmb		16 21 05.6	
	comp=Z,29nm,1.4s							
SBA	**Scott Base**	**59.12**	**184**	P	P	**P**	**16 20 44.4**	**+2.6**
VNDA	**Vanda**	**59.17**	**185**	P	P	**P**	**16 20 43.7**	**+1.5**
	comp=Z,0.5nm,0.7s,baz=37,slow=10,SNR=6.1							
	comp=Z,0.5nm,0.7s							
VNDA	**Vanda**	**59.17**	**185**	P	P	**P**	**16 20 43.6**	**+1.4**
MORW	**Morawa**	**60.76**	**247**	P	P	**P**	**16 20 52.5**	**-1.2**
MORW				IAmb	IAmb		16 21 03.6	
	comp=Z,22nm,1.5s							
MJAR	**Matsushiro Arr**	**69.53**	**323**	P	P	**P**	**16 21 48.3**	**-0.1**
	comp=Z,2.4nm,0.6s,baz=158,slow=6.0,SNR=8.5							
	comp=Z,2.4nm,0.6s							
MJAR	**Matsushiro Arr**	**69.53**	**323**	P	P	**P**	**16 21 48.2**	**-0.2**
MAJO	**Matsushiro**	**69.53**	**323**	P	P	**P**	**16 21 48.7**	**+0.3**
MJB9	**Matsu-Tunnel**	**69.53**	**323**	P	P	**P**	**16 21 49.6**	**+1.2**
KKM	**Kota Kinabalu**	**69.94**	**284**	P	P	**P**	**16 21 51.2**	**-0.2**
UGM	**Wanagama**	**70.50**	**268**	P	P	**P**	**16 21 53.9**	**-0.8**
QSPA	**South Pole Qui**	**70.79**	**180**	P	P	**P**	**16 21 56.5**	**+1.0**
	comp=Z,3.7nm,0.7s,baz=24,slow=6.7,SNR=26							
	comp=Z,3.7nm,0.7s							
QSPA	**South Pole Qui**	**70.79**	**180**	P	P	**P**	**16 21 55.9**	**+0.4**
JKA	**Kamikawa-asahi**	**72.90**	**331**	P	P	**P**	**16 22 08.8**	**+0.9**
JKA				IAmb	IAmb		16 22 11.7	
	comp=Z,12nm,1.0s							
TWG	**Pinlang**	**73.15**	**302**	P	P	**P**	**16 22 07.4**	**-2.5**
BBJI	**Bungbulang**	**73.34**	**268**	P	P	**P**	**16 22 09.3**	**-1.9**
SSLB	**Suanglung**	**73.72**	**303**	P	P	**P**	**16 22 12.2**	**-0.9**
SSLB				IAmb	IAmb		16 22 13.1	
	comp=Z,11nm,1.1s							
TPUB	**Ta-pu**	**73.74**	**302**	P	P	**P**	**16 22 12.2**	**-1.0**
PETK	**Petropavlovsk-**	**75.22**	**345**	P	P	**P**	**16 22 20.3**	**-0.6**
	comp=Z,6.0nm,1.1s,baz=162,slow=5.8,SNR=4.6							
	comp=Z,6.0nm,1.1s							
OHAK	**Old Harbor**	**78.85**	**13**	P	P	**P**	**16 22 40.7**	**+0.3**
P16K	**Nushagak River**	**79.65**	**10**	P	P	**P**	**16 22 42.9**	**-1.7**
NVAR	**Mina Array Bea**	**79.79**	**43**	P	P	**P**	**16 22 47.8**	**+1.5**
	comp=Z,0.7nm,0.6s,baz=235,slow=5.1,SNR=2.2							
	comp=Z,0.7nm,0.6s							
N14K	**Kuskokwak Cree**	**79.96**	**8**	P	P	**P**	**16 22 47.0**	**+0.8**
M16K	**Timber Creek**	**81.39**	**9**	P	P	**P**	**16 22 54.9**	**+1.3**
M16K				IAmb	IAmb		16 23 38.5	
	comp=Z,16nm,1.3s							
K15K	**Wolf Creek Mou**	**82.27**	**7**	P	P	**P**	**16 22 58.8**	**+0.7**
K15K				IAmb	IAmb		16 23 01.0	
	comp=Z,18nm,1.1s							
L18K	**Granite Mounta**	**82.88**	**10**	P	P	**P**	**16 23 02.0**	**+0.8**
L18K				IAmb	IAmb		16 23 03.6	
	comp=Z,8.8nm,1.3s							
MAW	**Mawson**	**82.88**	**200**	P	P	**P**	**16 23 01.3**	**0.0**
	comp=Z,1.0nm,0.4s,baz=142,slow=7.9,SNR=6.8							
	comp=Z,1.0nm,0.4s							
MAW	**Mawson**	**82.88**	**200**	P	P	**P**	**16 23 01.2**	**0.0**
STLK	**Strandline Lak**	**83.07**	**12**	P	P	**P**	**16 23 01.1**	**-1.2**
SUA	**Susitna One**	**83.26**	**13**	P	P	**P**	**16 23 02.9**	**-0.3**
SUA				IAmb	IAmb		16 23 04.1	
	comp=Z,7.3nm,0.9s							
IPM	**Ipoh**	**83.48**	**277**	P	P	**P**	**16 23 05.2**	**-0.1**
IPM				IAmb	IAmb		16 23 06.4	
	comp=Z,11nm,0.7s							
J18K	**Innoko River**	**84.05**	**9**	P	P	**P**	**16 23 07.6**	**+0.6**
J18K				IAmb	IAmb		16 23 15.1	
	comp=Z,6.3nm,1.3s							
J19K	**Poorman**	**84.72**	**9**	P	P	**P**	**16 23 10.6**	**+0.4**
J19K				IAmb	IAmb		16 23 43.5	
	comp=Z,8.2nm,1.4s							
TMUT	**Trail Mountain**	**84.94**	**45**	P	P	**P**	**16 23 13.3**	**+1.0**
J20K	**Nowinta River**	**85.13**	**10**	P	P	**P**	**16 23 12.0**	**-0.2**
J20K				IAmb	IAmb		16 23 21.9	
	comp=Z,6.0nm,1.4s							
RND	**Reindeer**	**85.40**	**12**	P	P	**P**	**16 23 14.2**	**+0.6**
RND				IAmb	IAmb		16 23 14.5	
	comp=Z,6.4nm,1.0s							
TX31	**Lajitas Ar. Si**	**85.97**	**57**	P	P	**P**	**16 23 18.9**	**+1.7**
TX31				IAmb	IAmb		16 23 20.3	
	comp=Z,7.8nm,1.5s							
TXAR	**Lajitas Array**	**85.97**	**57**	P	P	**P**	**16 23 19.2**	**+2.0**
	comp=Z,1.2nm,0.7s,baz=246,slow=4.

CLL				*i* PKPab	**PKPab**	**16 30 18.6**	**-0.1**
	comp=Z,6.0nm,0.9s							
STEB	**Steborice**	**147.07**	**342**	⇑*e*PKP	**PKPbc**	**16 30 15.9**	**+0.1**
DPC	**Dobruska-Polom**	**147.10**	**344**	⇑*e*PKP	**PKPbc**	**16 30 16.7**	**+0.8**
DPC				*e*PKPAB	**PKPab**	**16 30 20.2**	**+0.9**
KRLC	**Kraliky**	**147.23**	**343**	⇑*e*PKP	**PKPbc**	**16 30 17.1**	**+0.9**
KRLC				*ex*	**PKPab**	**16 30 20.5**	**+0.7**
PVCC	**Panska Ves**	**147.38**	**346**	⇑*e*PKP	**PKiKP**	**16 30 17.5**	**-0.7**
MLR	**Muntele Rosu**	**147.46**	**329**	PKPbc	**PKPbc**	**16 30 16.7**	**-0.4**
MMAI	**Mount Meron Ar**	**147.62**	**302**	PKPbc	**PKPbc**	**16 30 18.6**	**+0.7**
	comp=Z,3.6nm,0.4s,baz=76,slow=6.1,SNR=16							
ZVC	**Zvikov**	**148.48**	**345**	⇑*e*PKP	**PKPbc**	**16 30 19.2**	**-0.2**
ZVC				*e*PKPAB	**PKPab**	**16 30 25.6**	**+0.7**
ABNA	**Allensteig Bun**	**148.88**	**343**	*e*PKP	**PKiKP**	**16 30 21.0**	**-0.4**
	comp=Z,3.3nm,0.7s							
KHC	**Kasperske Hory**	**148.91**	**346**	PKPbc	**PKPbc**	**16 30 20.2**	**-0.3**
KHC	**Kasperske Hory**	**148.91**	**346**	⇑*e*PKP	**PKPbc**	**16 30 20.6**	**+0.1**
CKRC	**Cesky Krumlov**	**149.03**	**345**	⇑*e*PKP	**PKPbc**	**16 30 21.1**	**+0.3**
GERES	**GERESS Array B**	**149.15**	**346**	PKPbc	**PKPbc**	**16 30 20.8**	**-0.4**
	comp=Z,4.3nm,0.8s,baz=29,slow=2.4,SNR=25							
WINA	**Alland / Wiene**	**149.21**	**342**	*e*PKP	**PKiKP**	**16 30 21.9**	**-0.1**
	comp=Z,6.0nm,0.7s							
CONA	**Conrad Observa**	**149.43**	**342**	*i* PKP	**PKiKP**	**16 30 22.3**	**-0.3**
	comp=Z,6.9nm,0.7s							
RONA	**Rosalia, Austr**	**149.51**	**342**	*e*PKP	**PKiKP**	**16 30 22.4**	**-0.3**
	comp=Z,9.4nm,0.6s							
MOA	**Molln**	**149.94**	**344**	*i* PKP	**PKPbc**	**16 30 23.0**	**0.0**
	comp=Z,4.9nm,0.6s							
BIOA	**Bad Ischl, Aus**	**150.24**	**345**	*i* PKP	**PKPbc**	**16 30 23.3**	**-0.4**
	comp=Z,2.6nm,0.5s							
SESA	**Seetaler Alpe,**	**150.54**	**343**	*i* PKP	**PKPbc**	**16 30 24.2**	**-0.4**
	comp=Z,12nm,0.5s							
LESA	**Schwarzleotal**	**150.72**	**346**	*i* PKP	**PKPbc**	**16 30 24.4**	**-0.5**
	comp=Z,3.5nm,0.5s							
SOKA	**Soboth**	**150.80**	**342**	*e*PKP	**PKPbc**	**16 30 24.4**	**-0.7**
	comp=Z,6.7nm,1.1s							
AKAS	**Kas**	**150.83**	**311**	PKPbc	**PKPbc**	**16 30 24.2**	**-1.3**
KBA	**Koelnbreinsper**	**150.89**	**345**	*e*PKP	**PKPbc**	**16 30 24.5**	**-0.9**
	comp=Z,4.2nm,0.5s							
WATA	**Walderalm**	**151.05**	**347**	*e*PKP	**PKPbc**	**16 30 25.3**	**-0.4**
	comp=Z,5.5nm,0.5s							
RETA	**Reutte**	**151.07**	**348**	*e*PKP	**PKPbc**	**16 30 25.3**	**-0.3**
	comp=Z,3.0nm,0.8s							
WTTA	**Wattenberg**	**151.11**	**347**	*e*PKP	**PKPbc**	**16 30 25.8**	**-0.1**
	comp=Z,11nm,0.5s							
MOTA	**Moosalm**	**151.14**	**348**	*e*PKP	**PKPbc**	**16 30 25.6**	**-0.3**
	comp=Z,8.5nm,0.9s							
MYKA	**Terra Mystica**	**151.23**	**344**	*i* PKP	**PKPbc**	**16 30 25.1**	**-1.0**
	comp=Z,4.1nm,0.5s							
SQTA	**Sankt Quirin**	**151.24**	**348**	*e*PKP	**PKPbc**	**16 30 25.9**	**-0.2**
	comp=Z,6.8nm,0.7s							
ABTA	**Abfaltersbach**	**151.40**	**346**	*i* PKP	**PKPbc**	**16 30 25.8**	**-0.7**
	comp=Z,9.2nm,0.5s							
DAVA	**Damuels**	**151.42**	**350**	*e*PKP	**PKiKP**	**16 30 26.9**	**+0.1**
	comp=Z,10nm,1.1s							
FETA	**Feichten**	**151.52**	**348**	*i* PKP	**PKPbc**	**16 30 26.9**	**0.0**
	comp=Z,3.6nm,0.6s							
FUORN	**Ofenpass-Fuorn**	**152.00**	**349**	PKPbc	**PKPbc**	**16 30 27.5**	**-0.5**

TAP ***18*** *16:12:16.9,23˚.80N×122˚.93E,h43km,ML2.8,D*
JMA ***18*** *16:12:17.3±0.1,24˚.0N±0˚.8×122˚.8E±0˚.7,h63km,MV1.9/9,*
NW OFF ISHIGAKIJIMA IS

ISC 18 16:12:15.5±1.2,23˚.70N±0˚.03×122˚.89E±0˚.03,h20km±4km,
n69,σ0s.84/135,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.67**	**309**	P	**Pn**	**16 12 29.8**	**+0.2**
EOS4				S	**Sn**	**16 12 39.2**	**-0.2**
JYNG	**Yonagunijimaku**	**0.75**	**4**	P	**Pb**	**16 12 29.9**	**-0.1**
JYNG				*e*S	**Sb**	**16 12 39.1**	**-0.7**
YOJ	**Yonaguni jima**	**0.77**	**9**	*i* P	**Pb**	**16 12 30.3**	**0.0**
YOJ				*i* S	**Sb**	**16 12 40.0**	**-0.3**
YOJ	**Yonaguni jima**	**0.77**	**9**	*e*P	**Pb**	**16 12 30.3**	**0.0**
YOJ				*e*S	**Sb**	**16 12 39.5**	**-0.8**
EOS3	**EOS3**	**0.78**	**319**	*i* P	**Pn**	**16 12 31.4**	**0.0**
EOS3				*e*S	**Sn**	**16 12 42.7**	**+0.3**
EOS2	**EOS2**	**0.93**	**320**	*i* P	**Pg**	**16 12 34.2**	**+0.5**
EOS2				S	**Sn**	**16 12 47.1**	**+0.9**
IRIF	**Iriomote-Funau**	**1.00**	**51**	P	**Pg**	**16 12 35.0**	**0.0**
IRIF				*e*S	**Sg**	**16 12 48.1**	**-0.1**
JKRS	**Kuro-shima**	**1.16**	**62**	P	**Pg**	**16 12 38.2**	**+0.1**
HWA	**Hwalien**	**1.20**	**284**	*e*P	**Pn**	**16 12 37.5**	**+0.2**
HWA				*i* S	**Sb**	**16 12 52.0**	**-0.8**
SHUL	**Shoufeng**	**1.22**	**274**	*i* P	**Pn**	**16 12 37.8**	**+0.3**
SHUL				S	**Sb**	**16 12 52.4**	**-0.8**
TWD	**Chiawan**	**1.24**	**288**	*e*P	**Pb**	**16 12 38.5**	**+0.2**
TWD				*e*S	**Sb**	**16 12 53.5**	**-0.4**
EWUT	**Wuta**	**1.25**	**307**	*e*P	**Pn**	**16 12 38.1**	**+0.1**
EWUT				*e*S	**Sg**	**16 12 55.5**	**-0.8**
NACB	**Ninganchiao**	**1.27**	**292**	P	**Pn**	**16 12 37.2**	**-1.0**
NACB				*e*S	**Sn**	**16 12 53.1**	**-1.7**
ENA	**Nanau**	**1.27**	**305**	*e*P	**Pn**	**16 12 37.5**	**-0.7**
ENA				*e*S	**Sb**	**16 12 55.9**	**+1.0**
TWC	**Suao**	**1.31**	**314**	*e*P	**Pn**	**16 12 39.1**	**+0.4**
TWC				*e*S	**Sn**	**16 12 55.1**	**-0.5**
JIJ	**Ishigaki jima**	**1.33**	**60**	P	**Pb**	**16 12 40.2**	**+0.4**
JIJ				*e*S	**Sg**	**16 12 57.5**	**-1.1**
ESL	**Shilin**	**1.33**	**275**	*i* P	**Pn**	**16 12 38.2**	**-0.9**
ESL				*i* S	**Sn**	**16 12 54.5**	**-1.9**
HGSD	**Ruisui**	**1.36**	**262**	*i* P	**Pn**	**16 12 39.3**	**-0.1**
HGSD				*e*S	**Sn**	**16 12 55.3**	**-1.5**
WARBT	**Fenglin Townsh**	**1.37**	**271**	*i* P	**Pn**	**16 12 39.4**	**-0.2**
WARBT				S	**Sn**	**16 12 55.3**	**-2.0**
ETLH	**Xiulin Townshi**	**1.38**	**292**	*e*P	**Pn**	**16 12 39.4**	**-0.5**
ETLH				*e*S	**Sn**	**16 12 56.3**	**-1.2**
NDS	**Dongshan**	**1.42**	**311**	*e*P	**Pb**	**16 12 42.0**	**+0.7**
NDS				*e*S	**Sb**	**16 12 58.9**	**-0.1**
EHYH	**Wanrong**	**1.43**	**262**	*i* P	**Pn**	**16 12 40.2**	**-0.2**
EHYH				S	**Sn**	**16 12 57.8**	**-0.9**
EHY	**Hungye**	**1.45**	**263**	*e*P	**Pn**	**16 12 40.4**	**-0.3**
EHY				*i* S	**Sn**	**16 12 58.6**	**-0.5**
EYUL	**Yuli**	**1.48**	**257**	*i* P	**Pn**	**16 12 41.2**	**+0.1**
EYUL				S	**Sn**	**16 12 59.8**	**-0.1**
YULB	**Yu-li**	**1.49**	**258**	*i* P	**Pn**	**16 12 41.6**	**+0.3**
YULB				*i* S	**Sn**	**16 12 59.9**	**-0.3**
LATG	**Datong**	**1.49**	**304**	*i* P	**Pn**	**16 12 42.0**	**+0.6**
LATG				*e*S	**Sb**	**16 13 02.4**	**+1.1**
TWF1	**Yuli**	**1.50**	**257**	*i* P	**Pn**	**16 12 41.9**	**+0.5**
TWF1				*i* S	**Sn**	**16 13 00.2**	**-0.1**
TWE	**Neicheng**	**1.51**	**313**	*e*P	**Pn**	**16 12 41.6**	**+0.1**
TWE				*e*S	**Sb**	**16 13 01.9**	**+0.3**
ENTT	**Nioudou**	**1.53**	**308**	*i* P	**Pb**	**16 12 43.2**	**0.0**
ENTT				*e*S	**Sb**	**16 13 02.6**	**+0.5**
FULB	**Fuli**	**1.54**	**251**	*e*P	**Pn**	**16 12 41.3**	**-0.7**
FULB				S	**Sn**	**16 13 01.0**	**-0.5**
WHF	**Hehuan Shan**	**1.55**	**287**	P	**Pb**	**16 12 43.8**	**0.0**
WHF				S	**Sn**	**16 13 02.1**	**-0.1**
NNSB	**Datong**	**1.55**	**298**	*e*P	**Pb**	**16 12 43.9**	**+0.2**
NNSB				*e*S	**Sn**	**16 13 02.6**	**+0.7**
NNS	**Nan Shan**	**1.57**	**298**	*e*P	**Pb**	**16 12 43.6**	**-0.4**
NNS				*e*S	**Sb**	**16 13 03.3**	**-0.1**
JISG	**Ishigakijimahi**	**1.57**	**56**	P	**Pn**	**16 12 42.7**	**+0.3**
JISG				*e*S	**Sn**	**16 13 01.8**	**-0.4**
OWD	**Renai**	**1.58**	**280**	P	**Pn**	**16 12 42.9**	**+0.2**
OWD				*i* S	**Sn**	**16 13 02.0**	**-0.7**
FUSB	**Fushanzhiwuyua**	**1.59**	**312**	*i* P	**Pb**	**16 12 44.0**	**-0.3**
FUSB				*e*S	**Sb**	**16 13 03.9**	**0.0**
TIPB	**Shuangxi**	**1.59**	**323**	*i* P	**Pn**	**16 12 43.5**	**+0.8**
TIPB				*e*S	**Sn**	**16 13 02.6**	**-0.1**
FUSS	**Fushou**	**1.60**	**290**	*i* P	**Pb**	**16 12 44.1**	**-0.4**
FUSS				S	**Sn**	**16 13 02.9**	**-0.3**
VWDT	**VWDT**	**1.60**	**272**	*i* P	**Pn**	**16 12 43.3**	**+0.6**
VWDT				*e*S	**Sn**	**16 13 02.3**	**-0.5**
EDH	**Donghe**	**1.62**	**244**	*i* P	**Pn**	**16 12 42.4**	**-0.6**
EDH				S	**Sn**	**16 13 02.0**	**-1.4**
EHD	**Haiduan**	**1.64**	**251**	P	**Pn**	**16 12 44.4**	**+1.1**
EHD				*i* S	**Sn**	**16 13 03.5**	**-0.3**
WUSB	**Renai**	**1.64**	**281**	*i* P	**Pn**	**16 12 44.0**	**+0.5**
WUSB				*e*S	**Sn**	**16 13 05.0**	**+0.9**
NWLT	**Wulai**	**1.66**	**311**	*e*P	**Pb**	**16 12 45.5**	**+0.1**
NWLT				*e*S	**Sb**	**16 13 05.8**	**-0.1**
SXI1	**Grass Mountain**	**1.67**	**327**	*i* P	**Pb**	**16 12 45.1**	**-0.6**
SXI1				*e*S	**Sn**	**16 13 03.9**	**-0.7**
YHNB	**Yeheng**	**1.68**	**305**	P	**Pn**	**16 12 43.9**	**-0.1**
YHNB				*e*S	**Sn**	**16 13 05.9**	**+0.9**
NSK	**Sanguang**	**1.70**	**305**	*e*P	**Pn**	**16 12 45.0**	**+0.8**
NSK				*e*S	**Sn**	**16 13 05.4**	**-0.1**
SSLB	**Suanglung**	**1.77**	**273**	*i* P	**Pn**	**16 12 45.7**	**+0.6**
SSLB				*e*S	**Sn**	**16 13 07.7**	**+0.6**
ELDTW	**Lidau**	**1.79**	**254**	*i* P	**Pn**	**16 12 45.4**	**-0.1**
ELDTW				*e*S	**Sn**	**16 13 05.7**	**-2.0**
LONT	**Longtian**	**1.80**	**244**	P	**Pn**	**16 12 45.3**	**-0.2**
LONT				S	**Sn**	**16 13 07.8**	**+0.1**
SMLT	**Sun Moon Lake**	**1.83**	**276**	*e*P	**Pb**	**16 12 48.1**	**-0.3**
SMLT				*e*S	**Sn**	**16 13 09.3**	**+0.7**
WCS	**Beigang Elemen**	**1.84**	**282**	*i* P	**Pb**	**16 12 47.8**	**-0.8**
WCS				*e*S	**Sn**	**16 13 10.2**	**+1.4**
NFF	**Wufeng Townshi**	**1.86**	**300**	*i* P	**Pb**	**16 12 48.1**	**-0.9**
NFF				*e*S	**Sb**	**16 13 12.1**	**+0.2**
WHYT	**Xinyi Township**	**1.86**	**270**	*e*P	**Pb**	**16 12 48.6**	**-0.4**
WHYT				*e*S	**Sn**	**16 13 11.0**	**+1.6**
TYC	**Yuchr**	**1.87**	**277**	*e*P	**Pb**	**16 12 48.6**	**-0.5**
TYC				*e*S	**Sn**	**16 13 09.7**	**+0.2**
ALS	**Alishan**	**1.92**	**265**	P	**Pn**	**16 12 48.1**	**+0.7**
LIOB	**Emei**	**1.95**	**299**	P	**Pn**	**16 12 48.9**	**+1.3**
LIOB				*e*S	**Sb**	**16 13 14.3**	**-0.1**
STYH	**Taoyuan**	**2.01**	**255**	P	**Pn**	**16 12 49.8**	**+1.5**
STYH				*e*S	**Sn**	**16 13 12.2**	**-0.7**
CHN5	**Tsauling**	**2.03**	**268**	*e*P	**Pb**	**16 12 51.7**	**0.0**
CHN5				*e*S	**Sb**	**16 13 15.8**	**-0.8**
ECL	**Taimali**	**2.09**	**239**	P	**Pn**	**16 12 49.5**	**0.0**
ECL				*e*S	**Sn**	**16 13 14.3**	**-0.6**
TPUB	**Ta-pu**	**2.11**	**260**	*i* P	**Pn**	**16 12 51.6**	**+1.8**
TPUB				*e*S	**Sn**	**16 13 17.8**	**+2.4**
WCKO	**Fanlu**	**2.11**	**263**	P	**Pn**	**16 12 51.0**	**+1.2**
WCKO				*e*S	**Sb**	**16 13 19.2**	**+0.3**
CHN4	**Tsaushan**	**2.13**	**261**	*i* P	**Pb**	**16 12 53.0**	**-0.6**
CHN4				*e*S	**Sb**	**16 13 19.4**	**-0.2**
WTP	**Ta-pu**	**2.13**	**258**	*e*P	**Pb**	**16 12 53.2**	**-0.4**
WTP				*e*S	**Sn**	**16 13 18.2**	**+2.1**
CHN1	**Nanshi**	**2.22**	**257**	P	**Pb**	**16 12 54.7**	**-0.4**
CHN1				*i* S	**Sn**	**16 13 20.7**	**+2.3**
TWK	**Hsinying**	**2.24**	**259**	*e*P	**Pb**	**16 12 55.1**	**-0.3**
TWK				*e*S	**Sb**	**16 13 22.8**	**-0.1**
SSD	**Sandimen**	**2.28**	**246**	*e*P	**Pn**	**16 12 54.3**	**+2.2**
SSD				S	**Sn**	**16 13 19.6**	**0.0**
EAST	**Anshuo**	**2.29**	**235**	*i* P	**Pn**	**16 12 52.8**	**+0.5**
EAST				*e*S	**Sn**	**16 13 19.2**	**-0.7**
MASBT	**Mashibuluo**	**2.34**	**243**	*i* P	**Pn**	**16 12 54.8**	**+1.9**
MASBT				*e*S	**Sn**	**16 13 21.8**	**+0.7**
SCZT	**Fangliau**	**2.47**	**238**	*e*P	**Pn**	**16 12 57.2**	**+2.5**

DJA 18 16:16:39.5±0.9,9˚S±5˚×11˚6E±˚,h29km±9km,M4.0/16,
mb4.1/4,MLv3.9/16,South of Bali

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGBI	**Denpasar**	**0.95**	**306**	P	**Pn**	**16 16 56.7**	**-0.3**
IGBI				S	**Sn**	**16 17 09.6**	**0.0**
IGBI				AML	AML		
KHKI	**Kahang-Kahang**	**1.06**	**342**	P	**Pb**	**16 16 59.3**	**+0.1**
KHKI				S	**Sb**	**16 17 13.6**	**+0.9**
RTBI	**Rangdo, Negare**	**1.34**	**313**	P	**Pn**	**16 17 02.3**	**0.0**
RTBI				S	**Sn**	**16 17 19.1**	**0.0**
SRBI	**Singaraja**	**1.47**	**331**	P	**Pn**	**16 17 04.1**	**0.0**
SRBI				AML	AML		
PLAI	**Plampang**	**1.90**	**73**	P	**Pn**	**16 17 10.7**	**+0.7**
PLAI				AML	AML		
JAGI	**Jajag, Banyuwa**	**1.98**	**297**	P	**Pn**	**16 17 10.1**	**-0.9**
JAGI				AML	AML		
ABJI	**Asem Bagus**	**2.30**	**313**	P	**Pn**	**16 17 15.9**	**+0.4**
ABJI				AML	AML		
DBNI	**Kabupaten Domp**	**2.51**	**70**	P	**Pn**	**16 17 19.3**	**+0.9**
DBNI				AML	AML		
BLJI	**Banyuglugur**	**2.82**	**305**	P	**Pn**	**16 17 22.7**	**0.0**
BLJI				AML	AML		
LBFI	**Labuhan Bajo,**	**4.01**	**77**	P	**Pn**	**16 17 39.2**	**+0.1**
WSI	**Waingapu**	**4.32**	**94**	P	**Pn**	**16 17 44.7**	**+1.4**
SNJI	**Sawahan-Nganju**	**4.42**	**291**	P	**Pn**	**16 17 44.6**	**-0.2**
SNJI				AML	AML		
BSSI	**Bau Bau, Buton**	**5.55**	**55**	P	**Pn**	**16 17 57.4**	**-2.8**
	0.2nm45nm,1.5s						
BSSI				AML	AML		
EDFI	**Ende, Flores**	**5.72**	**84**	P	**Pn**	**16 18 01.6**	**-1.1**
	0.1nm12nm,0.7s						
EDFI				AML	AML		

INMG ***18*** *16:20:40.8±1.1,34˚.79N×17˚.96W,h77km±5km,ML2.7,*
Error ellipse: s-maj=8.4km s-min=2.4km az=114.0,
#DIST_RANGE: REGIONAL #IPMA_REGION: NW Porto
Moniz (Madeira)
MDD ***18*** *16:20:40.6±1.1,34˚.56N×18˚.17W,h86km±28km,Mb4.3/12,*
Error ellipse: s-maj=15.9km s-min=8.1km az=87.0
CNRM ***18*** *16:20:50.6,34˚.08N×16˚.89W,h30km*

ISC 18 16:20:32.3±1.4,34˚.77N±0˚.05×17˚.58W±0˚.08,h10km,n47,
σ3s.46/73,12C-2D,Madeira Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMOZ	**Porto Moniz, M**	**1.96**	**171**	P	**Pg**	**16 21 11.0**	**+1.0**
PMOZ				S	**Sg**	**16 21 37.3**	**+1.8**
PMOZ	**Porto Moniz, M**	**1.96**	**171**	P	**Pg**	**16 21 11.2**	**+1.2**
PMOZ				S	**Sg**	**16 21 39.8**	**-0.7**
PMOZ	**Porto Moniz, M**	**1.96**	**171**	⇓*e*P	**Pg**	**16 21 11.1**	**+1.1**
PMOZ				*e*S	**Sg**	**16 21 34.1**	**-1.3**
PMOZ				IAML		16 21 39.5	
PMOZ				IAML		16 21 39.8	
PMOZ				IAML		16 21 41.0	
PMPST	**Porto Santo, M**	**1.98**	**148**	⇓*e*P	**Pg**	**16 21 11.9**	**+1.7**
PMPST				*e*S	**Sg**	**16 21 35.9**	**0.0**
PMPST				IAML		16 21 36.0	
PMPST				IAML		16 21 36.1	
PMPST				IAML		16 21 41.2	
PMPS	**Porto Santo**	**2.00**	**148**	*e*P	**Pg**	**16 21 12.2**	**+1.6**
PMPS				*e*S	**Sg**	**16 21 36.5**	**0.0**
PMPS				IAML		16 21 42.2	
PMAR	**Madeira**	**2.11**	**165**	P	**Pg**	**16 21 13.3**	**+0.5**
PMAR				S	**Sn**	**16 21 33.0**	**-1.3**
PMAR	**Madeira**	**2.11**	**165**	*e*P	**Pg**	**16 21 13.3**	**+0.5**
PMAR				*e*S	**Sg**	**16 21 38.6**	**-1.6**
PMAR				IAML		16 21 38.8	
PMAR				IAML		16 21 40.6	
PMAR				IAML		16 21 44.3	
FUL	**Funchal**	**2.19**	**165**	*e*P	**Pg**	**16 21 14.2**	**-0.1**
FUL				*e*S	**Sb**	**16 21 39.1**	**-0.1**
CGOR	**Puntagorda, La**	**5.98**	**183**	⇑IVmb_VC		16 22 08.8	
	1μm,SNR=1.6						
CGOR				S	**Sn**	**16 23 02.6**	**-6.9**
CROM	**Garafia, La Pa**	**5.99**	**183**	P	**Pn**	**16 22 04.4**	**+3.1**
CROM				⇑IVmb_VC		16 22 06.8	
	720nm,SNR=1.4						
CROM				S	**Sn**	**16 23 03.9**	**-6.3**
CPUN	**Puntallana, La**	**6.01**	**181**	P	**Pn**	**16 22 03.9**	**+2.5**
CPUN				S	**Sn**	**16 23 04.6**	**-5.8**
CMIR	**El Paso, La Pa**	**6.05**	**182**	P	**Pn**	**16 22 04.5**	**+2.4**
CMIR				⇑IVmb_VC		16 22 06.6	
	541nm,SNR=2.4						
CMIR				S	**Sn**	**16 23 04.2**	**-7.3**
CBRE	**Brena Baja,La**	**6.12**	**182**	P	**Pn**	**16 22 05.2**	**+2.3**
CBRE				⇑IVmb_VC		16 22 11.1	
	2μm,SNR=1.5						
CBRE				S	**Sn**	**16 23 07.0**	**-6.1**
CJED	**Jedey, El Paso**	**6.17**	**182**	⇑IVmb_VC		16 22 11.2	
	2μm,SNR=1.8						
CJED				S	**Sn**	**16 23 08.9**	**-5.5**
CFOR	**Fortaleza, Los**	**6.49**	**172**	P	**Pn**	**16 22 11.5**	**+3.3**
CFOR				⇑IVmb_VC		16 22 18.8	
	439nm,SNR=1.7						
CFOR				S	**Sn**	**16 23 17.8**	**-4.6**
CDIE	**La Orotava (Te**	**6.52**	**172**	P	**Pn**	**16 22 10.7**	**+2.2**
CDIE				S	**Sn**	**16 23 19.4**	**-3.7**
CPVI	**La Orotava (Te**	**6.53**	**173**	P	**Pn**	**16 22 12.2**	**+3.3**
CPVI				S	**Sn**	**16 23 19.5**	**-4.1**
GUIA	**Guia de Isora,**	**6.54**	**173**	P	**Pn**	**16 22 12.4**	**+3.6**
GUIA				⇑IVmb_VC		16 22 13.7	
	601nm,SNR=1.2						
GUIA				S	**Sn**	**16 23 19.4**	**-4.2**
MACI	**Morro de la Ar**	**6.56**	**172**	P	**Pn**	**16 22 11.5**	**+2.5**
MACI				S	**Sn**	**16 23 19.8**	**-4.2**
CCHO	**La Orotava (Te**	**6.57**	**173**	P	**Pn**	**16 22 13.1**	**+3.9**
CCHO				S	**Sn**	**16 23 20.9**	**-3.4**
CCAN	**Las Canadas**	**6.58**	**172**	P	**Pn**	**16 22 12.4**	**+3.0**
CCAN				⇑IVmb_VC		16 22 16.0	
	184nm,SNR=0.7						
CCAN				S	**Sn**	**16 23 20.5**	**-4.0**
CLAJ	**Vilaflor (Tene**	**6.63**	**173**	P	**Pn**	**16 22 12.7**	**+2.6**
CLAJ				⇑IVmb_VC		16 22 16.4	
	682nm,SNR=1.6						
CLAJ				S	**Sn**	**16 23 21.9**	**-4.0**
CTIG	**El Hierro**	**6.96**	**182**	P	**Pn**	**16 22 16.2**	**+1.8**
CTIG				⇑IVmb_VC		16 22 23.5	
	1μm,SNR=2.0						
CTIG				S	**Sn**	**16 23 27.8**	**-5.9**
CMCL	**Mercadel, El H**	**7.04**	**183**	S	**Sn**	**16 23 29.2**	**-6.6**
CLUM	**San Bartolome**	**7.12**	**166**	P	**Pn**	**16 22 20.9**	**+4.3**
CLUM				⇑IVmb_VC		16 22 27.4	
	467nm,SNR=1.2						
CLUM				S	**Sn**	**16 23 34.8**	**-2.8**
CGIN	**Giniginamar, F**	**7.19**	**155**	P	**Pn**	**16 22 22.8**	**+5.2**
CGIN				⇑IVmb_VC		16 22 25.9	
	158nm,SNR=1.6						
CGIN				S	**Sn**	**16 23 37.3**	**-2.0**
PFVI	**Vila Bisbo**	**7.48**	**69**	S	**Sn**	**16 23 44.9**	**-1.5**
PFVI	**Vila Bisbo**	**7.48**	**69**	*e*P	**Pn**	**16 22 26.1**	**+4.6**
PFVI				*e*S	**Sn**	**16 23 45.6**	**-0.8**
PCVE	**Castro Verde**	**8.23**	**67**	*e*P	**Pn**	**16 22 35.8**	**+4.1**
PCVE				*e*S	**Sn**	**16 24 03.1**	**-1.6**
MOE	**Montemor**	**8.31**	**61**	*e*P	**Pn**	**16 22 35.2**	**+2.3**
MOE				*e*S	**Sn**	**16 24 02.1**	**-4.7**
EGRO	**El Granado**	**8.62**	**68**	S	**Sn**	**16 24 16.2**	**+1.8**
PMTG	**Montargil**	**8.63**	**57**	*e*P	**Pn**	**16 22 39.8**	**+2.5**
PMTG				*e*S	**Sn**	**16 24 12.0**	**-2.8**
PARRA	**Arraiolos**	**8.65**	**59**	*e*P	**Pn**	**16 22 39.9**	**+2.3**
PARRA				*e*S	**Sn**	**16 24 11.4**	**-3.8**
TTIG	**Tnine Tigouga,**	**8.78**	**116**	P	**Pn**	**16 22 45.8**	**+6.3**
TTIG				S	**Sn**	**16 24 13.4**	**-5.1**
OUK	**Oukaimeden**	**8.90**	**111**	P	**Pn**	**16 22 47.2**	**+5.9**
OUK				S	**Sn**	**16 24 17.4**	**-4.4**
PSARD	**Sardoal**	**8.93**	**55**	*e*S	**Sn**	**16 24 18.7**	**-3.3**
PBAR	**Barrancos**	**9.15**	**65**	S	**Sn**	**16 24 24.2**	**-3.1**
PBAR	**Barrancos**	**9.15**	**65**	*e*S	**Sn**	**16 24 23.2**	**-4.2**
EBAD	**Badajoz**	**9.37**	**62**	S	**Sn**	**16 24 31.1**	**-1.7**
PMRV	**Marv??o**	**9.37**	**57**	*e*S	**Sn**	**16 24 28.4**	**-4.6**
TIO	**Tiouine**	**9.49**	**111**	P	**Pn**	**16 22 58.4**	**+9.3**
TIO				S	**Sn**	**16 24 38.4**	**+2.4**
TIO	**Tiouine**	**9.49**	**111**	P	**Pn**	**16 22 54.9**	**+5.7**
TIO				S	**Sn**	**16 24 33.8**	**-2.1**
TISM	**Timmit**	**9.81**	**105**	P	**Pn**	**16 22 59.4**	**+5.9**
TISM				S	**Sn**	**16 24 41.4**	**-2.2**
OUZM	**OUZ**	**9.88**	**110**	P	**Pn**	**16 22 59.5**	**+4.9**
OUZM				S	**Sn**	**16 24 41.2**	**-4.4**
ECAB	**El Cabril**	**10.34**	**68**	S	**Sn**	**16 24 56.0**	**-0.8**
MD31	**MD31**	**10.83**	**96**	P	**Pn**	**16 23 15.1**	**+7.5**
MD31				S	**Sn**	**16 25 08.8**	**-0.1**
MDT	**Midelt**	**10.97**	**97**	P	**Pn**	**16 23 16.9**	**+7.5**
MDT				S	**Sn**	**16 25 12.4**	**+0.2**

IDC 18 16:25:15.7±1.2,31˚.64S×178˚.81W,h0km,mb3.7/3,
mbtmp3.9/5,ML4.1/2,Error ellipse: s-maj=34.4km
s-min=16.9km az=112.0,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**2.50**	**18**	Pn	Pn	**16 25 55.5**	**-2.1**
	83nm,0.3s,baz=253,slow=19,SNR=3.5						
RAO				Sn	Sn	**16 26 23.6**	**-5.1**

*DNK **18** 17:02:01.3±1.5,51.˚53N×16.˚44E,h4km±69km,ML3.2, Presumed earthquake*
*VIE **18** 17:02:03.0±0.8,51.˚37N×16.˚56E,h0km,mb2.6/6,ml2.5/11, ml2.5/11,Error ellipse: s-maj=7.3km s-min=5.6km az=78.0 45 km NW of Wroclaw Suspected Mining induced.*
*PRU **18** 17:02:04.5,51.˚37N×16.˚18E,h0km*
ISC 18 17:02:00.8±0.8,**51.˚54N**±0.˚03×**16.˚22E**±0.˚03,**h0km**,**n38**, σ1ᵖ**23**/**72**,**Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.70**	**176**	*e*Pg	**Pg**	**17 02 14.3**	**+0.1**
KSP				*e*Sg	**Sg**	**17 02 21.7**	**-1.5**
CHVC	**Chvalec**	**0.96**	**186**	*e*PG	**Pg**	**17 02 19.0**	**-0.1**
CHVC				*e*SG	**Sg**	**17 02 30.3**	**-1.2**
OSTC	**Ostas**	**0.98**	**180**	*e*PG	**Pg**	**17 02 19.6**	**0.0**
OSTC				*e*SG	**Sg**	**17 02 31.3**	**-1.0**
	comp=Z,18nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**1.04**	**187**	*e*SG	**Sg**	**17 02 32.9**	**-1.3**
DPC	**Dobruska-Polom**	**1.19**	**177**	*e*SG	**Sg**	**17 02 37.1**	**-1.9**
	comp=Z,19nm,0.3s						
DPC				AML	AML		
PVCC	**Panska Ves**	**1.45**	**226**	*e*PG	**Pn**	**17 02 28.5**	**+0.2**
PVCC				*e*SG	**Sg**	**17 02 47.4**	**0.0**
	comp=Z,54nm,0.2s						
PVCC				AML	AML		
KRLC	**Kraliky**	**1.51**	**166**	*e*PG	**Pn**	**17 02 28.8**	**-0.3**
KRLC				*e*SG	**Sg**	**17 02 46.9**	**-2.3**
RICC	**Richard**	**1.67**	**234**	*e*PG	**Pb**	**17 02 32.5**	**+0.1**
RICC				*e*SG	**Sn**	**17 02 53.6**	**+0.2**
	comp=Z,35nm,0.4s						
RICC				AML	AML		
STEB	**Steborice**	**1.89**	**148**	*e*PG	**Pb**	**17 02 35.5**	**-0.6**
STEB				*e*SG	**Sn**	**17 02 59.1**	**+0.4**
MORC	**Moravsky Berou**	**1.96**	**154**	*e*PN	**Pn**	**17 02 35.0**	**-0.3**
MORC				*e*SG	**Sn**	**17 02 59.3**	**-1.2**
HSKC	**Hora Svate Kat**	**1.99**	**243**	*e*PG	**Pn**	**17 02 37.1**	**+1.4**
HSKC				*e*SG	**Sb**	**17 03 03.9**	**+0.7**
	comp=Z,14nm,0.3s						
HSKC				AML	AML		
CLL	**Collm**	**2.03**	**265**	*e*Pg	**Pg**	**17 02 40.0**	**+0.4**
CLL				*e*Sg	**Sg**	**17 03 06.0**	**+0.1**
	comp=Z,11nm,0.5s						
VRAC	**Vranov**	**2.25**	**174**	*e*PN	**Pn**	**17 02 39.4**	**+0.2**
VRAC				*e*SG	**Sb**	**17 03 09.6**	**-1.0**
TREC	**Trest**	**2.29**	**192**	*e*SG	**Sb**	**17 03 12.4**	**+0.4**
ZVC	**Zvikov**	**2.47**	**212**	*e*SG	**Sb**	**17 03 17.3**	**+0.4**
KRUC	**Moravsky**	**2.48**	**177**	*e*PN	**Pn**	**17 02 43.0**	**+0.5**
KRUC				*e*SG	**Sb**	**17 03 17.5**	**+0.2**
OJC	**Ojcow**	**2.62**	**119**	*e*Pg	**Pg**	**17 02 51.7**	**+0.6**
OJC				*e*Sg	**Sg**	**17 03 25.1**	**0.0**
NKC	**Novy Kostel**	**2.72**	**243**	*e*PN	**Pn**	**17 02 46.1**	**+0.3**
NKC				*e*PG	**Pg**	**17 02 52.1**	**-0.8**
NKC				*e*SG	**Sg**	**17 03 28.0**	**-0.2**
	comp=Z,21nm,0.4s						
NKC				AML	AML		
ABNA	**Allensteig Bun**	**2.92**	**190**	*e*Sg	**Sb**	**17 03 31.7**	**+1.9**
	comp=Z,4.2nm,0.2s						
KHC	**Kasperske Hory**	**2.94**	**216**	*e*PN	**Pn**	**17 02 48.8**	**-0.1**
KHC				*e*PG	**Pb**	**17 02 54.0**	**-0.1**
KHC				*e*SN	**Sn**	**17 03 22.6**	**-2.3**
KHC				*e*SG	**Sb**	**17 03 32.0**	**+1.3**
	comp=Z,3.9nm,0.3s						
KHC				AML	AML		
CKRC	**Cesky Krumlov**	**2.99**	**205**	*e*PN	**Pn**	**17 02 50.0**	**+0.6**
CKRC				*e*PG	**Pb**	**17 02 55.7**	**+0.9**
CKRC				*e*SG	**Sb**	**17 03 32.6**	**+0.8**
	comp=Z,7.5nm,0.4s						
CKRC				AML	AML		
GERES	**GERESS Array B**	**3.14**	**212**	Pn	**Pn**	**17 02 52.4**	**+0.7**
	baz=26,slow=14,SNR=6.4						
GERES				Pg	**Pb**	**17 02 58.3**	**+0.7**
	comp=Z,0.3nm,0.3s,baz=31,slow=17,SNR=35						
GERES				Sn	**Sn**	**17 03 30.2**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=30,slow=28,SNR=4.3						
GERES				Lg	Lg	17 03 39.1	
	comp=Z,0.4nm,0.3s,baz=30,slow=28,SNR=10 comp=Z,0.7nm,0.5s						
LANS	**Liptovska Anna**	**3.17**	**138**	*e*PG	**Pg**	**17 03 02.8**	**+1.3**
LANS				*e*SG	**Sb**	**17 03 39.1**	**+1.9**
LANS				*e*LG	Lg	17 03 42.8	
WINA	**Alland / Wiene**	**3.44**	**182**	*e*Pg	**Pg**	**17 03 05.1**	**-1.5**
	comp=Z,3.1nm,0.4s						
WINA				*e*Sn	**Sn**	**17 03 39.6**	**+2.6**
	comp=Z,3.7nm,0.4s						
CONA	**Conrad Observa**	**3.62**	**184**	*e*Pn	**Pn**	**17 03 00.5**	**+2.3**
	comp=Z,0.5nm,0.2s						
CONA				Sg	**Sg**	**17 03 54.2**	**-2.9**
	comp=Z,6.9nm,0.4s						
BSD	**Bornholm Skovb**	**3.67**	**348**	*i* P	**Pn**	**17 02 59.0**	**+0.3**
BSD				*i* S	**Sn**	**17 03 41.3**	**-1.3**
BSD				IAML		17 03 48.5	
	comp=Z,34nm,1.9s						
RONA	**Rosalia, Austr**	**3.84**	**179**	*e*Pg	**Pg**	**17 03 13.1**	**-1.3**
	comp=Z,1.7nm,0.4s						
MOA	**Moln**	**3.91**	**200**	*e*Pn	**Pn**	**17 03 02.6**	**+0.6**
	comp=Z,0.8nm,0.2s						
MOA				*e*Pg	**Pg**	**17 03 15.1**	**-0.5**
	comp=Z,4.8nm,0.6s						
MOA				*e*Sn	**Sn**	**17 03 49.4**	**+0.9**
	comp=Z,0.6nm,0.3s						
MOA				*i* Sg	**Sg**	**17 04 05.8**	**-0.4**
	comp=Z,3.3nm,0.3s						
BIOA	**Bad Ischl, Aus**	**4.20**	**205**	Sg	**Sg**	**17 04 13.7**	**-2.0**
	comp=Z,7.5nm,0.5s						
ARSA	**Arzberg**	**4.32**	**186**	Pg	**Pg**	**17 03 24.3**	**+0.9**
	comp=Z,2.2nm,0.5s						
ARSA				*e*Sg	**Sg**	**17 04 18.9**	**-0.5**
	comp=Z,5.9nm,0.5s						
LUNU	**Lund**	**4.42**	**339**	*i* P	**Pn**	**17 03 10.5**	**+1.5**
LUNU				*i* S	**Sn**	**17 04 01.4**	**+0.2**
SESA	**Seetaler Alpe,**	**4.56**	**194**	*e*Pn	**Pn**	**17 03 12.2**	**+1.0**
	comp=Z,1.1nm,0.4s						
SESA				*e*Sg	**Sg**	**17 04 24.7**	**-2.5**
	comp=Z,0.9nm,0.3s						
LESA	**Schwarzleotal**	**4.72**	**211**	Pg	**Pg**	**17 03 29.9**	**-1.3**
	comp=Z,0.9nm,0.3s						
BLEU	**Blekinge**	**4.78**	**357**	*i* P	**Pn**	**17 03 15.7**	**+1.7**
BLEU				*i* S	**Sn**	**17 04 08.4**	**-1.6**
KBA	**Koelnbreinsper**	**4.84**	**204**	*e*Sg	**Sg**	**17 04 39.7**	**+3.4**
	comp=Z,3.7nm,0.7s						
DEL	**Delary**	**5.13**	**345**	*i* P	**Pn**	**17 03 19.4**	**+0.6**
DEL				*i* S	**Sn**	**17 04 17.6**	**-1.1**
AKASG	**Malin Array Be**	**8.23**	**91**	Pn	**Pn**	**17 04 01.3**	**0.0**
	comp=Z,0.1nm,0.3s,baz=287,slow=11,SNR=2.7						
FINES	**FINESS Array B**	**11.31**	**25**	Pn	**Pn**	**17 04 42.8**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=212,slow=10,SNR=1.6 comp=Z,3.3nm,1.0s						
FINES				AML	AML		

*IDC **18** 17:10:53.5±1.0,39.˚80N×68.˚94E,h0km,mb4.0/5, mbtmp3.8/13,ML3.4/8,MS3.5/2,Error ellipse: s-maj=15.7km s-min=11.8km az=155.0*
*NNC **18** 17:10:56.0±3.4,39.˚98N×68.˚74E,h0km,mb4.1,mpv3.7, Error ellipse: s-maj=34.8km s-min=16.9km az=176.0*
*ISU **18** 17:10:56,39.˚98N×68.˚87E,h13km*
ISC 18 17:10:56.5±1.2,**39.˚96N**±0.˚04×**68.˚88E**±0.˚03,**h17**km±8km, **n37**,σ2ᵖ**17**/**50**,**mb3.9**/4,**7C-1D**,**Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NZBK	**Nazarbek**	**1.27**	**8**	P	**Pg**	**17 11 22.5**	**+1.4**
NZBK				S	**Sg**	**17 11 41.6**	**+3.8**
AGL	**Agalyk**	**1.60**	**255**	P	**Sg**	**17 11 26.8**	**-0.6**
AGL				S	**Sg**	**17 11 48.8**	**+0.5**
TVKS	**Tavaksay**	**1.72**	**20**	P	**Pg**	**17 11 28.5**	**-1.1**
TVKS				S	**Sg**	**17 11 51.8**	**-0.1**
CHMG	**Chimgan**	**1.81**	**28**	P	**Pg**	**17 11 29.8**	**-1.5**
CHMG				S	**Sg**	**17 11 53.9**	**-0.9**
CHRV	**Charvak**	**1.87**	**25**	P	**Pg**	**17 11 31.2**	**-1.2**
CHRV				S	**Sg**	**17 11 56.3**	**-0.4**
FRG	**Fergana**	**2.26**	**78**	P	**Pb**	**17 11 35.8**	**-1.1**
FRG				S	**Sb**	**17 12 06.6**	**+1.9**
PSK	**Pskem**	**2.27**	**29**	P	**Pb**	**17 11 36.3**	**-0.8**
PSK				S	**Sb**	**17 12 06.2**	**+1.3**
ZRB	**Zarabog**	**2.75**	**228**	P	**Pb**	**17 11 44.1**	**-1.1**
ZRB				S	**Sb**	**17 12 21.2**	**+2.6**
TSTA	**Tashata**	**2.82**	**76**	P	**Pn**	**17 11 43.0**	**+2.1**
TSTA				S	**Sb**	**17 12 20.3**	**-0.4**
KK31	**Karatay Array**	**3.37**	**21**	⇓Pn	**Pn**	**17 11 51.2**	**+2.7**
	2.6nm,0.1s,baz=210,slow=10,SNR=772						
KK31				⇑Pg	**Pg**	**17 12 00.5**	**-0.6**
	19nm,0.3s,baz=205,slow=18,SNR=8.9						
KK31				⇑Lg	Lg	17 12 42.7	
	127nm,0.4s,baz=202,slow=30,SNR=10						
TMD	**Tamdy-Bulak**	**3.68**	**300**	S	**Sn**	**17 12 37.0**	**+1.3**
GZLY	**Gazly**	**4.17**	**274**	S	**Sn**	**17 12 47.8**	**0.0**
EKS2	**Erkin-Say**	**4.57**	**52**	P	**Pn**	**17 12 08.0**	**+3.0**
	SNR=9.8						
UCH	**Uchtor**	**4.82**	**60**	P	**Pn**	**17 12 11.2**	**+2.5**
	SNR=38						
AAK	**Ala-Archa**	**5.00**	**56**	Pn	**Pn**	**17 12 11.9**	**+1.0**
	7.0nm,0.3s,baz=227,slow=8.1,SNR=60						
AAK				Sn	**Sn**	**17 13 12.0**	**+3.5**
	6.4nm,0.3s,baz=164,slow=19,SNR=7.5						
AAK				Lg	Lg	17 13 33.8	
	7.8nm,0.3s,baz=162,slow=20,SNR=4.5 14nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**5.00**	**56**	P	**Pn**	**17 12 14.1**	**+3.2**
	SNR=16						
AAK	**Ala-Archa**	**5.00**	**56**	⇑Pn	**Pn**	**17 12 12.5**	**+1.5**
	2.6nm,0.4s						
AAK				⇑Pg	**Pg**	**17 12 28.3**	**-4.0**
	11nm,0.7s						
AAK				⇑Sn	**Sn**	**17 13 13.5**	**+5.0**
	11nm,0.5s						
AAK				⇑Lg	Lg	17 13 38.2	
	18nm,0.7s						
KBK	**Karagaybulak**	**5.30**	**57**	P	**Pn**	**17 12 18.4**	**+3.3**
	SNR=32						
CHMS	**Chumysh**	**5.35**	**54**	P	**Pn**	**17 12 18.6**	**+2.9**
	SNR=6.3						
USP	**Ospenovka**	**5.35**	**50**	P	**Pn**	**17 12 17.8**	**+2.2**
	SNR=7.0						
TKM2	**Tokmak 2**	**5.85**	**57**	P	**Pn**	**17 12 25.3**	**+2.7**
	SNR=9.4						
AB31	**Akbulak array**	**11.26**	**329**	P	**Pn**	**17 13 35.5**	**-1.1**
	0.8nm,0.2s,baz=142,slow=13,SNR=99						
MKAR	**Makanchi Array**	**11.90**	**51**	Pn	**Pn**	**17 13 46.0**	**+0.6**
	0.2nm,0.3s,baz=237,slow=15,SNR=7.7						
MKAR				Lg	Lg	17 17 06.3	
	0.2nm,0.3s,baz=239,slow=25,SNR=3.6 0.6nm,0.5s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**12.63**	**29**	Pn	**Pn**	**17 13 53.8**	**-1.5**
	0.1nm,0.3s,baz=219,slow=11,SNR=4.3						
KURBB				Lg	Lg	17 17 27.3	
	0.1nm,0.3s,baz=216,slow=29,SNR=10 0.2nm,0.3s						
KURBB				AML	AML		
AKTO	**Aktyubinsk**	**12.96**	**327**	Pn	**Pn**	**17 13 59.6**	**-0.2**
	0.6nm,0.3s,baz=132,slow=16,SNR=4.7						
AKTO				Sn	**Sn**	**17 16 19.8**	**-3.8**
	0.8nm,0.3s,baz=104,slow=8.3,SNR=5.5 1.6nm,0.3s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**12.96**	**327**	⇑P	**Pn**	**17 13 58.3**	**-1.6**
	0.7nm,0.5s						
BVAR	**Borovoye Array**	**13.11**	**4**	Pn	**Pn**	**17 14 00.8**	**-1.1**
	0.1nm,0.3s,baz=179,slow=11,SNR=5.2						
BVAR				Sn	**Sn**	**17 16 22.1**	**-5.1**
	0.1nm,0.3s,baz=169,slow=22,SNR=2.5						
BVAR				Lg	Lg	17 17 50.7	
	baz=187,slow=29,SNR=1.5 0.4nm,0.3s						
BVAR				AML	AML		
ZALV	**Zalesovo Beam**	**17.66**	**32**	P	**P**	**17 15 02.4**	**-0.1**
	0.9nm,0.3s,baz=219,slow=9.6,SNR=16 2.8nm,0.4s						
ZALV				AML	AML		
ARTI	**Arti**	**17.83**	**341**	P	**P**	**17 15 05.0**	**+0.7**
	0.5nm,0.3s,baz=144,slow=14,SNR=2.4						
ARTI				Lg	Lg	17 20 26.3	
	0.1nm,0.3s,baz=143,slow=20,SNR=1.0 1.0nm,0.4s						
ARTI				AML	AML		
KBZ	**Khabaz**	**19.69**	**290**	P	**P**	**17 15 25.2**	**+0.4**
	0.1nm,0.3s,baz=106,slow=19,SNR=1.6 2.4nm,1.1s						
KBZ				AML	AML		
FINES	**FINESS Array B**	**33.70**	**324**	P	**P**	**17 17 36.7**	**+0.3**
	3.3nm,0.9s,baz=111,slow=9.1,SNR=3.3 3.3nm,0.9s						
HFS	**Hagfors**	**39.34**	**320**	P	**P**	**17 18 24.8**	**+0.2**
	2.2nm,0.8s,baz=90,slow=14,SNR=4.3 2.2nm,0.8s						
GERES	**GERESS Array B**	**39.63**	**302**	LR	LR	17 38 39.5	
	comp=Z,50nm,19.8s,baz=24,slow=42						
TORD	**Torodi Ar. Bea**	**64.22**	**266**	P	**P**	**17 21 30.7**	**-0.1**
	0.6nm,0.3s,baz=55,slow=6.3,SNR=2.7 0.6nm,0.3s						
TSUM	**Tsumeb**	**75.81**	**230**	LR	LR	17 56 28.1	
	comp=Z,42nm,20.6s,baz=154,slow=36						
WRA	**Warramunga Arr**	**85.21**	**121**	P	**P**	**17 23 31.4**	**-0.8**
	0.4nm,0.7s,baz=316,slow=4.8,SNR=7.2 0.4nm,0.7s						
ASAR	**Alice Springs**	**87.58**	**124**	P	**P**	**17 23 43.1**	**-0.7**
	0.5nm,0.7s,baz=314,slow=4.6,SNR=12 0.5nm,0.7s						

*RSNC **18** 17:32:01.8±0.0,10.˚N±12.˚×7.˚4W±1.˚2,h10km±24km,M2.3, ML2.2*
*FUNV **18** 17:32:07.9,9.˚75N×73.˚71W,h5km,MW3.6,Presumed earthquake*
ISC 18 17:31:59.6±1.0,**9.˚51N**±0.˚04×**73.˚49W**±0.˚05,**h19**km,**n8**, σ2ᵖ**09**/**11**,**Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OCAC	**Ocana**	**1.27**	**172**	P	**Pg**	**17 32 26.2**	**+1.9**
CRJC	**Cerrejon, Guaj**	**1.62**	**22**	P	**Pg**	**17 32 31.0**	**+0.1**
SJCC	**San Jacinto, C**	**1.71**	**283**	P	**Pn**	**17 32 27.2**	**-1.3**
SJCC	**San Jacinto, C**	**1.71**	**283**	*e*P	**Pg**	**17 32 34.1**	**+1.5**
SJCC				*e*S	**Sg**	**17 32 54.4**	**-0.4**
URIC	**Uribia, Colomb**	**2.63**	**34**	P	**Pb**	**17 32 46.1**	**-0.1**
URIC	**Uribia, Colomb**	**2.63**	**34**	*e*P	**Pg**	**17 32 49.3**	**-0.9**
URIC				*e*S	**Sb**	**17 33 20.5**	**+2.3**
RUSC	**La Rusia**	**3.62**	**174**	*e*P	**Pg**	**17 33 06.7**	**-2.4**
RUSC				*e*S	**Sb**	**17 33 50.7**	**+3.7**
HELC	**Santa Helena**	**3.87**	**212**	*e*S	**Sb**	**17 33 52.7**	**-1.4**

*NEIC **18** 17:32:49.5±1.6,5.˚67S±0.˚08×151.˚5E±0.˚1,h49km±7km, mb4.4/36,Error ellipse: s-maj=18.1km s-min=9.2km az=117.0*
*IDC **18** 17:32:50.9±1.0,5.˚60S×151.˚47E,h60km±9km,mb3.9/17, mbtmp4.2/19,MS3.4/18,Error ellipse: s-maj=16.2km s-min=8.1km az=117.0*
ISC 18 17:32:50.4±0.4,**5.˚64S**±0.˚05×**151.˚54E**±0.˚07,**h57**km,**n94**, σ1ᵖ**41**/**87**,**mb4.3**/34,**MS3.4**/16,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.41**	**20**	P	**Pn**	**17 33 13.3**	**-0.5**
	5μm,0.4s,baz=238,slow=19,SNR=696						
KRVT				S	**Sn**	**17 33 32.1**	**+0.7**
	18μm,0.4s,baz=279,slow=19,SNR=9.5						
KRVT				LR	LR	17 33 49.7	
	comp=Z,2μm,19.3s,baz=127,slow=42						
I40PG	**Keravat**	**1.41**	**19**	P	**Pn**	**17 33 13.5**	**-0.4**
	baz=175,slow=20						
I40PG				I	I	17 42 30.0	
	baz=216,slow=307,SNR=1.3						
RABL	**Rabaul**	**1.57**	**23**	Pn	**Pn**	**17 33 15.4**	**-0.7**
RABL				Sn	**Sn**	**17 33 37.1**	**+1.8**
MANU	**Manus Island**	**5.49**	**310**	Pn	**Pn**	**17 34 13.6**	**+3.9**
PMG	**Port Moresby**	**5.73**	**229**	P	**Pn**	**17 34 13.8**	**+0.8**
	99nm,0.8s,baz=48,slow=14,SNR=19						
PMG				S	**Sn**	**17 35 18.2**	**+0.7**
	129nm,0.7s,baz=135,slow=19,SNR=10.0						
PMG	**Port Moresby**	**5.73**	**229**	P	**Pn**	**17 34 16.1**	**+3.1**
PMG	**Port Moresby**	**5.73**	**229**		**Pn**	**17 34 13.4**	**+0.4**
PMG				Sn	**Sn**	**17 35 15.2**	**-2.4**
HNR	**Honiara**	**9.14**	**115**	P	**Pn**	**17 35 01.7**	**+2.0**
	53nm,0.8s,baz=297,slow=9.0,SNR=2.3						
JAY	**Jayapura**	**11.25**	**286**	LR	LR	17 39 39.1	
	comp=Z,120nm,18.1s,baz=338,slow=37						
CTA	**Charters Tower**	**15.25**	**199**	LR	LR	17 42 15.3	
	comp=Z,189nm,18.2s,baz=41,slow=37						
CTAO	**Charters Tower**	**15.25**	**199**	Pn	**Pn**	**17 36 18.3**	**-4.0**
QIS	**Mount Isa**	**18.82**	**217**	P	**Pn**	**17 37 06.2**	**-0.5**
GUMO	**Guam**	**20.22**	**341**	LR	LR	17 43 34.8	
	comp=Z,56nm,21.9s,baz=144,slow=32						
SIJI	**Sorong**	**20.79**	**282**	P	**P**	**17 37 26.3**	**-0.7**
	2.6nm,0.6s,baz=131,slow=20,SNR=1.6						
	2.6nm,0.6s						
MTN	**Manton Dam**	**21.37**	**249**	P	**P**	**17 37 31.9**	**-1.4**
MTN				IAmb	IAmb	17 37 50.9	
	comp=Z,19nm,1.5s						
DZM	**Mont Dzumac**	**21.78**	**140**	P	**P**	**17 37 38.2**	**+0.4**
	comp=Z,3.1nm,0.8s,baz=330,slow=20,SNR=1.2						
DZM				LR	LR	17 45 26.2	
	comp=Z,161nm,19.4s,baz=295,slow=34 comp=Z,3.1nm,0.8s						
WB0	**Warramunga Arr**	**21.81**	**228**		**P**	**17 37 38.5**	**+0.6**
WB0				IAmb	IAmb	17 37 53.9	
	comp=Z,13nm,0.9s						
WRAB	**Tennant Creek**	**21.94**	**228**	P	**P**	**17 37 39.7**	**+0.3**
WRA	**Warramunga Arr**	**21.95**	**228**	P	**P**	**17 37 38.8**	**-0.7**
	comp=Z,7.6nm,0.7s,baz=51,slow=10,SNR=59						
WRA				PcP	**PcP**	**17 41 37.2**	**+0.5**
	comp=Z,0.4nm,0.6s,baz=48,slow=1.9,SNR=2.9						
WRA				ScP	**ScP**	**17 45 11.0**	**+1.5**
	comp=Z,0.3nm,0.8s,baz=48,slow=2.4,SNR=2.1 comp=Z,7.6nm,0.7s						
WRA	**Warramunga Arr**	**21.95**	**228**	P	**P**	**17 37 37.2**	**-2.3**
QLP	**Quilpie**	**21.96**	**198**	P	**P**	**17 37 44.9**	**+5.4**
INKA	**Innaminka**	**24.26**	**204**	P	**P**	**17 38 02.1**	**-0.2**
INKA				IAmb	IAmb	17 38 05.6	
	comp=Z,7.8nm,1.1s						
KNRA	**Kununurra**	**24.48**	**244**	P	**P**	**17 38 04.4**	**-0.1**
KNRA				IAmb	IAmb	17 38 09.4	
	comp=Z,5.5nm,0.8s						
AS01	**Alice Springs**	**24.66**	**222**	P	**P**	**17 38 08.7**	**+2.7**
AS31	**Alice Springs**	**24.69**	**222**		**P**	**17 38 05.9**	**-0.4**
ASAR	**Alice Springs**	**24.69**	**222**	P	**P**	**17 38 07.0**	**+0.6**
	comp=Z,9.7nm,0.8s,baz=48,slow=9.6,SNR=84						
ASAR				PcP	**PcP**	**17 41 43.2**	**+0.7**
	comp=Z,0.3nm,0.5s,baz=43,slow=1.9,SNR=2.1						
ASAR				ScP	**ScP**	**17 45 18.8**	**+2.0**
	comp=Z,0.5nm,0.9s,baz=34,slow=2.5,SNR=5.4						
ASAR				LR	LR	17 48 46.4	
	comp=Z,86nm,18.5s,baz=144,slow=39 comp=Z,9.7nm,0.8s						
ASAR	**Alice Springs**	**24.69**	**222**		**P**	**17 38 04.3**	**-2.0**
AUALC	**St Philip's Co**	**24.72**	**222**	P	**P**	**17 38 08.9**	**+2.3**
SOEI	**Soe**	**27.33**	**260**	P	**P**	**17 38 28.4**	**-2.0**
STKA	**Stephens Creek**	**27.71**	**198**	P	**P**	**17 38 33.5**	**0.0**
	comp=Z,1.0nm,0.6s,baz=49,slow=11,SNR=2.8 comp=Z,1.0nm,0.6s						
FITZ	**Fitzroy Crossi**	**28.16**	**242**	LR	LR	17 49 01.8	
	comp=Z,86nm,20.9s,baz=162,slow=34						
FITZ	**Fitzroy Crossi**	**28.16**	**242**		**P**	**17 38 37.7**	**+0.1**
MBWA	**Marble Bar**	**34.47**	**240**	P	**P**	**17 39 31.9**	**-1.2**
URZ	**Urewera**	**39.92**	**148**	LR	LR	17 55 02.0	
	comp=Z,84nm,20.9s,baz=256,slow=33						
RPZ	**Rata Peaks**	**41.63**	**159**	LR	LR	17 56 16.4	
	comp=Z,21nm,19.8s,baz=232,slow=34						
BBJI	**Bungbulang**	**43.63**	**265**	P	**P**	**17 40 47.7**	**-2.1**
KSRS	**Korea Array**	**48.20**	**335**	LR	LR	18 00 21.9	
	comp=Z,19nm,20.3s,baz=140,slow=34						
CMAR	**Chiang Mai Arr**	**57.11**	**296**	P	**P**	**17 42 31.8**	**+0.3**
	comp=Z,0.7nm,0.7s,baz=110,slow=6.7,SNR=7.9						
CMAR				LR	LR	18 05 52.2	
	comp=Z,14nm,21.3s,baz=285,slow=35 comp=Z,0.7nm,0.7s						
CMAR	**Chiang Mai Arr**	**57.11**	**296**	P	**P**	**17 42 31.2**	**-0.3**
PPT2	**Papeete2**	**58.67**	**107**	*e*LR	LR	18 00 02.5	
	comp=Z,37nm,24.0s						
PETK	**Petropavlovsk-**	**58.76**	**4**	P	**P**	**17 42 42.1**	**-0.3**
	comp=Z,2.8nm,0.7s,baz=186,slow=6.9,SNR=1.4						
PETK				LR	LR	18 01 38.7	
	comp=Z,36nm,21.3s,baz=115,slow=29 comp=Z,2.8nm,0.7s						
PETK	**Petropavlovsk-**	**58.76**	**4**	P	**P**	**17 42 43.4**	**+0.9**
HHC	**Hu-ho-hao-te**	**59.01**	**325**	*e*P	**P**	**17 42 46.1**	**+1.5**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,5.4s						
HILR	**Hailar Array B**	**61.53**	**337**	P	**P**	**17 43 01.2**	**-0.3**
	comp=Z,1.5nm,0.4s,baz=134,slow=8.2,SNR=1.6 comp=Z,1.5nm,0.4s						
MORE	**Moreh**	**63.15**	**301**	P	**P**	**17 43 11.4**	**-1.3**
MORE				IAmb	IAmb	17 43 13.0	
	comp=Z,2.2nm,0.4s						
BRDH	**Bariadhala**	**64.94**	**298**	LR	LR	18 09 50.3	
	comp=Z,28nm,21.9s,baz=197,slow=34						
MA2	**Magadan**	**65.01**	**360**	LR	LR	18 08 06.0	
	comp=Z,28nm,21.8s,baz=100,slow=33						
SONM	**Songino Array**	**66.38**	**329**	P	**P**	**17 43 32.7**	**-0.8**
	comp=Z,1.2nm,0.6s,baz=138,slow=4.9,SNR=5.5 comp=Z,1.2nm,0.6s						
SONM	**Songino Array**	**66.38**	**329**	P	**P**	**17 43 33.9**	**+0.4**
VNDA	**Vanda**	**72.04**	**178**	P	**P**	**17 44 08.7**	**+0.8**
	comp=Z,1.8nm,0.9s,baz=349,slow=13,SNR=11 comp=Z,1.8nm,0.9s						
VNDA	**Vanda**	**72.04**	**178**	P	**P**	**17 44 07.2**	**-0.7**
MKAR	**Makanchi Array**	**80.14**	**319**	P	**P**	**17 44 54.3**	**-0.2**
	comp=Z,0.4nm,0.4s,baz=96,slow=5.8,SNR=6.8 comp=Z,0.4nm,0.4s						
MKAR	**Makanchi Array**	**80.14**	**319**	P	**P**	**17 44 53.5**	**-1.0**
CAST	**Castle Rocks**	**80.75**	**22**	P	**P**	**17 44 56.1**	**-1.3**

NVAR	Mina Array Bea	93.59	52	P		P	17 46 01.7	+0.7
	comp=Z,2.3nm,0.7s,baz=279,slow=6.4,SNR=10							
	comp=Z,2.3nm,0.7s							
NVAR	Mina Array Bea	93.59	52	P		P	17 46 01.4	+0.5
ELK	Elko	96.08	50	LR		LR	18 28 46.3	
	comp=Z,37nm,18.0s,baz=318,slow=35							
ARTI	Arti	96.41	326	LR		LR	18 29 44.2	
	comp=Z,33nm,20.3s,baz=35,slow=35							
LPIG	La Paz	99.70	67	LR		LR	18 21 47.7	
	comp=Z,27nm,19.9s,baz=197,slow=29							
PDAR	Pinedale Array	100.34	48	P		Pdif	17 46 30.5	-1.0
	comp=Z,0.8nm,0.8s,baz=271,slow=3.2,SNR=6.1							
GERES	GERESS Array B	124.10	328	PKP		PKiKP	17 51 43.0	0.0
	comp=Z,1.1nm,0.6s,baz=54,slow=1.7,SNR=8.3							
TORD	Torodi Ar. Bea	149.36	286	PKPbc		PKPbc	17 52 33.4	-0.7
	comp=Z,5.4nm,0.7s,baz=74,slow=2.7,SNR=17							
BDFB	Brasilia	151.32	138	PKPbc		PKPbc	17 52 38.9	0.0
	comp=Z,3.7nm,0.5s,baz=172,slow=7.1,SNR=4.4							

*SJA **18** 17:42:50.9±0.6,23°.10S×70°.88W,h16km±3km, ML3.6, MW3.6*
*GUC **18** 17:42:54.1±0.8,23°.32S×70°.56W,h42km±2km, ML3.5, Presumed earthquake*
*IDC **18** 17:43:00.1±2.9,23°.23S×70°.42W,h82km±25km, mb3.4/3, mbtmp3.6/6, MS2.8/3, Error ellipse: s-maj=45.3km s-min=18.3km az=92.0*

ISC 18 17:42:53.5±1.3,**23°.25S**±0°.03×**70°.71W**±0°.07,**h27**km±9km, **n53**,σ1s**62**/58,**Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB10	IPOC Station P	0.30	151	eP	Pn	17 43 01.2	-0.9
PB10	IPOC Station P	0.30	151	iP	Pn	17 43 01.2	-0.9
PB10				eS	Sb	17 43 06.3	+0.7
PB10				IAML		17 43 08.0	
	comp=N,7μm,0.5s						
PB05	IPOC Station P	0.61	50	eP	Pb	17 43 05.3	-0.4
PB05				eS	Sb	17 43 14.2	+0.1
PB05				IAML		17 43 14.8	
	comp=Z,4μm,0.2s						
PB05	IPOC Station P	0.61	50	eP	Pb	17 43 05.4	-0.4
PB05				eS	Sb	17 43 13.8	-0.3
PB05				IAML		17 43 14.4	
	comp=E,8μm,0.4s						
PB06	IPOC Station P	1.18	63	eP	Pn	17 43 13.4	-1.0
PB06				eS	Sn	17 43 28.2	-1.5
PB06				IAML		17 43 28.4	
	comp=Z,1μm,0.4s						
PB06	IPOC Station P	1.18	63	iP	Pn	17 43 13.2	-1.2
PB06				eS	Sn	17 43 27.4	-2.3
PB06				IAML		17 43 28.8	
	comp=E,3μm,0.3s						
PB14	IPOC Station P	1.40	169	eP	Pn	17 43 07.4	-10
PB14				eS	Sb	17 43 35.8	-0.9
PB14				IAML		17 43 38.8	
	comp=Z,324nm,0.2s						
PB14	IPOC Station P	1.40	169	eP	Pn	17 43 16.7	-0.8
PB14				eS	Sn	17 43 33.5	-1.7
PB03	IPOC Station P	1.49	37	eP	Pn	17 43 18.9	+0.2
PB03				eS	Sn	17 43 36.9	-0.4
PB03				IAML		17 43 39.2	
	comp=Z,962nm,0.4s						
PB03	IPOC Station P	1.49	37	eP	Pn	17 43 18.6	-0.1
PB03				iS	Sn	17 43 36.9	-0.4
PB03				IAML		17 43 39.3	
	comp=E,886nm,0.3s						
PB07	IPOC Station P	1.70	27	eP	Pn	17 43 21.4	-0.1
PB07				eS	Sn	17 43 44.1	+1.7
PB07				IAML		17 43 52.5	
	comp=Z,648nm,0.5s						
PB07	IPOC Station P	1.70	27	eP	Pn	17 43 21.6	0.0
PB09	IPOC Station P	1.98	43	eP	Pn	17 43 26.9	+1.4
PB09				eS	Sn	17 43 49.9	+0.3
PB09				IAML		17 44 00.1	
	comp=Z,430nm,0.7s						
PB09	IPOC Station P	1.98	43	eP	Pn	17 43 25.9	+0.4
PB09				iS	Sn	17 43 49.3	-0.3
PB02	IPOC Station P	2.06	22	eP	Pn	17 43 26.8	+0.2
PB02				IAML		17 44 07.7	
	comp=Z,646nm,0.3s						
PB02	IPOC Station P	2.06	22	eP	Pn	17 43 26.4	-0.2
AF01	San Pedro de A	2.35	83	eP	Pb	17 43 33.4	-1.9
AF01				IAML		17 44 20.6	
	comp=Z,1μm,0.8s						
TA01	Diego Aracena	2.72	10	eP	Pn	17 43 34.9	-0.5
TA01				eS	Sb	17 44 15.2	+0.8
TA01				IAML		17 44 23.2	
	comp=Z,97nm,0.6s						
TA01	Diego Aracena	2.72	10	eP	Pn	17 43 35.0	-0.4
TA01				iS	Sn	17 44 07.6	+0.2
TA01				IAML		17 44 20.6	
	comp=N,143nm,0.4s						
AC01	Pan de Azucar	2.88	178	eP	Pn	17 43 36.5	-1.3
AC01				eS	Sb	17 44 18.3	-0.9
AC01				IAML		17 44 41.2	
	comp=Z,72nm,1.1s						
AC01	Pan de Azucar	2.88	178	eP	Pn	17 43 36.4	-1.3
TA02	Huaiquique	3.02	10	eP	Pn	17 43 42.2	+2.7
TA02				IAML		17 44 35.9	
	comp=Z,94nm,0.4s						
PB11	IPOC Station P	3.61	16	eP	Pn	17 43 48.2	+0.4
PB11				IAML		17 45 01.8	
	comp=Z,101nm,1.2s						
PB11	IPOC Station P	3.61	16	eP	Pn	17 43 47.9	+0.1
PSGCX	Pisagua	3.68	9	eP	Pn	17 43 48.1	-0.6
AC02	Maricunga	3.84	158	eP	Pn	17 43 52.5	+1.2
AC02				eS	Sb	17 44 44.5	-2.7
AC02				IAML		17 44 53.5	
	comp=Z,147nm,0.6s						
AC02	Maricunga	3.84	158	eP	Pn	17 43 52.4	+1.0
AC06	Mina Casimiro	4.10	176	eP	Pn	17 43 53.6	-0.8
GO03	Copiapo	4.34	174	eP	Pn	17 43 57.1	-0.7
GO03				eS	Sb	17 45 01.5	+0.3
GO03				IAML		17 45 09.0	
	comp=Z,64nm,0.6s						
PB12	IPOC Station P	4.63	4	eP	Pn	17 44 01.8	0.0
PB12				eS	Sn	17 44 54.4	-0.3
PB12				IAML		17 45 29.4	
	comp=Z,28nm,1.0s						
LPAZ	La Paz	7.34	20	P		Pn	17 44 43.5	+3.9
	comp=Z,0.5nm,0.3s,baz=194,slow=6.4,SNR=7.8							
LPAZ				LR		LR	17 47 13.5	
	comp=Z,19nm,19.0s,baz=230,slow=35							
CFA	Coronel Fontan	8.61	166	P		Pn	17 44 59.7	+3.3
	comp=Z,0.9nm,0.4s,baz=347,slow=14,SNR=7.3							
CFA				S		Sn	17 46 39.7	+7.1
	comp=Z,0.9nm,0.3s,baz=319,slow=19,SNR=1.7							
SIV	San Ignacio	11.60	53	P		Pn	17 45 40.2	+2.8
	comp=Z,0.8nm,0.3s,baz=224,slow=14,SNR=3.8							
H03N1	Juan Fernandez	12.45	214	T		T	17 58 27.3	
	baz=39,slow=74,SNR=425							
H03N2	Juan Fernandez	12.46	214	T		T	17 58 27.3	
	baz=223,slow=74,SNR=338							
CPUP	Villa Florida	12.53	107	LR		LR	17 51 27.5	
	comp=Z,52nm,19.7s,baz=255,slow=41							
H03S3	Juan Fernandez	12.76	213	T		T	17 58 47.8	
	baz=42							
H03S1	Juan Fernandez	12.77	212	T		T	17 58 51.0	
	baz=42							
H03S2	Juan Fernandez	12.78	213	T		T	17 58 48.4	
	baz=42							
TXAR	Lajitas Array	61.15	327	P		P	17 53 07.3	+1.5
	comp=Z,0.3nm,0.7s,baz=143,slow=6.9,SNR=1.4							
	comp=Z,0.3nm,0.7s							
QSPA	South Pole Qui	66.95	180	P		P	17 53 43.4	-0.1
	comp=Z,1.3nm,0.9s,baz=151,slow=1.2,SNR=3.9							
	comp=Z,1.3nm,0.9s							
DBIC	Dimbokro	70.83	74	LR		LR	18 24 48.4	
	comp=Z,20nm,19.6s,baz=52,slow=36							
TORD	Torodi Ar. Bea	79.51	71	P		P	17 54 56.3	-1.9
	comp=Z,0.5nm,0.5s,baz=272,slow=2.9,SNR=1.8							
	comp=Z,0.5nm,0.5s							
H11S2	WAKE ISLAND Hyl	26.43	276	T		T	20 21 08.8	
	baz=106,slow=75,SNR=34							
H11S1	WAKE ISLAND Hyl	26.44	276	T		T	20 21 09.9	
	baz=106,slow=75,SNR=38							
H11S3	WAKE ISLAND Hyl	26.45	276	T		T	20 21 10.5	
	baz=106,slow=75,SNR=39							
H11N3	WAKE ISLAND Hyl	26.56	278	T		T	20 21 23.5	
	baz=103,slow=75,SNR=17							
H11N2	WAKE ISLAND Hyl	26.58	278	T		T	20 21 22.5	
	baz=103,slow=75,SNR=20							
H11N1	WAKE ISLAND Hyl	26.58	278	T		T	20 21 24.9	
	baz=103,slow=75,SNR=17							

ASAR	Alice Springs	127.59	209	PKP		PKPdf	18 01 56.3	-0.7
	comp=Z,0.2nm,0.6s,baz=159,slow=2.0,SNR=4.7							
WRA	Warramunga Arr	130.60	212	PKP		PKPdf	18 02 02.9	+0.1
	comp=Z,0.4nm,0.8s,baz=142,slow=1.9,SNR=2.5							
ZALV	Zalesovo Beam	144.24	25	PKP		PKPab	18 02 24.6	+0.2
	comp=Z,0.3nm,0.3s,baz=318,slow=1.9,SNR=2.2							
MKAR	Makanchi Array	148.02	36	PKPbc		PKPbc	18 02 35.8	-0.7
	comp=Z,0.7nm,0.7s,baz=315,slow=2.9,SNR=5.3							

*UPP **18** 18:00:25.4±0.1,67°.05N×20°.94E,h0km, ML2.3, Suspected explosion*
*IDC **18** 18:00:26.8±1.5,67°.19N×21°.11E,h0km, mbtmp2.9/3, ML2.2/3, Error ellipse: s-maj=20.8km s-min=11.0km az=107.0*
*HEL **18** 18:00:29.2±0.3,67°.11N×20°.80E,h0km, ML2.2, Explosion*

ISC 18 18:00:25.8±0.8,**67°.07N**±0°.02×**20°.94E**±0°.02,**h0**km,**n40**, σ1s**57**/50,**Sweden**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DUNU	Dundret	0.16	290	P	Pg	18 00 28.7	-0.1
DUNU				S	Sg	18 00 31.3	+0.5
MASU	Masugnsbyn	0.57	46	P	Pg	18 00 36.5	-0.2
ERTU	Ertsjaerv	0.71	136	P	Pg	18 00 38.7	-0.8
ERTU	Ertsjaerv	0.71	136	PG	Pn	18 00 43.7	+0.6
PAJU	Pajala	0.85	92	P	Pg	18 00 41.4	-0.7
PAJU				S	Sg	18 00 53.1	0.0
PAJU	Pajala	0.85	92	PG	Pn	18 00 45.8	+0.8
	baz=279						
PAJU				SB	Sn	18 00 58.9	+0.7
HARU	Harads	0.91	179	P	Pg	18 00 42.2	-1.0
KUA	Kurravaara	0.92	346	P	Pg	18 00 42.6	-0.8
RATU	Laukkuluspa	0.92	326	P	Pg	18 00 42.6	-0.8
SALU	Saltoluokta	1.00	289	P	Pg	18 00 44.1	-0.8
SALU	Saltoluokta	1.00	289	eP	Pg	18 00 44.5	-0.4
LANU	Lannavaara	1.06	22	P	Pg	18 00 45.1	-1.1
LANU	Lannavaara	1.06	22	PG	Pn	18 00 49.2	+1.2
	baz=205						
LANU				SG	Sb	18 01 01.8	+0.2
NIKU	Nikkaluokta	1.09	318	P	Pg	18 00 45.7	-0.9
KLF	Kolari	1.19	81	PG	Pn	18 00 52.1	+2.4
KLF				MSG		18 01 06.8	
	comp=Z,22nm,0.2s						
KOVU	Salmi	1.20	346	P	Pg	18 00 47.8	-1.0
SJUU	Sjulsmark	1.59	170	P	Pn	18 00 54.3	-0.9
HEF	Hetta	1.70	36	eP	Pn	18 00 56.6	0.0
HEF	Hetta	1.70	36	MSG		18 01 20.0	
	comp=Z,19nm,0.2s						
HEF				SG	Sg	18 01 20.4	+0.1
LILU	Lilltraesk	1.84	194	P	Pn	18 00 58.3	-0.3
RNF	Rovaniemi	2.06	101	SN	Sg	18 01 31.8	0.0
KTK1	Kautokeino	2.13	23	PG	Pg	18 01 06.8	+0.1
KTK1				SB	Sb	18 01 32.6	+0.9
BURU	Burvik	2.50	176	SB	Sg	18 01 45.2	-0.9
RANF	Ranua	2.57	112	SB	Sb	18 01 45.2	+0.5
TRO	Tromso	2.68	345	PN	Pb	18 01 12.5	-2.1
TRO				SB	Sb	18 01 49.0	+1.0
ARA0	ARCESS Array S	3.00	32	SB	Sb	18 01 57.2	-0.1
ARCES	ARCESS Array B	3.00	32	Pn	Pn	18 01 14.5	-0.1
	comp=Z,0.4nm,0.3s,baz=218,slow=14,SNR=39						
ARCES				Lg	Lg	18 01 50.0	
	comp=Z,0.5nm,0.3s,baz=218,slow=28,SNR=8.5						
	comp=Z,0.9nm,0.2s						
ARCES				AML	AML		
OUF	Merijarvi	3.13	148	PN	Pb	18 01 21.1	-1.2
	baz=330						
RAJF	Raja-Jooseppi	3.14	60	PN	Pn	18 01 18.5	+2.1
UMAU	Umeaa	3.20	182	PN	Pb	18 01 21.0	-2.5
	baz=0.0						
UMAU				SB	Sb	18 02 04.7	+1.8
KU2	Taivalkoski	3.23	112	PN	Pb	18 01 22.6	-1.4
	baz=301						
VRF	Varrio	3.41	74	PN	Pb	18 01 25.8	-1.3
VRF				SG	Sg	18 02 14.1	-1.3
OLKF	Oulanka, Finla	3.44	99	PN	Pb	18 01 23.9	-3.7
OLKF				SN	Sn	18 02 05.4	+3.3
MSF	Maaselka	3.45	106	PN	Pb	18 01 25.2	-2.5
KEV	Kevo	3.51	37	PN	Pn	18 01 23.6	+2.2
KU1	Kurvinen	3.79	109	PN	Pn	18 01 28.8	+3.4
HUSU	Husum	3.81	192	SN	Sn	18 02 12.8	+1.7
HEMU	Hemsoen	4.58	197	PN	Pn	18 01 40.2	+3.9
FINES	FINESS Array B	6.07	156	Pn	Pn	18 01 57.4	+0.7
	comp=Z,0.2nm,0.3s,baz=344,slow=15,SNR=14						
FINES				Sn	Sn	18 03 05.8	-1.0
	comp=Z,0.3nm,0.3s,baz=344,slow=24,SNR=5.3						
FINES				Lg	Lg	18 03 36.5	
	comp=Z,0.4nm,0.3s,baz=345,slow=26,SNR=3.9						
	comp=Z,0.8nm,0.3s						
FINES				AML	AML		
NOA	NORSAR Array B	7.39	220	Pn	Pn	18 02 16.8	+1.9
	baz=24,slow=11,SNR=1.3						
NOA				Lg	Lg	18 04 16.6	
	baz=34,slow=20,SNR=1.4						
	comp=Z,0.6nm,0.7s						

*RSPR **18** 18:09:07.9, 18°.49N×67°.45W, h18km, MD3.0/13*
*SDD **18** 18:09:07.9±0.8, 18°.49N×67°.44W, h26km±7km, MD2.8, ML2.4, MW2.8, Presumed earthquake*

ISC 18 18:09:07.3±1.2,**18°.47N**±0°.06×**67°.43W**±0°.04,**h25**km±7km, **n21**,σ0s**48**/30,**9C-10D**,**Mona Passage**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IDE	Isla Desecheo	0.09	207	⇑iP	Pb	18 09 11.6	-0.3
IDE				eS	Sb	18 09 14.4	-0.5
AGPR	Aguadilla, PR	0.30	90	⇓ePg	Pb	18 09 14.3	0.0
AGPR				⇓eSg	Sb	18 09 19.5	+0.3
AGPR				IAML		18 09 20.1	
	comp=E,345nm,0.2s						
AGPR	Aguadilla, PR	0.30	90	⇓eP	Pb	18 09 14.4	0.0
PRSN	Puerto Rico Se	0.37	132	⇓ePg	Pb	18 09 15.4	0.0
PRSN				⇑eSg	Sb	18 09 21.5	+0.7
PRSN				IAML		18 09 21.9	
	comp=E,655nm,0.2s						
PRSN				IAML		18 09 25.1	
	comp=N,734nm,0.2s						
PRSN	Puerto Rico Se	0.37	132	⇑iP	Pb	18 09 15.4	0.0
CRPR	Cabo Rojo, PR	0.55	146	⇑ePg	Pb	18 09 18.1	-0.3
CRPR				IAML		18 09 26.8	
	comp=E,88nm,1.1s						
CRPR				IAML		18 09 28.5	
	comp=N,102nm,0.2s						
CRPR	Cabo Rojo, PR	0.55	146	⇑iP	Pb	18 09 18.1	-0.3
MLPR	Magueyes Islan	0.62	143	⇑ePg	Pb	18 09 19.1	-0.4
MLPR				⇓eSg	Sb	18 09 27.8	+0.1
MLPR	Magueyes Islan	0.62	143	⇑iP	Pb	18 09 19.2	-0.3
AOPR	Arecibo Observ	0.65	100	ePg	Pb	18 09 19.6	-0.6
AOPR				⇓eSg	Sb	18 09 28.5	-0.3
AOPR				IAML		18 09 31.7	
	comp=E,311nm,0.2s						
AOPR				IAML		18 09 33.4	
	comp=N,154nm,0.2s						
AOPR	Arecibo Observ	0.65	100	⇑eP	Pb	18 09 19.6	-0.6
GBPR	Guanica, Bosqu	0.72	133	⇓eP	Pb	18 09 20.6	-0.6
GBPR				eS	Sb	18 09 31.1	+0.5
EMPR	Esperanza - Ma	0.85	89	⇑eP	Pb	18 09 23.3	-0.2
EMPR				eS	Sb	18 09 35.1	+0.5
OBIP	Obispado Ponce	0.89	118	⇑eP	Pb	18 09 23.6	-0.5
OBIP				eS	Sb	18 09 35.7	+0.1
CELP	Cerrillos	0.90	116	⇓ePg	Pb	18 09 23.8	-0.4
CELP				⇓eSg	Sb	18 09 36.1	+0.3
CELP				IAML		18 09 37.4	
	comp=N,75nm,0.2s						
CELP	Cerrillos	0.90	116	⇓eP	Pb	18 09 23.8	-0.4
PCDR	Punta Cana, DR	0.90	273	ePg	Pb	18 09 23.5	-0.9
ECPR	Experimental S	1.02	98	⇑eP	Pn	18 09 25.7	-0.5
IGPR	InterUniversit	1.35	111	⇓eP	Pn	18 09 30.9	+0.3
HUMP	Col San Antoni	1.54	102	⇑eP	Pn	18 09 33.1	-0.1
HATOM	Hato Mayor del	1.88	280	ePg	Pn	18 09 39.0	+1.1
HATOM				IAML		18 10 08.8	
	comp=E,24nm,0.4s						
HATOM				IAML		18 10 11.2	
	comp=N,24nm,2.1s						

*CUPWA **18** 18:20:11.8±1.6,32°.39S×119°.72E,h12km±26km, ML2.6, Region: WESTERN AUSTRALIA*
*AUST **18** 18:20:12.8±0.2,32°.5±3°×12°.0E±°, h5km, ML2.6/12, Error ellipse: s-maj=6.1km s-min=3.9km az=153.7, confirmed*

ISC 18 18:20:12.0±2.5,**32°.36S**±0°.04×**119°.67E**±0°.04,**h4**km±18km, **n27**,σ1s**26**/41,**Western Australia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AUKUL	Kulin High Sch	1.32	256	PG	Pn	18 20 37.2	-0.1
AUKUL				S	Sg	18 20 54.1	-0.4
CORI2	Corrigin	1.65	279	P	Pn	18 20 39.6	-2.2
KLBR	Kellerberrin	1.80	295	P	Pb	18 20 45.2	-0.3
KLBR				AML	AML		
KLBR	Kellerberrin	1.80	295	P	Pn	18 20 44.5	+0.7
KLBR				S	Sb	18 21 09.3	+0.8
KLBR				AML	AML		
KLBR	Kellerberrin	1.80	295	PG	Pn	18 20 44.5	+0.7
KLBR				SG	Sb	18 21 09.3	+0.8
ONGER	Ongerup, WA	1.85	215	P	Pn	18 20 44.8	+0.3
ONGER				S	Sn	18 21 08.0	-0.4
ONGER				AML	AML		
WATNG	Wattoning, WA	2.05	322	P	Pn	18 20 48.6	+1.3
WATNG				S	Sn	18 21 14.1	+0.7
WATNG				AML	AML		
KLLS	Kalgoorlie Lon	2.07	56	PG	Pn	18 20 44.6	-3.0
KMBL	Kambalda	2.12	63	P	Pn	18 20 48.9	+0.7
KMBL				S	Sn	18 21 15.4	+0.3
KMBL				AML	AML		
NWAO	Narrogin (SRO)	2.13	254	P	Pn	18 20 49.7	+1.3
NWAO	Narrogin (SRO)	2.13	254	P	Pn	18 20 49.4	+1.0
NWAO				S	Sb	18 21 17.8	-0.3
KORDA	Koorda, Wester	2.37	308	P	Pn	18 20 52.6	+1.0
KORDA				AML	AML		
KORDA	Koorda, Wester	2.37	308	P	Pn	18 20 52.6	+1.0
KORDA				S	Sn	18 21 22.2	+1.0
KORDA				AML	AML		
KANBL	Kanowna Belle,	2.42	44	P	Pn	18 20 53.8	+1.4
KANBL				AML	AML		
BCON	Beacon, Wester	2.59	320	P	Pn	18 20 55.7	+0.9
BCON				AML	AML		
BLDU	Ballidu	3.07	304	P	Pn	18 21 01.4	+0.1
BLDU				AML	AML		
BLDU	Ballidu	3.07	304	P	Pn	18 21 01.4	+0.1
BLDU				S	Sn	18 21 37.3	-1.2
BLDU				AML	AML		
RKGY	Rocky Gully	3.18	224	P	Pn	18 21 03.4	+0.6
RKGY				S	Sn	18 21 42.4	+1.2
RKGY				AML	AML		
DNDOZ	Balladonia	3.55	93	P	Pn	18 21 08.8	+0.9
DNDOZ				S	Sn	18 21 50.7	+0.4
DNDOZ				AML	AML		
DNDOZ	Balladonia	3.55	93	P	Pn	18 21 08.8	+0.9
DNDOZ				S	Sn	18 21 50.7	+0.4
DNDOZ				AML	AML		
MORW	Morawa	4.53	315	P	Pn	18 21 21.6	+0.2
MORW				AML	AML		
MORW	Morawa	4.53	315	P	Pn	18 21 21.6	+0.2
MORW				S	Sn	18 22 12.9	-1.7
MORW				AML	AML		
MEEK	Meekatharra	5.77	351	P	Pn	18 21 38.2	-0.3
MEEK				AML	AML		
MEEK	Meekatharra	5.77	351	P	Pn	18 21 39.1	+0.5
	comp=Z,14nm,2.4s,comp=Z,0.1nm						
MEEK				AML	AML		
FORT	Forrest	7.33	80	P	Pn	18 21 59.2	-0.5
	comp=Z,14nm,2.1s,comp=Z,0.0nm						
FORT				AML	AML		
FORT	Forrest	7.33	80	P	Pn	18 21 59.5	-0.3
	comp=Z,14nm,2.1s,comp=Z,0.0nm						
FORT				S	Sn	18 23 19.2	-4.2
FORT				AML	AML		
WRKA	Warakurna	10.51	48	P	Pn	18 22 45.6	+2.1

*IDC **18** 18:37:31.3±1.0,5°.97S×153°.92E,h0km,mb4.0/8, mbtmp4.1/10,ML2.9/2,MS3.0/2, Error ellipse: s-maj=20.7km s-min=16.0km az=59.0*
*NEIC **18** 18:37:33.6±1.1,5°.985±0°.05×153°.82E±0°.09,h10km±1km, mb4.1/9, Error ellipse: s-maj=15.5km s-min=7.4km az=113.0*

ISC 18 18:37:32.9±0.9,**5°.97S**±0°.08×**153°.9E**±0°.1,**h10**km,**n27**, σ0s**78**/26,**mb4.0**/11,**New Ireland region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RABL	Rabaul	2.44	316	Pn	Pn	18 38 12.7	-0.2
KRVT	Keravat (AS076	2.46	312	Pn	Pn	18 38 12.7	-0.3
	18nm,0.3s,baz=127,slow=5.8,SNR=16						
KRVT				Sn	Sn	18 38 43.7	+0.5
	46nm,0.3s,baz=191,slow=22,SNR=6.9						
	52nm,0.6s						
KRVT				AML	AML		
HNR	Honiara	6.95	120	LR	LR	18 41 44.8	
	comp=Z,86nm,18.0s,baz=348,slow=37						
PMG	Port Moresby	7.46	242	Pn	Pn	18 39 23.5	+1.6
	2.8nm,0.3s,baz=107,slow=3.4,SNR=9.5						
PMG				Sn	Sn	18 40 45.9	-0.8
	0.3nm,0.3s,baz=25,slow=17,SNR=1.1						
	12nm,0.5s						
PMG				AML	AML		
PMG	Port Moresby	7.46	242		Pn	18 39 21.5	-0.4
DZM	Mont Dzumac	20.11	144	P	P	18 42 05.6	-1.5
	5.8nm,0.9s,baz=124,slow=15,SNR=2.6						
	5.8nm,0.9s						
WRA	Warramunga Arr	23.51	232	P	P	18 42 43.0	-0.3
	1.4nm,0.9s,baz=59,slow=9.2,SNR=11						
	1.4nm,0.9s						
INKA	Innaminka	24.98	208	P	P	18 42 57.1	+0.2
INKA				IAmb	IAmb	18 42 59.8	
	comp=Z,5.5nm,0.9s						
AS31	Alice Springs	26.04	225	P	P	18 43 06.3	-0.3
ASAR	Alice Springs	26.04	225	P	P	18 43 06.8	+0.1
	comp=Z,2.0nm,0.9s,baz=59,slow=8.5,SNR=19						
	comp=Z,2.0nm,0.9s						
ASAR	Alice Springs	26.04	225	P	P	18 43 05.7	-0.9
KNRA	Kununurra	26.44	247	P	P	18 43 10.6	+0.4
KNRA				IAmb	IAmb	18 43 33.4	
	comp=Z,10nm,1.4s						
FITZ	Fitzroy Crossi	30.06	244	P	P	18 43 41.6	-1.0
FITZ				IAmb	IAmb	18 43 43.2	
	comp=Z,2.3nm,1.3s						
FORT	Forrest	34.58	221	P	P	18 44 21.4	-0.7
RAR	Rarotonga	47.35	113	LR	LR	19 03 33.2	
	comp=Z,26nm,19.9s,baz=322,slow=33						
VNDA	Vanda	71.64	178	P	P	18 48 54.5	+0

PMG			S		**Sn**	**18 45 19.4**	**+1.1**
	202nm,0.4s,baz=214,slow=22,SNR=25						
PMG			LR		LR	18 46 20.8	
	comp=Z,292nm,21.0s,baz=62,slow=45						
PMG	**Port Moresby**	**3.38 189**	S		**Sn**	**18 45 19.8**	**+1.5**
PMG	**Port Moresby**	**3.38 189**	P		**Pn**	**18 44 39.4**	**0.0**
PMG	**Port Moresby**	**3.38 189**	S		**Sn**	**18 45 19.9**	**+1.6**
PMG	**Port Moresby**	**3.38 189**			**Pn**	**18 44 40.0**	**+0.5**
PMG			Sn		**Sn**	**18 45 16.7**	**-1.6**
PMG	**Port Moresby**	**3.38 189**	P		**Pn**	**18 44 39.7**	**+0.3**
PMG			AML		AML		
MANU	**Manus Island**	**3.99 355**			**Pn**	**18 44 48.0**	**+0.1**
KRVT	**Keravat (AS076**	**4.66 68**	P		**Pn**	**18 44 59.5**	**+2.5**
	59nm,0.3s,baz=185,slow=1.4,SNR=13						
KRVT			LR		LR	18 46 50.5	
	comp=Z,268nm,19.1s,baz=252,slow=38						
RABL	**Rabaul**	**4.83 68**			**Pn**	**18 44 57.7**	**-1.7**
JAY	**Jayapura**	**7.79 296**	P		**Pn**	**18 45 42.1**	**+2.1**
	12nm,0.6s,baz=145,slow=6.6,SNR=14						
JAY			S		**Sn**	**18 47 08.8**	**+1.8**
	8.4nm,0.6s,baz=108,slow=20,SNR=1.3						
JAY			LR		LR	18 49 40.7	
	comp=Z,138nm,18.8s,baz=168,slow=45						
JAY	**Jayapura**	**7.79 296**	P		**Pn**	**18 45 43.1**	**+3.1**
	0.1nm29nm,0.8s						
JAY			AML		AML		
GENI	**Genyem**	**8.24 294**	P		**Pn**	**18 45 50.2**	**+4.1**
	88nm,0.8s						
SMPI	**Sarmi**	**9.81 294**	P		**Pn**	**18 46 08.9**	**+1.2**
	37nm,1.0s						
MTSU	**Mount Surprise**	**12.46 195**	P		**Pn**	**18 46 44.9**	**+1.0**
BAKI	**Biak**	**12.51 292**	P		**Pn**	**18 46 47.4**	**+2.8**
	22nm,0.7s						
ALEG	**Aligegeo Malai**	**13.18 103**	P		**Pn**	**18 46 55.8**	**+2.0**
CTA	**Charters Tower**	**14.03 186**	P		**Pn**	**18 47 05.2**	**-0.1**
	4.3nm,1.0s,baz=16,slow=20,SNR=1.2						
FAKI	**Fak Fak**	**15.69 281**	P		**Pn**	**18 47 24.2**	**-2.9**
QIS	**Mount Isa**	**16.42 208**	P		**Pn**	**18 47 36.0**	**-0.3**
SIJI	**Sorong**	**17.17 287**	P		**Pn**	**18 47 45.4**	**-0.3**
	6.3nm,0.6s,baz=78,slow=8.6,SNR=9.9						
SIJI			LR		LR	18 55 46.1	
	comp=Z,65nm,20.2s,baz=60,slow=42						
SIJI	**Sorong**	**17.17 287**	P		**Pn**	**18 47 43.2**	**-2.5**
	13nm,0.8s						
MTN	**Manton Dam**	**17.66 246**			**Pn**	**18 47 53.3**	**+1.6**
WB0	**Warramunga Arr**	**18.79 222**	P		**P**	**18 48 04.5**	**0.0**
WR8	**Warramunga Arr**	**18.85 222**	P		**P**	**18 48 03.8**	**-1.4**
WR8			IAmb		IAmb	18 48 11.8	
	comp=Z,19nm,1.2s						
WRAB	**Tennant Creek**	**18.93 222**	P		**P**	**18 48 04.9**	**-1.2**
WRAB	**Tennant Creek**	**18.93 222**	P		**P**	**18 48 04.8**	**-1.4**
WRA	**Warramunga Arr**	**18.95 222**	P		**P**	**18 48 05.2**	**-1.1**
	comp=Z,4.2nm,0.5s,baz=49,slow=11,SNR=60						
WRA			S		S	18 51 27.1	-12
	comp=Z,0.8nm,0.9s,baz=45,slow=22,SNR=3.0						
WRA			PcP		**PcP**	**18 52 31.2**	**+0.5**
	comp=Z,2.3nm,0.8s,baz=16,slow=1.7,SNR=7.4						
WRA	**Warramunga Arr**	**18.95 222**			**PcP**	**18 52 31.6**	**+0.8**
GUMO	**Guam**	**19.71 352**	LR		LR	18 55 48.7	
	comp=Z,40nm,18.4s,baz=164,slow=36						
QLP	**Quilpie**	**20.69 189**	P		**P**	**18 48 25.7**	**+0.6**
KNRA	**Kununurra**	**20.88 241**			**P**	**18 48 26.7**	**-0.6**
KNRA			IAmb		IAmb	18 48 31.2	
	comp=Z,7.1nm,0.4s						
AS01	**Alice Springs**	**21.94 216**	P		**P**	**18 48 38.2**	**-0.5**
AS31	**Alice Springs**	**21.97 216**			**P**	**18 48 37.6**	**-1.4**
ASAR	**Alice Springs**	**21.97 216**	P		**P**	**18 48 38.4**	**-0.7**
	comp=Z,4.5nm,0.4s,baz=53,slow=8.7,SNR=205						
ASAR			S		**S**	**18 52 34.7**	**-4.2**
	comp=Z,3.9nm,1.0s,baz=30,slow=20,SNR=11						
ASAR			LR		LR	18 57 18.6	
	comp=Z,109nm,18.8s,baz=124,slow=37						
	comp=Z,4.5nm,0.4s						
ASAR	**Alice Springs**	**21.97 216**	P		**P**	**18 48 38.1**	**-0.9**
SANI	**Sanana**	**22.00 280**	P		**P**	**18 48 37.4**	**-1.9**
SANI	**Sanana**	**22.00 280**	P		**P**	**18 48 42.0**	**+2.7**
INKA	**Innaminka**	**22.56 196**			**P**	**18 48 44.9**	**-0.3**
INKA			IAmb		IAmb	18 48 48.2	
	comp=Z,5.3nm,0.7s						
SOEI	**Soe**	**23.48 259**	P		**P**	**18 48 54.0**	**-0.8**
SOEI	**Soe**	**23.48 259**			**P**	**18 48 54.5**	**-0.3**
SOEI			IAmb		IAmb	18 49 25.2	
	comp=Z,26nm,1.0s						
SOEI	**Soe**	**23.48 259**	P		**P**	**18 48 54.0**	**-0.8**
	comp=Z,34nm,1.6s						
BATI	**Baumata**	**24.13 259**	P		**P**	**18 49 00.9**	**+0.2**
	comp=Z,50nm,0.7s						
FITZ	**Fitzroy Crossi**	**24.62 239**	P		**P**	**18 49 04.8**	**-0.3**
FITZ	**Fitzroy Crossi**	**24.62 239**	P		**P**	**18 49 04.9**	**-0.2**
FITZ			IAmb		IAmb	18 49 05.8	
	comp=Z,9.7nm,0.6s						
LUWI	**Luwuk**	**25.34 280**	P		**P**	**18 49 12.3**	**+0.6**
MMRI	**Maumere**	**25.36 263**	P		**P**	**18 49 11.5**	**-0.4**
MMRI	**Maumere**	**25.36 263**	P		**P**	**18 49 10.8**	**-1.0**
CMSA	**Cobar Meteorol**	**25.43 184**	P		**P**	**18 49 13.3**	**+1.0**
DAV	**Davao City (W)**	**25.61 300**	LR		LR	18 59 20.9	
	comp=Z,38nm,20.2s,baz=336,slow=36						
STKA	**Stephens Creek**	**26.32 192**	P		**P**	**18 49 19.8**	**-0.6**
	comp=Z,2.5nm,0.5s,baz=0.1,slow=6.6,SNR=7.7						
	comp=Z,2.5nm,0.5s						
STKA	**Stephens Creek**	**26.32 192**	P		**P**	**18 49 20.0**	**-0.4**
BBOO	**Buckleboo**	**28.75 201**	P		**P**	**18 49 43.1**	**+1.0**
PLAI	**Plampang**	**29.78 263**	P		**P**	**18 49 49.4**	**-2.0**
FORT	**Forrest**	**30.74 214**	P		**P**	**18 49 59.8**	**+0.1**
FORT			IAmb		IAmb	18 50 10.1	
	comp=Z,9.4nm,1.1s						
MBWA	**Marble Bar**	**30.96 238**	P		**P**	**18 50 01.3**	**-0.5**
MBWA	**Marble Bar**	**30.96 238**	P		**P**	**18 50 01.6**	**-0.2**
MEEK	**Meekatharra**	**34.44 230**	P		**P**	**18 50 31.9**	**-0.4**
MORW	**Morawa**	**37.65 229**	P		**P**	**18 50 59.4**	**-0.2**
MORW	**Morawa**	**37.65 229**	P		**P**	**18 50 59.8**	**+0.2**
MORW			IAmb		IAmb	18 51 11.7	
	comp=Z,12nm,1.2s						
KLBR	**Kellerberrin**	**37.81 224**	P		**P**	**18 51 00.4**	**-0.5**
BLDU	**Ballidu**	**37.99 226**	P		**P**	**18 51 02.3**	**-0.2**
NWAO	**Narrogin (SRO)**	**38.95 223**	P		**P**	**18 51 10.4**	**-0.1**
BBJI	**Bungbulang**	**39.77 266**	P		**P**	**18 51 15.8**	**-1.9**
BBJI	**Bungbulang**	**39.77 266**	P		**P**	**18 51 16.0**	**-1.6**
MJAR	**Matsushiro Arr**	**43.28 349**	P		**P**	**18 51 46.4**	**+0.4**
	comp=Z,3.3nm,0.9s,baz=155,slow=7.4,SNR=6.4						
	comp=Z,3.3nm,0.9s						
MJAR	**Matsushiro Arr**	**43.28 349**	P		**P**	**18 51 46.2**	**+0.2**
MAJO	**Matsushiro**	**43.28 349**	P		**P**	**18 51 44.5**	**-1.6**
MAJO			IAmb		IAmb	18 52 06.7	
	comp=Z,6.9nm,1.0s						
MJB9	**Matsu-Tunnel**	**43.29 349**	P		**P**	**18 51 45.6**	**-0.4**
MJB9			IAmb		IAmb	18 52 08.1	
	comp=Z,10nm,1.2s						
MDSI	**Maura Dua**	**43.34 270**	P		**P**	**18 51 47.7**	**+0.9**
CMAR	**Chiang Mai Arr**	**53.87 298**	P		**P**	**18 53 06.9**	**-0.8**
	comp=Z,0.5nm,0.5s,baz=112,slow=6.7,SNR=4.5						
	comp=Z,0.5nm,0.5s						
HHC	**Hu-ho-hao-te**	**57.23 328**	*e*P		**P**	**18 53 33.0**	**+1.4**
HHC			pmax		pmax		
	comp=Z,8.0nm,0.5s						
HHC			pmax		pmax		
	comp=Z,100nm,4.1s						
LZH	**Lanzhou**	**58.69 319**	*e*P		**P**	**18 53 45.1**	**+3.1**
LZH			sP		sP	18 54 07.6	+6.5
LZH			pmax		pmax		
	comp=Z,21nm,1.4s						
PEA0B	**Petropavlovsk-**	**59.54 7**	P		**P**	**18 53 45.3**	**-2.0**
ULN	**Ulaanbaatar**	**64.48 331**	P		**P**	**18 54 20.8**	**0.0**
ULN			IAmb		IAmb	18 54 23.4	
	comp=Z,2.9nm,0.9s						
SONM	**Songino Array**	**64.77 331**	P		**P**	**18 54 23.1**	**+0.4**
	comp=Z,0.6nm,0.6s,baz=116,slow=3.4,SNR=3.1						
	comp=Z,0.6nm,0.6s						
SONM	**Songino Array**	**64.77 331**	P		**P**	**18 54 21.8**	**-0.9**
VNDA	**Vanda**	**71.83 177**	P		**P**	**18 55 06.5**	**+0.3**
	comp=Z,1.0nm,0.5s,baz=335,slow=6.6,SNR=25						
	comp=Z,1.0nm,0.5s						
VNDA	**Vanda**	**71.83 177**	P		**P**	**18 55 07.0**	**+0.8**
VNDA			IAmb		IAmb	18 55 07.4	
	comp=Z,3.6nm,1.4s						
MKAR	**Makanchi Array**	**77.96 320**	P		**P**	**18 55 41.7**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=94,slow=9.1,SNR=4.7						
	comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**77.96 320**	P		**P**	**18 55 42.1**	**-0.1**
MAKZ	**Makanchi**	**78.17 320**	P		**P**	**18 55 42.0**	**-1.3**
MAKZ			IAmb		IAmb	18 56 06.9	
	comp=Z,4.2nm,1.1s						
ZALV	**Zalesovo Beam**	**79.41 328**	P		**P**	**18 55 47.9**	**-2.0**
	comp=Z,0.6nm,0.5s,baz=126,slow=6.8,SNR=3.8						
	comp=Z,0.6nm,0.5s						
ZALV	**Zalesovo Beam**	**79.41 328**	P		**P**	**18 55 47.7**	**-2.2**
QSPA	**South Pole Qui**	**83.92 180**	P		**P**	**18 56 13.3**	**-0.4**
	comp=Z,5.3nm,0.6s,baz=257,slow=1.0,SNR=23						
	comp=Z,5.3nm,0.6s						
ILAR	**Eielson Array**	**85.26 23**	P		**P**	**18 56 18.3**	**-1.9**
	comp=Z,0.6nm,0.6s,baz=245,slow=5.1,SNR=12						
	comp=Z,0.6nm,0.6s						
BVAR	**Borovoye Array**	**87.20 324**	P		**P**	**18 56 28.0**	**-2.1**
	comp=Z,0.4nm,0.5s,baz=215,slow=42,SNR=2.8						
	comp=Z,0.4nm,0.5s						
ODBI	**Odobesti**	**115.43 318**	PKP	PKPdf		**19 02 30.3**	**+4.7**
TORD	**Torodi Ar. Bea**	**145.76 284**	PKPbc	**PKPdf**		**19 03 22.9**	**-0.3**
	comp=Z,1.0nm,0.3s,baz=108,slow=1.6,SNR=4.8						
PTLB	**Pontes e Lacer**	**145.91 129**	PKPdf	**PKPdf**		**19 03 21.7**	**-1.8**
VILB	**Vilhena**	**146.48 124**	PKPbc	**PKPbc**		**19 03 25.9**	**-0.1**
BDFB	**Brasilia**	**153.43 144**	PKPbc	**PKPbc**		**19 03 43.0**	**-0.2**
	comp=Z,3.0nm,0.4s,baz=250,slow=3.8,SNR=4.2						

UPP ***18*** *18:46:19.8±0.0,67°.85N×20°.21E, h0km, ML2.5, Confirmed Induced event*
HEL ***18*** *18:46:20.3±0.2,67°.83N×20°.22E, h0km, ML1.5, Suspected explosion*

ISC 18 18:46:19.9±0.8**,67°.84N**±0°.02×**20°.24E**±0°.02**, h0km, n27,**
σ1§17/43, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.12**	**17**	P	**Pg**	**18 46 22.2**	**0.0**
KUA				S	**Sg**	**18 46 24.0**	**+0.2**
RATU	**Laukkuluspa**	**0.25**	**267**	P	**Pg**	**18 46 24.5**	**-0.1**
RATU				S	**Sg**	**18 46 27.5**	**-0.3**
KOVU	**Salmi**	**0.39**	**355**	P	**Pg**	**18 46 27.1**	**-0.2**
KOVU				S	**Sg**	**18 46 32.4**	**+0.1**
NIKU	**Nikkaluokta**	**0.46**	**274**	P	**Pg**	**18 46 28.3**	**-0.3**
NIKU				S	**Sg**	**18 46 34.7**	**+0.1**
LANU	**Lannavaara**	**0.69**	**72**	P	**Pg**	**18 46 33.0**	**-0.1**
LANU	**Lannavaara**	**0.69**	**72**	PG	**Pg**	**18 46 33.3**	**+0.2**
LANU				SG	**Sg**	**18 46 42.3**	**+0.1**
DUNU	**Dundret**	**0.73**	**170**	P	**Pg**	**18 46 33.6**	**-0.2**
MASU	**Masugnsbyn**	**0.77**	**119**	P	**Pg**	**18 46 34.6**	**-0.1**
SALU	**Saltoluokta**	**0.81**	**236**	*e*P	**Pg**	**18 46 34.4**	**-0.9**
PAJU	**Pajala**	**1.38**	**125**	PG	**Pg**	**18 46 44.8**	**-1.4**
PAJU				SB	**Sg**	**18 47 03.9**	**-0.2**
HEF	**Hetta**	**1.40**	**64**	*e*P	**Pn**	**18 46 45.4**	**-1.2**
HEF	**Hetta**	**1.40**	**64**	PG	**Pn**	**18 46 45.8**	**-0.9**
HEF				MSG		18 47 02.8	
	comp=Z,3.1nm,0.2s						
HEF				SN	**Sb**	**18 47 05.6**	**+0.3**
ERTU	**Ertsjaerv**	**1.50**	**149**	PG	**Pn**	**18 46 47.1**	**-0.8**
ERTU				SN	**Sg**	**18 47 08.1**	**+0.2**
KLF	**Kolari**	**1.55**	**111**	PG	**Pn**	**18 46 48.1**	**-0.6**
KLF				MSG		18 47 07.0	
	comp=Z,2.5nm,0.2s						
KLF				SN	**Sg**	**18 47 11.0**	**+1.4**
KTK1	**Kautokeino**	**1.62**	**42**	PG	**Pn**	**18 46 49.5**	**-0.1**
KTK1				SN	**Sg**	**18 47 13.5**	**+1.7**
TRO	**Tromso**	**1.86**	**346**	PG	**Pn**	**18 46 53.9**	**+0.9**
TRO				SG	**Sb**	**18 47 18.5**	**-0.1**
TOF	**Tornio**	**2.39**	**136**	PB	**Pn**	**18 47 01.7**	**+1.6**
TOF				MSG		18 47 30.8	
	comp=Z,2.3nm,0.2s						
TOF				SG	**Sb**	**18 47 33.9**	**+0.3**
RNF	**Rovaniemi**	**2.56**	**116**	PB	**Pn**	**18 47 04.5**	**+1.9**
RNF				SG	**Sb**	**18 47 38.2**	**-0.4**
ARA0	**ARCESS Array S**	**2.57**	**46**	PB	**Pn**	**18 47 04.8**	**+2.1**
	baz=231						
ARA0				SG	**Sb**	**18 47 38.5**	**-0.4**
RAJF	**Raja-Jooseppi**	**3.08**	**74**	PB	**Pn**	**18 47 11.7**	**+1.9**
RAJF				SB	**Sb**	**18 47 53.1**	**-0.5**
KEV	**Kevo**	**3.12**	**49**	PB	**Pb**	**18 47 14.4**	**-1.7**
KEV				SB	**Sb**	**18 47 53.4**	**-1.3**
RANF	**Ranua**	**3.16**	**122**	PG	**Pb**	**18 47 18.0**	**+1.2**
BURU	**Burvik**	**3.30**	**171**	PB	**Pn**	**18 47 15.1**	**+2.4**
	baz=353						
VRF	**Varrio**	**3.56**	**87**	SG	**Sb**	**18 48 08.6**	**+1.4**
OBF8	**Ulkokalla**	**3.76**	**158**	SN	**Sn**	**18 48 01.9**	**-1.9**
OLKF	**Oulanka, Finla**	**3.89**	**109**	SG	**Sg**	**18 48 21.8**	**-2.9**
KU6	**Riekki**	**4.21**	**111**	PG	**Pb**	**18 47 35.8**	**+1.1**

ISK ***18*** *18:46:35.4,37°.89N×26°.88E, h3km, ML2.6/15*
AFAD ***18*** *18:46:35.8,37°.88N×26°.88E, h6km±1km, ML2.2*
THE ***18*** *18:46:36.1,37°.9N±0°.9×26°.9E±0°.8, h7km±3km, M2.5/7, MLh2.5/7*

ISC 18 18:46:36.2±0.9**,37°.88N**±0°.02×**26°.89E**±0°.03**, h11**km±7km**,**
n34,σ0§45/54, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.17**	**358**	P	**Pg**	**18 46 39.7**	**-0.3**
DGB				S	**Sg**	**18 46 42.2**	**-0.4**
DGB				IAML		18 46 44.0	
	comp=E,287nm,0.2s						
DGB				IAML		18 46 45.0	
	comp=N,270nm,0.2s						
SMG	**Samos**	**0.18**	**194**	P	**Pg**	**18 46 39.9**	**-0.1**
SMG				S	**Sg**	**18 46 42.9**	**+0.1**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.20**	**6**	Pg	**Pg**	**18 46 40.1**	**-0.3**
GMLD				Sg	**Sg**	**18 46 43.5**	**+0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.32**	**93**	Pg	**Pg**	**18 46 42.6**	**+0.1**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.33**	**123**	P	**Pg**	**18 46 42.6**	**-0.1**
GCAM				S	**Sg**	**18 46 48.0**	**+0.9**
GCAM				IAML		18 46 48.0	
	comp=E,313nm,0.2s						
GCAM				IAML		18 46 49.0	
	comp=N,362nm,0.3s						
GCAM	**G?zelcaml?**	**0.33**	**123**	Pg	**Pg**	**18 46 42.6**	**-0.1**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**5**	P	**Pg**	**18 46 42.8**	**-0.4**
BEYE				S	**Sg**	**18 46 48.0**	**+0.1**
BEYE				IAML		18 46 49.0	
	comp=E,211nm,0.2s						
BEYE				IAML		18 46 52.0	
	comp=N,162nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.47**	**320**	P	**Pg**	**18 46 45.0**	**-0.4**
ZEYE				IAML		18 46 52.0	
	comp=N,391nm,0.1s						
ZEYE				S	**Sg**	**18 46 52.1**	**+0.4**
ZEYE				IAML		18 46 56.0	
	comp=E,308nm,0.2s						
DDIM	**Aydin, Didim**	**0.51**	**146**	P	**Pg**	**18 46 46.1**	**0.0**
DDIM				S	**Sb**	**18 46 53.8**	**-0.6**
DDIM				IAML		18 46 54.0	
	comp=N,201nm,0.2s						
DDIM				IAML		18 46 54.0	
	comp=E,254nm,0.6s						
BLCB	**Balcova**	**0.52**	**13**	P	**Pg**	**18 46 45.9**	**-0.4**
BLCB				S	**Sg**	**18 46 53.1**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**13**	Pg	**Pg**	**18 46 46.0**	**-0.4**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**52**	P	**Pg**	**18 46 46.6**	**-0.4**
DUVT				S	**Sg**	**18 46 54.1**	**-0.3**
DUVT				IAML		18 46 55.0	
	comp=E,206nm,0.2s						
KRBN	**Karaburun**	**0.76**	**340**	Pg	**Pg**	**18 46 50.7**	**-0.2**
KRBN				Sg	**Sb**	**18 47 01.9**	**+0.2**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**85**	Pg	**Pb**	**18 46 51.7**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.81**	**105**	P	**Pg**	**18 46 51.7**	**-0.2**
AYDN				S	**Sg**	**18 47 02.7**	**+0.2**
AYDN				IAML		18 47 06.0	
	comp=N,66nm,0.3s						
AYDN				IAML		18 47 06.0	
	comp=E,112nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.81**	**158**	Pg	**Pb**	**18 46 52.1**	**-0.2**
YKAV				AML	AML		
CHOS	**Chios island**	**0.83**	**308**	P	**Pb**	**18 46 52.6**	**0.0**
CHOS				S	**Sb**	**18 47 03.6**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**308**	Pg	**Pb**	**18 46 52.1**	**-0.5**
CHOS				Sg	**Sb**	**18 47 04.2**	**+0.4**
CHOS				AML	AML		
FOCM	**Foa**	**0.84**	**351**	Pg	**Pg**	**18 46 52.2**	**-0.2**
FOCM				Sg	**Sb**	**18 47 04.6**	**+0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.87**	**334**	P	**Pb**	**18 46 53.7**	**+0.5**
KARB				S	**Sb**	**18 47 05.2**	**+0.3**
IZMR	**zmir-demi**	**0.88**	**73**	P	**Pg**	**18 46 52.5**	**-0.6**
IZMR				IAML		18 47 07.0	
	comp=N,43nm,0.3s						
IZMR				IAML		18 47 07.0	
	comp=E,46nm,0.7s						
BODT	**Bodrum**	**0.88**	**158**	P	**Pg**	**18 46 52.4**	**-0.8**
BODT				S	**Sb**	**18 47 05.8**	**+0.6**
BODT	**Bodrum**	**0.88**	**158**	Pg	**Pb**	**18 46 53.6**	**+0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.92**	**129**	Pg	**Pb**	**18 46 53.9**	**-0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.93**	**151**	P	**Pg**	**18 46 53.1**	**-0.9**
BDRM				IAML		18 47 06.0	
	comp=E,88nm,0.6s						
BDRM				S	**Sb**	**18 47 06.6**	**+0.1**
BDRM				IAML		18 47 10.0	
	comp=N,91nm,0.3s						
CAMT	**Merkez**	**0.93**	**21**	P	**Pg**	**18 46 53.7**	**-0.4**
CAMT				S	**Sb**	**18 47 07.1**	**+0.5**
CAMT				IAML		18 47 09.0	
	comp=N,156nm,0.4s						
CAMT				IAML		18 47 12.0	
	comp=E,120nm,0.3s						
ZEDA	**zmir-Bergama**	**1.09**	**8**	P	**Pg**	**18 46 56.5**	**-0.8**
ZEDA				S	**Sb**	**18 47 12.2**	**+0.8**
ZEDA				IAML		18 47 14.0	
	comp=N,63nm,0.4s						
ZEDA				IAML		18 47 14.0	
	comp=E,79nm,0.7s						
NAZL	**Nazilli-Aydin**	**1.11**	**85**	Pn	**Pb**	**18 46 57.7**	**+0.3**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.16**	**44**	Pn	**Pb**	**18 46 58.3**	**+0.2**
DKL	**Dikili**	**1.19**	**1**	Pn	**Pn**	**18 46 58.9**	**+0.2**
DKL				AML	AML		
AKS	**Akhisar**	**1.23**	**36**	Pn	**Pn**	**18 46 59.7**	**+0.4**
AKS				AML	AML		
KTTT	**Salihli**	**1.24**	**49**	P	**Pg**	**18 46 59.6**	**-0.5**
KTTT				S	**Sg**	**18 47 15.4**	**-0.9**
KTTT				IAML		18 47 18.0	
	comp=N,76nm,0.4s						
SOMA	**Soma-Manisa**	**1.37**	**21**	Pn	**Pg**	**18 47 02.2**	**-0.3**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.44**	**44**	Pn	**Pg**	**18 47 03.3**	**-0.6**

IDC ***18*** *18:52:57.8±1.8, 6°.71S×129°.60E, h121km±19km, mb3.3/2, mbtmp3.6/7, MS3.2/2, Error ellipse: s-maj=28.3km s-min=13.5km az=113.0*
DJA ***18*** *18:52:58.6±0.7, 7°.5±4°×13°.0E±°, h242km±13km, M3.6/8, mB4.3/1, mb3.3/6, MLv3.8/8, Mw(mB)3.4/1*

ISC 18 18:52:58.3±0.8**, 6.79S**±0°.06×**129.71E**±0°.08**, h150**km**, n13,**
σ2§97/16, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**1.97**	**127**	P	**Pn**	**18 53 36.7**	**+3.6**
SAUI				AML	AML		
BNDI	**Bandanaira**	**2.26**	**5**	P	Pn	18 53 47.3	+11
FAKI	**Fak Fak**	**4.61**	**33**	P	**Pn**	**18 54 06.5**	**-0.1**
FAKI				S	**Sn**	**18 54 56.5**	**-3.2**
FAKI				AML	AML		
SIJI	**Sorong**	**6.08**	**15**	P	**Pn**	**18 54 26.6**	**+0.4**
	1.5nm,0.3s,baz=190,slow=10,SNR=13						
SIJI				S	**Sn**	**18 55 31.6**	**-3.4**
	2.6nm,0.2s,baz=69,slow=23,SNR=6.8						
SIJI	**Sorong**	**6.08**	**15**	P	**Pn**	**18 54 27.5**	**+1.3**
	0.1nm573nm3.9nm,0.8s						
SIJI				AML	AML		
SOEI	**Soe**	**6.14**	**241**	P	**Pn**	**18 54 30.4**	**+3.4**
	0.1nm16nm,2.2s						
SOEI				AML	AML		
BATI	**Baumata**	**6.87**	**240**	P	**Pn**	**18 54 36.4**	**-0.3**
	13nm,0.7s,baz=131,slow=20,SNR=1.6						
BATI				S	**Sn**	**18 55 51.8**	**-2.1**
	8.0nm,0.4s,baz=68,slow=19,SNR=1.2						
FITZ	**Fitzroy Crossi**	**11.92**	**199**	P	**Pn**	**18 55 44.5**	**+1.0**
	2.2nm,1.0s,baz=11,slow=15,SNR=10						
FITZ				S	**Sn**	**18 57 49.1**	**-6.2**
	2.9nm,0.5s,baz=267,slow=22,SNR=6.7						
WRA	**Warramunga Arr**	**13.82**	**161**	P	**Pn**	**18 56 09.2**	**+1.1**
	0.5nm,0.4s,baz=338,slow=12,SNR=15						
WRA				S	**Sn**	**18 58 38.1**	**-3.2**
	0.7nm,0.3s,baz=321,slow=14,SNR=7.1						
WRA				LR	LR	19 02 09.4	
	comp=Z,150nm,21.3s,baz=91,slow=40						
ASAR	**Alice Springs**	**17.26**	**167**	P	**Pn**	**18 56 52.1**	**+1.7**
	0.3nm,0.4s,baz=341,slow=9.4,SNR=10						
ASAR				S	S	18 59 51.8	-10
	0.2nm,0.5s,baz=1.8,slow=26,SNR=5.3						
MJAR	**Matsushiro Arr**	**43.84**	**10**	LR	LR	19 18 23.0	
	comp=Z,24nm,21.2s,baz=147,slow=35						
MKAR	**Makanchi Array**	**67.89**	**327**	P	**P**	**19 03 42.9**	**+2.2**
	0.2nm,0.3s,baz=118,

	comp=Z,1.6nm,0.6s,baz=194,slow=10,SNR=2.7								
MJAR				ScP		**ScP**	**19 16 55.2**	**-6.2**	
	comp=Z,2.6nm,0.8s,baz=173,slow=2.7,SNR=7.3								
	comp=Z,3.2nm,0.5s								
MJAR	**Matsushiro Arr**	**19.98**	**342**	P		**P**	**19 09 32.5**	**+1.0**	
MJAR				S		**S**	**19 13 07.7**	**+0.6**	
MJAR				pmax		pmax			
	comp=Z,5.0nm,0.7s								
MJAR	**Matsushiro Arr**	**19.98**	**342**			**P**	**19 09 32.5**	**+1.0**	
MJAR	**Matsushiro Arr**	**19.98**	**342**			**ScP**	**19 16 55.6**	**-5.7**	
MAJO	**Matsushiro**	**19.99**	**342**	P		**Pn**	**19 09 35.8**	**+0.6**	
MAJO	**Matsushiro**	**19.99**	**342**	P		**P**	**19 09 31.7**	**+0.2**	
MAJO				pmax		pmax			
	comp=Z,16nm,0.7s								
MAJO	**Matsushiro**	**19.99**	**342**			**P**	**19 09 31.6**	**+0.2**	
MAJO	**Matsushiro**	**19.99**	**342**	P		**Pn**	**19 09 33.6**	**-1.6**	
	comp=Z,21nm,0.9s								
MJB9	**Matsu-Tunnel**	**19.99**	**342**	P		**P**	**19 09 32.4**	**+0.8**	
H11N1	**WAKE ISLAND Hy**	**20.07**	**81**	T		T	19 30 43.4		
	baz=265,slow=74,SNR=37								
H11N2	**WAKE ISLAND Hy**	**20.07**	**81**	T		T	19 31 06.2		
	baz=265,slow=74,SNR=35								
H11N3	**WAKE ISLAND Hy**	**20.08**	**81**	T		T	19 30 44.6		
	baz=265,slow=74,SNR=38								
JNU	**Nakatsue**	**20.45**	**322**	P		**P**	**19 09 38.3**	**+1.8**	
	comp=Z,6.1nm,0.9s,baz=67,slow=4.6,SNR=3.8								
	comp=Z,6.1nm,0.9s								
JAY	**Jayapura**	**20.66**	**195**	P		**P**	**19 09 38.4**	**-0.6**	
	comp=Z,41nm,0.8s,baz=207,slow=0.5,SNR=14								
	comp=Z,41nm,0.8s								
JAY	**Jayapura**	**20.66**	**195**	P		**P**	**19 09 38.5**	**-0.4**	
	comp=Z,107nm,1.0s								
KAVG	**Kavieng**	**20.70**	**166**	P		P	19 09 29.0	-10	
SMPI	**Sarmi**	**20.74**	**200**	P		**P**	**19 09 39.3**	**-0.4**	
	comp=Z,62nm,0.7s								
GENI	**Genyem**	**20.87**	**196**	P		**P**	**19 09 41.3**	**+0.2**	
	comp=Z,2µmcomp=Z,81nm,0.8s								
GENI	**Genyem**	**20.87**	**196**	P		**P**	**19 09 41.3**	**+0.2**	
	comp=Z,84nm,0.9s								
BAKI	**Biak**	**21.03**	**208**	P		**P**	**19 09 44.2**	**+1.4**	
	comp=Z,163nm,0.8s								
MWPI	**Manokwari, Pap**	**21.81**	**213**	P		**P**	**19 09 52.0**	**+1.0**	
WAMI	**Wamena**	**22.52**	**199**	P		**P**	**19 09 59.4**	**+1.5**	
	comp=Z,118nm,0.6s								
KRVT	**Keravat (AS076**	**22.66**	**164**	LR		LR	19 18 18.6		
	comp=Z,65nm,19.3s,baz=16,slow=35								
SIJI	**Sorong**	**23.33**	**219**	P		**P**	**19 10 06.2**	**+0.8**	
	comp=Z,224nm,0.7s,baz=33,slow=9.6,SNR=167								
SIJI	**Sorong**	**23.33**	**219**	P		**P**	**19 10 06.0**	**+0.6**	
	comp=Z,3µmcomp=Z,316nm,1.0s								
JTM	**Tenmabayashi**	**23.42**	**351**	P		**P**	**19 10 06.8**	**+0.9**	
JTM				IAmb		IAmb	19 10 38.5		
	comp=Z,23nm,0.9s								
NACB	**Ninganchiao**	**23.52**	**290**	P		**P**	**19 10 07.9**	**+0.8**	
YULB	**Yu-li**	**23.65**	**288**	P		**P**	**19 10 09.2**	**+0.9**	
YHNB	**Yeheng**	**23.82**	**291**			**P**	**19 10 11.9**	**+2.0**	
YHNB				IAmb		IAmb	19 10 12.7		
	comp=Z,31nm,0.7s								
YHNB	**Yeheng**	**23.82**	**291**	P		**P**	**19 10 12.3**	**+2.4**	
	comp=Z,54nm,1.3s								
SSLB	**Suanglung**	**24.03**	**289**			**P**	**19 10 12.8**	**+1.1**	
SSLB				IAmb		IAmb	19 10 17.9		
	comp=Z,22nm,0.7s								
SSLB	**Suanglung**	**24.03**	**289**	P		**P**	**19 10 14.4**	**+2.6**	
	comp=Z,30nm,0.7s								
TPUB	**Ta-pu**	**24.24**	**288**	P		**P**	**19 10 14.5**	**+0.9**	
TPUB				IAmb		IAmb	19 10 33.7		
	comp=Z,35nm,1.3s								
ERM	**Erimo**	**24.39**	**355**	P		**P**	**19 10 18.3**	**+3.6**	
ERM				pmax		pmax			
	comp=Z,39nm,1.0s								
ERM	**Erimo**	**24.39**	**355**	P		**P**	**19 10 18.3**	**+3.6**	
ERM				IAmb		IAmb	19 10 47.7		
	comp=Z,39nm,1.0s								
JEM	**Erimo**	**24.39**	**355**	P		**P**	**19 10 15.6**	**+0.9**	
FAKI	**Fak Fak**	**24.43**	**215**			**P**	**19 10 14.9**	**-0.5**	
FAKI	**Fak Fak**	**24.43**	**215**	P		**P**	**19 10 15.0**	**-0.4**	
	comp=Z,1µmcomp=Z,168nm,0.8s								
FAKI	**Fak Fak**	**24.43**	**215**	P		**P**	**19 10 15.8**	**+0.4**	
	comp=Z,167nm,0.8s								
KSRS	**Korea Array**	**25.23**	**325**	P		**P**	**19 10 23.4**	**+1.0**	
	comp=Z,1.9nm,0.6s,baz=143,slow=8.6,SNR=7.7								
KSRS				ScP		**ScP**	**19 17 10.9**	**-4.1**	
	comp=Z,2.4nm,0.9s,baz=123,slow=4.6,SNR=4.5								
	comp=Z,1.9nm,0.6s								
JKA	**Kamikawa-asahi**	**26.52**	**355**	P		**P**	**19 10 35.2**	**+1.2**	
JKA				IAmb		IAmb	19 11 17.6		
	comp=Z,14nm,0.8s								
ASAJ	**Asahikawa**	**26.52**	**355**	P		**P**	**19 10 35.2**	**+1.2**	
ASAJ				pmax		pmax			
	comp=Z,14nm,0.8s								
PMG	**Port Moresby**	**26.92**	**177**	P		**P**	**19 10 36.2**	**-1.5**	
PMG				pmax		pmax			
	comp=Z,40nm,0.7s								
PMG	**Port Moresby**	**26.92**	**177**			**P**	**19 10 36.2**	**-1.5**	
PMG	**Port Moresby**	**26.92**	**177**	P		**P**	**19 10 36.5**	**-1.2**	
	comp=Z,56nm,0.8s								
PMG	**Port Moresby**	**26.92**	**177**	P		**P**	**19 10 36.9**	**-0.9**	
	comp=Z,58nm,0.8s								
BNDI	**Bandanaira**	**27.06**	**217**	P		**P**	**19 10 36.9**	**-2.1**	
BNDI	**Bandanaira**	**27.06**	**217**	P		**P**	**19 10 38.3**	**-0.7**	
	comp=Z,137nm,0.7s								
SANI	**Sanana**	**27.67**	**227**	P		**P**	**19 10 43.1**	**-1.4**	
SANI	**Sanana**	**27.67**	**227**	P		**P**	**19 10 42.7**	**-1.8**	
	comp=Z,18nm,0.5s								
NJ2	**Nanjing**	**28.26**	**306**	*e*P		**P**	**19 10 51.3**	**+1.7**	
NJ2				pmax		pmax			
	comp=Z,5.0nm,0.5s								
USRK	**Ussuriysk Ar.**	**28.92**	**339**	P		**P**	**19 10 56.4**	**+1.1**	
	comp=Z,1.3nm,0.7s,baz=139,slow=12,SNR=4.1								
USRK				LR		LR	19 21 32.2		
	comp=Z,42nm,19.4s,baz=79,slow=34								
	comp=Z,1.3nm,0.7s								
YSS	**Yuzhno-Sakhali**	**29.33**	**356**	*e*P		**P**	**19 10 59.4**	**+0.6**	
YSS				pmax		pmax			
	comp=Z,10.0nm,0.7s								
LUWI	**Luwuk**	**29.33**	**233**	P		**P**	**19 10 59.1**	**-0.1**	
LUWI	**Luwuk**	**29.33**	**233**	P		**P**	**19 10 58.4**	**-0.8**	
	comp=Z,67nm,0.5s								
TOLI2	**Tolitoli**	**29.60**	**239**	P		**P**	**19 11 02.5**	**+0.9**	
	comp=Z,60nm,1.0s								
KKM	**Kota Kinabalu**	**31.13**	**252**	P		**P**	**19 11 16.2**	**+0.9**	
KKM	**Kota Kinabalu**	**31.13**	**252**	P		**P**	**19 11 16.5**	**+1.3**	
	comp=Z,47nm,0.6s								
KDU	**Kakadu**	**32.90**	**205**	P		**P**	**19 11 29.6**	**-0.8**	
	comp=Z,5.3nm,0.6s								
KDU	**Kakadu**	**32.90**	**205**	P		**P**	**19 11 29.3**	**-1.2**	
	comp=Z,5.2nm,0.6s								
KLR	**Kul'dur**	**33.50**	**343⇑**	*e*P		**P**	**19 11 35.9**	**+0.6**	
KLR				pmax		pmax			
	comp=Z,4.0nm,0.9s								
MTN	**Manton Dam**	**33.59**	**207**	P		**P**	**19 11 35.9**	**-0.6**	
	comp=Z,11nm,1.2s								
MTN	**Manton Dam**	**33.59**	**207**	P		**P**	**19 11 35.4**	**-1.1**	
MTN	**Manton Dam**	**33.59**	**207**	P		**P**	**19 11 35.7**	**-0.8**	
	comp=Z,11nm,1.2s								
MTN	**Manton Dam**	**33.59**	**207**	P		**P**	**19 11 35.3**	**-1.1**	
	comp=Z,11nm,1.2s								
KAPI	**Kappang**	**34.20**	**231**	P		**P**	**19 11 42.2**	**+0.4**	
	comp=Z,31nm,0.8s,baz=237,slow=1.0,SNR=1.6								
	comp=Z,31nm,0.8s								
KAPI	**Kappang**	**34.20**	**231**	P		**P**	**19 11 42.2**	**+0.4**	
KAPI				pmax		pmax			
	comp=Z,65nm,1.2s								
KAPI	**Kappang**	**34.20**	**231**	IAmb		IAmb	19 11 42.9		
	comp=Z,65nm,1.2s								
SOEI	**Soe**	**34.57**	**220**	P		**P**	**19 11 43.9**	**-1.2**	
BATI	**Baumata**	**35.29**	**220**	P		**P**	**19 11 50.1**	**-1.0**	
	comp=Z,89nm,0.5s,baz=71,slow=1.5,SNR=23								
BATI	**Baumata**	**35.29**	**220**	P		**P**	**19 11 50.0**	**-1.2**	
	comp=Z,105nm,0.8s								
MIDW	**Midway**	**35.37**	**66**	P		**P**	**19 11 52.7**	**+1.0**	
MTSU	**Mount Surprise**	**35.59**	**182**	P		**P**	**19 11 52.7**	**-0.9**	
	comp=Z,28nm,0.7s								
MTSU	**Mount Surprise**	**35.59**	**182**	P		**P**	**19 11 53.6**	**-0.1**	
	comp=Z,28nm,0.7s								
MTSU	**Mount Surprise**	**35.59**	**182**	P		**P**	**19 11 53.6**	**-0.1**	
	comp=Z,28nm,0.7s								
MTSU	**Mount Surprise**	**35.59**	**182**	P		**P**	**19 11 53.5**	**-0.1**	
	comp=Z,28nm,0.7s								
HEH	**HeiHe**	**35.72**	**340**	*e*P		**P**	**19 11 55.0**	**+0.6**	
HEH				pmax		pmax			
	comp=Z,6.0nm,1.4s								
PEA0B	**Petropavlovsk-**	**36.58**	**12**	P		**P**	**19 12 02.2**	**+0.5**	
PEA0B				pmax		pmax			
	comp=Z,127nm,1.5s								
PEA0B	**Petropavlovsk-**	**36.58**	**12**	P		**P**	**19 12 02.2**	**+0.5**	
PETK	**Petropavlovsk-**	**36.58**	**12**	P		**P**	**19 12 03.4**	**+1.7**	
	comp=Z,13nm,0.7s,baz=184,slow=7.3,SNR=10								
	comp=Z,13nm,0.7s								
PETK	**Petropavlovsk-**	**36.58**	**12**	P		**P**	**19 12 03.2**	**+1.5**	
PETK	**Petropavlovsk-**	**36.58**	**12**	P		**P**	**19 12 03.2**	**+1.5**	
KNRA	**Kununurra**	**37.14**	**208**	P		**P**	**19 12 06.7**	**-0.1**	
	comp=Z,12nm,1.0s								
KNRA	**Kununurra**	**37.14**	**208**	P		**P**	**19 12 06.2**	**-0.6**	
KNRA	**Kununurra**	**37.14**	**208**	P		**P**	**19 12 06.5**	**-0.3**	
	comp=Z,12nm,1.0s								
KNRA	**Kununurra**	**37.14**	**208**	P		**P**	**19 12 06.6**	**-0.2**	
	comp=Z,12nm,1.0s								
HHC	**Hu-ho-hao-te**	**37.42**	**315**	*e*P		**P**	**19 12 11.4**	**+2.3**	
HHC				pmax		pmax			
	comp=Z,8.0nm,0.6s								
HHC				pmax		pmax			
	comp=Z,120nm,4.7s								
CTA	**Charters Tower**	**37.51**	**179**	P		**P**	**19 12 09.3**	**-0.5**	
CTA	**Charters Tower**	**37.51**	**179**	P		**P**	**19 12 09.4**	**-0.5**	
	comp=Z,28nm,1.5s								
CTA	**Charters Tower**	**37.51**	**179**	P		**P**	**19 12 09.3**	**-0.5**	
	comp=Z,29nm,1.5s								
CTAO	**Charters Tower**	**37.51**	**179**	P		**P**	**19 12 08.8**	**-1.0**	
CTAO				pmax		pmax			
	comp=Z,34nm,1.3s								
CTAO	**Charters Tower**	**37.51**	**179**	P		**P**	**19 12 08.8**	**-1.0**	
CTAO				IAmb		IAmb	19 12 10.0		
	comp=Z,34nm,1.2s								
CTAO	**Charters Tower**	**37.51**	**179**	P		**P**	**19 12 09.5**	**-0.3**	
QIS	**Mount Isa**	**38.46**	**189**	P		**P**	**19 12 16.2**	**-1.6**	
	comp=Z,23nm,0.9s								
QIS	**Mount Isa**	**38.46**	**189**	P		**P**	**19 12 16.9**	**-0.9**	
	comp=Z,23nm,0.9s								
QIS	**Mount Isa**	**38.46**	**189**	P		**P**	**19 12 16.7**	**-1.1**	
	comp=Z,23nm,0.9s								
QIS	**Mount Isa**	**38.46**	**189**	P		**P**	**19 12 17.1**	**-0.7**	
	comp=Z,23nm,0.9s								
WR8	**Warramunga Arr**	**38.99**	**197**	P		**P**	**19 12 21.3**	**-1.0**	
WR8				IAmb		IAmb	19 12 22.7		
	comp=Z,46nm,1.3s								
WRAB	**Tennant Creek**	**39.01**	**197**	P		**P**	**19 12 20.0**	**-2.4**	
	comp=Z,38nm,1.0s								
WRAB				P		**P**	**19 12 20.0**	**-2.4**	
	comp=Z,38nm,1.0s								
WRAB	**Tennant Creek**	**39.01**	**197**	P		**P**	**19 12 21.7**	**-0.7**	
WRA	**Warramunga Arr**	**39.02**	**197**	P		**P**	**19 12 21.1**	**-1.4**	
	comp=Z,27nm,0.9s,baz=23,slow=10,SNR=49								
WRA				ScP		**ScP**	**19 17 58.6**	**-3.4**	
	comp=Z,1.7nm,0.8s,baz=13,slow=4.0,SNR=5.6								
	comp=Z,27nm,0.9s								
WRA	**Warramunga Arr**	**39.02**	**197**	P		**P**	**19 12 20.3**	**-2.2**	
WRA							19 17 58.7		
WRA				pmax		pmax			
	comp=Z,2.0nm,1.1s								
WRA	**Warramunga Arr**	**39.02**	**197**	P		**P**	**19 12 20.3**	**-2.2**	
KHKI	**Kahang-Kahang**	**39.49**	**232**	P		**P**	**19 12 27.5**	**+1.1**	
	comp=Z,5µmcomp=Z,95nm,1.3s								
SLVN	**Son La**	**39.60**	**282**	P		**P**	**19 12 28.7**	**+1.2**	
SLVN	**Son La**	**39.60**	**282**	P		**P**	**19 12 30.4**	**+2.9**	
	comp=Z,11nm,0.8s								
CD2	**Chengdu**	**40.32**	**297**	*e*P		**P**	**19 12 33.0**	**-0.2**	
FITZ	**Fitzroy Crossi**	**40.70**	**210**	P		**P**	**19 12 36.1**	**-0.2**	
	comp=Z,26nm,0.3s,baz=19,slow=6.0,SNR=308								
	comp=Z,26nm,0.3s								
FITZ	**Fitzroy Crossi**	**40.70**	**210**	P		**P**	**19 12 35.9**	**-0.4**	
FITZ	**Fitzroy Crossi**	**40.70**	**210**	P		**P**	**19 12 36.4**	**0.0**	
FITZ	**Fitzroy Crossi**	**40.70**	**210**	P		**P**	**19 12 36.1**	**-0.2**	
LZH	**Lanzhou**	**41.33**	**305**	*e*P		**P**	**19 12 44.0**	**+2.4**	
LZH				pP		pwP	19 13 22.9	+1.4	
LZH				sP		sP	19 13 39.5	+4.2	
LZH				pmax		pmax			
	comp=Z,14nm,1.3s								
LZDM	**Lanzhou Array**	**41.41**	**305**	LR		LR	19 30 07.1		
	comp=Z,49nm,21.7s,baz=300,slow=36								
SJI	**Sawahan**	**42.05**	**236**	P		**P**	**19 12 48.0**	**+0.5**	
SNJI	**Sawahan-Nganju**	**42.08**	**236**	P		**P**	**19 12 48.7**	**+0.8**	
	comp=Z,55nm,0.5s								
PWJI	**Pagerwojo**	**42.19**	**236**	P		**P**	**19 12 48.7**	**+0.1**	
AS15	**Alice Springs**	**42.65**	**196**	P		**P**	**19 12 52.5**	**+0.3**	
	comp=Z,15nm,0.6s								
AS15	**Alice Springs**	**42.65**	**196**	P		**P**	**19 12 52.2**	**0.0**	
	comp=Z,15nm,0.6s								
AS31	**Alice Springs**	**42.68**	**196**	P		**P**	**19 12 52.4**	**0.0**	
	comp=Z,4.5nm,0.6s								
AS31	**Alice Springs**	**42.68**	**196**	P		**P**	**19 12 52.6**	**+0.1**	
	comp=Z,4.5nm,0.6s								
ASAR	**Alice Springs**	**42.68**	**196**	P		**P**	**19 12 51.4**	**-1.1**	
	comp=Z,2.9nm,0.3s,baz=3.8,slow=7.6,SNR=17								
ASAR				PcP		**PcP**	**19 14 40.7**	**-0.6**	
	comp=Z,2.8nm,0.9s,baz=23,slow=5.0,SNR=3.5								
ASAR				ScP		**ScP**	**19 18 12.3**	**-4.2**	
	comp=Z,0.7nm,0.6s,baz=9.9,slow=3.3,SNR=4.5								
	comp=Z,2.9nm,0.3s								
TPI	**Tanjungpandan**	**42.74**	**245**	P		**P**	**19 12 53.4**	**+0.3**	
	comp=Z,43nm,0.8s								
QLP	**Quilpie**	**44.00**	**182**	P		**P**	**19 13 01.1**	**-1.7**	
	comp=Z,84nm,1.0s								
QLP	**Quilpie**	**44.00**	**182**	P		**P**	**19 13 01.1**	**-1.7**	
	comp=Z,84nm,1.0s								
QLP	**Quilpie**	**44.00**	**182**	P		**P**	**19 13 01.1**	**-1.7**	
	comp=Z,84nm,1.0s								
SONM	**Songino Array**	**44.03**	**322**	P		**P**	**19 13 04.0**	**+0.8**	
	comp=Z,2.6nm,0.6s,baz=134,slow=7.7,SNR=9.0								
	comp=Z,2.6nm,0.6s								
SONM	**Songino Array**	**44.03**	**322**	P		**P**	**19 13 04.8**	**+1.6**	
SONM				pmax		pmax			
	comp=Z,3.0nm,0.9s								
SONM	**Songino Array**	**44.03**	**322**	P		**P**	**19 13 04.8**	**+1.6**	
CHTO	**Chiang Mai**	**44.44**	**279**	P		**P**	**19 13 07.7**	**+1.0**	
CHTO				pmax		pmax			
	comp=Z,3.0nm,0.7s								
CHTO	**Chiang Mai**	**44.44**	**279**	P		**P**	**19 13 07.7**	**+1.0**	
CHTO	**Chiang Mai**	**44.44**	**279**	P		**P**	**19 13 08.1**	**+1.4**	
CHTO	**Chiang Mai**	**44.44**	**279**	P		**P**	**19 13 08.2**	**+1.6**	
	comp=Z,5.2nm,0.8s								
CHTO	**Chiang Mai**	**44.44**	**279**	P		**P**	**19 13 08.1**	**+1.4**	
CM31	**Chiang Mai Arr**	**44.48**	**279**	P		**P**	**19 13 08.2**	**+1.2**	
CMAR	**Chiang Mai Arr**	**44.48**	**279**	P		**P**	**19 13 08.9**	**+1.9**	
	comp=Z,7.6nm,0.8s,baz=72,slow=6.8,SNR=62								
	comp=Z,7.6nm,0.8s								
CMAR	**Chiang Mai Arr**	**44.48**	**279**	P		**P**	**19 13 08.8**	**+1.8**	
CMAR	**Chiang Mai Arr**	**44.48**	**279**	P		**P**	**19 13 08.8**	**+1.8**	
BBJI	**Bungbulang**	**45.21**	**240**	P		**P**	**19 13 12.0**	**-0.9**	
BBJI				IAmb		IAmb	19 14 10.2		
	comp=Z,34nm,1.3s								
WRKA	**Warakurna**	**45.74**	**202**	P		**P**	**19 13 16.4**	**-0.3**	
	comp=Z,45nm,0.9s								
WRKA	**Warakurna**	**45.74**	**202**	P		**P**	**19 13 16.1**	**-0.6**	
	comp=Z,45nm,0.9s								
YAK	**Yakutsk**	**45.77**	**349**	*e*P		**P**	**19 13 16.2**	**-0.2**	
YAK				*e**PP		**pP**	**19 13 54.9**	**+1.8**	
YAK				*e*			19 14 49.0		
YAK				*e*			19 15 08.8		
YAK				*e*S		**S**	**19 19 47.6**	**+0.7**	
YAK				*e*			19 22 54.7		
YAK				*e*SS		**SS**	**19 23 14.0**	**+0.6**	
YAK				pmax		pmax			
	comp=Z,13nm,1.0s								
YAK				pmax		pmax			
	comp=N,4.0nm,1.2s								
YAK				pmax		pmax			
	comp=E,6.0nm,1.2s								
YAK				pmax		pmax			
	comp=Z,201nm,5.2s								
YAK				pmax		pmax			
	comp=N,196nm,4.1s								
YAK				pmax		pmax			
	comp=E,148nm,5.2s								
YAK				smax		smax			
	comp=E,171nm,4.4s								
YAK				smax		smax			
	comp=N,165nm,3.5s								
YAK	**Yakutsk**	**45.77**	**349**	P		**P**	**19 13 15.2**	**-1.2**	
YAK						**pP**	**19 13 54.9**	**+1.8**	
YAK				IAmb		IAmb	19 14 01.9		
	comp=Z,25nm,0.6s								
YAK	**Yakutsk**	**45.77**	**349**	P		**P**	**19 13 15.8**	**-0.6**	
	comp=Z,22nm,1.6s								
YAK	**Yakutsk**	**45.77**	**349**	P		**P**	**19 13 15.6**	**-0.8**	
MBWA	**Marble Bar**	**46.28**	**215**	P		**P**	**19 13 20.3**	**-0.7**	
MBWA				IAmb		IAmb	19 13 21.7		
	comp=Z,24nm,0.8s								
MBWA	**Marble Bar**	**46.28**	**215**	P		**P**	**19 13 20.9**	**0.0**	
	comp=Z,39nm,1.0s								
MBWA	**Marble Bar**	**46.28**	**215**	P		**P**	**19 13 20.9**	**0.0**	
	comp=Z,39nm,1.0s								
MBWA	**Marble Bar**	**46.28**	**215**	P		**P**	**19 13 20.7**	**-0.2**	
MDSI	**Maura Dua**	**46.61**	**246**	P		**P**	**19 13 23.3**	**-0.4**	
	comp=Z,18nm,0.7s								
NPW	**Naypyitaw**	**46.97**	**281**	P		**P**	**19 13 28.7**	**+2.3**	
	comp=Z,9.3nm,0.9s								
KSI	**Kapahiang**	**47.60**	**248**	P		**P**	**19 13 30.8**	**-0.7**	
	comp=Z,89nm,1.2s								
ARMA	**Armidale**	**48.12**	**173**	IAmb		IAmb	19 13 37.3		
	comp=Z,46nm,1.6s								
ARMA	**Armidale**	**48.12**	**173**	P		**P**	**19 13 34.7**	**-0.5**	
	comp=Z,23nm,1.1s								
ARMA	**Armidale**	**48.12**	**173**	P		**P**	**19 13 34.7**	**-0.5**	
	comp=Z,23nm,1.1s								
GOMU	**GeErMu**	**48.51**	**303**	P		**P**	**19 13 38.0**	**-0.5**	
GOMU				pmax		pmax			
	comp=Z,2.0nm,0.8s								
CMSA	**Cobar Meteorol**	**48.91**	**180**	P		**P**	**19 13 40.2**	**-0.8**	
	comp=Z,23nm,1.2s								
CMSA	**Cobar Meteorol**	**48.91**	**180**	P		**P**	**19 13 40.2**	**-0.8**	
	comp=Z,23nm,1.2s								
STKA	**Stephens Creek**	**49.41**	**185**	P		**P**	**19 13 43.6**	**-1.2**	
	comp=Z,8.7nm,0.4s,baz=7.4,slow=7.6,SNR=41								
	comp=Z,8.7nm,0.4s								
STKA	**Stephens Creek**	**49.41**	**185**	P		**P**	**19 13 43.2**	**-1.6**	
STKA				pmax		pmax			
	comp=Z,127nm,1.2s								
STKA	**Stephens Creek**	**49.41**	**185**	P		**P**	**19 13 43.2**	**-1.6**	
STKA	**Stephens Creek**	**49.41**	**185**	P		**P**	**19 13 43.9**	**-1.1**	
	comp=Z,65nm,0.6s								
STKA	**Stephens Creek**	**49.41**	**185**	P		**P**	**19 13 43.8**	**-1.1**	
	comp=Z,65nm,0.6s								
SHL	**Shillong**	**50.48**	**289**	P		**P**	**19 13 53.6**	**+0.2**	
SHL				pmax		pmax			
	comp=Z,6.0nm,0.4s								
SHL	**Shillong**	**50.48**	**289**	P		**P**	**19 13 53.6**	**+0.2**	
BBOO	**Buckleboo**	**51.04**	**191**	P		**P**	**19 13 56.1**	**-1.0**	
BBOO	**Buckleboo**	**51.04**	**191**	P		**P**	**19 13 56.6**	**-0.4**	
	comp=Z,64nm,0.8s								
BBOO	**Buckleboo**	**51.04**	**191**	P		**P**	**19 13 56.3**	**-0.8**	
	comp=Z,64nm,0.8s								
FORT	**Forrest**	**51.09**	**200**	P		**P**	**19 13 57.0**	**-0.5**	
	comp=Z,26nm,1.1s								
FORT	**Forrest**	**51.09**	**200**	P		**P**	**19 13 57.0**	**-0.5**	
FORT				IAmb		IAmb	19 13 58.5		
	comp=Z,19nm,0.8s								
HTT	**Hallett**	**51.22**	**187**	P		**P**	**19 13 58.1**	**-0.4**	
	comp=Z,18nm,0.9s								
MEEK	**Meekatharra**	**51.35**	**212**	P		**P**	**19 13 58.9**	**-0.6**	
	comp=Z,31nm,0.8s								
UNV	**Unalaska Valle**	**51.45**	**34**	P		**P**	**19 14 00.1**	**+0.3**	
LVA	**Lava Point**	**51.84**	**34**	P		**P**	**19 14 03.4**	**+0.6**	
AKUT	**Akutan**	**51.96**	**34**	P		**P**	**19 14 04.2**	**+0.5**	
BILL	**Bilibino**	**52.03**	**10**	*de*P		**P**	**19 14 04.7**	**+0.7**	
BILL				pmax		pmax			
	comp=Z,23nm,1.0s								
BILL	**Bilibino**	**52.03**	**10**	P		**P**	**19 14 04.6**	**+0.6**	
BILL				IAmb		IAmb	19 14 05.5		
	comp=Z,21nm,0.6s								
BILL	**Bilibino**	**52.03**	**10**	P		**P**	**19 14 04.8**	**+0.9**	
BILL				pP		**pwP**	**19 14 47.0**	**+2.0**	
BILI	**Bilibino, Chuk**	**52.07**	**10**	P		**P**	**19 14 04.8**	**+0.5**	
	comp=Z,34nm,0.9s								
CAN	**Canberra**	**52.77**	**177**	P		**P**	**19 14 10.2**	**+0.3**	
	comp=Z,24nm,0.8s								
CAN	**Canberra**	**52.77**	**177**	P		**P**	**19 14 09.6**	**-0.3**	
CNB	**Canberra Magne**	**52.78**	**176**	P		**P**	**19 14 09.1**	**-0.9**	
	comp=Z,19nm,1.1s								
KMBL	**Kambalda**	**53.89**	**205**	P		**P**	**19 14 16.1**

	comp=Z,11nm,0.7s					
DHY	**Denali Highway**	**63.94**	**28**	IAmb	IAmb	19 17 32.5
	comp=Z,49nm,1.9s					
COLA	**College**	**64.15**	**26**	P	**P**	**19 15 29.1 +0.9**
COLA				pP	**pwP**	**19 16 13.0 +1.9**
D23K	**Nanushuk River**	**64.24**	**21**	IAmb	IAmb	19 15 31.2
	comp=Z,16nm,0.8s					
KLU	**Klutina**	**64.28**	**30**	IAmb	IAmb	19 15 31.0
	comp=Z,21nm,1.2s					
H24K	**Noodor Dome**	**64.38**	**25**	IAmb	IAmb	19 16 16.5
	comp=Z,29nm,1.6s					
TOLK	**Toolik Lake Re**	**64.52**	**22**	IAmb	IAmb	19 15 32.3
	comp=Z,16nm,0.8s					
IL31		**64.53**	**26**	IAmb	IAmb	19 15 30.7
	comp=Z,14nm,0.9s					
ILAR	**Eielson Array**	**64.53**	**26**	P	**P**	**19 15 29.7 -1.0**
	comp=Z,8.0nm,0.8s,baz=257,slow=5.0,SNR=60					
	comp=Z,8.0nm,0.8s					
ILAR	**Eielson Array**	**64.53**	**26**	P	**P**	**19 15 29.8 -0.9**
G24K	**Hadweenzic Riv**	**64.75**	**24**	IAmb	IAmb	19 15 34.0
	comp=Z,9.6nm,0.8s					
PAX	**Paxson**	**64.77**	**28**	IAmb	IAmb	19 15 33.3
	comp=Z,14nm,0.7s					
K24K	**Donnelly Dome**	**64.80**	**27**	IAmb	IAmb	19 15 34.1
	comp=Z,30nm,1.4s					
GLB	**Gilahina Butte**	**65.28**	**30**	IAmb	IAmb	19 15 37.9
	comp=Z,17nm,0.9s					
VRDI	**Verde Repeater**	**65.42**	**30**	IAmb	IAmb	19 15 37.7
	comp=Z,12nm,0.8s					
CRQM	**Cirque**	**65.50**	**31**	IAmb	IAmb	19 15 39.5
	comp=Z,25nm,0.8s					
DOT	**Dot Lake**	**65.52**	**27**	IAmb	IAmb	19 15 38.2
	comp=Z,21nm,0.8s					
FYU	**Fort Yukon**	**65.59**	**24**	IAmb	IAmb	19 16 24.4
	comp=Z,22nm,1.1s					
SCRK	**Sand Creek**	**65.61**	**27**	IAmb	IAmb	19 15 38.9
	comp=Z,19nm,1.1s					
MCARA	**McCarthy VSAT**	**65.64**	**30**	IAmb	IAmb	19 15 40.6
	comp=Z,34nm,1.0s					
L26K	**Log Cabin Wild**	**65.73**	**28**	IAmb	IAmb	19 15 40.1
	comp=Z,12nm,0.9s					
BMAR	**Burnt Mountain**	**66.03**	**23**	P	**P**	**19 15 41.2 +0.8**
GRNC	**Granite Creek**	**66.17**	**31**	IAmb	IAmb	19 15 43.2
	comp=Z,19nm,0.8s					
G26K	**Porcupine Rive**	**66.23**	**24**	IAmb	IAmb	19 15 43.8
	comp=Z,14nm,0.8s					
BCAR	**Beaver Creek A**	**66.44**	**28**	P	**P**	**19 15 43.4 +0.2**
LOGN	**Logan Glacier**	**66.55**	**31**	IAmb	IAmb	19 15 46.8
	comp=Z,17nm,1.0s					
O28M	**Mount Upton**	**66.94**	**31**	IAmb	IAmb	19 15 48.5
	comp=Z,34nm,1.1s					
E27K	**Coleen River**	**67.28**	**23**	IAmb	IAmb	19 15 50.1
	comp=Z,10.0nm,0.7s					
BVAR	**Borovoye Array**	**67.35**	**321**	P	**P**	**19 15 48.1 -0.8**
	comp=Z,4.9nm,0.7s,baz=92,slow=7.7,SNR=28					
	comp=Z,4.9nm,0.7s					
BORK	**Borovoye**	**67.40**	**321**	P	**P**	**19 15 49.3 0.0**
BORK				pmax	pmax	
	comp=Z,7.0nm,0.7s					
BORK	**Borovoye**	**67.40**	**321**	P	**P**	**19 15 49.2 0.0**
KKAR	**Karatay Array**	**67.53**	**310**	P	**P**	**19 15 49.8 -0.5**
KKAR	**Karatay Array**	**67.53**	**310**	P	**P**	**19 15 49.8 -0.5**
F28M	**Old Crow**	**67.84**	**23**	IAmb	IAmb	19 15 53.6
	comp=Z,12nm,0.8s					
L29M	**L29M**	**68.10**	**28**	IAmb	IAmb	19 15 55.8
	comp=Z,25nm,0.8s					
J29N	**Klondike Camp**	**68.17**	**27**	IAmb	IAmb	19 15 55.9
	comp=Z,10nm,0.8s					
HYT	**Haines Junctio**	**68.26**	**31**	IAmb	IAmb	19 15 57.0
	comp=Z,27nm,0.9s					
H29M	**Whitestone**	**68.27**	**25**	IAmb	IAmb	19 15 55.9
	comp=Z,11nm,0.8s					
G29M	**Pine Creek**	**68.47**	**24**	IAmb	IAmb	19 15 57.8
	comp=Z,16nm,0.9s					
N30M	**Aishikik Lake**	**68.49**	**30**	IAmb	IAmb	19 15 58.2
	comp=Z,19nm,0.8s					
EPYK	**Eagle Plains**	**68.94**	**25**	IAmb	IAmb	19 16 00.1
	comp=Z,12nm,0.6s					
N31M	**Braeburn, Yuko**	**69.12**	**30**	IAmb	IAmb	19 16 02.0
	comp=Z,30nm,0.9s					
WHY	**Whitehorse**	**69.54**	**31**	IAmb	IAmb	19 16 04.6
	comp=Z,22nm,0.9s					
M31M	**Drury Creek, Y**	**69.79**	**29**	IAmb	IAmb	19 16 05.5
	comp=Z,12nm,0.8s					
F31M	**Tsiigehtchic**	**70.17**	**24**	IAmb	IAmb	19 16 06.9
	comp=Z,14nm,0.7s					
INK	**Inuvik**	**70.28**	**23**	IAmb	IAmb	19 16 07.7
	comp=Z,15nm,0.7s					
C36M	**Paulatuk**	**73.67**	**22**	IAmb	IAmb	19 16 27.8
	comp=Z,43nm,1.2s					
AB31	**Akbulak array**	**74.18**	**317**	P	**P**	**19 16 29.0 -1.3**
GNW	**Green Mountain**	**78.08**	**44**	IAmb	IAmb	19 16 54.7
	comp=Z,22nm,0.9s					
SHUK	**Shuksan-Mt. Ba**	**78.53**	**42**	IAmb	IAmb	19 16 56.3
	comp=Z,11nm,0.7s					
YKA	**Yellowknife Ar**	**78.86**	**28**	P	**P**	**19 16 56.1 -0.2**
	comp=Z,6.8nm,0.5s,baz=290,slow=5.4,SNR=35					
	comp=Z,6.8nm,0.5s					
YKA	**Yellowknife Ar**	**78.86**	**28**	P	**P**	**19 16 54.9 -1.3**
YKA	**Yellowknife Ar**	**78.86**	**28**	P	**P**	**19 16 54.9 -1.3**
YKAW1	**Yellowknife Wh**	**78.91**	**28**	IAmb	IAmb	19 16 57.3
	comp=Z,19nm,0.9s					
WIFE	**Three Sisters-**	**79.60**	**47**	IAmb	IAmb	19 17 02.4
	comp=Z,22nm,0.7s					
M03C	**McCloud**	**80.08**	**50**	IAmb	IAmb	19 17 05.7
	comp=Z,20nm,0.9s					
EPH	**Ephrata**	**80.26**	**43**	IAmb	IAmb	19 17 05.0
	comp=Z,17nm,0.6s					
E07A	**Sunnyside**	**80.30**	**44**	IAmb	IAmb	19 17 06.2
	comp=Z,15nm,0.9s					
RES	**Resolute Bay**	**80.41**	**14**	IAmb	IAmb	19 17 05.5
	comp=Z,14nm,0.7s					
O03E	**Paynes Creek**	**80.57**	**51**	IAmb	IAmb	19 17 07.3
	comp=Z,22nm,1.1s					
K05A	**Summer Lake**	**80.59**	**48**	IAmb	IAmb	19 17 07.9
	comp=Z,25nm,0.7s					
D08A	**Wollman Farm,**	**80.78**	**44**	IAmb	IAmb	19 17 09.1
	comp=Z,64nm,1.9s					
ORV	**Oroville**	**80.98**	**51**	IAmb	IAmb	19 17 09.6
	comp=Z,23nm,1.2s					
C09A	**Chrisman Ranch**	**81.00**	**43**	IAmb	IAmb	19 17 09.4
	comp=Z,53nm,1.6s					
AFDM	**Forest Hills D**	**81.54**	**52**	IAmb	IAmb	19 17 12.7
	comp=Z,19nm,1.3s					
NEW	**Newport**	**81.61**	**42**	IAmb	IAmb	19 17 12.7
	comp=Z,16nm,1.0s					
BEKR	**Beckworth**	**81.75**	**51**	IAmb	IAmb	19 17 13.7
	comp=Z,14nm,0.8s					
PNTR	**Pine Nut**	**82.53**	**51**	IAmb	IAmb	19 17 18.4
	comp=Z,21nm,0.9s					
PKD	**Bear Valley Ra**	**82.70**	**55**	IAmb	IAmb	19 17 18.9
	comp=Z,17nm,0.8s					
ARCES	**ARCESS Array B**	**83.52**	**342**	P	**P**	**19 17 20.8 0.0**
	comp=Z,0.8nm,0.5s,baz=72,slow=5.2,SNR=8.3					
	comp=Z,0.8nm,0.5s					
ARCES	**ARCESS Array B**	**83.52**	**342**	P	**P**	**19 17 20.2 -0.6**
ARCES				pmax	pmax	
	comp=Z,42nm,1.5s					
ARCES	**ARCESS Array B**	**83.52**	**342**	P	**P**	**19 17 20.2 -0.6**
ARCES				IAmb	IAmb	19 18 33.8
	comp=Z,41nm,1.4s					
KVN	**Kaiserville**	**83.66**	**51**	IAmb	IAmb	19 17 23.7
	comp=Z,34nm,1.4s					
NVAR	**Mina Array Bea**	**83.69**	**52**	P	**P**	**19 17 23.3 +0.7**
	comp=Z,7.8nm,0.5s,baz=275,slow=5.7,SNR=30					
	comp=Z,7.8nm,0.5s					
NVAR	**Mina Array Bea**	**83.69**	**52**	P	**P**	**19 17 22.9 +0.3**
NV11	**Mina Array Sit**	**83.80**	**52**	IAmb	IAmb	19 17 24.6
	comp=Z,17nm,1.2s					
MFID	**Camas Ranch**	**83.94**	**46**	IAmb	IAmb	19 17 25.2
	comp=Z,17nm,0.9s					
TPH	**Tonopah**	**84.61**	**52**	IAmb	IAmb	19 17 28.5
	comp=Z,14nm,1.1s					
GBMT	**Granite Butte,**	**85.05**	**42**	IAmb	IAmb	19 17 30.3
	comp=Z,16nm,1.0s					
ELK	**Elko**	**85.22**	**49**	IAmb	IAmb	19 17 31.8
	comp=Z,12nm,0.8s					
BCYI	**Bear Canyon**	**85.31**	**45**	IAmb	IAmb	19 17 32.2
	comp=Z,67nm,1.9s					
PRN	**Pahroc Range**	**86.45**	**52**	IAmb	IAmb	19 17 38.0
	comp=Z,16nm,1.2s					
YHL	**Hebgen Lake**	**86.60**	**44**	IAmb	IAmb	19 17 39.0
	comp=Z,16nm,0.8s					
PFO	**Pinyon Flats O**	**86.61**	**56**	P	**P**	**19 17 37.3 +0.3**
PFO				pmax	pmax	
	comp=Z,10.0nm,1.2s					
PFO	**Pinyon Flats O**	**86.61**	**56**	P	**P**	**19 17 37.3 +0.3**
PFO	**Pinyon Flats O**	**86.61**	**56**	P	**P**	**19 17 37.2 +0.1**
XPFO	**Pinon Flat**	**86.61**	**56**	P	**P**	**19 17 37.2 +0.1**
YHB	**Horse Butte**	**86.63**	**44**	IAmb	IAmb	19 17 39.1
	comp=Z,11nm,0.9s					
YMR	**Madison River**	**86.81**	**44**	IAmb	IAmb	19 17 40.1
	comp=Z,10nm,0.7s					
PSUT	**Pine Spring**	**86.96**	**51**	IAmb	IAmb	19 17 40.1
	comp=Z,16nm,0.8s					
YFT	**Old Faithful**	**86.98**	**44**	IAmb	IAmb	19 17 42.0
	comp=Z,11nm,0.7s					
YNR	**Norris Junctio**	**86.98**	**44**	IAmb	IAmb	19 17 41.6
	comp=Z,17nm,1.0s					
SPUT	**South Promonto**	**87.01**	**48**	IAmb	IAmb	19 17 40.4
	comp=Z,20nm,1.1s					
DUG	**Dugway, Tooele**	**87.14**	**49**	IAmb	IAmb	19 17 41.0
	comp=Z,20nm,0.8s					
H17A	**Grant Village**	**87.17**	**44**	IAmb	IAmb	19 17 43.5
	comp=Z,13nm,1.1s					
AHID	**Auburn Hatcher**	**87.42**	**46**	IAmb	IAmb	19 17 43.0
	comp=Z,44nm,1.7s					
HWUT	**Hardware Ranch**	**87.52**	**47**	IAmb	IAmb	19 17 42.7
	comp=Z,18nm,0.8s					
NLU	**North Lily Min**	**87.76**	**49**	IAmb	IAmb	19 17 43.9
	comp=Z,15nm,0.8s					
FINES	**FINESS Array B**	**87.88**	**335**	P	**P**	**19 17 41.1 -1.2**
	comp=Z,2.6nm,0.8s,baz=63,slow=4.6,SNR=11					
	comp=Z,2.6nm,0.8s					
FINES	**FINESS Array B**	**87.88**	**335**	P	**P**	**19 17 40.9 -1.4**
FINES	**FINESS Array B**	**87.88**	**335**	P	**P**	**19 17 40.9 -1.4**
FFC	**Flin Flon**	**87.91**	**33**	P	**P**	**19 17 42.4 -0.2**
FFC				pmax	pmax	
	comp=Z,16nm,0.9s					
FFC	**Flin Flon**	**87.91**	**33**	P	**P**	**19 17 42.4 -0.2**
FFC				IAmb	IAmb	19 17 43.4
	comp=Z,16nm,0.8s					
FFC	**Flin Flon**	**87.91**	**33**	P	**P**	**19 17 42.5 -0.2**
FFC				pP	**pwP**	**19 18 28.8 +1.4**
LCMT	**Little Creek M**	**87.94**	**52**	IAmb	IAmb	19 17 45.2
	comp=Z,18nm,1.4s					
GLA	**Glass**	**88.08**	**56**	IAmb	IAmb	19 17 45.4
	comp=Z,13nm,0.7s					
BLYC	**Blythe**	**88.08**	**55**	IAmb	IAmb	19 17 45.3
	comp=Z,8.3nm,0.8s					
W13A	**Hualapai Mount**	**88.12**	**54**	IAmb	IAmb	19 17 45.8
	comp=Z,6.0nm,0.7s					
KNB	**Kanab**	**88.26**	**52**	IAmb	IAmb	19 17 47.0
	comp=Z,22nm,1.0s					
PD31	**Pinedale Array**	**88.47**	**45**	IAmb	IAmb	19 20 42.2
	comp=Z,16nm,1.9s					
PDAR	**Pinedale Array**	**88.47**	**45**	P	**P**	**19 17 45.5 -0.3**
	comp=Z,1.1nm,0.5s,baz=219,slow=1.3,SNR=17					
	comp=Z,1.1nm,0.5s					
TMUT	**Trail Mountain**	**88.62**	**49**	IAmb	IAmb	19 17 48.2
	comp=Z,11nm,0.8s					
Q16A	**Castle Valley**	**88.79**	**49**	IAmb	IAmb	19 17 49.1
	comp=Z,16nm,0.8s					
U15A	**North Rim**	**88.87**	**52**	IAmb	IAmb	19 17 49.7
	comp=Z,12nm,0.7s					
P17A	**Butcher Ranch,**	**88.89**	**49**	IAmb	IAmb	19 17 49.4
	comp=Z,13nm,0.9s					
LAO	**LASA Array**	**89.07**	**41**	IAmb	IAmb	19 17 49.1
	comp=Z,7.8nm,0.8s					
P18A	**Preston Nutter**	**89.19**	**49**	IAmb	IAmb	19 17 50.7
	comp=Z,11nm,0.8s					
RDMU	**Red Mountain**	**89.31**	**47**	IAmb	IAmb	19 17 51.1
	comp=Z,14nm,0.7s					
HMU	**Henry Mountain**	**89.47**	**50**	IAmb	IAmb	19 20 48.0
	comp=Z,25nm,1.0s					
O20A	**White River Ci**	**90.41**	**47**	IAmb	IAmb	19 17 55.5
	comp=Z,12nm,0.6s					
PV22	**Blue Mesa, Par**	**90.66**	**49**	IAmb	IAmb	19 17 56.8
	comp=Z,10nm,0.7s					
PV07	**Paradox Valley**	**90.80**	**49**	IAmb	IAmb	19 17 57.8
	comp=Z,22nm,1.2s					
X18A	**Snowflake**	**91.34**	**53**	IAmb	IAmb	19 18 01.1
	comp=Z,8.4nm,1.1s					
MVCO	**Mesa Verde**	**91.39**	**50**	IAmb	IAmb	19 18 00.9
	comp=Z,13nm,1.2s					
TUC	**Tucson**	**91.53**	**55**	P	**P**	**19 18 00.5 +0.4**
TUC				pmax	pmax	
	comp=Z,4.0nm,0.9s					
TUC	**Tucson**	**91.53**	**55**	P	**P**	**19 18 00.5 +0.4**
RSSD	**Black Hills**	**91.57**	**43**	P	**P**	**19 17 59.9 -0.3**
RSSD				pmax	pmax	
	comp=Z,5.0nm,0.8s					
RSSD	**Black Hills**	**91.57**	**43**	P	**P**	**19 17 59.9 -0.3**
RSSD				IAmb	IAmb	19 18 00.7
	comp=Z,5.2nm,0.8s					
ISCO	**Idaho Springs**	**92.39**	**47**	IAmb	IAmb	19 18 05.8
	comp=Z,8.2nm,0.8s					
HSIG		**92.62**	**59**	IAmb	IAmb	19 18 06.5
	comp=Z,10.0nm,0.8s					
ULM	**Lac du Bonnet**	**93.39**	**34**	P	**P**	**19 18 07.2 -1.0**
	comp=Z,3.8nm,0.7s,baz=304,slow=3.6,SNR=3.9					
	comp=Z,3.8nm,0.7s					
TASM	**ASM, Albuq**	**93.81**	**52**	IAmb	IAmb	19 18 12.1
	comp=Z,7.5nm,1.3s					
ANMO	**Albuquerque**	**93.82**	**52**	LR	LR	20 01 12.3
	comp=Z,31nm,19.2s,baz=1.0,slow=36					
ANMO	**Albuquerque**	**93.82**	**52**	P	**P**	**19 18 11.1 +0.3**
ANMO				pmax	pmax	
	comp=Z,9.0nm,1.3s					
ANMO	**Albuquerque**	**93.82**	**52**	P	**P**	**19 18 11.1 +0.3**
ANMO				IAmb	IAmb	19 18 12.8
	comp=Z,8.5nm,1.3s					
ALQ	**Albuquerque**	**93.82**	**52**	IAmb	IAmb	19 18 12.1
	comp=Z,6.8nm,1.2s					
ALQ	**Albuquerque**	**93.82**	**52**	IAmb	IAmb	19 18 12.0
	comp=Z,7.5nm,1.3s					
MNTX	**Cornudas Mount**	**95.99**	**54**	IAmb	IAmb	19 18 21.4
	comp=Z,3.0nm,0.8s					
TXAR	**Lajitas Array**	**98.33**	**56**	P	Pdif	19 18 31.4 +0.2
	comp=Z,0.4nm,0.5s,baz=274,slow=3.0,SNR=7.0					
	comp=Z,0.4nm,0.5s					
TXAR	**Lajitas Array**	**98.33**	**56**	P	**P**	**19 18 31.1 -0.1**
TXAR	**Lajitas Array**	**98.33**	**56**	P	**P**	**19 18 31.1 -0.1**
TORD	**Torodi Ar. Bea**	**133.20**	**308**	SKPbc	**SKPbc**	**19 27 16.4 -5.0**
	comp=Z,2.9nm,0.8s,baz=31,slow=2.6,SNR=9.9					
AC05	**El Transito**	**145.14**	**115**		**PKPbc**	**19 24 29.8 -0.5**
PSGCX	**Pisagua**	**145.92**	**99**	PKPbc	**PKPdf**	**19 24 32.0 +0.2**
BOAV	**Boa Vista**	**147.27**	**55**		**PKPbc**	**19 24 36.3 -0.4**
LPAZ	**La Paz**	**147.52**	**93**	PKPbc	**PKPbc**	**19 24 38.5 +0.4**
	comp=Z,9.5nm,0.5s,baz=256,slow=4.5,SNR=29					
SMTB	**Santa Maria do**	**164.30**	**58**		**PKPab**	**19 25 51.4 0.0**

*IDC **18** 19:07:51.4±0.8, 5˚.91S×122˚.56E, h0km, mb4.2/7, mbtmp4.1/11, ML3.7/4, MS3.1/7, Error ellipse: s-maj=26.6km s-min=12.0km az=55.0*
*NEIC **18** 19:07:52.5±2.0, 6˚.04S±0˚.04×122˚.58E±0˚.05, h10km±1km, mb4.5/15, Error ellipse: s-maj=9.9km s-min=5.0km az=125.0*
*DJA **18** 19:07:53.5±0.4, 6˚S±1˚×12˚3E±˚, h16km±3km, M4.3/35, mB4.8/6, mb4.6/9, MLv4.3/35, Mw(mB)4.1/6*

ISC 18 19:07:52.2±1.8, 6˚.02S±0˚.05×122˚.57E±0˚.06, h10km±12km, n67, σ1°28/66, mb4.6/12, Flores Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BBSI	**Bau Bau**	**0.53**	**0**	P	**Pg**	**19 08 02.4**	**0.0**
BBSI				S	**Sb**	**19 08 11.6**	**+0.5**
BBSI				AML	AML		
KDI	**Kendari**	**2.04**	**1**	P	**Pn**	**19 08 25.3**	**-1.4**
KKSI	**Kolaka, Sulawe**	**2.05**	**333**	P	**Pn**	**19 08 25.3**	**-1.4**
KKSI				S	**Sn**	**19 08 50.0**	**-2.3**
KKSI				AML	AML		
BSSI	**Bau Bau, Buton**	**2.07**	**266**	P	**Pn**	**19 08 26.1**	**-0.9**
BSSI				S	**Sn**	**19 08 52.7**	**-0.2**
BSSI				AML	AML		
BKSI	**Bulukumba**	**2.53**	**286**	P	**Pn**	**19 08 32.5**	**-0.8**
BKSI				S	**Sn**	**19 09 03.6**	**-0.6**
BKSI				AML	AML		
MMRI	**Maumere**	**2.62**	**187**	Pn	**Pn**	**19 08 34.3**	**-0.4**
MMRI	**Maumere**	**2.62**	**187**	P	**Pn**	**19 08 36.3**	**+1.7**
MMRI				AML	AML		
EDFI	**Ende, Flores**	**2.85**	**198**	P	**Pn**	**19 08 37.9**	**0.0**
KAPI	**Kappang**	**2.98**	**289**	Pn	**Pn**	**19 08 40.1**	**+0.6**
	22nm,0.3s,baz=113,slow=7.3,SNR=35						
KAPI				Sn	**Sn**	**19 09 15.1**	**-0.1**
	19nm,0.3s,baz=198,slow=20,SNR=7.2						
KAPI				LR	LR	19 09 34.6	
	comp=Z,74nm,18.1s,baz=99,slow=35						
	99nm,0.5s						
KAPI				AML	AML		
KAPI	**Kappang**	**2.98**	**289**		**Pn**	**19 08 39.2**	**-0.2**
KAPI	**Kappang**	**2.98**	**289**	P	**Pn**	**19 08 39.7**	**+0.2**
KAPI				AML	AML		
LBFI	**Labuhan Bajo,**	**3.61**	**227**	P	**Pn**	**19 08 47.5**	**-0.7**
TTSI	**Tana Toraja**	**4.03**	**317**	P	**Pn**	**19 08 53.7**	**-0.2**
SOEI	**Soe**	**4.08**	**156**	Pn	**Pn**	**19 08 56.7**	**+2.0**
SOEI	**Soe**	**4.08**	**156**	P	**Pn**	**19 08 57.7**	**+2.9**
SOEI				AML	AML		
WSI	**Waingapu**	**4.27**	**212**	P	**Pn**	**19 08 57.5**	**+0.2**
WSI				AML	AML		
BATI	**Baumata**	**4.30**	**165**	Pn	**Pn**	**19 09 01.7**	**+4.0**
	8.1nm,0.3s,baz=157,slow=0.9,SNR=19						
BATI				LR	LR	19 10 56.3	
	comp=Z,923nm,20.5s,baz=288,slow=42						
	80nm,0.7s						
BATI				AML	AML		
BATI	**Baumata**	**4.30**	**165**	P	**Pn**	**19 09 00.7**	**+2.9**
BATI				AML	AML		
PMSI	**Majene**	**4.42**	**304**	P	**Pn**	**19 09 00.9**	**+1.6**
PMSI				AML	AML		
DBNI	**Kabupaten Domp**	**4.89**	**239**	P	**Pn**	**19 09 05.8**	**0.0**
DBNI				AML	AML		
MMSI	**Mamuju**	**4.92**	**312**	P	**Pn**	**19 09 07.1**	**+0.8**
MMSI				AML	AML		
LUWI	**Luwuk**	**4.95**	**2**	Pn	**Pn**	**19 09 05.8**	**-0.8**
LUWI	**Luwuk**	**4.95**	**2**	P	**Pn**	**19 09 06.5**	**-0.1**
LUWI				AML	AML		
APSI	**Ampana**	**5.15**	**350**	P	**Pn**	**19 09 09.3**	**-0.1**
	0.6nm1μm87nm,0.9s						
APSI				AML	AML		
SANI	**Sanana**	**5.21**	**41**	P	**Pn**	**19 09 08.6**	**-1.6**
SANI				AML	AML		
PLAI	**Plampang**	**5.51**	**239**	P	**Pn**	**19 09 15.6**	**+1.2**
	0.2nm50nm,0.7s						
PLAI				AML	AML		
GTOI	**Gorontalo**	**6.62**	**4**	P	**Pn**	**19 09 32.7**	**+3.1**
	0.1nm26nm,1.0s						
GTOI				AML	AML		
TOLI2	**Tolitoli**	**7.30**	**346**		**Pn**	**19 09 39.2**	**+0.3**
TOLI2				Sn	**Sn**	**19 11 01.7**	**-0.2**
TNTI	**Ternate**	**8.27**	**36**	Pn	**Pn**	**19 09 51.5**	**-0.8**
TNTI	**Ternate**	**8.27**	**36**	P	**Pn**	19 09 59.4	+7.1
FAKI	**Fak Fak**	**10.13**	**73**	P	**Pn**	**19 10 16.6**	**-1.2**
MTN	**Manton Dam**	**10.83**	**129**	Pn	**Pn**	**19 10 27.7**	**+0.2**
KNRA	**Kununurra**	**11.36**	**148**	Pn	**Pn**	**19 10 34.4**	**-0.3**
FITZ	**Fitzroy Crossi**	**12.38**	**166**	Pn	**Pn**	**19 10 47.5**	**-1.1**
	0.2nm,0.3s,baz=2.0,slow=10,SNR=10						
FITZ				LR	LR	19 16 36.7	
	comp=Z,80nm,21.9s,baz=356,slow=42						
	2.3nm,0.9s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**12.38**	**166**		**Pn**	**19 10 47.4**	**-1.2**
DAV	**Davao City (W)**	**13.34**	**13**	LR	LR	19 16 08.5	
	comp=Z,93nm,19.5s,baz=216,slow=38						
LEM	**Lembang**	**14.88**	**266**	LR	LR	19 17 59.4	
	comp=Z,76nm,21.0s,baz=149,slow=41						
WB0	**Warramunga Arr**	**17.86**	**141**		**Pn**	**19 12 00.3**	**-0.7**
WB0				IAmb	IAmb	19 12 20.8	
	comp=Z,24nm,0.8s						
WRA	**Warramunga Arr**	**17.96**	**142**	Pn	**Pn**	**19 12 00.0**	**-2.2**
	comp=Z,0.2nm,0.3s,baz=315,slow=12,SNR=16						
	comp=Z,2.0nm,0.8s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.96**	**142**	IAmb	IAmb	19 12 23.3	
	comp=Z,2.0nm,1.1s						
WRAB	**Tennant Creek**	**17.96**	**141**	P	**P**	**19 12 03.1**	**+0.5**
WRAB				IAmb	IAmb	19 12 23.8	
	comp=Z,24nm,0.8s						
WR8	**Warramunga Arr**	**18.07**	**141**		**Pn**	**19 12 00.9**	**-2.6**
WR0	**Warramunga Arr**	**18.10**	**141**	Pn	**Pn**	**19 12 01.2**	**-2.6**
WR0				IAmb	IAmb	19 12 22.5	
	comp=Z,36nm,1.2s						
AS31	**Alice Springs**	**20.66**	**149**		**P**	**19 12 31.9**	**-0.4**
ASAR	**Alice Springs**	**20.66**	**149**	P	**P**	**19 12 33.0**	**+0.7**
	comp=Z,1.7nm,0.8s,baz=330,slow=12,SNR=17						
	comp=Z,1.7nm,0.8s						
IPM	**Ipoh**	**23.91**	**295**		**P**	**19 13 07.6**	**+1.2**
IPM				IAmb	IAmb	19 13 09.0	
	comp=Z,14nm,0.9s						
RPSI	**Rantau Prapat**	**25.15**	**289**	P	**P**	**19 13 18.5**	**+0.7**
RPSI				IAmb	IAmb	19 13 20.4	
	comp=Z,14nm,0.9s						
RPSI	**Rantau Prapat**	**25.15**	**289**	P	**P**	**19 13 18.8**	**+1.1**
PSI	**Prapat**	**25.18**	**290**	P	**P**	**19 13 18.8**	**+0.6**
	comp=Z,6.9nm,0.4s,baz=135,slow=5.7,SNR=6.7						
	comp=Z,6.9nm,0.4s						
KSRS	**Korea Array**	**43.53**	**6**	LR	LR	19 36 01.9	
	comp=Z,13nm,19.4s,baz=175,slow=39						
SONM	**Songino Array**	**55.48**	**347**	P	**P**	**19 17 27.3**	**0.0**
	comp=Z,0.6nm,0.6s,baz=165,slow=6.0,SNR=1.9						
	comp=Z,0.6nm,0.6s						
KSH2	**Kashi**	**62.49**	**320**	P	**P**	**19 18 17.4**	**+1.2**
KSH2				sP	pwP	19 18 25.9	+4.8
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MKAR	**Makanchi Array**	**63.53**	**330**	P	**P**	**19 18 23.0**	**+0.2**
	comp=Z,4.5nm,1.0s,baz=128,slow=7.9,SNR=6.8						
	comp=Z,4.5nm,1.0s						
MKAR	**Makanchi Array**	**63.53**	**330**	P	**P**	**19 18 23.2**	**+0.4**
KBL	**Kabul**	**64.58**	**313**	P	**P**	**19 18 29.8**	**-0.4**
**ZAA0

PSI				S	S	19 18 08.3	-0.1	
	44nm,0.5s,baz=110,slow=18,SNR=14							
PSI	**Prapat**	**1.46**	**153**	P	Pn	**19 17 41.7**	**+0.4**	
PSI				P		19 17 42.1		
PSI				S	S	19 18 08.2	-0.1	
PSI				S	S	19 18 08.6	+0.3	
LHMI	**Lhok Sumawe**	**1.72**	**310**	P	Pn	**19 17 44.5**	**+1.1**	
LHMI				S	S	**19 18 13.0**	**+1.0**	
LHMI				AML	AML			
MLSI	**Meulaboh, Aceh**	**1.86**	**275**	P	Pn	**19 17 45.3**	**+0.6**	
MLSI				S	S	**19 18 13.4**	**-0.8**	
MLSI				AML	AML			
SNSI	**Sinabang, Aceh**	**2.56**	**229**	P	Pn	**19 17 51.9**	**-0.1**	
SNSI				AML	AML			
IPM	**Ipoh**	**2.78**	**82**	P	Pn	**19 17 54.4**	**0.0**	
IPM				S	S	**19 18 29.3**	**-2.3**	
IPM				AML	AML			
BSI	**Banda Aceh**	**3.26**	**295**	P	Pn	**19 18 00.7**	**+0.8**	
BSI				AML	AML			
PBSI	**Pulau Batu**	**4.14**	**180**	P	Pn	**19 18 09.5**	**-0.9**	
MASI	**Maura Aman, Be**	**8.23**	**151**	P	Pn	**19 19 04.5**	**+1.8**	
CMAR	**Chiang Mai Arr**	**14.28**	**3**	P	P	**19 20 19.9**	**-0.5**	
	1.7nm,0.8s,baz=195,slow=12,SNR=22							
PALK	**Pallekele**	**17.75**	**281**	P	Pn	**19 21 01.4**	**+0.6**	
	6.3nm,0.9s,baz=94,slow=14,SNR=1.9							
WRA	**Warramunga Arr**	**42.76**	**125**	P	P	**19 24 43.0**	**+0.1**	
	0.3nm,0.7s,baz=314,slow=9.5,SNR=7.4							
WRA				PcP	PcP	**19 26 31.3**	**+0.9**	
	0.2nm,0.5s,baz=311,slow=3.2,SNR=1.4							
	0.3nm,0.7s							
SONM	**Songino Array**	**44.12**	**8**	P	P	**19 24 53.8**	**+0.2**	
	0.8nm,0.4s,baz=185,slow=8.0,SNR=4.4							
	0.8nm,0.4s							
ASAR	**Alice Springs**	**44.37**	**130**	P	P	**19 24 56.5**	**+0.6**	
	0.1nm,0.3s,baz=299,slow=8.4,SNR=4.7							
	0.1nm,0.3s							
MKAR	**Makanchi Array**	**44.72**	**344**	P	P	**19 24 58.2**	**0.0**	
	0.4nm,0.5s,baz=155,slow=8.8,SNR=13							
	0.4nm,0.5s							
KURBB	**Kurchatov Arra**	**49.24**	**344**	P	P	**19 25 33.1**	**+0.2**	
	0.5nm,0.3s,baz=157,slow=7.2,SNR=11							
	0.5nm,0.3s							
ZALV	**Zalesovo Beam**	**50.88**	**350**	P	P	**19 25 45.7**	**+0.4**	
	1.2nm,0.3s,baz=164,slow=7.0,SNR=14							
	1.2nm,0.3s							
BVAR	**Borovoye Array**	**53.89**	**340**	P	P	**19 26 07.0**	**-0.4**	
	0.4nm,0.4s,baz=135,slow=10,SNR=5.7							
	0.4nm,0.4s							
FINES	**FINESS Array B**	**77.93**	**332**	P	P	**19 28 39.8**	**-0.5**	
	1.7nm,0.9s,baz=92,slow=5.7,SNR=4.2							
	1.7nm,0.9s							

*IDC **18** 19:25:26.6±0.8, 20°.57S×174°.06W, h0km, mb3.8/8, mbtmp3.9/10, ML3.9/2, Error ellipse: s-maj=30.7km s-min=15.3km az=124.0*

ISC 18 19:25:28.3±0.8, 20°.6S±0°.2×174°.1W±0°.2, h10km, n12, σ0s67/12, mb3.8/8, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**6.99**	**19**	Pn	Pn	19 27 04.5	-6.3
	5.7nm,0.3s,baz=188,slow=14,SNR=1.8						
AFI				Sn	Sn	19 28 19.1	-11
	5.4nm,0.3s,baz=144,slow=8.7,SNR=1.5						
	16nm,0.2s						
AFI				AML	AML		
DZM	**Mont Dzumac**	**18.23**	**262**	P	Pn	**19 29 41.8**	**+0.2**
	0.2nm,0.3s,baz=77,slow=18,SNR=3.1						
	4.2nm,0.9s						
DZM				AML	AML		
STKA	**Stephens Creek**	**41.09**	**245**	P	P	**19 33 13.1**	**+0.7**
	1.5nm,0.8s,baz=89,slow=12,SNR=3.3						
	1.5nm,0.8s						
ASAR	**Alice Springs**	**48.09**	**256**	P	P	**19 34 08.2**	**-0.3**
	1.1nm,0.8s,baz=96,slow=7.4,SNR=9.3						
	1.1nm,0.8s						
WRA	**Warramunga Arr**	**48.24**	**261**	P	P	**19 34 08.3**	**-1.4**
	0.2nm,0.3s,baz=97,slow=7.3,SNR=20						
WRA				PcP	PcP	**19 35 37.5**	**+0.7**
	0.5nm,0.9s,baz=104,slow=2.8,SNR=2.2						
	0.2nm,0.3s						
VNDA	**Vanda**	**58.18**	**186**	P	P	**19 35 22.4**	**+0.5**
	1.1nm,1.0s,baz=349,slow=3.7,SNR=4.5						
	1.1nm,1.0s						
QSPA	**South Pole Qui**	**69.48**	**180**	P	P	**19 36 36.1**	**-0.7**
	2.6nm,0.9s,baz=46,slow=4.1,SNR=5.0						
	2.6nm,0.9s						
NVAR	**Mina Array Bea**	**78.60**	**41**	P	P	**19 37 30.4**	**-0.1**
	0.9nm,0.7s,baz=217,slow=10,SNR=4.6						
	0.9nm,0.7s						
PDAR	**Pinedale Array**	**86.53**	**42**	P	P	**19 38 11.6**	**-0.3**
	0.6nm,0.9s,baz=261,slow=5.6,SNR=3.9						
	0.6nm,0.9s						
ILAR	**Eielson Array**	**87.63**	**11**	P	P	**19 38 16.8**	**+0.4**
	0.4nm,0.7s,baz=216,slow=7.4,SNR=3.2						
	0.4nm,0.7s						
AKASG	**Malin Array Be**	**144.79**	**334**	PKP	PKPab	**19 45 04.0**	**-0.2**
	0.8nm,0.5s,baz=40,slow=4.4,SNR=4.6						
GERES	**GERESS Array B**	**151.13**	**349**	PKPbc	PKPbc	**19 45 22.0**	**+0.2**
	1.1nm,0.9s,baz=33,slow=3.8,SNR=5.1						

*IDC **18** 19:33:20.6±2.0, 32°.87S×177°.91W, h0km, mb4.0/2, mbtmp4.1/4, ML4.0/2, Error ellipse: s-maj=52.5km s-min=19.7km az=110.0*

*WEL **18** 19:33:21.2±0.7, 33°.5±5°.×17°.8W±1°.5, h20km, M4.6/6, mB5.0/3, ML4.7/7, MLv4.7/6, Mw(mB)4.4/3, Error ellipse: s-maj=20.0km s-min=2.8km az=107.7*

ISC 18 19:33:23.5±1.1, 32°.77S±0°.07×177°.9W±0°.2, h34km, n24, σ1s71/36, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**3.50**	**0**	P	Pn	**19 34 14.4**	**-1.1**
GLKZ				S	Sn	**19 34 54.1**	**-1.6**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**3.51**	**0**	Pn	Pn	**19 34 15.1**	**-0.6**
	23nm,0.3s,baz=180,slow=20,SNR=1.7						
RAO				Sn	Sn	**19 34 54.7**	**-1.3**
	69nm,0.3s,baz=171,slow=19,SNR=2.9						
	100nm,0.5s						
RAO				AML	AML		
RAO	**Raoul Island**	**3.51**	**0**	P	Pn	**19 34 14.0**	**-1.7**
RAO				S	Sn	**19 34 54.9**	**-1.1**
RAO				AML	AML		
RAO				AML	AML		
RIZ	**Raoul Island**	**3.52**	**0**	S	Sn	**19 34 53.9**	**-2.2**
MXZ	**Matakaoa Point**	**5.68**	**212**	S	Sn	**19 35 49.4**	**-0.2**
HAZ	**Te Kaha**	**6.08**	**214**	P	Pn	**19 34 52.1**	**+1.1**
HAZ				S	Sn	**19 36 00.4**	**+1.0**
HAZ				AML	AML		
PUZ	**Puketiti**	**6.13**	**209**	P	Pn	**19 34 49.9**	**-1.8**
PUZ				S	Sn	**19 35 59.7**	**-1.0**
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.30**	**213**	P	Pn	**19 34 53.9**	**-0.2**
RUGZ				S	Sn	**19 36 05.0**	**+0.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.34**	**211**	S	Sn	**19 36 06.1**	**+0.3**
CNGZ	**Carnagh Statio**	**6.51**	**208**	P	Pn	**19 34 55.1**	**-1.7**
CNGZ				S	Sn	**19 36 10.7**	**+0.9**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**6.62**	**210**	S	Sn	**19 36 10.9**	**-1.6**
MWZ	**Matawai**	**6.67**	**212**	P	Pn	**19 34 57.4**	**-1.7**
MWZ				S	Sn	**19 36 13.8**	**-0.1**
MWZ				AML	AML		
URZ	**Urewera**	**6.80**	**215**	Pn	Pn	**19 34 59.6**	**-1.2**
	1.4nm,0.3s,baz=263,slow=5.3,SNR=7.1						
URZ				Sn	Sn	**19 36 15.7**	**-1.4**
	5.8nm,0.3s,baz=146,slow=22,SNR=19						
	3.1nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**6.80**	**215**	P	Pn	**19 34 59.9**	**-1.0**
URZ				S	Sn	**19 36 15.4**	**-1.6**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**6.85**	**212**	P	Pn	**19 34 59.6**	**-2.0**
RAGZ				S	Sn	**19 36 16.8**	**-1.6**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**6.88**	**209**	S	Sn	**19 36 17.9**	**-1.1**
PRGZ	**Paritu Road**	**7.01**	**208**	S	Sn	**19 36 20.5**	**-1.8**
MUGZ	**Murupara**	**7.14**	**216**	S	Sn	**19 36 23.9**	**-1.5**
DVHZ	**Dannevirke**	**8.88**	**211**	P	Pn	19 35 23.6	-5.9
DVHZ				S	Sn	**19 37 03.4**	**-4.9**
CTZ	**Chatham Island**	**10.99**	**175**	P	Pn	**19 35 57.9**	**-0.3**
CTZ				S	Sn	19 37 44.0	-16
ASAR	**Alice Springs**	**43.09**	**269**	P	P	**19 41 23.1**	**+2.5**
	1.0nm,0.6s,baz=105,slow=7.1,SNR=19						
ASAR				PcP	PcP	**19 43 12.7**	**+2.6**
	0.5nm,0.7s,baz=113,slow=3.8,SNR=5.0						
	1.0nm,0.6s						
WRA	**Warramunga Arr**	**44.29**	**275**	P	P	**19 41 32.5**	**+2.2**
	1.2nm,0.3s,baz=113,slow=7.8,SNR=40						
	1.2nm,0.3s						
KURBB	**Kurchatov Arra**	**122.75**	**313**	PKP	PKiKP	**19 52 17.4**	**+1.9**
	0.2nm,0.7s,baz=108,slow=3.0,SNR=2.6						
FINES	**FINESS Array B**	**147.38**	**339**	PKPbc	PKiKP	**19 53 05.0**	**0.0**
	1.9nm,0.8s,baz=49,slow=6.6,SNR=15						

*DJA **18** 19:38:04.1±0.5, 2°.N±6°.×12°.7E±°., h10km, M3.6/9, MLv3.6/9*

*IDC **18** 19:38:09.9±5.5, 2°.13N×127°.23E, h103km±60km, mb3.2/5, mbtmp3.6/6, MS3.0/1, Error ellipse: s-maj=62.5km s-min=19.6km az=76.0*

ISC 18 19:38:06.3±1.2, 2°.1N±0°.1×126°.86E±0°.06, h63km, n11, σ1s49/11, mb3.6/4, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GAMI	**Galela, Maluku**	**0.95**	**103**	P	Pn	**19 38 24.0**	**+0.1**
TNTI	**Ternate**	**1.38**	**158**	P	Pn	**19 38 29.7**	**+0.3**
MNI	**Manado**	**2.11**	**253**	P	Pn	**19 38 38.7**	**-0.7**
MNI				AML	AML		
KMSI	**Cibinong**	**3.23**	**243**	P	Pn	**19 38 55.8**	**+1.1**
SIJI	**Sorong**	**5.28**	**123**	P	Pn	**19 39 24.8**	**+2.1**
	2.1nm,0.3s,baz=338,slow=23,SNR=6.9						
SIJI				S	Sn	**19 40 19.1**	**-3.1**
	3.2nm,0.8s,baz=180,slow=20,SNR=1.7						
FITZ	**Fitzroy Crossi**	**20.07**	**183**	P	P	**19 42 35.8**	**+1.2**
	1.4nm,0.8s,baz=350,slow=9.4,SNR=7.3						
	1.4nm,0.8s						
WRA	**Warramunga Arr**	**23.06**	**162**	P	P	**19 43 06.2**	**-0.5**
	1.1nm,0.4s,baz=342,slow=10,SNR=15						
	1.1nm,0.4s						
KRVT	**Keravat (AS076**	**25.93**	**104**	LR	LR	19 53 24.7	
	comp=Z,31nm,18.9s,baz=195,slow=36						
ASAR	**Alice Springs**	**26.47**	**165**	P	P	**19 43 37.9**	**0.0**
	0.2nm,0.3s,baz=349,slow=13,SNR=8.1						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**59.00**	**326**	P	P	**19 47 59.3**	**-0.3**
	0.2nm,0.4s,baz=126,slow=6.9,SNR=8.3						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**63.21**	**328**	P	P	**19 48 28.2**	**+0.3**
	0.6nm,0.6s,baz=129,slow=6.4,SNR=6.8						
	0.6nm,0.6s						

IDC 18 19:49:00.8±6.8, 30°.80S×178°.25W, h141km±41km, mb3.0/2, mbtmp3.4/2, Error ellipse: s-maj=114.0km s-min=43.5km az=147.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.57**	**11**	P	Pn	19 49 29.8	-0.6
	198nm,0.7s,baz=73,slow=19,SNR=2.0						
RAO				S	Sn	19 49 53.2	+0.2
	185nm,0.5s,baz=120,slow=20,SNR=4.2						
ASAR	**Alice Springs**	**42.87**	**267**	P	P	19 56 45.4	0.0
	0.2nm,0.5s,baz=99,slow=6.7,SNR=1.7						
	0.2nm,0.5s						
WRA	**Warramunga Arr**	**43.90**	**273**	P	P	19 56 53.4	-0.2
	0.3nm,0.3s,baz=110,slow=8.1,SNR=19						
	0.3nm,0.3s						
FINES	**FINESS Array B**	**145.44**	**340**	PKPbc	PKPdf	20 08 20.8	-0.5
	5.1nm,1.0s,baz=27,slow=2.1,SNR=4.4						

*IDC **18** 19:56:50.8±1.5, 12°.01N×123°.58E, h0km, mb3.7/6, mbtmp3.7/6, MS3.1/9, Error ellipse: s-maj=78.4km s-min=18.5km az=58.0*

*MAN **18** 19:56:51.0, 12°.27N×123°.77E, h13km, MS4.4*

MAN INTENSITY IV - DIMASALANG MASBATE; . INTENSITY III - PALANAS MASBATE; CITY OF MASBATE.

ISC 18 19:56:51.4±1.0, 12°.15N±0°.03×123°.66E±0°.05, h11km±8km, n26, σ1s36/23, mb3.7/6, MS3.0/8, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	**Masbate**	**0.21**	**349**	*eP*	**Pg**	**19 56 56.1**	**+0.3**
MMPH				*i* S	**Sg**	**19 56 59.0**	**+0.3**
PLP	**Palo**	**1.62**	**127**	*eP*	**Pn**	**19 57 19.9**	**-0.1**
PLP				*eS*	**Sg**	**19 57 43.1**	**-0.5**
LLP	**Lapu-Lapu**	**1.85**	**171**	*eP*	**Pb**	**19 57 24.5**	**-0.8**
LLP				*eS*	**Sg**	**19 57 51.6**	**+0.6**
GQP	**Guinayangan**	**2.11**	**326**	*eP*	**Pn**	**19 57 26.9**	**+0.2**
GQP				*i* S	**Sb**	**19 57 57.7**	**+1.8**
JAP	**San Jose, Anti**	**2.19**	**230**	*eP*	**Pg**	**19 57 32.7**	**-0.7**
JAP				*eS*	**Sg**	**19 58 02.1**	**+0.3**
TBP	**Tagbilaran**	**2.46**	**175**	*eP*	**Pn**	**19 57 33.1**	**+1.6**
TBP				*i* S	**Sb**	**19 58 05.2**	**-0.8**
LQP	**Lukban**	**2.84**	**313**	*eP*	**Pn**	**19 57 37.8**	**+0.8**
TGY	**Tagaytay City**	**3.29**	**306**	*eP*	**Pn**	**19 57 39.8**	**-3.2**
PCPS	**Palayan City**	**3.55**	**315**	*eP*	Pg	19 58 06.6	+7.1
PCPS				*eS*	Sg	19 59 02.1	+17
DCPH	**Dipolog City**	**3.56**	**185**	*eP*	**Pn**	**19 57 48.4**	**+1.7**
CGP	**Cagayan de Oro**	**3.81**	**164**	*eP*	**Pg**	**19 58 04.2**	**-0.3**
KAPI	**Kappang**	**17.49**	**193**	LR	LR	20 07 49.9	
	comp=Z,50nm,20.7s,baz=32,slow=38						
GUMO	**Guam**	**20.72**	**84**	LR	LR	20 08 06.8	
	comp=Z,23nm,19.3s,baz=238,slow=32						
JAY	**Jayapura**	**22.34**	**130**	LR	LR	20 11 40.9	
	comp=Z,62nm,18.8s,baz=42,slow=40						
CMAR	**Chiang Mai Arr**	**24.64**	**288**	P	P	**20 02 13.2**	**+0.8**
	0.6nm,0.3s,baz=102,slow=10,SNR=7.8						
CMAR				LR	LR	20 12 30.9	
	comp=Z,14nm,18.2s,baz=340,slow=38						
	0.6nm,0.3s						
KSRS	**Korea Array**	**25.48**	**8**	LR	LR	20 12 14.3	
	comp=Z,32nm,19.8s,baz=190,slow=36						
PSI	**Prapat**	**26.20**	**251**	LR	LR	20 15 46.0	
	comp=Z,39nm,18.1s,baz=87,slow=44						
WRA	**Warramunga Arr**	**33.58**	**162**	P	P	**20 03 31.0**	**-0.9**
	0.5nm,0.5s,baz=342,slow=9.2,SNR=9.5						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**36.98**	**164**	P	P	**20 04 01.5**	**+0.3**
	1.4nm,0.8s,baz=342,slow=6.9,SNR=15						
	1.4nm,0.8s						
HEH	**HeiHe**	**38.11**	**4**	*eP*	**P**	**20 04 08.6**	**-1.8**
SONM	**Songino Array**	**38.40**	**341**	LR	LR	20 20 50.1	
	comp=Z,47nm,18.6s,baz=218,slow=37						
STKA	**Stephens Creek**	**47.03**	**159**	P	P	**20 05 23.4**	**+0.2**
	1.5nm,0.6s,baz=276,slow=6.6,SNR=3.5						
	1.5nm,0.6s						
MKAR	**Makanchi Array**	**48.99**	**323**	P	P	**20 05 38.0**	**-0.3**
	0.6nm,0.8s,baz=128,slow=7.9,SNR=4.7						
	0.6nm,0.8s						
KURBB	**Kurchatov Arra**	**53.08**	**326**	P	P	**20 06 11.6**	**+2.8**
	1.3nm,1.0s,baz=126,slow=6.8,SNR=7.0						
	1.3nm,1.0s						
TIXI	**Tiksi**	**59.54**	**2**	LR	LR	20 33 30.4	
	comp=Z,30nm,19.3s,baz=198,slow=37						
NOA	**NORSAR Array B**	**89.94**	**333**	LR	LR	20 55 29.1	
	comp=Z,7.4nm,18.1s,baz=350,slow=39						

*SFS **18** 19:57:04.5, 36°.43N×4°.58W, h83km, ML2.9/19, MLv2.8/19*

*MDD **18** 19:57:04.7±0.3, 36°.42N×4°.60W, h73km±4km, Mb2.9/31, Error ellipse: s-maj=2.5km s-min=1.7km az=154.0*

*CNRM **18** 19:57:04.1, 36°.25N×4°.77W, h91km, ML1.8*

*IGIL **18** 19:57:05.5, 36°.43N×4°.60W, h74km, ML2.0*

*INMG **18** 19:57:05.3±1.8, 36°.51N×4°.63W, h71km±5km, ML2.2, Error ellipse: s-maj=3.3km s-min=2.5km az=141.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Malaga (ESP)*

ISC 18 19:57:02.4±1.2, 36°.42N±0°.02×4°.58W±0°.02, h89km±6km, n97, σ1s53/186, 20C, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMIJ	**Mijas**	**0.21**	**313**	P	Pn	**19 57 15.4**	**0.0**
EMIJ				S	Sn	**19 57 24.1**	**-0.9**
EMIJ	**Mijas**	**0.21**	**313**	P	Pn	**19 57 15.2**	**-0.2**
EMIJ				S	Sn	**19 57 23.2**	**-1.8**
EMAL	**Malaga-Limoner**	**0.36**	**20**	P	Pn	**19 57 16.1**	**0.0**
EMAL				S	Sn	**19 57 26.6**	**+0.4**
EGOR	**Sierra Gorda,**	**0.78**	**29**	P	Pn	**19 57 21.8**	**+1.9**
EGOR				S	Sn	**19 57 34.3**	**+1.5**
EGOR	**Sierra Gorda,**	**0.78**	**29**	P	Pn	**19 57 20.8**	**+1.0**
EGOR				S	Sn	**19 57 33.2**	**+0.3**
ECEU	**Ceuta**	**0.83**	**231**	P	Pn	**19 57 21.7**	**+1.5**
ECEU				S	Sn	**19 57 34.5**	**+1.0**
ECEU	**Ceuta**	**0.83**	**231**	P	Pn	**19 57 20.8**	**+0.7**
ECEU				S	Sn	**19 57 33.9**	**+0.5**
ELGU	**Los Guajares,**	**0.89**	**60**	P	Pn	**19 57 20.7**	**-0.1**
ELGU				S	Sn	**19 57 33.8**	**-0.9**
ELGU	**Los Guajares,**	**0.89**	**60**	P	Pn	**19 57 20.9**	**+0.1**
ELGU				⇑IVmb_VC		19 57 23.6	
	296nm,SNR=6.0						
ELGU				S	Sn	**19 57 33.5**	**-1.2**
SMIR	**Smir Dam**	**0.98**	**221**	P	Pn	**19 57 22.1**	**+0.3**
SMIR				S	Sn	**19 57 34.9**	**-1.5**
ESPR	**Espera**	**1.12**	**294**	P	Pn	**19 57 25.1**	**+1.7**
ESPR				S	Sn	**19 57 40.8**	**+1.6**
ESPR	**Espera**	**1.12**	**294**	P	Pn	**19 57 23.8**	**+0.4**
ESPR				⇑IVmb_VC		19 57 26.0	
	276nm,SNR=3.7						
ESPR				S	Sn	**19 57 39.3**	**+0.2**
EQTA	**Presa de Quent**	**1.20**	**49**	P	Pn	**19 57 26.1**	**+1.5**
EQTA				S	Sn	**19 57 42.5**	**+1.3**
EQUE	**Quentar**	**1.20**	**49**	P	Pn	**19 57 25.6**	**+1.1**
EQUE				⇑IVmb_VC		19 57 29.6	
	137nm,SNR=3.1						
EQUE				S	Sn	**19 57 41.1**	**-0.1**
PALE	**Palemas**	**1.31**	**156**	P	Pn	**19 57 26.0**	**+0.2**
PALE				S	Sn	**19 57 43.3**	**-0.1**
EBER	**Berja**	**1.44**	**70**	P	Pn	**19 57 29.6**	**+2.0**
EBER				S	Sn	**19 57 46.2**	**-0.4**
EBER	**Berja**	**1.44**	**70**	P	Pn	**19 57 28.4**	**+0.8**
EBER				⇑IVmb_VC		19 57 33.1	
	93nm,SNR=1.2						
EBER				S	Sn	**19 57 45.6**	**-1.0**
EADA	**Adamuz**	**1.74**	**0**	P	Pn	**19 57 32.8**	**+1.6**
EADA				S	Sn	**19 57 52.7**	**-0.4**
EADA	**Adamuz**	**1.74**	**0**	P	Pn	**19 57 32.8**	**+1.6**
EADA				⇑IVmb_VC		19 57 33.1	
	215nm,SNR=2.7						
EADA				S	Sn	**19 57 52.3**	**-0.8**
ECAB	**El Cabril**	**1.78**	**338**	P	Pn	**19 57 32.5**	**+0.8**
ECAB				S	Sn	**19 57 52.7**	**-1.3**
ECAB	**El Cabril**	**1.78**	**338**	P	Pn	**19 57 32.7**	**+0.9**
ECAB				⇑IVmb_VC		19 57 37.8	
	112nm,SNR=1.2						
ECAB				S	Sn	**19 57 52.9**	**-1.1**
EQES	**Quesada**	**1.83**	**41**	P	Pn	**19 57 34.1**	**+1.6**
EQES				⇑IVmb_VC		19 57 36.9	
	122nm,SNR=1.3						
EQES				S	Sn	**19 57 55.0**	**-0.3**
E0802	**Ubeda,Jaen**	**1.87**	**31**	P	Pn	**19 57 33.8**	**+0.9**
E0802				S	Sn	**19 57 55.5**	**-0.6**
AKLM	**AKL**	**2.00**	**163**	P	Pn	**19 57 34.1**	**-0.6**
AKLM				S	Sn	**19 57 56.6**	**-2.6**
EMIN	**Mina Concepcio**	**2.14**	**309**	P	Pn	**19 57 36.7**	**+0.3**
EMIN				S	Sn	**19 58 01.1**	**-1.4**
EMIN	**Mina Concepcio**	**2.14**	**309**	⇑P	Pn	**19 57 37.4**	**+0.9**
EMIN				⇑IVmb_VC		19 57 37.8	
	233nm,SNR=2.8						
EMIN				S	Sn	**19 58 01.1**	**-1.4**
TAF	**Taforalt**	**2.39**	**132**	P	Pn	**19 57 41.2**	**+1.4**
TAF				S	Sn	**19 58 10.6**	**+2.2**
SICH	**Sidi Chahed**	**2.39**	**195**	P	Pn	**19 57 38.9**	**-0.8**
SICH				S	Sn	**19 58 07.7**	**-0.7**
PSIM	**Granatula de C**	**2.48**	**15**	P	Pn	**19 57 42.5**	**+1.5**
PSIM				S	Sn	**19 58 09.1**	**-1.6**
EGRO	**El Granado**	**2.57**	**296**	P	Pn	**19 57 42.9**	**+0.7**
EGRO				S	Sn	**19 58 11.4**	**-1.3**
EGRO	**El Granado**	**2.57**	**296**	P	Pn	**19 57 43.4**	**+1.2**
EGRO				S	Sn	**19 58 10.7**	**-2.0**
PBAR	**Barrancos**	**2.63**	**312**	P	Pn	**19 57 44.1**	**+1.2**
PBAR				S	Sn	**19 58 12.7**	**-1.2**
PBAR	**Barrancos**	**2.63**	**312**	*eP*	Pn	**19 57 43.9**	**+1.0**
PBAR				*eS*	Sn	**19 58 12.6**	**-1.3**
PBAR				IAML		19 58 14.4	
PBAR				IAML		19 58 15.1	
PBAR				IAML		19 58 15.6	
JBK	**JBK**	**2.66**	**141**	P	Pn	**19 57 44.2**	**+0.7**
JBK				S	Sn	**19 58 15.5**	**+0.5**
PVAQ	**Vaqueiros**	**2.70**	**292**	P	Pn	**19 57 44.9**	**+1.1**
PVAQ				S	Sn	**19 58 15.8**	**+0.1**
PVAQ	**Vaqueiros**	**2.70**	**292**	*eP*	Pn	**19 57 44.9**	**+1.1**
PVAQ				*eS*	Sn	**19 58 14.6**	**-1.0**
PVAQ				IAML		19 58 15.2	
PVAQ				IAML		19 58 16.1	
PVAQ				IAML		19 58 18.1	
PBDV	**Barranco-do-Ve**	**2.81**	**288**	P	Pn	**19 57 46.7**	**+1.3**
PBDV				S	Sn	**19 58 18.6**	**+0.2**
PBDV	**Barranco-do-Ve**	**2.81**	**288**	*eP*	Pn	**19 57 46.9**	**+1.5**
PBDV				*eS*	Sn	**19 58 18.3**	**-0.1**
PBDV				IAML		19 58 19.6	
PBDV				IAML		19 58 20.1	
PBDV				IAML		19 58 20.1	
PCVE	**Castro Verde**	**3.02**	**295**	P	Pn	**19 57 49.3**	**+1.2**
PCVE				S	Sn	**19 58 22.2**	**-1.2**
PCVE	**Castro Verde**	**3.02**	**295**	*eP*	Pn	**19 57 49.3**	**+1.2**
PCVE				*eS*	Sn	**19 58 22.7**	**-0.7**
PCVE				IAML		19 58 24.4	
PCVE				IAML		19 58 24.9	
PCVE				IAML		19 58 25.0	
EBAD	**Badajoz**	**3.02**	**321**	P	Pn	**19 57 49.6**	**+1.3**
EBAD				S	Sn	**19 58 22.8**	**-0.8**
EBAD	**Badajoz**	**3.02**	**321**	P	Pn	**19 57 49.5**	**+1.3**
EBAD				⇑IVmb_VC		19 57 50.3	
	205nm,SNR=2.0						
EBAD				S	Sn	**19 58 22.

EVO	**Evora**	**3.45**	**309**	*eP*		**Pn**	**19 57 55.8**	**+1.8**
EVO				*eS*		**Sn**	**19 58 32.4**	**-1.3**
EVO				IAML			19 58 34.1	
EVO				IAML			19 58 34.3	
EVO				IAML			19 58 34.4	
PLOUS	**Minas do Lousa**	**3.46**	**299**	*eP*		**Pn**	**19 57 55.5**	**+1.4**
PLOUS				*eS*		**Sn**	**19 58 32.0**	**-2.0**
PLOUS				IAML			19 58 33.9	
PLOUS				IAML			19 58 34.1	
PLOUS				IAML			19 58 34.4	
PFVI	**Vila Bisbo**	**3.48**	**283**	P		**Pn**	**19 57 56.5**	**+2.1**
PFVI				S		**Sn**	**19 58 33.4**	**-1.1**
PFVI	**Vila Bisbo**	**3.48**	**283**	*eP*		**Pn**	**19 57 56.1**	**+1.7**
PFVI				*eS*		**Sn**	**19 58 33.4**	**-1.1**
PFVI				IAML			19 58 34.0	
PFVI				IAML			19 58 35.3	
PFVI				IAML			19 58 35.4	
PTEO	**Sao Teotonio**	**3.50**	**290**	*eP*		**Pn**	**19 57 56.7**	**+2.0**
PTEO				*eS*		**Sn**	**19 58 35.0**	**0.0**
PTEO				IAML			19 58 38.4	
PTEO				IAML			19 58 38.5	
PTEO				IAML			19 58 40.0	
PTEO	**Sao Teotonio**	**3.50**	**290**	P		**Pn**	**19 57 55.7**	**+1.1**
PTEO				S		**Sn**	**19 58 33.8**	**-1.3**
MD31	**MD31**	**3.55**	**182**	P		**Pn**	**19 57 55.8**	**+0.3**
MD31				S		**Sn**	**19 58 35.4**	**-1.0**
MDT	**Midelt**	**3.60**	**180**	P		**Pn**	**19 57 56.3**	**+0.1**
MDT				S		**Sn**	**19 58 36.0**	**-1.6**
PARRA	**Arraiolos**	**3.64**	**312**	*eP*		**Pn**	**19 57 58.1**	**+1.6**
PARRA				*eS*		**Sn**	**19 58 36.9**	**-1.5**
PARRA				IAML			19 58 38.6	
PARRA				IAML			19 58 39.0	
PARRA				IAML			19 58 39.3	
MOE	**Montemor**	**3.66**	**306**	*eP*		**Pn**	**19 57 59.3**	**+2.5**
MOE				*eS*		**Sn**	**19 58 37.6**	**-1.3**
MOE				IAML			19 58 39.5	
MOE				IAML			19 58 39.9	
MOE				IAML			19 58 40.2	
PMRV	**Marv??o**	**3.73**	**324**	*eP*		**Pn**	**19 57 59.5**	**+1.7**
PMRV				*eS*		**Sn**	**19 58 39.1**	**-1.6**
PMRV				IAML			19 58 39.7	
PMRV				IAML			19 58 40.2	
PMRV				IAML			19 58 42.0	
EPLA	**Plasencia**	**3.82**	**342**	P		**Pn**	**19 58 00.3**	**+1.3**
EPLA				⇑IVmb_VC			19 58 03.5	
	comp=N,159nm,SNR=1.6							
EPLA				S		**Sn**	**19 58 41.2**	**-1.7**
PMTG	**Montargil**	**3.91**	**314**	*eP*		**Pn**	**19 58 01.7**	**+1.5**
PMTG				*eS*		**Sn**	**19 58 43.2**	**-1.9**
PMTG				IAML			19 58 45.7	
PMTG				IAML			19 58 46.5	
PMTG				IAML			19 58 53.2	
PMTG	**Montargil**	**3.91**	**314**	P		**Pn**	**19 58 01.7**	**+1.5**
PMTG				S		**Sn**	**19 58 43.2**	**-1.9**
AFON	**Font Roja**	**3.91**	**54**	P		**Pn**	**19 58 01.8**	**+1.4**
AFON				⇑IVmb_VC			19 58 05.3	
	comp=N,78nm,SNR=1.1							
AFON				S		**Sn**	**19 58 43.4**	**-1.9**
UCM	**Universidad Co**	**4.02**	**15**	P		**Pn**	**19 58 03.5**	**+1.7**
UCM				S		**Sn**	**19 58 46.0**	**-1.7**
PCBR	**Castelo Branco**	**4.11**	**327**	*eS*		**Sn**	**19 58 47.9**	**-1.8**
PCBR				IAML			19 58 48.0	
PCBR				IAML			19 58 50.8	
PCBR				IAML			19 58 51.4	
PSARD	**Sardoal**	**4.25**	**319**	*eP*		**Pn**	**19 58 06.5**	**+1.7**
PSARD				*eS*		**Sn**	**19 58 50.9**	**-2.3**
PSARD				IAML			19 58 51.7	
PSARD				IAML			19 58 53.9	
PSARD				IAML			19 58 54.4	
ECHE	**Chera**	**4.26**	**41**	P		**Pn**	**19 58 05.6**	**+0.6**
ECHE				S		**Sn**	**19 58 50.6**	**-3.0**
ECHE	**Chera**	**4.26**	**41**	P		**Pn**	**19 58 06.2**	**+1.2**
ECHE				⇑IVmb_VC			19 58 09.2	
	comp=N,89nm,SNR=0.8							
ECHE				S		**Sn**	**19 58 50.2**	**-3.4**
PMAFR	**Mafra**	**4.50**	**306**	S		**Sn**	**19 58 59.0**	**-0.5**
PMAFR	**Mafra**	**4.50**	**306**	*eS*		**Sn**	**19 58 58.0**	**-1.5**
PSBE	**So Bento**	**4.54**	**314**	*eP*		**Pn**	**19 58 11.1**	**+2.4**
PSBE				*eS*		**Sn**	**19 58 59.5**	**-0.8**
EJUZ	**Juzbado, Salam**	**4.77**	**348**	S		**Sn**	**19 59 03.3**	**-2.6**
ETOR	**Torete**	**4.81**	**23**	P		**Pn**	**19 58 13.9**	**+1.4**
ETOR				⇑IVmb_VC			19 58 14.7	
	comp=N,109nm,SNR=1.1							
ETOR				S		**Sn**	**19 59 04.8**	**-2.3**
E0901	**Celadas (Terue**	**4.88**	**33**	P		**Pn**	**19 58 15.0**	**+1.6**
E0901				⇑IVmb_VC			19 58 18.9	
	comp=N,144nm,SNR=1.9							
E0901				S		**Sn**	**19 59 08.4**	**-0.2**
EMOS	**Mosqueruela**	**5.09**	**38**	P		**Pn**	**19 58 18.5**	**+2.1**
EMOS				⇑IVmb_VC			19 58 18.7	
	comp=N,60nm,SNR=1.0							
EMOS				S		**Sn**	**19 59 10.5**	**-3.4**
POLO	**Lamas de Olo**	**5.54**	**334**	*eP*		**Pn**	**19 58 25.1**	**+2.6**
POLO				*eS*		**Sn**	**19 59 23.2**	**-1.7**
POLO				IAML			19 59 25.3	
POLO				IAML			19 59 26.4	
POLO				IAML			19 59 27.0	
POLO	**Lamas de Olo**	**5.54**	**334**	P		**Pn**	**19 58 23.7**	**+1.3**
POLO				S		**Sn**	**19 59 23.0**	**-1.8**
PBRG	**Braganca**	**5.63**	**343**	*eP*		Pn	19 58 28.7	+5.1
PBRG				*eS*		**Sn**	**19 59 25.2**	**-1.7**
PBRG				IAML			19 59 26.7	
PBRG				IAML			19 59 26.7	
PBRG				IAML			19 59 27.0	
ECAL	**Calabor**	**5.76**	**344**	P		**Pn**	**19 58 26.0**	**+0.6**
ECAL				S		**Sn**	**19 59 28.7**	**-1.4**
OUZM	**OUZ**	**5.79**	**199**	P		**Pn**	**19 58 27.2**	**+1.2**
OUZM				S		**Sn**	**19 59 30.9**	**-0.2**
OUK	**Oukaimeden**	**5.88**	**209**	P		**Pn**	**19 58 26.6**	**-0.7**
OUK				S		**Sn**	**19 59 30.3**	**-3.1**
TIO	**Tiouine**	**5.92**	**203**	P		**Pn**	**19 58 28.6**	**+0.9**
TIO				S		**Sn**	**19 59 31.7**	**-2.5**
ELOB	**Lobios**	**6.07**	**335**	P		**Pn**	**19 58 31.0**	**+1.3**
ELOB				S		**Sn**	**19 59 35.3**	**-2.5**
PGAV	**Gavieira, Arco**	**6.23**	**334**	*eS*		**Sn**	**19 59 40.4**	**-1.2**
PGAV				IAML			19 59 40.6	
PGAV				IAML			19 59 43.8	
ELAN	**Lanestosa**	**6.86**	**7**	P		**Pn**	**19 58 42.3**	**+2.0**
ELAN				⇑IVmb_VC			19 58 47.1	
	comp=N,64nm,SNR=0.4							
ELAN				S		**Sn**	**19 59 52.5**	**-4.4**
EARI	**Arriondas**	**6.89**	**356**	P		**Pn**	**19 58 42.4**	**+1.7**
EARI				S		**Sn**	**19 59 53.8**	**-3.8**
EAGO	**Agolada(Pontev**	**6.92**	**338**	S		**Sn**	**19 59 56.0**	**-2.4**

*NOU **18** 20:02:17.5,35°.84S×179°.33E,h286km,MLv4.3/6, Off E. Coast of N. Island, N.Z.*
*WEL **18** 20:02:27.2±0.7,36°.5±.5°×17°.8E±.°,h221km±6km,M3.9/24, mB4.7/6,ML3.7/10,MLv3.9/24,Mw(mB)4.0/6,Error ellipse: s-maj=10.7km s-min=5.5km az=110.7*

ISC 18 20:02:21.5±3.4,35°.8S±0°.1×178°.3E±0°.1,h241km±15km, n55,σ1§97/80,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**1.79**	**179**	P	**Pn**	**20 03 02.5**	**+1.2**
MXZ	**Matakaoa Point**	**1.79**	**179**	P	**Pn**	**20 03 01.8**	**+0.5**
MXZ				S	**S**	**20 03 29.7**	**-3.1**
HAZ	**Te Kaha**	**2.02**	**191**	P	**Pn**	**20 03 04.6**	**+1.3**
HAZ				S	**S**	**20 03 33.4**	**-2.9**
HAZ				AML	AML		
HAZ				AML	AML		
RUGZ	**Raukumara Rang**	**2.24**	**192**	P	**Pn**	**20 03 06.6**	**+1.0**
RUGZ				AML	AML		
RUGZ				AML	AML		
PUZ	**Puketiti**	**2.30**	**180**	P	**Pn**	**20 03 07.8**	**+1.8**
PUZ				S	**S**	**20 03 38.7**	**-2.6**
PUZ				AML	AML		
GRZ	**Great Barrier**	**2.31**	**257**	P	**Pn**	**20 03 06.4**	**+0.2**
TWGZ	**Tauwhareparae**	**2.41**	**185**	P	**Pn**	**20 03 09.4**	**+2.2**
TWGZ				S	**S**	**20 03 42.6**	**-0.8**
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	**Matawai**	**2.63**	**193**	P	**Pn**	**20 03 11.2**	**+1.8**
MWZ				S	**S**	**20 03 46.0**	**-1.2**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**2.65**	**200**	P	**Pn**	**20 03 11.3**	**+1.7**
URZ	**Urewera**	**2.65**	**200**	P	**Pn**	**20 03 11.3**	**+1.7**
URZ				S	**S**	**20 03 46.4**	**-1.2**
URZ				AML	AML		
URZ				AML	AML		
TKGZ	**Te Karaka**	**2.69**	**187**	P	**Pn**	**20 03 11.8**	**+1.9**
TKGZ				S	**S**	**20 03 46.9**	**-1.4**
TKGZ				AML	AML		
TKGZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.71**	**181**	P	**Pn**	**20 03 12.5**	**+2.3**
CNGZ				AML	AML		
CNGZ				AML	AML		
MUGZ	**Murupara**	**2.95**	**203**	P	**Pn**	**20 03 15.6**	**+2.7**
MUGZ				S	**S**	**20 03 51.8**	**-1.7**
MUGZ				AML	AML		
MUGZ				AML	AML		
RIGZ	**Rimuhau**	**2.96**	**187**	P	**Pn**	**20 03 14.7**	**+1.8**
RIGZ				S	**S**	**20 03 52.3**	**-1.3**
RIGZ				AML	AML		
RIGZ				AML	AML		
RTZ	**Ruatahuna**	**3.02**	**199**	P	**Pn**	**20 03 15.5**	**+1.9**
RTZ				AML	AML		
RTZ				AML	AML		
WCZ	**Waipu Caves**	**3.18**	**266**	P	**Pn**	**20 03 16.8**	**+1.4**
TLZ	**Tolley Road**	**3.35**	**220**	P	Pn	20 03 22.6	+5.3
NMHZ	**Naumai**	**3.52**	**199**	P	**Pn**	**20 03 21.8**	**+2.5**
NMHZ				S	**S**	**20 04 05.7**	**+0.7**
NMHZ				AML	AML		
ARHZ	**Aropaoanui**	**3.63**	**196**	P	**Pn**	**20 03 22.7**	**+2.2**
ARHZ				S	**S**	**20 04 07.7**	**+0.5**
ARHZ				AML	AML		
BKZ	**Black Stump Fm**	**3.67**	**202**	P	**Pn**	**20 03 23.1**	**+2.1**
BKZ	**Black Stump Fm**	**3.67**	**202**	P	**Pn**	**20 03 23.4**	**+2.4**
BKZ				S	**S**	**20 04 08.3**	**+0.1**
KATZ	**Kakaramea**	**3.79**	**212**	P	**Pn**	**20 03 26.6**	**+4.1**
KATZ				AML	AML		
WTVZ	**West Tongariro**	**3.96**	**212**	P	**Pn**	**20 03 28.0**	**+3.6**
WTVZ				AML	AML		
OTVZ	**Oturere**	**3.96**	**210**	P	**Pn**	**20 03 27.4**	**+2.8**
SNVZ	**South Ngauruho**	**3.99**	**211**	P	**Pn**	**20 03 27.5**	**+2.6**
SNVZ				AML	AML		
BHHZ	**Black Hill Sta**	**4.10**	**204**	P	**Pn**	**20 03 28.0**	**+1.9**
BHHZ				S	**S**	**20 04 17.4**	**+0.1**
BHHZ				AML	AML		
WNWZ	**Wahianoa**	**4.13**	**210**	P	**Pn**	**20 03 29.1**	**+2.6**
WNVZ				AML	AML		
MOVZ	**Moawhango**	**4.14**	**208**	P	**Pn**	**20 03 28.2**	**+1.6**
MOVZ				S	**S**	**20 04 17.6**	**-0.6**
MOVZ				AML	AML		
KRHZ	**Kereru**	**4.15**	**201**	P	**Pn**	**20 03 28.5**	**+1.9**
KRHZ				S	**S**	**20 04 17.6**	**-0.7**
KRHZ				AML	AML		
KAHZ	**Kahuranaki**	**4.16**	**195**	P	**Pn**	**20 03 29.0**	**+2.2**
KAHZ				S	**S**	**20 04 18.7**	**+0.1**
KAHZ				AML	AML		
VRZ	**Vera Road**	**4.35**	**219**	P	Pn	20 03 36.9	+7.9
PXZ	**Pawanui**	**4.39**	**194**	P	**Pn**	**20 03 31.0**	**+1.5**
PXZ				S	**S**	**20 04 21.9**	**-1.7**
PNHZ	**Pukenui**	**4.45**	**201**	P	Pn	20 03 40.6	+10
PRHZ	**Porangahau**	**4.67**	**195**	P	**Pn**	**20 03 34.6**	**+1.7**
PRHZ				S	**S**	**20 04 30.2**	**+0.6**
PRHZ				AML	AML		
DVHZ	**Dannevirke**	**4.81**	**199**	P	**Pn**	**20 03 35.9**	**+1.3**
DVHZ				AML	AML		
PKE	**Pukeiti**	**4.82**	**223**	P	Pn	20 03 40.9	+6.2
POWZ	**Post Office Ro**	**5.01**	**202**	P	**Pn**	**20 03 38.7**	**+1.6**
POWZ				S	**S**	**20 04 37.7**	**+0.4**
POWZ				AML	AML		
PRWZ	**Pori Road**	**5.11**	**200**	P	**Pn**	**20 03 40.7**	**+2.5**
PRWZ				AML	AML		
BFZ	**Birch Farm**	**5.15**	**197**	P	**Pn**	**20 03 39.9**	**+1.1**
BFZ	**Birch Farm**	**5.15**	**197**	P	**Pn**	**20 03 39.8**	**+1.1**
BFZ				S	**S**	**20 04 39.1**	**-1.3**
BFZ				AML	AML		
MRZ	**Mangatainoka R**	**5.32**	**202**	P	**Pn**	**20 03 41.9**	**+1.1**
MRZ				S	**S**	**20 04 40.6**	**-3.5**
MRZ				AML	AML		
TIWZ	**Tintock**	**5.33**	**200**	P	**Pn**	**20 03 42.4**	**+1.3**
TIWZ				S	**S**	**20 04 43.4**	**-1.1**
TIWZ				AML	AML		
HOWZ	**Holdsworth Sta**	**5.55**	**202**	P	**Pn**	**20 03 44.5**	**+0.8**
HOWZ				S	**S**	**20 04 46.9**	**-2.5**
HOWZ				AML	AML		
OGWZ	**Otaki Gorge**	**5.59**	**205**	P	**Pn**	**20 03 45.4**	**+1.2**
OGWZ				S	**S**	**20 04 46.7**	**-3.5**
OGWZ				AML	AML		
KIW	**Kapiti Island**	**5.72**	**206**	P	**Pn**	**20 03 46.6**	**+0.7**
KIW				S	**S**	**20 04 50.1**	**-3.1**
MTW	**Mount Morrison**	**5.80**	**201**	P	**Pn**	**20 03 47.4**	**+0.6**
MTW				S	**S**	**20 04 52.6**	**-2.3**
CAW	**Cannon Point**	**5.89**	**204**	P	**Pn**	**20 03 48.7**	**+0.7**
CAW				S	**S**	**20 04 55.0**	**-2.0**
CAW				AML	AML		
DUWZ	**D'Urville Isla**	**6.07**	**213**	P	**Pn**	**20 03 51.3**	**+1.0**
DUWZ				S	**S**	**20 05 00.2**	**-1.0**
PLWZ	**Palliser**	**6.25**	**201**	P	**Pn**	**20 03 52.9**	**+0.4**
PLWZ				S	**S**	**20 05 02.0**	**-3.2**
TCW	**Tory Channel**	**6.26**	**209**	P	**Pn**	**20 03 53.3**	**+0.6**
TCW				S	**S**	**20 05 01.9**	**-3.7**
KHZ	**Kahutara**	**7.58**	**207**	P	**Pn**	**20 04 09.8**	**+0.5**

*IDC **18** 20:21:59.3±1.3,32°.20S×68°.60W,h103km±9km,mb3.3/2, mbtmp3.6/4,Error ellipse: s-maj=39.8km s-min=28.0km az=86.0*
*SJA **18** 20:22:00.1±0.7,32°.07S×68°.43W,h114km±3km,ML3.6, MW3.7*

ISC 18 20:22:00.7±0.8,32°.06S±0°.03×68°.44W±0°.04,h115km±5km, n47,σ1§28/75,Mendoza Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CFA	**Coronel Fontan**	**0.48**	**21**	P	**Pn**	**20 22 17.8**	**-0.2**
	450nm,0.3s,baz=194,slow=5.3,SNR=2266						
CFA				S	**Sn**	**20 22 31.2**	**+0.1**
	295nm,0.3s,baz=342,slow=20,SNR=104						
CFA	**Coronel Fontan**	**0.48**	**21**	*eP*	**Pn**	**20 22 18.1**	**+0.1**
CFA				*eS*	**Sn**	**20 22 31.5**	**+0.4**
CFA				IAML		20 22 32.9	
	comp=Z,789nm,0.9s						
SJA	**San Juan**	**0.54**	**349**	*eP*	**Pn**	**20 22 18.7**	**+0.3**
SJA				IAML		20 22 33.5	
	comp=Z,2μm,0.2s						
ZON	**Zonda**	**0.55**	**338**	*eP*	**Pn**	**20 22 18.4**	**-0.2**
ZON				*eS*	**Sn**	**20 22 31.1**	**-0.8**
ZON				IAML		20 22 32.0	
	comp=Z,3μm,0.2s						
RTLS	**Leoncito**	**0.78**	**289**	*eP*	**Pn**	**20 22 20.6**	**+0.1**
RTLS				*eS*	**Sn**	**20 22 33.4**	**-2.0**
ARCO	**CERRO ARCO**	**0.89**	**208**	*eP*	**Pn**	**20 22 21.1**	**-0.3**
ARCO				*eS*	**Sn**	**20 22 36.0**	**-1.0**
ARCO				IAML		20 22 37.9	
	comp=Z,3μm,0.3s						
AAGR	**Agrelo**	**1.08**	**198**	*eP*	**Pn**	**20 22 23.6**	**+0.4**
AAGR				IAML		20 22 43.0	
	comp=Z,821nm,2.9s						
ACAN	**Cantantal**	**1.08**	**102**	*eP*	**Pn**	**20 22 24.4**	**+1.2**
AVIZ	**Vizcacheras**	**1.41**	**183**	*eP*	**Pn**	**20 22 27.5**	**+0.5**
AVIZ				*eS*	**Sn**	**20 22 46.6**	**-0.2**
ACCO	**Cerro Coronel**	**1.56**	**340**	*eP*	**Pn**	**20 22 29.6**	**+0.7**
ACCO				*eS*	**Sn**	**20 22 46.9**	**-3.4**
ACCO				IAML		20 22 52.7	
	comp=Z,832nm,0.5s						
AVFE	**Valle Fertil**	**1.63**	**31**	*eP*	**Pn**	**20 22 29.9**	**+0.4**
AVFE				*eS*	**Sn**	**20 22 52.0**	**+0.8**
AVFE				IAML		20 22 53.7	
	comp=Z,266nm,0.3s						
MT08	**Bocatoma Ro**	**1.92**	**223**	*eP*	**Pn**	**20 22 29.9**	**-3.3**
MT08				*eP*		20 22 33.9	
MT08				*eS*	**Sn**	**20 22 59.8**	**+1.8**
MT08				IAML		20 23 01.2	
	comp=Z,196nm,0.3s						
VA03	**San Esteban**	**1.92**	**248**	*eP*	**Pn**	**20 22 33.5**	**+0.5**
VA03				*eS*	**Sn**	**20 23 01.6**	**+3.9**
VA03				IAML		20 23 03.4	
	comp=Z,329nm,0.2s						

MT04	**Ro Olivares**	**1.97**	**226**	*eP*		**Pn**	**20 22 34.7**	**+1.0**
MT04				*eS*		**Sn**	**20 23 01.4**	**+2.5**
ACDV	**Cuesta del Vie**	**1.97**	**342**	*eP*		**Pn**	**20 22 34.4**	**+0.6**
ACDV				*eS*		**Sn**	**20 22 59.5**	**+0.6**
ACDV				IAML			20 22 59.9	
	comp=Z,288nm,0.5s							
AROD	**Rodeo**	**2.08**	**334**	*eP*		**Pn**	**20 22 36.2**	**+0.8**
AROD				*eS*		**Sn**	**20 23 02.3**	**+0.6**
PEL	**Peldehue**	**2.19**	**240**	*eP*		**Pn**	**20 22 36.4**	**+0.1**
PEL				*eS*		**Sn**	**20 23 04.3**	**+0.7**
PEL				IAML			20 23 09.4	
	comp=Z,151nm,0.5s							
MT03	**Universidad Ad**	**2.26**	**230**	*eP*		**Pn**	**20 22 37.7**	**+0.4**
MT03				*eS*		**Sn**	**20 23 04.0**	**-1.3**
MT03				IAML			20 23 13.0	
	comp=Z,202nm,0.2s							
CO03	**El Pedregal**	**2.28**	**302**	*eP*		**Pn**	**20 22 38.2**	**+0.6**
CO03				*eS*		**Sn**	**20 23 07.0**	**+1.3**
CO03				IAML			20 23 10.5	
	comp=Z,352nm,0.5s							
MT13	**San Alfonso**	**2.29**	**222**	*eP*		**Pn**	**20 22 38.4**	**+0.7**
MT13				*eS*		**Sn**	**20 23 09.9**	**+3.8**
MRA	**San Martin**	**2.33**	**100**	*eP*		Pn	20 22 29.1	-9.2
MRA				*eS*		Sn	20 22 52.7	-14
MRA				IAML			20 23 01.5	
	comp=Z,491nm,0.4s							
CO02	**Combarbal**	**2.35**	**291**	*eP*		**Pn**	**20 22 38.2**	**-0.2**
CO02				*eS*		**Sn**	**20 23 08.6**	**+1.2**
CO02				IAML			20 23 10.0	
	comp=Z,746nm,0.5s							
MT05	**Renca**	**2.35**	**235**	*eP*		**Pn**	**20 22 39.0**	**+0.5**
MT05				*eS*		**Sn**	**20 23 08.3**	**+0.9**
MT05				IAML			20 23 10.9	
	comp=Z,222nm,0.2s							
CO01	**Juntas del Tor**	**2.51**	**325**	*eP*		**Pn**	**20 22 42.2**	**+1.5**
CO01				*eS*		**Sn**	**20 23 12.9**	**+1.5**
CO01				IAML			20 23 13.8	
	comp=Z,90nm,0.4s							
MT02	**Curacav**	**2.58**	**242**	*eP*		**Pn**	**20 22 40.2**	**-1.0**
MT02				*eS*		**Sn**	**20 23 10.3**	**-2.2**
MT02				IAML			20 23 12.4	
	comp=Z,136nm,0.2s							
RFA	**San Rafael**	**2.71**	**181**	*eP*		**Pn**	**20 22 42.8**	**-0.3**
RFA				*eS*		Sn	20 23 05.0	-11
RFA				IAML			20 23 15.2	
	comp=Z,300nm,0.3s							
GO04	**Tololo Observa**	**2.76**	**312**	*eP*		**Pn**	**20 22 43.7**	**-0.2**
GO04				*eS*		**Sn**	**20 23 17.7**	**+0.5**
GO04				IAML			20 23 21.2	
	comp=Z,643nm,0.2s							
ACLC	**CERRO LA CRUZ**	**2.92**	**26**	*eP*		**Pn**	**20 22 46.3**	**+0.4**
ACLC				IAML			20 23 48.8	
	comp=Z,84nm,0.4s							
MT01	**Popeta**	**2.98**	**232**	*eP*		**Pn**	**20 22 46.0**	**-0.6**
MT01				*eS*		Sn	20 23 11.4	-10
MT01				IAML			20 23 24.8	
	comp=Z,76nm,0.2s							
BO01	**Tunca**	**3.22**	**223**	*eP*		**Pn**	**20 22 48.9**	**-0.9**
BO01				*eS*		**Sn**	**20 23 26.9**	**-0.6**
VCA	**Vinchina**	**3.31**	**3**	*eP*		**Pn**	**20 22 52.0**	**+0.7**
VCA				*eS*		**Sn**	**20 23 31.3**	**+1.1**
VCA				IAML			20 23 37.7	
	comp=Z,185nm,0.3s							
TCA	**Tanti**	**3.35**	**79**	*eP*		**Pn**	**20 22 51.8**	**+0.2**
TCA				*eS*		Sn	20 23 19.9	-11
TCA				IAML			20 23 31.2	
	comp=Z,95nm,0.6s							
BO02	**Sierra Bellavi**	**3.36**	**215**	*eP*		**Pn**	**20 22 52.1**	**+0.4**
BO02				IAML			20 23 44.7	
	comp=Z,52nm,0.5s							
AC05	**El Transito**	**3.58**	**333**	*eP*		**Pn**	**20 22 55.7**	**+1.0**
AC05				*eS*		**Sn**	**20 23 36.5**	**+0.1**
AC05				IAML			20 23 39.5	
	comp=Z,139nm,0.3s							
LCO	**Las Campanas**	**3.61**	**327**	*eP*		**Pn**	**20 22 55.0**	**-0.2**
LCO				*eS*		**Sn**	**20 23 36.9**	**-0.4**
LCO				IAML			20 23 40.7	
	comp=Z,320nm,0.3s							
TINO	**Tinogasta**	**4.05**	**11**	*eP*		**Pn**	**20 23 01.9**	**+0.9**
TINO				*eS*		Sn	20 23 29.0	-19
TINO				IAML			20 23 55.5	
	comp=Z,85nm,0.8s							
CYA	**Choya**	**4.26**	**33**	*eP*		**Pn**	**20 23 03.4**	**-0.3**
CYA				*eS*		**Sn**	**20 23 50.8**	**-1.8**
CYA				IAML			20 23 51.6	
	comp=Z,42nm,0.4s							
AC04	**Llanos de Chal**	**4.47**	**329**	*eP*		**Pn**	**20 23 06.5**	**+0.1**
AC04				IAML			20 24 01.3	
	comp=Z,54nm,0.4s							
GO03	**Copiapo**	**4.71**	**340**	*eP*		**Pn**	**20 23 09.7**	**-0.1**
GO03				*eS*		**Sn**	**20 24 02.9**	**-0.6**
GO03				IAML			20 24 06.8	
	comp=Z,56nm,0.3s							
AC02	**Maricunga**	**5.24**	**353**	*eP*		**Pn**	**20 23 18.2**	**+0.9**
AC02				*eS*		**Sn**	**20 24 15.9**	**-0.9**
AC02				IAML			20 24 18.2	
	comp=Z,32nm,0.3s							
CPUP	**Villa Florida**	**11.25**	**62**	P		**Pn**	**20 24 41.0**	**+2.9**
	comp=Z,0.4nm,0.3s,baz=158,slow=16,SNR=1.8							
LPAZ	**La Paz**	**15.70**	**1**	P		**P**	**20 25 38.7**	**+0.8**
	comp=Z,1.0nm,0.6s,baz=165,slow=9.1,SNR=4.6							
QSPA	**South Pole Qui**	**58.18**	**180**	P		**P**	**20 31 41.6**	**-0.8**
	comp=Z,0.5nm,0.6s,baz=112,slow=1.4,SNR=1.5							
	comp=Z,0.5nm,0.6s							
TXAR	**Lajitas Array**	**69.62**	**327**	P		**P**	**20 32 57.9**	**+0.1**
	comp=Z,0.5nm,0.7s,baz=147,slow=7.6,SNR=5.3							
	comp=Z,0.5nm,0.7s							
WRA	**Warramunga Arr**	**123.88**	**206**	PKP	**PKPdf**		**20 40 44.3**	**-1.5**
	comp=Z,0.3nm,0.4s,baz=164,slow=1.8,SNR=14							
KURBB	**Kurchatov Arra**	**149.39**	**43**	PKPbc	**PKiKP**		**20 41 35.9**	**-0.9**
	comp=Z,1.0nm,0.7s,baz=295,slow=3.2,SNR=8.4							
ZALV	**Zalesovo Beam**	**150.96**	**33**	PKPbc	**PKiKP**		**20 41 39.5**	**-0.5**
	comp=Z,2.4nm,0.5s,baz=317,slow=2.7,SNR=14							

*ID

comp=Z,1.9nm,0.8s,baz=180,slow=12,SNR=5.9
CPUP LR LR 20 57 51.0
comp=Z,36nm,20.6s,baz=238,slow=36
comp=Z,1.9nm,0.8s
CPUP Villa Florida 39.71 308 P **P** **20 41 51.2 +0.9**
SBA Scott Base 44.19 183 P **P** **20 42 28.8 +2.6**
SBA IAmb IAmb 20 42 29.6
comp=Z,3.4nm,0.9s
BOSA Boshof 44.57 70 P **P** **20 42 30.3 +0.3**
comp=Z,4.0nm,1.1s,baz=225,slow=8.0,SNR=3.8
BOSA LR LR 20 56 34.9
comp=Z,101nm,19.4s,baz=190,slow=30
comp=Z,4.0nm,1.1s
BOSA Boshof 44.57 70 P **P** **20 42 29.1 -0.9**
BOSA IAmb IAmb 20 42 38.9
comp=Z,12nm,1.2s
VNDA Vanda 44.63 182 P **P** **20 42 31.5 +1.8**
comp=Z,2.3nm,0.8s,baz=188,slow=6.7,SNR=16
comp=Z,2.3nm,0.8s
VNDA Vanda 44.63 182 P **P** **20 42 30.9 +1.2**
VNDA IAmb IAmb 20 42 32.3
comp=Z,3.2nm,0.9s
H04S2 CROZET ISLANDS 44.86 110 T T 21 30 54.9
baz=226,slow=74
H04S3 CROZET ISLANDS 44.87 110 T T 21 31 01.7
baz=226,slow=74
H04S1 CROZET ISLANDS 44.88 110 T T 21 30 52.0
baz=226
TSUM Tsumeb 48.99 55 LR LR 20 58 28.1
comp=Z,89nm,21.0s,baz=162,slow=30
H10S2 ASCENSION HYDR 49.46 11 T T 21 36 36.0
baz=186,slow=74,SNR=19
H10S3 ASCENSION HYDR 49.46 11 T T 21 36 43.0
baz=34,slow=74,SNR=24
H10N1 ASCENSION HYDR 50.58 11 T T 21 37 59.2
baz=185,slow=76,SNR=13
H10N3 ASCENSION HYDR 50.58 11 T T 21 37 57.6
baz=185,slow=76,SNR=18
H10N2 ASCENSION HYDR 50.59 11 T T 21 37 59.9
baz=185,slow=76,SNR=15
MATP Matopo 53.01 67 LR LR 21 03 40.7
comp=Z,250nm,19.0s,baz=149,slow=33
LPAZ La Paz 53.24 302 P P 20 43 31.4 -5.8
comp=Z,1.8nm,0.6s,baz=132,slow=6.8,SNR=6.0
LPAZ LR LR 21 06 46.1
comp=Z,31nm,20.4s,baz=210,slow=37
DBIC Dimbokro 66.25 20 P **P** **20 45 04.7 -1.2**
comp=Z,3.9nm,1.0s,baz=130,slow=4.3,SNR=7.1
comp=Z,3.9nm,1.0s
DBIC Dimbokro 66.25 20 P **P** **20 45 04.2 -1.7**
BOAV Boa Vista 67.17 319 P **P** **20 45 11.4 -0.5**
TORD Torodi Ar. Bea 73.89 25 P **P** **20 45 54.4 +1.6**
comp=Z,0.6nm,0.4s,baz=199,slow=6.0,SNR=3.0
comp=Z,0.6nm,0.4s
STKA Stephens Creek 89.51 167 P **P** **20 47 15.8 +0.8**
comp=Z,2.2nm,0.8s,baz=1.0,slow=4.9,SNR=3.1
comp=Z,2.2nm,0.8s
SONM Songino Array 148.76 87 PKPbc **PKPbc** **20 54 04.5 0.0**
comp=Z,1.5nm,0.9s,baz=197,slow=3.4,SNR=4.1
ILAR Eielson Array 153.01 308 PKPbc **PKiKP** **20 54 15.3 +1.3**
comp=Z,0.3nm,0.5s,baz=138,slow=3.3,SNR=6.3

IDC ***18*** *20:39:22.1±2.8,9.˚34S×120.˚11E,h0km,mb3.3/1, mbtmp3.2/3,ML2.9/2,MS3.4/1,Error ellipse: s-maj=240.2km s-min=31.0km az=51.0*
DJA ***18*** *20:39:24.8±0.6,10.˚5S±5.˚12˚0E±.˚,h14km±3km,M3.7/12, mB4.7/1,mb3.9/2,MLv3.7/12,Mw(mB)3.9/1*
ISC 18 20:39:25.8±1.2,9.˚9S±0.˚1×119.˚76E±0.˚06,h35km,n13, σ1s24/13,Sumba region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	**0.58**	**67**	P	**Pn**	**20 39 36.6**	**-1.0**
WSI				S	**Sn**	**20 39 45.3**	**-0.6**
WSI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.42**	**5**	P	**Pn**	**20 39 47.9**	**-1.2**
DBNI	**Kabupaten Domp**	**1.99**	**314**	P	**Pn**	**20 39 56.9**	**-0.1**
DBNI				AML	AML		
EDFI	**Ende, Flores**	**2.23**	**59**	P	**Pn**	**20 39 59.3**	**-1.0**
PLAI	**Plampang**	**2.23**	**298**	P	**Pn**	**20 39 59.2**	**-1.0**
PLAI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.80**	**11**	P	**Pn**	**20 40 22.8**	**+0.8**
BSSI				AML	AML		
BKSI	**Bulukumba**	**4.56**	**5**	P	**Pn**	**20 40 33.4**	**+1.0**
BKSI				AML	AML		
KAPI	**Kappang**	**4.86**	**360**	P	**Pn**	**20 40 36.7**	**+0.3**
KAPI				AML	AML		
JAGI	**Jajag, Banyuwa**	**5.71**	**284**	P	**Pn**	**20 40 47.6**	**-0.6**
	35nm,1.3s						
WRA	**Warramunga Arr**	**17.25**	**127**	P	**Pn**	**20 43 24.6**	**+0.4**
	baz=302,slow=13,SNR=4.6						
	0.4nm,0.7s						
ASAR	**Alice Springs**	**19.23**	**137**	P	**Pn**	**20 43 51.1**	**+2.8**
	0.1nm,0.3s,baz=314,slow=12,SNR=6.5						
	0.4nm,0.7s						
ASAR				AML	AML		
KLR	**Kul'dur**	**59.81**	**9**	LR	LR	21 15 41.9	
	comp=Z,30nm,19.6s,baz=116,slow=37						
MKAR	**Makanchi Array**	**65.59**	**333**	P	**P**	**20 50 05.4**	**-0.7**
	0.3nm,0.9s,baz=142,slow=7.3,SNR=1.5						
	0.3nm,0.9s						

NEIC ***18*** *20:40:01.5±1.2,7.˚4S±0.˚1×156.˚37E±0.˚08,h64km±6km, mb4.3/15,Error ellipse: s-maj=16.1km s-min=10.3km az=206.0*
IDC ***18*** *20:40:05.7±1.5,7.˚32S×156.˚28E,h96km±14km,mb4.0/12, mbtmp4.4/14,MS3.2/5,Error ellipse: s-maj=18.9km s-min=11.1km az=38.0*
ISC 18 20:40:04.9±0.6,7.˚33S±0.˚10×156.˚36E±0.˚08,h100km,n50, σ1s73/43,mb4.2/18,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**4.12**	**121**	P	**Pn**	**20 41 05.4**	**-0.3**
	68nm,0.3s,baz=350,slow=4.1,SNR=9.3						
HNR				S	**Sn**	**20 41 56.7**	**+3.7**
	206nm,0.6s,baz=308,slow=11,SNR=1.4						
HNR	**Honiara**	**4.12**	**121**		**Pn**	**20 41 01.1**	**-4.7**
RABL	**Rabaul**	**5.21**	**307**	Pn	**Pn**	**20 41 17.7**	**-2.8**
RABL				Sn	**Sn**	**20 42 23.3**	**+3.9**
KRVT	**Keravat (AS076**	**5.25**	**305**	P	**Pn**	**20 41 22.2**	**+1.1**
	74nm,0.4s,baz=66,slow=20,SNR=7.4						
KRVT				S	**Sn**	**20 42 20.2**	**-0.2**
	159nm,0.5s,baz=6.7,slow=22,SNR=4.3						
KRVT				LR	LR	20 43 41.0	
	comp=Z,130nm,19.5s,baz=119,slow=42						
PMG	**Port Moresby**	**9.33**	**257**	LR	LR	20 45 37.1	
	comp=Z,133nm,18.4s,baz=146,slow=36						
PMG	**Port Moresby**	**9.33**	**257**	Pn	Pn	20 42 08.9	-7.7
PATS	**Pohnpei**	**14.21**	**8**	Pn	**Pn**	**20 43 20.5**	**-1.1**
FAKI	**Fak Fak**	**24.40**	**279**	P	**P**	**20 45 13.6**	**-0.6**
WR8	**Warramunga Arr**	**24.63**	**237**	P	**P**	**20 45 14.9**	**-1.3**
WR8				IAmb	IAmb	20 45 24.3	
	comp=Z,8.8nm,0.8s						
WB0	**Warramunga Arr**	**24.63**	**238**	P	**P**	**20 45 14.4**	**-1.9**
WB0				IAmb	IAmb	20 45 24.3	
	comp=Z,11nm,1.2s						
WRAB	**Tennant Creek**	**24.74**	**237**	P	**P**	**20 45 16.1**	**-1.2**
WRAB				IAmb	IAmb	20 45 25.2	
	comp=Z,6.3nm,0.8s						
WRA	**Warramunga Arr**	**24.76**	**237**	P	**P**	**20 45 16.2**	**-1.2**
	comp=Z,1.4nm,0.6s,baz=61,slow=9.8,SNR=17						
WRA				PcP	**PcP**	**20 48 53.2**	**+1.3**
	comp=Z,0.5nm,0.5s,baz=62,slow=2.6,SNR=5.9						
	comp=Z,1.4nm,0.6s						
WRA	**Warramunga Arr**	**24.76**	**237**	P	**P**	**20 45 15.6**	**-1.8**
ASAR	**Alice Springs**	**26.98**	**231**	P	**P**	**20 45 40.1**	**+2.5**
	comp=Z,1.4nm,0.6s,baz=63,slow=8.8,SNR=14						
ASAR				PcP	**PcP**	**20 48 58.7**	**+1.7**
	comp=Z,0.3nm,0.6s,baz=46,slow=3.4,SNR=2.5						
	comp=Z,1.4nm,0.6s						
ASAR	**Alice Springs**	**26.98**	**231**	P	**P**	**20 45 37.8**	**+0.2**
H11S3	**WAKE ISLAND Hy**	**27.61**	**22**	T	T	21 14 01.1	
	baz=202,slow=76,SNR=173						
H11S2	**WAKE ISLAND Hy**	**27.61**	**22**	T	T	21 14 01.5	
	baz=202,slow=76,SNR=183						
H11S1	**WAKE ISLAND Hy**	**27.63**	**22**	T	T	21 14 02.4	
	baz=202,slow=76,SNR=170						
KNRA	**Kununurra**	**28.25**	**250**	P	**P**	**20 45 47.2**	**-1.7**
H11N1	**WAKE ISLAND Hy**	**28.80**	**21**	T	T	21 15 32.9	
	baz=203,slow=76,SNR=22						
H11N3	**WAKE ISLAND Hy**	**28.81**	**21**	T	T	21 15 39.6	
	baz=203,slow=76,SNR=22						
H11N2	**WAKE ISLAND Hy**	**28.82**	**21**	T	T	21 15 40.7	
	baz=203,slow=76,SNR=11						
FITZ	**Fitzroy Crossi**	**31.76**	**247**	P	**P**	**20 46 17.7**	**-2.2**
AFI	**Afiamalu**	**31.97**	**104**	LR	LR	20 58 19.6	
	comp=Z,30nm,18.0s,baz=175,slow=34						
TOLI2	**Tolitoli**	**36.47**	**282**	P	**P**	**20 47 00.5**	**-0.2**
TOLI2				IAmb	IAmb	20 47 13.1	
	comp=Z,5.0nm,0.8s						
KKM	**Kota Kinabalu**	**42.19**	**287**	P	**P**	**20 47 47.4**	**-1.0**
MJAR	**Matsushiro Arr**	**46.84**	**340**	P	**P**	**20 48 25.7**	**+0.7**
	comp=Z,0.5nm,0.6s,baz=224,slow=50,SNR=2.1						
	comp=Z,0.5nm,0.6s						
MJAR	**Matsushiro Arr**	**46.84**	**340**	P	**P**	**20 48 25.2**	**+0.3**
MJAR				IAmb	IAmb	20 49 02.9	
	comp=Z,3.6nm,1.5s						
MAJO	**Matsushiro**	**46.84**	**340**	P	**P**	**20 48 24.5**	**-0.5**
MAJO				IAmb	IAmb	20 49 01.7	
	comp=Z,2.5nm,0.8s						
MJB9	**Matsu-Tunnel**	**46.85**	**340**	P	**P**	**20 48 25.4**	**+0.4**
MJB9				IAmb	IAmb	20 48 26.2	
	comp=Z,5.5nm,1.1s						
KSRS	**Korea Array**	**51.87**	**331**	P	**P**	**20 49 03.6**	**+0.5**
	comp=Z,2.4nm,0.7s,baz=144,slow=6.7,SNR=7.3						
	comp=Z,2.4nm,0.7s						
KSAR	**Wonju Array Be**	**51.88**	**331**	P	**P**	**20 49 01.9**	**-1.3**
ASAJ	**Asahikawa**	**52.70**	**348**	LR	LR	21 09 02.6	
	comp=Z,26nm,20.4s,baz=94,slow=33						
CMAR	**Chiang Mai Arr**	**62.15**	**295**	P	**P**	**20 50 16.4**	**+0.4**
	comp=Z,1.1nm,0.6s,baz=120,slow=5.5,SNR=10.0						
	comp=Z,1.1nm,0.6s						
CMAR	**Chiang Mai Arr**	**62.15**	**295**	P	**P**	**20 50 16.2**	**+0.2**
SONM	**Songino Array**	**70.35**	**327**	P	P	20 51 10.0	+2.0
	comp=Z,2.1nm,0.5s,baz=148,slow=8.2,SNR=9.0						
	comp=Z,2.1nm,0.5s						
SONM	**Songino Array**	**70.35**	**327**	P	**P**	**20 51 08.6**	**+0.6**
SONM				IAmb	IAmb	20 51 10.7	
	comp=Z,2.8nm,0.8s						
QSPA	**South Pole Qui**	**82.65**	**180**	P	**P**	**20 52 18.0**	**+0.8**
	comp=Z,1.4nm,0.5s,baz=253,slow=0.2,SNR=5.4						
	comp=Z,1.4nm,0.5s						
QSPA	**South Pole Qui**	**82.65**	**180**	P	**P**	**20 52 17.4**	**+0.3**
QSPA				IAmb	IAmb	20 52 18.9	
	comp=Z,6.3nm,1.2s						
ILAR	**Eielson Array**	**83.19**	**21**	P	**P**	**20 52 21.0**	**+1.3**
	comp=Z,0.2nm,0.4s,baz=242,slow=5.3,SNR=7.6						
	comp=Z,0.2nm,0.4s						
MKAR	**Makanchi Array**	**84.55**	**318**	P	**P**	**20 52 28.3**	**+1.3**
	comp=Z,12nm,0.6s,baz=96,slow=7.9,SNR=99						
	comp=Z,12nm,0.6s						
MKAR	**Makanchi Array**	**84.55**	**318**		**P**	**20 52 28.2**	**+1.1**
ZALV	**Zalesovo Beam**	**85.21**	**326**	P	**P**	**20 52 30.6**	**+0.5**
	comp=Z,8.2nm,0.5s,baz=114,slow=5.5,SNR=42						
	comp=Z,8.2nm,0.5s						
ZALV	**Zalesovo Beam**	**85.21**	**326**		**P**	**20 52 30.8**	**+0.7**
BBB	**Bella Bella**	**86.98**	**37**	LR	LR	21 23 21.9	
	comp=Z,36nm,19.8s,baz=215,slow=30						
KURK	**Kurchatov**	**87.93**	**322**		**P**	**20 52 43.6**	**+0.2**
KURBB	**Kurchatov Arra**	**87.96**	**321**	P	**P**	**20 52 44.4**	**+0.8**
	comp=Z,2.1nm,0.5s,baz=103,slow=4.0,SNR=22						
	comp=Z,2.1nm,0.5s						
BVAR	**Borovoye Array**	**93.37**	**323**	P	**P**	**20 53 09.0**	**+0.2**
	comp=Z,2.0nm,0.5s,baz=110,slow=5.9,SNR=18						
	comp=Z,2.0nm,0.5s						
GERES	**GERESS Array B**	**128.03**	**329**	PKP	**PKiKP**	**20 59 01.4**	**+1.3**
	comp=Z,0.6nm,0.9s,baz=48,slow=1.5,SNR=3.5						
ESDC	**Sonseca Array**	**143.26**	**334**	PKP	**PKiKP**	**20 59 27.6**	**-3.7**
	comp=Z,0.3nm,0.8s,baz=4.4,slow=1.9,SNR=4.9						

TRN ***18*** *20:55:00.0,10.˚79N×62.˚34W,h116km,MD2.7,North of the Paria peninsula.*
FUNV ***18*** *20:55:22.9,10.˚46N×62.˚41W,h24km,MW3.3,Presumed earthquake*
ISC 18 20:55:18.6±1.6,10.˚92N±0.˚06×62.˚57W±0.˚04,h7km±14km, n10,σ1s27/17,Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DMDM	**Guralp CMG5TDE**	**1.03**	**102**	*eP*	**Pn**	**20 55 40.3**	**+0.8**
DMDM				*eS*	**Sn**	**20 55 54.4**	**+0.3**
PSMG	**Mucurapo Girls**	**1.05**	**103**	*eP*	**Pn**	**20 55 40.8**	**+1.0**
PSMG				*eS*	**Sn**	**20 55 54.9**	**+0.2**
TRN	**Trinidad (W)**	**1.18**	**103**	*eS*	**Sg**	**20 55 55.0**	**-1.6**
TRN	**Trinidad (W)**	**1.18**	**103**	*eP*	**Pg**	**20 55 41.7**	**+0.5**
TRN				*eS*	**Sn**	**20 55 56.6**	**-1.3**
GRGR	**Grenville**	**1.51**	**37**	*eP*	**Pg**	**20 55 47.1**	**-0.5**
GRGR				*eS*	**Sg**	**20 56 06.9**	**-0.2**
GRW	**Mount Saint Ca**	**1.52**	**36**	*eP*	**Pg**	**20 55 47.8**	**-0.1**
GRW				*eS*	**Sg**	**20 56 08.3**	**+0.6**
GRSS	**Sisters**	**1.66**	**34**	*eP*	**Pb**	**20 55 49.2**	**-0.4**
GRSS				*eS*	**Sg**	**20 56 11.9**	**-0.2**
PCRV	**Puerto La Cruz**	**2.16**	**250**	*eP*	**Pn**	**20 55 56.3**	**+1.2**
PCRV				*eS*	**Sn**	**20 56 22.0**	**-0.2**
MERV	**Las Mercedes**	**4.02**	**246**	*eP*	**Pn**	**20 56 22.6**	**+1.8**
MERV				*eS*	**Sn**	**20 57 05.2**	**-3.1**
CACV	**CAICARA DEL OR**	**5.14**	**230**	*eP*	Pn	20 56 29.3	-6.9
CACV				*eS*	Sn	20 57 18.9	-17

NNC ***18*** *21:01:09.9±6.3,36.˚83N×71.˚10E,h104km±104km,mb3.5, mpv4.1,Error ellipse: s-maj=66.9km s-min=46.9km az=131.0*
ISC 18 21:01:03.0±1.3,36.˚40N±0.˚09×71.˚7E±0.˚1,h100km,n8, σ2s74/13,1C-3D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ALCI	**Alchi Leh**	**5.01**	**114**	*i* P	**Pn**	**21 02 13.1**	**-3.1**
ALCI				*i* S	**Sn**	**21 03 09.7**	**-3.5**
DHRM	**DHARAMSHALA**	**5.65**	**136**	*i* P	**Pn**	**21 02 24.1**	**-0.6**
DHRM				*i* S	**Sn**	**21 03 30.9**	**+2.6**
AAK	**Ala-Archa**	**6.60**	**18**	⇑P	**Pn**	**21 02 40.8**	**+3.3**
	3.0nm,0.5s						
AAK				⇓S	**Sn**	**21 03 53.2**	**+1.9**
	19nm,0.9s						
KK31	**Karatay Array**	**6.75**	**353**	P	**Pn**	**21 02 40.7**	**+1.3**
	12nm,0.2s,baz=188,slow=15,SNR=191						
KK31				⇓S	**Sn**	**21 03 51.0**	**-3.8**
	8.2nm,0.6s,baz=185,slow=23,SNR=5.3						
SMLA	**Simla**	**6.98**	**137**	*i* P	**Pn**	**21 02 42.0**	**-0.5**
SMLA				*i* S	**Sn**	**21 04 03.8**	**+3.4**
JOSI	**Joshimath**	**8.80**	**129**	*i* P	**Pn**	**21 03 06.7**	**-0.9**
AB31	**Akbulak array**	**15.43**	**330**	P	**Pn**	**21 04 33.2**	**-1.7**
	1.8nm,0.5s,baz=141,slow=11,SNR=76						
AKTO	**Aktyubinsk**	**17.13**	**329**	⇓P	**P**	**21 04 56.3**	**+0.2**
	1.7nm,0.6s						

NNC ***18*** *21:17:38.9±6.8,37.˚31N×70.˚81E,h0km,mb3.6,mpv3.2, Error ellipse: s-maj=71.0km s-min=53.2km az=127.0*
NDI 18 21:17:26.9±1.2,37.˚42N×72.˚04E,h10km±999km,2C-2D, Presumed earthquake,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ALCI	**Alchi Leh**	**5.26**	**126**	*i* P	Pn	21 18 46.9	+0.9
AAK	**Ala-Archa**	**5.54**	**19**	⇓Pn	Pg	21 19 09.0	-4.0
	0.8nm,0.4s						
AAK				⇑Sn	Sg	21 20 20.5	-4.3
	4.1nm,0.7s						
KK31	**Karatay Array**	**5.80**	**349**	⇑Pn	Pb	21 19 07.0	-1.1
	1.2nm,0.3s,baz=173,slow=12,SNR=6.1						
KK31				⇓Sn	Sb	21 20 13.6	-4.1
	1.6nm,0.3s,baz=36,slow=52,SNR=4.8						
DHRM	**DHARAMSHALA**	**6.23**	**145**	*i* P	Pn	21 18 59.9	+0.7
DHRM				*i* S	Sn	21 20 08.7	-1.8
SMLA	**Simla**	**7.57**	**144**	*i* P	Pn	21 19 18.1	+0.8
SMLA				*i* S	Sn	21 20 38.5	-4.7

IDC ***18*** *21:20:00.9±7.2,51.˚80N×176.˚78W,h0km,mb3.3/3, mbtmp3.6/4,ML4.4/1,Error ellipse: s-maj=142.2km s-min=65.4km az=106.0*
NEIC ***18*** *21:20:22.7±0.8,52.˚14N±0.˚07×175.˚73W±0.˚07, h156km±6km,mb3.6/24,ML3.5/10,ML3.1(AEIC),Error ellipse: s-maj=10.0km s-min=6.0km az=192.0*
AEIC ***18*** *21:20:23.4±5.3,52.˚1N±0.˚2×175.˚7W±0.˚1,h142km±4km, Error ellipse: s-maj=29.1km s-min=5.7km az=165.0*
ISC 18 21:20:22.7±0.9,52.˚1N±0.˚2×175.˚72W±0.˚06,h155km±6km, n56,σ0s78/64,mb3.7/4,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GSIG	**Igitkin Island**	**0.19**	**222**		**Pn**	**21 20 43.5**	**-0.1**
GSIG					**Sn**	**21 20 58.8**	**-0.7**
GSTR	**Great Sitkin T**	**0.21**	**261**	Pn	**Pn**	**21 20 43.9**	**+0.2**
GSTR				IAML		21 20 59.8	
	comp=E,2μm,0.5s						
GSTR				Sn	**Sn**	**21 21 00.2**	**+0.6**
GSMY	**Great Sitkin M**	**0.22**	**248**		**Pn**	**21 20 43.6**	**-0.1**
GSMY					**Sn**	**21 20 59.2**	**-0.4**
GSTD	**Great Sitkin T**	**0.27**	**255**		**Pn**	**21 20 43.8**	**-0.1**
GSTD					**Sn**	**21 20 59.7**	**-0.3**
ETKA	**Kagalaska Isla**	**0.50**	**238**		**Pn**	**21 20 44.7**	**0.0**
ETKA					**Sn**	**21 21 01.2**	**-0.1**
ADAG	**Mount Adagdak**	**0.56**	**255**		**Pn**	**21 20 45.2**	**+0.3**
ADAG					**Sn**	**21 21 01.9**	**0.0**
ADK	**Adak**	**0.64**	**248**		**Pn**	**21 20 45.5**	**+0.2**
ADK				Sn	**Sn**	**21 21 02.2**	**-0.4**
ADK				IAML		21 21 02.9	
	comp=E,905nm,0.3s						
ADK				IAML		21 21 03.6	
	comp=E,738nm,0.2s						
KIWB	**Kanaga Island**	**0.93**	**253**		**Pn**	**21 20 47.6**	**+0.3**
KIWB				Sn	**Sn**	**21 21 06.5**	**+0.4**
KIWB				IAML		21 21 07.0	
	comp=N,173nm,0.6s						
KIKV	**Kanaga Island**	**0.93**	**255**		**Sn**	**21 21 06.4**	**+0.2**
KOWE	**Korovin West**	**0.94**	**75**		**Pn**	**21 20 47.9**	**+0.4**
ATKA	**Atka Island**	**0.94**	**85**	Pn	**Pn**	**21 20 47.5**	**+0.1**
ATKA				Sn	**Sn**	**21 21 05.9**	**-0.5**
ATKA				IAML		21 21 07.0	
	comp=E,192nm,0.4s						
KOKL	**Mount Kliuchef**	**0.96**	**78**		**Pn**	**21 20 48.3**	**+0.6**
KOKL					**Sn**	**21 21 07.2**	**+0.5**
KIMD	**Kanaga Island**	**1.00**	**249**		**Sn**	**21 21 07.0**	**-0.2**
TAPA	**Tanaga Point A**	**1.33**	**257**		**Sn**	**21 21 12.6**	**-0.1**
TAFL	**Tanaga Flats**	**1.40**	**255**		**Sn**	**21 21 13.4**	**-0.2**
TANO	**Tanaga North**	**1.50**	**263**		**Sn**	**21 21 16.0**	**+0.5**
GANE	**Gareloi Northe**	**1.91**	**262**		**Sn**	**21 21 23.3**	**-0.3**
GANO	**Gareloi North**	**1.93**	**262**	Pn	**Pn**	**21 20 57.4**	**+0.1**
GANO				IAML		21 21 25.9	
	comp=N,269nm,0.3s						
GAKI	**Gareloi-Kavalg**	**2.00**	**255**		**Pn**	**21 20 58.4**	**+0.3**
GAKI					**Sn**	**21 21 24.4**	**-0.9**
UNV	**Unalaska Valle**	**5.83**	**69**	Pn	**Pn**	**21 21 47.3**	**+0.2**
ACHA	**Angle Creek He**	**13.12**	**54**	Pn	**Pn**	**21 23 23.1**	**0.0**
J17K	**VABM Dome**	**14.31**	**31**	Pn	**Pn**	**21 23 37.9**	**-0.1**
KDAK	**Kodiak Island**	**14.41**	**58**	Pn	**Pn**	**21 23 35.4**	**-3.9**
	comp=N,1.5nm,0.3s,baz=242,slow=4.7,SNR=13						
	comp=N,8.9nm,1.0s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**14.41**	**58**	Pn	**Pn**	**21 23 37.6**	**-1.7**
L19K	**White Mountain**	**15.07**	**40**		**Pn**	**21 23 47.6**	**+0.1**
CNPM	**China Poot**	**15.55**	**52**		P	**21 23 53.7**	**-0.7**
SKT	**Skwentna**	**16.34**	**43**	P	**P**	**21 24 03.1**	**-0.1**
SKT				IAmb	IAmb	21 24 24.2	
	comp=Z,3.4nm,1.0s						
SLKM	**Skilak Lake**	**16.35**	**49**		**P**	**21 24 03.0**	**-0.3**
PPLA	**Purkeypile**	**16.50**	**40**	P	**Pn**	**21 24 05.7**	**+0.6**
SEW	**Seward**	**16.59**	**51**	P	**P**	**21 24 04.6**	**-1.2**
CAST	**Castle Rocks**	**16.81**	**39**		**Pn**	**21 24 08.8**	**0.0**
CAST				IAmb	IAmb	21 24 11.0	
	comp=Z,3.0nm,0.8s						
TRF	**Thorofare Moun**	**17.53**	**40**	P	**P**	**21 24 15.8**	**-0.5**
H21K	**Melozitna River**	**17.84**	**32**	P	**P**	**21 24 19.8**	**+0.2**
H21K				IAmb	IAmb	21 24 48.8	
	comp=Z,3.1nm,1.2s						
RND	**Reindeer**	**18.08**	**41**	P	**P**	**21 24 22.0**	**-0.2**
RND				IAmb	IAmb	21 24 51.3	
	comp=Z,3.0nm,1.2s						
G21K	**Allakaket**	**18.18**	**29**	P	**P**	**21 24 22.8**	**-0.3**
G21K				IAmb	IAmb	21 24 27.6	
	comp=Z,2.0nm,0.8s						
DHY	**Denali Highway**	**18.55**	**43**	P	**P**	**21 24 26.8**	**-0.7**
DHY				IAmb	IAmb	21 24 29.1	
	comp=Z,3.2nm,0.7s						
F21K	**Alatna River**	**18.66**	**27**	P	**P**	**21 24 27.8**	**-0.7**
I23K	**Minto, Yukon-K**	**18.73**	**36**	P	**P**	**21 24 28.9**	**-0.2**
D20K	**Eitvluk River**	**18.97**	**22**	P	**P**	**21 24 31.3**	**-0.4**
D20K				IAmb	IAmb	21 24 56.9	
	comp=Z,4.2nm,1.2s						
HDA	**Harding Lake**	**19.28**	**39**	P	**P**	**21 24 35.1**	**-0.1**
HDA				IAmb	IAmb	21 24 42.2	
	comp=Z,2.5nm,1.2s						
ILAR	**Eielson Array**	**19.47**	**38**	P	**P**	**21 24 36.1**	**-1.1**
	comp=Z,0.3nm,0.6s,baz=242,slow=12,SNR=4.6						
	comp=Z,0.3nm,0.6s						
H24K	**Noodor Dome**	**19.62**	**35**	P	**P**	**21 24 38.4**	**-0.5**
D22K	**Ayikyak River**	**20.04**	**24**	P	**P**	**21 24 43.3**	**-0.1**
M26K	**Nabesna, AK**	**20.23**	**47**	P	**P**	**21 24 46.1**	**+0.6**
M26K				IAmb	IAmb	21 24 51.9	
	comp=Z,1.9nm,0.7s						
D23K	**Nanushuk River**	**20.62**	**26**	P	**P**	**21 24 49.0**	**-0.5**
D23K				IAmb	IAmb	21 25 12.2	
	comp=Z,2.0nm,1.1s						
BCAR	**Beaver Creek A**	**20.95**	**45**	P	**P**	**21 24 53.3**	**+0.2**
C26K	**Camden Bay**	**22.81**	**27**	P	**P**	**21 25 11.3**	**-0.5**
C26K				IAmb	IAmb	21 25 16.3	
	comp=Z,3.8nm,1.2s						
K29M	**Barlow Dome**	**23.00**	**45**	P	**P**	**21 25 12.4**	**-1.3**
K29M				IAmb	IAmb	21 25 15.4	
	comp=Z,3.5nm,1.1s						
J30M	**Hart River**	**23.67**	**43**	P	**P**	**21 25 19.3**	**-0.5**
I30M	**Mount Dempster**	**23.80**	**41**	P	**P**	**21 25 19.1**	**-2.0**
H11N2	**WAKE ISLAND Hy**	**35.07**	**209**	T	T	22 03 39.4	
	baz=18,slow=76,SNR=5.8						
H11N3	**WAKE ISLAND Hy**	**35.08**	**209**	T	T	22 03 41.7	
	baz=18,slow=76

GHAJ				S	**Sb**	**22 08 58.4**	**-4.2**
AMAZ	**Amatzia**	**3.54**	**5**	P	**Pn**	**22 08 18.1**	**+2.8**
AMAZ				S	**Sb**	**22 09 01.9**	**-4.3**
MZS	**Mizpe Shalem**	**3.64**	**12**	P	**Pn**	**22 08 19.1**	**+2.4**
MZS				S	**Sb**	**22 09 04.4**	**-4.6**
UJAP	**Al Uja**	**4.03**	**12**	P	**Pn**	**22 08 24.6**	**+2.7**
UJAP				S	**Sb**	**22 09 12.9**	**-7.2**
MMLI	**Mount Malkishu**	**4.50**	**10**	P	**Pn**	**22 08 31.1**	**+2.7**
MMLI				S	**Sn**	**22 09 25.4**	**+4.1**
MMA0B	**Mount Meron ar**	**5.06**	**8**	P	**Pn**	**22 08 38.9**	**+2.6**
MMA0B				S	**Sn**	**22 09 38.9**	**+3.7**

*IDC **18** 22:18:41.8±1.4,31°.36S×177°.35W, h0km, mb4.2/4, mbtmp4.2/6, ML4.2/2, MS3.2/4, Error ellipse: s-maj=35.7km s-min=22.2km az=96.0*

*NEIC **18** 22:18:45.1±1.5,30°.95S±0°.04×177°.7W±0°.2, h10km±2km, mb4.4/10, Error ellipse: s-maj=26.7km s-min=6.2km az=83.0*

ISC 18 22:18:47.3±1.2,30°.91S±0°.08×177°.7W±0°.2, h27km, n26, σ0s74/21, mb4.4/7, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.66**	**354**	Pn	**Pn**	**22 19 15.2**	**+0.6**
	214nm,0.3s,baz=79,slow=11,SNR=16						
RAO				LR	LR	22 20 10.4	
	comp=Z,522nm,18.5s,baz=221,slow=41 544nm,0.2s						
RAO				AML	AML		
RAO	**Raoul Island**	**1.66**	**354**		**Pn**	**22 19 14.7**	**0.0**
RAO				Sn	**Sb**	**22 19 36.9**	**-0.9**
MXZ	**Matakaoa Point**	**7.41**	**205**	Pn	Pn	22 20 27.6	-6.0
URZ	**Urewera**	**8.48**	**209**	Pn	Pn	22 20 41.7	-6.6
	1.3nm,0.3s,baz=267,slow=5.2,SNR=6.4 7.9nm,0.9s						
URZ				AML	AML		
PINNC	**Pines Island,**	**15.61**	**298**	Pn	**Pn**	**22 22 26.5**	**+1.0**
PINNC				IAmb	IAmb	22 22 49.1	
	comp=Z,26nm,1.0s						
ODZ	**Otahua Downs**	**16.81**	**210**		**Pn**	**22 22 40.4**	**-0.3**
ODZ				IAmb	IAmb	22 22 56.9	
	comp=Z,24nm,1.4s						
RAR	**Rarotonga**	**18.77**	**63**	LR	LR	22 30 45.5	
	comp=Z,45nm,19.1s,baz=238,slow=39						
ARMA	**Armidale**	**26.34**	**263**	P	**P**	**22 24 19.9**	**-1.3**
ARMA				IAmb	IAmb	22 24 25.5	
	comp=Z,4.7nm,0.9s						
PPT	**Papeete**	**28.79**	**69**	LR	LR	22 35 59.9	
	comp=Z,56nm,18.1s,baz=184,slow=36						
CTA	**Charters Tower**	**34.13**	**280**	LR	LR	22 37 29.3	
	comp=Z,61nm,19.8s,baz=214,slow=33						
CTAO	**Charters Tower**	**34.13**	**280**	P	**P**	**22 25 30.5**	**+0.4**
CTAO				IAmb	IAmb	22 25 44.2	
	comp=Z,11nm,1.1s						
STKA	**Stephens Creek**	**34.61**	**258**	P	**P**	**22 25 35.1**	**+1.0**
	comp=Z,1.5nm,0.4s,baz=102,slow=9.0,SNR=7.4 comp=Z,1.5nm,0.4s						
BBOO	**Buckleboo**	**39.07**	**255**	P	**P**	**22 26 11.6**	**-0.5**
BBOO				IAmb	IAmb	22 26 31.5	
	comp=Z,8.5nm,0.9s						
ASAR	**Alice Springs**	**43.33**	**267**	P	**P**	**22 26 48.0**	**+0.8**
	comp=Z,1.7nm,0.6s,baz=110,slow=7.9,SNR=16 comp=Z,1.7nm,0.6s						
WRA	**Warramunga Arr**	**44.37**	**273**	P	**P**	**22 26 56.4**	**+0.8**
	comp=Z,3.2nm,0.4s,baz=112,slow=8.0,SNR=39 comp=Z,3.2nm,0.4s						
WRA	**Warramunga Arr**	**44.37**	**273**	P	**P**	**22 26 55.2**	**-0.4**
WB0	**Warramunga Arr**	**44.39**	**273**	P	**P**	**22 26 55.9**	**+0.1**
FORT	**Forrest**	**46.16**	**256**	P	**P**	**22 27 08.6**	**-1.1**
FITZ	**Fitzroy Crossi**	**52.61**	**270**	P	**P**	**22 27 58.2**	**-0.8**
QSPA	**South Pole Qui**	**59.20**	**180**	P	P	22 28 41.0	-4.8
	comp=Z,1.3nm,1.0s,baz=48,slow=0.9,SNR=4.3 comp=Z,1.3nm,1.0s						
QSPA	**South Pole Qui**	**59.20**	**180**	P	**P**	**22 28 46.0**	**+0.2**
QSPA				IAmb	IAmb	22 29 08.2	
	comp=Z,5.1nm,0.7s						
MKAR	**Makanchi Array**	**118.29**	**310**	PKP	**PKPdf**	**22 37 31.4**	**-0.4**
	comp=Z,0.3nm,0.8s,baz=72,slow=2.8,SNR=1.3						
MKAR	**Makanchi Array**	**118.29**	**310**		**PKPdf**	**22 37 31.2**	**-0.7**
FINES	**FINESS Array B**	**145.71**	**340**	PKPbc	**PKPdf**	**22 38 22.8**	**+0.3**
	comp=Z,1.7nm,0.4s,baz=38,slow=4.2,SNR=18						
FINES	**FINESS Array B**	**145.71**	**340**		**PKPdf**	**22 38 22.5**	**+0.1**
AKASG	**Malin Array Be**	**151.85**	**322**	PKPbc	**PKiKP**	**22 38 40.4**	**+0.9**
	comp=Z,1.1nm,0.7s,baz=62,slow=1.8,SNR=1.8						

*AEIC **18** 22:19:44.7±2.6,53°.01N±0°.05×132°.89W±0°.09, h15km±5km, Error ellipse: s-maj=7.6km s-min=7.0km az=63.0*

*IDC **18** 22:19:45.1±0.8,52°.96N×132°.82W, h0km, mb3.8/6, mbtmp3.8/13, ML3.4/6, MS3.6/3, Error ellipse: s-maj=10.6km s-min=5.9km az=133.0*

*NEIC **18** 22:19:45.8±1.6,53°.00N±0°.03×132°.79W±0°.07, h10km±1km, mb3.9/23, ML4.0(AEIC), Mwr4.1(OTT), Error ellipse: s-maj=8.3km s-min=3.0km az=304.0*

*NEIC **18** 22:19:46.8,53°.06N×132°.67W, h9km, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_rr=0.68; $M_{\theta\theta}$-0.96; $M_{\phi\phi}$-0.22; $M_{r\theta}$1.28; $M_{\theta\phi}$0.58; $M_{\phi r}$-0.05; Fault plane solution: M_o1.60000×10^{15} NP1:ϕ_s323.00000°, δ24.00000°, λ134.00000°. NP2:ϕ_s97.00000°, δ73.00000°, λ73.00000°. Principal axes: T 1.5772, Plg59.0000°, Azm343.0000°; N 0.0929, Plg16.0000°, Azm102.0000°; P -1.6701, Plg26.0000°, Azm201.0000°;*

*PGC **18** 22:19:46.8±0.3,53°.06N×132°.67W, h21km, ML4.2/19, mb3.9(NEIC), ML4.0(PMR), 44km southwest of Village of Queen Charlotte, Bc Haida Gwaii Region*

ISC 18 22:19:45.9±1.1,53°.08N±0°.03×132°.75W±0°.04, h18km±6km, n185, σ2s22/223, mb4.0/6, Queen Charlotte Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DIB	**Dawson Inlet,**	**0.21**	**53**	Pg	**Pg**	**22 19 52.0**	**+1.1**
DIB				Sg	**Sb**	**22 19 55.5**	**+0.8**
DIB	**Dawson Inlet,**	**0.21**	**53**	P	**Pg**	**22 19 51.6**	**+0.7**
DIB				S	**Sb**	**22 19 55.5**	**+0.8**
H02S1	**DAWSON INLET T**	**0.21**	**53**	Pg	**Pg**	**22 19 51.9**	**+0.9**
H02S1				Lg	Lg	22 19 55.5	
H02S2	**DAWSON INLET T**	**0.21**	**53**	Pg	**Pg**	**22 19 51.9**	**+0.9**
H02S2				Lg	Lg	22 19 55.3	
HG1B	**Mitchell Dam**	**0.40**	**110**	P	**Pg**	**22 19 54.6**	**+0.5**
HG1B				S	**Sg**	**22 20 00.5**	**+0.8**
MOBC	**Moresby Island**	**0.48**	**81**		**Pb**	**22 19 56.2**	**+0.4**
MOBC					**Sb**	**22 20 03.1**	**+0.5**
MOBC	**Moresby Island**	**0.48**	**81**	P	**Pb**	**22 19 56.2**	**+0.4**
MOBC				S	**Sb**	**22 20 03.2**	**+0.6**
BAIB	**Barry Inlet**	**0.79**	**129**	P	**Pb**	**22 20 01.2**	**+0.1**
BAIB				S	**Sb**	**22 20 12.0**	**+0.5**
NDB	**Naden**	**0.89**	**353**		**Pb**	**22 20 03.1**	**+0.2**
NDB					**Sb**	**22 20 15.7**	**+1.4**
NDB	**Naden**	**0.89**	**353**	P	**Pb**	**22 20 03.3**	**+0.5**
NDB				S	**Sb**	**22 20 15.4**	**+1.0**
HG4B	**Hotspring**	**1.23**	**129**		**Pn**	**22 20 07.3**	**-1.0**
HG4B				Sn	**Sb**	**22 20 23.8**	**-0.4**
JEDB	**Jedway, Haida**	**1.23**	**129**	Pn	**Pn**	**22 20 08.1**	**-0.2**
JEDB				Sn	**Sb**	**22 20 23.7**	**-0.5**
BNAB	**Bonilla**	**1.34**	**71**		**Pn**	**22 20 09.6**	**-0.1**
BNAB					**Sn**	**22 20 28.9**	**+1.9**
BNAB	**Bonilla**	**1.34**	**71**	Pn	**Pn**	**22 20 09.2**	**-0.5**
BNAB				Sn	**Sn**	**22 20 27.7**	**+0.7**
GRNB	**Grenville Isla**	**1.84**	**64**	Pn	**Pn**	**22 20 16.5**	**-0.1**
GRNB				Sg	**Sb**	**22 20 43.1**	**+1.3**
RUBB	**Prince Rupert**	**1.94**	**49**		**Pn**	**22 20 18.5**	**+0.5**
RUBB	**Prince Rupert**	**1.94**	**49**	Pn	**Pn**	**22 20 18.6**	**+0.5**
RUBB				Sg	**Sb**	**22 20 46.5**	**+1.9**
GRIB	**Gribbell Islan**	**2.19**	**82**	Pn	**Pn**	**22 20 21.1**	**-0.4**
GRIB				Sg	**Sb**	**22 20 52.6**	**+0.8**
V35K	**Ketchikan**	**2.35**	**16**		**Pn**	**22 20 24.8**	**+1.1**
CRAG	**Craig**	**2.41**	**355**	P	**Pn**	**22 20 25.3**	**+0.9**
CRAG	**Craig**	**2.41**	**355**	S	**Sn**	**22 20 56.8**	**+3.4**
CRAG	**Craig**	**2.41**	**355**		**Pn**	**22 20 24.8**	**+0.4**
BUTB	**Butedale**	**2.59**	**89**	Pn	**Pn**	**22 20 26.9**	**-0.1**
BUTB				Sg	**Sb**	**22 21 04.2**	**+0.9**
MBLB	**Minette Bay Lo**	**2.64**	**67**	Sg	**Sb**	**22 21 06.3**	**+1.5**
KITB	**Kitimat**	**2.65**	**66**	Pn	**Pn**	**22 20 27.9**	**+0.2**
BBB	**Bella Bella**	**2.97**	**106**	Pn	**Pn**	**22 20 31.4**	**-0.6**
	5.3nm,0.3s,baz=296,slow=14,SNR=41						
BBB				Pg	**Pb**	**22 20 38.6**	**+0.4**
	19nm,0.3s,baz=295,slow=15,SNR=13						
BBB				Lg	Lg	22 21 16.4	
	73nm,0.3s,baz=199,slow=23,SNR=14 11nm,0.3s						
BBB				AML	AML		
BBB	**Bella Bella**	**2.97**	**106**	Pn	**Pn**	**22 20 31.3**	**-0.7**
BBB	**Bella Bella**	**2.97**	**106**	Pn		**22 20 31.4**	**-0.7**
BBB				Sg	**Sb**	**22 21 16.0**	**+2.0**
U33K	**Whale Pass**	**3.05**	**356**		**Pn**	**22 20 33.6**	**+0.4**
WRAK	**Wrangell Islan**	**3.36**	**4**		**Pn**	**22 20 38.9**	**+1.5**
WRAK	**Wrangell Islan**	**3.36**	**4**	Pn	**Pn**	**22 20 38.6**	**+1.2**
WRAK				Sn	**Sn**	**22 21 17.3**	**+0.5**
HOLB	**Holberg**	**3.76**	**129**	Pn	**Pn**	**22 20 41.6**	**-1.4**
HOLB	**Holberg**	**3.76**	**129**	Pn	**Pn**	**22 20 41.9**	**-1.2**
HOLB				Sn	**Sn**	**22 21 24.3**	**-2.6**
T35M	**Bob Quinn**	**4.17**	**19**		**Pn**	**22 20 47.9**	**-0.8**
T35M	**Bob Quinn**	**4.17**	**19**	Pn	**Pn**	**22 20 51.1**	**+2.4**
T35M				Sg	**Sb**	**22 21 55.3**	**+6.5**
SIT	**Sitka**	**4.25**	**341**	P	**Pn**	**22 20 49.4**	**-0.3**
SIT	**Sitka**	**4.25**	**341**		**Pn**	**22 20 49.2**	**-0.5**
BPEB	**Brooks Peninsu**	**4.26**	**131**	Pn	**Pn**	**22 20 49.4**	**-0.6**
BPEB				Sn	**Sn**	**22 21 36.2**	**-3.1**
S32K	**Killisnoo**	**4.52**	**347**		**Pn**	**22 20 54.3**	**+0.9**
FHBB	**Fair Harbour**	**4.64**	**128**	Pn	**Pn**	**22 20 55.0**	**0.0**
FHBB				Sn	**Sn**	**22 21 45.0**	**-3.4**
WOSB	**Woss**	**4.83**	**125**	Pn	**Pn**	**22 20 57.0**	**-0.8**
S34M	**Telegraph Cree**	**4.93**	**10**		**Pn**	**22 21 00.4**	**+1.3**
S34M	**Telegraph Cree**	**4.93**	**10**	Pn	**Pn**	**22 21 00.5**	**+1.3**
S34M				Sn	**Sn**	**22 21 54.5**	**-1.2**
NCSB	**Newcastle Ridg**	**4.95**	**120**	Sn	**Sn**	**22 20 58.6**	**-0.9**
NCSB				Sn	**Sn**	**22 21 52.7**	**-3.5**
TAHB	**Tahsis**	**4.96**	**128**	Pn	**Pn**	**22 20 58.9**	**-0.6**
TAHB				Sn	**Sn**	**22 21 53.1**	**-3.2**
NTKA	**Nootka**	**5.19**	**130**	Pn	**Pn**	**22 21 02.4**	**-0.3**
FSJB	**Fort St James**	**5.21**	**71**	Sg	**Sb**	**22 22 26.4**	**+7.9**
S31K	**Pelican**	**5.28**	**339**	Pn	**Pn**	**22 21 03.9**	**+0.1**
JIS	**Juneau Island**	**5.29**	**351**	P	**Pn**	**22 21 05.8**	**+1.8**
GDR	**Gold River**	**5.34**	**125**	Pn	**Pn**	**22 21 04.0**	**-0.7**
CBB	**Campbell River**	**5.53**	**121**	Pn	**Pn**	**22 21 07.2**	**-0.1**
CBB	**Campbell River**	**5.53**	**121**	Pn	**Pn**	**22 21 06.8**	**-0.5**
CBB				Sn	**Sn**	**22 22 07.0**	**-3.3**
DLBC	**Dease Lake**	**5.59**	**15**	Pn	**Pn**	**22 21 12.2**	**+4.1**
	1.6nm,0.3s,baz=177,slow=26,SNR=12						
DLBC				Lg	Lg	22 22 42.3	
	5.3nm,0.3s,baz=242,slow=26,SNR=8.9						
DLBC				LR	LR	22 22 43.5	
	comp=Z,117nm,21.2s,baz=78,slow=31 3.7nm,0.3s						
DLBC				AML	AML		
DLBC	**Dease Lake**	**5.59**	**15**	Pn	**Pn**	**22 21 08.7**	**+0.5**
DLBC				Sg	**Sg**	**22 22 39.9**	**-5.2**
BESE	**Bessie Mountai**	**5.64**	**349**	Sn	**Sn**	**22 22 12.1**	**-1.1**
Q32M	**Nakina River**	**5.90**	**2**		**Pn**	**22 21 14.6**	**+2.0**
Q32M	**Nakina River**	**5.90**	**2**	Pn	**Pn**	**22 21 14.0**	**+1.4**
Q32M				Sg	**Sg**	**22 22 51.5**	**-3.7**
TXDB	**Texada**	**6.21**	**120**	Pn	**Pn**	**22 21 16.0**	**-0.6**
R33M	**Jennings River**	**6.41**	**8**	Pn	**Pn**	**22 21 22.5**	**+3.0**
R33M	**Jennings River**	**6.41**	**8**	Pn	**Sn**	**22 21 20.0**	**+0.5**
R33M				Sn	**Sn**	**22 22 30.3**	**-2.0**
MGRB	**Mount Grey**	**6.52**	**126**	Pn	**Pn**	**22 21 20.5**	**-0.4**
P32M	**Atlin**	**6.55**	**356**		**Pn**	**22 21 22.4**	**+1.1**
P32M	**Atlin**	**6.55**	**356**	Pn	**Pn**	**22 21 22.3**	**+0.9**
SKAG	**Skagway**	**6.56**	**348**	Pn	**Pn**	**22 21 22.6**	**+1.3**
SHB	**Sechelt**	**6.56**	**119**	Pn	**Pn**	**22 21 21.2**	**-0.4**
SHB				Sn	**Sn**	**22 22 30.0**	**-5.9**
PLBC	**Pleasant Camp**	**6.70**	**344**	Pn	**Pn**	**22 21 24.8**	**+1.4**
BMTB	**Bullhead Mount**	**6.85**	**60**	Sg	**Sg**	**22 23 19.7**	**-5.9**
NBC8	**Simpson Ranch**	**6.93**	**56**	Pn	**Pn**	**22 21 27.7**	**+1.2**
NBC8				Sg	**Sg**	**22 23 22.3**	**-5.7**
P29M	**Windy Craggy**	**7.13**	**339**	Pn	**Pn**	**22 21 29.9**	**+0.7**
P29M	**Windy Craggy**	**7.13**	**339**	Pn	**Pn**	**22 21 30.6**	**+1.4**
P33M	**Teslin, Yukon**	**7.15**	**360**		**Pn**	**22 21 31.5**	**+1.9**
P33M	**Teslin, Yukon**	**7.15**	**360**	Pn	**Pn**	**22 21 30.2**	**+0.5**
P33M				Sg	**Sg**	**22 23 28.9**	**-6.3**
LLLB	**Lillooet**	**7.17**	**106**	Pn	**Pn**	**22 21 30.6**	**+0.6**
LLLB	**Lillooet**	**7.17**	**106**	Pn	**Pn**	**22 21 28.3**	**-0.7**
LLLB				Sg	**Sg**	**22 23 29.6**	**-6.4**
NBC5	**NorthernBC 5**	**7.27**	**48**	Pn	**Pn**	**22 21 30.7**	**-0.6**
NBC5				Sg	**Sg**	**22 23 32.8**	**-6.2**
P30M	**Million Dollar**	**7.43**	**344**	Pn	**Pn**	**22 21 33.8**	**+0.4**
P30M				Sn	**Sn**	**22 22 53.2**	**-4.0**
PNL	**Peninsula**	**7.56**	**334**	Pn	**Pn**	**22 21 36.8**	**+1.6**
WHY	**Whitehorse**	**7.69**	**352**		**Pn**	**22 21 38.8**	**+1.8**
WHY	**Whitehorse**	**7.69**	**352**	Pn	**Pn**	**22 21 38.2**	**+1.2**
OSD	**Olympics--Snow**	**7.81**	**129**	Pn	**Pn**	**22 21 38.5**	**-0.3**
O29M	**Mount Kennedy**	**7.92**	**338**	Pn	**Pn**	**22 21 40.9**	**+0.7**
O29M				Sn	**Sn**	**22 23 06.3**	**-2.9**
O30N	**Mendenhall**	**7.93**	**348**	Pn	**Pn**	**22 21 41.9**	**+1.6**
O30N	**Mendenhall**	**7.93**	**348**	Pn	**Pn**	**22 21 41.5**	**+1.3**
FNSB	**Fort Nelson**	**8.03**	**40**	Sg	Sb	22 23 56.9	+17
YUK7	**Dusty Glacier**	**8.03**	**341**	Pn	**Pn**	**22 21 43.5**	**+1.7**
N32M	**Quiet Lake**	**8.10**	**359**	Pn	**Pn**	**22 21 44.2**	**+1.6**
N32M				Sg	Sb	22 23 59.4	+18
PCA	**Pinnacle**	**8.16**	**333**	Pn	**Pn**	**22 21 44.6**	**+1.2**
PCA	**Pinnacle**	**8.16**	**333**	Pn	**Pn**	**22 21 44.7**	**+1.3**
PCA				Sn	**Sn**	**22 23 08.3**	**-6.8**
SHUK	**Shuksan-Mt. Ba**	**8.17**	**117**	Pn	**Pn**	**22 21 44.7**	**+1.0**
HYT	**Haines Junctio**	**8.19**	**343**	Pn	**Pn**	**22 21 45.8**	**+1.9**
HYT	**Haines Junctio**	**8.19**	**343**	Pn	**Pn**	**22 21 45.8**	**+1.9**
NBC1	**NorthernBC 1**	**8.24**	**33**	Sg	Sb	22 24 01.6	+16
WTMTA	**White Mountain**	**8.31**	**66**	Sg	Sb	22 24 02.7	+15
SAMH	**Samovar Hills**	**8.34**	**331**	Pn	**Pn**	**22 21 47.1**	**+1.3**
YUK5	**Granite Creek**	**8.54**	**343**	Pn	**Pn**	**22 21 50.6**	**+1.9**
N31M	**Braeburn, Yuko**	**8.59**	**350**	Pn	**Pn**	**22 21 49.8**	**+0.5**
N31M	**Braeburn, Yuko**	**8.59**	**350**	Pn	**Pn**	**22 21 50.6**	**+1.4**
O28M	**Mount Upton**	**8.71**	**335**	Pn	**Pn**	**22 21 51.8**	**+0.6**
O28M				Sn	**Sn**	**22 23 23.9**	**-5.1**
N30M	**Aishikik Lake**	**8.72**	**346**	Pn	**Pn**	**22 21 52.1**	**+1.0**
N30M				Sn	**Sn**	**22 23 22.2**	**-6.8**
TGTN	**Hyland Airport**	**8.81**	**14**	Pn	**Pn**	**22 21 53.1**	**+0.7**
YUK4	**Talbot Arm**	**8.88**	**341**	Pn	**Pn**	**22 21 55.2**	**+1.8**
LOGN	**Logan Glacier**	**8.97**	**333**		**Pn**	**22 21 55.8**	**+1.2**
LOGN	**Logan Glacier**	**8.97**	**333**	Pn	**Pn**	**22 21 56.0**	**+1.4**
LOGN				Sn	**Sn**	**22 23 30.3**	**-4.9**
GRNC	**Granite Creek**	**9.11**	**331**	Pn	**Pn**	**22 21 57.9**	**+1.3**
GRNC	**Granite Creek**	**9.11**	**331**	Pn	**Pn**	**22 21 57.3**	**+0.7**
GRNC				Sn	**Sn**	**22 23 31.5**	**-7.1**
M31M	**Drury Creek, Y**	**9.19**	**355**		**Pn**	**22 22 00.0**	**+2.5**
M31M	**Drury Creek, Y**	**9.19**	**355**	Pn	**Pn**	**22 21 58.8**	**+1.3**
BARN	**Barnard Glacie**	**9.35**	**332**		**Pn**	**22 22 01.2**	**+1.4**
FMW	**Mount Fremont**	**9.41**	**126**	Pn	**Pn**	**22 22 00.2**	**-0.5**
KIAG	**Kiagna River**	**9.44**	**330**	Pn	**Pn**	**22 22 01.8**	**+0.7**
KIAG				Sn	**Sn**	**22 23 42.3**	**-4.5**
BALM	**Baldy**	**9.53**	**331**	Pn	**Pn**	**22 22 03.2**	**+1.1**
BALM				Sn	**Sn**	**22 23 43.6**	**-5.1**
YUK3	**Moose Creek**	**9.65**	**338**	Pn	**Pn**	**22 22 05.2**	**+1.2**
PTPK	**Patty Peak**	**9.68**	**331**	Pn	**Pn**	**22 22 05.4**	**+1.0**
PTPK				Sn	**Sn**	**22 23 45.7**	**-7.0**
YUK2	**White River**	**9.75**	**337**	Pn	**Pn**	**22 22 06.3**	**+1.1**
M30M	**Minto, Yukon**	**9.76**	**349**	Pn	**Pn**	**22 22 06.8**	**+1.4**
M30M	**Minto, Yukon**	**9.76**	**349**	Pn	**Pn**	**22 22 05.8**	**+0.4**
M29M	**Somme Creek**	**9.87**	**344**	P	**Pn**	**22 22 07.3**	**+0.4**
MCARA	**McCarthy VSAT**	**10.00**	**330**	P	**Pn**	**22 22 09.4**	**+0.8**
L29M	**L29M**	**10.45**	**346**		**Pn**	**22 22 16.6**	**+1.8**
L29M	**L29M**	**10.45**	**346**	P	**Pn**	**22 22 16.3**	**+1.5**
KLU	**Klutina**	**11.02**	**325**	Pn	**Pn**	**22 22 23.3**	**+0.7**
K29M	**Barlow Dome**	**11.08**	**349**	P	**Pn**	**22 22 24.4**	**+1.0**
BCAR	**Beaver Creek A**	**11.08**	**338**	Pn	**Pn**	**22 22 24.7**	**+1.3**
J30M	**Hart River**	**11.68**	**352**	P	**Pn**	**22 22 33.0**	**+1.3**
SCM	**Sheep Creek Mo**	**11.74**	**324**	Pn	**Pn**	**22 22 33.9**	**+1.4**
KNK	**Kink Glacier**	**11.89**	**321**	Pn	**Pn**	**22 22 35.7**	**+1.3**
SLKM	**Skilak Lake**	**12.10**	**315**	Pn	**Pn**	**22 22 39.1**	**+1.8**
KDAK	**Kodiak Island**	**12.19**	**301**	Pn	**Pn**	**22 22 38.7**	**+0.2**
	0.1nm,0.3s,baz=56,slow=3.6,SNR=2.1 14nm,1.2s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**12.19**	**301**		**Pn**	**22 22 39.3**	**+0.8**
I30M	**Mount Dempster**	**12.32**	**353**		**Pn**	**22 22 43.6**	**+3.2**
I30M	**Mount Dempster**	**12.32**	**353**	P	**Pn**	**22 22 42.1**	**+1.8**
H31M	**Peel River**	**12.79**	**357**	P	**Pn**	**22 22 48.2**	**+1.4**
SUA	**Susitna One**	**12.82**	**318**	Pn	**Pn**	**22 22 48.3**	**+1.1**
I28M	**Miner Creek**	**12.93**	**346**	P	**Pn**	**22 22 50.5**	**+1.8**
YKA	**Yellowknife Ar**	**13.46**	**38**	Pn	**Pn**	**22 22 57.5**	**+1.7**
	0.1nm,0.3s,baz=226,slow=12,SNR=5.1 0.9nm,0.6s						
YKA				AML	AML		
YKA	**Yellowknife Ar**	**13.46**	**38**		**Pn**	**22 22 57.1**	**+1.3**
YKAW3	**Yellowknife Wh**	**13.50**	**38**	Pn	**Pn**	**22 22 56.7**	**+0.3**
ILAR	**Eielson Array**	**13.76**	**334**	Pn	**Pn**	**22 23 01.6**	**+1.7**
	baz=154,slow=13,SNR=5.6						
ILAR				LR	LR	22 28 44.0	
	comp=Z,171nm,18.3s,baz=100,slow=39 0.3nm,0.6s						
G31M	**Satah River**	**13.91**	**358**	P	**Pn**	**22 23 03.4**	**+1.5**
G30M	**tAoh Zraii Nji**	**14.05**	**354**	P	**Pn**	**22 23 05.3**	**+1.4**
G29M	**Pine Creek**	**14.12**	**351**		**Pn**	**22 23 07.1**	**+2.3**
PPLA	**Purkeypile**	**14.18**	**322**	Pn	**Pn**	**22 23 06.8**	**+0.9**
CAST	**Castle Rocks**	**14.45**	**323**	Pn	**Pn**	**22 23 10.2**	**+0.8**
F30M	**Barrier River**	**14.66**	**355**	P	**Pn**	**22 23 13.4**	**+1.3**
L19K	**White Mountain**	**14.87**	**317**		**Pn**	**22 23 16.6**	**+1.6**
F28M	**Old Crow**	**14.99**	**349**		**Pn**	**22 23 18.7**	**+2.1**
F28M				IAmb	IAmb	22 23 42.6	
	comp=Z,8.3nm,1.2s						
INK	**Inuvik**	**15.29**	**359**	Pn	**Pn**	**22 23 23.4**	**+2.9**
	comp=Z,0.3nm,0.3s,baz=142,slow=6.1,SNR=6.1 comp=Z,1.6nm,0.5s						
INK				AML	AML		
INK	**Inuvik**	**15.29**	**359**	Pn	**Pn**	**22 23 23.0**	**+2.5**
EGMT	**Eagleton**	**15.44**	**100**		**Pn**	**22 23 23.4**	**+0.6**
G24K	**Hadweenzic Riv**	**15.46**	**338**		**P**	**22 23 26.4**	**-0.8**
G24K				IAmb	IAmb	22 23 32.3	
	comp=Z,5.8nm,0.9s						
BMAR	**Burnt Mountain**	**15.50**	**343**		**P**	**22 23 26.1**	**-1.6**
J20K	**Nowinta River**	**15.64**	**324**	Pn	**Pn**	**22 23 26.8**	**+1.6**
J20K				IAmb	IAmb	22 23 46.3	
	comp=Z,8.7nm,1.3s						
L18K	**Granite Mounta**	**15.65**	**315**	Pn	**Pn**	**22 23 26.6**	**+1.2**
L18K				IAmb	IAmb	22 23 35.0	
	comp=Z,12nm,1.1s						
M17K	**Holitna River**	**15.66**	**312**		**P**	**22 23 27.2**	**+1.8**
E27K	**Coleen River**	**15.74**	**348**		**P**	**22 23 29.3**	**-1.0**
H22K	**Ishtalitna Cre**	**15.86**	**331**	Pn	**P**	**22 23 30.4**	**-1.3**
E28M	**Babbage River**	**15.91**	**351**		**P**	**22 23 31.8**	**-0.4**
E28M				IAmb	IAmb	22 23 38.8	
	comp=Z,10nm,0.8s						
H21K	**Melozitna Rive**	**16.12**	**329**	Pn	**Pn**	**22 23 32.7**	**+1.4**
M16K	**Timber Creek**	**16.23**	**310**	Pn	**P**	**22 23 34.5**	**-1.3**
M16K				IAmb	IAmb	22 24 01.1	
	comp=Z,21nm,1.5s						
IMAR	**Indian Mountai**	**16.63**	**329**		**P**	**22 23 40.0**	**-0.2**
D27M	**Malcolm River**	**16.67**	**350**	P	**P**	**22 23 40.9**	**+0.3**
E23K	**Chandalar**	**17.05**	**338**		**P**	**22 23 45.0**	**+0.1**
E23K				IAmb	IAmb	22 23 50.5	
	comp=Z,5.5nm,0.8s						
F21K	**Alatna River**	**17.39**	**333**	Pn	**P**	**22 23 48.5**	**-0.1**
F21K				IAmb	IAmb	22 24 10.2	
	comp=Z,10.0nm,1.4s						
C26K	**Camden Bay**	**17.80**	**346**		**P**	**22 23 54.2**	**+1.2**
C26K				IAmb	IAmb	22 24 01.6	
	comp=Z,8.0nm,1.0s						
F20K	**Avaraart Lake**	**17.93**	**330**	P	**P**	**22 23 56.0**	**+1.5**
F20K				IAmb	IAmb	22 23 58.1	
	comp=Z,10nm,1.3s						
D23K	**Nanushuk River**	**18.02**	**339**		**P**

AKTO	**Aktyubinsk**	**38.47**	**10**	LR	LR	23 13 35.9	
	comp=Z,65nm,18.2s,baz=18,slow=41						
BURAR	**Bucovina Array**	**39.81**	**336**	P	**P**	**22 54 54.7**	**+0.3**
AKASG	**Malin Array Be**	**40.98**	**342**	P	**P**	**22 55 02.2**	**-1.7**
	comp=Z,0.2nm,0.3s,baz=158,slow=7.4,SNR=2.0						
	comp=Z,0.2nm,0.3s						
LBTB	**Lobatse**	**43.53**	**211**	LR	LR	23 15 03.4	
	comp=Z,65nm,18.2s,baz=118,slow=38						
BVAR	**Borovoye Array**	**43.93**	**19**	P	**P**	**22 55 29.1**	**+1.2**
	comp=Z,1.6nm,0.7s,baz=205,slow=7.0,SNR=4.9						
	comp=Z,1.6nm,0.7s						
MAKZ	**Makanchi**	**44.24**	**33**	P	**P**	**22 55 31.9**	**+1.4**
MAKZ				IAmb	IAmb	22 55 36.9	
	comp=Z,3.1nm,0.8s						
MKAR	**Makanchi Array**	**44.39**	**33**	P	**P**	**22 55 32.0**	**+0.3**
	comp=Z,1.0nm,0.9s,baz=227,slow=8.1,SNR=8.3						
	comp=Z,1.0nm,0.3s						
MKAR	**Makanchi Array**	**44.39**	**33**	P	**P**	**22 55 31.8**	**0.0**
KURBB	**Kurchatov Array**	**45.14**	**27**	P	**P**	**22 55 37.9**	**+0.2**
	comp=Z,1.0nm,0.2s,baz=228,slow=8.2,SNR=4.1						
	comp=Z,1.0nm,0.2s						
GERES	**GERESS Array B**	**46.01**	**329**	P	**P**	**22 55 44.1**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=126,slow=8.4,SNR=5.6						
	comp=Z,0.7nm,0.8s						
BOSA	**Boshof**	**46.72**	**208**	LR	LR	23 15 39.0	
	comp=Z,95nm,18.0s,baz=154,slow=36						
CMAR	**Chiang Mai Arr**	**49.00**	**77**	P	**P**	**22 56 08.0**	**-0.3**
	comp=Z,0.7nm,0.3s,baz=274,slow=9.0,SNR=7.6						
	comp=Z,0.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**49.00**	**77**	P	**P**	**22 56 07.9**	**-0.3**
ZAA0	**Zalesovo Array**	**50.23**	**27**	P	**P**	**22 56 17.2**	**+0.1**
ZAA0				IAmb	IAmb	22 56 22.2	
	comp=Z,1.9nm,0.8s						
ZALV	**Zalesovo Beam**	**50.23**	**27**	P	**P**	**22 56 16.6**	**-0.5**
	comp=Z,1.2nm,0.6s,baz=228,slow=8.4,SNR=7.8						
	comp=Z,1.2nm,0.6s						
ZALV	**Zalesovo Beam**	**50.23**	**27**	P	**P**	**22 56 17.3**	**+0.2**
FINES	**FINESS Array B**	**51.28**	**347**	P	**P**	**22 56 25.1**	**+0.3**
	comp=Z,2.5nm,0.8s,baz=152,slow=12,SNR=1.6						
	comp=Z,2.5nm,0.8s						
SUR	**Sutherland**	**51.96**	**210**	LR	LR	23 19 17.8	
	comp=Z,86nm,19.2s,baz=140,slow=37						
ARCES	**ARCESS Array B**	**58.62**	**351**	P	**P**	**22 57 17.6**	**-0.2**
	comp=Z,2.4nm,0.8s,baz=169,slow=2.5,SNR=4.0						
	comp=Z,2.4nm,0.8s						
ARCES	**ARCESS Array B**	**58.62**	**351**	P	**P**	**22 57 18.2**	**+0.3**
SONM	**Songino Array**	**59.42**	**42**	LR	LR	23 25 27.3	
	comp=Z,36nm,19.2s,baz=346,slow=38						
WRA	**Warramunga Arr**	**90.61**	**110**	P	**P**	**23 00 24.0**	**-0.2**
	comp=Z,1.2nm,0.8s,baz=294,slow=3.8,SNR=8.0						
	comp=Z,1.2nm,0.8s						
WRA	**Warramunga Arr**	**90.61**	**110**	P	**P**	**23 00 23.8**	**-0.5**
WB0	**Warramunga Arr**	**90.62**	**110**	P	**P**	**23 00 24.8**	**+0.5**
WB0				IAmb	IAmb	23 00 30.1	
	comp=Z,2.7nm,0.9s						
ASAR	**Alice Springs**	**91.06**	**114**	P	**P**	**23 00 26.8**	**+0.5**
	comp=Z,0.7nm,0.9s,baz=269,slow=4.4,SNR=4.7						
	comp=Z,0.7nm,0.9s						
STKA	**Stephens Creek**	**99.35**	**121**	LR	LR	23 42 51.0	
	comp=Z,133nm,19.8s,baz=200,slow=34						

SJA 18 22:54:23.8±0.5, 23°.94S×66°.84W, h215km±5km, ML3.5, MW3.4, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		0.54	122	eP	Pn	22 54 53.6	+0.2
SLA	**San Lorenzo**	**1.44**	**123**	eP	Pn	22 54 59.3	+0.7
AF01	**San Pedro de A**	**1.58**	**308**	eP	Pn	22 55 11.2	+11
AF01				eS	S	22 55 13.4	-14
AF01				IAML		22 55 21.0	
	comp=Z,280nm,0.3s						
YJA	**Yavi**	**2.14**	**35**	eP	Pn	22 55 05.0	-0.4
FSA	**Cafayete**	**2.30**	**160**	eP	Pn	22 55 07.1	+0.4
PB06	**IPOC Station P**	**2.80**	**296**	eP	Pn	22 55 12.8	+0.7
PB06				eS	S	22 55 48.9	-0.8
PB06				IAML		22 55 51.4	
	comp=Z,102nm,0.5s						
PB09	**IPOC Station P**	**3.08**	**313**	eP	Pn	22 55 16.5	+1.1
PB09				eS	S	22 55 55.9	+0.5
PB09				IAML		22 55 58.9	
	comp=Z,73nm,0.4s						
AHML	**Horco Molle**	**3.14**	**155**	eP	Pn	22 55 10.1	-5.9
AHML				eS	S	22 55 50.3	-6.3
PB05	**IPOC Station P**	**3.27**	**289**	eP	Pn	22 55 18.2	+0.6
PB05				eS	S	22 55 58.2	-1.2
PB05				IAML		22 56 01.2	
	comp=Z,38nm,0.2s						
PB03	**IPOC Station P**	**3.28**	**304**	eP	Pn	22 55 18.3	+0.5
PB03				eS	S	22 55 58.6	-1.1
PB03				IAML		22 56 02.6	
	comp=Z,120nm,0.3s						
PB14	**IPOC Station P**	**3.32**	**257**	eP	Pn	22 55 19.0	+0.6
PB14				IAML		22 56 02.1	
	comp=Z,70nm,0.5s						
PB10	**IPOC Station P**	**3.43**	**276**	eP	Pn	22 55 20.0	+0.7
PB10				eS	S	22 56 01.7	-0.9
PB10				IAML		22 56 06.1	
	comp=Z,52nm,1.6s						
AC02	**Maricunga**	**3.55**	**215**	eP	Pn	22 55 22.5	+1.3
AC02				eS	S	22 56 06.7	+0.7
PB07	**IPOC Station P**	**3.57**	**308**	eP	Pn	22 55 21.7	+0.5
PB07				eS	S	22 56 04.3	-1.6
PB07				IAML		22 56 07.1	
	comp=Z,78nm,0.3s						
PB02	**IPOC Station P**	**3.85**	**312**	eP	Pn	22 55 25.0	+0.6
PB02				eS	S	22 56 10.4	-1.3
PB02				IAML		22 56 12.0	
	comp=Z,123nm,0.2s						
AC01	**Pan de Azucar**	**4.06**	**236**	eP	Pn	22 55 26.4	-0.4
AC01				eS	S	22 56 14.2	-2.0
AC01				IAML		22 56 14.4	
	comp=Z,54nm,0.5s						
PB08	**IPOC Station P**	**4.35**	**330**	eP	Pn	22 55 31.9	+1.0
PB08				eS	S	22 56 23.1	-0.3
PB08				IAML		22 56 27.0	
	comp=Z,32nm,0.9s						
TA01	**Diego Aracena**	**4.57**	**317**	eP	Pn	22 55 34.0	+0.7
TA01				eS	S	22 56 25.6	-2.1
TA01				IAML		22 56 30.6	
	comp=Z,21nm,0.7s						
GO03	**Copiapo**	**4.75**	**219**	eP	Pn	22 55 35.2	-0.3
GO03				eS	S	22 56 29.9	-2.1
GO03				IAML		22 56 33.2	
	comp=Z,27nm,0.3s						
GO01	**Chusmiza**	**4.78**	**332**	eP	Pn	22 55 36.9	+0.5
GO01				eS	S	22 56 33.0	-0.4
GO01				IAML		22 56 37.5	
	comp=Z,24nm,0.3s						
PB11	**IPOC Station P**	**4.92**	**327**	eP	Pn	22 55 37.5	-0.3
PB11				eS	S	22 56 28.0	-7.9
PB11				IAML		22 56 35.6	
	comp=Z,30nm,0.6s						
PSGCX	**Pisagua**	**5.29**	**324**	eP	Pn	22 55 41.3	-1.1
PSGCX				eS	S	22 56 40.5	-4.0
PSGCX				IAML		22 56 49.4	
	comp=Z,22nm,1.2s						

*NAM **18** 23:09:24.4±31.0, 20°.10S×17°.92E, h0km±485km, ML3.2, Presumed earthquake*
*BGSI **18** 23:09:25.6±1.8, 19°.84S×18°.06E, h0km±44km, ML2.8, Presumed earthquake*

ISC 18 23:09:18.5±0.9, 19°.92S±0°.04×18°.05E±0°.04, h10km, n12, c2§16/21, Namibia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WIN	**Windhoek**	**2.77**	**198**	*i* P	**Pb**	**23 10 06.8**	**-1.5**
WIN				*i* S	**Sn**	**23 10 39.0**	**+2.0**
WIN	**Windhoek**	**2.77**	**198**	*i* P	**Pn**	**23 10 04.6**	**+1.4**
WIN				*i* S	**Sb**	**23 10 42.3**	**-0.2**
KARI	**Karibib**	**2.87**	**225**	*i* P	**Pn**	**23 10 02.4**	**-2.1**
KARI				*i* S	**Sn**	**23 10 41.2**	**+2.0**
KARI				IAML		23 10 46.1	
	comp=Z,13nm,0.2s						
KJAB	**KAMANJAB**	**3.03**	**275**	*i* P	**Pn**	**23 10 04.6**	**-2.1**
KJAB				*i* S	**Sn**	**23 10 44.5**	**+1.4**
KJAB				IAML		23 10 55.1	
	comp=Z,255nm,0.9s						
KJAB	**KAMANJAB**	**3.03**	**275**	*i* P	Pn	23 10 02.4	-4.3
KJAB				*i* S	**Sn**	**23 10 44.5**	**+1.4**
KJAB				IAML		23 10 55.1	
	comp=Z,238nm,0.9s						

GRTLG	**Ghanzi**	**3.29**	**116**	*i* P	**Pb**	**23 10 16.9**	**-0.2**
GRTLG				*i* S	**Sb**	**23 10 55.1**	**-2.2**
GRTLG				IAML		23 11 09.2	
	comp=N,68nm,0.3s						
XAUDM	**Khaudum**	**3.40**	**67**	*i* P	**Pb**	**23 10 18.6**	**-0.4**
XAUDM				*i* S	**Sn**	**23 10 55.4**	**+3.2**
XAUDM				IAML		23 11 25.3	
	comp=E,84nm,0.6s						
KOOLE	**Kule**	**3.65**	**147**	*i* P	**Pb**	**23 10 21.5**	**-1.7**
KOOLE				*i* S	**Sb**	**23 11 05.3**	**-2.3**
KOOLE				IAML		23 11 19.6	
	comp=N,42nm,0.7s						
OPU	**Opuwo**	**4.38**	**294**	*i* P	**Pb**	**23 10 35.6**	**-0.1**
OPU				*i* S	**Sn**	**23 11 18.8**	**+2.3**
OPU				IAML		23 11 35.4	
	comp=Z,18nm,0.5s						
OPU	**Opuwo**	**4.38**	**294**	*i* P	**Pb**	**23 10 33.4**	**-2.3**
OPU				*i* S	**Sn**	**23 11 19.9**	**+3.4**
OPU				IAML		23 11 37.7	
	comp=Z,19nm,0.3s						
KATM	**Katima Mulilo**	**6.40**	**69**	*i* P	**Pn**	**23 10 53.3**	**+0.3**
KATM				IAML		23 13 02.8	
	comp=Z,8.2nm,1.4s						
AUSN	**Aus**	**6.91**	**193**	*i* P	Pg	23 11 41.0	+10
AUSN				*i* S	**Sb**	**23 12 45.2**	**+3.6**
AUSN				IAML		23 12 50.2	
	comp=Z,922nm,3.6s						

*TIR **18** 23:10:28.2±6.4, 35°.05N×20°.96E, h0km±198km, Presumed earthquake*
*NAO **18** 23:10:42.7, 35°.66N×22°.52E, h10km, MB3.8*
*IDC **18** 23:10:56.0±0.5, 37°.24N×21°.71E, h0km, mb4.3/21, mbtmp4.2/30, ML3.6/9, MS3.7/33, Error ellipse: s-maj=10.6km s-min=7.8km az=22.0*
*MOS **18** 23:10:56.4±1.3, 37°.16N×21°.54E, h16km, mb4.8/20, Error ellipse: s-maj=6.9km s-min=3.5km az=79.3*
*UPSL **18** 23:10:57.1, 37°.20N×21°.71E, h10km, Mw4.2, Moment Tensor Solution. s7 Moment tensor: Mrr-0.05; Mθθ0.59; Mφφ-0.54; Mrθ-2.49; Mθφ0.39; Mφr0.92; Fault plane solution: NP1:φs206.00000°, δ14.00000°, λ-175.00000°. NP2:φs111.00000°, δ89.00000°, λ-76.00000°.*
*PDG **18** 23:10:58.7±1.3, 37°.19N×21°.52E, h18km±1km, ML4.3/13 Error ellipse: s-maj=1.6km s-min=1.9km az=0.0*
*MCSM **18** 23:10:58.9±0.6, 37°.N±3°×2°.2E±°, h10km±4km, mb4.4, mB5.1, MLv4.7, Mw(mB)4.5*
*SOF **18** 23:10:58.6, 37°.20N×21°.50E, h10km±6km, MD4.7/5*
*NEIC **18** 23:10:59.3±1.9, 37°.15N±0°.02×21°.57E±0°.07, h22km±4km, mb4.6/39, Mwr4.3/27, Error ellipse: s-maj=7.7km s-min=2.9km az=91.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr-1.04; Mθθ0.82; Mφφ0.22; Mrθ-2.60; Mθφ-1.38; Mφr0.19; Fault plane solution: Mo3.09000×10¹⁵ NP1:φs97.54000°, δ78.72000°, λ-114.05000°. NP2:φs343.87000°, δ26.42000°, λ-26.08000°. Principal axes: T 3.1721, Plg30.0000°, Azm207.0000°; N -0.1642, Plg24.0000°, Azm103.0000°; P -3.0079, Plg50.0000°, Azm341.0000°;*
*MED_RC **18** 23:10:59.0, 37°.16N×21°.52E, h29km, Mw4.4, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr-1.71±.66; Mθθ2.38±.43; Mφφ0.00±.37; Mrθ2.82±.30; Mθφ2.33±.28; Mφr-1.24±.33; Fault plane solution: Mo4.41000×10¹⁵ NP1:φs26.00000°, δ42.00000°, λ-157.00000°. NP2:φs278.00000°, δ75.00000°, λ-51.00000°. Principal axes: T 4.3400, Plg20.0000°, Azm340.0000°; N 0.1400, Plg38.0000°, Azm86.0000°; P -4.4700, Plg45.0000°, Azm228.0000°;*
*ATH **18** 23:10:59.6, 37°.20N×21°.60E, h10km, Mw4.3, Moment Tensor Solution. s11 Moment tensor: Mrr-0.13; Mθθ0.22; Mφφ-0.09; Mrθ2.99; Mθφ0.70; Mφr-0.94; Fault plane solution: NP1:φs15.00000°, δ12.00000°, λ180.00000°. NP2:φs106.00000°, δ90.00000°, λ78.00000°.*
*THE **18** 23:10:59.7, 37°.N±1°×2°.2E±°, h0km, M4.1/73, MLh4.1/73*
*NEIC **18** 23:11:00.1, 37°.27N×21°.57E, h25km*
*GFZ **18** 23:11:00.7±0.2, 37°.N±2°×2°.2E±°, h10km, M4.4/25, mb4.5/25*

ISC 18 23:10:58.9±0.6, 37°.19N±0°.02×21°.59E±0°.02, h19km±3km, n695, σ1§69/780, mb4.5/51, MS3.7/27, 59C-37D, Southern Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ITM	**Ithomi**	**0.27**	**93**	P	**Pb**	**23 11 05.2**	**+0.2**
ITM				S	**Sb**	**23 11 09.3**	**+0.2**
ITM				AML	AML		
ITM	**Ithomi**	**0.27**	**93**	Pg	**Pb**	**23 11 05.2**	**+0.2**
ITM				Sg	**Sb**	**23 11 09.4**	**+0.3**
ITM	**Ithomi**	**0.27**	**93**	P	**Pb**	**23 11 05.3**	**+0.2**
ITM	**Ithomi**	**0.27**	**93**	P	**Pb**	**23 11 05.2**	**+0.2**
ITM				S	**Sg**	**23 11 08.7**	**-0.6**
ITM				AML	AML		
PYL1	**Pylos**	**0.29**	**163**	P	**Pg**	**23 11 05.3**	**-0.1**
PYL1				S	**Sg**	**23 11 09.6**	**-0.2**
ZARO	**Zacharo**	**0.30**	**9**	P	**Pb**	**23 11 06.2**	**+0.6**
ZARO				S	**Sb**	**23 11 10.0**	**-0.1**
ZARO				AML	AML		
VALY	**Valyra**	**0.31**	**95**	P	**Pb**	**23 11 05.9**	**-0.1**
VALY				S	**Sg**	**23 11 10.5**	**+0.1**
VALY				AML	AML		
VALY	**Valyra**	**0.31**	**95**	P	**Pg**	**23 11 05.8**	**0.0**
VALY				S	**Sg**	**23 11 10.1**	**-0.3**
AMT	**Artemida-Makis**	**0.35**	**15**	P	**Pb**	**23 11 07.1**	**+0.3**
AMT				S	**Sb**	**23 11 13.0**	**+1.1**
AMT	**Artemida-Makis**	**0.35**	**15**	P	**Pb**	**23 11 07.0**	**+0.3**
AMT				S	**Sb**	**23 11 12.5**	**+0.6**
MTHA	**Methoni**	**0.38**	**166**	P	**Pb**	**23 11 07.9**	**+0.7**
MTHA				S	**Sb**	**23 11 13.0**	**+0.2**
VLX	**Vlachokerasia**	**0.65**	**74**	P	**Pg**	**23 11 12.1**	**+0.2**
VLX				S	**Sb**	**23 11 21.7**	**+1.2**
VLX				AML	AML		
DRO	**Drossia**	**0.76**	**7**	P	**Pg**	**23 11 14.2**	**+0.2**
DRO				S	**Sn**	**23 11 26.3**	**+0.5**
DRO				AML	AML		
DRO	**Drossia**	**0.76**	**7**	P	**Pg**	**23 11 14.0**	**+0.1**
DRO				S	**Sg**	**23 11 24.4**	**+0.3**
CLEM	**Kyllini,Ilia,G**	**0.79**	**332**	P	**Pn**	**23 11 14.9**	**-0.2**
CLEM				S	**Sg**	**23 11 25.1**	**+0.3**
LCHA	**Lechaina**	**0.79**	**341**	P	**Pn**	**23 11 15.2**	**+0.2**
LCHA				S	**Sg**	**23 11 24.6**	**-0.2**
LTHK	**Lithakia**	**0.79**	**311**	P	**Pg**	**23 11 14.5**	**0.0**
LTHK				S	**Sn**	**23 11 26.4**	**+0.1**
LTHK				AML	AML		
LTHK	**Lithakia**	**0.79**	**311**	P	**Pg**	**23 11 14.4**	**0.0**
LTHK				S	**Sn**	**23 11 26.5**	**+0.1**
RLS	**Riolos of Patr**	**0.87**	**353**	P	**Pn**	**23 11 16.1**	**-0.1**
RLS				S	**Sn**	**23 11 28.9**	**+0.6**
RLS				AML	AML		
RLS	**Riolos of Patr**	**0.87**	**353**	P	**Pg**	**23 11 15.8**	**-0.1**
RLS				S	**Sn**	**23 11 28.3**	**0.0**
RLS				AML	AML		
KYPS	**Kipseli, Zakin**	**0.87**	**316**	P	**Pn**	**23 11 16.3**	**+0.1**
KYPS				S	**Sg**	**23 11 27.1**	**-0.5**
KLV1	**Kalavrita**	**0.93**	**26**	P	**Pb**	**23 11 16.7**	**+0.1**
KLV1				S	**Sn**	**23 11 29.9**	**-0.1**
KLV1				AML	AML		
GUR	**Goura**	**0.95**	**39**	P	**Pb**	**23 11 17.0**	**+0.1**
GUR				S	**Sn**	**23 11 31.6**	**+1.1**
GUR				AML	AML		
GUR	**Goura**	**0.95**	**39**	P	**Pb**	**23 11 16.6**	**-0.3**
GUR				S	**Sn**	**23 11 30.9**	**+0.4**
GUR				AML	AML		
KLV	**Kalavryta, Ach**	**0.96**	**27**	P	**Pb**	**23 11 16.7**	**-0.2**
KLV				S	**Sn**	**23 11 31.5**	**+0.9**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**0.96**	**27**	P	**Pb**	**23 11 16.8**	**-0.2**
KLV				S	**Sn**	**23 11 30.6**	**0.0**
ARS1	**Argos**	**1.01**	**64**	P	**Pg**	**23 11 20.1**	**+1.6**
AXS	**Araxos**	**1.01**	**350**	P	**Pn**	**23 11 18.2**	**0.0**
AXS				S	**Sn**	**23 11 33.8**	**+1.9**
AXS				AML	AML		
AXS	**Araxos**	**1.01**	**350**	P	**Pg**	**23 11 18.4**	**-0.3**
AXS				S	**Sn**	**23 11 32.5**	**+0.5**
NPLA	**Nafplio**	**1.03**	**69**	P	**Pg**	**23 11 19.1**	**+0.1**
NPLA				S	**Sg**	**23 11 32.6**	**0.0**
NPLA				AML	AML		
PATG	**Patra B**	**1.05**	**6**	P	**Pg**	**23 11 20.0**	**+0.7**
PATC	**Patra C**	**1.08**	**7**	P	**Pg**	**23 11 20.2**	**+0.2**
PATC				S	**Sg**	**23 11 35.1**	**+1.0**
LAKA	**Lakka**	**1.09**	**16**	P	**Pn**	**23 11 19.3**	**+0.1**
LAKA				S	**Sg**	**23 11 36.7**	**+2.3**
LAKA				AML	AML		
LAKA	**Lakka**	**1.09**	**16**	P	**Pn**	**23 11 19.5**	**+0.3**
LAKA				S	**Sg**	**23 11 35.7**	**+1.3**
LAKA				AML	AML		
RIOA	**Rio**	**1.11**	**8**	P	**Pg**	**23 11 20.6**	**0.0**
RIOA				S	**Sg**	**23 11 35.4**	**+0.3**
RIOA				AML	AML		
AGEO	**AgiosGiorgios,**	**1.13**	**19**	P	**Pb**	**23 11 20.3**	**+0.4**
VLI	**Veliai**	**1.18**	**113**	P	**Pg**	**23 11 21.4**	**-0.4**
VLI				S	**Sg**	**23 11 39.8**	**+2.6**
VLI				AML	AML		
VLI	**Veliai**	**1.18**	**113**	P	**Pg**	**23 11 21.5**	**-0.2**
VLI				S	**Sg**	**23 11 37.4**	**+0.2**
MSL1	**Messolongi**	**1.18**	**354**	P	**Pg**	**23 11 22.6**	**+0.7**
THAL	**Thalero**	**1.20**	**45**	P	**Pb**	**23 11 21.4**	**+0.4**
THAL				AML	AML		
THAL	**Thalero**	**1.20**	**45**	P	**Pg**	**23 11 21.8**	**-0.4**
THAL				S	**Sn**	**23 11 37.0**	**+0.6**
AGRP	**Agrapidokambos**	**1.20**	**5**	P	**Pg**	**23 11 22.2**	**-0.1**
AGRP				S	**Sg**	**23 11 38.2**	**+0.2**
AGRP				AML	AML		
PSDA	**Pessada-Kefalo**	**1.22**	**319**	P	**Pb**	**23 11 21.2**	**-0.1**
PSDA				S	**Sg**	**23 11 41.0**	**+2.5**
PSDA				AML	AML		
PSDA	**Pessada-Kefalo**	**1.22**	**319**	P	**Pb**	**23 11 21.3**	**-0.1**
PSDA				S	**Sg**	**23 11 39.7**	**+1.2**
PLEV	**Plevrona-Mesol**	**1.23**	**353**	P	**Pg**	**23 11 22.0**	**-0.6**
PLEV				S	**Sg**	**23 11 41.5**	**+2.8**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**1.23**	**353**	P	**Pg**	**23 11 22.3**	**-0.3**
PLEV				S	**Sg**	**23 11 39.4**	**+0.7**
PLEV				AML	AML		
ACOR	**Acrocorinthos**	**1.23**	**55**	P	**Pb**	**23 11 21.8**	**+0.2**
ACOR				S	**Sg**	**23 11 39.1**	**+0.3**
ACOR				AML	AML		
KIAA	**Kiato**	**1.23**	**48**	P	**Pg**	**23 11 22.5**	**-0.3**
KIAA				S	**Sg**	**23 11 38.6**	**-0.3**
VVK	**Vomvokou**	**1.24**	**8**	P	**Pb**	**23 11 22.2**	**+0.5**
VVK				S	**Sg**	**23 11 41.6**	**+2.4**
VVK				AML	AML		
VVK	**Vomvokou**	**1.24**	**8**	P	**Pg**	**23 11 22.4**	**-0.5**
VVK				S	**Sg**	**23 11 39.0**	**-0.2**
VVK				AML	AML		
MG00	**Magoula, Dorid**	**1.25**	**13**	P	**Pg**	**23 11 22.5**	**-0.6**
MG00				S	**Sg**	**23 11 39.7**	**+0.2**
EFP	**Efpalio**	**1.26**	**11**	P	**Pg**	**23 11 22.8**	**-0.5**
EFP				S	**Sg**	**23 11 41.5**	**+1.8**
EFP				AML	AML		
EFP	**Efpalio**	**1.26**	**11**	P	**Pg**	**23 11 22.8**	**-0.5**
EFP				S	**Sg**	**23 11 39.4**	**-0.2**
EFP				AML	AML		
VLS	**Valsamata**	**1.26**	**321**	P	**Pb**	**23 11 22.0**	**-0.2**
VLS				S	**Sg**	**23 11 42.4**	**+2.5**
VLS				AML	AML		
VLS	**Valsamata**	**1.26**	**321**	P	**Pb**	**23 11 21.9**	**-0.2**
VLS				S	**Sg**	**23 11 40.9**	**+1.0**
VLS				AML	AML		
MNVA	**Monemvasia**	**1.26**	**113**	P	**Pg**	**23 11 23.2**	**-0.1**
MNVA				S	**Sg**	**23 11 39.8**	**-0.1**
MNVA				AML	AML		
KALE	**Kalithea**	**1.27**	**20**	P	**Pb**	**23 11 22.6**	**+0.2**
KALE				S	**Sg**	**23 11 44.0**	**+3.8**
KALE				AML	AML		
KALE	**Kalithea**	**1.27**	**20**	P	**Pb**	**23 11 22.9**	**+0.5**
KALE				S	**Sg**	**23 11 41.2**	**+1.0**
KALE				AML	AML		
SERG	**Sergoula**	**1.27**	**17**	P	**Pb**	**23 11 22.4**	**+0.1**
SERG				S	**Sg**	**23 11 42.0**	**+1.8**
SERG				AML	AML		
SERG	**Sergoula**	**1.27**	**17**	P	**Pg**	**23 11 22.9**	**-0.6**
SERG				S	**Sg**	**23 11 40.1**	**-0.1**
SERG				AML	AML		
EPID	**Epidavros**	**1.29**	**70**	P	**Pg**	**23 11 23.2**	**-0.6**
EPID				AML	AML		
EPID	**Epidavros**	**1.29**	**70**	P	**Pb**	**23 11 23.0**	**+0.4**
EPID				S	**Sg**	**23 11 40.9**	**+0.2**
LOUT	**Loutraki**	**1.35**	**54**	P	**Pb**	**23 11 24.3**	**+0.6**
LOUT				S	**Sg**	**23 11 43.2**	**+0.4**
LOUT				AML	AML		
MET3	**Ano Fanari,Met**	**1.36**	**73**	P	**Pg**	**23 11 24.6**	**-0.6**
MET3				S	**Sg**	**23 11 43.2**	**+0.3**
LXR1	**Lixouri, Cepha**	**1.36**	**318**	P	**Pg**	**23 11 24.1**	**+0.3**
LXR1				S	**Sg**	**23 11 45.5**	**+2.5**
NPS1	**Neapolis Lacon**	**1.36**	**120**	P	**Pg**	**23 11 25.4**	**+0.2**
NPS1				S	**Sg**	**23 11 42.9**	**-0.1**
LTK	**Loutraki**	**1.37**	**52**	P	**Pb**	**23 11 24.5**	**+0.5**
LTK				S	**Sg**	**23 11 45.2**	**+1.9**
LTK				AML	AML		
LTK	**Loutraki**	**1.37**	**52**	P	**Pb**	**23 11 24.3**	**+0.3**
LTK				AML	AML		
AST1	**Astakos**	**1.40**	**344**	P	**Pg**	**23 11 25.9**	**-0.1**
AST1				S	**Sg**	**23 11 46.3**	**+2.0**
ANX	**Ano Chora**	**1.42**	**10**	P	**Pb**	**23 11 25.3**	**+0.4**
ANX				S	**Sg**	**23 11 47.3**	**+2.3**
ANX				AML	AML		
ANX	**Ano Chora**	**1.42**	**10**	P	**Pg**	**23 11 25.6**	**-0.8**
ANX				AML	AML		
PVO	**Paravola**	**1.42**	**358**	P	**Pg**	**23 11 25.6**	**-0.7**
PVO				AML	AML		
PVO	**Paravola**	**1.42**	**358**	P	**Pg**	**23 11 25.7**	**-0.7**
PVO				AML	AML		
DMLN	**Damoulianata-K**	**1.42**	**318**	P	**Pb**	**23 11 24.8**	**0.0**
DMLN				AML	AML		
DMLN	**Damoulianata-K**	**1.42**	**318**	P	**Pb**	**23 11 24.9**	**0.0**
PDO	**Prodromos**	**1.44**	**347**	P	**Pg**	**23 11 26.1**	**-0.6**
MET2	**Kameni Chora,**	**1.45**	**73**	P	**Pg**	**23 11 26.1**	**-0.7**
MET2				AML	AML		
MET6	**Megalochori,Me**	**1.46**	**74**	P	**Pg**	**23 11 26.6**	**-0.5**
MET6				AML	AML		
VSK1	**VASILIKIADES**	**1.46**	**326**	P	**Pb**	**23 11 25.4**	**-0.1**
DLFA	**Delphi**	**1.47**	**29**	P	**Pb**	**23 11 26.2**	**+0.5**
MET5	**Makryloggos,Me**	**1.47**	**73**	P	**Pb**	**23 11 26.0**	**+0.3**
KTHR	**Kythira**	**1.47**	**130**	P	**Pb**	**23 11 26.4**	**+0.7**
KTHR				S	**Sg**	**23 11 48.3**	**+1.8**
KTHR				AML	AML		
MET1	**Methana Town,**	**1.48**	**74**	P	**Pg**	**23 11 27.2**	**-0.3**
MET1				AML	AML		
YDRA	**Hydra**	**1.50**	**84**	P	**Pg**	**23 11 27.7**	**-0.2**
YDRA				AML	AML		
KTHA	**Kythira Island**	**1.51**	**128**	P	**Pg**	**

AXAR	**Agios Charalam**	**1.78**	**28**	P	**Pb**	**23 11 31.8 +0.8**
AXAR				AML	AML	
AXAR	**Agios Charalam**	**1.78**	**28**	P	**Pb**	**23 11 31.3 +0.3**
TSLK	**Tsoukalades, L**	**1.79**	**336**	P	**Pb**	**23 11 31.7 +0.6**
TSLK				AML	AML	
TSLK	**Tsoukalades, L**	**1.79**	**336**	P	**Pb**	**23 11 30.5 -0.6**
ATH	**Athens Observa**	**1.86**	**65**	P	**Pb**	**23 11 31.7 -0.6**
ATH				AML	AML	
ATH	**Athens Observa**	**1.86**	**65**	P	**Pb**	**23 11 31.6 -0.7**
ATH				AML	AML	
NOAC	**Athens-Thissio**	**1.86**	**65**	P	**Pn**	**23 11 31.0 +1.2**
NOAC				AML	AML	
VLY	**Voula,Athens**	**1.87**	**69**	P	**Pb**	**23 11 31.9 -0.6**
VLY				AML	AML	
VLY	**Voula,Athens**	**1.87**	**69**	P	**Pb**	**23 11 31.7 -0.8**
VLY				AML	AML	
ATH5	**Athens Parliam**	**1.87**	**65**	P	**Pn**	**23 11 30.5 +0.5**
ATAL	**Atalanti**	**1.88**	**37**	P	**Pb**	**23 11 32.5 -0.1**
ATHU	**Athens Univers**	**1.91**	**65**	P	**Pb**	**23 11 32.5 -0.5**
ATHU				AML	AML	
ATHU	**Athens Univers**	**1.91**	**65**	P	**Pb**	**23 11 32.0 -1.1**
ANKY	**Antikythira Is**	**1.91**	**133**	P	**Pb**	**23 11 32.8 -0.4**
ANKY				AML	AML	
ANKY	**Antikythira Is**	**1.91**	**133**	P	**Pb**	**23 11 32.0 -1.2**
ANKY				AML	AML	
ATHP	**Athens-Neo Psi**	**1.91**	**64**	P	**Pb**	**23 11 32.5 -0.7**
ATHP				AML	AML	
AGG	**Agios Georgios**	**1.92**	**17**	P	**Pb**	**23 11 34.4 +1.2**
AGG				AML	AML	
AGG	**Agios Georgios**	**1.92**	**17**	P	**Pb**	**23 11 34.2 +0.9**
AGG	**Agios Georgios**	**1.92**	**17**	Pn	**Pb**	**23 11 34.2 +0.9**
AGG	**Agios Georgios**	**1.92**	**17**	P	**Pb**	**23 11 34.5 +1.2**
AGG	**Agios Georgios**	**1.92**	**17**	P	**Pb**	**23 11 33.6 +0.3**
AGG				AML	AML	
ACHAR	**Athens-Acharne**	**1.92**	**62**	P	**Pb**	**23 11 32.5 -0.8**
ACHAR				AML	AML	
PTL	**Penteli**	**2.00**	**64**	P	**Pb**	**23 11 33.7 -1.0**
PTL				AML	AML	
PTL	**Penteli**	**2.00**	**64**	P	**Pb**	**23 11 33.6 -1.0**
PTL				AML	AML	
ART2	**Arta**	**2.01**	**347**	P	**Pb**	**23 11 34.6 -0.2**
ART2				AML	AML	
LVRA	**Laurium**	**2.03**	**74**	P	**Pb**	**23 11 33.9 -1.2**
DION	**Dionisos Attik**	**2.06**	**64**	P	**Pb**	**23 11 34.7 -1.0**
DION				AML	AML	
DION	**Dionisos Attik**	**2.06**	**64**	P	**Pb**	**23 11 34.6 -1.1**
TETR	**Tetrakomo, Epi**	**2.16**	**353**	P	**Pb**	**23 11 37.2 -0.3**
TETR				AML	AML	
TETR	**Tetrakomo, Epi**	**2.16**	**353**	P	**Pb**	**23 11 36.9 -0.6**
TETR				AML	AML	
SOFA	**Sofades**	**2.18**	**10**	P	**Pb**	**23 11 36.6 -1.1**
PRGA	**Parga**	**2.29**	**336**	P	**Pb**	**23 11 38.4 -1.2**
PRGA				AML	AML	
MHLO	**Agia Marina, M**	**2.31**	**102**	P	**Pn**	**23 11 38.0 +2.0**
MILOS	**Milos**	**2.32**	**100**	P	**Pn**	**23 11 36.6 +0.5**
TRKA	**Trikala**	**2.36**	**3**	P	**Pb**	**23 11 39.3 -1.5**
PRMD	**Pramanda**	**2.37**	**351**	P	**Pb**	**23 11 39.7 -1.2**
PRMD				AML	AML	
PRMD	**Pramanda**	**2.37**	**351**	P	**Pb**	**23 11 39.9 -1.1**
PRMD				AML	AML	
RODP	**Rodopos**	**2.39**	**132**	P	**Pn**	**23 11 38.8 +1.7**
RODP				AML	AML	
THL	**Klokotos Trika**	**2.39**	**8**	P	**Pb**	**23 11 40.5 -0.8**
THL				AML	AML	
THL	**Klokotos Trika**	**2.39**	**8**	P	**Pn**	**23 11 39.0 +1.9**
KARY	**Karystos**	**2.41**	**69**	P	**Pn**	**23 11 39.4 +2.1**
KARY				AML	AML	
KARY	**Karystos**	**2.41**	**69**	P	**Pn**	**23 11 38.6 +1.3**
VOL2	**Volos**	**2.42**	**26**	P	**Pn**	**23 11 39.5 +2.1**
KYMI	**Kymi, Euboea I**	**2.45**	**53**	P	**Pn**	**23 11 40.0 +2.1**
KYMI				AML	AML	
KYMI	**Kymi, Euboea I**	**2.45**	**53**	P	**Pn**	**23 11 39.7 +1.8**
KYMI				AML	AML	
NEO	**Neokhori**	**2.47**	**31**	P	**Pb**	**23 11 41.2 -1.6**
NEO				AML	AML	
NEO	**Neokhori**	**2.47**	**31**	P	**Pb**	**23 11 40.8 -1.9**
NEO				AML	AML	
XOR	**Xorichti**	**2.51**	**30**	P	**Pb**	**23 11 42.0 -1.4**
XOR				AML	AML	
XOR	**Xorichti**	**2.51**	**30**	P	**Pb**	**23 11 42.2 -1.1**
XOR	**Xorichti**	**2.51**	**30**	P	**Pn**	**23 11 41.0 +2.2**
JAN	**Janina**	**2.53**	**347**	P	**Pb**	**23 11 42.1 -1.6**
JAN	**Janina**	**2.53**	**347**	P	**Pn**	**23 11 40.7 +1.7**
IGT	**Igoumenitsa**	**2.54**	**337**	P	**Pb**	**23 11 41.6 -2.2**
IGT				AML	AML	
IGT	**Igoumenitsa**	**2.54**	**337**	⇓*e*P	**Pb**	**23 11 42.1 -1.7**
IGT				*e*S	Sg	23 12 30.6 +10
IGT	**Igoumenitsa**	**2.54**	**337**	P	**Pn**	**23 11 40.9 +1.8**
KNDR	**Palaiochora Ch**	**2.55**	**139**	P	**Pn**	**23 11 40.8 +1.5**
KNDR				AML	AML	
TYRN	**Tyrnavos**	**2.56**	**11**	P	**Pb**	**23 11 42.7 -1.6**
TYRN				AML	AML	
TYRN	**Tyrnavos**	**2.56**	**11**	P	**Pb**	**23 11 42.1 -2.2**
IMMV	**Iera Moni Meta**	**2.59**	**131**	P	**Pn**	**23 11 42.3 +2.5**
IMMV				AML	AML	
IMMV	**Iera Moni Meta**	**2.59**	**131**	P	**Pb**	**23 11 42.9 -1.9**
IMMV	**Iera Moni Meta**	**2.59**	**131**	P	**Pn**	**23 11 40.4 +0.6**
IMMV				AML	AML	
MSVA	**Metsovo**	**2.59**	**353**	P	**Pb**	**23 11 43.1 -1.8**
MSVA				AML	AML	
CHNB	**Souda**	**2.62**	**130**	P	**Pn**	**23 11 42.6 +2.3**
AOS2	**Alonissos-2**	**2.64**	**42**	P	**Pn**	**23 11 42.4 +1.9**
AOS	**Alonnisos**	**2.67**	**42**	P	**Pn**	**23 11 43.0 +2.0**
AOS				AML	AML	
KRK1	**kERKIRA**	**2.75**	**332**	P	**Pb**	**23 11 45.0 -2.5**
KRK1				AML	AML	
VAM	**Vamos**	**2.76**	**129**	P	**Pn**	**23 11 43.8 +1.6**
KPRO	**Kipourio**	**2.76**	**356**	P	**Pb**	**23 11 46.1 -1.7**
KPRO				AML	AML	
KPRO	**Kipourio**	**2.76**	**356**	P	**Pb**	**23 11 45.1 -2.6**
KPRO				AML	AML	
TNSA	**Tinos**	**2.87**	**82**	P	**Pn**	**23 11 45.3 +1.7**
KEK	**Kerkira**	**2.88**	**331**		**Pn**	**23 11 43.7 -0.2**
KEK	**Kerkira**	**2.88**	**331**	⇓*e*P	**Pn**	**23 11 43.9 0.0**
KEK				*e*S	**Sg**	**23 12 37.7 +6.1**
KEK	**Kerkira**	**2.88**	**331**	P	**Pn**	**23 11 44.0 +0.1**
SRN	**Sarande**	**2.96**	**336**	P	**Pn**	**23 11 47.0 +2.1**
SRN	**Sarande**	**2.96**	**336**	⇓*e*P	**Pn**	**23 11 47.2 +2.4**
SRN				*e*S	Sg	23 12 45.1 +11
SRN				*e*S	Sb	23 12 45.2 +18
SRN	**Sarande**	**2.96**	**336**	P	**Pn**	**23 11 47.4 +2.5**
LIT	**Litokhoron**	**2.99**	**13**	P	**Pn**	**23 11 48.3 +3.0**
LIT				AML	AML	
LIT	**Litokhoron**	**2.99**	**13**	P	**Pn**	**23 11 47.9 +2.6**
LIT	**Litokhoron**	**2.99**	**13**		**Pn**	**23 11 47.9 +2.6**
LIT	**Litokhoron**	**2.99**	**13**	P	**Pb**	**23 11 48.5 -3.0**
LIT	**Litokhoron**	**2.99**	**13**	P	**Pb**	**23 11 47.4 +2.1**
PENT	**Pentalofos**	**3.02**	**353**	P	**Pb**	**23 11 50.1 -2.0**
LSK	**Leskovik**	**3.05**	**346**	⇓*i*P	**Pb**	**23 11 49.7 -3.0**
LSK				*e*S	Sg	23 12 46.0 +8.9
LSK				*e*S	Sb	23 12 52.6 +23
GVDS	**Gavdos**	**3.09**	**139**	P	**Pn**	**23 11 47.2 +0.6**
SAP3	**Santorini-Thir**	**3.11**	**103**	P	**Pn**	**23 11 49.0 +2.0**
KZN	**Kozani**	**3.11**	**3**	P	**Pb**	**23 11 50.5 -3.2**
KZN				AML	AML	
KZN	**Kozani**	**3.11**	**3**	P	**Pn**	**23 11 49.8 +2.7**
THR5	**Thira Island,**	**3.11**	**103**	P	**Pn**	**23 11 48.6 +1.6**
CMBO	**Columbo, Santo**	**3.14**	**102**	P	**Pn**	**23 11 49.3 +1.9**
APE	**Apeiranthos**	**3.15**	**91**	P	**Pn**	**23 11 49.5 +1.9**
APE				AML	AML	
APE	**Apeiranthos**	**3.15**	**91**	P	**Pb**	**23 11 55.3 +1.0**
APE	**Apeiranthos**	**3.15**	**91**	⇑P	**Pb**	**23 11 55.4 +1.0**
APE	**Apeiranthos**	**3.15**	**91**	P	**Pn**	**23 11 49.3 +1.7**
PAIG	**Paliouri**	**3.18**	**30**	P	**Pn**	**23 11 50.4 +2.5**
PAIG	**Paliouri**	**3.18**	**30**	P	**Pn**	**23 11 50.7 +2.7**
THERA	**Ancient Thera,**	**3.23**	**104**	P	**Pn**	**23 11 50.8 +2.2**
NEST	**Nestorio**	**3.24**	**353**	P	**Pn**	**23 11 52.4 +3.5**
NEST				AML	AML	
NEST	**Nestorio**	**3.24**	**353**	⇓*e*P	**Pb**	**23 11 53.4 -2.6**
NEST				*e*S	Sg	23 12 58.0 +15
NEST				*e*S	Sb	23 13 05.7 +31
NEST	**Nestorio**	**3.24**	**353**	P	**Pn**	**23 11 51.9 +2.9**
IDI	**Anoyia**	**3.27**	**125**	Pn	**Pn**	**23 11 50.0 +0.7**
	6.7nm,0.3s,baz=289,slow=18,SNR=30					
IDI				Pg	**Pb**	**23 11 57.0 +0.5**
	6.8nm,0.3s,baz=296,slow=17,SNR=6.3					
IDI				Lg	Lg	23 12 37.6
	16nm,0.3s,baz=31,slow=18,SNR=5.1					
IDI	**Anoyia**	**3.27**	**125**	P	**Pn**	**23 11 51.4 +2.1**
IDI				AML	AML	
IDI	**Anoyia**	**3.27**	**125**		**Pn**	**23 11 50.8 +1.5**
IDI	**Anoyia**	**3.27**	**125**	P	**Pn**	**23 11 51.1 +1.8**
IDI				AML	AML	
SIVA	**Sivas**	**3.39**	**129**	P	**Pn**	**23 11 53.0 +2.1**
SIVA				AML	AML	
NASA	**Naoussa**	**3.45**	**6**	P	**Pn**	**23 11 54.3 +2.6**
NASA				AML	AML	
KBN	**Korca**	**3.48**	**350**	P	**Pn**	**23 11 55.9 +3.8**
KBN				AML	AML	
KBN	**Korca**	**3.48**	**350**	⇑*i*P	**Pn**	**23 11 55.7 +3.6**
KBN				*e*S	Sg	23 13 00.4 +10
KBN				*e*S	Sb	23 13 00.5 +19
KBN	**Korca**	**3.48**	**350**	P	**Pn**	**23 11 55.9 +3.8**
PLG	**Polygyros**	**3.49**	**24**	P	**Pn**	**23 11 54.6 +2.4**
PLG				AML	AML	
PLG	**Polygyros**	**3.49**	**24**	P	**Pn**	**23 11 54.3 +2.1**
THE	**Thessaloniki**	**3.60**	**17**	P	**Pn**	**23 11 56.0 +2.3**
THE	**Thessaloniki**	**3.60**	**17**	⇓*e*P	**Pn**	**23 11 56.2 +2.6**
THE				*e*S	Sg	23 13 07.7 +13
THE	**Thessaloniki**	**3.60**	**17**	P	**Pn**	**23 11 56.2 +2.6**
THE	**Thessaloniki**	**3.60**	**17**	P	**Pn**	**23 11 55.0 +1.4**
OUR	**Ouranopolis**	**3.65**	**30**	P	**Pn**	**23 11 56.7 +2.4**
OUR				AML	AML	
OUR	**Ouranopolis**	**3.65**	**30**	P	**Pn**	**23 11 56.8 +2.4**
CHOS	**Chios island**	**3.73**	**70**	P	**Pn**	**23 11 57.6 +2.0**
CHOS				AML	AML	
CHOS	**Chios island**	**3.73**	**70**	P	**Pb**	**23 12 00.5 -3.8**
CHOS	**Chios island**	**3.73**	**70**	P	**Pn**	**23 11 57.5 +1.9**
NPS	**Neapolis**	**3.78**	**119**	P	**Pn**	**23 11 57.6 +1.4**
GRG	**Griva**	**3.81**	**9**	P	**Pn**	**23 11 59.3 +2.6**
GRG				AML	AML	
GRG	**Griva**	**3.81**	**9**	P	**Pn**	**23 11 59.1 +2.5**
GRG	**Griva**	**3.81**	**9**	P	**Pn**	**23 11 59.1 +2.5**
SOH	**Sokhos**	**3.87**	**20**	P	**Pn**	**23 12 00.7 +3.1**
SOH				AML	AML	
SOH	**Sokhos**	**3.87**	**20**	P	**Pn**	**23 12 00.5 +3.0**
SOH	**Sokhos**	**3.87**	**20**	P	**Pn**	**23 12 00.0 +2.5**
LIA	**Limnos Island**	**3.90**	**45**	P	**Pn**	**23 12 00.2 +2.4**
LIA				AML	AML	
LIA	**Limnos Island**	**3.90**	**45**	P	**Pn**	**23 11 59.5 +1.7**
OHR	**Ohrid**	**3.96**	**351**	*e*Pn	**Pn**	**23 12 01.8 +3.0**
SAM2	**Drakei, Karlov**	**4.03**	**80**	P	**Pn**	**23 12 00.1 +0.5**
KNT	**Kendrikon**	**4.09**	**14**	P	**Pn**	**23 12 03.1 +2.7**
KNT				AML	AML	
KNT	**Kendrikon**	**4.09**	**14**	P	**Pn**	**23 12 03.5 +3.0**
KNT	**Kendrikon**	**4.09**	**14**	P	**Pn**	**23 12 02.9 +2.4**
THAS	**Thassos island**	**4.19**	**35**	P	**Pn**	**23 12 03.4 +1.6**
VAY	**Valandovo**	**4.19**	**10**	*e*Pn	**Pn**	**23 12 05.0 +3.1**
SMG	**Samos**	**4.21**	**81**	P	**Pn**	**23 12 04.3 +2.2**
SMG				AML	AML	
SRS	**Serrai**	**4.21**	**21**	P	**Pn**	**23 12 04.7 +2.5**
SRS				AML	AML	
SRS	**Serrai**	**4.21**	**21**	P	**Pn**	**23 12 05.0 +2.8**
PRK	**Paraskevi**	**4.22**	**60**	P	**Pn**	**23 12 02.9 +0.7**
TIP	**Timpagrande**	**4.29**	**299**		**Pn**	**23 12 04.5 +1.2**
TIP	**Timpagrande**	**4.29**	**299**	⇓P	**Pn**	**23 12 05.5 +2.2**
TIP				⇑S	**Sn**	**23 12 53.0 +0.1**
TIP	**Timpagrande**	**4.29**	**299**	Pn	**Pn**	**23 12 04.2 +0.9**
TIP				AML	AML	
TIP	**Timpagrande**	**4.29**	**299**	P	**Pn**	**23 12 05.7 +2.4**
KAVA	**Kavala**	**4.42**	**30**	P	**Pn**	**23 12 07.2 +2.1**
KAVA				AML	AML	
SMTH	**Samothraki Isl**	**4.49**	**42**	P	**Pn**	**23 12 06.3 +0.4**
NVR	**Nevrokopi**	**4.51**	**22**	P	**Pn**	**23 12 08.8 +2.6**
EZN	**Ezine**	**4.55**	**53**	P	**Pn**	**23 12 10.6 +3.9**
EZN	**Ezine**	**4.55**	**53**	⇓P	**Pn**	**23 12 10.7 +3.9**
EZN	**Ezine**	**4.55**	**53**	Pn	**Pn**	**23 12 07.6 +0.9**
EZN				AML	AML	
CEL	**Celeste**	**4.64**	**285**		**Pn**	**23 12 08.7 +0.6**
CEL	**Celeste**	**4.64**	**285**	Pn	**Pn**	**23 12 09.1 +1.0**
CEL				AML	AML	
CEL	**Celeste**	**4.64**	**285**	P	**Pn**	**23 12 09.5 +1.4**
MMB	**Musomishta**	**4.66**	**20**	*i* P	**Pn**	**23 12 11.2 +2.9**
BDRM	**Kayabasi**	**4.68**	**90**	⇑P	Pb	23 12 15.4 -5.0
PEHC	**Pehcevo**	**4.69**	**12**	*e*Pn	**Pn**	**23 12 10.6 +1.9**
KARP	**Karpathos**	**4.79**	**108**		**Pn**	**23 12 10.9 +0.8**
KARP	**Karpathos**	**4.79**	**108**	Pn	**Pn**	**23 12 11.4 +1.4**
KARP				AML	AML	
KARP	**Karpathos**	**4.79**	**108**	P	**Pb**	**23 12 21.9 -0.3**
KARP				AML	AML	
KARP	**Karpathos**	**4.79**	**108**	P	Pb	23 12 16.3 -5.9
KKB	**Krupnik**	**4.79**	**14**	*i* P	**Pn**	**23 12 12.7 +2.6**
ALN	**Alexandroupoli**	**5.07**	**42**	P	**Pn**	**23 12 15.6 +1.7**
ALN	**Alexandroupoli**	**5.07**	**42**		**Pn**	**23 12 15.6 +1.7**
ALN	**Alexandroupoli**	**5.07**	**42**	P	**Pn**	**23 12 13.8 -0.1**
	comp=Z,50nm,1.2s					
ULC	**Ulcinj**	**5.10**	**340**	⇓*i*Pn	**Pn**	**23 12 15.3 +1.0**
ULC				*i* Sn	**Sn**	**23 13 13.0 +0.4**
RZN	**Rozhen**	**5.11**	**27**	*i* P	**Pn**	**23 12 17.2 +2.5**
SDA	**Shkodra**	**5.11**	**342**	⇓*e*P	**Pn**	**23 12 16.1 +1.6**
SDA				*e*S	**Sg**	**23 13 42.1 -0.9**
MATE	**Matera**	**5.14**	**314**	⇑P	**Pn**	**23 12 16.3 +1.4**
MATE				⇓S	**Sn**	**23 13 14.3 +0.7**
KDZ	**Kurdzhali**	**5.30**	**32**	*i* P	**Pn**	**23 12 19.4 +2.4**
CUC	**Castrocucco**	**5.32**	**303**		**Pn**	**23 12 19.4 +2.1**
CUC	**Castrocucco**	**5.32**	**303**	P	**Pn**	**23 12 20.6 +3.2**
	comp=Z,72nm,0.6s					
DRME	**Dracevica, Mon**	**5.32**	**340**	⇑*i*Pn	**Pn**	**23 12 18.0 +0.6**
DRME	**Dracevica, Mon**	**5.32**	**340**	⇑*i*Pn	**Pn**	**23 12 18.3 +0.9**
DRME				*i* Sn	**Sn**	**23 13 18.5 +0.4**
ARG	**Arkhangelos**	**5.34**	**99**	P	**Pn**	**23 12 20.5 +2.9**
ARG	**Arkhangelos**	**5.34**	**99**		**Pn**	**23 12 20.5 +2.9**
MARCO	**Tramutola**	**5.48**	**306**	P	**Pn**	**23 12 21.7 +2.1**
	comp=Z,74nm,0.6s					
BUM	**Brajici-Budva**	**5.51**	**339**	⇓*i*Pn	**Pn**	**23 12 20.6 +0.6**
BUM				*i* Sn	**Sn**	**23 13 16.6 -6.2**
BALB	**Balikesir**	**5.51**	**62**		**Pn**	**23 12 22.4 +2.5**
PDG	**Podgorica**	**5.53**	**342**		**Pn**	**23 12 20.5 +0.3**
PDG	**Podgorica**	**5.53**	**342**	⇑P	**Pn**	**23 12 21.1 +0.9**
PDG				⇑S	**Sn**	**23 13 23.3 +0.1**
PDG	**Podgorica**	**5.53**	**342**	⇑*i*Pn	**Pn**	**23 12 20.6 +0.3**
PDG	**Podgorica**	**5.53**	**342**	*e*P	**Pn**	**23 12 21.6 +1.4**
PDG				*e*S	**Sb**	**23 13 47.0 +6.3**
PDG	**Podgorica**	**5.53**	**342**	P	**Pn**	**23 12 21.4 +1.1**
	comp=Z,56nm,1.2s					
PDG	**Podgorica**	**5.53**	**342**	⇑*i*Pn	**Pn**	**23 12 21.3 +1.1**
PDG				*i* Sn	**Sn**	**23 13 17.7 -5.5**
PVY	**Plav**	**5.54**	**347**	⇑*i*Pn	**Pn**	**23 12 22.3 +1.8**
PVY				*i* Sn	**Sn**	**23 13 18.7 -5.0**
VTS	**Vitosha**	**5.56**	**13**	*i* P	**Pn**	**23 12 23.6 +2.8**
MANT	**Manisa**	**5.66**	**75**		**Pn**	**23 12 24.0 +1.7**
ACER	**Acerenza**	**5.68**	**311**		**Pn**	**23 12 23.4 +1.1**
CEME	**Cevo**	**5.73**	**340**	⇓*i*Pn	**Pn**	**23 12 23.6 +0.6**
CEME				*i* Sn	**Sn**	**23 13 27.7 -0.5**
VAE	**Valguarnera**	**5.73**	**275**	Pn	**Pn**	**23 12 24.8 +1.8**
	comp=Z,22nm,0.6s,baz=360,slow=12,SNR=11					
VAE				Sn	**Sn**	**23 13 27.8 -0.4**
	comp=Z,14nm,0.3s,baz=172,slow=4.3,SNR=3.2					
DIM	**Dimitrovgrad**	**5.74**	**31**	*i* P	**Pn**	**23 12 26.0 +2.9**
HCY	**Herceg Novi**	**5.76**	**337**	⇑*i*Pn	**Pn**	**23 12 22.5 -0.9**
HCY	**Herceg Novi**	**5.76**	**337**	⇓*i*Pn	**Pn**	**23 12 23.4 0.0**
HCY				*i* Sn	**Sn**	**23 13 29.1 +0.1**
RAFF	**Raffo Rosso**	**5.77**	**272**		**Pn**	**23 12 23.2 -0.3**
IVA	**Berane**	**5.82**	**348**	⇑*i*Pn	**Pn**	**23 12 25.9 +1.6**
IVA				*i* Sn	**Sn**	**23 13 30.6 +0.1**
TAVA	**DENIZLI_Tavas**	**5.84**	**85**	⇓P	Pn	23 12 31.7 +7.1
WDD	**Wied Dalam**	**5.85**	**259**	Pn	**Pn**	**23 12 24.6 0.0**
KOME	**Kolasin**	**5.87**	**345**	⇓*i*Pn	**Pn**	**23 12 26.6 +1.6**
KOME				*i* Sn	**Sn**	**23 13 31.6 -0.2**
NKME	**Niksic**	**5.92**	**341**	⇑*i*Pn	**Pn**	**23 12 26.7 +1.0**
NKME				*i* Sn	**Sn**	**23 13 33.3 +0.3**
TREB	**Trebinje**	**6.05**	**337**	⇑*i*Pn	**Pn**	**23 12 27.4 0.0**
BRY	**Bratogost**	**6.16**	**339**	*e*Pn	**Pn**	**23 12 28.9 -0.2**
BRY	**Bratogost**	**6.16**	**339**	⇓*i*Pn	**Pn**	**23 12 29.5 +0.4**
BRY				*i* Sn	**Sn**	**23 13 32.4 -6.7**
SJES	**Sjenica**	**6.19**	**349**	⇑*i*Pn	**Pn**	**23 12 30.3 +1.0**
UPM	**Unac-Piva**	**6.34**	**342**	*e*Pn	**Pn**	**23 12 32.8 +1.2**
UPM	**Unac-Piva**	**6.34**	**342**	⇑*i*Pn	**Pn**	**23 12 33.1 +1.5**
UPM				*i* Sn	**Sn**	**23 13 43.4 -0.2**
PLE	**Pljevlja**	**6.36**	**345**	⇑*i*Pn	**Pn**	**23 12 33.4 +1.7**
PLE				*i* Sn	**Sn**	**23 13 43.3 -0.5**
MPEP	**Malo Peshtene**	**6.37**	**14**	*i* P	**Pn**	**23 12 35.4 +3.6**
KLINJ	**Klinje**	**6.40**	**340**	*e*Pn	**Pn**	**23 12 32.0 -0.2**
BOVS	**Bovan**	**6.43**	**1**	⇑P	**Pn**	**23 12 33.5 +0.8**
BLKB	**Belogradchik**	**6.47**	**7**	⇓P	**Pn**	**23 12 36.1 +2.8**
AKAS	**Kas**	**6.51**	**96**		**Pn**	**23 12 36.3 +2.5**
PLVB	**Pleven**	**6.61**	**20**	⇓P	**Pn**	**23 12 37.8 +2.8**
PAOL	**Paolisi**	**6.67**	**307**		**Pn**	**23 12 38.0 +2.0**
ELL	**Elmali**	**6.67**	**91**	P	**Pn**	**23 12 39.5 +3.4**
ELL	**Elmali**	**6.67**	**91**		**Pn**	**23 12 39.5 +3.4**
CLTB	**Caltabellotta**	**6.68**	**276**	P	Pn	23 12 41.3 +5.2
	comp=Z,175nm,0.5s					
CTYL	**Yalikoy Yolu**	**6.72**	**48**	Pn	**Pn**	**23 12 37.4 +0.8**
	comp=Z,0.5nmcomp=Z,5µmcomp=Z,67nm,1.1s					
CTYL				AML	AML	
BBLS	**Lazić**	**6.87**	**347**	*e*Pn	**Pn**	**23 12 38.8 +0.1**
YLV	**Yalova**	**6.94**	**59**	Pn	**Pn**	**23 12 41.4 +1.7**
	comp=Z,0.2nmcomp=Z,46nm,0.9s					
YLV				AML	AML	
KLYT	**Kilyos**	**7.06**	**53**	Pn	**Pn**	**23 12 42.7 +1.5**
	comp=Z,0.7nmcomp=Z,123nm,1.0s					
KLYT				AML	AML	
VLAD	**Vladila**	**7.13**	**17**	⇑P	**Pn**	**23 12 44.0 +1.9**
LOZB	**Loznitsa**	**7.26**	**30**	⇑P	**Pn**	**23 12 47.1 +3.2**
TEKS	**Tekeris**	**7.51**	**349**	⇑*i*Pn	**Pn**	**23 12 45.9 -1.6**
MDVR	**Moldovita**	**7.58**	**1**	⇑P	**Pn**	**23 12 49.0 +0.6**
INTR	**Introdacqua**	**7.64**	**311**		**Pn**	**23 12 50.9 +1.7**
HERR	**Herculane**	**7.71**	**4**	⇓P	**Pn**	**23 12 51.6 +1.6**
HUMR	**Humele**	**7.76**	**18**	⇑P	**Pn**	**23 12 52.9 +2.0**
HUMR	**Humele**	**7.76**	**18**	P	**Pn**	**23 12 54.0 +3.1**
	comp=Z,40nm,1.3s					
KIJV	**Kijevo**	**7.86**	**332**	P	**Pn**	**23 12 53.0 +0.7**
	comp=Z,73nm,0.6s					
KEPZ	**Antalya-Kepez**	**8.01**	**89**	⇑P	Pn	23 13 01.5 +7.2
FRGS	**Fruska Gora**	**8.07**	**351**	⇑*i*Pn	**Pn**	**23 12 54.4 -0.7**
AQU	**L'Aquila**	**8.14**	**312**	P	**Pn**	**23 12 57.8 +1.7**
AQU	**L'Aquila**	**8.14**	**312**		**Pn**	**23 12 57.8 +1.7**
AQU	**L'Aquila**	**8.14**	**312**	*e*Pn	**Pn**	**23 12 58.8 +2.7**
AQU	**L'Aquila**	**8.14**	**312**	Pn	**Pn**	**23 12 57.9 +1.7**
	comp=Z,30nm,0.9s					
GZR	**Gura Zlata**	**8.24**	**6**	P	**Pn**	**23 12 59.0 +1.5**
GZR	**Gura Zlata**	**8.24**	**6**	⇓P	**Pn**	**23 12 59.0 +1.5**
BLY	**Banja Luka**	**8.25**	**338**		**Pn**	**23 12 57.6 +0.1**
BLY	**Banja Luka**	**8.25**	**338**	⇑P	**Pn**	**23 12 57.6 +0.1**
BLY	**Banja Luka**	**8.25**	**338**	⇑*i*Pn	**Pn**	**23 12 57.1 -0.4**
BLY	**Banja Luka**	**8.25**	**338**	P	**Pn**	**23 12 57.8 +0.2**
	comp=Z,17nm,0.5s					
LOT	**Lotru**	**8.41**	**11**	⇓P	**Pn**	**23 13 01.9 +2.0**
LOT	**Lotru**	**8.41**	**11**	P	**Pn**	**23 12 56.3 -3.6**
	comp=Z,13nm,0.9s					
BZS	**Buzias**	**8.42**	**0**	P	**Pn**	**23 12 59.8 0.0**
BZS	**Buzias**	**8.42**	**0**	⇑P	**Pn**	**23 12 59.9 0.0**
BZS	**Buzias**	**8.42**	**0**	P	**Pn**	**23 12 59.3 -0.6**
	comp=Z,6.4nm,0.8s					
ARR	**Arges**	**8.48**	**15**	⇑P	**Pn**	**23 13 02.6 +1.8**
ARR	**Arges**	**8.48**	**15**	P	**Pn**	**23 13 02.4 +1.6**
	comp=Z,15nm,0.7s					
SURR	**Surduc**	**8.56**	**3**	⇑P	**Pn**	**23 13 02.8 +1.0**
NRCA	**Norcia**	**8.60**	**314**	Pn	**Pn**	**23 13 03.9 +1.5**
GUMA	**Gualdo di Mace**	**8.62**	**315**		**Pn**	**23 13 04.2 +1.6**
VOIR		**8.64**	**16**	P	**Pn**	**23 13 05.9 +3.0**
VOIR		**8.64**	**16**	⇑P	**Pn**	**23 13 06.0 +3.0**
VOIR		**8.64**	**16**	Pn	**Pn**	**23 13 03.1 +0.2**
VOIR		**8.64**	**16**	P	**Pn**	**23 13 04.5 +1.6**
TNR	**Turnu Rosu**	**8.69**	**13**	P	**Pn**	**23 13 05.3 +1.8

PSZ	**Piszkesteto**	**10.79**	**354**	⇓P		**Pn**	**23 13 33.7**	**+1.3**		
PSZ	**Piszkesteto**	**10.79**	**354**	P		**Pn**	**23 13 31.8**	**-0.6**		
	comp=Z,15nm,0.9s									
CY604	**RAF Akrotiri,**	**10.88**	**101**	Pn		**Pn**	**23 13 35.3**	**+2.0**		
TRPA	**Tarpa**	**10.95**	**3**	P		**Pn**	**23 13 36.3**	**+1.8**		
	comp=Z,9.7nm,0.9s									
ARSA	**Arzberg**	**11.01**	**338**			**Pn**	**23 13 35.1**	**-0.2**		
ARSA	**Arzberg**	**11.01**	**338**	*e*Pn		**Pn**	**23 13 35.6**	**+0.3**		
	comp=Z,2.5nm,0.3s									
TEOL	**Teolo**	**11.05**	**321**	Pn		**Pn**	**23 13 36.0**	**+0.1**		
MYKA	**Terra Mystica**	**11.13**	**330**	*e*PN		**Pn**	**23 13 36.7**	**-0.3**		
MYKA	**Terra Mystica**	**11.13**	**330**	*e*Pn		**Pn**	**23 13 36.7**	**-0.3**		
	comp=Z,1.5nm,0.4s									
MYKA				*e*Sn		**Sn**	**23 15 44.3**	**+3.4**		
	comp=Z,2.2nm,0.4s									
SESA	**Seetaler Alpe,**	**11.19**	**335**	*e*Pn		**Pn**	**23 13 37.5**	**-0.6**		
	comp=Z,2.0nm,0.3s									
RONA	**Rosalia, Austr**	**11.20**	**341**	*e*Pn		Pn	23 13 48.1	+10		
	comp=Z,1.1nm,0.3s									
STAL	**STALIGIAL**	**11.22**	**327**			**Pn**	**23 13 37.6**	**-0.7**		
ZST	**Bratislava**	**11.48**	**345**	*e*P		**Pn**	**23 13 45.1**	**+3.4**		
ZST	**Bratislava**	**11.48**	**345**	*e*PN		**Pn**	**23 13 45.1**	**+3.4**		
CONA	**Conrad Observa**	**11.53**	**340**	*e*Pn		Pn	23 13 47.7	+5.2		
	comp=Z,3.1nm,0.8s									
CTI	**Castel Tesino**	**11.55**	**323**	P		**Pn**	**23 13 42.4**	**-0.5**		
CTI	**Castel Tesino**	**11.55**	**323**			**Pn**	**23 13 42.4**	**-0.5**		
MSSA	**Maissana**	**11.59**	**312**	Pn		**Pn**	**23 13 43.5**	**+0.1**		
MODS	**Modra-Piesok**	**11.61**	**346**	*e*P		**Pn**	**23 13 43.4**	**-0.2**		
MODS	**Modra-Piesok**	**11.61**	**346**	*e*PN		**Pn**	**23 13 43.4**	**-0.2**		
KBA	**Koelnbreinsper**	**11.61**	**331**	*e*Pn		**Pn**	**23 13 44.4**	**+0.7**		
	comp=Z,1.3nm,0.3s									
KBA				*e*Sn		**Sn**	**23 15 47.8**	**-5.1**		
	comp=Z,2.5nm,0.4s									
WINA	**Alland / Wiene**	**11.63**	**341**	*e*Pn		**Pn**	**23 13 46.1**	**+2.2**		
	comp=Z,0.9nm,0.2s									
ABTA	**Abfaltersbach**	**11.69**	**328**	*e*Pn		**Pn**	**23 13 46.4**	**+1.7**		
	comp=Z,3.8nm,0.5s									
ABTA				*e*Sn		**Sn**	**23 15 51.3**	**-3.3**		
	comp=Z,5.9nm,0.7s									
KOLS	**Kolonicke sedl**	**11.74**	**2**	P		**Pn**	**23 13 47.2**	**+1.8**		
	comp=Z,10nm,0.8s									
SALO	**Salr**	**11.82**	**319**	Pn		**Pn**	**23 13 46.4**	**-0.1**		
KMPD	**K-Podol'skiy**	**11.91**	**16**	Pn		**Pn**	**23 13 48.7**	**+1.1**		
MOA	**Molln**	**11.93**	**335**	*e*Pn		**Pn**	**23 13 48.9**	**+0.8**		
	comp=Z,3.4nm,0.4s									
MOA				*e*Sn		**Sn**	**23 15 59.0**	**-1.6**		
	comp=Z,2.8nm,0.4s									
SORM	**Soroca**	**12.01**	**22**	P		**Pn**	**23 13 51.8**	**+2.9**		
SORM	**Soroca**	**12.01**	**22**	⇑P		**Pn**	**23 13 51.9**	**+2.9**		
SORM	**Soroca**	**12.01**	**22**	Pn		**Pn**	**23 13 49.9**	**+1.0**		
BIOA	**Bad Ischl, Aus**	**12.02**	**333**	*i* Pn		**Pn**	**23 13 49.7**	**+0.6**		
	comp=Z,3.7nm,0.4s,SNR=6.2									
LANS	**Liptovska Anna**	**12.05**	**353**	*e*P		P	23 13 56.7	-5.7		
MMAI	**Mount Meron Ar**	**12.05**	**106**	Pn		**Pn**	**23 13 47.2**	**-2.5**		
	comp=Z,0.7nm,0.3s,baz=331,slow=16,SNR=1.6									
MMAI				AML		AML				
LESA	**Schwarzleotal**	**12.16**	**330**	*e*Pn		**Pn**	**23 13 50.2**	**-0.9**		
	comp=Z,3.8nm,0.6s									
LESA				*e*Sn		**Sn**	**23 16 03.1**	**-3.0**		
	comp=Z,7.4nm,0.5s									
SALP	**Salfit**	**12.31**	**111**	P		P	23 13 59.6	-5.8		
	comp=Z,23nm,0.9s									
KZIT	**Kziot**	**12.33**	**117**	P		**Pn**	**23 13 56.4**	**+3.0**		
	comp=Z,25nm,0.8s									
KZIT	**Kziot**	**12.33**	**117**	P		**Pn**	**23 13 55.2**	**+1.8**		
	comp=Z,25nm,0.8s									
RJOB	**Jochberg**	**12.37**	**331**	P		**Pn**	**23 13 54.1**	**+0.2**		
	comp=Z,10nm,0.8s									
WTTA	**Wattenberg**	**12.47**	**327**	*i* Pn		**Pn**	**23 13 56.1**	**+0.7**		
	comp=Z,3.7nm,0.4s,SNR=5.5									
WTTA				*e*Sn		**Sn**	**23 16 12.6**	**-1.2**		
	comp=Z,5.9nm,0.4s									
QRNJ	**Al-Qirein**	**12.47**	**109**	P		P	23 14 02.0	-5.1		
	comp=Z,15µmcomp=Z,2µm,0.8s									
WATA	**Walderalm**	**12.55**	**327**	*e*Pn		**Pn**	**23 13 57.2**	**+0.7**		
	comp=Z,3.2nm,0.5s									
WATA				*e*Sn		**Sn**	**23 16 13.9**	**-1.8**		
	comp=Z,5.8nm,0.6s									
UJAP	**Al Uja**	**12.57**	**111**	P		**P**	**23 14 03.6**	**-4.5**		
	comp=Z,24nm,0.9s									
SQTA	**Sankt Quirin**	**12.62**	**326**	*e*Pn		**Pn**	**23 13 58.8**	**+1.3**		
	comp=Z,2.8nm,0.4s									
SQTA				*e*Sn		**Sn**	**23 16 16.3**	**-1.2**		
	comp=Z,4.6nm,0.5s									
FUORN	**Ofenpass-Fuorn**	**12.63**	**322**	Pn		**Pn**	**23 13 58.7**	**+0.9**		
VRAC	**Vranov**	**12.64**	**345**	LR		LR	23 20 15.2			
	comp=Z,892nm,18.0s,baz=171,slow=44									
FETA	**Feichten**	**12.69**	**324**	*e*Pn		**P**	**23 14 08.8**	**-0.9**		
	comp=Z,2.1nm,0.6s									
FETA				*e*Sn		**Sn**	**23 16 22.1**	**+2.7**		
	comp=Z,2.3nm,0.5s									
MOTA	**Moosalm**	**12.76**	**326**	*e*Pn		**Pn**	**23 14 00.3**	**+0.9**		
	comp=Z,2.0nm,0.3s									
MOTA				*e*Sn		**Sn**	**23 16 19.0**	**-2.0**		
	comp=Z,4.2nm,0.5s									
DAVOX	**Davos/Dischmat**	**12.93**	**321**	Pn		**Pn**	**23 14 01.7**	**-0.1**		
	comp=Z,0.4nm,0.3s,baz=323,slow=19,SNR=5.7									
DAVOX				LR		LR	23 19 47.6			
	comp=Z,160nm,18.9s,baz=124,slow=41									
	comp=Z,0.4nm,0.3s									
DAVOX				AML		AML				
GHAJ	**Ghor Haditha**	**12.96**	**113**	Pn		**Pn**	**23 14 02.0**	**-0.1**		
GEC2	**GERESS Array S**	**12.99**	**336**	Pn		**Pn**	**23 14 02.4**	**-0.1**		
GERES	**GERESS Array B**	**12.99**	**336**	Pn		**Pn**	**23 14 00.8**	**-1.6**		
	comp=Z,0.1nm,0.3s,baz=158,slow=14,SNR=12									
GERES				Sn		**Sn**	**23 16 23.0**	**-3.4**		
	comp=Z,0.1nm,0.3s,baz=153,slow=23,SNR=5.3									
GERES				LR		LR	23 19 57.7			
	comp=Z,374nm,19.8s,baz=116,slow=42									
	comp=Z,1.3nm,0.5s									
GERES				AML		AML				
TUE	**Stuetta**	**13.00**	**319**			**Pn**	**23 14 03.3**	**+0.6**		
TUE	**Stuetta**	**13.00**	**319**	Pn		**Pn**	**23 14 03.3**	**+0.6**		
	comp=Z,46nm,1.4s									
RETA	**Reutte**	**13.02**	**326**	*e*Pn		**Pn**	**23 14 03.5**	**+0.6**		
	comp=Z,0.7nm,0.5s									
RETA				*e*Sn		**Sn**	**23 16 25.6**	**-1.7**		
	comp=Z,3.7nm,0.5s									
PRNI	**Paran**	**13.07**	**118**	P		**P**	**23 14 13.7**	**-0.1**		
	comp=Z,45nm,0.8s									
HRFI	**Mount Harif**	**13.28**	**119**	P		**P**	**23 14 17.8**	**+1.7**		
	comp=Z,20nm,1.1s									
HRFI	**Mount Harif**	**13.28**	**119**	P		**Pn**	**23 14 09.8**	**+3.4**		
	comp=Z,14nm,0.9s									
KHC	**Kasperske Hory**	**13.28**	**337**	*e*P		**Pn**	**23 14 08.1**	**+1.7**		
KHC				*e*			23 16 29.1			
KHC	**Kasperske Hory**	**13.28**	**337**	Pn		**Pn**	**23 14 08.0**	**+1.7**		
KHC	**Kasperske Hory**	**13.28**	**337**	*e*PN		**Pn**	**23 14 08.1**	**+1.7**		
KHC				*ex*		x	23 14 17.5			
KHC				*e*SN		**Sn**	**23 16 29.1**	**-4.3**		
KHC	**Kasperske Hory**	**13.28**	**337**	Pn		**Pn**	**23 14 07.5**	**+1.1**		
	comp=Z,8.3nm,1.8s									
DAVA	**Damuels**	**13.29**	**323**	*e*Pn		**P**	**23 14 13.9**	**-2.4**		
	comp=Z,2.6nm,0.5s									
DAVA				*e*Sn		**Sn**	**23 16 31.1**	**-2.8**		
	comp=Z,12nm,0.5s									
EIL	**Elat**	**13.44**	**120**	Pn		**Pn**	**23 14 05.5**	**-3.1**		
	comp=Z,0.5nm,0.3s,baz=334,slow=13,SNR=4.8									
	comp=Z,3.8nm,0.9s									
EIL				AML		AML				
EIL	**Elat**	**13.44**	**120**	P		**P**	**23 14 20.4**	**+2.5**		
AQBJ	**Aqaba**	**13.47**	**120**	P		**P**	**23 14 21.7**	**+3.5**		
DPC	**Dobruska-Polom**	**13.69**	**346**	*e*P		**P**	**23 14 19.8**	**-0.8**		
DPC	**Dobruska-Polom**	**13.69**	**346**	*e*PN		**P**	**23 14 19.8**	**-0.8**		
UPC	**Upice**	**13.90**	**345**	P		**P**	**23 14 21.3**	**-1.6**		
	comp=Z,12nm,0.9s									
OSTC	**Ostas**	**13.90**	**346**	*e*P		**P**	**23 14 24.1**	**+1.1**		
OSTC	**Ostas**	**13.90**	**346**	*e*PN		**P**	**23 14 24.1**	**+1.1**		
SENIN	**Lac Senin/Sane**	**14.04**	**315**	Pn		**Pn**	**23 14 17.4**	**+0.4**		
ANN	**Anapa**	**14.16**	**53**	*e*P		**Pn**	**23 14 16.0**	**-2.3**		
ANN				pmax		pmax				
	comp=Z,31nm,1.0s									
KSP	**Ksiaz**	**14.16**	**346**	Pn		**Pn**	**23 14 18.9**	**+0.5**		
	comp=Z,15nm,2.0s									
RNPP5	**Staryi Chortor**	**14.36**	**11**	Pn		**Pn**	**23 14 21.6**	**+0.5**		
AK07	**Malin Array Si**	**14.43**	**20**	Pn		**Pn**	**23 14 21.7**	**-0.3**		
RNPP8	**Varash**	**14.46**	**11**	Pn		**Pn**	**23 14 22.8**	**+0.3**		
AK14	**Malin Array Si**	**14.47**	**19**	Pn		**Pn**	**23 14 21.9**	**-0.7**		
AK10	**Malin Array Si**	**14.48**	**20**	Pn		**Pn**	**23 14 21.9**	**-0.8**		
AK16	**Malin Array Si**	**14.51**	**19**	Pn		**Pn**	**23 14 22.3**	**-0.8**		
AK17	**Malin Array Si**	**14.51**	**19**	Pn		**Pn**	**23 14 22.0**	**-1.1**		
RNPP9	**Sopachiv**	**14.54**	**11**	Pn		**Pn**	**23 14 23.4**	**-0.1**		
KIEV	**Kiev**	**14.56**	**20**	P		**Pn**	**23 14 22.6**	**-1.2**		
KIEV	**Kiev**	**14.56**	**20**			**Pn**	**23 14 22.6**	**-1.2**		
KIEV	**Kiev**	**14.56**	**20**	Pn		**Pn**	**23 14 23.2**	**-0.6**		
	comp=Z,89nm,0.9s									

AKASG	**Malin Array Be**	**14.57**	**20**	Pn		**Pn**	**23 14 22.1**	**-1.8**		
	comp=Z,0.6nm,0.3s,baz=208,slow=12,SNR=9.9									
	comp=Z,2.9nm,0.7s									
AKASG				AML		AML				
AKBB	**Malin Array Si**	**14.57**	**20**	Pn		**Pn**	**23 14 23.4**	**-0.5**		
AK04	**Malin Array Si**	**14.57**	**19**	Pn		**Pn**	**23 14 23.1**	**-0.9**		
ECH	**Echery**	**15.27**	**321**	P		**Pn**	**23 14 31.9**	**-1.5**		
ECH				pmax		pmax				
	comp=Z,23nm,1.5s									
ECH	**Echery**	**15.27**	**321**			**Pn**	**23 14 31.9**	**-1.5**		
CLL	**Collm**	**15.38**	**339**	P		**Pn**	**23 14 35.7**	**+0.9**		
CLL				pmax		pmax				
	comp=Z,31nm,1.4s									
CLL	**Collm**	**15.38**	**339**			**Pn**	**23 14 35.6**	**+0.9**		
CLL				lAmb		lAmb	23 14 42.0			
	comp=Z,31nm,1.4s									
CLL	**Collm**	**15.38**	**339**	P		**Pn**	**23 14 35.3**	**+0.6**		
	comp=Z,2µmcomp=Z,24nm,2.1s									
CLL	**Collm**	**15.38**	**339**	P		**P**	**23 14 40.9**	**+1.7**		
	comp=Z,24nm,2.1s									
CLL	**Collm**	**15.38**	**339**	*i* P		**Pn**	**23 14 33.7**	**-1.0**		
CLL				*i* pP		**P**	**23 14 40.7**	**+1.4**		
	comp=Z,30nm,1.4s									
CLL				*ex*		x	23 15 03.0			
CLL				AMS		AMS	23 21 00.0			
	comp=N,800nm,16.3s									
CLL				AMS		AMS	23 21 00.0			
	comp=E,400nm,19.6s									
CLL				AMS		AMS	23 21 00.0			
	comp=Z,700nm,17.5s									
GURO	**Guroymak-BITLI**	**16.20**	**79**			**P**	**23 14 47.3**	**-1.3**		
ERBR	**Yeremizino-Bor**	**16.50**	**53**	*e*P		**P**	**23 14 52.7**	**+1.0**		
ERBR				pmax		pmax				
	comp=Z,19nm,1.1s									
SUW	**Suwalki**	**16.86**	**3**	P		**Pn**	**23 14 53.4**	**-0.3**		
SUW	**Suwalki**	**16.86**	**3**			**Pn**	**23 14 53.4**	**-0.3**		
KBZ	**Khabaz**	**17.45**	**61**	Pn		**Pn**	**23 15 00.6**	**-0.6**		
	comp=Z,0.1nm,0.3s,baz=262,slow=6.1,SNR=7.1									
KBZ				LR		LR	23 22 55.7			
	comp=Z,128nm,19.0s,baz=246,slow=42									
	comp=Z,6.2nm,0.9s									
KBZ				AML		AML				
HAKT	**HAKKARI**	**17.58**	**82**	P		**P**	**23 15 07.4**	**+3.4**		
	comp=Z,27nm,0.9s									
OZAP	**Van, Ozalp-Mer**	**17.73**	**78**	⇑P		**P**	**23 15 09.8**	**+4.1**		
MNK	**Minsk**	**17.84**	**12**	*i* P		**Pn**	**23 15 04.5**	**-1.4**		
MNK				*i* S		**Sn**	**23 18 21.6**	**-2.6**		
MNK				pmax		pmax				
	comp=E,18nm,0.8s									
MNK				pmax		pmax				
	comp=Z,27nm,0.8s									
MNK				pmax		pmax				
	comp=N,9.0nm,0.7s									
MNK				MLR		MLR				
	comp=E,202nm,13.0s									
MNK				MLR		MLR				
	comp=Z,145nm,10.0s									
MNK				MLR		MLR				
	comp=N,82nm,15.0s									
MNK	**Minsk**	**17.84**	**12**	*i* P		**Pn**	**23 15 04.5**	**-1.4**		
	comp=N,9.0nm,0.7s									
MNK				*i* P		**Pn**	**23 15 04.5**	**-1.4**		
	comp=E,18nm,0.8s									
MNK				*i* P		**Pn**	**23 15 04.5**	**-1.4**		
	comp=Z,27nm,0.8s,baz=197									
MNK				*i* PP		**sP**	**23 15 15.0**	**+0.7**		
MNK				*i* S		**Sn**	**23 18 21.6**	**-2.6**		
MNK				*i* SS		**SnSn**	**23 18 37.3**	**-0.6**		
MNK				*i* LQ		LQ	23 20 19.7			
MNK				*i* LR		LR	23 21 40.4			
MNK				*i* LRM		MLR	23 22 57.4			
	comp=E,202nm,13.5s									
MNK				*i* LRM		MLR	23 22 59.9			
	comp=Z,145nm,10.4s									
MNK				*i* LRM		MLR	23 24 22.1			
	comp=N,82nm,14.5s									
NCK	**Nalchik**	**17.89**	**63**	⇑*e*P		**Pn**	**23 15 05.2**	**-1.5**		
NCK				pmax		pmax				
	comp=Z,6.0nm,1.3s									
NACGM	**Naroch**	**18.07**	**10**	*e*P		**Pn**	**23 15 08.3**	**-0.4**		
	comp=Z,48nm,0.9s,baz=193									
GNI	**Garni**	**18.31**	**74**	LR		LR	23 23 44.7			
	comp=Z,106nm,20.3s,baz=282,slow=42									
GNI	**Garni**	**18.31**	**74**	⇑*e*P		**P**	**23 15 13.5**	**+1.5**		
GNI				pmax		pmax				
	comp=Z,10.0nm,1.2s									
GNI	**Garni**	**18.31**	**74**	P		**P**	**23 15 13.7**	**+1.7**		
GNI				lAmb		lAmb	23 15 35.5			
	comp=Z,46nm,1.5s									
GNI	**Garni**	**18.31**	**74**	P		**P**	**23 15 16.0**	**+4.0**		
	comp=Z,20nm,1.8s									
PABE	**Paberze**	**18.39**	**4**	P		**P**	**23 15 12.0**	**-0.5**		
PABE				lAmb		lAmb	23 15 15.2			
	comp=Z,83nm,1.0s									
PABE	**Paberze**	**18.39**	**4**	P		**P**	**23 15 12.2**	**-0.3**		
	comp=Z,105nm,1.7s									
BSD	**Bornholm Skovb**	**18.50**	**348**	*i* P		**P**	**23 15 13.3**	**-0.4**		
VORD	**Divnogorie**	**18.67**	**37**	*e*P		**P**	**23 15 13.8**	**-1.9**		
VORD				pmax		pmax				
	comp=Z,9.0nm,0.9s									
VSR	**Storozhevoye**	**18.78**	**36**	*e*P		**P**	**23 15 15.3**	**-1.6**		
VSR				pmax		pmax				
	comp=Z,10.0nm,0.9s									
VORR	**Voronezh**	**19.10**	**35**	*e*P		**P**	**23 15 15.9**	**-4.5**		
VORR				pmax		pmax				
	comp=Z,6.0nm,0.8s									
LUNU	**Lund**	**19.25**	**346**	*i* P		**P**	**23 15 22.4**	**+0.4**		
BLEU	**Blekinge**	**19.51**	**350**	*i* P		**P**	**23 15 24.1**	**-0.7**		
LPSR	**Galich'ya Gora**	**19.62**	**33**	*e*P		**P**	**23 15 24.1**	**-2.0**		
LPSR				pmax		pmax				
	comp=Z,30nm,0.9s									
TAM	**Tamanrasset**	**19.95**	**228**	P		**P**	**23 15 29.8**	**-0.3**		
TAM				pmax		pmax				
	comp=Z,36nm,0.2s									
TAM	**Tamanrasset**	**19.95**	**228**	P		**P**	**23 15 29.8**	**-0.3**		
TAM	**Tamanrasset**	**19.95**	**228**	P		**Pn**	**23 15 32.5**	**+0.6**		
	comp=Z,5.6nm,1.7s									
DEL	**Delary**	**19.97**	**347**	*i* P		**P**	**23 15 30.7**	**+0.9**		
VRH	**Novokhopyorsk**	**20.02**	**39**	*e*P		**P**	**23 15 28.4**	**-2.0**		
VRH				pmax		pmax				
	comp=Z,10.0nm,0.8s									
ESBB	**Sonseca Array**	**20.15**	**285**	P		**P**	**23 15 30.5**	**-1.6**		
ESDC	**Sonseca Array**	**20.15**	**285**	P		**P**	**23 15 32.8**	**+0.7**		
	comp=Z,1.4nm,0.7s,baz=81,slow=10,SNR=13									
	comp=Z,1.4nm,0.7s									
ESDC	**Sonseca Array**	**20.15**	**285**	P		**P**	**23 15 31.1**	**-1.1**		
PAB	**San Pablo**	**20.45**	**285**	P		**P**	**23 15 35.0**	**-0.4**		
PAB				pmax		pmax				
	comp=Z,6.0nm,1.2s									
PAB	**San Pablo**	**20.45**	**285**	P		**P**	**23 15 35.0**	**-0.4**		
OBN	**Obninsk**	**20.63**	**25**	P		**P**	**23 15 36.0**	**-1.0**		
	comp=Z,32nm,0.6s,baz=67,slow=12,SNR=9.2									
	comp=Z,32nm,0.6s									
OBN	**Obninsk**	**20.63**	**25**	⇓*e*P		**P**	**23 15 36.3**	**-0.7**		
OBN				*e*			23 15 54.3			
OBN				*e*S		**S**	**23 19 27.9**	**+1.3**		
OBN				pmax		pmax				
	comp=Z,47nm,0.8s									
OBN				MLR		MLR				
	comp=Z,129nm,15.0s									
OBN	**Obninsk**	**20.63**	**25**	P		**P**	**23 15 36.4**	**-0.6**		
OBN	**Obninsk**	**20.63**	**25**	P		**P**	**23 15 37.4**	**+0.4**		
	comp=Z,60nm,1.6s									
OBN				pP		Pn	23 15 40.0	+0.7		
	comp=Z,60nm,1.6s									
OBN	**Obninsk**	**20.63**	**25**	P		**P**	**23 15 36.7**	**-0.3**		
	comp=Z,60nm,1.6s									
MOS	**Moscow**	**21.49**	**25**	*e*P		**P**	**23 15 43.7**	**-2.6**		
MOS				*e*			23 15 49.2			
MOS				*e*			23 16 04.5			
MOS				*e*S		**S**	**23 19 39.0**	**-4.7**		
MOS				pmax		pmax				
	comp=Z,37nm,0.8s									
VSU	**Vasula**	**21.55**	**7**	*e*P		**P**	**23 15 45.4**	**-1.5**		
VSU	**Vasula**	**21.55**	**7**	P		**P**	**23 15 46.3**	**-0.6**		
	comp=Z,126nm,0.9s									
MTSE	**Matsula**	**21.58**	**3**	*e*P		**P**	**23 15 45.8**	**-1.4**		
MDT	**Midelt**	**21.87**	**266**	P		**P**	**23 15 51.4**	**+0.7**		
	comp=Z,2.6nm,0.7s,baz=70,slow=7.9,SNR=5.6									
MDT				LR		LR	23 24 04.0			
	comp=Z,75nm,21.7s,baz=89,slow=36									
	comp=Z,2.6nm,0.7s									
MD01	**Midelt array s**	**21.98**	**267**	P		**P**	**23 15 50.2**	**-1.7**		
MD31	**MD31**	**21.98**	**267**	P		**P**	**23 15 49.6**	**-2.3**		
UPP	**Uppsala**	**22.82**	**355**	*e*P		**P**	**23 15 59.3**	**-1.2**		
MEF	**Metsahovi**	**23.11**	**4**	*e*P		**P**	**23 16 02.6**	**-0.9**		

HFS	**Hagfors**	**23.51**	**350**	P		**P**	**23 16 06.2**	**-1.3**		
	comp=Z,4.7nm,0.4s,baz=168,slow=10,SNR=18									
HFS				LR		LR	23 26 44.2			
	comp=Z,259nm,18.1s,baz=168,slow=40									
	comp=Z,4.7nm,0.4s									
MESJ	**Messejana**	**23.61**	**281**	P		**P**	**23 16 08.5**	**-0.2**		
MESJ				pmax		pmax				
	comp=Z,4.0nm,1.0s									
MESJ	**Messejana**	**23.61**	**281**	P		**P**	**23 16 08.5**	**-0.2**		
OSL	**Oslo**	**23.81**	**346**	*e*P		**P**	**23 16 09.5**	**-0.8**		
RAF	**Rauma**	**23.85**	**0**	*e*P		**P**	**23 16 10.4**	**-0.3**		
NC602	**NORSAR Array S**	**24.41**	**348**	*e*P		**P**	**23 16 15.9**	**-0.1**		
FINES	**FINESS Array B**	**24.44**	**5**	P		**P**	**23 16 14.9**	**-1.2**		
	comp=Z,6.1nm,0.4s,baz=167,slow=10,SNR=44									
FINES				LR		LR	23 27 00.7			
	comp=Z,383nm,18.3s,baz=224,slow=40									
	comp=Z,6.1nm,0.4s									
FINES	**FINESS Array B**	**24.44**	**5**	P		**P**	**23 16 15.5**	**-0.7**		
FINES	**FINESS Array B**	**24.44**	**5**	P		**P**	**23 16 15.5**	**-0.7**		
FIA1	**FINESS Array S**	**24.44**	**5**	P		**P**	**23 16 15.3**	**-0.8**		
NAO01	**NORSAR Array S**	**24.62**	**347**	P		**P**	**23 16 17.6**	**-0.3**		
NAO01				lAmb		lAmb	23 16 44.9			
	comp=Z,10nm,0.8s									
RAYN	**Ar Rayn**	**24.64**	**117**	P		**P**	**23 16 18.3**	**-0.2**		
RAYN				pmax		pmax				
	comp=Z,3.0nm,1.0s									
RAYN	**Ar Rayn**	**24.64**	**117**	P		**P**	**23 16 18.3**	**-0.2**		
EKA	**Eskdalemuir Ar**	**24.72**	**325**	P		**P**	**23 16 18.6**	**-0.2**		
	comp=Z,6.3nm,0.6s,baz=128,slow=8.8,SNR=18									
EKA				LR		LR	23 27 45.7			
	comp=Z,212nm,19.6s,baz=147,slow=41									
	comp=Z,6.3nm,0.6s									
ESK	**Eskdalemuir**	**24.73**	**325**	P		**P**	**23 16 18.8**	**-0.1**		
ESK				pmax		pmax				
	comp=Z,47nm,1.4s									
ESK	**Eskdalemuir**	**24.73**	**325**	P		**P**	**23 16 18.8**	**-0.1**		
NB2	**NORSAR Subarra**	**24.75**	**348**	P		**P**	**23 16 18.6**	**-0.5**		
	comp=Z,0.6nm,0.4s,baz=159,slow=9.3									
NB2	**NORSAR Subarra**	**24.75**	**348**	AMP		**P**	**23 16 18.0**	**-1.1**		
NB2				P		**P**	**23 16 18.0**	**-1.1**		
NOA	**NORSAR Array B**	**24.75**	**348**	P		**P**	**23 16 18.7**	**-0.4**		
	comp=Z,2.9nm,0.8s,baz=156,slow=8.9,SNR=10									
NOA				LR		LR	23 27 51.0			
	comp=Z,206nm,18.5s,baz=170,slow=41									
	comp=Z,2.9nm,0.8s									
KEF	**Keuruu**	**25.08**	**4**	*e*P		**P**	**23 16 22.4**	**+0.4**		
SUF	**Sumiainen**	**25.71**	**5**	*e*P		**P**	**23 16 27.4**	**-0.2**		
VAF	**Ylistaro**	**25.89**	**1**	*e*P		**P**	**23 16 29.8**	**+0.6**		
KLMR	**Klimovskoe**	**26.26**	**20**	*e*P		**P**	**23 16 31.2**	**-1.4**		
KLMR				pmax		pmax				
	comp=Z,41nm,1.3s									
JOF	**Joensuu**	**26.44**	**10**	*e*P		**P**	**23 16 33.5**	**-0.7**		
NSS	**Namsos**	**27.97**	**351**	*e*P		**P**	**23 16 47.8**	**-0.2**		
KIRV	**Kirov**	**28.03**	**31**	LR		LR	23 28 32.1			
	comp=Z,76nm,20.8s,baz=

ZAA0						IAmb	IAmb	23 19 18.4		
	comp=Z,9.3nm,0.8s									
ZALV	**Zalesovo Beam**	**45.72**	**47**		P		**P**	**23 19 17.4**	**-1.2**	
	comp=Z,6.5nm,0.6s,baz=274,slow=8.8,SNR=36									
ZALV					LR	LR		23 39 56.9		
	comp=Z,38nm,21.1s,baz=337,slow=38									
	comp=Z,6.5nm,0.6s									
ZALV	**Zalesovo Beam**	**45.72**	**47**	*i*	P		**P**	**23 19 17.3**	**-1.3**	
ZALV					pmax	pmax				
	comp=Z,7.0nm,0.6s									
ZALV	**Zalesovo Beam**	**45.72**	**47**				**P**	**23 19 17.5**	**-1.1**	
NRIK	**Noril'sk**	**47.30**	**26**		LR	LR		23 39 54.3		
	comp=Z,97nm,19.1s,baz=242,slow=37									
NRIK	**Noril'sk**	**47.30**	**26**		P		**P**	**23 19 30.4**	**-0.3**	
NRIK					pmax	pmax				
	comp=Z,7.0nm,1.0s									
NRIK	**Noril'sk**	**47.30**	**26**		P		**P**	**23 19 30.4**	**-0.3**	
NRIK					IAmb	IAmb		23 19 32.1		
	comp=Z,6.8nm,1.0s									
WMQ	**Urumqi**	**49.50**	**60**	*e*	P		**P**	**23 19 49.3**	**+1.1**	
WMQ					pmax	pmax				
	comp=Z,9.0nm,0.9s									
SFJD	**Kangerlussuaq**	**49.51**	**331**		LR	LR		23 40 57.9		
	comp=Z,125nm,19.1s,baz=136,slow=36									
EVN	**Everest**	**54.78**	**79**		P		**P**	**23 20 27.1**	**-1.3**	
EVN					IAmb	IAmb		23 20 35.2		
	comp=Z,5.8nm,1.0s									
TSUM	**Tsumeb**	**56.22**	**185**		LR	LR		23 47 03.1		
	comp=Z,106nm,18.5s,baz=178,slow=38									
GRTLG	**Ghanzi**	**58.24**	**180**		P		**P**	**23 20 51.5**	**-0.7**	
GRTLG					IAmb	IAmb		23 20 53.8		
	comp=Z,7.5nm,1.0s									
GTA2	**Gaotai**	**59.47**	**62**	*e*	P		**P**	**23 21 00.0**	**-0.8**	
GTA2					pP	pP		23 21 03.8	-3.1	
GTA2					pmax	pmax				
	comp=Z,3.0nm,0.8s									
KOOLE	**Kule**	**59.88**	**181**		P		**P**	**23 21 03.2**	**-0.4**	
TIXI	**Tiksi**	**60.27**	**20**		LR	LR		23 50 49.3		
	comp=Z,110nm,18.4s,baz=24,slow=40									
TIXI	**Tiksi**	**60.27**	**20**	⇓	*e*P		**P**	**23 21 06.9**	**+1.3**	
TIXI					pmax	pmax				
	comp=Z,4.0nm,0.9s									
SONM	**Songino Array**	**60.43**	**50**		P		**P**	**23 21 06.2**	**-1.1**	
	comp=Z,1.8nm,0.8s,baz=280,slow=8.6,SNR=5.2									
SONM					LR	LR		23 51 31.2		
	comp=Z,40nm,18.2s,baz=306,slow=40									
	comp=Z,1.8nm,0.8s									
SONM	**Songino Array**	**60.43**	**50**		P		**P**	**23 21 06.5**	**-0.7**	
SONM					pmax	pmax				
	comp=Z,3.0nm,1.0s									
SONM	**Songino Array**	**60.43**	**50**		P		**P**	**23 21 06.5**	**-0.7**	
SONM					IAmb	IAmb		23 21 07.3		
	comp=Z,2.6nm,1.0s									
RES	**Resolute Bay**	**60.95**	**344**		LR	LR		23 49 14.7		
	comp=Z,88nm,19.3s,baz=360,slow=38									
LBTB	**Lobatse**	**61.99**	**176**		LR	LR		23 51 39.2		
	comp=Z,84nm,19.2s,baz=148,slow=39									
LBTB	**Lobatse**	**61.99**	**176**		P		**P**	**23 21 17.8**	**-0.1**	
LBTB					pmax	pmax				
	comp=Z,8.0nm,1.0s									
LBTB	**Lobatse**	**61.99**	**176**		P		**P**	**23 21 17.8**	**-0.1**	
LBTB					IAmb	IAmb		23 21 20.0		
	comp=Z,7.6nm,1.0s									
YAK	**Yakutsk**	**65.55**	**29**	⇓	*e*P		**P**	**23 21 41.6**	**+0.8**	
YAK					pmax	pmax				
	comp=Z,7.0nm,0.8s									
BOSA	**Boshof**	**65.55**	**176**		P		**P**	**23 21 40.5**	**-0.8**	
BOSA					pmax	pmax				
	comp=Z,22nm,1.5s									
BOSA	**Boshof**	**65.55**	**176**		P		**P**	**23 21 40.5**	**-0.8**	
HHC	**Hu-ho-hao-te**	**66.89**	**56**	*e*	P		**P**	**23 21 50.3**	**+0.3**	
HHC					pmax	pmax				
	comp=Z,7.0nm,0.7s									
HHC					pmax	pmax				
	comp=Z,120nm,5.1s									
CMAR	**Chiang Mai Arr**	**69.18**	**82**		P		**P**	**23 22 03.1**	**-1.4**	
	comp=Z,0.5nm,0.4s,baz=297,slow=7.5,SNR=7.6									
	comp=Z,0.5nm,0.4s									
CMAR	**Chiang Mai Arr**	**69.18**	**82**		P		**P**	**23 22 03.3**	**-1.2**	
CMAR	**Chiang Mai Arr**	**69.18**	**82**		P		**P**	**23 22 03.3**	**-1.2**	
SUR	**Sutherland**	**69.22**	**181**		LR	LR		23 56 40.1		
	comp=Z,88nm,18.2s,baz=182,slow=40									
BILL	**Bilibino**	**71.78**	**13**	⇓	*e*P		**P**	**23 22 21.9**	**+2.3**	
BILL					pmax	pmax				
	comp=Z,3.0nm,1.0s									
D23K	**Nanushuk River**	**74.00**	**357**		P		**P**	**23 22 33.2**	**+0.4**	
D23K					IAmb	IAmb		23 22 36.3		
	comp=Z,14nm,1.4s									
KLR	**Kul'dur**	**74.09**	**40**		LR	LR		23 56 55.5		
	comp=Z,48nm,18.3s,baz=306,slow=37									
BMAR	**Burnt Mountain**	**75.17**	**355**		P		**P**	**23 22 40.3**	**+0.7**	
E19K	**Redstone River**	**75.67**	**360**		P		**P**	**23 22 42.4**	**0.0**	
E19K					IAmb	IAmb		23 22 44.4		
	comp=Z,12nm,1.3s									
F21K	**Alatna River**	**75.84**	**358**		P		**P**	**23 22 43.7**	**+0.2**	
F21K					IAmb	IAmb		23 23 05.4		
	comp=Z,3.9nm,1.1s									
ULM	**Lac du Bonnet**	**76.99**	**324**		P		**P**	**23 22 50.3**	**0.0**	
	comp=Z,2.3nm,0.7s,baz=163,slow=7.6,SNR=2.9									
	comp=Z,2.3nm,0.7s									
ULM	**Lac du Bonnet**	**76.99**	**324**		P		**P**	**23 22 50.6**	**+0.4**	
ULM					pmax	pmax				
	comp=Z,19nm,1.3s									
ULM	**Lac du Bonnet**	**76.99**	**324**		P		**P**	**23 22 50.6**	**+0.4**	
ILAR	**Eielson Array**	**77.97**	**355**		P		**P**	**23 22 55.6**	**+0.2**	
	comp=Z,0.3nm,0.8s,baz=339,slow=7.2,SNR=4.2									
	comp=Z,0.3nm,0.8s									
KSRS	**Korea Array**	**79.29**	**51**		P		**P**	**23 23 02.4**	**-0.8**	
	comp=Z,2.3nm,0.8s,baz=310,slow=4.4,SNR=5.2									
KSRS					LR	LR		00 03 55.6		
	comp=Z,29nm,18.3s,baz=250,slow=40									
	comp=Z,2.3nm,0.8s									
MJAR	**Matsushiro Arr**	**86.06**	**46**		LR	LR		00 04 37.2		
	comp=Z,22nm,18.9s,baz=182,slow=38									
PDAR	**Pinedale Array**	**88.84**	**326**		P		**P**	**23 23 51.6**	**-0.4**	
	comp=Z,0.6nm,0.8s,baz=65,slow=8.4,SNR=4.7									
	comp=Z,0.6nm,0.8s									
PDAR	**Pinedale Array**	**88.84**	**326**		P		**P**	**23 23 51.2**	**-0.9**	

IDC ***18*** *23:21:30.7±0.8, 31.67N×142.01E, h0km, mb4.1/12, mbtmp4.1/16, ML3.2/4, MS3.2/4, Error ellipse: s-maj=21.8km s-min=10.6km az=67.0*

NEIC ***18*** *23:21:32.6±0.9, 31.68N±0.07×141.8E±0.1, h14km±5km, mb4.4/17, Error ellipse: s-maj=19.3km s-min=4.2km az=60.0*

JMA ***18*** *23:21:33.9±0.3, 32.1N±1.4×14.2E±.1, h96km, MV3.8/25, NEAR TORISHIMA IS*

NIED ***18*** *23:21:33.9, 31.67N×141.81E, h96km, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr0.01; Mθθ0.62; Mφφ-0.63; Mrθ0.94; Mθφ0.34; Mφr-0.63; Fault plane solution: M₀1.34000×10¹⁵ NP1:φs32.00000°, δ32.00000°, λ180.00000°. NP2:φs122.00000°, δ90.00000°, λ58.00000°.*

ISC 18 23:21:33.9±0.6, 31.60N±0.05×141.92E±0.08, h29km, n66, σ1s38/72, mb4.3/23, MS3.5/3, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JAOM	**Aogashimamukai**	**2.02**	**296**	*e*P		**Pn**	**23 22 06.2**	**+0.2**
JHJ2	**Mitsune**	**2.33**	**311**	Pn		**Pn**	**23 22 08.9**	**-1.4**
JHJ2				Sn		**Sn**	**23 22 35.7**	**-2.1**
JHJ2	**Mitsune**	**2.33**	**311**	*e*P		**Pn**	**23 22 09.5**	**-0.7**
JHJ2				*e*S		**Sn**	**23 22 36.2**	**-1.7**
JHJ	**Hachijo jima 2**	**2.35**	**310**	Pn		**Pn**	**23 22 08.9**	**-1.7**
	8.6nm,0.3s,baz=210,slow=12,SNR=31							
JHJ				Sn		**Sn**	**23 22 34.9**	**-3.6**
	10.0nm,0.3s,baz=50,slow=22,SNR=8.3							
JHJ				AML		AML		
BSO1	**Boso 1**	**3.14**	**346**	*e*P		**Pn**	**23 22 20.9**	**0.0**
BSO1				*e*S		**Sn**	**23 22 57.3**	**+0.1**
JOD2	**Odawara 2**	**4.35**	**328**	*e*P		**Pn**	**23 22 37.9**	**-0.2**
JOD2				*e*S		**Sn**	**23 23 26.7**	**-1.1**
CBIJ	**Chichi jima**	**4.50**	**177**	*e*P		**Pn**	**23 22 40.9**	**+0.8**
CBIJ				*e*S		**Sn**	**23 23 31.0**	**-0.4**
JCJ	**Chichijima**	**4.50**	**177**	Pn		**Pn**	**23 22 38.1**	**-1.9**
	72nm,0.3s,baz=289,slow=22,SNR=16							
JCJ				Sn		**Sn**	**23 23 27.0**	**-4.5**
	11nm,0.3s,baz=260,slow=22,SNR=2.0							
JCJ	**Chichijima**	**4.50**	**177**	Pn		**Pn**	**23 22 41.1**	**+1.0**
JRY	**Ryogami san**	**5.07**	**331**	*e*P		**Pn**	**23 22 48.8**	**+0.9**
JRY				*e*S		**Sn**	**23 23 44.8**	**-0.7**
JAG	**Ashikaga**	**5.23**	**338**	P		**Pn**	**23 22 49.9**	**-0.1**
JAG				*e*S		**Sn**	**23 23 47.5**	**-1.9**

JGF	**Kuroka**	**5.51**	**318**				**Pn**	**23 22 53.5**	**-0.5**	
MJAR	**Matsushiro Arr**	**5.81**	**329**		Pn		**Pn**	**23 22 59.0**	**+1.0**	
	0.9nm,0.3s,baz=151,slow=11,SNR=21									
MJAR					LR	LR		23 24 45.4		
	comp=Z,49nm,18.4s,baz=126,slow=34									
	4.6nm,0.4s									
MJAR					AML	AML				
MJAR	**Matsushiro Arr**	**5.81**	**329**				**Pn**	**23 22 58.2**	**+0.1**	
MAJO	**Matsushiro**	**5.81**	**329**				**Pn**	**23 22 58.1**	**+0.1**	
MAT	**Matsushiro**	**5.81**	**329**	*e*S			**Sn**	**23 24 01.1**	**-2.6**	
JTM	**Tenmabayashi**	**9.19**	**356**		Pn		**Pn**	**23 23 42.3**	**-2.1**	
JNU	**Nakatsue**	**9.46**	**282**		Pn		**Pn**	**23 23 49.8**	**+1.5**	
	0.3nm,0.3s,baz=117,slow=14,SNR=3.6									
	13nm,1.0s									
JNU					AML	AML				
ERM	**Erimo**	**10.44**	**5**		Pn		**Pn**	**23 23 59.1**	**-2.5**	
JKA	**Kamikawa-asahi**	**12.50**	**2**		Pn		**Pn**	**23 24 27.3**	**-2.4**	
KSRS	**Korea Array**	**12.93**	**301**		Pn		**Pn**	**23 24 36.8**	**+1.2**	
	0.1nm,0.3s,baz=116,slow=13,SNR=1.2									
	1.1nm,0.9s									
KSRS					AML	AML				
DPSS	**Saipan**	**16.67**	**167**		Pn		**Pn**	**23 25 22.7**	**-2.7**	
YOJ	**Yonaguni jima**	**18.13**	**252**		P		**Pn**	**23 25 41.8**	**-1.8**	
NACB	**Ninganchiao**	**19.41**	**253**		P		**Pn**	**23 25 57.7**	**-1.4**	
NACB					IAmb	IAmb		23 26 38.3		
	comp=Z,18nm,1.1s									
SSLB	**Suanglung**	**20.11**	**252**		P		**P**	**23 26 05.0**	**-0.4**	
HEH	**HeiHe**	**21.54**	**334**	*e*P			**P**	**23 26 19.8**	**-0.9**	
PETK	**Petropavlovsk-**	**24.34**	**23**		LR	LR		23 37 07.1		
	comp=Z,30nm,20.6s,baz=140,slow=39									
HHC	**Hu-ho-hao-te**	**26.06**	**299**	*e*P			**P**	**23 27 04.8**	**-0.1**	
HHC					pmax	pmax				
	comp=Z,10.0nm,0.6s									
HHC					pmax	pmax				
	comp=Z,93nm,4.8s									
ULN	**Ulaanbaatar**	**31.02**	**312**		P		**P**	**23 27 49.1**	**0.0**	
ULN					IAmb	IAmb		23 28 03.7		
	comp=Z,3.0nm,0.8s									
SONM	**Songino Array**	**31.43**	**311**		P		**P**	**23 27 54.1**	**+1.4**	
	comp=Z,0.9nm,0.4s,baz=99,slow=8.9,SNR=2.7									
	comp=Z,0.9nm,0.4s									
LZH	**Lanzhou**	**31.80**	**289**	*e*P			**P**	**23 27 58.1**	**+2.0**	
GOMU	**GeErMu**	**39.07**	**290**		P		**P**	**23 28 57.6**	**-1.2**	
GOMU					pP	pP		23 29 01.0	-4.4	
GOMU					sP	sP		23 29 05.0	-3.1	
GOMU					pmax	pmax				
	comp=Z,2.0nm,0.4s									
CMAR	**Chiang Mai Arr**	**40.83**	**262**		P		**P**	**23 29 15.2**	**+2.1**	
	comp=Z,1.9nm,0.3s,baz=56,slow=5.9,SNR=4.1									
	comp=Z,1.9nm,0.3s									
ZAA0	**Zalesovo Array**	**46.01**	**316**		P		**P**	**23 29 54.1**	**-0.3**	
ZALV	**Zalesovo Beam**	**46.01**	**316**		P		**P**	**23 29 55.0**	**+0.5**	
	comp=Z,8.8nm,0.4s,baz=86,slow=8.8,SNR=4.8									
	comp=Z,0.8nm,0.4s									
ZALV	**Zalesovo Beam**	**46.01**	**316**		P		**P**	**23 29 54.0**	**-0.4**	
MKAR	**Makanchi Array**	**47.52**	**307**		P		**P**	**23 30 07.5**	**+1.0**	
	comp=Z,1.6nm,0.5s,baz=85,slow=8.7,SNR=12									
	comp=Z,1.6nm,0.5s									
MKAR	**Makanchi Array**	**47.52**	**307**		P		**P**	**23 30 05.9**	**-0.6**	
MAKZ	**Makanchi**	**47.73**	**307**		P		**P**	**23 30 07.9**	**-0.2**	
MAKZ					IAmb	IAmb		23 30 27.1		
	comp=Z,3.9nm,0.9s									
KURK	**Kurchatov**	**49.74**	**312**				**P**	**23 30 23.1**	**-0.2**	
KURK					IAmb	IAmb		23 30 28.2		
	comp=Z,6.5nm,1.1s									
KURBB	**Kurchatov Arra**	**49.80**	**312**		P		**P**	**23 30 24.6**	**+0.7**	
	comp=Z,3.5nm,0.8s,baz=88,slow=7.0,SNR=18									
	comp=Z,3.5nm,0.8s									
PDGK	**Podgornoye**	**49.85**	**302**		P		**P**	**23 30 24.4**	**-0.2**	
PPLA	**Purkeypile**	**51.45**	**32**		P		**P**	**23 30 35.7**	**-0.6**	
CTA	**Charters Tower**	**51.56**	**175**		LR	LR		23 52 50.8		
	comp=Z,69nm,20.1s,baz=212,slow=36									
WB0	**Warramunga Arr**	**51.59**	**189**				**P**	**23 30 38.2**	**+0.6**	
WRA	**Warramunga Arr**	**51.77**	**189**		P		**P**	**23 30 39.7**	**+0.8**	
	comp=Z,3.8nm,0.7s,baz=5.6,slow=7.6,SNR=52									
	comp=Z,3.8nm,0.7s									
WRA	**Warramunga Arr**	**51.77**	**189**		P		**P**	**23 30 39.0**	**+0.1**	
FITZ	**Fitzroy Crossi**	**51.83**	**200**		P		**P**	**23 30 39.8**	**+0.4**	
D22K	**Ayikyak River**	**52.06**	**25**		P		**P**	**23 30 39.4**	**-1.3**	
D22K					IAmb	IAmb		23 30 39.5		
	comp=Z,7.4nm,1.4s									
KSH2	**Kashi**	**53.56**	**298**		P		**P**	**23 30 54.3**	**+2.0**	
KSH2					pmax	pmax				
	comp=Z,2.0nm,0.9s									
ILAR	**Eielson Array**	**53.91**	**30**		P		**P**	**23 30 54.7**	**+0.4**	
	comp=Z,0.5nm,0.8s,baz=290,slow=4.6,SNR=4.4									
	comp=Z,0.5nm,0.8s									
BVAR	**Borovoye Array**	**54.63**	**315**		P		**P**	**23 31 00.5**	**+0.8**	
	comp=Z,0.8nm,0.3s,baz=95,slow=7.1,SNR=9.9									
	comp=Z,0.8nm,0.3s									
AS31	**Alice Springs**	**55.49**	**189**				**P**	**23 31 06.9**	**+0.7**	
AS31					IAmb	IAmb		23 31 09.2		
	comp=Z,2.1nm,0.5s									
ASAR	**Alice Springs**	**55.49**	**189**		P		**P**	**23 31 07.1**	**+0.9**	
	comp=Z,2.0nm,0.5s,baz=16,slow=14,SNR=31									
	comp=Z,2.0nm,0.5s									
ASAR	**Alice Springs**	**55.49**	**189**		P		**P**	**23 31 06.6**	**+0.4**	
KK31	**Karatay Array**	**56.34**	**303**				**P**	**23 31 12.1**	**-0.1**	
KK31					IAmb	IAmb		23 31 13.8		
	comp=Z,3.3nm,0.8s									
KKAR	**Karatay Array**	**56.34**	**303**				**P**	**23 31 12.6**	**+0.4**	
AB31	**Akbulak array**	**61.84**	**313**				**P**	**23 31 50.3**	**+0.2**	
AB31					IAmb	IAmb		23 32 03.5		
	comp=Z,2.4nm,0.5s									
ABKAR	**Akbulak array**	**61.84**	**313**		P		**P**	**23 31 50.2**	**0.0**	
SPITS	**Spitsbergen Ar**	**65.92**	**349**		LR	LR		00 03 12.0		
	comp=Z,32nm,19.1s,baz=252,slow=38									
FINES	**FINESS Array B**	**73.82**	**333**		P		**P**	**23 33 06.4**	**+1.1**	
	comp=Z,3.9nm,0.9s,baz=119,slow=2.4,SNR=5.0									
	comp=Z,3.9nm,0.9s									
FINES	**FINESS Array B**	**73.82**	**333**		P		**P**	**23 33 05.4**	**+0.1**	
AKASG	**Malin Array Be**	**78.86**	**323**		P		**P**	**23 33 35.1**	**+0.9**	
	comp=Z,0.4nm,0.3s,baz=52,slow=5.4,SNR=4.3									
	comp=Z,0.4nm,0.3s									
RAYN	**Ar Rayn**	**83.14**	**293**				**P**	**23 33 58.2**	**+0.7**	
RAYN					IAmb	IAmb		23 34 03.6		
	comp=Z,1.8nm,0.7s									
TXAR	**Lajitas Array**	**93.08**	**53**		P		**P**	**23 34 47.5**	**+2.2**	
	comp=Z,0.4nm,0.7s,baz=307,slow=3.6,SNR=5.2									
	comp=Z,0.4nm,0.7s									
TXAR	**Lajitas Array**	**93.08**	**53**		P		**P**	**23 34 46.3**	**+0.9**	

TIR ***19*** *00:12:12.8, 41.32N×20.86E, h14km±2km, ML2.1, ML2.1, Presumed earthquake*

PDG ***19*** *00:12:12.7±0.3, 41.35N×20.96E, h5km±1km, ML2.8/8, Error ellipse: s-maj=0.7km s-min=2.3km az=0.0*

SKO ***19*** *00:12:13.4, 41.26N×20.85E, h15km, ML2.0*

ATH ***19*** *00:12:14.3±0.7, 41.29N×20.93E, h5km, ML2.3/6, Latitude uncertainty: 3 km; Longitude uncertainty: 4 km*

BEO ***19*** *00:12:15.1±0.4, 41.29N×20.89E, h8km±4km, ML2.0/4*

ISC 19 00:12:13.6±0.9, 41.29N±0.02×20.86E±0.02, h10km±7km, n46, σ1s37/81, 6C-3D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
OHR	**Ohrid**	**0.18**	**194**	*i* Pg		**Pg**	**00 12 17.4**	**-0.2**
OHR				*i* Sg		**Sg**	**00 12 20.3**	**-0.1**
OHR				*e*Lg		Lg	00 12 20.7	
OHR				*e*Lg		Lg	00 12 20.9	
	comp=N,442nm,0.5s							
PHP	**Peshkopia**	**0.50**	**322**	P		**Pg**	**00 12 22.1**	**-1.3**
PHP				S		**Sg**	**00 12 30.6**	**+0.5**
PHP				IAML			00 12 31.8	
	comp=N,321nm,0.3s							
KBN	**Korca**	**0.67**	**185**	Pg		**Pg**	**00 12 26.2**	**-0.3**
KBN				Sg		**Sg**	**00 12 35.7**	**+0.4**
TIR	**Tirane**	**0.75**	**275**	P		**Pg**	**00 12 27.1**	**-0.9**
TIR				S		**Sg**	**00 12 38.2**	**+0.3**
TIR				IAML			00 12 41.4	
	comp=N,107nm,0.3s							
NEST	**Nestorio**	**0.89**	**171**	P		**Pg**	**00 12 29.6**	**-1.0**
NEST				S		**Sb**	**00 12 43.5**	**+0.5**
BERA	**Berati**	**0.90**	**230**	Pg		**Pg**	**00 12 31.3**	**+0.4**
BERA				Sg		**Sb**	**00 12 44.5**	**+1.2**
BERA				IAML			00 12 49.7	
	comp=N,71nm,0.5s							
PENT	**Pentalofos**	**1.11**	**169**	P		**Pg**	**00 12 34.6**	**-0.4**
PENT				S		**Sn**	**00 12 50.5**	**-0.2**
LSK	**Leskovik**	**1.16**	**190**	Pg		**Pg**	**00 12 35.3**	**-0.5**
LSK				S		**Sn**	**00 12 51.7**	**0.0**
KZN	**Kozani**	**1.20**	**145**	P		**Pg**	**00 12 35.9**	**-0.8**
KZN				S		**Sn**	**00 12 53.1**	**+0.3**
KZN				AML		AML		

SDA	**Shkodra**	**1.27**	**307**		Pg		**Pn**	**00 12 36.8**	**-0.5**	
SDA					S		**Sn**	**00 12 56.3**	**+1.9**	
SDA					IAML			00 13 00.2		
	comp=N,107nm,0.4s									
VAY	**Valandovo**	**1.29**	**88**	*i*	Pg		**Pn**	**00 12 37.4**	**-0.2**	
VAY				*i*	Sg		**Sn**	**00 12 55.4**	**+0.5**	
VAY				*e*Lg		Lg		00 12 56.4		
	comp=E,22nm,0.5s									
VAY				*e*Lg		Lg		00 12 57.2		
	comp=N,30nm,0.5s									
KPRO	**Kipourio**	**1.39**	**164**		P		**Pn**	**00 12 39.0**	**0.0**	
KPRO					S		**Sg**	**00 12 58.5**	**+0.2**	
PVY	**Plav**	**1.47**	**333**	⇑	*i*Pg		**Pn**	**00 12 39.8**	**-0.4**	
PVY					*i* Sg		**Sg**	**00 13 01.8**	**+1.0**	
DRME	**Dracevica, Mon**	**1.54**	**306**	⇓	*i*Pn		**Pn**	**00 12 41.0**	**0.0**	
DRME					*i* Sn		**Sg**	**00 13 06.3**	**+3.2**	
KNT	**Kendrikon**	**1.54**	**94**		P		**Pn**	**00 12 41.4**	**+0.3**	
KNT					S		**Sn**	**00 13 00.9**	**-0.3**	
SRN	**Sarande**	**1.55**	**205**		Pn		**Pg**	**00 12 43.9**	**+0.6**	
SRN					Sn		**Sg**	**00 13 05.0**	**+1.5**	
PEHC	**Pehcevo**	**1.61**	**72**	*i*	Pg		**Pg**	**00 12 44.3**	**-0.2**	
PEHC				*i*	Sg		**Sg**	**00 13 05.6**	**+0.3**	
JAN	**Janina**	**1.63**	**180**		P		**Pb**	**00 12 44.0**	**+0.3**	
JAN					AML		AML			
PDG	**Podgorica**	**1.65**	**314**	*e*	Pg		**Pb**	**00 12 44.9**	**+0.8**	
PDG				*e*	Sg		**Sg**	**00 13 09.0**	**+2.3**	
PDG	**Podgorica**	**1.65**	**314**	⇑	*i*Pn		**Pn**	**00 12 43.2**	**+0.6**	
PDG					*i* Sn		**Sg**	**00 13 09.0**	**+2.3**	
BARS	**Barje**	**1.68**	**25**	*e*	Pg		**Pg**	**00 12 45.4**	**-0.5**	
BARS				*e*	Sg		**Sg**	**00 13 08.0**	**+0.3**	
BOSS	**Bosilegrad**	**1.71**	**45**	*e*	Pg		**Pg**	**00 12 45.3**	**-1.0**	
LIT	**Litokhoron**	**1.72**	**133**		P		**Pn**	**00 12 44.1**	**+0.6**	
PRMD	**Pramanda**	**1.77**	**174**		P		**Pb**	**00 12 45.4**	**-0.7**	
BUM	**Brajici-Budva**	**1.78**	**305**	⇑	*i*Pn		**Pb**	**00 12 46.3**	**0.0**	
BUM					*i* Sn		**Sg**	**00 13 12.5**	**+1.6**	
IGT	**Igoumenitsa**	**1.80**	**193**	*e*	Pn		**Pb**	**00 12 46.7**	**+0.1**	
IGT				*e*	Sg		**Sg**	**00 13 12.5**	**+1.0**	
IGT	**Igoumenitsa**	**1.80**	**193**		P		**Pb**	**00 12 46.6**	**0.0**	
IGT					AML		AML			
KOME	**Kolasin**	**1.85**	**328**	⇑	*i*Pn		**Pb**	**00 12 47.0**	**-0.5**	
KOME					*i* Sn		**Sg**	**00 13 13.4**	**+0.3**	
TYRN	**Tyrnavos**	**1.89**	**146**		P		**Pb**	**00 12 47.1**	**-1.1**	
CEME	**Cevo**	**1.92**	**312**	⇓	*i*Pn		**Pn**	**00 12 47.8**	**+1.5**	
CEME					*i* Sn		**Sg**	**00 13 15.6**	**+0.4**	
THL	**Klokotos Trika**	**1.94**	**153**		P		**Pn**	**00 12 47.6**	**+1.2**	
THL					AML		AML			
SELS	**Selova**	**1.94**	**6**	*e*	Pn		**Pb**	**00 12 49.2**	**+0.2**	
SELS				*e*	Sn		**Sn**	**00 13 11.6**	**+0.7**	
TETR	**Tetrakomo, Epi**	**1.97**	**171**		P		**Pb**	**00 12 48.5**	**-1.0**	
SJES	**Sjenica**	**2.08**	**342**	*e*	Pn		**Pn**	**00 12 49.9**	**+1.4**	
SJES				*e*	Sg		**Sg**	**00 13 21.4**	**+1.1**	
HCY	**Herceg Novi**	**2.11**	**304**	⇓	*i*Pn		**Pn**	**00 12 50.6**	**+1.7**	
HCY					*i* Sn		**Sg**	**00 13 20.6**	**-0.8**	
IVAS	**Ivanjica**	**2.34**	**347**	*e*	Pn		**Pn**	**00 12 53.9**	**+1.7**	
BRY	**Bratogost**	**2.36**	**314**

	comp=N,2000µm,1.0s							
NRCA					AML	AML		
	comp=N,2000µm,1.0s							
NRCA					AML	AML		
	comp=E,1890µm,0.1s							
NRCA					AML	AML		
	comp=N,2015µm,1.0s							
NRCA					AML	AML		
	comp=N,2015µm,1.0s							
NRCA					AML	AML		
	comp=N,2000µm,1.0s							
NRCA					AML	AML		
	comp=E,1810µm,0.1s							
NRCA					AML	AML		
	comp=N,1806µm,0.1s							
NRCA					AML	AML		
	comp=N,1870µm,0.1s							
NRCA	**Norcia**	**0.11**	**153**		Pg	Pg	01 15 45.8	+0.6
NRCA					Sg	Sg	01 15 48.0	+1.0
FDMO	**Fiordimonte**	**0.11**	**16**	⇑	P	Pg	01 15 45.5	+0.3
FDMO					S	Sg	01 15 47.4	+0.4
CESI	**CESI - Serrava**	**0.13**	**305**	⇑	P	Pg	01 15 46.2	+0.6
CESI					S	Sg	01 15 48.6	+1.1
CESI					AML	AML		
	comp=N,923µm,0.4s							
CESI					AML	AML		
	comp=E,566µm,0.5s							
CESI					AML	AML		
	comp=N,924µm,0.4s							
CESI					AML	AML		
	comp=E,566µm,0.5s							
CESI					AML	AML		
	comp=N,906µm,0.3s							
CESI					AML	AML		
	comp=E,651µm,0.5s							
CESI					AML	AML		
	comp=E,355µm,0.1s							
CESI					AML	AML		
	comp=E,325µm,0.2s							
CESI					AML	AML		
	comp=N,790µm,0.2s							
CESI					AML	AML		
	comp=N,818µm,0.0s							
UNRC	**Norcia**	**0.14**	**159**		Pg	Pg	01 15 46.4	+0.7
UNRC					Sg	Sg	01 15 49.0	+1.3
UORV	**Monte Orve**	**0.15**	**311**		Pg	Pg	01 15 46.7	+0.7
UORV					Sg	Sg	01 15 49.6	+1.4
MML1	**Montelago di S**	**0.19**	**343**	⇑	P	Pg	01 15 47.1	+0.5
MML1					S	Sg	01 15 50.7	+1.4
CSP1	**Cessapalombo**	**0.20**	**36**		P	Pg	01 15 47.2	+0.5
CSP1					S	Sg	01 15 50.9	+1.4
CSP1					AML	AML		
	comp=E,992µm,0.6s							
CSP1					AML	AML		
	comp=E,994µm,0.6s							
CSP1					AML	AML		
	comp=N,916µm,0.4s							
CSP1					AML	AML		
	comp=E,994µm,0.6s							
CSP1					AML	AML		
	comp=E,994µm,1.4s							
CSP1					AML	AML		
	comp=E,817µm,0.3s							
CSP1					AML	AML		
	comp=N,853µm,0.3s							
UPUR	**Puro**	**0.20**	**183**		Pg	Pg	01 15 47.8	+1.1
UPUR					Sg	Sg	01 15 51.6	+2.1
MMO1	**Montemonaco**	**0.21**	**99**	⇑	P	Pg	01 15 47.5	+0.6
MMO1					S	Sg	01 15 51.0	+1.2
TREV	**Trevi**	**0.23**	**257**		Pg	Pg	01 15 48.1	+0.9
TREV					Sg	Sg	01 15 52.1	+1.8
PF6	**Pievefavera**	**0.24**	**26**	⇑	P	Pg	01 15 47.8	+0.3
PF6					S	Sg	01 15 51.8	+1.0
GUMA	**Gualdo di Mace**	**0.25**	**58**		P	Pg	01 15 48.5	+0.9
GUMA					S	Sg	01 15 53.1	+2.1
GUMA					AML	AML		
	comp=E,1436µm,0.2s							
GUMA					AML	AML		
	comp=N,2520µm,0.2s							
GUMA					AML	AML		
	comp=N,2520µm,0.2s							
GUMA					AML	AML		
	comp=N,2523µm,0.2s							
GUMA					AML	AML		
	comp=N,3260µm,0.2s							
GUMA					AML	AML		
	comp=E,1438µm,0.2s							
GUMA					AML	AML		
	comp=E,1715µm,0.3s							
FOPC	**Foligno Prot C**	**0.26**	**279**		P	Pb	01 15 48.7	-0.8
FOPC					S	Sb	01 15 53.4	-0.7
GAVE	**Gavelli**	**0.26**	**205**	⇑	P	Pg	01 15 48.8	+0.9
GAVE					S	Sb	01 15 53.5	-1.0
GAVE					AML	AML		
	comp=E,716µm,0.5s							
GAVE					AML	AML		
	comp=N,628µm,1.5s							
GAVE					AML	AML		
	comp=E,716µm,1.5s							
GAVE					AML	AML		
	comp=E,667µm,0.2s							
GAVE					AML	AML		
	comp=N,570µm,0.1s							
GAVE					AML	AML		
	comp=N,191µm,0.1s							
GAVE					AML	AML		
	comp=E,688µm,0.2s							
MDAR	**Monte D'Aria**	**0.27**	**15**		P	Pg	01 15 48.8	+0.7
MDAR					S	Sb	01 15 53.4	-1.3
ASSB	**Assisi San Ben**	**0.31**	**292**	⇑	P	Pg	01 15 49.4	+0.7
ASSB					S	Sb	01 15 54.6	-1.1
ASSB					AML	AML		
	comp=E,311µm,0.3s							
ASSB					AML	AML		
	comp=N,266µm,1.6s							
ASSB					AML	AML		
	comp=E,222µm,0.2s							
ASSB					AML	AML		
	comp=N,258µm,0.2s							
ASSB	**Assisi San Ben**	**0.31**	**292**		Pg	Pg	01 15 49.4	+0.7
ASSB					Sg	Sb	01 15 54.7	-0.9
SAP2	**Sant'Angelo in**	**0.31**	**57**		P	Pb	01 15 50.0	-0.5
SAP2					S	Sb	01 15 55.6	-0.1
SAP2					AML	AML		
	comp=E,306µm,0.2s							
SAP2					AML	AML		
	comp=N,1775µm,1.3s							
SAP2					AML	AML		
	comp=N,1775µm,0.7s							
SAP2					AML	AML		
	comp=N,1438µm,0.2s							
MF5	**Montefalcone A**	**0.31**	**79**		P	Pb	01 15 49.9	-0.6
MF5					S	Sb	01 15 55.5	-0.3
MF5					AML	AML		
	comp=E,432µm,0.4s							
MF5					AML	AML		
	comp=N,253µm,1.4s							
MF5					AML	AML		
	comp=E,432µm,1.6s							
MF5					AML	AML		
	comp=N,253µm,0.6s							
MF5					AML	AML		
	comp=E,306µm,0.3s							
MF5					AML	AML		
	comp=N,192µm,0.2s							
MRSG	**Ripe San Gines**	**0.31**	**49**		Pg	Pb	01 15 49.9	-0.6
MRSG					Sg	Sb	01 15 55.6	-0.2
MTRA	**Matera**	**0.31**	**124**		P	Pg	01 15 49.3	+0.5
MTRA					S	Sb	01 15 54.5	-1.3
LNSS	**Leonessa**	**0.33**	**181**		P	Pg	01 15 49.8	+0.7
LNSS					S	Sb	01 15 55.2	-1.1
LNSS					AML	AML		
	comp=N,289µm,0.2s							
LNSS					AML	AML		
	comp=E,325µm,0.7s							
LNSS					AML	AML		
	comp=E,325µm,1.3s							
LNSS					AML	AML		
	comp=E,304µm,0.1s							
LNSS					AML	AML		
	comp=E,320µm,0.2s							
LNSS					AML	AML		
	comp=N,331µm,0.2s							
SNTG	**Esanatoglia**	**0.33**	**347**		P	Pg	01 15 49.8	+0.5
SNTG					S	Sb	01 15 55.8	-0.7
SNTG					AML	AML		
	comp=N,128µm,0.3s							
SNTG					AML	AML		
	comp=E,103µm,0.9s							
SNTG					AML	AML		
	comp=E,102µm,0.1s							
SNTG					AML	AML		
	comp=N,110µm,0.3s							
SNTG					AML	AML		
	comp=E,112µm,0.1s							
SNTG					AML	AML		
	comp=N,99µm,0.0s							
RM25	**Mosicchio (Ama**	**0.35**	**151**		P	Pg	01 15 50.2	+0.6
RM25					S	Sb	01 15 56.0	-1.0
SMA1	**SAN MARTINO**	**0.37**	**145**		P	Pg	01 15 50.4	+0.5
SMA1					S	Sb	01 15 57.0	-0.5
SMA1					AML	AML		
	comp=E,186µm,0.6s							
SMA1					AML	AML		
	comp=N,140µm,1.4s							
SMA1					AML	AML		
	comp=N,131µm,0.2s							
SMA1					AML	AML		
	comp=E,178µm,0.3s							
MOMA	**Monte Martano**	**0.37**	**250**		P	Pg	01 15 50.7	+0.7
MOMA					S	Sb	01 15 57.8	+0.2
MOMA					AML	AML		
	comp=E,155µm,1.0s							
MOMA					AML	AML		
	comp=E,155µm,1.0s							
MOMA					AML	AML		
	comp=N,162µm,0.2s							
MOMA					AML	AML		
	comp=N,163µm,0.2s							
MOMA					AML	AML		
	comp=E,163µm,0.3s							
MOMA					AML	AML		
	comp=N,141µm,0.2s							
MOMA	**Monte Martano**	**0.37**	**250**		Pg	Pg	01 15 50.5	+0.6
MOMA					Sg	Sb	01 15 58.4	+0.8
ATCC	**AVT- Casa Cast**	**0.39**	**311**	⇑	P	Pg	01 15 51.0	+0.7
ATCC					S	Sb	01 15 57.9	-0.2
ATCC					AML	AML		
	comp=E,196µm,0.6s							
ATCC					AML	AML		
	comp=E,197µm,0.6s							
ATCC					AML	AML		
	comp=E,197µm,1.4s							
ATCC					AML	AML		
	comp=E,150µm,0.4s							
ATCC					AML	AML		
	comp=N,214µm,0.5s							
EL6	**Elcito**	**0.40**	**6**	⇑	P	Pg	01 15 51.0	+0.5
EL6					S	Sb	01 15 57.8	-0.7
EL6					AML	AML		
	comp=N,299µm,1.2s							
EL6					AML	AML		
	comp=N,299µm,0.8s							
EL6					AML	AML		
	comp=E,260µm,0.3s							
EL6					AML	AML		
	comp=N,295µm,0.2s							
ARRO	**Arrone**	**0.41**	**211**		P	Pb	01 15 51.4	-0.7
ARRO					S	Sb	01 15 58.2	-0.3
ARRO	**Arrone**	**0.41**	**211**		Pg	Pb	01 15 51.5	-0.6
ARRO					Sg	Sb	01 15 58.3	-0.2
FOSV	**Fossato di Vic**	**0.42**	**330**		P	Pg	01 15 51.4	+0.5
FOSV					S	Sb	01 15 58.1	-0.9
FOSV					AML	AML		
	comp=N,108µm,1.0s							
FOSV					AML	AML		
	comp=E,97µm,0.7s							
FOSV					AML	AML		
	comp=E,70µm,0.2s							
FOSV					AML	AML		
	comp=N,102µm,0.3s							
MNTT	**Montottone**	**0.42**	**72**		P	Pb	01 15 52.3	-0.1
MNTT					AML	AML		
	comp=N,314µm,0.3s							
MNTT					AML	AML		
	comp=E,324µm,1.6s							
MNTT					AML	AML		
	comp=E,324µm,0.4s							
MNTT					AML	AML		
	comp=E,253µm,0.3s							
MNTT					AML	AML		
	comp=N,242µm,0.2s							
OFFI	**Offida**	**0.47**	**89**		P	Pb	01 15 53.3	+0.1
OFFI					AML	AML		
	comp=E,132µm,0.4s							
OFFI					AML	AML		
	comp=N,160µm,0.5s							
CESX	**Cesi**	**0.47**	**227**		P	Pg	01 15 52.3	+0.5
CESX					S	Sb	01 15 59.9	-0.4
CESX					AML	AML		
	comp=N,178µm,0.9s							
CESX					AML	AML		
	comp=E,149µm,0.4s							
CESX					AML	AML		
	comp=N,178µm,1.1s							
CESX					AML	AML		
	comp=N,166µm,0.2s							
CAMP	**Campotosto**	**0.48**	**146**		P	Pg	01 15 52.3	+0.4
CAMP					S	Sb	01 15 59.6	-1.0
CAMP					AML	AML		
	comp=N,48µm,0.8s							
CAMP					AML	AML		
	comp=E,57µm,0.2s							
CAMP					AML	AML		
	comp=E,49µm,0.2s							
CAMP					AML	AML		
	comp=N,35µm,0.2s							
CAMP	**Campotosto**	**0.48**	**146**		Pg	Pg	01 15 52.4	+0.5
CAMP					Sg	Sb	01 15 59.6	-1.0
MURB	**Monte Urbino**	**0.51**	**311**		P	Pb	01 15 53.3	-0.6
MURB					AML	AML		
	comp=N,172µm,0.7s							
MURB					AML	AML		
	comp=E,312µm,0.3s							
MURB					AML	AML		
	comp=N,163µm,0.3s							
MURB					AML	AML		
	comp=E,333µm,0.3s							
MURB					AML	AML		
	comp=N,200µm,0.4s							
TERO	**Teramo**	**0.51**	**127**		P	Pg	01 15 52.9	+0.3
TERO					S	Sb	01 16 00.6	-0.9
TERO					AML	AML		
	comp=N,88µm,0.7s							
TERO					AML	AML		
	comp=E,87µm,0.2s							
TERO					AML	AML		
	comp=N,88µm,1.3s							
TERO					AML	AML		
	comp=N,85µm,0.2s							
TERO	**Teramo**	**0.51**	**127**		Pg	Pg	01 15 52.9	+0.3
TERO					Sg	Sb	01 16 01.1	-0.5
SSFR	**Montelago di S**	**0.54**	**339**		P	Pg	01 15 53.6	+0.4
SSFR					AML	AML		
	comp=E,178µm,0.6s							
SSFR					AML	AML		
	comp=N,153µm,0.7s							
SSFR					AML	AML		
	comp=E,178µm,1.4s							
SSFR					AML	AML		
	comp=N,149µm,0.3s							
SSFR					AML	AML		
	comp=E,197µm,0.2s							
SSFR					AML	AML		
	comp=N,199µm,0.3s							
ATFO	**Monte Foce - G**	**0.56**	**322**		P	Pb	01 15 54.5	-0.2
ATFO					AML	AML		
	comp=E,57µm,1.5s							
ATFO					AML	AML		
	comp=N,58µm,0.7s							
ATFO					AML	AML		
	comp=E,46µm,0.2s							
ATFO					AML	AML		
	comp=N,50µm,0.5s							
ARVD	**Arcevia**	**0.57**	**352**		P	Pg	01 15 54.0	+0.3
ARVD					S	Sb	01 16 03.6	+0.3
ARVD					AML	AML		
	comp=E,46µm,0.8s							
ARVD					AML	AML		
	comp=N,43µm,1.6s							
ARVD					AML	AML		
	comp=E,39µm,0.2s							
ARVD					AML	AML		
	comp=N,31µm,0.3s							
FRON	**Frontone**	**0.63**	**338**		P	Pg	01 15 55.1	+0.2
FRON					AML	AML		
	comp=N,77µm,0.3s							
FRON					AML	AML		
	comp=E,50µm,1.6s							
FRON					AML	AML		
	comp=E,50µm,0.4s							
FRON					AML	AML		
	comp=E,43µm,0.1s							
FRON					AML	AML		
	comp=N,51µm,0.2s							
ATVO	**AVT- Monte Val**	**0.65**	**314**		P	Pg	01 15 55.6	+0.4
ATVO					AML	AML		
	comp=E,49µm,0.9s							
ATVO					AML	AML		
	comp=N,38µm,1.6s							
ATVO					AML	AML		
	comp=N,38µm,0.4s							
ATVO					AML	AML		
	comp=N,32µm,0.3s							
ATVO					AML	AML		
	comp=E,37µm,0.3s							
ATMI	**Monte Miggiano**	**0.70**	**306**		AML	AML		
	comp=E,109µm,0.4s							
ATMI					AML	AML		
	comp=E,109µm,1.6s							
ATMI					AML	AML		
	comp=N,98µm,1.1s							
NARO	**Abbazia di Nar**	**0.76**	**334**		P	Pg	01 15 57.6	+0.3
NARO					AML	AML		
	comp=E,25µm,1.5s							
NARO					AML	AML		
	comp=N,31µm,1.6s							
NARO					AML	AML		
	comp=E,25µm,0.5s							
NARO					AML	AML		
	comp=N,31µm,0.4s							
NVLJ	**Novalja**	**2.10**	**38**	*e*	Pn	Pn	01 16 17.3	-0.8
NVLJ					Sn	Sb	01 16 46.1	-1.1
MORI	**Morici**	**2.15**	**63**	*e*	Pn	Pn	01 16 18.8	-0.1
MORI					Sn	Sn	01 16 46.1	+0.4
RABC	**Rab**	**2.21**	**34**		Sn	Sn	01 16 48.4	+1.3
UDBI	**Udbina**	**2.54**	**50**		Sn	Sn	01 16 56.1	+0.8
KIJV	**Kijevo**	**2.67**	**65**		Sn	Sn	01 16 59.4	+0.9

*SARA **19** 01:18:47.5±0.6,42°.922N±0°.001×13°.057E±0°.001, h2km, ML2.7/13, Mwp2.8/13*

ROM 19 01:18:46.7±0.0, 42°.927N±0°.002×13°.047E±0°.004, h7km, ML2.4/84, 16C-1D, Error ellipse: s-maj=0.2km s-min=0.2km az=64.0, Central Italy

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m s	ISC
FEMA	**Monte Fema**	**0.04**	**3**	P		Pg	01 18 48.2		-0.1
FEMA				S		Sg	01 18 48.8		-0.7
FEMA				AML		AML			
FEMA				AML		AML			
	comp=N,89850µm,0.4s								
FEMA				AML		AML			
FEMA				AML		AML			
	comp=N,89850µm,0.4s								
FEMA				AML		AML			
	comp=N,89850µm,1.6s								
FEMA				AML		AML			
	comp=N,70674µm,0.1s								
FEMA				AML		AML			
MTCL	**Monte Cavallo**	**0.07**	**332**	P		Pg	01 18 49.0		+0.2
MTCL				S		Sg	01 18 50.3		+0.2
USLL	**Sellano**	**0.08**	**233**	Pg		Pg	01 18 49.5		+0.7
USLL				Sg		Sg	01 18 51.2		+1.0
MC2	**Monte Cornacci**	**0.11**	**98**	⇑	P	Pg	01 18 49.7		+0.5
MC2				S		Sg	01 18 52.1		+1.0
NRCA	**Norcia**	**0.11**	**152**	P		Pg	01 18 49.8		+0.6
NRCA				S		Sg	01 18 52.0		+1.1
NRCA				AML		AML			
	comp=E,3755µm,0.2s								
NRCA				AML		AML			
	comp=N,3830µm,0.6s								
NRCA				AML		AML			
	comp=N,4090µm,0.2s								
NRCA				AML		AML			
	comp=N,3830µm,0.6s								
NRCA				AML		AML			
	comp=E,3945µm,0.2s								
NRCA				AML		AML			
	comp=N,4086µm,0.2s								
NRCA				AML		AML			
	comp=N,3729µm,0.2s								
NRCA	**Norcia**	**0.11**	**152**	Pg		Pg	01 18 49.8		+0.6
NRCA				Sg		Sg	01 18 51.9		+1.0
FDMO	**Fiordimonte**	**0.11**	**15**	⇑	P	Pg	01 18 49.6		+0.3
FDMO				S		Sg	01 18 51.6		+0.5
FDMO				AML		AML			
	comp=E,5025µm,0.2s								
FDMO				AML		AML			
	comp=N,4150µm,0.3s								
FDMO				AML		AML			
	comp=N,4145µm,0.3s								
CESI	**CESI - Serrava**	**0.13**	**307**	⇑	P	Pg	01 18 50.2		+0.7
CESI					S	Sg	01 18 52.6		+1.0
CESI					AML	AML			
	comp=E,3890µm,0.4s								
CESI					AML	AML			
	comp=N,4450µm,0.6s								
CESI					AML	AML			
	comp=N,4340µm,0.3s								
CESI					AML	AML			
	comp=N,4450µm,0.5s								
CESI					AML	AML			
	comp=E,4400µm,0.5s								
CESI					AML	AML			
	comp=N,4340µm,1.7s								
CESI					AML	AML			
	comp=E,3890µm,0.3s								
CESI					AML	AML			
	comp=E,4331µm,0.3s								
CESI					AML	AML			
	comp=N,4343µm,0.3s								
CESI					AML	AML			
	comp=N,4317µm,0.3s								
UNRC	**Norcia**	**0.14**	**158**	Pg		Pg	01 18 50.6		+0.9
UNRC				Sg		Sg	01 18 53.1		+1.5
UORV	**Monte Orve**	**0.16**	**312**	Pg		Pg	01 18 50.7		+0.7
UORV				Sg		Sg	01 18 53.6		+1.4
MML1	**Montelago di S**	**0.19**	**343**	⇑	P	Pg	01 18 51.1		+0.4
MML1				S		Sg	01 18 54.6		+1.2
UPUR	**Puro**	**0.20**	**183**	Pg		Pg	01 18 51.7		+1.0
UPUR				Sg		Sg	01 18 55.4		+2.1
CSP1	**Cessapalombo**	**0.20**	**35**	⇑	P	Pg	01 18 51.4		+0.5
CSP1				S		Sg	01 18 54.9		+1.3
CSP1				AML		AML			
	comp=E,5650µm,0.6s								
CSP1				AML		AML			
	comp=N,4940µm,0.4s								
CSP1				AML		AML			
	comp=E,5645µm,0.6s								
CSP1				AML		AML			
	comp=E,5645µm,1.4s								
CSP1				AML		AML			
	comp=N,3413µm,0.2s								
CSP1				AML		AML			
	comp=E,3276µm,0.2s								
MMO1	**Montemonaco**	**0.21**	**98**	⇑	P	Pg	01 18 51.5		+0.6
MMO1				S		Sg	01 18 55.1		+1.3
TREV	**Trevi**	**0.23**	**257**	Pg		Pg	01 18 52.2		+0.9
TREV				Sg		Sg	01 18 56.2		+1.8
SEF1	**Sefro**	**0.23**	**342**	P		Pg	01 18 52.3		+1.0
SEF1				S		Sg	01 18 56.0		+1.5
PF6	**Pievefavera**	**0.25**	**26**	⇑	P	Pg	01 18 51.9		+0.3
PF6				S		Sg	01 18 55.9		+1.0
GUMA	**Gualdo di Mace**	**0.25**	**57**	⇑	P	Pg	01 18 52.6		+0.9
GUMA				S		Sb	01 18 57.3		-0.9
GUMA				AML		AML			
	comp=N,10300µm,0.3s								
GUMA				AML		AML			
	comp=E,7585µm,1.2s								
GUMA				AML		AML			
	comp=N,13450µm,0.2s								
GUMA				AML		AML			
	comp=E,6150µm,0.2s								
GUMA				AML		AML			
	comp=E,7585µm,0.8s								

GUMA				AML	AML			
	comp=N,10315μm,0.2s							
GUMA				AML	AML			
	comp=N,13426μm,0.2s							
GUMA				AML	AML			
	comp=E,7548μm,0.3s							
PIO1	**Pioraco**	**0.26**	**350**	P	Pg	01 18 52.4	+0.6	
FOPC	**Foligno Prot C**	**0.26**	**280**	P	Pb	01 18 52.8	-0.9	
FOPC				S	Sb	01 18 57.4	-0.9	
GAVE	**Gavelli**	**0.26**	**206**	⇑P	Pb	01 18 52.9	-0.9	
GAVE				S	Sb	01 18 57.4	-1.1	
GAVE				AML	AML			
	comp=E,2555μm,0.5s							
GAVE				AML	AML			
	comp=N,762μm,1.6s							
GAVE				AML	AML			
	comp=E,2555μm,0.5s							
GAVE				AML	AML			
	comp=N,762μm,1.6s							
GAVE				AML	AML			
	comp=N,2575μm,0.5s							
GAVE				AML	AML			
	comp=E,2555μm,1.5s							
GAVE				AML	AML			
	comp=E,2300μm,0.2s							
GAVE				AML	AML			
	comp=N,762μm,0.4s							
GAVE				AML	AML			
	comp=N,2575μm,1.5s							
GAVE				AML	AML			
	comp=N,2315μm,0.3s							
GAVE				AML	AML			
	comp=E,2448μm,0.2s							
GAVE				AML	AML			
	comp=N,707μm,0.5s							
MDAR	**Monte D'Aria**	**0.27**	**15**	P	Pg	01 18 52.8	+0.6	
MDAR				S	Sb	01 18 57.5	-1.4	
ASSB	**Assisi San Ben**	**0.31**	**292**	⇑P	Pg	01 18 53.4	+0.6	
ASSB				S	Sb	01 18 58.6	-1.2	
ASSB				AML	AML			
	comp=N,1690μm,1.1s							
ASSB				AML	AML			
	comp=E,1980μm,0.3s							
ASSB				AML	AML			
	comp=N,1690μm,0.9s							
ASSB				AML	AML			
	comp=N,1651μm,0.2s							
ASSB				AML	AML			
	comp=E,1483μm,0.3s							
ASSB	**Assisi San Ben**	**0.31**	**292**	Pg	Pg	01 18 53.4	+0.6	
ASSB				Sg	Sb	01 18 58.7	-1.1	
MTRA	**Matera**	**0.31**	**123**	P	Pg	01 18 53.4	+0.6	
MTRA				S	Sb	01 18 58.6	-1.2	
MTRA				AML	AML			
	comp=E,1220μm,0.4s							
MTRA				AML	AML			
	comp=E,1230μm,0.4s							
MTRA				AML	AML			
	comp=N,1745μm,0.4s							
MTRA				AML	AML			
	comp=N,1790μm,0.4s							
MTRA				AML	AML			
	comp=E,1250μm,0.3s							
SAP2	**Sant'Angelo in**	**0.31**	**57**	P	Pb	01 18 54.0	-0.6	
SAP2				S	Sb	01 18 59.7	-0.2	
SAP2				AML	AML			
	comp=E,1380μm,0.2s							
SAP2				AML	AML			
	comp=N,8425μm,1.3s							
SAP2				AML	AML			
	comp=N,8425μm,0.7s							
SAP2				AML	AML			
	comp=N,7094μm,0.5s							
MF5	**Montefalcone A**	**0.31**	**78**	⇑P	Pb	01 18 53.9	-0.8	
MF5				S	Sb	01 18 59.5	-0.4	
MF5				AML	AML			
	comp=E,1980μm,0.4s							
MF5				AML	AML			
	comp=E,1975μm,0.4s							
MF5				AML	AML			
	comp=E,1975μm,1.6s							
MF5				AML	AML			
	comp=N,1255μm,0.5s							
MRSG	**Ripe San Gines**	**0.31**	**48**	Pg	Pb	01 18 53.9	-0.7	
MRSG				Sg	Sb	01 18 59.7	-0.3	
LNSS	**Leonessa**	**0.32**	**181**	P	Pg	01 18 53.9	+0.8	
LNSS				S	Sb	01 18 59.3	-1.0	
LNSS				AML	AML			
	comp=E,986μm,0.4s							
LNSS				AML	AML			
	comp=N,1052μm,0.3s							
LNSS				AML	AML			
	comp=E,988μm,0.4s							
LNSS				AML	AML			
	comp=N,1053μm,0.3s							
LNSS				AML	AML			
	comp=N,1083μm,0.3s							
LNSS				AML	AML			
	comp=E,981μm,0.4s							
LNSS				AML	AML			
	comp=N,1052μm,0.3s							
LNSS				AML	AML			
	comp=N,1082μm,0.3s							
LNSS				AML	AML			
	comp=E,983μm,0.4s							
LNSS				AML	AML			
	comp=E,987μm,0.4s							
SNTG	**Esanatoglia**	**0.34**	**347**	P	Pg	01 18 53.8	+0.4	
SNTG				S	Sb	01 19 00.1	-0.6	
SNTG				AML	AML			
	comp=N,546μm,1.5s							
SNTG				AML	AML			
	comp=N,622μm,0.4s							
SNTG				AML	AML			
	comp=E,654μm,0.5s							
SNTG				AML	AML			
	comp=E,593μm,0.6s							
SNTG				AML	AML			
	comp=N,546μm,0.5s							
SNTG				AML	AML			
	comp=E,470μm,0.1s							
SNTG				AML	AML			
	comp=N,538μm,0.3s							
SNTG				AML	AML			
	comp=N,539μm,0.4s							
SNTG				AML	AML			
	comp=E,651μm,0.4s							
RM25	**Mosicchio (Ama**	**0.35**	**150**	⇓P	Pg	01 18 54.2	+0.6	
RM25				S	Sb	01 19 00.2	-0.8	
SMA1	**SAN MARTINO**	**0.36**	**144**	P	Pg	01 18 54.5	+0.6	
SMA1				S	Sb	01 19 01.0	-0.5	
SMA1				AML	AML			
	comp=E,532μm,0.6s							
SMA1				AML	AML			
	comp=N,396μm,1.2s							
SMA1				AML	AML			
	comp=E,716μm,0.4s							
SMA1				AML	AML			
	comp=N,620μm,1.5s							
SMA1				AML	AML			
	comp=E,716μm,1.6s							
SMA1				AML	AML			
	comp=N,620μm,0.5s							
SMA1				AML	AML			
	comp=N,619μm,0.3s							
SMA1				AML	AML			
	comp=E,802μm,0.4s							
MOMA	**Monte Martano**	**0.37**	**251**	P	Pg	01 18 54.7	+0.7	
MOMA				S	Sb	01 19 01.9	+0.2	
MOMA				AML	AML			
	comp=E,720μm,1.0s							
MOMA				AML	AML			
	comp=N,720μm,0.9s							
MOMA				AML	AML			
	comp=E,720μm,1.0s							
MOMA				AML	AML			
	comp=E,799μm,1.0s							
MOMA				AML	AML			
	comp=N,779μm,0.9s							
MOMA				AML	AML			
	comp=E,799μm,1.0s							
MOMA				AML	AML			
	comp=N,720μm,1.0s							
MOMA				AML	AML			
	comp=E,744μm,0.2s							
MOMA				AML	AML			
	comp=E,690μm,0.2s							
MOMA				AML	AML			
	comp=N,707μm,0.2s							
MOMA				AML	AML			
	comp=N,670μm,0.2s							
MOMA	**Monte Martano**	**0.37**	**251**	Pg	Pg	01 18 54.7	+0.7	
MOMA				Sg	Sb	01 19 01.9	+0.2	
ATCC	**AVT- Casa Cast**	**0.39**	**311**	⇑P	Pg	01 18 55.1	+0.7	
ATCC				S	Sb	01 19 01.9	-0.5	
ATCC				AML	AML			
	comp=E,1120μm,0.6s							
ATCC				AML	AML			
	comp=E,1120μm,1.4s							
ATCC				AML	AML			
	comp=E,831μm,0.3s							
ATCC				AML	AML			
	comp=N,1175μm,0.5s							
EL6	**Elcito**	**0.40**	**6**	⇑P	Pg	01 18 55.1	+0.4	
EL6				S	Sb	01 19 01.6	-1.0	
EL6				AML	AML			
	comp=E,1460μm,0.2s							
EL6				AML	AML			
	comp=N,1660μm,0.2s							
ARRO	**Arrone**	**0.41**	**211**	P	Pb	01 18 55.5	-0.7	
ARRO				S	Sb	01 19 02.2	-0.4	
ARRO				AML	AML			
	comp=N,530μm,1.4s							
ARRO				AML	AML			
	comp=E,723μm,0.2s							
ARRO				AML	AML			
	comp=N,467μm,0.2s							
ARRO	**Arrone**	**0.41**	**211**	Pg	Pb	01 18 55.5	-0.7	
ARRO				Sg	Sb	01 19 02.4	-0.2	
BETT	**Bettona**	**0.42**	**279**	Pg	Pg	01 18 55.6	+0.7	
BETT				Sg	Sb	01 19 02.7	-0.4	
FOSV	**Fossato di Vic**	**0.42**	**330**	⇑P	Pg	01 18 55.4	+0.4	
FOSV				S	Sb	01 19 02.3	-0.9	
FOSV				AML	AML			
	comp=N,666μm,1.0s							
FOSV				AML	AML			
	comp=E,571μm,0.7s							
FOSV				AML	AML			
	comp=N,666μm,1.0s							
FOSV				AML	AML			
	comp=E,428μm,0.2s							
FOSV				AML	AML			
	comp=N,641μm,0.3s							
MNTT	**Montottone**	**0.42**	**71**	P	Pb	01 18 56.2	-0.3	
MNTT				AML	AML			
	comp=E,1380μm,0.7s							
MNTT				AML	AML			
	comp=N,1635μm,0.3s							
MNTT				AML	AML			
	comp=N,1635μm,1.7s							
MNTT				AML	AML			
	comp=N,1136μm,0.3s							
MNTT				AML	AML			
	comp=E,1142μm,0.3s							
CESX	**Cesi**	**0.47**	**227**	⇑P	Pg	01 18 56.3	+0.5	
CESX				S	Sb	01 19 03.9	-0.5	
CESX				AML	AML			
	comp=N,958μm,0.5s							
CESX				AML	AML			
	comp=E,822μm,0.4s							
CESX				AML	AML			
	comp=N,792μm,0.3s							
CESX				AML	AML			
	comp=E,824μm,0.4s							
OFFI	**Offida**	**0.47**	**89**	P	Pb	01 18 57.2	-0.1	
OFFI				AML	AML			
	comp=E,830μm,0.5s							
OFFI				AML	AML			
	comp=N,668μm,0.4s							
OFFI				AML	AML			
	comp=N,856μm,0.4s							
OFFI				AML	AML			
	comp=E,843μm,0.4s							
CAMP	**Campotosto**	**0.47**	**146**	P	Pg	01 18 56.2	+0.3	
CAMP				S	Sb	01 19 03.6	-1.1	
CAMP				AML	AML			
	comp=E,165μm,0.7s							
CAMP				AML	AML			
	comp=N,152μm,0.5s							
CAMP				AML	AML			
	comp=N,152μm,1.5s							
CAMP				AML	AML			
	comp=E,152μm,0.4s							
CAMP	**Campotosto**	**0.47**	**146**	Pg	Pg	01 18 56.4	+0.5	
CAMP				Sg	Sb	01 19 03.9	-0.8	
IMCRS	**Cerreto**	**0.49**	**322**	Pg	Pb	01 18 57.3	-0.4	
IMCRS				Sg	Sb	01 19 07.0	+2.0	
USGN	**Sangemini**	**0.49**	**229**	Pg	Pb	01 18 57.2	-0.6	
USGN				Sg	Sb	01 19 05.3	+0.2	
MURB	**Monte Urbino**	**0.51**	**311**	P	Pg	01 18 57.2	+0.6	
MURB				AML	AML			
	comp=E,1610μm,0.3s							
MURB				AML	AML			
	comp=E,1605μm,0.3s							
MURB				AML	AML			
	comp=N,1025μm,0.4s							
MURB				AML	AML			
	comp=E,1585μm,0.3s							
MURB				AML	AML			
	comp=N,1160μm,0.2s							
MURB				AML	AML			
	comp=E,1608μm,0.3s							
MURB				AML	AML			
	comp=N,1025μm,1.6s							
MURB				AML	AML			
	comp=N,1163μm,0.2s							
MURB	**Monte Urbino**	**0.51**	**311**	Pg	Pb	01 18 57.5	-0.6	
MURB				Sg	Sb	01 19 06.2	+0.5	
TERO	**Teramo**	**0.51**	**126**	P	Pg	01 18 56.9	+0.3	
TERO				S	Sb	01 19 04.7	-0.9	
TERO				AML	AML			
	comp=E,456μm,0.2s							
TERO				AML	AML			
	comp=N,403μm,0.7s							
TERO				AML	AML			
	comp=E,456μm,0.2s							
TERO				AML	AML			
	comp=E,348μm,0.2s							
TERO				AML	AML			
	comp=N,402μm,0.6s							
TERO				AML	AML			
	comp=N,396μm,0.6s							
TERO				AML	AML			
	comp=N,346μm,0.3s							
TERO				AML	AML			
	comp=N,324μm,0.4s							
TERO	**Teramo**	**0.51**	**126**	Pg	Pg	01 18 57.1	+0.5	
TERO				Sg	Sb	01 19 05.1	-0.5	
SSFR	**Montelago di S**	**0.54**	**339**	P	Pg	01 18 57.6	+0.4	
SSFR				S	Sb	01 19 06.7	0.0	
SSFR				AML	AML			
	comp=E,1008μm,0.2s							
SSFR				AML	AML			
	comp=N,939μm,0.3s							
SSFR				AML	AML			
	comp=E,1019μm,0.2s							
SSFR				AML	AML			
	comp=N,862μm,0.2s							
ATFO	**Monte Foce - G**	**0.56**	**322**	P	Pg	01 18 58.0	+0.4	
ATFO				S	Sb	01 19 06.9	-0.2	
ATFO				AML	AML			
	comp=E,338μm,0.3s							
ATFO				AML	AML			
	comp=N,307μm,0.5s							
ATFO				AML	AML			
	comp=N,307μm,1.5s							
ARVD	**Arcevia**	**0.58**	**352**	P	Pg	01 18 58.0	+0.2	
ARVD				S	Sb	01 19 07.6	+0.1	
ARVD				AML	AML			
	comp=E,240μm,1.0s							
ARVD				AML	AML			
	comp=N,172μm,0.4s							
ARVD				AML	AML			
	comp=E,240μm,1.0s							
ARVD				AML	AML			
	comp=E,189μm,0.2s							
ARVD				AML	AML			
	comp=N,152μm,0.3s							
FRON	**Frontone**	**0.64**	**338**	P	Pg	01 18 59.1	+0.1	
FRON				S	Sb	01 19 09.5	+0.2	
FRON				AML	AML			
	comp=E,280μm,1.2s							
FRON				AML	AML			
	comp=N,362μm,0.8s							
FRON				AML	AML			
	comp=E,280μm,0.8s							
FRON				AML	AML			
	comp=N,362μm,1.2s							
FRON				AML	AML			
	comp=N,349μm,0.3s							
FRON				AML	AML			
	comp=E,232μm,0.1s							
ATVO	**AVT- Monte Val**	**0.65**	**314**	⇑P	Pg	01 18 59.5	+0.2	
ATVO				S	Sb	01 19 10.0	+0.2	
ATVO				AML	AML			
	comp=E,234μm,0.7s							
ATVO				AML	AML			
	comp=N,176μm,0.3s							
ATVO				AML	AML			
	comp=E,224μm,0.5s							
ATMI	**Monte Miggiano**	**0.70**	**306**	P	Pb	01 19 01.1	-0.2	
ATMI				S	Sb	01 19 11.6	+0.5	
ATMI				AML	AML			
	comp=E,664μm,0.6s							
ATMI				AML	AML			
	comp=N,498μm,1.1s							
ATMI				AML	AML			
	comp=N,472μm,0.6s							
ATMI				AML	AML			
	comp=E,663μm,0.6s							
ATPI	**Pietralunga -**	**0.70**	**318**	P	Pg	01 19 00.5	+0.2	
ATPI				AML	AML			
	comp=E,140μm,0.6s							
ATPI				AML	AML			
	comp=N,147μm,1.5s							
ATPI				AML	AML			
	comp=N,147μm,0.5s							
ATPI				AML	AML			
	comp=N,133μm,0.7s							
COR1	**Corinaldo**	**0.70**	**357**	P	Pb	01 19 01.4	+0.1	
COR1				AML	AML			
	comp=E,247μm,0.3s							
COR1				AML	AML			
	comp=N,354μm,1.6s							
COR1				AML	AML			
	comp=N,354μm,1.6s							
COR1				AML	AML			
	comp=E,248μm,0.3s							
COR1				AML	AML			
	comp=N,354μm,0.4s							
COR1				AML	AML			
	comp=N,307μm,0.6s							
COR1				AML	AML			
	comp=E,247μm,0.3s							
MPAG	**Monte Paganucc**	**0.73**	**343**	P	Pg	01 19 01.1	+0.2	
MPAG				AML	AML			
	comp=E,175μm,1.6s							
MPAG				AML	AML			
	comp=N,168μm,0.4s							
MPAG				AML	AML			
	comp=E,175μm,0.4s							
MPAG				AML	AML			
	comp=E,136μm,0.2s							
MPAG				AML	AML			
	comp=N,159μm,0.2s							
NARO	**Abbazia di Nar**	**0.76**	**334**	P	Pg	01 19 01.3	-0.1	
NARO				AML	AML			
	comp=E,122μm,0.8s							
NARO				AML	AML			
	comp=N,84μm,0.3s							
NARO				AML	AML			
	comp=E,94μm,0.2s							
NARO				AML	AML			
	comp=N,87μm,0.6s							
FAGN	**Fagnano**	**0.77**	**149**	P	Pg	01 19 01.7	+0.1	
BADI	**Badiali**	**0.83**	**315**	P	Pg	01 19 03.0	+0.3	
BADI				AML	AML			
	comp=E,132μm,0.5s							
BADI				AML	AML			
	comp=N,126μm,0.4s							
BADI				AML	AML			
	comp=E,81μm,0.3s							
BADI				AML	AML			
	comp=N,98μm,0.4s							
DUGI	**Dugi Otok**	**1.81**	**53**	*e*Pg	Pn	01 19 19.2	+0.9	
DUGI				Sg	Sn	01 19 39.8	-1.7	
NVLJ	**Novalja**	**2.10**	**38**	*e*Pn	Pn	01 19 22.8	+0.5	
NVLJ				Sn	Sn	01 19 47.2	-1.4	
MORI	**Morici**	**2.15**	**63**	*i* Pn	Pn	01 19 23.0	0.0	
MORI				Sn	Sn	01 19 49.8	-0.1	
RABC	**Rab**	**2.21**	**34**	*e*Pn	Pn	01 19 24.1	+0.3	
RABC				Sn	Sn	01 19 49.6	-1.7	
HVAR	**Hvar**	**2.51**	**83**	*i* Pn	Pn	01 19 28.5	+0.6	
HVAR				Sn	Sn	01 19 59.9	+1.3	
UDBI	**Udbina**	**2.54**	**50**	*e*Pn	Pn	01 19 28.5	+0.1	
UDBI				Sn	Sn	01 19 59.4	-0.1	
RIY	**Rijeka**	**2.61**	**23**	Sn	Sn	01 20 00.4	-0.8	
KIJV	**Kijevo**	**2.67**	**65**	*e*Pn	Pn	01 19 30.8	+0.6	
KIJV				Sn	Sn	01 20 02.8	0.0	
RICI	**Ricice**	**3.04**	**78**	*i* Pn	Pn	01 19 35.9	+0.7	
RICI				Sn	Sn	01 20 12.8	+1.0	
STON	**Ston**	**3.42**	**89**	*e*Pn	Pn	01 19 41.3	+0.9	
STON				Sn	Sn	01 20 22.6	+1.5	
MYKA	**Terra Mystica**	**3.73**	**6**	*e*Pn	Pn	01 19 47.1	+2.4	
	comp=N,1.1nm,0.3s							
MYKA				*e*Sn	Sn	01 20 30.9	+2.1	
	comp=N,1.1nm,0.3s							
OBKA	**Obir**	**3.74**	**16**	*e*Sn	Sg	01 20 50.3	+3.5	
	comp=N,3.2nm,0.6s							
ABTA	**Abfaltersbach**	**3.84**	**354**	*e*Pn	Pn	01 19 49.0	+2.8	
	comp=N,1.4nm,0.3s							
KBA	**Koelnbreinsper**	**4.16**	**3**	*i* Pn	Pn	01 19 53.1	+2.4	
	comp=N,0.9nm,0.3s							
LESA	**Schwarzleotal**	**4.50**	**357**	*i* Pn	Pn	01 19 59.0	+3.6	
	comp=N,0.6nm,0.3s							
LESA				*i* Sn	Sn	01 20 51.8	+3.8	
	comp=N,2.7nm,0.5s							

IDC ***19*** *01:39:08.2±0.4,27°.41S×175°.69W,h0km,mb4.7/18, mbtmp4.6/22,ML4.7/4,MS4.0/27,Error ellipse: s-maj=16.4km s-min=12.3km az=108.0*

MOS ***19*** *01:39:08.6±1.0,27°.41S×175°.78W,h11km,mb5.0/24, Error ellipse: s-maj=12.5km s-min=10.6km az=66.6*

GFZ ***19*** *01:39:09.8±0.2,27°.S±3'×17°.6W±', h10km,M5.0/32, mb5.0/32,confirmed*

BJI ***19*** *01:39:09.5,27°.33S×175°.59W,h13km,mb5.3/7*

NEIC ***19*** *01:39:10.3±2.0,27°.47S±0'.08×175°.7W±0'.1,h10km±1km, mb4.9/131,Error ellipse: s-maj=17.6km s-min=13.8km az=103.0*

GCMT ***19*** *01:39:13.3±0.4,27°.35S±0'.05×175°.39W±0'.02,h17km±1km, MW4.8/64,Moment Tensor Solution. s21,c26; s64,c83; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-1.73±.16; Mθθ-0.15±.10; Mφφ 1.87±.10; Mrθ 0.37±.36; Mφθ 0.23±.07; Mφr 0.49±.22; Best double couple: M0 1.91700×10^16 NP1:φs356.00000°,δ38.00000°,λ-107.00000°. NP2: φs196.00000°,δ54.00000°,λ-77.00000°. Principal axes: T 1.9720, Plg8.0000°, Azm278.0000°; N -0.1150, Plg10.0000°, Azm9.0000°; P -1.8630, Plg77.0000°, Azm149.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 19 01:39:09.5±0.3,27°.57S±0'.05×175°.62W±0'.06,h10km, n317,σ1♀44/262,mb4.9/104,MS4.0/25,5C-6D,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**2.63**	**230**	Pn	**Pn**	**01 39 53.1**	**+1.1**
	826nm,0.3s,baz=347,slow=2.5,SNR=40						
RAO				Sn	**Sn**	**01 40 24.4**	**+0.4**
	647nm,0.3s,baz=78,slow=22,SNR=9.3						
RAO	**Raoul Island**	**2.63**	**230**	P	**Pn**	**01 39 53.3**	**+1.2**
RAO	**Raoul Island**	**2.63**	**230**		**Pn**	**01 39 53.3**	**+1.2**
RAO	**Raoul Island**	**2.63**	**230**	P	**Pn**	**01 39 53.7**	**+1.6**
RAO				S	**Sn**	**01 40 27.5**	**+3.5**
RAO				AML	AML		
RAO				AML	AML		
RAO	**Raoul Island**	**2.63**	**230**	P	**Pn**	**01 39 54.3**	**+2.2**
GLKZ	**Green Lake**	**2.64**	**230**	P	**Pn**	**01 39 54.0**	**+1.8**
GLKZ				S	**Sn**	**01 40 25.9**	**+1.6**
GLKZ				AML	AML		
GLKZ				AML	AML		
NIUE	**Niue**	**9.93**	**33**	P	Pn	01 41 23.6	-8.8
NIUE				S	Sn	01 43 02.0	-22

MXZ Matakaoa Point 11.20 206 P Pn 01 41 45.4 -4.3
MXZ S Sn 01 43 48.0 -7.0
MSVF Nonsavu 11.39 328 Pn **Pn** **01 41 51.0 -1.5**
1.4nm,0.3s,baz=91,slow=7.1,SNR=3.9
MSVF LR LR 01 46 05.3
comp=Z,737nm,18.1s,baz=127,slow=37
3.4nm,0.3s
MSVF AML AML
MSVF Nonsavu 11.39 328 P **Pn** **01 41 51.5 -1.0**
MSVF Nonsavu 11.39 328 **Pn** **01 41 51.5 -1.0**
MSVF Nonsavu 11.39 328 P **Pn** **01 41 51.8 -0.7**
comp=Z,28nm,0.9s
HAZ Te Kaha 11.58 207 P **Pn** **01 41 51.8 -3.1**
HAZ S **Sn** **01 44 00.1 -4.1**
PUZ Puketiti 11.67 205 P **Pn** **01 41 53.5 -2.6**
PUZ S Sn 01 43 59.2 -7.3
OUZ Omahuta 11.96 228 P Pn 01 42 07.5 +7.5
OUZ Omahuta 11.96 228 P **Pn** **01 42 02.9 +2.9**
comp=Z,22nm,1.0s
MWZ Matawai 12.18 206 P Pn 01 41 59.7 -3.4
MWZ S Sn 01 44 11.1 -7.9
URZ Urewera 12.28 208 Pn Pn 01 41 59.2 -5.2
comp=Z,1.4nm,0.3s,baz=268,slow=1.4,SNR=7.3
URZ Sn Sn 01 44 12.7 -8.8
comp=Z,6.1nm,0.3s,baz=173,slow=17,SNR=10
URZ Urewera 12.28 208 P Pn 01 41 59.9 -4.6
URZ S Sn 01 44 12.8 -8.6
URZ Urewera 12.28 208 P **Pn** **01 42 01.7 -2.8**
comp=Z,26nm,0.8s
RTZ Ruatahuna 12.64 207 P Pn 01 42 02.4 -7.1
RTZ S Sn 01 44 21.6 -8.7
FUTU Fugatoga 13.40 349 P Pn 01 42 14.3 -5.5
comp=Z,59nm,1.0s
HIZ Hauiti 13.52 214 P **Pn** **01 42 20.1 -1.2**
HIZ Hauiti 13.52 214 P **Pn** **01 42 19.7 -1.7**
comp=Z,86nm,1.5s
AFI Afiamalu 14.05 16 Pn Pn 01 42 20.4 -8.5
comp=Z,2.9nm,0.3s,baz=192,slow=20,SNR=1.4
AFI Sn Sn 01 44 45.3 -20
comp=Z,10nm,0.3s,baz=57,slow=22,SNR=4.2
comp=Z,9.9nm,0.2s
AFI AML AML
WPHZ Waipukurau 14.10 206 P **Pn** **01 42 28.4 -0.8**
WPHZ S Sn 01 44 56.0 -10
DVHZ Dannevirke 14.40 206 P **Pn** **01 42 31.3 -2.2**
DVHZ P Sn 01 45 00.6 -13
ANWZ Angora Road 14.43 205 S Sn 01 45 05.7 -8.1
POWZ Post Office Ro 14.64 207 S Sn 01 45 08.2 -11
BFZ Birch Farm 14.71 205 P Pn 01 42 31.4 -6.2
BFZ S Sn 01 45 07.5 -13
BFZ Birch Farm 14.71 205 P **Pn** **01 42 37.3 -0.3**
comp=Z,80nm,0.8s
MRZ Mangatainoka R 14.95 207 **Pn** **01 42 37.4 -3.4**
MRZ IAmb IAmb 01 42 51.6
comp=Z,51nm,1.0s
MRZ Mangatainoka R 14.95 207 P **Pn** **01 42 38.6 -2.3**
MRZ S Sn 01 45 12.2 -14
HOWZ Holdsworth Sta 15.17 207 P **P** **01 42 48.9 -0.1**
HOWZ S Sn 01 45 17.3 -15
RAR Rarotonga 15.75 70 Pn Pn 01 42 44.3 -7.2
comp=Z,4.8nm,0.3s,baz=267,slow=11,SNR=11
RAR Sn Sn 01 45 24.1 -22
comp=Z,9.5nm,0.3s,baz=85,slow=16,SNR=8.2
RAR LR LR 01 48 42.5
comp=Z,330nm,18.3s,baz=262,slow=36
comp=Z,29nm,0.8s
RAR AML AML
RAR Rarotonga 15.75 70 P Pn 01 42 44.6 -7.0
RAR S Sn 01 45 22.6 -24
THZ Tophouse 17.00 211 **Pn** **01 43 06.1 -1.3**
DZM Mont Dzumac 17.17 285 P **P** **01 43 11.5 +0.1**
comp=Z,12nm,0.5s,baz=115,slow=16,SNR=17
DZM LR LR 01 47 37.7
comp=Z,151nm,18.1s,baz=94,slow=30
KHZ Kahutara 17.25 208 **Pn** **01 43 05.4 -5.1**
KHZ IAmb IAmb 01 43 17.4
comp=Z,61nm,0.9s
KHZ Kahutara 17.25 208 P **Pn** **01 43 08.9 -1.5**
comp=Z,86nm,0.8s
OXZ Oxford 18.63 209 P **P** **01 43 25.2 -2.1**
OXZ IAmb IAmb 01 43 30.9
comp=Z,36nm,0.5s
RPZ Rata Peaks 19.37 210 P **P** **01 43 34.7 -0.7**
comp=Z,0.6nm,0.3s,baz=29,slow=13,SNR=8.2
comp=Z,1.2nm,0.3s
RPZ AML AML
RPZ Rata Peaks 19.37 210 P **P** **01 43 34.4 -1.0**
RPZ Rata Peaks 19.37 210 P **P** **01 43 34.8 -0.7**
ODZ Otahua Downs 20.61 209 P **P** **01 43 48.7 -0.1**
comp=Z,25nm,2.0s
TBI Tubuai 23.97 86 *e*S **S** **01 48 33.9 -7.1**
comp=Z,2µm,31.5s
TBI *e*LR LR 01 50 03.1
comp=Z,2µm,32.5s
TBI *e*LR LR 01 50 07.6
comp=Z,873nm,26.0s
PPT2 Papeete2 25.97 73 *e*S **S** **01 49 13.5 +0.3**
comp=Z,439nm,24.2s
PPT2 *e*LR LR 01 50 53.8
comp=Z,398nm,27.2s
PPT2 *e*LR LR 01 51 02.4
comp=Z,157nm,25.5s
PPT Papeete 25.98 73 LR LR 01 53 45.8
comp=Z,293nm,18.2s,baz=254,slow=34
ARMA Armidale 28.73 256 P **P** **01 45 07.9 +0.5**
comp=Z,12nm,2.6s
HNR Honiara 29.26 303 LR LR 01 55 36.2
comp=Z,218nm,18.1s,baz=225,slow=34
EIDS Eidsvold 29.84 267 P **P** **01 45 17.5 +0.4**
comp=Z,14nm,1.8s
CAN Canberra 31.04 247 P **P** **01 45 27.6 0.0**
comp=Z,13nm,1.5s
MILA Mila 31.09 243 P **P** **01 45 29.1 +1.0**
comp=Z,7.6nm,1.2s
TAU Tasmania Unive 33.62 233 P **P** **01 45 50.0 -0.1**
comp=Z,40nm,1.6s
CMSA Cobar Meteorol 33.77 254 P **P** **01 45 51.3 -0.3**
comp=Z,9.8nm,1.1s
CTA Charters Tower 35.56 274 LR LR 01 59 48.5
comp=Z,294nm,18.2s,baz=50,slow=35
CTAO Charters Tower 35.56 274 P **P** **01 46 06.0 -1.1**
CTAO pmax pmax
comp=Z,17nm,0.8s
CTAO Charters Tower 35.56 274 **P** **01 46 06.0 -1.1**
CTAO IAmb IAmb 01 46 21.5
comp=Z,17nm,0.8s
CTAO Charters Tower 35.56 274 P **P** **01 46 05.8 -1.4**
comp=Z,30nm,0.8s
STKA Stephens Creek 37.23 253 P **P** **01 46 21.5 +0.1**
comp=Z,3.1nm,0.5s,baz=107,slow=11,SNR=8.2
STKA LR LR 02 01 04.6
comp=Z,246nm,18.2s,baz=150,slow=35
comp=Z,3.1nm,0.5s
STKA Stephens Creek 37.23 253 **P** **01 46 20.2 -1.1**
STKA IAmb IAmb 01 46 35.1
comp=Z,23nm,0.7s
STKA Stephens Creek 37.23 253 P **P** **01 46 21.4 +0.1**
comp=Z,39nm,1.9s
MTSU Mount Surprise 37.95 276 P **P** **01 46 28.1 +0.5**
comp=Z,38nm,0.7s
TAOE Nuku Hiva Isla 38.29 68 *e*LR LR 01 56 31.8
comp=Z,149nm,26.9s
INKA Innaminka 38.50 259 P **P** **01 46 32.3 +0.2**
QIS Mount Isa 41.30 270 P **P** **01 46 54.5 -1.0**
comp=Z,5.1nm,0.8s
BBOO Buckleboo 41.81 251 P **P** **01 46 57.5 -2.1**
comp=Z,25nm,1.9s
AS31 Alice Springs 45.43 263 **P** **01 47 27.8 -1.1**
ASAR Alice Springs 45.43 263 P **P** **01 47 26.7 -2.2**
comp=Z,2.6nm,0.5s,baz=96,slow=7.1,SNR=39
ASAR PcP **PcP** **01 49 07.8 -0.3**
comp=Z,1.0nm,0.5s,baz=120,slow=3.3,SNR=2.7
ASAR S **S** **01 54 06.7 -3.8**
comp=Z,0.2nm,0.3s,baz=101,slow=14,SNR=3.3
ASAR LR LR 02 06 08.6
comp=Z,188nm,18.2s,baz=126,slow=36
comp=Z,2.6nm,0.5s
ASAR Alice Springs 45.43 263 P **P** **01 47 27.7 -1.2**
ASAR 01 49 07.7
ASAR Alice Springs 45.43 263 P **P** **01 47 27.7 -1.2**
ASAR **PcP** **01 49 07.7 -0.3**
WR8 Warramunga Arr 46.03 268 P **P** **01 47 31.5 -2.1**
WR8 IAmb IAmb 01 47 46.7
comp=Z,9.4nm,0.7s
WRAB Tennant Creek 46.17 268 P **P** **01 47 32.4 -2.3**
WRAB pmax pmax
comp=Z,8.0nm,0.8s
WRAB Tennant Creek 46.17 268 P **P** **01 47 32.4 -2.3**
WRAB IAmb IAmb 01 47 48.1
comp=Z,8.0nm,0.8s
WRAB Tennant Creek 46.17 268 P **P** **01 47 32.3 -2.4**
comp=Z,12nm,0.8s
WRA Warramunga Arr 46.18 268 P **P** **01 47 32.8 -2.0**
comp=Z,8.5nm,0.6s,baz=108,slow=7.6,SNR=68
WRA PcP **PcP** **01 49 10.6 -0.1**
comp=Z,2.2nm,0.9s,baz=109,slow=3.3,SNR=3.5
WRA S S 01 54 11.6 -10
comp=Z,0.4nm,0.8s,baz=108,slow=14,SNR=2.4
comp=Z,8.5nm,0.6s
WRA Warramunga Arr 46.18 268 P **P** **01 47 32.6 -2.2**
WRA **PcP** **01 49 10.6 -0.1**
WB0 Warramunga Arr 46.19 268 **P** **01 47 32.6 -2.2**
WB0 IAmb IAmb 01 47 35.0
comp=Z,12nm,0.7s
FORT Forrest 48.85 252 **P** **01 47 53.9 -1.5**
FORT IAmb IAmb 01 47 58.3
comp=Z,6.0nm,0.7s
WAKE Wake Island 49.64 338 P **P** **01 48 00.3 -1.1**
comp=Z,248nm,1.8s
SBA Scott Base 51.02 185 P **P** **01 48 14.0 +2.8**
SBA pmax pmax
comp=Z,18nm,1.0s
SBA Scott Base 51.02 185 P **P** **01 48 14.0 +2.8**
SBA IAmb IAmb 01 48 16.7
comp=Z,18nm,0.9s
SBA Scott Base 51.02 185 P **P** **01 48 11.8 +0.7**
comp=Z,20nm,1.1s
VNDA Vanda 51.12 186 P **P** **01 48 14.4 +2.4**
comp=Z,5.5nm,0.9s,baz=17,slow=5.2,SNR=30
VNDA S S 01 55 17.1 -12
comp=Z,0.4nm,0.6s,baz=62,slow=4.5,SNR=2.2
comp=Z,5.5nm,0.9s
VNDA Vanda 51.12 186 P **P** **01 48 14.4 +2.4**
VNDA pmax pmax
comp=Z,8.0nm,1.1s
VNDA Vanda 51.12 186 **P** **01 48 14.4 +2.4**
VNDA Vanda 51.12 186 P **P** **01 48 14.3 +2.4**
comp=Z,9.3nm,1.0s
KIP Kipapa 51.59 21 P **P** **01 48 15.5 -0.6**
comp=Z,132nm,2.3s
FITZ Fitzroy Crossi 54.53 267 LR LR 02 11 46.3
comp=Z,177nm,18.5s,baz=166,slow=36
FITZ Fitzroy Crossi 54.53 267 P **P** **01 48 35.9 -2.1**
comp=Z,2.3nm,2.0s
GUMO Guam 56.05 312 LR LR 02 10 06.9
comp=Z,75nm,21.0s,baz=103,slow=33
RPN Rapa Nui 58.20 106 LR LR 02 09 03.2
comp=Z,118nm,18.8s,baz=312,slow=31
QSPA South Pole Qui 62.54 180 P **P** **01 49 35.4 +2.1**
comp=Z,31nm,0.9s,baz=40,slow=1.7,SNR=69
comp=Z,31nm,0.9s
QSPA South Pole Qui 62.54 180 P **P** **01 49 35.0 +1.7**
QSPA South Pole Qui 62.54 180 P **P** **01 49 35.7 +2.3**
comp=Z,47nm,1.0s
KAPI Kappang 65.23 278 LR LR 02 19 47.3
comp=Z,49nm,18.1s,baz=122,slow=37
DAV Davao City (W) 66.41 292 LR LR 02 17 39.6
comp=Z,31nm,19.2s,baz=186,slow=35
BELA Belgrano 2 72.30 172 P **P** **01 50 34.6 -0.1**
JHJ Hachijo jima 2 73.73 322 LR LR 02 24 35.7
comp=Z,4.7nm,18.2s,baz=348,slow=37
MAW Mawson 75.68 200 P **P** **01 50 56.3 +1.7**
comp=Z,6.5nm,0.6s,baz=139,slow=7.3,SNR=24
comp=Z,6.5nm,0.6s
MAW Mawson 75.68 200 P **P** **01 50 56.2 +1.6**
MAW pmax pmax
comp=Z,1.0nm,0.7s
MAW Mawson 75.68 200 **P** **01 50 56.2 +1.6**
MJAR Matsushiro Arr 77.16 323 P **P** **01 51 03.2 -0.2**
MJAR LR LR 02 20 10.4
comp=Z,1.6nm,0.4s,baz=158,slow=5.3,SNR=5.3
comp=Z,38nm,21.1s,baz=132,slow=32
comp=Z,1.6nm,0.4s
MJAR Matsushiro Arr 77.16 323 **P** **01 51 03.9 +0.4**
AY03 Cochrane 78.42 137 P **P** **01 51 11.6 +1.1**
COYC Coyhaique 79.53 136 **P** **01 51 18.3 +1.7**
COYC IAmb IAmb 01 51 19.3
comp=Z,20nm,1.0s
COYC Coyhaique 79.53 136 P **P** **01 51 17.4 +0.8**
comp=Z,20nm,1.6s
ELIB Princess Elisa 79.89 186 *d*P **P** **01 51 19.3 +1.1**
comp=Z,7.0nm,1.0s
H03S2 Juan Fernandez 80.27 123 T T 03 18 37.0
baz=242,slow=75,SNR=7.6
H03S1 Juan Fernandez 80.28 123 T T 03 18 42.1
baz=242,slow=75,SNR=5.0
H03S3 Juan Fernandez 80.29 123 T T 03 18 40.8
baz=242,slow=75,SNR=7.6
TROLL Troll, Antarti 80.69 179 ⇓P **P** **01 51 23.6 +1.1**
comp=Z,573nm,0.6s
LL02 Futaleuf 80.83 134 **P** **01 51 24.8 +1.1**
LL02 IAmb IAmb 01 51 26.0
comp=Z,14nm,0.9s
LL02 Futaleuf 80.83 134 P **P** **01 51 24.3 +0.6**
comp=Z,20nm,2.2s
SNAA Sanae 80.91 178 ⇓P **P** **01 51 24.1 +0.5**
comp=Z,99nm,0.6s
SNAA Sanae 80.91 178 P **P** **01 51 23.5 -0.2**
comp=Z,4.4nm,0.7s,baz=218,slow=5.4,SNR=6.9
comp=Z,4.4nm,0.7s
SNAA Sanae 80.91 178 P **P** **01 51 24.4 +0.8**
SNAA pmax pmax
comp=Z,5.0nm,0.8s
SNAA Sanae 80.91 178 **P** **01 51 24.4 +0.8**
SNAA Sanae 80.91 178 P **P** **01 51 23.8 +0.1**
comp=Z,11nm,1.3s
ASAJ Asahikawa 80.94 331 LR LR 02 27 54.9
comp=Z,78nm,18.1s,baz=76,slow=36
VNA3 Neumayer Olymp 80.97 175 ⇓P **P** **01 51 24.1 +0.2**
comp=Z,16nm,0.8s
VNA3 Neumayer Olymp 80.97 175 P **P** **01 51 24.5 +0.6**
comp=Z,25nm,1.0s
LPIG La Paz 81.26 57 LR LR 02 21 04.0
comp=Z,150nm,18.3s,baz=256,slow=31
VNA2 Neumayer--Watz 81.43 176 ⇓P **P** **01 51 26.9 +0.6**
comp=Z,11nm,0.8s,baz=171,slow=4.8
VNA2 Neumayer--Watz 81.43 176 P **P** **01 51 27.1 +0.8**
comp=Z,20nm,0.9s
VNA1 Neumayer--Stat 81.65 176 P **P** **01 51 28.2 +0.8**
comp=Z,12nm,0.8s
ELS Elsnore Mount 82.16 46 P **P** **01 51 31.3 +0.6**
LR05 Currie 82.17 131 **P** **01 51 31.2 +0.4**
LR03 Panguipulli 82.24 131 P **P** **01 51 32.3 +1.1**
BFSC Mount Baldy Ra 82.39 45 P **P** **01 51 32.2 +0.2**
TPO Tropico Hills 82.46 44 P **P** **01 51 33.1 +0.8**
VES Vestal, Richgr 82.56 43 P **P** **01 51 32.7 0.0**
PFO Pinyon Flats O 82.75 46 LR LR 02 24 44.5
comp=Z,195nm,18.1s,baz=238,slow=33
ISA Isabella, Lake 82.82 44 P **P** **01 51 34.5 +0.3**
ISA pmax pmax
comp=Z,9.0nm,0.9s
ISA Isabella, Lake 82.82 44 P **P** **01 51 34.5 +0.3**
ISA IAmb IAmb 01 51 36.4
comp=Z,9.3nm,0.9s
GO06 Curarrehue 82.85 131 **P** **01 51 35.3 +0.8**
GO06 IAmb IAmb 01 51 36.7
comp=Z,9.3nm,0.9s
GO06 Curarrehue 82.85 131 P **P** **01 51 34.6 0.0**
comp=Z,11nm,1.0s
PLCA Paso Flores 82.89 132 P **P** **01 51 35.5 +0.8**
comp=Z,11nm,1.0s,baz=221,slow=4.8,SNR=25
comp=Z,11nm,1.0s
PLCA Paso Flores 82.89 132 **P** **01 51 36.0 +1.4**
PLCA IAmb IAmb 01 51 36.9
comp=Z,12nm,0.9s
PLCA Paso Flores 82.89 132 P **P** **01 51 36.1 +1.4**
comp=Z,17nm,1.1s
YSS Yuzhno-Sakhali 83.15 333 *e*P **P** **01 51 36.9 +1.4**
YSS pmax pmax
comp=Z,20nm,0.9s
CMB Columbia Colle 83.26 41 P **P** **01 51 37.1 +0.7**
CMB pmax pmax
comp=Z,10.0nm,1.1s
CMB Columbia Colle 83.26 41 **P** **01 51 37.1 +0.7**
CMB IAmb IAmb 01 51 38.3
comp=Z,10nm,1.1s
BELC Belle Mtn. Jos 83.30 46 **P** **01 51 37.6 +0.9**
BC3 Big Chuckawall 83.43 47 P **P** **01 51 38.4 +1.0**
BC3 IAmb IAmb 01 51 39.8
comp=Z,14nm,1.2s
PIX Pinacate 83.44 49 P **P** **01 51 38.1 +0.8**
PIX IAmb IAmb 01 51 39.0
comp=Z,6.9nm,1.1s
GLA Glamis 83.46 48 P **P** **01 51 37.3 -0.2**
GLA pmax pmax
comp=Z,10.0nm,1.1s
GLA Glamis 83.46 48 P **P** **01 51 37.3 -0.2**
GLA IAmb IAmb 01 51 39.9
comp=Z,9.6nm,1.1s
CLC China Lake 83.46 44 P **P** **01 51 37.1 -0.3**
CLC pmax pmax
comp=Z,7.0nm,1.0s
CLC China Lake 83.46 44 P **P** **01 51 37.1 -0.3**
CLC IAmb IAmb 01 51 39.0
comp=Z,7.2nm,1.0s
AFDM Forest Hills D 83.55 40 **P** **01 51 37.1 -0.7**
AFDM IAmb IAmb 01 51 39.7
comp=Z,8.0nm,1.1s
KSRS Korea Array 83.59 318 P **P** **01 51 38.9 +0.9**
comp=Z,2.5nm,0.9s,baz=156,slow=6.6,SNR=4.7
KSRS LR LR 02 23 54.1
comp=Z,18nm,21.3s,baz=10.0,slow=32
comp=Z,2.5nm,0.9s
GSC Goldstone, Bar 83.62 45 P **P** **01 51 36.6 -1.7**
GSC pmax pmax
comp=Z,9.0nm,1.0s
GSC Goldstone, Bar 83.62 45 P **P** **01 51 36.6 -1.7**
GSC IAmb IAmb 01 51 39.8
comp=Z,8.5nm,0.9s
PETK Petropavlovsk- 83.63 344 P **P** **01 51 37.8 0.0**
comp=Z,8.9nm,0.8s,baz=145,slow=5.4,SNR=4.2
comp=Z,8.9nm,0.8s
PETK Petropavlovsk- 83.63 344 P **P** **01 51 36.5 -1.3**
MPMC Manual Prospec 83.68 44 P **P** **01 51 37.8 -0.9**
MPMC IAmb IAmb 01 51 40.9
comp=Z,12nm,1.1s
IRM Iron Mountain 83.94 47 **P** **01 51 40.4 +0.5**
O03E Paynes Creek 84.01 38 **P** **01 51 40.8 +0.6**
WAKR Walker 84.13 41 **P** **01 51 41.2 +0.2**
WAKR IAmb IAmb 01 51 45.7
comp=Z,8.2nm,1.0s
GWY Greenwater Val 84.27 44 **P** **01 51 40.4 -1.4**
GRAC Grapevine Rang 84.37 43 P **P** **01 51 42.1 +0.1**
GRAC IAmb IAmb 01 51 43.9
comp=Z,9.3nm,0.9s
BI02 San Fabin de 84.44 128 **P** **01 51 43.0 +0.3**
BI02 San Fabin de 84.44 128 P **P** **01 51 43.5 +0.8**
comp=Z,18nm,0.8s
LHV Little Huntoon 84.51 42 P **P** **01 51 43.0 +0.4**
LHV IAmb IAmb 01 51 45.1
comp=Z,11nm,1.0s
M03C McCloud 84.52 37 P **P** **01 51 42.1 -0.6**
BEKR Beckworth 84.52 39 P **P** **01 51 43.5 +0.6**
GMN Gold Mountain 84.63 43 P **P** **01 51 43.2 -0.4**
GMN IAmb IAmb 01 51 45.5
comp=Z,4.8nm,0.8s
WCT Wildcat Mounta 84.69 44 P **P** **01 51 42.8 -0.9**
NVAR Mina Array Bea 84.75 42 P **P** **01 51 45.1 +0.9**
comp=Z,6.1nm,0.8s,baz=222,slow=8.8,SNR=27
NVAR LR LR 02 26 31.4
comp=Z,260nm,18.1s,baz=190,slow=34
comp=Z,6.1nm,0.8s
NVAR Mina Array Bea 84.75 42 P **P** **01 51 44.7 +0.5**
ML02 Panimavida 84.80 128 P **P** **01 51 43.9 -0.5**
PAHR Pah Rah Range 84.97 40 IAmb IAmb 01 51 46.9
comp=Z,6.8nm,1.0s
TPNV Topopah Spring 85.02 44 P **P** **01 51 45.2 -0.3**
TPNV pmax pmax
comp=Z,8.0nm,1.0s
TPNV Topopah Spring 85.02 44 **P** **01 51 45.2 -0.3**
TPNV IAmb IAmb 01 51 47.8
comp=Z,7.9nm,0.9s
TPH Tonopah 85.16 42 P **P** **01 51 44.7 -1.5**
TPH pmax pmax
comp=Z,16nm,1.1s
TPH Tonopah 85.16 42 P **P** **01 51 44.7 -1.5**
KVN Kaiserville 85.27 41 P **P** **01 51 46.2 -0.6**
KVN pmax pmax
comp=Z,9.0nm,1.0s
KVN Kaiserville 85.27 41 P **P** **01 51 46.2 -0.6**
KVN IAmb IAmb 01 51 48.4
comp=Z,9.1nm,1.0s
W13A Hualapai Mount 85.34 46 IAmb IAmb 01 51 49.5
comp=Z,6.5nm,1.0s
TUC Tucson 85.71 50 P **P** **01 51 49.9 +0.9**
TUC pmax pmax
comp=Z,14nm,0.8s
TUC Tucson 85.71 50 **P** **01 51 49.9 +0.9**
TUC Tucson 85.71 50 P **P** **01 51 50.7 +1.7**
comp=Z,21nm,0.9s
BO02 Sierra Bellavi 85.73 127 P **P** **01 51 49.7 +0.5**
comp=Z,17nm,1.1s
USRK Ussuriysk Ar. 86.00 325 P **P** **01 51 50.6 +0.6**
comp=Z,7.0nm,0.9s,baz=138,slow=6.6,SNR=7.7
comp=Z,7.0nm,0.9s
USRK Ussuriysk Ar. 86.00 325 P **P** **01 51 50.1 +0.2**
USRK Ussuriysk Ar. 86.00 325 P **P** **01 51 50.1 +0.2**
NJ2 Nanjing 86.03 309 *e*P **P** **01 51 51.8 +1.4**
NJ2 pmax pmax
comp=Z,13nm,0.5s
PRN Pahroc Range 86.05 44 IAmb IAmb 01 51 53.2
comp=Z,14nm,1.0s
LCMT Little Creek M 86.93 45 IAmb IAmb 01 51 57.2
comp=Z,6.1nm,1.1s
U15A North Rim 87.18 46 IAmb IAmb 01 51 58.4
comp=Z,6.7nm,0.8s
KNB Kanab 87.20 45 IAmb IAmb 01 51 58.7
comp=Z,11nm,1.1s
RPSI Rantau Prapat 87.21 274 P **P** **01 51 55.9 -0.8**
RPSI Rantau Prapat 87.21 274 P **P** **01 51 56.6 0.0**
comp=Z,15nm,1.0s
PSI Prapat 87.25 275 P **P** **01 51 55.9 -1.1**
PSI pmax pmax
comp=Z,10.0nm,0.8s
X18A Snowflake 87.58 49 IAmb IAmb 01 52 00.1
comp=Z,4.7nm,0.8s
121A Cookes Peak, D 87.90 52 IAmb IAmb 01 52 05.1
comp=Z,5.8nm,1.1s
J08A Circle Bar Ran 87.92 38 IAmb IAmb 01 52 02.1
comp=Z,7.6nm,1.2s
WHN Wuhan 88.35 306 P **P** **01 52 01.9 +0.2**
VHRN Van Horn 88.92 54 IAmb IAmb 01 52 06.4
comp=Z,4.9nm,1.0s
G08A Pilot Rock 88.95 36 IAmb IAmb 01 52 05.4
comp=Z,10nm,1.1s
TXAR Lajitas Array 89.09 56 P **P** **01 52 06.1 +0.7**
comp=Z,2.5nm,0.8s,baz=212,slow=7.5,SNR=26
comp=Z,2.5nm,0.8s
TXAR Lajitas Array 89.09 56 P **P** **01 52 05.7 +0.3**
TXAR Lajitas Array 89.09 56 **P** **01 52 05.7 +0.3**
MNTX Cornudas Mount 89.13 53 P **P** **01 52 06.3 +1.0**
comp=Z,6.8nm,1.3s
Y22A Socorro 89.26 51 IAmb IAmb 01 52 07.9
comp=Z,5.5nm,0.9s
TMUT Trail Mountain 89.59 44 IAmb IAmb 01 52 10.0
comp=Z,8.1nm,1.0s
ALPN Alpine 89.67 55 IAmb IAmb 01 52 09.2
comp=Z,5.5nm,0.8s
KLR Kul'dur 89.68 329 LR LR 02 29 08.0
comp=Z,64nm,18.8s,baz=172,slow=34
KLR Kul'dur 89.68 329 ⇑P **P** **01 52 08.6 +1.1**
KLR pmax pmax
comp=Z,6.0nm,0.9s
CMIG Matias Romero 89.87 71 LR LR 02 25 18.0
comp=Z,53nm,18.1s,baz=254,slow=31
SRU San Rafael Swe 89.91 45 IAmb IAmb 01 52 11.5
comp=Z,5.5nm,1.0s
ALQ Albuquerque 90.17 50 IAmb IAmb 01 52 12.4
comp=Z,7.0nm,0.9s
ALQ Albuquerque 90.17 50 IAmb IAmb 01 52 12.3
comp=Z,7.0nm,0.9s
TASM ASL Pad, Albuq 90.17 50 IAmb IAmb 01 52 12.4
comp=Z,7.0nm,0.9s
TASM ASL Pad, Albuq 90.17 50 IAmb IAmb 01 52 12.4
comp=Z,6.8nm,0.9s
ANMO Albuquerque 90.17 50 LR LR 02 27 29.3
comp=Z,59nm,18.1s,baz=213,slow=32
ANMO Albuquerque 90.17 50 P **P** **01 52 11.0 +0.5**
ANMO pmax pmax
comp=Z,5.0nm,0.9s
ANMO Albuquerque 90.17 50 **P** **01 52 10.9 +0.5**
ANMO IAmb IAmb 01 52 12.3
comp=Z,5.1nm,0.8s
ANMO Albuquerque 90.17 50 P **P** **01 52 11.5 +1.1**
comp=Z,8.2nm,1.4s
F10A Beach Ranch, E 90.31 36 IAmb IAmb 01 52 11.7
comp=Z,11nm,1.0s
PLID Pearl Lake 90.39 38 **P** **01 52 11.6 +0.3**
PLID IAmb IAmb 01 52 12.6

	comp=Z,8.4nm,1.1s						
PV18	**Skein Mesa, Pa**	**90.42**	**46**	IAmb	IAmb	01 52 13.6	
	comp=Z,9.0nm,1.0s						
PV03	**Paradox Valley**	**90.47**	**46**	IAmb	IAmb	01 52 16.9	
	comp=Z,9.8nm,1.2s						
PV02	**Paradox Valley**	**90.51**	**46**	IAmb	IAmb	01 52 13.5	
	comp=Z,9.9nm,1.0s						
PV21	**Cone Mtn., Par**	**90.56**	**46**	IAmb	IAmb	01 52 14.0	
	comp=Z,9.6nm,0.9s						
PV07	**Paradox Valley**	**90.70**	**46**	IAmb	IAmb	01 52 14.4	
	comp=Z,7.7nm,0.9s						
AHID	**Auburn Hatcher**	**91.73**	**42**	IAmb	IAmb	01 52 19.9	
	comp=Z,5.7nm,0.8s						
AHID	**Auburn Hatcher**	**91.73**	**42**	P	**P**	**01 52 18.8**	**+1.3**
	comp=Z,9.9nm,1.2s						
ENH	**Enshi**	**91.76**	**303**	P	**P**	**01 52 19.1**	**+1.4**
	comp=Z,16nm,1.2s						
HNS	**HongShan**	**91.88**	**312**	⇑P	**P**	**01 52 19.1**	**+1.1**
SNOW	**Snow King Moun**	**92.35**	**41**	IAmb	IAmb	01 52 22.8	
	comp=Z,7.0nm,1.0s						
DLMT	**Dillon**	**92.44**	**39**	IAmb	IAmb	01 52 21.9	
	comp=Z,4.9nm,1.0s						
PDAR	**Pinedale Array**	**92.65**	**42**	P	**P**	**01 52 20.9**	**-0.9**
	comp=Z,1.3nm,0.9s,baz=222,slow=2.0,SNR=9.6						
PDAR				LR	LR	02 30 24.4	
	comp=Z,143nm,18.2s,baz=259,slow=33						
	comp=Z,1.3nm,0.9s						
PDAR	**Pinedale Array**	**92.65**	**42**	P	**P**	**01 52 20.4**	**-1.4**
YHL	**Hebgen Lake**	**92.93**	**40**	IAmb	IAmb	01 52 24.8	
	comp=Z,6.3nm,1.1s						
ATAH	**Atahualpa**	**93.09**	**100**	LR	LR	02 26 34.0	
	comp=Z,128nm,18.9s,baz=227,slow=30						
RND	**Reindeer**	**93.11**	**12**	IAmb	IAmb	01 52 24.0	
	comp=Z,5.8nm,1.1s						
BOZ	**Bozeman (W)**	**93.12**	**39**	IAmb	IAmb	01 52 25.0	
	comp=Z,5.5nm,0.9s						
YNE	**Yellowstone No**	**93.69**	**40**	IAmb	IAmb	01 52 28.6	
	comp=Z,8.2nm,1.1s						
XAN	**Xi'an**	**94.09**	**306**	P	**P**	**01 52 28.4**	**0.0**
XAN				pmax	pmax		
	comp=Z,3.0nm,0.4s						
CMAR	**Chiang Mai Arr**	**94.46**	**288**	P	**P**	**01 52 30.6**	**+0.2**
	comp=Z,1.1nm,0.3s,baz=161,slow=4.6,SNR=5.1						
	comp=Z,1.1nm,0.3s						
CMAR	**Chiang Mai Arr**	**94.46**	**288**	P	**P**	**01 52 29.8**	**-0.6**
CMAR	**Chiang Mai Arr**	**94.46**	**288**	P	**P**	**01 52 29.6**	**-0.6**
ILAR	**Eielson Array**	**94.72**	**12**	P	**P**	**01 52 29.6**	**-0.8**
	comp=Z,1.4nm,0.7s,baz=220,slow=5.6,SNR=14						
	comp=Z,1.4nm,0.7s						
ILAR	**Eielson Array**	**94.72**	**12**	P	**P**	**01 52 29.2**	**-1.2**
JTS	**Las Juntas de**	**95.27**	**81**	LR	LR	02 28 23.6	
	comp=Z,81nm,18.1s,baz=276,slow=31						
HHC	**Hu-ho-hao-te**	**95.80**	**313**	*eP*	**P**	**01 52 36.3**	**+0.2**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BILL	**Bilibino**	**96.27**	**353**	⇑*eP*	**P**	**01 52 37.2**	**-0.2**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
RSSD	**Black Hills**	**96.74**	**43**	P	**P**	**01 52 40.5**	**+0.1**
RSSD				pmax	pmax		
	comp=Z,11nm,1.0s						
RSSD	**Black Hills**	**96.74**	**43**		**P**	**01 52 40.5**	**+0.1**
RSSD	**Black Hills**	**96.74**	**43**	P	**P**	**01 52 41.0**	**+0.5**
	comp=Z,14nm,1.1s						
LPAZ	**La Paz**	**97.35**	**113**	P	Pdif	01 52 45.9	+1.4
	comp=Z,0.8nm,0.6s,baz=242,slow=4.4,SNR=4.0						
LPAZ				LR	LR	02 28 53.8	
	comp=Z,38nm,18.3s,baz=210,slow=31						
	comp=Z,0.8nm,0.6s						
LPAZ	**La Paz**	**97.35**	**113**	P	**P**	**01 52 45.2**	**+0.8**
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	**La Paz**	**97.35**	**113**	P	**P**	**01 52 45.2**	**+0.8**
YAK	**Yakutsk**	**99.44**	**337**	LR	LR	02 39 14.9	
	comp=Z,27nm,18.5s,baz=126,slow=36						
WMQ	**Urumqi**	**113.11**	**309**	*e*PKP	**PKiKP**	**01 57 48.1**	**+1.0**
ZALV	**Zalesovo Beam**	**117.29**	**319**	PKP	**PKPdf**	**01 57 53.7**	**-1.1**
	comp=Z,1.6nm,0.7s,baz=96,slow=1.5,SNR=7.6						
ZALV	**Zalesovo Beam**	**117.29**	**319**		**PKPdf**	**01 57 52.4**	**-2.3**
MKAR	**Makanchi Array**	**117.53**	**311**	PKP	**PKPdf**	**01 57 54.3**	**-1.2**
	comp=Z,2.5nm,0.7s,baz=72,slow=0.9,SNR=19						
MKAR	**Makanchi Array**	**117.53**	**311**		**PKPdf**	**01 57 54.0**	**-1.5**
KURK	**Kurchatov**	**120.57**	**315**	⇑*i*PKiKP	**PKPdf**	**01 58 00.6**	**-0.5**
KURK	**Kurchatov**	**120.57**	**315**		**PKPdf**	**01 58 00.1**	**-1.1**
KURBB	**Kurchatov Arra**	**120.62**	**315**	PKP	**PKPdf**	**01 58 00.2**	**-1.0**
	comp=Z,2.5nm,0.8s,baz=99,slow=1.9,SNR=20						
BOSA	**Boshof**	**120.66**	**201**	PKP	**PKPdf**	**01 58 00.9**	**-1.5**
	comp=Z,3.0nm,0.9s,baz=194,slow=11,SNR=3.1						
BOSA	**Boshof**	**120.66**	**201**		**PKPdf**	**01 58 02.7**	**+0.3**
KK31	**Karatay Array**	**125.21**	**305**	PKiKP	**PKPdf**	**01 58 09.7**	**-0.7**
KK31	**Karatay Array**	**125.21**	**305**		**PKPdf**	**01 58 09.7**	**-0.7**
KKAR	**Karatay Array**	**125.21**	**305**	PKiKP	**PKPdf**	**01 58 09.5**	**-0.8**
KKAR	**Karatay Array**	**125.21**	**305**		**PKPdf**	**01 58 09.5**	**-0.8**
BVAR	**Borovoye Array**	**125.80**	**317**	PKP	**PKPdf**	**01 58 10.3**	**-0.9**
	comp=Z,3.8nm,0.7s,baz=79,slow=3.2,SNR=12						
SPITS	**Spitsbergen Ar**	**129.01**	**357**	PKP	**PKPdf**	**01 58 16.0**	**-0.6**
	comp=Z,4.0nm,0.7s,baz=349,slow=2.6,SNR=5.0						
ARCES	**ARCESS Array B**	**136.23**	**349**	PKP	**PKPdf**	**01 58 29.9**	**-0.5**
	comp=Z,6.0nm,0.9s,baz=29,slow=2.8,SNR=10.0						
ARCES	**ARCESS Array B**	**136.23**	**349**		**PKPdf**	**01 58 28.5**	**-1.9**
MOS	**Moscow**	**143.09**	**329**	*i* PKiKP	**PKPdf**	**01 58 41.9**	**-1.3**
FINES	**FINESS Array B**	**143.13**	**343**	PKhKP	PKPpre	01 58 39.3	
	comp=Z,2.1nm,0.5s,baz=28,slow=3.9,SNR=17						
VRH	**Novokhopyorsk**	**143.31**	**320**	*e*PKiKP	**PKPdf**	**01 58 43.0**	**-0.7**
VRH				pmax	pmax		
	comp=Z,7.0nm,0.9s						
OBN	**Obninsk**	**143.94**	**329**	⇑*e*PKiKP	**PKPdf**	**01 58 44.8**	**+0.1**
OBN				*i*		01 58 49.1	
OBN						02 05 47.0	
OBN				pmax	pmax		
	comp=Z,24nm,1.6s						
OBN				pmax	pmax		
	comp=Z,49nm,3.2s						
OBN				MLR	MLR		
	comp=Z,24nm,6.0s						
LPSR	**Galich'ya Gora**	**144.17**	**324**	*e*PKiKP	**PKPab**	**01 58 42.5**	**-0.4**
LPSR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VSR	**Storozhevoye**	**144.73**	**322**	*e*PKiKP	**PKPab**	**01 58 42.5**	**-2.6**
VSR				pmax	pmax		
	comp=Z,9.0nm,1.1s						
VORD	**Divnogorie**	**144.78**	**321**	*e*PKiKP	**PKPab**	**01 58 43.4**	**-1.8**
VORD				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KBZ	**Khabaz**	**145.15**	**308**	PKPbc	**PKPbc**	**01 58 46.4**	**-0.4**
	comp=Z,4.4nm,1.0s,baz=166,slow=3.4,SNR=8.0						
KIV	**Kislovodsk**	**145.24**	**308**	*e*PKiKP	**PKPbc**	**01 58 46.2**	**-1.0**
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ERBR	**Yeremizino-Bor**	**146.20**	**312**	*i* PKP2	**PKPdf**	**01 58 49.1**	**+0.1**
ERBR				pmax	pmax		
	comp=Z,72nm,0.9s						
NB2	**NORSAR Subarra**	**146.21**	**354**	PKP	**PKPdf**	**01 58 49.4**	**+0.8**
	comp=Z,3.9nm,0.7s,baz=6.9,slow=3.0						
NOA	**NORSAR Array B**	**146.21**	**354**	PKPbc	**PKPdf**	**01 58 49.1**	**+0.5**
	comp=Z,7.9nm,0.8s,baz=9.5,slow=2.3,SNR=19						
HFS	**Hagfors**	**146.82**	**351**	PKPbc	**PKPdf**	**01 58 50.8**	**+1.2**
	comp=Z,10nm,0.8s,baz=58,slow=3.7,SNR=8.5						
MNK	**Minsk**	**148.08**	**334**	*i* PKP2	**PKPdf**	**01 58 53.2**	**+1.4**
MNK				*i*		02 02 25.6	
MNK				*i* PPP	PPP	02 05 44.2	
MNK				*i*		02 06 01.7	
MNK				*i*		02 14 59.9	
MNK				*i* SS	SS	02 21 34.3	+5.7
MNK				*i* SSS	SSS	02 27 09.2	
MNK				pmax	pmax		
	comp=E,21nm,1.1s						
MNK				pmax	pmax		
	comp=N,13nm,1.1s						
MNK				pmax	pmax		
	comp=Z,19nm,0.8s						
MNK	**Minsk**	**148.08**	**334**	*i* PKP	**PKPdf**	**01 58 53.2**	**+1.4**
	comp=E,21nm,1.1s						
MNK				*i* PKP	**PKPdf**	**01 58 53.2**	**+1.4**
	comp=N,13nm,1.1s						
MNK				*i* PKP	**PKPdf**	**01 58 53.2**	**+1.4**
	comp=Z,19nm,0.8s,baz=42						
MNK				*i* PP	**PP**	**02 02 25.7**	**+3.0**
MNK				*i* PPP	PPP	02 05 44.3	
MNK				*i* SKS	**SKSdf**	**02 06 01.8**	**+1.6**
MNK				*i* SKKS	**SKKSdf**	**02 14 59.9**	**-1.1**
MNK				*i* SS	**SS**	**02 21 34.3**	**+5.7**
MNK				*i* SSS	SSS	02 27 09.2	
AKASG	**Malin Array Be**	**150.18**	**328**	PKPbc	**PKPbc**	**01 58 59.6**	**-0.7**
	comp=Z,3.3nm,0.5s,baz=42,slow=3.2,SNR=17						
SIM	**Simferopol'**	**150.63**	**314**	*e*PKiKP	**PKPbc**	**01 59 00.0**	**-1.7**
SIM				pmax	pmax		
	comp=Z,25nm,1.0s						
ASF	**Jabal al Asfar**	**151.50**	**287**	P	**PKiKP**	**01 59 05.5**	**+0.8**
ASF				AML	AML		
EKA	**Eskdalemuir Ar**	**151.72**	**9**	PKPbc	**PKPbc**	**01 59 03.1**	**-0.8**
	comp=Z,2.4nm,0.7s,baz=334,slow=1.6,SNR=8.2						
HSUJ	**Al Zarqa**	**152.09**	**287**	P	**PKiKP**	**01 59 07.3**	**+1.4**
HSUJ				AML	AML		
QRNJ	**Al-Qirein**	**152.61**	**288**	P	**PKiKP**	**01 59 08.6**	**+1.8**
QRNJ				AML	AML		
MMAI	**Mount Meron Ar**	**152.73**	**289**	PKPbc	**PKiKP**	**01 59 08.0**	**+0.8**
	comp=Z,1.8nm,0.4s,baz=60,slow=8.8,SNR=7.3						
BRTR	**Keskin Array B**	**152.92**	**304**	PKPbc	**PKPbc**	**01 59 07.0**	**-0.3**
	comp=Z,2.9nm,0.6s,baz=140,slow=3.3,SNR=9.4						
EIL	**Elat**	**153.12**	**282**	P	**PKiKP**	**01 59 09.3**	**+1.3**
KZIT	**Kziot**	**153.63**	**284**	P	**PKiKP**	**01 59 10.3**	**+1.3**
KZIT				AML	AML		
CLL	**Collm**	**155.41**	**347**	*e*PKPdif	PKPdf	01 59 13.0	+10
CLL				*i* PKPab	**PKPab**	**01 59 28.1**	**-0.2**
	comp=Z,10.0nm,0.9s						
BMRD	**Maredsous**	**157.29**	**359**	*d*PKP	**PKPdf**	**01 59 09.4**	**+3.9**
DBIC	**Dimbokro**	**157.44**	**155**	PKPab	**PKPab**	**01 59 37.8**	**-0.2**
	comp=Z,4.1nm,0.9s,baz=217,slow=5.8,SNR=4.4						
DBIC	**Dimbokro**	**157.44**	**155**	PKP2	**PKPab**	**01 59 37.1**	**-1.0**
DBIC	**Dimbokro**	**157.44**	**155**		**PKPab**	**01 59 37.1**	**-1.0**
WINA	**Alland / Wiene**	**157.56**	**339**	*e*PKP	**PKPab**	**01 59 38.8**	**+1.0**
	comp=Z,1.5nm,0.4s						
CONA	**Conrad Observa**	**157.78**	**339**	*e*PKP	**PKPab**	**01 59 39.6**	**+0.8**
	comp=Z,1.8nm,0.7s						
BIOA	**Bad Ischl, Aus**	**158.64**	**343**	*e*PKP	**PKPab**	**01 59 43.3**	**+0.9**
	comp=Z,2.3nm,0.5s						
SESA	**Seetaler Alpe,**	**158.91**	**340**	*i* PKP	**PKPab**	**01 59 44.4**	**+0.6**
	comp=Z,4.0nm,0.5s						
LESA	**Schwarzleotal**	**159.14**	**344**	*i* PKP	**PKPab**	**01 59 45.1**	**+0.4**
	comp=Z,0.6nm,0.3s						
SOKA	**Soboth**	**159.15**	**339**	*i* PKP	**PKPab**	**01 59 44.9**	**+0.2**
	comp=Z,1.0nm,0.5s						
KBA	**Koelnbreinsper**	**159.29**	**342**	*i* PKP	**PKPab**	**01 59 45.4**	**0.0**
	comp=Z,1.6nm,0.4s						
MYKA	**Terra Mystica**	**159.62**	**341**	*i* PKP	**PKPab**	**01 59 46.4**	**-0.3**
	comp=Z,0.8nm,0.3s						
ABTA	**Abfaltersbach**	**159.81**	**344**	*i* PKP	**PKPab**	**01 59 47.5**	**-0.1**
	comp=Z,1.0nm,0.5s						
TORD	**Torodi Ar. Bea**	**165.44**	**170**	PKPab	**PKPab**	**02 00 13.8**	**+0.9**
	comp=Z,4.3nm,0.8s,baz=197,slow=4.6,SNR=8.5						
TORD	**Torodi Ar. Bea**	**165.44**	**170**		**PKPab**	**02 00 13.2**	**+0.4**
ESDC	**Sonseca Array**	**166.07**	**28**	PKPab	**PKPab**	**02 00 14.5**	**-0.8**
	comp=Z,1.5nm,0.9s,baz=317,slow=4.7,SNR=13						
ESDC	**Sonseca Array**	**166.07**	**28**		**PKPab**	**02 00 14.8**	**-0.4**

*THE **19** 01:51:01.7,38°N±2°×2°7E±°, h4km±1km, M2.5/5, MLh2.5/5*
*ISK **19** 01:51:08.2,37°.79N×27°.01E, h4km, ML2.2/19*
*AFAD **19** 01:51:09.7,37°.73N×27°.14E, h7km±2km, ML1.9*

ISC 19 01:51:07.5±0.9, 37°.74N±0°.03×26°.93E±0°.03, h10km, n30, σ1§15/38, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.08**	**245**	P	Pg	01 51 04.4	-5.4
SMG				S	**Sg**	**01 51 06.6**	**-5.0**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**67**	Pg	**Pg**	**01 51 13.4**	**-0.2**
KUSD				Sg	**Sg**	**01 51 17.3**	**-0.4**
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.33**	**358**	Pg	**Pg**	**01 51 14.8**	**+0.7**
GMLD				Sg	**Sb**	**01 51 20.1**	**-0.8**
GMLD				AML	AML		
BEYE	**izmir**	**0.48**	**360**	P	**Pb**	**01 51 17.7**	**-0.4**
BLCB	**Balcova**	**0.65**	**8**	P	Pg	01 51 13.6	-6.4
BLCB	**Balcova**	**0.65**	**8**	Pg	**Pg**	**01 51 20.4**	**+0.4**
BLCB				Sg	**Sg**	**01 51 29.3**	**+0.8**
BLCB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.68**	**156**	Pg	**Pn**	**01 51 22.2**	**-0.9**
YKAV				AML	AML		
BODT	**Bodrum**	**0.74**	**156**	Pg	**Pn**	**01 51 23.5**	**-0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**75**	Pg	**Pb**	**01 51 22.7**	**-0.6**
AYDB				Sg	**Sb**	**01 51 33.3**	**-0.8**
AYDB				AML	AML		
MLSB	**Milas**	**0.81**	**123**	Pg	**Pb**	**01 51 23.9**	**+0.3**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.81**	**151**	Pg	**Pn**	**01 51 24.5**	**-0.4**
CHOS	**Chios island**	**0.94**	**313**	Pg	**Pn**	**01 51 27.2**	**+0.3**
CHOS				AML	AML		
CAMT	**Merkez**	**1.05**	**16**	P	**Pn**	**01 51 28.8**	**+0.5**
CAMT				S	**Sn**	**01 51 43.8**	**+0.9**
CAMT				IAML		01 51 45.0	
	comp=E,88nm,0.3s						
CAMT				IAML		01 51 48.0	
	comp=N,126nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.10**	**78**	Pg	**Pb**	**01 51 28.3**	**-0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.14**	**153**	Pn	**Pn**	**01 51 30.8**	**+1.3**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.14**	**158**	P	**Pn**	**01 51 30.7**	**+1.3**
YAZI				IAML		01 51 48.0	
	comp=E,29nm,0.3s						
YAZI				IAML		01 51 50.0	
	comp=N,24nm,0.4s						
YER	**Yerkesik**	**1.23**	**119**	Pn	**Pg**	**01 51 31.8**	**+0.6**
YER				AML	AML		
GOMA	**Golmarmara-Man**	**1.24**	**39**	Pn	**Pg**	**01 51 31.1**	**-0.1**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.30**	**239**	Pn	**Pg**	**01 51 34.8**	**+2.3**
APE				AML	AML		
KTTT	**Salihli**	**1.31**	**44**	P	**Pg**	**01 51 33.8**	**+1.1**
KTTT				S	**Sb**	**01 51 48.5**	**-0.6**
DKL	**Dikili**	**1.33**	**359**	Pn	**Pg**	**01 51 33.4**	**+0.5**
DKL				AML	AML		
TURN	**Turunc**	**1.43**	**132**	P	**Pb**	**01 51 33.7**	**-0.4**
TURN				S	**Sg**	**01 51 52.8**	**-0.5**
TURN				IAML		01 51 58.0	
	comp=N,33nm,0.7s						
TURN				IAML		01 51 59.0	
	comp=E,32nm,0.8s						
TURN	**Turunc**	**1.43**	**132**	Pn	**Pg**	**01 51 35.4**	**+0.6**
TURN				AML	AML		
SULTU	**Buldan**	**1.48**	**77**	P	**Pg**	**01 51 35.5**	**-0.5**
SULTU				S	**Sb**	**01 51 53.7**	**-0.4**
SULTU				IAML		01 51 59.0	
	comp=N,26nm,0.6s						
SULTU				IAML		01 52 01.0	
	comp=E,32nm,0.6s						
GORD	**Gordes-Manisa**	**1.52**	**40**	Pn	**Pb**	**01 51 36.0**	**+0.2**
GORD				AML	AML		
KULA	**Kula-Manisa**	**1.56**	**60**	Pn	**Pb**	**01 51 36.6**	**0.0**
TAVA	**DENIZLI_Tavas**	**1.60**	**99**	P	**Pg**	**01 51 38.7**	**+0.6**
DNZT	**Denizli-Tavas-**	**1.73**	**105**	P	**Pb**	**01 51 39.4**	**0.0**
DNZT				S	**Sg**	**01 52 04.6**	**+1.6**
DNZT				IAML		01 52 11.0	
	comp=N,7.9nm,0.4s						
DNZT				IAML		01 52 11.0	
	comp=E,6.1nm,0.7s						
YAYO	**Edremit-Balk**	**1.87**	**3**	Pn	**Pb**	**01 51 41.2**	**-0.5**
YAYO				AML	AML		
APMY	**Acipayam-Deniz**	**1.90**	**97**	Pn	**Pb**	**01 51 41.7**	**-0.6**

*IDC **19** 01:53:16.5±1.7, 4°.04S×142°.82E, h0km, mb3.4/3, mbtmp3.6/4, ML4.0/1, Error ellipse: s-maj=119.6km s-min=26.8km az=120.0*
*NEIC **19** 01:53:28.2±1.2, 4°.2S±0°.1×142°.8E±0°.2, h95km±8km, mb4.1/9, Error ellipse: s-maj=23.3km s-min=19.2km az=68.0*

ISC 19 01:53:29.6±0.8, 4°.2S±0°.1×142°.7E±0°.1, h115km, n17, σ0§93/17, mb3.7/8, New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**17.61**	**207**	P	**Pn**	**01 57 27.9**	**0.0**
	0.5nm,0.3s,baz=30,slow=13,SNR=24						
	1.5nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.61**	**207**	P	**P**	**01 57 27.5**	**+0.2**
ASAR	**Alice Springs**	**21.10**	**203**	P	**P**	**01 58 05.1**	**-0.1**
	0.5nm,0.6s,baz=40,slow=12,SNR=7.4						
	0.5nm,0.6s						
ASAR	**Alice Springs**	**21.10**	**203**	P	**P**	**01 58 05.2**	**+0.1**
FITZ	**Fitzroy Crossi**	**21.65**	**229**	P	**P**	**01 58 10.3**	**-0.7**
	0.8nm,0.5s,baz=44,slow=9.2,SNR=5.8						
	0.8nm,0.5s						
FITZ	**Fitzroy Crossi**	**21.65**	**229**	P	**P**	**01 58 10.8**	**-0.2**
EIDS	**Eidsvold**	**22.50**	**160**	P	**P**	**01 58 17.6**	**-2.1**
EIDS				IAmb	IAmb	01 58 28.4	
	comp=Z,10.0nm,1.1s						
SANVU	**Saraoutou**	**26.54**	**117**	P	**P**	**01 58 56.2**	**-0.7**
SANVU				IAmb	IAmb	01 59 00.2	
	comp=Z,31nm,0.9s						
ARMA	**Armidale**	**27.37**	**163**	P	**P**	**01 59 05.5**	**+1.2**
ARMA				IAmb	IAmb	01 59 16.7	
	comp=Z,2.7nm,0.9s						
MARNC	**Mare, Loyalty**	**29.96**	**127**	P	**P**	**01 59 27.0**	**-0.3**
TOO	**Toolangi**	**33.27**	**176**	P	**P**	**01 59 58.1**	**+1.9**
TOO				IAmb	IAmb	02 00 02.7	
	comp=Z,1.1nm,0.9s						
QIZ	**Qiongzhong**	**39.77**	**307**	P	**P**	**02 00 51.4**	**-0.1**
QIZ				IAmb	IAmb	02 01 01.2	
	comp=Z,6.3nm,1.2s						
KSAR	**Wonju Array Be**	**43.71**	**343**	P	**P**	**02 01 23.0**	**-0.3**
ILAR	**Eielson Array**	**85.58**	**24**	P	**P**	**02 05 55.4**	**+0.6**
	comp=Z,0.5nm,0.6s,baz=261,slow=4.4,SNR=9.5						
	comp=Z,0.5nm,0.6s						
ILAR	**Eielson Array**	**85.58**	**24**	P	**P**	**02 05 54.9**	**+0.1**
G24K	**Hadweenzic Riv**	**86.01**	**22**	P	**P**	**02 05 56.3**	**-0.6**
C36M	**Paulatuk**	**95.08**	**21**	P	**P**	**02 06 40.0**	**+0.8**

PRU 19 01:58:59.8, 50°.37N×19°.03E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STEB	**Steborice**	**0.92**	**242**	*e*PG	Pg	01 59 15.9	-1.5
STEB				*e*SG	Sg	01 59 28.8	-0.5
	comp=Z,5.8nm,0.5s						
STEB				AML	AML		
LANS	**Liptovska Anna**	**1.25**	**167**	*e*PG	Pg	01 59 21.2	-2.6
LANS				*e*SG	Sg	01 59 36.3	-3.7
LANS				*e*LG	Lg	01 59 37.4	
DPC	**Dobruska-Polom**	**1.73**	**270**	*e*PG	Pn	01 59 30.1	-1.1
DPC				*e*SG	Sg	01 59 55.9	+0.4
VYHS	**Vyhne**	**1.88**	**184**	*e*PKP2	Pn	01 59 31.6	-1.6
VYHS	**Vyhne**	**1.88**	**184**	*e*PN	Pn	01 59 31.6	-1.6

*SJA **19** 02:00:43.2±0.7, 38°.10S×74°.29W, h7km±6km, ML3.5, MW3.5*
*GUC **19** 02:00:47.6±0.7, 38°.14S×74°.12W, h19km±5km, ML4.0, Presumed earthquake*

ISC 19 02:00:47.9±2.2, 38°.17S±0°.04×74°.1W±0°.1, h14km±12km, n25, σ0§74/35, 1C, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BI04	**Isla Mocha**	**0.30**	**144**	*eP*	**Pb**	**02 00 54.9**	**-0.1**
BI04				*eS*	**Sg**	**02 00 58.7**	**+0.3**
BI04				IAML		02 01 00.2	
	comp=N,44µm,0.3s						
LR02	**Universidad Au**	**1.76**	**158**	IAML		02 01 52.9	
	comp=N,5µm,0.5s						
LR04	**Corral**	**1.79**	**163**	*eP*	**Pn**	**02 01 18.2**	**-0.1**
LR04				IAML		02 01 49.7	
	comp=Z,410nm,0.5s						
LR04	**Corral**	**1.79**	**163**	*eP*	**Pn**	**02 01 17.5**	**-0.8**
LR04				IAML		02 01 38.5	
	comp=E,2µm,0.3s						
LC01	**Cunco**	**1.89**	**113**	*eP*	**Pn**	**02 01 19.2**	**-0.6**
LC01				*eS*	**Sn**	**02 01 43.7**	**+0.2**
LR03	**Panguipulli**	**2.00**	**137**	*eP*	**Pn**	**02 01 21.8**	**+0.4**
LR03				*eS*	**Sb**	**02 01 49.1**	**+0.1**
LR03				IAML		02 01 59.0	
	comp=Z,962nm,0.3s						
LR03	**Panguipulli**	**2.00**	**137**	*eP*	**Pn**	**02 01 19.9**	**-1.4**
LR03				IAML		02 02 05.4	
	comp=E,2µm,0.6s						
GO06	**Curarrehue**	**2.49**	**125**	*eP*	**Pn**	**02 01 28.7**	**+0.5**
GO06				*eS*	**Sb**	**02 02 03.1**	**-0.1**
GO06				IAML		02 02 10.6	
	comp=Z,147nm,0.6s						
GO06	**Curarrehue**	**2.49**	**125**	⇑*iP*	**Pn**	**02 01 28.4**	**+0.2**
GO06				*eS*	**Sb**	**02 02 00.9**	**-2.2**
LR05	**Currie**	**2.63**	**142**	*eP*	**Pn**	**02 01 30.7**	**+0.8**
LR05				*eS*	**Sb**	**02 02 06.1**	**-0.7**
LR05				IAML		02 02 20.5	
	comp=Z,231nm,1.1s						
LR05	**Currie**	**2.63**	**142**	*eP*	**Pn**	**02 01 30.2**	**+0.4**
LR05				*i*		02 02 12.7	
LR05				IAML		02 02 19.8	
	comp=E,518nm,0.4s						
BI02	**San Fabin de**	**2.71**	**57**	*eP*	**Pn**	**02 01 31.5**	**+0.4**
BI02				IAML		02 02 20.7	
	comp=E,117nm,1.1s						
BI02	**San Fabin de**	**2.71**	**57**	*eP*	**Pn**	**02 01 30.3**	**-0.8**
ML02

GUY2C				S	Sn	02 03 01.2	-1.5
PTGC	**Puerto Gaitan,**	**3.17**	**165**	P	Pn	02 02 21.9	-0.5
PTGC				S	Sn	02 03 00.2	-2.0
CBOC	**Ciudad Bolivar**	**3.37**	**245**	P	Pn	02 02 26.7	+1.8
CBOC				S	Sn	02 03 06.8	+0.2
SJCC	**San Jacinto, C**	**3.41**	**320**	P	Pn	02 02 26.7	+1.4
SJCC				S	Sn	02 03 06.8	-0.7
SJCC	**San Jacinto, C**	**3.41**	**320**	*e*P	Pn	02 02 26.6	+1.3
SJCC				*e*S	Sn	02 03 05.7	-1.8
APAC	**Apartado, Choc**	**3.66**	**280**	P	Pn	02 02 30.0	+1.6
APAC				S	Sn	02 03 13.7	+0.8
CRJC	**Cerrejon, Guaj**	**3.71**	**1**	P	Pn	02 02 30.3	+1.2
CRJC				S	Sn	02 03 11.3	-3.0
LCC	**Los crdobas,**	**3.73**	**295**	P	Pn	02 02 30.0	+0.7
PRAC	**Prado**	**4.05**	**209**	P	Pn	02 02 34.3	+1.0
PRAC				S	Sn	02 03 20.4	-1.4
ORTC	**Ortega, Tolima**	**4.07**	**214**	P	Pn	02 02 34.8	+1.2
ORTC				S	Sn	02 03 21.2	-1.1
URMC	**La Uribe, Meta**	**4.26**	**200**	P	Pn	02 02 38.3	+2.1
URMC				S	Sn	02 03 25.9	-1.0
URIC	**Uribia, Colomb**	**4.48**	**12**	P	Pn	02 02 39.8	+1.0
URIC	**Uribia, Colomb**	**4.48**	**12**	*e*P	Pn	02 02 39.4	+0.6
URIC				*e*S	Sn	02 03 28.9	-2.9
YOTC	**Yotoco, Valle**	**4.72**	**226**	P	Pn	02 02 43.1	+1.1
MACC	**Macarena, Meta**	**5.19**	**190**	P	Pn	02 02 49.2	+1.2
	2.9nm,0.6s						
MACC				S	Sn	02 03 45.1	-3.2
	2.9nm,0.6s						
MACC				AML	AML		
JAMC	**Jamundi, Valle**	**5.50**	**223**	P	Pn	02 02 53.2	+1.0
BENV	**Beln**	**5.91**	**63**	*e*P	Pn	02 02 57.4	0.0
POPC	**Popayan, Colom**	**6.01**	**218**	P	Pn	02 03 00.1	+1.2

*WEL **19** 02:10:42.0±0.8,36°S±5°×17°9E±°,h169km±10km,M4.0/18, ML4.1/19,MLv4.0/18,Error ellipse: s-maj=11.0km s-min=6.8km az=97.1*
*NOU **19** 02:10:56.6,37°.16S×179°.13E,h90km,mb4.3/7,Off E. Coast of N. Island, N.Z.*

ISC 19 02:10:37.4±2.6,**35°.61S**±0°.09×**179°.3E**±0°.1,**h166**km±15km, **n52**,σ1§**95**/70,**Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.09**	**201**	P	**Pn**	**02 11 14.7**	**+0.3**
MXZ	**Matakaoa Point**	**2.09**	**201**	P	**Pn**	**02 11 14.7**	**+0.3**
MXZ				S	**Sn**	**02 11 41.1**	**-2.1**
MXZ				AML	AML		
MXZ				AML	AML		
HAZ	**Te Kaha**	**2.44**	**209**	P	**Pn**	**02 11 19.2**	**+0.7**
HAZ				S	**Sn**	**02 11 50.5**	**-0.1**
HAZ				AML	AML		
HAZ				AML	AML		
WIZ	**White Island**	**2.53**	**220**	P	**Pn**	**02 11 21.2**	**+1.6**
WIZ				S	**Sn**	**02 11 50.7**	**-1.7**
WIZ				AML	AML		
PUZ	**Puketiti**	**2.58**	**198**	P	**Pn**	**02 11 21.5**	**+1.2**
PUZ				S	**Sn**	**02 11 50.5**	**-3.1**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**2.67**	**208**	P	**Pn**	**02 11 22.3**	**+0.9**
RUGZ				S	**Sn**	**02 11 54.2**	**-1.4**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**2.76**	**201**	P	**Pn**	**02 11 24.3**	**+1.9**
TWGZ				S	**Sn**	**02 11 57.0**	**-0.3**
TWGZ				AML	AML		
TWGZ				AML	AML		
WHRZ	**Whale Island**	**2.89**	**219**	P	**Pn**	**02 11 27.6**	**+3.6**
WHRZ				AML	AML		
WHRZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.99**	**196**	P	**Pn**	**02 11 26.7**	**+1.6**
CNGZ				S	**Sn**	**02 12 01.4**	**-1.0**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**3.04**	**201**	P	**Pn**	**02 11 27.3**	**+1.5**
TKGZ				S	**Sn**	**02 12 01.9**	**-1.5**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**3.05**	**206**	P	**Pn**	**02 11 27.3**	**+1.3**
MWZ				S	**Sn**	**02 12 06.2**	**+2.4**
MWZ				AML	AML		
MWZ				AML	AML		
GRZ	**Great Barrier**	**3.15**	**257**	P	**Pn**	**02 11 27.6**	**+0.5**
URZ	**Urewera**	**3.15**	**212**	P	**Pn**	**02 11 27.9**	**+0.7**
URZ	**Urewera**	**3.15**	**212**	P	**Pn**	**02 11 28.2**	**+1.0**
URZ				S	**Sn**	**02 12 05.5**	**-0.5**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**3.23**	**207**	P	**Pn**	**02 11 29.5**	**+1.2**
RAGZ				S	**Sn**	**02 12 07.1**	**-0.9**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**3.31**	**201**	P	**Pn**	**02 11 30.1**	**+0.9**
RIGZ				S	**Sn**	**02 12 09.0**	**-0.6**
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**3.48**	**198**	P	**Pn**	**02 11 32.9**	**+1.5**
PRGZ				AML	AML		
MUGZ	**Murupara**	**3.48**	**214**	P	**Pn**	**02 11 32.9**	**+1.5**
MUGZ				S	**Sn**	**02 12 12.5**	**-1.0**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**3.51**	**211**	P	**Pn**	**02 11 32.4**	**+0.7**
RTZ				S	**Sn**	**02 12 12.3**	**-1.8**
RTZ				AML	AML		
RTZ				AML	AML		
MHGZ	**Mahia Peninsul**	**3.69**	**197**	P	**Pn**	**02 11 35.3**	**+1.3**
MHGZ				S	**Sn**	**02 12 17.6**	**-0.7**
MHGZ				AML	AML		
RAHZ	**Arahi**	**3.72**	**207**	P	**Pn**	**02 11 35.5**	**+1.1**
RAHZ				S	**Sn**	**02 12 18.4**	**-0.7**
RAHZ				AML	AML		
RAHZ				AML	AML		
ALRZ	**Allen Road**	**3.75**	**217**	P	**Pn**	**02 11 37.3**	**+2.4**
ALRZ				AML	AML		
ALRZ				AML	AML		
MTHZ	**Maungataniwha**	**3.76**	**210**	P	**Pn**	**02 11 36.8**	**+1.8**
MTHZ				S	**Sn**	**02 12 19.1**	**-0.9**
MTHZ				AML	AML		
MTHZ				AML	AML		
MRHZ	**Matea Rd**	**3.93**	**214**	P	**Pn**	**02 11 37.1**	**-0.1**
MRHZ				AML	AML		
MRHZ				AML	AML		
NMHZ	**Naumai**	**3.99**	**209**	P	**Pn**	**02 11 39.0**	**+1.1**
NMHZ				S	**Sn**	**02 12 25.8**	**+0.6**
NMHZ				AML	AML		
NMHZ				AML	AML		
WCZ	**Waipu Caves**	**4.01**	**264**	P	**Pn**	**02 11 38.2**	**+0.1**
BKZ	**Black Stump Fm**	**4.17**	**211**	P	**Pn**	**02 11 40.9**	**+0.7**
BKZ	**Black Stump Fm**	**4.17**	**211**	P	**Pn**	**02 11 41.0**	**+0.7**
BKZ				S	**Sn**	**02 12 27.5**	**-1.9**
BKZ				AML	AML		
BKZ				AML	AML		
KWHZ	**Kaweka Forest**	**4.42**	**210**	P	**Pn**	**02 11 44.0**	**+0.5**
TMVZ	**Te Maari**	**4.50**	**218**	P	**Pn**	**02 11 47.8**	**+3.2**
NTVZ	**North Tongarir**	**4.50**	**218**	P	Pn	02 11 49.7	+5.1
HIZ	**Hauiti**	**4.56**	**229**	P	Pn	02 11 51.0	+5.8
HIZ	**Hauiti**	**4.56**	**229**	P	**Pn**	**02 11 49.1**	**+3.9**
KAHZ	**Kahuranaki**	**4.58**	**204**	P	**Pn**	**02 11 44.8**	**-0.7**
KAHZ				S	**Sn**	**02 12 38.6**	**-0.3**
KAHZ				AML	AML		
SNVZ	**South Ngauruho**	**4.58**	**218**	P	**Pn**	**02 11 49.0**	**+3.3**
SNVZ				AML	AML		
NGZ	**Ngauruhoe**	**4.59**	**218**	P	Pn	02 11 52.0	+6.1
BHHZ	**Black Hill Sta**	**4.63**	**212**	P	**Pn**	**02 11 46.6**	**+0.4**
KRHZ	**Kereru**	**4.63**	**209**	P	**Pn**	**02 11 46.1**	**-0.1**
OUZ	**Omahuta**	**4.64**	**273**	P	**Pn**	**02 11 45.7**	**-0.6**
FWVZ	**Far West T-bar**	**4.68**	**218**	P	Pn	02 11 51.9	+4.9
WHVZ	**Whangaehu Hut**	**4.68**	**217**	P	Pn	02 11 52.2	+5.1
MAVZ	**Matarangi**	**4.69**	**218**	P	Pn	02 11 53.2	+6.1
MOVZ	**Moawhango**	**4.70**	**215**	P	Pn	02 11 52.2	+5.1
WNVZ	**Wahianoa**	**4.71**	**217**	P	**Pn**	**02 11 50.8**	**+3.4**
WNVZ				AML	AML		
WNVZ				AML	AML		
PNHZ	**Pukenui**	**4.93**	**209**	P	**Pn**	**02 11 49.5**	**-0.5**
PNHZ				S	**Sn**	**02 12 42.9**	**-4.2**
TSZ	**Takapari Road**	**5.15**	**209**	P	**Pn**	**02 11 52.9**	**0.0**
TSZ				S	**Sn**	**02 12 51.1**	**-1.1**
DVHZ	**Dannevirke**	**5.28**	**207**	P	**Pn**	**02 11 54.7**	**0.0**
DVHZ				S	**Sn**	**02 12 50.3**	**-4.9**
PRWZ	**Pori Road**	**5.57**	**207**	P	**Pn**	**02 12 00.3**	**+1.8**
PRWZ				S	**Sn**	**02 12 57.3**	**-4.9**
BFZ	**Birch Farm**	**5.59**	**204**	P	**Pn**	**02 11 58.2**	**-0.5**
BFZ	**Birch Farm**	**5.59**	**204**	P	**Pn**	**02 11 58.0**	**-0.7**
BFZ				S	**Sn**	**02 12 57.8**	**-4.7**
QRZ	**Quartz Range**	**7.42**	**223**	P	**Pn**	**02 12 27.0**	**+4.0**
KHZ	**Kahutara**	**8.12**	**211**	P	**Pn**	**02 12 33.3**	**+1.2**

*IDC **19** 02:20:51.2±1.5,4°.95S×149°.30E,h0km,mb3.6/2, mbtmp4.1/5,ML4.0/2,MS2.9/1,Error ellipse: s-maj=40.8km s-min=14.9km az=147.0*
*NEIC **19** 02:20:56.2±0.9,5°.4S±0°.1×149°.71E±0°.07,h10km±1km, mb4.4/11,Error ellipse: s-maj=23.7km s-min=5.6km az=330.0*

ISC 19 02:20:58.8±0.9,**5°.4S**±0°.1×**149°.6E**±0°.1,**h35**km,**n20**, σ1§**64**/**25**,**mb4.1**/**5**,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.61**	**66**	Pn	**Pn**	**02 21 36.8**	**-1.7**
	34nm,0.3s,baz=311,slow=15,SNR=7.3						
KRVT				Sn	**Sn**	**02 22 13.1**	**+3.9**
	94nm,0.3s,baz=45,slow=23,SNR=4.2						
	163nm,0.4s						
KRVT				AML	AML		
RABL	**Rabaul**	**2.79**	**65**		**Pn**	**02 21 39.6**	**-1.3**
PMG	**Port Moresby**	**4.70**	**211**	Pn	**Pn**	**02 22 07.6**	**+0.3**
	54nm,0.8s,baz=30,slow=12,SNR=12						
PMG				Sn	**Sn**	**02 22 59.9**	**-0.8**
	14nm,0.3s,baz=98,slow=21,SNR=7.9						
PMG				LR	LR	02 23 26.0	
	comp=Z,118nm,20.5s,baz=330,slow=32						
PMG	**Port Moresby**	**4.70**	**211**		**Pn**	**02 22 08.8**	**+1.5**
PMG					**Sn**	**02 22 58.2**	**-2.5**
CTA	**Charters Tower**	**15.00**	**192**	Pn	**Pn**	**02 24 29.6**	**+1.2**
	0.4nm,0.3s,baz=12,slow=14,SNR=3.7						
	15nm,1.2s						
CTA				AML	AML		
MTN	**Manton Dam**	**19.70**	**247**	P	**P**	**02 25 26.5**	**+1.2**
WB0	**Warramunga Arr**	**20.61**	**225**	P	**P**	**02 25 35.9**	**+0.7**
WB0				IAmb	IAmb	02 25 43.7	
	comp=Z,14nm,0.7s						
WR8	**Warramunga Arr**	**20.66**	**224**	P	**P**	**02 25 36.1**	**+0.4**
WR8				IAmb	IAmb	02 25 44.1	
	comp=Z,12nm,0.7s						
WRAB	**Tennant Creek**	**20.75**	**224**	P	**P**	**02 25 37.0**	**+0.2**
WRAB				IAmb	IAmb	02 25 45.1	
	comp=Z,12nm,0.7s						
WRA	**Warramunga Arr**	**20.77**	**224**	P	**P**	**02 25 36.7**	**-0.2**
	comp=Z,2.1nm,0.7s,baz=48,slow=10,SNR=35						
WRA				PcP	**PcP**	**02 29 43.4**	**-2.1**
	comp=Z,0.5nm,0.8s,baz=47,slow=2.0,SNR=4.0						
	comp=Z,2.1nm,0.7s						
WRA	**Warramunga Arr**	**20.77**	**224**	P	**P**	**02 25 37.3**	**+0.4**
WRA					**PcP**	**02 29 45.7**	**+0.1**
KNRA	**Kununurra**	**22.90**	**242**	P	**P**	**02 26 02.8**	**+3.0**
KNRA				IAmb	IAmb	02 26 23.3	
	comp=Z,11nm,1.5s						
ASAR	**Alice Springs**	**23.68**	**218**	P	**P**	**02 26 07.1**	**-0.3**
	comp=Z,1.1nm,0.7s,baz=54,slow=8.3,SNR=11						
	comp=Z,1.1nm,0.7s						
ASAR	**Alice Springs**	**23.68**	**218**	P	**P**	**02 26 07.4**	**-0.1**
FITZ	**Fitzroy Crossi**	**26.63**	**240**	P	**P**	**02 26 35.0**	**+0.6**
FITZ				IAmb	IAmb	02 26 45.3	
	comp=Z,2.6nm,1.2s						
RAO	**Raoul Island**	**38.80**	**132**	P	**P**	**02 28 18.8**	**-1.7**
MCQ	**Macquarie Isla**	**49.57**	**173**	P	**P**	**02 29 46.7**	**+0.5**
DOT	**Dot Lake**	**84.52**	**24**	P	**P**	**02 33 28.7**	**+0.7**
DOT				IAmb	IAmb	02 33 48.7	
	comp=Z,8.1nm,0.8s						
QSPA	**South Pole Qui**	**84.60**	**180**	P	**P**	**02 33 29.6**	**+1.1**
QSPA				IAmb	IAmb	02 33 38.4	
	comp=Z,8.6nm,1.5s						
TORD	**Torodi Ar. Bea**	**147.45**	**286**	PKPbc	**PKPdf**	**02 40 34.9**	**-2.8**
	comp=Z,1.8nm,0.5s,baz=77,slow=1.9,SNR=2.3						

*IDC **19** 02:25:41.7±3.1,28°.33N×142°.27E,h0km,mb3.9/6, mbtmp3.8/8,ML3.2/2,Error ellipse: s-maj=124.0km s-min=14.4km az=78.0*
*NEIC **19** 02:25:46.6±1.9,28°.30N±0°.04×142°.3E±0°.1,h35km±2km, mb4.5/14,Error ellipse: s-maj=18.5km s-min=3.7km az=68.0*

ISC 19 02:25:44.7±0.6,**28°.33N**±0°.06×**142°.3E**±0°.1,**h25**km,**n29**, σ0§**91**/**33**,**mb4.2**/**14**,**Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**1.23**	**183**	Pn	**Pn**	**02 26 04.7**	**-1.6**
	17nm,0.3s,baz=348,slow=20,SNR=6.3						
JCJ				Sn	**Sb**	**02 26 24.4**	**+1.6**
	41nm,0.3s,baz=290,slow=23,SNR=15						
JCJ	**Chichijima**	**1.23**	**183**		**Pn**	**02 26 05.9**	**-0.4**
JCJ					**Sb**	**02 26 23.0**	**+0.2**
MJAR	**Matsushiro Arr**	**8.87**	**338**	Pn	**Pn**	**02 27 50.4**	**-0.9**
	0.2nm,0.3s,baz=159,slow=12,SNR=5.4						
	1.0nm,0.3s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**8.87**	**338**		**Pn**	**02 27 52.0**	**+0.7**
USRK	**Ussuriysk Ar.**	**17.85**	**335**	P	**Pn**	**02 29 49.8**	**-1.4**
	0.1nm,0.3s,baz=151,slow=13,SNR=2.1						
	1.7nm,0.7s						
USRK				AML	AML		
USRK	**Ussuriysk Ar.**	**17.85**	**335**	P	**Pn**	**02 29 51.2**	**0.0**
HKPS	**Hong Kong Po S**	**26.09**	**263**	P	**P**	**02 31 17.4**	**+0.8**
HKPS				IAmb	IAmb	02 31 23.2	
	comp=Z,46nm,1.1s						
UNV	**Unalaska Valle**	**44.98**	**41**	P	**P**	**02 33 58.4**	**+0.7**
S12K	**Black Hills**	**47.89**	**39**	P	**P**	**02 34 20.7**	**+0.1**
WB0	**Warramunga Arr**	**48.42**	**190**	P	**P**	**02 34 24.6**	**-0.3**
WB0				IAmb	IAmb	02 34 31.7	
	comp=Z,1.9nm,0.8s						
WR8	**Warramunga Arr**	**48.59**	**190**	P	**P**	**02 34 25.2**	**-1.1**
WR8				IAmb	IAmb	02 34 39.1	
	comp=Z,2.6nm,0.9s						
WRAB	**Tennant Creek**	**48.59**	**190**	P	**P**	**02 34 26.2**	**0.0**
WRAB				IAmb	IAmb	02 34 28.1	
	comp=Z,2.2nm,0.8s						
WB2	**Warramunga Arr**	**48.60**	**190**	P	**P**	**02 34 25.3**	**-1.0**
WB2				IAmb	IAmb	02 34 29.3	
	comp=Z,2.6nm,0.8s						
WRA	**Warramunga Arr**	**48.60**	**190**	P	**P**	**02 34 27.6**	**+1.3**
	comp=Z,1.4nm,0.5s,baz=12,slow=8.4,SNR=21						
	comp=Z,1.4nm,0.5s						
WRA	**Warramunga Arr**	**48.60**	**190**	P	**P**	**02 34 26.6**	**+0.3**
ZALV	**Zalesovo Beam**	**48.61**	**318**	P	**P**	**02 34 26.6**	**+0.5**
	comp=Z,0.6nm,0.4s,baz=92,slow=7.6,SNR=2.8						
ZALV				PcP	**PcP**	**02 35 51.7**	**+0.3**
	comp=Z,0.5nm,0.5s,baz=97,slow=4.9,SNR=2.1						
	comp=Z,0.6nm,0.4s						
ZALV	**Zalesovo Beam**	**48.61**	**318**	P	**P**	**02 34 25.8**	**-0.3**
ZALV					**PcP**	**02 35 50.3**	**-1.1**
MKAR	**Makanchi Array**	**49.75**	**309**	P	**P**	**02 34 34.8**	**-0.2**
	comp=Z,0.5nm,0.8s,baz=76,slow=11,SNR=3.6						
	comp=Z,0.5nm,0.8s						
MKAR	**Makanchi Array**	**49.75**	**309**	P	**P**	**02 34 35.5**	**+0.5**
KURK	**Kurchatov**	**52.18**	**314**	P	**P**	**02 34 53.2**	**0.0**
KURK				IAmb	IAmb	02 34 56.8	
	comp=Z,3.2nm,0.8s						
KURBB	**Kurchatov Arra**	**52.23**	**314**	P	**P**	**02 34 55.2**	**+1.6**
	comp=Z,0.9nm,0.3s,baz=90,slow=7.4,SNR=18						
	comp=Z,0.9nm,0.3s						
ASAR	**Alice Springs**	**52.32**	**190**	P	**P**	**02 34 55.7**	**+1.2**
	comp=Z,0.3nm,0.5s,baz=11,slow=6.2,SNR=5.0						
	comp=Z,0.3nm,0.5s						
BVAR	**Borovoye Array**	**57.19**	**317**	P	**P**	**02 35 30.8**	**+1.3**
	comp=Z,2.0nm,0.7s,baz=94,slow=7.9,SNR=8.2						
	comp=Z,2.0nm,0.7s						
G30M	**tAoh Zraii Nji**	**60.97**	**26**	P	**P**	**02 35 55.4**	**-0.1**
BBOO	**Buckleboo**	**61.09**	**186**	P	**P**	**02 35 55.4**	**-1.2**
BBOO				IAmb	IAmb	02 36 07.2	
	comp=Z,15nm,1.1s						
XMAS	**Kiritimati**	**63.04**	**103**	P	**P**	**02 36 10.6**	**+0.4**
AB31	**Akbulak array**	**64.29**	**314**	P	**P**	**02 36 18.1**	**+0.2**
ABKAR	**Akbulak array**	**64.29**	**314**	P	**P**	**02 36 19.1**	**+1.2**
RAYN	**Ar Rayn**	**84.71**	**294**	P	**P**	**02 38 16.7**	**-0.3**
RAYN				IAmb	IAmb	02 38 20.5	
	comp=Z,3.6nm,0.6s						

*NOU **19** 02:49:01.5,37°.82S×176°.29E,h242km,MLv3.7/19,North Island, New Zealand*
*WEL **19** 02:49:05.0±0.6,38°S±4°×17°6E±°,h216km±5km,M3.1/32, MLv3.1/32,Error ellipse: s-maj=5.1km s-min=4.3km az=137.7*

ISC 19 02:48:59.1±1.9,**37.72S**±0°.06×**176°.25E**±0°.05, **h261**km±11km,**n121**,σ1§**78**/149,**North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MYRZ	**Mayor Island**	**0.44**	**359**	P	**Pn**	**02 49 34.5**	**+1.3**
MYRZ				AML	AML		
TOZ	**Tahuroa Road**	**0.60**	**268**	P	**Pn**	**02 49 35.0**	**+1.5**
TOZ				AML	AML		
MUGZ	**Murupara**	**0.86**	**152**	P	**Pn**	**02 49 36.0**	**+1.4**
MUGZ				S	**S**	**02 50 01.7**	**-1.0**
MUGZ				AML	AML		
URZ	**Urewera**	**0.87**	**129**	P	**Pn**	**02 49 35.3**	**+0.7**
URZ	**Urewera**	**0.87**	**129**	S	**S**	**02 50 00.0**	**-2.6**
URZ	**Urewera**	**0.87**	**129**	P	**Pn**	**02 49 35.2**	**+0.7**
URZ				S	**S**	**02 49 59.9**	**-2.7**
URZ				AML	AML		
MKAZ	**Moumakai**	**1.06**	**305**	P	**Pn**	**02 49 37.1**	**+1.4**
RTZ	**Ruatahuna**	**1.06**	**148**	P	**Pn**	**02 49 37.3**	**+1.6**
RTZ				S	**S**	**02 50 02.9**	**-1.7**
RTZ				AML	AML		
MRHZ	**Matea Rd**	**1.12**	**173**	P	**Pn**	**02 49 36.2**	**+0.2**
MRHZ				S	**S**	**02 50 03.2**	**-2.0**
MRHZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.15**	**103**	P	**Pn**	**02 49 36.4**	**+0.1**
RUGZ				S	**S**	**02 50 02.6**	**-3.0**
RUGZ				AML	AML		
MWZ	**Matawai**	**1.18**	**122**	P	**Pn**	**02 49 38.0**	**+1.7**
MWZ				S	**S**	**02 50 03.7**	**-2.0**
MWZ				AML	AML		
RAGZ	**Rawiri**	**1.20**	**131**	P	**Pn**	**02 49 38.2**	**+1.6**
RAGZ				S	**S**	**02 50 04.9**	**-1.2**
RAGZ				AML	AML		
HAZ	**Te Kaha**	**1.21**	**92**	P	**Pn**	**02 49 37.1**	**+0.6**
HAZ				S	**S**	**02 50 03.3**	**-2.7**
HAZ				AML	AML		
MTHZ	**Maungataniwha**	**1.23**	**158**	P	**Pn**	**02 49 38.7**	**+2.1**
MTHZ				S	**S**	**02 50 04.6**	**-1.7**
MTHZ				AML	AML		
WIAZ	**Waiheke Island**	**1.28**	**316**	P	**Pn**	**02 49 38.3**	**+1.3**
WIAZ				AML	AML		
ETAZ	**East Tamaki Re**	**1.30**	**305**	P	**Pn**	**02 49 38.5**	**+1.4**
ETAZ				AML	AML		
HIZ	**Hauiti**	**1.36**	**234**	P	**Pn**	**02 49 39.4**	**+2.0**
HIZ	**Hauiti**	**1.36**	**234**	P	**Pn**	**02 49 39.4**	**+2.0**
HIZ				AML	AML		
RAHZ	**Arahi**	**1.36**	**152**	P	**Pn**	**02 49 40.0**	**+2.5**
RAHZ				S	**S**	**02 50 07.3**	**-0.6**
RAHZ				AML	AML		
MBAZ	**Motutapu North**	**1.44**	**311**	P	**Pn**	**02 49 39.5**	**+1.5**
MBAZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**1.44**	**296**	P	**Pn**	**02 49 39.6**	**+1.6**
AWAZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.44**	**109**	P	**Pn**	**02 49 40.2**	**+2.1**
TWGZ				S	**S**	**02 50 07.2**	**-1.6**
TWGZ				AML	AML		
NMHZ	**Naumai**	**1.45**	**163**	P	**Pn**	**02 49 40.9**	**+2.8**
NMHZ				S	**S**	**02 50 07.9**	**-1.1**
NMHZ				AML	AML		
TKGZ	**Te Karaka**	**1.45**	**120**	P	**Pn**	**02 49 39.9**	**+1.8**
TKGZ				S	**S**	**02 50 08.2**	**-0.6**
TKGZ				AML	AML		
NTVZ	**North Tongarir**	**1.45**	**198**	P	**Pn**	**02 49 40.3**	**+2.1**
NTVZ				AML	AML		
BKZ	**Black Stump Fm**	**1.46**	**173**	P	**Pn**	**02 49 39.6**	**+1.4**
BKZ	**Black Stump Fm**	**1.46**	**173**	S	**S**	**02 50 07.0**	**-2.1**
BKZ	**Black Stump Fm**	**1.46**	**173**	P	**Pn**	**02 49 39.8**	**+1.6**
BKZ				S	**S**	**02 50 07.0**	**-2.1**
BKZ				AML	AML		
TMVZ	**Te Maari**	**1.46**	**197**	P	**Pn**	**02 49 40.0**	**+1.7**
WTVZ	**West Tongariro**	**1.49**	**200**	P	**Pn**	**02 49 40.3**	**+1.8**
WTVZ				AML	AML		
TWVZ	**Taurewa**	**1.50**	**205**	P	**Pn**	**02 49 40.3**	**+1.8**
TWVZ				AML	AML		
OTVZ	**Oturere**	**1.52**	**198**	P	**Pn**	**02 49 40.8**	**+2.1**
OTVZ				S	**S**	**02 50 09.0**	**-1.1**
OTVZ				AML	AML		
NGZ	**Ngauruhoe**	**1.54**	**199**	P	**Pn**	**02 49 40.7**	**+1.8**
NGZ				AML	AML		
SNVZ	**South Ngauruho**	**1.54**	**198**	P	**Pn**	**02 49 40.8**	**+1.8**
SNVZ				S	**S**	**02 50 09.2**	**-1.3**
SNVZ				AML	AML		
RIGZ	**Rimuhau**	**1.54**	**130**	P	**Pn**	**02 49 41.3**	**+2.5**
RIGZ				S	**S**	**02 50 09.2**	**-1.0**
RIGZ				AML	AML		
WTAZ	**Waiatarua**	**1.55**	**300**	P	**Pn**	**02 49 40.7**	**+1.8**
WTAZ				AML	AML		
COVZ	**Chateau Observ**	**1.58**	**200**	P	**Pn**	**02 49 41.0**	**+1.8**
ABAZ	**Army Bay**	**1.59**	**314**	P	**Pn**	**02 49 40.9**	**+1.7**
ABAZ				AML	AML		
GRZ	**Great Barrier**	**1.60**	**336**	P	**Pn**	**02 49 40.3**	**+1.1**
TUVZ	**Tukino**	**1.62**	**197**	P	**Pn**	**02 49 41.3**	**+1.8**
TUVZ				S	**S**	**02 50 09.8**	**-1.7**
TUVZ				AML	AML		
PUZ	**Puketiti**	**1.62**	**103**	P	**Pn**	**02 49 40.8**	**+1.4**
PUZ				S	**S**	**02 50 10.4**	**-0.8**
PUZ				AML	AML		
FWVZ	**Far West T-bar**	**1.63**	**199**	P	**Pn**	**02 49 42.4**	**+2.7**
FWVZ				S	**S**	**02 50 10.1**	**-1.6**
MXZ	**Matakaoa Point**	**1.64**	**85**	P	**Pn**	**02 49 40.8**	**+1.3**
MXZ	**Matakaoa Point**	**1.64**	**85**	S	**S**	**02 50 09.9**	**-1.4**
MXZ	**Matakaoa Point**	**1.64**	**85**	P	**Pn**	**02 49 40.9**	**+1.5**
MXZ				S	**S**	**02 50 10.5**	**-0.8**
MAVZ	**Matarangi**	**1.64**	**199**	P	**Pn**	**02 49 42.2**	**+2.4**
WHVZ	**Whangaehu Hut**	**1.65**	**198**	P

POWZ	**Post Office Ro**	**2.70**	**188**	P	**Pn**	**02 49 50.6 +1.6**
PRWZ	**Pori Road**	**2.84**	**184**	P	**Pn**	**02 49 52.4 +1.8**
BFZ	**Birch Farm**	**2.96**	**180**	P	**Pn**	**02 49 53.0 +1.2**
BFZ	**Birch Farm**	**2.96**	**180**	P	Sn	02 50 32.2
BFZ	**Birch Farm**	**2.96**	**180**	P	**Pn**	**02 49 53.3 +1.5**
MRZ	**Mangatainoka R**	**2.99**	**190**	P	**Pn**	**02 49 53.3 +1.3**
TIWZ	**Tintock**	**3.07**	**185**	P	**Pn**	**02 49 54.8 +1.8**
CPWZ	**Castlepoint**	**3.19**	**181**	P	**Pn**	**02 49 56.3 +2.1**
OGWZ	**Otaki Gorge**	**3.21**	**195**	P	**Pn**	**02 49 55.8 +1.4**
HOWZ	**Holdsworth Sta**	**3.23**	**190**	P	**Pn**	**02 49 55.7 +1.0**
OUZ	**Omahuta**	**3.29**	**319**	P	**Pn**	**02 49 56.8 +1.4**
KIW	**Kapiti Island**	**3.31**	**198**	P	**Pn**	**02 49 56.5 +0.9**
TMWZ	**Te Maipa**	**3.40**	**185**	P	**Pn**	**02 49 57.8 +1.2**
MTW	**Mount Morrison**	**3.49**	**199**	P	**Pn**	**02 49 58.4 +0.9**
CAW	**Cannon Point**	**3.51**	**195**	P	**Pn**	**02 49 58.9 +1.2**
DUWZ	**D'Urville Isla**	**3.57**	**210**	P	**Pn**	**02 49 59.2 +0.7**
TRWZ	**Traveller**	**3.70**	**187**	P	**Pn**	**02 50 01.1 +1.2**
PAWZ	**Paruwai Farm**	**3.72**	**190**	P	**Pn**	**02 50 01.0 +0.9**
WEL	**Wellington**	**3.74**	**197**	P	**Pn**	**02 50 01.5 +1.1**
MSWZ	**Moikau Station**	**3.77**	**192**	P	**Pn**	**02 50 01.6 +0.9**
SNZO	**South Karori**	**3.78**	**198**	P	**Pn**	**02 50 01.6 +0.8**
SNZO	**South Karori**	**3.78**	**198**	P	Sn	02 50 47.5
TCW	**Tory Channel**	**3.81**	**203**	P	**Pn**	**02 50 02.0 +0.9**
BHW	**Baring Head**	**3.84**	**196**	P	**Pn**	**02 50 02.4 +0.9**
PLWZ	**Palliser**	**3.92**	**191**	P	**Pn**	**02 50 03.2 +0.7**
TUWZ	**Tuamarina**	**4.12**	**205**	P	**Pn**	**02 50 06.1 +1.5**
NNZ	**Nelson**	**4.14**	**212**	P	**Pn**	**02 50 05.5 +0.5**
TKNZ	**Takaka Hill**	**4.18**	**217**	P	**Pn**	**02 50 05.4 -0.1**
QRZ	**Quartz Range**	**4.24**	**222**	P	**Pn**	**02 50 06.1 0.0**
QRZ	**Quartz Range**	**4.24**	**222**	S	**S**	**02 50 59.7 +0.1**
QRZ	**Quartz Range**	**4.24**	**222**	P	**Pn**	**02 50 06.2 0.0**
BSWZ	**Blackbirch Sta**	**4.39**	**204**	P	**Pn**	**02 50 08.9 +1.0**
MRNZ	**Matariki Terra**	**4.56**	**215**	P	**Pn**	**02 50 09.6 -0.3**
THZ	**Tophouse**	**4.79**	**212**	P	**Pn**	**02 50 13.0 +0.3**
KHZ	**Kahutara**	**5.13**	**203**	P	**Pn**	**02 50 17.7 +1.0**
KHZ	**Kahutara**	**5.13**	**203**	P	**Pn**	**02 50 17.7 +1.0**
DSZ	**Denniston Nort**	**5.29**	**219**	P	**Pn**	**02 50 18.4 -0.3**
GVZ	**Greta Valley S**	**5.79**	**204**	P	**Pn**	**02 50 25.5 +0.7**
LTZ	**Lake Taylor**	**5.91**	**210**	P	**Pn**	**02 50 26.6 +0.3**
RPZ	**Rata Peaks**	**7.17**	**212**	P	**Pn**	**02 50 42.0 0.0**
ODZ	**Otahua Downs**	**8.45**	**208**	P	**Pn**	**02 50 59.0 +1.1**
JCZ	**Jackson Bay**	**8.50**	**219**	P	**Pn**	**02 50 59.1 +0.4**

*SKO **19** 03:19:48.3, 41°.67N×20°.78E, h15km, ML2.2*
*TIR **19** 03:19:48.2, 41°.72N×20°.78E, h3km±4km, ML2.1, ML2.1, Presumed earthquake*
*BEO **19** 03:19:49.4±0.4, 41°.65N×20°.82E, h1km±4km, ML2.0/4*
*PDG **19** 03:19:50.8±0.5, 41°.65N×20°.60E, h5km±1km, ML2.5/13, Error ellipse: s-maj=0.6km s-min=2.0km az=0.0*

ISC 19 03:19:49.0±1.1, **41°.70N**±0°.02×**20°.78E**±0°.02, **h1**km±10km, **n48**, σ**1°31/92**, **7C-7D**, **Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PHP	**Peshkopia**	**0.25**	**268**	P		**Pg**	**03 19 53.2**	**-0.7**
PHP				Sg		**Sg**	**03 19 56.9**	**-0.3**
PHP				IAML			03 19 57.2	
	4μm,0.2s							
SKO	**Skopje**	**0.57**	**60**	*e*Pg		**Pg**	**03 19 59.7**	**-0.2**
SKO				*e*Sg		**Sg**	**03 20 08.4**	**+1.2**
OHR	**Ohrid**	**0.58**	**178**	*i* Pg		**Pg**	**03 19 59.4**	**-0.8**
OHR				*e*Sg		**Sg**	**03 20 07.9**	**+0.2**
OHR				*e*Lg		Lg	03 20 09.9	
	comp=E,149nm,0.7s							
OHR				*e*Lg		Lg	03 20 10.6	
	comp=N,100nm,0.6s							
TIR	**Tirane**	**0.77**	**243**	P		**Pg**	**03 20 02.3**	**-1.4**
TIR				Sg		**Sg**	**03 20 14.3**	**+0.6**
TIR				IAML			03 20 19.4	
	comp=N,71nm,0.6s							
SDA	**Shkodra**	**1.02**	**291**	⇓*e*P		**Pg**	**03 20 08.0**	**-0.6**
SDA				*e*S		**Sn**	**03 20 25.7**	**+0.3**
SDA				*e*S		**Sb**	**03 20 26.1**	**+2.8**
SDA				IAML			03 20 37.4	
	comp=Z,17nm,2.0s							
SDA	**Shkodra**	**1.02**	**291**	Pg		**Pg**	**03 20 08.1**	**-0.4**
SDA				S		**Sb**	**03 20 23.6**	**+0.2**
SDA				IAML			03 20 33.0	
	comp=Z,107nm,0.3s							
KBN	**Korca**	**1.07**	**180**	*e*P		**Pg**	**03 20 08.5**	**-1.0**
KBN				*e*S		**Sb**	**03 20 25.4**	**+0.5**
KBN				IAML			03 21 02.8	
	comp=Z,23nm,2.6s							
KBN	**Korca**	**1.07**	**180**	Pg		**Pg**	**03 20 09.1**	**-0.4**
KBN				Sg		**Sb**	**03 20 24.7**	**-0.1**
PVY	**Plav**	**1.09**	**326**	⇓*i* Pg		**Pg**	**03 20 09.7**	**-0.1**
PVY				*i* Sg		**Sn**	**03 20 27.4**	**+0.1**
BERA	**Berati**	**1.17**	**213**	Pg		**Pn**	**03 20 13.1**	**+0.6**
BERA				Sg		**Sn**	**03 20 29.7**	**+0.6**
BERA				IAML			03 20 34.6	
	comp=Z,36nm,0.5s							
ULC	**Ulcinj**	**1.18**	**284**	⇑*i* Pg		**Pg**	**03 20 10.1**	**-1.5**
ULC				*i* Sg		**Sb**	**03 20 27.6**	**-0.3**
DRME	**Dracevica, Mon**	**1.29**	**293**	⇑*i* Pg		**Pg**	**03 20 12.9**	**-0.8**
DRME				*i* Sg		**Sb**	**03 20 31.5**	**+0.5**
NEST	**Nestorio**	**1.29**	**171**	*e*P		**Pg**	**03 20 13.1**	**-0.7**
NEST				*e*S		**Sb**	**03 20 31.3**	**-0.1**
IVA	**Berane**	**1.35**	**331**	⇓*i* Pg		**Pb**	**03 20 15.6**	**+0.5**
IVA				*i* Sg		**Sn**	**03 20 35.6**	**+2.0**
PDG	**Podgorica**	**1.35**	**303**	*e*Pg		**Pg**	**03 20 13.2**	**-1.7**
PDG				*e*Sg		**Sn**	**03 20 35.5**	**+1.9**
PDG	**Podgorica**	**1.35**	**303**	*e*P		**Pg**	**03 20 13.0**	**-1.9**
PDG				*e*S		**Sn**	**03 20 34.5**	**+1.0**
PDG	**Podgorica**	**1.35**	**303**	⇑*i* Pg		**Pg**	**03 20 13.1**	**-1.8**
PDG				*i* Sg		**Sn**	**03 20 34.5**	**+1.0**
BARS	**Barje**	**1.36**	**34**	*e*Pg		**Pg**	**03 20 15.2**	**0.0**
BARS				*e*Sg		**Sn**	**03 20 34.4**	**+0.6**
VAY	**Valandovo**	**1.40**	**105**	*e*Pg		**Pg**	**03 20 14.6**	**-1.1**
VAY				*e*Sg		**Sg**	**03 20 33.0**	**-0.8**
VAY				*e*Lg		Lg	03 20 34.8	
	comp=N,40nm,0.8s							
VAY				*e*Lg		Lg	03 20 34.9	
	comp=E,28nm,0.5s							
KOME	**Kolasin**	**1.49**	**321**	⇓*i* Pg		**Pn**	**03 20 17.2**	**+0.2**
KOME				*i* Sg		**Sn**	**03 20 40.1**	**+3.0**
BOSS	**Bosilegrad**	**1.50**	**57**	*e*Pg		**Pn**	**03 20 16.6**	**-0.5**
BUM	**Brajici-Budva**	**1.53**	**294**	⇑*i* Pg		**Pn**	**03 20 17.2**	**-0.3**
BUM				*i* Sg		**Sg**	**03 20 39.7**	**+1.5**
SELS	**Selova**	**1.54**	**9**	*e*Pg		**Pn**	**03 20 17.3**	**-0.4**
SELS				*e*Sg		**Sb**	**03 20 39.5**	**+0.1**
LSK	**Leskovik**	**1.55**	**185**	⇓*e*P		**Pn**	**03 20 17.7**	**-0.1**
LSK				*e*S		**Sg**	**03 20 41.3**	**+2.6**
LSK	**Leskovik**	**1.55**	**185**	P		**Pg**	**03 20 18.9**	**+0.2**
LSK				S		**Sg**	**03 20 40.8**	**+2.0**
PEHC	**Pehcevo**	**1.59**	**86**	*e*Pn		**Pn**	**03 20 17.9**	**-0.5**
PEHC				*i* Sg		**Sn**	**03 20 39.7**	**+0.1**
CEME	**Cevo**	**1.62**	**302**	⇑*i* Pg		**Pn**	**03 20 18.3**	**-0.5**
CEME				*i* Sg		**Sg**	**03 20 43.3**	**+2.1**
SJES	**Sjenica**	**1.68**	**339**	*e*Pn		**Pn**	**03 20 20.0**	**+0.4**
SJES				*e*Sg		**Sg**	**03 20 43.5**	**+0.7**
NKME	**Niksic**	**1.73**	**309**	⇑*i* Pn		**Pb**	**03 20 21.8**	**+0.2**
NKME				*i* Sn		**Sg**	**03 20 45.7**	**+1.2**
HCY	**Herceg Novi**	**1.86**	**295**	*e*Pn		**Pn**	**03 20 22.3**	**+0.3**
HCY				*i* Sn		**Sg**	**03 20 48.5**	**-0.2**
PLE	**Pljevlja**	**1.93**	**328**	⇑*i* Pn		**Pb**	**03 20 24.4**	**-0.7**
PLE				*i* Sn		**Sg**	**03 20 51.4**	**+0.4**
IVAS	**Ivanjica**	**1.94**	**346**	*e*Pn		**Pn**	**03 20 22.5**	**-0.6**
UPM	**Unac-Piva**	**2.05**	**318**	⇓*i* Pn		**Pn**	**03 20 26.9**	**-0.2**
UPM				*i* Sn		**Sg**	**03 20 54.3**	**+0.5**
BRY	**Bratogost**	**2.05**	**307**	⇓*i* Pn		**Pb**	**03 20 27.3**	**+0.1**
BRY				*i* Sn		**Sb**	**03 20 53.3**	**+0.1**
TREB	**Trebinje**	**2.07**	**300**	*e*Pn		**Pb**	**03 20 27.2**	**-0.2**
DBRK	**Dubrovnik**	**2.18**	**297**	*i* Pn		**Pn**	**03 20 27.0**	**+0.5**
DBRK				Sn		**Sn**	**03 20 53.0**	**-1.2**
IGT	**Igoumenitsa**	**2.19**	**189**	*e*Pn		**Pn**	**03 20 27.5**	**+1.0**
IGT				*e*Sg		**Sb**	**03 20 56.6**	**-0.3**
SRS	**Serrai**	**2.19**	**104**	*e*Pn		**Pn**	**03 20 25.9**	**-0.7**
STON	**Ston**	**2.57**	**298**	*e*Pn		**Pn**	**03 20 32.7**	**+1.0**
STON				Sn		**Sn**	**03 21 02.5**	**-1.1**
STON	**Ston**	**2.57**	**298**	*e*Pn		**Pn**	**03 20 32.8**	**+1.1**
LSTV	**Lastovo**	**3.08**	**292**	*i* Pn		**Pn**	**03 20 36.8**	**-1.9**
LSTV				Sn		**Sn**	**03 21 11.0**	**-5.2**
MAKA	**Makarska**	**3.20**	**301**	*e*Pn		**Pn**	**03 20 41.5**	**+1.1**
MAKA				Sn		**Sn**	**03 21 18.6**	**-0.6**
RICI	**Ricice**	**3.24**	**305**	*i* Pn		**Pn**	**03 20 42.2**	**+1.2**
RICI				Sn		**Sn**	**03 21 20.8**	**+0.7**
HVAR	**Hvar**	**3.53**	**296**	*e*Pn		**Pn**	**03 20 45.4**	**+0.4**
HVAR				Sn		**Sn**	**03 21 23.7**	**-3.7**
KIJV	**Kijevo**	**3.96**	**307**	*e*Pn		**Pn**	**03 20 52.3**	**+1.5**
KIJV				Sn		**Sn**	**03 21 38.6**	**+0.6**
MORI	**Morici**	**4.32**	**302**	*e*Pn		**Pn**	**03 20 55.8**	**0.0**
MORI				Sn		**Sn**	**03 21 44.3**	**-2.5**
UDBI	**Udbina**	**4.63**	**309**	*e*Pn		**Pn**	**03 21 02.5**	**+2.2**
UDBI				Sn		**Sn**	**03 21 55.0**	**+0.4**
DUGI	**Dugi Otok**	**4.79**	**301**	*e*Pn		**Pn**	**03 21 02.8**	**+0.5**
DUGI				Sn		**Sn**	**03 21 55.0**	**-3.4**

*ATH **19** 03:22:54.7, 40°.18N×20°.56E, h11km±1km, ML2.2/10, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*TIR **19** 03:22:55.7, 40°.14N×20°.71E, h10km, ML2.4, ML2.4, Presumed earthquake*

ISC 19 03:22:55.5±0.8, **40°.15N**±0°.02×**20°.66E**±0°.02, **h12**km±5km, **n42**, σ**0°96/70**, **1C-4D**, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
LSK	**Leskovik**	**0.04**	**273**	Pg		**Pg**	**03 22 57.9**	**0.0**
LSK				Sg		**Sg**	**03 22 59.5**	**-0.1**
LSK	**Leskovik**	**0.04**	**273**	⇓*e*P		**Pg**	**03 22 58.0**	**+0.1**
LSK				*e*S		**Sg**	**03 22 59.5**	**-0.1**
LSK				IAML			03 22 59.9	
	comp=Z,2μm,0.1s							
PENT	**Pentalofos**	**0.37**	**82**	P		**Pg**	**03 23 03.4**	**+0.4**
PENT				S		**Sb**	**03 23 09.2**	**-0.7**
NEST	**Nestorio**	**0.40**	**48**	P		**Pg**	**03 23 03.7**	**+0.2**
NEST				S		**Sg**	**03 23 09.5**	**+0.6**
NEST				IAML			03 23 10.1	
	comp=Z,536nm,0.3s							
NEST	**Nestorio**	**0.40**	**48**	⇑*i* P		**Pg**	**03 23 03.6**	**0.0**
NEST				*e*S		**Sb**	**03 23 09.9**	**-0.8**
NEST				*e*S		**Sb**	**03 23 10.0**	**-0.8**
NEST	**Nestorio**	**0.40**	**48**	P		**Pg**	**03 23 03.6**	**0.0**
NEST				S		**Sg**	**03 23 09.6**	**+0.6**
NEST				AML		AML		
KBN	**Korca**	**0.49**	**12**	Pg		**Pg**	**03 23 04.9**	**-0.2**
KBN				Sg		**Sg**	**03 23 11.7**	**+0.2**
KBN	**Korca**	**0.49**	**12**	⇓*e*P		**Pg**	**03 23 04.7**	**-0.3**
KBN				*e*S		**Sg**	**03 23 11.8**	**+0.2**
KBN				*e*S		**Sb**	**03 23 12.5**	**-0.7**
KBN				IAML			03 23 13.3	
	comp=Z,92nm,0.7s							
JAN	**Janina**	**0.51**	**163**	P		**Pb**	**03 23 06.1**	**-0.3**
JAN				S		**Sb**	**03 23 14.2**	**+0.4**
JAN				AML		AML		
MSVA	**Metsovo**	**0.55**	**133**	P		**Pg**	**03 23 06.8**	**+0.5**
SRN	**Sarande**	**0.57**	**242**	Pg		**Pb**	**03 23 07.7**	**+0.3**
SRN				Sg		**Sn**	**03 23 17.2**	**-1.5**
SRN	**Sarande**	**0.57**	**242**	⇓*e*P		**Pb**	**03 23 07.0**	**-0.3**
SRN				*e*S		**Sn**	**03 23 17.3**	**-1.3**
SRN				*e*S		**Sn**	**03 23 17.3**	**-1.3**
SRN				IAML			03 23 19.2	
	comp=Z,51nm,0.5s							
KPRO	**Kipourio**	**0.58**	**109**	P		**Pg**	**03 23 06.7**	**-0.1**
KPRO				S		**Sb**	**03 23 16.2**	**+0.5**
KPRO				AML		AML		
IGT	**Igoumenitsa**	**0.66**	**202**	*e*P		**Pb**	**03 23 09.3**	**+0.3**
IGT				*e*S		**Sn**	**03 23 21.8**	**+0.8**
IGT	**Igoumenitsa**	**0.66**	**202**	P		**Pb**	**03 23 08.8**	**-0.1**
IGT				AML		AML		
PRMD	**Pramanda**	**0.70**	**151**	P		**Pb**	**03 23 09.7**	**0.0**
PRMD				S		**Sb**	**03 23 20.2**	**+0.8**
PRMD				AML		AML		
BERA	**Berati**	**0.77**	**316**	Pg		**Pg**	**03 23 09.5**	**-0.9**
BERA				S		**Sb**	**03 23 21.4**	**+0.1**
BERA				IAML			03 23 22.0	
	comp=Z,107nm,0.1s							
LMS2	**Laimos Florina**	**0.78**	**28**	P		**Pg**	**03 23 10.1**	**-0.6**
LMS2				AML		AML		
KEK	**Kerkira**	**0.79**	**237**	*e*S		**Sb**	**03 23 22.7**	**+1.0**
KEK	**Kerkira**	**0.79**	**237**	P		**Pg**	**03 23 09.0**	**-1.7**
KZN	**Kozani**	**0.87**	**79**	P		**Pg**	**03 23 11.9**	**-0.4**
KZN				S		**Sb**	**03 23 25.4**	**+1.3**
KZN				AML		AML		
TETR	**Tetrakomo, Epi**	**0.93**	**149**	P		**Pg**	**03 23 13.6**	**+0.1**
TETR				AML		AML		
VLO	**Vlora**	**0.94**	**290**	Pg		**Pn**	**03 23 15.2**	**+0.8**
VLO				S		**Sn**	**03 23 28.4**	**+0.5**
VLO				IAML			03 23 35.9	
	comp=Z,393nm,0.4s							
VLO	**Vlora**	**0.94**	**290**	⇓*e*P		**Pn**	**03 23 15.4**	**+0.9**
VLO				*e*S		**Sn**	**03 23 30.8**	**+2.9**
VLO				IAML			03 23 35.4	
	comp=Z,91nm,0.8s							
THL	**Klokotos Trika**	**1.20**	**119**	P		**Pn**	**03 23 17.6**	**-0.4**
THL				AML		AML		
TYRN	**Tyrnavos**	**1.29**	**109**	P		**Pn**	**03 23 19.2**	**0.0**
TYRN				AML		AML		
AMPL	**Ampelaki**	**1.30**	**160**	P		**Pn**	**03 23 19.7**	**+0.3**
TSLK	**Tsoukalades, L**	**1.32**	**180**	P		**Pn**	**03 23 19.3**	**-0.4**
TIR	**Tirane**	**1.34**	**334**	Pg		**Pg**	**03 23 23.9**	**+2.7**
TIR				Sg		**Sg**	**03 23 41.8**	**+3.1**
LKD2	**Lefkada island**	**1.36**	**180**	P		**Pb**	**03 23 20.8**	**0.0**
LIT	**Litokhoron**	**1.41**	**91**	P		**Pn**	**03 23 21.2**	**+0.3**
NYDR	**Nydri-Lefkada**	**1.43**	**179**	P		**Pg**	**03 23 23.0**	**+0.1**
EVR	**Evrytania**	**1.52**	**144**	P		**Pb**	**03 23 23.5**	**-0.1**
EVGI	**Lefkada island**	**1.52**	**180**	P		**Pb**	**03 23 23.8**	**+0.1**
PHP	**Peshkopia**	**1.54**	**354**	Pn		**Pg**	**03 23 24.9**	**-0.3**
PHP				S		**Sg**	**03 23 46.6**	**+1.4**
PHP				IAML			03 23 54.7	
	comp=Z,71nm,1.0s							
AGG	**Agios Georgios**	**1.71**	**130**	P		**Pb**	**03 23 26.7**	**-0.2**
KNT	**Kendrikon**	**1.98**	**59**	P		**Pn**	**03 23 28.9**	**0.0**
DBRK	**Dubrovnik**	**3.15**	**324**	*i* Pn		**Pn**	**03 23 44.9**	**+0.1**
DBRK				Sn		**Sn**	**03 24 21.7**	**-0.6**
STON	**Ston**	**3.51**	**322**	*e*Pn		**Pn**	**03 23 48.4**	**-1.4**
STON				Sn		**Sn**	**03 24 30.2**	**-1.0**
RICI	**Ricice**	**4.25**	**323**	*e*Pn		**Pn**	**03 23 59.2**	**-0.9**
RICI				Sn		**Sn**	**03 24 48.9**	**-0.7**
KIJV	**Kijevo**	**4.99**	**322**	*i* Pn		**Pn**	**03 24 09.6**	**-0.5**
KIJV				Sn		**Sn**	**03 25 06.3**	**-1.3**
MORI	**Morici**	**5.23**	**317**	*e*Pn		**Pn**	**03 24 13.1**	**-0.3**
MORI				Sn		**Sn**	**03 25 11.1**	**-2.6**

IDC 19 04:17:41.7±6.5, **21°.83S**×**178°.97E**, **h239**km±152km, **mb3.5/4**, **mbtmp4.1/4**, **MS2.6/1**, **Error ellipse: s-maj=206.3km s-min=25.1km az=35.0**, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
MSVF	**Nonsavu**	**4.17**	**348**	P		Pn	04 18 47.0	-0.2
	2.4nm,0.3s,baz=180,slow=20,SNR=1.5							
AFI	**Afiamalu**	**11.82**	**50**	LR		LR	04 24 38.8	
	comp=Z,27nm,19.0s,baz=146,slow=35							
ASAR	**Alice Springs**	**41.47**	**259**	P		P	04 25 04.4	-1.3
	0.7nm,0.3s,baz=89,slow=7.5,SNR=16							
	0.7nm,0.3s							
WRA	**Warramunga Arr**	**41.63**	**264**	P		P	04 25 07.9	+0.9
	1.1nm,0.4s,baz=100,slow=6.1,SNR=31							
	1.1nm,0.4s							
FITZ	**Fitzroy Crossi**	**50.06**	**264**	P		P	04 26 12.7	0.0
	1.2nm,0.7s,baz=124,slow=11,SNR=2.0							
	1.2nm,0.7s							
VNDA	**Vanda**	**56.35**	**184**	P		P	04 26 57.5	0.0
	1.3nm,0.3s,baz=30,slow=5.6,SNR=21							
	1.3nm,0.3s							

*SNET **19** 04:23:54.4±0.9, 13°.88N×89°.67W, h4km, ML2.2, Presumed earthquake*
*GCG **19** 04:23:54.6±0.6, 13°.91N×89°.66W, h6km±999km, MD3.5, Presumed earthquake*
*CATAC **19** 04:23:54.8±0.5, 14°.2°×-9°.0W±°, h6km±2km, M2.2/12, MLv2.2/12, Error ellipse: s-maj=3.6km s-min=2.1km az=30.4, confirmed*

ISC 19 04:23:54.8±1.0, **13°.87N**±0°.03×**89°.67W**±0°.03, **h9**km±6km, **n27**, σ**0°66/41**, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
CEVE	**Cerro Verde**	**0.06**	**135**	P		**Pg**	**04 23 57.1**	**0.0**
CEVE	**Cerro Verde**	**0.06**	**135**	*e*P		**Pg**	**04 23 57.0**	**0.0**
CEVE				*e*S		**Sg**	**04 23 58.9**	**+0.2**
SNJE	**San Jose**	**0.06**	**93**	*e*P		**Pg**	**04 23 57.1**	**+0.1**
NUBE	**Las Nubes**	**0.11**	**286**	P		**Pg**	**04 23 57.7**	**0.0**
NUBE				S		**Sg**	**04 23 59.5**	**-0.1**
NUBE	**Las Nubes**	**0.11**	**286**	*i* P		**Pg**	**04 23 57.6**	**0.0**
NUBE	**Las Nubes**	**0.11**	**286**	*e*P		**Pg**	**04 23 57.6**	**0.0**
UNIC	**Universidad Ca**	**0.16**	**47**	P		**Pg**	**04 23 58.7**	**+0.4**
UNIC	**Universidad Ca**	**0.16**	**47**	*e*P		**Pg**	**04 23 58.6**	**+0.4**
UNIC				*e*S		**Sg**	**04 24 01.4**	**+0.7**
LOAL	**Lomas de Alarc**	**0.17**	**319**	P		**Pg**	**04 23 59.1**	**+0.7**
LOAL				S		**Sg**	**04 24 01.9**	**+1.1**
SLOZ	**Alcaldia de Sa**	**0.19**	**324**	P		**Pg**	**04 23 59.3**	**+0.5**
SLOZ	**Alcaldia de Sa**	**0.19**	**324**	*e*P		**Pg**	**04 23 59.0**	**+0.2**
RBDL	**Robledal**	**0.24**	**356**	*e*P		**Pg**	**04 24 00.3**	**+0.6**
RBDL				*e*S		**Sg**	**04 24 04.0**	**+0.9**
CEDA	**San Andres**	**0.28**	**104**	S		**Sg**	**04 24 05.2**	**+1.1**
JAYA	**Jayaque - finc**	**0.30**	**135**	P		**Pg**	**04 24 01.4**	**+0.5**
JAYA	**Jayaque - finc**	**0.30**	**135**	*e*P		**Pg**	**04 24 01.4**	**+0.5**
JAYA				*e*S		**Sg**	**04 24 06.3**	**+1.2**
JAYA	**Jayaque - finc**	**0.30**	**135**	*e*P		**Pg**	**04 24 01.4**	**+0.5**
JAYA				*e*S		**Sg**	**04 24 06.4**	**+1.4**
FAME	**Alcaldia de Sa**	**0.34**	**265**	P		**Pg**	**04 24 02.0**	**+0.5**
FAME				S		**Sg**	**04 24 06.9**	**+0.9**
PMON	**Piamonte**	**0.38**	**115**	P		**Pb**	**04 24 03.1**	**-0.7**
PMON				S		**Sb**	**04 24 08.7**	**-1.0**
PMON	**Piamonte**	**0.38**	**115**	*e*P		**Pb**	**04 24 03.2**	**-0.5**
UEES	**Universidad Ev**	**0.45**	**110**	P		**Pg**	**04 24 03.7**	**+0.2**
UEES				S		**Sb**	**04 24 10.8**	**-0.9**
SEMO	**Seminario San**	**0.46**	**111**	P		**Pb**	**04 24 04.6**	**-0.6**
SEMO				S		**Sb**	**04 24 11.8**	**-0.4**
LOMA	**Loma Larga**	**0.54**	**115**	P		**Pg**	**04 24 05.8**	**+0.6**
LOMA				S		**Sg**	**04 24 12.7**	**+0.4**
PANCS	**Alcalda de**	**0.54**	**118**	S		**Sg**	**04 24 13.4**	**+1.0**
MTO3	**Montecristo**	**0.60**	**30**	P		**Pg**	**04 24 06.7**	**+0.2**
MTO3	**Montecristo**	**0.60**	**30**	*e*P		**Pg**	**04 24 06.7**	**+0.2**
MTO3				*e*S		**Sb**	**04 24 15.4**	**-0.9**
ESQI	**Esquipulas**	**0.76**	**25**	P		**Pg**	**04 24 09.5**	**+0.1**
ESQI				S		**Sb**	**04 24 20.0**	**-0.6**
LLGN	**La Laguna**	**0.76**	**68**	S		**Sb**	**04 24 20.4**	**-0.4**

*ISK **19** 04:33:05.5, 37°.88N×26°.88E, h6km, ML3.2/30*
*AFAD **19** 04:33:05.9, 37°.88N×26°.88E, h7km±1km, ML3.1*
*ATH **19** 04:33:05.6, 37°.86N×26°.91E, h15km, ML3.3/8, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*THE **19** 04:33:06.1, 37°.9N±0°.8×26°.9E±0°.8, h11km±2km, M3.1/13, MLh3.1/13*

ISC 19 04:33:06.2±0.8, **37°.88N**±0°.01×**26°.89E**±0°.02, **h13**km±6km, **n63**, σ**0°59/95**, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
KRL1	**Karlovasi Samo**	**0.17**	**241**	P		**Pg**	**04 33 10.0**	**-0.1**
KRL1				S		**Sg**	**04 33 13.3**	**+0.5**
KRL1				AML		AML		
SMG	**Samos**	**0.17**	**194**	P		**Pg**	**04 33 10.1**	**-0.1**
SMG				S		**Sg**	**04 33 13.4**	**+0.5**
SMG				AML		AML		
SMG	**Samos**	**0.17**	**194**	P		**Pg**	**04 33 10.0**	**-0.2**
SMG				S		**Sg**	**04 33 13.1**	**+0.2**
SMG				AML		AML		
GMLD	**Gumuldur**	**0.20**	**6**	Pg		**Pg**	**04 33 10.2**	**-0.5**
GMLD				Sg		**Sg**	**04 33 13.4**	**-0.3**
GMLD				AML		AML		
SAM2	**Drakei, Karlov**	**0.25**	**242**	P		**Pg**	**04 33 11.1**	**-0.4**
SAM2				S		**Sg**	**04 33 15.1**	**+0.1**
SAM2				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.32**	**93**	Pg		**Pg**	**04 33 12.4**	**-0.3**
KUSD				Sg		**Sg**	**04 33 16.

NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.16**	**44**	Pn	**Pg**	**04 33 28.2**	**-0.3**
GOMA				AML	AML		
DKL	**Dikili**	**1.19**	**1**	Pn	**Pg**	**04 33 28.9**	**-0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.19**	**1**	P	**Pb**	**04 33 27.9**	**-0.7**
DKL				S	**Sn**	**04 33 45.5**	**+1.0**
AKS	**Akhisar**	**1.24**	**36**	Pn	**Pg**	**04 33 29.9**	**-0.1**
AKS				AML	AML		
AKHS	**Akhisar**	**1.24**	**36**	P	**Pn**	**04 33 29.2**	**0.0**
AKHS				S	**Sn**	**04 33 46.9**	**+1.2**
AKHS				IAML		04 33 48.0	
	comp=N,475nm,0.4s						
KTTT	**Salihli**	**1.25**	**49**	P	**Pg**	**04 33 29.6**	**-0.5**
KTTT				S	**Sb**	**04 33 45.4**	**-0.1**
KTTT				IAML		04 33 48.0	
	comp=N,533nm,0.3s						
DAT	**Datca**	**1.27**	**154**	Pn	**Pb**	**04 33 30.0**	**0.0**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.27**	**151**	Pn	**Pg**	**04 33 30.3**	**-0.4**
DATC				AML	AML		
YER	**Yerkesik**	**1.33**	**123**	P	**Pn**	**04 33 30.4**	**-0.1**
YER				S	**Sn**	**04 33 48.4**	**+0.3**
YER				AML	AML		
YER	**Yerkesik**	**1.33**	**123**	Pn	**Pg**	**04 33 31.4**	**-0.4**
YER				AML	AML		
APE	**Apeiranthos**	**1.35**	**234**	P	**Pn**	**04 33 29.5**	**-1.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.35**	**234**	Pn	**Pb**	**04 33 31.5**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.35**	**234**	P	**Pn**	**04 33 29.3**	**-1.3**
APE				S	**Sb**	**04 33 48.0**	**-0.4**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**21**	Pn	**Pb**	**04 33 31.8**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**44**	Pn	**Pb**	**04 33 33.1**	**+0.2**
GORD				AML	AML		
PRK	**Paraskevi**	**1.45**	**341**	P	**Pn**	**04 33 32.2**	**+0.1**
PRK				AML	AML		
PRK	**Paraskevi**	**1.45**	**341**	P	**Pn**	**04 33 31.7**	**-0.4**
PRK				AML	AML		
KULA	**Kula-Manisa**	**1.54**	**65**	Pn	**Pb**	**04 33 33.9**	**-0.6**
KULA				AML	AML		
TURN	**Turunc**	**1.54**	**135**	Pn	**Pb**	**04 33 34.2**	**-0.3**
TURN				AML	AML		
YAYO	**Edremit-Balk**	**1.74**	**5**	Pn	**Pb**	**04 33 37.0**	**-0.9**
YAYO				AML	AML		
DALY	**Dalyan (Mula)**	**1.76**	**126**	Pn	**Pb**	**04 33 37.3**	**-0.9**
DALY				AML	AML		
BALB	**Balikesir**	**1.92**	**23**	Pn	**Pb**	**04 33 39.8**	**-1.3**
BALB				AML	AML		
ARG	**Arkhangelos**	**1.93**	**149**	P	**Pn**	**04 33 37.7**	**-0.9**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.96**	**101**	Pn	**Pn**	**04 33 40.3**	**+1.2**
APMY				AML	AML		
EZN	**Ezine**	**2.00**	**347**	Pn	**Pn**	**04 33 40.6**	**+1.1**
EZN				AML	AML		
SIMA	**Simav-Kutahya**	**2.04**	**53**	Pn	**Pn**	**04 33 41.3**	**+1.1**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.14**	**115**	Pn	**Pn**	**04 33 42.8**	**+1.2**
CAME				AML	AML		
CANM	**Can-anakkale**	**2.14**	**3**	Pn	**Pn**	**04 33 42.8**	**+1.3**
CANM				AML	AML		
KARP	**Karpathos**	**2.33**	**175**	P	**Pn**	**04 33 44.4**	**+0.2**
KARP				AML	AML		
DION	**Dionisos Attik**	**2.34**	**276**	P	**Pn**	**04 33 44.8**	**+0.4**
DION				AML	AML		
IDI	**Anoyia**	**3.04**	**213**	P	**Pn**	**04 33 53.8**	**-0.2**

*SJA **19** 04:37:41.8±0.6,20.˚76S×69.˚17W,h125km,ML3.5,MW3.5*
*GUC **19** 04:37:43.9±0.7,20.˚78S×69.˚10W,h110km±3km,ML3.5,*
Presumed earthquake

ISC 19 04:37:42.3±1.5,20.˚78S±0.˚03×69.˚18W±0.˚08,
h123km±10km,n33,σ1§02/52,8C-2D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**0.64**	**2**	*eP*	**Pn**	**04 38 01.9**	**-0.1**
PB08				IAML		04 38 19.7	
	comp=Z,666nm,0.5s						
PB08	**IPOC Station P**	**0.64**	**2**	*iP*	**Pn**	**04 38 01.7**	**-0.3**
PB08				*eS*	**Sn**	**04 38 15.4**	**-1.4**
PB08				IAML		04 38 16.2	
	comp=E,2μm,0.3s						
PB02	**IPOC Station P**	**0.86**	**231**	*eP*	**Pn**	**04 38 04.3**	**+0.8**
PB02				IAML		04 38 22.7	
	comp=Z,2μm,0.2s						
PB02	**IPOC Station P**	**0.86**	**231**	*eP*	**Pn**	**04 38 04.1**	**+0.6**
PB02				*eS*	**Sn**	**04 38 19.4**	**0.0**
PB02				IAML		04 38 21.9	
	comp=E,2μm,0.1s						
TA01	**Diego Aracena**	**0.96**	**283**	*eP*	**Pn**	**04 38 04.7**	**+0.4**
TA01				*eS*	**Sn**	**04 38 21.8**	**+0.9**
TA01				IAML		04 38 24.0	
	comp=Z,368nm,0.7s						
TA01	**Diego Aracena**	**0.96**	**283**	*eP*	**Pn**	**04 38 04.6**	**+0.4**
TA01				*eS*	**Sn**	**04 38 20.6**	**-0.2**
TA01				IAML		04 38 23.1	
	comp=E,1μm,0.3s						
PB09	**IPOC Station P**	**1.01**	**183**	*eP*	**Pn**	**04 38 05.8**	**+0.8**
PB09				IAML		04 38 25.9	
	comp=Z,894nm,0.5s						
PB09	**IPOC Station P**	**1.01**	**183**	*eP*	**Pn**	**04 38 05.5**	**+0.5**
PB09				*eS*	**Sn**	**04 38 21.7**	**-0.5**
PB09				IAML		04 38 23.8	
	comp=E,1μm,0.3s						
TA02	**Huaiquique**	**1.03**	**299**	*eP*	**Pn**	**04 38 05.5**	**+0.5**
TA02				*eS*	**Sn**	**04 38 22.2**	**+0.3**
TA02				IAML		04 38 24.2	
	comp=Z,873nm,0.1s						
TA02	**Huaiquique**	**1.03**	**299**	*eP*	**Pn**	**04 38 05.4**	**+0.5**
TA02				*eS*	**Sn**	**04 38 21.9**	**-0.1**
GO01	**Chusmiza**	**1.11**	**359**	*eP*	**Pn**	**04 38 06.5**	**+0.2**
GO01				*eS*	**Sn**	**04 38 24.1**	**-0.2**
GO01				IAML		04 38 26.4	
	comp=Z,914nm,0.1s						
GO01	**Chusmiza**	**1.11**	**359**	*eP*	**Pn**	**04 38 06.3**	**0.0**
GO01				*eS*	**Sn**	**04 38 23.7**	**-0.6**
PB11	**IPOC Station P**	**1.11**	**336**	*eP*	**Pn**	**04 38 06.3**	**+0.3**
PB11				IAML		04 38 28.2	
	comp=Z,621nm,0.2s						
PB11	**IPOC Station P**	**1.11**	**336**	*eP*	**Pn**	**04 38 06.2**	**+0.3**
PB11				*eS*	**Sn**	**04 38 23.3**	**-0.5**
PB11				IAML		04 38 25.0	
	comp=N,3μm,0.3s						
PB07	**IPOC Station P**	**1.15**	**215**	*eP*	**Pn**	**04 38 07.0**	**+0.7**
PB07				IAML		04 38 27.6	
	comp=Z,735nm,0.3s						
PB07	**IPOC Station P**	**1.15**	**215**	*eP*	**Pn**	**04 38 07.0**	**+0.7**
PB07				*eS*	**Sn**	**04 38 24.3**	**-0.3**
PB07				IAML		04 38 25.8	
	comp=E,1μm,0.3s						
PB03	**IPOC Station P**	**1.37**	**203**	*eP*	**Pn**	**04 38 09.7**	**+0.9**
PB03				IAML		04 38 31.9	
	comp=Z,591nm,0.3s						
PB03	**IPOC Station P**	**1.37**	**203**	*eP*	**Pn**	**04 38 09.4**	**+0.7**
PB03				*eS*	**Sn**	**04 38 28.4**	**-0.4**
PB03				IAML		04 38 30.1	
	comp=E,606nm,0.3s						
PSGCX	**Pisagua**	**1.48**	**323**	*eP*	**Pn**	**04 38 10.0**	**+0.2**
PSGCX				*eS*	**Sn**	**04 38 31.0**	**+0.3**
PSGCX				IAML		04 38 33.8	
	comp=Z,425nm,0.4s						
PSGCX	**Pisagua**	**1.48**	**323**	*eP*	**Pn**	**04 38 10.0**	**+0.2**
PSGCX				*eS*	**Sn**	**04 38 30.4**	**-0.3**
PB06	**IPOC Station P**	**1.95**	**191**	*eP*	**Pn**	**04 38 16.3**	**+0.8**
PB06				*eS*	**Sn**	**04 38 39.7**	**-1.2**
PB06				IAML		04 38 46.7	
	comp=Z,182nm,0.5s						
PB06	**IPOC Station P**	**1.95**	**191**	*i* P	**Pn**	**04 38 16.3**	**+0.8**
PB06				IAML		04 38 41.9	
	comp=E,251nm,0.3s						
PX02	**IPOC Station P**	**2.05**	**332**	*i* S	**Sn**	**04 38 43.2**	**+0.3**
PB05	**IPOC Station P**	**2.27**	**205**	*eP*	**Pn**	**04 38 20.0**	**+0.6**
PB05				*eS*	**Sn**	**04 38 45.4**	**-2.5**
PB05				IAML		04 38 51.4	
	comp=Z,113nm,0.3s						
PB05	**IPOC Station P**	**2.27**	**205**	*eP*	**Pn**	**04 38 20.2**	**+0.7**
PB05				IAML		04 38 48.5	
	comp=E,197nm,0.3s						
AF01	**San Pedro de A**	**2.35**	**157**	*eP*	Pn	04 38 33.5	+13
AF01				*eS*	Sn	04 38 34.5	-16
AF01				IAML		04 39 15.2	
	comp=Z,110nm,0.6s						
PB12	**IPOC Station P**	**2.41**	**333**	*eP*	**Pn**	**04 38 21.4**	**+0.1**
PB12				*eS*	**Sn**	**04 38 48.5**	**-2.6**
PB12				IAML		04 38 56.9	
	comp=Z,114nm,0.4s						
PB12	**IPOC Station P**	**2.41**	**333**	*eP*	**Pn**	**04 38 21.2**	**-0.1**
PB12				IAML		04 38 58.8	
	comp=E,254nm,0.2s						
PB16	**IPOC Station P**	**2.45**	**353**	*eP*	**Pn**	**04 38 23.8**	**+1.5**
PB16				*eS*	**Sn**	**04 38 54.3**	**+1.6**
PB16	**IPOC Station P**	**2.45**	**353**	*eP*	**Pn**	**04 38 23.5**	**+1.3**
PB16				*i S*	**Sn**	**04 38 54.1**	**+1.4**
AP01	**Chacalluta**	**2.64**	**335**	*eP*	Pn	04 38 31.1	+7.1
AP01				*eS*	**Sn**	**04 38 52.2**	**-3.8**
AP01				IAML		04 39 20.0	
	comp=Z,211nm,0.3s						
PB10	**IPOC Station P**	**3.00**	**205**	*eP*	**Pn**	**04 38 29.1**	**+0.3**
PB10				*eS*	Sn	04 38 51.2	-13
PB14	**IPOC Station P**	**3.99**	**196**	*eP*	**Pn**	**04 38 42.7**	**+0.6**
PB14				*eS*	**Sn**	**04 39 27.7**	**-0.7**
PB14				IAML		04 39 29.4	
	comp=Z,31nm,0.3s						

*NOU **19** 04:41:38.7,38.˚73S×175.˚81E,h123km,MLv3.5/17,North*
Island, New Zealand
*WEL **19** 04:41:41.4±1.1,39.˚5S±5.˚×17.˚6E±.˚,h97km±12km,M2.8/39,*
ML2.3/30,MLv2.8/39,Error ellipse: s-maj=6.3km
s-min=4.0km az=158.3

ISC 19 04:41:38.2±1.4,38.˚66S±0.˚03×175.˚80E±0.˚03,h137km±8km,
n116,σ0§76/131,North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WATZ	**Wairara**	**0.07**	**224**	P	**Pn**	**04 41 56.5**	**-0.2**
WATZ				AML	AML		
WATZ				AML	AML		
WHTZ	**Whakaora**	**0.13**	**95**	P	**Pn**	**04 41 56.7**	**0.0**
WHTZ				AML	AML		
WHTZ				AML	AML		
RATZ	**Rangitukua**	**0.21**	**185**	P	**Pn**	**04 41 56.7**	**-0.2**
RATZ				AML	AML		
WPRZ	**Whakapapatarin**	**0.32**	**65**	P	**Pn**	**04 41 56.9**	**-0.3**
WPRZ				AML	AML		
WPRZ				AML	AML		
RITZ	**Rihia Road**	**0.33**	**172**	P	**Pn**	**04 41 57.5**	**+0.3**
RITZ				AML	AML		
RITZ				AML	AML		
HATZ	**Hinemaiaia**	**0.33**	**136**	P	**Pn**	**04 41 57.0**	**-0.3**
HATZ				AML	AML		
HATZ				AML	AML		
KATZ	**Kakaramea**	**0.33**	**194**	P	**Pn**	**04 41 57.3**	**-0.1**
KATZ				AML	AML		
KATZ				AML	AML		
TLZ	**Tolley Road**	**0.38**	**328**	P	**Pn**	**04 41 57.4**	**-0.1**
TLZ				AML	AML		
TLZ				AML	AML		
GRRZ	**Galatos Road**	**0.39**	**39**	P	**Pn**	**04 41 57.4**	**-0.2**
GRRZ				AML	AML		
GRRZ				AML	AML		
ALRZ	**Allen Road**	**0.44**	**78**	P	**Pn**	**04 41 57.3**	**-0.4**
ALRZ				AML	AML		
ALRZ				AML	AML		
NTVZ	**North Tongarir**	**0.45**	**192**	P	**Pn**	**04 41 58.1**	**+0.2**
NTVZ				AML	AML		
NTVZ				AML	AML		
KRVZ	**Karewarewa**	**0.46**	**196**	P	**Pn**	**04 41 58.0**	**+0.1**
KRVZ				AML	AML		
KRVZ				AML	AML		
HRRZ	**Handcock Road**	**0.46**	**55**	P	**Pn**	**04 41 57.6**	**-0.2**
HRRZ				AML	AML		
HRRZ				AML	AML		
TMVZ	**Te Maari**	**0.47**	**189**	P	**Pn**	**04 41 58.1**	**+0.1**
TMVZ				AML	AML		
TMVZ				AML	AML		
ETVZ	**East Tongariro**	**0.48**	**188**	P	**Pn**	**04 41 58.5**	**+0.4**
ETVZ				AML	AML		
ETVZ				AML	AML		
WTVZ	**West Tongariro**	**0.49**	**199**	P	**Pn**	**04 41 58.3**	**+0.2**
WTVZ				AML	AML		
WTVZ				AML	AML		
TWVZ	**Taurewa**	**0.50**	**214**	P	**Pn**	**04 41 58.3**	**+0.1**
TWVZ				AML	AML		
TWVZ				AML	AML		
MRHZ	**Matea Rd**	**0.52**	**110**	P	**Pn**	**04 41 57.8**	**-0.4**
MRHZ				AML	AML		
MRHZ				AML	AML		
OTVZ	**Oturere**	**0.52**	**191**	P	**Pn**	**04 41 58.8**	**+0.5**
OTVZ				AML	AML		
OTVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.54**	**196**	P	**Pn**	**04 41 58.6**	**+0.1**
NGZ				AML	AML		
NGZ				AML	AML		
SNVZ	**South Ngauruho**	**0.54**	**193**	P	**Pn**	**04 41 58.7**	**+0.3**
SNVZ				AML	AML		
SNVZ				AML	AML		
COVZ	**Chateau Observ**	**0.58**	**200**	P	**Pn**	**04 41 58.7**	**+0.1**
COVZ				AML	AML		
COVZ				AML	AML		
TUVZ	**Tukino**	**0.62**	**190**	P	**Pn**	**04 41 59.4**	**+0.5**
TUVZ				AML	AML		
TUVZ				AML	AML		
FWVZ	**Far West T-bar**	**0.63**	**198**	P	**Pn**	**04 41 59.4**	**+0.3**
FWVZ				AML	AML		
MAVZ	**Matarangi**	**0.64**	**197**	P	**Pn**	**04 41 59.5**	**+0.3**
MAVZ				AML	AML		
MAVZ				AML	AML		
RRRZ	**Republican Roa**	**0.65**	**61**	P	**Pn**	**04 41 58.8**	**-0.1**
RRRZ				AML	AML		
RRRZ				AML	AML		
WHVZ	**Whangaehu Hut**	**0.65**	**195**	P	**Pn**	**04 41 59.5**	**+0.4**
WHVZ				AML	AML		
TRVZ	**Turoa**	**0.67**	**197**	P	**Pn**	**04 41 59.8**	**+0.5**
TRVZ				AML	AML		
TRVZ				AML	AML		
WNVZ	**Wahianoa**	**0.69**	**193**	P	**Pn**	**04 41 59.8**	**+0.4**
WNVZ				AML	AML		
WNVZ				AML	AML		
TARZ	**Mount Tarawera**	**0.70**	**53**	P	**Pn**	**04 41 59.4**	**0.0**
TARZ				AML	AML		
TARZ				AML	AML		
PKVZ	**Pokaka**	**0.72**	**209**	P	**Pn**	**04 41 60.0**	**+0.5**
PKVZ				AML	AML		
PKVZ				AML	AML		
BKZ	**Black Stump Fm**	**0.74**	**133**	P	**Pn**	**04 41 59.4**	**-0.2**
BKZ	**Black Stump Fm**	**0.74**	**133**	S	**Sn**	**04 42 15.1**	**-0.8**
BKZ	**Black Stump Fm**	**0.74**	**133**	P	**Pn**	**04 41 59.7**	**0.0**
BKZ				AML	AML		
BKZ				AML	AML		
MOVZ	**Moawhango**	**0.75**	**183**	P	**Pn**	**04 41 59.9**	**+0.2**
MOVZ				AML	AML		
MOVZ				AML	AML		
HIZ	**Hauiti**	**0.75**	**281**	P	**Pn**	**04 41 59.4**	**-0.2**
HIZ	**Hauiti**	**0.75**	**281**	S	**Sn**	**04 42 15.5**	**-0.4**
HIZ	**Hauiti**	**0.75**	**281**	P	**Pn**	**04 41 59.7**	**+0.1**
MTVZ	**Mangateitei**	**0.77**	**199**	P	**Pn**	**04 42 00.5**	**+0.6**
MTVZ				AML	AML		
MTVZ				AML	AML		
MUGZ	**Murupara**	**0.78**	**77**	P	**Pn**	**04 41 59.4**	**-0.4**
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**0.84**	**104**	P	**Pn**	**04 42 00.4**	**+0.1**
MTHZ				AML	AML		
BHHZ	**Black Hill Sta**	**0.86**	**166**	P	**Pn**	**04 42 00.8**	**+0.2**
BHHZ				AML	AML		
BHHZ				AML	AML		
NMHZ	**Naumai**	**0.90**	**120**	P	**Pn**	**04 42 02.1**	**+1.2**
NMHZ				AML	AML		
KWHZ	**Kaweka Forest**	**0.91**	**148**	P	**Pn**	**04 42 01.5**	**+0.6**
KWHZ				AML	AML		
KWHZ				AML	AML		
RTZ	**Ruatahuna**	**0.93**	**88**	P	**Pn**	**04 42 01.2**	**+0.1**
RTZ				AML	AML		
RTZ				AML	AML		
VRZ	**Vera Road**	**0.94**	**240**	P	**Pn**	**04 42 01.8**	**+0.8**
VRZ				S	**Sn**	**04 42 19.1**	**+0.5**
VRZ				AML	AML		
TOZ	**Tahuroa Road**	**0.95**	**346**	P	**Pn**	**04 42 01.4**	**+0.1**
RAHZ	**Arahi**	**1.04**	**105**	P	**Pn**	**04 42 03.1**	**+1.0**
RAHZ				AML	AML		
MCHZ	**McNeill Hill**	**1.05**	**139**	P	**Pn**	**04 42 03.8**	**+1.6**
MCHZ				AML	AML		
KRHZ	**Kereru**	**1.08**	**156**	P	**Pn**	**04 42 03.4**	**+0.9**
KRHZ				AML	AML		
URZ	**Urewera**	**1.10**	**69**	P	**Pn**	**04 42 01.9**	**-0.7**
URZ	**Urewera**	**1.10**	**69**	S	**Sn**	**04 42 19.8**	**-1.4**
URZ	**Urewera**	**1.10**	**69**	P	**Pn**	**04 42 02.4**	**-0.2**
URZ				AML	AML		
ARHZ	**Aropaoanui**	**1.11**	**123**	P	**Pn**	**04 42 03.8**	**+1.1**
ARHZ				S	**Sn**	**04 42 21.7**	**+0.3**
ARHZ				AML	AML		
WHHZ	**Waihua**	**1.20**	**111**	P	**Pn**	**04 42 04.9**	**+1.3**
WHHZ				S	**Sn**	**04 42 22.5**	**-0.3**
WHHZ				AML	AML		
WAZ	**Wanganui**	**1.27**	**210**	P	**Pn**	**04 42 05.6**	**+1.3**
WAZ				S	**Sn**	**04 42 25.7**	**+1.5**
RAGZ	**Rawiri**	**1.28**	**83**	P	**Pn**	**04 42 05.4**	**+0.9**
RAGZ				S	**Sn**	**04 42 24.4**	**-0.1**
RAGZ				AML	AML		
PNHZ	**Pukenui**	**1.29**	**166**	P	**Pn**	**04 42 05.2**	**+0.7**
PNHZ				S	**Sn**	**04 42 23.8**	**-1.0**
PNHZ				AML	AML		
LREZ	**Lake Rotokare**	**1.35**	**233**	P	**Pn**	**04 42 06.8**	**+1.7**
LREZ				AML	AML		
DREZ	**Durham Road**	**1.35**	**246**	P	**Pn**	**04 42 06.0**	**+0.9**
DREZ				AML	AML		
MWZ	**Matawai**	**1.40**	**77**	P	**Pn**	**04 42 06.1**	**+0.5**
MWZ				S	**Sn**	**04 42 25.3**	**-1.3**
MWZ				AML	AML		
TSZ	**Takapari Road**	**1.41**	**175**	P	**Pn**	**04 42 06.5**	**+0.8**
CKHZ	**Cape Kidnapper**	**1.41**	**136**	P	**Pn**	**04 42 07.1**	**+1.3**
CKHZ				S	**Sn**	**04 42 26.7**	**-0.1**
KAHZ	**Kahuranaki**	**1.41**	**144**	P	**Pn**	**04 42 07.1**	**+1.3**
KAHZ				S	**Sn**	**04 42 27.0**	**0.0**
NEZ	**North Egmont**	**1.46**	**245**	P	**Pn**	**04 42 07.9**	**+1.5**
NEZ				AML	AML		
WPHZ	**Waipukurau**	**1.49**	**161**	P	**Pn**	**04 42 07.5**	**+0.8**
WPHZ				S	**Sn**	**04 42 27.1**	**-1.3**
PKE	**Pukeiti**	**1.51**	**249**	P	**Pn**	**04 42 08.1**	**+1.2**
KHEZ	**Kahui Hut**	**1.53**	**245**	P	**Pn**	**04 42 07.7**	**+0.6**
KHEZ	**Kahui Hut**	**1.53**	**245**	P	**Sn**	**04 42 28.9**	**-0.3**
KHEZ	**Kahui Hut**	**1.53**	**245**	P	**Pn**	**04 42 08.4**	**+1.3**
KHEZ				S	**Sn**	**04 42 30.8**	**+1.6**
RIGZ	**Rimuhau**	**1.54**	**92**	P	**Pn**	**04 42 08.1**	**+0.9**
OHWZ	**Ohakea**	**1.59**	**193**	P	**Pn**	**04 42 09.1**	**+1.4**
OHWZ				S	**Sn**	**04 42 31.5**	**+1.2**
PXZ	**Pawanui**	**1.60**	**149**	P	**Pn**	**04 42 08.7**	**+0.9**
PXZ				S	**Sn**	**04 42 30.3**	**-0.2**
TKGZ	**Te Karaka**	**1.62**	**83**	P	**Pn**	**04 42 09.2**	**+1.1**
TKGZ				S	**Sn**	**04 42 31.1**	**+0.3**
MKAZ	**Moumakai**	**1.63**	**342**	P	**Pn**	**04 42 08.6**	**+0.4**
MKAZ				S	**Sn**	**04 42 31.0**	**0.0**
RUGZ	**Raukumara Rang**	**1.63**	**66**	P	**Pn**	**04 42 07.4**	**-0.9**
PRGZ	**Paritu Road**	**1.65**	**100**	P	**Pn**	**04 42 09.3**	**+0.9**
PRGZ				S	**Sn**	**04 42 31.0**	**-0.5**
DVHZ	**Dannevirke**	**1.67**	**170**	P	**Pn**	**04 42 09.0**	**+0.4**
MHGZ	**Mahia Peninsul**	**1.72**	**107**	P	**Pn**	**04 42 10.4**	**+1.2**
POWZ	**Post Office Ro**	**1.73**	**181**	P	**Pn**	**04 42 09.9**	**+0.5**
PRHZ	**Porangahau**	**1.73**	**158**	P	**Pn**	**04 42 10.2**	**+0.8**
TWGZ	**Tauwhareparae**	**1.78**	**75**	P	**Pn**	**04 42 11.4**	**+1.4**
HAZ	**Te Kaha**	**1.80**	**61**	P	**Pn**	**04 42 09.8**	**-0.3**
AWAZ	**Awhitu Peninsu**	**1.83**	**330**	P	**Pn**	**04 42 11.0**	**+0.5**
ANWZ	**Angora Road**	**1.88**	**164**	P	**Pn**	**04 42 11.8**	**+0.8**
PRWZ	**Pori Road**	**1.90**	**176**	P	**Pn**	**04 42 12.0**	**+0.7**
MRZ	**Mangatainoka R**	**2.01**	**185**	P	**Pn**	**04 42 12.8**	**+0.2**
MBZ	**Motutapu North**	**2.01**	**339**	P	**Pn**	**04 42 13.1**	**+0.5**
PUZ	**Puketiti**	**2.02**	**74**	P	**Pn**	**04 42 13.1**	**+0.3**
BFZ	**Birch Farm**	**2.05**	**170**	P	**Pn**	**04 42 13.2**	**+0.1**
BFZ	**Birch Farm**	**2.05**	**170**	P	Pn	04 42 38.2	+25
BFZ	**Birch Farm**	**2.05**	**170**	P	**Pn**	**04 42 13.4**	**+0.3**
TIWZ	**Tintock**	**2.12**	**178**	P	**Pn**	**04 42 14.3**	**+0.3**
OGWZ	**Otaki Gorge**	**2.21**	**192**	P	**Pn**	**04 42 15.3**	**+0.3**
HOWZ	**Holdsworth Sta**	**2.25**	**185**	P	**Pn**	**04 42 15.4**	**-0.1**
MXZ	**Matakaoa Point**	**2.26**	**62**	P	**Pn**	**04 42 16.2**	**+0.6**
MXZ	**Matakaoa Point**	**2.26**	**62**	S	**Sn**	**04 42 45.9**	**+1.5**
MXZ	**Matakaoa Point**	**2.26**	**62**	P	**Pn**	**04 42 16.3**	**+0.7**
CPWZ	**Castlepoint**	**2.27**	**172**	P	**Pn**	**04 42 16.5**	**+0.7**
KIW	**Kapiti Island**	**2.31**	**197**	P	**Pn**	**04 42 16.1**	**-0.2**
TMWZ	**Te Maipa**	**2.45**	**178**	P	**Pn**	**04 42 17.8**	**-0.2**
MTW	**Mount Morrison**	**2.51**	**185**	P	**Pn**	**04 42 18.3**	**-0.5**
CAW	**Cannon Point**	**2.51**	**193**	P	**Pn**	**04 42 18.5**	**-0.2**
DUWZ	**D'Urville Isla**	**2.59**	**213**	P	**Pn**	**04 42 19.7**	**0.0**
PAWZ	**Paruwai Farm**	**2.74**	**186**	P	**Pn**	**04 42 21.0**	**-0.7**
TRWZ	**Traveller**	**2.74**	**182**	P	**Pn**	**04 42 21.2**	**-0.5**
WEL	**Wellington**	**2.74**	**196**	P	**Pn**	**04 42 21.1**	**-0.5**
MSWZ	**Moikau Station**	**2.79**	**189**	P	**Pn**	**04 42 21.5**	**-0.8**
TCW	**Tory Channel**	**2.81**	**204**	P	**Pn**	**04 42 22.0**	**-0.5**
BHW	**Baring Head**	**2.84**	**194**	P	**Pn**	**04 42 22.1**	**-0.8**
PLWZ	**Palliser**	**2.94**	**188**	P	**Pn**	**04 42 23.3**	**-1.0**
QRZ	**Quartz Range**	**3.32**	**228**	P	**Pn**	**04 42 28.6**	**-0.6**
QRZ	**Quartz Range**	**3.32**	**228**	S	**Sn**	**04 43 08.0**	**-0.6**
KHZ	**Kahutara**	**4.13**	**204**	P	**Pn**	**04 42 38.4**	**-1.3**
KHZ	**Kahutara**	**4.13**	**204**	S	**Sn**	**04 43 26.0**	**-1.6**
ODZ	**Otahua Downs**	**7.45**	**209**	P	**Pn**	**04 43 22.8**	**-1.3**

WEL 19 05:11:43.2±1.1,36.˚5S±10.˚×18.˚0E±1.˚3,h126km±17km,
M3.5/8,ML3.7/10,MLv3.5/8,Error ellipse: s-maj=18.8km
s-min=9.8km az=124.6,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**1.84**	**223**	P	Pn	05 12 12.8	-2.1
MXZ				S	Sn	05 12 39.2	0.0
PUZ	**Puketiti**	**2.25**	**215**	P	Pn	05 12 19.9	-0.2
PUZ				S	Sn	05 12 49.3	+0.9
PUZ				AML	AML		
HAZ	**Te Kaha**	**2.27**	**227**	P	Pn	05 12 20.7	+0.4
HAZ				S	Sn	05 12 50.3	+1.5
HAZ				AML	AML		
TWGZ	**Tauwhareparae**	**2.47**	**217**	P	Pn	05 12 23.1	+0.2

NORS ***19*** *05:14:15.6,41.19N×43.98E,h14km,MPVA3.3*
AZER ***19*** *05:14:16.6,40.99N×44.14E,h8km,ml2.3*

ISC 19 05:14:16.4±1.6, 41°22N±0.05×44°05E±0.06, h14km±13km, n13, σ1♀13/26, Western Caucasus

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
QZX	**Qazax, Azerbai**	**1.01**	**99**	P	**Pb**	**05 14 34.4**	**-1.3**
QZX				S	**Sb**	**05 14 47.7**	**-1.2**
GNI	**Garni**	**1.19**	**154**	*e*Pg	**Pg**	**05 14 40.4**	**+1.0**
GNI				*e*Sg	**Sn**	**05 14 56.5**	**+1.8**
GDB	**GEDABAY**	**1.38**	**110**	P	**Pn**	**05 14 40.3**	**-1.1**
GDB				S	**Sn**	**05 14 58.4**	**-1.2**
LACR	**Lac**	**1.62**	**6**	*e*Pg	**Pn**	**05 14 44.7**	**0.0**
LACR				*e*Sg	**Sb**	**05 15 06.2**	**-0.2**
GANJ	**Ganja**	**1.81**	**108**	Pn	**Pn**	**05 14 47.7**	**+0.4**
GANJ				Sn	**Sb**	**05 15 11.6**	**-0.4**
KORR	**Kora**	**1.87**	**0**	*e*Pg	**Pb**	**05 14 50.5**	**+0.2**
KORR				*e*Sg	**Sb**	**05 15 13.6**	**+0.1**
ARNR	**Ardon**	**1.97**	**5**	*e*Pg	**Pn**	**05 14 50.0**	**+0.6**
ARNR				*e*Sg	**Sg**	**05 15 18.6**	**-1.2**
ZKTA	**Zakatala**	**1.98**	**77**	Pn	**Pb**	**05 14 52.0**	**-0.2**
ZKTA				Sn	**Sb**	**05 15 17.8**	**+1.0**
BTLR	**Botlikh**	**2.17**	**48**	*e*Pg	**Pb**	**05 14 54.0**	**-1.5**
BTLR				*e*Sg	**Sb**	**05 15 22.0**	**-0.3**
NEUR	**Neytrino**	**2.28**	**334**	*e*Pn	**Pn**	**05 14 54.4**	**+0.7**
NEUR				*e*Sn	**Sb**	**05 15 23.1**	**-2.4**
DVE	**Vedeno**	**2.33**	**41**	*e*Pn	**Pn**	**05 14 56.2**	**+1.9**
DVE				*e*Sn	**Sb**	**05 15 26.6**	**-0.1**
SEKA	**Sheki**	**2.38**	**89**	Pn	**Pb**	**05 14 57.9**	**-1.1**
SEKA				Sn	**Sb**	**05 15 28.4**	**+0.3**
XNZR	**Khunzakh**	**2.38**	**55**	*e*Pn	**Pb**	**05 14 59.4**	**+0.2**
XNZR				*e*Sn	**Sb**	**05 15 29.8**	**+1.2**

NNC ***19*** *05:34:02.2±4.1,54.79N×83.61E,h0km,mb3.1,mpv2.8, Error ellipse: s-maj=34.7km s-min=11.8km az=14.0, Suspected Mining explosion.*
ASRS ***19*** *05:34:02.0±1.5,54.75N×83.77E,h0km,M2.4(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC ***19*** *05:34:04.5±1.9,54.63N×83.72E,h0km,mbtmp3.0/3, ML2.6/3,Error ellipse: s-maj=16.9km s-min=11.4km az=161.0*

ISC 19 05:34:04.0±2.4, 54.7N±0.2×83.75E±0.08, h0km, n8, σ1♀47/14, 3C-7D, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.99**	**140**	I	I	05 39 46.9	
	0.2nm,0.9s,baz=318,slow=340,SNR=8.8						
ZAA0	**Zalesovo Array**	**0.99**	**141**	⇑P	**Pg**	**05 34 22.2**	**-0.8**
	3.4nm,0.4s						
ZAA0				⇑S	**Sb**	**05 34 38.7**	**+1.0**
	21nm,0.4s						
ZALV	**Zalesovo Beam**	**0.99**	**141**	Pg	**Pg**	**05 34 22.1**	**-0.9**
	3.8nm,0.3s,baz=320,slow=14,SNR=26						
ZALV				Lg	Lg	05 34 35.6	
	14nm,0.3s,baz=317,slow=27,SNR=5.6						
KURK	**Kurchatov**	**5.08**	**220**	⇓Pn	**Pn**	**05 35 22.5**	**+1.3**
	0.7nm,0.8s						
KURK				⇓Pg	**Pb**	**05 35 35.9**	**+2.3**
	0.5nm,0.5s						
KURK				⇓Sn	**Sn**	**05 36 18.5**	**-2.1**
	1.4nm,1.1s						
KURK				⇓Lg	Lg	05 36 43.2	
	2.2nm,0.8s						
KURBB	**Kurchatov Arra**	**5.19**	**220**	Pn	**Pn**	**05 35 23.1**	**+0.4**
	0.1nm,0.3s,baz=39,slow=13,SNR=6.1						
KURBB				Pg	**Pb**	**05 35 36.8**	**+1.3**
	0.1nm,0.3s,baz=38,slow=16,SNR=8.1						
KURBB				Sn	**Sn**	**05 36 21.8**	**-1.4**
	0.1nm,0.3s,baz=33,slow=17,SNR=1.4						
KURBB				Lg	Lg	05 36 46.9	
	0.1nm,0.3s,baz=38,slow=32,SNR=6.5						
	0.6nm,0.5s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**5.19**	**220**	⇓Pn	**Pn**	**05 35 23.9**	**+1.1**
	4.4nm,1.4s,baz=38,slow=13						
KURBB				⇓Pg	**Pb**	**05 35 36.3**	**+0.8**
	1.1nm,0.4s						
KURBB				⇓Sn	**Sn**	**05 36 21.2**	**-2.1**
	2.8nm,0.6s						
KURBB				⇑Lg	Lg	05 36 45.8	
	8.1nm,0.6s,baz=45,slow=32						
MKAR	**Makanchi Array**	**7.99**	**187**	Pn	**Pn**	**05 36 01.5**	**+0.2**
	0.1nm,0.3s,baz=9.8,slow=12,SNR=4.2						
MKAR				Lg	Lg	05 38 12.2	
	baz=10.0,slow=34,SNR=2.4						
	0.2nm,0.3s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**8.08**	**263**	Pn	**Pn**	**05 36 02.5**	**0.0**
	0.1nm,0.3s,baz=69,slow=13,SNR=5.7						
	1.4nm,0.5s						
BVAR				AML	AML		

ASRS ***19*** *05:59:35.0±1.7,54.22N×86.40E,h0km,M2.4(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 19 05:59:37.3±4.1, 54.20N×86.39E, h0km, mbtmp2.5/2, ML2.2/2, Error ellipse: s-maj=34.3km s-min=16.1km az=66.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.96**	**256**	I	I	06 05 20.0	
	0.1nm,0.7s,baz=75,slow=344,SNR=5.8						
ZALV	**Zalesovo Beam**	**0.96**	**255**	Pg	Pg	05 59 54.7	-0.9
	0.7nm,0.3s,baz=76,slow=16,SNR=7.3						
ZALV				Lg	Lg	06 00 09.8	
	1.4nm,0.3s,baz=71,slow=16,SNR=4.6						
KURBB	**Kurchatov Arra**	**6.00**	**237**	Pn	Pn	06 01 07.2	0.0
	baz=52,slow=13,SNR=2.3						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**7.86**	**201**	Pn	Pn	06 01 34.8	+2.0
	0.1nm,0.3s,baz=21,slow=12,SNR=1.9						
	0.1nm,0.3s						
MKAR				AML	AML		

IDC ***19*** *06:07:35.7±0.5,28.46S×74.40E,h0km,mb4.3/22, mbtmp4.3/22,MS3.9/40,Error ellipse: s-maj=17.8km s-min=14.1km az=84.0*
GCMT ***19*** *06:07:37.6±0.3,28.33S±0.03×74.10E±0.03,h15km±1km, MW4.8/91,Moment Tensor Solution. s19,c19; s91,c113; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.83±.15; $M_{\theta\theta}$0.59±.09; $M_{\phi\phi}$1.24±.09; $M_{r\theta}$1.28±.24; $M_{\theta\phi}$-0.74±.06; $M_{\phi r}$0.60±.19; Best double couple: M_o2.15400×10^{16} NP1:ϕ_s169.00000°,δ47.00000°,λ-51.00000°. NP2: ϕ_s300.00000°,δ55.00000°,λ-124.00000°. Principal axes: T 1.7390, Plg5.0000°, Azm53.0000°; N 0.8330, Plg27.0000°, Azm320.0000°; P -2.5690, Plg62.0000°, Azm152.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NEIC ***19*** *06:07:37.6±1.3,28.5S±0.1×74.2E±0.1,h10km±1km, mb4.9/52 Error ellipse: s-maj=18.3km s-min=17.5km az=117.0*
GFZ ***19*** *06:07:38.2±0.2,29.3S±4.7×7.7E±, h10km,M5.3/23, mb4.7/23,confirmed*

ISC 19 06:07:37.3±0.4, 28.52S±0.07×74.32E±0.07, h10km, n148, σ1♀06/113, mb4.7/59, MS4.0/41, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H08S2	**Diego Garcia H**	**20.84**	**355**	T	T	06 33 41.7	
	baz=176,slow=76,SNR=266						
H08S1	**Diego Carcia H**	**20.84**	**355**	T	T	06 33 44.3	
	baz=176,slow=76,SNR=221						
H08S3	**Diego Garcia H**	**20.85**	**355**	T	T	06 33 47.2	
	baz=176,slow=76,SNR=244						
H04N2	**CROZET ISLANDS**	**24.97**	**219**	T	T	06 38 58.1	
	baz=54,slow=74,SNR=1641						
H04N1	**CROZET ISLANDS**	**24.98**	**219**	T	T	06 39 00.8	
	baz=54,slow=74,SNR=1086						
H04N3	**CROZET ISLANDS**	**24.99**	**219**	T	T	06 38 59.0	
	baz=54,slow=74,SNR=964						
H04S1	**CROZET ISLANDS**	**25.33**	**218**	T	T	06 39 21.5	
	baz=53,slow=77,SNR=62						
H04S3	**CROZET ISLANDS**	**25.34**	**218**	T	T	06 39 23.4	
	baz=53,slow=77,SNR=13						
H04S2	**CROZET ISLANDS**	**25.34**	**218**	T	T	06 39 25.3	
	baz=53,slow=77,SNR=11						
VOI	**Vohitsoka**	**25.72**	**279**	P	**P**	**06 13 06.7**	**-1.4**
VOI				IAmb	IAmb	06 13 19.1	
	comp=Z,26nm,1.3s						
VOI	**Vohitsoka**	**25.72**	**279**	P	**P**	**06 13 12.7**	**+4.5**
	comp=Z,18nm,1.3s						
ABPO	**Ambohimpanom**	**26.48**	**285**	P	**P**	**06 13 13.1**	**-1.9**
H01W2	**Cape Leeuwin H**	**34.30**	**111**	T	T	06 50 50.0	
	baz=268,slow=74,SNR=7.9						
H01W3	**Cape Leeuwin H**	**34.30**	**111**	T	T	06 50 50.1	
	baz=268,slow=74,SNR=7.3						
H01W1	**Cape Leeuwin H**	**34.32**	**111**	T	T	06 50 51.3	
	baz=268,slow=74,SNR=9.5						
PALK	**Pallekele**	**36.11**	**11**	LR	LR	06 26 21.0	
	comp=Z,129nm,19.3s,baz=189,slow=31						
PALK	**Pallekele**	**36.11**	**11**	P	**P**	**06 14 39.3**	**-0.4**
RPSI	**Rantau Prapat**	**39.01**	**41**	P	**P**	**06 15 04.2**	**+0.1**
MAW	**Mawson**	**39.72**	**187**	P	**P**	**06 15 10.6**	**+1.2**
	comp=Z,5.9nm,0.3s,baz=51,slow=12,SNR=34						
MAW				LR	LR	06 27 44.8	
	comp=Z,350nm,18.8s,baz=62,slow=30						
	comp=Z,5.9nm,0.3s						
MAW	**Mawson**	**39.72**	**187**		**P**	**06 15 09.6**	**+0.2**
MAW	**Mawson**	**39.72**	**187**	P	**P**	**06 15 10.7**	**+1.2**
	comp=Z,3.6nm,2.0s						
MATP	**Matopo**	**42.27**	**270**	LR	LR	06 29 39.5	
	comp=Z,1μm,21.4s,baz=104,slow=31						
BOSA	**Boshof**	**42.84**	**258**	P	**P**	**06 15 38.2**	**+2.3**
	comp=Z,5.3nm,1.1s,baz=120,slow=7.6,SNR=3.1						
BOSA				LR	LR	06 29 17.0	
	comp=Z,307nm,21.9s,baz=112,slow=30						
	comp=Z,5.3nm,1.1s						
BOSA	**Boshof**	**42.84**	**258**	P	**P**	**06 15 35.2**	**-0.6**
BOSA				IAmb	IAmb	06 16 43.7	
	comp=Z,50nm,2.0s						
IGBI	**Denpasar**	**43.08**	**71**	P	**P**	**06 15 35.7**	**-2.1**
	comp=Z,1μm,1.0s						
KIBK	**Kibwezi**	**43.27**	**300**	P	**P**	**06 15 38.9**	**-0.4**
KIBK	**Kibwezi**	**43.27**	**300**	P	**P**	**06 15 40.8**	**+1.4**
	comp=Z,3.6nm,2.0s						
LBTB	**Lobatse**	**43.41**	**263**	LR	LR	06 30 30.0	
	comp=Z,162nm,18.1s,baz=124,slow=32						
KMBO	**Kilima Mbogo**	**44.66**	**301**	P	**P**	**06 15 51.6**	**+0.9**
	baz=82,slow=14						
KMBO				LR	LR	06 30 17.1	
	comp=Z,62nm,20.7s,baz=108,slow=30						
KMBO	**Kilima Mbogo**	**44.66**	**301**	P	**P**	**06 15 48.9**	**-1.8**
KMBO	**Kilima Mbogo**	**44.66**	**301**	P	**P**	**06 15 52.0**	**+1.3**
	comp=Z,4.3nm,1.0s						
KDWAN	**Kaudwane**	**44.69**	**265**	P	**P**	**06 15 50.2**	**-0.6**
KDWAN				IAmb	IAmb	06 15 52.0	
	comp=Z,23nm,1.4s						
SUR	**Sutherland**	**45.89**	**251**	LR	LR	06 31 31.0	
	comp=Z,335nm,19.0s,baz=120,slow=31						
FITZ	**Fitzroy Crossi**	**47.95**	**89**	LR	LR	06 35 14.9	
	comp=Z,184nm,18.5s,baz=246,slow=35						
FITZ	**Fitzroy Crossi**	**47.95**	**89**	P	**P**	**06 16 16.8**	**+0.4**
FITZ	**Fitzroy Crossi**	**47.95**	**89**	P	**P**	**06 16 17.1**	**+0.8**
	comp=Z,2.4nm,1.3s						
KAPI	**Kappang**	**48.97**	**70**	LR	LR	06 34 07.8	
	comp=Z,73nm,21.1s,baz=210,slow=33						
MBAR	**Mbarara**	**50.03**	**296**	LR	LR	06 33 24.7	
	comp=Z,52nm,21.4s,baz=132,slow=31						
KNRA	**Kununurra**	**51.65**	**88**	P	**P**	**06 16 44.9**	**+0.4**
DLV	**Lat**	**52.06**	**44**	P	**P**	**06 16 47.3**	**-0.4**
DLV				IAmb	IAmb	06 16 47.4	
	comp=Z,17nm,0.8s						
DLV	**Lat**	**52.06**	**44**	P	**P**	**06 16 46.8**	**-0.9**
	comp=Z,24nm,1.6s						
MPSI	**Mapaga**	**52.19**	**65**	P	**P**	**06 16 50.2**	**+1.7**
	comp=Z,9.4nm,0.8s						
TSUM	**Tsumeb**	**52.30**	**267**	LR	LR	06 36 00.7	
	comp=Z,219nm,21.6s,baz=148,slow=33						
TSUM	**Tsumeb**	**52.30**	**267**	P	**P**	**06 16 48.7**	**-0.8**
TSUM				IAmb	IAmb	06 18 26.0	
	comp=Z,29nm,1.8s						
CM31	**Chiang Mai Arr**	**52.42**	**30**	P	**P**	**06 16 51.0**	**+0.9**
CM31				IAmb	IAmb	06 16 59.1	
	comp=Z,14nm,1.1s						
CMAR	**Chiang Mai Arr**	**52.42**	**30**	P	**P**	**06 16 51.2**	**+1.0**
	comp=Z,1.5nm,0.4s,baz=214,slow=7.3,SNR=13						
CMAR				LR	LR	06 36 12.0	
	comp=Z,104nm,20.0s,baz=215,slow=33						
	comp=Z,1.5nm,0.4s						
CMAR	**Chiang Mai Arr**	**52.42**	**30**		**P**	**06 16 50.8**	**+0.7**
NPW	**Naypyitaw**	**52.44**	**26**	P	**P**	**06 16 51.1**	**+0.9**
	comp=Z,30nm,1.0s						
CHTO	**Chiang Mai**	**52.74**	**30**		**P**	**06 16 53.0**	**+0.6**
CHTO				IAmb	IAmb	06 17 01.3	
	comp=Z,10nm,1.0s						
CHTO	**Chiang Mai**	**52.74**	**30**	P	**P**	**06 16 53.9**	**+1.5**
	comp=Z,12nm,1.2s						
KKM	**Kota Kinabalu**	**53.01**	**56**	P	**P**	**06 16 54.3**	**-0.3**
KKM				IAmb	IAmb	06 17 43.0	
	comp=Z,28nm,1.5s						
ASAR	**Alice Springs**	**53.27**	**99**	P	**P**	**06 16 56.4**	**-0.2**
	comp=Z,3.4nm,0.6s,baz=250,slow=6.5,SNR=60						
ASAR				PcP	**PcP**	**06 18 03.5**	**-0.8**
	comp=Z,1.1nm,0.8s,baz=238,slow=3.4,SNR=4.3						
ASAR				LR	LR	06 36 55.4	
	comp=Z,155nm,19.3s,baz=280,slow=33						
	comp=Z,3.4nm,0.6s						
ASAR	**Alice Springs**	**53.27**	**99**	P	**P**	**06 16 55.9**	**-0.7**
AS31	**Alice Springs**	**53.27**	**99**		**P**	**06 16 56.5**	**-0.1**
BRDH	**Bariadhala**	**53.57**	**20**	LR	LR	06 36 23.5	
	comp=Z,213nm,20.1s,baz=177,slow=32						
WRA	**Warramunga Arr**	**54.92**	**95**	P	**P**	**06 17 08.7**	**+0.1**
	comp=Z,7.6nm,0.8s,baz=251,slow=7.5,SNR=27						
WRA				PcP	**PcP**	**06 18 09.0**	**-1.6**
	comp=Z,0.8nm,0.8s,baz=249,slow=2.7,SNR=1.9						
	comp=Z,7.6nm,0.8s						
WRA	**Warramunga Arr**	**54.92**	**95**	P	**P**	**06 17 09.4**	**+0.8**
WRAB	**Tennant Creek**	**54.93**	**95**	P	**P**	**06 17 08.8**	**+0.1**
WRAB				IAmb	IAmb	06 17 16.5	
	comp=Z,8.6nm,0.8s						
WRAB	**Tennant Creek**	**54.93**	**95**	P	**P**	**06 17 09.1**	**+0.4**
	comp=Z,12nm,1.2s						
WB0	**Warramunga Arr**	**55.03**	**95**		**P**	**06 17 09.3**	**-0.1**
WB0				IAmb	IAmb	06 17 17.1	
	comp=Z,12nm,0.8s						
WR8	**Warramunga Arr**	**55.06**	**95**		**P**	**06 17 09.4**	**-0.2**
WR8				IAmb	IAmb	06 17 17.3	
	comp=Z,16nm,1.0s						
MORE	**Moreh**	**55.87**	**22**	P	**P**	**06 17 14.9**	**-0.2**
SLVN	**Son La**	**57.20**	**33**		**P**	**06 17 25.3**	**+0.5**
SLVN				IAmb	IAmb	06 17 33.4	
	comp=Z,6.8nm,0.9s						
SLVN	**Son La**	**57.20**	**33**	P	**P**	**06 17 26.4**	**+1.5**
	comp=Z,8.4nm,2.1s						
STKA	**Stephens Creek**	**57.40**	**111**	P	**P**	**06 17 25.8**	**-0.4**
	comp=Z,1.8nm,0.6s,baz=242,slow=2.5,SNR=3.4						
STKA				LR	LR	06 38 29.6	
	comp=Z,150nm,20.8s,baz=205,slow=32						
	comp=Z,1.8nm,0.6s						
STKA	**Stephens Creek**	**57.40**	**111**	P	**P**	**06 17 26.2**	**0.0**
EVN	**Everest**	**57.42**	**13**	P	**P**	**06 17 26.4**	**-0.5**
	comp=Z,6.4nm,1.7s						
QIZ	**Qiongzhong**	**58.43**	**40**	P	**P**	**06 17 35.5**	**+2.1**
QIZ				S	**S**	**06 25 41.8**	**+5.2**
QIZ				LR	LR		
	comp=N,130nm,11.3s						
QIZ				LR	LR		
	comp=E,120nm,13.4s						
QIZ				LR	LR		
	comp=Z,170nm,16.5s						
RAYN	**Ar Rayn**	**58.72**	**329**		**P**	**06 17 34.8**	**-0.7**
RAYN	**Ar Rayn**	**58.72**	**329**	P	**P**	**06 17 35.5**	**+0.1**
	comp=Z,5.4nm,1.4s						
SNAA	**Sanae**	**59.17**	**201**	P	**P**	**06 17 39.3**	**+1.3**
	comp=Z,0.6nm,0.3s,baz=53,slow=6.7,SNR=3.4						
SNAA				LR	LR	06 39 12.7	
	comp=Z,125nm,18.8s,baz=193,slow=32						
	comp=Z,0.6nm,0.3s						
SNAA	**Sanae**	**59.17**	**201**	P	**P**	**06 17 38.2**	**+0.2**
SNAA				IAmb	IAmb	06 17 45.2	
	comp=Z,9.8nm,1.2s						
QIS	**Mount Isa**	**59.30**	**98**	P	**P**	**06 17 39.9**	**+0.3**
	comp=Z,9.0nm,1.2s						
DAV	**Davao City (W)**	**60.76**	**63**	LR	LR	06 41 18.8	
	comp=Z,70nm,21.5s,baz=172,slow=33						
CMSA	**Cobar Meteorol**	**60.84**	**112**	P	**P**	**06 17 50.7**	**+0.7**
	comp=Z,5.4nm,1.1s						
VNA3	**Neumayer Olymp**	**61.36**	**202**	P	**P**	**06 17 53.0**	**+0.1**
	comp=Z,13nm,1.0s						
QSPA	**South Pole Qui**	**61.62**	**180**	P	**P**	**06 17 54.4**	**-0.5**
	comp=Z,1.6nm,0.8s,baz=266,slow=0.9,SNR=8.9						
QSPA				LR	LR	06 42 49.4	
	comp=Z,169nm,18.6s,baz=6.5,slow=34						
	comp=Z,1.6nm,0.8s						
QSPA	**South Pole Qui**	**61.62**	**180**	P	**P**	**06 17 54.3**	**-0.5**
QSPA				IAmb	IAmb	06 17 55.5	
	comp=Z,17nm,1.7s						
QSPA	**South Pole Qui**	**61.62**	**180**	P	**P**	**06 17 54.5**	**-0.5**
NIL	**Nilore**	**61.84**	**359**	P	**P**	**06 17 56.4**	**-0.1**
VNDA	**Vanda**	**61.85**	**166**	P	**P**	**06 17 56.0**	**-0.1**
	comp=Z,1.8nm,0.8s,baz=282,slow=6.0,SNR=12						
	comp=Z,1.8nm,0.8s						
VNDA	**Vanda**	**61.85**	**166**		**P**	**06 17 56.0**	**-0.1**
VNDA	**Vanda**	**61.85**	**166**	P	**P**	**06 17 56.3**	**+0.2**
	comp=Z,5.3nm,1.0s						
KBL	**Kabul**	**62.92**	**355**	P	**P**	**06 18 04.3**	**+0.3**
KBL				IAmb	IAmb	06 18 05.4	
	comp=Z,6.5nm,1.1s						
CTA	**Charters Tower**	**65.25**	**100**	LR	LR	06 44 37.2	
	comp=Z,199nm,18.9s,baz=222,slow=34						
CTAO	**Charters Tower**	**65.25**	**100**	P	**P**	**06 18 19.8**	**+0.2**
BELA	**Belgrano 2**	**66.18**	**193**		**P**	**06 18 25.3**	**+0.7**
BELA				IAmb	IAmb	06 18 25.5	
	comp=Z,15nm,1.4s						
KSH2	**Kashi**	**67.33**	**1**	P	**P**	**06 18 32.3**	**-0.1**
KSH2				pmax	pmax		
	comp=Z,8.0nm,1.1s						
DRK	**Karamyk**	**67.69**	**358**		**P**	**06 18 34.6**	**-0.3**
BTK	**Batken**	**68.31**	**357**	P	**P**	**06 18 38.9**	**+0.4**
BTK				IAmb	IAmb	06 18 41.5	
	comp=Z,11nm,1.2s						
BTK	**Batken**	**68.31**	**357**	P	**P**	**06 18 39.1**	**+0.6**
	comp=Z,6.5nm,1.8s						
EIL	**Elat**	**69.01**	**324**	LR	LR	06 44 59.3	
	comp=Z,68nm,19.3s,baz=140,slow=32						
EIL	**Elat**	**69.01**	**324**	P	**P**	**06 18 44.0**	**+1.0**
	comp=Z,5.5nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**69.12**	**2**	P	**P**	**06 18 44.8**	**+1.0**
	comp=Z,7.3nm,1.7s						
WUS	**Wushi**	**69.52**	**4**	P	**P**	**06 18 45.9**	**-0.2**
NRN	**Naryn**	**69.62**	**1**		**P**	**06 18 46.4**	**-0.5**
NRN				IAmb	IAmb	06 18 49.9	
	comp=Z,11nm,1.1s						
LZDM	**Lanzhou Array**	**69.85**	**25**	P	**P**	**06 18 48.0**	**-0.5**
	comp=Z,1.1nm,0.3s,baz=153,slow=4.5,SNR=3.6						
LZDM				LR	LR	06 47 53.9	
	comp=Z,80nm,20.1s,baz=80,slow=35						
	comp=Z,1.1nm,0.3s						
ARK	**Arkit**	**70.00**	**358**	P	**P**	**06 18 49.4**	**+0.4**
	comp=Z,8.6nm,1.6s						
ASF	**Jabal al Asfar**	**70.06**	**327**	LR	LR	06 46 05.2	
	comp=Z,58nm,19.6s,baz=148,slow=33						
AAK	**Ala-Archa**	**70.80**	**0**	LR	LR	06 47 00.3	
	comp=Z,104nm,20.1s,baz=186,slow=33						
AAK	**Ala-Archa**	**70.80**	**0**	P	**P**	**06 18 54.2**	**+0.2**
AAK				IAmb	IAmb	06 19 03.1	
	comp=Z,9.5nm,1.1s						
AAK	**Ala-Archa**	**70.80**	**0**	P	**P**	**06 18 55.2**	**+1.2**
KK31	**Karatay Array**	**71.36**	**357**		**P**	**06 18 57.4**	**+0.3**
KK31				IAmb	IAmb	06 18 59.0	
	comp=Z,10nm,0.9s						
KKAR	**Karatay Array**	**71.36**	**357**		**P**	**06 18 57.3**	**+0.2**
PDGK	**Podgornoye**	**71.65**	**4**	P	**P**	**06 18 59.1**	**+0.1**
HAKT	**HAKKARI**	**71.72**	**335**	P	**P**	**06 19 01.1**	**+1.3**
	comp=Z,46nm,1.3s						
GURO	**Guroymak-BITLI**	**73.23**	**334**	P	**P**	**06 19 08.8**	**+0.2**
MAKZ	**Makanchi**	**75.29**	**5**	P	**P**	**06 19 20.0**	**-0.3**
MAKZ				IAmb	IAmb	06 19 27.0	
	comp=Z,13nm,1.8s						
MK31	**Makanchi Array**	**75.31**	**6**	P	**P**	**06 19 19.5**	**-0.9**
MKAR	**Makanchi Array**	**75.31**	**6**	P	**P**	**06 19 19.4**	**-1.0**
	comp=Z,2.8nm,1.0s,baz=199,slow=7.2,SNR=7.3						
MKAR				LR	LR	06 51 55.9	
	comp=Z,61nm,18.3s,baz=174,slow=35						
	comp=Z,2.8nm,1.0s						
KRVT	**Keravat (AS076**	**77.16**	**88**	LR	LR	06 52 01.0	
	comp=Z,53nm,20.2s,baz=224,slow=35						
KBZ	**Khabaz**	**77.45**	**337**	LR	LR	06 50 32.5	
	comp=Z,38nm,18.6s,baz=168,slow=33						
BRTR	**Keskin Array B**	**77.74**	**329**	P	**P**	**06 19 34.2**	**-0.3**
	comp=Z,0.5nm,0.3s,baz=168,slow=7.4,SNR=3.7						
	comp=Z,0.5nm,0.3s						
BRTR	**Keskin Array B**	**77.74**	**329**	P	**P**	**06 19 34.0**	**-0.5**
AB31	**Akbulak array**	**78.48**	**350**	P	**P**	**06 19 37.6**	**-0.6**
ABKAR	**Akbulak array**	**78.48**	**350**	P	**P**	**06 19 37.8**	**-0.3**
KURBB	**Kurchatov Arra**	**78.88**	**3**	P	**P**	**06 19 40.2**	**-0.2**
	comp=Z,1.7nm,0.3s,baz=193,slow=6.1,SNR=9.7						
	comp=Z,1.7nm,0.3s						
KURK	**Kurchatov**	**78.98**	**3**	P	**P**	**06 19 40.1**	**-0.8**
KURK				IAmb	IAmb	06 19 41.9	
	comp=Z,14nm,1.4s						
KURK	**Kurchatov**	**78.98**	**3**	P	**P**	**06 19 40.9**	**+0.1**
	comp=Z,9.5nm,1.4s						
AKTO	**Aktyubinsk**	**79.92**	**349**	LR	LR	06 54 37.6	
	comp=Z,64nm,18.9s,baz=332,slow=35						
GUMO	**Guam**	**79.98**	**69**	LR	LR	06 49 23.5	
	comp=Z,21nm,21.1s,baz=174,slow=31						
BVAR	**Borovoye Array**	**81.27**	**358**	P	**P**	**06 19 53.4**	**+0.2**
	comp=Z,7.0nm,0.8s,baz=161,slow=6.3,SNR=27						
	comp=Z,7.0nm,0.8s						
SONM	**Songino Array**	**81.29**	**21**	P	**P**	**06 19 53.7**	**+0.1**
	comp=Z,1.7nm,0.7s,baz=188,slow=5.9,SNR=9.1						
SONM	

*JMA **19** 06:09:12.9±0.4,44°N±2°×14°7E±°,h162km±3km,MV3.7/25, NEAR KUNASHIRI ISLAND*
ISC 19 06:09:11.9±2.6,44°4N±0'.1×146°7E±0'.1,h157km±18km, n15,σ0°88/25,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YUK	**Yuzh-Kuril'sk**	**0.68**	**242**	*i* P	**Pn**	**06 09 35.5**	**+0.5**
YUK				AMB	AMB	06 09 37.7	
	360nm,0.3s						
YUK				*i* S	**Sn**	**06 09 52.8**	**+0.2**
YUK				A	A	06 09 56.1	
	600nm,0.6s						
YUK				A	A	06 09 56.1	
	2μm,0.6s						
KUR	**Kuril'sk**	**1.21**	**43**	*e*P	**Pn**	**06 09 39.2**	**+0.1**
KUR				AMB	AMB	06 09 40.6	
	70nm,0.5s						
KUR				*e*S	**Sn**	**06 09 59.6**	**-0.4**
KUR				A	A	06 10 01.7	
	250nm,0.5s						
KUR				A	A	06 10 01.7	
	150nm,0.5s						
NEM2	**Nemuro 2**	**1.21**	**215**	P	**Pn**	**06 09 39.7**	**+0.6**
NEM2				S	**Sn**	**06 09 59.7**	**-0.2**
JRA	**Rausu**	**1.21**	**250**	*e*P	**Pn**	**06 09 39.6**	**+0.5**
NMR	**Nemuro--Hokkai**	**1.21**	**216**	*i* P	**Pn**	**06 09 39.5**	**+0.4**
NMR				*i* S	**Sn**	**06 09 58.7**	**-1.3**
JNSB	**Nemuroshibetsu**	**1.35**	**245**	P	**Pn**	**06 09 41.4**	**+0.9**
JNK	**Nakash**	**1.62**	**242**	P	**Pn**	**06 09 44.0**	**+0.7**
JKHN	**Kushirohamanak**	**1.69**	**222**	P	**Pn**	**06 09 44.8**	**+0.8**
JKHN				*e*S	**Sn**	**06 10 08.5**	**-0.1**
AKK	**Akkeshi**	**1.90**	**226**	*e*P	**Pn**	**06 09 46.1**	**-0.2**
AKK				*e*S	**Sn**	**06 10 11.1**	**-1.6**
JAK	**Akkeshi**	**1.99**	**228**	*e*P	**Pn**	**06 09 47.9**	**+0.6**
JAK				*e*S	**Sn**	**06 10 13.9**	**-0.6**
JTKR	**Abashiri--Toko**	**2.04**	**260**	*e*P	**Pn**	**06 09 48.0**	**+0.1**
JTKR				*e*S	**Sn**	**06 10 14.4**	**-1.3**
JAR	**Ashorobuto**	**2.37**	**244**	P	**Pn**	**06 09 52.8**	**+1.1**
JAR				*e*S	**Sn**	**06 10 23.9**	**+1.4**
JMP	**Maruseppu**	**2.43**	**263**	*e*P	**Pn**	**06 09 52.5**	**0.0**
JOB	**Onbets**	**2.54**	**236**	*e*P	**Pn**	**06 09 54.7**	**+1.0**
JCH	**Churui**	**2.99**	**236**	*i* P	**Pn**	**06 09 59.7**	**+0.3**
JCH				S	**Sn**	**06 10 34.5**	**-1.6**

*SARA **19** 06:20:33.5±0.2,42°32N±0'.03×13°41E±0'.04,h8km±5km, ML2.6/4,Mwp2.5/4*
ROM 19 06:20:34.0±0.1,42°361N±0'.005×13°352E±0'.009, h9km,ML1.3/12,1C-1D,Error ellipse: s-maj=0.6km s-min=0.5km az=88.0,Central Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AQU	**L'Aquila**	**0.04**	**101**	⇓P	Pg	06 20 36.4	+0.5
AQU				S	Sg	06 20 37.8	+0.6
AQU	**L'Aquila**	**0.04**	**101**	P	Pg	06 20 36.5	+0.6
	comp=Z,66nm,0.6s						
AQU	**L'Aquila**	**0.04**	**101**		Pg	06 20 36.5	+0.6
CAMP	**Campotosto**	**0.18**	**14**	P	Pg	06 20 38.4	+0.5
CAMP				S	Sg	06 20 41.6	+1.0
CAMP				AML	AML		
	comp=N,99μm,0.4s						
CAMP				AML	AML		
	comp=E,78μm,0.6s						
CAMP				AML	AML		
	comp=N,100μm,0.4s						
CAMP				AML	AML		
	comp=E,78μm,1.4s						
CAMP				AML	AML		
	comp=N,100μm,1.6s						
CAMP				AML	AML		
	comp=E,71μm,0.3s						
CAMP	**Campotosto**	**0.18**	**14**	Pg	Pg	06 20 38.4	+0.5
CAMP				Sg	Sg	06 20 41.6	+1.1
GIGS	**Gran Sasso**	**0.18**	**61**	⇑P	Pg	06 20 38.4	+0.5
GIGS				S	Sg	06 20 41.3	+0.7
FAGN	**Fagnano**	**0.20**	**119**	P	Pg	06 20 39.1	+1.0
FAGN				S	Sg	06 20 42.3	+1.4
FAGN				AML	AML		
	comp=E,295μm,0.4s						
FAGN				AML	AML		
	comp=N,274μm,0.3s						
FIAM	**Fiamignano**	**0.20**	**242**	P	Pg	06 20 38.2	+0.1
FIAM				S	Sg	06 20 42.1	+1.1
RM25	**Mosicchio (Ama**	**0.27**	**349**	P	Pb	06 20 40.6	-0.4
RM25				S	Sb	06 20 45.4	-0.3
SMA1	**SAN MARTINO**	**0.27**	**357**	P	Pg	06 20 40.1	+0.6
SMA1				S	Sb	06 20 44.9	-0.9
SMA1				AML	AML		
	comp=N,154μm,0.4s						
SMA1				AML	AML		
	comp=E,232μm,0.3s						
SMA1				AML	AML		
	comp=N,154μm,0.4s						
TERO	**Teramo**	**0.32**	**35**	P	Pg	06 20 40.5	+0.1
TERO				S	Sg	06 20 45.5	+0.8
TERO				AML	AML		
	comp=N,65μm,0.5s						
TERO				AML	AML		
	comp=E,52μm,0.2s						
TERO				AML	AML		
	comp=N,65μm,0.5s						
TERO				AML	AML		
	comp=E,41μm,0.1s						
TERO				AML	AML		
	comp=N,54μm,0.2s						
TERO	**Teramo**	**0.32**	**35**	Pg	Pg	06 20 40.6	+0.2
TERO				Sg	Sg	06 20 45.3	+0.6
LNSS	**Leonessa**	**0.33**	**316**	P	Pb	06 20 41.6	-0.6
LNSS				S	Sb	06 20 47.2	-0.5
PTQR	**Pietraquaria**	**0.34**	**174**	P	Pg	06 20 41.0	+0.3
PTQR				S	Sg	06 20 46.2	+0.9
T0110	**Collepietro**	**0.34**	**113**	P	Pb	06 20 41.9	-0.4
T0110				S	Sb	06 20 47.8	-0.1
T0110				AML	AML		
	comp=E,72μm,0.6s						
T0110				AML	AML		
	comp=N,67μm,1.3s						
T0110				AML	AML		
	comp=N,67μm,0.7s						
T0110				AML	AML		
	comp=E,72μm,1.4s						
T0110				AML	AML		
	comp=N,52μm,0.3s						
NRCA	**Norcia**	**0.50**	**340**	P	Pg	06 20 44.1	+0.3
NRCA				S	Sb	06 20 52.0	-0.5
NRCA				AML	AML		
	comp=E,363μm,1.6s						
NRCA				AML	AML		
	comp=N,356μm,1.1s						
NRCA				AML	AML		
	comp=E,72μm,1.0s						
NRCA				AML	AML		
	comp=N,43μm,0.5s						
NRCA				AML	AML		
	comp=E,364μm,1.6s						
NRCA				AML	AML		
	comp=N,356μm,1.1s						
NRCA				AML	AML		
	comp=E,72μm,1.0s						
NRCA				AML	AML		
	comp=E,364μm,0.4s						
NRCA				AML	AML		
	comp=N,356μm,0.9s						
NRCA				AML	AML		
	comp=E,72μm,1.0s						
NRCA				AML	AML		
	comp=N,38μm,0.1s						
NRCA	**Norcia**	**0.50**	**340**	Pg	Pg	06 20 44.0	+0.2
NRCA				Sg	Sb	06 20 52.4	-0.2
USLL	**Sellano**	**0.59**	**331**	Pg	Pg	06 20 45.8	+0.3
USLL				Sg	Sb	06 20 55.3	+0.2
COR1	**Corinaldo**	**1.30**	**349**	AML	AML		
	comp=N,184μm,1.2s						
COR1				AML	AML		
	comp=E,131μm,1.5s						

*ISK **19** 06:45:15.9,37°.91N×26°.89E,h8km,ML2.5/14*
*THE **19** 06:45:16.1,38°N±1°×26°.9E±0°.7,h11km±3km,M2.4/6, MLh2.4/6*
*AFAD **19** 06:45:17.0,37°.90N×26°.98E,h6km±4km,ML1.9*
ISC 19 06:45:16.2±1.0,37°90N±0'.02×26°90E±0'.03,h10km±8km, n28,σ0°33/45,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMLD	**Gumuldur**	**0.18**	**5**	Pg	**Pg**	**06 45 19.9**	**-0.2**
GMLD				Sg	**Sg**	**06 45 23.1**	**+0.4**
GMLD				AML	AML		
SMG	**Samos**	**0.20**	**194**	P	**Pg**	**06 45 20.2**	**-0.2**
SMG				S	**Sg**	**06 45 23.6**	**+0.4**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**97**	Pg	**Pg**	**06 45 22.6**	**+0.1**
KUSD				AML	AML		
BLCB	**Balcova**	**0.50**	**13**	P	**Pg**	**06 45 25.8**	**-0.2**
BLCB				S	**Sg**	**06 45 32.3**	**-0.2**
BLCB	**Balcova**	**0.50**	**13**	Pg	**Pg**	**06 45 25.7**	**-0.2**
BLCB				Sg	**Sg**	**06 45 32.8**	**+0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.54**	**54**	P	**Pg**	**06 45 26.7**	**-0.1**
DUVT				S	**Sg**	**06 45 33.6**	**-0.3**
DUVT				IAML		06 45 37.0	
	comp=E,421nm,0.3s						
KRBN	**Karaburun**	**0.74**	**339**	Pg	**Pg**	**06 45 30.5**	**-0.1**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**86**	Pg	**Pb**	**06 45 31.9**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.81**	**107**	P	**Pg**	**06 45 32.1**	**+0.1**
AYDN				S	**Sg**	**06 45 42.8**	**+0.1**
AYDN				IAML		06 45 46.0	
	comp=E,60nm,0.4s						
AYDN				IAML		06 45 48.0	
	comp=N,55nm,0.2s						
CHOS	**Chios island**	**0.82**	**307**	P	**Pg**	**06 45 32.3**	**+0.2**
CHOS				S	**Sb**	**06 45 43.5**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**307**	Pg	**Pg**	**06 45 32.1**	**0.0**
CHOS				Sg	**Sb**	**06 45 43.8**	**0.0**
CHOS				AML	AML		
FOCM	**Foa**	**0.82**	**351**	Pg	**Pg**	**06 45 31.9**	**-0.2**
FOCM				Sg	**Sb**	**06 45 43.8**	**+0.1**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.83**	**158**	Pg	**Pb**	**06 45 32.5**	**-0.2**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.87**	**74**	P	**Pb**	**06 45 33.3**	**0.0**
IZMR				S	**Sg**	**06 45 43.6**	**-0.6**
IZMR				IAML		06 45 47.0	
	comp=E,92nm,0.6s						
IZMR				IAML		06 45 48.0	
	comp=N,57nm,0.4s						
BODT	**Bodrum**	**0.90**	**158**	P	**Pb**	**06 45 33.8**	**-0.1**
BODT				S	**Sb**	**06 45 45.7**	**-0.2**
BODT	**Bodrum**	**0.90**	**158**	Pg	**Pb**	**06 45 33.7**	**-0.2**
BODT				AML	AML		
MLSB	**Milas**	**0.92**	**131**	Pg	**Pb**	**06 45 34.4**	**+0.1**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.94**	**152**	P	**Pg**	**06 45 33.9**	**-0.4**
BDRM				S	**Sb**	**06 45 47.7**	**+0.6**
BDRM				IAML		06 45 49.0	
	comp=E,69nm,0.3s						
BDRM				IAML		06 45 50.0	
	comp=N,87nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.11**	**86**	Pn	**Pb**	**06 45 37.5**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.14**	**45**	Pn	**Pb**	**06 45 38.2**	**+0.2**
ESEN	**Aydn-Nazilli**	**1.16**	**95**	P	**Pb**	**06 45 38.3**	**+0.1**
ESEN				S	**Sb**	**06 45 53.8**	**+0.6**
ESEN				IAML		06 45 55.0	
	comp=N,16nm,0.8s						
ESEN				IAML		06 45 59.0	
	comp=E,15nm,0.3s						
AKS	**Akhisar**	**1.22**	**36**	Pn	**Pg**	**06 45 39.7**	**+0.1**
AKS				AML	AML		
KIRA	**zmir-Kiraz**	**1.23**	**76**	P	**Pb**	**06 45 39.3**	**-0.2**
KIRA				S	**Sg**	**06 45 54.4**	**-1.3**
KIRA				IAML		06 45 56.0	
	comp=E,46nm,0.4s						
KIRA				IAML		06 46 00.0	
	comp=N,38nm,0.7s						
MULA	**Mugla, Merkez-**	**1.30**	**119**	P	**Pg**	**06 45 41.4**	**+0.1**
MULA				S	**Sb**	**06 45 57.5**	**-0.1**
MULA				IAML		06 46 02.0	
	comp=N,23nm,0.6s						
MULA				IAML		06 46 18.0	
	comp=E,31nm,0.8s						
YER	**Yerkesik**	**1.34**	**124**	P	**Pg**	**06 45 42.2**	**+0.2**
SOMA	**Soma-Manisa**	**1.35**	**22**	Pn	**Pb**	**06 45 41.7**	**+0.1**
SOMA				AML	AML		
SULTU	**Buldan**	**1.49**	**84**	P	**Pb**	**06 45 44.3**	**+0.3**
SULTU				S	**Sb**	**06 46 03.3**	**+0.4**
SULTU				IAML		06 46 10.0	
	comp=E,22nm,0.7s						
SULTU				IAML		06 46 15.0	
	comp=N,28nm,0.8s						
TAVA	**DENIZLI_Tavas**	**1.66**	**105**	P	**Pb**	**06 45 46.6**	**-0.3**
TAVA				S	**Sn**	**06 46 07.1**	**+0.3**
TAVA				IAML		06 46 11.0	
	comp=E,5.8nm,0.7s						
TAVA				IAML		06 46 39.0	
	comp=N,9.9nm,2.5s						

IDC 19 06:48:45.7±10.0,23°44S×175°17W,h0km,mb3.8/5, mbtmp3.8/5,Error ellipse: s-maj=243.4km s-min=38.9km az=41.0,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**35.91**	**268**	P	P	06 55 48.0	0.0
	2.2nm,0.4s,baz=101,slow=9.7,SNR=7.0						
	2.2nm,0.4s						
STKA	**Stephens Creek**	**39.00**	**248**	P	P	06 56 13.9	0.0
	0.9nm,0.6s,baz=95,slow=11,SNR=2.9						
	0.9nm,0.6s						
ASAR	**Alice Springs**	**46.47**	**259**	P	P	06 57 14.9	+0.1
	0.4nm,0.5s,baz=101,slow=7.3,SNR=6.6						
	0.4nm,0.5s						
WRA	**Warramunga Arr**	**46.85**	**264**	P	P	06 57 17.4	-0.5
	0.8nm,0.5s,baz=103,slow=8.6,SNR=5.3						
	0.8nm,0.5s						
VNDA	**Vanda**	**55.25**	**186**	P	P	06 58 20.0	-0.1
	0.6nm,0.9s,baz=29,slow=13,SNR=7.7						
	0.6nm,0.9s						

*ISK **19** 06:53:12.3,38°.87N×45°.62E,h13km,ML3.0/5*
*TEH **19** 06:53:16.5,39°.06N×45°.15E,h9km,ML2.9,Presumed earthquake*
*AZER **19** 06:53:17.3,39°.12N×45°.13E,h4km,ml3.0*
*AFAD **19** 06:53:18.9,39°.00N×45°.19E,h6km±5km,ML2.3*
ISC 19 06:53:17.6±1.1,39°04N±0'.02×45°19E±0'.02,h9km±10km, n45,σ1°22/77,Iran-Armenia-Azerbaijan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NAX	**Nakhchivan**	**0.27**	**60**	P	**Pb**	**06 53 24.8**	**0.0**
NAX				S	**Sb**	**06 53 30.3**	**+0.8**
SBZ	**Shahbuz**	**0.46**	**38**	P	**Pb**	**06 53 27.9**	**0.0**
SBZ				S	**Sb**	**06 53 36.4**	**+1.6**
IMRD	**Marand**	**0.52**	**129**	Pg	**Pg**	**06 53 27.7**	**+0.1**
ORD	**Ordubad**	**0.64**	**100**	Pg	**Pb**	**06 53 30.5**	**-0.4**
ORD				Sg	**Sb**	**06 53 39.7**	**-0.3**
HYR	**Heyderabad**	**0.73**	**339**	P	**Pb**	**06 53 32.2**	**-0.4**
HYR				S	**Sn**	**06 53 43.3**	**-2.3**
ISHB	**Shabestar**	**0.82**	**156**	Pg	**Pg**	**06 53 33.6**	**+0.1**
ISHB				Sg	**Sg**	**06 53 45.1**	**+0.8**
CLDR	**Caldiran**	**1.00**	**276**	Pn	**Pn**	**06 53 37.6**	**-0.4**
CLDR				Sn	**Sn**	**06 53 56.0**	**+3.7**
CLDR				AML	AML		
OZAP	**Van, Ozalp-Mer**	**1.01**	**248**	P	**Pb**	**06 53 37.3**	**0.0**
OZAP				S	**Sg**	**06 53 50.4**	**+0.2**
OZAP				IAML		06 53 52.0	
	comp=E,61nm,0.3s						
OZAP				IAML		06 53 54.0	
	comp=N,82nm,0.6s						
GNI	**Garni**	**1.16**	**343**	Pn	**Pg**	**06 53 38.9**	**-1.0**
GNI				Sn	**Sn**	**06 53 58.2**	**+1.8**
GNI				AML	AML		
IGDI	**IGDIR**	**1.20**	**314**	P	**Pb**	**06 53 39.9**	**-0.6**
IGDI				S	**Sn**	**06 53 56.5**	**-0.5**
IGDI				IAML		06 53 59.0	
	comp=N,78nm,0.3s						
IGDI				IAML		06 54 01.0	
	comp=E,90nm,0.3s						
IGDI	**IGDIR**	**1.20**	**314**	P	**Pb**	**06 53 39.9**	**-0.6**
IGDI				S	**Sn**	**06 53 57.4**	**+0.3**
TASB	**TASBURUN-IGDIR**	**1.20**	**322**	Pn	**Pn**	**06 53 40.3**	**-0.3**
TASB				AML	AML		
VMUR	**Van-Muradiye**	**1.26**	**268**	P	**Pg**	**06 53 41.8**	**0.0**
VMUR				S	**Sn**	**06 53 58.8**	**0.0**
VMUR				IAML		06 54 02.0	
	comp=E,43nm,0.4s						
VMUR				IAML		06 54 04.0	
	comp=N,53nm,0.6s						
DYDN	**Diyadin**	**1.27**	**294**	P	**Pg**	**06 53 42.1**	**+0.1**
DYDN				S	**Sn**	**06 54 00.8**	**+1.7**
DYDN				IAML		06 54 03.0	
	comp=N,83nm,0.3s						
DYDN				IAML		06 54 11.0	
	comp=E,90nm,0.9s						
IAZR	**Azarshahr**	**1.49**	**155**	Pg	**Pn**	**06 53 44.4**	**-0.5**
IHRS	**Heris**	**1.62**	**116**	Pg	**Pb**	**06 53 47.3**	**-0.4**
QRD	**Qoradiz**	**1.71**	**75**	Sn	**Sg**	**06 54 15.4**	**+3.0**
KOTA	**Agri, Merkez-K**	**1.72**	**297**	P	**Pb**	**06 53 49.3**	**-0.2**
KOTA				S	**Sg**	**06 54 12.8**	**0.0**
KOTA				IAML		06 54 27.0	
	comp=N,16nm,0.7s						
GDB	**GEDABAY**	**1.73**	**14**	Pn	**Pg**	**06 53 50.4**	**-0.5**
GDB				Sn	**Sg**	**06 54 14.6**	**+1.2**
AGRB	**Hanur-Agry**	**1.79**	**288**	Pn	**Pn**	**06 53 49.0**	**+0.1**
AGRB				AML	AML		
GANJ	**Ganja**	**1.83**	**28**	Pn	**Pg**	**06 53 52.2**	**-0.4**
GANJ				Sn	**Sg**	**06 54 18.9**	**+2.5**
AKDM	**Akdamar-Van**	**1.87**	**248**	Pn	**Pn**	**06 53 48.7**	**-1.3**
AKDM				AML	AML		
HAKT	**HAKKARI**	**1.88**	**219**	Pg	**Pb**	**06 53 52.0**	**-0.4**
HAKT				Sg	**Sg**	**06 54 19.0**	**+0.9**
DORK	**Agr/Tutak/Do**	**1.91**	**281**	P	**Pb**	**06 53 52.5**	**-0.1**
DORK				S	**Sb**	**06 54 15.7**	**-1.0**
DORK				IAML		06 54 24.0	
	comp=E,21nm,1.0s						
DORK				IAML		06 54 25.0	
	comp=N,39nm,0.7s						
BLQ	**Beylaqan**	**1.96**	**69**	Pn	**Pg**	**06 53 54.5**	**-0.6**
BLQ				Sn	**Sg**	**06 54 21.9**	**+1.4**
BRDA	**Brd**	**1.96**	**51**	Pn	**Pg**	**06 53 55.8**	**+0.6**
BRDA				Sn	**Sg**	**06 54 24.0**	**+3.3**
DIGO	**Kars**	**1.96**	**315**	P	**Pg**	**06 53 55.2**	**-0.1**
DIGO				S	**Sg**	**06 54 22.7**	**+2.0**
DIGO				IAML		06 54 35.0	
	comp=N,64nm,0.8s						
DIGO				IAML		06 54 39.0	
	comp=E,86nm,0.5s						
QZX	**Qazax, Azerbai**	**2.02**	**4**	Pn	**Pg**	**06 53 55.4**	**-1.0**
QZX				Sn	**Sg**	**06 54 22.6**	**+0.1**
GRMI	**Germi**	**2.12**	**95**	Pn	**Pb**	**06 53 56.4**	**+0.1**
EATA	**Eleskirt**	**2.25**	**292**	P	**Pb**	**06 53 58.4**	**-0.2**
EATA				S	**Sg**	**06 54 29.6**	**-0.2**
EATA				IAML		06 54 36.0	
	comp=N,15nm,0.4s						
EATA				IAML		06 54 39.0	
	comp=E,14nm,0.6s						
ZRD	**Zardab**	**2.29**	**56**	Pn	**Pg**	**06 54 00.1**	**-1.4**
YRD	**Yardimli**	**2.38**	**92**	Pn	**Pb**	**06 54 00.6**	**-0.2**
YRD				Sn	**Sg**	**06 54 34.5**	**+0.4**
LRK	**Lerik**	**2.49**	**98**	Pn	**Pb**	**06 54 02.6**	**0.0**
LRK				Sn	**Sg**	**06 54 37.9**	**+0.3**
GLBA	**Clilabad**	**2.50**	**84**	Pn	**Pg**	**06 54 04.0**	**-1.5**
GLBA				Sn	**Sg**	**06 54 37.5**	**-0.3**
DOFL	**Dedoflistskaro**	**2.51**	**16**	P	**Pg**	**06 54 06.7**	**+1.0**
TRLG	**Trialeti**	**2.63**	**342**	P	**Pg**	**06 54 06.8**	**-1.2**
TRLG				S	**Sg**	**06 54 41.3**	**-0.9**
SEKA	**Sheki**	**2.66**	**35**	Pn	**Pb**	**06 54 05.9**	**+0.5**
SEKA				Sn	**Sg**	**06 54 42.5**	**-0.5**
AKH	**Akhalkalaki**	**2.70**	**332**	P	**Pg**	**06 54 07.8**	**-1.6**
ZKTA	**Zakatala**	**2.82**	**22**	Pn	**Pg**	**06 54 09.4**	**-2.2**
ZKTA				Sn	**Sg**	**06 54 46.2**	**-1.8**
LKRN	**Lenkeran, Azer**	**2.82**	**96**	Pn	**Pb**	**06 54 07.9**	**-0.2**
LKRN				Sn	**Sg**	**06 54 46.5**	**-1.6**
ASTR	**Astara**	**2.85**	**99**	Pn	**Pb**	**06 54 09.2**	**+0.5**
ASTR				Sn	**Sg**	**06 54 48.1**	**-1.1**
LGD	**Lagodekhi**	**2.91**	**16**	P	**Pg**	**06 54 11.8**	**-1.5**
XNQ	**Khinaliq**	**3.11**	**46**	Pn	**Pb**	**06 54 11.2**	**-2.0**
XNQ				Sg	**Sg**	**06 54 56.8**	**-0.6**
CHRG	**Chargali**	**3.29**	**357**	P	**Pb**	**06 54 17.6**	**+1.3**
CHRG				S	**Sg**	**06 55 05.1**	**+1.7**
SHTL	**Shatili**	**3.62**	**360**	P	**Pb**	**06 54 23.3**	**+1.5**

*IDC **19** 07:05:06.2±3.4,53°.58N×87°.72E,h0km,mbtmp2.8/2, ML2.3/2,Error ellipse: s-maj=25.5km s-min=17.2km az=79.0*
ASRS 19 07:05:04.0±1.2,53°56N×88°01E,h0km,M2.7(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.93**	**283**	I	I	07 16 05.0	
	0.1nm,1.8s,baz=98,slow=353,SNR=12						
ZALV	**Zalesovo Beam**	**1.93**	**283**	Pg	Pn	07 05 38.4	+0.3
	1.0nm,0.3s,baz=104,slow=12,SNR=16						
ZALV				Lg	Lg	07 06 02.7	
	2.2nm,0.3s,baz=102,slow=25,SNR=11						
KURBB	**Kurchatov Arra**	**6.54**	**247**	Pn	Pn	07 06 42.9	+1.5
	baz=61,slow=14,SNR=5.9						
KURBB				Sn	Sn	07 07 55.6	-1.1
	baz=50,slow=15,SNR=1.4						
KURBB				Lg	Lg	07 08 28.7	
	baz=63,slow=29,SNR=5.6						
	0.8nm,0.6s						
MKAR	**Makanchi Array**	**7.70**	**211**	Pn	Pn	07 06 60.0	+2.6
	0.1nm,0.3s,baz=28,slow=13,SNR=3.0						
MKAR				Lg	Lg	07 09 03.0	
	0.3nm,0.3s,baz=39,slow=26,SNR=6.7						
	0.2nm,0.4s						
MKAR				AML	AML		

*SJA **19** 07:06:03.7±0.6,36°.16S×72°.27W,h70km±3km,ML3.8, MW3.7*
*GUC **19** 07:06:06.3±0.8,36°.21S×71°.95W,h87km±3km,ML4.0, Presumed earthquake*
ISC 19 07:06:05.8±1.2,36°15S±0'.03×72°23W±0'.07,h66km±14km, n60,σ1°15/82,2C-8D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ML02	**Panimavida**	**0.76**	**59**	*e*P	**Pn**	**07 06 21.6**	**+0.4**
ML02				*e*S	**Sn**	**07 06 32.9**	**+0.4**
ML02				IAML		07 06 35.3	
	comp=Z,2μm,0.3s						
ML02	**Panimavida**	**0.76**	**59**	⇑*i*P	**Pn**	**07 06 21.7**	**+0.5**
ML02				*e*S	**Sn**	**07 06 32.8**	**+0.3**
ML02				IAML		07 06 34.0	
	comp=N,4μm,0.5s						
BI02	**San Fabin de**	**0.92**	**124**	*e*P	**Pn**	**07 06 22.7**	**-0.5**
BI02				IAML		07 06 38.2	
	comp=Z,745nm,0.2s						
BI02	**San Fabin de**	**0.92**	**124**	⇓*i*P	**Pn**	**07 06 22.4**	**-0.8**
BI02				*e*S	**Sn**	**07 06 34.4**	**-1.7**
GO05	**Hualane**	**1.17**	**12**	*e*P	**Pn**	**07 06 23.2**	**-3.1**
GO05				*e*S	**Sn**	**07 06 44.8**	**+3.3**
GO05				IAML		07 06 48.1	
	comp=Z,723nm,0.4s						
GO05	**Hualane**	**1.17**	**12**	⇓*e*	**Pn**	**07 06 23.7**	**-2.6**
GO05				*i* P		07 06 28.1	
GO05				*e*S	**Sn**	**07 06 44.4**	**+2.9**
GO05				IAML		07 06 47.3	
	comp=E,2μm,0.4s						
BO03	**Pichilemu**	**1.67**	**8**	*e*P	**Pn**	**07 06 33.9**	**+1.0**
BO02	**Sierra Bellavi**	**1.80**	**41**	*e*P	**Pn**	**07 06 35.0**	**+0.2**
BO02				*e*S	**Sn**	**07 06 55.8**	**-0.9**
BO02				IAML		07 06 57.6	
	comp=Z,3μm,0.2s						
BO02	**Sierra Bellavi**	**1.80**	**41**	*e*P	**Pn**	**07 06 35.0**	**+0.2**
BO02				*e*S	**Sn**	**07 06 55.9**	**-0.7**
BO02				IAML		07 06 57.6	
	comp=N,8μm,0.2s						
CANA	**Caviahue**	**1.96**	**152**	*e*P	**Pn**	**07

EDS3	**Malargue**	**2.33**	**81**	*e*P		**Pn**	**07 06 42.0**	**+0.1**
MT01	**Popeta**	**2.42**	**20**	*e*P		**Pn**	**07 06 43.7**	**+0.6**
MT01				*e*S		**Sn**	**07 07 12.2**	**+0.6**
MT01				IAML			07 07 14.0	
	comp=Z,682nm,0.1s							
MT01	**Popeta**	**2.42**	**20**	*e*P		**Pn**	**07 06 43.6**	**+0.5**
MT01				*e*S		**Sn**	**07 07 11.8**	**+0.1**
MT01				IAML			07 07 13.5	
	comp=N,758nm,0.4s							
BO04	**La Punta**	**2.54**	**32**	*e*P		**Pn**	**07 06 44.4**	**-0.3**
BO04				IAML			07 07 18.6	
	comp=E,356nm,0.2s							
MT09	**Talagante**	**2.58**	**24**	*e*P		**Pn**	**07 06 45.3**	**-0.1**
MT09				IAML			07 07 18.6	
	comp=N,1μm,0.3s							
BI04	**Isla Mocha**	**2.61**	**210**	*e*P		**Sn**	**07 07 17.0**	**+0.8**
BI04				IAML			07 07 17.4	
	comp=E,2μm,0.2s							
LC01	**Cunco**	**2.75**	**174**	*e*P		**Pn**	**07 06 47.4**	**-0.2**
LC01				IAML			07 07 21.1	
	comp=E,744nm,0.1s							
MT12	**Pirque**	**2.78**	**30**	*e*P		**Pn**	**07 06 47.7**	**-0.4**
MT12				IAML			07 07 32.5	
	comp=N,373nm,0.3s							
LMEL	**Las Melosas**	**2.84**	**36**	*e*P		**Pn**	**07 06 49.6**	**+0.7**
LMEL				IAML			07 07 28.6	
	comp=N,517nm,0.2s							
MT13	**San Alfonso**	**2.88**	**34**	*e*P		**Pn**	**07 06 50.5**	**+1.0**
MT13				*e*S		**Sn**	**07 07 24.1**	**+0.9**
MT13				IAML			07 07 25.6	
	comp=Z,255nm,0.2s							
MT13	**San Alfonso**	**2.88**	**34**	*e*P		**Pn**	**07 06 49.9**	**+0.4**
MT13				IAML			07 07 25.6	
	comp=N,510nm,0.3s							
MT15	**Las Vizcachas**	**2.92**	**30**	*e*P		**Pn**	**07 06 49.6**	**-0.3**
MT15				IAML			07 07 28.5	
	comp=N,808nm,0.2s							
MT03	**Universidad Ad**	**3.01**	**28**	*e*P		**Pn**	**07 06 51.5**	**+0.3**
MT03				*e*S		**Sn**	**07 07 26.9**	**+0.8**
MT03				IAML			07 07 27.4	
	comp=Z,297nm,0.2s							
MT03	**Universidad Ad**	**3.01**	**28⇓**	*e*P		**Pn**	**07 06 51.0**	**-0.2**
MT05	**Renca**	**3.02**	**24**	*e*P		**Pn**	**07 06 51.6**	**+0.3**
MT05				*e*S		**Sn**	**07 07 27.2**	**+1.0**
MT05				IAML			07 07 29.3	
	comp=N,293nm,0.1s							
MT05	**Renca**	**3.02**	**24**	*e*P		**Pn**	**07 06 51.5**	**+0.3**
MT02	**Curacav**	**3.02**	**18**	*e*P		**Pn**	**07 06 51.5**	**+0.1**
MT02				*e*S		**Sn**	**07 07 26.7**	**+0.3**
MT02				IAML			07 07 28.4	
	comp=Z,190nm,0.5s							
MT02	**Curacav**	**3.02**	**18⇓**	*e*P		**Pn**	**07 06 51.2**	**-0.1**
MT16	**CCHEN**	**3.06**	**28**	*e*P		**Pn**	**07 06 51.7**	**-0.1**
MT16				IAML			07 07 30.4	
	comp=E,203nm,0.2s							
MT14	**Cerro Cal¡n**	**3.08**	**27**	*e*P		**Pn**	**07 06 51.5**	**-0.7**
MT14				IAML			07 07 30.6	
	comp=N,690nm,0.5s							
VA01	**Torpederas**	**3.16**	**9**	*e*P		**Pn**	**07 06 53.0**	**-0.1**
VA01	**Torpederas**	**3.16**	**9**	*e*P		**Pn**	**07 06 52.7**	**-0.4**
MT04	**Ro Olivares**	**3.24**	**33**	*e*P		**Pn**	**07 06 55.0**	**+0.6**
MT04				*e*S		**Sn**	**07 07 32.9**	**+1.0**
MT04				IAML			07 07 37.1	
	comp=Z,200nm,0.5s							
FCH	**Farellones**	**3.24**	**30**	*e*P		**Pn**	**07 06 54.5**	**-0.1**
MT08	**Bocatoma Ro**	**3.26**	**35**	*e*P		**Pn**	**07 06 50.5**	**-4.2**
MT08				*e*P			07 06 55.8	
MT08				*e*S		**Sn**	**07 07 33.6**	**+1.2**
MT08				IAML			07 07 37.0	
	comp=Z,102nm,0.3s							
MT08	**Bocatoma Ro**	**3.26**	**35**	*e*P		**Pn**	**07 06 55.2**	**+0.4**
PEL	**Peldehue**	**3.26**	**23**	*e*P		**Pn**	**07 06 54.8**	**+0.2**
PEL				*e*S		**Sn**	**07 07 32.8**	**+0.5**
PEL				IAML			07 07 35.0	
	comp=Z,346nm,0.2s							
PEL	**Peldehue**	**3.26**	**23**	*e*P		**Pn**	**07 06 54.6**	**0.0**
PEL				IAML			07 07 34.7	
	comp=N,967nm,0.3s							
ROCH	**El Roble**	**3.33**	**18⇓**	*e*P		**Pn**	**07 06 55.7**	**0.0**
ROCH				⇓*e*P			07 06 55.8	
RFA	**San Rafael**	**3.37**	**67**	*e*P		Pn	07 06 49.5	-6.5
RFA				*e*P			07 06 55.4	
RFA				*e*S		Sn	07 07 49.5	+15
LR03	**Panguipulli**	**3.47**	**182**	*e*P		**Pn**	**07 06 57.3**	**-0.1**
LR03				*e*S		**Sn**	**07 07 36.9**	**-0.4**
LR03				IAML			07 07 40.6	
	comp=Z,246nm,0.3s							
LR03	**Panguipulli**	**3.47**	**182**	*e*P		**Pn**	**07 06 56.6**	**-0.8**
GO06	**Curarrehue**	**3.48**	**170**	*e*P		**Pn**	**07 06 57.6**	**+0.1**
GO06				*e*S		**Sn**	**07 07 40.2**	**+2.6**
GO06	**Curarrehue**	**3.48**	**170⇓**	*e*P		**Pn**	**07 06 57.6**	**+0.1**
VA03	**San Esteban**	**3.65**	**23**	*e*P		**Pn**	**07 07 00.1**	**+0.1**
VA03				*e*S		**Sn**	**07 07 41.4**	**-0.5**
VA03				IAML			07 07 43.5	
	comp=Z,638nm,0.3s							
VA03	**San Esteban**	**3.65**	**23**	*e*P		**Pn**	**07 07 00.0**	**+0.1**
LR02	**Universidad Au**	**3.73**	**192**	*e*P		**Pn**	**07 06 58.9**	**-2.1**
LR04	**Corral**	**3.84**	**194**	*e*P		**Pn**	**07 07 02.5**	**+0.1**
LR04				IAML			07 07 50.1	
	comp=Z,174nm,0.2s							
LR04	**Corral**	**3.84**	**194**	*e*P		**Pn**	**07 07 01.5**	**-0.9**
LR05	**Currie**	**4.07**	**178**	*e*P		**Pn**	**07 07 05.8**	**+0.2**
LR05				*e*S		**Sn**	**07 07 53.3**	**+1.3**
LR05	**Currie**	**4.07**	**178⇓**	*e*P		**Pn**	**07 07 05.5**	**-0.1**
AAGR	**Agrelo**	**4.15**	**43**	*e*P		**Pn**	**07 07 07.3**	**+0.5**
AAGR				*e*S		Sn	07 07 41.0	-13
CO04	**Los Peladeros**	**4.23**	**15**	*e*P		**Pn**	**07 07 07.3**	**-0.7**
PLCA	**Paso Flores**	**4.76**	**164**	*e*P		**Pn**	**07 07 15.2**	**+0.2**
PLCA	**Paso Flores**	**4.76**	**164**	*e*P		**Pn**	**07 07 15.4**	**+0.4**
RTLS	**Leoncito**	**4.98**	**30**	*e*S		**Sn**	**07 08 10.8**	**-3.9**
RTLS				IAML			07 08 18.0	
	comp=Z,97nm,0.5s							
CO02	**Combarbal**	**5.04**	**12**	*e*P		**Pn**	**07 07 18.6**	**-0.4**
CO02				IAML			07 08 19.0	
	comp=Z,123nm,0.1s							
CO02	**Combarbal**	**5.04**	**12**	*e*P		**Pn**	**07 07 18.4**	**-0.6**

*NEIC **19** 07:16:02.3±1.3, 18°.82S±0°.10×173°.26W±0°.05, h10km±1km, mb4.4/6, Error ellipse: s-maj=17.2km s-min=7.8km az=349.0*

*IDC **19** 07:16:02.9±0.8, 18°.93S×173°.60W, h0km, mb4.0/8, mbtmp4.1/10, ML3.5/2, MS3.3/5, Error ellipse: s-maj=25.0km s-min=15.2km az=130.0*

ISC 19 07:16:04.0±0.7, **18°.77S**±0°.09×**173°.25W**±0°.08, **h28**km, **n29**, σ1§**27**/22, **mb4.2**/9, **MS3.4**/3, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**3.16**	**96**	Pn	**Pn**	**07 16 51.2**	**-0.8**
AFI	**Afiamalu**	**5.04**	**17**	Pn	**Pn**	**07 17 18.7**	**+0.8**
	1.4nm,0.3s,baz=216,slow=19,SNR=1.6						
AFI				Sn	**Sn**	**07 18 13.9**	**-1.3**
	3.2nm,0.3s,baz=149,slow=23,SNR=2.1						
	13nm,0.7s						
AFI				AML	AML		
FUTU	**Fugatoga**	**6.44**	**313**	Pn	**Pn**	**07 17 35.8**	**-1.3**
MSVF	**Nonsavu**	**8.33**	**276**	LR	LR	07 21 00.9	
	comp=Z,208nm,18.1s,baz=49,slow=37						
RAR	**Rarotonga**	**12.90**	**103**	Pn	**Pn**	**07 19 03.7**	**-1.9**
	2.2nm,0.3s,baz=278,slow=16,SNR=2.1						
RAR				LR	LR	07 24 04.7	
	comp=Z,45nm,18.4s,baz=226,slow=36						
	10nm,0.5s						
RAR				AML	AML		
RAR	**Rarotonga**	**12.90**	**103**	Pn	**Pn**	**07 19 05.2**	**-0.4**
URZ	**Urewera**	**21.16**	**201**	P	**P**	**07 20 45.6**	**-1.3**
	43nm,1.2s,baz=25,slow=19,SNR=1.4						
URZ				LR	LR	07 28 16.4	
	comp=Z,134nm,18.3s,baz=218,slow=35						
	43nm,1.2s						
CTA	**Charters Tower**	**38.15**	**261**	LR	LR	07 37 32.7	
	comp=Z,75nm,18.3s,baz=228,slow=34						
STKA	**Stephens Creek**	**42.56**	**243**	P	**P**	**07 23 57.3**	**-0.3**
	1.8nm,0.9s,baz=97,slow=16,SNR=1.8						
	1.8nm,0.9s						
STKA	**Stephens Creek**	**42.56**	**243**	P	**P**	**07 23 57.5**	**-0.1**
STKA				IAmb	IAmb	07 24 09.9	
	comp=Z,31nm,1.2s						
BBOO	**Buckleboo**	**47.31**	**242**	P	**P**	**07 24 34.3**	**-1.1**
WR8	**Warramunga Arr**	**49.14**	**260**	P	**P**	**07 24 50.1**	**+0.4**
WR8				IAmb	IAmb	07 25 12.5	
	comp=Z,2.6nm,1.0s						

ASAR	**Alice Springs**	**49.28**	**255**	P		**P**	**07 24 50.9**	**+0.1**
	comp=Z,1.6nm,0.7s,baz=94,slow=7.5,SNR=20							
ASAR				PcP		**PcP**	**07 26 16.0**	**+2.5**
	comp=Z,0.5nm,0.7s,baz=101,slow=4.0,SNR=3.3							
	comp=Z,1.6nm,0.7s							
ASAR	**Alice Springs**	**49.28**	**255**	P		**P**	**07 24 49.7**	**-1.1**
WRA	**Warramunga Arr**	**49.29**	**260**	P		**P**	**07 24 50.8**	**-0.1**
	comp=Z,0.5nm,0.4s,baz=97,slow=8.5,SNR=8.6							
	comp=Z,0.5nm,0.4s							
WRA	**Warramunga Arr**	**49.29**	**260**	P		**P**	**07 24 50.4**	**-0.5**
FITZ	**Fitzroy Crossi**	**57.71**	**260**	P		**P**	**07 25 53.8**	**+1.1**
	comp=Z,3.1nm,1.1s,baz=122,slow=9.5,SNR=2.4							
	comp=Z,3.1nm,1.1s							
FITZ	**Fitzroy Crossi**	**57.71**	**260**	P		**P**	**07 25 52.0**	**-0.7**
FITZ				IAmb		IAmb	07 26 14.7	
	comp=Z,2.1nm,1.4s							
QSPA	**South Pole Qui**	**71.29**	**180**	P		**P**	**07 27 23.1**	**+2.3**
	comp=Z,1.4nm,0.9s,baz=40,slow=2.4,SNR=2.7							
	comp=Z,1.4nm,0.9s							
QSPA	**South Pole Qui**	**71.29**	**180**	P		**P**	**07 27 21.7**	**+0.8**
QSPA				IAmb		IAmb	07 27 46.9	
	comp=Z,5.6nm,1.4s							
MJAR	**Matsushiro Arr**	**71.60**	**321**	LR		LR	07 54 03.0	
	comp=Z,12nm,19.6s,baz=136,slow=32							
H03S2	**Juan Fernandez**	**83.23**	**123**	T		T	09 01 05.0	
	baz=249							
H03S1	**Juan Fernandez**	**83.25**	**123**	T		T	09 01 07.3	
	baz=249							
H03S3	**Juan Fernandez**	**83.25**	**123**	T		T	09 01 10.7	
	baz=249							
PDAR	**Pinedale Array**	**84.68**	**42**	P		P	07 28 40.3	+4.8
	comp=Z,0.6nm,1.0s,baz=256,slow=4.1,SNR=3.1							
	comp=Z,0.6nm,1.0s							
ILAR	**Eielson Array**	**85.71**	**11**	P		P	07 28 44.8	+4.8
	comp=Z,0.4nm,0.8s,baz=223,slow=5.4,SNR=6.5							
	comp=Z,0.4nm,0.8s							
ILAR	**Eielson Array**	**85.71**	**11**	P		**P**	**07 28 41.5**	**+1.6**
J25K	**Salcha River,**	**85.85**	**12**	P		**P**	**07 28 41.5**	**+0.8**
CLL	**Collm**	**147.16**	**353**	*e*PKPmax			07 35 50.0	

*ASRS **19** 07:30:38.0±1.7, 53°.63N×86°.88E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 19 07:30:40.8±3.4, **53°.69N×86°.96E, h0**km, **mbtmp3.0**/2, **ML1.9**/1, **Error ellipse: s-maj=33.9km s-min=14.9km az=88.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.30**	**283**	I	I	07 37 50.0	
	baz=102,slow=346,SNR=6.0						
ZALV	**Zalesovo Beam**	**1.30**	**283**	Pg	Pg	07 31 04.5	-1.0
	0.6nm,0.3s,baz=101,slow=17,SNR=10						
ZALV				Lg	Lg	07 31 24.5	
	0.9nm,0.3s,baz=101,slow=30,SNR=6.3						
KURBB	**Kurchatov Arra**	**6.03**	**243**	Pn	Pn	07 32 12.0	+0.9
	1.2nm,0.2s,baz=55,slow=14,SNR=0.9						
MKAR	**Makanchi Array**	**7.52**	**205**	Pn	Pn	07 32 32.9	+1.3
	baz=24,slow=13,SNR=1.8						
MKAR				Sn	Sn	07 33 55.4	-2.1
	0.1nm,0.3s,baz=23,slow=31,SNR=3.3						
MKAR				Lg	Lg	07 34 37.2	
	0.1nm,0.3s,baz=15,slow=34,SNR=2.1						
	0.2nm,0.5s						

IDC 19 07:41:08.7±2.0, **54°.83N×83°.46E, h0**km, **mbtmp2.8**/3, **ML2.4**/3, **Error ellipse: s-maj=19.5km s-min=14.6km az=1.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.18**	**137**	I	I	07 46 44.1	
	0.2nm,1.1s,baz=317,slow=338,SNR=3.5						
ZALV	**Zalesovo Beam**	**1.18**	**137**	Pg	Pb	07 41 31.8	-0.3
	2.5nm,0.3s,baz=329,slow=16,SNR=16						
ZALV				Lg	Lg	07 41 45.5	
	3.5nm,0.3s,baz=319,slow=29,SNR=14						
KURBB	**Kurchatov Arra**	**5.17**	**217**	Pn	Pn	07 42 27.6	+0.4
	0.1nm,0.3s,baz=38,slow=18,SNR=4.3						
	0.4nm,0.3s						
KURBB				AML	AML		
BVAR	**Borovoye Array**	**7.93**	**262**	Pn	Pn	07 43 04.2	-0.9
	0.1nm,0.3s,baz=64,slow=14,SNR=11						
	0.8nm,0.6s						
BVAR				AML	AML		
MKAR	**Makanchi Array**	**8.08**	**186**	Pn	Pn	07 43 07.8	+0.6
	0.1nm,0.3s,baz=18,slow=14,SNR=2.7						
MKAR				Lg	Lg	07 45 23.5	
	0.1nm,0.3s,baz=0.6,slow=27,SNR=2.4						
	0.1nm,0.4s						
MKAR				AML	AML		

JMA 19 07:44:32.7±0.1, **37°.2N**±0°.2×**140°.5E**±0°.4, **h76**km, **MV0.8**/17, **MID FUKUSHIMA PREF, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JFFD	**Fukushimafurud**	**0.08**	**153**	P	Pn	07 44 43.6	0.0
JFFD				S	Sn	07 44 51.8	+0.2
ONAJ	**Iwakimizuishiy**	**0.23**	**105**	*e*P	Pn	07 44 44.3	+0.1
JFK	**Kawauchi**	**0.35**	**54**	*e*P	Pn	07 44 44.9	0.0
JFK				*e*S	Sn	07 44 54.0	+0.2
JOTO	**OTAMA OYAMA**	**0.42**	**340**	*e*S	Sn	07 44 55.5	+0.7

*IGQ **19** 08:01:39.3±0.3, 3°.5±2°.8×81°.1W±3°.8, h10km, M3.9/40, mb3.9/1, Mjma3.8/40, ML4.2/39, MLv3.8/40, Ms(BB)3.8/35*

*RSNC **19** 08:01:43.2±6.4, 2°.5±36°.8×81°.1W±3°.8, h19km±11km, M3.7, mb3.8, ML3.0*

ISC 19 08:01:39.5±1.4, **2°.46S**±0°.05×**80°.94W**±0°.07, **h10**km, **n78**, σ1§**44**/**78**, **Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALI	**Salinas**	**0.27**	**349**	P	**Pb**	**08 01 48.3**	**+1.7**
MORR	**Playas El Morr**	**0.63**	**107**	P	**Pg**	**08 01 51.8**	**+0.1**
MORR				S	**Sg**	**08 02 00.9**	**+0.9**
PPLP	**Puerto Lpez**	**0.92**	**10**	P	**Pg**	**08 01 57.0**	**-0.3**
PPLP				S	**Sg**	**08 02 09.9**	**+0.6**
PPLP	**Puerto Lpez**	**0.92**	**10**	P	**Pg**	**08 01 57.0**	**-0.3**
ISPG	**Isla Puna-Puer**	**0.92**	**124**	P	**Pg**	**08 01 57.1**	**-0.2**
AC07	**Ecuador-Guayaq**	**1.00**	**72**	P	**Pg**	**08 01 57.8**	**-1.0**
AGUAY	**Guayaquil**	**1.06**	**68**	P	**Pb**	**08 01 58.2**	**-1.9**
ISPT	**Isla de la Pla**	**1.19**	**354**	P	**Pn**	**08 02 01.1**	**-1.3**
PECV	**Mancha de Ca P**	**1.89**	**28**	P	**Pn**	**08 02 09.5**	**-2.5**
JSCH	**Cashca Tororas**	**2.09**	**70**	P	**Pn**	**08 02 12.7**	**-2.3**
CAB1	**Cabo Pasado-Ma**	**2.12**	**14**	P	**Pn**	**08 02 14.8**	**-0.3**
CHSH	**Refugio Sur-Vo**	**2.28**	**65**	P	**Pn**	**08 02 16.6**	**-1.2**
JAMA	**Jama**	**2.30**	**19**	P	**Pn**	**08 02 16.9**	**-0.7**
TAMH	**Tambohuasha Ch**	**2.34**	**67**	P	**Pn**	**08 02 17.3**	**-1.2**
GONZ	**Gonzanam**	**2.35**	**139**	P	**Pn**	**08 02 17.8**	**-0.8**
FLF1	**Flavio Alfaro-**	**2.35**	**28**	P	**Pn**	**08 02 18.2**	**-0.1**
FLF1	**Flavio Alfaro-**	**2.35**	**28**	P	**Pn**	**08 02 17.9**	**-0.4**
BOSC	**San Juan Bosco**	**2.54**	**106**	P	**Pn**	**08 02 21.6**	**+0.6**
SANGA	**Volcan Sangay**	**2.60**	**81**	P	**Pn**	**08 02 21.7**	**-0.3**
BIL2	**Estacion Bilba**	**2.63**	**68**	P	**Pn**	**08 02 22.5**	**+0.2**
BBIL	**Ulba Tungurahu**	**2.65**	**68**	P	**Pn**	**08 02 22.6**	**0.0**
ARRY	**Arrayan**	**2.66**	**69**	P	**Pn**	**08 02 21.9**	**-0.9**
JUI6	**Juive**	**2.67**	**68**	P	**Pn**	**08 02 22.8**	**-0.2**
BPAT	**Tungurahua Vol**	**2.68**	**69**	P	**Pn**	**08 02 22.7**	**-0.5**
ILLI	**Illinizas Sur**	**2.81**	**52**	P	**Pn**	**08 02 24.9**	**-0.1**
PIS1	**Pisayambo**	**2.91**	**62**	P	**Pn**	**08 02 27.3**	**+1.0**
BRRN	**Barrancas-Volc**	**2.97**	**56**	P	**Pn**	**08 02 28.5**	**+1.3**
SLOR	**San Lorenzo -**	**2.98**	**55**	P	**Pn**	**08 02 29.0**	**+1.7**
ZUMB	**Zumba**	**2.99**	**143**	P	**Pn**	**08 02 27.0**	**-0.2**
BMOR	**Cotopaxi Volca**	**3.02**	**55**	P	**Pn**	**08 02 29.0**	**+1.1**
VCES	**Cotopaxi**	**3.03**	**57**	P	**Pn**	**08 02 29.6**	**+1.6**
SUCR	**Mariscal Sucre**	**3.04**	**54**	P	**Pn**	**08 02 29.9**	**+1.8**
PIAT	**Ana Tenorio**	**3.04**	**62**	P	**Pn**	**08 02 29.3**	**+1.2**
NAS2	**Nasa**	**3.06**	**54**	P	**Pn**	**08 02 30.4**	**+1.9**
BRFF	**Cotopaxi Volca**	**3.06**	**55**	P	**Pn**	**08 02 30.5**	**+1.9**
BVC2	**Cotopaxi Volca**	**3.10**	**55**	P	**Pn**	**08 02 30.6**	**+1.6**
BTAM	**Cotopaxi Volca**	**3.10**	**55**	P	**Pn**	**08 02 30.7**	**+1.7**
TAMB	**Tambo**	**3.11**	**56**	P	**Pn**	**08 02 30.6**	**+1.4**
VC1	**Cotopaxi 1**	**3.11**	**55**	P	**Pn**	**08 02 30.8**	**+1.6**
PITA	**Cotopaxi Volc**	**3.14**	**53**	P	**Pn**	**08 02 31.3**	**+1.8**
TOMA	**Boca Toma-Volc**	**3.17**	**52**	P	**Pn**	**08 02 32.0**	**+2.1**
GGPT	**Toaza - Volcan**	**3.21**	**46**	P	**Pn**	**08 02 30.7**	**+0.3**
JUA2	**San Juan 2**	**3.23**	**46**	P	**Pn**	**08 02 31.6**	**+0.9**
TERV	**Terraza Guagua**	**3.25**	**46**	P	**Pn**	**08 02 31.8**	**+0.6**
GGPC	**Guagua Pichinc**	**3.26**	**46**	P	**Pn**	**08 02 31.8**	**+0.6**
ANTG	**Antisana-Guama**	**3.31**	**54**	P	**Pn**	**08 02 33.9**	**+1.9**
YANA	**Yana**	**3.32**	**46**	P	**Pn**	**08 02 32.6**	**+0.6**
ANTM	**Antisana-La Mi**	**3.32**	**55**	P	**Pn**	**08 02 34.0**	**+2.0**
ANTS	**Antisana-Sarah**	**3.38**	**55**	P	**Pn**	**08 02 34.7**	**+1.7**
ANTI	**Antisana**	**3.42**	**54**	P	**Pn**	**08 02 34.9**	**+1.5**
PKYU	**Pakayacu**	**3.44**	**77**	P	**Pn**	**08 02 34.5**	**+1.3**
TAIS	**Taisha**	**3.44**	**89**	P	**Pn**	**08 02 34.7**	**+1.4**
PUEM	**Granja Avicola**	**3.45**	**48**	P	**Pn**	**08 02 36.0**	**+2.3**
PAC1	**Pacto, Paraso**	**3.45**	**38**	P	**Pn**	**08 02 32.8**	**-0.7**
PAC1	**Pacto, Paraso**	**3.45**	**38**	P	**Pn**	**08 02 33.0**	**-0.6**
ARDO	**Archidona, Ten**	**3.46**	**65**	P	**Pn**	**08 02 34.1**	**+0.6**
PULU	**Pululahua**	**3.46**	**45**	P	**Pn**	**08 02 35.3**	**+1.4**
OTAV	**Otavalo**	**3.65**	**43**	P	**Pn**	**08 02 35.9**	**-0.7**
CUSE	**Cuicocha Este**	**3.74**	**43**	P	**Pn**	**08 02 38.3**	**+0.6**
CUSE	**Cuicocha Este**	**3.74**	**43**	P	**Pn**	**08 02 38.3**	**+0.6**
CUIC	**Cuicocha-Domo**	**3.76**	**43**	P	**Pn**	**08 02 38.7**	**+0.7**
COTA	**Cotacachi**	**3.80**	**43**	P	**Pn**	**08 02 40.0**	**+1.3**
CAYR	**Refugio Cayamb**	**3.82**	**50**	P	**Pn**	**08 02 41.6**	**+2.5**
RVRD	**Rio Verde**	**3.83**	**24**	P	**Pn**	**08 02 38.3**	**-0.3**
ANGU	**Angureal**	**3.84**	**50**	P	**Pn**	**08 02 42.3**	**+2.9**
IMBA	**Imbabura, San**	**3.86**	**45**	P	**Pn**	**08 02 42.7**	**+3.3**
URCU	**Urcuqui**	**3.93**	**43**	P	**Pn**	**08 02 41.6**	**+1.2**
YAHU	**Yahuarcocha**	**4.01**	**46**	P	**Pn**	**08 02 44.0**	**+2.5**
LNGL	**El Angel-Carch**	**4.32**	**43**	P	**Pn**	**08 02 47.8**	**+1.9**
CHL1	**Volc¡n Chiles**	**4.40**	**43**	P	**Pn**	**08 02 49.5**	**+2.6**
ECEN	**Cerro Negro**	**4.41**	**42**	P	**Pn**	**08 02 49.1**	**+2.1**
CHL2	**Volc¡n Chiles**	**4.43**	**43**	P	**Pn**	**08 02 49.9**	**+2.6**
TULM	**Tulcn-Chalpat**	**4.46**	**45**	P	Pn	08 02 52.6	+4.9
CMBC	**Cumbal**	**4.59**	**43**	P	Pn	08 02 56.2	+6.7
BBAC	**Balboa, Cauca**	**5.78**	**40**	P	**Pn**	**08 03 06.1**	**+0.4**
BBAC	**Balboa, Cauca**	**5.78**	**40**	P	**Pn**	**08 03 06.5**	**+0.9**
POPC	**Popayan, Colom**	**6.54**	**41**	P	**Pn**	**08 03 15.6**	**-0.5**
	2.5nm,0.6s						
JAMC	**Jamundi, Valle**	**7.07**	**37**	P	**Pn**	**08 03 21.4**	**-1.9**

*MOS **19** 08:11:30.3±0.8, 49°.55N×156°.77E, h90km, mb4.2/3, Error ellipse: s-maj=22.2km s-min=4.7km az=77.3*

*KRSC **19** 08:11:33.9±1.8, 49°.94N×156°.66E, h99km±28km, Ml4.4*

*NEIC **19** 08:11:36.6±1.0, 50°.2N±0°.1×155°.8E±0°.2, h130km±7km, mb4.2/19, Error ellipse: s-maj=21.1km s-min=9.8km az=130.0*

*IDC **19** 08:11:37.2±2.9, 50°.42N×155°.74E, h132km±24km, mb3.3/8, mbtmp3.8/11, Error ellipse: s-maj=45.6km s-min=13.3km az=150.0*

ISC 19 08:11:34.9±0.9, **50°.1N**±0°.1×**156°.17E**±0°.09, **h117**km±7km, **n100**, σ1§**21**/113, **mb4.1**/19, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**0.64**	**357**	PN	**Pn**	**08 11 53.6**	**+0.2**
SKR				S	**Sn**	**08 12 07.1**	**-0.3**
SKR	**Severo-Kuril's**	**0.64**	**357**	*e*P	**Pn**	**08 11 53.7**	**+0.2**
SKR				*e*S	**Sn**	**08 12 07.2**	**-0.2**
PAU	**Pauzhetka**	**1.48**	**16**	PN	**Pn**	**08 12 02.0**	**+0.2**
PAU				S	**Sn**	**08 12 22.4**	**0.0**
PAU	**Pauzhetka**	**1.48**	**16**	*e*P	**Pn**	**08 12 02.1**	**+0.2**
PAU				*e*S	**Sn**	**08 12 22.7**	**+0.4**
KDTR	**Khodutka, Kamc**	**2.14**	**34**	PN	**Pn**	**08 12 09.2**	**-0.6**
KDTR				S	**Sn**	**08 12 34.5**	**-2.1**
KDTR	**Khodutka, Kamc**	**2.14**	**34**	*e*P	**Pn**	**08 12 09.2**	**-0.6**
KDTR				*e*S	**Sn**	**08 12 34.6**	**-2.1**
ASAK	**Asacha**	**2.58**	**24**	PN	**Pn**	**08 12 16.2**	**+0.6**
ASAK				S	**Sn**	**08 12 47.3**	**+0.4**
ASAK	**Asacha**	**2.58**	**24**	*e*P	**Pn**	**08 12 16.4**	**+0.8**
MTVR	**Mutnovka**	**2.75**	**27**	PN	**Pn**	**08 12 18.2**	**+0.3**

H11S1 **WAKE ISLAND Hy** 32.58 161 T T 08 52 29.7
baz=347,slow=76,SNR=75
H11S3 **WAKE ISLAND Hy** 32.59 161 T T 08 52 34.6
baz=347,slow=76,SNR=75
H11S2 **WAKE ISLAND Hy** 32.60 161 T T 08 52 31.1
baz=347,slow=76,SNR=36
IL31 32.71 42 P P 08 17 56.5 +0.8
ILAR **Eielson Array** 32.71 42 P P 08 17 55.4 -0.3
comp=Z,0.7nm,0.7s,baz=272,slow=7.9,SNR=16
comp=Z,0.7nm,0.7s
ILAR **Eielson Array** 32.71 42 P P 08 17 55.8 0.0
ILAR **Eielson Array** 32.71 42 P P 08 17 55.8 0.0
D25K **Kavik River** 33.09 33 P P 08 17 59.0 -0.1
D25K IAmb IAmb 08 17 59.4
comp=Z,4.6nm,0.6s
BMAR **Burnt Mountain** 33.65 37 P P 08 18 04.3 +0.4
D27M **Malcolm River** 35.01 34 P P 08 18 15.6 0.0
FARO **Faro, Yukon** 39.08 44 P P 08 18 51.6 +1.6
YKA **Yellowknife Ar** 47.07 39 P P 08 19 54.6 +0.3
comp=Z,0.6nm,0.8s,baz=301,slow=5.8,SNR=1.6
comp=Z,0.6nm,0.8s
YKA **Yellowknife Ar** 47.07 39 P P 08 19 54.5 +0.2
KURK **Kurchatov** 47.28 302 P P 08 19 54.1 -1.9
KURK pmax pmax
comp=Z,1.0nm,0.9s
KURK **Kurchatov** 47.28 302 P P 08 19 54.1 -1.9
MKAR **Makanchi Array** 47.28 296 P P 08 19 53.1 -3.0
comp=Z,0.2nm,0.4s,baz=46,slow=6.0,SNR=2.7
comp=Z,0.2nm,0.4s
MKAR **Makanchi Array** 47.28 296 P P 08 19 53.6 -2.5
MKAR **Makanchi Array** 47.28 296 P P 08 19 53.6 -2.5
EDM **Edmonton** 52.59 49 P P 08 20 36.5 +0.4
EDM pmax pmax
comp=Z,4.0nm,1.3s
EDM **Edmonton** 52.59 49 P P 08 20 36.5 +0.4
EDM IAmb IAmb 08 20 48.4
comp=Z,4.0nm,1.3s
BLKN **Baker Lake** 52.98 31 P P 08 20 38.6 -0.2
CMAR **Chiang Mai Arr** 55.12 257 P P 08 20 55.0 +0.1
comp=Z,1.1nm,0.3s,baz=39,slow=5.6,SNR=1.8
comp=Z,1.1nm,0.3s
CMAR **Chiang Mai Arr** 55.12 257 P P 08 20 53.0 -2.0
FFC **Flin Flon** 56.92 43 P P 08 21 07.8 +0.6
FFC pmax pmax
comp=Z,7.0nm,1.4s
FFC **Flin Flon** 56.92 43 P P 08 21 07.8 +0.6
FFC IAmb IAmb 08 21 10.0
comp=Z,6.8nm,1.4s
NVAR **Mina Array Bea** 59.16 66 P P 08 21 24.9 +1.5
comp=Z,0.2nm,0.4s,baz=314,slow=15,SNR=1.6
comp=Z,0.2nm,0.4s
PD31 **Pinedale Array** 61.20 57 P P 08 21 38.8 +1.6
PD31 IAmb IAmb 08 21 39.2
comp=Z,1.4nm,0.9s
PDAR **Pinedale Array** 61.20 57 P P 08 21 38.2 +1.0
comp=Z,0.8nm,0.8s,baz=314,slow=6.5,SNR=7.1
comp=Z,0.8nm,0.8s
PDAR **Pinedale Array** 61.20 57 P P 08 21 38.4 +1.1
CCX **Cicese** 64.61 70 P P 08 22 00.5 +0.9
WB2 **Warramunga Arr** 72.31 202 P P 08 22 47.0 -0.5
WB2 IAmb IAmb 08 23 06.8
comp=Z,5.5nm,1.2s
TX31 **Lajitas Ar. Si** 74.14 63 P 08 22 59.6 +1.1
TXAR **Lajitas Array** 74.14 63 P P 08 22 59.6 +1.0
comp=Z,0.6nm,0.6s,baz=323,slow=6.1,SNR=10
comp=Z,0.6nm,0.6s
TXAR **Lajitas Array** 74.14 63 P P 08 22 59.5 +0.9

IDC ***19*** *08:31:20.3±3.3, 36°.27N×69°.86E, h128km±28km, mb3.9/24, mbtmp4.3/29, Error ellipse: s-maj=21.3km s-min=11.5km az=179.0*
NNC ***19*** *08:31:23.1±3.3, 37°.00N×69°.49E, h0km, mb4.6, mpv4.4, Error ellipse: s-maj=26.5km s-min=18.3km az=2.0*
BJI ***19*** *08:31:23.9, 36°.67N×69°.76E, h149km, mB4.8/5, mb4.5/16*
MOS ***19*** *08:31:24.2±0.8, 36°.53N×69°.79E, h162km, mb4.4/15, Error ellipse: s-maj=7.8km s-min=4.0km az=76.4*
GFZ ***19*** *08:31:25.7±0.2, 37°N±3°×7°0E±°, h156km, M4.6/19, mb4.5/19*
NEIC ***19*** *08:31:25.5±1.4, 36°.49N±0°.06×69°.81E±0°.09, h157km±6km, mb4.4/51, Error ellipse: s-maj=10.6km s-min=7.8km az=108.0*

ISC 19 08:31:24.4±0.3, **36°.50N**±0°.03×**69°.81E**±0°.04, **h150**km, **n269**, σ1**978**/304, **mb4.3**/61, **7C-5D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.05**	**198**	P	**Pn**	**08 32 01.8**	**+1.5**
	SNR=44						
KBL				S	**Sn**	**08 32 29.3**	**+1.4**
KBL	**Kabul**	**2.05**	**198**	PN	**Pn**	**08 32 01.8**	**+1.5**
KBL						08 32 29.2	
KBL	**Kabul**	**2.05**	**198**		**Pn**	**08 32 01.8**	**+1.5**
KBL				Sn	**Sn**	**08 32 29.1**	**+1.3**
KBL	**Kabul**	**2.05**	**198**	P	**Pn**	**08 32 01.6**	**+1.3**
DRK	**Karamyk**	**3.37**	**27**	PN	**Pn**	**08 32 18.5**	**+1.8**
DRK						08 32 58.5	
DRK	**Karamyk**	**3.37**	**27**		**Pn**	**08 32 18.5**	**+1.8**
DRK				Sn	**Sn**	**08 32 58.5**	**+1.3**
DRK	**Karamyk**	**3.37**	**27**	P	**Pn**	**08 32 18.5**	**+1.8**
BTK	**Batken**	**3.64**	**12**	PN	**Pn**	**08 32 22.0**	**+2.0**
BTK						08 33 04.7	
BTK	**Batken**	**3.64**	**12**		**Pn**	**08 32 22.0**	**+2.0**
BTK				Sn	**Sn**	**08 33 04.7**	**+1.4**
BTK	**Batken**	**3.64**	**12**	P	**Pn**	**08 32 22.0**	**+2.0**
NIL	**Nilore**	**4.00**	**134**	P	**Pn**	**08 32 26.5**	**+1.8**
NIL				S	**Sn**	**08 33 07.9**	**-3.6**
NIL	**Nilore**	**4.00**	**134**	PN	**Pn**	**08 32 26.6**	**+1.9**
NIL	**Nilore**	**4.00**	**134**		**Pn**	**08 32 26.6**	**+1.9**
NIL	**Nilore**	**4.00**	**134**	P	**Pn**	**08 32 26.7**	**+1.9**
OHH	**Osh**	**4.65**	**29**	P	**Pn**	**08 32 32.3**	**-0.9**
KSH2	**Kashi**	**5.27**	**58**	P	**Pn**	**08 32 43.8**	**+2.4**
KSH2				S	**Sn**	**08 33 43.9**	**+2.3**
KSH2				SMN			
	1μm,0.9s						
KSH2				SME			
	1μm,1.0s						
ARSB	**Arslanbob**	**5.42**	**26**	PN	**Pn**	**08 32 44.3**	**+0.9**
ARSB	**Arslanbob**	**5.42**	**26**		**Pn**	**08 32 44.3**	**+0.9**
ARK	**Arkit**	**5.55**	**17**	P	**Pn**	**08 32 45.7**	**+0.5**
	comp=Z,44nm,0.6s						
IUG	**Iuzhnay**	**5.65**	**2**	*e*PN	**Pn**	**08 32 47.7**	**+1.3**
IUG	**Iuzhnay**	**5.65**	**2**	*e*P	**Pn**	**08 32 47.7**	**+1.3**
CHM	**Chimkent**	**5.82**	**358**	*e*PN	**Pn**	**08 32 50.0**	**+1.4**
CHM	**Chimkent**	**5.82**	**358**	*e*P	**Pn**	**08 32 50.0**	**+1.4**
TSSA	**Tissa**	**6.37**	**123**	*i* P	Pn	08 33 03.8	+7.6
TSSA				IAmb	IAmb	08 33 18.9	
	comp=Z,45nm,0.8s						
TSSA				*i* S	**Sn**	**08 34 03.0**	**-5.1**
HRA	**Herat**	**6.53**	**253**		**Pn**	**08 32 59.1**	**+0.8**
BRLS	**Borolday**	**6.53**	**0**	*e*PN	**Pn**	**08 32 54.9**	**-3.1**
BRLS	**Borolday**	**6.53**	**0**	*e*P	**Pn**	**08 32 55.0**	**-3.1**
KK31	**Karatay Array**	**6.62**	**4**	||P	**Pn**	**08 32 55.9**	**-3.4**
	comp=Z,13nm,0.6s,baz=197,slow=15,SNR=60						
KK31				||S	**Sn**	**08 34 07.2**	**-6.5**
	comp=Z,32nm,0.4s,baz=316,slow=45,SNR=6.5						
KK31	**Karatay Array**	**6.62**	**4**	PN	**Pn**	**08 32 59.7**	**+0.4**
KK31	**Karatay Array**	**6.62**	**4**		**Pn**	**08 32 59.7**	**+0.4**
KKAR	**Karatay Array**	**6.62**	**4**	PN	**Pn**	**08 32 59.5**	**+0.2**
KKAR	**Karatay Array**	**6.62**	**4**		**Pn**	**08 32 59.5**	**+0.2**
UCH	**Uchtor**	**6.78**	**31**	P	**Pn**	**08 33 02.4**	**+0.5**
	SNR=32						
TLWR	**Talawar**	**6.81**	**130**	*i* S	**Sn**	**08 34 13.8**	**-4.5**
ASAI	**AK-SAY(Kyrgyzs**	**6.86**	**48**	P	**Pn**	**08 33 03.0**	**+0.3**
	comp=Z,32nm,0.8s						
EKS2	**Erkin-Say**	**6.88**	**25**	P	**Pn**	**08 33 03.5**	**+0.7**
	SNR=30						
NRN	**Naryn**	**6.89**	**42**	PN	**Pn**	**08 33 02.2**	**-1.1**
NRN	**Naryn**	**6.89**	**42**		**Pn**	**08 33 02.1**	**-1.1**
AAK	**Ala-Archa**	**7.12**	**29**	P	**Pn**	**08 33 06.1**	**0.0**
	comp=Z,115nm,0.4s,baz=219,slow=2.3,SNR=255						
AAK				S	**Sn**	**08 34 23.4**	**-2.5**
	comp=Z,36nm,0.5s,baz=180,slow=20,SNR=13						
AAK	**Ala-Archa**	**7.12**	**29**	P	**Pn**	**08 33 06.5**	**+0.4**
	SNR=106						
AAK	**Ala-Archa**	**7.12**	**29**	||P	**Pn**	**08 33 06.4**	**+0.4**
	comp=Z,22nm,0.4s						
AAK				↑S	**Sn**	**08 34 23.0**	**-2.9**
	comp=Z,16nm,0.4s						
AAK	**Ala-Archa**	**7.12**	**29**	P	**Pn**	**08 33 06.7**	**+0.6**
AAK				S	**Sn**	**08 34 26.2**	**+0.4**
AAK	**Ala-Archa**	**7.12**	**29**	*de*PN	**Pn**	**08 33 06.7**	**+0.6**
AAK				pmax	pmax		
	comp=Z,64nm,0.5s						
AAK	**Ala-Archa**	**7.12**	**29**	P	**Pn**	**08 33 06.9**	**+0.8**
	comp=Z,164nm,0.6s						
FRU1	**Bishkek**	**7.32**	**29**	PN	**Pn**	**08 33 10.2**	**+1.6**
FRU1	**Bishkek**	**7.32**	**29**	Pn	**Pn**	**08 33 10.2**	**+1.6**
FRU1	**Bishkek**	**7.32**	**29**	P	**Pn**	**08 33 09.1**	**+0.4**
KBK	**Karagaybulak**	**7.32**	**31**	P	**Pn**	**08 33 09.5**	**+0.7**
	SNR=32						
CHMS	**Chumysh**	**7.53**	**29**	P	**Pn**	**08 33 11.5**	**+0.1**
	SNR=63						
ULHL	**Ulahol**	**7.60**	**39**	P	**Pn**	**08 33 12.8**	**+0.3**
	SNR=17						
BOOM	**Boomskoye usch**	**7.63**	**36**	PN	**Pn**	**08 33 13.2**	**+0.2**
BOOM	**Boomskoye usch**	**7.63**	**36**	Pn	**Pn**	**08 33 13.2**	**+0.2**
BOOM	**Boomskoye usch**	**7.63**	**36**	P	**Pn**	**08 33 12.9**	**-0.1**
	comp=Z,37nm,0.9s						
USP	**Ospenovka**	**7.66**	**27**	P	**Pn**	**08 33 13.0**	**-0.2**
	SNR=59						
TKM2	**Tokmak 2**	**7.81**	**33**	P	**Pn**	**08 33 15.5**	**+0.2**
	SNR=26						
KDJ	**Kajisay**	**8.02**	**43**	PN	**Pn**	**08 33 18.4**	**+0.3**
KDJ	**Kajisay**	**8.02**	**43**	Pn	**Pn**	**08 33 18.4**	**+0.3**
KDJ	**Kajisay**	**8.02**	**43**	P	**Pn**	**08 33 18.2**	**+0.1**
	comp=Z,14nm,0.9s						
TARG	**Taragay, Kyrgy**	**8.12**	**47**	PN	**Pn**	**08 33 19.1**	**-0.5**
TARG	**Taragay, Kyrgy**	**8.12**	**47**		**Pn**	**08 33 19.1**	**-0.5**
TARG	**Taragay, Kyrgy**	**8.12**	**47**	P	**Pn**	**08 33 19.4**	**-0.2**
	comp=Z,13nm,0.6s						
HNLY	**HANLEY**	**8.41**	**113**	*i* S	Sn	08 34 44.9	-13
TNSS	**Tian-Shan**	**8.53**	**38**	*e*PN	**Pn**	**08 33 25.3**	**+0.1**
TNSS	**Tian-Shan**	**8.53**	**38**	*e*P	**Pn**	**08 33 25.4**	**+0.1**
KLP	**Kalpa**	**8.57**	**123**	*i* P	Pn	08 33 31.9	+6.2
KLP				IAmb	IAmb	08 33 36.1	
	comp=Z,29nm,0.4s						
KLP				*i* S	Sn	08 34 50.4	-11
KLP				IAML		08 35 10.3	
	comp=N,248nm,0.9s						
AAA	**Alma-Ata**	**8.65**	**37**	*e*PN	**Pn**	**08 33 27.0**	**+0.7**
AAA	**Alma-Ata**	**8.65**	**37**	*e*P	**Pn**	**08 33 27.0**	**+0.7**
MDOK	**Medeo**	**8.68**	**38**	*e*PN	**Pn**	**08 33 27.4**	**+0.6**
MDOK	**Medeo**	**8.68**	**38**	*e*P	**Pn**	**08 33 27.4**	**+0.6**
WUS	**Wushi**	**8.71**	**55**		**Pn**	**08 33 27.2**	**-0.1**
WUS	**Wushi**	**8.71**	**55**	P	**Pn**	**08 33 27.3**	**0.0**
	comp=Z,37nm,1.1s						
PRZ	**Przheval'sk**	**8.93**	**45**	P	**Pn**	**08 33 31.4**	**+1.1**
	comp=Z,46nm,1.2s						
UTK	**UTTARKASHI**	**9.21**	**126**	*i* P	Pn	08 33 41.0	+7.0
UTK				IAmb	IAmb	08 33 59.9	
	comp=Z,30nm,0.7s						
UTK				*i* S	Sn	08 35 05.9	-10
UTK				IAML		08 35 13.4	
	comp=N,168nm,0.4s						
SATY	**Saty**	**9.31**	**43**	*e*P	**Pn**	**08 33 35.7**	**+0.5**
SATY	**Saty**	**9.31**	**43**	*e*P	**Pn**	**08 33 35.7**	**+0.5**
UZB	**Uzynbulak**	**9.71**	**44**	*e*P	**Pn**	**08 33 40.3**	**-0.2**
UZB	**Uzynbulak**	**9.71**	**44**	*e*P	**Pn**	**08 33 40.4**	**-0.2**
SHLS	**Shalkode**	**9.96**	**45**	*e*P	**Pn**	**08 33 47.4**	**+3.5**
SHLS	**Shalkode**	**9.96**	**45**	*e*P	**Pn**	**08 33 47.5**	**+3.5**
NDI	**New Delhi**	**9.98**	**139**	*i* P	Pn	08 33 52.5	+8.4
NDI				*i* S	**Sn**	**08 35 27.4**	**-7.3**
PDGK	**Podgornoye**	**10.09**	**44**	⇑P	**Pn**	**08 33 45.0**	**-0.6**
	comp=N,6.5nm,0.7s						
PDGK				⇑S	**Sn**	**08 35 41.5**	**+4.2**
	comp=N,22nm,1.0s						
PDGK	**Podgornoye**	**10.09**	**44**	P	**Pn**	**08 33 44.9**	**-0.6**
PDGK				S	**Sn**	**08 35 33.5**	**-3.7**
PDGK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PDGK				smax	smax		
	comp=Z,11nm,0.9s						
PDGK	**Podgornoye**	**10.09**	**44**		**Pn**	**08 33 45.6**	**+0.1**
SONA	**Sohna**	**10.26**	**141**	*i* S	**Sn**	**08 35 34.2**	**-7.1**
TDK	**Taldyqorghan**	**10.70**	**35**	*e*P	**Pn**	**08 33 53.8**	**+0.3**
TDK	**Taldyqorghan**	**10.70**	**35**	*e*P	**Pn**	**08 33 53.8**	**+0.3**
PTH	**Pithoragarh**	**11.11**	**125**	*i* P	**Pn**	**08 34 04.0**	**+4.8**
PTH				IAmb	IAmb	08 34 08.2	
	comp=Z,9.5nm,0.8s						
PTH				*i* S	Sn	08 35 48.0	-14
MAKZ	**Makanchi**	**13.73**	**38**	P	**Pn**	**08 34 32.0**	**-0.7**
MAKZ	**Makanchi**	**13.73**	**38**		**Pn**	**08 34 32.0**	**-0.7**
MAKZ	**Makanchi**	**13.73**	**38**	P	**Pn**	**08 34 31.6**	**-1.0**
	comp=Z,15nm,0.8s						
MKAR	**Makanchi Array**	**13.87**	**38**	P	**Pn**	**08 34 33.5**	**-1.0**
	comp=Z,5.8nm,0.9s,baz=229,slow=15,SNR=19						
MKAR				S	**Sn**	**08 37 12.8**	**+4.7**
	comp=Z,0.5nm,0.7s,baz=229,slow=23,SNR=1.5						
MKAR	**Makanchi Array**	**13.87**	**38**	P	**Pn**	**08 34 33.1**	**-1.5**
MKAR	**Makanchi Array**	**13.87**	**38**		**Pn**	**08 34 33.0**	**-1.5**
AB31	**Akbulak array**	**14.64**	**334**	P	**Pn**	**08 34 42.8**	**-1.3**
	comp=Z,2.0nm,0.4s,baz=146,slow=12,SNR=139						
AB31				||S	**Sn**	**08 37 22.7**	**-3.8**
	comp=Z,5.4nm,0.6s,baz=149,slow=24,SNR=8.4						
AB31	**Akbulak array**	**14.64**	**334**	*i* P	**Pn**	**08 34 42.8**	**-1.3**
AB31				S	Sn	08 37 16.8	-10
AB31				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AB31				smax	smax		
	comp=Z,5.0nm,0.6s						
AB31	**Akbulak array**	**14.64**	**334**		**Pn**	**08 34 43.0**	**-1.2**
ABKAR	**Akbulak array**	**14.64**	**334**		**Pn**	**08 34 43.1**	**-1.1**
KURBB	**Kurchatov Arra**	**15.45**	**21**	P	**Pn**	**08 34 52.2**	**-2.0**
	comp=Z,7.9nm,0.8s,baz=210,slow=11,SNR=17						
KURBB				S	**S**	**08 37 51.4**	**+2.3**
	comp=Z,0.6nm,0.8s,baz=202,slow=9.7,SNR=1.4						
WMQ	**Urumqi**	**15.49**	**56**	*e*P	**P**	**08 34 56.9**	**+0.9**
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KURK	**Kurchatov**	**15.56**	**21**	P	**Pn**	**08 34 53.9**	**-1.6**
KURK				S	**S**	**08 37 51.1**	**+0.2**
KURK	**Kurchatov**	**15.56**	**21**	*e*P	**Pn**	**08 34 53.9**	**-1.6**
KURK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KURK	**Kurchatov**	**15.56**	**21**	P	**Pn**	**08 34 54.0**	**-1.5**
	comp=Z,14nm,1.0s						
ZSN	**Zaisan**	**15.63**	**41**	*e*P	**Pn**	**08 34 57.0**	**+0.6**
ZSN	**Zaisan**	**15.63**	**41**	*e*P	**Pn**	**08 34 57.0**	**+0.6**
SHME	**Shamm**	**15.63**	**232**	P	**Pn**	**08 34 57.7**	**+1.1**
SEM	**Semipalatinsk**	**15.81**	**25**	*e*P	**Pn**	**08 34 59.3**	**+0.5**
SEM	**Semipalatinsk**	**15.81**	**25**	*e*P	**Pn**	**08 34 59.3**	**+0.5**
AKTO	**Aktyubinsk**	**16.32**	**332**	P	**Pn**	**08 35 04.3**	**-0.5**
	comp=Z,16nm,0.8s,baz=146,slow=13,SNR=41						
AKTO				S	**S**	**08 37 57.9**	**-8.1**
	comp=Z,3.1nm,0.4s,baz=156,slow=20,SNR=7.2						
AKTO	**Aktyubinsk**	**16.32**	**332**	⇑P	**Pn**	**08 35 03.8**	**-1.1**
	comp=Z,13nm,0.9s						
AKTO				⇑S	**S**	**08 38 03.2**	**-2.9**
	comp=Z,6.7nm,0.9s						
AKTO	**Aktyubinsk**	**16.32**	**332**	P	**Pn**	**08 35 04.5**	**-0.3**
AKTO				S	**S**	**08 37 56.9**	**-9.1**
AKTO				pmax	pmax		
	comp=Z,13nm,1.0s						
AKTO				smax	smax		
	comp=Z,6.0nm,1.0s						
BVAR	**Borovoye Array**	**16.53**	**1**	P	**P**	**08 35 06.5**	**-0.8**
	comp=Z,2.4nm,0.6s,baz=182,slow=9.0,SNR=8.8						
BVAR				S	**S**	**08 38 07.5**	**-3.4**
	comp=Z,1.6nm,0.5s,baz=186,slow=25,SNR=3.5						
ASHO	**Ashiyiah**	**16.68**	**229**	P	**P**	**08 35 10.1**	**+1.0**
EVN	**Everest**	**16.70**	**116**	P	**P**	**08 35 09.9**	**-0.2**
EVN				IAmb	IAmb	08 35 15.8	
	comp=Z,15nm,0.7s						
EVN	**Everest**	**16.70**	**116**	P	**P**	**08 35 10.1**	**0.0**
	comp=Z,19nm,0.8s						
ALNE	**Al Ain**	**17.33**	**228**	P	**P**	**08 35 17.5**	**+1.2**
	SNR=7.5						
BSY	**Bisya**	**17.52**	**222**	P	**P**	**08 35 18.3**	**-0.2**
MHTO	**MHTO**	**18.59**	**217**	P	**P**	**08 35 31.7**	**+1.6**
UMZA	**Um Al Zommool**	**18.70**	**227**	P	**P**	**08 35 31.1**	**-0.2**
UMZA				S	**S**	**08 38 54.5**	**-1.9**
GNI	**Garni**	**19.98**	**288**	P	**P**	**08 35 45.9**	**+0.7**
	comp=Z,82nm,0.7s,baz=90,slow=2.0,SNR=16						
	comp=Z,82nm,0.7s						
GNI	**Garni**	**19.98**	**288**	P	**Pn**	**08 35 48.1**	**-0.4**
GNI	**Garni**	**19.98**	**288**	*ce*P	**Pn**	**08 35 48.2**	**-0.3**
GNI				pmax	pmax		
	comp=Z,87nm,1.0s						
GNI	**Garni**	**19.98**	**288**	P	**P**	**08 35 46.3**	**+1.1**
GNI	**Garni**	**19.98**	**288**	P	**Pn**	**08 35 48.4**	**-0.1**
	comp=Z,1μmcomp=Z,118nm,1.0s						
GNI	**Garni**	**19.98**	**288**	P	**P**	**08 35 47.0**	**+1.8**
	comp=Z,119nm,1.0s						
GOMU	**GeErMu**	**20.13**	**83**	P	**P**	**08 35 47.0**	**-0.1**
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ZAA0	**Zalesovo Array**	**20.33**	**26**	P	**P**	**08 35 49.2**	**+0.7**
ZAA0				IAmb	IAmb	08 35 57.5	
	comp=Z,6.5nm,0.6s						
ZALV	**Zalesovo Beam**	**20.33**	**26**	P	**P**	**08 35 48.2**	**-0.4**
	comp=Z,7.2nm,0.8s,baz=221,slow=10,SNR=22						
ZALV				S	**S**	**08 39 20.2**	**-7.8**
	comp=Z,0.5nm,0.4s,baz=211,slow=20,SNR=1.6						
	comp=Z,7.2nm,0.8s						
ZALV	**Zalesovo Beam**	**20.33**	**26**	P	**P**	**08 35 49.1**	**+0.6**
ZALV	**Zalesovo Beam**	**20.33**	**26**	P	**P**	**08 35 49.1**	**+0.6**
HAKT	**HAKKARI**	**20.85**	**281**	P	**P**	**08 35 56.5**	**+1.9**
	comp=Z,39nm,1.4s						
ARTI	**Arti**	**21.34**	**342**	P	**P**	**08 35 58.7**	**-0.7**
	comp=Z,12nm,0.8s,baz=184,slow=15,SNR=11						
	comp=Z,12nm,0.8s						
ARTI	**Arti**	**21.34**	**342**	P	**P**	**08 35 59.2**	**-0.2**
ARTI	**Arti**	**21.34**	**342**	P	**P**	**08 35 59.2**	**-0.2**
KBZ	**Khabaz**	**21.75**	**298**	P	**P**	**08 36 02.9**	**-1.0**
	comp=Z,5.4nm,0.8s,baz=104,slow=11,SNR=6.4						
KBZ				S	**S**	**08 40 00.9**	**+6.5**
	comp=Z,2.2nm,0.8s,baz=170,slow=6.1,SNR=1.5						
	comp=Z,5.4nm,0.8s						
KIV	**Kislovodsk**	**21.94**	**298**	*e*P	**P**	**08 36 06.2**	**+0.2**
KIV				*e*S	**S**	**08 39 58.6**	**+0.7**
KIV				pmax	pmax		
	comp=Z,14nm,1.0s						
KIV	**Kislovodsk**	**21.94**	**298**	P	**P**	**08 36 06.7**	**+0.8**
	comp=Z,22nm,0.8s						
BELG	**Belogornoye**	**22.30**	**322**	P	**P**	**08 36 09.1**	**-0.2**
	comp=Z,22nm,0.7s,baz=127,slow=20,SNR=12						
	comp=Z,22nm,0.7s						
DOK	**Doka**	**22.54**	**222**	P	**P**	**08 36 11.5**	**-0.3**
	SNR=7.4						
DMTO	**DMTO**	**22.86**	**219**	P	**P**	**08 36 13.5**	**-1.3**
DMTO				S	**S**	**08 40 10.2**	**-2.8**
MARD	**Mardin**	**23.19**	**281**	P	**P**	**08 36 18.7**	**+0.8**
MARD				IAmb	IAmb	08 36 23.5	
	comp=Z,8.3nm,0.9s						
WHFO	**Wadi Hawf**	**23.30**	**222**	P	**P**	**08 36 18.2**	**-0.8**
GTA2	**Gaotai**	**23.74**	**74**	P	**P**	**08 36 25.3**	**+2.4**
GTA2				pmax	pmax		
	comp=Z,16nm,0.9s						
ABTO	**Aybut**	**24.02**	**222**	P	**P**	**08 36 25.4**	**-0.2**
	SNR=6.6						
RAYN	**Ar Rayn**	**24.62**	**245**	P	**P**	**08 36 30.8**	**-0.2**
RAYN	**Ar Rayn**	**24.62**	**245**	P	**P**	**08 36 30.4**	**-0.6**
	comp=Z,4.8nm,1.2s						
KEMA	**Kemaliye**	**24.81**	**286**	P	**P**	**08 36 33.6**	**+1.0**
	comp=Z,47nm,1.3s						
BR131	**Keskin Array S**	**28.52**	**288**	P	**P**	**08 37 05.6**	**-0.3**
BR131				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BR131	**Keskin Array S**	**28.52**	**288**	P	**P**	**08 37 05.6**	**-0.3**
BR131				IAmb	IAmb	08 37 07.8	
	comp=Z,4.6nm,0.8s						
BRTR	**Keskin Array B**	**28.52**	**288**	P	**P**	**08 37 05.1**	**-0.8**
	comp=Z,2.7nm,0.8s,baz=86,slow=9.5,SNR=8.4						
	comp=Z,2.7nm,0.8s						
BRTR	**Keskin Array B**	**28.52**	**288**	P	**P**	**08 37 06.4**	**+0.5**
BRTR	**Keskin Array B**	**28.52**	**288**	P	**P**	**08 37 06.4**	**+0.5**
SONM	**Songino Array**	**29.13**	**56**	P	**P**	**08 37 11.5**	**+0.4**
	comp=Z,2.8nm,0.8s,baz=250,slow=9.2,SNR=13						
	comp=Z,2.8nm,0.8s						
SONM	**Songino Array**	**29.13**	**56**	P	**P**	**08 37 12.2**	**+1.0**
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM	**Songino Array**	**29.13**	**56**	P	**P**	**08 37 12.2**	**+1.0**
OBN	**Obninsk**	**29.32**	**320**	||*e*P	**P**	**08 37 13.0**	**+0.5**
OBN				*PP	**pP**	**08 37 47.0**	**+2.7**
OBN				*SP	**sP**	**08 38 04.0**	**+2.3**
OBN						08 38 13.0	
OBN				pmax	pmax		
	comp=Z,7.0nm,0.7s						
OBN				MLR	MLR		
	comp=Z,103nm,16.0s						
CSS	**Mathiatis**	**29.55**	**278**	P	**P**	**08 37 15.4**	**+0.6**
ULN	**Ulaanbaatar**	**29.57**	**56**	P	**P**	**08 37 14.9**	**-0.2**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ULN	**Ulaanbaatar**	**29.57**	**56**	P	**P**	**08 37 14.9**	**-0.2**
ULN				IAmb	IAmb	08 37 17.3	
	comp=Z,4.0nm,0.8s						
AKASG	**Malin Array Be**	**32.20**	**309**	P	**P**	**08 37 37.1**	**-0.9**
	comp=Z,2.2nm,0.5s,baz=86,slow=7.1,SNR=13						
	comp=Z,2.2nm,0.5s						
KIEV	**Kiev**	**32.21**	**309**	P	**P**	**08 37 38.3**	**+0.3**
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KIEV	**Kiev**	**32.21**	**309**	P	**P**	**08 37 38.2**	**+0.3**
KIEV				IAmb	IAmb	08 37 38.6	
	comp=Z,5.2nm,0.5s						
MANT	**Manisa**	**32.60**	**286**	P	**P**	**08 37 41.5**	**-0.3**
HHC	**Hu-ho-hao-te**	**32.66**	**69**	*e*P	**P**	**08 37 43.5**	**+1.3**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,5.

	comp=Z,1.9nm,0.6s								
SOKA	**Soboth**	**41.46**	**302**	*i* P		**P**		**08 38 57.3**	**+1.0**
	comp=Z,7.6nm,0.9s								
MOA	**Molln**	**41.86**	**304**	*e*P		**P**		**08 39 00.4**	**+0.9**
	comp=Z,9.7nm,1.1s								
GERES	**GERESS Array B**	**42.15**	**305**	P		**P**		**08 39 00.9**	**-1.0**
	comp=Z,0.5nm,0.5s,baz=85,slow=7.6,SNR=5.5								
	comp=Z,0.5nm,0.5s								
HFS	**Hagfors**	**42.48**	**322**	P		**P**		**08 39 03.9**	**-0.4**
	comp=Z,9.6nm,0.6s,baz=91,slow=8.6,SNR=12								
	comp=Z,9.6nm,0.6s								
DLV	**Lat**	**42.49**	**115**	P		**P**		**08 39 07.3**	**+2.2**
	comp=Z,24nm,0.7s								
NC405	**NORSAR Array S**	**43.58**	**323**	P		**P**		**08 39 12.9**	**-0.2**
NC405				IAmb		IAmb		08 39 28.3	
	comp=Z,9.4nm,1.1s								
NC602	**NORSAR Array S**	**43.62**	**323**	P		**P**		**08 39 13.3**	**-0.1**
NC602				IAmb		IAmb		08 39 14.6	
	comp=Z,19nm,1.4s								
NB201	**NORSAR Array S**	**43.77**	**323**	P		**P**		**08 39 14.7**	**+0.1**
NB2	**NORSAR Subarra**	**43.81**	**323**	P		**P**		**08 39 14.7**	**-0.3**
	comp=Z,5.1nm,0.8s,baz=97,slow=7.9								
NOA	**NORSAR Array B**	**43.81**	**323**	P		**P**		**08 39 14.1**	**-0.9**
	comp=Z,6.2nm,0.7s,baz=96,slow=8.0,SNR=16								
	comp=Z,6.2nm,0.7s								
MOTA	**Moosalm**	**44.05**	**303**	*e*P		**P**		**08 39 17.0**	**-0.3**
	comp=Z,6.0nm,0.9s								
YAK	**Yakutsk**	**44.53**	**36**	*e*P		**P**		**08 39 21.5**	**+0.9**
YAK				pmax		pmax			
	comp=Z,7.0nm,0.8s								
DAVA	**Damuels**	**44.88**	**303**	*e*P		**P**		**08 39 23.8**	**0.0**
	comp=Z,9.9nm,0.6s								
DAVA	**Damuels**	**44.88**	**303**	P		**P**		**08 39 22.0**	**-1.9**
DAVOX	**Davos/Dischmat**	**44.96**	**303**	P		**P**		**08 39 23.0**	**-1.5**
	comp=Z,3.7nm,0.7s,baz=78,slow=9.3,SNR=6.0								
	comp=Z,3.7nm,0.7s								
TIXI	**Tiksi**	**46.14**	**22**	*e*P		**P**		**08 39 34.3**	**+1.1**
TIXI				pmax		pmax			
	comp=Z,4.0nm,0.9s								
SENIN	**Lac Senin/Sane**	**46.78**	**303**	P		**P**		**08 39 39.4**	**+0.5**
SENIN				IAmb		IAmb		08 39 40.0	
	comp=Z,4.9nm,0.8s								
KEST	**Kesra**	**48.13**	**288**	P		**P**		**08 39 49.9**	**+0.6**
	comp=Z,5.5nm,0.9s,baz=14,slow=8.3,SNR=4.3								
	comp=Z,5.5nm,0.9s								
KEST	**Kesra**	**48.13**	**288**	P		**P**		**08 39 49.8**	**+0.6**
KEST	**Kesra**	**48.13**	**288**	P		**P**		**08 39 49.9**	**+0.6**
WACR	**West Acre**	**49.89**	**312**	P		**P**		**08 40 03.3**	**+1.1**
	comp=Z,319nm,1.3s								
EKA	**Eskdalemuir Ar**	**51.62**	**316**	P		**P**		**08 40 14.3**	**-0.8**
	comp=Z,2.3nm,0.6s,baz=75,slow=7.1,SNR=6.1								
	comp=Z,2.3nm,0.6s								
MBAR	**Mbarara**	**51.73**	**233**	P		**P**		**08 40 15.7**	**-1.0**
MBAR	**Mbarara**	**51.73**	**233**	P		**P**		**08 40 16.8**	**+0.1**
MBAR				pmax		pmax			
	comp=Z,13nm,0.7s								
MBAR	**Mbarara**	**51.73**	**233**	P		**P**		**08 40 16.8**	**+0.1**
MBAR	**Mbarara**	**51.73**	**233**	P		**P**		**08 40 17.0**	**+0.3**
	comp=Z,14nm,0.7s								
CEST	**Esterri de Car**	**51.91**	**299**	P		**P**		**08 40 18.2**	**+0.5**
DAG	**Danmarks Havn**	**54.46**	**344**	P		**P**		**08 40 35.2**	**-0.4**
	comp=Z,15nm,2.5s								
ESDC	**Sonseca Array**	**56.61**	**297**	P		**P**		**08 40 50.2**	**-1.4**
	comp=Z,1.6nm,0.8s,baz=68,slow=6.6,SNR=8.6								
	comp=Z,1.6nm,0.8s								
ESDC	**Sonseca Array**	**56.61**	**297**	P		**P**		**08 40 51.8**	**+0.1**
SUMG	**Summit**	**60.75**	**341**	P		**P**		**08 41 20.9**	**+0.8**
SUMG				pmax		pmax			
	comp=Z,5.0nm,0.9s								
SUMG	**Summit**	**60.75**	**341**	P		**P**		**08 41 20.9**	**+0.8**
SUMG				IAmb		IAmb		08 41 24.8	
	comp=Z,4.9nm,0.9s								
TORD	**Torodi Ar. Bea**	**64.76**	**268**	P		**P**		**08 41 44.7**	**-2.3**
	comp=Z,1.9nm,0.7s,baz=49,slow=6.3,SNR=10								
	comp=Z,1.9nm,0.7s								
TORD	**Torodi Ar. Bea**	**64.76**	**268**	P		**P**		**08 41 45.4**	**-1.7**
C18K	**Utukok River**	**68.57**	**18**	P		**P**		**08 42 11.3**	**+0.8**
C18K				IAmb		IAmb		08 42 18.1	
	comp=Z,12nm,1.2s								
RES	**Resolute Bay**	**68.64**	**356**	P		**P**		**08 42 11.1**	**+0.5**
RES	**Resolute Bay**	**68.64**	**356**	P		**P**		**08 42 11.1**	**+0.5**
D19K	**Kuna River**	**69.43**	**17**	P		**P**		**08 42 16.4**	**+0.6**
D19K				IAmb		IAmb		08 42 22.2	
	comp=Z,14nm,1.4s								
D22K	**Ayikyak River**	**70.33**	**15**	P		**P**		**08 42 22.3**	**+1.1**
D22K				IAmb		IAmb		08 42 26.9	
	comp=Z,6.2nm,1.2s								
D23K	**Nanushuk River**	**70.67**	**14**	P		**P**		**08 42 24.4**	**+1.2**
TOLK	**Toolik Lake Re**	**71.17**	**14**	P		**P**		**08 42 27.1**	**+0.8**
TOLK				IAmb		IAmb		08 42 27.7	
	comp=Z,6.5nm,0.8s								
A36M	**Sachs Harbour**	**71.30**	**5**	P		**P**		**08 42 27.9**	**+1.0**
A36M				IAmb		IAmb		08 42 28.7	
	comp=Z,7.8nm,0.8s								
ILON	**Igloolik, Nuna**	**72.39**	**350**	P		**P**		**08 42 33.6**	**+0.1**
ILON				IAmb		IAmb		08 42 33.9	
	comp=Z,5.7nm,0.9s								
IMAR	**Indian Mountai**	**72.46**	**17**	P		**P**		**08 42 34.3**	**+0.3**
BMAR	**Burnt Mountain**	**73.17**	**13**	P		**P**		**08 42 39.4**	**+1.2**
INK	**Inuvik**	**74.06**	**9**	P		**P**		**08 42 44.3**	**+1.1**
INK				pmax		pmax			
	comp=Z,4.0nm,1.3s								
INK	**Inuvik**	**74.06**	**9**	P		**P**		**08 42 44.3**	**+1.1**
F31M	**Tsiigehtchic**	**74.85**	**9**	P		**P**		**08 42 48.7**	**+0.8**
CAST	**Castle Rocks**	**74.99**	**18**	P		**P**		**08 42 48.9**	**+0.1**
CAST				IAmb		IAmb		08 42 50.4	
	comp=Z,4.1nm,0.8s								
IL31		**75.04**	**15**	P		**P**		**08 42 48.7**	**-0.3**
ILAR	**Eielson Array**	**75.04**	**15**	P		**P**		**08 42 47.9**	**-1.1**
	comp=Z,1.0nm,0.9s,baz=323,slow=5.8,SNR=10.0								
	comp=Z,1.0nm,0.9s								
ILAR	**Eielson Array**	**75.04**	**15**	P		**P**		**08 42 49.1**	**+0.1**
ILAR	**Eielson Array**	**75.04**	**15**	P		**P**		**08 42 49.1**	**+0.1**
LKGWB	**Lokgwabe**	**75.73**	**225**	P		**P**		**08 42 51.6**	**-2.1**
DHY	**Denali Highway**	**76.41**	**16**	P		**P**		**08 42 57.5**	**+0.5**
DAWY	**Dawson**	**77.14**	**13**	P		**P**		**08 43 01.4**	**+0.4**
PMR	**Palmer**	**77.27**	**18**	P		**P**		**08 43 02.4**	**+0.8**
PMR				pmax		pmax			
	comp=Z,10.0nm,1.4s								
PMR	**Palmer**	**77.27**	**18**	P		**P**		**08 43 02.4**	**+0.8**
PMR				IAmb		IAmb		08 43 07.5	
	comp=Z,10.0nm,1.4s								
SCM	**Sheep Creek Mo**	**77.50**	**17**	P		**P**		**08 43 03.1**	**+0.1**
SCM				pmax		pmax			
	comp=Z,19nm,1.3s								
SCM	**Sheep Creek Mo**	**77.50**	**17**	P		**P**		**08 43 03.1**	**+0.1**
BCAR	**Beaver Creek A**	**77.61**	**14**	P		**P**		**08 43 04.5**	**+1.0**
BLKN	**Baker Lake**	**78.90**	**354**	P		**P**		**08 43 10.2**	**-0.3**
BLKN				IAmb		IAmb		08 43 12.6	
	comp=Z,16nm,1.4s								
HYT	**Haines Junctio**	**80.48**	**13**	P		**P**		**08 43 19.4**	**0.0**
HYT				IAmb		IAmb		08 43 24.2	
	comp=Z,7.8nm,1.4s								
WHY	**Whitehorse**	**81.09**	**12**	P		**P**		**08 43 22.8**	**+0.2**
YKA	**Yellowknife Ar**	**81.29**	**2**	P		**P**		**08 43 23.6**	**+0.2**
	comp=Z,1.6nm,1.0s,baz=352,slow=5.5,SNR=3.3								
	comp=Z,1.6nm,1.0s								
YKA	**Yellowknife Ar**	**81.29**	**2**	P		**P**		**08 43 22.9**	**-0.5**
P33M	**Teslin, Yukon**	**81.85**	**11**	P		**P**		**08 43 27.1**	**+0.6**
P33M				IAmb		IAmb		08 43 35.0	
	comp=Z,4.3nm,1.1s								
WRA	**Warramunga Arr**	**82.81**	**121**	P		**P**		**08 43 29.3**	**-2.7**
	comp=Z,0.5nm,0.8s,baz=316,slow=4.5,SNR=3.5								
	comp=Z,0.5nm,0.8s								
WRA	**Warramunga Arr**	**82.81**	**121**	P		**P**		**08 43 30.2**	**-1.8**
WRA	**Warramunga Arr**	**82.81**	**121**	P		**P**		**08 43 30.2**	**-1.8**
ASAR	**Alice Springs**	**85.04**	**124**	P		**P**		**08 43 40.0**	**-3.3**
	comp=Z,0.5nm,0.7s,baz=317,slow=5.3,SNR=7.9								
	comp=Z,0.5nm,0.7s								
ASAR	**Alice Springs**	**85.04**	**124**	P		**P**		**08 43 42.0**	**-1.2**
ASAR	**Alice Springs**	**85.04**	**124**	P		**P**		**08 43 42.0**	**-1.2**
QSPA	**South Pole Qui**	**126.29**	**180**	PKP		**PKPdf**		**08 50 06.6**	**-1.6**
	comp=Z,1.3nm,0.9s,baz=217,slow=1.6,SNR=2.4								
AC02	**Maricunga**	**143.98**	**274**	PKPdf		PKPab		08 50 40.7	+0.2
GO03	**Copiapo**	**145.19**	**273**			**PKPbc**		**08 50 43.1**	**-1.2**
CO01	**Juntas del Tor**	**146.02**	**269**	PKPdf		**PKPdf**		**08 50 45.6**	**-0.3**
CO03	**El Pedregal**	**146.81**	**268**	PKPdf		**PKPdf**		**08 50 47.0**	**-0.1**
VA03	**San Esteban**	**147.33**	**265**	PKPdf		**PKPdf**		**08 50 47.5**	**-0.4**
PLCA	**Paso Flores**	**148.92**	**250**	PKPbc		**PKPbc**		**08 50 53.6**	**-0.7**
	comp=Z,1.8nm,1.0s,baz=117,slow=2.3,SNR=4.5								

*IDC **19** 09:02:01.5±1.3, 32°.55S×71°.69W, h0km, mb3.4/2, mbtmp3.4/3, ML3.8/1, Error ellipse: s-maj=68.6km s-min=25.2km az=84.0*

*SJA **19** 09:02:03.2±0.8, 32°.70S×71°.92W, h17km±3km, ML3.5, MW3.5*

*GUC **19** 09:02:06.1±0.8, 32°.65S×71°.76W, h25km±30km, ML3.6, Presumed earthquake*

ISC 19 09:02:02.1±1.5, 32.64S±0°.02×71.89W±0°.05, h4km±10km, n66, σ1.33/85, 2C-12D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
VA01	**Torpederas**	**0.44**	**152**	*e*S		**Sg**	**09 02 14.2**	**-2.2**
VA01	**Torpederas**	**0.44**	**152**	⇑*i*P		**Sg**	**09 02 14.2**	**-2.2**
ROCH	**El Roble**	**0.81**	**115**	⇓*i*P		**Pb**	**09 02 19.6**	**+0.6**
ROCH				*e*S		**Sb**	**09 02 29.2**	**-1.2**
ROCH				IAML			09 02 30.8	
	comp=N,5μm,0.4s							
MT02	**Curacav**	**0.89**	**135**	*e*P		**Pb**	**09 02 20.4**	**+0.3**
MT02				*e*S		**Sb**	**09 02 32.0**	**-0.3**
MT02				IAML			09 02 36.1	
	comp=Z,720nm,0.2s							
MT02	**Curacav**	**0.89**	**135**	⇓*i*P		**Pb**	**09 02 20.6**	**+0.5**
MT02				*e*S		**Sg**	**09 02 30.5**	**-0.2**
CO04	**Los Peladeros**	**0.97**	**53**	⇓*i*P		**Pb**	**09 02 22.4**	**+0.7**
CO04				*e*S		**Sb**	**09 02 34.7**	**-0.3**
CO04				IAML			09 02 35.6	
	comp=N,4μm,0.2s							
PEL	**Peldehue**	**1.13**	**117**	*e*P		**Pg**	**09 02 24.4**	**+0.5**
PEL				*e*S		**Sb**	**09 02 38.2**	**-1.3**
PEL				IAML			09 02 41.3	
	comp=N,4μm,0.3s							
VA03	**San Esteban**	**1.14**	**97**	⇓*i*P		**Pb**	**09 02 24.2**	**-0.2**
VA03				IAML			09 02 40.2	
	comp=N,3μm,0.2s							
MT05	**Renca**	**1.23**	**128**	*e*P		**Pg**	**09 02 26.4**	**+0.7**
MT05				*e*S		**Sn**	**09 02 43.2**	**0.0**
MT05				IAML			09 02 43.9	
	comp=Z,1μm,0.6s							
MT05	**Renca**	**1.23**	**128**	*i* P		**Pg**	**09 02 26.2**	**+0.5**
MT05				*e*S		**Sb**	**09 02 41.3**	**-0.9**
MT05				IAML			09 02 46.1	
	comp=E,3μm,0.3s							
MT10	**Hacienda Santa**	**1.30**	**120**	*e*P		**Pb**	**09 02 27.4**	**+0.1**
MT10				IAML			09 02 45.8	
	comp=E,5μm,0.4s							
MT01	**Popeta**	**1.34**	**157**	*e*P		**Pb**	**09 02 28.3**	**+0.5**
MT01				*e*S		**Sg**	**09 02 45.4**	**+0.2**
MT01				IAML			09 02 47.6	
	comp=Z,1μm,0.8s							
MT01	**Popeta**	**1.34**	**157**	*e*P		**Pb**	**09 02 28.1**	**+0.3**
MT01				*e*S		**Sb**	**09 02 44.6**	**-0.6**
MT01				IAML			09 02 48.9	
	comp=E,2μm,0.2s							
MT09	**Talagante**	**1.37**	**147**	⇓*i*P		**Pb**	**09 02 28.6**	**+0.3**
MT09				*e*S		**Sb**	**09 02 45.0**	**-1.2**
MT09				IAML			09 02 53.3	
	comp=N,2μm,0.3s							
MT14	**Cerro Cal¡n**	**1.37**	**124**	⇓*i*P		**Pb**	**09 02 28.5**	**+0.1**
MT14				*e*S		**Sb**	**09 02 45.0**	**-1.2**
MT14				IAML			09 02 47.2	
	comp=N,2μm,0.4s							
MT16	**CCHEN**	**1.40**	**125**	⇓*i*P		**Pb**	**09 02 28.9**	**+0.1**
MT03	**Universidad Ad**	**1.44**	**127**	*e*P		**Pb**	**09 02 29.8**	**+0.2**
MT03				*e*S		**Sg**	**09 02 48.8**	**+0.3**
MT03				IAML			09 02 53.6	
	comp=Z,946nm,0.7s							
MT03	**Universidad Ad**	**1.44**	**127**	⇓*i*P		**Pb**	**09 02 29.6**	**0.0**
MT03				IAML			09 02 52.7	
	comp=E,3μm,0.2s							
MT15	**Las Vizcachas**	**1.51**	**130**	⇓*i*P		**Pb**	**09 02 30.5**	**-0.2**
MT15				*e*S		**Sb**	**09 02 50.0**	**-0.2**
MT15				IAML			09 02 55.9	
	comp=E,2μm,0.2s							
FCH	**Farellones**	**1.51**	**118**	⇓*i*P		**Pb**	**09 02 30.6**	**-0.4**
FCH				IAML			09 02 49.8	
	comp=E,1μm,0.2s							
MT12	**Pirque**	**1.57**	**135**	*i* P		**Pb**	**09 02 31.8**	**0.0**
MT12				*e*S		**Sb**	**09 02 51.5**	**-0.5**
MT12				IAML			09 02 55.9	
	comp=N,2μm,0.5s							
CO02	**Combarbal**	**1.61**	**28**	*e*P		**Pb**	**09 02 32.8**	**+0.2**
CO02				*e*S		**Sg**	**09 02 55.5**	**+1.5**
CO02				IAML			09 02 59.0	
	comp=Z,911nm,0.5s							
CO02	**Combarbal**	**1.61**	**28**	⇑*i*P		**Pb**	**09 02 32.7**	**+0.2**
CO02				IAML			09 03 01.0	
	comp=E,3μm,0.2s							
MT04	**Ro Olivares**	**1.66**	**118**	*e*P		**Pb**	**09 02 33.0**	**-0.4**
MT04				*e*S		**Sb**	**09 02 54.5**	**-0.3**
MT04				IAML			09 02 56.1	
	comp=Z,448nm,0.5s							
MT04	**Ro Olivares**	**1.66**	**118**	⇓*i*P		**Pb**	**09 02 32.8**	**-0.6**
MT04				IAML			09 02 55.1	
	comp=E,792nm,0.4s							
BO04	**La Punta**	**1.73**	**142**	*e*P		**Pb**	**09 02 34.4**	**-0.1**
BO04				IAML			09 03 00.6	
	comp=E,862nm,0.4s							
MT13	**San Alfonso**	**1.74**	**130**	*e*P		**Pb**	**09 02 34.7**	**0.0**
MT13				*e*S		**Sg**	**09 02 58.0**	**-0.1**
MT13				IAML			09 03 00.0	
	comp=Z,747nm,0.2s							
MT13	**San Alfonso**	**1.74**	**130**	*e*P		**Pb**	**09 02 34.2**	**-0.5**
MT13							09 02 59.6	
	comp=E,2μm,0.3s							
MT08	**Bocatoma Ro**	**1.77**	**118**	*e*P		**Pb**	**09 02 35.0**	**-0.3**
MT08				*e*S		**Sg**	**09 02 59.2**	**+0.2**
MT08	**Bocatoma Ro**	**1.77**	**118**	⇓*i*P		**Pb**	**09 02 34.7**	**-0.6**
MT08				IAML			09 02 58.9	
	comp=E,532nm,0.5s							
LMEL	**Las Melosas**	**1.86**	**131**	*e*P		**Pb**	**09 02 36.2**	**-0.6**
LMEL				IAML			09 03 03.5	
	comp=N,1μm,0.1s							
BO01	**Tunca**	**1.88**	**159**	*e*P		**Pn**	**09 02 36.0**	**+1.0**
CO03	**El Pedregal**	**2.06**	**30**	*e*P		**Pn**	**09 02 39.2**	**+1.6**
CO03				*e*S		**Sg**	**09 03 08.9**	**+0.5**
CO03				IAML			09 03 12.8	
	comp=Z,305nm,1.3s							
BO02	**Sierra Bellavi**	**2.34**	**157**	*e*P		**Pn**	**09 02 42.9**	**+1.4**
RTLS	**Leoncito**	**2.35**	**70**	*e*P		**Pb**	**09 02 45.5**	**+0.2**
GO05	**Hualane**	**2.37**	**181**	*e*P		**Pn**	**09 02 41.9**	**+0.1**
GO05				*e*S		**Sb**	**09 03 14.9**	**0.0**
GO05				IAML			09 03 36.5	
	comp=Z,128nm,0.8s							
ARCO	**CERRO ARCO**	**2.50**	**96**	*e*P		**Pb**	**09 02 47.2**	**-0.5**
ARCO				*e*S		**Sb**	**09 03 16.4**	**-2.5**
ARCO				IAML			09 03 26.8	
	comp=Z,192nm,0.6s							
AAGR	**Agrelo**	**2.62**	**101**	*e*P		**Pb**	**09 02 49.6**	**0.0**
AAGR				*e*S		**Sg**	**09 03 27.8**	**+1.6**
AAGR				IAML			09 03 38.7	
	comp=Z,128nm,0.9s							
GO04	**Tololo Observa**	**2.63**	**21**	*e*P		**Pn**	**09 02 46.9**	**+1.4**
GO04				*e*S		**Sn**	**09 03 17.4**	**-0.5**
GO04				IAML			09 03 31.6	
	comp=Z,455nm,0.7s							
ZON	**Zonda**	**2.93**	**69**	*e*P		**Pb**	**09 02 53.7**	**-1.3**
CO01	**Juntas del Tor**	**3.06**	**31**	*e*P		**Pn**	**09 02 53.8**	**+2.3**
CO01				*e*S		**Sn**	**09 03 31.4**	**+2.7**
CO01				IAML			09 03 40.9	
	comp=Z,111nm,0.7s							
ACCO	**Cerro Coronel**	**3.16**	**50**	*e*P		**Pb**	**09 02 56.7**	**-2.3**
ACCO				*e*S		**Sb**	**09 03 36.4**	**-1.5**
ACCO				IAML			09 03 42.5	
	comp=Z,113nm,1.4s							
RTLL	**Cerro Villicun**	**3.18**	**67**	*e*P		**Pb**	**09 02 57.0**	**-2.2**
AROD	**Rodeo**	**3.21**	**41**	*e*P		**Pb**	**09 02 57.3**	**-2.6**
AROD				*e*S		**Sb**	**09 03 37.9**	**-1.6**
CFA	**Coronel Fontan**	**3.27**	**73**	*e*P		**Pn**	**09 02 57.1**	**+3.0**
CFA				*e*S		**Sb**	**09 03 37.9**	**-2.9**
CFA				IAML			09 04 10.1	
	comp=Z,217nm,0.8s							
ACDV	**Cuesta del Vie**	**3.41**	**45**	*e*P		**Pb**	**09 03 00.1**	**-3.2**
ACDV				*e*S		**Sb**	**09 03 46.9**	**+1.8**
ACDV				IAML			09 03 56.8	
	comp=Z,96nm,0.7s							
RFA	**San Rafael**	**3.56**	**128**	*e*P		**Pb**	**09 03 02.0**	**-3.8**
LCO	**Las Campanas**	**3.75**	**16**	*e*P		**Pn**	**09 03 02.3**	**+1.3**
AC05	**El Transito**	**4.03**	**21**	*e*P		**Pn**	**09 03 06.6**	**+1.9**
AC04	**Llanos de Chal**	**4.47**	**9**	*e*P		**Pn**	**09 03 10.9**	**+0.2**
VCA	**Vinchina**	**5.02**	**40**	*e*P		**Pn**	**09 03 21.8**	**+3.4**
GO03	**Copiapo**	**5.22**	**16**	*e*P		**Pn**	**09 03 22.3**	**+1.2**
H03S1	**Juan Fernandez**	**6.00**	**257**	T		T	09 09 53.2	
	baz=82,slow=75,SNR=49							
H03S3	**Juan Fernandez**	**6.00**	**257**	T		T	09 10 00.7	
	baz=82,slow=75,SNR=55							
H03S2	**Juan Fernandez**	**6.02**	**257**	T		T	09 10 00.3	
	baz=82,slow=75,SNR=156							
PLCA	**Paso Flores**	**8.15**	**173**	Pn		**Pn**	**09 04 02.7**	**+1.4**
	comp=Z,0.3nm,0.3s,baz=342,slow=16,SNR=12							
	comp=Z,0.8nm,0.3s							
PLCA				AML		AML		
TXAR	**Lajitas Array**	**68.61**	**330**	P		**P**	**09 13 06.4**	**0.0**
	comp=Z,0.2nm,0.8s,baz=143,slow=6.9,SNR=1.9							
	comp=Z,0.2nm,0.8s							
TORD	**Torodi Ar. Bea**	**83.63**	**70**	P		**P**	**09 14 31.2**	**-0.9**
	comp=Z,0.4nm,0.7s,baz=226,slow=2.4,SNR=2.5							
	comp=Z,0.4nm,0.7s							
H11S2	**WAKE ISLAND Hyl**	**25.90**	**270**	T		T	11 40 01.9	
	baz=118,slow=75,SNR=57							
H11S1	**WAKE ISLAND Hyl**	**25.92**	**270**	T		T	11 40 00.8	
	baz=118,slow=75,SNR=56							
H11S3	**WAKE ISLAND Hyl**	**25.92**	**270**	T		T	11 40 03.3	
	baz=118,slow=75,SNR=63							
H11N3	**WAKE ISLAND Hyl**	**26.28**	**271**	T		T	11 40 27.9	
	baz=117,slow=76,SNR=9.5							
H11N1	**WAKE ISLAND Hyl**	**26.30**	**271**	T		T	11 40 30.5	
	baz=117,slow=76,SNR=8.7							
H11N2	**WAKE ISLAND Hyl**	**26.30**	**272**	T		T	11 40 29.1	
	baz=117,slow=76,SNR=14							
KURBB	**Kurchatov Arra**	**151.78**	**42**	PKPbc		**PKPbc**	**09 21 57.5**	**0.0**
	comp=Z,0.6nm,0.6s,baz=300,slow=3.4,SNR=5.3							
ZALV	**Zalesovo Beam**	**153.00**	**31**	PKPbc		**PKPbc**	**09 21 59.4**	**-0.8**
	comp=Z,0.5nm,0.3s,baz=297,slow=1.0,SNR=1.2							

*IDC **19** 09:15:19.5±4.0, 54°.25N×87°.13E, h0km, mbtmp2.8/2, ML2.4/2, Error ellipse: s-maj=37.1km s-min=18.2km az=74.0*

ASRS 19 09:15:18.0±1.3, 54°.27N×87°.08E, h0km, M2.8(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.37**	**257**	I		I	09 23 20.0	
	0.1nm,0.9s,baz=77,slow=346,SNR=5.5							
ZALV	**Zalesovo Beam**	**1.37**	**257**	Pg		Pb	09 15 44.4	0.0
	1.3nm,0.3s,baz=74,slow=16,SNR=13							
ZALV				Lg		Lg	09 16 05.5	
	1.7nm,0.3s,baz=77,slow=24,SNR=11							
KURBB	**Kurchatov Arra**	**6.37**	**239**	Pn		Pn	09 16 56.1	+3.0
	0.1nm,0.3s,baz=55,slow=14,SNR=2.2							
	0.6nm,0.5s							
KURBB				AML		AML		
MKAR	**Makanchi Array**	**8.08**	**204**	Pn		Pn	09 17 19.9	+3.4
	0.1nm,0.3s,baz=24,slow=12,SNR=2.1							
MKAR				Lg		Lg	09 19 31.0	
	baz=25,slow=34,SNR=2.0							
	0.1nm,0.3s							
MKAR				AML		AML		

*HLW **19** 09:16:09.9, 31°.21N×34°.13E, h10km±28km, Ml2.7*

*GII **19** 09:16:09.1±0.0, 30°.760N±0°.001×33°.579E±0°.003, h0km, confirmed*

ISC 19 09:16:08.5±2.2, 30.76N±0°.06×33.5E±0°.1, h0km, n11, σ0s43/19, Egypt

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
RMNI	**Mount Ramon**	**1.08**	**98**	P		**Pb**	**09 16 29.8**	**-0.3**
RMNI				S		**Sn**	**09 16 46.1**	**-0.6**
HRFI	**Mount Harif**	**1.50**	**119**	P		**Pn**	**09 16 36.8**	**+0.2**
IDAN	**Idan**	**1.51**	**87**	P		**Pb**	**09 16 37.3**	**-0.1**
IDAN				S		**Sn**	**09 16 57.8**	**+0.7**
YTVT	**Yotvata**	**1.59**	**123**	P		**Pn**	**09 16 37.8**	**0.0**
YTVT				S		**Sb**	**09 16 59.3**	**0.0**
EIL	**Elat**	**1.65**	**131**	P		**Pn**	**09 16 39.1**	**+0.3**
EIL				S		**Sg**	**09 17 01.6**	**+0.1**
MSBI	**Mazada**	**1.67**	**70**	P		**Pn**	**09 16 39.3**	**+0.4**
MSBI				S		**Sn**	**09 17 01.1**	**+0.1**
MZS	**Mizpe Shalem**	**1.80**	**63**	P		**Pn**	**09 16 40.8**

CSGN	**Cosiguina Volc**	**1.93**	**342**	P		**Pn**	**09 20 40.9**	**+0.1**
CSGN				S		**Sn**	**09 21 04.7**	**+0.1**
TENO	**El Achiote**	**1.98**	**102**	*eP*		**Pn**	**09 20 41.4**	**-0.2**
QUEB	**Quebradon, Cot**	**2.08**	**104**	*eP*		**Pn**	**09 20 42.6**	**-0.3**
JTS	**Las Juntas de**	**2.13**	**113**	Pn		**Pn**	**09 20 44.4**	**+0.8**
	3.6nm,0.3s,baz=298,slow=6.5,SNR=32							
JTS				Lg		Lg	09 21 19.0	
	19nm,0.3s,baz=294,slow=19,SNR=7.2							
	29nm,0.4s							
JTS				AML		AML		
JTS	**Las Juntas de**	**2.13**	**113**	P		**Pn**	**09 20 43.1**	**-0.5**
MTEVE	**Monteverde**	**2.23**	**111**	*eP*		**Pn**	**09 20 44.8**	**-0.3**
CASO	**Castillo**	**2.28**	**108**	*eP*		**Pn**	**09 20 46.1**	**+0.4**
REZ	**Monterrey de S**	**2.29**	**105**	*eP*		**Pn**	**09 20 46.0**	**+0.2**
VARE2	**V. Arenal**	**2.29**	**107**	*eP*		**Pn**	**09 20 46.0**	**+0.2**
CNCH	**Conchagua**	**2.30**	**338**	P		**Pn**	**09 20 45.8**	**-0.2**
CNCH				S		**Sn**	**09 21 13.3**	**-0.5**
CNCH	**Conchagua**	**2.30**	**338**	*eP*		**Pn**	**09 20 45.7**	**-0.4**
INTP	**Intipuca**	**2.32**	**332**	*eP*		**Pn**	**09 20 45.5**	**-0.7**
INTP				*eS*		**Sn**	**09 21 12.3**	**-1.9**
LCND	**La Caada**	**2.35**	**337**	P		**Pn**	**09 20 46.5**	**-0.1**
COVE	**Coope Vega, Sa**	**2.53**	**99**	P		**Pn**	**09 20 48.2**	**-0.9**
RCVN	**Varillal2**	**2.54**	**17**	P		**Pn**	**09 20 49.8**	**+0.4**
RANC	**El Ranchito**	**2.64**	**330**	P		**Pn**	**09 20 51.6**	**+0.9**
PACA	**Pacayal**	**2.68**	**330**	*eP*		**Pn**	**09 20 51.9**	**+0.6**
SJTE	**Alcalda de S**	**3.18**	**321**	*eP*		**Pn**	**09 21 01.4**	**+3.2**
SJTE				*eS*		**Sn**	**09 21 33.7**	**-2.0**
CMIG	**Matias Romero**	**9.71**	**308**	Pn		**Pn**	**09 22 28.0**	**+0.2**
	0.2nm,0.3s,baz=132,slow=14,SNR=1.6							
	2.7nm,0.8s							
CMIG				AML		AML		
TXAR	**Lajitas Array**	**23.90**	**322**	P		**P**	**09 25 21.5**	**-0.4**
	0.7nm,0.6s,baz=130,slow=6.8,SNR=12							
TXAR				PcP		**PcP**	**09 29 06.5**	**+2.0**
	0.4nm,0.8s,baz=124,slow=2.7,SNR=3.9							
	0.7nm,0.6s							
PDAR	**Pinedale Array**	**37.16**	**332**	P		**P**	**09 27 17.4**	**-1.6**
	0.3nm,0.5s,baz=137,slow=9.3,SNR=3.7							
	0.3nm,0.5s							
SIV	**San Ignacio**	**37.18**	**136**	P		**P**	**09 27 20.4**	**+1.3**
	1.6nm,0.6s,baz=307,slow=11,SNR=9.9							
	1.6nm,0.6s							
NVAR	**Mina Array Bea**	**39.02**	**320**	PcP		**PcP**	**09 29 46.0**	**+1.2**
	0.4nm,0.7s,baz=95,slow=3.9,SNR=1.8							
CMAR	**Chiang Mai Arr**	**150.03**	**349**	PKPbc		**PKPbc**	**09 39 57.8**	**-1.5**
	0.5nm,0.3s,baz=18,slow=4.7,SNR=4.0							

CNRM ***19*** *09:21:11.1,36°.48N×4°.65W,h94km*
SFS ***19*** *09:21:11.6,36°.72N×4°.60W,h76km,ML2.6/14,ML2.5/14, MLv2.5/14*
MDD ***19*** *09:21:11.1±0.6,36°.71N×4°.60W,h76km±6km,Mb2.4/15, Error ellipse: s-maj=5.4km s-min=2.6km az=179.0*
INMG ***19*** *09:21:11.1±1.5,36°.74N×4°.60W,h74km±7km,ML1.9, Error ellipse: s-maj=4.0km s-min=2.5km az=16.0, #DIST_RANGE: REGIONAL #IPMA_REGION: W Malaga (ESP)*

ISC 19 09:21:09.1±1.2,36°.68N±0°.03×4°.56W±0°.02,h85km±6km, n52,σ1§37/98,12C-1D,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMAL	**Malaga-Limoner**	**0.13**	**53**	Pg	**Pn**	**09 21 22.0**	**+0.7**
EMAL				Sg	**Sn**	**09 21 30.0**	**-0.4**
EMIJ	**Mijas**	**0.21**	**236**	Pg	**Pn**	**09 21 22.0**	**+0.4**
EMIJ				Sg	**Sn**	**09 21 30.3**	**-0.6**
EMIJ	**Mijas**	**0.21**	**236**	Pg	**Pn**	**09 21 22.0**	**+0.4**
EMIJ				Sg	**Sn**	**09 21 30.2**	**-0.7**
EGOR	**Sierra Gorda,**	**0.56**	**40**	Pg	**Pn**	**09 21 24.9**	**+0.8**
EGOR				Sg	**Sn**	**09 21 33.5**	**-1.6**
EGOR	**Sierra Gorda,**	**0.56**	**40**	Pg	**Pn**	**09 21 24.9**	**+0.8**
EGOR				Sg	**Sn**	**09 21 33.6**	**-1.6**
ELGU	**Los Guajares,**	**0.77**	**76**	Pg	**Pn**	**09 21 26.6**	**+0.6**
ELGU				Sg	**Sn**	**09 21 38.7**	**+0.1**
ELGU	**Los Guajares,**	**0.77**	**76**	Pg	**Pn**	**09 21 26.6**	**+0.6**
ELGU				⇑IVmb_VC		09 21 27.7	
	353nm,SNR=5.7						
ELGU				Sg	**Sn**	**09 21 39.0**	**+0.3**
EQTA	**Presa de Quent**	**1.04**	**59**	Pg	**Pn**	**09 21 30.3**	**+1.3**
EQTA				Sg	**Sn**	**09 21 44.2**	**+0.3**
EQUE	**Quentar**	**1.04**	**59**	Pn	**Pn**	**09 21 29.8**	**+0.7**
EQUE				⇑IVmb_VC		09 21 31.0	
	148nm,SNR=2.9						
EQUE				Sn	**Sn**	**09 21 44.1**	**+0.2**
ESPR	**Espera**	**1.06**	**281**	Pg	**Pn**	**09 21 28.5**	**-0.6**
ESPR				Sg	**Sn**	**09 21 43.0**	**-1.1**
ESPR	**Espera**	**1.06**	**281**	Pn	**Pn**	**09 21 29.4**	**+0.2**
ESPR				⇑IVmb_VC		09 21 31.1	
	133nm,SNR=1.3						
ESPR				Sn	**Sn**	**09 21 41.8**	**-2.3**
SMIR	**Smir Dam**	**1.20**	**214**	P	**Pn**	**09 21 32.1**	**+1.3**
SMIR				S	**Sn**	**09 21 46.4**	**-0.8**
SFS	**San Fernando**	**1.34**	**261**	P	**Pn**	**09 21 34.8**	**+2.2**
SFS				S	**Sn**	**09 21 52.2**	**+1.9**
EBER	**Berja**	**1.36**	**80**	Pn	**Pn**	**09 21 34.3**	**+1.3**
EBER				Sn	**Sn**	**09 21 51.1**	**+0.1**
EBER	**Berja**	**1.36**	**80**	Pn	**Pn**	**09 21 34.7**	**+1.7**
EBER				⇑IVmb_VC		09 21 37.3	
	126nm,SNR=1.6						
EBER				Sn	**Sn**	**09 21 51.1**	**+0.1**
EADA	**Adamuz**	**1.48**	**359**	Pn	**Pn**	**09 21 35.4**	**+0.9**
EADA				Sn	**Sn**	**09 21 52.8**	**-0.9**
EADA	**Adamuz**	**1.48**	**359**	Pn	**Pn**	**09 21 35.1**	**+0.6**
EADA				⇑IVmb_VC		09 21 35.7	
	191nm,SNR=3.1						
EADA				Sn	**Sn**	**09 21 52.9**	**-0.7**
ECAB	**El Cabril**	**1.55**	**334**	Pn	**Pn**	**09 21 35.9**	**+0.5**
ECAB				Sn	**Sn**	**09 21 54.2**	**-0.9**
ECAB	**El Cabril**	**1.55**	**334**	Pn	**Pn**	**09 21 35.8**	**+0.5**
ECAB				⇑IVmb_VC		09 21 37.4	
	223nm,SNR=2.8						
ECAB				Sn	**Sn**	**09 21 54.2**	**-0.9**
EQES	**Quesada**	**1.63**	**46**	Pn	**Pn**	**09 21 37.4**	**+0.9**
EQES				⇑IVmb_VC		09 21 38.0	
	134nm,SNR=1.6						
EQES				Sn	**Sn**	**09 21 56.4**	**-0.8**
EMIN	**Mina Concepcio**	**2.00**	**303**	Pn	**Pn**	**09 21 41.9**	**+0.7**
EMIN				Sn	**Sn**	**09 22 04.7**	**-1.0**
EMIN	**Mina Concepcio**	**2.00**	**303**	Pn	**Pn**	**09 21 40.5**	**-0.7**
EMIN				⇑IVmb_VC		09 21 42.0	
	238nm,SNR=2.2						
EMIN				Sn	**Sn**	**09 22 04.6**	**-1.0**
PBAR	**Barrancos**	**2.47**	**308**	Pn	**Pn**	**09 21 48.1**	**+0.6**
PBAR				Sn	**Sn**	**09 22 15.7**	**-1.1**
PBAR	**Barrancos**	**2.47**	**308**	*eP*	**Pn**	**09 21 48.5**	**+1.0**
PBAR				*eS*	**Sn**	**09 22 16.1**	**-0.7**
PBAR				IAML		09 22 17.7	
PBAR				IAML		09 22 17.8	
PBAR				IAML		09 22 18.0	
EGRO	**El Granado**	**2.49**	**291**	Pn	**Pn**	**09 21 48.4**	**+0.8**
EGRO				Sn	**Sn**	**09 22 15.7**	**-1.4**
EGRO	**El Granado**	**2.49**	**291**	Pn	**Pn**	**09 21 48.5**	**+0.8**
EGRO				⇑IVmb_VC		09 21 52.6	
	159nm,SNR=1.2						
EGRO				Sn	**Sn**	**09 22 15.7**	**-1.4**
PVAQ	**Vaqueiros**	**2.63**	**287**	P	**Pn**	**09 21 51.2**	**+1.7**
PVAQ				S	**Sn**	**09 22 22.3**	**+1.8**
PVAQ	**Vaqueiros**	**2.63**	**287**	*eP*	**Pn**	**09 21 50.4**	**+0.9**
PVAQ				*eS*	**Sn**	**09 22 18.9**	**-1.6**
PVAQ				IAML		09 22 20.0	
PVAQ				IAML		09 22 21.3	
PVAQ				IAML		09 22 21.5	
EBAD	**Badajoz**	**2.84**	**318**	Pn	**Pn**	**09 21 53.6**	**+1.2**
EBAD				Sn	**Sn**	**09 22 24.5**	**-1.1**
EBAD	**Badajoz**	**2.84**	**318**	⇓Pn	**Pn**	**09 21 53.5**	**+1.2**
EBAD				Sn	**Sn**	**09 22 24.7**	**-0.9**
JBK	**JBK**	**2.85**	**145**	P	**Pn**	**09 21 53.5**	**+0.8**
JBK				S	**Sn**	**09 22 25.2**	**-1.0**
PAB	**San Pablo**	**2.86**	**3**	Pn	**Pn**	**09 21 53.4**	**+0.6**
PAB				⇑IVmb_VC		09 21 54.6	
	58nm,SNR=0.9						
PAB				Sn	**Sn**	**09 22 24.2**	**-2.1**
PCVE	**Castro Verde**	**2.94**	**290**	Pn	**Pn**	**09 21 54.7**	**+1.0**
PCVE				Sn	**Sn**	**09 22 26.4**	**-1.6**
PCVE	**Castro Verde**	**2.94**	**290**	*eP*	**Pn**	**09 21 55.0**	**+1.3**
PCVE				*eS*	**Sn**	**09 22 26.3**	**-1.6**
PCVE				IAML		09 22 28.1	
PCVE				IAML		09 22 28.4	
PCVE				IAML		09 22 33.6	
CIBOR	**Castaar de Ib**	**3.03**	**347**	Pn	**Pn**	**09 21 56.0**	**+1.1**
CIBOR				Sn	**Sn**	**09 22 28.4**	**-1.8**
ETOB	**Tobarra**	**3.09**	**50**	Pn	**Pn**	**09 21 56.5**	**+0.7**
ETOB				Sn	**Sn**	**09 22 29.6**	**-2.2**
ETOB	**Tobarra**	**3.09**	**50**	Pn	**Pn**	**09 21 56.4**	**+0.6**
ETOB				⇑IVmb_VC		09 22 00.2	
	187nm,SNR=2.1						
ETOB				Sn	**Sn**	**09 22 29.7**	**-2.1**
MESJ	**Messejana**	**3.14**	**293**	*eS*	**Sn**	**09 22 31.8**	**-1.1**
IFR	**Ifrane**	**3.19**	**189**	Pn	**Pn**	**09 21 59.4**	**+2.0**
PESTR	**Estremoz**	**3.24**	**313**	Sn	**Sn**	**09 22 34.1**	**-1.3**
PESTR	**Estremoz**	**3.24**	**313**	P	**Pn**	**09 22 02.0**	**+4.1**
PESTR				S	**Sn**	**09 22 40.5**	**+5.0**
PESTR	**Estremoz**	**3.24**	**313**	*eP*	**Pn**	**09 21 59.3**	**+1.5**
PESTR				*eS*	**Sn**	**09 22 34.4**	**-1.0**
EVO	**Evora**	**3.31**	**305**	Pn	**Pn**	**09 22 00.2**	**+1.5**
EVO				Sn	**Sn**	**09 22 36.0**	**-0.9**
PTEO	**Sao Teotonio**	**3.44**	**286**	*eS*	**Sn**	**09 22 39.2**	**-0.9**
PFVI	**Vila Bisbo**	**3.45**	**279**	Pn	**Pn**	**09 22 01.8**	**+1.2**
PARRA	**Arraiolos**	**3.48**	**309**	*eP*	**Pn**	**09 22 02.3**	**+1.3**
PARRA				*eS*	**Sn**	**09 22 39.6**	**-1.7**
PARRA				IAML		09 22 41.7	
PARRA				IAML		09 22 42.0	
PARRA				IAML		09 22 52.6	
MOE	**Montemor**	**3.53**	**303**	*eP*	**Pn**	**09 22 03.2**	**+1.6**
MOE				*eS*	**Sn**	**09 22 41.9**	**-0.4**
MOE				IAML		09 22 43.1	
MOE				IAML		09 22 43.4	
MOE				IAML		09 22 43.7	
PMRV	**Marv??o**	**3.54**	**322**	*eP*	**Pn**	**09 22 03.0**	**+1.2**
PMRV				*eS*	**Sn**	**09 22 41.4**	**-1.2**
PMTG	**Montargil**	**3.75**	**311**	*eP*	**Pn**	**09 22 05.9**	**+1.2**
PMTG				*eS*	**Sn**	**09 22 45.9**	**-1.9**
MD31	**MD31**	**3.81**	**183**	P	**Pn**	**09 22 04.0**	**-1.6**
MD31				S	**Sn**	**09 22 47.7**	**-1.6**
MDT	**Midelt**	**3.86**	**181**	P	**Pn**	**09 22 05.5**	**-0.8**
MDT				S	**Sn**	**09 22 49.7**	**-0.9**
PSARD	**Sardoal**	**4.07**	**317**	*eP*	**Pn**	**09 22 10.4**	**+1.4**

IDC ***19*** *09:22:18.6±1.6,55°.23S×144°.41W,h0km,mb3.6/4, mbtmp3.6/4,MS3.3/3, Error ellipse: s-maj=50.0km s-min=35.2km az=58.0*

ISC 19 09:22:20.0±1.7,55°.2S±0°.3×144°.3W±0°.4,h10km,n21, σ0§91/7,mb3.8/4,MS3.2/3,Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	**Vanda**	**29.15**	**201**	P	**P**	**09 28 21.1**	**+0.5**
	0.2nm,0.6s,baz=63,slow=4.5,SNR=1.7						
	0.2nm,0.6s						
QSPA	**South Pole Qui**	**34.95**	**180**	P	**P**	**09 29 11.5**	**-0.3**
	1.0nm,1.1s,baz=90,slow=1.8,SNR=7.5						
	1.0nm,1.1s						
RAR	**Rarotonga**	**35.89**	**335**	LR	LR	09 41 53.3	
	comp=Z,17nm,19.2s,baz=173,slow=33						
AFI	**Afiamalu**	**46.41**	**322**	LR	LR	09 45 05.5	
	comp=Z,24nm,19.1s,baz=150,slow=30						
H03S2	**Juan Fernandez**	**49.22**	**93**	T	T	10 24 24.6	
	baz=220,slow=74,SNR=14						
H03S1	**Juan Fernandez**	**49.23**	**93**	T	T	10 24 25.8	
	baz=220,slow=74,SNR=13						
H03S3	**Juan Fernandez**	**49.24**	**93**	T	T	10 24 24.8	
	baz=220,slow=74,SNR=13						
ASAR	**Alice Springs**	**66.30**	**262**	P	**P**	**09 33 07.6**	**-0.9**
	1.1nm,0.3s,baz=140,slow=6.3,SNR=11						
	1.1nm,0.9s						
H01W1	**Cape Leeuwin H**	**68.15**	**240**	T	T	10 47 41.6	
	baz=141,slow=75,SNR=47						
H01W2	**Cape Leeuwin H**	**68.16**	**240**	T	T	10 47 42.1	
	baz=141,slow=75,SNR=41						
H01W3	**Cape Leeuwin H**	**68.17**	**240**	T	T	10 47 42.8	
	baz=141,slow=75,SNR=42						
WRA	**Warramunga Arr**	**68.98**	**265**	P	**P**	**09 33 25.5**	**0.0**
	1.1nm,1.0s,baz=147,slow=5.6,SNR=4.9						
	1.1nm,1.0s						
KAPI	**Kappang**	**89.32**	**262**	LR	LR	10 12 57.8	
	comp=Z,44nm,18.5s,baz=159,slow=34						
H10S3	**ASCENSION HYDR**	**103.56**	**128**	T	T	11 32 27.6	
	baz=13,slow=74,SNR=7.6						
H10S2	**ASCENSION HYDR**	**103.56**	**128**	T	T	11 32 27.3	
	baz=207,slow=74,SNR=8.1						
H10N3	**ASCENSION HYDR**	**104.61**	**128**	T	T	11 33 48.5	
	baz=206,slow=75,SNR=6.9						
H10N1	**ASCENSION HYDR**	**104.62**	**128**	T	T	11 33 52.5	
	baz=206,slow=75,SNR=15						
H10N2	**ASCENSION HYDR**	**104.63**	**128**	T	T	11 33 53.6	
	baz=206,slow=75,SNR=9.5						
ESDC	**Sonseca Array**	**149.49**	**104**	PKPbc	**PKPbc**	**09 42 08.2**	**-0.5**
	0.4nm,0.5s,baz=230,slow=4.2,SNR=2.1						
MKAR	**Makanchi Array**	**150.01**	**273**	PKPbc	**PKPbc**	**09 42 09.4**	**-0.3**
	1.0nm,0.7s,baz=131,slow=4.0,SNR=4.5						
KURBB	**Kurchatov Arra**	**154.09**	**278**	PKPbc	**PKiKP**	**09 42 20.2**	**+1.4**
	0.3nm,0.3s,baz=124,slow=1.6,SNR=2.2						

UCR ***19*** *09:25:42.5±0.4,11°.22N×87°.42W,h15km±16km,MW4.6, Presumed earthquake*
IDC ***19*** *09:25:49.3±1.2,11°.56N×86°.78W,h0km,mb3.4/3, mbtmp3.5/5,ML3.2/2, Error ellipse: s-maj=86.0km s-min=13.3km az=40.0*
CATAC ***19*** *09:25:51.6±0.6,11°.N±3°.×8°.7W±°.,h27km±4km,M3.6/21, MLv3.6/21, Error ellipse: s-maj=6.1km s-min=3.5km az=26.2, confirmed*
SNET ***19*** *09:25:53.7±1.7,11°.37N×86°.82W,h44km,ML3.4, Presumed earthquake*

ISC 19 09:25:51.5±2.3,11°.21N±0°.05×86°.93W±0°.05,h17km±15km, n48,σ1§10/63,mb3.2/3,2C,Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	**Copaltepe**	**1.02**	**19**	⇑*iP*	Pb	09 26 04.6	-6.1
NADN	**Granada**	**1.03**	**59**	⇑*iP*	**Pb**	**09 26 09.5**	**-1.4**
NANN	**Nandasmo**	**1.07**	**47**	P	**Pb**	**09 26 11.9**	**+0.2**
NANN				S	**Sb**	**09 26 25.8**	**+0.4**
MASN	**Masaya**	**1.09**	**44**	P	**Pb**	**09 26 12.1**	**+0.2**
MASN				S	**Sb**	**09 26 26.0**	**+0.2**
MAS3	**Al N del Volca**	**1.10**	**42**	P	**Pb**	**09 26 11.0**	**-1.0**
MAS3				S	**Sb**	**09 26 26.3**	**+0.2**
TISN	**Laguna Tiscapa**	**1.13**	**35**	P	**Pn**	**09 26 11.6**	**-1.0**
APQ2	**Apoyeque**	**1.15**	**31**	P	**Pn**	**09 26 12.0**	**-0.8**
APQ2				S	**Sb**	**09 26 27.5**	**0.0**
MGAN	**Managua**	**1.15**	**36**	P	**Pn**	**09 26 12.2**	**-0.6**
APYN	**Apoyeque**	**1.17**	**29**	P	**Pn**	**09 26 12.5**	**-0.6**
WILN	**Americas 2**	**1.19**	**37**	P	**Pn**	**09 26 12.8**	**-0.6**
WILN				S	**Sb**	**09 26 28.6**	**-0.2**
LEVN	**Ruinas Leon Vi**	**1.22**	**14**	S	**Sn**	**09 26 30.2**	**+0.2**
LCRUZ	**La Cruz**	**1.28**	**96**	*eP*	**Pn**	**09 26 12.5**	**-2.1**
CNGA	**Al SSO del Vol**	**1.30**	**10**	P	**Pn**	**09 26 14.3**	**-0.6**
CNGA				S	**Sb**	**09 26 31.8**	**-0.1**
MORN	**Al O del Volca**	**1.30**	**75**	P	**Pn**	**09 26 13.8**	**-1.1**
CNGN	**Cerro Negro**	**1.30**	**10**	P	**Pn**	**09 26 14.3**	**-0.7**
CNGN				S	**Sn**	**09 26 32.5**	**+0.5**
MOM3	**MOM3**	**1.35**	**17**	P	**Pn**	**09 26 15.0**	**-0.6**
PLRN	**Geotermica Pol**	**1.38**	**7**	P	**Pn**	**09 26 15.1**	**-0.8**
PLRN				S	**Sn**	**09 26 33.7**	**-0.1**
CARN	**Rivas**	**1.38**	**91**	P	**Pn**	**09 26 14.6**	**-1.4**
CARN				S	**Sn**	**09 26 34.0**	**+0.1**
CARN	**Rivas**	**1.38**	**91**	*eP*	**Pn**	**09 26 14.3**	**-1.7**
CARN				*eS*	**Sg**	**09 26 37.1**	**+0.9**
ALIBA	**Liberia Airpor**	**1.49**	**114**	*eP*	**Pn**	**09 26 15.9**	**-1.6**
PEJA	**Penjamo Buenos**	**1.62**	**101**	*eP*	**Pn**	**09 26 17.9**	**-1.4**
BOAB	**BOACO BROADBAN**	**1.75**	**45**	P	**Pn**	**09 26 19.9**	**-1.1**
MESS	**Mesas**	**1.77**	**105**	*eP*	**Pn**	**09 26 19.8**	**-1.6**
CLARA	**Aguas Claras**	**1.77**	**104**	*eP*	**Pn**	**09 26 20.7**	**-0.8**
HORNC	**Hornillas**	**1.79**	**106**	*eP*	**Pn**	**09 26 20.1**	**-1.6**
CUI	**Cuipilapa**	**1.82**	**107**	*eP*	**Pn**	**09 26 20.5**	**-1.6**
VMAR	**Armenia, Volca**	**1.82**	**102**	*eP*	**Pn**	**09 26 20.8**	**-1.3**
ACON	**Acoyapa**	**1.88**	**66**	P	**Pn**	**09 26 21.3**	**-1.6**
ACON				S	**Sn**	**09 26 46.1**	**+0.2**
QUEB	**Quebradon, Cot**	**2.08**	**106**	*eP*	**Pn**	**09 26 24.9**	**-0.8**
JTS	**Las Juntas de**	**2.15**	**115**	Pn	**Pn**	**09 26 26.2**	**-0.3**
	6.7nm,0.3s,baz=311,slow=11,SNR=19						
JTS				Lg	Lg	09 26 59.3	
	14nm,0.3s,baz=276,slow=19,SNR=8.5						
	22nm,0.4s						
JTS				AML	AML		
CNCH	**Conchagua**	**2.24**	**337**	P	**Pn**	**09 26 27.2**	**-0.7**
CNCH				S	**Sn**	**09 26 55.5**	**+0.3**
CNCH	**Conchagua**	**2.24**	**337**	*eP*	**Pn**	**09 26 27.2**	**-0.7**
MTEVE	**Monteverde**	**2.25**	**113**	*eP*	**Pn**	**09 26 26.3**	**-1.8**
INTP	**Intipuca**	**2.26**	**331**	*eP*	**Pn**	**09 26 26.6**	**-1.5**
INTP				*eS*	**Sn**	**09 26 53.6**	**-2.0**
LCND	**La Caada**	**2.29**	**336**	P	**Pn**	**09 26 27.9**	**-0.6**
LCND	**La Caada**	**2.29**	**336**	*eP*	**Pn**	**09 26 27.7**	**-0.8**
RCVN	**Varillal2**	**2.47**	**17**	P	**Pn**	**09 26 31.0**	**-0.1**
COVE	**Coope Vega, Sa**	**2.53**	**101**	P	**Pn**	**09 26 31.2**	**-0.6**
RANC	**El Ranchito**	**2.58**	**329**	P	**Pn**	**09 26 32.6**	**0.0**
PACA	**Pacayal**	**2.63**	**329**	P	**Pn**	**09 26 33.0**	**-0.3**
PACA				S	**Sn**	**09 27 04.2**	**-0.7**
ALJI	**Alcalda de J**	**2.65**	**323**	S	**Sn**	**09 27 03.9**	**-1.2**
TECA	**Tecapa**	**2.74**	**326**	*eP*	**Pn**	**09 26 36.8**	**+1.9**
TGUH	**Tegucigalpa,Un**	**2.85**	**353**	P	**Pn**	**09 26 36.3**	**-0.1**
TGUH				S	**Sn**	**09 27 09.7**	**-0.7**
CMIG	**Matias Romero**	**9.68**	**308**	Pn	**Pn**	**09 28 09.6**	**-0.5**
	0.2nm,0.3s,baz=131,slow=9.3,SNR=1.3						
	2.4nm,0.8s						
CMIG				AML	AML		
TXAR	**Lajitas Array**	**23.86**	**322**	P	**P**	**09 31 03.4**	**-0.8**
	0.6nm,0.7s,baz=133,slow=8.9,SNR=8.0						
TXAR				PcP	**PcP**	**09 34 47.6**	**+0.3**
	0.1nm,0.7s,baz=127,slow=4.0,SNR=1.8						
	0.6nm,0.7s						
LPAZ	**La Paz**	**33.05**	**145**	P	**P**	**09 32 30.5**	**+3.5**
	0.8nm,0.6s,baz=328,slow=15,SNR=2.0						
	0.8nm,0.6s						
PDAR	**Pinedale Array**	**37.10**	**332**	P	**P**	**09 32 59.9**	**-1.5**
	0.2nm,0.5s,baz=141,slow=8.3,SNR=2.7						
	0.2nm,0.5s						
NVAR	**Mina Array Bea**	**38.97**	**319**	PcP	**PcP**	**09 35 28.0**	**+0.5**
	0.7nm,0.8s,baz=108,slow=3.8,SNR=3.7						

MOS ***19*** *09:27:09.8±1.1,51°.64N×16°.25E,h10km,mb4.5/4, Error ellipse: s-maj=8.3km s-min=4.8km az=85.3*
IDC ***19*** *09:27:10.6±0.5,51°.53N×16°.15E,h0km,mb3.7/11, mbtmp3.7/19,ML3.1/6,MS3.2/2, Error ellipse: s-maj=10.9km s-min=6.9km az=116.0*
DNK ***19*** *09:27:10.9±1.7,51°.60N×16°.15E,h0km,ML3.8, Suspected explosion*
NEIC ***19*** *09:27:10.7±1.1,51°.65N±0°.03×16°.19E±0°.09,h5km±2km, mb4.3/3, Error ellipse: s-maj=9.2km s-min=5.7km az=274.0*
GFZ ***19*** *09:27:11.1±0.2,52°.N±2°.×1°.6E±°.,h1km,M4.4/24,mb4.5/15, ML4.0/54, Error ellipse: s-maj=3.8km s-min=2.3km az=36.3, confirmed*
IPEC ***19*** *09:27:11.0±0.2,51°.54N×16°.28E,h1km,ML3.9/8, Error ellipse: s-maj=2.0km s-min=1.3km az=76.0*
BGR ***19*** *09:27:11.7±0.4,51°.51N×16°.18E,h1km,ML4.1/12, Error ellipse: s-maj=5.6km s-min=2.2km az=13.0*
BNS ***19*** *09:27:12.1±1.0,51°.61N×16°.24E,h5km,ML4.0*

ISC 19 09:27:10.0±0.4,51°.59N±0°.02×16°.24E±0°.02,h0km,n283, σ1§52/422,mb4.0/17,8C-11D,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.75**	**177**	*eP*	**Pg**	**09 27 24.8**	**+0.5**
KSP				*eSg*	**Sg**	**09 27 33.9**	**-0.2**
KSP	**Ksiaz**	**0.75**	**177**	*eP*	**Pg**	**09 27 24.9**	**+0.5**
KSP				*eSg*	**Sg**	**09 27 33.8**	**-0.3**
KSP	**Ksiaz**	**0.75**	**177**	P	**Pg**	**09 27 24.3**	**-0.1**
CHVC	**Chvalec**	**1.01**	**187**	*eP*	**Pg**	**09 27 30.0**	**+0.6**
CHVC				*eSG*	**Sg**	**09 27 43.0**	**+0.5**
	comp=Z,1μm,0.6s						
CHVC				AML	AML		
OSTC	**Ostas**	**1.04**	**181**	*ePG*	**Pb**	**09 27 30.6**	**-0.2**
OSTC				*eSG*	**Sg**	**09 27 43.3**	**0.0**
	comp=Z,838nm,0.5s						
OSTC				AML	AML		
UPC	**Upice**	**1.09**	**188**	*ePG*	**Pg**	**09 27 31.4**	**+0.4**
UPC				*eSG*	**Sg**	**09 27 44.7**	**-0.5**
	comp=Z,2μm,0.6s						
UPC				AML	AML		
UPC	**Upice**	**1.09**	**188**	P	**Pg**	**09 27 31.1**	**+0.1**
UPC				S	**Sg**	**09 27 44.5**	**-0.7**
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.24**	**178**	*ePG*	**Pb**	**09 27 34.3**	**-0.1**
DPC				*eSG*	**Sg**	**09 27 49.2**	**-0.8**
	comp=Z,862nm,0.7s						
DPC				AML	AML		
DPC	**Dobruska-Polom**	**1.24**	**178**	*ePg*	**Pg**	**09

OKC AML AML
OKC Ostrava-Krasne 2.13 145 *e*Pn **Pn** **09 27 46.7 -0.2**
OKC *e*Pg **Pg** **09 27 51.0 +0.1**
OKC *e*Sg **Sb** **09 28 17.4 +0.9**
OKC Ostrava-Krasne 2.13 145 P **Pn** **09 27 46.9 0.0**
OKC Pg **Pg** **09 27 51.3 +0.4**
OKC AML AML
LNIZ Loecknitz 2.27 328 P **Pn** **09 27 49.1 +0.4**
LNIZ AML AML
VRAC Vranov 2.30 174 Pn **Pn** **09 27 49.4 +0.2**
comp=Z,12nm,0.3s,baz=352,slow=18,SNR=31
VRAC Lg Lg 09 28 19.6
comp=Z,53nm,0.3s,baz=255,slow=20,SNR=8.2
comp=Z,85nm,0.6s
VRAC AML AML
VRAC Vranov 2.30 174 *e*Pn **Pn** **09 27 49.2 +0.1**
baz=355
VRAC *e*Sg **Sb** **09 28 21.4 +0.2**
comp=Z,638nm,0.7s,baz=355
VRAC AML AML
VRAC Vranov 2.30 174 ⇑P **Pn** **09 27 49.3 +0.1**
VRAC ⇑S **Sn** **09 28 19.4 +1.3**
VRAC Vranov 2.30 174 P **Pn** **09 27 49.4 +0.2**
VRAC Pg **Pb** **09 27 53.2 +0.9**
VRAC AML AML
TREC Trest 2.35 192 P **Pn** **09 27 49.9 0.0**
TREC Pg **Pb** **09 27 54.0 +0.8**
TREC AML AML
KRUC Moravsky 2.54 178 *e*Pn **Pn** **09 27 52.4 0.0**
baz=358
KRUC *e*Sg **Sb** **09 28 28.6 +0.5**
comp=Z,647nm,1.1s,baz=358
KRUC AML AML
KRUC Moravsky 2.54 178 P **Pn** **09 27 52.6 +0.2**
KRUC Pg **Pb** **09 27 57.1 +0.8**
KRUC AML AML
STAC Stalkov 2.63 194 *e*Pn **Pn** **09 27 53.9 +0.1**
baz=14
STAC *e*Sg **Sb** **09 28 32.1 +1.1**
comp=Z,726nm,0.7s,baz=14
STAC AML AML
OJC Ojcow 2.64 120 Pn **Pn** **09 27 53.1 -0.7**
OJC *e*Pg **Pg** **09 28 00.6 0.0**
OJC *e*Sg **Sg** **09 28 35.2 +0.5**
OJC Ojcow 2.64 120 P **Pn** **09 27 54.3 +0.5**
OJC Ojcow 2.64 120 **Pn** **09 27 54.3 +0.5**
OJC Ojcow 2.64 120 *e*Pn **Pn** **09 27 53.1 -0.7**
OJC *e*Pg **Pg** **09 28 00.7 +0.2**
OJC *e*Sg **Sg** **09 28 34.9 +0.2**
OJC Ojcow 2.64 120 P **Pn** **09 27 52.5 -1.3**
OJC Pg **Pg** **09 28 02.4 +1.9**
OJC AML AML
TANN Tannenbergstha 2.66 245 *e*Sg **Sb** **09 28 33.7 +1.9**
TANN Tannenbergstha 2.66 245 P **Pn** **09 27 54.4 +0.2**
TANN Pg **Pg** **09 28 01.3 +0.3**
TANN AML AML
WERD Werda 2.74 247 *e*Pn **Pn** **09 27 55.1 -0.1**
WERD *e*Pg **Pg** **09 28 02.9 +0.5**
WERD *e*Sg **Sb** **09 28 34.7 +0.8**
NKC Novy Kostel 2.76 242 P **Pn** **09 27 56.1 +0.6**
NKC AML AML
NEUB Neuenburg 2.82 264 P **Pn** **09 27 55.5 -0.8**
NEUB Pg **Pg** **09 28 04.0 -0.1**
NEUB AML AML
JAVC Velka Javorina 2.89 161 *e*Pn **Pn** **09 27 57.2 0.0**
baz=342
JAVC Velka Javorina 2.89 161 *e*PN **Pn** **09 27 57.3 0.0**
JAVC Velka Javorina 2.89 161 P **Pn** **09 27 59.2 +2.0**
JAVC Pg **Pg** **09 28 06.2 +0.9**
JAVC AML AML
WIMM Wimmelburg 2.96 270 P **Pn** **09 27 59.8 +1.6**
WIMM Pg **Pg** **09 28 05.8 -0.8**
WIMM AML AML
ABNA Allensteig Bun 2.97 190 **Pn** **09 27 58.6 +0.2**
ABNA **Pg** **09 28 06.2 -0.7**
ABNA **Sb** **09 28 42.4 +1.7**
ABNA Allensteig Bun 2.97 190 *e*Pn **Pn** **09 27 58.6 +0.2**
comp=Z,15nm,0.2s
ABNA *e*Pg **Pg** **09 28 06.2 -0.7**
comp=Z,84nm,0.4s
ABNA *e*Sg **Sb** **09 28 42.4 +1.7**
comp=Z,547nm,0.4s
KHC Kasperske Hory 3.00 216 P **Pn** **09 27 58.6 -0.2**
KHC Kasperske Hory 3.00 216 **Pn** **09 27 58.6 -0.2**
KHC Kasperske Hory 3.00 216 *e*PN **Pn** **09 27 58.0 -0.8**
KHC *e*PG **Pb** **09 28 05.3 +1.1**
KHC *e*SG **Sg** **09 28 45.3 -0.9**
comp=Z,304nm,0.5s
KHC AML AML
KHC Kasperske Hory 3.00 216 P **Pn** **09 27 58.5 -0.3**
KHC AML AML
MOX Moxa 3.06 254 P **Pn** **09 27 59.8 +0.1**
MOX Pg **Pg** **09 28 08.2 -0.6**
MOX AML AML
R9F13 Warsaw-Wawer 3.10 76 *e*Pn **Pn** **09 27 56.7 -3.4**
R9F13 *e*Pg **Pg** **09 28 12.3 +2.9**
ROTZ Rotzenmuhle 3.15 236 *e*Pn **Pn** **09 28 00.5 -0.4**
ROTZ *e*Sg **Sb** **09 28 48.6 +2.8**
SMOL Smolenice 3.17 166 *e*P **Pn** **09 28 02.5 +1.3**
FLTG Flechtingen 3.18 285 P **Pn** **09 28 02.9 +1.7**
FLTG AML AML
GEC2 GERESS Array S 3.20 212 Pn **Pn** **09 28 02.4 +0.8**
GEC2 GERESS Array S 3.20 212 *e*Pn **Pn** **09 28 01.5 -0.1**
GEC2 GERESS Array S 3.20 212 P **Pn** **09 28 02.6 +1.0**
GEC2 Pg **Pg** **09 28 09.9 -1.3**
GEC2 AML AML
GERES GERESS Array B 3.20 212 Pn **Pn** **09 28 01.1 -0.5**
comp=Z,0.8nm,0.3s,baz=30,slow=14,SNR=78
GERES Pg **Pb** **09 28 08.6 +0.9**
comp=Z,2.6nm,0.3s,baz=29,slow=15,SNR=36
GERES Lg Lg 09 28 47.2
comp=Z,3.8nm,0.3s,baz=36,slow=29,SNR=7.7
comp=Z,16nm,0.5s
GERES AML AML
LANS Liptovska Anna 3.20 139 *e*P **Pn** **09 28 02.4 +0.8**
LANS Liptovska Anna 3.20 139 *e*PN **Pn** **09 28 02.4 +0.8**
LANS *e*PG **Pg** **09 28 11.2 -0.1**
LANS *e*SG **Sg** **09 28 53.7 +0.9**
WET Wettzell 3.26 223 *e*Pn **Pn** **09 28 02.1 -0.3**
WET *e*Sg **Sb** **09 28 51.8 +2.7**
WET Wettzell 3.26 223 P **Pn** **09 28 01.8 -0.7**
WET AML AML
MODS Modra-Piesok 3.29 168 *e*P **Pn** **09 28 03.6 +0.8**
MODS Modra-Piesok 3.29 168 *e*PN **Pn** **09 28 03.6 +0.8**
MODS *e*PG **Pg** **09 28 12.5 -0.5**
MODS *e*SG **Sg** **09 28 55.7 0.0**
MODS Modra-Piesok 3.29 168 P **Pn** **09 28 03.8 +1.0**
MODS Pg **Pg** **09 28 12.6 -0.5**
MODS AML AML
GORT1 Trebel 3.34 297 P **Pn** **09 28 04.7 +1.3**
GORT1 AML AML
NIE Niedzica 3.38 128 *e*Pn **Pn** **09 28 06.2 +2.1**
NIE *e*Pg **Pg** **09 28 14.8 0.0**
NIE *e*Sg **Sg** **09 28 58.6 -0.1**
ZST Bratislava 3.44 170 *e*SG **Sg** **09 28 58.8 -1.8**
WINA Alland / Wiene 3.49 182 **Pn** **09 28 06.0 +0.4**
WINA **Sg** **09 29 01.3 -0.8**
WINA Alland / Wiene 3.49 182 *i* Pn **Pn** **09 28 06.0 +0.4**
comp=Z,12nm,0.3s,SNR=13
WINA *e*Sg **Sg** **09 29 01.3 -0.8**
comp=Z,342nm,0.5s
ASSE Asse, Remlinge 3.49 281 P **Pn** **09 28 06.8 +1.3**
ASSE AML AML
VYHS Vyhne 3.52 151 *e*P **Pn** **09 28 06.5 +0.5**
VYHS Vyhne 3.52 151 *e*Pn **Pn** **09 28 06.5 +0.5**
VYHS *e*PG **Pg** **09 28 17.5 0.0**
VYHS *e*SG **Sg** **09 29 01.8 -1.3**
VYHS Vyhne 3.52 151 P **Pn** **09 28 06.5 +0.5**
VYHS AML AML
BSD Bornholm Skovb 3.62 348 *e*P **Pn** **09 28 09.8 +2.5**
BSD Bornholm Skovb 3.62 348 *i* P **Pn** **09 28 09.0 +1.8**
BSD *i* S **Sn** **09 28 50.0 -0.5**
BSD IAML 09 29 23.5
comp=Z,55nm,0.3s
GRB3 Grafenberg Arr 3.62 233 P **Pn** **09 28 07.8 +0.5**
GRB3 AML AML
GRA3 Grafenberg Arr 3.63 242 P **Pn** **09 28 07.6 +0.2**
GRA3 AML AML
CLZ Clausthal 3.66 276 P **Pn** **09 28 09.4 +1.5**
CLZ AML AML
GRA2 Grafenberg Arr 3.66 240 P **Pn** **09 28 08.1 +0.1**
GRA2 AML AML
GRB1 Grafenberg Arr 3.66 235 P **Pn** **09 28 09.0 +1.0**
GRB1 AML AML
GRB4 Grafenberg Arr 3.67 236 P **Pn** **09 28 08.4 +0.5**
GRB4 AML AML
CONA Conrad Observa 3.68 184 *e*Pn **Pn** **09 28 08.6 +0.5**
comp=Z,12nm,0.4s,SNR=25
CONA *e*Pg **Pg** **09 28 18.8 -1.6**
comp=Z,66nm,0.7s
CONA *e*Sg **Sg** **09 29 04.9 -3.1**
comp=Z,206nm,0.5s
GRA1 Grafenberg Arr 3.72 241 **Pn** **09 28 09.0 +0.3**
GRA1 Grafenberg Arr 3.72 241 P **Pn** **09 28 09.2 +0.5**
GRA1 AML AML
GRF Grafenberg Arr 3.72 241 P **Pn** **09 28 09.0 +0.3**
GRF Grafenberg Arr 3.72 241 *e*Pn **Pn** **09 28 09.0 +0.3**
GRF *e*Sg **Sg** **09 29 07.6 -1.8**
GRFO Grafenberg 3.72 241 P **Pn** **09 28 09.0 +0.3**
GRFO Grafenberg 3.72 241 **Pn** **09 28 09.0 +0.3**
GRB2 Grafenberg Arr 3.73 233 P **Pn** **09 28 09.8 +0.9**
GRB2 AML AML
GRB5 Grafenberg Arr 3.83 231 P **Pn** **09 28 10.6 +0.3**
GRB5 AML AML
RONA Rosalia, Austr 3.90 179 **Pn** **09 28 11.7 +0.5**
RONA **Pg** **09 28 22.8 -1.9**
RONA **Sg** **09 29 11.6 -3.5**
RONA Rosalia, Austr 3.90 179 *e*Pn **Pn** **09 28 11.7 +0.5**
comp=Z,7.9nm,0.6s
RONA *e*Pg **Pg** **09 28 22.8 -1.9**
comp=Z,14nm,0.4s
RONA *e*Sg **Sg** **09 29 11.6 -3.5**
comp=Z,159nm,0.5s
GTTG Gottingen 3.92 272 P **Pn** **09 28 12.0 +0.6**
GTTG AML AML
SOP Sopron 3.92 177 P **Pn** **09 28 12.1 +0.7**
SOP AML AML
GRC4 Grafenberg Arr 3.92 232 P **Pn** **09 28 11.7 +0.2**
GRC4 AML AML
MOA Molln 3.96 200 **Pn** **09 28 12.3 +0.3**
MOA **Pg** **09 28 26.2 +0.4**
MOA **Sn** **09 29 00.8 +1.7**
MOA **Sg** **09 29 15.2 -2.0**
MOA Molln 3.96 200 *e*Pn **Pn** **09 28 12.3 +0.3**
comp=Z,56nm,0.6s,SNR=19
MOA *e*Pg **Pg** **09 28 26.2 +0.4**
comp=Z,56nm,0.7s
MOA *e*Sn **Sn** **09 29 00.8 +1.7**
comp=Z,47nm,0.5s
MOA Sg **Sg** **09 29 15.2 -2.0**
comp=Z,274nm,0.7s
MOA Molln 3.96 200 P **Pn** **09 28 12.3 +0.3**
MOA AML AML
GRC1 Grafenberg Arr 3.99 231 P **Pn** **09 28 12.7 +0.3**
GRC1 AML AML
GRC3 Grafenberg Arr 4.03 230 P **Pn** **09 28 12.9 -0.1**
GRC3 AML AML
KECS Kecovo 4.14 137 *e*P **Pn** **09 28 15.2 +0.7**
KECS Kecovo 4.14 137 *e*PN **Pn** **09 28 15.1 +0.6**
KECS *e*PG **Pg** **09 28 31.1 +1.7**
GRC2 Grafenberg Arr 4.15 231 P **Pn** **09 28 14.6 0.0**
GRC2 AML AML
BIOA Bad Ischl, Aus 4.25 204 **Pn** **09 28 16.6 +0.5**
BIOA **Sg** **09 29 25.5 -1.1**
BIOA Bad Ischl, Aus 4.25 204 *e*Pn **Pn** **09 28 16.6 +0.5**
comp=Z,18nm,0.6s,SNR=11
BIOA *e*Sg **Sg** **09 29 25.5 -1.1**
comp=Z,417nm,0.5s
BSEG Bad Segeberg 4.30 305 P **Pn** **09 28 16.1 -0.5**
BSEG AML AML
ARSA Arzberg 4.37 186 **Pn** **09 28 18.4 +0.7**
ARSA Arzberg 4.37 186 **Sg** **09 29 28.9 -1.4**
ARSA Arzberg 4.37 186 *e*Pn **Pn** **09 28 19.1 +1.4**
comp=Z,5.1nm,0.3s
ARSA *e*Sg **Sg** **09 29 28.9 -1.4**
comp=Z,201nm,0.7s
ARSA Arzberg 4.37 186 P **Pn** **09 28 18.9 +1.2**
ARSA AML AML
PSZ Piszkesteto 4.37 146 P **Pn** **09 28 18.4 +0.7**
PSZ Piszkesteto 4.37 146 **Pn** **09 28 18.4 +0.7**
PSZ Piszkesteto 4.37 146 *e*P **Pn** **09 28 18.9 +1.2**
PSZ Piszkesteto 4.37 146 ⇑P **Pn** **09 28 18.9 +1.2**
PSZ ⇑S **Sn** **09 29 12.7 +3.3**
PSZ Piszkesteto 4.37 146 P **Pn** **09 28 18.9 +1.2**
PSZ AML AML
LUNU Lund 4.38 339 *i* P **Pn** **09 28 17.9 +0.3**
LUNU *i* S **Sn** **09 29 07.5 -1.8**
LLD Lille Linde 4.45 329 *i* S **Sn** **09 29 10.4 -0.8**
LLD IAML 09 29 23.7
comp=Z,80nm,0.5s
RJOB Jochberg 4.46 211 P **Pn** **09 28 19.7 +0.8**
RJOB AML AML
MPLH Magyarpolny 4.51 169 P **Pn** **09 28 20.3 +0.8**
MPLH AML AML
SESA Seetaler Alpe, 4.61 194 **Pn** **09 28 21.7 +0.6**
SESA **Sg** **09 29 36.2 -1.9**
SESA Seetaler Alpe, 4.61 194 *i* Pn **Pn** **09 28 21.7 +0.6**
comp=Z,26nm,0.5s,SNR=33
SESA *e*Sg **Sg** **09 29 36.2 -1.9**
comp=Z,214nm,0.6s
KOLS Kolonicke sedl 4.70 122 *e*P **Pn** **09 28 23.3 +1.2**
KOLS *e* 09 29 16.4
KOLS Kolonicke sedl 4.70 122 *e*PN **Pn** **09 28 23.3 +1.2**
KOLS *e*PG **Pg** **09 28 41.4 +1.4**
KOLS *e*SN **Sn** **09 29 16.4 -0.8**
KOLS Kolonicke sedl 4.70 122 P **Pn** **09 28 23.4 +1.3**
KOLS AML AML
FUR Furstenfeldbru 4.70 225 P **Pn** **09 28 22.8 +0.6**
FUR AML AML
BLEU Blekinge 4.73 357 *i* P **Pn** **09 28 24.4 +1.9**
BLEU *i* S **Sn** **09 29 16.7 -1.3**
LESA Schwarzleotal 4.77 210 **Pn** **09 28 23.8 +0.5**
LESA **Sg** **09 29 38.9 -4.4**
LESA Schwarzleotal 4.77 210 *e*Pn **Pn** **09 28 23.8 +0.5**
comp=Z,6.9nm,0.5s
LESA *e*Sg **Sg** **09 29 38.9 -4.4**
comp=Z,116nm,0.7s
KBA Koelnbreinsper 4.90 204 P **Pn** **09 28 25.7 +0.7**
KBA Koelnbreinsper 4.90 204 **Pn** **09 28 25.7 +0.7**
KBA **Sg** **09 29 45.0 -2.3**
KBA Koelnbreinsper 4.90 204 *e*Pn **Pn** **09 28 25.7 +0.7**
comp=Z,29nm,0.6s,SNR=16
KBA *e*Sg **Sg** **09 29 45.0 -2.3**
comp=Z,146nm,0.5s
KBA Koelnbreinsper 4.90 204 P **Pn** **09 28 25.5 +0.5**
KBA AML AML
SOKA Soboth 4.98 190 **Pn** **09 28 27.8 +1.6**
SOKA **Sb** **09 29 44.1 +5.6**
SOKA Soboth 4.98 190 *i* Pn **Pn** **09 28 27.7 +1.6**
comp=Z,5.5nm,0.5s
SOKA *e*Sg **Sb** **09 29 44.1 +5.6**
comp=Z,28nm,0.4s
DEL Delary 5.08 345 *i* P **Pn** **09 28 28.0 +0.6**
DEL *i* S **Sn** **09 29 23.8 -2.9**
TNS Taunus Mts 5.12 258 P **Pn** **09 28 28.2 +0.2**
comp=Z,0.7nmcomp=Z,59nm,0.7s
TNS AML AML
BEHE Becsehely 5.14 176 P **Pn** **09 28 29.8 +1.6**
comp=Z,0.2nmcomp=Z,42nm,0.9s
BEHE AML AML
OBKA Obir 5.21 193 **Pn** **09 28 30.0 +0.8**
OBKA **Sg** **09 29 54.0 -3.3**
OBKA Obir 5.21 193 *i* Pn **Pn** **09 28 30.0 +0.8**
comp=Z,5.6nm,0.7s
OBKA Sg **Sg** **09 29 54.0 -3.3**
comp=Z,148nm,0.7s
OBKA Obir 5.21 193 P **Pn** **09 28 30.0 +0.8**
comp=Z,37nm,1.0s,comp=Z,0.6nm
OBKA AML AML
WATA Walderalm 5.23 217 P **Pn** **09 28 30.7 +1.1**
WATA Walderalm 5.23 217 **Pn** **09 28 30.7 +1.1**
WATA **Sg** **09 30 00.4 +2.3**
WATA Walderalm 5.23 217 *e*Pn **Pn** **09 28 30.7 +1.1**
comp=Z,36nm,0.6s,SNR=9.8
WATA Sg **Sg** **09 30 00.4 +2.3**
comp=Z,52nm,0.4s
MYKA Terra Mystica 5.25 200 **Pn** **09 28 30.1 +0.3**
MYKA **Sg** **09 29 55.8 -2.9**
MYKA Terra Mystica 5.25 200 *e*Pn **Pn** **09 28 30.1 +0.3**
comp=Z,9.9nm,0.5s
MYKA Sg **Sg** **09 29 55.7 -2.9**
comp=Z,70nm,0.5s
WTTA Wattenberg 5.27 217 P **Pn** **09 28 31.3 +1.1**
WTTA Wattenberg 5.27 217 **Pn** **09 28 31.3 +1.1**
WTTA **Sg** **09 29 56.3 -3.0**
WTTA Wattenberg 5.27 217 *i* Pn **Pn** **09 28 31.3 +1.1**
comp=Z,13nm,0.5s,SNR=9.8
WTTA *e*Sg **Sg** **09 29 56.3 -3.0**
comp=Z,105nm,0.6s
WTTA Wattenberg 5.27 217 P **Pn** **09 28 31.1 +0.9**
comp=Z,39nm,1.4s,comp=Z,0.5nm
WTTA AML AML
STU Stuttgart 5.33 241 P **Pn** **09 28 29.8 -1.0**
comp=Z,1.2nmcomp=Z,42nm,0.6s
STU AML AML
TRPA Tarpa 5.35 128 P **Pn** **09 28 32.5 +1.5**
comp=Z,28nm,1.1s,comp=Z,0.1nm
TRPA AML AML
ACOM Acomizza, Ital 5.36 201 P **Pn** **09 28 32.1 +0.7**
comp=Z,0.5nmcomp=Z,35nm,0.6s
ACOM AML AML
MOTA Moosalm 5.41 220 **Pn** **09 28 32.1 0.0**
MOTA **Sg** **09 30 06.8 +3.1**
MOTA Moosalm 5.41 220 *i* Pn **Pn** **09 28 32.1 0.0**
comp=Z,6.6nm,0.3s,SNR=6.7
MOTA *e*Sg **Sg** **09 30 06.8 +3.1**
comp=Z,82nm,0.5s
ABTA Abfaltersbach 5.43 208 **Pn** **09 28 33.7 +1.4**
ABTA **Sg** **09 30 01.5 -2.9**
ABTA Abfaltersbach 5.43 208 *i* Pn **Pn** **09 28 33.7 +1.4**
comp=Z,5.1nm,0.3s,SNR=10.0
ABTA *e*Sg **Sg** **09 30 01.5 -2.9**
comp=Z,108nm,0.6s
RETA Reutte 5.44 223 **Pn** **09 28 32.7 +0.3**
RETA **Sg** **09 30 04.6 -0.1**
RETA Reutte 5.44 223 *i* Pn **Pn** **09 28 32.7 +0.3**
comp=Z,4.3nm,0.3s
RETA *e*Sg **Sg** **09 30 04.6 -0.1**
comp=Z,199nm,0.9s
PRED Cave del Predi 5.45 200 **Pn** **09 28 32.9 +0.4**
PRED Cave del Predi 5.45 200 P **Pn** **09 28 33.1 +0.6**
comp=Z,0.2nmcomp=Z,26nm,1.4s
PRED AML AML
SQTA Sankt Quirin 5.47 219 **Pn** **09 28 34.1 +1.3**
SQTA **Sn** **09 29 40.0 +3.5**
SQTA **Sg** **09 30 04.1 -1.5**
SQTA Sankt Quirin 5.47 219 *e*Pn **Pn** **09 28 34.1 +1.3**
comp=Z,16nm,0.4s,SNR=11
SQTA *e*Sn **Sn** **09 29 40.0 +3.5**
comp=Z,39nm,0.6s
SQTA *e*Sg **Sg** **09 30 04.1 -1.5**
comp=Z,51nm,0.5s
KOE Koeppel 5.50 261 *e*Pn **Pn** **09 28 33.0 -0.1**
KOE *e*Sn **Sn** **09 29 35.5 -1.5**
comp=Z,87nm,0.6s
SSRD Sdr. Stenderup 5.54 317 *i* P **Pn** **09 28 33.2 -0.5**
SSRD *i* S **Sn** **09 29 35.4 -2.6**
SSRD IAML 09 29 40.0
comp=Z,176nm,1.1s
UBR Ueberruh 5.58 228 P **Pn** **09 28 34.3 -0.1**
comp=Z,38nm,1.0s,comp=Z,0.7nm
UBR AML AML
FUSE Fusea 5.60 204 P **Pn** **09 28 35.5 +0.9**
comp=Z,0.4nmcomp=Z,59nm,0.6s
FUSE AML AML
MORH Mrgy, Hungar 5.61 163 ⇓P **Pn** **09 28 34.6 0.0**
MORH Mrgy, Hungar 5.61 163 P **Pn** **09 28 35.0 +0.4**
comp=Z,18nm,0.6s
CADS Cadrg 5.62 198 *i* Pn **Pn** **09 28 35.0 +0.2**
CADS *i* 09 28 57.1
CADS *i* 09 29 53.4
CADS *e* 09 30 07.0
HOBG Hohbusch 5.62 267 *e*Pn **Pn** **09 28 35.5 +0.7**
DRE Drenchia 5.69 199 P **Pn** **09 28 36.1 +0.4**
comp=Z,0.4nmcomp=Z,46nm,0.6s
DRE AML AML
FABU Falkenberg 5.80 341 *i* P **Pn** **09 28 38.5 +1.3**
FABU *i* S **Sn** **09 29 42.5 -1.8**
BGG Burgeitz 5.80 260 *e*Pn **Pn** **09 28 39.2 +1.9**
BGG *e*Sn **Sn** **09 29 42.1 -2.4**
comp=Z,32nm,0.6s
STAL STALIGIAL 5.82 205 **Pn** **09 28 37.6 0.0**
FETA Feichten 5.82 220 **Pn** **09 28 38.2 +0.5**
FETA **Sg** **09 30 17.1 +0.2**
FETA Feichten 5.82 220 *i* Pn **Pn** **09 28 38.2 +0.5**
comp=Z,5.9nm,0.6s
FETA *e*Sg **Sg** **09 30 17.1 +0.2**
comp=Z,28nm,0.7s
DAVA Damuels 5.98 226 **Pn** **09 28 39.5 -0.5**
DAVA **Sg** **09 30 26.1 +4.0**
DAVA Damuels 5.98 226 *i* Pn **Pn** **09 28 39.5 -0.5**
comp=Z,2.6nm,0.3s
DAVA *e*Sg **Sg** **09 30 26.0 +4.0**
comp=Z,74nm,0.7s
DAVA Damuels 5.98 226 P **Pn** **09 28 39.4 -0.5**
comp=Z,0.5nmcomp=Z,20nm,0.6s
DAVA AML AML
STB Steinbach 6.01 264 *e*Pn **Pn** **09 28 39.7 -0.4**
PABE Paberze 6.05 47 **Pn** **09 28 42.2 +1.6**
PABE Paberze 6.05 47 *e*P **Pn** **09 28 40.5 -0.1**
PABE Paberze 6.05 47 P **Pn** **09 28 42.2 +1.6**
comp=Z,0.5nmcomp=Z,72nm,1.0s
PABE AML AML
BFO Black Forest 6.06 240 P **Pn** **09 28 41.7 +0.8**
BFO Black Forest 6.06 240 **Pn** **09 28 41.6 +0.8**
BOJS Bojanci 6.13 187 *i* Pn **Pn** **09 28 42.6 +0.8**
BOJS *e* 09 30 30.2
CTI Castel Tesino 6.32 210 P **Pn** **09 28 46.0 +1.5**
CTI Castel Tesino 6.32 210 **Pn** **09 28 46.0 +1.5**
FUORN Ofenpass-Fuorn 6.34 221 **Pn** **09 28 45.7 +0.8**
DAVOX Davos/Dischmat 6.37 223 Pn **Pn** **09 28 45.2 -0.1**
comp=Z,1.2nm,0.3s,baz=42,slow=17,SNR=9.6
DAVOX Sn **Sn** **09 29 56.0 -2.7**
comp=Z,2.2nm,0.3s,baz=32,slow=19,SNR=3.1
DAVOX Lg Lg 09 30 28.9
comp=Z,2.6nm,0.3s,baz=18,slow=19,SNR=3.8
comp=Z,5.4nm,0.4s
DAVOX AML AML
DREG Dreilaegerbach 6.37 266 *e*Pn **Pn** **09 28 44.9 -0.2**
DRGR 6.41 136 ⇓P **Pn** **09 28 47.2 +1.5**
CGRP Cima Grappa 6.43 209 P **Pn** **09 28 46.5 +0.5**
comp=Z,0.4nmcomp=Z,22nm,0.8s
CGRP AML AML
MEM Membach 6.52 265 *d*P **Pn** **09 28 47.7 +0.6**
MARR Marisel-Cluj 6.67 135 ⇓P **Pn** **09 28 50.6 +1.3**
WLF Walferdange 6.70 257 *d*P **Pn** **09 28 50.4 +0.8**
WLF *d*S **Sg** **09 30 44.0 -1.1**
ECH Echery 6.77 244 P **Pn** **09 28 51.8 +1.2**
ECH Echery 6.77 244 Pn **Pn** **09 28 51.8 +1.2**
TUE Stuetta 6.84 224 **Pn** **09 28 52.3 +0.6**
TUE Stuetta 6.84 224 P **Pn** **09 28 52.1 +0.4**
comp=Z,0.2nmcomp=Z,8.8nm,0.6s
TUE AML AML
BZS Buzias 6.96 147 ⇑P **Pn** **09 28 54.9 +1.7**
BUR08 Bucovina Ar. S 7.03 121 **Pn** **09 28 55.9 +1.6**
BURAR Bucovina Array 7.06 121 **Pn** **09 28 56.5 +1.8**
BURAR Bucovina Array 7.06 121 ⇑P **Pn** **09 28 56.1 +1.5**
NACGM Naroch 7.14 58 *e*P **Pn** **09 28 52.0 -3.6**
comp=Z,22nm,0.8s,baz=246
BMRD Maredsous 7.36 264 *d*P **Pn** **09 28 56.9 -1.8**
DOU Dourbes 7.53 263 *d*P Pn 09 28 55.2 -5.7
GZR Gura Zlata 7.57 142 ⇑P **Pn** **09 29 03.1 +1.5**
MNK Minsk 7.60 63 *i* P **Pn** **09 29 00.1 -1.7**
MNK *i* S **Sn** **09 30 27.0 -1.6**
MNK pmax pmax
comp=E,28nm,0.6s
MNK pmax pmax
comp=Z,2.0nm,0.4s
MNK pmax pmax
comp=N,17nm,0.8s
MNK Minsk 7.60 63 *i* P **Pn** **09 29 00.2 -1.7**
comp=E,28nm,0.6s
MNK *i* P **Pn** **09 29 00.2 -1.7**
comp=N,17nm,0.8s
MNK *i* P **Pn** **09 29 00.2 -1.7**
comp=Z,2.0nm,0.4s,baz=252
MNK *i* PP **PnPn** **09 29 07.8 -1.4**
MNK *i* PPP PPP 09 29 15.4
MNK *i* S **Sn** **09 30 27.0 -1.6**
MNK *i* SS **SnSn** **09 30 39.6 0.0**
MNK *i* SSS SSS 09 30 51.9
MNK *i* LR LR 09 31 32.7
KIEV Kiev 8.21 91 P **Pn** **09 29 10.4 +0.2**
KIEV Kiev 8.21 91 **Pn** **09 29 10.4 +0.2**
KIEV Kiev 8.21 91 ⇓P **Pn** **09 29 12.5 +2.2**
KIEV Kiev 8.21 91 P **Pn** **09 29 10.5 +0.3**
comp=Z,34nm,0.6s
AKASG Malin Array Be 8.21 91 Pn **Pn** **09 29 09.4 -0.9**

	comp=Z,7.3nm,0.7s,baz=282,slow=12,SNR=17								
AKASG					Sn	Sn	09 30 39.1	-4.7	
	comp=Z,6.2nm,0.3s,baz=276,slow=22,SNR=7.4								
AKASG					Lg	Lg	09 31 36.1		
	comp=Z,2.4nm,0.3s,baz=280,slow=27,SNR=4.3								
TESR	**Tescani**	**8.52**	**123**		P	**Pn**	**09 29 14.4**	**-0.1**	
	comp=Z,23nm,1.5s								
HFS	**Hagfors**	**8.68**	**352**		Pn	**Pn**	**09 29 17.1**	**+0.4**	
	comp=Z,0.3nm,0.3s,baz=169,slow=16,SNR=1.4								
HFS					Sn	Sn	**09 30 48.8**	**-6.3**	
	comp=Z,0.2nm,0.3s,baz=168,slow=28,SNR=2.3								
HFS					Lg	Lg	09 31 42.7		
	comp=Z,1.0nm,0.3s,baz=180,slow=32,SNR=1.9								
	comp=Z,1.2nm,0.5s								
HFS					AML	AML			
MLR	**Muntele Rosu**	**8.87**	**130**		LR	LR	09 33 54.0		
	comp=Z,88nm,20.0s,baz=0.0,slow=46								
ESCA	**l'Escarene**	**9.79**	**221**		P	**Pn**	**09 29 31.6**	**-0.4**	
	comp=Z,28nm,1.4s								
NOA	**NORSAR Array B**	**9.87**	**346**		Pn	**Pn**	**09 29 32.7**	**-0.3**	
	baz=158,slow=12,SNR=2.1								
NOA					Sn	Sn	09 31 13.7	-11	
	baz=169,slow=15,SNR=1.4								
	comp=Z,0.6nm,0.6s								
FINES	**FINESS Array B**	**11.25**	**25**		Pn	**Pn**	**09 29 50.9**	**-1.0**	
	comp=Z,0.6nm,0.3s,baz=213,slow=14,SNR=11								
FINES					Sn	Sn	09 31 49.0	-9.3	
	comp=Z,1.6nm,0.3s,baz=222,slow=20,SNR=7.3								
FINES					Lg	Lg	09 33 01.9		
	baz=214,slow=24								
	comp=Z,3.3nm,0.6s								
FINES					AML	AML			
FINES	**FINESS Array B**	**11.25**	**25**		P	**Pn**	**09 29 51.0**	**-0.9**	
FINES	**FINESS Array B**	**11.25**	**25**		Pn	**Pn**	**09 29 51.0**	**-0.9**	
FIA1	**FINESS Array S**	**11.26**	**25**		Pn	**Pn**	**09 29 51.0**	**-0.9**	
EKA	**Eskdalemuir Ar**	**12.14**	**296**		Pn	**Pn**	**09 30 01.7**	**-2.4**	
	comp=Z,2.1nm,0.5s,baz=102,slow=13,SNR=9.0								
OBN	**Obninsk**	**12.63**	**66**		Lg	Lg	09 33 51.3		
	comp=Z,3.7nm,0.3s,baz=204,slow=20,SNR=1.7								
OBN	**Obninsk**	**12.63**	**66**	⇑*eP*		**Pn**	**09 30 09.8**	**-1.0**	
OBN				*eS*		**Sn**	**09 32 24.4**	**-7.6**	
OBN					pmax	pmax			
	comp=Z,20nm,1.7s								
OBN					MLR	MLR			
	comp=Z,473nm,6.0s								
MOS	**Moscow**	**13.32**	**63**	*eP*		**Pn**	**09 30 16.3**	**-3.9**	
MOS				*eS*		**Sn**	**09 32 41.4**	**-7.5**	
LPSR	**Galich'ya Gora**	**13.97**	**77**	*eP*		**Pn**	**09 30 25.0**	**-4.1**	
LPSR					pmax	pmax			
	comp=Z,10.0nm,0.8s								
VORR	**Voronezh**	**14.26**	**81**	*eP*		Pn	09 30 27.2	-5.7	
VORR					pmax	pmax			
	comp=Z,20nm,0.9s								
VSR	**Storozhevoye**	**14.31**	**82**	*eP*		Pn	09 30 26.4	-7.2	
VSR					pmax	pmax			
	comp=Z,7.0nm,1.1s								
SOC	**Sochi**	**17.69**	**108**	*eP*		**Pn**	**09 31 17.1**	**-0.5**	
SOC				*eS*		**Sn**	**09 34 35.6**	**+0.4**	
SOC					pmax	pmax			
	comp=Z,22nm,1.1s								
ARCES	**ARCESS Array B**	**18.53**	**10**		P	**P**	**09 31 25.3**	**-2.4**	
	comp=Z,1.3nm,0.5s,baz=192,slow=9.8,SNR=9.5								
ARCES	**ARCESS Array B**	**18.53**	**10**		P	**P**	**09 31 26.8**	**-0.9**	
ARCES					pmax	pmax			
	comp=Z,33nm,1.4s								
ARCES	**ARCESS Array B**	**18.53**	**10**		P	**P**	**09 31 26.8**	**-0.9**	
ARCES					IAmb	IAmb	09 32 07.8		
	comp=Z,33nm,1.4s								
KEV	**Kevo**	**18.91**	**12**		P	**Pn**	**09 31 32.8**	**+0.4**	
KEV					pmax	pmax			
	comp=Z,34nm,1.5s								
KEV	**Kevo**	**18.91**	**12**		P	**Pn**	**09 31 32.8**	**+0.4**	
KEV					IAmb	IAmb	09 31 44.1		
	comp=Z,34nm,1.5s								
BORG	**Borgarnes**	**23.35**	**319**		LR	LR	09 42 37.4		
	comp=Z,122nm,19.9s,baz=69,slow=40								
BVAR	**Borovoye Array**	**32.48**	**66**		P	**P**	**09 33 42.7**	**+0.9**	
	comp=Z,1.3nm,0.5s,baz=299,slow=7.4,SNR=4.4								
	comp=Z,1.3nm,0.5s								
NRIK	**Noril'sk**	**36.72**	**34**	*i* P		**P**	**09 34 17.8**	**-0.5**	
NRIK					pmax	pmax			
	comp=Z,5.0nm,1.5s								
KURBB	**Kurchatov Arra**	**38.07**	**66**		P	**P**	**09 34 31.3**	**+1.3**	
	comp=Z,1.2nm,0.7s,baz=297,slow=9.0,SNR=9.0								
	comp=Z,1.2nm,0.7s								
KURK	**Kurchatov**	**38.08**	**66**	*i* P		**P**	**09 34 29.0**	**-1.0**	
KURK					pmax	pmax			
	comp=Z,3.0nm,1.0s								
BTK	**Batken**	**38.88**	**85**		P	**P**	**09 34 37.0**	**0.0**	
BTK					pmax	pmax			
	comp=Z,10.0nm,1.3s								
BTK	**Batken**	**38.88**	**85**		P	**P**	**09 34 37.0**	**0.0**	
BTK					IAmb	IAmb	09 34 41.0		
	comp=Z,10nm,1.3s								
AAK	**Ala-Archa**	**39.67**	**79**	*i* P		**P**	**09 34 44.2**	**+0.5**	
AAK					pmax	pmax			
	comp=Z,10.0nm,1.6s								
ZALV	**Zalesovo Beam**	**40.09**	**59**		P	**P**	**09 34 46.2**	**-0.5**	
	comp=Z,0.3nm,0.4s,baz=303,slow=12,SNR=4.8								
	comp=Z,0.3nm,0.4s								
ZALV	**Zalesovo Beam**	**40.09**	**59**		P	**P**	**09 34 46.8**	**0.0**	
ZALV	**Zalesovo Beam**	**40.09**	**59**		P	**P**	**09 34 46.8**	**0.0**	
TORD	**Torodi Ar. Bea**	**40.11**	**202**		P	**P**	**09 34 46.9**	**-0.4**	
	comp=Z,0.8nm,0.8s,baz=18,slow=6.1,SNR=0.6								
	comp=Z,0.8nm,0.8s								
MKAR	**Makanchi Array**	**42.11**	**69**		P	**P**	**09 35 04.7**	**+1.1**	
	comp=Z,0.6nm,0.7s,baz=295,slow=6.5,SNR=5.7								
	comp=Z,0.6nm,0.7s								
MKAR	**Makanchi Array**	**42.11**	**69**		P	**P**	**09 35 03.7**	**+0.1**	
MKAR	**Makanchi Array**	**42.11**	**69**		P	**P**	**09 35 03.7**	**+0.1**	
KSH2	**Kashi**	**42.36**	**83**		P	**P**	**09 35 08.8**	**+2.9**	
KSH2					pmax	pmax			
	comp=Z,6.0nm,1.3s								
WMQ	**Urumqi**	**46.93**	**70**	*eP*		**P**	**09 35 46.4**	**+4.2**	
WMQ					pmax	pmax			
	comp=Z,12nm,0.7s								
SONM	**Songino Array**	**54.80**	**56**		P	**P**	**09 36 42.5**	**+1.0**	
	comp=Z,1.0nm,0.8s,baz=290,slow=4.3,SNR=6.7								
	comp=Z,1.0nm,0.8s								
YKA	**Yellowknife Ar**	**59.82**	**336**		P	**P**	**09 37 17.1**	**+0.6**	
	comp=Z,1.1nm,0.6s,baz=32,slow=6.9,SNR=8.4								
	comp=Z,1.1nm,0.6s								
HHC	**Hu-ho-hao-te**	**62.27**	**59**	*eP*		**P**	**09 37 34.1**	**+0.4**	
HHC					pmax	pmax			
	comp=Z,9.0nm,0.6s								
HHC					pmax	pmax			
	comp=Z,130nm,4.3s								
ILAR	**Eielson Array**	**63.24**	**352**		P	**P**	**09 37 41.8**	**+2.2**	
	comp=Z,0.3nm,0.8s,baz=358,slow=7.7,SNR=4.6								
	comp=Z,0.3nm,0.8s								
CMAR	**Chiang Mai Arr**	**71.27**	**84**		P	**P**	**09 38 33.0**	**+1.8**	
	comp=Z,0.4nm,0.3s,baz=324,slow=5.8,SNR=4.5								
	comp=Z,0.4nm,0.3s								
PDAR	**Pinedale Array**	**74.93**	**322**		P	**P**	**09 38 54.0**	**+1.2**	
	comp=Z,0.5nm,0.5s,baz=28,slow=6.8,SNR=8.3								
	comp=Z,0.5nm,0.5s								
TXAR	**Lajitas Array**	**83.72**	**310**		P	**P**	**09 39 42.1**	**+1.2**	
	comp=Z,0.2nm,0.6s,baz=42,slow=4.7,SNR=4.8								
	comp=Z,0.2nm,0.6s								
ASAR	**Alice Springs**	**125.28**	**84**		PKP	**PKiKP**	**09 46 13.0**	**+0.1**	
	comp=Z,0.3nm,0.7s,baz=349,slow=2.3,SNR=2.8								
ASAR	**Alice Springs**	**125.28**	**84**		PKIKP	**PKiKP**	**09 46 13.0**	**+0.1**	

*NEIC **19** 09:27:42.8±1.3, 19.09N±0.04×66.38W±0.03, h10km±1km, ML3.2/37, Md3.4/13(RSPR), Error ellipse: s-maj=6.1km s-min=4.0km az=198.0*
*PTWC **19** 09:27:44, 19.00N×66.40W, h24km, Ml3.2/13*
*OSPL **19** 09:27:44.8±0.7, 19.10N×66.55W, h9km±146km, ML3.6, Presumed earthquake*
*SDD **19** 09:27:45.0±2.3, 19.09N×66.36W, h20km±22km, MD3.2, ML3.1, MW3.3, Presumed earthquake*
*RSPR **19** 09:27:46.5, 19.08N×66.46W, h23km±18km, MD3.4/13*
ISC 19 09:27:44.3±1.7, 19.08N±0.07×66.45W±0.04, h29km±12km, n58, σ0.86/81, 19C-6D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMPR	**Esperanza - Ma**	**0.61**	**187**		**Pb**	**09 27 57.2**	**+0.8**
EMPR					**Sb**	**09 28 05.4**	**+0.7**
EMPR	**Esperanza - Ma**	**0.61**	**187**	P	**Pb**	**09 27 57.3**	**+0.8**
EMPR	**Esperanza - Ma**	**0.61**	**187**	⇑*eP*	**Pb**	**09 27 57.2**	**+0.8**
EMPR				*eS*	**Sb**	**09 28 05.4**	**+0.7**
ECPR	**Experimental S**	**0.77**	**174**		**Pb**	**09 27 59.2**	**+0.1**
ECPR					**Sb**	**09 28 09.1**	**-0.1**
ECPR	**Experimental S**	**0.77**	**174**	P	**Pb**	**09 27 59.2**	**+0.1**
ECPR	**Experimental S**	**0.77**	**174**	⇑*eP*	**Pb**	**09 27 59.2**	**+0.1**
AOPR	**Arecibo Observ**	**0.79**	**201**		**Pb**	**09 27 59.6**	**+0.1**
AOPR					**Sb**	**09 28 10.2**	**+0.3**
AOPR	**Arecibo Observ**	**0.79**	**201**	P	**Pb**	**09 27 59.5**	**+0.1**
AOPR				*iS*	**Sb**	**09 28 09.7**	**-0.1**
AOPR	**Arecibo Observ**	**0.79**	**201**	⇑*iP*	**Pb**	**09 27 59.5**	**+0.1**
AOPR				⇓*iS*	**Sb**	**09 28 10.7**	**+0.9**
AOPR				IAML		09 28 10.9	
	comp=N,2μm,0.2s						
AOPR	**Arecibo Observ**	**0.79**	**201**	⇑*iP*	**Pb**	**09 27 59.6**	**+0.1**
GCPR	**Guaynabo City**	**0.85**	**155**		**Pb**	**09 28 00.2**	**-0.3**
AGPR	**Aguadilla, PR**	**0.87**	**226**	Pg	**Pb**	**09 28 00.1**	**-0.8**
AGPR	**Aguadilla, PR**	**0.87**	**226**	*i* P	**Pb**	**09 28 00.1**	**-0.8**
AGPR				*eS*	**Sb**	**09 28 10.4**	**-1.9**
CELP	**Cerrillos**	**1.01**	**187**		**Pn**	**09 28 02.8**	**+0.2**
CELP					**Sb**	**09 28 15.5**	**-0.7**
CELP	**Cerrillos**	**1.01**	**187**	IAML		09 28 16.8	
	comp=N,679nm,0.2s						
CELP	**Cerrillos**	**1.01**	**187**	P	**Pn**	**09 28 00.7**	**-1.9**
CELP	**Cerrillos**	**1.01**	**187**	⇑*iP*	**Pn**	**09 28 02.7**	**+0.2**
CELP				⇓*iS*	**Sb**	**09 28 16.6**	**+0.5**
CELP				IAML		09 28 16.8	
	comp=N,243nm,0.2s						
CELP	**Cerrillos**	**1.01**	**187**	⇑*eP*	**Pn**	**09 28 02.8**	**+0.2**
OBIP	**Obispado Ponce**	**1.04**	**188**		**Pn**	**09 28 03.5**	**+0.4**
OBIP					**Sb**	**09 28 15.8**	**-1.3**
OBIP	**Obispado Ponce**	**1.04**	**188**	P	**Pn**	**09 28 03.4**	**+0.4**
OBIP	**Obispado Ponce**	**1.04**	**188**	⇑*eP*	**Pn**	**09 28 03.5**	**+0.4**
OBIP				*eS*	**Sb**	**09 28 15.8**	**-1.3**
OBIP	**Obispado Ponce**	**1.04**	**188**	*i* P	**Pn**	**09 28 03.3**	**+0.3**
OBIP				*eS*	**Sb**	**09 28 17.4**	**+0.3**
OBIP				IAML		09 28 18.3	
	comp=Z,2μm,0.1s						
PRSN	**Puerto Rico Se**	**1.08**	**217**		**Pn**	**09 28 03.5**	**-0.1**
PRSN					**Sb**	**09 28 16.0**	**-2.2**
PRSN	**Puerto Rico Se**	**1.08**	**217**	P	**Pn**	**09 28 03.4**	**-0.1**
PRSN	**Puerto Rico Se**	**1.08**	**217**	⇑*iP*	**Pn**	**09 28 03.5**	**-0.1**
PRSN				⇑*iS*	**Sb**	**09 28 17.6**	**-0.5**
PRSN				IAML		09 28 22.4	
	comp=N,1μm,0.2s						
PRSN	**Puerto Rico Se**	**1.08**	**217**	⇑*eP*	**Pn**	**09 28 03.5**	**-0.1**
HUMP	**Col San Antoni**	**1.10**	**148**		**Pn**	**09 28 03.8**	**0.0**
HUMP					**Sb**	**09 28 17.0**	**-1.6**
HUMP	**Col San Antoni**	**1.10**	**148**	IAML		09 28 19.0	
	comp=N,753nm,0.2s						
HUMP				IAML		09 28 19.7	
	comp=N,717nm,0.2s						
HUMP	**Col San Antoni**	**1.10**	**148**	P	**Pn**	**09 28 03.8**	**0.0**
HUMP				S	**Sb**	**09 28 17.7**	**-0.9**
HUMP	**Col San Antoni**	**1.10**	**148**	⇑*eP*	**Pn**	**09 28 03.8**	**0.0**
PDPR	**Patillas Dam,**	**1.14**	**159**		**Pn**	**09 28 04.7**	**+0.4**
PDPR					**Sb**	**09 28 19.4**	**-0.3**
PDPR	**Patillas Dam,**	**1.14**	**159**	IAML		09 28 20.6	
	comp=N,630nm,0.1s						
PDPR				IAML		09 28 22.9	
	comp=N,449nm,0.1s						
PDPR	**Patillas Dam,**	**1.14**	**159**	⇑*eP*	**Pn**	**09 28 04.7**	**+0.4**
IGPR	**InterUniversit**	**1.16**	**163**		**Pn**	**09 28 05.0**	**+0.3**
IGPR					**Sn**	**09 28 19.7**	**+0.2**
IGPR	**InterUniversit**	**1.16**	**163**	P	**Pn**	**09 28 04.9**	**+0.3**
IGPR	**InterUniversit**	**1.16**	**163**	⇑*eP*	**Pn**	**09 28 05.0**	**+0.3**
GBPR	**Guanica, Bosqu**	**1.17**	**200**		**Pn**	**09 28 05.3**	**+0.5**
GBPR					**Sn**	**09 28 20.6**	**+0.8**
GBPR	**Guanica, Bosqu**	**1.17**	**200**	⇑*eP*	**Pn**	**09 28 05.3**	**+0.5**
GBPR				*eS*	**Sn**	**09 28 20.6**	**+0.8**
IDE	**Isla Desecheo**	**1.19**	**235**		**Pn**	**09 28 05.0**	**-0.1**
IDE					**Sn**	**09 28 18.5**	**-1.8**
IDE	**Isla Desecheo**	**1.19**	**235**	⇓*eP*	**Pn**	**09 28 05.0**	**-0.1**
IDE				*eS*	**Sn**	**09 28 18.5**	**-1.8**
CRPR	**Cabo Rojo, PR**	**1.24**	**210**		**Pn**	**09 28 05.9**	**+0.3**
CRPR					**Sn**	**09 28 20.6**	**-0.8**
CRPR	**Cabo Rojo, PR**	**1.24**	**210**	P	**Pn**	**09 28 06.0**	**+0.3**
CRPR	**Cabo Rojo, PR**	**1.24**	**210**	⇑*iP*	**Pn**	**09 28 06.1**	**+0.4**
CRPR				⇓*iS*	**Sn**	**09 28 22.4**	**+1.0**
CRPR				IAML		09 28 29.5	
	comp=N,216nm,0.5s						
CRPR	**Cabo Rojo, PR**	**1.24**	**210**	⇑*eP*	**Pn**	**09 28 05.9**	**+0.3**
CRPR	**Cabo Rojo, PR**	**1.24**	**210**	*i* P	**Pn**	**09 28 05.9**	**+0.3**
CRPR				*eS*	**Sn**	**09 28 22.1**	**+0.7**
MLPR	**Magueyes Islan**	**1.24**	**207**		**Pn**	**09 28 06.1**	**+0.4**
MLPR					**Sn**	**09 28 21.5**	**0.0**
MLPR	**Magueyes Islan**	**1.24**	**207**	IAML		09 28 22.4	
	comp=N,384nm,0.2s						
MLPR				IAML		09 28 23.6	
	comp=N,406nm,0.2s						
MLPR	**Magueyes Islan**	**1.24**	**207**	P	**Pn**	**09 28 06.2**	**+0.5**
MLPR	**Magueyes Islan**	**1.24**	**207**	⇑*iP*	**Pn**	**09 28 06.1**	**+0.4**
MLPR				⇓*iS*	**Sn**	**09 28 22.1**	**+0.6**
MLPR				IAML		09 28 22.3	
	comp=N,140nm,0.2s						
MLPR	**Magueyes Islan**	**1.24**	**207**	⇑*eP*	**Pn**	**09 28 06.1**	**+0.4**
MTP	**Monte Pirata**	**1.30**	**139**	P	**Pn**	**09 28 06.3**	**-0.3**
PCDR	**Punta Cana, DR**	**1.91**	**253**	Pn	**Pn**	**09 28 17.0**	**+2.0**
PCDR				IAML		09 28 52.3	
	comp=N,197nm,0.9s						
PCDR	**Punta Cana, DR**	**1.91**	**253**	⇑*iP*	**Pb**	**09 28 17.7**	**-0.8**
PCDR				IAML		09 29 14.2	
	comp=N,110nm,2.5s						
HIDR	**Higuey Centro**	**2.20**	**258**	⇑*iP*	**Pn**	**09 28 21.7**	**+2.8**
HIDR				IAML		09 28 59.9	
	comp=N,67nm,0.6s						
SMDR	**Samana, DR**	**2.59**	**275**	⇑*iP*	**Pn**	**09 28 24.0**	**-0.3**
SMDR				IAML		09 29 17.2	
	comp=N,72nm,0.7s						
DR12	**Loma Pena Alta**	**2.79**	**264**		**Pn**	**09 28 28.0**	**+1.0**
BANI	**BANI**	**3.76**	**260**	Pn	**Pn**	**09 28 41.9**	**+1.3**
SDDR	**Presa de Saban**	**4.57**	**270**	Pn	**Pn**	**09 28 53.4**	**+1.7**
SDDR				IAML		09 30 14.0	
	comp=N,38nm,0.8s						

*SARA **19** 09:43:06.0±0.4, 42.962N±0.003×13.072E±0.004, h5km, ML2.6/10, Mwp2.6/10*
ROM 19 09:43:05.8±0.0, 42.929N±0.002×13.044E±0.004, h7km, ML2.1/66, **7C-4D, Error ellipse: s-maj=0.2km s-min=0.2km az=267.0, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FEMA	**Monte Fema**	**0.03**	**7**	⇓P	Pg	09 43 07.3	-0.1
FEMA				S	Sg	09 43 07.9	-0.8
FEMA				AML	AML		
	comp=E,32591μm,0.2s						
FEMA				AML	AML		
	comp=N,23350μm,0.2s						
MTCL	**Monte Cavallo**	**0.07**	**333**	P	Pg	09 43 08.0	+0.2
MTCL				S	Sg	09 43 09.3	+0.1
USLL	**Sellano**	**0.08**	**232**	Pg	Pg	09 43 08.6	+0.7
USLL				Sg	Sg	09 43 10.3	+1.0
NRCA	**Norcia**	**0.11**	**152**	⇓P	Pg	09 43 09.0	+0.6
NRCA				S	Sg	09 43 11.0	+1.0
NRCA				AML	AML		
	comp=E,6430μm,0.1s						
NRCA				AML	AML		
	comp=N,6135μm,0.5s						
NRCA				AML	AML		
	comp=E,7080μm,0.1s						
NRCA				AML	AML		
	comp=N,6530μm,0.5s						
NRCA				AML	AML		
	comp=N,6140μm,0.5s						
NRCA				AML	AML		
	comp=E,6430μm,0.1s						
NRCA				AML	AML		
	comp=N,6285μm,0.1s						
NRCA				AML	AML		
	comp=N,5957μm,0.1s						
NRCA	**Norcia**	**0.11**	**152**	Pg	Pg	09 43 09.8	+1.5
NRCA				Sg	Sg	09 43 12.0	+2.0
MC2	**Monte Cornacci**	**0.11**	**98**	⇑P	Pg	09 43 08.9	+0.5
MC2				S	Sg	09 43 11.1	+0.8
FDMO	**Fiordimonte**	**0.11**	**16**	⇑P	Pg	09 43 08.8	+0.4
FDMO				S	Sg	09 43 10.7	+0.6
FDMO				AML	AML		
	comp=E,2410μm,0.2s						
FDMO				AML	AML		
	comp=N,1930μm,0.2s						
CESI	**CESI - Serrava**	**0.13**	**307**	⇑P	Pg	09 43 09.3	+0.7
CESI				S	Sg	09 43 11.6	+1.0
CESI				AML	AML		
	comp=E,1800μm,0.3s						
CESI				AML	AML		
	comp=N,1910μm,0.3s						
CESI				AML	AML		
	comp=N,1602μm,0.2s						
CESI				AML	AML		
	comp=N,1678μm,0.2s						
CESI				AML	AML		
	comp=E,940μm,0.2s						
CESI				AML	AML		
	comp=E,1024μm,0.2s						
UNRC	**Norcia**	**0.14**	**158**	Pg	Pg	09 43 09.6	+0.8
UNRC				Sg	Sg	09 43 12.3	+1.4
UORV	**Monte Orve**	**0.15**	**312**	Pg	Pg	09 43 09.8	+0.7
UORV				Sg	Sg	09 43 12.7	+1.4
MML1	**Montelago di S**	**0.19**	**344**	P	Pg	09 43 10.3	+0.5
MML1				S	Sg	09 43 13.4	+0.9
UPUR	**Puro**	**0.20**	**182**	Pg	Pg	09 43 10.8	+1.0
UPUR				Sg	Sg	09 43 14.6	+2.0
CSP1	**Cessapalombo**	**0.20**	**36**	⇑P	Pg	09 43 10.5	+0.6
CSP1				S	Sg	09 43 14.0	+1.2
CSP1				AML	AML		
	comp=E,2420μm,1.3s						
CSP1				AML	AML		
	comp=N,2080μm,1.6s						
CSP1				AML	AML		
	comp=E,2420μm,0.7s						
CSP1				AML	AML		
	comp=N,2080μm,0.4s						
CSP1				AML	AML		
	comp=N,1560μm,0.2s						
CSP1				AML	AML		
	comp=E,1786μm,0.2s						
MMO1	**Montemonaco**	**0.21**	**98**	⇑P	Pg	09 43 10.7	+0.6
MMO1				S	Sg	09 43 14.2	+1.2
SEF1	**Sefro**	**0.23**	**342**	P	Pg	09 43 11.7	+1.2
PF6	**Pievefavera**	**0.24**	**26**	P	Pg	09 43 11.1	+0.3
PF6				S	Sg	09 43 15.1	+1.1
NOCU	**Nocera Umbra**	**0.25**	**315**	Pg	Pg	09 43 12.0	+1.3
NOCU				Sg	Sg	09 43 16.1	+2.0
GUMA	**Gualdo di Mace**	**0.25**	**58**	⇑P	Pg	09 43 11.8	+0.9
GUMA				S	Sb	09 43 16.4	-0.9
GUMA				AML	AML		
	comp=N,3635μm,0.2s						
GUMA				AML	AML		
	comp=N,5585μm,0.2s						
GUMA				AML	AML		
	comp=E,2570μm,1.1s						
GUMA				AML	AML		
	comp=E,3505μm,0.2s						
GUMA				AML	AML		
	comp=N,5582μm,0.2s						
GAVE	**Gavelli**	**0.26**	**205**	⇓P	Pb	09 43 12.1	-0.8
GAVE				S	Sb	09 43 16.4	-1.2
GAVE				AML	AML		
	comp=N,1335μm,0.3s						
GAVE				AML	AML		
	comp=E,1705μm,0.5s						
GAVE				AML	AML		
	comp=N,375μm,0.6s						
GAVE				AML	AML		
	comp=E,1580μm,0.5s						
GAVE				AML	AML		
	comp=N,1335μm,1.7s						
GAVE				AML	AML		
	comp=E,1457μm,0.2s						
GAVE				AML	AML		
	comp=E,1493μm,0.2s						
GAVE				AML	AML		
	comp=N,1179μm,0.1s						
GAVE				AML	AML		
	comp=N,319μm,0.2s						
MDAR	**Monte D'Aria**	**0.27**	**15**	P	Pg	09 43 11.9	+0.6
MDAR				S	Sb	09 43 16.6	-1.4
ASSB	**Assisi San Ben**	**0.30**	**292**	P	Pg	09 43 12.5	+0.7
ASSB				S	Sb	09 43 17.7	-1.2
ASSB				AML	AML		
	comp=E,746μm,0.5s						
ASSB				AML	AML		
	comp=N,840μm,0.2s						
ASSB				AML	AML		
	comp=E,603μm,0.3s						
ASSB				AML	AML		
	comp=N,843μm,0.2s						
ASSB	**Assisi San Ben**	**0.30**	**292**	Pg	Pg	09 43 12.6	+0.7
ASSB				Sg	Sb	09 43 17.8	-1.1
SAP2	**Sant'Angelo in**	**0.31**	**57**	P	Pb	09 43 13.1	-0.7
SAP2				S	Sb	09 43 18.9	-0.1
SAP2				AML	AML		
	comp=N,3550μm,0.5s						
SAP2				AML	AML		
	comp=N,3461μm,0.4s						
SAP2				AML	AML		
	comp=E,512μm,1.4s						
MF5	**Montefalcone A**	**0.31**	**79**	⇑P	Pb	09 43 13.0	-0.8
MF5				S	Sb	09 43 18.1	-1.0
MF5				AML	AML		
	comp=E,962μm,0.4s						
MF5				AML	AML		
	comp=N,583μm,0.6s						
MF5				AML	AML		
	comp=N,426μm,0.2s						
MTRA	**Matera**	**0.31**	**123**	P	Pg	09 43 12.6	+0.7
MTRA				S	Sb	09 43 17.7	-1.3
MRSG	**Ripe San Gines**	**0.31**	**49**	Pg	Pb	09 43 13.2	-0.5
MRSG				Sg	Sb	09 43 18.8	-0.3
LNSS	**Leonessa**	**0.33**	**181**	⇓P	Pg	09 43 13.0	+0.7
LNSS				S	Sb	09 43 18.5	-1.0
LNSS				AML	AML		
	comp=E,910μm,0.1s						
LNSS				AML	AML		
	comp=N,645μm,0.9s						
LNSS				AML	AML		
	comp=N,645μm,1.1s						
LNSS				AML	AML		
	comp=N,659μm,0.3s						
LNSS				AML	AML		
	comp=N,559μm,0.3s						
LNSS				AML	AML		
	comp=E,850μm,0.1s						
SNTG	**Esanatoglia**	**0.34**	**347**	P	Pg	09

	comp=N,363μm,0.4s							
ARRO	**Arrone**	**0.41**	**211**	Pg	Pb	09 43 15.1	-0.2	
ARRO				Sg	Sb	09 43 21.5	-0.2	
BETT	**Bettona**	**0.42**	**279**	Pg	Pg	09 43 14.6	+0.6	
BETT				Sg	Sb	09 43 21.8	-0.3	
CIS21	**CIS array 21**	**0.43**	**277**	Pg	Pg	09 43 14.9	+0.7	
CIS21				Sg	Sb	09 43 21.9	-0.5	
CESX	**Cesi**	**0.47**	**227**	P	Pg	09 43 15.5	+0.6	
CESX				S	Sb	09 43 23.1	-0.4	
CESX				AML	AML			
	comp=N,374μm,0.8s							
CESX				AML	AML			
	comp=E,357μm,0.4s							
CESX				AML	AML			
	comp=N,346μm,0.3s							
CAMP	**Campotosto**	**0.48**	**146**	P	Pg	09 43 15.4	+0.3	
CAMP				S	Sb	09 43 23.0	-0.9	
CAMP				AML	AML			
	comp=E,96μm,0.2s							
CAMP				AML	AML			
	comp=N,75μm,0.9s							
CAMP				AML	AML			
	comp=N,47μm,0.2s							
CAMP	**Campotosto**	**0.48**	**146**	Pg	Pg	09 43 15.5	+0.4	
CAMP				Sg	Sb	09 43 23.0	-0.9	
MURB	**Monte Urbino**	**0.51**	**311**	P	Pb	09 43 16.4	-0.7	
MURB				AML	AML			
	comp=E,666μm,0.3s							
MURB				AML	AML			
	comp=E,728μm,0.3s							
MURB				AML	AML			
	comp=E,666μm,0.3s							
MURB				AML	AML			
	comp=N,528μm,0.3s							
MURB				AML	AML			
	comp=N,584μm,0.3s							
MURB	**Monte Urbino**	**0.51**	**311**	Pg	Pb	09 43 16.5	-0.6	
MURB				Sg	Sb	09 43 25.4	+0.6	
TERO	**Teramo**	**0.51**	**126**	P	Pg	09 43 16.1	+0.4	
TERO				S	Sb	09 43 24.4	-0.4	
TERO				AML	AML			
	comp=N,309μm,0.4s							
TERO				AML	AML			
	comp=E,338μm,0.2s							
TERO				AML	AML			
	comp=E,366μm,0.2s							
TERO				AML	AML			
	comp=N,230μm,0.1s							
TERO				AML	AML			
	comp=N,255μm,0.1s							
TERO	**Teramo**	**0.51**	**126**	Pg	Pg	09 43 16.1	+0.4	
TERO				Sg	Sb	09 43 24.5	-0.4	
ATFO	**Monte Foce - G**	**0.56**	**322**	P	Pb	09 43 17.7	-0.3	
ATFO				AML	AML			
	comp=E,110μm,0.3s							
ATFO				AML	AML			
	comp=N,109μm,0.6s							
ATFO				AML	AML			
	comp=E,110μm,1.7s							
ATFO				AML	AML			
	comp=N,109μm,1.4s							
FRON	**Frontone**	**0.63**	**339**	P	Pg	09 43 18.4	+0.3	
FRON				AML	AML			
	comp=E,78μm,0.9s							
FRON				AML	AML			
	comp=N,118μm,0.9s							
FRON				AML	AML			
	comp=E,78μm,1.1s							
FRON				AML	AML			
	comp=N,118μm,1.1s							
FRON				AML	AML			
	comp=E,50μm,0.1s							
FRON				AML	AML			
	comp=N,95μm,0.3s							
MGAB	**Montegabbione**	**0.69**	**269**	P	Pb	09 43 20.1	0.0	
MPAG	**Monte Paganucc**	**0.73**	**344**	P	Pb	09 43 20.7	-0.2	
MPAG				AML	AML			
	comp=N,67μm,1.1s							
MPAG				AML	AML			
	comp=E,55μm,0.5s							
NARO	**Abbazia di Nar**	**0.76**	**334**	P	Pg	09 43 20.7	+0.2	
NARO				AML	AML			
	comp=E,37μm,0.9s							
NARO				AML	AML			
	comp=N,34μm,0.6s							
NARO				AML	AML			
	comp=E,37μm,1.1s							
NARO				AML	AML			
	comp=N,32μm,0.2s							
T0110	**Collepietro**	**0.89**	**142**	P	Pg	09 43 22.9	0.0	
T0110				AML	AML			
	comp=E,73μm,1.1s							
T0110				AML	AML			
	comp=E,73μm,0.9s							
T0110				AML	AML			
	comp=N,82μm,0.9s							
T0110				AML	AML			
	comp=E,66μm,0.4s							
T0110				AML	AML			
	comp=N,69μm,0.4s							
LPEL	**Lama dei Pelig**	**1.22**	**136**	AML	AML			
	comp=N,84μm,0.7s							
LPEL				AML	AML			
	comp=E,122μm,1.4s							
LPEL				AML	AML			
	comp=N,84μm,1.3s							
LPEL				AML	AML			
	comp=E,122μm,0.6s							
DUGI	**Dugi Otok**	**1.81**	**53**	*e*Pg	Pn	09 43 38.1	+0.7	
DUGI				Sg	Sn	09 43 59.1	-1.5	
MORI	**Morici**	**2.15**	**63**	*i* Pn	Pn	09 43 42.8	+0.6	
MORI				Sn	Sn	09 44 08.6	-0.5	
KIJV	**Kijevo**	**2.67**	**65**	*e*Pn	Pn	09 43 48.9	-0.4	
KIJV				Sn	Sn	09 44 20.5	-1.4	

*IDC **19** 09:54:05.1±2.4, 16°.13S×175°.87W, h337km±49km, mb3.3/5, mbtmp4.0/6, Error ellipse: s-maj=65.0km s-min=24.6km az=20.0*

ISC 19 09:54:06.3±1.0, 16°.0S±0°.3×175°.8W±0°.2, h360km, n6, σ1s 20/8, mb3.5/5, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.38**	**63**	P		**Pn**		**09 55 21.1**	**+1.2**
	10nm,0.5s,baz=240,slow=3.9,SNR=8.1								
AFI				S		**S**		**09 56 17.8**	**-1.6**
	6.4nm,0.4s,baz=255,slow=20,SNR=1.6								
STKA	**Stephens Creek**	**41.77**	**240**	P		**P**		**10 01 21.6**	**-0.2**
	3.7nm,1.2s,baz=78,slow=14,SNR=3.0								
	3.7nm,1.2s								
WRA	**Warramunga Arr**	**47.48**	**257**	P		**P**		**10 02 06.3**	**-0.4**
	0.9nm,0.6s,baz=92,slow=7.8,SNR=22								
	0.9nm,0.6s								
ASAR	**Alice Springs**	**47.75**	**252**	P		**P**		**10 02 08.5**	**-0.2**
	3.4nm,0.6s,baz=90,slow=7.8,SNR=90								
ASAR				PcP		**PcP**		**10 03 32.2**	**+0.6**
	0.2nm,0.6s,baz=89,slow=4.0,SNR=1.8								
	3.4nm,0.6s								
VNDA	**Vanda**	**62.59**	**185**	P		**P**		**10 03 51.6**	**-1.1**
	0.9nm,0.7s,baz=70,slow=12,SNR=6.3								
	0.9nm,0.7s								
QSPA	**South Pole Qui**	**74.08**	**180**	P		**P**		**10 05 04.7**	**+1.1**
	1.1nm,0.9s,baz=45,slow=1.4,SNR=5.6								
	1.1nm,0.9s								

*IDC **19** 09:55:01.3±1.1, 27°.75N×129°.28E, h0km, mb3.8/4, mbtmp3.8/5, ML3.4/1, MS3.0/1, Error ellipse: s-maj=45.7km s-min=16.3km az=91.0*

*JMA **19** 09:55:05.5±0.2, 28°.1°×129°.9E±0°.9, h62km±4km, MV3.2/21, NEAR AMAMI-OSHIMA ISLAND*

ISC 19 09:55:05.5±1.4, 27°.65N±0°.04×129°.92E±0°.05, h27km±12km, n23, σ0s 65/28, mb4.0/4, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**0.66**	**4**	*e*P		**Pb**		**09 55 19.0**	**+0.5**
JAM	**Amami Oshima**	**0.81**	**340**	*e*P		**Pb**		**09 55 20.5**	**-0.4**
JAM				*e*S		**Sb**		**09 55 32.1**	**+0.6**
JTK	**Tokunoshima**	**0.87**	**279**	*e*P		**Pn**		**09 55 21.9**	**-0.1**
JAMN	**Amaminishikomi**	**0.89**	**312**	P		**Pn**		**09 55 21.5**	**-0.7**
JAMN				*e*S		**Sb**		**09 55 32.8**	**-0.9**
JOKE	**Okinoerabujima**	**1.24**	**257**	*e*P		**Pn**		**09 55 27.5**	**+0.5**
JYRO	**Yoronjima**	**1.45**	**245**	P		**Pn**		**09 55 30.1**	**+0.1**
JTAJ	**Takarajima**	**1.63**	**337**	*e*P		**Pn**		**09 55 31.6**	**-0.8**
JTAJ				*e*S		**Sn**		**09 55 51.5**	**-0.9**
JOW	**Kunigami**	**1.68**	**241**	*e*P		**Pn**		**09 55 33.0**	**-0.2**
JIH	**Iheya**	**1.85**	**251**	*e*P		**Pn**		**09 55 35.5**	**+0.1**
JNTH	**Nagotoyohara**	**2.04**	**237**	*e*P		**Pn**		**09 55 37.8**	**-0.3**
JNTH				*e*S		**Sn**		**09 56 01.8**	**-0.8**
JKDJ	**Kitadaitoujima**	**2.09**	**144**	*e*P		**Pn**		**09 55 38.1**	**-0.7**
JKDJ				*e*S		**Sn**		**09 56 02.7**	**-1.2**
JJT3	**Tamagusuku3**	**2.43**	**232**	*e*S		**Sn**		**09 56 12.2**	**-0.1**
JAGN	**Aguni-jima**	**2.61**	**247**	*e*P		**Pn**		**09 55 46.9**	**+0.9**
JYAK	**Yakushimahirau**	**2.63**	**11**	*e*P		**Pn**		**09 55 46.1**	**0.0**
JYAK				*e*S		**Sn**		**09 56 16.6**	**-0.6**
JMTN	**Minamitane**	**2.87**	**17**	*e*P		**Pn**		**09 55 49.4**	**-0.1**
JKE	**Kume jima 2**	**3.10**	**245**	*e*P		**Pn**		**09 55 52.7**	**+0.1**
JTN	**Tanegashima 3**	**3.13**	**17**	*e*P		**Pn**		**09 55 53.5**	**+0.3**
JNU	**Nakatsue**	**5.51**	**8**	Pn		**Pn**		**09 56 26.7**	**+0.8**
	1.1nm,0.3s,baz=192,slow=19,SNR=2.5								
JNU				Sn		**Sn**		**09 57 28.3**	**-0.1**
	0.4nm,0.3s,baz=240,slow=20,SNR=1.3								
	16nm,1.0s								
JNU				AML		AML			
ASAJ	**Asahikawa**	**19.34**	**29**	LR		LR		10 07 15.9	
	comp=Z,41nm,19.7s,baz=254,slow=38								
MKAR	**Makanchi Array**	**41.74**	**310**	P		P		10 02 46.1	-6.3
	0.1nm,0.4s,baz=91,slow=8.6,SNR=1.8								
	0.1nm,0.4s								
WRA	**Warramunga Arr**	**47.51**	**174**	P		**P**		**10 03 39.1**	**+0.6**
	1.4nm,0.5s,baz=354,slow=7.8,SNR=21								
	1.4nm,0.5s								
ASAR	**Alice Springs**	**51.16**	**175**	P		**P**		**10 04 07.4**	**+1.0**
	0.7nm,0.5s,baz=355,slow=7.4,SNR=28								
	0.7nm,0.5s								
FINES	**FINESS Array B**	**72.37**	**331**	P		**P**		**10 06 28.5**	**-0.3**
	2.4nm,0.8s,baz=53,slow=6.4,SNR=6.3								
	2.4nm,0.8s								

*CATAC **19** 09:59:09.4±0.8, 15°.N±4°.°×9°.5W±°.°, h17km±9km, M4.7/23, mb4.7/12, mB5.4/6, MLv4.6/23, Mw(mB)4.9/6, Error ellipse: s-maj=12.1km s-min=4.6km az=52.8, Moment Tensor Solution. Moment tensor: Scale 10¹⁴Nm; Mrr1.01; Mθθ-5.21; Mϕϕ4.20; Mrθ1.58; Mθϕ1.45; Mϕr-3.09; Fault plane solution: M₀6.08452×10¹⁴ NP1:ϕs236.56096°, δ54.90700°, λ10.26462°. Principal axes: T 6.0953, Plg30.6383°; Azm92.5937°; N -0.0215, Plg53.6223°, Azm309.0767°; P -6.0737, Plg17.6632°, Azm193.4653°; confirmed*

*MEX **19** 09:59:12.2±1.3, 15°.31N×94°.77W, h15km±40km, MD4.4, Presumed earthquake*

ISC 19 09:59:07.2±1.7, 15°.32N±0°.06×94°.84W±0°.03, h17km±13km, n51, σ2s 26/65, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
HUIG	**Huatulco**	**1.30**	**290**	*e*P		**Pg**		**09 59 33.3**	**+0.9**
HUIG				*e*S		**Sb**		**09 59 48.4**	**+0.7**
PCIG		**1.61**	**76**	*i* P		**Pb**		**09 59 35.5**	**-1.0**
PCIG				*e*S		**Sn**		**09 59 52.6**	**-2.7**
CMIG	**Matias Romero**	**1.76**	**359**	*i* P		**Pb**		**09 59 38.5**	**-0.7**
CMIG				*e*S		**Sn**		**09 59 58.4**	**-0.7**
TGIG		**2.20**	**48**	*e*P		**Pb**		**09 59 45.0**	**-1.6**
TGIG				*e*S		**Sn**		**10 00 10.8**	**+0.8**
PEIG	**Puerto Escondi**	**2.32**	**287**	*e*P		**Pb**		**09 59 47.6**	**-1.1**
PEIG				*e*S		**Sn**		**10 00 12.6**	**-0.4**
THIG		**2.52**	**99**	*e*P		**Pn**		**09 59 48.7**	**+1.3**
VHO	**Vista Hermosa**	**2.52**	**314**	*e*P		**Pb**		**09 59 51.6**	**-0.5**
VHO				*e*S		**Sb**		**10 00 22.0**	**-1.0**
PATR	**El Naranjo**	**2.52**	**94**	*e*P		**Pn**		**09 59 48.6**	**+0.9**
PATR				*e*S		**Sn**		**10 00 17.4**	**-0.9**
NEUV	**Arroyo Zacate**	**2.55**	**339**	*e*P		**Pn**		**09 59 50.3**	**+2.4**
PAVE	**Pavencul**	**2.57**	**92**	*e*P		**Pn**		**09 59 49.9**	**+1.5**
PAVE				*e*S		**Sn**		**10 00 19.3**	**-0.2**
CHUJ	**Union Juarez**	**2.65**	**95**	*e*P		**Pn**		**09 59 50.6**	**+1.2**
CHUJ				*e*S		**Sn**		**10 00 21.0**	**-0.3**
CCIG	**Comitan**	**2.77**	**69**	*e*P		**Pb**		**09 59 54.3**	**-2.1**
CCIG				*e*S		**Sn**		**10 00 25.5**	**+1.2**
RTAL	**Retalhuleu**	**3.14**	**104**	*e*P		**Pn**		**09 59 58.5**	**+2.5**
RTAL				*e*S		**Sn**		**10 00 31.5**	**-1.6**
HUEH	**Huehuetenango**	**3.22**	**90**	P		**Pb**		**10 00 00.9**	**-3.2**
HUEH	**Huehuetenango**	**3.22**	**90**	*e*P		**Pb**		**10 00 01.2**	**-3.0**
HUEH				*e*S		**Sn**		**10 00 37.3**	**+1.9**
PNIG	**Pinotepa**	**3.34**	**289**	*e*P		**Pn**		**10 00 02.4**	**+3.7**
TXIG	**Tlaxiaco**	**3.41**	**305**	*e*P		**Pb**		**10 00 05.3**	**-2.1**
TOIG	**Toxpalan**	**3.49**	**323**	*e*P		**Pb**		**10 00 07.2**	**-1.5**
HLIG	**Huajuapan de L**	**3.78**	**312**	*e*P		**Pb**		**10 00 11.9**	**-1.8**
TPIG	**Tehuac#an**	**3.92**	**322**	*e*P		**Pn**		**10 00 05.1**	**-1.7**
FTIG	**Fresnillo de T**	**4.07**	**310**	*e*P		**Pb**		**10 00 14.9**	**-3.8**
TLIG	**Tlapa**	**4.21**	**302**	P		Pn		10 00 16.5	+5.6
TLIG	**Tlapa**	**4.21**	**302**	*e*P		Pn		10 00 16.6	+5.8
CRIG	**Cruz Grande**	**4.36**	**289**	*e*P		**Pn**		**10 00 16.9**	**+4.2**
JAUV	**Jalcomulco**	**4.44**	**335**	*e*P		**Pn**		**10 00 16.4**	**+2.5**
JAUV				*e*S		**Sn**		**10 01 00.2**	**-5.0**
FAME	**Alcaldia de Sa**	**4.90**	**107**	P		**Pn**		**10 00 22.1**	**+1.9**
FAME				S		**Sn**		**10 01 19.8**	**+3.3**
DAIG	**Los Arroyos**	**4.92**	**291**	*e*P		**Pn**		**10 00 17.1**	**-3.4**
SCIG	**Sabancuy**	**5.04**	**43**	P		**Pn**		**10 00 25.7**	**+3.6**
SCIG	**Sabancuy**	**5.04**	**43**	*e*P		**Pn**		**10 00 25.5**	**+3.4**
PETF	**Flores**	**5.04**	**71**	P		**Pn**		**10 00 25.7**	**+3.6**
PETF				S		**Sn**		**10 01 21.7**	**+1.8**
PETF	**Flores**	**5.04**	**71**	*e*P		**Pn**		**10 00 25.1**	**+3.1**
PETF				*e*S		**Sn**		**10 01 18.9**	**-1.1**
SLOZ	**Alcaldia de Sa**	**5.06**	**104**	P		**Pn**		**10 00 25.5**	**+3.1**
LOAL	**Lomas de Alarc**	**5.07**	**104**	P		**Pn**		**10 00 23.8**	**+1.2**
NUBE	**Las Nubes**	**5.10**	**105**	P		**Pn**		**10 00 26.4**	**+3.3**
NUBE				S		**Sn**		**10 01 24.4**	**+2.8**
CEVE	**Cerro Verde**	**5.26**	**106**	P		**Pn**		**10 00 28.6**	**+3.2**
MEIG	**Mezcala**	**5.26**	**300**	*e*P		Pn		10 00 31.4	+6.1
YAIG	**Yautepec**	**5.36**	**312**	*e*P		Pn		10 00 33.6	+6.9
ESQI	**Esquipulas**	**5.37**	**97**	P		**Pn**		**10 00 25.3**	**-1.4**
MTO3	**Montecristo**	**5.38**	**99**	P		**Pn**		**10 00 29.5**	**+2.6**
JAYA	**Jayaque - finc**	**5.48**	**107**	P		**Pn**		**10 00 28.8**	**+0.5**
CEDA	**San Andres**	**5.48**	**105**	P		**Pn**		**10 00 28.1**	**-0.1**
PMON	**Piamonte**	**5.58**	**106**	P		**Pn**		**10 00 29.8**	**+0.1**
LALI	**Alcalda de L**	**5.65**	**108**	P		**Pn**		**10 00 31.1**	**+0.6**
UEES	**Universidad Ev**	**5.65**	**106**	P		**Pn**		**10 00 29.3**	**-1.3**
LOMA	**Loma Larga**	**5.74**	**106**	P		**Pn**		**10 00 30.2**	**-1.6**
LOMA				S		**Sn**		**10 01 36.0**	**-1.4**
SARH	**Santa Rosa de**	**5.90**	**94**	P		**Pn**		**10 00 33.3**	**-0.7**
PAVA	**Las Pavas**	**5.93**	**105**	P		**Pn**		**10 00 33.8**	**-0.7**
COEG	**Centro de Oper**	**6.01**	**106**	P		**Pn**		**10 00 34.3**	**-1.2**
TECO	**Alcaldia de Te**	**6.13**	**106**	P		**Pn**		**10 00 34.0**	**-3.1**
PACA	**Pacayal**	**6.58**	**105**	P		**Pn**		**10 00 42.1**	**-1.2**
CRIN	**San Cristobal**	**8.00**	**108**	P		**Pn**		**10 01 05.7**	**+2.9**

*IDC **19** 10:00:08.9±1.2, 18°.72S×167°.20E, h0km, mb3.9/6, mbtmp3.9/7, ML3.8/1, MS3.1/2, Error ellipse: s-maj=33.6km s-min=17.6km az=105.0*

*NEIC **19** 10:00:09.9±1.6, 18°.81S±0°.06×167°.5E±0°.1, h10km±1km, mb4.2/9, Error ellipse: s-maj=16.1km s-min=10.1km az=94.0*

*NOU **19** 10:00:11.8, 18°.82S×167°.45E, h50km, MLv4.4/21, Vanuatu Islands*

ISC 19 10:00:12.0±0.8, 18°.83S±0°.04×167°.41E±0°.07, h28km, n38, σ1s 13/33, mb4.0/9, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DVP	**Devils Point**	**1.32**	**34**	P		**Pn**		**10 00 34.4**	**-0.2**
DVP	**Devils Point**	**1.32**	**34**	S		**Sn**		**10 00 50.6**	**-0.7**
RTV	**Rentapao**	**1.41**	**43**	P		**Pn**		**10 00 35.1**	**-0.8**
RTV	**Rentapao**	**1.41**	**43**	S		**Sn**		**10 00 52.7**	**-0.8**
MARNC	**Mare, Loyalty**	**2.70**	**168**	P		**Pn**		**10 00 52.5**	**-1.1**
MARNC	**Mare, Loyalty**	**2.70**	**168**	Pn		**Pn**		**10 00 52.5**	**-1.1**
YATNC	**Mamie plateau,**	**3.25**	**189**	P		**Pn**		**10 01 00.0**	**-1.2**
DZM	**Mont Dzumac**	**3.35**	**196**	Pn		**Pn**		**10 01 01.9**	**-0.7**
	10nm,0.3s,baz=21,slow=8.6,SNR=427								
DZM				Sn		**Sn**		**10 01 37.9**	**-3.7**
	28nm,0.3s,baz=323,slow=20,SNR=14								
DZM				LR		LR		10 01 56.9	
	comp=Z,94nm,20.3s,baz=48,slow=32								
	24nm,0.3s								
DZM				AML		AML			
SANVU	**Saraoutou**	**3.37**	**357**	P		**Pn**		**10 01 01.4**	**-1.5**
SANVU	**Saraoutou**	**3.37**	**357**			**Pn**		**10 01 01.0**	**-1.8**
KOUNC	**Koumac, New Ca**	**3.41**	**239**	P		**Pn**		**10 01 03.4**	**0.0**
KOUNC	**Koumac, New Ca**	**3.41**	**239**			**Pn**		**10 01 03.6**	**+0.2**
NOUC	**Port Laguerre**	**3.42**	**198**	P		**Pn**		**10 01 03.5**	**0.0**
ONTNC	**Ouen Toro**	**3.57**	**194**	P		**Pn**		**10 01 05.8**	**+0.2**
ONTNC	**Ouen Toro**	**3.57**	**194**	S		**Sn**		**10 01 46.0**	**-1.0**
ONTNC	**Ouen Toro**	**3.57**	**194**			**Pn**		**10 01 05.9**	**+0.3**
OUENC	**Ouen Island, N**	**3.61**	**188**			**Pn**		**10 01 06.6**	**+0.5**
PINNC	**Pines Island,**	**3.76**	**180**	P		**Pn**		**10 01 08.6**	**+0.4**
PINNC	**Pines Island,**	**3.76**	**180**	S		**Sn**		**10 01 50.5**	**-1.1**
PINNC	**Pines Island,**	**3.76**	**180**	Pn		**Pn**		**10 01 08.8**	**+0.6**
STKA	**Stephens Creek**	**26.62**	**236**	P		**P**		**10 05 48.2**	**-0.1**
	2.0nm,0.8s,baz=65,slow=17,SNR=3.9								
STKA				LR		LR		10 15 42.8	
	comp=Z,107nm,19.7s,baz=198,slow=35								
	2.0nm,0.8s								
WR8	**Warramunga Arr**	**31.04**	**262**	P		**P**		**10 06 26.7**	**-1.0**
WR8				lAmb		lAmb		10 06 53.3	
	comp=Z,3.2nm,1.0s								
WB0	**Warramunga Arr**	**31.15**	**263**	P		**P**		**10 06 28.7**	**-0.1**
WRAB	**Tennant Creek**	**31.18**	**262**	P		**P**		**10 06 28.4**	**-0.6**
WRAB				lAmb		lAmb		10 06 29.6	
	comp=Z,3.5nm,0.8s								
WRA	**Warramunga Arr**	**31.19**	**262**	P		**P**		**10 06 28.1**	**-1.0**
	comp=Z,0.4nm,0.7s,baz=99,slow=8.7,SNR=5.7								
	comp=Z,0.4nm,0.7s								
AS31	**Alice Springs**	**31.55**	**255**	P		**P**		**10 06 32.6**	**+0.3**
AS31				lAmb		lAmb		10 06 33.1	
	comp=Z,2.0nm,0.7s								
ASAR	**Alice Springs**	**31.55**	**255**	P		**P**		**10 06 32.1**	**-0.2**
	comp=Z,5.3nm,0.7s,baz=88,slow=8.1,SNR=62								
	comp=Z,5.3nm,0.7s								
KNRA	**Kununurra**	**37.00**	**269**	P		**P**		**10 07 19.8**	**+0.3**
FITZ	**Fitzroy Crossi**	**39.56**	**264**	P		**P**		**10 07 42.1**	**+1.0**
SONM	**Songino Array**	**85.86**	**324**	P		**P**		**10 12 50.2**	**+0.9**
	comp=Z,0.6nm,0.8s,baz=123,slow=5.3,SNR=3.6								
	comp=Z,0.6nm,0.8s								
SONM	**Songino Array**	**85.86**	**324**	lAmb		lAmb		10 13 03.4	
	comp=Z,1.5nm,1.2s								
NVAR	**Mina Array Bea**	**89.83**	**49**	P		**P**		**10 13 10.9**	**+2.2**
	comp=Z,0.4nm,0.8s,baz=248,slow=6.8,SNR=2.9								
	comp=Z,0.4nm,0.8s								
ILAR	**Eielson Array**	**90.36**	**18**	P		**P**		**10 13 10.3**	**+0.1**
	comp=Z,0.6nm,0.7s,baz=227,slow=5.3,SNR=7.5								
	comp=Z,0.6nm,0.7s								
H03S2	**Juan Fernandez**	**97.96**	**130**	T		T		12 03 14.5	
	baz=246,slow=74,SNR=12								
H03S1	**Juan Fernandez**	**97.97**	**130**	T		T		12 03 12.8	
	baz=246,slow=74,SNR=3.9								
H03S3	**Juan Fernandez**	**97.98**	**130**	T		T		12 03 14.4	
	baz=246,slow=74,SNR=15								
H03N2	**Juan Fernandez**	**98.15**	**129**	T		T		12 03 13.2	
	baz=250,slow=74,SNR=5.0								
H03N1	**Juan Fernandez**	**98.16**	**129**	T		T		12 03 18.3	
	baz=11,slow=74,SNR=4.5								

NOU 19 10:34:24.5, 14°.78S×167°.10E, h98km, MLv4.5/11, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.67**	**171**	P		Pn		10 34 42.6	+1.1
SANVU	**Saraoutou**	**0.67**	**171**	S		Sn		10 34 56.7	+2.5
DVP	**Devils Point**	**3.11**	**161**	P		Pn		10 35 12.3	+0.6
YATNC	**Mamie plateau,**	**7.24**	**182**	P		Pn		10 36 07.4	-0.3
PINNC	**Pines Island,**	**7.80**	**178**	P		Pn		10 36 14.8	-0.5

*HEL **19** 10:41:05.8±0.2, 64°.83N×30°.85E, h0km, ML1.9, Suspected explosion*

*IGKR **19** 10:41:08.0±0.7, 64°.77N±0°.04×30°.7E±0°.5, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*KOLA **19** 10:41:12.4, 64°.94N×31°.70E, h0km, ML2.2, Error ellipse: s-maj=33.2km s-min=9.3km az=110.0, Karelia*

ISC 19 10:41:07.1±0.9, 64°.83N±0°.02×30°.85E±0°.04, h0km, n32, σ1s 71/49, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
RMF	**Romuvaara**	**0.73**	**213**	PG		**Pg**		**10 41 19.4**	**-1.8**
RMF				MSG				10 41 28.6	
	comp=Z,18nm,0.2s								
RMF				SG		**Sg**		**10 41 29.0**	**-1.7**
KU1	**Kurvinen**	**0.92**	**324**	PB		**Pg**		**10 41 23.5**	**-1.2**
	baz=148								
KU6	**Riekki**	**1.26**	**342**	PN		**Pg**		**10 41 30.2**	**-1.1**
	baz=163								
KU6				MSG				10 41 44.2	
	comp=Z,9.7nm,0.2s								
KU6				SN		**Sg**		**10 41 47.6**	**-0.1**
MSF	**Maaselka**	**1.32**	**326**	PN		**Pg**		**10 41 30.9**	**-1.6**
MSF				SN		**Sg**		**10 41 50.2**	**+0.7**
KU2	**Taivalkoski**	**1.41**	**310**	PN		**Pn**		**10 41 32.0**	**-2.1**
	baz=127								
OLKF	**Oulanka, Finla**	**1.61**	**339**	PN		**Pn**		**10 41 36.2**	**-0.6**
OLKF				MSG				10 41 54.0	
	comp=Z,7.9nm,0.2s								
OLKF				SN		**Sb**		**10 41 59.0**	**+0.4**
JOF	**Joensuu**	**1.93**	**174**	*e*P		**Pn**		**10 41 40.6**	**-0.6**
JOF	**Joensuu**	**1.93**	**174**	PG		**Pn**		**10 41 39.9**	**-1.3**
JOF				SG		**Sn**		**10 42 06.1**	**-0.1**
NIF	**Nilsia**	**1.97**	**224**	PG		**Pn**		**10 41 41.0**	**-0.7**
	baz=38								
NIF				MSG				10 42 04.4	

KUSD				Sg	Sg	10 45 50.2	+0.2	
KUSD				AML	AML			
GMLD	**Gumuldur**	**0.27**	**344**	Pg	Pg	10 45 47.7	-0.1	
GMLD				Sg	Sg	10 45 51.4	0.0	
GMLD				AML	AML			
DDIM	**Aydin, Didim**	**0.41**	**153**	P	Pg	10 45 50.2	-0.1	
DDIM				S	Sg	10 45 56.4	+0.8	
DDIM				IAML		10 45 57.0		
	comp=N,599nm,0.4s							
DDIM				IAML		10 45 58.0		
	comp=E,395nm,0.4s							
DUVT	**Torbali**	**0.53**	**41**	P	Pg	10 45 52.3	-0.4	
DUVT				S	Sg	10 45 59.4	-0.2	
DUVT				IAML		10 46 02.0		
	comp=E,216nm,0.2s							
BLCB	**Balcova**	**0.57**	**3**	P	Pg	10 45 52.9	-0.5	
BLCB				S	Sg	10 46 01.2	+0.4	
BLCB				AML	AML			
BLCB	**Balcova**	**0.57**	**3**	Pg	Pg	10 45 52.8	-0.6	
BLCB				AML	AML			
DAGE	**izmir**	**0.61**	**72**	P	Pg	10 45 54.4	+0.1	
DAGE				S	Sg	10 46 01.8	-0.6	
DAGE				IAML		10 46 03.0		
	comp=N,361nm,0.2s							
DAGE				IAML		10 46 06.0		
	comp=E,523nm,0.2s							
AYDN	**Tasoluk**	**0.71**	**103**	P	Pg	10 45 56.0	0.0	
AYDN				S	Sg	10 46 05.9	+0.6	
AYDN				IAML		10 46 08.0		
	comp=N,139nm,0.4s							
AYDN				IAML		10 46 09.0		
	comp=E,200nm,0.4s							
AYDB	**Zeytinkoy-Aydi**	**0.71**	**79**	Pg	Pg	10 45 56.2	+0.1	
AYDB				Sg	Sb	10 46 06.4	-0.4	
AYDB				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.72**	**163**	Pg	Pb	10 45 57.4	+0.3	
YKAV				AML	AML			
BODT	**Bodrum**	**0.79**	**162**	P	Pg	10 45 57.1	-0.5	
BODT				S	Sb	10 46 09.0	-0.1	
BODT				AML	AML			
BODT	**Bodrum**	**0.79**	**162**	Pg	Pg	10 45 57.3	-0.3	
BODT				AML	AML			
MLSB	**Milas**	**0.80**	**130**	Pg	Pb	10 45 58.9	+0.4	
MLSB				AML	AML			
IZMR	**zmir-demi**	**0.81**	**67**	P	Pg	10 45 58.1	+0.1	
IZMR				S	Sg	10 46 07.5	-1.0	
IZMR				IAML		10 46 10.0		
	comp=N,70nm,0.4s							
IZMR				IAML		10 46 12.0		
	comp=E,126nm,0.4s							
FOCM	**Foa**	**0.92**	**346**	Pg	Pg	10 46 00.1	0.0	
FOCM				AML	AML			
CHOS	**Chios island**	**0.94**	**307**	P	Pg	10 46 00.5	0.0	
CHOS				S	Sb	10 46 13.6	+0.1	
CHOS				AML	AML			
CHOS	**Chios island**	**0.94**	**307**	Pg	Pb	10 46 01.2	+0.3	
CHOS				AML	AML			
NAZL	**Nazilli-Aydin**	**1.02**	**81**	Pg	Pg	10 46 01.9	-0.2	
NAZL				AML	AML			
ESEN	**Aydn-Nazilli**	**1.06**	**91**	P	Pb	10 46 02.9	0.0	
ESEN				S	Sb	10 46 17.1	+0.3	
ESEN				IAML		10 46 18.0		
	comp=N,38nm,0.6s							
GOMA	**Golmarmara-Man**	**1.14**	**39**	Pn	Pg	10 46 03.8	-0.5	
GOMA				AML	AML			
KIRA	**zmir-Kiraz**	**1.16**	**71**	P	Pg	10 46 04.5	-0.2	
KIRA				S	Sg	10 46 18.8	-1.0	
KIRA				IAML		10 46 22.0		
	comp=N,86nm,0.6s							
MULA	**Mugla, Merkez-**	**1.18**	**118**	P	Pb	10 46 05.3	+0.3	
MULA				S	Sb	10 46 21.1	+0.6	
MULA				IAML		10 46 24.0		
	comp=N,48nm,0.6s							
MULA				IAML		10 46 25.0		
	comp=E,48nm,0.7s							
AKS	**Akhisar**	**1.23**	**31**	Pn	Pg	10 46 05.5	-0.5	
AKS				AML	AML			
DKL	**Dikili**	**1.25**	**356**	Pn	Pg	10 46 05.9	-0.5	
APE	**Apeiranthos**	**1.39**	**238**	P	Pn	10 46 08.1	+0.1	
APE				AML	AML			
SOMA	**Soma-Manisa**	**1.40**	**17**	Pn	Pb	10 46 08.8	+0.2	
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.42**	**40**	Pn	Pb	10 46 09.2	+0.1	
GORD				AML	AML			
KULA	**Kula-Manisa**	**1.48**	**61**	Pn	Pb	10 46 10.0	0.0	
KULA				AML	AML			
YAYO	**Edremit-Balk**	**1.79**	**2**	Pn	Pn	10 46 14.6	+1.2	
YAYO				AML	AML			
NPS	**Neapolis**	**2.79**	**204**	P	Pn	10 46 25.9	-1.2	

IDC ***19*** *10:51:06.1±1.0,50.26N×19.01E,h0km,mbtmp3.5/7, ML3.5/6,Error ellipse: s-maj=17.5km s-min=7.6km az=151.0*

VIE ***19*** *10:51:08.4±0.4,50.44N×18.76E,h0km,mb2.9/17, ml3.4/12,ml3.3/12,ms3.9/8,Error ellipse: s-maj=3.2km s-min=2.1km az=28.0 26 km NW of Katowice Suspected Mining induced.*

BGR ***19*** *10:51:09.3±0.3,50.40N×18.78E,h1km,ML3.6/13,Error ellipse: s-maj=6.7km s-min=4.4km az=11.0*

PRU ***19*** *10:51:09.8,50.41N×18.77E,h0km*

IPEC ***19*** *10:51:09.0±0.2,50.35N×18.83E,h1km,ML3.5/6,Error ellipse: s-maj=2.0km s-min=0.8km az=173.0*

ISC 19 10:51:07.5±0.7,**50.39N**±0.03×**18.77E**±0.02,**h0**km,**n69**, σ1§**42**/121,**Poland**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	**0.48**	**230**	*e*Pg	**Pb**	**10 51 19.6**	**+0.8**
RAC				*e*SG	**Sb**	**10 51 27.2**	**+0.7**
OJC	**Ojcow**	**0.68**	**104**	*e*Pg	**Pg**	**10 51 21.5**	**+1.0**
OJC				*e*Sg	**Sg**	**10 51 30.6**	**+1.3**
OJC	**Ojcow**	**0.68**	**104**	*e*Pg	**Pg**	**10 51 21.7**	**+1.2**
OJC				*e*Sg	**Sg**	**10 51 30.7**	**+1.5**
OKC	**Ostrava-Krasne**	**0.69**	**216**	*e*Pg	**Pb**	**10 51 22.5**	**+0.2**
OKC				*e*Sg	**Sb**	**10 51 32.3**	**-0.1**
OKC	**Ostrava-Krasne**	**0.69**	**216**	*e*PG	**Pb**	**10 51 22.7**	**+0.4**
OKC				*e*SG	**Sb**	**10 51 32.6**	**+0.3**
	comp=Z,155nm,0.5s						
OKC				AML	AML		
STEB	**Steborice**	**0.79**	**235**	*e*PG	**Pb**	**10 51 25.0**	**+0.9**
STEB				*e*SG	**Sb**	**10 51 35.6**	**+0.3**
	comp=Z,1μm,0.5s						
STEB				AML	AML		
ANAC	**Anensky vrch**	**0.95**	**251**	*e*Pg	**Pb**	**10 51 27.8**	**+0.9**
	baz=73						
ANAC				*e*Sg	**Sb**	**10 51 39.7**	**-0.3**
	881nm,0.5s,baz=73						
ANAC				AML	AML		
MORC	**Moravsky Berou**	**1.00**	**233**	*e*Pg	**Pb**	**10 51 28.4**	**+0.6**
MORC				*e*Sg	**Sb**	**10 51 41.7**	**+0.2**
MORC	**Moravsky Berou**	**1.00**	**233**	*e*Pg	**Pb**	**10 51 28.3**	**+0.5**
	baz=55						
MORC				*e*Sg	**Sg**	**10 51 40.7**	**+1.0**
	783nm,0.7s,baz=55						
MORC				AML	AML		
LOSC	**Losov**	**1.19**	**230**	*e*Pg	**Pn**	**10 51 32.1**	**+0.7**
	baz=52						
LOSC				*e*Sg	**Sg**	**10 51 46.1**	**+0.5**
	721nm,0.6s,baz=52						
LOSC				AML	AML		
KRLC	**Kraliky**	**1.32**	**257**	*e*PG	**Pb**	**10 51 33.8**	**+0.7**
KRLC				*e*SG	**Sn**	**10 51 51.8**	**+0.3**
	comp=Z,220nm,0.8s						
KRLC				AML	AML		
LANS	**Liptovska Anna**	**1.32**	**160**	*e*PG	**Pg**	**10 51 33.6**	**+0.8**
LANS				*e*SG	**Sb**	**10 51 51.2**	**+0.5**
LANS				*e*LG	Lg	10 51 53.5	
NIE	**Niedzica**	**1.39**	**134**	*e*Pg	**Pg**	**10 51 34.6**	**+0.6**
NIE				*e*Sg	**Sb**	**10 51 53.2**	**+0.7**
DPC	**Dobruska-Polom**	**1.57**	**269**	*e*Pn	**Pb**	**10 51 38.0**	**+0.6**
DPC				*e*Sg	**Sg**	**10 52 00.0**	**+2.1**
DPC	**Dobruska-Polom**	**1.57**	**269**	*e*PG	**Pg**	**10 51 38.4**	**+0.9**
DPC				*e*SG	**Sg**	**10 52 00.5**	**+2.6**
	comp=Z,120nm,0.4s						
DPC				AML	AML		
OSTC	**Ostas**	**1.64**	**277**	*e*PG	**Pb**	**10 51 39.4**	**+0.8**
OSTC				*e*SG	**Sg**	**10 52 01.7**	**+1.5**
	comp=Z,93nm,0.6s						
OSTC				AML	AML		
KSP	**Ksiaz**	**1.64**	**287**	*e*Pg	**Pb**	**10 51 39.2**	**+0.6**
KSP				*e*Sg	**Sg**	**10 52 01.4**	**+1.1**
KSP	**Ksiaz**	**1.64**	**287**	*e*Pn	**Pb**	**10 51 39.3**	**+0.7**
KSP				*e*Pg	**Pg**	**10 51 40.8**	**+1.8**
KSP				*e*Sg	**Sg**	**10 52 01.7**	**+1.5**
JAVC	**Velka Javorina**	**1.69**	**205**	*e*Pn	**Pn**	**10 51 39.1**	**+0.7**
	baz=26						
JAVC	**Velka Javorina**	**1.69**	**205**	*e*PN	**Pn**	**10 51 39.2**	**+0.8**
CHVC	**Chvalec**	**1.75**	**277**	*e*PG	**Pb**	**10 51 40.9**	**+0.5**
CHVC				*e*SG	**Sg**	**10 52 04.3**	**+0.7**
	comp=Z,176nm,0.9s						
CHVC				AML	AML		
VRAC	**Vranov**	**1.78**	**233**	Pg	**Pn**	**10 51 40.6**	**+1.1**
	24nm,0.3s,baz=55,slow=16,SNR=63						
VRAC				Lg	Lg	10 52 03.2	
	48nm,0.3s,baz=137,slow=17,SNR=29						
VRAC	**Vranov**	**1.78**	**233**	*e*Pn	**Pn**	**10 51 40.8**	**+1.3**
	baz=53						
VRAC				*e*Sg	**Sg**	**10 52 04.9**	**+0.3**
	315nm,0.7s,baz=53						
VRAC				AML	AML		
VYHS	**Vyhne**	**1.90**	**179**	*e*PN	**Pn**	**10 51 41.8**	**+0.6**
VYHS				*e*SN	**Sn**	**10 52 05.3**	**-0.5**
VYHS				*e*LG	Lg	10 52 09.9	
KRUC	**Moravsky**	**2.04**	**230**	*e*Pn	**Pn**	**10 51 44.4**	**+1.4**
	baz=50						
KRUC				*e*Sg	**Sg**	**10 52 12.8**	**-0.1**
	172nm,0.8s,baz=50						
KRUC				AML	AML		
KECS	**Kecovo**	**2.21**	**149**	*e*PN	**Pn**	**10 51 45.7**	**+0.3**
KECS				*e*SN	**Sn**	**10 52 12.3**	**-1.2**
KECS				*e*LG	Lg	10 52 19.5	
MODS	**Modra-Piesok**	**2.25**	**206**	*e*PN	**Pn**	**10 51 47.1**	**+1.2**
MODS				*e*SN	**Sn**	**10 52 12.2**	**-2.1**
KOLS	**Kolonicke sedl**	**2.70**	**121**	*e*PN	**Pn**	**10 51 53.5**	**+1.3**
KOLS				*e*SN	**Sn**	**10 52 25.8**	**+0.2**
KOLS				*e*LG	Lg	10 52 42.2	
ABNA	**Allensteig Bun**	**2.78**	**233**	*e*Pg	**Pg**	**10 52 00.6**	**0.0**
	12nm,0.4s						
ABNA				*e*Sg	**Sg**	**10 52 38.0**	**+1.4**
	53nm,0.4s						
WINA	**Alland / Wiene**	**2.89**	**219**	*e*Pn	**Pn**	**10 51 56.6**	**+1.9**
	4.4nm,0.3s						
WINA				*e*Sn	**Sn**	**10 52 30.4**	**+0.1**
	25nm,0.3s						
CONA	**Conrad Observa**	**3.12**	**219**	*e*Pn	**Pn**	**10 51 59.2**	**+1.2**
	0.7nm,0.2s						
CONA				*e*Sn	**Sn**	**10 52 36.2**	**+0.2**
	14nm,0.4s						
RONA	**Rosalia, Austr**	**3.15**	**212**	*e*Pn	**Pn**	**10 52 00.1**	**+1.8**
	8.5nm,0.3s						
RONA				*e*Sn	**Sn**	**10 52 39.1**	**+2.5**
	17nm,0.4s						
FBE	**Freiberg**	**3.49**	**281**	*e*Pg	**Pg**	**10 52 13.9**	**-0.4**
FBE				*e*Sg	**Sg**	**10 52 58.0**	**-1.5**
KHC	**Kasperske Hory**	**3.60**	**251**	*e*PN	**Pn**	**10 52 06.3**	**+1.8**
KHC				*e*PG	**Pb**	**10 52 14.0**	**+2.1**
KHC				*e*SN	**Sn**	**10 52 43.5**	**-4.2**
KHC				*e*SG	**Sg**	**10 53 04.2**	**+1.2**
	comp=Z,56nm,0.7s						
KHC				AML	AML		
GEC2	**GERESS Array S**	**3.64**	**247**	*e*Pn	**Pn**	**10 52 06.6**	**+1.5**
GEC2				*e*Pg	**Pg**	**10 52 17.0**	**-0.3**
GEC2				*e*Sg	**Sg**	**10 53 02.6**	**-1.8**
GERES	**GERESS Array B**	**3.64**	**247**	Pn	**Pn**	**10 52 05.1**	**-0.1**
	1.0nm,0.3s,baz=63,slow=16,SNR=6.8						
GERES				Pg	**Pb**	**10 52 13.3**	**+0.6**
	0.8nm,0.3s,baz=62,slow=17,SNR=40						
GERES				Lg	Lg	10 53 01.4	
	1.2nm,0.3s,baz=61,slow=27,SNR=8.7						
CLL	**Collm**	**3.77**	**286**	*e*Pg	**Pg**	**10 52 20.1**	**+0.5**
CLL				*e*Sg	**Sg**	**10 53 08.4**	**-0.1**
CLL	**Collm**	**3.77**	**286**	*e*Pg	**Pg**	**10 52 21.0**	**+1.3**
CLL				*e*Sg	**Sg**	**10 53 11.0**	**+2.5**
	comp=Z,115nm,0.9s						
ARSA	**Arzberg**	**3.81**	**216**	*e*Pn	**Pn**	**10 52 09.5**	**+2.1**
	comp=Z,2.0nm,0.3s						
ARSA				*e*Sn	**Sn**	**10 52 55.7**	**+2.8**
	comp=Z,8.2nm,0.5s						
MOA	**Molln**	**3.90**	**231**	*e*Sg	**Sg**	**10 53 10.9**	**-1.9**
	comp=Z,73nm,0.6s						
WET	**Wettzell**	**4.02**	**254**	*e*Sg	**Sg**	**10 53 16.0**	**-0.6**
TANN	**Tannenbergstha**	**4.04**	**273**	*e*Pg	**Pg**	**10 52 24.5**	**-0.3**
TANN				*e*Sg	**Sg**	**10 53 18.6**	**+1.5**
WERD	**Werda**	**4.14**	**273**	*e*Pg	**Pg**	**10 52 25.7**	**-1.0**
WERD				*e*Sg	**Sg**	**10 53 20.3**	**+0.1**
SESA	**Seetaler Alpe,**	**4.30**	**222**	*e*Pn	**Pn**	**10 52 17.4**	**+3.0**
	comp=Z,12nm,0.8s						
SESA				*e*Sg	**Sg**	**10 53 25.1**	**-0.5**
	comp=Z,22nm,0.5s						
BIOA	**Bad Ischl, Aus**	**4.33**	**233**	*e*Pg	**Pg**	**10 52 31.4**	**+1.1**
	comp=Z,9.3nm,0.4s						
BIOA				*e*Sg	**Sg**	**10 53 26.6**	**+0.2**
	comp=Z,85nm,0.6s						
MOX	**Moxa**	**4.57**	**276**	*e*Sg	**Sg**	**10 53 36.2**	**+1.8**
KBA	**Koelnbreinsper**	**4.89**	**229**	*e*Sg	**Sg**	**10 53 44.3**	**-0.1**
	comp=Z,26nm,0.6s						
GRF	**Grafenberg Arr**	**4.92**	**265**	*e*Sg	**Sg**	**10 53 45.1**	**-0.2**
LESA	**Schwarzleotal**	**5.00**	**236**	Pg	**Pg**	**10 52 42.4**	**-0.8**
	comp=Z,3.3nm,0.4s						
LESA				Sg	**Sg**	**10 53 45.7**	**-2.2**
	comp=Z,16nm,0.3s						
MYKA	**Terra Mystica**	**5.08**	**224**	*e*Sg	**Sg**	**10 53 53.6**	**+3.1**
	comp=Z,5.6nm,0.4s						
BSD	**Bornholm Skovb**	**5.28**	**335**	*i* P	**Pn**	**10 52 28.7**	**+1.2**
ABTA	**Abfaltersbach**	**5.53**	**231**	*e*Sg	**Sg**	**10 54 03.1**	**-1.9**
	comp=Z,26nm,0.6s						
WATA	**Walderalm**	**5.65**	**240**	*e*Sg	**Sg**	**10 54 05.6**	**-3.3**
	comp=Z,20nm,0.5s						
WTTA	**Wattenberg**	**5.66**	**239**	*e*Pn	**Pn**	**10 52 31.4**	**-1.5**
	comp=Z,1.6nm,0.4s						
WTTA				*e*Pg	**Pg**	**10 52 55.1**	**-0.8**
	comp=Z,1.8nm,0.3s						
WTTA				*e*Sg	**Sg**	**10 54 07.4**	**-1.7**
	comp=Z,28nm,0.5s						
MOTA	**Moosalm**	**5.91**	**242**	*e*Pg	**Pg**	**10 53 01.3**	**+0.7**
	comp=Z,3.2nm,0.4s						
MOTA				*e*Sg	**Sg**	**10 54 17.1**	**-0.1**
	comp=Z,56nm,0.6s						
SQTA	**Sankt Quirin**	**5.92**	**240**	*e*Pg	**Pg**	**10 53 01.3**	**+0.5**
	comp=Z,2.0nm,0.3s						
SQTA				*e*Sg	**Sg**	**10 54 17.6**	**0.0**
	comp=Z,22nm,0.5s						
RETA	**Reutte**	**6.03**	**244**	*e*Sg	**Sg**	**10 54 22.4**	**+1.5**
	comp=Z,16nm,0.4s						
LUNU	**Lund**	**6.15**	**331**	*i* P	**Pn**	**10 52 41.0**	**+1.5**
BLEU	**Blekinge**	**6.18**	**345**	*i* P	**Pn**	**10 52 40.9**	**+1.0**
FETA	**Feichten**	**6.30**	**241**	*e*Sg	**Sg**	**10 54 28.6**	**-1.2**
	comp=Z,12nm,0.6s						
DAVA	**Damuels**	**6.64**	**246**	*e*Sg	**Sg**	**10 54 39.1**	**-1.6**
	comp=Z,23nm,0.6s						
AKASG	**Malin Array Be**	**6.67**	**83**	Pn	**Pn**	**10 52 43.4**	**-3.2**
	comp=Z,1.4nm,0.3s,baz=270,slow=11,SNR=5.1						
AKASG				Sn	**Sn**	**10 53 59.9**	**-3.3**
	comp=Z,3.0nm,0.3s,baz=269,slow=22,SNR=4.5						
AKASG				Lg	Lg	10 54 32.3	
	comp=Z,3.1nm,0.3s,baz=271,slow=23,SNR=5.1						
	comp=Z,0.2nm,0.3s						
AKASG				AML	AML		
DEL	**Delary**	**6.75**	**336**	*i* P	**Pn**	**10 52 48.8**	**+1.0**
DEL				*i* S	**Sn**	**10 54 01.4**	**-3.9**
DAVOX	**Davos/Dischmat**	**6.92**	**242**	Pn	**Pn**	**10 52 51.1**	**+0.9**
	comp=Z,0.8nm,0.3s,baz=63,slow=14,SNR=3.9						
DAVOX				Sn	**Sn**	**10 54 10.7**	**+1.0**
	comp=Z,0.4nm,0.3s,baz=346,slow=22,SNR=1.9						
DAVOX				Lg	Lg	10 54 45.6	
	comp=Z,1.4nm,0.3s,baz=107,slow=19,SNR=6.8						
	comp=Z,1.5nm,0.4s						
DAVOX				AML	AML		
FABU	**Falkenberg**	**7.53**	**334**	*i* P	**Pn**	**10 52 58.9**	**+0.5**
HFS	**Hagfors**	**10.18**	**345**	Pn	**Pn**	**10 53 33.9**	**-0.8**
	comp=Z,0.2nm,0.3s,baz=161,slow=23,SNR=1.3						
	comp=Z,1.0nm,0.4s						
HFS				AML	AML		
FINES	**FINESS Array B**	**11.80**	**17**	Pn	**Pn**	**10 53 55.2**	**-1.6**
	comp=Z,0.6nm,0.3s,baz=191,slow=11,SNR=22						
FINES				Sn	Sn	10 56 00.7	-8.4
	comp=Z,0.5nm,0.3s,baz=203,slow=23,SNR=4.1						
	comp=Z,4.0nm,0.6s						
FINES				AML	AML		
EKA	**Eskdalemuir Ar**	**14.12**	**299**	Pn	**Pn**	**10 54 28.1**	**-0.4**
	baz=100,slow=12						
	comp=Z,0.7nm,0.5s						
ARCES	**ARCESS Array B**	**19.47**	**7**	P	**P**	**10 55 33.8**	**-1.7**
	comp=Z,0.2nm,0.3s,baz=193,slow=12,SNR=7.6						
	comp=Z,1.4nm,0.5s						
ARCES				AML	AML		

JMA ***19*** *11:11:50.6±0.2,24.0N×0.8×123.6E±0.5,h33km±1km, MD3.8/10,MV3.5/10,NEAR ISHIGAKIJIMA ISLAND*

NIED ***19*** *11:11:50.6,23.97N×123.59E,h33km,MW3.8,Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁴Nm; Mrr3.05; Mθθ-2.63; Mφφ-0.42; Mrθ3.03; Mrφ-1.77; Mθφ2.66; Fault plane solution: M05.24000×10¹⁴ NP1: φs254.00000°,δ21.00000°,λ111.00000°. NP2: φs51.00000°,δ71.00000°,λ82.00000°.*

ISC 19 11:11:50.2±1.4,**23.96N**±0.09×**123.58E**±0.04,**h33**km±5km, **n16**,σ0§**60**/21,**Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HATJ	**Hateruma jima**	**0.22**	**65**	*i* P	**Pb**	**11 11 57.0**	**0.0**
HATJ				A	A	11 11 57.0	
	comp=N,19nm,1.8s,comp=E,18nm,0.4s						
HATJ				S	**Sb**	**11 12 01.9**	**+0.2**
IRIF	**Iriomote-Funau**	**0.40**	**20**	*i* P	**Pb**	**11 11 59.2**	**-0.1**
IRIF				A	A	11 11 59.2	
	comp=N,23nm,0.4s,comp=E,22nm,1.3s						
IRIF				S	**Sb**	**11 12 05.4**	**0.0**
JKRS	**Kuro-shima**	**0.48**	**55**	*i* P	**Pb**	**11 12 00.7**	**+0.2**
JKRS				A	A	11 12 00.7	
	comp=N,11nm,2.2s,comp=E,11nm,0.7s						
JKRS				S	**Sn**	**11 12 08.0**	**0.0**
JIJ	**Ishigaki jima**	**0.65**	**52**	*i* P	**Pn**	**11 12 02.9**	**-0.2**
JIJ				S	**Sb**	**11 12 11.6**	**-0.6**
YOJ	**Yonaguni jima**	**0.72**	**314**	*i* P	**Pn**	**11 12 04.3**	**+0.2**
JYNG	**Yonagunijimaku**	**0.76**	**310**	*i* P	**Pn**	**11 12 04.9**	**+0.2**
JISG	**Ishigakijimahi**	**0.91**	**47**	*i* P	**Pn**	**11 12 06.9**	**+0.2**
JISG				*e*S	**Sn**	**11 12 19.2**	**+0.5**
JTJ	**Tarama**	**1.23**	**56**	*e*P	**Pb**	**11 12 12.3**	**-0.5**
JTJ				*e*S	**Sb**	**11 12 28.6**	**+0.2**
NACB	**Ninganchiao**	**1.83**	**277**	P	**Pn**	**11 12 18.7**	**-0.7**
YHNB	**Yeheng**	**2.13**	**290**	P	**Pn**	**11 12 25.1**	**+1.4**
TATO	**Taipei**	**2.16**	**298**	P	**Pb**	**11 12 28.4**	**-0.3**
TATO	**Taipei**	**2.16**	**298**	S	**Sn**	**11 12 49.0**	**-0.6**
YULB	**Yu-li**	**2.17**	**255**	P	**Pn**	**11 12 23.6**	**-0.5**
YULB	**Yu-li**	**2.17**	**255**	S	Sn	11 12 40.5	-9.4
SSLB	**Suanglung**	**2.41**	**266**	P	**Pn**	**11 12 27.2**	**-0.3**
TPUB	**Ta-pu**	**2.79**	**257**	P	**Pn**	**11 12 33.9**	**+1.3**

FUNV ***19*** *11:19:29.6,7.08N×72.78W,h35km,MW3.7,Presumed earthquake*

RSNC ***19*** *11:19:31.4±0.0,7.1N±1×7.4W±1,h101km±2km,M2.5,mb3.7, ML2.2*

ISC 19 11:19:29.8±1.2,**6.60N**±0.03×**73.68W**±0.03,**h105**km±7km, **n30**,σ1§**16**/54,**Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VMM10	**El Carmen**	**0.17**	**344**	P	**Pn**	**11 19 44.7**	**+0.1**
VMM10				S	**Sn**	**11 19 55.6**	**0.0**
BRJC	**Barrancabermej**	**0.38**	**350**	P	**Pn**	**11 19 45.4**	**0.0**
BRJC				S	**Sn**	**11 19 57.3**	**+0.3**
BARC	**Barichara**	**0.49**	**91**	P	**Pn**	**11 19 46.7**	**+0.4**
BARC				S	**Sn**	**11 19 59.3**	**+0.6**
VMM09	**Lebrija**	**0.65**	**36**	P	**Pn**	**11 19 48.1**	**+0.7**
VMM09				S	**Sn**	**11 20 01.3**	**+0.7**
VMM07	**Puerto Wilches**	**0.77**	**347**	P	**Pn**	**11 19 49.2**	**+0.8**
VMM07				S	**Sn**	**11 20 04.4**	**+2.1**
PTBC	**PUERTO BERRIO,**	**0.78**	**266**	P	**Pn**	**11 19 47.2**	**-1.2**
PTBC				S	**Sn**	**11 20 00.3**	**-2.1**
RUSC	**La Rusia**	**0.92**	**140**	P	**Pn**	**11 19 50.0**	**-0.3**
RUSC				S	**Sn**	**11 20 05.3**	**-0.4**
RUSC	**La Rusia**	**0.92**	**140**	*e*P	**Pn**	**11 19 50.1**	**-0.2**
RUSC				*e*S	**Sn**	**11 20 04.4**	**-1.3**
SPBC	**San Pablo de B**	**1.02**	**203**	P	**Pn**	**11 19 50.5**	**-0.5**
SPBC				S	**Sn**	**11 20 05.4**	**-1.5**
NORC	**Norcasia**	**1.57**	**229**	P	**Pn**	**11 19 56.6**	**-0.7**
NORC				S	**Sn**	**11 20 16.8**	**-1.3**
OCAC	**Ocana**	**1.67**	**12**	P	**Pn**	**11 19 59.5**	**+1.0**
OCAC				S	**Sn**	**11 20 21.6**	**+1.2**
ROSC	**El Rosal**	**1.86**	**200**	P	**Pn**	**11 20 02.6**	**+1.4**
ROSC				S	**Sn**	**11 20 25.8**	**+0.7**
TAMC	**Tame, Arauca**	**1.88**	**95**	P	**Pn**	**11 20 01.8**	**+0.7**
TAMC				S	**Sn**	**11 20 23.9**	**-1.1**
CHIC	**Chingaza**	**1.96**	**182**	P	**Pn**	**11 20 03.2**	**+0.7**
CHIC				S	**Sn**	**11 20 28.3**	**+1.0**
GUY2C	**Guyana, Caldas**	**2.17**	**231**	P	**Pn**	**11 20 06.6**	**+1.4**
GUY2C				S	**Sn**	**11 20 32.9**	**+0.8**
UREC	**San Jos de Ur**	**2.17**	**302**	P	**Pn**	**11 20 04.0**	**-0.7**
UREC				S	**Sn**	**11 20 30.6**	**-0.9**
CBOC	**Ciudad Bolivar**	**2.43**	**253**	P	**Pn**	**11 20 08.8**	**+0.4**
CBOC				S	**Sn**	**11 20 39.2**	**+1.3**
PTGC	**Puerto Gaitan,**	**2.84**	**147**	P	**Pn**	**11 20 11.8**	**-1.8**
PTGC				S	**Sn**	**11 20 45.0**	**-2.3**
ORTC	**Ortega, Tolima**	**3.10**	**210**	P	**Pn**	**11 20 17.7**	**+0.7**
ORTC				S	**Sn**	**11 20 53.8**	**+0.3**
PRAC	**Prado**	**3.11**	**203**	P	**Pn**	**11 20 17.4**	**+0.2**
PRAC				S	**Sn**	**11 20 55.3**	**+1.5**
APAC	**Apartado, Choc**	**3.15**	**294**	P	**Pn**	**11 20 17.0**	**-0.7**
ARGC	**Ariguani, Magd**	**3.28**	**350**	P	**Pn**	**11 20 20.8**	**+1.3**
ARGC				S	**Sn**	**11 20 59.8**

BLCB				AML	AML				
KRBN	**Karaburun**	**0.80**	**8**	Pg	**Pg**	**11**	**24**	**02.5**	**-0.7**
KRBN				AML	AML				
KARB	**zmir-Karabur**	**0.86**	**360**	P	**Pg**	**11**	**24**	**03.2**	**-1.2**
KARB				S	**Sg**	**11**	**24**	**16.1**	**+0.5**
DUVT	**Torbali**	**0.92**	**62**	P	**Pg**	**11**	**24**	**04.9**	**-0.5**
DUVT				S	**Sg**	**11**	**24**	**17.6**	**+0.3**
DUVT				IAML		11	24	20.0	
	comp=E,387nm,0.1s								
BAGT	**Foa**	**0.92**	**22**	P	**Pg**	**11**	**24**	**04.9**	**-0.6**
BAGT				S	**Sb**	**11**	**24**	**18.9**	**-0.1**
BAGT				IAML		11	24	20.0	
	comp=N,852nm,0.7s								
BAGT				IAML		11	24	20.0	
	comp=E,807nm,0.7s								
FOCM	**Foa**	**0.94**	**15**	Pg	**Pg**	**11**	**24**	**05.2**	**-0.8**
FOCM				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.96**	**134**	Pg	**Pg**	**11**	**24**	**05.9**	**-0.4**
YKAV				AML	AML				
APE	**Apeiranthos**	**1.01**	**224**	P	**Pg**	**11**	**24**	**06.1**	**-1.2**
APE				AML	AML				
APE	**Apeiranthos**	**1.01**	**224**	Pg	**Pg**	**11**	**24**	**06.0**	**-1.3**
APE				AML	AML				
BODT	**Bodrum**	**1.02**	**136**	P	**Pg**	**11**	**24**	**06.9**	**-0.6**
BODT				AML	AML				
BODT	**Bodrum**	**1.02**	**136**	Pg	**Pg**	**11**	**24**	**06.9**	**-0.6**
BODT				AML	AML				
TNSA	**Tinos**	**1.03**	**256**	P	Pn	**11**	**24**	**09.1**	**0.0**
TNSA				AML	AML				
DAGE	**izmir**	**1.07**	**79**	P	**Pg**	**11**	**24**	**08.4**	**0.0**
DAGE				S	**Sg**	**11**	**24**	**22.3**	**-0.1**
DAGE				IAML		11	24	26.0	
	comp=E,333nm,0.2s								
AYDB	**Zeytinkoy-Aydi**	**1.18**	**82**	Pn	**Pg**	**11**	**24**	**10.2**	**-0.2**
AYDB				AML	AML				
CAMT	**Merkez**	**1.18**	**36**	P	**Pb**	**11**	**24**	**11.1**	**+0.2**
CAMT				S	**Sn**	**11**	**24**	**27.4**	**-0.3**
CAMT				IAML		11	24	29.0	
	comp=E,556nm,0.4s								
CAMT				IAML		11	24	31.0	
	comp=N,564nm,0.4s								
MLSB	**Milas**	**1.19**	**115**	Pn	**Pg**	**11**	**24**	**10.2**	**-0.5**
MLSB				AML	AML				
ZEDA	**zmir-Bergama**	**1.28**	**24**	P	**Pg**	**11**	**24**	**11.4**	**-0.9**
ZEDA				S	**Sn**	**11**	**24**	**30.0**	**0.0**
ZEDA				IAML		11	24	32.0	
	comp=N,212nm,0.3s								
DKL	**Dikili**	**1.33**	**17**	Pn	**Pn**	**11**	**24**	**12.4**	**-0.8**
DKL				AML	AML				
GOMA	**Golmarmara-Man**	**1.49**	**52**	Pn	**Pn**	**11**	**24**	**15.3**	**-0.1**
GOMA				AML	AML				
NAZL	**Nazilli-Aydin**	**1.49**	**83**	Pn	**Pn**	**11**	**24**	**15.5**	**0.0**
NAZL				AML	AML				
AKS	**Akhisar**	**1.54**	**45**	Pn	**Pn**	**11**	**24**	**16.0**	**-0.1**
AKS				AML	AML				
CMBO	**Columbo, Santo**	**1.55**	**212**	P	**Pb**	**11**	**24**	**17.5**	**+0.3**
KARY	**Karystos**	**1.58**	**279**	P	**Pb**	**11**	**24**	**17.6**	**-0.1**
SAP3	**Santorini-Thir**	**1.61**	**213**	P	**Pb**	**11**	**24**	**18.1**	**0.0**
THR3	**Thira Island,**	**1.61**	**211**	P	**Pn**	**11**	**24**	**16.8**	**-0.2**
SOMA	**Soma-Manisa**	**1.61**	**33**	Pn	**Pn**	**11**	**24**	**16.9**	**-0.2**
SOMA				AML	AML				
THERA	**Ancient Thera,**	**1.62**	**208**	P	**Pb**	**11**	**24**	**18.2**	**-0.1**
THERA				AML	AML				
YER	**Yerkesik**	**1.62**	**114**	Pn	**Pn**	**11**	**24**	**17.3**	**0.0**
YER				AML	AML				
GORD	**Gordes-Manisa**	**1.77**	**51**	Pn	**Pn**	**11**	**24**	**19.4**	**0.0**
GORD				AML	AML				
MHLO	**Agia Marina, M**	**1.95**	**236**	P	**Pn**	**11**	**24**	**22.8**	**+1.0**
DION	**Dionisos Attik**	**1.98**	**279**	P	**Pn**	**11**	**24**	**23.0**	**+0.8**
EZN	**Ezine**	**2.02**	**358**	P	**Pn**	**11**	**24**	**23.0**	**+0.2**
EZN				AML	AML				
PTL	**Penteli**	**2.04**	**278**	P	**Pn**	**11**	**24**	**23.7**	**+0.7**
VLY	**Voula,Athens**	**2.08**	**272**	P	**Pn**	**11**	**24**	**24.9**	**+1.4**
ATHU	**Athens Univers**	**2.09**	**275**	P	**Pn**	**11**	**24**	**24.8**	**+1.1**
ATH	**Athens Observa**	**2.14**	**275**	P	**Pn**	**11**	**24**	**25.6**	**+1.2**
IDI	**Anoyia**	**2.79**	**207**	P	**Pn**	**11**	**24**	**33.2**	**-0.2**
IDI				AML	AML				
ALN	**Alexandroupoli**	**3.11**	**355**	P	**Pn**	**11**	**24**	**38.2**	**+0.5**

*IDC **19** 12:09:52.9±1.8,43.°64S×39.°20E,h0km,mb3.9/6, mbtmp4.1/8,ML4.0/2,MS3.5/8,Error ellipse: s-maj=81.7km s-min=18.6km az=62.0*

ISC 19 12:09:54.1±1.6,43.°7S±0.°2×39.°2E±0.°4,h10km,n17, σ1$36/9,mb4.0/5,MS3.6/6,Prince Edward Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SUR	**Sutherland**	**18.32**	**302**	P	**Pn**	**12 14 09.3**	**+0.8**
	0.5nm,0.3s,baz=132,slow=16,SNR=6.3						
SUR				LR	LR	12 19 42.7	
	comp=Z,53nm,20.5s,baz=165,slow=32 8.4nm,0.8s						
SUR				AML	AML		
BOSA	**Boshof**	**18.74**	**319**	P	**Pn**	**12 14 14.2**	**+0.8**
	0.3nm,0.3s,baz=148,slow=13,SNR=13						
BOSA				LR	LR	12 19 35.9	
	comp=Z,122nm,21.7s,baz=202,slow=31 11nm,0.8s						
BOSA				AML	AML		
LBTB	**Lobatse**	**21.68**	**325**	P	**P**	**12 14 46.0**	**+1.0**
	5.3nm,0.9s,baz=157,slow=11,SNR=4.3						
LBTB				LR	LR	12 22 03.0	
	comp=Z,68nm,18.6s,baz=160,slow=34 5.3nm,0.9s						
MATP	**Matopo**	**24.84**	**335**	LR	LR	12 23 12.3	
	comp=Z,292nm,20.8s,baz=206,slow=32						
MAW	**Mawson**	**27.11**	**160**	P	**P**	**12 15 39.0**	**+2.3**
	7.2nm,1.1s,baz=287,slow=7.9,SNR=4.3						
MAW				LR	LR	12 23 46.6	
	comp=Z,143nm,19.2s,baz=94,slow=31 7.2nm,1.1s						
MBAR	**Mbarara**	**43.52**	**348**	LR	LR	12 35 15.9	
	comp=Z,42nm,18.1s,baz=158,slow=35						
QSPA	**South Pole Qui**	**46.56**	**180**	P	**P**	**12 18 21.5**	**-0.2**
	1.1nm,0.8s,baz=277,slow=2.0,SNR=7.6 1.1nm,0.8s						
VNDA	**Vanda**	**54.11**	**167**	P	**P**	**12 19 17.6**	**-0.9**
	0.3nm,0.6s,baz=197,slow=7.0,SNR=2.0						
VNDA				LR	LR	12 43 00.7	
	comp=Z,137nm,18.0s,baz=334,slow=37 0.3nm,0.6s						
H01W2	**Cape Leeuwin H**	**56.82**	**109**	T	T	13 20 55.7	
	baz=238,slow=75,SNR=5.8						
H01W3	**Cape Leeuwin H**	**56.83**	**109**	T	T	13 21 03.7	
	baz=238,slow=75,SNR=7.3						
H01W1	**Cape Leeuwin H**	**56.84**	**109**	T	T	13 21 02.1	
	baz=238,slow=75,SNR=6.8						
H10S2	**ASCENSION HYDR**	**58.05**	**290**	T	T	13 22 49.5	
	baz=86,slow=74,SNR=5.2						
H10S3	**ASCENSION HYDR**	**59.07**	**290**	T	T	13 22 49.5	
	baz=134,slow=74,SNR=5.0						
DBIC	**Dimbokro**	**63.99**	**310**	LR	LR	12 43 22.7	
	comp=Z,42nm,21.8s,baz=175,slow=31						
TORD	**Torodi Ar. Bea**	**66.10**	**320**	P	**P**	**12 20 39.7**	**-1.6**
	1.6nm,0.9s,baz=131,slow=5.1,SNR=6.5 1.6nm,0.9s						
CPUP	**Villa Florida**	**76.77**	**246**	P	**P**	**12 21 45.5**	**-0.4**
	0.7nm,0.7s,baz=156,slow=10.0,SNR=3.6 0.7nm,0.7s						
TXAR	**Lajitas Array**	**147.23**	**257**	PKPbc	**PKPab**	**12 29 39.4**	**0.0**
	1.1nm,0.8s,baz=132,slow=5.0,SNR=9.9						

*IDC **19** 12:14:06.1±0.6,7.°95N×123.°16E,h0km,mb3.9/18, mbtmp4.0/19,ML4.8/1,MS3.8/23,Error ellipse: s-maj=22.5km s-min=11.8km az=52.0*

*MAN **19** 12:14:07.0,8.°05N×123.°31E,h15km,MS4.4*

MAN INTENSITY IV - PAGADIAN CITY: . INTENSITY III - DAPITAN CITY; DIPOLOG CITY; OROQUIETA CITY & SAPANG DALAGA MISAMIS OCCIDENTAL; ALICIA IMELDA & BUUG ZAMBOANGA SIBUGAY; DINAS & MOLAVE ZAMBOANGA DEL SUR; . INTENSITY II - TUDELA ALURAN & OZAMIS MISAMIS OCCIDENTAL; LILOY ZAMBOANGA DEL NORTE; . INTENSITY I - DUMAGUETE CITY& ZAMBOANGA CITY.

*BJI **19** 12:14:07.7,7.°58N×123.°02E,h11km,mB5.1/5,mb4.5/26, Ms4.3/5,Ms7 4.0/5*

*GFZ **19** 12:14:08.4±0.2,8.°N±3.°×12.°3E±.°,h12km,M4.7/17, mb4.6/17,confirmed*

*DJA **19** 12:14:08.8±1.0,8.°N±9.°×12.°3E±.°,h10km,M5.0/20, mb4.9/20,mB5.5/12,MLv5.2/7,Mw(mB)5.0/12*

*NEIC **19** 12:14:09.4±2.6,7.°95N±0.°07×123.°24E±0.°07,h10km±1km, mb4.5/34,Error ellipse: s-maj=13.1km s-min=10.3km az=206.0*

*GCMT **19** 12:14:11.4±0.3,8.°17N±0.°02×123.°19E±0.°02,h27km±1km, MW4.8/66,Moment Tensor Solution. s9,c10; s66,c98; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr0.04±.14; Mθθ1.65±.09; Mϕϕ-1.68±.09; Mrθ-0.01±.14; Mrϕ0.55±.07; Mθϕ-0.32±.18; Best double couple: Mo1.78100×10^16^ NP1:ϕs305.00000°,δ82.00000°,λ-5.00000°. NP2: ϕs36.00000°,δ85.00000°,λ-172.00000°. Principal axes: T 1.7400, Plg2.0000°, Azm171.0000°; N 0.0880, Plg80.0000°, Azm70.0000°; P -1.8210, Plg10.0000°, Azm261.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 19 12:14:08.3±1.5,7.°99N±0.°04×123.°30E±0.°04,h8km±10km, n141,σ1$78/134,mb4.3/43,MS3.9/25,2D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTBH	**Cotabato--PC H**	**1.21**	**129**	*e*P	**Pn**	**12 14 29.6**	**-1.9**
CTBH				*i* S	**Sg**	**12 14 49.1**	**+1.9**
CGP	**Cagayan de Oro**	**1.46**	**71**	*i* P	**Pn**	**12 14 31.9**	**-3.1**
CGP				*i* S	**Sn**	**12 14 53.9**	**-0.3**
ZCP	**Zamboanga City**	**1.60**	**229**	*i* P	**Pn**	**12 14 35.4**	**-1.6**
ZCP				*i* S	**Sg**	**12 14 58.6**	**-1.3**
TBP	**Tagbilaran**	**1.78**	**18**	*i* P	**Pn**	**12 14 37.1**	**-2.4**
TBP				*e*S	**Sn**	**12 14 56.6**	**-5.8**
KCP	**Kidapawan**	**2.02**	**119**	*e*P	**Pn**	**12 14 43.4**	**+0.5**
KCP				*i* S	**Sb**	**12 15 10.5**	**-0.3**
DMPH	**Davao City--Mi**	**2.37**	**112**	*e*P	**Pn**	**12 14 47.1**	**-0.4**
DMPH				*i* S	Sg	12 15 39.4	+15
LLP	**Lapu-Lapu**	**2.41**	**16**	*e*P	**Pn**	**12 14 45.5**	**-2.6**
LLP				*i* S	**Sn**	**12 15 19.6**	**+1.8**
DAV	**Davao City (W)**	**2.44**	**112**	Pn	**Pn**	**12 14 49.7**	**+1.3**
	175nm,0.3s,baz=334,slow=2.3,SNR=8.4						
DAV				Sn	**Sn**	**12 15 18.8**	**+0.4**
	114nm,0.3s,baz=114,slow=22,SNR=7.0 558nm,0.4s						
DAV				AML	AML		
DAV	**Davao City (W)**	**2.44**	**112**	Pn	**Pn**	**12 14 50.2**	**+1.7**
DAV	**Davao City (W)**	**2.44**	**112**	P	**Pn**	**12 14 48.1**	**-0.4**
DAV				AML	AML		
DAV	**Davao City (W)**	**2.44**	**112**	P	**Pn**	**12 14 49.7**	**+1.3**
DAV				Pg	**Pg**	**12 14 55.2**	**+0.1**
DAV	**Davao City (W)**	**2.44**	**112**	P	**Pn**	**12 14 48.0**	**-0.4**
GSPH	**General Santos**	**2.50**	**139**	*i* P	**Pb**	**12 14 53.4**	**-0.2**
GSPH				*i* S	**Sg**	**12 15 28.5**	**-0.2**
BIPH	**Bislig**	**3.04**	**86**	*e*P	**Pn**	**12 14 57.0**	**+0.3**
BIPH				*e*S	**Sb**	**12 15 41.5**	**+1.6**
JAP	**San Jose, Anti**	**3.05**	**334**	*e*P	**Pn**	**12 14 56.5**	**-0.4**
PLP	**Palo**	**3.57**	**28**	*e*P	**Pn**	**12 15 02.4**	**-1.6**
PLP				*e*S	**Sn**	**12 15 42.4**	**-4.0**
IBAJ	**Ibajay, Aklan**	**3.97**	**344**	*e*P	**Pn**	**12 15 09.5**	**0.0**
IBAJ				*i* S	**Sn**	**12 15 53.7**	**-2.6**
MMPH	**Masbate**	**4.36**	**4**	*e*P	**Pn**	**12 15 14.2**	**-0.7**
MMPH				*e*S	**Sn**	**12 16 02.1**	**-3.8**
PPR	**Puerto Princes**	**4.85**	**292**	*i* P	Pn	12 15 14.6	-7.2
GQP	**Guinayangan**	**5.94**	**352**	*e*P	**Pn**	**12 15 37.4**	**+0.7**
LQP	**Lukban**	**6.33**	**344**	*e*P	**Pn**	**12 15 44.4**	**+2.2**
MNI	**Manado**	**6.68**	**167**	P	**Pn**	**12 15 44.9**	**-1.9**
	0.9nm7μm142nm,0.6s						
MNI				AML	AML		
TOLI2	**Tolitoli**	**7.28**	**200**	Pn	**Pn**	**12 15 52.3**	**-2.7**
TOLI2	**Tolitoli**	**7.28**	**200**	P	**Pn**	**12 15 52.8**	**-2.3**
	comp=Z,40nm,0.9s						
KKM	**Kota Kinabalu**	**7.29**	**255**		**Pn**	**12 15 55.2**	**-0.2**
KKM	**Kota Kinabalu**	**7.29**	**255**	P	**Pn**	**12 15 55.2**	**-0.2**
	comp=Z,54nm,1.1s						
GTOI	**Gorontalo**	**7.31**	**182**	P	**Pn**	**12 15 53.0**	**-2.5**
	comp=Z,0.7nmcomp=Z,2μmcomp=Z,177nm,0.9s						
GTOI				AML	AML		
KMSI	**Cibinong**	**7.39**	**175**	P	**Pn**	**12 15 55.3**	**-1.3**
	comp=Z,1.0nmcomp=Z,4μmcomp=Z,241nm,0.8s						
KMSI				AML	AML		
KMSI	**Cibinong**	**7.39**	**175**	P	**Pn**	**12 15 53.3**	**-3.3**
	comp=Z,240nm,0.8s						
TNTI	**Ternate**	**8.23**	**150**	Pn	**Pn**	**12 16 08.4**	**+0.2**
TNTI	**Ternate**	**8.23**	**150**	P	**Pn**	**12 16 05.6**	**-2.6**
TNTI	**Ternate**	**8.23**	**150**	P	**Pn**	**12 16 07.8**	**-0.4**
	comp=Z,22nm,0.7s						
LUWI	**Luwuk**	**8.98**	**183**	P	**Pn**	**12 16 17.9**	**-0.6**
APSI	**Ampana**	**8.99**	**191**	P	**Pn**	**12 16 19.4**	**+0.8**
PCI	**Palu**	**9.48**	**202**	P	**Pn**	**12 16 26.3**	**+0.9**
	comp=Z,69nm,1.0s						
SANI	**Sanana**	**10.32**	**165**	P	**Pn**	**12 16 35.3**	**-1.6**
	comp=Z,19nm,0.7s						
SANI	**Sanana**	**10.32**	**165**	P	**Pn**	**12 16 35.8**	**-1.1**
	comp=Z,20nm,0.7s						
TTSI	**Tana Toraja**	**11.49**	**198**	P	**Pn**	**12 16 54.1**	**+1.2**
	comp=Z,38nm,0.8s						
KAPI	**Kappang**	**13.39**	**195**	LR	LR	12 22 59.6	
	comp=Z,185nm,20.4s,baz=7,0,slow=40						
MWPI	**Manokwari, Pap**	**13.90**	**129**	P	**Pn**	**12 17 24.9**	**-0.8**
	comp=Z,707nm,0.8s						
TWG	**Pinlang**	**14.90**	**352**	Pn	**Pn**	**12 17 39.8**	**+0.3**
YULB	**Yu-li**	**15.44**	**353**	Pn	**Pn**	**12 17 47.3**	**+0.7**
YULB				IAmb	IAmb	12 18 08.5	
	comp=Z,33nm,1.4s						
TPUB	**Ta-pu**	**15.44**	**351**	Pn	**Pn**	**12 17 48.1**	**+1.4**
TPUB				IAmb	IAmb	12 18 06.5	
	comp=Z,35nm,0.8s						
SSLB	**Suanglung**	**15.87**	**352**	Pn	**Pn**	**12 17 53.6**	**+1.3**
SSLB				IAmb	IAmb	12 18 05.0	
	comp=Z,17nm,0.7s						
NACB	**Ninganchiao**	**16.18**	**354**	P	**Pn**	**12 17 56.0**	**-0.2**
	comp=Z,22nm,0.8s						
YHNB	**Yeheng**	**16.69**	**354**	P	**P**	**12 18 04.1**	**-1.1**
	comp=Z,28nm,0.9s						
EDFI	**Ende, Flores**	**16.70**	**186**	P	**Pn**	**12 18 02.8**	**-0.2**
QIZ	**Qiongzhong**	**17.07**	**311**	P	**P**	**12 18 10.5**	**+1.2**
QIZ				S	**Sn**	**12 21 20.3**	**+2.8**
QIZ				pmax	pmax		
	comp=Z,21nm,1.8s						
QIZ				L	L		
	comp=Z,230nm,9.9s						
QIZ				L	L		
	comp=Z,110nm,9.3s						
QIZ				L	L		
	comp=Z,240nm,11.1s						
QIZ	**Qiongzhong**	**17.07**	**311**		**Pn**	**12 18 06.0**	**-1.5**
QIZ				IAmb	IAmb	12 18 15.9	
	comp=Z,40nm,1.4s						
QIZ	**Qiongzhong**	**17.07**	**311**	P	**P**	**12 18 11.0**	**+1.7**
	comp=Z,23nm,1.7s						
DBNI	**Kabupaten Domp**	**17.12**	**197**	P	**Pn**	**12 18 07.7**	**-0.4**
SOEI	**Soe**	**17.65**	**177**		**P**	**12 18 15.3**	**-0.5**
SOEI				IAmb	IAmb	12 18 38.2	
	comp=Z,59nm,1.2s						
JOW	**Kunigami**	**19.33**	**14**	P	**P**	**12 18 34.2**	**0.0**
JOW	**Kunigami**	**19.33**	**14**	P	**P**	**12 18 33.8**	**-0.4**
	comp=Z,78nm,1.1s						
GUMO	**Guam**	**21.90**	**73**	LR	LR	12 26 11.7	
	comp=Z,113nm,21.4s,baz=244,slow=33						
MTN	**Manton Dam**	**22.11**	**159**		**P**	**12 19 04.0**	**-0.3**
KULM	**Kulim**	**22.66**	**265**		**P**	**12 19 10.9**	**+0.6**
KULM				IAmb	IAmb	12 19 19.1	
	comp=Z,20nm,1.0s						
WHN	**Wuhan**	**23.96**	**341**	P	**P**	**12 19 26.9**	**+3.7**
KNRA	**Kununurra**	**24.12**	**167**	P	**P**	**12 19 22.6**	**-2.2**
NJ2	**Nanjing**	**24.30**	**351**	*e*P	**P**	**12 19 30.4**	**+4.0**
NJ2				pmax	pmax		
	comp=Z,21nm,1.0s						
RPSI	**Rantau Prapat**	**24.82**	**259**		**P**	**12 19 30.4**	**-0.9**
RPSI				IAmb	IAmb	12 19 47.6	
	comp=Z,7.5nm,0.9s						
RPSI	**Rantau Prapat**	**24.82**	**259**	P	**P**	**12 19 31.4**	**+0.1**
	comp=Z,9.0nm,1.2s						
ENH	**Enshi**	**25.67**	**332**		**P**	**12 19 36.9**	**-2.1**
ENH				IAmb	IAmb	12 19 42.4	
	comp=Z,13nm,0.9s						
ENH	**Enshi**	**25.67**	**332**	P	**P**	**12 19 36.0**	**-3.0**
	comp=Z,16nm,1.0s						
CM31	**Chiang Mai Arr**	**25.86**	**296**	P	**P**	**12 19 40.8**	**+0.1**
CM31				IAmb	IAmb	12 19 46.1	
	comp=Z,18nm,1.2s						
CMAR	**Chiang Mai Arr**	**25.86**	**296**	P	**P**	**12 19 39.8**	**-1.0**
	comp=Z,1.5nm,0.9s,baz=122,slow=7.5,SNR=21 comp=Z,1.5nm,0.9s						
CMAR	**Chiang Mai Arr**	**25.86**	**296**		**P**	**12 19 40.7**	**0.0**
CHTO	**Chiang Mai**	**25.98**	**297**		**P**	**12 19 41.9**	**0.0**
CHTO	**Chiang Mai**	**25.98**	**297**	P	**P**	**12 19 42.0**	**+0.1**
	comp=Z,6.7nm,1.2s						
KMI2	**Kunming**	**26.00**	**313**	P	**P**	**12 19 45.9**	**+3.7**
KMI2				pmax	pmax		
	comp=Z,14nm,0.6s						
KMI2				L	L		
	comp=Z,220nm,19.9s						
KMI2				L	L		
	comp=Z,250nm,21.0s						
FITZ	**Fitzroy Crossi**	**26.02**	**175**	P	**P**	**12 19 40.6**	**-1.6**
FITZ	**Fitzroy Crossi**	**26.02**	**175**	P	**P**	**12 19 40.5**	**-1.6**
	comp=Z,4.0nm,1.0s						
LYN	**LuoYang**	**28.26**	**341**	P	**P**	**12 20 05.1**	**+3.0**
LYN				pmax	pmax		
	comp=Z,17nm,0.6s						
XAN	**Xi'an**	**29.12**	**335**	⇓P	**P**	**12 20 13.8**	**+3.9**
XAN				pmax	pmax		
	comp=Z,9.0nm,1.0s						
MBWA	**Marble Bar**	**29.17**	**187**	P	**P**	**12 20 11.4**	**+1.0**
MBWA				IAmb	IAmb	12 20 29.2	
	comp=Z,27nm,1.5s						
KSRS	**Korea Array**	**29.63**	**7**	P	**P**	**12 20 12.2**	**-2.1**
	comp=Z,1.2nm,0.8s,baz=171,slow=8.7,SNR=1.7						
KSRS				LR	LR	12 31 55.0	
	comp=Z,130nm,20.4s,baz=170,slow=36 comp=Z,1.2nm,0.8s						
WB0	**Warramunga Arr**	**29.66**	**159**	P	**P**	**12 20 13.9**	**-0.8**
WB0				IAmb	IAmb	12 20 56.6	
	comp=Z,6.3nm,0.9s						
WRA	**Warramunga Arr**	**29.80**	**159**	P	**P**	**12 20 15.3**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=341,slow=9.2,SNR=4.9 comp=Z,0.3nm,0.5s						
WR8	**Warramunga Arr**	**29.87**	**158**	P	**P**	**12 20 18.1**	**+1.5**
WR8				IAmb	IAmb	12 20 41.8	
	comp=Z,8.9nm,1.2s						
HNS	**HongShan**	**30.30**	**346**	⇓P	**P**	**12 20 21.5**	**+1.3**
KRVT	**Keravat (AS076**	**31.15**	**112**	LR	LR	12 30 32.0	
	comp=Z,82nm,21.8s,baz=285,slow=32						
MJAR	**Matsushiro Arr**	**31.51**	**23**	LR	LR	12 31 41.0	
	comp=Z,141nm,21.6s,baz=208,slow=33						
LZDM	**Lanzhou Array**	**33.10**	**330**	LR	LR	12 34 37.7	
	comp=Z,191nm,21.4s,baz=315,slow=37						
AS31	**Alice Springs**	**33.12**	**162**		**P**	**12 20 45.8**	**+0.6**
ASAR	**Alice Springs**	**33.12**	**162**	P	**P**	**12 20 43.8**	**-1.5**
	comp=Z,0.8nm,0.6s,baz=339,slow=6.8,SNR=10 comp=Z,0.8nm,0.6s						
ASAR	**Alice Springs**	**33.12**	**162**	P	**P**	**12 20 45.9**	**+0.7**
LZH	**Lanzhou**	**33.14**	**330**	*e*P	**P**	**12 20 48.4**	**+3.0**
LZH				pP	sP	12 20 55.5	+6.5
LZH				pmax	pmax		
	comp=Z,13nm,1.3s						
LZH				L	L		
	comp=Z,280nm,13.3s						
LZH				L	L		
	comp=Z,390nm,13.3s						
LZH				L	L		
	comp=Z,380nm,13.0s						
HHC	**Hu-ho-hao-te**	**34.35**	**344**	*e*P	P	12 21 01.3	+5.4
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
HHC				pmax	pmax		
	comp=Z,150nm,5.1s						
SHL	**Shillong**	**34.65**	**304**	P	**P**	**12 20 59.5**	**+0.8**
CTA	**Charters Tower**	**35.90**	**141**	LR	LR	12 38 09.4	
	comp=Z,117nm,20.3s,baz=246,slow=40						
USA0B	**Ussuriysk Arra**	**36.86**	**10**	P	**P**	**12 21 18.0**	**+0.8**
USRK	**Ussuriysk Ar.**	**36.86**	**10**	P	**P**	**12 21 16.9**	**-0.3**
	comp=Z,2.1nm,0.8s,baz=152,slow=6.5,SNR=4.2						
USRK				LR	LR	12 36 56.5	
	comp=Z,101nm,19.5s,baz=197,slow=37 comp=Z,2.1nm,0.8s						
GTA2	**Gaotai**	**37.81**	**330**	*e*P	**P**	**12 21 23.8**	**-1.7**
GTA2				pP	sP	12 21 31.5	+2.4
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.0s						
GOMU	**GeErMu**	**38.25**	**321**	P	**P**	**12 21 28.8**	**-0.8**
GOMU				sP	sP	12 21 36.4	+3.2
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FORT	**Forrest**	**38.81**	**173**	P	**P**	**12 21 35.2**	**+1.4**
FORT				IAmb	IAmb	12 21 45.7	
	comp=Z,15nm,1.1s						
ASAJ	**Asahikawa**	**39.73**	**22**	LR	LR	12 37 28.7	
	comp=Z,74nm,21.9s,baz=260,slow=35						
JKA	**Kamikawa-asahi**	**39.73**	**22**	P	**P**	**12 21 44.1**	**+2.6**
EVN	**Everest**	**39.75**	**305**	P	**P**	**12 21 42.1**	**-0.5**
EVN				IAmb	IAmb	12 21 48.5	
	comp=Z,10nm,0.7s						
KLR	**Kul'dur**	**41.72**	**8**	LR	LR	12 40 49.7	
	comp=Z,90nm,19.6s,baz=189,slow=38						
ULN	**Ulaanbaatar**	**42.07**	**344**	P	**P**	**12 22 02.4**	**+1.5**
SONM	**Songino Array**	**42.23**	**343**	P	**P**	**12 22 01.0**	**-1.1**
	comp=Z,1.9nm,0.8s,baz=154,slow=10,SNR=7.3						
SONM				LR	LR	12 40 27.6	
	comp=Z,66nm,18.6s,baz=126,slow=38 comp=Z,1.9nm,0.8s						
SONM	**Songino Array**	**42.23**	**343**	IAmb	IAmb	12 22 05.5	
	comp=Z,2.5nm,1.0s						
BBOO	**Buckleboo**	**42.35**	**164**	P	**P**	**12 22 03.3**	**+0.2**
STKA	**Stephens Creek**	**43.32**	**157**	P	**P**	**12 22 09.8**	**-1.2**
	comp=Z,1.9nm,0.8s,baz=336,slow=9.6,SNR=5.0 comp=Z,1.9nm,0.8s						
STKA	**Stephens Creek**	**43.32**	**157**	P	**P**	**12 22 12.5**	**+1.5**
WMQ	**Urumqi**	**47.30**	**325**	*e*P	**P**	**12 22 46.6**	**+4.0**
WMQ				L	L		
	comp=Z,150nm,17.9s						
MKAR	**Makanchi Array**	**52.14**	**325**	P	**P**	**12 23 18.1**	**-1.3**

comp=Z,1.3nm,0.8s,baz=107,slow=6.7,SNR=4.5
BRTR LR LR 13 08 58.9
comp=Z,56nm,18.1s,baz=352,slow=39
comp=Z,1.3nm,0.8s
ARCES ARCESS Array B 85.30 340 P **P** **12 26 45.6 0.0**
comp=Z,5.5nm,1.0s,baz=76,slow=5.8,SNR=3.7
comp=Z,5.5nm,1.0s
AKASG Malin Array Be 86.46 321 P **P** **12 26 48.7 -3.0**
comp=Z,0.1nm,0.2s,baz=70,slow=4.1,SNR=4.2
comp=Z,0.1nm,0.2s
SORM Soroca 87.41 318 P **P** **12 26 59.2 +2.9**
VNDA Vanda 88.06 172 P **P** **12 26 58.2 -0.6**
comp=Z,0.7nm,0.8s,baz=298,slow=5.5,SNR=5.3
comp=Z,0.7nm,0.8s
VNDA Vanda 88.06 172 IAmb IAmb 12 27 05.1
comp=Z,2.9nm,1.2s
DAG Danmarks Havn 92.60 352 P **P** **12 27 19.6 -0.5**
MBAR Mbarara 92.62 270 LR LR 13 09 51.3
comp=Z,41nm,18.0s,baz=88,slow=36
NOA NORSAR Array B 93.48 333 LR LR 13 13 31.7
comp=Z,74nm,18.3s,baz=335,slow=38
PLCA Paso Flores 145.13 161 PKPbc **PKPbc** **12 33 44.9 -1.6**
comp=Z,3.0nm,1.1s,baz=215,slow=4.7,SNR=4.8

RSNC ***19*** *12:14:37.9±0.0, 7˚N±1˚×7˚4W±˚, h112km±2km, M2.5, mb3.7, ML2.2*
FUNV ***19*** *12:14:37.5, 6˚.90N×73˚.66W, h7km, MW3.7, Presumed earthquake*
ISC 19 12:14:36.6±1.2, 6˚.76N±0˚.03×73˚.54W±0˚.03, h113km±6km, n30, σ1§06/58, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
VMM10	**El Carmen**	**0.18**	**271**		P		**Pn**	**12 14 52.5**	**+0.1**
VMM10					S		**Sn**	**12 15 04.3**	**+0.1**
BRJC	**Barrancabermej**	**0.29**	**316**		P		**Pn**	**12 14 52.9**	**+0.1**
BRJC					S		**Sn**	**12 15 04.8**	**-0.1**
BARC	**Barichara**	**0.39**	**116**		P		**Pn**	**12 14 53.8**	**+0.3**
BARC					S		**Sn**	**12 15 06.1**	**-0.1**
VMM09	**Lebrija**	**0.44**	**35**		P		**Pn**	**12 14 54.1**	**+0.5**
VMM09					S		**Sn**	**12 15 06.8**	**+0.4**
VMM07	**Puerto Wilches**	**0.67**	**332**		P		**Pn**	**12 14 56.1**	**+1.0**
VMM07					S		**Sn**	**12 15 11.0**	**+2.0**
PTBC	**PUERTO BERRIO,**	**0.94**	**256**		P		**Pn**	**12 14 56.7**	**-0.8**
PTBC					S		**Sn**	**12 15 11.2**	**-2.0**
RUSC	**La Rusia**	**0.98**	**152**		P		**Pn**	**12 14 58.3**	**-0.1**
RUSC					S		**Sn**	**12 15 14.3**	**-0.5**
RUSC	**La Rusia**	**0.98**	**152**	*e*	P		**Pn**	**12 14 58.3**	**-0.1**
RUSC				*e*	S		**Sn**	**12 15 14.0**	**-0.8**
SPBC	**San Pablo de B**	**1.23**	**206**		P		**Pn**	**12 15 00.2**	**-0.4**
SPBC					S		**Sn**	**12 15 17.6**	**-1.1**
OCAC	**Ocana**	**1.48**	**8**		P		**Pn**	**12 15 04.0**	**+0.4**
OCAC					S		**Sn**	**12 15 23.8**	**-0.3**
CAPV	**Capacho**	**1.64**	**48**	*e*	P		**Pn**	**12 15 06.8**	**+1.3**
CAPV				*e*	S		**Sn**	**12 15 28.3**	**+0.9**
TAMC	**Tame, Arauca**	**1.77**	**101**		P		**Pn**	**12 15 07.3**	**+0.4**
TAMC					S		**Sn**	**12 15 28.4**	**-1.6**
NORC	**Norcasia**	**1.78**	**228**		P		**Pn**	**12 15 06.8**	**-0.3**
NORC					S		**Sn**	**12 15 29.1**	**-1.2**
HELC	**Santa Helena**	**2.06**	**254**		P		**Pn**	**12 15 11.8**	**+1.0**
HELC					S		**Sn**	**12 15 37.7**	**+0.8**
CHIC	**Chingaza**	**2.13**	**185**		P		**Pn**	**12 15 12.5**	**+0.7**
CHIC					S		**Sn**	**12 15 39.9**	**+1.2**
UREC	**San Jos de Ur**	**2.21**	**297**		P		**Pn**	**12 15 12.4**	**0.0**
UREC					S		**Sn**	**12 15 38.5**	**-1.3**
CVER	**Cruz Verde, Cu**	**2.29**	**193**		P		**Pn**	**12 15 15.1**	**+1.1**
CVER					S		**Sn**	**12 15 43.4**	**+0.9**
GUY2C	**Guyana, Caldas**	**2.37**	**230**		P		**Pn**	**12 15 16.3**	**+1.3**
GUY2C					S		**Sn**	**12 15 44.8**	**+0.5**
PTGC	**Puerto Gaitan,**	**2.91**	**151**		P		**Pn**	**12 15 20.6**	**-0.9**
PTGC					S		**Sn**	**12 15 54.8**	**-1.3**
ARGC	**Ariguani, Magd**	**3.15**	**347**		P		**Pn**	**12 15 25.7**	**+0.9**
ARGC					S		**Sn**	**12 16 03.1**	**+1.2**
APAC	**Apartado, Choc**	**3.22**	**291**		P		**Pn**	**12 15 26.1**	**+0.5**
APAC					S		**Sn**	**12 16 03.1**	**-0.4**
ORTC	**Ortega, Tolima**	**3.31**	**211**		P		**Pn**	**12 15 27.5**	**+0.7**
ORTC					S		**Sn**	**12 16 06.7**	**+1.1**
PRAC	**Prado**	**3.31**	**204**		P		**Pn**	**12 15 27.8**	**+0.8**
PRAC					S		**Sn**	**12 16 06.0**	**+0.2**
SJCC	**San Jacinto, C**	**3.51**	**333**		P		**Pn**	**12 15 29.7**	**+0.1**
SJCC					S		**Sn**	**12 16 09.2**	**-1.3**
SJCC	**San Jacinto, C**	**3.51**	**333**	*e*	P		**Pn**	**12 15 29.2**	**-0.4**
SJCC				*e*	S		**Sn**	**12 16 07.6**	**-2.9**
URMC	**La Uribe, Meta**	**3.59**	**193**		P		**Pn**	**12 15 31.1**	**+0.4**
CRJC	**Cerrejon, Guaj**	**4.28**	**9**		P		**Pn**	**12 15 40.7**	**+0.8**
CRJC					S		**Sn**	**12 16 29.9**	**+0.9**
MACC	**Macarena, Meta**	**4.60**	**184**		P		**Pn**	**12 15 43.8**	**-0.4**
MACC					S		**Sn**	**12 16 36.1**	**-0.5**
URIC	**Uribia, Colomb**	**5.14**	**17**		P		**Pn**	**12 15 50.3**	**-1.1**
URIC					S		**Sn**	**12 16 48.6**	**-1.0**
URIC	**Uribia, Colomb**	**5.14**	**17**	*e*	S		**Sn**	**12 16 46.5**	**-3.1**

HEL 19 12:32:04.8±0.2, 60˚.37N×25˚.18E, h0km, ML0.9, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
VUOS	**Vuosaari Helsi**	**0.18**	**186**		PG		Pg	12 32 08.0	-0.3
VUOS					SG		Sg	12 32 10.4	-0.3
VUOS					MSG			12 32 12.1	
comp=Z,4.8nm,0.2s									
LAUT	**Lauttasaari He**	**0.28**	**216**		PG		Pg	12 32 10.2	+0.2
baz=32									
LAUT					SG		Sg	12 32 13.3	-0.2
LAUT					MSG			12 32 14.7	
comp=Z,6.8nm,0.2s									
NUR	**Nurmijarvi**	**0.30**	**297**		PG		Pg	12 32 09.9	-0.6
baz=113									
NUR					SG		Sg	12 32 14.2	-0.1
NUR					MSG			12 32 15.2	
comp=Z,1.9nm,0.2s									
PVF	**Pernaja**	**0.38**	**62**		PG		Pg	12 32 11.7	-0.3
PVF					SG		Sg	12 32 16.4	-0.5
PVF					MSG			12 32 17.5	
comp=Z,1.5nm,0.2s									
MEF	**Metsahovi**	**0.42**	**249**		PG		Pg	12 32 12.9	+0.1
MEF					SG		Sg	12 32 17.8	-0.5
MEF					MSG			12 32 18.8	
comp=Z,2.4nm,0.2s									
FIA0	**FINESS Array S**	**1.16**	**22**		MSG			12 32 40.1	
comp=Z,0.9nm,0.2s									
FIA0					SN		Sn	12 32 46.7	+1.9
VAF	**Ylistaro**	**2.93**	**337**		MSG			12 33 31.3	
comp=Z,0.3nm,0.2s									

IDC ***19*** *12:45:24.0±1.0, 54˚.79N×159˚.90W, h0km, mb4.2/22, mbtmp4.1/26, ML3.8/4, Error ellipse: s-maj=24.7km s-min=11.2km az=161.0*
NEIC ***19*** *12:45:28.7±1.6, 54˚.58N±0˚.06×159˚.64W±0˚.06, h34km±3km, ML3.8/34, ML3.7(AEIC), Error ellipse: s-maj=8.2km s-min=5.1km az=184.0*
AEIC ***19*** *12:45:29.1±1.9, 54˚.55N±0˚.06×159˚.64W±0˚.08, h27km±4km, Error ellipse: s-maj=9.3km s-min=6.7km az=164.0*
ISC 19 12:45:28.2±0.6, 54˚.57N±0˚.06×159˚.61W±0˚.04, h35km, n169, σ1§09/166, mb4.3/22, South of Alaska

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.25**	**3**		Pg		**Pn**	**12 45 35.8**	**+0.2**
CNBA					IAML			12 45 42.2	
comp=N,10μm,0.5s									
CNBA					IAML			12 45 42.7	
comp=E,8μm,0.4s									
CNBA	**Chernabura Isl**	**0.25**	**3**				**Sn**	**12 45 41.8**	**+1.2**
CHNA	**Chernabura Isl**	**0.26**	**3**	P			**Pn**	**12 45 35.6**	**-0.1**
SDPT	**Sand Point**	**0.93**	**328**	P			**Pn**	**12 45 44.4**	**-0.3**
SDPT	**Sand Point**	**0.93**	**328**	S			**Sn**	**12 45 57.0**	**+0.3**
SDPT	**Sand Point**	**0.93**	**328**	Pn			**Pn**	**12 45 44.8**	**+0.1**
SDPT	**Sand Point**	**0.93**	**328**				**Sn**	**12 45 56.7**	**0.0**
DOL	**Dolgoi Island**	**1.42**	**295**				**Pn**	**12 45 51.3**	**-0.2**
DOL							**Sn**	**12 46 09.0**	**0.0**
VNKR	**Veniaminof 5**	**1.47**	**5**				**Pn**	**12 45 53.2**	**+0.9**
PVV	**Pavlof Volcano**	**1.49**	**304**				**Pn**	**12 45 52.7**	**+0.3**
PS1A	**Pavlof South-1**	**1.49**	**306**				**Pn**	**12 45 52.8**	**+0.3**
PS1A							**Sn**	**12 46 11.6**	**+0.8**
VNSW	**Veniaminof 7**	**1.50**	**1**				**Pn**	**12 45 53.6**	**+0.9**
PS4A	**Pavlof South-4**	**1.51**	**302**				**Pn**	**12 45 53.2**	**+0.5**
PS4A							**Sn**	**12 46 12.1**	**+0.9**
HAG	**Hague Volcano**	**1.52**	**300**				**Pn**	**12 45 53.4**	**+0.5**
VNWF	**Veniaminof 8**	**1.58**	**1**				**Pn**	**12 45 55.1**	**+1.3**
PN7A	**Pavlof North-7**	**1.62**	**303**				**Pn**	**12 45 55.2**	**+0.8**
DTNA	**Dutton South F**	**1.63**	**292**				**Sn**	**12 46 14.8**	**+0.6**
DT1	**Dutton Round H**	**1.63**	**290**				**Sn**	**12 46 13.8**	**-0.4**
VNSS	**Veniaminof 8**	**1.66**	**3**				**Pn**	**12 45 56.5**	**+1.5**
S12K	**Black Hills**	**1.81**	**310**	Pn			**Pn**	**12 45 58.0**	**+1.2**
S12K	**Black Hills**	**1.81**	**310**				**Sn**	**12 46 19.9**	**+1.4**
CHGN	**Chignik**	**1.86**	**21**	Pn			**Pn**	**12 45 58.6**	**+1.0**
CHGN	**Chignik**	**1.86**	**21**				**Sn**	**12 46 21.3**	**+1.4**
CHGN	**Chignik**	**1.86**	**21**	IAML				12 46 22.9	
comp=E,3μm,0.4s									
CHGN				IAML				12 46 22.9	
comp=N,1μm,0.4s									
ISLZ	**Isanotski Laza**	**2.39**	**275**				**Pn**	**12 46 05.0**	**+0.1**
ISLZ							**Sn**	**12 46 32.3**	**-0.5**
ISNN	**Isanotski Nort**	**2.43**	**278**				**Pn**	**12 46 06.4**	**+1.0**
SSLS	**Shishaldin Sou**	**2.55**	**275**				**Pn**	**12 46 07.9**	**+0.8**
CHIR	**Chirikof Islan**	**2.61**	**60**	P			**Pn**	**12 46 08.1**	**+0.3**
CHIR	**Chirikof Islan**	**2.61**	**60**	S			**Sn**	**12 46 38.2**	**0.0**
CHIR	**Chirikof Islan**	**2.61**	**60**	Pn			**Pn**	**12 46 08.4**	**+0.6**
CHIR				IAML				12 46 40.0	
comp=E,489nm,0.4s									
CHIR				IAML				12 46 40.4	
comp=N,435nm,0.5s									
SSBA	**Shishaldin**	**2.63**	**276**				**Pn**	**12 46 08.9**	**+0.8**
WTUG	**Tugumak**	**2.78**	**278**				**Pn**	**12 46 11.3**	**+1.1**
WESN	**West Dahl Nort**	**2.89**	**272**				**Sn**	**12 46 46.5**	**+1.2**
WESP	**Westdahl Peak**	**2.98**	**271**				**Pn**	**12 46 13.7**	**+0.7**
WECS	**Westdahl Cape**	**3.01**	**271**				**Pn**	**12 46 14.2**	**+0.9**
WECS	**Westdahl Cape**	**3.01**	**271**	IAML				12 46 58.2	
comp=N,415nm,0.8s									
WECS				IAML				12 47 40.7	
comp=E,265nm,1.5s									
R16K	**Pilot Point**	**3.21**	**20**				**Pn**	**12 46 17.0**	**+0.9**
R16K	**Pilot Point**	**3.21**	**20**	IAML				12 46 56.5	
comp=E,297nm,1.5s									
R16K				IAML				12 47 27.0	
comp=N,262nm,1.2s									
PLBL	**Peulik Blue Cr**	**3.50**	**25**				**Pn**	**12 46 21.2**	**+1.0**
R17L	**Mt. Peulik Vol**	**3.57**	**29**				**Pn**	**12 46 22.7**	**+1.7**
AKUT	**Akutan**	**3.63**	**266**	P			**Pn**	**12 46 22.3**	**+0.5**
AKUT	**Akutan**	**3.63**	**266**	Pn			**Pn**	**12 46 22.7**	**+0.9**
AHB	**Akutan Harbor**	**3.66**	**265**				**Pn**	**12 46 23.1**	**+0.8**
AHB							**Sn**	**12 47 03.7**	**-0.4**
SII	**Sitkinak Islan**	**3.67**	**55**	P			**Pn**	**12 46 23.0**	**+0.6**
SII	**Sitkinak Islan**	**3.67**	**55**	Pn			**Pn**	**12 46 22.6**	**+0.2**
SII				IAML				12 47 45.5	
comp=E,269nm,0.8s									
SII				IAML				12 47 50.2	
comp=N,206nm,1.3s									
AKBBA	**Akutan Broad B**	**3.73**	**265**				**Pn**	**12 46 23.8**	**+0.6**
AKLV	**Akutan Long Va**	**3.73**	**266**				**Pn**	**12 46 23.8**	**+0.5**
AKV	**Akutan Volcano**	**3.74**	**266**				**Pn**	**12 46 24.1**	**+0.6**
AKMO	**Akutan Morgan**	**3.77**	**265**				**Pn**	**12 46 24.3**	**+0.4**
AKMO							**Sn**	**12 47 06.2**	**-0.8**
LVA	**Lava Point**	**3.78**	**266**				**Pn**	**12 46 24.7**	**+0.8**
LVA				IAML				12 47 23.0	
comp=N,189nm,0.8s									
LVA				IAML				12 47 36.7	
comp=E,140nm,1.4s									
UNV	**Unalaska Valle**	**4.11**	**263**	P			**Pn**	**12 46 28.4**	**0.0**
UNV	**Unalaska Valle**	**4.11**	**263**				**Pn**	**12 46 28.7**	**+0.2**
KJL	**Kajulik**	**4.15**	**31**				**Pn**	**12 46 30.3**	**+1.2**
MNAT	**Makushin Natee**	**4.21**	**263**				**Pn**	**12 46 29.8**	**0.0**
Q17K	**Contact Creek**	**4.24**	**28**				**Pn**	**12 46 30.8**	**+0.4**
ANCK	**Angle Creek**	**4.30**	**31**				**Pn**	**12 46 32.1**	**+1.0**
MGOD	**Makushin Gods**	**4.33**	**263**				**Pn**	**12 46 31.6**	**0.0**
ACHA	**Angle Creek He**	**4.36**	**31**				**Pn**	**12 46 33.1**	**+1.1**
OHAK	**Old Harbor**	**4.44**	**51**	P			**Pn**	**12 46 32.8**	**-0.2**
OHAK	**Old Harbor**	**4.44**	**51**				**Pn**	**12 46 33.1**	**+0.1**
O15K	**Ungalikthiuk R**	**4.62**	**359**				**Pn**	**12 46 36.0**	**+0.6**
O15K				IAML				12 48 10.7	
comp=E,79nm,0.9s									
O15K				IAML				12 48 16.7	
comp=N,63nm,1.0s									
O14K	**Tigyukauivet M**	**4.78**	**350**				**Pn**	**12 46 38.0**	**+0.4**
O14K	**Tigyukauivet M**	**4.78**	**350**	IAML				12 48 03.5	
comp=E,64nm,1.1s									
O14K				IAML				12 48 18.8	
comp=N,106nm,1.1s									
KARR	**Katmai Rainbow**	**4.78**	**33**				**Pn**	**12 46 38.5**	**+0.7**
Q18K	**Katmai Hardscr**	**4.81**	**30**				**Pn**	**12 46 39.0**	**+0.8**
KAHG	**Katmai Hook Gl**	**4.83**	**33**				**Pn**	**12 46 39.1**	**+0.7**
P17K	**Kvichak River**	**4.95**	**19**				**Pn**	**12 46 42.0**	**+2.1**
KDAK	**Kodiak Island**	**5.08**	**48**	Pn			**Pn**	**12 46 41.5**	**-0.2**
comp=N,3.2nm,0.3s,baz=33,slow=4.0,SNR=35									
KDAK					Sn		**Sn**	**12 47 36.0**	**-3.0**
comp=N,6.1nm,0.3s,baz=20,slow=15,SNR=16									
comp=N,8.7nm,0.3s									
KDAK				AML		AML			
KDAK	**Kodiak Island**	**5.08**	**48**				**Pn**	**12 46 41.5**	**-0.2**
KDAK				IAML				12 47 42.0	
comp=N,59nm,0.5s									
KDAK				IAML				12 47 44.0	
comp=N,39nm,0.9s									
O17K	**Koliganek Bris**	**5.39**	**14**				**Pn**	**12 46 46.8**	**+0.7**
N14K	**Kuskokwak Cree**	**5.48**	**349**				**Pn**	**12 46 47.9**	**+0.6**
N16K	**Nishlik Lake**	**5.94**	**4**				**Pn**	**12 46 54.5**	**+1.0**
M15K	**Kasigluk River**	**6.17**	**355**				**Pn**	**12 46 56.9**	**+0.2**
M13K	**Dall Lake**	**6.19**	**343**				**Pn**	**12 46 58.0**	**+1.0**
M14K	**Bethel**	**6.32**	**349**				**Pn**	**12 46 59.3**	**+0.5**
ILSW	**Iliamna Southw**	**6.46**	**30**	Pn			**Pn**	**12 47 01.4**	**+0.5**
M16K	**Timber Creek**	**6.48**	**3**				**Pn**	**12 47 02.1**	**+1.1**
O20K	**Slope Mountain**	**6.69**	**32**				**Pn**	**12 47 04.9**	**+0.9**
CNPM	**China Poot**	**6.75**	**39**	Pn			**Pn**	**12 47 06.6**	**+2.0**
M17K	**Holitna River**	**6.95**	**9**				**Pn**	**12 47 07.6**	**+0.3**
L14K	**Kuka Creek**	**6.98**	**348**				**Pn**	**12 47 07.9**	**+0.1**
BRLK	**Bradley Lake**	**7.04**	**39**	Pn			**Pn**	**12 47 09.0**	**+0.3**
BRSE	**Bradley Lake S**	**7.08**	**39**				**Pn**	**12 47 08.5**	**-0.7**
L16K	**Owhat River**	**7.16**	**1**				**Pn**	**12 47 10.7**	**+0.4**
M18K	**Stony River**	**7.22**	**15**				**Pn**	**12 47 11.6**	**+0.4**
L17K	**Donlin**	**7.62**	**5**				**Pn**	**12 47 16.9**	**+0.4**
SLKM	**Skilak Lake**	**7.80**	**37**	Pn			**Pn**	**12 47 21.7**	**+2.5**
SEW	**Seward**	**7.80**	**41**	Pn			**Pn**	**12 47 20.5**	**+1.5**
STLK	**Strandline Lak**	**8.07**	**28**	Pn			**Pn**	**12 47 25.2**	**+2.3**
M20K	**Styx River**	**8.09**	**22**				**Pn**	**12 47 25.7**	**+2.7**
K17K	**Iditarod**	**8.20**	**4**				**Pn**	**12 47 25.0**	**+0.5**
SUA	**Susitna One**	**8.36**	**31**				**Pn**	**12 47 27.3**	**+0.5**
RC01	**Rabbit Creek A**	**8.39**	**35**	Pn			**Pn**	**12 47 29.2**	**+2.1**
SKT	**Skwentna**	**8.56**	**27**	Pn			**Pn**	**12 47 31.3**	**+1.9**
PWL	**Port Wells**	**8.72**	**39**				**Pn**	**12 47 32.2**	**+0.5**
J16K	**Anvik River**	**8.76**	**357**				**Pn**	**12 47 32.3**	**+0.2**
J17K	**VABM Dome**	**8.86**	**2**				**Pn**	**12 47 33.4**	**-0.1**
ATKA	**Atka Island**	**9.03**	**261**	P			**Pn**	**12 47 36.5**	**+0.6**
KNK	**Knik Glacier**	**9.05**	**36**				**Pn**	**12 47 35.1**	**-1.1**
HIN	**Hinchinbrook I**	**9.15**	**45**	Pn			**Pn**	**12 47 38.0**	**+0.3**
GHO	**Glory Hole Cre**	**9.16**	**34**	Pn			**Pn**	**12 47 38.8**	**+1.1**
PPLA	**Purkeypile**	**9.19**	**22**	Pn			**Pn**	**12 47 40.9**	**+2.7**
FID	**Port Fidalgo**	**9.36**	**43**	Pn			**Pn**	**12 47 40.6**	**+0.1**
SML	**Sawmill**	**9.38**	**35**	Pn			**Pn**	**12 47 41.9**	**+1.2**
CAST	**Castle Rocks**	**9.68**	**21**	Pn			**Pn**	**12 47 47.6**	**+2.8**
SCM	**Sheep Creek Mo**	**9.73**	**37**				**Pn**	**12 47 46.8**	**+1.2**
KLU	**Klutina**	**10.03**	**41**				**Pn**	**12 47 50.3**	**+0.7**
TRF	**Thorofare Moun**	**10.11**	**25**	Pn			**Pn**	**12 47 53.5**	**+2.7**
BMRM	**Bremner River**	**10.25**	**45**	Pn			**Pn**	**12 47 53.5**	**+0.9**
ADK	**Adak**	**10.58**	**262**	P			**Pn**	**12 47 57.6**	**+0.5**
ADK	**Adak**	**10.58**	**262**	Pn			**Pn**	**12 47 56.4**	**-0.8**
DHY	**Denali Highway**	**10.61**	**32**	Pn			**Pn**	**12 47 58.0**	**+0.4**
CRQM	**Cirque**	**10.76**	**48**	Pn			**Pn**	**12 48 00.8**	**+1.0**
GLB	**Gilahina Butte**	**10.83**	**44**	Pn			**Pn**	**12 48 01.5**	**+1.0**
VRDI	**Verde Repeater**	**10.86**	**46**	Pn			**Pn**	**12 48 02.6**	**+1.5**
GRNC	**Granite Creek**	**11.36**	**50**	Pn			**Pn**	**12 48 08.1**	**+0.1**
BARN	**Barnard Glacie**	**11.55**	**49**	Pn			**Pn**	**12 48 10.5**	**0.0**
ILAR	**Eielson Array**	**12.05**	**27**	Pn			**Pn**	**12 48 14.4**	**-2.8**
comp=N,0.1nm,0.3s,baz=215,slow=13,SNR=10									
ILAR					Sn		**Sn**	**12 50 25.5**	**-4.7**
comp=N,0.3nm,0.3s,baz=1.5,slow=24,SNR=4.5									
comp=N,0.5nm,0.5s									
ILAR				AML		AML			
O28M	**Mount Upton**	**12.08**	**51**				**Pn**	**12 48 19.7**	**+1.8**
PNL	**Peninsula**	**12.09**	**57**	P			**Pn**	**12 48 18.4**	**+0.6**
P29M	**Windy Craggy**	**12.90**	**58**				**Pn**	**12 48 29.1**	**+0.3**
SIT	**Sitka**	**13.86**	**70**	P			**Pn**	**12 48 41.2**	**-0.6**
SKAG	**Skagway**	**14.06**	**60**	P			**Pn**	**12 48 45.6**	**+1.0**
E21K	**Killik River**	**14.17**	**9**				**P**	**12 48 53.1**	**0.0**
D24K	**Happy Valley**	**15.45**	**15**				**P**	**12 49 07.4**	**+0.1**
FARO	**Faro, Yukon**	**15.66**	**50**	Pn			**Pn**	**12 49 07.9**	**+1.9**
DLBC	**Dease Lake**	**16.71**	**65**	Pn			**Pn**	**12 49 20.2**	**+0.9**
comp=N,0.3nm,0.3s,baz=286,slow=15,SNR=6.3									
comp=N,1.3nm,0.6s									
DLBC				AML		AML			
G30M	**tAoh Zraii Nji**	**16.73**	**33**	P			**P**	**12 49 22.6**	**+1.0**
F30M	**Barrier River**	**17.25**	**31**				**Pn**	**12 49 28.1**	**+0.9**
INK	**Inuvik**	**18.35**	**31**	P			**P**	**12 49 39.6**	**+0.3**
comp=N,0.4nm,0.3s,baz=235,slow=12,SNR=10									
comp=N,3.6nm,0.6s									
INK				AML		AML			
INK	**Inuvik**	**18.35**	**31**				**P**	**12 49 39.4**	**+0.1**
A36M	**Sachs Harbour**	**22.75**	**27**	P			**P**	**12 50 25.9**	**-1.0**
YKA	**Yellowknife Ar**	**24.33**	**53**	P			**P**	**12 50 42.0**	**-0.3**
comp=N,1.0nm,0.7s,baz=266,slow=7.9,SNR=6.7									
comp=N,1.0nm,0.7s									
PEA0B	**Petropavlovsk-**	**24.95**	**284**	P			**P**	**12 50 48.3**	**+0.3**
PETK	**Petropavlovsk-**	**24.95**	**284**	P			**P**	**12 50 48.1**	**+0.1**
comp=N,3.6nm,0.5s,baz=71,slow=12,SNR=14									
comp=N,3.6nm,0.5s									
PDAR	**Pinedale Array**	**34.38**	**89**	P			**P**	**12 52 15.1**	**+3.2**
comp=N,0.3nm,0.7s,baz=298,slow=3.2,SNR=2.6									
comp=N,0.3nm,0.7s									
PDAR	**Pinedale Array**	**34.38**	**89**	P			**P**	**12 52 13.3**	**+1.4**
H11N2	**WAKE ISLAND Hy**	**43.09**	**230**	T			T	13 39 27.0	
baz=28,slow=76,SNR=24									
H11N3	**WAKE ISLAND Hy**	**43.09**	**230**	T			T	13 39 33.2	
baz=28,slow=76,SNR=23									
H11N1	**WAKE ISLAND Hy**	**43.11**	**230**	T			T	13 39 34.1	
baz=28,slow=76,SNR=26									
H11S1	**WAKE ISLAND Hy**	**44.25**	**229**	T			T	13 40 58.9	
baz=28,slow=76,SNR=28									
H11S2	**WAKE ISLAND Hy**	**44.27**	**229**	T			T	13 41 03.5	
baz=28,slow=76,SNR=45									
H11S3	**WAKE ISLAND Hy**	**44.27**	**229**	T			T	13 40 57.4	
baz=28,slow=76,SNR=23									
MJAR	**Matsushiro Arr**	**45.51**	**273**	P			**P**	**12 53 42.7**	**-1.3**
comp=N,1.8nm,0.5s,baz=32,slow=6.0,SNR=8.0									
comp=N,1.8nm,0.5s									
MAJO	**Matsushiro**	**45.51**	**273**	P			**P**	**12 53 44.4**	**+0.4**
TXAR	**Lajitas Array**	**47.08**	**99**	P			**P**	**12 53 57.9**	**+1.4**
comp=N,0.3nm,0.8s,baz=324,slow=7.5,SNR=3.9									
comp=N,0.3nm,0.8s									
NRIK	**Noril'sk**	**47.17**	**334**	P			**P**	**12 53 55.9**	**-0.6**
comp=N,2.6nm,0.4s,baz=49,slow=7.6,SNR=4.4									
comp=N,2.6nm,0.4s									
KSRS	**Korea Array**	**50.81**	**282**	P			**P**	**12 54 25.0**	**+0.2**
comp=N,1.6nm,0.7s,baz=46,slow=7.0,SNR=4.9									
comp=N,1.6nm,0.7s									
SONM	**Songino Array**	**55.01**	**305**	P			**P**	**12 54 55.5**	**-0.4**
comp=N,2.3nm,0.7s,baz=48,slow=6.2,SNR=6.3									
comp=N,2.3nm,0.7s									
ZALV	**Zalesovo Beam**	**59.52**	**322**	P			**P**	**12 55 26.6**	**-0.8**
comp=N,0.5nm,0.3s,baz=357,slow=5.9,SNR=4.9									
comp=N,0.5nm,0.3s									
FINES	**FINESS Array B**	**64.24**	**357**	P			**P**	**12 55 57.6**	**-1.4**
comp=N,2.8nm,0.7s,baz

EXHU	**Huelva**	**1.48**	**38**	Pg	**Pb**	**12 48 42.0**	**+1.3**
EXHU				Sn	**Sb**	**12 48 59.7**	**+0.5**
EGRO	**El Granado**	**1.50**	**18**	P	**Pb**	**12 48 41.0**	**-0.1**
EGRO				S	**Sn**	**12 48 58.1**	**-0.5**
EGRO	**El Granado**	**1.50**	**18**	Pg	**Pb**	**12 48 41.4**	**+0.3**
EGRO				Sn	**Sn**	**12 48 58.5**	**-0.1**
EGRO				IVmb_Lg		12 49 00.1	
PCVE	**Castro Verde**	**1.53**	**1**	P	**Pb**	**12 48 41.5**	**0.0**
PCVE				S	**Sn**	**12 48 58.7**	**-0.4**
PCVE	**Castro Verde**	**1.53**	**1⇓**	*eP*	**Pb**	**12 48 41.7**	**+0.2**
PCVE				*eS*	**Sn**	**12 48 59.1**	**0.0**
PCVE				IAML		12 49 00.0	
PCVE				IAML		12 49 00.2	
PCVE				IAML		12 49 01.1	
PTEO	**Sao Teotonio**	**1.53**	**340⇓**	*eP*	**Pb**	**12 48 41.5**	**-0.1**
PTEO				*eS*	**Sb**	**12 48 59.9**	**-0.7**
PTEO				IAML		12 49 01.2	
PTEO				IAML		12 49 02.5	
PTEO				IAML		12 49 03.4	
PTEO	**Sao Teotonio**	**1.53**	**340**	Pn	**Pb**	**12 48 41.4**	**-0.1**
PTEO				Pg	**Pb**	**12 48 41.5**	**-0.1**
PTEO				Sn	**Sb**	**12 48 59.9**	**-0.7**
SFS	**San Fernando**	**1.55**	**76**	Sn	**Sb**	**12 49 02.0**	**+1.0**
MESJ	**Messejana**	**1.74**	**356**	*eP*	**Pb**	**12 48 44.5**	**-0.6**
MESJ				*eS*	**Sn**	**12 49 04.0**	**-0.3**
MESJ				IAML		12 49 04.6	
	comp=E,26nm,0.1s						
MESJ	**Messejana**	**1.74**	**356⇓**	*eP*	**Pb**	**12 48 44.5**	**-0.6**
MESJ				*eS*	**Sn**	**12 49 04.0**	**-0.3**
PBEJ	**Beja**	**1.93**	**5**	*eP*	**Pb**	**12 48 47.0**	**-1.3**
PBEJ				*eS*	**Sn**	**12 49 08.3**	**-0.7**
PBEJ				IAML		12 49 11.5	
PBEJ				IAML		12 49 11.5	
PBEJ				IAML		12 49 11.7	
ESPR	**Espera**	**1.94**	**66**	P	**Pb**	**12 48 47.6**	**-1.0**
ESPR				S	**Sn**	**12 49 10.1**	**+0.8**
ESPR	**Espera**	**1.94**	**66**	⇑Pn	**Pb**	**12 48 47.6**	**-1.0**
ESPR				Sn	**Sn**	**12 49 10.3**	**+1.0**
ESPR				IVmb_Lg		12 49 13.3	
PLOUS	**Minas do Lousa**	**1.94**	**352⇓**	*eP*	**Pn**	**12 48 47.0**	**+1.3**
PLOUS				*eS*	**Sn**	**12 49 08.4**	**-1.0**
PLOUS				IAML		12 49 11.0	
PLOUS				IAML		12 49 13.0	
PLOUS				IAML		12 49 21.3	
EMIN	**Mina Concepcio**	**2.00**	**34**	P	**Pn**	**12 48 48.0**	**+1.5**
EMIN				S	**Sn**	**12 49 09.4**	**-1.4**
EMIN	**Mina Concepcio**	**2.00**	**34**	⇑Pn	**Pn**	**12 48 48.0**	**+1.5**
EMIN				Sn	**Sn**	**12 49 09.9**	**-1.0**
EMIN				IVmb_Lg		12 49 10.8	
ECEU	**Ceuta**	**2.19**	**95**	P	**Pb**	**12 48 51.6**	**-1.2**
ECEU				S	**Sb**	**12 49 18.8**	**-0.8**
ECEU	**Ceuta**	**2.19**	**95**	Pn	**Pb**	**12 48 52.0**	**-0.8**
ECEU				Sn	**Sb**	**12 49 18.6**	**-0.9**
SMIR	**Smir Dam**	**2.22**	**100**	P	**Pn**	**12 48 48.8**	**-0.7**
SMIR				S	**Sn**	**12 49 17.9**	**+1.6**
PBAR	**Barrancos**	**2.23**	**21**	P	**Pn**	**12 48 51.1**	**+1.6**
PBAR				S	**Sn**	**12 49 15.5**	**-0.8**
PBAR	**Barrancos**	**2.23**	**21**	*eP*	**Pn**	**12 48 51.2**	**+1.6**
PBAR				*eS*	**Sn**	**12 49 16.0**	**-0.4**
PBAR				IAML		12 49 17.2	
PBAR				IAML		12 49 19.0	
PBAR				IAML		12 49 28.7	
EVO	**Evora**	**2.42**	**1**	P	**Pn**	**12 48 53.3**	**+1.0**
EVO				S	**Sn**	**12 49 20.0**	**-1.2**
EVO	**Evora**	**2.42**	**1**	*eP*	**Pn**	**12 48 53.8**	**+1.5**
EVO				*eS*	**Sn**	**12 49 20.1**	**-1.2**
EVO				IAML		12 49 21.1	
EVO				IAML		12 49 21.1	
EVO				IAML		12 49 21.3	
MOE	**Montemor**	**2.42**	**355⇑**	*iP*	**Pn**	**12 48 54.0**	**+1.7**
MOE				*eS*	**Sn**	**12 49 20.4**	**-1.0**
MOE				IAML		12 49 21.7	
MOE				IAML		12 49 22.1	
MOE				IAML		12 49 22.3	
EMIJ	**Mijas**	**2.70**	**79**	P	**Pn**	**12 48 57.4**	**+1.4**
EMIJ				S	**Sn**	**12 49 28.6**	**+0.5**
EMIJ	**Mijas**	**2.70**	**79**	Pn	**Pn**	**12 48 57.5**	**+1.5**
EMIJ				Sn	**Sn**	**12 49 28.9**	**+0.8**
EMIJ				IVmb_Lg		12 49 29.8	
PARRA	**Arraiolos**	**2.71**	**0⇓**	*eP*	**Pn**	**12 48 57.6**	**+1.4**
PARRA				*eS*	**Sn**	**12 49 26.7**	**-1.6**
PARRA				IAML		12 49 28.1	
PARRA				IAML		12 49 28.4	
PARRA				IAML		12 49 28.0	
EBAD	**Badajoz**	**2.78**	**17**	P	**Pn**	**12 48 58.7**	**+1.6**
EBAD				S	**Sn**	**12 49 28.2**	**-1.8**
EBAD	**Badajoz**	**2.78**	**17**	Pn	**Pn**	**12 48 58.5**	**+1.4**
EBAD				Sn	**Sn**	**12 49 28.6**	**-1.4**
EBAD				IVmb_Lg		12 49 30.9	
PESTR	**Estremoz**	**2.79**	**8**	P	**Pn**	**12 48 58.7**	**+1.5**
PESTR				S	**Sn**	**12 49 29.4**	**-0.8**
PESTR	**Estremoz**	**2.79**	**8**	P	**Pn**	**12 48 57.2**	**0.0**
PESTR				S	**Sn**	**12 49 32.5**	**+2.3**
PESTR	**Estremoz**	**2.79**	**8**	*eP*	**Pn**	**12 48 58.9**	**+1.6**
PESTR				*eS*	**Sn**	**12 49 28.7**	**-1.5**
PESTR				IAML		12 49 31.1	
PESTR				IAML		12 49 42.7	
PESTR				IAML		12 49 45.8	
AVE	**Averroes**	**2.85**	**169**	P	**Pn**	**12 48 59.1**	**+1.0**
AVE				S	**Sn**	**12 49 31.7**	**-0.7**
AVE	**Averroes**	**2.85**	**169**	S	**Pn**	**12 48 56.7**	**-1.4**
AVE				S	**Sn**	**12 49 29.3**	**-2.5**
ECAB	**El Cabril**	**2.89**	**46**	P	**Pn**	**12 49 00.2**	**+1.5**
ECAB				S	**Sn**	**12 49 31.1**	**-1.7**
ECAB	**El Cabril**	**2.89**	**46**	Pn	**Pn**	**12 49 00.2**	**+1.5**
ECAB				Sn	**Sn**	**12 49 31.9**	**-1.0**
ECAB				IVmb_Lg		12 49 35.1	
EXCBR	**El Cabril**	**2.89**	**46**	Pn	**Pn**	**12 49 00.7**	**+2.0**
EXCBR				Sn	**Sn**	**12 49 32.2**	**-0.7**
ZHG	**ZHG**	**2.90**	**156**	P	**Pn**	**12 48 60.0**	**+1.1**
ZHG				S	**Sn**	**12 49 35.1**	**+2.0**
PMTG	**Montargil**	**2.96**	**358⇓**	*eP*	**Pn**	**12 49 01.0**	**+1.3**
PMTG				*eS*	**Sn**	**12 49 32.8**	**-1.8**
PMTG				IAML		12 49 34.7	
PMTG				IAML		12 49 35.5	
PMTG				IAML		12 49 35.6	
PMTG	**Montargil**	**2.96**	**358**	Pn	**Pn**	**12 49 01.0**	**+1.3**
PMTG				Sn	**Sn**	**12 49 32.8**	**-1.8**
EMAL	**Malaga-Limoner**	**3.01**	**76**	P	**Pn**	**12 49 01.9**	**+1.6**
PMAFR	**Mafra**	**3.01**	**342**	P	**Pn**	**12 49 01.9**	**+1.6**
PMAFR				S	**Sn**	**12 49 35.7**	**+0.1**
PMAFR	**Mafra**	**3.01**	**342**	*eP*	**Pn**	**12 49 02.0**	**+1.7**
PMAFR				*eS*	**Sn**	**12 49 36.0**	**+0.4**
PMAFR				IAML		12 49 37.5	
PMAFR				IAML		12 49 38.0	
PMAFR				IAML		12 49 38.3	
EGOR	**Sierra Gorda,**	**3.34**	**71**	P	**Pn**	**12 49 07.3**	**+2.4**
EGOR				S	**Sn**	**12 49 45.0**	**+0.9**
EGOR	**Sierra Gorda,**	**3.34**	**71**	Pn	**Pn**	**12 49 07.5**	**+2.5**
EGOR				Sn	**Sn**	**12 49 45.1**	**+1.1**
EGOR				IVmb_Lg		12 49 48.6	
PMRV	**Marv??o**	**3.36**	**9⇓**	*eP*	**Pn**	**12 49 06.7**	**+1.5**
PMRV				*eS*	**Sn**	**12 49 42.4**	**-2.1**
PMRV				IAML		12 49 45.1	
PMRV				IAML		12 49 45.7	
PMRV				IAML		12 49 45.8	
PSBE	**So Bento**	**3.45**	**351**	*eP*	**Pn**	**12 49 08.3**	**+1.8**
PSBE				*eS*	**Sn**	**12 49 45.2**	**-1.5**
PSBE				IAML		12 49 46.0	
PSBE				IAML		12 49 47.1	
PSBE				IAML		12 49 47.6	
EADA	**Adamuz**	**3.47**	**53**	P	**Pn**	**12 49 08.4**	**+1.7**
EADA				S	**Sn**	**12 49 46.3**	**-0.7**
EADA	**Adamuz**	**3.47**	**53**	Pn	**Pn**	**12 49 08.6**	**+1.9**
EADA				Sn	**Sn**	**12 49 46.5**	**-0.6**
EADA				IVmb_Lg		12 49 48.7	
PALE	**Palemas**	**3.48**	**104**	P	**Pn**	**12 49 05.8**	**-0.9**
PALE				S	**Sn**	**12 49 48.8**	**+1.5**
PSARD	**Sardoal**	**3.49**	**359**	*eP*	**Pn**	**12 49 08.4**	**+1.5**
PSARD				*eS*	**Sn**	**12 49 45.5**	**-2.1**
PSARD				IAML		12 49 48.0	
PSARD				IAML		12 49 48.3	
PSARD				IAML		12 49 49.9	
IFR	**Ifrane**	**3.54**	**136**	P	**Pn**	**12 49 08.8**	**+1.1**
IFR				S	**Sn**	**12 49 45.8**	**-3.2**
SRHM	**Skhour des Reh**	**3.63**	**178**	P	**Pn**	**12 49 10.2**	**+1.3**
SRHM				S	**Sn**	**12 49 55.7**	**+4.7**
ELGU	**Los Guajares,**	**3.66**	**77**	P	**Pn**	**12 49 10.5**	**+1.2**
ELGU				S	**Sn**	**12 49 53.5**	**+1.6**
ELGU	**Los Guajares,**	**3.66**	**77**	Pn	**Pn**	**12 49 10.5**	**+1.2**
ELGU				Sn	**Sn**	**12 49 55.2**	**+3.3**
ELGU				IVmb_Lg		12 49 57.5	
PCBR	**Castelo Branco**	**3.76**	**7**	*eP*	**Pn**	**12 49 12.1**	**+1.4**
PCBR				*eS*	**Sn**	**12 49 52.4**	**-1.8**
PCBR				IAML		12 49 54.2	
PCBR				IAML		12 49 54.3	
PCBR				IAML		12 49 55.0	
AKLM	**AKL**	**3.79**	**114**	P	**Pn**	**12 49 10.1**	**-1.0**
AKLM				S	**Sn**	**12 49 54.0**	**-1.1**
EQTA	**Presa de Quent**	**3.88**	**72**	P	**Pn**	**12 49 14.5**	**+2.1**
EQTA				S	**Sn**	**12 49 57.4**	**+0.1**
EQUE	**Quentar**	**3.88**	**72**	Pn	**Pn**	**12 49 14.8**	**+2.4**
EQUE				Sn	**Sn**	**12 49 57.4**	**0.0**
EQUE				IVmb_Lg		12 50 01.4	
EALB	**Alboran**	**4.08**	**91**	S	**Sn**	**12 50 00.2**	**-1.9**
EALB	**Alboran**	**4.08**	**91**	Sn	**Sn**	**12 50 00.7**	**-1.4**
EALB				IVmb_Lg		12 50 01.7	
CIBOR	**Castaar de Ib**	**4.10**	**30**	Pn	**Pn**	**12 49 16.6**	**+1.3**
CIBOR				Sn	**Sn**	**12 50 01.1**	**-1.5**
E0802	**Ubeda,Jaen**	**4.21**	**62**	Sn	**Sn**	**12 50 05.6**	**0.0**
MD31	**MD31**	**4.23**	**139**	P	**Pn**	**12 49 18.2**	**+1.0**
MD31				S	**Sn**	**12 50 05.5**	**-0.4**
EBER	**Berja**	**4.25**	**78**	P	**Pn**	**12 49 19.2**	**+1.8**
EBER				S	**Sn**	**12 50 07.2**	**+0.7**
EBER	**Berja**	**4.25**	**78**	Pn	**Pn**	**12 49 19.3**	**+1.8**
EBER				Sn	**Sn**	**12 50 08.4**	**+1.9**
EBER				IVmb_Lg		12 50 09.9	
EPLA	**Plasencia**	**4.25**	**21**	Pn	**Pn**	**12 49 18.7**	**+1.2**
EPLA				Sn	**Sn**	**12 50 04.9**	**-1.6**
EPLA				IVmb_Lg		12 50 06.3	
MTE	**Manteigas**	**4.31**	**5**	*eS*	**Sn**	**12 50 05.9**	**-1.9**
EQES	**Quesada**	**4.35**	**66**	Pn	**Pn**	**12 49 20.6**	**+1.8**
EQES				Sn	**Sn**	**12 50 09.6**	**+0.8**
EQES				IVmb_Lg		12 50 11.9	
MDT	**Midelt**	**4.35**	**138**	P	**Pn**	**12 49 19.9**	**+1.1**
PAB	**San Pablo**	**4.53**	**39**	Pn	**Pn**	**12 49 22.9**	**+1.6**
PAB				Sn	**Sn**	**12 50 09.4**	**-3.9**
PAB				IVmb_Lg		12 50 09.9	
TISM	**Timmit**	**4.58**	**162**	P	**Pn**	**12 49 20.7**	**-1.1**
PVIS	**Viseu**	**4.61**	**2**	*eP*	**Pn**	**12 49 24.2**	**+1.9**
PVIS				*eS*	**Sn**	**12 50 13.3**	**-1.9**
ESDC	**Sonseca Array**	**4.82**	**41**	Pn	**Pn**	**12 49 27.1**	**+1.8**
ESDC				Sn	**Sn**	**12 50 16.4**	**-4.1**
ESDC				IVmb_Lg		12 50 19.1	
ESBB	**Sonseca Array**	**4.82**	**41**	Pn	**Pn**	**12 49 27.1**	**+1.8**
ESBB				Sn	**Sn**	**12 50 16.5**	**-4.1**
JBK	**JBK**	**4.84**	**110**	P	**Pn**	**12 49 25.1**	**-0.5**
OUK	**Oukaimeden**	**4.89**	**178**	P	**Pn**	**12 49 24.5**	**-2.0**
PTO	**Porto**	**5.04**	**355**	*eS*	**Sn**	**12 50 23.0**	**-2.9**
PVRL	**Vila Real**	**5.17**	**3**	*eS*	**Sn**	**12 50 26.2**	**-2.9**
TIO	**Tiouine**	**5.21**	**172**	P	**Pn**	**12 49 31.3**	**+0.6**
TIO				S	**Sn**	**12 50 26.2**	**-3.9**
TIO	**Tiouine**	**5.21**	**172**	P	**Pn**	**12 49 30.1**	**-0.5**
EJUZ	**Juzbado, Salam**	**5.26**	**18**	Sn	**Sn**	**12 50 28.7**	**-2.6**
POLO	**Lamas de Olo**	**5.27**	**2**	*eP*	**Pn**	**12 49 32.7**	**+1.3**
POLO				*eS*	**Sn**	**12 50 28.5**	**-3.0**
POLO				IAML		12 50 30.8	
POLO				IAML		12 50 30.8	
POLO				IAML		12 50 30.9	
POLO	**Lamas de Olo**	**5.27**	**2**	Pn	**Pn**	**12 49 32.6**	**+1.1**
POLO				Sn	**Sn**	**12 50 29.0**	**-2.5**
OUZM	**OUZ**	**5.29**	**168**	P	**Pn**	**12 49 32.6**	**+0.7**
EZAR	**Zarzadilla de**	**5.40**	**69**	Pn	**Pn**	**12 49 35.2**	**+1.9**
GUD	**Guadarrama**	**5.48**	**33**	Pn	**Pn**	**12 49 36.3**	**+2.0**
GUD				Sn	**Sn**	**12 50 34.1**	**-2.6**
GUD				IVmb_Lg		12 50 37.2	
TTIG	**Tnine Tigouga,**	**5.55**	**183**	P	**Pn**	**12 49 32.7**	**-2.6**
PCAB	**Cabril**	**5.60**	**0**	*eP*	**Pn**	**12 49 37.5**	**+1.5**
PCAB				*eS*	**Sn**	**12 50 36.5**	**-3.1**
PCAB				IAML		12 50 39.0	
PCAB				IAML		12 50 39.1	
PCAB				IAML		12 50 39.7	
UCM	**Universidad Co**	**5.66**	**41**	P	**Pn**	**12 49 39.0**	**+2.2**
UCM				S	**Sn**	**12 50 39.8**	**-1.3**
EMUR	**La Murta**	**5.73**	**70**	P	**Pn**	**12 49 39.0**	**+1.2**
ELOB	**Lobios**	**5.76**	**0**	Pn	**Pn**	**12 49 39.0**	**+0.8**
ELOB				Sn	**Sn**	**12 50 39.2**	**-4.3**
ELOB				IVmb_Lg		12 50 43.2	
ETOB	**Tobarra**	**5.78**	**62**	P	**Pn**	**12 49 39.2**	**+0.8**
ETOB				S	**Sn**	**12 50 41.4**	**-2.7**
ETOB	**Tobarra**	**5.78**	**62**	Pn	**Pn**	**12 49 39.5**	**+1.1**
ETOB				Sn	**Sn**	**12 50 41.3**	**-2.8**
ETOB				IVmb_Lg		12 50 43.8	
PBRG	**Braganca**	**5.79**	**10**	*eP*	**Pn**	**12 49 40.0**	**+1.4**
PBRG				*eS*	**Sn**	**12 50 41.0**	**-3.2**
PBRG				IAML		12 50 43.1	
PBRG				IAML		12 50 43.6	
PBRG				IAML		12 50 44.3	
PGAV	**Gavieira, Arco**	**5.86**	**359**	*eP*	**Pn**	**12 49 41.0**	**+1.5**
PGAV				*eS*	**Sn**	**12 50 42.0**	**-4.0**
PGAV				IAML		12 50 44.0	
PGAV				IAML		12 50 45.3	
PGAV				IAML		12 50 45.7	
YEBES	**Yebes (Guadala**	**5.90**	**40**	Pn	**Pn**	**12 49 42.7**	**+2.6**
YEBES				Sn	**Sn**	**12 50 46.8**	**-0.2**
YEBES				IVmb_Lg		12 50 49.8	
ECAL	**Calabor**	**5.92**	**10**	P	**Pn**	**12 49 41.4**	**+1.0**
ECAL				S	**Sn**	**12 50 45.0**	**-2.6**
ECAL	**Calabor**	**5.92**	**10**	Pn	**Pn**	**12 49 41.8**	**+1.4**
ECAL				Sn	**Sn**	**12 50 44.5**	**-3.1**
ECAL				IVmb_Lg		12 50 47.4	
EZAM	**Zamans**	**6.06**	**356**	Sn	**Sn**	**12 50 46.3**	**-4.5**
EZAM				IVmb_Lg		12 50 47.5	
EVIV	**Cofrentes, Val**	**6.35**	**58**	Pn	**Pn**	**12 49 47.8**	**+1.5**
EVIV				Sn	**Sn**	**12 50 57.3**	**-0.8**
EVIV				IVmb_Lg		12 50 59.7	
ECHE	**Chera**	**6.61**	**56**	P	**Pn**	**12 49 50.8**	**+1.0**
ECHE	**Chera**	**6.61**	**56**	Pn	**Pn**	**12 49 51.0**	**+1.2**
ECHE				IVmb_Lg		12 52 15.4	
ETOR	**Torete**	**6.66**	**43**	Pn	**Pn**	**12 49 52.2**	**+1.6**
ETOR				Sn	**Sn**	**12 51 04.4**	**-1.5**
ETOR				IVmb_Lg		12 51 06.3	
EAGO	**Agolada(Pontev**	**6.69**	**360**	Pn	**Pn**	**12 49 52.2**	**+1.3**
EAGO				Sn	**Sn**	**12 51 02.5**	**-3.9**
EAGO				IVmb_Lg		12 51 04.9	
EBEN2	**Beniarda presa**	**6.78**	**65**	Pn	**Pn**	**12 49 53.4**	**+1.3**
EMAZ	**Mazaricos**	**6.87**	**354**	Pn	**Pn**	**12 49 54.9**	**+1.5**
EMAZ				Sn	**Sn**	**12 51 05.9**	**-5.1**
EMAZ				IVmb_Lg		12 51 08.1	
EMOS	**Mosqueruela**	**7.33**	**52**	Pn	**Pn**	**12 50 02.5**	**+2.6**
EMOS				Sn	**Sn**	**12 51 22.2**	**-0.4**
EMOS				IVmb_Lg		12 51 23.4	
EARI	**Arriondas**	**7.52**	**16**	Sn	**Sn**	**12 51 24.1**	**-2.8**
EIBI	**Ibiza**	**8.02**	**66**	P	**Pn**	**12 50 09.5**	**+0.3**
EIBI				S	**Sn**	**12 51 34.1**	**-5.2**
EIBI	**Ibiza**	**8.02**	**66**	Pn	**Pn**	**12 50 10.2**	**+1.1**
EIBI				IVmb_Lg		12 56 18.3	
EORO	**Oroz-Betelu**	**8.56**	**36**	Pn	**Pn**	**12 50 19.1**	**+2.5**
EORO				Sn	**Sn**	**12 51 47.9**	**-4.5**
EORO				IVmb_Lg		12 51 53.1	
EALK	**Alkurruntz**	**8.72**	**33**	Pn	**Pn**	**12 50 20.8**	**+2.0**
EALK				Sn	**Sn**	**12 51 52.3**	**-4.2**
ETOS	**Mallorca**	**9.34**	**64**	P	**Pn**	**12 50 28.6**	**+1.4**
ETOS	**Mallorca**	**9.34**	**64**	Pn	**Pn**	**12 50 29.2**	**+1.9**

AEIC ***19*** *12:58:10.4±2.1,50.˚9N±0.˚1×178.˚77E±0.˚08, h24km±4km, Error ellipse: s-maj=18.0km s-min=4.5km az=161.0*

NEIC ***19*** *12:58:12.8±2.1,51.˚3N±0.˚1×178.˚71E±0.˚06, h33km±7km, mb4.1/33, ML4.0/8, ML3.7(AEIC), Error ellipse: s-maj=18.5km s-min=4.3km az=167.0*

IDC ***19*** *12:58:14.3±3.0,51.˚16N×178.˚64E, h60km±25km, mb3.7/14, mbtmp3.9/15, ML2.8/1, MS3.1/3, Error ellipse: s-maj=27.0km s-min=14.3km az=3.0*

ISC 19 12:58:09.8±1.2,51.˚1N±0.˚1×178.˚70E±0.˚04,h22km±7km, n78,σ1¶14/85,mb4.1/23,Rat Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GAKI	**Gareloi-Kavalg**	**1.64**	**72**		**Pn**	**12 58 37.2**	**0.0**
GAKI					**Sn**	**12 58 57.5**	**-0.1**
GAKI					**Sb**	**12 58 59.1**	**-0.3**
GASW	**Gareloi Southw**	**1.69**	**64**		**Pn**	**12 58 38.2**	**+0.2**
GASW					**Pb**	**12 58 39.5**	**-0.7**
GASW					**Sn**	**12 58 58.6**	**-0.3**
GALAA	**Gareloi Lava P**	**1.73**	**65**		**Pn**	**12 58 39.5**	**+1.0**
GALAA					**Pb**	**12 58 40.0**	**-0.9**
GALAA					**Sn**	**12 59 00.7**	**+0.7**
GANO	**Gareloi North**	**1.74**	**63**	Pn	**Pn**	**12 58 39.9**	**+1.2**
GANE	**Gareloi Northe**	**1.75**	**64**		**Pn**	**12 58 39.5**	**+0.7**
GANE					**Sb**	**12 59 02.9**	**+0.2**
GAEA	**Gareloi East**	**1.75**	**65**		**Pn**	**12 58 39.6**	**+0.7**
GAEA					**Sb**	**12 59 03.8**	**+1.1**
TACS	**Tanaga Cape Sa**	**2.13**	**67**		**Pn**	**12 58 44.9**	**+0.7**
TACS					Pb	12 58 45.2	-2.5
TACS					**Sb**	**12 59 13.3**	**-0.5**
TASE	**Tanaga Southea**	**2.18**	**68**		**Pn**	**12 58 45.8**	**+1.0**
TAFL	**Tanaga Flats**	**2.24**	**71**		**Pn**	**12 58 46.5**	**+0.9**
TAFL					**Pb**	**12 58 48.0**	**-1.5**
TAFL					**Sn**	**12 59 13.5**	**+1.0**
TAPA	**Tanaga Point A**	**2.31**	**70**		**Pn**	**12 58 49.0**	**+2.5**
TAPA					**Sn**	**12 59 15.4**	**+1.1**
KIMD	**Kanaga Island**	**2.64**	**73**		**Pn**	**12 58 52.9**	**+1.8**
KIMD					Pb	12 58 53.4	-3.0
KIKV	**Kanaga Island**	**2.71**	**71**		**Pn**	**12 58 53.8**	**+1.8**
KIKV					Pb	12 58 54.1	-3.4
KIWB	**Kanaga Island**	**2.71**	**72**		**Pn**	**12 58 54.4**	**+2.3**
ADK	**Adak**	**3.00**	**72**	IAML		12 59 44.2	
	429nm,0.8s						
ADK	**Adak**	**3.00**	**72**		**Pn**	**12 58 57.7**	**+1.7**
ADK					**Sn**	**12 59 30.9**	**-0.3**
ETKA	**Kagalaska Isla**	**3.16**	**74**		**Pn**	**12 59 00.1**	**+1.8**
ETKA					Pb	12 59 01.1	-4.2
SHEM	**Shemya Is, Ala**	**3.30**	**302**	P	**Pn**	**12 59 01.4**	**+1.4**
	334nm,0.4s,baz=125,slow=1.6,SNR=37						
SHEM				S	**Sn**	**12 59 40.5**	**+2.0**
	58nm,0.4s,baz=299,slow=20,SNR=1.0						
SHEM				LR	LR	13 00 15.8	
	comp=Z,358nm,18.2s,baz=270,slow=38						
SHEM	**Shemya Is, Ala**	**3.30**	**302**	IAML		12 59 52.1	
	comp=E,355nm,0.6s						
SMY	**Shemya**	**3.30**	**302**		**Pn**	**12 59 00.9**	**+0.9**
GSMY	**Great Sitkin M**	**3.42**	**71**		**Pn**	**12 59 03.4**	**+1.6**
ATKA	**Atka Island**	**4.57**	**73**	Pn	**Pn**	**12 59 19.7**	**+2.2**
ATKA				IAML		13 00 18.7	
	comp=E,150nm,1.4s						
ATKA				IAML		13 00 27.1	
	comp=N,198nm,0.7s						
UNV	**Unalaska Valle**	**9.45**	**67**	Pn	**Pn**	**13 00 26.9**	**+2.4**
PETK	**Petropavlovsk-**	**13.07**	**287**	P	**Pn**	**13 01 15.8**	**+1.8**
	comp=N,0.2nm,0.3s,baz=94,slow=17,SNR=1.3						
PETK				LR	LR	13 07 38.1	
	comp=N,34nm,18.7s,baz=90,slow=43						
	comp=N,2.3nm,0.7s						
PETK				AML	AML		
N19K	**Bonanza Creek**	**17.78**	**46**		**Pn**	**13 02 16.9**	**+1.2**
KDAK	**Kodiak Island**	**17.91**	**57**	P	**Pn**	**13 02 15.0**	**-2.2**
	comp=N,4.4nm,0.7s,baz=232,slow=4.6,SNR=21						
KDAK	**Kodiak Island**	**17.91**	**57**	IAmb	IAmb	13 02 30.7	
	comp=Z,18nm,1.4s						
H18K	**Honhosa River**	**18.43**	**31**		**P**	**13 02 23.7**	**+0.2**
H18K				IAmb	IAmb	13 02 29.4	
	comp=Z,26nm,1.5s						
STLK	**Strandline Lak**	**19.22**	**46**	Pn	**P**	**13 02 33.3**	**+1.1**
STLK				IAmb	IAmb	13 02 38.7	
	comp=Z,19nm,1.4s						
J20K	**Nowinta River**	**19.38**	**37**		**P**	**13 02 34.6**	**+0.8**
J20K				IAmb	IAmb	13 02 41.9	
	comp=Z,24nm,1.5s						
SKT	**Skwentna**	**19.52**	**45**	Pn	**P**	**13 02 36.6**	**+1.2**
SKT				IAmb	IAmb	13 02 38.6	
	comp=Z,19nm,1.3s						
PPLA	**Purkeypile**	**19.59**	**42**	P	**P**	**13 02 36.8**	**+0.6**
PPLA				IAmb	IAmb	13 02 40.8	
	comp=Z,17nm,1.5s						
SUA	**Susitna One**	**19.71**	**46**	P	**P**	**13 02 37.5**	**0.0**
F19K	**Shaleruckik Mo**	**19.71**	**28**	P	**P**	**13 02 38.0**	**+0.6**
F19K				IAmb	IAmb	13 02 39.3	
	comp=Z,7.5nm,0.7s						
CAST	**Castle Rocks**	**19.84**	**40**	P	**P**	**13 02 39.8**	**+0.9**
RC01	**Rabbit Creek A**	**20.07**	**48**	P	**P**	**13 02 42.1**	**+0.8**
E19K	**Redstone River**	**20.29**	**27**	Pn	**P**	**13 02 44.7**	**+1.0**
IMAR	**Indian Mountai**	**20.48**	**33**	P	**P**	**13 02 46.5**	**+0.8**
TRF	**Thorofare Moun**	**20.60**	**41**	P	**P**	**13 02 47.6**	**+0.4**
D19K	**Kuna River**	**20.77**	**24**	P	**P**	**13 02 49.6**	**+0.7**
D19K				IAmb	IAmb	13 02 59.0	
	comp=Z,6.8nm,0.8s						
SML	**Sawmill**	**20.

baz=314,slow=77,SNR=7.1
H03N3 Juan Fernandez 122.60 104 T T 15 31 34.3
baz=314,slow=77,SNR=93

*JMA **19** 12:58:57.0±0.3,23°N±1°×122.7E±0.8, h48km, MV3.3/18, NEAR ISHIGAKIJIMA ISLAND*
ISC 19 12:58:55.8±2.3, 23.07N±0.07×122.71E±0.03, h19km±5km, n23, σ0.75/32, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YULB	**Yu-li**	**1.34**	**284**	P	**Pb**	**12 59 20.0**	**-0.4**
YULB	**Yu-li**	**1.34**	**284**	S	**Sb**	**12 59 37.0**	**-0.2**
JYNG	**Yonagunijimaku**	**1.39**	**9**	P	**Pb**	**12 59 21.5**	**+0.2**
JYNG				S	**Sb**	**12 59 38.9**	**+0.2**
HATJ	**Hateruma jima**	**1.41**	**45**	P	**Pb**	**12 59 21.2**	**-0.2**
HATJ				*eS*	**Sn**	**12 59 38.5**	**0.0**
YOJ	**Yonaguni jima**	**1.42**	**11**	P	**Pb**	**12 59 22.4**	**+0.7**
YOJ				S	**Sg**	**12 59 40.6**	**-1.1**
NACB	**Ninganchiao**	**1.51**	**317**	P	**Pn**	**12 59 22.0**	**+0.2**
NACB	**Ninganchiao**	**1.51**	**317**	S	**Sn**	**12 59 39.6**	**-1.3**
TWGBT	**Beinan**	**1.53**	**261**	P	**Pb**	**12 59 23.3**	**-0.2**
TWGBT	**Beinan**	**1.53**	**261**	S	**Sn**	**12 59 41.4**	**-0.1**
IRIF	**Iriomote-Funau**	**1.57**	**36**	*i* P	**Pb**	**12 59 23.6**	**-0.6**
IRIF				*eS*	**Sb**	**12 59 43.3**	**-0.4**
JKRS	**Kuro-shima**	**1.66**	**45**	P	**Pb**	**12 59 25.1**	**-0.8**
JKRS				*eS*	**Sn**	**12 59 44.8**	**0.0**
SSLB	**Suanglung**	**1.77**	**294**	P	**Pn**	**12 59 26.5**	**+1.0**
SSLB	**Suanglung**	**1.77**	**294**	S	**Sn**	**12 59 46.3**	**-1.2**
JIJ	**Ishigaki jima**	**1.84**	**45**	*i* P	**Pn**	**12 59 26.9**	**+0.5**
JIJ				S	**Sn**	**12 59 48.1**	**-1.1**
TPUB	**Ta-pu**	**1.93**	**277**	P	**Pb**	**12 59 30.2**	**-0.3**
TPUB	**Ta-pu**	**1.93**	**277**	S	**Sb**	**12 59 54.1**	**-0.1**
YHNB	**Yeheng**	**2.01**	**323**	P	**Pn**	**12 59 30.3**	**+1.4**
YHNB	**Yeheng**	**2.01**	**323**	S	**Sn**	**12 59 54.5**	**+0.9**
JISG	**Ishigakijimahi**	**2.10**	**44**	P	**Pn**	**12 59 30.6**	**+0.6**
JISG				*eS*	**Sn**	**12 59 55.1**	**-0.6**
JTJ	**Tarama**	**2.40**	**49**	P	**Pn**	**12 59 35.2**	**+1.1**
JTJ				S	**Sn**	**13 00 03.3**	**+0.3**
JIRJ	**Irabujima**	**2.87**	**52**	P	**Pn**	**12 59 41.7**	**+1.1**
JIRJ				*eS*	**Sn**	**13 00 14.0**	**-0.6**
JMJ2	**Miyako jima3**	**2.92**	**55**	S	**Sn**	**13 00 15.6**	**-0.1**
JOGS	**Gusukube**	**2.99**	**55**	*eS*	**Sn**	**13 00 17.4**	**0.0**

IDC 19 13:00:03.0±1.8, 7.45S×128.58E, h0km, mb3.4/1, mbtmp3.8/4, ML4.0/3, MS2.4/1, Error ellipse: s-maj=43.0km s-min=18.4km az=77.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**10.96**	**195**	Pn	Pn	13 02 36.8	-4.4
	1.0nm,0.3s,baz=19,slow=10,SNR=38						
FITZ				Sn	Sn	13 04 30.6	-14
	2.1nm,0.3s,baz=301,slow=22,SNR=10 2.8nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.61**	**156**	Pn	Pn	13 03 11.6	-5.9
	0.8nm,0.3s,baz=331,slow=14,SNR=81						
WRA				Sn	Sn	13 05 33.6	-16
	1.3nm,0.3s,baz=296,slow=6.7,SNR=5.7 2.0nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**16.91**	**163**	Pn	Pn	13 03 55.2	-6.0
	0.3nm,0.3s,baz=331,slow=9.3,SNR=17						
ASAR				Sn	Sn	13 06 55.1	-15
	0.4nm,0.3s,baz=321,slow=21,SNR=5.1 1.1nm,0.6s						
ASAR				AML	AML		
JHJ	**Hachijo jima 2**	**41.73**	**14**	LR	LR	13 23 28.6	
	comp=Z,4.4nm,18.4s,baz=150,slow=34						
MKAR	**Makanchi Array**	**67.84**	**328**	P	P	13 11 02.9	-0.2
	0.2nm,0.5s,baz=119,slow=8.3,SNR=4.4 0.2nm,0.5s						

*IDC **19** 13:05:12.6±0.8, 14.56N×93.63W, h0km, mb4.4/15, mbtmp4.4/17, ML3.7/3, MS3.8/26, Error ellipse: s-maj=27.3km s-min=12.8km az=46.0*
*CATAC **19** 13:05:12.6±0.8, 14°N±4°×9°4W±°, h15km±7km, M5.0/13, mb5.3/1, mB5.4/1, MLv4.9/13, Mw(mB)4.8/1, Error ellipse: s-maj=12.9km s-min=4.4km az=47.4, confirmed*
*MEX **19** 13:05:15.5±1.1, 14.40N×93.81W, h24km±61km, MD4.6, Presumed earthquake*
*GCG **19** 13:05:17.5±2.1, 14.48N×93.60W, h37km±999km, MD4.8, Presumed earthquake*
*NEIC **19** 13:05:18.1±2.3, 14.66N±0.08×93.66W±0.03, h36km, 10km, mb4.5/176, Md4.6/79(MEX), Error ellipse: s-maj=12.2km s-min=3.4km az=190.0*
*GFZ **19** 13:05:25.4±0.4, 15°N±7°×9°3W±°, h68km, M4.6/19, mb4.6/19, confirmed*
ISC 19 13:05:15.4±2.2, 14.45N±0.05×93.87W±0.03, h25km±16km, n295, σ2.46/286, mb4.5/83, MS3.8/23, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCIG		**1.39**	**27**		**Pn**	**13 05 37.6**	**-1.7**
PCIG					**Sn**	**13 05 53.5**	**-3.3**
PCIG		**1.39**	**27**	*eP*	**Pn**	**13 05 37.6**	**-1.7**
PCIG				*eS*	**Sn**	**13 05 53.5**	**-3.3**
THIG		**1.61**	**74**		**Pn**	**13 05 39.7**	**-2.6**
THIG					**Sn**	**13 05 57.6**	**-4.7**
THIG		**1.61**	**74**	*i* P	**Pn**	**13 05 40.2**	**-2.1**
THIG				*i* S	**Sn**	**13 05 56.4**	**-5.9**
THIG		**1.61**	**74**	*eP*	**Pn**	**13 05 39.7**	**-2.6**
THIG				*eS*	**Sn**	**13 05 57.6**	**-4.7**
PATR	**El Naranjo**	**1.71**	**67**		**Pn**	**13 05 41.2**	**-2.6**
PATR					**Sn**	**13 06 00.4**	**-4.6**
PATR	**El Naranjo**	**1.71**	**67**	*eP*	**Pn**	**13 05 41.2**	**-2.6**
PATR				*eS*	**Sn**	**13 06 00.4**	**-4.6**
PAVE	**Pavencul**	**1.79**	**66**		**Pn**	**13 05 42.3**	**-2.7**
PAVE					**Sn**	**13 06 03.1**	**-4.0**
PAVE	**Pavencul**	**1.79**	**66**	*eP*	**Pn**	**13 05 42.3**	**-2.7**
PAVE				*eS*	**Sn**	**13 06 03.1**	**-4.0**
CHUJ	**Union Juarez**	**1.82**	**69**	*eP*	**Pn**	**13 05 42.3**	**-3.1**
CHUJ				*eS*	**Sn**	**13 06 02.4**	**-5.3**
RTAL	**Retalhuleu**	**2.10**	**88**	P	**Pn**	**13 05 48.2**	**-0.8**
RTAL				S	**Sn**	**13 06 16.1**	**+1.6**
RTAL	**Retalhuleu**	**2.10**	**88**	Pn	**Pn**	**13 05 47.6**	**-1.4**
RTAL	**Retalhuleu**	**2.10**	**88**	*eP*	**Pn**	**13 05 46.2**	**-2.9**
RTAL				*eS*	**Sn**	**13 06 09.4**	**-5.1**
QUEO	**Labor Ovalle**	**2.31**	**79**	*i* P	**Pn**	**13 05 50.2**	**-2.1**
QUEO				*i* S	**Sn**	**13 06 17.0**	**-3.1**
TGIG		**2.42**	**17**		**Pn**	**13 05 53.5**	**0.0**
TGIG					**Sn**	**13 06 20.7**	**-1.6**
TGIG		**2.42**	**17**	*i* P	**Pn**	**13 05 53.7**	**+0.2**
TGIG				*i* S	**Sn**	**13 06 20.3**	**-2.1**
TGIG		**2.42**	**17**	*eP*	**Pn**	**13 05 53.5**	**0.0**
TGIG				*eS*	**Sn**	**13 06 20.7**	**-1.6**
STG8	**El Palmar, Qui**	**2.44**	**90**	*i* P	Pn	13 05 48.4	-5.5
HUEH	**Huehuetenango**	**2.44**	**69**	P	**Pn**	**13 05 53.5**	**-0.4**
HUEH				S	**Sb**	**13 06 27.2**	**-1.4**
HUEH	**Huehuetenango**	**2.44**	**69**		**Sn**	**13 06 20.1**	**-3.0**
HUEH	**Huehuetenango**	**2.44**	**69**		**Pn**	**13 05 52.0**	**-1.9**
HUEH	**Huehuetenango**	**2.44**	**69**	*i* P	**Pn**	**13 05 53.4**	**-0.6**
HUEH	**Huehuetenango**	**2.44**	**69**	*eP*	**Pn**	**13 05 52.3**	**-1.7**
HUEH				*eS*	**Sn**	**13 06 20.1**	**-3.0**
CCIG	**Comitan**	**2.47**	**42**		**Sn**	**13 06 23.3**	**-0.3**
CCIG	**Comitan**	**2.47**	**42**		**Pn**	**13 05 54.7**	**+0.5**
CCIG	**Comitan**	**2.47**	**42**	*i* P	**Pn**	**13 05 54.8**	**+0.5**
CCIG	**Comitan**	**2.47**	**42**	*eP*	**Pn**	**13 05 54.8**	**+0.5**
CCIG				*eS*	**Sn**	**13 06 23.3**	**-0.3**
HUIG	**Huatulco**	**2.53**	**301**		**Pn**	**13 05 53.4**	**-1.5**
HUIG					**Sn**	**13 06 20.1**	**-4.8**
HUIG	**Huatulco**	**2.53**	**301**	*eP*	**Pn**	**13 05 53.4**	**-1.5**
HUIG				*eS*	**Sn**	**13 06 20.1**	**-4.8**
CMIG	**Matias Romero**	**2.80**	**340**	Pn	**Pn**	**13 05 58.2**	**-0.4**
	18nm,0.3s,baz=155,slow=11,SNR=160						
CMIG				Sn	**Sn**	**13 06 24.9**	**-6.8**
	37nm,0.3s,baz=172,slow=6.7,SNR=4.6						
CMIG				LR	LR	13 06 41.0	
	comp=Z,274nm,21.8s,baz=252,slow=32 218nm,0.7s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**2.80**	**340**		**Pn**	**13 05 58.4**	**-0.2**
CMIG					**Sn**	**13 06 24.5**	**-7.1**
CMIG	**Matias Romero**	**2.80**	**340**	*eP*	**Pn**	**13 05 58.4**	**-0.2**
CMIG				*eS*	**Sn**	**13 06 24.5**	**-7.1**
FG8	**Yepocapa, Chim**	**3.21**	**93**	*i* P	Pn	13 05 57.2	-7.2
APG	**El Apazote**	**3.34**	**80**	Pn	**Pn**	**13 06 03.9**	**-2.4**
	1.5nm,0.3s,baz=197,slow=13,SNR=38						
APG				Sn	Sn	13 06 33.0	-12
	2.2nm,0.3s,baz=216,slow=16,SNR=6.8						
APG				AML	AML		
APG	**El Apazote**	**3.34**	**80**	*i* P	**Pn**	**13 06 05.3**	**-0.9**
PEIG	**Puerto Escondi**	**3.52**	**296**		**Pn**	**13 06 07.1**	**-1.4**
PEIG					**Sn**	**13 06 43.3**	**-6.1**
PEIG	**Puerto Escondi**	**3.52**	**296**	*eP*	**Pn**	**13 06 07.1**	**-1.4**
PEIG				*eS*	**Sn**	**13 06 43.3**	**-6.1**
TUIG	**Tuzandepetl**	**3.60**	**352**		**Pn**	**13 06 07.6**	**-2.0**
TUIG	**Tuzandepetl**	**3.60**	**352**	*eP*	**Pn**	**13 06 07.6**	**-2.0**
NEUV	**Arroyo Zacate**	**3.74**	**330**		**Pn**	**13 06 09.5**	**-2.0**
NEUV					**Sn**	**13 06 49.1**	**-5.7**
NEUV	**Arroyo Zacate**	**3.74**	**330**	*eP*	**Pn**	**13 06 09.5**	**-2.0**
NEUV				*eS*	**Sn**	**13 06 49.1**	**-5.7**
FAME	**Alcaldia de Sa**	**3.79**	**99**	S	**Sn**	**13 06 58.7**	**+2.8**
OXIG	**Oaxaca**	**3.79**	**314**		**Pn**	**13 06 10.9**	**-1.6**
OXIG					**Sn**	**13 06 54.6**	**-1.9**
VHO	**Vista Hermosa**	**3.79**	**314**	*eP*	**Pn**	**13 06 10.9**	**-1.6**
VHO				*eS*	**Sn**	**13 06 54.6**	**-1.9**
SLOZ	**Alcaldia de Sa**	**3.98**	**96**	P	**Pn**	**13 06 15.5**	**+0.5**
LOAL	**Lomas de Alarc**	**3.99**	**96**	S	**Sn**	**13 07 02.9**	**+1.8**
NUBE	**Las Nubes**	**4.00**	**97**	P	**Pn**	**13 06 13.2**	**-2.2**
NUBE				S	**Sn**	**13 07 04.0**	**+2.5**
CEVE	**Cerro Verde**	**4.16**	**98**	S	**Sn**	**13 07 08.5**	**+2.9**
UNIC	**Universidad Ca**	**4.21**	**96**	S	**Sn**	**13 07 09.5**	**+2.8**
JAYA	**Jayaque - finc**	**4.36**	**100**	P	**Pn**	**13 06 21.6**	**+1.3**
JAYA				S	**Sn**	**13 07 12.8**	**+2.4**
MTO3	**Montecristo**	**4.37**	**90**	P	**Pn**	**13 06 20.6**	**+0.2**
ESQI	**Esquipulas**	**4.38**	**88**		**Pn**	**13 06 21.9**	**+1.4**
LALI	**Alcalda de L**	**4.52**	**102**	P	**Pn**	**13 06 21.6**	**-0.7**
LALI				S	**Sn**	**13 07 14.4**	**+0.5**
PNIG	**Pinotepa**	**4.54**	**296**		**Pn**	**13 06 21.2**	**-1.4**
PNIG					**Sn**	**13 07 09.6**	**-5.0**
PNIG	**Pinotepa**	**4.54**	**296**	*eP*	**Pn**	**13 06 21.2**	**-1.4**
PNIG				*eS*	**Sn**	**13 07 09.6**	**-5.0**
PETF	**Flores**	**4.56**	**57**	P	**Pn**	**13 06 23.5**	**+0.6**
PETF				S	**Sn**	**13 07 16.1**	**+0.9**
PETF	**Flores**	**4.56**	**57**		**Sn**	**13 07 11.0**	**-4.2**
PETF	**Flores**	**4.56**	**57**		**Pn**	**13 06 21.1**	**-1.8**
PETF	**Flores**	**4.56**	**57**	*i* P	**Pn**	**13 06 22.9**	**0.0**
PETF	**Flores**	**4.56**	**57**	*eP*	**Pn**	**13 06 20.4**	**-2.5**
PETF				*eS*	**Sn**	**13 07 11.0**	**-4.2**
LOMA	**Loma Larga**	**4.63**	**99**	P	**Pn**	**13 06 22.6**	**-1.3**
TXIG	**Tlaxiaco**	**4.67**	**307**		**Pn**	**13 06 24.2**	**-0.5**
TXIG					**Sn**	**13 07 19.1**	**+0.8**
TXIG	**Tlaxiaco**	**4.67**	**307**	*eP*	**Pn**	**13 06 24.2**	**-0.5**
TXIG				*eS*	**Sn**	**13 07 19.1**	**+0.8**
TOIG	**Toxpalan**	**4.75**	**320**		**Pn**	**13 06 24.4**	**-1.1**
TOIG					**Sn**	**13 07 18.3**	**-1.6**
TOIG	**Toxpalan**	**4.75**	**320**	*eP*	**Pn**	**13 06 24.4**	**-1.1**
TOIG				*eS*	**Sn**	**13 07 18.3**	**-1.6**
PAVA	**Las Pavas**	**4.84**	**98**	P	**Pn**	**13 06 25.5**	**-1.3**
COEG	**Centro de Oper**	**4.91**	**99**	S	**Sn**	**13 07 27.0**	**+3.2**
HLIG	**Huajuapan de L**	**5.06**	**312**		**Pn**	**13 06 29.5**	**-0.4**
HLIG					**Sn**	**13 07 26.5**	**-1.1**
HLIG	**Huajuapan de L**	**5.06**	**312**	*eP*	**Pn**	**13 06 29.5**	**-0.4**
HLIG				*eS*	**Sn**	**13 07 26.5**	**-1.1**
SCIG	**Sabancuy**	**5.17**	**29**	P	**Pn**	**13 06 31.5**	**+0.3**
SCIG	**Sabancuy**	**5.17**	**29**		**Pn**	**13 06 28.1**	**-3.2**
SCIG					**Sn**	**13 07 28.1**	**-2.0**
SCIG	**Sabancuy**	**5.17**	**29**	*eP*	**Pn**	**13 06 28.1**	**-3.2**
SCIG				*eS*	**Sn**	**13 07 28.1**	**-2.0**
TPIG	**Tehuac#an**	**5.18**	**320**		**Pn**	**13 06 33.5**	**+2.0**
TPIG					**Sn**	**13 07 28.9**	**-1.6**
TPIG	**Tehuac#an**	**5.18**	**320**	*eP*	**Pn**	**13 06 33.5**	**+2.0**
TPIG				*eS*	**Sn**	**13 07 28.9**	**-1.6**
FTIG	**Fresnillo de T**	**5.35**	**311**		**Pn**	**13 06 36.3**	**+2.5**
FTIG					**Sn**	**13 07 37.1**	**+2.5**
FTIG	**Fresnillo de T**	**5.35**	**311**	*eP*	**Pn**	**13 06 36.3**	**+2.5**
FTIG				*eS*	**Sn**	**13 07 37.1**	**+2.5**
TLIG	**Tlapa**	**5.48**	**305**		Sn	13 07 28.9	-8.9
TLIG	**Tlapa**	**5.48**	**305**		**Pn**	**13 06 38.0**	**+2.4**
TLIG	**Tlapa**	**5.48**	**305**	*eP*	**Pn**	**13 06 34.3**	**-1.3**
TLIG				*eS*	Sn	13 07 28.9	-8.9
CRIG	**Cruz Grande**	**5.56**	**295**		**Pn**	**13 06 36.5**	**0.0**
CRIG					**Sn**	**13 07 33.2**	**-6.5**
CRIG	**Cruz Grande**	**5.56**	**295**	*eP*	**Pn**	**13 06 36.5**	**0.0**
CRIG				*eS*	**Sn**	**13 07 33.2**	**-6.5**
JAUV	**Jalcomulco**	**5.64**	**330**		**Sn**	**13 07 37.6**	**-0.1**
JAUV					**Sn**	**13 07 42.3**	**+0.6**
JAUV	**Jalcomulco**	**5.64**	**330**	*eP*	**Pn**	**13 06 37.6**	**-0.1**
JAUV				*eS*	**Sn**	**13 07 42.3**	**+0.6**
PPAX	**Atlixo**	**6.23**	**316**		**Sn**	**13 07 52.4**	**-4.1**
PPAX	**Atlixo**	**6.23**	**316**	*eS*	**Sn**	**13 07 52.4**	**-4.1**
PPCL	**Tochimilco**	**6.35**	**315**		**Pn**	**13 06 50.1**	**+2.3**
PPCL	**Tochimilco**	**6.35**	**315**	*eP*	**Pn**	**13 06 50.1**	**+2.3**
PPPT	**Popocatepetl**	**6.40**	**315**		**Pn**	**13 06 49.7**	**+1.1**
PPPT					**Sn**	**13 07 58.1**	**-3.1**
PPPT	**Popocatepetl**	**6.40**	**315**	*eP*	**Pn**	**13 06 49.7**	**+1.1**
PPPT				*eS*	**Sn**	**13 07 58.1**	**-3.1**
TGUH	**Tegucigalpa,Un**	**6.41**	**93**	Pn	**Pn**	**13 06 47.6**	**-0.7**
TGUH	**Tegucigalpa,Un**	**6.41**	**93**	P	**Pn**	**13 06 51.6**	**+3.2**
	comp=Z,80nm,1.0s						
PPCU	**Popocatapetl**	**6.42**	**315**		**Pn**	**13 06 51.7**	**+2.8**
PPCU					**Sn**	**13 08 00.8**	**-0.9**
PPCU	**Popocatapetl**	**6.42**	**315**	*eP*	**Pn**	**13 06 51.7**	**+2.8**
PPCU				*eS*	**Sn**	**13 08 00.8**	**-0.9**
PBXN	**Popocatepetl**	**6.45**	**315**	*eP*	**Pn**	**13 06 50.8**	**+1.5**
PBXN				*eS*	**Sn**	**13 08 01.0**	**-1.3**
PBPN	**Popocatepetl**	**6.45**	**316**	*eP*	**Pn**	**13 06 52.8**	**+3.4**
PBPN				*eS*	**Sn**	**13 07 58.8**	**-3.7**
CXUV	**Coxquihui**	**6.71**	**329**		**Pn**	**13 06 53.1**	**+0.7**
CXUV					**Sn**	**13 08 06.1**	**-2.0**
CXUV	**Coxquihui**	**6.71**	**329**	*eP*	**Pn**	**13 06 53.1**	**+0.7**
CXUV				*eS*	**Sn**	**13 08 06.1**	**-2.0**
MPVM	**San Francisco**	**6.82**	**314**		**Sn**	**13 08 19.7**	**+8.5**
MPVM	**San Francisco**	**6.82**	**314**	*eS*	**Sn**	**13 08 19.7**	**+8.5**
CRIN	**San Cristobal**	**6.85**	**104**		**Pn**	**13 06 54.0**	**-0.5**
CRIN	**San Cristobal**	**6.85**	**104**	P	**Pn**	**13 06 58.6**	**+4.2**
	comp=Z,214nm,0.8s						
THVM	**De Xico**	**6.87**	**315**		**Sn**	**13 08 16.4**	**+3.9**
THVM	**De Xico**	**6.87**	**315**	*eS*	**Sn**	**13 08 16.4**	**+3.9**
TLVM	**San Miguel Top**	**6.93**	**314**		**Sn**	**13 08 15.7**	**+1.7**
TLVM	**San Miguel Top**	**6.93**	**314**	*eS*	**Sn**	**13 08 15.7**	**+1.7**
XCVM	**Xochimilco**	**6.93**	**314**		**Sn**	**13 08 16.9**	**+3.0**
XCVM	**Xochimilco**	**6.93**	**314**	*eS*	**Sn**	**13 08 16.9**	**+3.0**
MAVM	**Malinalco, Edo**	**7.01**	**310**		**Pn**	**13 06 58.0**	**+1.3**
MAVM					**Sn**	**13 08 13.5**	**-2.2**
MAVM	**Malinalco, Edo**	**7.01**	**310**	*eP*	**Pn**	**13 06 58.0**	**+1.3**
MAVM				*eS*	**Sn**	**13 08 13.5**	**-2.2**
CNGN	**Cerro Negro**	**7.24**	**105**	P	Pn	13 07 05.3	+5.6
	comp=Z,125nm,1.4s						
MGAN	**Managua**	**7.76**	**106**	P	Pn	13 07 13.6	+6.7
	comp=Z,190nm,1.3s						
TEIG	**Tepich**	**7.84**	**42**		**Pn**	**13 07 06.2**	**-1.7**
CTUV	**Llano Grande**	**8.18**	**329**		**Pn**	**13 07 14.3**	**+1.6**
CTUV	**Llano Grande**	**8.18**	**329**	*eP*	**Pn**	**13 07 14.3**	**+1.6**
BOAB	**BOACO BROADBAN**	**8.22**	**103**		**Pn**	**13 07 11.4**	**-1.8**
MOIG	**Morelia**	**8.72**	**308**		**Pn**	**13 07 21.1**	**+0.9**
JTS	**Las Juntas de**	**9.64**	**114**	Pn	Pn	13 07 37.9	+5.3
	comp=Z,1.3nm,0.3s,baz=283,slow=18,SNR=4.3						
JTS	**Las Juntas de**	**9.64**	**114**		**Pn**	**13 07 33.6**	**+0.9**
ZAIG	**Zacatecas**	**11.68**	**316**		**Pn**	**13 08 03.1**	**+2.3**
BRU2	**Volcan**	**12.30**	**116**	P	P	13 08 17.3	-4.0
	comp=Z,47nm,0.8s						
833A	**Chaparral WMA,**	**14.73**	**340**		**Pn**	**13 08 42.8**	**+0.6**
HNDO	**Hondo**	**15.82**	**342**		**Pn**	**13 08 56.9**	**+0.4**
HNDO				IAmb	IAmb	13 09 17.0	
	comp=Z,23nm,0.8s						
HPIG		**16.60**	**320**	P	**P**	**13 09 10.2**	**+1.1**
435B	**Jarrell**	**16.61**	**349**	Pn	**Pn**	**13 09 06.4**	**-0.3**
435B				IAmb	IAmb	13 09 19.7	
	comp=Z,23nm,0.8s						
JCT	**Junction City**	**16.86**	**342**	P	**P**	**13 09 11.9**	**+0.2**
SNAG	**San Augustine**	**16.99**	**359**	P	**Pn**	**13 09 11.9**	**+0.6**
SNAG				IAmb	IAmb	13 09 15.6	
	comp=Z,46nm,1.2s						
SAND	**Sanderson**	**17.21**	**335**		**P**	**13 09 15.8**	**+0.2**
TXAR	**Lajitas Array**	**17.36**	**330**	P	**P**	**13 09 18.5**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=155,slow=12,SNR=24						
TXAR				LR	LR	13 16 39.1	
	comp=Z,139nm,19.1s,baz=154,slow=40 comp=Z,3.1nm,0.9s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**17.36**	**330**	P	**P**	**13 09 18.8**	**+1.4**
BRDY	**Brady**	**17.40**	**345**		**Pn**	**13 09 16.2**	**-0.4**
OZNA	**Ozona**	**17.70**	**339**		**P**	**13 09 21.7**	**+0.6**
OZNA				IAmb	IAmb	13 09 24.2	
	comp=Z,37nm,0.9s						
ALPN	**Alpine**	**18.22**	**332**	IAmb	IAmb	13 09 31.0	
	comp=Z,22nm,0.8s						
LPIG	**La Paz**	**18.23**	**304**	LR	LR	13 17 00.4	
	comp=Z,309nm,18.4s,baz=124,slow=38						
TPB05	**Hovey Rd**	**18.55**	**334**	P	**Pn**	**13 09 32.4**	**+1.6**
SGCY	**Sterling City**	**18.61**	**340**	P	**Pn**	**13 09 32.3**	**+0.9**
SGCY				IAmb	IAmb	13 09 36.5	
	comp=Z,29nm,0.8s						
PLPT	**Palo Pinto**	**18.72**	**348**	P	**P**	**13 09 32.0**	**-0.2**
TPB01	**Permian Basin**	**18.77**	**333**	P	**Pn**	**13 09 34.9**	**+1.4**
229A	**Bryant Ranch,**	**18.89**	**339**	P	**Pn**	**13 09 35.5**	**+0.7**
229A				IAmb	IAmb	13 09 37.9	
	comp=Z,21nm,0.9s						
TPB06	**Permian Basin**	**19.14**	**335**	P	**Pn**	**13 09 38.1**	**+0.3**
PECS	**Pecos**	**19.17**	**333**	P	**Pn**	**13 09 39.8**	**+1.5**
ODSA	**Odessa**	**19.29**	**337**	P	**Pn**	**13 09 40.0**	**+0.3**
ODSA				IAmb	IAmb	13 09 51.5	
	comp=Z,31nm,1.1s						
129A	**Stewart Farms,**	**19.51**	**339**	P	**Pn**	**13 09 42.5**	**+0.1**
129A				IAmb	IAmb	13 09 51.6	
	comp=Z,15nm,0.8s						
SN07	**Snyder 07**	**19.62**	**342**	IAmb	IAmb	13 09 49.0	
	comp=Z,13nm,0.7s						
APMT	**Aspermont**	**19.63**	**344**	IAmb	IAmb	13 09 50.6	
	comp=Z,18nm,0.8s						
128A	**Castleberry Fa**	**19.72**	**338**	IAmb	IAmb	13 09 48.5	
	comp=Z,19nm,0.9s						
POST	**Post**	**19.79**	**341**	P	**P**	**13 09 45.2**	**+1.2**
POST				IAmb	IAmb	13 09 49.1	
	comp=Z,14nm,0.7s						
CLNB	**Carlsbad**	**19.95**	**334**	P	**Pn**	**13 09 47.3**	**-0.2**
MIAR	**Mount Ida**	**20.01**	**1**	P	**P**	**13 09 46.1**	**-0.2**
MIAR				IAmb	IAmb	13 09 51.2	
	comp=Z,17nm,0.7s						
MIAR	**Mount Ida**	**20.01**	**1**	P	**P**	**13 09 45.7**	**-0.6**
	comp=Z,26nm,1.1s						
MNTX	**Cornudas Mount**	**20.14**	**330**	P	Pn	13 09 49.8	0.0
	comp=Z,16nm,0.8s						
DKNS	**Dickens**	**20.17**	**343**	P	**P**	**13 09 48.5**	**+0.4**
DKNS				IAmb	IAmb	13 09 54.9	
	comp=Z,26nm,1.0s						
WMOK	**Wichita Mounta**	**20.68**	**348**	P	**P**	**13 09 52.1**	**-1.5**
	comp=Z,6.2nm,1.1s						
W35A	**Tecumseh**	**20.79**	**353**	P	**P**	**13 09 55.7**	**+0.9**
W35A				IAmb	IAmb	13 09 59.3	
	comp=Z,22nm,0.7s						
FNO	**Franklin**	**20.96**	**352**	P	**P**	**13 09 56.9**	**+0.3**
MSTX	**Muleshoe**	**21.04**	**339**	P	**P**	**13 09 55.7**	**-1.9**
SMWD	**Samnorwood**	**21.35**	**346**	P	**P**	**13 10 00.1**	**-0.8**
SMWD				IAmb	IAmb	13 10 11.8	
	comp=Z,21nm,0.8s						
FCAR	**Ozark Folk Cen**	**21.40**	**4**		**P**	**13 09 59.4**	**-2.0**
FCAR				IAmb	IAmb	13 10 04.5	
	comp=Z,15nm,0.8s						
TUL3	**Leonard**	**21.44**	**356**	P	**P**	**13 09 59.3**	**-2.4**
TUL3				IAmb	IAmb	13 10 26.8	
	comp=Z,16nm,0.9s						
ROSC	**El Rosal**	**21.49**	**114**	P	**P**	**13 10 03.3**	**+0.4**
	comp=Z,8.0nm,0.4s,baz=128,slow=15,SNR=6.2 comp=Z,8.0nm,0.4s						
ROSC	**El Rosal**	**21.49**	**114**	P	**P**	**13 09 58.8**	**-4.0**
AMTX	**Amarillo**	**21.53**	**342**	P	**P**	**13 10 02.6**	**-0.2**
LCAR	**Lake Charles**	**21.66**	**6**	P	**P**	**13 09 58.4**	**-5.8**
LCAR				IAmb	IAmb	13 10 17.

MDPB	**Devils Postpil**	**32.15**	**321**	IAmb	IAmb	13 11 45.4
	comp=Z,5.1nm,0.8s					
NVAR	**Mina Array Bea**	**32.20**	**322**	P	**P**	**13 11 45.0 +3.3**
	comp=Z,6.4nm,0.8s,baz=139,slow=8.9,SNR=38					
NVAR				PcP	**PcP**	**13 14 32.1 +1.9**
	comp=Z,0.6nm,0.6s,baz=91,slow=2.9,SNR=3.6					
NVAR				LR	LR	13 24 29.5
	comp=Z,151nm,18.2s,baz=174,slow=36					
	comp=Z,6.4nm,0.8s					
KVN	**Kaiserville**	**32.49**	**323**	IAmb	IAmb	13 11 47.6
	comp=Z,4.7nm,1.0s					
SADO	**Sadowa**	**32.70**	**20**	LR	LR	13 26 47.3
	comp=Z,208nm,18.2s,baz=162,slow=40					
RLMT	**Red Lodge**	**33.24**	**340**	IAmb	IAmb	13 12 09.7
	comp=Z,6.2nm,1.1s					
YMR	**Madison River**	**33.44**	**338**	IAmb	IAmb	13 11 56.0
	comp=Z,5.2nm,1.1s					
YHH	**Holmes Hill**	**33.50**	**338**	P	**P**	**13 11 54.4 +1.2**
YHH				IAmb	IAmb	13 11 56.5
	comp=Z,6.3nm,1.2s					
YHL	**Hebgen Lake**	**33.68**	**338**	P	**P**	**13 11 57.3 +2.6**
YHL				IAmb	IAmb	13 11 59.2
	comp=Z,5.2nm,1.0s					
LAO	**LASA Array**	**33.76**	**345**	IAmb	IAmb	13 11 56.9
	comp=Z,7.6nm,1.0s					
HLID	**Hailey**	**33.93**	**333**	IAmb	IAmb	13 11 59.9
	comp=Z,4.5nm,0.9s					
HLID	**Hailey**	**33.93**	**333**	P	**P**	**13 11 59.0 +2.2**
	comp=Z,5.7nm,0.9s					
BOZ	**Bozeman (W)**	**34.48**	**338**	IAmb	IAmb	13 12 07.8
	comp=Z,4.3nm,0.9s					
WVOR	**Wild Horse Val**	**35.12**	**327**	IAmb	IAmb	13 12 10.8
	comp=Z,5.7nm,1.0s					
WVOR	**Wild Horse Val**	**35.12**	**327**	P	**P**	**13 12 09.3 +2.2**
	comp=Z,7.6nm,1.2s					
ULM	**Lac du Bonnet**	**35.74**	**358**	P	**P**	**13 12 10.1 -1.9**
	comp=Z,4.9nm,0.8s,baz=188,slow=8.6,SNR=4.9					
	comp=Z,4.9nm,0.8s					
PLID	**Pearl Lake**	**35.83**	**333**	IAmb	IAmb	13 12 15.8
	comp=Z,8.7nm,0.8s					
MSO	**Missoula**	**36.38**	**337**	IAmb	IAmb	13 12 20.2
	comp=Z,6.2nm,0.8s					
F10A	**Beach Ranch, E**	**37.06**	**333**	IAmb	IAmb	13 12 25.8
	comp=Z,9.3nm,0.8s					
LDM	**Libby Dam**	**38.25**	**337**	IAmb	IAmb	13 12 37.6
	comp=Z,10nm,0.9s					
NEW	**Newport**	**38.81**	**335**	LR	LR	13 31 01.1
	comp=Z,109nm,19.5s,baz=146,slow=40					
C09A	**Chrisman Ranch**	**38.93**	**334**	IAmb	IAmb	13 12 41.2
	comp=Z,7.0nm,0.9s					
LPAZ	**La Paz**	**39.74**	**139**	P	**P**	**13 12 47.1 +0.1**
	comp=Z,0.6nm,0.5s,baz=359,slow=11,SNR=4.7					
	comp=Z,0.6nm,0.5s					
LON	**Longmire**	**39.78**	**330**	IAmb	IAmb	13 12 49.7
	comp=Z,6.1nm,0.9s					
MDP	**Montagnes des**	**41.61**	**99**	LR	LR	13 31 20.1
	comp=Z,78nm,21.3s,baz=301,slow=38					
EDM	**Edmonton**	**41.64**	**342**	P	**P**	**13 13 00.3 -1.3**
EDM				IAmb	IAmb	13 13 04.8
	comp=Z,9.1nm,0.8s					
RPN	**Rapa Nui**	**43.98**	**200**	LR	LR	13 26 56.8
	comp=Z,63nm,20.4s,baz=86,slow=30					
BBB	**Bella Bella**	**46.49**	**331**	LR	LR	13 35 51.8
	comp=Z,65nm,21.1s,baz=58,slow=40					
YKAW1	**Yellowknife Wh**	**50.15**	**348**		**P**	**13 14 08.8 +0.3**
YKA	**Yellowknife Ar**	**50.19**	**348**	P	**P**	**13 14 09.1 +0.4**
	comp=Z,11nm,0.7s,baz=157,slow=7.3,SNR=45					
	comp=Z,11nm,0.7s					
YKAW3	**Yellowknife Wh**	**50.25**	**348**		**P**	**13 14 08.4 -0.9**
DLBC	**Dease Lake**	**51.51**	**337**	LR	LR	13 40 16.7
	comp=Z,89nm,20.8s,baz=70,slow=41					
FRB	**Frobisher Bay**	**52.30**	**14**	LR	LR	13 39 36.4
	comp=Z,99nm,18.4s,baz=150,slow=40					
CPUP	**Villa Florida**	**53.91**	**139**	LR	LR	13 36 17.0
	comp=Z,43nm,18.3s,baz=258,slow=35					
BDFB	**Brasilia**	**54.29**	**122**	P	**P**	**13 14 39.6 -0.5**
	comp=Z,4.7nm,0.7s,baz=264,slow=7.0,SNR=5.7					
	comp=Z,4.7nm,0.7s					
PLCA	**Paso Flores**	**59.01**	**159**	P	**P**	**13 15 15.0 +1.8**
	comp=Z,1.3nm,0.9s,baz=306,slow=8.7,SNR=3.4					
	comp=Z,1.3nm,0.9s					
INK	**Inuvik**	**59.50**	**344**	LR	LR	13 43 21.0
	comp=Z,88nm,18.9s,baz=12,slow=38					
RES	**Resolute Bay**	**60.23**	**360**	P	**P**	**13 15 20.8 -0.2**
	comp=Z,13nm,2.1s					
A36M	**Sachs Harbour**	**60.46**	**349**	IAmb	IAmb	13 15 23.7
	comp=Z,5.8nm,1.0s					
E28M	**Babbage River**	**61.37**	**343**	IAmb	IAmb	13 15 30.5
	comp=Z,5.2nm,0.9s					
ILAR	**Eielson Array**	**61.72**	**337**	P	**P**	**13 15 31.9 +0.6**
	comp=Z,5.6nm,0.9s,baz=144,slow=4.4,SNR=51					
	comp=Z,5.6nm,0.9s					
ILAR	**Eielson Array**	**61.72**	**337**	P	**P**	**13 15 31.0 -0.3**
E27K	**Coleen River**	**61.73**	**342**		**P**	**13 15 31.9 +0.6**
SUA	**Susitna One**	**61.85**	**333**	P	**P**	**13 15 32.7 +0.3**
RND	**Reindeer**	**61.86**	**335**		**P**	**13 15 33.7 +1.3**
CCB	**Clear Creek Bu**	**62.01**	**337**	P	**P**	**13 15 33.4 +0.2**
CCB				IAmb	IAmb	13 15 35.0
	comp=Z,3.6nm,0.8s					
COLA	**College**	**62.13**	**337**	P	**P**	**13 15 35.1 +1.1**
	comp=Z,12nm,0.9s					
BMAR	**Burnt Mountain**	**62.25**	**340**		**P**	**13 15 33.8 -1.1**
F26K	**Sheenjek River**	**62.25**	**341**	IAmb	IAmb	13 15 37.3
	comp=Z,4.7nm,1.1s					
UPNV	**Upernavik**	**62.29**	**12**	P	**P**	**13 15 33.3 -1.7**
	comp=Z,99nm,0.9s					
UPNV	**Upernavik**	**62.29**	**12**	*i* P	**P**	**13 15 33.4 -1.6**
UPNV				IAmb	IAmb	13 15 34.9
	comp=Z,73nm,0.9s					
F25K	**Christian Rive**	**62.69**	**340**	IAmb	IAmb	13 15 40.0
	comp=Z,5.4nm,0.9s					
G24K	**Hadweenzic Riv**	**62.86**	**339**	IAmb	IAmb	13 15 41.2
	comp=Z,4.7nm,0.8s					
H22K	**Ishtalitna Cre**	**63.91**	**337**	IAmb	IAmb	13 15 47.2
	comp=Z,6.8nm,1.0s					
SUMG	**Summit**	**66.29**	**16**		**P**	**13 16 00.6 -1.1**
SUMG	**Summit**	**66.29**	**16**	P	**P**	**13 16 01.4 -0.3**
SUMG	**Summit**	**66.29**	**16**	*i* P	**P**	**13 16 00.0 -1.7**
SUMG				IAmb	IAmb	13 16 03.1
	comp=Z,6.2nm,0.7s					
NEEM	**North Greenlan**	**66.58**	**9**	*i* P	**P**	**13 16 03.2 -0.2**
NEEM				IAmb	IAmb	13 16 04.8
	comp=Z,25nm,1.2s					
F19K	**Shaleruckik Mo**	**66.65**	**337**	IAmb	IAmb	13 16 12.1
	comp=Z,8.4nm,1.3s					
D20K	**Etivluk River**	**66.87**	**339**	IAmb	IAmb	13 16 06.7
	comp=Z,5.3nm,0.8s					
BORG	**Borgarnes**	**69.59**	**26**	LR	LR	13 45 27.7
	comp=Z,94nm,20.1s,baz=169,slow=35					
DBG	**Daneborg**	**71.77**	**16**	P	**P**	**13 16 34.8 -0.4**
	comp=Z,14nm,2.0s					
DBG	**Daneborg**	**71.77**	**16**	*i* P	**P**	**13 16 35.1 -0.1**
DBG				IAmb	IAmb	13 16 36.3
	comp=Z,5.4nm,0.8s					
DAG	**Danmarks Havn**	**72.64**	**13**	P	**P**	**13 16 40.4 0.0**
	comp=Z,16nm,0.9s					
DAG	**Danmarks Havn**	**72.64**	**13**	*i* P	**P**	**13 16 40.0 -0.4**
DAG				IAmb	IAmb	13 16 40.7
	comp=Z,11nm,0.8s					
NOR	**Nord**	**73.92**	**9**	P	**P**	**13 16 47.9 0.0**
	comp=Z,9.7nm,2.1s					
NOR	**Nord**	**73.92**	**9**	*i* P	**P**	**13 16 48.0 +0.1**
NOR				IAmb	IAmb	13 16 48.8
	comp=Z,4.5nm,0.8s					
EKA	**Eskdalemuir Ar**	**78.66**	**36**	P	**P**	**13 17 13.4 -1.8**
	comp=Z,2.3nm,0.7s,baz=281,slow=5.6,SNR=4.7					
EKA				LR	LR	13 52 31.3
	comp=Z,93nm,18.1s,baz=18,slow=36					
	comp=Z,2.3nm,0.7s					
SPITS	**Spitsbergen Ar**	**80.00**	**11**	LR	LR	13 56 18.3
	comp=Z,161nm,18.3s,baz=210,slow=38					
ESDC	**Sonseca Array**	**80.85**	**51**	P	**P**	**13 17 26.3 -1.3**
	comp=Z,1.1nm,0.9s,baz=277,slow=5.6,SNR=5.1					
	comp=Z,1.1nm,0.9s					
NB2	**NORSAR Subarra**	**84.61**	**28**	P	**P**	**13 17 47.5 +0.9**
	comp=Z,2.7nm,0.7s,baz=288,slow=5.1					
NOA	**NORSAR Array B**	**84.61**	**28**	P	**P**	**13 17 47.6 +0.9**
	comp=Z,5.2nm,0.8s,baz=291,slow=4.9,SNR=9.6					
NOA				LR	LR	13 56 46.4
	comp=Z,183nm,18.1s,baz=320,slow=37					
	comp=Z,5.2nm,0.8s					
ARCES	**ARCESS Array B**	**86.27**	**18**	P	**P**	**13 17 54.3 -0.4**
	comp=Z,5.9nm,1.0s,baz=297,slow=4.0,SNR=3.7					
	comp=Z,5.9nm,1.0s					
DBIC	**Dimbokro**	**87.41**	**84**	LR	LR	13 57 52.5
	comp=Z,38nm,18.0s,baz=314,slow=36					
NKC	**Novy Kostel**	**89.12**	**38**	P	**P**	**13 18 10.3 +1.5**
	comp=Z,7.8nm,1.0s					
TIXI	**Tiksi**	**89.44**	**348**	P	**P**	**13 18 11.3 +1.6**
	comp=Z,3.3nm,0.4s,baz=9.6,slow=6.7,SNR=4.2					
TIXI				LR	LR	14 05 13.1
	comp=Z,32nm,18.7s,baz=216,slow=40					
	comp=Z,3.3nm,0.4s					
MA2	**Magadan**	**89.87**	**333**	LR	LR	14 02 36.5
	comp=Z,35nm,18.5s,baz=58,slow=38					
GERES	**GERESS Array B**	**90.40**	**39**	P	**P**	**13 18 15.3 +0.4**
	comp=Z,0.8nm,0.8s,baz=265,slow=3.3,SNR=5.3					
	comp=Z,0.8nm,0.8s					
FINES	**FINESS Array B**	**90.85**	**25**	LR	LR	14 00 37.7
	comp=Z,70nm,19.2s,baz=324,slow=37					
YAK	**Yakutsk**	**96.45**	**341**	LR	LR	14 11 14.9
	comp=Z,39nm,18.1s,baz=326,slow=41					
WRA	**Warramunga Arr**	**133.75**	**256**	PKP	**PKPdf**	**13 24 31.4 +0.5**
	comp=Z,0.7nm,0.8s,baz=92,slow=2.3,SNR=7.5					
CMAR	**Chiang Mai Arr**	**144.94**	**339**	PKP	PKPbc	13 24 50.8 +0.2
	comp=Z,6.8nm,0.9s,baz=345,slow=3.8,SNR=31					
CMAR	**Chiang Mai Arr**	**144.94**	**339**	PKPdf	PKPbc	13 24 51.0 +0.5

RSNC 19 13:08:08.4±0.0, 6°N±6°×7°4W±°, h115km±9km, M1.8, ML1.5, Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RUSC	**La Rusia**	**0.50**	**85**	P	Pn	13 08 27.5	+1.2
RUSC				S	Sn	13 08 42.0	+2.2
SPBC	**San Pablo de B**	**0.53**	**248**	P	Pn	13 08 27.7	+1.6
SPBC				S	Sn	13 08 42.0	+2.6
BARC	**Barichara**	**0.84**	**28**	P	Pn	13 08 29.3	+0.6
BARC				S	Sn	13 08 45.3	+1.3
PTBC	**PUERTO BERRIO,**	**1.11**	**308**	P	Pn	13 08 30.1	-1.0
PTBC				S	Sn	13 08 48.5	+0.1
CHIC	**Chingaza**	**1.22**	**187**	P	Pn	13 08 34.3	+1.5
CHIC				S	Sn	13 08 53.6	+2.4
NORC	**Norcasia**	**1.31**	**258**	P	Pn	13 08 34.9	+1.5
NORC				S	Sn	13 08 55.0	+2.6
GUY2C	**Guyana, Caldas**	**1.88**	**251**	P	Pn	13 08 41.2	+0.6
GUY2C				S	Sn	13 09 07.1	+2.0
PRAC	**Prado**	**2.49**	**212**	P	Pn	13 08 47.6	-0.3
PRAC				S	Sn	13 09 18.3	0.0
PRAC	**Prado**	**2.49**	**212**	P	Pn	13 08 47.2	-0.7
UREC	**San Jos de Ur**	**2.71**	**314**	P	Pn	13 08 51.4	+0.7
UREC				S	Sn	13 09 19.8	-3.5

RSNC 19 13:08:23.8±0.0, 2°N±2°×7°6W±°, h1km±3km, ML1.2, Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URMC	**La Uribe, Meta**	**1.40**	**55**	P	Pn	13 08 48.2	-2.4
URMC				S	Sg	13 09 05.8	-3.1
PRAC	**Prado**	**1.42**	**27**	S	Sg	13 09 05.0	-4.5
ORTC	**Ortega, Tolima**	**1.49**	**11**	P	Pn	13 08 49.8	-1.9
ORTC				S	Sg	13 09 10.3	-1.3

*IDC **19** 13:09:41.7±1.3, 33°48N×95°91E, h0km, mb3.4/5, mbtmp3.6/8, ML3.8/3, MS3.5/3, Error ellipse: s-maj=28.7km s-min=20.0km az=47.0*

ISC 19 13:09:46.7±1.4, 33°6N±0°2×95°9E±0°1, h35km, n11, σ1°48/8, mb3.4/5, Qinghai

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LZDM	**Lanzhou Array**	**6.86**	**68**	Pn	**Pn**	**13 11 25.4**	**+0.3**
	baz=272,slow=10.0						
LZDM				Lg	Lg	13 13 20.7	
	baz=80,slow=33						
	1.9nm,0.3s						
CMAR	**Chiang Mai Arr**	**15.30**	**169**	LR	LR	13 19 25.1	
	comp=Z,43nm,18.1s,baz=145,slow=38						
SONM	**Songino Array**	**16.30**	**26**	Pn	**Pn**	**13 13 32.6**	**-0.4**
	0.5nm,0.3s,baz=210,slow=13,SNR=4.6						
	2.0nm,0.6s						
SONM				AML	AML		
MKAR	**Makanchi Array**	**16.76**	**326**	Pn	**Pn**	**13 13 37.8**	**-0.8**
	0.2nm,0.3s,baz=137,slow=14,SNR=13						
	1.5nm,0.6s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**21.26**	**328**	P	**P**	**13 14 28.9**	**-0.8**
	3.1nm,0.7s,baz=135,slow=11,SNR=24						
	3.1nm,0.7s						
ZALV	**Zalesovo Beam**	**21.83**	**342**	P	**P**	**13 14 36.2**	**+0.5**
	0.7nm,0.7s,baz=160,slow=11,SNR=6.3						
	0.7nm,0.7s						
BVAR	**Borovoye Array**	**26.63**	**325**	P	**P**	**13 15 24.6**	**+2.7**
	0.7nm,0.8s,baz=123,slow=7.1,SNR=3.0						
	0.7nm,0.8s						
JMIC	**Jan Mayen**	**63.12**	**339**	LR	LR	13 49 51.2	
	comp=Z,89nm,21.5s,baz=110,slow=38						
WRA	**Warramunga Arr**	**64.64**	**140**	P	**P**	**13 20 21.4**	**+0.5**
	0.3nm,0.9s,baz=327,slow=6.6,SNR=1.7						
	0.3nm,0.9s						
ASAR	**Alice Springs**	**67.46**	**142**	P	**P**	**13 20 37.9**	**-1.2**
	0.1nm,0.3s,baz=320,slow=6.2,SNR=2.1						
	0.1nm,0.3s						
KEST	**Kesra**	**68.83**	**299**	LR	LR	13 56 43.6	
	comp=Z,52nm,18.5s,baz=282,slow=41						

*NNC **19** 13:45:52.6±7.2, 37°06N×71°54E, h0km, mb4.0, mpv4.0, Error ellipse: s-maj=57.1km s-min=48.5km az=159.0*

ISC 19 13:45:53.4±3.9, 36°8N±0°2×71°6E±0°1, h106km, n9, σ0°64/12, 1C-3D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UCH	**Uchtor**	**5.87**	**21**	P	**Pn**	**13 47 18.2**	**-0.2**
	SNR=15						
EKS2	**Erkin-Say**	**6.10**	**15**	P	**Pn**	**13 47 21.7**	**+0.6**
	SNR=13						
AAK	**Ala-Archa**	**6.25**	**20**	P	**Pn**	**13 47 23.4**	**+0.3**
	SNR=8.5						
AAK	**Ala-Archa**	**6.25**	**20**	⇓P	**Pn**	**13 47 22.9**	**-0.3**
	2.0nm,0.4s						
AAK				⇓S	**Sn**	**13 48 33.0**	**-0.2**
	3.4nm,0.6s						
KK31	**Karatay Array**	**6.37**	**353**	P	**Pn**	**13 47 25.5**	**+0.8**
	9.6nm,0.2s,baz=184,slow=14,SNR=130						
KK31				⇓S	**Sn**	**13 48 36.3**	**+0.2**
	1.5nm,0.3s,baz=174,slow=22,SNR=5.9						
KBK	**Karagaybulak**	**6.39**	**22**	P	**Pn**	**13 47 26.6**	**+1.4**
	SNR=5.5						
CHMS	**Chumysh**	**6.65**	**20**	P	**Pn**	**13 47 28.6**	**0.0**
	SNR=5.7						
USP	**Ospenovka**	**6.84**	**18**	P	**Pn**	**13 47 30.7**	**-0.4**
	SNR=7.1						
AB31	**Akbulak array**	**15.10**	**329**	P	**Pn**	**13 49 20.3**	**-0.6**
	0.2nm,0.3s,baz=164,slow=11,SNR=17						
AB31				⇑S	**Sn**	**13 52 07.1**	**-0.4**
	1.4nm,0.9s,baz=140,slow=23,SNR=2.6						

*IDC **19** 13:53:28.0±0.8, 33°81N×139°77E, h156km±4km, mb3.3/7, mbtmp3.7/7, Error ellipse: s-maj=36.0km s-min=8.8km az=72.0*

*JMA **19** 13:53:28.2±0.1, 33°9N±0°3×139°8E±0°5, h144km, MV3.0/34, FAR S OFF BOSO PENINSULA*

ISC 19 13:53:27.8±0.8, 33°85N±0°05×139°78E±0°07, h151km±6km, n26, σ0°60/33, mb3.6/7, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JMKN	**Mikurajimanish**	**0.16**	**286**	P	**Pn**	**13 53 47.7**	**-0.4**
JMKN				S	**Sn**	**13 54 02.5**	**-1.0**
JMYK	**Miyake Tsubota**	**0.29**	**318**	P	**Pn**	**13 53 48.2**	**-0.2**
JMYK				*e*S	**Sn**	**13 54 03.4**	**-0.6**
JKO	**Kozu shima**	**0.63**	**303**	*e*P	**Pn**	**13 53 49.9**	**0.0**
JHJ	**Hachijo jima 2**	**0.73**	**180**	P	**Pn**	**13 53 50.7**	**+0.1**
	63nm,0.3s,baz=294,slow=20,SNR=199						
JHJ				S	**Sn**	**13 54 09.7**	**+1.9**
	109nm,0.3s,baz=280,slow=22,SNR=25						
JHJ2	**Mitsune**	**0.73**	**177**	P	**Pn**	**13 53 50.7**	**+0.1**
JHJ2				S	**Sn**	**13 54 08.3**	**+0.4**
JHCJ	**Hachijojimakas**	**0.77**	**179**	P	**Pn**	**13 53 51.0**	**+0.1**
JHCJ				S	**Sn**	**13 54 08.7**	**+0.2**
JTHY	**Toshimahigashi**	**0.79**	**329**	P	**Pn**	**13 53 51.1**	**+0.1**
BSO3	**Boso 3**	**1.13**	**32**	P	**Pn**	**13 53 53.5**	**+0.1**
BSO3				S	**Sn**	**13 54 13.8**	**+0.6**
JIZS	**Izushimoda**	**1.14**	**320**	*e*P	**Pn**	**13 53 53.9**	**0.0**
JIZS				S	**Sn**	**13 54 13.7**	**-0.1**
BSO1	**Boso 1**	**1.28**	**51**	P	**Pn**	**13 53 54.5**	**0.0**
BSO1				*e*S	**Sn**	**13 54 15.3**	**+0.2**
JAOM	**Aogashimamukai**	**1.38**	**180**	P	**Pn**	**13 53 56.5**	**+0.3**
JOD2	**Odawara 2**	**1.52**	**338**	P	**Pn**	**13 53 57.7**	**0.0**
JOD2				*e*S	**Sn**	**13 54 20.0**	**-0.6**
SHZ3	**Shizuoka 3**	**1.78**	**314**	P	**Pn**	**13 54 01.1**	**+0.6**
SHZ3				*e*S	**Sn**	**13 54 26.2**	**+0.6**
JRY	**Ryogami san**	**2.28**	**342**	P	**Pn**	**13 54 06.5**	**+0.2**
MJAR	**Matsushiro Arr**	**2.98**	**335**	P	**Pn**	**13 54 14.7**	**-0.2**
	1.2nm,0.3s,baz=162,slow=11,SNR=8.1						
MJAR				S	**Sn**	**13 54 52.1**	**+0.7**
	4.3nm,0.6s,baz=167,slow=17,SNR=8.4						
JCJ	**Chichijima**	**7.04**	**162**	P	Pn	13 55 01.4	-7.1
	66nm,0.7s,baz=162,slow=22,SNR=2.0						
JCJ				S	Sn	13 56 16.9	-11
	68nm,0.6s,baz=272,slow=23,SNR=6.6						
H11N2	**WAKE ISLAND Hy**	**27.89**	**113**	T	T	14 28 19.2	
	baz=306,slow=75,SNR=13						
H11N1	**WAKE ISLAND Hy**	**27.90**	**113**	T	T	14 28 09.4	
	baz=306,slow=75,SNR=14						
H11N3	**WAKE ISLAND Hy**	**27.91**	**113**	T	T	14 28 19.4	
	baz=306,slow=75,SNR=12						
ZALV	**Zalesovo Beam**	**43.14**	**315**	P	**P**	**14 01 12.8**	**-0.3**
	0.6nm,0.3s,baz=102,slow=10,SNR=3.0						
	0.6nm,0.3s						
MKAR	**Makanchi Array**	**44.75**	**305**	P	**P**	**14 01 26.2**	**+0.1**
	1.5nm,0.7s,baz=90,slow=9.6,SNR=11						
	1.5nm,0.7s						
KURBB	**Kurchatov Arra**	**46.97**	**310**	P	**P**	**14 01 43.1**	**-0.2**
	1.6nm,0.6s,baz=86,slow=8.1,SNR=9.9						
	1.6nm,0.6s						
BVAR	**Borovoye Array**	**51.77**	**314**	P	**P**	**14 02 20.2**	**+0.5**
	0.5nm,0.3s,baz=100,slow=9.1,SNR=8.0						
	0.5nm,0.3s						
ILAR	**Eielson Array**	**52.90**	**31**	P	**P**	**14 02 28.3**	**+0.4**
	0.3nm,0.9s,baz=269,slow=6.2,SNR=2.1						
	0.3nm,0.9s						
WRA	**Warramunga Arr**	**53.74**	**186**	P	**P**	**14 02 33.2**	**-1.3**
	0.4nm,0.5s,baz=3.5,slow=7.7,SNR=11						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**57.47**	**186**	P	**P**	**14 03 00.2**	**-0.8**
	0.3nm,0.6s,baz=4.2,slow=7.2,SNR=4.5						
	0.3nm,0.6s						

DJA 19 14:14:59.0±0.3, 2°S±4°×13°3E±°, h10km, M3.8/11, mb4.3/4, MLv3.5/11, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MWPI	**Manokwari, Pap**	**1.30**	**29**	P	Pn	14 15 22.5	-0.7
MWPI				AML	AML		
FAKI	**Fak Fak**	**1.43**	**234**	P	Pn	14 15 24.6	-0.5
FAKI				AML	AML		
BAKI	**Biak**	**2.83**	**72**	P	Pn	14 15 44.4	0.0
BAKI				AML	AML		
SAUI	**Saumlaki**	**6.24**	**200**	P	Pn	14 16 31.2	0.0
	229nm,1.1s						

*KEA **19** 14:17:27.1, 38°05N×125°37E, h18km, ML3.2/6*

*KMA **19** 14:17:28.7±0.2, 37°99N×125°37E, h15km±2km, Error ellipse: s-maj=2.7km s-min=1.3km az=17.0*

ISC 19 14:17:28.2±0.9, 38°06N±0°04×125°39E±0°03, h10km, n13, σ0°84/20, North Korea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HJU	**Haeju**	**0.27**	**92**	Pg	**Pg**	**14 17 33.2**	**-0.4**
HJU				Sg	**Sg**	**14 17 37.1**	**-0.1**
HJU				AML	AML		
	comp=N,3μm,0.3s						
HJU				AML	AML		
	comp=E,2μm,0.3s						
HJU				AML	AML		
	comp=Z,1μm,0.7s						
SRW	**Sariwon**	**0.53**	**32**	Sg	**Sg**	**14 17 46.2**	**+0.7**
SRW				AML	AML		
	comp=N,2μm,0.3s						
SRW				AML	AML		
	comp=E,3μm,0.3s						
SRW				AML	AML		
	comp=Z,3μm,0.2s						
KSBAR	**Backryungdo**	**0.54**	**262**	P	**Pg**	**14 17 39.1**	**+0.4**
KSBAR				P	**Pg**	**14 17 39.1**	**+0.4**
DACB	**Daecheong-do R**	**0.58**	**248**	P	**Pg**	**14 17 39.6**	**0.0**
	SNR=139						
DACB				P	**Pg**	**14 17 39.6**	**0.0**
	SNR=139						
DACB				S	**Sg**	**14 17 46.8**	**-0.5**
DACB				S	**Sg**	**14 17 46.8**	**-0.5**
PYAG	**Pyongyang**	**1.04**	**16**	Pg	**Pg**	**14 17 47.6**	**-0.5**
PYAG				Sg	**Sg**	**14 18 01.4**	**-0.3**
PYAG				AML	AML		
	comp=N,894nm,0.3s						
PYAG				AML	AML		
	comp=E,1μm,0.3s						
PYAG				AML	AML		
	comp=Z,402nm,0.5s						
GMPB	**Gimpo**	**1.05**	**129**	P	**Pn**	**14 17 49.0**	**+0.1**
	SNR=12						
KSMUS	**Musan**	**1.09**	**98**	P	**Pb**	**14 17 49.3**	**0.0**
	SNR=35						
KSINC	**Incheon**	**1.14**	**120**	P	**Pb**	**14 17 49.8**	**-0.1**
	SNR=12						
PYS	**Pyongsong**	**1.25**	**17**	Pg	**Pn**	**14 17 50.8**	**-1.0**
PYS				Sg	**Sb**	**14 18 07.3**	**-0.7**
PYS				AML	AML		
	comp=N,1μm,0.3s						
PYS				AML	AML		
	comp=E,654nm,0.2s						
PYS				AML	AML		
	comp=Z,560nm,0.5s						
NJDA	**Nanjido**	**1.29**	**141**	P	**Pn**	**14 17 51.6**	**-0.7**
	SNR=12						
WOSN	**Wonsan**	**1.94**	**55**	Sg	**Sb**	**14 18 29.0**	**+1.1**
WOSN				AML	AML		
	comp=N,235nm,0.6s						
WOSN				AML

GLKZ Green Lake 6.03 165 P **P** **14 52 20.5 +0.7**
GLKZ S **S** **14 53 39.6 -1.0**
GLKZ AML AML
MSVF Nonsavu 6.04 339 P **P** **14 52 19.4 -0.7**
comp=Z,75nm,0.6s,baz=190,slow=6.5,SNR=70
MSVF Nonsavu 6.04 339 P **P** **14 52 20.0 -0.1**
MSVF Nonsavu 6.04 339 **P** **14 52 20.0 -0.1**
MSVF Nonsavu 6.04 339 P **P** **14 52 20.5 +0.4**
MSVF AML AML
MSVF Nonsavu 6.04 339 P **P** **14 52 20.1 0.0**
comp=Z,151nm,0.7s
FUTU Fugatoga 9.19 10 **P** **14 52 51.0 +0.2**
FUTU Fugatoga 9.19 10 P **P** **14 52 51.1 +0.4**
comp=Z,137nm,1.3s
NIUE Niue 10.10 66 P **P** **14 53 00.1 +0.2**
NIUE Niue 10.10 66 S **S** **14 54 57.2 +3.1**
NIUE Niue 10.10 66 P **P** **14 53 00.3 +0.4**
NIUE Niue 10.10 66 P **P** **14 52 59.3 -0.6**
NIUE S **S** **14 54 59.1 +4.9**
MARNC Mare, Loyalty 11.50 277 P **P** **14 53 14.8 +0.5**
MARNC Mare, Loyalty 11.50 277 S **S** **14 55 23.4 +3.0**
MARNC Mare, Loyalty 11.50 277 **P** **14 53 14.1 -0.1**
PINNC Pines Island, 11.85 271 P **P** **14 53 18.9 +1.0**
PINNC Pines Island, 11.85 271 S **S** **14 55 29.0 +1.9**
PINNC Pines Island, 11.85 271 **P** **14 53 19.0 +1.0**
AFI Afiamalu 12.08 40 P **P** **14 53 17.3 -3.2**
comp=Z,19nm,0.4s,baz=324,slow=2.3,SNR=11
AFI S **S** **14 55 26.3 -5.4**
comp=Z,49nm,0.7s,baz=37,slow=16,SNR=8.7
OUENC Ouen Island, N 12.43 272 P **P** **14 53 26.4 +2.4**
YATNC Mamie plateau, 12.44 274 P **P** **14 53 24.5 +0.5**
YATNC Mamie plateau, 12.44 274 S **S** **14 55 39.9 +1.7**
ONTNC Ouen Toro 12.80 272 P **P** **14 53 27.9 +0.1**
DZM Mont Dzumac 12.84 273 P **P** **14 53 27.3 -1.0**
comp=Z,9.5nm,0.8s,baz=186,slow=22,SNR=11
OUZ Omahuta 13.12 205 P **P** **14 53 32.0 +1.2**
OUZ Omahuta 13.12 205 P **P** **14 53 32.6 +1.8**
WCZ Waipu Caves 13.49 201 P **P** **14 53 36.6 +2.0**
WIAZ Waiheke Island 14.05 197 P **P** **14 53 41.4 +1.0**
MBAZ Motutapu North 14.09 198 P **P** **14 53 42.0 +1.2**
MXZ Matakaoa Point 14.20 186 P **P** **14 53 40.4 -1.5**
ETAZ East Tamaki Re 14.25 198 P **P** **14 53 43.7 +1.2**
MKAZ Moumakai 14.33 197 P **P** **14 53 44.1 +0.8**
WTAZ Waiatarua 14.34 199 P **P** **14 53 45.5 +2.1**
AWAZ Awhitu Peninsu 14.44 198 P **P** **14 53 45.2 +0.8**
HAZ Te Kaha 14.45 188 P **P** **14 53 43.0 -1.4**
SANVU Saraoutou 14.66 300 P **P** **14 53 47.6 +0.6**
SANVU Saraoutou 14.66 300 P **P** **14 53 46.5 -0.5**
RUGZ Raukumara Rang 14.67 188 P **P** **14 53 46.9 +0.1**
TGRZ Tauranga 14.67 193 P **P** **14 53 48.0 +1.2**
PUZ Puketiti 14.71 186 P **P** **14 53 48.2 +1.0**
TWGZ Tauwhareparae 14.84 187 P **P** **14 53 48.4 -0.1**
TOZ Tahuroa Road 14.84 195 **P** **14 53 48.7 +0.3**
TOZ Tahuroa Road 14.84 195 P **P** **14 53 48.8 +0.3**
FUNA Funafuti 14.85 356 P **P** **14 53 46.7 -2.3**
FUNA Funafuti 14.85 356 P **P** **14 53 48.2 -0.7**
comp=Z,88nm,0.8s
KMRZ Kaimai 14.85 194 P **P** **14 53 49.5 +0.9**
URZ Urewera 15.04 190 P **P** **14 53 48.3 -2.2**
comp=Z,13nm,0.3s,baz=274,slow=1.1,SNR=20
URZ S **S** **14 56 23.3 -3.3**
comp=Z,16nm,0.5s,baz=212,slow=23,SNR=18
URZ Urewera 15.04 190 P **P** **14 53 48.7 -1.8**
URZ Urewera 15.04 190 P **P** **14 53 47.6 -2.9**
URZ Urewera 15.04 190 P **P** **14 53 48.0 -2.5**
comp=Z,35nm,0.7s
MWZ Matawai 15.05 188 P **P** **14 53 48.9 -1.8**
TKGZ Te Karaka 15.11 187 P **P** **14 53 50.0 -1.3**
CNGZ Carnagh Statio 15.12 186 P **P** **14 53 51.5 +0.1**
MUGZ Murupara 15.30 191 P **P** **14 53 51.6 -1.6**
HRRZ Handcock Road 15.31 192 P **P** **14 53 53.5 +0.2**
RIGZ Rimuhau 15.39 187 P **P** **14 53 53.1 -1.0**
PRRZ Plateau Road 15.39 192 P **P** **14 53 53.7 -0.4**
TLZ Tolley Road 15.40 194 P **P** **14 53 54.8 +0.5**
RTZ Ruatahuna 15.40 190 P **P** **14 53 52.4 -2.0**
MTHZ Maungataniwha 15.66 190 P **P** **14 53 54.3 -2.6**
RAHZ Arahi 15.68 189 P **P** **14 53 54.9 -2.2**
MRHZ Matea Rd 15.71 191 P **P** **14 53 54.9 -2.6**
HIZ Hauiti 15.74 196 P **P** **14 53 58.1 +0.4**
HIZ Hauiti 15.74 196 P **P** **14 53 58.3 +0.7**
NMHZ Naumai 15.90 190 P **P** **14 53 57.6 -1.7**
KATZ Kakaramea 15.99 193 P **P** **14 54 00.0 -0.2**
BKZ Black Stump Fm 16.02 191 P **P** **14 53 58.5 -2.0**
BKZ Black Stump Fm 16.02 191 P **P** **14 53 57.6 -2.9**
NTVZ North Tongarir 16.11 193 P **P** **14 54 00.4 -1.0**
TMVZ Te Maari 16.12 193 P **P** **14 54 00.2 -1.3**
WTVZ West Tongariro 16.15 193 P **P** **14 54 00.9 -0.8**
OTVZ Oturere 16.18 193 P **P** **14 54 00.2 -1.9**
NGZ Ngauruhoe 16.20 193 P **P** **14 54 03.0 +0.7**
SNVZ South Ngauruho 16.20 193 P **P** **14 54 01.3 -1.0**
COVZ Chateau Observ 16.24 193 P **P** **14 54 02.4 -0.2**
KWHZ Kaweka Forest 16.29 191 P **P** **14 54 01.1 -1.9**
TRVZ Turoa 16.33 193 P **P** **14 54 03.7 +0.1**
VRZ Vera Road 16.34 195 P **P** **14 54 04.8 +1.3**
WNVZ Wahianoa 16.35 193 P **P** **14 54 01.3 -2.4**
PKVZ Pokaka 16.36 194 P **P** **14 54 02.1 -1.6**
MOVZ Moawhango 16.39 193 P **P** **14 54 03.1 -0.9**
BHHZ Black Hill Sta 16.41 192 P **P** **14 54 00.7 -3.5**
KRHZ Kereru 16.51 191 P **P** **14 54 02.8 -2.2**
KAHZ Kahuranaki 16.58 189 P **P** **14 54 04.3 -1.3**
NEZ North Egmont 16.65 197 P **P** **14 54 09.0 +2.6**
KHEZ Kahui Hut 16.70 197 P **P** **14 54 06.2 -0.5**
LREZ Lake Rotokare 16.75 196 P **P** **14 54 08.6 +1.5**
PNHZ Pukenui 16.80 191 P **P** **14 54 05.1 -2.5**
PXZ Pawanui 16.81 189 P **P** **14 54 05.4 -2.3**
WAZ Wanganui 16.89 194 P **P** **14 54 08.3 -0.1**
TSZ Takapari Road 16.98 191 P **P** **14 54 07.5 -1.7**
DVHZ Dannevirke 17.18 191 P **P** **14 54 08.9 -2.2**
ANWZ Angora Road 17.29 190 P **P** **14 54 11.2 -0.8**
BFZ Birch Farm 17.54 190 P **P** **14 54 13.0 -1.3**
BFZ Birch Farm 17.54 190 P **P** **14 54 12.4 -1.9**
MRZ Mangatainoka R 17.64 192 **P** **14 54 13.3 -1.9**
MRZ IAmb IAmb 14 54 14.6
comp=Z,19nm,0.5s
MRZ Mangatainoka R 17.64 192 P **P** **14 54 12.8 -2.5**
SNZO South Karori 18.44 193 P **P** **14 54 22.0 -0.5**
TCW Tory Channel 18.44 194 P **P** **14 54 21.9 -0.6**
QRZ Quartz Range 18.54 199 P **P** **14 54 24.4 +1.0**
QRZ Quartz Range 18.54 199 P **P** **14 54 24.7 +1.3**
QRZ Quartz Range 18.54 199 P **P** **14 54 24.4 +1.0**
RAR Rarotonga 18.58 87 P **P** **14 54 23.4 -0.7**
comp=Z,21nm,0.8s,baz=236,slow=7.2,SNR=4.3
RAR Rarotonga 18.58 87 P **P** **14 54 24.4 +0.3**
RAR pmax pmax
comp=Z,117nm,1.7s
RAR Rarotonga 18.58 87 P **P** **14 54 24.4 +0.3**
TKNZ Takaka Hill 18.61 198 P **P** **14 54 24.1 0.0**
NNZ Nelson 18.67 196 **P** **14 54 24.5 0.0**
NNZ Nelson 18.67 196 P **P** **14 54 24.8 +0.2**
TUWZ Tuamarina 18.73 195 P **P** **14 54 24.6 -0.5**
THZ Tophouse 19.30 197 **P** **14 54 30.3 -0.2**
THZ IAmb IAmb 14 54 34.1
comp=Z,32nm,0.5s
THZ Tophouse 19.30 197 P **P** **14 54 30.1 -0.3**
DSZ Denniston Nort 19.60 199 P **P** **14 54 33.5 +0.3**
DSZ Denniston Nort 19.60 199 P **P** **14 54 33.4 +0.3**
KHZ Kahutara 19.76 195 P **P** **14 54 33.8 -0.6**
KHZ Kahutara 19.76 195 **P** **14 54 33.8 -0.6**
KHZ IAmb IAmb 14 54 35.6
comp=Z,99nm,1.6s
KHZ Kahutara 19.76 195 P **P** **14 54 33.8 -0.6**
KHZ Kahutara 19.76 195 P **P** **14 54 34.0 -0.5**
comp=Z,34nm,1.1s
GVZ Greta Valley S 20.40 195 **P** **14 54 39.0 -1.3**
GVZ IAmb IAmb 14 54 41.1
comp=Z,53nm,0.9s
GVZ Greta Valley S 20.40 195 P **P** **14 54 39.2 -1.2**
LTZ Lake Taylor 20.42 197 P **P** **14 54 39.4 -1.2**
LTZ Lake Taylor 20.42 197 P **P** **14 54 39.4 -1.2**
LHI Lord Howe Isla 20.46 242 P **P** **14 54 40.6 -0.5**
LHI IAmb IAmb 14 54 44.9
comp=Z,68nm,1.4s
INZ Inchbonnie 20.60 199 **P** **14 54 41.7 -0.4**
INZ IAmb IAmb 14 54 44.3
comp=Z,37nm,0.6s
INZ Inchbonnie 20.60 199 P **P** **14 54 41.8 -0.3**
OXZ Oxford 20.99 197 P **P** **14 54 45.0 -0.6**
OXZ Oxford 20.99 197 P **P** **14 54 45.3 -0.3**
WVZ Waitaha Valley 21.14 200 P **P** **14 54 46.8 -0.2**
MQZ McQueen's Vall 21.19 195 P **P** **14 54 46.7 -0.7**
RPZ Rata Peaks 21.62 198 P **P** **14 54 51.4 0.0**
comp=Z,9.1nm,0.5s,baz=28,slow=4.6,SNR=16
comp=Z,9.1nm,0.5s
RPZ Rata Peaks 21.62 198 P **P** **14 54 51.3 0.0**
RPZ Rata Peaks 21.62 198 **P** **14 54 50.4 -0.9**
RPZ IAmb IAmb 14 54 56.0
comp=Z,39nm,0.6s
RPZ Rata Peaks 21.62 198 P **P** **14 54 51.5 +0.1**
HURO Huro Makira 21.77 303 P **P** **14 54 52.0 -1.0**
FOZ Fox Glacier 21.84 201 P **P** **14 54 52.3 -1.0**
FOZ IAmb IAmb 14 54 55.0
comp=Z,49nm,1.1s
FOZ Fox Glacier 21.84 201 P **P** **14 54 52.6 -0.7**
TMZ Timaru 22.25 198 P **P** **14 54 57.3 +0.3**
LBZ Lake Benmore 22.49 199 P **P** **14 54 57.5 -1.7**
NGOA Tingoa Renbel 22.58 298 P **P** **14 55 00.2 -0.1**
JCZ Jackson Bay 22.66 202 P **P** **14 55 00.7 -0.1**
JCZ Jackson Bay 22.66 202 P **P** **14 55 00.4 -0.3**
ODZ Otahua Downs 22.96 198 P **P** **14 55 02.8 -0.5**
ODZ Otahua Downs 22.96 198 P **P** **14 55 02.3 -1.0**
WKZ Wanaka 23.25 201 P **P** **14 55 05.2 -0.7**
MSZ Milford Sound 23.49 203 P **P** **14 55 09.1 +1.1**
EAZ Earnscleugh 23.52 200 P **P** **14 55 08.1 -0.2**
MLZ Mavora Lakes 24.03 201 P **P** **14 55 12.9 +0.1**
MLZ IAmb IAmb 14 55 15.5
comp=Z,14nm,0.5s
MLZ Mavora Lakes 24.03 201 P **P** **14 55 13.3 +0.5**
WHZ Wether Hill Ro 24.55 201 P **P** **14 55 16.8 -0.6**
TATA Tatamba Isabel 24.67 304 P **P** **14 55 17.4 -1.5**
ARMA Armidale 26.44 249 P **P** **14 55 35.4 +1.0**
ARMA Armidale 26.44 249 P **P** **14 55 35.4 +1.0**
ARMA IAmb IAmb 14 55 36.6
comp=Z,18nm,0.9s
ARMA Armidale 26.44 249 P **P** **14 55 35.9 +1.4**
comp=Z,24nm,0.9s
EIDS Eidsvold 26.64 260 P **P** **14 55 36.4 +0.2**
EIDS Eidsvold 26.64 260 **P** **14 55 35.1 -1.1**
EIDS IAmb IAmb 14 55 37.8
comp=Z,28nm,1.1s
EIDS Eidsvold 26.64 260 P **P** **14 55 36.7 +0.5**
comp=Z,34nm,0.9s
SYDH Sydney Hard Ro 27.82 242 P **P** **14 55 46.9 +0.5**
PAE Paea 28.76 84 *eP* **P** **14 55 54.6 -0.1**
comp=Z,70nm,1.1s
PPT2 Papeete2 28.79 84 *eP* **P** **14 55 56.3 +1.3**
comp=Z,39nm,1.1s
PPT2 *eS* **S** **15 00 00.8 -5.8**
comp=Z,42nm,23.2s
PPT2 *es*S **sS** **15 02 55.3 +1.1**
comp=Z,240nm,26.5s
PPT Papeete 28.79 84 P **P** **14 55 56.8 +1.8**
comp=Z,40nm,1.0s,baz=299,slow=2.5,SNR=4.4
comp=Z,40nm,1.0s
PPTF Pamatai, Papee 28.80 84 P **P** **14 55 55.7 +0.5**
TIAR Tiarei 29.00 84 *eP* **P** **14 55 57.9 +1.0**
comp=Z,434nm,1.0s
TVO Taravao 29.03 85 *eP* **P** **14 55 57.5 +0.4**
comp=Z,41nm,0.8s
CAN Canberra 29.61 239 P **P** **14 56 02.9 +1.0**
CAN Canberra 29.61 239 P **P** **14 56 02.7 +0.7**
CAN pmax pmax
comp=Z,30nm,0.7s
CAN Canberra 29.61 239 P **P** **14 56 02.7 +0.7**
CAN IAmb IAmb 14 56 03.8
comp=Z,30nm,0.7s
CAN Canberra 29.61 239 P **P** **14 56 03.1 +1.2**
comp=Z,53nm,1.1s
PMOR Pomarlorio Ree 31.14 80 *eP* **P** **14 56 16.0 +0.8**
comp=Z,90nm,1.2s
VAH Vaihoa 31.30 81 *eP* **P** **14 56 17.2 +0.6**
comp=Z,55nm,1.0s
CMSA Cobar Meteorol 31.64 248 P **P** **14 56 19.6 +0.3**
CMSA Cobar Meteorol 31.64 248 P **P** **14 56 19.9 +0.6**
comp=Z,69nm,0.7s
CTA Charters Tower 31.74 269 P **P** **14 56 20.5 +0.1**
comp=Z,73nm,0.5s,baz=96,slow=9.9,SNR=39
comp=Z,73nm,0.5s
CTA Charters Tower 31.74 269 P **P** **14 56 20.2 -0.2**
CTAO Charters Tower 31.74 269 P **P** **14 56 20.2 -0.2**
CTAO Charters Tower 31.74 269 P **P** **14 56 20.7 +0.3**
CTAO pmax pmax
comp=Z,91nm,0.6s
CTAO Charters Tower 31.74 269 P **P** **14 56 20.6 +0.3**
CTAO Charters Tower 31.74 269 P **P** **14 56 21.1 +0.7**
comp=Z,127nm,0.7s
CTAO Charters Tower 31.74 269 P **P** **14 56 20.4 +0.1**
QLP Quilpie 32.76 257 P **P** **14 56 28.7 -0.2**
QLP Quilpie 32.76 257 P **P** **14 56 29.2 +0.2**
comp=Z,77nm,0.8s
XMAS Kiritimati 33.33 44 P **P** **14 56 34.8 +1.0**
XMAS IAmb IAmb 14 56 35.6
comp=Z,64nm,0.8s
TAU Tasmania Unive 33.45 226 P **P** **14 56 35.4 +0.9**
TAU Tasmania Unive 33.45 226 P **P** **14 56 34.9 +0.4**
TAU pmax pmax
comp=Z,139nm,1.9s
TAU Tasmania Unive 33.45 226 P **P** **14 56 34.9 +0.4**
TAU IAmb IAmb 14 57 38.5
comp=Z,139nm,1.9s
MTSU Mount Surprise 33.98 272 P **P** **14 56 39.5 +0.2**
MTSU Mount Surprise 33.98 272 P **P** **14 56 39.6 +0.3**
comp=Z,56nm,0.7s
PMG Port Moresby 34.59 288 P **P** **14 56 44.1 -0.4**
PMG Port Moresby 34.59 288 P **P** **14 56 44.1 -0.4**
PMG pmax pmax
comp=Z,88nm,0.8s
PMG Port Moresby 34.59 288 **P** **14 56 44.1 -0.4**
PMG Port Moresby 34.59 288 P **P** **14 56 43.4 -1.0**
comp=Z,985nmcomp=Z,119nm,0.9s
PMG Port Moresby 34.59 288 P **P** **14 56 44.2 -0.2**
comp=Z,122nm,0.9s
PMG Port Moresby 34.59 288 P **P** **14 56 44.0 -0.4**
STKA Stephens Creek 35.14 248 P **P** **14 56 49.3 +0.3**
comp=Z,23nm,0.7s,baz=92,slow=9.2,SNR=64
comp=Z,23nm,0.7s
STKA Stephens Creek 35.14 248 P **P** **14 56 49.2 +0.3**
STKA Stephens Creek 35.14 248 P **P** **14 56 49.2 +0.3**
STKA pmax pmax
comp=Z,103nm,0.7s
STKA Stephens Creek 35.14 248 P **P** **14 56 49.2 +0.3**
STKA Stephens Creek 35.14 248 P **P** **14 56 49.5 +0.6**
comp=Z,145nm,0.7s
INKA Innaminka 35.82 255 P **P** **14 56 54.8 +0.3**
MGBR Mount Gambier 36.76 238 P **P** **14 57 02.5 +0.4**
PATS Pohnpei 36.95 322 P **P** **14 57 03.8 -0.2**
HTT Hallett 37.51 245 P **P** **14 57 08.4 0.0**
QIS Mount Isa 37.74 266 P **P** **14 57 09.8 -0.6**
QIS Mount Isa 37.74 266 P **P** **14 57 10.3 -0.1**
comp=Z,10nm,0.8s
MANU Manus Island 38.32 299 P **P** **14 57 14.3 -0.9**
BBOO Buckleboo 39.87 246 P **P** **14 57 26.7 -0.7**
BBOO Buckleboo 39.87 246 P **P** **14 57 26.8 -0.7**
BBOO IAmb IAmb 14 57 27.8
comp=Z,25nm,1.1s
BBOO Buckleboo 39.87 246 P **P** **14 57 27.1 -0.3**
comp=Z,31nm,0.9s
TAOE Nuku Hiva Isla 40.52 76 P **P** **14 57 34.4 +1.5**
comp=Z,88nm,1.1s
AS01 Alice Springs 42.33 260 P **P** **14 57 46.4 -0.7**
AS31 Alice Springs 42.37 260 **P** **14 57 46.5 -0.9**
ASAR Alice Springs 42.37 260 P **P** **14 57 47.1 -0.3**
comp=Z,39nm,0.7s,baz=94,slow=7.1,SNR=403
ASAR PcP **PcP** **14 59 26.8 -1.2**
comp=Z,3.9nm,0.7s,baz=90,slow=5.0,SNR=5.5
ASAR ScP **ScP** **15 02 28.0 +1.5**
comp=Z,3.0nm,0.9s,baz=108,slow=4.5,SNR=7.2
ASAR S **S** **15 03 26.6 -2.9**
comp=Z,3.6nm,0.7s,baz=96,slow=14,SNR=17
comp=Z,39nm,0.7s
ASAR Alice Springs 42.37 260 P **P** **14 57 46.9 -0.6**
ASAR Alice Springs 42.37 260 P **P** **14 57 46.9 -0.6**
WR8 Warramunga Arr 42.55 266 IAmb IAmb 14 57 48.8
comp=Z,28nm,0.7s
WB0 Warramunga Arr 42.69 266 IAmb IAmb 14 57 49.9
comp=Z,52nm,0.6s
WRAB Tennant Creek 42.69 266 P **P** **14 57 48.6 -1.4**
WRAB Tennant Creek 42.69 266 P **P** **14 57 48.8 -1.1**
WRAB pmax pmax
comp=Z,38nm,0.8s
WRAB Tennant Creek 42.69 266 P **P** **14 57 48.8 -1.1**
WRAB IAmb IAmb 14 57 49.9
comp=Z,38nm,0.8s
WRAB Tennant Creek 42.69 266 P **P** **14 57 49.1 -0.9**
comp=Z,60nm,0.8s
WRAB Tennant Creek 42.69 266 P **P** **14 57 48.9 -1.1**
WRA Warramunga Arr 42.70 266 P **P** **14 57 49.0 -1.0**
comp=Z,36nm,0.6s,baz=102,slow=8.1,SNR=355
WRA PcP **PcP** **14 59 29.0 -0.2**
comp=Z,1.2nm,0.6s,baz=97,slow=3.8,SNR=5.1
WRA ScP **ScP** **15 02 29.8 +1.9**
comp=Z,4.1nm,0.7s,baz=99,slow=3.9,SNR=10
WRA S **S** **15 03 30.0 -4.1**
comp=Z,5.6nm,1.0s,baz=100,slow=14,SNR=9.2
comp=Z,36nm,0.6s
WRA Warramunga Arr 42.70 266 P **P** **14 57 48.1 -1.9**
WRA PcP **PcP** **14 59 29.8 +0.6**
WRA ScP **ScP** **15 02 30.6 +2.7**
GENI Genyem 43.99 292 P **P** **14 57 59.8 -0.3**
comp=Z,69nm,0.8s
GENI Genyem 43.99 292 P **P** **14 57 59.2 -0.8**
comp=Z,70nm,0.8s
FORT Forrest 46.72 249 P **P** **14 58 20.1 -0.7**
FORT IAmb IAmb 14 58 21.3
comp=Z,48nm,0.7s
FORT PcP **PcP** **14 59 44.6 +1.6**
MTN Manton Dam 47.68 274 P **P** **14 58 26.6 -1.6**
DRS Darwin Rock St 48.04 274 P **P** **14 58 30.3 -0.5**
BAKI Biak 48.18 291 P **P** **14 58 32.7 +0.8**
comp=Z,103nm,0.9s
WOH Wood Valley 48.55 31 P **P** **14 58 33.5 -1.1**
KHLU Kahalu`u 48.66 30 P **P** **14 58 35.6 +0.2**
KHLU Kahalu`u 48.66 30 P **P** **14 58 35.9 +0.5**
comp=Z,96nm,0.9s
MLH Mauna Loa 48.82 31 P **P** **14 58 37.7 +1.0**
HMH Humu'ula Sheep 48.86 31 P **P** **14 58 37.8 +0.7**
KNRA Kununurra 48.95 269 P **P** **14 58 37.0 -0.6**
KNRA IAmb IAmb 14 58 38.2
comp=Z,28nm,1.1s
HPAH Hawaii Prepara 49.13 30 P **P** **14 58 39.2 +0.4**
MHA Mahukona 49.17 30 P **P** **14 58 40.2 +1.2**
MHA Mahukona 49.17 30 P **P** **14 58 40.2 +1.2**
GUMO Guam 50.53 313 P **P** **14 58 48.9 -0.2**
GUMO Guam 50.53 313 P **P** **14 58 48.9 -0.2**
GUMO pmax pmax
comp=Z,118nm,0.8s
GUMO Guam 50.53 313 P **P** **14 58 48.9 -0.2**
GUMO Guam 50.53 313 P **P** **14 58 49.0 -0.2**
comp=Z,175nm,1.2s
GUMO Guam 50.53 313 P **P** **14 58 48.8 -0.3**
FAKI Fak Fak 50.70 286 P **P** **14 58 49.5 -0.9**
FAKI Fak Fak 50.70 286 P **P** **14 58 49.3 -1.1**
FAKI IAmb IAmb 14 58 50.4
comp=Z,28nm,1.0s
FAKI Fak Fak 50.70 286 P **P** **14 58 49.7 -0.7**
comp=Z,33nm,1.0s
FAKI Fak Fak 50.70 286 P **P** **14 58 49.9 -0.5**
comp=Z,33nm,1.0s
FITZ Fitzroy Crossi 51.13 265 P **P** **14 58 53.9 +0.4**
FITZ Fitzroy Crossi 51.13 265 P **P** **14 58 53.6 +0.1**
comp=Z,12nm,0.9s
MIDW Midway 51.39 3 P **P** **14 58 55.1 0.0**
MIDW IAmb IAmb 14 58 55.7
comp=Z,37nm,0.7s
BNDI Bandanaira 52.05 283 P **P** **14 58 59.3 -0.9**
comp=Z,111nm,1.0s
SBA Scott Base 54.87 183 P **P** **14 59 22.4 +3.3**
SBA 15 00 14.1
SBA pmax pmax
comp=Z,10.0nm,0.9s
SBA Scott Base 54.87 183 P **P** **14 59 22.4 +3.3**
SBA PcP **PcP** **15 00 14.1 +1.3**
SBA Scott Base 54.87 183 P **P** **14 59 22.4 +3.3**
comp=Z,15nm,1.0s
SBA Scott Base 54.87 183 P **P** **14 59 22.1 +3.0**
SBA PcP **PcP** **15 00 15.0 +2.2**
VNDA Vanda 54.87 185 P **P** **14 59 21.8 +2.6**
VNDA ScP **ScP** **15 03 19.5 +0.8**
comp=Z,2.2nm,0.7s,baz=352,slow=8.1,SNR=16
comp=Z,0.8nm,0.8s,baz=328,slow=5.1,SNR=5.0
comp=Z,2.2nm,0.7s
VNDA Vanda 54.87 185 P **P** **14 59 20.8 +1.6**
VNDA pmax pmax
comp=Z,3.0nm,0.9s
VNDA Vanda 54.87 185 P **P** **14 59 20.8 +1.6**
VNDA Vanda 54.87 185 P **P** **14 59 21.7 +2.6**
VNDA Vanda 54.87 185 P **P** **14 59 21.1 +1.9**
VNDA PcP **PcP** **15 00 14.2 +1.4**
SOEI Soe 55.07 274 P **P** **14 59 22.5 +0.8**
SOEI Soe 55.07 274 P **P** **14 59 20.9 -0.8**
SOEI IAmb IAmb 14 59 32.6
comp=Z,106nm,0.9s
SOEI Soe 55.07 274 P **P** **14 59 22.9 +1.2**
comp=Z,1µmcomp=Z,123nm,1.0s
SOEI Soe 55.07 274 P **P** **14 59 22.9 +1.2**
comp=Z,125nm,0.9s
KLBR Kellerberrin 55.41 247 P **P** **14 59 23.3 -0.4**
KLBR Kellerberrin 55.41 247 P **P** **14 59 23.3 -0.4**
comp=Z,173nm,0.7s
MEEK Meekatharra 55.50 253 P **P** **14 59 23.5 -1.0**
MEEK Meekatharra 55.50 253 P **P** **14 59 23.6 -0.8**
comp=Z,22nm,1.0s
NWAO Narrogin (SRO) 55.67 245 P **P** **14 59 25.0 -0.5**
NWAO Narrogin (SRO) 55.67 245 P **P** **14 59 25.1 -0.5**
NWAO Narrogin (SRO) 55.67 245 P **P** **14 59 24.1 -1.4**
NWAO pmax pmax
comp=Z,38nm,1.2s
NWAO Narrogin (SRO) 55.67 245 P **P** **14 59 24.1 -1.4**
NWAO Narrogin (SRO) 55.67 245 P **P** **14 59 25.0 -0.5**
MBWA Marble Bar 55.71 260 P **P** **14 59 25.0 -1.0**
MBWA Marble Bar 55.71 260 P **P** **14 59 24.9 -1.1**
MBWA IAmb IAmb 14 59 26.1
comp=Z,42nm,0.7s
MBWA Marble Bar 55.71 260 P **P** **14 59 25.4 -0.6**
comp=Z,58nm,0.8s
MBWA Marble Bar 55.71 260 P **P** **14 59 25.2 -0.7**
BLDU Ballidu 56.45 248 P **P** **14 59 29.9 -1.0**
BLDU Ballidu 56.45 248 P **P** **14 59 30.4 -0.5**
comp=Z,46nm,0.8s
SANI Sanana 56.65 284 P **P** **14 59 31.6 -0.9**
SANI Sanana 56.65 284 P **P** **14 59 31.1 -1.4**
comp=Z,34nm,0.7s
SANI Sanana 56.65 284 P **P** **14 59 31.5 -1.0**
comp=Z,33nm,0.9s
TNTI Ternate 56.73 287 P **P** **14 59 32.2 -0.9**
TNTI IAmb IAmb 14 59 33.3
comp=Z,29nm,0.8s
TNTI Ternate 56.73 287 P **P** **14 59 32.4 -0.7**
comp=Z,42nm,0.9s
TNTI Ternate 56.73 287 P **P** **14 59 31.8 -1.3**
comp=Z,42nm,1.0s
MORW Morawa 57.28 250 P **P** **14 59 36.2 -0.5**
MORW Morawa 57.28 250 P **P** **14 59 35.8 -0.8**
MORW IAmb IAmb 14 59 37.1
comp=Z,34nm,0.6s
MORW Morawa 57.28 250 P **P** **14 59 36.4 -0.2**
comp=Z,51nm,0.9s
EDFI Ende, Flores 57.80 274 P **P** **14 59 39.4 -1.1**
comp=Z,717nmcomp=Z,76nm,0.8s
BBSI Bau Bau 58.27 278 P **P** **14 59 43.1 -0.4**
comp=Z,39nm,1.0s
WSI Waingapu 58.74 273 P **P** **14 59 46.7 0.0**
KDI Kendari 58.85 280 P **P** **14 59 46.8 -0.6**
comp=Z,801nmcomp=Z,28nm,0.9s
CCD Concordia, Ant 59.25 195 P **P** **14 59 50.2 +0.6**
CCD PcP **PcP** **15 00 30.7 0.0**
LBFI Labuhan Bajo, 59.55 274 P **P** **14 59 51.6 -0.5**
LUWI Luwuk 59.97 283 P **P** **14 59 54.5 -0.4**
LUWI IAmb IAmb 14 59 55.6
comp=Z,46nm,0.9s
LUWI Luwuk 59.97 283 P **P** **14 59 54.8 -0.1**
comp=Z,64nm,0.9s
LUWI Luwuk 59.97 283 P **P** **14 59 54.9 -0.1**
comp=Z,64nm,0.9s
GIRL Giralia 60.28 256 P **P** **14 59 57.5 +0.7**
GIRL IAmb IAmb 15 01 01.1
comp=Z,106nm,1.4s
BKSI Bulukumba 60.56 277 P **P** **14 59 57.7 -1.1**
comp=Z,318nmcomp=Z,42nm,0.7s
CASY Casey 60.65 206 P **P** **14 59 58.9 +0.4**
DBNI Kabupaten Domp 60.99 273 P **P** **15 00 00.6 -1.0**
comp=Z,77nm,0.7s
KAPI Kappang 61.02 277 P **P** **15 00 00.9 -1.0**
KAPI pmax pmax
comp=Z,13nm,1.1s
KAPI Kappang 61.02 277 P **P** **15 00 00.9 -1.0**
KAPI Kappang 61.02 277 P **P** **15 00 01.5 -0.3**
comp=Z,14nm,0.9s
APSI Ampana 61.04 283 P **P** **15 00 01.5 -0.4**
comp=Z,27nm,0.9s
PLAI Plampang 61.36 273 P **P** **15 00 03.3 -0.7**
PLAI Plampang 61.36 273 P **P** **15 00 03.5 -0.5**

comp=Z,984nmcomp=Z,97nm,0.9s
PLAI Plampang 61.36 273 P **P** **15 00 03.5 -0.5**
comp=Z,96nm,0.9s
TTSI Tana Toraja 61.77 280 P **P** **15 00 05.7 -1.0**
comp=Z,21nm,1.1s
PCI Palu 62.66 282 P **P** **15 00 13.2 +0.7**
comp=Z,53nm,1.1s
TOLI2 Tolitoli 62.71 284 P **P** **15 00 11.8 -1.0**
TOLI2 Tolitoli 62.71 284 **P** **15 00 11.3 -1.6**
TOLI2 IAmb IAmb 15 00 14.2
comp=Z,33nm,0.7s
TOLI2 Tolitoli 62.71 284 P **P** **15 00 11.6 -1.2**
comp=Z,49nm,0.7s
JAGI Jajag, Banyuwa 64.82 272 P **P** **15 00 25.1 -1.2**
JAGI Jajag, Banyuwa 64.82 272 P **P** **15 00 24.9 -1.4**
JAGI IAmb IAmb 15 01 37.5
comp=Z,41nm,1.3s
QSPA South Pole Qui 66.66 180 P **P** **15 00 38.6 +1.6**
comp=Z,8.6nm,0.8s,baz=29,slow=1.3,SNR=42
comp=Z,8.6nm,0.8s
QSPA South Pole Qui 66.66 180 **P** **15 00 38.4 +1.4**
QSPA South Pole Qui 66.66 180 P **P** **15 00 38.9 +1.9**
comp=Z,18nm,1.0s
QSPA South Pole Qui 66.66 180 P **P** **15 00 38.5 +1.4**
QSPA pP **pP** **15 02 26.8 -1.1**
SNJI Sawahan-Nganju 67.27 271 P **P** **15 00 41.7 0.0**
comp=Z,50nm,1.5s
JHJ2 Mitsune 68.19 324 P **P** **15 00 47.0 +0.4**
UGM Wanagama 68.36 271 P **P** **15 00 47.9 -0.3**
UGM Wanagama 68.36 271 P **P** **15 00 47.5 -0.7**
KKM Kota Kinabalu 69.02 287 P **P** **15 00 52.0 -0.2**
KKM Kota Kinabalu 69.02 287 P **P** **15 00 51.7 -0.5**
KKM IAmb IAmb 15 02 04.6
comp=Z,68nm,1.3s
JOW Kunigami 70.87 312 P **P** **15 01 03.6 +0.8**
JOW Kunigami 70.87 312 P **P** **15 01 02.8 0.0**
JOW IAmb IAmb 15 01 04.3
comp=Z,38nm,0.9s
BBJI Bungbulang 71.16 270 P **P** **15 01 04.2 -0.7**
BBJI Bungbulang 71.16 270 P **P** **15 01 03.6 -1.3**
BBJI IAmb IAmb 15 01 26.7
comp=Z,31nm,1.2s
JGF Kuroka 71.39 324 P **P** **15 01 04.8 -0.9**
JGF Kuroka 71.39 324 P **P** **15 01 05.4 -0.3**
JGF IAmb IAmb 15 03 20.6
comp=Z,96nm,2.0s
MJAR Matsushiro Arr 71.65 325 P **P** **15 01 07.1 -0.1**
comp=Z,9.1nm,0.9s,baz=160,slow=6.2,SNR=20
comp=Z,9.1nm,0.9s
MAJO Matsushiro 71.66 325 P **P** **15 01 06.9 -0.3**
MAJO pmax pmax
comp=Z,12nm,0.9s
MAJO Matsushiro 71.66 325 P **P** **15 01 06.9 -0.3**
MAJO Matsushiro 71.66 325 P **P** **15 01 07.2 0.0**
comp=Z,16nm,0.9s
MAJO Matsushiro 71.66 325 P **P** **15 01 07.0 -0.2**
MAJO PcP **PcP** **15 01 23.1 +0.6**
MJB9 Matsu-Tunnel 71.66 325 P **P** **15 01 07.9 +0.6**
JMN Monobe 71.98 321 P **P** **15 01 08.9 -0.3**
JMN IAmb IAmb 15 03 46.0
comp=Z,111nm,1.4s
JSU Suzuyama 72.51 317 P **P** **15 01 12.3 +0.1**
JTM Tenmabayashi 73.55 330 P **P** **15 01 18.3 +0.4**
NACB Ninganchiao 74.04 306 P **P** **15 01 19.4 -1.7**
NACB Ninganchiao 74.04 306 P **P** **15 01 20.5 -0.6**
NACB IAmb IAmb 15 01 21.8
comp=Z,52nm,1.1s
NACB Ninganchiao 74.04 306 P **P** **15 01 20.7 -0.4**
comp=Z,44nm,1.5s
TPUB Ta-pu 74.27 304 P **P** **15 01 20.7 -1.7**
TPUB IAmb IAmb 15 01 22.4
comp=Z,27nm,0.8s
TPUB Ta-pu 74.27 304 P **P** **15 01 21.4 -1.0**
comp=Z,38nm,0.9s
SSLB Suanglung 74.30 305 P **P** **15 01 21.0 -1.6**
SSLB IAmb IAmb 15 01 22.2
comp=Z,23nm,0.8s
SSLB Suanglung 74.30 305 P **P** **15 01 21.7 -1.0**
comp=Z,34nm,0.9s
YHNB Yeheng 74.48 306 IAmb IAmb 15 01 24.8
comp=Z,69nm,1.6s
TATO Taipei 74.58 306 P **P** **15 01 23.8 -0.4**
comp=Z,75nm,0.9s
ADK Adak 75.03 2 P **P** **15 01 25.3 -0.7**
ADK Adak 75.03 2 P **P** **15 01 26.0 0.0**
ATKA Atka Island 75.45 4 P **P** **15 01 27.9 -0.5**
JKA Kamikawa-asahi 75.56 333 P **P** **15 01 30.6 +1.4**
ASAJ Asahikawa 75.56 333 P **P** **15 01 30.6 +1.4**
ASAJ pmax pmax
comp=Z,277nm,1.7s
QZH2 Quanzhou 76.72 305 P **P** **15 01 36.4 +0.4**
UNV Unalaska Valle 77.79 8 P **P** **15 01 40.3 -0.8**
UNV Unalaska Valle 77.79 8 P **P** **15 01 40.8 -0.3**
YSS Yuzhno-Sakhali 77.82 335 *e*P **P** **15 01 43.1 +1.7**
YSS pmax pmax
comp=Z,20nm,0.6s
YSS Yuzhno-Sakhali 77.82 335 P **P** **15 01 42.2 +0.8**
YSS IAmb IAmb 15 02 55.3
comp=Z,114nm,1.5s
KSRS Korea Array 78.05 320 P **P** **15 01 44.0 +1.1**
comp=Z,5.1nm,0.7s,baz=136,slow=5.4,SNR=12
comp=Z,5.1nm,0.7s
MAW Mawson 78.29 200 P **P** **15 01 44.6 +0.8**
comp=Z,5.8nm,0.8s,baz=107,slow=4.7,SNR=9.3
comp=Z,5.8nm,0.8s
MAW Mawson 78.29 200 P **P** **15 01 44.1 +0.4**
MAW pmax pmax
comp=Z,7.0nm,1.6s
MAW Mawson 78.29 200 P **P** **15 01 44.1 +0.4**
PEA0B Petropavlovsk- 78.70 346 P **P** **15 01 46.3 +0.2**
PEA0B pmax pmax
comp=Z,231nm,1.8s
PEA0B Petropavlovsk- 78.70 346 P **P** **15 01 46.3 +0.2**
PETK Petropavlovsk- 78.70 346 P **P** **15 01 46.5 +0.5**
comp=Z,21nm,0.9s,baz=224,slow=4.1,SNR=18
PETK PP **PP** **15 04 53.1 -1.6**
comp=Z,15nm,1.1s,baz=142,slow=7.5,SNR=3.5
comp=Z,21nm,0.9s
PETK Petropavlovsk- 78.70 346 P **P** **15 01 46.1 0.0**
PETK Petropavlovsk- 78.70 346 P **P** **15 01 46.0 0.0**
USA0B Ussuriysk Arra 80.51 327 P **P** **15 01 55.9 +0.2**
USA0B pmax pmax
comp=Z,174nm,2.0s
USA0B Ussuriysk Arra 80.51 327 P **P** **15 01 55.9 +0.2**
USA0B IAmb IAmb 15 01 57.2
comp=Z,174nm,2.0s
USRK Ussuriysk Ar. 80.51 327 P **P** **15 01 56.9 +1.1**
comp=Z,12nm,0.8s,baz=119,slow=5.0,SNR=14
comp=Z,12nm,0.8s
USRK Ussuriysk Ar. 80.51 327 P **P** **15 01 57.4 +1.7**
USRK Ussuriysk Ar. 80.51 327 P **P** **15 01 57.4 +1.7**
NJ2 Nanjing 80.55 311 *e*P **P** **15 01 57.5 +1.3**
NJ2 pmax pmax
comp=Z,16nm,1.5s
TYV Tymovskoe 81.07 337 *e*P **P** **15 01 59.4 +0.9**
TYV pmax pmax
comp=Z,23nm,1.1s
TYV pmax pmax
comp=Z,500nm,4.2s
IPM Ipoh 81.95 278 P **P** **15 02 03.8 -0.2**
IPM IAmb IAmb 15 02 04.7
comp=Z,20nm,0.7s
IPM Ipoh 81.95 278 P **P** **15 02 04.2 +0.2**
comp=Z,27nm,1.2s
IPM Ipoh 81.95 278 P **P** **15 02 04.2 +0.2**
comp=Z,27nm,1.2s
WHN Wuhan 82.92 307 ⇑P **P** **15 02 09.5 +1.1**
OHAK Old Harbor 83.35 14 P **P** **15 02 10.1 +0.2**
ELIB Princess Elisa 83.57 187 *d*P **P** **15 02 11.7 +0.5**
comp=Z,4.1nm,1.4s
CN2 Changchun 83.66 323 P **P** **15 02 10.6 -1.2**
CN2 pmax pmax
comp=Z,10.0nm,1.0s
BNX BinXian 83.91 326 ⇑P **P** **15 02 13.3 +0.4**
BNX pmax pmax
comp=Z,24nm,0.9s
KDAK Kodiak Island 84.02 14 P **P** **15 02 13.6 +0.4**
comp=Z,3.3nm,0.6s,baz=248,slow=1.1,SNR=4.6
comp=Z,3.3nm,0.6s
KDAK Kodiak Island 84.02 14 P **P** **15 02 13.6 +0.4**
NVAR Mina Array Bea 84.23 44 P **P** **15 02 15.7 +0.7**
comp=Z,3.0nm,1.1s,baz=220,slow=7.0,SNR=4.6
comp=Z,3.0nm,1.1s
KLR Kul'dur 84.25 330 *i* P **P** **15 02 14.4 -0.1**
KLR pmax pmax
comp=Z,55nm,4.1s

O19K Port Alsworth 85.86 12 P **P** **15 02 21.9 -0.1**
O19K IAmb IAmb 15 02 22.8
comp=Z,36nm,0.8s
ILSW Iliamna Southw 85.91 13 P **P** **15 02 21.6 -0.9**
ILSW IAmb IAmb 15 02 23.5
comp=Z,34nm,0.8s
TUC Tucson 86.02 52 P **P** **15 02 26.2 +2.5**
comp=Z,7.4nm,0.9s
TUC Tucson 86.02 52 P **P** **15 02 26.4 +2.7**
MA2 Magadan 86.18 345 P **P** **15 02 23.6 0.0**
comp=Z,36nm,1.2s
MA2 Magadan 86.18 345 P **P** **15 02 23.4 -0.2**
HNS HongShan 86.36 313 ⇑P **P** **15 02 26.6 +1.6**
HNS pmax pmax
comp=Z,14nm,0.6s
ENH Enshi 86.38 305 P **P** **15 02 26.2 +0.9**
comp=Z,32nm,1.1s
LYN LuoYang 86.38 310 P **P** **15 02 26.5 +1.3**
LYN pmax pmax
comp=Z,23nm,0.6s
SLVN Son La 86.64 295 P **P** **15 02 28.0 +1.2**
comp=Z,3.9nm,1.5s
GYA Guiyang 86.73 301 P **P** **15 02 28.0 +0.8**
GYA pmax pmax
comp=Z,8.0nm,0.6s
BJI2 Beijing 86.86 316 P **P** **15 02 28.4 +1.1**
BJI2 pmax pmax
comp=Z,7.0nm,0.8s
BJT Baijiatuau 86.86 316 P **P** **15 02 28.2 +0.9**
comp=Z,13nm,1.6s
HEH HeiHe 86.97 329 *e*P **P** **15 02 27.9 +0.4**
HEH pmax pmax
comp=Z,19nm,1.1s
L19K White Mountain 87.60 11 IAmb IAmb 15 02 31.7
comp=Z,12nm,0.8s
RC01 Rabbit Creek A 87.64 14 IAmb IAmb 15 02 31.6
comp=Z,22nm,0.9s
PWL Port Wells 87.76 15 IAmb IAmb 15 02 32.0
comp=Z,18nm,0.8s
GHO Glory Hole Cre 88.43 14 IAmb IAmb 15 02 35.4
comp=Z,24nm,0.8s
XAN Xi'an 88.65 308 ⇓P **P** **15 02 36.9 +1.0**
XAN pmax pmax
comp=Z,29nm,0.7s
XAN Xi'an 88.65 308 P **P** **15 02 37.2 +1.3**
SEY Seymchan 88.86 348 *e*P **P** **15 02 35.6 -0.5**
SEY pmax pmax
comp=Z,18nm,1.1s
XLT XiLinHaoTe 89.09 319 *e*P **P** **15 02 37.5 -0.3**
XLT pmax pmax
comp=Z,8.0nm,0.8s
CAST Castle Rocks 89.25 12 IAmb IAmb 15 02 38.2
comp=Z,13nm,0.8s
KMI2 Kunming 89.28 298 P **P** **15 02 40.8 +1.6**
KMI2 pmax pmax
comp=Z,14nm,1.0s
ZEA Zeya 89.42 332 *e*P **P** **15 02 39.9 +1.0**
HLID Hailey 89.57 41 P **P** **15 02 42.0 +1.9**
comp=Z,4.2nm,1.6s
CMAR Chiang Mai Arr 89.61 290 P **P** **15 02 42.5 +1.9**
comp=Z,9.2nm,0.9s,baz=134,slow=3.3,SNR=59
CMAR pP **pP** **15 04 42.1 +2.1**
comp=Z,0.2nm,0.3s,baz=107,slow=3.5,SNR=1.5
comp=Z,9.2nm,0.9s
TRF Thorofare Moun 89.63 13 IAmb IAmb 15 02 40.7
comp=Z,10nm,0.8s
MNTX Cornudas Mount 89.73 55 P **P** **15 02 42.4 +1.5**
comp=Z,3.5nm,1.0s
CHTO Chiang Mai 89.75 291 P **P** **15 02 41.5 +0.2**
CHTO pmax pmax
comp=Z,19nm,0.9s
CHTO Chiang Mai 89.75 291 **P** **15 02 41.5 +0.2**
CHTO IAmb IAmb 15 02 43.5
comp=Z,19nm,0.9s
CHTO Chiang Mai 89.75 291 P **P** **15 02 42.5 +1.2**
CHTO Chiang Mai 89.75 291 P **P** **15 02 42.1 +0.8**
comp=Z,22nm,1.0s
CHTO Chiang Mai 89.75 291 P **P** **15 02 42.5 +1.2**
RND Reindeer 89.89 13 P **P** **15 02 40.9 -0.1**
RND pmax pmax
comp=Z,11nm,1.0s
RND Reindeer 89.89 13 **P** **15 02 40.9 -0.1**
RND IAmb IAmb 15 02 42.3
comp=Z,11nm,1.0s
BI02 San Fabin de 89.92 130 P **P** **15 02 43.8 +1.9**
TXAR Lajitas Array 89.96 58 P **P** **15 02 44.1 +1.9**
comp=Z,2.1nm,0.7s,baz=213,slow=7.0,SNR=22
TXAR pP **pwP** **15 04 45.0 -0.7**
comp=Z,1.5nm,1.1s,baz=232,slow=6.2,SNR=3.9
comp=Z,2.1nm,0.7s
TXAR Lajitas Array 89.96 58 P **P** **15 02 41.8 -0.3**
TXAR Lajitas Array 89.96 58 P **P** **15 02 41.8 -0.3**
BSUT Blindstream Ca 90.26 45 IAmb IAmb 15 02 46.1
comp=Z,9.3nm,0.8s
HHC Hu-ho-hao-te 90.27 315 *e*P **P** **15 02 44.5 +1.2**
HHC pmax pmax
comp=Z,15nm,0.7s
HHC pmax pmax
comp=Z,170nm,4.6s
HWUT Hardware Ranch 90.29 44 P **P** **15 02 42.4 -1.1**
HWUT Hardware Ranch 90.29 44 P **P** **15 02 44.6 +1.1**
comp=Z,7.4nm,0.8s
CD2 Chengdu 91.04 303 P **P** **15 02 48.8 +1.8**
CD2 pmax pmax
comp=Z,20nm,0.5s
CCB Clear Creek Bu 91.20 13 IAmb IAmb 15 02 48.0
comp=Z,23nm,1.8s
ILAR Eielson Array 91.51 13 P **P** **15 02 47.7 -0.6**
comp=Z,1.0nm,0.6s,baz=220,slow=5.6,SNR=12
ILAR PP **PP** **15 06 34.9 -1.8**
comp=Z,0.8nm,1.1s,baz=215,slow=9.6,SNR=4.2
comp=Z,1.0nm,0.6s
ILAR Eielson Array 91.51 13 P **P** **15 02 47.0 -1.3**
ILAR Eielson Array 91.51 13 P **P** **15 02 47.0 -1.3**
BILI Bilibino, Chuk 91.78 355 P **P** **15 02 49.8 +0.3**
comp=Z,12nm,0.9s
PDAR Pinedale Array 92.17 44 P **P** **15 02 53.2 +1.0**
comp=Z,1.3nm,0.7s,baz=219,slow=3.9,SNR=11
comp=Z,1.3nm,0.7s
PDAR Pinedale Array 92.17 44 P **P** **15 02 52.6 +0.4**
L29M L29M 92.27 18 IAmb IAmb 15 04 17.5
comp=Z,17nm,1.6s
NPW Naypyitaw 92.56 290 P **P** **15 02 55.6 +1.4**
comp=Z,24nm,1.1s
YAK Yakutsk 94.23 339 *e*P **P** **15 03 00.3 -0.5**
YAK pmax pmax
comp=Z,12nm,0.9s
YAK pmax pmax
comp=N,6.0nm,1.3s
YAK pmax pmax
comp=E,5.0nm,1.5s
YAK Yakutsk 94.23 339 P **P** **15 03 00.3 -0.5**
comp=Z,16nm,0.9s
INK Inuvik 97.50 16 P Pdif 15 03 14.6 -0.7
comp=Z,0.8nm,0.5s,baz=170,slow=4.7,SNR=5.2
comp=Z,0.8nm,0.5s
ZALV Zalesovo Beam 111.75 321 PKiKP **PKiKP** **15 08 11.9 -1.0**
comp=Z,1.5nm,0.6s,baz=159,slow=0.8,SNR=6.7
MKAR Makanchi Array 112.02 313 PKiKP **PKiKP** **15 08 12.8 -0.9**
comp=Z,1.6nm,0.6s,baz=113,slow=0.6,SNR=11
MKAR SKiKP **SKiKP** **15 10 56.6 -0.5**
comp=Z,0.8nm,0.7s,baz=226,slow=0.5,SNR=4.9
KURK Kurchatov 115.04 317 *c i* PKiKP **PKPdf** **15 08 19.3 0.0**
KURK pmax pmax
comp=Z,8.0nm,2.5s
KURBB Kurchatov Arra 115.08 316 PKP **PKPdf** **15 08 18.4 -1.0**
comp=Z,1.7nm,0.5s,baz=107,slow=1.9,SNR=18
KURBB PP **PP** **15 09 29.4 -0.4**
comp=Z,0.8nm,0.8s,baz=98,slow=7.2,SNR=5.1
KSH2 Kashi 115.47 304 PKP **PKiKP** **15 08 20.9 +0.1**
KKAR Karatay Array 119.78 307 PKiKP **PKPdf** **15 08 28.2 -0.6**
KKAR Karatay Array 119.78 307 **PKPdf** **15 08 28.2 -0.6**
KBL Kabul 119.86 297 PKiKP **PKiKP** **15 08 29.5 -0.1**
KBL Kabul 119.86 297 **PKiKP** **15 08 29.4 -0.1**
BVAR Borovoye Array 120.25 319 PKP **PKPdf** **15 08 28.6 -0.7**
comp=Z,4.4nm,0.5s,baz=119,slow=1.5,SNR=30
BVAR PP **PP** **15 10 08.2 +3.2**
comp=Z,0.9nm,0.7s,baz=74,slow=11,SNR=4.8
BVAR SKP **SKPdf** **15 11 11.8 -1.0**
comp=Z,1.5nm,0.7s,baz=48,slow=2.2,SNR=4.7
BORK Borovoye 120.30 319 PKiKP **PKPdf** **15 08 28.9 -0.5**
BORK Borovoye 120.30 319 **PKPdf** **15 08 28.9 -0.5**
SPITS Spitsbergen Ar 124.66 356 PKP **PKPdf** **15 08 36.5 -0.6**
comp=Z,4.6nm,0.5s,baz=67,slow=4.7,SNR=7.2
ARTI Arti 126.76 324 PKiKP **PKPdf** **15 08 41.3 -0.4**
ARTI Arti 126.76 324 **PKPdf** **15 08 41.3 -0.4**

ARCES ARCESS Array B 131.47 348 PKhKP PKPpre 15 08 38.1
comp=Z,4.6nm,0.9s,baz=282,slow=2.4,SNR=3.9
ARCES PKP **PKPdf** **15 08 49.2 -1.0**
comp=Z,2.3nm,0.5s,baz=5.8,slow=0.5,SNR=17
ARCES SKPbc **SKPbc** **15 11 24.8 +0.4**
comp=Z,8.3nm,0.9s,baz=188,slow=0.9,SNR=5.1
FINES FINESS Array B 138.08 342 PKhKP PKPpre 15 08 51.8
comp=Z,1.4nm,0.4s,baz=48,slow=2.9,SNR=6.9
FINES PKP **PKPdf** **15 09 02.1 -0.6**
comp=Z,1.9nm,0.5s,baz=22,slow=1.7,SNR=6.4
FINES SKPbc **SKPbc** **15 11 45.1 -0.2**
comp=Z,8.1nm,0.8s,baz=42,slow=6.2,SNR=7.9
NB2 NORSAR Subarra141.65 351 PKP **PKPdf** **15 09 04.3 -5.0**
comp=Z,1.4nm,0.4s,baz=16,slow=3.2
NB2 SKPa 15 11 55.3
comp=Z,1.1nm,0.7s,baz=19,slow=2.6
NOA NORSAR Array B 141.65 351 PKhKP PKPpre 15 09 04.9
comp=Z,4.1nm,0.7s,baz=16,slow=4.7,SNR=11
NOA SKPbc **SKPbc** **15 11 55.2 +0.4**
comp=Z,1.6nm,0.7s,baz=16,slow=4.2,SNR=4.2
HFS Hagfors 142.13 349 PKhKP PKPpre 15 09 05.9
comp=Z,14nm,0.3s,baz=66,slow=3.6,SNR=76
HFS SKPbc **SKPbc** **15 11 55.8 -0.3**
comp=Z,5.1nm,0.8s,baz=215,slow=1.8,SNR=4.3
MNK Minsk 142.74 333 *i* PKiKP **PKPdf** **15 09 09.0 -2.3**
MNK *i* 15 12 11.3
MNK *i* 15 12 25.4
MNK *i* 15 15 26.4
MNK *i* PPP PPP 15 15 40.7
MNK *i* SS SS 15 30 20.3 +0.1
MNK *i* SSS SSS 15 35 51.7
MNK pmax pmax
comp=N,14nm,0.8s
MNK pmax pmax
comp=Z,30nm,0.8s
MNK pmax pmax
comp=E,36nm,0.9s
MNK Minsk 142.74 333 *i* PKP **PKPdf** **15 09 09.0 -2.3**
comp=E,36nm,0.9s
MNK *i* PKP **PKPdf** **15 09 09.0 -2.3**
comp=N,14nm,0.8s
MNK *i* PKP **PKPdf** **15 09 09.0 -2.3**
comp=Z,30nm,0.8s,baz=45
MNK *i* pPKP **pPKPdf** **15 11 18.9 -0.7**
MNK *i* sPKP **sPKPdf** **15 12 11.3 -1.2**
MNK *i* PP **PP** **15 12 25.4 -1.6**
MNK *i* SKS **SKSdf** **15 15 26.5 -2.4**
MNK *i* PPP PPP 15 15 40.7
MNK *i* SKKS **SKKSdf** **15 24 48.1 -0.2**
MNK *i* SS **SS** **15 30 20.3 +0.1**
MNK *i* SSS SSS 15 35 51.7
PABE Paberze 143.48 337 PKPab 15 09 11.1 -0.1
STRU Stroemstad 143.58 351 *i* P PKPab 15 09 11.0 -0.4
TJOU Tjoern 144.47 350 *i* P **PKPdf** **15 09 13.7 -0.6**
HOMB Homborsund 144.69 352 *i* P PKPbc 15 09 15.0 0.0
AKASG Malin Array Be 144.71 328 PKP **PKPdf** **15 09 14.5 -0.4**
comp=Z,13nm,0.5s,baz=45,slow=4.1,SNR=95
AKASG SKPbc **SKiKP** **15 12 02.8 -0.2**
comp=Z,6.0nm,0.8s,baz=48,slow=2.1,SNR=9.3
KIEV Kiev 144.72 328 ⇓PKiKP **PKPdf** **15 09 14.8 -0.1**
KIEV Kiev 144.72 328 **PKPdf** **15 09 14.8 -0.1**
KIEV Kiev 144.72 328 ⇓P **PKPdf** **15 09 14.8 -0.1**
SUW Suwalki 144.94 336 *e*PKP **PKPab** **15 09 17.6 +0.9**
ONAU Onsala 145.03 349 *i* P **PKPbc** **15 09 15.8 -0.2**
SIM Simferopol' 145.10 316 *e*PKiKP **PKPab** **15 09 17.4 -0.3**
SIM pmax pmax
comp=Z,69µm,1.0s
BLEU Blekinge 145.23 345 *i* P **PKPdf** **15 09 15.7 0.0**
FABU Falkenberg 145.25 348 *i* P **PKPdf** **15 09 16.1 +0.5**
DEL Delary 145.52 347 *i* P **PKPbc** **15 09 17.2 -0.3**
MCD Coleburn Disti 145.78 3 *e*P **PKPbc** **15 09 17.9 -0.4**
KPL Plockton 145.84 6 *e*P **PKPbc** **15 09 18.2 -0.2**
DRUM Mains of Drumt 146.49 3 *e*P **PKPbc** **15 09 19.7 -0.5**
BSD Bornholm Skovb 146.53 345 *i* P **PKPbc** **15 09 20.2 -0.2**
ASF Jabal al Asfar 146.59 293 P **PKiKP** **15 09 22.6 -0.9**
ASF AML AML
SORM Soroca 146.77 325 ⇓PKP2 **PKPbc** **15 09 21.2 0.0**
SORM Soroca 146.77 325 ⇓P **PKPbc** **15 09 21.2 0.0**
INVG Invergeldie, C 146.88 4 *e*P **PKPbc** **15 09 21.1 -0.2**
LAWE Loch Awe, Argy 146.94 6 *e*P **PKPbc** **15 09 21.4 -0.1**
EAB Aberfoyle 147.10 5 *e*P **PKPbc** **15 09 22.1 +0.2**
HSUJ Al Zarqa 147.19 293 P **PKiKP** **15 09 24.5 -0.2**
HSUJ AML AML
BRTR Keskin Array B 147.50 308 PKPbc **PKPbc** **15 09 23.6 -0.1**
comp=Z,4.7nm,0.6s,baz=150,slow=3.8,SNR=15
BRTR PKPab **PKPab** **15 09 27.9 +0.3**
comp=Z,10nm,0.7s,baz=88,slow=3.7,SNR=20
GEM Giv'at Ha'Em 147.50 295 P **PKiKP** **15 09 26.0 +0.8**
GEM AML AML
BEL Belsk 147.55 336 *e*PKP **PKiKP** **15 09 24.3 -0.4**
QRNJ Al-Qirein 147.69 294 P **PKiKP** **15 09 25.6 0.0**
QRNJ AML AML
MMAI Mount Meron Ar 147.74 295 PKPbc **PKiKP** **15 09 25.6 -0.2**
comp=Z,8.5nm,0.4s,baz=44,slow=9.7,SNR=23
GHAJ Ghor Haditha 147.80 292 P **PKiKP** **15 09 25.7 -0.2**
GHAJ AML AML
LISJ El Lisan 147.88 292 P **PKiKP** **15 09 26.3 +0.3**
LISJ AML AML
EKA Eskdalemuir Ar 148.03 4 PKPbc **PKPbc** **15 09 24.0 -0.3**
comp=Z,2.6nm,0.3s,baz=339,slow=2.5,SNR=26
SALP Salfit 148.04 293 P **PKiKP** **15 09 26.3 -0.1**
SALP AML AML
ESK Eskdalemuir 148.04 4 *e*P **PKPbc** **15 09 23.9 -0.4**
NEWG New Galloway 148.17 5 *e*P **PKPbc** **15 09 24.3 -0.3**
HRFI Mount Harif 148.35 290 P **PKiKP** **15 09 26.8 -0.3**
HRFI AML AML
AQBJ Aqaba 148.36 289 P **PKiKP** **15 09 27.4 +0.3**
AQBJ AML AML
PRNI Paran 148.36 290 P **PKiKP** **15 09 26.8 -0.3**
PRNI AML AML
GAL1 Galloway 148.38 6 *e*P **PKPbc** **15 09 24.7 -0.4**
EIL Elat 148.45 289 P **PKiKP** **15 09 27.1 -0.2**
EIL AML AML
KWP Kalwaria Pacla 148.48 332 *e*PKP **PKiKP** **15 09 26.5 -0.2**
EDMD Edmundbyers 148.59 2 *e*P **PKPbc** **15 09 25.4 -0.3**
CFR Carcaliu 148.63 321 ⇑P **PKPbc** **15 09 26.0 -0.1**
TPGR Topolog 148.65 320 ⇑P **PKPbc** **15 09 26.5 +0.3**
TESR Tescani 148.68 324 ⇓P **PKPbc** **15 09 26.2 0.0**
BIZ Bicaz 148.70 325 ⇑P **PKiKP** **15 09 27.1 -0.2**
BURAR Bucovina Array 148.72 327 ⇓PKP2 **PKiKP** **15 09 27.7 +0.3**
BURAR Bucovina Array 148.72 327 PKPbc **PKiKP** **15 09 27.1 -0.3**
BURAR Bucovina Array 148.72 327 ⇓P **PKiKP** **15 09 27.7 +0.3**
KZIT Kziot 148.84 291 P **PKiKP** **15 09 28.1 0.0**
KZIT AML AML
ONER Baraj Valea Uz 148.93 324 ⇑P **PKiKP** **15 09 27.7 -0.1**
VRI Vrincioaia 149.03 323 ⇓PKP2 **PKiKP** **15 09 27.7 -0.3**
VRI Vrincioaia 149.03 323 ⇓P **PKiKP** **15 09 27.7 -0.3**
TLBR Topalu 149.04 320 ⇑P **PKiKP** **15 09 27.6 -0.4**
KOLS Kolonicke sedl 149.19 331 *e*PKP2 **PKiKP** **15 09 28.4 +0.2**
KOLS Kolonicke sedl 149.19 331 *e*PKP **PKiKP** **15 09 28.3 +0.1**
OJC Ojcow 149.22 335 *e*PKP **PKiKP** **15 09 28.0 -0.2**
COVR Voineasa-Covas 149.33 323 ⇑P **PKPbc** **15 09 27.5 -0.4**
OZUR 149.41 324 ⇓P **PKiKP** **15 09 28.6 -0.2**
NIE Niedzica 149.65 334 *e*PKP **PKiKP** **15 09 29.9 +0.6**
MLR Muntele Rosu 149.70 323 ⇑PKHKP **PKiKP** **15 09 29.3 -0.3**
MLR Muntele Rosu 149.70 323 ⇑P **PKiKP** **15 09 29.3 -0.3**
DOPR Dopca 149.70 324 ⇑P **PKiKP** **15 09 29.5 +0.1**
KEPZ Antalya-Kepez 149.92 304 ⇓P **PKPbc** **15 09 28.3 -1.3**
KSP Ksiaz 149.94 340 *e*PKP **PKiKP** **15 09 30.2 +0.5**
CJR Cluj-Napoca 150.14 327 ⇑PKiKP **PKiKP** **15 09 30.4 +0.1**
CJR Cluj-Napoca 150.14 327 ⇑P **PKiKP** **15 09 30.4 +0.1**
OKC Ostrava-Krasne 150.15 336 ⇑*e*PKP **PKiKP** **15 09 30.1 -0.1**
LANS Liptovska Anna 150.20 334 *e*PKiKP **PKiKP** **15 09 31.0 +0.6**
LANS Liptovska Anna 150.20 334 *e*PKP **PKiKP** **15 09 31.0 +0.6**
LANS *e* 15 09 39.6
STEB Steborice 150.20 337 ⇑*e*PKP **PKiKP** **15 09 30.4 +0.1**
STEB *e*PKPAB **PKPab** **15 09 39.2 +0.9**
OSTC Ostas 150.21 339 ⇑*e*PKP **PKiKP** **15 09 30.4 +0.1**
VOIR 150.22 324 ⇓PKiKP **PKiKP** **15 09 30.4 -0.2**
VOIR 150.22 324 ⇓P **PKiKP** **15 09 30.4 -0.2**
CHVC Chvalec 150.23 340 ⇑*e*PKP **PKiKP** **15 09 30.1 -0.3**
UPC Upice 150.32 340 ⇑*e*PKP **PKiKP** **15 09 30.4 -0.1**
DPC Dobruska-Polom 150.35 339 ⇑*e*PKP **PKiKP** **15 09 30.9 +0.3**
comp=Z,8.4nm,0.6s
MARR Marisel-Cluj 150.41 327 ⇓P **PKPbc** **15 09 30.6 +0.2**
MORC Moravsky Berou 150.42 337 ⇑PKiKP **PKiKP** **15 09 30.8 0.0**
MORC Moravsky Berou 150.42 337 *e*PKP **PKiKP** **15 09 30.8 0.0**
MORC *e* 15 09 39.6
MORC Moravsky Berou 150.42 337 ⇑P **PKiKP** **15 09 30.8 0.0**
KRLC Kraliky 150.43 336 ⇑*e*PKP **PKiKP** **15 09 30.8 0.0**
KRLC *e*PKPAB **PKPab** **15 09 40.8 +0.8**
FOEL Foel Wylfa 150.46 4 *e*P **PKPbc** **15 09 30.1 -0.1**

CLL	**Collm**	**150.47**	**344**	⇓*i*	PKIKP	**PKPbc**	**15 09 30.3**	**0.0**
CLL				*i*			15 09 39.2	
CLL					pmax	pmax		
	comp=Z,37nm,0.8s							
CLL					pmax	pmax		
	comp=Z,14nm,0.7s							
CLL	**Collm**	**150.47**	**344**	⇓*i*	PKPbc	**PKPbc**	**15 09 30.3**	**0.0**
	comp=Z,37nm,0.8s							
CLL				*i*	PKPab	**PKPab**	**15 09 39.2**	**-0.1**
	comp=Z,14nm,0.7s							
ARR	**Arges**	**150.49**	**324**	⇑	P	**PKiKP**	**15 09 31.9**	**+0.8**
MAUC	**Maruska**	**150.66**	**336**	⇑	*e*PKP	**PKiKP**	**15 09 31.8**	**+0.5**
PVCC	**Panska Ves**	**150.74**	**341**	⇑	*e*PKP	**PKiKP**	**15 09 31.6**	**+0.2**
HLM1	**Long Mynd**	**150.85**	**4**		*e*PKP	**PKPbc**	**15 09 30.4**	**-0.7**
VYHS	**Vyhne**	**150.97**	**334**		*e*PKIKP	**PKiKP**	**15 09 32.0**	**+0.1**
VYHS					*e*		15 09 42.3	
VYHS	**Vyhne**	**150.97**	**334**		*e*PKP	**PKiKP**	**15 09 32.0**	**+0.1**
VYHS					*e*		15 09 42.3	
HSKC	**Hora Svate Kat**	**151.00**	**343**	⇑	*e*PKP	**PKiKP**	**15 09 32.1**	**+0.2**
JAVC	**Velka Javorina**	**151.13**	**336**		*e*PKP	**PKiKP**	**15 09 33.5**	**+1.2**
JAVC					*e*		15 09 43.7	
VRAC	**Vranov**	**151.15**	**338**		*e*PKP	**PKPbc**	**15 09 32.0**	**+0.1**
VRAC					*e*		15 09 43.0	
SIRR	**Siria**	**151.41**	**328**	⇑	P	**PKiKP**	**15 09 33.0**	**+0.1**
KRUC	**Moravsky**	**151.43**	**338**		*e*PKP	**PKiKP**	**15 09 32.9**	**+0.1**
KRUC					*e*		15 09 43.8	
MONM	**Monmouth**	**151.53**	**4**		*e*P	**PKPbc**	**15 09 32.2**	**-0.5**
SURR	**Surduc**	**151.54**	**327**	⇑	P	**PKPbc**	**15 09 32.6**	**-0.3**
MODS	**Modra-Piesok**	**151.68**	**336**		*e*PKIKP	**PKiKP**	**15 09 34.1**	**+0.6**
MODS	**Modra-Piesok**	**151.68**	**336**		*e*PKP	**PKiKP**	**15 09 34.0**	**+0.6**
MODS					*e*		15 09 45.7	
TAVA	**DENIZLI_Tavas**	**151.76**	**306**	⇑	P	**PKiKP**	**15 09 34.0**	**-0.1**
ZVC	**Zvikov**	**151.82**	**341**	⇑	*e*PKP	**PKiKP**	**15 09 33.8**	**+0.2**
ZVC					*e*PKPAB	**PKPab**	**15 09 46.3**	**+1.2**
BZS	**Buzias**	**151.90**	**327**	⇓	PKIKP	**PKPbc**	**15 09 33.8**	**+0.1**
BZS	**Buzias**	**151.90**	**327**	⇓	P	**PKPbc**	**15 09 33.8**	**+0.1**
ABNA	**Allensteig Bun**	**152.09**	**338**		*i* PKP	**PKiKP**	**15 09 34.7**	**+0.4**
	comp=Z,8.2nm,0.9s							
ABNA					*i* PKP	**PKPab**	**15 09 46.7**	**+0.4**
	comp=Z,12nm,0.9s							
KHC	**Kasperske Hory**	**152.28**	**341**	⇑	*e*PKP	**PKiKP**	**15 09 34.9**	**+0.2**
	comp=Z,5.6nm,0.8s							
KHC					*e*PKPAB	**PKPab**	**15 09 47.1**	**0.0**
CKRC	**Cesky Krumlov**	**152.33**	**340**	⇑	*e*PKP	**PKPbc**	**15 09 34.6**	**0.0**
WINA	**Alland / Wiene**	**152.35**	**337**		*i* PKP	**PKiKP**	**15 09 35.1**	**+0.3**
	comp=Z,3.6nm,0.5s							
WINA					*i* PKP	**PKPab**	**15 09 48.4**	**+1.0**
	comp=Z,14nm,0.9s							
GERES	**GERESS Array B**	**152.50**	**341**		PKPbc	**PKiKP**	**15 09 35.2**	**0.0**
	comp=Z,2.0nm,0.6s,baz=48,slow=2.0,SNR=13							
CONA	**Conrad Observa**	**152.57**	**337**		*e*PKP	**PKiKP**	**15 09 35.7**	**+0.4**
	comp=Z,7.1nm,1.0s							
CONA					*i* PKP	**PKPab**	**15 09 49.5**	**+1.0**
	comp=Z,14nm,0.8s							
RONA	**Rosalia, Austr**	**152.61**	**336**		*i* PKP	**PKiKP**	**15 09 35.7**	**+0.3**
	comp=Z,6.5nm,0.6s							
RONA					*i* PKP	**PKPab**	**15 09 49.4**	**+0.8**
	comp=Z,16nm,0.8s							
BLKB	**Belogradchik**	**152.69**	**323**	⇑	P	**PKPbc**	**15 09 35.4**	**-0.2**
MORH	**Mrgy, Hungar**	**152.85**	**331**	⇓	P	**PKiKP**	**15 09 35.9**	**+0.1**
MOA	**Molln**	**153.19**	**339**		*i* PKP	**PKiKP**	**15 09 37.0**	**+0.4**
	comp=Z,2.8nm,1.0s							
MOA					*i* PKP	**PKPab**	**15 09 51.4**	**+0.4**
	comp=Z,9.2nm,1.2s							
ARSA	**Arzberg**	**153.27**	**337**		*i* PKP	**PKPab**	**15 09 51.7**	**+0.3**
	comp=Z,7.8nm,0.9s							
BIOA	**Bad Ischl, Aus**	**153.54**	**340**		*e*PKP	**PKPab**	**15 09 53.0**	**+0.5**
	comp=Z,12nm,1.0s							
KOGS	**Kog**	**153.66**	**335**		*i* PKPab	**PKPab**	**15 09 53.1**	**0.0**
SESA	**Seetaler Alpe,**	**153.73**	**338**		*i* PKP	**PKPbc**	**15 09 37.7**	**-0.2**
	comp=Z,5.3nm,0.8s							
SESA					*i* PKP	**PKPab**	**15 09 54.0**	**+0.4**
	comp=Z,18nm,0.7s							
SOKA	**Soboth**	**153.93**	**336**		*e*PKP	**PKiKP**	**15 09 38.3**	**+0.1**
	comp=Z,3.0nm,0.8s							
SOKA					*i* PKP	**PKPab**	**15 09 54.2**	**-0.1**
	comp=Z,13nm,1.3s							
PERS	**Pernice**	**153.94**	**336**		*i* PKPab	**PKPab**	**15 09 54.3**	**+0.1**
LESA	**Schwarzleotal**	**154.07**	**341**		*e*PKP	**PKPab**	**15 09 55.3**	**+0.4**
	comp=Z,12nm,1.2s							
KBA	**Koelnbreinsper**	**154.17**	**339**		*e*PKiKP	**PKiKP**	**15 09 39.5**	**+0.7**
	comp=Z,2.6nm,0.9s							
KBA					*i* PKP	**PKPab**	**15 09 55.8**	**+0.4**
	comp=Z,2.2nm,0.5s							
WTTA	**Wattenberg**	**154.53**	**342**		*i* PKP	**PKPab**	**15 09 57.5**	**+0.5**
	comp=Z,7.9nm,0.5s							
RETA	**Reutte**	**154.56**	**343**		*i* PKP	**PKPab**	**15 09 57.5**	**+0.5**
	comp=Z,14nm,1.0s							
MOTA	**Moosalm**	**154.60**	**343**		*i* PKP	**PKPab**	**15 09 57.7**	**+0.4**
	comp=Z,16nm,1.0s							
SQTA	**Sankt Quirin**	**154.69**	**342**		*e*PKP	**PKPab**	**15 09 58.5**	**+1.0**
	comp=Z,8.0nm,0.8s							
BOJS	**Bojanci**	**154.83**	**335**		*e*PKPdf	**PKiKP**	**15 09 39.7**	**-0.3**
BOJS					*i* PKPab	**PKPab**	**15 09 58.2**	**+0.1**
DAVA	**Damuels**	**154.97**	**344**		*i* PKP	**PKPab**	**15 09 59.2**	**+0.4**
	comp=Z,14nm,0.8s							
GBRS	**Gornja Briga**	**154.98**	**335**		*i* PKPab	**PKPab**	**15 09 58.8**	**0.0**
FETA	**Feichten**	**155.00**	**343**		*e*PKP	**PKPab**	**15 09 59.4**	**+0.5**
	comp=Z,6.1nm,1.1s							
ESDC	**Sonseca Array**	**163.40**	**12**		PKPab	**PKPab**	**15 10 35.8**	**+0.2**
	comp=Z,3.2nm,1.0s,baz=353,slow=4.3,SNR=10							
KEST	**Kesra**	**165.43**	**329**		PKPab	**PKPab**	**15 10 44.5**	**-0.4**
	comp=Z,6.7nm,0.9s,baz=346,slow=7.2,SNR=5.1							
TORD	**Torodi Ar. Bea**	**169.69**	**188**		PKP	**PKPdf**	**15 09 45.6**	**-0.6**
	comp=Z,2.5nm,1.1s,baz=69,slow=1.7,SNR=7.3							
TORD					PKPab	**PKPab**	**15 11 03.4**	**-0.4**
	comp=Z,0.4nm,0.6s,baz=240,slow=0.6,SNR=4.7							

SGS 19 14:51:01.7, 20°.03N × 38°.86E, h8km, MI1.9, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
NLITH	**NLITH**	**1.16**	**69**	P		Pg	14 51 23.8	-0.2
NLITH				S		Sn	14 51 40.6	+0.2
NLITH	**NLITH**	**1.16**	**69**	P		Pg	14 51 24.0	-0.1
NLITH				S		Sn	14 51 40.5	+0.1
SADE2	**SADE2**	**1.18**	**60**	P		Pg	14 51 23.6	-0.8
SADE2				S		Sb	14 51 40.2	+0.3
SADE1	**SADE1**	**1.23**	**64**	P		Pb	14 51 24.4	-0.8
SADE1				S		Sg	14 51 41.5	+0.3
SADE1	**SADE1**	**1.23**	**64**	P		Pb	14 51 24.5	-0.7
SADE1				S		Sg	14 51 41.5	+0.3
LTHS	**Al Lith**	**1.48**	**80**	P		Pn	14 51 28.6	-0.1
LTHS				S		Sg	14 51 49.6	+0.3
GHMGH	**GHMGH**	**1.64**	**70**	P		Pn	14 51 31.5	+0.6
GHMGH				S		Sg	14 51 54.1	-0.4
GHMGH	**GHMGH**	**1.64**	**70**	P		Pn	14 51 31.5	+0.6
FRAS	**Faraa**	**1.86**	**56**	P		Pn	14 51 34.3	+0.1
FRAS				S		Sn	14 51 58.5	+0.4
FRAS	**Faraa**	**1.86**	**56**	P		Pn	14 51 34.8	+0.5
BAHS2	**Abu Rakh**	**2.34**	**69**	P		Pn	14 51 42.4	+1.8
BAHS2				S		Sb	14 52 12.3	-1.0
BAHS2	**Abu Rakh**	**2.34**	**69**	P		Pn	14 51 42.3	+1.7

IDC 19 15:46:53.3±4.9, 19°.01N × 145°.10E, h0km, mb3.5/5, mbtmp3.5/5, Error ellipse: s-maj=185.2km s-min=23.9km az=82.0, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
WRA	**Warramunga Arr**	**40.12**	**196**	P		P	15 54 31.2	+0.2
	0.4nm,0.5s,baz=17,slow=9.8,SNR=10							
	0.4nm,0.5s							
FITZ	**Fitzroy Crossi**	**41.54**	**209**	P		P	15 54 43.2	+0.4
	2.2nm,1.0s,baz=26,slow=9.4,SNR=6.1							
	2.2nm,1.0s							
SONM	**Songino Array**	**42.55**	**321**	P		P	15 54 52.0	+1.1
	0.3nm,0.5s,baz=119,slow=9.4,SNR=1.9							
	0.3nm,0.5s							
ASAR	**Alice Springs**	**43.80**	**195**	P		P	15 55 00.3	-0.8
	0.2nm,0.6s,baz=11,slow=6.8,SNR=7.9							
	0.2nm,0.6s							
BVAR	**Borovoye Array**	**65.88**	**320**	P		P	15 57 39.9	-0.9
	0.4nm,0.4s,baz=110,slow=9.9,SNR=4.8							
	0.4nm,0.4s							

*NEIC **19** 15:49:16.7±1.9, 20°.86S±0°.05×67°.35W±0°.09, h193km±7km, mb4.4/40, Error ellipse: s-maj=12.8km s-min=7.6km az=77.0*
*SJA **19** 15:49:17.3±0.6, 20°.87S×67°.42W, h190km±6km, ML3.9, MW3.9*

*SCB **19** 15:49:17.6±1.8, 20°.87S×67°.39W, h180km±25km, MB5.0, ML4.4/2, Error ellipse: s-maj=6.5km s-min=5.4km az=0.0*
*GFZ **19** 15:49:17.7±0.2, 21°.3S×67°.7W±°, h201km±5km, M4.2/8, mb4.2/8, confirmed*
*IDC **19** 15:49:18.1±1.3, 20°.68S×67°.08W, h197km±11km, mb3.6/7, mbtmp4.2/11, MS3.2/1, Error ellipse: s-maj=17.1km s-min=12.9km az=73.0*
*VAO **19** 15:49:18.9±0.8, 20°.73S×67°.10W, h192km±6km, mb4.3, Presumed earthquake*

ISC 19 15:49:16.2±0.6, 20°.85S±0°.04×67°.35W±0°.04, h192km±5km, n185, σ1°57/215, mb4.3/22, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op			h m s	ISC
MOCB	**Mochara**	**1.65**	**104**	P		**Pn**	**15 49 52.9**	**+1.8**
PB08	**IPOC Station P**	**1.83**	**292**			**Pn**	**15 49 54.2**	**+1.5**
PB08					Sn	**Sn**	**15 50 21.7**	**+0.6**
PB09	**IPOC Station P**	**2.00**	**242**	*e*P		**Pn**	**15 49 55.8**	**+1.6**
PB09				*e*S		**Sn**	**15 50 25.5**	**+1.7**
PB09				IAML			15 50 29.6	
	comp=Z,300nm,0.3s							
PB09	**IPOC Station P**	**2.00**	**242**			**Pn**	**15 49 56.0**	**+1.8**
PB09					Sn	**Sn**	**15 50 24.4**	**+0.6**
PB09	**IPOC Station P**	**2.00**	**242**	P		**Pn**	**15 49 55.7**	**+1.5**
PB09	**IPOC Station P**	**2.00**	**242**	P		**Pn**	**15 49 56.1**	**+1.9**
GO01	**Chusmiza**	**2.09**	**304**	*e*P		**Pn**	**15 49 57.0**	**+1.4**
GO01				*e*S		**Sn**	**15 50 33.0**	**+6.8**
GO01				IAML			15 50 34.9	
	comp=Z,220nm,0.1s							
GO01	**Chusmiza**	**2.09**	**304**			**Pn**	**15 49 56.8**	**+1.2**
GO01	**Chusmiza**	**2.09**	**304**	P		**Pn**	**15 49 56.8**	**+1.2**
GO01	**Chusmiza**	**2.09**	**304**	P		**Pn**	**15 49 57.0**	**+1.4**
YJA	**Yavi**	**2.16**	**128**	*e*P		**Pn**	**15 49 59.0**	**+2.7**
YJA				*e*S		**Sn**	**15 50 29.4**	**+1.9**
YJA				IAML			15 50 30.9	
	comp=Z,207nm,0.9s							
YJA	**Yavi**	**2.16**	**128**	P		**Pn**	**15 49 58.3**	**+2.0**
AF01	**San Pedro de A**	**2.23**	**200**	*e*P		Pn	15 50 10.2	+13
AF01				*e*S		Sn	15 50 45.0	+16
AF01				IAML			15 51 12.8	
	comp=Z,297nm,0.1s							
SOEO	**Opoqueri**	**2.33**	**347**	P		**Pn**	**15 50 00.2**	**+1.9**
PB11	**IPOC Station P**	**2.42**	**296**	*e*P		**Pn**	**15 49 59.6**	**+0.8**
PB11				*e*S		**Sn**	**15 50 32.9**	**+0.9**
PB11				IAML			15 50 35.0	
	comp=Z,487nm,0.4s							
PB11	**IPOC Station P**	**2.42**	**296**			**Pn**	**15 49 59.5**	**+0.7**
PB11					Sn	**Sn**	**15 50 30.9**	**-1.1**
PB11	**IPOC Station P**	**2.42**	**296**	P		**Pn**	**15 49 59.7**	**+0.8**
PB11				S		**Sn**	**15 50 30.8**	**-1.2**
PB11				IAML			15 50 34.5	
	comp=Z,929nm,0.4s							
PB11	**IPOC Station P**	**2.42**	**296**	P		**Pn**	**15 49 59.6**	**+0.8**
PB02	**IPOC Station P**	**2.42**	**258**	*e*P		**Pn**	**15 49 59.8**	**+1.0**
PB02				*e*S		**Sn**	**15 50 31.3**	**-0.7**
PB02	**IPOC Station P**	**2.42**	**258**			**Pn**	**15 49 59.5**	**+0.8**
PB02						**Sn**	**15 50 30.6**	**-1.3**
PB02	**IPOC Station P**	**2.42**	**258**	P		**Pn**	**15 49 59.4**	**+0.6**
PB02				S		**Sn**	**15 50 30.7**	**-1.3**
PB02				IAML			15 50 33.6	
	comp=Z,1μm,0.4s							
PB02	**IPOC Station P**	**2.42**	**258**	P		**Pn**	**15 49 59.6**	**+0.8**
PB07	**IPOC Station P**	**2.52**	**249**	*e*P		**Pn**	**15 50 00.9**	**+1.0**
PB07				*e*S		**Sn**	**15 50 33.2**	**-0.9**
PB07				IAML			15 50 34.4	
	comp=Z,1μm,0.3s							
PB07	**IPOC Station P**	**2.52**	**249**			**Pn**	**15 50 00.7**	**+0.8**
PB07					Sn	**Sn**	**15 50 32.8**	**-1.2**
PB07	**IPOC Station P**	**2.52**	**249**	P		**Pn**	**15 50 00.8**	**+0.8**
PB03	**IPOC Station P**	**2.53**	**242**	*e*P		**Pn**	**15 50 01.1**	**+1.0**
PB03				*e*S		**Sn**	**15 50 33.8**	**-0.6**
PB03				IAML			15 50 34.8	
	comp=Z,1μm,0.3s							
PB03	**IPOC Station P**	**2.53**	**242**			**Pn**	**15 50 00.9**	**+0.8**
PB03					Sn	**Sn**	**15 50 33.3**	**-1.1**
PB03	**IPOC Station P**	**2.53**	**242**	P		**Pn**	**15 50 01.2**	**+1.0**
AOVT	**TarijaAcel**	**2.56**	**106**	P		**Pn**	**15 50 01.7**	**+1.2**
TA01	**Diego Aracena**	**2.66**	**276**	*e*P		**Pn**	**15 50 01.7**	**+0.3**
TA01				*e*S		**Sn**	**15 50 34.9**	**-1.8**
TA01				IAML			15 50 38.1	
	comp=Z,312nm,0.7s							
TA01	**Diego Aracena**	**2.66**	**276**			**Pn**	**15 50 01.5**	**+0.1**
TA01					Sn	**Sn**	**15 50 34.4**	**-2.3**
TA01	**Diego Aracena**	**2.66**	**276**	P		**Pn**	**15 50 01.7**	**+0.3**
TA02	**Huaiquique**	**2.67**	**282**	*e*P		**Pn**	**15 50 02.4**	**+0.9**
TA02				*e*S		**Sn**	**15 50 35.7**	**-1.1**
TA02				IAML			15 50 36.5	
	comp=Z,851nm,0.1s							
PB06	**IPOC Station P**	**2.77**	**228**	*e*P		**Pn**	**15 50 04.1**	**+1.3**
PB06				*e*S		**Sn**	**15 50 40.1**	**+0.9**
PB06				IAML			15 50 40.5	
	comp=Z,318nm,0.3s							
PB06	**IPOC Station P**	**2.77**	**228**			**Pn**	**15 50 03.9**	**+1.1**
PB06					Sn	**Sn**	**15 50 38.3**	**-0.9**
PB06	**IPOC Station P**	**2.77**	**228**	P		**Pn**	**15 50 04.3**	**+1.5**
PB06	**IPOC Station P**	**2.77**	**228**	P		**Pn**	**15 50 04.1**	**+1.3**
PSGCX	**Pisagua**	**2.89**	**295**			**Pn**	**15 50 04.1**	**-0.1**
PSGCX					Sn	**Sn**	**15 50 38.7**	**-2.8**
PSGCX	**Pisagua**	**2.89**	**295**	P		**Pn**	**15 50 04.2**	**0.0**
SOET	**ToroToro**	**3.09**	**28**	P		**Pn**	**15 50 08.0**	**+1.1**
PB16	**IPOC Station P**	**3.23**	**321**	*e*P		**Pn**	**15 50 10.5**	**+1.8**
PB16				*e*S		Sn	15 50 58.9	+9.2
PB16				IAML			15 50 59.1	
	comp=Z,82nm,0.3s							
PB16	**IPOC Station P**	**3.23**	**321**			**Pn**	**15 50 10.4**	**+1.8**
PB16					Sn	**Sn**	**15 50 50.0**	**+0.3**
PB16	**IPOC Station P**	**3.23**	**321**	P		**Pn**	**15 50 10.5**	**+1.8**
PB16	**IPOC Station P**	**3.23**	**321**	P		**Pn**	**15 50 10.7**	**+1.9**
PB05	**IPOC Station P**	**3.31**	**233**	*e*P		**Pn**	**15 50 10.2**	**+0.9**
PB05				*e*S		**Sn**	**15 50 49.4**	**-1.5**
PB05				IAML			15 50 55.7	
	comp=Z,289nm,0.5s							
PB05	**IPOC Station P**	**3.31**	**233**			**Pn**	**15 50 09.8**	**+0.6**
PB05					Sn	**Sn**	**15 50 48.4**	**-2.5**
PB05	**IPOC Station P**	**3.31**	**233**	P		**Pn**	**15 50 10.2**	**+0.9**
SALTA		**3.48**	**165**	*e*P		**Pn**	**15 50 14.0**	**+2.3**
SALTA				IAML			15 51 22.9	
	comp=Z,63nm,0.7s							
SALTA		**3.48**	**165**	P		**Pn**	**15 50 14.8**	**+3.0**
AP01	**Chacalluta**	**3.75**	**311**			**Pn**	**15 50 14.4**	**-0.2**
AP01					Sn	**Sn**	**15 50 57.0**	**-3.2**
AP01	**Chacalluta**	**3.75**	**311**	P		**Pn**	**15 50 14.3**	**-0.2**
PB18	**Visviri**	**3.82**	**328**			**Pn**	**15 50 18.5**	**+2.5**
PB18	**Visviri**	**3.82**	**328**	P		**Pn**	**15 50 18.8**	**+2.8**
BBOJ	**La Paz, Jacaqu**	**3.94**	**348**	P		**Pn**	**15 50 19.6**	**+2.1**
SOEJ	**Jacaque**	**3.94**	**348**	P		**Pn**	**15 50 19.3**	**+1.8**
PB10	**IPOC Station P**	**3.98**	**228**	*e*P		**Pn**	**15 50 18.1**	**+0.7**
PB10				*e*S		**Sn**	**15 50 56.9**	**-8.5**
PB10				IAML			15 51 05.2	
	comp=Z,85nm,0.6s							
PB10	**IPOC Station P**	**3.98**	**228**			**Pn**	**15 50 17.6**	**+0.2**
SLA	**San Lorenzo**	**4.21**	**156**	*e*P		**Pn**	**15 50 22.9**	**+2.4**
SLA				IAML			15 51 41.3	
	comp=Z,475nm,2.8s							
BBOD	**La Paz, Gloria**	**4.36**	**344**	P		**Pn**	**15 50 25.0**	**+2.3**
LPAZ	**La Paz**	**4.60**	**351**	P		**Pn**	**15 50 27.2**	**+1.2**
	comp=Z,36nm,0.4s,baz=161,slow=5.9,SNR=141							
LPAZ					S	**Sn**	**15 51 20.3**	**-0.4**
	comp=Z,9.7nm,0.6s,baz=338,slow=19,SNR=1.2							
LPAZ	**La Paz**	**4.60**	**351**	*e*P		**Pn**	**15 50 27.8**	**+1.8**
LPAZ	**La Paz**	**4.60**	**351**			**Pn**	**15 50 27.7**	**+1.8**
LPAZ	**La Paz**	**4.60**	**351**	P		**Pn**	**15 50 27.6**	**+1.7**
LPAZ	**La Paz**	**4.60**	**351**	P		**Pn**	**15 50 27.8**	**+1.8**
LPAZ	**La Paz**	**4.60**	**351**	*e*P		**Pn**	**15 50 27.1**	**+1.2**
PB14	**IPOC Station P**	**4.69**	**216**	*e*P		**Pn**	**15 50 28.2**	**+1.5**
PB14				*e*S		**Sn**	**15 51 19.5**	**-2.8**
PB14				IAML			15 51 20.8	
	comp=Z,88nm,0.3s							
PB14	**IPOC Station P**	**4.69**	**216**	Pn		**Pn**	**15 50 26.5**	**-0.3**
BBOB	**La Paz, Bander**	**4.74**	**351**	P		**Pn**	**15 50 29.3**	**+1.6**
AC01	**Pan de Azucar**	**6.05**	**209**			**Pn**	**15 50 43.0**	**-1.0**
AC02	**Maricunga**	**6.17**	**195**	Pn		**Pn**	**15 50 46.9**	**+0.8**
AC02	**Maricunga**	**6.17**	**195**	P		**Pn**	**15 50 46.8**	**+0.8**
	comp=Z,33nm,0.6s							
AC06	**Mina Casimiro**	**7.03**	**202**	Pn		**Pn**	**15 50 55.7**	**-1.0**
GO03	**Copiapo**	**7.21**	**201**			**Pn**	**15 50 57.4**	**-1.7**
GO03	**Copiapo**	**7.21**	**201**	P		**Pn**	**15 50 57.9**	**-1.2**
	comp=Z,19nm,0.6s							
BBSD	**Serra de San D**	**7.35**	**61**	P		**Pn**	**15 51 00.2**	**-0.8**
BBSD	**Serra de San D**	**7.35**	**61**	*e*P		**Pn**	**15 50 59.4**	**-1.6**
SIV	**San Ignacio**	**7.67**	**52**	P		**Pn**	**15 51 04.2**	**-1.1**
	comp=Z,73nm,0.4s,baz=241,slow=11,SNR=397							
SIV					S	**Sn**	**15 52 26.7**	**-5.2**
	comp=Z,20nm,1.0s,baz=306,slow=20,SNR=10							
SIV	**San Ignacio**	**7.67**	**52**	P		**Pn**	**15 51 05.7**	**+0.4**
AC04	**Llanos de Chal**	**8.06**	**204**	Pn		**Pn**	**15 51 08.3**	**-1.9**
AC05	**El Transito**	**8.38**	**198**	Pn		**Pn**	**15 51 12.8**	**-1.7**
LCO	**Las Campanas**	**8.67**	**200**	Pn		**Pn**	**15 51 16.0**	**-2.4**
COIM	**Forte Coimbra**	**9.02**	**86**	*e*P		**Pn**	**15 51 19.9**	**-2.9**
MURT	**Porto Murtinho**	**9.12**	**97**	*e*P		**Pn**	**15 51 23.4**	**-0.7**
PTLB	**Pontes e Lacer**	**9.48**	**57**			**Pn**	**15 51 28.1**	**-0.7**
PTLB	**Pontes e Lacer**	**9.48**	**57**	P		**Pn**	**15 51 27.5**	**-1.3**
PTLB	**Pontes e Lacer**	**9.48**	**57**	*e*P		**Pn**	**15 51 28.1**	**-0.7**
BDQN	**Bodoquena, MS**	**9.94**	**90**	*e*P		**Pn**	**15 51 34.5**	**-0.3**
VILB	**Vilhena**	**10.42**	**42**			**Pn**	**15 51 40.9**	**-0.2**
VILB	**Vilhena**	**10.42**	**42**	*e*P		**Pn**	**15 51 41.7**	**+0.6**
CPUP	**Villa Florida**	**10.69**	**123**	P		**Pn**	**15 51 44.2**	**-0.1**
	comp=Z,1.8nm,0.7s,baz=292,slow=12,SNR=4.4							
CPUP	**Villa Florida**	**10.69**	**123**			**Pn**	**15 51 43.3**	**-1.1**
CPUP	**Villa Florida**	**10.69**	**123**	P		**Pn**	**15 51 44.1**	**-0.3**
	comp=Z,6.3nm,1.2s							
CFA	**Coronel Fontan**	**10.74**	**184**	P		**Pn**	**15 51 45.6**	**+0.5**
	comp=Z,1.3nm,0.3s,baz=61,slow=22,SNR=10							
CFA					S	**Sn**	**15 53 38.9**	**-5.8**
	comp=Z,1.9nm,0.4s,baz=177,slow=19,SNR=3.6							
AQDB	**Aquidauana**	**10.92**	**90**			**Pn**	**15 51 47.8**	**+0.4**
AQDB	**Aquidauana**	**10.92**	**90**	P		**Pn**	**15 51 49.5**	**+2.1**
	comp=Z,22nm,0.8s							
AQDB	**Aquidauana**	**10.92**	**90**	*e*P		**Pn**	**15 51 47.4**	**-0.1**
SJPY	**San Joaquin**	**11.16**	**114**	*e*P		**Pn**	**15 51 50.6**	**+0.2**
SALV	**Santo Antonio**	**12.11**	**68**	*e*P		**Pn**	**15 52 02.1**	**-0.7**
VA03	**San Esteban**	**12.20**	**193**			**Pn**	**15 52 04.4**	**+0.5**
PP1B	**Ponte de Pedra**	**12.22**	**77**	*e*P		**Pn**	**15 52 04.0**	**-0.1**
BO04	**La Punta**	**13.40**	**192**	P		**Pn**	**15 52 19.5**	**+0.6**
PSAL	**Palomas, Salto**	**13.43**	**141**	*e*P		**P**	**15 52 22.1**	**0.0**
PDRB	**Porto dos Gac**	**13.72**	**50**	*e*P		**Pn**	**15 52 23.5**	**+0.5**
BO01	**Tunca**	**13.88**	**193**	P		**P**	**15 52 25.8**	**-1.3**
BO02	**Sierra Bellavi**	**14.21**	**192**	P		**Pn**	**15 52 28.7**	**-0.3**
PTGB	**Pitanga**	**14.61**	**108**	*e*P		**P**	**15 52 35.4**	**0.0**
CLDB	**Colider**	**14.89**	**50**	P		**P**	**15 52 39.7**	**+1.3**
	comp=Z,9.0nm,0.9s							
CLDB	**Colider**	**14.89**	**50**	*e*P		**P**	**15 52 38.2**	**-0.3**
LDASE	**Londrina, Braz**	**15.26**	**103**	*e*P		**P**	**15 52 42.6**	**+0.1**
ITAB	**Concordia**	**15.28**	**118**			**P**	**15 52 43.1**	**+0.4**
ITAB	**Concordia**	**15.28**	**118**	P		**P**	**15 52 44.8**	**+2.2**
	comp=Z,41nm,0.8s							
ITAB	**Concordia**	**15.28**	**118**	*e*P		**P**	**15 52 43.5**	**+0.8**
ARAG	**Araguaiana, MT**	**15.62**	**73

comp=Z,0.3nm,0.7s
VNDA Vanda 77.73 190 P P 16 00 53.3 +2.0
YKA Yellowknife Ar 91.07 340 P P 16 01 59.5 +1.2
comp=Z,2.3nm,0.7s,baz=136,slow=4.5,SNR=16
comp=Z,2.3nm,0.7s
YKAW3 Yellowknife Wh 91.12 340 P P 16 01 58.9 +0.4
YKAW3 IAmb IAmb 16 02 00.5
comp=Z,5.8nm,1.0s
CASY Casey 93.12 179 P P 16 02 07.6 -0.3
ASAR Alice Springs 131.14 206 PKP PKiKP 16 08 07.0 +0.2
comp=Z,0.5nm,0.8s,baz=131,slow=1.8,SNR=12
ASAR SKPbc **SKPab 16 11 14.1 +1.0**
comp=Z,0.8nm,0.8s,baz=137,slow=3.4,SNR=6.1
ASAR Alice Springs 131.14 206 PKiKP 16 08 06.8 -0.1
WRA Warramunga Arr 134.23 209 PKP PKiKP 16 08 13.1 -0.1
comp=Z,0.4nm,0.4s,baz=154,slow=1.9,SNR=12
WRA SKPbc **SKPbc 16 11 24.6 +1.2**
comp=Z,0.4nm,0.9s,baz=140,slow=1.6,SNR=6.0
MKAR Makanchi Array 144.26 36 PKP PKPdf 16 08 29.5 +0.3
comp=Z,1.1nm,0.7s,baz=311,slow=2.0,SNR=7.9
USRK Ussuriysk Ar. 151.72 330 PKPbc PKiKP 16 08 48.5 +0.3
comp=Z,1.8nm,0.7s,baz=326,slow=1.7,SNR=4.9
SONM Songino Array 152.61 9 PKPbc PKiKP 16 08 51.4 +1.2
comp=Z,0.6nm,0.4s,baz=213,slow=1.0,SNR=3.6

IDC ***19*** *15:51:35.4±0.8,2˚49N×126˚78E,h0km,mb3.7/12, mbtmp3.8/12,MS2.3/1,Error ellipse: s-maj=53.3km s-min=14.0km az=68.0*
DJA ***19*** *15:51:41.4±1.3,2˚N±5˚×12˚7E±˚,h13km±11km,M4.3/21, mb4.3/17,mB5.3/6,MLv4.0/21,Mw(mB)4.7/6*
NEIC ***19*** *15:51:42.8±2.0,2˚44N±0˚09×126˚74E±0˚04,h60km±8km, mb4.0/20,Error ellipse: s-maj=13.2km s-min=4.3km az=195.0*

ISC 19 15:51:41.9±0.5,2˚49N±0˚06×126˚83E±0˚07,h53km,n59, σ1s59/60,mb3.9/16,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.79 163**			**Pn**	**15 52 09.3**	**-1.2**
TNTI				Sn	**Sn**	**15 52 32.8**	**+0.8**
TNTI	**Ternate**	**1.79 163**		P	**Pn**	**15 52 09.7**	**-0.7**
MNI	**Manado**	**2.24 242**		P	**Pn**	**15 52 18.2**	**+1.5**
MNI				AML	AML		
KMSI	**Cibinong**	**3.43 236**		P	**Pn**	**15 52 35.9**	**+3.0**
KMSI				AML	AML		
GTOI	**Gorontalo**	**4.24 244**		P	**Pn**	**15 52 47.4**	**+3.4**
GTOI				AML	AML		
SANI	**Sanana**	**4.59 191**		P	**Pn**	**15 52 47.1**	**-1.7**
SANI				AML	AML		
DAV	**Davao City (W)**	**4.72 345**		LR	LR	15 54 44.7	
	comp=Z,36nm,20.6s,baz=161,slow=4.0						
LUWI	**Luwuk**	**5.36 229**		Pn	**Pn**	**15 53 00.4**	**+0.9**
LUWI	**Luwuk**	**5.36 229**		P	**Pn**	**15 53 01.9**	**+2.4**
	0.2nm34nm,0.6s						
LUWI				AML	AML		
APSI	**Ampana**	**6.18 237**		P	**Pn**	**15 53 13.1**	**+2.4**
	0.1nm32nm,0.8s						
APSI				AML	AML		
TOLI2	**Tolitoli**	**6.20 257**			**Pn**	**15 53 10.4**	**-0.5**
TOLI2				Sn	**Sn**	**15 54 17.1**	**-3.5**
BNDI	**Bandanaira**	**7.61 156**		P	**Pn**	**15 53 30.5**	**+0.2**
BNDI				AML	AML		
FAKI	**Fak Fak**	**7.63 135**		Pn	**Pn**	**15 53 32.4**	**+1.9**
KDI	**Kendari**	**7.66 213**		P	**Pn**	**15 53 32.4**	**+1.4**
	1um6.4nm,0.9s						
PCI	**Palu**	**7.76 244**		P	**Pn**	**15 53 34.7**	**+2.3**
	0.1nm9.5nm,0.6s						
PCI				AML	AML		
MWPI	**Manokwari, Pap**	**7.97 115**		P	**Pn**	**15 53 35.6**	**+0.4**
	41nm,1.0s						
KKSI	**Kolaka, Sulawe**	**8.40 218**		P	**Pn**	**15 53 42.6**	**+1.5**
	19nm,0.5s						
TTSI	**Tana Toraja**	**8.91 232**		P	**Pn**	**15 53 50.0**	**+1.9**
	13nm,0.9s						
TARAI	**Tarakan**	**9.29 275**		P	**Pn**	**15 53 56.5**	**+3.3**
MMSI	**Mamuju**	**9.44 237**		P	**Pn**	**15 53 57.5**	**+2.1**
BAKI	**Biak**	**9.97 111**		P	**Pn**	**15 54 03.1**	**+0.5**
BKSI	**Bulukumba**	**10.25 221**		P	**Pn**	**15 54 08.4**	**+1.9**
KKM	**Kota Kinabalu**	**11.16 289**		Pn	**Pn**	**15 54 19.4**	**+0.4**
MTN	**Manton Dam**	**15.82 164**		Pn	**Pn**	**15 55 20.8**	**-0.6**
MTN				IAmb	IAmb	15 55 38.7	
	comp=Z,9.7nm,1.2s						
KNRA	**Kununurra**	**18.15 174**		P	**P**	**15 55 48.4**	**-1.6**
KNRA				IAmb	IAmb	15 55 53.8	
	comp=Z,5.9nm,1.2s						
FITZ	**Fitzroy Crossi**	**20.49 183**		P	**P**	**15 56 14.3**	**-1.3**
	comp=Z,0.6nm,0.3s,baz=12,slow=9.9,SNR=8.1						
	comp=Z,0.6nm,0.3s						
FITZ	**Fitzroy Crossi**	**20.49 183**		P	**P**	**15 56 13.7**	**-1.9**
YULB	**Yu-li**	**21.46 346**		P	**P**	**15 56 25.0**	**-1.0**
TPUB	**Ta-pu**	**21.54 344**		P	**P**	**15 56 25.4**	**-1.5**
SSLB	**Suanglung**	**21.92 345**		P	**P**	**15 56 31.3**	**+0.3**
SSLB				IAmb	IAmb	15 56 40.5	
	comp=Z,5.2nm,0.9s						
WB0	**Warramunga Arr**	**23.33 162**		P	**P**	**15 56 44.2**	**-1.5**
WB0				IAmb	IAmb	15 56 52.5	
	comp=Z,5.2nm,1.1s						
WRAB	**Tennant Creek**	**23.47 162**		P	**P**	**15 56 44.3**	**-2.7**
WRAB				IAmb	IAmb	15 56 53.5	
	comp=Z,3.5nm,0.7s						
WRA	**Warramunga Arr**	**23.48 162**		P	**P**	**15 56 46.1**	**-1.0**
	comp=Z,1.3nm,0.4s,baz=341,slow=11,SNR=33						
	comp=Z,1.3nm,0.4s						
WRA	**Warramunga Arr**	**23.48 162**		P	**P**	**15 56 44.2**	**-2.9**
WR8	**Warramunga Arr**	**23.54 162**		P	**P**	**15 56 45.5**	**-2.2**
WR8				IAmb	IAmb	15 56 51.0	
	comp=Z,11nm,1.3s						
AS31	**Alice Springs**	**26.89 166**			**P**	**15 57 16.6**	**-1.5**
ASAR	**Alice Springs**	**26.89 166**		P	**P**	**15 57 18.1**	**0.0**
	comp=Z,0.4nm,0.3s,baz=347,slow=12,SNR=18						
	comp=Z,0.4nm,0.3s						
ASAR	**Alice Springs**	**26.89 166**		P	**P**	**15 57 17.1**	**-1.0**
CMAR	**Chiang Mai Arr**	**31.60 302**		P	**P**	**15 57 59.8**	**-0.2**
	comp=Z,0.4nm,0.3s,baz=116,slow=7.0,SNR=6.6						
	comp=Z,0.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**31.60 302**		P	**P**	**15 57 59.0**	**-1.0**
BBOO	**Buckleboo**	**36.18 167**			**P**	**15 58 38.5**	**-1.0**
STKA	**Stephens Creek**	**36.94 159**		P	**P**	**15 58 47.1**	**+1.1**
	comp=Z,1.3nm,0.5s,baz=328,slow=11,SNR=5.8						
	comp=Z,1.3nm,0.5s						
STKA	**Stephens Creek**	**36.94 159**		P	**P**	**15 58 45.5**	**-0.6**
ARMA	**Armidale**	**40.38 146**		P	**P**	**15 59 15.1**	**+0.1**
SONM	**Songino Array**	**48.50 342**		P	**P**	**16 00 20.8**	**+1.2**
	comp=Z,0.5nm,0.5s,baz=154,slow=10.0,SNR=2.9						
	comp=Z,0.5nm,0.5s						
SONM	**Songino Array**	**48.50 342**		P	**P**	**16 00 19.4**	**-0.2**
FUNA	**Funafuti**	**53.34 102**		P	**P**	**16 00 55.4**	**-0.9**
MKAR	**Makanchi Array**	**58.63 326**		P	**P**	**16 01 34.2**	**+0.5**
	comp=Z,0.6nm,0.5s,baz=119,slow=8.3,SNR=12						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**58.63 326**		P	**P**	**16 01 33.9**	**+0.2**
MAKZ	**Makanchi**	**58.81 326**		P	**P**	**16 01 34.6**	**-0.4**
MAKZ				IAmb	IAmb	16 02 10.9	
	comp=Z,3.8nm,1.2s						
YAK	**Yakutsk**	**59.44 2**		P	**P**	**16 01 38.4**	**-0.5**
ZALV	**Zalesovo Beam**	**61.73 333**		P	**P**	**16 01 54.1**	**-0.6**
	comp=Z,0.5nm,0.5s,baz=128,slow=8.1,SNR=2.3						
	comp=Z,0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**62.83 328**		P	**P**	**16 02 02.8**	**+0.6**
	comp=Z,1.1nm,0.5s,baz=128,slow=5.8,SNR=25						
	comp=Z,1.1nm,0.5s						
KURK	**Kurchatov**	**62.84 328**		P	**P**	**16 02 02.2**	**+0.1**
BVAR	**Borovoye Array**	**68.41 327**		P	**P**	**16 02 38.8**	**+0.7**
	comp=Z,0.3nm,0.3s,baz=54,slow=4.6,SNR=4.1						
	comp=Z,0.3nm,0.3s						
ABKAR	**Akbulak array**	**73.17 321**		P	**P**	**16 03 06.6**	**-0.5**
VNDA	**Vanda**	**82.19 173**		P	**P**	**16 03 59.3**	**+2.6**
	comp=Z,0.4nm,0.8s,baz=335,slow=5.3,SNR=2.6						
	comp=Z,0.4nm,0.8s						
VNDA	**Vanda**	**82.19 173**		P	**P**	**16 03 57.0**	**+0.2**
VNDA				IAmb	IAmb	16 04 06.3	
	comp=Z,3.8nm,1.5s						
ILAR	**Eielson Array**	**86.17 25**		P	**P**	**16 04 18.0**	**+0.7**
	comp=Z,0.2nm,0.6s,baz=270,slow=6.3,SNR=1.9						
	comp=Z,0.2nm,0.6s						

RSNC ***19*** *16:07:16.5±0.3,7˚N±2˚×8˚0W±˚,h0km,M3.2,mb3.8,ML2.5*
CATAC ***19*** *16:07:18.5±0.8,7˚N±4˚×7˚9W±˚,h5km,M3.9/9,mb4.2/1, MLv3.7/9,Error ellipse: s-maj=11.3km s-min=6.0km az=128.7,confirmed*
UPA ***19*** *16:07:19.4±2.0,7˚27N×79˚82W,h7km±6km,MW3.7, Presumed earthquake*

ISC 19 16:07:17.2±1.3,7˚22N±0˚04×79˚80W±0˚03,h15km±9km, n48,σ1s40/81,3C-3D,South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PEDA3	**Pedasi**	**0.38 323**		⇑*i*P	**Pb**	**16 07 26.2**	**+0.5**
PEDA3				*i* S	**Sb**	**16 07 32.1**	**+0.7**
ACHO3	**Achotines, Los**	**0.42 297**		*i* P	**Pn**	**16 07 27.1**	**-1.6**
ACHO3				*e*P	**Pn**	**16 07 27.2**	**-1.6**
ACHO3				*i* S	**Sb**	**16 07 32.2**	**-0.3**
PCRI3	**Pocri, Los San**	**0.54 324**		*i* P	**Pn**	**16 07 29.2**	**-1.3**
PCRI3				*i* S	**Sb**	**16 07 37.5**	**+1.5**
TOSI3	**Tonosi**	**0.66 286**		*i* P	**Pn**	**16 07 31.4**	**-0.8**
TOSI3				*i* S	**Sn**	**16 07 42.9**	**+0.6**
CHIT3	**Chitre**	**0.95 320**		*i* P	**Pg**	**16 07 35.7**	**0.0**
CHIT3				*i* S	**Sn**	**16 07 49.1**	**-0.4**
CACAO	**El Cacao, Vera**	**1.06 277**		P	**Pg**	**16 07 37.0**	**-0.7**
CACAO				S	**Sn**	**16 07 51.6**	**-0.5**
CACAO	**El Cacao, Vera**	**1.06 277**		⇑*i*P	**Pg**	**16 07 37.1**	**-0.7**
CACAO				*i* S	**Sn**	**16 07 51.7**	**-0.5**
MARI3	**Mariato, Verag**	**1.25 290**		*e*P	**Pg**	**16 07 41.3**	**-0.1**
MARI3				*e*S	**Sg**	**16 07 59.6**	**+1.8**
PNME	**Penonome**	**1.36 337**		P	**Pb**	**16 07 42.1**	**-0.3**
PNME				S	**Sb**	**16 08 00.6**	**+0.9**
PNME	**Penonome**	**1.36 337**		*e*P	**Pb**	**16 07 42.5**	**0.0**
PNME				*i* S	**Sg**	**16 08 01.1**	**-0.1**
GMAL	**Guarumal, Vera**	**1.52 291**		P	**Pg**	**16 07 45.3**	**-1.2**
GMAL				S	**Sg**	**16 08 09.4**	**+3.1**
GMAL	**Guarumal, Vera**	**1.52 291**		*e*P	**Pg**	**16 07 45.2**	**-1.2**
GMAL				*i* S	**Sg**	**16 08 06.2**	**-0.1**
RSUS3	**Rio de Jesus,**	**1.55 299**		*e*P	**Pg**	**16 07 46.7**	**-0.3**
SFRA3	**San Francisco,**	**1.55 311**		⇓*e*P	**Pb**	**16 07 45.6**	**0.0**
SFRA3				*i* S	**Sg**	**16 08 06.2**	**-0.9**
TABO3	**Taboga, Panama**	**1.58 9**		⇓*e*P	**Pb**	**16 07 46.3**	**+0.1**
TABO3				*i* S	**Sn**	**16 08 05.4**	**+0.4**
FLAM	**Flamenco Islan**	**1.70 9**		*e*P	**Pb**	**16 07 47.1**	**-1.2**
FLAM				*i* S	**Sb**	**16 08 09.8**	**+0.3**
ZANG	**Zanguenga, Cho**	**1.72 358**		*e*P	**Pb**	**16 07 48.7**	**0.0**
ZANG				*i* S	**Sb**	**16 08 10.3**	**+0.1**
ARRA3	**Arraijan, Pana**	**1.74 5**		*i* P	**Pb**	**16 07 48.6**	**-0.2**
ARRA3				*i* S	**Sb**	**16 08 10.8**	**+0.2**
UPA	**Univ. de Panam**	**1.77 9**		P	**Pb**	**16 07 48.5**	**-0.9**
UPA				S	**Sb**	**16 08 11.5**	**+0.1**
UPA	**Univ. de Panam**	**1.77 9**		*i* P	**Pb**	**16 07 48.9**	**-0.5**
UPA				*i* S	**Sb**	**16 08 11.5**	**+0.1**
SAFE3	**Santa Fe, Vera**	**1.81 316**		*e*P	**Pb**	**16 07 49.9**	**-0.1**
SAFE3				*i* S	**Sb**	**16 08 12.5**	**0.0**
GAMB1	**Gamboa**	**1.89 3**		*e*P	**Pb**	**16 07 50.9**	**-0.6**
GAMB1				*i* S	**Sb**	**16 08 15.0**	**+0.1**
BCIP	**Isla Barro Col**	**1.93 359**		P	**Pb**	**16 07 51.8**	**-0.4**
BCIP				S	**Sb**	**16 08 16.9**	**+0.7**
BCIP	**Isla Barro Col**	**1.93 359**		P	**Pb**	**16 07 51.7**	**-0.5**
BCIP				S	**Sb**	**16 08 16.8**	**+0.7**
BCIP	**Isla Barro Col**	**1.93 359**		⇓*i*P	**Pb**	**16 07 51.7**	**-0.5**
BCIP				*i* S	**Sb**	**16 08 16.8**	**+0.7**
PVID3	**Puerto Vidal,**	**1.97 295**		*e*P	**Pb**	**16 07 53.1**	**+0.2**
PVID3				*e*S	**Sg**	**16 08 22.7**	**+2.0**
FRIJ	**El Hiral**	**1.99 2**		*e*P	**Pb**	**16 07 53.2**	**+0.1**
FRIJ				*i* S	**Sn**	**16 08 15.8**	**+0.7**
MLIR	**Monte Lirio**	**2.01 358**		*i* P	**Pb**	**16 07 52.8**	**-0.7**
CHPO	**Chepo, Panama**	**2.05 19**		*i* P	**Pb**	**16 07 53.3**	**-0.9**
CHPO				*i* S	**Sn**	**16 08 17.4**	**+0.8**
NANC3	**Nancito, Chiri**	**2.17 298**		*e*P	**Pb**	**16 07 56.1**	**-0.1**
REME3	**Remedios, Chir**	**2.25 296**		*e*P	**Pb**	**16 07 56.5**	**-1.1**
CHGR2	**Aguacate**	**2.88 306**		*e*P	**Pb**	**16 08 05.6**	**-2.8**
DVD	**David**	**2.89 295**		*e*P	**Pn**	**16 07 58.7**	**-4.1**
PSOM3	**Paja de Sombre**	**2.89 300**		*e*P	**Pn**	**16 08 03.3**	**+0.4**
BQSF3	**Alto Boquete,**	**3.01 300**		*e*P	**Pn**	**16 08 05.7**	**+1.0**
PTPM	**Petroterminale**	**3.20 288**		*e*P	**Pn**	**16 08 09.4**	**+2.2**
APAC	**Apartado, Choc**	**3.26 78**		P	**Pn**	**16 08 05.1**	**-2.8**
APAC				S	**Sn**	**16 08 48.0**	**+1.5**
BRU2	**Volcan**	**3.26 299**		P	**Pb**	**16 08 18.7**	**-1.2**
BRU2				S	**Sb**	**16 08 56.6**	**+2.0**
BRU2	**Volcan**	**3.26 299**		⇑*e*P	**Pb**	**16 08 11.4**	**-3.6**
BRU2				*e*S	**Sn**	**16 08 49.0**	**+2.2**
CDITO	**Canoas**	**3.33 294**		P	**Pb**	**16 08 15.8**	**-0.2**
CDITO				S	**Sb**	**16 08 59.1**	**+2.7**
CTCR	**Cotoan**	**3.37 300**		*e*P	**Pn**	**16 08 10.6**	**+1.0**
MLIR3	**Monte Lirio, C**	**3.38 298**		*e*P	**Pn**	**16 08 12.2**	**+2.6**
MLIR3				*i* S	**Sn**	**16 08 44.9**	**-4.7**
CBOC	**Ciudad Bolivar**	**4.00 110**		P	**Pn**	**16 08 16.8**	**-1.4**
UREC	**San Jos de Ur**	**4.26 83**		P	**Pn**	**16 08 23.0**	**+1.3**
UREC				S	**Sn**	**16 09 10.5**	**-0.8**
HELC	**Santa Helena**	**4.36 103**		P	**Pn**	**16 08 23.8**	**+0.4**
GUY2C	**Guyana, Caldas**	**4.83 114**		P	**Pn**	**16 08 30.0**	**0.0**
LCR2	**La Lucha 2**	**4.86 301**		P	Pn	16 08 34.6	+4.5
NORC	**Norcasia**	**5.17 108**		P	**Pn**	**16 08 35.9**	**+1.7**
	10nm,0.7s						
NORC				AML	AML		

NEIC ***19*** *16:17:14.3±1.8,14˚2S±0˚1×167˚4E±0˚2,h194km±8km, mb4.3/23,Error ellipse: s-maj=24.1km s-min=14.2km az=110.0*
IDC ***19*** *16:17:17.6±3.7,14˚27S×167˚22E,h218km±35km, mb3.8/11,mbtmp4.3/12,Error ellipse: s-maj=26.9km s-min=20.3km az=122.0*
NOU ***19*** *16:17:30.6,14˚70S×167˚37E,h13km,MLv4.5/5,Vanuatu Islands*

ISC 19 16:17:14.8±0.7,14˚20S±0˚07×167˚2E±0˚1,h200km,n50, σ1s00/47,mb4.2/19,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**1.24 182**		P	**Pn**	**16 17 45.5**	**-0.9**
SANVU	**Saraoutou**	**1.24 182**			**Pn**	**16 17 45.6**	**-0.9**
SANVU				Sn	**Sn**	**16 18 09.1**	**-2.0**
DVP	**Devils Point**	**3.62 166**		P	Pn	16 18 20.7	+8.7
KOUNC	**Koumac, New Ca**	**6.92 204**		Pn	**Pn**	**16 18 51.4**	**-2.6**
KOUNC				Sn	**Sn**	**16 20 14.6**	**+1.8**
MARNC	**Mare, Loyalty**	**7.28 174**		Pn	**Pn**	**16 18 58.6**	**-0.1**
DZM	**Mont Dzumac**	**7.87 185**		P	**Pn**	**16 19 09.0**	**+2.5**
	4.8nm,0.7s,baz=121,slow=16,SNR=12						
PINNC	**Pines Island,**	**8.37 179**		Pn	**Pn**	**16 19 11.1**	**-1.9**
EIDS	**Eidsvold**	**18.81 231**			**Pn**	**16 21 21.4**	**-1.0**
EIDS				IAmb	IAmb	16 21 58.6	
	comp=Z,19nm,1.4s						
ARMA	**Armidale**	**21.62 219**		P	**P**	**16 21 50.5**	**+1.1**
ARMA				IAmb	IAmb	16 22 08.8	
	comp=Z,11nm,1.2s						
INKA	**Innaminka**	**28.09 237**		P	**P**	**16 22 48.8**	**+0.7**
STKA	**Stephens Creek**	**29.32 229**		P	**P**	**16 23 00.4**	**+1.5**
	comp=Z,3.2nm,0.5s,baz=53,slow=9.4,SNR=12						
	comp=Z,3.2nm,0.5s						
STKA	**Stephens Creek**	**29.32 229**		P	**P**	**16 22 58.7**	**-0.2**
WR8	**Warramunga Arr**	**31.78 255**		P	**P**	**16 23 19.8**	**-0.9**
WR8				IAmb	IAmb	16 23 30.7	
	comp=Z,8.8nm,1.3s						
WB0	**Warramunga Arr**	**31.86 255**			**P**	**16 23 20.9**	**-0.5**
WRA	**Warramunga Arr**	**31.93 255**		P	**P**	**16 23 21.6**	**-0.4**
	comp=Z,2.7nm,0.5s,baz=87,slow=9.4,SNR=60						
	comp=Z,2.7nm,0.5s						
WRA	**Warramunga Arr**	**31.93 255**		P	**P**	**16 23 20.4**	**-1.6**
AS31	**Alice Springs**	**32.84 248**			**P**	**16 23 29.3**	**-0.6**
ASAR	**Alice Springs**	**32.84 248**		P	**P**	**16 23 29.6**	**-0.3**
	comp=Z,2.3nm,0.3s,baz=78,slow=9.6,SNR=97						
	comp=Z,2.3nm,0.3s						
ASAR	**Alice Springs**	**32.84 248**		P	**P**	**16 23 29.2**	**-0.7**
BBOO	**Buckleboo**	**33.88 231**			**P**	**16 23 38.9**	**+0.1**
DPSS	**Saipan**	**36.13 323**		P	**P**	**16 23 57.1**	**-1.0**
FAKI	**Fak Fak**	**36.31 285**		P	**P**	**16 23 59.6**	**-0.1**
FAKI				IAmb	IAmb	16 24 02.1	
	comp=Z,7.8nm,0.8s						
KNRA	**Kununurra**	**37.17 263**		P	**P**	**16 24 07.2**	**+0.2**
KNRA				IAmb	IAmb	16 24 08.3	
	comp=Z,4.5nm,0.9s						
FORT	**Forrest**	**39.54 239**		P	**P**	**16 24 26.5**	**-0.1**
FORT				IAmb	IAmb	16 24 40.3	
	comp=Z,7.9nm,0.9s						
FITZ	**Fitzroy Crossi**	**40.09 259**		P	**P**	**16 24 32.1**	**+1.0**
MBWA	**Marble Bar**	**45.66 254**		P	**P**	**16 25 16.2**	**+0.3**
MBWA				IAmb	IAmb	16 25 47.2	
	comp=Z,18nm,1.1s						
NWAO	**Narrogin (SRO)**	**49.00 239**		P	**P**	**16 25 40.9**	**-0.6**
MORW	**Morawa**	**49.47 244**		P	**P**	**16 25 45.1**	**0.0**
MORW				IAmb	IAmb	16 25 46.3	
	comp=Z,9.3nm,0.9s						
MJAR	**Matsushiro Arr**	**57.42 332**		P	**P**	**16 26 43.0**	**+0.3**
	comp=Z,2.5nm,0.8s,baz=167,slow=9.1,SNR=6.2						
	comp=Z,2.5nm,0.8s						
MJAR	**Matsushiro Arr**	**57.42 332**		IAmb	IAmb	16 26 44.7	
	comp=Z,4.8nm,1.2s						
MAJO	**Matsushiro**	**57.42 332**		P	**P**	**16 26 42.1**	**-0.6**
MAJO				IAmb	IAmb	16 26 45.1	
	comp=Z,6.3nm,1.2s						
MJB9	**Matsu-Tunnel**	**57.43 332**		P	**P**	**16 26 42.8**	**+0.1**
BBJI	**Bungbulang**	**58.78 270**		P	**P**	**16 26 52.7**	**0.0**
PETK	**Petropavlovsk-**	**67.53 354**		P	P	16 27 51.2	+1.9
	comp=Z,2.5nm,0.8s,baz=225,slow=7.8,SNR=0.9						
	comp=Z,2.5nm,0.8s						
PETK	**Petropavlovsk-**	**67.53 354**		P	P	16 27 51.0	+1.7
CMAR	**Chiang Mai Arr**	**74.71 294**		P	P	16 28 35.4	+2.2
	comp=Z,0.6nm,0.4s,baz=117,slow=4.4,SNR=9.7						
	comp=Z,0.6nm,0.4s						
CMAR	**Chiang Mai Arr**	**74.71 294**		P	**P**	**16 28 34.0**	**+0.8**
QSPA	**South Pole Qui**	**75.83 180**		P	**P**	**16 28 38.7**	**-0.1**
	comp=Z,1.4nm,0.9s,baz=288,slow=2.3,SNR=3.4						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	**75.83 180**		P	**P**	**16 28 38.5**	**-0.4**
QSPA				IAmb	IAmb	16 29 19.9	
	comp=Z,8.2nm,1.5s						
SONM	**Songino Array**	**82.05 324**		P	**P**	**16 29 14.4**	**+1.5**
	comp=Z,0.6nm,0.4s,baz=147,slow=8.3,SNR=6.4						
	comp=Z,0.6nm,0.4s						
SONM	**Songino Array**	**82.05 324**		P	**P**	**16 29 13.4**	**+0.5**
ILAR	**Eielson Array**	**86.03 18**		P	**P**	**16 29 32.1**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=242,slow=5.5,SNR=10.0						
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**96.80 316**		P	**P**	**16 30 24.1**	**+1.2**
	comp=Z,1.4nm,0.8s,baz=92,slow=6.9,SNR=7.9						
	comp=Z,1.4nm,0.8s						
MKAR	**Makanchi Array**	**96.80 316**		P	**P**	**16 30 22.6**	**-0.3**
ZALV	**Zalesovo Beam**	**96.95 324**		P	**P**	**16 30 23.4**	**+0.1**
	comp=Z,1.0nm,0.7s,baz=94,slow=5.9,SNR=5.4						
	comp=Z,1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**96.95 324**		P	**P**	**16 30 22.6**	**-0.7**
KBZ	**Khabaz**	**124.37 314**		PKP	**PKiKP**	**16 35 50.4**	**0.0**
	comp=Z,2.7nm,0.9s,baz=139,slow=4.4,SNR=3.6						
FINES	**FINESS Array B**	**125.22 338**		PKP	**PKiKP**	**16 35 52.0**	**+0.4**
	comp=Z,7.0nm,1.0s,baz=126,slow=3.3,SNR=3.7						
KEST	**Kesra**	**150.78 321**		PKPbc	**PKiKP**	**16 36 44.5**	**-0.1**
	comp=Z,6.2nm,0.9s,baz=252,slow=4.5,SNR=5.3						
ESDC	**Sonseca Array**	**153.47 345**		PKPab	**PKPab**	**16 37 03.6**	**+0.8**
	comp=Z,1.4nm,1.0s,baz=359,slow=3.2,SNR=5.2						

NEIC ***19*** *16:17:26.9±1.5,54˚25N±0˚04×159˚70W±0˚07,h27km±9km, mb3.6/7,ML3.6/34,ML3.3(AEIC),Error ellipse: s-maj=7.0km s-min=4.7km az=217.0*
AEIC ***19*** *16:17:28.5±2.1,54˚27N±0˚06×159˚79W±0˚09,h21km±8km, Error ellipse: s-maj=9.3km s-min=6.9km az=146.0*

ISC 19 16:17:26.2±1.7,54˚21N±0˚07×159˚70W±0˚06, h29km±14km,n149,σ0s87/160,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.61 6**			**Pn**	**16 17 38.5**	**-0.4**
CNBA					**Sb**	**16 17 46.8**	**+0.1**
CHNA	**Chernabura Isl**	**0.62 6**		P	**Pb**	**16 17 38.3**	**-0.3**
SDPT	**Sand Point**	**1.23 339**		P	**Pn**	**16 17 46.8**	**-0.6**
SDPT	**Sand Point**	**1.23 339**		S	**Sn**	**16 18 01.8**	**-1.2**
SDPT	**Sand Point**	**1.23 339**			**Pn**	**16 17 47.1**	**-0.3**
SDPT					**Sn**	**16 18 01.7**	**-1.2**
DOL	**Dolgoi Island**	**1.57 308**			**Pn**	**16 17 51.9**	**-0.3**
DOL					**Sn**	**16 18 10.1**	**-1.4**
PS4A	**Pavlof South-4**	**1.69 313**			**Pn**	**16 17 54.0**	**+0.2**
PS4A					**Sn**	**16 18 14.4**	**-0.1**
PS1A	**Pavlof South-1**	**1.69 316**			**Pn**	**16 17 54.3**	**+0.4**
PS1A					**Sn**	**16 18 15.2**	**+0.6**
DT1	**Dutton Round H**	**1.75 302**			**Pn**	**16 17 54.3**	**-0.3**
DT1					**Sn**	**16 18 14.6**	**-1.3**
DTNA	**Dutton South F**	**1.76 303**			**Pn**	**

SPIA	**Saint Paul Isl**	**6.66**	**301**	Pn	**Pn**	**16 19 02.7**	**+0.7**
ILSW	**Iliamna Southw**	**6.80**	**29**	Pn	**Pn**	**16 19 04.6**	**+0.6**
N18K	**Kilae Creek**	**6.80**	**16**	Pn	**Pn**	**16 19 02.8**	**-1.1**
M16K	**Timber Creek**	**6.84**	**3**	Pn	**Pn**	**16 19 04.3**	**-0.2**
CNPM	**China Poot**	**7.06**	**38**		**Pn**	**16 19 07.2**	**-0.3**
N19K	**Bonanza Creek**	**7.19**	**21**	Pn	**Pn**	**16 19 08.7**	**-0.6**
RED	**Redoubt Volcan**	**7.26**	**28**	Pn	**Pn**	**16 19 09.6**	**-0.7**
M17K	**Holitna River**	**7.31**	**9**		**Pn**	**16 19 11.0**	**+0.1**
L14K	**Kuka Creek**	**7.33**	**349**	Pn	**Pn**	**16 19 10.3**	**-0.7**
BRLK	**Bradley Lake**	**7.35**	**37**		**Pn**	**16 19 10.4**	**-1.1**
BRSE	**Bradley Lake S**	**7.39**	**38**		**Pn**	**16 19 11.2**	**-0.8**
SPU	**Mount Spurr**	**8.09**	**27**		**Pn**	**16 19 23.8**	**+2.1**
SEW	**Seward**	**8.11**	**39**	Pn	**Pn**	**16 19 22.3**	**+0.5**
SLKM	**Skilak Lake**	**8.12**	**35**		**Pn**	**16 19 21.8**	**-0.2**
K15K	**Wolf Creek Mou**	**8.16**	**354**	Pn	**Pn**	**16 19 22.9**	**+0.3**
K13K	**Kusilvak Mount**	**8.17**	**343**	Pn	**Pn**	**16 19 23.1**	**+0.3**
L18K	**Granite Mounta**	**8.19**	**10**	Pn	**Pn**	**16 19 21.0**	**-1.9**
O22K	**Cooper Landing**	**8.27**	**37**	Pn	**Pn**	**16 19 23.2**	**-0.9**
L19K	**White Mountain**	**8.39**	**16**	Pn	**Pn**	**16 19 24.8**	**-0.9**
STLK	**Strandline Lak**	**8.42**	**27**	Pn	**Pn**	**16 19 26.9**	**+0.7**
M20K	**Styx River**	**8.44**	**22**	Pn	**Pn**	**16 19 27.4**	**+1.0**
K17K	**Iditarod**	**8.56**	**4**	Pn	**Pn**	**16 19 28.3**	**+0.2**
SUA	**Susitna One**	**8.69**	**30**	Pn	**Pn**	**16 19 30.5**	**+0.5**
RC01	**Rabbit Creek A**	**8.71**	**34**		**Pn**	**16 19 29.9**	**-0.2**
J14K	**Nanvaranak Lak**	**8.80**	**348**	Pn	**Pn**	**16 19 31.6**	**+0.3**
P23K	**Montague Islan**	**8.84**	**44**	Pn	**Pn**	**16 19 31.9**	**0.0**
SKT	**Skwentna**	**8.90**	**26**	Pn	**Pn**	**16 19 33.6**	**+0.9**
PWL	**Port Wells**	**9.03**	**38**		**Pn**	**16 19 32.4**	**-2.2**
M22K	**Willow**	**9.10**	**30**	Pn	**Pn**	**16 19 34.4**	**-1.0**
J16K	**Anvik River**	**9.11**	**357**	Pn	**Pn**	**16 19 35.4**	**-0.2**
J17K	**VABM Dome**	**9.22**	**2**	Pn	**Pn**	**16 19 36.8**	**-0.2**
PMR	**Palmer**	**9.28**	**33**	P	**Pn**	**16 19 38.3**	**+0.4**
PMR	**Palmer**	**9.28**	**33**	Pn	**Pn**	**16 19 37.5**	**-0.4**
KNK	**Knik Glacier**	**9.37**	**35**		**Pn**	**16 19 38.8**	**-0.4**
J18K	**Innoko River**	**9.41**	**8**	Pn	**Pn**	**16 19 39.0**	**-0.7**
HIN	**Hinchinbrook I**	**9.44**	**44**	Pn	**Pn**	**16 19 39.4**	**-0.8**
GHO	**Glory Hole Cre**	**9.48**	**33**		**Pn**	**16 19 39.7**	**-1.0**
GLI	**Glacier Island**	**9.50**	**40**	Pn	**Pn**	**16 19 39.5**	**-1.5**
PPLA	**Purkeypile**	**9.54**	**21**	Pn	**Pn**	**16 19 42.5**	**+0.9**
FID	**Port Fidalgo**	**9.66**	**42**	Pn	**Pn**	**16 19 41.2**	**-1.9**
SML	**Sawmill**	**9.70**	**34**		**Pn**	**16 19 43.1**	**-0.6**
CAST	**Castle Rocks**	**10.03**	**20**	Pn	**Pn**	**16 19 48.6**	**+0.4**
SCM	**Sheep Creek Mo**	**10.05**	**36**		**Pn**	**16 19 47.5**	**-1.1**
DIV	**Divide**	**10.16**	**41**	Pn	**Pn**	**16 19 49.4**	**-0.7**
KLU	**Klutina**	**10.33**	**40**	Pn	**Pn**	**16 19 52.1**	**-0.2**
TRF	**Thorofare Moun**	**10.45**	**24**	Pn	**Pn**	**16 19 54.0**	**-0.2**
BMRM	**Bremner River**	**10.54**	**44**	Pn	**Pn**	**16 19 54.6**	**-0.6**
BERG	**Berg Lake**	**10.62**	**48**	Pn	**Pn**	**16 19 55.8**	**-0.5**
RND	**Reindeer**	**10.78**	**27**	Pn	**Pn**	**16 19 57.0**	**-1.5**
DHY	**Denali Highway**	**10.94**	**31**	Pn	**Pn**	**16 19 59.3**	**-1.5**
MCK	**McKinley**	**11.03**	**26**	Pn	**Pn**	**16 20 01.4**	**-0.4**
CRQM	**Cirque**	**11.04**	**47**	Pn	**Pn**	**16 20 01.4**	**-0.8**
GLB	**Gilahina Butte**	**11.12**	**43**	Pn	**Pn**	**16 20 02.6**	**-0.5**
VRDI	**Verde Repeater**	**11.15**	**44**	Pn	**Pn**	**16 20 02.8**	**-0.8**
TGL	**Tana Glacier**	**11.17**	**47**	Pn	**Pn**	**16 20 04.3**	**+0.4**
HARP	**HAARP**	**11.19**	**37**	Pn	**Pn**	**16 20 04.3**	**+0.3**
MCARA	**McCarthy VSAT**	**11.41**	**44**	Pn	**Pn**	**16 20 06.4**	**-0.7**
PAX	**Paxson**	**11.47**	**34**	Pn	**Pn**	**16 20 07.4**	**-0.5**
GRNC	**Granite Creek**	**11.63**	**49**	Pn	**Pn**	**16 20 09.0**	**-1.3**
BARN	**Barnard Glacie**	**11.82**	**47**	Pn	**Pn**	**16 20 12.9**	**0.0**
K24K	**Donnelly Dome**	**11.96**	**31**	Pn	**Pn**	**16 20 14.8**	**+0.2**
M26K	**Nabesna, AK**	**11.98**	**40**	Pn	**Pn**	**16 20 14.9**	**0.0**
LOGN	**Logan Glacier**	**12.01**	**49**	Pn	**Pn**	**16 20 15.6**	**+0.3**
PCA	**Pinnacle**	**12.06**	**53**		**Pn**	**16 20 16.3**	**+0.3**
BCPM	**Bancas Point**	**12.31**	**54**	Pn	**Pn**	**16 20 19.0**	**-0.3**
PNL	**Peninsula**	**12.33**	**56**	P	**Pn**	**16 20 20.6**	**+1.0**
O28M	**Mount Upton**	**12.35**	**50**		**Pn**	**16 20 20.8**	**+0.3**
IL31		**12.39**	**26**	Pn	**Pn**	**16 20 18.4**	**-2.0**
O29M	**Mount Kennedy**	**12.92**	**53**		**Pn**	**16 20 27.7**	**-0.1**
P29M	**Windy Craggy**	**13.13**	**57**		**Pn**	**16 20 31.1**	**+0.6**
S31K	**Pelican**	**13.60**	**65**	Pn	**Pn**	**16 20 36.3**	**-0.6**
M29M	**Somme Creek**	**13.81**	**45**	Pn	**Pn**	**16 20 39.2**	**-0.7**
N30M	**Aishikik Lake**	**14.00**	**50**	Pn	**Pn**	**16 20 41.7**	**-0.8**
O30N	**Mendenhall**	**14.23**	**53**	Pn	**Pn**	**16 20 44.5**	**-1.1**
L29M	**L29M**	**14.26**	**43**	Pn	**Pn**	**16 20 44.9**	**-1.0**
SKAG	**Skagway**	**14.29**	**59**	P	**Pn**	**16 20 49.3**	**+3.0**
SKAG	**Skagway**	**14.29**	**59**	Pn	**Pn**	**16 20 45.3**	**-1.0**
S32K	**Killisnoo**	**14.45**	**67**	Pn	**Pn**	**16 20 49.0**	**+0.5**
WHY	**Whitehorse**	**14.78**	**54**	Pn	**Pn**	**16 20 54.0**	**+1.0**
BMAR	**Burnt Mountain**	**15.10**	**23**	Pn	**Pn**	**16 20 56.3**	**-0.9**
P32M	**Atlin**	**15.12**	**59**	Pn	**Pn**	**16 20 57.8**	**+0.2**
J30M	**Hart River**	**15.68**	**39**	Pn	**Pn**	**16 21 05.2**	**+0.2**
J30M	comp=Z,2.9nm,0.9s			IAmb	IAmb	16 21 15.5	
H29M	**Whitestone**	**15.92**	**33**	Pn	**Pn**	**16 21 07.8**	**-0.1**
H29M	comp=Z,3.8nm,1.1s			IAmb	IAmb	16 21 17.6	
I30M	**Mount Dempster**	**16.00**	**37**	Pn	**Pn**	**16 21 07.9**	**-1.2**
I30M	comp=Z,5.0nm,0.9s			IAmb	IAmb	16 21 16.9	
G30M	**tAoh Zraii Nji**	**17.06**	**32**	Pn	**Pn**	**16 21 21.0**	**-1.4**
G30M	comp=Z,12nm,1.4s			IAmb	IAmb	16 21 27.7	
F30M	**Barrier River**	**17.58**	**31**	P	**P**	**16 21 30.8**	**+1.2**
F30M	comp=Z,3.8nm,0.6s			IAmb	IAmb	16 21 34.1	
INK	**Inuvik**	**18.68**	**31**	P	**P**	**16 21 41.7**	**0.0**

*SNET **19** 16:35:51.4±2.0, 12.°60N×88.°02W, h48km, ML3.5, Presumed earthquake*
*CATAC **19** 16:35:51.6±0.4, 13.°1N±2.°×88.°8W±.°, h34km±4km, M3.6/25, MLv3.6/25, Error ellipse: s-maj=5.7km s-min=1.6km az=24.1, confirmed*
ISC 19 16:35:51.8±1.3, 12.°55N±0.°07×88.°06W±0.°04, h45km±31km, n48, σ0.°58/80, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CSGN	**Cosiguina Volc**	**0.65**	**49**	P	**Pn**	**16 36 04.6**	**-0.3**
CSGN				S	**Sn**	**16 36 14.7**	**+0.5**
CNCH	**Conchagua**	**0.76**	**17**	P	**Pn**	**16 36 06.1**	**-0.2**
CNCH	**Conchagua**	**0.76**	**17**	*eP*	**Pn**	**16 36 06.2**	**-0.2**
CNCH				*eS*	**Sn**	**16 36 17.4**	**+0.6**
LCND	**La Caada**	**0.78**	**12**	P	**Pn**	**16 36 05.9**	**-0.6**
LCND	**La Caada**	**0.78**	**12**	*eP*	**Pn**	**16 36 06.3**	**-0.1**
RANC	**El Ranchito**	**0.91**	**346**	P	**Pn**	**16 36 08.2**	**-0.2**
RANC				S	**Sn**	**16 36 20.8**	**+0.3**
ALJI	**Alcalda de J**	**0.92**	**327**	*eP*	**Pn**	**16 36 05.7**	**-2.6**
ALJI				*eS*	**Sn**	**16 36 20.4**	**0.0**
PACA	**Pacayal**	**0.95**	**344**	P	**Pn**	**16 36 09.1**	**+0.1**
PACA	**Pacayal**	**0.95**	**344**	*eP*	**Pn**	**16 36 08.9**	**-0.1**
PACA				*eS*	**Sn**	**16 36 21.9**	**+0.4**
CRIN	**San Cristobal**	**1.00**	**81**	P	**Pn**	**16 36 09.8**	**+0.3**
CRIN				S	**Sn**	**16 36 23.5**	**+1.0**
TECA	**Tecapa**	**1.03**	**336**	*eP*	**Pn**	**16 36 10.3**	**+0.1**
TECA				*eS*	**Sn**	**16 36 23.7**	**+0.1**
QUEN	**Al S del Volca**	**1.18**	**88**	P	**Pn**	**16 36 11.9**	**-0.1**
QUEN				S	**Sn**	**16 36 27.1**	**+0.2**
TELN	**Telica**	**1.20**	**87**	P	**Pn**	**16 36 11.7**	**-0.6**
TELN				S	**Sn**	**16 36 27.4**	**-0.1**
TECO	**Alcaldia de Te**	**1.21**	**325**	P	**Pn**	**16 36 11.9**	**-0.5**
TECO				S	**Sn**	**16 36 27.3**	**-0.2**
PLRN	**Geotermica Pol**	**1.26**	**88**	P	**Pn**	**16 36 12.7**	**-0.3**
PLRN				S	**Sn**	**16 36 28.3**	**-0.6**
SCLA	**Alcaldia de Sa**	**1.32**	**331**	S	**Sn**	**16 36 30.9**	**+0.6**
CNGA	**Al SSO del Vol**	**1.33**	**92**	P	**Pn**	**16 36 13.6**	**-0.4**
CNGA				S	**Sn**	**16 36 31.1**	**+0.5**
CNGN	**Cerro Negro**	**1.33**	**92**	P	**Pn**	**16 36 13.8**	**-0.2**
CNGN				S	**Sn**	**16 36 30.8**	**+0.1**
COEG	**Centro de Oper**	**1.33**	**323**	P	**Pn**	**16 36 13.8**	**-0.3**
COEG	**Centro de Oper**	**1.33**	**323**	*eP*	**Pn**	**16 36 14.2**	**+0.1**
COEG				*eS*	**Sn**	**16 36 30.5**	**-0.2**
LEVN	**Ruinas Leon Vi**	**1.42**	**96**	S	**Sn**	**16 36 34.4**	**+1.8**
PAVA	**Las Pavas**	**1.44**	**324**	P	**Pn**	**16 36 15.7**	**+0.2**
PAVA				S	**Sn**	**16 36 33.8**	**+0.4**
PAVA	**Las Pavas**	**1.44**	**324**	*eP*	**Pn**	**16 36 16.3**	**+0.2**
PAVA				*eS*	**Sn**	**16 36 34.7**	**+1.3**
LFRS	**El Faro**	**1.45**	**318**	*eP*	**Pn**	**16 36 15.9**	**+0.2**
MOM3	**MOM3**	**1.51**	**91**	P	**Pn**	**16 36 16.3**	**-0.1**
MOM3				S	**Sn**	**16 36 35.7**	**+0.8**
PANCS	**Alcalda de**	**1.52**	**314**	S	**Sn**	**16 36 35.0**	**-0.3**
LOMA	**Loma Larga**	**1.54**	**315**	P	**Pn**	**16 36 16.9**	**0.0**
LOMA				S	**Sn**	**16 36 36.4**	**+0.6**
LOMA	**Loma Larga**	**1.54**	**315**	*eP*	**Pn**	**16 36 17.1**	**+0.1**
LOMA				*eS*	**Sn**	**16 36 35.9**	**+0.2**
UDBS	**Universidad Do**	**1.58**	**318**	P	**Pn**	**16 36 17.4**	**-0.1**
UDBS				S	**Sn**	**16 36 36.6**	**-0.1**
UTEC	**Universidad Te**	**1.60**	**316**	S	**Sn**	**16 36 37.3**	**+0.2**
SEMO	**Seminario San**	**1.61**	**316**	P	**Pn**	**16 36 18.2**	**+0.3**
SEMO				S	**Sn**	**16 36 37.8**	**+0.1**
BOQS	**Boqueron**	**1.67**	**315**	*eP*	**Pn**	**16 36 19.3**	**+0.4**
BOQS				*eS*	**Sn**	**16 36 40.0**	**+0.7**
PMON	**Piamonte**	**1.68**	**314**	P	**Pn**	**16 36 19.0**	**+0.1**
PMON				S	**Sn**	**16 36 39.6**	**+0.2**
TGUH	**Tegucigalpa,Un**	**1.69**	**27**	P	**Pn**	**16 36 18.6**	**-0.3**
TGUH				S	**Sn**	**16 36 39.2**	**-0.3**
LIMN	**Finca el Limon**	**1.73**	**73**	P	**Pn**	**16 36 19.1**	**-0.5**
LIMN				S	**Sn**	**16 36 39.9**	**-0.6**
APQ2	**Apoyeque**	**1.73**	**101**	S	**Sn**	**16 36 40.5**	**+0.2**
JAYA	**Jayaque - finc**	**1.74**	**309**	P	**Pn**	**16 36 19.3**	**-0.5**
JAYA				S	**Sn**	**16 36 40.5**	**-0.4**
JAYA	**Jayaque - finc**	**1.74**	**309**	*eP*	**Pn**	**16 36 19.6**	**-0.2**
JAYA				*eS*	**Sn**	**16 36 39.2**	**-1.7**
MGAN	**Managua**	**1.82**	**102**	S	**Sn**	**16 36 42.6**	**+0.1**
WILN	**Americas 2**	**1.87**	**102**	S	**Sn**	**16 36 43.9**	**+0.1**
MAS3	**Al N del Volca**	**1.92**	**106**	S	**Sn**	**16 36 44.6**	**-0.3**
SBLS	**San Blas**	**1.99**	**310**	*eP*	**Pn**	**16 36 23.8**	**+0.6**
SBLS				*eS*	**Sn**	**16 36 47.7**	**+0.6**
RCVN	**Varillal2**	**2.09**	**60**	P	**Pn**	**16 36 24.3**	**-0.2**
RCVN				S	**Sn**	**16 36 49.4**	**-0.1**
NUBE	**Las Nubes**	**2.15**	**309**	P	**Pn**	**16 36 26.1**	**+0.7**
NUBE				S	**Sn**	**16 36 51.1**	**+0.2**
RCPN	**Sur Rio San Ju**	**2.15**	**63**	P	**Pn**	**16 36 25.1**	**-0.3**
RCPN				S	**Sn**	**16 36 50.9**	**0.0**
MTO3	**Montecristo**	**2.23**	**326**	P	**Pn**	**16 36 26.5**	**-0.1**
MTO3				S	**Sn**	**16 36 53.4**	**+0.4**
FAME	**Alcaldia de Sa**	**2.30**	**304**	P	**Pn**	**16 36 27.1**	**-0.1**
BOAB	**BOACO BROADBAN**	**2.34**	**92**	P	**Pn**	**16 36 27.4**	**-0.4**

*IDC **19** 16:35:59.3±1.0, 60.°53S×26.°78W, h0km, mb4.1/5, mbtmp4.1/6, ML4.0/1, MS3.5/8, Error ellipse: s-maj=45.4km s-min=19.4km az=68.0*
ISC 19 16:36:02.4±0.9, 60.°6S±0.°2×26.°2W±0.°3, h28km, n23, σ2.°00/12, mb4.0/4, MS3.5/7, 1C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**12.42**	**151**	P	**Pn**	**16 38 55.5**	**-1.5**
	comp=Z,26nm,0.3s						
VNA3	**Neumayer Olymp**	**12.54**	**155**	P	**Pn**	**16 38 56.8**	**-1.9**
	comp=Z,10nm,0.3s						
VNA3				ĵS	Sn	16 41 04.1	-13
	comp=E,18nm,0.5s						
VNA2	**Neumayer--Watz**	**12.82**	**151**	P	**Pn**	**16 39 00.0**	**-2.4**
	comp=Z,2.4nm,0.1s,baz=330,slow=12						
SNAA	**Sanae**	**14.41**	**150**	P	**Pn**	**16 39 22.8**	**-1.5**
	comp=Z,71nm,0.3s						
SNAA	**Sanae**	**14.41**	**150**	Pn	**Pn**	**16 39 21.8**	**-2.4**
	comp=Z,0.6nm,0.3s,baz=310,slow=14,SNR=4.0						
SNAA				LR	LR	16 43 44.8	
	comp=Z,90nm,19.2s,baz=15,slow=32 comp=Z,1.7nm,0.4s						
SNAA				AML	AML		
QSPA	**South Pole Qui**	**29.61**	**180**	P	**P**	**16 42 07.4**	**+2.5**
	comp=Z,3.3nm,0.9s,baz=176,slow=1.8,SNR=13						
QSPA				LR	LR	16 53 46.2	
	comp=Z,89nm,18.5s,baz=166,slow=36 comp=Z,3.3nm,0.9s						
PLCA	**Paso Flores**	**33.55**	**286**	LR	LR	16 53 41.1	
	comp=Z,58nm,20.3s,baz=162,slow=32						
CPUP	**Villa Florida**	**40.31**	**314**	P	**P**	**16 43 35.2**	**-1.8**
	comp=Z,0.9nm,0.4s,baz=164,slow=7.5,SNR=4.3 comp=Z,0.9nm,0.4s						
SUR	**Sutherland**	**41.57**	**69**	LR	LR	16 56 59.7	
	comp=Z,46nm,18.7s,baz=188,slow=30						
VNDA	**Vanda**	**42.02**	**183**	P	**P**	**16 43 51.8**	**+1.3**
	comp=Z,0.8nm,0.9s,baz=185,slow=9.7,SNR=3.8						
VNDA				LR	LR	16 59 20.6	
	comp=Z,92nm,20.4s,baz=49,slow=33 comp=Z,0.8nm,0.9s						
H04S2	**CROZET ISLANDS**	**45.36**	**109**	T	T	17 33 40.8	
	baz=223,slow=74,SNR=3.9						
H04S3	**CROZET ISLANDS**	**45.37**	**109**	T	T	17 33 44.1	
	baz=223,slow=74,SNR=4.2						
H04S1	**CROZET ISLANDS**	**45.38**	**109**	T	T	17 33 43.2	
	baz=223,slow=74,SNR=3.6						
BOSA	**Boshof**	**46.79**	**71**	LR	LR	16 59 52.0	
	comp=Z,45nm,18.6s,baz=200,slow=30						
LBTB	**Lobatse**	**50.02**	**68**	LR	LR	17 04 02.2	
	comp=Z,41nm,18.0s,baz=192,slow=34						
H10N1	**ASCENSION HYDR**	**53.39**	**15**	T	T	17 43 20.3	
	baz=193,slow=76,SNR=18						
H10N3	**ASCENSION HYDR**	**53.40**	**14**	T	T	17 43 20.3	
	baz=193,slow=76,SNR=14						
H10N2	**ASCENSION HYDR**	**53.41**	**14**	T	T	17 43 20.3	
	baz=193,slow=76,SNR=14						
LPAZ	**La Paz**	**53.51**	**307**	P	**P**	**16 45 20.2**	**-0.6**
	comp=Z,0.9nm,0.3s,baz=160,slow=4.4,SNR=6.8 comp=Z,0.9nm,0.3s						
MATP	**Matopo**	**55.31**	**69**	LR	LR	17 05 07.0	
	comp=Z,176nm,18.4s,baz=218,slow=32						
TORD	**Torodi Ar. Bea**	**76.83**	**28**	P	**P**	**16 47 53.3**	**+2.0**
	comp=Z,4.0nm,0.6s,baz=196,slow=6.4,SNR=4.6 comp=Z,4.0nm,0.6s						
YKA	**Yellowknife Ar**	**139.84**	**314**	PKP	**PKiKP**	**16 55 27.4**	**-1.0**
	comp=Z,0.4nm,0.6s,baz=129,slow=2.8,SNR=3.8						
ILAR	**Eielson Array**	**153.37**	**305**	PKPbc	**PKiKP**	**16 55 56.6**	**+0.4**
	comp=Z,0.4nm,0.6s,baz=348,slow=1.8,SNR=5.7						

IDC 19 16:40:39.4±8.3, 1.°94N×98.°14W, h0km, mb3.5/4, mbtmp3.5/4, MS3.2/7, Error ellipse: s-maj=272.3km s-min=133.5km az=95.0, West of Galapagos Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**15.40**	**12**	LR	LR	16 48 40.4	
	comp=Z,73nm,21.2s,baz=184,slow=31						
JTS	**Las Juntas de**	**15.51**	**57**	LR	LR	16 47 44.0	
	comp=Z,27nm,19.9s,baz=197,slow=27						
LPIG	**La Paz**	**24.98**	**333**	LR	LR	16 53 27.0	
	comp=Z,141nm,19.4s,baz=206,slow=31						
TXAR	**Lajitas Array**	**27.75**	**350**	P	P	16 46 29.2	-0.8
	0.6nm,0.8s,baz=170,slow=7.2,SNR=4.7 0.6nm,0.8s						
ANMO	**Albuquerque**	**33.74**	**348**	LR	LR	17 01 19.5	
	comp=Z,25nm,18.8s,baz=136,slow=37						
PFO	**Pinyon Flats O**	**35.87**	**333**	LR	LR	16 59 05.7	
	comp=Z,69nm,21.5s,baz=187,slow=31						
NVAR	**Mina Array Bea**	**40.74**	**335**	P	P	16 48 22.2	-0.2
	0.2nm,0.4s,baz=168,slow=5.5,SNR=1.9 0.2nm,0.4s						
PDAR	**Pinedale Array**	**41.91**	**347**	P	P	16 48 32.8	+0.8
	1.0nm,0.7s,baz=140,slow=8.0,SNR=11						
PDAR				LR	LR	17 03 44.3	
	comp=Z,35nm,18.9s,baz=28,slow=33 1.0nm,0.7s						
ILAR	**Eielson Array**	**71.77**	**340**	P	P	16 52 03.2	-0.2
	0.4nm,0.9s,baz=123,slow=5.7,SNR=13 0.4nm,0.9s						
AFI	**Afiamalu**	**74.61**	**255**	LR	LR	17 19 40.8	
	comp=Z,19nm,18.1s,baz=196,slow=31						
H11S2	**WAKE ISLAND Hy**	**94.28**	**289**	T	T	18 37 38.7	
	baz=87,slow=75,SNR=3.9						
H11S1	**WAKE ISLAND Hy**	**94.28**	**289**	T	T	18 37 33.9	
	baz=87,slow=75,SNR=9.4						
H11S3	**WAKE ISLAND Hy**	**94.29**	**289**	T	T	18 37 36.8	
	baz=87,slow=75,SNR=4.5						

SGS 19 16:42:08.8, 24.°73N×36.°46E, h9km, Ml1.6, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SUMJS	**Umluj**	**0.86**	**88**	P	Pg	16 42 25.0	-0.3
SUMJS				S	Sb	16 42 36.9	-0.5
SUMJS	**Umluj**	**0.86**	**88**	P	Pg	16 42 24.1	-1.2
SUMJS				S	Sg	16 42 36.8	+0.4
UMJS	**Umm Lajj**	**0.92**	**57**	P	Pb	16 42 27.1	+0.1
UMJS				S	Sn	16 42 40.5	-0.9
UMJS	**Umm Lajj**	**0.92**	**57**	P	Pb	16 42 27.2	+0.3
UMJS				S	Sb	16 42 40.1	+0.7
LNY07	**LNY07**	**1.09**	**68**	P	Pg	16 42 29.3	-0.4
LNY07				S	Sn	16 42 44.9	-0.5
LNY05	**LNY05**	**1.17**	**74**	P	Pb	16 42 30.5	-0.7
LNY05				S	Sn	16 42 47.0	-0.4
LNY16	**LNY16**	**1.21**	**59**	P	Pb	16 42 31.4	-0.4
LNY16				S	Sg	16 42 47.9	+0.3
LNY16	**LNY16**	**1.21**	**59**	P	Pb	16 42 31.5	-0.3
UMJ01	**UMJ01**	**1.25**	**41**	P	Pn	16 42 32.3	-0.1
UMJ06	**UMJ06**	**1.27**	**38**	P	Pg	16 42 40.9	+7.7
LNY09	**LNY09**	**1.28**	**58**	P	Pn	16 42 32.7	-0.2
LNY09				S	Sn	16 42 50.4	+0.1
LNY09	**LNY09**	**1.28**	**58**	P	Pn	16 42 32.9	0.0
LNY14	**LNY14**	**1.30**	**66**	P	Pn	16 42 32.9	-0.3
LNY14				S	Sn	16 42 50.9	+0.2
LNY14	**LNY14**	**1.30**	**66**	P	Pn	16 42 32.9	-0.3
LNY12	**LNY12**	**1.31**	**65**	P	Pn	16 42 33.0	-0.4
LNY12				S	Sn	16 42 51.2	+0.2
LNY12	**LNY12**	**1.31**	**65**	P	Pn	16 42 33.1	-0.3
LNY17	**LNY17**	**1.32**	**67**	P	Pn	16 42 33.3	-0.2
LNY17				S	Sb	16 42 50.7	-0.3
LNY17	**LNY17**	**1.32**	**67**	P	Pn	16 42 33.3	-0.2
LNY15	**LNY15**	**1.32**	**66**	P	Pn	16 42 33.4	-0.2
LNY15				S	Sg	16 42 52.5	+1.1
LNY15	**LNY15**	**1.32**	**66**	P	Pn	16 42 33.3	-0.2
LNY11	**LNY11**	**1.33**	**63**	P	Pn	16 42 33.4	-0.3
LNY11				S	Sn	16 42 51.4	-0.1
LNY11	**LNY11**	**1.33**	**63**	P	Pn	16 42 33.3	-0.3
UMJ05	**UMJ05**	**1.39**	**25**	P	Pn	16 42 34.4	+0.1
LNYS	**LNYS**	**1.39**	**75**	P	Pn	16 42 34.4	-0.1
LNYS	**LNYS**	**1.39**	**75**	P	Pn	16 42 34.2	-0.3
LNY03	**LNY03**	**1.42**	**62**	P	Pn	16 42 35.1	+0.2
LNY03				S	Sg	16 42 54.3	-0.3
MURBA	**Al Muraba'a**	**1.76**	**67**	P	Pn	16 42 40.4	+0.9
MURBA				S	Sb	16 43 04.2	+0.7

IDC 19 16:54:38.4±2.1, 9.°00S×123.°30E, h0km, mb3.5/1, mbtmp3.3/3, ML3.2/2, Error ellipse: s-maj=166.8km s-min=24.3km az=52.0, Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**15.24**	**137**	Pn	Pn	16 58 09.4	-5.6
	0.1nm,0.3s,baz=314,slow=12,SNR=9.0						
WRA				Sn	Sn	17 00 45.1	-19
	0.2nm,0.3s,baz=312,slow=22,SNR=7.2 0.4nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.76**	**146**	Pn	Pn	16 58 43.6	-3.7
	0.1nm,0.3s,baz=324,slow=13,SNR=15						
ASAR				Sn	Sn	17 01 46.5	-20
	0.1nm,0.3s,baz=312,slow=21,SNR=6.0 0.4nm,0.5s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**66.47**	**331**	P	P	17 05 29.6	-0.2
	0.4nm,0.7s,baz=128,slow=8.3,SNR=2.3 0.4nm,0.7s						

*TAP **19** 17:00:26.2, 21.°58N×121.°77E, h24km, ML3.6, D*
*JMA **19** 17:00:27.4±0.4, 22.°N±2.°×121.°7E±0.°9, h110km, MV3.0/11, TAIWAN REGION*
ISC 19 17:00:24.8±1.4, 21.°55N±0.°04×121.°85E±0.°03, h20km±5km, n100, σ1.°36/182, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.51**	**331**	*i* P	**Pb**	**17 00 36.0**	**+0.8**
LYUB				*i* S	**Sb**	**17 00 42.8**	**+0.6**
LAY	**Lan-yu**	**0.56**	**330**	*i* P	**Pb**	**17 00 36.5**	**+0.6**
LAY				*i* S	**Sg**	**17 00 43.1**	**-0.6**
TSEB	**Hengchuen, Pin**	**0.95**	**292**	*i* P	**Pn**	**17 00 43.2**	**+0.2**
TSEB				*i* S	**Sn**	**17 00 56.9**	**+0.9**
TWKBT	**Hengchun**	**1.04**	**

OWD				*eS*	**Sb**	**17 01 36.8**	**-2.0**
SMLT	**Sun Moon Lake**	**2.48**	**339**	*eP*	**Pb**	**17 01 07.5**	**-1.3**
SMLT				*eS*	**Sb**	**17 01 39.5**	**+0.5**
WJS	**Zhushan**	**2.49**	**336**	*eP*	**Pb**	**17 01 08.2**	**-0.6**
TYC	**Yuchr**	**2.52**	**339**	*eP*	**Pb**	**17 01 07.5**	**-1.7**
TYC				*eS*	**Sb**	**17 01 40.6**	**+0.8**
WUSB	**Renai**	**2.52**	**345**	*eP*	**Pb**	**17 01 07.6**	**-1.9**
WUSB				*eS*	**Sn**	**17 01 36.7**	**+1.6**
WNT	**Mingjian**	**2.55**	**335**	*eP*	**Pb**	**17 01 07.9**	**-2.0**
WNT				*eS*	**Sn**	**17 01 38.3**	**+2.7**
EOS4	**EOS4**	**2.59**	**10**	*eP*	**Pn**	**17 01 06.8**	**+1.5**
EOS4				*eS*	**Sn**	**17 01 35.4**	**-0.8**
NACB	**Ninganchiao**	**2.62**	**355**	*eP*	**Pn**	**17 01 07.6**	**+1.5**
NACB				*eS*	**Sn**	**17 01 38.9**	**+1.6**
WHF	**Hehuan Shan**	**2.64**	**348**	*eP*	**Pn**	**17 01 09.7**	**-1.9**
WHF				*eS*	**Sn**	**17 01 38.3**	**-0.1**
WCS	**Beigang Elemen**	**2.64**	**341**	*eP*	**Pb**	**17 01 09.5**	**-1.9**
WCS				*eS*	**Sn**	**17 01 40.7**	**+3.0**
WDGT	**Dungji**	**2.65**	**310**	*eP*	**Pn**	**17 01 07.4**	**+1.1**
WDGT				*eS*	**Sn**	**17 01 38.5**	**+0.6**
ETLH	**Xiulin Townshi**	**2.67**	**353**	*eP*	**Pn**	**17 01 09.3**	**+2.6**
FUSS	**Fushou**	**2.74**	**348**	*eP*	**Pn**	**17 01 10.3**	**+2.3**
FUSS				*eS*	**Sn**	**17 01 40.6**	**-0.1**
EOS3	**EOS3**	**2.76**	**9**	*eP*	**Pn**	**17 01 09.2**	**+1.4**
EOS3				*eS*	**Sn**	**17 01 41.2**	**+0.8**
TWT	**Tachien**	**2.76**	**347**	*eP*	**Pb**	**17 01 11.9**	**-1.7**
TWT				*eS*	**Sb**	**17 01 44.8**	**-2.3**
VCHM	**Qimei**	**2.78**	**307**	*eP*	**Pn**	**17 01 09.3**	**+1.1**
VCHM				*eS*	**Sn**	**17 01 41.7**	**+0.5**
WHP	**Taichung City**	**2.84**	**343**	*eP*	**Pb**	**17 01 13.4**	**-1.4**
WHP				*eS*	**Sb**	**17 01 48.5**	**-0.7**
EWUT	**Wuta**	**2.88**	**359**	*eS*	**Sn**	**17 01 44.8**	**+1.1**
NNSB	**Datong**	**2.90**	**352**	*eP*	**Pn**	**17 01 11.7**	**+1.8**
NNSB				*eS*	**Sn**	**17 01 44.2**	**-0.1**
NNS	**Nan Shan**	**2.91**	**351**	*eP*	**Pn**	**17 01 11.9**	**+1.8**
NNS				*eS*	**Sn**	**17 01 44.6**	**0.0**
PNG	**Penghu**	**2.92**	**314**	*eP*	**Pn**	**17 01 11.5**	**+1.4**
PNG				*eS*	**Sn**	**17 01 45.8**	**+1.1**
TWQ1	**Liyutan**	**2.96**	**341**	*eP*	**Pb**	**17 01 15.0**	**-1.8**
TWQ1				*eS*	**Sb**	**17 01 51.4**	**-1.1**
LATG	**Datong**	**2.98**	**354**	*eP*	**Pn**	**17 01 13.4**	**+2.3**
LATG				*eS*	**Sn**	**17 01 46.5**	**0.0**
JYNG	**Yonagunijimaku**	**3.06**	**19**	*eP*	**Pn**	**17 01 13.2**	**+1.2**
ENTT	**Nioudou**	**3.09**	**355**	*eP*	**Pn**	**17 01 14.1**	**+1.7**
ENTT				*eS*	**Sn**	**17 01 49.8**	**+1.0**
YOJ	**Yonaguni jima**	**3.09**	**20**	*eP*	**Pn**	**17 01 14.8**	**+2.4**
YOJ				*eS*	**Sn**	**17 01 49.9**	**+1.0**
YHNB	**Yeheng**	**3.13**	**352**	*eP*	**Pb**	**17 01 17.1**	**-2.8**
YHNB				*eS*	**Sn**	**17 01 52.7**	**+2.6**
NFF	**Wufeng Townshi**	**3.14**	**348**	*eP*	**Pb**	**17 01 17.2**	**-2.8**
NSK	**Sanguang**	**3.14**	**352**	*eP*	**Pn**	**17 01 15.9**	**+2.6**
TWE	**Neicheng**	**3.16**	**357**	*eP*	**Pn**	**17 01 16.2**	**+2.7**
TWE				*eS*	**Sn**	**17 01 50.3**	**-0.3**
NSTT	**Nanjuang**	**3.16**	**346**	*eS*	**Sn**	**17 01 54.4**	**+3.7**
LIOB	**Emei**	**3.17**	**346**	*eP*	**Pb**	**17 01 17.9**	**-2.7**
FUSB	**Fushanzhiwuyua**	**3.20**	**356**	*eP*	**Pb**	**17 01 19.2**	**-1.8**
FUSB				*eS*	**Sb**	**17 01 56.5**	**-3.2**
NWLT	**Wulai**	**3.23**	**354**	*eP*	**Pb**	**17 01 19.7**	**-1.7**
IRIF	**Iriomote-Funau**	**3.27**	**32**	*eP*	**Pn**	**17 01 16.7**	**+1.7**
IRIF				*eS*	**Sn**	**17 01 54.7**	**+1.5**
JKRS	**Kuro-shima**	**3.33**	**36**	*eP*	**Pn**	**17 01 18.0**	**+2.1**
TIPB	**Shuangxi**	**3.41**	**360**	*eP*	**Pn**	**17 01 19.8**	**+2.9**
TIPB				*eS*	**Sn**	**17 01 58.8**	**+2.1**
PIP	**Pasuquin**	**3.41**	**200**	*eP*	**Pn**	**17 01 19.2**	**+2.3**
PIP				*eS*	**Sb**	**17 02 02.6**	**-3.1**
JIJ	**Ishigaki jima**	**3.51**	**37**	*eP*	**Pn**	**17 01 19.9**	**+1.6**
JIJ				*eS*	**Sn**	**17 01 58.3**	**-0.9**
SXI1	**Grass Mountain**	**3.53**	**0**	*eP*	**Pn**	**17 01 20.7**	**+2.1**
SXI1				*eS*	**Sn**	**17 02 01.2**	**+1.5**
JISG	**Ishigakijimahi**	**3.78**	**36**	*eP*	**Pn**	**17 01 23.4**	**+1.5**
JISG				*eS*	**Sn**	**17 02 05.1**	**-0.7**
JTJ	**Tarama**	**4.04**	**40**	*eP*	**Pn**	**17 01 27.3**	**+1.7**
PTMZ	**Houxiangcun**	**4.28**	**325**	*eP*	**Pn**	**17 01 30.2**	**+1.3**
PTMZ				*eS*	**Sn**	**17 02 17.6**	**-0.8**
KNMB	**Chin-men Tao**	**4.31**	**313**	*eP*	**Pn**	**17 01 30.7**	**+1.4**
KNMB				*eS*	**Sn**	**17 02 19.3**	**+0.3**
AXDP	**Jialang**	**4.88**	**314**	*eP*	**Pn**	**17 01 40.2**	**+3.1**

*DNK **19** 17:01:28.8±3.0, 78°.54N×5°.93E, h10km, ML2.3, Presumed earthquake*
*NAO **19** 17:01:29.3±0.6, 78°.51N×6°.07E, h10km, ML3.3*
*BER **19** 17:01:31.0±4.0, 78°.68N×6°.05E, h10km, Mw4.2, ML3.3(NAO), Confirmed Earthquake*
*FCIAR **19** 17:01:34.0, 78°.76N×6°.89E, h10km, station OMEGA has station magnitude of 3.60*

ISC 19 17:01:27.1±0.8, **78°.62N**±0°.06×**5°.77E**±0°.04, **h10**km, **n30**, σ2**s53**/50, **1C, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
KBS	**Kingsbay**	**1.25**	**73**	Pb		**Pn**	**Pn**	**17 01 52.2**	**+1.7**
KBS				Sb			**Sb**	**17 02 05.8**	**-1.0**
KBS	**Kingsbay**	**1.25**	**73**	*eP*		**Pn**	**Pn**	**17 01 52.5**	**+2.0**
KBS				*i* S			**Sb**	**17 02 05.5**	**-1.2**
KBS	**Kingsbay**	**1.25**	**73**	*eP*		**Pn**	**Pn**	**17 01 52.5**	**+2.0**
KBS				*i* S			**Sb**	**17 02 05.5**	**-1.2**
BRBB	**Barentsburg B**	**1.79**	**103**	Pn		**Pn**	**Pn**	**17 01 59.5**	**+1.5**
BRBB				Sn			**Sn**	**17 02 19.1**	**-1.6**
BRBB	**Barentsburg B**	**1.79**	**103**	*eP*		**Pn**	**Pn**	**17 01 59.4**	**+1.5**
BRBB				*e*				17 02 00.9	
BRBB				*eS*			**Sn**	**17 02 19.2**	**-1.6**
BRBA	**Barentsburg A**	**1.81**	**104**	Pn		**Pn**	**Pn**	**17 01 59.5**	**+1.3**
BRBA				Sn			**Sn**	**17 02 19.6**	**-1.5**
BRBA	**Barentsburg A**	**1.81**	**104**	*eP*		**Pn**	**Pn**	**17 01 59.7**	**+1.5**
BRBA				*eS*			**Sn**	**17 02 18.9**	**-2.2**
BRBA				IAML				17 02 24.5	
	comp=Z,121nm,0.3s								
SPA0	**Spitsbergen Ar**	**2.19**	**96**	Pn		**Pn**	**Pn**	**17 02 06.2**	**+2.7**
	baz=278,slow=11								
SPA0				Pn			**Sn**	**17 02 30.9**	**+0.3**
	baz=277,slow=22								
SPA0	**Spitsbergen Ar**	**2.19**	**96**	⇑*iP*			**Pn**	**17 02 06.1**	**+2.6**
SPA0				*eS*			**Sn**	**17 02 30.1**	**-0.5**
SPA0	**Spitsbergen Ar**	**2.19**	**96**	Pn		**Pn**	**Pn**	**17 02 06.2**	**+2.7**
SPA0				Sn			**Sn**	**17 02 30.9**	**+0.3**
HOPEN	**Hopen**	**4.65**	**107**	S			**Sn**	**17 03 27.9**	**-3.1**
HOPEN	**Hopen**	**4.65**	**107**	*eS*			**Sn**	**17 03 28.7**	**-2.4**
HOPEN				IAML				17 03 29.5	
	comp=Z,25nm,0.8s								
NOR	**Nord**	**4.86**	**318**	Pn		**Pn**	**Pn**	**17 02 43.4**	**+3.4**
NOR				Sn			**Sn**	**17 03 36.2**	**0.0**
NOR	**Nord**	**4.86**	**318**	*eP*		**Pn**	**Pn**	**17 02 43.1**	**+3.0**
NOR				*eS*			**Sn**	**17 03 35.1**	**-1.1**
NOR	**Nord**	**4.86**	**318**	*eP*		**Pn**	**Pn**	**17 02 42.5**	**+2.5**
NOR				*i* S			**Sn**	**17 03 35.5**	**-0.6**
NOR				IAML				17 03 43.1	
	comp=Z,6.0nm,0.4s								
NOR	**Nord**	**4.86**	**318**	*eP*		**Pn**	**Pn**	**17 02 42.5**	**+2.5**
NOR				*i* S			**Sn**	**17 03 35.5**	**-0.6**
NOR				IAML				17 03 43.1	
	comp=Z,6.0nm,0.4s								
DAG	**Danmarks Havn**	**5.51**	**263**	*eP*		**Pn**	**Pn**	**17 02 51.5**	**+2.5**
DAG				*i* S			**Sn**	**17 03 48.4**	**-3.9**
DAG				IAML				17 03 52.4	
	comp=Z,24nm,0.4s								
DAG	**Danmarks Havn**	**5.51**	**263**	*eP*		**Pn**	**Pn**	**17 02 51.5**	**+2.5**
DAG				*i* S			**Sn**	**17 03 48.4**	**-3.9**
DAG				IAML				17 03 52.4	
	comp=Z,24nm,0.4s								
DBG	**Daneborg**	**7.40**	**248**	Pn		**Pn**	**Pn**	**17 03 16.4**	**+1.4**
DBG				Sn			**Sn**	**17 04 33.7**	**-5.1**
DBG	**Daneborg**	**7.40**	**248**	*i* P		**Pn**	**Pn**	**17 03 16.2**	**+1.2**
DBG				*i* S		Sn		17 04 32.4	-6.4
DBG				IAML				17 04 41.9	
	comp=Z,7.4nm,0.3s								
DBG	**Daneborg**	**7.40**	**248**	*i* P			**Pn**	**17 03 16.2**	**+1.2**
DBG				*i* S		Sn		17 04 32.4	-6.4
DBG				IAML				17 04 41.9	
	comp=Z,7.4nm,0.3s								
OMEGA	**Omega**	**7.67**	**54**	*eP*			**Pn**	**17 03 21.1**	**+2.6**
OMEGA				*eS*			**Sn**	**17 04 40.4**	**-4.9**
	comp=Z,62nm,2.3s								
OMEGA				AML		AML			
JNW	**Jan Mayen West**	**8.44**	**213**	*eP*			**Pn**	**17 03 32.6**	**+3.4**
JNE	**Jan Mayen East**	**8.47**	**213**	*eP*			**Pn**	**17 03 33.0**	**+3.5**
JMIC	**Jan Mayen**	**8.49**	**213**	*eP*			**Pn**	**17 03 33.1**	**+3.2**
JMI	**Jan Mayen**	**8.57**	**214**	*eP*			**Pn**	**17 03 34.4**	**+3.4**
NEEM	**North Greenlan**	**11.45**	**293**	*i* P			**Pn**	**17 04 10.3**	**-0.3**
NEEM				*i* S			Sn	17 06 08.1	-10
NEEM				IAML				17 06 21.2	
	comp=Z,7.2nm,0.6s								
NEEM	**North Greenlan**	**11.45**	**293**	*i* P			**Pn**	**17 04 10.3**	**-0.3**
NEEM				*i* S			Sn	17 06 08.1	-10
NEEM				IAML				17 06 21.2	
	comp=Z,7.2nm,0.6s								
SUMG	**Summit**	**12.20**	**264**	*i* P			**Pn**	**17 04 23.4**	**+2.5**
SUMG				*i* S			**Sn**	**17 06 32.9**	**-4.0**
SUMG	**Summit**	**12.20**	**264**	*i* P			**Pn**	**17 04 23.4**	**+2.5**
SUMG				*i* S			**Sn**	**17 06 32.9**	**-4.0**

*IDC **19** 17:01:51.2±2.0, 52°.99N×165°.40W, h0km, mb3.8/6, mbtmp3.7/8, ML3.1/2, Error ellipse: s-maj=46.7km s-min=22.0km az=173.0*
*AEIC **19** 17:01:56.7±1.4, 53°.28N±0°.08×165°.03W±0°.06, h27km±5km, Error ellipse: s-maj=11.3km s-min=5.4km az=176.0*
*NEIC **19** 17:01:57.9±1.2, 53°.32N±0°.01×165°.11W±0°.07, h39km±9km, mb3.8/5, ML3.6/14, ML3.4(AEIC), Error ellipse: s-maj=6.2km s-min=1.9km az=97.0*

ISC 19 17:01:57.0±2.2, **53°.29N**±0°.08×**165°.10W**±0°.04, **h31**km±14km, **n62**, σ0**s97**/65, **mb3.6**/6, **Fox Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
AHB	**Akutan Harbor**	**0.93**	**333**				**Pn**	**17 02 14.0**	**+0.1**
AHB							**Sn**	**17 02 27.6**	**+1.4**
AKUT	**Akutan**	**0.93**	**335**				**Pn**	**17 02 14.0**	**0.0**
AKUT							**Sn**	**17 02 27.4**	**+1.1**
AKUT	**Akutan**	**0.93**	**335**	IAML				17 02 27.5	
	comp=N,2μm,1.0s								
AKUT				IAML				17 02 34.4	
	comp=E,2μm,0.6s								
AKBBA	**Akutan Broad B**	**0.95**	**329**				**Pn**	**17 02 14.1**	**0.0**
AKBBA							**Sn**	**17 02 27.6**	**+1.0**
ZRO	**Akutan Zero**	**0.96**	**327**				**Pn**	**17 02 14.2**	**-0.1**
ZRO							**Sn**	**17 02 27.7**	**+0.8**
UNV	**Unalaska Valle**	**1.00**	**304**				**Pn**	**17 02 14.6**	**-0.3**
UNV				IAML				17 02 31.3	
	comp=N,1μm,0.4s								
UNV	**Unalaska Valle**	**1.00**	**304**				**Sn**	**17 02 28.3**	**+0.4**
AKLV	**Akutan Long Va**	**1.01**	**330**				**Pn**	**17 02 14.9**	**-0.2**
AKLV							**Sn**	**17 02 28.9**	**+0.8**
AKRB	**Akutan Reef Bi**	**1.02**	**326**				**Pn**	**17 02 15.2**	**+0.1**
LVA	**Lava Point**	**1.03**	**328**				**Pn**	**17 02 15.3**	**0.0**
LVA				IAML				17 02 34.0	
	comp=E,2μm,0.6s								
LVA	**Lava Point**	**1.03**	**328**				**Sb**	**17 02 29.9**	**+0.3**
AKGG	**Akutan Green G**	**1.05**	**330**				**Sb**	**17 02 30.1**	**0.0**
MNAT	**Makushin Natee**	**1.11**	**303**				**Sb**	**17 02 32.0**	**+0.1**
MGOD	**Makushin Gods**	**1.17**	**296**				**Pn**	**17 02 17.4**	**+0.2**
MSW	**Makushin Switc**	**1.18**	**303**				**Pn**	**17 02 17.7**	**+0.3**
MSW							**Sb**	**17 02 33.6**	**-0.1**
WESP	**Westdahl Peak**	**1.22**	**10**				**Pn**	**17 02 18.1**	**+0.1**
WESP							**Sn**	**17 02 32.9**	**-0.6**
WECS	**Westdahl Cape**	**1.26**	**9**				**Pn**	**17 02 18.4**	**-0.1**
WESN	**West Dahl Nort**	**1.31**	**13**				**Pn**	**17 02 19.6**	**+0.4**
WESN							**Sb**	**17 02 37.9**	**+0.3**
WTUG	**Tugumak**	**1.61**	**15**				**Pn**	**17 02 23.6**	**+0.3**
WTUG							**Sb**	**17 02 45.3**	**-0.9**
ISLZ	**Isanotski Laza**	**1.65**	**29**				**Pn**	**17 02 23.8**	**-0.1**
ISNN	**Isanotski Nort**	**1.73**	**26**				**Pn**	**17 02 25.4**	**+0.5**
ISNN							**Sb**	**17 02 48.0**	**-1.4**
OKTU	**Okmok Mt. Tuli**	**1.77**	**274**				**Pn**	**17 02 26.6**	**+1.2**
OKNC	**Okmok New Cone**	**1.82**	**276**	Pn			**Pn**	**17 02 27.2**	**+1.1**
OKCE	**Okmok Cone E**	**1.84**	**275**				**Pn**	**17 02 27.9**	**+1.4**
DT1	**Dutton Round H**	**2.46**	**41**				**Pn**	**17 02 35.7**	**+0.8**
DT1							**Sn**	**17 03 05.5**	**+1.7**
DTNA	**Dutton South F**	**2.50**	**41**				**Pn**	**17 02 36.5**	**+1.0**
DOL	**Dolgoi Island**	**2.66**	**44**				**Pn**	**17 02 38.9**	**+1.2**
DOL							**Sn**	**17 03 09.2**	**+0.4**
PS1A	**Pavlof South-1**	**2.90**	**41**				**Pn**	**17 02 42.9**	**+1.9**
SDPT	**Sand Point**	**3.40**	**51**				**Pn**	**17 02 48.6**	**+0.7**
SDPT							**Sn**	**17 03 27.3**	**+0.3**
SDPT	**Sand Point**	**3.40**	**51**	IAML				17 03 53.4	
	comp=N,134nm,0.8s								
SDPT				IAML				17 03 57.7	
	comp=E,127nm,1.1s								
CHGN	**Chignik**	**4.90**	**49**	Pn		**Pn**	**Pn**	**17 03 10.1**	**+1.6**
CHGN				IAML				17 04 09.7	
	comp=N,30nm,1.0s								
CHGN				IAML				17 04 27.1	
	comp=E,38nm,1.0s								
O14K	**Tigyukauivet M**	**6.34**	**18**	Pn		**Pn**	**Pn**	**17 03 31.4**	**+3.1**
O15K	**Ungalikthiuk R**	**6.59**	**24**	Pn		**Pn**	**Pn**	**17 03 33.4**	**+1.8**
N14K	**Kuskokwak Cree**	**6.91**	**14**	Pn		**Pn**	**Pn**	**17 03 38.2**	**+2.3**
OHAK	**Old Harbor**	**7.81**	**55**	Pn		**Pn**	**Pn**	**17 03 48.8**	**+0.4**
KDAK	**Kodiak Island**	**8.40**	**53**	Pn		**Pn**	**Pn**	**17 03 56.1**	**-0.3**
	comp=E,0.4nm,0.3s,baz=170,slow=1.5,SNR=6.6								
	comp=E,5.3nm,0.9s								
KDAK				AML		AML			
SUA	**Susitna One**	**11.25**	**38**	Pn		**Pn**	**Pn**	**17 04 35.6**	**+0.1**
HIN	**Hinchinbrook I**	**12.39**	**48**	Pn		**Pn**	**Pn**	**17 04 51.0**	**0.0**
TRF	**Thorofare Moun**	**12.77**	**31**	Pn		**Pn**	**Pn**	**17 04 55.4**	**-0.9**
SCM	**Sheep Creek Mo**	**12.77**	**41**	Pn		**Pn**	**Pn**	**17 04 56.7**	**+0.5**
TGL	**Tana Glacier**	**14.19**	**49**	Pn		**Pn**	**Pn**	**17 05 16.1**	**+0.5**
ILAR	**Eielson Array**	**14.76**	**32**	Pn		**Pn**	**Pn**	**17 05 22.2**	**-1.1**
	baz=221,slow=10,SNR=4.9								
	comp=E,0.3nm,0.8s								
MENT	**Mentasta**	**14.79**	**41**	Pn		**Pn**	**Pn**	**17 05 22.6**	**-1.1**
D20K	**Etivluk River**	**15.98**	**11**	IAmb		IAmb	IAmb	17 05 49.3	
	comp=Z,19nm,1.4s								
DAWY	**Dawson**	**17.03**	**41**	Pn		**Pn**	**Pn**	**17 05 52.3**	**-0.2**
DAWY				IAmb		IAmb	IAmb	17 06 01.1	
	comp=Z,7.5nm,1.4s								
TOLK	**Toolik Lake Re**	**17.05**	**20**	Pn		**Pn**	**Pn**	**17 05 52.3**	**-0.4**
G26K	**Porcupine Rive**	**17.18**	**29**	IAmb		IAmb	IAmb	17 05 57.5	
	comp=Z,14nm,1.4s								
PETK	**Petropavlovsk-**	**22.13**	**285**	P		**P**	**P**	**17 06 48.2**	**-1.5**
	comp=Z,1.9nm,0.7s,baz=75,slow=11,SNR=4.4								
	comp=Z,1.9nm,0.7s								
YKA	**Yellowknife Ar**	**27.67**	**50**	P		**P**	**P**	**17 07 43.1**	**+1.5**
	comp=Z,0.3nm,0.8s,baz=278,slow=9.4,SNR=2.8								
	comp=Z,0.3nm,0.8s								
YKA	**Yellowknife Ar**	**27.67**	**50**	P		**P**	**P**	**17 07 41.1**	**-0.5**
H11N2	**WAKE ISLAND Hy**	**39.85**	**224**	T		T	T	17 52 16.3	
	baz=26,slow=76,SNR=14								
H11N3	**WAKE ISLAND Hy**	**39.86**	**224**	T		T	T	17 52 16.8	
	baz=26,slow=76,SNR=16								
H11N1	**WAKE ISLAND Hy**	**39.87**	**224**	T		T	T	17 52 17.6	
	baz=26,slow=76,SNR=13								
H11S1	**WAKE ISLAND Hy**	**41.03**	**223**	T		T	T	17 53 50.2	
	baz=25,slow=76,SNR=31								
H11S2	**WAKE ISLAND Hy**	**41.04**	**223**	T		T	T	17 53 21.0	
	baz=25,slow=76,SNR=30								
H11S3	**WAKE ISLAND Hy**	**41.05**	**223**	T		T	T	17 53 40.4	
	baz=25,slow=76,SNR=31								
TXAR	**Lajitas Array**	**50.17**	**93**	P		**P**	**P**	**17 10 50.0**	**+0.4**
	comp=Z,0.4nm,0.6s,baz=289,slow=3.8,SNR=3.9								
	comp=Z,0.4nm,0.6s								
TXAR	**Lajitas Array**	**50.17**	**93**	P		**P**	**P**	**17 10 48.9**	**-0.8**
MKAR	**Makanchi Array**	**65.00**	**316**	P		**P**	**P**	**17 12 32.8**	**-0.9**
	comp=Z,0.3nm,0.7s,baz=35,slow=8.8,SNR=2.3								
	comp=Z,0.3nm,0.7s								
MAKZ	**Makanchi**	**65.12**	**316**	P		**P**	**P**	**17 12 33.6**	**-0.9**
FINES	**FINESS Array B**	**65.27**	**354**	P		**P**	**P**	**17 12 35.2**	**+0.2**
	comp=Z,4.3nm,0.9s,baz=35,slow=5.1,SNR=4.2								
	comp=Z,4.3nm,0.9s								
HFS	**Hagfors**	**66.92**	**1**	P		**P**	**P**	**17 12 46.5**	**+0.8**
	comp=Z,2.7nm,0.8s,baz=48,slow=2.2,SNR=8.6								
	comp=Z,2.7nm,0.8s								

*KRNET **19** 17:08:59.2±0.1, 42°.47N×79°.72E, h18km, mb2.6*
*SOME **19** 17:09:00.5, 42°.58N×79°.60E, h5km*
*NNC **19** 17:09:01.9±0.9, 42°.60N×79°.58E, h0km, mb2.7, mpv3.0, Error ellipse: s-maj=5.8km s-min=3.8km az=132.0*

ISC 19 17:08:57.4±2.1, **42°.47N**±0°.05×**79°.77E**±0°.08, **h4**km±12km, **n21**, σ0**s45**/39, **13C-3D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res
								h m s	ISC
SHLS	**Shalkode**	**0.73**	**342**	P			**Pn**	**17 09 14.2**	**-0.5**
	51nm,0.1s								
SHLS				S			**Sb**	**17 09 23.5**	**+0.4**
	27nm,0.2s								
SHLS	**Shalkode**	**0.73**	**342**	*eP*			**Pn**	**17 09 14.2**	**-0.5**
	51nm,0.1s								
SHLS				*eS*			**Sb**	**17 09 23.5**	**+0.4**
	27nm,0.2s								
UZB	**Uzynbulak**	**0.88**	**321**	P			**Pb**	**17 09 15.3**	**0.0**
	13nm,0.1s								
UZB				S			**Sg**	**17 09 25.2**	**-0.4**
	27nm,0.2s								
PDGK	**Podgornoye**	**0.89**	**347**	⇓P			**Pb**	**17 09 15.8**	**+0.3**
	2.8nm,0.2s								
PDGK				⇑S			**Sg**	**17 09 26.6**	**+0.7**
	2.0nm,0.4s								
PRZ	**Przheval'sk**	**1.01**	**271**	⇑*eP*			**Pb**	**17 09 17.6**	**-0.1**
PRZ				⇑*eS*			**Sb**	**17 09 31.5**	**+0.1**
KURS	**Kuram**	**1.56**	**312**	P			**Pg**	**17 09 27.9**	**+0.6**
	1.7nm,0.3s								
KURS				S			**Sn**	**17 09 46.6**	**0.0**
	3.2nm,0.2s								
KURS	**Kuram**	**1.56**	**312**	*eP*			**Pg**	**17 09 27.9**	**+0.6**
	1.7nm,0.3s								
KURS				*eS*			**Sn**	**17 09 46.6**	**0.0**
	3.2nm,0.2s								
ANVS	**Anan'yevo**	**1.58**	**282**	⇑*eP*			**Pg**	**17 09 27.8**	**0.0**
ANVS				⇑*eS*			**Sg**	**17 09 48.7**	**+0.4**
TARG	**Taragay, Kyrgy**	**1.64**	**244**	⇑*iP*			**Pg**	**17 09 29.3**	**+0.5**
TARG				⇑*iS*			**Sg**	**17 09 50.5**	**+0.4**
KNOS	**Konyrlen**	**1.94**	**347**	P			**Pg**	**17 09 34.7**	**+0.1**
	1.4nm,0.3s								
KNOS				S			**Sb**	**17 09 58.4**	**+0.3**
	1.2nm,0.2s								
KDJ	**Kajisay**	**1.95**	**261**	⇓*iP*			**Pg**	**17 09 34.1**	**-0.7**
KDJ				⇓*iS*			**Sg**	**17 09 59.7**	**-0.4**
KOTS	**Kotyrbulak**	**2.10**	**292**	Pg			**Pg**	**17 09 37.7**	**+0.1**
	2.5nm,0.2s								
KOTS				Lg			Lg	17 10 03.7	
	20nm,0.5s								
KOTS	**Kotyrbulak**	**2.10**	**292**	*eP*			**Pg**	**17 09 37.7**	**+0.1**
	2.5nm,0.2s								
KOTS				*eS*			**Sb**	**17 10 03.7**	**+1.1**
	20nm,0.5s								
MDOK	**Medeo**	**2.12**	**290**	Pg			**Pg**	**17 09 37.9**	**-0.2**
	2.8nm,0.2s								
MDOK				Lg			Lg	17 10 03.7	
	4.1nm,0.4s								
MDOK	**Medeo**	**2.12**	**290**	*eP*			**Pg**	**17 09 37.9**	**-0.2**
	2.8nm,0.2s								
MDOK				*eS*			**Sb**	**17 10 03.7**	**+0.5**
	4.1nm,0.4s								
ARXS	**Arharly**	**2.25**	**322**	Pg			**Pg**	**17 09 39.7**	**-0.8**
	1.1nm,0.2s								
ARXS				Lg			Lg	17 10 07.2	
	6.1nm,0.2s								
ARXS	**Arharly**	**2.25**	**322**	*eP*			**Pg**	**17 09 39.7**	**-0.8**
	1.1nm,0.2s								
ARXS				*eS*			**Sb**	**17 10 07.2**	**+0.4**
	6.1nm,0.2s								
ULHL	**Ulahol**	**2.62**	**266**	⇑*iP*			**Pb**	**17 09 45.3**	**+0.1**
ULHL				⇑*iS*			**Sb**	**17 10 18.1**	**+0.3**
BOOM	**Boomskoye usch**	**2.83**	**272**	⇑*iP*			**Pb**	**17 09 48.6**	**-0.1**
BOOM				⇑*iS*			**Sb**	**17 10 24.1**	**+0.3**
TKM2	**Tokmak 2

EGRO				S	Sn	17 11 50.8	-0.6	
EGRO	**El Granado**	**3.74**	**305**	P	Pn	17 11 09.0	+0.8	
EGRO				IVmb_Lg		17 11 54.8		
AVE	**Averroes**	**3.79**	**237**	S	Sn	17 11 54.0	+1.2	
PVAQ	**Vaqueiros**	**3.83**	**302**	*eP*	Pn	17 11 09.7	+0.2	
PVAQ				*eS*	Sn	17 11 52.5	-1.2	
PVAQ				IAML		17 11 57.0		
PVAQ				IAML		17 12 00.1		
PBAR	**Barrancos**	**3.86**	**316**	P	Pn	17 11 10.6	+0.7	
PBAR				S	Sn	17 11 53.1	-1.3	
PBAR	**Barrancos**	**3.86**	**316**	*eP*	Pn	17 11 10.8	+0.9	
PBAR				*eS*	Sn	17 11 54.2	-0.3	
PBAR				IAML		17 11 57.4		
PBAR				IAML		17 12 00.0		
PBAR				IAML		17 12 00.1		
PBDV	**Barranco-do-Ve**	**3.91**	**299**	P	Pn	17 11 10.9	+0.4	
PBDV				S	Sn	17 11 54.5	-1.2	
PBDV	**Barranco-do-Ve**	**3.91**	**299**	*eP*	Pn	17 11 11.4	+0.8	
PBDV				*eS*	Sn	17 11 54.4	-1.2	
PBDV				IAML		17 12 01.1		
PBDV				IAML		17 12 01.7		
PBDV				IAML		17 12 04.8		
PAB	**San Pablo**	**4.13**	**352**	P	Pn	17 11 16.1	+2.4	
PAB				S	Sn	17 11 60.0	-1.3	
PAB				IVmb_Lg		17 12 20.3		
PCVE	**Castro Verde**	**4.17**	**303**	P	Pn	17 11 14.5	+0.4	
PCVE				S	Sn	17 12 03.0	+1.0	
PCVE	**Castro Verde**	**4.17**	**303**	*eP*	Pn	17 11 14.8	+0.8	
PCVE				*eS*	Sn	17 12 01.6	-0.4	
PCVE				IAML		17 12 05.7		
PCVE				IAML		17 12 06.1		
PCVE				IAML		17 12 07.3		
PBEJ	**Beja**	**4.27**	**308**	*eP*	Pn	17 11 16.9	+1.4	
PBEJ				*eS*	Sn	17 12 05.0	+0.6	
EBAD	**Badajoz**	**4.27**	**322**	P	Pn	17 11 16.0	+0.5	
EBAD				S	Sn	17 12 04.2	-0.3	
EBAD	**Badajoz**	**4.27**	**322**	P	Pn	17 11 16.4	+0.9	
EBAD				S	Sn	17 12 04.6	+0.1	
EBAD				IVmb_Lg		17 12 09.6		
MESJ	**Messejana**	**4.40**	**304**	*eP*	Pn	17 11 18.0	+0.8	
MESJ				*eS*	Sn	17 12 05.4	-2.3	
MESJ				IAML		17 12 11.9		
	comp=E,4.2nm,0.4s							
MESJ	**Messejana**	**4.40**	**304**	*eP*	Pn	17 11 18.1	+0.8	
MESJ				*eS*	Sn	17 12 06.3	-1.4	
MORF	**Marmelete**	**4.46**	**296**	*eP*	Pn	17 11 18.6	+0.5	
MORF	**Marmelete**	**4.46**	**296**	*eP*	Pn	17 11 19.1	+0.9	
MORF				*eS*	Sn	17 12 07.6	-1.6	
MORF				IAML		17 12 12.4		
MORF				IAML		17 12 13.0		
MORF				IAML		17 12 16.1		
PFVI	**Vila Bisbo**	**4.53**	**293**	P	Pn	17 11 19.9	+0.9	
PFVI				S	Sn	17 12 08.8	-2.0	
PFVI	**Vila Bisbo**	**4.53**	**293**	*eP*	Pn	17 11 20.1	+1.1	
PFVI				*eS*	Sn	17 12 09.9	-0.9	
PFVI				IAML		17 12 15.6		
PFVI				IAML		17 12 18.4		
PFVI				IAML		17 12 22.3		
PTEO	**Sao Teotonio**	**4.61**	**299**	*eP*	Pn	17 11 21.4	+1.2	
PTEO				*eS*	Sn	17 12 11.8	-1.1	
PTEO				IAML		17 12 16.0		
PTEO				IAML		17 12 16.0		
PTEO				IAML		17 12 25.6		
PTEO	**Sao Teotonio**	**4.61**	**299**	P	Pn	17 11 21.8	+1.7	
PTEO				S	Sn	17 12 11.5	+0.6	
PLOUS	**Minas do Lousa**	**4.64**	**305**	*eP*	Pn	17 11 21.6	+1.1	
PLOUS				*eS*	Sn	17 12 12.6	-0.9	
PLOUS				IAML		17 12 17.1		
PLOUS				IAML		17 12 25.3		
ECHE	**Chera**	**4.65**	**26**	P	Pn	17 11 23.2	+2.6	
PESTR	**Estremoz**	**4.66**	**318**	P	Pn	17 11 20.6	-0.2	
PESTR				S	Sn	17 12 12.6	-1.5	
PESTR	**Estremoz**	**4.66**	**318**	*eP*	Pn	17 11 22.8	+2.0	
PESTR				*eS*	Sn	17 12 13.6	-0.5	
PESTR				IAML		17 12 20.7		
PESTR				IAML		17 12 25.2		
PESTR				IAML		17 12 26.3		
EVO	**Evora**	**4.67**	**313**	P	Pn	17 11 21.9	+1.0	
EVO				S	Sn	17 12 13.3	-1.1	
EVO	**Evora**	**4.67**	**313**	*eP*	Pn	17 11 22.2	+1.2	
EVO				*eS*	Sn	17 12 13.2	-1.1	
EVO				IAML		17 12 15.3		
EVO				IAML		17 12 15.7		
EVO				IAML		17 12 18.4		
UCM	**Universidad Co**	**4.86**	**3**	P	Pn	17 11 26.6	+2.9	
UCM				S	Sn	17 12 18.9	-0.3	
MOE	**Montemor**	**4.87**	**310**	*eP*	Pn	17 11 25.2	+1.5	
MOE				*eS*	Sn	17 12 20.0	+0.7	
MOE				IAML		17 12 24.3		
MOE				IAML		17 12 29.6		
MOE				IAML		17 12 31.1		
PARRA	**Arraiolos**	**4.87**	**315**	*eP*	Pn	17 11 24.8	+1.1	
PARRA				*eS*	Sn	17 12 18.5	-0.8	
PARRA				IAML		17 12 19.7		
PARRA				IAML		17 12 24.6		
PARRA				IAML		17 12 31.5		
PMRV	**Marv??o**	**4.98**	**324**	*eP*	Pn	17 11 26.8	+1.6	
PMRV				*eS*	Sn	17 12 21.3	-0.7	
PMRV				IAML		17 12 37.8		
PMRV				IAML		17 13 00.3		
PMRV				IAML		17 13 02.2		
EPLA	**Plasencia**	**5.00**	**338**	P	Pn	17 11 28.7	+2.5	
EPLA				S	Sn	17 12 22.6	0.0	
PMTG	**Montargil**	**5.15**	**316**	*eP*	Pn	17 11 29.3	+1.7	
PMTG				*eS*	Sn	17 12 26.4	+0.2	
PMTG				IAML		17 12 38.2		
PMTG				IAML		17 12 45.7		
PMTG				IAML		17 12 59.8		
PMTG	**Montargil**	**5.15**	**316**	P	Pn	17 11 28.5	+1.0	
PMTG				S	Sn	17 12 26.2	0.0	
EIBI	**Ibiza**	**5.34**	**46**	P	Pn	17 11 31.0	+0.8	
EIBI				S	Sn	17 12 28.7	-2.1	
EIBI	**Ibiza**	**5.34**	**46**	P	Pn	17 11 31.0	+0.8	
EIBI				S	Sn	17 12 28.3	-2.5	
EIBI				IVmb_Lg		17 12 32.8		
PCBR	**Castelo Branco**	**5.35**	**326**	*eP*	Pn	17 11 32.1	+1.8	
PCBR				*eS*	Sn	17 12 30.6	-0.4	
PCBR				IAML		17 12 33.6		
PCBR				IAML		17 12 36.1		
PCBR				IAML		17 12 36.8		
TIO	**Tiouine**	**5.44**	**215**	P	Pn	17 11 32.3	+0.6	
TIO				S	Sn	17 12 35.5	+2.0	
PSARD	**Sardoal**	**5.50**	**320**	*eP*	Pn	17 11 33.6	+1.3	
PSARD				*eS*	Sn	17 12 33.1	-1.6	
PSARD				IAML		17 12 38.7		
PSARD				IAML		17 12 40.0		
PSARD				IAML		17 12 54.5		
ETOR	**Torete**	**5.51**	**13**	P	Pn	17 11 35.2	+2.6	
ETOR				S	Sn	17 12 33.8	-1.3	
PMAFR	**Mafra**	**5.71**	**309**	P	Pn	17 11 36.2	+0.9	
PMAFR				S	Sn	17 12 38.2	-1.9	
PMAFR	**Mafra**	**5.71**	**309**	*eP*	Pn	17 11 37.0	+1.7	
PSBE	**So Bento**	**5.78**	**316**	*eP*	Pn	17 11 38.2	+2.0	
MTE	**Manteigas**	**5.84**	**329**	*eP*	Pn	17 11 39.6	+2.5	
MTE				*eS*	Sn	17 12 43.0	-0.2	
MTE				IAML		17 13 05.5		
MTE				IAML		17 13 22.1		
MTE				IAML		17 13 27.7		
PVIS	**Viseu**	**6.25**	**329**	*eP*	Pn	17 11 44.4	+1.7	
PVRL	**Vila Real**	**6.65**	**332**	*eP*	Pn	17 11 50.0	+1.8	
ETOS	**Mallorca**	**6.69**	**48**	P	Pn	17 11 49.4	+0.6	
ETOS				S	Sn	17 13 00.8	-3.3	
POLO	**Lamas de Olo**	**6.76**	**332**	*eP*	Pn	17 11 51.6	+1.8	
POLO				*eS*	Sn	17 13 03.9	-2.1	
POLO				IAML		17 13 07.3		
POLO				IAML		17 13 11.5		
POLO				IAML		17 13 18.5		
POLO	**Lamas de Olo**	**6.76**	**332**	P	Pn	17 11 51.6	+1.8	
PBRG	**Braganca**	**6.80**	**340**	*eP*	Pn	17 11 52.8	+2.5	
PTO	**Porto**	**6.90**	**327**	*eP*	Pn	17 11 53.3	+1.7	
ECAL	**Calabor**	**6.93**	**340**	P	Pn	17 11 54.1	+2.1	
ECAL				S	Sn	17 13 08.9	-1.1	
ECAL	**Calabor**	**6.93**	**340**	P	Pn	17 11 54.9	+2.4	
ECAL				S	Sn	17 13 08.9	-1.1	
PCAB	**Cabril**	**7.14**	**332**	*eP*	Pn	17 11 56.9	+2.0	
PGAV	**Gavieira, Arco**	**7.45**	**332**	*eP*	Pn	17 12 01.5	+2.3	

*MOS **19** 17:21:07.9±1.2, 43°.95N×141°.85E, h203km, mb4.1/3, Error ellipse: s-maj=11.1km s-min=7.9km az=78.5*

*SKHL **19** 17:21:09.6±0.1, 43°.90N×142°.00E, h203km±9km, mb5.3/3, msha5.2/4*

*IDC **19** 17:21:09.2±0.3, 43°.96N×141°.92E, h201km±2km, mb3.6/18, mbtmp4.2/26, Error ellipse: s-maj=11.4km s-min=9.0km az=123.0*

*NIED **19** 17:21:09.4, 43°.88N×141°.98E, h208km, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr0.41; Mθθ-0.60; Mφφ0.19; Mrθ0.80; Mθφ0.49; Mφr-0.58; Fault plane solution: M₀1.18000×10¹⁵ NP1: φs268.00000°, δ20.00000°, λ51.00000°. NP2: φs129.00000°, δ75.00000°, λ103.00000°.*

*NEIC **19** 17:21:09.1±1.5, 43°.89N±0°.07×141°.9E±0°.1, h205km±3km, mb4.2/50 Error ellipse: s-maj=14.8km s-min=9.7km az=106.0*

*JMA **19** 17:21:09.4±0.2, 43°.9N±0°.8×14°2E±°, h208km±1km, MV3.9/37, KAMIKAWA-SORACHI REGION*

ISC 19 17:21:09.3±0.5, 43°.86N±0°.04×141°.96E±0°.04, h208km±5km, n131, σ1s07/143, mb4.1/49, 16D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JHR	**Hokuryu**	**0.20**	**235**	*eP*		**Pn**		**17 21 37.3**	**+0.7**
JHR				S		**S**		**17 21 58.4**	**+0.6**
JAB	**Ashibetsu**	**0.41**	**151**	P		**Pn**		**17 21 37.5**	**+0.5**
JAB				S		**S**		**17 21 59.2**	**+0.6**
ASAJ	**Asahikawa**	**0.53**	**61**	P		**Pn**		**17 21 37.4**	**0.0**
	561nm,0.5s,baz=31,slow=27,SNR=115								
ASAJ				S		**S**		**17 21 58.6**	**-0.7**
	174nm,0.6s,baz=102,slow=28,SNR=19								
ASAJ	**Asahikawa**	**0.53**	**61**	⇓*iP*		**Pn**		**17 21 37.4**	**0.0**
ASAJ				⇓S		**S**		**17 21 58.7**	**-0.7**
JKA	**Kamikawa-asahi**	**0.53**	**61**			**Pn**		**17 21 37.3**	**-0.1**
JKA	**Kamikawa-asahi**	**0.53**	**61**			**S**		**17 21 58.6**	**-0.7**
JKA	**Kamikawa-asahi**	**0.53**	**61**	*eP*		**Pn**		**17 21 37.4**	**0.0**
JSS	**Shosan**	**0.54**	**352**	⇓P		**Pn**		**17 21 37.9**	**+0.5**
JSS				⇓S		**S**		**17 21 59.6**	**+0.1**
JKK2	**Kamakawa 2**	**0.57**	**89**	⇓P		**Pn**		**17 21 37.9**	**+0.3**
JKK2				⇓S		**S**		**17 21 59.7**	**+0.2**
JEW	**Eniwo**	**1.08**	**200**	*i* P		**Pn**		**17 21 41.2**	**+0.7**
JEW				S		**S**		**17 22 05.2**	**+0.8**
JSE	**Soyaes**	**1.19**	**22**	⇓*iP*		**Pn**		**17 21 41.2**	**+0.1**
JTKR	**Abashiri--Toko**	**1.42**	**85**	⇓*iP*		**Pn**		**17 21 43.8**	**+0.8**
JTKR				⇓S		**S**		**17 22 10.0**	**+1.2**
JAR	**Ashorobuto**	**1.43**	**113**	⇓*iP*		**Pn**		**17 21 43.9**	**+0.8**
JAR				⇓S		**S**		**17 22 10.6**	**+1.5**
JWK2	**Keihoku**	**1.46**	**358**	⇓P		**Pn**		**17 21 43.4**	**+0.2**
JWK2				⇓S		**S**		**17 22 09.8**	**+0.3**
JCH	**Churui**	**1.61**	**140**	*i* P		**Pn**		**17 21 44.0**	**-0.7**
JCH				S		**S**		**17 22 10.2**	**-1.7**
JNBK	**Urakawa-nobuka**	**1.68**	**159**	*i* P		**Pn**		**17 21 46.0**	**+0.7**
JNBK				*eS*		**S**		**17 22 14.2**	**+1.2**
ERM	**Erimo**	**2.04**	**154**	PN		**Pn**		**17 21 49.5**	**+0.7**
ERM	**Erimo**	**2.04**	**154**			**Pn**		**17 21 49.5**	**+0.7**
JAK	**Akkeshi**	**2.18**	**112**	P		**Pn**		**17 21 49.5**	**-0.6**
JAK				S		**S**		**17 22 20.2**	**-1.3**
JRA	**Rausu**	**2.29**	**87**	⇓P		**Pn**		**17 21 51.8**	**+0.5**
RUSJ	**Misakicho**	**2.39**	**83**	*e*PN		**Pn**		**17 21 53.6**	**+1.2**
RUSJ				*eS*		**S**		**17 22 26.4**	**+0.8**
JOSM	**Okushiri--Mats**	**2.54**	**227**	*eP*		**Pn**		**17 21 54.1**	**-0.1**
JOT	**Ohata**	**2.57**	**195**	P		**Pn**		**17 21 53.5**	**-0.9**
JOT				S		**S**		**17 22 27.9**	**-1.2**
NMR	**Nemuro--Hokkai**	**2.78**	**99**	*e*PN		**Pn**		**17 21 55.7**	**-1.1**
NMR				*eS*		**S**		**17 22 30.2**	**-3.2**
NMR	**Nemuro--Hokkai**	**2.78**	**99**	*eP*		**Pn**		**17 21 56.0**	**-0.8**
NMR				*eS*		**S**		**17 22 30.9**	**-2.5**
NEM2	**Nemuro 2**	**2.79**	**99**	P		**Pn**		**17 21 56.3**	**-0.6**
NEM2				S		**S**		**17 22 31.6**	**-2.1**
YUK	**Yuzh-Kuril'sk**	**2.83**	**85**	*e*PN		**Pn**		**17 21 57.9**	**+0.6**
YUK				*eS*		**S**		**17 22 33.1**	**-1.2**
YUK	**Yuzh-Kuril'sk**	**2.83**	**85**	*eP*		**Pn**		**17 21 58.7**	**+1.4**
YUK				AMB	AMB			17 22 00.5	
	200nm,0.5s								
YUK				*eS*		**S**		**17 22 36.6**	**+2.3**
YUK				A	A			17 22 43.0	
	320nm,0.5s								
YUK				A	A			17 22 43.0	
	310nm,0.5s								
JTM	**Tenmabayashi**	**3.14**	**192**			**Pn**		**17 22 00.7**	**-0.4**
YSS	**Yuzhno-Sakhali**	**3.14**	**10**	*e*PN		**Pn**		**17 22 00.7**	**-0.2**
YSS				*eS*		**S**		**17 22 39.9**	**-1.1**
YSS				pmax	pmax				
	comp=Z,580nm,0.5s								
YSS				pmax	pmax				
	comp=N,350nm,0.6s								
YSS				pmax	pmax				
	comp=E,100nm,0.5s								
YSS				pmax	pmax				
	comp=Z,700nm,2.7s								
YSS				smax	smax				
	comp=N,200nm,1.2s								
YSS				smax	smax				
	comp=E,180nm,0.9s								
YSS	**Yuzhno-Sakhali**	**3.14**	**10**			**Pn**		**17 22 00.9**	**-0.1**
YSS	**Yuzhno-Sakhali**	**3.14**	**10**	*eP*		**Pn**		**17 22 00.7**	**-0.2**
YSS				AMB	AMB			17 22 01.8	
	comp=E,580nm,0.5s								
YSS				*eS*		**S**		**17 22 40.5**	**-0.5**
YSS				A	A			17 22 40.8	
	comp=E,200nm,0.9s								
YSS				A	A			17 22 40.8	
	comp=E,180nm,0.9s								
KUR	**Kuril'sk**	**4.44**	**70**	PN		**Pn**		**17 22 18.5**	**+1.7**
KUR				*eS*		**S**		**17 23 14.0**	**+4.5**
KUR				smax	smax				
	comp=N,59nm,0.4s								
KUR				smax	smax				
	comp=E,30nm,0.3s								
KUR	**Kuril'sk**	**4.44**	**70**	*eP*		**Pn**		**17 22 17.9**	**+1.1**
KUR				AMB	AMB			17 22 21.0	
	comp=E,30nm,0.4s								
KUR				*eS*		**S**		**17 23 10.2**	**+0.7**
KUR				A	A			17 23 17.8	
	comp=E,50nm,0.4s								
KUR				A	A			17 23 17.8	
	comp=E,40nm,0.4s								
TYV	**Tymovskoe**	**7.02**	**4**	*eP*		**Pn**		**17 22 51.8**	**+2.1**
USRK	**Ussuriysk Ar.**	**7.19**	**276**	P		**Pn**		**17 22 52.0**	**0.0**
	comp=E,4.4nm,0.7s,baz=83,slow=14,SNR=9.0								
USRK	**Ussuriysk Ar.**	**7.19**	**276**	PN		**Pn**		**17 22 52.0**	**0.0**
MAJO	**Matsushiro**	**7.85**	**203**	PN		**Pn**		**17 22 59.7**	**-1.0**
MAJO	**Matsushiro**	**7.85**	**203**			**Pn**		**17 22 59.7**	**-1.0**
MJAR	**Matsushiro Arr**	**7.85**	**203**	P		**Pn**		**17 23 00.3**	**-0.4**
	comp=E,2.6nm,0.4s,baz=13,slow=13,SNR=10								
MJAR	**Matsushiro Arr**	**7.85**	**203**	PN		**Pn**		**17 22 59.8**	**-0.9**
MJAR	**Matsushiro Arr**	**7.85**	**203**			**Pn**		**17 22 59.8**	**-0.9**
NKL	**Nikolayevsk**	**9.34**	**355**	*eP*		**Pn**		**17 23 22.2**	**+2.6**
JHJ	**Hachijo jima 2**	**10.86**	**190**	P		**Pn**		**17 23 37.3**	**-2.2**
	comp=E,4.8nm,0.4s,baz=249,slow=21,SNR=5.1								
JHJ				S		S		17 25 29.8	-11
	comp=E,7.7nm,0.4s,baz=234,slow=23,SNR=5.9								
KSRS	**Korea Array**	**12.42**	**244**	P		**Pn**		**17 23 58.0**	**-1.2**
	comp=E,2.2nm,0.7s,baz=56,slow=13,SNR=7.6								
PAU	**Pauzhetka**	**12.56**	**48**	*eP*		**Pn**		**17 24 01.5**	**+0.7**
JNU	**Nakatsue**	**13.78**	**223**	P		**Pn**		**17 24 17.4**	**+1.1**
	comp=E,5.3nm,0.4s,baz=88,slow=1.1,SNR=11								
PETK	**Petropavlovsk-**	**13.92**	**43**	P		**Pn**		**17 24 16.6**	**-1.2**
	comp=E,11nm,0.9s,baz=217,slow=5.8,SNR=12								
MA2	**Magadan**	**16.63**	**16**	P		**P**		**17 24 47.9**	**-1.5**
	comp=E,8.8nm,0.6s,baz=200,slow=12,SNR=6.4								
XLT	**XiLinHaoTe**	**18.63**	**279**	*eP*		**P**		**17 25 10.6**	**-0.9**
XLT				pmax	pmax				
	comp=Z,3.0nm,0.6s								
YAK	**Yakutsk**	**19.58**	**343**	P		**P**		**17 25 18.9**	**-2.4**
	comp=Z,12nm,0.5s,baz=140,slow=4.2,SNR=10								
YAK	**Yakutsk**	**19.58**	**343**			**P**		**17 25 18.5**	**-2.8**
SEY	**Seymchan**	**20.04**	**14**	P		**P**		**17 25 24.9**	**-1.3**
	comp=Z,3.8nm,0.3s,baz=200,slow=8.4,SNR=28								
SEY	**Seymchan**	**20.04**	**14**	P		**P**		**17 25 25.0**	**-1.3**
SEY	**Seymchan**	**20.04**	**14**	*eP*		**P**		**17 25 25.0**	**-1.3**
HHC	**Hu-ho-hao-te**	**22.60**	**273**	*eP*		**P**		**17 25 52.1**	**-0.3**
HHC				pmax	pmax				
	comp=Z,10.0nm,0.6s								
HHC				pmax	pmax				
	comp=Z,150nm,5.8s								
SONM	**Songino Array**	**24.95**	**292**	P		**P**		**17 26 13.7**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=76,slow=7.8,SNR=3.6								
	comp=Z,0.9nm,0.6s								
SONM	**Songino Array**	**24.95**	**292**	P		**P**		**17 26 13.5**	**-0.1**
WHN	**Wuhan**	**25.56**	**248**	P		**P**		**17 26 20.8**	**+1.7**
KMI2	**Kunming**	**36.89**	**253**	P		**P**		**17 27 59.1**	**+0.8**
KMI2				pmax	pmax				
	comp=Z,17nm,0.7s								
ZALV	**Zalesovo Beam**	**37.91**	**306**	P		**P**		**17 28 06.5**	**+0.2**
	comp=Z,0.7nm,0.4s,baz=64,slow=6.5,SNR=5.9								
	comp=Z,0.7nm,0.4s								
ZALV	**Zalesovo Beam**	**37.91**	**306**	P		**P**		**17 28 06.3**	**0.0**
E19K	**Redstone River**	**39.37**	**32**	P		**P**		**17 28 18.1**	**-0.1**
H19K	**Roundabout Mou**	**39.55**	**35**	P		**P**		**17 28 19.6**	**-0.1**
H19K				IAmb	IAmb			17 28 20.8	
	comp=Z,6.7nm,0.7s								
D20K	**Etivluk River**	**39.73**	**30**	P		**P**		**17 28 20.7**	**-0.4**
D20K				IAmb	IAmb			17 28 22.1	
	comp=Z,14nm,1.2s								
J20K	**Nowinta River**	**40.52**	**37**	P		**P**		**17 28 28.2**	**+0.5**
J20K				IAmb	IAmb			17 28 29.4	
	comp=Z,6.0nm,1.0s								
D22K	**Ayikyak River**	**41.16**	**30**	P		**P**		**17 28 32.8**	**-0.2**
MKAR	**Makanchi Array**	**41.17**	**296**	P		**P**		**17 28 32.8**	**-0.5**
	comp=Z,0.5nm,0.5s,baz=84,slow=10,SNR=9.8								
	comp=Z,0.5nm,0.5s								
MKAR	**Makanchi Array**	**41.17**	**296**	P		**P**		**17 28 32.3**	**-1.0**
H22K	**Ishtalitna Cre**	**41.65**	**35**	P		**P**		**17 28 37.2**	**+0.3**
H22K				IAmb	IAmb			17 28 38.1	
	comp=Z,3.6nm,0.6s								
G23K	**Bananza Creek**	**42.17**	**33**	P		**P**		**17 28 41.1**	**0.0**
G23K				IAmb	IAmb			17 28 41.7	
	comp=Z,6.6nm,0.7s								
E23K	**Chandalar**	**42.28**	**31**	P		**P**		**17 28 41.8**	**-0.3**
E23K				IAmb	IAmb			17 28 42.9	
	comp=Z,4.7nm,0.7s								
TOLK	**Toolik Lake Re**	**42.29**	**30**	P		**P**		**17 28 41.8**	**-0.3**
TOLK				IAmb	IAmb			17 28 46.3	
	comp=Z,13nm,1.4s								
KURK	**Kurchatov**	**42.32**	**302**	P		**P**		**17 28 43.4**	**+0.9**
KURK	**Kurchatov**	**42.32**	**302**	P		**P**		**17 28 41.8**	**-0.7**
KURK	**Kurchatov**	**42.32**	**302**	*eP*		**P**		**17 28 43.4**	**+0.9**
KURBB	**Kurchatov Arra**	**42.40**	**302**	P		**P**		**17 28 43.4**	**+0.3**
	comp=Z,1.4nm,0.5s,baz=72,slow=8.6,SNR=5.2								
	comp=Z,1.4nm,0.5s								
D24K	**Happy Valley**	**42.56**	**30**			**P**		**17 28 43.6**	**-0.6**
C24K	**Franklin Bluff**	**42.60**	**29**	IAmb	IAmb			17 28 44.8	
	comp=Z,7.2nm,0.6s								
E24K	**Your Creek**	**42.71**	**31**	P		**P**		**17 28 45.2**	**-0.3**
E24K				IAmb	IAmb			17 28 46.2	
	comp=Z,4.6nm,0.5s								
F24K	**Squaw Lake**	**42.96**	**32**	IAmb	IAmb			17 28 48.1	
	comp=Z,5.3nm,0.6s								
GHO	**Glory Hole Cre**	**43.11**	**41**	P		**P**		**17 28 49.5**	**+0.7**
D25K	**Kavik River**	**43.43**	**29**	P		**P**		**17 28 50.6**	**-0.6**
IL31		**43.62**	**36**			**P**		**17 28 53.0**	**+0.4**
IL31				IAmb	IAmb			17 28 53.4	
	comp=Z,4.5nm,0.8s								
ILAR	**Eielson Array**	**43.62**	**36**	P		**P**		**17 28 52.5**	**-0.1**
	comp=Z,3.3nm,0.8s,baz=281,slow=8.1,SNR=38								
	comp=Z,3.3nm,0.8s								
ILAR	**Eielson Array**	**43.62**	**36**	P		**P**		**17 28 52.4**	**-0.3**
CHTO	**Chiang Mai**	**43.75**	**249**	P		**P**		**17 28 55.4**	**+1.1**
CHTO				pmax	pmax				
	comp=Z,2.0nm,0.5s								
CHTO	**Chiang Mai**	**43.75**	**249**	P		**P**		**17 28 55.4**	**+1.1**
CMAR	**Chiang Mai Arr**	**44.00**	**249**	P		**P**		**17 28 57.6**	**+1.3**
	comp=Z,0.9nm,0.8s,baz=44,slow=7.1,SNR=8.9								
	comp=Z,0.9nm,0.8s								
CMAR	**Chiang Mai Arr**	**44.00**	**249**	P		**P**		**17 28 54.6**	**-1.7**
PRP	**Porcupine Dome**	**44.09**	**35**			**P**		**17 28 56.8**	**+0.2**
PRP				IAmb	IAmb			17 28 58.0	
	comp=Z,7.8nm,0.7s								
C27K	**Jago River**	**44.34**	**29**	IAmb	IAmb			17 28 59.3	
	comp=Z,5.8nm,0.7s								
F26K	**Sheenjek River**	**44.38**	**32**	IAmb	IAmb			17 29 00.2	
	comp=Z,5.1nm,0.7s								
G26K	**Porcupine Rive**	**44.60**	**33**	IAmb	IAmb			17 29 02.0	
	comp=Z,7.8nm,0.6s								
SCRK	**Sand Creek**	**44.98**	**37**			**P**		**17 29 03.5**	**-0.2**
M26K	**Nabesna, AK**	**45.74**	**39**	IAmb	IAmb			17 29 11.9	
	comp=Z,9.6nm,1.1s								
K27K	**Chicken**	**45.80**	**37**	P		**P**		**17 29 10.6**	**+0.7**
K27K				IAmb	IAmb			17 29 11.6	
	comp=Z,18nm,1.3s								
M27K	**Edge Creek, AK**	**46.26**	**39**	IAmb	IAmb			17 29 15.8	
	comp=Z,8.7nm,1.0s								
I28M	**Miner Creek**	**46.40**	**34**	IAmb	IAm

MNI	**Manado**	**2.49**	**244**	P	**Pn**	**17 40 41.5**	**-2.2**
MNI				AML	AML			
KMSI	**Cibinong**	**3.66**	**238**	P	**Pn**	**17 41 00.5**	**+0.8**
GTOI	**Gorontalo**	**4.48**	**245**	P	**Pn**	**17 41 11.4**	**+0.4**
GTOI				AML	AML			
SANI	**Sanana**	**4.69**	**193**	P	**Pn**	**17 41 12.9**	**-1.0**
SANI				AML	AML			
LUWI	**Luwuk**	**5.59**	**230**	P	**Pn**	**17 41 25.9**	**-0.3**
	0.4nm477nm30nm,0.6s							
LUWI				AML	AML			
APSI	**Ampana**	**6.42**	**238**	P	**Pn**	**17 41 40.3**	**+2.7**
FITZ	**Fitzroy Crossi**	**20.57**	**184**	P	**P**	**17 44 39.8**	**-0.2**
	1.3nm,0.4s,baz=26,slow=7.2,SNR=9.5							
	1.3nm,0.4s							
PMG	**Port Moresby**	**23.27**	**121**	LR	LR	17 57 04.3		
	comp=Z,82nm,19.5s,baz=319,slow=44							
WRA	**Warramunga Arr**	**23.46**	**163**	P	**P**	**17 45 11.4**	**+0.8**
	1.0nm,0.4s,baz=338,slow=10,SNR=23							
	1.0nm,0.4s							
KRVT	**Keravat (AS076**	**25.85**	**105**	LR	LR	17 55 13.6		
	comp=Z,29nm,20.1s,baz=228,slow=35							
ASAR	**Alice Springs**	**26.89**	**166**	P	**P**	**17 45 42.1**	**+0.3**
	0.2nm,0.3s,baz=345,slow=7.5,SNR=6.4							
	0.2nm,0.3s							
CMAR	**Chiang Mai Arr**	**31.77**	**302**	P	**P**	**17 46 24.0**	**-1.1**
	0.9nm,0.8s,baz=115,slow=6.7,SNR=9.8							
	0.9nm,0.8s							
MKAR	**Makanchi Array**	**58.72**	**326**	P	**P**	**17 49 58.2**	**+0.3**
	0.7nm,0.6s,baz=122,slow=7.8,SNR=8.5							
	0.7nm,0.6s							
KURBB	**Kurchatov Arra**	**62.91**	**328**	P	**P**	**17 50 26.6**	**+0.2**
	1.1nm,0.2s,baz=130,slow=6.5,SNR=7.1							
	1.1nm,0.2s							
BVAR	**Borovoye Array**	**68.49**	**327**	P	**P**	**17 51 03.0**	**+0.8**
	0.4nm,0.5s,baz=123,slow=13,SNR=2.4							
	0.4nm,0.5s							
PPT	**Papeete**	**84.43**	**108**	LR	LR	18 28 40.0		
	comp=Z,47nm,19.8s,baz=176,slow=34							

TRN 19 17:49:52.3, 15°.87N×61°.57W, h25km, MD3.6, 1C, Near South of Guadeoloupe., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAGL	**Barre de l'ile**	**0.29**	**74**	*eP*	Pn	17 50 01.8	+0.8
MAGL				*eS*	Sn	17 50 06.8	+0.3
DHSZ	**Broadband at M**	**0.44**	**335**	*eP*	Pn	17 50 03.9	+0.9
DHSZ				*eS*	Sn	17 50 10.5	+0.2
DSLB	**Salisbury**	**0.45**	**161**	*iP*	Pn	17 50 03.6	+0.4
DSLB				*eS*	Sn	17 50 10.2	-0.3
DSDZ	**La Diserade, G**	**0.66**	**48**	*eP*	Pn	17 50 07.5	+1.4
DSDZ				*eS*	Sn	17 50 17.0	+1.4
BIM	**Bigot**	**1.43**	**160**	*eP*	Pb	17 50 19.3	+1.0
BIM				*eS*	Sb	17 50 37.4	+1.3
SLBI	**Saint Lucia, B**	**1.92**	**162**	*eS*	Sb	17 50 49.1	-1.2

IDC ***19*** *17:51:40.9±0.8, 35°.48N×3°.45W, h0km, mb3.9/7, mbtmp3.8/12, ML3.6/5, MS3.5/1, Error ellipse: s-maj=20.3km s-min=9.2km az=101.0*
GFZ ***19*** *17:51:41.1±0.8, 35°.N±4°×±°, h16km±7km, M4.3/12, mb4.3/6, ML4.1/13, Error ellipse: s-maj=8.1km s-min=6.1km az=149.1, confirmed*
MDD ***19*** *17:51:42.2±0.3, 35°.25N×3°.61W, h30km±7km, mb_Lg3.9/51, Error ellipse: s-maj=5.9km s-min=1.8km az=168.0*
CRAAG ***19*** *17:51:42.0, 35°.25N×3°.61W, Ml3.9, Maroc*
IGIL ***19*** *17:51:42.0, 35°.32N×3°.61W, h12km, ML3.3*
INMG ***19*** *17:51:43.0±1.8, 35°.42N×3°.61W, h21km±6km, ML3.5, Error ellipse: s-maj=5.1km s-min=2.7km az=153.0, #DIST_RANGE: REGIONAL #IPMA_REGION: NE Al Hoceima (MARR)*
SFS ***19*** *17:51:47.3, 35°.66N×3°.85W, h14km, ML4.2/22, ML4.4/22, MLv4.1/22*

ISC 19 17:51:41.9±1.1, 35°.44N±0°.03×3°.61W±0°.02, h17km±8km, n162, σ1°.93/272, mb4.0/6, 1C, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.55**	**105**	P	**Pg**	**17 51 53.0**	**0.0**
EMEL				S	**Sg**	**17 52 00.4**	**0.0**
WMELI	**Melilla**	**0.55**	**103**	Pn	**Pg**	**17 51 53.0**	**+0.1**
WMELI				Sn	**Sg**	**17 52 00.2**	**-0.2**
WMELI	**Melilla**	**0.55**	**103**	P	**Pg**	**17 51 53.1**	**+0.1**
WMELI				AML	AML			
EMLI	**Melilla**	**0.56**	**105**	Pn	**Pg**	**17 51 53.0**	**-0.1**
EMLI				Sn	**Sg**	**17 52 00.6**	**+0.1**
EALB	**Alboran**	**0.68**	**43**	Pn	**Pg**	**17 51 55.5**	**+0.2**
EALB				Sn	**Sb**	**17 52 04.8**	**+0.2**
EALB	**Alboran**	**0.68**	**43**	P	**Pg**	**17 51 55.4**	**0.0**
EALB				S	**Sb**	**17 52 05.0**	**+0.5**
ELGU	**Los Guajares,**	**1.42**	**360**	Pn	**Pn**	**17 52 05.7**	**-1.4**
ELGU				Sn	**Sn**	**17 52 22.8**	**-2.7**
ELGU	**Los Guajares,**	**1.42**	**360**	P	**Pn**	**17 52 05.6**	**-1.5**
ELGU				S	**Sn**	**17 52 22.1**	**-3.3**
EMIJ	**Mijas**	**1.46**	**320**	Pn	**Pn**	**17 52 05.9**	**-1.7**
EMIJ				Sn	**Sn**	**17 52 23.4**	**-2.9**
EMIJ	**Mijas**	**1.46**	**320**	P	**Pn**	**17 52 05.8**	**-1.8**
EMIJ				S	**Sn**	**17 52 23.5**	**-2.9**
EMIJ				IVmb_Lg		17 52 32.0		
EMAL	**Malaga-Limoner**	**1.47**	**334**	Pn	**Pn**	**17 52 06.6**	**-1.1**
EMAL				Sn	**Sn**	**17 52 23.9**	**-2.8**
EMAL	**Malaga-Limoner**	**1.47**	**334**	P	**Pn**	**17 52 06.7**	**-1.1**
EMAL				AML	AML			
ECEU	**Ceuta**	**1.51**	**288**	Pn	**Pn**	**17 52 06.3**	**-1.9**
ECEU				Sn	**Sn**	**17 52 24.3**	**-3.2**
ECEU	**Ceuta**	**1.51**	**288**	P	**Pn**	**17 52 06.2**	**-1.9**
ECEU				S	**Sn**	**17 52 23.7**	**-3.7**
EBER	**Berja**	**1.56**	**22**	Pn	**Pn**	**17 52 08.1**	**-1.1**
EBER				Sn	**Sn**	**17 52 28.1**	**-1.0**
EBER	**Berja**	**1.56**	**22**	P	**Pn**	**17 52 08.0**	**-1.1**
EBER				S	**Sn**	**17 52 27.9**	**-1.2**
EBER				IVmb_Lg		17 52 30.6		
EGOR	**Sierra Gorda,**	**1.71**	**347**	Pn	**Pn**	**17 52 10.3**	**-0.9**
EGOR				Sn	**Sb**	**17 52 33.9**	**-0.4**
EGOR	**Sierra Gorda,**	**1.71**	**347**	P	**Pn**	**17 52 10.2**	**-0.9**
EGOR				S	**Sb**	**17 52 34.0**	**-0.4**
EGOR				IVmb_Lg		17 52 41.8		
EQUE	**Quentar**	**1.76**	**4**	P	**Pn**	**17 52 11.7**	**-0.1**
EQUE				S	**Sn**	**17 52 32.7**	**-1.3**
EQUE				IVmb_Lg		17 52 38.5		
EQTA	**Presa de Quent**	**1.77**	**4**	Pn	**Pn**	**17 52 11.9**	**0.0**
EQTA				Sn	**Sn**	**17 52 31.4**	**-2.6**
EJIF	**Jimena Fronter**	**1.81**	**304**	P	**Pn**	**17 52 11.7**	**-0.6**
EJIF				S	**Sn**	**17 52 33.9**	**-1.1**
ENIJ	**Nijar**	**1.90**	**36**	Pn	**Pn**	**17 52 12.1**	**-1.5**
ENIJ				Sn	**Sn**	**17 52 34.0**	**-3.2**
ENIJ	**Nijar**	**1.90**	**36**	*iP*	**Pn**	**17 52 12.3**	**-1.4**
ENIJ				S	**Sn**	**17 52 33.9**	**-3.3**
ENIJ				IVmb_Lg		17 52 38.2		
IFR	**Ifrane**	**2.29**	**214**	Pn	**Pn**	**17 52 19.3**	**+0.1**
IFR				Sn	**Sn**	**17 52 48.9**	**+1.8**
IFR	**Ifrane**	**2.29**	**214**	P	**Pn**	**17 52 17.7**	**-1.4**
IFR				AML	AML			
ESPR	**Espera**	**2.31**	**309**	Pn	**Pn**	**17 52 20.3**	**+1.1**
ESPR				Sn	**Sn**	**17 52 49.6**	**+2.4**
ESPR	**Espera**	**2.31**	**309**	P	**Pn**	**17 52 20.3**	**+1.1**
ESPR				S	**Sn**	**17 52 48.3**	**+1.1**
ESPR				IVmb_Lg		17 52 57.8		
EQES	**Quesada**	**2.40**	**10**	P	**Pn**	**17 52 22.4**	**+1.9**
EQES				S	**Sn**	**17 52 50.8**	**+1.3**
USTO	**Oran**	**2.51**	**82**	P	**Pb**	**17 52 27.0**	**+0.4**
E0802	**Ubeda,Jaen**	**2.58**	**4**	P	**Pn**	**17 52 24.9**	**+1.9**
E0802				S	**Sn**	**17 52 56.0**	**+1.9**
MDT	**Midelt**	**2.75**	**198**	Pn	**Pn**	**17 52 26.2**	**+0.9**
	2.6nm,0.3s,baz=36,slow=12,SNR=16							
MDT				Pg	**Pg**	**17 52 34.9**	**+0.2**
	9.9nm,0.3s,baz=31,slow=17,SNR=52							
MDT				Lg	Lg	17 53 09.9		
	15nm,0.3s,baz=302,slow=21,SNR=7.6							
	8.0nm,0.5s							
MDT				AML	AML			
EADA	**Adamuz**	**2.83**	**344**	Pn	**Pn**	**17 52 26.9**	**+0.5**
EADA				Sn	**Sn**	**17 53 00.2**	**+0.1**
EADA	**Adamuz**	**2.83**	**344**	P	**Pn**	**17 52 26.6**	**+0.2**
EADA				S	**Sn**	**17 53 00.4**	**+0.3**
EADA				IVmb_Lg		17 53 07.4		
ODJA	**Bouhanifia**	**2.83**	**91**	P	**Pn**	**17 52 25.8**	**-0.6**
EZAR	**Zarzadilla de**	**2.88**	**32**	P	**Pn**	**17 52 26.6**	**-0.5**
EZAR				S	**Sn**	**17 53 00.1**	**-1.3**
EZAR				IVmb_Lg		17 53 11.0		
CART	**Cartagena**	**3.00**	**44**	Pn	**Pn**	**17 52 26.8**	**-1.9**
CART				Sn	**Sn**	**17 53 00.8**	**-3.5**
CART	**Cartagena**	**3.00**	**44**	P	**Pn**	**17 52 26.9**	**-1.9**
CART				AML	AML			
ECAB	**El Cabril**	**3.00**	**332**	Pn	**Pn**	**17 52 29.1**	**+0.4**
ECAB				Sn	**Sn**	**17 53 05.2**	**+0.8**
ECAB	**El Cabril**	**3.00**	**332**	P	**Pn**	**17 52 29.3**	**+0.5**
ECAB				S	**Sn**	**17 53 05.9**	**+1.5**
ECAB				IVmb_Lg		17 53 18.9		
RTC	**Rabat Centre**	**3.04**	**242**	Sn	**Sn**	**17 53 04.7**	**-0.6**
EMUR	**La Murta**	**3.06**	**38**	Pn	**Pn**	**17 52 28.7**	**-0.9**
EMUR				Sn	**Sn**	**17 53 04.0**	**-1.9**
EMUR	**La Murta**	**3.06**	**38**	P	**Pn**	**17 52 28.4**	**-1.2**
EMUR				S	**Sn**	**17 53 03.1**	**-2.8**
EMUR				IVmb_Lg		17 53 06.3		
EMUR	**La Murta**	**3.06**	**38**	P	**Pn**	**17 52 28.4**	**-1.2**
EMUR				AML	AML			
PSIM	**Granatula de C**	**3.37**	**358**	P	**Pn**	**17 52 34.8**	**+0.9**
PSIM				S	**Sn**	**17 53 12.7**	**-0.9**
EMIN	**Mina Concepcio**	**3.38**	**314**	Pn	**Pn**	**17 52 33.8**	**-0.2**
EMIN				Sn	**Sn**	**17 53 11.1**	**-2.6**
EMIN	**Mina Concepcio**	**3.38**	**314**	P	**Pn**	**17 52 33.0**	**-1.0**
EMIN				S	**Sn**	**17 53 10.9**	**-2.8**
ESMB	**Sidi M'hamed B**	**3.42**	**87**	P	**Pn**	**17 52 33.4**	**-1.2**
ETRV	**Los Montesinos**	**3.44**	**41**	P	**Pn**	**17 52 34.6**	**-0.2**
ETRV				S	**Sn**	**17 53 12.9**	**-2.3**
ETRV				IVmb_Lg		17 53 16.9		
ETOB	**Tobarra**	**3.60**	**27**	Pn	**Pn**	**17 52 37.9**	**+0.8**
ETOB				Sn	**Sn**	**17 53 18.9**	**-0.2**
ETOB	**Tobarra**	**3.60**	**27**	P	**Pn**	**17 52 37.8**	**+0.8**
ETOB				S	**Sn**	**17 53 19.2**	**+0.1**
ETOB				IVmb_Lg		17 53 20.8		
EGRO	**El Granado**	**3.75**	**305**	P	**Pn**	**17 52 38.9**	**-0.2**
EGRO				S	**Sn**	**17 53 20.5**	**-2.3**
EGRO				IVmb_Lg		17 53 22.1		
AVE	**Averroes**	**3.80**	**237**	Pn	**Pn**	**17 52 41.6**	**+1.8**
AVE				Sn	**Sn**	**17 53 26.4**	**+2.3**
PVAQ	**Vaqueiros**	**3.85**	**302**	*eP*	**Pn**	**17 52 40.0**	**-0.3**
PVAQ				*eS*	**Sn**	**17 53 21.8**	**-3.3**
PVAQ				IAML		17 53 25.1		
PVAQ				IAML		17 53 28.1		
PVAQ				IAML		17 53 30.1		
PVAQ	**Vaqueiros**	**3.85**	**302**	P	**Pn**	**17 52 39.6**	**-0.7**
EANR	**'Ain N'Sour**	**3.87**	**81**	P	**Pn**	**17 52 43.4**	**+2.7**
PBAR	**Barrancos**	**3.87**	**316**	Pn	**Pn**	**17 52 40.4**	**-0.3**
PBAR				Sn	**Sn**	**17 53 23.8**	**-2.0**
PBAR	**Barrancos**	**3.87**	**316**	*eP*	**Pn**	**17 52 40.4**	**-0.3**
PBAR				*eS*	**Sn**	**17 53 24.7**	**-1.1**
PBAR				IAML		17 53 27.8		
PBAR				IAML		17 53 32.3		
PBAR				IAML		17 53 40.3		
PBDV	**Barranco-do-Ve**	**3.92**	**299**	*eP*	**Pn**	**17 52 41.2**	**-0.2**
PBDV				*eS*	**Sn**	**17 53 24.4**	**-2.7**
PBDV				IAML		17 53 29.4		
PBDV				IAML		17 53 31.0		
PBDV				IAML		17 53 32.1		
AFON	**Font Roja**	**4.05**	**36**	P	**Pn**	**17 52 43.3**	**+0.1**
AFON				S	**Sn**	**17 53 28.8**	**-1.4**
AFON				IVmb_Lg		17 53 35.7		
PAB	**San Pablo**	**4.14**	**352**	P	**Pn**	**17 52 45.1**	**+0.7**
PAB				S	**Sn**	**17 53 29.9**	**-2.5**
PAB				IVmb_Lg		17 53 50.2		
PAB	**San Pablo**	**4.14**	**352**	P	**Pn**	**17 52 44.7**	**+0.3**
PAB				AML	AML			
PCVE	**Castro Verde**	**4.18**	**303**	*eP*	**Pn**	**17 52 44.6**	**-0.3**
PCVE				*eS*	**Sn**	**17 53 31.7**	**-1.7**
PCVE				IAML		17 54 13.3		
PCVE				IAML		17 53 36.1		
PCVE				IAML		17 53 37.2		
EBEN2	**Beniarda presa**	**4.23**	**39**	P	**Pn**	**17 52 45.7**	**0.0**
EBEN2				S	**Sn**	**17 53 30.4**	**-4.2**
EBEN2				IVmb_Lg		17 53 37.5		
ESDC	**Sonseca Array**	**4.23**	**356**	Pn	**Pn**	**17 52 47.0**	**+1.3**
	4.6nm,0.3s,baz=178,slow=12,SNR=112							
ESDC				Sn	**Sn**	**17 53 34.1**	**-0.6**
	9.8nm,0.3s,baz=178,slow=23,SNR=12							
ESDC				Lg	Lg	17 53 48.0		
	12nm,0.3s,baz=178,slow=28,SNR=7.0							
	14nm,0.3s							
ESDC				AML	AML			
ESDC	**Sonseca Array**	**4.23**	**356**	P	**Pn**	**17 52 46.8**	**+1.1**
ESDC				S	**Sn**	**17 53 32.6**	**-2.2**
ESDC				IVmb_Lg		17 53 53.5		
ESBB	**Sonseca Array**	**4.23**	**356**	P	**Pn**	**17 52 46.3**	**+0.5**
ESBB				S	**Sn**	**17 53 33.3**	**-1.6**
EBAD	**Badajoz**	**4.28**	**322**	Pn	**Pn**	**17 52 46.2**	**-0.1**
EBAD				Sn	**Sn**	**17 53 34.1**	**-1.8**
EBAD	**Badajoz**	**4.28**	**322**	P	**Pn**	**17 52 46.2**	**-0.1**
EBAD				S	**Sn**	**17 53 33.6**	**-2.3**
EBAD				IVmb_Lg		17 53 39.0		
PBEJ	**Beja**	**4.28**	**308**	*eP*	**Pn**	**17 52 46.0**	**-0.3**
PBEJ				*eS*	**Sn**	**17 53 33.0**	**-2.9**
PBEJ				IAML		17 53 35.1		
PBEJ				IAML		17 53 37.6		
PBEJ				IAML		17 53 43.3		
EOFD	**Oued Fodda**	**4.29**	**80**	P	**Pn**	**17 52 44.9**	**-1.6**
EVIV	**Cofrentes, Val**	**4.30**	**27**	P	**Pn**	**17 52 47.3**	**+0.6**
EVIV				S	**Sn**	**17 53 35.4**	**-1.1**
EVIV				IVmb_Lg		17 53 54.9		
PMONC	**Monchique**	**4.40**	**297**	*eP*	**Pn**	**17 52 47.8**	**-0.2**
PMONC				*eS*	**Sn**	**17 53 35.9**	**-2.9**
PMONC				IAML		17 53 40.7		
PMONC				IAML		17 53 40.9		
PMONC				IAML		17 53 41.7		
MESJ	**Messejana**	**4.41**	**304**	*eP*	**Pn**	**17 52 47.8**	**-0.3**
MESJ				*eS*	**Sn**	**17 53 35.9**	**-3.2**
MESJ				IAML		17 53 38.8		
	comp=N,25nm,0.6s							
MESJ	**Messejana**	**4.41**	**304**	*eP*	**Pn**	**17 52 48.0**	**-0.1**
MESJ				*eS*	**Sn**	**17 53 36.9**	**-2.2**
CIBOR	**Castaar de Ib**	**4.43**	**342**	P	**Pn**	**17 52 48.5**	**+0.2**
CIBOR				S	**Sn**	**17 53 37.3**	**-2.2**
MORF	**Marmelete**	**4.47**	**296**	*eP*	**Pn**	**17 52 48.5**	**-0.5**
MORF				*eS*	**Sn**	**17 53 36.9**	**-3.7**
MORF				IAML		17 53 42.2		
	comp=E,118nm,0.4s							
MORF	**Marmelete**	**4.47**	**296**	*eP*	**Pn**	**17 52 48.8**	**-0.2**
MORF				*eS*	**Sn**	**17 53 37.8**	**-2.8**
MORF				IAML		17 53 41.0		
MORF				IAML		17 53 42.3		
MORF				IAML		17 53 55.0		
EBGR	**Bougara**	**4.53**	**87**	P	**Pn**	**17 52 49.9**	**+0.1**
PFVI	**Vila Bisbo**	**4.54**	**293**	*eP*	**Pn**	**17 52 49.8**	**0.0**
PFVI				*eS*	**Sn**	**17 53 39.4**	**-2.8**
PFVI				IAML		17 53 45.4		
PFVI				IAML		17 53 48.3		
PFVI				IAML		17 53 50.5		
PFVI	**Vila Bisbo**	**4.54**	**293**	P	**Pn**	**17 52 48.8**	**-1.1**
PFVI				AML	AML			
PTEO	**Sao Teotonio**	**4.62**	**298**	*eP*	**Pn**	**17 52 51.0**	**0.0**
PTEO				*eS*	**Sn**	**17 53 42.6**	**-1.7**
PTEO				IAML		17 53 45.7		
PTEO				IAML		17 53 45.9		
PTEO				IAML		17 53 49.7		
PTEO	**Sao Teotonio**	**4.62**	**298**	P	**Pn**	**17 52 50.9**	**-0.1**
PTEO				S	**Sn**	**17 53 42.0**	**-2.3**
ECHE	**Chera**	**4.64**	**26**	Pn	**Pn**	**17 52 52.3**	**+1.0**
ECHE				Sn	**Sn**	**17 53 44.4**	**-0.5**
ECHE	**Chera**	**4.64**	**26**	P	**Pn**	**17 52 52.4**	**+1.0**
ECHE				S	**Sn**	**17 53 44.3**	**-0.6**
PLOUS	**Minas do Lousa**	**4.65**	**305**	*eP*	**Pn**	**17 52 51.1**	**-0.2**
PLOUS				*eS*	**Sn**	**17 53 42.8**	**-2.1**
PLOUS				IAML		17 53 45.6		
PLOUS				IAML		17 53 47.0		
PLOUS				IAML		17 54 00.8		
PESTR	**Estremoz**	**4.67**	**318**	Pn	**Pn**	**17 52 52.1**	**+0.5**
PESTR				Sn	**Sn**	**17 53 43.0**	**-2.4**
PESTR	**Estremoz**	**4.67**	**318**	*eP*	**Pn**	**17 52 52.3**	**+0.7**
PESTR				*eS*	**Sn**	**17 53 43.0**	**-2.4**
PESTR				IAML		17 53 49.0		
PESTR				IAML		17 53 50.3		
PESTR				IAML		17 53 56.0		
PESTR	**Estremoz**	**4.67**	**318**	P	**Pn**	**17 52 52.1**	**+0.5**
PESTR				AML	AML			
EVO	**Evora**	**4.68**	**312**	*eP*	**Pn**	**17 52 52.0**	**+0.1**
EVO				*eS*	**Sn**	**17 53 43.1**	**-2.7**
EVO				IAML		17 53 44.9		
EVO				IAML		17 53 47.2		
EVO				IAML		17 53 50.9		
EVO	**Evora**	**4.68**	**312**	P	**Pn**	**17 52 51.6**	**-0.3**
EVO				AML	AML			
EDDR	**Deurdeur**	**4.77**	**82**	P	**Pn**	**17 52 52.5**	**-0.6**
UCM	**Universidad Co**	**4.87**	**3**	Pn	**Pn**	**17 52 55.3**	**+1.0**
UCM				Sn	**Sn**	**17 53 48.3**	**-2.0**
UCM	**Universidad Co**	**4.87**	**3**	P	**Pn**	**17 52 55.2**	**+0.8**
UCM				AML	AML			
EZEK	**Zmalet El Emir**	**4.88**	**95**	P	**Pb**	**17 53 03.2**	**-3.9**
MOE	**Montemor**	**4.88**	**310**	*eP*	**Pn**	**17 52 55.0**	**+0.4**
MOE				*eS*	**Sn**	**17 53 49.0**	**-1.7**
MOE				IAML		17 53 51.0		
MOE				IAML		17 53 51.1		
MOE				IAML		17 53 52.1		
PARRA	**Arraiolos**	**4.88**	**315**	*eP*	**Pn**	**17 52 54.6**	**0.0**
PARRA				*eS*	**Sn**	**17 53 48.7**	**-2.0**
PARRA				IAML		17 53 49.6		
PARRA				IAML		17 53 49.7		
PARRA				IAML		17 54 08.1		
PMRV	**Marv??o**	**4.99**	**324**	*eP*	**Pn**	**17 52 56.1**	**+0.1**
PMRV				*eS*	**Sn**	**17 53 50.2**	**-3.1**
PMRV				IAML		17 54 27.6		
PMRV				IAML		17 54 30.1		
PMRV				IAML		17 54 32.1		
EPLA	**Plasencia**	**5.01**	**338**	P	**Pn**	**17 52 57.0**	**+0.6**
EPLA				S	**Sn**	**17 53 52.9**	**-1.0**
EPLA				IVmb_Lg		17 54 26.0		
YEBES	**Yebes (Guadala**	**5.09**	**4**	P	**Pn**	**17 52 58.3**	**+0.8**
YEBES				S	**Sn**	**17 53 53.7**	**-2.2**
YEBES				IVmb_Lg		17 54 27.7		
PMTG	**Montargil**	**5.16**	**316**	*eP*	**Pn**	**17 52 58.4**	**0.0**
PMTG				*eS*	**Sn**	**17 53 54.1**	**-3.5**
PMTG				IAML		17 53 58.0		
PMTG				IAML		17 53 59.9		
PMTG				IAML		17 54 21.1		
PMTG	**Montargil**	**5.16**	**316**	P	**Pn**	**17 52 58.4**	**0.0**
PMTG				S	**Sn**	**17 53 53.6**	**-4.0**
GUD	**Guadarrama**	**5.21**	**355**	P	**Pn**	**17 52 59.9**	**+0.7**
GUD				S	**Sn**	**17 53 56.8**	**-2.2**
GUD				IVmb_Lg		17 54 25.7		
EIBI	**Ibiza**	**5.33**	**46**	Pn	**Pn**	**17 53 00.3**	**-0.4**
EIBI				Sn	**Sn**	**17 53 57.1**	**-4.7**
EIBI	**Ibiza**	**5.33**	**46**	P	**Pn**	**17 53 00.5**	**-0.2**
EIBI				S	**Sn**	**17 53 57.0**	**-4.8**
EIBI				IVmb_Lg		17 54 01.2		
PCBR	**Castelo Branco**	**5.36**	**326**	*eP*	**Pn**	**17 53 01.8**	**+0.7**
PCBR				*eS*	**Sn**	**17 54 00.2**	**-2.1**
PCBR				IAML		17 54 06.0		
PCBR				IAML		17 54 06.1		
PCBR				IAML		17 54 06.1		
TIO	**Tiouine**	**5.45**	**215**	Pn	**Pn**	**17 53 03.1**	**+0.6**
TIO				Sn	**Sn**	**17 54 04.6**	**-0.2**
TIO	**Tiouine**	**5.45**	**215**	P	**Pn**	**17 53 00.7**	**-1.7**
	comp=Z,92nm,0.9s,comp=Z,0.4nm							
TIO				AML	AML			
LIS	**Lisbon**	**5.50**	**308**	*eP*	**Pn**	**17 53 03.7**	**+0.6**
EMOS	**Mosqueruela**	**5.50**	**26**	P	**Pn**	**17 53 04.3**	**+1.0**
EMOS				S	**Sn**	**17 54 03.3**	**-2.9**
PSARD	**Sardoal**	**5.50**	**320**	*eP*	**Pn**	**17 53 03.4**	**+0.2**
PSARD				*eS*	**Sn**	**17 54 02.2**	**-3.9**
PSARD				IAML		17 54 08.6		
PSARD				IAML		17 54 18.2		
PSARD				IAML		17 54 24.4		
ETOR	**Torete**	**5.51**	**12**	P	**Pn**	**17 53 04.7**	**+1.4**
ETOR				S	**Sn**	**17 54 01.0**	**-5.2**
ETOR				IVmb_Lg		17 54 36.9		
ECOL	**Islas Columbre**	**5.60**	**36**	P	**Pn**	**17 53 04.8**	**+0.3**
ECOL				S	**Sn**	**17 54 04.9**	**-3.5**
PMAFR	**Mafra**	**5.72**	**309**	*eP*	**Pn**	**17 53 06.7**	**+0.5**
PMAFR				*eS*	**Sn**	**17 54 08.5**	**-3.0**
PMAFR				IAML		17 54 11.3		
PMAFR				IAML		17 54 13.1		
PMAFR				IAML		17 54 20.8		
PSBE	**So Bento**	**5.79**	**316**	*eP*	**Pn**	**17 53 07.6**	**+0.5**
PSBE				*eS*	**Sn**	**17 54 11.8**	**-1.3**
PSBE				IAML		17 54 15.4		
PSBE				IAML		17 54 16.4		
PSBE				IAML		17 54 27.6		
ADCK	**Dar Chioukh**	**5.81**	**93**	P	**Pn**	**17 53 08.2**	**+0.8**
MTE	**Manteigas**	**5.84**	**329**	*eP*	**Pn**	**17 53 09.0**	**+1.2**
MTE				*eS*	**Sn**	**17 54 11.8**	**-2.7**
MTE				IAML		17 54 15.9		
MTE				IAML		17 54 52.0		
MTE				IAML		17 54 56.1		
MTE	**Manteigas**	**5.84**	**329**	P	**Pn**	**17 53 07.2**	**-0.7**
	comp=Z,36nm,1.2s,comp=Z,0.2nm							
MTE				AML	AML			
EJUZ	**Juzbado, Salam**	**5.91**	**343**	P	**Pn**	**17 53 08.9**	**+0.1**
EJUZ				S	**Sn**	**17 54 12.5**	**-3.7**
PVIS	**Viseu**	**6.25**	**329**	*eP*	**Pn**	**17 53 14.0**	**+0.5**
PVIS				*eS*	**Sn**	**17 54 21.6**	**-2.9**
ERTA	**Horta de San J**	**6.32**	**28**	P	**Pn**

FETA	**Feichten**	**15.79**	**39**	*i* P		**P**		**17 55 29.0**	**+1.7**
	comp=Z,4.3nm,0.8s								
SQTA	**Sankt Quirin**	**16.16**	**39**	*i* P		**P**		**17 55 32.7**	**+1.2**
	comp=Z,4.7nm,0.7s								
MOTA	**Moosalm**	**16.19**	**38**	*e*P		**P**		**17 55 33.1**	**+1.2**
	comp=Z,9.8nm,1.6s								
ABTA	**Abfaltersbach**	**16.55**	**42**	*i* pP		**P**		**17 55 38.7**	**+2.9**
	comp=Z,3.4nm,0.7s								
LESA	**Schwarzleotal**	**17.06**	**40**	*e*Pn		**P**		**17 55 43.2**	**+1.8**
	comp=Z,2.8nm,0.7s								
GERES	**GERESS Array B**	**18.49**	**38**	P		**P**		**17 55 56.9**	**-0.3**
	baz=215,slow=11,SNR=8.7								
	comp=Z,1.7nm,0.7s								
EKA	**Eskdalemuir Ar**	**19.89**	**1**	P		**Pn**		**17 56 14.4**	**+0.4**
	baz=183,slow=11								
	comp=Z,1.8nm,0.7s								
MODS	**Modra-Piesok**	**20.13**	**44**	*e*P		Pn		17 56 17.3	+0.3
KRLC	**Kraliky**	**20.83**	**39**	P		**P**		**17 56 23.6**	**+0.9**
	comp=Z,16nm,1.1s								
VYHS	**Vyhne**	**21.09**	**45**	*e*P		**P**		**17 56 29.6**	**+4.2**
LANS	**Liptovska Anna**	**21.78**	**44**	*e*P		**P**		**17 56 34.7**	**+1.9**
TORD	**Torodi Ar. Bea**	**22.71**	**167**	P		**P**		**17 56 44.2**	**+1.2**
	comp=Z,1.0nm,0.4s,baz=350,slow=12,SNR=3.8								
	comp=Z,1.0nm,0.4s								
BVAR	**Borovoye Array**	**53.41**	**46**	P		**P**		**18 01 02.0**	**+1.4**
	comp=Z,0.8nm,0.6s,baz=296,slow=7.9,SNR=5.4								
	comp=Z,0.8nm,0.6s								
KURBB	**Kurchatov Arra**	**58.93**	**47**	P		**P**		**18 01 41.1**	**+1.1**
	comp=Z,2.5nm,0.6s,baz=293,slow=7.8,SNR=12								
	comp=Z,2.5nm,0.6s								
ZALV	**Zalesovo Beam**	**61.39**	**42**	P		**P**		**18 01 57.8**	**+0.9**
	comp=Z,1.5nm,0.7s,baz=284,slow=6.6,SNR=6.9								
	comp=Z,1.5nm,0.7s								
MKAR	**Makanchi Array**	**62.64**	**50**	P		**P**		**18 02 05.7**	**+0.2**
	comp=Z,0.8nm,0.6s,baz=286,slow=4.8,SNR=5.5								
	comp=Z,0.8nm,0.6s								
SONM	**Songino Array**	**76.21**	**41**	P		**P**		**18 03 29.6**	**+0.2**
	comp=Z,0.7nm,0.6s,baz=268,slow=4.3,SNR=2.5								
	comp=Z,0.7nm,0.6s								
PDAR	**Pinedale Array**	**76.97**	**313**	P		**P**		**18 03 35.6**	**+1.6**
	comp=Z,0.5nm,0.9s,baz=72,slow=9.5,SNR=3.7								
	comp=Z,0.5nm,0.9s								

IDC ***19*** *18:10:49.8±0.7, 1°.48S×99°.68E, h0km, mb4.4/19, mbtmp4.4/20, ML4.5/1, MS3.3/11, Error ellipse: s-maj=26.7km s-min=12.4km az=56.0*
DJA ***19*** *18:10:56.8±0.2, 1°S±2′×10°0E±°, h49km±3km, M4.7/46, mb4.8/43, mB5.2/19, MLv5.0/46, Mw(mB)4.5/19*
BJI ***19*** *18:10:56.0, 1°.50S×99°.70E, h56km, mb4.7/25, mB5.2/6*
NEIC ***19*** *18:10:56.2±1.7, 1°.52S±0°.08×99°.60E±0°.09, h43km±7km, mb4.6/25, Error ellipse: s-maj=15.0km s-min=7.9km az=49.0*
GFZ ***19*** *18:10:57.6±0.4, 2°S±4′×10°0E±°, h57km, M4.5/21, mb4.7/21*

ISC 19 18:10:56.0±0.5, 1°.55S±0°.06×99°.64E±0°.06, h50km, n160, σ1s24/141, mb4.7/50, MS3.4/10, 2C, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPI	**Padang Panjang**	**1.32**	**35**	P	**Pn**	**18 11 18.4**	**+0.3**
PPI				AML	AML		
KRJI	**Kerinci**	**1.90**	**107**	P	**Pn**	**18 11 28.7**	**+2.6**
KRJI				AML	AML		
PBSI	**Pulau Batu**	**2.01**	**317**	P	**Pn**	**18 11 28.2**	**+0.7**
BKNI	**Bangkinang**	**2.33**	**37**	P	**Pn**	**18 11 32.5**	**+0.6**
BKNI	**Bangkinang**	**2.33**	**37**		**Pn**	**18 11 32.5**	**+0.6**
BKNI	**Bangkinang**	**2.33**	**37**	P	**Pn**	**18 11 32.3**	**+0.4**
BKNI				AML	AML		
BKNI	**Bangkinang**	**2.33**	**37**	P	**Pn**	**18 11 33.0**	**+1.1**
RGRI	**Rengat**	**2.94**	**66**	P	**Pn**	**18 11 43.0**	**+2.7**
MASI	**Maura Aman, Be**	**3.04**	**121**	P	**Pn**	**18 11 44.0**	**+2.3**
UBSI	**University, Be**	**3.43**	**130**	P	**Pn**	**18 11 49.0**	**+2.1**
UBSI				AML	AML		
KSI	**Kapahiang**	**3.62**	**125**	P	**Pn**	**18 11 51.2**	**+1.6**
JMBI	**JAMBI**	**4.00**	**91**	P	**Pn**	**18 11 56.0**	**+1.2**
JMBI				AML	AML		
RPSI	**Rantau Prapat**	**4.28**	**350**		**Pn**	**18 11 58.8**	**+0.2**
RPSI	**Rantau Prapat**	**4.28**	**350**	P	**Pn**	**18 11 59.6**	**+1.0**
MNAI	**Manna**	**4.33**	**130**		**Pn**	**18 12 01.2**	**+1.8**
MNAI				Sn	**Sn**	**18 12 45.1**	**-3.6**
MNAI	**Manna**	**4.33**	**130**	P	**Pn**	**18 12 00.7**	**+1.3**
MNAI	**Manna**	**4.33**	**130**	P	**Pn**	**18 12 01.1**	**+1.7**
PSI	**Prapat**	**4.38**	**351**	P	**Pn**	**18 11 59.3**	**-0.9**
PSI	**Prapat**	**4.38**	**351**	P	**Pn**	**18 11 59.2**	**-0.9**
BTDF	**Bukit Timah Da**	**5.04**	**55**	P	**Pn**	**18 12 09.6**	**+0.5**
BTDF	**Bukit Timah Da**	**5.04**	**55**	P	**Pn**	**18 12 09.6**	**+0.5**
TSI	**Tuntungan**	**5.13**	**348**	P	**Pn**	**18 12 10.6**	**+0.3**
	0.7nm3µm215nm,0.8s						
TSI				AML	AML		
SNSI	**Sinabang, Aceh**	**5.14**	**320**	P	**Pn**	**18 12 09.9**	**-0.6**
	0.6nm116nm,0.9s						
SNSI				AML	AML		
TPTI		**5.37**	**333**	P	**Pn**	**18 12 13.4**	**-0.2**
	1µm60nm,0.8s						
TPRI	**Tanjung Pinang**	**5.47**	**63**	P	**Pn**	**18 12 15.5**	**+0.6**
TPRI				AML	AML		
IPM	**Ipoh**	**6.15**	**13**	P	**Pn**	**18 12 26.1**	**+1.8**
IPM	**Ipoh**	**6.15**	**13**		**Pn**	**18 12 25.2**	**+0.9**
IPM	**Ipoh**	**6.15**	**13**	P	**Pn**	**18 12 25.7**	**+1.4**
	73nm,1.0s						
IPM	**Ipoh**	**6.15**	**13**	P	**Pn**	**18 12 26.2**	**+1.9**
	comp=Z,73nm,1.0s						
MLSI	**Meulaboh, Aceh**	**6.62**	**331**	P	**Pn**	**18 12 29.9**	**-0.9**
	comp=Z,0.5nmcomp=Z,106nm,0.6s						
MLSI				AML	AML		
KULM	**Kulim**	**6.87**	**8**	P	**Pn**	**18 12 34.8**	**+0.6**
KULM	**Kulim**	**6.87**	**8**		**Pn**	**18 12 34.4**	**+0.2**
KULM	**Kulim**	**6.87**	**8**	P	**Pn**	**18 12 34.7**	**+0.6**
	comp=Z,0.2nmcomp=Z,56nm,1.0s						
KULM				AML	AML		
KULM	**Kulim**	**6.87**	**8**	P	**Pn**	**18 12 35.1**	**+0.9**
	comp=Z,56nm,1.0s						
CGJI	**Cibinong**	**7.86**	**130**	P	**Pn**	**18 12 46.3**	**-1.5**
	comp=Z,3µmcomp=Z,113nm,0.6s						
TPI	**Tanjunggandan**	**8.10**	**99**	P	**Pn**	**18 12 52.0**	**+1.0**
	comp=Z,25nm,0.6s						
BSI	**Banda Aceh**	**8.23**	**328**	P	**Pn**	**18 12 51.6**	**-1.3**
	comp=Z,1µmcomp=Z,20nm,0.5s						
SKJI	**Sukabumi**	**8.77**	**128**	P	**Pn**	**18 13 01.9**	**+1.6**
	comp=Z,62nm,0.9s						
BBJI	**Bungbulang**	**9.91**	**127**		**Pn**	**18 13 14.8**	**-1.2**
BBJI	**Bungbulang**	**9.91**	**127**	P	**Pn**	**18 13 18.0**	**+2.0**
	comp=Z,37nm,0.7s						
BBJI	**Bungbulang**	**9.91**	**127**	P	**Pn**	**18 13 14.6**	**-1.3**
	comp=Z,37nm,0.9s						
MMSI	**Mamuju**	**19.29**	**94**	P	**Pn**	**18 15 18.6**	**+0.2**
PLAI	**Plampang**	**19.45**	**112**	P	**P**	**18 15 17.8**	**-0.8**
	comp=Z,14nm,0.5s						
CMAR	**Chiang Mai Arr**	**19.89**	**358**	P	**P**	**18 15 22.6**	**-0.8**
	comp=Z,0.6nm,0.3s,baz=186,slow=10,SNR=24						
CMAR				LR	LR	18 23 27.2	
	comp=Z,74nm,18.7s,baz=175,slow=38						
	comp=Z,2.7nm,0.6s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**19.89**	**358**		**P**	**18 15 24.0**	**+0.6**
PCI	**Palu**	**20.20**	**88**	P	Pn	18 15 28.0	-1.2
	comp=Z,28nm,1.0s						
TTSI	**Tana Toraja**	**20.22**	**95**	P	**P**	**18 15 26.2**	**-0.8**
	comp=Z,30nm,1.1s						
CHTO	**Chiang Mai**	**20.25**	**358**	P	Pn	18 15 30.1	+0.5
CHTO	**Chiang Mai**	**20.25**	**358**		**P**	**18 15 26.9**	**-0.4**
CHTO	**Chiang Mai**	**20.25**	**358**	P	Pn	18 15 30.0	+0.4
CHTO	**Chiang Mai**	**20.25**	**358**	P	**P**	**18 15 26.6**	**-0.6**
	comp=Z,5.6nm,0.7s						
KAPI	**Kappang**	**20.37**	**100**	P	**P**	**18 15 28.5**	**-0.2**
	comp=Z,4.6nm,0.3s,baz=279,slow=14,SNR=7.0						
	comp=Z,4.6nm,0.3s						
KAPI	**Kappang**	**20.37**	**100**	P	**P**	**18 15 29.5**	**+0.8**
KAPI	**Kappang**	**20.37**	**100**		**P**	**18 15 28.9**	**+0.2**
KAPI				IAmb	IAmb	18 15 34.5	
	comp=Z,19nm,1.1s						
KAPI	**Kappang**	**20.37**	**100**	P	Pn	18 15 31.4	+0.3
KAPI	**Kappang**	**20.37**	**100**	P	**P**	**18 15 28.9**	**+0.2**
	comp=Z,22nm,0.7s						
BKSI	**Bulukumba**	**20.78**	**101**	P	**P**	**18 15 31.3**	**-1.8**
	comp=Z,32nm,0.8s						
PALK	**Pallekele**	**20.83**	**295**	P	**P**	**18 15 33.1**	**-0.6**
	comp=Z,4.2nm,0.8s,baz=80,slow=11,SNR=1.8						
	comp=Z,4.2nm,0.8s						
PALK	**Pallekele**	**20.83**	**295**	P	**P**	**18 15 32.5**	**-1.2**
TOLI2	**Tolitoli**	**21.30**	**83**	P	**P**	**18 15 39.6**	**+0.8**
TOLI2	**Tolitoli**	**21.30**	**83**		**P**	**18 15 37.7**	**-1.0**
TOLI2	**Tolitoli**	**21.30**	**83**	P	**P**	**18 15 39.2**	**+0.4**
	comp=Z,70nm,0.9s						
KKSI	**Kolaka, Sulawe**	**22.14**	**97**	P	**P**	**18 15 50.0**	**+2.3**
	comp=Z,1µmcomp=Z,37nm,1.2s						
QIZ	**Qiongzhong**	**22.78**	**26**	P	**P**	**18 15 53.5**	**-0.9**
KDI	**Kendari**	**23.08**	**96**	P	**P**	**18 15 58.5**	**+0.9**
	comp=Z,34nm,1.0s						
SLVN	**Son La**	**23.12**	**10**	P	**P**	**18 16 01.6**	**+3.6**
SLVN	**Son La**	**23.12**	**10**	P	**P**	**18 15 57.7**	**-0.3**
	comp=Z,4.3nm,0.9s						
LUWI	**Luwuk**	**23.13**	**89**	P	**P**	**18 15 59.8**	**+1.7**
LUWI	**Luwuk**	**23.13**	**89**		**P**	**18 15 58.7**	**+0.6**
LUWI				IAmb	IAmb	18 15 59.4	
	comp=Z,26nm,0.7s						
LUWI	**Luwuk**	**23.13**	**89**	P	**P**	**18 15 58.8**	**+0.6**
	comp=Z,416nmcomp=Z,42nm,0.7s						
LUWI	**Luwuk**	**23.13**	**89**	P	**P**	**18 15 58.8**	**+0.6**
	comp=Z,42nm,0.7s						
BBSI	**Bau Bau**	**23.21**	**100**	P	**P**	**18 15 59.5**	**+0.5**
	comp=Z,27nm,0.6s						
GTOI	**Gorontalo**	**23.47**	**85**	P	**P**	**18 16 00.4**	**-1.0**
	comp=Z,45nm,0.7s						
KMSI	**Cibinong**	**24.43**	**85**	P	**P**	**18 16 12.1**	**+1.9**
MNI	**Manado**	**25.37**	**83**	P	**P**	**18 16 20.0**	**+1.2**
MORE	**Moreh**	**26.15**	**349**		**P**	**18 16 25.2**	**-0.5**
MORE				IAmb	IAmb	18 16 41.2	
	comp=Z,19nm,0.6s						
SANI	**Sanana**	**26.34**	**91**	P	**P**	**18 16 27.0**	**-0.6**
	comp=Z,6.5nm,0.7s						
DAV	**Davao City (W)**	**27.26**	**71**	LR	LR	18 27 29.1	
	comp=Z,33nm,20.0s,baz=308,slow=37						
H08S2	**Diego Garcia H**	**27.72**	**257**	T	T	18 44 42.6	
	baz=79,slow=74						
H08S3	**Diego Garcia H**	**27.72**	**257**	T	T	18 44 48.1	
	baz=79,slow=74						
H08S1	**Diego Carcia H**	**27.73**	**257**	T	T	18 45 21.5	
	baz=79						
FITZ	**Fitzroy Crossi**	**30.36**	**124**	P	**P**	**18 17 03.2**	**-0.1**
	comp=Z,1.5nm,2.7s						
TPUB	**Ta-pu**	**32.06**	**38**	P	**P**	**18 17 18.7**	**+0.4**
	comp=Z,19nm,1.0s						
FAKI	**Fak Fak**	**32.61**	**93**	P	**P**	**18 17 22.5**	**-0.8**
	comp=Z,23nm,1.0s						
SSLB	**Suanglung**	**32.62**	**38**	P	**P**	**18 17 23.7**	**+0.5**
	comp=Z,13nm,2.2s						
ENH	**Enshi**	**33.01**	**16**	P	**P**	**18 17 24.3**	**-2.2**
ENH				IAmb	IAmb	18 17 25.0	
	comp=Z,7.0nm,0.5s						
XAN	**Xi'an**	**36.46**	**13**	⇑P	**P**	**18 17 54.3**	**-2.0**
XAN				pmax	pmax		
	comp=Z,16nm,0.6s						
GOMU	**GeErMu**	**37.82**	**354**	P	**P**	**18 18 09.3**	**+1.1**
GOMU				pmax	pmax		
	comp=Z,1.0nm,0.4s						
LYN	**LuoYang**	**37.88**	**17**	P	**P**	**18 18 07.5**	**-0.7**
LYN				pmax	pmax		
	comp=Z,31nm,0.6s						
NJ2	**Nanjing**	**38.06**	**27**	*e*P	**P**	**18 18 11.4**	**+1.6**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
WRA	**Warramunga Arr**	**38.53**	**121**	P	**P**	**18 18 13.5**	**-0.5**
	comp=Z,3.8nm,0.4s,baz=304,slow=8.8,SNR=114						
	comp=Z,3.8nm,0.4s						
WRAB	**Tennant Creek**	**38.54**	**121**	P	**P**	**18 18 14.2**	**+0.1**
WRAB	**Tennant Creek**	**38.54**	**121**	P	**P**	**18 18 13.0**	**-1.1**
WRAB				IAmb	IAmb	18 18 14.9	
	comp=Z,7.0nm,0.5s						
WRAB	**Tennant Creek**	**38.54**	**121**	P	**P**	**18 18 13.6**	**-0.4**
	comp=Z,9.6nm,0.6s						
ASAR	**Alice Springs**	**39.81**	**126**	P	**P**	**18 18 25.2**	**+0.6**
	comp=Z,5.3nm,0.5s,baz=305,slow=8.1,SNR=164						
ASAR				PcP	**PcP**	**18 20 31.8**	**+1.6**
	comp=Z,1.4nm,0.7s,baz=312,slow=2.9,SNR=5.8						
ASAR				S	**S**	**18 24 21.9**	**-3.9**
	comp=Z,0.7nm,0.7s,baz=296,slow=15,SNR=8.0						
ASAR				LR	LR	18 37 38.7	
	comp=Z,44nm,19.1s,baz=206,slow=40						
	comp=Z,5.3nm,0.5s						
ASAR	**Alice Springs**	**39.81**	**126**	P	**P**	**18 18 25.1**	**+0.5**
AS31	**Alice Springs**	**39.81**	**126**		**P**	**18 18 25.4**	**+0.7**
AS01	**Alice Springs**	**39.84**	**126**	P	**P**	**18 18 25.5**	**+0.5**
GENI	**Genyem**	**40.51**	**92**	P	**P**	**18 18 29.0**	**-1.6**
	comp=Z,17nm,1.0s						
GTA2	**Gaotai**	**40.84**	**0**	*e*P	**P**	**18 18 32.8**	**-0.2**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
HNS	**HongShan**	**41.19**	**18**	⇑P	**P**	**18 18 35.1**	**-0.7**
QIS	**Mount Isa**	**43.34**	**119**	P	**P**	**18 18 53.4**	**-0.2**
	comp=Z,6.5nm,1.4s						
HHC	**Hu-ho-hao-te**	**43.58**	**13**	*e*P	**P**	**18 18 58.1**	**+2.8**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,230nm,5.4s						
BJI2	**Beijing**	**44.05**	**18**	P	**P**	**18 19 00.9**	**+2.0**
BJI2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WMQ	**Urumqi**	**46.42**	**348**	*e*P	**P**	**18 19 20.3**	**+2.5**
WMQ				pP	pwP	18 19 33.1	+0.2
WMQ				pmax	pmax		
	comp=Z,19nm,0.9s						
KSRS	**Korea Array**	**46.82**	**31**	P	**P**	**18 19 20.2**	**-0.7**
	comp=Z,3.0nm,0.7s,baz=226,slow=8.3,SNR=9.1						
KSRS				LR	LR	18 39 14.2	
	comp=Z,17nm,20.8s,baz=200,slow=36						
	comp=Z,3.0nm,0.7s						
INKA	**Innaminka**	**47.15**	**127**		**P**	**18 19 24.8**	**+1.1**
INKA				IAmb	IAmb	18 19 26.1	
	comp=Z,4.0nm,0.7s						
GUMO	**Guam**	**47.29**	**70**	LR	LR	18 41 06.8	
	comp=Z,6.8nm,19.9s,baz=242,slow=38						
GUMO	**Guam**	**47.29**	**70**	P	**P**	**18 19 24.3**	**-0.6**
	comp=Z,78nm,1.1s						
CTA	**Charters Tower**	**49.11**	**115**	P	**P**	**18 19 39.0**	**-0.1**
	comp=Z,8.4nm,1.1s,baz=304,slow=11,SNR=1.9						
	comp=Z,8.4nm,1.1s						
QLP	**Quilpie**	**49.51**	**124**	P	**P**	**18 19 43.1**	**+1.2**
QLP	**Quilpie**	**49.51**	**124**	P	**P**	**18 19 43.1**	**+1.2**
	comp=Z,19nm,0.8s						
SONM	**Songino Array**	**49.53**	**6**	P	**P**	**18 19 42.2**	**+0.3**
	comp=Z,3.3nm,0.6s,baz=179,slow=8.5,SNR=11						
	comp=Z,3.3nm,0.6s						
SONM	**Songino Array**	**49.53**	**6**	P	**P**	**18 19 41.7**	**-0.1**
SONM				IAmb	IAmb	18 19 43.3	
	comp=Z,3.6nm,0.9s						
STKA	**Stephens Creek**	**49.72**	**132**	P	**P**	**18 19 44.5**	**+1.1**
	comp=Z,4.3nm,0.6s,baz=317,slow=7.0,SNR=15						
	comp=Z,4.3nm,0.6s						
STKA	**Stephens Creek**	**49.72**	**132**	P	**P**	**18 19 43.8**	**+0.4**
STKA	**Stephens Creek**	**49.72**	**132**	P	**P**	**18 19 44.9**	**+1.5**
	comp=Z,44nm,1.6s						
MKAR	**Makanchi Array**	**50.50**	**345**	P	**P**	**18 19 49.7**	**+0.6**
	comp=Z,6.2nm,0.5s,baz=156,slow=8.6,SNR=47						
	comp=Z,6.2nm,0.5s						
MKAR	**Makanchi Array**	**50.50**	**345**		**P**	**18 19 49.5**	**+0.4**
MAKZ	**Makanchi**	**50.60**	**344**	P	**P**	**18 19 50.2**	**+0.4**
MAKZ				IAmb	IAmb	18 20 10.9	
	comp=Z,6.0nm,1.1s						
MAKZ	**Makanchi**	**50.60**	**344**	P	**P**	**18 19 50.5**	**+0.7**
CMSA	**Cobar Meteorol**	**52.67**	**129**	P	**P**	**18 20 06.8**	**+1.2**
CMSA	**Cobar Meteorol**	**52.67**	**129**	P	**P**	**18 20 07.3**	**+1.7**
	comp=Z,16nm,0.7s						
USRK	**Ussuriysk Ar.**	**53.93**	**28**	P	**P**	**18 20 14.6**	**0.0**
	comp=Z,8.6nm,0.7s,baz=223,slow=5.2,SNR=16						
	comp=Z,8.6nm,0.7s						
KURBB	**Kurchatov Arra**	**55.02**	**344**	P	**P**	**18 20 23.0**	**+0.7**
	comp=Z,2.2nm,0.5s,baz=161,slow=7.2,SNR=21						
	comp=Z,2.2nm,0.5s						
KURK	**Kurchatov**	**55.08**	**344**		**P**	**18 20 23.1**	**+0.3**
KURK				IAmb	IAmb	18 20 39.3	
	comp=Z,4.5nm,0.7s						
KURK	**Kurchatov**	**55.08**	**344**	P	**P**	**18 20 23.4**	**+0.7**
	comp=Z,6.8nm,0.9s,comp=Z,6.8nm,0.9s						
ZALV	**Zalesovo Beam**	**56.66**	**350**	P	**P**	**18 20 34.2**	**+0.2**
	comp=Z,12nm,0.8s,baz=175,slow=5.6,SNR=54						
	comp=Z,12nm,0.8s						
ZALV	**Zalesovo Beam**	**56.66**	**350**		**P**	**18 20 34.0**	**0.0**
KLR	**Kul'dur**	**57.67**	**24**	LR	LR	18 47 22.3	
	comp=Z,36nm,18.4s,baz=298,slow=38						
BVAR	**Borovoye Array**	**59.64**	**340**	P	**P**	**18 20 54.5**	**-0.3**
	comp=Z,3.6nm,0.6s,baz=135,slow=7.9,SNR=17						
	comp=Z,3.6nm,0.6s						
BORK	**Borovoye**	**59.68**	**340**		**P**	**18 20 55.6**	**+0.5**
BORK				IAmb	IAmb	18 20 59.0	
	comp=Z,3.1nm,0.5s						
H04N2	**CROZET ISLANDS**	**60.95**	**216**	T	T	19 26 46.4	
	baz=57,slow=76,SNR=342						
H04N1	**CROZET ISLANDS**	**60.96**	**216**	T	T	19 26 47.0	
	baz=57,slow=76,SNR=316						
H04N3	**CROZET ISLANDS**	**60.96**	**216**	T	T	19 26 45.5	
	baz=57,slow=76,SNR=367						
AB31	**Akbulak array**	**61.07**	**331**		**P**	**18 21 04.5**	**-0.3**
AB31				IAmb	IAmb	18 21 25.8	
	comp=Z,3.0nm,0.7s						
H04S1	**CROZET ISLANDS**	**61.24**	**215**	T	T	19 27 06.4	
	baz=56,slow=75,SNR=47						
H04S3	**CROZET ISLANDS**	**61.25**	**215**	T	T	19 27 05.7	
	baz=56,slow=75,SNR=58						
H04S2	**CROZET ISLANDS**	**61.26**	**215**	T	T	19 27 09.3	
	baz=56,slow=75,SNR=29						
KBZ	**Khabaz**	**67.73**	**319**	P	**P**	**18 21 49.1**	**+0.7**
	comp=Z,1.3nm,0.7s,baz=108,slow=13,SNR=1.6						
	comp=Z,1.3nm,0.7s						
MBAR	**Mbarara**	**68.89**	**270**	LR	LR	18 50 13.9	
	comp=Z,25nm,18.1s,baz=86,slow=34						
EIL	**Elat**	**68.98**	**303**	LR	LR	18 51 05.0	
	comp=Z,18nm,20.7s,baz=29,slow=35						
NRIK	**Noril'sk**	**71.23**	**355**	P	**P**	**18 22 08.0**	**-1.5**
	comp=Z,1.8nm,0.6s,baz=103,slow=7.1,SNR=2.3						
	comp=Z,1.8nm,0.6s						
NRIK	**Noril'sk**	**71.23**	**355**	IAmb	IAmb	18 22 09.8	
	comp=Z,4.0nm,1.1s						
MATP	**Matopo**	**71.80**	**249**	LR	LR	18 47 51.8	
	comp=Z,147nm,21.9s,baz=26,slow=31						
LBTB	**Lobatse**	**74.89**	**245**	LR	LR	18 51 20.9	
	comp=Z,24nm,20.0s,baz=142,slow=32						
TIXI	**Tiksi**	**75.47**	**9**	P	**P**	**18 22 32.9**	**-1.5**
SUR	**Sutherland**	**79.74**	**238**	LR	LR	18 50 27.5	
	comp=Z,32nm,21.3s,baz=320,slow=30						
VNDA	**Vanda**	**82.67**	**169**	P	**P**	**18 23 14.8**	**+1.1**
	comp=Z,0.5nm,0.9s,baz=319,slow=9.3,SNR=3.6						
	comp=Z,0.5nm,0.9s						
VNDA	**Vanda**	**82.67**	**169**	P	**P**	**18 23 14.3**	**+0.6**
FINES	**FINESS Array B**	**83.55**	**332**	P	**P**	**18 23 19.6**	**+1.1**
	comp=Z,4.6nm,1.0s,baz=112,slow=2.1,SNR=7.0						
	comp=Z,4.6nm,1.0s						
FINES	**FINESS Array B**	**83.55**	**332**	P	**P**	**18 23 19.0**	**+0.5**
ARCES	**ARCESS Array B**	**85.93**	**340**	P	**P**	**18 23 31.5**	**+1.1**
	comp=Z,4.2nm,0.9s,baz=91,slow=4.9,SNR=9.9						
	comp=Z,4.2nm,0.9s						
ARCES	**ARCESS Array B**	**85.93**	**340**	P	**P**	**18 23 30.6**	**+0.3**
QSPA	**South Pole Qui**	**88.41**	**180**	P	**P**	**18 23 44.2**	**+1.6**
	comp=Z,0.3nm,0.6s,baz=247,slow=2.0,SNR=0.9						
	comp=Z,0.3nm,0.6s						
QSPA	**South Pole Qui**	**88.41**	**180**	P	**P**	**18 23 43.9**	**+1.3**
QSPA				IAmb	IAmb	18 24 24.6	
	comp=Z,2.6nm,1.2s						
PDAR	**Pinedale Array**	**131.36**	**29**	PKP	**PKiKP**	**18 30 04.4**	**0.0**
	comp=Z,0.2nm,0.6s,baz=330,slow=4.8,SNR=1.8						
PDAR	**Pinedale Array**	**131.36**	**29**		**PKiKP**	**18 30 03.9**	**-0.5**
CPUP	**Villa Florida**	**144.47**	**217**	PKP	**PKPdf**	**18 30 29.2**	**+1.6**
	comp=Z,0.6nm,0.5s,baz=117,slow=2.3,SNR=2.9						
TXAR	**Lajitas Array**	**144.56**	**37**	PKP	**PKPdf**	**18 30 27.6**	**-0.2**
	comp=Z,4.4nm,0.5s,baz=202,slow=0.7,SNR=85						

GII ***19*** *18:21:35.7±0.0, 34°.190N±0°.002×34°.689E±0°.001, h0km, Mws2.8, confirmed*
NIC ***19*** *18:21:38.2, 34°.25N×34°.68E, h32km±34km, MI1.8/9*
GRAL ***19*** *18:21:39.1±0.3, 34°.17N×34°.74E, h5km±2km, MD2.9*

ISC 19 18:21:35.5±1.1, 34°.23N±0°.04×34°.67E±0°.04, h11km±10km, n37, σ0s55/70, Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BHL	**Bhannes**	**0.88**	**112**	*e*P	**Pn**	**18 21 53.7**	**-0.3**
BHL				*e*S	**Sb**	**18 22 04.4**	**-0.3**
DQRL	**Deir Qamar**	**0.91**	**125**	*e*P	**Pn**	**18 21 54.2**	**-0.3**
DQRL				*e*S	**Sb**	**18 22 05.3**	**-0.3**
HWQ	**Hawqa**	**1.06**	**87**	*e*P	**Pn**	**18 21 57.2**	**+0.7**
ZAHL	**Zahle**	**1.07**	**110**	*e*P	**Pn**	**18 21 57.2**	**+0.5**
QRWL	**Qaraoun**	**1.08**	**129**	*e*P	**Pn**	**18 21 57.2**	**+0.5**
MVOU	**Mavrovouni**	**1.16**	**313**	P	**Pg**	**18 21 57.7**	**-0.1**
MVOU				S	**Sg**	**18 22 12.8**	**-0.1**
MVOU				AML	AML	18 22 22.3	
MVOU				AML	AML	18 22 22.6	
RCY	**Rachaya**	**1.22**	**127**	*e*P	**Pg**	**18 21 59.4**	**+0.5**
RCY				*e*S	**Sg**	**18 22 14.3**	**-0.4**
HNTI	**Hanita**	**1.22**	**160**	P	**Pn**	**18 21 57.8**	**-0.7**
HNTI				S	**Sb**	**18 22 14.6**	**+0.2**

*JMA **19** 18:26:13.1±0.3,38°N×2°×13°5E±°,h389km,MV2.9/31, SEA OF JAPAN*
*IDC **19** 18:26:14.6±4.7,38°.36N×135°.58E,h380km±90km, mbtmp3.6/5,Error ellipse: s-maj=56.0km s-min=27.9km az=164.0*
ISC 19 18:26:13.5±1.1,38°.3N±0°.1×135°.7E±0°.1,h400km,n12, σ0s51/12,Sea of Japan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MAT	**Matsushiro**	**2.68**	**130**	*eP*	**Pn**	**18 27 14.5**	**+0.3**
MJAR	**Matsushiro Arr**	**2.68**	**130**	P	**Pn**	**18 27 14.7**	**+0.5**
	4.2nm,0.6s,baz=309,slow=9.7,SNR=15						
JNG	**Nsakai**	**2.71**	**133**	*eP*	**Pn**	**18 27 14.9**	**+0.4**
JYTA	**Yamagatataniai**	**2.82**	**162**	*eP*	**Pn**	**18 27 15.0**	**-0.3**
JAW	**Awa shima**	**2.83**	**85**	*eS*	**S**	**18 28 04.2**	**-1.1**
JWT	**Wachi**	**3.00**	**184**	*eP*	**Pn**	**18 27 16.6**	**-0.2**
JRY	**Ryogami san**	**3.44**	**130**	*eS*	**S**	**18 28 15.2**	**+0.3**
JAG	**Ashikaga**	**3.55**	**120**	*eP*	**Pn**	**18 27 21.7**	**+0.2**
KSRS	**Korea Array**	**6.17**	**265**	P	**Pn**	**18 27 48.1**	**+0.2**
	5.9nm,0.6s,baz=77,slow=12,SNR=24						
USRK	**Ussuriysk Ar.**	**6.52**	**336**	P	**Pn**	**18 27 51.4**	**-0.3**
	1.0nm,0.4s,baz=149,slow=8.8,SNR=5.8						
ASAJ	**Asahikawa**	**7.83**	**40**	P	**Pn**	**18 28 06.8**	**+0.4**
	11nm,1.0s,baz=207,slow=18,SNR=6.8						
KLR	**Kul'dur**	**11.30**	**347**	P	**P**	**18 28 45.5**	**+0.4**
	1.1nm,0.4s,baz=176,slow=13,SNR=4.7						

NNC 19 18:27:50.1±2.5,38°.53N×70°.13E,h0km,mb4.2,mpv3.8, 2C-3D,Error ellipse: s-maj=21.8km s-min=15.6km az=64.0,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IUG	**luzhnay**	**3.61**	**359**	Pg	Pn	18 28 49.7	+2.3
	47nm,0.5s						
IUG				Lg	Lg	18 29 39.1	
	160nm,1.1s						
BRLS	**Borolday**	**4.50**	**357**	Pg	Pb	18 29 06.7	-3.3
	9.1nm,0.7s						
BRLS				Lg	Lg	18 30 07.5	
	29nm,0.8s						
KK31	**Karatay Array**	**4.58**	**3**	Pn	Pn	18 29 01.1	+0.5
	5.0nm,0.3s,baz=178,slow=12,SNR=90						
KK31				⇓Pg	Pb	18 29 13.0	+1.7
	8.7nm,0.6s,baz=180,slow=12,SNR=8.5						
KK31				⇓Sn	Sn	18 29 55.7	+1.2
	3.8nm,0.4s						
KK31				Lg	Lg	18 30 13.7	
	13nm,0.6s,baz=184,slow=27,SNR=5.0						
MRKS	**Merke**	**4.82**	**28**	Pg	Pb	18 29 18.5	+2.9
	20nm,0.9s						
MRKS				Lg	Lg	18 30 27.5	
	27nm,0.9s						
EKS2	**Erkin-Say**	**4.97**	**33**	P	Pn	18 29 08.7	+2.6
	SNR=8.6						
UCH	**Uchtor**	**4.98**	**41**	P	Pn	18 29 04.8	-1.8
	SNR=8.1						
AAK	**Ala-Archa**	**5.28**	**38**	P	Pn	18 29 11.4	+1.1
	SNR=6.6						
AAK	**Ala-Archa**	**5.28**	**38**	⇓Pn	Pn	18 29 10.4	0.0
	5.8nm,0.7s						
AAK				⇑Pg	Pb	18 29 26.1	+2.8
	7.4nm,0.7s						
AAK				⇑Lg	Lg	18 30 33.9	
	28nm,1.1s						
KBK	**Karagaybulak**	**5.51**	**40**	P	Pn	18 29 15.7	+2.1
	SNR=9.6						
USP	**Ospenovka**	**5.77**	**34**	P	Pn	18 29 17.8	+0.7
	SNR=9.7						
TKM2	**Tokmak 2**	**6.04**	**42**	P	Pn	18 29 22.3	+1.4
	SNR=7.1						

IDC 19 18:29:29.1±3.6,47°.53N×92°.96W,h0km,mbtmp2.7/2, ML0.8/1,Error ellipse: s-maj=59.6km s-min=21.1km az=75.0,Minnesota

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ULM	**Lac du Bonnet**	**3.34**	**326**	Pn	Pn	18 30 22.6	+0.1
	0.1nm,0.3s,baz=157,slow=15,SNR=3.1						
ULM				Pg	Pb	18 30 28.6	-0.5
	0.8nm,0.3s,baz=146,slow=16,SNR=9.0						
ULM				Lg	Lg	18 31 15.5	
	0.5nm,0.3s,baz=79,slow=13,SNR=3.4 1.5nm,0.6s						
ULM				AML	AML		
I10CA	**LAC DU BONNET**	**3.36**	**324**	I	I	18 54 10.0	
	baz=142,slow=337,SNR=2.5						
PDAR	**Pinedale Array**	**12.64**	**254**	Lg	Lg	18 36 02.6	
	baz=50,slow=24,SNR=3.4						
TXAR	**Lajitas Array**	**19.97**	**208**	P	P	18 34 03.1	+0.1
	0.2nm,0.5s,baz=19,slow=9.8,SNR=3.1						

DJA 19 18:31:01.9±0.3,9°S±6°×11°4E±°,h51km±7km,M4.0/24, mB5.5/1,mb4.6/4,MLv3.7/24,Mw(mB)5.0/1,Bali region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAGI	**Jajag, Banyuwa**	**0.55**	**335**	P	Pn	18 31 14.6	+0.8
JAGI				S	Sn	18 31 24.8	+2.4
RTBI	**Rangdo, Negare**	**0.74**	**47**	P	Pn	18 31 16.7	+0.4
RTBI				S	Sn	18 31 29.7	+2.9
RTBI				AML	AML		
IGBI	**Denpasar**	**0.76**	**79**	P	Pn	18 31 16.8	+0.3
IGBI				S	Sn	18 31 29.4	+2.3
IGBI				AML	AML		
ABJI	**Asem Bagus**	**1.18**	**352**	P	Pn	18 31 21.9	-0.2
SRBI	**Singaraja**	**1.20**	**43**	P	Pn	18 31 21.4	-0.9
SRBI				AML	AML		
KHKI	**Kahang-Kahang**	**1.35**	**64**	P	Pn	18 31 25.3	+1.0
BLJI	**Banyuglugur**	**1.45**	**327**	P	Pn	18 31 25.7	0.0
BLJI				AML	AML		
SNJI	**Sawahan-Nganju**	**2.86**	**294**	P	Pn	18 31 45.0	-0.2
SNJI				AML	AML		
SJI	**Sawahan**	**2.87**	**295**	P	Pn	18 31 45.3	0.0
SJI				AML	AML		
PLAI	**Plampang**	**3.35**	**88**	P	Pn	18 31 51.8	0.0
PLAI				AML	AML		
WOJI	**Wonogiri, Jawa**	**3.61**	**288**	P	Pn	18 31 55.3	0.0
WOJI				AML	AML		
SMRI	**Semarang**	**4.35**	**296**	P	Pn	18 32 05.5	-0.1
SMRI				AML	AML		
WSI	**Waingapu**	**5.87**	**97**	P	Pn	18 32 26.4	0.0
	0.3nm45nm,1.2s						
WSI				AML	AML		
JCJI	**Jatiwangi**	**6.55**	**292**	P	Pn	18 32 34.5	-1.2

IDC 19 18:40:05.8±5.2,10°.59S×165°.70E,h0km,mb3.4/3, mbtmp3.4/3,Error ellipse: s-maj=276.7km s-min=34.3km az=138.0,Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**31.60**	**249**	P	P	18 46 31.2	+0.6
	0.2nm,0.6s,baz=83,slow=9.0,SNR=1.5 0.2nm,0.6s						
ASAR	**Alice Springs**	**32.95**	**243**	P	P	18 46 42.1	-0.4
	0.5nm,0.7s,baz=62,slow=9.7,SNR=9.7 0.5nm,0.7s						
ILAR	**Eielson Array**	**83.10**	**19**	P	P	18 52 33.1	0.0
	0.3nm,0.6s,baz=238,slow=5.2,SNR=4.6 0.3nm,0.6s						

*ATH **19** 19:00:18.0,40°.55N×21°.65E,h9km±1km,ML2.1/12, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*TIR **19** 19:00:18.8,40°.67N×21°.64E,h10km,ML2.3,ML2.3, Presumed earthquake*
*SKO **19** 19:00:19.3,40°.57N×21°.65E,h13km*
ISC 19 19:00:18.4±1.0,40°.57N±0°.02×21°.67E±0°.02,h7km±10km, n41,σ1s11/59,3C-1D,Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KZN	**Kozani**	**0.28**	**163**	P	**Pg**	**19 00 23.7**	**-0.3**
KZN				S	**Sg**	**19 00 27.1**	**-0.6**
KZN				AML	AML		
NASA	**Naoussa**	**0.31**	**79**	P	**Pg**	**19 00 24.9**	**+0.4**
NASA				S	**Sg**	**19 00 29.1**	**+0.5**
NASA				AML	AML		
NEST	**Nestorio**	**0.50**	**252**	⇑*i*P	**Pg**	**19 00 28.0**	**-0.1**
NEST				*e*S	**Sg**	**19 00 34.8**	**+0.2**
NEST				*e*S	**Sb**	**19 00 35.9**	**-1.2**
NEST	**Nestorio**	**0.50**	**252**	P	**Pg**	**19 00 28.0**	**-0.1**
NEST				S	**Sg**	**19 00 34.4**	**-0.2**
NEST				IAML		19 00 37.7	
	179nm,0.4s						
NEST	**Nestorio**	**0.50**	**252**	P	**Pg**	**19 00 28.0**	**-0.1**
NEST				S	**Sg**	**19 00 34.2**	**-0.4**
PENT	**Pentalofos**	**0.55**	**227**	P	**Pg**	**19 00 28.7**	**-0.4**
PENT				S	**Sg**	**19 00 35.9**	**-0.4**
KPRO	**Kipourio**	**0.66**	**201**	P	**Pg**	**19 00 30.4**	**-0.7**
KPRO				S	**Sg**	**19 00 39.4**	**-0.4**
KPRO				AML	AML		
KBN	**Korca**	**0.67**	**275**	⇑*e*P	**Pg**	**19 00 30.4**	**-1.0**
KBN				*e*S	**Sb**	**19 00 41.4**	**-0.7**
KBN				IAML		19 00 42.9	
	comp=Z,72nm,0.6s						
KBN	**Korca**	**0.67**	**275**	P	**Pg**	**19 00 31.0**	**-0.4**
KBN				S	**Sg**	**19 00 40.7**	**+0.6**
KBN				IAML		19 00 44.2	
	comp=Z,286nm,0.4s						
GRG	**Griva**	**0.68**	**55**	P	**Pg**	**19 00 31.3**	**-0.1**
GRG				AML	AML		
LIT	**Litokhoron**	**0.79**	**127**	P	**Pg**	**19 00 33.6**	**+0.1**
LIT				S	**Sg**	**19 00 43.8**	**0.0**
OHR	**Ohrid**	**0.85**	**309**	*i*Pg	**Pg**	**19 00 34.0**	**-0.7**
OHR				*e*Sg	**Sb**	**19 00 47.1**	**-0.1**
LSK	**Leskovik**	**0.92**	**243**	⇓*e*P	**Pg**	**19 00 35.8**	**-0.3**
LSK				*e*S	**Sb**	**19 00 49.6**	**+0.4**
LSK				IAML		19 00 53.4	
	comp=Z,27nm,0.4s						
LSK	**Leskovik**	**0.92**	**243**	P	**Pg**	**19 00 35.6**	**-0.5**
LSK				S	**Sb**	**19 00 49.4**	**+0.2**
TYRN	**Tyrnavos**	**0.96**	**153**	P	**Pg**	**19 00 36.3**	**-0.7**
TYRN				AML	AML		
THE	**Thessaloniki**	**0.99**	**86**	P	**Pb**	**19 00 38.4**	**+0.6**
THE				S	**Sn**	**19 00 53.3**	**+0.3**
THE	**Thessaloniki**	**0.99**	**86**	P	**Pg**	**19 00 37.4**	**-0.1**
VAY	**Valandovo**	**1.01**	**42**	*i*Pg	**Pb**	**19 00 38.6**	**+0.3**
THL	**Klokotos Trika**	**1.04**	**165**	P	**Pg**	**19 00 37.8**	**-0.7**
THL				AML	AML		
KNT	**Kendrikon**	**1.10**	**57**	P	**Pb**	**19 00 39.5**	**-0.3**
KNT				AML	AML		
PRMD	**Pramanda**	**1.13**	**203**	P	**Pb**	**19 00 39.2**	**-1.2**
PRMD				AML	AML		
TETR	**Tetrakomo, Epi**	**1.27**	**194**	P	**Pn**	**19 00 41.6**	**-0.9**
SOH	**Sokhos**	**1.31**	**79**	P	**Pn**	**19 00 42.2**	**-1.0**
SOH				AML	AML		
PLG	**Polygyros**	**1.37**	**98**	P	**Pn**	**19 00 43.8**	**-0.2**
PHP	**Peshkopia**	**1.45**	**321**	P	**Pn**	**19 00 44.3**	**-0.7**
PHP				S	**Sg**	**19 01 05.7**	**+0.8**
PHP				IAML		19 01 09.1	
	comp=Z,71nm,0.4s						
SRN	**Sarande**	**1.45**	**242**	⇑*e*P	**Pg**	**19 00 46.6**	**+0.3**
SRN				*e*S	**Sg**	**19 01 07.0**	**+1.9**
SRN				IAML		19 01 47.0	
	comp=Z,16nm,3.0s						
SRN	**Sarande**	**1.45**	**242**	P	**Pg**	**19 00 47.2**	**+1.0**
SRN				S	**Sg**	**19 01 08.7**	**+3.6**
SRN				IAML		19 01 15.6	
	comp=Z,71nm,0.5s						
IGT	**Igoumenitsa**	**1.46**	**225**	*e*S	**Sg**	**19 01 07.8**	**+2.5**
IGT	**Igoumenitsa**	**1.46**	**225**	S	**Sg**	**19 01 09.1**	**+3.8**
IGT				IAML		19 01 12.0	
	comp=Z,36nm,0.5s						
IGT	**Igoumenitsa**	**1.46**	**225**	P	**Pn**	**19 00 44.0**	**-1.2**
IGT				AML	AML		
AGG	**Agios Georgios**	**1.63**	**162**	P	**Pn**	**19 00 47.6**	**0.0**
KEK	**Kerkira**	**1.67**	**240**	S	**Sb**	**19 01 11.2**	**+0.4**
KEK	**Kerkira**	**1.67**	**240**	P	**Pn**	**19 00 48.1**	**0.0**
AMPL	**Ampelaki**	**1.69**	**192**	P	**Pn**	**19 00 48.4**	**+0.1**
TSLK	**Tsoukalades, L**	**1.91**	**204**	P	**Pn**	**19 00 50.3**	**-1.2**
LKD2	**Lefkada island**	**1.95**	**204**	S	**Sg**	**19 01 24.2**	**+3.3**
LKD2	**Lefkada island**	**1.95**	**204**	P	**Pn**	**19 00 51.7**	**-0.2**
PVO	**Paravola**	**1.96**	**183**	P	**Pn**	**19 00 51.2**	**-0.9**
ANX	**Ano Chora**	**1.99**	**174**	P	**Pn**	**19 00 52.4**	**-0.1**
PDO	**Prodromos**	**2.01**	**191**	P	**Pn**	**19 00 51.8**	**-1.0**
PLEV	**Plevrona-Mesol**	**2.17**	**185**	P	**Pn**	**19 00 53.6**	**-1.3**

IDC 19 19:09:59.2±68.0,21°.50S×177°.17E,h0km,mb3.8/3, mbtmp3.8/3,Error ellipse: s-maj=1203.0km s-min=145.5km az=82.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**33.29**	**244**	P	P	19 16 38.0	-0.6
	0.7nm,0.4s,baz=79,slow=10,SNR=4.3 0.7nm,0.4s						
ASAR	**Alice Springs**	**39.89**	**258**	P	P	19 17 34.9	-0.3
	1.5nm,0.8s,baz=98,slow=8.7,SNR=22 1.5nm,0.8s						
WRA	**Warramunga Arr**	**40.00**	**264**	P	P	19 17 36.5	+0.4
	1.0nm,0.8s,baz=97,slow=7.9,SNR=24 1.0nm,0.8s						
VNDA	**Vanda**	**56.57**	**184**	PcP	PcP	19 20 28.9	-11
	0.9nm,0.3s,baz=18,slow=4.5,SNR=11						
H10N3	**ASCENSION HYDR**	**148.68**	**157**	T	T	22 16 35.3	
	baz=194,slow=76,SNR=4.1						
H10N1	**ASCENSION HYDR**	**148.68**	**157**	T	T	22 16 35.3	
	baz=194,slow=76,SNR=4.8						
H10N2	**ASCENSION HYDR**	**148.69**	**157**	T	T	22 16 36.4	
	baz=194,slow=76,SNR=5.1						

*TEH **19** 19:43:34.2,27°.43N×57°.82E,h50km,ML2.9,Presumed earthquake*
*DSN **19** 19:43:34.9±2.2,27°.06N×57°.90E,h10km,ML3.1/14,Error ellipse: s-maj=34.1km s-min=17.5km az=159.0*
*OMAN **19** 19:43:40.0±1.1,26°.90N×57°.76E,h25km±27km,ml3.3/18, Error ellipse: s-maj=23.1km s-min=4.8km az=19.0*
ISC 19 19:43:33.7±1.4,27°.30N±0°.04×57°.81E±0°.05,h30km±15km, n42,σ1s86/55,Southern Iran

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KHNJ	**Kahnooj**	**0.65**	**352**	Pg	**Pb**	**19 43 46.1**	**-0.6**
IBND	**Bandar-abas**	**1.14**	**278**	Pg	**Pb**	**19 43 55.5**	**+0.8**
JASK	**Jask - Hormozg**	**1.43**	**178**	P	**Pb**	**19 44 00.5**	**+0.8**
	SNR=237						
JASK				S	**Sn**	**19 44 13.7**	**-1.7**
JASK	**Jask - Hormozg**	**1.43**	**178**	Pg	**Pb**	**19 44 00.5**	**+0.8**
KBAM	**BAM**	**1.92**	**17**	Pg	**Pn**	**19 44 04.0**	**-0.4**
BANOM	**Banah**	**1.92**	**225**	*e*P	**Pb**	**19 44 06.5**	**-1.6**
	SNR=58						
BANOM				S	**Sb**	**19 44 30.5**	**-1.2**
BANOM	**Banah**	**1.92**	**225**	P	**Pb**	**19 44 07.0**	**-1.1**
	SNR=58						
BANOM				S	**Sn**	**19 44 28.4**	**+0.8**
SHME	**Shamm**	**1.94**	**230**	*e*P	**Pb**	**19 44 07.3**	**-1.0**
	SNR=99						
SHME	**Shamm**	**1.94**	**230**	P	**Pb**	**19 44 07.5**	**-0.8**
	SNR=99						
MDH	**Madha**	**2.41**	**215**	*e*P	**Pn**	**19 44 11.1**	**0.0**
	SNR=19						
MDH	**Madha**	**2.41**	**215**	P	**Pn**	**19 44 11.7**	**+0.6**
MDH				S	**Sn**	**19 44 38.4**	**-1.2**
MASF	**Masafi**	**2.42**	**218**	P	**Pn**	**19 44 14.1**	**+2.7**
	SNR=7.8						
MASF				S	**Sn**	**19 44 39.7**	**-0.3**
MSFE	**Esma-Masafi**	**2.43**	**218**	*e*P	**Pn**	**19 44 13.7**	**+2.2**
	SNR=7.6						
CHMN	**Cheshme madani**	**2.56**	**355**	Pn	**Pn**	**19 44 13.4**	**-0.2**
UMQ	**Umm Al-Quwin**	**2.61**	**228**	P	**Pb**	**19 44 17.6**	**-2.1**
UOSS	**Minazif**	**2.75**	**212**	*e*P	**Pn**	**19 44 16.2**	**+0.4**
	SNR=9.8						
UOSS	**Minazif**	**2.75**	**212**	P	**Pn**	**19 44 16.2**	**+0.4**
UOSS				S	**Sn**	**19 44 46.7**	**-1.4**
HATD	**Hatta, Dubai**	**2.89**	**212**	P	**Pn**	**19 44 18.0**	**+0.3**
NAZ	**Nazwa, Dubai**	**3.00**	**220**	P	**Pn**	**19 44 22.8**	**+3.5**
ASHO	**Ashiyiah**	**3.04**	**211**	*e*P	**Pn**	**19 44 22.4**	**+2.6**
	SNR=18						
ASHO	**Ashiyiah**	**3.04**	**211**	P	**Pn**	**19 44 23.0**	**+3.1**
	SNR=19						
SOHO	**SOHO**	**3.35**	**200**	*i*P	**Pn**	**19 44 24.7**	**+0.6**
	SNR=43						
SOHO	**SOHO**	**3.35**	**200**	P	**Pn**	**19 44 24.7**	**+0.6**
SOHO				S	**Sn**	**19 45 00.5**	**-2.4**
	SNR=7.7						
ASUD	**Al Ashush, Dub**	**3.47**	**220**	*i*P	**Pn**	**19 44 28.9**	**+3.2**
	SNR=23						
NGCH	**Negor - Chabah**	**3.56**	**122**	P	**Pn**	**19 44 28.0**	**+1.1**
	SNR=8.4						
AJN	**Ajban**	**3.72**	**224**	*i*P	**Pn**	**19 44 32.1**	**+2.9**
	SNR=7.6						
AJN	**Ajban**	**3.72**	**224**	P	**Pn**	**19 44 32.3**	**+3.1**
	SNR=7.6						
ALNE	**Al Ain**	**3.72**	**210**	P	**Pn**	**19 44 32.9**	**+3.7**
HOQ	**Hoqain**	**3.73**	**187**	P	**Pn**	**19 44 30.2**	**+1.0**
HOQ				S	**Sn**	**19 45 11.0**	**-1.2**
	SNR=12						
BIDO	**Bidbid**	**3.77**	**176**	P	**Pn**	**19 44 30.5**	**+0.6**
BIDO				S	**Sn**	**19 45 11.5**	**-1.8**
SRVN	**Saravan**	**4.09**	**88**	Pn	**Pn**	**19 44 35.6**	**+1.3**
WSAR	**Wadi Sarin**	**4.11**	**169**	P	**Pn**	**19 44 36.2**	**+1.7**
WSAR				S	**Sn**	**19 45 20.4**	**-1.3**
ARQ	**Araqi**	**4.11**	**197**	P	**Pn**	**19 44 38.1**	**+3.6**
	SNR=19						
SMDO	**Samad**	**4.23**	**177**	P	**Pn**	**19 44 37.7**	**+1.5**
	SNR=17						
SMDO				S	**Sn**	**19 45 24.6**	**-0.1**
	SNR=6.9						
BSY	**Bisya**	**4.57**	**187**	P	**Pn**	**19 44 44.2**	**+3.3**
WBK	**Wadi Bani Khal**	**4.79**	**167**	P	**Pn**	**19 44 45.1**	**+1.3**
	SNR=77						
WBK				S	**Sn**	**19 45 36.8**	**-1.6**
JMDO	**Jabal Madar**	**4.92**	**177**	P	**Pn**	**19 44 47.7**	**+2.1**
	SNR=7.5						
JMDO				S	**Sn**	**19 45 39.2**	**-2.3**
JLN	**Jalan Bani Buh**	**5.33**	**164**	P	**Pn**	**19 44 52.2**	**+1.0**
	SNR=28						
MHTO	**MHTO**	**6.29**	**179**	P	**Pn**	**19 45 06.4**	**+2.0**
DOK	**Doka**	**9.28**	**202**	P	**Pn**	**19 45 47.3**	**+1.8**
WHFO	**Wadi Hawf**	**10.05**	**203**	P	**Pn**	**19 45 57.8**	**+1.6**
ABTO	**Aybut**	**10.74**	**204**	P	**Pn**	**19 46 05.8**	**+0.2**

*TIR **19** 20:11:38.7±3.1,39°.70N×20°.56E,h21km±23km,ML2.1, MW3.0,Presumed earthquake*
*ATH **19** 20:11:39.0,39°.77N×20°.58E,h8km±1km,ML2.4/21, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **19** 20:11:39.0,40°N±2°×2°1E±°,h19km±1km,M2.3/11, ML2.3/11*
ISC 19 20:11:38.8±0.9,39°.76N±0°.02×20°.55E±0°.02,h19km±2km, n68,σ0s91/101,1C-5D,Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAN	**Janina**	**0.25**	**114**	P	**Pg**	**20 11 44.4**	**-0.3**
JAN				S	**Sg**	**20 11 48.8**	**+0.2**
JAN				AML	AML		
JAN	**Janina**	**0.25**	**114**	P	**Pg**	**20 11 44.3**	**-0.3**
JAN				AML	AML		
IGT	**Igoumenitsa**	**0.28**	**217**	P	**Pg**	**20 11 45.0**	**-0.2**
IGT				S	**Sg**	**20 11 50.8**	**+1.4**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.28**	**217**	⇓*e*P	**Pg**	**20 11 44.9**	**-0.2**
IGT				*e*S	**Sg**	**20 11 50.6**	**+1.1**
IGT	**Igoumenitsa**	**0.28**	**217**	P	**Pg**	**20 11 45.0**	**-0.2**
IGT				S	**Sg**	**20 11 50.2**	**+0.7**
IGT	**Igoumenitsa**	**0.28**	**217**	P	**Pg**	**20 11 45.2**	**0.0**
IGT				S	**Sb**	**20 11 49.5**	**+0.1**
LSK	**Leskovik**	**0.39**	**5**	⇓*e*P	**Pg**	**20 11 47.2**	**+0.1**
LSK				*e*S	**Sb**	**20 11 55.2**	**+2.1**
LSK				IAML		20 11 58.7	
	comp=Z,109nm,0.8s						
LSK	**Leskovik**	**0.39**	**5**	P	**Pg**	**20 11 47.3**	**+0.2**
LSK				S	**Sb**	**20 11 53.7**	**+0.6**
SRN	**Sarande**	**0.44**	**286**	⇓*e*P	**Pg**	**20 11 48.1**	**+0.2**
SRN				*e*S	**Sb**	**20 11 55.8**	**+1.4**
SRN				*e*S	**Sb**	**20 11 55.8**	**+1.4**
SRN				IAML		20 11 56.7	
	comp=Z,140nm,0.3s						
PRMD	**Pramanda**	**0.48**	**118**	P	**Pb**	**20 11 48.4**	**-0.2**
PRMD				S	**Sb**	**20 11 56.1**	**+0.8**
PRMD				AML	AML		
PRMD	**Pramanda**	**0.48**	**118**	P	**Pb**	**20 11 48.4**	**-0.2**
PRMD				AML	AML		
PRGA	**Parga**	**0.49**	**194**	P	**Pg**	**20 11 48.4**	**-0.3**
PRGA				S	**Sb**	**20 11 56.4**	**+0.9**
PRGA				AML	AML		
LFKM	**Lefkimmi**	**0.49**	**231**	P	**Pg**	**20 11 48.9**	**+0.1**
LFKM				AML	AML		
KEK	**Kerkira**	**0.58**	**266**	⇑*e*P	**Pb**	**20 11 48.1**	**-2.2**
KEK				*e*S	**Sb**	**20 11 57.3**	**-0.9**
KEK	**Kerkira**	**0.58**	**266**	P	**Pb**	**20 11 48.1**	**-2.2**
KEK				S	**Sb**	**20 11 57.7**	**-0.5**
KEK	**Kerkira**	**0.58**	**266**	P	**Pb**	**20 11 50.8**	**+0.4**
KEK				AML	AML		
PENT	**Pentalofos**	**0.63**	**46**	P	**Pb**	**20 11 50.9**	**-0.2**
KPRO	**Kipourio**	**0.65**	**72**	P	**Pb**	**20 11 51.1**	**-0.5**
KPRO				S	**Sg**	**20 12 01.1**	**+0.5**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.65**	**72**	P	**Pb**	**20 11 51.0**	**-0.6**
KPRO				AML	AML		
TETR	**Tetrakomo, Epi**	**0.69**	**126**	P	**Pb**	**20 11 51.7**	**-0.6**
TETR				S	**Sg**	**20 12 01.8**	**0.0**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**0.69**	**126**	P	**Pg**	**20 11 52.4**	**-0.2**
TETR				S	**Sg**	**20 12 01.8**	**0.0**
TETR				AML	AML		
NEST	**Nestorio**	**0.76**	**30**	P	**Pg**	**20 11 53.9**	**+0.2**
NEST				AML	AML		
NEST	**Nestorio**	**0.76**	**30**	⇓*e*P	**Pb**	**20 11 53.6**	**+0.2**
NEST				*e*S	**Sn**	**20 12 06.4**	**+0.8**
NEST	**Nestorio**	**0.76**	**30**	P	**Pb**	**20 11 53.8**	**+0.3**
NEST				S	**Sn**	**20 12 05.3**	**-0.3**
NEST	**Nestorio**	**0.76**	**30**	P	**Pb**	**20 11 53.6**	**+0.2**
NEST				S	**Sb**	**20 12 03.3**	**-0.2**
TSLK	**Tsoukalades, L**	**0.94**	**175**	P	**Pb**	**20 11 56.0**	**-0.4**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**0.94**	**175**	P	**Pg**	**20 11 57.2**	**+0.2**
TSLK				AML	AML		
LKD2	**Lefkada island**	**0.97**	**175**	P	**Pb**	**20 11 56.7**	**-0.3**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.97**	**175**	P	**Pb**	**20 11 57.0**	**-0.1**
LKD2				S	**Sn**	**20 12 12.8**	**+2.1**
LKD2				IAML		20 12 16.0	
	comp=Z,179nm,0.3s						
LKD2	**Lefkada island**	**0.97**	**175**	P	**Pg**	**20 11 58.1**	**+0.4**
LKD2				AML	AML		
AMPL	**Ampelaki**	**0.98**	**148**	P	**Pn**	**20 11 57.3**	**-0.2**
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.98**	**148**	P	**Pg**	**20 11 58.6**	**+0.7**
AMPL				AML	AML		

EFP				AML	AML			
KALE	**Kalithea**	**1.84**	**137**	P	**Pn**	**20 12 10.4**	**+0.9**	
GRG	**Griva**	**1.85**	**49**	P	**Pb**	**20 12 11.3**	**-0.8**	
LAKA	**Lakka**	**1.88**	**143**	P	**Pb**	**20 12 11.4**	**-1.1**	
AGEO	**AgiosGiorgios,**	**1.90**	**141**	P	**Pb**	**20 12 11.7**	**-1.2**	
PHP	**Peshkopia**	**1.93**	**357**	P	**Pb**	**20 12 13.3**	**-0.1**	
PHP				S	**Sg**	**20 12 40.9**	**0.0**	
PHP				IAML		20 12 47.0		
	comp=Z,36nm,0.4s							
DBRK	**Dubrovnik**	**3.43**	**329**	*e*Pn	**Pn**	**20 12 31.1**	**-0.1**	
DBRK				Sn	**Sn**	**20 13 11.3**	**0.0**	
STON	**Ston**	**3.78**	**326**	*e*Pn	**Pn**	**20 12 35.6**	**-0.4**	
STON				Sn	**Sn**	**20 13 19.0**	**-0.9**	
LSTV	**Lastovo**	**4.08**	**319**	*e*Pn	**Pn**	**20 12 39.7**	**-0.4**	
LSTV				Sn	**Sn**	**20 13 25.5**	**-1.9**	
MAKA	**Makarska**	**4.41**	**324**	*e*Pn	**Pn**	**20 12 43.8**	**-0.9**	
MAKA				Sn	**Sn**	**20 13 34.4**	**-1.1**	
RICI	**Ricice**	**4.53**	**327**	*i* Pn	**Pn**	**20 12 45.9**	**-0.4**	
RICI				Sn	**Sn**	**20 13 38.0**	**-0.4**	
HVAR	**Hvar**	**4.60**	**319**	*e*Pn	**Pn**	**20 12 47.0**	**-0.3**	
HVAR				Sn	**Sn**	**20 13 38.3**	**-1.9**	
KIJV	**Kijevo**	**5.25**	**325**	*e*Pn	**Pn**	**20 12 56.6**	**+0.3**	
KIJV				Sn	**Sn**	**20 13 54.1**	**-2.2**	
MORI	**Morici**	**5.47**	**320**	*e*Pn	**Pn**	**20 12 58.3**	**-1.0**	
MORI				Sn	**Sn**	**20 13 59.8**	**-1.9**	
DUGI	**Dugi Otok**	**5.89**	**318**	*e*Pn	**Pn**	**20 13 05.1**	**+0.1**	
DUGI				Sn	**Sn**	**20 14 10.4**	**-1.6**	
UDBI	**Udbina**	**5.95**	**325**	*e*Pn	**Pn**	**20 13 05.8**	**0.0**	

*IDC **19** 20:11:59.5±1.5, 1°.48S×100°.41E, h0km, mb3.9/8, mbtmp3.8/9, ML3.6/1, Error ellipse: s-maj=67.1km s-min=16.8km az=58.0*

*NEIC **19** 20:12:14.2±2.0, 1°.14S±0°.08×100°.78E±0°.2, h102km±7km, mb4.3/17, Error ellipse: s-maj=25.3km s-min=9.9km az=72.0*

*DJA **19** 20:12:14.7±0.3, 1°S±2°×10°1E±°, h71km±6km, M3.9/25, mb4.1/3, MLv3.8/25*

ISC 19 20:12:13.0±0.7, 1°.20S±0°.06×100°.69E±0°.07, h100km, n53, σ1s03/45, mb4.2/16, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPI	**Padang Panjang**	**0.79**	**338**	P	**Pn**	**20 12 31.8**	**+0.5**
PPI				AML	AML		
KRJI	**Kerinci**	**1.18**	**139**	P	**Pn**	**20 12 36.9**	**+1.4**
KRJI				AML	AML		
BKNI	**Bangkinang**	**1.55**	**13**	Pn	**Pn**	**20 12 40.0**	**+0.1**
BKNI	**Bangkinang**	**1.55**	**13**	P	**Pn**	**20 12 41.1**	**+1.2**
BKNI				AML	AML		
MASI	**Maura Aman, Be**	**2.47**	**141**	P	**Pn**	**20 12 53.4**	**+1.6**
MASI				AML	AML		
PBSI	**Pulau Batu**	**2.67**	**295**	P	**Pn**	**20 12 55.1**	**+0.8**
PBSI				AML	AML		
KSI	**Kapahiang**	**3.09**	**142**	P	**Pn**	**20 13 01.2**	**+1.2**
KSI				AML	AML		
MNAI	**Manna**	**3.87**	**144**	Pn	**Pn**	**20 13 11.1**	**+0.7**
DSRI	**Dabo**	**3.95**	**80**	P	**Pn**	**20 13 12.5**	**+1.0**
DSRI				AML	AML		
BTDF	**Bukit Timah Da**	**3.99**	**50**	P	**Pn**	**20 13 12.9**	**+0.8**
BTDF				AML	AML		
TPRI	**Tanjung Pinang**	**4.37**	**61**	P	**Pn**	**20 13 18.3**	**+1.1**
TPRI				AML	AML		
SNSI	**Sinabang, Aceh**	**5.65**	**309**	P	**Pn**	**20 13 35.4**	**+0.9**
IPM	**Ipoh**	**5.65**	**3**	P	**Pn**	**20 13 36.0**	**+1.4**
	0.0nm7.2nm,0.9s						
IPM				AML	AML		
KULM	**Kulim**	**6.44**	**360**	Pn	**Pn**	**20 13 47.5**	**+2.1**
CMAR	**Chiang Mai Arr**	**19.61**	**355**	P	**P**	**20 16 33.4**	**-0.2**
	0.1nm,0.3s,baz=184,slow=9.3,SNR=6.2 0.5nm,0.5s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**19.61**	**355**	P	**P**	**20 16 32.5**	**-1.1**
TOLI2	**Tolitoli**	**20.22**	**84**	P	Pn	20 16 42.4	-0.6
MORE	**Moreh**	**26.03**	**347**	P	**P**	**20 17 37.4**	**+0.4**
H08S2	**Diego Garcia H**	**28.82**	**256**	T	T	20 46 22.4	
	baz=78,slow=75,SNR=7.2						
H08S3	**Diego Garcia H**	**28.83**	**256**	T	T	20 46 19.0	
	baz=78,slow=75,SNR=9.0						
H08S1	**Diego Garcia H**	**28.84**	**256**	T	T	20 46 21.2	
	baz=78,slow=75,SNR=5.6						
MTN	**Manton Dam**	**32.30**	**112**	P	**P**	**20 18 31.0**	**-1.7**
MTN				IAmb	IAmb	20 19 08.4	
	comp=Z,3.5nm,1.1s						
WRA	**Warramunga Arr**	**37.81**	**122**	P	**P**	**20 19 18.5**	**-1.5**
	comp=Z,0.2nm,0.3s,baz=305,slow=8.6,SNR=19						
WRA				PcP	**PcP**	**20 21 34.5**	**-0.3**
	comp=Z,0.2nm,0.5s,baz=315,slow=2.5,SNR=4.8 comp=Z,0.2nm,0.3s						
ASAR	**Alice Springs**	**39.17**	**127**	P	**P**	**20 19 30.8**	**-0.7**
	comp=Z,0.4nm,0.4s,baz=304,slow=7.5,SNR=9.8						
ASAR				PcP	**PcP**	**20 21 38.7**	**-0.4**
	comp=Z,0.3nm,0.5s,baz=306,slow=3.0,SNR=4.7 comp=Z,0.4nm,0.4s						
TARG	**Taragay, Kyrgy**	**47.49**	**337**	P	**P**	**20 20 40.3**	**+1.8**
TARG				IAmb	IAmb	20 21 16.2	
	comp=Z,9.3nm,1.4s						
NRN	**Naryn**	**47.98**	**335**	P	**P**	**20 20 42.6**	**+0.4**
NRN				IAmb	IAmb	20 21 01.0	
	comp=Z,5.0nm,1.4s						
KDJ	**Kajisay**	**48.08**	**336**	P	**P**	**20 20 43.9**	**+1.2**
BOOM	**Boomskoye usch**	**48.88**	**336**	P	**P**	**20 20 50.1**	**+1.2**
SONM	**Songino Array**	**49.09**	**5**	P	**P**	**20 20 50.5**	**+0.3**
	comp=Z,0.8nm,0.5s,baz=185,slow=9.4,SNR=4.6 comp=Z,0.8nm,0.5s						
SONM	**Songino Array**	**49.09**	**5**	P	**P**	**20 20 50.2**	**-0.1**
ARSB	**Arslanbob**	**49.23**	**332**	P	**P**	**20 20 53.1**	**+1.5**
MKAR	**Makanchi Array**	**50.45**	**344**	P	**P**	**20 21 01.1**	**+0.6**
	comp=Z,1.7nm,0.5s,baz=156,slow=8.8,SNR=33 comp=Z,1.7nm,0.5s						
MKAR	**Makanchi Array**	**50.45**	**344**	P	**P**	**20 21 00.8**	**+0.2**
MAKZ	**Makanchi**	**50.55**	**343**	P	**P**	**20 21 01.8**	**+0.5**
MAKZ				IAmb	IAmb	20 21 02.5	
	comp=Z,4.6nm,1.1s						
USRK	**Ussuriysk Ar.**	**53.13**	**28**	P	**P**	**20 21 21.4**	**+1.1**
	comp=Z,1.4nm,0.6s,baz=234,slow=4.7,SNR=4.0 comp=Z,1.4nm,0.6s						
USRK	**Ussuriysk Ar.**	**53.13**	**28**	P	**P**	**20 21 20.8**	**+0.4**
KURBB	**Kurchatov Arra**	**54.98**	**343**	P	**P**	**20 21 34.0**	**+0.2**
	comp=Z,0.7nm,0.7s,baz=164,slow=6.8,SNR=7.2 comp=Z,0.7nm,0.7s						
KURK	**Kurchatov**	**55.04**	**343**	P	**P**	**20 21 33.3**	**-0.8**
KURK				IAmb	IAmb	20 21 35.3	
	comp=Z,1.6nm,0.8s						
ZAA0	**Zalesovo Array**	**56.52**	**349**	P	**P**	**20 21 43.5**	**-1.2**
ZAA0				IAmb	IAmb	20 21 45.4	
	comp=Z,2.0nm,0.7s						
ZALV	**Zalesovo Beam**	**56.52**	**349**	P	**P**	**20 21 44.3**	**-0.3**
	comp=Z,1.6nm,0.5s,baz=167,slow=7.0,SNR=8.5 comp=Z,1.6nm,0.6s						
ZALV	**Zalesovo Beam**	**56.52**	**349**	P	**P**	**20 21 43.0**	**-1.6**
BVAR	**Borovoye Array**	**59.68**	**339**	P	**P**	**20 22 06.7**	**0.0**
	comp=Z,1.5nm,0.5s,baz=132,slow=9.6,SNR=10 comp=Z,1.5nm,0.5s						
BORK	**Borovoye**	**59.72**	**339**	P	**P**	**20 22 06.1**	**-0.9**
BORK				IAmb	IAmb	20 22 08.0	
	comp=Z,3.5nm,1.1s						
AB31	**Akbulak array**	**61.28**	**331**	P	**P**	**20 22 17.1**	**-0.6**
AB31				IAmb	IAmb	20 22 18.6	
	comp=Z,2.0nm,0.7s						
ABKAR	**Akbulak array**	**61.28**	**331**	P	**P**	**20 22 17.8**	**+0.1**
H04N2	**CROZET ISLANDS**	**61.85**	**216**	T	T	21 28 09.5	
	baz=58,slow=75,SNR=14						
H04N1	**CROZET ISLANDS**	**61.86**	**216**	T	T	21 28 16.4	
	baz=58,slow=75,SNR=19						
H04N3	**CROZET ISLANDS**	**61.87**	**216**	T	T	21 28 15.1	
	baz=58,slow=75,SNR=18						
H04S1	**CROZET ISLANDS**	**62.14**	**216**	T	T	21 28 33.2	
	baz=59						
H04S3	**CROZET ISLANDS**	**62.15**	**216**	T	T	21 28 32.9	
	baz=59						
H04S2	**CROZET ISLANDS**	**62.16**	**216**	T	T	21 28 36.1	
	baz=59						
ARTI	**Arti**	**66.80**	**336**	P	**P**	**20 22 53.5**	**-0.2**
TXAR	**Lajitas Array**	**143.65**	**37**	PKP	**PKPdf**	**20 31 36.0**	**-1.1**
	comp=Z,0.2nm,0.7s,baz=289,slow=1.7,SNR=4.9						

*NEIC **19** 20:22:16.3±1.1, 43°.61N±0°.06×105°.01W±0°.05, h0km±1km, ML3.3/60, Error ellipse: s-maj=9.8km s-min=6.1km az=162.0*

*IDC **19** 20:22:23.8±1.5, 43°.96N×105°.62W, h0km, mbtmp3.2/4, ML3.1/4, Error ellipse: s-maj=27.0km s-min=12.8km az=142.0*

ISC 19 20:22:15.6±1.3, 43°.57N±0°.06×104°.94W±0°.07, h0km, n30, σ2s22/23, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
K22A	**Casper**	**1.48**	**232**		**Pn**	**20 22 44.0**	**+0.3**
LAO	**LASA Array**	**3.25**	**344**		**Pn**	**20 23 09.4**	**+1.5**
LAO				IAML		20 24 17.2	
	114nm,0.9s						
LAO				IAML		20 24 34.9	
	83nm,2.8s						
OGNE	**Ogallala**	**3.40**	**140**		**Pn**	**20 23 10.0**	**0.0**
RLMT	**Red Lodge**	**3.47**	**298**	Pn	**Pn**	**20 23 12.1**	**+1.0**
RLMT				IAML		20 24 19.6	
	51nm,2.5s						
RLMT				IAML		20 25 28.3	
	66nm,4.0s						
BW06	**Boulder Array**	**3.47**	**258**	Pn	**Pn**	**20 23 13.3**	**+2.1**
PD31	**Pinedale Array**	**3.47**	**258**	Pn	**Pn**	**20 23 14.1**	**+3.0**
PDAR	**Pinedale Array**	**3.47**	**258**	Pn	**Pb**	**20 23 15.3**	**-2.9**
	1.5nm,0.3s,baz=73,slow=16,SNR=22						
PDAR				Lg	Lg	20 24 00.8	
	8.2nm,0.3s,baz=61,slow=32,SNR=11 4.1nm,0.3s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**3.47**	**258**	Pn	**Pn**	**20 23 14.1**	**+3.0**
PDAR					**Sb**	**20 24 01.2**	**+0.2**
HAYD	**Hayden**	**3.51**	**210**		**Pn**	**20 23 14.6**	**+3.0**
HAYD				IAML		20 24 22.6	
	comp=N,57nm,1.1s						
HAYD				IAML		20 24 47.7	
	comp=E,49nm,1.2s						
ISCO	**Idaho Springs**	**3.80**	**188**		**Pn**	**20 23 16.7**	**+1.0**
YNE	**Yellowstone No**	**3.91**	**293**		**Pn**	**20 23 18.3**	**+1.1**
YNE				IAML		20 24 23.6	
	comp=N,54nm,0.9s						
YNE				IAML		20 24 26.4	
	comp=E,45nm,0.4s						
YMP	**Mirror Lake Pl**	**3.93**	**289**		**Pn**	**20 23 18.0**	**+0.4**
H17A	**Grant Village**	**4.15**	**283**		**Pn**	**20 23 22.4**	**+1.9**
O20A	**White River Ci**	**4.23**	**217**		Pn	20 23 26.8	+5.3
O20A				IAML		20 24 44.0	
	comp=E,28nm,0.9s						
O20A				IAML		20 25 11.1	
	comp=E,37nm,1.6s						
SNOW	**Snow King Moun**	**4.23**	**271**		**Pn**	**20 23 23.2**	**+1.6**
SNOW				IAML		20 25 03.8	
	comp=E,48nm,2.0s						
SNOW				IAML		20 25 23.6	
	comp=E,41nm,3.1s						
YNR	**Norris Junctio**	**4.29**	**287**		**Pg**	**20 23 38.2**	**+0.4**
YPP	**Pitchstone Pla**	**4.29**	**281**		**Pg**	**20 23 36.8**	**-1.1**
YPP				IAML		20 25 39.1	
	comp=E,31nm,4.8s						
YFT	**Old Faithful**	**4.34**	**284**		**Pn**	**20 23 24.9**	**+1.8**
YFT				IAML		20 23 54.0	
	comp=E,30nm,2.4s						
YHH	**Holmes Hill**	**4.42**	**288**		**Pg**	**20 23 37.8**	**-2.5**
YMR	**Madison River**	**4.48**	**286**		**Pg**	**20 23 38.2**	**-3.2**
YMR				IAML		20 26 01.5	
	comp=N,32nm,4.4s						
RDMU	**Red Mountain**	**4.57**	**231**		**Pn**	**20 23 29.9**	**+3.7**
RDMU				IAML		20 24 54.8	
	comp=E,39nm,2.5s						
RDMU				IAML		20 24 58.6	
	comp=N,30nm,1.2s						
AHID	**Auburn Hatcher**	**4.58**	**262**		**Pg**	**20 23 41.8**	**-1.5**
AHID				IAML		20 24 43.1	
	comp=N,34nm,1.5s						
AHID				IAML		20 24 49.1	
	comp=N,39nm,1.1s						
Q24A	**Divide**	**4.61**	**182**	IAML		20 24 54.5	
	comp=E,27nm,1.2s						
YHL	**Hebgen Lake**	**4.67**	**288**	IAML		20 24 59.4	
	comp=N,26nm,1.3s						
YHL				IAML		20 25 29.4	
	comp=E,31nm,1.7s						
BOZ	**Bozeman (W)**	**5.19**	**295**	IAML		20 26 11.6	
	comp=E,19nm,4.2s						
BOZ				IAML		20 26 37.2	
	comp=E,20nm,4.5s						
BSUT	**Blindstream Ca**	**5.29**	**237**	IAML		20 25 08.7	
	comp=N,15nm,1.6s						
BSUT				IAML		20 25 24.9	
	comp=E,17nm,2.8s						
I10CA	**LAC DU BONNET**	**9.01**	**39**	I	I	21 14 24.0	
	baz=224,slow=348,SNR=4.7						
ULM	**Lac du Bonnet**	**9.11**	**40**	Pn	Pn	20 24 34.5	+6.2
	comp=E,0.5nm,0.3s,baz=232,slow=12,SNR=4.6						
ULM				Lg	Lg	20 27 10.8	
	comp=E,0.2nm,0.3s,baz=81,slow=4.1,SNR=4.2 comp=E,1.0nm,0.4s						
ULM				AML	AML		
TXAR	**Lajitas Array**	**14.25**	**175**	Pn	P	20 25 54.9	+8.6
	baz=7.6,slow=10,SNR=2.3						
TXAR				Pg		20 26 51.6	
	comp=E,0.1nm,0.3s,baz=349,slow=19,SNR=4.0						
TXAR				Lg	Lg	20 30 05.2	
	baz=1.1,slow=28,SNR=5.2 comp=E,0.3nm,0.9s						
YKA	**Yellowknife Ar**	**19.78**	**347**	P	**Pn**	**20 26 51.8**	**+3.2**
	baz=157,slow=11,SNR=2.3 comp=E,0.5nm,0.8s						

*IDC **19** 20:25:16.6±1.1, 13°.34N×86°.52W, h0km, mb3.9/3, mbtmp3.9/4, ML2.7/2, MS3.0/1, Error ellipse: s-maj=45.2km s-min=14.2km az=58.0*

*CATAC **19** 20:25:17.4±0.3, 12°N±2°×8°8W±°, h9km±1km, M4.1/43, MLv4.1/43, Error ellipse: s-maj=3.8km s-min=1.5km az=26.9, confirmed*

*NEIC **19** 20:25:18.9±3.4, 12°.02N±0°.06×87°.83W±0°.06, h35km±2km, mb4.3/13, Error ellipse: s-maj=11.2km s-min=7.8km az=221.0*

*SNET **19** 20:25:19.3±0.9, 12°.08N×87°.81W, h20km±5km, ML3.6, Presumed earthquake*

ISC 19 20:25:14.6±1.0, 11°.96N±0°.03×87°.90W±0°.02, h19km±3km, n91, σ1s39/144, mb4.2/9, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CSGN	**Cosiguina Volc**	**1.06**	**18**	P	**Pg**	**20 25 36.9**	**+1.5**
CSGN				S	**Sg**	**20 25 50.9**	**+1.5**
CRIN	**San Cristobal**	**1.11**	**48**	P	**Pg**	**20 25 37.2**	**+1.0**
CRIN				S	**Sg**	**20 25 53.8**	**+3.0**
CRIN	**San Cristobal**	**1.11**	**48**	Pn	**Pg**	**20 25 36.5**	**+0.3**
CRIN				Sn	**Sg**	**20 25 52.4**	**+1.6**
QUEN	**Al S del Volca**	**1.20**	**58**	P	**Pb**	**20 25 36.9**	**0.0**
QUEN				S	**Sg**	**20 25 53.7**	**0.0**
TELN	**Telica**	**1.23**	**58**	P	**Pb**	**20 25 36.9**	**-0.4**
INTP	**Intipuca**	**1.24**	**353**	*e*P	**Pg**	**20 25 39.7**	**+1.0**
INTP				*e*S	**Sg**	**20 25 55.6**	**+0.6**
PLRN	**Geotermica Pol**	**1.27**	**61**	P	**Pb**	**20 25 38.1**	**+0.1**
PLRN				S	**Sg**	**20 25 54.7**	**-1.2**
CNGA	**Al SSO del Vol**	**1.29**	**65**	P	**Pg**	**20 25 39.1**	**-0.5**
CNGA				S	**Sg**	**20 25 56.2**	**-0.2**
CNGN	**Cerro Negro**	**1.29**	**65**	P	**Pg**	**20 25 39.1**	**-0.5**
CNGN				S	**Sg**	**20 25 57.1**	**+0.6**
CNCH	**Conchagua**	**1.31**	**3**	P	**Pg**	**20 25 40.8**	**+0.8**
CNCH	**Conchagua**	**1.31**	**3**	*e*P	**Pg**	**20 25 40.4**	**+0.4**
CNCH				*e*S	**Sg**	**20 25 58.0**	**+0.8**
LEVN	**Ruinas Leon Vi**	**1.33**	**71**	P	**Pg**	**20 25 41.6**	**+1.2**
LEVN				S	**Sg**	**20 25 58.9**	**+1.1**
JUCU	**Jucuarįn**	**1.33**	**345**	*e*P	**Pg**	**20 25 41.1**	**+0.7**
JUCU				*e*S	**Sg**	**20 25 58.5**	**+0.6**
LCND	**La Caada**	**1.34**	**0**	P	**Pg**	**20 25 41.1**	**+0.5**
LCND	**La Caada**	**1.34**	**0**	*e*P	**Pg**	**20 25 41.0**	**+0.3**
LCND				IAML		20 26 01.3	
	comp=Z,3µm,0.3s						
MOMN	**Momotombo**	**1.40**	**71**	P	**Pb**	**20 25 40.8**	**+0.5**
MOMN				S	**Sg**	**20 25 58.6**	**-1.5**
MOM3	**MOM3**	**1.46**	**68**	P	**Pb**	**20 25 41.6**	**+0.3**
MOM3				S	**Sg**	**20 26 00.8**	**-1.1**
AMTN	**Mateare**	**1.46**	**79**	P	**Pg**	**20 25 42.2**	**-0.7**
AMTN				S	**Sg**	**20 26 00.3**	**-1.7**
LCY	**Lacayo**	**1.51**	**345**	*e*P	**Pg**	**20 25 44.1**	**+0.4**
ALJI	**Alcalda de J**	**1.51**	**334**	P	**Pg**	**20 25 44.1**	**+0.3**
ALJI				S	**Sg**	**20 26 03.7**	**+0.3**
RANC	**El Ranchito**	**1.51**	**346**	P	**Pg**	**20 25 44.4**	**+0.5**
RANC				S	**Sg**	**20 26 03.4**	**-0.3**
APYN	**Apoyeque**	**1.54**	**80**	P	**Pg**	**20 25 44.2**	**-0.1**
APYN				S	**Sb**	**20 26 02.3**	**+0.5**
PACA	**Pacayal**	**1.56**	**345**	P	**Pg**	**20 25 44.4**	**-0.3**
PACA				S	**Sg**	**20 26 05.2**	**+0.2**
PACA	**Pacayal**	**1.56**	**345**	*e*P	**Pg**	**20 25 44.4**	**-0.3**
PACA				*e*S	**Sg**	**20 26 05.0**	**-0.1**
APQ2	**Apoyeque**	**1.56**	**81**	P	**Pb**	**20 25 43.1**	**+0.2**
APQ2				S	**Sg**	**20 26 03.4**	**-1.7**
APQ2	**Apoyeque**	**1.56**	**81**	P	**Pb**	**20 25 43.1**	**+0.2**
APQ2				S	**Sb**	**20 26 03.1**	**+0.8**
ABCN	**Banco Central**	**1.56**	**84**	P	**Pn**	**20 25 40.9**	**-0.5**
ABCN				S	**Sb**	**20 26 03.4**	**+1.0**
TISN	**Laguna Tiscapa**	**1.61**	**83**	P	**Pb**	**20 25 43.8**	**0.0**
MGAN	**Managua**	**1.63**	**83**	P	**Pb**	**20 25 43.7**	**-0.3**
MGAN				S	**Sb**	**20 26 05.3**	**+1.0**
MGAN	**Managua**	**1.63**	**83**		**Pb**	**20 25 43.6**	**-0.5**
MGAN				Sn	**Sb**	**20 26 03.2**	**-1.1**
TECA	**Tecapa**	**1.64**	**339**	*e*P	**Pg**	**20 25 46.1**	**-0.1**
TECA				*e*P	**Pb**	**20 25 46.4**	**+2.0**
TECA				*e*S	**Sg**	**20 26 07.2**	**-0.3**
TECA				*e*S	**Sb**	**20 26 07.6**	**+2.9**
TECA				IAML		20 26 09.8	
	comp=Z,316nm,0.3s						
WILN	**Americas 2**	**1.69**	**83**	P	**Pb**	**20 25 44.8**	**-0.3**
WILN				S	**Sb**	**20 26 06.7**	**+0.7**
MAS3	**Al N del Volca**	**1.69**	**88**	P	**Pb**	**20 25 45.1**	**-0.1**
MAS3				S	**Sb**	**20 26 06.6**	**+0.5**
SABN	**Sabanita**	**1.70**	**90**	P	**Pb**	**20 25 45.9**	**+0.6**
MASN	**Masaya**	**1.71**	**89**	P	**Pb**	**20 25 46.4**	**+0.9**
MASN				S	**Sg**	**20 26 08.4**	**-1.6**
NANN	**Nandasmo**	**1.74**	**90**	P	**Pb**	**20 25 47.1**	**+1.0**
NANN				S	**Sg**	**20 26 09.2**	**-1.7**
TECO	**Alcaldia de Te**	**1.79**	**331**	P	**Pg**	**20 25 48.1**	**-1.0**
TECO				S	**Sg**	**20 26 10.6**	**-1.9**
NADN	**Granada**	**1.84**	**96**	P	**Pn**	**20 25 45.9**	**+0.7**
NADN				S	**Sb**	**20 26 10.0**	**-0.4**
LIMN	**Finca el Limon**	**1.86**	**54**	P	**Pb**	**20 25 46.9**	**-1.2**
LIMN				S	**Sb**	**20 26 10.5**	**-0.5**
COEG	**Centro de Oper**	**1.91**	**330**	P	**Pb**	**20 25 49.7**	**+0.8**
COEG				S	**Sg**	**20 26 15.3**	**-0.9**
SCLA	**Alcaldia de Sa**	**1.91**	**335**	S	**Sg**	**20 26 14.7**	**-1.7**
SJTE	**Alcalda de S**	**1.97**	**327**	*e*P	**Pg**	**20 25 51.5**	**-1.0**
SJTE				*e*S	**Sg**	**20 26 15.8**	**-2.4**
PAVA	**Las Pavas**	**2.02**	**330**	P	**Pg**	**20 25 52.4**	**-1.0**
PAVA				S	**Sg**	**20 26 19.1**	**-0.6**
PAVA	**Las Pavas**	**2.02**	**330**	*e*P	**Pg**	**20 25 52.5**	**-1.0**
PAVA				*e*S	**Sg**	**20 26 17.2**	**-2.5**
LOMA	**Loma Larga**	**2.08**	**324**	P	**Pb**	**20 25 53.0**	**+1.1**
LOMA				S	**Sg**	**20 26 19.9**	**-2.0**
UDBS	**Universidad Do**	**2.13**	**325**	P	**Pb**	**20 25 53.1**	**+0.4**
UDBS				S	**Sb**	**20 26 20.0**	**+1.1**
TGUH	**Tegucigalpa,Un**	**2.17**	**16**	P	**Pb**	**20 25 52.5**	**-1.0**
TGUH				S	**Sb**	**20 26 19.3**	**-0.8**
TGUH	**Tegucigalpa,Un**	**2.17**	**16**	Pn	**Pb**	**20 25 51.9**	**-1.6**
TGUH				Sn	**Sb**	**20 26 17.8**	**-2.3**
PMON	**Piamonte**	**2.22**	**322**	P	**Pb**	**20 25 55.1**	**+0.8**
PMON				S	**Sb**	**20 26 22.8**	**+1.3**
BOAB	**BOACO BROADBAN**	**2.24**	**77**	P	**Pb**	**20 25 52.6**	**-1.9**
BOAB				S	**Sb**	**20 26 20.7**	**-1.2**
BOAB	**BOACO BROADBAN**	**2.24**	**77**		**Pn**	**20 25 51.4**	**+0.7**
BOAB				Sn	**Sn**	**20 26 18.8**	**+1.0**
MORN	**Al O del Volca**	**2.24**	**100**	P	**Pn**	**20 25 52.8**	**+2.0**
MORN				S	**Sb**	**20 26 20.9**	**-1.1**
JAYA	**Jayaque - finc**	**2.26**	**318**	P	**Pb**	**20 25 56.2**	**+1.2**
JAYA				S	**Sg**	**20 26 25.3**	**-2.3**
RCVN	**Varillal2**	**2.32**	**46**	P	**Pb**	**20 25 54.1**	**-1.9**
RCVN				S	**Sb**	**20 26 22.9**	**-1.5**
RCPN	**Sur Rio San Ju**	**2.35**	**48**	P	**Pb**	**20 25 54.5**	**-2.0**
RCPN				S	**Sb**	**20 26 23.3**	**-1.9**
CARN	**Rivas**	**2.45**	**108**	P	**Pb**	**20 25 57.8**	**-0.4**
CARN				S	**Sb**	**20 26 28.4**	**+0.4**
CARN	**Rivas**	**2.45**	**108**		**Pb**	**20 25 56.8**	**-1.4**
CARN				Sn	**Sb**	**20 26 28.4**	**+0.4**
CEVE	**Cerro Verde**	**2.50**	**318**	P	**Pb**	**20 26 00.9**	**+1.7**
CEVE				S	**Sg**	**20 26 33.1**	**-2.3**
NUBE	**Las Nubes**	**2.66**	**317**	P	**Pb**	**20 26 01.9**	**0.0**
NUBE				S	**Sb**	**20 26 34.9**	**+0.7**
FAME	**Alcaldia de Sa**	**2.79**	**312**	S	**Sb**	**20 26 36.5**	**-1.1**
MTO3	**Montecristo**	**2.81**	**330**	P	**Pb**	**20 26 03.0**	**-1.4**
MTO3	**Montecristo**	**2.81**	**330**	Pn	**Pb**	**20 26 02.3**	**-2.1**
ESQI	**Esquipulas**	**2.94**	**332**	P	**Pb**	**20 26 04.0**	**-2.5**
ESQI				S	**Sb**	**20 26 40.6**	**-1.7**
ESQI	**Esquipulas**	**2.94**	**332**	Pn	**Pb**	**20 26 04.5**	**-2.0**
JTS	**Las Juntas de**	**3.33**	**120**	Pn	**Pb**	**20 26 11.6**	**-1.7**
	comp=Z,7.2nm,0.3s,baz=332,slow=15,SNR=23						
JTS				Sn	**Sb**	**20 26 53.9**	**+0.5**
	comp=Z,11nm,0.3s,baz=122,slow=21,SNR=7.1 comp=Z,11nm,0.4s						
JTS				AML	AML		
JTS	**Las Juntas de**	**3.33**	**120**		**Pb**	**20 26 11.2**	**-2.0**
SIUN	**Universidad Ur**	**3.51**	**60**		**Pn**	**20 26 08.3**	**0.0**
APG	**El Apazote**	**3.92**	**321**	Pn	**Pb**	**20 26 22.7**	**-0.7**
	baz=85,slow=12,SNR=2.2						
HDC	**Heredia**	**4.20**	**117**	Pn	**Pn**	**20 26

ZALV	**Zalesovo Beam**	**49.04**	**333**	P		**P**		**20 46 24.9**	**-1.3**
	0.5nm,0.4s,baz=124,slow=8.9,SNR=2.4								
	0.5nm,0.4s								
KURBB	**Kurchatov Arra**	**50.16**	**326**	P		**P**		**20 46 34.6**	**-0.1**
	0.8nm,0.8s,baz=129,slow=7.6,SNR=6.6								
	0.8nm,0.8s								
BVAR	**Borovoye Array**	**55.75**	**326**	P		**P**		**20 47 15.6**	**0.0**
	0.3nm,0.6s,baz=128,slow=12,SNR=1.9								
	0.3nm,0.6s								

NNC ***19*** *20:40:47.8±1.0,43˚.16N×78˚.41E,h0km,mpv3.0,Error ellipse: s-maj=8.3km s-min=2.6km az=133.0*
SOME ***19*** *20:40:48.8,43˚.10N×78˚.42E,h5km*
KRNET ***19*** *20:40:49.1±0.1,43˚.00N×78˚.47E,h27km,mb2.2*

ISC 19 20:40:46.7±0.9,**43˚.07N**±0˚.05×**78˚.47E**±0˚.03,**h14**km±5km, **n12,**σ0°**83**/22,**14C,Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SATY	**Saty**	**0.05**	**253**	P	**Pg**	**20 40 49.7**	**+0.2**
	482nm,0.1s						
SATY				S	**Sg**	**20 40 51.2**	**-0.2**
	1μm,0.1s						
SATY	**Saty**	**0.05**	**253**	*e*P	**Pg**	**20 40 49.7**	**+0.2**
	482nm,0.1s						
SATY				*e*S	**Sg**	**20 40 50.5**	**-0.8**
	1μm,0.1s						
UZB	**Uzynbulak**	**0.41**	**79**	P	**Pn**	**20 40 57.0**	**-1.4**
	2.3nm,0.1s						
UZB				S	**Sb**	**20 41 03.3**	**+1.3**
	19nm,0.1s						
UZB	**Uzynbulak**	**0.41**	**79**	*e*P	**Pn**	**20 40 57.0**	**-1.4**
	2.3nm,0.1s						
UZB				*e*S	**Sb**	**20 41 03.3**	**+1.3**
	19nm,0.1s						
PRZ	**Przheval'sk**	**0.59**	**185**⇑	*e*P	**Pb**	**20 40 59.1**	**+0.2**
PRZ			⇑	*e*S	**Sg**	**20 41 06.4**	**+0.2**
ANVS	**Anan'yevo**	**0.66**	**244**⇑	*e*P	**Pn**	**20 41 01.2**	**-0.5**
ANVS			⇑	*e*S	**Sn**	**20 41 10.6**	**-1.4**
SHLS	**Shalkode**	**0.73**	**83**	P	Pn	20 41 09.4	+6.7
	1.0nm,0.1s						
SHLS				S	Sn	20 41 23.6	+10
	2.1nm,0.1s						
PDGK	**Podgornoye**	**0.79**	**71**	⇑P	**Pn**	**20 41 03.5**	**-0.1**
	2.0nm,0.9s						
PDGK				⇑S	**Sn**	**20 41 14.7**	**-0.5**
	2.6nm,0.8s						
KDJ	**Kajisay**	**1.34**	**226**⇑	*e*P	**Pg**	**20 41 12.6**	**+0.2**
KDJ			⇑	*e*S	**Sg**	**20 41 29.7**	**-0.1**
TARG	**Taragay, Kyrgy**	**1.43**	**200**⇑	*i*P	**Pg**	**20 41 14.3**	**+0.1**
TARG			⇑	*i*S	**Sb**	**20 41 32.4**	**+0.8**
BOOM	**Boomskoye usch**	**1.95**	**253**⇑	*i*P	**Pb**	**20 41 22.7**	**+0.6**
BOOM			⇑	*e*S	**Sb**	**20 41 47.0**	**+0.7**
TKM2	**Tokmak 2**	**2.11**	**267**⇑	*i*P	**Pb**	**20 41 25.5**	**+0.7**
TKM2			⇑	*i*S	**Sb**	**20 41 51.5**	**+0.5**

IDC ***19*** *20:59:43.7±4.3,23˚.05S×177˚.69W,h273km±39km,mb3.2/4, mbtmp3.9/5,Error ellipse: s-maj=42.5km s-min=36.6km az=11.0*

ISC 19 20:59:41.6±1.9,**23˚.2S**±0˚.2×**177˚.7W**±0˚.3,**h250**km,**n6,** σ0°**91/7,mb3.4/4,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**6.78**	**323**	P	**Pn**	**21 01 20.2**	**+0.6**
	2.6nm,0.2s,baz=122,slow=19,SNR=5.1						
CTA	**Charters Tower**	**33.63**	**268**	P	**P**	**21 05 59.2**	**+0.3**
	4.5nm,0.5s,baz=96,slow=10.0,SNR=12						
	4.5nm,0.5s						
ASAR	**Alice Springs**	**44.26**	**259**	P	**P**	**21 07 26.4**	**-0.5**
	0.2nm,0.5s,baz=94,slow=8.2,SNR=4.1						
ASAR				PcP	**PcP**	**21 09 06.5**	**-0.2**
	0.3nm,0.7s,baz=98,slow=4.7,SNR=2.4						
	0.2nm,0.5s						
WRA	**Warramunga Arr**	**44.59**	**265**	P	**P**	**21 07 29.0**	**-0.5**
	1.5nm,0.6s,baz=103,slow=8.0,SNR=40						
	1.5nm,0.6s						
QSPA	**South Pole Qui**	**66.86**	**180**	P	**P**	**21 10 07.5**	**+0.8**
	0.6nm,0.9s,baz=0.0,slow=2.0,SNR=0.9						
	0.6nm,0.9s						
AKASG	**Malin Array Be**	**145.52**	**329**	PKPbc	**PKPdf**	**21 18 48.3**	**-1.3**
	0.6nm,0.5s,baz=44,slow=4.0,SNR=2.3						

SGS 19 21:24:08.0,20˚.27N×38˚.66E,h9km,Ml1.3,Red Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHBS		**1.21**	**52**	P	Pb	21 24 30.1	-0.9
SHBS		**1.21**	**52**	P	Pb	21 24 30.1	-0.9
SADE2	**SADE2**	**1.26**	**73**	P	Pn	21 24 31.4	-0.4
SADE2				S	Sn	21 24 48.8	-0.1
SADE2	**SADE2**	**1.26**	**73**	P	Pn	21 24 31.3	-0.4
SADE2				S	Sg	21 24 48.4	-0.1
SADE1	**SADE1**	**1.32**	**77**	P	Pn	21 24 32.4	-0.3
SADE1				S	Sb	21 24 49.9	-0.1
SADE1	**SADE1**	**1.32**	**77**	P	Pn	21 24 32.4	-0.3
SADE1				S	Sb	21 24 50.0	0.0
GHMGH	**GHMGH**	**1.75**	**79**	P	Pn	21 24 39.4	+0.8
GHMGH	**GHMGH**	**1.75**	**79**	P	Pn	21 24 39.3	+0.6
GHMGH				S	Sb	21 25 02.4	-0.1
FRAS	**Faraa**	**1.91**	**65**	P	Pn	21 24 41.9	+1.0
FRAS	**Faraa**	**1.91**	**65**	P	Pn	21 24 42.0	+1.0
FRAS				S	Sb	21 25 07.3	0.0

IDC 19 21:29:57.8±1.8,**7˚.56S×127˚.14E,h0km,mb3.6/1, mbtmp3.4/3,ML3.4/2,MS4.1/1,Error ellipse: s-maj=283.5km s-min=23.8km az=61.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAPI	**Kappang**	**7.77**	**289**	LR	LR	21 34 36.5	
	comp=Z,20nm,18.9s,baz=140,slow=36						
WRA	**Warramunga Arr**	**14.15**	**151**	Pn	Pn	21 33 13.4	-6.2
	0.2nm,0.3s,baz=330,slow=13,SNR=18						
WRA				Sn	Sn	21 35 36.2	-21
	0.2nm,0.3s,baz=325,slow=26,SNR=6.4						
	0.3nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.28**	**159**	P	Pn	21 33 59.6	-1.0
	0.1nm,0.3s,baz=340,slow=9.1,SNR=5.8						
	0.3nm,0.5s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.17**	**328**	P	P	21 40 53.7	0.0
	0.4nm,0.6s,baz=114,slow=7.1,SNR=5.8						
	0.4nm,0.6s						
VNDA	**Vanda**	**72.25**	**173**	LR	LR	22 13 00.8	
	comp=Z,106nm,18.3s,baz=341,slow=36						

IDC ***19*** *21:38:36.8±0.9,15˚.21S×174˚.24W,h0km,mb4.1/5, mbtmp4.1/6,ML3.6/1,MS3.7/39,Error ellipse: s-maj=46.0km s-min=14.9km az=151.0*
NEIC ***19*** *21:38:37.8±2.1,15˚.0S±0˚.1×173˚.96W±0˚.05,h10km±1km, mb4.6/6,Error ellipse: s-maj=21.4km s-min=6.6km az=343.0*

ISC 19 21:38:43.6±0.8,**15˚.1S**±0˚.1×**173˚.83W**±0˚.09,**h73**km,**n62,** σ1°**82/19,mb4.5/9,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**2.29**	**61**	Pn	**Pn**	**21 39 16.2**	**-3.1**
	10nm,0.3s,baz=62,slow=19,SNR=36						
AFI				Sn	**Sn**	**21 39 47.5**	**+1.0**
	6.2nm,0.3s,baz=299,slow=17,SNR=4.2						
AFI				LR	LR	21 40 16.1	
	comp=Z,972nm,19.4s,baz=262,slow=37						
	171nm,0.8s						
AFI				AML	AML		
FUTU	**Fugatoga**	**4.22**	**279**	Pn	Pn	21 39 38.1	-7.4
NIUE	**Niue**	**5.47**	**138**	Pn	**Pn**	**21 40 00.1**	**-2.5**
MSVF	**Nonsavu**	**8.24**	**250**	LR	LR	21 43 07.5	
	comp=Z,556nm,19.1s,baz=25,slow=35						
RAR	**Rarotonga**	**14.70**	**117**	LR	LR	21 46 33.3	
	comp=Z,198nm,18.3s,baz=298,slow=32						
DZM	**Mont Dzumac**	**19.95**	**247**	LR	LR	21 49 22.8	
	comp=Z,167nm,18.2s,baz=264,slow=33						
PPT	**Papeete**	**23.41**	**99**	LR	LR	21 51 05.4	
	comp=Z,55nm,19.1s,baz=288,slow=32						
PPT2	**Papeete2**	**23.41**	**100**	*e*S	**S**	**21 47 54.4**	**+0.1**
	659nm,26.5s						
PPT2				*e*LR	LR	21 49 25.5	
	120nm,24.5s						
PPT2				*e*LR	LR	21 49 30.1	
	192nm,26.8s						
TBI	**Tubuai**	**24.42**	**113**	*e*S	**S**	**21 48 11.2**	**+0.8**
	2μm,27.0s						
TBI				*e*LR	LR	21 50 00.6	
	2μm,28.0s						
URZ	**Urewera**	**24.47**	**197**	LR	LR	21 52 06.7	
	comp=Z,410nm,18.9s,baz=3.0,slow=34						
HNR	**Honiara**	**26.21**	**279**	LR	LR	21 53 12.0	
	comp=Z,112nm,18.1s,baz=208,slow=34						
RPZ	**Rata Peaks**	**31.35**	**201**	LR	LR	21 58 05.2	
	comp=Z,60nm,18.4s,baz=54,slow=38						
KRVT	**Keravat (AS076**	**35.25**	**284**	LR	LR	21 58 47.7	
	comp=Z,58nm,20.4s,baz=156,slow=35						
H11S2	**WAKE ISLAND Hy**	**38.45**	**329**	T	T	22 26 40.3	
	baz=149,slow=76,SNR=71						
H11S2	**WAKE ISLAND Hy**	**38.46**	**329**	T	T	22 26 41.8	
	baz=149,slow=76,SNR=54						
H11S1	**WAKE ISLAND Hy**	**38.47**	**329**	T	T	22 26 41.9	
	baz=149,slow=76,SNR=64						
H11N3	**WAKE ISLAND Hy**	**39.40**	**331**	T	T	22 27 56.6	
	baz=151,slow=76,SNR=55						
H11N1	**WAKE ISLAND Hy**	**39.41**	**331**	T	T	22 28 03.3	
	baz=151,slow=76,SNR=81						
H11N2	**WAKE ISLAND Hy**	**39.42**	**331**	T	T	22 27 59.4	
	baz=151,slow=76,SNR=70						
STKA	**Stephens Creek**	**43.85**	**240**	P	**P**	**21 46 40.0**	**-2.9**
	0.7nm,0.4s,baz=105,slow=5.8,SNR=6.3						
STKA				LR	LR	22 03 58.4	
	comp=Z,119nm,18.2s,baz=53,slow=35						
	0.7nm,0.4s						
WR8	**Warramunga Arr**	**49.37**	**256**	P	**P**	**21 47 27.6**	**+1.4**
WR8				IAmb	IAmb	21 47 30.2	
	comp=Z,6.8nm,1.1s						
WB0	**Warramunga Arr**	**49.48**	**257**		**P**	**21 47 26.7**	**-0.4**
WB0				IAmb	IAmb	21 47 31.2	
	comp=Z,8.1nm,0.9s						
WRA	**Warramunga Arr**	**49.52**	**256**	P	**P**	**21 47 25.9**	**-1.5**
	comp=Z,6.6nm,1.0s,baz=92,slow=7.2,SNR=17						
	comp=Z,6.6nm,1.0s						
WRA	**Warramunga Arr**	**49.52**	**256**	P	**P**	**21 47 27.2**	**-0.1**
GUMO	**Guam**	**49.80**	**303**	LR	LR	22 05 10.1	
	comp=Z,52nm,20.8s,baz=124,slow=32						
AS31	**Alice Springs**	**49.83**	**252**		**P**	**21 47 30.4**	**+0.7**
AS31				IAmb	IAmb	21 47 35.5	
	comp=Z,3.8nm,0.9s						
ASAR	**Alice Springs**	**49.83**	**252**	P	**P**	**21 47 28.4**	**-1.3**
	comp=Z,3.6nm,0.7s,baz=86,slow=8.2,SNR=25						
ASAR				PcP	**PcP**	**21 48 51.0**	**+1.5**
	comp=Z,0.5nm,0.9s,baz=86,slow=3.3,SNR=1.0						
ASAR				LR	LR	22 06 30.5	
	comp=Z,72nm,20.3s,baz=96,slow=34						
	comp=Z,3.6nm,0.7s						
ASAR	**Alice Springs**	**49.83**	**252**		**P**	**21 47 28.6**	**-1.0**
FORT	**Forrest**	**55.21**	**243**	P	**P**	**21 48 10.8**	**+1.6**
FORT				IAmb	IAmb	21 48 21.0	
	comp=Z,8.2nm,1.1s						
JCJ	**Chichijima**	**59.81**	**314**	LR	LR	22 09 35.9	
	comp=Z,103nm,21.6s,baz=102,slow=31						
RPN	**Rapa Nui**	**60.80**	**113**	LR	LR	22 08 09.8	
	comp=Z,29nm,18.9s,baz=255,slow=29						
DAV	**Davao City (W)**	**63.94**	**286**	LR	LR	22 15 24.8	
	comp=Z,50nm,18.1s,baz=96,slow=35						
MJAR	**Matsushiro Arr**	**68.40**	**320**	LR	LR	22 13 07.1	
	comp=Z,54nm,20.3s,baz=125,slow=30						
PMPB	**Monarch Peak**	**71.45**	**43**	P	**P**	**21 49 58.3**	**+1.8**
PFO	**Pinyon Flats O**	**72.99**	**47**	LR	LR	22 14 45.0	
	comp=Z,114nm,20.5s,baz=238,slow=30						
LPIG	**La Paz**	**73.21**	**59**	LR	LR	22 13 55.6	
	comp=Z,68nm,19.6s,baz=354,slow=29						
YBH	**Yreka Blue Hor**	**73.57**	**37**	LR	LR	22 13 48.4	
	comp=Z,102nm,20.2s,baz=232,slow=29						
NVAR	**Mina Array Bea**	**74.35**	**42**	LR	LR	22 16 46.4	
	comp=Z,73nm,18.1s,baz=240,slow=31						
KDAK	**Kodiak Island**	**74.66**	**12**	LR	LR	22 17 49.4	
	comp=Z,61nm,19.9s,baz=209,slow=31						
QSPA	**South Pole Qui**	**74.99**	**180**	P	**P**	**21 50 20.4**	**+3.4**
	comp=Z,1.3nm,0.6s,baz=148,slow=0.7,SNR=4.1						
QSPA				LR	LR	22 19 20.7	
	comp=Z,52nm,20.5s,baz=17,slow=33						
	comp=Z,1.3nm,0.6s						
KSRS	**Korea Array**	**75.62**	**316**	LR	LR	22 18 28.2	
	comp=Z,73nm,21.0s,baz=130,slow=32						
USRK	**Ussuriysk Ar.**	**76.86**	**323**	LR	LR	22 18 34.5	
	comp=Z,53nm,20.2s,baz=147,slow=31						
ELK	**Elko**	**77.59**	**42**	LR	LR	22 17 22.1	
	comp=Z,47nm,19.6s,baz=297,slow=30						
MA2	**Magadan**	**79.71**	**343**	LR	LR	22 20 07.8	
	comp=Z,20nm,20.0s,baz=94,slow=31						
NEW	**Newport**	**80.65**	**34**	LR	LR	22 20 21.4	
	comp=Z,48nm,19.2s,baz=224,slow=31						
ANMO	**Albuquerque**	**80.89**	**50**	LR	LR	22 20 06.1	
	comp=Z,78nm,18.8s,baz=250,slow=31						
DLBC	**Dease Lake**	**81.53**	**22**	LR	LR	22 23 52.3	
	comp=Z,45nm,18.1s,baz=253,slow=33						
ILAR	**Eielson Array**	**82.18**	**11**	P	P	21 51 01.2	+5.1
	comp=Z,0.7nm,1.0s,baz=206,slow=7.9,SNR=3.1						
ILAR				LR	LR	22 20 34.9	
	comp=Z,28nm,19.7s,baz=236,slow=31						
	comp=Z,0.7nm,1.0s						
PDAR	**Pinedale Array**	**82.28**	**42**	LR	LR	22 23 23.9	
	comp=Z,56nm,18.2s,baz=243,slow=32						
H03S2	**Juan Fernandez**	**85.74**	**124**	T	T	23 26 18.7	
	baz=251,slow=74,SNR=8.4						
H03S1	**Juan Fernandez**	**85.75**	**124**	T	T	23 26 24.5	
	baz=251,slow=74,SNR=6.4						
H03S3	**Juan Fernandez**	**85.76**	**124**	T	T	23 26 19.8	
	baz=251,slow=74,SNR=5.8						
MAW	**Mawson**	**87.99**	**199**	LR	LR	22 28 44.8	
	comp=Z,78nm,18.3s,baz=110,slow=34						
YKA	**Yellowknife Ar**	**89.94**	**24**	LR	LR	22 27 27.9	
	comp=Z,51nm,18.1s,baz=295,slow=32						
PLCA	**Paso Flores**	**90.05**	**132**	LR	LR	22 23 38.2	
	comp=Z,59nm,19.8s,baz=215,slow=30						
CMAR	**Chiang Mai Arr**	**92.11**	**288**	LR	LR	22 27 45.2	
	comp=Z,22nm,21.5s,baz=170,slow=32						
ULM	**Lac du Bonnet**	**93.92**	**39**	LR	LR	22 28 44.6	
	comp=Z,73nm,19.0s,baz=195,slow=32						
SONM	**Songino Array**	**94.31**	**318**	LR	LR	22 27 33.5	
	comp=Z,26nm,21.2s,baz=70,slow=31						
TKL	**Tuckaleechee C**	**98.66**	**55**	LR	LR	22 30 23.6	
	comp=Z,42nm,19.0s,baz=289,slow=31						
BRDH	**Bariadhala**	**99.75**	**291**	LR	LR	22 35 58.9	
	comp=Z,34nm,18.4s,baz=182,slow=35						
BRTR	**Keskin Array B**	**145.62**	**321**	PKPbc	**PKiKP**	**21 58 17.9**	**-0.2**
	comp=Z,1.5nm,0.8s,baz=56,slow=3.1,SNR=4.1						
GERES	**GERESS Array B**	**145.73**	**351**	PKPbc	**PKiKP**	**21 58 18.2**	**+0.2**
	comp=Z,0.6nm,0.8s,baz=6.3,slow=2.2,SNR=3.7						

ISK ***19*** *21:39:24.9,37˚.88N×27˚.00E,h6km,ML2.6/17*
THE ***19*** *21:39:24.8,38˚.N±1˚×2˚7E±˚,h10km±1km,M2.6/6, MLh2.6/6*
AFAD ***19*** *21:39:24.4,37˚.83N×26˚.95E,h7km±2km,ML2.5*

ISC 19 21:39:25.0±0.9,**37˚.85N**±0˚.02×**26˚.98E**±0˚.02,**h11**km±8km, **n32,**σ0°**40/46,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**219**	P	**Pg**	**21 39 28.7**	**-0.2**
SMG				S	**Sg**	**21 39 32.0**	**+0.4**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.23**	**348**	Pg	**Pg**	**21 39 29.6**	**-0.3**
GMLD				Sg	**Sg**	**21 39 33.1**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.24**	**87**	Pg	**Pg**	**21 39 29.6**	**-0.5**
KUSD				Sg	**Sg**	**21 39 33.5**	**0.0**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**354**	P	**Pg**	**21 39 32.2**	**-0.4**
BEYE				S	**Sg**	**21 39 38.1**	**+0.4**
DDIM	**Aydin, Didim**	**0.44**	**152**	P	**Pg**	**21 39 33.8**	**+0.2**
DDIM				S	**Sg**	**21 39 39.6**	**+0.1**
DIDI	**Didim-Aydin**	**0.51**	**156**	Pg	**Pb**	**21 39 36.0**	**0.0**
DIDI				AML	AML		
DUVT	**Torbali**	**0.53**	**45**	P	**Pg**	**21 39 35.1**	**-0.1**
DUVT				S	**Sg**	**21 39 42.0**	**-0.3**
DUVT				IAML		21 39 46.0	
	comp=E,379nm,0.2s						
BLCB	**Balcova**	**0.54**	**5**	P	**Pg**	**21 39 35.0**	**-0.5**
BLCB	**Balcova**	**0.54**	**5**	Pg	**Pg**	**21 39 35.1**	**-0.4**
BLCB				Sg	**Sg**	**21 39 43.1**	**+0.4**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**316**	P	**Pg**	**21 39 34.8**	**-0.7**
ZEYE				S	**Sg**	**21 39 43.1**	**+0.3**
ZEYE				IAML		21 39 46.0	
	comp=E,473nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.73**	**82**	Pg	**Pg**	**21 39 39.2**	**+0.1**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**162**	Pg	**Pb**	**21 39 40.9**	**+0.7**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.82**	**336**	Pg	**Pg**	**21 39 40.9**	**+0.1**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**161**	P	**Pg**	**21 39 40.3**	**-0.6**
BODT				S	**Sb**	**21 39 52.4**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**161**	Pg	**Pg**	**21 39 40.7**	**-0.3**
BODT				AML	AML		
MLSB	**Milas**	**0.84**	**131**	Pg	**Pg**	**21 39 41.3**	**+0.1**
MLSB				AML	AML		
FOCM	**Foa**	**0.89**	**347**	Pg	**Pg**	**21 39 41.9**	**-0.2**
FOCM				AML	AML		
BODA	**Bodrum-Mula**	**0.89**	**156**	Pg	**Pb**	**21 39 43.1**	**+0.7**
CHOS	**Chios island**	**0.91**	**307**	P	**Pg**	**21 39 42.4**	**-0.1**
CHOS				S	**Sb**	**21 39 54.7**	**-0.1**
CHOS	**Chios island**	**0.91**	**307**	Pg	**Pb**	**21 39 42.7**	**-0.1**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.93**	**331**	P	**Pg**	**21 39 42.7**	**-0.2**
KARB				S	**Sg**	**21 39 55.3**	**+0.2**
KARB				IAML		21 39 58.0	
	comp=E,115nm,0.2s						
KARB				IAML		21 40 04.0	
	comp=N,113nm,1.7s						
CAMT	**Merkez**	**0.94**	**16**	P	**Pb**	**21 39 43.6**	**+0.4**
CAMT				S	**Sb**	**21 39 56.4**	**+0.7**
CAMT				IAML		21 39 59.0	
	comp=E,167nm,0.3s						
CAMT				IAML		21 40 02.0	
	comp=N,165nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.04**	**83**	Pg	**Pg**	**21 39 44.7**	**-0.4**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**4**	P	**Pg**	**21 39 46.1**	**-0.4**
GOMA	**Golmarmara-Man**	**1.13**	**40**	Pn	**Pg**	**21 39 46.4**	**-0.4**
GOMA				AML	AML		
AKS	**Akhisar**	**1.22**	**32**	Pn	**Pg**	**21 39 47.7**	**-0.8**
AKS				AML	AML		
DKL	**Dikili**	**1.22**	**357**	Pn	**Pn**	**21 39 48.3**	**+0.3**
DKL				AML	AML		
YER	**Yerkesik**	**1.26**	**124**	P	**Pn**	**21 39 48.1**	**-0.5**
YER				S	**Sg**	**21 40 05.1**	**-0.4**
SOMA	**Soma-Manisa**	**1.38**	**18**	Pn	**Pn**	**21 39 50.6**	**+0.4**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.39**	**236**	P	**Pn**	**21 39 49.7**	**-0.6**
APE				S	**Sg**	**21 40 09.9**	**+0.2**
GORD	**Gordes-Manisa**	**1.42**	**41**	Pn	**Pb**	**21 39 51.5**	**0.0**
GORD				AML	AML		
PRK	**Paraskevi**	**1.50**	**339**	P	**Pn**	**21 39 51.7**	**-0.2**

IDC ***19*** *21:49:05.7±2.4,54˚.62N×162˚.93W,h0km,mb4.0/14, mbtmp4.0/17,ML3.4/3,Error ellipse: s-maj=61.4km s-min=15.3km az=161.0*
AEIC ***19*** *21:49:09.3±2.5,54˚.16N±0˚.06×162˚.58W±0˚.06,h15km±5km, Error ellipse: s-maj=9.6km s-min=4.4km az=157.0*
NEIC ***19*** *21:49:10.1±2.6,54˚.23N±0˚.05×162˚.58W±0˚.06,h35km±2km, mb3.6/18,ML3.7/22,ML3.5(AEIC),Error ellipse: s-maj=9.1km s-min=4.9km az=153.0*

ISC 19 21:49:06.2±1.9,**54˚.11N**±0˚.08×**162˚.49W**±0˚.04, **h17**km±10km,**n153,**σ1°**63**/160,**mb4.2**/19,**Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ISLZ	**Isanotski Laza**	**0.94**	**311**		**Pb**	**21 49 24.3**	**+0.3**
ISLZ					**Sg**	**21 49 35.9**	**-0.9**
DT1	**Dutton Round H**	**1.00**	**7**		**Pg**	**21 49 25.3**	**-0.3**
DT1					**Sg**	**21 49 37.7**	**-1.2**
DTNA	**Dutton South F**	**1.05**	**7**		**Pg**	**21 49 26.2**	**-0.3**
DTNA					**Sg**	**21 49 39.5**	**-0.7**
SSLS	**Shishaldin Sou**	**1.07**	**305**		**Pb**	**21 49 26.7**	**+0.6**
DOL	**Dolgoi Island**	**1.10**	**19**		**Pb**	**21 49 26.9**	**+0.2**
DOL					**Sg**	**21 49 40.6**	**-1.2**
SSBA	**Shishaldin**	**1.16**	**305**		**Pb**	**21 49 28.1**	**+0.3**
SSBA					**Sb**	**21 49 42.6**	**+0.1**
HAG	**Hague Volcano**	**1.25**	**15**		**Pb**	**21 49 30.0**	**+0.7**
PS4A	**Pavlof South-4**	**1.29**	**16**		**Pn**	**21 49 30.5**	**+1.1**
PS4A					**Sb**	**21 49 47.1**	**+0.9**
WESN	**West Dahl Nort**	**1.31**	**291**		**Pb**	**21 49 30.5**	**+0.2**
WESN					**Sb**	**21 49 47.2**	**+0.4**
WTUG	**Tugumak**	**1.33**	**304**		**Sb**	**21 49 47.7**	**+0.4**
PN7A	**Pavlof North-7**	**1.35**	**12**		**Pn**	**21 49 31.3**	**+1.0**
WESP	**Westdahl Peak**	**1.36**	**287**		**Pn**	**21 49 30.9**	**+0.5**
WESP					**Sb**	**21 49 48.0**	**-0.4**
PS1A	**Pavlof South-1**	**1.38**	**18**		**Pn**	**21 49 31.1**	**+0.6**
WECS	**Westdahl Cape**	**1.40**	**288**		**Pn**	**21 49 31.7**	**+0.7**
S12K	**Black Hills**	**1.61**	**9**	Pn	**Pn**	**21 49 34.9**	**+1.1**
S12K				IAML		21 50 01.1	
	comp=E,964nm,0.5s						
S12K				IAML		21 50 01.2	
	comp=N,802nm,0.5s						
SDPT	**Sand Point**	**1.70**	**42**	Pn	**Pn**	**21 49 36.5**	**+1.6**
SDPT	**Sand Point**	**1.70**	**42**		**Sb**	**21 49 59.1**	**+1.1**
CNBA	**Chernabura Isl**	**1.84**	**66**		**Pn**	**21 49 38.0**	**+1.2**
AKUT	**Akutan**	**1.93**	**272**	Pn	**Pb**	**21 49 40.0**	**-0.9**
AKUT				IAML		21 50 05.5	
	comp=E,860nm,0.6s						
AKUT				IAML		21 50 13.2	
	comp=N,530nm,0.7s						
AHB	**Akutan Harbor**	**1.96**	**271**		**Pn**	**21 49 39.6**	**+1.1**
AKBBA	**Akutan Broad B**	**2.03**	**271**		**Pn**	**21 49 40

ATKA	**Atka Island**	**7.29**	**260**	Pn		**Pn**	**21 50 52.9 +1.1**
N18K	**Kilae Creek**	**7.48**	**26**	Pn		**Pn**	**21 50 55.0 +0.6**
K13K	**Kusilvak Mount**	**7.93**	**353**	Pn		**Pn**	**21 51 03.0 +2.6**
N19K	**Bonanza Creek**	**7.98**	**29**	Pn		**Pn**	**21 51 04.2 +3.0**
CNPM	**China Poot**	**8.21**	**44**	Pn		**Pn**	**21 51 06.6 +2.2**
K15K	**Wolf Creek Mou**	**8.22**	**3**			**Pn**	**21 51 06.5 +2.1**
RED	**Redoubt Volcan**	**8.22**	**36**	Pn		**Pn**	**21 51 06.6 +2.1**
J14K	**Nanvaranak Lak**	**8.68**	**357**	Pn		**Pn**	**21 51 12.2 +1.5**
L18K	**Granite Mounta**	**8.68**	**18**	Pn		**Pn**	**21 51 12.9 +2.1**
K17K	**Iditarod**	**8.90**	**13**	Pn		**Pn**	**21 51 14.3 +0.5**
SPU	**Mount Spurr**	**9.02**	**34**	Pn		**Pn**	**21 51 16.6 +1.1**
L19K	**White Mountain**	**9.04**	**23**	Pn		**Pn**	**21 51 16.6 +1.0**
SLKM	**Skilak Lake**	**9.22**	**41**	Pn		**Pn**	**21 51 19.7 +1.6**
M20K	**Styx River**	**9.23**	**29**	Pn		**Pn**	**21 51 21.4 +3.0**
J16K	**Anvik River**	**9.25**	**5**	Pn		**Pn**	**21 51 20.4 +1.9**
SEW	**Seward**	**9.28**	**44**	Pn		**Pn**	**21 51 19.6 +0.6**
STLK	**Strandline Lak**	**9.32**	**33**	Pn		**Pn**	**21 51 22.5 +2.9**
J17K	**VABM Dome**	**9.48**	**9**	Pn		**Pn**	**21 51 22.7 +1.1**
SUA	**Susitna One**	**9.66**	**36**	Pn		**Pn**	**21 51 25.9 +1.6**
J18K	**Innoko River**	**9.84**	**15**	Pn		**Pn**	**21 51 28.4 +1.8**
PWL	**Port Wells**	**10.17**	**43**	Pn		**Pn**	**21 51 32.3 +1.2**
K20K	**Telida**	**10.24**	**22**	Pn		**Pn**	**21 51 34.0 +1.9**
PPLA	**Purkeypile**	**10.31**	**27**	Pn		**Pn**	**21 51 36.4 +3.2**
KNK	**Knik Glacier**	**10.46**	**40**	Pn		**Pn**	**21 51 35.7 +0.7**
J19K	**Poorman**	**10.51**	**17**	Pn		**Pn**	**21 51 37.0 +1.1**
HIN	**Hinchinbrook I**	**10.69**	**48**	Pn		**Pn**	**21 51 39.1 +0.8**
CAST	**Castle Rocks**	**10.77**	**26**	Pn		**Pn**	**21 51 41.7 +2.4**
H17K	**Granite Mounta**	**10.94**	**6**	Pn		**Pn**	**21 51 44.4 +2.8**
J20K	**Nowinta River**	**10.95**	**20**	Pn		**Pn**	**21 51 44.4 +2.5**
SCM	**Sheep Creek Mo**	**11.14**	**40**	Pn		**Pn**	**21 51 44.4 -0.1**
ILAR	**Eielson Array**	**13.26**	**30**	Pn		Pn	21 52 09.2 -4.1
	comp=E,0.1nm,0.3s,baz=207,slow=12,SNR=4.7						
	comp=E,0.2nm,0.4s						
ILAR					AML	AML	
ILAR	**Eielson Array**	**13.26**	**30**			**Pn**	**21 52 13.6 +0.2**
LOGN	**Logan Glacier**	**13.33**	**51**	Pn		**Pn**	**21 52 15.0 +0.5**
H23K	**Yukon River**	**13.38**	**24**	Pn		**Pn**	**21 52 12.9 -2.0**
F20K	**Avaraart Lake**	**13.38**	**12**	Pn		**Pn**	**21 52 17.0 +2.0**
PCA	**Pinnacle**	**13.45**	**55**	Pn		**Pn**	**21 52 14.8 -1.2**
M27K	**Edge Creek, AK**	**13.59**	**44**	Pn		**Pn**	**21 52 17.1 -0.8**
J25K	**Salcha River,**	**13.62**	**33**	Pn		**Pn**	**21 52 17.4 -0.8**
E19K	**Redstone River**	**13.62**	**9**	Pn		**Pn**	**21 52 19.9 +1.6**
O28M	**Mount Upton**	**13.69**	**52**	Pn		**Pn**	**21 52 19.5 +0.1**
H24K	**Noodor Dome**	**13.79**	**26**	Pn		**Pn**	**21 52 21.4 +0.8**
L27K	**Beaver Creek,**	**13.95**	**42**	Pn		**Pn**	**21 52 23.2 +0.4**
BCAR	**Beaver Creek**	**13.97**	**42**	Pn		**Pn**	**21 52 22.8 -0.2**
O29M	**Mount Kennedy**	**14.31**	**55**	Pn		**Pn**	**21 52 29.6 +1.8**
K27K	**Chicken**	**14.38**	**38**	Pn		**Pn**	**21 52 30.2 +1.7**
D19K	**Kuna River**	**14.58**	**6**	Pn		**Pn**	**21 52 31.3 0.0**
G24K	**Hadweenzic Riv**	**14.58**	**24**	Pn		**Pn**	**21 52 30.8 -0.6**
I26K	**Coal Creek Min**	**14.78**	**33**	Pn		**Pn**	**21 52 35.6 +1.5**
D20K	**Etivluk River**	**14.91**	**8**	P		**Pn**	**21 52 39.4 +3.6**
HYT	**Haines Junctio**	**14.96**	**53**	Pn		**Pn**	**21 52 40.2 +3.5**
M29M	**Somme Creek**	**15.06**	**47**	Pn		**Pn**	**21 52 38.4 +0.5**
N30M	**Aishikik Lake**	**15.33**	**51**	P		**P**	**21 52 47.5 +1.3**
N30M				IAmb		IAmb	21 52 50.3
	comp=Z,4.8nm,0.8s						
DAWY	**Dawson**	**15.40**	**41**	P		**P**	**21 52 48.7 +1.8**
L29M	**L29M**	**15.47**	**45**	Pn		**Pn**	**21 52 45.6 +2.3**
E24K	**Your Creek**	**15.49**	**20**			**Pn**	**21 52 44.3 +0.7**
E24K				IAmb		IAmb	21 52 49.0
	comp=Z,4.0nm,0.7s						
D22K	**Ayikyak River**	**15.50**	**13**	Pn		**Pn**	**21 52 45.9 +2.3**
D22K				IAmb		IAmb	21 52 54.6
	comp=Z,6.8nm,1.2s						
O30N	**Mendenhall**	**15.62**	**54**	Pn		**Pn**	**21 52 46.9 +1.7**
O30N				IAmb		IAmb	21 52 53.3
	comp=Z,2.9nm,0.7s						
G26K	**Porcupine Rive**	**15.72**	**28**	Pn		**Pn**	**21 52 47.6 +1.2**
TOLK	**Toolik Lake Re**	**15.78**	**18**	P		**P**	**21 52 51.9 +0.8**
M30M	**Minto, Yukon**	**15.83**	**47**	P		**P**	**21 52 53.8 +2.1**
BMAR	**Burnt Mountain**	**15.86**	**26**	Pn		**Pn**	**21 52 48.9 +0.5**
D23K	**Nanushuk River**	**15.88**	**16**	P		**P**	**21 52 52.5 +0.4**
I28M	**Miner Creek**	**15.94**	**36**	P		**P**	**21 52 53.1 +0.2**
N31M	**Braeburn, Yuko**	**15.94**	**52**	P		**P**	**21 52 56.3 +3.4**
K29M	**Barlow Dome**	**16.03**	**43**	P		**P**	**21 52 56.5 +2.6**
K29M				IAmb		IAmb	21 52 57.3
	comp=Z,3.8nm,0.8s						
WHY	**Whitehorse**	**16.17**	**55**	P		**P**	**21 52 58.4 +2.9**
WHY				IAmb		IAmb	21 53 00.1
	comp=Z,9.2nm,0.8s						
G27K	**Doyon Strip**	**16.23**	**30**	Pn		**Pn**	**21 52 53.8 +0.8**
P32M	**Atlin**	**16.58**	**59**	P		**P**	**21 53 02.3 +2.3**
P32M				IAmb		IAmb	21 53 20.4
	comp=Z,5.2nm,1.1s						
J30M	**Hart River**	**16.82**	**41**	P		**P**	**21 53 04.6 +2.0**
J30M				IAmb		IAmb	21 53 09.7
	comp=Z,1.9nm,0.6s						
H29M	**Whitestone**	**16.91**	**35**	Pn		**Pn**	**21 53 02.0 +0.4**
D25K	**Kavik River**	**16.96**	**20**	Pn		**Pn**	**21 53 01.2 -1.1**
D25K				IAmb		IAmb	21 53 19.7
	comp=Z,3.2nm,1.2s						
I30M	**Mount Dempster**	**17.10**	**39**	Pn		**Pn**	**21 53 03.7 -0.4**
I30M				IAmb		IAmb	21 53 23.1
	comp=Z,3.0nm,0.8s						
INK	**Inuvik**	**19.63**	**32**	P		**P**	**21 53 32.3 -1.1**
	comp=Z,0.3nm,0.3s,baz=248,slow=4.0,SNR=3.7						
	comp=Z,1.6nm,0.7s						
INK					AML	AML	
PETK	**Petropavlovsk-**	**23.43**	**284**	P		**P**	**21 54 12.7 -1.4**
	comp=Z,2.9nm,0.5s,baz=75,slow=12,SNR=11						
	comp=Z,2.9nm,0.5s						
YKAW3	**Yellowknife Wh**	**25.94**	**52**	P		**P**	**21 54 39.6 +2.6**
YKA	**Yellowknife Ar**	**25.94**	**52**	P		**P**	**21 54 38.6 +1.4**
	comp=Z,0.7nm,0.5s,baz=273,slow=9.2,SNR=11						
	comp=Z,0.7nm,0.5s						
YKA	**Yellowknife Ar**	**25.94**	**52**	P		**P**	**21 54 39.4 +2.3**
H11N2	**WAKE ISLAND Hy**	**41.53**	**226**	T		T	22 41 12.2
	baz=27,slow=76,SNR=95						
H11N3	**WAKE ISLAND Hy**	**41.54**	**226**	T		T	22 41 18.8
	baz=27,slow=76,SNR=73						
H11N1	**WAKE ISLAND Hy**	**41.55**	**226**	T		T	22 41 13.6
	baz=27,slow=76,SNR=65						
H11S1	**WAKE ISLAND Hy**	**42.70**	**226**	T		T	22 42 42.6
	baz=26,slow=76,SNR=68						
H11S2	**WAKE ISLAND Hy**	**42.72**	**226**	T		T	22 42 43.6
	baz=26,slow=76,SNR=60						
H11S3	**WAKE ISLAND Hy**	**42.72**	**226**	T		T	22 42 52.8
	baz=26,slow=76,SNR=43						
KSRS	**Korea Array**	**49.24**	**280**	P		**P**	**21 57 53.3 -0.1**
	comp=Z,2.4nm,0.8s,baz=48,slow=7.2,SNR=4.7						
	comp=Z,2.4nm,0.8s						
SONM	**Songino Array**	**53.87**	**303**	P		**P**	**21 58 27.0 -1.1**
	comp=Z,0.3nm,0.5s,baz=32,slow=5.6,SNR=2.1						
	comp=Z,0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**58.82**	**320**	P		**P**	**21 59 01.8 -1.2**
	comp=Z,0.5nm,0.4s,baz=48,slow=8.4,SNR=2.6						
	comp=Z,0.5nm,0.4s						
BVAR	**Borovoye Array**	**64.56**	**328**	P		**P**	**21 59 40.8 -1.0**
	comp=Z,1.9nm,0.6s,baz=31,slow=6.3,SNR=13						
	comp=Z,1.9nm,0.6s						
FINES	**FINESS Array B**	**64.59**	**355**	P		**P**	**21 59 40.4 -1.4**
	comp=Z,8.4nm,1.1s,baz=158,slow=6.0,SNR=6.4						
	comp=Z,8.4nm,1.1s						
NOA	**NORSAR Array B**	**65.08**	**3**	P		**P**	**21 59 44.4 -0.7**
	comp=Z,1.3nm,0.9s,baz=6.2,slow=3.7,SNR=1.7						
	comp=Z,1.3nm,0.9s						
MKAR	**Makanchi Array**	**65.48**	**317**	P		**P**	**21 59 46.4 -1.5**
	comp=Z,0.4nm,0.5s,baz=52,slow=6.8,SNR=6.5						
	comp=Z,0.4nm,0.5s						
HFS	**Hagfors**	**66.06**	**2**	P		**P**	**21 59 50.1 -1.3**
	comp=Z,5.5nm,1.0s,baz=319,slow=4.3,SNR=8.9						
	comp=Z,5.5nm,1.0s						
EKA	**Eskdalemuir Ar**	**69.60**	**12**	P		**P**	**22 00 13.4 -0.3**
	comp=Z,1.1nm,0.6s,baz=332,slow=4.7,SNR=5.1						
	comp=Z,1.1nm,0.6s						
AKASG	**Malin Array Be**	**75.10**	**352**	P		**P**	**22 00 44.9 -1.7**
	comp=Z,1.2nm,0.4s,baz=9.4,slow=5.6,SNR=5.5						
	comp=Z,1.2nm,0.4s						
GERES	**GERESS Array B**	**77.36**	**3**	P		**P**	**22 00 59.5 -0.2**
	comp=Z,0.4nm,0.6s,baz=340,slow=11,SNR=4.5						
	comp=Z,0.4nm,0.6s						
SQTA	**Sankt Quirin**	**78.90**	**4**	*i* P		**P**	**22 01 08.6 +0.4**
	comp=Z,4.6nm,0.8s						
FETA	**Feichten**	**79.08**	**5**	*e*P		**P**	**22 01 09.3 +0.1**
	comp=Z,3.3nm,1.1s						
ABTA	**Abfaltersbach**	**79.42**	**3**	*e*P		**P**	**22 01 10.6 -0.4**
	comp=Z,0.4nm,0.3s						
SOKA	**Soboth**	**79.56**	**2**	*e*P		**P**	**22 01 12.6 +0.8**
	comp=Z,0.4nm,0.3s						
OBKA	**Obir**	**79.72**	**2**	*i* P		**P**	**22 01 13.2 +0.5**
	comp=Z,3.5nm,0.5s						
CMAR	**Chiang Mai Arr**	**80.15**	**288**	P		**P**	**22 01 15.2 -0.1**
	comp=Z,1.0nm,0.3s,baz=25,slow=5.1,SNR=7.1						
	comp=Z,1.0nm,0.3s						

NNC ***19*** *22:03:00.5±7.8, 37.°49N×70.°99E, h0km, mb4.1, mpv3.9, Error ellipse: s-maj=61.5km s-min=49.8km az=169.0*
IDC ***19*** *22:03:04.8±8.3, 37.°39N×71.°28E, h127km±54km, mb3.4/1, mbtmp3.8/7, Error ellipse: s-maj=76.8km s-min=49.1km az=166.0*

ISC 19 22:03:00.7±2.2, 37.°2N±0.°2×71.°1E±0.°1, h100km, n17, σ1§21/21, 4C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
UCH	**Uchtor**	**5.68**	**27**	P		**Pn**	**Pn**	**22 04 23.6**	**+0.7**
	SNR=7.3								
EKS2	**Erkin-Say**	**5.84**	**20**	P			**Pn**	**22 04 26.3**	**+1.5**
	SNR=14								
KK31	**Karatay Array**	**5.91**	**356**	⇓P			**Pn**	**22 04 26.6**	**+0.9**
	6.2nm,0.2s,baz=183,slow=13,SNR=119								
KK31				⇑S			**Sn**	**22 05 32.9**	**+0.8**
	5.2nm,0.5s								
AAK	**Ala-Archa**	**6.03**	**25**	P			**Pn**	**22 04 29.0**	**+1.5**
	11nm,0.3s,baz=208,slow=9.7,SNR=52								
AAK				S			**Sn**	**22 05 34.9**	**-0.4**
	5.0nm,0.5s,baz=116,slow=14,SNR=6.6								
AAK	**Ala-Archa**	**6.03**	**25**	P			**Pn**	**22 04 29.0**	**+1.5**
	SNR=9.0								
AAK	**Ala-Archa**	**6.03**	**25**	⇓P			**Pn**	**22 04 28.5**	**+1.0**
	2.7nm,0.4s								
AAK				⇑S			**Sn**	**22 05 35.1**	**-0.1**
	3.3nm,0.5s								
KBK	**Karagaybulak**	**6.21**	**27**	P			**Pn**	**22 04 31.8**	**+1.9**
	SNR=7.3								
CHMS	**Chumysh**	**6.44**	**25**	P			**Pn**	**22 04 34.0**	**+1.1**
	SNR=14								
USP	**Ospenovka**	**6.60**	**22**	P			**Pn**	**22 04 35.8**	**+0.6**
	SNR=12								
TKM2	**Tokmak 2**	**6.68**	**30**	P			**Pn**	**22 04 37.8**	**+1.4**
	SNR=6.8								
MKAR	**Makanchi Array**	**12.70**	**37**	P			**Pn**	**22 05 56.9**	**-0.6**
	0.8nm,0.6s,baz=226,slow=14,SNR=5.8								
KURBB	**Kurchatov Arra**	**14.44**	**19**	P			**Pn**	**22 06 21.5**	**+1.4**
	0.4nm,0.2s,baz=196,slow=14,SNR=4.2								
AB31	**Akbulak array**	**14.51**	**330**	⇑P			**Pn**	**22 06 19.6**	**-1.3**
	0.7nm,0.5s,baz=137,slow=14,SNR=33								
AB31				⇑S			**Sn**	**22 08 59.6**	**-1.0**
	2.1nm,0.8s,baz=155,slow=23,SNR=4.7								
BVAR	**Borovoye Array**	**15.83**	**358**	P			**Pn**	**22 06 37.0**	**-0.6**
	0.8nm,0.4s,baz=160,slow=12,SNR=7.2								
AKTO	**Aktyubinsk**	**16.21**	**329**	P			**Pn**	**22 06 44.0**	**+1.7**
	2.0nm,0.3s,baz=146,slow=11,SNR=14								
ZALV	**Zalesovo Beam**	**19.26**	**25**	P			**P**	**22 07 16.1**	**-1.0**
	0.6nm,0.3s,baz=217,slow=9.9,SNR=6.4								
YKA	**Yellowknife Ar**	**80.54**	**3**	P			**P**	**22 15 01.7**	**+0.3**
	0.7nm,0.7s,baz=354,slow=5.6,SNR=4.8								
	0.7nm,0.7s								

IDC ***19*** *22:12:45.2±2.7, 52.°99N×165.°24W, h0km, mb3.7/5, mbtmp3.6/6, ML3.0/1, Error ellipse: s-maj=59.6km s-min=33.0km az=39.0*
AEIC ***19*** *22:12:51.8±1.8, 53.°30N±0.°07×165.°10W±0.°09, h37km±7km, Error ellipse: s-maj=9.9km s-min=7.0km az=158.0*
NEIC ***19*** *22:12:52.4±1.2, 53.°28N±0.°02×165.°12W±0.°07, h34km±6km, ML3.6/12, ML3.4(AEIC), Error ellipse: s-maj=6.5km s-min=2.2km az=63.0*

ISC 19 22:12:51.1±2.7, 53.°25N±0.°10×165.°10W±0.°06, h29km±18km, n48, σ0§92/50, mb3.6/5, Fox Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
AHB	**Akutan Harbor**	**0.97**	**334**				**Pn**	**22 13 08.9**	**+0.2**
AHB							**Sb**	**22 13 22.4**	**+0.7**
AKUT	**Akutan**	**0.98**	**336**	Pn			**Pn**	**22 13 08.9**	**+0.1**
AKUT				Sn			**Sb**	**22 13 22.0**	**+0.1**
AKBBA	**Akutan Broad B**	**0.99**	**330**				**Pn**	**22 13 09.0**	**0.0**
AKBBA							**Sb**	**22 13 22.1**	**-0.1**
ZRO	**Akutan Zero**	**0.99**	**329**				**Pn**	**22 13 09.0**	**-0.1**
ZRO							**Sb**	**22 13 23.0**	**+0.5**
UNV	**Unalaska Valle**	**1.03**	**306**				**Pn**	**22 13 09.1**	**-0.4**
UNV						IAML		22 13 26.1	
	comp=N,1μm,0.5s								
UNV	**Unalaska Valle**	**1.03**	**306**				**Sb**	**22 13 23.1**	**-0.3**
AKLV	**Akutan Long Va**	**1.05**	**331**				**Pn**	**22 13 09.7**	**-0.1**
AKLV							**Sb**	**22 13 23.6**	**-0.4**
AKRB	**Akutan Reef Bi**	**1.06**	**327**				**Pn**	**22 13 10.0**	**+0.1**
LVA	**Lava Point**	**1.07**	**329**				**Pn**	**22 13 09.9**	**-0.2**
LVA						IAML		22 13 28.8	
	comp=E,2μm,0.5s								
AKGG	**Akutan Green G**	**1.09**	**331**				**Sb**	**22 13 24.6**	**-0.6**
MNAT	**Makushin Natee**	**1.14**	**305**				**Pn**	**22 13 11.2**	**+0.2**
MNAT							**Sb**	**22 13 26.5**	**-0.1**
MGOD	**Makushin Gods**	**1.19**	**298**				**Pn**	**22 13 12.3**	**+0.5**
MSW	**Makushin Switc**	**1.21**	**304**				**Sb**	**22 13 27.9**	**-0.5**
WESP	**Westdahl Peak**	**1.27**	**10**				**Pn**	**22 13 12.7**	**-0.2**
WECS	**Westdahl Cape**	**1.30**	**8**				**Pn**	**22 13 13.4**	**+0.1**
WECS	**Westdahl Cape**	**1.30**	**8**				**Sn**	**22 13 29.7**	**0.0**
WESN	**West Dahl Nort**	**1.36**	**13**				**Pn**	**22 13 14.7**	**+0.6**
WESN							**Sb**	**22 13 32.6**	**-0.2**
SSLS	**Shishaldin Sou**	**1.60**	**23**				**Pn**	**22 13 17.4**	**-0.2**
WTUG	**Tugumak**	**1.66**	**14**				**Pn**	**22 13 18.2**	**+0.1**
ISLZ	**Isanotski Laza**	**1.69**	**28**				**Pn**	**22 13 18.6**	**-0.1**
ISNN	**Isanotski Nort**	**1.77**	**26**				**Pn**	**22 13 20.2**	**+0.5**
ISNN							**Sn**	**22 13 42.5**	**+1.3**
OKTU	**Okmok Mt. Tuli**	**1.77**	**276**				**Pn**	**22 13 21.5**	**+1.7**
OKNC	**Okmok New Cone**	**1.83**	**278**	Pn			**Pn**	**22 13 21.2**	**+0.7**
DT1	**Dutton Round H**	**2.49**	**40**				**Pn**	**22 13 30.1**	**+0.5**
DTNA	**Dutton South F**	**2.54**	**40**				**Pn**	**22 13 31.1**	**+0.9**
S12K	**Black Hills**	**3.03**	**35**	Pn			**Pn**	**22 13 38.0**	**+1.0**
S12K						IAML		22 14 23.6	
	comp=E,147nm,0.4s								
S12K						IAML		22 14 27.8	
	comp=N,118nm,0.7s								
SDPT	**Sand Point**	**3.43**	**50**	Pn			**Pn**	**22 13 42.9**	**+0.4**
SDPT						IAML		22 14 27.6	
	comp=E,99nm,1.2s								
SDPT						IAML		22 14 36.3	
	comp=N,124nm,0.9s								
O15K	**Ungalikthiuk R**	**6.63**	**24**	Pn			**Pn**	**22 14 26.9**	**+0.5**
N14K	**Kuskokwak Cree**	**6.95**	**14**	Pn			**Pn**	**22 14 32.1**	**+1.3**
P16K	**Nushagak River**	**7.02**	**32**	Pn			**Pn**	**22 14 32.5**	**+0.7**
M13K	**Dall Lake**	**7.25**	**7**	Pn			**Pn**	**22 14 36.7**	**+1.8**
O16K	**Kokwok River B**	**7.45**	**29**	Pn			**Pn**	**22 14 39.0**	**+1.3**
N15K	**Kwethluk River**	**7.46**	**20**	Pn			**Pn**	**22 14 39.7**	**+1.9**
OHAK	**Old Harbor**	**7.84**	**55**	Pn			**Pn**	**22 14 42.3**	**-0.7**
L19K	**White Mountain**	**10.48**	**27**	Pn			**Pn**	**22 15 20.2**	**+0.9**
ILAR	**Eielson Array**	**14.80**	**32**	Pn			**Pn**	**22 16 15.0**	**-3.1**
	comp=N,0.1nm,0.3s,baz=226,slow=12,SNR=1.7								
	comp=N,0.2nm,0.5s								
ILAR						AML	AML		
YKA	**Yellowknife Ar**	**27.70**	**50**	P			**P**	**22 18 35.1**	**-1.1**
	comp=N,0.4nm,0.8s,baz=277,slow=7.4,SNR=1.1								
	comp=N,0.4nm,0.8s								
PDAR	**Pinedale Array**	**37.71**	**83**	P			**P**	**22 20 02.7**	**-1.4**
	comp=N,0.2nm,0.5s,baz=304,slow=9.3,SNR=1.9								
	comp=N,0.2nm,0.5s								
H11N2	**WAKE ISLAND Hy**	**39.82**	**224**	T			T	23 03 11.1	
	baz=26,slow=76,SNR=14								
H11N3	**WAKE ISLAND Hy**	**39.83**	**224**	T			T	23 03 12.0	
	baz=26,slow=76,SNR=13								
H11N1	**WAKE ISLAND Hy**	**39.84**	**224**	T			T	23 03 11.1	
	baz=26,slow=76,SNR=11								
H11S1	**WAKE ISLAND Hy**	**41.00**	**223**	T			T	23 04 42.5	
	baz=25,slow=76,SNR=16								
H11S2	**WAKE ISLAND Hy**	**41.01**	**223**	T			T	23 04 39.3	
	baz=25,slow=76,SNR=15								
H11S3	**WAKE ISLAND Hy**	**41.01**	**223**	T			T	23 04 45.8	
	baz=25,slow=76,SNR=14								
TXAR	**Lajitas Array**	**50.17**	**93**	P			**P**	**22 21 43.7**	**-0.3**
	comp=N,0.5nm,0.7s,baz=305,slow=4.3,SNR=6.7								
	comp=N,0.5nm,0.7s								
TXAR	**Lajitas Array**	**50.17**	**93**	P			**P**	**22 21 45.3**	**+1.3**
FINES	**FINESS Array B**	**65.31**	**354**	P			**P**	**22 23 29.2**	**-0.5**
	comp=N,3.7nm,0.9s,baz=358,slow=7.9,SNR=3.8								
	comp=N,3.7nm,0.9s								
HFS	**Hagfors**	**66.97**	**1**	P			**P**	**22 23 41.5**	**+1.2**
	comp=N,0.7nm,0.3s,baz=349,slow=1.5,SNR=7.6								
	comp=N,0.7nm,0.3s								

SJA ***19*** *22:15:36.4±0.6, 21.°76S×68.°77W, h129km±4km, ML3.8, MW4.0*
NEIC ***19*** *22:15:36.8±1.6, 21.°78S±0.°05×68.°57W±0.°06, h108km±2km, mb4.2/12, ML3.9(GUC), Error ellipse: s-maj=8.7km s-min=7.0km az=79.0*

GUC ***19*** *22:15:36.7±0.8, 21.°72S×68.°72W, h115km±4km, ML3.8, Presumed earthquake*
IDC ***19*** *22:15:37.4±2.5, 21.°71S×68.°42W, h106km±22km, mb3.7/9, mbtmp4.0/13, MS3.2/1, Error ellipse: s-maj=23.7km s-min=17.1km az=83.0*
VAO ***19*** *22:15:40.3±1.4, 21.°70S×68.°13W, h124km±10km, mb4.3, Presumed earthquake*

ISC 19 22:15:36.5±0.6, 21.°72S±0.°03×68.°64W±0.°04, h112km±6km, n111, σ1§89/137, mb4.1/8, 7C-1D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.56**	**262**	*e*P			**Pn**	**22 15 55.2**	**+1.0**
PB09					IAML			22 16 10.4	
	comp=Z,3μm,0.7s								
PB09	**IPOC Station P**	**0.56**	**262**				**Pn**	**22 15 54.9**	**+0.7**
PB09						Sn	**Sn**	**22 16 07.8**	**+0.3**
PB09	**IPOC Station P**	**0.56**	**262**	⇑*i*P			**Pn**	**22 15 55.1**	**+0.9**
PB09				*e*S			**Sn**	**22 16 08.4**	**+0.9**
PB09					IAML			22 16 10.8	
	comp=E,4μm,0.5s								
PB03	**IPOC Station P**	**1.08**	**252**	*e*P			**Pn**	**22 15 59.6**	**+0.6**
PB03				*e*S			**Sn**	**22 16 16.8**	**+1.0**
PB03					IAML			22 16 19.2	
	comp=Z,1μm,0.5s								
PB03	**IPOC Station P**	**1.08**	**252**				**Pn**	**22 15 59.5**	**+0.6**
PB03						Sn	**Sn**	**22 16 16.2**	**+0.5**
PB03	**IPOC Station P**	**1.08**	**252**	⇑*i*P			**Pn**	**22 15 59.5**	**+0.6**
PB03				*e*S			**Sn**	**22 16 16.3**	**+0.5**
PB03					IAML			22 16 17.2	
	comp=N,2μm,0.4s								
PB07	**IPOC Station P**	**1.16**	**269**	*e*P			**Pn**	**22 16 00.4**	**+0.7**
PB07				*e*S			**Sn**	**22 16 18.3**	**+1.1**
PB07					IAML			22 16 19.2	
	comp=Z,2μm,0.4s								
PB07	**IPOC Station P**	**1.16**	**269**				**Pn**	**22 15 60.0**	**+0.3**
PB07						Sn	**Sn**	**22 16 18.0**	**+0.8**
PB07	**IPOC Station P**	**1.16**	**269**	⇑*i*P			**Pn**	**22 16 00.2**	**+0.5**
PB07				*e*S			**Sn**	**22 16 17.5**	**+0.3**
PB07					IAML			22 16 18.9	
	comp=N,3μm,0.3s								
PB02	**IPOC Station P**	**1.23**	**288**	*e*P			**Pn**	**22 16 01.3**	**+0.8**
PB02				*e*S			**Sn**	**22 16 19.8**	**+1.2**
PB02	**IPOC Station P**	**1.23**	**288**				**Pn**	**22 16 01.1**	**+0.6**
PB02						Sn	**Sn**	**22 16 19.9**	**+1.2**
PB02	**IPOC Station P**	**1.23**	**288**	⇑*i*P			**Pn**	**22 16 01.1**	**+0.6**
PB02				*e*S			**Sn**	**22 16 18.5**	**0.0**
PB02					IAML			22 16 21.1	
	comp=N,3μm,0.4s								
AF01	**San Pedro de A**	**1.30**	**161**	*e*P			**Pn**	**22 16 01.9**	**+0.5**
AF01				*e*S			Sn	22 16 06.4	-14
AF01					IAML			22 16 39.6	
	comp=Z,946nm,0.9s								
AF01	**San Pedro de A**	**1.30**	**161**				**Pn**	**22 16 01.8**	**+0.4**
PB06	**IPOC Station P**	**1.31**	**221**	*e*P			**Pn**	**22 16 02.2**	**+0.8**
PB06				*e*S			**Sn**	**22 16 21.8**	**+1.6**
PB06					IAML			22 16 28.0	
	comp=Z,626nm,0.6s								
PB06	**IPOC Station P**	**1.31**	**221**

BBSD	**Serra de San D**	**8.81**	**61**	*eP*		**Pn**	22 17 38.3	-2.8
SIV	**San Ignacio**	**9.15**	**53**	P		**Pn**	22 17 43.2	-2.5
	comp=Z,20nm,0.7s,baz=240,slow=12,SNR=75							
SIV				S		**Sn**	22 19 19.1	-7.8
	comp=Z,1.8nm,0.5s,baz=146,slow=22,SNR=1.6							
MURT	**Porto Murtinho**	**10.26**	**92**	*eP*		**Pn**	22 17 57.9	-2.7
COIM	**Forte Coimbra**	**10.31**	**82**	*eP*		**Pn**	22 17 57.5	-3.8
PTLB	**Pontes e Lacer**	**10.95**	**57**	*eP*		**Pn**	22 18 07.1	-2.9
BDQN	**Bodoquena, MS**	**11.17**	**86**	*eP*		**Pn**	22 18 10.2	-2.8
CPUP	**Villa Florida**	**11.31**	**116**	P		**Pn**	22 18 13.6	-1.2
	comp=Z,1.2nm,0.6s,baz=345,slow=20,SNR=4.1							
CPUP	**Villa Florida**	**11.31**	**116**			**Pn**	22 18 12.7	-2.1
MT02	**Curacav**	**11.71**	**190**	Pn		**Pn**	22 18 18.7	-1.3
VILB	**Vilhena**	**11.87**	**44**	Pn		**Pn**	22 18 21.3	-0.9
VILB	**Vilhena**	**11.87**	**44**	*eP*		**Pn**	22 18 21.4	-0.9
AQDB	**Aquidauana**	**12.14**	**87**	*eP*		**Pn**	22 18 23.1	-2.7
SALV	**Santo Antonio**	**13.55**	**67**	*eP*		**Pn**	22 18 42.6	-1.7
PP1B	**Ponte de Pedra**	**13.59**	**75**	*eP*		**Pn**	22 18 42.9	-1.9
PDRB	**Porto dos Gac**	**15.19**	**50**	*eP*		**Pn**	22 19 04.4	-0.8
ITAB	**Concordia**	**16.00**	**113**			**P**	22 19 15.1	-1.3
ITAB				IAmb		IAmb	22 19 17.5	
	comp=Z,17nm,1.3s							
CPSB	**Cacapava Do Su**	**16.16**	**125**			**P**	22 19 17.9	-0.3
CPSB				IAmb		IAmb	22 19 19.1	
	comp=Z,17nm,1.1s							
CPSB	**Cacapava Do Su**	**16.16**	**125**	*eP*		**Pn**	22 19 15.3	-1.8
PCMB	**Pacaembu**	**16.16**	**93**	*eP*		**Pn**	22 19 14.9	-2.4
LDASE	**Londrina, Braz**	**16.27**	**99**	*eP*		**Pn**	22 19 16.2	-2.4
CLDB	**Colider**	**16.36**	**51**	*eP*		**Pn**	22 19 18.3	-1.5
PLCA	**Paso Flores**	**19.03**	**184**	P		**P**	22 19 50.0	+0.2
	comp=Z,0.8nm,0.6s,baz=13,slow=11,SNR=7.7							
PLCA	**Paso Flores**	**19.03**	**184**	P		**P**	22 19 49.4	-0.3
PLCA				IAmb		IAmb	22 19 56.6	
	comp=Z,2.6nm,0.8s							
SNDB	**Serra Nova Dou**	**19.20**	**62**	*eP*		**P**	22 19 50.9	-0.9
NPGB	**Novo Progresso**	**19.43**	**43**	*eP*		**P**	22 19 52.4	-1.8
BDFB	**Brasilia**	**20.44**		P		**P**	22 20 04.1	-1.2
	comp=Z,1.3nm,0.3s,baz=247,slow=14,SNR=3.1							
	comp=Z,1.3nm,0.3s							
BDFB	**Brasilia**	**20.44**	**76**	IAmb		IAmb	22 20 10.4	
	comp=Z,17nm,1.4s							
ITTB	**Itaituba**	**21.31**	**38**	*eP*		**P**	22 20 13.2	-1.3
SMTB	**Santa Maria do**	**23.95**	**61**	P		**P**	22 20 40.0	-0.6
SMTB				IAmb		IAmb	22 20 42.6	
	comp=Z,6.2nm,0.8s							
BOAV	**Boa Vista**	**25.25**	**19**	P		**P**	22 20 52.7	+0.4
SDV	**Santo Domingo**	**30.48**	**356**	LR		LR	22 34 29.0	
	comp=Z,43nm,18.1s,baz=73,slow=37							
RCBR	**Riachuelo**	**35.38**	**68**	P		**P**	22 22 21.3	-0.5
TXAR	**Lajitas Array**	**60.95**	**325**	P		**P**	22 25 38.5	+0.5
	comp=Z,0.3nm,0.6s,baz=124,slow=6.0,SNR=2.4							
	comp=Z,0.3nm,0.6s							
LENM	**Lemitar**	**66.48**	**326**	P		**P**	22 26 15.5	+1.1
QSPA	**South Pole Qui**	**68.47**	**180**	P		**P**	22 26 28.6	+2.1
	comp=Z,2.2nm,0.5s,baz=261,slow=0.3,SNR=17							
	comp=Z,2.2nm,0.5s							
QSPA	**South Pole Qui**	**68.47**	**180**	P		**P**	22 26 28.5	+2.0
QSPA				IAmb		IAmb	22 26 29.6	
	comp=Z,8.3nm,1.3s							
DBIC	**Dimbokro**	**68.56**	**73**	P		**P**	22 26 28.0	+0.4
	comp=Z,3.5nm,0.7s,baz=251,slow=5.7,SNR=4.1							
	comp=Z,3.5nm,0.7s							
DBIC	**Dimbokro**	**68.56**	**73**	P		**P**	22 26 28.0	+0.4
DBIC				IAmb		IAmb	22 26 28.8	
	comp=Z,5.2nm,0.9s							
PDAR	**Pinedale Array**	**74.42**	**330**	P		**P**	22 27 04.8	+2.2
	comp=Z,0.3nm,0.6s,baz=111,slow=3.4,SNR=2.2							
	comp=Z,0.3nm,0.6s							
PDAR	**Pinedale Array**	**74.42**	**330**	P		**P**	22 27 02.8	+0.2
TORD	**Torodi Ar. Bea**	**77.19**	**70**	P		**P**	22 27 18.9	+0.3
	comp=Z,0.7nm,0.4s,baz=250,slow=5.9,SNR=7.3							
	comp=Z,0.7nm,0.4s							
BOSA	**Boshof**	**83.12**	**118**	P		**P**	22 27 50.8	+0.2
	comp=Z,2.0nm,0.8s,baz=325,slow=9.3,SNR=3.2							
	comp=Z,2.0nm,0.8s							
BOSA	**Boshof**	**83.12**	**118**	P		**P**	22 27 50.1	-0.5
MAW	**Mawson**	**84.05**	**163**	P		**P**	22 27 55.4	+1.1
	comp=Z,1.9nm,0.6s,baz=300,slow=13,SNR=2.7							
	comp=Z,1.9nm,0.6s							
YKA	**Yellowknife Ar**	**91.47**	**340**	P		**P**	22 28 31.4	+1.6
	comp=Z,0.9nm,0.7s,baz=136,slow=4.3,SNR=6.9							
	comp=Z,0.9nm,0.7s							
YKAW3	**Yellowknife Wh**	**91.53**	**341**	P		**P**	22 28 30.7	+0.7
ASAR	**Alice Springs**	**129.84**	**207**	PKP		**PKiKP**	22 34 35.0	+0.7
	comp=Z,0.4nm,0.4s,baz=111,slow=1.5,SNR=4.6							
WRA	**Warramunga Arr**	**132.89**	**210**	PKP		**PKiKP**	22 34 41.2	+0.6
	comp=Z,0.7nm,0.6s,baz=160,slow=1.9,SNR=11							
KURBB	**Kurchatov Arra**	**141.38**	**34**	PKP		**PKiKP**	22 34 56.3	-0.6
	comp=Z,0.3nm,0.6s,baz=316,slow=2.6,SNR=3.6							
ZALV	**Zalesovo Beam**	**142.04**	**25**	PKP		**PKiKP**	22 34 57.1	-1.0
	comp=Z,0.6nm,0.5s,baz=297,slow=6.5,SNR=3.7							
MKAR	**Makanchi Array**	**145.66**	**36**	PKPbc		**PKPab**	22 35 03.4	+0.6
	comp=Z,0.4nm,0.5s,baz=321,slow=3.6,SNR=9.5							
SONM	**Songino Array**	**153.64**	**8**	PKPbc		**PKiKP**	22 35 23.4	+1.0
	comp=Z,0.3nm,0.6s,baz=345,slow=5.1,SNR=1.5							

*IDC **19** 22:44:10.4±4.5, 10˚.36S×114˚.72E, h0km, mb3.4/4, mbtmp3.5/4, Error ellipse: s-maj=272.0km s-min=22.8km az=46.0*
*DJA **19** 22:44:16.4±0.5, 10˚.5S±6˚×11˚5E±˚, h10km, M4.3/20, mB5.8/2, mb4.6/2, MLv4.1/20, Mw(mB)5.3/2*
ISC 19 22:44:16.7±1.1, 10˚.1S±0˚.1×115˚.23E±0.07, h35km, n18, σ2°08/19, mb3.7/3, South of Bali

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGBI	**Denpasar**	**1.30**	**356**	P	**Pn**	**22 44 38.6**	**+0.2**
IGBI				AML	AML		
RTBI	**Rangdo, Negare**	**1.68**	**350**	P	**Pn**	**22 44 44.3**	**+0.7**
RTBI				AML	AML		
KHKI	**Kahang-Kahang**	**1.79**	**12**	P	**Pn**	**22 44 47.0**	**+1.9**
JAGI	**Jajag, Banyuwa**	**1.96**	**327**	P	**Pn**	**22 44 47.8**	**+0.4**
JAGI				AML	AML		
SRBI	**Singaraja**	**2.02**	**360**	P	**Pn**	**22 44 49.9**	**+1.5**
SRBI				AML	AML		
ABJI	**Asem Bagus**	**2.51**	**337**	P	**Pn**	**22 44 56.5**	**+1.4**
PLAI	**Plampang**	**2.82**	**63**	P	**Pn**	**22 45 01.0**	**+1.6**
PLAI				AML	AML		
BLJI	**Banyuglugur**	**2.86**	**326**	P	**Pn**	**22 45 01.2**	**+1.3**
BLJI				AML	AML		
PWJI	**Pagerwojo**	**3.97**	**301**	P	**Pn**	**22 45 16.6**	**+1.4**
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**4.14**	**304**	P	**Pn**	**22 45 20.4**	**+2.7**
SNJI				AML	AML		
SJI	**Sawahan**	**4.16**	**304**	P	**Pn**	**22 45 19.4**	**+1.5**
SJI				AML	AML		
LBFI	**Labuhan Bajo,**	**4.88**	**71**	P	**Pn**	**22 45 29.7**	**+2.0**
WSI	**Waingapu**	**5.01**	**85**	P	**Pn**	**22 45 31.8**	**+2.3**
	5μm43nm,0.6s						
SMRI	**Semarang**	**5.63**	**302**	P	**Pn**	**22 45 39.6**	**+1.5**
	0.4nm44nm,0.9s						
SMRI				AML	AML		
WRA	**Warramunga Arr**	**20.86**	**120**	P	**P**	**22 48 57.2**	**+1.4**
	0.8nm,0.8s,baz=294,slow=12,SNR=8.2						
WRA				S	**S**	**22 52 41.6**	**-5.1**
	0.2nm,0.6s,baz=292,slow=22,SNR=1.6						
	0.8nm,0.8s						
ASAR	**Alice Springs**	**22.34**	**129**	P	**P**	**22 49 13.3**	**+1.6**
	0.2nm,0.4s,baz=301,slow=10.0,SNR=2.2						
	0.2nm,0.4s						
CMAR	**Chiang Mai Arr**	**32.63**	**330**	P	**P**	**22 50 44.6**	**-0.9**
	0.9nm,0.4s,baz=156,slow=8.7,SNR=7.7						
	0.9nm,0.4s						
MKAR	**Makanchi Array**	**63.84**	**335**	P	**P**	**22 54 44.2**	**-1.4**
	0.2nm,0.3s,baz=147,slow=6.6,SNR=7.1						
	0.2nm,0.3s						

NNC 19 23:10:56.7±2.4, 44˚.10N×86˚.98E, h2km±10km, mb3.7, mpv3.4, 4C-5D, Error ellipse: s-maj=18.2km s-min=11.8km az=96.0, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZSN	**Zaisan**	**3.66**	**337**	Pg	Pg	23 12 06.9	0.0
	5.1nm,0.3s						
ZSN				Lg	Lg	23 12 53.7	
	16nm,0.3s						
MK31	**Makanchi Array**	**4.26**	**311**	⇓Pn	Pn	23 12 02.6	+0.1
	0.5nm,0.3s,baz=126,slow=13,SNR=84						
MK31				⇑Sn	Sn	23 12 54.1	+1.2
	0.7nm,0.2s,baz=344,slow=48,SNR=5.8						
MK31				⇓Lg	Lg	23 13 11.9	
	1.8nm,0.3s,baz=122,slow=29,SNR=3.8						
MAKZ	**Makanchi**	**4.44**	**309**	⇑Pn	Pn	23 12 04.9	-0.1
	2.4nm,0.3s						
MAKZ				⇑Sn	Sn	23 12 58.7	+1.3
	3.8nm,0.5s						
MAKZ				⇓Lg	Lg	23 13 20.5	
	9.5nm,0.8s						
DJR	**Jarkent**	**5.17**	**275**	Pg	Pn	23 12 19.8	+4.6
	1.4nm,0.2s						
DJR				Lg	Lg	23 13 15.9	
	2.8nm,0.4s						
PDGK	**Podgornoye**	**5.49**	**265**	⇓Pn	Pn	23 12 19.6	+0.1
	7.1nm,1.5s						
PDGK				⇓Sn	Sn	23 13 23.8	+0.6
	4.5nm,0.5s						
PDGK				⇑Lg	Lg	23 13 51.0	
	7.4nm,0.6s						
SHLS	**Shalkode**	**5.54**	**263**	Pg	Pn	23 12 22.3	+2.1
	2.8nm,0.2s						
SHLS				Lg	Lg	23 13 19.9	
	8.4nm,0.4s						
KAPS	**Kapalarasan**	**5.56**	**285**	Pg	Pn	23 12 26.3	+5.8
	1.6nm,0.1s						
KAPS				Lg	Lg	23 13 26.6	
	17nm,0.3s						
KNOS	**Konyrlen**	**5.61**	**275**	Pg	Pn	23 12 28.0	+6.7
	0.5nm,0.6s						
KNOS				Lg	Lg	23 13 29.9	
	2.1nm,0.4s						
UZB	**Uzynbulak**	**5.86**	**263**	Pg	Pn	23 12 32.1	+7.5
	4.6nm,0.3s						
UZB				Lg	Lg	23 13 36.9	
	4.0nm,0.4s						
KPKS	**Kokpek**	**6.04**	**267**	Pg	Pn	23 12 33.0	+5.9
	0.6nm,0.4s						
KPKS				Lg	Lg	23 13 37.8	
	13nm,0.3s						

*IDC **19** 23:12:29.3±4.0, 3˚.65S×101˚.17E, h0km, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=167.1km s-min=26.4km az=51.0*
*DJA **19** 23:12:38.9±0.6, 3˚.5S±5˚×10˚2E±˚, h32km±7km, M3.9/20, MLv3.9/20*
ISC 19 23:12:37.8±1.3, 3˚.4S±0˚.1×101˚.6E±0˚.2, h50km, n17, σ0°91/11, mb4.2/5, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MASI	**Maura Aman, Be**	**0.74**	**68**	P	**Pn**	**23 12 52.8**	**+0.6**
MASI				AML	AML		
UBSI	**University, Be**	**0.79**	**115**	P	**Pn**	**23 12 54.2**	**+1.4**
UBSI				AML	AML		
KSI	**Kapahiang**	**1.06**	**102**	P	**Pn**	**23 12 56.7**	**+0.2**
KSI				AML	AML		
KRJI	**Kerinci**	**1.33**	**356**	P	**Pn**	**23 13 01.0**	**+0.9**
KRJI				AML	AML		
MNAI	**Manna**	**1.68**	**124**	P	**Pn**	**23 13 05.4**	**+0.6**
MNAI				AML	AML		
PPI	**Padang Panjang**	**3.17**	**339**	P	**Pn**	**23 13 26.1**	**+0.9**
WRA	**Warramunga Arr**	**35.94**	**120**	P	**P**	**23 19 33.8**	**-0.2**
	0.2nm,0.6s,baz=294,slow=8.1,SNR=8.2						
	0.2nm,0.6s						
SONM	**Songino Array**	**51.22**	**4**	P	**P**	**23 21 36.5**	**0.0**
	0.4nm,0.5s,baz=178,slow=6.5,SNR=2.5						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**52.82**	**343**	P	**P**	**23 21 47.6**	**-0.6**
	1.4nm,0.6s,baz=147,slow=9.0,SNR=19						
	1.4nm,0.6s						
KURBB	**Kurchatov Arra**	**57.35**	**343**	P	**P**	**23 22 20.5**	**-0.3**
	0.8nm,0.3s,baz=157,slow=6.7,SNR=4.7						
	0.8nm,0.3s						
ZALV	**Zalesovo Beam**	**58.85**	**349**	P	**P**	**23 22 29.9**	**-1.3**
	1.3nm,0.3s,baz=162,slow=6.1,SNR=9.7						
	1.3nm,0.3s						
H04N2	**CROZET ISLANDS**	**60.60**	**218**	T	T	00 27 52.3	
	baz=60,slow=76,SNR=12						
H04N1	**CROZET ISLANDS**	**60.61**	**218**	T	T	00 27 52.8	
	baz=60,slow=76,SNR=8.9						
H04N3	**CROZET ISLANDS**	**60.62**	**218**	T	T	00 27 51.3	
	baz=60,slow=76,SNR=12						
H04S1	**CROZET ISLANDS**	**60.86**	**217**	T	T	00 28 06.8	
	baz=60						
H04S3	**CROZET ISLANDS**	**60.88**	**217**	T	T	00 28 08.6	
	baz=60						
H04S2	**CROZET ISLANDS**	**60.88**	**217**	T	T	00 28 06.8	
	baz=60						

IDC 19 23:24:16.3±3.4, 27˚.50S×66˚.41E, h0km, mb3.8/3, mbtmp3.8/3, Error ellipse: s-maj=106.4km s-min=53.8km az=47.0, Indian Ocean Triple Junction

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04N2	**CROZET ISLANDS**	**21.93**	**208**	T	T	23 51 23.4	
	baz=36,slow=74,SNR=136						
H04N1	**CROZET ISLANDS**	**21.93**	**208**	T	T	23 51 30.6	
	baz=36,slow=74,SNR=253						
H04N3	**CROZET ISLANDS**	**21.95**	**208**	T	T	23 51 20.6	
	baz=36,slow=74,SNR=362						
CMAR	**Chiang Mai Arr**	**55.51**	**38**	P	P	23 33 52.9	-0.4
	0.6nm,0.3s,baz=219,slow=7.4,SNR=1.7						
	0.6nm,0.3s						
ASAR	**Alice Springs**	**60.33**	**103**	P	P	23 34 27.5	+0.1
	0.1nm,0.3s,baz=248,slow=7.3,SNR=2.3						
	0.1nm,0.3s						
ZALV	**Zalesovo Beam**	**82.66**	**11**	P	P	23 36 41.9	+0.7
	0.5nm,0.6s,baz=180,slow=2.9,SNR=3.7						
	0.5nm,0.6s						
YKA	**Yellowknife Ar**	**145.00**	**1**	PKPbc	PKPbc	23 43 52.8	-1.4
	0.5nm,0.5s,baz=344,slow=3.4,SNR=7.5						

*THE **19** 23:59:19.9, 38˚N±1˚×26˚.9E±0˚.6, h13km±1km, M3.0/8, MLh3.0/8*
*AFAD **19** 23:59:19.7, 37˚.88N×26˚.88E, h7km±2km, ML2.7*
*ISK **19** 23:59:20.1, 37˚.87N×26˚.91E, h5km, ML2.7/30*
*ATH **19** 23:59:20.1, 37˚.84N×26˚.88E, h9km±1km, ML3.0/9, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 19 23:59:20.0±0.8, 37˚.87N±0˚.02×26˚.89E±0˚.02, h9km±7km, n55, σ0°56/76, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.16**	**195**	P	**Pg**	**23 59 23.5**	**0.0**
SMG				S	**Sg**	**23 59 26.1**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.16**	**195**	P	**Pg**	**23 59 23.4**	**0.0**
SMG				S	**Sg**	**23 59 26.1**	**+0.3**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.16**	**244**	P	**Pg**	**23 59 23.6**	**+0.2**
KRL1				S	**Sg**	**23 59 25.7**	**-0.1**
KRL1				AML	AML		
DGB	**zmir**	**0.19**	**358**	P	**Pg**	**23 59 23.7**	**-0.2**
DGB				IAML		23 59 26.0	
	comp=E,2μm,0.2s						
DGB				S	**Sg**	**23 59 26.4**	**-0.1**
DGB				IAML		23 59 27.0	
	comp=N,1μm,0.1s						
GMLD	**Gumuldur**	**0.21**	**5**	Pg	**Pg**	**23 59 24.2**	**-0.1**
GMLD				Sg	**Sg**	**23 59 27.6**	**+0.4**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.25**	**244**	P	**Pg**	**23 59 24.8**	**-0.2**
SAM2				S	**Sg**	**23 59 28.1**	**-0.2**
SAM2				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.31**	**91**	Pg	**Pg**	**23 59 26.3**	**+0.1**
KUSD				Sg	**Sg**	**23 59 30.9**	**+0.5**
KUSD				AML	AML		
BEYE	**izmir**	**0.36**	**4**	P	**Pg**	**23 59 27.0**	**-0.1**
BEYE				S	**Sg**	**23 59 32.0**	**0.0**
BEYE				IAML		23 59 33.0	
	comp=N,829nm,0.5s						
BEYE				IAML		23 59 34.0	
	comp=E,917nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**321**	P	**Pg**	**23 59 29.1**	**-0.3**
ZEYE				IAML		23 59 36.0	
	comp=E,900nm,0.5s						
ZEYE				S	**Sg**	**23 59 36.0**	**+0.3**
DDIM	**Aydin, Didim**	**0.49**	**146**	P	**Pg**	**23 59 29.7**	**+0.1**
DDIM				IAML		23 59 37.0	
	comp=N,438nm,0.3s						
DDIM				IAML		23 59 37.0	
	comp=E,472nm,0.3s						
DDIM				S	**Sg**	**23 59 37.2**	**+1.2**
BLCB	**Balcova**	**0.53**	**13**	Pg	**Pg**	**23 59 30.9**	**+0.6**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**51**	P	**Pg**	**23 59 30.6**	**-0.3**
DUVT				S	**Sg**	**23 59 37.2**	**-1.1**
DUVT				IAML		23 59 39.0	
	comp=E,635nm,0.2s						
KRBN	**Karaburun**	**0.77**	**340**	Pg	**Pb**	**23 59 35.7**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.79**	**358**	P	**Pg**	**23 59 35.1**	**-0.1**
BAGT				S	**Sg**	**23 59 45.6**	**+0.1**
BAGT				IAML		23 59 49.0	
	comp=N,353nm,0.3s						
BAGT				IAML		23 59 49.0	
	comp=E,549nm,0.9s						
AYDB	**Zeytinkoy-Aydi**	**0.79**	**84**	Pg	**Pb**	**23 59 35.7**	**-0.4**
AYDB				Sg	**Sb**	**23 59 46.9**	**-0.1**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**157**	Pg	**Pg**	**23 59 35.9**	**+0.5**
YKAV				AML	AML		
CHOS	**Chios island**	**0.84**	**309**	P	**Pg**	**23 59 36.5**	**+0.3**
CHOS				S	**Sb**	**23 59 48.4**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**309**	Pg	**Pb**	**23 59 37.4**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**309**	P	**Pb**	**23 59 36.7**	**-0.1**
CHOS				S	**Sb**	**23 59 48.2**	**-0.1**
FOCM	**Foa**	**0.86**	**352**	Pg	**Pb**	**23 59 37.2**	**+0.2**
FOCM				AML	AML		
BODT	**Bodrum**	**0.87**	**157**	P	**Pg**	**23 59 35.8**	**-0.9**
BODT				S	**Sb**	**23 59 48.8**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**157**	Pg	**Pb**	**23 59 37.2**	**-0.1**
BODT				Sg	**Sb**	**23 59 49.6**	**+0.6**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**335**	P	**Pb**	**23 59 38.0**	**+0.5**
KARB				S	**Sg**	**23 59 48.6**	**+0.1**
KARB				IAML		23 59 51.0	
	comp=E,353nm,0.5s						
KARB				IAML		23 59 52.0	
	comp=N,189nm,0.5s						
MLSB	**Milas**	**0.91**	**129**	Pg	**Pg**	**23 59 37.7**	**+0.3**
MLSB				Sg	**Sb**	**23 59 49.9**	**-0.2**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.91**	**176**	P	**Pg**	**23 59 37.3**	**-0.1**
KLNA				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**153**	Pg	**Pb**	**23 59 38.7**	**+0.3**
CAMT	**Merkez**	**0.94**	**20**	P	**Pg**	**23 59 38.2**	**+0.1**
CAMT				S	**Sg**	**23 59 50.5**	**+0.1**
CAMT				IAML		23 59 53.0	
	comp=N,588nm,0.3s						
CAMT				IAML		23 59 55.0	
	comp=E,574nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.11**	**84**	Pn	**Pg**	**23 59 40.8**	**-0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.17**	**44**	Pn	**Pn**	**23 59 42.4**	**-0.1**
GOMA				AML	AML		
DKL	**Dikili**	**1.20**	**1**	Pn	**Pg**	**23 59 43.3**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.20**	**1**	P	**Pg**	**23 59 43.7**	**+0.6**
AKS	**Akhisar**	**1.24**	**35**	Pn	**Pg**	**23 59 43.9**	**0.0**
AKS				AML	AML		
DAT	**Datca**	**1.26**	**154**	Pn	**Pg**	**23 59 44.3**	**+0.1**
DAT				AML	AML		
YER	**Yerkesik**	**1.32**	**123**	Pn	**Pg**	**23 59 45.7**	**+0.3**
YER				AML	AML		
APE	**Apeiranthos**	**1.34**	**234**	P	**Pn**	**23 59 43.5**	**-1.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.34**	**234**	Pn	**Pg**	**23 59 46.3**	**+0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.34**	**234**	P	**Pn**	**23 59 43.8**	**-1.2**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**21**	Pn	**Pg**	**23 59 46.6**	**0.0**
SOMA				AML	AML		
TNSA	**Tinos**	**1.41**	**257**	P	**Pn**	**23 59 45.9**	**+0.1**
TNSA				AML	AML		
GORD	**Gordes-Manisa**	**1.45**	**44**	Pn	**Pg**	**23 59 47.5**	**-0.3**
GORD				AML	AML		
PRK	**Paraskevi**	**1.46**	**341**	P	**Pn**	**23 59 46.5**	**-0.1**
PRK				S	**Sn**	**00 00 05.7**	**-0.1**
PRK	**Paraskevi**	**1.46**	**341**	P	**Pb**	**23 59 47.2**	**-0.2**
PRK				AML	AML		
TURN	**Turunc**	**1.53**	**135**	Pn	**Pb**	**23 59 48.2**	**-0.4**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.54**	**65**	Pn	**Pb**	**23 59 48.3**	**-0.4**
KULA				AML	AML		
YAYO	**Edremit-Balk**	**1.75**	**5**	Pn	**Pb**	**23 59 51.7**	**-0.6**
YAYO				AML	AML		
DALY	**Dalyan (Mula)**	**1.75**	**126**	Pn	**Pb**	**23 59 51.5**	**-0.8**
DALY				AML	AML		
ARG	**Arkhangelos**	**1.92**	**149**	P	**Pn**	**23 59 53.0**	**+0.2**
ARG				AML	AML		
BALB	**Balikesir**	**1.93**	**23**	Pn	**Pb**	**23 59 54.8**	**-0.6**
BALB				AML	AML		
APMY	**Acipayam-Deniz**	**1.95**	**101**	Pn	**Pb**	**23 59 54.7**	**-1.1**
APMY				AML	AML		
EZN	**Ezine**	**2.01**	**347**	Pn	**Pb**	**23 59 56.1**	**-0.6**
EZN				AML	AML		
SIMA	**Simav-Kutahya**	**2.04**	**53**	Pn	**Pn**	**23 59 55.9**	**+1.2**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.13**	**115**	Pn	**Pn**	**23 59 56.9**	**+1.0**
CAME				AML	AML		
CANM	**Can-anakkale**	**2.15**	**3**	Pn	**Pb**	**23 59 57.7**	**-1.4**
CANM				AML	AML		
SUSR	**Susurluk-Balik**	**2.29**	**24**	Pn	**Pn**	**23 59 59.7**	**+1.7**
SUSR				AML	AML		
DION	**Dionisos Attik**	**2.35**	**276**	P	**Pn**	**23 59 58.9**	**0.0**
DION				AML	AML		

*IDC **20** 00:01:29.9±4.2, 22˚.67N×143˚.83E, h113km±34km, mb3.3/6, mbtmp3.7/7, MS2.4/1, Error ellip

EALB	**Alboran**	**0.67**	**46**	P	**Pb**	**00 02 41.9**	**+0.5**
EALB				S	**Sb**	**00 02 51.6**	**+1.3**
EALB				IVmb_Lg		00 02 53.1	
AKLM	**AKL**	**0.98**	**191**	P	**Pn**	**00 02 48.8**	**+1.6**
AKLM				S	**Sn**	**00 03 05.1**	**+4.4**
ELGU	**Los Guajares,**	**1.39**	**0**	P	**Pn**	**00 02 52.6**	**-0.2**
ELGU				S	**Sn**	**00 03 11.0**	**+0.2**
ELGU	**Los Guajares,**	**1.39**	**0**	P	**Pn**	**00 02 52.9**	**+0.1**
ELGU				S	**Sn**	**00 03 09.3**	**-1.5**
ELGU				IVmb_Lg		00 03 12.6	
EMIJ	**Mijas**	**1.43**	**320**	P	**Pn**	**00 02 53.0**	**-0.3**
EMIJ				S	**Sn**	**00 03 11.2**	**-0.5**
EMIJ	**Mijas**	**1.43**	**320**	P	**Pn**	**00 02 53.2**	**-0.2**
EMIJ				IVmb_Lg		00 03 16.5	
JBK	**JBK**	**1.43**	**142**	P	**Pg**	**00 02 55.5**	**-0.4**
JBK				S	**Sg**	**00 03 16.1**	**+1.5**
EMAL	**Malaga-Limoner**	**1.44**	**333**	P	**Pn**	**00 02 53.0**	**-0.4**
EMAL				S	**Sn**	**00 03 11.9**	**+0.1**
SMIR	**Smir Dam**	**1.44**	**279**	P	**Pn**	**00 02 52.4**	**-1.0**
SMIR				S	**Sn**	**00 03 11.2**	**-0.8**
ECEU	**Ceuta**	**1.48**	**287**	S	**Sn**	**00 03 11.8**	**-1.2**
EBER	**Berja**	**1.54**	**23**	P	**Pb**	**00 02 56.0**	**-0.3**
EBER				S	**Sn**	**00 03 14.9**	**+0.3**
EBER	**Berja**	**1.54**	**23**	P	**Pn**	**00 02 55.0**	**0.0**
EBER				S	**Sn**	**00 03 12.1**	**-2.5**
EBER				IVmb_Lg		00 03 18.7	
EGOR	**Sierra Gorda,**	**1.68**	**347**	S	**Sb**	**00 03 20.2**	**+0.6**
EGOR	**Sierra Gorda,**	**1.68**	**347**	S	**Sn**	**00 03 16.1**	**-1.9**
EGOR				IVmb_Lg		00 03 21.3	
EQUE	**Quentar**	**1.73**	**5**	P	**Pn**	**00 02 56.7**	**-0.9**
EQUE				S	**Sn**	**00 03 18.0**	**-1.3**
EQUE				IVmb_Lg		00 03 25.6	
EQTA	**Presa de Quent**	**1.73**	**5**	P	**Pn**	**00 02 58.0**	**+0.4**
EQTA				S	**Sn**	**00 03 19.5**	**+0.1**
ESPR	**Espera**	**2.28**	**308**	S	**Sn**	**00 03 31.0**	**-1.5**
ESPR				IVmb_Lg		00 03 40.7	
EQES	**Quesada**	**2.37**	**11**	P	**Pn**	**00 03 06.8**	**+0.5**
EQES				S	**Sn**	**00 03 34.9**	**0.0**
EQES				IVmb_Lg		00 03 40.8	
MD31	**MD31**	**2.77**	**200**	P	**Pb**	**00 03 15.4**	**-1.8**
MD31				S	**Sb**	**00 03 51.2**	**+0.5**
MDT	**Midelt**	**2.78**	**197**	P	**Pb**	**00 03 15.8**	**-1.5**
MDT				S	**Sb**	**00 03 51.9**	**+0.9**
EADA	**Adamuz**	**2.79**	**344**	P	**Pn**	**00 03 13.2**	**+1.1**
EADA				S	**Sn**	**00 03 46.3**	**+0.9**
EADA	**Adamuz**	**2.79**	**344**	P	**Pn**	**00 03 10.7**	**-1.3**
EADA				S	**Sn**	**00 03 44.6**	**-0.7**
EADA				IVmb_Lg		00 03 53.1	
ECAB	**El Cabril**	**2.97**	**332**	P	**Pn**	**00 03 14.6**	**+0.2**
ECAB				S	**Sn**	**00 03 50.8**	**+1.2**
EMUR	**La Murta**	**3.04**	**38**	S	**Sn**	**00 03 51.7**	**+0.1**
PSIM	**Granatula de C**	**3.34**	**358**	S	**Sn**	**00 03 58.5**	**-0.3**
EMIN	**Mina Concepcio**	**3.35**	**314**	P	**Pn**	**00 03 20.4**	**+0.7**
EMIN	**Mina Concepcio**	**3.35**	**314**	P	**Pn**	**00 03 19.9**	**+0.2**
EMIN				S	**Sn**	**00 03 57.8**	**-1.2**
ETOB	**Tobarra**	**3.57**	**27**	P	**Pn**	**00 03 24.7**	**+1.8**
ETOB				S	**Sn**	**00 04 05.6**	**+0.9**
EGRO	**El Granado**	**3.72**	**305**	P	**Pn**	**00 03 24.7**	**-0.1**
EGRO				S	**Sn**	**00 04 07.7**	**-0.5**
EGRO	**El Granado**	**3.72**	**305**	P	**Pn**	**00 03 25.3**	**+0.4**
EGRO				S	**Sn**	**00 04 07.4**	**-0.8**
EGRO				IVmb_Lg		00 04 21.5	
PVAQ	**Vaqueiros**	**3.82**	**301**	*e*P	**Pn**	**00 03 27.4**	**+1.2**
PVAQ				S	**Sn**	**00 04 10.4**	**-0.1**
PVAQ				IAML		00 04 12.9	
PVAQ				IAML		00 04 13.6	
PBAR	**Barrancos**	**3.84**	**316**	P	**Pn**	**00 03 27.0**	**+0.5**
PBAR				S	**Sn**	**00 04 11.3**	**+0.2**
PBAR	**Barrancos**	**3.84**	**316**	S	**Sn**	**00 04 10.4**	**-0.7**
PARRA	**Arraiolos**	**4.85**	**315**	*e*P	**Pn**	**00 03 42.3**	**+2.0**

*ROM **20** 00:02:37.3±0.0, 43˚.043N±0˚.002×13˚.017E±0˚.003, h11km, ML1.8/58, Error ellipse: s-maj=0.2km s-min=0.0km az=251.0*
*SARA **20** 00:02:37.6±0.4, 43˚.047N±0˚.002×13˚.035E±0˚.002, h7km, ML1.9/15, Mwp2.1/15*
ISC 20 00:02:37.6±0.9, 43˚.04N±0˚.01×13˚.01E±0˚.02, h12km±4km, n69, σ0.945/121, Central Italy

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
MTCL	**Monte Cavallo**	**0.05**	**193**	P	**Pg**	**00 02 40.0**	**-0.1**
MTCL				S	**Sg**	**00 02 41.6**	**-0.2**
FDMO	**Fiordimonte**	**0.05**	**95**	P	**Pg**	**00 02 39.9**	**-0.1**
FDMO				S	**Sg**	**00 02 41.6**	**-0.2**
FDMO				AML	AML		
	comp=N,3955μm,0.2s						
FDMO				AML	AML		
	comp=N,3955μm,1.8s						
FDMO				AML	AML		
	comp=E,3740μm,0.2s						
MML1	**Montelago di S**	**0.08**	**337**	P	**Pg**	**00 02 40.3**	**-0.1**
MML1				S	**Sg**	**00 02 42.3**	**-0.1**
FEMA	**Monte Fema**	**0.08**	**162**	P	**Pg**	**00 02 40.5**	**0.0**
FEMA				S	**Sg**	**00 02 42.6**	**+0.1**
FEMA				AML	AML		
	comp=E,4135μm,1.3s						
FEMA				AML	AML		
	comp=N,2955μm,1.2s						
FEMA				AML	AML		
	comp=N,2955μm,0.8s						
CESI	**CESI - Serrava**	**0.09**	**246**	P	**Pg**	**00 02 40.5**	**+0.1**
CESI				S	**Sg**	**00 02 42.8**	**+0.3**
CESI				AML	AML		
	comp=N,2410μm,0.2s						
CESI				AML	AML		
	comp=N,2305μm,0.2s						
CESI				AML	AML		
	comp=E,2200μm,0.5s						
CESI				AML	AML		
	comp=E,2345μm,0.5s						
CESI				AML	AML		
	comp=E,2345μm,1.5s						
CESI				AML	AML		
	comp=E,2200μm,1.5s						
UORV	**Monte Orve**	**0.09**	**265**	Pg	**Pg**	**00 02 40.6**	**+0.1**
UORV				Sg	**Sg**	**00 02 42.9**	**+0.3**
PIO1	**Pioraco**	**0.14**	**351**	P	**Pg**	**00 02 41.0**	**0.0**
PIO1				S	**Sg**	**00 02 43.7**	**+0.2**
CSP1	**Cessapalombo**	**0.15**	**70**	P	**Pg**	**00 02 41.2**	**-0.1**
CSP1				S	**Sg**	**00 02 44.1**	**+0.2**
CSP1				AML	AML		
	comp=E,1340μm,1.4s						
CSP1				AML	AML		
	comp=N,1675μm,0.7s						
FIU1	**Fiuminata**	**0.16**	**338**	P	**Pg**	**00 02 41.4**	**+0.1**
FIU1				S	**Sg**	**00 02 44.3**	**+0.3**
NOCU	**Nocera Umbra**	**0.16**	**291**	Pg	**Pg**	**00 02 41.6**	**+0.2**
NOCU				Sg	**Sg**	**00 02 44.8**	**+0.6**
USLL	**Sellano**	**0.17**	**193**	Pg	**Pg**	**00 02 41.6**	**+0.1**
USLL				Sg	**Sg**	**00 02 44.8**	**+0.6**
PF6	**Pievefavera**	**0.17**	**51**	P	**Pg**	**00 02 41.3**	**-0.3**
PF6				S	**Sg**	**00 02 44.2**	**-0.1**
MDAR	**Monte D'Aria**	**0.18**	**32**	P	**Pg**	**00 02 41.8**	**+0.1**
MDAR				S	**Sg**	**00 02 44.5**	**-0.1**
MDAR				AML	AML		
	comp=N,757μm,0.3s						
MDAR				AML	AML		
	comp=E,1132μm,1.6s						
MDAR				AML	AML		
	comp=E,1132μm,1.6s						
MC2	**Monte Cornacci**	**0.18**	**135**	P	**Pg**	**00 02 41.8**	**-0.1**
MC2				S	**Sg**	**00 02 45.1**	**+0.3**
GAG1	**Gagliole**	**0.20**	**11**	P	**Pg**	**00 02 42.7**	**+0.6**
GAG1				S	**Sg**	**00 02 45.8**	**+0.7**
MTL1	**Matelica**	**0.22**	**359**	P	**Pg**	**00 02 42.4**	**+0.1**
MTL1				S	**Sg**	**00 02 46.1**	**+0.6**
NRCA	**Norcia**	**0.22**	**160**	P	**Pg**	**00 02 42.3**	**-0.1**
NRCA				S	**Sg**	**00 02 46.1**	**+0.5**
NRCA				AML	AML		
	comp=E,756μm,0.4s						
NRCA				AML	AML		
	comp=N,616μm,0.6s						
NRCA				AML	AML		
	comp=N,642μm,0.2s						
NRCA				AML	AML		
	comp=E,756μm,0.4s						
NRCA				AML	AML		
	comp=N,617μm,0.7s						
NRCA				AML	AML		
	comp=E,802μm,0.4s						
NRCA	**Norcia**	**0.22**	**160**	Pg	**Pg**	**00 02 42.3**	**-0.1**
NRCA				Sg	**Sg**	**00 02 46.2**	**+0.6**
SNTG	**Esanatoglia**	**0.22**	**346**	P	**Pg**	**00 02 42.2**	**-0.2**
SNTG				S	**Sg**	**00 02 45.9**	**+0.2**
SNTG				AML	AML		
	comp=N,3631μm,0.5s						
SNTG				AML	AML		
	comp=E,400μm,0.5s						
SNTG				AML	AML		
	comp=N,326μm,0.5s						
SNTG				AML	AML		
	comp=E,358μm,0.1s						
SNTG				AML	AML		
	comp=N,363μm,0.5s						
SSM1	**San Severino M**	**0.22**	**32**	P	**Pg**	**00 02 42.4**	**0.0**
SSM1				S	**Sg**	**00 02 46.1**	**+0.5**
GUMA	**Gualdo di Mace**	**0.24**	**85**	P	**Pg**	**00 02 42.9**	**+0.3**
GUMA				S	**Sg**	**00 02 47.1**	**+1.0**
GUMA				AML	AML		
	comp=E,382μm,0.4s						
GUMA				AML	AML		
	comp=N,404μm,0.4s						
GUMA				AML	AML		
	comp=E,382μm,1.6s						
FOPC	**Foligno Prot C**	**0.24**	**253**	P	**Pg**	**00 02 42.7**	**+0.1**
FOPC				S	**Sg**	**00 02 47.3**	**+1.2**
UNRC	**Norcia**	**0.25**	**163**	Pg	**Pg**	**00 02 42.9**	**-0.1**
UNRC				Sg	**Sg**	**00 02 47.2**	**+0.7**
TREV	**Trevi**	**0.26**	**230**	Pg	**Pg**	**00 02 43.0**	**0.0**
TREV				Sg	**Sg**	**00 02 47.2**	**+0.6**
ASSB	**Assisi San Ben**	**0.26**	**270**	P	**Pg**	**00 02 43.1**	**0.0**
ASSB				S	**Sg**	**00 02 47.4**	**+0.6**
ASSB				AML	AML		
	comp=E,154μm,0.1s						
ASSB				AML	AML		
	comp=N,179μm,0.5s						
ASSB	**Assisi San Ben**	**0.26**	**270**	Pg	**Pg**	**00 02 43.1**	**0.0**
ASSB				Sg	**Sg**	**00 02 47.6**	**+0.9**
MMO1	**Montemonaco**	**0.27**	**122**	P	**Pg**	**00 02 43.0**	**-0.2**
MMO1				S	**Sg**	**00 02 47.5**	**+0.4**
MRSG	**Ripe San Gines**	**0.27**	**70**	Pg	**Pg**	**00 02 43.9**	**+0.6**
MRSG				Sg	**Sb**	**00 02 48.9**	**-0.1**
SAP2	**Sant'Angelo in**	**0.29**	**79**	P	**Pb**	**00 02 44.5**	**-0.2**
EL6	**Elcito**	**0.29**	**13**	P	**Pg**	**00 02 43.6**	**-0.1**
EL6				S	**Sg**	**00 02 48.4**	**+0.6**
EL6				AML	AML		
	comp=E,598μm,0.3s						
EL6				AML	AML		
	comp=N,888μm,0.2s						
ATCC	**AVT- Casa Cast**	**0.31**	**298**	P	**Pg**	**00 02 44.0**	**0.0**
ATCC				S	**Sb**	**00 02 49.3**	**-0.8**
ATCC				AML	AML		
	comp=E,234μm,0.1s						
ATCC				AML	AML		
	comp=N,141μm,0.8s						
UPUR	**Puro**	**0.31**	**177**	Pg	**Pg**	**00 02 43.9**	**-0.1**
UPUR				Sg	**Sb**	**00 02 49.2**	**-0.8**
FOSV	**Fossato di Vic**	**0.31**	**324**	P	**Pg**	**00 02 44.0**	**-0.1**
FOSV				S	**Sg**	**00 02 49.1**	**+0.8**
FOSV				AML	AML		
	comp=E,154μm,0.8s						
FOSV				AML	AML		
	comp=N,324μm,0.3s						
MF5	**Montefalcone A**	**0.33**	**99**	P	**Pg**	**00 02 44.6**	**+0.3**
MF5				S	**Sb**	**00 02 50.3**	**-0.4**
MNTP	**Montappone**	**0.35**	**74**	P	**Pg**	**00 02 45.2**	**+0.6**
TRE1	**Treia**	**0.35**	**39**	P	**Pg**	**00 02 44.8**	**+0.1**
CING	**Cingoli**	**0.36**	**22**	P	**Pg**	**00 02 44.7**	**-0.2**
CING				S	**Sg**	**00 02 50.6**	**+0.8**
GAVE	**Gavelli**	**0.36**	**194**	P	**Pg**	**00 02 44.7**	**-0.1**
GAVE				S	**Sg**	**00 02 50.7**	**+1.0**
GAVE				AML	AML		
	comp=E,266μm,1.1s						
GAVE				AML	AML		
	comp=N,206μm,0.2s						
IMCRS	**Cerreto**	**0.39**	**314**	Pg	**Pg**	**00 02 45.5**	**+0.1**
IMCRS				Sg	**Sb**	**00 02 51.9**	**-0.4**
BETT	**Bettona**	**0.40**	**263**	Pg	**Pg**	**00 02 45.5**	**0.0**
BETT				Sg	**Sb**	**00 02 51.9**	**-0.7**
MTRA	**Matera**	**0.40**	**135**	P	**Pg**	**00 02 45.2**	**-0.3**
MTRA				S	**Sg**	**00 02 51.4**	**+0.5**
MTRA				AML	AML		
	comp=E,114μm,0.7s						
MTRA				AML	AML		
	comp=N,110μm,1.0s						
MMUR	**Monte Murano**	**0.40**	**358**	P	**Pg**	**00 02 45.8**	**+0.1**
MOMA	**Monte Martano**	**0.40**	**234**	P	**Pg**	**00 02 45.6**	**0.0**
MOMA				S	**Sg**	**00 02 52.0**	**+0.9**
MOMA				AML	AML		
	comp=E,138μm,0.2s						
MOMA				AML	AML		
	comp=N,118μm,0.2s						
MOMA	**Monte Martano**	**0.40**	**234**	Pg	**Pg**	**00 02 45.6**	**0.0**
MOMA				Sg	**Sb**	**00 02 52.6**	**-0.2**
CIS22	**CIS array 22**	**0.41**	**261**	Pg	**Pg**	**00 02 45.8**	**+0.1**
CIS22				Sg	**Sb**	**00 02 52.3**	**-0.6**
MURB	**Monte Urbino**	**0.42**	**302**	P	**Pg**	**00 02 46.0**	**0.0**
MURB				S	**Sb**	**00 02 52.8**	**-0.5**
MURB				AML	AML		
	comp=N,192μm,0.2s						
MURB				AML	AML		
	comp=N,192μm,1.8s						
MURB				AML	AML		
	comp=E,228μm,0.2s						
MURB	**Monte Urbino**	**0.42**	**302**	Pg	**Pg**	**00 02 46.0**	**0.0**
MURB				Sg	**Sb**	**00 02 53.2**	**-0.1**
SSFR	**Montelago di S**	**0.43**	**337**	P	**Pg**	**00 02 45.9**	**-0.3**
SSFR				S	**Sg**	**00 02 52.8**	**+0.9**
SSFR				AML	AML		
	comp=N,238μm,0.2s						
SSFR				AML	AML		
	comp=E,235μm,0.6s						
LNSS	**Leonessa**	**0.44**	**177**	P	**Pg**	**00 02 46.0**	**-0.3**
LNSS				S	**Sg**	**00 02 53.1**	**+0.9**
LNSS				AML	AML		
	comp=N,142μm,0.9s						
LNSS				AML	AML		
	comp=E,121μm,1.6s						
ATSC	**Scheggia e Pas**	**0.45**	**328**	P	**Pg**	**00 02 46.2**	**-0.4**
ATFO	**Monte Foce - G**	**0.46**	**315**	P	**Pg**	**00 02 46.2**	**-0.5**
ATFO				S	**Sg**	**00 02 53.3**	**+0.5**
ARVD	**Arcevia**	**0.46**	**353**	P	**Pg**	**00 02 46.3**	**-0.4**
ARVD				S	**Sg**	**00 02 53.7**	**+0.9**
ARVD				AML	AML		
	comp=N,53μm,0.5s						
ARVD				AML	AML		
	comp=E,80μm,0.7s						
SMA1	**SAN MARTINO**	**0.47**	**150**	P	**Pg**	**00 02 46.6**	**-0.4**
SMA1				AML	AML		
	comp=N,75μm,0.4s						
SMA1				AML	AML		
	comp=E,70μm,1.0s						
ARRO	**Arrone**	**0.50**	**202**	P	**Pg**	**00 02 47.1**	**-0.2**
ARRO				S	**Sg**	**00 02 54.6**	**+0.7**
ARRO				AML	AML		
	comp=N,81μm,0.1s						
ARRO				AML	AML		
	comp=E,76μm,0.2s						
ARRO	**Arrone**	**0.50**	**202**	Pg	**Pg**	**00 02 47.2**	**-0.1**
ARRO				Sg	**Sb**	**00 02 55.5**	**+0.1**
OFFI	**Offida**	**0.50**	**102**	P	**Pb**	**00 02 48.4**	**+0.1**
FRON	**Frontone**	**0.52**	**336**	P	**Pg**	**00 02 47.4**	**-0.5**
FRON				AML	AML		
	comp=N,89μm,1.4s						
FRON				AML	AML		
	comp=N,89μm,0.6s						
FRON				AML	AML		
	comp=E,62μm,1.0s						
CESX	**Cesi**	**0.54**	**217**	P	**Pg**	**00 02 47.8**	**-0.2**
CESX				S	**Sb**	**00 02 56.1**	**-0.5**
CESX				AML	AML		
	comp=E,59μm,0.3s						
CESX				AML	AML		
	comp=N,71μm,0.4s						
ATVO	**AVT- Monte Val**	**0.56**	**308**	P	**Pg**	**00 02 48.1**	**-0.4**
ATVO				AML	AML		
	comp=N,28μm,0.3s						
ATVO				AML	AML		
	comp=E,32μm,1.5s						
ATVO				AML	AML		
	comp=E,32μm,0.5s						
CAMP	**Campotosto**	**0.58**	**150**	P	**Pg**	**00 02 48.3**	**-0.7**
CAMP				AML	AML		
	comp=N,56μm,0.3s						
CAMP				AML	AML		
	comp=E,40μm,0.2s						
CAMP	**Campotosto**	**0.58**	**150**	Pg	**Pg**	**00 02 48.4**	**-0.6**
CAMP				Sg	**Sb**	**00 02 58.0**	**0.0**
CORI	**Corinaldo**	**0.59**	**359**	P	**Pg**	**00 02 49.5**	**+0.4**
TERO	**Teramo**	**0.60**	**134**	Pg	**Pg**	**00 02 48.8**	**-0.5**
TERO				Sg	**Sb**	**00 02 58.4**	**-0.1**
ATPI	**Pietralunga -**	**0.61**	**313**	P	**Pg**	**00 02 49.1**	**-0.3**
MPAG	**Monte Paganucc**	**0.62**	**343**	P	**Pg**	**00 02 49.2**	**-0.5**
NARO	**Abbazia di Nar**	**0.65**	**331**	P	**Pg**	**00 02 49.6**	**-0.7**
BADI	**Badiali**	**0.73**	**310**	P	**Pg**	**00 02 51.3**	**-0.5**
CRTC	**Cartoceto**	**0.73**	**353**	P	**Pb**	**00 02 52.2**	**0.0**
PE3	**Peglio**	**0.76**	**330**	P	**Pg**	**00 02 52.0**	**-0.3**

*IDC **20** 00:11:11.7±1.0, 14˚.89S×71˚.16W, h153km±8km, mb4.0/15, mbtmp4.5/20, Error ellipse: s-maj=14.7km s-min=9.2km az=44.0*
*NEIC **20** 00:11:11.3±1.2, 14˚.96S±0˚.06×71˚.26W±0˚.07, h149km±6km, mb4.7/193, Error ellipse: s-maj=13.0km s-min=3.8km az=50.0*
*GFZ **20** 00:11:11.1±0.3, 15˚S±2˚×7˚1W±˚, h145km±3km, M5.0/37, mb4.7/37*
*RSNC **20** 00:11:12.6±1.1, 15˚S±37˚×7˚1W±1˚6, h137km±33km, M4.4, mB4.8, mb4.6, ML3.8, Mw(mB)4.1*
*VAO **20** 00:11:13.3±0.6, 14˚.95S×70˚.95W, h170km±4km, mb4.7, Presumed earthquake*
ISC 20 00:11:10.5±0.6, 14˚.97S±0˚.05×71˚.24W±0˚.05, h153km±6km, n311, σ1$31/293, mb4.6/96, Central Peru

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
PB18	**Visviri**	**3.11**	**147**			**Pn**	**00 12 03.4**	**+3.6**
PB18	**Visviri**	**3.11**	**147**	P		**Pn**	**00 12 04.2**	**+4.4**
LPAZ	**La Paz**	**3.27**	**114**	P		**Pn**	**00 12 04.5**	**+2.5**
	86nm,0.4s,baz=289,slow=8.3,SNR=497							
LPAZ				S		**Sn**	**00 12 44.0**	**+2.1**
	402nm,0.6s,baz=131,slow=14,SNR=22							
LPAZ	**La Paz**	**3.27**	**114**			**Pn**	**00 12 04.0**	**+2.0**
LPAZ					Sn	**Sn**	**00 12 43.8**	**+2.0**
LPAZ	**La Paz**	**3.27**	**114**	P		**Pn**	**00 12 04.5**	**+2.5**
LPAZ	**La Paz**	**3.27**	**114**	P		**Pn**	**00 12 04.7**	**+2.6**
LPAZ	**La Paz**	**3.27**	**114**	*e*P		**Pn**	**00 12 02.7**	**+0.7**
AP01	**Chacalluta**	**3.49**	**166**			**Pn**	**00 12 05.0**	**+0.8**
AP01					Sn	**Sn**	**00 12 45.9**	**-0.1**
AP01	**Chacalluta**	**3.49**	**166**	P		**Pn**	**00 12 05.3**	**+1.1**
PB16	**IPOC Station P**	**3.74**	**154**	Pn		**Pn**	**00 12 10.0**	**+2.0**
PB16					Sn	**Sn**	**00 12 54.7**	**+2.2**
PSGCX	**Pisagua**	**4.72**	**167**			**Pn**	**00 12 19.4**	**-1.0**
PSGCX	**Pisagua**	**4.72**	**167**	P		**Pn**	**00 12 19.6**	**-0.8**
PB11	**IPOC Station P**	**5.00**	**163**			**Pn**	**00 12 23.3**	**-0.9**
PB11					Sn	**Sn**	**00 13 18.2**	**-3.4**
PB11	**IPOC Station P**	**5.00**	**163**	P		**Pn**	**00 12 23.5**	**-0.6**
	comp=Z,659nm,0.6s							
GO01	**Chusmiza**	**5.07**	**158**			**Pn**	**00 12 26.4**	**+1.1**
GO01	**Chusmiza**	**5.07**	**158**	P		**Pn**	**00 12 26.6**	**+1.3**
	comp=Z,1μm,0.6s							
PB08	**IPOC Station P**	**5.51**	**159**			**Pn**	**00 12 31.2**	**0.0**
PB08					Sn	**Sn**	**00 13 31.4**	**-2.7**
PB08	**IPOC Station P**	**5.51**	**159**	P		**Pn**	**00 12 31.5**	**+0.3**
	comp=Z,458nm,0.9s							
TA01	**Diego Aracena**	**5.66**	**170**			**Pn**	**00 12 31.2**	**-1.4**
TA01	**Diego Aracena**	**5.66**	**170**	P		**Pn**	**00 12 31.6**	**-1.0**
	comp=Z,862nm,0.5s							
NNA	**Nana**	**6.20**	**298**	P		**Pn**	**00 12 40.8**	**+0.8**
	comp=Z,94nm,0.7s,baz=141,slow=11,SNR=19							
NNA				S		**Sn**	**00 13 47.3**	**-2.9**
	comp=Z,160nm,0.9s,baz=37,slow=8.2,SNR=8.2							
NNA	**Nana**	**6.20**	**298**			**Pn**	**00 12 39.1**	**-0.9**
NNA						**Sn**	**00 13 46.6**	**-3.6**
NNA	**Nana**	**6.20**	**298**	P		**Pn**	**00 12 40.1**	**+0.1**
	comp=Z,117nm,0.8s							
NNA				AML	AML			
NNA	**Nana**	**6.20**	**298**	P		**Pn**	**00 12 40.6**	**+0.6**
	comp=Z,114nm,0.9s							
PB02	**IPOC Station P**	**6.44**	**169**			**Pn**	**00 12 41.9**	**-1.4**
PB02	**IPOC Station P**	**6.44**	**169**	P		**Pn**	**00 12 42.2**	**-1.0**
	comp=Z,289nm,0.5s							
PB07	**IPOC Station P**	**6.84**	**169**			**Pn**	**00 12 47.5**	**-1.2**
PB07	**IPOC Station P**	**6.84**	**169**	P		**Pn**	**00 12 47.2**	**-1.4**
	comp=Z,571nm,0.6s							
PB09	**IPOC Station P**	**7.05**	**165**			**Pn**	**00 12 50.7**	**-0.7**
PB09	**IPOC Station P**	**7.05**	**165**	P		**Pn**	**00 12 51.0**	**-0.4**
	comp=Z,250nm,0.9s							
PB03	**IPOC Station P**	**7.18**	**169**			**Pn**	**00 12 51.9**	**-1.2**
PB03	**IPOC Station P**	**7.18**	**169**	P		**Pn**	**00 12 52.0**	**-1.2**
	comp=Z,359nm,0.5s							
PB06	**IPOC Station P**	**7.86**	**169**			**Pn**	**00 13 00.3**	**-1.8**
PB06	**IPOC Station P**	**7.86**	**169**	P		**Pn**	**00 13 00.4**	**-1.7**
	comp=Z,213nm,0.7s							
PB05	**IPOC Station P**	**7.90**	**173**			**Pn**	**00 13 00.6**	**-2.1**
PB05	**IPOC Station P**	**7.90**	**173**	P		**Pn**	**00 13 00.6**	**-2.1**
	comp=Z,119nm,1.0s							
AF01	**San Pedro de A**	**8.45**	**160**	Pn		**Pn**	**00 13 10.1**	**-0.1**
PB10	**IPOC Station P**	**8.52**	**176**			**Pn**	**00 13 09.2**	**-1.7**
PB14	**IPOC Station P**	**9.64**	**175**			**Pn**	**00 13 23.9**	**-2.1**
PB14	**IPOC Station P**	**9.64**	**175**	P		**Pn**	**00 13 24.4**	**-1.6**
	comp=Z,58nm,0.6s							
SIV	**San Ignacio**	**9.86**	**97**	P		**Pn**	**00 13 27.2**	**-1.4**
	comp=Z,29nm,0.7s,baz=274,slow=10,SNR=60							
SIV				S		**Sn**	**00 15 15.8**	**-2.1**
	comp=Z,13nm,0.8s,baz=249,slow=15,SNR=2.1							
SALTA		**10.30**	**154**	P		**Pn**	**00 13 35.1**	**+0.3**
	comp=Z,18nm,0.7s							
BBSD	**Serra de San D**	**10.45**	**104**	*e*P		**Pn**	**00 13 35.1**	**-1.4**
ATAH	**Atahualpa**	**10.48**	**317**	P		**P**	**00 13 42.8**	**-3.7**
	comp=Z,7.5nm,0.7s,baz=341,slow=22,SNR=9.3							
ATAH				S		**Sn**	**00 15 34.1**	**+0.6**
	comp=Z,4.8nm,0.8s,baz=313,slow=18,SNR=1.4							
VILB	**Vilhena**	**10.90**	**81**			**Pn**	**00 13 41.5**	**-1.0**
VILB	**Vilhena**	**10.90**	**81**	*e*P		**Pn**	**00 13 40.8**	**-1.7**
AC01	**Pan de Azucar**	**11.14**	**177**	Pn		**Pn**	**00 13 44.1**	**-1.3**
PTLB	**Pontes e Lacer**	**11.69**	**94**			**Pn**	**00 13 52.0**	**-0.7**
PTLB	**Pontes e Lacer**	**11.69**	**94**	*e*P		**Pn**	**00 13 50.7**	**-2.0**
AC02	**Maricunga**	**11.97**	**171**			**Pn**	**00 13 56.4**	**-0.3**
AC02	**Maricunga**	**11.97**	**171**	P		**Pn**	**00 13 56.6**	**-0.2**
	comp=Z,32nm,0.5s							

ZON Zonda 16.67 172 P **Pn** **00 14 57.5 +2.3**
comp=E,21nm,0.9s
OTAV Otavalo 16.71 334 P **P** **00 14 54.1 -1.9**
OTAV Otavalo 16.71 334 P **Pn** **00 14 59.1 +2.9**
comp=E,382nmcomp=E,23nm,1.0s
OTAV Otavalo 16.71 334 P **Pn** **00 14 59.1 +2.9**
comp=Z,23nm,0.8s
OTAV Otavalo 16.71 334 *eP* **Pn** **00 14 57.4 +1.1**
CFA Coronel Fontan 16.79 171 P **Pn** **00 14 58.3 +1.7**
comp=Z,8.0nm,0.6s,baz=354,slow=13,SNR=35
CO04 Los Peladeros 17.00 179 **P** **00 14 57.7 -1.1**
CO04 IAmb IAmb 00 15 02.6
comp=Z,22nm,0.8s
CO04 Los Peladeros 17.00 179 P **Pn** **00 15 00.3 +0.8**
comp=Z,31nm,0.9s
MACC Macarena, Meta 17.20 351 P **Pn** **00 15 04.0 +2.3**
comp=Z,467nmcomp=Z,44nm,0.7s
CPUP Villa Florida 17.22 133 P **Pn** **00 15 02.0 +0.1**
comp=Z,16nm,0.6s,baz=312,slow=11,SNR=44
CPUP Villa Florida 17.22 133 P **Pn** **00 15 02.1 +0.3**
CPUP Villa Florida 17.22 133 P **Pn** **00 15 02.2 +0.3**
comp=Z,24nm,0.7s
SJPY San Joaquin 17.36 127 *eP* **P** **00 15 01.7 -0.9**
NPGB Novo Progresso 17.46 65 *eP* **P** **00 15 02.4 -1.3**
GARC Garzon, Huila 17.56 346 P **Pn** **00 15 07.0 +0.8**
comp=Z,30nm,0.5s
VA03 San Esteban 17.73 178 P **Pn** **00 15 07.4 -0.6**
VA03 San Esteban 17.73 178 P **Pn** **00 15 08.6 +0.6**
comp=Z,28nm,0.9s
BBAC Balboa, Cauca 17.90 340 P **Pn** **00 15 12.2 +2.0**
comp=Z,548nmcomp=Z,36nm,0.7s
PEL Peldehue 18.10 179 P **P** **00 15 11.5 +0.8**
PEL IAmb IAmb 00 15 14.8
comp=Z,27nm,1.1s
PEL Peldehue 18.10 179 P **Pn** **00 15 13.0 +0.7**
comp=Z,23nm,1.0s
MT02 Curacav 18.21 180 P **Pn** **00 15 12.8 -0.8**
POPC Popayan, Colom 18.21 342 P **Pn** **00 15 15.3 +1.4**
comp=Z,23nm,0.8s
MT05 Renca 18.35 179 P **P** **00 15 13.6 +0.2**
MT05 IAmb IAmb 00 15 17.6
comp=Z,24nm,0.8s
MT08 Bocatoma Ro 18.43 177 **P** **00 15 14.2 -0.2**
ITTB Itaituba 18.55 57 *eP* **P** **00 15 14.4 -1.2**
VA05 Santo Domingo 18.61 181 P **P** **00 15 16.1 0.0**
VA05 IAmb IAmb 00 15 21.6
comp=Z,33nm,0.9s
VA05 Santo Domingo 18.61 181 P **Pn** **00 15 17.6 -0.5**
comp=Z,53nm,0.9s
MT13 San Alfonso 18.71 178 P **P** **00 15 18.0 +0.6**
MT13 IAmb IAmb 00 15 24.6
comp=Z,36nm,0.9s
MT09 Talagante 18.73 179 P **P** **00 15 18.4 +0.8**
MT01 Popeta 18.81 180 P **P** **00 15 19.3 +1.0**
MT01 IAmb IAmb 00 15 24.3
comp=Z,25nm,0.8s
BO04 La Punta 18.95 178 P **P** **00 15 19.6 -0.2**
BO04 IAmb IAmb 00 15 25.5
comp=Z,23nm,0.9s
ORTC Ortega, Tolima 19.17 348 P **Pn** **00 15 24.6 -0.4**
comp=Z,1μmcomp=Z,25nm,1.0s
BO01 Tunca 19.34 180 P **P** **00 15 24.5 +0.4**
BO01 Tunca 19.34 180 P **Pn** **00 15 26.5 -0.3**
comp=Z,23nm,0.9s
YOTC Yotoco, Valle 19.50 345 P **P** **00 15 26.9 +0.9**
SNDB Serra Nova Dou 19.62 84 *eP* **P** **00 15 26.7 -0.6**
BO02 Sierra Bellavi 19.74 179 **P** **00 15 29.5 +1.1**
BO02 IAmb IAmb 00 15 31.9
comp=Z,27nm,0.8s
BO02 Sierra Bellavi 19.74 179 P **Pn** **00 15 30.7 -0.8**
ITQB Itaqui 19.89 140 *eP* **P** **00 15 30.7 +0.7**
ROSC El Rosal 19.92 351 P **P** **00 15 31.0 +0.1**
ROSC IAmb IAmb 00 15 48.5
comp=Z,24nm,1.0s
GO05 Hualane 19.96 182 P **P** **00 15 31.1 +0.3**
PCMB Pacaembu 20.07 112 P **P** **00 15 31.5 -0.6**
comp=Z,108nm,0.7s
PCMB Pacaembu 20.07 112 *eP* **P** **00 15 31.6 -0.6**
BOAV Boa Vista 20.25 32 P **P** **00 15 34.2 +0.2**
BOAV IAmb IAmb 00 15 38.2
comp=Z,24nm,0.5s
BOAV Boa Vista 20.25 32 *eP* **P** **00 15 34.3 +0.2**
PSAL Palomas, Salto 20.33 144 *eP* **P** **00 15 35.1 +0.4**
PTGB Pitanga 20.45 121 *eP* **P** **00 15 36.1 -0.1**
ML02 Panimavida 20.71 180 P **P** **00 15 39.3 +0.6**
ML02 Panimavida 20.71 180 P **P** **00 15 40.7 +2.0**
comp=Z,82nm,1.3s
LDASE Londrina, Braz 20.75 117 *eP* **P** **00 15 38.7 -0.6**
HELC Santa Helena 21.45 348 **P** **00 15 45.8 -1.4**
HELC IAmb IAmb 00 15 49.2
comp=Z,20nm,0.5s
ITAB Concordia 21.57 128 P **P** **00 15 47.2 -0.8**
ITAB Concordia 21.57 128 P **P** **00 15 47.3 -0.8**
comp=Z,83nm,0.7s
ITAB Concordia 21.57 128 *eP* **P** **00 15 46.9 -1.2**
BI02 San Fabin de 21.61 180 P **P** **00 15 49.3 +0.9**
BI02 IAmb IAmb 00 15 52.8
comp=Z,18nm,0.8s
BI02 San Fabin de 21.61 180 P **P** **00 15 50.3 +1.9**
comp=Z,30nm,1.6s
BI05 Punta Hualpn 21.76 184 P **P** **00 15 49.9 0.0**
BI05 IAmb IAmb 00 15 53.3
comp=Z,29nm,0.8s
IPMB Ipameri, GO 22.28 101 *eP* **P** **00 15 53.2 -2.2**
BDFB Brasilia 22.41 95 P **P** **00 15 56.2 -0.6**
comp=Z,23nm,0.8s,baz=263,slow=11,SNR=27
comp=Z,23nm,0.8s
BDFB Brasilia 22.41 95 P **P** **00 15 56.1 -0.6**
BDFB IAmb IAmb 00 15 56.9
comp=Z,27nm,0.9s
BB19B Bebedouro 22.42 109 *eP* **P** **00 15 55.4 -1.4**
CPSB Cacapava Do Su 22.44 136 P **P** **00 15 57.5 +0.7**
CPSB IAmb IAmb 00 16 01.0
comp=Z,14nm,0.7s
CPSB Cacapava Do Su 22.44 136 P **P** **00 15 58.2 +1.5**
comp=Z,25nm,0.9s
CPSB Cacapava Do Su 22.44 136 *eP* **P** **00 15 57.0 +0.3**
CNLB Canela 23.62 131 *eP* **P** **00 16 07.3 -0.3**
SDV Santo Domingo 23.71 1 P **P** **00 16 08.0 -0.8**
SDV Santo Domingo 23.71 1 P **P** **00 16 09.2 +0.4**
comp=Z,70nm,0.9s
SMTB Santa Maria do 23.91 78 **P** **00 16 10.6 +0.1**
SMTB Santa Maria do 23.91 78 *eP* **P** **00 16 10.0 -0.5**
PMNB Patos De Minas 24.01 102 P **P** **00 16 11.3 -0.1**
comp=Z,41nm,1.1s
PMNB Patos De Minas 24.01 102 *eP* **P** **00 16 09.7 -1.7**
GO06 Curarrehue 24.52 180 **P** **00 16 15.8 -0.1**
GO06 IAmb IAmb 00 16 19.9
comp=Z,14nm,0.8s
GO06 Curarrehue 24.52 180 P **P** **00 16 17.4 +1.6**
comp=Z,18nm,0.9s
SJCC San Jacinto, C 25.01 351 **P** **00 16 20.0 -0.4**
SJCC IAmb IAmb 00 16 21.6
comp=Z,33nm,1.1s
LR05 Currie 25.18 181 **P** **00 16 22.4 +0.8**
LR05 IAmb IAmb 00 16 23.6
comp=Z,14nm,0.9s
PLCA Paso Flores 25.68 179 P **P** **00 16 27.7 +1.4**
comp=Z,7.6nm,0.8s,baz=348,slow=9.4,SNR=23
comp=Z,7.6nm,0.8s
PLCA Paso Flores 25.68 179 P **P** **00 16 27.9 +1.7**
comp=Z,12nm,1.1s
PLCA Paso Flores 25.68 179 *eP* **P** **00 16 27.7 +1.4**
DIAM Diamantina, MG 26.61 101 *eP* **P** **00 16 33.4 -1.6**
ARCA Araçuai, MG 28.21 98 *eP* **P** **00 16 48.4 -0.8**
BSFB Barra de Sao F 29.31 102 *eP* **P** **00 16 57.6 -1.2**
GUA01 Guaratinga, BA 30.28 97 *eP* **P** **00 17 06.5 -0.8**
CMC01 Camacan, BA 30.61 95 *eP* **P** **00 17 09.1 -1.1**
NBMO Morrinhos-CE 32.85 72 *eP* **P** **00 17 29.3 -0.6**
250A Grady 48.85 343 **P** **00 19 40.5 0.0**
152A Waverly Hall 49.09 345 P **P** **00 19 42.5 +0.1**
Y49A Blount Mountai 50.66 344 IAmb IAmb 00 19 54.8
comp=Z,13nm,0.6s
X48A Hartselle 51.40 343 IAmb IAmb 00 20 00.5
comp=Z,17nm,1.0s
HNDO Hondo 51.86 329 **P** **00 20 04.0 +0.8**
HNDO PcP **PcP** **00 21 15.3 +1.4**
V48A Smith Brothers 52.55 344 IAmb IAmb 00 20 08.9
comp=Z,13nm,0.7s
U49A Red Boiling Sp 53.01 345 **P** **00 20 10.9 -0.6**
WHTX Lake Whitney, 53.03 332 **P** **00 20 12.3 +0.6**
WHTX IAmb IAmb 00 20 13.9
comp=Z,13nm,0.8s
WVT Waverly 53.19 343 **P** **00 20 11.7 -1.1**
WVT IAmb IAmb 00 20 12.8
comp=Z,7.7nm,0.6s
T50A Nancy 53.27 346 P **P** **00 20 13.3 -0.2**
T50A IAmb IAmb 00 20 14.0
comp=Z,8.3nm,0.7s
MIAR Mount Ida 53.63 337 **P** **00 20 16.1 +0.1**
MIAR IAmb IAmb 00 20 17.6
comp=Z,5.8nm,0.8s
SAND Sanderson 53.68 326 **P** **00 20 17.6 +1.0**
TXAR Lajitas Array 54.04 325 P **P** **00 20 20.3 +1.0**
comp=Z,2.0nm,0.6s,baz=151,slow=8.6,SNR=28
TXAR PcP **PcP** **00 21 23.7 +1.4**
comp=Z,0.5nm,0.6s,baz=122,slow=2.8,SNR=4.0
comp=Z,2.0nm,0.6s
TXAR Lajitas Array 54.04 325 P **P** **00 20 19.9 +0.6**
TXAR PcP **PcP** **00 21 23.4 +1.0**
PLPT Palo Pinto 54.11 332 P **P** **00 20 20.4 +0.8**
PLPT IAmb IAmb 00 20 21.4
comp=Z,9.0nm,0.5s
FCAR Ozark Folk Cen 54.31 339 IAmb IAmb 00 20 21.6
comp=Z,8.9nm,1.0s
PBMO Poplar Bluff 54.56 341 P **P** **00 20 22.3 -0.4**
PBMO IAmb IAmb 00 20 23.5
comp=Z,15nm,0.8s
ABTX Abilene, Hawle 54.57 330 **P** **00 20 23.3 +0.4**
WCI Wyandotte Cave 54.77 345 P **P** **00 20 23.9 -0.4**
WCI IAmb IAmb 00 20 24.2
comp=Z,11nm,0.7s
USIN University of 54.87 344 P **P** **00 20 24.3 -0.6**
WTFS Witchita Falls 54.98 332 **P** **00 20 26.6 +0.7**
P53A Whipple 54.99 350 P **P** **00 20 25.5 -0.4**
P53A IAmb IAmb 00 20 30.4
comp=Z,6.3nm,0.8s
TMB01 Midkiff 55.01 328 P **P** **00 20 26.5 +0.3**
TMB01 IAmb IAmb 00 20 27.9
comp=Z,6.3nm,0.8s
S44A Carbondale 55.05 343 P **P** **00 20 26.4 +0.1**
TPB05 Hovey Rd 55.08 326 P **P** **00 20 27.3 +0.6**
TPB05 IAmb IAmb 00 20 28.7
comp=Z,12nm,1.2s
P52A Corning 55.26 350 P **P** **00 20 27.6 -0.2**
P52A IAmb IAmb 00 20 27.8
comp=Z,7.5nm,0.5s
HHAR Hobbs 55.30 338 P **P** **00 20 27.8 -0.4**
TPB01 Permian Basin 55.34 326 P **P** **00 20 29.4 +0.8**
TPB01 IAmb IAmb 00 20 30.7
comp=Z,6.2nm,0.6s
APMT Aspermont 55.38 331 **P** **00 20 29.2 +0.4**
APMT IAmb IAmb 00 20 30.4
comp=Z,10nm,0.7s
X34A Smith Ranch, M 55.40 333 **P** **00 20 29.6 +0.7**
W35A Tecumseh 55.47 335 P **P** **00 20 29.1 -0.2**
W35A IAmb IAmb 00 20 30.5
comp=Z,13nm,1.0s
SN07 Snyder 07 55.55 330 P **P** **00 20 30.8 +0.8**
SN07 IAmb IAmb 00 20 31.7
comp=Z,8.0nm,0.7s
129A Stewart Farms, 55.67 329 IAmb IAmb 00 20 33.2
comp=Z,8.3nm,0.9s
TUL3 Leonard 55.68 336 IAmb IAmb 00 20 33.4
comp=Z,6.8nm,0.8s
FNO Franklin 55.77 334 P **P** **00 20 32.1 +0.6**
POST Post 55.83 329 **P** **00 20 32.4 +0.3**
POST IAmb IAmb 00 20 33.9
comp=Z,6.3nm,0.7s
VHRN Van Horn 55.88 325 **P** **00 20 32.8 +0.3**
VHRN IAmb IAmb 00 20 34.4
comp=Z,6.3nm,0.8s
VHRN **PcP** **00 21 29.7 +0.2**
WMOK Wichita Mounta 55.93 333 P **P** **00 20 33.1 +0.5**
128A Castleberry Fa 55.97 328 P **P** **00 20 32.7 -0.4**
128A IAmb IAmb 00 20 34.2
comp=Z,4.2nm,0.7s
DKNS Dickens 56.04 330 IAmb IAmb 00 20 35.2
comp=Z,7.0nm,0.8s
TPB11 China Draw 56.24 326 IAmb IAmb 00 20 38.3
comp=Z,6.7nm,0.9s
TPB28 56.29 326 IAmb IAmb 00 20 37.5
comp=Z,4.6nm,0.7s
S39A Bolivar 56.34 339 IAmb IAmb 00 20 36.3
comp=Z,9.3nm,0.6s
R40A Maddies Statio 56.53 340 IAmb IAmb 00 20 37.0
comp=Z,8.1nm,0.5s
MNTX Cornudas Mount 56.80 325 IAmb IAmb 00 20 40.4
comp=Z,7.0nm,1.1s
MNTX Cornudas Mount 56.80 325 P **P** **00 20 38.6 -0.2**
comp=Z,8.5nm,1.0s
MSTX Muleshoe 57.19 329 IAmb IAmb 00 20 43.3
comp=Z,15nm,1.1s
P40A Paris 57.59 341 IAmb IAmb 00 20 44.5
comp=Z,7.7nm,0.6s
121A Cookes Peak, D 58.77 324 IAmb IAmb 00 20 55.6
comp=Z,8.0nm,0.8s
KSU1 Kansas State U 58.78 337 IAmb IAmb 00 20 53.6
comp=Z,14nm,0.8s
ALQ Albuquerque 59.85 327 IAmb IAmb 00 21 01.9
comp=Z,3.6nm,0.6s
ANMO Albuquerque 59.85 327 P **P** **00 21 01.3 +1.1**
ANMO Albuquerque 59.85 327 P **P** **00 21 01.5 +1.3**
comp=Z,4.9nm,0.8s
T25A Trinidad 60.52 330 P **P** **00 21 05.3 +0.6**
T25A IAmb IAmb 00 21 07.2
comp=Z,6.9nm,0.9s
BGNE Belgrade 61.37 337 **P** **00 21 10.7 +0.5**
SDCO Great Sand Dun 61.53 329 IAmb IAmb 00 21 14.1
comp=Z,12nm,0.7s
X16A Lo Mia Camp, P 62.23 323 IAmb IAmb 00 21 19.3
comp=Z,7.0nm,1.0s
MVCO Mesa Verde 62.64 327 P **P** **00 21 17.6 -1.4**
comp=Z,7.7nm,1.0s
ECSD EROS Data Cent 62.86 340 IAmb IAmb 00 21 21.9
comp=Z,7.7nm,1.1s
ECSD EROS Data Cent 62.86 340 P **P** **00 21 20.8 +0.7**
comp=Z,10nm,1.1s
WUAZ Wupatki 62.98 324 IAmb IAmb 00 21 24.8
comp=Z,9.9nm,0.9s
ISCO Idaho Springs 63.20 331 P **P** **00 21 24.4 +1.7**
comp=Z,9.0nm,0.7s
PV15 Paradox Valley 63.48 328 P **P** **00 21 25.7 +1.2**
PV02 Paradox Valley 63.51 328 P **P** **00 21 25.6 +0.9**
PV02 IAmb IAmb 00 21 27.3
comp=Z,12nm,0.8s
PV13 Radium Mtn., P 63.52 328 P **P** **00 21 25.9 +1.2**
PV05 Paradox Valley 63.61 327 P **P** **00 21 25.8 +0.4**
PV05 IAmb IAmb 00 21 27.0
comp=Z,7.6nm,0.7s
PV03 Paradox Valley 63.61 328 P **P** **00 21 26.3 +0.9**
PV03 IAmb IAmb 00 21 41.1
comp=Z,7.0nm,1.1s
PV12 Saucer Basin, 63.63 328 IAmb IAmb 00 21 28.9
comp=Z,13nm,1.2s
PV18 Skein Mesa, Pa 63.63 328 P **P** **00 21 26.1 +0.6**
PV18 IAmb IAmb 00 21 29.1
comp=Z,6.0nm,0.8s
PV07 Paradox Valley 63.64 328 P **P** **00 21 26.6 +1.1**
PV07 IAmb IAmb 00 21 28.1
comp=Z,8.8nm,0.6s
PV11 David Mesa, Pa 63.65 328 P **P** **00 21 26.1 +0.5**
PV11 IAmb IAmb 00 21 28.8
comp=Z,7.7nm,1.0s
PV17 East Wray Mesa 63.68 328 P **P** **00 21 26.7 +0.9**
PV17 IAmb IAmb 00 21 27.6
comp=Z,6.5nm,0.8s
PV22 Blue Mesa, Par 63.79 328 IAmb IAmb 00 21 28.9
comp=Z,9.3nm,0.8s
PV10 Paradox Valley 63.80 328 IAmb IAmb 00 21 34.4
comp=Z,7.5nm,1.0s
O20A White River Ci 64.73 329 IAmb IAmb 00 21 35.0
comp=Z,8.2nm,0.7s
KNB Kanab 64.86 324 IAmb IAmb 00 21 37.0
comp=Z,14nm,1.0s
Q16A Castle Valley 65.32 327 **P** **00 21 37.1 +0.7**
Q16A IAmb IAmb 00 21 39.6
comp=Z,4.8nm,0.6s
P18A Preston Nutter 65.36 328 P **P** **00 21 37.9 +1.1**
P18A IAmb IAmb 00 21 39.5
comp=Z,5.7nm,0.8s
SHPR Sheep Range 65.87 322 IAmb IAmb 00 21 42.7
comp=Z,5.0nm,0.7s
BSUT Blindstream Ca 66.30 328 IAmb IAmb 00 21 45.6
comp=Z,11nm,1.2s
AGMN Agassiz Nation 66.69 342 P **P** **00 21 45.2 +0.5**
comp=Z,20nm,0.8s
TPNV Topopah Spring 66.81 322 IAmb IAmb 00 21 49.4
comp=Z,10nm,1.1s
DUG Dugway, Tooele 67.12 327 IAmb IAmb 00 21 50.8
comp=Z,8.2nm,0.9s
DUG Dugway, Tooele 67.12 327 P **P** **00 21 50.0 +2.2**
comp=Z,10nm,1.1s
BW06 Boulder Array 67.37 330 P **P** **00 21 50.2 +0.8**
PDAR Pinedale Array 67.37 330 P **P** **00 21 50.3 +0.9**
comp=Z,1.6nm,0.4s,baz=123,slow=7.7,SNR=23
comp=Z,1.6nm,0.4s
PDAR Pinedale Array 67.37 330 **P** **00 21 49.9 +0.4**
HWUT Hardware Ranch 67.49 328 IAmb IAmb 00 21 52.2
comp=Z,5.8nm,0.6s
AHID Auburn Hatcher 68.12 329 P **P** **00 21 55.7 +1.6**
comp=Z,15nm,0.7s
ULM Lac du Bonnet 68.46 343 P **P** **00 21 55.8 +0.1**
comp=Z,11nm,0.6s,baz=151,slow=5.8,SNR=24
comp=Z,11nm,0.6s
ULM Lac du Bonnet 68.46 343 IAmb IAmb 00 21 56.6
comp=Z,14nm,0.8s
SNOW Snow King Moun 68.47 330 P **P** **00 21 56.5 +0.1**
SNOW IAmb IAmb 00 21 58.7
comp=Z,7.7nm,0.7s
PKD Bear Valley Ra 68.81 319 P **P** **00 21 58.9 +0.5**
MDPB Devils Postpil 68.96 321 P **P** **00 22 00.1 +0.6**
LAO LASA Array 68.97 335 IAmb IAmb 00 22 02.9
comp=Z,5.9nm,0.7s
NVAR Mina Array Bea 69.01 322 P **P** **00 22 01.6 +1.9**
comp=Z,1.7nm,0.7s,baz=144,slow=6.5,SNR=12
NVAR PcP **PcP** **00 22 24.4 +1.6**
comp=Z,1.3nm,0.7s,baz=95,slow=3.6,SNR=5.7
comp=Z,1.7nm,0.7s
NVAR Mina Array Bea 69.01 322 P **P** **00 22 00.9 +1.2**
NVAR **PcP** **00 22 23.4 +0.6**
LHV Little Huntoon 69.01 322 P **P** **00 22 01.2 +1.8**
RLMT Red Lodge 69.04 332 P **P** **00 22 00.9 +1.1**
RLMT IAmb IAmb 00 22 01.8
comp=Z,5.4nm,0.6s
SNAA Sanae 69.14 162 P **P** **00 22 00.3 +0.5**
comp=Z,150nm,0.7s
SNAA Sanae 69.14 162 P **P** **00 22 00.2 +0.3**
comp=Z,4.6nm,0.6s,baz=260,slow=9.6,SNR=6.2
comp=Z,4.6nm,0.6s
SNAA Sanae 69.14 162 P **P** **00 22 00.3 +0.5**
DBIC Dimbokro 69.21 77 P **P** **00 22 00.0 -1.1**
comp=Z,3.9nm,0.5s,baz=253,slow=6.2,SNR=11
comp=Z,3.9nm,0.5s
DBIC Dimbokro 69.21 77 P **P** **00 22 00.2 -1.0**
KVN Kaiserville 69.30 323 **P** **00 22 01.5 +0.1**
HULI Fort Hunter Li 69.31 318 P **P** **00 22 02.4 +1.1**
YHH Holmes Hill 69.51 331 **P** **00 22 03.9 +1.1**
YHH IAmb IAmb 00 22 06.0
comp=Z,8.7nm,1.1s
DGMT Dagmar 69.63 337 P **P** **00 22 04.4 +1.4**
DGMT IAmb IAmb 00 22 05.7
comp=Z,16nm,0.8s
YHB Horse Butte 69.65 331 P **P** **00 22 04.4 +0.9**
YHB IAmb IAmb 00 22 06.7
comp=Z,8.1nm,0.7s
GCMT Greycliff 69.73 332 P **P** **00 22 05.3 +1.4**
WAKR Walker 69.74 321 P **P** **00 22 05.5 +1.3**
PNTR Pine Nut 70.21 322 IAmb IAmb 00 22 10.6
comp=Z,9.2nm,0.9s
MFID Camas Ranch 70.99 327 **P** **00 22 13.2 +1.6**
MFID IAmb IAmb 00 22 14.7
comp=Z,12nm,0.9s
MOD Modoc Plateau 72.42 324 IAmb IAmb 00 22 23.2
comp=Z,8.1nm,0.8s
F10A Beach Ranch, E 73.48 328 P **P** **00 22 26.6 +0.4**
QSPA South Pole Qui 75.19 180 P **P** **00 22 37.6 +1.7**
comp=Z,4.6nm,0.8s,baz=163,slow=2.6,SNR=16
comp=Z,4.6nm,0.8s
QSPA South Pole Qui 75.19 180 P **P** **00 22 38.3 +2.4**
EDM Edmonton 76.94 336 IAmb IAmb 00 22 47.7
comp=Z,19nm,1.1s
TORD Torodi Ar. Bea 77.39 73 P **P** **00 22 48.2 -0.9**
comp=Z,1.9nm,0.6s,baz=264,slow=2.6,SNR=2.8
comp=Z,1.9nm,0.6s
ESDC Sonseca Array 82.83 46 P **P** **00 23 19.8 +2.0**
comp=Z,1.0nm,0.7s,baz=254,slow=5.5,SNR=12
comp=Z,1.0nm,0.7s
VNDA Vanda 82.86 190 P **P** **00 23 19.4 +2.1**
comp=Z,1.7nm,0.9s,baz=133,slow=3.9,SNR=12
comp=Z,1.7nm,0.9s
VNDA Vanda 82.86 190 P **P** **00 23 18.5 +1.2**
YKA Yellowknife Ar 84.33 341 P **P** **00 23 25.4 +0.6**
comp=Z,5.1nm,0.7s,baz=138,slow=5.2,SNR=40
comp=Z,5.1nm,0.7s
YKA Yellowknife Ar 84.33 341 P **P** **00 23 26.1 +1.2**
KOOLE Kule 85.56 112 **P** **00 23 32.9 +0.7**
BOSA Boshof 88.50 119 P **P** **00 23 48.8 +2.6**
comp=Z,1.1nm,0.6s,baz=240,slow=8.1,SNR=1.4
comp=Z,1.1nm,0.6s
BOSA Boshof 88.50 119 P **P** **00 23 46.7 +0.4**
ILAR Eielson Array 97.42 335 P Pdif 00 24 26.9 +0.6
comp=Z,0.4nm,0.7s,baz=151,slow=2.8,SNR=6.6
comp=Z,0.4nm,0.7s
BVAR Borovoye Array 131.47 30 SKPbc **SKPab** **00 33 17.7 +1.3**
comp=Z,2.6nm,0.6s,baz=277,slow=3.8,SNR=6.9
ASAR Alice Springs 134.41 213 PKP **PKiKP** **00 30 11.8 -0.7**
comp=Z,1.1nm,0.9s,baz=152,slow=2.1,SNR=7.2
ZAA0 Zalesovo Array 136.82 21 PKP **PKiKP** **00 30 16.0 -0.4**
ZALV Zalesovo Beam 136.82 21 PKP **PKiKP** **00 30 15.9 -0.5**
comp=Z,4.3nm,0.7s,baz=302,slow=2.8,SNR=15
ZALV SKP **SKPbc** **00 33 34.8 +1.6**
comp=Z,1.7nm,0.7s,baz=333,slow=3.8,SNR=3.7
ZALV Zalesovo Beam 136.82 21 **PKPdf** **00 30 14.8 +0.2**
KURBB Kurchatov Arra 136.87 28 PKP **PKiKP** **00 30 16.0 -0.6**
comp=Z,0.5nm,0.2s,baz=238,slow=12,SNR=1.1
KURBB SKPbc **SKiKP** **00 33 35.6 -2.8**
comp=Z,1.1nm,0.9s,baz=307,slow=3.5,SNR=7.5
WRA Warramunga Arr 137.15 217 PKP **PKiKP** **00 30 17.3 -0.9**
comp=Z,1.4nm,0.6s,baz=137,slow=1.6,SNR=18
WRA SKPbc **SKPbc** **00 33 35.8 +0.5**
comp=Z,0.3nm,0.8s,baz=148,slow=2.4,SNR=4.7
WRA Warramunga Arr 137.15 217 **PKPdf** **00 30 16.1 -0.2**
MKAR Makanchi Array 141.35 29 PKP **PKiKP** **00 30 24.3 -1.7**
comp=Z,0.4nm,0.6s,baz=323,slow=2.9,SNR=4.5
MKAR SKPbc **SKiKP** **00 33 47.1 -0.8**
comp=Z,2.0nm,0.8s,baz=326,slow=3.1,SNR=12
MKAR Makanchi Array 141.35 29 PKP **PKiKP** **00 30 24.8 -1.2**
KSH2 Kashi 142.22 44 PKP **PKPdf** **00 30 20.0 -5.1**
HILR Hailar Array B 144.36 348 PKP **PKPdf** **00 30 28.1 -0.3**
comp=Z,2.9nm,0.4s,baz=64,slow=3.4,SNR=5.6
USRK Ussuriysk Ar. 144.80 331 PKP **PKPdf** **00 30 29.6 +0.4**
comp=Z,3.7nm,0.5s,baz=22,slow=3.5,SNR=19
MJAR Matsushiro Arr 146.09 315 PKPbc **PKPab** **00 30 33.5 -0.3**
comp=Z,12nm,1.0s,baz=53,slow=0.7,SNR=16
MJAR Matsushiro Ar 146.09 315 **PKPdf** **00 30 30.9 -0.9**
SONM Songino Array 147.17 3 PKPbc **PKPab** **00 30 37.1 -0.6**
comp=Z,3.9nm,0.5s,baz=318,slow=1.9,SNR=30
KSRS Korea Array 151.88 326 PKPbc **PKiKP** **00 30 49.2 +1.4**
comp=Z,7.1nm,0.8s,baz=18,slow=1.8,SNR=12
DL2 Dalian 153.60 337 *e*PKP PKPdf 00 30 30.8 -13
HHC Hu-ho-hao-te 154.10 355 *eP* **PKPdf** **00 30 40.3 -4.0**
NJ2 Nanjing 160.66 333 *eP* **PKPdf** **00 30 51.8 -0.8**
NJ2 pmax pmax
comp=Z,10.0nm,0.6s

CNRM ***20*** *00:40:22.1,35.˚67N×3.˚70W,h15km,ML2.0*
SFS ***20*** *00:40:22.8,35.˚42N×3.˚69W,h7km,ML2.9/13,ML2.9/13, MLv2.9/13*
MDD ***20*** *00:40:22.6±0.7,35.˚42N×3.˚69W,h5km±7km,mb_Lg2.3/16, Error ellipse: s-maj=7.7km s-min=3.7km az=164.0*
INMG ***20*** *00:40:23.8±2.0,35.˚29N×3.˚60W,h31km±20km,ML1.6, Error ellipse: s-maj=6.7km s-min=5.4km az=18.0, #DIST_RANGE: REGIONAL #IPMA_REGION: E Al Hoceima (MARR)*

ISC 20 00:40:22.4±1.3**, 35.˚50N**±0.˚03×**3.˚69W**±0.˚03**, h8**km±11km**, n43,** σ1.9**11/80, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.35**	**217**	P	**Pb**	**00 40 31.4**	**+0.6**
PALE				S	**Sb**	**00 40 38.3**	**+1.8**
WMELI	**Melilla**	**0.62**	**106**	P	**Pg**	**00 40 33.7**	**-0.8**
WMELI				S	**Sg**	**00 40 41.9**	**-0.7**
EMEL	**Melilla**	**0.63**	**108**	P	**Pg**	**00 40 33.5**	**-1.0**
EMEL				S	**Sg**	**00 40 42.3**	**-0.4**
EMLI	**Melilla**	**0.63**	**108**	P	**Pg**	**00 40 34.4**	**-0.2**
EMLI				S	**Sg**	**00 40 42.8**	**-0.1**
EALB	**Alboran**	**0.69**	**50**	P	**Pb**	**00 40 37.4**	**+0.7**
EALB				S	**Sb**	**00 40 46.7**	**+0.4**
EALB	**Alboran**	**0.69**	**50**	P	**Pb**	**00 40 37.6**	**+0.9**
EALB				S	**Sb**	**00 40 46.3**	**-0.1**
EALB				IVmb_Lg		00 40 47.9	
AKLM	**AKL**	**0.99**	**188**	P	**Pg**	**00 40 43.4**	**+1.9**
AKLM				S	**Sn**	**00 40 58.1**	**+1.1**

ELGU	Los Guajares,	1.37	2	P		Pn	00 40 47.2	-0.7
ELGU				S		Sn	00 41 05.5	-0.8
ELGU	Los Guajares,	1.37	2	P		Pn	00 40 47.9	0.0
ELGU				S		Sn	00 41 05.2	-1.1
ELGU				IVmb_Lg			00 41 06.6	
EMIJ	Mijas	1.38	321	P		Pn	00 40 47.9	-0.2
EMIJ				S		Sn	00 41 05.2	-1.4
EMIJ	Mijas	1.38	321	P		Pn	00 40 47.4	-0.6
EMIJ				S		Sn	00 41 05.5	-1.1
EMIJ				IVmb_Lg			00 41 10.4	
SMIR	Smir Dam	1.39	278	P		Pn	00 40 47.1	-1.0
SMIR				S		Sn	00 41 05.5	-1.2
ECEU	Ceuta	1.43	287	P		Pn	00 40 48.0	-0.7
ECEU				S		Sn	00 41 05.8	-2.0
ECEU	Ceuta	1.43	287	P		Pn	00 40 48.3	-0.5
ECEU				S		Sn	00 41 06.7	-1.1
ECEU				IVmb_Lg			00 41 17.8	
JBK	JBK	1.48	141	P		Pn	00 40 49.8	+0.3
JBK				S		Sg	00 41 10.6	+0.7
EBER	Berja	1.54	24	P		Pn	00 40 49.9	-0.5
EBER				S		Sn	00 41 11.3	+0.7
EBER	Berja	1.54	24	P		Pn	00 40 50.2	-0.1
EBER				S		Sn	00 41 09.6	-1.0
EBER				IVmb_Lg			00 41 13.6	
EGOR	Sierra Gorda,	1.65	348	P		Pn	00 40 51.4	-0.4
EGOR				S		Sn	00 41 12.9	-0.4
EGOR	Sierra Gorda,	1.65	348	P		Pn	00 40 51.1	-0.6
EGOR				S		Sn	00 41 13.9	+0.7
EGOR				IVmb_Lg			00 41 19.9	
EQUE	Quentar	1.72	7	P		Pn	00 40 52.2	-0.5
EQUE				S		Sn	00 41 15.0	+0.1
EQUE				IVmb_Lg			00 41 17.7	
EQTA	Presa de Quent	1.72	6	P		Pn	00 40 52.6	-0.2
EQTA				S		Sn	00 41 14.3	-0.7
EJIF	Jimena Fronter	1.73	304	P		Pn	00 40 52.8	0.0
EJIF				S		Sn	00 41 14.4	-0.8
EQES	Quesada	2.36	12	P		Pn	00 41 02.5	+1.0
EQES				S		Sn	00 41 31.6	+1.0
EQES				IVmb_Lg			00 41 36.1	
EADA	Adamuz	2.76	345	P		Pn	00 41 05.9	-1.1
EADA				S		Sn	00 41 41.1	+0.6
EADA	Adamuz	2.76	345	P		Pn	00 41 06.8	-0.2
EADA				S		Sn	00 41 41.4	+0.8
EADA				IVmb_Lg			00 41 48.0	
MD31	MD31	2.77	199	P		Pn	00 41 08.7	+1.5
MD31				S		Sb	00 41 44.3	-2.0
MDT	Midelt	2.78	196	P		Pb	00 41 10.2	-2.2
MDT				S		Sb	00 41 44.7	-1.9
ECAB	El Cabril	2.93	332	P		Pn	00 41 09.6	+0.3
ECAB				S		Sn	00 41 44.9	+0.3
ECAB	El Cabril	2.93	332	P		Pn	00 41 08.5	-0.8
ECAB				S		Sn	00 41 45.8	+1.2
ECAB				IVmb_Lg			00 41 59.3	
EMUR	La Murta	3.06	39	S		Sn	00 41 46.5	-1.4
PSIM	Granatula de C	3.32	359	S		Sn	00 41 54.7	+0.3
ETOB	Tobarra	3.58	28	P		Pn	00 41 19.1	+0.9
ETOB				S		Sn	00 42 01.1	+0.4
ETOB	Tobarra	3.58	28	P		Pn	00 41 18.3	0.0
ETOB				S		Sn	00 42 00.4	-0.3
ETOB				IVmb_Lg			00 42 15.0	
EGRO	El Granado	3.67	305	P		Pn	00 41 20.0	+0.5
EGRO				S		Sn	00 42 02.4	-0.6
PVAQ	Vaqueiros	3.77	302	*e*Pn		Pn	00 41 22.8	+2.0
PVAQ				*e*Sn		Sn	00 42 04.7	-0.6
PBAR	Barrancos	3.79	316	P		Pn	00 41 21.5	+0.4
PBAR				S		Sn	00 42 04.3	-1.7
PBAR	Barrancos	3.79	316	*e*Pn		Pn	00 41 23.3	+2.2
PBAR				*e*Sn		Sn	00 42 06.7	+0.8
PBDV	Barranco-do-Ve	3.84	298	P		Pn	00 41 21.7	-0.2
PBDV				S		Sn	00 42 06.0	-1.3
EBAD	Badajoz	4.20	322	P		Pn	00 41 26.9	+0.1
EBAD				S		Sn	00 42 15.3	-0.8
EBAD				IVmb_Lg			00 42 19.0	
PLOUS	Minas do Lousa	4.57	305	*e*Pn		Pn	00 41 34.6	+2.9
EVO	Evora	4.60	312	*e*Pn		Pn	00 41 34.6	+2.4
PARRA	Arraiolos	4.80	315	*e*Pn		Pn	00 41 36.7	+1.7
PMRV	Marv??o	4.91	324	*e*Pn		Pn	00 41 39.1	+2.6

VAO ***20*** *00:56:58.4±2.3,6˙95N×73˙09W,h154km±12km,mb4.3, Presumed earthquake*

CATAC ***20*** *00:56:59.8±0.5,7˚N±3˚×7˚3W±˚,h158km±5km,M4.7/4, MLv4.7/4,Error ellipse: s-maj=9.3km s-min=4.8km az=123.9,confirmed*

IDC ***20*** *00:56:59.5±0.6,6˙75N×73˙05W,h153km±6km,mb4.0/15, mbtmp4.5/20,Error ellipse: s-maj=11.1km s-min=7.0km az=131.0*

RSNC ***20*** *00:56:59.7±0.0,7˚N±3˚×7˚3W±˚,h152km±6km,M4.7, mB5.5,mb5.1,ML4.2,Mw(mB)4.9*

GFZ ***20*** *00:57:00.2±0.3,7˚N±4˚×7˚3W±˚,h154km,M4.6/25, mb4.6/25,confirmed*

NEIC ***20*** *00:57:00.5±1.5,6˙83N±0˙05×73˙07W±0˙06,h149km±5km, mb4.7/346,Error ellipse: s-maj=8.2km s-min=7.9km az=105.0*

FUNV ***20*** *00:57:01.8,6˙86N×73˙13W,h143km,MW4.5,Presumed earthquake*

ISC 20 00:56:59.8±0.5,6˙83N±0˙03×73˙08W±0˙03,h154km±5km, n458,σ1§32/452,mb4.7/186,3C-5D,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
BARC	Barichara	0.25	203	P		Pn	00 57 21.5	+0.5
BARC				S		Sn	00 57 36.8	-0.3
BRJC	Barrancabermej	0.67	283	P		Pn	00 57 23.1	+0.6
BRJC				S		Sn	00 57 40.1	+0.3
RUSC	La Rusia	0.93	180	P		Pn	00 57 25.4	+0.4
RUSC				S		Sn	00 57 44.3	+0.2
RUSC	La Rusia	0.93	180	P		Pn	00 57 25.3	+0.4
RUSC				Sn		Sn	00 57 43.4	-0.7
RUSC	La Rusia	0.93	180	P		Pn	00 57 25.3	+0.4
RUSC				S		Sn	00 57 43.5	-0.6
RUSC	La Rusia	0.93	180	*e*P		Pn	00 57 25.5	+0.6
RUSC				*e*S		Sn	00 57 40.9	-3.1
CAPV	Capacho	1.28	36	*e*P		Pn	00 57 29.5	+1.8
CAPV				*e*S		Sn	00 57 48.5	-0.6
TAMC	Tame, Arauca	1.34	107	P		Pn	00 57 29.9	+1.8
TAMC				S		Sn	00 57 51.1	+1.4
PTBC	PUERTO BERRIO,	1.39	258	P		Pn	00 57 27.7	-0.9
PTBC				S		Sn	00 57 49.2	-1.4
OCAC	Ocana	1.42	351	P		Pn	00 57 29.6	+0.6
OCAC				S		Sn	00 57 51.0	-0.5
SPBC	San Pablo de B	1.53	220	P		Pn	00 57 30.1	+0.1
SPBC				S		Sn	00 57 52.3	-0.9
NORC	Norcasia	2.17	235	P		Pn	00 57 37.1	-0.2
NORC				S		Sn	00 58 04.6	-1.5
CHIC	Chingaza	2.28	197	P		Pn	00 57 39.4	+0.6
CHIC				S		Sn	00 58 08.5	-0.4
ROSC	El Rosal	2.33	212	P		Pn	00 57 40.2	+0.8
	1μm,0.3s,baz=23,slow=7.7,SNR=284							
ROSC				S		Sn	00 58 08.2	-1.7
	3μm,0.6s,baz=115,slow=16,SNR=12							
ROSC	El Rosal	2.33	212			Pn	00 57 40.9	+1.5
ROSC				S		Sn	00 58 08.1	-1.7
ROSC	El Rosal	2.33	212	P		Pn	00 57 41.1	+1.7
ROSC				S		Sn	00 58 08.2	-1.7
CVER	Cruz Verde, Cu	2.49	203	P		Pn	00 57 42.9	+1.4
CVER				S		Sn	00 58 14.5	+0.9
HELC	Santa Helena	2.51	256	P		Pn	00 57 43.3	+1.7
HELC				S		Sn	00 58 14.4	+0.6
HELC	Santa Helena	2.51	256			Pn	00 57 41.5	-0.1
HELC				Sn		Sn	00 58 13.7	0.0
HELC	Santa Helena	2.51	256	P		Pn	00 57 41.3	-0.3
HELC				S		Sn	00 58 13.0	-0.8
HELC	Santa Helena	2.51	256	*e*P		Pn	00 57 43.0	+1.4
HELC				*e*S		Sn	00 58 11.9	-1.8
UREC	San Jos de Ur	2.60	291	P		Pn	00 57 41.2	-1.1
UREC				S		Sn	00 58 12.8	-2.4
GUY2C	Guyana, Caldas	2.77	235	P		Pn	00 57 45.2	+0.3
GUY2C				S		Sn	00 58 19.7	0.0
PTGC	Puerto Gaitan,	2.78	160	P		Pn	00 57 44.5	0.0
PTGC				S		Sn	00 58 16.9	-2.3
NIZA	Niza - Manizal	2.95	234	P		Pn	00 57 48.4	+1.4
NIZA				S		Sn	00 58 25.3	+1.8
CBOC	Ciudad Bolivar	3.06	252	P		Pn	00 57 48.6	+0.3
CBOC				S		Sn	00 58 24.3	-1.5
SDV	Santo Domingo	3.17	50	P		Pn	00 57 50.9	+1.2
	301nm,0.4s,baz=230,slow=9.0,SNR=206							
SDV				S		Sn	00 58 29.0	+0.7
	1μm,0.4s,baz=92,slow=22,SNR=36							
SDV	Santo Domingo	3.17	50			Pn	00 57 50.4	+0.6
SDV					Sn	Sn	00 58 27.2	-1.2
SDV	Santo Domingo	3.17	50	P		Pn	00 57 50.9	+1.2
SDV				S		Sn	00 58 27.7	-0.7
SDV	Santo Domingo	3.17	50	*e*P		Pn	00 57 51.1	+1.4
SDV	Santo Domingo	3.17	50	P		Pn	00 57 51.1	+1.4
ARGC	Ariguani, Magd	3.23	339	P		Pn	00 57 51.3	+1.1
ARGC				S		Sn	00 58 29.6	+0.3
ARMEC	Armenia, Quind	3.42	229	P		Pn	00 57 53.8	+1.0
ARMEC				S		Sn	00 58 37.7	+3.8
PRAC	Prado	3.58	210	P		Pn	00 57 54.9	+0.1
PRAC				S		Sn	00 58 38.4	+1.0
PRAC	Prado	3.58	210	P		Pn	00 57 54.4	-0.3
PRAC				S		Sn	00 58 36.0	-1.4
ORTC	Ortega, Tolima	3.61	217	P		Pn	00 57 55.0	-0.2
ORTC				S		Sn	00 58 38.4	+0.2
APAC	Apartado, Choc	3.63	287	P		Pn	00 57 55.3	-0.1
APAC				S		Sn	00 58 38.4	-0.1
SJCC	San Jacinto, C	3.69	326	P		Pn	00 57 55.3	-0.9
SJCC				S		Sn	00 58 37.1	-3.0
SJCC	San Jacinto, C	3.69	326			Pn	00 57 55.1	-1.2
SJCC					Sn	Sn	00 58 36.7	-3.3
SJCC	San Jacinto, C	3.69	326	P		Pn	00 57 55.0	-1.2
SJCC				S		Sn	00 58 36.0	-4.0
SJCC	San Jacinto, C	3.69	326	*e*P		Pn	00 57 55.3	-0.9
SJCC				*e*S		Sn	00 58 35.5	-4.5
URMC	La Uribe, Meta	3.78	200	P		Pn	00 57 57.8	+0.3
URMC				S		Sn	00 58 41.4	-0.9
LCBC	Los crdobas,	3.83	302			Pn	00 57 57.1	-0.8
LCBC					Sn	Sn	00 58 44.0	+0.9
LCBC	Los crdobas,	3.83	302	P		Pn	00 57 57.3	-0.6
LCBC				S		Sn	00 58 42.6	-0.5
CRJC	Cerrejon, Guaj	4.17	3	P		Pn	00 58 01.7	-0.8
CRJC				S		Sn	00 58 48.9	-2.4
GUVC	San Jose del G	4.28	174	P		Pn	00 58 03.2	-0.6
GUVC				S		Sn	00 58 51.6	-2.1
YOTC	Yotoco, Valle	4.30	229	P		Pn	00 58 03.5	-0.8
YOTC				S		Sn	00 58 57.5	+3.1
SMRC	Santa Marta, M	4.46	345			Pn	00 58 06.1	-0.1
SMRC					Sn	Sn	00 58 53.9	-3.9
SMRC	Santa Marta, M	4.46	345	P		Pn	00 58 05.8	-0.3
SMRC				S		Sn	00 58 54.4	-3.4
PIZC	Pizarro, Choco	4.64	247	P		Pn	00 58 09.0	+0.5
PIZC				S		Sn	00 59 02.0	-0.1
MACC	Macarena, Meta	4.71	189	P		Pn	00 58 08.2	-1.4
MACC				S		Sn	00 58 59.4	-4.6
BETC	Betania	4.74	210	P		Pn	00 58 09.4	-0.6
BETC				S		Sn	00 58 56.0	-8.7
URI	Uribia	4.96	12	P		Pn	00 58 11.7	-1.1
URIC	Uribia, Colomb	4.96	12			Pn	00 58 11.7	-1.1
URIC					Sn	Sn	00 59 06.1	-3.7
URIC	Uribia, Colomb	4.96	12	P		Pn	00 58 11.7	-1.1
URIC				S		Sn	00 59 06.7	-3.1
URIC					AML	AML		
URIC	Uribia, Colomb	4.96	12	*e*P		Pn	00 58 12.0	-0.8
URIC				*e*S		Sn	00 59 04.2	-5.6
JAMC	Jamundi, Valle	5.07	225	P		Pn	00 58 13.6	-0.8
JAMC				S		Sn	00 59 09.9	-2.7
GARC	Garzon, Huila	5.20	208	P		Pn	00 58 15.2	-1.0
GARC				S		Sn	00 59 12.2	-3.6
GARC					AML	AML		
MAPV	Macapo	5.46	57	*e*P		Pn	00 58 19.6	+0.1
POPC	Popayan, Colom	5.56	220	P		Pn	00 58 20.6	-0.4
	2μm218nm,0.7s							
POPC				S		Sn	00 59 23.6	-0.9
	2μm218nm,0.7s							
POPC					AML	AML		
JACV	Jacura	5.96	44	*e*P		Pn	00 58 26.5	+0.3
BENV	Beln	6.26	60	*e*P		Pn	00 58 29.4	-0.6
TURV	Turiamo	6.31	55	*e*P		Pn	00 58 30.3	-0.4
BBAC	Balboa, Cauca	6.33	221	P		Pn	00 58 30.1	-1.0
	3μm187nm,0.7s							
BBAC				S		Sn	00 59 41.3	-1.3
	3μm187nm,0.7s							
CRUC	La Cruz	6.49	217	P		Pn	00 58 36.6	+3.1
PTLC	Puerto Leguiza	6.83	195	P		Pn	00 58 40.0	+2.3
BCIP	Isla Barro Col	7.08	290	P		Pn	00 58 38.7	-2.3
	36nm,0.5s							
BCIP				S		Sn	00 59 58.3	-2.1
	36nm,0.5s							
BCIP	Isla Barro Col	7.08	290	P		Pn	00 58 38.9	-2.1
	comp=Z,37nm,0.5s							
CMBC	Cumbal	7.52	219	P		Pn	00 58 47.2	-0.1
TULM	Tulcn-Chalpat	7.67	218	P		Pn	00 58 50.2	+0.9
CASC	Dorado de Casc	7.89	213	P		Pn	00 58 50.6	-1.3
OTAV	Otavalo	8.46	220			Pn	00 58 58.8	-1.0
OTAV					Sn	Sn	00 59 31.6	-2.0
OTAV	Otavalo	8.46	220	P		Pn	00 58 57.8	-2.0
OTAV	Otavalo	8.46	220	P		Pn	00 58 59.0	-0.7
	comp=Z,40nm,0.8s							
OTAV	Otavalo	8.46	220	*e*P		Pn	00 58 59.1	-0.7
PAC1	Pacto, Paraso	8.65	221	P		Pn	00 59 00.0	-2.1
SLOR	San Lorenzo -	9.25	216			Pn	00 59 09.9	-0.4
PIAT	Ana Tenorio	9.33	214	P		Pn	00 59 10.6	-0.8
BRU2	Volcan	9.72	282	Pn		Pn	00 59 15.6	-0.6
LCR2	La Lucha 2	11.19	286			Pn	00 59 35.6	-0.1
PCJ	Portland Cotta	11.55	340	↓*i*P		Pn	00 59 43.2	+3.0
PCJ				↓*i*S		Sn	01 01 39.0	-9.0
HOJ	Hope	11.67	342	*i*P		Pn	00 59 44.7	+2.9
GWJ	Greenwich	11.73	343	↑*i*P		Pn	00 59 44.9	+2.2
STH	Stony Hill	11.76	342	*i*P		Pn	00 59 45.2	+2.3
STH				↑↑*i*P		P	00 59 45.5	-4.3
STH				*i*S		Sn	01 01 41.9	-11
MCJ	Malvern	11.91	338	↓*i*P		Pn	00 59 47.6	+2.7
CVJ	Coleyville	12.13	339	↓*i*P		Pn	00 59 50.9	+3.0
CVJ				↑↑*i*S		Sn	01 01 53.2	-9.0
SDDR	Presa de Saban	12.21	8			Pn	00 59 48.7	-0.1
SDDR	Presa de Saban	12.21	8	P		Pn	00 59 48.3	-0.5
SDDR	Presa de Saban	12.21	8	*i*P		P	00 59 52.6	-2.2
SDDR	Presa de Saban	12.21	8	P		Pn	00 59 48.9	+0.1
	comp=Z,40nm,0.6s							
JTS	Las Juntas de	12.23	287	P		Pn	00 59 49.8	+0.7
	comp=Z,4.0nm,0.5s,baz=177,slow=1.6,SNR=3.9							
JTS	Las Juntas de	12.23	287	P		Pn	00 59 49.8	+0.7
	comp=Z,60nm,0.8s							
OBIP	Obispado Ponce	12.81	29	Pn		Pn	00 59 55.3	-1.3
CELP	Cerrillos	12.85	29			Pn	00 59 56.3	-0.8
AOPR	Arecibo Observ	13.01	28	Pn		Pn	00 59 58.4	-0.6
PDPR	Patillas Dam,	13.08	31			Pn	00 59 59.7	-0.3
ECPR	Experimental S	13.17	29	Pn		Pn	01 00 00.2	-0.8
GTBY	Guantanamo Bay	13.17	352	Pn		Pn	01 00 00.9	-0.2
GTBY	Guantanamo Bay	13.17	352	↓*i*P		P	01 00 04.3	-1.3
GTBY	Guantanamo Bay	13.17	352	*i*P		P	01 00 04.2	-1.3
GTBY					IAmb	IAmb	01 00 05.7	
	comp=Z,82nm,0.5s							
GTBY	Guantanamo Bay	13.17	352	P		P	01 00 04.8	-0.7
	comp=Z,140nm,0.6s							
BOAV	Boa Vista	13.27	109			Pn	01 00 02.8	+0.4
BOAV	Boa Vista	13.27	109	P		Pn	01 00 01.2	-1.2
BOAV	Boa Vista	13.27	109	*e*P		Pn	01 00 01.6	-0.8
HUMP	Col San Antoni	13.28	31	Pn		Pn	01 00 00.1	-2.3
GCPR	Guaynabo City	13.30	30			Pn	01 00 02.8	+0.1
MARVS	Santiago de Cu	13.38	348	*i*P		P	01 00 07.3	-0.5
MARVS					IAmb	IAmb	01 00 08.8	
	comp=Z,34nm,0.6s							
QMBU	Quimbuelo	13.40	353	*i*P		P	01 00 06.8	-1.3
BOAB	BOACO BROADBAN	13.60	295	P		Pn	01 00 06.9	+0.3
SABCS	La Quijada	13.63	351	*i*P		P	01 00 09.8	-0.8
SABCS					IAmb	IAmb	01 00 11.9	
	comp=Z,53nm,0.6s							
PILO	Pilon	13.66	343	*i*P		Pn	01 00 09.5	+2.1
LMGC	Las Mercedes	13.70	344	*i*P		P	01 00 10.5	-0.9
NMDO	Nuevo Mundo	13.78	353	*i*P		P	01 00 12.5	+0.3
PINC	Pinares de May	13.83	349	*i*P		P	01 00 12.8	+0.0
YAR	Yar	13.83	347	*i*P		P	01 00 13.1	+0.2
MOAC	Moa	13.87	353	*i*P		P	01 00 14.4	+1.1
HLGC	Holguin	14.28	349	*i*P		P	01 00 21.5	+3.7
CBCY	The Bluff, Cay	14.38	334	*i*P		P	01 00 21.0	+2.1
LCCY	Blossom Villag	14.46	333	*i*P		P	01 00 21.7	+1.9
FSCY	Frank Sound, G	14.70	328	*i*P		P	01 00 25.5	+3.0
ATAH	Atahualpa	14.85	201	P		Pn	01 00 22.9	+0.3
	comp=Z,7.9nm,0.6s,baz=28,slow=8.5,SNR=9.9							
ATAH					S	S	01 03 15.1	+0.6
	comp=Z,13nm,1.0s,baz=190,slow=18,SNR=4.3							
CCCC	Cccc	14.99	343	*i*P		P	01 00 29.7	+4.0
GDSD	La Dsirade Is	15.07	50	Pn		Pn	01 00 25.2	+0.1
GDSD					IAmb	IAmb	01 00 26.5	
	comp=Z,62nm,1.0s							
TGUH	Tegucigalpa,Un	15.69	298			P	01 00 34.2	+0.5
TGUH					IAmb	IAmb	01 00 36.3	
	comp=Z,28nm,0.8s							
TGUH	Tegucigalpa,Un	15.69	298	P		P	01 00 35.8	+2.1
	comp=Z,44nm,1.4s							
MTO3	Montecristo	17.67	297	P		P	01 00 55.6	0.0
ESQI	Esquipulas	17.72	297	P		Pn	01 00 57.2	-0.1
SOR	Soroa	18.53	330	P		P	01 01 06.0	+1.3
SOR					IAmb	IAmb	01 01 45.0	
	comp=Z,85nm,1.5s							
APG	El Apazote	18.89	297	P		P	01 01 08.4	-0.5
	comp=Z,0.6nm,0.6s,baz=105,slow=12,SNR=5.3							
NNA	Nana	19.06	191	P		P	01 01 10.1	-0.4
	comp=Z,7.2nm,0.5s,baz=351,slow=8.7,SNR=3.7							
NNA	Nana	19.06	191	P		P	01 01 10.1	-0.4
NNA					IAmb	IAmb	01 01 32.1	
	comp=Z,43nm,1.4s							
TEIG	Tepich	19.86	314	P		P	01 01 20.9	+1.7
MDP	Montagnes des	20.40	94	P		P	01 01 26.3	+1.3
	comp=Z,11nm,0.8s,baz=305,slow=12,SNR=12							
	comp=Z,11nm,0.8s							
ITTB	Itatiuba	20.58	122	*e*P		P	01 01 26.3	-0.6
NPGB	Novo Progresso	22.42	128	*e*P		P	01 01 45.4	-0.6
VILB	Vilhena	23.45	147			P	01 01 55.7	+0.2
VILB					IAmb	IAmb	01 02 28.2	
	comp=Z,25nm,1.0s							
VILB	Vilhena	23.45	147	*e*P		P	01 01 55.8	+0.2
LPAZ	La Paz	23.48	168	P		P	01 01 55.4	-1.1
	comp=Z,2.3nm,0.5s,baz=339,slow=5.7,SNR=11							
	comp=Z,2.3nm,0.5s							
LPAZ	La Paz	23.48	168			P	01 01 55.9	-0.6
LPAZ	La Paz	23.48	168	P		P	01 01 56.6	+0.2
	comp=Z,6.0nm,1.1s							
LPAZ	La Paz	23.48	168	*e*P		P	01 01 55.6	-0.9
656A	Willston	24.13	339	P		P	01 02 03.4	+1.8
PDRB	Porto dos Gac	24.50	138	*e*P		P	01 02 04.4	-0.7
CLDB	Colider	24.60	135	P		P	01 02 05.6	-0.4
	comp=Z,11nm,1.0s							
CLDB	Colider	24.60	135	*e*P		P	01 02 04.8	-1.3
GO01	Chusmiza	26.61	172	P		P	01 02 23.0	-1.6
GO01					IAmb	IAmb	01 03 01.7	
	comp=Z,15nm,1.2s							
PB11	IPOC Station P	26.63	173	P		P	01 02 22.8	-1.7
152A	Waverly Hall	27.90	339	P		P	01 02 36.5	+1.0
152A					IAmb	IAmb	01 02 38.3	
	comp=Z,13nm,0.7s							
GOGA	Godfrey	28.15	341	P		P	01 02 39.4	+1.7
	comp=Z,12nm,2.1s							
LRAL	Lakeview Retre	29.11	335	P		P	01 02 47.1	+1.0
SMTB	Santa Maria do	29.81	121			P	01 02 53.0	+0.4
SMTB					IAmb	IAmb	01 02 53.7	
	comp=Z,19nm,1.1s							
V55A	Taylorsville	29.84	347	P		P	01 02 54.6	+2.0
V55A					IAmb	IAmb	01 02 57.7	
	comp=Z,13nm,1.3s							
FPAL	Fort Paine	29.91	339	P		P	01 02 54.5	+1.2
VBMS	Vicksburg	30.04	330	P		P	01 02 55.6	+1.2
X48A	Hartselle	30.36	337	P		P	01 02 58.0	+0.8
X48A					IAmb	IAmb	01 02 59.8	
	comp=Z,15nm,0.7s							
CPCT	Cooper Cave	30.36	341	P		P	01 02 58.5	+1.3
CPCT					IAmb	IAmb	01 03 00.1	
	comp=Z,8.6nm,0.8s							
U54A	Nelsons Funny	30.62	346	P		P	01 03 00.6	+1.1
ARAG	Araguaiana, MT	30.74	137	*e*P		P	01 02 59.3	-1.5
Y45A	Yeager Farm, C	30.92	333	P		P	01 03 02.7	+0.6
TZTN	Tazewell	31.09	344	P		P	01 03 05.6	+2.0
	comp=Z,12nm,1.2s							
V48A	Smith Brothers	31.42	338	P		P	01 03 07.2	+0.7
T50A	Nancy	31.91	342	P		P	01 03 11.7	+0.9
T50A					IAmb	IAmb	01 03 13.5	
	comp=Z,16nm,1.2s							
NATX	Nacogdoches	31.96	324	P		P	01 03 11.6	+0.3
CCAR	Cane Creek	32.03	330	P		P	01 03 12.4	+0.6
WVT	Waverly	32.14	337			P	01 03 13.3	+0.5
WVT	Waverly	32.14	337	P		P	01 03 14.1	+1.3
	comp=Z,21nm,1.3s							
T47A	Sharon Grove	32.63	339	P		P	01 03 17.9	+0.8
R50A	Paris	32.93	344			P	01 03 21.0	+1.3
R50A					IAmb	IAmb	01 03 22.6	
	comp=Z,14nm,0.7s							
X40A	Basin Creek Fa	33.01	329	P		P	01 03 20.2	-0.2
X40A					IAmb	IAmb	01 03 21.9	
	comp=Z,9.6nm,0.7s							
435B	Jarrell	33.09	319	P		P	01 03 21.4	+0.1
Z38A	Mt. Pleasant	33.24	325	P		P	01 03 22.1

OK029 IAmb IAmb 01 03 52.2
comp=Z,16nm,0.8s
TX31 Lajitas Ar. Si 36.49 312 P 01 03 50.3 -0.2
TX31 IAmb IAmb 01 03 52.0
comp=Z,7.3nm,0.7s
TX31 PcP 01 06 12.7 +1.5
TXAR Lajitas Array 36.49 312 P P 01 03 51.1 +0.6
comp=Z,6.3nm,0.6s,baz=127,slow=9.2,SNR=59
TXAR PcP PcP 01 06 12.4 +1.3
comp=Z,3.6nm,0.7s,baz=134,slow=5.9,SNR=17
comp=Z,6.3nm,0.6s
TXAR Lajitas Array 36.49 312 P 01 03 50.5 0.0
TXAR PcP 01 06 12.2 +1.1
OK048 Pawnee Station 36.65 327 IAmb IAmb 01 03 52.7
comp=Z,19nm,0.8s
TMB01 Midkiff 36.66 316 IAmb IAmb 01 03 53.0
comp=Z,7.4nm,0.7s
SN07 Snyder 07 36.73 319 IAmb IAmb 01 03 53.5
comp=Z,12nm,0.6s
T35A Sooner Cattle 36.79 328 IAmb IAmb 01 03 53.5
comp=Z,11nm,0.6s
HPIG 36.85 307 P P 01 03 53.9 +0.1
HPIG IAmb IAmb 01 03 55.2
comp=Z,6.8nm,0.6s
MNHN Monahans 36.94 315 IAmb IAmb 01 03 54.8
comp=Z,8.8nm,0.5s
BLOK Blackwell 37.05 327 P P 01 03 54.7 -0.3
BLOK IAmb IAmb 01 03 55.9
comp=Z,20nm,1.3s
129A Stewart Farms, 37.09 318 IAmb IAmb 01 03 56.9
comp=Z,18nm,1.2s
POST Post 37.11 319 IAmb IAmb 01 03 57.0
comp=Z,21nm,0.8s
DKNS Dickens 37.11 320 IAmb IAmb 01 03 57.1
comp=Z,9.0nm,0.7s
TPB01 Permian Basin 37.44 314 IAmb IAmb 01 03 59.7
comp=Z,12nm,0.6s
PECS Pecos 37.73 314 P P 01 04 01.4 +0.4
DELO Deloro Mine 37.75 355 P P 01 04 01.9 +1.2
DELO IAmb IAmb 01 04 03.1
comp=Z,25nm,1.4s
NOKA Waynoka 37.91 325 P P 01 04 01.3 -1.0
VHRN Van Horn 38.22 313 P 01 04 05.2 +0.1
VHRN IAmb IAmb 01 04 06.6
comp=Z,11nm,1.1s
TPB28 38.35 314 P P 01 04 07.1 +0.9
TPB28 IAmb IAmb 01 04 09.3
comp=Z,10nm,1.4s
AMTX Amarillo 38.37 321 P 01 04 06.1 -0.2
AMTX IAmb IAmb 01 04 07.9
comp=Z,25nm,1.0s
MSTX Muleshoe 38.50 319 IAmb IAmb 01 04 08.5
comp=Z,25nm,1.3s
GDL2 Guadalupe Moun 38.55 315 P P 01 04 08.3 +0.5
L40A Anamosa 38.60 338 IAmb IAmb 01 04 08.5
comp=Z,12nm,0.7s
MNTX Cornudas Mount 38.99 314 IAmb IAmb 01 04 13.7
comp=Z,15nm,0.8s
MNTX Cornudas Mount 38.99 314 P P 01 04 12.3 +0.9
comp=Z,25nm,1.0s
JFWS Jewell Farm 39.00 340 P P 01 04 10.9 -0.4
SCIA State Center 39.24 336 P P 01 04 13.4 +0.2
CMC01 Camacan, BA 39.90 124 *eP* P 01 04 18.1 -1.0
RTBA Rita Blanca 40.03 322 IAmb IAmb 01 04 21.1
comp=Z,10nm,0.7s
RTBA PcP 01 06 23.4 +1.4
E46A Sault Ste Mari 40.57 348 IAmb IAmb 01 04 25.9
comp=Z,13nm,0.5s
LMQ La Malbaie 40.64 3 P P 01 04 26.2 +1.5
LMQ IAmb IAmb 01 04 31.5
comp=Z,11nm,0.8s
BATG Bathurst New B 40.75 7 P P 01 04 26.9 +1.3
BATG IAmb IAmb 01 05 06.3
comp=Z,25nm,1.3s
121A Cookes Peak, D 41.17 313 P P 01 04 30.5 +1.0
121A IAmb IAmb 01 04 32.2
comp=Z,14nm,1.1s
CRNM Carthage 41.17 316 P P 01 04 30.0 +0.5
LENM Lemitar 41.45 316 P P 01 04 32.6 +0.8
SBM South Baldy 41.49 315 P P 01 04 33.0 +0.7
T25A Trinidad 41.51 321 P P 01 04 32.8 +0.5
ALQ Albuquerque 41.53 317 P 01 04 31.5 -1.0
ALQ Albuquerque 41.53 317 P 01 04 33.1 +0.6
ALQ IAmb IAmb 01 04 37.3
comp=Z,2.4nm,0.7s
ANMO Albuquerque 41.53 317 P P 01 04 32.8 +0.4
ANMO Albuquerque 41.53 317 P P 01 04 33.7 +1.3
comp=Z,5.2nm,0.8s
TASM ASL Pad, Albuq 41.54 317 P P 01 04 32.3 -0.2
TASM ASL Pad, Albuq 41.54 317 P P 01 04 31.4 -1.1
TASM IAmb IAmb 01 04 37.0
comp=Z,3.8nm,1.1s
319A Douglas 41.71 311 P P 01 04 33.9 0.0
319A IAmb IAmb 01 04 36.3
comp=Z,11nm,0.8s
DUN6 Lazy B Ranch 42.13 312 P P 01 04 38.0 +0.7
ECSD EROS Data Cent 42.16 334 P P 01 04 36.8 -0.4
comp=Z,13nm,1.2s
SDCO Great Sand Dun 42.57 321 P P 01 04 41.7 +0.8
TUC Tucson 43.27 311 P 01 04 46.4 -0.1
TUC Tucson 43.27 311 P P 01 04 47.6 +1.1
comp=Z,10.0nm,0.8s
X18A Snowflake 43.74 314 P P 01 04 51.1 +0.9
F33A 5 Mile Ranch, 43.74 337 P P 01 04 49.7 -0.2
F33A IAmb IAmb 01 04 50.3
comp=Z,16nm,1.2s
SUSD Miller 43.75 333 P P 01 04 49.9 -0.1
EYMN Ely 43.88 342 P P 01 04 50.5 -0.4
EYMN Ely 43.88 342 P P 01 04 51.2 +0.3
comp=Z,49nm,0.7s
W18A Petrified Fore 43.89 315 IAmb IAmb 01 04 54.0
comp=Z,19nm,0.9s
ISCO Idaho Springs 43.92 323 P 01 04 52.9 +1.1
ISCO Idaho Springs 43.92 323 P P 01 04 53.3 +1.5
comp=Z,12nm,1.0s
MVCO Mesa Verde 44.18 318 P 01 04 54.6 +0.8
MVCO IAmb IAmb 01 04 55.7
comp=Z,23nm,1.4s
MVCO Mesa Verde 44.18 318 P P 01 04 54.9 +1.1
comp=Z,13nm,1.2s
PV01 Paradox Valley 44.75 319 IAmb IAmb 01 05 00.8
comp=Z,18nm,0.8s
X16A Lo Mia Camp, P 44.75 313 P P 01 04 59.8 +1.4
PV15 Paradox Valley 44.81 320 P P 01 04 59.9 +1.1
PV02 Paradox Valley 44.90 319 P P 01 04 59.8 +0.3
PV13 Radium Mtn., P 44.92 319 P P 01 05 00.6 +0.9
PV07 Paradox Valley 44.97 320 P P 01 05 00.9 +0.9
PV07 IAmb IAmb 01 05 02.3
comp=Z,34nm,1.3s
PIX Pinacate 44.99 309 P P 01 04 59.9 -0.1
PV03 Paradox Valley 45.00 319 P P 01 05 01.1 +0.9
PV03 IAmb IAmb 01 05 02.3
comp=Z,14nm,0.6s
PV12 Saucer Basin, 45.00 320 P P 01 05 00.9 +0.6
PV12 IAmb IAmb 01 05 02.6
comp=Z,19nm,0.7s
PV18 Skein Mesa, Pa 45.03 319 IAmb IAmb 01 05 04.5
comp=Z,18nm,0.8s
PV11 David Mesa, Pa 45.04 319 IAmb IAmb 01 05 02.6
comp=Z,12nm,0.6s
PV16 Nyswonger Mesa 45.07 319 IAmb IAmb 01 05 04.3
comp=Z,27nm,1.2s
PV17 East Wray Mesa 45.08 319 IAmb IAmb 01 05 04.4
comp=Z,13nm,0.7s
PV04 Paradox Valley 45.11 320 P P 01 05 02.1 +1.0
PV22 Blue Mesa, Par 45.12 320 IAmb IAmb 01 05 03.2
comp=Z,17nm,0.7s
PV20 West Nyswonger 45.12 319 P P 01 05 02.1 +0.9
PV20 IAmb IAmb 01 05 04.7
comp=Z,21nm,1.3s
PV14 Lion Creek, Pa 45.18 319 P P 01 05 02.8 +1.1
PV23 Carpenter Ridg 45.21 320 P P 01 05 03.3 +1.3
PV23 IAmb IAmb 01 05 05.5
comp=Z,8.7nm,0.6s
WUAZ Wupatki 45.24 315 P 01 05 03.1 +0.9
WUAZ IAmb IAmb 01 05 05.0
comp=Z,24nm,0.9s
PV21 Cone Mtn., Par 45.25 320 P P 01 05 03.0 +0.8
PV21 IAmb IAmb 01 05 04.1
comp=Z,11nm,0.8s
HAYD Hayden 45.36 323 P P 01 05 03.5 +0.4
AGMN Agassiz Nation 45.63 339 IAmb IAmb 01 05 05.8
comp=Z,16nm,0.6s
AGMN Agassiz Nation 45.63 339 P P 01 05 05.4 +0.6
comp=Z,24nm,0.9s

O20A White River Ci 45.72 322 P P 01 05 07.3 +1.5
O20A IAmb IAmb 01 05 09.0
comp=Z,23nm,1.5s
HMU Henry Mountain 46.06 318 IAmb IAmb 01 05 11.6
comp=Z,26nm,1.0s
EPLO Experimental L 46.09 341 IAmb IAmb 01 05 09.2
comp=Z,18nm,0.6s
U15A North Rim 46.34 315 IAmb IAmb 01 05 13.4
comp=Z,17nm,1.0s
SRU San Rafael Swe 46.56 319 IAmb IAmb 01 05 14.4
comp=Z,12nm,0.8s
P18A Preston Nutter 46.67 320 IAmb IAmb 01 05 15.6
comp=Z,19nm,1.5s
RDMU Red Mountain 46.79 322 IAmb IAmb 01 05 16.0
comp=Z,16nm,1.3s
PKCU Pink Cliffs 46.87 316 P P 01 05 16.3 +1.3
P17A Butcher Ranch, 46.90 320 P P 01 05 16.1 +1.0
P17A IAmb IAmb 01 05 17.1
comp=Z,12nm,0.9s
KNB Kanab 47.00 316 IAmb IAmb 01 05 18.5
comp=Z,19nm,0.9s
ULM Lac du Bonnet 47.29 340 P P 01 05 17.4 -0.3
comp=Z,18nm,0.5s,baz=141,slow=7.7,SNR=66
comp=Z,18nm,0.5s
LCMT Little Creek M 47.30 315 IAmb IAmb 01 05 21.0
comp=Z,14nm,0.9s
YUH Yuha Desert 47.34 309 P P 01 05 19.3 +0.9
BC3 Big Chuckawall 47.39 310 P P 01 05 19.3 +0.5
SZCU Shurtz Canyon 47.48 316 P P 01 05 20.1 +0.5
SZCU IAmb IAmb 01 05 20.9
comp=Z,7.2nm,0.6s
BSUT Blindstream Ca 47.51 321 IAmb IAmb 01 05 22.0
comp=Z,12nm,0.8s
BAR Barrett 47.93 308 P P 01 05 23.5 +0.6
BAR IAmb IAmb 01 05 32.4
comp=Z,15nm,1.4s
BELC Belle Mtn. Jos 47.94 310 P P 01 05 24.1 +1.0
NLU North Lily Min 48.03 319 P P 01 05 24.8 +0.9
BW06 Boulder Array 48.10 324 IAmb IAmb 01 05 25.6
comp=Z,12nm,1.3s
PD31 Pinedale Array 48.10 324 IAmb IAmb 01 05 25.6
comp=Z,12nm,1.3s
PDAR Pinedale Array 48.10 324 P P 01 05 24.6 +0.3
comp=Z,4.3nm,0.6s,baz=126,slow=8.9,SNR=43
PDAR PcP PcP 01 06 49.1 -0.5
comp=Z,1.1nm,0.6s,baz=134,slow=3.0,SNR=4.6
comp=Z,4.3nm,0.6s
SCHQ Schefferville 48.13 5 P P 01 05 24.5 +0.4
comp=Z,7.3nm,0.7s,baz=177,slow=7.2,SNR=14
comp=Z,7.3nm,0.7s
SCHQ Schefferville 48.13 5 IAmb IAmb 01 05 25.5
comp=Z,11nm,1.0s
SHPR Sheep Range 48.41 314 P P 01 05 27.3 +0.6
HWUT Hardware Ranch 48.62 322 IAmb IAmb 01 05 30.0
comp=Z,8.7nm,0.6s
HWUT Hardware Ranch 48.62 322 P P 01 05 29.1 +0.8
comp=Z,11nm,0.7s
DUG Duway, Tooele 48.63 319 P P 01 05 29.6 +1.3
comp=Z,11nm,0.7s
PRN Pahroc Range 48.75 315 P P 01 05 29.6 +0.3
SHOC Shoshone, Teco 48.95 313 P P 01 05 31.2 +0.5
SHOC IAmb IAmb 01 05 34.1
comp=Z,9.7nm,0.9s
AHID Auburn Hatcher 49.01 323 IAmb IAmb 01 05 32.4
comp=Z,9.1nm,0.9s
AHID Auburn Hatcher 49.01 323 P P 01 05 31.8 +0.6
comp=Z,12nm,0.8s
GSC Goldstone, Bar 49.09 312 IAmb IAmb 01 05 33.8
comp=Z,8.8nm,0.8s
BGU Big Grassy Mou 49.16 320 IAmb IAmb 01 05 34.0
comp=Z,16nm,0.7s
SNOW Snow King Moun 49.22 324 IAmb IAmb 01 05 35.3
comp=Z,15nm,1.0s
S11A Rachel 49.35 315 P P 01 05 34.5 +0.6
S11A IAmb IAmb 01 05 36.4
comp=Z,12nm,1.2s
GWY Greenwater Val 49.36 313 P 01 05 34.7 +0.7
TPNV Topopah Spring 49.39 314 P 01 05 35.2 +1.0
TPNV IAmb IAmb 01 05 36.7
comp=Z,9.1nm,0.9s
CCCA Chr Cany lake 49.59 312 IAmb IAmb 01 05 37.6
comp=Z,13nm,0.6s
FURC Furnace Creek, 49.62 313 IAmb IAmb 01 05 38.1
comp=Z,9.0nm,0.8s
YMR Madison River 50.06 325 P P 01 05 40.8 +1.6
YHH Holmes Hill 50.07 325 P P 01 05 40.7 +1.4
GRAC Grapevine Rang 50.22 313 P P 01 05 41.4 +1.1
GMN Gold Mountain 50.27 314 P P 01 05 41.9 +0.9
YHL Hebgen Lake 50.30 325 P P 01 05 42.6 +1.5
YHL IAmb IAmb 01 05 43.7
comp=Z,25nm,1.3s
QLMT Earthquake Lak 50.42 325 P P 01 05 43.2 +1.3
MZP Montezuma Peak 50.53 314 P P 01 05 43.6 +0.7
BOZ Bozeman (W) 51.00 326 P P 01 05 47.1 +0.9
BOZ IAmb IAmb 01 05 47.8
comp=Z,6.9nm,0.7s
MCMT McKenzie Canyo 51.24 324 P P 01 05 49.5 +1.5
DLMT Dillon 51.40 325 P P 01 05 49.5 +0.3
DLMT IAmb IAmb 01 05 51.2
comp=Z,12nm,1.2s
HLID Hailey 51.46 322 P P 01 05 50.5 +0.9
comp=Z,8.4nm,0.9s
NVAR Mina Array Bea 51.51 315 P P 01 05 51.1 +0.9
comp=Z,4.0nm,0.7s,baz=123,slow=7.3,SNR=16
NVAR PcP PcP 01 07 02.8 +0.5
comp=Z,1.8nm,0.5s,baz=132,slow=5.2,SNR=6.9
comp=Z,4.0nm,0.7s
NVAR Mina Array Bea 51.51 315 P P 01 05 51.3 +1.1
EGMT Eagleton 51.52 329 P P 01 05 50.8 +0.8
EGMT IAmb IAmb 01 05 52.1
comp=Z,6.5nm,0.6s
BMN Battle Mountai 51.67 317 P P 01 05 51.2 0.0
MFID Camas Ranch 52.25 321 IAmb IAmb 01 05 56.9
comp=Z,11nm,0.7s
PNTR Pine Nut 52.70 315 P 01 05 59.4 +0.4
PNTR IAmb IAmb 01 06 01.0
comp=Z,8.7nm,0.8s
MSO Missoula 53.02 326 IAmb IAmb 01 06 02.4
comp=Z,11nm,1.4s
MPK Martis Peak 53.09 315 P P 01 06 02.4 +0.5
MPK IAmb IAmb 01 06 05.6
comp=Z,12nm,0.8s
FFC Flin Flon 53.09 339 P P 01 06 01.1 -0.1
comp=Z,11nm,1.3s
SAO San Andreas Ge 53.12 311 P P 01 06 03.3 +1.5
SAO IAmb IAmb 01 06 15.3
comp=Z,11nm,0.9s
PLID Pearl Lake 53.24 323 IAmb IAmb 01 06 03.7
comp=Z,7.8nm,0.8s
WVOR Wild Horse Val 53.55 319 IAmb IAmb 01 06 08.0
comp=Z,11nm,1.0s
WVOR Wild Horse Val 53.55 319 P P 01 06 05.8 +0.8
comp=Z,17nm,1.1s
JTMT Jette 53.75 327 P P 01 06 06.8 +0.5
J08A Circle Bar Ran 53.88 320 IAmb IAmb 01 06 08.6
comp=Z,12nm,1.3s
ORV Oroville 54.24 315 P P 01 06 09.9 0.0
F10A Beach Ranch, E 54.44 323 IAmb IAmb 01 06 12.2
comp=Z,11nm,0.6s
LDM Libby Dam 54.72 327 IAmb IAmb 01 06 14.9
comp=Z,7.4nm,0.8s
O03E Paynes Creek 54.75 315 IAmb IAmb 01 06 14.3
comp=Z,11nm,1.1s
I07A Izee 54.89 320 IAmb IAmb 01 06 16.6
comp=Z,9.2nm,1.0s
LNOR Lincton Mounta 55.02 323 IAmb IAmb 01 06 16.8
comp=Z,10nm,0.6s
E09A Wood Farm, Sta 55.27 323 P P 01 06 17.7 +0.5
E09A IAmb IAmb 01 06 17.9
comp=Z,8.1nm,0.8s
M03C McCloud 55.37 316 P P 01 06 18.5 +0.4
M03C IAmb IAmb 01 06 18.8
comp=Z,7.6nm,0.6s
O02D Mt. Diablo Mer 55.40 315 P P 01 06 17.5 -0.8
O02D IAmb IAmb 01 06 18.1
comp=Z,5.9nm,0.8s
NEW Newport 55.61 326 P P 01 06 19.7 0.0
comp=Z,7.8nm,2.6s
D08A Wollman Farm, 56.00 324 IAmb IAmb 01 06 23.7
comp=Z,4.3nm,0.7s
KMRM Mail Ridge 56.06 314 P P 01 06 24.2 +1.2
J04A Umpqua Nationa 56.19 318 P P 01 06 24.5 +0.4
WIFE Three Sisters- 56.36 319 P P 01 06 26.6 +1.3
BBOR Butler Butte 56.42 318 P P 01 06 25.4 -0.3
KMPM Mount Pierce 56.43 315 P P 01 06 27.1 +1.4
EPH Ephrata 56.55 324 P P 01 06 26.3 0.0

EPH IAmb IAmb 01 06 28.1
comp=Z,12nm,0.8s
KRMB Red Mountain 56.70 316 P P 01 06 27.9 +0.3
KSXB Camp Six Broad 56.80 316 P P 01 06 28.7 +0.4
K02D Willamette Mer 57.00 317 P P 01 06 30.4 +0.8
K02D IAmb IAmb 01 07 09.9
comp=Z,23nm,1.5s
LTY Liberty 57.14 323 IAmb IAmb 01 06 32.1
comp=Z,8.9nm,0.6s
BUCK Buck Mountain 57.18 319 P P 01 06 30.7 -0.1
C03A Quillayute Air 59.79 323 P P 01 06 50.2 +1.5
CLRS Cowichan Lake 59.92 324 P P 01 06 50.1 +0.5
CLRS IAmb IAmb 01 07 01.2
comp=Z,17nm,1.2s
CBB Campbell River 61.18 324 P P 01 06 58.0 -0.2
YKAW1 Yellowknife Wh 63.22 340 IAmb IAmb 01 07 12.7
comp=Z,12nm,0.8s
YKA Yellowknife Ar 63.27 340 P P 01 07 11.8 0.0
comp=Z,18nm,0.6s,baz=135,slow=6.6,SNR=248
YKA PcP PcP 01 07 47.9 +0.2
comp=Z,1.5nm,0.7s,baz=137,slow=6.4,SNR=4.2
YKAW3 Yellowknife Wh 63.32 340 P 01 07 12.3 +0.2
T35M Bob Quinn 66.82 330 IAmb IAmb 01 07 37.2
comp=Z,17nm,1.0s
S34M Telegraph Cree 67.64 331 IAmb IAmb 01 07 42.1
comp=Z,11nm,0.8s
DBIC Dimbokro 67.70 86 P P 01 07 39.9 -1.3
comp=Z,6.3nm,0.6s,baz=283,slow=6.9,SNR=12
comp=Z,6.3nm,0.6s
DBIC Dimbokro 67.70 86 IAmb IAmb 01 07 40.5
comp=Z,8.1nm,0.7s
DBIC Dimbokro 67.70 86 P P 01 07 39.5 -1.7
comp=Z,13nm,1.2s
R33M Jennings River 68.19 332 IAmb IAmb 01 07 45.7
comp=Z,7.7nm,0.9s
Q32M Nakina River 68.62 331 P P 01 07 47.5 +1.2
Q32M IAmb IAmb 01 07 52.1
comp=Z,20nm,1.3s
SUMG Summit 68.98 11 P 01 07 48.9 +0.4
SUMG Summit 68.98 11 P P 01 07 48.7 +0.2
comp=Z,48nm,2.5s
SUMG Summit 68.98 11 *i* P P 01 07 49.1 +0.6
SUMG IAmb IAmb 01 07 49.9
comp=Z,25nm,0.5s
P33M Teslin, Yukon 69.38 333 P P 01 07 52.2 +1.4
P33M IAmb IAmb 01 07 52.9
comp=Z,7.9nm,1.1s
R32K Eaglecrest 69.44 330 P P 01 07 52.0 +0.8
R32K IAmb IAmb 01 07 55.5
comp=Z,21nm,1.3s
ESDC Sonseca Array 69.62 50 P P 01 07 51.4 -1.4
comp=Z,0.4nm,0.9s,baz=254,slow=5.6,SNR=1.9
comp=Z,0.4nm,0.9s
O30N Mendenhall 71.09 332 IAmb IAmb 01 08 03.4
comp=Z,12nm,0.8s
N31M Braeburn, Yuko 71.21 333 IAmb IAmb 01 08 04.1
comp=Z,22nm,1.1s
NEEM North Greenlan 71.54 5 *i* P P 01 08 04.6 +0.6
NEEM IAmb IAmb 01 08 04.9
comp=Z,28nm,1.0s
M30M Minto, Yukon 72.04 334 IAmb IAmb 01 08 08.6
comp=Z,14nm,0.7s
F31M Tsiigehtchic 72.74 339 IAmb IAmb 01 08 11.8
comp=Z,12nm,0.6s
K29M Barlow Dome 72.80 335 IAmb IAmb 01 08 13.1
comp=Z,7.6nm,0.8s
INK Inuvik 73.04 340 IAmb IAmb 01 08 13.7
comp=Z,8.4nm,0.6s
INK Inuvik 73.04 340 P P 01 08 13.1 +0.6
comp=Z,16nm,1.0s
EPYK Eagle Plains 73.39 338 P P 01 08 15.3 +0.6
EPYK IAmb IAmb 01 08 15.8
comp=Z,8.8nm,0.4s
G30M tAoh Zraii Nji 73.44 339 P P 01 08 15.2 +0.2
F30M Barrier River 73.53 339 IAmb IAmb 01 08 16.7
comp=Z,9.2nm,0.6s
DBG Daneborg 73.93 13 *i* P P 01 08 17.2 -0.5
DBG IAmb IAmb 01 08 22.1
comp=Z,3.1nm,1.1s
H29M Whitestone 73.96 337 IAmb IAmb 01 08 19.6
comp=Z,8.8nm,0.8s
M27K Edge Creek, AK 74.22 333 P P 01 08 21.5 +1.7
M27K IAmb IAmb 01 08 21.7
comp=Z,8.7nm,0.7s
TGL Tana Glacier 74.24 331 P P 01 08 19.9 0.0
TGL IAmb IAmb 01 08 22.5
comp=Z,10nm,1.0s
I28M Miner Creek 74.31 336 P P 01 08 21.0 +0.8
BCAR Beaver Creek A 74.37 334 P 01 08 21.7 +1.1
E29M Blow River 74.56 340 IAmb IAmb 01 08 22.8
comp=Z,14nm,0.8s
GLB Gilahina Butte 74.87 332 P P 01 08 24.1 +0.7
GLB IAmb IAmb 01 08 53.1
comp=Z,20nm,1.5s
I27K Kandik River 75.03 336 P P 01 08 25.1 +0.8
I27K IAmb IAmb 01 08 25.4
comp=Z,7.0nm,0.7s
L26K Log Cabin Wild 75.05 334 IAmb IAmb 01 09 07.8
comp=Z,13nm,0.8s
BMRM Bremner River 75.13 331 P P 01 08 26.1 +1.2
BMRM IAmb IAmb 01 08 26.7
comp=Z,12nm,0.7s
E28M Babbage River 75.20 340 IAmb IAmb 01 08 25.8
comp=Z,5.7nm,0.6s
DAG Danmarks Havn 75.64 11 P P 01 08 27.1 -0.4
comp=Z,10nm,0.8s
DAG Danmarks Havn 75.64 11 *i* P P 01 08 27.3 -0.2
DAG IAmb IAmb 01 08 28.0
comp=Z,5.8nm,0.6s
GHO Glory Hole Cre 77.33 332 P P 01 08 37.7 +0.4
C26K Camden Bay 77.42 340 IAmb IAmb 01 08 39.4
comp=Z,7.2nm,0.8s
D25K Kavik River 77.77 340 IAmb IAmb 01 08 41.0
comp=Z,7.7nm,0.7s
NOR Nord 78.60 7 *i* P P 01 08 43.5 -0.5
NOR IAmb IAmb 01 08 45.8
comp=Z,6.4nm,1.4s
C24K Franklin Bluff 78.66 340 IAmb IAmb 01 08 45.7
comp=Z,9.8nm,0.6s
RED Redoubt Volcan 79.01 330 P P 01 08 46.9 +0.3
RED IAmb IAmb 01 08 48.0
comp=Z,16nm,1.0s
DAVOX Davos/Dischmat 80.25 44 P P 01 08 52.6 -1.1
comp=Z,2.3nm,0.7s,baz=266,slow=5.4,SNR=6.0
comp=Z,2.3nm,0.7s
NOA NORSAR Array B 81.31 29 P P 01 08 59.3 +0.5
comp=Z,0.7nm,0.7s,baz=268,slow=5.3,SNR=1.8
comp=Z,0.7nm,0.7s
D19K Kuna River 81.87 338 P P 01 09 02.3 +0.6
D19K IAmb IAmb 01 09 03.6
comp=Z,9.2nm,0.7s
CLL Collm 82.27 39 *eP* P 01 09 04.0 -0.1
GERES GERESS Array B 82.79 42 P P 01 09 06.3 -0.7
comp=Z,0.8nm,0.6s,baz=258,slow=4.0,SNR=6.1
comp=Z,0.8nm,0.6s
SPITS Spitsbergen Ar 83.25 12 P P 01 09 08.8 +0.1
comp=Z,12nm,1.0s,baz=243,slow=6.3,SNR=4.4
comp=Z,12nm,1.0s
K15K Wolf Creek Mou 83.28 332 P P 01 09 10.4 +1.4
K15K IAmb IAmb 01 09 30.8
comp=Z,23nm,1.5s
N14K Kuskokwak Cree 83.44 330 P P 01 09 10.6 +0.7
G16K Koyuk River 83.54 335 P P 01 09 11.1 +0.8
G16K IAmb IAmb 01 09 42.5
comp=Z,16nm,1.3s
L14K Kuka Creek 83.87 331 P P 01 09 11.2 -0.9
ARCES ARCESS Array B 86.65 20 P P 01 09 25.5 -0.2
comp=Z,8.3nm,0.9s,baz=294,slow=4.7,SNR=3.6
comp=Z,8.3nm,0.9s
ZALV Zalesovo Beam 116.65 14 PKP **PKPdf** 01 15 25.3 -0.4
comp=Z,1.4nm,0.3s,baz=236,slow=2.1,SNR=8.9
ZALV Zalesovo Beam 116.65 14 **PKPdf** 01 15 24.6 -1.1
KURBB Kurchatov Arra 117.74 20 PKP **PKPdf** 01 15 27.6 -0.3
comp=Z,1.5nm,0.3s,baz=319,slow=2.3,SNR=5.9
MKAR Makanchi Array 122.30 20 PKP **PKPdf** 01 15 36.1 -0.8
comp=Z,1.2nm,0.4s,baz=294,slow=2.7,SNR=26
SONM Songino Array 125.57 0 PKP **PKPdf** 01 15 43.4 +0.2
comp=Z,0.9nm,0.5s,baz=304,slow=0.7,SNR=7.6
WMQ Urumqi 126.67 17 PKP **PKPdf** 01 15 44.4 -1.0
WMQ sPKP sPKPdf 01 16 37.5 -4.9
WMQ PP PP 01 17 52.6 +10
WMQ AMB AMB
comp=Z,240nm,5.7s
HHC Hu-ho-hao-te 132.37 355 *eP* **PKPdf** 01 15 52.6 -3.7
STKA Stephens Creek 139.18 228 PKP **PKPdf** 01 16 09.2 +0.1
comp=Z,1.6nm,0.5s,baz=117,slow=5.4,SNR=4.0
NJ2 Nanjing 139.70 344 *eP* **PKPdf** 01 16 11.6 +1.6

NJ2				pmax	pmax			
	comp=Z,11nm,0.7s							
AS31	**Alice Springs**	**149.14**	**234**		**PKPbc**	**01**	**16**	**30.0** **-1.0**
ASAR	**Alice Springs**	**149.14**	**234**	PKPbc	**PKPbc**	**01**	**16**	**29.9** **-1.1**
	comp=Z,12nm,0.6s,baz=118,slow=2.9,SNR=22							
ASAR	**Alice Springs**	**149.14**	**234**		**PKPdf**	**01**	**16**	**25.5** **-1.1**
WR8	**Warramunga Arr**	**150.23**	**241**		**PKPbc**	**01**	**16**	**33.0** **-0.6**
WRA	**Warramunga Arr**	**150.37**	**241**	PKPbc	**PKPbc**	**01**	**16**	**33.1** **-0.9**
	comp=Z,9.8nm,0.5s,baz=109,slow=2.6,SNR=52							
WB0	**Warramunga Arr**	**150.39**	**242**	PKPbc	**PKPbc**	**01**	**16**	**33.0** **-1.1**
CMAR	**Chiang Mai Arr**	**153.67**	**17**	PKPbc	**PKPbc**	**01**	**16**	**41.4** **-0.1**
	comp=Z,3.7nm,0.6s,baz=325,slow=3.4,SNR=13							
CMAR	**Chiang Mai Arr**	**153.67**	**17**		**PKPbc**	**01**	**16**	**41.0** **-0.5**

*GII **20** 00:58:41.5±0.0,37.°854N±0.°002×26.°984E±0.°001,h0km, Mws4.0,confirmed*
*IDC **20** 00:58:44.3±0.8,37.°78N×26.°97E,h0km,mb3.8/4, mbtmp3.7/11,ML3.3/5,MS3.0/4,Error ellipse: s-maj=13.1km s-min=10.6km az=115.0*
*ISK **20** 00:58:45.7,37.°86N×27.°00E,h7km,ML3.8/38*
*AFAD **20** 00:58:45.8,37.°85N×27.°01E,h7km±2km,MW3.8*
*THE **20** 00:58:45.6,37.°9N±0.°9×27.°0E±1.°0,h11km±1km,M3.8/13, MLh3.8/13*
*ATH **20** 00:58:45.1,37.°85N×27.°05E,h12km±1km,ML3.6/12, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 20 00:58:45.7±0.7,37.°84N±0.°01×27.°02E±0.°02,h17km±5km, n156,σ1§71/204,mb3.5/3,15C-18D,Turkey

Code	Station Name	Δ°	AZ°	Op	ISC	h	m	s	Time	Res
SMG	**Samos**	**0.20**	**228**	P	**Pg**	**00**	**58**	**50.0**	**-0.6**	
SMG				S	**Sg**	**00**	**58**	**54.0**	**+0.2**	
SMG				AML	AML					
SMG	**Samos**	**0.20**	**228**	P	**Pg**	**00**	**58**	**50.0**	**-0.6**	
SMG				S	**Sg**	**00**	**58**	**53.8**	**-0.1**	
KUSD	**Kusadasi-Aydin**	**0.21**	**85**	Pg	**Pg**	**00**	**58**	**50.9**	**+0.2**	
KUSD				Sg	**Sg**	**00**	**58**	**54.4**	**+0.3**	
KUSD				AML	AML					
DGB	**zmir**	**0.24**	**332**	P	**Pg**	**00**	**58**	**50.8**	**-0.3**	
DGB				S	**Sg**	**00**	**58**	**53.9**	**-0.9**	
GMLD	**Gumuldur**	**0.25**	**340**	Pg	**Pg**	**00**	**58**	**50.9**	**-0.4**	
GMLD				Sg	**Sg**	**00**	**58**	**54.7**	**-0.5**	
GMLD				AML	AML					
KRL1	**Karlovasi Samo**	**0.26**	**259**	P	**Pg**	**00**	**58**	**51.2**	**-0.2**	
KRL1				S	**Sg**	**00**	**58**	**55.4**	**+0.1**	
SAM2	**Drakei, Karlov**	**0.34**	**256**	P	**Pg**	**00**	**58**	**52.4**	**-0.5**	
SAM2				S	**Sg**	**00**	**58**	**57.4**	**-0.3**	
SAM2				AML	AML					
BEYE	**izmir**	**0.39**	**349**	P	**Pg**	**00**	**58**	**53.7**	**-0.1**	
BEYE				S	**Sg**	**00**	**58**	**58.8**	**-0.5**	
DDIM	**Aydin, Didim**	**0.42**	**156**	P	**Pg**	**00**	**58**	**54.8**	**+0.4**	
DDIM				S	**Sg**	**00**	**59**	**01.0**	**+0.8**	
DIDI	**Didim-Aydin**	**0.50**	**160**	Pg	**Pg**	**00**	**58**	**56.2**	**+0.5**	
DIDI				Sg	**Sb**	**00**	**59**	**04.2**	**+1.3**	
DIDI				AML	AML					
DUVT	**Torbali**	**0.51**	**42**	P	**Pg**	**00**	**58**	**55.8**	**-0.1**	
DUVT				S	**Sg**	**00**	**59**	**00.8**	**-1.9**	
BLCB	**Balcova**	**0.54**	**2**	P	**Pg**	**00**	**58**	**56.3**	**-0.2**	
BLCB				S	**Sg**	**00**	**59**	**03.8**	**0.0**	
BLCB				AML	AML					
BLCB	**Balcova**	**0.54**	**2**	Pg	**Pg**	**00**	**58**	**56.4**	**-0.2**	
BLCB				Sg	**Sb**	**00**	**59**	**04.1**	**-0.1**	
BLCB				AML	AML					
ZEYE	**Izmir, Urla-Ze**	**0.57**	**314**	P	**Pg**	**00**	**58**	**56.9**	**-0.2**	
ZEYE				S	**Sb**	**00**	**59**	**04.9**	**-0.1**	
DAGE	**izmir**	**0.60**	**74**	P	**Pb**	**00**	**58**	**58.2**	**+0.5**	
DAGE				S	**Sg**	**00**	**59**	**04.4**	**-1.2**	
AYDB	**Zeytinkoy-Aydi**	**0.69**	**81**	Pg	**Pb**	**00**	**59**	**00.2**	**+0.8**	
AYDN	**Tasoluk**	**0.70**	**105**	P	**Pg**	**00**	**58**	**59.8**	**+0.3**	
AYDN				S	**Sb**	**00**	**59**	**09.8**	**+0.9**	
YKAV	**Yalikavak-Bodr**	**0.75**	**164**	Pg	**Pg**	**00**	**59**	**00.5**	**+0.2**	
YKAV				AML	AML					
CESE	**eme**	**0.75**	**311**	Pg	**Pb**	**00**	**59**	**00.5**	**+0.2**	
CESE				AML	AML					
IZMR	**zmir-demi**	**0.79**	**68**	P	**Pg**	**00**	**59**	**01.2**	**0.0**	
IZMR				S	**Sg**	**00**	**59**	**09.1**	**-2.5**	
MLSB	**Milas**	**0.81**	**132**	Pg	**Pb**	**00**	**59**	**02.0**	**+0.7**	
BODT	**Bodrum**	**0.81**	**164**	P	**Pg**	**00**	**59**	**01.1**	**-0.5**	
BODT				S	**Sb**	**00**	**59**	**13.8**	**+1.8**	
BODT				AML	AML					
BODT	**Bodrum**	**0.81**	**164**	Pg	**Pb**	**00**	**59**	**02.2**	**+0.8**	
BAGT	**Foa**	**0.82**	**351**	P	**Pb**	**00**	**59**	**01.9**	**+0.4**	
BAGT				S	**Sb**	**00**	**59**	**12.7**	**+0.4**	
KRBN	**Karaburun**	**0.83**	**334**	Pg	**Pb**	**00**	**59**	**01.9**	**+0.2**	
KRBN				AML	AML					
BDRM	**Kayabasi**	**0.85**	**157**	⇓P	**Pn**	**00**	**59**	**04.8**	**+2.0**	
BODA	**Bodrum-Mula**	**0.87**	**158**	Pg	**Pb**	**00**	**59**	**03.2**	**+0.9**	
KLNA	**Kalymnos**	**0.89**	**183**	P	**Pg**	**00**	**59**	**02.4**	**-0.6**	
KLNA				S	**Sg**	**00**	**59**	**14.8**	**+0.2**	
FOCM	**Foa**	**0.90**	**345**	Pg	**Pg**	**00**	**59**	**02.8**	**-0.4**	
FOCM				AML	AML					
CAMT	**Merkez**	**0.93**	**14**	P	**Pb**	**00**	**59**	**04.0**	**+0.6**	
CAMT				S	**Sb**	**00**	**59**	**17.1**	**+1.6**	
CHOS	**Chios island**	**0.94**	**306**	P	**Pg**	**00**	**59**	**03.3**	**-0.6**	
CHOS				S	**Sb**	**00**	**59**	**16.8**	**+1.2**	
CHOS				AML	AML					
CHOS	**Chios island**	**0.94**	**306**	Pg	**Pb**	**00**	**59**	**03.8**	**+0.3**	
CHOS				Sg	**Sb**	**00**	**59**	**17.2**	**+1.5**	
CHOS	**Chios island**	**0.94**	**306**	P	**Pg**	**00**	**59**	**03.4**	**-0.6**	
CHOS				S	**Sb**	**00**	**59**	**16.6**	**+0.9**	
KARB	**zmir-Karabur**	**0.95**	**330**	P	**Pg**	**00**	**59**	**03.7**	**-0.5**	
KARB				S	**Sb**	**00**	**59**	**17.3**	**+1.3**	
NAZL	**Nazilli-Aydin**	**1.01**	**83**	Pg	**Pb**	**00**	**59**	**05.9**	**+1.1**	
NAZL				AML	AML					
GOMA	**Golmarmara-Man**	**1.11**	**39**	Pn	**Pg**	**00**	**59**	**07.1**	**-0.2**	
GOMA				AML	AML					
DATC	**Datca-Mugla**	**1.20**	**155**	Pn	**Pn**	**00**	**59**	**08.9**	**+1.3**	
DATC				AML	AML					
DAT	**Datca**	**1.20**	**158**	P	**Pg**	**00**	**59**	**08.0**	**-0.9**	
DAT				S	**Sg**	**00**	**59**	**24.1**	**-0.4**	
DAT				AML	AML					
DAT	**Datca**	**1.20**	**158**	Pn	**Pg**	**00**	**59**	**08.8**	**-0.1**	
DAT				AML	AML					
AKS	**Akhisar**	**1.21**	**31**	Pn	**Pn**	**00**	**59**	**09.1**	**+1.3**	
AKS				AML	AML					
YER	**Yerkesik**	**1.23**	**125**	P	**Pb**	**00**	**59**	**08.9**	**+0.4**	
YER				S	**Sg**	**00**	**59**	**25.2**	**-0.2**	
YER				AML	AML					
YER	**Yerkesik**	**1.23**	**125**	Pn	**Pb**	**00**	**59**	**09.2**	**+0.8**	
YER				AML	AML					
DKL	**Dikili**	**1.23**	**356**	Pn	**Pb**	**00**	**59**	**08.9**	**+0.4**	
DKL				AML	AML					
DKL	**Dikili**	**1.23**	**356**	P	**Pb**	**00**	**59**	**08.3**	**-0.1**	
SOMA	**Soma-Manisa**	**1.37**	**17**	Pn	**Pb**	**00**	**59**	**11.3**	**+0.4**	
SOMA				AML	AML					
GORD	**Gordes-Manisa**	**1.40**	**40**	Pn	**Pg**	**00**	**59**	**12.7**	**0.0**	
GORD				AML	AML					
ASTA	**Astypalaia**	**1.40**	**203**	P	**Pb**	**00**	**59**	**12.0**	**+0.6**	
ASTA				AML	AML					
APE	**Apeiranthos**	**1.42**	**237**	P	**Pn**	**00**	**59**	**10.4**	**-0.4**	
APE				S	**Sb**	**00**	**59**	**30.4**	**+1.0**	
APE				AML	AML					
APE	**Apeiranthos**	**1.42**	**237**	⇓P	**Pg**	**00**	**59**	**13.0**	**-0.1**	
APE	**Apeiranthos**	**1.42**	**237**	Pn	**Pn**	**00**	**59**	**11.8**	**+1.1**	
APE				AML	AML					
APE	**Apeiranthos**	**1.42**	**237**	P	**Pn**	**00**	**59**	**10.3**	**-0.4**	
APE				AML	AML					
TURN	**Turunc**	**1.44**	**137**	Pn	**Pb**	**00**	**59**	**12.8**	**+0.7**	
TURN				AML	AML					
KULA	**Kula-Manisa**	**1.45**	**62**	Pn	**Pg**	**00**	**59**	**13.5**	**-0.2**	
KULA				AML	AML					
TNSA	**Tinos**	**1.51**	**259**	Pn	**Pn**	**00**	**59**	**11.4**	**-0.5**	
TNSA				AML	AML					
PRK	**Paraskevi**	**1.52**	**337**	P	**Pn**	**00**	**59**	**12.3**	**+0.3**	
PRK				S	**Sn**	**00**	**59**	**31.7**	**+0.2**	
PRK				AML	AML					
PRK	**Paraskevi**	**1.52**	**337**	P	**Pn**	**00**	**59**	**12.4**	**+0.3**	
DALY	**Dalyan (Mula)**	**1.66**	**128**	Pn	**Pn**	**00**	**59**	**15.9**	**+2.0**	
DALY				AML	AML					
YAYO	**Edremit-Balk**	**1.77**	**1**	Pn	**Pb**	**00**	**59**	**17.3**	**-0.3**	
YAYO				AML	AML					
APMY	**Acipayam-Deniz**	**1.85**	**101**	Pn	**Pn**	**00**	**59**	**18.7**	**+2.1**	
APMY				AML	AML					
ARG	**Arkhangelos**	**1.85**	**151**	P	**Pn**	**00**	**59**	**17.3**	**+0.7**	
ARG				S	**Sn**	**00**	**59**	**41.1**	**+1.6**	
ARG				AML	AML					
ARG	**Arkhangelos**	**1.85**	**151**	Pn	**Pb**	**00**	**59**	**19.3**	**+0.3**	
ARG				AML	AML					
ARG	**Arkhangelos**	**1.85**	**151**	P	**Pn**	**00**	**59**	**17.2**	**+0.6**	
ARG				AML	AML					
SFIR	**Foira Santorin**	**1.91**	**222**	P	**Pn**	**00**	**59**	**18.3**	**+0.9**	
BALB	**Balikesir**	**1.92**	**20**	Pn	**Pb**	**00**	**59**	**19.7**	**-0.5**	
BALB				AML	AML					
BALB	**Balikesir**	**1.92**	**20**	P	**Pn**	**00**	**59**	**17.9**	**+0.4**	
THERA	**Ancient Thera,**	**1.92**	**220**	P	**Pn**	**00**	**59**	**17.7**	**0.0**	
THERA	**Ancient Thera,**	**1.92**	**220**	P	**Pn**	**00**	**59**	**17.7**	**0.0**	
THERA				AML	AML					
SIMA	**Simav-Kutahya**	**1.98**	**51**	Pn	**Pn**	**00**	**59**	**20.8**	**+2.4**	
SIMA				AML	AML					
EZNE	**Ezine-Canakkal**	**1.98**	**345**	Pn	**Pn**	**00**	**59**	**20.0**	**+1.6**	
SMAA	**Simav-Kutahya**	**1.98**	**50**	Pn	**Pb**	**00**	**59**	**21.1**	**-0.3**	
SMAA				AML	AML					
CAME	**Cameli-Denizli**	**2.02**	**116**	Pn	**Pb**	**00**	**59**	**21.9**	**-0.2**	
CAME				AML	AML					
EZN	**Ezine**	**2.05**	**345**	⇑P	**Pn**	**00**	**59**	**21.0**	**+1.6**	
EZN	**Ezine**	**2.05**	**345**	P	**Pn**	**00**	**59**	**20.3**	**+0.9**	
EZN	**Ezine**	**2.05**	**345**	Pn	**Pn**	**00**	**59**	**21.4**	**+2.0**	
EZN				AML	AML					
KARY	**Karystos**	**2.05**	**276**	P	**Pn**	**00**	**59**	**20.6**	**+1.2**	
SHAP	**Saphane-Kutahy**	**2.09**	**55**	Pn	**Pn**	**00**	**59**	**22.2**	**+2.2**	
SHAP				AML	AML					
YENI	**Yenice-Canakka**	**2.10**	**5**	Pn	**Pn**	**00**	**59**	**22.2**	**+2.2**	
BOZC	**Bozcaada**	**2.13**	**340**	Pn	**Pn**	**00**	**59**	**22.8**	**+2.3**	
BOZC				AML	AML					
DST	**Dursunbey**	**2.16**	**35**	Pn	**Pn**	**00**	**59**	**23.1**	**+2.2**	
DST				AML	AML					
CANM	**Can-anakkale**	**2.17**	**1**	Pn	**Pn**	**00**	**59**	**22.7**	**+1.8**	
CANM				AML	AML					
GEDZ	**Gediz**	**2.23**	**57**	Pn	**Pb**	**00**	**59**	**24.7**	**-0.8**	
GEDZ				AML	AML					
GONE	**Gonen-Balikesi**	**2.26**	**13**	Pn	**Pn**	**00**	**59**	**24.5**	**+2.3**	
GONE				AML	AML					
SUSR	**Susurluk-Balik**	**2.27**	**21**	Pn	**Pn**	**00**	**59**	**24.9**	**+2.5**	
SUSR				AML	AML					
COMU	**Canakkale**	**2.29**	**349**	Pn	**Pn**	**00**	**59**	**24.5**	**+1.8**	
COMU				AML	AML					
KARP	**Karpathos**	**2.29**	**177**	P	**Pn**	**00**	**59**	**24.0**	**+1.2**	
KARP				AML	AML					
BIGA	**Biga-Canakkale**	**2.44**	**2**	Pn	**Pn**	**00**	**59**	**26.5**	**+1.8**	
DION	**Dionisos Attik**	**2.45**	**276**	P	**Pn**	**00**	**59**	**25.3**	**+0.3**	
GADA	**Gvkgeada**	**2.50**	**340**	Pn	**Pn**	**00**	**59**	**27.3**	**+1.7**	
GADA				AML	AML					
LIA	**Limnos Island**	**2.50**	**326**	P	**Pn**	**00**	**59**	**26.7**	**+1.1**	
LIA				AML	AML					
PTL	**Penteli**	**2.50**	**276**	P	**Pn**	**00**	**59**	**26.0**	**+0.3**	
ATHU	**Athens Univers**	**2.56**	**274**	P	**Pn**	**00**	**59**	**26.9**	**+0.4**	
ATH	**Athens Observa**	**2.62**	**274**	P	**Pn**	**00**	**59**	**28.0**	**+0.8**	
ATH				AML	AML					
BAND	**Balkesir-Ban**	**2.65**	**18**	⇑P	**Pn**	**00**	**59**	**29.4**	**+1.9**	
SMTH	**Samothraki Isl**	**2.87**	**337**	P	**Pn**	**00**	**59**	**31.3**	**+0.7**	
SMTH				AML	AML					
CAVK	**Edirne/Enez-Ca**	**2.92**	**347**	⇑P	**Pn**	**00**	**59**	**32.9**	**+1.6**	
IDI	**Anoyia**	**3.07**	**215**	Pn	**Pn**	**00**	**59**	**33.0**	**-0.5**	
	9.0nm,0.4s,baz=50,slow=3.9,SNR=12									
IDI					Sn	**Sn**	**01**	**00**	**08.9**	**-1.0**
	6.9nm,0.3s,baz=281,slow=18,SNR=3.6									
IDI					Lg	Lg	01	00	22.6	
	16nm,0.3s,baz=291,slow=22,SNR=6.3									
IDI	**Anoyia**	**3.07**	**215**	P	**Pn**	**00**	**59**	**33.9**	**+0.4**	
IDI				AML	AML					
KEPZ	**Antalya-Kepez**	**3.77**	**103**	⇓P	**Pn**	**00**	**59**	**46.3**	**+3.2**	
PHSR	**Pinarhisar**	**3.80**	**6**	⇑P	**Pn**	**00**	**59**	**44.6**	**+1.2**	
SAHE	**Sakarya_HENDEK**	**4.22**	**43**	⇑P	**Pn**	**00**	**59**	**52.2**	**+2.9**	
BRTR	**Keskin Array B**	**5.50**	**68**	Pn	**Pn**	**01**	**00**	**09.3**	**+2.4**	
	0.6nm,0.3s,baz=247,slow=14,SNR=18									
BRTR					LR	LR	01	01	56.7	
	comp=Z,22nm,19.0s,baz=264,slow=35									
	2.0nm,0.4s									
BRTR					AML	AML				
LOZB	**Loznitsa**	**5.53**	**357**	⇑P	**Pn**	**01**	**00**	**09.0**	**+1.8**	
KIRS	**Kirsehir-Merke**	**5.56**	**74**	⇑P	**Pn**	**01**	**00**	**11.0**	**+3.3**	
CSS	**Mathiatis**	**5.84**	**118**	P	**Pn**	**01**	**00**	**08.8**	**-2.7**	
CSS				S	**Sn**	**01**	**01**	**15.8**	**-2.3**	
ICOR	**Ion Corvin**	**6.29**	**5**	⇓P	**Pn**	**01**	**00**	**19.2**	**+1.5**	
BLKB	**Belogradchik**	**6.65**	**332**	⇓P	**Pn**	**01**	**00**	**24.0**	**+1.4**	
BOVS	**Bovan**	**7.05**	**327**	⇓P	**Pn**	**01**	**00**	**29.5**	**+1.4**	
MLR	**Muntele Rosu**	**7.68**	**354**	Pn	**Pn**	**01**	**00**	**38.8**	**+1.9**	
	0.4nm,0.3s,baz=90,slow=24,SNR=12									
	1.4nm,0.4s									
MLR					AML	AML				
MLR	**Muntele Rosu**	**7.68**	**354**	⇓P	**Pn**	**01**	**00**	**38.6**	**+1.7**	
MDVR	**Moldovita**	**8.00**	**332**	⇓P	**Pn**	**01**	**00**	**43.0**	**+1.9**	
PLOR	**Plostina**	**8.01**	**358**	⇓P	**Pn**	**01**	**00**	**43.2**	**+1.9**	
COVR	**Voineasa-Covas**	**8.02**	**356**	⇓P	**Pn**	**01**	**00**	**42.9**	**+1.5**	
VRI	**Vrincioaia**	**8.02**	**359**	⇑P	**Pn**	**01**	**00**	**42.8**	**+1.4**	
VLDI	**Vladesti**	**8.03**	**5**	⇓P	**Pn**	**01**	**00**	**43.9**	**+2.4**	
TIP	**Timpagrande**	**8.16**	**283**	⇓P	**Pn**	**01**	**00**	**45.4**	**+2.0**	
GZR	**Guru Zlata**	**8.19**	**339**	⇓P	**Pn**	**01**	**00**	**44.8**	**+1.2**	
DOPR	**Dopca**	**8.21**	**352**	⇑P	**Pn**	**01**	**00**	**46.0**	**+2.0**	
ZRT	**Zar'it**	**8.24**	**123**	P	**Pn**	**01**	**00**	**41.4**	**-3.0**	
ZRT				S	**Sn**	**01**	**02**	**14.8**	**-2.3**	
TURR	**Turia**	**8.24**	**355**	⇓P	**Pn**	**01**	**00**	**46.5**	**+2.1**	
BOSR	**Bodos**	**8.29**	**353**	⇓P	**Pn**	**01**	**00**	**46.5**	**+1.5**	
OZUR		**8.30**	**354**	⇑P	**Pn**	**01**	**00**	**47.3**	**+2.1**	
OFRI	**`Ofer**	**8.34**	**126**	P	**Pn**	**01**	**00**	**42.4**	**-3.4**	
OFRI				S	**Sn**	**01**	**02**	**16.8**	**-2.8**	
MMA0B	**Mount Meron ar**	**8.36**	**123**	P	**Pn**	**01**	**00**	**43.5**	**-2.7**	
MMA0B				S	**Sn**	**01**	**02**	**18.1**	**-2.2**	
MMAI	**Mount Meron Ar**	**8.36**	**123**	Pn	**Pn**	**01**	**00**	**45.5**	**-0.7**	
	1.8nm,0.3s,baz=318,slow=15,SNR=28									
MMAI					Sn	**Sn**	**01**	**02**	**14.0**	**-6.2**
	4.2nm,0.3s,baz=329,slow=33,SNR=6.8									
GEM	**Giv'at Ha'Em**	**8.42**	**121**	P	**Pn**	**01**	**00**	**44.2**	**-2.7**	
GEM				S	**Sn**	**01**	**02**	**19.3**	**-2.3**	
NATI	**Neve Ativ**	**8.44**	**120**	P	**Pn**	**01**	**00**	**44.0**	**-3.2**	
NATI				S	**Sn**	**01**	**02**	**20.0**	**-2.0**	
MDB	**Medias**	**8.52**	**348**	⇑P	**Pn**	**01**	**00**	**49.7**	**+1.4**	
KNHM	**Kefar Nahum**	**8.56**	**123**	P	**Pn**	**01**	**00**	**46.0**	**-2.8**	
KNHM				S	**Sn**	**01**	**02**	**22.4**	**-2.6**	
RMOT	**Ramot**	**8.64**	**123**	P	**Pn**	**01**	**00**	**46.7**	**-3.1**	
RMOT				S	**Sn**	**01**	**02**	**24.4**	**-2.4**	
TESR	**Tescani**	**8.67**	**358**	⇓P	**Pn**	**01**	**00**	**51.5**	**+1.2**	
SURR	**Surduc**	**8.71**	**337**	⇓P	**Pn**	**01**	**00**	**52.4**	**+1.7**	
MMLI	**Mount Malkishu**	**8.74**	**126**	P	**Pn**	**01**	**00**	**48.0**	**-3.3**	
MMLI				S	**Sn**	**01**	**02**	**26.9**	**-2.5**	
BZS	**Buzias**	**8.75**	**334**	⇑P	**Pn**	**01**	**00**	**53.0**	**+1.6**	
ROII	**Roi**	**8.90**	**126**	P	**Pn**	**01**	**00**	**50.3**	**-3.2**	
ROII				S	**Sn**	**01**	**02**	**31.0**	**-2.4**	
AMAZ	**Amatzia**	**9.04**	**132**	P	**Pn**	**01**	**00**	**52.6**	**-2.9**	
AMAZ				S	**Sn**	**01**	**02**	**34.2**	**-2.7**	
YITV	**Yitav**	**9.06**	**128**	P	**Pn**	**01**	**00**	**52.6**	**-3.1**	
YITV				S	**Sn**	**01**	**02**	**34.8**	**-2.5**	
KZIT	**Kziot**	**9.22**	**136**	P	**Pn**	**01**	**00**	**55.1**	**-2.8**	
KZIT				S	**Sn**	**01**	**02**	**38.8**	**-2.4**	
MARR	**Marisel-Cluj**	**9.29**	**343**	⇓P	**Pn**	**01**	**01**	**00.4**	**+1.6**	
MZS	**Mizpe Shalem**	**9.31**	**130**	P	**Pn**	**01**	**00**	**56.1**	**-3.0**	
MZS				S	**Sn**	**01**	**02**	**41.6**	**-1.8**	
MSBI	**Mazada**	**9.46**	**131**	P	**Pn**	**01**	**00**	**58.4**	**-2.8**	
MSBI				S	**Sn**	**01**	**02**	**44.9**	**-2.3**	
DRGR		**9.49**	**342**	⇓P	**Pn**	**01**	**01**	**03.8**	**+2.2**	
GHAJ	**Ghor Haditha**	**9.60**	**130**	P	**Pn**	**01**	**00**	**59.9**	**-3.1**	
GHAJ				S	**Sn**	**01**	**02**	**48.7**	**-1.7**	
RMNI	**Mount Ramon**	**9.66**	**136**	P	**Pn**	**01**	**01**	**00.4**	**-3.5**	
RMNI				S	**Sn**	**01**	**02**	**49.7**	**-2.3**	
ASF	**Jabal al Asfar**	**9.84**	**122**	Pn	**Pn**	**01**	**01**	**07.5**	**+0.6**	
	0.6nm,0.3s,baz=275,slow=6.1,SNR=8.4									
	1.2nm,0.4s									
ASF					AML	AML				
BURAR	**Bucovina Array**	**9.86**	**353**	⇑P	**Pn**	**01**	**01**	**09.3**	**+2.6**	
HRFI	**Mount Harif**	**10.24**	**137**	P	**Pn**	**01**	**01**	**09.0**	**-2.9**	
HRFI				S	**Sn**	**01**	**03**	**06.3**	**-2.7**	
MORH	**Mrgy, Hungar**	**10.43**	**326**	⇑P	**Pn**	**01**	**01**	**16.0**	**+1.7**	
EIL	**Elat**	**10.48**	**139**	Pn	**Pn**	**01**	**01**	**14.7**	**-0.5**	
	0.3nm,0.3s,baz=334,slow=13,SNR=8.4									
EIL					Sn	Sn	01	03	05.3	-6.9
	3.3nm,0.3s,baz=64,slow=17,SNR=1.1									
EIL					LR	LR	01	07	01.6	
	comp=Z,16nm,18.2s,baz=252,slow=48									
	1.3nm,0.3s									
EIL					AML	AML				
EIL	**Elat**	**10.48**	**139**	P	**Pn**	**01**	**01**	**11.8**	**-3.4**	
VYHS	**Vyhne**	**12.20**	**333**	*e*PN	**Pn**	**01**	**01**	**35.1**	**-3.5**	
GERES	**GERESS Array B**	**14.63**	**323**	Pn	**Pn**	**01**	**02**	**13.7**	**+1.8**	
	baz=153,slow=8.8,SNR=5.7									
	0.2nm,0.4s									
FINES	**FINESS Array B**	**23.63**	**359**	P	**P**	**01**	**03**	**58.0**	**+2.3**	
	9.8nm,1.0s,baz=172,slow=15,SNR=3.1									
	9.8nm,1.0s									
TORD	**Torodi Ar. Bea**	**33.37**	**229**	P	**P**	**01**	**05**	**24.5**	**+1.4**	
	0.7nm,0.3s,baz=38,slow=10,SNR=1.4									
TORD					LR	LR	01	20	29.4	
	comp=Z,173nm,21.8s,baz=128,slow=39									
	0.7nm,0.3s									
KURBB	**Kurchatov Arra**	**38.30**	**54**	P	**P**	**01**	**06**	**06.5**	**+1.4**	
	0.4nm,0.5s,baz=278,slow=8.6,SNR=4.8									
	0.4nm,0.5s									
MKAR	**Makanchi Array**	**41.08**	**59**	P	**P**	**01**	**06**	**29.7**	**+1.4**	
	0.3nm,0.3s,baz=268,slow=8.8,SNR=5.2									
	0.3nm,0.3s									
SFJD	**Kangerlussuaq**	**51.07**	**330**	LR	LR	01	32	25.3		
	comp=Z,57nm,18.7s,baz=74,slow=40									

*IDC **20** 01:03:50.5±1.1,6.°78N×72.°96W,h162km±11km,mb3.4/7, mbtmp3.9/10,Error ellipse: s-maj=19.0km s-min=12.8km az=125.0*
*NEIC **20** 01:03:50.6±2.0,6.°85N±0.°06×73.°10W±0.°05,h146km±6km, mb4.1/21,Error ellipse: s-maj=10.2km s-min=4.7km az=144.0*
*RSNC **20** 01:03:50.8±0.0,7.°N±4.°×7.°3W±.°,h146km±6km,M4.1, mB5.0,mb4.5,ML3.7,Mw(mB)4.3*
*CATAC **20** 01:03:51.2±0.5,7.°N±2.°×7.°3W±.°,h150km±5km,M4.5/8, MLv4.5/8,Error ellipse: s-maj=6.1km s-min=4.7km az=117.2,confirmed*
*FUNV **20** 01:03:53.4,6.°97N×73.°10W,h122km,MW4.1,Presumed earthquake*

ISC 20 01:03:50.2±0.6,6.°85N±0.°03×73.°10W±0.°04,h153km±5km, n118,σ1§55/165,mb3.9/15,Northern Colombia

Code	Station Name	Δ°	AZ°	Op	ISC	h	m	s	Time	Res
BARC	**Barichara**	**0.27**	**198**	P	**Pn**	**01**	**04**	**11.8**	**+0.5**	
BARC				S	**Sn**	**01**	**04**	**27.0**	**-0.4**	
BRJC	**Barrancabermej**	**0.65**	**281**	P	**Pn**	**01**	**04**	**13.4**	**+0.7**	
BRJC				S	**Sn**	**01**	**04**	**30.6**	**+0.8**	
RUSC	**La Rusia**	**0.95**	**179**	P	**Pn**	**01**	**04**	**15.7**	**+0.2**	
RUSC				S	**Sn**	**01**	**04**	**35.1**	**+0.4**	
RUSC	**La Rusia**	**0.95**	**179**	Pn	**Pn**	**01**	**04**	**15.7**	**+0.2**	
RUSC				Sn	**Sn**	**01**	**04**	**33.3**	**-1.4**	
RUSC	**La Rusia**	**0.95**	**179**	P	**Pn**	**01**	**04**	**15.6**	**+0.2**	
RUSC				*S*	**Sn**	**01**	**04**	**33.7**	**-1.0**	
RUSC	**La Rusia**	**0.95**

	comp=Z,48nm,2.2s							
SABCS	**La Quijada**	**13.60**	**351**	*i* P		**P**	**01 07 00.5**	**-0.3**
SABCS				IAmb		IAmb	01 07 20.0	
	comp=Z,66nm,0.8s							
PILO	**Pilon**	**13.64**	**343**	*i* P		**P**	**01 07 02.1**	**+0.9**
PILO				IAmb		IAmb	01 07 09.3	
	comp=Z,160nm,1.2s							
LMGC	**Las Mercedes**	**13.67**	**344**	*i* P		**P**	**01 07 00.7**	**-0.8**
LMGC				IAmb		IAmb	01 07 09.6	
	comp=Z,11nm,0.9s							
NMDO	**Nuevo Mundo**	**13.75**	**353**	IAmb		IAmb	01 06 59.7	
	comp=Z,43nm,2.1s							
NMDO				*i* P		**P**	**01 07 02.8**	**+0.4**
PINC	**Pinares de May**	**13.81**	**349**	*i* P		**P**	**01 07 03.2**	**+0.2**
PINC				IAmb		IAmb	01 07 05.1	
	comp=Z,41nm,0.9s							
YAR	**Yar**	**13.81**	**347**	*i* P		**P**	**01 07 03.2**	**+0.2**
HLGC	**Holguin**	**14.25**	**349**	*i* P		**P**	**01 07 11.7**	**+3.7**
HLGC				IAmb		IAmb	01 07 12.9	
	comp=Z,39nm,1.5s							
CBCY	**The Bluff, Cay**	**14.35**	**334**	*i* P		**P**	**01 07 11.8**	**+2.7**
CBCY				IAmb		IAmb	01 07 23.6	
	comp=Z,200nm,1.1s							
LCCY	**Blossom Villag**	**14.43**	**333**	*i* P		**P**	**01 07 12.0**	**+2.0**
LCCY				IAmb		IAmb	01 07 35.8	
	comp=Z,380nm,1.2s							
ATAH	**Atahualpa**	**14.86**	**201**	S		**S**	**01 10 02.6**	**-2.6**
	comp=Z,0.9nm,0.4s,baz=224,slow=19,SNR=1.5							
CCCC	**Cccc**	**14.96**	**343**	*i* P		**P**	**01 07 21.2**	**+5.3**
CCCC				IAmb		IAmb	01 07 22.8	
	comp=Z,23nm,2.0s							
LPAZ	**La Paz**	**23.51**	**168**	P		**P**	**01 08 45.6**	**-1.6**
	comp=Z,1.2nm,0.7s,baz=22,slow=5.4,SNR=1.8							
	comp=Z,1.2nm,0.7s							
LPAZ	**La Paz**	**23.51**	**168**	P		**P**	**01 08 46.2**	**-1.0**
LPAZ				IAmb		IAmb	01 09 21.2	
	comp=Z,6.2nm,0.9s							
TXAR	**Lajitas Array**	**36.46**	**312**	P		**P**	**01 10 41.5**	**+0.8**
	comp=Z,0.8nm,0.6s,baz=129,slow=9.5,SNR=12							
TXAR				PcP		**PcP**	**01 13 02.8**	**+1.3**
	comp=Z,0.6nm,0.6s,baz=126,slow=4.1,SNR=6.7							
	comp=Z,0.8nm,0.6s							
TXAR	**Lajitas Array**	**36.46**	**312**	P		**P**	**01 10 41.2**	**+0.5**
TX31	**Lajitas Ar. Si**	**36.46**	**312**	P		**P**	**01 10 41.5**	**+0.8**
TX31				IAmb		IAmb	01 11 20.9	
	comp=Z,3.3nm,1.4s							
MNTX	**Cornudas Mount**	**38.97**	**314**	P		**P**	**01 11 02.4**	**+0.8**
MNTX				IAmb		IAmb	01 11 04.0	
	comp=Z,2.0nm,0.8s							
ECSD	**EROS Data Cent**	**42.13**	**334**	P		**P**	**01 11 26.9**	**-0.6**
SDCO	**Great Sand Dun**	**42.54**	**321**	P		**P**	**01 11 30.7**	**-0.5**
EYMN	**Ely**	**43.85**	**342**	P		**P**	**01 11 41.5**	**+0.3**
PV15	**Paradox Valley**	**44.78**	**320**	P		**P**	**01 11 49.5**	**+0.5**
PV15				IAmb		IAmb	01 11 51.5	
	comp=Z,4.3nm,0.8s							
U15A	**North Rim**	**46.31**	**315**	P		**P**	**01 12 02.2**	**+1.1**
ULM	**Lac du Bonnet**	**47.27**	**340**	P		**P**	**01 12 07.7**	**-0.2**
	comp=Z,2.2nm,0.4s,baz=136,slow=7.3,SNR=9.6							
	comp=Z,2.2nm,0.4s							
ULM	**Lac du Bonnet**	**47.27**	**340**	P		**P**	**01 12 07.7**	**-0.2**
ULM				IAmb		IAmb	01 12 45.3	
	comp=Z,5.3nm,1.2s							
BSUT	**Blindstream Ca**	**47.48**	**321**	P		**P**	**01 12 11.3**	**+1.0**
BSUT				IAmb		IAmb	01 12 11.9	
	comp=Z,2.0nm,0.8s							
PDAR	**Pinedale Array**	**48.07**	**324**	P		**P**	**01 12 14.8**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=126,slow=9.0,SNR=5.3							
PDAR				PcP		**PcP**	**01 13 40.0**	**-0.1**
	comp=Z,0.3nm,0.6s,baz=167,slow=7.4,SNR=2.0							
	comp=Z,0.4nm,0.5s							
BGU	**Big Grassy Mou**	**49.13**	**320**	P		**P**	**01 12 23.5**	**+0.8**
BGU				IAmb		IAmb	01 12 24.2	
	comp=Z,2.1nm,0.6s							
NVAR	**Mina Array Bea**	**51.48**	**315**	P		**P**	**01 12 40.9**	**+0.5**
	comp=Z,0.4nm,0.6s,baz=102,slow=6.2,SNR=3.6							
	comp=Z,0.4nm,0.6s							
LNOR	**Lincton Mounta**	**54.99**	**323**	P		**P**	**01 13 05.9**	**+0.2**
G08A	**Pilot Rock**	**55.11**	**322**	P		**P**	**01 13 06.6**	**0.0**
G08A				IAmb		IAmb	01 13 34.0	
	comp=Z,3.5nm,1.5s							
PINE	**Pine Mountain**	**55.64**	**319**	P		**P**	**01 13 12.2**	**+1.5**
KCPM	**Cahto Peak**	**55.74**	**314**	P		**P**	**01 13 13.0**	**+1.7**
YKA	**Yellowknife Ar**	**63.24**	**340**	P		**P**	**01 14 02.2**	**+0.1**
	comp=Z,2.5nm,0.6s,baz=135,slow=6.5,SNR=37							
	comp=Z,2.5nm,0.6s							
YKA	**Yellowknife Ar**	**63.24**	**340**	P		**P**	**01 14 01.8**	**-0.3**
YKAW3	**Yellowknife Wh**	**63.29**	**340**	P		**P**	**01 14 02.4**	**0.0**
SUMG	**Summit**	**68.96**	**11**	P		**P**	**01 14 38.9**	**0.0**
A36M	**Sachs Harbour**	**72.41**	**345**	P		**P**	**01 14 59.4**	**+0.1**
L29M	**L29M**	**72.78**	**334**	P		**P**	**01 15 02.2**	**+0.5**
L29M				IAmb		IAmb	01 15 25.4	
	comp=Z,5.3nm,1.4s							
F30M	**Barrier River**	**73.50**	**339**	P		**P**	**01 15 06.6**	**+0.8**
F30M				IAmb		IAmb	01 15 50.1	
	comp=Z,9.8nm,1.4s							
ILAR	**Eielson Array**	**76.95**	**335**	P		**P**	**01 15 25.6**	**0.0**
	comp=Z,0.3nm,0.6s,baz=110,slow=4.6,SNR=6.1							
	comp=Z,0.3nm,0.6s							
BELA	**Belgrano 2**	**87.22**	**172**	P		**P**	**01 16 20.0**	**+1.2**
MKAR	**Makanchi Array**	**122.29**	**20**	PKP		**PKPdf**	**01 22 26.4**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=346,slow=2.1,SNR=5.0							
SONM	**Songino Array**	**125.55**	**0**	PKP		**PKPdf**	**01 22 32.7**	**-1.0**
	comp=Z,0.3nm,0.6s,baz=318,slow=5.2,SNR=2.6							
ASAR	**Alice Springs**	**149.14**	**234**	PKPbc		**PKPbc**	**01 23 20.1**	**-1.3**
	comp=Z,3.4nm,0.7s,baz=120,slow=2.9,SNR=23							
ASAR	**Alice Springs**	**149.14**	**234**			**PKPbc**	**01 23 19.9**	**-1.6**
WR8	**Warramunga Arr**	**150.22**	**241**	PKPbc		**PKPbc**	**01 23 23.1**	**-1.1**
WRA	**Warramunga Arr**	**150.37**	**241**	PKPbc		**PKPbc**	**01 23 22.9**	**-1.6**
	comp=Z,2.3nm,0.4s,baz=110,slow=2.5,SNR=4.9							
WRA	**Warramunga Arr**	**150.37**	**241**			**PKPbc**	**01 23 23.3**	**-1.2**
CMAR	**Chiang Mai Arr**	**153.66**	**17**	PKPbc		**PKPbc**	**01 23 30.1**	**-1.9**
	comp=Z,1.6nm,0.3s,baz=337,slow=2.1,SNR=4.5							

*IDC **20** 01:13:51.7±0.9, 37.87N×26.77E, h0km, mb3.8/4, mbtmp3.5/10, ML3.1/4, MS2.7/2, Error ellipse: s-maj=13.3km s-min=12.1km az=98.0*
*GII **20** 01:13:52.6±0.0, 37.935N±0.003×26.838E±0.001, h0km, Mws3.7, confirmed*
*SOF **20** 01:13:53.6, 38.17N±0.06×26.72E±0.06, h2km±6km, MD3.9/9*
*AFAD **20** 01:13:53.8, 37.94N×26.69E, h7km±2km, MW3.9*
*ISK **20** 01:13:53.7, 37.92N×26.65E, h6km, ML3.8/37*
*ATH **20** 01:13:53.2, 37.93N×26.68E, h18km, ML3.6/9, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **20** 01:13:53.5, 38°N±1°×26.7E±1.0, h15km±1km, M3.8/11, MLh3.8/11*

ISC 20 01:13:53.4±0.8, 37.92N±0.01×26.70E±0.02, h18km±2km, n155, σ1s07/199, mb3.7/4, 22C-15D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
KRL1	**Karlovasi Samo**	**0.13**	**177**	P	**Pg**		**01 13 57.4**	**0.0**
KRL1				S	**Sg**		**01 14 00.5**	**+0.5**
SAM2	**Drakei, Karlov**	**0.18**	**203**	P	**Pg**		**01 13 57.9**	**-0.1**
SAM2				S	**Sg**		**01 14 01.1**	**0.0**
SAM2				AML	AML			
DGB	**zmir**	**0.20**	**49**	P	**Pb**		**01 13 57.8**	**-0.1**
DGB				S	**Sb**		**01 14 00.8**	**-0.1**
GMLD	**Gumuldur**	**0.23**	**48**	Pg	**Pg**		**01 13 58.7**	**-0.1**
GMLD				Sg	**Sb**		**01 14 02.8**	**+0.5**
GMLD				AML	AML			
SMG	**Samos**	**0.24**	**153**	P	**Pb**		**01 13 59.3**	**+0.3**
SMG				S	**Sb**		**01 14 03.6**	**+0.9**
SMG				AML	AML			
SMG	**Samos**	**0.24**	**153**	P	**Pb**		**01 13 59.1**	**+0.1**
SMG				S	**Sb**		**01 14 03.4**	**+0.7**
ZEYE	**Izmir, Urla-Ze**	**0.35**	**334**	P	**Pg**		**01 14 00.8**	**0.0**
ZEYE				S	**Sg**		**01 14 05.8**	**-0.1**
BEYE	**izmir**	**0.35**	**31**	P	**Pg**		**01 14 00.7**	**-0.2**
BEYE				S	**Sg**		**01 14 05.5**	**-0.4**
KUSD	**Kusadasi-Aydin**	**0.47**	**97**	Pg	**Pb**		**01 14 03.8**	**+0.7**
KUSD				AML	AML			
CESE	**eme**	**0.51**	**323**	Pg	**Pg**		**01 14 03.6**	**-0.1**
CESE				Sg	**Sb**		**01 14 11.3**	**+0.4**
CESE				AML	AML			
BLCB	**Balcova**	**0.54**	**30**	P	**Pg**		**01 14 03.7**	**-0.4**
BLCB				S	**Sg**		**01 14 11.0**	**-0.4**
BLCB				AML	AML			
BLCB	**Balcova**	**0.54**	**30**	Pg	**Pb**		**01 14 04.4**	**+0.2**
BLCB				AML	AML			
DDIM	**Aydin, Didim**	**0.64**	**137**	P	**Pn**		**01 14 06.7**	**-0.7**
DDIM				S	**Sn**		**01 14 16.0**	**-1.0**
DUVT	**Torbali**	**0.66**	**63**	P	**Pg**		**01 14 06.7**	**+0.2**
KRBN	**Karaburun**	**0.68**	**350**	Pg	**Pg**		**01 14 06.9**	**+0.1**
KRBN				Sg	**Sn**		**01 14 17.3**	**-0.9**
KRBN				AML	AML			
CHOS	**Chios island**	**0.69**	**313**	P	**Pb**		**01 14 06.5**	**-0.3**
CHOS				S	**Sg**		**01 14 16.4**	**+0.3**
CHOS				AML	AML			
CHOS	**Chios island**	**0.69**	**313**	Pg	**Pg**		**01 14 06.8**	**-0.1**
CHOS				Sg	**Sg**		**01 14 16.7**	**+0.6**
CHOS	**Chios island**	**0.69**	**313**	P	**Pb**		**01 14 06.4**	**-0.4**
CHOS				S	**Sg**		**01 14 16.0**	**-0.1**
CHOS				AML	AML			
DIDI	**Didim-Aydin**	**0.69**	**142**	Pg	**Pn**		**01 14 07.9**	**-0.3**
DIDI				Sg	**Sn**		**01 14 18.5**	**0.0**
DIDI				AML	AML			
BAGT	**Foa**	**0.74**	**9**	P	**Pb**		**01 14 07.5**	**-0.2**
BAGT				S	**Sb**		**01 14 17.6**	**+0.1**
KARB	**zmir-Karabur**	**0.77**	**343**	P	**Pb**		**01 14 07.8**	**-0.5**
KARB				S	**Sn**		**01 14 19.9**	**-0.6**
EAG2	**Marmaro, Chios**	**0.77**	**323**	P	**Pb**		**01 14 08.2**	**-0.1**
EAG2				S	**Sb**		**01 14 18.4**	**-0.1**
FOCM	**Foa**	**0.79**	**2**	Pg	**Pn**		**01 14 09.2**	**-0.3**
YKAV	**Yalikavak-Bodr**	**0.92**	**150**	Pg	**Pn**		**01 14 12.0**	**+0.6**
YKAV				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.94**	**88**	Pg	**Pn**		**01 14 12.9**	**+1.1**
AYDB				AML	AML			
CAMT	**Merkez**	**0.96**	**30**	P	**Pg**		**01 14 12.7**	**+0.7**
CAMT				S	**Sn**		**01 14 25.3**	**+0.3**
AYDN	**Tasoluk**	**0.97**	**105**	P	**Pg**		**01 14 12.7**	**+0.4**
AYDN				S	**Sg**		**01 14 25.1**	**0.0**
BODT	**Bodrum**	**0.99**	**150**	P	**Pn**		**01 14 12.4**	**+0.1**
BODT				S	**Sn**		**01 14 26.7**	**+0.9**
BODT				AML	AML			
BODT	**Bodrum**	**0.99**	**150**	Pg	**Pg**		**01 14 12.7**	**+0.1**
BODT				Sg	**Sn**		**01 14 27.8**	**+2.0**
BODT				AML	AML			
KLNA	**Kalymnos**	**0.99**	**167**	P	**Pn**		**01 14 12.2**	**-0.1**
IZMR	**zmir-demi**	**1.01**	**77**	P	**Pg**		**01 14 13.4**	**+0.3**
IZMR				S	**Sb**		**01 14 25.6**	**+0.3**
BDRM	**Kayabasi**	**1.04**	**145**	P	**Pg**		**01 14 13.7**	**+0.1**
BDRM				S	**Sg**		**01 14 28.4**	**+1.1**
BDRM	**Kayabasi**	**1.04**	**145**	⇓P	**Pg**		**01 14 13.7**	**+0.1**
BODA	**Bodrum-Mula**	**1.06**	**146**	Pg	**Pg**		**01 14 14.8**	**+0.9**
MLSB	**Milas**	**1.06**	**126**	Pn	**Pg**		**01 14 14.8**	**+0.8**
MLSB				AML	AML			
ZEDA	**zmir-Bergama**	**1.08**	**16**	P	**Pb**		**01 14 13.3**	**-0.2**
ZEDA				S	**Sn**		**01 14 28.2**	**0.0**
DKL	**Dikili**	**1.16**	**8**	Pn	**Pb**		**01 14 15.2**	**+0.4**
DKL				AML	AML			
DKL	**Dikili**	**1.16**	**8**	P	**Pn**		**01 14 14.5**	**-0.1**
GOMA	**Golmarmara-Man**	**1.24**	**50**	Pn	**Pg**		**01 14 17.8**	**+0.5**
GOMA				AML	AML			
APE	**Apeiranthos**	**1.26**	**228**	P	**Pn**		**01 14 15.5**	**-0.5**
APE				S	**Sn**		**01 14 32.7**	**+0.2**
APE				AML	AML			
APE	**Apeiranthos**	**1.26**	**228**	⇑P	**Pn**		**01 14 16.0**	**-0.1**
APE	**Apeiranthos**	**1.26**	**228**	Pn	**Pg**		**01 14 17.5**	**-0.2**
APE				AML	AML			
APE	**Apeiranthos**	**1.26**	**228**	P	**Pn**		**01 14 15.3**	**-0.7**
APE				AML	AML			
NAZL	**Nazilli-Aydin**	**1.26**	**88**	Pn	**Pb**		**01 14 16.9**	**+0.3**
NAZL				AML	AML			
TNSA	**Tinos**	**1.27**	**253**	P	**Pn**		**01 14 15.8**	**-0.4**
TNSA				AML	AML			
AKS	**Akhisar**	**1.30**	**42**	Pn	**Pg**		**01 14 18.9**	**+0.5**
AKS				AML	AML			
AKHS	**Akhisar**	**1.30**	**42**	P	**Pn**		**01 14 16.6**	**+0.1**
AKHS				S	**Sg**		**01 14 35.0**	**-0.3**
KTTT	**Salihli**	**1.34**	**55**	P	**Pg**		**01 14 18.9**	**-0.3**
KTTT				S	**Sb**		**01 14 35.8**	**+1.1**
PRK	**Paraskevi**	**1.36**	**346**	P	**Pn**		**01 14 17.4**	**-0.1**
PRK				S	**Sn**		**01 14 34.7**	**-0.4**
PRK				AML	AML			
PRK	**Paraskevi**	**1.36**	**346**	P	**Pn**		**01 14 17.2**	**-0.2**
AYVA	**Ayvalik**	**1.38**	**360**	P	**Pg**		**01 14 19.7**	**-0.3**
AYVA				S	**Sg**		**01 14 38.8**	**+0.7**
DAT	**Datca**	**1.38**	**149**	P	**Pn**		**01 14 17.8**	**-0.1**
DAT				S	**Sb**		**01 14 36.2**	**+0.2**
DAT	**Datca**	**1.38**	**149**	Pn	**Pg**		**01 14 19.9**	**-0.2**
DAT				AML	AML			
DATC	**Datca-Mugla**	**1.39**	**146**	Pn	**Pg**		**01 14 20.0**	**-0.2**
DATC				AML	AML			
SOMA	**Soma-Manisa**	**1.40**	**28**	Pn	**Pg**		**01 14 20.3**	**0.0**
SOMA				AML	AML			
YER	**Yerkesik**	**1.49**	**121**	P	**Pb**		**01 14 20.0**	**-0.4**
YER	**Yerkesik**	**1.49**	**121**	Pn	**Pg**		**01 14 21.5**	**-0.5**
YER				AML	AML			
GORD	**Gordes-Manisa**	**1.52**	**49**	Pn	**Pb**		**01 14 21.9**	**+0.8**
GORD				AML	AML			
BUHA	**Balikesir, Bur**	**1.60**	**11**	P	**Pn**		**01 14 21.0**	**+0.2**
BUHA				S	**Sg**		**01 14 45.2**	**0.0**
KOCA	**Canakkale, Ayv**	**1.64**	**345**	P	**Pn**		**01 14 21.5**	**+0.3**
KOCA				S	**Sg**		**01 14 45.9**	**-0.3**
KULA	**Kula-Manisa**	**1.66**	**68**	Pn	**Pg**		**01 14 24.7**	**-0.5**
KULA				AML	AML			
TURN	**Turunc**	**1.68**	**132**	Pn	**Pb**		**01 14 24.5**	**+0.8**
TURN				AML	AML			
YAYO	**Edremit-Balk**	**1.71**	**10**	Pn	**Pb**		**01 14 25.2**	**+1.0**
YAYO				AML	AML			
KARY	**Karystos**	**1.79**	**274**	P	**Pn**		**01 14 23.1**	**-0.2**
TAVA	**DENIZLI_Tavas**	**1.82**	**104**	⇓P	**Pn**		**01 14 24.0**	**+0.3**
THERA	**Ancient Thera,**	**1.83**	**213**	P	**Pn**		**01 14 24.0**	**+0.1**
THERA				AML	AML			
EZNE	**Ezine-Canakkal**	**1.85**	**352**	Pn	**Pb**		**01 14 26.8**	**+0.2**
DALY	**Dalyan (Mula)**	**1.91**	**125**	Pn	**Pb**		**01 14 28.2**	**+0.6**
DALY				AML	AML			
EZN	**Ezine**	**1.92**	**351**	⇑P	**Pn**		**01 14 25.2**	**+0.1**
EZN	**Ezine**	**1.92**	**351**	Pn	**Pb**		**01 14 28.1**	**+0.3**
EZN				AML	AML			
BALB	**Balikesir**	**1.95**	**28**	Pn	**Pb**		**01 14 28.2**	**-0.1**
BALB				AML	AML			
BOZC	**Bozcaada**	**1.98**	**346**	Pn	**Pb**		**01 14 28.7**	**-0.1**
BOZC				AML	AML			
ARG	**Arkhangelos**	**2.05**	**146**	P	**Pn**		**01 14 27.5**	**+0.6**
ARG				AML	AML			
YENI	**Yenice-Canakka**	**2.06**	**12**	Pn	**Pb**		**01 14 30.2**	**+0.1**
CANM	**Can-anakkale**	**2.10**	**7**	Pn	**Pb**		**01 14 30.5**	**-0.4**
CANM				AML	AML			
APMY	**Acipayam-Deniz**	**2.12**	**101**	Pn	**Pb**		**01 14 30.6**	**-0.6**
APMY				AML	AML			
SIMA	**Simav-Kutahya**	**2.13**	**56**	Pn	**Pb**		**01 14 31.5**	**0.0**
SIMA				AML	AML			
SMAA	**Simav-Kutahya**	**2.14**	**56**	Pn	**Pb**		**01 14 31.9**	**+0.3**
SMAA				AML	AML			
COMU	**Canakkale**	**2.18**	**355**	Pn	**Pb**		**01 14 32.1**	**-0.2**
DION	**Dionisos Attik**	**2.19**	**275**	P	**Pn**		**01 14 29.2**	**+0.4**
DION				AML	AML			
PTL	**Penteli**	**2.24**	**274**	P	**Pn**		**01 14 30.2**	**+0.6**
DST	**Dursunbey**	**2.25**	**41**	Pn	**Pb**		**01 14 33.1**	**-0.4**
DST				AML	AML			
GONE	**Gonen-Balikesi**	**2.26**	**20**	Pn	**Pb**		**01 14 32.6**	**-0.9**
GONE				AML	AML			
SHAP	**Saphane-Kutahy**	**2.27**	**60**	Pn	**Pb**		**01 14 33.5**	**-0.3**
SHAP				AML	AML			
CAME	**Cameli-Denizli**	**2.29**	**114**	Pn	**Pb**		**01 14 33.1**	**-1.1**
CAME				AML	AML			
LIA	**Limnos Island**	**2.30**	**330**	P	**Pn**		**01 14 30.7**	**+0.4**
LIA				AML	AML			
SUSR	**Susurluk-Balik**	**2.31**	**28**	Pn	**Pb**		**01 14 33.8**	**-0.6**
SUSR				AML	AML			
GADA	**Gvkgeada**	**2.35**	**345**	Pn	**Pb**		**01 14 33.4**	**-1.7**
GADA				AML	AML			
BIGA	**Biga-Canakkale**	**2.38**	**8**	Pn	**Pb**		**01 14 34.7**	**-1.0**
GEDZ	**Gediz**	**2.41**	**61**	Pn	**Pb**		**01 14 35.3**	**-0.8**
BAND	**Balkesir-Ban**	**2.66**	**24**	⇑P	**Pn**		**01 14 35.8**	**+0.5**
CAVK	**Edirne/Enez-Ca**	**2.79**	**352**	⇑P	**Pn**		**01 14 38.0**	**+0.8**
IDI	**Anoyia**	**3.00**	**209**	Pn	**Pn**		**01 14 41.0**	**+1.0**
	15nm,0.7s,baz=315,slow=6.0,SNR=13							
IDI					Sn		**01 15 12.8**	**-2.9**
	9.2nm,0.3s,baz=340,slow=11,SNR=5.9							
IDI					Lg		01 15 30.8	
	18nm,0.3s,baz=328,slow=16,SNR=5.5							
CTYL	**Yalikoy Yolu**	**3.75**	**19**	⇑P	**Pn**		**01 14 50.9**	**+0.6**
KDZ	**Kurdzhali**	**3.85**	**345**	P	**Pn**		**01 14 52.3**	**+0.7**
KEPZ	**Antalya-Kepez**	**4.04**	**103**	⇑P	**Pn**		**01 14 55.8**	**+1.6**
RZN	**Rozhen**	**4.06**	**339**	P	**Pn**		**01 14 55.7**	**+1.0**
SAHE	**Sakarya_HENDEK**	**4.35**	**46**	⇑P	**Pn**		**01 14 59.2**	**+0.6**
PLD	**Plovdiv**	**4.48**	**341**	P	**Pn**		**01 15 00.5**	**+0.3**
VAY	**Valandovo**	**4.66**	**318**	*i* Pn	**Pn**		**01 15 05.6**	**+2.9**
KKB	**Krupnik**	**4.78**	**326**	P	**Pn**		**01 15 05.9**	**+1.5**
PLNA	**Plana**	**5.19**	**332**	P	**Pn**		**01 15 12.2**	**+2.0**
PVL	**Pavlikeni**	**5.32**	**348**	P	**Pn**		**01 15 13.5**	**+1.6**
VTS	**Vitosha**	**5.38**	**332**	P	**Pn**		**01 15 14.6**	**+1.7**
LOZB	**Loznitsa**	**5.44**	**359**	⇑P	**Pn**		**01 15 13.8**	**+0.3**
OHR	**Ohrid**	**5.56**	**307**	*i* Pn	**Pn**		**01 15 11.6**	**-3.7**
PLVB	**Pleven**	**5.68**	**345**	⇓P	**Pn**		**01 15 17.7**	**+0.9**
BRTR	**Keskin Array B**	**5.71**	**69**	Pn	**Pn**		**01 15 19.1**	**+1.8**
	0.3nm,0.3s,baz=252,slow=14,SNR=5.8							
BRTR				LR	LR		01 17 25.2	
	comp=Z,23nm,19.5s,baz=296,slow=38							
	1.7nm,0.6s							
BRTR				AML	AML			
KIRS	**Kirsehir-Merke**	**5.79**	**76**	⇑P	**Pn**		**01 15 19.0**	**+0.7**
TRAN	**Tran**	**5.80**	**329**	P	**Pn**		**01 15 20.3**	**+1.9**
PSN	**Preselentsi**	**5.81**	**10**	P	**Pn**		**01 15 19.5**	**+0.9**
CSS	**Mathiatis**	**6.11**	**117**	P	**Pn**		**01 15 21.0**	**-1.7**
CSS				S	**Sn**		**01 16 30.3**	**-1.8**
ICOR	**Ion Corvin**	**6.24**	**7**	⇓P	**Pn**		**01 15 25.4**	**+0.9**
BLKB	**Belogradchik**	**6.46**	**333**	P	**Pn**		**01 15 28.9**	**+1.4**
BLKB	**Belogradchik**	**6.46**	**333**	⇑P	**Pn**		**01 15 28.4**	**+0.8**
TLBR	**Topalu**	**6.69**	**8**	⇑P	**Pn**		**01 15 30.9**	**+0.2**
HARR	**Harsova**	**6.83**	**7**	⇑P	**Pn**		**01 15 32.9**	**+0.4**
BOVS	**Bovan**	**6.85**	**328**	⇑P	**Pn**		**01 15 34.0**	**+1.2**
CFR	**Carcaliu**	**7.33**	**8**	⇑P	**Pn**		**01 15 39.6**	**+0.2**
TLCR		**7.43**	**12**	⇑P	**Pn**		**01 15 41.2**	**+0.5**
MLR	**Muntele Rosu**	**7.58**	**356**	Pn	**Pn**		**01 15 45.0**	**+2.0**
	0.3nm,0.3s,baz=90,slow=24,SNR=4.8							
	1.9nm,0.7s							
MLR				AML	AML			
MLR	**Muntele Rosu**	**7.58**	**356**	⇓P	**Pn**		**01 15 43.6**	**+0.6**
VOIR		**7.61**	**351**	⇓P	**Pn**		**01 15 43.8**	**+0.5**
HERR	**Herculane**	**7.66**	**337**	⇑P	**Pn**		**01 15 44.1**	**+0.2**
TATR	**Tatarca**	**7.74**	**7**	⇑P	**Pn**		**01 15 46.1**	**+1.2**
MDVR	**Moldovita**	**7.81**	**333**	⇓P	**Pn**		**01 15 46.2**	**+0.2**
TIP	**Timpagrande**	**7.89**	**282**	⇑P	**Pn**		**01 15 48.4**	**+1.2**
PLOR	**Plostina**	**7.92**	**360**	⇓P	**Pn**		**01 15 47.9**	**+0.3**
VRI	**Vrincioaia**	**7.94**	**0**	⇓P	**Pn**		**01 15 48.9**	**+1.1**
VLDR	**Vladesti**	**7.98**	**7**	⇓P	**Pn**		**01 15 48.9**	**+0.5**
GZR	**Gura Zlata**	**8.02**	**340**	⇓P	**Pn**		**01 15 49.2**	**+0.3**
DOPR	**Dopca**	**8.10**	**354**	⇓P	**Pn**		**01 15 51.4**	**+1.5**
TURR	**Turia**	**8.14**	**357**	⇑P	**Pn**		**01 15 51.9**	**+1.3**
OZUR		**8.20**	**356**	⇓P	**Pn**		**01 15 52.0**	**+0.7**
SURR	**Surduc**	**8.54**	**338**	⇑P	**Pn**		**01 15 57.0**	**+1.1**
BZS	**Buzias**	**8.57**	**335**	⇑P	**Pn**		**01 15 57.0**	**+0.5**
MMA0B	**Mount Meron ar**	**8.62**	**122**	Pn	**Pn**		**01 15 55.6**	**-1.6**
MMA0B				S	**Sn**		**01 17 32.5**	**-1.6**
MMAI	**Mount Meron Ar**	**8.62**	**122**	Pn	**Pn**		**01 15 55.9**	**-1.4**
	0.3nm,0.3s,baz=315,slow=14,SNR=9.6							
MMAI				Sn	**Sn**		**01 17 27.4**	**-6.7**
	0.2nm,0.3s,baz=4.2,slow=22,SNR=4.4							
GEM	**Giv'at Ha'Em**	**8.69**	**120**	P	**Pn**		**01 15 56.4**	**-1.7**
GEM				S	**Sn**		**01 17 33.3**	**-2.2**
MMLI	**Mount Malkishu**	**8.99**	**125**	P	**Pn**		**01 16 01.2**	**-1.1**
MMLI				S	**Sn**		**01 17 41.1**	**-2.0**
SIRR

AYDB				AML	AML			
CHOS	**Chios island**	**0.83**	**312**	Pg	Pb	02 05 51.4	-0.2
CHOS				Sg	Sb	02 06 03.5	+0.4
CHOS				AML	AML		
BODT	**Bodrum**	**0.85**	**154**	Pg	Pg	02 05 51.4	+0.3
BODT				Sg	Sb	02 06 03.8	+0.3
BODT				AML	AML		
MLSB	**Milas**	**0.91**	**126**	Pg	Pg	02 05 52.1	-0.1
NAZL	**Nazilli-Aydin**	**1.15**	**83**	Pn	Pn	02 05 57.1	-0.1
GORD	**Gordes-Manisa**	**1.50**	**44**	Pn	Pb	02 06 02.7	-0.1

AFAD 20 02:06:34.4, 37°.98N×26°.70E, h7km±2km, ML1.3, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.16**	**62**	P	Pg	02 06 37.4	-0.3
DGB				S	Sg	02 06 40.7	+0.8
DGB				IAML		02 06 41.0	
	comp=N,96nm,0.2s						
BEYE	**izmir**	**0.30**	**35**	P	Pg	02 06 40.9	+0.5
BEYE				S	Sg	02 06 45.0	+0.5
BEYE				IAML		02 06 47.0	
	comp=E,31nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.30**	**329**	P	Pg	02 06 40.7	+0.3
ZEYE				S	Sg	02 06 45.5	+1.1
ZEYE				IAML		02 06 46.0	
	comp=N,41nm,0.6s						
ZEYE				IAML		02 06 46.0	
	comp=E,55nm,1.2s						
DUVT	**Torbali**	**0.64**	**67**	P	Pg	02 06 46.9	+0.2
DUVT				S	Sg	02 06 54.3	-0.7
DUVT				IAML		02 06 57.0	
	comp=E,24nm,0.4s						
CAMT	**Merkez**	**0.91**	**32**	P	Pn	02 06 53.3	-0.3
CAMT				S	Sb	02 07 04.3	-0.4

*IDC **20** 02:07:41.6±0.5, 32°.41N×141°.88E, h0km, mb4.1/18, mbtmp4.1/24, ML3.9/6, MS3.3/8, Error ellipse: s-maj=18.0km s-min=10.5km az=73.0*
*BJI **20** 02:07:41.4, 32°.51N×141°.90E, h12km, mb4.6/16, mB5.3/5*
*NEIC **20** 02:07:44.9±1.6, 32°.33N±0°.08×141°.8E±0°.1, h16km±2km, mb4.6/26, Error ellipse: s-maj=14.0km s-min=9.4km az=50.0*
*NIED **20** 02:07:46.4, 32°.47N×141°.76E, h55km, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}1.37; $M_{\theta\theta}$-0.28; $M_{\phi\phi}$-1.08; $M_{r\theta}$-0.80; $M_{\theta\phi}$0.58; $M_{\phi r}$0.09; Fault plane solution: $M_0$1.58000×10^{15} NP1: ϕ_s171.00000°, δ39.00000°, λ124.00000°. NP2: ϕ_s311.00000°, δ58.00000°, λ66.00000°.*
*JMA **20** 02:07:46.4±0.4, 32°.1N×14°.2E×, h55km, MV3.8/27, E OFF HACHIJOJIMA ISLAND*
ISC 20 02:07:47.6±0.5, 32°.43N±0°.07×141°.76E±0°.06, h39km, n93, σ1§13/84, mb4.4/39, MS3.5/5, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAOM	**Aogashimamukai**	**1.69**	**272**	*e*P	**Pn**	**02 08 13.7**	**-0.8**
JHCJ	**Hachijojimakas**	**1.77**	**292**	*e*P	**Pn**	**02 08 15.2**	**-0.5**
JHJ2	**Mitsune**	**1.77**	**293**		**Pn**	**02 08 15.5**	**-0.2**
JHJ2				Sn	**Sn**	**02 08 38.8**	**+1.9**
JHJ2	**Mitsune**	**1.77**	**293**	*e*P	**Pn**	**02 08 15.4**	**-0.2**
JHJ	**Hachijo jima 2**	**1.80**	**293**	Pn	**Pn**	**02 08 14.9**	**-1.1**
	12nm,0.3s,baz=267,slow=19,SNR=17						
JHJ				Sn	**Sn**	**02 08 38.0**	**+0.4**
	9.4nm,0.3s,baz=210,slow=12,SNR=5.9						
BSO1	**Boso 1**	**2.31**	**344**	P	**Pn**	**02 08 22.2**	**-0.4**
BSO3	**Boso 3**	**2.58**	**337**	P	**Pn**	**02 08 26.0**	**-0.5**
JYN	**Shimob**	**4.06**	**320**	P	**Pn**	**02 08 49.4**	**+2.2**
JRY	**Ryogami san**	**4.29**	**327**	*e*P	**Pn**	**02 08 49.9**	**-0.4**
JAG	**Ashikaga**	**4.41**	**335**	P	**Pn**	**02 08 51.5**	**-0.5**
JGF	**Kuroka**	**4.83**	**312**		**Pn**	**02 08 59.8**	**+2.0**
MJAR	**Matsushiro Arr**	**5.04**	**325**	Pn	**Pn**	**02 09 00.2**	**-0.4**
	1.0nm,0.3s,baz=151,slow=12,SNR=22						
MJAR				Sn	**Sn**	**02 09 55.4**	**-2.1**
	0.6nm,0.3s,baz=205,slow=24,SNR=5.6						
MJAR				LR	LR	02 11 16.5	
	comp=Z,178nm,18.9s,baz=151,slow=42 7.8nm,0.5s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.04**	**325**		**Pn**	**02 09 01.1**	**+0.5**
MAJO	**Matsushiro**	**5.04**	**325**		**Pn**	**02 09 01.2**	**+0.6**
MJB9	**Matsu-Tunnel**	**5.04**	**325**		**Pn**	**02 09 02.5**	**+1.9**
JCJ	**Chichijima**	**5.33**	**176**	Pn	Pn	02 08 59.2	-5.5
	22nm,0.3s,baz=280,slow=23,SNR=16						
JCJ				Sn	Sn	02 09 53.4	-11
	16nm,0.3s,baz=264,slow=23,SNR=1.7 54nm,0.3s						
JCJ				AML	AML		
JCJ	**Chichijima**	**5.33**	**176**	Pn	**Pn**	**02 09 01.4**	**-3.3**
JMN	**Monobe**	**6.74**	**283**	Pn	**Pn**	**02 09 25.1**	**+1.1**
JTM	**Tenmabayashi**	**8.36**	**356**	Pn	**Pn**	**02 09 44.1**	**-2.0**
JNU	**Nakatsue**	**9.19**	**277**	LR	LR	02 13 53.7	
	comp=Z,173nm,18.4s,baz=107,slow=40						
ASAJ	**Asahikawa**	**11.68**	**3**	Pn	Pn	02 10 26.8	-4.8
	1.5nm,0.3s,baz=193,slow=18,SNR=2.3 24nm,1.1s						
ASAJ				AML	AML		
KSRS	**Korea Array**	**12.40**	**298**	Pn	**Pn**	**02 10 40.8**	**-0.7**
	0.3nm,0.3s,baz=110,slow=13,SNR=1.7						
KSRS				LR	LR	02 15 46.3	
	comp=Z,112nm,18.1s,baz=105,slow=39 0.5nm,0.4s						
KSRS				AML	AML		
USRK	**Ussuriysk Ar.**	**14.01**	**330**	Pn	**Pn**	**02 11 01.8**	**-1.6**
	0.1nm,0.3s,baz=140,slow=10,SNR=5.4 1.3nm,0.6s						
USRK				AML	AML		
CN2	**Changchun**	**17.10**	**316**	P	**Pn**	**02 11 41.5**	**-2.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KLR	**Kul'dur**	**18.38**	**339**	P	**P**	**02 11 56.6**	**-2.4**
	1.0nm,0.3s,baz=173,slow=6.1,SNR=12 3.9nm,0.5s						
KLR				AML	AML		
NJ2	**Nanjing**	**19.38**	**275**	*e*P	**Pn**	**02 12 12.3**	**+1.0**
NJ2				pmax	pmax		
	comp=Z,15nm,0.6s						
HILR	**Hailar Array B**	**23.70**	**323**	P	**P**	**02 12 55.9**	**+0.2**
	2.2nm,0.4s,baz=114,slow=13,SNR=1.9 2.2nm,0.4s						
HHC	**Hu-ho-hao-te**	**25.55**	**298**	*e*P	**P**	**02 13 12.3**	**-0.4**
HHC				pmax	pmax		
	comp=Z,14nm,0.7s						
HHC				pmax	pmax		
	comp=Z,350nm,4.3s						
H11N2	**WAKE ISLAND Hy**	**25.81**	**113**	T	T	02 40 37.0	
	baz=306						
H11N1	**WAKE ISLAND Hy**	**25.81**	**113**	T	T	02 40 22.5	
	baz=306						
H11N3	**WAKE ISLAND Hy**	**25.82**	**113**	T	T	02 40 35.8	
	baz=306						
BTO2	**Baotou**	**26.79**	**297**	*e*P	**P**	**02 13 26.1**	**+2.0**
BTO2				pmax	pmax		
	comp=Z,18nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,430nm,4.6s						
XAN	**Xi'an**	**27.45**	**282**	P	**P**	**02 13 27.3**	**-2.6**
XAN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MA2	**Magadan**	**27.81**	**10**	LR	LR	02 26 26.7	
	comp=Z,28nm,19.8s,baz=154,slow=40						
SONM	**Songino Array**	**30.79**	**310**	P	**P**	**02 14 00.8**	**+1.3**
	1.9nm,0.6s,baz=118,slow=9.0,SNR=15						
SONM				PcP	**PcP**	**02 16 57.1**	**+1.0**
	0.2nm,0.4s,baz=134,slow=4.2,SNR=1.6 1.9nm,0.6s						
SONM	**Songino Array**	**30.79**	**310**	P	**P**	**02 14 00.4**	**+0.9**
LZH	**Lanzhou**	**31.41**	**287**	*e*P	P	02 13 54.5	-11
LZH				sP	pP	02 14 00.6	-14
LZH				pmax	pmax		
	comp=Z,10.0nm,1.6s						
GOMU	**GeErMu**	**38.66**	**289**	P	**P**	**02 15 07.3**	**-0.6**
GOMU				pP	pP	02 15 10.4	-6.9
GOMU				sP	sP	02 15 14.9	-7.4
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.5s						
CMAR	**Chiang Mai Arr**	**40.82**	**261**	LR	LR	02 33 59.4	
	comp=Z,20nm,18.4s,baz=75,slow=39						
WMQ	**Urumqi**	**43.32**	**301**	*e*P	**P**	**02 15 45.0**	**-0.7**
WMQ				pP	pP	02 15 53.1	-2.3
WMQ				pmax	pmax		
	comp=Z,14nm,0.7s						
ZALV	**Zalesovo Beam**	**45.31**	**316**	P	**P**	**02 16 01.2**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=101,slow=7.7,SNR=4.0						
ZALV				PcP	**PcP**	**02 17 40.6**	**+0.1**
	comp=Z,1.1nm,0.5s,baz=101,slow=4.2,SNR=2.4 comp=Z,1.0nm,0.5s						
ZALV	**Zalesovo Beam**	**45.31**	**316**	P	**P**	**02 15 58.2**	**-3.2**
MKAR	**Makanchi Array**	**46.92**	**306**	P	**P**	**02 16 14.7**	**+0.4**
	comp=Z,3.6nm,0.7s,baz=89,slow=8.8,SNR=23						
MKAR				PcP	**PcP**	**02 17 45.5**	**-0.9**
	comp=Z,0.7nm,0.8s,baz=90,slow=4.3,SNR=1.8 comp=Z,3.6nm,0.7s						
MAKZ	**Makanchi**	**47.13**	**306**		**P**	**02 16 17.1**	**+1.2**
MAKZ				IAmb	IAmb	02 16 32.2	
	comp=Z,3.1nm,0.7s						
KURK	**Kurchatov**	**49.09**	**311**		**P**	**02 16 31.0**	**+0.1**
KURK				IAmb	IAmb	02 16 47.2	
	comp=Z,4.2nm,0.8s						
KURBB	**Kurchatov Arra**	**49.15**	**311**	P	**P**	**02 16 31.0**	**-0.3**
	comp=Z,1.5nm,0.5s,baz=89,slow=7.3,SNR=13 comp=Z,1.5nm,0.5s						
PDGK	**Podgornoye**	**49.30**	**302**		**P**	**02 16 33.0**	**+0.2**
E19K	**Redstone River**	**49.42**	**26**	P	**P**	**02 16 34.4**	**+1.2**
E19K				IAmb	IAmb	02 16 54.8	
	comp=Z,6.7nm,1.2s						
D22K	**Ayikyak River**	**51.37**	**25**	P	**P**	**02 16 48.7**	**+0.8**
WR8	**Warramunga Arr**	**52.55**	**189**		**P**	**02 16 56.7**	**-0.5**
WR8				IAmb	IAmb	02 17 11.2	
	comp=Z,9.0nm,0.9s						
WRA	**Warramunga Arr**	**52.56**	**189**	P	**P**	**02 16 56.2**	**-1.1**
	comp=Z,4.5nm,0.6s,baz=5.7,slow=7.6,SNR=92 comp=Z,4.5nm,0.6s						
WRA	**Warramunga Arr**	**52.56**	**189**	P	**P**	**02 16 56.0**	**-1.2**
FITZ	**Fitzroy Crossi**	**52.56**	**199**	P	**P**	**02 16 56.8**	**-0.4**
AAK	**Ala-Archa**	**53.03**	**302**	LR	LR	02 43 02.6	
	comp=Z,42nm,18.5s,baz=92,slow=40						
KSH2	**Kashi**	**53.05**	**297**	P	**P**	**02 17 01.0**	**0.0**
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ILAR	**Eielson Array**	**53.27**	**30**	P	**P**	**02 17 01.4**	**-0.6**
	comp=Z,0.8nm,0.8s,baz=259,slow=5.9,SNR=9.3 comp=Z,0.8nm,0.8s						
ILAR	**Eielson Array**	**53.27**	**30**	P	**P**	**02 17 01.8**	**-0.2**
BVAR	**Borovoye Array**	**53.94**	**315**	P	**P**	**02 17 07.4**	**+0.2**
	comp=Z,2.3nm,0.5s,baz=98,slow=9.0,SNR=8.9 comp=Z,2.3nm,0.5s						
KK31	**Karatay Array**	**55.77**	**303**		**P**	**02 17 21.0**	**+0.4**
KK31				IAmb	IAmb	02 17 21.9	
	comp=Z,3.4nm,0.7s						
KKAR	**Karatay Array**	**55.77**	**303**		**P**	**02 17 21.1**	**+0.5**
I28M	**Miner Creek**	**56.18**	**30**	P	**P**	**02 17 24.3**	**+1.1**
ASAR	**Alice Springs**	**56.29**	**189**	P	**P**	**02 17 23.5**	**-0.9**
	comp=Z,0.7nm,0.5s,baz=353,slow=8.4,SNR=7.9 comp=Z,0.7nm,0.5s						
ARTI	**Arti**	**60.14**	**320**		**P**	**02 17 50.7**	**-0.2**
AB31	**Akbulak array**	**61.17**	**312**		**P**	**02 17 58.5**	**+0.5**
AB31				IAmb	IAmb	02 18 02.5	
	comp=Z,2.0nm,0.6s						
ABKAR	**Akbulak array**	**61.17**	**312**		**P**	**02 17 58.5**	**+0.4**
FORT	**Forrest**	**64.19**	**193**	P	**P**	**02 18 18.3**	**+0.1**
RES	**Resolute Bay**	**66.98**	**14**	P	**P**	**02 18 36.4**	**+0.6**
RES				IAmb	IAmb	02 18 57.5	
	comp=Z,8.3nm,1.3s						
YKA	**Yellowknife Ar**	**67.66**	**29**	P	**P**	**02 18 40.0**	**-0.2**
	comp=Z,0.4nm,0.6s,baz=306,slow=6.6,SNR=6.0 comp=Z,0.4nm,0.6s						
POIN	**Pond Inlet**	**71.66**	**12**	P	**P**	**02 19 05.7**	**+1.0**
POIN				IAmb	IAmb	02 19 38.9	
	comp=Z,11nm,1.5s						
FINES	**FINESS Array B**	**73.02**	**333**	P	**P**	**02 19 12.8**	**-0.2**
	comp=Z,2.8nm,0.8s,baz=90,slow=3.8,SNR=6.2 comp=Z,2.8nm,0.8s						
FINES	**FINESS Array B**	**73.02**	**333**	P	**P**	**02 19 13.6**	**+0.6**
BLKN	**Baker Lake**	**73.51**	**23**	P	**P**	**02 19 16.1**	**+0.3**
BLKN				IAmb	IAmb	02 19 18.9	
	comp=Z,11nm,1.2s						
KBZ	**Khabaz**	**74.14**	**312**	P	**P**	**02 19 19.8**	**-0.1**
	comp=Z,1.1nm,0.6s,baz=53,slow=8.6,SNR=4.2 comp=Z,1.1nm,0.6s						
NVAR	**Mina Array Bea**	**77.54**	**52**	P	**P**	**02 19 39.1**	**-0.6**
	comp=Z,0.4nm,0.6s,baz=285,slow=7.0,SNR=5.2 comp=Z,0.4nm,0.6s						
AKASG	**Malin Array Be**	**78.12**	**323**	P	**P**	**02 19 42.7**	**+0.3**
	comp=Z,1.5nm,0.5s,baz=53,slow=5.5,SNR=7.1 comp=Z,1.5nm,0.5s						
HFS	**Hagfors**	**78.39**	**336**	P	**P**	**02 19 43.9**	**+0.1**
	comp=Z,4.4nm,0.9s,baz=44,slow=4.4,SNR=2.5 comp=Z,4.4nm,0.9s						
NOA	**NORSAR Array B**	**78.53**	**338**	P	**P**	**02 19 44.8**	**+0.2**
	comp=Z,2.5nm,1.0s,baz=19,slow=6.7,SNR=3.3 comp=Z,2.5nm,1.0s						
PDAR	**Pinedale Array**	**80.70**	**45**	P	**P**	**02 19 56.8**	**-0.2**
	comp=Z,0.4nm,0.7s,baz=298,slow=3.2,SNR=4.5 comp=Z,0.4nm,0.7s						
PDAR	**Pinedale Array**	**80.70**	**45**	P	**P**	**02 19 56.4**	**-0.6**
P17A	**Butcher Ranch,**	**81.89**	**48**	IAmb	IAmb	02 20 06.6	
	comp=Z,4.5nm,1.1s						
BURAR	**Bucovina Array**	**82.10**	**322**	P	**P**	**02 20 04.9**	**+0.8**
BORG	**Borgarnes**	**82.23**	**353**	LR	LR	02 59 34.3	
	comp=Z,22nm,18.2s,baz=150,slow=38						
SRU	**San Rafael Swe**	**82.23**	**48**	P	**P**	**02 20 06.4**	**+1.3**
SRU				IAmb	IAmb	02 20 22.9	
	comp=Z,5.4nm,0.8s						
RAYN	**Ar Rayn**	**82.69**	**293**		**P**	**02 20 08.2**	**+0.7**
RAYN				IAmb	IAmb	02 20 09.4	
	comp=Z,3.0nm,0.7s						
PV23	**Carpenter Ridg**	**83.58**	**48**	P	**P**	**02 20 13.7**	**+1.6**
PV10	**Paradox Valley**	**83.61**	**48**	IAmb	IAmb	02 20 27.2	
	comp=Z,6.7nm,0.9s						
PV05	**Paradox Valley**	**83.74**	**49**	P	**P**	**02 20 14.3**	**+1.3**
PV01	**Paradox Valley**	**84.05**	**48**	IAmb	IAmb	02 20 30.3	
	comp=Z,6.7nm,1.2s						
ANMO	**Albuquerque**	**87.33**	**50**	LR	LR	02 54 37.8	
	comp=Z,35nm,21.4s,baz=292,slow=32						
TXAR	**Lajitas Array**	**92.69**	**53**	P	**P**	**02 20 56.5**	**+0.6**
	comp=Z,0.5nm,0.8s,baz=298,slow=3.4,SNR=6.6 comp=Z,0.5nm,0.8s						
TXAR	**Lajitas Array**	**92.69**	**53**	P	**P**	**02 20 57.0**	**+1.1**
LPAZ	**La Paz**	**148.53**	**66**	PKPbc	**PKPbc**	**02 27 30.4**	**-1.1**
	comp=Z,1.6nm,0.7s,baz=28,slow=2.7,SNR=7.6						
LPAZ	**La Paz**	**148.53**	**66**		**PKPbc**	**02 27 32.4**	**+0.9**

*IDC **20** 02:10:48.1±1.0, 53°.99S×140°.82E, h0km, mb3.9/7, mbtmp3.9/7, MS3.9/26, Error ellipse: s-maj=61.0km s-min=17.1km az=87.0*
*NEIC **20** 02:10:48.3±1.5, 54°.02S±0°.06×141°.0E±0°.4, h10km±1km, mb4.4/13, Error ellipse: s-maj=35.5km s-min=10.1km az=88.0*
*GCMT **20** 02:10:52.0±0.3, 53°.91S±0°.02×140°.72E±0°.05, h14km±2km, MW4.8/77, Moment Tensor Solution. s9,c10; s77,c96; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.10±.09; $M_{\theta\theta}$0.00±.07; $M_{\phi\phi}$0.09±.09; $M_{r\theta}$-0.87±.27; $M_{\theta\phi}$-1.43±.07; $M_{\phi r}$-0.24±.17; Best double couple: $M_0$1.68800×10^{16} NP1: ϕ_s358.00000°, δ59.00000°, λ-8.00000°. NP2: ϕ_s92.00000°, δ83.00000°, λ-149.00000°. Principal axes: T 1.6080, Plg16.0000°, Azm222.0000°; N 0.1610, Plg59.0000°, Azm103.0000°; P -1.7690, Plg26.0000°, Azm320.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*
ISC 20 02:10:49.3±0.6, 53°.99S±0°.08×141°.3E±0°.2, h10km, n86, σ1§81/56, mb4.2/12, MS3.9/26, West of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TOO	**Toolangi**	**16.68**	**12**		**Pn**	**02 14 42.4**	**-0.6**
LBZ	**Lake Benmore**	**21.07**	**75**	P	**P**	**02 15 33.8**	**+0.3**
LBZ				IAmb	IAmb	02 15 58.5	
	comp=Z,19nm,1.4s						
BBOO	**Buckleboo**	**21.50**	**348**		**P**	**02 15 37.5**	**-0.5**
RPZ	**Rata Peaks**	**21.98**	**74**	LR	LR	02 22 53.6	
	comp=Z,176nm,18.4s,baz=246,slow=33						
STKA	**Stephens Creek**	**22.11**	**1**	P	**P**	**02 15 44.7**	**+0.1**
	comp=Z,8.0nm,0.8s,baz=170,slow=15,SNR=9.3 comp=Z,8.0nm,0.8s						
STKA	**Stephens Creek**	**22.11**	**1**	P	**P**	**02 15 44.3**	**-0.3**
ARMA	**Armidale**	**24.73**	**22**	P	**P**	**02 16 09.8**	**-1.0**
ARMA				IAmb	IAmb	02 16 19.2	
	comp=Z,14nm,1.0s						
VNDA	**Vanda**	**24.77**	**169**	P	**P**	**02 16 10.1**	**-0.6**
	comp=Z,0.6nm,0.6s,baz=332,slow=10,SNR=7.6						
VNDA				LR	LR	02 25 26.5	
	comp=Z,158nm,18.4s,baz=346,slow=35 comp=Z,0.6nm,0.6s						
VNDA	**Vanda**	**24.77**	**169**	P	**P**	**02 16 10.1**	**-0.6**
FORT	**Forrest**	**25.08**	**332**	P	**P**	**02 16 12.0**	**-1.9**
H01W1	**Cape Leeuwin H**	**26.92**	**304**	T	T	02 44 14.6	
	baz=141,slow=74,SNR=161						
H01W2	**Cape Leeuwin H**	**26.92**	**304**	T	T	02 44 15.1	
	baz=141,slow=74,SNR=149						
H01W3	**Cape Leeuwin H**	**26.93**	**304**	T	T	02 44 15.9	
	baz=141,slow=74,SNR=175						
NWAO	**Narrogin (SRO)**	**27.10**	**311**	LR	LR	02 24 36.5	
	comp=Z,363nm,20.3s,baz=114,slow=31						
URZ	**Urewera**	**29.02**	**72**	LR	LR	02 27 03.7	
	comp=Z,384nm,21.0s,baz=224,slow=33						
ASAR	**Alice Springs**	**30.79**	**347**	P	**P**	**02 17 03.7**	**-1.3**
	comp=Z,0.5nm,0.6s,baz=171,slow=8.5,SNR=6.5						
ASAR				PcP	**PcP**	**02 20 03.9**	**+1.7**
	comp=Z,0.3nm,0.5s,baz=169,slow=2.5,SNR=2.2						
ASAR				LR	LR	02 28 34.9	
	comp=Z,144nm,18.7s,baz=158,slow=35 comp=Z,0.5nm,0.6s						
ASAR	**Alice Springs**	**30.79**	**347**	P	**P**	**02 17 02.0**	**-3.0**
CTA	**Charters Tower**	**34.06**	**8**	LR	LR	02 31 06.6	
	comp=Z,166nm,18.2s,baz=222,slow=36						
WRA	**Warramunga Arr**	**34.40**	**348**	P	**P**	**02 17 35.3**	**-1.3**
	comp=Z,1.8nm,0.9s,baz=174,slow=7.7,SNR=4.6						
WRA				PcP	**PcP**	**02 20 14.0**	**+1.8**
	comp=Z,1.2nm,0.9s,baz=184,slow=2.3,SNR=4.9 comp=Z,1.8nm,0.9s						
WRA	**Warramunga Arr**	**34.40**	**348**	P	**P**	**02 17 35.6**	**-1.1**
WB0	**Warramunga Arr**	**34.57**	**349**	P	**P**	**02 17 35.2**	**-2.9**
QSPA	**South Pole Qui**	**36.12**	**180**	P	**P**	**02 17 51.9**	**+0.7**
	comp=Z,6.5nm,1.0s,baz=349,slow=5.4,SNR=12						
QSPA				LR	LR	02 31 47.8	
	comp=Z,181nm,19.4s,baz=12,slow=35 comp=Z,6.5nm,1.0s						
QSPA	**South Pole Qui**	**36.12**	**180**	P	**P**	**02 17 50.4**	**-0.8**
QSPA				IAmb	IAmb	02 17 58.4	
	comp=Z,7.0nm,0.9s						
MAW	**Mawson**	**37.72**	**218**	P	**P**	**02 18 03.4**	**-1.1**
	comp=Z,1.3nm,0.8s,baz=59,slow=18,SNR=1.9						
MAW				LR	LR	02 32 05.1	
	comp=Z,314nm,19.7s,baz=91,slow=34 comp=Z,1.3nm,0.8s						
FITZ	**Fitzroy Crossi**	**37.81**	**335**	LR	LR	02 32 07.1	
	comp=Z,294nm,21.3s,baz=178,slow=34						
FITZ	**Fitzroy Crossi**	**37.81**	**335**	P	**P**	**02 18 04.4**	**-1.3**
KNRA	**Kununurra**	**39.46**	**341**		**P**	**02 18 18.8**	**-0.9**
KNRA				IAmb	IAmb	02 18 34.9	
	comp=Z,5.5nm,1.1s						
PMG	**Port Moresby**	**44.72**	**8**	LR	LR	02 36 06.7	
	comp=Z,113nm,19.9s,baz=147,slow=34						
MSVF	**Nonsavu**	**45.97**	**53**	LR	LR	02 35 04.1	
	comp=Z,184nm,19.0s,baz=176,slow=32						
HNR	**Honiara**	**46.90**	**26**	LR	LR	02 36 28.6	
	comp=Z,112nm,19.3s,baz=277,slow=33						
BELA	**Belgrano 2**	**48.37**	**181**	P	**P**	**02 19 29.4**	**-1.2**
BELA				IAmb	IAmb	02 19 36.5	
	comp=Z,5.4nm,1.0s						
KAPI	**Kappang**	**51.88**	**332**	LR	LR	02 41 21.7	
	comp=Z,98nm,19.6s,baz=154,slow=35						
SNAA	**Sanae**	**52.10**	**194**	LR	LR	02 41 34.2	
	comp=Z,316nm,19.8s,baz=195,slow=36						
SNAA	**Sanae**	**52.10**	**194**	P	**P**	**02 19 57.5**	**-1.4**
SNAA				IAmb	IAmb	02 19 58.8	
	comp=Z,7.8nm,1.2s						
H04S1	**CROZET ISLANDS**	**53.74**	**238**	T	T	03 18 30.6	
	baz=132,slow=76,SNR=54						
H04S2	**CROZET ISLANDS**	**53.74**	**238**	T	T	03 18 30.8	
	baz=132,slow=76,SNR=42						
H04S3	**CROZET ISLANDS**	**53.76**	**238**	T	T	03 18 27.2	
	baz=132,slow=76,SNR=46						
RAR	**Rarotonga**	**54.95**	**78**	LR	LR	02 40 45.6	
	comp=Z,99nm,18.6s,baz=251,slow=33						
DAV	**Davao City (W)**	**62.25**	**342**	LR	LR	02 47 15.0	
	comp=Z,45nm,21.5s,baz=152,slow=35						
PPT2	**Papeete2**	**63.72**	**84**	*e*LR	LR	02 39 47.1	
	comp=Z,77nm,22.8s						
PPT	**Papeete**	**63.74**	**84**	LR	LR	02 43 17.2	
	comp=Z,36nm,20.6s,baz=204,slow=30						
H08S2	**Diego Garcia H**	**71.42**	**283**	T	T	03 39 43.5	
	baz=144,slow=76,SNR=20						
H08S1	**Diego Garcia H**	**71.43**	**283**	T	T	03 39 44.9	
	baz=144,slow=76,SNR=12						
H08S3	**Diego Garcia H**	**71.44**	**283**	T	T	03 39 45.0	
	baz=144,slow=76,SNR=19						
TAOE	**Nuku Hiva Isla**	**76.18**	**86**	*e*LR	LR	02 45 45.9	
	comp=Z,74nm,23.4s						
RPN	**Rapa Nui**	**78.98**	**121**	LR	LR	02 48 39.8	
	comp=Z,54nm,21.1s,baz=248,slow=29						
PALK	**Pallekele**	**79.25**	**298**	LR	LR	02 50 49.7	
	comp=Z,74nm,19.9s,baz=138,slow=30						
SUR	**Sutherland**	**79.81**	**228**	LR	LR	02 51 53.9	
	comp=Z,103nm,20.0s,baz=159,slow=31						
CMAR	**Chiang Mai Arr**	**80.77**	**320**	P	**P**	**02 23 02.5**	**-0.3**
	comp=Z,0.5nm,0.3s,baz=181,slow=5.9,SNR=4.4						
CMAR				LR	LR	02 56 36.0	
	comp=Z,38nm,20.8s,baz=175,slow=34 comp=Z,0.5nm,0.3s						
BOSA	**Boshof**	**80.97**	**233**	LR	LR	02 51 19.6	
	comp=Z,86nm,21.8s,baz=191,slow=30						
LBTB	**Lobatse**	**83.84**	**235**	LR	LR	02 54 46.5	
	comp=Z,93nm,19.3s,baz=164,slow=32						
MATP	**Matopo**	**86.23**	**240**	LR	LR	02 57 04.9	
	comp=Z,224nm,

*GUC **20** 02:34:49.3±0.9, 32.˚24S×71.˚72W, h35km±4km, ML3.6, Presumed earthquake*
ISC 20 02:34:47.4±1.5, **32.˚24S**±0.˚03×**71.˚91W**±0.˚06, **h23**km±15km, **n39**, σ2**s**05/59, **4D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VA01	**Torpederas**	**0.81**	**164**	*eP*	**Pn**	**02 35 03.8**	**+0.3**
CO04	**Los Peladeros**	**0.82**	**77**	⇓*iP*	**Pb**	**02 35 02.5**	**-0.6**
CO04				*eS*	**Sb**	**02 35 11.3**	**-2.4**
CO04				IAML		02 35 13.5	
	comp=N,10μm,0.2s						
ROCH	**El Roble**	**1.05**	**134**	⇓*iP*	**Pn**	**02 35 06.7**	**-0.4**
ROCH				*eS*	**Sb**	**02 35 19.1**	**-1.5**
ROCH				IAML		02 35 20.1	
	comp=N,3μm,0.4s						
MT02	**Curacav**	**1.21**	**148**	⇓*iP*	**Pb**	**02 35 09.2**	**-0.4**
MT02				*eS*	**Sn**	**02 35 23.8**	**-0.8**
VA03	**San Esteban**	**1.26**	**115**	*eP*	**Pn**	**02 35 09.2**	**-0.6**
VA03				*eS*	**Sn**	**02 35 24.9**	**-1.2**
VA03				IAML		02 35 26.6	
	comp=Z,3μm,0.2s						
VA03	**San Esteban**	**1.26**	**115**	⇓*iP*	**Pn**	**02 35 09.2**	**-0.6**
VA03				*eS*	**Sn**	**02 35 24.0**	**-2.1**
VA03				IAML		02 35 26.6	
	comp=E,8μm,0.3s						
CO02	**Combarbal**	**1.29**	**37**	*eP*	**Pb**	**02 35 11.0**	**-0.1**
CO02				IAML		02 35 33.9	
	comp=Z,1μm,0.4s						
CO02	**Combarbal**	**1.29**	**37**	*eP*	**Pb**	**02 35 10.9**	**-0.2**
CO02				*eS*	**Sn**	**02 35 26.7**	**-0.1**
PEL	**Peldehue**	**1.37**	**132**	*eP*	**Pn**	**02 35 11.1**	**-0.1**
PEL				*eS*	**Sn**	**02 35 27.4**	**-1.3**
PEL				IAML		02 35 29.7	
	comp=E,1μm,0.2s						
VA05	**Santo Domingo**	**1.44**	**170**	*eP*	**Pb**	**02 35 13.3**	**-0.2**
VA05				IAML		02 35 38.8	
	comp=E,3μm,0.3s						
MT05	**Renca**	**1.52**	**140**	*eP*	**Pb**	**02 35 14.3**	**-0.6**
MT05				*eS*	**Sb**	**02 35 34.0**	**+0.3**
MT05				IAML		02 35 38.4	
	comp=Z,453nm,0.3s						
MT05	**Renca**	**1.52**	**140**	*eP*	**Pb**	**02 35 14.0**	**-0.9**
MT05				*eS*	**Sn**	**02 35 32.4**	**+0.1**
MT05				IAML		02 35 38.4	
	comp=E,2μm,0.2s						
MT10	**Hacienda Santa**	**1.55**	**132**	*eP*	**Pn**	**02 35 14.2**	**+0.4**
MT10				*eS*	**Sn**	**02 35 33.3**	**0.0**
MT10				IAML		02 35 34.8	
	comp=E,3μm,0.3s						
CO06	**Fray Jorge**	**1.58**	**9**	*eP*	**Pb**	**02 35 15.2**	**-0.7**
CO06				IAML		02 35 45.2	
	comp=E,911nm,0.5s						
MT14	**Cerro Cal¡n**	**1.63**	**135**	*eP*	**Pb**	**02 35 15.6**	**-1.3**
MT14				*eS*	**Sn**	**02 35 35.6**	**+0.4**
MT14				IAML		02 35 37.6	
	comp=E,2μm,0.3s						
MT01	**Popeta**	**1.71**	**161**	*iP*	**Pb**	**02 35 17.4**	**-0.8**
MT01				IAML		02 35 43.4	
	comp=E,554nm,0.2s						
MT09	**Talagante**	**1.72**	**153**	*eP*	**Pb**	**02 35 17.8**	**-0.6**
MT09				IAML		02 35 45.9	
	comp=N,1000nm,0.3s						
MT03	**Universidad Ad**	**1.72**	**137**	*eP*	**Pb**	**02 35 17.1**	**-1.3**
MT03				IAML		02 35 40.3	
	comp=E,3μm,0.1s						
CO03	**El Pedregal**	**1.74**	**37**	*eP*	**Pb**	**02 35 18.1**	**-0.6**
CO03				*eS*	**Sn**	**02 35 34.0**	**-3.9**
CO03				IAML		02 35 43.2	
	comp=Z,670nm,0.4s						
CO03	**El Pedregal**	**1.74**	**37**	*eP*	**Pb**	**02 35 18.0**	**-0.8**
CO03				IAML		02 35 41.8	
	comp=E,2μm,0.2s						
FCH	**Farellones**	**1.74**	**129**	*eP*	**Pn**	**02 35 17.0**	**+0.4**
FCH				*eS*	**Sn**	**02 35 38.0**	**-0.3**
FCH				IAML		02 35 40.2	
	comp=E,916nm,0.2s						
MT15	**Las Vizcachas**	**1.80**	**139**	*eP*	**Pb**	**02 35 18.1**	**-1.6**
MT15				IAML		02 35 49.7	
	comp=N,1μm,0.2s						
MT12	**Pirque**	**1.88**	**143**	*eP*	**Pb**	**02 35 19.4**	**-1.6**
MT12				IAML		02 35 52.2	
	comp=N,1μm,0.6s						
MT04	**Ro Olivares**	**1.89**	**128**	*eP*	**Pn**	**02 35 19.4**	**+0.8**
MT04				IAML		02 35 44.3	
	comp=E,582nm,0.3s						
MT08	**Bocatoma Ro**	**2.00**	**128**	*eP*	**Pn**	**02 35 21.1**	**+1.1**
MT08				IAML		02 35 55.3	
	comp=N,344nm,0.4s						
MT13	**San Alfonso**	**2.03**	**138**	*eP*	**Pb**	**02 35 21.9**	**-1.8**
MT13				IAML		02 35 53.1	
	comp=E,644nm,0.3s						
BO04	**La Punta**	**2.06**	**148**	*eP*	**Pb**	**02 35 22.4**	**-1.7**
BO04				IAML		02 35 55.9	
	comp=N,486nm,0.2s						
AUSP	**Uspallata**	**2.14**	**90**	*eP*	**Pb**	**02 35 24.8**	**-0.8**
AUSP				*eS*	**Sb**	**02 35 51.5**	**-0.3**
LMEL	**Las Melosas**	**2.15**	**139**	*eP*	**Pb**	**02 35 23.6**	**-2.1**
LMEL				IAML		02 35 55.2	
	comp=N,880nm,0.2s						
BO01	**Tunca**	**2.26**	**162**	*eP*	**Pb**	**02 35 24.9**	**-2.6**
BO01				*eS*	**Sb**	**02 35 58.5**	**+3.5**
BO01	**Tunca**	**2.26**	**162**	*eP*	**Pb**	**02 35 24.9**	**-2.6**
BO01				IAML		02 36 04.7	
	comp=E,160nm,0.3s						
GO04	**Tololo Observa**	**2.27**	**25**	*eP*	**Pb**	**02 35 25.2**	**-2.6**
BO02	**Sierra Bellavi**	**2.72**	**160**	*eP*	**Pn**	**02 35 31.5**	**+1.7**
BO02				*eS*	Sn	02 35 47.6	-14
BO02				IAML		02 36 20.4	
	comp=Z,244nm,0.6s						
AAGR	**Agrelo**	**2.73**	**109**	*eP*	**Pb**	**02 35 34.5**	**-1.1**
AAGR				*eS*	**Sb**	**02 36 15.7**	**+6.9**
AAGR				IAML		02 36 30.0	
	comp=Z,103nm,0.7s						
ZON	**Zonda**	**2.83**	**77**	*eP*	**Pb**	**02 35 35.1**	**-2.2**
ZON				*eS*	**Sb**	**02 36 16.6**	**+5.0**
ZON				IAML		02 36 25.9	
	comp=Z,126nm,0.4s						
ACCO	**Cerro Coronel**	**2.94**	**57**	*eP*	**Pb**	**02 35 37.2**	**-2.1**
ACCO				*eS*	**Sb**	**02 36 16.8**	**+1.9**
ACCO				IAML		02 36 17.3	
	comp=Z,207nm,0.4s						
RTLL	**Cerro Villicun**	**3.06**	**74**	*eP*	**Pb**	**02 35 37.9**	**-3.3**
RTLL				*eS*	**Sb**	**02 36 21.1**	**+2.9**
RTLL				IAML		02 36 25.0	
	comp=Z,305nm,0.3s						
RFA	**San Rafael**	**3.83**	**132**	*eP*	**Pn**	**02 35 48.3**	**+3.3**
RFA				*eS*	**Sb**	**02 36 37.5**	**-2.8**
ACAN	**Cantantal**	**4.00**	**92**	*eP*	**Pn**	**02 35 50.7**	**+3.4**
ACAN				IAML		02 36 60.0	
	comp=Z,251nm,0.4s						

*THE **20** 02:41:03.6, 38˚N±1˚×26˚.8E±0˚.8, h13km±1km, M2.5/10, MLh2.5/10*
*AFAD **20** 02:41:03.8, 37˚.92N×26˚.80E, h7km±2km, ML2.5*
*ISK **20** 02:41:03.6, 37˚.89N×26˚.77E, h5km, ML2.5/16*
ISC 20 02:41:03.5±0.9, **37.˚89N**±0.˚02×**26.˚78E**±0.˚03, **h12**km±7km, **n31**, σ0**s**63/46, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.18**	**165**	P	**Pg**	**02 41 08.0**	**+0.4**
SMG				S	**Sg**	**02 41 10.9**	**+0.5**
SMG				AML	AML		
DGB	**zmir**	**0.19**	**26**	P	**Pg**	**02 41 07.4**	**-0.3**
DGB				S	**Sg**	**02 41 09.7**	**-0.9**
GMLD	**Gumuldur**	**0.22**	**29**	Pg	**Pg**	**02 41 08.2**	**-0.1**
GMLD				Sg	**Sg**	**02 41 11.7**	**+0.2**
GMLD				AML	AML		
BEYE	**izmir**	**0.36**	**19**	P	**Pg**	**02 41 10.4**	**-0.4**
BEYE				S	**Sg**	**02 41 15.0**	**-0.7**
ZEYE	**Izmir, Urla-Ze**	**0.41**	**329**	P	**Pg**	**02 41 11.4**	**-0.3**
ZEYE				S	**Sg**	**02 41 17.6**	**+0.2**
ZEYE				IAML		02 41 18.0	
	comp=N,548nm,0.2s						
BLCB	**Balcova**	**0.54**	**23**	P	**Pg**	**02 41 13.7**	**-0.4**
BLCB				S	**Sg**	**02 41 20.7**	**-0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**23**	Pg	**Pg**	**02 41 14.1**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.63**	**57**	P	**Pg**	**02 41 15.3**	**-0.4**
DUVT				S	**Sg**	**02 41 23.4**	**-0.6**
DUVT				IAML		02 41 27.0	
	comp=E,248nm,0.3s						
KRBN	**Karaburun**	**0.73**	**346**	Pg	**Pb**	**02 41 18.1**	**-0.1**
KRBN				Sg	**Sb**	**02 41 28.5**	**+0.4**
KRBN				AML	AML		
CHOS	**Chios island**	**0.76**	**312**	P	**Pg**	**02 41 18.7**	**+0.4**
CHOS				S	**Sb**	**02 41 29.3**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.76**	**312**	Pg	**Pg**	**02 41 18.6**	**+0.4**
CHOS				Sg	**Sb**	**02 41 29.7**	**+0.7**
CHOS				AML	AML		
BAGT	**Foa**	**0.77**	**4**	P	**Pb**	**02 41 19.7**	**+0.8**
BAGT				IAML		02 41 33.0	
	comp=E,187nm,1.0s						
BAGT				IAML		02 41 51.0	
	comp=N,351nm,0.8s						
KARB	**zmir-Karabur**	**0.83**	**340**	P	**Pg**	**02 41 19.8**	**+0.2**
KARB				IAML		02 41 33.0	
	comp=N,149nm,0.4s						
KARB				IAML		02 41 34.0	
	comp=E,157nm,0.6s						
YKAV	**Yalikavak-Bodr**	**0.86**	**152**	Pg	**Pb**	**02 41 20.5**	**+0.2**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.88**	**86**	Pg	**Pb**	**02 41 21.2**	**+0.4**
AYDB				AML	AML		
BODT	**Bodrum**	**0.92**	**153**	P	**Pg**	**02 41 21.2**	**-0.2**
BODT				S	**Sb**	**02 41 34.6**	**+0.9**
BODT				AML	AML		
BODT	**Bodrum**	**0.92**	**153**	Pg	**Pb**	**02 41 21.7**	**+0.2**
BODT				AML	AML		
CAMT	**Merkez**	**0.96**	**26**	P	**Pb**	**02 41 22.3**	**+0.2**
CAMT				S	**Sb**	**02 41 34.7**	**0.0**
CAMT				IAML		02 41 37.0	
	comp=N,209nm,0.2s						
CAMT				IAML		02 41 37.0	
	comp=E,274nm,0.3s						
MLSB	**Milas**	**0.99**	**126**	Pg	**Pb**	**02 41 23.1**	**+0.5**
MLSB				AML	AML		
DKL	**Dikili**	**1.19**	**5**	Pn	**Pn**	**02 41 26.6**	**+0.7**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.20**	**86**	Pn	**Pn**	**02 41 27.5**	**+1.4**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**47**	Pn	**Pn**	**02 41 27.8**	**+1.5**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.28**	**231**	P	**Pn**	**02 41 26.3**	**-1.0**
APE				S	**Sb**	**02 41 44.1**	**0.0**
APE				AML	AML		
DAT	**Datca**	**1.32**	**151**	P	**Pn**	**02 41 26.9**	**-0.9**
DAT				AML	AML		
SOMA	**Soma-Manisa**	**1.40**	**25**	Pn	**Pg**	**02 41 30.6**	**+0.1**
SOMA				AML	AML		
YER	**Yerkesik**	**1.41**	**122**	P	**Pn**	**02 41 28.8**	**-0.2**
YER				S	**Sb**	**02 41 46.4**	**-1.3**
YER	**Yerkesik**	**1.41**	**122**	Pn	**Pg**	**02 41 30.4**	**-0.2**
PRK	**Paraskevi**	**1.42**	**344**	P	**Pn**	**02 41 28.3**	**-0.8**
PRK				S	**Sb**	**02 41 46.9**	**-0.9**
GORD	**Gordes-Manisa**	**1.50**	**47**	Pn	**Pg**	**02 41 31.9**	**-0.5**
GORD				AML	AML		
KULA	**Kula-Manisa**	**1.61**	**66**	Pn	**Pb**	**02 41 33.7**	**+0.5**
YAYO	**Edremit-Balk**	**1.74**	**8**	Pn	**Pb**	**02 41 35.2**	**-0.2**
YAYO				AML	AML		

*IDC **20** 03:02:52.8±3.2, 1.˚93S×79.˚76W, h0km, mb3.7/3, mbtmp3.7/4, ML4.0/1, MS3.2/2, Error ellipse: s-maj=260.5km s-min=33.5km az=59.0*
*RSNC **20** 03:03:02.5±1.2, 2.˚5S×8.˚0W±.˚, h27km±14km, M4.1, mB4.9, mb4.4, ML3.3, Mw(mB)4.2*
*IGQ **20** 03:03:04.9±0.2, 2.˚5S×8.˚0W±.˚, h64km±2km, M4.1/46, Mjma4.1/46, ML4.3/9, MLv4.1/46, Ms(BB)4.0/29*
*GFZ **20** 03:03:04.4±0.4, 2.˚5S×8.˚0W±.˚, h86km±5km, M4.2/7, mb4.2/7, Error ellipse: s-maj=20.3km s-min=8.6km az=68.4, confirmed*
*NEIC **20** 03:03:05.4±2.5, 2.˚19S±0.˚09×79.˚4W±0.˚2, h118km±12km, mb4.1/10, Error ellipse: s-maj=31.4km s-min=12.9km az=83.0*
ISC 20 03:03:03.1±0.7, **2.˚14S**±0.˚04×**79.˚71W**±0.˚03, **h85**km±6km, **n110**, σ1**s**56/118, **mb4.1**/10, **16C-30D**, **Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGUAY	**Guayaquil**	**0.26**	**289**	⇓P	**Pn**	**03 03 15.9**	**+0.2**
AGUAY				S	**Sn**	**03 03 25.2**	**+0.3**
AC07	**Ecuador-Guayaq**	**0.28**	**267**	⇓P	**Pn**	**03 03 16.4**	**+0.6**
AC07				S	**Sn**	**03 03 26.1**	**+0.9**
ABAB	**Ecuador-Univer**	**0.39**	**30**	P	**Pn**	**03 03 15.4**	**-1.0**
ABAB				S	**Sn**	**03 03 25.1**	**-1.2**
MORR	**Playas El Morr**	**0.80**	**231**	⇑P	**Pn**	**03 03 21.7**	**+1.5**
JSCH	**Cashca Tororas**	**0.84**	**60**	⇑P	**Pn**	**03 03 20.8**	**-0.1**
JSCH				S	**Sn**	**03 03 33.8**	**-0.5**
AGRD	**Ecuador-Guaran**	**0.90**	**51**	⇓P	**Pn**	**03 03 21.6**	**0.0**
ISPG	**Isla Puna-Puer**	**0.95**	**209**	⇓P	**Pn**	**03 03 23.9**	**+2.0**
CHSH	**Refugio Sur-Vo**	**1.05**	**53**	⇓P	**Pn**	**03 03 24.4**	**+0.8**
CHSH				S	**Sn**	**03 03 40.3**	**+1.3**
AZOG	**Ecuador-Azogue**	**1.06**	**126**	⇑P	**Pn**	**03 03 23.6**	**+0.2**
ACUE	**Ecuador-Cuenca**	**1.07**	**136**	P	**Pn**	**03 03 25.5**	**+1.9**
TAMH	**Tambohuasha Ch**	**1.10**	**58**	⇑P	**Pn**	**03 03 24.9**	**+0.8**
JIPI	**JIPIJAPA**	**1.15**	**312**	⇓P	**Pn**	**03 03 25.2**	**+1.0**
JIPI				S	**Sn**	**03 03 41.6**	**+1.5**
PORT	**Chimborazo Vol**	**1.15**	**54**	⇓P	**Pn**	**03 03 25.7**	**+0.9**
PPLP	**Puerto Lpez**	**1.22**	**299**	⇑P	**Pn**	**03 03 25.6**	**+0.5**
PPLP	**Puerto Lpez**	**1.22**	**299**	P	**Pn**	**03 03 25.7**	**+0.6**
PPLP				S	**Sn**	**03 03 41.4**	**-0.2**
IGUA	**Igualata**	**1.25**	**59**	⇑P	**Pn**	**03 03 27.1**	**+1.1**
SALI	**Salinas**	**1.28**	**268**	⇑P	**Pn**	**03 03 24.7**	**+0.9**
SANGA	**Volcan Sangay**	**1.34**	**86**	⇑P	**Pn**	**03 03 28.1**	**+1.1**
SANGA				S	**Sn**	**03 03 45.9**	**+0.9**
BIL2	**Estacion Bilba**	**1.38**	**61**	P	**Pn**	**03 03 29.1**	**+1.8**
BBIL	**Ulba Tungurahu**	**1.40**	**61**	⇑P	**Pn**	**03 03 29.0**	**+1.4**
ARRY	**Arrayan**	**1.40**	**63**	⇑P	**Pn**	**03 03 28.6**	**+1.0**
BPAT	**Tungurahua Vol**	**1.42**	**64**	⇑P	**Pn**	**03 03 29.2**	**+1.1**
BPAT				S	**Sn**	**03 03 48.3**	**+1.5**
JUI6	**Juive**	**1.43**	**60**	⇑P	**Pn**	**03 03 29.3**	**+1.3**
BOSC	**San Juan Bosco**	**1.58**	**130**	⇑P	**Pn**	**03 03 32.0**	**+2.3**
ISPT	**Isla de la Pla**	**1.62**	**302**	⇑P	**Pn**	**03 03 30.7**	**+0.6**
ISPT				S	**Sn**	**03 03 51.2**	**+0.6**
PIS1	**Pisayambo**	**1.70**	**51**	P	**Pn**	**03 03 33.6**	**+1.9**
ILLI	**Illinizas Sur**	**1.72**	**35**	⇓P	**Pn**	**03 03 33.3**	**+1.4**
FLF1	**Flavio Alfaro-**	**1.77**	**356**	⇓P	**Pn**	**03 03 32.6**	**+0.4**
SRAM	**San Ramn-Vol**	**1.79**	**40**	⇓P	**Pn**	**03 03 34.7**	**+2.0**
PIAT	**Ana Tenorio**	**1.84**	**52**	P	**Pn**	**03 03 35.7**	**+2.3**
PIAT	**Ana Tenorio**	**1.84**	**52**	P	**Pn**	**03 03 34.7**	**+1.4**
PIAT				S	**Sn**	**03 03 59.5**	**+3.2**
SLOR	**San Lorenzo -**	**1.85**	**41**		**Pn**	**03 03 35.4**	**+1.9**
SLOR	**San Lorenzo -**	**1.85**	**41**	⇓P	**Pn**	**03 03 35.3**	**+1.8**
VCES	**Cotopaxi**	**1.87**	**45**	⇓P	**Pn**	**03 03 35.2**	**+1.3**
BMOR	**Cotopaxi Volca**	**1.87**	**42**	⇓P	**Pn**	**03 03 35.3**	**+1.3**
CAB1	**Cabo Pasado-Ma**	**1.88**	**337**	⇓P	**Pn**	**03 03 34.5**	**+0.9**
SUCR	**Mariscal Sucre**	**1.92**	**39**	⇓P	**Pn**	**03 03 36.4**	**+1.9**
NAS2	**Nasa**	**1.93**	**40**	⇓P	**Pn**	**03 03 36.7**	**+2.0**
GONZ	**Gonzanam**	**2.11**	**171**	⇓P	**Pn**	**03 03 38.0**	**+1.0**
PKYU	**Pakayacu**	**2.17**	**77**	⇑P	**Pn**	**03 03 38.8**	**+1.5**
ANTM	**Antisana-La Mi**	**2.17**	**43**	P	**Pn**	**03 03 39.6**	**+1.7**
ANTG	**Antisana-Guama**	**2.18**	**42**	P	**Pn**	**03 03 39.3**	**+1.3**
GGPT	**Toaza - Volcan**	**2.19**	**30**	⇓P	**Pn**	**03 03 39.3**	**+1.3**
JUA2	**San Juan 2**	**2.21**	**30**	⇓P	**Pn**	**03 03 39.9**	**+1.6**
ARDO	**Archidona, Ten**	**2.22**	**59**	⇑P	**Pn**	**03 03 38.8**	**+0.7**
TAIS	**Taisha**	**2.22**	**96**	⇑P	**Pn**	**03 03 39.3**	**+1.3**
ANTS	**Antisana-Sarah**	**2.24**	**43**	⇓P	**Pn**	**03 03 40.2**	**+1.4**
TERV	**Terraza Guagua**	**2.24**	**30**	⇓P	**Pn**	**03 03 40.4**	**+1.6**
PUEM	**Granja Avicola**	**2.39**	**34**	P	**Pn**	**03 03 42.9**	**+2.2**
PULU	**Pululahua**	**2.46**	**29**	⇓P	**Pn**	**03 03 43.1**	**+1.5**
PAC1	**Pacto, Paraso**	**2.56**	**21**	⇓P	**Pn**	**03 03 42.5**	**-0.2**
PAC1	**Pacto, Paraso**	**2.56**	**21**	P	**Pn**	**03 03 42.5**	**-0.2**
PAC1				S	**Sn**	**03 04 12.1**	**-1.0**
OTAV	**Otavalo**	**2.67**	**28**		**Pn**	**03 03 45.6**	**+1.1**
OTAV	**Otavalo**	**2.67**	**28**	⇓P	**Pn**	**03 03 45.4**	**+0.9**
OTAV	**Otavalo**	**2.67**	**28**	P	**Pn**	**03 03 45.3**	**+0.8**
OTAV				S	**Sn**	**03 04 16.8**	**+0.5**
OTAV	**Otavalo**	**2.67**	**28**	P	**Pn**	**03 03 45.7**	**+1.2**
CAYR	**Refugio Cayamb**	**2.73**	**39**	⇓P	**Pn**	**03 03 47.5**	**+2.1**
ANGU	**Angureal**	**2.75**	**38**	P	**Pn**	**03 03 47.6**	**+1.8**
CUSE	**Cuicocha Este**	**2.76**	**28**	⇓P	**Pn**	**03 03 47.0**	**+1.3**
CUSE	**Cuicocha Este**	**2.76**	**28**	P	**Pn**	**03 03 46.8**	**+1.2**
ZUMB	**Zumba**	**2.77**	**168**	⇓P	**Pn**	**03 03 47.4**	**+1.9**
CUIC	**Cuicocha-Domo**	**2.77**	**29**	⇓P	**Pn**	**03 03 47.3**	**+1.4**
COTA	**Cotacachi**	**2.81**	**29**	P	**Pn**	**03 03 47.8**	**+1.3**
IMBA	**Imbabura, San**	**2.83**	**32**	⇓P	**Pn**	**03 03 48.9**	**+2.3**
URCU	**Urcuqui**	**2.94**	**30**	P	**Pn**	**03 03 49.6**	**+1.5**
RVRD	**Rio Verde**	**3.20**	**6**	⇓P	**Pn**	**03 03 51.7**	**+0.5**
CASC	**Dorado de Casc**	**3.27**	**46**	P	**Pn**	**03 03 53.8**	**+1.5**
CASC	**Dorado de Casc**	**3.27**	**46**	P	**Pn**	**03 03 53.2**	**+0.9**
LNGL	**El Angel-Carch**	**3.33**	**31**	P	**Pn**	**03 03 55.0**	**+1.6**
CHL1	**Volc¡n Chiles**	**3.40**	**31**	P	**Pn**	**03 03 55.4**	**+1.0**
ECEN	**Cerro Negro**	**3.42**	**31**	P	**Pn**	**03 03 56.3**	**+1.6**
TULM	**Tulcn-Chalpat**	**3.42**	**34**	P	**Pn**	**03 03 56.6**	**+1.9**
TULM	**Tulcn-Chalpat**	**3.42**	**34**	P	**Pn**	**03 03 56.3**	**+1.6**
CHL2	**Volc¡n Chiles**	**3.42**	**32**	P	**Pn**	**03 03 58.1**	**+3.4**
SNLR	**San Lorenzo-Es**	**3.51**	**14**	P	**Pn**	**03 03 55.7**	**+0.2**
CMBC	**Cumbal**	**3.59**	**32**	P	**Pn**	**03 03 58.9**	**+2.0**
CMBC	**Cumbal**	**3.59**	**32**	P	**Pn**	**03 03 58.7**	**+1.8**
BBAC	**Balboa, Cauca**	**4.81**	**31**	P	**Pn**	**03 04 13.3**	**+0.1**
BBAC	**Balboa, Cauca**	**4.81**	**31**	P	**Pn**	**03 04 13.0**	**-0.3**
POPC	**Popayan, Colom**	**5.55**	**33**	P	**Pn**	**03 04 23.2**	**-0.2**
	11nm,0.6s						
POPC				AML	AML		
JAMC	**Jamundi, Valle**	**6.12**	**30**	P	**Pn**	**03 04 29.2**	**-2.0**
	20nm,1.0s						
JAMC				AML	AML		
YOTC	**Yotoco, Valle**	**6.95**	**29**	P	Pn	03 04 39.1	-3.3
	6.5nm,0.9s						
CZSB	**Cruzeiro do Su**	**8.92**	**129**		**Pn**	**03 05 07.8**	**-1.4**
CZSB	**Cruzeiro do Su**	**8.92**	**129**	P	**Pn**	**03 05 07.4**	**-1.8**
NNA	**Nana**	**10.19**	**164**		**Pn**	**03 05 26.4**	**-0.2**
NNA	**Nana**	**10.19**	**164**	P	**Pn**	**03 05 25.3**	**-1.3**
	comp=Z,20nm,0.7s						
JTS	**Las Juntas de**	**13.40**	**337**	LR	LR	03 09 21.6	
	comp=Z,38nm,19.2s,baz=206,slow=30						
LPAZ	**La Paz**	**18.10**	**142**	P	**P**	**03 07 08.9**	**0.0**
	comp=Z,0.2nm,0.3s,baz=322,slow=10,SNR=10						
LPAZ				S	**Sn**	**03 10 23.7**	**-8.1**
	comp=Z,0.7nm,0.7s,baz=323,slow=10,SNR=1.9						
	comp=Z,1.8nm,0.6s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**18.10**	**142**	P	**P**	**03 07 10.2**	**+1.2**
LPAZ	**La Paz**	**18.10**	**142**	P	**P**	**03 07 10.4**	**+1.4**
	comp=Z,4.8nm,0.6s						
PB18	**Visviri**	**18.35**	**147**	P	**P**	**03 07 12.2**	**+0.6**
	comp=Z,19nm,0.5s						
PB16	**IPOC Station P**	**18.95**	**149**	P	**P**	**03 07 18.2**	**0.0**
PB16	**IPOC Station P**	**18.95**	**149**	P	**P**	**03 07 18.7**	**+0.5**
	comp=Z,7.1nm,1.5s						
GO01	**Chusmiza**	**20.23**	**150**	P	**P**	**03 07 33.2**	**+1.1**
GO01				IAmb	IAmb	03 07 38.3	
	comp=Z,9.7nm,0.9s						
GO01	**Chusmiza**	**20.23**	**150**	P	**P**	**03 07 33.8**	**+1.8**
	comp=Z,14nm,1.2s						
AF01	**San Pedro de A**	**23.52**	**153**	P	P	03 08 01.6	-4.5
AF01				IAmb	IAmb	03 08 24.8	
	comp=Z,12nm,0.8s						
CLDB	**Colider**	**25.27**	**111**	P	**P**	**03 08 20.4**	**-1.3**
	comp=Z,4.5nm,0.9s						
VHRN	**Van Horn**	**40.64**	**326**	P	**P**	**03 10 35.4**	**+0.2**
VHRN				IAmb	IAmb	03 11 05.9	
	comp=Z,3.9nm,1.2s						
ALQ	**Albuquerque**	**44.60**	**328**		**P**	**03 11 08.5**	**+1.2**
ALQ				IAmb	IAmb	03 11 39.4	
	comp=Z,2.6nm,1.0s						
ANMO	**Albuquerque**	**44.60**	**328**	P	**P**	**03 11 08.8**	**+1.4**
ANMO				IAmb	IAmb	03 11 09.8	
	comp=Z,2.7nm,1.0s						
ANMO	**Albuquerque**	**44.60**	**328**	P	**P**	**03 11 08.6**	**+1.2**
ANMO				pP	**pP**	**03 11 29.3**	**+1.6**
ECSD	**EROS Data Cent**	**48.12**	**344**	P	P	03 11 33.1	-1.4
ECSD				IAmb	IAmb	03 12 08.2	
	comp=Z,6.0nm,1.5s						
PDAR	**Pinedale Array**	**52.18**	**332**	P	**P**	**03 12 05.1**	**-0.3**
	comp=Z,0.3nm,0.6s,baz=141,slow=8.2,SNR=3.6						
	comp=Z,0.3nm,0.6s						
PDAR	**Pinedale Array**	**52.18**	**332**	P	**P**	**03 12 05.3**	**-0.2**
ULM	**Lac du Bonnet**	**54.00**	**347**	P	P	03 12 16.6	-1.8
	comp=Z,1.4nm,0.6s,baz=145,slow=9.9,SNR=4.0						
	comp=Z,1.4nm,0.6s						
ULM	**Lac du Bonnet**	**54.00**	**347**	P	P	03 12 16.7	-1.6
WVOR	**Wild Horse Val**	**56.59**	**326**

	9.0nm,0.2s,baz=160,slow=26,SNR=11								
BRLS	**Borolday**	**0.96**	**310**		P		**Pn**	**03 09 27.7**	**+1.5**
	42nm,0.4s								
BRLS					S		**Sn**	**03 09 40.6**	**+0.5**
	81nm,0.1s								
BRLS	**Borolday**	**0.96**	**310**		*e*P		**Pn**	**03 09 27.7**	**+1.5**
	42nm,0.4s								
BRLS					*e*S		**Sn**	**03 09 40.6**	**+0.5**
	81nm,0.1s								
ARK	**Arkit**	**1.04**	**126**	⇓	*i*P		**Pn**	**03 09 28.5**	**+1.1**
ARK				⇓	*i*S		**Sb**	**03 09 41.5**	**+1.0**
MNAS	**Manas**	**1.23**	**86**	⇑	*e*P		**Pn**	**03 09 31.6**	**+1.6**
MNAS				⇑	*i*S		**Sn**	**03 09 47.3**	**+0.4**
MRKS	**Merke**	**1.79**	**79**		P		**Pg**	**03 09 42.4**	**+1.7**
	19nm,0.2s								
MRKS					S		**Sg**	**03 10 06.0**	**+2.1**
	42nm,0.3s								
MRKS	**Merke**	**1.79**	**79**		*e*P		**Pg**	**03 09 42.4**	**+1.7**
	19nm,0.2s								
MRKS					*e*S		**Sg**	**03 10 06.0**	**+2.1**
	42nm,0.3s								
EKS2	**Erkin-Say**	**2.18**	**83**	⇑	*i*P		**Pg**	**03 09 48.2**	**0.0**
EKS2				⇑	*i*S		**Sg**	**03 10 15.5**	**-1.0**
BTK	**Batken**	**2.36**	**180**	⇑	*i*P		**Pg**	**03 09 51.8**	**+0.2**
BTK				⇑	*e*S		**Sg**	**03 10 22.2**	**0.0**
AAK	**Ala-Archa**	**2.71**	**84**	⇑	Pg		**Pg**	**03 09 57.9**	**-0.4**
	0.4nm,0.3s								
AAK				⇑	Lg		Lg	03 10 34.3	
	5.4nm,0.7s								
AAK	**Ala-Archa**	**2.71**	**84**	⇑	*i*P		**Pb**	**03 09 55.4**	**+0.2**
AAK				⇑	*e*S		**Sb**	**03 10 28.4**	**-0.2**
SALK	**Salom-Alik**	**2.71**	**124**	⇑	*i*P		**Pb**	**03 09 55.5**	**+0.3**
SALK				⇑	*i*S		**Sb**	**03 10 28.7**	**+0.1**
UCH	**Uchtor**	**2.73**	**93**	⇑	*i*P		**Pb**	**03 09 55.9**	**+0.2**
UCH				⇑	*e*S		**Sb**	**03 10 29.3**	**-0.2**
CHMS	**Chumysh**	**2.94**	**77**	⇓	*i*P		**Pb**	**03 09 58.5**	**-0.5**
CHMS				⇓	*i*S		**Sb**	**03 10 33.6**	**-1.5**
KBK	**Karagaybulak**	**3.04**	**84**	⇑	*i*P		**Pb**	**03 10 00.1**	**-0.8**
KBK				⇑	*i*S		**Sb**	**03 10 36.4**	**-1.9**
DGS	**Degeres**	**3.72**	**76**		Pg		**Pg**	**03 10 16.6**	**-1.0**
	6.1nm,0.5s								
DGS					Lg		Lg	03 11 04.3	
	8.1nm,0.7s								
DGS	**Degeres**	**3.72**	**76**		*e*P		**Pg**	**03 10 16.6**	**-1.0**
	6.1nm,0.5s								
DGS					*e*S		**Sg**	**03 11 04.3**	**-1.5**
	8.1nm,0.7s								
KST	**Kastek**	**3.82**	**79**		Pg		**Pg**	**03 10 18.0**	**-1.6**
	2.7nm,0.9s								
KST					Lg		Lg	03 11 06.8	
	9.0nm,0.5s								
KST	**Kastek**	**3.82**	**79**		*e*P		**Pg**	**03 10 18.0**	**-1.6**
	2.7nm,0.9s								
KST					*e*S		**Sg**	**03 11 06.8**	**-2.3**
	9.0nm,0.5s								
MDOK	**Medeo**	**4.63**	**79**		Pg		**Pg**	**03 10 34.1**	**-1.0**
	5.1nm,1.1s								
MDOK					Lg		Lg	03 11 34.3	
	5.4nm,0.6s								
MDOK	**Medeo**	**4.63**	**79**		*e*P		**Pg**	**03 10 34.0**	**-1.0**
	5.1nm,1.1s								
MDOK					*e*S		**Sg**	**03 11 34.3**	**-0.7**
	5.4nm,0.6s								

IDC ***20*** *03:19:13.5±0.5,53˚.88S×141˚.04E, h0km, mb4.6/13, mbtmp4.6/13, MS5.1/44, Error ellipse: s-maj=27.3km s-min=10.2km az=87.0*

MOS ***20*** *03:19:14.0±1.2, 53˚.81S×140˚.96E, h9km, mb5.3/9, MS5.2/4, Error ellipse: s-maj=30.3km s-min=8.0km az=88.9*

NEIC ***20*** *03:19:15.5±1.9, 53˚.94S±0˚.08×140˚.7E±0˚.2, h10km±1km, mb5.2/34, Ms_20 5.4/384, Mww5.7/28, Error ellipse: s-maj=20.3km s-min=13.5km az=102.0*

NEIC ***20*** *03:19:15.5, 53˚.94S×140˚.67E, h10km*

GFZ ***20*** *03:19:17.6, 53˚.83S×140˚.36E, h15km, Mw5.6/60, Moment Tensor Solution. Moment tensor: Scale 10^17 Nm; Mrr=0.38; Mθθ=0.11; Mφφ=-0.49; Mrθ=0.60; Mrφ=-2.83; Mθφ=0.70; Fault plane solution: M0=3.00791×10^17 NP1: φs=178.64645°, δ77.91985°, λ15.43557°. NP2: φs=85.33929°, δ74.91447°, λ167.48182°. Principal axes: T 2.9781, Plg19.3911°, Azm42.3776°; N 0.0587, Plg70.4903°, Azm215.8067°; P -3.0368, Plg2.0659°, Azm311.6501°;*

GFZ ***20*** *03:19:17.3±0.3, 54˚S±3˚×14˚0E±˚, h10km, M5.1/24, mb5.0/24*

GCMT ***20*** *03:19:19.4±0.1, 53˚.84S×140˚.69E, h12km, MW5.7/159, Moment Tensor Solution. s132,c246; s159,c325; Duration: 1s6 Moment tensor: Scale 10^17 Nm; Mrr=0.00±.03; Mθθ=0.35±.03; Mφφ=-0.35±.03; Mrθ=-1.05±.08; Mθφ=-3.59±.03; Mrφ=-0.20±.07; Best double couple: M0=3.76200×10^17 NP1:φs=357.00000°,δ74.00000°, λ=-2.00000°. NP2:φs=87.00000°,δ88.00000°,λ=-164.00000°. Principal axes: T 3.7220, Plg10.0000°, Azm221.0000°; N 0.0800, Plg74.0000°, Azm94.0000°; P -3.8020, Plg13.0000°, Azm313.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***20*** *03:19:21.8, 53˚.94S×140˚.67E, h16km, Moment Tensor Solution. Duration: 3s3 Moment tensor: Scale 10^17 Nm; Mrr=0.43; Mθθ=0.64; Mφφ=-0.21; Mrθ=0.16; Mθφ=-3.37; Mrφ=2.00; Fault plane solution: M0=3.96000×10^17 NP1: φs=268.12000°, δ59.48000°, λ-173.05000°. NP2: φs=174.58000°, δ84.02000°, λ-30.71000°. Principal axes: T 3.9719, Plg17.0000°, Azm225.0000°; N -0.0165, Plg59.0000°, Azm345.0000°; P -3.9554, Plg26.0000°, Azm127.0000°;*

ISC 20 03:19:16.0±0.3, 53˚.96S±0˚.05×140˚.61E±0˚.06, h10km, n538, σ1s66/332, mb5.0/74, MS5.4/234, 10C-2D, West of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MCQ	**Macquarie Isla**	**10.76**	**100**	P		**Pn**	**03 21 54.6**	**+4.6**
	comp=Z,66nm,2.0s							
MCQ	**Macquarie Isla**	**10.76**	**100**	P		**Pn**	**03 21 54.5**	**+4.6**
TAU	**Tasmania Unive**	**11.91**	**25**	P		**Pn**	**03 22 05.5**	**-0.3**
TAU	**Tasmania Unive**	**11.91**	**25**			**Pn**	**03 22 05.5**	**-0.3**
TAU	**Tasmania Unive**	**11.91**	**25**	P		**Pn**	**03 22 08.3**	**+2.5**
	comp=Z,67nm,1.6s							
MOO	**Moorlands**	**12.32**	**23**	P		**Pn**	**03 22 11.8**	**+0.4**
	comp=Z,159nm,1.7s,comp=Z,0.0nm							
MOO	**Moorlands**	**12.32**	**23**	P		**Pn**	**03 22 10.8**	**-0.6**
	comp=Z,159nm,1.7s,comp=Z,0.0nm							
MOO	**Moorlands**	**12.32**	**23**	P		**Pn**	**03 22 11.8**	**+0.4**
	comp=Z,159nm,1.7s,comp=Z,0.0nm							
MOO	**Moorlands**	**12.32**	**23**	P		**Pn**	**03 22 12.0**	**+0.6**
	comp=Z,159nm,1.7s							
DRV	**Dumont d'Urvil**	**12.75**	**181**	P		**Pn**	**03 22 21.1**	**+4.0**
TOO	**Toolangi**	**16.73**	**14**	P		**P**	**03 23 13.4**	**+0.7**
	comp=Z,65nm,1.5s,comp=Z,0.0nm							
TOO	**Toolangi**	**16.73**	**14**	P		**Pn**	**03 23 11.1**	**+0.7**
	comp=Z,65nm,1.5s,comp=Z,0.0nm							
TOO	**Toolangi**	**16.73**	**14**	P		**Pn**	**03 23 11.5**	**+1.1**
	comp=Z,65nm,1.5s,comp=Z,0.0nm							
TOO	**Toolangi**	**16.73**	**14**	P		**Pn**	**03 23 08.5**	**-1.9**
TOO				pmax		pmax		
	comp=Z,77nm,1.4s							
TOO	**Toolangi**	**16.73**	**14**			**Pn**	**03 23 08.5**	**-1.9**
ARPS	**Mount Arapiles**	**17.21**	**3**	P		**Pn**	**03 23 16.1**	**-0.2**
	comp=Z,27nm,1.8s							
ARPS	**Mount Arapiles**	**17.21**	**3**	P		**Pn**	**03 23 15.8**	**-0.5**
	comp=Z,27nm,1.8s							
ARPS	**Mount Arapiles**	**17.21**	**3**	P		**Pn**	**03 23 15.9**	**-0.4**
	comp=Z,27nm,1.8s							
MILA	**Mila**	**17.91**	**23**	P		**Pn**	**03 23 24.2**	**-0.9**
	comp=Z,39nm,1.8s							
MILA	**Mila**	**17.91**	**23**	P		**Pn**	**03 23 24.0**	**-1.1**
	comp=Z,39nm,1.8s							
MILA	**Mila**	**17.91**	**23**	P		**Pn**	**03 23 24.8**	**-0.3**
	comp=Z,39nm,1.8s							
WHZ	**Wether Hill Ro**	**19.27**	**76**	P		**P**	**03 23 40.1**	**-0.5**
CAN	**Canberra**	**19.54**	**21**	P		**Pn**	**03 23 46.5**	**+1.5**
	comp=Z,71nm,1.2s,comp=Z,0.0nm							
CAN	**Canberra**	**19.54**	**21**	P		**P**	**03 23 43.7**	**+0.1**
	comp=Z,72nm,1.2s,comp=Z,0.0nm							
CAN	**Canberra**	**19.54**	**21**	P		**Pn**	**03 23 46.3**	**+1.4**
	comp=Z,71nm,1.2s,comp=Z,0.0nm							
CAN	**Canberra**	**19.54**	**21**	P		**P**	**03 23 42.4**	**-1.3**
CAN				pmax		pmax		
	comp=Z,275nm,1.9s							
CAN	**Canberra**	**19.54**	**21**			**P**	**03 23 42.4**	**-1.3**
CAN				IAmb		IAmb	03 23 48.9	
	comp=Z,275nm,1.9s							
CAN	**Canberra**	**19.54**	**21**	P		**Pn**	**03 23 46.5**	**+1.5**
	comp=Z,72nm,1.2s							
CNB	**Canberra Magne**	**19.62**	**22**	P		**Pn**	**03 23 46.1**	**+0.1**
	comp=Z,54nm,1.5s,comp=Z,0.0nm							
CNB	**Canberra Magne**	**19.62**	**22**	P		**P**	**03 23 45.3**	**+0.8**
	comp=Z,55nm,1.5s,comp=Z,0.0nm							
CNB	**Canberra Magne**	**19.62**	**22**	P		**Pn**	**03 23 45.8**	**-0.1**
	comp=Z,55nm,1.5s,comp=Z,0.0nm							
YNG	**Young**	**20.41**	**19**	P		**P**	**03 23 53.9**	**+0.9**
	comp=Z,2.1nm,2.0s							
YNG	**Young**	**20.41**	**19**	P		**P**	**03 23 52.0**	**-1.1**
	comp=Z,2.1nm,2.0s							
HTT	**Hallett**	**20.55**	**356**	P		**P**	**03 23 55.1**	**+0.4**
	comp=Z,51nm,1.3s							
HTT	**Hallett**	**20.55**	**356**	P		**P**	**03 23 55.1**	**+0.4**
	comp=Z,51nm,1.3s							
HTT	**Hallett**	**20.55**	**356**	P		**P**	**03 23 54.5**	**-0.2**
	comp=Z,51nm,1.3s							
ODZ	**Otahua Downs**	**21.31**	**78**	P		**P**	**03 24 05.2**	**+2.5**
	comp=Z,48nm,1.1s							
BBOO	**Buckleboo**	**21.39**	**349**	P		**P**	**03 24 03.4**	**-0.2**
	comp=Z,143nm,1.3s							
BBOO	**Buckleboo**	**21.39**	**349**	P		**P**	**03 24 03.8**	**+0.2**
	comp=Z,143nm,1.3s							
BBOO	**Buckleboo**	**21.39**	**349**	P		**P**	**03 24 03.2**	**-0.4**
	comp=Z,143nm,1.3s							
BBOO	**Buckleboo**	**21.39**	**349**	P		**P**	**03 24 03.4**	**-0.2**
	comp=Z,144nm,1.3s							
STKA	**Stephens Creek**	**22.08**	**2**	P		**P**	**03 24 11.1**	**0.0**
	comp=Z,541nm,1.2s							
STKA	**Stephens Creek**	**22.08**	**2**	P		**P**	**03 24 10.6**	**-0.4**
	comp=Z,540nm,1.2s							
STKA	**Stephens Creek**	**22.08**	**2**	P		**P**	**03 24 10.8**	**-0.2**
	comp=Z,540nm,1.2s							
STKA	**Stephens Creek**	**22.08**	**2**	P		**P**	**03 24 10.5**	**-0.6**
	comp=Z,64nm,0.9s,baz=164,slow=11,SNR=54							
STKA					S	**S**	**03 28 14.6**	**+0.2**
	comp=Z,1.7nm,0.7s,baz=307,slow=16,SNR=1.2							
	comp=Z,64nm,0.9s							
STKA	**Stephens Creek**	**22.08**	**2**	P		**P**	**03 24 10.9**	**-0.2**
STKA	**Stephens Creek**	**22.08**	**2**	P		**P**	**03 24 11.6**	**+0.5**
	comp=Z,542nm,1.2s							
RPZ	**Rata Peaks**	**22.34**	**75**	LR		LR	03 31 11.1	
	comp=Z,4μm,19.3s,baz=232,slow=32							
CMSA	**Cobar Meteorol**	**22.70**	**11**	P		**P**	**03 24 18.1**	**+0.4**
	comp=Z,104nm,1.1s							
CMSA	**Cobar Meteorol**	**22.70**	**11**	P		**P**	**03 24 18.0**	**+0.3**
	comp=Z,104nm,1.1s							
CMSA	**Cobar Meteorol**	**22.70**	**11**	P		**P**	**03 24 17.9**	**+0.3**
	comp=Z,104nm,1.1s							
CMSA	**Cobar Meteorol**	**22.70**	**11**	P		**P**	**03 24 18.1**	**+0.4**
	comp=Z,104nm,1.1s							
OXZ	**Oxford**	**23.14**	**76**	IAMs_20		IAMs_20	03 31 33.4	
	comp=Z,13μm,19.0s							
LTZ	**Lake Taylor**	**23.62**	**75**	IAMs_20		IAMs_20	03 31 38.9	
	comp=Z,13μm,21.0s							
GVZ	**Greta Valley S**	**23.94**	**76**	P		**P**	**03 24 29.1**	**-1.0**
KHZ	**Kahutara**	**24.57**	**75**	IAMs_20		IAMs_20	03 32 19.2	
	comp=Z,11μm,20.0s							
KHZ	**Kahutara**	**24.57**	**75**	P		**P**	**03 24 38.2**	**+2.3**
	comp=Z,64nm,1.7s							
ARMA	**Armidale**	**24.84**	**23**	P		**P**	**03 24 38.5**	**-0.1**
	comp=Z,45nm,1.2s							
ARMA	**Armidale**	**24.84**	**23**	P		**P**	**03 24 38.1**	**-0.4**
	comp=Z,45nm,1.2s							
ARMA	**Armidale**	**24.84**	**23**	P		**P**	**03 24 38.2**	**-0.3**
	comp=Z,45nm,1.2s							
ARMA	**Armidale**	**24.84**	**23**	P		**P**	**03 24 37.4**	**-1.1**
ARMA				IAmb		IAmb	03 24 42.4	
	comp=Z,57nm,1.1s							
ARMA	**Armidale**	**24.84**	**23**	P		**P**	**03 24 38.4**	**-0.1**
	comp=Z,45nm,1.2s							
FORT	**Forrest**	**24.87**	**334**	P		**P**	**03 24 38.5**	**-0.1**
	comp=Z,68nm,0.8s							
FORT	**Forrest**	**24.87**	**334**	P		**P**	**03 24 38.9**	**+0.3**
	comp=Z,68nm,0.8s							
FORT	**Forrest**	**24.87**	**334**	P		**P**	**03 24 38.4**	**-0.3**
	comp=Z,68nm,0.8s							
FORT	**Forrest**	**24.87**	**334**			**P**	**03 24 36.6**	**-2.1**
FORT				IAmb		IAmb	03 24 40.8	
	comp=Z,57nm,0.9s							
VNDA	**Vanda**	**24.88**	**169**	P		**P**	**03 24 38.1**	**-0.2**
	comp=Z,3.9nm,0.8s,baz=331,slow=9.5,SNR=18							
VNDA				LR		LR	03 32 36.4	
	comp=Z,2μm,20.5s,baz=334,slow=32							
	comp=Z,3.9nm,0.8s							
VNDA	**Vanda**	**24.88**	**169**	P		**P**	**03 24 37.7**	**-0.6**
VNDA				pmax		pmax		
	comp=Z,108nm,1.8s							
VNDA	**Vanda**	**24.88**	**169**	P		**P**	**03 24 37.7**	**-0.6**
VNDA				IAmb		IAmb	03 25 08.8	
	comp=Z,108nm,1.8s							
VNDA	**Vanda**	**24.88**	**169**	P		**P**	**03 24 38.5**	**+0.1**
	comp=Z,42nm,1.5s							
RKGY	**Rocky Gully**	**25.49**	**310**	P		**P**	**03 24 45.5**	**+1.3**
	comp=Z,15nm,1.8s,comp=Z,0.0nm							
SBA	**Scott Base**	**25.74**	**168**	P		**P**	**03 24 48.2**	**+2.1**
SBA				pmax		pmax		
	comp=Z,40nm,1.3s							
SBA				MLR		MLR		
	comp=Z,3μm,19.0s							
SBA	**Scott Base**	**25.74**	**168**	P		**P**	**03 24 48.2**	**+2.1**
SBA				IAmb		IAmb	03 25 03.3	
	comp=Z,40nm,1.2s							
SBA	**Scott Base**	**25.74**	**168**	P		**P**	**03 24 50.0**	**+3.8**
	comp=Z,28nm,2.5s							
LHI	**Lord Howe Isla**	**26.05**	**38**	P		**P**	**03 24 49.4**	**+0.1**
	comp=Z,23nm,1.6s							
INKA	**Innaminka**	**26.19**	**0**	P		**P**	**03 24 50.1**	**-0.5**
INKA				IAmb		IAmb	03 25 14.2	
	comp=Z,32nm,1.1s							
KMBL	**Kambalda**	**26.29**	**322**	P		**P**	**03 24 51.5**	**0.0**
	comp=Z,12nm,1.3s							
KMBL	**Kambalda**	**26.29**	**322**	P		**P**	**03 24 50.3**	**-1.2**
	comp=Z,14nm,2.1s							
H01W1	**Cape Leeuwin H**	**26.58**	**305**	T		T	03 52 38.9	
	baz=143,slow=75,SNR=130							
H01W2	**Cape Leeuwin H**	**26.59**	**305**	T		T	03 52 39.7	
	baz=143,slow=75,SNR=178							
H01W3	**Cape Leeuwin H**	**26.60**	**305**	T		T	03 52 40.9	
	baz=143,slow=75,SNR=79							
NWAO	**Narrogin (SRO)**	**26.79**	**312**	P		**P**	**03 25 00.4**	**+4.4**
	comp=Z,42nm,1.6s							
NWAO	**Narrogin (SRO)**	**26.79**	**312**	P		**P**	**03 25 00.2**	**+4.2**
	comp=Z,67nm,1.6s							
NWAO	**Narrogin (SRO)**	**26.79**	**312**	P		**P**	**03 24 56.5**	**+0.4**
	comp=Z,66nm,1.6s							
NWAO	**Narrogin (SRO)**	**26.79**	**312**	P		P	03 25 05.1	+9.1
NWAO	**Narrogin (SRO)**	**26.79**	**312**	LR		LR	03 33 02.4	
	comp=Z,12μm,20.4s,baz=114,slow=31							
NWAO	**Narrogin (SRO)**	**26.79**	**312**	IAMs_20		IAMs_20	03 32 40.7	
	comp=Z,13μm,21.0s							
QLP	**Quilpie**	**27.48**	**7**	P		**P**	**03 25 02.5**	**+0.3**
	comp=Z,92nm,1.4s							
QLP	**Quilpie**	**27.48**	**7**	P		**P**	**03 25 02.2**	**0.0**
	comp=Z,92nm,1.4s							
QLP	**Quilpie**	**27.48**	**7**	P		**P**	**03 25 02.3**	**0.0**
	comp=Z,92nm,1.4s							
QLP	**Quilpie**	**27.48**	**7**	P		**P**	**03 25 02.8**	**+0.5**
	comp=Z,92nm,1.4s							
KLBR	**Kellerberrin**	**27.72**	**315**	P		**P**	**03 25 04.0**	**-0.3**
	comp=Z,30nm,1.4s							
KLBR	**Kellerberrin**	**27.72**	**315**	P		**P**	**03 25 04.3**	**0.0**
	comp=Z,30nm,1.4s							
KLBR	**Kellerberrin**	**27.72**	**315**	P		**P**	**03 25 03.9**	**-0.4**
	comp=Z,30nm,1.4s							
KLBR	**Kellerberrin**	**27.72**	**315**	P		**P**	**03 25 03.5**	**-0.9**
	comp=Z,30nm,1.4s							
RMQ	**Roma**	**28.10**	**16**	P		**P**	**03 25 08.4**	**+0.6**
	comp=Z,28nm,1.2s							
TOZ	**Tahuroa Road**	**28.85**	**70**	IAMs_20		IAMs_20	03 35 24.4	
	comp=Z,8μm,18.0s							
BLDU	**Ballidu**	**29.01**	**314**	P		**P**	**03 25 16.0**	**+0.1**
	comp=Z,9.5nm,0.5s							
RTZ	**Ruatahuna**	**29.05**	**73**	IAMs_20		IAMs_20	03 35 08.9	
	comp=Z,12μm,21.0s							
URZ	**Urewera**	**29.38**	**73**	LR		LR	03 35 19.3	
	comp=Z,10μm,21.9s,baz=222,slow=33							
EIDS	**Eidsvold**	**29.60**	**19**	P		**P**	**03 25 20.7**	**-0.4**
	comp=Z,38nm,1.1s							
EIDS	**Eidsvold**	**29.60**	**19**	P		**P**	**03 25 20.7**	**-0.4**
	comp=Z,38nm,1.1s							
EIDS	**Eidsvold**	**29.60**	**19**	P		**P**	**03 25 20.1**	**-1.0**
	comp=Z,38nm,1.1s							
EIDS	**Eidsvold**	**29.60**	**19**	P		**P**	**03 25 19.9**	**-1.3**
EIDS				IAmb		IAmb	03 25 23.8	
	comp=Z,63nm,1.4s							
EIDS	**Eidsvold**	**29.60**	**19**	P		**P**	**03 25 21.1**	**-0.1**
	comp=Z,38nm,1.1s							
OUZ	**Omahuta**	**29.66**	**64**	IAMs_20		IAMs_20	03 34 11.0	
	comp=Z,8μm,20.0s							
WRKA	**Warakurna**	**30.31**	**337**	P		**P**	**03 25 26.4**	**-1.1**
	comp=Z,12nm,1.1s							
WRKA	**Warakurna**	**30.31**	**337**	P		**P**	**03 25 27.0**	**-0.6**
	comp=Z,13nm,1.1s							
WRKA	**Warakurna**	**30.31**	**337**	P		**P**	**03 25 26.4**	**-1.1**
	comp=Z,12nm,1.1s							
AS09	**Alice Springs**	**30.63**	**348**	P		**P**	**03 25 29.9**	**-0.4**
	comp=Z,18nm,0.9s							
MORW	**Morawa**	**30.64**	**314**	P		**P**	**03 25 33.0**	**+2.8**
	comp=Z,14nm,3.0s							
AS17	**Alice Springs**	**30.66**	**348**	P		**P**	**03 25 30.2**	**-0.4**
	comp=Z,16nm,0.8s							
AS17	**Alice Springs**	**30.66**	**348**	P		**P**	**03 25 29.9**	**-0.7**
	comp=Z,16nm,0.8s							
ASAR	**Alice Springs**	**30.67**	**348**	P		**P**	**03 25 29.4**	**-1.2**
	comp=Z,8.2nm,0.7s,baz=167,slow=9.7,SNR=68							
ASAR				PcP		**PcP**	**03 28 28.8**	**+0.3**
	comp=Z,2.0nm,0.7s,baz=162,slow=2.7,SNR=5.0							
ASAR				S		**S**	**03 30 32.9**	**-0.1**
	comp=Z,0.2nm,0.5s,baz=181,slow=20,SNR=1.6							
ASAR				LR		LR	03 36 59.9	
	comp=Z,4μm,18.8s,baz=168,slow=35							
	comp=Z,8.2nm,0.7s							
ASAR	**Alice Springs**	**30.67**	**348**	P		**P**	**03 25 29.0**	**-1.6**
AS31	**Alice Springs**	**30.67**	**348**	P		**P**	**03 25 30.5**	**-0.1**
	comp=Z,8.0nm,0.7s							
AS31	**Alice Springs**	**30.67**	**348**	P		**P**	**03 25 29.8**	**-0.9**
AS15	**Alice Springs**	**30.70**	**348**	P		**P**	**03 25 30.6**	**-0.4**
	comp=Z,23nm,0.8s							
AS15	**Alice Springs**	**30.70**	**348**	P		**P**	**03 25 30.4**	**-0.4**
	comp=Z,23nm,0.8s							
MEEK	**Meekatharra**	**31.77**	**320**	P		**P**	**03 25 40.1**	**-0.2**
	comp=Z,25nm,1.8s							
MEEK	**Meekatharra**	**31.77**	**320**	P		**P**	**03 25 39.7**	**-0.6**
	comp=Z,25nm,1.8s							
MEEK	**Meekatharra**	**31.77**	**320**	P		**P**	**03 25 38.8**	**-1.5**
	comp=Z,25nm,1.8s							
MEEK	**Meekatharra**	**31.77**	**320**	P		**P**	**03 25 39.1**	**-1.2**
	comp=Z,25nm,1.8s							
QIS	**Mount Isa**	**33.35**	**358**	P		**P**	**03 25 53.8**	**-0.5**
	comp=Z,23nm,1.5s							
QIS	**Mount Isa**	**33.35**	**358**	P		**P**	**03 25 53.5**	**-0.7**
	comp=Z,23nm,1.5s							
QIS	**Mount Isa**	**33.35**	**358**	P		**P**	**03 25 53.6**	**-0.6**
	comp=Z,23nm,1.5s							
QIS	**Mount Isa**	**33.35**	**358**	P		**P**	**03 25 53.7**	**-0.5**
	comp=Z,23nm,1.5s							
CTA	**Charters Tower**	**34.09**	**9**	LR		LR	03 39 33.0	
	comp=Z,5μm,18.5s,baz=178,slow=36							
CTAO	**Charters Tower**	**34.09**	**9**	IAMs_20		IAMs_20	03 39 22.1	
	comp=Z,6μm,18.0s							
WR8	**Warramunga Arr**	**34.26**	**350**	P		**P**	**03 26 00.4**	**-1.7**
WR8				IAmb		IAmb	03 26 10.6	
	comp=Z,24nm,0.8s							
WRA	**Warramunga Arr**	**34.29**	**349**	P		**P**	**03 26 00.9**	**-1.5**
	comp=Z,9.5nm,0.7s,baz=173,slow=7.8,SNR=79							
WRA				PcP		**PcP**	**03 28 38.3**	**-0.2**
	comp=Z,3.3nm,0.7s,baz=178,slow=3.1,SNR=5.9							
WRA				S		**S**	**03 31 29.2**	**-0.3**
	comp=Z,0.5nm,0.8s,baz=188,slow=13,SNR=1.3							
WRA				LR		LR	03 39 04.5	
	comp=Z,3μm,20.1s,baz=269,slow=35							
	comp=Z,9.5nm,0.7s							
WRA	**Warramunga Arr**	**34.29**	**349**	P		**P**	**03 26 00.3**	**-2.1**
WRAB	**Tennant Creek**	**34.30**	**350**	*i* P		**P**	**03 25 59.7**	**-2.7**
WRAB				pmax		pmax		
	comp=Z,32nm,1.0s							
WRAB	**Tennant Creek**	**34.30**	**350**	P		**P**	**03 26 00.6**	**-1.8**
	comp=Z,38nm,1.1s							
WC2	**Warramunga Arr**	**34.31**	**350**	P		**P**	**03 26 00.8**	**-1.7**
WC2	**Warramunga Arr**	**34.31**	**350**	P		**P**	**03 26 01.1**	**-1.4**
MTSU	**Mount Surprise**	**35.87**	**6**	P		**P**	**03 26 16.4**	**+0.4**
	comp=Z,11nm,1.0s							
MTSU	**Mount Surprise**	**35.87**	**6**	P		**P**	**03 26 16.3**	**+0.3**
	comp=Z,11nm,1.0s							
QSPA	**South Pole Qui**	**36.15**	**180**	P		**P**	**03 26 17.8**	**-0.3**
	comp=Z,16nm,1.0s,baz=344,slow=4.8,SNR=23							
QSPA				LR		LR	03 40 39.3	
	comp=Z,4μm,21.3s,baz=5.0,slow=36							
	comp=Z,16nm,1.0s							
QSPA	**South Pole Q

comp=Z,3µm,19.2s,baz=273,slow=33
MMRI Maumere 47.55 335 IAMs_20 IAMs_20 03 46 11.6
comp=Z,4µm,20.0s
BELA Belgrano 2 48.40 181 P **P** **03 27 56.5 -1.0**
BELA IAmb IAmb 03 28 19.5
comp=Z,20nm,0.9s
NVL N'lazarevskaya 50.32 200 *e*P **P** **03 28 09.8 -2.4**
NVL *e* 03 30 05.2
NVL pmax pmax
comp=Z,10.0nm,0.8s
NVL MLR MLR
comp=Z,3µm,15.0s
KRVT Keravat (AS076 50.37 15 LR LR 03 47 40.7
comp=Z,3µm,20.7s,baz=176,slow=34
GENI Genyem 51.20 359 P **P** **03 28 22.2 +2.8**
comp=Z,62nm,0.8s
FAKI Fak Fak 51.34 349 P **P** **03 28 19.3 -1.1**
FAKI IAmb IAmb 03 28 32.8
comp=Z,30nm,1.0s
FAKI Fak Fak 51.34 349 P **P** **03 28 19.9 -0.5**
comp=Z,32nm,1.4s
KAPI Kappang 51.67 333 LR LR 03 49 47.0
comp=Z,3µm,19.6s,baz=154,slow=36
KAPI Kappang 51.67 333 P **P** **03 28 22.5 -0.4**
KAPI pmax pmax
comp=Z,41nm,1.2s
KAPI Kappang 51.67 333 P **P** **03 28 22.5 -0.4**
KAPI IAmb IAmb 03 28 39.9
comp=Z,41nm,1.2s
KAPI Kappang 51.67 333 IAMs_20 IAMs_20 03 49 35.8
comp=Z,4µm,19.0s
KAPI Kappang 51.67 333 P **P** **03 28 23.5 +0.5**
comp=Z,33nm,1.2s
UGM Wanagama 51.91 321 IAMs_20 IAMs_20 03 47 47.2
comp=Z,4µm,20.0s
SNAA Sanae 52.04 194 P **P** **03 28 26.5 +1.2**
comp=Z,130nm,0.6s
SNAA Sanae 52.04 194 P **P** **03 28 25.8 +0.6**
comp=Z,2.0nm,0.4s,baz=152,slow=8.4,SNR=6.4
SNAA LR LR 03 50 04.1
comp=Z,6µm,20.9s,baz=194,slow=36
comp=Z,2.0nm,0.4s
SNAA Sanae 52.04 194 P **P** **03 28 25.4 +0.1**
SNAA Sanae 52.04 194 P **P** **03 28 26.5 +1.2**
comp=Z,27nm,2.0s
SMRI Semarang 52.74 321 IAMs_20 IAMs_20 03 50 03.1
comp=Z,3µm,20.0s
SANI Sanana 53.12 342 P **P** **03 28 30.0 -3.7**
SANI Sanana 53.12 342 P **P** **03 28 30.5 -3.2**
comp=Z,13nm,1.2s
H04S1 CROZET ISLANDS 53.43 239 T T 04 27 00.8
baz=132,slow=75,SNR=122
H04S2 CROZET ISLANDS 53.43 239 T T 04 27 05.1
baz=132,slow=75,SNR=251
H04S3 CROZET ISLANDS 53.45 239 T T 04 26 59.3
baz=132,slow=75,SNR=290
VNA1 Neumayer--Stat 53.70 192 P **P** **03 28 39.8 +2.5**
comp=Z,22nm,1.0s
AFI Afiamalu 54.58 62 LR LR 03 47 44.0
comp=Z,2µm,21.9s,baz=208,slow=32
LUWI Luwuk 54.76 338 P **P** **03 28 42.7 -2.9**
LUWI Luwuk 54.76 338 IAMs_20 IAMs_20 03 51 39.5
comp=Z,4µm,20.0s
RAR Rarotonga 55.31 78 LR LR 03 47 46.8
comp=Z,761nm,21.1s,baz=220,slow=31
BKB Balikpapan 56.04 331 IAMs_20 IAMs_20 03 55 37.5
comp=Z,4µm,18.0s
TOLI2 Tolitoli 57.30 336 IAMs_20 IAMs_20 03 55 06.8
comp=Z,4µm,19.0s
TOLI2 Tolitoli 57.30 336 P **P** **03 29 03.0 -0.8**
comp=Z,42nm,1.4s
TBI Tubuai 59.72 89 *e*S **S** **03 37 29.5 -1.9**
TBI comp=Z,1µm,28.5s *e*SS **SS** **03 41 22.9 -4.0**
TBI comp=Z,4µm,41.8s *e*LQ LQ 03 44 19.6
comp=Z,9µm,26.2s
TBI *e*LR LR 03 46 47.6
comp=Z,3µm,25.2s
TBI *e*LR LR 03 46 50.6
comp=Z,10µm,24.2s
PMSA Palmer Station 60.09 168 LR LR 03 52 49.3
comp=Z,916nm,18.4s,baz=188,slow=34
DAV Davao City (W) 62.11 343 LR LR 03 55 51.7
comp=Z,1µm,21.8s,baz=158,slow=35
PATS Pohnpei 62.38 20 IAMs_20 IAMs_20 03 53 05.9
comp=Z,3µm,20.0s
BKNI Bangkinang 63.19 314 P **P** **03 29 41.7 -2.6**
BKNI Bangkinang 63.19 314 IAMs_20 IAMs_20 03 53 40.2
comp=Z,3µm,21.0s
KKM Kota Kinabalu 63.20 333 IAMs_20 IAMs_20 03 56 57.4
comp=Z,3µm,21.0s
PPT2 Papeete2 64.10 84 *e*S **S** **03 38 23.0 -4.1**
comp=Z,386nm,27.8s
PPT2 *e*SS **SS** **03 42 35.3 -0.6**
PPT2 comp=Z,289nm,29.0s *e*LQ LQ 03 46 05.1
PPT2 comp=Z,6µm,30.2s *e*LR LR 03 48 49.8
PPT2 comp=Z,2µm,24.2s *e*LR LR 03 48 57.5
comp=Z,2µm,23.2s
PPT Papeete 64.12 84 P **P** **03 29 48.1 -2.3**
comp=Z,11nm,0.8s,baz=63,slow=21,SNR=1.8
PPT LR LR 03 51 44.8
comp=Z,1µm,20.4s,baz=227,slow=31
comp=Z,11nm,0.8s
RPSI Rantau Prapat 66.22 313 P **P** **03 30 03.5 -0.5**
RPSI IAmb IAmb 03 30 17.7
comp=Z,16nm,1.0s
RPSI IAMs_20 IAMs_20 03 53 50.5
comp=Z,2µm,22.0s
RPSI Rantau Prapat 66.22 313 P **P** **03 30 04.3 +0.3**
comp=Z,19nm,1.4s
PSI Prapat 66.32 314 P **P** **03 30 03.5 -1.3**
PSI pmax pmax
comp=Z,17nm,1.0s
IPM Ipoh 66.95 316 P **P** **03 30 08.5 -0.1**
IPM Ipoh 66.95 316 P **P** **03 30 09.4 +0.7**
comp=Z,29nm,1.3s
GUMO Guam 67.37 4 LR LR 03 56 45.4
comp=Z,951nm,21.8s,baz=184,slow=34
KULM Kulim 67.84 316 P **P** **03 30 11.8 -2.5**
RKT Rikitea 68.42 100 *e*LQ LQ 03 47 50.0
RKT comp=Z,13µm,31.5s *e*LR LR 03 50 54.0
comp=Z,7µm,27.8s
LHMI Lhok Sumawe 69.34 313 IAMs_20 IAMs_20 03 56 10.3
comp=Z,2µm,20.0s
H08S2 Diego Garcia H 71.04 283 T T 04 48 10.4
baz=144,slow=76,SNR=167
H08S1 Diego Garcia H 71.05 283 T T 04 48 12.4
baz=144,slow=76,SNR=44
H08S3 Diego Garcia H 71.06 283 T T 04 48 12.0
baz=144,slow=76,SNR=171
FOMA Nahampoana Res 72.25 252 IAMs_20 IAMs_20 03 56 25.4
comp=Z,2µm,18.0s
XMAS Kiritimati 75.57 66 IAMs_20 IAMs_20 04 09 01.4
comp=Z,2µm,20.0s
TAOE Nuku Hiva Isla 76.56 87 *e*S **S** **03 40 59.9 +7.0**
comp=Z,625nm,28.3s
TAOE *e*SS **SS** **03 45 50.7 +3.0**
TAOE comp=Z,1µm,28.8s *e*LQ LQ 03 51 28.6
TAOE comp=Z,1µm,31.4s *e*LR LR 03 54 30.6
comp=Z,2µm,23.6s
OPO Ambohidratompo 77.18 256 LR LR 03 58 09.8
comp=Z,812nm,20.6s,baz=149,slow=30
QIZ Qiongzhong 77.35 330 P **P** **03 31 12.0 +1.3**
QIZ S **S** **03 41 04.6 +3.8**
QIZ SS **SS** **03 46 04.1 +4.2**
QIZ L L
comp=Z,470nm,13.7s
QIZ L L
comp=Z,380nm,16.5s
QIZ L L
comp=Z,770nm,22.7s
PALK Pallekele 78.90 299 LR LR 04 01 02.2
comp=Z,2µm,19.2s,baz=147,slow=32
PALK Pallekele 78.90 299 IAMs_20 IAMs_20 04 00 40.6
comp=Z,2µm,19.0s
RPN Rapa Nui 79.33 122 LR LR 03 57 20.5
comp=Z,642nm,21.5s,baz=217,slow=29
SUR Sutherland 79.55 228 LR LR 04 00 02.7
comp=Z,2µm,20.4s,baz=146,slow=31
SUR Sutherland 79.55 228 IAMs_20 IAMs_20 03 59 33.9
comp=Z,2µm,20.0s
MALK Mahakanadarawa 79.94 299 P **P** **03 31 24.2 -1.0**
CMAR Chiang Mai Arr 80.49 320 P **P** **03 31 28.6 +0.6**
comp=Z,6.2nm,1.1s,baz=179,slow=4.7,SNR=17
CMAR LR LR 04 05 01.4
comp=Z,1µm,20.7s,baz=165,slow=34
comp=Z,6.2nm,1.1s
CMAR Chiang Mai Arr 80.49 320 P **P** **03 31 28.0 0.0**
CMAR Chiang Mai Arr 80.49 320 P **P** **03 31 28.0 0.0**
BOSA Boshof 80.69 234 P **P** **03 31 30.3 +1.0**
comp=Z,2.3nm,0.8s,baz=126,slow=3.8,SNR=5.8
BOSA LR LR 03 59 59.3
comp=Z,2µm,21.5s,baz=146,slow=30
comp=Z,2.3nm,0.8s
BOSA Boshof 80.69 234 P **P** **03 31 30.5 +1.2**
BOSA IAmb IAmb 03 31 40.2
comp=Z,37nm,1.4s
JCJ Chichijima 80.72 1 LR LR 04 07 39.2
comp=Z,194nm,18.0s,baz=142,slow=36
CHTO Chiang Mai 80.82 320 P **P** **03 31 29.8 +0.1**
CHTO pmax pmax
comp=Z,16nm,0.9s
CHTO Chiang Mai 80.82 320 P **P** **03 31 29.8 +0.1**
CHTO IAmb IAmb 03 31 41.0
comp=Z,16nm,0.9s
CHTO IAMs_20 IAMs_20 04 04 40.3
comp=Z,2µm,22.0s
SLVN Son La 81.38 326 IAMs_20 IAMs_20 04 05 37.0
comp=Z,2µm,22.0s
PLCA Paso Flores 81.95 157 P **P** **03 31 33.6 -2.2**
comp=Z,1.5nm,0.8s,baz=325,slow=9.6,SNR=2.4
PLCA LR LR 04 01 20.5
comp=Z,448nm,19.9s,baz=196,slow=31
comp=Z,1.5nm,0.8s
MSEY Mahe Island 83.38 271 IAMs_20 IAMs_20 04 11 47.3
comp=Z,2µm,21.0s
LBTB Lobatse 83.54 236 LR LR 04 01 46.2
comp=Z,2µm,21.0s,baz=148,slow=30
LBTB Lobatse 83.54 236 P **P** **03 31 46.8 +2.5**
GYA Guiyang 85.30 330 P P 03 31 58.3 +5.4
GYA pmax pmax
comp=Z,13nm,0.8s
GYA pmax pmax
comp=Z,140nm,3.3s
GYA L L
comp=Z,650nm,18.3s
GYA L L
comp=Z,550nm,21.3s
GYA L L
comp=Z,1µm,22.6s
KMI2 Kunming 85.30 326 P P 03 31 58.3 +5.2
KMI2 SKS **SKSac** **03 42 16.3 -1.7**
KMI2 S **ScS** **03 42 29.3 -4.4**
KMI2 SS **SS** **03 47 56.4 -2.4**
KMI2 pmax pmax
comp=Z,11nm,1.8s
KMI2 L L
comp=Z,580nm,21.5s
KMI2 L L
comp=Z,980nm,19.3s
KMI2 L L
comp=Z,1µm,24.8s
MATP Matopo 85.91 241 LR LR 04 05 06.6
comp=Z,5µm,18.2s,baz=146,slow=32
H03S1 Juan Fernandez 86.12 148 T T 05 08 01.1
baz=200,slow=74,SNR=12
H03S2 Juan Fernandez 86.12 148 T T 05 08 07.4
baz=200,slow=74,SNR=13
H03S3 Juan Fernandez 86.13 148 T T 05 08 03.0
baz=200,slow=74,SNR=12
SSE Sheshan 86.36 343 P **P** **03 31 58.9 +1.1**
SSE S **S** **03 42 35.1 +2.0**
SSE pmax pmax
comp=Z,11nm,0.8s
SSE pmax pmax
comp=Z,180nm,4.2s
SSE L L
comp=Z,310nm,20.5s
SSE L L
comp=Z,190nm,20.7s
TNCH TengChong 86.65 322 P **P** **03 32 01.4 +1.7**
TNCH S **S** **03 42 42.6 +5.9**
TNCH L L
comp=Z,840nm,27.0s
TNCH L L
comp=Z,490nm,22.0s
TNCH L L
comp=Z,2µm,26.5s
JHJ Hachijo jima 2 86.72 359 LR LR 04 08 27.0
comp=Z,108nm,20.7s,baz=147,slow=34
PZH PanZhiHua 86.89 326 P **P** **03 32 01.0 +0.2**
PZH SKS **SKSac** **03 42 25.4 -2.2**
PZH S **S** **03 42 41.0 +2.2**
PZH SS **SS** **03 48 26.1 +4.2**
PZH pmax pmax
comp=Z,70nm,0.9s
PZH pmax pmax
comp=Z,270nm,6.1s
PZH L L
comp=Z,910nm,19.4s
PZH L L
comp=Z,530nm,19.6s
PZH L L
comp=Z,880nm,21.8s
BRDH Bariadhala 87.19 316 LR LR 04 10 59.4
comp=Z,1µm,20.6s,baz=168,slow=36
NJ2 Nanjing 87.70 342 *e*P **P** **03 32 06.8 +2.4**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
HYB Hyderabad 88.60 302 *e*P **P** **03 32 07.8 -1.2**
HYB *e*PP **PP** **03 35 37.1 -0.7**
HYB IVMs_BB IVMs_BB 04 04 13.9
comp=Z,714nm,15.8s
WIN Windhoek 89.64 230 IAMs_20 IAMs_20 04 09 12.7
comp=Z,1µm,18.0s
MJAR Matsushiro Arr 90.16 358 P **P** **03 32 13.9 -1.9**
comp=Z,1.7nm,0.8s,baz=179,slow=5.3,SNR=6.4
MJAR LR LR 04 12 05.9
comp=Z,370nm,18.7s,baz=172,slow=35
comp=Z,1.7nm,0.8s
MJAR Matsushiro Arr 90.16 358 P **P** **03 32 15.8 -0.1**
MJAR IAmb IAmb 03 32 22.6
comp=Z,31nm,1.8s
MAJO Matsushiro 90.16 358 *i* P **P** **03 32 13.4 -2.5**
MAJO pmax pmax
comp=Z,46nm,1.9s
CD2 Chengdu 90.34 329 P **P** **03 32 19.0 +2.1**
CD2 SKS **SKSac** **03 42 46.3 -1.5**
CD2 S **S** **03 43 10.9 -0.2**
CD2 pmax pmax
comp=Z,10.0nm,0.7s
CD2 L L
comp=Z,840nm,15.9s
CD2 L L
comp=Z,2µm,17.1s
CD2 L L
comp=Z,930nm,17.1s
KSRS Korea Array 91.70 350 LR LR 04 13 01.2
comp=Z,506nm,21.5s,baz=200,slow=35
XAN Xi'an 91.83 334 P **P** **03 32 28.1 +4.4**
XAN pmax pmax
comp=Z,9.0nm,1.0s
CO01 Juntas del Tor 92.28 154 P **P** **03 32 24.7 -1.9**
CO01 IAmb IAmb 03 32 39.8
comp=Z,11nm,1.1s
TSUM Tsumeb 92.33 232 LR LR 04 09 43.6
comp=Z,1µm,18.4s,baz=148,slow=33
TSUM Tsumeb 92.33 232 IAMs_20 IAMs_20 04 07 10.9
comp=Z,1µm,21.0s
HNS HongShan 93.70 340 *e*P **P** **03 32 33.1 +0.9**
HNS SKS **SKSac** **03 43 04.8 -1.4**
HNS S **ScS** **03 43 42.3 0.0**
HNS L L
comp=Z,690nm,22.3s
HNS L L
comp=Z,820nm,22.6s
DL2 Dalian 93.93 345 *e*P **P** **03 32 36.1 +2.9**
DL2 S **S** **03 43 47.5 +4.7**
DL2 pmax pmax
comp=Z,36nm,0.9s
DL2 L L
comp=Z,1µm,23.1s
DL2 L L
comp=Z,880nm,22.0s
DL2 L L
comp=Z,1µm,24.1s
LZDM Lanzhou Array 95.06 331 P **P** **03 32 37.9 -1.0**
comp=Z,2.7nm,0.3s,baz=156,slow=9.0,SNR=2.7
LZDM LR LR 04 15 53.3
comp=Z,552nm,21.9s,baz=130,slow=36
comp=Z,2.7nm,0.3s
LZH Lanzhou 95.14 331 *e*P **P** **03 32 40.0 +0.9**
LZH pP pwP 03 32 46.8 +1.1
LZH pmax pmax
comp=Z,17nm,1.3s
LZH L L
comp=Z,820nm,15.2s
LZH L L
comp=Z,670nm,16.5s
LZH L L
comp=Z,980nm,15.5s
KIBK Kibwezi 95.49 258 IAMs_20 IAMs_20 04 07 10.2
comp=Z,1µm,20.0s
KMBO Kilima Mbogo 96.93 259 LR LR 04 07 48.7
comp=Z,1µm,21.9s,baz=110,slow=30
KMBO Kilima Mbogo 96.93 259 IAMs_20 IAMs_20 04 07 51.8
comp=Z,1µm,21.0s
HHC Hu-ho-hao-te 97.68 338 *e*P Pdif 03 32 51.3 +0.8
HHC pmax pmax
comp=Z,9.0nm,0.6s
HHC pmax pmax
comp=Z,260nm,5.0s
HHC L L
comp=Z,380nm,14.3s
HHC L L
comp=Z,460nm,16.0s
HHC L L
comp=Z,510nm,16.8s
ASAJ Asahikawa 97.71 1 LR LR 04 17 16.8
comp=Z,512nm,20.6s,baz=260,slow=36
BTO2 Baotou 97.96 337 *e*P Pdif 03 32 53.4 +1.6
BTO2 S **S** **03 44 19.9 +2.0**
BTO2 pmax pmax
comp=Z,10.0nm,0.5s
BTO2 pmax pmax
comp=Z,540nm,5.0s
BTO2 L L
comp=Z,2µm,18.1s
BTO2 L L
comp=Z,990nm,12.2s
BTO2 L L
comp=Z,2µm,15.7s
USRK Ussuriysk Ar. 98.06 354 LR LR 04 15 10.4
comp=Z,401nm,21.8s,baz=168,slow=34
CPUP Villa Florida 98.55 164 LR LR 04 15 27.1
comp=Z,150nm,18.6s,baz=186,slow=34
MBAR Mbarara 101.09 253 IAMs_20 IAMs_20 04 11 50.7
comp=Z,1µm,20.0s
UOSS Minazif 106.62 289 IAMs_20 IAMs_20 04 14 07.1
comp=Z,1µm,20.0s
WMQ Urumqi 107.38 323 Pdif **Pdif** **03 33 35.3 +1.8**
WMQ L L
comp=Z,700nm,21.5s
WMQ L L
comp=Z,370nm,24.0s
WMQ L L
comp=Z,780nm,24.2s
ZALV Zalesovo Beam 117.02 327 PKP **PKPdf** **03 37 58.0 -1.8**
comp=Z,1.0nm,0.7s,baz=173,slow=2.5,SNR=4.2
RCBR Riachuelo 120.36 184 IAMs_20 IAMs_20 04 27 18.9
comp=Z,794nm,21.0s
BVAR Borovoye Array 121.47 318 PKP **PKPdf** **03 38 07.0 -1.4**
comp=Z,2.0nm,0.7s,baz=158,slow=1.6,SNR=5.7
JTS Las Juntas de 123.39 123 IAMs_20 IAMs_20 04 19 11.0
comp=Z,847nm,22.0s
PFO Pinyon Flats O 123.70 78 IAMs_20 IAMs_20 04 21 34.2
comp=Z,1µm,20.0s
GLA Glamis 124.24 80 IAMs_20 IAMs_20 04 26 17.8
comp=Z,833nm,18.0s
BELC Belle Mtn. Jos 124.25 78 IAMs_20 IAMs_20 04 21 31.6
comp=Z,1µm,20.0s
BC3 Big Chuckawall 124.31 79 IAMs_20 IAMs_20 04 26 52.4
comp=Z,795nm,19.0s
CMB Columbia Colle 124.61 71 IAMs_20 IAMs_20 04 33 31.4
comp=Z,784nm,20.0s
WELL Weller Preserv 124.71 71 IAMs_20 IAMs_20 04 22 32.0
comp=Z,1µm,22.0s
CWC Cottonwood Cre 124.79 74 IAMs_20 IAMs_20 04 22 20.1
comp=Z,1µm,19.0s
MAK Makhachkala 124.84 297 *i* P **Pdif** **03 34 44.5 -6.5**
MAK *e*PPP PPP 03 42 42.1
MAK *e* 03 45 09.9
MAK *e*SS SS 03 56 55.5 -3.4
MAK pmax pmax
comp=Z,713nm,1.4s
MAK MLR MLR
comp=Z,885nm,18.0s
IRM Iron Mountain 124.85 78 IAMs_20 IAMs_20 04 22 21.7
comp=Z,755nm,20.0s
MPMC Manual Prospec 124.86 75 IAMs_20 IAMs_20 04 21 12.8
comp=Z,857nm,22.0s
ORV Oroville 125.06 69 IAMs_20 IAMs_20 04 21 27.2
comp=Z,871nm,20.0s
KRMB Red Mountain 125.11 66 IAMs_20 IAMs_20 04 20 37.9
comp=Z,1µm,21.0s
TIN Tinemaha, Big 125.14 74 IAMs_20 IAMs_20 04 23 30.3
comp=Z,924nm,20.0s
O03E Paynes Creek 125.41 68 IAMs_20 IAMs_20 04 21 47.5
comp=Z,1µm,22.0s
FURC Furnace Creek, 125.50 75 IAMs_20 IAMs_20 04 21 23.9
comp=Z,689nm,19.0s
TIXI Tiksi 125.58 355 *i* PKIKP **PKiKP** **03 38 17.2 +1.1**
M02C Callahan 125.59 67 IAMs_20 IAMs_20 04 20 32.4
comp=Z,1µm,22.0s
J17K VABM Dome 126.05 29 IAMs_20 IAMs_20 04 25 35.7
comp=Z,1µm,20.0s
NVAR Mina Array Bea 126.06 72 PKP **PKPdf** **03 38 16.4 -1.6**
comp=Z,1.1nm,0.7s,baz=216,slow=5.1,SNR=7.8
TUC Tucson 126.07 83 IAMs_20 IAMs_20 04 25 06.1
comp=Z,767nm,20.0s
TPNV Topopah Spring 126.19 75 IAMs_20 IAMs_20 04 22 29.2
comp=Z,744nm,21.0s
ELFS Eagle Lake Fie 126.22 69 IAMs_20 IAMs_20 04 22 25.2
comp=Z,1µm,19.0s
SEW Seward 126.63 36 IAMs_20 IAMs_20 04 23 53.1
comp=Z,972nm,20.0s
J18K Innoko River 126.79 30 IAMs_20 IAMs_20 04 26 12.2
comp=Z,1µm,20.0s
O22K Cooper Landing 126.81 35 IAMs_20 IAMs_20 04 26 00.9
comp=Z,976nm,20.0s
H17K Granite Mtn 127.01 27 IAMs_20 IAMs_20 04 27 18.5
comp=Z,928nm,20.0s
MOD Modoc Plateau 127.33 68 IAMs_20 IAMs_20 04 22 16.5
comp=Z,1µm,22.0s
J19K Poorman 127.51 30 IAMs_20 IAMs_20 04 24 51.3
comp=Z,1µm,21.0s
PWL Port Wells 127.56 36 IAMs_20 IAMs_20 04 21 51.7
comp=Z,818nm,22.0s
H18K Honhosa River 127.60 28 IAMs_20 IAMs_20 04 26 53.3
comp=Z,1µm,22.0s
KBZ Khabaz 127.82 295 *i* PKIKP **PKPdf** **03 38 19.2 -1.6**
HIN Hinchinbrook I 127.87 37 IAMs_20 IAMs_20 04 22 58.0
comp=Z,1µm,22.0s
WUAZ Wupatki 128.00 80 IAMs_20 IAMs_20 04 29 09.3
comp=Z,1µm,19.0s
GLI Glacier Island 128.00 36 IAMs_20 IAMs_20 04 23 26.4
comp=Z,1µm,22.0s
TXAR Lajitas Array 128.11 91 PKP **PKPdf** **03 38 20.6 -1.4**
comp=Z,0.7nm,1.0s,baz=220,slow=2.0,SNR=3.6
FID Port Fidalgo 128.13 37 IAMs_20 IAMs_20 04 22 53.3
comp=Z,1µm,22.0s
SML Sawmill 128.23 35 IAMs_20 IAMs_20 04 27 39.4
comp=Z,1µm,22.0s
H19K Roundabout Mou 128.42 28 IAMs_20 IAMs_20 04 28 31.1
comp=Z,913nm,20.0s
I20K Naaghedeneel 128.44 30 IAMs_20 IAMs_20 04 28 36.3
comp=Z,1µm,20.0s
SDV Santo Domingo 128.54 139 IAMs_20 IAMs_20 04 25 06.7
comp=Z,815nm,20.0s
SCM Sheep Creek Mo 128.59 35 IAMs_20 IAMs_20 04 28 14.9
comp=Z,693nm,19.0s
WVOR Wild Horse Val 128.60 69 IAMs_20 IAMs_20 04 24 45.2
comp=Z,1µm,21.0s
DIV Divide 128.64 37 IAMs_20 IAMs_20 04 23 33.3
comp=Z,1µm,22.0s
G19K Purcell Mounta 128.70 27 IAMs_20 IAMs_20 04 28 38.6
comp=Z,963nm,20.0s
KLU Klutina 128.84 36 IAMs_20 IAMs_20 04 24 15.5
comp=Z,1µm,22.0s
BERG Berg Lake 128.88 38 IAMs_20 IAMs_20 04 28 42.6
comp=Z,804nm,20.0s
NRIK Noril'sk 128.91 339 *i* PKIKP **PKPdf** **03 38 22.6 +0.4**
BMRM Bremner River 128.94 37 IAMs_20 IAMs_20 04 31 47.4
comp=Z,756nm,19.0s
ELK Elko 129.37 72 IAMs_20 IAMs_20 04 25 33.3
comp=Z,837nm,20.0s

TGL	Tana Glacier	129.44	38	IAMs_20	IAMs_20	04 29 21.6		
	comp=Z,708nm,21.0s							
VRDI	Verde Repeater	129.53	37	IAMs_20	IAMs_20	04 30 50.9		
	comp=Z,707nm,20.0s							
GLB	Gilahina Butte	129.55	37	IAMs_20	IAMs_20	04 24 24.3		
	comp=Z,781nm,22.0s							
H21K	Melozitna Rive	129.55	30	IAMs_20	IAMs_20	04 29 08.6		
	comp=Z,994nm,20.0s							
MLY	Manley	129.72	31	IAMs_20	IAMs_20	04 28 07.7		
	comp=Z,1µm,21.0s							
F20K	Avaraart Lake	129.74	27	IAMs_20	IAMs_20	04 27 60.0		
	comp=Z,1µm,21.0s							
PCA	Pinnacle	129.96	40	IAMs_20	IAMs_20	04 26 06.5		
	comp=Z,950nm,20.0s							
G21K	Allakaket	129.97	29	IAMs_20	IAMs_20	04 29 46.8		
	comp=Z,660nm,18.0s							
PAX	Paxson	130.00	35	IAMs_20	IAMs_20	04 31 17.2		
	comp=Z,770nm,19.0s							
BARN	Barnard Glacie	130.07	38	IAMs_20	IAMs_20	04 32 32.2		
	comp=Z,730nm,20.0s							
BCPM	Bancas Point	130.11	40	IAMs_20	IAMs_20	04 26 09.8		
	comp=Z,962nm,21.0s							
LOGN	Logan Glacier	130.16	39	IAMs_20	IAMs_20	04 29 48.6		
	comp=Z,776nm,21.0s							
S31K	Pelican	130.17	44	IAMs_20	IAMs_20	04 24 23.9		
	comp=Z,1µm,21.0s							
D19K	Kuna River	130.18	25	IAMs_20	IAMs_20	04 29 27.2		
	comp=Z,1µm,20.0s							
KVTX	Kingsville	130.19	98	IAMs_20	IAMs_20	04 28 43.8		
	comp=Z,872nm,19.0s							
BRTR	Keskin Array B	130.28	285	PKP	PKPdf	03 38 25.3	-0.6	
	comp=Z,0.4nm,0.4s,baz=192,slow=4.2,SNR=1.6							
DUG	Dugway, Tooele	130.37	74	IAMs_20	IAMs_20	04 29 43.9		
	comp=Z,732nm,18.0s							
O28M	Mount Upton	130.43	39	IAMs_20	IAMs_20	04 24 47.7		
	comp=Z,886nm,21.0s							
F21K	Alatna River	130.47	28	IAMs_20	IAMs_20	04 28 59.5		
	comp=Z,761nm,20.0s							
M26K	Nabesna, AK	130.48	37	IAMs_20	IAMs_20	04 24 22.1		
	comp=Z,1µm,22.0s							
ABQ	Albuquerque	130.48	84	IAMs_20	IAMs_20	04 25 12.8		
	comp=Z,697nm,20.0s							
ALQ	Albuquerque	130.48	84	IAMs_20	IAMs_20	04 25 12.8		
	comp=Z,695nm,20.0s							
ALQ	Albuquerque	130.48	84	IAMs_20	IAMs_20	04 25 12.8		
	comp=Z,692nm,20.0s							
TASM	ASL Pad, Albuq	130.48	84	IAMs_20	IAMs_20	04 25 13.8		
	comp=Z,717nm,20.0s							
TASM	ASL Pad, Albuq	130.48	84	IAMs_20	IAMs_20	04 25 12.8		
	comp=Z,717nm,20.0s							
TASM	ASL Pad, Albuq	130.48	84	IAMs_20	IAMs_20	04 25 12.8		
	comp=Z,713nm,20.0s							
TASM	ASL Pad, Albuq	130.48	84	IAMs_20	IAMs_20	04 25 12.7		
	comp=Z,713nm,20.0s							
ANMO	Albuquerque	130.48	84	*i* PKIKP	PKPdf	03 38 23.7	-2.8	
ANMO	Albuquerque	130.48	84	IAMs_20	IAMs_20	04 25 12.9		
	comp=Z,698nm,20.0s							
COLA	College	130.51	32	IAMs_20	IAMs_20	04 30 35.5		
	comp=Z,1µm,20.0s							
D20K	Etivluk River	130.71	25	IAMs_20	IAMs_20	04 29 00.4		
	comp=Z,1µm,22.0s							
HAWA	Hanford	130.71	64	IAMs_20	IAMs_20	04 24 50.0		
	comp=Z,988nm,20.0s							
RIDG	Independent Ri	130.72	34	IAMs_20	IAMs_20	04 34 21.4		
	comp=Z,794nm,19.0s							
O29M	Mount Kennedy	130.74	40	IAMs_20	IAMs_20	04 26 40.5		
	comp=Z,949nm,21.0s							
ILAR	Eielson Array	130.75	33	PKP	PKPdf	03 38 24.1	-1.7	
	comp=Z,0.5nm,0.9s,baz=253,slow=4.8,SNR=4.4							
L26K	Log Cabin Wild	130.76	36	IAMs_20	IAMs_20	04 24 44.4		
	comp=Z,851nm,22.0s							
MFID	Camas Ranch	130.80	69	IAMs_20	IAMs_20	04 24 40.3		
	comp=Z,774nm,20.0s							
POKR	Poker Plat Res	130.81	32	IAMs_20	IAMs_20	04 31 14.4		
	comp=Z,1µm,20.0s							
M27K	Edge Creek, AK	130.84	37	IAMs_20	IAMs_20	04 24 54.8		
	comp=Z,1µm,22.0s							
MVCO	Mesa Verde	130.85	80	IAMs_20	IAMs_20	04 30 32.5		
	comp=Z,739nm,19.0s							
DOT	Dot Lake	130.93	35	IAMs_20	IAMs_20	04 26 50.7		
	comp=Z,888nm,22.0s							
R32K	Eaglecrest	131.07	44	IAMs_20	IAMs_20	04 27 19.8		
	comp=Z,998nm,21.0s							
BESE	Bessie Mountai	131.12	44	IAMs_20	IAMs_20	04 26 35.2		
	comp=Z,761nm,19.0s							
SCRK	Sand Creek	131.17	35	IAMs_20	IAMs_20	04 28 05.0		
	comp=Z,759nm,22.0s							
E21K	Killik River	131.20	27	IAMs_20	IAMs_20	04 28 59.5		
	comp=Z,1µm,22.0s							
L27K	Beaver Creek,	131.31	36	IAMs_20	IAMs_20	04 25 56.3		
	comp=Z,825nm,21.0s							
PLID	Pearl Lake	131.78	68	IAMs_20	IAMs_20	04 24 24.5		
	comp=Z,724nm,21.0s							
K27K	Chicken	131.85	35	IAMs_20	IAMs_20	04 28 28.8		
	comp=Z,1µm,22.0s							
O30N	Mendenhall	131.99	41	IAMs_20	IAMs_20	04 24 54.1		
	comp=Z,781nm,22.0s							
HWUT	Hardware Ranch	132.01	74	IAMs_20	IAMs_20	04 30 09.3		
	comp=Z,683nm,20.0s							
N30M	Aishikik Lake	132.03	40	IAMs_20	IAMs_20	04 33 52.7		
	comp=Z,960nm,20.0s							
T35M	Bob Quinn	132.08	48	IAMs_20	IAMs_20	04 32 42.3		
	comp=Z,963nm,19.0s							
E23K	Chandalar	132.13	28	IAMs_20	IAMs_20	04 29 46.8		
	comp=Z,1µm,20.0s							
M29M	Somme Creek	132.13	38	IAMs_20	IAMs_20	04 27 54.9		
	comp=Z,706nm,21.0s							
P32M	Atlin	132.21	43	IAMs_20	IAMs_20	04 27 07.9		
	comp=Z,843nm,20.0s							
Q32M	Nakina River	132.42	45	IAMs_20	IAMs_20	04 28 12.6		
	comp=Z,967nm,20.0s							
TOLK	Toolik Lake Re	132.53	28	IAMs_20	IAMs_20	04 30 34.7		
	comp=Z,1µm,21.0s							
N31M	Braeburn, Yuko	132.55	40	IAMs_20	IAMs_20	04 25 11.8		
	comp=Z,1µm,21.0s							
L29M	L29M	132.66	38	IAMs_20	IAMs_20	04 30 30.8		
	comp=Z,750nm,21.0s							
M30M	Minto, Yukon	132.82	39	IAMs_20	IAMs_20	04 33 50.0		
	comp=Z,934nm,19.0s							
ABTX	Abilene, Hawle	132.87	92	IAMs_20	IAMs_20	04 28 45.0		
	comp=Z,784nm,19.0s							
P33M	Teslin, Yukon	132.94	43	IAMs_20	IAMs_20	04 31 11.4		
	comp=Z,725nm,20.0s							
D24K	Happy Valley	133.07	28	IAMs_20	IAMs_20	04 31 23.7		
	comp=Z,999nm,20.0s							
G26K	Porcupine Rive	133.13	32	IAMs_20	IAMs_20	04 27 50.9		
	comp=Z,1µm,22.0s							
NEW	Newport	133.16	64	IAMs_20	IAMs_20	04 26 01.8		
	comp=Z,768nm,20.0s							
R33M	Jennings River	133.22	45	IAMs_20	IAMs_20	04 26 27.8		
	comp=Z,827nm,22.0s							
K29M	Barlow Dome	133.32	37	IAMs_20	IAMs_20	04 24 34.3		
	comp=Z,748nm,22.0s							
J29N	Klondike Camp	133.44	36	IAMs_20	IAMs_20	04 26 50.2		
	comp=Z,937nm,21.0s							
I28M	Miner Creek	133.45	34	IAMs_20	IAMs_20	04 28 40.4		
	comp=Z,1µm,21.0s							
C24K	Franklin Bluff	133.47	27	IAMs_20	IAMs_20	04 33 37.4		
	comp=Z,961nm,20.0s							
F26K	Sheenjek River	133.48	31	IAMs_20	IAMs_20	04 29 54.7		
	comp=Z,1µm,20.0s							
D25K	Kavik River	133.85	28	IAMs_20	IAMs_20	04 31 01.2		
	comp=Z,885nm,20.0s							
BW06	Boulder Array	133.90	74	IAMs_20	IAMs_20	04 29 46.3		
	comp=Z,683nm,20.0s							
I29M	Ogilvie Camp,	133.95	35	IAMs_20	IAMs_20	04 28 21.5		
	comp=Z,1µm,22.0s							
Q24A	Divide	133.98	81	IAMs_20	IAMs_20	04 27 02.6		
	comp=Z,773nm,20.0s							
MSO	Missoula	133.99	67	IAMs_20	IAMs_20	04 26 03.8		
	comp=Z,958nm,22.0s							
J30M	Hart River	134.17	37	IAMs_20	IAMs_20	04 25 25.9		
	comp=Z,937nm,22.0s							
TAM	Tamanrasset	134.18	245	IAMs_20	IAMs_20	04 34 11.9		
	comp=Z,828nm,19.0s							
ISCO	Idaho Springs	134.26	80	IAMs_20	IAMs_20	04 33 45.0		
	comp=Z,754nm,19.0s							
I30M	Mount Dempster	134.53	36	IAMs_20	IAMs_20	04 26 14.3		
	comp=Z,1µm,22.0s							
Z35A	Perchaven, San	134.78	93	IAMs_20	IAMs_20	04 27 46.6		
	comp=Z,851nm,20.0s							
WMOK	Wichita Mounta	134.86	90	IAMs_20	IAMs_20	04 28 16.9		
	comp=Z,1µm,19.0s							
EPYK	Eagle Plains	135.06	34	IAMs_20	IAMs_20	04 29 52.0		
	comp=Z,1µm,21.0s							
D27M	Malcolm River	135.35	30	IAMs_20	IAMs_20	04 33 46.0		
	comp=Z,905nm,20.0s							
E28M	Babbage River	135.42	31	IAMs_20	IAMs_20	04 31 27.9		
	comp=Z,1µm,20.0s							
H31M	Peel River	135.56	36	IAMs_20	IAMs_20	04 28 58.6		
	comp=Z,781nm,22.0s							
OK038	West end E0370	136.08	88	IAMs_20	IAMs_20	04 29 45.1		
	comp=Z,991nm,20.0s							
F31M	Tsiigehtchic	136.63	34	IAMs_20	IAMs_20	04 29 53.7		
	comp=Z,1µm,21.0s							
EGMT	Eagleton	136.99	68	IAMs_20	IAMs_20	04 28 01.0		
	comp=Z,838nm,21.0s							
CBKS	Cedar Bluff	137.05	85	IAMs_20	IAMs_20	04 36 41.9		
	comp=Z,673nm,19.0s							
OGNE	Ogallala	137.08	81	IAMs_20	IAMs_20	04 28 04.8		
	comp=Z,782nm,22.0s							
OK048	Pawnee Station	137.10	90	IAMs_20	IAMs_20	04 32 42.1		
	comp=Z,1µm,20.0s							
R32A	Long Quarter,	137.40	86	IAMs_20	IAMs_20	04 39 23.1		
	comp=Z,583nm,19.0s							
OBN	Obninsk	137.96	304	*e*PKIKP	PKPdf	03 38 39.7	+0.2	
OBN				*e*		03 41 28.9		
OBN				*e*PPP	PPP	03 44 30.0		
OBN				pmax	pmax			
	comp=Z,7.0nm,1.0s							
WDD	Wied Dalam	138.85	266	IAMs_20	IAMs_20	04 38 38.5		
	comp=Z,908nm,19.0s							
KSU1	Kansas State U	139.09	87	IAMs_20	IAMs_20	04 34 59.7		
	comp=Z,888nm,20.0s							
AKASG	Malin Array Be	139.43	294	PKP	PKPdf	03 38 40.1	-2.3	
	comp=Z,0.4nm,0.4s,baz=93,slow=1.4,SNR=1.5							
BGNE	Belgrade	139.65	83	IAMs_20	IAMs_20	04 33 31.6		
	comp=Z,835nm,21.0s							
CEL	Celeste	139.68	270	IAMs_20	IAMs_20	04 44 09.3		
	comp=Z,569nm,19.0s							
S39A	Bolivar	140.10	92	IAMs_20	IAMs_20	04 31 21.5		
	comp=Z,873nm,20.0s							
L34A	Svendsen Farm,	141.04	84	IAMs_20	IAMs_20	04 32 51.4		
	comp=Z,818nm,21.0s							
CCM	Cathedral Cave	141.57	93	IAMs_20	IAMs_20	04 37 43.4		
	comp=Z,843nm,20.0s							
YKA	Yellowknife Ar	141.67	46	PKhKP	PKPpre	03 38 38.8		
	comp=Z,0.6nm,0.9s,baz=242,slow=4.7,SNR=2.3							
YKA				PKP	PKPdf	03 38 44.7	-1.4	
	comp=Z,1.0nm,0.7s,baz=236,slow=1.9,SNR=4.6							
ECSD	EROS Data Cent	141.97	82	IAMs_20	IAMs_20	04 32 27.9		
	comp=Z,821nm,20.0s							
MNK	Minsk	142.04	299	*i* PKIKP	PKiKP	03 38 49.0	-0.9	
MNK				*i*		03 41 52.0		
MNK				*i* PPP	PPP	03 45 04.4		
MNK				*i*		03 45 54.3		
MNK				*i* SS	SS	04 00 27.0	+0.2	
MNK				*i* SSS	SSS	04 05 46.2		
MNK				pmax	pmax			
	comp=Z,9.0nm,0.9s							
MNK				pmax	pmax			
	comp=E,18nm,0.9s							
MNK				pmax	pmax			
	comp=N,22nm,0.9s							
MNK				MLR	MLR			
	comp=Z,423nm,19.0s							
MNK				MLR	MLR			
	comp=N,417nm,21.0s							
MNK	Minsk	142.04	299	*i* PKiKP	PKiKP	03 38 49.1	-0.9	
	comp=E,18nm,0.9s							
MNK				*i* PKiKP	PKiKP	03 38 49.1	-0.9	
	comp=N,22nm,0.9s							
MNK				*i* PKiKP	PKiKP	03 38 49.1	-0.9	
	comp=Z,9.0nm,0.9s,baz=118							
MNK				*i* PP	PP	03 41 52.0	-1.6	
MNK				*i* PPP	PPP	03 45 04.5		
MNK				*i* SKS	SKSdf	03 45 54.4	-2.0	
MNK				*i* SKKS	SKKSdf	03 55 15.7	0.0	
MNK				*i* SS	SS	04 00 27.0	+0.2	
MNK				*i* SSS	SSS	04 05 46.2		
MNK				*i* LQ	LQ	04 33 36.1		
MNK				*i* LRM	MLR	04 42 38.0		
	comp=Z,423nm,19.2s							
MNK				*i* LRM	MLR	04 43 08.5		
	comp=N,417nm,21.1s							
F33A	5 Mile Ranch,	143.36	79	IAMs_20	IAMs_20	04 35 07.5		
	comp=Z,841nm,18.0s							
VYHS	Vyhne	144.03	286	*e*PKP	PKPdf	03 38 52.2	+1.4	
SUW	Suwalki	144.28	296	*e*PKP	PKPdf	03 38 52.1	+1.1	
OJC	Ojcow	144.36	289	*e*PKP	PKPbc	03 38 49.7	0.0	
FFC	Flin Flon	144.58	63	PKIKP	PKiKP	03 38 53.5	-1.7	
FFC	Flin Flon	144.58	63	IAMs_20	IAMs_20	04 32 23.8		
	comp=Z,934nm,19.0s							
BEL	Belsk	144.58	292	*e*PKP	PKPdf	03 38 53.2	+1.7	
WCI	Wyandotte Cave	144.60	97	PKIKP	PKPab	03 38 48.3	-2.4	
WCI	Wyandotte Cave	144.60	97		PKPab	03 38 48.3	-2.4	
T50A	Nancy	144.63	100		PKPab	03 38 48.5	-2.3	
MODS	Modra-Piesok	144.86	285	*e*PKP	PKiKP	03 38 55.0	-1.0	
JAVC	Velka Javorina	144.88	286	*e*PKP	PKPab	03 38 50.9	-0.6	
MAUC	Maruska	145.05	286	*e*PKP	PKPdf	03 38 54.4	+1.9	
TZTN	Tazewell	145.05	102		PKPbc	03 38 50.6	-1.8	
RONA	Rosalia, Austr	145.07	283	*i* PKP	PKPbc	03 38 51.3	-0.8	
	comp=Z,44nm,1.3s							
SOKA	Soboth	145.26	281	*e*PKP	PKPbc	03 38 52.6	-0.3	
	comp=Z,54nm,1.1s							
ARSA	Arzberg	145.28	282		PKPbc	03 38 51.9	-1.0	
ARSA	Arzberg	145.28	282	*i* PKP	PKPbc	03 38 52.4	-0.4	
	comp=Z,91nm,1.4s							
STEB	Steborice	145.36	287	*e*PKP	PKPbc	03 38 51.5	-1.4	
MORC	Moravsky Berou	145.41	287	*e*PKP	PKPdf	03 38 52.4	-0.8	
WINA	Alland / Wiene	145.41	283	*e*PKP	PKPdf	03 38 53.2	0.0	
	comp=Z,19nm,1.5s							
CONA	Conrad Observa	145.44	283	*i* PKP	PKPdf	03 38 52.6	-0.8	
	comp=Z,32nm,1.3s							
OBKA	Obir	145.45	280	*i* PKP	PKPab	03 38 54.0	+0.3	
	comp=Z,29nm,1.4s							
FINES	FINESS Array B	145.62	309	PKPbc	PKPdf	03 38 52.5	-0.6	
	comp=Z,9.4nm,0.9s,baz=141,slow=12,SNR=7.7							
FINES	FINESS Array B	145.62	309		PKPdf	03 38 52.4	-0.7	
KRUC	Moravsky	145.71	285	*e*PKP	PKPdf	03 38 53.2	-0.4	
VRAC	Vranov	145.72	286	*e*PKP	PKPdf	03 38 53.8	+0.1	
SESA	Seetaler Alpe,	145.76	281	*e*PKP	PKPdf	03 38 54.3	+0.3	
	comp=Z,38nm,1.3s							
ULM	Lac du Bonnet	145.89	73	PKPbc	PKPdf	03 38 51.8	-2.1	
	comp=Z,3.2nm,0.7s,baz=225,slow=2.8,SNR=7.3							
ULM	Lac du Bonnet	145.89	73		PKPdf	03 38 52.5	-1.3	
P48A	Milroy	145.92	96	IAMs_20	IAMs_20	04 39 16.5		
	comp=Z,841nm,20.0s							
KRLC	Kraliky	145.99	287	*e*PKP	PKPbc	03 38 55.1	+0.1	
MYKA	Terra Mystica	146.04	280	*e*PKP	PKPbc	03 38 55.4	+0.1	
	comp=Z,47nm,1.2s							
ABNA	Allensteig Bun	146.06	284	*i* PKP	PKPbc	03 38 55.4	+0.1	
	comp=Z,24nm,1.7s							
MOA	Molln	146.32	282	*i* PKP	PKPbc	03 38 56.0	0.0	
	comp=Z,15nm,1.6s							
TREC	Trest	146.34	285	*e*PKP	PKPbc	03 38 55.9	-0.1	
DPC	Dobruska-Polom	146.38	287	*e*PKP	PKPbc	03 38 56.4	+0.3	
KBA	Koelnbreinsper	146.45	280	*e*PKP	PKPbc	03 38 56.2	-0.4	
	comp=Z,20nm,1.0s							
OSTC	Ostas	146.53	287	*e*PKP	PKPbc	03 38 56.5	0.0	
BIOA	Bad Ischl, Aus	146.60	281	*i* PKP	PKPbc	03 38 56.5	-0.3	
	comp=Z,14nm,1.0s							
CHVC	Chvalec	146.64	287	*e*PKP	PKPbc	03 38 56.5	-0.4	
ABTA	Abfaltersbach	146.76	279	*e*PKP	PKPbc	03 38 57.2	-0.2	
	comp=Z,20nm,1.4s							
CKRC	Cesky Krumlov	146.78	283	*e*PKP	PKPdf	03 38 56.3	+0.8	
LESA	Schwarzleotal	147.02	280	*i* PKP	PKPbc	03 38 57.5	-0.6	
	comp=Z,18nm,0.8s							
RJOB	Jochberg	147.11	281	*e*PKPdf	PKiKP	03 39 00.6	-0.1	
	baz=129,slow=1.3							
GEC2	GERESS Array S	147.15	283	*e*PKPdf	PKiKP	03 39 01.3	+0.5	
	baz=129,slow=1.3							
GERES	GERESS Array B	147.15	283	PKPbc	PKPdf	03 38 57.0	+0.8	
	comp=Z,10nm,0.9s,baz=145,slow=2.4,SNR=20							
ZVC	Zvikov	147.15	284	*e*PKP	PKPdf	03 38 56.3	+0.2	
GKP	Gorka Klasztor	147.16	292	*e*PKP	PKiKP	03 39 01.8	+1.3	
KHC	Kasperske Hory	147.36	284	*e*PKP	PKPbc	03 38 58.6	-0.3	
KHC				*ex*	x	03 39 02.5		
TIO	Tiouine	147.42	238	PKP	PKPdf	03 38 55.1	-2.2	
ARCES	ARCESS Array B	147.49	324	PKPbc	PKPbc	03 38 57.7	-1.0	
	comp=Z,22nm,1.0s,baz=102,slow=3.8,SNR=5.3							
ARCES	ARCESS Array B	147.49	324		PKPdf	03 38 57.3	+1.2	
WTTA	Wattenberg	147.54	279	*i* PKP	PKPbc	03 38 59.3	-0.4	
	comp=Z,17nm,1.1s							
H43A	Windswept, Lux	147.59	87	IAMs_20	IAMs_20	04 45 33.7		
	comp=Z,750nm,18.0s							
WATA	Walderalm	147.62	279	*i* PKP	PKPbc	03 38 59.5	-0.3	
	comp=Z,27nm,1.3s							
WET	Wettzell	147.76	283	*e*PKPdf	PKiKP	03 39 01.6	-0.4	
	baz=129,slow=1.3							
SQTA	Sankt Quirin	147.77	279	*e*PKP	PKPbc	03 38 59.6	-0.6	
	comp=Z,21nm,1.1s							
MOTA	Moosalm	147.90	279	*i* PKP	PKPbc	03 38 59.9	-0.7	
	comp=Z,12nm,1.3s							
FETA	Feichten	147.95	278	*i* PKP	PKPbc	03 39 00.2	-0.6	
	comp=Z,17nm,1.3s							
BRG	Berggiesshubel	147.96	287	*e*PKPdf	PKiKP	03 39 02.4	+0.1	
	baz=129,slow=1.3							
BRG	Berggiesshubel	147.96	287	*e*PKP	PKiKP	03 39 02.7	+0.4	
BRG				Amp		03 39 06.1		
	comp=Z,17nm,1.2s							
RETA	Reutte	148.17	279	*i* pPKP	PKPbc	03 39 01.4	+0.1	
	comp=Z,40nm,1.5s							
IFR	Ifrane	148.36	244	PKP	PKPdf	03 38 54.9	-4.0	
S57A	Dark Hollow, R	148.54	105	IAMs_20	IAMs_20	04 42 53.7		
	comp=Z,710nm,20.0s							
DAVA	Damuels	148.58	278	*i* pPKP	PKPbc	03 39 02.1	-0.3	
	comp=Z,34nm,1.0s							
TANN	Tannenbergstha	148.60	285	*e*PKPdf	PKPbc	03 39 02.8	+0.6	
	baz=129,slow=1.3							
UBR	Ueberruh	148.65	279	*e*PKPdf	PKPbc	03 39 02.2	-0.3	
	baz=129,slow=1.3							
CLL	Collm	148.69	287	*e*PKPdf	PKiKP	03 39 04.6	+0.9	
	baz=129,slow=1.3							
CLL	Collm	148.69	287	*e*PKPdf	PKPdf	03 38 59.0	+0.5	
CLL				*e*PKPbc	sPKPdf	03 39 02.0	+0.4	
CLL				*i* PKPab	sPKPbc	03 39 05.3	-0.1	
	comp=Z,24nm,1.3s							
CLL				*e*SS	SS	04 01 45.0	+2.1	
CLL				*e*SSS	SSS	04 07 16.0		
CLL				*e*SSSS		04 10 54.0		
CLL				LH		04 21 00.0		
CLL				LV		04 30 00.0		
CLL				AMS	AMS	04 50 00.0		
	comp=N,400nm,21.8s							
CLL				AMS	AMS	04 50 00.0		
	comp=E,200nm,20.6s							
CLL				AMS	AMS	04 51 00.0		
	comp=Z,500nm,19.6s							
T59A	Double "B" Far	148.78	107	IAMs_20	IAMs_20	04 49 20.1		
	comp=Z,799nm,20.0s							
SPITS	Spitsbergen Ar	149.08	341	PKPbc	PKPbc	03 39 01.1	-1.5	
	comp=Z,12nm,0.8s,baz=89,slow=13,SNR=3.8							
CART	Cartagena	149.09	254	PKP	PKPdf	03 38 56.1	-3.5	
MOX	Moxa	149.18	285	*e*PKPdf	PKiKP	03 39 04.6	-0.2	
	baz=129,slow=1.3							
MOX				*e*L	L	05 00 13.9		
	comp=Z,560nm,21.0s							
Q56A	Snyder Ridge,	149.28	103	IAMs_20	IAMs_20	04 46 55.3		
	comp=Z,549nm,20.0s							
BFO	Black Forest	150.01	279	*e*PKPdf	PKPbc	03 39 04.8	-1.0	
	baz=129,slow=1.3							
FLTG	Flechtingen	150.11	288	*e*PKPdf	PKPbc	03 39 05.8	+0.1	
	baz=129,slow=1.3							
CLZ	Clausthal	150.40	286	*e*PKPdf	PKPbc	03 39 06.3	-0.3	
	baz=129,slow=1.3							
GTTG	Gottingen	150.51	286	*e*PKPdf	PKPbc	03 39 06.4	-0.4	
	baz=129,slow=1.3							
TNS	Taunus Mts	150.82	282	*e*PKPdf	PKPbc	03 39 06.6	-1.0	
	baz=129,slow=1.3							
HFS	Hagfors	151.17	304	PKPbc	PKPbc	03 39 06.2	-1.8	
	comp=Z,2.8nm,0.9s,baz=90,slow=8.8,SNR=1.8							
BUG	Bochum-Univer	152.01	284	*e*PKPdf	PKPbc	03 39 08.3	-1.9	
	baz=129,slow=1.3							
ESDC	Sonseca Array	152.20	254	PKPbc	PKPbc	03 39 10.7	-0.5	
	comp=Z,6.1nm,1.2s,baz=95,slow=0.8,SNR=9.0							
NOA	NORSAR Array B	152.53	305	PKPbc	PKPbc	03 39 10.4	-0.8	
	comp=Z,0.8nm,0.8s,baz=91,slow=3.9,SNR=2.1							

MDD **20** *03:25:16.3±0.5, 35°.39N×3°.61W, h13km±6km, mb_Lg2.4/26, Error ellipse: s-maj=6.6km s-min=2.5km az=169.0*
SFS **20** *03:25:16.6, 35°.41N×3°.65W, h11km, ML3.2/18, ML3.2/18, ML3.2/18, MLv3.2/18*
INMG **20** *03:25:17.0±1.4, 35°.41N×3°.58W, h20km±6km, ML1.8, Error ellipse: s-maj=5.4km s-min=3.3km az=151.0, #DIST_RANGE: REGIONAL #IPMA_REGION: NE Al Hoceima (MARR)*
*C

CART	**Cartagena**	**2.99**	**45**	P		**Pn**	**03 26 03.9**	**+1.2**
CART				S		**Sn**	**03 26 37.9**	**-0.1**
EMUR	**La Murta**	**3.05**	**39**	P		**Pn**	**03 26 05.0**	**+1.5**
EMUR				S		**Sn**	**03 26 39.2**	**-0.3**
EMUR	**La Murta**	**3.05**	**39**	P		**Pn**	**03 26 02.7**	**-0.8**
EMUR				S		**Sn**	**03 26 38.2**	**-1.3**
EMUR				IVmb_Lg			03 26 41.8	
PSIM	**Granatula de C**	**3.33**	**359**	P		**Pn**	**03 26 08.5**	**+1.1**
PSIM				S		**Sn**	**03 26 47.1**	**+0.6**
EMIN	**Mina Concepcio**	**3.33**	**314**	P		**Pn**	**03 26 03.9**	**-3.5**
EMIN				S		**Sn**	**03 26 40.9**	**-5.5**
ETOB	**Tobarra**	**3.58**	**27**	P		**Pn**	**03 26 12.9**	**+2.1**
ETOB				S		**Sn**	**03 26 54.7**	**+2.2**
ETOB	**Tobarra**	**3.58**	**27**	P		**Pn**	**03 26 11.7**	**+0.9**
ETOB				S		**Sn**	**03 26 54.4**	**+1.9**
ETOB				IVmb_Lg			03 26 57.7	
EGRO	**El Granado**	**3.71**	**305**	P		**Pn**	**03 26 13.1**	**+0.6**
EGRO				S		**Sn**	**03 26 54.9**	**-0.7**
EGRO	**El Granado**	**3.71**	**305**	P		**Pn**	**03 26 13.5**	**+1.0**
EGRO				S		**Sn**	**03 26 55.1**	**-0.5**
EGRO				IVmb_Lg			03 27 02.0	
PVAQ	**Vaqueiros**	**3.80**	**301**	P		**Pn**	**03 26 13.2**	**-0.6**
PVAQ				S		**Sn**	**03 26 57.1**	**-0.8**
PVAQ	**Vaqueiros**	**3.80**	**301**	*eP*		**Pn**	**03 26 15.1**	**+1.4**
PVAQ				S		**Sn**	**03 26 57.8**	**-0.2**
PBAR	**Barrancos**	**3.82**	**316**	P		**Pn**	**03 26 14.5**	**+0.4**
PBAR				S		**Sn**	**03 26 58.3**	**-0.2**
PBAR	**Barrancos**	**3.82**	**316**	*eP*		**Pn**	**03 26 15.2**	**+1.1**
PBAR				S		**Sn**	**03 26 58.7**	**+0.2**
PBAR				IAML			03 27 06.8	
PBDV	**Barranco-do-Ve**	**3.88**	**298**	P		**Pn**	**03 26 15.7**	**+0.8**
PBDV				S		**Sn**	**03 26 60.0**	**+0.1**
PBDV	**Barranco-do-Ve**	**3.88**	**298**	*eP*		**Pn**	**03 26 16.0**	**+1.2**
PBDV				S		**Sn**	**03 27 00.2**	**+0.4**
PAB	**San Pablo**	**4.09**	**352**	P		**Pn**	**03 26 19.1**	**+1.2**
PAB				S		**Sn**	**03 27 06.5**	**+1.2**
PAB				IVmb_Lg			03 27 26.8	
PCVE	**Castro Verde**	**4.13**	**303**	P		**Pn**	**03 26 19.0**	**+0.7**
PCVE				S		**Sn**	**03 27 06.7**	**+0.5**
PCVE	**Castro Verde**	**4.13**	**303**	*eP*		**Pn**	**03 26 20.2**	**+1.8**
PCVE				S		**Sn**	**03 27 06.7**	**+0.5**
EBAD	**Badajoz**	**4.23**	**322**	P		**Pn**	**03 26 19.8**	**+0.1**
EBAD				S		**Sn**	**03 27 08.0**	**-0.5**
EBAD	**Badajoz**	**4.23**	**322**	P		**Pn**	**03 26 20.8**	**+1.1**
EBAD				S		**Sn**	**03 27 07.9**	**-0.6**
EBAD				IVmb_Lg			03 27 16.3	
MESJ	**Messejana**	**4.36**	**304**	*eP*		**Pn**	**03 26 22.4**	**+0.9**
MESJ	**Messejana**	**4.36**	**304**	*eP*		**Pn**	**03 26 22.9**	**+1.4**
MESJ				S		**Sn**	**03 27 12.2**	**+0.4**
CIBOR	**Castaar de Ib**	**4.38**	**342**	P		**Pn**	**03 26 22.5**	**+0.7**
CIBOR				S		**Sn**	**03 27 11.3**	**-0.9**
PFVI	**Vila Bisbo**	**4.49**	**293**	S		**Sn**	**03 27 12.3**	**-2.7**
PFVI	**Vila Bisbo**	**4.49**	**293**	*eP*		**Pn**	**03 26 25.7**	**+2.3**
PFVI				S		**Sn**	**03 27 14.6**	**-0.4**
PTEO	**Sao Teotonio**	**4.58**	**298**	S		**Sn**	**03 27 17.8**	**+0.7**
PLOUS	**Minas do Lousa**	**4.60**	**305**	*eP*		**Pn**	**03 26 26.4**	**+1.6**
PLOUS				S		**Sn**	**03 27 17.5**	**-0.1**
PESTR	**Estremoz**	**4.62**	**318**	P		**Pn**	**03 26 24.7**	**-0.3**
PESTR				S		**Sn**	**03 27 17.5**	**-0.6**
EVO	**Evora**	**4.63**	**312**	P		**Pn**	**03 26 26.1**	**+0.9**
EVO				S		**Sn**	**03 27 17.6**	**-0.9**
EVO	**Evora**	**4.63**	**312**	*eP*		**Pn**	**03 26 26.7**	**+1.5**
EVO				S		**Sn**	**03 27 17.8**	**-0.6**
UCM	**Universidad Co**	**4.83**	**4**	P		**Pn**	**03 26 30.2**	**+2.3**
MOE	**Montemor**	**4.83**	**310**	S		**Sn**	**03 27 23.8**	**+0.3**
PARRA	**Arraiolos**	**4.83**	**315**	*eP*		**Pn**	**03 26 29.3**	**+1.3**
PARRA				S		**Sn**	**03 27 23.2**	**-0.3**
PMRV	**Marv??o**	**4.94**	**324**	S		**Sn**	**03 27 26.4**	**+0.4**
PMTG	**Montargil**	**5.11**	**316**	*eP*		**Pn**	**03 26 33.8**	**+2.0**
PMTG				S		**Sn**	**03 27 30.8**	**+0.5**
OUZM	**OUZ**	**5.25**	**211**	P		**Pn**	**03 26 34.8**	**+0.9**
OUZM				S		**Sn**	**03 27 37.4**	**+3.4**
EIBI	**Ibiza**	**5.33**	**47**	P		**Pn**	**03 26 35.2**	**+0.5**
EIBI				S		**Sn**	**03 27 34.0**	**-1.6**
EIBI				IVmb_Lg			03 27 43.2	
PSARD	**Sardoal**	**5.45**	**320**	*eP*		**Pn**	**03 26 38.5**	**+2.0**
PSARD				S		**Sn**	**03 27 37.6**	**-1.2**

*IDC **20** 03:56:28.1±8.5, 36°.26N×72°.50E, h129km±71km, mb3.1/1, mbtmp3.4/5, Error ellipse: s-maj=179.3km s-min=55.2km az=93.0*
*NNC **20** 03:56:30.0±10.0, 36°.96N×70°.27E, h48km±243km, mb3.6, mpv3.5, Error ellipse: s-maj=88.9km s-min=64.0km az=168.0*

ISC 20 03:56:20.5±1.6, **36°.4N**±0°.1×**70°.8E**±0°.1, **h100**km, **n9, σ2s88/13, 2C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.75**	**358**	P	**Pn**	**03 57 59.8**	**+2.9**
	3.6nm,0.3s,baz=185,slow=12,SNR=91						
KK31				S	**Sn**	**03 59 10.9**	**-1.4**
	0.7nm,0.3s,baz=186,slow=22,SNR=5.7						
AAK	**Ala-Archa**	**6.91**	**23**	P	**Pn**	**03 58 01.8**	**+2.6**
	2.0nm,0.4s,baz=176,slow=5.4,SNR=8.0						
AAK				S	**Sn**	**03 59 15.8**	**-0.5**
	3.8nm,0.7s,baz=131,slow=20,SNR=6.2						
AAK	**Ala-Archa**	**6.91**	**23**	⇑P	**Pn**	**03 58 02.2**	**+3.0**
	0.8nm,0.5s						
AAK				⇓S	**Sn**	**03 59 15.7**	**-0.6**
	1.2nm,0.5s						
MKAR	**Makanchi Array**	**13.52**	**36**	P	**Pn**	**03 59 26.9**	**-1.1**
	0.2nm,0.3s,baz=203,slow=14,SNR=1.9						
AB31	**Akbulak array**	**15.13**	**332**	⇑P	**Pn**	**03 59 50.2**	**+1.5**
	0.3nm,0.3s,baz=128,slow=13,SNR=4.5						
AB31				S	**Sn**	**04 02 29.5**	**-6.0**
	0.4nm,0.3s,baz=156,slow=23,SNR=5.3						
KURBB	**Kurchatov Arra**	**15.33**	**19**	P	**P**	**03 59 54.1**	**+0.5**
	0.2nm,0.4s,baz=196,slow=12,SNR=2.9						
AKTO	**Aktyubinsk**	**16.82**	**331**	⇓P	**P**	**04 00 13.5**	**+3.4**
	1.6nm,0.8s						
ZALV	**Zalesovo Beam**	**20.13**	**25**	P	**P**	**04 00 46.2**	**-0.1**
	0.9nm,0.4s,baz=215,slow=10,SNR=5.5						
WRA	**Warramunga Arr**	**82.07**	**122**	P	**P**	**04 08 27.7**	**-2.2**
	0.4nm,1.0s,baz=318,slow=5.3,SNR=4.6						
	0.4nm,1.0s						

*AFAD **20** 03:57:45.5, 37°.88N×26°.92E, h7km±3km, ML2.2*
*ISK **20** 03:57:45.8, 37°.88N×26°.92E, h6km, ML2.5/15*
*THE **20** 03:57:46.0, 38°.N±1°×26°.9E±0°.4, h4km±2km, M2.5/8, MLh2.5/8*

ISC 20 03:57:45.9±0.9, **37°.87N**±0°.02×**26°.91E**±0°.03, **h10**km±8km, **n29, σ0s41/47, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**200**	P	**Pg**	**03 57 49.4**	**-0.2**
SMG				S	**Sg**	**03 57 51.8**	**-0.3**
SMG				AML	AML		
DGB	**zmir**	**0.18**	**353**	P	**Pg**	**03 57 49.7**	**-0.2**
DGB				S	**Sg**	**03 57 52.5**	**-0.1**
DGB				IAML		03 57 53.0	
	comp=N,293nm,0.3s						
DGB				IAML		03 57 53.0	
	comp=E,308nm,0.2s						
GMLD	**Gumuldur**	**0.21**	**1**	Pg	**Pg**	**03 57 50.2**	**-0.1**
GMLD				Sg	**Sg**	**03 57 53.6**	**+0.4**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**91**	Pg	**Pg**	**03 57 52.1**	**+0.2**
KUSD				Sg	**Sg**	**03 57 56.6**	**+0.7**
KUSD				AML	AML		
BEYE	**izmir**	**0.36**	**2**	P	**Pg**	**03 57 52.9**	**-0.1**
BEYE				S	**Sg**	**03 57 57.6**	**-0.2**
BEYE				IAML		03 57 58.0	
	comp=N,278nm,0.4s						
BEYE				IAML		03 57 58.0	
	comp=E,205nm,0.2s						
DDIM	**Aydin, Didim**	**0.49**	**147**	P	**Pg**	**03 57 55.6**	**+0.2**
DDIM				S	**Sg**	**03 58 02.5**	**+0.7**
DDIM				IAML		03 58 05.0	
	comp=E,131nm,1.0s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**319**	P	**Pg**	**03 57 55.1**	**-0.4**
ZEYE				IAML		03 58 02.0	
	comp=E,320nm,0.2s						
ZEYE				S	**Sg**	**03 58 02.3**	**+0.4**
BLCB	**Balcova**	**0.53**	**11**	P	**Pg**	**03 57 56.0**	**-0.2**
BLCB				S	**Sg**	**03 58 03.3**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**11**	Pg	**Pg**	**03 57 56.3**	**+0.1**
BLCB				Sg	**Sg**	**03 58 03.1**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.55**	**50**	P	**Pg**	**03 57 56.5**	**-0.2**
DUVT				S	**Sg**	**03 58 03.4**	**-0.6**
DUVT				IAML		03 58 04.0	
	comp=E,353nm,0.1s						
AYDB	**Zeytinkoy-Aydi**	**0.78**	**84**	Pg	**Pb**	**03 58 01.5**	**-0.2**
AYDB				Sg	**Sb**	**03 58 12.4**	**+0.1**
AYDB				AML	AML		
CHOS	**Chios island**	**0.85**	**308**	P	**Pb**	**03 58 02.6**	**-0.2**
CHOS				S	**Sb**	**03 58 14.1**	**-0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.85**	**308**	Pg	**Pb**	**03 58 02.8**	**0.0**
CHOS				AML	AML		
FOCM	**Foa**	**0.85**	**351**	Pg	**Pb**	**03 58 02.8**	**-0.1**
FOCM				Sg	**Sb**	**03 58 14.7**	**+0.3**
FOCM				AML	AML		
BODT	**Bodrum**	**0.86**	**158**	P	**Pg**	**03 58 02.0**	**-0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**158**	Pg	**Pg**	**03 58 02.9**	**+0.3**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.89**	**334**	P	**Pb**	**03 58 03.6**	**+0.3**
KARB				S	**Sg**	**03 58 14.1**	**-0.4**
KARB				IAML		03 58 17.0	
	comp=E,138nm,0.7s						
KARB				IAML		03 58 19.0	
	comp=N,124nm,0.7s						
MLSB	**Milas**	**0.90**	**129**	Pg	**Pb**	**03 58 03.4**	**-0.2**
MLSB				Sg	**Sb**	**03 58 15.9**	**+0.3**
MLSB				AML	AML		
CAMT	**Merkez**	**0.93**	**20**	P	**Pn**	**03 58 05.0**	**-0.1**
CAMT				S	**Sg**	**03 58 15.6**	**-0.4**
CAMT				IAML		03 58 25.0	
	comp=E,87nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.10**	**85**	Pn	**Pg**	**03 58 06.7**	**-0.3**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.10**	**7**	P	**Pb**	**03 58 07.3**	**+0.2**
ZEDA				S	**Sb**	**03 58 21.9**	**+0.3**
ZEDA				IAML		03 58 25.0	
	comp=N,47nm,0.4s						
ZEDA				IAML		03 58 25.0	
	comp=E,68nm,0.6s						
GOMA	**Golmarmara-Man**	**1.15**	**43**	Pn	**Pn**	**03 58 08.5**	**+0.4**
GOMA				AML	AML		
DKL	**Dikili**	**1.20**	**360**	Pn	**Pn**	**03 58 09.3**	**+0.5**
DKL				AML	AML		
YER	**Yerkesik**	**1.31**	**123**	P	**Pn**	**03 58 10.1**	**-0.3**
YER				S	**Sg**	**03 58 26.8**	**-1.4**
YER	**Yerkesik**	**1.31**	**123**	Pn	**Pg**	**03 58 11.2**	**0.0**
YER				AML	AML		
APE	**Apeiranthos**	**1.36**	**234**	P	**Pn**	**03 58 11.3**	**+0.3**
GORD	**Gordes-Manisa**	**1.44**	**43**	Pn	**Pg**	**03 58 13.1**	**-0.4**
GORD				AML	AML		
KULA	**Kula-Manisa**	**1.52**	**64**	Pn	**Pn**	**03 58 13.9**	**+0.6**
KULA				AML	AML		
YAYO	**Edremit-Balk**	**1.75**	**4**	Pn	**Pb**	**03 58 17.5**	**-0.5**
YAYO				AML	AML		

*IDC **20** 04:20:41.2±1.8, 40°.37N×28°.92E, h0km, mb3.3/3, mbtmp3.2/5, ML2.6/1, Error ellipse: s-maj=31.3km s-min=11.5km az=30.0*
*ISK **20** 04:20:41.6, 40°.43N×28°.96E, h5km, ML3.5/69*
*AFAD **20** 04:20:41.6, 40°.42N×28°.95E, h7km±2km, MW3.5*
*SOF **20** 04:20:42.7, 40°.48N±0°.02×28°.94E±0°.04, h10km±6km, MD3.2/10*
*CFUSG **20** 04:20:43.9, 40°.62N×29°.21E, h16km, Mb2.6/1, MD3.1/1, MSH2.4/2*

ISC 20 04:20:42.1±0.8, **40°.42N**±0°.02×**28°.97E**±0°.01, **h8**km±5km, **n106, σ0s71/128, mb3.1/3, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDNY	**Mudanya-Bursa**	**0.08**	**232**	Pg	**Pg**	**04 20 43.8**	**-0.4**
MDNY				Sg	**Sg**	**04 20 45.5**	**-0.2**
MDNY				AML	AML		
YYLC	**Yaylacik**	**0.16**	**225**	P	**Pg**	**04 20 45.3**	**-0.2**
YYLC				S	**Sg**	**04 20 47.7**	**-0.1**
ARMT	**Armutlu**	**0.17**	**332**	Pg	**Pg**	**04 20 45.4**	**-0.3**
ARMT				Sg	**Sg**	**04 20 47.8**	**-0.3**
ARMT				AML	AML		
GEML	**Gemlik-BURSA**	**0.19**	**76**	Pg	**Pg**	**04 20 46.1**	**0.0**
GEML				Sg	**Sg**	**04 20 49.3**	**+0.5**
GEML				AML	AML		
AVDN	**Avdancik/Bursa**	**0.20**	**129**	P	**Pg**	**04 20 46.5**	**+0.4**
AVDN				S	**Sg**	**04 20 49.5**	**+0.6**
ESNK	**Esenk¶y**	**0.21**	**2**	P	**Pg**	**04 20 46.5**	**+0.1**
KRSK	**Karsak**	**0.22**	**93**	P	**Pg**	**04 20 47.0**	**+0.3**
KRSK				S	**Sg**	**04 20 50.3**	**+0.6**
IGD	**Bursa**	**0.24**	**130**	P	**Pg**	**04 20 46.8**	**-0.1**
IGD				S	**Sg**	**04 20 50.1**	**0.0**
KURT	**Yalova, Merkez**	**0.25**	**47**	P	**Pg**	**04 20 47.1**	**-0.1**
KURT				S	**Sg**	**04 20 50.9**	**+0.3**
ULDT	**Uludag**	**0.30**	**155**	P	**Pg**	**04 20 48.2**	**0.0**
ULDT				S	**Sg**	**04 20 52.8**	**+0.5**
YLV	**Yalova**	**0.34**	**64**	Pg	**Pg**	**04 20 48.8**	**-0.1**
YLV				Sg	**Sg**	**04 20 54.4**	**+0.9**
YLV				AML	AML		
IMRA	**Mudanya**	**0.36**	**294**	P	**Pg**	**04 20 49.4**	**+0.1**
IMRA				S	**Sg**	**04 20 54.3**	**+0.3**
ORLT	**Orhaneli**	**0.38**	**188**	Pg	**Pg**	**04 20 49.4**	**-0.1**
ORLT				AML	AML		
IZI	**Iznik**	**0.40**	**102**	Pg	**Pg**	**04 20 50.1**	**+0.2**
IZI				AML	AML		
YLVH	**Yalova**	**0.41**	**48**	Pg	**Pg**	**04 20 50.1**	**-0.1**
YLVH				AML	AML		
TUZL	**Tuzla-Istanbul**	**0.46**	**30**	Pg	**Pg**	**04 20 51.1**	**+0.1**
TUZL				AML	AML		
HYBA	**Heybeliada-Ist**	**0.47**	**11**	Pg	**Pg**	**04 20 51.3**	**+0.1**
HYBA				AML	AML		
BRGA	**Burgazada-Ista**	**0.47**	**9**	Pg	**Pg**	**04 20 51.3**	**0.0**
BRGA				AML	AML		
KCTX	**Karacabey (Bur**	**0.49**	**252**	Pg	**Pg**	**04 20 51.3**	**-0.3**
KCTX				AML	AML		
GBZT	**Gebze**	**0.52**	**44**	P	**Pg**	**04 20 51.7**	**-0.5**
GBZT				S	**Sg**	**04 20 58.9**	**-0.1**
ADVT	**Abdulvahap**	**0.59**	**88**	Pg	**Pg**	**04 20 53.6**	**+0.1**
ADVT				AML	AML		
OSMT	**Osmaniye**	**0.59**	**72**	Pg	**Pg**	**04 20 53.4**	**-0.1**
OSMT				AML	AML		
AVCI	**Avcilar-stanb**	**0.61**	**342**	Pg	**Pg**	**04 20 53.9**	**+0.1**
AVCI				AML	AML		
SATE	**Sancaktepe,**	**0.64**	**22**	P	**Pg**	**04 20 54.4**	**-0.1**
SATE				S	**Sg**	**04 21 03.0**	**+0.1**
KAVV	**Kandilli-Istan**	**0.65**	**6**	Pg	**Pg**	**04 20 54.5**	**-0.2**
KAVV				AML	AML		
ISK	**Istanbul-Kandi**	**0.65**	**6**	Pg	**Pg**	**04 20 54.1**	**-0.6**
ISK				AML	AML		
SINB	**Sinanoba-Istan**	**0.67**	**331**	Pg	**Pg**	**04 20 54.6**	**-0.4**
SINB				AML	AML		
HRT	**Hereke**	**0.67**	**53**	Pg	**Pg**	**04 20 54.8**	**-0.3**
HRT				AML	AML		
CAVI	**Cavuskoy**	**0.70**	**108**	Pg	**Pg**	**04 20 55.9**	**+0.2**
CAVI				AML	AML		
HISA	**Bilecik-Osmane**	**0.73**	**86**	P	**Pg**	**04 20 56.2**	**0.0**
HISA				S	**Sb**	**04 21 06.9**	**-0.4**
BILE	**Bilecik/Merkez**	**0.74**	**110**	P	**Pg**	**04 20 56.4**	**0.0**
BILE				S	**Sg**	**04 21 06.2**	**+0.1**
SEMS	**Kocaeli-K¶rfe**	**0.74**	**52**	P	**Pg**	**04 20 56.0**	**-0.4**
SEMS				S	**Sg**	**04 21 06.6**	**+0.4**
BGKT	**Bogazkoy**	**0.78**	**349**	Pg	**Pg**	**04 20 56.5**	**-0.6**
BGKT				AML	AML		
SUSR	**Susurluk-Balik**	**0.81**	**236**	Pg	**Pg**	**04 20 57.7**	**-0.1**
SUSR				AML	AML		
KLYT	**Kilyos**	**0.84**	**4**	Pg	**Pg**	**04 20 58.2**	**0.0**
KLYT				AML	AML		
EDC	**Edincik**	**0.84**	**266**	Pg	**Pg**	**04 20 58.1**	**-0.3**
EDC				AML	AML		
DST	**Dursunbey**	**0.86**	**198**	Pg	**Pg**	**04 20 58.3**	**-0.3**
DST				AML	AML		
CTKS	**Kestanelik-??a**	**0.89**	**337**	Pg	**Pg**	**04 20 58.5**	**-0.7**
CTKS				AML	AML		
SILT	**Sile**	**0.90**	**35**	Pg	**Pg**	**04 20 59.4**	**0.0**
SILT				AML	AML		
BOTS	**Marmara Eregli**	**0.94**	**308**	Pg	**Pg**	**04 20 59.9**	**-0.3**
BOTS				AML	AML		
AUBOZ	**BOZOYUK**	**0.96**	**121**	P	**Pg**	**04 21 00.5**	**-0.1**
AUBOZ				S	**Sn**	**04 21 15.1**	**-0.8**
SLVT	**Silivri**	**0.99**	**325**	Pg	**Pg**	**04 21 00.9**	**-0.3**
SLVT				AML	AML		
GEYV	**SAKARYA_Geyve**	**1.02**	**86**	P	**Pg**	**04 21 01.4**	**-0.3**
GEYV				S	**Sn**	**04 21 16.5**	**-0.7**
GPA	**Golpazari**	**1.03**	**97**	Pg	**Pg**	**04 21 01.9**	**-0.1**
GPA				AML	AML		
TVSB	**Tavsanli**	**1.04**	**158**	Pg	**Pg**	**04 21 01.9**	**-0.2**
TVSB				AML	AML		
GONE	**Gonen-Balikesi**	**1.05**	**250**	Pg	**Pg**	**04 21 01.9**	**-0.3**
GONE				AML	AML		
MRMT	**Marmara Adasi**	**1.06**	**280**	Pg	**Pb**	**04 21 02.8**	**+0.1**
MRMT				AML	AML		
SAUV	**Serdivan-Sakar**	**1.09**	**72**	Pn	**Pg**	**04 21 02.2**	**-0.8**
SAUV				AML	AML		
BALB	**Balikesir**	**1.14**	**227**	Pn	**Pb**	**04 21 03.8**	**-0.2**
BALB				AML	AML		
CTYL	**Yalikoy Yolu**	**1.17**	**334**	Pn	**Pb**	**04 21 03.9**	**-0.7**
CTYL				AML	AML		
KAYN	**Sakarya, Kayna**	**1.18**	**62**	P	**Pb**	**04 21 03.7**	**-1.1**
KAYN				S	**Sb**	**04 21 20.0**	**-0.1**
GULT	**Gulveren**	**1.18**	**89**	Pn	**Pb**	**04 21 04.7**	**-0.2**
GULT				AML	AML		
KRBG	**Karabiga-Canak**	**1.27**	**269**	Pn	**Pb**	**04 21 06.1**	**-0.2**
KRBG				AML	AML		
GAZK	**Gazikoy-TEKIRD**	**1.29**	**285**	Pn	**Pg**	**04 21 06.8**	**-0.1**
GAZK				AML	AML		
SMAA	**Simav-Kutahya**	**1.32**	**179**	Pn	**Pb**	**04 21 07.0**	**-0.1**
SMAA				AML	AML		
SRCK	**Saricakaya, Es**	**1.33**	**106**	Pn	**Pn**	**04 21 06.7**	**-0.2**
SRCK				AML	AML		
SIMA	**Simav-Kutahya**	**1.33**	**179**	Pn	**Pn**	**04 21 06.9**	**-0.2**
SIMA				AML	AML		
RKY	**Sarkoy-Tekirda**	**1.39**	**282**	Pn	**Pb**	**04 21 07.9**	**-0.4**
RKY				AML	AML		
BIGA	**Biga-Canakkale**	**1.39**	**265**	Pn	**Pn**	**04 21 07.8**	**0.0**
YENI	**Yenice-Canakka**	**1.41**	**251**	Pn	**Pn**	**04 21 08.0**	**0.0**
SHAP	**Saphane-Kutahy**	**1.41**	**172**	Pn	**Pb**	**04 21 08.8**	**+0.1**
SHAP				AML	AML		
GEDZ	**Gediz**	**1.41**	**166**	Pn	**Pb**	**04 21 08.7**	**-0.1**
GEDZ				AML	AML		
SAHE	**Sakarya_HENDEK**	**1.50**	**73**	P	**Pn**	**04 21 09.7**	**+0.3**
CANM	**Can-anakkale**	**1.52**	**255**	Pn	**Pn**	**04 21 09.6**	**0.0**
CANM				AML	AML		
UVEZ	**Uvezbeli-DUZCE**	**1.55**	**71**	Pn	**Pb**	**04 21 10.7**	**-0.4**
UVEZ				AML	AML		
ALT	**Altintas**	**1.62**	**147**	Pn	**Pn**	**04 21 11.2**	**+0.1**
ALT				AML	AML		
GORD	**Gordes-Manisa**	**1.63**	**202**	Pn	**Pb**	**04 21 11.9**	**-0.5**
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.66**	**242**	Pn	**Pb**	**04 21 12.4**	**-0.5**
YAYO				AML	AML		
SOMA	**Soma-Manisa**	**1.68**	**222**	Pn	**Pn**	**04 21 11.8**	**+0.1**
SOMA				AML	AML		
LPK	**Lapseki**	**1.69**	**269**	Pn	**Pb**	**04 21 12.7**	**-0.6**
LPK				AML	AML		
MDUB	**Mudurnu**	**1.71**	**88**	Pn	**Pb**	**04 21 13.0**	**-0.8**
MDUB				AML	AML		
ERIK	**Erikli-Kesan**	**1.89**	**278**	Pn	**Pb**	**04 21 15.5**	**-1.3**
ERIK				AML	AML		
GELI	**Tayfur-Gelibol**	**1.90**	**270**	Pn	**Pn**	**04 21 15.6**	**+0.8**
GELI				AML	AML		
UKOP	**Uzunkopru-Edir**	**1.91**	**293**	Pn	**Pb**	**04 21 16.0**	**-1.2**
UKOP				AML	AML		
KULA	**Kula-Manisa**	**1.92**	**187**	Pn	**Pn**	**04 21 16.0**	**+0.9**
KULA				AML	AML		
CIFT	**Cifteler, Eski**	**1.93**	**123**	Pn	**Pb**	**04 21 16.5**	**-1.0**
CIFT				AML	AML		
COMU	**Canakkale**	**1.93**	**261**	Pn	**Pn**	**04 21 15.9**	**+0.6**
COMU				AML	AML		
YUVA	**Yuva-Kibriscik**	**2.08**	**90**	Pn	**Pn**	**04 21 18.4**	**+1.0**
YUVA				AML	AML		
DKL	**Dikili**	**2.08**	**230**	Pn	**Pn**	**04 21 18.1**	**+0.8**
DKL				AML	AML		
EZN	**Ezine**	**2.11**	**255**	Pn	**Pn**	**04 21 18.0**	**+0.3**
EZN				AML	AML		
ENEZ	**Enez**	**2.17**	**279**	Pn	**Pn**	**04 21 19.0**	**+0.6**
ENEZ				AML	AML		
RUZG	**Kolk¶y-BOLU**	**2.18**	**81**	Pn	**Pn**	**04 21 19.0**	**+0.2**
RUZG				AML	AML		
SVRH	**Sivrihisar-ESK**	**2.19**	**115**	Pn	**Pn**	**04 21 19.9**	**+1.0**
SVRH				AML	AML		
EDRB	**Edirne**	**2.20**	**311**	Pn	**Pn**	**04 21 19.1**	**+0.1**
EDRB				AML	AML		
SHUT	**Suhut-Afyon**	**2.23**	**146**	Pn	**Pn**	**04 21 20.3**	**+0.8**
SHUT				AML	AML		
ALN	**Alexandroupoli**	**2.27**	**283**	Pn	**Pn**	**04 21 20.7**	**+0.8**
ALN				AML	AML		
BOZC	**Bozcaada**	**2.31**	**256**	Pn	**Pn**	**04 21 21.2**	**+0.8**
BOZC				AML	AML		
JMB	**Yambol**	**2.76**	**319**	P	**Pn**	**04 21 27.6**	**+0.9**
AVR	**AVREN**	**2.87**	**341**	P	**Pn**	**04 21 29.2**	**+1.1**
ROIA	**ROIAK**	**2.92**	**337**	P	**Pn**	**04 21 30.3**	**+1.4**
PRD	**Provadia**	**2.98**	**338**	P	**Pn**	**04 21 31.0**	**+1.4**
KDZ	**Kurdzhali**	**3.00**	**295**	P	**Pn**	**04 21 30.7**	**+0.8**
DIM	**Dimitrovgrad**	**3.03**	**304**	P	**Pn**	**04 21 31.2**	**+0.9**
PSN	**Preselentsi**	**3.28**	**349**	P	**Pn**	**04 21 35.0**	**+1.3**
RZN	**Rozhen**	**3.44**	**293**	P	**Pn**	**04 21 38.3**	**+2.1**
SZH	**Strazhitsa**	**3.62**	**323**	P	**Pn**	**04 21 40.0**	**+1.6

FAKI	**Fak Fak**	**6.00**	**38**			**Pn**	**04 53 24.1**	**-1.3**
FAKI	**Fak Fak**	**6.00**	**38**	P		**Pn**	**04 53 23.9**	**-1.5**
	0.3nm1µm37nm,0.6s							
FAKI				AML	AML			
SANI	**Sanana**	**6.12**	**335**	P		**Pn**	**04 53 25.0**	**-2.1**
SANI				AML	AML			
EDFI	**Ende, Flores**	**6.85**	**260**	P		**Pn**	**04 53 39.9**	**+3.0**
	0.1nm15nm,0.5s							
EDFI				AML	AML			
KDI	**Kendari**	**6.93**	**302**	P		**Pn**	**04 53 42.0**	**+4.1**
KDI				AML	AML			
KNRA	**Kununurra**	**7.97**	**178**			**Pn**	**04 53 54.4**	**+2.7**
FITZ	**Fitzroy Crossi**	**10.75**	**195**	P		**Pn**	**04 54 29.8**	**+1.2**
	8.2nm,0.5s,baz=35,slow=11,SNR=44							
FITZ				S		**Sn**	**04 56 22.9**	**-4.7**
	17nm,0.4s,baz=86,slow=21,SNR=9.0							
FITZ	**Fitzroy Crossi**	**10.75**	**195**			**Pn**	**04 54 29.6**	**+1.0**
WRA	**Warramunga Arr**	**13.45**	**156**	P		**Pn**	**04 55 04.8**	**+1.2**
	0.6nm,0.3s,baz=326,slow=13,SNR=34							
WRA				S		**Sn**	**04 57 27.7**	**-4.9**
	6.3nm,0.4s,baz=335,slow=23,SNR=14							
WRA	**Warramunga Arr**	**13.45**	**156**			**Pn**	**04 55 03.9**	**+0.3**
WR8	**Warramunga Arr**	**13.52**	**155**			**Pn**	**04 55 04.7**	**+0.1**
AS31	**Alice Springs**	**16.73**	**163**	P		**P**	**04 55 45.8**	**+1.7**
ASAR	**Alice Springs**	**16.73**	**163**	P		**Pn**	**04 55 47.2**	**+2.8**
	3.0nm,0.5s,baz=339,slow=10,SNR=52							
ASAR				S		**S**	**04 58 45.7**	**-4.7**
	2.1nm,0.4s,baz=347,slow=25,SNR=8.7							
CMAR	**Chiang Mai Arr**	**39.06**	**312**	P		**P**	**04 59 11.1**	**-0.1**
	0.8nm,0.3s,baz=131,slow=9.1,SNR=1.8							
	0.8nm,0.3s							
USRK	**Ussuriysk Ar.**	**51.71**	**3**	P		**P**	**05 00 49.0**	**-1.3**
	2.4nm,0.7s,baz=194,slow=5.1,SNR=5.1							
	2.4nm,0.7s							
EVN	**Everest**	**53.65**	**313**	P		**P**	**05 01 05.1**	**-0.5**
ULN	**Ulaanbaatar**	**58.45**	**343**	P		**P**	**05 01 38.9**	**+0.1**
ULN				IAmb		IAmb	05 01 47.9	
	comp=Z,3.1nm,1.3s							
SONM	**Songino Array**	**58.62**	**343**	P		**P**	**05 01 39.7**	**-0.3**
	comp=Z,1.1nm,0.4s,baz=158,slow=7.1,SNR=7.6							
	comp=Z,1.1nm,0.4s							
SONM	**Songino Array**	**58.62**	**343**	P		**P**	**05 01 39.5**	**-0.5**
SONM				IAmb		IAmb	05 01 41.7	
	comp=Z,1.1nm,0.6s							
MKAR	**Makanchi Array**	**67.99**	**328**	P		**P**	**05 02 41.5**	**-0.1**
	comp=Z,1.3nm,0.4s,baz=118,slow=8.2,SNR=16							
	comp=Z,1.3nm,0.4s							
MKAR	**Makanchi Array**	**67.99**	**328**	P		**P**	**05 02 41.3**	**-0.2**
ZALV	**Zalesovo Beam**	**71.54**	**334**	P		**P**	**05 03 01.9**	**-1.1**
	comp=Z,1.6nm,0.5s,baz=141,slow=4.6,SNR=6.8							
	comp=Z,1.6nm,0.5s							
ZALV	**Zalesovo Beam**	**71.54**	**334**	P		**P**	**05 03 01.8**	**-1.2**
KURBB	**Kurchatov Arra**	**72.32**	**329**	P		**P**	**05 03 06.9**	**-0.8**
	comp=Z,1.1nm,0.3s,baz=131,slow=5.0,SNR=16							
	comp=Z,1.1nm,0.3s							
KURK	**Kurchatov**	**72.33**	**329**	P		**P**	**05 03 07.7**	**-0.1**
KURK				IAmb		IAmb	05 03 08.3	
	comp=Z,4.2nm,1.0s							
MAW	**Mawson**	**73.80**	**201**	P		**P**	**05 03 16.5**	**+0.3**
	comp=Z,1.8nm,0.5s,baz=47,slow=20,SNR=13							
	comp=Z,1.8nm,0.5s							
BVAR	**Borovoye Array**	**77.85**	**328**	P		**P**	**05 03 38.9**	**-0.5**
	comp=Z,1.6nm,0.5s,baz=119,slow=6.9,SNR=4.6							
	comp=Z,1.6nm,0.5s							
AB31	**Akbulak array**	**82.12**	**322**	P		**P**	**05 04 01.6**	**-0.8**
AB31				IAmb		IAmb	05 04 02.8	
	comp=Z,1.4nm,0.6s							
ABKAR	**Akbulak array**	**82.12**	**322**	P		**P**	**05 04 01.9**	**-0.6**
TXAR	**Lajitas Array**	**126.52**	**59**	PKP		**PKPdf**	**05 10 45.1**	**+0.4**
	comp=Z,0.1nm,0.5s,baz=285,slow=1.2,SNR=1.5							
ITAB	**Concordia**	**145.30**	**179**	PKPdf		**PKPab**	**05 11 21.1**	**+1.6**
LPAZ	**La Paz**	**151.05**	**145**	PKPbc		**PKiKP**	**05 11 36.7**	**+0.6**
	comp=Z,0.7nm,0.4s,baz=17,slow=3.8,SNR=8.6							
LPAZ	**La Paz**	**151.05**	**145**			**PKiKP**	**05 11 37.5**	**+1.4**

VAO ***20*** *05:12:25.7±1.6,21.86S×68.62W,h84km±9km, mb4.5, Presumed earthquake*
IDC ***20*** *05:12:29.1±2.1,22.03S×68.32W,h97km±19km, mb3.9/7, mbtmp4.1/12, Error ellipse: s-maj=22.3km s-min=16.0km az=98.0*
SJA ***20*** *05:12:30.4±0.7,21.92S×68.54W,h136km±5km, ML3.9, MW3.9*
GFZ ***20*** *05:12:31.4±0.2,22.S±2.×6.8W±., h127km, M4.2/12, mb4.1/12, confirmed*
NEIC ***20*** *05:12:32.1±1.1,21.93S±0.02×68.51W±0.08,h126km±7km, mb4.1/10, ML3.8(GUC), Error ellipse: s-maj=10.7km s-min=2.0km az=77.0*
GUC ***20*** *05:12:32.8±0.9,21.90S×68.51W,h124km±6km, ML3.8, Presumed earthquake*

ISC 20 05:12:30.7±0.6, 21.92S±0.04×68.34W±0.05, h118km±6km, n164, σ1.968/185, mb4.0/7, 10C, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB09	**IPOC Station P**	**0.85**	**278**	*e*P	**Pn**	**05 12 52.2**	**+0.9**
PB09				*e*S	**Sn**	**05 13 08.0**	**+1.0**
PB09				IAML		05 13 10.8	
	comp=Z,2µm,0.2s						
PB09	**IPOC Station P**	**0.85**	**278**		**Pn**	**05 12 52.3**	**+0.9**
PB09	**IPOC Station P**	**0.85**	**278**	⇑*e*P	**Pn**	**05 12 52.3**	**+0.9**
PB09				*e*S	**Sn**	**05 13 07.2**	**+0.3**
PB09				IAML		05 13 10.9	
	comp=N,2µm,0.2s						
PB09	**IPOC Station P**	**0.85**	**278**	P	**Pn**	**05 12 52.4**	**+1.0**
PB09				S	**Sn**	**05 13 07.5**	**+0.5**
AF01	**San Pedro de A**	**1.04**	**172**	*e*P	**Pn**	**05 12 56.1**	**+2.8**
AF01				IAML		05 13 30.8	
	comp=Z,2µm,0.9s						
AF01	**San Pedro de A**	**1.04**	**172**		**Pn**	**05 12 56.0**	**+2.6**
AF01	**San Pedro de A**	**1.04**	**172**	⇑*i*Pg	**Pn**	**05 12 55.8**	**+2.4**
AF01				IAML		05 13 29.9	
	comp=E,2µm,0.3s						
PB03	**IPOC Station P**	**1.32**	**264**	*e*S	**Sn**	**05 13 16.2**	**+0.7**
PB03				IAML		05 13 18.0	
	comp=Z,2µm,0.1s						
PB03	**IPOC Station P**	**1.32**	**264**		**Pn**	**05 12 56.3**	**+0.1**
PB03	**IPOC Station P**	**1.32**	**264**	⇑*e*P	**Pn**	**05 12 56.2**	**+0.1**
PB03				*e*S	**Sn**	**05 13 14.8**	**-0.6**
PB03				IAML		05 13 17.5	
	comp=E,1µm,0.2s						
PB03	**IPOC Station P**	**1.32**	**264**	P	**Pn**	**05 12 56.4**	**+0.1**
PB03				S	**Sn**	**05 13 14.9**	**-0.6**
PB06	**IPOC Station P**	**1.38**	**235**	*e*P	**Pn**	**05 12 57.6**	**+0.7**
PB06				*e*S	**Sn**	**05 13 19.4**	**+2.6**
PB06				IAML		05 13 22.7	
	comp=Z,783nm,0.4s						
PB06	**IPOC Station P**	**1.38**	**235**		**Pn**	**05 12 57.6**	**+0.7**
PB06	**IPOC Station P**	**1.38**	**235**	⇑*i*P	**Pn**	**05 12 57.5**	**+0.7**
PB06				*e*S	**Sn**	**05 13 17.0**	**+0.2**
PB06				IAML		05 13 18.6	
	comp=N,1µm,0.5s						
PB06	**IPOC Station P**	**1.38**	**235**	P	**Pn**	**05 12 57.7**	**+0.8**
PB06				S	**Sn**	**05 13 17.4**	**+0.7**
PB07	**IPOC Station P**	**1.45**	**277**	*e*P	**Pn**	**05 12 57.9**	**+0.2**
PB07				*e*S	**Sn**	**05 13 19.0**	**+0.8**
PB07				IAML		05 13 19.4	
	comp=Z,2µm,0.6s						
PB07	**IPOC Station P**	**1.45**	**277**		**Pn**	**05 12 57.9**	**+0.2**
PB07	**IPOC Station P**	**1.45**	**277**	⇑*e*P	**Pn**	**05 12 57.8**	**+0.2**
PB07				*e*S	**Sn**	**05 13 16.8**	**-1.4**
PB07				IAML		05 13 21.4	
	comp=N,3µm,0.2s						
PB07	**IPOC Station P**	**1.45**	**277**	P	**Pn**	**05 12 57.9**	**+0.2**
PB02	**IPOC Station P**	**1.57**	**292**	*e*P	**Pn**	**05 12 59.1**	**+0.2**
PB02				*e*S	**Sn**	**05 13 20.0**	**-0.5**
PB02				IAML		05 13 21.6	
	comp=Z,4µm,0.3s						
PB02	**IPOC Station P**	**1.57**	**292**		**Pn**	**05 12 59.0**	**0.0**
PB02	**IPOC Station P**	**1.57**	**292**	⇑*e*P	**Pn**	**05 12 58.9**	**-0.1**
PB02				*e*S	**Sn**	**05 13 19.1**	**-1.3**
PB02				IAML		05 13 23.0	
	comp=E,3µm,0.4s						
PB02	**IPOC Station P**	**1.57**	**292**	P	**Pn**	**05 12 59.0**	**0.0**
PB02				S	**Sn**	**05 13 19.1**	**-1.3**
PB08	**IPOC Station P**	**1.93**	**337**	*e*P	**Pn**	**05 13 05.6**	**+1.9**
PB08				*e*S	**Sn**	**05 13 30.2**	**+1.5**
PB08				IAML		05 13 34.8	
	comp=Z,397nm,0.3s						
PB08	**IPOC Station P**	**1.93**	**337**		**Pn**	**05 13 05.5**	**+1.8**
PB08	**IPOC Station P**	**1.93**	**337**	⇑*e*P	**Pn**	**05 13 05.4**	**+1.8**
PB08				*e*S	**Sn**	**05 13 29.7**	**+1.0**
PB08				IAML		05 13 33.0	
	comp=E,1µm,0.2s						
PB08	**IPOC Station P**	**1.93**	**337**	P	**Pn**	**05 13 05.6**	**+1.9**
PB05	**IPOC Station P**	**1.96**	**241**	*e*P	**Pn**	**05 13 03.6**	**-0.1**
PB05				*e*S	**Sn**	**05 13 30.2**	**+1.3**
PB05				IAML		05 13 36.4	
	comp=Z,323nm,0.4s						
PB05	**IPOC Station P**	**1.96**	**241**		**Pn**	**05 13 03.7**	**-0.1**
PB05	**IPOC Station P**	**1.96**	**241**	⇑*e*P	**Pn**	**05 13 03.5**	**-0.2**
PB05				*e*S	**Sn**	**05 13 27.5**	**-1.4**
PB05				IAML		05 13 35.1	
	comp=N,524nm,0.3s						
PB05	**IPOC Station P**	**1.96**	**241**	P	**Pn**	**05 13 03.8**	**+0.1**
TA01	**Diego Aracena**	**2.18**	**308**	*e*P	**Pn**	**05 13 06.0**	**-0.5**
TA01				*e*S	**Sn**	**05 13 33.2**	**-0.6**
TA01				IAML		05 13 40.3	
	comp=Z,739nm,0.3s						
TA01	**Diego Aracena**	**2.18**	**308**		**Pn**	**05 13 06.0**	**-0.5**
TA01	**Diego Aracena**	**2.18**	**308**	⇑*e*P	**Pn**	**05 13 05.8**	**-0.6**
TA01				*e*S	**Sn**	**05 13 31.9**	**-1.9**
TA01				IAML		05 13 33.9	
	comp=E,1µm,0.2s						
TA01	**Diego Aracena**	**2.18**	**308**	P	**Pn**	**05 13 06.0**	**-0.5**
TA02	**Huaiquique**	**2.34**	**314**	*e*P	**Pn**	**05 13 08.0**	**-0.5**
TA02				*e*S	**Sn**	**05 13 36.9**	**-0.5**
TA02				IAML		05 13 42.9	
	comp=Z,977nm,0.3s						
TA02	**Huaiquique**	**2.34**	**314**	*e*P	**Pn**	**05 13 07.8**	**-0.7**
GO01	**Chusmiza**	**2.38**	**340**	*e*P	**Pn**	**05 13 10.7**	**+1.2**
GO01				IAML		05 13 44.9	
	comp=Z,310nm,0.3s						
GO01	**Chusmiza**	**2.38**	**340**		**Pn**	**05 13 10.6**	**+1.2**
GO01	**Chusmiza**	**2.38**	**340**	*e*P	**Pn**	**05 13 10.6**	**+1.2**
GO01				*e*S	**Sn**	**05 13 39.1**	**0.0**
GO01				IAML		05 13 42.4	
	comp=N,910nm,0.3s						
GO01	**Chusmiza**	**2.38**	**340**	P	**Pn**	**05 13 10.8**	**+1.2**
PB11	**IPOC Station P**	**2.48**	**330**	*e*P	**Pn**	**05 13 10.5**	**+0.1**
PB11				*e*S	**Sn**	**05 13 39.3**	**-1.5**
PB11				IAML		05 13 43.7	
	comp=Z,581nm,0.2s						
PB11	**IPOC Station P**	**2.48**	**330**		**Pn**	**05 13 10.2**	**-0.2**
PB11	**IPOC Station P**	**2.48**	**330**	⇑*e*P	**Pn**	**05 13 10.4**	**0.0**
PB11				*e*S	**Sn**	**05 13 39.2**	**-1.5**
PB11	**IPOC Station P**	**2.48**	**330**	P	**Pn**	**05 13 10.6**	**+0.1**
PB10	**IPOC Station P**	**2.59**	**232**	*e*P	**Pn**	**05 13 11.7**	**+0.1**
PB10				*e*S	**Sn**	**05 13 38.8**	**-4.2**
PB10	**IPOC Station P**	**2.59**	**232**		**Pn**	**05 13 12.0**	**+0.4**
PB10	**IPOC Station P**	**2.59**	**232**	*e*P	**Pn**	**05 13 11.7**	**+0.1**
PB10				IAML		05 13 53.4	
	comp=N,317nm,0.3s						
PB10	**IPOC Station P**	**2.59**	**232**	P	**Pn**	**05 13 13.7**	**+2.1**
YJA	**Yavi**	**2.63**	**96**	*e*P	Pn	05 13 17.3	+4.7
PSGCX	**Pisagua**	**2.85**	**324**	*e*P	**Pn**	**05 13 14.1**	**-1.1**
PSGCX				*e*S	**Sn**	**05 13 47.1**	**-2.3**
PSGCX				IAML		05 13 53.1	
	comp=Z,305nm,0.3s						
PSGCX	**Pisagua**	**2.85**	**324**		**Pn**	**05 13 14.1**	**-1.1**
PSGCX	**Pisagua**	**2.85**	**324**	*e*P	**Pn**	**05 13 14.0**	**-1.1**
PSGCX	**Pisagua**	**2.85**	**324**	P	**Pn**	**05 13 15.7**	**+0.5**
SALTA		**2.94**	**142**	*e*P	**Pn**	**05 13 16.8**	**+0.1**
SALTA				*e*P		05 13 20.8	
SALTA		**2.94**	**142**	P	Pn	05 13 21.1	+4.4
PB14	**IPOC Station P**	**3.29**	**215**	*e*P	**Pn**	**05 13 21.5**	**+0.3**
PB14				*e*S	Sn	05 13 48.1	-12
PB14				IAML		05 14 10.9	
	comp=Z,226nm,0.4s						
PB14	**IPOC Station P**	**3.29**	**215**		**Pn**	**05 13 21.4**	**+0.3**
PB14	**IPOC Station P**	**3.29**	**215**	P	**Pn**	**05 13 21.7**	**+0.5**
PB16	**IPOC Station P**	**3.73**	**343**	P	**Pn**	**05 13 28.0**	**+0.7**
SLA	**San Lorenzo**	**3.81**	**137**	*e*P	Pn	05 13 32.4	+4.5
PB18	**Visviri**	**4.44**	**346**		**Pn**	**05 13 37.9**	**+1.2**
PB18	**Visviri**	**4.44**	**346**	P	**Pn**	**05 13 37.9**	**+1.2**
AC01	**Pan de Azucar**	**4.69**	**206**	*e*P	**Pn**	**05 13 38.2**	**-1.2**
AC01				*e*S	**Sn**	**05 14 29.2**	**-3.7**
AC01				IAML		05 14 49.0	
	comp=Z,90nm,0.8s						
AC01	**Pan de Azucar**	**4.69**	**206**		**Pn**	**05 13 38.1**	**-1.3**
AC01	**Pan de Azucar**	**4.69**	**206**	P	**Pn**	**05 13 38.6**	**-0.8**
FSA	**Cafayete**	**4.70**	**153**	*e*P	**Pn**	**05 13 37.8**	**-1.9**
AC02	**Maricunga**	**4.94**	**188**	*e*P	**Pn**	**05 13 44.3**	**+0.9**
AC02				*e*S	**Sn**	**05 14 43.5**	**+3.7**
AC02				IAML		05 15 12.2	
	comp=Z,38nm,0.8s						
AC02	**Maricunga**	**4.94**	**188**		**Pn**	**05 13 44.0**	**+0.6**
AC02	**Maricunga**	**4.94**	**188**	P	**Pn**	**05 13 42.2**	**-1.2**
LPAZ	**La Paz**	**5.61**	**2**	P	**Pn**	**05 13 54.1**	**+1.6**
	comp=Z,2.9nm,0.3s,baz=136,slow=3.9,SNR=31						
LPAZ				S	**Sn**	**05 14 53.0**	**-3.1**
	comp=Z,4.9nm,0.7s,baz=191,slow=9.9,SNR=4.1						
LPAZ	**La Paz**	**5.61**	**2**		**Pn**	**05 13 53.9**	**+1.4**
LPAZ	**La Paz**	**5.61**	**2**	P	**Pn**	**05 13 56.0**	**+3.6**
	comp=Z,3.3nm,0.4s						
AC06	**Mina Casimiro**	**5.71**	**198**		**Pn**	**05 13 51.2**	**-2.1**
GO03	**Copiapo**	**5.90**	**197**		**Pn**	**05 13 53.8**	**-2.1**
GO03	**Copiapo**	**5.90**	**197**	P	**Pn**	**05 13 54.2**	**-1.7**
AC04	**Llanos de Chal**	**6.73**	**201**		**Pn**	**05 14 03.8**	**-3.2**
AC04	**Llanos de Chal**	**6.73**	**201**	P	**Pn**	**05 14 03.7**	**-3.2**
	comp=Z,21nm,0.7s						
AC05	**El Transito**	**7.10**	**194**		**Pn**	**05 14 10.0**	**-2.2**
AC05	**El Transito**	**7.10**	**194**	P	**Pn**	**05 14 09.5**	**-2.7**
	comp=Z,15nm,0.8s						
LCO	**Las Campanas**	**7.37**	**196**	Pn	**Pn**	**05 14 12.6**	**-3.4**
CO01	**Juntas del Tor**	**8.18**	**191**	Pn	**Pn**	**05 14 25.2**	**-1.6**
CO01	**Juntas del Tor**	**8.18**	**191**	P	**Pn**	**05 14 25.2**	**-1.6**
	comp=Z,7.8nm,0.9s						
GO04	**Tololo Observa**	**8.51**	**195**	P	**Pn**	**05 14 27.3**	**-4.0**
	comp=Z,8.6nm,1.2s						
BBSD	**Serra de San D**	**8.68**	**58**	*e*P	**Pn**	**05 14 31.9**	**-1.5**
SIV	**San Ignacio**	**9.06**	**51**	P	**Pn**	**05 14 37.0**	**-1.6**
	comp=Z,24nm,0.3s,baz=231,slow=11,SNR=227						
SIV				S	**Sn**	**05 16 11.5**	**-7.5**
	comp=Z,2.3nm,0.6s,baz=301,slow=19,SNR=1.6						
CO03	**El Pedregal**	**9.13**	**193**	P	**Pn**	**05 14 36.1**	**-3.4**
	comp=Z,4.7nm,1.3s						
CO02	**Combarbal**	**9.54**	**194**	P	**Pn**	**05 14 41.0**	**-4.2**
CFA	**Coronel Fontan**	**9.64**	**179**	P	**Pn**	**05 14 42.2**	**-4.3**
	comp=Z,0.7nm,0.3s,baz=27,slow=14,SNR=12						
CFA				S	**Sn**	**05 16 25.6**	**-7.3**
	comp=Z,1.1nm,0.5s,baz=230,slow=22,SNR=3.6						
COIM	**Forte Coimbra**	**10.06**	**80**	*e*P	**Pn**	**05 14 48.0**	**-4.2**
PTLB	**Pontes e Lacer**	**10.84**	**55**		**Pn**	**05 15 01.1**	**-1.5**
PTLB	**Pontes e Lacer**	**10.84**	**55**	*e*P	**Pn**	**05 15 01.2**	**-1.3**
BDQN	**Bodoquena, MS**	**10.91**	**84**	*e*P	**Pn**	**05 15 02.3**	**-1.3**
CPUP	**Villa Florida**	**10.97**	**116**	P	**Pn**	**05 15 02.9**	**-1.4**
	comp=Z,0.9nm,0.8s,baz=312,slow=12,SNR=3.5						
MT02	**Curacav**	**11.56**	**192**	Pn	**Pn**	**05 15 11.4**	**-0.8**
SJPY	**San Joaquin**	**11.64**	**108**	*e*P	**Pn**	**05 15 12.9**	**-0.4**
VILB	**Vilhena**	**11.82**	**42**		**Pn**	**05 15 16.3**	**+0.5**
VILB	**Vilhena**	**11.82**	**42**	*e*P	**Pn**	**05 15 12.5**	**-3.2**
AQDB	**Aquidauana**	**11.88**	**85**		**Pn**	**05 15 18.4**	**+1.9**
AQDB	**Aquidauana**	**11.88**	**85**	P	**Pn**	**05 15 17.2**	**+0.8**
	comp=Z,12nm,0.8s						
AQDB	**Aquidauana**	**11.88**	**85**	*e*P	**Pn**	**05 15 15.8**	**-0.7**
BO01	**Tunca**	**12.66**	**190**		**Pn**	**05 15 26.6**	**+0.1**
BO01	**Tunca**	**12.66**	**190**	P	**Pn**	**05 15 27.5**	**+1.0**
	comp=Z,12nm,2.4s						
BO02	**Sierra Bellavi**	**13.00**	**189**	Pn	**Pn**	**05 15 32.1**	**+1.1**
SALV	**Santo Antonio**	**13.38**	**66**	*e*P	**Pn**	**05 15 34.4**	**-1.6**
PP1B	**Ponte de Pedra**	**13.38**	**74**	*e*P	**Pn**	**05 15 35.5**	**-0.5**
ML02	**Panimavida**	**14.05**	**190**	P	**Pn**	**05 15 44.7**	**+0.2**
	comp=Z,14nm,0.8s						
PDRB	**Porto dos Gac**	**15.11**	**49**	*e*P	**Pn**	**05 15 56.8**	**-1.3**
PTGB	**Pitanga**	**15.21**	**104**	*e*P	**P**	**05 16 00.7**	**-0.9**
ITAB	**Concordia**	**15.66**	**113**	Pn	**P**	**05 16 06.8**	**+0.3**
ITAB				IAmb	IAmb	05 16 19.9	
	comp=Z,21nm,1.3s						
ITAB	**Concordia**	**15.66**	**113**	P	**P**	**05 16 07.5**	**+1.0**
	comp=Z,12nm,0.9s						
ITAB	**Concordia**	**15.66**	**113**	*e*P	**P**	**05 16 05.4**	**-1.1**
CPSB	**Cacapava Do Su**	**15.81**	**125**	P	**Pn**	**05 16 06.9**	**+0.2**
	comp=Z,13nm,0.7s						
CPSB	**Cacapava Do Su**	**15.81**	**125**	*e*P	**Pn**	**05 16 05.5**	**-1.2**
PCMB	**Pacaembu**	**15.87**	**92**	P	**P**	**05 16 10.2**	**+1.3**
	comp=Z,53nm,1.7s						
PCMB	**Pacaembu**	**15.87**	**92**	*e*P	**P**	**05 16 08.0**	**-0.9**
LDASE	**Londrina, Braz**	**15.97**	**99**	*e*P	**P**	**05 16 09.2**	**-0.8**
CLDB	**Colider**	**16.28**	**50**	P	**P**	**05 16 13.9**	**+0.5**
	comp=Z,41nm,0.8s						
CLDB	**Colider**	**16.28**	**50**	*e*P	**Pn**	**05 16 11.4**	**-1.3**
ARAG	**Araguaiana, MT**	**16.82**	**71**	*e*P	**Pn**	**05 16 18.9**	**-0.3**
CNLB	**Canela**	**17.39**	**119**	P	**Pn**	**05 16 26.0**	**-0.2**
	comp=Z,21nm,1.7s						
GO06	**Curarrehue**	**17.81**	**188**	P	**P**	**05 16 30.6**	**+0.3**
BB19B	**Bebedouro**	**18.46**	**91**	*e*P	**Pn**	**05 16 38.4**	**-0.6**
PLCA	**Paso Flores**	**18.85**	**185**	P	**P**	**05 16 39.9**	**-1.7**
	comp=Z,1.3nm,0.6s,baz=358,slow=11,SNR=7.2						
PLCA	**Paso Flores**	**18.85**	**185**	P	**P**	**05 16 41.2**	**-0.4**
PLCA				IAmb	IAmb	05 16 50.0	
	comp=Z,8.2nm,1.3s						
SNDB	**Serra Nova Dou**	**19.05**	**61**	*e*P	**P**	**05 16 43.6**	**-0.3**
IPMB	**Ipameri, GO**	**19.32**	**82**	*e*P	**P**	**05 16 46.8**	**0.0**
NPGB	**Novo Progresso**	**19.39**	**42**	*e*P	**P**	**05 16 46.3**	**-1.3**
VAO	**Valinhos**	**19.78**	**97**	P	**P**	**05 16 52.5**	**+0.6**
VAO				IAmb	IAmb	05 16 53.4	
	comp=Z,18nm,0.8s						
VAO	**Valinhos**	**19.78**	**97**	*e*P	**P**	**05 16 51.8**	**-0.1**
BDFB	**Brasilia**	**20.22**	**75**	P	**P**	**05 16 56.5**	**-0.2**
	comp=Z,3.2nm,0.5s,baz=253,slow=7.7,SNR=9.5						
	comp=Z,3.2nm,0.5s						
BDFB	**Brasilia**	**20.22**	**75**	P	**P**	**05 16 56.6**	**-0.1**
BDFB				IAmb	IAmb	05 17 15.1	
	comp=Z,11nm,1.5s						
CANS	**Sao Roque de M**	**20.54**	**89**	*e*P	**P**	**05 16 59.1**	**-0.9**
PMNB	**Patos De Minas**	**20.82**	**85**	P	**P**	**05 17 02.6**	**-0.5**
	comp=Z,41nm,2.6s						
PMNB	**Patos De Minas**	**20.82**	**85**	*e*P	**P**	**05 17 02.6**	**-0.5**
ITTB	**Itaituba**	**21.31**	**37**	*e*P	**P**	**05 17 06.2**	**-2.0**
SMTB	**Santa Maria do**	**23.81**	**60**	P	**P**	**05 17 32.5**	**-0.5**
SMTB	**Santa Maria do**	**23.81**	**60**	*e*P	**P**	**05 17 33.1**	**+0.1**
BOAV	**Boa Vista**	**25.35**	**19**	*e*P	**P**	**05 17 45.3**	**-1.6**
GUA01	**Guaratinga, BA**	**27.43**	**84**	*e*P	**P**	**05 18 05.6**	**0.0**
TXAR	**Lajitas Array**	**61.28**	**325**	P	**P**	**05 22 34.6**	**+0.8**
	comp=Z,0.1nm,0.6s,baz=126,slow=4.0,SNR=1.4						
QSPA	**South Pole Qui**	**68.27**	**180**	P	**P**	**05 23 19.5**	**+0.8**
	comp=Z,2.3nm,0.5s,baz=66,slow=0.8,SNR=11						
	comp=Z,2.3nm,0.5s						
QSPA	**South Pole Qui**	**68.27**	**180**	P	**P**	**05 23 20.7**	**+2.0**
QSPA				IAmb	IAmb	05 23 45.8	
	comp=Z,2.8nm,1.2s						
QSPA	**South Pole Qui**	**68.27**	**180**	P	**P**	**05 23 20.9**	**+2.2**
DBIC	**Dimbokro**	**68.35**	**73**	P	**P**	**05 23 20.5**	**+0.6**
	comp=Z,4.7nm,0.5s,baz=237,slow=7.0,SNR=11						
	comp=Z,4.7nm,0.5s						
DBIC	**Dimbokro**	**68.35**	**73**	P	**P**	**05 23 20.6**	**+0.7**
DBIC	**Dimbokro**	**68.35**	**73**	P	**P**	**05 23 20.4**	**+0.6**
	comp=Z,1.1nm,1.1s						
PDAR	**Pinedale Array**	**74.74**	**330**	P	**P**	**05 23 58.2**	**+0.3**
	comp=Z,0.3nm,0.3s,baz=162,slow=4.1,SNR=1.6						
	comp=Z,0.3nm,0.3s						
TORD	**Torodi Ar. Bea**	**77.00**	**70**	P	**P**	**05 24 11.7**	**+0.7**
	comp=Z,2.6nm,0.6s,baz=250,slow=5.2,SNR=18						
	comp=Z,2.6nm,0.6s						
TORD	**Torodi Ar. Bea**	**77.00**	**70**	P	**P**	**05 24 11.3**	**+0.3**
TORD				IAmb	IAmb	05 24 13.8	
	comp=Z,2.0nm,0.8s						
MAW	**Mawson**	**83.78**	**163**	P	**P**	**05 24 46.5**	**+0.1**
	comp=Z,1.2nm,0.8s,baz=138,slow=15,SNR=1.9						
	comp=Z,1.2nm,0.8s						
MAW	**Mawson**	**83.78**	**163**	P	**P**	**05 24 47.

AYDB	**Zeytinkoy-Aydi**	**0.78**	**85**	Pg	Pb	05 30 54.7	-0.4
AYDB				Sg	Sb	05 31 05.9	0.0
AYDB				AML	AML		
CHOS	**Chios island**	**0.84**	**307**	P	Pb	05 30 56.2	0.0
CHOS				S	Sg	05 31 06.3	0.0
CHOS	**Chios island**	**0.84**	**307**	Pg	Pb	05 30 55.9	-0.3
CHOS				AML	AML		
BODT	**Bodrum**	**0.88**	**159**	Pg	Pb	05 30 56.7	-0.1
BODT				Sg	Sb	05 31 09.2	+0.4
BODT				AML	AML		
CAMT	**Merkez**	**0.92**	**20**	P	Pn	05 30 58.5	0.0
CAMT				S	Sb	05 31 10.3	+0.5
CAMT				IAML		05 31 14.0	
	comp=N,62nm,0.6s						
CAMT				IAML		05 31 16.0	
	comp=E,46nm,0.5s						
ZEDA	**zmir-Bergama**	**1.08**	**7**	P	Pn	05 31 00.9	+0.1
ZEDA				S	Sg	05 31 14.3	+0.2
ZEDA				IAML		05 31 27.0	
	comp=N,24nm,1.0s						
ZEDA				IAML		05 31 31.0	
	comp=E,35nm,1.7s						
NAZL	**Nazilli-Aydin**	**1.09**	**86**	Pn	Pb	05 31 00.6	+0.1
NAZL				AML	AML		
GORD	**Gordes-Manisa**	**1.42**	**44**	Pn	Pb	05 31 06.3	+0.2
GORD				AML	AML		
YAYO	**Edremit-Balk**	**1.73**	**4**	Pn	Pb	05 31 10.7	-0.5

*ATH **20** 05:31:39.4, 40°.36N×19°.46E, h5km±2km, ML2.6/10,*
Latitude uncertainty: 1 km; Longitude uncertainty: 2 km
*TIR **20** 05:31:41.2, 40°.31N×19°.51E, h29km±1km, ML2.6, ML2.6,*
Presumed earthquake
*THE **20** 05:31:42.5, 40°N±2°×2°.0E±°, h2km±2km, M2.3/11,*
ML2.3/11

ISC 20 05:31:41.0±0.9, **40°.34N**±0°.02×**19°.45E**±0°.03, **h18**km±2km, **n42**, σ1°.9**19**/64, **1C, Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VLO	**Vlora**	**0.14**	**15**	P	**Pg**	**05 31 45.5**	**+0.3**
VLO				S	**Sb**	**05 31 46.8**	**+1.8**
VLO				AML	AML		
VLO	**Vlora**	**0.14**	**15**	⇑Pg	**Pg**	**05 31 45.4**	**+0.3**
VLO				Sg	**Sg**	**05 31 49.9**	**+2.0**
VLO				IAML		05 31 51.8	
	7μm,0.3s						
BERA	**Berati**	**0.53**	**46**	Pg	**Pg**	**05 31 50.0**	**-1.6**
BERA				Sg	**Sg**	**05 31 57.0**	**-1.8**
BERA				IAML		05 32 00.6	
	536nm,0.4s						
SRN	**Sarande**	**0.62**	**137**	P	**Pb**	**05 31 51.9**	**-1.3**
SRN				S	**Sb**	**05 32 00.8**	**-0.8**
SRN				AML	AML		
SRN	**Sarande**	**0.62**	**137**	Pg	**Pb**	**05 31 52.1**	**-1.1**
SRN				Sg	**Sb**	**05 32 01.5**	**-0.1**
KEK	**Kerkira**	**0.68**	**157**	Pg	**Pb**	**05 31 51.9**	**-2.3**
KEK				Sg	**Sg**	**05 32 03.9**	**+0.5**
KEK	**Kerkira**	**0.68**	**157**	P	**Pb**	**05 31 52.8**	**-1.5**
KEK				S	**Sb**	**05 32 02.1**	**-1.1**
KEK				AML	AML		
LFKM	**Lefkimmi**	**1.01**	**152**	P	**Pg**	**05 32 01.0**	**+0.4**
LFKM				S	**Sn**	**05 32 15.8**	**+2.0**
LFKM				AML	AML		
IGT	**Igoumenitsa**	**1.05**	**140**	P	**Pb**	**05 32 01.1**	**+0.4**
IGT				S	**Sn**	**05 32 15.0**	**0.0**
IGT				AML	AML		
IGT	**Igoumenitsa**	**1.05**	**140**	Pg	**Pb**	**05 32 00.7**	**0.0**
IGT				Sg	**Sg**	**05 32 15.9**	**+0.7**
IGT	**Igoumenitsa**	**1.05**	**140**	P	**Pb**	**05 32 00.4**	**-0.3**
IGT				S	**Sb**	**05 32 13.8**	**-0.3**
IGT				AML	AML		
TIR	**Tirane**	**1.06**	**17**	Pg	**Pg**	**05 32 02.1**	**+0.6**
TIR				Sg	**Sg**	**05 32 16.9**	**+1.5**
TIR				IAML		05 32 23.4	
	143nm,0.7s						
KBN	**Korca**	**1.06**	**74**	P	**Pb**	**05 31 59.9**	**-0.9**
KBN				S	**Sb**	**05 32 12.7**	**-1.7**
KBN				AML	AML		
KBN	**Korca**	**1.06**	**74**	Pg	**Pb**	**05 32 00.2**	**-0.6**
KBN				Sg	**Sb**	**05 32 14.6**	**+0.3**
KBN				IAML		05 32 21.3	
	179nm,0.7s						
NEST	**Nestorio**	**1.23**	**86**	P	**Pn**	**05 32 02.9**	**-0.3**
NEST				AML	AML		
NEST	**Nestorio**	**1.23**	**86**	Pn	**Pn**	**05 32 02.7**	**-0.6**
NEST				Sn	**Sg**	**05 32 20.9**	**+0.1**
NEST				IAML		05 32 25.4	
	143nm,0.8s						
NEST	**Nestorio**	**1.23**	**86**	P	**Pn**	**05 32 03.0**	**-0.3**
NEST				S	**Sb**	**05 32 18.9**	**-0.2**
JAN	**Janina**	**1.27**	**122**	P	**Pb**	**05 32 04.9**	**+0.4**
JAN				S	**Sb**	**05 32 20.4**	**-0.1**
OHR	**Ohrid**	**1.28**	**53**	*i* Sn	**Sg**	**05 32 24.2**	**+1.6**
OHR	**Ohrid**	**1.28**	**53**	*i* Pn	**Pb**	**05 32 05.0**	**+0.4**
PENT	**Pentalofos**	**1.30**	**96**	P	**Pn**	**05 32 04.4**	**+0.1**
PENT				S	**Sn**	**05 32 22.5**	**+1.2**
PRMD	**Pramanda**	**1.50**	**122**	P	**Pb**	**05 32 08.6**	**+0.2**
PRMD				AML	AML		
PRMD	**Pramanda**	**1.50**	**122**	P	**Pn**	**05 32 07.2**	**+0.2**
PRMD				AML	AML		
KPRO	**Kipourio**	**1.52**	**104**	P	**Pn**	**05 32 08.3**	**+1.0**
KPRO				AML	AML		
KPRO	**Kipourio**	**1.52**	**104**	P	**Pn**	**05 32 07.7**	**+0.4**
KPRO				AML	AML		
PHP	**Peshkopia**	**1.54**	**29**	Pn	**Pb**	**05 32 09.1**	**+0.1**
PHP				Sn	**Sb**	**05 32 29.8**	**+1.6**
PHP				IAML		05 32 32.7	
	107nm,1.2s						
TETR	**Tetrakomo, Epi**	**1.72**	**125**	P	**Pn**	**05 32 11.3**	**+1.3**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**1.72**	**125**	P	**Pn**	**05 32 10.6**	**+0.5**
TETR				AML	AML		
KZN	**Kozani**	**1.78**	**90**	P	**Pn**	**05 32 10.8**	**0.0**
KZN				AML	AML		
TSLK	**Tsoukalades, L**	**1.78**	**148**	P	**Pn**	**05 32 12.3**	**+1.6**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**1.78**	**148**	P	**Pn**	**05 32 11.1**	**+0.3**
TSLK				AML	AML		
LKD2	**Lefkada island**	**1.81**	**148**	P	**Pb**	**05 32 13.5**	**0.0**
LKD2	**Lefkada island**	**1.81**	**148**	P	**Pn**	**05 32 11.4**	**+0.2**
LKD2				AML	AML		
NOCI	**Noci**	**1.87**	**285**	Pn	**Pb**	**05 32 15.6**	**+1.0**
NOCI				Sn	**Sg**	**05 32 43.3**	**+2.0**
NOCI				IAML		05 32 51.5	
	179nm,0.3s						
NYDR	**Nydri-Lefkada**	**1.89**	**149**	P	**Pn**	**05 32 12.7**	**+0.4**
AMPL	**Ampelaki**	**1.96**	**135**	P	**Pn**	**05 32 14.0**	**+0.7**
AMPL				AML	AML		
THL	**Klokotos Trika**	**2.12**	**111**	P	**Pn**	**05 32 15.7**	**+0.3**
THL				AML	AML		
VAY	**Valandovo**	**2.56**	**66**	*i* Pn	**Pn**	**05 32 21.6**	**0.0**
LSTV	**Lastovo**	**3.10**	**323**	*e*Pn	**Pn**	**05 32 27.7**	**-1.2**
LSTV				Sn	**Sn**	**05 33 03.3**	**-2.0**
MAKA	**Makarska**	**3.46**	**329**	Sn	**Sn**	**05 33 11.3**	**-3.0**
RICI	**Ricice**	**3.60**	**332**	*e*Pn	**Pn**	**05 32 36.0**	**+0.2**
RICI				Sn	**Sn**	**05 33 15.7**	**-2.1**
HVAR	**Hvar**	**3.62**	**323**	Sn	**Sn**	**05 33 15.0**	**-3.2**

*SJA **20** 05:33:07.1±0.6, 37°.81S×72°.63W, h90km±14km, ML3.6,*
MW3.6
*GUC **20** 05:33:08.6±0.8, 37°.83S×72°.65W, h66km±12km, ML3.5,*
Presumed earthquake

ISC 20 05:33:08.1±1.3, **37°.80S**±0°.03×**72°.70W**±0°.06, **h73**km±19km, **n31**, σ1°.**33**/49, **2D, Central Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BI05	**Punta Hualpn**	**1.12**	**339**	*e*P	**Pn**	**05 33 29.5**	**+1.4**
BI05				IAML		05 33 48.1	
	comp=Z,420nm,0.1s						
BI05	**Punta Hualpn**	**1.12**	**339**	*e*P	**Pn**	**05 33 29.1**	**+1.0**
BI05				*e*S	**Sn**	**05 33 44.1**	**+0.9**
BI05				IAML		05 33 45.5	
	comp=N,986nm,0.2s						
BI04	**Isla Mocha**	**1.12**	**236**	*e*P	**Pn**	**05 33 28.1**	**-0.1**
BI04				*e*S	**Sn**	**05 33 43.4**	**+0.1**
BI04				IAML		05 33 45.0	
	comp=E,2μm,0.2s						
LC01	**Cunco**	**1.28**	**150**	*i* P	**Pn**	**05 33 29.3**	**-1.0**
LC01				*e*S	**Sn**	**05 33 44.5**	**-2.5**
BI02	**San Fabin de**	**1.60**	**46**	*e*P	**Pn**	**05 33 35.3**	**+0.7**
BI02				IAML		05 33 57.7	
	comp=Z,289nm,0.5s						
BI02	**San Fabin de**	**1.60**	**46**	*i* P	**Pn**	**05 33 35.0**	**+0.5**
BI02				*e*S	**Sn**	**05 33 54.9**	**+0.3**
BI02				IAML		05 33 55.9	
	comp=E,355nm,0.3s						
LR03	**Panguipulli**	**1.86**	**171**	*e*P	**Pn**	**05 33 38.0**	**+0.1**
LR03				*e*S	**Sn**	**05 34 00.0**	**-0.5**
LR03				IAML		05 34 03.4	
	comp=Z,714nm,0.3s						
LR03	**Panguipulli**	**1.86**	**171**	⇓*i* P	**Pn**	**05 33 37.6**	**-0.2**
LR03				*e*S	**Sn**	**05 33 59.1**	**-1.4**
LR03				IAML		05 34 03.5	
	comp=E,822nm,0.5s						
GO06	**Curarrehue**	**2.03**	**152**	*e*P	**Pn**	**05 33 40.3**	**-0.1**
GO06				*e*S	**Sn**	**05 34 05.3**	**+0.5**
GO06	**Curarrehue**	**2.03**	**152**	⇓*i* P	**Pn**	**05 33 40.2**	**-0.1**
GO06				*e*S	**Sn**	**05 34 03.9**	**-0.9**
LR04	**Corral**	**2.16**	**195**	*e*P	**Pn**	**05 33 42.9**	**+1.0**
LR04				IAML		05 34 12.5	
	comp=Z,443nm,0.2s						
LR04	**Corral**	**2.16**	**195**	*e*P	**Pn**	**05 33 42.1**	**+0.2**
LR04				*e*S	**Sn**	**05 34 05.1**	**-2.6**
LR04				IAML		05 34 08.0	
	comp=E,1μm,0.2s						
ML02	**Panimavida**	**2.27**	**27**	*e*P	**Pn**	**05 33 44.1**	**+0.6**
ML02				*e*S	**Sn**	**05 34 10.8**	**+0.2**
ML02				IAML		05 34 16.6	
	comp=Z,289nm,0.3s						
ML02	**Panimavida**	**2.27**	**27**	*e*P	**Pn**	**05 33 44.0**	**+0.5**
ML02				*e*S	**Sn**	**05 34 10.5**	**-0.1**
ML02				IAML		05 34 12.1	
	comp=N,607nm,0.3s						
LR05	**Currie**	**2.49**	**168**	*e*P	**Pn**	**05 33 47.1**	**+0.7**
LR05				*e*S	**Sn**	**05 34 16.5**	**+0.7**
LR05	**Currie**	**2.49**	**168**	*e*P	**Pn**	**05 33 46.7**	**+0.3**
LR05				IAML		05 34 26.8	
	comp=E,174nm,0.2s						
GO05	**Hualane**	**2.85**	**13**	*e*P	**Pn**	**05 33 51.6**	**+0.3**
GO05				*e*S	**Sn**	**05 34 23.5**	**-1.0**
GO05				IAML		05 34 26.7	
	comp=Z,73nm,0.2s						
GO05	**Hualane**	**2.85**	**13**	*e*P	**Pn**	**05 33 51.4**	**+0.1**
EDS3	**Malargue**	**3.33**	**54**	*e*P	**Pn**	**05 34 00.7**	**+2.7**
LL03	**Petrohue**	**3.35**	**176**	*e*S	**Sn**	**05 34 42.0**	**+5.4**
LL03				IAML		05 34 51.3	
	comp=Z,73nm,0.3s						
BO02	**Sierra Bellavi**	**3.37**	**28**	*e*P	**Pn**	**05 33 59.1**	**+0.6**
BO02				IAML		05 34 40.1	
	comp=Z,439nm,0.1s						
BO02	**Sierra Bellavi**	**3.37**	**28**	*e*P	**Pn**	**05 33 59.1**	**+0.6**
PLCA	**Paso Flores**	**3.38**	**151**	*e*P	**Pn**	**05 33 59.0**	**+0.5**
PLCA				*e*S	Sn	05 34 52.4	+15
PLCA	**Paso Flores**	**3.38**	**151**	*e*P	**Pn**	**05 33 58.8**	**+0.3**
BO01	**Tunca**	**3.64**	**22**	*e*P	**Pn**	**05 34 02.0**	**0.0**
LL05	**Los Muermos**	**3.66**	**189**	*e*P	**Pn**	**05 34 01.8**	**-0.4**
MT01	**Popeta**	**4.09**	**17**	*e*P	**Pn**	**05 34 07.8**	**-0.4**
MT01				*e*S	**Sn**	**05 34 53.5**	**-1.5**
MT01				IAML		05 34 57.7	
	comp=Z,69nm,0.3s						
MT03	**Universidad Ad**	**4.65**	**23**	*e*P	**Pn**	**05 34 16.4**	**+0.5**
MT03				*e*S	**Sn**	**05 35 07.7**	**-0.9**
MT03				IAML		05 35 10.5	
	comp=Z,129nm,0.2s						
MT02	**Curacav**	**4.70**	**16**	*e*P	**Pn**	**05 34 15.8**	**-0.7**
MT02				*e*S	**Sn**	**05 35 06.8**	**-3.0**
MT02				IAML		05 35 11.0	
	comp=Z,42nm,0.2s						
MT04	**Ro Olivares**	**4.85**	**26**	*e*P	**Pn**	**05 34 19.4**	**+0.6**
MT04				*e*S	**Sn**	**05 35 13.6**	**-0.2**
MT04				IAML		05 35 17.8	
	comp=Z,57nm,0.5s						
VA03	**San Esteban**	**5.32**	**20**	*e*P	**Pn**	**05 34 25.1**	**+0.1**
VA03				*e*S	**Sn**	**05 35 23.5**	**-1.5**
VA03				IAML		05 35 25.9	
	comp=Z,67nm,0.5s						

*MAN **20** 06:19:58.0, 13°.65N×120°.24E, h13km, MS3.4*

IDC 20 06:19:51.3±1.4, **13°.79N×120°.88E, h0**km, **mb4.0**/4, **mbtmp4.1**/4, **MS3.1**/2, **Error ellipse: s-maj=64.2km s-min=22.7km az=60.0, Mindoro**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PPR	**Puerto Princes**	**4.51**	**208**	*e*P	Pg	06 21 16.5	-1.4
DAV	**Davao City (W)**	**8.12**	**145**	LR	LR	06 25 47.2	
	comp=Z,155nm,18.2s,baz=238,slow=44						
CMAR	**Chiang Mai Arr**	**21.57**	**285**	P	P	06 24 42.9	+0.1
	0.8nm,0.3s,baz=96,slow=11,SNR=1.5						
	0.8nm,0.3s						
JCJ	**Chichijima**	**23.90**	**53**	LR	LR	06 33 27.4	
	comp=Z,344nm,21.9s,baz=118,slow=34						
SONM	**Songino Array**	**36.02**	**343**	P	P	06 26 54.2	-0.2
	0.7nm,0.7s,baz=154,slow=8.0,SNR=4.7						
	0.7nm,0.7s						
WRA	**Warramunga Arr**	**36.05**	**158**	P	P	06 26 54.4	-0.3
	6.1nm,0.7s,baz=336,slow=9.5,SNR=67						
	6.1nm,0.7s						
ASAR	**Alice Springs**	**39.35**	**161**	P	P	06 27 22.8	+0.1
	3.1nm,0.6s,baz=340,slow=7.1,SNR=48						
	3.1nm,0.6s						

*SOME **20** 06:26:15.8, 41°.13N×83°.52E, h10km*
*NNC **20** 06:26:20.9±2.2, 41°.30N×83°.32E, h0km, mb3.8, mpv3.5,*
Error ellipse: s-maj=20.2km s-min=13.2km az=5.0

ISC 20 06:26:19.9±2.6, **41°.2N**±0°.1×**83°.24E**±0°.10, **h10**km, **n32**, σ2°.**72**/44, **3C-1D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KTMS	**Ketmen**	**3.08**	**317**	P	**Pb**	**06 27 15.4**	**+0.5**
KTMS	**Ketmen**	**3.08**	**317**	*e*P	**Pb**	**06 27 15.4**	**+0.5**
SHLS	**Shalkode**	**3.41**	**306**	Pg	**Pb**	**06 27 18.3**	**-2.1**
	26nm,0.6s						
SHLS				Lg	Lg	06 28 03.8	
	350nm,0.6s						
PDGK	**Podgornoye**	**3.49**	**308**	⇑Pn	**Pn**	**06 27 17.3**	**+3.0**
	5.1nm,0.4s						
PDGK				⇓Lg	Lg	06 28 10.4	
	100nm,0.6s						
UZB	**Uzynbulak**	**3.68**	**303**	Pg	**Pb**	**06 27 27.5**	**+2.5**
	4.9nm,0.3s						
UZB				Lg	Lg	06 28 19.5	
	110nm,0.6s						
UZB	**Uzynbulak**	**3.68**	**303**	*e*P	**Pb**	**06 27 27.5**	**+2.5**
	4.9nm,0.3s						
UZB				*e*S	**Sg**	**06 28 19.5**	**+1.6**
	110nm,0.6s						
DJR	**Jarkent**	**4.01**	**322**	Pg	**Pg**	**06 27 34.3**	**-2.3**
	23nm,0.6s						
DJR				Lg	Lg	06 28 30.8	
	25nm,0.9s						
DJR	**Jarkent**	**4.01**	**322**	*e*P	**Pg**	**06 27 34.3**	**-2.3**
	23nm,0.6s						
DJR				*e*S	**Sg**	**06 28 30.8**	**+2.2**
	25nm,0.9s						
SATY	**Saty**	**4.04**	**299**	Pg	**Pg**	**06 27 34.5**	**-2.6**
	7.6nm,0.5s						
SATY				Lg	Lg	06 28 30.9	
	62nm,0.6s						
SATY	**Saty**	**4.04**	**299**	*e*P	**Pg**	**06 27 34.5**	**-2.6**
	7.6nm,0.5s						
SATY				*e*S	**Sg**	**06 28 30.9**	**+1.5**
	62nm,0.6s						
KPKS	**Kokpek**	**4.05**	**305**	Pg	**Pb**	**06 27 33.4**	**+2.0**
	0.4nm,0.5s						
KPKS				Lg	Lg	06 28 29.0	
	207nm,0.8s						
KPKS	**Kokpek**	**4.05**	**305**	*e*P	**Pb**	**06 27 33.4**	**+2.0**
	0.4nm,0.5s						
KPKS				*e*S	**Sg**	**06 28 29.0**	**-0.9**
	207nm,0.8s						
KURS	**Kuram**	**4.38**	**303**	Pg	**Pb**	**06 27 40.3**	**+3.3**
	20nm,0.9s						
KURS				Lg	Lg	06 28 40.8	
	38nm,1.0s						
KURS	**Kuram**	**4.38**	**303**	*e*P	**Pb**	**06 27 40.3**	**+3.3**
	20nm,0.9s						
KURS				*e*S	**Sg**	**06 28 40.8**	**+0.2**
	38nm,1.0s						
BLB	**Baldybastay**	**4.53**	**311**	Pg	**Pg**	**06 27 44.0**	**-2.8**
	23nm,0.6s						
BLB				Lg	Lg	06 28 47.8	
	76nm,0.8s						
KOTS	**Kotyrbulak**	**4.97**	**296**	Pg	**Pb**	**06 27 49.2**	**+2.1**
	7.3nm,1.0s						
KOTS				Lg	Lg	06 28 56.7	
	85nm,0.9s						
KOTS	**Kotyrbulak**	**4.97**	**296**	*e*P	**Pb**	**06 27 49.2**	**+2.1**
	7.3nm,1.0s						
KOTS				*e*S	**Sg**	**06 28 56.7**	**-2.9**
	85nm,0.9s						
ARXS	**Arharly**	**4.98**	**309**	Pg	**Pb**	**06 27 50.9**	**+3.7**
	9.5nm,0.7s						
ARXS				Lg	Lg	06 28 59.2	
	38nm,0.8s						
ARXS	**Arharly**	**4.98**	**309**	*e*P	**Pb**	**06 27 50.9**	**+3.7**
	9.5nm,0.7s						
ARXS				*e*S	**Sg**	**06 28 59.2**	**-0.5**
	38nm,0.8s						
MDOK	**Medeo**	**4.99**	**295**	Pg	**Pg**	**06 27 51.8**	**-3.6**
	11nm,0.9s						
MDOK				Lg	Lg	06 29 01.0	
	40nm,0.5s						
MDOK	**Medeo**	**4.99**	**295**	*e*P	**Pg**	**06 27 51.8**	**-3.6**
	11nm,0.9s						
MDOK				*e*S	**Sg**	**06 29 01.0**	**+0.9**
	40nm,0.5s						
TNSS	**Tian-Shan**	**5.02**	**293**	Pg	**Pg**	**06 27 52.4**	**-3.6**
	2.8nm,0.9s						
TNSS				Lg	Lg	06 29 01.5	
	16nm,0.6s						
TNSS	**Tian-Shan**	**5.02**	**293**	*e*P	**Pg**	**06 27 52.4**	**-3.6**
	2.8nm,0.9s						
TNSS				*e*S	**Sg**	**06 29 01.5**	**+0.5**
	16nm,0.6s						
MTBS	**Maitube**	**5.41**	**293**	Pg	**Pb**	**06 27 58.6**	**+4.2**
	5.2nm,1.0s						
MTBS				Lg	Lg	06 29 12.2	
	26nm,0.8s						
MTBS	**Maitube**	**5.41**	**293**	*e*P	**Pb**	**06 27 58.6**	**+4.2**
	5.2nm,1.0s						
MTBS				*e*S	**Sg**	**06 29 12.2**	**-1.2**
	26nm,0.8s						
MK31	**Makanchi Array**	**5.61**	**353**	Pn	**Pn**	**06 27 43.0**	**-0.2**
	0.1nm,0.3s,baz=167,slow=12,SNR=16						
MK31				⇑Sn	**Sn**	**06 28 47.0**	**-0.8**
	3.0nm,0.5s,baz=168,slow=19,SNR=6.6						
MK31				⇑Lg	Lg	06 29 16.8	
	13nm,0.7s,baz=171,slow=26,SNR=6.2						
KST	**Kastek**	**5.71**	**291**	Pg	**Pg**	**06 28 05.0**	**-4.1**
	3.5nm,0.9s						
KST				Lg	Lg	06 29 23.2	
	37nm,0.8s						
KST	**Kastek**	**5.71**	**291**	*e*P	**Pg**	**06 28 05.0**	**-4.1**
	3.5nm,0.9s						
KST				*e*S	**Sg**	**06 29 23.2**	**+0.2**
	37nm,0.8s						
DGS	**Degeres**	**5.90**	**292**	Pg	Pg	06 28 08.0	-4.9
	1.6nm,0.5s						
DGS				Lg	Lg	06 29 28.5	
	21nm,0.7s						
DGS	**Degeres**	**5.90**	**292**	*e*P	Pg	06 28 08.0	-4.9
	1.6nm,0.5s						
DGS				*e*S	**Sg**	**06 29 28.5**	**-0.7**
	21nm,0.7s						
MRKS	**Merke**	**7.62**	**285**	Pg	**Pg**	**06 28 41.7**	**-4.0**
	1.4nm,0.5s						
MRKS				Lg	Lg	06 30 26.0	
	7.4nm,0.9s						
MRKS	**Merke**	**7.62**	**285**	*e*P	**Pg**	**06 28 41.7**	**-4.0**
	1.4nm,0.5s						
MRKS				*e*S	**Sg**	**06 30 26.0**	**+1.8**
	7.4nm,0.9s						

*IDC **20** 07:22:18.0±1.4, 49°.76N×81°.62E, h0km, mbtmp2.4/2,*
ML2.0/2, Error ellipse: s-maj=15.5km s-min=11.1km
az=83.0
*NNC **20** 07:22:17.2±0.9, 49°.66N×81°.59E, h0km, mb3.0, mpv2.6,*
Error ellipse: s-maj=11.8km s-min=4.7km az=46.0,
Suspected Mining explosion.

ISC 20 07:22:11.5±1.4, **49°.83N**±0°.07×**82°.15E**±0°.08, **h0**km, **n7**, σ0°.**96**/6, **4C-1D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.43**	**293**	⇑Pg	**Pb**	**07 22 56.9**	**+0.8**
	4.4nm,0.7s						
KURK				⇓Lg	Lg	07 23 26.8	
	3.4nm,0.4s						
KURBB	**Kurchatov Arra**	**2.46**	**290**	Pg	**Pg**	**07 22 57.7**	**-0.9**
	0.2nm,0.3s,baz=112,slow=19,SNR=56						
KURBB				Lg	Lg	07 23 28.2	
	0.7nm,0.3s,baz=108,slow=31,SNR=19						
KURBB	**Kurchatov Arra**	**2.46**	**290**	⇑Pg	**Pb**	**07 22 57.1**	**+0.7**
	14nm,0.8s						
KURBB				⇑Lg	Lg	07 23 27.4	
	26nm,0.5s						
MK31	**Makanchi Array**	**3.04**	**178**	⇑Pg	**Pg**	**07 23 09.8**	**0.0**
	0.1nm,0.2s,baz=352,slow=15,SNR=19						
MK31				Lg	Lg	07 23 51.1	
	2.0nm,0.6s,baz=350,slow=28,SNR=8.8						
MKAR	**Makanchi Array**	**3.04**	**178**	Pn	**Pg**	**07 23 08.8**	**-0.9**
	0.6nm,0.3s,baz=353,slow=14,SNR=19						
MKAR				Lg	Lg	07 23 50.1	
	0.9nm,0.3s,baz=352,slow=30,SNR=11						
	0.7nm,0.3s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**4.44**	**21**	I	I	07 52 45.8	
	baz=201,slow=325,SNR=3.2						
ZALV	**Zalesovo Beam**	**4.44**	**21**	Pn	**Pb**	**07 23 30.7**	**+0.4**
	0.1nm,0.3s,baz=204,slow=12,SNR=2.0						
ZALV				Lg	Lg	07 24 45.5	
	0.4nm,0.3s,baz=203,slow=32,SNR=7.1						
	0.3nm,0.3s						
ZALV				AML	AML		

IDC 20 07:28:35.2±1.0, **4°.83S×151°.49E, h117**km±30km, **mb2.9**/2, **mbtmp3.2**/2, **MS3.8**/1, **Error ellipse: s-maj=186.3km s-min=35.4km az=122.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**0.74**	**46**	P	Pn	07 28 54.9	+0.3
	95nm,0.5s,baz=300,slow=14,SNR=1.4						
KRVT				S	Sn	07 29 10.4	+1.1
	86nm,0.3s,baz=354,slow=22,SNR=2.1						
WRA	**Warramunga Arr**	**22.46**	**227**	P	P	07 33 25.1	+0.1
	0.5nm,0.6s,baz=51,slow=9.8,SNR=5.0						
	0.5nm,0.6s						
ASAR	**Alice Springs**	**25.27**	**220**	P	P	07 33 51.0	+0.1
	0.2nm,0.3s,baz=58,slow=9.2,SNR=7.4						
	0.2nm,0.3s						
DAV	**Davao City (W)**	**28.43**	**294**	LR	LR	07 44 59.9	
	comp=Z,215nm,21.3s,baz=310,slow=35						
TORD	**Torodi Ar. Bea**	**149.07**	**288**	PKPbc	PKPbc	07 48 10.2	-0.7
	1.4nm,0.9s,baz=86,

	comp=E,382nm,0.3s								
ZEYE					S		**Sg**	**07 40 11.3**	**+0.4**
DDIM	**Aydin, Didim**	**0.52**	**143**		P		**Pg**	**07 40 06.3**	**+0.4**
DDIM					IAML			07 40 14.0	
	comp=E,391nm,0.6s								
DDIM					S		**Sb**	**07 40 14.4**	**-0.3**
DDIM					IAML			07 40 19.0	
	comp=N,209nm,0.3s								
BLCB	**Balcova**	**0.53**	**16**		P		**Pg**	**07 40 05.8**	**-0.5**
BLCB					S		**Sg**	**07 40 13.4**	**+0.1**
BLCB					AML		AML		
BLCB	**Balcova**	**0.53**	**16**		Pg		**Pg**	**07 40 05.9**	**-0.5**
BLCB					Sg		**Sg**	**07 40 13.5**	**+0.2**
BLCB					AML		AML		
DUVT	**Torbali**	**0.58**	**53**		P		**Pg**	**07 40 06.7**	**-0.6**
DUVT					S		**Sg**	**07 40 14.3**	**-0.6**
DUVT					IAML			07 40 19.0	
	comp=E,316nm,0.4s								
DAGE	**izmir**	**0.72**	**79**		P		**Pb**	**07 40 10.6**	**-0.2**
DAGE					S		**Sg**	**07 40 18.6**	**-0.7**
DAGE					IAML			07 40 22.0	
	comp=E,151nm,0.3s								
DAGE					IAML			07 40 23.0	
	comp=N,113nm,0.1s								
KRBN	**Karaburun**	**0.76**	**342**		Pg		**Pg**	**07 40 10.8**	**+0.2**
KRBN					Sg		**Sb**	**07 40 21.8**	**-0.1**
KRBN					AML		AML		
CHOS	**Chios island**	**0.81**	**309**		P		**Pg**	**07 40 11.6**	**-0.1**
CHOS					S		**Sb**	**07 40 23.0**	**-0.5**
CHOS					AML		AML		
CHOS	**Chios island**	**0.81**	**309**		Pg		**Pb**	**07 40 12.0**	**-0.4**
CHOS					Sg		**Sb**	**07 40 23.2**	**-0.3**
CHOS					AML		AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**156**		Pg		**Pg**	**07 40 11.5**	**-0.2**
YKAV					Sg		**Sb**	**07 40 22.9**	**-0.6**
YKAV					AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**84**		Pg		**Pg**	**07 40 11.8**	**0.0**
AYDB					Sg		**Sb**	**07 40 23.4**	**-0.4**
AYDB					AML		AML		
AYDN	**Tasoluk**	**0.84**	**104**		P		**Pg**	**07 40 12.0**	**-0.1**
AYDN					S		**Sb**	**07 40 25.3**	**+1.1**
AYDN					IAML			07 40 27.0	
	comp=N,104nm,0.3s								
AYDN					IAML			07 40 27.0	
	comp=E,139nm,0.4s								
FOCM	**Foa**	**0.85**	**353**		Pg		**Pb**	**07 40 12.5**	**-0.4**
FOCM					AML		AML		
KARB	**zmir-Karabur**	**0.86**	**336**		P		**Pb**	**07 40 12.9**	**-0.3**
KARB					S		**Sb**	**07 40 25.1**	**+0.2**
KARB					IAML			07 40 26.0	
	comp=N,212nm,0.5s								
KARB					IAML			07 40 26.0	
	comp=E,212nm,0.2s								
BODT	**Bodrum**	**0.89**	**156**		S		**Sb**	**07 40 25.9**	**+0.4**
BODT					AML		AML		
BODT	**Bodrum**	**0.89**	**156**		Pg		**Pg**	**07 40 12.9**	**-0.1**
BODT					Sg		**Sb**	**07 40 25.5**	**0.0**
BODT					AML		AML		
IZMR	**zmir-demi**	**0.91**	**73**		P		**Pb**	**07 40 13.8**	**-0.1**
IZMR					S		**Sg**	**07 40 24.4**	**-0.8**
IZMR					IAML			07 40 29.0	
	comp=N,46nm,0.4s								
IZMR					IAML			07 40 31.0	
	comp=E,43nm,0.7s								
BDRM	**Kayabasi**	**0.93**	**150**		P		**Pn**	**07 40 14.9**	**-0.4**
BDRM					S		**Sb**	**07 40 27.2**	**+0.4**
MLSB	**Milas**	**0.93**	**128**		Pg		**Pb**	**07 40 14.0**	**-0.3**
MLSB					AML		AML		
CAMT	**Merkez**	**0.95**	**22**		P		**Pg**	**07 40 13.8**	**-0.4**
CAMT					S		**Sb**	**07 40 27.6**	**+0.3**
CAMT					IAML			07 40 29.0	
	comp=E,320nm,0.6s								
CAMT					IAML			07 40 32.0	
	comp=N,275nm,0.4s								
ZEDA	**zmir-Bergama**	**1.11**	**9**		P		**Pn**	**07 40 17.5**	**-0.2**
ZEDA					S		**Sn**	**07 40 33.4**	**+0.2**
ZEDA					IAML			07 40 35.0	
	comp=N,74nm,0.3s								
ZEDA					IAML			07 40 35.0	
	comp=E,61nm,0.3s								
NAZL	**Nazilli-Aydin**	**1.14**	**85**		Pn		**Pb**	**07 40 17.9**	**0.0**
NAZL					AML		AML		
GOMA	**Golmarmara-Man**	**1.18**	**45**		Pn		**Pg**	**07 40 18.3**	**-0.3**
GOMA					AML		AML		
ESEN	**Aydn-Nazilli**	**1.18**	**93**		P		**Pb**	**07 40 18.6**	**0.0**
ESEN					S		**Sn**	**07 40 35.8**	**+0.8**
DKL	**Dikili**	**1.20**	**2**		Pn		**Pg**	**07 40 18.7**	**-0.3**
DKL					AML		AML		
KIRA	**zmir-Kiraz**	**1.26**	**75**		P		**Pn**	**07 40 19.6**	**-0.4**
KIRA					S		**Sg**	**07 40 35.0**	**-1.6**
KTTT	**Salihli**	**1.27**	**50**		Pg		**Pg**	**07 40 20.7**	**+0.4**
KTTT					S		**Sb**	**07 40 35.9**	**-0.7**
KTTT					IAML			07 40 39.0	
	comp=N,59nm,0.4s								
DAT	**Datca**	**1.28**	**153**		Pn		**Pn**	**07 40 19.9**	**-0.3**
DAT					AML		AML		
YAZI	**Mula-Dat§a-**	**1.28**	**158**		P		**Pg**	**07 40 20.4**	**-0.1**
YAZI					S		**Sn**	**07 40 38.1**	**+0.7**
APE	**Apeiranthos**	**1.32**	**233**		P		**Pn**	**07 40 19.6**	**-1.1**
APE					S		**Sn**	**07 40 39.2**	**+0.6**
APE	**Apeiranthos**	**1.32**	**233**		Pn		**Pg**	**07 40 21.2**	**-0.2**
APE					AML		AML		
YER	**Yerkesik**	**1.35**	**123**		Pn		**Pg**	**07 40 21.9**	**0.0**
YER					AML		AML		
SOMA	**Soma-Manisa**	**1.39**	**22**		Pn		**Pb**	**07 40 22.0**	**-0.1**
SOMA					AML		AML		
GORD	**Gordes-Manisa**	**1.47**	**45**		Pn		**Pb**	**07 40 23.2**	**-0.3**
GORD					AML		AML		
MANT	**Manisa**	**1.48**	**65**		P		**Pg**	**07 40 25.2**	**+0.9**
MANT					S		**Sn**	**07 40 41.8**	**-0.9**
KULA	**Kula-Manisa**	**1.56**	**65**		Pn		**Pn**	**07 40 24.4**	**+0.4**
KULA					AML		AML		
BUHA	**Balikesir, Bur**	**1.64**	**6**		P		**Pb**	**07 40 26.3**	**0.0**
BUHA					S		**Sg**	**07 40 49.5**	**+0.9**
BUHA					IAML			07 40 51.0	
	comp=E,103nm,0.4s								
BUHA					IAML			07 40 52.0	
	comp=N,42nm,0.3s								
YAYO	**Edremit-Balk**	**1.75**	**6**		Pn		**Pb**	**07 40 27.5**	**-0.7**
YAYO					AML		AML		
BALB	**Balikesir**	**1.94**	**24**		Pn		**Pn**	**07 40 30.0**	**+0.8**
BALB					AML		AML		
EZN	**Ezine**	**2.00**	**348**		Pn		**Pn**	**07 40 30.9**	**+1.0**
EZN					AML		AML		
SIMA	**Simav-Kutahya**	**2.06**	**53**		Pn		**Pn**	**07 40 31.6**	**+0.7**
SIMA					AML		AML		
BOZC	**Bozcaada**	**2.06**	**343**		Pn		**Pn**	**07 40 32.0**	**+1.1**
BOZC					AML		AML		

*IPEC **20** 07:45:50.3±0.1,50.˚18N×19.˚03E, h1km, ML2.5/6, Error ellipse: s-maj=1.7km s-min=0.8km az=2.0*
*PRU **20** 07:45:51.0, 50.˚26N×19.˚01E, h0km*
ISC 20 07:45:49.9±0.9, 50.˚16N±0.˚04×19.˚02E±0.˚02, h0km, n22, σ0§60/41, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
OJC	**Ojcow**	**0.51**	**83**	*e*Pg	**Pg**	**07 45 59.9**		**+0.3**
OJC				*e*Sg	**Sg**	**07 46 06.7**		**+0.5**
OKC	**Ostrava-Krasne**	**0.65**	**240**	*e*PG	**Pb**	**07 46 04.2**		**+0.1**
OKC				*e*SG	**Sb**	**07 46 13.7**		**0.0**
	comp=Z,11nm,0.2s							
OKC				AML	AML			
STEB	**Steborice**	**0.83**	**255**	*e*SG	**Sb**	**07 46 18.9**		**-0.1**
	comp=Z,97nm,0.3s							
STEB				AML	AML			
MORC	**Moravsky Berou**	**1.03**	**248**	*e*Pg	**Pb**	**07 46 10.3**		**-0.3**
	baz=66							
MORC				*e*Sg	**Sg**	**07 46 23.0**		**+0.2**
	70nm,0.4s,baz=66							
MORC				AML	AML			
MORC	**Moravsky Berou**	**1.03**	**248**	*e*PG	**Pb**	**07 46 10.4**		**-0.2**
MORC				*e*SG	**Sg**	**07 46 23.1**		**+0.2**
LANS	**Liptovska Anna**	**1.05**	**164**	*e*PG	**Pb**	**07 46 11.2**		**+0.1**
LANS				*e*SG	**Sb**	**07 46 26.2**		**+0.8**
LANS				*e*LG	Lg	07 46 28.8		
ANAC	**Anensky vrch**	**1.06**	**266**	*e*Pg	**Pb**	**07 46 10.8**		**-0.3**
	baz=84							
ANAC				*e*Sg	**Sg**	**07 46 23.9**		**0.0**
	93nm,0.3s,baz=84							
ANAC				AML	AML			

MAUC	**Maruska**	**1.11**	**224**		*e*PG		**Pn**	**07 46 12.5**	**-0.3**
MAUC					*e*SG		**Sn**	**07 46 28.5**	**-0.3**
	comp=Z,110nm,0.5s								
MAUC					AML		AML		
NIE	**Niedzica**	**1.12**	**131**		*e*Pg		**Pn**	**07 46 12.6**	**-0.3**
NIE					*e*Sg		**Sb**	**07 46 27.7**	**+0.5**
LOSC	**Losov**	**1.19**	**244**		*e*Pg		**Pb**	**07 46 13.5**	**+0.1**
	baz=62								
LOSC					*e*Sg		**Sg**	**07 46 28.1**	**-0.1**
	60nm,0.4s,baz=62								
LOSC					AML		AML		
JAVC	**Velka Javorina**	**1.57**	**214**		*e*Pn		**Pb**	**07 46 19.5**	**-0.4**
	baz=33								
VYHS	**Vyhne**	**1.67**	**184**		*e*PN		**Pn**	**07 46 20.6**	**+0.1**
VYHS					*e*SN		**Sn**	**07 46 42.5**	**-0.2**
VYHS					*e*LG		Lg	07 46 47.8	
DPC	**Dobruska-Polom**	**1.74**	**277**		*e*PG		**Pn**	**07 46 21.6**	**+0.2**
DPC					*e*SG		**Sg**	**07 46 46.4**	**+0.6**
	comp=Z,33nm,0.4s								
DPC					AML		AML		
VRAC	**Vranov**	**1.79**	**242**		*e*Pn		**Pn**	**07 46 22.5**	**+0.4**
	baz=60								
VRAC					*e*Sg		**Sg**	**07 46 46.8**	**-0.6**
	29nm,0.6s,baz=60								
VRAC					AML		AML		
KSP	**Ksiaz**	**1.87**	**292**		*e*Pg		**Pg**	**07 46 26.0**	**+0.3**
KSP					*e*Sg		**Sg**	**07 46 50.8**	**+0.9**
KECS	**Kecovo**	**1.94**	**150**		*e*PN		**Pn**	**07 46 24.0**	**-0.1**
KECS					*e*SN		**Sn**	**07 46 48.1**	**-1.0**
KECS					*e*LG		Lg	07 46 56.1	
KRUC	**Moravsky**	**2.03**	**238**		*e*Pn		**Pn**	**07 46 25.8**	**+0.4**
	baz=56								
KRUC					*e*Sg		**Sg**	**07 46 54.5**	**-0.6**
	17nm,0.5s,baz=56								
KRUC					AML		AML		
MODS	**Modra-Piesok**	**2.12**	**213**		*e*PG		**Pg**	**07 46 31.7**	**+1.1**
KOLS	**Kolonicke sedl**	**2.45**	**119**		*e*PG		**Pg**	**07 46 36.6**	**-0.3**
KOLS					*e*SN		**Sn**	**07 47 00.9**	**-1.0**
KOLS					*e*LG		Lg	07 47 07.1	
BRG	**Berggiesshubel**	**3.31**	**284**		Pg		**Pg**	**07 46 52.8**	**-0.6**
BRG					Sg		**Sg**	**07 47 35.0**	**-1.3**
BRG					Amp			07 47 39.4	
	comp=Z,6.7nm,0.4s								
KHC	**Kasperske Hory**	**3.68**	**256**		*e*PN		**Pn**	**07 46 50.0**	**+1.9**
KHC					*e*PG		**Pg**	**07 47 00.0**	**-0.5**
KHC					*e*SG		**Sg**	**07 47 47.7**	**-0.4**
	comp=Z,5.2nm,0.4s								
KHC					AML		AML		
CLL	**Collm**	**3.99**	**289**		*e*Sg		**Sg**	**07 47 58.0**	**0.0**
	comp=Z,9.0nm,0.5s								

*IDC **20** 07:58:16.0±3.8, 16.˚53S×168.˚00E, h0km, mb4.2/5, mbtmp4.3/6, ML4.5/1, MS3.3/5, Error ellipse: s-maj=65.0km s-min=31.1km az=53.0*
*NOU **20** 07:58:22.3, 16.˚89S×167.˚95E, h32km, MLv4.6/21, Vanuatu Islands*
*NEIC **20** 07:58:22.5±0.7, 16.˚86S±0.˚06×167.˚87E±0.˚09, h26km±8km, mb4.4/11, Error ellipse: s-maj=13.2km s-min=7.0km az=62.0*
ISC 20 07:58:21.6±0.7, 16.˚93S±0.˚05×167.˚87E±0.˚07, h21km, n39, σ1§07/38, mb4.4/8, MS3.3/3, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
DVP	**Devils Point**	**0.85**	**159**	P	**Pn**	**07 58 40.0**		**+1.7**
RTV	**Rentapao**	**1.01**	**148**	P	**Pb**	**07 58 41.0**		**+0.6**
RTV	**Rentapao**	**1.01**	**148**	S	**Sb**	**07 58 53.4**		**+0.1**
SANVU	**Saraoutou**	**1.60**	**337**	P	**Pn**	**07 58 47.9**		**-0.8**
SANVU	**Saraoutou**	**1.60**	**337**	S	**Sn**	**07 59 08.3**		**-0.4**
SANVU	**Saraoutou**	**1.60**	**337**		**Pn**	**07 58 48.1**		**-0.5**
MARNC	**Mare, Loyalty**	**4.53**	**178**	P	**Pn**	**07 59 29.0**		**0.0**
MARNC	**Mare, Loyalty**	**4.53**	**178**	Pn	**Pn**	**07 59 28.8**		**-0.1**
KOUNC	**Koumac, New Ca**	**4.95**	**223**	P	**Pn**	**07 59 36.1**		**+1.4**
	97nm,0.9s							
KOUNC				AML	AML			
KOUNC	**Koumac, New Ca**	**4.95**	**223**		**Pn**	**07 59 35.7**		**+1.0**
KOUNC				Sn	**Sn**	**08 00 30.1**		**-1.2**
YATNC	**Mamie plateau,**	**5.19**	**190**	P	**Pn**	**07 59 38.1**		**+0.1**
	37nm,0.6s							
YATNC				AML	AML			
DZM	**Mont Dzumac**	**5.29**	**194**	Pn	**Pn**	**07 59 40.6**		**+1.1**
	15nm,0.3s,baz=356,slow=19,SNR=163							
DZM				Sn	**Sn**	**08 00 37.6**		**-2.3**
	6.3nm,0.3s,baz=308,slow=19,SNR=5.6							
	37nm,0.5s							
DZM				AML	AML			
NOUC	**Port Laguerre**	**5.35**	**196**	P	**Pn**	**07 59 41.5**		**+1.2**
	42nm,0.5s							
NOUC				AML	AML			
ONTNC	**Ouen Toro**	**5.51**	**194**	P	**Pn**	**07 59 43.5**		**+1.0**
	53nm,1.0s							
ONTNC				AML	AML			
ONTNC	**Ouen Toro**	**5.51**	**194**		**Pn**	**07 59 43.3**		**+0.8**
ONTNC				Sn	**Sn**	**08 00 43.0**		**-2.3**
OUENC	**Ouen Island, N**	**5.55**	**190**	Pn	**Pn**	**07 59 44.3**		**+1.4**
PINNC	**Pines Island,**	**5.67**	**184**	Pn	**Pn**	**07 59 46.1**		**+1.5**
NGOA	**Tingoa Renbel**	**9.26**	**304**	P	**Pn**	**08 00 34.9**		**+1.0**
	99nm,1.2s							
MSVF	**Nonsavu**	**9.76**	**96**	LR	LR	08 03 55.9		
	comp=Z,174nm,19.1s,baz=188,slow=35							
FUNA	**Funafuti**	**13.85**	**54**	Pn	**Pn**	**08 01 35.2**		**-1.5**
EIDS	**Eidsvold**	**17.75**	**239**	P	**Pn**	**08 02 27.6**		**+0.1**
EIDS				IAmb	IAmb	08 03 08.9		
	comp=Z,12nm,1.2s							
AFI	**Afiamalu**	**19.85**	**84**	LR	LR	08 08 49.2		
	comp=Z,62nm,19.2s,baz=179,slow=32							
CTA	**Charters Tower**	**20.73**	**258**	P	**P**	**08 03 02.0**		**+1.1**
	comp=Z,3.0nm,0.4s,baz=73,slow=10,SNR=6.1							
	comp=Z,3.0nm,0.4s							
CTAO	**Charters Tower**	**20.73**	**258**	P	**P**	**08 03 00.5**		**-0.4**
CTAO				IAmb	IAmb	08 03 25.9		
	comp=Z,29nm,1.4s							
INKA	**Innaminka**	**27.24**	**242**	P	**P**	**08 04 04.1**		**-0.1**
INKA				IAmb	IAmb	08 04 23.2		
	comp=Z,3.9nm,1.3s							
STKA	**Stephens Creek**	**28.07**	**233**	P	**P**	**08 04 12.0**		**+0.2**
	comp=Z,3.3nm,0.6s,baz=54,slow=8.1,SNR=11							
	comp=Z,3.3nm,0.6s							
STKA	**Stephens Creek**	**28.07**	**233**	P	**P**	**08 04 11.8**		**0.0**
WR8	**Warramunga Arr**	**31.77**	**259**	P	**P**	**08 04 43.5**		**-1.1**
WR8				IAmb	IAmb	08 05 16.6		
	comp=Z,9.3nm,1.3s							
WRA	**Warramunga Arr**	**31.92**	**259**	P	**P**	**08 04 45.0**		**-0.9**
	comp=Z,0.4nm,0.4s,baz=84,slow=8.0,SNR=13							
	comp=Z,0.4nm,0.4s							
WRA	**Warramunga Arr**	**31.92**	**259**	P	**P**	**08 04 45.1**		**-0.9**
AS31	**Alice Springs**	**32.49**	**252**		**P**	**08 04 50.5**		**-0.6**
ASAR	**Alice Springs**	**32.49**	**252**	P	**P**	**08 04 50.6**		**-0.4**
	comp=Z,18nm,0.6s,baz=79,slow=8.6,SNR=326							
ASAR				LR	LR	08 16 17.2		
	comp=Z,59nm,19.3s,baz=121,slow=33							
	comp=Z,18nm,0.6s							
BBOO	**Buckleboo**	**32.74**	**235**	P	**P**	**08 04 53.0**		**-0.1**
BBOO				IAmb	IAmb	08 05 25.1		
	comp=Z,18nm,1.2s							
GUMO	**Guam**	**37.89**	**322**	LR	LR	08 22 54.5		
	comp=Z,15nm,18.6s,baz=112,slow=39							
FITZ	**Fitzroy Crossi**	**40.22**	**262**	P	**P**	**08 05 56.4**		**-0.6**
SBA	**Scott Base**	**60.95**	**180**	P	**P**	**08 08 34.3**		**+1.7**
SBA				IAmb	IAmb	08 08 56.9		
	comp=Z,6.8nm,1.4s							
QSPA	**South Pole Qui**	**73.11**	**180**	P	**P**	**08 09 50.9**		**+0.7**
	comp=Z,1.2nm,0.8s,baz=9.3,slow=1.2,SNR=3.0							
	comp=Z,1.2nm,0.8s							
QSPA	**South Pole Qui**	**73.11**	**180**	P	**P**	**08 09 51.0**		**+0.7**
QSPA				IAmb	IAmb	08 10 02.1		
	comp=Z,5.5nm,1.4s							
ILAR	**Eielson Array**	**88.43**	**18**	LR	LR	08 46 10.9		
	comp=Z,24nm,18.9s,baz=259,slow=33							

*NOU **20** 07:58:23.6, 34.˚93S×179.˚98W, h323km, mb4.0/12, South of Kermadec Islands*
*IDC **20** 07:58:40.9±3.6, 35.˚29S×178.˚57E, h164km±29km, mb4.0/5, mbtmp4.4/6, Error ellipse: s-maj=39.8km s-min=19.4km az=44.0*
*NEIC **20** 07:58:42.9±0.9, 35.˚4S±0.˚1×178.˚5E±0.˚2, h175km±12km, mb4.3/10, Error ellipse: s-maj=22.3km s-min=13.8km az=70.0*
*WEL **20** 07:58:47.3±0.8, 36.˚S±7.˚×17.˚8E±.˚, h191km±12km, M4.0/22, ML4.0/20, MLv4.0/22, Error ellipse: s-maj=11.1km s-min=8.3km az=52.7*
ISC 20 07:58:45.1±1.0, 35.˚80S±0.˚07×178.˚34E±0.˚07, h204km±7km, n106, σ1§60/132, mb4.3/10, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
MXZ	**Matakaoa Point**	**1.76**	**181**	P	**Pn**	**07 59 21.2**		**-0.4**
MXZ	**Matakaoa Point**	**1.76**	**181**		**Pn**	**07 59 21.3**		**-0.2**
MXZ	**Matakaoa Point**	**1.76**	**181**	P	**Pn**	**07 59 21.6**		**+0.1**
MXZ				S	**Sn**	**07 59 47.8**		**-2.4**
MXZ				AML	AML			
MXZ				AML	AML			
HAZ	**Te Kaha**	**2.01**	**193**	P	**Pn**	**07 59 23.9**		**-0.1**
HAZ				S	**Sn**	**07 59 53.2**		**-1.2**
HAZ				AML	AML			
HAZ				AML	AML			
RUGZ	**Raukumara Rang**	**2.23**	**194**	P	**Pn**	**07 59 26.1**		**-0.3**
RUGZ				S	**Sn**	**07 59 57.2**		**-1.6**
RUGZ				AML	AML			
RUGZ				AML	AML			
PUZ	**Puketiti**	**2.27**	**182**	P	**Pn**	**07 59 26.8**		**0.0**
PUZ				S	**Sn**	**07 59 57.9**		**-1.5**
PUZ				AML	AML			
PUZ				AML	AML			
WHRZ	**Whale Island**	**2.33**	**208**	P	**Pn**	**07 59 28.1**		**+0.7**
TWGZ	**Tauwhareparae**	**2.40**	**187**	P	**Pn**	**07 59 28.8**		**+0.7**
TWGZ				S	**Sn**	**08 00 01.8**		**-0.1**
TWGZ				AML	AML			
TWGZ				AML	AML			
OPRZ	**Ohinepanea**	**2.50**	**214**	P	**Pn**	**07 59 30.3**		**+1.2**
OPRZ				S	**Sn**	**08 00 05.2**		**+1.4**
OPRZ				AML	AML			
OPRZ				AML	AML			
MARZ	**Manawahe**	**2.56**	**211**	P	**Pn**	**07 59 31.2**		**+1.2**
MARZ				AML	AML			
MARZ				AML	AML			
MWZ	**Matawai**	**2.62**	**194**	P	**Pn**	**07 59 31.0**		**+0.4**
MWZ				S	**Sn**	**08 00 05.1**		**-1.1**
MWZ				AML	AML			
MWZ				AML	AML			
URZ	**Urewera**	**2.65**	**201**	P	**Pn**	**07 59 30.9**		**0.0**
	25nm,0.4s,baz=302,slow=2.4,SNR=156							
URZ				S	**Sn**	**08 00 05.8**		**-1.0**
	67nm,0.6s,baz=72,slow=22,SNR=6.9							
URZ	**Urewera**	**2.65**	**201**	P	**Pn**	**07 59 30.5**		**-0.4**
URZ	**Urewera**	**2.65**	**201**	P	**Pn**	**07 59 30.8**		**0.0**
URZ				AML	AML			
URZ				AML	AML			
TKGZ	**Te Karaka**	**2.67**	**188**	P	**Pn**	**07 59 31.3**		**+0.2**
TKGZ				S	**Sn**	**08 00 06.4**		**-0.8**
TKGZ				AML	AML			
TKGZ				AML	AML			
CNGZ	**Carnagh Statio**	**2.69**	**182**	P	**Pn**	**07 59 32.1**		**+0.8**
CNGZ				AML	AML			
CNGZ				AML	AML			
WIAZ	**Waiheke Island**	**2.78**	**248**	P	**Pn**	**07 59 32.3**		**0.0**
WIAZ				AML	AML			
KARZ	**Kaharoa**	**2.79**	**216**	P	**Pn**	**07 59 34.5**		**+2.1**
KARZ				AML	AML			
KARZ				AML	AML			
RAGZ	**Rawiri**	**2.79**	**195**	P	**Pn**	**07 59 33.4**		**+0.7**
RAGZ				AML	AML			
RAGZ				AML	AML			
TARZ	**Mount Tarawera**	**2.84**	**211**	P	**Pn**	**07 59 35.3**		**+2.1**
TARZ				AML	AML			
TARZ				AML	AML			
MKAZ	**Moumakai**	**2.88**	**242**	P	**Pn**	**07 59 33.8**		**+0.3**
RIGZ	**Rimuhau**	**2.94**	**189**	P	**Pn**	**07 59 34.2**		**-0.1**
RIGZ				AML	AML			
RIGZ				AML	AML			
MUNZZ	**Murupara**	**2.96**	**205**	P	**Pn**	**07 59 34.9**		**+0.5**
MUGZ				AML	AML			
MUGZ				AML	AML			
TOZ	**Tahuroa Road**	**2.99**	**229**		**Pn**	**07 59 35.5**		**+0.7**
TOZ	**Tahuroa Road**	**2.99**	**229**	P	**Pn**	**07 59 36.1**		**+1.3**
TOZ				AML	AML			
RTZ	**Ruatahuna**	**3.02**	**201**		**Pn**	**07 59 34.8**		**-0.4**
RTZ	**Ruatahuna**	**3.02**	**201**	P	**Pn**	**07 59 34.9**		**-0.4**
RTZ				S	**Sn**	**08 00 12.7**		**-1.9**
RTZ				AML	AML			
RTZ				AML	AML			
PRGZ	**Paritu Road**	**3.14**	**187**	P	**Pn**	**07 59 36.6**		**-0.1**
PRGZ				S	**Sn**	**08 00 16.6**		**-0.5**
PRGZ				AML	AML			
PRGZ				AML	AML			
ALRZ	**Allen Road**	**3.19**	**209**	P	**Pn**	**07 59 37.9**		**+0.7**
ALRZ				S	**Sn**	**08 00 15.1**		**-3.0**
ALRZ				AML	AML			
ALRZ				AML	AML			
WCZ	**Waipu Caves**	**3.25**	**266**	P	**Pn**	**07 59 37.1**		**-0.8**
KNZ	**Kokohu**	**3.27**	**189**	P	**Pn**	**07 59 37.7**		**-0.3**
KNZ				AML	AML			
KNZ				AML	AML			
RAHZ	**Arahi**	**3.27**	**197**	P	**Pn**	**07 59 38.3**		**+0.1**
RAHZ				S	**Sn**	**08 00 17.7**		**-2.1**
RAHZ				AML	AML			
RAHZ				AML	AML			
MTHZ	**Maungataniwha**	**3.28**	**201**	P	**Pn**	**07 59 37.8**		**-0.5**
MTHZ				S	**Sn**	**08 00 18.4**		**-1.6**
MTHZ				AML	AML			
MTHZ				AML	AML			
MHGZ	**Mahia Peninsul**	**3.37**	**186**	P	**Pn**	**07 59 39.2**		**-0.1**
MHGZ				S	**Sn**	**08 00 21.2**		**-0.7**
MHGZ				AML	AML			
MHGZ				AML	AML			
WHHZ	**Waihua**	**3.39**	**195**	P	**Pn**	**07 59 39.6**		**0.0**
WHHZ				S	**Sn**	**08 00 21.9**		**-0.5**
WHHZ				AML	AML			
WHHZ				AML	AML			
MRHZ	**Matea Rd**	**3.40**	**206**	P	**Pn**	**07 59 39.7**		**0.0**
MRHZ				S	**Sn**	**08 00 19.2**		**-3.4**
MRHZ				AML	AML			
MRHZ				AML	AML			
NMHZ	**Naumai**	**3.52**	**200**	P	**Pn**	**07 59 41.4**		**+0.3**

WPHZ	**Waipukurau**	**4.52**	**199**	P	**Pn**	**07 59 52.6**	**-0.9**
WPHZ				S	**Sn**	**08 00 44.9**	**-2.5**
TSZ	**Takapari Road**	**4.65**	**203**	P	**Pn**	**07 59 54.0**	**-1.2**
PRHZ	**Porangahau**	**4.66**	**196**	P	**Pn**	**07 59 53.9**	**-1.4**
PRHZ				S	**Sn**	**08 00 49.1**	**-1.6**
DVHZ	**Dannevirke**	**4.81**	**200**	P	**Pn**	**07 59 55.3**	**-1.9**
ANWZ	**Angora Road**	**4.88**	**197**	P	**Pn**	**07 59 56.6**	**-1.5**
ANWZ				S	**Sn**	**08 00 52.9**	**-2.8**
KHEZ	**Kahui Hut**	**4.90**	**223**	P	**Pn**	**08 00 00.6**	**+2.2**
	133nm,2.2s						
KHEZ				AML	AML		
KHEZ	**Kahui Hut**	**4.90**	**223**	P	**Pn**	**08 00 00.6**	**+2.2**
POWZ	**Post Office Ro**	**5.02**	**203**	P	**Pn**	**07 59 58.2**	**-1.6**
BFZ	**Birch Farm**	**5.15**	**198**	P	**Pn**	**07 59 59.2**	**-2.3**
	52nm,1.7s						
BFZ				AML	AML		
BFZ	**Birch Farm**	**5.15**	**198**	P	**Pn**	**07 59 59.4**	**-2.1**
MRZ	**Mangatainoka R**	**5.32**	**203**		**Pn**	**08 00 01.5**	**-2.2**
MSWZ	**Moikau Station**	**6.11**	**202**	Pn	**Pn**	**08 00 10.1**	**-3.7**
SNZO	**South Karori**	**6.20**	**206**	P	**Pn**	**08 00 12.3**	**-2.6**
	24nm,1.3s						
SNZO				AML	AML		
SNZO	**South Karori**	**6.20**	**206**	Pn	**Pn**	**08 00 11.4**	**-3.5**
BHW	**Baring Head**	**6.23**	**205**	Pn	Pn	08 00 10.7	-4.6
TUWZ	**Tuamarina**	**6.59**	**210**		**Pn**	**08 00 16.7**	**-3.4**
QRZ	**Quartz Range**	**6.79**	**221**	P	**Pn**	**08 00 20.4**	**-2.2**
	39nm,1.5s						
KHZ	**Kahutara**	**7.59**	**208**	P	**Pn**	**08 00 29.4**	**-3.5**
	24nm,0.7s						
ODZ	**Otahua Downs**	**10.94**	**210**	P	Pn	08 01 10.3	-5.9
JCZ	**Jackson Bay**	**11.05**	**219**	P	Pn	08 01 12.1	-5.6
	11nm,1.4s						
OUENC	**Ouen Island, N**	**16.67**	**320**	P	**Pn**	**08 02 23.4**	**-4.0**
CTA	**Charters Tower**	**32.20**	**290**	P	**P**	**08 04 52.5**	**-1.6**
	9.0nm,0.8s,baz=116,slow=9.5,SNR=5.5						
	9.0nm,0.8s						
CTAO	**Charters Tower**	**32.20**	**290**	P	**P**	**08 04 54.0**	**-0.1**
INKA	**Innaminka**	**32.80**	**273**	P	**P**	**08 05 01.0**	**+1.8**
INKA				IAmb	IAmb	08 05 02.7	
	comp=Z,2.8nm,0.8s						
AS31	**Alice Springs**	**40.12**	**275**		**P**	**08 06 01.9**	**+0.7**
AS31				IAmb	IAmb	08 06 03.0	
	comp=Z,2.1nm,0.7s						
ASAR	**Alice Springs**	**40.12**	**275**	P	**P**	**08 06 02.4**	**+1.1**
	comp=Z,6.9nm,0.8s,baz=114,slow=7.5,SNR=24						
	comp=Z,6.9nm,0.8s						
ASAR	**Alice Springs**	**40.12**	**275**		**P**	**08 06 01.7**	**+0.4**
WR8	**Warramunga Arr**	**41.48**	**280**	P	**P**	**08 06 12.8**	**+0.5**
WR8				IAmb	IAmb	08 06 13.9	
	comp=Z,8.3nm,0.8s						
WRA	**Warramunga Arr**	**41.62**	**280**	P	**P**	**08 06 14.1**	**+0.6**
	comp=Z,8.9nm,0.6s,baz=121,slow=7.7,SNR=70						
	comp=Z,8.9nm,0.6s						
WRA	**Warramunga Arr**	**41.62**	**280**	P	**P**	**08 06 14.0**	**+0.5**
MTN	**Manton Dam**	**48.15**	**286**	P	**P**	**08 07 04.3**	**-0.6**
NWAO	**Narrogin (SRO)**	**49.81**	**255**	P	**P**	**08 07 18.8**	**+1.5**
NWAO				IAmb	IAmb	08 07 53.6	
	comp=Z,17nm,1.1s						
QSPA	**South Pole Qui**	**54.33**	**180**	P	**P**	**08 07 53.8**	**+3.5**
	comp=Z,2.0nm,0.6s,baz=23,slow=1.7,SNR=18						
	comp=Z,2.0nm,0.6s						
QSPA	**South Pole Qui**	**54.33**	**180**	P	**P**	**08 07 53.8**	**+3.5**
QSPA				IAmb	IAmb	08 07 55.6	
	comp=Z,9.3nm,1.4s						
BELA	**Belgrano 2**	**64.85**	**173**	P	**P**	**08 09 05.1**	**+3.3**
BELA				IAmb	IAmb	08 09 10.8	
	comp=Z,8.6nm,1.3s						
NVAR	**Mina Array Bea**	**94.25**	**45**	P	**P**	**08 11 40.0**	**-1.1**
	comp=Z,0.7nm,0.9s,baz=209,slow=5.1,SNR=3.4						
	comp=Z,0.7nm,0.9s						
FINES	**FINESS Array B**	**148.92**	**334**	PKPbc	**PKiKP**	**08 18 06.5**	**-2.5**
	comp=Z,4.8nm,1.1s,baz=46,slow=4.0,SNR=4.2						
VSVD	**Vaisvydziai**	**153.35**	**327**	*eP*	**PKPdf**	**08 18 12.0**	**+1.5**
PABE	**Paberze**	**153.62**	**326**	*eP*	**PKPab**	**08 18 29.7**	**-2.7**
TORD	**Torodi Ar. Bea**	**157.25**	**188**	PKPab	**PKPab**	**08 18 50.1**	**+1.2**
	comp=Z,0.8nm,0.7s,baz=150,slow=4.3,SNR=3.7						

IDC ***20*** *08:14:53.3±1.5, 1°.55N×127°.31E, h0km, mb3.7/5, mbtmp3.7/6, ML3.2/1, MS3.3/1, Error ellipse: s-maj=109.8km s-min=19.3km az=68.0*
DJA ***20*** *08:14:57.2±0.3, 1°N±5°×12°6E±°, h10km, M3.5/12, MLv3.5/12*
ISC 20 08:14:56.5±1.0, 1°.2N±0°.1×126°.38E±0°.07, h10km, n12, σ1§47/13, mb3.9/5, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.06**	**111**	P		**Pb**		**08 15 17.8**	**+0.8**
TNTI				S		**Sg**		**08 15 31.5**	**+0.7**
TNTI				AML		AML			
MNI	**Manado**	**1.56**	**280**	P		**Pn**		**08 15 24.4**	**0.0**
MNI				S		**Sn**		**08 15 44.2**	**-0.5**
KMSI	**Cibinong**	**2.46**	**256**	P		**Pn**		**08 15 36.5**	**-0.3**
SANI	**Sanana**	**3.21**	**187**	P		**Pn**		**08 15 46.6**	**-0.5**
GTOI	**Gorontalo**	**3.41**	**261**	P		**Pn**		**08 15 51.6**	**+1.9**
GTOI				AML		AML			
FITZ	**Fitzroy Crossi**	**19.15**	**182**	P		**Pn**		**08 19 24.0**	**+2.9**
	0.1nm,0.3s,baz=11,slow=8.1,SNR=1.6								
	1.7nm,0.9s								
FITZ				AML		AML			
WRA	**Warramunga Arr**	**22.38**	**160**	P		**P**		**08 19 52.8**	**-2.4**
	0.6nm,0.5s,baz=340,slow=11,SNR=12								
	0.6nm,0.5s								
ASAR	**Alice Springs**	**25.74**	**164**	P		**P**		**08 20 27.3**	**-0.2**
	0.4nm,0.3s,baz=345,slow=11,SNR=14								
	0.4nm,0.3s								
CTA	**Charters Tower**	**28.73**	**138**	LR		LR		08 33 56.4	
	comp=Z,48nm,18.2s,baz=49,slow=40								
STKA	**Stephens Creek**	**35.88**	**158**	P		**P**		**08 21 55.6**	**-1.3**
	1.5nm,0.8s,baz=330,slow=10,SNR=3.2								
	1.5nm,0.8s								
MKAR	**Makanchi Array**	**59.47**	**326**	P		**P**		**08 24 59.2**	**-0.5**
	0.4nm,0.3s,baz=118,slow=7.0,SNR=4.8								
	0.4nm,0.3s								
KURBB	**Kurchatov Arra**	**63.71**	**328**	P		**P**		**08 25 27.9**	**-0.4**
	0.5nm,0.4s,baz=127,slow=6.1,SNR=5.4								
	0.5nm,0.4s								

KRNET ***20*** *08:25:36.5±0.1, 41°.34N×75°.85E, h25km, mb3.6*
NNC ***20*** *08:25:38.6±0.9, 41°.34N×75°.86E, h0km, mb4.0, mpv3.6, Error ellipse: s-maj=6.9km s-min=3.5km az=177.0*
SOME ***20*** *08:25:38.5, 41°.42N×75°.88E, h15km*
KNET ***20*** *08:25:40.4±0.4, 41°.52N×75°.75E, h0km±2km, ml3.1, Error ellipse: s-maj=2.6km s-min=1.9km az=158.0*
ISC 20 08:25:36.1±1.1, 41°.30N±0°.03×75°.91E±0°.02, h10km±7km, n72, σ1§14/125, 44C-26D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
NRN	**Naryn**	**0.15**	**27**	⇑*iP*		**Pg**		**08 25 40.0**	**+0.3**
NRN				⇑*eS*		**Sg**		**08 25 43.1**	**+0.9**
ULHL	**Ulahol**	**0.97**	**15**	⇓P		**Pb**		**08 25 55.8**	**+0.5**
	58nm,0.2s,SNR=7.1								
ULHL				⇓S		**Sb**		**08 26 08.2**	**-0.1**
	257nm,0.3s								
ULHL	**Ulahol**	**0.97**	**15**	⇓*eP*		**Pg**		**08 25 54.2**	**-0.7**
ULHL				⇓*eS*		**Sg**		**08 26 07.1**	**-0.5**
BOOM	**Boomskoye usch**	**1.19**	**1**	⇑*iP*		**Pg**		**08 25 57.9**	**-1.1**
BOOM				⇑*iS*		**Sg**		**08 26 13.2**	**-1.2**
KDJ	**Kajisay**	**1.26**	**49**	⇓*iP*		**Pb**		**08 25 59.9**	**-0.2**
KDJ				⇓*iS*		**Sn**		**08 26 17.1**	**0.0**
UCH	**Uchtor**	**1.40**	**312**	⇓P		**Pn**		**08 26 02.5**	**+0.5**
	26nm,0.2s,SNR=50								
UCH				⇑S		**Sg**		**08 26 20.3**	**-0.8**
	133nm,0.2s								
UCH	**Uchtor**	**1.40**	**312**	⇑*eP*		**Pn**		**08 26 01.2**	**-0.9**
UCH				⇑*eS*		**Sg**		**08 26 19.1**	**-2.0**
TARG	**Taragay, Kyrgy**	**1.48**	**73**	⇑*iP*		**Pg**		**08 26 04.3**	**-0.4**
TARG				⇑*iS*		**Sn**		**08 26 24.6**	**+1.6**
KBK	**Karagaybulak**	**1.53**	**332**	P		**Pg**		**08 26 05.5**	**0.0**
	82nm,0.1s,SNR=74								
KBK				⇑S		**Sb**		**08 26 25.1**	**+0.9**
	275nm,0.2s								
KBK	**Karagaybulak**	**1.53**	**332**	⇓*eP*		**Pn**		**08 26 03.5**	**-0.2**
KBK				⇓*eS*		**Sn**		**08 26 23.3**	**-0.5**
TKM2	**Tokmak 2**	**1.63**	**352**	⇓P		**Pg**		**08 26 07.5**	**0.0**
	133nm,0.2s,SNR=77								
TKM2				⇑S		**Sg**		**08 26 28.4**	**-0.2**
	90nm,0.1s								
TKM2	**Tokmak 2**	**1.63**	**352**	⇑*eP*		**Pn**		**08 26 05.6**	**+0.5**
TKM2				⇑*eS*		**Sn**		**08 26 26.7**	**+0.4**
SALK	**Salom-Alik**	**1.63**	**256**	⇑*iP*		**Pn**		**08 26 05.7**	**+0.6**
SALK				⇑*iS*		**Sn**		**08 26 27.1**	**+0.8**
AAK	**Ala-Archa**	**1.70**	**322**	⇓P		**Pb**		**08 26 08.2**	**+0.6**
	72nm,0.2s,SNR=106								
AAK				⇓S		**Sb**		**08 26 29.8**	**+0.7**
	168nm,0.3s								
AAK	**Ala-Archa**	**1.70**	**322**	⇑P		**Pb**		**08 26 07.8**	**+0.2**
	131nm,0.3s								
AAK				⇑S		**Sg**		**08 26 31.3**	**+0.4**
	658nm,0.5s								
AAK	**Ala-Archa**	**1.70**	**322**	⇑*eP*		**Pn**		**08 26 06.4**	**+0.4**
AAK				⇑*eS*		**Sn**		**08 26 28.3**	**+0.4**
KST	**Kastek**	**1.74**	**1**	P		**Pg**		**08 26 09.5**	**0.0**
	20nm,0.5s								
KST				S		**Sg**		**08 26 31.9**	**-0.2**
	81nm,0.4s								
KST	**Kastek**	**1.74**	**1**	*eP*		**Pg**		**08 26 09.5**	**0.0**
	20nm,0.5s								
KST				*eS*		**Sg**		**08 26 31.9**	**-0.2**
	81nm,0.4s								
FRU1	**Bishkek**	**1.78**	**328**	⇓*iP*		**Pn**		**08 26 08.1**	**+1.0**
FRU1				⇓*iS*		**Sn**		**08 26 31.2**	**+1.4**
MTBS	**Maitube**	**1.87**	**12**	P		**Pg**		**08 26 12.0**	**+0.1**
	17nm,0.3s								
MTBS				S		**Sg**		**08 26 35.9**	**-0.2**
	82nm,0.5s								
MTBS	**Maitube**	**1.87**	**12**	*eP*		**Pg**		**08 26 12.1**	**+0.1**
	17nm,0.3s								
MTBS				*eS*		**Sg**		**08 26 35.9**	**-0.2**
	82nm,0.5s								
TNSS	**Tian-Shan**	**1.90**	**24**	P		**Pg**		**08 26 13.4**	**+0.9**
	17nm,0.6s								
TNSS				S		**Sg**		**08 26 38.1**	**+1.0**
	25nm,0.4s								
TNSS	**Tian-Shan**	**1.90**	**24**	*eP*		**Pg**		**08 26 13.4**	**+0.9**
	17nm,0.6s								
TNSS				*eS*		**Sg**		**08 26 38.1**	**+1.0**
	25nm,0.4s								
CHMS	**Chumysh**	**1.90**	**333**	⇓P		**Pg**		**08 26 12.0**	**-0.6**
	76nm,0.3s,SNR=36								
CHMS				⇑S		**Sb**		**08 26 35.9**	**+1.1**
	145nm,0.3s								
CHMS	**Chumysh**	**1.90**	**333**	⇑*iP*		**Pn**		**08 26 09.4**	**+0.7**
CHMS				⇑*eS*		**Sn**		**08 26 33.4**	**+0.7**
DGS	**Degeres**	**1.94**	**357**	P		**Pg**		**08 26 13.4**	**0.0**
	43nm,0.4s								
DGS				S		**Sg**		**08 26 38.3**	**-0.2**
	148nm,0.5s								
DGS	**Degeres**	**1.94**	**357**	*eP*		**Pg**		**08 26 13.3**	**0.0**
	43nm,0.4s								
DGS				*eS*		**Sg**		**08 26 38.3**	**-0.2**
	148nm,0.5s								
ANVS	**Anan'yevo**	**1.98**	**41**	⇓*eP*		**Pb**		**08 26 11.4**	**-0.9**
ANVS				⇓*eS*		**Sb**		**08 26 36.7**	**-0.3**
MDOK	**Medeo**	**2.04**	**24**	P		**Pg**		**08 26 15.8**	**+0.5**
	30nm,0.4s								
MDOK				Lg		Lg		08 26 42.5	
	165nm,0.3s								
MDOK	**Medeo**	**2.04**	**24**	*eP*		**Pg**		**08 26 15.8**	**+0.5**
	30nm,0.4s								
MDOK				*eS*		**Sg**		**08 26 42.5**	**+0.7**
	165nm,0.3s								
KNDC	**Almaty**	**2.07**	**22**	⇑Pn		**Pg**		**08 26 15.3**	**-0.5**
	65nm,0.3s								
KNDC				⇑Sn		**Sg**		**08 26 43.3**	**+0.7**
	301nm,0.6s								
EKS2	**Erkin-Say**	**2.09**	**311**	⇓P		**Pg**		**08 26 15.7**	**-0.5**
	42nm,0.4s,SNR=59								
EKS2				⇑S		**Sg**		**08 26 42.6**	**-0.7**
	9.5nm,0.1s								
EKS2	**Erkin-Say**	**2.09**	**311**	⇓*iP*		**Pn**		**08 26 12.2**	**+0.8**
EKS2				⇓*iS*		**Sn**		**08 26 38.0**	**+0.5**
KOTS	**Kotyrbulak**	**2.13**	**24**	P		**Pg**		**08 26 17.5**	**+0.6**
	51nm,0.5s								
KOTS				Lg		Lg		08 26 45.6	
	338nm,0.6s								
KOTS	**Kotyrbulak**	**2.13**	**24**	*eP*		**Pg**		**08 26 17.5**	**+0.6**
	51nm,0.5s								
KOTS				*eS*		**Sg**		**08 26 45.6**	**+1.1**
	338nm,0.6s								
PRZ	**Przheval'sk**	**2.20**	**57**	⇑*eP*		**Pb**		**08 26 14.9**	**-1.2**
PRZ				⇑*eS*		**Sb**		**08 26 43.0**	**-0.5**
USP	**Ospenovka**	**2.22**	**332**	⇑P		**Pb**		**08 26 17.4**	**+0.9**
	77nm,0.2s,SNR=215								
USP				⇓S		**Sg**		**08 26 46.6**	**-1.0**
	229nm,0.3s								
USP	**Ospenovka**	**2.22**	**332**	⇓*eP*		**Pn**		**08 26 14.0**	**+0.9**
USP				⇓*eS*		**Sn**		**08 26 41.2**	**+0.5**
SFK	**Sufi-Kurgan**	**2.24**	**236**	⇑*iP*		**Pn**		**08 26 14.9**	**+1.4**
SFK				⇑*eS*		**Sn**		**08 26 42.9**	**+1.6**
KRBS	**Karabastau**	**2.40**	**356**	Pg		**Pg**		**08 26 21.3**	**-0.8**
	38nm,0.2s								
KRBS				Lg		Lg		08 26 52.0	
	36nm,0.3s								
KRBS	**Karabastau**	**2.40**	**356**	*eP*		**Pg**		**08 26 21.3**	**-0.8**
	38nm,0.2s								
KRBS				*eS*		**Sg**		**08 26 52.0**	**-1.2**
	36nm,0.3s								
MRKS	**Merke**	**2.46**	**307**	Pg		**Pb**		**08 26 21.6**	**+1.0**
	25nm,0.4s								
MRKS				Lg		Lg		08 26 52.5	
	119nm,0.4s								
MRKS	**Merke**	**2.46**	**307**	*eP*		**Pb**		**08 26 21.6**	**+1.0**
	25nm,0.4s								
MRKS				*eS*		**Sb**		**08 26 52.5**	**+1.5**
	119nm,0.4s								
OHH	**Osh**	**2.49**	**253**	⇑*eP*		**Pn**		**08 26 18.0**	**+1.2**
OHH				⇑*eS*		**Sn**		**08 26 48.2**	**+0.9**
SATY	**Saty**	**2.55**	**46**	Pg		**Pg**		**08 26 24.4**	**-0.7**
	16nm,0.6s								
SATY				Lg		Lg		08 26 56.9	
	92nm,0.7s								
SATY	**Saty**	**2.55**	**46**	*eP*		**Pg**		**08 26 24.4**	**-0.7**
	16nm,0.6s								
SATY				*eS*		**Sg**		**08 26 56.9**	**-1.3**
	92nm,0.7s								
KURS	**Kuram**	**2.75**	**37**	Pg		**Pg**		**08 26 28.6**	**-0.2**
	10nm,0.5s								
KURS				Lg		Lg		08 27 04.5	
	60nm,0.4s								
KURS	**Kuram**	**2.75**	**37**	*eP*		**Pg**		**08 26 28.6**	**-0.2**
	10nm,0.5s								
KURS				*eS*		**Sg**		**08 27 04.5**	**0.0**
	60nm,0.4s								
MNAS	**Manas**	**2.81**	**296**	⇓*eP*		**Pn**		**08 26 22.0**	**+0.8**
MNAS				⇓*eS*		**Sn**		**08 26 55.2**	**+0.1**
UZB	**Uzynbulak**	**2.96**	**50**	Pg		**Pg**		**08 26 32.2**	**-0.6**
	13nm,0.5s								
UZB				Lg		Lg		08 27 10.5	
	76nm,0.7s								
UZB	**Uzynbulak**	**2.96**	**50**	*eP*		**Pg**		**08 26 32.2**	**-0.6**
	13nm,0.5s								
UZB				*eS*		**Sg**		**08 27 10.5**	**-0.6**
	76nm,0.7s								
KPKS	**Kokpek**	**2.98**	**43**	Pg		**Pg**		**08 26 32.5**	**-0.7**
	0.4nm,0.2s								
KPKS				Lg		Lg		08 27 11.2	
	187nm,0.5s								
KPKS	**Kokpek**	**2.98**	**43**	*eP*		**Pg**		**08 26 32.5**	**-0.7**
	0.4nm,0.2s								
KPKS				*eS*		**Sg**		**08 27 11.2**	**-0.7**
	187nm,0.5s								
ARK	**Arkit**	**3.00**	**281**	⇑*iP*		**Pn**		**08 26 24.9**	**+1.0**
ARK				⇑*iS*		**Sn**		**08 27 00.2**	**+0.2**
SHLS	**Shalkode**	**3.22**	**54**	Pg		**Pg**		**08 26 42.0**	**+4.2**
	7.0nm,0.5s								
SHLS				Lg		Lg		08 27 27.2	
	53nm,0.5s								
ARXS	**Arharly**	**3.23**	**25**	Pg		**Pg**		**08 26 37.1**	**-1.0**
	20nm,0.7s								
ARXS				Lg		Lg		08 27 19.0	
	138nm,0.6s								
ARXS	**Arharly**	**3.23**	**25**	*eP*		**Pg**		**08 26 37.1**	**-1.0**
	20nm,0.7s								
ARXS				*eS*		**Sg**		**08 27 19.0**	**-1.0**
	138nm,0.6s								
PDGK	**Podgornoye**	**3.34**	**51**	⇑Pg		**Pg**		**08 26 39.9**	**-0.2**
	6.7nm,0.5s								
PDGK				⇑Lg		Lg		08 27 25.1	
	41nm,0.6s								
BLB	**Baldybastay**	**3.37**	**33**	Pg		**Pg**		**08 26 38.4**	**-2.4**
	8.2nm,0.5s								
BLB				Lg		Lg		08 27 21.2	
	46nm,0.5s								
TRKS	**Terek-Say**	**3.59**	**275**	⇑*iP*		**Pn**		**08 26 32.8**	**+0.7**
TRKS				⇑*iS*		**Sn**		**08 27 13.9**	**-0.7**
DRK	**Karamyk**	**3.63**	**241**	⇑*eP*		**Pn**		**08 26 34.0**	**+1.4**
DRK				⇑*eS*		**Sn**		**08 27 16.0**	**+0.3**
KTMS	**Ketmen**	**3.93**	**55**	Pg		**Pg**		**08 26 49.5**	**-1.8**
	3.8nm,0.6s								
KTMS				Lg		Lg		08 27 40.0	
	7.2nm,0.9s								
KTMS	**Ketmen**	**3.93**	**55**	*eP*		**Pg**		**08 26 49.5**	**-1.8**
	3.8nm,0.6s								
KTMS				*eS*		**Sg**		**08 27 40.0**	**-2.2**
	7.2nm,0.9s								
BTK	**Batken**	**4.07**	**254**	⇑*iP*		**Pn**		**08 26 39.9**	**+1.4**
BTK				⇑*eS*		**Sn**		**08 27 26.1**	**-0.1**
DJR	**Jarkent**	**4.16**	**42**	Pg		**Pg**		**08 26 53.1**	**-2.7**
	3.1nm,0.4s								
DJR				Lg		Lg		08 27 46.5	
	7.4nm,0.6s								
DJR	**Jarkent**	**4.16**	**42**	*eP*		**Pg**		**08 26 53.1**	**-2.7**
	3.1nm,0.4s								
DJR				*eS*		**Sg**		**08 27 46.5**	**-3.2**
	7.4nm,0.6s								
KK31	**Karatay Array**	**4.39**	**296**	Pg		**Pg**		**08 26 57.0**	**-3.3**
	2.8nm,0.4s,baz=108,slow=15,SNR=20								
KK31				⇓Lg		Lg		08 27 55.8	
	11nm,0.5s,baz=112,slow=27,SNR=7.0								
IUG	**Iuzhnay**	**4.48**	**283**	Pg		**Pg**		**08 27 00.9**	**-1.1**
	20nm,0.6s								
IUG				Lg		Lg		08 27 59.9	
	53nm,0.9s								
IUG	**Iuzhnay**	**4.48**	**283**	*eP*		**Pg**		**08 27 00.9**	**-1.1**
	20nm,0.6s								
IUG				*eS*		**Sg**		**08 27 59.9**	**-0.1**
	53nm,0.9s								
BRLS	**Boroldaу**	**4.83**	**293**	Pg		**Pg**		**08 27 06.1**	**-2.6**
	1.1nm,0.5s								
BRLS				Lg		Lg		08 28 08.6	
	11nm,0.6s								
BRLS	**Boroldaу**	**4.83**	**293**	*eP*		**Pg**		**08 27 06.1**	**-2.6**
	1.1nm,0.5s								
BRLS				*eS*		**Sg**		**08 28 08.6**	**-2.7**
	11nm,0.6s								
MK31	**Makanchi Array**	**7.16**	**38**	⇑Pn		Pn		08 27 26.3	+5.4
	0.9nm,0.7s,baz=225,slow=15,SNR=5.5								
MK31				⇑Lg		Lg		08 29 26.4	
	2.7nm,0.8s								

NEIC ***20*** *08:43:53.6±1.7, 16°.20N±0°.07×94°.43W±0°.03, h78km±8km, mb4.6/38, Md4.9/12(MEX), Error ellipse: s-maj=10.4km s-min=2.8km az=203.0*
IDC ***20*** *08:43:53.1±0.6, 16°.27N×94°.23W, h83km±4km, mb4.0/23, mbtmp4.3/26, MS3.3/22, Error ellipse: s-maj=16.2km s-min=7.8km az=52.0*
GFZ ***20*** *08:43:54.8±0.1, 16°N±2°×9°4W±°, h93km, M4.8/46, mb4.7/46, confirmed*
MEX ***20*** *08:43:54.0±0.6, 16°.18N×94°.54W, h87km±10km, MD4.9, Presumed earthquake*
CATAC ***20*** *08:43:57.9±0.3, 16°N±3°×9°4W±°, h63km±7km, M4.8/28, mb5.1/13, mB5.2/11, MLv5.1/28, Mw(mB)4.6/11, Error ellipse: s-maj=7.2km s-min=4.4km az=37.6, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=8.24; Mθθ1.40; Mφφ6.84; Mrθ=0.28; Mθφ=2.68; Mφr0.51; Fault plane solution: M₀8.11757×10¹⁵ NP1: φs157.21665°, δ47.03689°, λ-90.63633°. NP2: φs338.15029°, δ42.96691°, λ-89.31679°. Principal axes: T 7.9618, Plg2.0351°, Azm247.6669°; N 0.3031, Plg0.4657°, Azm157.6503°; P -8.2649, Plg87.9123°, Azm54.7678°; confirmed*
RSNC ***20*** *08:44:02.3±2.3, 16°N±6°×9°4W±1°9, h117km±9km, M4.7, mB5.1, mb4.7, Mw(mB)4.5*
ISC 20 08:43:52.8±0.4, 16°.23N±0°.03×94°.45W±0°.03, h89km±4km, h89km:pP-P, n335, σ2§16/394, mb4.7/84, 5D, Oaxaca

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**0.95**	**334**	P		**Pn**		**08 44 12.3**	**+0.4**
	1μm,0.3s,baz=173,slow=11,SNR=9112								
CMIG				S		**Sn**		**08 44 26.6**	**+0.4**
	baz=90,slow=20								
CMIG	**Matias Romero**	**0.95**	**334**	⇓*eP*		**Pn**		**08 44 12.4**	**+0.4**
CMIG				*eS*		**Sn**		**08 44 26.5**	**+0.3**
UXUV	**UXUV**	**1.12**	**15**			**Pn**		**08 44 14.9**	**+1.0**
UXUV						**Sn**		**08 44 29.8**	**+0.1**
UXUV	**UXUV**	**1.12**	**15**	*eP*		**Pn**		**08 44 14.9**	**+1.0**
UXUV				*eS*		**Sn**		**08 44 29.8**	**+0.1**
PCIG		**1.29**	**113**			**Pn**		**08 44 16.7**	**+0.8**
PCIG		**1.29**	**113**	*eP*		**Pn**		**08 44 16.7**	**+0.8**
PCIG				*eS*		**Sn**		**08 44 34.0**	**+0.7**
TGIG		**1.39**	**67**			**Pn**		**08 44 17.6**	**+0.5**
TGIG						**Sn**		**08 44 35.5**	**-0.1**
TGIG		**1.39**	**67**	*eP*		**Pn**		**08 44 17.6**	**+0.5**
TGIG				*eS*		**Sn**		**

PPAX *i* S **Sn** **08 45 45.5 -8.0**
PPCL Tochimilco 4.79 305 *e*P **Pn** **08 45 06.0 +3.1**
PPCL *i* S **Sn** **08 45 54.6 -2.6**
PPPT Popocatepetl 4.83 305 *e*P **Pn** **08 45 06.7 +3.1**
PPPT *i* S **Sn** **08 45 51.0 -7.5**
PPCU Popocatapetl 4.84 305 *e*P **Pn** **08 45 07.0 +3.2**
PPCU *e*S **Sn** **08 45 59.8 +0.9**
PBPN Popocatepetl 4.87 306 *e*P **Pn** **08 45 07.0 +2.9**
PBXN Popocatepetl 4.87 305 *e*P **Pn** **08 45 07.4 +3.2**
PBXN *i* S **Sn** **08 45 59.3 -0.2**
FAME Alcaldia de Sa 4.90 118 P **Pn** **08 45 06.1 +2.0**
FAME S **Sn** **08 45 59.6 +0.1**
CXUV Coxquihui 4.93 323 *e*P **Pn** **08 45 04.4 -0.1**
CXUV *i* S **Sn** **08 45 53.2 -7.1**
SLOZ Alcaldia de Sa 5.01 115 P **Pn** **08 45 07.6 +1.9**
LOAL Lomas de Alarc 5.03 116 P **Pn** **08 45 07.6 +1.7**
DAIG Los Arroyos 5.05 280 *e*P **Pn** **08 45 06.2 +0.1**
DAIG *e*S **Sn** **08 45 56.6 -6.6**
NUBE Las Nubes 5.07 116 P **Pn** **08 45 08.6 +2.0**
YAIG Yautepec 5.12 301 *e*P **Pn** **08 45 10.0 +2.7**
YAIG *e*S **Sn** **08 46 01.0 -4.2**
ESQI Esquipulas 5.20 108 P **Pn** **08 45 09.3 +1.0**
ESQI Esquipulas 5.20 108 **Pn** **08 45 07.8 -0.5**
MEIG Mezcala 5.22 290 *i* P **Pn** **08 45 10.5 +1.9**
MEIG *e*S **Sn** **08 46 00.1 -7.4**
UNIC Universidad Ca 5.24 115 P **Pn** **08 45 11.2 +2.5**
MTO3 Montecristo 5.24 110 P **Pn** **08 45 09.0 0.0**
MTO3 Montecristo 5.24 110 **Pn** **08 45 07.7 -1.2**
CEVE Cerro Verde 5.24 116 P **Pn** **08 45 10.8 +1.8**
CEVE S Sn 08 46 17.8 +10
MPVM San Francisco 5.26 305 *e*P **Pn** **08 45 12.2 +3.0**
MPVM *e*S **Sn** **08 45 10.9 +2.3**
PLIG Platanillo 5.28 295 *e*P **Pn** **08 45 11.7 +2.3**
PLIG *e*S **Sn** **08 46 03.2 -5.9**
THVM De Xico 5.29 306 *e*P **Pn** **08 45 11.6 +2.0**
THVM *e*S **Sn** **08 46 07.2 -2.2**
XCVM Xochimilco 5.37 305 *e*P **Pn** **08 45 13.1 +2.4**
XCVM *e*S **Sn** **08 46 10.4 -0.9**
TLVM San Miguel Top 5.37 304 *e*P **Pn** **08 45 12.7 +1.8**
TLVM *i* S **Sn** **08 46 04.0 -7.6**
VTVM Tizayuca 5.42 311 *e*P **Pn** **08 45 14.7 +3.3**
VTVM *i* S **Sn** **08 46 14.0 +1.4**
CEDA San Andres 5.45 116 P **Pn** **08 45 13.0 +1.4**
UNM Universidad Na 5.46 305 P Pn 08 45 25.2 +13
UNM Universidad Na 5.46 305 *e*P Pn 08 45 06.3 -5.6
UNM *e*S **Sn** **08 46 12.7 -0.9**
MAVM Malinalco, Edo 5.52 300 *i* P **Pn** **08 45 15.8 +3.1**
MAVM *e*S **Sn** **08 46 10.1 -4.9**
MHVM Bosque de Chap 5.53 306 *e*P Pn 08 45 07.5 -5.4
MHVM *i* S **Sn** **08 46 11.1 -4.2**
PTVM Pico Tres Padr 5.56 308 *e*P **Pn** **08 45 14.8 +1.5**
PTVM *i* S **Sn** **08 46 16.5 +0.5**
PMON Piamonte 5.56 116 P **Pn** **08 45 14.9 +1.7**
APVM Azcapotzalco 5.57 306 *e*P **Pn** **08 45 16.1 +2.6**
APVM *i* S **Sn** **08 46 12.2 -4.2**
INVM La Marquesa 5.60 304 *e*P **Pn** **08 45 16.9 +2.9**
INVM *e*S **Sn** **08 46 16.1 -1.1**
UEES Universidad Ev 5.62 116 P **Pn** **08 45 16.2 +2.1**
CAIG El Cayaco 5.63 279 *e*P **Pn** **08 45 14.1 0.0**
CAIG *e*S Sn 08 46 04.2 -13
SEMO Seminario San 5.64 116 P **Pn** **08 45 16.1 +1.8**
UTEC Universidad Te 5.66 116 P **Pn** **08 45 16.1 +1.5**
IZABA Izabal, Puerto 5.67 94 P **Pn** **08 45 16.2 +1.6**
IZABA S **Sn** **08 46 18.1 -0.2**
ZUVM ZUMPANGO 5.67 310 *e*P Pn 08 45 08.4 -6.5
ZUVM *i* S **Sn** **08 46 17.4 -1.4**
SARH Santa Rosa de 5.67 104 P **Pn** **08 45 16.7 +1.3**
SARH S Sn 08 46 02.3 -16
AZVM Cuida Lopez Ma 5.68 307 *e*P **Pn** **08 45 14.9 -0.2**
AZVM *i* S **Sn** **08 46 18.5 -0.6**
UDBS Universidad Do 5.70 115 P **Pn** **08 45 16.5 +1.5**
LOMA Loma Larga 5.71 116 P **Pn** **08 45 16.5 +1.2**
PANCS Alcalda de 5.72 116 P **Pn** **08 45 16.5 +1.1**
TOVM TOLUCA 5.83 302 *e*P **Pn** **08 45 20.2 +3.0**
TOVM *i* S **Sn** **08 46 18.6 -4.2**
DEIG Demacu 5.95 314 *e*P **Pn** **08 45 17.1 -1.5**
COEG Centro de Oper 5.98 115 P **Pn** **08 45 20.6 +1.7**
COEG S Sn 08 46 37.2 +11
ARIG Puente Sto Nin 5.99 291 *i* P **Pn** **08 45 21.4 +2.5**
ARIG *e*S Sn 08 46 17.4 -8.8
TECO Alcaldia de Te 6.10 115 P **Pn** **08 45 21.5 +1.0**
CTUV Llano Grande 6.39 325 *e*P **Pn** **08 45 21.2 -3.2**
CTUV *e*S Sn 08 46 26.6 -9.4
RANC El Ranchito 6.58 114 P **Pn** **08 45 28.9 +1.8**
ZIIG Zihuatanejo 6.85 283 *e*P **Pn** **08 45 31.8 +1.1**
ZIIG *e*S **Sn** **08 46 39.7 -7.5**
LCND La Caada 6.98 114 P **Pn** **08 45 35.6 +3.1**
TEIG Tepich 7.09 55 P **Pn** **08 45 33.4 -0.5**
TEIG Tepich 7.09 55 **Pn** **08 45 32.5 -1.5**
TEIG Tepich 7.09 55 P **Pn** **08 45 32.4 -1.5**
18µm851nm,0.6s
TEIG S **Sn** **08 46 47.5 -5.5**
18µm851nm,0.6s
TEIG Tepich 7.09 55 *e*P **Pn** **08 45 32.5 -1.5**
TEIG *e*S **Sn** **08 46 46.9 -6.1**
TEIG Tepich 7.09 55 P **Pn** **08 45 32.6 -1.3**
comp=Z,884nm,0.6s
TGUH Tegucigalpa,Un 7.26 106 P **Pn** **08 45 38.2 +1.7**
TGUH Tegucigalpa,Un 7.26 106 **Pn** **08 45 37.0 +0.6**
TGUH Tegucigalpa,Un 7.26 106 P **Pn** **08 45 37.1 +0.6**
comp=Z,2µmcomp=Z,151nm,0.8s
TGUH Tegucigalpa,Un 7.26 106 *e*P **Pn** **08 45 36.5 +0.1**
TGUH Tegucigalpa,Un 7.26 106 P **Pn** **08 45 37.7 +1.3**
comp=Z,154nm,0.8s
MOIG Morelia 7.27 299 **Pn** **08 45 39.6 +2.9**
MOIG Morelia 7.27 299 *e*P **Pn** **08 45 40.2 +3.6**
MOIG *i* S Sn 08 46 48.8 -9.0
CSGN Cosiguina Volc 7.41 115 P **Pn** **08 45 40.2 +1.7**
RPIG Rio Verde 7.68 318 *e*P **Pn** **08 45 42.7 +0.6**
CRIN San Cristobal 7.98 115 **Pn** **08 45 47.7 +1.5**
CRIN San Cristobal 7.98 115 P **Pn** **08 45 48.0 +1.8**
comp=Z,5µmcomp=Z,280nm,1.0s
GTIG Gomez Farias 8.13 328 *e*P **Pn** **08 45 47.4 -0.7**
CNGN Cerro Negro 8.38 115 P **Pn** **08 45 52.0 +0.4**
comp=Z,72nm,0.9s
CNGN Cerro Negro 8.38 115 P **Pn** **08 45 53.3 +1.8**
comp=Z,129nm,0.9s
MMIG Aquila 8.74 285 *e*P **Pn** **08 45 58.0 +1.5**
MMIG *e*S **Sn** **08 47 33.1 -0.2**
MGAN Managua 8.93 116 Pn **Pn** **08 45 59.8 +0.7**
MGAN Managua 8.93 116 P **Pn** **08 45 59.8 +0.7**
comp=Z,91nm,1.0s
BOAB BOACO BROADBAN 9.30 113 **Pn** **08 46 04.1 0.0**
BOAB BOACO BROADBAN 9.30 113 P **Pn** **08 46 04.4 +0.3**
comp=Z,73nm,0.8s
INCO Volcan de Coli 9.31 292 *e*P **Pn** **08 46 08.6 +4.0**
INCO *e*S **Sn** **08 47 49.5 +1.6**
CEGR Campo Tres 9.49 291 *i* P **Pn** **08 46 10.3 +3.4**
CEGR *e*S **Sn** **08 47 51.7 -0.3**
LNIG Linares 9.82 332 *e*P **Pn** **08 46 13.6 +2.4**
ZAIG Zacatecas 10.04 312 Pn **Pn** **08 46 17.7 +3.2**
ZAIG Zacatecas 10.04 312 P **Pn** **08 46 19.0 +4.5**
comp=Z,17nm,0.9s
CIHU Emiliano Zapat 10.25 289 *e*P **Pn** **08 46 19.7 +2.6**
ESTA Talpa de Allen 10.71 294 *e*P **Pn** **08 46 25.1 +1.8**
JTS Las Juntas de 10.97 121 P **Pn** **08 46 25.1 -1.8**
comp=Z,20nm,0.3s,baz=328,slow=7.0,SNR=24
JTS S **Sn** **08 48 23.1 -4.6**
comp=Z,4.7nm,0.8s,baz=308,slow=19,SNR=1.1
JTS Las Juntas de 10.97 121 **Pn** **08 46 26.9 0.0**
JTS Las Juntas de 10.97 121 P **Pn** **08 46 27.2 +0.3**
JTS Las Juntas de 10.97 121 P **Pn** **08 46 27.5 +0.6**
comp=Z,54nm,0.9s
YELA Yelapa 11.27 294 *e*P Pn 08 46 36.2 +5.1
HDC Heredia 11.82 120 **Pn** **08 46 38.3 -0.1**
HDC Heredia 11.82 120 P **Pn** **08 46 39.1 +0.6**
comp=Z,64nm,1.0s
HDC Heredia 11.82 120 *e*P **Pn** **08 46 39.0 +0.6**
LCR2 La Lucha 2 12.05 121 **Pn** **08 46 41.6 -0.1**
RAFA San Farael, Vo 12.09 120 **Pn** **08 46 42.6 +0.3**
833A Chaparral WMA, 12.88 340 **Pn** **08 46 55.6 +3.2**
735A Kenedy 12.95 347 **Pn** **08 46 55.9 +2.6**
EF04 Eagle Ford 04 13.28 347 Pn **Pn** **08 46 58.8 +1.0**
BRU2 Volcan 13.65 121 Pn **Pn** **08 47 01.8 -1.1**
BRU2 Volcan 13.65 121 P **Pn** **08 47 02.9 0.0**
comp=Z,31nm,0.9s
MLDN Muldoon 13.71 350 Pn **Pn** **08 47 05.1 +1.7**
HKT Hockley 13.72 355 P **P** **08 47 06.5 -2.5**
comp=Z,15nm,2.5s
HNDO Hondo 13.96 342 **Pn** **08 47 08.4 +1.7**
441A DeRidder 14.50 4 P **P** **08 47 15.4 -2.5**

JCT Junction City 15.01 342 Pn **P** **08 47 22.5 -1.1**
JCT IAmb IAmb 08 47 57.4
comp=Z,32nm,0.6s
JCT Junction City 15.01 342 *e*P **P** **08 47 23.3 -0.2**
SNAG San Augustine 15.23 1 Pn **P** **08 47 24.4 -1.5**
SNAG IAmb IAmb 08 47 29.6
comp=Z,32nm,0.6s
CAIB Caibarien 15.44 64 Pn **Pn** **08 47 25.7 0.0**
NATX Nacogdoches 15.47 359 **P** **08 47 27.1 -1.5**
BRDY Brady 15.56 345 **P** **08 47 29.7 +0.2**
BRDY IAmb IAmb 08 47 41.7
comp=Z,44nm,0.7s
TX31 Lajitas Ar. Si 15.56 329 **P** **08 47 29.6 -0.1**
TXAR Lajitas Array 15.56 329 P **P** **08 47 29.4 -0.3**
comp=Z,1.1nm,0.7s,baz=152,slow=12,SNR=12
OZNA Ozona 15.85 339 Pn **P** **08 47 32.4 -0.5**
OZNA IAmb IAmb 08 47 41.8
comp=Z,27nm,0.6s
FW13 Cleburne 16.28 351 **P** **08 47 38.0 +0.4**
FW13 IAmb IAmb 08 47 44.7
comp=Z,42nm,0.6s
CCCC Cccc 16.56 70 *i* P **P** **08 47 43.4 +2.7**
PILO Pilon 16.62 75 *i* P **Pn** **08 47 39.4 -1.1**
LPIG La Paz 16.81 300 LR LR 08 54 10.4
comp=Z,106nm,20.8s,baz=125,slow=36
TMB01 Midkiff 16.87 337 P **P** **08 47 45.2 +1.0**
LMGC Las Mercedes 17.01 74 *i* P **Pn** **08 47 44.2 -1.1**
ODSA Odessa 17.45 337 P **Pn** **08 47 52.2 +1.6**
ODSA IAmb IAmb 08 48 14.2
comp=Z,20nm,0.7s
129A Stewart Farms, 17.66 339 P **Pn** **08 47 54.2 +1.0**
HLGC Holguin 18.04 72 *i* P Pn 08 48 05.9 +8.1
LRAL Lakeview Retre 18.04 21 P **P** **08 47 56.5 -0.6**
MIAR Mount Ida 18.26 2 P **Pn** **08 47 59.9 -0.4**
comp=Z,45nm,0.9s
MNTX Cornudas Mount 18.34 329 P **Pn** **08 48 03.4 +2.1**
comp=Z,8.5nm,0.9s
UALR University of 18.57 5 P **Pn** **08 48 03.3 -0.7**
UALR IAmb IAmb 08 48 04.5
comp=Z,41nm,0.7s
152A Waverly Hall 18.60 27 P **Pn** **08 48 03.8 -0.5**
152A IAmb IAmb 08 48 26.7
comp=Z,43nm,1.2s
SABCS La Quijada 18.63 74 *i* P **P** **08 48 01.9 -1.7**
GTBY Guantanamo Bay 18.75 76 *i* P **P** **08 48 03.8 -1.1**
WMOK Wichita Mounta 18.84 349 P **Pn** **08 48 07.2 -0.1**
comp=Z,9.1nm,0.6s
QMBU Quimbuelo 19.07 75 *i* P P 08 48 00.6 -7.8
QMBU *i* P **Pn** **08 48 06.5 -3.6**
APAC Apartado, Choc 19.32 113 P **Pn** **08 48 13.9 +0.8**
GOGA Godfrey 19.78 28 P **P** **08 48 14.3 -1.6**
comp=Z,40nm,1.0s
SJCC San Jacinto, C 19.79 106 **P** **08 48 15.3 -1.1**
SJCC IAmb IAmb 08 48 21.4
comp=Z,22nm,0.8s
SJCC San Jacinto, C 19.79 106 P **P** **08 48 13.4 -2.9**
comp=Z,29nm,0.8s
SMRC Santa Marta, M 20.28 102 P **P** **08 48 19.9 -1.7**
SMRC IAmb IAmb 08 48 22.4
comp=Z,25nm,0.7s
SMRC Santa Marta, M 20.28 102 P **P** **08 48 19.2 -2.4**
comp=Z,37nm,0.7s
SWET Sewanee 20.39 20 P **P** **08 48 21.2 -1.4**
SWET IAmb IAmb 08 48 42.8
comp=Z,17nm,0.8s
WVT Waverly 20.68 15 P **P** **08 48 24.9 -0.8**
comp=Z,21nm,1.1s
CBOC Ciudad Bolivar 20.80 118 P **P** **08 48 26.9 -0.5**
comp=Z,31nm,1.0s
ANMO Albuquerque 21.52 332 P **P** **08 48 36.4 +1.5**
comp=Z,2.8nm,0.8s,baz=151,slow=12,SNR=9.4
comp=Z,2.8nm,0.8s
ANMO Albuquerque 21.52 332 *e*P **P** **08 48 36.4 +1.5**
ANMO Albuquerque 21.52 332 P **P** **08 48 37.4 +2.5**
comp=Z,5.0nm,1.1s
YOTC Yotoco, Valle 21.55 122 P **P** **08 48 35.3 -0.1**
comp=Z,41nm,0.9s
TKL Tuckaleechee C 21.57 24 P **P** **08 48 34.7 -0.5**
comp=Z,4.7nm,1.0s,baz=231,slow=18,SNR=2.0
TKL S **S** **08 52 28.2 -1.2**
comp=Z,3.1nm,0.8s,baz=196,slow=12,SNR=2.0
TKL LR LR 08 57 20.1
comp=Z,50nm,21.5s,baz=204,slow=38
comp=Z,4.7nm,1.0s
GUY2C Guyana, Caldas 21.68 118 P **P** **08 48 36.9 -0.2**
comp=Z,43nm,1.0s
JAMC Jamundi, Valle 21.75 125 P **P** **08 48 38.9 +1.4**
comp=Z,30nm,0.9s
TUC Tucson 21.82 320 P **P** **08 48 41.2 +3.2**
comp=Z,14nm,1.0s
BBAC Balboa, Cauca 22.05 128 P **P** **08 48 43.0 +2.2**
comp=Z,577nmcomp=Z,67nm,0.9s
POPC Popayan, Colom 22.16 126 P **P** **08 48 43.0 +1.1**
comp=Z,19nm,1.1s
OTAV Otavalo 22.39 134 P **P** **08 48 48.5 +3.8**
comp=Z,7.3nm,0.8s
OTAV Otavalo 22.39 134 P **P** **08 48 47.0 +2.4**
comp=Z,7.3nm,0.8s
OTAV Otavalo 22.39 134 *e*P **P** **08 48 45.9 +1.2**
ORTC Ortega, Tolima 22.49 121 P **P** **08 48 45.1 -0.2**
comp=Z,646nmcomp=Z,70nm,0.9s
ROSC El Rosal 22.77 118 P **P** **08 48 46.8 -1.8**
comp=Z,13nm,0.7s,baz=288,slow=20,SNR=4.7
comp=Z,13nm,0.7s
WCI Wyandotte Cave 23.07 17 P **P** **08 48 48.2 -2.6**
comp=Z,66nm,1.0s
RUSC La Rusia 23.32 114 **P** **08 48 53.6 -0.4**
RUSC La Rusia 23.32 114 P **P** **08 48 52.8 -1.2**
comp=Z,16nm,1.6s
CHIC Chingaza 23.38 117 P **P** **08 48 55.5 +1.1**
comp=Z,23nm,0.9s
URMC La Uribe, Meta 23.58 121 P **P** **08 48 57.8 +1.9**
comp=Z,13nm,0.8s
MVCO Mesa Verde 24.32 332 P **P** **08 49 04.8 +2.3**
comp=Z,17nm,1.1s
SDV Santo Domingo 24.35 105 LR LR 08 58 55.1
comp=Z,50nm,19.5s,baz=304,slow=37
SDV Santo Domingo 24.35 105 P **P** **08 49 02.6 -0.3**
SDV Santo Domingo 24.35 105 P **P** **08 49 02.1 -0.8**
comp=Z,101nm,0.7s
SDV Santo Domingo 24.35 105 P **P** **08 49 01.1 -1.8**
comp=Z,102nm,0.7s
N38A Jose South For 24.50 2 P **P** **08 49 03.3 -0.5**
MACC Macarena, Meta 24.64 122 P **P** **08 49 07.0 +1.6**
comp=Z,567nmcomp=Z,52nm,0.8s
PTLC Puerto Leguiza 25.11 128 P **P** **08 49 15.2 +5.6**
ISCO Idaho Springs 25.43 340 P **P** **08 49 15.0 +2.4**
comp=Z,10nm,0.9s
PFO Pinyon Flats O 26.33 315 P **P** **08 49 22.0 +1.4**
comp=Z,0.8nm,0.7s,baz=48,slow=15,SNR=1.7
PFO LR LR 09 00 24.3
comp=Z,76nm,18.2s,baz=154,slow=38
comp=Z,0.8nm,0.7s
ECSD EROS Data Cent 27.48 357 P **P** **08 49 30.5 -0.2**
comp=Z,16nm,1.0s
PDAR Pinedale Array 29.44 337 P **P** **08 49 50.2 +1.8**
comp=Z,0.3nm,0.4s,baz=144,slow=7.2,SNR=2.2
PDAR pP **pP** **08 50 09.6 +0.8**
comp=Z,0.6nm,0.7s,baz=119,slow=12,SNR=2.9
PDAR LR LR 09 04 21.7
comp=Z,37nm,19.2s,baz=132,slow=42
comp=Z,0.3nm,0.4s
ELK Elko 30.35 328 P **P** **08 49 58.1 +1.7**
comp=Z,0.6nm,0.6s,baz=203,slow=1.7,SNR=3.5
ELK pP **pP** **08 50 17.1 +0.2**
comp=Z,2.6nm,0.9s,baz=78,slow=6.3,SNR=7.1
ELK LR LR 09 03 08.5
comp=Z,37nm,21.3s,baz=85,slow=38
comp=Z,0.6nm,0.6s
NVAR Mina Array Bea 30.46 321 P **P** **08 50 00.8 +3.3**
comp=Z,3.5nm,0.7s,baz=137,slow=8.8,SNR=21
NVAR pP **pP** **08 50 19.9 +2.0**
comp=Z,2.8nm,0.7s,baz=137,slow=8.2,SNR=7.4
NVAR LR LR 09 03 46.5
comp=Z,57nm,18.8s,baz=308,slow=39
comp=Z,3.5nm,0.7s
SADO Sadowa 31.25 21 LR LR 09 04 26.5
comp=Z,39nm,18.9s,baz=163,slow=40
EYMN Ely 31.73 4 P **P** **08 50 06.5 -1.7**
comp=Z,20nm,1.0s
AGMN Agassiz Nation 32.01 358 P **P** **08 50 09.4 -1.2**
comp=Z,40nm,0.8s
AGMN pP **pP** **08 50 29.8 -1.6**
CZSB Cruzeiro do Su 32.09 136 *e*P **P** **08 50 12.9 +1.1**
HLID Hailey 32.10 332 P **P** **08 50 14.0 +2.2**
comp=Z,3.2nm,0.8s
WVOR Wild Horse Val 33.34 327 P **P** **08 50 24.8 +2.2**
comp=Z,7.4nm,2.4s
WVOR pP **pP** **08 50 44.2 +1.2**
ULM Lac du Bonnet 33.96 358 P **P** **08 50 26.5 -1.1**
comp=Z,6.0nm,0.6s,baz=169,slow=11,SNR=26
ULM pP **pP** **08 50 46.5 -1.9**
comp=Z,5.8nm,0.7s,baz=175,slow=13,SNR=4.6
ULM LR LR 09 06 47.6
comp=Z,45nm,19.1s,baz=187,slow=40
comp=Z,6.0nm,0.6s
PLID Pearl Lake 34.01 332 P **P** **08 50 29.8 +1.4**
NEW Newport 36.97 335 P **P** **08 50 55.4 +1.8**
comp=Z,1.1nm,0.5s,baz=119,slow=17,SNR=3.6
comp=Z,1.1nm,0.5s
FFC Flin Flon 38.86 353 P **P** **08 51 09.5 +0.2**
comp=Z,17nm,0.8s
FFC pP **pP** **08 51 30.0 -0.3**
EDM Edmonton 39.79 342 P **P** **08 51 17.6 +0.5**
EDM IAmb IAmb 08 51 49.8
comp=Z,9.2nm,0.9s
LPAZ La Paz 41.45 140 P **P** **08 51 32.0 +0.2**
comp=Z,4.1nm,0.6s,baz=308,slow=3.1,SNR=24
comp=Z,4.1nm,0.6s
LPAZ La Paz 41.45 140 P **P** **08 51 31.8 0.0**
LPAZ IAmb IAmb 08 51 36.4
comp=Z,4.8nm,0.6s
LPAZ La Paz 41.45 140 P **P** **08 51 32.3 +0.5**
comp=Z,6.9nm,0.6s
PB16 IPOC Station P 42.22 143 P **P** **08 51 39.0 +0.9**
PB16 IAmb IAmb 08 51 40.6
comp=Z,9.7nm,0.9s
PB16 IPOC Station P 42.22 143 P **P** **08 51 39.4 +1.4**
comp=Z,14nm,1.4s
MDP Montagnes des 42.46 100 LR LR 09 13 06.3
comp=Z,44nm,18.4s,baz=314,slow=42
PB11 IPOC Station P 43.28 145 P **P** **08 51 46.8 +0.7**
comp=Z,19nm,0.9s
GO01 Chusmiza 43.46 144 P **P** **08 51 50.1 +2.2**
comp=Z,13nm,0.9s
PB08 IPOC Station P 43.86 145 P **P** **08 51 52.4 +1.4**
comp=Z,9.5nm,2.4s
SCHQ Schefferville 44.03 23 LR LR 09 12 04.6
comp=Z,67nm,18.3s,baz=245,slow=38
PB02 IPOC Station P 44.41 146 P **P** **08 51 56.2 +1.1**
comp=Z,20nm,0.8s
VILB Vilhena 44.58 129 P **P** **08 51 56.7 +0.3**
VILB Vilhena 44.58 129 *e*P **P** **08 51 56.4 -0.1**
NPGB Novo Progresso 45.08 118 *e*P **P** **08 51 57.7 -2.7**
CLDB Colider 46.78 123 *e*P **P** **08 52 11.5 -2.3**
PTLB Pontes e Lacer 46.97 130 P **P** **08 52 15.0 -0.2**
PTLB IAmb IAmb 08 52 18.6
comp=Z,5.0nm,0.8s
PTLB Pontes e Lacer 46.97 130 *e*P **P** **08 52 14.6 -0.6**
BBSD Serra de San D 47.07 133 *e*P **P** **08 52 15.7 -0.2**
BLKN Baker Lake 48.06 359 P **P** **08 52 23.0 0.0**
YKA Yellowknife Ar 48.34 348 P **P** **08 52 26.6 +1.4**
comp=Z,5.1nm,0.7s,baz=155,slow=7.3,SNR=25
YKA pP **pP** **08 52 46.6 -0.4**
comp=Z,3.6nm,0.6s,baz=153,slow=7.4,SNR=9.4
YKA LR LR 09 17 51.9
comp=Z,18nm,18.6s,baz=352,slow=42
comp=Z,5.1nm,0.7s
SALTA 48.68 145 P **P** **08 52 30.4 +1.5**
comp=Z,3.7nm,1.1s
AC02 Maricunga 49.37 150 P **P** **08 52 36.1 +2.0**
comp=Z,18nm,1.2s
AC05 El Transito 50.53 152 P **P** **08 52 43.5 +1.1**
comp=Z,16nm,1.6s
COIM Porto Coimbra 50.87 134 *e*P **P** **08 52 43.7 -1.3**
SNDB Serra Nova Dou 51.06 121 *e*P **P** **08 52 43.9 -2.7**
GO04 Tololo Observa 51.45 154 P **P** **08 52 50.5 +1.0**
comp=Z,12nm,0.9s
CO01 Juntas del Tor 51.59 153 P **P** **08 52 51.9 +1.4**
comp=Z,6.5nm,1.1s
TAOE Nuku Hiva Isla 51.64 244 *e*LR LR 09 07 50.1
comp=Z,92nm,26.3s
CO03 El Pedregal 52.08 154 P **P** **08 52 54.4 +0.5**
CO03 El Pedregal 52.08 154 P **P** **08 52 55.0 +1.1**
comp=Z,18nm,1.5s
CO02 Combarbal 52.27 154 P **P** **08 52 56.4 +1.0**
CO02 Combarbal 52.27 154 P **P** **08 52 56.1 +0.8**
comp=Z,25nm,1.0s
ARAG Araguaiana, MT 52.70 125 *e*P **P** **08 52 56.9 -1.9**
CO04 Los Peladeros 53.01 155 P **P** **08 53 01.7 +0.6**
CO04 Los Peladeros 53.01 155 P **P** **08 53 01.8 +0.8**
comp=Z,13nm,1.1s
ZON Zonda 53.56 153 P **P** **08 53 06.3 +1.6**
comp=E,7.7nm,1.3s
VA03 San Esteban 53.81 155 P **P** **08 53 07.9 +1.2**
comp=Z,19nm,1.1s
PEL Peldehue 54.09 155 P **P** **08 53 09.2 +0.6**
comp=Z,11nm,1.6s
MT09 Talagante 54.53 156 P **P** **08 53 12.5 +0.6**
MT09 IAmb IAmb 08 53 13.1
comp=Z,6.8nm,0.7s
BO04 La Punta 54.86 156 P **P** **08 53 15.8 +1.6**
BO04 IAmb IAmb 08 53 16.0
comp=Z,12nm,1.3s
BO01 Tunca 55.03 156 P **P** **08 53 15.6 +0.3**
comp=Z,9.8nm,1.2s
GO05 Hualane 55.26 158 P **P** **08 53 17.3 +0.3**
comp=Z,10nm,0.9s
BO02 Sierra Bellavi 55.50 156 P **P** **08 53 19.3 +0.5**
BO02 IAmb IAmb 08 53 20.1
comp=Z,7.5nm,1.0s
BO02 Sierra Bellavi 55.50 156 P **P** **08 53 19.3 +0.5**
comp=Z,12nm,1.7s
CPUP Villa Florida 55.60 139 P **P** **08 53 19.0 -0.6**
comp=Z,2.3nm,0.9s,baz=312,slow=12,SNR=6.0
comp=Z,2.3nm,0.9s
BDFB Brasilia 55.71 122 P **P** **08 53 20.4 -0.3**
comp=Z,13nm,0.7s,baz=279,slow=6.7,SNR=18
comp=Z,13nm,0.7s
BDFB Brasilia 55.71 122 P **P** **08 53 21.1 +0.4**
ML02 Panimavida 56.12 157 P **P** **08 53 23.5 +0.4**
comp=Z,18nm,1.2s
SDBA SAO DESIDERIO 56.66 117 *e*P **P** **08 53 24.4 -3.0**
BI02 San Fabin de 56.98 158 P **P** **08 53 29.9 +0.7**
comp=Z,8.4nm,1.5s
INK Inuvik 57.65 344 P **P** **08 53 32.4 -1.1**
comp=Z,10nm,0.6s
BRLK Bradley Lake 59.45 331 P **P** **08 53 47.4 +1.2**
GO06 Curarrehue 59.52 160 P **P** **08 53 47.2 +0.2**
comp=Z,7.0nm,1.0s
ITAB Concordia 59.60 136 P **P** **08 53 50.1 +2.4**
comp=Z,23nm,1.0s
ITAB Concordia 59.60 136 *e*P **P** **08 53 46.4 -1.3**
SAQQ Saqqaq 59.71 16 *i* P **P** **08 53 47.2 -0.6**
SAQQ IAmb IAmb 08 53 47.7
comp=Z,15nm,0.8s
ILAR Eielson Array 59.87 337 P **P** **08 53 50.1 +1.1**
comp=Z,1.5nm,0.9s,baz=130,slow=5.2,SNR=13
ILAR pP **pP** **08 54 12.1 +0.7**
comp=Z,2.3nm,0.7s,baz=133,slow=4.8,SNR=11
comp=Z,1.5nm,0.9s
SAATT Saattut 60.33 15 *i* P **P** **08 53 51.1 -0.8**
SAATT IAmb IAmb 08 53 52.3
comp=Z,31nm,0.8s
DIAM Diamantina, MG 60.63 122 *e*P **P** **08 53 51.9 -3.1**
PLCA Paso Flores 60.86 159 P **P** **08 53 56.2 +0.1**
comp=Z,8.7nm,0.8s,baz=329,slow=8.5,SNR=23
comp=Z,8.7nm,0.8s
PLCA Paso Flores 60.86 159 P **P** **08 53 57.0 +0.9**
comp=Z,14nm,0.8s,comp=Z,14nm,0.8s
PLCA Paso Flores 60.86 159 *e*P **P** **08 53 56.2 +0.1**
LL02 Futaleuf 62.66 162 P **P** **08 54 08.6 +0.5**
comp=Z,14nm,1.2s
BSFB Barra de Sao F 63.21 121 P **P** **08 54 13.1 +0.9**
comp=Z,28nm,0.7s
PPT Papeete 63.85 241 LR LR 09 14 12.2
comp=Z,49nm,20.6s,baz=145,slow=28
PPT2 Papeete2 63.86 241 *e*LR LR 09 13 30.5
comp=Z,67nm,25.0s
SUMG Summit 64.75 16 P **P** **08 54 22.0 +0.1**
SUMG Summit 64.75 16 *i* P **P** **08 54 21.0 -0.9**
SUMG IAmb IAmb 08 54 22.1
comp=Z,12nm,0.8s
COYC Coyhaique 64.77 163 P **P** **08 54 22.8 +1.0**
comp=Z,22nm,1.0s
NEEM North Greenlan 64.93 10 *i* P **P** **08 54 22.4 -0.5**
NEEM IAmb IAmb 08 54 24.2
comp=Z,14nm,0.9s
GO08 Villa O'Higgin 67.29 164 P **P** **08 54 39.4 +1.5**
comp=Z,14nm,1.2s
BORG Borgarnes 68.26 26 LR LR 09 24 09.7
comp=Z,20nm,18.3s,baz=273,slow=36
DBG Daneborg 70.23 16 *i* P **P** **08 54 55.3 -0.6**
DBG IAmb IAmb 08 54 56.5

comp=Z,3.3nm,0.7s
DAG Danmarks Havn 71.06 14 P **P 08 55 00.1 -0.8**
comp=Z,19nm,0.9s
DAG Danmarks Havn 71.06 14 *i* P **P 08 54 59.7 -1.2**
DAG IAmb IAmb 08 55 00.7
comp=Z,16nm,1.1s
NOR Nord 72.27 9 *i* P **P 08 55 08.0 -0.1**
NOR IAmb IAmb 08 55 09.2
comp=Z,3.0nm,0.7s
RAR Rarotonga 74.08 242 LR LR 09 22 47.7
comp=Z,27nm,18.2s,baz=234,slow=31
EKA Eskdalemuir Ar 77.56 36 P **P 08 55 38.4 -0.6**
comp=Z,6.7nm,0.7s,baz=284,slow=5.8,SNR=11
comp=Z,6.7nm,0.7s
ESDC Sonseca Array 80.20 52 P **P 08 55 53.7 -0.2**
comp=Z,4.7nm,0.9s,baz=290,slow=5.5,SNR=18
comp=Z,4.7nm,0.9s
MDT Midelt 81.26 58 LR LR 09 24 41.3
comp=Z,28nm,21.0s,baz=276,slow=30
NB2 NORSAR Subarra 83.32 28 P **P 08 56 10.7 +0.9**
comp=Z,3.3nm,0.7s,baz=291,slow=5.3
NOA NORSAR Array B 83.32 28 P **P 08 56 11.1 +1.2**
comp=Z,6.8nm,0.8s,baz=291,slow=5.2,SNR=16
NOA pP **pP 08 56 32.8 -0.5**
comp=Z,2.6nm,0.8s,baz=292,slow=5.1,SNR=3.9
NOA LR LR 09 32 55.7
comp=Z,14nm,18.3s,baz=295,slow=35
comp=Z,6.8nm,0.8s
DOU Dourbes 83.39 40 *d*P **P 08 56 10.5 +0.2**
comp=Z,8.3nm,1.0s
BMRD Maredsous 83.43 40 *d*P **P 08 56 10.4 -0.1**
BMRD *d*pP **pP 08 56 33.7 -0.3**
BCLA Clavier 83.72 39 *d*P **P 08 56 12.0 0.0**
comp=Z,7.4nm,0.8s
ARCES ARCESS Array B 84.77 18 P **P 08 56 17.9 +1.0**
comp=Z,8.3nm,0.9s,baz=308,slow=6.0,SNR=11
ARCES pP **pP 08 56 40.2 -0.3**
comp=Z,1.7nm,0.5s,baz=306,slow=4.1,SNR=1.3
comp=Z,8.3nm,0.9s
HFS Hagfors 84.80 29 LR LR 09 35 04.8
comp=Z,45nm,18.6s,baz=286,slow=36
TIXI Tiksi 87.59 347 LR LR 09 42 59.6
comp=Z,19nm,18.4s,baz=226,slow=40
DBIC Dimbokro 87.78 84 P **P 08 56 32.5 -0.2**
comp=Z,4.8nm,0.8s,baz=286,slow=3.3,SNR=4.3
comp=Z,4.8nm,0.8s
DAVOX Davos/Dischmat 87.81 42 LR LR 09 37 21.6
comp=Z,32nm,18.4s,baz=267,slow=37
GERES GERESS Array B 89.38 39 P **P 08 56 39.9 +0.1**
comp=Z,1.8nm,0.8s,baz=289,slow=4.1,SNR=11
GERES LR LR 09 39 35.6
comp=Z,9.9nm,18.2s,baz=46,slow=38
comp=Z,1.8nm,0.8s
FINES FINESS Array B 89.48 24 P **P 08 56 41.0 +1.2**
comp=Z,3.1nm,0.8s,baz=316,slow=8.0,SNR=5.5
comp=Z,3.1nm,0.8s
MODS Modra-Piesok 91.73 38 *e*P **P 08 56 52.0 +1.4**
TORD Torodi Ar. Bea 92.15 76 P **P 08 56 51.9 -1.3**
comp=Z,0.6nm,0.6s,baz=283,slow=5.1,SNR=4.1
comp=Z,0.6nm,0.6s
AKASG Malin Array Be 97.15 32 LR LR 09 41 42.0
comp=Z,12nm,18.3s,baz=346,slow=36
HHC Hu-ho-hao-te 118.29 338 *e*P **PKiKP 09 02 30.1 -0.3**
NJ2 Nanjing 122.35 326 *e*P **PKiKP 09 02 40.5 +2.1**
NJ2 pmax pmax
comp=Z,11nm,0.6s
MAW Mawson 126.60 169 PKP **PKiKP 09 02 45.1 -0.5**
comp=Z,1.6nm,0.9s,baz=217,slow=5.1,SNR=2.6
STKA Stephens Creek 127.04 242 PKP **PKiKP 09 02 47.5 -0.2**
comp=Z,1.8nm,0.6s,baz=125,slow=4.6,SNR=4.3
WRA Warramunga Arr 133.59 258 PKP **PKiKP 09 03 00.2 -1.0**
comp=Z,0.9nm,0.7s,baz=87,slow=2.6,SNR=12
ASAR Alice Springs 134.12 253 PKP **PKiKP 09 03 01.7 -0.6**
comp=Z,0.4nm,0.9s,baz=77,slow=1.8,SNR=7.4

KRSC 20 08:57:42.8±1.6, 49.27N×158.34E, h40km±25km, Ml3.7, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**2.02**	**315**	*e*P	Pn	08 58 15.2	+0.9
SKR				*e*S	Sn	08 58 39.1	+0.9
PAU	**Pauzhetka**	**2.41**	**337**	*e*S	Sn	08 58 50.7	+2.8
KDTR	**Khodutka, Kamc**	**2.55**	**356**	*e*P	Pn	08 58 24.4	+2.8
KDTR				*e*S	Sn	08 58 54.1	+2.7
ASAK	**Asacha**	**3.13**	**355**	*e*P	Pn	08 58 33.5	+3.8
RUS	**Russkaya**	**3.17**	**2**	*e*P	Pn	08 58 33.8	+3.6
RUS				*e*S	Sn	08 59 11.8	+5.2
MTVR	**Mutnovka**	**3.22**	**358**	*e*P	Pn	08 58 34.8	+3.8
MTVR				*e*S	Sn	08 59 13.2	+5.1
GRL	**Gorelyy**	**3.29**	**357**	*e*P	Pn	08 58 35.9	+3.9
KRMR	**Karymshinskiy**	**3.57**	**358**	*e*S	Sn	08 59 21.1	+4.7
DALK	**Dalny**	**3.78**	**4**	*e*P	Pn	08 58 42.3	+3.9
DALK				*e*S	Sn	08 59 27.2	+5.6
UGLR	**Uglovaya**	**3.96**	**4**	*e*P	Pn	08 58 45.4	+4.4
SPN	**Mys Shipunski**	**3.98**	**15**	*e*P	Pn	08 58 45.6	+4.4
AVH	**Avacha**	**4.01**	**3**	*e*P	Pn	08 58 46.4	+4.7
SMAR	**Somma**	**4.01**	**4**	*e*P	Pn	08 58 46.8	+4.9
SDLR	**Sedlovina**	**4.03**	**5**	*e*P	Pn	08 58 45.9	+3.8
KOK	**Koryaka**	**4.03**	**3**	*e*P	Pn	08 58 47.1	+5.0
KRER	**Koryakskii**	**4.05**	**3**	*e*P	Pn	08 58 47.5	+5.1
KRX	**Arik**	**4.10**	**3**	*e*P	Pn	08 58 47.6	+4.6
GNL	**Ganaly**	**4.44**	**357**	*e*P	Pn	08 58 51.6	+3.9
MKZ	**Mys Kozlova**	**5.70**	**20**	*e*P	Pn	08 59 08.1	+3.4
KZV	**Kizimen**	**5.98**	**11**	*e*P	Pn	08 59 14.2	+5.5

IDC 20 09:05:17.3±1.5, 6.72S×128.50E, h0km, mb3.6/2, mbtmp3.5/5, ML3.6/3, Error ellipse: s-maj=60.8km s-min=19.2km az=76.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.65**	**194**	Pn	Pn	09 07 60.0	-5.0
	0.8nm,0.3s,baz=9.5,slow=6.7,SNR=11						
FITZ				Sn	Sn	09 09 50.8	-25
	0.4nm,0.3s,baz=103,slow=22,SNR=2.4						
	1.7nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.31**	**157**	Pn	Pn	09 08 35.0	-6.4
	0.2nm,0.3s,baz=341,slow=13,SNR=10						
WRA				Sn	Sn	09 10 53.9	-27
	0.5nm,0.3s,baz=332,slow=22,SNR=8.4						
	0.3nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.63**	**163**	Pn	Pn	09 09 18.0	-6.6
	0.1nm,0.3s,baz=335,slow=10,SNR=8.1						
ASAR				Sn	Sn	09 12 15.2	-27
	0.1nm,0.3s,baz=319,slow=21,SNR=5.2						
	0.3nm,0.7s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.19**	**327**	P	P	09 16 12.4	-0.9
	0.2nm,0.3s,baz=125,slow=6.2,SNR=2.0						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**71.50**	**329**	P	P	09 16 40.6	+0.7
	0.3nm,0.6s,baz=137,slow=4.9,SNR=6.7						
	0.3nm,0.6s						

IDC 20 09:24:02.6±2.4, 3.62S×151.21E, h0km, mb3.4/2, mbtmp3.4/2, MS2.9/1, Error ellipse: s-maj=49.3km s-min=22.1km az=21.0, New Ireland region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.06**	**130**	Pn	Pn	09 24 24.6	-0.2
	188nm,0.3s,baz=331,slow=0.9,SNR=18						
KRVT				LR	LR	09 24 25.8	
	comp=Z,16nm,21.2s,baz=140,slow=22						
KRVT				Sn	Sb	09 24 38.8	+0.5
	385nm,0.3s,baz=256,slow=21,SNR=10.0						
WRA	**Warramunga Arr**	**23.10**	**224**	P	P	09 29 11.4	+1.1
	1.2nm,0.5s,baz=52,slow=9.7,SNR=20						
	1.2nm,0.5s						
ASAR	**Alice Springs**	**26.01**	**218**	P	P	09 29 36.5	-1.1
	0.2nm,0.5s,baz=55,slow=8.8,SNR=4.3						
	0.2nm,0.5s						
PETK	**Petropavlovsk-**	**56.79**	**5**	LR	LR	09 56 06.5	
	comp=Z,9.9nm,19.3s,baz=113,slow=34						
TORD	**Torodi Ar. Bea**	**148.43**	**289**	PKPbc	PKPbc	09 43 51.0	-1.3
	0.8nm,0.8s,baz=79,slow=3.6,SNR=3.9						

*IDC **20** 09:39:30.9±1.4, 7.56S×129.25E, h0km, mb4.3/2, mbtmp4.2/5, ML4.3/3, MS2.8/1, Error ellipse: s-maj=54.1km s-min=17.6km az=76.0*

*NEIC **20** 09:39:31.2±2.1, 7.58S±0.08×129.16E±0.07, h10km±1km, mb4.4/7, Error ellipse: s-maj=17.7km s-min=5.7km az=219.0*

ISC 20 09:39:31.0±0.9, 7.38S±0.1×129.1E±0.1, h10km, n24, σ1.9s34/20, mb4.4/7, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**2.22**	**94**	Pn	Pn	**09 40 06.0**	**-1.9**
SOEI	**Soe**	**5.11**	**248**	Pn	Pn	**09 40 48.6**	**+0.7**
MTN	**Manton Dam**	**5.39**	**158**		Pn	**09 40 53.6**	**+2.1**
KNRA	**Kununurra**	**7.81**	**182**		Pn	**09 41 26.0**	**+1.3**
FITZ	**Fitzroy Crossi**	**10.74**	**198**	Pn	Pn	**09 42 05.0**	**0.0**
	2.4nm,0.3s,baz=20,slow=8.7,SNR=37						
FITZ				Sn	Sn	09 43 54.6	-11
	4.6nm,0.3s,baz=98,slow=18,SNR=6.7						
FITZ				LR	LR	09 46 42.3	
	comp=Z,47nm,18.1s,baz=23,slow=39						
	5.6nm,0.3s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**10.74**	**198**		Pn	**09 42 04.8**	**-0.2**
WB0	**Warramunga Arr**	**12.95**	**157**		Pn	09 42 33.1	-2.1
WRAB	**Tennant Creek**	**13.08**	**157**		Pn	**09 42 35.4**	**-1.6**
WRA	**Warramunga Arr**	**13.09**	**158**	Pn	Pn	09 42 34.9	-2.2
	1.7nm,0.3s,baz=344,slow=13,SNR=80						
WRA				Sn	Sn	09 44 48.2	-15
	2.4nm,0.3s,baz=335,slow=22,SNR=11						
	2.3nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**13.09**	**158**		Pn	09 42 33.3	-3.8
WR8	**Warramunga Arr**	**13.16**	**157**		Pn	09 42 35.9	-2.2
AS31	**Alice Springs**	**16.42**	**164**		Pn	**09 43 19.9**	**-1.9**
ASAR	**Alice Springs**	**16.42**	**164**	Pn	Pn	**09 43 19.9**	**-1.9**
	0.4nm,0.3s,baz=340,slow=12,SNR=29						
ASAR				Sn	Sn	09 46 09.7	-14
	0.3nm,0.3s,baz=345,slow=24,SNR=4.7						
	0.9nm,0.5s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**16.42**	**164**	P	Pn	**09 43 20.3**	**-1.5**
BBJI	**Bungbulang**	**21.23**	**270**	P	P	**09 44 17.1**	**-0.3**
BBJI					IAmb	IAmb	09 44 18.0
	comp=Z,18nm,1.2s						
INKA	**Innaminka**	**22.68**	**152**	P	P	**09 44 34.0**	**+1.2**
INKA					IAmb	IAmb	09 44 49.9
	comp=Z,5.0nm,1.4s						
BBOO	**Buckleboo**	**25.70**	**166**	P	P	**09 45 02.8**	**+1.3**
STKA	**Stephens Creek**	**26.62**	**156**	P	P	**09 45 11.4**	**+1.6**
STKA					IAmb	IAmb	09 45 34.2
	comp=Z,14nm,1.1s						
MKAR	**Makanchi Array**	**68.41**	**327**	P	P	**09 50 33.8**	**+0.7**
	comp=Z,0.3nm,0.4s,baz=119,slow=8.0,SNR=14						
	comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	**68.41**	**327**	P	P	**09 50 32.0**	**-1.1**
BTK	**Batken**	**71.73**	**317**	P	P	**09 50 53.5**	**-0.2**
BTK					IAmb	IAmb	09 51 04.2
	comp=Z,4.5nm,0.8s						
KURBB	**Kurchatov Arra**	**72.73**	**329**	P	P	**09 51 00.2**	**+0.9**
	comp=Z,2.6nm,0.2s,baz=127,slow=5.1,SNR=5.1						
	comp=Z,2.6nm,0.2s						
KURK	**Kurchatov**	**72.74**	**329**	P	P	**09 50 59.0**	**-0.3**
KURK					IAmb	IAmb	09 51 07.9
	comp=Z,4.5nm,1.3s						
ABKAR	**Akbulak array**	**82.58**	**322**	P	P	**09 51 54.4**	**+0.1**

IDC 20 09:47:57.9±9.3, 18.77S×176.65W, h0km, mb3.4/3, mbtmp3.4/3, Error ellipse: s-maj=410.2km s-min=40.5km az=143.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**46.13**	**260**	P	P	09 56 24.1	-0.3
	0.5nm,0.9s,baz=96,slow=8.2,SNR=1.9						
	0.5nm,0.9s						
ASAR	**Alice Springs**	**46.18**	**255**	P	P	09 56 24.8	0.0
	0.4nm,0.7s,baz=88,slow=8.6,SNR=6.5						
	0.4nm,0.7s						
ILAR	**Eielson Array**	**86.36**	**12**	P	P	10 00 41.5	0.0
	0.2nm,0.7s,baz=227,slow=5.3,SNR=4.7						
	0.2nm,0.7s						

*HEL **20** 10:00:31.9±0.1, 64.68N×30.85E, h0km, ML2.2, Explosion*
*IGKR **20** 10:00:34.0±1.2, 64.70N±0.05×30.8E±0.5, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*KOLA **20** 10:00:35.0, 64.66N×31.01E, h0km, ML2.2, Error ellipse: s-maj=17.5km s-min=9.1km az=160.0, Kostomuksha, Karelia*
*IDC **20** 10:00:35.7±2.5, 64.67N×30.92E, h0km, mbtmp3.2/4, ML2.2/4, Error ellipse: s-maj=29.6km s-min=11.0km az=99.0*

ISC 20 10:00:32.9±1.0, 64.71N±0.02×30.70E±0.05, h0km, n25, σ1.9s51/46, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RMF	**Romuvaara**	**0.59**	**214**	*e*P	**Pg**	**10 00 42.5**	**-1.8**
RMF				*e*S	**Sg**	**10 00 52.0**	**+0.1**
KU1	**Kurvinen**	**0.99**	**331**	*e*P	**Pg**	**10 00 50.4**	**-1.3**
KU1				*e*S	**Sg**	**10 01 04.1**	**-0.4**
PUF	**PUOLANKA**	**1.14**	**269**	*e*P	**Pg**	**10 00 54.4**	**-0.3**
PUF				*e*S	**Sg**	**10 01 09.6**	**+0.3**
KU6	**Riekki**	**1.37**	**346**	*e*P	**Pg**	**10 00 57.3**	**-1.7**
KU6				*e*S	**Sg**	**10 01 18.0**	**+1.3**
MSF	**Maaselka**	**1.40**	**331**	*e*P	**Pg**	**10 00 57.7**	**-1.8**
MSF				*e*S	**Sg**	**10 01 16.8**	**-0.8**
KU2	**Taivalkoski**	**1.45**	**315**	*e*P	**Pn**	**10 00 58.7**	**-1.5**
KU2				*e*S	**Sg**	**10 01 18.0**	**-1.3**
OLKF	**Oulanka, Finla**	**1.71**	**342**	*e*PG	**Pn**	**10 01 03.3**	**-0.6**
OLKF				*e*SN	**Sn**	**10 01 26.7**	**+0.3**
JOF	**Joensuu**	**1.82**	**171**	*e*P	**Pn**	**10 01 03.7**	**-1.6**
JOF				*e*S	**Sn**	**10 01 27.1**	**-1.9**
NIF	**Nilsia**	**1.83**	**225**	*e*P	**Pn**	**10 01 04.7**	**-0.9**
NIF				*e*S	**Sn**	**10 01 28.3**	**-1.2**
OUL	**Oulu**	**2.08**	**283**	*e*P	**Pn**	**10 01 09.2**	**+0.3**
OUL				*e*SG	**Sb**	**10 01 38.2**	**+0.4**
RANF	**Ranua**	**2.10**	**310**	*e*PB	**Pn**	**10 01 10.0**	**+0.8**
RANF				*e*SG	**Sb**	**10 01 39.0**	**+0.7**
KVDA	**Kovda**	**2.19**	**23**	P	**Pn**	**10 01 11.2**	**+0.8**
KVDA				S	**Sn**	**10 01 39.1**	**+1.0**
OBF4	**Vikkela, Lumij**	**2.40**	**275**	*e*PG	**Pb**	**10 01 16.4**	**-0.5**
OBF4				*e*SG	**Sb**	**10 01 47.7**	**+0.8**
OBF4				MSG		10 01 51.2	
	comp=Z,11nm,0.2s						
OUF	**Merijarvi**	**2.60**	**265**	*e*PG	**Pb**	**10 01 19.6**	**-0.7**
OUF				*e*SG	**Sb**	**10 01 53.5**	**+0.8**
OUF				MSG		10 01 56.3	
	comp=Z,16nm,0.3s						
RNF	**Rovaniemi**	**2.72**	**317**	*e*PG	**Pb**	**10 01 21.4**	**-1.0**
RNF				*e*SB	**Sb**	**10 01 55.7**	**-0.5**
RNF				MSG		10 01 59.4	
	comp=Z,4.2nm,0.3s						
APA0	**Apatity Array**	**3.06**	**17**	P	**Pn**	**10 01 25.3**	**+3.0**
APA0				S	**Sn**	**10 01 59.9**	**+0.3**
APA	**Apatity**	**3.08**	**20**	S	**Sn**	**10 02 01.6**	**+1.5**
KAF	**Kangasniemi**	**3.27**	**219**	*e*PG	**Pb**	**10 01 30.5**	**-1.2**
KAF				*e*SB	**Sn**	**10 02 08.4**	**+3.6**
LVZ	**Lovozero**	**3.58**	**25**	S	**Sn**	**10 02 12.4**	**-0.1**
FINES	**FINESS Array B**	**3.89**	**215**	Pn	**Pn**	**10 01 37.0**	**+3.2**
	comp=Z,0.2nm,0.3s,baz=35,slow=15,SNR=6.9						
FINES				Pg	**Pb**	**10 01 41.8**	**-0.5**
	comp=Z,0.5nm,0.3s,baz=36,slow=15,SNR=8.3						
FINES				Lg	Lg	10 02 34.2	
	comp=Z,0.6nm,0.3s,baz=34,slow=28,SNR=6.5						
	comp=Z,0.7nm,0.3s						
FINES				AML	AML		
ARCES	**ARCESS Array B**	**5.25**	**340**	Pn	**Pn**	**10 01 54.2**	**+1.7**
	comp=Z,0.1nm,0.3s,baz=156,slow=13,SNR=8.7						
ARCES				Sn	**Sn**	**10 02 53.1**	**-0.6**
	comp=Z,0.2nm,0.3s,baz=153,slow=24,SNR=1.4						
ARCES				Lg	Lg	10 03 16.4	
	comp=Z,0.7nm,0.3s,baz=153,slow=30,SNR=9.9						
	comp=Z,4.5nm,0.9s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.25**	**340**	P	**Pn**	**10 01 55.4**	**+2.8**
ARCES				S	**Sn**	**10 02 53.8**	**+0.1**
FAUS	**Fauske**	**6.82**	**300**	P	**Pn**	**10 02 17.5**	**+3.5**
FAUS				S	**Sn**	**10 03 31.5**	**-0.7**
HFS	**Hagfors**	**9.11**	**248**	Pn	**Pn**	**10 02 47.6**	**+2.3**
	comp=Z,0.2nm,0.3s,baz=48,slow=11,SNR=2.4						
	comp=Z,4.8nm,1.0s						
HFS				AML	AML		
NOA	**NORSAR Array B**	**9.61**	**256**	Pn	**Pn**	**10 02 52.6**	**+0.3**
	baz=62,slow=14,SNR=4.6						
NOA				Lg	Lg	10 05 33.5	
	baz=59,slow=22,SNR=1.8						
	comp=Z,0.3nm,0.5s						

*NEIC **20** 10:10:05.2, 38.20N×117.74W, h6km*
*NEIC **20** 10:10:05.5±1.9, 38.20N±0.01×117.77W±0.01, h5km±1km, ML3.7/110, Mwr3.6/51, ML4.0/14(REN), Error ellipse: s-maj=2.5km s-min=1.8km az=221.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}=0.09; $M_{\theta\theta}$=0.23; $M_{\phi\phi}$=0.14; $M_{r\theta}$=-1.64; $M_{r\phi}$=2.49; $M_{\theta\phi}$=-0.72; Fault plane solution: M_o=3.08000×10^{14} NP1:ϕ_s=174.39000°, δ57.76000°, λ=171.68000°. NP2:ϕ_s=268.85000°, δ=82.97000°, λ=32.52000°. Principal axes: T 3.3171, Plg28.0000°, Azm137.0000°; N -0.5597, Plg57.0000°, Azm280.0000°; P -2.7574, Plg17.0000°, Azm37.0000°;*
*REN **20** 10:10:06.0±1.8, 38.18N±0.01×117.80W±0.01, h7km±1km Error ellipse: s-maj=1.9km s-min=1.5km az=221.0*
*IDC **20** 10:10:06.6±1.7, 38.27N×117.76W, h0km, mbtmp3.0/2, ML3.3/2, Error ellipse: s-maj=14.6km s-min=11.5km az=143.0*

ISC 20 10:10:06.2±0.9, 38.18N±0.02×117.78W±0.02, h11km±9km, n77, σ0.966/88, Nevada

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
COLR	**Columbus**	**0.22**	**261**		**Pg**	**10 10 10.4**	**-0.4**
COLR					**Sg**	**10 10 13.9**	**-0.1**
NV11	**Mina Array Sit**	**0.39**	**311**		**Pg**	**10 10 13.7**	**-0.2**
NV11					**Sg**	**10 10 19.0**	**0.0**
TPH	**Tonopah**	**0.45**	**103**		**Pg**	**10 10 15.3**	**+0.2**
TPH					**Sg**	**10 10 21.9**	**+0.7**
TPH				IAML		10 10 22.4	
	comp=E,6μm,0.6s						
TPH				IAML		10 10 22.5	
	comp=N,9μm,0.4s						
NV06	**Mina Array Sit**	**0.46**	**302**		**Pg**	**10 10 15.1**	**-0.1**
NV07	**Mina Array Sit**	**0.46**	**300**		**Pg**	**10 10 15.2**	**-0.1**
NV03	**Mina Array Sit**	**0.47**	**302**		**Pg**	**10 10 15.4**	**-0.1**
NV03					**Sg**	**10 10 22.0**	**+0.3**
NV08	**Mina Array Sit**	**0.48**	**298**		**Pg**	**10 10 15.4**	**-0.1**
NV04	**Mina Array Sit**	**0.48**	**301**		**Pg**	**10 10 15.6**	**0.0**
NV04					**Sg**	**10 10 23.0**	**+1.0**
NV01	**Mina Array Sit**	**0.48**	**301**		**Pg**	**10 10 15.5**	**-0.1**
NV01					**Sg**	**10 10 22.2**	**+0.2**
NVAR	**Mina Array Bea**	**0.48**	**301**	Pg	**Pg**	**10 10 15.7**	**0.0**
	comp=N,1μm,0.3s,baz=119,slow=19						
NVAR				Lg	Lg	10 10 20.1	
	comp=N,904nm,0.3s,baz=115,slow=32,SNR=18						
NVAR	**Mina Array Bea**	**0.48**	**301**		**Pg**	**10 10 15.5**	**-0.1**
NV05	**Mina Array Sit**	**0.48**	**304**		**Pg**	**10 10 15.4**	**-0.2**
NV02	**Mina Array Sit**	**0.48**	**302**		**Pg**	**10 10 15.6**	**-0.1**
NV02					**Sg**	**10 10 22.6**	**+0.4**
NV09	**Mina Array Sit**	**0.50**	**300**		**Pg**	**10 10 15.9**	**-0.1**
NV09					**Sg**	**10 10 23.6**	**+0.8**
LHV	**Little Huntoon**	**0.57**	**277**		**Pg**	**10 10 17.2**	**-0.1**
LHV				Sg	**Sg**	**10 10 25.4**	**+0.5**
LHV				IAML		10 10 27.2	
	comp=E,5μm,0.5s						
LHV				IAML		10 10 27.5	
	comp=N,5μm,0.7s						
MZP	**Montezuma Peak**	**0.57**	**147**		**Pg**	**10 10 17.4**	**0.0**
MZP					**Sg**	**10 10 25.3**	**+0.3**
MZP				IAML		10 10 25.6	
	comp=E,3μm,0.4s						
MZP				IAML		10 10 25.7	
	comp=N,4μm,0.4s						
RYN	**Ryan**	**0.73**	**308**		**Pg**	**10 10 20.1**	**-0.3**
RYN				Sg	**Sg**	**10 10 30.1**	**+0.1**
RYN				IAML		10 10 35.1	
	comp=N,4μm,0.3s						
RYN				IAML		10 10 36.3	
	comp=E,4μm,0.2s						
Q09A	**Carvers**	**0.81**	**36**		**Pb**	**10 10 21.7**	**-0.6**
Q09A					**Sb**	**10 10 33.5**	**+0.2**
Q09A				IAML		10 10 38.0	
	comp=E,4μm,0.2s						
Q09A				IAML		10 10 39.5	
	comp=N,4μm,0.6s						
KVN	**Kaiserville**	**0.90**	**344**		**Pg**	**10 10 23.0**	**-0.7**
KVN				Sg	**Sg**	**10 10 35.2**	**-0.3**
KVN				IAML		10 10 39.9	
	comp=N,3μm,0.3s						
LCH	**Last Change Ra**	**0.95**	**173**		**Pg**	**10 10 24.2**	**-0.4**
LCH					**Sg**	**10 10 37.0**	**+0.1**
GMN	**Gold Mountain**	**0.97**	**155**		**Pg**	**10 10 24.7**	**-0.2**
GMN					**Sg**	**10 10 38.0**	**+0.4**
GMN				IAML		10 10 42.0	
	comp=N,2μm,0.4s						
GMN				IAML		10 10 42.2	
	comp=E,2μm,0.7s						
MLAC	**Mammoth, Mammo**	**1.00**	**237**		**Pg**	**10 10 25.0**	**-0.4**
MCBM	**Casa Benchmark**	**1.03**	**239**		**Pg**	**10 10 25.6**	**-0.5**
MDYM	**Dry Creek**	**1.10**	**242**		**Pg**	**10 10 27.1**	**-0.3**
MDPB	**Devils Postpil**	**1.16**	**242**		**Pg**	**10 10 27.8**	**-0.8**
MDPB				IAML		10 10 43.7	
	comp=N,868nm,0.2s						
TIN	**Tinemaha, Big**	**1.18**	**198**		**Pg**	**10 10 28.5**	**-0.3**
TIN					**Sb**	**10 10 44.8**	**+0.8**
GRAC	**Grapevine Rang**	**1.23**	**164**		**Pg**	**10 10 29.3**	**-0.4**
SGV	**South Grapevin**	**1.34**	**153**		**Pn**	**10 10 31.0**	**+0.1**
NTA	**Nevada Test Si**	**1.40**	**130**		**Pn**	**10 10 32.0**	**+0.2**
YERR	**Yerington**	**1.40**	**306**		**Pn**	**10 10 31.5**	**-0.3**
EHN	**Echo Peak**	**1.51**	**129**		**Pn**	**10 10 33.5**	**+0.2**
WCT	**Wildcat Mounta**	**1.66**	**146**		**Pn**	**10 10 35.5**	**+0.1**
WCT				IAML		10 11 01.3	
	comp=N,632nm,0.4s						
WCT				IAML		10 11 02.2	
	comp=E,680nm,0.4s						
PNTR	**Pine Nut**	**1.69**	**303**		**Pn**	**10 10 35.6**	**-0.2**
S11A	**Rachel**	**1.70**	**108**		**Pn**	**10 10 36.0**	**+0.2**
TPNV	**Topopah Spring**	**1.73**	**135**		**Pn**	**10 10 36.4**	**+0.1**
TPNV				IAML		10 10 47.3	
	comp=E,534nm,0.5s						
TPNV				IAML		10 11 09.3	
	comp=E,711nm,0.8s						
CWC	**Cottonwood Cre**	**1.75**	**188**		**Pn**	**10 10 37.0**	**+0.4**
VCNR	**Virginia City**	**1.84**	**308**		**Pn**	**10 10 37.7**	**-0.1**
CPY	**CP-1**	**1.85**	**132**		**Pn**	**10 10 38.1**	**+0.2**
FURC	**Furnace Creek,**	**1.86**	**157**		**Pn**	**10 10

	comp=E,182nm,0.5s							
AFDM				IAML		10 11 32.4		
	comp=N,192nm,0.5s							
BEKR	**Beckworth**	**2.62**	**311**		**Pn**	**10 10 50.0**	**+1.4**	
CCCA	**Chr Cany lake**	**2.67**	**173**		**Pn**	**10 10 49.9**	**+0.7**	
CCCA				IAML		10 11 36.1		
	comp=E,386nm,1.0s							
CCCA				IAML		10 11 39.4		
	comp=N,373nm,1.1s							
SHPR	**Sheep Range**	**2.68**	**128**		**Pn**	**10 10 49.6**	**+0.3**	
LRMC	**Laurel Mtn Rad**	**2.70**	**178**		**Pn**	**10 10 50.0**	**+0.4**	
LRMC				IAML		10 11 40.1		
	comp=E,177nm,1.0s							
LVN	**Las Vegas**	**2.96**	**134**	Pn	**Pn**	**10 10 53.8**	**+0.7**	
LVN				IAML		10 11 51.8		
	comp=E,336nm,0.7s							
LVN				IAML		10 11 57.6		
	comp=N,310nm,1.0s							
GSC	**Goldstone, Bar**	**2.98**	**164**	Pn	**Pn**	**10 10 53.7**	**+0.3**	
GSC				IAML		10 11 51.3		
	comp=E,131nm,0.9s							
BBGB	**Big Mountain B**	**3.05**	**239**	Pn	**Pn**	**10 10 55.5**	**+1.1**	
PMPB	**Monarch Peak**	**3.11**	**232**	Pn	**Pn**	**10 10 57.3**	**+2.2**	
PSUT	**Pine Spring**	**3.11**	**82**		**Pn**	**10 10 56.2**	**+0.9**	
PKD	**Bear Valley Ra**	**3.14**	**226**	Pn	**Pn**	**10 10 55.7**	**+0.1**	
PKD				IAML		10 11 56.7		
	comp=E,113nm,1.5s							
ELK	**Elko**	**3.23**	**37**		**Pn**	**10 10 57.4**	**+0.4**	
ICU	**Indian Springs**	**3.23**	**107**		**Pn**	**10 10 56.9**	**0.0**	
SUTB	**Sutter Butte**	**3.30**	**290**	IAML		10 11 52.2		
	comp=N,298nm,0.5s							
SUTB				IAML		10 11 54.1		
	comp=E,275nm,0.8s							
O03E	**Paynes Creek**	**3.77**	**305**	IAML		10 12 12.0		
	comp=N,67nm,1.5s							
O03E				IAML		10 12 17.1		
	comp=E,104nm,1.3s							
LCMT	**Little Creek M**	**3.79**	**107**		**Pn**	**10 11 04.9**	**+0.3**	
HATC	**Hat Creek Radi**	**3.88**	**314**	IAML		10 12 26.9		
	comp=N,86nm,3.0s							
HATC				IAML		10 12 28.2		
	comp=E,81nm,1.2s							
MOD	**Modoc Plateau**	**4.19**	**333**	IAML		10 12 24.3		
	comp=N,92nm,0.8s							
MOD				IAML		10 12 26.3		
	comp=E,106nm,0.7s							
BLYC	**Blythe**	**5.15**	**148**	IAML		10 12 50.6		
	comp=E,35nm,0.9s							
BLYC				IAML		10 12 52.4		
	comp=N,31nm,0.8s							
PDAR	**Pinedale Array**	**7.76**	**51**	Pn	**Pn**	**10 12 02.5**	**+3.2**	
	comp=N,0.2nm,0.3s,baz=230,slow=13,SNR=6.0							
PDAR				Lg	Lg	10 14 07.2		
	comp=N,0.2nm,0.3s,baz=233,slow=26,SNR=2.4 comp=N,0.5nm,0.6s							
PDAR				AML	AML			
TXAR	**Lajitas Array**	**14.67**	**123**	Pn	**P**	**10 13 38.8**	**-1.2**	
	baz=308,slow=12,SNR=2.4 comp=N,0.3nm,0.9s							

*JMA **20** 10:47:05.7±0.1,24.0°N±0.0°×123.5°E±0.4,h27km±1km, MV2.8/10,NEAR ISHIGAKIJIMA ISLAND*

ISC 20 10:47:05.9±1.1,24.00N±0.07×123.47E±0.03,h27km±11km, n19,σ0s78/26,Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HATJ	**Hateruma jima**	**0.31**	**80**	P	**Pb**	**10 47 12.9**	**-0.4**
HATJ				S	**Sb**	**10 47 18.6**	**+0.2**
IRIF	**Iriomote-Funau**	**0.41**	**36**	*i* P	**Pb**	**10 47 14.8**	**-0.1**
IRIF				S	**Sb**	**10 47 20.9**	**+0.1**
JKRS	**Kuro-shima**	**0.55**	**65**	*i* P	**Pb**	**10 47 17.0**	**0.0**
JKRS				S	**Sb**	**10 47 25.0**	**+0.4**
YOJ	**Yonaguni jima**	**0.62**	**318**	P	**Pb**	**10 47 18.1**	**-0.1**
YOJ	**Yonaguni jima**	**0.62**	**318**	S	**Sb**	**10 47 26.5**	**-0.1**
YOJ	**Yonaguni jima**	**0.62**	**318**	*e*P	**Pb**	**10 47 18.2**	**-0.1**
YOJ				*e*S	**Sb**	**10 47 26.7**	**+0.1**
JYNG	**Yonagunijimaku**	**0.65**	**313**	*i* P	**Pb**	**10 47 18.6**	**-0.2**
JYNG				*e*S	**Sb**	**10 47 27.4**	**-0.2**
JIJ	**Ishigaki jima**	**0.71**	**60**	*i* P	**Pb**	**10 47 19.2**	**-0.6**
JIJ				*e*S	**Sb**	**10 47 29.1**	**-0.2**
JISG	**Ishigakijimahi**	**0.96**	**53**	*i* P	**Pn**	**10 47 23.3**	**-0.3**
JISG				*e*S	**Sb**	**10 47 36.3**	**-0.1**
JTJ	**Tarama**	**1.29**	**60**	*e*P	**Pb**	**10 47 29.3**	**-0.3**
NACB	**Ninganchiao**	**1.72**	**276**	P	**Pn**	**10 47 34.5**	**+0.4**
YHNB	**Yeheng**	**2.02**	**290**	P	**Pb**	**10 47 40.3**	**-1.8**
YULB	**Yu-li**	**2.08**	**253**	P	**Pn**	**10 47 38.6**	**-0.5**
YULB	**Yu-li**	**2.08**	**253**	S	**Sn**	**10 48 04.1**	**0.0**
SSLB	**Suanglung**	**2.31**	**265**	P	**Pn**	**10 47 43.3**	**+1.0**
TWGBT	**Beinan**	**2.49**	**242**	P	**Pn**	**10 47 44.6**	**-0.1**
TWGBT	**Beinan**	**2.49**	**242**	S	**Sn**	**10 48 13.2**	**-1.0**
TPUB	**Ta-pu**	**2.69**	**256**	P	**Pn**	**10 47 49.5**	**+2.0**
TPUB	**Ta-pu**	**2.69**	**256**	S	**Sn**	**10 48 20.9**	**+1.6**

*NEIC **20** 10:58:39.3±1.0,34.0°S±0.0°×149.8E±0.1,h10km±2km, ML3.0/6,Error ellipse: s-maj=23.4km s-min=13.9km az=133.0*

AUST 20 10:58:40.2±0.5,34°S±4°×150°E±°,h10km,ML3.0/16,Error ellipse: s-maj=9.1km s-min=2.8km az=145.8,confirmed, New South Wales

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OKDL	**Oakdale**	**0.62**	**99**	P	Pg	10 58 52.6	+0.2
OKDL				S	Sg	10 59 01.1	+0.5
OKDL				AML	AML		
OKDL	**Oakdale**	**0.62**	**99**	P	Pg	10 58 52.7	+0.3
OKDL				S	Sg	10 59 01.2	+0.6
OKDL				AML	AML		
WTPK	**Wilton Park**	**0.79**	**108**	P	Pg	10 58 55.7	+0.2
WTPK				S	Sb	10 59 07.0	+0.2
WTPK				AML	AML		
WTPK	**Wilton Park**	**0.79**	**108**	P	Pg	10 58 55.7	+0.3
WTPK				S	Sb	10 59 06.9	+0.1
WTPK				AML	AML		
MABG	**Mt Annan Botan**	**0.85**	**97**	P	Pg	10 58 56.9	+0.2
MABG				S	Sb	10 59 08.7	0.0
MABG				AML	AML		
SYDH	**Sydney Hard Ro**	**0.86**	**76**	P	Pg	10 58 56.5	-0.3
SYDH				AML	AML		
SYDH	**Sydney Hard Ro**	**0.86**	**76**	P	Pg	10 58 56.8	-0.1
SYDH				AML	AML		
YARR	**Yarramundi, NS**	**0.87**	**66**	P	Pg	10 58 56.4	-0.6
YARR				S	Sg	10 59 08.3	0.0
YARR				AML	AML		
YARR	**Yarramundi, NS**	**0.87**	**66**	P	Pg	10 58 56.7	-0.3
YARR				S	Sg	10 59 08.5	+0.2
YARR				AML	AML		
DLN	**Dalton (NSW)**	**0.88**	**212**	P	Pg	10 58 55.9	-1.2
DLN				S	Sg	10 59 08.1	-0.5
DLN				AML	AML		
DLN	**Dalton (NSW)**	**0.88**	**212**	P	Pg	10 58 56.1	-1.1
DLN				S	Sg	10 59 07.8	-0.8
DLN				AML	AML		
WOLH	**Wollongong Har**	**1.04**	**115**	P	Pg	10 58 59.9	-0.3
WOLH				AML	AML		
WOLH	**Wollongong Har**	**1.04**	**115**	P	Pg	10 59 00.2	0.0
WOLH				AML	AML		
CATI	**Cattai, Sydney**	**1.07**	**67**	P	Pg	10 59 00.2	-0.6
CATI				S	Sb	10 59 14.8	0.0
CATI				AML	AML		
RIV	**Riverview**	**1.19**	**83**	P	Pb	10 59 02.8	-0.1
RIV				S	Sn	10 59 18.9	-0.3
RIV				AML	AML		
SYDS	**Sydney Soft Ro**	**1.24**	**88**	P	Pb	10 59 03.7	+0.1
SYDS				AML	AML		
CNB	**Canberra Magne**	**1.37**	**193**	P	Pn	10 59 05.2	-0.3
CNB				S	Sb	10 59 23.3	-0.3
CNB				AML	AML		
PHB	**Parliment Hous**	**1.42**	**201**	P	Pn	10 59 05.8	-0.4
PHB				AML	AML		
AUKHS	**Kincumber High**	**1.46**	**70**	P	Pb	10 59 07.2	-0.4
AUKHS				AML	AML		
AUKHS	**Kincumber High**	**1.46**	**70**	P	Pn	10 59 06.8	+0.1
AUKHS				S	Sn	10 59 26.0	+0.1
AUKHS				AML	AML		
CAN	**Canberra**	**1.47**	**204**	P	Pn	10 59 06.4	-0.5
CAN				S	Sn	10 59 26.2	0.0
CAN				AML	AML		
CAN	**Canberra**	**1.47**	**204**	P	Pn	10 59 06.2	-0.7
CAN				S	Sn	10 59 25.8	-0.5
CAN				AML	AML		
CAN	**Canberra**	**1.47**	**204**	Pn	Pn	10 59 06.9	0.0
CAN				Sn	Sn	10 59 25.4	-0.9
CAN				IAML		10 59 26.8	
	comp=N,158nm,0.3s						
CAN				IAML		10 59 27.0	
	comp=E,215nm,0.3s						
NTLH	**Newcastle Hard**	**1.96**	**57**	P	Pn	10 59 14.8	+1.2
NTLH				S	Sb	10 59 41.6	+1.0
NTLH	**Newcastle Hard**	**1.96**	**57**	S	Sn	10 59 39.4	+1.1
AUPHS	**Peel High Scho**	**3.03**	**19**	P	Pn	10 59 28.1	-0.1
AUPHS				AML	AML		
MILA	**Mila**	**3.11**	**189**	P	Pn	10 59 30.1	+0.7
MILA	**Mila**	**3.11**	**189**	P	Pn	10 59 30.2	+0.8
MILA				AML	AML		
ARMA	**Armidale**	**3.89**	**25**	P	Pn	10 59 43.5	+3.3
ARMA	**Armidale**	**3.89**	**25**	P	Pn	10 59 41.1	+0.9
ARMA				AML	AML		
ARMA	**Armidale**	**3.89**	**25**	Pn	Pn	10 59 38.1	-2.1
ARMA				Sn	Sn	11 00 24.4	-1.7
ARMA				IAML		11 01 15.8	
	comp=N,17nm,4.3s						
CMSA	**Cobar Meteorol**	**4.19**	**304**	P	Pn	10 59 43.3	-0.9
CMSA				S	Sn	11 00 27.6	-5.5
CMSA	**Cobar Meteorol**	**4.19**	**304**	P	Pn	10 59 43.2	-0.9
CMSA				AML	AML		
TOO	**Toolangi**	**4.98**	**223**	P	Pn	10 59 55.5	+0.4
TOO				AML	AML		
TOO	**Toolangi**	**4.98**	**223**	Pn	Pn	10 59 55.1	0.0
TOO				IAML		11 00 49.7	
	comp=E,12nm,4.2s						
ARPS	**Mount Arapiles**	**7.03**	**244**	P	Pn	11 00 22.5	-0.7
	comp=Z,6.6nm,2.3s,comp=Z,0.0nm						
ARPS				AML	AML		
STKA	**Stephens Creek**	**7.16**	**285**	P	Pn	11 00 25.5	+0.5
STKA	**Stephens Creek**	**7.16**	**285**	P	Pn	11 00 25.4	+0.4
STKA	**Stephens Creek**	**7.16**	**285**	Pn	Pn	11 00 24.4	-0.6
QLP	**Quilpie**	**8.77**	**326**	P	Pn	11 00 47.3	+0.2

IDC 20 11:50:54.4±14.0,7.20S×129.97E,h136km±158km, mb3.3/1,mbtmp3.8/4,ML3.8/3,MS4.2/1,Error ellipse: s-maj=91.8km s-min=55.7km az=18.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.63**	**201**	P	Pn	11 53 36.9	+0.6
	1.0nm,0.3s,baz=30,slow=13,SNR=24						
FITZ				S	Sn	11 55 43.6	-0.9
	3.0nm,0.5s,baz=298,slow=16,SNR=6.4 2.0nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.36**	**162**	P	Pn	11 53 57.5	-1.3
	0.3nm,0.3s,baz=345,slow=13,SNR=25						
WRA				S	Sn	11 56 21.3	-5.1
	1.3nm,0.5s,baz=333,slow=22,SNR=8.2 0.8nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**16.80**	**167**	P	Pn	11 54 42.9	+1.1
	0.3nm,0.3s,baz=343,slow=9.6,SNR=27						
ASAR				S	Sn	11 57 43.0	-6.3
	0.5nm,0.7s,baz=354,slow=25,SNR=5.6 0.9nm,0.6s						
ASAR				AML	AML		
URZ	**Urewera**	**52.55**	**133**	LR	LR	12 24 32.2	
	comp=Z,195nm,18.7s,baz=266,slow=38						
MKAR	**Makanchi Array**	**68.38**	**327**	P	P	12 01 41.2	0.0
	0.3nm,0.4s,baz=116,slow=8.1,SNR=5.9 0.3nm,0.4s						

IDC 20 12:00:39.7±4.0,30.86S×177.52W,h0km,mb3.8/2, mbtmp3.8/2,Error ellipse: s-maj=186.2km s-min=56.6km az=160.0,Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**8.60**	**209**	Sn	Sn	12 04 12.6	-11
	2.2nm,0.3s,baz=259,slow=16,SNR=9.3						
ASAR	**Alice Springs**	**43.50**	**267**	P	P	12 08 45.1	-0.1
	0.6nm,0.7s,baz=105,slow=7.3,SNR=13						
ASAR				PcP	PcP	12 10 32.7	-0.6
	0.4nm,0.8s,baz=110,slow=3.3,SNR=2.9 0.9nm,0.7s						
WRA	**Warramunga Arr**	**44.53**	**272**	P	P	12 08 53.3	-0.1
	0.9nm,0.4s,baz=111,slow=8.1,SNR=34 0.9nm,0.4s						
FINES	**FINESS Array B**	**145.72**	**340**	PKPbc	PKPdf	12 20 19.2	-0.3
	4.5nm,1.0s,baz=48,slow=4.1,SNR=4.1						

IDC 20 12:22:07.8±6.7,7.74N×103.44W,h0km,mb3.2/3, mbtmp3.4/4,ML3.0/1,MS3.4/15,Error ellipse: s-maj=118.6km s-min=64.4km az=176.0,Northern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CMIG	**Matias Romero**	**12.49**	**41**	LR	LR	12 28 38.2	
	comp=Z,351nm,21.7s,baz=180,slow=31						
APG	**El Apazote**	**14.62**	**59**	Pn	Pn	12 25 36.3	-0.1
	0.1nm,0.3s,baz=242,slow=13,SNR=8.9 0.8nm,0.6s						
APG				AML	AML		
LPIG	**La Paz**	**17.55**	**339**	LR	LR	12 31 07.1	
	comp=Z,144nm,20.0s,baz=164,slow=31						
TXAR	**Lajitas Array**	**21.48**	**359**	P	P	12 26 57.2	-1.0
	0.4nm,0.8s,baz=185,slow=11,SNR=9.6 0.4nm,0.8s						
PFO	**Pinyon Flats O**	**28.42**	**337**	LR	LR	12 36 58.9	
	comp=Z,64nm,21.0s,baz=146,slow=31						
ATAH	**Atahualpa**	**29.02**	**120**	LR	LR	12 37 42.0	
	comp=Z,120nm,21.1s,baz=301,slow=32						
ROSC	**El Rosal**	**29.09**	**94**	LR	LR	12 38 04.7	
	comp=Z,52nm,19.3s,baz=137,slow=33						
SDV	**Santo Domingo**	**32.48**	**86**	LR	LR	12 40 23.7	
	comp=Z,43nm,18.4s,baz=102,slow=34						
TKL	**Tuckaleechee C**	**33.11**	**30**	LR	LR	12 43 04.5	
	comp=Z,61nm,20.2s,baz=195,slow=38						
NVAR	**Mina Array Bea**	**33.37**	**339**	LR	LR	12 40 54.5	
	comp=Z,39nm,19.0s,baz=317,slow=34						
RPN	**Rapa Nui**	**35.13**	**189**	LR	LR	12 40 13.0	
	comp=Z,69nm,19.5s,baz=332,slow=31						
PDAR	**Pinedale Array**	**35.30**	**352**	P	P	12 29 06.1	+1.2
	0.6nm,0.7s,baz=169,slow=9.1,SNR=6.6						
PDAR				LR	LR	12 43 37.8	
	comp=Z,58nm,19.4s,baz=192,slow=36 0.6nm,0.7s						
LPAZ	**La Paz**	**42.33**	**124**	LR	LR	12 46 42.8	
	comp=Z,38nm,18.7s,baz=32,slow=35						
SADO	**Sadowa**	**42.50**	**26**	LR	LR	12 48 38.7	
	comp=Z,59nm,19.1s,baz=176,slow=37						
ULM	**Lac du Bonnet**	**42.84**	**7**	LR	LR	12 46 13.9	
	comp=Z,45nm,18.3s,baz=13,slow=34						
MDP	**Montagnes des**	**50.53**	**90**	LR	LR	12 50 45.3	
	comp=Z,41nm,18.7s,baz=62,slow=34						
SCHQ	**Schefferville**	**55.29**	**25**	LR	LR	12 56 28.1	
	comp=Z,58nm,18.1s,baz=335,slow=37						
ILAR	**Eielson Array**	**64.58**	**341**	P	P	12 32 46.2	-0.5
	0.2nm,0.6s,baz=157,slow=4.9,SNR=4.7 0.2nm,0.6s						

IDC 20 12:24:17.9±3.4,22.89N×12.05W,h0km,mb4.1/2, mbtmp4.0/3,ML3.6/1,Error ellipse: s-maj=115.3km s-min=47.0km az=77.0,Mauritania

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TORD	**Torodi Ar. Bea**	**16.25**	**124**	Pn	Pn	12 28 07.8	0.0
	0.2nm,0.3s,baz=310,slow=12,SNR=6.5 0.8nm,0.4s						
TORD				AML	AML		
FINES	**FINESS Array B**	**46.55**	**24**	P	P	12 32 47.1	0.0
	6.4nm,1.1s,baz=232,slow=7.5,SNR=3.5 6.4nm,1.1s						
KURBB	**Kurchatov Arra**	**73.01**	**42**	P	P	12 35 49.5	0.0
	0.4nm,0.4s,baz=286,slow=6.3,SNR=4.0 0.4nm,0.4s						
WRA	**Warramunga Arr**	**148.61**	**91**	PKPbc	PKPbc	12 44 07.1	-0.6
	0.3nm,0.6s,baz=294,slow=2.7,SNR=2.9						
ASAR	**Alice Springs**	**148.75**	**98**	PKPbc	PKPbc	12 44 07.5	-0.6
	0.3nm,0.6s,baz=282,slow=2.4,SNR=5.4						

IDC 20 12:28:54.4±2.0,5.54S×130.14E,h0km,mb3.6/1, mbtmp3.5/4,ML3.6/3,MS3.4/1,Error ellipse: s-maj=66.0km s-min=22.8km az=79.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**13.23**	**199**	Pn	Pn	12 31 59.2	-4.4
	0.2nm,0.3s,baz=20,slow=12,SNR=9.7						
FITZ				Sn	Sn	12 34 08.2	-23
	0.4nm,0.3s,baz=168,slow=22,SNR=7.7 1.1nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.89**	**164**	Pn	Pn	12 32 19.5	-6.8
	0.3nm,0.3s,baz=346,slow=14,SNR=34						
WRA				Sn	Sn	12 34 45.9	-26
	0.4nm,0.3s,baz=350,slow=22,SNR=8.4 0.1nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**18.38**	**169**	Pn	Pn	12 33 04.6	-6.3
	0.2nm,0.3s,baz=347,slow=11,SNR=29						
ASAR				Sn	Sn	12 36 12.0	-25
	0.1nm,0.3s,baz=349,slow=20,SNR=4.9 0.9nm,0.5s						
ASAR				AML	AML		
MSVF	**Nonsavu**	**48.33**	**109**	LR	LR	12 56 24.9	
	comp=Z,41nm,18.3s,baz=206,slow=34						
MKAR	**Makanchi Array**	**67.09**	**326**	P	P	12 39 49.8	0.0
	0.3nm,0.5s,baz=112,slow=7.9,SNR=5.9 0.3nm,0.5s						

DJA 20 12:30:33.2±0.4,9°S±4°×119°E±°,h10km,M3.6/9,MLv3.6/9, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DBNI	**Kabupaten Domp**	**0.92**	**331**	P	Pg	12 30 51.0	+0.1
DBNI				S	Sg	12 31 03.1	+0.3
DBNI				AML	AML		
PLAI	**Plampang**	**1.08**	**296**	P	Pg	12 30 53.6	-0.5
PLAI				S	Sg	12 31 07.7	-0.5
PLAI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.39**	**54**	P	Pn	12 30 57.9	-0.8
WSI	**Waingapu**	**1.56**	**103**	P	Pn	12 31 00.3	-0.7
WSI				AML	AML		
EDFI	**Ende, Flores**	**2.95**	**79**	P	Pn	12 31 18.6	-1.6
EDFI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.58**	**29**	P	Pn	12 31 28.6	-0.3
BSSI				AML	AML		
IGBI	**Denpasar**	**3.60**	**278**	P	Pn	12 31 29.6	+0.5
BKSI	**Bulukumba**	**4.19**	**19**	P	Pn	12 31 38.4	+1.2
BKSI				AML	AML		

*NEIC **20** 12:43:14.9±1.5,39.40S±0.04×174.95E±0.08,h141km±6km, mb4.8/30,Error ellipse: s-maj=9.2km s-min=6.4km az=84.0*
*NOU **20** 12:43:14.6,39.51S×175.04E,h135km,mb4.9/55,North Island, New Zealand*
*GFZ **20** 12:43:14.8±0.2,39°S±3°×17°5E±°,h135km,M4.8/25, mb4.8/25,confirmed*
*IDC **20** 12:43:15.4±0.5,39.23S×175.20E,h154km±4km,mb4.4/15, mbtmp4.8/16,MS3.1/6,Error ellipse: s-maj=11.5km s-min=8.1km az=128.0*
*WEL **20** 12:43:16.5,39.36S×175.02E,ML5.2,Mw4.8,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.15; $M_{\theta\theta}$0.17; $M_{\phi\phi}$-0.82; $M_{r\theta}$2.13; $M_{\theta\phi}$0.39; $M_{\phi r}$-0.60; Fault plane solution: $M_0$2.33000×10^{16} NP1: ϕ_s110.00000°,δ88.00000°,λ74.00000°. NP2:ϕ_s11.00000°, δ16.00000°,λ171.00000°. Principal axes: T 2.4660, Plg45.0000°, Azm4.0000°; N -0.3246, Plg16.0000°, Azm110.0000°; P -2.1414, Plg41.0000°, Azm214.0000°; Stations used: BFZ BKZ GRZ HAZ HIZ KHEZ KNZ MKAZ MRZ MWZ MXZ NNZ OBLIQUE FAULTING*
*WEL **20** 12:43:16.5±0.5,39°S±4°×17°5E±°,h127km±3km,M5.0/38, ML4.9/25,MLv5.0/38 Error ellipse: s-maj=5.1km s-min=3.4km az=8.1*
*GCMT **20** 12:43:17.9±0.3,39.41S±0.02×175.02E±0.03,h151km±3km, MW5.0/94,Moment Tensor Solution. s23,c25; s94,c119; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.47±.15; $M_{\theta\theta}$0.67±.20; $M_{\phi\phi}$-1.15±.20; $M_{r\theta}$3.29±.11; $M_{\theta\phi}$1.21±.18; $M_{\phi r}$-1.07±.12; Best double couple: $M_0$3.79700×10^{16} NP1:ϕ_s13.00000°,δ24.00000°,λ171.00000°. NP2: ϕ_s111.00000°,δ86.00000°,λ66.00000°. Principal axes: T 3.8690, Plg44.0000°, Azm358.0000°; N -0.1450, Plg24.0000°, Azm112.0000°; P -3.7250, Plg37.0000°, Azm222.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 12:43:15.6±0.3,39.41S±0.03×174.98E±0.03,h152km±2km, h152km:pP-P,n408,σ1s79/467,mb4.7/63,1C-1D,North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PKVZ	**Pokaka**	**0.31**	**68**	P	Pn	**12 43 35.1**	**-1.4**
PKVZ				S	**Sn**	**12 43 49.8**	**-2.5**
PKVZ				AML	AML		
PKVZ				AML	AML		
VRZ	**Vera Road**	**0.33**	**328**	P	Pn	**12 43 35.1**	**-1.3**
VRZ				S	**Sn**	**12 43 50.3**	**-2.0**
VRZ				AML	AML		
VRZ				AML	AML		
WAZ	**Wanganui**	**0.35**	**179**	P	Pn	**12 43 36.0**	**-0.6**
WAZ				S	**Sn**	**12 43 50.9**	**-1.7**
WAZ				AML	AML		
WAZ				AML	AML		
MTVZ	**Mangateitei**	**0.38**	**87**	P	Pn	**12 43 35.5**	**-1.2**
MTVZ				S	**Sn**	**12 43 50.3**	**-2.5**
MTVZ				AML	AML		
MTVZ				AML	AML		
LREZ	**Lake Rotokare**	**0.45**	**263**	P	Pn	**12 43 36.1**	**-0.8**
LREZ				S	**Sn**	**12 43 52.3**	**-0.8**
LREZ				AML	AML		
LREZ				AML	AML		
TRVZ	**Turoa**	**0.45**	**76**	P	Pn	**12 43 36.0**	**-1.3**
TRVZ				S	**Sn**	**12 43 50.4**	**-3.3**
FWVZ	**Far West T-bar**	**0.47**	**71**	P	Pn	**12 43 36.0**	**-1.3**
FWVZ				S	**Sn**	**12 43 50.8**	**-3.0**
MAVZ	**Matarangi**	**0.47**	**73**	P	Pn	**12 43 36.1**	**-1.4**
MAVZ				S	**Sn**	**12 43 50.9**	**-3.0**
COVZ	**Chateau Observ**	**0.48**	**65**	P	Pn	**12 43 35.8**	**-1.4**
COVZ				S	**Sn**	**12 43 50.9**	**-2.8**
COVZ				AML	AML		
COVZ				AML	AML		
WNVZ	**Wahianoa**	**0.48**	**81**	P	Pn	**12 43 36.0**	**-1.3**
WNVZ				S	**Sn**	**12 43 51.1**	**-2.7**
WNVZ				AML	AML		
WNVZ				AML	AML		
WHVZ	**Whangaehu Hut**	**0.49**	**75**	P	Pn	**12 43 36.1**	**-1.3**
WHVZ				S	**Sn**	**12 43 51.1**	**-2.8**
TWVZ	**Taurewa**	**0.49**	**47**	P	Pn	**12 43 35.7**	**-1.5**
TWVZ				S	**Sn**	**12 43 50.8**	**-2.9**
TWVZ				AML	AML		
TWVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.53**	**65**	P	Pn	**12 43 36.2**	**-1.4**
NGZ				S	**Sn**	**12 43 51.7**	**-2.5**
NGZ				AML	AML		
NGZ				AML	AML		
TUVZ	**Tukino**	**0.54**	**75**	P	Pn	**12 43 36.3**	**-1.3**
TUVZ				S	**Sn**	**12 43 51.8**	**-2.5**
TUVZ				AML	AML		
TUVZ				AML	AML		
WTVZ	**West Tongariro**	**0.55**	**59**	P	Pn	**12 43 36.2**	**-1.4**
WTVZ				S	**Sn**	**12 43 51.4**	**-3.0**
WTVZ				AML	AML		
WTVZ				AML	AML		
**SNVZ

MOVZ AML AML
MOVZ AML AML
KRVZ Karewarewa 0.60 59 P **Pn** 12 43 36.2 -1.6
KRVZ S **Sn** 12 43 51.9 -2.9
MHEZ Mangahewa 0.61 303 P **Pn** 12 43 37.0 -0.8
MHEZ S **Sn** 12 43 52.8 -1.8
MHEZ AML AML
MHEZ AML AML
NTVZ North Tongarir 0.62 61 P **Pn** 12 43 36.6 -1.4
ETVZ East Tongariro 0.63 65 P **Pn** 12 43 36.5 -1.6
ETVZ S **Sn** 12 43 52.8 -2.3
TMVZ Te Maari 0.63 63 P **Pn** 12 43 36.5 -1.5
TMVZ S **Sn** 12 43 52.7 -2.4
PREZ Palmer Road 0.64 275 P **Pn** 12 43 37.0 -0.9
PREZ AML AML
PREZ AML AML
DREZ Durham Road 0.64 289 P **Pn** 12 43 37.0 -1.0
DREZ S **Sn** 12 43 53.2 -1.7
DREZ AML AML
DREZ AML AML
NEZ North Egmont 0.70 281 P **Pn** 12 43 37.5 -0.9
NEZ S **Sn** 12 43 54.4 -1.3
NEZ AML AML
NEZ AML AML
KATZ Kakaramea 0.70 52 P **Pn** 12 43 37.0 -1.5
KATZ S **Sn** 12 43 53.2 -2.7
KATZ AML AML
KATZ AML AML
KHEZ Kahui Hut 0.76 278 P **Pn** 12 43 37.0 -1.8
KHEZ Kahui Hut 0.76 278 P **Sn** 12 43 55.2 -1.2
KHEZ Kahui Hut 0.76 278 P **Pn** 12 43 37.7 -1.1
KHEZ S **Sn** 12 43 54.7 -1.7
KHEZ AML AML
KHEZ AML AML
PKE Pukeiti 0.80 285 P **Pn** 12 43 38.0 -1.1
PKE S **Sn** 12 43 54.9 -2.0
PKE AML AML
PKE AML AML
RITZ Rihia Road 0.81 58 P **Pn** 12 43 37.8 -1.3
RITZ AML AML
RITZ AML AML
RATZ Rangitukua 0.82 49 P **Pn** 12 43 37.7 -1.5
RATZ AML AML
OHWZ Ohakea 0.84 162 P **Pn** 12 43 39.0 -0.2
OHWZ S **Sn** 12 43 56.2 -1.1
OHWZ AML AML
OHWZ AML AML
BHHZ Black Hill Sta 0.84 96 P **Pn** 12 43 37.8 -1.5
BHHZ S **Sn** 12 43 53.7 -3.8
BHHZ AML AML
BHHZ AML AML
NMEZ Namu Road 0.85 269 P **Pn** 12 43 38.4 -1.0
NMEZ S **Sn** 12 43 56.3 -1.2
NMEZ AML AML
NMEZ AML AML
NBEZ Newall Road No 0.88 279 P **Pn** 12 43 38.6 -0.9
NBEZ S **Sn** 12 43 56.4 -1.4
NBEZ AML AML
NBEZ AML AML
HIZ Hauiti 0.90 354 P **Pn** 12 43 37.6 -2.2
HIZ Hauiti 0.90 354 P **Sn** 12 43 55.5 -2.6
HIZ Hauiti 0.90 354 **Pn** 12 43 37.9 -1.8
HIZ **Sn** 12 43 55.1 -3.1
HIZ Hauiti 0.90 354 P **Pn** 12 43 37.9 -1.8
HIZ S **Sn** 12 43 55.2 -3.0
HIZ AML AML
HIZ AML AML
HIZ Hauiti 0.90 354 P **Pn** 12 43 38.1 -1.7
WATZ Wairara 0.91 40 P **Pn** 12 43 38.7 -1.2
WATZ AML AML
WATZ AML AML
TSZ Takapari Road 1.00 131 P **Pn** 12 43 39.7 -0.8
TSZ S **Sn** 12 43 57.3 -2.4
TSZ AML AML
HATZ Hinemaiaia 1.00 60 P **Pn** 12 43 38.9 -1.8
HATZ S **Sn** 12 43 56.1 -3.6
HATZ AML AML
HATZ AML AML
WHTZ Whakaora 1.06 46 P **Pn** 12 43 40.0 -1.2
WHTZ AML AML
WHTZ AML AML
PNHZ Pukenui 1.07 119 P **Pn** 12 43 40.2 -1.0
PNHZ S **Sn** 12 43 58.2 -2.5
PNHZ AML AML
KRHZ Kereru 1.10 103 P **Pn** 12 43 40.3 -1.1
KRHZ S **Sn** 12 43 58.4 -2.8
KRHZ AML AML
KRHZ AML AML
KWHZ Kaweka Forest 1.12 91 P **Pn** 12 43 40.8 -0.8
KWHZ S **Sn** 12 43 58.9 -2.6
KWHZ AML AML
KUTZ Kaahu Road 1.13 36 P **Pn** 12 43 40.5 -1.2
KUTZ AML AML
POIZ Poihipi 1.13 47 P **Pn** 12 43 40.4 -1.3
POIZ AML AML
POWZ Post Office Ro 1.16 149 P **Pn** 12 43 41.0 -0.9
POWZ AML AML
TLZ Tolley Road 1.16 22 P **Pn** 12 43 40.4 -1.7
TLZ AML AML
ARAZ Aratiatia Land 1.18 49 P **Pn** 12 43 41.0 -1.2
ARAZ AML AML
BKZ Black Stump Fm 1.20 79 P **Pn** 12 43 40.7 -1.7
BKZ Black Stump Fm 1.20 79 S **Sn** 12 43 59.3 -3.5
BKZ Black Stump Fm 1.20 79 P **Pn** 12 43 40.9 -1.5
BKZ S **Sn** 12 43 59.4 -3.4
BKZ AML AML
MRHZ Matea Rd 1.25 63 P **Pn** 12 43 40.9 -2.0
MRHZ AML AML
DVHZ Dannevirke 1.28 135 P **Pn** 12 43 42.0 -1.0
DVHZ AML AML
WPRZ Whakapapatarin 1.28 46 P **Pn** 12 43 41.6 -1.5
WPRZ AML AML
WPHZ Waipukurau 1.30 121 P **Pn** 12 43 42.5 -0.8
WPHZ S **Sn** 12 44 02.2 -2.3
WPHZ AML AML
MCHZ McNeill Hill 1.33 92 P **Pn** 12 43 43.2 -0.4
MCHZ S **Sn** 12 44 03.0 -1.9
MCHZ AML AML
MRZ Mangatainoka R 1.33 160 P **Pn** 12 43 42.6 -1.0
MRZ Sn **Sn** 12 44 02.3 -2.8
MRZ Mangatainoka R 1.33 160 P **Pn** 12 43 42.6 -1.0
MRZ S **Sn** 12 44 02.3 -2.8
MRZ AML AML
ALRZ Allen Road 1.35 52 P **Pn** 12 43 42.2 -1.7
ALRZ AML AML
GRRZ Galatos Road 1.37 40 P **Pn** 12 43 42.7 -1.4
PRWZ Pori Road 1.38 147 P **Pn** 12 43 43.4 -0.6
OGWZ Otaki Gorge 1.42 174 P **Pn** 12 43 43.8 -0.6
PRRZ Plateau Road 1.43 51 P **Pn** 12 43 42.7 -1.9
PRRZ AML AML
HRRZ Handcock Road 1.44 45 P **Pn** 12 43 43.2 -1.5
HRRZ AML AML
NMHZ Naumai 1.45 78 P **Pn** 12 43 44.3 -0.6
KIW Kapiti Island 1.45 182 P **Pn** 12 43 43.8 -1.1
KAHZ Kahuranaki 1.51 105 P **Pn** 12 43 44.7 -0.8
TIWZ Tintock 1.53 153 P **Pn** 12 43 44.7 -0.9
PRHZ Porangahau 1.54 125 P **Pn** 12 43 44.9 -0.7
HOWZ Holdsworth Sta 1.54 165 P **Pn** 12 43 44.7 -1.0
MTHZ Maungataniwha 1.55 70 P **Pn** 12 43 44.1 -1.8
UTU Utuhina 1.55 38 P **Pn** 12 43 44.7 -1.2
ANWZ Angora Road 1.56 133 P **Pn** 12 43 45.2 -0.6
ARHZ Aropaoanui 1.57 85 P **Pn** 12 43 45.2 -0.8
HLRZ Highlands Stat 1.57 43 P **Pn** 12 43 45.2 -1.0
PXZ Pawanui 1.58 114 P **Pn** 12 43 45.2 -0.9
BFZ Birch Farm 1.60 143 P **Pn** 12 43 45.2 -1.1
BFZ Birch Farm 1.60 143 P **Sn** 12 44 05.4 -4.6
BFZ Birch Farm 1.60 143 **Pn** 12 43 45.3 -1.1
BFZ Sn **Sn** 12 44 07.0 -3.0
BFZ Birch Farm 1.60 143 P **Pn** 12 43 45.3 -1.1
BFZ Birch Farm 1.60 143 P **Pn** 12 43 45.4 -1.0
RRRZ Republican Roa 1.60 49 P **Pn** 12 43 44.7 -1.8
NGRZ Ngongotaha 1.61 36 P **Pn** 12 43 45.3 -1.2
DUWZ D'Urville Isla 1.61 210 P **Pn** 12 43 45.3 -1.2
CKHZ Cape Kidnapper 1.64 99 P **Pn** 12 43 46.1 -0.7
TARZ Mount Tarawera 1.67 46 P **Pn** 12 43 45.7 -1.5
MUGZ Murupara 1.68 57 P **Pn** 12 43 45.1 -2.1
CAW Cannon Point 1.70 178 P **Pn** 12 43 46.5 -1.0
KARZ Kaharoa 1.70 36 P **Pn** 12 43 46.1 -1.4
RAHZ Arahi 1.71 74 P **Pn** 12 43 46.3 -1.2

MKRZ Makatiti 1.72 43 P **Pn** 12 43 46.6 -1.2
TOZ Tahuroa Road 1.72 14 **Pn** 12 43 46.0 -1.7
TOZ Tahuroa Road 1.72 14 P **Pn** 12 43 46.0 -1.7
KMRZ Kaimai 1.73 26 P **Pn** 12 43 46.8 -1.1
RTZ Ruatahuna 1.75 64 **Pn** 12 43 46.1 -1.9
RTZ Ruatahuna 1.75 64 P **Pn** 12 43 46.0 -2.1
CPWZ Castlepoint 1.77 148 P **Pn** 12 43 47.7 -0.4
LIRZ Lichensteins R 1.78 39 P **Pn** 12 43 47.0 -1.4
WHHZ Waihua 1.78 80 P **Pn** 12 43 47.3 -1.0
MTW Mount Morrison 1.79 167 P **Pn** 12 43 47.2 -1.3
TMWZ Te Maipa 1.83 158 P **Pn** 12 43 47.9 -1.1
TCW Tory Channel 1.88 196 **Pn** 12 43 48.4 -1.0
TCW Tory Channel 1.88 196 P **Pn** 12 43 48.4 -1.0
WEL Wellington 1.88 185 P **Pn** 12 43 48.3 -1.2
EDRZ Edgecumbe 1.89 47 P **Pn** 12 43 47.8 -1.9
SNZO South Karori 1.91 186 P **Pn** 12 43 48.5 -1.3
SNZO South Karori 1.91 186 P **Sn** 12 44 12.4 -3.7
SNZO South Karori 1.91 186 P **Pn** 12 43 48.6 -1.2
MARZ Manawahe 1.94 44 P **Pn** 12 43 48.6 -1.7
TGRZ Tauranga 1.95 31 P **Pn** 12 43 48.9 -1.4
OPRZ Ohinepanea 1.99 39 P **Pn** 12 43 48.9 -1.8
BHW Baring Head 2.00 182 **Pn** 12 43 49.5 -1.3
BHW Baring Head 2.00 182 P **Pn** 12 43 49.5 -1.3
PAWZ Paruwai Farm 2.00 170 P **Pn** 12 43 49.5 -1.3
MSWZ Moikau Station 2.02 174 **Pn** 12 43 49.5 -1.5
MSWZ Moikau Station 2.02 174 P **Pn** 12 43 49.7 -1.3
URZ Urewera 2.02 56 P **Pn** 12 43 48.7 -2.4
9µm,0.5s,baz=239,slow=7.2
URZ S **Sn** 12 44 13.2 -5.0
8µm,0.4s,baz=57,slow=14,SNR=31
URZ LR LR 12 44 31.0
comp=Z,2µm,19.2s,baz=278,slow=42
URZ Urewera 2.02 56 P **Pn** 12 43 48.4 -2.6
URZ Urewera 2.02 56 P **Pn** 12 43 48.7 -2.4
URZ Urewera 2.02 56 P **Pn** 12 43 48.8 -2.3
TRWZ Traveller 2.06 165 P **Pn** 12 43 50.2 -1.3
RAGZ Rawiri 2.10 65 P **Pn** 12 43 50.4 -1.8
KNZ Kokohu 2.13 80 P **Pn** 12 43 50.6 -1.7
PLWZ Palliser 2.17 175 **Pn** 12 43 51.3 -1.6
PLWZ Palliser 2.17 175 P **Pn** 12 43 51.3 -1.6
TUWZ Tuamarina 2.17 201 **Pn** 12 43 51.4 -1.5
TUWZ Tuamarina 2.17 201 P **Pn** 12 43 51.3 -1.5
NNZ Nelson 2.19 214 **Pn** 12 43 51.5 -1.5
NNZ Nelson 2.19 214 P **Pn** 12 43 51.5 -1.5
WHRZ Whale Island 2.20 46 P **Pn** 12 43 51.3 -1.9
TKNZ Takaka Hill 2.24 223 **Pn** 12 43 51.9 -1.8
TKNZ Takaka Hill 2.24 223 P **Pn** 12 43 51.9 -1.8
MWZ Matawai 2.26 62 P **Pn** 12 43 51.7 -2.2
RIGZ Rimuhau 2.27 73 P **Pn** 12 43 52.3 -1.8
MHGZ Mahia Peninsul 2.29 85 P **Pn** 12 43 52.8 -1.4
MKAZ Moumakai 2.30 4 P **Pn** 12 43 53.0 -1.5
PRGZ Paritu Road 2.31 79 P **Pn** 12 43 52.9 -1.6
KBAZ Karaka Road Bo 2.31 358 P **Pn** 12 43 53.6 -0.9
MYRZ Mayor Island 2.34 25 P **Pn** 12 43 54.0 -0.9
AWAZ Awhitu Peninsu 2.35 353 P **Pn** 12 43 53.9 -1.2
QRZ Quartz Range 2.35 232 **Pn** 12 43 52.6 -2.4
QRZ Quartz Range 2.35 232 P **Sn** 12 44 21.0 -4.4
QRZ Quartz Range 2.35 232 **Pn** 12 43 52.9 -2.1
QRZ Quartz Range 2.35 232 P **Pn** 12 43 52.9 -2.1
QRZ Quartz Range 2.35 232 P **Pn** 12 43 53.0 -2.0
CMWZ Cape Campbell 2.41 194 **Pn** 12 43 54.9 -0.7
CMWZ Cape Campbell 2.41 194 P **Pn** 12 43 55.0 -0.7
TKGZ Te Karaka 2.44 68 P **Pn** 12 43 54.3 -1.7
ETAZ East Tamaki Re 2.45 359 P **Pn** 12 43 55.0 -1.2
BSWZ Blackbirch Sta 2.46 200 **Pn** 12 43 54.9 -1.3
BSWZ Blackbirch Sta 2.46 200 P **Pn** 12 43 55.0 -1.3
WTAZ Waiatarua 2.49 352 P **Pn** 12 43 55.9 -0.9
EPAZ Eden Park BICE 2.53 356 P **Pn** 12 43 56.4 -0.9
RUGZ Raukumara Rang 2.55 57 P **Pn** 12 43 54.6 -3.0
WIZ White Island 2.55 43 P **Pn** 12 43 55.3 -2.2
HBAZ Herne Bay Bore 2.56 355 P **Pn** 12 43 56.6 -0.9
WIAZ Waiheke Island 2.61 3 P **Pn** 12 43 57.1 -1.1
MRNZ Matariki Terra 2.62 220 **Pn** 12 43 56.3 -1.9
MRNZ Matariki Terra 2.62 220 P **Pn** 12 43 56.3 -1.9
MBAZ Motutapu North 2.63 359 P **Pn** 12 43 57.3 -1.1
TWGZ Tauwhareparae 2.65 63 P **Pn** 12 43 56.9 -1.7
RVAZ Riverhead Bore 2.65 353 P **Pn** 12 43 57.7 -1.0
CNGZ Carnagh Statio 2.68 71 P **Pn** 12 43 57.3 -1.7
HAZ Te Kaha 2.75 54 P **Pn** 12 43 56.6 -3.2
ABAZ Army Bay 2.80 358 P **Pn** 12 43 59.8 -0.8
THZ Tophouse 2.83 213 **Pn** 12 43 59.3 -1.7
THZ Tophouse 2.83 213 P **Pn** 12 43 59.1 -1.9
PUZ Puketiti 2.89 64 P **Pn** 12 43 59.1 -2.6
GRZ Great Barrier 3.17 7 P **Pn** 12 44 04.0 -1.2
MXZ Matakaoa Point 3.19 56 P **Pn** 12 44 03.3 -2.2
MXZ Matakaoa Point 3.19 56 **Pn** 12 44 03.2 -2.2
MXZ Matakaoa Point 3.19 56 P **Pn** 12 44 03.2 -2.2
KHZ Kahutara 3.20 200 P **Pn** 12 44 03.7 -1.8
KHZ Kahutara 3.20 200 S **Sn** 12 44 39.9 -4.3
KHZ Kahutara 3.20 200 **Pn** 12 44 04.0 -1.4
KHZ Kahutara 3.20 200 P **Pn** 12 44 04.1 -1.4
KHZ Kahutara 3.20 200 P **Pn** 12 44 04.2 -1.3
DSZ Denniston Nort 3.36 225 P **Pn** 12 44 05.1 -2.5
WCZ Waipu Caves 3.50 352 P **Pn** 12 44 08.7 -0.7
GVZ Greta Valley S 3.85 202 **Pn** 12 44 11.8 -2.1
GVZ Greta Valley S 3.85 202 P **Pn** 12 44 11.8 -2.1
LTZ Lake Taylor 3.94 213 P **Pn** 12 44 12.5 -2.7
AMCZ Amberley 4.16 204 P **Pn** 12 44 15.3 -2.5
INZ Inchbonnie 4.26 218 **Pn** 12 44 16.6 -2.6
INZ Inchbonnie 4.26 218 P **Pn** 12 44 16.5 -2.7
OUZ Omahuta 4.32 345 P **Pn** 12 44 19.5 -0.6
OUZ Omahuta 4.32 345 P **Pn** 12 44 19.7 -0.4
OKCZ Okains Bay 4.55 198 P **Pn** 12 44 20.0 -3.0
MQZ McQueen's Vall 4.64 201 P **Pn** 12 44 20.4 -3.7
AKCZ Akaroa Harbour 4.72 199 P **Pn** 12 44 22.1 -3.2
RACZ Rakaia 4.81 205 P **Pn** 12 44 23.0 -3.5
MHCZ Mount Hutt 4.85 211 P **Pn** 12 44 23.4 -3.7
WVZ Waitaha Valley 4.87 220 P **Pn** 12 44 23.7 -3.5
WACZ Wakanui South 5.11 206 P **Pn** 12 44 26.9 -3.5
RPZ Rata Peaks 5.22 213 P **Pn** 12 44 29.6 -2.2
48nm,0.3s,baz=61,slow=14,SNR=104
RPZ S **Sn** 12 45 24.8 -6.6
214nm,0.3s,baz=355,slow=22,SNR=37
RPZ Rata Peaks 5.22 213 P **Pn** 12 44 29.3 -2.5
RPZ Rata Peaks 5.22 213 P **Pn** 12 44 28.4 -3.4
RPZ Rata Peaks 5.22 213 P **Pn** 12 44 29.1 -2.7
TMZ Timaru 5.79 210 P **Pn** 12 44 35.7 -3.8
ODZ Otahua Downs 6.49 208 P **Pn** 12 44 45.8 -2.9
ODZ Otahua Downs 6.49 208 P **Pn** 12 44 45.2 -3.5
ODZ Otahua Downs 6.49 208 P **Pn** 12 44 46.1 -2.6
comp=Z,249nm,0.5s
JCZ Jackson Bay 6.57 223 P **Pn** 12 44 47.0 -3.0
HHSZ Highcliff Hill 7.23 205 P **Pn** 12 44 56.1 -2.6
TUZ Tuapeka 7.64 209 P **Pn** 12 45 01.6 -2.4
CTZ Chatham Island 7.64 127 P **Pn** 12 45 02.7 -1.4
CTZ Chatham Island 7.64 127 **Pn** 12 45 03.1 -1.0
CTZ Chatham Island 7.64 127 P **Pn** 12 45 02.7 -1.4
SYZ Scrubby Hill 8.31 209 P **Pn** 12 45 10.6 -2.4
SYZ Scrubby Hill 8.31 209 P **Pn** 12 45 09.8 -3.2
DCZ Deep Cove 8.37 221 P **Pn** 12 45 10.3 -3.6
PYZ Puysegur Point 9.10 219 P **Pn** 12 45 20.7 -2.8
PYZ Puysegur Point 9.10 219 P **Pn** 12 45 20.2 -3.3
RAO Raoul Island 11.70 32 P **Pn** 12 45 55.3 -2.6
comp=Z,257nm,0.3s,baz=208,slow=13,SNR=3.2
RAO LR LR 12 49 04.5
comp=Z,106nm,20.4s,baz=172,slow=30
RAO Raoul Island 11.70 32 **Pn** 12 45 55.9 -2.1
PINNC Pines Island, 17.93 337 P **Pn** 12 47 16.6 +1.2
ONTNC Ouen Toro 18.53 334 P **Pn** 12 47 22.9 +0.4
YATNC Mamie plateau, 18.62 336 P **Pn** 12 47 24.5 +0.9
DZM Mont Dzumac 19.75 335 P **P** 12 47 22.8 -0.3
comp=Z,47nm,0.9s,baz=158,slow=11
NOUC Port Laguerre 18.77 334 P **Pn** 12 47 25.2 -0.2
RIV Riverview 19.89 279 P **P** 12 47 35.0 -0.2
comp=Z,180nm,1.8s
MILA Mila 20.41 268 P **Pn** 12 47 43.5 -1.0
comp=Z,26nm,1.5s
MILA Mila 20.41 268 P **Pn** 12 47 43.3 -1.2
comp=Z,26nm,1.5s
CNB Canberra Magne 20.74 273 P **P** 12 47 44.6 +0.3
comp=Z,33nm,2.4s
KOUNC Koumac, New Ca 20.92 331 P **Pn** 12 47 49.0 -1.8
AUSMG Snowy Mountain 21.00 270 P **P** 12 47 49.0 +2.0
MOO Moorlands 21.18 253 P **P** 12 47 50.0 +1.1
comp=Z,107nm,1.2s
MOO Moorlands 21.18 253 P **P** 12 47 48.7 -0.1
comp=Z,107nm,1.2s
MOO Moorlands 21.18 253 P **P** 12 47 50.2 +1.3
MSVF Nonsavu 21.76 8 P **P** 12 47 54.0 -1.3
comp=Z,173nm,0.8s,baz=207,slow=4.2,SNR=62
comp=Z,173nm,0.8s

MSVF Nonsavu 21.76 8 P **P** 12 47 54.3 -1.0
MSVF Nonsavu 21.76 8 **P** 12 47 54.5 -0.8
MSVF Nonsavu 21.76 8 P **P** 12 47 54.5 -0.8
comp=Z,289nm,1.0s
LKBA Tubou, Lakemba 21.77 16 P **P** 12 47 54.8 -0.5
TOO Toolangi 23.11 265 P **P** 12 48 08.8 +0.6
comp=Z,20nm,0.8s
DGTI Dogotuki 23.39 12 P **P** 12 48 09.7 -1.1
NIUE Niue 24.10 37 P **P** 12 48 19.3 +2.1
comp=Z,82nm,2.9s
AULRC Lightning Ridg 24.32 286 P **P** 12 48 21.3 +2.2
BRAT Ballarat 24.32 264 P **P** 12 48 20.2 +1.1
AUMTC Mt Clear Colle 24.35 264 P **P** 12 48 21.6 +2.3
CMSA Cobar Meteorol 25.04 279 P **P** 12 48 27.6 +1.9
comp=Z,14nm,2.4s
CMSA Cobar Meteorol 25.04 279 P **P** 12 48 26.7 +1.1
comp=Z,14nm,2.4s
CMSA Cobar Meteorol 25.04 279 P **P** 12 48 27.3 +1.7
CMSA Cobar Meteorol 25.04 279 P **P** 12 48 27.3 +1.7
comp=Z,14nm,2.4s
ARPS Mount Arapiles 26.14 265 P **P** 12 48 36.2 +0.7
STKA Stephens Creek 28.04 275 P **P** 12 48 54.6 +2.1
comp=Z,65nm,1.2s
STKA Stephens Creek 28.04 275 P **P** 12 48 54.4 +1.8
comp=Z,65nm,1.2s
STKA Stephens Creek 28.04 275 P **P** 12 48 54.2 +1.8
comp=Z,6.1nm,0.7s,baz=98,slow=10,SNR=12
comp=Z,6.1nm,0.7s
STKA Stephens Creek 28.04 275 P **P** 12 48 54.4 +1.8
STKA Stephens Creek 28.04 275 **P** 12 48 53.8 +1.2
STKA IAmb IAmb 12 48 54.7
comp=Z,39nm,0.9s
STKA Stephens Creek 28.04 275 P **P** 12 48 54.7 +2.2
comp=Z,65nm,1.2s
RAR Rarotonga 28.20 57 P **P** 12 48 54.4 +0.3
RAR Rarotonga 28.20 57 **P** 12 48 54.4 +0.3
RAR Rarotonga 28.20 57 P **P** 12 48 54.2 +0.2
QLP Quilpie 28.64 287 P **P** 12 48 59.7 +1.8
QLP Quilpie 28.64 287 P **P** 12 48 60.0 +2.1
QLP Quilpie 28.64 287 P **P** 12 49 00.0 +2.1
QLP Quilpie 28.64 287 P **P** 12 48 59.7 +1.8
HTT Hallett 29.49 270 P **P** 12 49 06.2 +0.7
comp=Z,6.1nm,2.0s
HTT Hallett 29.49 270 P **P** 12 49 06.1 +0.7
comp=Z,6.1nm,2.0s
HTT Hallett 29.49 270 P **P** 12 49 06.9 +1.5
INKA Innaminka 30.63 282 P **P** 12 49 17.0 +1.6
BBOO Buckleboo 31.94 270 P **P** 12 49 27.8 +0.8
comp=Z,32nm,1.3s
BBOO Buckleboo 31.94 270 P **P** 12 49 27.4 +0.5
comp=Z,32nm,1.3s
BBOO Buckleboo 31.94 270 P **P** 12 49 27.6 +0.6
BBOO Buckleboo 31.94 270 P **P** 12 49 27.4 +0.5
BBOO IAmb IAmb 12 49 28.3
comp=Z,20nm,0.8s
BBOO Buckleboo 31.94 270 P **P** 12 49 27.5 +0.5
comp=Z,32nm,1.3s
DRV Dumont d'Urvil 33.61 204 P **P** 12 49 41.5 +0.6
TBI Tubuai 34.06 73 *e*LR LR 12 58 52.8
comp=Z,886nm,42.0s
QIS Mount Isa 35.64 291 P **P** 12 50 00.8 +1.7
QIS Mount Isa 35.64 291 P **P** 12 50 00.1 +1.0
comp=Z,8.3nm,1.2s
QIS Mount Isa 35.64 291 P **P** 12 50 00.0 +1.0
comp=Z,8.3nm,1.2s
PPT2 Papeete2 37.63 65 *e*P **P** 12 50 17.0 +1.1
comp=Z,62nm,1.3s
PPT2 *e*S **S** 12 55 54.3 -0.2
comp=Z,49nm,29.0s
PPT2 *e*SS **SS** 12 58 40.8 -5.3
comp=Z,102nm,25.8s
PPT2 *e*LR LR 13 00 21.8
comp=Z,95nm,43.8s
PPT2 *e*LR LR 13 00 37.9
comp=Z,99nm,29.2s
PPTF Pamatai, Papee 37.64 65 P **P** 12 50 16.8 +0.8
PPT Papeete 37.65 65 P **P** 12 50 15.0 -1.0
comp=Z,28nm,1.0s,baz=228,slow=8.1,SNR=4.8
comp=Z,28nm,1.0s
TIAR Tiarei 37.81 65 *e*P **P** 12 50 18.6 +1.2
comp=Z,428nm,0.8s
AS17 Alice Springs 37.95 282 P **P** 12 50 18.8 +0.2
AS17 Alice Springs 37.95 282 P **P** 12 50 18.6 0.0
comp=Z,21nm,1.0s
AS09 Alice Springs 37.97 282 P **P** 12 50 19.4 +0.7
AS09 Alice Springs 37.97 282 P **P** 12 50 18.9 +0.2
comp=Z,15nm,1.0s
AS01 Alice Springs 37.98 282 P **P** 12 50 19.1 +0.3
AS31 Alice Springs 38.01 282 P **P** 12 50 19.9 +0.8
comp=Z,8.1nm,0.8s
AS31 Alice Springs 38.01 282 P **P** 12 50 19.7 +0.6
comp=Z,8.1nm,0.8s
ASAR Alice Springs 38.02 282 P **P** 12 50 19.2 +0.1
comp=Z,16nm,0.8s,baz=132,slow=9.3,SNR=156
ASAR PcP **PcP** 12 52 29.5 -1.9
comp=Z,0.4nm,0.3s,baz=132,slow=3.9,SNR=2.2
ASAR S **S** 12 55 57.9 -2.3
comp=Z,1.9nm,1.0s,baz=128,slow=3.8,SNR=7.9
comp=Z,16nm,0.8s
ASAR Alice Springs 38.02 282 P **P** 12 50 19.4 +0.3
AUALC St Philip's Co 38.02 282 P **P** 12 50 19.9 +0.8
AS15 Alice Springs 38.03 282 P **P** 12 50 19.9 +0.7
comp=Z,29nm,0.8s
AS15 Alice Springs 38.03 282 P **P** 12 50 19.8 +0.6
comp=Z,29nm,0.8s
VNDA Vanda 38.62 185 P **P** 12 50 25.1 +1.6
comp=Z,6.1nm,0.8s,baz=4.4,slow=8.3,SNR=41
VNDA LR LR 13 05 13.7
comp=Z,35nm,18.6s,baz=346,slow=34
comp=Z,6.1nm,0.8s
VNDA Vanda 38.62 185 P **P** 12 50 25.3 +1.8
VNDA Vanda 38.62 185 P **P** 12 50 25.9 +2.4
comp=Z,9.1nm,0.9s
VNDA Vanda 38.62 185 P **P** 12 50 25.3 +1.8
SBA Scott Base 38.71 183 **P** 12 50 27.3 +3.2
SBA IAmb IAmb 12 50 28.8
comp=Z,29nm,1.4s
SBA Scott Base 38.71 183 P **P** 12 50 27.6 +3.4
comp=Z,19nm,1.5s
SBA Scott Base 38.71 183 P **P** 12 50 27.1 +2.9
SBA pP **pP** 12 50 59.0 +1.8
PMG Port Moresby 38.85 313 P **P** 12 50 28.3 +2.2
PMG Port Moresby 38.85 313 **P** 12 50 25.6 -0.5
PMG IAmb IAmb 12 50 29.1
comp=Z,63nm,1.2s
FORT Forrest 38.98 268 P **P** 12 50 26.7 -0.3
comp=Z,29nm,0.9s
FORT Forrest 38.98 268 P **P** 12 50 26.8 -0.3
comp=Z,29nm,0.9s
FORT Forrest 38.98 268 P **P** 12 50 26.8 -0.2
FORT IAmb IAmb 12 50 28.1
comp=Z,41nm,1.2s
WR8 Warramunga Arr 39.75 287 IAmb IAmb 12 50 35.2
comp=Z,7.8nm,0.8s
WB2 Warramunga Arr 39.87 287 P **P** 12 50 35.2 +0.7
WB2 Warramunga Arr 39.87 287 P **P** 12 50 34.9 +0.4
WRAB Tennant Creek 39.87 287 P **P** 12 50 34.8 +0.2
WRAB Tennant Creek 39.87 287 P **P** 12 50 33.7 -0.9
WRAB IAmb IAmb 12 51 23.2
comp=Z,7.4nm,0.7s
WRAB Tennant Creek 39.87 287 P **P** 12 50 33.7 -0.9
comp=Z,12nm,0.9s
WRAB Tennant Creek 39.87 287 P **P** 12 50 34.2 -0.3
WRAB sP **sP** 12 51 22.5 -2.4
WRA Warramunga Arr 39.88 287 P **P** 12 50 34.6 0.0
comp=Z,5.4nm,0.5s,baz=125,slow=8.2,SNR=126
WRA ScP **ScP** 12 56 09.7 -2.2
comp=Z,0.3nm,0.7s,baz=120,slow=3.1,SNR=1.5
WRA S **S** 12 56 24.0 -4.0
comp=Z,2.2nm,1.1s,baz=126,slow=14,SNR=7.4
comp=Z,5.4nm,0.5s
WRA Warramunga Arr 39.88 287 P **P** 12 50 34.8 +0.2
WB0 Warramunga Arr 39.95 287 IAmb IAmb 12 51 23.9
comp=Z,6.8nm,0.7s
VAH Vaihoa 40.60 64 *e*P **P** 12 50 39.9 -0.6
comp=Z,54nm,1.1s
RABL Rabaul 40.70 324 P **P** 12 50 42.1 +0.7
WRKA Warakurna 41.56 276 P **P** 12 50 48.4 0.0
comp=Z,13nm,0.8s
WRKA Warakurna 41.56 276 P **P** 12 50 47.7 -0.7
comp=Z,13nm,0.8s
CCD Concordia, Ant 42.69 197 P **P** 12 50 58.2 +0.9
CCD pP **pP** 12 51 31.4 +0.5
KMBL Kambalda 43.50 264 P **P** 12 51 04.0 +0.1
comp=Z,13nm,1.0s
CASY Casey 44.49 211 P **P** 12 51 10.3 -0.9

CASY IAmb IAmb 12 51 12.3
comp=Z,23nm,0.8s
CASY Casey 44.49 211 P **P** **12 51 10.8 -0.5**
CASY pP **pP** **12 51 44.0 -1.0**
CASY sP **sP** **12 52 00.5 -1.7**
NWAO Narrogin (SRO) 46.39 259 P **P** **12 51 25.9 -0.8**
comp=Z,23nm,2.3s
KLBR Kellerberrin 46.57 261 P **P** **12 51 28.0 -0.1**
comp=Z,48nm,0.9s
KLBR Kellerberrin 46.57 261 P **P** **12 51 27.5 -0.6**
KLBR Kellerberrin 46.57 261 P **P** **12 51 27.6 -0.6**
comp=Z,48nm,0.9s
KNRA Kununurra 46.67 287 P **P** **12 51 29.6 +0.6**
comp=Z,11nm,0.8s
KNRA Kununurra 46.67 287 **P** **12 51 29.8 +0.8**
MTN Manton Dam 46.80 292 P **P** **12 51 30.2 +0.1**
FITZ Fitzroy Crossi 47.52 282 P **P** **12 51 36.2 +0.6**
comp=Z,5.8nm,1.1s
FITZ Fitzroy Crossi 47.52 282 P **P** **12 51 36.0 +0.4**
FITZ Fitzroy Crossi 47.52 282 **P** **12 51 36.0 +0.4**
FITZ Fitzroy Crossi 47.52 282 P **P** **12 51 36.1 +0.6**
comp=Z,5.8nm,1.1s
BLDU Ballidu 47.81 262 P **P** **12 51 37.4 -0.4**
comp=Z,40nm,1.4s
BLDU Ballidu 47.81 262 P **P** **12 51 37.1 -0.6**
comp=Z,39nm,1.4s
MEEK Meekatharra 48.24 268 P **P** **12 51 40.9 -0.3**
comp=Z,56nm,0.8s
MEEK Meekatharra 48.24 268 P **P** **12 51 40.3 -0.8**
MEEK Meekatharra 48.24 268 P **P** **12 51 40.4 -0.7**
comp=Z,56nm,0.8s
MORW Morawa 49.04 263 P **P** **12 51 47.2 -0.1**
comp=Z,26nm,0.9s
MORW Morawa 49.04 263 P **P** **12 51 47.1 -0.1**
MORW Morawa 49.04 263 **P** **12 51 47.0 -0.2**
MORW IAmb IAmb 12 51 47.6
comp=Z,21nm,0.9s
TAOE Nuku Hiva Isla 50.26 65 *e*LR LR 13 06 26.5
comp=Z,66nm,30.8s
MBWA Marble Bar 50.28 274 P **P** **12 51 55.7 -0.9**
MBWA IAmb IAmb 12 52 39.9
comp=Z,14nm,1.0s
MBWA Marble Bar 50.28 274 P **P** **12 51 55.5 -1.1**
comp=Z,10nm,2.0s
QSPA South Pole Qui 50.72 180 P **P** **12 52 01.6 +2.1**
comp=Z,52nm,0.9s,baz=9.9,slow=0.9,SNR=262
QSPA pP **pP** **12 52 36.5 +2.4**
comp=Z,45nm,1.0s,baz=21,slow=4.4,SNR=7.9
comp=Z,52nm,0.9s
QSPA South Pole Qui 50.72 180 **P** **12 52 02.0 +2.5**
QSPA South Pole Qui 50.72 180 P **P** **12 52 02.1 +2.5**
comp=Z,88nm,1.2s
QSPA South Pole Qui 50.72 180 P **P** **12 52 01.8 +2.3**
QSPA pP **pP** **12 52 35.6 +1.5**
QSPA sP **sP** **12 52 52.3 +1.3**
SANI Sanana 57.96 297 P **P** **12 52 52.7 +0.4**
SANI Sanana 57.96 297 P **P** **12 52 52.4 +0.1**
comp=Z,12nm,1.4s
SANI Sanana 57.96 297 P **P** **12 52 52.7 +0.4**
comp=Z,12nm,1.0s
GUMO Guam 59.73 326 LR LR 13 17 41.9
comp=Z,8.5nm,18.2s,baz=58,slow=35
BELA Belgrano 2 61.60 173 P **P** **12 53 17.2 +0.9**
MAW Mawson 61.82 204 P **P** **12 53 18.9 +1.1**
comp=Z,5.1nm,1.2s
MAW Mawson 61.82 204 P **P** **12 53 18.3 +0.4**
comp=Z,22nm,1.0s,baz=120,slow=9.5,SNR=21
comp=Z,22nm,1.0s
MAW Mawson 61.82 204 **P** **12 53 18.6 +0.7**
MAW IAmb IAmb 12 53 19.4
comp=Z,6.5nm,1.2s
MAW Mawson 61.82 204 P **P** **12 53 18.0 +0.2**
comp=Z,5.1nm,1.2s
PWJI Pagerwojo 64.29 281 P **P** **12 53 34.9 0.0**
comp=Z,11nm,2.0s
UGM Wanagama 65.33 280 P **P** **12 53 42.2 +0.4**
KPJI Karang Pucung 66.91 280 P **P** **12 53 52.5 +0.7**
comp=Z,17nm,1.6s
BBJI Bungbulang 67.81 279 P **P** **12 53 57.1 -0.5**
BBJI IAmb IAmb 12 53 57.7
comp=Z,29nm,1.2s
SNAA Sanae 69.22 181 P **P** **12 54 06.1 +0.8**
comp=Z,78nm,0.3s
SNAA Sanae 69.22 181 P **P** **12 54 05.8 +0.4**
comp=Z,4.0nm,0.5s,baz=197,slow=8.4,SNR=5.6
SNAA pP **pP** **12 54 43.2 +1.2**
comp=Z,7.9nm,0.8s,baz=186,slow=5.5,SNR=3.3
comp=Z,4.0nm,0.5s
SNAA Sanae 69.22 181 P **P** **12 54 06.2 +0.8**
SNAA IAmb IAmb 12 54 44.4
comp=Z,26nm,1.3s
SNAA Sanae 69.22 181 P **P** **12 54 06.0 +0.6**
comp=Z,12nm,0.8s
VNA3 Neumayer Olymp 69.61 178 P **P** **12 54 08.4 +0.7**
comp=Z,33nm,0.7s
VNA3 ⇑pP **pP** **12 54 44.3 -0.1**
comp=Z,29nm,0.7s
VNA3 Neumayer Olymp 69.61 178 P **P** **12 54 08.4 +0.7**
comp=Z,66nm,0.9s
CGJI Cibinong 69.85 278 P **P** **12 54 09.7 -0.4**
comp=Z,20nm,1.0s
VNA2 Neumayer--Watz 69.96 179 ||P **P** **12 54 10.5 +0.7**
comp=Z,47nm,0.8s,baz=165,slow=6.2
VNA2 Neumayer--Watz 69.96 179 P **P** **12 54 10.7 +0.8**
comp=Z,74nm,0.8s
VNA1 Neumayer--Stat 70.23 179 P **P** **12 54 12.5 +1.1**
comp=Z,49nm,0.8s
KLSI 71.80 279 P **P** **12 54 20.8 -1.1**
comp=Z,13nm,1.4s
PLCA Paso Flores 80.38 135 P **P** **12 55 11.2 +1.1**
comp=Z,2.8nm,1.0s,baz=241,slow=6.2,SNR=4.9
comp=Z,2.8nm,1.0s
PLCA Paso Flores 80.38 135 P **P** **12 55 12.0 +1.9**
PLCA PcP **PcP** **12 55 19.7 +3.0**
PLCA pP **pP** **12 55 47.4 -0.4**
PLCA sP **sP** **12 56 03.9 -0.1**
MJAR Matsushiro Arr 82.82 331 P **P** **12 55 22.3 -0.3**
comp=Z,8.3nm,0.9s,baz=164,slow=6.1,SNR=13
comp=Z,8.3nm,0.9s
MJAR Matsushiro Arr 82.82 331 P **P** **12 55 23.0 +0.4**
MJAR IAmb IAmb 12 55 23.4
comp=Z,6.8nm,0.8s
MAJO Matsushiro 82.82 331 P **P** **12 55 22.6 0.0**
comp=Z,21nm,2.5s
BO02 Sierra Bellavi 84.41 131 P **P** **12 55 32.9 +1.7**
BO02 IAmb IAmb 12 55 38.0
comp=Z,39nm,1.9s
BO02 Sierra Bellavi 84.41 131 P **P** **12 55 30.8 -0.3**
PEL Peldehue 85.63 130 P **P** **12 55 38.9 +1.7**
comp=Z,9.4nm,1.2s
CO03 El Pedregal 87.25 128 P **P** **12 55 47.1 +1.9**
comp=Z,12nm,2.7s
KSRS Korea Array 87.87 324 P **P** **12 55 48.3 +0.8**
comp=Z,6.5nm,0.9s,baz=143,slow=5.5,SNR=10
KSRS LR LR 13 30 15.9
comp=Z,9.3nm,21.8s,baz=5.0,slow=32
comp=Z,6.5nm,0.9s
NJ2 Nanjing 88.12 315 *e*P **P** **12 55 52.3 +3.4**
NJ2 pmax pmax
comp=Z,10.0nm,0.6s
JKA Kamikawa-asahi 88.13 337 P **P** **12 55 50.4 +1.8**
AC05 El Transito 88.92 127 P **P** **12 55 54.9 +1.8**
comp=Z,8.4nm,0.9s
CMAR Chiang Mai Arr 91.23 293 P **P** **12 56 04.2 +0.4**
comp=Z,0.7nm,0.4s,baz=115,slow=5.5,SNR=4.6
comp=Z,0.7nm,0.4s
USRK Ussuriysk Ar. 91.82 331 P **P** **12 56 04.9 -0.8**
comp=Z,3.5nm,0.8s,baz=167,slow=3.0,SNR=5.3
comp=Z,3.5nm,0.8s
PETK Petropavlovsk- 93.35 350 P **P** **12 56 12.0 -0.7**
comp=Z,2.7nm,0.9s,baz=159,slow=4.9,SNR=1.6
PETK LR LR 13 34 53.5
comp=Z,13nm,18.6s,baz=149,slow=33
comp=Z,2.7nm,0.9s
LPIG La Paz 94.02 62 LR LR 13 33 50.5
comp=Z,12nm,18.1s,baz=306,slow=32
XAN Xi'an 95.23 310 P **P** **12 56 23.9 +2.0**
XAN pmax pmax
comp=Z,5.0nm,0.8s
HHC Hu-ho-hao-te 98.57 317 *e*P Pdif 12 56 40.8 +4.0
HHC pmax pmax
comp=Z,11nm,0.6s
HHC pmax pmax
comp=Z,81nm,5.0s
ILAR Eielson Array 108.06 16 PKKPab PKKPab 13 12 48.4 +0.9
comp=Z,1.1nm,0.9s,baz=1.0,slow=3.9,SNR=9.5
KURBB Kurchatov Arra 122.88 311 PKP **PKPdf** **13 01 50.9 -2.0**
comp=Z,0.7nm,0.8s,baz=113,slow=1.8,SNR=5.6
KURBB pPKP **pPKPdf** **13 02 31.6 -1.6**
comp=Z,0.4nm,0.5s,baz=125,slow=1.7,SNR=2.7
KBZ Khabaz 144.29 293 PKP **PKPab** **13 02 30.2 -1.2**
comp=Z,4.9nm,0.8s,baz=93,slow=7.4,SNR=5.9
ARCES ARCESS Array B 145.75 341 PKPbc **PKPdf** **13 02 33.6 -1.2**
comp=Z,10nm,0.7s,baz=36,slow=3.4,SNR=18
ARCES ARCESS Array B 145.75 341 PKPdf **PKPdf** **13 02 34.1 -0.7**
DBIC Dimbokro 147.41 180 PKPbc **PKPbc** **13 02 41.0 -0.9**
comp=Z,10.0nm,0.9s,baz=171,slow=4.9,SNR=9.7
DBIC pPKPbc **pPKPdf** **13 03 19.9 +0.2**
comp=Z,8.6nm,0.9s,baz=155,slow=7.2,SNR=3.0
DBIC Dimbokro 147.41 180 P **PKPbc** **13 02 41.2 -0.7**
BRTR Keskin Array B 150.35 283 PKPbc **PKPbc** **13 02 46.5 -2.4**
comp=Z,0.6nm,0.5s,baz=96,slow=2.9,SNR=2.7
BRTR pPKPbc **pPKPbc** **13 03 30.2 +1.3**
comp=Z,3.4nm,0.8s,baz=120,slow=4.6,SNR=4.5
FINES FINESS Array B 150.84 329 PKPbc **PKPbc** **13 02 46.5 -2.6**
comp=Z,2.2nm,0.6s,baz=53,slow=3.2,SNR=5.4
FINES PKPab **PKPab** **13 02 55.4 -1.5**
comp=Z,7.5nm,0.9s,baz=68,slow=4.6,SNR=8.1
TORD Torodi Ar. Bea 153.18 195 PKPbc **PKPbc** **13 02 54.4 -1.4**
comp=Z,1.6nm,0.5s,baz=186,slow=5.0,SNR=12
TORD PKPab **PKPab** **13 03 07.5 -0.4**
comp=Z,17nm,0.9s,baz=168,slow=4.3,SNR=36
NOA NORSAR Array B 156.12 340 PKPab **PKPab** **13 03 18.0 -1.3**
comp=Z,1.3nm,0.7s,baz=28,slow=3.3,SNR=7.0
HFS Hagfors 156.16 337 PKPab **PKPab** **13 03 18.5 -1.0**
comp=Z,4.4nm,0.7s,baz=45,slow=4.6,SNR=5.1
GERES GERESS Array B 163.62 311 PKPab **PKPab** **13 03 52.1 -0.5**
comp=Z,0.5nm,0.7s,baz=60,slow=4.8,SNR=4.4
ESDC Sonseca Array 179.14 288 PKPab 13 05 01.2
comp=Z,1.0nm,1.0s,baz=20,slow=4.3,SNR=4.8
ESDC pPKPab pPKPab 13 05 37.7 -2.6
comp=Z,1.5nm,0.9s,baz=104,slow=4.0,SNR=4.1

IDC 20** 13:13:51.4±3.3,**31°.28S×177°.40W,h0**km**,mb3.6/2,
mbtmp3.7/4,ML3.1/2,Error ellipse: s-maj=73.9km
s-min=32.4km az=110.0,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**2.07**	**347**	Pn	Pn	13 14 26.4	-1.0
	21nm,0.3s,baz=80,slow=23,SNR=1.3						
RAO				Sn	Sn	13 14 48.8	-5.0
	91nm,0.3s,baz=66,slow=22,SNR=2.4						
	112nm,0.3s						
RAO				AML	AML		
URZ	**Urewera**	**8.30**	**211**	Pn	Pn	13 15 51.5	-1.6
	0.1nm,0.3s,baz=192,slow=21,SNR=1.8						
URZ				Sn	Sn	13 17 25.4	-2.1
	0.9nm,0.3s,baz=352,slow=23,SNR=9.1						
	7.0nm,1.1s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.58**	**268**	P	P	13 21 57.4	-0.1
	0.3nm,0.7s,baz=106,slow=7.1,SNR=7.6						
	0.3nm,0.7s						
WRA	**Warramunga Arr**	**44.65**	**273**	P	P	13 22 06.2	+0.2
	0.6nm,0.4s,baz=111,slow=8.1,SNR=21						
	0.6nm,0.4s						
FINES	**FINESS Array B**	**146.14**	**340**	PKPbc	PKPbc	13 33 32.4	-0.4
	1.3nm,0.7s,baz=40,slow=2.5,SNR=4.1						

*IDC **20** 13:47:41.5±1.5,2°.45N×126°.91E,h0km,mb3.8/7,*
mbtmp3.8/7,MS2.8/4,Error ellipse: s-maj=99.1km
s-min=18.8km az=70.0
*DJA **20** 13:47:46.1±0.7,3°.N±6°×12°.7E±°,h10km,M3.7/10,*
MLv3.7/10
*NEIC **20** 13:47:48.3±1.1,2°.48N±0°.10×127°.0E±0°.1,h48km±7km,*
mb4.0/11,Error ellipse: s-maj=19.2km s-min=10.7km
az=56.0
ISC 20 13:47:48.5±1.0,2°.5N±0°.1×126°.9E±0°.1,h53km,n33,
σ0s69/30,mb3.9/11,MS2.6/4,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.75**	**164**		**Pn**	**13 48 16.5**	**0.0**
TNTI	**Ternate**	**1.75**	**164**	P	**Pn**	**13 48 16.5**	**0.0**
MNI	**Manado**	**2.29**	**244**	P	**Pn**	**13 48 23.6**	**-0.3**
MNI				AML	AML		
KMSI	**Cibinong**	**3.47**	**237**	P	**Pn**	**13 48 40.2**	**+0.2**
GTOI	**Gorontalo**	**4.29**	**245**	P	**Pn**	**13 48 50.8**	**-0.5**
GTOI				AML	AML		
SANI	**Sanana**	**4.58**	**191**	P	**Pn**	**13 48 55.6**	**+0.3**
LUWI	**Luwuk**	**5.40**	**230**	Pn	**Pn**	**13 49 06.5**	**0.0**
TOLI2	**Tolitoli**	**6.26**	**258**	Pn	**Pn**	**13 49 19.0**	**+0.7**
KNRA	**Kununurra**	**18.12**	**174**	P	**P**	**13 51 55.1**	**-1.3**
KNRA				IAmb	IAmb	13 52 00.6	
	comp=Z,6.1nm,1.1s						
FITZ	**Fitzroy Crossi**	**20.47**	**183**	P	**P**	**13 52 21.1**	**-0.9**
	comp=Z,1.9nm,1.0s,baz=16,slow=10.0,SNR=9.2						
	comp=Z,1.9nm,1.0s						
FITZ	**Fitzroy Crossi**	**20.47**	**183**	P	**P**	**13 52 21.3**	**-0.7**
GUMO	**Guam**	**20.93**	**57**	LR	LR	14 00 17.1	
	comp=Z,13nm,18.7s,baz=104,slow=36						
WB0	**Warramunga Arr**	**23.29**	**162**	P	**P**	**13 52 51.0**	**-0.9**
WB0				IAmb	IAmb	13 53 00.8	
	comp=Z,8.1nm,1.1s						
WRA	**Warramunga Arr**	**23.44**	**162**	P	**P**	**13 52 52.0**	**-1.3**
	comp=Z,1.3nm,0.5s,baz=340,slow=11,SNR=16						
WRA				S	**S**	**13 57 03.6**	**+0.7**
	comp=Z,0.3nm,0.8s,baz=337,slow=18,SNR=2.4						
	comp=Z,1.3nm,0.5s						
WRA	**Warramunga Arr**	**23.44**	**162**	IAmb	IAmb	13 52 57.0	
	comp=Z,0.1nm,1.1s						
WR8	**Warramunga Arr**	**23.50**	**162**	P	**P**	**13 52 53.0**	**-0.9**
WR8				IAmb	IAmb	13 53 15.0	
	comp=Z,4.3nm,0.9s						
KRVT	**Keravat (AS076**	**26.00**	**105**	LR	LR	14 02 17.7	
	comp=Z,13nm,21.4s,baz=313,slow=34						
AS31	**Alice Springs**	**26.86**	**166**	P	**P**	**13 53 24.4**	**0.0**
AS31				IAmb	IAmb	13 53 57.1	
	comp=Z,1.5nm,1.1s						
ASAR	**Alice Springs**	**26.86**	**166**	P	**P**	**13 53 23.8**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=344,slow=7.3,SNR=13						
ASAR				S	**S**	**13 57 58.4**	**+0.9**
	comp=Z,0.3nm,0.9s,baz=333,slow=20,SNR=3.7						
	comp=Z,0.3nm,0.3s						
ASAR	**Alice Springs**	**26.86**	**166**	P	**P**	**13 53 23.6**	**-0.8**
CTA	**Charters Tower**	**29.39**	**141**	LR	LR	14 07 25.4	
	comp=Z,44nm,21.1s,baz=31,slow=40						
FORT	**Forrest**	**33.08**	**178**	P	**P**	**13 54 18.8**	**-0.5**
TLY	**Talaya**	**52.77**	**347**	LR	LR	14 22 34.4	
	comp=Z,9.6nm,19.2s,baz=51,slow=40						
MK31	**Makanchi Array**	**58.68**	**326**	P	**P**	**13 57 40.8**	**+0.1**
MK31				IAmb	IAmb	13 58 24.0	
	comp=Z,4.5nm,1.4s						
MKAR	**Makanchi Array**	**58.68**	**326**	P	**P**	**13 57 40.9**	**+0.2**
	comp=Z,0.4nm,0.4s,baz=122,slow=7.3,SNR=9.6						
	comp=Z,0.4nm,0.4s						
MKAR	**Makanchi Array**	**58.68**	**326**	P	**P**	**13 57 40.6**	**0.0**
KURBB	**Kurchatov Arra**	**62.88**	**328**	P	**P**	**13 58 09.3**	**+0.2**
	comp=Z,0.7nm,0.2s,baz=129,slow=6.7,SNR=5.0						
	comp=Z,0.7nm,0.2s						
KURK	**Kurchatov**	**62.89**	**328**	P	**P**	**13 58 09.2**	**0.0**
AB31	**Akbulak array**	**73.22**	**321**	P	**P**	**13 59 13.8**	**-0.3**
AB31				IAmb	IAmb	13 59 23.2	
	comp=Z,3.5nm,1.5s						
ABKAR	**Akbulak array**	**73.22**	**321**	P	**P**	**13 59 13.2**	**-0.8**
VNDA	**Vanda**	**82.16**	**173**	P	**P**	**14 00 03.8**	**+0.5**
	comp=Z,0.3nm,0.4s,baz=324,slow=5.2,SNR=4.6						
	comp=Z,0.3nm,0.4s						
VNDA	**Vanda**	**82.16**	**173**	P	**P**	**14 00 04.0**	**+0.8**
VNDA				IAmb	IAmb	14 00 31.5	
	comp=Z,2.9nm,1.5s						
MAW	**Mawson**	**82.64**	**200**	P	**P**	**14 00 06.8**	**+1.0**
	comp=Z,0.9nm,0.6s,baz=45,slow=7.1,SNR=1.7						
	comp=Z,0.9nm,0.6s						

*IDC **20** 13:51:49.0±8.9,22°.02N×143°.48E,h174km±58km,mb3.5/9,*
mbtmp4.1/10,Error ellipse: s-maj=80.8km s-min=25.4km
az=0.0
ISC 20 13:51:45.2±1.4,21°.8N±0°.2×143°.5E±0°.2,h150km,n10,
σ1s20/11,mb3.7/8,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JCJ	**Chichijima**	**5.43**	**347**	P	**Pn**	**13 53 04.6**	**+0.3**
	48nm,0.6s,baz=292,slow=23,SNR=4.8						
JCJ				S	**Sn**	**13 54 05.8**	**-0.3**
	21nm,0.4s,baz=270,slow=20,SNR=3.5						
KSRS	**Korea Array**	**20.63**	**323**	P	**P**	**13 56 14.7**	**+1.9**
	1.2nm,0.7s,baz=150,slow=8.8,SNR=7.5						
	1.2nm,0.7s						
ZALV	**Zalesovo Beam**	**54.33**	**322**	P	**P**	**14 00 55.3**	**-0.7**
	0.6nm,0.4s,baz=98,slow=8.0,SNR=2.7						
	0.6nm,0.4s						
MKAR	**Makanchi Array**	**54.86**	**313**	P	**P**	**14 01 00.2**	**+0.2**
	0.4nm,0.7s,baz=92,slow=7.1,SNR=2.7						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**57.67**	**317**	P	**P**	**14 01 19.6**	**-0.2**
	2.4nm,0.2s,baz=94,slow=7.3,SNR=5.7						
	2.4nm,0.2s						
ILAR	**Eielson Array**	**61.83**	**27**	P	**P**	**14 01 46.6**	**-1.4**
	0.5nm,0.8s,baz=256,slow=5.7,SNR=2.7						
	0.5nm,0.8s						
BVAR	**Borovoye Array**	**62.80**	**319**	P	**P**	**14 01 54.8**	**0.0**
	2.5nm,0.4s,baz=93,slow=7.4,SNR=12						
	2.5nm,0.4s						
YKA	**Yellowknife Ar**	**76.25**	**28**	P	**P**	**14 03 17.5**	**+0.6**
	0.7nm,0.4s,baz=293,slow=6.0,SNR=10						
	0.7nm,0.4s						
NVAR	**Mina Array Bea**	**82.86**	**52**	P	**P**	**14 03 55.0**	**+1.5**
	0.5nm,0.7s,baz=290,slow=6.9,SNR=3.6						
	0.5nm,0.7s						
FINES	**FINESS Array B**	**83.24**	**335**	P	**P**	**14 03 52.9**	**-1.7**
	14nm,1.2s,baz=72,slow=6.2,SNR=9.0						
	14nm,1.2s						

*IDC **20** 14:16:04.7±7.3,11°.64N×92°.43E,h96km±61km,mb3.6/7,*
mbtmp3.8/8,ML3.9/1,MS2.8/3,Error ellipse: s-maj=59.1km
s-min=18.1km az=59.0
ISC 20 14:16:05.1±1.4,11°.7N±0°.2×92°.5E±0°.2,h100km,n16,
σ0s31/8,mb3.8/7,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.21**	**42**	P	**Pn**	**14 18 15.3**	**+0.1**
	0.3nm,0.3s,baz=236,slow=15,SNR=6.4						
CMAR				LR	LR	14 21 55.1	
	comp=Z,25nm,20.0s,baz=230,slow=38						
	0.5nm,0.3s						
CMAR				AML	AML		
PALK	**Pallekele**	**12.39**	**250**	LR	LR	14 23 13.7	
	comp=Z,34nm,18.7s,baz=72,slow=35						
H08S3	**Diego Garcia H**	**27.60**	**227**	T	T	14 50 13.5	
	baz=46,slow=76,SNR=44						
H08S2	**Diego Garcia H**	**27.61**	**227**	T	T	14 50 20.8	
	baz=46,slow=76,SNR=31						
H08S1	**Diego Carcia H**	**27.62**	**227**	T	T	14 50 17.6	
	baz=46,slow=76,SNR=20						
MKAR	**Makanchi Array**	**36.07**	**348**	P	**P**	**14 22 56.8**	**-0.2**
	0.5nm,0.6s,baz=174,slow=7.0,SNR=3.1						
	0.5nm,0.6s						
SONM	**Songino Array**	**37.91**	**15**	P	**P**	**14 23 13.1**	**+0.3**
	0.3nm,0.4s,baz=189,slow=8.3,SNR=2.1						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**40.50**	**346**	P	**P**	**14 23 33.7**	**-0.4**
	0.5nm,0.6s,baz=170,slow=8.5,SNR=1.2						
	0.5nm,0.6s						
KSRS	**Korea Array**	**40.84**	**45**	P	**P**	**14 23 36.9**	**-0.2**
	0.8nm,0.5s,baz=238,slow=9.3,SNR=4.3						
	0.8nm,0.5s						
WRA	**Warramunga Arr**	**51.82**	**127**	P	**P**	**14 25 03.2**	**-0.1**
	1.4nm,0.5s,baz=306,slow=8.1,SNR=32						
	1.4nm,0.5s						
ASAR	**Alice Springs**	**53.61**	**131**	P	**P**	**14 25 16.6**	**+0.1**
	0.7nm,0.5s,baz=309,slow=7.3,SNR=14						
	0.7nm,0.5s						
MBAR	**Mbarara**	**62.49**	**263**	LR	LR	14 50 26.9	
	comp=Z,16nm,20.3s,baz=82,slow=33						
H04N2	**CROZET ISLANDS**	**68.15**	**209**	T	T	15 41 01.5	
	baz=44,slow=75,SNR=16						
H04N1	**CROZET ISLANDS**	**68.16**	**209**	T	T	15 41 03.5	
	baz=44,slow=75,SNR=17						
H04N3	**CROZET ISLANDS**	**68.17**	**209**	T	T	15 41 01.3	
	baz=44,slow=75,SNR=19						
FINES	**FINESS Array B**	**68.62**	**332**	P	**P**	**14 26 57.5**	**+0.3**
	9.6nm,1.2s,baz=123,slow=7.0,SNR=3.7						
	9.6nm,1.2s						

IDC 20 14:43:07.1±3.6,5°.71S×153°.60E,h0km,mb3.7/2,
mbtmp3.7/2,MS3.2/4,Error ellipse: s-maj=167.3km
s-min=48.4km az=125.0,New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**7.30**	**121**	LR	LR	14 47 05.2	
	comp=Z,77nm,18.2s,baz=310,slow=33						
WRA	**Warramunga Arr**	**23.47**	**231**	P	P	14 48 18.9	+0.4
	4.2nm,0.9s,baz=55,slow=9.7,SNR=18						
	4.2nm,0.9s						
ASAR	**Alice Springs**	**26.04**	**225**	P	P	14 48 41.7	-0.6
	0.5nm,0.7s,baz=58,slow=9.0,SNR=8.8						
	0.5nm,0.7s						
FITZ	**Fitzroy Crossi**	**29.94**	**243**	LR	LR	15 02 08.9	
	comp=Z,61nm,18.1s,baz=82,slow=38						
NWAO	**Narrogin (SRO)**	**43.33**	**227**	LR	LR	15 08 38.4	
	comp=Z,39nm,21.5s,baz=360,slow=35						
LPIG	**La Paz**	**97.86**	**67**	LR	LR	15 34 44.1	
	comp=Z,15nm,18.7s,baz=51,slow=32						
TORD	**Torodi Ar. Bea**	**151.34**	**287**	PKPbc	PKPbc	15 03 03.9	0.0
	0.9nm,0.6s,baz=66,slow=1.9,SNR=5.1						

*THE **20** 14:56:28.6,38°.0N±0°.8×26°.7E±0°.9,h12km±2km,M2.4/6,*
MLh2.4/6
*AFAD **20** 14:56:28.4,37°.95N×26°.69E,h7km±2km,ML2.2*
*ISK **20** 14:56:28.2,37°.94N×26°.68E,h9km,ML2.5/13*
ISC 20 14:56:28.4±0.9,37°.94N±0°.02×26°.69E±0°.02,h12km±7km,
n46,σ0s55/72,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.19**	**55**	P	**Pg**	**14 56 32.6**	**0.0**
DGB				S	**Sg**	**14 56 35.4**	**-0.1**
DGB				IAML		14 56 36.0	
	comp=N,882nm,0.2s						
DGB				IAML		14 56 36.0	
	comp=E,586nm,0.2s						
GMLD	**Gumuldur**	**0.23**	**54**	Pg	**Pg**	**14 56 33.0**	**-0.2**
GMLD				Sg	**Sg**	**14 56 36.5**	**0.0**
GMLD				AML	AML		
SMG	**Samos**	**0.26**	**153**	P	**Pg**	**14 56 34.0**	**+0.1**
SMG				S	**Sg**	**14 56 38.2**	**+0.6**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.33**	**334**	P	**Pg**	**14 56 35.0**	**-0.1**
ZEYE				S	**Sg**	**14 56 40.0**	**+0.4**
ZEYE				IAML		14 56 41.0	
	comp=N,340nm,0.1s						
ZEYE				IAML		14 56 42.0	
	comp=E,284nm,0.2s						
BEYE	**izmir**	**0.34**	**34**	P	**Pg**	**14 56 35.3**	**-0.1**
BEYE				S	**Sg**	**14 56 39.9**	**-0.1**
BEYE				IAML		14 56 41.0	
	comp=N,291nm,0.3s						
BEYE				IAML		14 56 42.0	
	comp=E,318nm,0.2s						
KUSD	**Kusadasi-Aydin**	**0.48**	**100**	Pg	**Pg**	**14 56 37.9**	**0.0**
KUSD				AML	AML		
CESE	**eme**	**0.49**	**322**	Pg	**Pg**	**14 56 38.3**	**+0.2**
CESE				Sg	**Sb**	**14 56 45.7**	**-0.5**
CESE				AML	AML		
GCAM	**G?zelcaml?**	**0.50**	**119**	P	**Pb**	**14 56 39.8**	**+0.8**
GCAM				S	**Sb**	**14 56 45.7**	**-0.5**
GCAM				IAML		14 56 48.0	
	comp=N,219nm,0.2s						
GCAM				IAML		14 56 49.0	
	comp=E,146nm,0.1s						
GCAM	**G?zelcaml?**	**0.50**	**119**	Pg	**Pg**	**14 56 38.4**	**+0.2**
GCAM				Sg	**Sb**	**14 56 45.8**	**-0.5**
GCAM				AML	AML		
BLCB	**Balcova**	**0.52**	**32**	P	**Pg**	**14 56 38.6**	**-0.1**
BLCB				S	**Sg**	**14 56 45.9**	**+0.2**
BLCB	**Balcova**	**0.52**	**32**	Pg	**Pg**	**14 56 38.9**	**+0.2**
BLCB				Sg	**Sb**	**14 56 46.4**	**

CHOS				S	**Sb**	**14 56 51.7**	**+0.4**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.67**	**312**	Pg	**Pg**	**14 56 41.7**	**+0.3**	
CHOS				Sg	**Sb**	**14 56 51.4**	**+0.1**	
CHOS				AML	AML			
BAGT	**Foa**	**0.72**	**10**	P	**Pg**	**14 56 42.4**	**0.0**	
BAGT				S	**Sg**	**14 56 52.2**	**+0.2**	
BAGT				IAML		14 56 55.0		
	comp=N,118nm,0.7s							
BAGT				IAML		14 56 58.0		
	comp=E,100nm,0.6s							
KARB	**zmir-Karabur**	**0.75**	**343**	P	**Pg**	**14 56 42.5**	**-0.5**	
KARB				S	**Sb**	**14 56 53.2**	**-0.4**	
KARB				IAML		14 56 56.0		
	comp=N,179nm,0.6s							
KARB				IAML		14 56 57.0		
	comp=E,104nm,0.3s							
FOCM	**Foa**	**0.77**	**3**	Pg	**Pb**	**14 56 43.6**	**-0.2**	
FOCM				Sg	**Sb**	**14 56 54.7**	**+0.5**	
FOCM				AML	AML			
CAMT	**Merkez**	**0.94**	**31**	P	**Pn**	**14 56 47.6**	**+0.1**	
CAMT				S	**Sb**	**14 56 59.5**	**+0.3**	
AYDB	**Zeytinkoy-Aydi**	**0.95**	**89**	Pg	**Pb**	**14 56 47.1**	**+0.2**	
AYDB				AML	AML			
AYDN	**Tasoluk**	**0.99**	**106**	P	**Pg**	**14 56 47.2**	**-0.3**	
AYDN				S	**Sg**	**14 56 59.5**	**-0.8**	
BODT	**Bodrum**	**1.01**	**150**	P	**Pg**	**14 56 47.1**	**-0.8**	
BODT				S	**Sn**	**14 57 02.4**	**-0.2**	
BODT				AML	AML			
BODT	**Bodrum**	**1.01**	**150**	Pg	**Pg**	**14 56 47.9**	**0.0**	
BODT				AML	AML			
IZMR	**zmir-demi**	**1.02**	**79**	P	**Pg**	**14 56 48.1**	**0.0**	
IZMR				S	**Sg**	**14 56 59.7**	**-1.7**	
BDRM	**Kayabasi**	**1.06**	**145**	P	**Pb**	**14 56 49.2**	**+0.4**	
BDRM				S	**Sg**	**14 57 02.5**	**-0.3**	
BDRM				IAML		14 57 07.0		
	comp=E,43nm,0.3s							
ZEDA	**zmir-Bergama**	**1.07**	**17**	P	**Pg**	**14 56 48.1**	**-0.9**	
ZEDA				S	**Sb**	**14 57 03.0**	**+0.2**	
ZEDA				IAML		14 57 06.0		
	comp=N,79nm,0.3s							
ZEDA				IAML		14 57 06.0		
	comp=E,68nm,0.4s							
MLSB	**Milas**	**1.08**	**126**	Pn	**Pb**	**14 56 49.3**	**+0.2**	
MLSB				AML	AML			
DKL	**Dikili**	**1.14**	**9**	Pn	**Pn**	**14 56 50.5**	**+0.3**	
DKL				AML	AML			
GOMA	**Golmarmara-Man**	**1.23**	**51**	Pn	**Pg**	**14 56 52.0**	**-0.2**	
GOMA				AML	AML			
APE	**Apeiranthos**	**1.27**	**227**	P	**Pn**	**14 56 50.4**	**-1.6**	
APE				S	**Sg**	**14 57 09.3**	**0.0**	
NAZL	**Nazilli-Aydin**	**1.27**	**89**	Pn	**Pg**	**14 56 52.7**	**-0.2**	
NAZL				AML	AML			
AKHS	**Akhisar**	**1.29**	**43**	P	**Pn**	**14 56 52.5**	**+0.2**	
AKHS				IAML		14 57 14.0		
	comp=N,93nm,0.7s							
ESEN	**Aydn-Nazilli**	**1.32**	**96**	P	**Pg**	**14 56 55.2**	**+1.3**	
KTTT	**Salihli**	**1.33**	**56**	P	**Pg**	**14 56 53.9**	**-0.2**	
KTTT				S	**Sb**	**14 57 10.8**	**+0.3**	
PRK	**Paraskevi**	**1.34**	**346**	P	**Pn**	**14 56 52.7**	**-0.2**	
PRK				S	**Sg**	**14 57 12.1**	**+0.5**	
AYVA	**Ayvalik**	**1.36**	**0**	P	**Pg**	**14 56 56.2**	**+1.5**	
AYVA				S	**Sn**	**14 57 11.8**	**+0.5**	
AYVA				IAML		14 57 17.0		
	comp=N,40nm,0.3s							
AYVA				IAML		14 57 51.0		
	comp=E,40nm,1.4s							
KIRA	**zmir-Kiraz**	**1.38**	**79**	P	**Pg**	**14 56 54.7**	**-0.2**	
YAZI	**Mula-Dat§a-**	**1.40**	**154**	P	**Pn**	**14 56 54.2**	**+0.4**	
MULA	**Mugla, Merkez-**	**1.47**	**117**	P	**Pg**	**14 56 58.0**	**+1.3**	
GORD	**Gordes-Manisa**	**1.52**	**50**	Pn	**Pb**	**14 56 56.3**	**-0.2**	
MANT	**Manisa**	**1.57**	**69**	P	**Pb**	**14 56 58.0**	**+0.5**	
BUHA	**Balikesir, Bur**	**1.59**	**11**	P	**Pb**	**14 56 57.3**	**-0.4**	
BUHA				IAML		14 57 23.0		
	comp=E,52nm,0.7s							
BUHA				IAML		14 57 24.0		
	comp=N,43nm,0.8s							
STEP	**BALIKESIR_Sava**	**1.64**	**29**	P	**Pb**	**14 56 58.2**	**-0.5**	
STEP				IAML		14 57 26.0		
	comp=E,63nm,0.7s							
STEP				IAML		14 57 31.0		
	comp=N,35nm,0.6s							
SULTU	**Buldan**	**1.65**	**86**	P	**Pb**	**14 56 59.3**	**+0.5**	
SULTU				IAML		14 57 30.0		
	comp=E,22nm,0.6s							
SULTU				IAML		14 57 43.0		
	comp=N,42nm,3.4s							
HARTU	**Esme**	**1.71**	**76**	P	**Pb**	**14 57 00.2**	**+0.4**	

*NEIC **20** 15:28:18.7±0.9, 6˚.97S±0˚.08×129˚.32E±0˚.10, h103km±9km, mb4.3/22, Error ellipse: s-maj=14.9km s-min=11.1km az=60.0*
*IDC **20** 15:28:19.2±3.7, 7˚.10S×129˚.47E, h104km±35km, mb3.8/10, mbtmp4.3/13, Error ellipse: s-maj=32.7km s-min=14.8km az=60.0*
*DJA **20** 15:28:21.3±0.4, 7˚.5±3˚×13˚0E±˚, h154km±9km, M4.4/13, mB4.8/6, mb4.4/6, MLv4.6/13, Mw(mB)4.1/6*
ISC 20 15:28:21.1±0.4, **7˚.18S**±0˚.05×**129˚.68E**±0˚.05, **h139**km, **n65,** σ**2§33**/66, **mb4.2**/21, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.79**	**117**		**Pn**	**15 28 54.7**	**+1.6**
SAUI				Sn	**Sn**	**15 29 18.9**	**+1.3**
SAUI	**Saumlaki**	**1.79**	**117**	P	**Pn**	**15 28 54.8**	**+1.7**
SAUI				S	**Sn**	**15 29 18.0**	**+0.4**
SAUI				AML	AML		
BNDI	**Bandanaira**	**2.65**	**5**	P	**Pn**	**15 29 03.4**	**-0.2**
FAKI	**Fak Fak**	**4.95**	**31**		**Pn**	**15 29 31.2**	**-2.5**
FAKI	**Fak Fak**	**4.95**	**31**	P	**Pn**	**15 29 31.1**	**-2.5**
FAKI				AML	AML		
MTN	**Manton Dam**	**5.80**	**166**		**Pn**	**15 29 45.7**	**+0.6**
SOEI	**Soe**	**5.94**	**244**	Pn	**Pn**	**15 29 48.1**	**+1.1**
SOEI	**Soe**	**5.94**	**244**	P	**Pn**	**15 29 48.9**	**+1.9**
SOEI				S	**Sn**	**15 30 56.5**	**+2.4**
SANI	**Sanana**	**6.29**	**324**	P	**Pn**	**15 29 52.8**	**+1.2**
	0.1nm42nm,0.7s						
SANI				AML	AML		
BBSI	**Bau Bau**	**7.27**	**283**	P	**Pn**	**15 30 07.2**	**+2.5**
	0.1nm531nm38nm,1.0s						
BBSI				AML	AML		
MMRI	**Maumere**	**7.52**	**258**	Pn	**Pn**	**15 30 09.1**	**+1.0**
KNRA	**Kununurra**	**8.49**	**186**		**Pn**	**15 30 20.9**	**-0.3**
LUWI	**Luwuk**	**9.20**	**311**	Pn	**Pn**	15 30 21.3	-9.4
BKSI	**Bulukumba**	**9.68**	**280**	P	**Pn**	**15 30 36.6**	**-0.5**
FITZ	**Fitzroy Crossi**	**11.54**	**200**	P	**Pn**	**15 31 00.4**	**-1.4**
	15nm,0.5s,baz=21,slow=9.2,SNR=58						
FITZ				S	Sn	15 32 59.6	-10
	27nm,0.6s,baz=61,slow=18,SNR=9.9						
FITZ	**Fitzroy Crossi**	**11.54**	**200**		**Pn**	**15 31 01.1**	**-0.7**
MMSI	**Mamuju**	**11.62**	**292**	P	**P**	**15 31 14.9**	**+4.3**
PLAI	**Plampang**	**11.90**	**261**	P	Pn	15 30 59.6	-7.0
WB0	**Warramunga Arr**	**13.32**	**160**		**Pn**	**15 31 22.9**	**-2.0**
WRAB	**Tennant Creek**	**13.46**	**161**	P	**Pn**	**15 31 25.0**	**-1.7**
WRA	**Warramunga Arr**	**13.47**	**161**	P	**Pn**	**15 31 25.0**	**-1.8**
	7.6nm,0.4s,baz=348,slow=11,SNR=96						
WRA				S	Sn	15 33 47.4	-8.3
	11nm,0.6s,baz=334,slow=24,SNR=12						
WRA	**Warramunga Arr**	**13.47**	**161**	P	**Pn**	**15 31 24.1**	**-2.6**
WR8	**Warramunga Arr**	**13.53**	**160**		**Pn**	**15 31 25.9**	**-1.6**
JAGI	**Jajag, Banyuwa**	**15.44**	**264**	Pn	**Pn**	**15 31 46.1**	**-5.5**
AS31	**Alice Springs**	**16.88**	**167**		**Pn**	**15 32 10.1**	**+0.8**
AS31				IAmb	IAmb	15 32 14.8	
	comp=Z,6.2nm,0.5s						
ASAR	**Alice Springs**	**16.89**	**167**	P	**Pn**	**15 32 09.8**	**+0.6**
	comp=Z,9.0nm,0.6s,baz=336,slow=9.4,SNR=206						
ASAR				S	**Sn**	**15 35 09.5**	**-8.3**
	comp=Z,3.3nm,0.7s,baz=356,slow=28,SNR=5.9						
MBWA	**Marble Bar**	**16.90**	**214**	P	**P**	**15 32 04.9**	**-4.3**
PMG	**Port Moresby**	**17.43**	**98**	P	**Pn**	**15 32 18.0**	**+2.0**
	comp=Z,20nm,0.9s,baz=270,slow=7.1,SNR=3.6						
PMG	**Port Moresby**	**17.43**	**98**	P	**Pn**	**15 32 15.9**	**0.0**
PMG				IAmb	IAmb	15 32 20.5	
	comp=Z,22nm,0.9s						
KKM	**Kota Kinabalu**	**18.79**	**314**	P	**P**	**15 32 24.4**	**-5.7**
CTA	**Charters Tower**	**20.56**	**130**	P	Pn	15 32 52.4	-0.4
	comp=Z,6.6nm,0.9s,baz=322,slow=8.8,SNR=3.7						
	comp=Z,6.6nm,0.9s						
GIRL	**Giralia**	**21.39**	**222**	P	**P**	**15 32 56.7**	**-1.2**
BBJI	**Bungbulang**	**21.86**	**268**	P	**P**	**15 32 57.8**	**-5.1**
BBJI				IAmb	IAmb	15 33 05.5	
	comp=Z,13nm,0.7s						
INKA	**Innaminka**	**22.98**	**154**	P	**P**	**15 33 17.1**	**+3.4**
FORT	**Forrest**	**23.52**	**184**	P	**P**	**15 33 21.1**	**+2.4**
FORT				IAmb	IAmb	15 33 37.9	
	comp=Z,9.9nm,0.9s						
MORW	**Morawa**	**25.29**	**209**	P	**P**	**15 33 35.3**	**+0.6**
BBOO	**Buckleboo**	**26.18**	**168**	P	**P**	**15 33 45.5**	**+2.8**
BBOO				IAmb	IAmb	15 33 49.9	
	comp=Z,9.8nm,0.9s						
STKA	**Stephens Creek**	**26.97**	**157**	P	**P**	**15 33 53.2**	**+3.4**
	comp=Z,2.1nm,0.5s,baz=336,slow=9.6,SNR=7.1						
	comp=Z,2.1nm,0.5s						
STKA	**Stephens Creek**	**26.97**	**157**	P	**P**	**15 33 52.4**	**+2.6**
NWAO	**Narrogin (SRO)**	**28.11**	**203**	P	**P**	**15 34 01.5**	**+1.5**
NWAO				IAmb	IAmb	15 34 07.9	
	comp=Z,5.5nm,0.8s						
ARMA	**Armidale**	**30.95**	**141**	P	**P**	**15 34 25.9**	**+0.6**
CM31	**Chiang Mai Arr**	**39.61**	**310**	P	**P**	**15 35 38.3**	**-1.0**
CM31				IAmb	IAmb	15 35 40.4	
	comp=Z,3.5nm,0.5s						
CMAR	**Chiang Mai Arr**	**39.61**	**310**	P	**P**	**15 35 39.9**	**+0.6**
	comp=Z,2.7nm,0.6s,baz=134,slow=6.9,SNR=32						
	comp=Z,2.7nm,0.6s						
CMAR	**Chiang Mai Arr**	**39.61**	**310**	P	**P**	**15 35 38.4**	**-0.9**
CHTO	**Chiang Mai**	**39.82**	**311**	P	**P**	**15 35 39.9**	**-1.2**
USRK	**Ussuriysk Ar.**	**51.18**	**2**	P	**P**	**15 37 10.1**	**+0.1**
	comp=Z,0.9nm,0.5s,baz=192,slow=6.1,SNR=2.0						
	comp=Z,0.9nm,0.5s						
GTA2	**Gaotai**	**54.07**	**332**	*e*P	**P**	**15 37 32.3**	**+0.8**
GTA2				pP	pP	15 37 36.3	-27
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
EVN	**Everest**	**54.17**	**312**	P	**P**	**15 37 32.0**	**-1.1**
EVN				IAmb	IAmb	15 37 43.1	
	comp=Z,2.9nm,0.9s						
SONM	**Songino Array**	**58.51**	**342**	P	**P**	**15 38 05.3**	**+2.4**
	comp=Z,0.5nm,0.4s,baz=145,slow=4.1,SNR=3.8						
	comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**68.20**	**327**	P	**P**	**15 39 07.5**	**+0.9**
	comp=Z,2.5nm,0.4s,baz=116,slow=8.4,SNR=25						
	comp=Z,2.5nm,0.4s						
MKAR	**Makanchi Array**	**68.20**	**327**	P	**P**	**15 39 07.0**	**+0.5**
MAKZ	**Makanchi**	**68.38**	**327**	P	**P**	**15 39 06.5**	**-1.2**
MAKZ				IAmb	IAmb	15 39 09.0	
	comp=Z,3.5nm,0.9s						
YAK	**Yakutsk**	**69.00**	**360**	P	**P**	**15 39 11.1**	**0.0**
ZAA0	**Zalesovo Array**	**71.61**	**334**	P	**P**	**15 39 26.4**	**-0.8**
ZAA0				IAmb	IAmb	15 39 27.1	
	comp=Z,2.5nm,0.5s						
ZALV	**Zalesovo Beam**	**71.61**	**334**	P	**P**	**15 39 26.4**	**-0.8**
KURBB	**Kurchatov Arra**	**72.50**	**329**	P	**P**	**15 39 33.2**	**+0.7**
	comp=Z,1.9nm,0.6s,baz=130,slow=4.9,SNR=14						
	comp=Z,1.9nm,0.6s						
KURK	**Kurchatov**	**72.51**	**329**	P	**P**	**15 39 32.0**	**-0.6**
KURK				IAmb	IAmb	15 39 35.1	
	comp=Z,3.2nm,0.9s						
BVAR	**Borovoye Array**	**78.05**	**328**	P	**P**	**15 40 04.8**	**+0.6**
	comp=Z,0.9nm,0.5s,baz=116,slow=5.0,SNR=3.9						
	comp=Z,0.9nm,0.5s						
VOI	**Vohitsoka**	**80.79**	**249**	P	**P**	**15 40 22.1**	**+2.2**
VOI				IAmb	IAmb	15 40 25.0	
	comp=Z,5.7nm,1.0s						
QSPA	**South Pole Qui**	**82.80**	**180**	P	**P**	**15 40 31.7**	**+2.1**
	comp=Z,0.6nm,0.7s,baz=348,slow=5.6,SNR=3.9						
	comp=Z,0.6nm,0.7s						
ARTI	**Arti**	**85.77**	**328**	P	**P**	**15 40 44.5**	**0.0**
	comp=Z,2.9nm,0.6s,baz=106,slow=5.1,SNR=2.3						
	comp=Z,2.9nm,0.6s						
ILAR	**Eielson Array**	**93.64**	**25**	P	**P**	**15 41 20.4**	**-1.0**
	comp=Z,0.2nm,0.7s,baz=245,slow=5.2,SNR=4.8						
TORD	**Torodi Ar. Bea**	**128.54**	**281**	PKP	**PKiKP**	**15 47 13.5**	**+0.2**
	comp=Z,0.8nm,0.7s,baz=73,slow=1.5,SNR=3.7						
CPUP	**Villa Florida**	**146.00**	**169**	PKPbc	**PKiKP**	**15 47 47.9**	**-0.7**
	comp=Z,2.0nm,0.6s,baz=174,slow=5.4,SNR=5.8						
LPAZ	**La Paz**	**150.77**	**143**	PKPbc	**PKiKP**	**15 48 01.9**	**+2.4**
	comp=Z,1.3nm,0.4s,baz=207,slow=2.2,SNR=6.0						

*IDC **20** 15:34:04.1±1.0, 36˚.20N×68˚.50E, h0km, mb4.0/16, mbtmp4.0/21, ML3.8/5, MS3.1/9, Error ellipse: s-maj=19.7km s-min=16.6km az=169.0*
*NNC **20** 15:34:13.0±4.4, 36˚.70N×68˚.34E, h27km±39km, mb4.0, mpv3.9, Error ellipse: s-maj=32.1km s-min=20.2km az=3.0*
ISC 20 15:34:08.3±0.7, **36˚.21N**±0˚.07×**68˚.77E**±0˚.07, **h35**km, **n39,** σ**2§07**/39, **mb4.0**/14, **MS3.2**/6, **6C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMU	**Jammu**	**6.06**	**123**	*i* P	**Pn**	**15 35 36.6**	**+1.1**
JMU				IAML		15 37 14.1	
	comp=N,55nm,0.6s						
TSSA	**Tissa**	**6.96**	**117**	*i* P	**Pn**	**15 35 46.8**	**-1.2**
TSSA				*i* S	**Sn**	**15 37 06.4**	**+0.3**
KK31	**Karatay Array**	**7.01**	**11**	Pn	**Pn**	**15 35 49.5**	**+1.0**
	comp=N,1.5nm,0.2s,baz=195,slow=14,SNR=95						
KK31				⇑Sn	**Sn**	**15 37 02.2**	**-4.7**
	comp=N,4.8nm,0.3s,baz=196,slow=22,SNR=4.5						
KK31				Lg	Lg	15 37 43.7	
	comp=N,13nm,0.5s,baz=195,slow=27,SNR=7.0						
ALCI	**Alchi Leh**	**7.17**	**104**	IAML		15 37 12.2	
	comp=N,24nm,0.1s						
DHRM	**DHARAMSHALA**	**7.38**	**120**	*i* P	**Pn**	**15 35 52.4**	**-1.5**
DHRM				*i* S	**Sn**	**15 37 15.7**	**-0.8**
AAK	**Ala-Archa**	**7.79**	**33**	Pn	**Pn**	**15 36 01.8**	**+2.4**
	comp=N,4.3nm,0.3s,baz=176,slow=4.2,SNR=60						
AAK				Sn	**Sn**	**15 37 26.2**	**-0.2**
	comp=N,2.2nm,0.3s,baz=329,slow=22,SNR=7.7						
AAK				LR	LR	15 39 51.3	
	comp=N,75nm,19.3s,baz=218,slow=44						
	comp=N,11nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**7.79**	**33**	⇑Pn	**Pn**	**15 36 02.1**	**+2.8**
	comp=N,4.1nm,0.5s						
AAK				⇓Sn	**Sn**	**15 37 27.2**	**+0.7**
	comp=N,12nm,0.8s						
SMLA	**Simla**	**8.64**	**124**	*i* P	**Pn**	**15 36 09.7**	**-1.1**
SMLA				*i* S	**Sn**	**15 37 42.7**	**-4.3**
KLP	**Kalpa**	**9.16**	**118**	IAML		15 37 39.4	
	comp=N,11nm,0.7s						
KLP				*i* S	**Sn**	**15 37 55.8**	**-4.5**
PDGK	**Podgornoye**	**10.88**	**46**	⇑P	**Pn**	**15 36 44.4**	**+2.7**
	comp=N,1.8nm,0.5s						
AB31	**Akbulak array**	**14.54**	**336**	P	Pn	15 37 26.2	-5.2
	comp=N,2.1nm,0.3s,baz=160,slow=13,SNR=117						
MK31	**Makanchi Array**	**14.62**	**40**	⇑P	**Pn**	**15 37 33.3**	**+0.7**
	comp=N,1.3nm,0.5s,baz=230,slow=11,SNR=4.0						
MKAR	**Makanchi Array**	**14.62**	**40**	Pn	**Pn**	**15 37 33.2**	**+0.7**
	comp=N,0.2nm,0.3s,baz=231,slow=14,SNR=13						
MKAR				LR	LR	15 44 07.5	
	comp=N,43nm,19.3s,baz=219,slow=41						
	comp=N,3.4nm,0.8s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**16.03**	**23**	Pn	**Pn**	**15 37 48.0**	**-2.9**
	comp=N,0.3nm,0.3s,baz=214,slow=9.9,SNR=42						
	comp=N,0.3nm,0.6s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**16.03**	**23**	⇓P	**P**	**15 37 54.5**	**+0.5**
	comp=N,5.7nm,0.7s						
KURK	**Kurchatov**	**16.14**	**23**	⇑P	**P**	**15 37 54.8**	**-0.4**
	comp=N,0.7nm,0.6s						
AKTO	**Aktyubinsk**	**16.20**	**335**	Pn	**Pn**	**15 37 49.2**	**-3.9**
	comp=N,0.8nm,0.3s,baz=139,slow=13,SNR=8.4						
AKTO				Sn	Sn	15 40 35.7	-16
	comp=N,0.2nm,0.3s,baz=85,slow=8.7,SNR=1.8						
AKTO				LR	LR	15 44 55.3	
	comp=N,92nm,19.4s,baz=250,slow=40						
	comp=N,2.0nm,0.4s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**16.20**	**335**	⇑P	**Pn**	**15 37 50.1**	**-3.0**
	comp=N,0.9nm,0.5s						
BVAR	**Borovoye Array**	**16.85**	**3**	Pn	**Pn**	**15 37 58.1**	**-3.2**
	comp=N,0.1nm,0.3s,baz=172,slow=9.7,SNR=11						
	comp=N,1.1nm,0.4s						
BVAR				AML	AML		
ZALV	**Zalesovo Beam**	**20.96**	**27**	P	**P**	**15 38 48.3**	**+0.2**
	comp=N,2.8nm,0.5s,baz=222,slow=10,SNR=16						
	comp=N,2.8nm,0.5s						
ARTI	**Arti**	**21.37**	**344**	P	**P**	**15 38 51.5**	**-1.0**
	comp=N,2.5nm,0.5s,baz=148,slow=9.2,SNR=6.2						
	comp=N,2.5nm,0.5s						
BELG	**Belogornoye**	**22.02**	**324**	P	**P**	**15 38 58.0**	**-1.5**
	comp=N,28nm,0.6s,baz=105,slow=1.9,SNR=9.5						
	comp=N,28nm,0.6s						
BRTR	**Keskin Array B**	**27.81**	**288**	P	**P**	**15 39 55.1**	**+0.8**
	comp=N,1.0nm,0.8s,baz=93,slow=11,SNR=4.4						
	comp=N,1.0nm,0.8s						
SONM	**Songino Array**	**29.98**	**55**	P	P	15 40 17.4	+3.9
	comp=N,0.7nm,0.4s,baz=260,slow=8.6,SNR=2.8						
SONM				LR	LR	15 54 00.0	
	comp=N,51nm,18.7s,baz=300,slow=40						
	comp=N,0.7nm,0.4s						
CMAR	**Chiang Mai Arr**	**31.93**	**116**	LR	LR	15 57 42.8	
	comp=N,13nm,18.0s,baz=270,slow=44						
NRIK	**Noril'sk**	**34.75**	**12**	P	**P**	**15 40 56.4**	**+1.6**
	comp=N,1.9nm,0.3s,baz=211,slow=8.0,SNR=2.9						
	comp=N,1.9nm,0.3s						
FINES	**FINESS Array B**	**36.73**	**327**	P	**P**	**15 41 11.5**	**-0.3**
	comp=N,3.3nm,1.0s,baz=113,slow=8.9,SNR=3.4						
	comp=N,3.3nm,1.0s						
VRAC	**Vranov**	**39.71**	**306**	LR	LR	15 59 36.4	
	comp=N,35nm,18.0s,baz=288,slow=39						
GERES	**GERESS Array B**	**41.63**	**305**	LR	LR	16 03 25.2	
	comp=N,34nm,19.3s,baz=327,slow=42						
HFS	**Hagfors**	**42.19**	**322**	P	**P**	**15 41 57.1**	**-0.2**
	comp=N,3.0nm,0.6s,baz=94,slow=9.3,SNR=9.4						
HFS				LR	LR	16 01 05.6	
	comp=N,58nm,20.0s,baz=58,slow=38						
	comp=N,3.0nm,0.6s						
NB2	**NORSAR Subarra**	**43.53**	**323**	P	**P**	**15 42 07.8**	**-0.5**
	comp=Z,1.1nm,0.5s,baz=98,slow=8.6						
NOA	**NORSAR Array B**	**43.53**	**323**	P	**P**	**15 42 07.9**	**-0.5**
	comp=Z,1.3nm,0.5s,baz=98,slow=8.0,SNR=7.2						
NOA				LR	LR	16 02 58.5	
	comp=Z,31nm,18.4s,baz=215,slow=40						
	comp=Z,1.3nm,0.5s						
SPITS	**Spitsbergen Ar**	**47.37**	**347**	P	**P**	**15 42 39.7**	**+1.3**
	comp=Z,4.5nm,0.8s,baz=124,slow=12,SNR=0.8						
	comp=Z,4.5nm,0.8s						
EKA	**Eskdalemuir Ar**	**51.24**	**316**	P	**P**	**15 43 07.8**	**-0.4**
	comp=Z,1.7nm,0.6s,baz=78,slow=7.4,SNR=4.0						
	comp=Z,1.7nm,0.6s						
TORD	**Torodi Ar. Bea**	**63.91**	**267**	P	**P**	**15 44 37.7**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=53,slow=8.5,SNR=4.2						
	comp=Z,0.7nm,0.6s						
ILAR	**Eielson Array**	**75.53**	**15**	P	**P**	**15 45 49.6**	**+0.8**
	comp=Z,0.5nm,0.9s,baz=343,slow=3.1,SNR=5.7						
	comp=Z,0.5nm,0.9s						
YKA	**Yellowknife Ar**	**81.60**	**2**	P	**P**	**15 46 23.7**	**+1.6**
	comp=Z,0.9nm,0.5s,baz=352,slow=5.4,SNR=9.2						
	comp=Z,0.9nm,0.5s						
WRA	**Warramunga Arr**	**83.38**	**120**	P	**P**	**15 46 33.9**	**+1.8**
	comp=Z,0.3nm,0.8s,baz=327,slow=4.9,SNR=5.3						
	comp=Z,0.3nm,0.8s						
ASAR	**Alice Springs**	**85.58**	**123**	P	**P**	**15 46 45.3**	**+2.1**
	comp=Z,0.1nm,0.4s,baz=307,slow=4.4,SNR=7.2						
	comp=Z,0.1nm,0.4s						

*IDC **20** 16:05:03.4±0.6, 2˚.68S×128˚.85E, h0km, mb4.1/18, mbtmp4.2/21, ML3.9/3, Error ellipse: s-maj=23.3km s-min=12.4km az=82.0*
*NEIC **20** 16:05:04.1±2.5, 2˚.72S±0˚.03×128˚.96E±0˚.06, h10km±1km, mb4.5/25, Error ellipse: s-maj=11.7km s-min=4.4km az=248.0*
*DJA **20** 16:05:08.2±0.2, 3˚S±2˚×12˚9E±˚, h10km, M4.5/23, mB5.0/14, mb4.7/22, MLv4.6/23, Mw(mB)4.3/14*
ISC 20 16:05:05.5±0.5, **2˚.62S**±0˚.06×**128˚.78E**±0˚.07, **h10**km, **n84,** σ**1§97**/62, **mb4.4**/31, **Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**2.20**	**149**	P	**Pn**	**16 05 45.8**	**+3.6**
BNDI				AML	AML		
SANI	**Sanana**	**2.85**	**281**	P	**Pn**	**16 05 50.1**	**-1.0**
SANI				S	**Sn**	**16 06 25.1**	**-0.4**
FAKI	**Fak Fak**	**3.47**	**95**		**Pn**	16 05 55.1	-4.7
FAKI	**Fak Fak**	**3.47**	**95**	P	**Pn**	**16 06 03.4**	**+3.7**
FAKI				AML	AML		
TNTI	**Ternate**	**3.65**	**337**		**Pn**	**16 06 01.7**	**-0.5**
TNTI	**Ternate**	**3.65**	**337**	P	**Pn**	**16 06 04.4**	**+2.2**
MWPI	**Manokwari, Pap**	**5.51**	**72**	P	**Pn**	**16 06 31.9**	**+4.1**
MWPI				AML	AML		
KMSI	**Cibinong**	**5.75**	**303**	P	**Pn**	**16 06 33.2**	**+2.1**
	1µm100nm,0.6s						
LUWI	**Luwuk**	**6.21**	**284**		**Pn**	**16 06 36.2**	**-1.1**
LUWI				Sn	**Sn**	**16 07 49.0**	**+0.6**
LUWI	**Luwuk**	**6.21**	**284**	P	**Pn**	**16 06 37.1**	**-0.2**
	0.4nm974nm62nm,0.6s						
LUWI				AML	AML		
KDI	**Kendari**	**6.30**	**258**	P	**Pn**	**16 06 41.1**	**+2.5**
	0.2nm26nm,0.8s				

MJAR	**Matsushiro Arr**	**39.94**	**12**	P	**P**	**16 12 40.6**	**+0.5**
HHC	**Hu-ho-hao-te**	**46.03**	**342**	*e*P	**P**	**16 13 31.3**	**+1.8**
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
HHC				pmax	pmax		
	comp=Z,91nm,4.0s						
CN2	**Changchun**	**46.30**	**357**	P	P	16 13 25.9	-5.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
USRK	**Ussuriysk Ar.**	**46.70**	**3**	P	**P**	**16 13 34.9**	**+0.4**
	comp=Z,1.1nm,0.5s,baz=172,slow=8.0,SNR=6.8						
	comp=Z,1.1nm,0.5s						
USRK	**Ussuriysk Ar.**	**46.70**	**3**	P	**P**	**16 13 33.4**	**-1.1**
GTA2	**Gaotai**	**49.66**	**330**	*e*P	**P**	**16 13 58.4**	**+0.6**
GTA2				pP	pP	16 14 03.0	+2.2
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SONM	**Songino Array**	**53.93**	**341**	P	**P**	**16 14 29.1**	**-0.3**
	comp=Z,0.4nm,0.4s,baz=148,slow=8.5,SNR=3.0						
	comp=Z,0.4nm,0.4s						
SONM	**Songino Array**	**53.93**	**341**	P	**P**	**16 14 28.6**	**-0.9**
WMQ	**Urumqi**	**59.09**	**326**	*e*P	**P**	**16 15 08.0**	**+1.7**
WMQ				pP	sP	16 15 12.6	+2.1
WMQ				pmax	pmax		
	comp=Z,12nm,0.7s						
PETK	**Petropavlovsk-**	**60.59**	**20**	P	**P**	**16 15 16.7**	**+0.4**
	comp=Z,2.6nm,0.8s,baz=184,slow=4.5,SNR=4.2						
	comp=Z,2.6nm,0.8s						
MKAR	**Makanchi Array**	**63.92**	**326**	P	**P**	**16 15 38.9**	**0.0**
	comp=Z,1.2nm,0.5s,baz=119,slow=8.3,SNR=15						
	comp=Z,1.2nm,0.5s						
MKAR	**Makanchi Array**	**63.92**	**326**	P	**P**	**16 15 38.3**	**-0.5**
ZALV	**Zalesovo Beam**	**67.14**	**334**	P	**P**	**16 15 59.1**	**-0.4**
	comp=Z,1.2nm,0.7s,baz=134,slow=6.2,SNR=4.6						
	comp=Z,1.2nm,0.7s						
ZALV	**Zalesovo Beam**	**67.14**	**334**	P	**P**	**16 15 58.8**	**-0.6**
KURBB	**Kurchatov Arra**	**68.17**	**328**	P	**P**	**16 16 05.7**	**-0.3**
	comp=Z,2.6nm,0.9s,baz=127,slow=5.7,SNR=15						
	comp=Z,2.6nm,0.9s						
KURK	**Kurchatov**	**68.17**	**328**	P	**P**	**16 16 05.9**	**-0.1**
KURK				IAmb	IAmb	16 16 07.8	
	comp=Z,4.8nm,0.8s						
VNDA	**Vanda**	**76.92**	**173**	P	**P**	**16 16 56.8**	**-0.9**
	comp=Z,2.4nm,0.8s,baz=309,slow=6.7,SNR=23						
	comp=Z,2.4nm,0.8s						
VNDA	**Vanda**	**76.92**	**173**	P	**P**	**16 16 56.6**	**-1.1**
VNDA				IAmb	IAmb	16 16 58.2	
	comp=Z,2.6nm,0.8s						
NRIK	**Noril'sk**	**77.04**	**346**	P	**P**	**16 16 58.5**	**+0.1**
	comp=Z,0.9nm,0.3s,baz=104,slow=8.1,SNR=2.2						
	comp=Z,0.9nm,0.3s						
NRIK	**Noril'sk**	**77.04**	**346**	P	**P**	**16 16 57.1**	**-1.4**
NRIK				IAmb	IAmb	16 17 13.1	
	comp=Z,4.0nm,1.1s						
AB31	**Akbulak array**	**78.35**	**321**	P	**P**	**16 17 06.0**	**-0.1**
AB31				IAmb	IAmb	16 17 11.6	
	comp=Z,2.4nm,0.7s						
ABKAR	**Akbulak array**	**78.35**	**321**	P	**P**	**16 17 05.7**	**-0.5**
MAW	**Mawson**	**78.57**	**201**	P	**P**	**16 17 06.7**	**-0.3**
	comp=Z,0.8nm,0.5s,baz=32,slow=9.5,SNR=2.0						
	comp=Z,0.8nm,0.5s						
MAW	**Mawson**	**78.57**	**201**	P	P	16 17 04.7	-2.3
QSPA	**South Pole Qui**	**87.33**	**180**	P	**P**	**16 17 51.2**	**-1.4**
	comp=Z,1.7nm,0.8s,baz=349,slow=5.2,SNR=13						
	comp=Z,1.7nm,0.8s						
QSPA	**South Pole Qui**	**87.33**	**180**	P	**P**	**16 17 51.6**	**-1.1**
QSPA				IAmb	IAmb	16 17 55.5	
	comp=Z,3.3nm,1.1s						
KBZ	**Khabaz**	**88.81**	**314**	P	**P**	**16 17 59.8**	**-0.2**
	comp=Z,3.5nm,1.1s,baz=74,slow=7.4,SNR=1.8						
	comp=Z,3.5nm,1.1s						
ILAR	**Eielson Array**	**89.92**	**25**	P	**P**	**16 18 03.8**	**-0.9**
	comp=Z,0.3nm,0.5s,baz=250,slow=5.1,SNR=9.7						
	comp=Z,0.3nm,0.5s						
BRTR	**Keskin Array B**	**95.62**	**309**	P	**P**	**16 18 31.2**	**-0.6**
	comp=Z,0.7nm,0.9s,baz=77,slow=7.8,SNR=3.5						
	comp=Z,0.7nm,0.9s						
TORD	**Torodi Ar. Bea**	**126.66**	**284**	PKP	**PKPdf**	**16 24 10.7**	**+0.3**
	comp=Z,0.3nm,0.5s,baz=72,slow=2.7,SNR=3.8						
CPUP	**Villa Florida**	**150.62**	**169**	PKPbc	**PKPdf**	**16 24 58.8**	**+5.5**
	comp=Z,0.9nm,0.5s,baz=180,slow=2.7,SNR=8.8						
CPUP	**Villa Florida**	**150.62**	**169**		**PKPdf**	**16 24 52.5**	**-0.8**

*IDC **20** 16:08:06.0±0.6,2°.83S×128°.90E, h0km, mb4.1/17, mbtmp4.1/19, ML4.3/2, MS3.3/6, Error ellipse: s-maj=26.1km s-min=9.3km az=74.0*
*NEIC **20** 16:08:08.4±2.2,2°.72S±0°.08×128°.83E±0°.07, h10km±1km, mb4.3/15, Error ellipse: s-maj=17.0km s-min=6.3km az=44.0*
*DJA **20** 16:08:11.9±0.7,3°S±2°×12°9E±°, h16km±6km, M4.7/24, mb4.8/24, mB5.3/10, MLv4.6/19, Mw(mB)4.7/10*

ISC 20 16:08:11.9±0.5,2°.80S±0°.06×128°.82E±0°.07,h35km,n62,
σ1°22/54,mb4.2/22,MS3.3/4,Ceram Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**2.03**	**148**	P	Pn	16 08 49.9	+6.3
BNDI				AML	AML		
SANI	**Sanana**	**2.92**	**285**	P	Pn	16 08 38.1	-18
FAKI	**Fak Fak**	**3.43**	**92**		**Pn**	**16 09 03.6**	**+0.7**
FAKI	**Fak Fak**	**3.43**	**92**	P	**Pn**	**16 09 04.5**	**+1.6**
FAKI				AML	AML		
TNTI	**Ternate**	**3.83**	**338**		**Pn**	**16 09 07.9**	**-0.5**
TNTI	**Ternate**	**3.83**	**338**	P	**Pn**	**16 09 08.1**	**-0.3**
TNTI				AML	AML		
MWPI	**Manokwari, Pap**	**5.54**	**71**	P	**Pn**	**16 09 33.1**	**+1.2**
LUWI	**Luwuk**	**6.29**	**286**	P	**Pn**	**16 09 42.2**	**0.0**
	0.5nm1μm59nm,0.6s						
LUWI				AML	AML		
BBSI	**Bau Bau**	**6.78**	**247**	P	Pn	16 09 53.6	+4.7
	0.1nm51nm,0.8s						
BBSI				AML	AML		
TOLI2	**Tolitoli**	**8.92**	**296**		**Pn**	**16 10 19.2**	**+0.8**
BKSI	**Bulukumba**	**9.03**	**254**	P	Pn	16 10 24.7	+4.9
	377nm29nm,0.7s						
EDFI	**Ende, Flores**	**9.23**	**230**	P	Pn	16 10 28.7	+6.0
	19nm,0.6s						
KAPI	**Kappang**	**9.31**	**256**	Pn	**Pn**	**16 10 25.6**	**+1.9**
	2.9nm,0.3s,baz=53,slow=14,SNR=4.1						
KAPI				LR	LR	16 14 37.1	
	comp=Z,178nm,18.8s,baz=76,slow=42						
	6.7nm,0.3s						
KAPI				AML	AML		
KHKI	**Kahang-Kahang**	**14.26**	**247**	P	**P**	**16 11 35.4**	**-2.8**
	52nm,0.8s						
FITZ	**Fitzroy Crossi**	**15.52**	**191**	Pn	**Pn**	**16 11 48.0**	**-0.3**
	0.6nm,0.3s,baz=20,slow=9.7,SNR=9.8						
FITZ				LR	LR	16 18 27.9	
	comp=Z,96nm,19.7s,baz=7.0,slow=40						
FITZ	**Fitzroy Crossi**	**15.52**	**191**	Pn	**Pn**	**16 11 45.8**	**-2.5**
SNJI	**Sawahan-Nganju**	**17.69**	**253**	P	**P**	**16 12 19.9**	**+3.4**
	28nm,0.6s						
WB0	**Warramunga Arr**	**17.73**	**163**		**Pn**	**16 12 14.6**	**-1.5**
WB0				IAmb	IAmb	16 12 19.6	
	comp=Z,14nm,0.8s						
WRAB	**Tennant Creek**	**17.87**	**163**	P	**Pn**	**16 12 18.0**	**+0.2**
WRAB				IAmb	IAmb	16 12 20.9	
	comp=Z,17nm,0.9s						
WRA	**Warramunga Arr**	**17.88**	**163**	P	**Pn**	**16 12 17.0**	**-1.0**
	comp=Z,1.3nm,0.3s,baz=343,slow=12,SNR=14						
WRA				S	**Sn**	**16 15 35.8**	**-0.5**
	comp=Z,0.5nm,0.5s,baz=337,slow=22,SNR=1.6						
	comp=Z,11nm,0.7s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.88**	**163**	P	**Pn**	**16 12 18.1**	**+0.1**
WR8	**Warramunga Arr**	**17.93**	**162**		**P**	**16 12 19.3**	**+0.3**
WR8				IAmb	IAmb	16 12 22.3	
	comp=Z,25nm,1.4s						
SMRI	**Semarang**	**18.79**	**256**	P	**Pn**	**16 12 31.5**	**+2.4**
MBWA	**Marble Bar**	**20.28**	**205**		**P**	**16 12 44.7**	**0.0**
MBWA				IAmb	IAmb	16 12 46.2	
	comp=Z,29nm,0.8s						
KPJI	**Karang Pucung**	**20.31**	**256**	P	Pn	16 12 47.8	+0.6
	comp=Z,59nm,0.7s						
AS31	**Alice Springs**	**21.32**	**167**		**P**	**16 12 56.9**	**+0.9**
AS31				IAmb	IAmb	16 12 58.3	
	comp=Z,13nm,0.8s						
ASAR	**Alice Springs**	**21.32**	**167**	P	**P**	**16 12 56.0**	**0.0**
	comp=Z,32nm,0.8s,baz=348,slow=11,SNR=37						
ASAR				S	**S**	**16 16 50.5**	**-0.6**
	comp=Z,5.5nm,1.0s,baz=349,slow=21,SNR=9.4						
	comp=Z,32nm,0.8s						
ASAR	**Alice Springs**	**21.32**	**167**		**P**	**16 12 56.0**	**0.0**
BBJI	**Bungbulang**	**21.58**	**257**		**P**	**16 12 58.0**	**-0.9**
BBJI				IAmb	IAmb	16 13 03.0	
	comp=Z,18nm,0.8s						
STKA	**Stephens Creek**	**31.33**	**159**	P	**P**	**16 14 29.7**	**+0.6**
	comp=Z,1.8nm,0.8s,baz=345,slow=12,SNR=2.9						
	comp=Z,1.8nm,0.8s						
STKA	**Stephens Creek**	**31.33**	**159**	P	**P**	**16 14 28.4**	**-0.7**
CMAR	**Chiang Mai Arr**	**36.21**	**307**	P	**P**	**16 15 12.2**	**+0.5**
	comp=Z,0.3nm,0.5s,baz=126,slow=9.1,SNR=1.2						
	comp=Z,0.3nm,0.5s						
KSRS	**Korea Array**	**40.05**	**359**	LR	LR	16 30 45.9	
	comp=Z,30nm,21.6s,baz=135,slow=34						
HHC	**Hu-ho-hao-te**	**46.21**	**342**	*e*P	**P**	**16 16 36.3**	**+2.6**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,64nm,5.5s						
USRK	**Ussuriysk Ar.**	**46.87**	**3**	P	**P**	**16 16 38.4**	**-0.3**
	comp=Z,0.8nm,0.5s,baz=188,slow=5.8,SNR=4.4						
USRK				LR	LR	16 36 00.8	
	comp=Z,29nm,20.6s,baz=160,slow=36						
	comp=Z,0.8nm,0.5s						
GTA2	**Gaotai**	**49.84**	**331**	*e*P	**P**	**16 17 02.0**	**+0.2**
GTA2				pP	pP	16 17 03.8	-8.3
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.8s						
EVN	**Everest**	**50.65**	**310**		**P**	**16 17 08.7**	**-0.1**
SONM	**Songino Array**	**54.11**	**342**	P	**P**	**16 17 33.3**	**-0.1**
	comp=Z,0.3nm,0.4s,baz=168,slow=7.4,SNR=2.3						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**54.11**	**342**	P	**P**	**16 17 32.6**	**-0.8**
SONM				IAmb	IAmb	16 18 06.2	
	comp=Z,3.0nm,1.5s						
RPZ	**Rata Peaks**	**55.28**	**144**	LR	LR	16 41 21.4	
	comp=Z,30nm,18.5s,baz=360,slow=36						
PETK	**Petropavlovsk-**	**60.75**	**19**	P	**P**	**16 18 18.5**	**-1.5**
	comp=Z,2.9nm,0.9s,baz=202,slow=7.2,SNR=2.2						
	comp=Z,2.9nm,0.9s						
PETK	**Petropavlovsk-**	**60.75**	**19**	P	**P**	**16 18 18.8**	**-1.3**
MKAR	**Makanchi Array**	**64.09**	**326**	P	**P**	**16 18 42.2**	**-0.3**
	comp=Z,1.5nm,0.7s,baz=116,slow=8.9,SNR=7.3						
	comp=Z,1.5nm,0.7s						
ZALV	**Zalesovo Beam**	**67.32**	**334**	P	**P**	**16 19 03.5**	**+0.4**
	comp=Z,1.0nm,0.7s,baz=107,slow=9.2,SNR=4.0						
	comp=Z,1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**67.32**	**334**	P	**P**	**16 19 01.6**	**-1.5**
KURBB	**Kurchatov Arra**	**68.34**	**328**	P	**P**	**16 19 09.0**	**-0.6**
	comp=Z,1.4nm,0.6s,baz=125,slow=5.7,SNR=8.3						
	comp=Z,1.4nm,0.6s						
KURK	**Kurchatov**	**68.34**	**328**	P	**P**	**16 19 08.9**	**-0.8**
KURK				IAmb	IAmb	16 19 12.5	
	comp=Z,2.2nm,0.7s						
BVAR	**Borovoye Array**	**73.90**	**328**	P	**P**	**16 19 42.8**	**-0.5**
	comp=Z,1.0nm,0.5s,baz=114,slow=7.8,SNR=4.1						
	comp=Z,1.0nm,0.5s						
TIXI	**Tiksi**	**74.31**	**0**	LR	LR	16 52 10.4	
	comp=Z,35nm,21.4s,baz=222,slow=36						
VNDA	**Vanda**	**76.73**	**173**	P	**P**	**16 19 59.9**	**+0.7**
	comp=Z,1.5nm,0.7s,baz=316,slow=6.6,SNR=8.1						
	comp=Z,1.5nm,0.7s						
VNDA	**Vanda**	**76.73**	**173**	P	**P**	**16 19 59.7**	**+0.6**
VNDA				IAmb	IAmb	16 20 02.6	
	comp=Z,1.9nm,1.0s						
NRIK	**Noril'sk**	**77.22**	**346**	P	**P**	**16 20 02.3**	**+0.3**
	comp=Z,1.1nm,0.5s,baz=123,slow=7.8,SNR=3.6						
	comp=Z,1.1nm,0.5s						
MAW	**Mawson**	**78.42**	**201**	P	**P**	**16 20 08.8**	**+0.1**
	comp=Z,0.8nm,0.5s,baz=79,slow=8.2,SNR=2.0						
	comp=Z,0.8nm,0.5s						
MAW	**Mawson**	**78.42**	**201**	P	**P**	**16 20 06.6**	**-2.1**
PPT2	**Papeete2**	**81.16**	**107**	*e*LR	LR	16 45 56.1	
	comp=Z,33nm,24.2s						
QSPA	**South Pole Qui**	**87.15**	**180**	P	**P**	**16 20 54.6**	**+0.4**
	comp=Z,1.6nm,0.8s,baz=310,slow=5.0,SNR=8.8						
	comp=Z,1.6nm,0.8s						
QSPA	**South Pole Qui**	**87.15**	**180**	P	**P**	**16 20 54.3**	**0.0**
KBZ	**Khabaz**	**88.96**	**314**	P	**P**	**16 21 03.5**	**+0.4**
	comp=Z,3.8nm,1.0s,baz=104,slow=4.2,SNR=2.6						
	comp=Z,3.8nm,1.0s						
ILAR	**Eielson Array**	**90.07**	**25**	P	**P**	**16 21 07.1**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=250,slow=5.1,SNR=6.5						
	comp=Z,0.3nm,0.5s						
BRTR	**Keskin Array B**	**95.76**	**309**	P	**P**	**16 21 33.8**	**-1.0**
	comp=Z,0.7nm,1.0s,baz=79,slow=4.6,SNR=3.6						
	comp=Z,0.7nm,1.0s						
CPUP	**Villa Florida**	**150.44**	**169**	PKPbc	**PKPbc**	**16 27 58.9**	**-1.7**
	comp=Z,2.2nm,0.8s,baz=214,slow=4.1,SNR=6.3						
CPUP	**Villa Florida**	**150.44**	**169**	PKPbc	**PKiKP**	**16 28 03.0**	**+1.6**

*IDC **20** 16:22:37.9±1.2,30°.22S×179°.31W, h350km±13km, mb3.4/4, mbtmp4.3/6, Error ellipse: s-maj=36.0km s-min=19.2km az=147.0*

ISC 20 16:22:34.9±0.9,30°.56S±0°.07×178°.6W±0°.2,h350km,n44,
σ2°29/55,mb3.6/4,Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**1.41**	**24**	P	**Pn**	**16 23 26.6**	**+4.0**
GLKZ				S	**S**	**16 24 04.4**	**+3.6**
GLKZ				AML	AML		
RAO	**Raoul Island**	**1.42**	**24**	P	**Pn**	**16 23 26.6**	**+3.9**
	397nm,0.3s,baz=38,slow=17,SNR=11						
RAO				S	**S**	**16 23 54.8**	**-6.2**
	394nm,0.2s,baz=103,slow=14,SNR=5.6						
RIZ	**Raoul Island**	**1.43**	**24**	P	**Pn**	**16 23 26.4**	**+3.7**
RIZ				AML	AML		
MXZ	**Matakaoa Point**	**7.45**	**199**	P	**Pn**	**16 24 25.0**	**+2.7**
MXZ				S	**S**	**16 25 50.7**	**+0.8**
GRZ	**Great Barrier**	**7.55**	**220**	P	**Pn**	**16 24 27.8**	**+4.2**
HAZ	**Te Kaha**	**7.79**	**202**	S	**S**	**16 25 58.2**	**+1.0**
PUZ	**Puketiti**	**7.94**	**198**	S	**S**	**16 26 00.8**	**+0.3**
WCZ	**Waipu Caves**	**7.99**	**226**	P	**P**	**16 24 32.8**	**+4.0**
RUGZ	**Raukumara Rang**	**8.01**	**202**	S	**S**	**16 26 00.3**	**-2.0**
TWGZ	**Tauwhareparae**	**8.11**	**200**	P	**P**	**16 24 34.1**	**+0.8**
TWGZ				S	**S**	**16 26 04.7**	**+0.3**
TWGZ				AML	AML		
TWGZ				AML	AML		
WIAZ	**Waiheke Island**	**8.13**	**218**	P	**P**	**16 24 35.4**	**+2.0**
WIAZ				AML	AML		
ABAZ	**Army Bay**	**8.15**	**221**	P	**P**	**16 24 36.3**	**+2.7**
ABAZ				AML	AML		
OPRZ	**Ohinepanea**	**8.31**	**208**	P	**P**	**16 24 35.9**	**+0.6**
OPRZ				AML	AML		
CNGZ	**Carnagh Statio**	**8.34**	**198**	P	**P**	**16 24 37.8**	**+2.1**
CNGZ				AML	AML		
CNGZ				AML	AML		
MKAZ	**Moumakai**	**8.35**	**217**	P	**P**	**16 24 38.2**	**+2.4**
MARZ	**Manawahe**	**8.38**	**207**	P	**P**	**16 24 37.3**	**+1.0**
MWZ	**Matawai**	**8.40**	**201**	P	**P**	**16 24 35.6**	**-0.8**
MWZ				S	**S**	**16 26 10.8**	**+0.3**
MWZ				AML	AML		
MWZ				AML	AML		
TKGZ	**Te Karaka**	**8.40**	**200**	P	**P**	**16 24 35.6**	**-0.7**
TKGZ				S	**S**	**16 26 11.6**	**+1.1**
TKGZ				AML	AML		
TKGZ				AML	AML		
EDZZ	**Edgecumbe**	**8.46**	**206**	P	**P**	**16 24 40.1**	**+2.9**
EDRZ				AML	AML		
EDRZ				AML	AML		
URZ	**Urewera**	**8.47**	**204**	P	**P**	**16 24 37.3**	**+0.3**
	30nm,0.3s,baz=21,slow=12,SNR=44						
URZ				S	**S**	**16 26 08.7**	**-3.3**
	17nm,0.5s,baz=282,slow=22,SNR=9.1						
URZ	**Urewera**	**8.47**	**204**	P	**P**	**16 24 35.8**	**-1.2**
URZ				S	**S**	**16 26 11.3**	**-0.7**
KARZ	**Kaharoa**	**8.59**	**208**	P	**P**	**16 24 41.0**	**+2.6**
KARZ				AML	AML		
KARZ				AML	AML		
MUGZ	**Murupara**	**8.78**	**205**	P	**P**	**16 24 42.2**	**+1.6**
MUGZ				S	**S**	**16 26 20.6**	**+1.7**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**8.83**	**203**	P	**Pn**	**16 24 39.7**	**+0.8**
KNZ	**Kokohu**	**8.99**	**199**	P	**P**	**16 24 42.7**	**-0.2**
TLZ	**Tolley Road**	**9.14**	**210**	P	**P**	**16 24 47.6**	**+2.9**
BKZ	**Black Stump Fm**	**9.49**	**204**	P	**Pn**	**16 24 47.2**	**+0.5**
BKZ				S	**S**	**16 26 33.4**	**-1.2**
HIZ	**Hauiti**	**9.60**	**213**	P	**P**	**16 24 50.7**	**+1.0**
NGZ	**Ngauruhoe**	**9.83**	**207**	P	**P**	**16 24 53.4**	**+0.9**
PWZ	**Pawanui**	**10.16**	**200**	P	**P**	**16 24 55.7**	**-0.2**
PXZ	**Pawanui**	**10.16**	**200**	P	**P**	**16 24 55.3**	**-0.6**
PXZ				S	**S**	**16 26 45.4**	**-3.7**
TSZ	**Takapari Road**	**10.47**	**204**	P	**Pn**	**16 24 57.0**	**-1.3**
TSZ				S	**S**	**16 26 52.6**	**-3.6**
MSVF	**Nonsavu**	**13.13**	**346**	P	**P**	**16 25 26.1**	**-3.1**
	3.4nm,0.5s,baz=177,slow=22,SNR=7.0						
NIUE	**Niue**	**13.86**	**36**	P	Pn	16 25 51.6	+13
STKA	**Stephens Creek**	**33.95**	**257**	P	**P**	**16 28 46.3**	**-0.3**
	1.8nm,0.6s,baz=107,slow=9.4,SNR=6.7						
	1.8nm,0.6s						
ASAR	**Alice Springs**	**42.60**	**267**	P	**P**	**16 29 56.0**	**-2.1**
	0.6nm,0.4s,baz=110,slow=7.9,SNR=23						
	0.6nm,0.4s						
WRA	**Warramunga Arr**	**43.60**	**273**	P	**P**	**16 30 03.0**	**-3.0**
	2.5nm,0.6s,baz=111,slow=8.1,SNR=23						
	2.5nm,0.6s						
FITZ	**Fitzroy Crossi**	**51.86**	**270**	P	**P**	**16 31 06.6**	**-2.1**
	3.1nm,0.8s,baz=112,slow=7.6,SNR=2.9						
	3.1nm,0.8s						
FINES	**FINESS Array B**	**145.12**	**339**	PKP	**PKPab**	**16 41 31.4**	**+0.2**
	3.8nm,0.5s,baz=57,slow=4.0,SNR=38						
NB2	**NORSAR Subarra**	**148.83**	**351**	PKP	**PKiKP**	**16 41 42.5**	**+0.5**
	comp=Z,0.4nm,0.5s,baz=17,slow=2.6						
NOA	**NORSAR Array B**	**148.83**	**351**	PKPbc	**PKiKP**	**16 41 42.0**	**0.0**
	comp=Z,0.5nm,0.6s,baz=16,slow=2.6,SNR=2.0						
HFS	**Hagfors**	**149.29**	**348**	PKPbc	**PKiKP**	**16 41 43.5**	**+0.6**
	comp=Z,2.3nm,0.9s,baz=27,slow=3.8,SNR=7.7						
AKASG	**Malin Array Be**	**151.12**	**322**	PKPbc	**PKiKP**	**16 41 48.2**	**+1.3**
	comp=Z,1.2nm,0.6s,baz=52,slow=2.5,SNR=4.1						
BRTR	**Keskin Array B**	**152.23**	**298**	PKPbc	**PKiKP**	**16 41 50.6**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=101,slow=4.2,SNR=3.2						

*IDC **20** 16:22:40.2±2.0,12°.49N×145°.00E, h51km±16km, mb3.5/11, mbtmp3.8/11, MS3.2/6, Error ellipse: s-maj=31.8km s-min=14.1km az=97.0*

ISC 20 16:22:40.1±1.0,12°.49N±0°.09×145°.0E±0°.2,h50km,n19,
σ0°.88/15,mb3.8/12,MS3.1/5,South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**1.09**	**355**	P	**Pn**	**16 22 58.9**	**-0.2**
	303nm,0.4s,baz=163,slow=20,SNR=46						
GUMO				S	**Sn**	**16 23 13.9**	**+0.6**
	853nm,0.5s,baz=356,slow=21,SNR=5.6						
GUMO				LR	LR	16 23 23.2	
	comp=Z,453nm,19.0s,baz=168,slow=39						
KRVT	**Keravat (AS076**	**18.10**	**157**	LR	LR	16 32 30.6	
	comp=Z,44nm,18.0s,baz=2.5,slow=33						
MJAR	**Matsushiro Arr**	**24.71**	**347**	P	**P**	**16 27 55.8**	**-0.9**
	2.9nm,1.0s,baz=166,slow=10,SNR=3.0						
MJAR				LR	LR	16 37 33.5	
	comp=Z,63nm,19.4s,baz=148,slow=36						
	2.9nm,1.0s						
HNR	**Honiara**	**26.38**	**145**	LR	LR	16 37 00.2	
	comp=Z,54nm,19.4s,baz=50,slow=33						
KSRS	**Korea Array**	**29.16**	**331**	LR	LR	16 40 00.3	
	comp=Z,50nm,18.5s,baz=130,slow=36						
WRA	**Warramunga Arr**	**33.89**	**198**	P	**P**	**16 29 18.3**	**-0.1**
	0.8nm,0.6s,baz=22,slow=9.7,SNR=18						
	0.8nm,0.6s						
FITZ	**Fitzroy Crossi**	**35.89**	**212**	P	**P**	**16 29 35.7**	**+0.1**
	1.4nm,0.9s,baz=37,slow=10,SNR=1.4						
	1.4nm,0.9s						
ASAR	**Alice Springs**	**37.53**	**197**	P	**P**	**16 29 49.8**	**+0.1**
	0.3nm,0.5s,baz=21,slow=9.7,SNR=8.8						
	0.3nm,0.5s						
PETK	**Petropavlovsk-**	**41.77**	**12**	LR	LR	16 52 27.7	
	comp=Z,19nm,18.1s,baz=213,slow=43						
MSVF	**Nonsavu**	**44.37**	**132**	LR	LR	16 47 48.3	
	comp=Z,48nm,20.2s,baz=117,slow=34						
CMAR	**Chiang Mai Arr**	**44.66**	**284**	P	**P**	**16 30 48.8**	**+0.4**
	0.6nm,0.4s,baz=89,slow=5.9,SNR=7.1						
	0.6nm,0.4s						
MKAR	**Makanchi Array**	**62.34**	**316**	P	**P**	**16 32 57.8**	**+0.2**
	0.4nm,0.5s,baz=96,slow=8.7,SNR=4.7						
	0.4nm,0.5s						
ZALV	**Zalesovo Beam**	**62.57**	**325**	P	**P**	**16 33 00.1**	**+1.2**
	0.3nm,0.3s,baz=101,slow=7.5,SNR=2.1						
	0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**65.52**	**320**	P	**P**	**16 33 17.3**	**-1.0**
	0.7nm,0.6s,baz=104,slow=6.9,SNR=5.4						
	0.7nm,0.6s						
ILAR	**Eielson Array**	**69.51**	**25**	P	**P**	**16 33 43.3**	**0.0**
	0.6nm,0.4s,baz=251,slow=5.7,SNR=26						
	0.6nm,0.4s						
BVAR	**Borovoye Array**	**70.84**	**322**	P	**P**	**16 33 52.9**	**+1.2**
	0.9nm,0.5s,baz=90,slow=6.5,SNR=5.7						
	0.9nm,0.5s						
YKA	**Yellowknife Ar**	**83.78**	**27**	P	**P**	**16 35 04.7**	**+0.9**

ISC 20 16:29:13.2±3.0,**3°2'S**±0".3×**128°4'E**±0".4,**h35**km,**n7**,σ1**9**10/7,**Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**1.98**	**132**	P	Pn	16 29 48.3	+4.1
BNDI				AML	AML		
SANI	**Sanana**	**2.69**	**295**	P	**Pn**	**16 29 53.5**	**-0.5**
FAKI	**Fak Fak**	**3.82**	**86**	P	Pn	16 30 01.9	-7.7
FAKI				AML	AML		
FITZ	**Fitzroy Crossi**	**15.06**	**190**	P	**P**	**16 32 49.6**	**+1.2**
	0.1nm,0.3s,baz=11,slow=16,SNR=5.4 1.8nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**17.62**	**161**	P	**Pn**	**16 33 15.5**	**-0.6**
	0.3nm,0.3s,baz=347,slow=13,SNR=19						
WRA				S	**Sn**	**16 36 29.9**	**-1.5**
	2.2nm,1.4s,baz=344,slow=24,SNR=2.3 2.3nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.03**	**166**	P	**P**	**16 33 54.9**	**+0.8**
	8.2nm,0.9s,baz=350,slow=12,SNR=72						
ASAR				S	**S**	**16 37 46.6**	**0.0**
	0.4nm,0.8s,baz=350,slow=21,SNR=3.2 8.2nm,0.9s						
VNDA	**Vanda**	**76.39**	**173**	P	**P**	**16 40 58.6**	**+0.1**
	0.6nm,0.9s,baz=298,slow=6.9,SNR=4.9 0.6nm,0.9s						

*IDC **20** 16:37:59.0±1.6,6°.54N×73°.39W,h132km±18km, mbtmp3.8/1,Error ellipse: s-maj=94.0km s-min=7.9km az=131.0*

*RSNC **20** 16:38:00.2±0.0,7°N±1°×7°.3W±°,h115km±1km,M3.2, mB4.4,mb3.8,ML2.9,Mw(mB)3.5*

ISC 20 16:37:58.3±1.0,**6°58N**±0°.03×**73°50W**±0°.03,**h118**km±6km, **n38**,σ1**9**07/69,**Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VMM10	**El Carmen**	**0.29**	**311**	P	**Pn**	**16 38 15.4**	**+0.4**
VMM10				S	**Sn**	**16 38 27.7**	**+0.1**
BARC	**Barichara**	**0.32**	**87**	P	**Pn**	**16 38 16.2**	**+0.8**
BARC				S	**Sn**	**16 38 28.9**	**+0.7**
BRJC	**Barrancabermej**	**0.46**	**329**	P	**Pn**	**16 38 16.2**	**+0.4**
BRJC				S	**Sn**	**16 38 28.7**	**-0.3**
VMM09	**Lebrija**	**0.59**	**21**	P	**Pn**	**16 38 17.8**	**+1.0**
VMM09				S	**Sn**	**16 38 32.1**	**+1.4**
RUSC	**La Rusia**	**0.80**	**148**	P	**Pn**	**16 38 19.0**	**+0.2**
RUSC				S	**Sn**	**16 38 33.3**	**-1.0**
PTBC	**PUERTO BERRIO,**	**0.95**	**268**	P	**Pn**	**16 38 19.0**	**-0.7**
PTBC				S	**Sn**	**16 38 33.9**	**-1.9**
SPBC	**San Pablo de B**	**1.08**	**212**	P	**Pn**	**16 38 21.0**	**-0.1**
SPBC				S	**Sn**	**16 38 37.7**	**-0.6**
OCAC	**Ocana**	**1.66**	**6**	P	**Pn**	**16 38 28.3**	**+0.6**
OCAC				S	**Sn**	**16 38 50.6**	**+0.5**
NORC	**Norcasia**	**1.69**	**234**	P	**Pn**	**16 38 27.6**	**-0.4**
NORC				S	**Sn**	**16 38 49.9**	**-0.6**
TAMC	**Tame, Arauca**	**1.71**	**95**	P	**Pn**	**16 38 29.1**	**+1.0**
TAMC				S	**Sn**	**16 38 50.1**	**-0.7**
ROSC	**El Rosal**	**1.91**	**205**	P	**Pn**	**16 38 32.1**	**+1.2**
	82nm,0.3s,baz=105,slow=20,SNR=20						
ROSC				S	**Sn**	**16 38 58.5**	**+2.8**
	130nm,0.4s,baz=29,slow=20,SNR=14						
ROSC	**El Rosal**	**1.91**	**205**	P	**Pn**	**16 38 32.7**	**+1.8**
ROSC				S	**Sn**	**16 38 56.9**	**+1.2**
CHIC	**Chingaza**	**1.95**	**187**	P	**Pn**	**16 38 31.8**	**+0.4**
CHIC				S	**Sn**	**16 38 57.0**	**+0.3**
HELC	**Santa Helena**	**2.05**	**259**	P	**Pn**	**16 38 33.6**	**+0.9**
HELC				S	**Sn**	**16 38 59.2**	**+0.3**
CVER	**Cruz Verde, Cu**	**2.12**	**196**	P	**Pn**	**16 38 35.7**	**+2.0**
CVER				S	**Sn**	**16 39 02.5**	**+1.9**
GUY2C	**Guyana, Caldas**	**2.29**	**234**	P	**Pn**	**16 38 36.9**	**+1.1**
GUY2C				S	**Sn**	**16 39 05.4**	**+1.0**
UREC	**San Jos de Ur**	**2.33**	**300**	P	**Pn**	**16 38 36.5**	**+0.6**
UREC				S	**Sn**	**16 39 04.1**	**-0.6**
CBOC	**Ciudad Bolivar**	**2.59**	**254**	P	**Pn**	**16 38 41.0**	**+1.6**
CBOC				S	**Sn**	**16 39 11.7**	**+0.7**
PTGC	**Puerto Gaitan,**	**2.73**	**150**	P	**Pn**	**16 38 40.5**	**-0.5**
PRAC	**Prado**	**3.16**	**206**	P	**Pn**	**16 38 46.8**	**+0.1**
PRAC				S	**Sn**	**16 39 24.3**	**+0.2**
ORTC	**Ortega, Tolima**	**3.17**	**213**	P	**Pn**	**16 38 47.7**	**+0.9**
ORTC				S	**Sn**	**16 39 25.0**	**+0.7**
APAC	**Apartado, Choc**	**3.33**	**294**	P	**Pn**	**16 38 49.6**	**+0.7**
APAC				S	**Sn**	**16 39 27.9**	**0.0**
ARGC	**Ariguani, Magd**	**3.34**	**347**	P	**Pn**	**16 38 51.0**	**+1.9**
URMC	**La Uribe, Meta**	**3.42**	**195**	P	**Pn**	**16 38 51.1**	**+0.9**
URMC				S	**Sn**	**16 39 30.7**	**+0.4**
LCBC	**Los crdobas,**	**3.63**	**309**	P	**Pn**	**16 38 54.0**	**+1.0**
LCBC				S	**Sn**	**16 39 37.3**	**+2.0**
SDV	**Santo Domingo**	**3.65**	**51**	P	**Pn**	**16 38 54.7**	**+1.3**
	16nm,0.3s,baz=199,slow=4.3,SNR=11						
SDV				S	**Sn**	**16 39 36.0**	**0.0**
	94nm,0.4s,baz=78,slow=11,SNR=50						
SDV	**Santo Domingo**	**3.65**	**51**	P	**Pn**	**16 38 54.2**	**+0.8**
SDV				S	**Sn**	**16 39 35.6**	**-0.4**
SJCC	**San Jacinto, C**	**3.69**	**333**	P	**Pn**	**16 38 53.3**	**-0.5**
SJCC				S	**Sn**	**16 39 35.4**	**-1.4**
YOTC	**Yotoco, Valle**	**3.83**	**228**	P	**Pn**	**16 38 51.0**	**+1.9**
GUVC	**San Jose del G**	**4.10**	**168**	P	**Pn**	**16 39 00.2**	**+1.0**
GUVC				S	**Sn**	**16 39 46.0**	**-0.4**
BETC	**Betania**	**4.32**	**207**	P	**Pn**	**16 39 03.0**	**+0.7**
MACC	**Macarena, Meta**	**4.41**	**184**	P	**Pn**	**16 39 02.2**	**-1.2**
MACC				S	**Sn**	**16 39 51.2**	**-2.8**
CRJC	**Cerrejon, Guaj**	**4.46**	**8**	P	**Pn**	**16 39 04.6**	**+0.5**
CRJC				S	**Sn**	**16 39 55.8**	**+0.6**
JAMC	**Jamundi, Valle**	**4.60**	**224**	P	**Pn**	**16 39 05.5**	**-0.6**
SMRC	**Santa Marta, M**	**4.62**	**351**	P	**Pn**	**16 39 07.0**	**+0.9**
SMRC				S	**Sn**	**16 39 58.3**	**-0.5**
URIC	**Uribia, Colomb**	**5.31**	**16**	P	**Pn**	**16 39 15.0**	**-0.4**
	452nm16nm,1.0s						
URIC				S	**Sn**	**16 40 16.0**	**+0.5**
	452nm16nm,1.0s						
URIC				AML	AML		
ASAR	**Alice Springs**	**148.66**	**234**	PKPbc	**PKPbc**	**16 57 31.1**	**-1.5**
	0.2nm,0.5s,baz=118,slow=3.8,SNR=6.0						
WRA	**Warramunga Arr**	**149.89**	**241**	PKPbc	**PKPbc**	**16 57 34.5**	**-1.2**
	0.2nm,0.5s,baz=109,slow=2.8,SNR=8.8						

*IDC **20** 16:41:36.8±0.4,2°.75S×128°.80E,h0km,mb4.4/22, mbtmp4.4/24,ML4.5/2,MS3.6/32,Error ellipse: s-maj=18.1km s-min=8.0km az=74.0*

*BJI **20** 16:41:37.3,2°.76S×128°.71E,h11km,mb4.4/37,mB5.0/11, Ms4.9/3,Ms7 4.6/2*

*MOS **20** 16:41:37.0±0.9,2°.70S×128°.85E,h12km,mb4.9/16,Error ellipse: s-maj=12.1km s-min=6.2km az=113.3*

*NEIC **20** 16:41:38.3±2.2,2°.77S±0°.06×128°.76E±0°.04,h10km±1km, mb5.0/28,Error ellipse: s-maj=12.5km s-min=4.0km az=212.0*

*GFZ **20** 16:41:39.5±0.2,3°S±3°×12°9E±°,h10km,M4.7/19, mb4.9/19*

*DJA **20** 16:41:42.9±0.5,3°S±2°×12°9E±°,h28km±5km,M4.7/61, mB5.2/37,mb5.1/61,MLv5.0/34,Mw(mB)4.6/37, MwMwp4.7/2,Mwp5.1/2*

ISC 20 16:41:38.6±0.3,**2°.73S**±0°.04×**128°.82E**±0°.05,**h10**km,**n290**, σ1**9**61/254,**mb4.7**/76,**MS3.5**/30,**7C-7D,Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**2.09**	**149**	P	**Pg**	**16 42 18.4**	**-0.3**
BNDI				AML	AML		
BNDI	**Bandanaira**	**2.09**	**149**	P	**Pg**	**16 42 17.8**	**-0.9**
SANI	**Sanana**	**2.91**	**283**	P	**Pn**	**16 42 23.6**	**-1.3**
SANI				S	**Sn**	**16 42 57.3**	**-2.7**
SANI	**Sanana**	**2.91**	**283**	P		**16 42 23.7**	**-1.3**
FAKI	**Fak Fak**	**3.43**	**93**		**Pn**	**16 42 33.0**	**+0.8**
FAKI	**Fak Fak**	**3.43**	**93**	P	**Pn**	**16 42 33.5**	**+1.3**
FAKI				AML	AML		
FAKI	**Fak Fak**	**3.43**	**93**	P	**Pn**	**16 42 33.1**	**+0.8**
TNTI	**Ternate**	**3.76**	**337**		**Pn**	**16 42 37.2**	**+0.4**
TNTI				Sn	**Sn**	**16 43 15.4**	**-5.7**
TNTI	**Ternate**	**3.76**	**337**	P	**Pn**	**16 42 36.9**	**+0.1**
TNTI				AML	AML		
TNTI	**Ternate**	**3.76**	**337**	P	**Pn**	**16 42 37.4**	**+0.6**
MWPI	**Manokwari, Pap**	**5.52**	**71**	P	**Pn**	**16 43 04.3**	**+3.4**
MWPI				AML	AML		
MNI	**Manado**	**5.74**	**316**	P	**Pn**	**16 43 04.2**	**+0.2**
	2.5nm266nm,0.6s						
MNI				AML	AML		
SAUI	**Saumlaki**	**5.78**	**155**	Pn	**Pn**	**16 43 04.4**	**-0.1**
KMSI	**Cibinong**	**5.84**	**304**	P	**Pn**	**16 43 07.1**	**+1.7**
LUWI	**Luwuk**	**6.27**	**285**		**Pn**	**16 43 11.6**	**+0.4**
LUWI	**Luwuk**	**6.27**	**285**	P	**Pn**	**16 43 11.9**	**+0.6**
	1.4nm2µm157nm,0.6s						
LUWI				AML	AML		
LUWI	**Luwuk**	**6.27**	**285**	P	**Pn**	**16 43 11.8**	**+0.6**
	comp=Z,154nm,0.6s						
KDI	**Kendari**	**6.31**	**259**	P	**Pn**	**16 43 14.1**	**+2.3**
KDI				AML	AML		
BBSI	**Bau Bau**	**6.81**	**246**	P	Pn	16 43 24.5	+5.8
	comp=Z,0.4nmcomp=Z,1µmcomp=Z,95nm,0.9s						
BBSI				AML	AML		
APSI	**Ampana**	**7.39**	**284**	P	**Pn**	**16 43 27.6**	**+1.0**
BAKI	**Biak**	**7.44**	**78**	P	**Pn**	**16 43 30.0**	**+2.6**
	comp=Z,0.5nmcomp=Z,2µmcomp=Z,125nm,0.7s						
BAKI				AML	AML		
SOEI	**Soe**	**8.32**	**213**	P	Pb	16 43 52.8	-10
MMRI	**Maumere**	**8.79**	**228**	Pn	**Pn**	**16 43 44.5**	**-1.5**
MMRI	**Maumere**	**8.79**	**228**	P	Pn	16 44 03.4	+17
MMRI	**Maumere**	**8.79**	**228**	P	Pn	16 43 51.8	+5.8
	comp=Z,68nm,1.0s						
TOLI2	**Tolitoli**	**8.89**	**295**		**Pn**	**16 43 45.0**	**-2.2**
TOLI2	**Tolitoli**	**8.89**	**295**	P	**Pn**	**16 43 47.8**	**+0.5**
	comp=Z,83nm,0.7s						
BSSI	**Bau Bau, Buton**	**8.97**	**247**	P	Pn	16 43 53.8	+5.5
	comp=Z,854nmcomp=Z,99nm,0.9s						
TTSI	**Tana Toraja**	**8.99**	**268**	P	Pn	16 43 53.5	+4.8
	comp=Z,658nmcomp=Z,74nm,0.8s						
BKSI	**Bulukumba**	**9.05**	**253**	P	Pn	16 43 54.1	+4.7
	comp=Z,1µmcomp=Z,112nm,1.2s						
PCI	**Palu**	**9.16**	**281**	P	**Pn**	**16 43 53.8**	**+2.9**
	comp=Z,4µmcomp=Z,1µmcomp=Z,103nm,1.1s						
EDFI	**Ende, Flores**	**9.28**	**230**	P	Pn	16 43 58.3	+5.6
	comp=Z,636nmcomp=Z,63nm,0.7s						
KAPI	**Kappang**	**9.33**	**256**	Pn	**Pn**	**16 43 56.5**	**+3.3**
	comp=Z,2.3nm,0.3s,baz=120,slow=4.8,SNR=15						
KAPI				LR	LR	16 48 08.2	
	comp=Z,452nm,19.4s,baz=74,slow=42 comp=Z,11nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**9.33**	**256**	P	Pn	16 43 58.5	+5.3
KAPI	**Kappang**	**9.33**	**256**	P	Pn	16 43 58.5	+5.3
	comp=Z,61nm,1.2s						
MMSI	**Mamuju**	**9.90**	**270**	P	Pn	16 44 11.6	+11
PMSI	**Majene**	**9.92**	**265**	P	Pn	16 44 15.5	+14
DAV	**Davao City (W)**	**10.25**	**342**	LR	LR	16 48 58.1	
	comp=Z,561nm,19.2s,baz=94,slow=43						
MTN	**Manton Dam**	**10.31**	**167**	P	**Pn**	**16 44 10.1**	**+3.3**
	comp=Z,14nm,0.7s						
MTN	**Manton Dam**	**10.31**	**167**	P	Pn	16 44 10.9	+4.1
	comp=Z,14nm,0.7s						
MTN	**Manton Dam**	**10.31**	**167**	Pn	**Pn**	**16 44 05.1**	**-1.7**
KDU	**Kakadu**	**10.54**	**160**	P	**Pn**	**16 44 11.6**	**+1.8**
	comp=Z,14nm,0.8s						
KDU	**Kakadu**	**10.54**	**160**	P	**Pn**	**16 44 11.0**	**+1.2**
	comp=Z,14nm,0.8s						
LBFI	**Labuhan Bajo,**	**10.56**	**237**	P	Pn	16 44 15.3	+5.1
WSI	**Waingapu**	**10.92**	**230**	P	Pn	16 44 23.0	+7.9
	comp=Z,2µmcomp=Z,194nm,1.3s						
GENI	**Genyem**	**11.34**	**90**	P	Pn	16 44 32.0	+11
DBNI	**Kabupaten Domp**	**11.92**	**241**	P	Pn	16 44 33.7	+4.9
	comp=Z,785nmcomp=Z,73nm,1.1s						
PLAI	**Plampang**	**12.54**	**241**	P	Pn	16 44 42.9	+5.6
	comp=Z,847nmcomp=Z,120nm,0.9s						
PLAI	**Plampang**	**12.54**	**241**	P	Pn	16 44 42.9	+5.6
	comp=Z,121nm,0.9s						
KNRA	**Kununurra**	**12.87**	**180**	P	**Pn**	**16 44 44.2**	**+2.5**
	comp=Z,28nm,0.9s						
KNRA	**Kununurra**	**12.87**	**180**	P	**Pn**	**16 44 43.8**	**+2.1**
	comp=Z,28nm,0.9s						
KNRA	**Kununurra**	**12.87**	**180**		**Pn**	**16 44 39.3**	**-2.4**
KHKI	**Kahang-Kahang**	**14.29**	**246**	P	**P**	**16 45 09.8**	**+1.4**
	comp=Z,154nm,0.8s						
SRBI	**Singaraja**	**14.55**	**248**	P	**P**	**16 45 13.5**	**+2.2**
ABJI	**Asem Bagus**	**15.37**	**250**	P	**P**	**16 45 25.7**	**+5.3**
FITZ	**Fitzroy Crossi**	**15.59**	**191**	P	**P**	**16 45 20.7**	**-2.3**
FITZ	**Fitzroy Crossi**	**15.59**	**191**	P	**Pn**	**16 45 18.2**	**-0.5**
FITZ	**Fitzroy Crossi**	**15.59**	**191**	Pn	**Pn**	**16 45 16.8**	**-1.9**
	comp=Z,0.5nm,0.3s,baz=33,slow=11,SNR=30						
FITZ				LR	LR	16 51 58.3	
	comp=Z,290nm,20.4s,baz=18,slow=40						
FITZ	**Fitzroy Crossi**	**15.59**	**191**		**Pn**	**16 45 17.8**	**-0.9**
FITZ	**Fitzroy Crossi**	**15.59**	**191**	P	**P**	**16 45 24.1**	**+1.2**
	comp=Z,4.5nm,0.7s						
JAGI	**Jagj, Banyuwa**	**15.67**	**248**	P	**P**	**16 45 26.1**	**+2.3**
	comp=Z,67nm,0.7s						
JAGI	**Jagj, Banyuwa**	**15.67**	**248**	P	**P**	**16 45 23.6**	**-0.2**
	comp=Z,67nm,0.8s						
BLJI	**Banyuglugur**	**15.95**	**251**	P	**P**	**16 45 31.0**	**+4.0**
	comp=Z,120nm,0.7s						
TBJI	**Tambak Boyo**	**17.39**	**256**	P	**P**	**16 45 47.4**	**+4.5**
SJI	**Sawahan**	**17.69**	**253**	P	**P**	**16 45 49.2**	**+2.9**
	comp=Z,179nm,0.7s						
SNJI	**Sawahan-Nganju**	**17.71**	**253**	P	**P**	**16 45 50.7**	**+4.1**
	comp=Z,70nm,0.7s						
PWJI	**Pagerwojo**	**17.73**	**252**	P	**P**	**16 45 50.6**	**+3.9**
WB0	**Warramunga Arr**	**17.79**	**163**	P	**Pn**	**16 45 43.8**	**-2.8**
WB0				IAmb	IAmb	16 45 49.8	
	comp=Z,88nm,1.0s						
WB7	**Warramunga Arr**	**17.86**	**163**	P	**P**	**16 45 47.8**	**-0.3**
WB7	**Warramunga Arr**	**17.86**	**163**	P	**Pn**	**16 45 46.9**	**-0.5**
WRAB	**Tennant Creek**	**17.94**	**163**	*de*P	**Pn**	**16 45 47.6**	**-0.8**
WRAB				pmax	pmax		
	comp=Z,77nm,0.9s						
WRAB	**Tennant Creek**	**17.94**	**163**	P	**Pn**	**16 45 47.0**	**-1.4**
WRAB				IAmb	IAmb	16 45 51.6	
	comp=Z,74nm,1.0s						
WRAB	**Tennant Creek**	**17.94**	**163**	P	**P**	**16 45 48.2**	**-0.8**
	comp=Z,92nm,1.0s						
WRA	**Warramunga Arr**	**17.94**	**163**	P	**Pn**	**16 45 47.1**	**-1.3**
	comp=Z,2.2nm,0.3s,baz=334,slow=13,SNR=84						
WRA				S	**Sn**	**16 49 10.0**	**+1.3**
	comp=Z,1.5nm,0.9s,baz=336,slow=22,SNR=1.9						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.94**	**163**	P	**Pn**	**16 45 43.0**	**-5.5**
WB2	**Warramunga Arr**	**17.95**	**163**	P	**P**	**16 45 50.0**	**+1.0**
WB2	**Warramunga Arr**	**17.95**	**163**	P	**Pn**	**16 45 48.1**	**-0.4**
WC3	**Warramunga Arr**	**17.97**	**163**	P	**P**	**16 45 49.1**	**-0.2**
WC3	**Warramunga Arr**	**17.97**	**163**	P	**Pn**	**16 45 48.1**	**-0.6**
WR7	**Warramunga Arr**	**18.00**	**163**	P	**P**	**16 45 49.4**	**-0.2**
WR7	**Warramunga Arr**	**18.00**	**163**	P	**P**	**16 45 49.4**	**-0.2**
WR8	**Warramunga Arr**	**18.00**	**162**	P	**Pn**	**16 45 47.1**	**-2.1**
SMRI	**Semarang**	**18.80**	**256**	P	**P**	**16 45 54.6**	**-3.9**
SMRI	**Semarang**	**18.80**	**256**	P	**Pn**	**16 46 01.7**	**+2.7**
SMRI	**Semarang**	**18.80**	**256**	P	**Pn**	**16 46 01.7**	**+2.7**
	comp=Z,266nm,1.0s						
PMG	**Port Moresby**	**19.40**	**111**	P	**Pn**	**16 46 05.8**	**-0.3**
	comp=Z,16nm,1.0s,baz=317,slow=11,SNR=2.3						
KPJI	**Karang Pucung**	**20.33**	**256**	P	Pn	16 46 17.9	+0.7
	comp=Z,139nm,0.8s						
MBWA	**Marble Bar**	**20.35**	**205**	P	Pn	16 46 16.7	-0.7
	comp=Z,131nm,0.9s						
MBWA	**Marble Bar**	**20.35**	**205**	P	**P**	**16 46 14.8**	**-0.5**
	comp=Z,131nm,0.9s						
MBWA	**Marble Bar**	**20.35**	**205**	P	**P**	**16 46 12.1**	**-3.3**
MBWA				IAmb	IAmb	16 46 16.4	
	comp=Z,90nm,0.8s						
MBWA	**Marble Bar**	**20.35**	**205**	P	**P**	**16 46 15.0**	**-0.4**
	comp=Z,131nm,0.9s						
QIS	**Mont Isa**	**20.61**	**150**	P	**P**	**16 46 18.9**	**+0.6**
	comp=Z,86nm,1.0s						
QIS	**Mount Isa**	**20.61**	**150**	P	**P**	**16 46 18.6**	**+0.4**
	comp=Z,86nm,1.0s						
QIS	**Mount Isa**	**20.61**	**150**	P	**P**	**16 46 18.6**	**+0.4**
	comp=Z,86nm,1.0s						
QIS	**Mount Isa**	**20.61**	**150**	P	**P**	**16 46 18.8**	**+0.5**
	comp=Z,86nm,1.0s						
TPI	**Tanjungpandan**	**21.14**	**269**	P	**P**	**16 46 26.2**	**+2.2**
AS15	**Alice Springs**	**21.36**	**167**	P	**P**	**16 46 27.3**	**+0.9**
	comp=Z,167nm,0.9s						
AS15	**Alice Springs**	**21.36**	**167**	P	**P**	**16 46 26.6**	**+0.2**
	comp=Z,167nm,0.9s						
AS13	**Alice Springs**	**21.38**	**167**	P	**P**	**16 46 27.6**	**+1.1**
	comp=Z,214nm,0.8s						
AS13	**Alice Springs**	**21.38**	**167**	P	**P**	**16 46 26.7**	**+0.2**
	comp=Z,214nm,0.8s						
AS31	**Alice Springs**	**21.39**	**167**	P	**P**	**16 46 26.7**	**0.0**
	comp=Z,43nm,0.8s						
AS31	**Alice Springs**	**21.39**	**167**	P	**P**	**16 46 27.6**	**+0.9**
	comp=Z,43nm,0.8s						
AS31	**Alice Springs**	**21.39**	**167**	P	**P**	**16 46 26.6**	**-0.1**
	comp=Z,43nm,0.8s						
AS31	**Alice Springs**	**21.39**	**167**	P	**P**	**16 46 22.6**	**-4.1**
AS31				IAmb	IAmb	16 46 28.9	
	comp=Z,49nm,0.8s						
ASAR	**Alice Springs**	**21.39**	**167**	P	**P**	**16 46 26.5**	**-0.2**
	comp=Z,118nm,0.8s,baz=351,slow=11,SNR=716						
ASAR				S	**S**	**16 50 19.9**	**-4.4**
	comp=Z,4.5nm,1.0s,baz=348,slow=20,SNR=4.9						
ASAR				PcP	**PcP**	**16 50 30.5**	**0.0**
	comp=Z,2.4nm,0.6s,baz=347,slow=1.8,SNR=7.5						
ASAR				ScP	**ScP**	**16 54 07.9**	**0.0**
	comp=Z,0.9nm,0.9s,baz=4.0,slow=4.0,SNR=4.4						
ASAR	**Alice Springs**	**21.39**	**167**	P	**P**	**16 46 24.8**	**-1.8**
AS17	**Alice Springs**	**21.41**	**167**	P	**P**	**16 46 27.3**	**+0.4**
	comp=Z,141nm,0.9s						
AS17	**Alice Springs**	**21.41**	**167**	P	**P**	**16 46 27.1**	**+0.2**
	comp=Z,141nm,0.9s						
AS09	**Alice Springs**	**21.43**	**167**	P	**P**	**16 46 27.6**	**+0.5**
	comp=Z,210nm,0.9s						
AS09	**Alice Springs**	**21.43**	**167**	P	**P**	**16 46 27.4**	**+0.4**
	comp=Z,210nm,0.9s						
MTSU	**Mount Surprise**	**21.57**	**136**	P	**P**	**16 46 32.1**	**+3.5**
	comp=Z,14nm,0.9s						
MTSU	**Mount Surprise**	**21.57**	**136**	P	**P**	**16 46 31.8**	**+3.1**
	comp=Z,14nm,0.9s						
BBJI	**Bungbulang**	**21.60**	**257**	P	**P**	**16 46 29.2**	**+0.2**
	comp=Z,514nmcomp=Z,55nm,0.7s						
BBJI	**Bungbulang**	**21.60**	**257**	P	**P**	**16 46 28.6**	**-0.4**
	comp=Z,54nm,0.8s						
WRKA	**Warakurna**	**22.19**	**181**	P	**P**	**16 46 35.9**	**+0.7**
	comp=Z,13nm,0.8s						
WRKA	**Warakurna**	**22.19**	**181**	P	**P**	**16 46 35.1**	**-0.1**
	comp=Z,13nm,0.8s						
GUMO	**Guam**	**22.72**	**44**	LR	LR	16 56 59.4	
	comp=Z,134nm,18.1s,baz=216,slow=41						
KRVT	**Keravat (AS076**	**23.22**	**95**	LR	LR	16 58 25.1	
	comp=Z,263nm,18.1s,baz=298,slow=43						
CTA	**Charters Tower**	**24.24**	**137**	P	**P**	**16 46 56.3**	**+0.4**
CTA	**Charters Tower**	**24.24**	**137**	P	**P**	**16 46 56.5**	**+0.5**
	comp=Z,13nm,0.8s,baz=311,slow=11,SNR=7.9						
CTA				LR	LR	16 59 30.1	
	comp=Z,274nm,18.4s,baz=322,slow=44 comp=Z,13nm,0.8s						
GIRL	**Giralia**	**24.34**	**214**	P	**P**	**16 46 55.1**	**-1.7**
TPRI	**Tanjung Pinang**	**24.55**	**278**	P	P	16 47 06.7	+7.8
BTDF	**Bukit Timah Da**	**25.36**	**279**	P	P	16 47 17.8	+12
MEEK	**Meekatharra**	**25.71**	**201**	P	**P**	**16 47 10.1**	**+0.8**
	comp=Z,47nm,0.7s						
MEEK	**Meekatharra**	**25.71**	**201**	P	**P**	**16 47 09.2**	**-0.1**
	comp=Z,47nm,0.7s						
MEEK	**Meekatharra**	**25.71**	**201**	P	**P**	**16 47 09.9**	**+0.6**
	comp=Z,47nm,0.7s						
MASI	**Maura Aman, Be**	**26.55**	**268**	P	P	16 47 35.7	+19
QLP	**Quilpie**	**27.95**	**149**	P	**P**	**16 47 29.5**	**0.0**
	comp=Z,27nm,1.4s						
QLP	**Quilpie**	**27.95**	**149**	P	**P**	**16 47 30.3**	**+0.9**
	comp=Z,26nm,1.4s						
QLP	**Quilpie**	**27.95**	**149**	P	**P**	**16 47 29.3**	**-0.1**
	comp=Z,27nm,1.4s						
QLP	**Quilpie**	**27.95**	**149**	P	**P**	**16 47 29.5**	**0.0**
	comp=Z,27nm,1.4s						
PPI	**Padang Panjang**	**28.50**	**274**	P	**P**	**16 47 36.6**	**+2.1**
	comp=Z,48nm,0.8s						
QIZ	**Qiongzhong**	**28.56**	**320**	P	**P**	**16 47 33.8**	**-1.1**
QIZ				S	**S**	**16 52 23.3**	**+0.1**
QIZ				pmax	pmax		
	comp=Z,110nm,3.6s						
QIZ				L	L		
	comp=Z,140nm,9.3s						
QIZ				L	L		
	comp=Z,89nm,9.8s						
MORW	**Morawa**	**28.88**	**204**	P	**P**	**16 47 35.2**	**-2.5**
	comp=Z,11nm,1.6s						
MORW	**Morawa**	**28.88**	**204**	P	**P**	**16 47 35.4**	**-2.3**
MORW				IAmb	IAmb	16 48 01.7	
	comp=Z,40nm,1.6s						
KMBL	**Kambalda**	**29.23**	**192**	P	**P**	**16 47 40.8**	**0.0**
	comp=Z,17nm,2.6s						
KMBL	**Kambalda**	**29.23**	**192**	P	**P**	**16 47 41.0**	**+0.2**
	comp=Z,17nm,2.6s						
KMBL	**Kambalda**	**29.23**	**192**	P	**P**	**16 47 39.7**	**-1.1**
	comp=Z,17nm,2.5s						
BLDU	**Ballidu**	**30.01**	**201**	P	**P**	**16 47 50.2**	**+2.5**
	comp=Z,13nm,1.8s						
KLBR	**Kellerberrin**	**30.55**	**199**	P	**P**	**16 47 50.0**	**-2.5**
	comp=Z,27nm,0.5s						
KLBR	**Kellerberrin**	**30.55

XAN	**Xi'an**	**41.09**	**335**	P	**P**	**16 49 23.1**	**+0.3**	
XAN				pmax	pmax			
	comp=Z,5.0nm,0.7s							
DL2	**Dalian**	**41.95**	**352**	*e*P	**P**	**16 49 30.0**	**+0.3**	
DL2				pmax	pmax			
	comp=Z,22nm,0.9s							
MARNC	**Mare, Loyalty**	**42.44**	**119**	P	**P**	**16 49 31.0**	**-2.9**	
LZDM	**Lanzhou Array**	**45.08**	**331**	P	**P**	**16 49 54.8**	**-0.6**	
	comp=Z,0.7nm,0.3s,baz=140,slow=9.2,SNR=1.5							
LZDM				LR	LR	17 11 02.8		
	comp=Z,52nm,20.5s,baz=60,slow=39							
	comp=Z,0.7nm,0.3s							
LZH	**Lanzhou**	**45.11**	**331**	*e*P	P	16 49 50.1	-5.4	
LZH				sP	sP	16 50 00.5	+0.8	
LZH				pmax	pmax			
	comp=Z,10.0nm,1.5s							
HHC	**Hu-ho-hao-te**	**46.14**	**342**	*e*P	**P**	**16 50 05.0**	**+1.5**	
HHC				pmax	pmax			
	comp=Z,12nm,0.6s							
HHC				pmax	pmax			
	comp=Z,120nm,5.6s							
BTO2	**Baotou**	**46.59**	**340**	*e*P	**P**	**16 50 09.4**	**+2.3**	
BTO2				S	**S**	**16 56 58.8**	**+2.6**	
BTO2				pmax	pmax			
	comp=Z,12nm,0.6s							
BTO2				pmax	pmax			
	comp=Z,100nm,4.6s							
BTO2				L	L			
	comp=Z,260nm,5.0s							
BTO2				L	L			
	comp=Z,310nm,10.9s							
BTO2				L	L			
	comp=Z,260nm,8.4s							
USA0B	**Ussuriysk Arra**	**46.80**	**3**‖	*e*P	**P**	**16 50 08.3**	**-0.1**	
USRK	**Ussuriysk Ar.**	**46.80**	**3**	P	**P**	**16 50 08.1**	**-0.3**	
	comp=Z,2.1nm,0.5s,baz=181,slow=7.2,SNR=9.8							
USRK				LR	LR	17 09 30.7		
	comp=Z,78nm,20.1s,baz=171,slow=36							
	comp=Z,2.1nm,0.5s							
ASAJ	**Asahikawa**	**48.24**	**13**	LR	LR	17 09 15.5		
	comp=Z,64nm,21.7s,baz=264,slow=34							
PALK	**Pallekele**	**49.03**	**282**	LR	LR	17 12 25.9		
	comp=Z,62nm,19.5s,baz=112,slow=38							
GTA2	**Gaotai**	**49.77**	**331**	*e*P	**P**	**16 50 31.6**	**-0.1**	
GTA2				sP	sP	16 50 36.8	+0.9	
GTA2				pmax	pmax			
	comp=Z,2.0nm,0.6s							
EVN	**Everest**	**50.61**	**310**	P	**P**	**16 50 39.5**	**+0.7**	
	comp=Z,12nm,1.0s							
KLR	**Kul'dur**	**51.81**	**2**	LR	LR	17 14 44.1		
	comp=Z,40nm,18.2s,baz=176,slow=38							
KLR	**Kul'dur**	**51.81**	**2**‖	*e*P	**P**	**16 50 47.5**	**+0.8**	
KLR				pmax	pmax			
	comp=Z,24nm,2.3s							
HYB	**Hyderabad**	**53.45**	**294**	*e*P	**P**	**16 50 58.0**	**-1.4**	
ULN	**Ulaanbaatar**	**53.86**	**342**‖	*e*P	**P**	**16 51 02.1**	**0.0**	
ULN				pmax	pmax			
	comp=Z,6.0nm,1.1s							
ULN	**Ulaanbaatar**	**53.86**	**342**	P	P	16 51 07.2	+5.1	
ULN	**Ulaanbaatar**	**53.86**	**342**	P	**P**	**16 50 59.0**	**-3.1**	
	comp=Z,5.0nm,0.9s							
SONM	**Songino Array**	**54.04**	**341**	P	**P**	**16 51 02.5**	**-0.9**	
	comp=Z,0.4nm,0.5s,baz=161,slow=9.1,SNR=7.3							
SONM				PcP	**PcP**	**16 52 09.2**	**+0.8**	
	comp=Z,1.7nm,0.7s,baz=163,slow=3.4,SNR=4.7							
SONM				LR	LR	17 14 32.7		
	comp=Z,45nm,21.4s,baz=153,slow=36							
	comp=Z,0.4nm,0.5s							
TUWZ	**Tuamarina**	**55.87**	**140**	P	**P**	**16 51 15.8**	**-0.8**	
TLY	**Talaya**	**58.27**	**342**	LR	LR	17 17 56.1		
	comp=Z,35nm,18.7s,baz=152,slow=37							
WMQ	**Urumqi**	**59.20**	**326**	*e*P	**P**	**16 51 41.8**	**+1.7**	
PETK	**Petropavlovsk-**	**60.68**	**20**	P	**P**	**16 51 50.1**	**+0.1**	
	comp=Z,5.1nm,0.8s,baz=214,slow=6.5,SNR=4.8							
PETK				LR	LR	17 17 05.2		
	comp=Z,28nm,21.3s,baz=193,slow=35							
	comp=Z,5.1nm,0.8s							
ZSN	**Zaisan**	**63.04**	**328**	*e*P	**P**	**16 52 06.8**	**+0.8**	
ZSN	**Zaisan**	**63.04**	**328**	*e*P	**P**	**16 52 06.8**	**+0.8**	
SHLS	**Shalkode**	**63.65**	**322**	*e*P	**P**	**16 52 09.0**	**-1.3**	
SHLS	**Shalkode**	**63.65**	**322**	*e*P	**P**	**16 52 09.0**	**-1.3**	
UZB	**Uzynbulak**	**63.91**	**322**	*e*P	**P**	**16 52 12.5**	**+0.4**	
UZB	**Uzynbulak**	**63.91**	**322**	*e*P	**P**	**16 52 12.5**	**+0.4**	
MK31	**Makanchi Array**	**64.03**	**326**	*d i*P	**P**	**16 52 12.3**	**-0.3**	
MKAR	**Makanchi Array**	**64.03**	**326**	P	**P**	**16 52 12.0**	**-0.6**	
	comp=Z,3.2nm,0.7s,baz=121,slow=8.3,SNR=18							
MKAR				LR	LR	17 21 47.7		
	comp=Z,24nm,19.8s,baz=71,slow=38							
	comp=Z,3.2nm,0.7s							
MKAR	**Makanchi Array**	**64.03**	**326**	P	**P**	**16 52 12.2**	**-0.5**	
MKAR	**Makanchi Array**	**64.03**	**326**	P	**P**	**16 52 12.2**	**-0.5**	
KSH2	**Kashi**	**64.21**	**316**	P	**P**	**16 52 14.9**	**+0.8**	
KSH2				pmax	pmax			
	comp=Z,2.0nm,1.0s							
SATY	**Saty**	**64.25**	**321**	*e*P	**P**	**16 52 14.5**	**+0.2**	
SATY				pmax	pmax			
	comp=Z,5.0nm,0.7s							
SATY	**Saty**	**64.25**	**321**	*e*P	**P**	**16 52 14.5**	**+0.2**	
	comp=Z,4.7nm,0.7s							
MA2	**Magadan**	**64.48**	**12**	LR	LR	17 18 04.5		
	comp=Z,29nm,21.0s,baz=201,slow=34							
MA2	**Magadan**	**64.48**	**12**	*ce*P	**P**	**16 52 16.8**	**+1.6**	
MA2				pmax	pmax			
	comp=Z,67nm,1.6s							
YAK	**Yakutsk**	**64.58**	**0**	LR	LR	17 19 23.2		
	comp=Z,63nm,21.3s,baz=174,slow=35							
YAK	**Yakutsk**	**64.58**	**0**	*e*P	**P**	**16 52 17.4**	**+1.6**	
YAK				pmax	pmax			
	comp=Z,11nm,0.7s							
YAK				pmax	pmax			
	comp=E,8.0nm,1.7s							
YAK				pmax	pmax			
	comp=N,6.0nm,1.3s							
YAK	**Yakutsk**	**64.58**	**0**	P	**P**	**16 52 17.4**	**+1.6**	
	comp=Z,26nm,0.9s							
NRN	**Naryn**	**64.99**	**319**	P	**P**	**16 52 19.2**	**-0.2**	
NRN				pmax	pmax			
	comp=Z,3.0nm,0.8s							
NRN	**Naryn**	**64.99**	**319**	P	**P**	**16 52 19.2**	**-0.2**	
MDOK	**Medeo**	**65.16**	**321**	*e*P	**P**	**16 52 20.4**	**+0.2**	
MDOK	**Medeo**	**65.16**	**321**	*e*P	**P**	**16 52 20.4**	**+0.2**	
TNSS	**Tian-Shan**	**65.16**	**321**	*e*P	**P**	**16 52 20.3**	**-0.2**	
TNSS	**Tian-Shan**	**65.16**	**321**	*e*P	**P**	**16 52 20.4**	**-0.2**	
AAA	**Alma-Ata**	**65.27**	**321**	*e*P	**P**	**16 52 20.9**	**+0.1**	
AAA	**Alma-Ata**	**65.27**	**321**	*e*P	**P**	**16 52 21.0**	**+0.1**	
TDK	**Taldyqorghan**	**65.27**	**323**	*e*P	**P**	**16 52 21.1**	**+0.4**	
TDK	**Taldyqorghan**	**65.27**	**323**	*e*P	**P**	**16 52 21.1**	**+0.4**	
AAK	**Ala-Archa**	**66.55**	**319**	LR	LR	17 25 08.2		
	comp=Z,29nm,19.2s,baz=109,slow=39							
AAK	**Ala-Archa**	**66.55**	**319**‖	*e*P	**P**	**16 52 29.2**	**0.0**	
AAK				pmax	pmax			
	comp=Z,3.0nm,0.8s							
SHEM	**Shemya Is, Ala**	**67.05**	**28**	LR	LR	17 21 36.4		
	comp=Z,15nm,18.1s,baz=290,slow=36							
SEM	**Semipalatinsk**	**67.25**	**329**	*e*P	**P**	**16 52 33.9**	**+0.3**	
SEM	**Semipalatinsk**	**67.25**	**329**	*e*P	**P**	**16 52 33.9**	**+0.3**	
ZALV	**Zalesovo Beam**	**67.25**	**334**	P	**P**	**16 52 31.7**	**-1.5**	
	comp=Z,1.6nm,0.7s,baz=123,slow=5.3,SNR=8.8							
ZALV				LR	LR	17 24 20.8		
	comp=Z,40nm,18.4s,baz=92,slow=38							
	comp=Z,1.6nm,0.7s							
ZALV	**Zalesovo Beam**	**67.25**	**334**		**P**	**16 52 31.3**	**-1.9**	
SEY	**Seymchan**	**67.86**	**11**‖	*e*P	**P**	**16 52 38.1**	**+1.2**	
SEY				pmax	pmax			
	comp=Z,19nm,1.9s							
KURBB	**Kurchatov Arra**	**68.28**	**328**	P	**P**	**16 52 38.5**	**-1.2**	
	comp=Z,4.7nm,0.7s,baz=130,slow=5.7,SNR=32							
	comp=Z,4.7nm,0.7s							
KURK	**Kurchatov**	**68.28**	**328**	*c i*P	**P**	**16 52 39.6**	**-0.2**	
KURK				pmax	pmax			
	comp=Z,14nm,0.9s							
KURK	**Kurchatov**	**68.28**	**328**		**P**	**16 52 39.5**	**-0.2**	
KURK				IAmb	IAmb	16 52 46.0		
	comp=Z,11nm,0.8s							
KURK	**Kurchatov**	**68.28**	**328**	P	**P**	**16 52 39.7**	**0.0**	
	comp=Z,13nm,0.9s							
DZA	**Taraz**	**68.74**	**318**	*e*P	**P**	**16 52 43.2**	**+0.3**	
DZA	**Taraz**	**68.74**	**318**	*e*P	**P**	**16 52 43.2**	**+0.3**	
IUG	**Iuzhnay**	**69.31**	**317**	*e*P	**P**	**16 52 47.0**	**+0.5**	
IUG				pmax	pmax			
	comp=Z,5.0nm,0.7s							
IUG	**Iuzhnay**	**69.31**	**317**	*e*P	**P**	**16 52 47.0**	**+0.5**	
	comp=Z,5.0nm,0.7s							
KKAR	**Karatay Array**	**69.38**	**318**	P	**P**	**16 52 44.3**	**-2.5**	
KKAR	**Karatay Array**	**69.38**	**318**	P	**P**	**16 52 44.3**	**-2.5**	
CHM	**Chimkent**	**69.67**	**317**	*e*P	**P**	**16 52 49.0**	**+0.4**	
CHM	**Chimkent**	**69.67**	**317**	*e*P	**P**	**16 52 49.1**	**+0.4**	
BRLS	**Borolday**	**69.80**	**318**	*e*P	**P**	**16 52 49.8**	**+0.4**	
BRLS	**Borolday**	**69.80**	**318**	*e*P	**P**	**16 52 49.9**	**+0.4**	
BVAR	**Borovoye Array**	**73.84**	**328**	P	**P**	**16 53 12.7**	**-0.8**	
	comp=Z,1.7nm,0.4s,baz=130,slow=8.0,SNR=11							
	comp=Z,1.7nm,0.4s							
TIXI	**Tiksi**	**74.24**	**0**	LR	LR	17 25 40.1		
	comp=Z,104nm,21.2s,baz=188,slow=36							
TIXI	**Tiksi**	**74.24**	**0**‖	*e*P		**16 53 15.5**	**+0.1**	
TIXI				pmax	pmax			
	comp=Z,8.0nm,1.4s							
VNDA	**Vanda**	**76.81**	**173**	P	**P**	**16 53 29.5**	**-0.7**	
	comp=Z,6.9nm,0.8s,baz=313,slow=6.2,SNR=58							
VNDA				LR	LR	17 28 14.8		
	comp=Z,33nm,18.3s,baz=344,slow=36							
	comp=Z,6.9nm,0.8s							
VNDA	**Vanda**	**76.81**	**173**		**P**	**16 53 29.4**	**-0.7**	
VNDA				IAmb	IAmb	16 53 32.2		
	comp=Z,7.5nm,0.9s							
NRIK	**Noril'sk**	**77.15**	**346**	P	**P**	**16 53 32.2**	**+0.1**	
	comp=Z,2.1nm,0.5s,baz=135,slow=5.8,SNR=5.6							
	comp=Z,2.1nm,0.5s							
NRIK	**Noril'sk**	**77.15**	**346**‖	*e*P	**P**	**16 53 31.9**	**-0.3**	
NRIK				pmax	pmax			
	comp=Z,5.0nm,0.9s							
SBA	**Scott Base**	**77.70**	**172**	P	**P**	**16 53 35.7**	**+0.6**	
SBA				pmax	pmax			
	comp=Z,5.0nm,0.8s							
SBA	**Scott Base**	**77.70**	**172**		**P**	**16 53 35.7**	**+0.6**	
ABKAR	**Akbulak array**	**78.45**	**321**		**P**	**16 53 39.0**	**-0.8**	
MAW	**Mawson**	**78.48**	**201**	P	**P**	**16 53 40.0**	**+0.4**	
	comp=Z,2.8nm,1.0s,baz=72,slow=6.4,SNR=6.7							
	comp=Z,2.8nm,1.0s							
RAYN	**Ar Rayn**	**84.95**	**294**	P	**P**	**16 54 13.4**	**-1.4**	
RAYN				pmax	pmax			
	comp=Z,11nm,1.1s							
RAYN	**Ar Rayn**	**84.95**	**294**		**P**	**16 54 13.3**	**-1.4**	
RAYN				IAmb	IAmb	16 54 22.1		
	comp=Z,11nm,1.1s							
KDAK	**Kodiak Island**	**86.22**	**32**	LR	LR	17 25 29.0		
	comp=Z,63nm,20.9s,baz=229,slow=30							
BELG	**Belogornoye**	**86.77**	**323**	*ce*P	**P**	**16 54 23.2**	**+0.2**	
BELG				pmax	pmax			
	comp=Z,5.0nm,0.9s							
QSPA	**South Pole Qui**	**87.22**	**180**	P	**P**	**16 54 24.8**	**-0.4**	
	comp=Z,6.4nm,0.8s,baz=318,slow=1.4,SNR=25							
	comp=Z,6.4nm,0.8s							
QSPA	**South Pole Qui**	**87.22**	**180**	P	**P**	**16 54 25.3**	**+0.1**	
QSPA				IAmb	IAmb	16 54 25.5		
	comp=Z,9.2nm,1.0s							
NCK	**Nalchik**	**88.39**	**313**‖	*e*P	**P**	**16 54 30.2**	**-0.9**	
NCK				pmax	pmax			
	comp=Z,15nm,0.6s							
KBZ	**Khabaz**	**88.91**	**314**	P	**P**	**16 54 33.5**	**0.0**	
	comp=Z,3.3nm,0.9s,baz=104,slow=7.5,SNR=5.5							
	comp=Z,3.3nm,0.9s							
GURO	**Guroymak-BITLI**	**89.16**	**308**	P	**P**	**16 54 35.7**	**+0.7**	
ILAR	**Eielson Array**	**90.01**	**25**	P	**P**	**16 54 37.2**	**-1.0**	
	comp=Z,1.0nm,0.9s,baz=262,slow=5.5,SNR=10							
	comp=Z,1.0nm,0.9s							
I27K	**Kandik River**	**92.28**	**25**	P	**P**	**16 54 48.9**	**+0.1**	
I27K				IAmb	IAmb	16 54 56.4		
	comp=Z,8.2nm,0.9s							
I28M	**Miner Creek**	**92.98**	**25**		**P**	**16 54 51.7**	**-0.4**	
I28M				IAmb	IAmb	16 54 59.0		
	comp=Z,5.9nm,1.0s							
OBN	**Obninsk**	**93.51**	**325**	*e*P	**P**	**16 54 54.4**	**-0.2**	
OBN				*e*		16 58 38.9		
OBN				*e*PPP	PPP	17 00 38.9		
OBN				pmax	pmax			
	comp=Z,7.0nm,1.2s							
G30M	**tAoh Zraii Nji**	**94.44**	**23**	P	**P**	**16 54 56.9**	**-1.8**	
G30M				IAmb	IAmb	16 55 05.8		
	comp=Z,8.7nm,1.1s							
BRTR	**Keskin Array B**	**95.72**	**309**	P	**P**	**16 55 04.3**	**-1.1**	
	comp=Z,1.5nm,0.9s,baz=107,slow=4.3,SNR=7.2							
BRTR				LR	LR	17 45 28.3		
	comp=Z,14nm,18.4s,baz=66,slow=40							
	comp=Z,1.5nm,0.9s							
BRTR	**Keskin Array B**	**95.72**	**309**	P	**P**	**16 55 03.4**	**-1.9**	
SPITS	**Spitsbergen Ar**	**97.17**	**349**	LR	LR	17 45 40.1		
	comp=Z,16nm,19.4s,baz=50,slow=40							
ARCES	**ARCESS Array B**	**97.19**	**340**	LR	LR	17 44 29.2		
	comp=Z,25nm,19.8s,baz=123,slow=39							
AKASG	**Malin Array Be**	**98.18**	**321**	P	Pdif	16 55 15.8	-0.2	
	comp=Z,0.3nm,0.4s,baz=72,slow=5.7,SNR=1.6							
	comp=Z,0.3nm,0.4s							
BOSA	**Boshof**	**100.57**	**240**	P	**Pdif**	**16 55 27.7**	**+0.3**	
	comp=Z,2.8nm,0.8s,baz=98,slow=4.9,SNR=4.9							
TXAR	**Lajitas Array**	**123.65**	**56**	PKP	**PKiKP**	**17 00 37.6**	**-0.2**	
	comp=Z,0.5nm,0.8s,baz=307,slow=2.0,SNR=5.3							
TORD	**Torodi Ar. Bea**	**126.72**	**284**	PKP	**PKiKP**	**17 00 43.4**	**-0.6**	
	comp=Z,1.1nm,0.7s,baz=84,slow=2.6,SNR=5.8							
CPUP	**Villa Florida**	**150.51**	**169**	PKPbc	**PKiKP**	**17 01 31.9**	**-0.3**	
	comp=Z,9.0nm,0.9s,baz=188,slow=3.4,SNR=2.9							
CPUP	**Villa Florida**	**150.51**	**169**		**PKiKP**	**17 01 32.6**	**+0.3**	
NNA	**Nana**	**150.60**	**120**	PKPbc	**PKiKP**	**17 01 33.3**	**+0.5**	
	comp=Z,16nm,0.8s,baz=252,slow=7.8,SNR=3.6							
ATAH	**Atahualpa**	**151.13**	**110**	PKPbc	**PKiKP**	**17 01 35.6**	**+1.3**	
	comp=Z,5.9nm,0.7s,baz=252,slow=2.2,SNR=4.1							
LPAZ	**La Paz**	**154.75**	**139**	PKPbc	**PKiKP**	**17 01 43.5**	**+1.5**	
	comp=Z,0.7nm,0.5s,baz=222,slow=1.9,SNR=4.3							
SIV	**San Ignacio**	**158.99**	**153**	PKPab	**PKPab**	**17 02 15.0**	**+0.8**	
	comp=Z,2.8nm,0.7s,baz=198,slow=5.0,SNR=12							

*SJA **20** 16:54:12.9±0.7, 31°.84S×69°.59W, h120km±3km, ML3.5, MW3.6*
*IDC **20** 16:54:14.5±3.5, 31°.98S×69°.58W, h115km±31km, mb3.3/3, mbtmp3.6/6, MS3.7/1, Error ellipse: s-maj=50.0km s-min=22.4km az=97.0*
ISC 20 16:54:14.4±0.8, 31°.87S±0°.03×69°.59W±0°.03, h116km±6km, n47, σ1s27/77, San Juan Province

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
					Op			
RTLS	**Leoncito**	**0.26**	**75**	*e*P		**Pn**	**16 54 30.0**	**-1.1**
RTLS				IAML			16 54 43.0	
	comp=Z,4μm,0.1s							
RTLS				*e*S		**Sn**	**16 54 43.0**	**-0.6**
ZON	**Zonda**	**0.84**	**68**	*e*P		**Pn**	**16 54 34.2**	**-0.5**
ZON				IAML			16 54 54.6	
	comp=Z,349nm,0.4s							
SJA	**San Juan**	**0.94**	**69**	*e*P		**Pn**	**16 54 31.1**	**-4.5**
SJA				*e*S		**Sn**	**16 54 52.6**	**+1.0**
SJA				IAML			16 54 54.6	
	comp=Z,615nm,0.3s							
RTLL	**Cerro Villicun**	**1.09**	**61**	*e*P		**Pn**	**16 54 36.6**	**-0.5**
RTLL				*e*S		**Sn**	**16 54 53.9**	**-0.4**
RTLL				IAML			16 54 54.8	
	comp=Z,1μm,0.5s							
ARCO	**CERRO ARCO**	**1.12**	**150**	*e*P		**Pn**	**16 54 37.8**	**+0.3**
ARCO				*e*S		**Sn**	**16 54 56.0**	**+1.0**
ARCO				IAML			16 54 56.3	
	comp=Z,1μm,0.5s							
CFA	**Coronel Fontan**	**1.18**	**78**	*e*P		**Pn**	**16 54 37.6**	**-0.4**
CFA				*e*S		**Sn**	**16 54 55.4**	**-0.5**
CFA				IAML			16 54 56.6	
	comp=Z,850nm,0.1s							
VA03	**San Esteban**	**1.21**	**222**	*e*P		**Pn**	**16 54 38.1**	**-0.3**
VA03				*e*S		**Sn**	**16 54 56.9**	**+0.4**
VA03				IAML			16 54 58.1	
	comp=Z,762nm,0.6s							
ACCO	**Cerro Coronel**	**1.35**	**20**	*e*P		**Pn**	**16 54 40.2**	**-0.1**
ACCO				*e*S		**Sn**	**16 55 00.1**	**+0.3**
ACCO				IAML			16 55 02.1	
	comp=Z,831nm,0.2s							
CO02	**Combarbal**	**1.37**	**299**	*e*P		**Pn**	**16 54 39.5**	**-0.7**
CO02				*e*S		**Sn**	**16 54 59.5**	**-0.3**
CO02				IAML			16 55 00.5	
	comp=Z,786nm,0.3s							
AAGR	**Agrelo**	**1.37**	**152**	*e*P		**Pn**	**16 54 40.6**	**+0.4**
AAGR				*e*S		**Sn**	**16 55 00.4**	**+0.5**
AAGR				*e*S			16 55 01.5	
AAGR				IAML			16 55 01.8	
	comp=Z,483nm,0.2s							
CO03	**El Pedregal**	**1.39**	**317**	*e*P		**Pn**	**16 54 40.0**	**-0.4**
CO03				*e*S		**Sn**	**16 55 00.4**	**+0.3**
CO03				IAML			16 55 03.3	
	comp=Z,483nm,0.3s							
PEL	**Peldehue**	**1.57**	**216**	*e*P		**Pn**	**16 54 42.1**	**-0.4**
PEL				*e*S		**Sn**	**16 55 03.7**	**-0.1**
PEL				IAML			16 55 04.5	
	comp=Z,500nm,0.3s							
MT04	**Ro Olivares**	**1.60**	**197**	*e*P		**Pn**	**16 54 43.9**	**+0.9**
MT04				*e*S		**Sn**	**16 55 00.1**	**-4.6**
MT04				IAML			16 55 18.6	
	comp=Z,151nm,0.3s							
MT08	**Bocatoma Ro**	**1.61**	**193**	*e*P		**Pn**	**16 54 44.0**	**+0.8**
MT08				*e*S		Sn	16 54 52.5	-13
AROD	**Rodeo**	**1.70**	**3**	*e*P		**Pn**	**16 54 44.2**	**-0.1**
AROD				*e*S		**Sn**	**16 55 08.0**	**+1.0**
ACDV	**Cuesta del Vie**	**1.74**	**14**	*e*P		**Pn**	**16 54 45.6**	**+1.0**
ACDV				*e*S		**Sn**	**16 55 09.0**	**+1.3**
ACDV				IAML			16 55 09.2	
	comp=Z,222nm,0.4s							
MT03	**Universidad Ad**	**1.80**	**205**	*e*P		**Pn**	**16 54 45.6**	**+0.4**
MT03				*e*S		**Sn**	**16 55 10.0**	**+1.3**
MT03				IAML			16 55 13.6	
	comp=Z,577nm,0.1s							
MT05	**Renca**	**1.80**	**212**	*e*P		**Pn**	**16 54 45.4**	**+0.2**
MT05				*e*S		**Sn**	**16 55 09.8**	**+1.0**
MT05				IAML			16 55 10.3	
	comp=Z,865nm,0.7s							
AVIZ	**Vizcacheras**	**1.84**	**151**	*e*P		**Pn**	**16 54 46.1**	**+0.3**
AVIZ				*e*S		**Sn**	**16 55 10.2**	**+0.5**
MT02	**Curacav**	**1.90**	**223**	*e*P		**Pn**	**16 54 45.6**	**-0.9**
MT02				*e*S		**Sn**	**16 55 10.0**	**-1.0**
MT02				IAML			16 55 10.6	
	comp=Z,258nm,0.5s							
CO01	**Juntas del Tor**	**1.93**	**347**	*e*P		**Pn**	**16 54 47.2**	**+0.1**
MT13	**San Alfonso**	**1.96**	**197**	*e*P		**Pn**	**16 54 46.8**	**-0.5**
MT13				*e*S		**Sn**	**16 55 14.6**	**+2.2**
MT13				IAML			16 55 18.0	
	comp=Z,205nm,0.4s							
GO04	**Tololo Observa**	**1.98**	**328**	*e*P		**Pn**	**16 54 47.0**	**-0.7**
GO04				*e*S		**Sn**	**16 55 13.8**	**+0.7**
GO04				IAML			16 55 15.4	
	comp=Z,372nm,0.2s							
VA01	**Torpederas**	**2.08**	**236**	*e*P		**Pn**	**16 54 47.4**	**-1.3**
VA01				*e*S		**Sn**	**16 55 16.4**	**+1.5**
VA01				IAML			16 55 23.2	
	comp=Z,138nm,0.3s							
AVFE	**Valle Fertil**	**2.19**	**57**	*e*P		**Pn**	**16 54 50.1**	**-0.1**
AVFE				*e*S		**Sn**	**16 55 19.0**	**+1.5**
AVFE				IAML			16 55 19.7	
	comp=Z,115nm,0.3s							
MT01	**Popeta**	**2.43**	**215**	*e*P		**Pn**	**16 54 51.8**	**-1.3**
MT01				*e*S		**Sn**	**16 55 21.9**	**-1.0**
MT01				IAML			16 55 24.2	
	comp=Z,142nm,0.1s							
BO01	**Tunca**	**2.81**	**206**	*e*P		**Pn**	**16 54 56.8**	**-1.3**
BO01				*e*S		**Sn**	**16 55 31.1**	**-0.6**
BO01				IAML			16 55 40.5	
	comp=Z,78nm,0.3s							
LCO	**Las Campanas**	**3.00**	**341**	*e*P		**Pn**	**16 55 00.2**	**-0.7**
LCO				*e*S		**Sn**	**16 55 35.5**	**-1.2**
LCO				IAML			16 55 38.0	
	comp=Z,497nm,0.8s							
RFA	**San Rafael**	**3.04**	**162**	*e*P		**Pn**	**16 55 00.7**	**-0.5**
RFA				*e*S		**Sn**	**16 55 36.7**	**-0.6**
RFA				IAML			16 56 01.8	
	comp=Z,72nm,0.3s							
AC05	**El Transito**	**3.08**	**349**	*e*P		**Pn**	**16 55 01.9**	**+0.1**
AC05				IAML			16 55 42.2	
	comp=Z,95nm,0.2s							
BO02	**Sierra Bellavi**	**3.08**	**199**	*e*P		**Pn**	**16 55 01.5**	**-0.2**
BO02				*e*S		**Sn**	**16 55 39.5**	**+1.3**
BO02				IAML			16 55 43.0	
	comp=Z,143nm,0.5s							
ACLC	**CERRO LA CRUZ**	**3.33**	**44**	*e*P		**Pn**	**16 55 04.0**	**-1.1**
ACLC				*e*S		Sn	16 55 55.9	+12
ACLC				IAML			16 56 09.2	
	comp=Z,83nm,0.4s							
MRA	**San Martin**	**3.33**	**100**	*e*P		Pn	16 54 53.4	-12
MRA				IAML			16 55 34.4	
	comp=Z,161nm,0.5s							
VCA	**Vinchina**	**3.34**	**21**	*e*P		**Pn**	**16 55 06.4**	**+1.1**
VCA				*e*S		**Sn**	**16 55 40.7**	**-3.8**
VCA				IAML			16 55 53.2	
	comp=Z,161nm,0.5s							
GO05	**Hualane**	**3.69**	**211**	*e*P		**Pn**	**16 55 07.5**	**-2.3**
GO05				*e*S		**Sn**	**16 55 51.5**	**-1.1**
GO05				IAML			16 56 00.1	
	comp=Z,60nm,1.1s							
AC04	**Llanos de Chal**	**3.87**	**340**	*e*P		**Pn**	**16 55 11.5**	**-0.7**
AC04				IAML			16 55 59.9	
	comp=Z,74nm,0.4s

PSGCX	**Pisagua**		**1.46**	**190**			**Pn**	17 03 07.7	+0.6
PSGCX					Sn		**Sn**	17 03 27.4	-0.8
PSGCX	**Pisagua**		**1.46**	**190**⇑	*eP*		**Pn**	17 03 07.8	+0.8
PSGCX					*eS*		**Sn**	17 03 28.0	-0.2
PSGCX	**Pisagua**		**1.46**	**190**	P		**Pn**	17 03 08.1	+1.0
PB11	**IPOC Station P**		**1.61**	**174**	*eP*		**Pn**	17 03 10.3	+1.5
PB11					*eS*		**Sn**	17 03 33.3	+2.0
PB11					IAML			17 03 36.4	
	comp=Z,3μm,0.4s								
PB11	**IPOC Station P**		**1.61**	**174**			**Pn**	17 03 10.3	+1.5
PB11					Sn		**Sn**	17 03 32.5	+1.2
PB11	**IPOC Station P**		**1.61**	**174**⇓	*eP*		**Pn**	17 03 10.2	+1.4
PB11					*eS*		**Sn**	17 03 33.0	+1.7
PB11					IAML			17 03 34.5	
	comp=E,8μm,0.3s								
PB11	**IPOC Station P**		**1.61**	**174**	P		**Pn**	17 03 10.4	+1.6
GO01	**Chusmiza**		**1.63**	**158**	*eP*		**Pn**	17 03 11.6	+2.2
GO01					*eS*		**Sn**	17 03 35.6	+3.4
GO01					IAML			17 03 36.6	
	comp=Z,2μm,0.3s								
GO01	**Chusmiza**		**1.63**	**158**			**Pn**	17 03 11.6	+2.2
GO01					Sn		**Sn**	17 03 34.6	+2.4
GO01	**Chusmiza**		**1.63**	**158**⇑	*eP*		**Pn**	17 03 11.6	+2.2
GO01					*eS*		**Sn**	17 03 34.8	+2.5
GO01					IAML			17 03 37.7	
	comp=N,9μm,0.1s								
GO01	**Chusmiza**		**1.63**	**158**	P		**Pn**	17 03 11.7	+2.4
PB08	**IPOC Station P**		**2.08**	**162**			**Pn**	17 03 16.0	+1.3
TA02	**Huaiquique**		**2.12**	**187**	*eP*		**Pn**	17 03 16.2	+1.4
TA02					*eS*		**Sn**	17 03 43.8	+1.8
TA02					IAML			17 03 49.2	
	comp=Z,2μm,0.1s								
TA02	**Huaiquique**		**2.12**	**187**	*eP*		**Pn**	17 03 15.7	+0.9
TA02					*eS*		**Sn**	17 03 41.5	-0.5
TA02					IAML			17 03 43.4	
	comp=E,4μm,0.2s								
TA01	**Diego Aracena**		**2.42**	**188**	*eP*		**Pn**	17 03 19.2	+0.7
TA01					*eS*		**Sn**	17 03 46.6	-2.0
TA01					IAML			17 03 47.8	
	comp=Z,984nm,0.9s								
TA01	**Diego Aracena**		**2.42**	**188**			**Pn**	17 03 18.9	+0.4
TA01					Sn		**Sn**	17 03 44.7	-3.9
TA01	**Diego Aracena**		**2.42**	**188**⇑	*eP*		**Pn**	17 03 18.9	+0.4
TA01					*eS*		**Sn**	17 03 45.8	-2.8
TA01					IAML			17 03 49.3	
	comp=N,1μm,0.5s								
TA01	**Diego Aracena**		**2.42**	**188**	P		**Pn**	17 03 19.2	+0.7
LPAZ	**La Paz**		**2.48**	**42**	P		**Pn**	17 03 21.9	+2.1
	comp=N,859nm,0.4s,baz=227,slow=7.2,SNR=2811								
LPAZ					S		**Sn**	17 03 52.0	+1.2
	comp=N,433nm,0.7s,baz=114,slow=20,SNR=4.4								
LPAZ	**La Paz**		**2.48**	**42**	*eP*		**Pn**	17 03 22.4	+2.6
LPAZ	**La Paz**		**2.48**	**42**			**Pn**	17 03 22.3	+2.4
LPAZ					Sn		**Sn**	17 03 51.9	+1.1
LPAZ	**La Paz**		**2.48**	**42**‖	*eP*		**Pn**	17 03 22.3	+2.6
LPAZ	**La Paz**		**2.48**	**42**	P		**Pn**	17 03 22.5	+2.6
LPAZ	**La Paz**		**2.48**	**42**	*eP*		**Pn**	17 03 18.1	-1.7
PB02	**IPOC Station P**		**3.15**	**181**	*eP*		**Pn**	17 03 29.0	+1.0
PB02					*eS*		**Sn**	17 04 05.6	0.0
PB02					IAML			17 04 10.0	
	comp=Z,2μm,0.2s								
PB02	**IPOC Station P**		**3.15**	**181**			**Pn**	17 03 28.9	+1.0
PB02					Sn		**Sn**	17 04 03.3	-2.3
PB02	**IPOC Station P**		**3.15**	**181**⇑	*eP*		**Pn**	17 03 29.0	+1.0
PB02					*eS*		**Sn**	17 04 05.0	-0.6
PB02					IAML			17 04 10.9	
	comp=E,2μm,0.2s								
PB02	**IPOC Station P**		**3.15**	**181**	P		**Pn**	17 03 29.6	+1.6
PB07	**IPOC Station P**		**3.55**	**181**	*eP*		**Pn**	17 03 34.3	+0.9
PB07					*eS*		**Sn**	17 04 15.9	+0.7
PB07					IAML			17 04 18.5	
	comp=Z,749nm,0.3s								
PB07	**IPOC Station P**		**3.55**	**181**			**Pn**	17 03 34.5	+1.1
PB07					Sn		**Sn**	17 04 13.4	-1.7
PB07	**IPOC Station P**		**3.55**	**181**	*eP*		**Pn**	17 03 34.2	+0.8
PB07					*eS*		**Sn**	17 04 13.6	-1.6
PB07	**IPOC Station P**		**3.55**	**181**	P		**Pn**	17 03 34.8	+1.5
PB09	**IPOC Station P**		**3.67**	**171**	*eP*		**Pn**	17 03 36.4	+1.5
PB09					*eS*		**Sn**	17 04 18.6	+0.7
PB09					IAML			17 04 50.3	
	comp=Z,638nm,0.9s								
PB09	**IPOC Station P**		**3.67**	**171**			**Pn**	17 03 36.2	+1.4
PB09					Sn		**Sn**	17 04 16.4	-1.4
PB09	**IPOC Station P**		**3.67**	**171**⇑	*eP*		**Pn**	17 03 36.2	+1.4
PB09	**IPOC Station P**		**3.67**	**171**	P		**Pn**	17 03 36.5	+1.6
PB03	**IPOC Station P**		**3.87**	**179**	*eP*		**Pn**	17 03 38.5	+0.9
PB03					*eS*		**Sn**	17 04 22.6	-0.1
PB03					IAML			17 04 25.1	
	comp=Z,877nm,0.5s								
PB03	**IPOC Station P**		**3.87**	**179**			**Pn**	17 03 38.2	+0.6
PB03					Sn		**Sn**	17 04 19.7	-3.0
PB03	**IPOC Station P**		**3.87**	**179**⇑	*eP*		**Pn**	17 03 38.4	+0.8
PB03	**IPOC Station P**		**3.87**	**179**	P		**Pn**	17 03 38.9	+1.3
PB06	**IPOC Station P**		**4.53**	**177**	*eP*		**Pn**	17 03 47.2	+0.9
PB06					*eS*		**Sn**	17 04 36.3	-2.1
PB06					IAML			17 04 40.5	
	comp=Z,1μm,1.2s								
PB06	**IPOC Station P**		**4.53**	**177**			**Pn**	17 03 46.5	+0.1
PB06					Sn		**Sn**	17 04 35.0	-3.4
PB06	**IPOC Station P**		**4.53**	**177**⇑	*eP*		**Pn**	17 03 46.8	+0.4
PB06	**IPOC Station P**		**4.53**	**177**	P		**Pn**	17 03 47.1	+0.7
PB05	**IPOC Station P**		**4.69**	**184**	*eP*		**Pn**	17 03 48.7	+0.3
PB05					*eS*		**Sn**	17 04 40.9	-1.1
PB05					IAML			17 04 42.8	
	comp=Z,479nm,1.7s								
PB05	**IPOC Station P**		**4.69**	**184**			**Pn**	17 03 48.1	-0.3
PB05					Sn		**Sn**	17 04 38.1	-3.9
PB05	**IPOC Station P**		**4.69**	**184**‖	*eP*		**Pn**	17 03 48.5	+0.1
PB05	**IPOC Station P**		**4.69**	**184**	P		**Pn**	17 03 48.7	+0.3
AF01	**San Pedro de A**		**5.02**	**162**			**Pn**	17 03 54.7	+1.7
PB10	**IPOC Station P**		**5.37**	**187**			**Pn**	17 03 56.4	-1.0
PB10					Sn		**Sn**	17 04 55.8	-2.5
YJA	**Yavi**		**5.70**	**135**	*eP*		**Pn**	17 04 04.5	+2.3
PB14	**IPOC Station P**		**6.46**	**185**			**Pn**	17 04 10.6	-1.7
PB14					Sn		**Sn**	17 05 20.1	-4.9
SALTA			**6.87**	**152**	P		**Pn**	17 04 19.9	+1.9
	comp=Z,23nm,1.6s								
AC01	**Pan de Azucar**		**7.99**	**185**			**Pn**	17 04 30.6	-2.0
SIV	**San Ignacio**		**8.66**	**77**	P		**Pn**	17 04 40.0	-1.7
	comp=Z,40nm,0.4s,baz=256,slow=12,SNR=32								
SIV					S		**Sn**	**17 06 13.5**	**-4.4**
	comp=Z,48nm,0.7s,baz=354,slow=23,SNR=8.1								
AC02	**Maricunga**		**8.66**	**176**			**Pn**	17 04 41.8	-0.4
AC02					Sn		**Sn**	17 06 16.4	-2.1
BBSD	**Serra de San D**		**8.85**	**85**	*eP*		**Pn**	17 04 42.1	-2.2
NNA	**Nana**		**9.12**	**311**	P		**Pn**	17 04 47.5	-0.6
	comp=Z,52nm,0.3s,baz=140,slow=9.8,SNR=19								
NNA					S		**Sn**	**17 06 25.9**	**-3.3**
	comp=Z,26nm,0.3s,baz=211,slow=12,SNR=4.1								
NNA	**Nana**		**9.12**	**311**			**Pn**	17 04 46.0	-2.1
NNA	**Nana**		**9.12**	**311**	P		**Pn**	17 04 47.7	-0.4
	comp=Z,81nm,0.8s								
AC06	**Mina Casimiro**		**9.17**	**183**			**Pn**	17 04 46.3	-2.3
GO03	**Copiapo**		**9.40**	**182**	Pn		**Pn**	17 04 49.4	-2.3
PTLB	**Pontes e Lacer**		**10.60**	**77**			**Pn**	17 05 05.5	-2.3
PTLB	**Pontes e Lacer**		**10.60**	**77**	*eP*		**Pn**	17 05 05.8	-2.0
VILB	**Vilhena**		**10.63**	**62**	Pn		**Pn**	17 05 06.6	-1.7
VILB	**Vilhena**		**10.63**	**62**	*eP*		**Pn**	17 05 05.9	-2.4
AC05	**El Transito**		**10.64**	**182**			Pn	17 05 03.7	-4.7
AC05	**El Transito**		**10.64**	**182**	P		**Pn**	**17 05 06.0**	**-2.4**
	comp=Z,17nm,0.6s								
CZSB	**Cruzeiro do Su**		**10.73**	**345**			Pn	17 05 04.3	-5.3
CZSB	**Cruzeiro do Su**		**10.73**	**345**	*eP*		**Pn**	17 05 09.2	-0.4
LCO	**Las Campanas**		**10.84**	**184**	Pn		Pn	17 05 05.6	-5.5
COIM	**Forte Coimbra**		**11.53**	**101**	*eP*		**Pn**	17 05 16.5	-3.7
CO01	**Juntas del Tor**		**11.77**	**181**	Pn		**Pn**	17 05 21.3	-2.2
CO01	**Juntas del Tor**		**11.77**	**181**	P		**P**	**17 05 28.7**	**-2.6**
	comp=Z,14nm,1.2s								
GO04	**Tololo Observa**		**12.00**	**184**	Pn		**Pn**	**17 05 23.5**	**-2.9**
CO06	**Fray Jorge**		**12.57**	**187**	Pn		Pn	17 05 29.6	-4.1
BDQN	**Bodoquena, MS**		**12.57**	**103**	*eP*		**Pn**	**17 05 31.3**	**-2.5**
CO03	**El Pedregal**		**12.65**	**183**			**Pn**	**17 05 31.0**	**-3.8**
CO03	**El Pedregal**		**12.65**	**183**	P		**Pn**	**17 05 37.0**	**+2.2**
	comp=Z,14nm,0.7s								
CO02	**Combarbal**		**13.03**	**184**			Pn	17 05 35.5	-4.3
CO02	**Combarbal**		**13.03**	**184**	P		**Pn**	**17 05 38.0**	**-1.8**
	comp=Z,15nm,1.0s								
ZON	**Zonda**		**13.37**	**176**	Pn		**Pn**	**17 05 40.6**	**-3.5**
CFA	**Coronel Fontan**		**13.47**	**174**	P		**Pn**	**17 05 43.9**	**-1.5**
	comp=Z,8.9nm,0.7s,baz=36,slow=19,SNR=16								
CFA					S		Sn	17 08 05.2	-8.8
	comp=Z,1.0nm,0.3s,baz=259,slow=22,SNR=1.9								

AQDB	**Aquidauana**		**13.55**	**102**			**Pn**	**17 05 45.6**	**-0.8**
AQDB	**Aquidauana**		**13.55**	**102**	*eP*		**Pn**	**17 05 45.2**	**-1.2**
SALV	**Santo Antonio**		**13.72**	**83**	*eP*		**Pn**	**17 05 46.3**	**-2.3**
ATAH	**Atahualpa**		**13.76**	**322**	P		**Pn**	**17 05 48.5**	**-1.1**
	comp=Z,2.5nm,0.4s,baz=342,slow=16,SNR=3.7								
CO04	**Los Peladeros**		**13.87**	**184**			**Pn**	**17 05 47.4**	**-3.3**
CO04	**Los Peladeros**		**13.87**	**184**	P		**Pn**	**17 05 52.8**	**+2.2**
	comp=Z,15nm,1.0s								
CPUP	**Villa Florida**		**14.15**	**127**	P		**Pn**	**17 05 52.0**	**-2.1**
	comp=Z,3.3nm,0.5s,baz=309,slow=13,SNR=6.7								
CPUP	**Villa Florida**		**14.15**	**127**			**Pn**	**17 05 52.8**	**-1.2**
CPUP	**Villa Florida**		**14.15**	**127**	P		**Pn**	**17 05 53.0**	**-1.0**
	comp=Z,9.4nm,0.8s								
PDRB	**Porto dos Gac**		**14.24**	**65**	*eP*		**Pn**	**17 05 51.0**	**-4.3**
PP1B	**Ponte de Pedra**		**14.26**	**90**	*eP*		**Pn**	**17 05 53.0**	**-2.5**
VA03	**San Esteban**		**14.56**	**182**			**Pn**	**17 05 56.1**	**-3.2**
VA03	**San Esteban**		**14.56**	**182**	P		**P**	**17 06 04.2**	**+1.9**
	comp=Z,19nm,0.7s								
VA01	**Torpederas**		**14.89**	**186**	Pn		**Pn**	**17 06 01.0**	**-2.4**
PEL	**Peldehue**		**14.95**	**183**	Pn		**Pn**	**17 06 01.4**	**-2.6**
MT02	**Curacav**		**15.09**	**184**			**Pn**	**17 06 03.5**	**-2.3**
MT08	**Bocatoma Ro**		**15.23**	**181**			**Pn**	**17 06 04.8**	**-3.0**
CLDB	**Colider**		**15.40**	**64**	P		**Pn**	**17 06 09.3**	**-0.5**
	comp=Z,219nm,0.7s								
CLDB	**Colider**		**15.40**	**64**	*eP*		**Pn**	**17 06 08.4**	**-1.4**
VA05	**Santo Domingo**		**15.52**	**186**			**Pn**	**17 06 08.2**	**-3.0**
VA05					IAmb		IAmb	17 06 17.1	
	comp=Z,35nm,1.1s								
VA05	**Santo Domingo**		**15.52**	**186**	P		**P**	**17 06 16.6**	**+3.9**
	comp=Z,40nm,1.0s								
MT13	**San Alfonso**		**15.53**	**181**	Pn		**Pn**	**17 06 09.2**	**-2.2**
MT09	**Talagante**		**15.59**	**184**	Pn		**Pn**	**17 06 09.4**	**-2.8**
MT01	**Popeta**		**15.70**	**184**	P		**Pn**	**17 06 11.4**	**-2.0**
MT01					IAmb		IAmb	17 06 20.1	
	comp=Z,26nm,0.9s								
BO04	**La Punta**		**15.78**	**182**	P		**Pn**	**17 06 12.8**	**-1.7**
BO01	**Tunca**		**16.21**	**184**	P		**P**	**17 06 22.9**	**+2.6**
	comp=Z,14nm,1.4s								
BO02	**Sierra Bellavi**		**16.59**	**183**	P		**P**	**17 06 28.6**	**+4.0**
	comp=Z,12nm,0.9s								
ITQB	**Itaqui**		**16.64**	**136**	*eP*		**Pn**	**17 06 24.1**	**-0.9**
PSAL	**Palomas, Salto**		**16.99**	**142**	*eP*		**P**	**17 06 28.3**	**-0.7**
ARAG	**Araguaiana, MT**		**17.42**	**85**	*eP*		**P**	**17 06 33.3**	**-0.6**
PTGB	**Pitanga**		**17.78**	**115**	*eP*		**Pn**	**17 06 38.6**	**-0.4**
PCMB	**Pacaembu**		**17.81**	**104**	P		**P**	**17 06 38.6**	**+0.5**
	comp=Z,52nm,0.8s								
PCMB	**Pacembu**		**17.81**	**104**	*eP*		**P**	**17 06 37.7**	**-0.4**
NPGB	**Novo Progresso**		**17.92**	**54**	*eP*		**P**	**17 06 38.2**	**-1.2**
LDASE	**Londrina, Braz**		**18.26**	**110**	*eP*		**P**	**17 06 43.2**	**+0.1**
BI02	**San Fabin de**		**18.48**	**184**	P		**Pn**	**17 06 50.2**	**+3.1**
	comp=Z,8.6nm,0.9s								
ITAB	**Concordia**		**18.66**	**122**	P		**P**	**17 06 47.5**	**+0.2**
ITAB	**Concordia**		**18.66**	**122**	P		**Pn**	**17 06 48.7**	**-0.5**
	comp=Z,81nm,0.9s								
ITAB	**Concordia**		**18.66**	**122**	*eP*		**P**	**17 06 47.7**	**+0.4**
SNDB	**Serra Nova Dou**		**18.93**	**74**	*eP*		**P**	**17 06 49.7**	**-0.7**
ANCO	**Parque Anchore**		**19.24**	**149**	*eP*		**Pn**	**17 06 55.4**	**-0.5**
CPSB	**Cacapava Do Su**		**19.27**	**132**	P		**P**	**17 06 54.6**	**+0.7**
CPSB	**Cacapava Do Su**		**19.27**	**132**	P		**P**	**17 06 55.0**	**+1.1**
	comp=Z,297nm,0.7s								
CPSB	**Cacapava Do Su**		**19.27**	**132**	*eP*		**P**	**17 06 54.9**	**+0.9**
SLOR	**San Lorenzo -**		**19.29**	**333**	P		**P**	**17 06 52.6**	**-2.2**
SLOR					IAmb		IAmb	17 07 32.0	
	comp=Z,19nm,0.8s								
ITTB	**Itaituba**		**19.45**	**47**	*eP*		**P**	**17 06 55.4**	**-0.6**
OTAV	**Otavalo**		**20.14**	**334**	P		**P**	**17 07 01.1**	**-2.9**
OTAV	**Otavalo**		**20.14**	**334**	P		Pn	17 07 10.6	+3.5
	comp=Z,12nm,0.8s								
OTAV	**Otavalo**		**20.14**	**334**	*eP*		**P**	**17 07 05.1**	**+1.1**
BB19B	**Bebedouro**		**20.29**	**102**	*eP*		**P**	**17 07 04.3**	**-0.7**
IPMB	**Ipameri, GO**		**20.57**	**93**	*eP*		**P**	**17 07 07.2**	**-0.9**
CNLB	**Canela**		**20.60**	**126**	P		**P**	**17 07 07.8**	**-0.5**
	comp=Z,97nm,0.9s								
CNLB	**Canela**		**20.60**	**126**	*eP*		**P**	**17 07 07.4**	**-0.9**
BDFB	**Brasilia**		**21.03**	**86**	P		**P**	**17 07 11.9**	**-1.3**
	comp=Z,39nm,0.7s,baz=264,slow=11,SNR=22								
	comp=Z,39nm,0.7s								
BDFB	**Brasilia**		**21.03**	**86**	P		**P**	**17 07 12.6**	**-0.6**
BDFB					IAmb		IAmb	17 07 17.1	
	comp=Z,35nm,0.8s								
GO06	**Curarrehue**		**21.40**	**183**	P		**P**	**17 07 14.8**	**-2.1**
GO06	**Curarrehue**		**21.40**	**183**	P		**P**	**17 07 19.9**	**+2.9**
	comp=Z,11nm,1.0s								
SPB	**Sao Paulo**		**21.62**	**108**	P		**P**	**17 07 18.3**	**-0.9**
SPB					IAmb		IAmb	17 07 21.5	
	comp=Z,36nm,0.8s								
SPB	**Sao Paulo**		**21.62**	**108**	P		**P**	**17 07 19.4**	**+0.1**
	comp=Z,55nm,0.8s								
SPB	**Sao Paulo**		**21.62**	**108**	*eP*		**P**	**17 07 18.8**	**-0.4**
PET01	**Itanhaem-SP**		**21.89**	**110**	*eP*		**P**	**17 07 21.9**	**-0.3**
VAO	**Valinhos**		**21.95**	**107**	P		**P**	**17 07 21.9**	**-0.9**
VAO	**Valinhos**		**21.95**	**107**	*eP*		**P**	**17 07 22.1**	**-0.7**
LR05	**Currie**		**22.08**	**184**	P		**P**	**17 07 20.6**	**-3.3**
LR05					IAmb		IAmb	17 07 28.0	
	comp=Z,30nm,1.2s								
PMNB	**Patos De Minas**		**22.22**	**95**	P		**P**	**17 07 25.4**	**-0.3**
	comp=Z,77nm,0.8s								
PMNB	**Patos De Minas**		**22.22**	**95**	*eP*		**P**	**17 07 24.8**	**-0.8**
CANS	**Sao Roque de M**		**22.24**	**99**	*eP*		**P**	**17 07 25.1**	**-0.8**
BOAV	**Boa Vista**		**22.39**	**25**	P		**P**	**17 07 26.5**	**-0.7**
BOAV					IAmb		IAmb	17 07 29.2	
	comp=Z,22nm,1.2s								
BOAV	**Boa Vista**		**22.39**	**25**	*eP*		**P**	**17 07 27.2**	**0.0**
PLCA	**Paso Flores**		**22.51**	**181**	P		**P**	**17 07 29.7**	**+1.4**
	comp=Z,5.4nm,0.9s,baz=358,slow=11,SNR=9.5								
	comp=Z,5.4nm,0.9s								
PLCA	**Paso Flores**		**22.51**	**181**	P		**P**	**17 07 27.4**	**-0.9**
PLCA	**Paso Flores**		**22.51**	**181**	*eP*		**P**	**17 07 30.7**	**+2.5**
PARB	**Paraibuna**		**23.22**	**107**	*eP*		**P**	**17 07 35.3**	**+0.1**
SMTB	**Santa Maria do**		**23.50**	**70**			**P**	**17 07 37.7**	**-0.1**
SMTB	**Santa Maria do**		**23.50**	**70**	*eP*		**P**	**17 07 37.7**	**-0.1**
RUSC	**La Rusia**		**24.11**	**352**			**P**	**17 07 43.0**	**-0.8**
RUSC					IAmb		IAmb	17 07 52.0	
	comp=Z,15nm,0.9s								
SDBA	**SAO DESIDERIO**		**24.71**	**80**	*eP*		**P**	**17 07 48.3**	**-0.5**
HELC	**Santa Helena**		**24.83**	**346**	P		**P**	**17 07 48.6**	**-1.6**
HELC					IAmb		IAmb	17 07 57.2	
	comp=Z,7.5nm,0.5s								
DIAM	**Diamantina, MG**		**24.85**	**94**	*eP*		**P**	**17 07 50.0**	**-0.1**
SDV	**Santo Domingo**		**26.88**	**358**	LR		LR	17 18 31.6	
	comp=Z,38nm,20.6s,baz=128,slow=35								
RIB01	**Linhares ES**		**27.90**	**97**	*eP*		**P**	**17 08 17.1**	**-0.2**
MDP	**Montagnes des**		**28.67**	**38**	LR		LR	17 19 18.3	
	comp=Z,47nm,20.6s,baz=171,slow=35								
GUA01	**Guaratinga, BA**		**28.70**	**92**	*eP*		**P**	**17 08 24.2**	**-0.3**
CMC01	**Camacan, BA**		**29.15**	**89**	*eP*		**P**	**17 08 27.8**	**-0.7**
NBPS	**Pedro II - PI**		**30.96**	**67**	*eP*		**P**	**17 08 44.1**	**-0.5**
RCBR	**Riachuelo**		**35.31**	**74**	P		**P**	**17 09 22.2**	**-0.2**
RCBR					IAmb		IAmb	17 09 28.2	
	comp=Z,13nm,0.9s								
PDPR	**Patillas Dam,**		**36.14**	**6**	P		**P**	**17 09 27.9**	**-1.4**
CELP	**Cerrillos**		**36.15**	**5**	P		**P**	**17 09 28.0**	**-1.3**
ECPR	**Experimental S**		**36.41**	**6**	P		**P**	**17 09 30.1**	**-1.4**
DR12	**Loma Pena Alta**		**36.72**	**1**	P		**P**	**17 09 33.0**	**-1.1**
TEIG	**Tepich**		**42.21**	**334**	P		**P**	**17 10 18.3**	**-1.4**
V55A	**Taylorsville**		**54.78**	**349**	P		**P**	**17 11 55.2**	**-0.5**
V55A					IAmb		IAmb	17 11 58.1	
	comp=Z,9.1nm,0.7s								
X48A	**Hartselle**		**54.82**	**343**	P		**P**	**17 11 54.6**	**-1.4**
X48A					IAmb		IAmb	17 11 57.4	
	comp=Z,6.7nm,0.7s								
V53A	**Saluda**		**54.92**	**347**	P		**P**	**17 11 55.1**	**-1.7**
V53A					IAmb		IAmb	17 12 00.6	
	comp=Z,9.5nm,1.0s								
W50A	**Signal Mountai**		**55.06**	**345**	P		**P**	**17 11 56.5**	**-1.3**
W50A					IAmb		IAmb	17 11 59.4	
	comp=Z,11nm,0.9s								
CPCT	**Cooper Cave**		**55.10**	**345**			**P**	**17 11 56.6**	**-1.4**
CPCT					IAmb		IAmb	17 12 01.2	
	comp=Z,12nm,0.8s								
WVT	**Waverly**		**56.61**	**343**	P		**P**	**17 12 06.9**	**-1.8**
WVT					IAmb		IAmb	17 12 09.6	
	comp=Z,5.9nm,0.7s								
T50A	**Nancy**		**56.67**	**346**	P		**P**	**17 12 08.0**	**-1.2**
T50A					IAmb		IAmb	17 12 10.4	
	comp=Z,6.2nm,0.6s								
MIAR	**Mount Ida**		**57.07**	**337**	P		**P**	**17 12 10.4**	**-1.6**
MIAR					pP		**pP**	**17 12 42.6**	**-1.1**
MIAR					IAmb		IAmb	17 12 44.6	
	comp=Z,4.5nm,0.7s								
LNXT	**Lenox**		**57.08**	**341**	P		**P**	**17 12 10.3**	**-1.7**
OZNA	**Ozona**		**57.32**	**328**	P		**P**	**17 12 11.6**	**-2.4**
OZNA					IAmb		IAmb	17 12 47.9	
	comp=Z,9.9nm,1.4s								

TXAR	**Lajitas Array**		**57.40**	**325**	P		**P**	**17 12 16.0**	**+1.4**
	comp=Z,0.9nm,0.7s,baz=148,slow=9.3,SNR=9.4								
TXAR					pP		**pP**	**17 12 46.5**	**+0.3**
	comp=Z,1.2nm,0.6s,baz=152,slow=9.2,SNR=7.2								
TXAR					PcP		**PcP**	**17 13 09.6**	**+2.5**
	comp=Z,0.6nm,0.5s,baz=145,slow=5.7,SNR=6.0								
	comp=Z,0.9nm,0.7s								
TXAR	**Lajitas Array**		**57.40**	**325**	P		**P**	**17 12 14.5**	**-0.1**
P53A	**Whipple**		**58.35**	**350**	P		**P**	**17 12 20.8**	**-0.1**
P53A					pP		**pP**	**17 12 53.0**	**-0.1**
APMT	**Aspermont**		**58.79**	**330**	P		**P**	**17 12 23.3**	**-0.8**
APMT					IAmb		IAmb	17 12 26.6	
	comp=Z,8.9nm,0.7s								
APMT					pP		**pP**	**17 12 56.2**	**+0.5**
SN07	**Snyder 07**		**58.97**	**330**	IAmb		IAmb	17 12 27.5	
	comp=Z,8.8nm,0.9s								
FVM	**French Village**		**59.10**	**341**	P		**P**	**17 12 25.8**	**-0.3**
VHRN	**Van Horn**		**59.24**	**325**	IAmb		IAmb	17 12 29.6	
	comp=Z,4.2nm,0.7s								
S39A	**Bolivar**		**59.78**	**339**	IAmb		IAmb	17 12 39.5	
	comp=Z,5.3nm,0.8s								
MNTX	**Cornudas Mount**		**60.16**	**325**			**P**	**17 12 34.0**	**+0.4**
DBIC	**Dimbokro**		**68.68**	**75**	P		**P**	**17 13 29.1**	**-0.3**
	comp=Z,26nm,0.5s,baz=252,slow=6.4,SNR=28								
DBIC					pP		**pP**	**17 14 01.9**	**-0.7**
	comp=Z,8.7nm,0.8s,baz=299,slow=7.7,SNR=2.5								
DBIC					sP		**sP**	**17 14 16.2**	**-0.9**
	comp=Z,8.6nm,0.8s,baz=243,slow=6.5,SNR=2.2								
	comp=Z,26nm,0.5s								
DBIC	**Dimbokro**		**68.68**	**75**	P		**P**

MSVF LR LR 17 11 00.4
comp=Z,177nm,18.9s,baz=83,slow=31
MSVF Nonsavu 8.10 262 P Pn 17 09 00.8 +8.0
445nm,1.3s
MSVF AML AML
MSVF Nonsavu 8.10 262 Pn 17 09 00.5 +7.7
MSVF Nonsavu 8.10 262 P Pn 17 08 59.8 +7.0
MSVF AML AML
MSVF AML AML
RAO Raoul Island 13.02 197 LR LR 17 14 30.2
comp=Z,109nm,21.1s,baz=109,slow=35
GLKZ Green Lake 13.03 197 P **Pn 17 09 56.8 -3.0**
RAR Rarotonga 13.72 111 P **Pn 17 10 08.8 -0.2**
4.1nm,0.3s,baz=266,slow=6.7,SNR=9.3
15nm,0.5s
RAR AML AML
RAR Rarotonga 13.72 111 P **Pn 17 10 09.0 -0.1**
RAR Rarotonga 13.72 111 P **Pn 17 10 08.8 -0.2**
MARNC Mare, Loyalty 18.03 252 P **Pn 17 11 05.7 +2.3**
627nm,1.1s
MARNC Mare, Loyalty 18.03 252 P 17 11 03.0 +0.1
SANVU Saraoutou 18.56 271 P **P 17 11 08.6 -0.2**
SANVU IAmb IAmb 17 11 16.7
comp=Z,73nm,1.0s
PINNC Pines Island, 18.81 249 P **Pn 17 11 14.1 +1.3**
comp=Z,117nm,1.1s
PINNC Pines Island, 18.81 249 P 17 11 11.9 +0.4
PINNC IAmb IAmb 17 11 26.2
comp=Z,105nm,1.0s
OUENC Ouen Island, N 19.31 250 P **Pn 17 11 18.7 0.0**
comp=Z,78nm,1.1s
OUENC Ouen Island, N 19.31 250 P P 17 11 17.2 +0.2
OUENC IAmb IAmb 17 11 23.7
comp=Z,122nm,1.3s
DZM Mont Dzumac 19.59 251 P **P 17 11 17.8 -2.3**
comp=Z,1.8nm,0.3s,baz=97,slow=17,SNR=12
DZM LR LR 17 18 00.3
comp=Z,190nm,20.8s,baz=91,slow=34
comp=Z,5.0nm,0.6s
DZM AML AML
ONTNC Ouen Toro 19.63 251 P **Pn 17 11 23.3 +0.8**
comp=Z,116nm,0.8s
ONTNC Ouen Toro 19.63 251 P 17 11 20.8 +0.3
NOUC Port Laguerre 19.73 251 P **Pn 17 11 24.2 +0.6**
comp=Z,100nm,1.0s
NFK Norfolk Island 20.93 231 P Pn 17 11 36.4 -1.4
comp=Z,70nm,1.0s
NFK Norfolk Island 20.93 231 P P 17 11 35.2 +0.7
comp=Z,44nm,1.0s
KOUNC Koumac, New Ca 21.34 257 P **P 17 11 39.0 0.0**
KOUNC IAmb IAmb 17 12 00.3
comp=Z,58nm,1.1s
OUZ Omahuta 21.64 210 P P 17 11 42.9 +0.9
OUZ Omahuta 21.64 210 P P 17 11 42.7 +0.8
comp=Z,88nm,1.1s
GRZ Great Barrier 21.69 205 P P 17 11 43.8 +1.3
MXZ Matakaoa Point 21.89 198 P 17 11 45.9 +1.3
MXZ Matakaoa Point 21.89 198 P P 17 11 44.2 -0.4
WCZ Waipu Caves 21.89 207 P P 17 11 45.3 +0.7
HAZ Te Kaha 22.22 198 P P 17 11 49.2 +1.1
HAZ S **S 17 15 47.4 -0.8**
MYRZ Mayor Island 22.30 202 P P 17 11 52.4 +3.3
MBAZ Motutapu North 22.36 205 P P 17 11 51.4 +1.7
PUZ Puketiti 22.38 197 P P 17 11 50.0 +0.1
PUZ S **S 17 15 43.2 -7.7**
RUGZ Raukumara Rang 22.45 198 P P 17 11 52.1 +1.3
RUGZ S **S 17 15 50.5 -1.8**
TWGZ Tauwhareparae 22.55 198 P P 17 11 54.9 +3.1
WHRZ Whale Island 22.57 200 P P 17 11 55.8 +3.9
TGRZ Tauranga 22.70 201 P P 17 11 56.4 +3.1
OPRZ Ohinepanea 22.70 201 P P 17 11 55.6 +2.3
CNGZ Carnagh Statio 22.77 197 P P 17 11 56.4 +2.3
MWZ Matawai 22.83 198 P P 17 11 55.5 +0.7
TKGZ Te Karaka 22.84 198 P P 17 11 57.2 +2.6
PPT2 Papeete2 22.89 95 *eP* **P 17 11 55.8 +0.3**
comp=Z,100nm,28.0s
PPT2 *es*S sS 17 16 47.2 +20
comp=Z,624nm,30.5s
PPT Papeete 22.89 95 P **P 17 11 56.9 +1.4**
comp=Z,32nm,0.8s,baz=269,slow=9.9,SNR=3.8
PPT LR LR 17 19 29.2
comp=Z,34nm,19.0s,baz=214,slow=33
comp=Z,32nm,0.8s
URZ Urewera 22.89 199 LR LR 17 19 22.6
comp=Z,241nm,19.4s,baz=12,slow=33
URZ Urewera 22.89 199 P **P 17 11 55.2 -0.1**
comp=Z,157nm,0.8s
URZ Urewera 22.89 199 P P 17 11 55.1 -0.1
URZ S **S 17 16 01.1 +1.8**
URZ Urewera 22.89 199 P **P 17 11 54.3 -0.9**
comp=Z,157nm,0.8s
PPTF Pamatai, Papee 22.90 95 P **P 17 11 56.9 +1.2**
PPTF IAmb IAmb 17 12 06.8
comp=Z,94nm,1.3s
PPTF Pamatai, Papee 22.90 95 P **P 17 11 58.2 +2.6**
comp=Z,78nm,2.0s
KMRZ Kaimai 22.91 202 P P 17 11 57.9 +2.3
KARZ Kaharoa 22.96 201 P **P 17 11 55.6 -0.4**
TOZ Tahuroa Road 22.97 203 P 17 11 56.5 +0.5
RAGZ Rawiri 23.02 198 P P 17 11 58.4 +1.8
NGRZ Ngongotaha 23.05 201 P P 17 11 57.7 +0.7
TARZ Mount Tarawera 23.07 200 P P 17 11 59.8 +2.7
RIGZ Rimuhau 23.11 198 P P 17 11 59.5 +2.1
RTZ Ruatahuna 23.26 199 P 17 11 59.3 +0.4
HRRZ Handcock Road 23.28 201 P P 17 12 02.9 +3.8
GRRZ Galatos Road 23.30 201 P P 17 12 03.2 +3.9
ALRZ Allen Road 23.42 200 P P 17 12 03.4 +3.1
TBI Tubuai 23.50 110 *es*S sS 17 17 01.4 +23
comp=Z,3µm,33.2s
RAHZ Arahi 23.50 199 P P 17 12 03.5 +2.4
ARHZ Aropaoanui 23.85 198 P P 17 12 06.9 +2.8
HIZ Hauiti 23.90 203 P P 17 12 06.1 +1.5
HIZ Hauiti 23.90 203 P P 17 12 06.9 +2.3
comp=Z,252nm,1.2s
BKZ Black Stump Fm 23.92 199 P P 17 12 06.1 +1.3
comp=Z,29nm,0.9s
OTVZ Oturere 24.19 201 P P 17 12 07.8 +0.4
OTVZ S **S 17 16 22.3 +1.7**
XMAS Kiritimati 24.56 42 P P 17 12 09.7 -1.0
BFZ Birch Farm 25.38 198 P P 17 12 17.8 -0.2
BFZ Birch Farm 25.38 198 P P 17 12 17.2 -0.8
comp=Z,79nm,0.9s
MRZ Mangatainoka R 25.57 199 P P 17 12 19.0 -0.7
MRZ IAmb IAmb 17 12 22.4
comp=Z,45nm,1.1s
SNZO South Karori 26.44 200 P P 17 12 27.6 +0.1
SNZO South Karori 26.44 200 P P 17 12 28.9 +1.3
comp=Z,91nm,0.9s
BHW Baring Head 26.47 200 P P 17 12 28.4 +0.5
TCW Tory Channel 26.49 201 P P 17 12 28.0 -0.1
QRZ Quartz Range 26.79 204 P P 17 12 31.9 +1.1
comp=Z,568nm,0.7s
QRZ Quartz Range 26.79 204 P P 17 12 31.8 +0.9
QRZ Quartz Range 26.79 204 P P 17 12 32.4 +1.6
TUWZ Tuamarina 26.80 201 P P 17 12 31.3 +0.5
TKNZ Takaka Hill 26.81 203 P P 17 12 31.4 +0.4
NNZ Nelson 26.81 202 P P 17 12 31.4 +0.5
HNR Honiara 26.83 283 LR LR 17 20 23.8
comp=Z,90nm,21.1s,baz=204,slow=30
SAVO Savo Central 27.05 283 P **P 17 12 33.8 +0.4**
comp=Z,41nm,1.1s
MRNZ Matariki Terra 27.20 203 P P 17 12 34.4 0.0
KHZ Kahutara 27.82 201 P P 17 12 42.4 +2.5
comp=Z,53nm,0.7s
KHZ Kahutara 27.82 201 P P 17 12 40.4 +0.5
comp=Z,53nm,0.7s
LTZ Lake Taylor 28.58 202 P P 17 12 47.0 +0.2
RPZ Rata Peaks 29.84 203 P P 17 12 58.3 +0.4
RPZ Rata Peaks 29.84 203 P P 17 12 58.2 +0.4
ODZ Otahua Downs 31.13 202 P P 17 13 08.4 -0.8
comp=Z,28nm,0.8s
WKZ Wanaka 31.55 204 P P 17 13 13.1 0.0
TAOE Nuku Hiva Isla 33.45 81 *e*SS SS 17 21 10.3 -3.3
comp=Z,302nm,34.8s
TW1H Toowoomba 1 Ha 33.58 245 P P 17 13 30.2 -0.9
comp=Z,65nm,1.1s
EIDS Eidsvold 34.02 249 P P 17 13 32.8 -2.0
comp=Z,12nm,1.3s
EIDS Eidsvold 34.02 249 P P 17 13 33.3 -1.4
EIDS Eidsvold 34.02 249 P P 17 13 33.0 -1.8
comp=Z,12nm,1.3s
ARMA Armidale 34.53 241 P P 17 13 39.3 +0.1
comp=Z,59nm,1.2s
ARMA Armidale 34.53 241 P P 17 13 39.4 +0.1
comp=Z,59nm,1.2s
ARMA Armidale 34.53 241 P P 17 13 39.7 +0.4
comp=Z,59nm,1.2s
ARMA Armidale 34.53 241 P P 17 13 38.6 -0.7
comp=Z,59nm,1.2s
ARMA Armidale 34.53 241 P P 17 13 38.6 -0.7
ARMA Armidale 34.53 241 P P 17 13 38.9 -0.4
comp=Z,59nm,1.2s
AUPHS Peel High Scho 35.32 240 P P 17 13 45.9 -0.1
comp=Z,53nm,0.9s
AULRC Lightning Ridg 37.39 243 P P 17 14 02.4 -1.2
comp=Z,45nm,0.9s
CNB Canberra Magne 37.81 234 P P 17 14 06.9 -0.2
comp=Z,53nm,1.5s
CNB Canberra Magne 37.81 234 P P 17 14 07.1 -0.1
comp=Z,53nm,1.5s
CNB Canberra Magne 37.81 234 P P 17 14 06.7 -0.5
comp=Z,53nm,1.5s
CAN Canberra 38.09 234 P P 17 14 08.8 -0.7
comp=Z,33nm,1.4s
CAN Canberra 38.09 234 P P 17 14 08.8 -0.7
comp=Z,33nm,1.4s
CAN Canberra 38.09 234 P P 17 14 07.5 -2.0
CAN Canberra 38.09 234 P P 17 14 08.3 -1.2
comp=Z,33nm,1.4s
CAN Canberra 38.09 234 P P 17 14 08.4 -1.1
CTA Charters Tower 38.23 259 LR LR 17 27 32.6
comp=Z,77nm,19.0s,baz=67,slow=32
CTAO Charters Tower 38.23 259 P P 17 14 08.9 -1.9
CTAO Charters Tower 38.23 259 P P 17 14 09.4 -1.4
comp=Z,19nm,0.9s
CTAO Charters Tower 38.23 259 P P 17 14 09.3 -1.5
MILA Mila 38.57 231 P P 17 14 12.3 -1.3
AUSMG Snowy Mountain 38.76 232 P P 17 14 14.1 -1.0
comp=Z,34nm,1.1s
PMG Port Moresby 38.94 276 P P 17 14 14.7 -2.1
PMG IAmb IAmb 17 14 37.8
comp=Z,24nm,1.0s
CMSA Cobar Meteorol 39.75 241 P P 17 14 22.9 -0.4
comp=Z,74nm,1.0s
CMSA Cobar Meteorol 39.75 241 P P 17 14 23.2 -0.1
comp=Z,74nm,1.0s
CMSA Cobar Meteorol 39.75 241 P P 17 14 22.5 -0.9
comp=Z,74nm,1.0s
CMSA Cobar Meteorol 39.75 241 P P 17 14 22.3 -1.0
comp=Z,74nm,1.0s
CMSA Cobar Meteorol 39.75 241 P P 17 14 22.9 -0.4
comp=Z,74nm,1.0s
OVEH Oceanview Est 39.78 27 P P 17 14 24.7 +0.9
DAH Dandelion 40.00 27 P P 17 14 26.9 +0.9
H11S2 WAKE ISLAND Hy 40.11 330 T T 17 55 46.1
baz=146,slow=76,SNR=18
KHLU Kahalu`u 40.11 26 P P 17 14 27.3 +0.8
KHLU Kahalu`u 40.11 26 P P 17 14 27.9 +1.4
comp=Z,63nm,1.5s
H11S3 WAKE ISLAND Hy 40.13 330 T T 17 55 43.4
baz=146,slow=76,SNR=11
H11S1 WAKE ISLAND Hy 40.13 330 T T 17 55 51.3
baz=146,slow=76,SNR=7.5
MTSU Mount Surprise 40.17 262 P P 17 14 25.1 -1.9
comp=Z,5.0nm,0.7s
QLP Quilpie 40.28 249 P P 17 14 26.1 -1.7
comp=Z,43nm,0.7s
QLP Quilpie 40.28 249 P P 17 14 27.1 -0.7
comp=Z,43nm,0.7s
QLP Quilpie 40.28 249 P P 17 14 26.1 -1.7
comp=Z,43nm,0.7s
QLP Quilpie 40.28 249 P P 17 14 26.4 -1.4
comp=Z,43nm,0.7s
QLP Quilpie 40.28 249 P P 17 14 26.2 -1.7
comp=Z,43nm,0.7s
HMH Humu'ula Sheep 40.30 27 P P 17 14 29.2 +0.9
KHLH Kahului Airpor 41.06 25 P P 17 14 36.7 +2.5
comp=Z,103nm,2.6s
H11N3 WAKE ISLAND Hy 41.08 331 T T 17 58 48.7
baz=152,slow=77,SNR=1.6
H11N1 WAKE ISLAND Hy 41.08 331 T T 17 58 40.3
baz=152,slow=77,SNR=2.9
H11N2 WAKE ISLAND Hy 41.10 331 T T 17 58 51.0
baz=152,slow=77,SNR=1.6
TOO Toolangi 41.49 232 P P 17 14 36.6 -1.1
BRAT Ballarat 42.66 232 P P 17 14 46.9 -0.2
comp=Z,15nm,0.9s
STKA Stephens Creek 43.24 241 P P 17 14 51.5 -0.4
comp=Z,211nm,1.2s
STKA Stephens Creek 43.24 241 P P 17 14 51.8 -0.1
comp=Z,211nm,1.2s
STKA Stephens Creek 43.24 241 P P 17 14 51.2 -0.7
comp=Z,38nm,0.9s,baz=71,slow=7.4,SNR=41
STKA LR LR 17 32 40.4
comp=Z,62nm,18.3s,baz=33,slow=36
comp=Z,38nm,0.9s
STKA Stephens Creek 43.24 241 P P 17 14 51.1 -0.8
comp=Z,10nm,1.2s
STKA Stephens Creek 43.24 241 P P 17 14 51.5 -0.4
comp=Z,212nm,1.2s
INKA Innaminka 43.47 247 P P 17 14 53.0 -0.9
INKA IAmb IAmb 17 14 54.6
comp=Z,15nm,0.9s
ARPS Mount Arapiles 44.06 234 P P 17 14 57.8 -0.6
comp=Z,12nm,0.9s
ARPS Mount Arapiles 44.06 234 P P 17 14 58.0 -0.4
comp=Z,12nm,0.9s
QIS Mount Isa 44.44 258 P P 17 14 59.8 -1.9
comp=Z,4.4nm,1.4s
MGBR Mount Gambier 45.28 233 P P 17 15 07.4 -0.7
HTT Hallett 45.72 240 P P 17 15 11.4 -0.3
comp=Z,15nm,1.2s
HTT Hallett 45.72 240 P P 17 15 11.7 0.0
comp=Z,15nm,1.2s
HTT Hallett 45.72 240 P P 17 15 11.3 -0.4
comp=Z,38nm,1.2s
AUMBR Murray Bridge 45.72 237 P P 17 15 10.9 -0.7
comp=Z,69nm,0.8s
AUMAR Marden Senior 46.19 238 P P 17 15 14.7 -0.7
comp=Z,32nm,0.9s
BBOO Buckleboo 48.01 241 P P 17 15 29.1 -0.5
comp=Z,40nm,1.3s
BBOO Buckleboo 48.01 241 P P 17 15 29.3 -0.3
comp=Z,40nm,1.3s
BBOO Buckleboo 48.01 241 P P 17 15 28.9 -0.7
comp=Z,40nm,1.3s
BBOO Buckleboo 48.01 241 P P 17 15 28.6 -1.0
BBOO Buckleboo 48.01 241 P P 17 15 29.1 -0.5
comp=Z,40nm,1.3s
WR8 Warramunga Arr 49.27 258 P P 17 15 37.4 -2.0
WR8 IAmb IAmb 17 15 39.2
comp=Z,20nm,1.4s
WR7 Warramunga Arr 49.29 258 P P 17 15 38.9 -0.7
WR4 Warramunga Arr 49.35 258 P P 17 15 39.2 -0.8
WB0 Warramunga Arr 49.38 258 IAmb IAmb 17 15 40.1
comp=Z,21nm,1.5s
WRAB Tennant Creek 49.41 258 P P 17 15 38.8 -1.7
comp=Z,9.4nm,1.6s
WRAB Tennant Creek 49.41 258 P P 17 15 38.4 -2.1
WRAB Tennant Creek 49.41 258 P P 17 15 39.0 -1.5
comp=Z,17nm,1.6s
WRAB Tennant Creek 49.41 258 P P 17 15 38.6 -1.9
WRA Warramunga Arr 49.42 258 P P 17 15 38.8 -1.8
comp=Z,4.6nm,0.5s,baz=97,slow=7.0,SNR=201
WRA PcP **PcP 17 17 02.2 +0.3**
comp=Z,0.6nm,0.6s,baz=89,slow=3.1,SNR=5.5
comp=Z,4.6nm,0.5s
AS17 Alice Springs 49.49 253 P P 17 15 40.0 -1.0
comp=Z,262nm,0.7s
AS06 Alice Springs 49.51 253 P P 17 15 40.7 -0.5
comp=Z,294nm,0.7s
AS19 Alice Springs 49.52 253 P P 17 15 40.8 -0.5
comp=Z,168nm,0.7s
AS01 Alice Springs 49.53 253 P P 17 15 40.0 -1.4
comp=Z,250nm,0.7s
AS09 Alice Springs 49.54 253 P P 17 15 40.5 -1.0
comp=Z,184nm,0.8s
AS15 Alice Springs 49.57 253 P P 17 15 40.7 -1.0
comp=Z,219nm,0.8s
AS31 Alice Springs 49.57 253 P P 17 15 40.5 -1.1
comp=Z,52nm,0.8s
ASAR Alice Springs 49.57 253 P P 17 15 40.5 -1.2
comp=Z,130nm,0.6s,baz=88,slow=8.5,SNR=2039
ASAR PcP **PcP 17 17 02.9 +0.4**
comp=Z,3.0nm,0.7s,baz=100,slow=3.5,SNR=3.0
ASAR LR LR 17 37 29.8
comp=Z,55nm,18.4s,baz=103,slow=37
ASAR Alice Springs 49.57 253 P 17 15 40.2 -1.5
AUALC St Philip's Co 49.59 253 P P 17 15 40.6 -1.2
comp=Z,102nm,0.8s
GUMO Guam 51.00 304 LR LR 17 34 55.0
comp=Z,11nm,21.3s,baz=122,slow=33
KDU Kakadu 52.26 267 P P 17 16 01.5 -0.4
comp=Z,6.4nm,0.7s
MTN Manton Dam 53.51 266 P P 17 16 09.7 -1.4
MTN IAmb IAmb 17 16 49.4
comp=Z,11nm,1.2s
WRKA Warakurna 54.61 251 P P 17 16 18.3 -0.8
comp=Z,36nm,1.1s
WRKA Warakurna 54.61 251 P P 17 16 18.6 -0.5
comp=Z,36nm,1.1s
FORT Forrest 54.68 244 P P 17 16 17.7 -1.7
FORT IAmb IAmb 17 17 46.8
comp=Z,26nm,1.4s
KNRA Kununurra 55.25 262 P P 17 16 23.3 -0.4
comp=Z,6.9nm,0.7s
KNRA Kununurra 55.25 262 P P 17 16 22.0 -1.7
FITZ Fitzroy Crossi 57.81 259 P P 17 16 41.4 -0.6
comp=Z,1.6nm,1.7s
FITZ Fitzroy Crossi 57.81 259 LR LR 17 39 22.0
comp=Z,67nm,18.7s,baz=120,slow=34
FITZ Fitzroy Crossi 57.81 259 P P 17 16 40.9 -1.1
DRV Dumont d'Urvil 58.23 200 P P 17 16 45.1 +1.1
SOEI Soe 60.75 268 P P 17 17 03.4 +1.0
comp=Z,128nm,0.8s
SOEI Soe 60.75 268 P 17 17 01.9 -0.5
SOEI Soe 60.75 268 P P 17 17 02.9 +0.5
SOEI Soe 60.75 268 P P 17 17 03.8 +1.4
comp=Z,128nm,0.8s
SANI Sanana 61.20 277 P P 17 17 04.7 -0.6
comp=Z,19nm,0.8s
SANI Sanana 61.20 277 P P 17 17 04.2 -1.1
comp=Z,19nm,0.8s
JCJ Chichijima 61.25 315 LR LR 17 37 11.4
comp=Z,28nm,21.1s,baz=108,slow=30
SBA Scott Base 61.84 185 P 17 17 11.0 +2.4
SBA IAmb IAmb 17 17 12.0
comp=Z,6.6nm,1.0s
SBA Scott Base 61.84 185 P P 17 17 10.6 +2.0
comp=Z,7.7nm,0.9s
SBA Scott Base 61.84 185 P P 17 17 11.3 +2.7
VNDA Vanda 61.97 186 P P 17 17 10.6 +1.1
comp=Z,2.5nm,0.9s,baz=28,slow=6.9,SNR=12
comp=Z,2.5nm,0.9s
VNDA Vanda 61.97 186 P 17 17 11.0 +1.6
VNDA IAmb IAmb 17 17 12.6
comp=Z,11nm,1.6s
VNDA Vanda 61.97 186 P P 17 17 10.0 +0.6
comp=Z,5.2nm,1.2s
VNDA Vanda 61.97 186 P P 17 17 11.3 +1.9
MBWA Marble Bar 62.86 255 P P 17 17 15.5 -0.8
comp=Z,26nm,0.8s
MBWA Marble Bar 62.86 255 P P 17 17 17.9 +1.5
comp=Z,26nm,0.8s
MBWA Marble Bar 62.86 255 P P 17 17 14.8 -1.6
MBWA IAmb IAmb 17 17 16.2
comp=Z,15nm,0.8s
MBWA Marble Bar 62.86 255 P P 17 17 15.2 -1.1
MBWA sP **sP 17 17 45.8 +2.2**
MMRI Maumere 62.97 269 P P 17 17 15.9 -1.3
AUKUL Kulin High Sch 63.08 242 P P 17 17 17.2 -0.4
comp=Z,52nm,0.9s
MEEK Meekatharra 63.17 248 P P 17 17 17.7 -0.7
comp=Z,23nm,0.8s
MEEK Meekatharra 63.17 248 P P 17 17 17.4 -1.0
comp=Z,23nm,0.8s
EDFI Ende, Flores 63.46 268 P P 17 17 19.1 -1.5
comp=Z,550nmcomp=Z,63nm,1.1s
KLBR Kellerberrin 63.48 243 P P 17 17 19.8 -0.5
comp=Z,58nm,0.7s
KLBR Kellerberrin 63.48 243 P P 17 17 19.1 -1.2
comp=Z,58nm,0.7s
KLBR Kellerberrin 63.48 243 P P 17 17 19.8 -0.5
comp=Z,58nm,0.7s
NWAO Narrogin (SRO) 63.83 241 P P 17 17 21.9 -0.6
MORW Morawa 65.18 245 P P 17 17 31.0 -0.4
LBFI Labuhan Bajo, 65.25 268 P P 17 17 31.7 -0.4
DBNI Kabupaten Domp 66.76 268 P P 17 17 40.8 -1.0
CCD Concordia, Ant 67.08 195 P P 17 17 44.1 +0.8
CCD PcP **sP 17 18 10.2 -0.5**
TOLI2 Tolitoli 67.13 279 P P 17 17 44.9 +0.7
comp=Z,10nm,0.8s
TOLI2 Tolitoli 67.13 279 IAmb IAmb 17 17 45.1
comp=Z,8.9nm,0.9s
TOLI2 Tolitoli 67.13 279 P P 17 17 44.2 0.0
comp=Z,10nm,0.8s
PLAI Plampang 67.19 267 P P 17 17 44.6 0.0
comp=Z,61nm,1.0s
PLAI Plampang 67.19 267 P P 17 17 44.5 0.0
comp=Z,62nm,1.0s
PLAI Plampang 67.19 267 P P 17 17 44.6 0.0
comp=Z,61nm,1.0s
PCI Palu 67.40 276 P P 17 17 46.5 +0.6
comp=Z,32nm,1.0s
GIRL Giralia 67.67 252 P P 17 17 48.0 +0.5
CASY Casey 69.08 205 P P 17 17 55.8 +0.3
CASY PcP **PcP 17 18 19.1 +0.1**
MJAR Matsushiro Arr 69.94 320 P P 17 18 01.2 +0.1
comp=Z,1.5nm,0.7s,baz=152,slow=2.0,SNR=2.3
comp=Z,1.5nm,0.7s
JAGI Jajag, Banyuwa 70.74 267 P P 17 18 04.9 -1.7
KKM Kota Kinabalu 73.04 282 P P 17 18 19.2 -1.2
KKM IAmb IAmb 17 18 41.9
comp=Z,19nm,1.1s
MWC Mount Wilson 73.21 45 P P 17 18 22.1 +1.0
MWC IAmb IAmb 17 18 23.2
comp=Z,13nm,1.0s
QSPA South Pole Qui 73.24 180 P P 17 18 21.3 +0.5
comp=Z,7.1nm,1.1s,baz=22,slow=2.9,SNR=13
comp=Z,7.1nm,1.1s
QSPA South Pole Qui 73.24 180 P 17 18 21.6 +0.8
QSPA South Pole Qui 73.24 180 P P 17 18 22.5 +1.7
comp=Z,8.1nm,0.8s
QSPA South Pole Qui 73.24 180 P P 17 18 21.9 +1.1
QSPA pP **pP 17 18 43.8 +3.6**
KMRM Mail Ridge 73.25 38 P P 17 18 22.0 +0.9
ELS Elsinore Mount 73.32 46 P P 17 18 22.3 +0.7
VES Vestal, Richgr 73.44 44 P P 17 18 22.3 +0.1
TPO Tropico Hills 73.46 45 P P 17 18 22.9 +0.4
BFSC Mount Baldy Ra 73.49 46 P P 17 18 22.4 -0.3
BFSC IAmb IAmb 17 18 24.7
comp=Z,19nm,1.3s
ISA Isabella, Lake 73.75 44 P P 17 18 24.9 +0.8
ISA IAmb IAmb 17 18 26.8
comp=Z,17nm,1.1s
O02D Mt. Diablo Mer 73.76 38 P P 17 18 25.4 +1.3
O02D IAmb IAmb 17 18 28.2
comp=Z,36nm,1.7s
YUH Yuha Desert 73.82 48 P P 17 18 24.7 +0.2
CMB Columbia Colle 73.90 41 P P 17 18 25.3 +0.3
PETK Petropavlovsk- 73.93 342 P P 17 18 23.7 -1.0
comp=Z,3.9nm,1.0s,baz=143,slow=6.1,SNR=4.6
comp=Z,3.9nm,1.0s
PFO Pinyon Flats O 73.97 47 LR LR 17 43 10.8
comp=Z,53nm,19.4s,baz=241,slow=29
PFO Pinyon Flats O 73.97 47 P P 17 18 25.1 -0.5
PFO Pinyon Flats O 73.97 47 P P 17 18 26.8 +1.3
comp=Z,9.3nm,1.2s
PFO Pinyon Flats O 73.97 47 P P 17 18 26.6 +1.0
XPFO Pinon Flat 73.97 47 P P 17 18 26.6 +1.0
AFDM Forest Hills D 74.09 40 P P 17 18 26.0 0.0
LRMC Laurel Mtn Rad 74.17 45 P P 17 18 26.8 +0.1
LRMC IAmb IAmb 17 18 29.1
comp=Z,10nm,1.0s
CLC China Lake 74.42 44 P P 17 18 28.7 +0.7
O03E Paynes Creek 74.42 39 P P 17 18 28.2 +0.3
O03E IAmb IAmb 17 18 32.0
comp=Z,27nm,1.4s
CWC Cottonwood Cre 74.45 44 P P 17 18 28.6 +0.3
CWC IAmb IAmb 17 18 30.9
comp=Z,17nm,1.4s
MDPB Devils Postpil 74.49 42 IAmb IAmb 17 18 31.2
comp=Z,15nm,1.3s
MPMC Manual Prospec 74.63 44 IAmb IAmb 17 18 32.0
comp=Z,14nm,1.0s
GSC Goldstone, Bar 74.66 45 IAmb IAmb 17 18 31.9
comp=Z,16nm,1.3s
BEKR Beckworth 75.03 40 IAmb IAmb 17 18 34.1
comp=Z,17nm,1.6s
PNTR Pine Nut 75.03 41 IAmb IAmb 17 18 34.3
comp=Z,23nm,1.3s
IRM Iron Mountain 75.18 47 IAmb IAmb 17 18 35.1
comp=Z,17nm,1.3s
LHV Little Huntoon 75.22 42 IAmb IAmb 17 18 35.5
comp=Z,18nm,1.3s
GRAC Grapevine Rang 75.24 43 IAmb IAmb 17 18 35.7
comp=Z,30nm,1.4s

GWY	**Greenwater Val**	**75.25**	**44**	P	**P**	**17 18 33.0**	**+0.1**
GWY				IAmb	IAmb	17 18 35.0	
	comp=Z,28nm,1.8s						
L04D	**Klamath Falls**	**75.34**	**37**	IAmb	IAmb	17 18 35.3	
	comp=Z,18nm,1.1s						
BLYC	**Blythe**	**75.40**	**48**	IAmb	IAmb	17 18 36.1	
	comp=Z,16nm,1.4s						
113A	**Mohawk Valley,**	**75.43**	**49**	IAmb	IAmb	17 18 36.2	
	comp=Z,38nm,2.0s						
NVAR	**Mina Array Bea**	**75.45**	**42**	P	**P**	**17 18 35.1**	**+1.0**
	comp=Z,7.0nm,1.0s,baz=228,slow=9.6,SNR=26						
	comp=Z,7.0nm,1.0s						
NVAR	**Mina Array Bea**	**75.45**	**42**	P	**P**	**17 18 34.9**	**+0.8**
NV11	**Mina Array Sit**	**75.55**	**42**	IAmb	IAmb	17 18 37.2	
	comp=Z,26nm,1.3s						
MZP	**Montezuma Peak**	**75.63**	**43**	P	**P**	**17 18 34.8**	**-0.4**
MZP				IAmb	IAmb	17 18 37.3	
	comp=Z,18nm,1.5s						
KVN	**Kaiserville**	**75.95**	**41**	IAmb	IAmb	17 18 39.3	
	comp=Z,18nm,1.4s						
TPH	**Tonopah**	**75.95**	**43**	IAmb	IAmb	17 18 39.4	
	comp=Z,22nm,1.2s						
J04A	**Umpqua Nationa**	**76.10**	**36**	IAmb	IAmb	17 18 40.3	
	comp=Z,18nm,0.8s						
KDAK	**Kodiak Island**	**76.32**	**11**	LR	LR	17 45 57.5	
	comp=Z,32nm,20.0s,baz=228,slow=31						
K05A	**Summer Lake**	**76.47**	**37**	IAmb	IAmb	17 18 42.5	
	comp=Z,17nm,1.1s						
J05D	**Fort Rock, OR**	**76.62**	**36**	IAmb	IAmb	17 18 43.3	
	comp=Z,13nm,1.0s						
PRN	**Pahroc Range**	**77.00**	**44**	IAmb	IAmb	17 18 45.8	
	comp=Z,23nm,1.3s						
KSRS	**Korea Array**	**77.08**	**316**	P	**P**	**17 18 43.0**	**0.0**
	comp=Z,2.0nm,0.8s,baz=127,slow=5.4,SNR=5.0						
	comp=Z,2.0nm,0.8s						
PINE	**Pine Mountain**	**77.11**	**36**	IAmb	IAmb	17 18 46.1	
	comp=Z,15nm,1.3s						
BMN	**Battle Mountai**	**77.30**	**41**	IAmb	IAmb	17 18 46.8	
	comp=Z,25nm,1.6s						
TUC	**Tucson**	**77.38**	**50**	P	**P**	**17 18 45.7**	**+0.7**
TUC				IAmb	IAmb	17 18 47.8	
	comp=Z,49nm,2.0s						
TUC	**Tucson**	**77.38**	**50**	P	**P**	**17 18 46.8**	**+1.9**
	comp=Z,9.8nm,1.3s						
TUC	**Tucson**	**77.38**	**50**	P	**P**	**17 18 46.6**	**+1.6**
WVOR	**Wild Horse Val**	**77.61**	**38**	P	**P**	**17 18 47.6**	**+1.5**
	comp=Z,11nm,1.2s						
J08A	**Circle Bar Ran**	**78.26**	**38**	IAmb	IAmb	17 18 52.0	
	comp=Z,12nm,1.1s						
KNB	**Kanab**	**78.30**	**45**	P	**P**	**17 18 50.5**	**+0.3**
U15A	**North Rim**	**78.36**	**46**	IAmb	IAmb	17 18 53.6	
	comp=Z,18nm,1.2s						
SZCU	**Shurtz Canyon**	**78.42**	**45**	IAmb	IAmb	17 18 53.6	
	comp=Z,14nm,1.1s						
ELK	**Elko**	**78.72**	**41**	LR	LR	17 45 30.1	
	comp=Z,46nm,21.3s,baz=264,slow=29						
PKCU	**Pink Cliffs**	**78.87**	**45**	IAmb	IAmb	17 18 57.1	
	comp=Z,31nm,1.2s						
G08A	**Pilot Rock**	**79.14**	**36**	P	**P**	**17 18 54.9**	**+0.4**
G08A				IAmb	IAmb	17 18 56.7	
	comp=Z,11nm,1.0s						
E07A	**Sunnyside**	**79.43**	**34**	IAmb	IAmb	17 18 58.3	
	comp=Z,12nm,1.0s						
D08A	**Wollman Farm,**	**80.24**	**34**	IAmb	IAmb	17 19 02.5	
	comp=Z,13nm,1.0s						
E09A	**Wood Farm, Sta**	**80.33**	**35**	IAmb	IAmb	17 19 03.2	
	comp=Z,18nm,1.5s						
F10A	**Beach Ranch, E**	**80.53**	**36**	IAmb	IAmb	17 19 03.5	
	comp=Z,10nm,0.8s						
TMUT	**Trail Mountain**	**80.56**	**44**	IAmb	IAmb	17 19 05.5	
	comp=Z,13nm,1.0s						
PLID	**Pearl Lake**	**80.71**	**37**	P	**P**	**17 19 03.2**	**+0.1**
HLID	**Hailey**	**80.79**	**39**	P	**P**	**17 19 03.7**	**+0.2**
HLID	**Hailey**	**80.79**	**39**	P	**P**	**17 19 05.0**	**+1.5**
	comp=Z,9.8nm,1.0s						
NJ2	**Nanjing**	**80.92**	**307**	*e*P	**P**	**17 19 04.0**	**-0.2**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
VHRN	**Van Horn**	**81.08**	**54**	P	**P**	**17 19 05.6**	**+0.3**
VHRN				IAmb	IAmb	17 19 07.8	
	comp=Z,12nm,0.7s						
MNTX	**Cornudas Mount**	**81.16**	**53**	IAmb	IAmb	17 19 08.2	
	comp=Z,20nm,1.4s						
MNTX	**Cornudas Mount**	**81.16**	**53**	P	**P**	**17 19 07.2**	**+1.7**
	comp=Z,12nm,1.4s						
TCUT	**Toone Canyon**	**81.37**	**42**	IAmb	IAmb	17 19 09.1	
	comp=Z,15nm,1.0s						
TXAR	**Lajitas Array**	**81.50**	**56**	P	**P**	**17 19 08.7**	**+1.3**
	comp=Z,4.6nm,1.1s,baz=227,slow=6.6,SNR=21						
	comp=Z,4.6nm,1.1s						
TXAR	**Lajitas Array**	**81.50**	**56**		**P**	**17 19 08.3**	**+0.9**
PV10	**Paradox Valley**	**81.58**	**46**	IAmb	IAmb	17 19 09.5	
	comp=Z,18nm,1.0s						
PV18	**Skein Mesa, Pa**	**81.60**	**46**	IAmb	IAmb	17 19 10.4	
	comp=Z,35nm,1.4s						
PV20	**West Nyswonger**	**81.61**	**46**	P	**P**	**17 19 08.7**	**+0.7**
PV20				IAmb	IAmb	17 19 10.4	
	comp=Z,23nm,1.0s						
PV13	**Radium Mtn., P**	**81.62**	**46**	IAmb	IAmb	17 19 10.6	
	comp=Z,34nm,1.4s						
PV23	**Carpenter Ridg**	**81.63**	**46**	IAmb	IAmb	17 19 10.7	
	comp=Z,20nm,0.9s						
PV03	**Paradox Valley**	**81.65**	**46**	IAmb	IAmb	17 19 11.3	
	comp=Z,27nm,1.4s						
PV11	**David Mesa, Pa**	**81.65**	**46**	IAmb	IAmb	17 19 11.4	
	comp=Z,34nm,1.3s						
PV04	**Paradox Valley**	**81.68**	**46**	IAmb	IAmb	17 19 10.4	
	comp=Z,12nm,0.9s						
PV02	**Paradox Valley**	**81.70**	**46**	IAmb	IAmb	17 19 11.0	
	comp=Z,25nm,1.2s						
PV21	**Cone Mtn., Par**	**81.71**	**46**	P	**P**	**17 19 09.2**	**+0.7**
PV01	**Paradox Valley**	**81.78**	**46**	IAmb	IAmb	17 19 11.3	
	comp=Z,19nm,1.0s						
ALQ	**Albuquerque**	**81.80**	**50**	IAmb	IAmb	17 19 11.1	
	comp=Z,5.2nm,0.9s						
ANMO	**Albuquerque**	**81.80**	**50**	P	**P**	**17 19 10.4**	**+1.4**
	comp=Z,2.7nm,0.7s,baz=218,slow=6.7,SNR=6.3						
ANMO				LR	LR	17 46 53.7	
	comp=Z,42nm,19.4s,baz=268,slow=29						
	comp=Z,2.7nm,0.7s						
ANMO	**Albuquerque**	**81.80**	**50**	P	**P**	**17 19 09.7**	**+0.7**
ANMO	**Albuquerque**	**81.80**	**50**	P	**P**	**17 19 10.4**	**+1.4**
	comp=Z,6.8nm,1.7s						
ANMO	**Albuquerque**	**81.80**	**50**	P	**P**	**17 19 10.6**	**+1.5**
ANMO				PcP	**PcP**	**17 19 15.2**	**+0.6**
BCYI	**Bear Canyon**	**81.81**	**39**	IAmb	IAmb	17 19 11.6	
	comp=Z,29nm,1.9s						
TPB28		**81.83**	**54**	IAmb	IAmb	17 19 11.9	
	comp=Z,15nm,1.4s						
PV07	**Paradox Valley**	**81.88**	**46**	IAmb	IAmb	17 19 11.8	
	comp=Z,29nm,1.4s						
NEW	**Newport**	**81.94**	**34**	LR	LR	17 53 19.1	
	comp=Z,28nm,18.1s,baz=264,slow=34						
PV15	**Paradox Valley**	**81.94**	**46**	IAmb	IAmb	17 19 12.0	
	comp=Z,18nm,1.0s						
TPB01	**Permian Basin**	**82.08**	**54**	IAmb	IAmb	17 19 12.8	
	comp=Z,11nm,0.9s						
GDL2	**Guadalupe Moun**	**82.16**	**53**	P	**P**	**17 19 11.1**	**+0.2**
AHID	**Auburn Hatcher**	**82.41**	**41**	IAmb	IAmb	17 19 14.3	
	comp=Z,13nm,1.1s						
AHID	**Auburn Hatcher**	**82.41**	**41**	P	**P**	**17 19 13.2**	**+1.1**
	comp=Z,11nm,2.3s						
TPB05	**Hovey Rd**	**82.42**	**55**	IAmb	IAmb	17 19 15.3	
	comp=Z,31nm,1.7s						
M27K	**Edge Creek, AK**	**82.76**	**14**	IAmb	IAmb	17 19 44.1	
	comp=Z,25nm,1.6s						
DLMT	**Dillon**	**82.86**	**38**	P	**P**	**17 19 14.2**	**-0.1**
LDM	**Libby Dam**	**83.03**	**35**	IAmb	IAmb	17 19 16.9	
	comp=Z,11nm,0.9s						
MNHN	**Monahans**	**83.04**	**54**	IAmb	IAmb	17 19 17.5	
	comp=Z,7.2nm,0.7s						
PDAR	**Pinedale Array**	**83.39**	**42**	P	**P**	**17 19 17.6**	**+0.3**
	comp=Z,3.8nm,0.8s,baz=208,slow=3.5,SNR=26						
PDAR				LR	LR	17 49 04.5	
	comp=Z,42nm,20.8s,baz=246,slow=30						
	comp=Z,3.8nm,0.8s						
PDAR	**Pinedale Array**	**83.39**	**42**	P	**P**	**17 19 17.3**	**+0.1**
YHL	**Hebgen Lake**	**83.44**	**39**	IAmb	IAmb	17 19 20.4	
	comp=Z,15nm,0.9s						
YMR	**Madison River**	**83.48**	**40**	IAmb	IAmb	17 19 20.5	
	comp=Z,25nm,1.9s						
BOZ	**Bozeman (W)**	**83.56**	**39**	IAmb	IAmb	17 19 20.2	
	comp=Z,9.0nm,1.0s						
CCB	**Clear Creek Bu**	**83.57**	**11**	IAmb	IAmb	17 19 51.5	
	comp=Z,33nm,1.7s						
GBMT	**Granite Butte,**	**83.75**	**37**	IAmb	IAmb	17 19 21.0	
	comp=Z,12nm,1.2s						
COLA	**College**	**83.77**	**11**	P	**P**	**17 19 18.8**	**+0.6**
	comp=Z,11nm,1.1s						
COLA	**College**	**83.77**	**11**	P	**P**	**17 19 18.2**	**0.0**
COLA	**College**	**83.77**	**11**	P	**P**	**17 19 19.1**	**+0.9**
	comp=Z,19nm,1.1s						
COLA	**College**	**83.77**	**11**	P	**P**	**17 19 18.7**	**+0.4**
COLA				PcP	**PcP**	**17 19 23.0**	**+0.8**
128A	**Castleberry Fa**	**83.78**	**53**	IAmb	IAmb	17 19 21.4	
	comp=Z,6.5nm,0.7s						
IL31		**83.85**	**11**	IAmb	IAmb	17 19 28.7	
	comp=Z,31nm,1.7s						
ILAR	**Eielson Array**	**83.85**	**11**	P	**P**	**17 19 18.9**	**+0.2**
	comp=Z,2.6nm,0.8s,baz=226,slow=6.3,SNR=36						
	comp=Z,2.6nm,0.8s						
POKR	**Poker Flat Res**	**84.06**	**11**	IAmb	IAmb	17 19 22.1	
	comp=Z,14nm,1.1s						
N32M	**Quiet Lake**	**84.14**	**18**	IAmb	IAmb	17 19 22.5	
	comp=Z,10nm,0.9s						
F19K	**Shalercikik Mo**	**84.22**	**6**	IAmb	IAmb	17 19 22.6	
	comp=Z,7.5nm,0.8s						
129A	**Stewart Farms,**	**84.26**	**54**	IAmb	IAmb	17 19 23.9	
	comp=Z,9.5nm,1.0s						
L29M	**L29M**	**84.32**	**15**	IAmb	IAmb	17 19 23.6	
	comp=Z,23nm,1.2s						
CMIG	**Matias Romero**	**84.47**	**70**	LR	LR	17 50 40.0	
	comp=Z,36nm,19.0s,baz=196,slow=31						
POST	**Post**	**84.72**	**53**	IAmb	IAmb	17 19 25.7	
	comp=Z,16nm,0.9s						
DAWY	**Dawson**	**84.81**	**14**	IAmb	IAmb	17 19 25.8	
	comp=Z,14nm,1.3s						
E19K	**Redstone River**	**84.88**	**6**	IAmb	IAmb	17 19 26.2	
	comp=Z,10nm,0.7s						
SN07	**Snyder 07**	**85.19**	**54**	P	**P**	**17 19 26.1**	**-0.2**
SN07				IAmb	IAmb	17 22 15.2	
	comp=Z,16nm,1.0s						
J29N	**Klondike Camp**	**85.42**	**15**	IAmb	IAmb	17 19 29.3	
	comp=Z,12nm,1.1s						
APMT	**Aspermont**	**85.88**	**54**	IAmb	IAmb	17 19 31.5	
	comp=Z,17nm,0.9s						
G26K	**Porcupine Rive**	**86.38**	**11**	IAmb	IAmb	17 19 34.4	
	comp=Z,17nm,1.2s						
MAW	**Mawson**	**86.42**	**199**	P	**P**	**17 19 32.5**	**+0.8**
	comp=Z,2.5nm,0.6s,baz=132,slow=8.2,SNR=12						
	comp=Z,2.5nm,0.6s						
I30M	**Mount Dempster**	**86.50**	**15**	IAmb	IAmb	17 19 34.0	
	comp=Z,11nm,1.2s						
EDM	**Edmonton**	**86.75**	**32**	IAmb	IAmb	17 19 34.3	
	comp=Z,8.3nm,0.8s						
H29M	**Whitestone**	**86.86**	**14**	IAmb	IAmb	17 19 35.7	
	comp=Z,13nm,1.1s						
IPM	**Ipoh**	**86.94**	**276**	P	**P**	**17 19 36.5**	**+1.2**
	comp=Z,25nm,0.9s						
IPM	**Ipoh**	**86.94**	**276**	P	**P**	**17 19 35.6**	**+0.3**
IPM	**Ipoh**	**86.94**	**276**	P	**P**	**17 19 35.5**	**+0.3**
	comp=Z,25nm,0.9s						
F31M	**Tsiigehtchic**	**88.92**	**14**	P	**P**	**17 19 44.0**	**+0.6**
F31M				IAmb	IAmb	17 19 45.3	
	comp=Z,13nm,1.0s						
SLVN	**Son La**	**89.34**	**292**	P	**P**	**17 19 46.1**	**-0.5**
	comp=Z,7.4nm,1.4s						
SLVN	**Son La**	**89.34**	**292**	P	**P**	**17 19 47.2**	**+0.6**
SLVN				IAmb	IAmb	17 19 49.8	
	comp=Z,6.4nm,1.1s						
XAN	**Xi'an**	**89.36**	**306**	P	**P**	**17 19 47.5**	**+1.1**
XAN				pmax	pmax		
	comp=Z,8.0nm,1.4s						
HHC	**Hu-ho-hao-te**	**89.89**	**313**	*e*P	**P**	**17 19 49.0**	**+0.2**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,90nm,4.8s						
MT01	**Popeta**	**90.57**	**126**	P	**P**	**17 19 52.7**	**+0.5**
ELIB	**Princess Elisa**	**90.72**	**185**	*d*P	**P**	**17 19 52.5**	**+0.3**
	comp=Z,5.2nm,0.9s						
BTO2	**Baotou**	**91.04**	**312**	*e*P	**P**	**17 19 55.3**	**+1.1**
BTO2				pmax	pmax		
	comp=Z,11nm,0.6s						
YKA	**Yellowknife Ar**	**91.44**	**23**	P	**P**	**17 19 55.1**	**-0.1**
	comp=Z,1.5nm,1.0s,baz=250,slow=3.2,SNR=4.6						
	comp=Z,1.5nm,1.0s						
ATAH	**Atahualpa**	**92.84**	**98**	LR	LR	17 52 26.3	
	comp=Z,20nm,20.3s,baz=249,slow=29						
CMAR	**Chiang Mai Arr**	**92.94**	**288**	P	**P**	**17 20 04.8**	**+1.6**
	comp=Z,4.7nm,0.9s,baz=101,slow=2.5,SNR=32						
	comp=Z,4.7nm,0.9s						
CMAR	**Chiang Mai Arr**	**92.94**	**288**		**P**	**17 20 04.2**	**+0.9**
CHTO	**Chiang Mai**	**93.04**	**289**	P	**P**	**17 20 05.2**	**+1.5**
	comp=Z,6.3nm,1.5s						
CHTO	**Chiang Mai**	**93.04**	**289**		**P**	**17 20 03.7**	**0.0**
CHTO	**Chiang Mai**	**93.04**	**289**	P	**P**	**17 20 05.3**	**+1.5**
CHTO	**Chiang Mai**	**93.04**	**289**	P	**P**	**17 20 03.1**	**-0.7**
	comp=Z,10nm,1.5s						
ULM	**Lac du Bonnet**	**95.10**	**39**	LR	LR	17 54 16.1	
	comp=Z,55nm,21.8s,baz=205,slow=30						
TKL	**Tuckaleechee C**	**99.41**	**56**	LR	LR	18 01 33.5	
	comp=Z,34nm,19.0s,baz=328,slow=33						
WMQ	**Urumqi**	**107.71**	**311**	*e*P	**Pdif**	**17 21 04.4**	**-4.7**
WMQ				*e*PKPbc	sPdif	17 22 04.3	+27
WMQ				PKPab	pPdif	17 22 14.6	+45
WMQ				sPKP		17 22 55.8	
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BVAR	**Borovoye Array**	**118.91**	**322**	PKP	**PKiKP**	**17 25 38.1**	**+0.5**
	comp=Z,1.2nm,0.7s,baz=81,slow=1.6,SNR=4.2						
KSP	**Ksiaz**	**145.15**	**349**	*e*PKP	**PKPdf**	**17 26 27.9**	**+1.3**
KSP	**Ksiaz**	**145.15**	**349**	PKP	**PKiKP**	**17 26 32.2**	**+1.7**
CLL	**Collm**	**145.19**	**353**	*i* PKPbc	**PKPdf**	**17 26 28.0**	**+1.3**
CLL				*i* PKiKP	**PKiKP**	**17 26 31.0**	**+0.4**
	comp=Z,13nm,1.4s						
CLL				*i* pPKiKP	sPKPab	17 26 54.8	+0.3
CLL				*ex*	**PP**	**17 29 39.0**	**-6.3**
OSTC	**Ostas**	**145.44**	**349**	*e*PKP	**PKiKP**	**17 26 30.5**	**-0.7**
BRG	**Berggiesshubel**	**145.50**	**352**	*e*PKP	**PKiKP**	**17 26 29.7**	**-1.5**
BRG				Amp		17 26 33.8	
	comp=Z,4.6nm,0.9s						
DPC	**Dobruska-Polom**	**145.62**	**349**	*e*PKP	**PKPab**	**17 26 29.0**	**+0.8**
STEB	**Steborice**	**145.72**	**347**	*e*PKP	**PKPab**	**17 26 30.0**	**+1.4**
KRLC	**Kraliky**	**145.79**	**348**	*e*PKP	**PKiKP**	**17 26 33.9**	**+2.0**
MORC	**Moravsky Berou**	**145.92**	**347**	*e*PKP	**PKiKP**	**17 26 33.6**	**+1.4**
VRAC	**Vranov**	**146.56**	**348**	*e*PKP	**PKiKP**	**17 26 34.2**	**+0.7**
VYHS	**Vyhne**	**146.82**	**345**	*e*PKP	**PKiKP**	**17 26 34.4**	**+0.3**
KRUC	**Moravsky**	**146.84**	**348**	*e*PKP	**PKiKP**	**17 26 36.1**	**+2.0**
ZVC	**Zvikov**	**146.86**	**351**	*e*PKP	**PKiKP**	**17 26 33.7**	**-0.4**
BRTR	**Keskin Array B**	**147.16**	**320**	PKPbc	**PKPbc**	**17 26 33.7**	**+0.8**
	comp=Z,3.8nm,0.9s,baz=55,slow=3.5,SNR=14						
BRTR	**Keskin Array B**	**147.16**	**320**		**PKPdf**	**17 26 31.2**	**+0.6**
KHC	**Kasperske Hory**	**147.25**	**351**	*e*PKP	**PKPab**	**17 26 34.5**	**0.0**
KHC				*ex*	PKiKP	17 26 43.5	+8.5
MODS	**Modra-Piesok**	**147.30**	**347**	*e*PKP	**PKiKP**	**17 26 36.1**	**+1.0**
ABNA	**Allensteig Bun**	**147.39**	**349**	*i* PKiKP	**PKiKP**	**17 26 36.7**	**+1.5**
	comp=Z,4.8nm,0.9s						
GERES	**GERESS Array B**	**147.51**	**351**	PKPbc	**PKiKP**	**17 26 34.7**	**-0.9**
	comp=Z,1.7nm,0.8s,baz=20,slow=2.8,SNR=4.3						
WINA	**Allard J Wiene**	**147.81**	**348**	*i* PKP	**PKPab**	**17 26 37.9**	**+1.2**
	comp=Z,2.9nm,0.7s						
CONA	**Conrad Observa**	**148.02**	**348**	*i* PKP	**PKiKP**	**17 26 36.9**	**+0.2**
	comp=Z,6.9nm,0.9s						
RONA	**Rosalia, Austr**	**148.15**	**347**	*i* PKP	**PKPab**	**17 26 38.2**	**0.0**
	comp=Z,7.5nm,1.1s						
MOA	**Molln**	**148.39**	**350**	*i* PKP	**PKPab**	**17 26 38.5**	**-0.6**
	comp=Z,2.3nm,0.6s						
BIOA	**Bad Ischl, Aus**	**148.65**	**351**	*i* PKP	**PKPab**	**17 26 39.8**	**-0.3**
	comp=Z,3.6nm,0.8s						
SESA	**Sedaler Alpe,**	**149.05**	**349**	*i* PKP	**PKiKP**	**17 26 40.0**	**+1.0**
	comp=Z,6.1nm,0.7s						
WATA	**Walderalm**	**149.27**	**353**	*i* PKP	**PKPab**	**17 26 41.5**	**-1.3**
	comp=Z,9.0nm,1.2s						
MOTA	**Moosalm**	**149.31**	**354**	*i* PKP	**PKPab**	**17 26 42.0**	**-1.0**
	comp=Z,9.0nm,1.2s						
WTTA	**Wattenberg**	**149.34**	**353**	*i* PKP	**PKPab**	**17 26 42.7**	**-0.4**
	comp=Z,23nm,1.7s						
SOKA	**Soboth**	**149.38**	**348**	*i* PKP	**PKPab**	**17 26 41.9**	**-1.4**
	comp=Z,12nm,1.5s						
SQTA	**Sankt Quirin**	**149.43**	**354**	*i* PKP	**PKPab**	**17 26 43.0**	**-0.5**
	comp=Z,11nm,1.6s						
DAVA	**Damuels**	**149.48**	**355**	*i* PKP	**PKPab**	**17 26 42.9**	**-0.8**
	comp=Z,12nm,1.3s						
ABTA	**Abfaltersbach**	**149.73**	**352**	*i* PKP	**PKPab**	**17 26 42.6**	**-2.0**
	comp=Z,11nm,1.1s						
TORD	**Torodi Ar. Bea**	**174.12**	**128**	PKPab	**PKPab**	**17 28 32.1**	**+0.7**
	comp=Z,7.0nm,0.9s,baz=252,slow=4.6,SNR=8.9						
TORD	**Torodi Ar. Bea**	**174.12**	**128**		**PKPab**	**17 28 31.4**	**0.0**

*SOME **20** 17:07:46.5, 41.°90N×79.°57E, h15km*
NNC 20 17:07:47.0±0.7, 44.°31N×79.°29E, h0km, mb2.3, mpv2.6,
Error ellipse: s-maj=4.7km s-min=3.6km az=1.0,

Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHLS	**Shalkode**	**1.16**	**174**	P	Pb	17 08 10.1	+0.2
	1.4nm,0.2s						
SHLS				S	Sn	17 08 27.4	+0.2
	3.4nm,0.5s						
UZB	**Uzynbulak**	**1.18**	**190**	P	Pg	17 08 09.4	-0.1
	1.5nm,0.2s						
UZB				S	Sb	17 08 25.8	-0.4
	5.5nm,0.1s						
UZB	**Uzynbulak**	**1.18**	**190**	*e*P	Pg	17 08 09.4	-0.1
	1.5nm,0.2s						
UZB				*e*S	Sb	17 08 25.8	-0.4
	5.5nm,0.1s						
SATY	**Saty**	**1.41**	**207**	P	Pg	17 08 13.3	-0.6
	0.9nm,0.2s						
SATY				S	Sb	17 08 32.4	-0.3
	10nm,0.1s						
SATY	**Saty**	**1.41**	**207**	*e*P	Pg	17 08 13.3	-0.6
	0.9nm,0.2s						
SATY				*e*S	Sb	17 08 32.4	-0.3
	10nm,0.1s						

*IDC **20** 17:14:28.3±1.2, 3.°86S×101.°29E, h0km, mb3.9/8, mbtmp3.9/8, Error ellipse: s-maj=58.3km s-min=16.8km az=54.0*
*NEIC **20** 17:14:34.2±1.9, 3.°8S±0.°1×101.°4E±0.°1, h36km±7km, mb4.3/20, Error ellipse: s-maj=19.4km s-min=8.4km az=222.0*
*DJA **20** 17:14:36.7±0.6, 4.°S±4.°×10.°2E±.°, h27km±4km, M3.9/19, MLv3.9/19*
ISC 20 17:14:33.1±0.7, 3.°81S±0.°08×101.°47E±0.°08, h34km, n55,
σ1§10/51, mb4.2/17, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UBSI	**University, Be**	**0.80**	**87**	P	**Pn**	**17 14 48.8**	**+0.8**
UBSI				S	**Sn**	**17 14 57.3**	**-1.4**
UBSI				AML	AML		
MASI	**Maura Aman, Be**	**1.01**	**49**	P	**Pn**	**17 14 51.3**	**+0.3**
MASI				AML	AML		
KSI	**Kapahiang**	**1.13**	**82**	P	**Pn**	**17 14 53.2**	**+0.6**
KSI				AML	AML		
MNAI	**Manna**	**1.58**	**110**		**Pn**	**17 15 00.1**	**+1.3**
MNAI				Sn	**Sn**	**17 15 18.4**	**+0.4**
MNAI	**Manna**	**1.58**	**110**	P	**Pn**	**17 15 00.4**	**+1.6**
MNAI				AML	AML		
KRJI	**Kerinci**	**1.70**	**360**	P	**Pn**	**17 15 02.9**	**+2.3**
KRJI				S	**Sn**	**17 15 21.6**	**+0.4**
KRJI				AML	AML		
PPI	**Padang Panjang**	**3.50**	**342**	P	**Pn**	**17 15 28.2**	**+3.1**
PPI				AML	AML		
RPSI	**Rantau Prapat**	**6.94**	**338**	Pn	**Pn**	**17 16 12.2**	**-0.3**
BBJI	**Bungbulang**	**7.14**	**121**	Pn	**Pn**	**17 16 17.0**	**+1.7**
IPM	**Ipoh**	**8.24**	**357**	Pn	**Pn**	**17 16 30.7**	**+0.3**
KULM	**Kulim**	**9.07**	**355**	Pn	**Pn**	**17 16 42.8**	**+1.0**
CM31	**Chiang Mai Arr**	**22.26**	**354**	P	**P**	**17 19 28.1**	**+0.7**
CMAR	**Chiang Mai Arr**	**22.26**	**354**	P	**P**	**17 19 28.2**	**+0.8**
	0.7nm,0.5s,baz=181,slow=8.4,SNR=10						
	0.7nm,0.5s						
CMAR	**Chiang Mai Arr**	**22.26**	**354**	P	**P**	**17 19 27.8**	**+0.4**
CHTO	**Chiang Mai**	**22.61**	**354**	P	**P**	**17 19 30.2**	**-1.0**
CHTO				IAmb	IAmb	17 20 06.0	
	comp=Z,6.7nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.60**	**123**	P	**P**	**17 20 18.4**	**+0.9**
MORE	**Moreh**	**28.73**	**346**	P	**P**	**17 20 27.1**	**-0.5**
H08S2	**Diego Garcia H**	**29.08**	**261**	T	T	17 50 34.8	
	baz=84,slow=75,SNR=16						
H08S3	**Diego Garcia H**	**29.09**	**261**	T	T	17 50 37.2	
	baz=84,slow=75,SNR=21						
H08S1	**Diego Carcia H**	**29.10**	**261**	T	T	17 50 36.6	
	baz=84,slow=75,SNR=8.2						
KNRA	**Kununurra**	**29.32**	**116**	P	**P**	**17 20 33.1**	**+0.2**
KNRA				IAmb	IAmb	17 20 38.4	
	comp=Z,7.8nm,1.4s						
HMDM	**Hanimaadhoo**	**30.13**	**290**	P	**P**	**17 20 38.0**	**-2.1**
EVN	**Everest**	**34.59**	**337**	P	**P**	**17 21 17.5**	**-2.2**
EVN				IAmb	IAmb	17 21 33.4	
	comp=Z,2.9nm,1.0s						
WRA	**Warramunga Arr**	**35.83**	**119**	P	**P**	**17

BRJC				S		Sg	17 20 10.4	-0.2
VMM10	**El Carmen**	**0.74**	**143**	P		Pg	17 20 06.0	-0.1
VMM10				S		Sg	17 20 15.8	0.0
PTBC	**PUERTO BERRIO,**	**0.86**	**199**	P		Pg	17 20 08.0	-0.4
PTBC				S		Sg	17 20 19.4	-0.2
VMM09	**Lebrija**	**0.92**	**105**	P		Pg	17 20 09.8	+0.4
VMM09				S		Sg	17 20 21.5	+0.2
OCAC	**Ocana**	**1.22**	**44**	P		Pb	17 20 14.4	-1.0
OCAC				S		Sb	17 20 30.3	-1.2
BARC	**Barichara**	**1.25**	**128**	P		Pn	17 20 14.9	-1.2
BARC				S		Sb	17 20 30.5	-2.0
UREC	**San Jos de Ur**	**1.40**	**286**	P		Pn	17 20 17.7	-0.1
UREC				S		Sn	17 20 35.2	-1.4
SPBC	**San Pablo de B**	**1.70**	**176**	P		Pn	17 20 21.9	-0.2
SPBC				S		Sn	17 20 44.6	+0.3
HELC	**Santa Helena**	**1.77**	**229**	P		Pn	17 20 23.5	+0.2
HELC				S		Sb	17 20 48.2	+0.6
HELC	**Santa Helena**	**1.77**	**229**	P		Pn	17 20 24.1	+0.7
HELC				S		Sn	17 20 46.5	+0.1
RUSC	**La Rusia**	**1.82**	**143**	P		Pn	17 20 24.8	+0.6
RUSC				S		Sn	17 20 48.2	+0.4
RUSC	**La Rusia**	**1.82**	**143**	P		Pn	17 20 24.2	+0.1
RUSC				S		Sn	17 20 48.2	+0.4
NORC	**Norcasia**	**1.91**	**201**	P		Pn	17 20 25.4	+0.4
NORC				S		Sn	17 20 49.0	-0.4
GUY2C	**Guyana, Caldas**	**2.43**	**209**	P		Pn	17 20 33.8	+1.3
GUY2C				S		Sn	17 21 04.5	+1.8
TAMC	**Tame, Arauca**	**2.54**	**111**	P		Pn	17 20 34.9	+1.2
SJCC	**San Jacinto, C**	**2.71**	**339**	P		Pn	17 20 36.0	+0.1
SJCC				S		Sn	17 21 10.1	+1.1
PRAC	**Prado**	**3.69**	**191**	P		Pn	17 20 50.3	+0.9
PRAC				S		Sn	17 21 34.9	+1.6
URI	**Uribia**	**4.82**	**26**	S		Sn	17 22 02.4	+1.2

IDC 20 17:21:38.7±7.5, 12°82S×169°70E, h512km±123km, mb2.6/3, mbtmp3.7/5, Error ellipse: s-maj=126.9km s-min=23.7km az=155.0, Santa Cruz Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m s	ISC
MSVF	**Nonsavu**	**9.42**	**122**	P		P	17 23 50.0	-0.2
	3.9nm,0.6s,baz=288,slow=19,SNR=2.4							
DZM	**Mont Dzumac**	**9.71**	**198**	P		P	17 23 53.7	+0.5
	3.3nm,0.7s,baz=65,slow=19,SNR=1.6							
DZM				S		S	17 25 43.9	+0.1
	5.9nm,0.9s,baz=253,slow=22,SNR=1.9							
WRA	**Warramunga Arr**	**34.60**	**253**	P		P	17 27 45.1	+0.4
	0.3nm,0.4s,baz=83,slow=8.1,SNR=12							
	0.3nm,0.4s							
ASAR	**Alice Springs**	**35.57**	**247**	P		P	17 27 52.1	-0.7
	0.2nm,0.4s,baz=73,slow=9.8,SNR=18							
	0.2nm,0.4s							
ILAR	**Eielson Array**	**84.00**	**17**	P		P	17 33 14.4	0.0
	0.7nm,0.9s,baz=236,slow=4.7,SNR=4.2							
	0.7nm,0.9s							

*SJA **20** 17:23:18.2±0.6, 19°.95S×66°.87W, h278km±8km, ML3.6, MW3.6*
*SCB **20** 17:23:19.3±1.7, 19°.99S×66°.80W, h256km±15km, ML3.8/3, Error ellipse: s-maj=6.8km s-min=4.6km az=0.0*

ISC 20 17:23:19.3±2.0, 19°98S±0°.05×66°86W±0°.05, h254km±19km, n29, σ1s22/43, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m s	ISC
MOCB	**Mochara**	**1.71**	**138**	P	**Pn**	**17 24 01.3**		**+1.1**
MOCB				S	**S**	**17 24 30.8**		**-1.6**
MOCB				IAML		17 24 35.1		
	155nm,0.4s							
SOEO	**Opoqueri**	**1.71**	**325**	P	**Pn**	**17 24 02.0**		**+1.7**
SOET	**ToroToro**	**2.10**	**28**	P	**Pn**	**17 24 03.6**		**0.0**
GO01	**Chusmiza**	**2.22**	**278**	*eP*	**Pn**	**17 24 05.9**		**+1.2**
GO01				IAML		17 24 51.2		
	comp=Z,65nm,0.1s							
GO01	**Chusmiza**	**2.22**	**278**	P	**Pn**	**17 24 05.8**		**+1.1**
YJA	**Yavi**	**2.52**	**150**	*eP*	**Pn**	**17 24 09.3**		**+1.7**
YJA				*eS*	**S**	**17 24 45.4**		**-0.4**
YJA	**Yavi**	**2.52**	**150**	P	**Pn**	**17 24 08.4**		**+0.8**
PB11	**IPOC Station P**	**2.64**	**274**	*eP*	**Pn**	**17 24 09.2**		**+0.6**
PB11				*eS*	**S**	**17 24 47.9**		**+0.5**
PB11				IAML		17 24 51.0		
	comp=Z,108nm,0.1s							
PB11	**IPOC Station P**	**2.64**	**274**	P	**Pn**	**17 24 09.1**		**+0.6**
PB11				S	**S**	**17 24 47.1**		**-0.2**
PB11				IAML		17 24 47.9		
	comp=Z,239nm,0.2s							
PB09	**IPOC Station P**	**2.87**	**230**	*eP*	**Pn**	**17 24 09.4**		**-1.4**
PB09				*eS*	**S**	**17 24 53.6**		**+1.9**
PB09				IAML		17 24 56.2		
	comp=Z,65nm,0.2s							
PB09	**IPOC Station P**	**2.87**	**230**	P	**Pn**	**17 24 12.7**		**+1.8**
TA02	**Huaiquique**	**3.09**	**264**	*eP*	**Pn**	**17 24 13.8**		**+0.7**
TA02				*eS*	**S**	**17 24 54.1**		**-1.4**
PSGCX	**Pisagua**	**3.10**	**276**	*eP*	**Pn**	**17 24 13.4**		**+0.1**
PSGCX				*eS*	**S**	**17 24 55.1**		**-0.8**
PSGCX				IAML		17 24 58.3		
	comp=Z,56nm,0.2s							
PB02	**IPOC Station P**	**3.14**	**244**	*eP*	**Pn**	**17 24 14.5**		**+0.8**
PB02				*eS*	**S**	**17 24 55.8**		**-0.9**
PB02	**IPOC Station P**	**3.14**	**244**	P	**Pn**	**17 24 14.9**		**+1.2**
PB02				S	**S**	**17 24 55.9**		**-0.9**
PB02				IAML		17 24 56.1		
	comp=Z,269nm,0.3s							
TA01	**Diego Aracena**	**3.17**	**259**	*eP*	**Pn**	**17 24 14.5**		**+0.5**
TA01				IAML		17 25 00.1		
	comp=Z,37nm,0.2s							
BBOJ	**La Paz, Jacaqu**	**3.24**	**337**	P	**Pn**	**17 24 17.2**		**+1.8**
SOEJ	**Jacaque**	**3.24**	**337**	P	**Pn**	**17 24 17.2**		**+1.8**
PB07	**IPOC Station P**	**3.32**	**238**	*eP*	**Pn**	**17 24 16.5**		**+0.7**
PB07				*eS*	**S**	**17 24 59.8**		**-0.7**
PB07				IAML		17 25 03.5		
	comp=Z,149nm,0.2s							
PB03	**IPOC Station P**	**3.40**	**232**	*eP*	**Pn**	**17 24 17.1**		**+0.5**
PB03				*eS*	**S**	**17 25 00.9**		**-1.1**
PB03				IAML		17 25 04.1		
	comp=Z,148nm,0.1s							
PB12	**IPOC Station P**	**3.54**	**292**	*eP*	**Pn**	**17 24 18.1**		**-0.2**
PB12				*eS*	**S**	**17 25 03.0**		**-1.9**
PB12				IAML		17 25 03.9		
	comp=Z,51nm,0.3s							
AP01	**Chacalluta**	**3.66**	**295**	*eP*	**Pn**	**17 24 19.9**		**+0.5**
AP01				IAML		17 25 14.1		
	comp=Z,88nm,0.8s							
PB06	**IPOC Station P**	**3.71**	**222**	P	**Pn**	**17 24 21.6**		**+1.5**
BBOD	**La Paz, Gloria**	**3.71**	**333**	P	**Pn**	**17 24 21.8**		**+1.2**
BBOB	**La Paz, Bander**	**4.00**	**342**	P	**Pn**	**17 24 24.8**		**+0.8**
PB05	**IPOC Station P**	**4.23**	**227**	*eP*	**Pn**	**17 24 26.6**		**+0.4**
PB05				*eS*	**S**	**17 25 17.0**		**-2.2**
PB05				IAML		17 25 23.2		
	comp=Z,44nm,0.3s							
PB10	**IPOC Station P**	**4.92**	**224**	*eP*	**Pn**	**17 24 34.8**		**+0.6**
PB10				*eS*	**S**	**17 25 32.1**		**-1.9**
PB10				IAML		17 25 32.8		
	comp=Z,22nm,0.4s							
BBSD	**Serra de San D**	**6.55**	**66**	P	**Pn**	**17 24 53.8**		**-0.7**
SIV	**San Ignacio**	**6.79**	**55**	P	**Pn**	**17 24 56.6**		**-0.9**

IDC 20 17:24:04.3±8.9, 5°92S×146°79E, h78km±61km, mb3.3/2, mbtmp3.4/4, ML0.5/1, MS2.7/1, Error ellipse: s-maj=88.2km s-min=55.1km az=60.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m s	ISC
PMG	**Port Moresby**	**3.49**	**174**	P	Pn	17 24 56.0		-0.3
	0.4nm,0.3s,baz=6.3,slow=18,SNR=2.1							
PMG				S	Sn	17 25 37.1		+0.6
	8.0nm,0.3s,baz=188,slow=19,SNR=11							
	8.0nm,0.8s							
PMG				AML	AML			
WRA	**Warramunga Arr**	**18.46**	**220**	P	Pn	17 28 15.2		+0.1
	0.5nm,0.8s,baz=43,slow=12,SNR=5.3							
ASAR	**Alice Springs**	**21.57**	**214**	P	P	17 28 47.8		0.0
	0.6nm,1.0s,baz=40,slow=12,SNR=5.6							
	0.6nm,1.0s							
STKA	**Stephens Creek**	**26.28**	**190**	P	P	17 29 32.0		-0.6
	4.1nm,1.1s,baz=13,slow=9.3,SNR=3.3							
	4.1nm,1.1s							
CMAR	**Chiang Mai Arr**	**53.03**	**298**	LR	LR	17 56 22.0		
	comp=Z,7.2nm,21.3s,baz=240,slow=36							

*IDC **20** 17:33:09.2±7.2, 38°.00N×74°.22E, h69km±61km, mb3.6/5, mbtmp3.9/9, ML3.3/4, Error ellipse: s-maj=59.9km s-min=28.8km az=174.0*
*NNC **20** 17:33:24.1±5.7, 38°.70N×73°.79E, h120km±73km, mb3.1, mpv3.7, Error ellipse: s-maj=51.9km s-min=32.7km az=165.0*

ISC 20 17:33:15.1±0.7, 38°22N±0°.06×74°3E±0°.1, h150km, n20, σ3s25/25, mb3.5/4, 5C, Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m s	ISC
AAK	**Ala-Archa**	**4.41**	**2**	⇑Pn	**Pn**	**17 34 23.0**		**+2.1**
	2.8nm,0.5s							
AAK				⇑Sn	**Sn**	**17 35 08.8**		**-3.4**
	15nm,0.7s							
TSSA	**Tissa**	**5.59**	**164**	*i* P	**Pn**	**17 34 38.2**		**+1.6**
TSSA				*i* S	**Sn**	**17 35 36.7**		**-3.4**
TSSA				*i* S		17 35 37.0		
KK31	**Karatay Array**	**5.65**	**331**	Pn	**Pn**	**17 34 38.7**		**+1.5**
	8.1nm,0.2s,baz=152,slow=15,SNR=444							
KK31				Sn	**Sn**	**17 35 38.3**		**-3.0**
	7.6nm,0.3s,baz=152,slow=24,SNR=9.0							
THN	**Thein Dam**	**5.89**	**168**	*i* P	**Pn**	**17 34 43.5**		**+3.0**
THN				IAmb	IAmb	17 34 43.9		
	comp=Z,13nm,0.8s							
THN				*i* S	**Sn**	**17 35 43.1**		**-4.1**
DHRM	**DHARAMSHALA**	**6.18**	**164**	*i* P	**Pn**	**17 34 46.1**		**+1.6**
DHRM				IAmb	IAmb	17 34 50.8		
	comp=Z,21nm,0.6s							
DHRM				*i* S	**Sn**	**17 35 50.2**		**-4.2**
KLP	**Kalpa**	**7.43**	**153**	*i* P	**Pn**	**17 35 01.7**		**+0.5**
KLP				IAmb	IAmb	17 35 11.4		
	comp=Z,13nm,0.9s							
KLP				IAML		17 35 42.3		
	comp=N,8.1nm,0.5s							
KLP				*i* S	**Sn**	**17 36 20.7**		**-3.7**
SMLA	**Simla**	**7.47**	**161**	*i* P	**Pn**	**17 35 02.8**		**+1.4**
SMLA				IAmb	IAmb	17 35 10.7		
	comp=Z,11nm,0.5s							
SMLA				*i* S	**Sn**	**17 36 19.2**		**-5.6**
KUDL	**Kundal**	**10.22**	**169**	*i* S	Sn	17 37 21.2		-10
MKAR	**Makanchi Array**	**10.40**	**32**	P	**Pn**	**17 35 38.7**		**-1.7**
	comp=Z,0.1nm,0.3s,baz=215,slow=19,SNR=3.6							
	comp=Z,0.9nm,0.8s							
MKAR				AML	AML			
KURBB	**Kurchatov Arra**	**12.76**	**12**	P	**Pn**	**17 36 10.3**		**-0.7**
	comp=Z,0.3nm,0.3s,baz=202,slow=10,SNR=8.7							
	comp=Z,1.2nm,0.3s							
KURBB				AML	AML			
KURBB	**Kurchatov Arra**	**12.76**	**12**	⇑P	**P**	**17 36 17.8**		**+1.6**
	comp=Z,2.5nm,0.6s							
KURK	**Kurchatov**	**12.87**	**12**	⇑P	**P**	**17 36 17.8**		**+0.4**
	comp=Z,1.0nm,0.6s							
BVAR	**Borovoye Array**	**15.05**	**351**	P	**P**	**17 36 40.7**		**-1.0**
	comp=Z,0.2nm,0.3s,baz=154,slow=9.5,SNR=16							
	comp=Z,2.2nm,0.5s							
BVAR				AML	AML			
AB31	**Akbulak array**	**15.10**	**321**	P	**P**	**17 36 40.6**		**-1.7**
	comp=Z,0.5nm,0.4s,baz=137,slow=10,SNR=18							
AB31				⇑S	**Sn**	**17 39 20.2**		**-8.1**
	comp=Z,0.7nm,0.6s,baz=133,slow=23,SNR=6.9							
ZALV	**Zalesovo Beam**	**17.31**	**21**	P	**Pn**	**17 37 08.2**		**+0.7**
	comp=Z,0.9nm,0.3s,baz=215,slow=11,SNR=15							
	comp=Z,2.5nm,0.3s							
ZALV				AML	AML			
SONM	**Songino Array**	**25.21**	**57**	P	**P**	**17 38 30.1**		**+3.2**
	comp=Z,0.8nm,0.6s,baz=260,slow=8.6,SNR=4.3							
	comp=Z,0.8nm,0.6s							
BRTR	**Keskin Array B**	**31.45**	**286**	P	**P**	**17 39 24.6**		**+2.2**
	comp=Z,0.7nm,0.8s,baz=84,slow=6.3,SNR=3.6							
	comp=Z,0.7nm,0.8s							
FINES	**FINESS Array B**	**37.57**	**324**	P	P	17 40 17.6		+3.1
	comp=Z,5.7nm,1.1s,baz=96,slow=7.5,SNR=4.3							
	comp=Z,5.7nm,1.1s							
HFS	**Hagfors**	**43.36**	**321**	P	P	17 41 05.6		+3.5
	comp=Z,0.4nm,0.4s,baz=111,slow=8.1,SNR=4.3							
	comp=Z,0.4nm,0.4s							
TORD	**Torodi Ar. Bea**	**68.35**	**270**	P	**P**	**17 44 03.1**		**+2.6**
	comp=Z,1.0nm,0.5s,baz=47,slow=5.2,SNR=6.1							
	comp=Z,1.0nm,0.5s							

*IDC **20** 17:52:31.8±0.7, 44°.58N×101°.35E, h0km, mb3.8/11, mbtmp3.9/18, ML3.6/7, MS3.4/9, Error ellipse: s-maj=11.3km s-min=9.9km az=134.0*
*NEIC **20** 17:52:34.4±1.9, 44°.58N±0°.07×101°.3E±0°.1, h16km±5km, mb4.2/34, Error ellipse: s-maj=12.7km s-min=9.9km az=105.0*

ISC 20 17:52:36.5±0.5, 44°56N±0°.07×101°29E±0°.06, h35km, n66, σ0s97/61, mb4.0/20, MS3.4/7, Mongolia

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m s	ISC
SONM	**Songino Array**	**4.83**	**45**	Pn	**Pn**	**17 53 45.6**		**-1.1**
	14nm,0.3s,baz=228,slow=15,SNR=127							
SONM				Pg		17 53 59.3		
	41nm,0.3s,baz=225,slow=18,SNR=38							
SONM				Sn	**Sn**	**17 54 42.0**		**+0.7**
	15nm,0.3s,baz=220,slow=29,SNR=5.1							
SONM				Lg	Lg	17 55 02.3		
	46nm,0.3s,baz=229,slow=33,SNR=16							
SONM				LR	LR	17 55 51.7		
	comp=Z,180nm,18.1s,baz=194,slow=42							
	24nm,0.3s							
SONM				AML	AML			
ULN	**Ulaanbaatar**	**5.19**	**48**		**Pn**	**17 53 51.1**		**-0.6**
ULN				Sn	**Sn**	**17 54 49.3**		**-1.1**
TLY	**Talaya**	**7.29**	**12**	Pn	**Pn**	**17 54 20.8**		**+0.3**
	1.0nm,0.3s,baz=239,slow=11,SNR=2.2							
TLY				Lg	Lg	17 56 18.2		
	5.0nm,0.3s,baz=112,slow=20,SNR=7.7							
	4.6nm,0.4s							
TLY				AML	AML			
TLY	**Talaya**	**7.29**	**12**		**Pn**	**17 54 19.6**		**-0.9**
LZDM	**Lanzhou Array**	**8.79**	**167**	Pn	**Pn**	**17 54 40.9**		**-0.4**
	baz=325,slow=13							
LZDM				Lg	Lg	17 57 09.4		
	baz=313,slow=48							
	4.9nm,0.5s							
MKAR	**Makanchi Array**	**13.47**	**286**	Pn	**Pn**	**17 55 43.7**		**-1.3**
	0.1nm,0.3s,baz=89,slow=14,SNR=3.5							
MKAR				Lg	Lg	17 59 29.9		
	0.1nm,0.3s,baz=101,slow=25,SNR=4.1							
MKAR				LR	LR	18 01 26.2		
	comp=Z,60nm,20.6s,baz=75,slow=40							
	0.6nm,0.6s							
MKAR				AML	AML			
HILR	**Hailar Array B**	**13.53**	**62**	Lg	Lg	17 59 37.3		
	baz=268,slow=16							
ZAA0	**Zalesovo Array**	**14.24**	**317**	Pn	**Pn**	**17 55 58.0**		**+2.6**
ZALV	**Zalesovo Beam**	**14.24**	**317**	Pn	**Pn**	**17 55 55.5**		**0.0**
	0.3nm,0.3s,baz=122,slow=11,SNR=6.6							
ZALV				Lg	Lg	17 59 52.9		
	0.2nm,0.3s,baz=123,slow=25,SNR=10							
	0.4nm,0.3s							
ZALV				AML	AML			
ENH	**Enshi**	**15.67**	**153**		**Pn**	**17 56 15.6**		**+1.0**
ENH				IAmb	IAmb	17 56 21.6		
	comp=Z,8.2nm,0.9s							
PDGK	**Podgornoye**	**15.75**	**273**		**Pn**	**17 56 13.6**		**-2.0**
KURK	**Kurchatov**	**16.44**	**300**		**P**	**17 56 25.9**		**-0.8**
KURBB	**Kurchatov Arra**	**16.47**	**300**	Pn	**Pn**	**17 56 24.9**		**+0.3**
	comp=Z,0.1nm,0.3s,baz=108,slow=11,SNR=16							
KURBB				Lg	Lg	18 01 09.3		
	baz=106,slow=30,SNR=5.0							
	comp=Z,3.4nm,0.8s							
KURBB				AML	AML			
WUS	**Wushi**	**16.51**	**266**		**P**	**17 56 26.9**		**-0.9**
WUS				IAmb	IAmb	17 56 29.2		
	comp=Z,6.7nm,0.6s							
PRZ	**Przheval'sk**	**16.72**	**271**	P	**Pn**	**17 56 27.9**		**-0.2**
PRZ				IAmb	IAmb	17 56 32.2		
	comp=Z,17nm,1.1s							
TARG	**Taragay, Kyrgy**	**17.36**	**269**	P	**P**	**17 56 37.4**		**0.0**
AAK	**Ala-Archa**	**19.47**	**274**	P	**Pn**	**17 57 01.3**		**-0.4**
	comp=Z,0.3nm,0.3s,baz=117,slow=10,SNR=6.8							
AAK				LR	LR	18 05 08.0		
	comp=Z,138nm,19.0s,baz=89,slow=39							
	comp=Z,1.6nm,0.5s							
AAK				AML	AML			
AAK	**Ala-Archa**	**19.47**	**274**		**P**	**17 57 00.0**		**-0.3**
EVN	**Everest**	**20.22**	**220**	P	**P**	**17 57 08.9**		**-0.1**
EVN				IAmb	IAmb	17 57 12.3		
	comp=Z,5.2nm,0.8s							
ARSB	**Arslanbob**	**20.93**	**271**	P	**P**	**17 57 16.4**		**+0.3**

MORE	**Moreh**	**21.06**	**198**		**P**	**17 57 18.4**		**+0.9**
MORE				IAmb	IAmb	17 57 23.8		
	comp=Z,15nm,1.4s							
KLR	**Kul'dur**	**21.25**	**66**	P	**P**	**17 57 19.1**		**-0.3**
	comp=Z,1.6nm,0.6s,baz=266,slow=8.1,SNR=4.2							
	comp=Z,1.6nm,0.6s							
KSRS	**Korea Array**	**21.26**	**100**	P	**P**	**17 57 20.0**		**+0.5**
	comp=Z,3.3nm,0.8s,baz=295,slow=11,SNR=7.8							
	comp=Z,3.3nm,0.8s							
USRK	**Ussuriysk Ar.**	**21.89**	**80**	P	**P**	**17 57 27.4**		**+1.2**
	comp=Z,1.2nm,0.8s,baz=287,slow=11,SNR=1.6							
	comp=Z,1.2nm,0.8s							
BVAR	**Borovoye Array**	**21.90**	**304**	P	**P**	**17 57 27.5**		**+1.2**
	comp=Z,6.4nm,0.5s,baz=101,slow=10,SNR=32							
	comp=Z,6.4nm,0.5s							
BORK	**Borovoye**	**21.95**	**304**		**P**	**17 57 28.1**		**+1.2**
BORK				IAmb	IAmb	17 57 33.7		
	comp=Z,12nm,0.9s							
KK31	**Karatay Array**	**22.19**	**277**	P	**P**	**17 57 30.1**		**+0.6**
KKAR	**Karatay Array**	**22.19**	**277**	P	**P**	**17 57 29.5**		**0.0**
DRK	**Karamyk**	**22.42**	**267**	P	**P**	**17 57 32.1**		**-0.2**
DRK				IAmb	IAmb	17 57 34.8		
	comp=Z,13nm,1.4s							
BTK	**Batken**	**22.91**	**269**	P	**P**	**17 57 36.8**		**-0.4**
BTK				IAmb	IAmb	17 57 40.8		
	comp=Z,3.8nm,0.9s							
SLVN	**Son La**	**23.27**	**174**	P	**P**	**17 57 42.0**		**+1.1**
NRIK	**Noril'sk**	**25.81**	**349**	P	**P**	**17 58 05.2**		**+1.3**
	comp=Z,1.9nm,0.7s,baz=153,slow=9.2,SNR=3.9							
	comp=Z,1.9nm,0.7s							
NRIK	**Noril'sk**	**25.81**	**349**	IAmb	IAmb	17 58 06.4		
	comp=Z,6.6nm,1.1s							
CMAR	**Chiang Mai Arr**	**26.10**	**185**	P	**P**	**17 58 08.7**		**+1.7**
	comp=Z,1.4nm,0.8s,baz=356,slow=9.1,SNR=10							
CMAR				LR	LR	18 08 09.7		
	comp=Z,7.3nm,20.7s,baz=80,slow=36							
	comp=Z,1.4nm,0.8s							
CMAR	**Chiang Mai Arr**	**26.10**	**185**	P	**P**	**17 58 07.7**		**+0.7**
AB31	**Akbulak array**	**28.37**	**294**	P	**P**	**17 58 28.1**		**+1.0**
AB31				IAmb	IAmb	17 58 29.6		
	comp=Z,2.5nm,0.8s							
ABKAR	**Akbulak array**	**28.37**	**294**	P	**P**	**17 58 28.2**		**+1.1**
ARTI	**Arti**	**29.26**	**309**	LR	LR	18 11 35.0		
	comp=Z,60nm,19.8s,baz=196,slow=39							
AKTO	**Aktyubinsk**	**29.49**	**297**	P	**P**	**17 58 36.5**		**-0.5**
	comp=Z,1.5nm,0.7s,baz=86,slow=8.7,SNR=4.5							
	comp=Z,1.5nm,0.7s							
KBZ	**Khabaz**	**41.12**	**290**	LR	LR	18 19 37.9		
	comp=Z,34nm,18.5s,baz=75,slow=40							
MLR	**Muntele Rosu**	**51.37**	**299**	LR	LR	18 25 26.6		
	comp=Z,70nm,18.8s,baz=146,slow=38							
D19K	**Kuna River**	**53.02**	**27**	P	**P**	**18 01 49.8**		**+0.4**
E19K	**Redstone River**	**53.82**	**28**	P	**P**	**18 01 56.0**		**+0.8**
F19K	**Shaleruckik Mo**	**53.95**	**29**	P	**P**	**18 01 58.6**		**+2.5**
F19K				IAmb	IAmb	18 02 17.5		
	comp=Z,6.6nm,1.4s							
G19K	**Purcell Mounta**	**54.53**	**29**	P	**P**	**18 02 01.0**		**+0.6**
D22K	**Ayikyak River**	**54.53**	**25**	P	**P**	**18 02 00.9**		**+0.4**
D22K				IAmb	IAmb	18 02 11.8		
	comp=Z,4.3nm,1.2s							
K17K	**Iditarod**	**55.87**	**33**	P	**P**	**18 02 11.1**		**+1.0**
C27K	**Jago River**	**56.69**	**22**	P	**P**	**18 02 16.7**		**+0.8**
H24K	**Noodor Dome**	**57.81**	**27**	P	**P**	**18 02 25.1**		**+1.2**
BMAR	**Burnt Mountain**	**57.84**	**25**	P	**P**	**18 02 25.4**		**+1.4**
IL31		**58.81**	**28**	P	**P**	**18 02 30.9**		**+0.2**
IL31				IAmb	IAmb	18 02 51.0		
	comp=Z,1.8nm,1.1s							
ILAR	**Eielson Array**	**58.81**	**28**	P	**P**	**18 02 31.6**		**+0.8**
	comp=Z,1.4nm,0.7s,baz=294,slow=6.2,SNR=13							
	comp=Z,1.4nm,0.7s							
ILAR	**Eielson Array**	**58.81**	**28**	P	**P**	**18 02 31.0**		**+0.2**
SUA	**Susitna One**	**59.50**	**32**	P	**P**	**18 02 36.2**		**+0.4**
KDAK	**Kodiak Island**	**61.05**	**36**	P	**P**	**18 02 46.6**		**+0.4**
I30M	**Mount Dempster**	**61.77**	**24**	P	**P**	**18 02 51.0**		**-0.2**
I30M				IAmb	IAmb	18 02 51.8		
	comp=Z,1.9nm,0.8s							
YKA	**Yellowknife Ar**	**69.48**	**17**	P	**P**	**18 03 41.1**		**+0.4**
	comp=Z,1.2nm,0.8s,baz=332,slow=6.0,SNR=4.3							
	comp=Z,1.2nm,0.8s							
YKA	**Yellowknife Ar**	**69.48**	**17**	P	**P**	**18 03 40.7**		**-0.1**
CRAG	**Craig**	**70.25**	**29**	P	**P**	**18 03 44.8**		**-0.8**
BLKN	**Baker Lake**	**70.61**	**8**	P	**P**	**18 03 46.2**		**-1.4**
WRA	**Warramunga Arr**	**70.94**	**147**	P	**P**	**18 03 49.2**		**-0.9**
	comp=Z,1.1nm,1.1s,baz=345,slow=7.1,SNR=5.5							
	comp=Z,1.1nm,1.1s							
WR8	**Warramunga Arr**	**71.01**	**147**	P	**P**	**18 03 49.8**		**-0.8**
MOBC	**Moresby Island**	**72.51**	**30**	P	**P**	**18 03 58.2**		**-1.2**
ASAR	**Alice Springs**	**74.16**	**149**	P	**P**	**18 04 09.0**		**-0.3**
	comp=Z,0.6nm,0.8s,baz=341,slow=5.7,SNR=5.1							
ASAR				LR	LR	18 38 11.2		
	comp=Z,37nm,20.8s,baz=169,slow

mbtmp4.4/34,MS3.6/42,Error ellipse: s-maj=15.1km s-min=9.0km az=103.0
*NEIC **20** 18:01:26.4±1.4,40°.24N±0°.05×142°.35E±0°.08,h55km±4km, mb4.9/161,Error ellipse: s-maj=8.9km s-min=7.3km az=120.0*
*GFZ **20** 18:01:26.9±0.3,40°N±4°×14°2E±°,h58km,M5.2/30, mb4.8/30*

ISC 20 18:01:24.1±0.3,**40°.16N**±0°.03×**142°.53E**±0°.04,**h42**km±2km, **h42**km:**pP-P,n479,**σ1$**40**/475,**mb4.8**/175,**MS3.8**/42, **14C-22D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JTH	**Tanohata**	**0.56**	**247**	⇓*i*P	**Pn**	**18 01 34.6**	**-1.0**
JTH				A	A	18 01 34.6	
	comp=N,22nm,0.4s,comp=E,19nm,0.5s						
JTH				⇓*e*S	**Sn**	**18 01 42.5**	**-1.3**
JKEN	**Kujiedanarisaw**	**0.63**	**274**	⇓*i*P	**Pn**	**18 01 35.4**	**-1.2**
JKEN				A	A	18 01 35.4	
	comp=N,18nm,0.7s,comp=E,23nm,0.4s						
JANG	**Nango**	**0.80**	**286**	⇓*i*P	**Pn**	**18 01 38.2**	**-0.8**
JKZ	**Kuzumaki**	**0.94**	**260**	⇓*i*P	**Pn**	**18 01 40.5**	**-0.4**
JKZ				⇓S	**Sn**	**18 01 52.2**	**-0.9**
JOM	**Ohasama**	**1.17**	**235**	⇓*i*P	**Pn**	**18 01 44.2**	**+0.1**
JOM				A	A	18 01 44.2	
	comp=N,12nm,0.4s,comp=E,19nm,0.7s						
JARK	**Aomorirokkasho**	**1.22**	**314**	⇓*i*P	**Pn**	**18 01 44.6**	**-0.1**
JARK				A	A	18 01 44.6	
	comp=N,14nm,1.2s,comp=E,24nm,0.7s						
OFUJ	**Ofunato**	**1.27**	**212**	⇓*i*P	**Pn**	**18 01 45.3**	**-0.1**
OFUJ				A	A	18 01 45.3	
	comp=N,13nm,0.3s,comp=E,13nm,0.7s						
OFUJ				⇓S	**Sn**	**18 02 01.4**	**+0.3**
JTM	**Tenmabayashi**	**1.28**	**300**		**Pn**	**18 01 45.6**	**+0.1**
JTM				Sn	**Sn**	**18 02 00.2**	**-1.2**
JTM	**Tenmabayashi**	**1.28**	**300**	P	**Pn**	**18 01 45.8**	**+0.3**
JTM	**Tenmabayashi**	**1.28**	**300**	⇓*i*P	**Pn**	**18 01 45.6**	**+0.1**
JTM				A	A	18 01 45.6	
	comp=N,12nm,1.9s,comp=E,8.0nm,0.9s						
JTM				⇓S	**Sn**	**18 02 02.1**	**+0.7**
JSZI	**Iwateshizukuis**	**1.28**	**251**	A	A	18 01 45.4	
	comp=N,28nm,0.8s,comp=E,29nm,0.9s						
JAHD	**Aomorihigashid**	**1.43**	**321**	A	A	18 01 48.1	
	comp=N,22nm,0.7s,comp=E,17nm,1.0s						
JMK	**Ichinoseki**	**1.57**	**220**	A	A	18 01 49.6	
	comp=N,9.0nm,0.6s,comp=E,17nm,0.6s						
JKMT	**Kesennumamotoy**	**1.57**	**212**	A	A	18 01 49.7	
	comp=N,6.0nm,1.0s,comp=E,9.0nm,2.2s						
JRG	**Rokugo**	**1.65**	**243**	A	A	18 01 50.7	
	comp=N,15nm,0.7s,comp=E,13nm,1.4s						
JOT	**Ohata**	**1.66**	**318**	A	A	18 01 51.5	
	comp=N,6.0nm,3.2s,comp=E,6.0nm,3.7s						
JHHS	**Hirosakihyakuz**	**1.73**	**287**	A	A	18 01 52.1	
	comp=N,14nm,1.5s,comp=E,17nm,2.9s						
JNTW	**Noshirotokiwa**	**1.81**	**274**	A	A	18 01 53.3	
	comp=N,23nm,1.5s,comp=E,27nm,1.1s						
JSI2	**Shiura 2**	**1.84**	**300**	A	A	18 01 54.0	
	comp=N,13nm,1.9s,comp=E,15nm,2.1s						
JYW	**Yuwa**	**1.89**	**252**	A	A	18 01 54.3	
	comp=N,23nm,0.7s,comp=E,19nm,1.0s						
ERM	**Erimo**	**1.91**	**14**	*ce*P	**Pn**	**18 01 56.0**	**+1.8**
ERM	**Erimo**	**1.91**	**14**		**Pn**	**18 01 55.1**	**+0.9**
ERM				Sn	**Sn**	**18 02 18.3**	**+1.2**
ERM	**Erimo**	**1.91**	**14**	P	**Pn**	**18 01 57.4**	**+3.2**
JIW	**Iwasaki**	**1.97**	**283**	A	A	18 01 55.7	
	comp=N,7.0nm,2.6s,comp=E,7.0nm,3.1s						
JYK	**Kaneyama**	**2.09**	**234**	A	A	18 01 57.0	
	comp=N,5.0nm,2.0s,comp=E,6.0nm,1.8s						
JNBK	**Urakawa-nobuka**	**2.12**	**5**	A	A	18 01 58.6	
	comp=N,6.0nm,3.6s,comp=E,5.0nm,2.1s						
JSHD	**Hidakashinhida**	**2.25**	**359**	A	A	18 02 00.3	
	comp=N,12nm,2.1s,comp=E,8.0nm,1.2s						
JOU	**Okura**	**2.30**	**219**	A	A	18 02 00.2	
	comp=N,8.0nm,0.6s,comp=E,7.0nm,0.6s						
JIAM	**Iburiatsuma**	**2.50**	**350**	A	A	18 02 03.9	
	comp=N,13nm,1.0s,comp=E,15nm,0.7s						
JYA	**Atsumi**	**2.68**	**235**	A	A	18 02 05.6	
	comp=N,9.0nm,2.4s,comp=E,14nm,1.3s						
JYS	**Shirataka**	**2.72**	**225**	A	A	18 02 06.1	
	comp=N,11nm,2.2s,comp=E,13nm,2.8s						
JMST	**Minamisoumatoc**	**2.75**	**208**	A	A	18 02 06.5	
	comp=N,6.0nm,0.6s,comp=E,5.0nm,1.4s						
JYAR	**Yonezawaarcadi**	**2.91**	**220**	A	A	18 02 08.8	
	comp=N,13nm,1.0s,comp=E,18nm,1.0s						
JKA	**Kamikawa-asahi**	**3.95**	**1**		**Sn**	**18 03 13.5**	**+6.2**
JKA	**Kamikawa-asahi**	**3.95**	**1**		**Pn**	**18 02 22.1**	**-0.1**
JKA	**Kamikawa-asahi**	**3.95**	**1**	P	**Pn**	**18 02 23.6**	**+1.4**
ASAJ	**Asahikawa**	**3.95**	**1**	P	**Pn**	**18 02 23.9**	**+1.7**
	comp=E,38nm,0.5s,baz=180,slow=9.1,SNR=5.3						
ASAJ				S	**Sn**	**18 03 13.5**	**+6.2**
	comp=E,324nm,0.9s,baz=12,slow=12,SNR=8.5						
ASAJ				LR	LR	18 04 23.0	
	comp=E,1μm,21.7s,baz=116,slow=44						
NMR	**Nemuro--Hokkai**	**4.00**	**36**	*e*P	**Pn**	**18 02 22.0**	**-0.8**
NMR				*e*S	**Sn**	**18 03 03.9**	**-4.5**
RUSJ	**Misakicho**	**4.43**	**26**	*e*P	**Pn**	**18 02 30.2**	**+1.5**
RUSJ				*e*S	**Sn**	**18 03 18.3**	**-0.7**
YUK	**Yuzh-Kuril'sk**	**4.60**	**32**	*e*P	**Pn**	**18 02 31.4**	**+0.4**
YUK				*e*S	**Sn**	**18 03 19.4**	**-3.7**
YUK				pmax	pmax		
	comp=E,280nm,0.5s						
YUK				pmax	pmax		
	comp=Z,416nm,0.5s						
YUK				pmax	pmax		
	comp=N,173nm,0.4s						
YUK				smax	smax		
	comp=N,1μm,0.6s						
YUK				smax	smax		
	comp=E,2μm,0.5s						
MJB9	**Matsu-Tunnel**	**4.96**	**225**		**Pn**	**18 02 39.6**	**+3.6**
MAJO	**Matsushiro**	**4.96**	**225**	⇓*i*P	**Pn**	**18 02 38.1**	**+2.1**
MAJO	**Matsushiro**	**4.96**	**225**		**Pn**	**18 02 38.4**	**+2.4**
MAJO	**Matsushiro**	**4.96**	**225**	P	**Pn**	**18 02 38.9**	**+2.9**
MJAR	**Matsushiro Arr**	**4.96**	**225**	P	**Pn**	**18 02 38.2**	**+2.2**
	comp=E,48nm,0.7s,baz=32,slow=14,SNR=179						
MJAR				LR	LR	18 04 48.9	
	comp=E,558nm,21.4s,baz=43,slow=42						
MJAR	**Matsushiro Arr**	**4.96**	**225**	P	**Pn**	**18 02 38.5**	**+2.5**
MJAR	**Matsushiro Arr**	**4.96**	**225**		**Pn**	**18 02 38.5**	**+2.5**
JGF	**Kuroka**	**6.12**	**224**		**Pn**	**18 02 54.5**	**+2.5**
JGF	**Kuroka**	**6.12**	**224**	P	**Pn**	**18 02 54.6**	**+2.6**
	comp=Z,88nm,0.6s						
KUR	**Kuril'sk**	**6.42**	**36**	*e*P	**Pn**	**18 02 56.5**	**+0.5**
KUR				*e*S	**Sn**	**18 04 04.5**	**-3.4**
KUR				pmax	pmax		
	comp=Z,110nm,0.6s						
KUR				pmax	pmax		
	comp=N,25nm,0.4s						
KUR				pmax	pmax		
	comp=E,57nm,0.5s						
KUR				smax	smax		
	comp=E,242nm,0.6s						
KUR				smax	smax		
	comp=N,232nm,0.5s						
JSG	**Sagara**	**6.47**	**214**	Pn	**Pn**	**18 02 58.7**	**+1.8**
INU	**Inuyama**	**6.49**	**224**		**Pn**	**18 02 58.8**	**+1.7**
INU	**Inuyama**	**6.49**	**224**	P	**Pn**	**18 02 59.6**	**+2.6**
	comp=Z,74nm,0.8s						
TEY	**Ternei**	**6.54**	**320**	*e*P	Pn	18 02 47.9	-10
YSS	**Yuzhno-Sakhali**	**6.79**	**1**	⇑*i*P	**Pn**	**18 03 03.0**	**+1.8**
YSS	**Yuzhno-Sakhali**	**6.79**	**1**		**Pn**	**18 03 02.3**	**+1.1**
YSS	**Yuzhno-Sakhali**	**6.79**	**1**	P	**Pn**	**18 03 01.6**	**+0.4**
	comp=Z,52nm,0.9s						
JHJ2	**Mitsune**	**7.36**	**198**	Pn	**Pn**	**18 03 11.3**	**+2.2**
JHJ	**Hachijo jima 2**	**7.37**	**198**	P	**Pn**	**18 03 09.1**	**0.0**
	comp=Z,7.2nm,0.4s,baz=4.1,slow=14,SNR=6.7						
JHJ				S	**Sn**	**18 04 26.5**	**-4.8**
	comp=Z,9.0nm,0.3s,baz=232,slow=22,SNR=1.5						
USA0B	**Ussuriysk Arra**	**8.80**	**301**	⇑*e*P	**Pn**	**18 03 32.2**	**+3.5**
USA0B	**Ussuriysk Arra**	**8.80**	**301**		**Pn**	**18 03 27.6**	**-1.1**
USRK	**Ussuriysk Ar.**	**8.80**	**301**	P	**Pn**	**18 03 30.3**	**+1.6**
	comp=Z,12nm,0.7s,baz=102,slow=16,SNR=32						
JMN	**Monobe**	**9.44**	**230**	Pn	**Pn**	**18 03 38.2**	**+0.7**
TYV	**Tymovskoe**	**10.70**	**0**	*e*P	**Pn**	**18 03 55.9**	**+1.2**
TYV				*e*S	**Sn**	**18 05 53.1**	**0.0**
TYV				pmax	pmax		
	comp=Z,100nm,2.3s						
TYV				pmax	pmax		
	comp=Z,14nm,1.0s						
TYV				smax	smax		
	comp=N,400nm,4.5s						
TYV				smax	smax		
	comp=E,300nm,4.5s						
TYV				smax	smax		
	comp=N,17nm,1.7s						
TYV				smax	smax		
	comp=E,18nm,1.7s						
JNU	**Nakatsue**	**11.69**	**237**	P	**Pn**	**18 04 08.9**	**+0.5**
	comp=E,8.7nm,0.8s,baz=50,slow=14,SNR=4.7						
KSRS	**Korea Array**	**11.71**	**261**	P	**Pn**	**18 04 11.1**	**+2.5**
	comp=E,6.5nm,1.0s,baz=73,slow=14,SNR=6.3						
KSRS				LR	LR	18 08 24.4	
	comp=E,379nm,18.5s,baz=65,slow=36						
KS19	**Wonju Array Si**	**11.74**	**262**	Pn	**Pn**	**18 04 08.3**	**-0.7**
KSAR	**Wonju Array Be**	**11.74**	**261**	P	**Pn**	**18 04 08.1**	**-0.9**
KSAR	**Wonju Array Be**	**11.74**	**261**	Pn	**Pn**	**18 04 08.1**	**-0.9**
JTU	**Tsushima**	**11.86**	**246**	Pn	**Pn**	**18 04 12.7**	**+2.1**
KLR	**Kul'dur**	**11.86**	**323**	P	**Pn**	**18 04 12.1**	**+1.5**
	comp=E,4.1nm,0.9s,baz=152,slow=12,SNR=5.9						
KLR				LR	LR	18 08 58.3	
	comp=E,346nm,18.4s,baz=138,slow=38						
KLR	**Kul'dur**	**11.86**	**323**	⇓*e*P	**Pn**	**18 04 12.2**	**+1.6**
BNX	**BinXian**	**12.40**	**302**	⇑P	**Pn**	**18 04 20.6**	**+2.7**
BNX				pmax	pmax		
	comp=E,7.0nm,0.7s						
TJN	**Taejon**	**12.50**	**257**	P	**Pn**	**18 04 19.5**	**+0.2**
TJN	**Taejon**	**12.50**	**257**	Pn	**Pn**	**18 04 19.5**	**+0.2**
TJN	**Taejon**	**12.50**	**257**	P	**Pn**	**18 04 21.8**	**+2.4**
	comp=Z,134nm,1.6s						
JCJ	**Chichijima**	**13.03**	**181**	LR	LR	18 10 44.7	
	comp=Z,74nm,20.7s,baz=300,slow=43						
JSU	**Suzuyama**	**13.05**	**232**	Pn	**Pn**	**18 04 26.8**	**0.0**
CN2	**Changchun**	**13.22**	**292**	P	**P**	**18 04 35.1**	**-3.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
DL2	**Dalian**	**16.17**	**272**	P	**P**	**18 05 10.0**	**-0.9**
DL2				sP	**sP**	**18 05 28.5**	**+2.1**
DL2				*e*S	**Sn**	**18 08 09.9**	**+3.4**
DL2				pmax	pmax		
	comp=Z,28nm,0.8s						
DL2				pmax	pmax		
	comp=Z,260nm,3.7s						
DL2				L	L		
	comp=Z,540nm,21.2s						
DL2				L	L		
	comp=Z,610nm,21.6s						
DL2				L	L		
	comp=Z,380nm,17.3s						
PEA0B	**Petropavlovsk-**	**16.57**	**34**	P	**P**	**18 05 14.8**	**-0.5**
PEA0B				pmax	pmax		
	comp=Z,27nm,1.3s						
PEA0B	**Petropavlovsk-**	**16.57**	**34**		**P**	**18 05 14.8**	**-0.5**
PETK	**Petropavlovsk-**	**16.57**	**34**	P	**Pn**	**18 05 10.3**	**-2.9**
	comp=Z,3.4nm,0.8s,baz=224,slow=7.7,SNR=4.4						
PETK				LR	LR	18 11 57.2	
	comp=Z,62nm,20.5s,baz=222,slow=38						
PETK	**Petropavlovsk-**	**16.57**	**34**	P	**Pn**	**18 05 12.8**	**-0.4**
PETK	**Petropavlovsk-**	**16.57**	**34**	P	**Pn**	**18 05 12.8**	**-0.4**
PET	**Petropavlovsk**	**16.93**	**35**		**P**	**18 05 19.6**	**+0.4**
ZEA	**Zeya**	**17.07**	**328**	*e*P	**Pn**	**18 05 18.0**	**-1.5**
ZEA				pmax	pmax		
	comp=Z,20nm,1.0s						
ZEA				MLR	MLR		
	comp=Z,300nm,14.0s						
HILR	**Hailar Array B**	**18.62**	**308**	P	**P**	**18 05 36.0**	**-1.9**
	comp=Z,10nm,0.5s,baz=115,slow=12,SNR=17						
XLT	**XiLinHaoTe**	**19.97**	**289**	*e*P	**P**	**18 05 51.6**	**-1.1**
XLT				pP	sP	18 06 06.4	-1.9
XLT				pmax	pmax		
	comp=Z,16nm,1.2s						
XLT				pmax	pmax		
	comp=Z,140nm,5.2s						
MA2	**Magadan**	**20.12**	**12**	P	**P**	**18 05 54.2**	**+0.1**
	comp=Z,9.3nm,0.8s,baz=193,slow=12,SNR=5.2						
	comp=Z,9.3nm,0.8s						
MA2	**Magadan**	**20.12**	**12**	P	**P**	**18 05 53.9**	**-0.3**
MA2				IAmb	IAmb	18 05 59.8	
	comp=Z,74nm,1.6s						
BJI2	**Beijing**	**20.15**	**278**	P	**P**	**18 05 54.0**	**-0.6**
BJI2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BJI2				L	L		
	comp=Z,170nm,12.4s						
BJI2				L	L		
	comp=Z,130nm,10.3s						
BJI2				L	L		
	comp=Z,140nm,13.7s						
TIA	**Tai'an**	**20.33**	**267**	P	**P**	**18 05 55.3**	**-1.4**
TIA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
NJ2	**Nanjing**	**20.73**	**254**	*e*P	**P**	**18 06 01.3**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,18nm,1.0s						
HNS	**HongShan**	**21.83**	**272**	⇓P	**P**	**18 06 15.4**	**+2.7**
HNS				L	L		
	comp=Z,230nm,15.5s						
HNS				L	L		
	comp=Z,220nm,15.9s						
YAK	**Yakutsk**	**23.25**	**345**	LR	LR	18 15 46.7	
	comp=Z,50nm,18.7s,baz=154,slow=37						
YAK	**Yakutsk**	**23.25**	**345**	*e*P	**P**	**18 06 25.5**	**-1.9**
YAK				*e**PP	**pP**	**18 06 34.3**	**-3.5**
YAK				*e*		18 06 54.8	
YAK				*e*		18 10 11.8	
YAK				*e*S	**S**	**18 10 33.2**	**-3.0**
YAK				*e**SS	**sS**	**18 10 50.3**	**-4.4**
YAK				*e*SS	**SnSn**	**18 11 12.6**	**-0.3**
YAK				*e*		18 17 36.3	
YAK				pmax	pmax		
	comp=Z,40nm,0.9s						
YAK				pmax	pmax		
	comp=N,17nm,1.1s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,209nm,4.3s						
YAK				pmax	pmax		
	comp=E,188nm,3.5s						
YAK				pmax	pmax		
	comp=N,182nm,3.8s						
YAK				smax	smax		
	comp=E,179nm,3.3s						
YAK				smax	smax		
	comp=N,273nm,4.6s						
YAK	**Yakutsk**	**23.25**	**345**		**P**	**18 06 24.3**	**-3.1**
YAK				IAmb	IAmb	18 06 27.3	
	comp=Z,42nm,0.8s						
YAK	**Yakutsk**	**23.25**	**345**	P	**P**	**18 06 25.2**	**-2.2**
	comp=Z,66nm,0.9s						
HHC	**Hu-ho-hao-te**	**23.50**	**282**	*e*P	**P**	**18 06 28.1**	**-2.1**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,5.4s						
HHC				L	L		
	comp=Z,120nm,15.3s						
HHC				L	L		
	comp=Z,210nm,15.3s						
HHC				L	L		
	comp=Z,240nm,20.2s						
YHNB	**Yeheng**	**23.52**	**235**	P	**P**	**18 06 28.4**	**-2.1**
SEY	**Seymchan**	**23.56**	**11**	⇓*i*P	**P**	**18 06 31.7**	**+1.3**
SEY				pmax	pmax		
	comp=Z,14nm,0.8s						
NACB	**Ninganchiao**	**23.74**	**234**	P	**P**	**18 06 29.6**	**-2.8**
SSLB	**Suanglung**	**24.43**	**235**		**P**	**18 06 36.8**	**-2.0**
SSLB				IAmb	IAmb	18 06 50.9	
	comp=Z,37nm,1.3s						
LYN	**LuoYang**	**24.47**	**266**	P	**P**	**18 06 40.4**	**+1.3**
LYN				pmax	pmax		
	comp=Z,12nm,0.9s						
YULB	**Yu-li**	**24.50**	**233**	P	**P**	**18 06 39.0**	**-0.5**
YULB				IAmb	IAmb	18 06 45.7	
	comp=Z,48nm,1.5s						
WHN	**Wuhan**	**24.82**	**256**	P	**P**	**18 06 46.8**	**+4.5**
SHEM	**Shemya Is, Ala**	**24.90**	**49**	LR	LR	18 15 38.6	
	comp=Z,28nm,19.7s,baz=290,slow=34						
SHEM	**Shemya Is, Ala**	**24.90**	**49**	P	**P**	**18 06 43.7**	**+0.9**
TPUB	**Ta-pu**	**24.98**	**234**	P	**P**	**18 06 43.0**	**-0.9**
TPUB				IAmb	IAmb	18 07 19.1	
	comp=Z,57nm,1.3s						
DPSS	**Saipan**	**24.99**	**173**	P	**P**	**18 06 46.8**	**+2.9**
BOD	**Bodaibo**	**25.44**	**323**	*e*P	**P**	**18 06 47.7**	**0.0**
BOD				pmax	pmax		
	comp=Z,25nm,0.8s						
ULN	**Ulaanbaatar**	**26.47**	**299**	*ce*P	**P**	**18 06 56.8**	**-0.5**
ULN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ULN	**Ulaanbaatar**	**26.47**	**299**		**P**	**18 06 55.6**	**-1.7**
ULN	**Ulaanbaatar**	**26.47**	**299**	P	**P**	**18 06 57.0**	**-0.3**
	comp=Z,7.5nm,0.7s						
GUMO	**Guam**	**26.55**	**175**	LR	LR	18 16 10.0	
	comp=Z,52nm,21.4s,baz=5.0,slow=33						
SONM	**Songino Array**	**26.91**	**299**	P	**P**	**18 07 00.8**	**-0.4**
	comp=Z,3.3nm,0.5s,baz=104,slow=9.1,SNR=21						
SONM				LR	LR	18 18 14.2	
	comp=Z,229nm,18.6s,baz=102,slow=37						
	comp=Z,3.3nm,0.5s						
SONM	**Songino Array**	**26.91**	**299**	P	**P**	**18 07 00.3**	**-1.0**
ENH	**Enshi**	**28.60**	**260**	P	**P**	**18 07 15.6**	**-0.8**
TLY	**Talaya**	**29.06**	**306**	LR	LR	18 19 42.2	
	comp=Z,154nm,18.2s,baz=90,slow=38						
ZAK	**Zakamensk**	**29.14**	**304**	*e*P	**P**	**18 07 21.0**	**0.0**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
H11N2	**WAKE ISLAND Hy**	**29.17**	**127**	T	T	18 38 00.6	
	baz=319,slow=75,SNR=1920						
H11N1	**WAKE ISLAND Hy**	**29.18**	**127**	T	T	18 38 05.5	
	baz=319,slow=75,SNR=1039						
H11N3	**WAKE ISLAND Hy**	**29.19**	**127**	T	T	18 38 04.7	
	baz=319,slow=75,SNR=698						
SZP	**Santa**	**29.53**	**227**	IAmb	IAmb	18 07 29.6	
	comp=Z,20nm,0.9s						
H11S1	**WAKE ISLAND Hy**	**29.99**	**129**	T	T	18 39 19.6	
	baz=321,slow=76,SNR=130						
H11S3	**WAKE ISLAND Hy**	**29.99**	**129**	T	T	18 39 19.4	
	baz=321,slow=76,SNR=141						
H11S2	**WAKE ISLAND Hy**	**30.00**	**129**	T	T	18 39 23.7	
	baz=321,slow=76,SNR=141						
LZH	**Lanzhou**	**30.54**	**275**	*e*P	**P**	**18 07 34.4**	**+0.8**
LZH				pmax	pmax		
	comp=Z,11nm,1.3s						
LZDM	**Lanzhou Array**	**30.70**	**275**	P	**P**	**18 07 33.7**	**-1.5**
	comp=Z,1.4nm,0.4s,baz=87,slow=9.1,SNR=3.8						
LZDM				LR	LR	18 20 21.7	
	comp=Z,70nm,19.5s,baz=130,slow=37						
	comp=Z,1.4nm,0.4s						
BILL	**Bilibino**	**30.79**	**17**	⇑*i*P	**P**	**18 07 37.9**	**+2.6**
BILL				pmax	pmax		
	comp=Z,9.0nm,0.9s						
BILL	**Bilibino**	**30.79**	**17**		**P**	**18 07 35.7**	**+0.4**
BILL	**Bilibino**	**30.79**	**17**	P	**P**	**18 07 36.3**	**+1.1**
BILI	**Bilibino, Chuk**	**30.84**	**17**	P	**P**	**18 07 35.7**	**-0.1**
	comp=Z,11nm,0.9s						
ATKA	**Atka Island**	**31.82**	**53**	P	**P**	**18 07 45.3**	**+0.8**
TIXI	**Tiksi**	**32.31**	**352**	LR	LR	18 23 57.7	
	comp=Z,51nm,18.4s,baz=206,slow=42						
TIXI	**Tiksi**	**32.31**	**352**	⇓*e*P	**P**	**18 07 48.2**	**-0.4**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
TIXI	**Tiksi**	**32.31**	**352**		**P**	**18 07 47.7**	**-0.9**
TIXI	**Tiksi**	**32.31**	**352**	P	**P**	**18 07 47.6**	**-0.9**
	comp=Z,4.8nm,0.8s						
GTA2	**Gaotai**	**32.62**	**283**	*e*P	**P**	**18 07 53.0**	**+1.1**
GTA2				pP	sP	18 08 07.0	-1.3
GTA2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GTA2				L	L		
	comp=Z,130nm,14.6s						
GTA2				L	L		
	comp=Z,240nm,16.2s						
GTA2				L	L		
	comp=Z,310nm,19.0s						
KNGR	**Kungurtug, Tuv**	**32.83**	**304**	⇑*e*P	**P**	**18 07 53.6**	**+0.1**
KNGR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KMI2	**Kunming**	**36.36**	**258**	P	**P**	**18 08 24.8**	**+0.3**
KMI2				pmax	pmax		
	comp=Z,25nm,0.8s						
KMI2				L	L		
	comp=Z,170nm,18.2s						
KMI2				L	L		
	comp=Z,160nm,14.2s						
KMI2				L	L		
	comp=Z,230nm,19.1s						
PZH	**PanZhiHua**	**36.38**	**261**	P	**P**	**18 08 22.8**	**-1.7**
PZH				pmax	pmax		
	comp=Z,10.0nm,0.7s						
GOMU	**GeErMu**	**37.36**	**280**	P	**P**	**18 08 32.3**	**-0.7**
GOMU				pmax	pmax		
	comp=Z,12nm,0.7s						
SLVN	**Son La**	**37.76**	**252**		**P**	**18 08 35.5**	**-0.7**
SLVN				IAmb	IAmb	18 08 37.6	
	comp=Z,8.7nm,1.0s						
SLVN	**Son La**	**37.76**	**252**	P	**P**	**18 08 36.7**	**+0.5**
	comp=Z,10.0nm,0.9s						
N14K	**Kuskokwak Cree**	**39.47**	**41**	P	**P**	**18 08 51.2**	**+1.3**
TNCH	**TengChong**	**39.62**	**261**	P	**P**	**18 08 52.6**	**+0.7**
TNCH				pmax	pmax		
	comp=Z,40nm,1.1s						
WMQ	**Urumqi**	**40.29**	**294**	*e*P	**P**	**18 09 00.4**	**+3.2**
WMQ				sP	sP	18 09 21.1	+7.5
WMQ				pmax	pmax		
	comp=Z,13nm,0.7s						
O15K	**Ungalikthiuk R**	**40.37**	**42**	P	**P**	**18 08 58.9**	**+1.4**
ZAA0	**Zalesovo Array**	**40.52**	**310**		**P**	**18 08 58.3**	**-0.5**
ZAA0				IAmb	IAmb	18 08 59.7	
	comp=Z,8.4nm,0.8s						
ZALV	**Zalesovo Beam**	**40.52**	**310**	P	**P**	**18 08 58.2**	**-0.6**
	comp=Z,7.4nm,0.6s,baz=94,slow=8.1,SNR=34						
ZALV				LR	LR	18 26 35.9	
	comp=Z,135nm,19.1s,baz=106,slow=37						
	comp=Z,7.4nm,0.6s						
ZALV	**Zalesovo Beam**	**40.52**	**310**	P	**P**	**18 08 58.3**	**-0.5**
F17K	**Baldwin Pennin**	**40.58**	**31**	P	**P**	**18 09 00.1**	**+1.0**
F17K				IAmb	IAmb	18 09 16.9	
	comp=Z,54nm,1.7s						
NRIK	**Noril'sk**	**40.83**	**334**	P	**P**	**18 09 01.0**	**-0.1**
	comp=Z,2.5nm,0.5s,baz=109,slow=7.7,SNR=6.0						
NRIK				LR	LR	18 27 09.2	
	comp=Z,175nm,18.6s,baz=115,slow=38						
	comp=Z,2.5nm,0.5s						
NRIK	**Noril'sk**	**40.83**	**334**	⇓*e*P	**P**	**18 09 01.4**	**+0.3**
NRIK				pmax	pmax		
	comp=Z,7.0nm,0.9s						
NRIK	**Noril'sk**

F21K Alatna River 43.73 30 P **P** 18 09 25.9 +1.0
ILSW Iliamna Southw 43.76 41 P **P** 18 09 26.6 +1.3
SEM Semipalatinsk 43.80 305 *eP* **P** 18 09 25.5 -0.3
SEM Semipalatinsk 43.80 305 *eP* **P** 18 09 25.5 -0.3
H21K Melozitna Rive 43.90 33 P **P** 18 09 27.6 +1.5
PPLA Purkeypile 44.12 37 P **P** 18 09 29.7 +1.5
D22K Ayikyak River 44.19 28 P **P** 18 09 29.7 +1.2
D22K IAmb IAmb 18 10 08.2
comp=Z,45nm,1.9s
NPW Naypyitaw 44.45 257 P **P** 18 09 30.1 -1.0
comp=Z,9.0nm,0.9s
SANI Sanana 44.65 204 P **P** 18 09 32.4 -0.3
comp=Z,14nm,0.7s
KURK Kurchatov 44.75 306‖ *eP* **P** 18 09 32.5 -0.6
KURK pmax pmax
comp=Z,26nm,0.7s
KURK Kurchatov 44.75 306 **PcP** 18 11 14.5 -0.2
KURK Kurchatov 44.75 306 **P** 18 09 32.6 -0.5
KURK Kurchatov 44.75 306 P **P** 18 09 33.3 +0.1
comp=Z,42nm,0.7s
KURK pP **pP** 18 09 45.6 +0.9
KURK Kurchatov 44.75 306 P **P** 18 09 33.0 -0.1
KURK pP **pP** 18 09 44.9 +0.1
KURK PcP **PcP** 18 11 15.6 +0.9
KURBB Kurchatov Arra 44.83 306 P **P** 18 09 33.7 0.0
comp=Z,22nm,0.6s,baz=81,slow=8.5,SNR=120
KURBB PcP **PcP** 18 11 14.5 -0.5
comp=Z,1.3nm,0.7s,baz=74,slow=4.0,SNR=2.5
comp=Z,22nm,0.6s
D23K Nanushuk River 44.92 28 P **P** 18 09 35.0 +0.8
D23K IAmb IAmb 18 09 36.8
comp=Z,14nm,1.2s
E23K Chandalar 45.26 29 **P** 18 09 38.5 +1.4
E23K IAmb IAmb 18 09 39.9
comp=Z,9.0nm,0.8s
D24K Happy Valley 45.60 28 **P** 18 09 41.2 +1.6
D24K IAmb IAmb 18 09 42.0
comp=Z,11nm,0.8s
SEW Seward 45.60 41 P **P** 18 09 41.2 +1.5
C24K Franklin Bluff 45.67 27 IAmb IAmb 18 09 42.4
comp=Z,12nm,0.8s
E24K Your Creek 45.69 29 IAmb IAmb 18 09 43.2
comp=Z,7.0nm,0.7s
H24K Noodor Dome 45.94 32 P **P** 18 09 44.3 +1.9
H24K IAmb IAmb 18 10 54.2
comp=Z,33nm,2.0s
PDGK Podgornoye 46.15 296 P **P** 18 09 43.9 -0.6
PDGK Podgornoye 46.15 296 **P** 18 09 43.9 -0.6
SHLS Shalkode 46.22 295 *eP* **P** 18 09 42.4 -2.7
SHLS pmax pmax
comp=Z,15nm,1.9s
SHLS Shalkode 46.22 295 *eP* **P** 18 09 42.4 -2.7
comp=Z,15nm,1.9s
TDK Taldyqorghan 46.37 298 *eP* **P** 18 09 45.8 -0.2
TDK pmax pmax
comp=Z,7.0nm,0.9s
TDK Taldyqorghan 46.37 298 *eP* **P** 18 09 45.9 -0.2
comp=Z,7.4nm,0.9s
IL31 46.40 34 P **P** 18 09 46.5 +0.5
IL31 IAmb IAmb 18 10 14.5
comp=Z,14nm,1.5s
ILAR Eielson Array 46.40 34 P **P** 18 09 46.6 +0.6
comp=Z,2.1nm,0.7s,baz=263,slow=6.1,SNR=28
comp=Z,2.1nm,0.7s
ILAR Eielson Array 46.40 34 P **P** 18 09 46.7 +0.7
ILAR Eielson Array 46.40 34 P **P** 18 09 46.7 +0.7
D25K Kavik River 46.47 28 **P** 18 09 47.5 +0.9
UZB Uzunbulak 46.53 296 *eP* **P** 18 09 47.2 -0.3
UZB pmax pmax
comp=Z,12nm,1.6s
UZB Uzunbulak 46.53 296 *eP* **P** 18 09 47.2 -0.3
comp=Z,12nm,1.6s
KPKS Kokpek 46.66 296 *eP* **P** 18 09 48.3 -0.1
KPKS Kokpek 46.66 296 *eP* **P** 18 09 48.4 -0.1
C26K Camden Bay 46.98 27 P **P** 18 09 51.8 +1.4
C26K IAmb IAmb 18 09 53.8
comp=Z,35nm,1.7s
SATY Saty 46.98 296 *eP* **P** 18 09 50.7 -0.3
SATY Saty 46.98 296 *eP* **P** 18 09 50.8 -0.3
EVN Everest 47.04 273 **P** 18 09 52.4 +0.1
EVN IAmb IAmb 18 09 57.5
comp=Z,10.0nm,0.7s
EVN Everest 47.04 273 P **P** 18 09 50.6 -1.6
comp=Z,12nm,0.6s
WUS Wushi 47.06 293 **P** 18 09 51.6 -0.1
WUS IAmb IAmb 18 10 10.8
comp=Z,9.5nm,1.0s
WUS Wushi 47.06 293 P **P** 18 09 51.6 -0.1
comp=Z,11nm,0.8s
F26K Sheenjek River 47.34 30 IAmb IAmb 18 09 56.9
comp=Z,11nm,0.8s
G26K Porcupine Rive 47.53 31 IAmb IAmb 18 10 24.3
comp=Z,14nm,1.2s
SCRK Sand Creek 47.73 35 **P** 18 09 57.1 +0.5
TARG Taragay, Kyrgy 47.86 294 P **P** 18 09 58.4 +0.2
TARG pmax pmax
comp=Z,8.0nm,0.8s
TARG Taragay, Kyrgy 47.86 294 **P** 18 09 58.4 +0.2
TARG IAmb IAmb 18 10 16.1
comp=Z,8.1nm,0.8s
TARG Taragay, Kyrgy 47.86 294 P **P** 18 09 56.2 -2.0
comp=Z,14nm,0.8s
MDOK Medeo 47.89 296 *eP* **P** 18 09 57.9 -0.2
MDOK Medeo 47.89 296 *eP* **P** 18 09 58.0 -0.2
AAA Alma-Ata 47.96 296 *eP* **P** 18 09 58.2 -0.3
AAA pmax pmax
comp=Z,5.0nm,0.5s
AAA Alma-Ata 47.96 296 *eP* **P** 18 09 58.3 -0.3
comp=Z,5.2nm,0.5s
TNSS Tian-Shan 48.00 296 *eP* **P** 18 09 58.7 -0.5
TNSS Tian-Shan 48.00 296 *eP* **P** 18 09 58.7 -0.5
KUU Kurty 48.12 297 *eP* **P** 18 09 59.6 -0.1
KUU Kurty 48.12 297 *eP* **P** 18 09 59.6 -0.1
KDJ Kajisay 48.16 295 P **P** 18 10 00.3 +0.1
KDJ pmax pmax
comp=Z,5.0nm,0.8s
KDJ Kajisay 48.16 295 P **P** 18 10 00.2 +0.1
KDJ Kajisay 48.16 295 P **P** 18 10 00.2 +0.1
comp=Z,7.7nm,0.9s
K27K Chicken 48.56 35 IAmb IAmb 18 10 40.7
comp=Z,9.3nm,1.2s
L27K Beaver Creek, 48.82 36 IAmb IAmb 18 10 08.6
comp=Z,20nm,1.7s
BCAR Beaver Creek A 48.84 36 P **P** 18 10 06.8 +1.8
ASAI AK-SAY(Kyrgyzs 49.06 294 P **P** 18 10 06.3 -1.0
comp=Z,4.9nm,0.9s
BVAR Borovoye Array 49.16 311 P **P** 18 10 07.9 +0.4
comp=Z,17nm,0.5s,baz=71,slow=8.9,SNR=95
comp=Z,17nm,0.5s
BORK Borovoye 49.20 311 P **P** 18 10 07.5 -0.3
BORK pmax pmax
comp=Z,16nm,0.5s
BORK Borovoye 49.20 311 **P** 18 10 07.5 -0.3
I28M Miner Creek 49.25 33 IAmb IAmb 18 10 19.2
comp=Z,36nm,1.9s
KAPI Kappang 49.60 210 LR LR 18 31 25.7
comp=Z,32nm,20.8s,baz=6.5,slow=36
E29M Blow River 49.60 29 P **P** 18 10 13.2 +2.5
E29M IAmb IAmb 18 10 22.1
comp=Z,7.3nm,0.9s
FRU1 Bishkek 49.67 297 P **P** 18 10 10.9 -0.8
FRU1 pmax pmax
comp=Z,35nm,0.5s
FRU1 Bishkek 49.67 297 P **P** 18 10 10.9 -0.8
AAK Ala-Archa 49.83 296 LR LR 18 32 29.1
comp=Z,82nm,21.0s,baz=77,slow=37
AAK Ala-Archa 49.83 296 *ceP* **P** 18 10 13.2 +0.2
AAK pmax pmax
comp=Z,3.0nm,0.7s
AAK Ala-Archa 49.83 296 **P** 18 10 12.7 -0.3
AAK Ala-Archa 49.83 296 P **P** 18 10 11.3 -1.7
comp=Z,5.0nm,0.9s
AAK Ala-Archa 49.83 296 P **P** 18 10 12.9 -0.1
AAK sP **sP** 18 10 30.7 +1.0
AAK PcP **PcP** 18 11 33.1 0.0
EPYK Eagle Plains 50.39 31 IAmb IAmb 18 10 27.1
comp=Z,23nm,1.4s
KSH2 Kashi 50.42 292 P **P** 18 10 18.3 +0.8
KSH2 pP sP 18 10 34.8 +0.6
KSH2 pmax pmax
comp=Z,5.0nm,0.9s
L29M L29M 50.46 35 IAmb IAmb 18 10 36.8
comp=Z,26nm,1.6s
G30M tAoh Zrail Nji 50.47 30 IAmb IAmb 18 10 20.3
comp=Z,33nm,1.9s

F30M Barrier River 50.52 29 IAmb IAmb 18 10 28.9
comp=Z,10nm,0.8s
I30M Mount Dempster 50.76 33 IAmb IAmb 18 10 22.7
comp=Z,10nm,0.7s
KULM Kulim 51.17 239 P **P** 18 10 23.4 +0.2
KULM IAmb IAmb 18 10 24.8
comp=Z,7.2nm,0.8s
KULM Kulim 51.17 239 P **P** 18 10 23.1 -0.1
comp=Z,9.8nm,0.9s
INK Inuvik 51.22 28 IAmb IAmb 18 10 25.1
comp=Z,7.0nm,0.8s
INK Inuvik 51.22 28 P **P** 18 10 24.8 +2.0
comp=Z,9.3nm,2.1s
HYT Haines Junctio 51.29 38 IAmb IAmb 18 10 40.8
comp=Z,9.9nm,1.0s
ARSB Arslanbob 51.37 295 P **P** 18 10 25.1 +0.5
ARSB pmax pmax
comp=Z,19nm,0.8s
ARSB Arslanbob 51.37 295 P **P** 18 10 25.1 +0.5
H31M Peel River 51.46 32 IAmb IAmb 18 10 27.5
comp=Z,9.6nm,0.8s
DZA Taraz 51.89 298 *eP* **P** 18 10 27.9 -0.4
DZA pmax pmax
comp=Z,8.0nm,0.9s
DZA Taraz 51.89 298 *eP* **P** 18 10 28.0 -0.4
comp=Z,7.9nm,0.9s
HNR Honiara 51.91 158 LR LR 18 30 45.1
comp=Z,44nm,21.5s,baz=57,slow=34
N31M Braeburn, Yuko 51.92 37 IAmb IAmb 18 11 04.5
comp=Z,28nm,1.6s
EDFI Ende, Flores 52.34 206 P **P** 18 10 32.8 +0.8
comp=Z,7.1nm,1.2s
KK31 Karatay Array 52.36 298 P **P** 18 10 31.1 -0.7
KK31 pmax pmax
comp=Z,7.0nm,0.8s
KK31 Karatay Array 52.36 298 **P** 18 10 31.1 -0.7
KK31 IAmb IAmb 18 10 32.6
comp=Z,7.5nm,0.8s
KKAR Karatay Array 52.36 298 P **P** 18 10 31.4 -0.4
KKAR Karatay Array 52.36 298 **P** 18 10 31.4 -0.4
WHY Whitehorse 52.57 38 P **P** 18 10 34.8 +1.6
comp=Z,5.9nm,0.9s
BRLS Boroldav 52.84 299 *eP* **P** 18 10 36.7 +1.3
BRLS Boroldav 52.84 299 *eP* **P** 18 10 36.8 +1.3
DRK Karamyk 52.95 294 P **P** 18 10 35.7 -0.8
DRK pmax pmax
comp=Z,6.0nm,0.9s
DRK Karamyk 52.95 294 P **P** 18 10 35.7 -0.8
DRK Karamyk 52.95 294 P **P** 18 10 36.1 -0.5
comp=Z,9.2nm,0.7s
IUG luzhnay 53.07 297 *eP* **P** 18 10 36.8 -0.3
IUG pmax pmax
comp=Z,5.0nm,1.0s
IUG luzhnay 53.07 297 *eP* **P** 18 10 36.8 -0.3
comp=Z,4.7nm,1.0s
CHM Chimkent 53.29 298 *eP* **P** 18 10 38.4 -0.2
CHM pmax pmax
comp=Z,5.0nm,0.5s
CHM Chimkent 53.29 298 *eP* **P** 18 10 38.4 -0.2
comp=Z,4.6nm,0.5s
SVE Sverdlovsk 53.41 317 *eP* **P** 18 10 40.1 +0.8
SVE pmax pmax
comp=Z,31nm,0.8s
NIL Nilore 54.51 287 P **P** 18 10 47.4 -0.4
NIL pmax pmax
comp=Z,17nm,1.0s
NIL Nilore 54.51 287 **P** 18 10 47.4 -0.4
NIL IAmb IAmb 18 10 49.6
comp=Z,17nm,0.9s
NIL Nilore 54.51 287 P **P** 18 10 47.8 +0.1
comp=Z,22nm,0.7s
ARTI Arti 54.73 317 LR LR 18 36 31.4
comp=Z,136nm,19.6s,baz=46,slow=38
ARTI Arti 54.73 317 P **P** 18 10 48.7 -0.2
ARTI pmax pmax
comp=Z,49nm,0.7s
ARTI Arti 54.73 317 **P** 18 10 48.7 -0.2
ARTI Arti 54.73 317 P **P** 18 10 49.1 +0.2
ARTI pP **pP** 18 11 01.1 +0.3
ARTI sP **sP** 18 11 06.7 +1.1
ARTI PcP **PcP** 18 11 52.8 +1.7
AB31 Akbulak array 56.62 309 **P** 18 11 02.2 -0.4
AB31 IAmb IAmb 18 11 03.6
comp=Z,17nm,1.1s
ABKAR Akbulak array 56.62 309 **P** 18 11 02.4 -0.2
KNRA Kununurra 57.01 196 P **P** 18 11 05.6 0.0
KNRA IAmb IAmb 18 12 57.9
comp=Z,19nm,1.6s
KBL Kabul 57.15 290 P **P** 18 11 04.8 -2.0
KBL pmax pmax
comp=Z,29nm,0.9s
KBL Kabul 57.15 290 **P** 18 11 04.8 -2.0
KBL Kabul 57.15 290 P **P** 18 11 06.9 +0.1
comp=Z,38nm,0.8s
AKTO Aktyubinsk 57.27 311 LR LR 18 37 01.0
comp=Z,102nm,18.5s,baz=51,slow=37
KIRV Kirov 58.30 322 P **P** 18 11 14.8 +0.6
comp=Z,29nm,0.8s,baz=153,slow=2.9,SNR=11
comp=Z,29nm,0.8s
KIRV Kirov 58.30 322‖ *eP* **P** 18 11 14.7 +0.5
RES Resolute Bay 59.36 15 P **P** 18 11 21.1 -0.2
RES pmax pmax
comp=Z,7.0nm,0.9s
RES Resolute Bay 59.36 15 **P** 18 11 21.1 -0.2
RES IAmb IAmb 18 11 22.5
comp=Z,7.0nm,0.8s
SANVU Saraoutou 59.90 152 P **P** 18 11 26.7 +1.0
CTAO Charters Tower 60.04 176 P **P** 18 11 25.5 -1.1
CTAO pmax pmax
comp=Z,31nm,1.4s
CTAO Charters Tower 60.04 176 P **P** 18 11 25.5 -1.1
FITZ Fitzroy Crossi 60.06 199 P **P** 18 11 26.6 -0.2
WB0 Warramunga Arr 60.10 189 P **P** 18 11 26.5 -0.6
WRAB Tennant Creek 60.27 189‖ *eP* **P** 18 11 27.4 -0.8
WRAB pmax pmax
comp=Z,7.0nm,1.3s
WRAB Tennant Creek 60.27 189 P **P** 18 11 27.6 -0.6
WRAB pP **pP** 18 11 39.5 -0.7
WRAB PcP **PcP** 18 12 13.6 +0.4
WR8 Warramunga Arr 60.27 189 **P** 18 11 27.9 -0.4
WRA Warramunga Arr 60.28 189 P **P** 18 11 27.6 -0.6
comp=Z,2.1nm,0.6s,baz=7.1,slow=6.9,SNR=34
comp=Z,2.1nm,0.6s
YKAW3 Yellowknife Wh 60.64 31 P **P** 18 11 30.1 -0.3
YKA Yellowknife Ar 60.68 31 P **P** 18 11 30.9 +0.4
comp=Z,0.6nm,0.6s,baz=302,slow=6.3,SNR=4.5
comp=Z,0.6nm,0.6s
YKAW1 Yellowknife Wh 60.73 31 P **P** 18 11 31.5 +0.6
YKAW1 IAmb IAmb 18 12 05.1
comp=Z,28nm,1.9s
ARCES ARCESS Array B 61.39 339 P **P** 18 11 35.0 -0.3
comp=Z,6.6nm,1.0s,baz=53,slow=6.5,SNR=5.2
ARCES LR LR 18 44 34.2
comp=Z,37nm,18.7s,baz=8.0,slow=42
comp=Z,6.6nm,1.0s
ARCES ARCESS Array B 61.39 339 P **P** 18 11 34.9 -0.4
KLMR Klimovskoe 61.59 327 *eP* **P** 18 11 35.3 -1.5
KLMR pmax pmax
comp=Z,28nm,1.5s
BELG Belogornoye 62.13 316 *dP* **P** 18 11 41.1 +0.6
BELG pmax pmax
comp=Z,4.0nm,0.8s
AS31 Alice Springs 64.00 189 **P** 18 11 53.2 0.0
ASAR Alice Springs 64.00 189 P **P** 18 11 52.5 -0.7
comp=Z,1.3nm,0.7s,baz=1.9,slow=5.5,SNR=22
comp=Z,1.3nm,0.7s
ASAR Alice Springs 64.00 189 P **P** 18 11 52.8 -0.4
ASAR Alice Springs 64.00 189 P **P** 18 11 52.8 -0.4
MBWA Marble Bar 64.60 204 P **P** 18 11 56.3 -0.8
MBWA IAmb IAmb 18 11 58.2
comp=Z,30nm,1.4s
VRH Novokhopyorsk 65.86 317 *eP* **P** 18 12 02.6 -2.4
VRH pmax pmax
comp=Z,10.0nm,0.9s
OBN Obninsk 66.13 323 *ceP* **P** 18 12 07.3 +0.6
OBN *e* 18 12 34.9
OBN *e* 18 14 32.9
OBN pmax pmax
comp=Z,86nm,4.5s
OBN MLR MLR
comp=Z,107nm,21.0s
BLKN Baker Lake 66.18 24 P **P** 18 12 07.4 +0.5
BLKN IAmb IAmb 18 13 04.8
comp=Z,32nm,1.7s
FIA1 FINESS Array S 66.46 332 P **P** 18 12 08.1 -0.6

FINES FINESS Array B 66.46 332 P **P** 18 12 08.7 -0.1
comp=Z,7.8nm,0.7s,baz=41,slow=7.1,SNR=19
FINES LR LR 18 42 56.1
comp=Z,82nm,20.2s,baz=44,slow=37
comp=Z,7.8nm,0.7s
FINES FINESS Array B 66.46 332 P **P** 18 12 08.0 -0.7
LPSR Galich'ya Gora 66.47 320 *eP* **P** 18 12 07.4 -1.6
LPSR pmax pmax
comp=Z,10.0nm,0.9s
PINNC Pines Island, 66.63 155 P **P** 18 12 11.7 +1.5
I04A Tendick Farm, 66.79 52 P **P** 18 12 12.6 +1.3
VORR Voronezh 66.88 319 *eP* **P** 18 12 09.6 -1.9
VORR pmax pmax
comp=Z,10.0nm,0.9s
VSR Storozhevoye 67.17 318 *eP* **P** 18 12 11.5 -1.9
VSR pmax pmax
comp=Z,10.0nm,0.8s
VORD Divnogorie 67.25 318 *eP* **P** 18 12 12.8 -1.1
VORD pmax pmax
comp=Z,8.0nm,0.9s
NEW Newport 67.30 45 LR LR 18 39 08.2
comp=Z,12nm,21.9s,baz=316,slow=34
SUMG Summit 67.56 0 P **P** 18 12 16.4 +0.3
SUMG pmax pmax
comp=Z,9.0nm,0.7s
SUMG Summit 67.56 0 P **P** 18 12 16.4 +0.3
SUMG IAmb IAmb 18 12 32.0
comp=Z,9.1nm,0.7s
INKA Innaminka 67.57 182 P **P** 18 12 18.0 +1.9
INKA IAmb IAmb 18 13 12.7
comp=Z,15nm,1.9s
PINE Pine Mountain 67.67 51 P **P** 18 12 17.8 +0.7
PINE IAmb IAmb 18 12 37.9
comp=Z,8.2nm,1.1s
K05A Summer Lake 68.31 52 P **P** 18 12 21.7 +0.7
K05A IAmb IAmb 18 13 29.8
comp=Z,38nm,1.8s
AFI Afiamalu 68.51 132 LR LR 18 38 48.7
comp=Z,24nm,20.6s,baz=52,slow=33
NCK Nalchik 69.27 310‖ *iP* **P** 18 12 28.1 +1.4
NCK pmax pmax
comp=Z,7.0nm,0.4s
KIV Kislovodsk 69.53 311 **P** 18 12 28.0 -0.5
KIV Kislovodsk 69.53 311 P **P** 18 12 29.6 +1.1
comp=Z,29nm,1.0s
KIV Kislovodsk 69.53 311 P **P** 18 12 29.6 +1.1
comp=Z,38nm,1.0s
KIV Kislovodsk 69.53 311 P **P** 18 12 29.6 +1.1
KIV pP **pP** 18 12 42.2 +1.5
KIV sP **sP** 18 12 47.1 +1.8
KBZ Khabaz 69.54 310 P **P** 18 12 29.1 +0.7
comp=Z,8.3nm,0.8s,baz=95,slow=2.2,SNR=14
KBZ LR LR 18 45 39.6
comp=Z,51nm,18.6s,baz=39,slow=38
comp=Z,8.3nm,0.8s
KBZ Khabaz 69.54 310‖ *eP* **P** 18 12 28.7 +0.4
KBZ pmax pmax
comp=Z,11nm,0.9s
SHA1 Shidzhatmaz 69.67 310 *cP* **P** 18 12 30.0 +0.5
ERBR Yeremizino-Bor 69.74 313 *eP* **P** 18 12 29.9 +0.3
ERBR *e**PP **sP** 18 12 47.0 +0.5
ERBR *eS* **S** 18 21 35.3 0.0
ERBR pmax pmax
comp=Z,19nm,0.9s
LABN Labinsk 70.25 312 *eP* **P** 18 12 31.8 -0.9
LABN *e**PP **sP** 18 12 48.9 -0.8
LABN *eS* **S** 18 21 38.6 -2.7
LABN pmax pmax
comp=Z,18nm,0.7s
MNK Minsk 70.40 326 *i* P **P** 18 12 33.8 +0.4
MNK *i* *PP **sP** 18 12 49.7 -0.6
MNK *i* 18 15 10.4
MNK *i* PPP PPP 18 16 53.0
MNK *i* S **S** 18 21 42.4 -0.4
MNK *i* *SS **SKiKP** 18 22 11.5 -2.5
MNK *i* SS **SS** 18 26 16.3 +3.2
MNK pmax pmax
comp=Z,12nm,0.8s
MNK pmax pmax
comp=N,8.0nm,0.9s
MNK pmax pmax
comp=E,23nm,1.0s
MNK MLR MLR
comp=N,1μm,4.0s
MNK MLR MLR
comp=Z,1μm,5.0s
MNK MLR MLR
comp=E,1μm,4.0s
MNK Minsk 70.40 326 *i* P **P** 18 12 33.9 +0.4
comp=E,23nm,1.0s
MNK *i* P **P** 18 12 33.9 +0.4
comp=N,8.0nm,0.9s
MNK *i* P **P** 18 12 33.9 +0.4
comp=Z,12nm,0.8s,baz=48
MNK *i* pP **sP** 18 12 49.8 -0.6
MNK *i* PP **PP** 18 15 10.4 +1.3
MNK *i* PPP PPP 18 16 53.0
MNK *i* S **S** 18 21 42.4 -0.4
MNK *i* sS **SKiKP** 18 22 11.5 -2.5
MNK *i* SS **SS** 18 26 16.4 +3.2
MNK *i* SSS SSS 18 29 34.2
MNK *i* SSS SSS 18 29 34.2
MNK *i* LQ LQ 18 38 39.8
MNK *i* LR LR 18 43 36.6
MNK *i* LRM MLR 18 45 43.3
comp=N,1μm,3.8s
MNK *i* LRM MLR 18 45 49.9
comp=Z,1μm,4.6s
MNK *i* LRM MLR 18 45 50.4
comp=E,1μm,3.7s
FFC Flin Flon 70.61 34 P **P** 18 12 35.3 +0.5
FFC pmax pmax
comp=Z,23nm,1.6s
FFC Flin Flon 70.61 34 P **P** 18 12 35.3 +0.5
FFC IAmb IAmb 18 14 48.0
comp=Z,23nm,1.6s
PABE Paberze 71.34 328 P **P** 18 12 38.9 -0.2
CMB Columbia Colle 71.37 56 P **P** 18 12 41.8 +2.1
CMB pmax pmax
comp=Z,2.0nm,0.6s
CMB Columbia Colle 71.37 56 P **P** 18 12 41.8 +2.1
NC405 NORSAR Array S 71.44 337 P **P** 18 12 39.3 -0.4
NC204 NORSAR Array S 71.59 338 P **P** 18 12 40.3 -0.3
NC204 IAmb IAmb 18 12 57.5
comp=Z,16nm,1.1s
HFS Hagfors 71.60 336 P **P** 18 12 40.9 +0.3
comp=Z,4.6nm,0.7s,baz=32,slow=8.7,SNR=13
HFS LR LR 18 46 23.8
comp=Z,57nm,21.4s,baz=66,slow=38
comp=Z,4.6nm,0.7s
NB2 NORSAR Subarra 71.64 337 P **P** 18 12 41.3 +0.4
comp=Z,2.7nm,0.7s,baz=37,slow=6.2
NOA NORSAR Array B 71.64 337 P **P** 18 12 40.9 -0.1
comp=Z,5.1nm,0.8s,baz=38,slow=6.0,SNR=16
NOA LR LR 18 46 52.0
comp=Z,53nm,21.9s,baz=25,slow=38
comp=Z,5.1nm,0.8s
UOSS Minazif 71.70 287 P **P** 18 12 41.1 -0.8
UOSS IAmb IAmb 18 12 42.6
comp=Z,12nm,0.8s
UOSS Minazif 71.70 287 P **P** 18 12 42.1 +0.2
UOSS pP **pP** 18 12 54.7 +0.7
UOSS sP **PcP** 18 13 00.1 -0.7
ANN Anapa 72.00 314 *eP* **P** 18 12 40.3 -3.0
ANN *e**PP **pP** 18 12 55.9 +0.4
ANN *eS* **S** 18 21 54.8 -6.7
ANN pmax pmax
comp=Z,33nm,1.0s
AK03 Malin Array Si 72.35 322 P **P** 18 12 45.2 -0.1
AKASG Malin Array Be 72.36 322 P **P** 18 12 45.1 -0.3
comp=Z,2.7nm,0.6s,baz=46,slow=5.9,SNR=14
comp=Z,2.7nm,0.6s
AKBB Malin Array Si 72.36 322‖ *eP* **P** 18 12 45.5 +0.1
AKBB pmax pmax
comp=Z,13nm,1.1s
AKBB Malin Array Si 72.36 322 P **P** 18 12 45.2 -0.2
KIEV Kiev 72.38 322 P **P** 18 12 44.8 -0.6
KIEV pmax pmax
comp=Z,10.0nm,1.0s
KIEV Kiev 72.38 322 **P** 18 12 44.8 -0.6
KIEV IAmb IAmb 18 12 46.8
comp=Z,10.0nm,1.0s
KIEV Kiev 72.38 322 P **P** 18 12 45.2 -0.2
KIEV Kiev 72.38 322 P **P** 18 12 45.5 +0.1
comp=Z,13nm,1.1s

KIEV	**Kiev**	**72.38**	**322**	P	**P**	**18**	**12**	**45.2 -0.2**
KIEV				pP	**pP**	**18**	**12**	**58.0 +0.3**
AK09	**Malin Array Si**	**72.39**	**322**	P	**P**	**18**	**12**	**45.6 +0.1**
NVAR	**Mina Array Bea**	**72.44**	**54**	P	**P**	**18**	**12**	**46.7 +0.4**
SFJD	**Kangerlussuaq**	**72.70**	**5**	LR	LR	18	45	60.0
	comp=Z,77nm,19.0s,baz=357,slow=37							
MORW	**Morawa**	**73.14**	**204**	P	**P**	**18**	**12**	**50.2 +0.1**
GURO	**Guroymak-BITLI**	**73.19**	**306**	P	**P**	**18**	**12**	**51.0 +0.3**
GURO				IAmb	IAmb	18	12	52.8
	comp=Z,12nm,0.7s							
FRB	**Frobisher Bay**	**73.53**	**14**	LR	LR	18	48	16.6
	comp=Z,46nm,19.3s,baz=308,slow=38							
GWY	**Greenwater Val**	**74.85**	**55**	P	**P**	**18**	**13**	**01.0 +0.6**
PDAR	**Pinedale Array**	**74.87**	**47**	P	**P**	**18**	**13**	**01.2 +0.6**
	comp=Z,0.5nm,0.5s,baz=254,slow=1.9,SNR=6.9							
	comp=Z,0.5nm,0.5s							
PDAR	**Pinedale Array**	**74.87**	**47**	P	**P**	**18**	**13**	**00.7 +0.2**
ARPR	**Arapgir-MALATY**	**75.09**	**309**	IAmb	IAmb	18	13	04.5
	comp=Z,13nm,0.8s							
BUR08	**Bucovina Ar. S**	**76.39**	**322**		**P**	**18**	**13**	**08.7 -0.3**
BURAR	**Bucovina Array**	**76.40**	**322**	P	**P**	**18**	**13**	**09.1 +0.1**
ULM	**Lac du Bonnet**	**76.42**	**34**	P	**P**	**18**	**13**	**07.8 -1.2**
	comp=Z,1.9nm,0.6s,baz=316,slow=9.3,SNR=2.2							
	comp=Z,1.9nm,0.6s							
ULM	**Lac du Bonnet**	**76.42**	**34**	P	**P**	**18**	**13**	**08.0 -1.0**
ULM				pmax	pmax			
	comp=Z,34nm,1.7s							
ULM	**Lac du Bonnet**	**76.42**	**34**	P	**P**	**18**	**13**	**08.0 -1.0**
ULM				IAmb	IAmb	18	15	19.0
	comp=Z,34nm,1.7s							
MDND	**Maddock**	**76.50**	**38**	P	**P**	**18**	**13**	**09.1 -0.4**
MDND				IAmb	IAmb	18	15	42.0
	comp=Z,21nm,0.9s							
PFO	**Pinyon Flats O**	**76.60**	**57**	LR	LR	18	39	16.6
	comp=Z,36nm,20.7s,baz=177,slow=30							
BNN	**Bunyan**	**76.73**	**310**	P	**P**	**18**	**13**	**11.0 -0.1**
BNN				IAmb	IAmb	18	13	13.6
	comp=Z,7.8nm,0.9s							
KOLS	**Kolonicke sedl**	**76.80**	**324**	*e*P	**P**	**18**	**13**	**12.3 +1.1**
HMU	**Henry Mountain**	**77.36**	**51**	P	**P**	**18**	**13**	**15.2 +0.3**
BR131	**Keskin Array S**	**77.43**	**312**	P	**P**	**18**	**13**	**14.2 -0.8**
BR131				pmax	pmax			
	comp=Z,23nm,2.0s							
BR131	**Keskin Array S**	**77.43**	**312**		**P**	**18**	**13**	**14.2 -0.8**
BR131				IAmb	IAmb	18	13	38.4
	comp=Z,23nm,1.9s							
BRTR	**Keskin Array B**	**77.43**	**312**	P	**P**	**18**	**13**	**15.6 +0.5**
	comp=Z,1.4nm,0.6s,baz=66,slow=4.2,SNR=7.5							
BRTR				LR	LR	18	52	47.0
	comp=Z,24nm,18.9s,baz=80,slow=40							
	comp=Z,1.4nm,0.6s							
BRTR	**Keskin Array B**	**77.43**	**312**		**P**	**18**	**13**	**14.8 -0.3**
MLR	**Muntele Rosu**	**77.56**	**320**	LR	LR	18	49	19.2
	comp=Z,86nm,20.6s,baz=359,slow=37							
MLR	**Muntele Rosu**	**77.56**	**320**	P	**P**	**18**	**13**	**15.8 +0.1**
MLR				pmax	pmax			
	comp=Z,15nm,1.4s							
MLR	**Muntele Rosu**	**77.56**	**320**	P	**P**	**18**	**13**	**15.8 +0.1**
MLR				IAmb	IAmb	18	14	03.0
	comp=Z,15nm,1.4s							
EPLO	**Experimental L**	**77.77**	**34**	P	**P**	**18**	**13**	**16.9 +0.3**
EPLO				IAmb	IAmb	18	14	53.5
	comp=Z,37nm,1.8s							
LANS	**Liptovska Anna**	**77.88**	**326**	*e*P	**P**	**18**	**13**	**18.5 +1.3**
PV10	**Paradox Valley**	**78.07**	**50**	P	**P**	**18**	**13**	**20.3 +1.5**
PV10				IAmb	IAmb	18	14	36.4
	comp=Z,11nm,1.0s							
PV22	**Blue Mesa, Par**	**78.11**	**49**	P	**P**	**18**	**13**	**20.5 +1.6**
PV22				IAmb	IAmb	18	14	01.8
	comp=Z,23nm,1.7s							
MORC	**Moravsky Berou**	**78.21**	**327**	P	**P**	**18**	**13**	**18.9 -0.2**
MORC				pmax	pmax			
	comp=Z,8.0nm,1.0s							
MORC	**Moravsky Berou**	**78.21**	**327**	P	**P**	**18**	**13**	**18.9 -0.2**
MORC				IAmb	IAmb	18	13	33.9
	comp=Z,7.8nm,1.0s							
KKUL	**Konya-Kulu**	**78.22**	**312**	P	**P**	**18**	**13**	**19.8 +0.4**
	comp=Z,29nm,1.0s							
PV18	**Skein Mesa, Pa**	**78.23**	**50**	P	**P**	**18**	**13**	**20.9 +1.2**
PV18				IAmb	IAmb	18	13	38.6
	comp=Z,14nm,1.3s							
VYHS	**Vyhne**	**78.65**	**326**	*e*P	**P**	**18**	**13**	**22.5 +1.0**
LOT	**Lotru**	**78.66**	**321**	P	**P**	**18**	**13**	**21.7 0.0**
	comp=Z,7.5nm,0.6s							
CLL	**Collm**	**78.82**	**330**	*e*P	**P**	**18**	**13**	**23.0 +0.7**
CLL				*i* pP	**pP**	**18**	**13**	**36.0 +1.4**
VRAC	**Vranov**	**78.97**	**327**	LR	LR	18	51	05.1
	comp=Z,80nm,20.4s,baz=35,slow=38							
WINA	**Alland / Wiene**	**80.12**	**327**	*i* pP	P	18	13	44.4 +15
	comp=Z,4.9nm,0.7s							
RAYN	**Ar Rayn**	**80.28**	**292**	P	**P**	**18**	**13**	**29.9 -0.9**
RAYN				pmax	pmax			
	comp=Z,4.0nm,0.7s							
RAYN	**Ar Rayn**	**80.28**	**292**	P	**P**	**18**	**13**	**29.9 -0.9**
RAYN	**Ar Rayn**	**80.28**	**292**	P	**P**	**18**	**13**	**30.6 -0.2**
KHC	**Kasperske Hory**	**80.33**	**329**	P	**P**	**18**	**13**	**31.2 +0.5**
KHC	**Kasperske Hory**	**80.33**	**329**	P	**P**	**18**	**13**	**31.2 +0.5**
RONA	**Rosalia, Austr**	**80.34**	**326**	*i* P	**P**	**18**	**13**	**31.7 +1.0**
	comp=Z,6.0nm,0.9s							
RONA				*i* pP	**sP**	**18**	**13**	**45.8 -1.9**
	comp=Z,6.4nm,0.7s							
CONA	**Conrad Observa**	**80.35**	**327**	*i* pP	pP	18	13	46.3 +3.1
	comp=Z,6.4nm,1.2s							
EKA	**Eskdalemuir Ar**	**80.47**	**341**	P	**P**	**18**	**13**	**31.6 +0.4**
	comp=Z,2.2nm,0.6s,baz=41,slow=4.8,SNR=6.6							
EKA				LR	LR	18	53	53.8
	comp=Z,45nm,18.5s,baz=178,slow=39							
	comp=Z,2.2nm,0.6s							
EKB	**Eskdalemuir**	**80.48**	**341**	P	**P**	**18**	**13**	**31.0 -0.2**
GERES	**GERESS Array B**	**80.51**	**329**	P	**P**	**18**	**13**	**31.6 -0.1**
	comp=Z,1.4nm,0.6s,baz=35,slow=5.2,SNR=12							
GERES				LR	LR	18	52	11.5
	comp=Z,85nm,18.2s,baz=316,slow=38							
	comp=Z,1.4nm,0.6s							
GERES	**GERESS Array B**	**80.51**	**329**	P	**P**	**18**	**13**	**31.9 +0.2**
GERES	**GERESS Array B**	**80.51**	**329**	P	**P**	**18**	**13**	**31.9 +0.2**
GRFO	**Grafenberg**	**80.80**	**330**	P	**P**	**18**	**13**	**34.6 +1.5**
GRFO				PcP	**PcP**	**18**	**13**	**41.0 +1.4**
GRFO				pP	**sP**	**18**	**13**	**47.7 -2.4**
CSS	**Mathiatis**	**80.82**	**308**	P	**P**	**18**	**13**	**33.1 -0.4**
RAR	**Rarotonga**	**81.31**	**127**	LR	LR	18	42	04.0
	comp=Z,24nm,20.2s,baz=293,slow=30							
BIOA	**Bad Ischl, Aus**	**81.46**	**328**	*i* P	**P**	**18**	**13**	**37.8 +1.1**
	comp=Z,4.1nm,0.5s							
SESA	**Seetaler Alpe,**	**81.53**	**327**	*i* P	**P**	**18**	**13**	**38.2 +0.9**
	comp=Z,5.7nm,0.6s							
SESA				*i* pP	**pP**	**18**	**13**	**51.0 +1.3**
	comp=Z,4.5nm,0.6s							
ELL	**Elmali**	**81.61**	**311**	P	**P**	**18**	**13**	**36.4 -1.4**
ELL				pmax	pmax			
	comp=Z,99nm,1.9s							
ELL	**Elmali**	**81.61**	**311**	P	**P**	**18**	**13**	**36.4 -1.4**
SOKA	**Soboth**	**81.68**	**326**	*e*P	**P**	**18**	**13**	**38.7 +0.8**
	comp=Z,7.6nm,0.7s							
OBKA	**Obir**	**82.02**	**327**	*i* P	**P**	**18**	**13**	**40.7 +0.9**
	comp=Z,6.7nm,0.7s							
LESA	**Schwarzleotal**	**82.06**	**328**	*i* P	**P**	**18**	**13**	**41.0 +1.1**
	comp=Z,5.9nm,1.0s							
LESA				*i* pP	**sP**	**18**	**13**	**54.4 -2.5**
	comp=Z,4.7nm,0.8s							
SCHQ	**Schefferville**	**82.09**	**17**	P	**P**	**18**	**13**	**39.9 0.0**
MYKA	**Terra Mystica**	**82.30**	**327**	*i* P	**P**	**18**	**13**	**41.4 +0.2**
	comp=Z,10.0nm,1.4s							
PRED	**Cave del Predi**	**82.48**	**327**	P	**P**	**18**	**13**	**41.5 -0.6**
PRED				IAmb	IAmb	18	14	35.3
	comp=Z,21nm,1.5s							
WATA	**Walderalm**	**82.57**	**329**	*i* P	**P**	**18**	**13**	**43.5 +0.8**
	comp=Z,3.9nm,0.7s							
WATA				*i* pP	**sP**	**18**	**13**	**57.0 -2.7**
	comp=Z,2.6nm,0.6s							
WTTA	**Wattenberg**	**82.61**	**329**	*i* PcP	**P**	**18**	**13**	**43.8 +0.9**
	comp=Z,4.4nm,0.8s							
MOTA	**Moosalm**	**82.75**	**329**	*i* PcP	**P**	**18**	**13**	**44.5 +0.9**
	comp=Z,7.2nm,1.0s							
MOTA				*i* pP	**sP**	**18**	**13**	**57.9 -2.7**
	comp=Z,4.8nm,0.9s							
RETA	**Reutte**	**82.77**	**329**	*i* PcP	**P**	**18**	**13**	**44.7 +1.1**
	comp=Z,6.2nm,0.8s							
RETA				*i* pP	**sP**	**18**	**13**	**58.1 -2.6**
	comp=Z,4.3nm,0.7s							
BFO	**Black Forest**	**83.00**	**331**	P	**P**	**18**	**13**	**44.7 0.0**
BFO				pmax	pmax			
	comp=Z,16nm,1.5s							
BFO	**Black Forest**	**83.00**	**331**	P	**P**	**18**	**13**	**44.7 0.0**
BFO				IAmb	IAmb	18	13	45.1
	comp=Z,16nm,1.5s							
BFO	**Black Forest**	**83.00**	**331**	P	**P**	**18**	**13**	**45.2 +0.5**
BFO				pP	**pP**	**18**	**13**	**58.6 +1.6**
ARG	**Arkhangelos**	**83.00**	**312**	P	**P**	**18**	**13**	**44.6 -0.3**
ARG				pmax	pmax			
	comp=Z,150nm,1.3s							
ARG	**Arkhangelos**	**83.00**	**312**	P	**P**	**18**	**13**	**44.6 -0.3**
DAVA	**Damuels**	**83.28**	**330**	*i* PcP	**P**	**18**	**13**	**46.9 +0.6**
	comp=Z,9.1nm,1.0s							
DAVA				*i* pP	**sP**	**18**	**14**	**00.6 -2.7**
	comp=Z,4.6nm,0.8s							
EIL	**Elat**	**83.40**	**303**	LR	LR	18	55	36.3
	comp=Z,37nm,19.5s,baz=42,slow=39							
FUORN	**Ofenpass-Fuorn**	**83.67**	**329**	P	**P**	**18**	**13**	**49.1 +0.6**
FUORN				IAmb	IAmb	18	14	03.3
	comp=Z,7.8nm,0.8s							
DAVOX	**Davos/Dischmat**	**83.69**	**329**	LR	LR	18	57	37.7
	comp=Z,25nm,18.8s,baz=79,slow=40							
KARP	**Karpathos**	**84.03**	**312**	P	**P**	**18**	**13**	**50.5 +0.3**
KEK	**Kerkira**	**84.88**	**319**	IAmb	IAmb	18	13	53.2
	comp=Z,17nm,1.0s							
KEK				P	**P**	**18**	**13**	**54.0 -0.4**
SENIN	**Lac Senin/Sane**	**85.03**	**331**	P	**P**	**18**	**13**	**54.7 -0.6**
PPT	**Papeete**	**85.28**	**118**	LR	LR	18	42	53.5
	comp=Z,54nm,21.6s,baz=342,slow=29							
PPT2	**Papeete2**	**85.29**	**118**	*e*LR	LR	18	40	48.9
	comp=Z,167nm,28.5s							
PPT2				*e*LR	LR	18	40	52.7
	comp=Z,94nm,23.0s							
TAOE	**Nuku Hiva Isla**	**86.10**	**105**	*e*LR	LR	18	41	16.3
	comp=Z,162nm,25.9s							
TIP	**Timpagrande**	**86.79**	**321**	P	**P**	**18**	**14**	**03.8 -0.2**
LTZ	**Lake Taylor**	**86.84**	**159**	P	**P**	**18**	**14**	**05.0 +1.2**
TXAR	**Lajitas Array**	**87.53**	**53**	P	**P**	**18**	**14**	**05.8 -2.0**
	comp=Z,0.2nm,0.5s,baz=303,slow=5.8,SNR=4.1							
	comp=Z,0.2nm,0.5s							
TXAR	**Lajitas Array**	**87.53**	**53**	P	**P**	**18**	**14**	**08.3 +0.5**
TXAR	**Lajitas Array**	**87.53**	**53**	P	**P**	**18**	**14**	**08.3 +0.5**
CCM	**Cathedral Cave**	**87.89**	**40**	P	**P**	**18**	**14**	**09.9 +0.7**
CCM				pP	**pP**	**18**	**14**	**23.2 +1.6**
KEST	**Kesra**	**93.05**	**324**	LR	LR	19	01	06.0
	comp=Z,54nm,18.4s,baz=348,slow=38							
ESDC	**Sosseca Array**	**94.86**	**335**	P	**P**	**18**	**14**	**41.5 -0.2**
	comp=Z,0.9nm,0.8s,baz=27,slow=4.9,SNR=4.6							
ESDC				LR	LR	19	05	06.0
	comp=Z,28nm,18.5s,baz=36,slow=40							
	comp=Z,0.9nm,0.8s							

*NEIC **20** 18:14:28.4±1.2, 18°.3N±0°.1×67°.43W±0°.07, h91km±2km, ML2.5/37, Md2.9/5(RSPR), Error ellipse: s-maj=22.1km s-min=6.2km az=201.0*
*RSPR **20** 18:14:31.2, 18°.32N×67°.39W, h81km±1km, MD2.9/5*
*SDD **20** 18:14:31.0±1.3, 18°.29N×67°.40W, h86km±16km, MD2.7, ML2.3, MW2.6, Presumed earthquake*

ISC 20 18:14:28.2±1.5, **18°.32N**±0°.10×**67°.40W**±0°.04, **h96**km±8km, **n39**, σ0**s85**/56, **3C-8D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
IDE	**Isla Desecheo**	**0.09**	**313**		Op	**Pn**	**18 14 42.3**	**+0.6**
IDE						**Sn**	**18 14 51.7**	**-0.1**
IDE	**Isla Desecheo**	**0.09**	**313**	⇓	*i*P	**Pn**	**18 14 42.3**	**+0.6**
IDE					*e*S	**Sn**	**18 14 51.7**	**-0.1**
PRSN	**Puerto Rico Se**	**0.27**	**113**		Pn	**Pn**	**18 14 41.5**	**-0.6**
PRSN					Sn	**Sn**	**18 14 51.7**	**-0.9**
PRSN					IAML		18 14 52.7	
	186nm,0.2s							
PRSN					IAML		18 14 57.9	
	148nm,0.2s							
AGPR	**Aguadilla, PR**	**0.31**	**62**			**Sn**	**18 14 52.6**	**-0.4**
AGPR	**Aguadilla, PR**	**0.31**	**62**			**Pn**	**18 14 42.9**	**+0.5**
AGPR	**Aguadilla, PR**	**0.31**	**62**		IAML		18 14 53.5	
	146nm,0.2s							
AGPR					IAML		18 14 53.7	
	159nm,0.8s							
AGPR	**Aguadilla, PR**	**0.31**	**62**	*e*	Pg	**Pn**	**18 14 43.1**	**+0.7**
AGPR				*e*	Sg	**Sn**	**18 14 52.5**	**-0.5**
AGPR					IAML		18 14 53.7	
	comp=N,122nm,0.2s							
AGPR					IAML		18 14 53.7	
	comp=E,93nm,0.1s							
AGPR	**Aguadilla, PR**	**0.31**	**62**	⇑	*i*P	**Pn**	**18 14 43.1**	**+0.7**
CRPR	**Cabo Rojo, PR**	**0.42**	**139**			**Pn**	**18 14 42.9**	**-0.1**
CRPR						**Sn**	**18 14 52.8**	**-1.3**
CRPR	**Cabo Rojo, PR**	**0.42**	**139**	*e*	Pg	**Pn**	**18 14 43.2**	**+0.1**
CRPR					IAML		18 14 53.7	
	comp=E,62nm,0.4s							
CRPR					IAML		18 14 55.0	
	comp=N,47nm,0.4s							
CRPR	**Cabo Rojo, PR**	**0.42**	**139**	⇓	*i*P	**Pn**	**18 14 43.8**	**+0.8**
MLPR	**Magueyes Islan**	**0.49**	**136**			**Pn**	**18 14 43.8**	**+0.3**
MLPR						**Sn**	**18 14 53.4**	**-1.5**
MLPR	**Magueyes Islan**	**0.49**	**136**	*e*	Pg	**Pn**	**18 14 43.8**	**+0.3**
MLPR					IAML		18 14 54.2	
	comp=E,20nm,0.3s							
MLPR					IAML		18 14 56.0	
	comp=N,30nm,0.3s							
MLPR	**Magueyes Islan**	**0.49**	**136**	⇓	*i*P	**Pn**	**18 14 44.5**	**+1.1**
GBPR	**Guanica, Bosqu**	**0.60**	**125**			**Pn**	**18 14 45.1**	**+0.7**
GBPR						**Sn**	**18 14 56.4**	**-0.1**
GBPR	**Guanica, Bosqu**	**0.60**	**125**	⇓	*e*P	**Pn**	**18 14 45.1**	**+0.7**
GBPR					*e*S	**Sn**	**18 14 56.4**	**-0.1**
AOPR	**Arecibo Observ**	**0.62**	**88**			**Pn**	**18 14 44.7**	**+0.2**
AOPR						**Sn**	**18 14 56.0**	**-0.8**
AOPR	**Arecibo Observ**	**0.62**	**88**	⇑	*e*Pg	**Pn**	**18 14 45.2**	**+0.7**
AOPR					*e*Sg	**Sn**	**18 14 56.6**	**-0.2**
AOPR					IAML		18 14 57.5	
	comp=N,365nm,0.2s							
AOPR					IAML		18 14 58.5	
	comp=E,747nm,0.3s							
AOPR	**Arecibo Observ**	**0.62**	**88**	⇓	*i*P	**Pn**	**18 14 45.2**	**+0.7**
OBIP	**Obispado Ponce**	**0.81**	**110**		Pn	**Pn**	**18 14 45.5**	**-0.7**
OBIP						**Sn**	**18 14 58.5**	**-1.4**
OBIP	**Obispado Ponce**	**0.81**	**110**		*e*S	**Sn**	**18 14 59.4**	**-0.5**
CELP	**Cerrillos**	**0.82**	**107**			**Pn**	**18 14 46.7**	**+0.2**
CELP						**Sn**	**18 15 00.4**	**+0.3**
CELP					IAML		18 15 01.8	
	comp=E,104nm,0.3s							
CELP					IAML		18 15 01.8	
	comp=E,110nm,0.2s							
CELP	**Cerrillos**	**0.82**	**107**	⇑	*e*Pg	**Pn**	**18 14 47.4**	**+0.9**
CELP				⇑	*e*Sg	**Sn**	**18 15 00.6**	**+0.5**
CELP					IAML		18 15 01.7	
	comp=N,39nm,0.3s							
CELP					IAML		18 15 01.8	
	comp=E,42nm,0.2s							
CELP	**Cerrillos**	**0.82**	**107**	⇑	*i*P	**Pn**	**18 14 47.5**	**+1.0**
ECPR	**Experimental S**	**0.99**	**90**			**Pn**	**18 14 48.8**	**+0.6**
ECPR						**Sn**	**18 15 02.9**	**-0.3**
ECPR	**Experimental S**	**0.99**	**90**	⇓	*i*P	**Pn**	**18 14 49.3**	**+1.1**
SJG	**San Juan**	**1.21**	**100**		Pn	**Pn**	**18 14 51.0**	**+0.3**
SJG						**Sn**	**18 15 07.5**	**-0.2**
SJG					IAML		18 15 08.8	
	comp=E,97nm,0.6s							
SJG					IAML		18 15 09.4	
	comp=E,94nm,0.2s							
GCPR	**Guaynabo City**	**1.25**	**90**		Pn	**Pn**	**18 14 50.9**	**-0.3**
GCPR						**Sn**	**18 15 08.1**	**-0.5**
GCPR					IAML		18 15 09.4	
	comp=E,64nm,0.3s							
IGPR	**InterUniversit**	**1.28**	**106**			**Sn**	**18 15 10.7**	**+1.4**
SADR	**Isla Saona**	**1.31**	**265**	*e*	Pg	**Pn**	**18 14 53.9**	**+1.9**
SADR					IAML		18 15 16.0	
	comp=N,175nm,2.2s							
SADR					IAML		18 15 16.3	
	comp=E,47nm,0.5s							
PDPR	**Patillas Dam,**	**1.35**	**103**			**Pn**	**18 14 52.2**	**-0.1**
PDPR						**Sn**	**18 15 10.9**	**+0.3**
PDPR					IAML		18 15 12.8	
	comp=E,57nm,0.1s							
PDPR					IAML		18 15 13.3	
	comp=E,67nm,0.2s							
PDPR	**Patillas Dam,**	**1.35**	**103**	⇓	*i*P	**Pn**	**18 14 54.5**	**+2.1**
HUMP	**Col San Antoni**	**1.49**	**97**			**Pn**	**18 14 52.8**	**-1.2**
HUMP						**Sn**	**18 15 13.9**	**+0.3**
HUMP					IAML		18 15 15.6	
	comp=E,44nm,0.1s							
HUMP					IAML		18 15 15.8	
	comp=E,79nm,0.2s							
HUMP	**Col San Antoni**	**1.49**	**97**	⇓	*i*P	**Pn**	**18 14 55.9**	**+1.8**
DR12	**Loma Pena Alta**	**1.93**	**284**		Pn	**Pn**	**18 14 59.8**	**0.0**
HATOM	**Hato Mayor del**	**1.93**	**284**	*e*	Pg	**Pn**	**18 15 01.2**	**+1.4**
HATOM					IAML		18 15 30.5	
	comp=N,26nm,1.8s							
PODR	**Polo**	**3.69**	**268**	Pn		**Pn**	**18 15 22.6**	**-0.7**
SMRT	**St. Maarten**	**4.12**	**93**	Pn		**Pn**	**18 15 28.4**	**-0.6**
LODA1	**ITESIL, Dajabo**	**4.25**	**287**	Pn		**Pn**	**18 15 30.1**	**-0.5**

*NEIC **20** 18:27:08.1±1.1, 47°.56N±0°.06×92°.64W±0°.03, h0km±2km, mb_Lg2.9/25, ML3.1/12, Error ellipse: s-maj=9.8km s-min=3.2km az=191.0*
*IDC **20** 18:27:09.2±4.5, 47°.48N×93°.13W, h0km, mbtmp2.8/1, ML2.8/1, Error ellipse: s-maj=71.8km s-min=20.6km az=75.0*

ISC 20 18:27:07.0±1.1, **47°.56N**±0°.05×**92°.60W**±0°.05, **h0**km, **n26,** σ0**s53**/18, **Minnesota**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
EYMN	**Ely**	**0.84**	**62**			**Pb**	**18 27 24.3**	**-0.2**
EYMN					IAML		18 27 37.9	
	628nm,1.1s							
EYMN					IAML		18 27 40.7	
	454nm,1.0s							
E38A	**The Farm, Brul**	**1.19**	**143**			**Pb**	**18 27 30.1**	**-0.4**
E38A					IAML		18 28 11.0	
	256nm,1.4s							
EPLO	**Experimental L**	**2.24**	**341**			**Pn**	**18 27 45.4**	**0.0**
EPLO					IAmb_Lg		18 28 22.6	
	comp=Z,44nm,1.1s							
AGMN	**Agassiz Nation**	**2.32**	**290**			**Pn**	**18 27 46.9**	**+0.5**
AGMN					IAML		18 28 19.7	
	comp=Z,134nm,0.6s							
AGMN					IAML		18 28 28.3	
	comp=Z,101nm,1.6s							
SPMN	**Marine on St.**	**2.34**	**184**			**Pn**	**18 27 47.4**	**+0.6**
SPMN					IAmb_Lg		18 28 20.9	
	comp=Z,42nm,0.9s							
TBO	**Thunder Bay**	**2.40**	**62**			**Pn**	**18 27 48.4**	**+0.8**
TBO					IAmb_Lg		18 28 28.0	
	comp=Z,38nm,0.7s							
TBO					IAML		18 28 28.3	
	comp=N,127nm,1.0s							
G40A	**Rib Lake**	**2.83**	**143**			**Pn**	**18 27 54.6**	**+1.1**
G40A					IAmb_Lg		18 28 37.8	
	comp=Z,36nm,1.1s							
F33A	**5 Mile Ranch,**	**3.07**	**237**			**Pn**	**18 27 57.5**	**+0.7**
ULM	**Lac du Bonnet**	**3.45**	**322**	Pg		**Pb**	**18 28 09.3**	**+0.3**
	comp=Z,0.4nm,0.3s,baz=146,slow=16,SNR=7.5							
ULM				Lg	Lg		18 28 54.3	
	comp=Z,3.7nm,0.3s,baz=187,slow=14,SNR=14							
ULM	**Lac du Bonnet**	**3.45**	**322**			**Pn**	**18 28 01.5**	**-0.5**
I10CA	**LAC DU BONNET**	**3.48**	**321**	I	I		18 51 30.0	
	comp=Z,0.1nm,1.8s,baz=145,slow=339,SNR=2.7							
F42A	**Maple Grove Fa**	**3.56**	**119**		IAmb_Lg		18 29 03.2	
	comp=Z,51nm,1.0s							
I37A	**Lemond, Waseca**	**3.59**	**189**			**Pn**	**18 28 03.9**	**-0.1**
I37A					IAmb_Lg		18 29 09.4	
	comp=Z,29nm,1.0s							
I40A	**Norwalk**	**3.92**	**159**			**Pn**	**18 28 09.0**	**+0.5**
I42A	**Draeger Farm,**	**4.49**	**144**	Pn		**Pn**	**18 28 15.8**	**-0.5**
I42A					IAmb_Lg		18 29 32.5	
	comp=Z,32nm,1.1s							
H43A	**Windswept, Lux**	**4.57**	**131**	Pn		**Pn**	**18 28 17.3**	**-0.1**
MDND	**Maddock**	**4.74**	**276**	IAmb_Lg			18 29 35.5	
	comp=Z,22nm,1.0s							
ECSD	**EROS Data Cent**	**4.75**	**218**			**Pn**	**18 28 19.7**	**-0.2**
JFWS	**Jewell Farm**	**4.94**	**160**	IAmb_Lg			18 29 47.1	
	comp=Z,26nm,0.9s							
E28A	**Huff**	**5.62**	**263**	Pn		**Pn**	**18 28 31.8**	**-0.1**
SCIA	**State Center**	**5.67**	**185**	IAmb_Lg			18 30 17.4	
	comp=Z,24nm,1.1s							
E46A	**Sault Ste Mari**	**5.80**	**99**	Pn		**Pn**	**18 28 34.0**	**-0.2**
L42A	**Oliver, Polo**	**5.94**	**158**	IAmb_Lg			18 30 30.9	
	comp=Z,26nm,1.2s							
N41A	**Harden Midland**	**6.97**	**169**	IAmb_Lg			18 30 47.7	
	comp=Z,19nm,0.9s							
PDAR	**Pinedale Array**	**12.89**	**254**	Lg	Lg		18 33 41.5	
	baz=63,slow=28							
TXAR	**Lajitas Array**	**20.12**	**209**	P		**P**	**18 31 42.3**	**-0.3**
	baz=26,slow=12,SNR=2.4							
	comp=Z,0.2nm,0.5s							

*MEX **20** 18:29:15.0±1.2, 14°.66N×92°.13W, h97km±9km, MD4.0, Presumed earthquake*
*GCG **20** 18:29:17.5±0.8, 14°.68N×92°.09W, h64km±5km, MD3.8, ML3.9, Presumed earthquake*

ISC 20 18:29:12.4±1.8, **14°.48N**±0°.09×**92°.12W**±0°.06, **h94**km±9km, **n18,** σ1**s34**/30, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
RTAL	**Retalhuleu**	**0.42**	**84**	*e*P		**Pn**	**18 29 28.8**

MKAR LR LR 19 07 01.4
comp=Z,48nm,20.4s,baz=56,slow=37
0.4nm,0.7s
ZALV Zalesovo Beam 14.41 317 Pn **Pn 19 01 56.3 +1.0**
0.1nm,0.3s,baz=129,slow=12,SNR=4.6
ZALV Lg Lg 19 05 59.0
0.1nm,0.3s,baz=122,slow=25,SNR=6.8
0.2nm,0.3s
ZALV AML AML
KURBB Kurchatov Arra 16.63 300 Pn **Pn 19 02 23.4 -1.0**
0.1nm,0.3s,baz=108,slow=10,SNR=13
KURBB Lg Lg 19 07 12.6
baz=114,slow=32,SNR=4.8
KURBB LR LR 19 09 00.5
comp=Z,48nm,18.5s,baz=206,slow=38
1.7nm,0.8s
KURBB AML AML
AAK Ala-Archa 19.59 274 LR LR 19 11 08.0
comp=Z,53nm,20.4s,baz=54,slow=38
KSRS Korea Array 21.13 100 P **P 19 03 14.8 -1.5**
1.5nm,0.8s,baz=296,slow=9.3,SNR=4.5
KSRS LR LR 19 12 05.4
comp=Z,31nm,18.1s,baz=325,slow=39
1.5nm,0.8s
KLR Kul'dur 21.21 66 LR LR 19 12 15.5
comp=Z,42nm,20.1s,baz=243,slow=39
USRK Ussuriysk Ar. 21.80 80 LR LR 19 12 51.5
comp=Z,53nm,18.4s,baz=171,slow=40
BVAR Borovoye Array 22.07 304 P **P 19 03 25.8 -0.4**
3.5nm,0.6s,baz=105,slow=9.2,SNR=20
3.5nm,0.6s
JNU Nakatsue 25.45 106 LR LR 19 15 26.8
comp=Z,27nm,18.1s,baz=88,slow=40
CMAR Chiang Mai Arr 25.98 185 P **P 19 04 05.2 +1.0**
0.6nm,0.3s,baz=358,slow=9.2,SNR=6.2
0.6nm,0.3s
ARTI Arti 29.43 309 LR LR 19 16 20.1
comp=Z,34nm,18.7s,baz=158,slow=36
ILAR Eielson Array 58.87 28 P **P 19 08 29.5 -0.4**
0.6nm,0.6s,baz=296,slow=6.4,SNR=7.4
0.6nm,0.6s
YKA Yellowknife Ar 69.58 17 P **P 19 09 39.4 -0.7**
0.9nm,0.8s,baz=333,slow=7.0,SNR=3.7
0.9nm,0.8s
WRA Warramunga Arr 70.77 147 P **P 19 09 47.6 -0.2**
0.6nm,1.1s,baz=345,slow=6.7,SNR=2.8
0.6nm,1.1s
ASAR Alice Springs 73.99 149 P **P 19 10 06.8 -0.3**
0.2nm,0.7s,baz=342,slow=5.5,SNR=3.3
0.2nm,0.7s

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*IDC **20** 19:13:45.8±2.1,36°.72N×11°.72W,h0km,mb3.0/1,*
mbtmp3.7/3,ML4.1/2,MS3.4/1,Error ellipse: s-maj=34.4km
s-min=27.1km az=129.0
*MDD **20** 19:13:51.6±0.4,36°.80N×11°.45W,h27km±5km,Mb4.6/63,*
M_mb4.0/63,Error ellipse: s-maj=4.1km s-min=2.7km
az=63.0
*IGIL **20** 19:13:53.6,36°.77N×11°.33W,h43km,ML3.3*
*CNRM **20** 19:13:53.9,36°.31N×11°.12W,h62km,ML3.8*
*INMG **20** 19:13:54.0±2.0,36°.80N×11°.36W,h31km±22km,ML3.4,*
Error ellipse: s-maj=3.5km s-min=2.5km az=108.0,
#DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe
ISC 20 19:13:49.3±2.8,36°.75N±0°.04×11°.36W±0°.05,h25km±22km,
n146,σ2s38/253,41C-7D,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**2.07**	**79**	P	**Pn**	**19 14 23.9**	**+1.6**
PFVI				S	**Sn**	**19 14 49.8**	**+2.5**
PFVI	**Vila Bisbo**	**2.07**	**79**	↑*i*P	**Pn**	**19 14 24.5**	**+2.1**
PFVI				*e*S	**Sn**	**19 14 46.8**	**-0.6**
PFVI				IAML		19 14 47.6	
PFVI				IAML		19 14 47.9	
PFVI				IAML		19 14 48.0	
MORF	**Marmelete**	**2.24**	**75**	*e*P	**Pn**	**19 14 26.9**	**+2.1**
MORF				*e*S	**Sn**	**19 14 51.2**	**-0.4**
MORF				IAML		19 14 53.1	
	comp=N,369nm,0.3s						
MORF	**Marmelete**	**2.24**	**75**	↑*i*P	**Pn**	**19 14 26.9**	**+2.1**
MORF				*e*S	**Sn**	**19 14 51.3**	**-0.3**
MORF				IAML		19 14 53.1	
MORF				IAML		19 14 53.3	
MORF				IAML		19 14 53.6	
PTEO	**Sao Teotonio**	**2.25**	**69**	↓*i*P	**Pn**	**19 14 27.3**	**+2.3**
PTEO				*e*S	**Sn**	**19 14 51.8**	**-0.1**
PTEO				IAML		19 14 52.5	
PTEO				IAML		19 14 53.8	
PTEO				IAML		19 14 58.5	
PTEO	**Sao Teotonio**	**2.25**	**69**	P	**Pn**	**19 14 27.1**	**+2.2**
PTEO				S	**Sn**	**19 14 51.5**	**-0.4**
PMONC	**Monchique**	**2.32**	**75**	*e*P	**Pn**	**19 14 28.1**	**+2.2**
PMONC				*e*S	**Sn**	**19 14 53.9**	**+0.2**
PMONC				IAML		19 14 55.5	
PMONC				IAML		19 14 55.8	
PMONC				IAML		19 14 56.1	
LIS	**Lisbon**	**2.63**	**41**	*e*S	**Sn**	**19 15 00.5**	**-0.7**
LIS				IAML		19 15 03.5	
	comp=N,266nm,0.2s						
LIS	**Lisbon**	**2.63**	**41**	*e*P	**Pn**	**19 14 31.7**	**+1.6**
LIS				*e*S	**Sn**	**19 15 01.8**	**+0.5**
LIS				IAML		19 15 03.8	
LIS				IAML		19 15 03.8	
LIS				IAML		19 15 07.6	
PLOUS	**Minas do Lousa**	**2.67**	**60**	*e*P	**Pn**	**19 14 32.7**	**+2.0**
PLOUS				*e*S	**Sn**	**19 15 02.0**	**-0.1**
PLOUS				IAML		19 15 03.9	
PLOUS				IAML		19 15 06.2	
PLOUS				IAML		19 15 06.5	
MESJ	**Messejana**	**2.73**	**66**	*e*P	**Pn**	**19 14 33.5**	**+2.0**
MESJ				*e*S	**Sn**	**19 15 02.9**	**-0.9**
MESJ				IAML		19 15 06.9	
	comp=N,23nm,0.2s						
MESJ	**Messejana**	**2.73**	**66**	*e*P	**Pn**	**19 14 33.7**	**+2.2**
MESJ				*e*S	**Sn**	**19 15 03.5**	**-0.2**
PMAFR	**Mafra**	**2.75**	**36**	↓*i*P	**Pn**	**19 14 33.5**	**+1.7**
PMAFR				*e*S	**Sn**	**19 15 03.8**	**-0.4**
PMAFR				IAML		19 15 04.8	
PMAFR				IAML		19 15 06.4	
PMAFR				IAML		19 15 08.7	
PBDV	**Barranco-do-Ve**	**2.79**	**79**	P	**Pn**	**19 14 34.7**	**+2.4**
PBDV				S	**Sn**	**19 15 04.6**	**-0.6**
PBDV	**Barranco-do-Ve**	**2.79**	**79**	*e*P	**Pn**	**19 14 34.8**	**+2.5**
PBDV				*e*S	**Sn**	**19 15 04.9**	**-0.3**
PBDV				IAML		19 15 10.0	
PBDV				IAML		19 15 10.2	
PBDV				IAML		19 15 12.0	
PCVE	**Castro Verde**	**2.79**	**71**	P	**Pn**	**19 14 34.7**	**+2.3**
PCVE				S	**Sn**	**19 15 04.1**	**-1.2**
PCVE	**Castro Verde**	**2.79**	**71**	*e*P	**Pn**	**19 14 34.7**	**+2.3**
PCVE				*e*S	**Sn**	**19 15 04.7**	**-0.6**
PCVE				IAML		19 15 05.6	
PCVE				IAML		19 15 06.0	
PCVE				IAML		19 15 06.5	
MOE	**Montemor**	**2.97**	**53**	*e*P	**Pn**	**19 14 36.7**	**+1.8**
MOE				*e*S	**Sn**	**19 15 08.9**	**-0.8**
MOE				IAML		19 15 10.3	
MOE				IAML		19 15 10.9	
MOE				IAML		19 15 12.0	
PVAQ	**Vaqueiros**	**2.99**	**76**	P	**Pn**	**19 14 37.1**	**+2.0**
PVAQ				S	**Sn**	**19 15 12.7**	**+2.6**
PVAQ	**Vaqueiros**	**2.99**	**76**	*e*P	**Pn**	**19 14 37.5**	**+2.5**
PVAQ				*e*S	**Sn**	**19 15 09.2**	**-0.8**
PVAQ				IAML		19 15 11.8	
PVAQ				IAML		19 15 11.8	
PVAQ				IAML		19 15 12.7	
PBEJ	**Beja**	**3.06**	**64**	*e*P	**Pn**	**19 14 38.7**	**+2.6**
PBEJ				*e*S	**Sn**	**19 15 11.0**	**-0.9**
PBEJ				IAML		19 15 11.8	
PBEJ				IAML		19 15 12.4	
PBEJ				IAML		19 15 14.5	
EGRO	**El Granado**	**3.20**	**75**	P	**Pn**	**19 14 40.1**	**+2.2**
EGRO				S	**Sn**	**19 15 13.8**	**-1.4**
EGRO	**El Granado**	**3.20**	**75**	P	**Pn**	**19 14 39.9**	**+2.0**
EGRO				↑IVmb_VC		19 14 45.9	
	comp=N,815nm,SNR=5.2						
EGRO				S	**Sn**	**19 15 13.8**	**-1.4**
EVO	**Evora**	**3.20**	**55**	P	**Pn**	**19 14 39.9**	**+2.0**
EVO				S	**Sn**	**19 15 14.1**	**-1.2**
EVO	**Evora**	**3.20**	**55**	*e*P	**Pn**	**19 14 39.9**	**+2.0**
EVO				*e*S	**Sn**	**19 15 14.2**	**-1.0**
EVO				IAML		19 15 16.5	
EVO				IAML		19 15 16.6	
EVO				IAML		19 15 18.4	
EXAYA	**Ayamonte**	**3.20**	**80**	P	**Pn**	**19 14 40.0**	**+2.0**
EXAYA				S	**Sn**	**19 15 15.1**	**-0.3**
PARRA	**Arraiolos**	**3.34**	**51**	*e*P	**Pn**	**19 14 41.4**	**+1.5**
PARRA				*e*S	**Sn**	**19 15 17.5**	**-1.3**
PARRA				IAML		19 15 19.6	
PARRA				IAML		19 15 20.6	
PARRA				IAML		19 15 20.9	
PMTG	**Montargil**	**3.39**	**46**	↓*i*P	**Pn**	**19 14 42.0**	**+1.4**
PMTG				*e*S	**Sn**	**19 15 18.6**	**-1.5**
PMTG				IAML		19 15 20.3	
PMTG				IAML		19 15 20.6	
PMTG				IAML		19 15 25.7	
PMTG	**Montargil**	**3.39**	**46**	↓P	**Pn**	**19 14 42.0**	**+1.4**
PMTG				S	**Sn**	**19 15 18.4**	**-1.6**
PSBE	**So Bento**	**3.42**	**35**	↓*i*P	**Pn**	**19 14 43.0**	**+1.9**
PSBE				*e*S	**Sn**	**19 15 21.1**	**+0.3**
PSBE				IAML		19 15 24.1	
PSBE				IAML		19 15 24.5	
PSBE				IAML		19 15 24.6	
PESTR	**Estremoz**	**3.66**	**54**	P	**Pn**	**19 14 46.5**	**+2.2**
PESTR				S	**Sn**	**19 15 25.8**	**-0.8**
PESTR	**Estremoz**	**3.66**	**54**	P	**Pn**	**19 14 48.4**	**+4.1**
PESTR				S	**Sb**	**19 15 34.0**	**-3.1**
PESTR	**Estremoz**	**3.66**	**54**	*e*P	**Pn**	**19 14 46.6**	**+2.3**
PESTR				*e*S	**Sn**	**19 15 25.3**	**-1.3**
PESTR				IAML		19 15 28.5	
PESTR				IAML		19 15 29.9	
PESTR				IAML		19 15 33.6	
PBAR	**Barrancos**	**3.72**	**66**	P	**Pn**	**19 14 47.1**	**+1.9**
PBAR				S	**Sn**	**19 15 26.3**	**-1.8**
PBAR	**Barrancos**	**3.72**	**66**	*e*P	**Pn**	**19 14 47.3**	**+2.1**
PBAR				*e*S	**Sn**	**19 15 26.8**	**-1.4**
PBAR				IAML		19 15 28.7	
PBAR				IAML		19 15 29.0	
PBAR				IAML		19 15 34.3	
PSARD	**Sardoal**	**3.80**	**41**	↓*e*P	**Pn**	**19 14 47.9**	**+1.6**
PSARD				*e*S	**Sn**	**19 15 28.7**	**-1.4**
PSARD				IAML		19 15 30.2	
PSARD				IAML		19 15 30.8	
PSARD				IAML		19 15 31.0	
EMIN	**Mina Concepcio**	**3.88**	**73**	P	**Pn**	**19 14 49.2**	**+1.9**
EMIN				S	**Sn**	**19 15 30.0**	**-2.0**
EMIN	**Mina Concepcio**	**3.88**	**73**	P	**Pn**	**19 14 49.2**	**+1.9**
EMIN				↑IVmb_VC		19 14 49.9	
	comp=N,454nm,SNR=3.8						
EMIN				S	**Sn**	**19 15 30.1**	**-1.9**
EBAD	**Badajoz**	**3.98**	**59**	P	**Pn**	**19 14 50.4**	**+1.6**
EBAD				S	**Sn**	**19 15 32.8**	**-1.9**
EBAD	**Badajoz**	**3.98**	**59**	P	**Pn**	**19 14 50.4**	**+1.6**
EBAD				↑IVmb_VC		19 14 57.1	
	comp=N,749nm,SNR=6.2						
EBAD				S	**Sn**	**19 15 32.7**	**-1.9**
PMRV	**Marv??o**	**4.12**	**48**	↓*e*P	**Pn**	**19 14 52.0**	**+1.4**
PMRV				*e*S	**Sn**	**19 15 36.1**	**-1.8**
PMRV				IAML		19 15 36.7	
PMRV				IAML		19 15 38.6	
PMRV				IAML		19 15 39.0	
PCBR	**Castelo Branco**	**4.34**	**44**	*e*P	**Pn**	**19 14 55.4**	**+1.7**
PCBR				*e*S	**Sn**	**19 15 41.9**	**-1.5**
PCBR				IAML		19 15 42.6	
PCBR				IAML		19 15 43.0	
PCBR				IAML		19 15 43.2	
ESPR	**Espera**	**4.42**	**87**	P	**Pn**	**19 14 57.1**	**+2.3**
ESPR				S	**Sn**	**19 15 44.4**	**-0.9**
ESPR	**Espera**	**4.42**	**87**	P	**Pn**	**19 14 57.0**	**+2.3**
ESPR				↑IVmb_VC		19 14 58.6	
	comp=N,1µm,SNR=12						
ESPR				S	**Sn**	**19 15 44.5**	**-0.9**
RTC	**Rabat Centre**	**4.60**	**126**	P	**Pn**	**19 14 58.4**	**+1.2**
RTC				S	**Sn**	**19 15 46.3**	**-3.5**
RTC	**Rabat Centre**	**4.60**	**126**	P	Pn	19 14 55.4	-1.8
RTC				S	Sn	19 15 43.7	-6.0
MTE	**Manteigas**	**4.71**	**38**	*e*P	**Pn**	**19 15 00.6**	**+1.7**
MTE				*e*S	**Sn**	**19 15 50.6**	**-2.1**
MTE				IAML		19 15 52.9	
MTE				IAML		19 15 54.1	
MTE				IAML		19 15 54.7	
AVE	**Averroes**	**4.73**	**136**	P	**Pn**	**19 15 01.6**	**+2.7**
AVE				S	**Sn**	**19 15 50.0**	**-3.0**
EJIF	**Jimena Fronter**	**4.75**	**92**	P	**Pn**	**19 15 01.9**	**+2.6**
EJIF				S	**Sn**	**19 15 53.7**	**+0.1**
PVIS	**Viseu**	**4.80**	**33**	*e*P	**Pn**	**19 15 01.6**	**+1.6**
PVIS				*e*S	**Sn**	**19 15 52.5**	**-2.3**
RSA	**Sarsar**	**4.87**	**111**	P	**Pn**	**19 14 60.0**	**-1.1**
RSA				Sn	**Sn**	**19 15 51.6**	**-5.1**
PTO	**Porto**	**4.88**	**25**	*e*P	**Pn**	**19 15 02.4**	**+1.3**
PTO				*e*S	**Sn**	**19 15 54.4**	**-2.3**
PTO				IAML		19 15 56.9	
PTO				IAML		19 15 57.4	
PTO				IAML		19 15 58.4	
PTO	**Porto**	**4.88**	**25**	P	**Pn**	**19 15 02.0**	**+1.0**
PTO				S	**Sn**	**19 15 53.8**	**-2.9**
ECEU	**Ceuta**	**4.91**	**98**	P	**Pn**	**19 15 03.8**	**+2.4**
ECEU				S	**Sn**	**19 15 55.8**	**-1.6**
ECEU	**Ceuta**	**4.91**	**98**	P	**Pn**	**19 15 04.4**	**+3.0**
ECEU				↑IVmb_VC		19 15 05.8	
	comp=N,61nm,SNR=3.6						
ECEU				S	**Sn**	**19 15 56.4**	**-1.0**
ECAB	**El Cabril**	**4.91**	**73**	P	**Pn**	**19 15 03.6**	**+2.0**
ECAB				S	**Sn**	**19 15 55.7**	**-1.9**
ECAB	**El Cabril**	**4.91**	**73**	P	**Pn**	**19 15 03.5**	**+2.0**
ECAB				↑IVmb_VC		19 15 12.4	
	comp=N,381nm,SNR=4.8						
ECAB				S	**Sn**	**19 15 54.4**	**-3.2**
SMIR	**Smir Dam**	**4.95**	**101**	P	**Pn**	**19 15 01.7**	**-0.4**
SMIR				S	**Sn**	**19 15 54.6**	**-3.9**
ZHG	**ZHG**	**5.08**	**129**	P	**Pn**	**19 15 05.0**	**+1.1**
ZHG				Sn	Sn	19 15 55.6	-6.3
SRHM	**Skhour des Reh**	**5.14**	**145**	P	**Pn**	**19 15 04.5**	**-0.1**
SRHM				Sn	**Sn**	**19 15 58.2**	**-5.0**
EMIJ	**Mijas**	**5.30**	**90**	P	**Pn**	**19 15 09.0**	**+2.1**
EMIJ				S	**Sn**	**19 16 05.9**	**-1.2**
EMIJ	**Mijas**	**5.30**	**90**	P	**Pn**	**19 15 08.7**	**+1.8**
EMIJ				↑IVmb_VC		19 15 11.5	
	comp=N,122nm,SNR=1.9						
EMIJ				S	**Sn**	**19 16 05.9**	**-1.2**
EPLA	**Plasencia**	**5.30**	**50**	P	**Pn**	**19 15 08.7**	**+1.8**
EPLA				↑IVmb_VC		19 15 09.2	
	comp=N,287nm,SNR=2.4						
EPLA				S	**Sn**	**19 16 04.3**	**-3.0**
PVRL	**Vila Real**	**5.33**	**31**	*e*P	**Pn**	**19 15 09.3**	**+1.9**
PVRL				*e*S	**Sn**	**19 16 05.5**	**-2.6**
PVRL				IAML		19 16 07.8	
PVRL				IAML		19 16 08.3	
PVRL				IAML		19 16 08.3	
POLO	**Lamas de Olo**	**5.39**	**30**	*e*P	**Pn**	**19 15 09.4**	**+1.3**
POLO				*e*S	**Sn**	**19 16 06.1**	**-3.3**
POLO				IAML		19 16 07.3	
POLO				IAML		19 16 08.8	
POLO				IAML		19 16 08.9	
POLO	**Lamas de Olo**	**5.39**	**30**	P	**Pn**	**19 15 09.1**	**+1.0**
POLO				S	**Sn**	**19 16 05.4**	**-3.9**
PMPST	**Porto Santo, M**	**5.49**	**230**	*e*P	**Pn**	**19 15 11.8**	**+2.4**
PMPST				*e*S	**Sn**	**19 16 06.5**	**-5.2**
PMPST				IAML		19 16 10.1	
PMPST				IAML		19 16 10.7	
PMPST				IAML		19 16 11.0	
CIBOR	**Castaar de Ib**	**5.49**	**57**	P	**Pn**	**19 15 11.1**	**+1.7**
CIBOR				S	**Sn**	**19 16 08.9**	**-2.9**
PMPS	**Porto Santo**	**5.50**	**229**	*e*P	**Pn**	**19 15 11.9**	**+2.3**
EMAL	**Malaga-Limoner**	**5.57**	**88**	P	**Pn**	**19 15 12.8**	**+2.3**
EADA	**Adamuz**	**5.58**	**73**	P	**Pn**	**19 15 12.4**	**+1.7**
EADA				S	**Sn**	**19 16 12.1**	**-2.0**
EADA	**Adamuz**	**5.58**	**73**	P	**Pn**	**19 15 12.4**	**+1.7**
EADA				↑IVmb_VC		19 15 21.7	
	comp=N,292nm,SNR=3.4						
EADA				S	**Sn**	**19 16 11.6**	**-2.4**
PCAB	**Cabril**	**5.59**	**27**	*e*P	**Pn**	**19 15 12.2**	**+1.4**
PCAB				*e*S	**Sn**	**19 16 11.0**	**-3.2**
PCAB				IAML		19 16 12.4	
PCAB				IAML		19 16 13.3	
PCAB				IAML		19 16 14.5	
SICH	**Sidi Chahed**	**5.60**	**116**	P	**Pn**	**19 15 10.0**	**-0.9**
SICH				Sn	**Sn**	**19 16 09.6**	**-4.8**
ELOB	**Lobios**	**5.71**	**26**	P	**Pn**	**19 15 13.8**	**+1.2**
ELOB				↑IVmb_VC		19 15 14.9	
	comp=N,636nm,SNR=4.3						
ELOB				S	**Sn**	**19 16 13.8**	**-3.6**
PGAV	**Gavieira, Arco**	**5.73**	**24**	*e*P	**Pn**	**19 15 14.0**	**+1.2**
PGAV				*e*S	**Sn**	**19 16 15.1**	**-2.8**
PGAV				IAML		19 16 17.9	
PGAV				IAML		19 16 18.0	
PGAV				IAML		19 16 18.6	
EZAM	**Zamans**	**5.77**	**20**	P	**Pn**	**19 15 14.0**	**+0.7**
EZAM				↑IVmb_VC		19 15 14.8	
	comp=N,580nm,SNR=3.7						
EZAM				S	**Sn**	**19 16 14.6**	**-4.1**
EGOR	**Sierra Gorda,**	**5.82**	**84**	P	**Pn**	**19 15 16.7**	**+2.6**
EGOR				S	**Sn**	**19 16 19.8**	**-0.3**
EGOR	**Sierra Gorda,**	**5.82**	**84**	P	**Pn**	**19 15 16.3**	**+2.2**
EGOR				↑IVmb_VC		19 15 23.4	
	comp=N,86nm,SNR=1.6						
EGOR				S	**Sn**	**19 16 19.8**	**-0.3**
IFR	**Ifrane**	**6.04**	**120**	P	**Pn**	**19 15 18.7**	**+1.5**
IFR				S	Sn	19 16 19.7	-6.0
EJUZ	**Juzbado, Salam**	**6.08**	**43**	P	**Pn**	**19 15 18.6**	**+1.0**
EJUZ				S	**Sn**	**19 16 22.3**	**-4.0**
PMAR	**Madeira**	**6.08**	**230**	P	**Pn**	**19 15 20.3**	**+2.5**
PMAR				Sn	**Sn**	**19 16 26.8**	**+0.1**
PMAR	**Madeira**	**6.08**	**230**	*e*P	**Pn**	**19 15 19.1**	**+1.3**
PMAR				*e*S	**Sn**	**19 16 22.0**	**-4.7**
PMAR				IAML		19 16 27.0	
PMAR				IAML		19 16 27.1	
PMAR				IAML		19 16 29.9	
LCRM	**LCR**	**6.14**	**118**	P	Pn	19 15 17.1	-1.4
LCRM				Sn	Sn	19 16 21.8	-6.2
PBRG	**Braganca**	**6.19**	**34**	*e*P	**Pn**	**19 15 20.3**	**+1.2**
PBRG				*e*S	**Sn**	**19 16 25.6**	**-3.4**
PBRG				IAML		19 16 27.6	
PBRG				IAML		19 16 27.7	
PBRG				IAML		19 16 28.0	
PAB	**San Pablo**	**6.19**	**61**	P	**Pn**	**19 15 20.5**	**+1.4**
PAB				↑IVmb_VC		19 15 24.6	
	comp=N,94nm,SNR=1.3						
PAB				S	**Sn**	**19 16 25.2**	**-4.0**
PMOZ	**Porto Moniz, M**	**6.20**	**232**	P	**Pn**	**19 15 22.2**	**+3.0**
PMOZ				S	**Sn**	**19 16 25.1**	**-4.2**
PMOZ	**Porto Moniz, M**	**6.20**	**232**	P	**Pn**	**19 15 21.2**	**+1.9**
PMOZ				S	**Sn**	**19 16 29.7**	**+0.4**
PMOZ	**Porto Moniz, M**	**6.20**	**232**	*e*P	**Pn**	**19 15 21.6**	**+2.3**
PMOZ				*e*S	**Sn**	**19 16 27.3**	**-2.0**
PMOZ				IAML		19 16 31.7	
PMOZ				IAML		19 16 35.7	
PMOZ				IAML		19 16 38.3	
ELGU	**Los Guajares,**	**6.21**	**87**	P	**Pn**	**19 15 22.7**	**+3.3**
ELGU				S	**Sn**	**19 16 29.0**	**-0.6**
ELGU	**Los Guajares,**	**6.21**	**87**	P	**Pn**	**19 15 22.3**	**+2.9**
ELGU				↑IVmb_VC		19 15 27.9	
	comp=N,94nm,SNR=1.4						
ELGU				S	**Sn**	**19 16 28.7**	**-0.8**
PALE	**Palemas**	**6.21**	**102**	P	**Pn**	**19 15 18.9**	**-0.5**
PALE				Sn	**Sn**	**19 16 26.2**	**-3.4**
OUK	**Oukaimeden**	**6.25**	**151**	Sn	Sn	19 16 23.8	-7.1
ECAL	**Calabor**	**6.30**	**33**	P	**Pn**	**19 15 21.7**	**+1.0**
ECAL				S	**Sn**	**19 16 28.1**	**-3.7**
ECAL	**Calabor**	**6.30**	**33**	P	**Pn**	**19 15 21.6**	**+1.0**
ECAL				↑IVmb_VC		19 15 22.6	
	comp=N,943nm,SNR=3.6						
ECAL				S	**Sn**	**19 16 28.1**	**-3.7**
EQTA	**Presa de Quent**	**6.36**	**84**	P	**Pn**	**19 15 24.0**	**+2.5**
EQTA				S	**Sn**	**19 16 31.9**	**-1.4**
EQUE	**Quentar**	**6.36**	**84**	P	**Pn**	**19 15 23.9**	**+2.4**
EQUE				↑IVmb_VC		19 15 28.8	
	comp=N,74nm,SNR=1.4						
EQUE				S	**Sn**	**19 16 31.5**	**-1.8**
PSIM	**Granatula de C**	**6.37**	**69**	P	**Pn**	**19 15 23.3**	**+1.8**
PSIM				S	**Sn**	**19 16 29.5**	**-4.0**
EMAZ	**Mazaricos**	**6.46**	**16**	P	**Pn**	**19 15 22.7**	**0.0**
EMAZ				↑IVmb_VC		19 15 24.7	
	comp=N,593nm,SNR=2.7						
EMAZ				S	**Sn**	**19 16 30.0**	**-5.6**
TISM	**Timmit**	**6.46**	**139**	Sn	Sn	19 16 27.0	-8.7
STS	**Santiago**	**6.50**	**19**	P	**Pn**	**19 15 23.6**	**+0.3**
STS				S	**Sn**	**19 16 32.4**	**-4.1**
AKLM	**AKL**	**6.50**	**108**	P	**Pn**	**19 15 23.1**	**-0.3**
ESDC	**Sonseca Array**	**6.51**	**61**	Pn	**Pn**	**19 15 24.8**	**+1.2**
	comp=N,1.4nm,0.3s,baz=249,slow=13,SNR=36						
ESDC				Sn	**Sn**	**19 16 34.7**	**-2.4**
	comp=N,2.2nm,0.3s,baz=246,slow=24,SNR=14						
	comp=N,3.4nm,0.3s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**6.51**	**61**	P	**Pn**	**19 15 25.5**	**+1.9**
ESDC				↑IVmb_VC		19 15 29.1	
	comp=N,233nm,SNR=2.7						
ESDC				S	**Sn**	**19 16 33.8**	**-3.3**
ESBB	**Sonseca Array**	**6.52**	**61**	P	**Pn**	**19 15 25.5**	**+1.9**
ESBB				↑IVmb_VC		19 15 29.1	
	comp=N,210nm,SNR=2.4						
ESBB				S	**Sn**	**19 16 33.9**	**-3.2**
EAGO	**Agolada(Pontev**	**6.55**	**22**	P	**Pn**	**19 15 24.8**	**+0.8**
EAGO				↑IVmb_VC		19 15 26.4	
	comp=N,428nm,SNR=1.6						
EAGO				S	**Sn**	**19 16 33.4**	**-4.4**
TTIG	**Tnine Tigouga,**	**6.65**	**158**	Sn	Sn	19 16 32.0	-8.5
MD31	**MD31**	**6.67**	**124**	P	**Pn**	**19 15 25.5**	**-0.2**
MD31				Sn	Sn	19 16 35.0	-6.0
EQES	**Quesada**	**6.69**	**78**	P	**Pn**	**19 15 27.9**	**+1.8**
EQES				↑IVmb_VC		19 15 34.7	
	comp=N,168nm,SNR=2.7						
EQES				S	**Sn**	**19 16 39.6**	**-1.9**
TIO	**Tiouine**	**6.74**	**148**	P	**Pn**	**19 15 27.4**	**+0.7**
TIO				S	**Sn**	**19 16 38.7**	**-4.0**
TIO	**Tiouine**	**6.74**	**148**	P	Pn	19 15 24.8	-1.9
TIO				Sn	Sn	19 16 36.4	-6.3
EALB	**Alboran**	**6.77**	**94**	S	**Sn**	**19 16 40.1**	**-3.2**
EBER	**Berja**	**6.80**	**86**	P	**Pn**	**19 15 29.4**	**+1.8**
EBER				S	**Sn**	**19 16 43.5**	**-0.7**
EBER	**Berja**	**6.80**	**86**	P	**Pn**	**19 15 29.6**	**+2.0**
EBER				↑IVmb_VC		19 15 35.1	
	comp=N,90nm,SNR=1.3						
EBER				S	**Sn**	**19 16 42.4**	**-1.8**
MDT	**Midelt**	**6.80**	**123**	Pn	**Pn**	**19 15 28.9**	**+1.4**
	comp=N,3.5nm,0.3s,baz=299,slow=5.4,SNR=54						
	comp=N,7.4nm,0.2s						
MDT				AML	AML		
MDT	**Midelt**	**6.80**	**123**	P	**Pn**	**19 15 29.0**	**+1.4**
MDT				Sn	Sn	19 16 37.4	-6.9
GUD	**Guadarrama**	**6.84**	**53**

ETOR				S	Sn	19 17 15.8	-5.9	
ALT03	**Santillana del**	**8.63**	**38**	P	Pn	**19 15 53.5**	**+1.0**	
ALT03				⇑IVmb_VC		19 15 55.1		
	comp=N,271nm,SNR=2.0							
ALT03				S	Sn	**19 17 27.1**	**-2.0**	
ALT01	**Santillana del**	**8.63**	**38**	P	Pn	**19 15 54.3**	**+1.8**	
ALT01				⇑IVmb_VC		19 15 55.0		
	comp=N,672nm,SNR=1.7							
ALT01				S	Sn	**19 17 25.9**	**-3.2**	
ALT04	**Santillana del**	**8.63**	**38**	P	Pn	**19 15 54.3**	**+1.8**	
ALT04				⇑IVmb_VC		19 15 55.5		
	comp=N,398nm,SNR=1.8							
ALT04				S	Sn	**19 17 25.3**	**-3.8**	
ECHE	**Chera**	**8.66**	**68**	P	Pn	**19 15 55.0**	**+2.0**	
ECHE				S	Sn	**19 17 26.9**	**-3.0**	
ECHE	**Chera**	**8.66**	**68**	P	Pn	**19 15 55.5**	**+2.4**	
ECHE				⇑IVmb_VC		19 15 58.6		
	comp=N,138nm,SNR=1.1							
ECHE				S	Sn	**19 17 25.9**	**-4.0**	
E0901	**Celadas (Terue**	**8.83**	**62**	⇑IVmb_VC		19 16 01.0		
	comp=N,156nm,SNR=1.0							
E0901				S	Sn	**19 17 30.5**	**-3.6**	
ELAN	**Lanestosa**	**8.88**	**41**	P	Pn	**19 15 57.4**	**+1.4**	
ELAN				⇑IVmb_VC		19 16 02.3		
	comp=N,164nm,SNR=0.9							
ELAN				S	Sn	**19 17 29.9**	**-5.3**	
EMOS	**Mosqueruela**	**9.26**	**64**	P	Pn	**19 16 04.6**	**+3.2**	
EMOS				⇑IVmb_VC		19 16 10.5		
	comp=N,153nm,SNR=0.8							
EMOS				S	Sn	**19 17 39.7**	**-5.0**	
EORO	**Oroz-Betelu**	**9.87**	**48**	P	Pn	**19 16 11.6**	**+2.0**	
EORO				⇑IVmb_VC		19 16 14.0		
	comp=N,175nm,SNR=1.2							
EORO				S	Sn	**19 17 53.9**	**-5.6**	
EALK	**Alkurruntz**	**9.94**	**46**	P	Pn	**19 16 11.4**	**+0.9**	
EALK				⇑IVmb_VC		19 16 18.4		
	comp=N,201nm,SNR=1.2							
EALK				S	Sn	19 17 54.4	-7.0	
GERES	**GERESS Array B**	**21.89**	**49**	P	**P**	**19 18 44.9**	**+4.5**	
	comp=N,0.4nm,0.6s,baz=238,slow=5.6,SNR=2.8							
	comp=N,0.4nm,0.6s							
OBN	**Obninsk**	**37.17**	**45**	LR	LR	19 36 01.5		
	comp=N,52nm,20.3s,baz=0.0,slow=36							
WRA	**Warramunga Arr**	**145.71**	**70**	PKPbc	**PKPab**	**19 33 27.6**	**+0.9**	
	comp=N,0.7nm,0.8s,baz=302,slow=4.4							
ASAR	**Alice Springs**	**147.46**	**76**	PKPbc	**PKPbc**	**19 33 30.9**	**-0.5**	
	comp=N,0.4nm,0.7s,baz=317,slow=2.2,SNR=5.1							

IDC ***20*** *19:16:01.8±1.9, 53.09N×167.44W, h0km, mb3.7/11, mbtmp3.7/11, Error ellipse: s-maj=50.1km s-min=23.9km az=1.0*

AEIC ***20*** *19:16:09.2±1.4, 52.98N±0.04×167.53W±0.07, h75km±5km, Error ellipse: s-maj=7.7km s-min=3.4km az=130.0*

NEIC ***20*** *19:16:10.5±1.4, 53.00N±0.07×167.55W±0.07, h71km±6km, mb3.8/18, MLS.4/17, ML3.2(AEIC), Error ellipse: s-maj=11.2km s-min=4.9km az=158.0*

ISC 20 19:16:09.7±1.3, 52.9N±0.1×167.45W±0.06, h67km±9km, n72, σ0.78/80, mb3.8/13, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKFG	**Magazine Ridge**	**0.57**	**331**		**Pn**	**19 16 22.5**	**-0.4**
OKFG					**Sn**	**19 16 32.7**	**0.0**
OKTU	**Okmok Mt. Tuli**	**0.59**	**323**		**Pn**	**19 16 23.0**	**-0.3**
OKCE	**Okmok Cone E**	**0.67**	**320**		**Pn**	**19 16 24.1**	**0.0**
OKNC	**Okmok New Cone**	**0.68**	**323**		**Pn**	**19 16 24.1**	**-0.1**
OKNC					**Sn**	**19 16 35.2**	**+0.4**
OKWE	**Okmok W'ng Wal**	**0.73**	**320**		**Pn**	**19 16 24.8**	**0.0**
MAPS	**Pakushin South**	**0.94**	**19**		**Pn**	**19 16 27.1**	**-0.3**
MAPS					**Sn**	**19 16 40.9**	**+0.4**
MGOD	**Makushin Gods**	**0.94**	**21**		**Pn**	**19 16 27.1**	**-0.3**
MGOD					**Sn**	**19 16 41.0**	**+0.4**
MNAT	**Makushin Natee**	**1.07**	**25**		**Pn**	**19 16 28.6**	**-0.4**
MNAT					**Sn**	**19 16 44.0**	**+0.6**
MSW	**Makushin Switc**	**1.08**	**22**		**Pn**	**19 16 29.1**	**0.0**
MSW					**Sn**	**19 16 44.1**	**+0.6**
UNV	**Unalaska Valle**	**1.09**	**31**		**Pn**	**19 16 28.6**	**-0.6**
UNV					**Sn**	**19 16 43.1**	**-0.6**
UNV				IAML		19 16 44.6	
	comp=E,589nm,0.3s						
UNV				IAML		19 16 44.6	
	comp=N,522nm,0.4s						
MTBL	**Makushin Table**	**1.15**	**23**		**Pn**	**19 16 30.1**	**+0.1**
MTBL					**Sn**	**19 16 46.5**	**+1.3**
CLCO	**Concord Point,**	**1.38**	**265**		**Pn**	**19 16 33.0**	**0.0**
CLCO					**Sn**	**19 16 50.6**	**0.0**
AKRB	**Akutan Reef Bi**	**1.47**	**34**		**Pn**	**19 16 34.8**	**+0.6**
AKRB					**Sn**	**19 16 54.5**	**+1.9**
ZRO	**Akutan Zero**	**1.47**	**36**		**Pn**	**19 16 34.3**	**+0.1**
ZRO					**Sn**	**19 16 54.1**	**+1.5**
CLES	**Cleveland East**	**1.48**	**267**		**Pn**	**19 16 34.1**	**-0.2**
CLES					**Sn**	**19 16 52.8**	**-0.1**
AKBBA	**Akutan Broad B**	**1.49**	**37**		**Pn**	**19 16 34.6**	**+0.2**
LVA	**Lava Point**	**1.51**	**34**	Pn	**Pn**	**19 16 33.2**	**-1.5**
LVA				Sn	**Sn**	**19 16 54.7**	**+1.2**
LVA				IAML		19 17 01.5	
	comp=N,872nm,0.5s						
LVA				IAML		19 17 02.6	
	comp=E,619nm,0.5s						
AKLV	**Akutan Long Va**	**1.54**	**35**		**Pn**	**19 16 35.3**	**+0.3**
AKUT	**Akutan**	**1.58**	**39**	Pn	**Pn**	**19 16 35.3**	**-0.3**
AKUT				Sn	**Sn**	**19 16 55.5**	**+0.4**
WESP	**Westdahl Peak**	**2.26**	**45**		**Pn**	**19 16 45.0**	**+0.1**
WECS	**Westdahl Cape**	**2.27**	**43**		**Pn**	**19 16 43.7**	**-1.2**
WECS				Sn	**Sn**	**19 17 11.7**	**-0.1**
WECS				IAML		19 17 30.5	
	comp=E,283nm,1.2s						
WECS				IAML		19 17 32.2	
	comp=N,312nm,1.0s						
DT1	**Dutton Round H**	**3.76**	**52**		**Pn**	**19 17 05.4**	**+0.3**
KOFP	**Korovin Flat P**	**4.10**	**264**		**Pn**	**19 17 10.9**	**+1.0**
ATKA	**Atka Island**	**4.18**	**263**		**Pn**	**19 17 11.4**	**+0.6**
ATKA				Sn	**Sn**	**19 17 57.8**	**-0.6**
ATKA				IAML		19 18 18.0	
	comp=E,46nm,1.1s						
ATKA				IAML		19 19 51.9	
	comp=N,30nm,1.2s						
SDPT	**Sand Point**	**4.77**	**57**	Pn	**Pn**	**19 17 20.8**	**+1.8**
SDPT				IAML		19 19 50.2	
	comp=E,33nm,1.1s						
GSIG	**Igitkin Island**	**5.27**	**263**		**Pn**	**19 17 26.0**	**+0.2**
GSTR	**Great Sitkin T**	**5.32**	**265**	Pn	**Pn**	**19 17 27.6**	**+1.0**
GSMY	**Great Sitkin M**	**5.33**	**264**		**Pn**	**19 17 27.4**	**+0.7**
ADK	**Adak**	**5.75**	**263**		**Pn**	**19 17 32.4**	**+0.1**
KIWB	**Kanaga Island**	**6.04**	**264**	Pn	**Pn**	**19 17 36.6**	**+0.3**
KIMD	**Kanaga Island**	**6.11**	**263**		**Pn**	**19 17 38.0**	**+0.7**
D22K	**Ayikyak River**	**17.46**	**18**	P	**P**	**19 20 10.2**	**+1.5**
D22K				IAmb	IAmb	19 20 25.8	
	comp=Z,4.2nm,1.2s						
D23K	**Nanushuk River**	**17.93**	**20**		**Pn**	**19 20 14.6**	**+0.5**
D23K				IAmb	IAmb	19 20 22.6	
	comp=Z,13nm,1.4s						
F25K	**Christian Rive**	**18.10**	**27**		**Pn**	**19 20 16.2**	**+0.1**
BMAR	**Burnt Mountain**	**18.29**	**29**	P	**Pn**	**19 20 18.2**	**-0.2**
G27K	**Doyon Strip**	**18.80**	**32**	P	**Pn**	**19 20 22.6**	**-2.0**
H29M	**Whitestone**	**19.60**	**36**	P	**Pn**	**19 20 32.3**	**-1.8**
C26K	**Camden Bay**	**19.95**	**23**	P	**Pn**	**19 20 36.2**	**-1.9**
C26K				IAmb	IAmb	19 20 42.2	
	comp=Z,14nm,1.3s						
G29M	**Pine Creek**	**20.06**	**34**	P	**P**	**19 20 36.8**	**-0.4**
G30M	**tAoh Zraii Nji**	**20.72**	**35**	P	**P**	**19 20 43.6**	**-0.6**
G30M				IAmb	IAmb	19 20 47.2	
	comp=Z,2.1nm,0.9s						
PETK	**Petropavlovsk-**	**20.85**	**285**	P	**P**	**19 20 45.0**	**-0.8**
	comp=Z,4.4nm,1.0s,baz=83,slow=14,SNR=9.9						
	comp=Z,4.4nm,1.0s						
E29M	**Blow River**	**20.88**	**31**	P	Pn	19 20 46.0	-3.0
E29M				IAmb	IAmb	19 20 55.2	
	comp=Z,2.0nm,0.8s						
F30M	**Barrier River**	**21.16**	**34**	P	**P**	**19 20 48.6**	**-0.3**
MMPY	**Sheldon Lake,**	**21.31**	**49**	P	**P**	**19 20 51.6**	**+0.9**
INK	**Inuvik**	**22.25**	**33**	P	**P**	**19 20 59.0**	**-1.5**
	comp=Z,1.1nm,0.5s,baz=272,slow=7.4,SNR=7.5						
	comp=Z,1.1nm,0.5s						
INK	**Inuvik**	**22.25**	**33**	IAmb	IAmb	19 21 03.8	
	comp=Z,4.8nm,1.4s						
H11N2	**WAKE ISLAND Hy**	**38.62**	**221**	T	T	20 04 55.9	
	baz=25,slow=76,SNR=42						
H11N3	**WAKE ISLAND Hy**	**38.63**	**221**	T	T	20 04 52.6	
	baz=25,slow=76,SNR=46						
H11N1	**WAKE ISLAND Hy**	**38.64**	**221**	T	T	20 04 54.4	
	baz=25,slow=76,SNR=36						

CLC	**China Lake**	**38.65**	**96**	P	**P**	**19 23 26.1**	**-0.4**	
H11S1	**WAKE ISLAND Hy**	**39.80**	**220**	T	T	20 06 21.9		
	baz=24,slow=76,SNR=34							
H11S2	**WAKE ISLAND Hy**	**39.82**	**220**	T	T	20 06 23.3		
	baz=24,slow=76,SNR=28							
H11S3	**WAKE ISLAND Hy**	**39.82**	**220**	T	T	20 06 23.5		
	baz=24,slow=76,SNR=28							
TX31	**Lajitas Ar. Si**	**51.58**	**91**	P	**P**	**19 25 09.8**	**+0.8**	
TX31				IAmb	IAmb	19 25 21.6		
	comp=Z,2.8nm,1.4s							
TXAR	**Lajitas Array**	**51.58**	**91**	P	**P**	**19 25 09.7**	**+0.6**	
	comp=Z,0.6nm,0.8s,baz=304,slow=4.9,SNR=5.5							
	comp=Z,0.6nm,0.8s							
TXAR	**Lajitas Array**	**51.58**	**91**	P	**P**	**19 25 09.3**	**+0.3**	
SONM	**Songino Array**	**52.02**	**301**	P	**P**	**19 25 13.1**	**+1.0**	
	comp=Z,0.3nm,0.6s,baz=81,slow=8.9,SNR=1.7							
	comp=Z,0.3nm,0.6s							
ZALV	**Zalesovo Beam**	**57.80**	**318**	P	**P**	**19 25 53.7**	**+0.2**	
	comp=Z,0.4nm,0.4s,baz=35,slow=7.8,SNR=2.0							
	comp=Z,0.4nm,0.4s							
KURK	**Kurchatov**	**62.73**	**319**	P	**P**	**19 26 28.1**	**+0.9**	
KURBB	**Kurchatov Arra**	**62.84**	**319**	P	**P**	**19 26 28.3**	**+0.4**	
	comp=Z,0.3nm,0.4s,baz=46,slow=8.0,SNR=2.0							
	comp=Z,0.3nm,0.4s							
MKAR	**Makanchi Array**	**64.27**	**314**	P	**P**	**19 26 36.8**	**-0.7**	
	comp=Z,0.2nm,0.5s,baz=53,slow=6.4,SNR=4.3							
	comp=Z,0.2nm,0.5s							
MAKZ	**Makanchi**	**64.39**	**315**	P	**P**	**19 26 37.7**	**-0.6**	
ARTI	**Arti**	**64.74**	**334**	P	**P**	**19 26 39.9**	**-0.4**	
FIA1	**FINESS Array S**	**65.48**	**353**	P	**P**	**19 26 45.0**	**-0.1**	
FINES	**FINESS Array B**	**65.48**	**353**	P	**P**	**19 26 45.0**	**-0.1**	
	comp=Z,0.9nm,0.3s,baz=9.2,slow=6.5,SNR=17							
	comp=Z,0.9nm,0.3s							
NC405	**NORSAR Array S**	**66.32**	**0**	P	**P**	**19 26 50.6**	**+0.1**	
NC405				IAmb	IAmb	19 26 51.2		
	comp=Z,1.1nm,0.5s							
NOA	**NORSAR Array B**	**66.39**	**1**	P	**P**	**19 26 51.0**	**+0.1**	
	comp=Z,0.5nm,0.7s,baz=16,slow=12,SNR=1.4							
	comp=Z,0.5nm,0.7s							
HFS	**Hagfors**	**67.30**	**359**	P	**P**	**19 26 56.5**	**-0.2**	
	comp=Z,0.9nm,0.3s,baz=11,slow=3.0,SNR=7.1							
	comp=Z,0.9nm,0.3s							
AB31	**Akbulak array**	**70.57**	**329**	P	**P**	**19 27 16.2**	**-1.0**	
AB31				IAmb	IAmb	19 27 16.7		
	comp=Z,0.8nm,0.8s							
ABKAR	**Akbulak array**	**70.57**	**329**	P	**P**	**19 27 16.4**	**-0.8**	
KKAR	**Karatay Array**	**72.15**	**319**	P	**P**	**19 27 27.1**	**+0.3**	
AKASG	**Malin Array Be**	**75.80**	**349**	P	**P**	**19 27 47.7**	**-0.2**	
	comp=Z,0.5nm,0.4s,baz=18,slow=5.6,SNR=3.0							
	comp=Z,0.5nm,0.4s							

CRAAG ***20*** *19:31:25.5, 36.38N×2.69E, Ml3.4, Algrie 05km SW Ain-Romana*

MDD ***20*** *19:31:28.1±1.1, 36.56N×2.69E, h0km, Mb3.9/15, M_mb3.2/13, Error ellipse: s-maj=9.0km s-min=4.9km az=145.0*

ISC 20 19:31:25.5±1.5, 36.35N±0.07×2.75E±0.07, h23km±13km, n16, σ1.54/24, 8C, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACHR	**Chrea**	**0.13**	**56**	P	**Pb**	**19 31 30.1**	**-0.3**
ADOR	**Douera**	**0.34**	**24**	P	**Pb**	**19 31 33.8**	**+0.6**
ABKD	**Sidi Amar**	**0.40**	**298**	P	**Pb**	**19 31 33.0**	**-0.9**
ABA	**Alger-Bouzarea**	**0.51**	**27**	P	**Pb**	**19 31 36.2**	**+0.4**
EHRZ	**Djelida**	**0.54**	**253**	P	**Pb**	**19 31 35.7**	**-0.6**
EDDR	**Deurdeur**	**0.55**	**231**	P	**Pb**	**19 31 36.3**	**-0.3**
EOFD	**Oued Fodda**	**0.97**	**252**	P	**Pn**	**19 31 43.5**	**-0.2**
EBNH	**Beni Haoua**	**0.97**	**280**	P	**Pb**	**19 31 44.6**	**+0.9**
EIBI	**Ibiza**	**2.89**	**338**	P	**Pn**	**19 32 10.7**	**+0.5**
EIBI				⇑IVmb_VC		19 32 12.8	
	272nm,SNR=0.7						
EIBI				S	**Sn**	**19 32 42.9**	**-1.4**
EBEN2	**Beniarda presa**	**3.29**	**316**	P	**Pn**	**19 32 16.5**	**+0.8**
EBEN2				⇑IVmb_VC		19 32 18.0	
	195nm,SNR=0.8						
EBEN2				S	**Sn**	**19 32 52.5**	**-1.6**
ETOS	**Mallorca**	**3.41**	**1**	P	**Pn**	**19 32 17.9**	**+0.6**
ETOS				⇑IVmb_VC		19 32 19.7	
	805nm,SNR=1.1						
ETOS				S	**Sn**	**19 32 54.4**	**-2.6**
EZAR	**Zarzadilla de**	**3.86**	**295**	P	**Pn**	**19 32 24.1**	**+0.5**
EZAR				⇑IVmb_VC		19 32 27.6	
	121nm,SNR=1.1						
EZAR				S	**Sn**	**19 33 07.9**	**-0.4**
ETOB	**Tobarra**	**4.11**	**305**	P	**Pn**	**19 32 29.5**	**+2.6**
ETOB				⇑IVmb_VC		19 32 30.5	
	138nm,SNR=1.2						
ETOB				S	**Sn**	**19 33 13.9**	**-0.5**
ECHE	**Chera**	**4.37**	**319**	P	**Pn**	**19 32 31.7**	**+1.2**
ECHE				⇑IVmb_VC		19 32 32.1	
	48nm,SNR=0.3						
ECHE				S	**Sn**	**19 33 18.5**	**-2.1**
EMOS	**Mosqueruela**	**4.74**	**329**	P	**Pn**	**19 32 36.9**	**+1.2**
EMOS				⇑IVmb_VC		19 32 39.4	
	164nm,SNR=0.9						
EMOS				S	**Sn**	**19 33 27.8**	**-2.2**
EQES	**Quesada**	**4.87**	**289**	P	**Pn**	**19 32 40.9**	**+3.4**
EQES				⇑IVmb_VC		19 32 43.3	
	88nm,SNR=1.1						
EQES				S	**Sn**	**19 33 32.8**	**-0.4**

AFAD ***20*** *19:40:10.8, 37.84N×26.85E, h12km±1km, ML3.1*

ISK ***20*** *19:40:10.9, 37.82N×26.86E, h6km, ML3.3/19*

ATH ***20*** *19:40:10.7, 37.81N×26.84E, h14km, ML3.3/7, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

THE ***20*** *19:40:11.2, 37.8N±0.8×26.8E±0.5, h9km±1km, M3.2/10, MLh3.2/10*

ISC 20 19:40:10.8±0.8, 37.81N±0.01×26.84E±0.02, h15km±5km, n76, σ0.50/113, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.10**	**183**	P	**Pg**	**19 40 13.9**	**-0.3**
SMG				S	**Sg**	**19 40 15.9**	**-0.5**
SMG				AML	AML		
SMG	**Samos**	**0.10**	**183**	P	**Pg**	**19 40 14.1**	**-0.1**
SMG				S	**Sg**	**19 40 16.3**	**-0.1**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.11**	**260**	P	**Pg**	**19 40 13.9**	**-0.3**
KRL1				S	**Sg**	**19 40 16.2**	**-0.2**
SAM2	**Drakei, Karlov**	**0.19**	**253**	P	**Pg**	**19 40 15.2**	**-0.2**
SAM2				S	**Sg**	**19 40 18.3**	**-0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.24**	**7**	P	**Pg**	**19 40 15.9**	**-0.2**
DGB				S	**Sg**	**19 40 19.0**	**-0.7**
DGB				IAML		19 40 21.0	
	comp=E,3μm,0.5s						
GMLD	**Gumuldur**	**0.27**	**12**	Pg	**Pg**	**19 40 16.6**	**0.0**
GMLD				Sg	**Sg**	**19 40 21.0**	**+0.5**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.33**	**110**	P	**Pg**	**19 40 18.0**	**+0.3**
GCAM				S	**Sb**	**19 40 23.4**	**-0.1**
GCAM				IAML		19 40 24.0	
	comp=N,3μm,0.4s						
GCAM				IAML		19 40 24.0	
	comp=E,2μm,0.6s						
GCAM	**G?zelcaml?**	**0.33**	**110**	Pg	**Pg**	**19 40 17.9**	**+0.3**
GCAM				Sg	**Sg**	**19 40 22.9**	**+0.7**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**82**	Pg	**Pg**	**19 40 17.9**	**-0.2**
KUSD				Sg	**Sg**	**19 40 23.4**	**+0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**9**	P	**Pg**	**19 40 19.1**	**-0.1**
BEYE				S	**Sg**	**19 40 24.9**	**-0.1**
DDIM	**Aydin, Didim**	**0.48**	**138**	P	**Pb**	**19 40 20.9**	**0.0**
DDIM				S	**Sb**	**19 40 27.6**	**-0.1**
DDIM				IAML		19 40 28.0	
	comp=E,1μm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.50**	**328**	P	**Pg**	**19 40 20.5**	**-0.3**
ZEYE				S	**Sg**	**19 40 27.6**	**0.0**
ZEYE				IAML		19 40 28.0	
	comp=E,2μm,0.5s						
DIDI	**Didim-Aydin**	**0.54**	**144**	Pg	**Pg**	**19 40 21.7**	**+0.3**
DIDI				Sg	**Sb**	**19 40 30.0**	**+0.5**
DIDI				AML	AML		
BLCB	**Balcova**	**0.59**	**15**	P	**Pg**	**19 40 22.4**	**-0.1**
BLCB				S	**Sg**	**19 40 30.6**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.59**	**15**	Pg	**Pg**	**19 40 22.4**	**-0.1**
BLCB				AML	AML		

DUVT	**Torbali**	**0.63**	**49**	P	**Pg**	**19 40 22.9**	**-0.3**	
DUVT				S	**Sg**	**19 40 30.9**	**-0.6**	
CESE	**eme**	**0.67**	**320**	Pg	**Pb**	**19 40 24.7**	**+0.4**	
CESE				AML	AML			
YKAV	**Yalikavak-Bodr**	**0.77**	**153**	Pg	**Pb**	**19 40 26.2**	**+0.3**	
YKAV				AML	AML			
KRBN	**Karaburun**	**0.81**	**344**	Pg	**Pb**	**19 40 27.1**	**+0.4**	
KRBN				AML	AML			
AYDN	**Tasoluk**	**0.83**	**100**	P	**Pg**	**19 40 27.2**	**+0.1**	
AYDN				S	**Sb**	**19 40 38.8**	**+0.6**	
AYDN				IAML		19 40 45.0		
	comp=E,503nm,0.4s							
BODT	**Bodrum**	**0.84**	**154**	P	**Pg**	**19 40 26.9**	**-0.1**	
BODT				S	**Sb**	**19 40 39.1**	**+1.0**	
BODT				AML	AML			
BODT	**Bodrum**	**0.84**	**154**	Pg	**Pg**	**19 40 27.0**	**-0.1**	
BODT				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**0.84**	**81**	Pg	**Pg**	**19 40 27.1**	**0.0**	
AYDB				AML	AML			
BAGT	**Foa**	**0.84**	**0**	P	**Pg**	**19 40 26.7**	**-0.5**	
BAGT				S	**Sg**	**19 40 38.3**	**+0.1**	
BAGT				IAML		19 40 41.0		
	comp=E,1μm,0.4s							
CHOS	**Chios island**	**0.85**	**313**	P	**Pg**	**19 40 26.8**	**-0.5**	
CHOS				S	**Sb**	**19 40 39.0**	**+0.5**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.85**	**313**	Pg	**Pb**	**19 40 27.9**	**+0.6**	
CHOS				AML	AML			
CHOS	**Chios island**	**0.85**	**313**	P	**Pg**	**19 40 26.8**	**-0.5**	
CHOS				S	**Sb**	**19 40 38.8**	**+0.4**	
CHOS				AML	AML			
KLNA	**Kalymnos**	**0.86**	**173**	P	**Pb**	**19 40 27.8**	**+0.3**	
KLNA				S	**Sb**	**19 40 39.3**	**+0.5**	
KLNA				AML	AML			
BDRM	**Kayabasi**	**0.89**	**147**	P	**Pg**	**19 40 27.3**	**-0.7**	
BDRM				S	**Sb**	**19 40 39.9**	**+0.3**	
BDRM				IAML		19 40 43.0		
	comp=E,634nm,0.4s							
BDRM				IAML		19 40 44.0		
	comp=N,652nm,0.4s							
FOCM	**Foa**	**0.90**	**354**	Pg	**Pb**	**19 40 28.8**	**+0.6**	
FOCM				AML	AML			
MLSB	**Milas**	**0.90**	**125**	Pg	**Pg**	**19 40 28.4**	**+0.1**	
MLSB				AML	AML			
BODA	**Bodrum-Mula**	**0.91**	**149**	Pg	**Pb**	**19 40 28.7**	**+0.5**	
KARB	**zmir-Karabur**	**0.91**	**338**	P	**Pg**	**19 40 27.6**	**-0.9**	
KARB				S	**Sg**	**19 40 40.5**	**-0.1**	
EAG2	**Marmaro, Chios**	**0.93**	**322**	P	**Pn**	**19 40 29.4**	**0.0**	
EAG2				S	**Sb**	**19 40 41.5**	**+0.6**	
IZMR	**zmir-demi**	**0.93**	**69**	P	**Pg**	**19 40 28.4**	**-0.5**	
IZMR				S	**Sg**	**19 40 38.7**	**-2.5**	
CAMT	**Merkez**	**1.00**	**21**	P	**Pg**	**19 40 30.4**	**+0.1**	
CAMT				S	**Sb**	**19 40 43.5**	**+0.5**	
NAZL	**Nazilli-Aydin**	**1.16**	**82**	Pn	**Pb**	**19 40 32.7**	**+0.2**	
NAZL				AML	AML			
ZEDA	**zmir-Bergama**	**1.17**	**9**	P	**Pn**	**19 40 33.1**	**+0.4**	
ZEDA				S	**Sb**	**19 40 47.9**	**+0.3**	
ZEDA				IAML		19 40 51.0		
	comp=N,565nm,0.3s							
ZEDA				IAML		19 40 55.0		
	comp=E,569nm,0.5s							
ESEN	**Aydn-Nazilli**	**1.19**	**90**	P	**Pn**	**19 40 32.6**	**-0.3**	
ESEN				S	**Sb**	**19 40 47.4**	**-0.9**	
GOMA	**Golmarmara-Man**	**1.23**	**43**	Pn	**Pg**	**19 40 34.5**	**0.0**	
GOMA				AML	AML			
YAZI	**Mula-Dat§a-**	**1.23**	**157**	P	**Pn**	**19 40 33.4**	**-0.1**	
YAZI				S	**Sb**	**19 40 50.1**	**+0.6**	
DKL	**Dikili**	**1.26**	**2**	Pn	**Pg**	**19 40 35.3**	**+0.3**	
DKL				AML	AML			
DKL	**Dikili**	**1.26**	**2**	P	**Pn**	**19 40 34.3**	**+0.4**	
APE	**Apeiranthos**	**1.28**	**235**	P	**Pn**	**19 40 33.8**	**-0.4**	
APE				S	**Sg**	**19 40 52.5**	**+0.3**	
APE				AML	AML			
APE	**Apeiranthos**	**1.28**	**235**	P	**Pn**	**19 40 33.6**	**-0.6**	
APE				S	**Sb**	**19 40 50.4**	**-0.6**	
APE				AML	AML			
KIRA	**zmir-Kiraz**	**1.29**	**72**	P	**Pn**	**19 40 34.5**	**+0.1**	
MULA	**Mugla, Merkez-**	**1.30**	**115**	P	**Pb**	**19 40 35.6**	**+0.5**	
AKHS	**Akhisar**	**1.31**	**35**	P	**Pb**	**19 40 35.4**	**+0.3**	
AKHS				S	**Sb**	**19 40 51.7**	**-0.1**	
AKHS				IAML		19 40 59.0		
	comp=N,408nm,0.3s							
AKS	**Akhisar**	**1.31**	**35**	Pn	**Pg**	**19 40 35.8**	**-0.2**	
AKS				AML	AML			
KTTT	**Salihli**	**1.31**	**48**	P	**Pb**	**19 40 35.6**	**+0.3**	
KTTT				S	**Sb**	**19 40 50.6**	**-1.3**	
KTTT				IAML		19 40 55.0		
	comp=N,379nm,0.4s							
ASTA	**Astypalaia**	**1.32**	**197**	P	**Pn**	**19 40 34.8**	**0.0**	
YER	**Yerkesik**	**1.33**	**120**	P	**Pb**	**19 40 35.8**	**+0.3**	
YER				AML	AML			
TNSA	**Tinos**	**1.36**	**259**	P	**

ARG	**Arkhangelos**	**1.05**	**7**	P	**Pn**	**19 45 20.6**	**+1.9**
ARG				S	**Sn**	**19 45 32.6**	**+0.4**
ARG				AML	AML		
RDI1	**Rhodes Town Ha**	**1.30**	**9**	P	**Pn**	**19 45 24.0**	**+1.9**
RDI1				S	**Sn**	**19 45 40.3**	**+2.0**
ZKR	**Zakros**	**1.43**	**268**	P	**Pn**	**19 45 25.0**	**+1.1**
ZKR	**Zakros**	**1.43**	**268**	Pn	**Pn**	**19 45 24.5**	**+0.5**
ZKR				Sn	**Sn**	**19 45 41.1**	**-0.5**
ZKR	**Zakros**	**1.43**	**268**	P	**Pn**	**19 45 24.7**	**+0.8**
ZKR				S	**Sn**	**19 45 41.8**	**+0.2**
SIT2	**Siteia**	**1.52**	**272**	P	**Pn**	**19 45 26.4**	**+1.2**
SIT2				S	**Sn**	**19 45 45.0**	**+1.3**
YAZI	**Mula-Dat§a-**	**1.56**	**345**	P	**Pn**	**19 45 25.0**	**-0.8**
YAZI				S	**Sn**	**19 45 44.2**	**-0.7**
DAT	**Datca**	**1.59**	**349**	Pn	**Pn**	**19 45 26.6**	**+0.4**
DAT				Sn	**Sn**	**19 45 45.3**	**-0.3**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.61**	**351**	Pn	**Pn**	**19 45 27.0**	**+0.6**
DATC				Sn	**Sn**	**19 45 45.8**	**-0.1**
TURN	**Turunc**	**1.62**	**8**	P	**Pn**	**19 45 28.3**	**+1.7**
TURN				S	**Sn**	**19 45 45.7**	**-0.5**
TURN				IAML		19 45 50.0	
	comp=N,178nm,0.2s						
TURN				IAML		19 45 51.0	
	comp=E,231nm,0.3s						
TURN	**Turunc**	**1.62**	**8**	Pn	**Pn**	**19 45 28.1**	**+1.5**
TURN				Sn	**Sn**	**19 45 46.9**	**+0.7**
TURN				AML	AML		
IZZE	**Mula-Seydike**	**1.63**	**39**	P	**Pn**	**19 45 27.7**	**+1.0**
IZZE				S	**Sn**	**19 45 48.6**	**+2.1**
IZZE				IAML		19 45 57.0	
	comp=E,180nm,0.5s						
KSL	**Kastellorizon**	**1.65**	**53**	P	**Pn**	**19 45 28.7**	**+1.9**
KSL				S	**Sn**	**19 45 49.6**	**+2.8**
KSL				AML	AML		
AKAS	**Kas**	**1.71**	**51**	P	**Pn**	**19 45 29.3**	**+1.4**
AKAS				S	**Sn**	**19 45 48.2**	**-0.4**
AKAS				IAML		19 45 53.0	
	comp=N,262nm,0.5s						
AKAS				IAML		19 45 54.0	
	comp=E,166nm,0.7s						
AKAS	**Kas**	**1.71**	**51**	Pn	**Pn**	**19 45 30.2**	**+2.3**
AKAS				AML	AML		
DALY	**Dalyan (Mula)**	**1.74**	**19**	P	**Pn**	**19 45 29.5**	**+1.4**
DALY				S	**Sn**	**19 45 49.7**	**+0.6**
DALY	**Dalyan (Mula)**	**1.74**	**19**	Pn	**Pn**	**19 45 29.6**	**+1.4**
AGNA	**Agios Nikolaos**	**1.84**	**271**	P	**Pn**	**19 45 30.9**	**+1.4**
SABU	**Mula-Dalaman**	**1.84**	**26**	P	**Pn**	**19 45 31.0**	**+1.4**
NPS	**Neapolis**	**1.93**	**273**	P	**Pn**	**19 45 32.2**	**+1.4**
NPS				S	**Sn**	**19 45 55.3**	**+1.5**
NPS				AML	AML		
NPS	**Neapolis**	**1.93**	**273**	P	**Pn**	**19 45 32.2**	**+1.4**
NPS				S	**Sn**	**19 45 54.7**	**+0.9**
BDRM	**Kayabasi**	**1.94**	**348**	P	**Pn**	**19 45 30.9**	**0.0**
BDRM				S	**Sn**	**19 45 48.7**	**-5.4**
BDRM				IAML		19 46 12.0	
	comp=N,113nm,0.5s						
BODT	**Bodrum**	**1.96**	**345**	P	**Pn**	**19 45 31.4**	**+0.1**
BODT				S	**Sn**	**19 45 53.8**	**-0.9**
BODT				AML	AML		
BODT	**Bodrum**	**1.96**	**345**	Pn	**Pn**	**19 45 31.9**	**+0.6**
BODT				AML	AML		
YER	**Yerkesik**	**1.98**	**7**	Pn	**Pn**	**19 45 33.0**	**+1.4**
YER				AML	AML		
YKAV	**Yalikavak-Bodr**	**2.03**	**344**	Pn	**Pn**	**19 45 32.8**	**+0.6**
YKAV				AML	AML		
CAME	**Cameli-Denizli**	**2.08**	**31**	Pn	**Pn**	**19 45 35.2**	**+2.2**
MULA	**Mugla, Merkez-**	**2.10**	**8**	P	**Pn**	**19 45 35.4**	**+2.1**
MULA				S	**Sn**	**19 45 57.3**	**-1.0**
KNIK	**Mula-Seydike**	**2.12**	**38**	P	**Pn**	**19 45 35.6**	**+2.1**
MLSB	**Milas**	**2.13**	**356**	Pn	**Pn**	**19 45 34.6**	**+1.0**
MLSB				AML	AML		
ELL	**Elmali**	**2.23**	**44**	Pn	**Pn**	**19 45 37.8**	**+2.7**
CAEL	**Denizli, Camel**	**2.24**	**29**	P	**Pn**	**19 45 37.2**	**+2.0**
CAEL				IAML		19 46 07.0	
	comp=E,118nm,0.9s						
CAEL				IAML		19 46 10.0	
	comp=N,125nm,0.7s						
AKUM	**Antalya-Kumluc**	**2.25**	**59**	P	**Pn**	**19 45 35.6**	**+0.4**
AKUM				S	**Sn**	**19 45 59.6**	**-2.2**
THERA	**Ancient Thera,**	**2.35**	**301**	P	**Pn**	**19 45 36.9**	**+0.3**
THERA	**Ancient Thera,**	**2.35**	**301**	P	**Pn**	**19 45 36.8**	**+0.2**
THR8	**Santorini-Mono**	**2.37**	**302**	P	**Pn**	**19 45 36.6**	**-0.2**
THR8	**Santorini-Mono**	**2.37**	**302**	P	**Pn**	**19 45 36.6**	**-0.2**
IACM	**Heraklion**	**2.37**	**274**	P	**Pn**	**19 45 38.4**	**+1.5**
TAVA	**DENIZLI_Tavas**	**2.42**	**18**	P	**Pn**	**19 45 38.4**	**+0.8**
TAVA				S	**Sn**	**19 46 04.5**	**-1.5**
SNT5	**Nea Kammeni, S**	**2.42**	**301**	P	**Pn**	**19 45 38.7**	**+0.5**
GOLH	**Golhisar**	**2.44**	**32**	P	**Pn**	**19 45 40.4**	**+2.6**
GOLH				S	**Sn**	**19 46 07.5**	**+1.0**
GOLH				IAML		19 46 14.0	
	comp=E,83nm,0.5s						
GOLH				IAML		19 46 39.0	
	comp=N,59nm,1.8s						
AYDN	**Tasoluk**	**2.49**	**358**	P	**Pn**	**19 45 38.9**	**+0.4**
AYDN				S	**Sn**	**19 46 03.7**	**-4.0**
AYDN				IAML		19 46 12.0	
	comp=E,61nm,0.4s						
IDI	**Anoyia**	**2.52**	**274**	P	**Pn**	**19 45 39.5**	**+0.6**
IDI				AML	AML		
IDI	**Anoyia**	**2.52**	**274**	Pn	**Pn**	**19 45 39.5**	**+0.6**
IDI	**Anoyia**	**2.52**	**274**	P	**Pn**	**19 45 39.5**	**+0.6**
APMY	**Acipayam-Deniz**	**2.54**	**25**	Pn	**Pn**	**19 45 41.3**	**+2.0**
APMY				AML	AML		
SIVA	**Sivas**	**2.59**	**268**	P	**Pn**	**19 45 41.3**	**+1.5**
SIVA				AML	AML		
SIVA	**Sivas**	**2.59**	**268**	P	**Pn**	**19 45 41.3**	**+1.5**
GCAM	**G?zelcaml?**	**2.59**	**347**	Pn	**Pn**	**19 45 40.2**	**+0.3**
DNIZ	**Denizli-Tavas-**	**2.60**	**19**	P	**Pn**	**19 45 41.7**	**+1.5**
DNIZ				S	**Sn**	**19 46 09.6**	**-1.0**
ESEN	**Aydn-Nazilli**	**2.64**	**7**	P	**Pn**	**19 45 41.5**	**+0.9**
ESEN				S	**Sn**	**19 46 09.3**	**-2.1**
KORT	**Korkueli**	**2.66**	**46**	P	**Pn**	**19 45 43.2**	**+2.2**
KORT				S	**Sn**	**19 46 13.4**	**+1.3**
KORT				IAML		19 46 18.0	
	comp=E,77nm,0.5s						
APE	**Apeiranthos**	**2.73**	**315**	P	**Pn**	**19 45 41.7**	**-0.2**
APE	**Apeiranthos**	**2.73**	**315**	Pn	**Pn**	**19 45 41.5**	**-0.4**
APE				AML	AML		
APE	**Apeiranthos**	**2.73**	**315**	P	**Pn**	**19 45 42.0**	**+0.1**
AYDB	**Zeytinkoy-Aydi**	**2.77**	**359**	Pn	**Pn**	**19 45 43.3**	**+0.8**
AYDB				AML	AML		
NAZL	**Nazilli-Aydin**	**2.80**	**5**	Pn	**Pn**	**19 45 44.4**	**+1.5**
NAZL				AML	AML		
DAGE	**izmir**	**2.83**	**357**	P	**Pn**	**19 45 44.2**	**+0.9**
DAGE				S	**Sn**	**19 46 10.7**	**-5.5**
DAGE				IAML		19 46 17.0	
	comp=E,78nm,0.4s						
INCE	**Denizli-Bozkur**	**2.85**	**27**	P	**Pn**	**19 45 45.0**	**+1.4**
INCE				IAML		19 46 45.0	
	comp=N,41nm,0.7s						
SULTU	**Buldan**	**2.95**	**12**	P	**Pn**	**19 45 45.8**	**+0.8**
SULTU				S	**Sn**	**19 46 16.7**	**-2.5**
SULTU				IAML		19 46 45.0	
	comp=E,55nm,0.7s						
SULTU				IAML		19 46 47.0	
	comp=N,44nm,0.9s						
IZMR	**zmir-demi**	**2.96**	**360**	P	**Pn**	**19 45 45.1**	**+0.1**
IZMR				S	**Sn**	**19 46 13.0**	**-6.3**
BUCA	**Burdur, Bucak-**	**3.01**	**43**	P	**Pn**	**19 45 47.7**	**+2.0**
BUCA				S	**Sn**	**19 46 21.9**	**+1.3**
BRDR	**BURDUR-Merkez**	**3.04**	**33**	P	**Pn**	**19 45 47.8**	**+1.7**
KIRA	**zmir-Kiraz**	**3.04**	**7**	P	**Pn**	**19 45 46.8**	**+0.5**
KIRA				S	**Sn**	**19 46 18.1**	**-3.3**
GVD	**Gavdhos**	**3.20**	**265**	Pn	**Pn**	**19 45 49.7**	**+1.5**
HARTU	**Esme**	**3.24**	**12**	P	**Pn**	**19 45 48.3**	**-0.5**
IMMV	**Iera Moni Meta**	**3.27**	**276**	Pn	**Pn**	**19 45 50.5**	**+1.3**
IMMV				AML	AML		
PASA	**Karahalli, USA**	**3.40**	**21**	P	**Pn**	**19 45 51.8**	**+0.7**
KEPZ	**Antalya-Kepez**	**3.42**	**59**	P	**Pn**	**19 45 53.9**	**+2.5**
KEPZ				S	**Sn**	**19 46 27.6**	**-3.1**
KEPZ				IAML		19 46 37.0	
	comp=N,29nm,0.5s						
KEPZ				IAML		19 46 38.0	
	comp=E,29nm,0.8s						
KZIL	**AFYON_Kizioren**	**3.55**	**29**	P	**Pn**	**19 45 54.9**	**+1.8**
CSS	**Mathiatis**	**4.41**	**91**	P	**Pn**	**19 46 03.8**	**-1.1**
CSS				S	**Sn**	**19 46 54.4**	**-0.6**
OFRI	**`Ofer**	**6.37**	**112**	P	**Pn**	**19 46 30.3**	**-1.5**
OFRI				S	**Sn**	**19 47 42.6**	**-0.7**
BRTR	**Keskin Array B**	**6.41**	**43**	Pn	**Pn**	**19 46 34.4**	**+1.9**
	0.2nm,0.3s,baz=224,slow=14,SNR=6.9						
BRTR				Sn	**Sn**	**19 47 45.7**	**+1.3**
	0.2nm,0.3s,baz=219,slow=27,SNR=5.5						
	1.1nm,0.6s						
BRTR				AML	AML		
ZRT	**Zar'it**	**6.42**	**107**	P	**Pn**	**19 46 31.1**	**-1.5**
ZRT				S	**Sn**	**19 47 44.2**	**-0.4**
MMA0B	**Mount Meron ar**	**6.54**	**107**	P	**Pn**	**19 46 32.3**	**-1.9**
MMA0B				S	**Sn**	**19 47 47.2**	**-0.3**
MMAI	**Mount Meron Ar**	**6.54**	**107**	Pn	**Pn**	**19 46 34.4**	**+0.2**
	3.1nm,0.3s,baz=292,slow=12,SNR=14						
MMAI				Sn	**Sn**	**19 47 47.1**	**-0.4**
	8.8nm,0.3s,baz=301,slow=18,SNR=3.8						
	1.1nm,0.3s						
MMAI				AML	AML		
SLTI	**Sal'it**	**6.58**	**114**	P	**Pn**	**19 46 32.8**	**-1.9**
SLTI				S	**Sn**	**19 47 48.0**	**-0.6**
GEM	**Giv'at Ha'Em**	**6.67**	**105**	P	**Pn**	**19 46 34.4**	**-1.6**
GEM				S	**Sn**	**19 47 50.2**	**-0.5**
NATI	**Neve Ativ**	**6.72**	**104**	P	**Pn**	**19 46 34.6**	**-1.9**
NATI				S	**Sn**	**19 47 51.8**	**0.0**
KNHM	**Kefar Nahum**	**6.72**	**108**	P	**Pn**	**19 46 34.6**	**-2.1**
KNHM				S	**Sn**	**19 47 51.5**	**-0.5**
ARIL	**Ariel Universi**	**6.77**	**115**	P	**Pn**	**19 46 36.0**	**-1.4**
ARIL				S	**Sn**	**19 47 53.3**	**0.0**
SALP	**Salfit**	**6.78**	**115**	P	**Pn**	**19 46 39.6**	**+2.2**
	0.2nm50nm,1.0s						
SALP				AML	AML		
SALP	**Salfit**	**6.78**	**115**	P	**Sn**	**19 47 54.3**	**+1.0**
SALP				AML	AML		
MMLI	**Mount Malkishu**	**6.78**	**112**	P	**Pn**	**19 46 35.6**	**-1.9**
MMLI				S	**Sn**	**19 47 52.8**	**-0.7**
RMOT	**Ramot**	**6.80**	**108**	P	**Pn**	**19 46 36.1**	**-1.6**
RMOT				S	**Sn**	**19 47 53.5**	**-0.3**
AMAZ	**Amatzia**	**6.86**	**120**	P	**Pn**	**19 46 40.0**	**+1.5**
	0.4nm2µm59nm,1.2s						
AMAZ				AML	AML		
AMAZ	**Amatzia**	**6.86**	**120**	P	**Sn**	**19 47 55.1**	**-0.2**
AMAZ				AML	AML		
AMAZ	**Amatzia**	**6.86**	**120**	P	**Pn**	**19 46 37.0**	**-1.5**
AMAZ				S	**Sn**	**19 47 54.5**	**-0.7**
KZIT	**Kziot**	**6.87**	**126**	P	**Pn**	**19 46 39.3**	**+0.6**
	0.3nm1µm40nm,0.8s						
KZIT				AML	AML		
KZIT	**Kziot**	**6.87**	**126**	P	**Pn**	**19 46 37.1**	**-1.6**
KZIT				S	**Sn**	**19 47 55.0**	**-0.7**
ROII	**Roi**	**6.91**	**113**	P	**Pn**	**19 46 37.7**	**-1.6**
ROII				S	**Sn**	**19 47 56.3**	**-0.4**
QRNJ	**Al-Qirein**	**6.94**	**112**	P	**Pn**	**19 46 41.5**	**+1.9**
	14nm24µm2µm,0.8s						
QRNJ				AML	AML		
QRNJ	**Al-Qirein**	**6.94**	**112**	P	**Sn**	**19 48 00.6**	**+3.3**
QRNJ				AML	AML		
RGMN	**Argaman**	**6.98**	**113**	P	**Pn**	**19 46 38.1**	**-2.0**
RGMN				S	**Sn**	**19 47 57.8**	**-0.3**
YITV	**Yitav**	**7.01**	**115**	P	**Pn**	**19 46 38.9**	**-1.6**
YITV				S	**Sn**	**19 47 58.6**	**-0.3**
UJAP	**Al Uja**	**7.04**	**115**	P	**Pn**	**19 46 42.9**	**+2.0**
UJAP				AML	AML		
UJAP	**Al Uja**	**7.04**	**115**	P	**Sn**	**19 48 01.8**	**+2.2**
UJAP				AML	AML		
UJAP	**Al Uja**	**7.04**	**115**	P	**Pn**	**19 46 39.4**	**-1.5**
UJAP				S	**Sn**	**19 47 59.3**	**-0.3**
ALMO	**Almog**	**7.11**	**116**	P	**Pn**	**19 46 40.4**	**-1.6**
ALMO				S	**Sn**	**19 48 01.1**	**-0.4**
MZS	**Mizpe Shalem**	**7.18**	**118**	P	**Pn**	**19 46 41.4**	**-1.5**
MZS				S	**Sn**	**19 48 03.1**	**-0.1**
MSBI	**Mazada**	**7.29**	**120**	P	**Pn**	**19 46 42.8**	**-1.7**
MSBI				S	**Sn**	**19 48 05.4**	**-0.5**
RMNI	**Mount Ramon**	**7.31**	**127**	P	**Pn**	**19 46 43.3**	**-1.5**
RMNI				S	**Sn**	**19 48 05.9**	**-0.7**
LISJ	**El Lisan**	**7.42**	**120**	P	**Pn**	**19 46 48.2**	**+2.0**
	0.2nm27nm,0.6s						
LISJ				AML	AML		
LISJ	**El Lisan**	**7.42**	**120**	P	**Sn**	**19 48 09.3**	**+0.3**
LISJ				AML	AML		
GHAJ	**Ghor Haditha**	**7.45**	**119**	P	**Pn**	**19 46 48.9**	**+2.4**
	0.3nm1µm35nm,0.8s						
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**7.45**	**119**	P	**Sn**	**19 48 12.0**	**+2.3**
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**7.45**	**119**	P	**Pn**	**19 46 45.0**	**-1.6**
GHAJ				S	**Sn**	**19 48 09.2**	**-0.5**
IDAN	**Idan**	**7.51**	**123**	P	**Pn**	**19 46 46.0**	**-1.5**
IDAN				S	**Sn**	**19 48 10.0**	**-1.4**
HZVA	**Hazeva**	**7.55**	**123**	P	**Pn**	**19 46 46.2**	**-1.8**
HZVA				S	**Sn**	**19 48 11.5**	**-0.9**
PRNI	**Paran**	**7.63**	**127**	P	**Sn**	**19 48 13.6**	**-0.8**
PRNI				AML	AML		
HRFI	**Mount Harif**	**7.86**	**129**	P	**Pn**	**19 46 53.9**	**+1.6**
	0.2nm11nm,0.5s						
HRFI				AML	AML		
HRFI	**Mount Harif**	**7.86**	**129**	P	**Sn**	**19 48 19.8**	**-0.2**
HRFI				AML	AML		
HRFI	**Mount Harif**	**7.86**	**129**	P	**Pn**	**19 46 51.0**	**-1.3**
HRFI				S	**Sn**	**19 48 19.5**	**-0.6**
YTVT	**Yotvata**	**7.97**	**129**	P	**Pn**	**19 46 52.1**	**-1.8**
YTVT				S	**Sn**	**19 48 22.4**	**-0.3**
EIL	**Elat**	**8.06**	**131**	P	**Pn**	**19 46 56.8**	**+1.8**
EIL				AML	AML		
EIL	**Elat**	**8.06**	**131**	P	**Sn**	**19 48 27.0**	**+2.2**
EIL	**Elat**	**8.06**	**131**	P	**Pn**	**19 46 53.3**	**-1.7**
AQBJ	**Aqaba**	**8.08**	**130**	P	**Sn**	**19 48 28.6**	**+3.3**
AQBJ				AML	AML		
ESDC	**Sonseca Array**	**25.67**	**290**	P	**P**	**19 50 25.8**	**-0.8**
	0.5nm,0.6s,baz=85,slow=9.4,SNR=6.8						
	0.5nm,0.6s						
FINES	**FINESS Array B**	**26.32**	**358**	P	**P**	**19 50 32.6**	**+0.4**
	7.5nm,1.1s,baz=184,slow=11,SNR=2.1						
	7.5nm,1.1s						

*VIE **20** 19:45:18.9±0.4, 49.°91N×18.°58E, h0km, mb2.1/1, ml2.5/3, ml2.3/3, Error ellipse: s-maj=4.1km s-min=2.5km az=161.0*
25 km ENE of Ostrava Suspected Mining induced.
*IPEC **20** 19:45:19.5±0.3, 49.°83N×18.°56E, h1km, ML1.9/6, Error ellipse: s-maj=1.8km s-min=1.5km az=70.0*
*PRU **20** 19:45:21.9, 49.°85N×18.°40E, h0km, Mining Induced Event Csm, E=8.2e+04*

ISC 20 19:45:18.6±0.8, 49°.87N±0°.03×18°.55E±0°.02, h0km, n27, σ0s75/48, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		h m s	ISC
OKC	**Ostrava-Krasne**	**0.26**	**263**	*e*PG	**Pb**	**19 45 25.3**	**-0.9**
	45nm,0.2s						
OKC				*e*SG	**Sg**	**19 45 28.4**	**+1.5**
	comp=Z,48nm,0.4s						
OKC				AML	AML		
STEB	**Steborice**	**0.51**	**278**	*e*PG	**Pb**	**19 45 29.7**	**-0.6**
STEB				*e*SG	**Sg**	**19 45 35.4**	**+0.6**
	comp=Z,22nm,0.2s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**0.66**	**262**	*e*Pg	**Pb**	**19 45 32.2**	**-0.8**
	baz=85						
MORC				*e*Sg	**Sg**	**19 45 40.3**	**+0.6**
	26nm,0.3s,baz=85						
MORC				AML	AML		
MAUC	**Maruska**	**0.69**	**223**	*e*PG	**Pg**	**19 45 32.5**	**+0.8**
MAUC				*e*SG	**Sb**	**19 45 42.4**	**-1.1**
ANAC	**Anensky vrch**	**0.78**	**286**	*e*Pg	**Pb**	**19 45 34.8**	**-0.3**
	baz=107						
ANAC				*e*Sg	**Sg**	**19 45 44.6**	**+0.9**
	25nm,0.2s,baz=107						
ANAC				AML	AML		
LOSC	**Losov**	**0.80**	**252**	*e*Pg	**Pb**	**19 45 34.8**	**-0.6**
	baz=74						
LOSC				*e*Sg	**Sg**	**19 45 44.6**	**+0.3**
	30nm,0.3s,baz=74						
LOSC				AML	AML		
OJC	**Ojcow**	**0.88**	**66**	*e*Pg	**Pb**	**19 46 36.2**	**-0.5**
OJC				*e*Sg	**Sn**	**19 45 50.8**	**-0.9**
LANS	**Liptovska Anna**	**0.94**	**140**	*e*PG	**Pb**	**19 45 37.3**	**-0.4**
LANS				*e*SG	**Sb**	**19 45 50.8**	**+0.1**
LANS				*e*LG	Lg	19 45 54.4	
KRLC	**Kraliky**	**1.16**	**281**	*e*PG	**Pg**	**19 45 40.7**	**-0.1**
KRLC				*e*SG	**Sg**	**19 45 56.5**	**+0.7**
JAVC	**Velka Javorina**	**1.16**	**210**	*e*Pg	**Pb**	**19 45 41.4**	**-0.2**
	baz=30						
NIE	**Niedzica**	**1.23**	**111**	*e*Pg	**Pn**	**19 45 42.8**	**-0.2**
NIE				*e*Sg	**Sn**	**19 46 02.4**	**+2.1**
VRAC	**Vranov**	**1.39**	**247**	*e*Pg	**Pb**	**19 45 45.4**	**0.0**
	baz=67						
VRAC				*e*Sg	**Sg**	**19 46 02.9**	**-0.3**
	16nm,0.4s,baz=67						
VRAC				AML	AML		
VYHS	**Vyhne**	**1.39**	**172**	*e*PG	**Pb**	**19 45 45.0**	**-0.4**
VYHS				*e*SG	**Sb**	**19 46 03.6**	**-0.1**
VYHS				*e*LG	Lg	19 46 06.2	
DPC	**Dobruska-Polom**	**1.51**	**289**	*e*PG	**Pn**	**19 45 46.8**	**-0.1**
DPC				*e*SG	**Sn**	**19 46 07.4**	**0.0**
	comp=Z,15nm,0.3s						
DPC				AML	AML		
KRUC	**Moravsky**	**1.62**	**241**	*e*Pg	**Pn**	**19 45 48.7**	**+0.3**
	baz=60						
KRUC				*e*Sg	**Sn**	**19 46 09.9**	**-0.1**
	12nm,0.2s,baz=60						
KRUC				AML	AML		
OSTC	**Ostas**	**1.65**	**296**	*e*PG	**Pg**	**19 45 50.4**	**+0.2**
OSTC				*e*SG	**Sg**	**19 46 11.9**	**+0.4**
MODS	**Modra-Piesok**	**1.71**	**210**	*e*PG	**Pb**	**19 45 50.5**	**-0.4**
MODS				*e*SG	**Sn**	**19 46 12.4**	**+0.1**
UPC	**Upice**	**1.75**	**292**	*e*PG	**Pb**	**19 45 51.3**	**-0.3**
UPC				*e*SG	**Sg**	**19 46 14.9**	**+0.1**
CHVC	**Chvalec**	**1.75**	**295**	*e*PG	**Pb**	**19 45 51.6**	**-0.1**
KECS	**Kecovo**	**1.88**	**137**	*e*PN	**Pn**	**19 45 52.3**	**+0.3**
KECS				*e*SN	**Sb**	**19 46 16.9**	**-1.0**
KECS				*e*LG	Lg	19 46 19.0	
TREC	**Trest**	**2.07**	**255**	*e*SG	**Sb**	**19 46 24.1**	**+0.7**
ABNA	**Allensteig Bun**	**2.37**	**241**	Pn	**Pn**	**19 45 59.0**	**+0.4**
	1.5nm,0.1s						
ABNA				*e*Sn	**Sn**	**19 46 27.0**	**-1.4**
	4.8nm,0.1s						
CONA	**Conrad Observa**	**2.63**	**223**	*i* Pn	**Pn**	**19 46 02.8**	**+0.4**
	0.4nm,0.2s						
CONA				Sn	**Sn**	**19 46 34.8**	**-0.2**
	2.3nm,0.2s						
PVCC	**Panska Ves**	**2.64**	**286**	*e*SG	**Sg**	**19 46 43.2**	**-0.2**
	comp=Z,11nm,0.4s						
PVCC				AML	AML		
CKRC	**Cesky Krumlov**	**2.96**	**251**	*e*SG	**Sg**	**19 46 52.3**	**-1.4**
BRG	**Berggiesshubel**	**3.12**	**291**	Sg	**Sg**	**19 46 58.1**	**-0.4**
BRG				Amp		19 47 00.2	
	comp=Z,3.9nm,0.4s						
KHC	**Kasperske Hory**	**3.32**	**259**	*e*PG	**Pb**	**19 46 19.4**	**+1.0**
KHC				*e*SG	**Sg**	**19 47 03.6**	**-1.7**

*IDC **20** 19:46:47.9±1.6, 24°.04S×66°.75W, h167km±19km, mb3.5/1, mbtmp3.7/7, Error ellipse: s-maj=27.5km s-min=13.8km az=99.0*
*SJA **20** 19:46:49.0±0.6, 24°.06S×66°.74W, h223km±4km, ML4.0, MW3.7*

ISC 20 19:46:50.1±0.8, 24°.01S±0°.05×66°.71W±0°.05, h195km, n23, σ1s90/39, Salta Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		h m s	ISC
SALTA		**0.40**	**123**	*e*P	**Pn**	**19 47 19.3**	**+2.4**
SALTA				*e*S	**Sn**	**19 47 41.6**	**+3.9**
SLA	**San Lorenzo**	**1.31**	**123**	*e*P	**Pn**	**19 47 23.8**	**+1.8**
SLA				*e*S	**Sn**	**19 47 45.0**	**-1.6**
SLA				*e*S		19 47 49.6	
YJA	**Yavi**	**2.13**	**31**	*e*P	**Pn**	**19 47 32.5**	**+2.4**
FSA	**Cafayete**	**2.20**	**163**	*e*P	**Pn**	**19 47 31.9**	**+1.3**
FSA				*e*S	**Sn**	**19 48 02.3**	**+0.1**
PB06	**IPOC Station P**	**2.93**	**296**	*e*P	**Pn**	**19 47 40.0**	**+1.0**
PB06				*e*S	**Sn**	**19 48 18.1**	**+1.1**
PB06				IAML		19 48 19.2	
	comp=Z,187nm,0.1s						
PB09	**IPOC Station P**	**3.21**	**313**	*e*P	**Pn**	**19 47 43.6**	**+1.4**
PB09				*e*S	**Sn**	**19 48 24.2**	**+1.3**
PB09				IAML		19 48 25.5	
	comp=Z,113nm,0.3s						
PB05	**IPOC Station P**	**3.41**	**289**	*e*P	**Pn**	**19 47 45.0**	**+0.5**
PB05				*e*S	**Sn**	**19 48 26.9**	**-0.3**
PB03	**IPOC Station P**	**3.42**	**304**	*e*P	**Pn**	**19 47 45.5**	**+0.7**
PB03				*e*S	**Sn**	**19 48 27.4**	**0.0**
PB03				IAML		19 48 29.0	
	comp=Z,291nm,0.3s						
PB14	**IPOC Station P**	**3.43**	**259**	*e*P	**Pn**	**19 47 45.4**	**+0.4**
PB14				*e*S	**Sn**	**19 48 26.4**	**-1.4**
PB14				IAML		19 48 29.0	
	comp=Z,241nm,0.5s						
PB10	**IPOC Station P**	**3.56**	**277**	*e*P	**Pn**	**19 47 46.8**	**+0.5**
PB10				*e*S	**Sn**	**19 48 30.2**	**0.0**
PB10				IAML		19 48 32.7	
	comp=Z,132nm,0.4s						
PB07	**IPOC Station P**	**3.71**	**307**	*e*P	**Pn**	**19 47 48.8**	**+0.4**
PB07				*e*S	**Sn**	**19 48 33.5**	**-0.4**
PB07				IAML		19 48 34.7	
	comp=Z,176nm,0.3s						
PB02	**IPOC Station P**	**3.98**	**312**	*e*P	**Pn**	**19 47 51.9**	**+0.3**
PB02				*e*S	**Sn**	**19 48 38.5**	**-1.2**
PB02				IAML		19 48 41.3	
	comp=Z,318nm,0.3s						
TINO	**Tinogasta**	**4.11**	**191**	*e*P	**Pn**	**19 47 54.3**	**+1.0**
TINO				*e*S	**Sn**	**19 48 47.3**	**+4.4**
TA01	**Diego Aracena**	**4.70**	**316**	*e*P	**Pn**	**19 48 00.8**	**+0.1**
TA01				*e*S	**Sn**	**19 48

DZM				LR	LR	20 09 53.1		
	comp=Z,640nm,20.1s,baz=2.5,slow=35							
	7.1nm,0.8s							
DZM				AML	AML			
OUENC	**Ouen Island, N**	**10.81**	**182**	Pn	**Pn**	**20 06 21.5**	**-0.8**	
PINNC	**Pines Island,**	**11.00**	**179**	Pn	**Pn**	**20 06 24.0**	**-1.0**	
MSVF	**Nonsavu**	**12.14**	**122**	LR	LR	20 10 22.8		
	comp=Z,3µm,18.5s,baz=286,slow=32							
KRVT	**Keravat (AS076**	**16.68**	**294**	LR	LR	20 14 12.9		
	comp=Z,830nm,20.7s,baz=113,slow=38							
PATS	**Pohnpei**	**20.31**	**334**	P	**P**	**20 08 21.8**	**-1.4**	
PATS				IAmb	IAmb	20 08 36.4		
	comp=Z,127nm,1.3s							
EIDS	**Eidsvold**	**20.54**	**226**		**P**	**20 08 25.2**	**-0.4**	
AFI	**Afiamalu**	**20.62**	**99**	LR	LR	20 14 30.3		
	comp=Z,310nm,20.8s,baz=275,slow=31							
CTA	**Charters Tower**	**21.86**	**245**	LR	LR	20 16 02.4		
	comp=Z,193nm,19.2s,baz=62,slow=34							
CTAO	**Charters Tower**	**21.86**	**245**	P	**P**	**20 08 40.4**	**+0.4**	
RAO	**Raoul Island**	**22.40**	**144**	LR	LR	20 15 29.8		
	comp=Z,461nm,19.7s,baz=100,slow=31							
ARMA	**Armidale**	**23.70**	**215**	P	**P**	**20 08 59.5**	**+0.6**	
ARMA				IAmb	IAmb	20 09 08.6		
	comp=Z,127nm,2.0s							
URZ	**Urewera**	**28.02**	**163**	LR	LR	20 20 11.5		
	comp=Z,201nm,18.5s,baz=348,slow=35							
H11S2	**WAKE ISLAND Hy**	**29.86**	**359**	T	T	20 41 26.0		
	baz=181,slow=76,SNR=4.6							
H11S3	**WAKE ISLAND Hy**	**29.87**	**359**	T	T	20 41 27.1		
	baz=181,slow=76,SNR=4.1							
H11S1	**WAKE ISLAND Hy**	**29.88**	**359**	T	T	20 41 27.5		
	baz=181,slow=76,SNR=3.3							
STKA	**Stephens Creek**	**31.09**	**225**	P	**P**	**20 10 05.0**	**-0.2**	
	comp=Z,1.6nm,0.7s,baz=63,slow=9.7,SNR=5.1							
STKA				LR	LR	20 21 38.7		
	comp=Z,314nm,19.7s,baz=41,slow=35							
	comp=Z,1.6nm,0.7s							
STKA	**Stephens Creek**	**31.09**	**225**	P	**P**	**20 10 04.6**	**-0.6**	
WR8	**Warramunga Arr**	**32.53**	**251**	P	**P**	**20 10 16.6**	**-1.5**	
WR8				IAmb	IAmb	20 11 07.6		
	comp=Z,32nm,1.9s							
WB0	**Warramunga Arr**	**32.60**	**251**	P	**P**	**20 10 17.1**	**-1.5**	
WRA	**Warramunga Arr**	**32.68**	**251**	P	**P**	**20 10 18.1**	**-1.2**	
	comp=Z,1.9nm,1.0s,baz=84,slow=9.3,SNR=7.7							
	comp=Z,1.9nm,1.0s							
RAR	**Rarotonga**	**33.02**	**111**	LR	LR	20 20 55.7		
	comp=Z,171nm,19.3s,baz=290,slow=31							
GUMO	**Guam**	**33.40**	**318**	LR	LR	20 23 13.1		
	comp=Z,159nm,19.7s,baz=118,slow=35							
ASAR	**Alice Springs**	**33.87**	**245**	P	**P**	**20 10 28.7**	**-1.0**	
	comp=Z,0.8nm,0.9s,baz=71,slow=9.7,SNR=5.9							
ASAR				PcP	**PcP**	**20 13 09.8**	**+1.8**	
	comp=Z,0.7nm,0.8s,baz=106,slow=3.4,SNR=4.9							
ASAR				LR	LR	20 23 09.6		
	comp=Z,144nm,20.0s,baz=74,slow=34							
	comp=Z,0.8nm,0.9s							
BBOO	**Buckleboo**	**35.56**	**229**	P	**P**	**20 10 44.0**	**-0.2**	
BBOO				IAmb	IAmb	20 11 54.2		
	comp=Z,28nm,1.4s							
KNRA	**Kununurra**	**37.57**	**259**	P	**P**	**20 11 00.8**	**-0.7**	
FITZ	**Fitzroy Crossi**	**40.65**	**256**	LR	LR	20 27 45.8		
	comp=Z,211nm,18.4s,baz=91,slow=36							
FITZ	**Fitzroy Crossi**	**40.65**	**256**	P	**P**	**20 11 26.5**	**-0.7**	
FORT	**Forrest**	**40.95**	**236**	P	**P**	**20 11 29.0**	**-0.5**	
FORT				IAmb	IAmb	20 11 39.7		
	comp=Z,79nm,2.0s							
PPT	**Papeete**	**42.17**	**103**	LR	LR	20 26 00.8		
	comp=Z,83nm,19.7s,baz=268,slow=32							
PPT2	**Papeete2**	**42.17**	**103**	*e*P	P	20 11 36.7	-3.1	
	comp=Z,15nm,21.8s							
PPT2				*e*S	**S**	**20 17 54.7**	**-3.1**	
	comp=Z,54nm,25.0s							
PPT2				*e*LQ	LQ	20 21 28.3		
	comp=Z,782nm,27.5s							
PPT2				*e*LR	LR	20 23 10.9		
	comp=Z,244nm,28.2s							
PPT2				*e*LR	LR	20 23 17.3		
	comp=Z,361nm,28.5s							
SOEI	**Soe**	**42.22**	**268**	P	**P**	**20 11 39.7**	**-0.6**	
MIDW	**Midway**	**42.26**	**20**	P	**P**	**20 11 38.2**	**-1.9**	
TBI	**Tubuai**	**42.80**	**112**	*e*S	**S**	**20 18 10.6**	**+3.8**	
	comp=Z,690nm,36.8s							
TBI				*e*LQ	LQ	20 21 44.2		
	comp=Z,1µm,28.0s							
TBI				*e*LR	LR	20 23 31.8		
	comp=Z,3µm,30.5s							
DAV	**Davao City (W)**	**45.37**	**292**	LR	LR	20 30 58.6		
	comp=Z,149nm,18.7s,baz=142,slow=36							
JCJ	**Chichijima**	**45.46**	**328**	LR	LR	20 28 04.9		
	comp=Z,114nm,22.0s,baz=91,slow=32							
KAPI	**Kappang**	**47.37**	**274**	LR	LR	20 33 19.4		
	comp=Z,64nm,21.9s,baz=98,slow=38							
TAOE	**Nuku Hiva Isla**	**51.81**	**92**	*e*LR	LR	20 27 41.0		
	comp=Z,150nm,23.6s							
RKT	**Rikitea**	**56.05**	**110**	*e*LR	LR	20 29 44.5		
	comp=Z,3µm,29.5s							
KSRS	**Korea Array**	**61.12**	**325**	LR	LR	20 37 04.6		
	comp=Z,63nm,21.4s,baz=140,slow=33							
SHEM	**Shemya Is, Ala**	**64.30**	**5**	LR	LR	20 37 53.1		
	comp=Z,63nm,21.0s,baz=274,slow=32							
PETK	**Petropavlovsk-**	**64.92**	**354**	LR	LR	20 39 19.1		
	comp=Z,36nm,19.2s,baz=165,slow=33							
VNDA	**Vanda**	**66.01**	**181**	P	**P**	**20 14 33.1**	**+0.5**	
	comp=Z,1.0nm,0.9s,baz=18,slow=7.0,SNR=5.3							
VNDA				LR	LR	20 39 59.2		
	comp=Z,65nm,20.1s,baz=354,slow=33							
	comp=Z,1.0nm,0.9s							
VNDA	**Vanda**	**66.01**	**181**	P	**P**	**20 14 32.7**	**+0.1**	
MA2	**Magadan**	**72.12**	**351**	LR	LR	20 43 37.6		
	comp=Z,33nm,19.4s,baz=157,slow=33							
CM31	**Chiang Mai Arr**	**73.64**	**293**	P	**P**	**20 15 19.9**	**-0.7**	
CMAR	**Chiang Mai Arr**	**73.64**	**293**	P	**P**	**20 15 21.8**	**+1.2**	
	comp=Z,1.4nm,0.8s,baz=126,slow=4.9,SNR=12							
CMAR				LR	LR	20 46 39.6		
	comp=Z,31nm,20.1s,baz=145,slow=35							
	comp=Z,1.4nm,0.8s							
CHTO	**Chiang Mai**	**73.75**	**294**	P	**P**	**20 15 20.2**	**-1.0**	
LZDM	**Lanzhou Array**	**76.23**	**312**	LR	LR	20 46 33.3		
	comp=Z,113nm,20.8s,baz=5.0,slow=34							
KDAK	**Kodiak Island**	**76.53**	**21**	LR	LR	20 44 11.7		
	comp=Z,176nm,19.0s,baz=227,slow=32							
QSPA	**South Pole Qui**	**78.45**	**180**	P	**P**	**20 15 49.1**	**+1.9**	
	comp=Z,1.6nm,0.9s,baz=60,slow=2.7,SNR=4.0							
QSPA				LR	LR	20 47 16.9		
	comp=Z,60nm,19.6s,baz=28,slow=33							
	comp=Z,1.6nm,0.9s							
QSPA	**South Pole Qui**	**78.45**	**180**	P	**P**	**20 15 46.6**	**-0.7**	
QSPA				IAmb	IAmb	20 17 10.1		
	comp=Z,17nm,1.8s							
K17K	**Iditarod**	**78.72**	**15**	P	**P**	**20 15 47.6**	**-0.9**	
L18K	**Granite Mounta**	**78.75**	**16**	P	**P**	**20 15 47.4**	**-1.3**	
YAK	**Yakutsk**	**79.00**	**343**	LR	LR	20 51 44.4		
	comp=Z,31nm,18.2s,baz=136,slow=36							
RPN	**Rapa Nui**	**79.05**	**116**	LR	LR	20 42 34.5		
	comp=Z,75nm,18.9s,baz=258,slow=29							
J17K	**VABM Dome**	**79.09**	**15**	P	**P**	**20 15 49.8**	**-0.7**	
J17K				IAmb	IAmb	20 16 02.6		
	comp=Z,36nm,1.5s							
I17K	**Unalakleet**	**79.11**	**14**	P	**P**	**20 15 51.0**	**+0.4**	
L19K	**White Mountain**	**79.23**	**17**	P	**P**	**20 15 51.2**	**-0.1**	
BILL	**Bilibino**	**79.39**	**360**	P	**P**	**20 15 52.2**	**+0.1**	
BILL				IAmb	IAmb	20 16 01.0		
	comp=Z,8.6nm,1.1s							
L20K	**Farewell, AK**	**79.75**	**17**	P	**P**	**20 15 53.5**	**-0.6**	
SONM	**Songino Array**	**79.94**	**323**	P	**P**	**20 15 56.4**	**+0.7**	
	comp=Z,0.2nm,0.6s,baz=150,slow=4.3,SNR=6.6							
SONM				LR	LR	20 49 36.9		
	comp=Z,72nm,20.4s,baz=130,slow=34							
	comp=Z,0.2nm,0.6s							
J19K	**Poorman**	**80.47**	**16**	P	**P**	**20 15 57.6**	**-0.4**	
J19K				IAmb	IAmb	20 16 19.7		
	comp=Z,58nm,1.9s							
HIN	**Hinchinbrook I**	**80.59**	**21**	P	**P**	**20 15 57.9**	**-0.9**	
CAST	**Castle Rocks**	**81.00**	**17**	P	**P**	**20 16 00.1**	**-0.8**	
CAST				IAmb	IAmb	20 16 39.1		
	comp=Z,33nm,1.9s							
J20K	**Nowinta River**	**81.01**	**16**	P	**P**	**20 16 00.6**	**-0.2**	
J20K				IAmb	IAmb	20 16 10.2		
	comp=Z,63nm,2.0s							
BRDH	**Bariadhala**	**81.42**	**295**	LR	LR	20 53 57.5		
	comp=Z,13nm,18.8s,baz=166,slow=37							
G19K	**Purcell Mounta**	**81.84**	**14**	P	**P**	**20 16 04.5**	**-0.8**	
G19K				IAmb	IAmb	20 17 41.5		
	comp=Z,39nm,1.9s							
VRDI	**Verde Repeater**	**82.25**	**22**	P	**P**	**20 16 06.1**	**-1.7**	
VRDI				IAmb	IAmb	20 16 52.2		
	comp=Z,43nm,1.8s							

GLB	**Gilahina Butte**	**82.27**	**21**	P	**P**	**20 16 05.9**	**-1.7**	
GLB				IAmb	IAmb	20 17 39.8		
	comp=Z,36nm,1.8s							
E19K	**Redstone River**	**82.89**	**13**	P	**P**	**20 16 11.0**	**+0.3**	
F20K	**Avaraart Lake**	**82.90**	**14**	P	**P**	**20 16 10.4**	**-0.3**	
F20K				IAmb	IAmb	20 19 10.4		
	comp=Z,35nm,2.0s							
C18K	**Utukok River**	**83.08**	**11**	P	**P**	**20 16 10.9**	**-0.8**	
C18K				IAmb	IAmb	20 16 13.9		
	comp=Z,27nm,1.2s							
YBH	**Yreka Blue Hor**	**83.22**	**45**	LR	LR	20 50 31.8		
	comp=Z,27nm,18.2s,baz=260,slow=34							
TLY	**Talaya**	**83.36**	**326**	LR	LR	20 50 09.2		
	comp=Z,65nm,21.9s,baz=106,slow=33							
ILAR	**Eielson Array**	**83.54**	**18**	P	**P**	**20 16 14.8**	**+0.7**	
	comp=Z,1.4nm,0.7s,baz=241,slow=5.3,SNR=19							
ILAR				LR	LR	20 46 10.4		
	comp=Z,103nm,20.2s,baz=242,slow=30							
	comp=Z,1.4nm,0.7s							
D19K	**Kuna River**	**83.56**	**12**	P	**P**	**20 16 13.7**	**-0.5**	
F21K	**Alatna River**	**83.57**	**14**	P	**P**	**20 16 13.2**	**-1.1**	
F21K				IAmb	IAmb	20 17 20.1		
	comp=Z,23nm,1.8s							
J25K	**Salcha River,**	**83.90**	**19**	P	**P**	**20 16 15.1**	**-0.9**	
J25K				IAmb	IAmb	20 16 34.2		
	comp=Z,12nm,1.2s							
SCRK	**Sand Creek**	**83.91**	**19**	P	**P**	**20 16 15.6**	**-0.6**	
SCRK				IAmb	IAmb	20 16 30.9		
	comp=Z,6.6nm,1.0s							
BBB	**Bella Bella**	**84.19**	**34**	LR	LR	20 47 28.3		
	comp=Z,96nm,19.0s,baz=308,slow=31							
MAW	**Mawson**	**84.79**	**202**	LR	LR	20 47 59.3		
	comp=Z,79nm,19.7s,baz=96,slow=31							
D22K	**Ayikyak River**	**85.06**	**14**	P	**P**	**20 16 21.6**	**-0.2**	
PFO	**Pinyon Flats O**	**85.20**	**54**	LR	LR	20 49 09.9		
	comp=Z,40nm,18.4s,baz=262,slow=32							
NVAR	**Mina Array Bea**	**85.25**	**49**	P	**P**	**20 16 24.7**	**+1.0**	
	comp=Z,0.7nm,0.7s,baz=233,slow=8.5,SNR=4.8							
NVAR				LR	LR	20 50 34.6		
	comp=Z,56nm,18.3s,baz=198,slow=33							
	comp=Z,0.7nm,0.7s							
G26K	**Porcupine Rive**	**85.97**	**17**	IAmb	IAmb	20 16 41.9		
	comp=Z,15nm,1.3s							
DLBC	**Dease Lake**	**86.18**	**28**	LR	LR	20 48 04.3		
	comp=Z,32nm,20.1s,baz=256,slow=31							
TIXI	**Tiksi**	**86.87**	**349**	LR	LR	20 49 51.6		
	comp=Z,26nm,20.9s,baz=198,slow=32							
C26K	**Camden Bay**	**87.69**	**15**	P	**P**	**20 16 35.1**	**+0.5**	
C26K				IAmb	IAmb	20 16 46.0		
	comp=Z,12nm,0.8s							
PALK	**Pallekele**	**88.05**	**278**	LR	LR	20 57 39.2		
	comp=Z,27nm,21.0s,baz=106,slow=37							
INK	**Inuvik**	**89.92**	**19**	LR	LR	20 52 29.2		
	comp=Z,92nm,19.5s,baz=320,slow=32							
PV14	**Lion Creek, Pa**	**92.25**	**51**	P	**P**	**20 16 54.5**	**-2.5**	
ANMO	**Albuquerque**	**93.55**	**55**	LR	LR	20 52 08.2		
	comp=Z,26nm,21.0s,baz=256,slow=31							
YKA	**Yellowknife Ar**	**94.76**	**27**	LR	LR	21 01 17.8		
	comp=Z,46nm,18.2s,baz=266,slow=36							
ZALV	**Zalesovo Beam**	**94.82**	**324**	LR	LR	20 57 41.5		
	comp=Z,58nm,21.7s,baz=129,slow=34							
MKAR	**Makanchi Array**	**94.89**	**317**	P	**P**	**20 17 11.3**	**+2.7**	
	comp=Z,1.7nm,0.7s,baz=83,slow=6.0,SNR=8.1							
MKAR				LR	LR	20 58 22.5		
	comp=Z,44nm,22.0s,baz=104,slow=34							
	comp=Z,1.7nm,0.7s							
MKAR	**Makanchi Array**	**94.89**	**317**	P	P	20 17 05.5	-3.1	
NRIK	**Norilsk**	**97.11**	**339**	LR	LR	21 03 40.3		
	comp=Z,23nm,18.0s,baz=110,slow=37							
KURBB	**Kurchatov Arra**	**98.00**	**320**	LR	LR	21 03 49.8		
	comp=Z,50nm,18.1s,baz=201,slow=37							
AAK	**Ala-Archa**	**99.72**	**312**	LR	LR	21 05 08.1		
	comp=Z,30nm,18.8s,baz=74,slow=37							
GERES	**GERESS Array B**	**136.79**	**335**	PKP	**PKiKP**	**20 23 12.2**	**+1.3**	
	comp=Z,0.1nm,0.3s,baz=29,slow=2.4,SNR=3.8							
ESDC	**Sonseca Array**	**150.93**	**346**	PKPbc	**PKiKP**	**20 23 43.1**	**+2.9**	
	comp=Z,1.7nm,0.9s,baz=25,slow=2.4,SNR=8.8							

GII **20** *20:25:59.4±0.0, 38°.041N±0°.003×31°.005E±0°.001, h0km, Mws3.2, confirmed*
AFAD **20** *20:26:01.5, 38°.02N×30°.99E, h10km±1km, MW3.7*
ISK **20** *20:26:01.7, 38°.03N×30°.99E, h8km, ML3.4/34*
ISC 20 20:26:01.6±0.9, 38°.03N±0°.02×31°.01E±0°.02, h11km±7km, n79, σ0.972/116, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
BAGO	**Egridir - ISPA**	**0.18**	**258**	P		**Pg**	**20 26 05.8**	**+0.2**
BAGO				S		**Sg**	**20 26 07.8**	**-0.6**
YVAC	**Isparta, Yalva**	**0.30**	**37**	P		**Pg**	**20 26 08.8**	**-0.3**
YVAC				S		**Sg**	**20 26 12.9**	**+0.9**
ISP	**Isparta**	**0.43**	**242**	Pg		**Pg**	**20 26 09.9**	**-0.3**
ISP				Sg		**Sb**	**20 26 16.7**	**-1.3**
ISP				AML		AML		
DOGA	**KONYA_Doganhis**	**0.53**	**81**	P		**Pg**	**20 26 12.7**	**+0.7**
DOGA				S		**Sg**	**20 26 19.6**	**+0.7**
SHUT	**Suhut-Afyon**	**0.63**	**326**	Pg		**Pg**	**20 26 14.1**	**+0.1**
SHUT				Sg		**Sb**	**20 26 24.4**	**+0.7**
SHUT				AML		AML		
BCK	**Bucak**	**0.66**	**210**	Pg		**Pb**	**20 26 14.9**	**-0.2**
BCK				AML		AML		
UCKU	**Afyonkarahisar**	**0.69**	**28**	P		**Pg**	**20 26 15.3**	**+0.2**
KURO	**Afyon-Bolvadin**	**0.71**	**355**	P		**Pg**	**20 26 15.6**	**+0.3**
KURO				S		**Sg**	**20 26 24.1**	**-0.5**
KZIL	**AFYON_Kizioren**	**0.72**	**289**	P		**Pg**	**20 26 15.3**	**-0.3**
KZIL				S		**Sb**	**20 26 25.4**	**-0.8**
BASM	**Basmaki-Afyon**	**0.76**	**262**	Pg		**Pg**	**20 26 16.4**	**0.0**
BASM				AML		AML		
BUCA	**Burdur, Bucak-**	**0.79**	**207**	P		**Pb**	**20 26 17.2**	**-0.1**
BUCA				S		**Sb**	**20 26 28.9**	**+0.9**
BRDR	**BURDUR-Merkez**	**0.82**	**246**	P		**Pg**	**20 26 17.2**	**-0.3**
BRDR				S		**Sb**	**20 26 28.3**	**-0.7**
SEDI	**Konya, Seydise**	**0.83**	**134**	P		**Pg**	**20 26 17.4**	**-0.2**
SEDI				S		**Sg**	**20 26 29.1**	**+0.7**
SEYD	**Seydisehir-KON**	**0.91**	**133**	Pg		**Pg**	**20 26 18.8**	**-0.3**
SEYD				AML		AML		
BYAT	**Afyon-Bayat**	**0.92**	**359**	P		**Pb**	**20 26 19.6**	**0.0**
BYAT				S		**Sb**	**20 26 31.7**	**-0.1**
AFYO	**Afyonkarahisar**	**0.94**	**324**	P		**Pb**	**20 26 20.0**	**0.0**
AFYO				S		**Sn**	**20 26 34.1**	**-0.3**
KDHN	**Kadinhani**	**1.00**	**60**	P		**Pg**	**20 26 20.7**	**-0.2**
KDHN				S		**Sg**	**20 26 34.2**	**+0.2**
KONT	**Konya--Tatoy**	**1.07**	**94**	P		**Pb**	**20 26 22.5**	**+0.3**
KONT				S		**Sg**	**20 26 36.5**	**+0.3**
KONT	**Konya--Tatoy**	**1.07**	**94**	Pn		**Pb**	**20 26 22.7**	**+0.5**
KONT				AML		AML		
LADK	**Ladik-KONYA**	**1.08**	**81**	Pn		**Pb**	**20 26 22.8**	**+0.3**
LADK				AML		AML		
KIZT	**Kizilcal**	**1.09**	**39**	Pg		**Pg**	**20 26 22.5**	**-0.2**
KIZT				AML		AML		
BNAZ	**Uak-Banaz**	**1.10**	**307**	P		**Pg**	**20 26 22.5**	**-0.3**
BNAZ				S		**Sb**	**20 26 37.8**	**+0.7**
KMER	**Konya-Meram**	**1.11**	**103**	P		**Pg**	**20 26 23.0**	**+0.1**
KMER				S		**Sg**	**20 26 36.6**	**-0.8**
CTIK	**Konya-Celtik**	**1.12**	**26**	P		**Pg**	**20 26 22.6**	**-0.5**
CTIK				S		**Sg**	**20 26 37.1**	**-0.5**
KORT	**Korkueli**	**1.15**	**207**	P		**Pn**	**20 26 24.5**	**+0.7**
KORT				S		**Sn**	**20 26 41.8**	**+2.2**
KORT	**Korkueli**	**1.15**	**207**	Pn		**Pn**	**20 26 24.3**	**+0.5**
KORT				AML		AML		
ANTB	**Antalya**	**1.16**	**194**	Pn		**Pn**	**20 26 24.9**	**+1.1**
ANTB				AML		AML		
INCE	**Denizli-Bozkur**	**1.18**	**255**	P		**Pg**	**20 26 23.8**	**-0.5**
INCE				S		**Sn**	**20 26 40.6**	**+0.5**
KEPZ	**Antalya-Kepez**	**1.22**	**157**	P		**Pb**	**20 26 24.0**	**-0.7**
KEPZ				S		**Sn**	**20 26 42.0**	**+0.8**
PASA	**Karahalli, USA**	**1.24**	**285**	P		**Pb**	**20 26 24.9**	**-0.1**
PASA				S		**Sb**	**20 26 41.3**	**+0.2**
ALT	**Altintas**	**1.24**	**326**	Pn		**Pb**	**20 26 25.2**	**0.0**
ALT				AML		AML		
MNVG	**Manavgat-Antal**	**1.28**	**165**	Pn		**Pg**	**20 26 26.5**	**+0.4**
MNVG				AML		AML		
AUKIR	**Kırka- Seyitga**	**1.30**	**344**	P		**Pn**	**20 26 25.9**	**0.0**
AUKIR				S		**Sn**	**20 26 44.2**	**+0.9**
CIFT	**Cifteler, Eski**	**1.33**	**2**	Pn		**Pn**	**20 26 26.3**	**+0.1**
CIFT				AML		AML		
GOLH	**Golhisar**	**1.39**	**236**	P		**Pg**	**20 26 28.5**	**+0.1**
GOLH				S		**Sg**	**20 26 47.6**	**+1.1**
APMY	**Acipayam-Deniz**	**1.46**	**248**	Pn		**Pn**	**20 26 28.2**	**+0.2**
APMY				AML		AML		
AUSIV	**SIVRIHISAR**	**1.47**	**16**	P		**Pn**	**20 26 28.8**	**+0.7**
AUSIV				S		**Sn**	**20 26 45.8**	**-1.6**
SVRH	**Sivrihisar-ESK**	**1.47**	**16**	Pn		**Pb**	**20 26 29.3**	**+0.2**
SVRH				AML		AML		
ALIN	**Konya, Altinte**	**1.50**	**79**	P		**Pg**	**20 26 30.2**	**-0.2**
ALIN				S		**Sn**	**20 26 48.5**	**+0.4**
SGAZ	**Eskisehir, Sey**	**1.50**	**355**	P		**Pn**	**20 26 29.2**	**+0.6**
ELL	**Elmali**	**1.55**	**215**	Pn		**Pg**	**20 26 32.3**	**+0.9**
ELL				AML		AML		
KUTH	**Kutahya**	**1.57**	**331**	P		**Pg**	**20 26 31.7**	**-0.1**
HDMB	**Hadim**	**1.59**	**132**	Pn		**Pb**	**20 26 31.0**	**-0.1**
HDMB				AML		AML		
GDZ	**Gediz**	**1.60**	**312**	P		**Pn**	**20 26 30.5**	**+0.5**
GDZ				S		**Sn**	**20 26 50.1**	**-0.5**
DNIZ	**Denizli-Tavas-**	**1.61**	**256**	P		**Pn**	**20 26 30.5**	**+0.5**
DNIZ				S		**Sg**	**20 26 53.2**	**-0.2**
GEDZ	**Gediz**	**1.61**	**309**	Pn		**Pb**	**20 26 31.1**	**-0.3**
GEDZ				AML		AML		
CAEL	**Denizli, Camel**	**1.62**	**237**	P		**Pg**	**20 26 32.0**	**-0.7**
KNIK	**Mula-Seydike**	**1.64**	**224**	P		**Pb**	**20 26 32.3**	**+0.3**
ALAN	**Alanya-ANTALYA**	**1.68**	**151**	Pn		**Pb**	**20 26 32.5**	**-0.1**
ALAN				AML		AML		
USAK	**Uak-Merkez**	**1.71**	**294**	P		**Pn**	**20 26 31.5**	**+0.2**
USAK				S		**Sb**	**20 26 54.5**	**0.0**
ANDZ	**Kutahya, Merke**	**1.71**	**330**	P		**Pn**	**20 26 32.2**	**+0.7**
SHAP	**Saphane-Kutahy**	**1.72**	**306**	Pn		**Pn**	**20 26 32.2**	**+0.7**
SHAP				AML		AML		
CAME	**Cameli-Denizli**	**1.74**	**232**	Pn		**Pb**	**20 26 33.1**	**-0.5**
CAME				AML		AML		
TAVA	**DENIZLI_Tavas**	**1.75**	**252**	P		**Pn**	**20 26 32.9**	**+0.8**
HARTU	**Esme**	**1.77**	**281**	P		**Pn**	**20 26 32.7**	**+0.5**
SULTU	**Buldan**	**1.77**	**271**	P		**Pn**	**20 26 32.4**	**+0.2**
TVSB	**Tavsanli**	**1.86**	**320**	Pn		**Pn**	**20 26 34.7**	**+1.1**
TVSB				AML		AML		
SIMA	**Simav-Kutahya**	**1.90**	**304**	Pn		**Pn**	**20 26 34.9**	**+0.8**
SIMA				AML		AML		
KULA	**Kula-Manisa**	**1.91**	**285**	Pn		**Pn**	**20 26 34.8**	**+0.6**
KULA				AML		AML		
SMAA	**Simav-Kutahya**	**1.92**	**305**	Pn		**Pb**	**20 26 35.7**	**-0.9**
SMAA				AML		AML		
SRCK	**Saricakaya, Es**	**2.03**	**352**	Pn		**Pn**	**20 26 37.0**	**+1.2**
SRCK				AML		AML		
GAZI	**Gazipasa**	**2.07**	**149**	Pn		**Pb**	**20 26 38.6**	**-0.7**
GAZI				AML		AML		
AKAS	**Kas**	**2.11**	**212**	Pn		**Pb**	**20 26 38.7**	**-1.3**
AKAS				AML		AML		
NAZL	**Nazilli-Aydin**	**2.15**	**269**	Pn		**Pb**	**20 26 39.2**	**-1.3**
NAZL				AML		AML		
DALY	**Dalyan (Mula)**	**2.23**	**238**	Pn		**Pn**	**20 26 40.1**	**+1.6**
DALY				AML		AML		
YER	**Yerkesik**	**2.34**	**248**	Pn		**Pn**	**20 26 41.2**	**+1.1**
YER				AML		AML		
GORD	**Gordes-Manisa**	**2.39**	**292**	Pn		**Pn**	**20 26 41.8**	**+1.1**
GORD				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**2.46**	**269**	Pn		**Pn**	**20 26 43.4**	**+1.6**
AYDB				AML		AML		
TURN	**Turunc**	**2.53**	**241**	Pn		**Pn**	**20 26 44.4**	**+1.8**
TURN				AML		AML		
CSS	**Mathiatis**	**3.59**	**148**	P		**Pn**	**20 26 55.9**	**-1.3**
CSS				S		**Sn**	**20 27 39.2**	**-0.4**
GEM	**Giv'at Ha'Em**	**6.12**	**140**	P		**Pn**	**20 27 31.6**	**-0.4**
MMA0B	**Mount Meron ar**	**6.15**	**143**	P		**Pn**	**20 27 32.1**	**-0.4**
MMA0B				S		**Sn**	**20 28 42.9**	**0.0**
OFRI	**`Ofer**	**6.30**	**148**	P		**Pn**	**20 27 33.3**	**-1.1**
OFRI				S		**Sn**	**20 28 46.7**	**+0.3**
MMLI	**Mount Malkishu**	**6.64**	**146**	P		**Pn**	**20 27 38.4**	**-0.8**
MMLI				S		**Sn**	**20 28 55.0**	**+0.1**
MSBI	**Mazada**	**7.60**	**151**	P		**Pn**	**20 27 51.3**	**-0.9**
MSBI				S		**Sn**	**20 29 18.3**	**0.0**
KZIT	**Kziot**	**7.64**	**158**	P		**Pn**	**20 27 51.8**	**-1.0**
KZIT				S		**Sn**	**20 29 19.8**	**+0.5**
GHAJ	**Ghor Haditha**	**7.69**	**149**	P		**Pn**	**20 27 52.1**	**-1.4**
GHAJ				S		**Sn**	**20 29 20.1**	**-0.5**
RMNI	**Mount Ramon**	**8.04**	**156**	P		**Pn**	**20 27 57.4**	**-1.0**
RMNI				S		**Sn**	**20

GBMT				IAML		20 29 45.6	
	comp=N,51nm,0.8s						
GBMT				IAML		20 29 46.3	
	comp=E,55nm,0.5s						
YNR	**Norris Junctio**	**3.13**	**82**		Pn	20 28 51.9	+0.7
YNR				IAML		20 29 43.9	
	comp=E,44nm,0.4s						
YNR				IAML		20 29 44.5	
	comp=N,67nm,0.8s						
H17A	**Grant Village**	**3.19**	**88**		Pn	20 28 52.7	+0.7
SNOW	**Snow King Moun**	**3.21**	**105**		Pn	20 28 53.4	+1.1
SNOW				IAML		20 29 47.6	
	comp=N,37nm,0.5s						
SNOW				IAML		20 29 50.6	
	comp=N,39nm,1.4s						
I07A	**Izee**	**3.23**	**267**		Pn	20 28 53.5	+1.0
I07A				IAML		20 29 50.8	
	comp=E,34nm,1.1s						
WVOR	**Wild Horse Val**	**3.26**	**235**		Pn	20 28 55.0	+2.2
AHID	**Auburn Hatcher**	**3.26**	**118**		Pn	20 28 54.0	+1.1
AHID				IAML		20 29 51.2	
	comp=E,40nm,0.5s						
YPT	**Yellepit**	**3.26**	**303**	Pn	Pn	20 28 53.4	+0.6
JTMT	**Jette**	**3.44**	**8**		Pn	20 28 56.2	+0.9
YMP	**Mirror Lake Pl**	**3.50**	**82**		Pn	20 28 57.4	+1.1
E08A	**Dider Farm, El**	**3.56**	**308**		Pn	20 28 57.5	+0.6
E08A				IAML		20 30 00.2	
	comp=N,23nm,1.7s						
SPUT	**South Promonto**	**3.58**	**147**	Pn	Pn	20 28 59.0	+1.7
SPUT				IAML		20 29 58.1	
	comp=E,34nm,0.8s						
SPUT				IAML		20 29 59.4	
	comp=N,30nm,0.5s						
ELK	**Elko**	**3.60**	**183**		Pn	20 28 59.0	+1.3
YNE	**Yellowstone No**	**3.64**	**78**		Pn	20 28 59.6	+1.5
YNE				IAML		20 29 56.0	
	comp=N,39nm,0.6s						
YNE				IAML		20 30 01.3	
	comp=E,31nm,0.3s						
BGU	**Big Grassy Mou**	**3.72**	**156**		Pn	20 29 00.1	+0.9
BGU				IAML		20 30 02.0	
	comp=E,28nm,1.2s						
HWUT	**Hardware Ranch**	**3.73**	**136**		Pn	20 28 59.4	0.0
HWUT				IAML		20 30 05.8	
	comp=E,21nm,0.8s						
HAWA	**Hanford**	**3.78**	**304**		Pn	20 29 00.3	+0.5
F07A	**Phinny Hill Vi**	**3.80**	**296**		Pn	20 29 00.2	0.0
F07A				IAML		20 30 07.5	
	comp=E,26nm,1.2s						
F07A				IAML		20 30 09.5	
	comp=N,27nm,1.2s						
D08A	**Wollman Farm,**	**3.85**	**316**		Pn	20 29 01.1	+0.3
D08A				IAML		20 30 10.5	
	comp=E,24nm,1.1s						
D08A				IAML		20 30 11.1	
	comp=N,22nm,1.0s						
WAH2	**Wahluke Slope**	**4.00**	**309**		Pn	20 29 02.8	-0.1
WAH2				IAML		20 30 12.3	
	comp=E,45nm,0.6s						
E07A	**Sunnyside**	**4.06**	**305**		Pn	20 29 04.9	+1.2
E07A				IAML		20 30 15.1	
	comp=N,30nm,0.9s						
E07A				IAML		20 30 24.6	
	comp=E,30nm,0.7s						
GCMT	**Greycliff**	**4.06**	**67**		Pn	20 29 04.1	+0.3
G06A	**Carlson Farm,**	**4.09**	**284**		Pn	20 29 04.4	+0.2
LDM	**Libby Dam**	**4.11**	**357**		Pn	20 29 04.8	+0.3
C09A	**Chrisman Ranch**	**4.13**	**328**		Pn	20 29 04.6	-0.1
RLMT	**Red Lodge**	**4.17**	**77**		Pn	20 29 05.5	+0.1
RLMT				IAML		20 30 19.5	
	comp=E,33nm,0.6s						
RLMT				IAML		20 30 20.2	
	comp=E,31nm,0.3s						
NEW	**Newport**	**4.18**	**340**		Pn	20 29 05.9	+0.5
TCUT	**Toone Canyon**	**4.18**	**139**	Pn	Pn	20 29 06.2	+0.6
TCUT				IAML		20 30 21.5	
	comp=E,39nm,0.9s						
BMN	**Battle Mountai**	**4.24**	**203**		Pn	20 29 08.1	+1.7
BMN				IAML		20 30 12.6	
	comp=E,27nm,0.8s						
BMN				IAML		20 30 13.4	
	comp=N,27nm,0.8s						
BW06	**Boulder Array**	**4.27**	**110**		Pn	20 29 08.8	+1.9
PD31	**Pinedale Array**	**4.27**	**110**		Pn	20 29 07.5	+0.6
PDAR	**Pinedale Array**	**4.27**	**110**		Pn	20 29 09.4	+2.5
PINE	**Pine Mountain**	**4.30**	**265**		Pn	20 29 07.8	+0.6
PINE				IAML		20 31 01.4	
	comp=N,18nm,4.5s						
PINE				IAML		20 31 45.8	
	comp=E,19nm,4.2s						
MXC	**Moxie City**	**4.33**	**303**		Pn	20 29 09.7	+2.3
MXC				IAML		20 30 29.1	
	comp=N,17nm,3.4s						
EPH	**Ephrata**	**4.39**	**315**	Pn	Pn	20 29 09.1	+0.9
EPH				IAML		20 30 24.6	
	comp=E,16nm,0.6s						
EPH				IAML		20 30 35.5	
	comp=N,25nm,0.8s						
DUG	**Dugway, Tooele**	**4.46**	**158**		Pn	20 29 11.6	+2.2
DUG				IAML		20 30 28.6	
	comp=N,15nm,1.5s						
DUG				IAML		20 30 40.5	
	comp=N,19nm,0.9s						
I05D	**Terrebonne, OR**	**4.53**	**272**	Pn	Pn	20 29 10.8	+0.5
K05A	**Summer Lake**	**4.57**	**251**	Pn	Pn	20 29 11.5	+0.6
K05A				IAML		20 31 47.9	
	comp=E,18nm,4.2s						
K05A				IAML		20 31 60.0	
	comp=N,17nm,4.2s						
G05A	**Wamic**	**4.57**	**283**	Pn	Pn	20 29 09.9	-0.9
MOD	**Modoc Plateau**	**4.57**	**240**		Pn	20 29 09.9	-1.0
MOD				IAML		20 30 34.5	
	comp=E,12nm,0.7s						
MOD				IAML		20 30 37.1	
	comp=N,12nm,0.8s						
J05D	**Fort Rock, OR**	**4.62**	**259**	Pn	Pn	20 29 10.1	-1.5
J05D				IAML		20 30 24.3	
	comp=N,18nm,4.2s						
J05D				IAML		20 30 46.6	
	comp=E,18nm,3.1s						
HOOD	**Mount Hood Mea**	**4.82**	**284**	Pn	Pn	20 29 13.4	-0.9
HOOD				IAML		20 30 11.6	
	comp=N,16nm,1.9s						
HOOD				IAML		20 30 43.5	
	comp=E,23nm,2.3s						
WIFE	**Three Sisters-**	**4.89**	**269**	Pn	Pn	20 29 14.3	-1.1
NLU	**North Lily Min**	**4.91**	**152**	Pn	Pn	20 29 15.9	+0.3
NLU				IAML		20 30 45.3	
	comp=N,8.3nm,2.8s						
LTY	**Liberty**	**4.91**	**308**		Pn	20 29 16.4	+1.0
LTY				IAML		20 30 42.1	
	comp=E,14nm,2.9s						
LTY				IAML		20 31 12.1	
	comp=N,13nm,3.9s						
BSUT	**Blindstream Ca**	**4.94**	**139**		Pn	20 29 15.8	-0.4
EGMT	**Eagleton**	**5.18**	**43**		Pn	20 29 17.8	-1.5
J04A	**Umpqua Nationa**	**5.25**	**260**	Pn	Pn	20 29 19.3	-0.9
LON	**Longmire**	**5.34**	**299**	Pn	Pn	20 29 20.7	-0.6
LON				IAML		20 31 22.1	
	comp=E,9.0nm,3.0s						
LON				IAML		20 31 36.7	
	comp=N,7.4nm,3.7s						
G04A	**Mulino**	**5.38**	**282**	Pn	Pn	20 29 21.4	-0.4
RDMU	**Red Mountain**	**5.52**	**131**	Pn	Pn	20 29 23.9	-0.1
D05A	**Enumclaw**	**5.64**	**303**	Pn	Pn	20 29 25.6	+0.2
P18A	**Preston Nutter**	**5.91**	**141**	Pn	Pn	20 29 28.8	-0.6
PV07	**Paradox Valley**	**7.60**	**139**	Pn	Pn	20 29 53.0	+0.5

*IDC **20** 20:31:18.6±4.6, 3°.89N×76°.77W, h118^{km}±41^{km}, mb3.3/3, mbtmp3.8/4, Error ellipse: s-maj=48.4km s-min=44.0km az=126.0*

*RSNC **20** 20:31:19.1±0.0, 4°N±1°×7°7W±°, h109^{km}±3^{km}, M3.5, mb4.0, ML3.2*

*CATAC **20** 20:31:20.7±0.6, 4°N±3°×7°7W±°, h75^{km}±12^{km}, M4.0/7, MLv4.0/7, Error ellipse: s-maj=11.3km s-min=5.2km az=121.5, confirmed*

ISC 20 20:31:18.2±0.8, 3°.89N±0°.03×76°.75W±0°.03, h113^{km}±6^{km}, n41, σ0°.88/75, mb3.4/3, Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOTC	**Yotoco, Valle**	**0.42**	**77**	P	**Pn**	**20 31 34.5**	**-0.5**
YOTC				S	**Sn**	**20 31 47.3**	**-0.3**

JAMC	**Jamundi, Valle**	**0.68**	**173**	P	**Pn**	**20 31 37.2**	**+0.3**
JAMC				S	**Sn**	**20 31 51.7**	**+0.7**
PIZC	**Pizarro, Choco**	**1.23**	**330**	P	**Pn**	**20 31 43.0**	**+0.9**
PIZC				S	**Sn**	**20 32 01.5**	**+1.4**
ARMEC	**Armenia, Quind**	**1.27**	**59**	P	**Pn**	**20 31 42.4**	**-0.4**
ARMEC				S	**Sn**	**20 32 00.6**	**-0.8**
POPC	**Popayan, Colom**	**1.34**	**177**	P	**Pn**	**20 31 43.8**	**+0.1**
POPC				S	**Sn**	**20 32 03.0**	**+0.1**
ORTC	**Ortega, Tolima**	**1.50**	**89**	P	**Pn**	**20 31 45.3**	**0.0**
ORTC				S	**Sn**	**20 32 05.1**	**-0.7**
CMAN1	**Manizales, Cal**	**1.70**	**46**	P	**Pn**	**20 31 48.2**	**+0.3**
CMAN1				S	**Sn**	**20 32 11.0**	**+0.6**
NIZA	**Niza - Manizal**	**1.73**	**48**	P	**Pn**	**20 31 48.5**	**+0.3**
NIZA				S	**Sn**	**20 32 10.9**	**-0.1**
BETC	**Betania**	**1.78**	**132**	P	**Pn**	**20 31 49.3**	**+0.7**
BETC				S	**Sn**	**20 32 12.4**	**+0.6**
PRAC	**Prado**	**1.87**	**95**	P	**Pn**	**20 31 49.9**	**+0.2**
PRAC				S	**Sn**	**20 32 13.5**	**-0.3**
PRAC	**Prado**	**1.87**	**95**	P	**Pn**	**20 31 50.0**	**+0.2**
PRAC				S	**Sn**	**20 32 13.5**	**-0.3**
GUY2C	**Guyana, Caldas**	**1.92**	**46**	P	**Pn**	**20 31 50.9**	**+0.2**
GUY2C				S	**Sn**	**20 32 15.6**	**+0.1**
BBAC	**Balboa, Cauca**	**1.92**	**195**	P	**Pn**	**20 31 51.6**	**+1.0**
BBAC				S	**Sn**	**20 32 16.7**	**+1.5**
CBOC	**Ciudad Bolivar**	**2.10**	**21**	P	**Pn**	**20 31 52.9**	**+0.2**
CBOC				S	**Sn**	**20 32 19.0**	**-0.1**
GARC	**Garzon, Huila**	**2.11**	**143**	P	**Pn**	**20 31 53.2**	**+0.2**
GARC				S	**Sn**	**20 32 19.6**	**+0.1**
CRUC	**La Cruz**	**2.32**	**185**	P	**Pn**	**20 31 56.5**	**+0.8**
CRUC				S	**Sn**	**20 32 25.0**	**+0.6**
SOLC	**Bahia Solano**	**2.41**	**344**	P	**Pn**	**20 31 56.8**	**+0.2**
SOLC				S	**Sn**	**20 32 25.1**	**-1.0**
URMC	**La Uribe, Meta**	**2.45**	**105**	P	**Pn**	**20 31 57.3**	**+0.1**
URMC				S	**Sn**	**20 32 25.8**	**-1.4**
NORC	**Norcasia**	**2.51**	**48**	P	**Pn**	**20 31 58.2**	**+0.3**
NORC				S	**Sn**	**20 32 27.9**	**-0.5**
HELC	**Santa Helena**	**2.59**	**28**	P	**Pn**	**20 32 01.9**	**+2.6**
HELC				S	**Sn**	**20 32 32.8**	**+2.1**
HELC	**Santa Helena**	**2.59**	**28**	P	**Pn**	**20 31 59.8**	**+0.5**
HELC				S	**Sn**	**20 32 31.4**	**+0.6**
ROSC	**El Rosal**	**2.60**	**69**	P	**Pn**	**20 32 00.3**	**+0.9**
	207nm,0.4s,baz=335,slow=3.6,SNR=68						
ROSC				S	**Sn**	**20 32 32.8**	**+1.7**
	194nm,0.6s,baz=80,slow=23,SNR=7.6						
ROSC	**El Rosal**	**2.60**	**69**	P	**Pn**	**20 32 01.3**	**+1.8**
ROSC	**El Rosal**	**2.60**	**69**	P	**Pn**	**20 32 01.1**	**+1.6**
ROSC				S	**Sn**	**20 32 33.4**	**+2.3**
CVER	**Cruz Verde, Cu**	**2.75**	**77**	P	**Pn**	**20 32 02.4**	**+1.0**
CVER				S	**Sn**	**20 32 34.3**	**-0.2**
CHIC	**Chingaza**	**3.10**	**76**	P	**Pn**	**20 32 07.0**	**+1.0**
CHIC				S	**Sn**	**20 32 42.9**	**+0.1**
SPBC	**San Pablo de B**	**3.19**	**57**	P	**Pn**	**20 32 08.0**	**+1.0**
SPBC				S	**Sn**	**20 32 44.4**	**-0.2**
MACC	**Macarena, Meta**	**3.38**	**121**	P	**Pn**	**20 32 09.2**	**-0.2**
MACC				S	**Sn**	**20 32 48.5**	**-0.4**
PTBC	**PUERTO BERRIO,**	**3.49**	**41**	P	**Pn**	**20 32 11.2**	**+0.4**
PTBC				S	**Sn**	**20 32 50.4**	**-1.1**
OTAV	**Otavalo**	**4.01**	**205**	S	**Sn**	**20 33 04.2**	**-0.3**
RUSC	**La Rusia**	**4.16**	**61**	P	**Pn**	**20 32 21.6**	**+1.4**
RUSC				S	**Sn**	**20 33 09.5**	**+1.2**
RUSC	**La Rusia**	**4.16**	**61**	P	**Pn**	**20 32 21.1**	**+0.8**
RUSC				S	**Sn**	**20 33 09.5**	**+1.2**
BRJC	**Barrancabermej**	**4.28**	**44**	P	**Pn**	**20 32 21.7**	**+0.2**
BRJC				S	**Sn**	**20 33 09.5**	**-1.0**
GUVC	**San Jose del G**	**4.33**	**108**	P	**Pn**	**20 32 22.1**	**0.0**
GUVC				S	**Sn**	**20 33 12.8**	**+1.1**
BARC	**Barichara**	**4.46**	**53**	P	**Pn**	**20 32 24.6**	**+0.6**
BARC				S	**Sn**	**20 33 14.6**	**-0.4**
CACAO	**El Cacao, Vera**	**5.34**	**310**	P	**Pn**	**20 32 35.2**	**-0.5**
CACAO				S	**Sn**	**20 33 35.2**	**-0.8**
YKA	**Yellowknife Ar**	**64.82**	**342**	P	**P**	**20 41 44.6**	**-0.2**
	0.5nm,0.4s,baz=138,slow=6.5,SNR=4.7 0.5nm,0.4s						
ESDC	**Sonseca Array**	**74.29**	**50**	P	**P**	**20 42 43.6**	**0.0**
	0.4nm,0.7s,baz=246,slow=5.2,SNR=1.7 0.4nm,0.7s						
ILAR	**Eielson Array**	**78.10**	**336**	P	**P**	**20 43 04.0**	**-0.5**
	0.5nm,0.8s,baz=97,slow=2.9,SNR=4.9 0.5nm,0.8s						
ASAR	**Alice Springs**	**144.47**	**234**	PKP	**PKPab**	**20 50 40.2**	**-0.6**
	1.8nm,0.4s,baz=112,slow=3.4,SNR=64						
WRA	**Warramunga Arr**	**145.75**	**240**	PKPbc	**PKPdf**	**20 50 44.3**	**-0.3**
	0.8nm,0.6s,baz=112,slow=2.6,SNR=13						

*KRNET **20** 20:39:39.0±0.1, 41°.89N×79°.32E, h17^{km}, mb2.6*

*NNC **20** 20:39:39.2±1.6, 41°.94N×79°.37E, h5^{km}±8^{km}, mb3.0, mpv2.9, Error ellipse: s-maj=11.5km s-min=8.6km az=166.0*

*SOME **20** 20:39:39.9, 42°.00N×79°.38E, h10^{km}*

ISC 20 20:39:38.6±1.9, 41°.91N±0°.06×79°.37E±0°.06, h2^{km}±11^{km}, n33, σ0°.92/59, 12C-10b, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRZ	**Przheval'sk**	**0.92**	**309**	⇑*i*P	**Pg**	**20 39 56.2**	**0.0**
PRZ				⇑*i*S	**Sg**	**20 40 08.6**	**+0.5**
TARG	**Taragay, Kyrgy**	**1.18**	**262**	⇓*i*P	**Pg**	**20 40 00.2**	**-1.1**
TARG				⇓*i*S	**Sg**	**20 40 15.9**	**-0.7**
SHLS	**Shalkode**	**1.25**	**3**	P	**Pg**	**20 40 03.7**	**+1.2**
	14nm,0.1s						
SHLS				S	**Sn**	**20 40 21.3**	**+0.6**
	35nm,0.2s						
SHLS	**Shalkode**	**1.25**	**3**	*e*P	**Pg**	**20 40 03.7**	**+1.2**
	14nm,0.1s						
SHLS				*e*S	**Sn**	**20 40 21.3**	**+0.6**
	35nm,0.2s						
UZB	**Uzynbulak**	**1.26**	**349**	P	**Pn**	**20 40 02.4**	**-1.0**
	4.7nm,0.3s						
UZB				S	**Sg**	**20 40 19.0**	**-0.1**
	7.8nm,0.3s						
UZB	**Uzynbulak**	**1.26**	**349**	*e*P	**Pn**	**20 40 02.4**	**-1.0**
	4.7nm,0.3s						
UZB				*e*S	**Sg**	**20 40 19.0**	**-0.1**
	7.8nm,0.3s						
SATY	**Saty**	**1.35**	**329**	P	**Pb**	**20 40 04.3**	**-0.4**
	2.4nm,0.1s						
SATY				S	**Sg**	**20 40 21.9**	**-0.1**
	50nm,0.1s						
SATY	**Saty**	**1.35**	**329**	*e*P	**Pb**	**20 40 04.3**	**-0.4**
	2.4nm,0.1s						
SATY				*e*S	**Sg**	**20 40 21.9**	**-0.1**
	50nm,0.1s						
PDGK	**Podgornoye**	**1.42**	**4**	⇓Pn	**Pn**	**20 40 04.6**	**-1.0**
	2.2nm,0.4s						
PDGK				⇓Sn	**Sg**	**20 40 24.7**	**+0.5**
	24nm,0.3s						
ANVS	**Anan'yevo**	**1.53**	**305**	⇑*e*P	**Pn**	**20 40 07.0**	**-0.2**
ANVS				⇑*e*S	**Sb**	**20 40 27.4**	**-0.4**
KPKS	**Kokpek**	**1.63**	**342**	P	**Pg**	**20 40 09.9**	**0.0**
	0.2nm,0.2s						
KPKS				S	**Sg**	**20 40 31.5**	**+0.4**
	35nm,0.2s						
KPKS	**Kokpek**	**1.63**	**342**	*e*P	**Pg**	**20 40 09.9**	**0.0**
	0.2nm,0.2s						
KPKS				*e*S	**Sg**	**20 40 31.5**	**+0.4**
	35nm,0.2s						
KDJ	**Kajisay**	**1.64**	**278**	⇑*e*P	**Pn**	**20 40 08.3**	**-0.4**
KDJ				⇑*i*S	**Sn**	**20 40 29.6**	**-0.9**
TNSS	**Tian-Shan**	**2.11**	**303**	Pg	**Pb**	**20 40 18.1**	**+0.2**
	0.8nm,0.2s						
TNSS				Lg	Lg	20 40 45.8	
	5.5nm,0.3s						
TNSS	**Tian-Shan**	**2.11**	**303**	*e*P	**Pb**	**20 40 18.1**	**+0.2**
	0.8nm,0.2s						
TNSS				*e*S	**Sg**	**20 40 45.8**	**-0.8**
	5.5nm,0.3s						
MDOK	**Medeo**	**2.12**	**307**	Pg	**Pb**	**20 40 17.2**	**-0.7**
	7.4nm,0.3s						
MDOK				Lg	Lg	20 40 44.2	
	50nm,0.5s						
MDOK	**Medeo**	**2.12**	**307**	*e*P	**Pb**	**20 40 17.1**	**-0.7**
	7.4nm,0.3s						
MDOK				*e*S	**Sb**	**20 40 44.2**	**-0.5**
	50nm,0.5s						
KOTS	**Kotyrbulak**	**2.12**	**309**	Pg	**Pb**	**20 40 18.4**	**+0.5**
	5.4nm,0.1s						
KOTS				Lg	Lg	20 40 46.1	
	22nm,0.4s						
KOTS	**Kotyrbulak**	**2.12**	**309**	*e*P	**Pb**	**20 40 18.4**	**+0.5**
	5.4nm,0.1s						
KOTS				*e*S	**Sg**	**20 40 46.1**	**-0.8**
	22nm,0.4s						
BLB	**Baldybastay**	**2.28**	**344**	Pg	**Pb**	**20 40 20.8**	**+0.2**
	8.7nm,0.2s						
BLB				Lg	Lg	20 40 50.2	
	42nm,0.2s						
ULHL	**Ulahol**	**2.35**	**279**	⇑*i*P	**Pn**	**20 40 19.1**	**+0.7**
ULHL				⇑*i*S	**Sn**	**20 40 48.4**	**+0.4**
DJR	**Jarkent**	**2.44**	**7**	Pg	**Pb**	**20 40 22.3**	**-1.0**
	1.9nm,0.2s						
DJR				Lg	Lg	20 40 53.0	
	6.0nm,0.2s						
DJR	**Jarkent**	**2.44**	**7**	*e*P	**Pb**	**20 40 22.3**	**-1.0**
	1.9nm,0.2s						
DJR				*e*S	**Sb**	**20 40 53.0**	**-0.8**
	6.0nm,0.2s						
ARXS	**Arharly**	**2.56**	**334**	*e*P	**Pb**	**20 40 25.5**	**+0.1**
	1.5nm,0.4s						
ARXS				*e*S	**Sb**	**20 40 58.1**	**+0.8**
	23nm,0.5s						
NRN	**Naryn**	**2.57**	**260**	⇑*i*P	**Pn**	**20 40 22.4**	**+0.9**
NRN				⇑*e*S	**Sn**	**20 40 53.9**	**+0.4**
KST	**Kastek**	**2.76**	**295**	Pg	**Pb**	**20 40 28.9**	**+0.2**
	0.8nm,0.5s						
KST				Lg	Lg	20 41 04.2	
	11nm,0.6s						
KST	**Kastek**	**2.76**	**295**	*e*P	**Pb**	**20 40 28.9**	**+0.2**
	0.8nm,0.5s						
KST				*e*S	**Sb**	**20 41 04.2**	**+1.1**
	11nm,0.6s						
TKM2	**Tokmak 2**	**2.97**	**291**	⇓*i*P	**Pn**	**20 40 27.7**	**+0.8**
TKM2				⇓*i*S	**Sn**	**20 41 03.4**	**+0.2**
DGS	**Degeres**	**2.97**	**298**	*e*P	**Pb**	**20 40 29.9**	**-2.4**
	2.5nm,0.6s						
DGS				*e*S	**Sb**	**20 41 05.8**	**-3.3**
	4.5nm,0.7s						
KRBS	**Karabastau**	**3.25**	**305**	*e*P	**Pb**	**20 40 37.4**	**+0.4**
	0.8nm,0.4s						
KRBS				*e*S	**Sb**	**20 41 18.8**	**+1.7**
	6.3nm,0.4s						
KBK	**Karagaybulak**	**3.36**	**284**	⇑*e*P	**Pn**	**20 40 33.2**	**+0.9**
KBK				⇑*i*S	**Sn**	**20 41 12.7**	**-0.2**
UCH	**Uchtor**	**3.63**	**277**	⇓*i*P	**Pn**	**20 40 36.9**	**+0.7**
UCH				⇓*i*S	**Sn**	**20 41 19.4**	**-0.4**
AAK	**Ala-Archa**	**3.69**	**283**	⇓Pg	**Pb**	**20 40 46.9**	**+2.3**
	0.7nm,0.8s						
AAK				⇓Lg	Lg	20 41 33.8	
	1.2nm,0.8s						

*RSNC **20** 20:48:54.7±0.7, 7°S±6°×7°5W±°, h0^{km}, M4.8, mB5.3, mb4.9, ML4.2, Mw(mB)4.7*

*GFZ **20** 20:48:54.3±0.4, 8°S±3°×7°5W±°, h141^{km}±4^{km}, M4.3/28, mb4.3/28, Error ellipse: s-maj=11.4km s-min=6.6km az=85.0, confirmed*

*IDC **20** 20:48:54.4±0.5, 7°.60S×74°.74W, h138^{km}±4^{km}, mb3.8/12, mbtmp4.3/17, MS3.3/1, Error ellipse: s-maj=10.8km s-min=8.9km az=63.0*

*NEIC **20** 20:48:55.2±1.4, 7°.56S±0°.07×74°.81W±0°.06, h142^{km}±6^{km}, mb4.5/92, Error ellipse: s-maj=9.6km s-min=8.4km az=191.0*

*VAO **20** 20:48:56.1±0.4, 7°.62S×74°.58W, h142^{km}±3^{km}, mbR4.4, Presumed earthquake*

*OSUNB **20** 20:48:57.2±2.0, 7°.62S×74°.55W, h149^{km}±7^{km}, mb4.7/14, Error ellipse: s-maj=7.7km s-min=18.2km az=0.0*

ISC 20 20:48:54.0±0.4, 7°.57S±0°.04×74°.81W±0°.05, h141^{km}±3^{km}, h141^{km}:pP-P, n239, σ1°.43/257, mb4.4/59, 1D, Peru-Brazil border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CZSB	**Cruzeiro do Su**	**2.10**	**95**		**Pn**	**20 49 31.4**	**+1.6**
CZSB				Sn	**Sn**	**20 49 59.0**	**+1.8**
CZSB	**Cruzeiro do Su**	**2.10**	**95**	P	**Pn**	**20 49 31.4**	**+1.6**
CZSB				S	**Sn**	**20 49 59.0**	**+1.8**
CZSB	**Cruzeiro do Su**	**2.10**	**95**	P	**Pn**	**20 49 31.4**	**+1.6**
CZSB	**Cruzeiro do Su**	**2.10**	**95**	*e*P	**Pn**	**20 49 29.3**	**-0.5**
ATAH	**Atahualpa**	**3.58**	**277**	P	**Pn**	**20 49 50.8**	**+1.9**
	230nm,0.2s,baz=76,slow=2.5,SNR=1082						
ATAH				S	**Sn**	**20 50 33.0**	**+1.6**
	492nm,0.6s,baz=338,slow=20,SNR=13						
NNA	**Nana**	**4.83**	**204**	P	**Pn**	**20 50 06.6**	**+1.5**
	31nm,0.3s,baz=323,slow=9.0,SNR=12						
NNA				S	**Sn**	**20 50 58.6**	**-1.8**
	351nm,0.3s,baz=277,slow=20,SNR=22						
NNA	**Nana**	**4.83**	**204**		**Pn**	**20 50 06.4**	**+1.3**
NNA				Sn	**Sn**	**20 50 58.1**	**-2.3**
NNA	**Nana**	**4.83**	**204**	P	**Pn**	**20 50 06.5**	**+1.4**
NNA				S	**Sn**	**20 50 58.2**	**-2.2**
NNA	**Nana**	**4.83**	**204**	P	**Pn**	**20 50 06.7**	**+1.6**
PIAT	**Ana Tenorio**	**7.38**	**332**	P	**Pn**	**20 50 39.6**	**+0.1**
	1μm24nm,0.5s						
PIAT				S	**Sn**	**20 51 56.4**	**-5.8**
	1μm24nm,0.5s						
PTLC	**Puerto Leguiza**	**7.69**	**0**	P	Pn	20 50 38.4	-5.0
	2μm80nm,0.8s						
SLOR	**San Lorenzo -**	**7.72**	**331**		**Pn**	**20 50 44.9**	**+0.7**
SLOR				Sn	**Sn**	**20 52 07.7**	**-2.9**
CASC	**Dorado de Casc**	**8.06**	**342**	P	**Pn**	**20 50 49.2**	**+0.8**
	3μm97nm,0.7s						
CASC				S	**Sn**	**20 52 12.2**	**-6.0**
	3μm97nm,0.7s						
PPLP	**Puerto Lpez**	**8.43**	**315**	P	**Pn**	**20 50 53.1**	**-0.3**
PPLP				S	**Sn**	**20 52 19.9**	**-7.2**
OTAV	**Otavalo**	**8.56**	**335**	Pn	**Pn**	**20 50 55.4**	**0.0**
OTAV	**Otavalo**	**8.56**	**335**	P	**Pn**	**20 50 58.4**	**+2.9**
	7.9nm,0.6s						
OTAV	**Otavalo**	**8.56**	**335**	P	**Pn**	**20 50 56.9**	**+1.4**
	comp=Z,7.8nm,0.6s						
OTAV	**Otavalo**	**8.56**	**335**	*e*P	**Pn**	**20 50 58.8**	**+3.4**
FLF1	**Flavio Alfaro-**	**8.74**	**325**	P	**Pn**	**20 50 58.0**	**+0.5**
	comp=Z,81nm,0.4s						
FLF1				S	**Sn**	**20 52 29.8**	**-4.9**
	comp=Z,81nm,0.4s						
TULM	**T

PB06	**IPOC Station P**	**15.87**	**162**	Pn		**Pn**	**20 52 28.4**	**-1.5**
BBSD	**Serra de San D**	**16.84**	**126**	*e*P		**P**	**20 52 39.6**	**-1.8**
SDV	**Santo Domingo**	**16.87**	**14**	P		**P**	**20 52 41.1**	**-0.7**
SDV				IAmb		IAmb	20 53 11.8	
	comp=Z,18nm,0.9s							
SDV	**Santo Domingo**	**16.87**	**14**	P		**Pn**	**20 52 43.0**	**+0.8**
	comp=Z,124nm,0.8s							
PTLB	**Pontes e Lacer**	**17.23**	**118**			**P**	**20 52 45.4**	**-0.3**
PTLB				IAmb		IAmb	20 52 48.1	
	comp=Z,18nm,0.6s							
PTLB	**Pontes e Lacer**	**17.23**	**118**	P		**Pn**	**20 52 46.1**	**-0.2**
PTLB	**Pontes e Lacer**	**17.23**	**118**	*e*P		**Pn**	**20 52 46.2**	**-0.1**
SJCC	**San Jacinto, C**	**17.35**	**359**			**P**	**20 52 46.0**	**-1.1**
SJCC				IAmb		IAmb	20 52 58.3	
	comp=Z,29nm,0.8s							
BOAV	**Boa Vista**	**17.36**	**56**			**P**	**20 52 46.4**	**-0.7**
BOAV	**Boa Vista**	**17.36**	**56**	P		**P**	**20 52 46.6**	**-0.4**
BOAV	**Boa Vista**	**17.36**	**56**	*e*P		**P**	**20 52 47.4**	**+0.3**
PDRB	**Porto dos Gac**	**18.27**	**104**	P		**P**	**20 52 57.1**	**-0.1**
PDRB	**Porto dos Gac**	**18.27**	**104**	*e*P		**P**	**20 52 57.0**	**-0.1**
SALTA		**18.44**	**155**	P		**P**	**20 52 57.0**	**-2.4**
	comp=Z,4.5nm,1.2s							
SMRC	**Santa Marta, M**	**18.62**	**2**	P		**P**	**20 52 59.7**	**-1.2**
SMRC				IAmb		IAmb	20 53 35.8	
	comp=Z,46nm,1.4s							
AC01	**Pan de Azucar**	**18.91**	**168**	P		**P**	**20 53 04.1**	**+0.1**
AC01				IAmb		IAmb	20 53 22.8	
	comp=Z,35nm,1.4s							
CLDB	**Colider**	**19.05**	**101**	P		**P**	**20 53 05.0**	**-0.6**
CLDB	**Colider**	**19.05**	**101**	P		**P**	**20 53 04.6**	**-1.0**
	comp=Z,43nm,0.9s							
CLDB	**Colider**	**19.05**	**101**	*e*P		**P**	**20 53 05.1**	**-0.6**
ITTB	**Itaituba**	**19.24**	**82**	P		**P**	**20 53 07.2**	**-0.5**
ITTB	**Itaituba**	**19.24**	**82**	*e*P		**P**	**20 53 07.3**	**-0.3**
NPGB	**Novo Progresso**	**19.30**	**90**	P		**P**	**20 53 07.2**	**-1.2**
NPGB	**Novo Progresso**	**19.30**	**90**	*e*P		**P**	**20 53 07.2**	**-1.2**
URIC	**Uribia, Colomb**	**19.35**	**8**			**P**	**20 53 07.2**	**-1.6**
URIC				IAmb		IAmb	20 53 09.2	
	comp=Z,15nm,0.6s							
HDC	**Heredia**	**19.76**	**332**	*e*P		**Pn**	**20 53 17.8**	**+1.5**
GO03	**Copiapo**	**20.39**	**168**	P		**P**	**20 53 18.2**	**-1.7**
	comp=Z,12nm,2.1s							
SALV	**Santo Antonio**	**20.45**	**116**	P		**P**	**20 53 20.8**	**+0.1**
SALV	**Santo Antonio**	**20.45**	**116**	*e*P		**P**	**20 53 21.0**	**+0.3**
COIM	**Forte Coimbra**	**20.56**	**128**	*e*P		**P**	**20 53 21.3**	**-0.5**
MAL2	**Monte Alegre,**	**21.28**	**76**	P		**P**	**20 53 29.8**	**+0.2**
AC05	**El Transito**	**21.59**	**169**			**P**	**20 53 33.1**	**+0.3**
AC05	**El Transito**	**21.59**	**169**	P		**P**	**20 53 33.5**	**+0.6**
	comp=Z,16nm,1.1s							
BDQN	**Bodoquena, MS**	**21.67**	**128**	*e*P		**P**	**20 53 33.9**	**+0.1**
LCO	**Las Campanas**	**21.68**	**170**	P		**P**	**20 53 33.9**	**-0.1**
LCO	**Las Campanas**	**21.68**	**170**	P		**P**	**20 53 33.6**	**-0.4**
	comp=Z,14nm,1.5s							
MURT	**Porto Murtinho**	**21.72**	**132**	*e*P		**P**	**20 53 33.1**	**-1.1**
PP1B	**Ponte de Pedra**	**21.84**	**119**	*e*P		**P**	**20 53 35.7**	**+0.2**
AQDB	**Aquidauana**	**22.51**	**127**			**P**	**20 53 42.1**	**-0.1**
AQDB				IAmb		IAmb	20 53 43.9	
	comp=Z,18nm,0.9s							
AQDB	**Aquidauana**	**22.51**	**127**	P		**P**	**20 53 41.9**	**-0.3**
AQDB	**Aquidauana**	**22.51**	**127**	P		**P**	**20 53 40.5**	**-1.7**
	comp=Z,22nm,0.8s							
AQDB	**Aquidauana**	**22.51**	**127**	*e*P		**P**	**20 53 42.7**	**+0.5**
CO01	**Juntas del Tor**	**22.73**	**169**	P		**P**	**20 53 44.9**	**+0.5**
CO01	**Juntas del Tor**	**22.73**	**169**	P		**P**	**20 53 45.6**	**+1.1**
GO04	**Tololo Observa**	**22.80**	**171**	P		**P**	**20 53 45.2**	**+0.1**
GO04				IAmb		IAmb	20 54 01.7	
	comp=Z,18nm,1.2s							
CO06	**Fray Jorge**	**23.18**	**173**	P		**P**	**20 53 48.4**	**+0.1**
CO06				IAmb		IAmb	20 53 55.1	
	comp=Z,31nm,1.5s							
CO03	**El Pedregal**	**23.47**	**171**	P		**P**	**20 53 50.7**	**-0.4**
CO03	**El Pedregal**	**23.47**	**171**	P		**P**	**20 53 50.4**	**-0.7**
	comp=Z,9.1nm,1.2s							
SNDB	**Serra Nova Dou**	**23.58**	**103**	P		**P**	**20 53 51.1**	**-1.1**
SNDB	**Serra Nova Dou**	**23.58**	**103**	*e*P		**P**	**20 53 51.0**	**-1.1**
CO02	**Combarbal**	**23.78**	**172**	P		**P**	**20 53 53.8**	**-0.2**
CO02				IAmb		IAmb	20 53 58.0	
	comp=Z,19nm,0.8s							
CO02	**Combarbal**	**23.78**	**172**	P		**P**	**20 53 53.5**	**-0.4**
	comp=Z,34nm,1.1s							
ARAG	**Araguaiana, MT**	**23.91**	**112**	*e*P		**P**	**20 53 55.8**	**+0.6**
ZON	**Zonda**	**24.53**	**167**			**P**	**20 54 00.4**	**-0.3**
ZON	**Zonda**	**24.53**	**167**	P		**P**	**20 53 57.8**	**-2.9**
	comp=E,9.7nm,1.8s							
CAJU	**Mina Sossego**	**24.60**	**89**	*e*P		**P**	**20 54 02.2**	**+0.7**
CO04	**Los Peladeros**	**24.61**	**172**	P		**P**	**20 54 01.0**	**-0.7**
CO04				IAmb		IAmb	20 54 05.8	
	comp=Z,9.6nm,0.9s							
CO04	**Los Peladeros**	**24.61**	**172**	P		**P**	**20 53 59.6**	**-2.1**
	comp=Z,14nm,1.5s							
CFA	**Coronel Fontan**	**24.69**	**166**	P		**P**	**20 54 03.1**	**+1.1**
	comp=Z,2.7nm,0.6s,baz=350,slow=9.3,SNR=8.6							
	comp=Z,2.7nm,0.6s							
SJPY	**San Joaquin**	**24.90**	**136**	*e*P		**P**	**20 54 03.0**	**-1.0**
CPUP	**Villa Florida**	**25.00**	**140**	P		**P**	**20 54 03.6**	**-1.2**
	comp=Z,2.0nm,0.6s,baz=323,slow=10,SNR=5.8							
	comp=Z,2.0nm,0.6s							
CPUP	**Villa Florida**	**25.00**	**140**	P		**P**	**20 54 05.6**	**+0.7**
CPUP	**Villa Florida**	**25.00**	**140**	P		**P**	**20 54 03.1**	**-1.7**
	comp=Z,5.3nm,1.7s							
VA03	**San Esteban**	**25.38**	**172**	P		**P**	**20 54 08.4**	**0.0**
VA03				IAmb		IAmb	20 54 11.1	
	comp=Z,12nm,1.1s							
VA03	**San Esteban**	**25.38**	**172**	P		**P**	**20 54 09.2**	**+0.8**
	comp=Z,17nm,0.9s							
PEL	**Peldehue**	**25.74**	**172**	P		**P**	**20 54 10.6**	**-0.9**
	comp=Z,13nm,0.9s							
MT02	**Curacav**	**25.79**	**173**	P		**P**	**20 54 11.3**	**-0.7**
MT02				IAmb		IAmb	20 54 26.6	
	comp=Z,13nm,1.2s							
MT08	**Bocatoma Ro**	**26.13**	**171**			**P**	**20 54 16.9**	**+1.6**
MT08				IAmb		IAmb	20 54 18.9	
	comp=Z,10nm,0.8s							
MT09	**Talagante**	**26.32**	**173**	P		**P**	**20 54 17.8**	**+0.9**
MT09				IAmb		IAmb	20 54 20.1	
	comp=Z,7.2nm,0.8s							
MT01	**Popeta**	**26.38**	**173**	P		**P**	**20 54 17.8**	**+0.6**
MLPR	**Magueyes Islan**	**26.51**	**17**	P		**P**	**20 54 18.9**	**+0.3**
CRPR	**Cabo Rojo, PR**	**26.52**	**17**	P		**P**	**20 54 19.1**	**+0.4**
BO04	**La Punta**	**26.58**	**172**	P		**P**	**20 54 20.5**	**+1.4**
BO04				IAmb		IAmb	20 54 21.6	
	comp=Z,8.8nm,0.7s							
PCMB	**Pacaembu**	**26.67**	**124**	P		**P**	**20 54 21.0**	**+0.9**
PCMB	**Pacaembu**	**26.67**	**124**	P		**P**	**20 54 18.3**	**-1.7**
	comp=Z,17nm,2.6s							
OBIP	**Obispado Ponce**	**26.71**	**18**	P		**P**	**20 54 19.4**	**-1.0**
OBIP				IAmb		IAmb	20 54 21.8	
	comp=Z,22nm,1.2s							
CELP	**Cerrillos**	**26.75**	**18**	P		**P**	**20 54 20.4**	**-0.3**
PDPR	**Patillas Dam,**	**26.86**	**19**	P		**P**	**20 54 21.0**	**-0.7**
SJG	**San Juan**	**26.91**	**18**	P		**P**	**20 54 20.1**	**-2.0**
	comp=Z,30nm,2.2s							
BO01	**Tunca**	**26.91**	**173**	IAmb		IAmb	20 54 24.5	
	comp=Z,8.2nm,0.9s							
BO01	**Tunca**	**26.91**	**173**	P		**P**	**20 54 22.3**	**+0.3**
	comp=Z,12nm,0.9s							
AOPR	**Arecibo Observ**	**26.95**	**17**	P		**P**	**20 54 22.9**	**+0.3**
SMTB	**Santa Maria do**	**26.97**	**95**	P		**P**	**20 54 23.1**	**+0.2**
SMTB				IAmb		IAmb	20 54 24.2	
	comp=Z,7.5nm,0.9s							
SMTB	**Santa Maria do**	**26.97**	**95**	*e*P		**P**	**20 54 22.5**	**-0.4**
HUMP	**Col San Antoni**	**27.04**	**19**	P		**P**	**20 54 23.2**	**0.0**
GCPR	**Guaynabo City**	**27.12**	**18**	P		**P**	**20 54 24.0**	**0.0**
BO02	**Sierra Bellavi**	**27.35**	**173**	P		**P**	**20 54 26.9**	**+0.9**
BO02				IAmb		IAmb	20 54 29.4	
	comp=Z,4.9nm,0.7s							
BO02	**Sierra Bellavi**	**27.35**	**173**	P		**P**	**20 54 26.7**	**+0.7**
	comp=Z,10nm,1.6s							
BDFB	**Brasilia**	**27.42**	**109**	P		**P**	**20 54 27.1**	**+0.1**
	comp=Z,4.9nm,0.5s,baz=276,slow=12,SNR=9.0							
	comp=Z,4.9nm,0.5s							
BDFB	**Brasilia**	**27.42**	**109**	IAmb		IAmb	20 54 29.9	
	comp=Z,26nm,1.5s							
PTGB	**Pitanga**	**27.64**	**131**	P		**P**	**20 54 28.1**	**-0.6**
PTGB	**Pitanga**	**27.64**	**131**	*e*P		**P**	**20 54 29.7**	**+0.9**
LDASE	**Londrina, Braz**	**27.66**	**127**	*e*P		**P**	**20 54 29.3**	**+0.4**
ITQB	**Itaqui**	**27.85**	**144**	*e*P		**P**	**20 54 31.4**	**+1.0**
IPMB	**Ipameri, GO**	**27.89**	**114**	P		**P**	**20 54 31.1**	**+0.1**
IPMB	**Ipameri, GO**	**27.89**	**114**	*e*P		**P**	**20 54 30.9**	**-0.2**
ML02	**Panimavida**	**28.23**	**174**	P		**P**	**20 54 34.1**	**+0.3**
PSAL	**Palomas, Salto**	**28.39**	**148**	*e*P		**P**	**20 54 36.2**	**+1.0**
BB19B	**Bebedouro**	**28.72**	**121**	P		**P**	**20 54 39.3**	**+0.9**
BB19B	**Bebedouro**	**28.72**	**121**	*e*P		**P**	**20 54 38.8**	**+0.4**
ITAB	**Concordia**	**29.07**	**135**	P		**P**	**20 54 42.3**	**+1.0**
ITAB	**Concordia**	**29.07**	**135**	P		**P**	**20 54 43.6**	**+2.2**
ITAB	**Concordia**	**29.07**	**135**	P		**P**	**20 54 39.9**	**-1.5**
	comp=Z,23nm,0.9s							
ITAB	**Concordia**	**29.07**	**135**	*e*P		**P**	**20 54 41.5**	**+0.2**
BI02	**San Fabin de**	**29.14**	**174**	P		**P**	**20 54 42.4**	**+0.5**
BI02				IAmb		IAmb	20 54 44.3	
	comp=Z,5.5nm,0.8s							
BI02	**San Fabin de**	**29.14**	**174**	P		**P**	**20 54 42.8**	**+0.9**
	comp=Z,7.1nm,0.8s							
SDBA	**SAO DESIDERIO**	**29.83**	**102**	*e*P		**P**	**20 54 48.0**	**-0.3**
CANS	**Sao Roque de M**	**30.28**	**118**	*e*P		**P**	**20 54 52.4**	**+0.1**
CPSB	**Cacapava Do Su**	**30.29**	**141**	P		**P**	**20 54 52.8**	**+0.8**
CPSB				IAmb		IAmb	20 55 01.2	
	comp=Z,12nm,0.8s							
CPSB	**Cacapava Do Su**	**30.29**	**141**	P		**P**	**20 54 52.7**	**+0.6**
	comp=Z,16nm,0.8s							
CPSB	**Cacapava Do Su**	**30.29**	**141**	*e*P		**P**	**20 54 52.5**	**+0.4**
SPB	**Sao Paulo**	**30.72**	**124**	P		**P**	**20 54 52.0**	**-3.9**
	comp=Z,21nm,2.4s							
GO06	**Curarrehue**	**32.02**	**175**	P		**P**	**20 55 07.8**	**+0.6**
GO06				IAmb		IAmb	20 55 10.3	
	comp=Z,9.2nm,0.8s							
GO06	**Curarrehue**	**32.02**	**175**	P		**P**	**20 55 06.1**	**-1.2**
	comp=Z,15nm,1.8s							
DIAM	**Diamantina, MG**	**32.11**	**112**	*e*P		**P**	**20 55 08.1**	**-0.3**
LR05	**Currie**	**32.62**	**176**			**P**	**20 55 13.1**	**+0.7**
PLCA	**Paso Flores**	**33.24**	**174**	P		**P**	**20 55 19.3**	**+1.4**
	comp=Z,4.7nm,0.5s,baz=346,slow=9.8,SNR=21							
PLCA				LR		LR	21 08 44.1	
	comp=Z,46nm,19.4s,baz=205,slow=36							
	comp=Z,4.7nm,0.5s							
PLCA	**Paso Flores**	**33.24**	**174**			**P**	**20 55 19.0**	**+1.1**
PLCA				IAmb		IAmb	20 55 20.2	
	comp=Z,12nm,1.1s							
PLCA	**Paso Flores**	**33.24**	**174**	P		**P**	**20 55 17.1**	**-0.8**
	comp=Z,16nm,1.3s							
PLCA	**Paso Flores**	**33.24**	**174**	*e*P		**P**	**20 55 19.1**	**+1.3**
NBPS	**Pedro II - PI**	**33.33**	**87**	*e*P		**P**	**20 55 17.7**	**-1.3**
ARCA	**Araçuai, MG**	**33.36**	**109**	*e*P		**P**	**20 55 19.1**	**0.0**
NBPN	**Ponto Novo - B**	**34.31**	**98**	*e*P		**P**	**20 55 25.5**	**-1.9**
SJMB	**Sao Joao De Ma**	**34.50**	**112**	*e*P		**P**	**20 55 28.7**	**-0.3**
BSFB	**Barra de Sao F**	**34.84**	**112**	P		**P**	**20 55 28.8**	**-3.0**
	comp=Z,28nm,2.9s							
BSFB	**Barra de Sao F**	**34.84**	**112**	*e*P		**P**	**20 55 32.2**	**+0.3**
NBMO	**Morrinhos-CE**	**34.86**	**85**	*e*P		**P**	**20 55 30.8**	**-1.4**
RIB01	**Linhares ES**	**35.37**	**113**	*e*P		**P**	**20 55 35.7**	**-0.8**
LL02	**Futaleuf**	**35.58**	**176**	P		**P**	**20 55 37.8**	**0.0**
	comp=Z,13nm,1.4s							
LL02				pP		**pP**	**20 56 07.8**	**-0.6**
COYC	**Coyhaique**	**37.94**	**177**	P		**P**	**20 55 57.0**	**-0.8**
	comp=Z,21nm,0.9s							
TXAR	**Lajitas Array**	**46.02**	**324**	P		**P**	**20 57 05.7**	**+2.0**
	comp=Z,0.5nm,0.4s,baz=148,slow=8.5,SNR=13							
TXAR				pP		**pP**	**20 57 36.4**	**+0.8**
	comp=Z,0.3nm,0.4s,baz=152,slow=9.2,SNR=3.9							
TXAR				sP		**sP**	**20 57 52.3**	**+0.9**
	comp=Z,0.8nm,0.6s,baz=146,slow=9.1,SNR=5.8							
	comp=Z,0.5nm,0.4s							
TXAR	**Lajitas Array**	**46.02**	**324**	P		**P**	**20 57 04.2**	**+0.5**
TX31	**Lajitas Ar. Si**	**46.02**	**324**	P		**P**	**20 57 04.2**	**+0.5**
EFI	**East Falkland**	**46.09**	**166**	P		**P**	**20 57 04.9**	**+1.1**
POST	**Post**	**47.72**	**329**			**P**	**20 57 18.1**	**+1.3**
POST				IAmb		IAmb	20 57 19.6	
	comp=Z,10nm,0.8s							
VHRN	**Van Horn**	**47.86**	**324**			**P**	**20 57 18.4**	**+0.3**
VHRN				IAmb		IAmb	20 57 30.2	
	comp=Z,5.2nm,0.8s							
ALQ	**Albuquerque**	**51.77**	**327**			**P**	**20 57 46.8**	**-0.8**
ALQ	**Albuquerque**	**51.77**	**327**			**P**	**20 57 47.8**	**+0.2**
ALQ				IAmb		IAmb	20 57 50.9	
	comp=Z,2.9nm,1.0s							
ANMO	**Albuquerque**	**51.78**	**327**	P		**P**	**20 57 47.2**	**-0.4**
TASM	**ASL Pad, Albuq**	**51.78**	**327**	P		**P**	**20 57 47.6**	**-0.1**
G62A	**West of Eustis**	**52.69**	**4**	P		**P**	**20 57 54.3**	**+0.4**
G62A				pP		**pP**	**20 58 27.4**	**+0.8**
PKME	**Peaks-Kenny Pk**	**52.82**	**5**	P		**P**	**20 57 55.1**	**+0.2**
PKME				pP		**pP**	**20 58 28.6**	**+1.0**
BUKO	**Buck Lake**	**52.93**	**356**	P		**P**	**20 57 56.6**	**+0.9**
BUKO				pP		**pP**	**20 58 29.7**	**+1.3**
G65A	**Princeton**	**52.93**	**6**	P		**P**	**20 57 56.5**	**+0.8**
G65A				pP		**pP**	**20 58 29.7**	**+1.3**
SDCO	**Great Sand Dun**	**53.41**	**330**	P		**P**	**20 57 59.9**	**+0.2**
X18A	**Snowflake**	**53.45**	**324**	P		**P**	**20 58 00.9**	**+1.0**
X18A				IAmb		IAmb	20 58 03.7	
	comp=Z,3.3nm,0.7s							
WUAZ	**Wupatki**	**54.97**	**324**			**P**	**20 58 09.9**	**-1.0**
WUAZ				IAmb		IAmb	20 58 14.6	
	comp=Z,4.8nm,0.8s							
PV01	**Paradox Valley**	**55.28**	**328**	P		**P**	**20 58 13.5**	**+0.2**
PV01				IAmb		IAmb	20 58 16.2	
	comp=Z,6.2nm,0.8s							
PV15	**Paradox Valley**	**55.39**	**328**	P		**P**	**20 58 14.2**	**+0.2**
PV15				IAmb		IAmb	20 58 17.6	
	comp=Z,9.2nm,0.9s							
PV05	**Paradox Valley**	**55.52**	**327**	IAmb		IAmb	20 58 17.4	
	comp=Z,6.8nm,0.8s							
IRM	**Iron Mountain**	**56.39**	**320**			**P**	**20 58 21.3**	**+0.4**
IRM				IAmb		IAmb	20 58 24.7	
	comp=Z,4.6nm,1.1s							
PSUT	**Pine Spring**	**58.48**	**325**			**P**	**20 58 37.0**	**+1.2**
PSUT				IAmb		IAmb	20 58 39.2	
	comp=Z,5.0nm,1.2s							
TPNV	**Topopah Spring**	**58.86**	**322**			**P**	**20 58 40.0**	**+1.7**
TPNV				IAmb		IAmb	20 58 51.6	
	comp=Z,5.8nm,1.2s							
TCUT	**Toone Canyon**	**58.96**	**328**	P		**P**	**20 58 39.6**	**+0.6**
DUG	**Dugway, Tooele**	**59.05**	**327**			**P**	**20 58 40.9**	**+1.4**
DUG				IAmb		IAmb	20 58 42.6	
	comp=Z,3.9nm,0.8s							
PDAR	**Pinedale Array**	**59.24**	**331**	P		**P**	**20 58 41.6**	**+0.7**
	comp=Z,0.6nm,0.6s,baz=138,slow=5.0,SNR=6.2							
PDAR				pP		**pP**	**20 59 14.0**	**-0.3**
	comp=Z,0.4nm,0.6s,baz=126,slow=7.5,SNR=3.0							
	comp=Z,0.6nm,0.6s							
PDAR	**Pinedale Array**	**59.24**	**331**	P		**P**	**20 58 40.4**	**-0.6**
ULM	**Lac du Bonnet**	**60.42**	**345**	P		**P**	**20 58 48.7**	**+0.2**
	comp=Z,1.3nm,0.5s,baz=164,slow=9.2,SNR=4.2							
ULM				pP		**pP**	**20 59 21.8**	**-0.2**
	comp=Z,6.4nm,0.7s,baz=155,slow=7.3,SNR=5.7							
	comp=Z,1.3nm,0.5s							
ULM	**Lac du Bonnet**	**60.42**	**345**	P		**P**	**20 58 48.1**	**-0.4**
ULM	**Lac du Bonnet**	**60.42**	**345**	IAmb		IAmb	20 59 24.6	
	comp=Z,8.0nm,0.8s							
NVAR	**Mina Array Bea**	**61.06**	**322**	P		**P**	**20 58 54.8**	**+1.4**
	comp=Z,1.3nm,0.7s,baz=111,slow=7.4,SNR=9.4							
	comp=Z,1.3nm,0.7s							
YHH	**Holmes Hill**	**61.38**	**331**			**P**	**20 58 56.8**	**+1.3**
YHB	**Horse Butte**	**61.52**	**331**	P		**P**	**20 58 57.5**	**+1.1**
YHB				IAmb		IAmb	20 58 59.6	
	comp=Z,3.9nm,0.8s							
MFID	**Camas Ranch**	**62.90**	**328**			**P**	**20 59 06.4**	**+0.9**
MFID				IAmb		IAmb	20 59 08.5	
	comp=Z,6.7nm,0.9s							
ORV	**Oroville**	**63.72**	**321**	IAmb		IAmb	20 59 14.6	
	comp=Z,7.8nm,1.1s							
I07A	**Izee**	**65.34**	**326**	IAmb		IAmb	20 59 24.3	
	comp=Z,5.1nm,0.9s							
PINE	**Pine Mountain**	**65.96**	**325**	IAmb		IAmb	20 59 30.2	
	comp=Z,5.8nm,0.9s							
EDM	**Edmonton**	**68.79**	**336**	P		**P**	**20 59 42.8**	**0.0**
DBIC	**Dimbokro**	**71.19**	**80**	P		**P**	**20 59 57.4**	**-0.9**
	comp=Z,17nm,0.4s,baz=267,slow=4.2,SNR=22							
DBIC	**Dimbokro**	**71.19**	**80**	P		**P**	**20 59 56.8**	**-1.5**
BELA	**Belgrano 2**	**73.26**	**172**	P		**P**	**21 00 08.9**	**-0.5**
BELA				IAmb		IAmb	21 00 11.9	
	comp=Z,8.2nm,1.1s							
YKA	**Yellowknife Ar**	**76.24**	**342**	P		**P**	**21 00 27.4**	**+0.7**
	comp=Z,0.9nm,0.4s,baz=143,slow=6.2,SNR=11							
YKA				pP		**pP**	**21 01 02.1**	**+0.4**
	comp=Z,1.0nm,0.5s,baz=144,slow=6.0,SNR=5.1							
YKA				sP		**sP**	**21 01 16.0**	**-0.7**
	comp=Z,0.9nm,0.6s,baz=140,slow=5.6,SNR=3.9							
	comp=Z,0.9nm,0.4s							
MD31	**MD31**	**77.64**	**54**	P		**P**	**21 00 35.9**	**+0.5**
ESDC	**Sonseca Array**	**80.34**	**48**	P		**P**	**21 00 50.6**	**+0.7**
	comp=Z,1.0nm,0.9s,baz=260,slow=6.5,SNR=5.4							
	comp=Z,1.0nm,0.9s							
QSPA	**South Pole Qui**	**82.54**	**180**	P		**P**	**21 01 02.7**	**+1.7**
	comp=Z,7.4nm,0.6s,baz=154,slow=2.1,SNR=17							
	comp=Z,7.4nm,0.6s							
QSPA	**South Pole Qui**	**82.54**	**180**	P		**P**	**21 01 03.0**	**+1.9**
QSPA				IAmb		IAmb	21 01 03.7	
	comp=Z,8.8nm,0.7s							
TAM	**Tamanrasset**	**84.08**	**66**	P		**P**	**21 01 10.4**	**+0.6**
ELIB	**Princess Elisa**	**85.39**	**162**	*d*P		**P**	**21 01 16.9**	**+1.5**
	comp=Z,2.2nm,0.8s							
I30M	**Mount Dempster**	**85.39**	**338**	P		**P**	**21 01 16.6**	**+1.2**
I30M				pP		**pP**	**21 01 51.1**	**0.0**
BCAR	**Beaver Creek A**	**86.55**	**335**	P		**P**	**21 01 22.3**	**+1.2**
BCAR				pP		**pP**	**21 01 57.3**	**+0.5**
L27K	**Beaver Creek,**	**86.57**	**335**	P		**P**	**21 01 21.8**	**+0.6**
ILAR	**Eielson Array**	**89.28**	**336**	P		**P**	**21 01 34.5**	**+0.6**
	comp=Z,0.8nm,1.0s,baz=102,slow=3.4,SNR=5.1							
ILAR				pP		**pP**	**21 02 10.6**	**+0.7**
	comp=Z,1.0nm,0.7s,baz=142,slow=3.2,SNR=7.2							
	comp=Z,0.8nm,1.0s							
STKA	**Stephens Creek**	**127.59**	**220**	PKP		**PKiKP**	**21 07 43.8**	**0.0**
	comp=Z,1.6nm,0.7s,baz=137,slow=4.1,SNR=4.5							
ZALV	**Zalesovo Beam**	**130.91**	**16**	PKP		**PKiKP**	**21 07 49.5**	**-0.2**
	comp=Z,0.5nm,0.5s,baz=326,slow=7.0,SNR=2.2							
ZALV				pPKP		**pPKPdf**	**21 08 27.7**	**+1.4**
	comp=Z,1.9nm,0.6s,baz=272,slow=2.5,SNR=6.0							
MKAR	**Makanchi Array**	**136.26**	**23**	PKP		**PKPdf**	**21 07 58.8**	**-0.4**
	comp=Z,1.1nm,1.0s,baz=287,slow=2.4,SNR=1.8							
MKAR				pPKP		**pPKPdf**	**21 08 38.0**	**+1.3**
	comp=Z,0.8nm,0.5s,baz=299,slow=2.8,SNR=2.9							
ASAR	**Alice Springs**	**138.16**	**221**	PKhKP		PKPpre	21 07 54.1	
	comp=Z,0.6nm,0.5s,baz=138,slow=2.0,SNR=15							
ASAR				PKP		**PKPdf**	**21 08 03.3**	**0.0**
	comp=Z,0.7nm,0.4s,baz=115,slow=2.1,SNR=7.9							
WRA	**Warramunga Arr**	**140.37**	**226**	PKhKP		PKPpre	21 08 00.8	
	comp=Z,0.4nm,0.5s,baz=125,slow=2.7,SNR=11							
WRA				PKP		**PKiKP**	**21 08 10.0**	**0.0**
	comp=Z,1.1nm,0.4s,baz=127,slow=2.1,SNR=26							
KSRS	**Korea Array**	**143.79**	**329**	PKhKP		PKPpre	21 08 10.4	
	comp=Z,1.3nm,0.7s,baz=43,slow=5.3,SNR=4.0							
HHC	**Hu-ho-hao-te**	**146.37**	**351**	*e*P		**PKPdf**	**21 08 15.8**	**-1.7**
NJ2	**Nanjing**	**152.51**	**334**	*e*P		**PKPdf**	**21 08 27.4**	**+0.1**
NJ2				pmax		pmax		
	comp=Z,5.0nm,0.5s							

*NEIC **20** 21:05:09.4±0.9, 43.°79N±0.°05×105.°4W±0.°1, h0km±1km, ML3.5/66, Error ellipse: s-maj=14.1km s-min=5.4km az=62.0*

*IDC **20** 21:05:10.5±2.1, 43.°86N×105.°42W, h0km, mbtmp3.4/5, ML3.0/4, Error ellipse: s-maj=53.4km s-min=11.3km az=144.0*

ISC 20 21:05:09.1±1.0, **43.°81N**±0.°06×**105.°29W**±0.°06, **h0**km, **n31**, **s134/23, Wyoming**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
K22A	**Casper**	**

n147,σ1ᵍ35/172, mb4.3/9, 8C-1D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.68**	**219**	*eP*	**Pn**	**21 50 54.1**	**+1.0**
PB09				IAML		21 51 12.8	
	comp=Z,1μm,0.5s						
PB09	**IPOC Station P**	**0.68**	**219**		**Pn**	**21 50 54.2**	**+1.0**
PB09				Sn	**Sn**	**21 51 09.2**	**+1.1**
PB09	**IPOC Station P**	**0.68**	**219**	⇑*iP*	**Pn**	**21 50 54.1**	**+1.0**
PB09				*eS*	**Sn**	**21 51 08.8**	**+0.6**
PB09				IAML		21 51 09.9	
	comp=N,3μm,0.5s						
PB09	**IPOC Station P**	**0.68**	**219**	P	**Pn**	**21 50 54.2**	**+1.0**
PB09				S	**Sn**	**21 51 09.1**	**+0.9**
PB02	**IPOC Station P**	**1.04**	**267**	*eP*	**Pn**	**21 50 56.8**	**+0.6**
PB02				IAML		21 51 17.8	
	comp=Z,3μm,0.4s						
PB02	**IPOC Station P**	**1.04**	**267**		**Pn**	**21 50 56.6**	**+0.5**
PB02	**IPOC Station P**	**1.04**	**267**	⇑*iP*	**Pn**	**21 50 56.7**	**+0.6**
PB02				*eS*	**Sn**	**21 51 13.7**	**+0.2**
PB02				IAML		21 51 15.8	
	comp=E,7μm,0.5s						
PB02	**IPOC Station P**	**1.04**	**267**	P	**Pn**	**21 50 56.9**	**+0.6**
PB02				S	**Sn**	**21 51 13.6**	**+0.2**
PB07	**IPOC Station P**	**1.13**	**246**	*eP*	**Pn**	**21 50 57.9**	**+0.8**
PB07				IAML		21 51 21.2	
	comp=Z,2μm,0.4s						
PB07	**IPOC Station P**	**1.13**	**246**		**Pn**	**21 50 57.7**	**+0.6**
PB07	**IPOC Station P**	**1.13**	**246**	⇑*iP*	**Pn**	**21 50 57.8**	**+0.6**
PB07				*eS*	**Sn**	**21 51 15.4**	**+0.2**
PB07				IAML		21 51 16.8	
	comp=N,2μm,0.5s						
PB07	**IPOC Station P**	**1.13**	**246**	P	**Pn**	**21 50 57.9**	**+0.8**
PB07				S	**Sn**	**21 51 15.5**	**+0.3**
PB08	**IPOC Station P**	**1.17**	**343**	*eP*	**Pn**	**21 50 58.3**	**+0.5**
PB08				IAML		21 51 19.7	
	comp=Z,591nm,0.7s						
PB08	**IPOC Station P**	**1.17**	**343**		**Pn**	**21 50 58.3**	**+0.5**
PB08				Sn	**Sn**	**21 51 16.4**	**0.0**
PB08	**IPOC Station P**	**1.17**	**343**	⇑*iP*	**Pn**	**21 50 58.2**	**+0.5**
PB08				*eS*	**Sn**	**21 51 16.3**	**0.0**
PB08				IAML		21 51 17.9	
	comp=E,2μm,0.2s						
PB08	**IPOC Station P**	**1.17**	**343**	P	**Pn**	**21 50 58.5**	**+0.7**
PB08				S	**Sn**	**21 51 16.2**	**0.0**
PB03	**IPOC Station P**	**1.19**	**229**	*eP*	**Pn**	**21 50 58.6**	**+0.8**
PB03				IAML		21 51 20.7	
	comp=Z,1μm,0.4s						
PB03	**IPOC Station P**	**1.19**	**229**		**Pn**	**21 50 58.5**	**+0.8**
PB03				Sn	**Sn**	**21 51 17.1**	**+0.7**
PB03	**IPOC Station P**	**1.19**	**229**	⇑*iP*	**Pn**	**21 50 58.6**	**+0.8**
PB03				*eS*	**Sn**	**21 51 16.6**	**+0.2**
PB03				IAML		21 51 17.5	
	comp=N,2μm,0.5s						
PB03	**IPOC Station P**	**1.19**	**229**	P	**Pn**	**21 50 58.8**	**+0.9**
PB03				S	**Sn**	**21 51 16.7**	**+0.2**
TA01	**Diego Aracena**	**1.48**	**298**	*eP*	**Pn**	**21 51 00.9**	**+0.2**
TA01				IAML		21 51 25.2	
	comp=Z,646nm,0.6s						
TA01	**Diego Aracena**	**1.48**	**298**		**Pn**	**21 51 00.9**	**+0.2**
TA01	**Diego Aracena**	**1.48**	**298**	⇑*iP*	**Pn**	**21 51 00.8**	**+0.1**
TA01				*eS*	**Sn**	**21 51 21.0**	**-0.6**
TA01				IAML		21 51 22.1	
	comp=E,3μm,0.1s						
TA01	**Diego Aracena**	**1.48**	**298**	P	**Pn**	**21 51 00.9**	**+0.2**
TA01				S	**Sn**	**21 51 20.9**	**-0.7**
TA02	**Huaiquique**	**1.60**	**308**	*eP*	**Pn**	**21 51 02.2**	**0.0**
TA02				*eS*	**Sn**	**21 51 24.7**	**+0.6**
TA02				IAML		21 51 28.1	
	comp=Z,874nm,0.2s						
TA02	**Huaiquique**	**1.60**	**308**	*eP*	**Pn**	**21 51 02.1**	**0.0**
TA02				IAML		21 51 30.9	
	comp=N,3μm,0.1s						
PB06	**IPOC Station P**	**1.61**	**207**	*eP*	**Pn**	**21 51 03.8**	**+1.4**
PB06				IAML		21 51 35.3	
	comp=Z,881nm,0.3s						
PB06	**IPOC Station P**	**1.61**	**207**		**Pn**	**21 51 03.7**	**+1.2**
PB06	**IPOC Station P**	**1.61**	**207**	⇓*iP*	**Pn**	**21 51 03.7**	**+1.2**
PB06				*eS*	**Sn**	**21 51 25.6**	**+0.9**
PB06				IAML		21 51 26.4	
	comp=E,2μm,0.3s						
PB06	**IPOC Station P**	**1.61**	**207**	P	**Pn**	**21 51 03.9**	**+1.4**
PB06				S	**Sn**	**21 51 25.8**	**+1.1**
GO01	**Chusmiza**	**1.63**	**346**	*eP*	**Pn**	**21 51 03.5**	**+0.4**
GO01				IAML		21 51 28.5	
	comp=Z,473nm,0.3s						
GO01	**Chusmiza**	**1.63**	**346**		**Pn**	**21 51 03.3**	**+0.3**
GO01	**Chusmiza**	**1.63**	**346**	*eP*	**Pn**	**21 51 03.2**	**+0.2**
GO01				*eS*	**Sn**	**21 51 25.7**	**+0.1**
GO01				IAML		21 51 28.6	
	comp=N,2μm,0.2s						
GO01	**Chusmiza**	**1.63**	**346**	P	**Pn**	**21 51 03.5**	**+0.4**
PB11	**IPOC Station P**	**1.70**	**331**	*eP*	**Pn**	**21 51 03.3**	**-0.2**
PB11				IAML		21 51 29.6	
	comp=Z,793nm,0.4s						
PB11	**IPOC Station P**	**1.70**	**331**		**Pn**	**21 51 03.5**	**0.0**
PB11	**IPOC Station P**	**1.70**	**331**	⇑*iP*	**Pn**	**21 51 03.4**	**-0.2**
PB11				*eS*	**Sn**	**21 51 26.0**	**-0.6**
PB11				IAML		21 51 28.0	
	comp=E,3μm,0.6s						
PB11	**IPOC Station P**	**1.70**	**331**	P	**Pn**	**21 51 03.7**	**+0.1**
AF01	**San Pedro de A**	**1.77**	**162**	*eP*	**Pn**	**21 51 04.6**	**0.0**
AF01				*eP*		21 51 08.6	
AF01				*eS*	**Sn**	**21 51 28.6**	**+0.3**
AF01				IAML		21 51 54.7	
	comp=Z,718nm,0.8s						
AF01	**San Pedro de A**	**1.77**	**162**		**Pn**	**21 51 06.4**	**+1.9**
AF01	**San Pedro de A**	**1.77**	**162**	*eP*	**Pn**	**21 51 06.7**	**+2.2**
PB05	**IPOC Station P**	**2.06**	**219**	*eP*	**Pn**	**21 51 08.6**	**+0.8**
PB05				*eS*	**Sn**	**21 51 27.5**	**-6.7**
PB05				IAML		21 51 34.2	
	comp=Z,434nm,0.5s						
PB05	**IPOC Station P**	**2.06**	**219**		**Pn**	**21 51 07.3**	**-0.5**
PB05	**IPOC Station P**	**2.06**	**219**	*eP*	**Pn**	**21 51 08.4**	**+0.6**
PB05	**IPOC Station P**	**2.06**	**219**	P	**Pn**	**21 51 08.7**	**+0.9**
PSGCX	**Pisagua**	**2.08**	**323**	*eP*	**Pn**	**21 51 07.7**	**-0.4**
PSGCX				IAML		21 51 36.9	
	comp=Z,547nm,0.6s						
PSGCX	**Pisagua**	**2.08**	**323**		**Pn**	**21 51 07.3**	**-0.8**
PSGCX	**Pisagua**	**2.08**	**323**	⇑*iP*	**Pn**	**21 51 07.4**	**-0.7**
PSGCX				*eS*	**Sn**	**21 51 32.9**	**-1.8**
PSGCX	**Pisagua**	**2.08**	**323**	P	**Pn**	**21 51 07.6**	**-0.4**
PB10	**IPOC Station P**	**2.78**	**216**	*eP*	**Pn**	**21 51 17.3**	**+0.5**
PB10				*eS*	Sn	21 51 40.2	-10
PB10				IAML		21 51 53.2	
	comp=Z,137nm,0.6s						
PB10	**IPOC Station P**	**2.78**	**216**		**Pn**	**21 51 17.4**	**+0.6**
PB10	**IPOC Station P**	**2.78**	**216**	*eP*	**Pn**	**21 51 17.2**	**+0.5**
PB10				IAML		21 51 49.6	
	comp=E,205nm,0.4s						
PB16	**IPOC Station P**	**2.99**	**347**		**Pn**	**21 51 20.4**	**+0.3**
PB16	**IPOC Station P**	**2.99**	**347**	P	**Pn**	**21 51 21.0**	**+0.9**
PB12	**IPOC Station P**	**3.01**	**331**	*eP*	**Pn**	**21 51 19.0**	**-0.9**
PB12				IAML		21 52 27.3	
	comp=Z,172nm,0.6s						
PB12	**IPOC Station P**	**3.01**	**331**		**Pn**	**21 51 19.0**	**-0.9**
PB12	**IPOC Station P**	**3.01**	**331**	*eP*	**Pn**	**21 51 18.7**	**-1.3**
PB12				IAML		21 52 03.1	
	comp=E,404nm,0.6s						
PB12	**IPOC Station P**	**3.01**	**331**	P	**Pn**	**21 51 19.9**	**-0.1**
YJA	**Yavi**	**3.17**	**107**	*eP*	**Pn**	**21 51 19.4**	**-3.0**
YJA				*eS*	**Sn**	**21 51 59.9**	**-0.3**
AP01	**Chacalluta**	**3.23**	**333**	*eP*	**Pn**	**21 51 22.3**	**-0.4**
AP01				IAML		21 52 22.3	
	comp=Z,361nm,0.4s						
AP01	**Chacalluta**	**3.23**	**333**	Pn	**Pn**	**21 51 22.0**	**-0.7**
AP01	**Chacalluta**	**3.23**	**333**	*eP*	**Pn**	**21 51 22.0**	**-0.7**
PB14	**IPOC Station P**	**3.67**	**204**	*eP*	**Pn**	**21 51 29.0**	**+0.2**
PB14				*eS*	Sn	21 51 57.2	-15
PB14				IAML		21 52 26.9	
	comp=Z,119nm,0.5s						
PB14	**IPOC Station P**	**3.67**	**204**		**Pn**	**21 51 27.9**	**-0.9**
PB14	**IPOC Station P**	**3.67**	**204**	*eP*	**Pn**	**21 51 29.0**	**+0.2**
PB14	**IPOC Station P**	**3.67**	**204**	P	**Pn**	**21 51 28.7**	**-0.1**
PB18	**Visviri**	**3.71**	**350**	Pn	**Pn**	**21 51 29.3**	**-0.3**
PB18	**Visviri**	**3.71**	**350**	*eP*	Pn	21 51 35.8	+6.2
SALTA		**3.71**	**143**	P	**Pn**	**21 51 32.8**	**+3.2**
LPAZ	**La Paz**	**4.99**	**7**	P	**Pn**	**21 51 48.0**	**+1.3**
	comp=Z,5.8nm,0.4s,baz=172,slow=8.5,SNR=26						
LPAZ				S	**Sn**	**21 52 41.5**	**-2.2**
	comp=Z,9.8nm,0.8s,baz=185,slow=19,SNR=5.5						
LPAZ	**La Paz**	**4.99**	**7**		**Pn**	**21 51 47.5**	**+0.7**
LPAZ	**La Paz**	**4.99**	**7**	P	**Pn**	**21 51 49.1**	**+2.4**
LPAZ	**La Paz**	**4.99**	**7**	*eP*	**Pn**	**21 51 49.1**	**+2.4**
AC01	**Pan de Azucar**	**5.14**	**199**	*eP*	**Pn**	**21 51 47.3**	**-1.0**
AC01				*eS*	**Sn**	**21 52 44.1**	**-2.4**
AC01				IAML		21 53 10.2	
	comp=Z,76nm,1.1s						
AC01	**Pan de Azucar**	**5.14**	**199**	Pn	**Pn**	**21 51 47.7**	**-0.5**
AC01	**Pan de Azucar**	**5.14**	**199**	*eP*	**Pn**	**21 51 47.2**	**-1.0**
AC02	**Maricunga**	**5.56**	**183**		**Pn**	**21 51 54.0**	**-0.3**
AC02	**Maricunga**	**5.56**	**183**	P	**Pn**	**21 51 55.0**	**+0.8**
	comp=Z,16nm,0.5s						
GO03	**Copiapo**	**6.44**	**192**	Pn	**Pn**	**21 52 03.6**	**-2.1**
AC05	**El Transito**	**7.66**	**190**	Pn	**Pn**	**21 52 20.0**	**-2.3**
BBSD	**Serra de San D**	**8.72**	**64**	*eP*	**Pn**	**21 52 32.7**	**-3.8**
SIV	**San Ignacio**	**8.99**	**56**	P	**Pn**	**21 52 37.2**	**-3.0**
	comp=Z,33nm,0.5s,baz=251,slow=9.9,SNR=124						
GO04	**Tololo Observa**	**9.06**	**191**	Pn	**Pn**	**21 52 38.7**	**-2.5**
CO03	**El Pedregal**	**9.69**	**190**	Pn	**Pn**	**21 52 46.3**	**-3.3**
COIM	**Forte Coimbra**	**10.39**	**85**	*eP*	**Pn**	**21 52 54.4**	**-4.6**
MURT	**Porto Murtinho**	**10.41**	**94**	*eP*	**Pn**	**21 52 56.8**	**-2.6**
PTLB	**Pontes e Lacer**	**10.83**	**59**	*eP*	**Pn**	**21 53 02.1**	**-2.8**
BDQN	**Bodoquena, MS**	**11.28**	**88**	*eP*	**Pn**	**21 53 08.5**	**-2.5**
CPUP	**Villa Florida**	**11.64**	**118**	P	**Pn**	**21 53 14.8**	**-0.8**
	comp=Z,1.9nm,0.9s,baz=283,slow=13,SNR=5.2						
CPUP	**Villa Florida**	**11.64**	**118**		**Pn**	**21 53 15.8**	**+0.2**
VILB	**Vilhena**	**11.64**	**46**	*eP*	**Pn**	**21 53 14.2**	**-1.6**
MT02	**Curacav**	**12.13**	**189**	Pn	**Pn**	**21 53 19.7**	**-2.3**
SJPY	**San Joaquin**	**12.24**	**110**	*eP*	**Pn**	**21 53 23.0**	**-0.6**
AQDB	**Aquidauana**	**12.26**	**89**	P	**Pn**	**21 53 22.8**	**-1.0**
	comp=Z,15nm,0.9s						
AQDB	**Aquidauana**	**12.26**	**89**	*eP*	**Pn**	**21 53 21.8**	**-2.0**
SALV	**Santo Antonio**	**13.51**	**69**	*eP*	**Pn**	**21 53 38.1**	**-2.0**
PDRB	**Porto dos Gac**	**15.02**	**52**	*eP*	**Pn**	**21 53 57.9**	**-1.3**
BI02	**San Fabin de**	**15.50**	**188**	P	**Pn**	**21 54 05.7**	**+0.5**
BI02	**San Fabin de**	**15.50**	**188**	P	**Pn**	**21 54 05.8**	**+0.6**
	comp=Z,11nm,0.8s						
ANCO	**Parque Anchore**	**16.10**	**146**	*eP*	**P**	**21 54 14.8**	**+1.4**
CLDB	**Colider**	**16.19**	**52**	P	**P**	**21 54 15.0**	**+0.4**
	comp=Z,7.9nm,0.9s						
CLDB	**Colider**	**16.19**	**52**	*eP*	**Pn**	**21 54 12.2**	**-1.6**
ITAB	**Concordia**	**16.30**	**115**		**P**	**21 54 16.0**	**+0.2**
ITAB				IAmb	IAmb	21 54 17.6	
	comp=Z,19nm,1.1s						
ITAB	**Concordia**	**16.30**	**115**	P	**P**	**21 54 16.7**	**+0.9**
	comp=Z,19nm,1.9s						
LDASE	**Londrina, Braz**	**16.48**	**101**	*eP*	**Pn**	**21 54 16.8**	**-0.6**
CPSB	**Cacapava Do Su**	**16.53**	**127**	P	**Pn**	**21 54 17.5**	**-0.4**
CPSB	**Cacapava Do Su**	**16.53**	**127**	P	**P**	**21 54 18.7**	**+0.4**
	comp=Z,11nm,1.3s						
CPSB	**Cacapava Do Su**	**16.53**	**127**	*eP*	**P**	**21 54 18.1**	**-0.2**
ARAG	**Araguaiana, MT**	**17.02**	**74**	*eP*	**Pn**	**21 54 21.9**	**-1.9**
BB19B	**Bebedouro**	**18.89**	**93**	*eP*	**P**	**21 54 44.1**	**-0.2**
SNDB	**Serra Nova Dou**	**19.12**	**64**	*eP*	**P**	**21 54 46.0**	**-0.8**
NPGB	**Novo Progresso**	**19.19**	**45**	*eP*	**P**	**21 54 47.3**	**-0.3**
IPMB	**Ipameri, GO**	**19.65**	**84**	*eP*	**P**	**21 54 51.5**	**-1.1**
SPB	**Sao Paulo**	**19.87**	**101**	*eP*	**P**	**21 54 55.0**	**+0.1**
VAO	**Valinhos**	**20.29**	**99**	P	**P**	**21 54 58.1**	**-1.3**
VAO				IAmb	IAmb	21 55 00.2	
	comp=Z,19nm,1.0s						
VAO	**Valinhos**	**20.29**	**99**	*eP*	**P**	**21 54 59.5**	**+0.1**
BDFB	**Brasilia**	**20.47**	**78**	P	**P**	**21 55 01.9**	**+0.4**
	comp=Z,12nm,0.5s,baz=249,slow=10,SNR=21						
	comp=Z,12nm,0.5s						
BDFB	**Brasilia**	**20.47**	**78**	P	**P**	**21 55 01.4**	**-0.1**
BDFB				IAmb	IAmb	21 55 05.0	
	comp=Z,13nm,0.5s						
CANS	**Sao Roque de M**	**20.96**	**91**	*eP*	**P**	**21 55 05.9**	**-0.8**
ITTB	**Itaituba**	**21.04**	**39**	*eP*	**P**	**21 55 06.2**	**-1.3**
PMNB	**Patos De Minas**	**21.18**	**87**	P	**P**	**21 55 09.1**	**0.0**
	comp=Z,21nm,0.5s						
DIAM	**Diamantina, MG**	**23.81**	**87**	*eP*	**P**	**21 55 35.5**	**+0.4**
SMTB	**Santa Maria do**	**23.85**	**62**	P	**P**	**21 55 35.4**	**0.0**
SMTB	**Santa Maria do**	**23.85**	**62**	*eP*	**P**	**21 55 36.0**	**+0.6**
SDBA	**SAO DESIDERIO**	**24.47**	**73**	*eP*	**P**	**21 55 40.4**	**-0.6**
BOAV	**Boa Vista**	**24.86**	**20**	P	**P**	**21 55 44.9**	**+0.4**
BOAV	**Boa Vista**	**24.86**	**20**	*eP*	**P**	**21 55 45.5**	**+1.0**
BSFB	**Barra de Sao F**	**26.34**	**90**	*eP*	**P**	**21 55 58.4**	**+0.5**
RUSC	**La Rusia**	**27.31**	**351**	P	**P**	**21 56 07.0**	**-0.1**
RUSC				IAmb	IAmb	21 56 15.1	
	comp=Z,5.3nm,1.1s						
GUA01	**Guaratinga, BA**	**27.78**	**85**	*eP*	**P**	**21 56 10.8**	**0.0**
NBPN	**Ponto Novo - B**	**29.31**	**74**	*eP*	**P**	**21 56 24.9**	**+0.5**
NBPS	**Pedro II - PI**	**31.39**	**62**	*eP*	**P**	**21 56 42.9**	**+0.1**
NBMA	**Muriti-CE**	**32.12**	**69**	*eP*	**P**	**21 56 49.1**	**0.0**
LCR2	**La Lucha 2**	**34.25**	**333**	P	**P**	**21 57 04.7**	**-3.1**
LCR2				IAmb	IAmb	21 57 11.7	
	comp=Z,4.8nm,0.8s						
RCBR	**Riachuelo**	**35.35**	**69**	P	**P**	**21 57 17.4**	**+0.2**
CELP	**Cerrillos**	**39.15**	**3**	P	**P**	**21 57 48.4**	**-0.7**
MIAR	**Mount Ida**	**60.30**	**337**	P	**P**	**22 00 30.1**	**+1.3**
MIAR				IAmb	IAmb	22 00 47.9	
	comp=Z,5.5nm,1.1s						
S39A	**Bolivar**	**63.02**	**338**	P	**P**	**22 00 47.7**	**+0.6**
S39A				IAmb	IAmb	22 00 49.0	
	comp=Z,3.1nm,0.6s						
DBIC	**Dimbokro**	**68.56**	**73**	P	**P**	**22 01 24.1**	**+1.1**
	comp=Z,2.2nm,0.7s,baz=243,slow=2.3,SNR=2.0						
	comp=Z,2.2nm,0.7s						
DBIC	**Dimbokro**	**68.56**	**73**	P	**P**	**22 01 23.7**	**+0.6**
DBIC				IAmb	IAmb	22 01 33.0	
	comp=Z,8.9nm,1.1s						
PDAR	**Pinedale Array**	**73.96**	**330**	P	**P**	**22 01 57.1**	**+1.8**
	comp=Z,0.5nm,0.8s,baz=136,slow=8.1,SNR=2.6						
	comp=Z,0.5nm,0.8s						
NVAR	**Mina Array Bea**	**75.38**	**322**	P	**P**	**22 02 06.4**	**+2.9**
	comp=Z,0.3nm,0.5s,baz=75,slow=5.6,SNR=2.5						
	comp=Z,0.3nm,0.5s						
TORD	**Torodi Ar. Bea**	**77.17**	**70**	P	**P**	**22 02 14.7**	**+0.8**
	comp=Z,0.7nm,0.4s,baz=253,slow=6.2,SNR=3.8						
	comp=Z,0.7nm,0.4s						
YKA	**Yellowknife Ar**	**91.00**	**341**	P	**P**	**22 03 24.1**	**+1.2**
	comp=Z,0.9nm,0.7s,baz=133,slow=4.9,SNR=6.3						
	comp=Z,0.9nm,0.7s						
MPLH	**Magyarpolny**	**102.87**	**44**	P	**Pdif**	**22 04 19.0**	**+2.0**
	comp=Z,30nm,0.6s						
ZALV	**Zalesovo Beam**	**141.69**	**25**	PKP	**PKiKP**	**22 09 52.5**	**-0.2**
	comp=Z,0.3nm,0.3s,baz=165,slow=2.3,SNR=3.5						
MKAR	**Makanchi Array**	**145.37**	**36**	PKPbc	**PKPab**	**22 09 58.4**	**+1.4**
	comp=Z,2.0nm,0.8s,baz=334,slow=2.9,SNR=8.5						

IDC 20 21:59:46.3±68.0, 16°22S×174°38W, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=1294.0km s-min=200.9km az=79.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**42.81**	**240**	P	P	22 07 46.7	+0.6
	0.5nm,0.4s,baz=105,slow=12,SNR=3.2						
	0.5nm,0.4s						
WRA	**Warramunga Arr**	**48.74**	**258**	P	P	22 08 32.9	-0.3
	0.2nm,0.5s,baz=95,slow=7.3,SNR=5.6						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**48.96**	**253**	P	P	22 08 34.4	-0.5
	0.9nm,0.5s,baz=92,slow=8.2,SNR=16						
	0.9nm,0.5s						

*IDC **20** 22:08:17.2±2.9, 23°.82S×177°.04W, h137km±25km, mb3.8/11, mbtmp4.2/14, MS3.0/3, Error ellipse: s-maj=18.4km s-min=15.0km az=122.0*

ISC 20 22:08:15.4±0.5, 23°.9S±0°.1×177°.0W±0°.1, h120km, n56, σ1ᵍ50/53, mb4.0/11, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Monsavu**	**7.67**	**322**	P	**Pn**	**22 10 06.1**	**+1.6**
	25nm,0.7s,baz=65,slow=13,SNR=21						
AFI	**Afiamalu**	**11.05**	**27**	S	Sn	22 12 35.2	-17
	24nm,0.3s,baz=81,slow=20,SNR=4.2						
URZ	**Urewera**	**15.22**	**198**	P	**Pn**	**22 11 44.0**	**+0.2**
	9.6nm,0.9s,baz=164,slow=2.1,SNR=4.4						
RAR	**Rarotonga**	**16.11**	**84**	P	**Pn**	**22 11 55.2**	**+0.2**
	35nm,1.0s,baz=200,slow=7.2,SNR=7.5						
RAR				S	Sn	22 14 39.8	-14
	27nm,0.7s,baz=276,slow=18,SNR=6.7						
RAR				LR	LR	22 16 40.6	
	comp=Z,77nm,21.9s,baz=282,slow=31						
PPT	**Papeete**	**26.35**	**81**	LR	LR	22 21 33.8	
	comp=Z,33nm,20.3s,baz=224,slow=30						
KRVT	**Keravat (AS076**	**35.65**	**298**	LR	LR	22 27 06.5	
	comp=Z,17nm,21.9s,baz=274,slow=32						
STKA	**Stephens Creek**	**37.31**	**248**	P	**P**	**22 15 16.7**	**+0.6**
	2.4nm,0.7s,baz=94,slow=11,SNR=5.7						
	2.4nm,0.7s						
ASAR	**Alice Springs**	**44.77**	**260**	P	**P**	**22 16 16.6**	**-0.6**
	1.4nm,0.9s,baz=94,slow=7.8,SNR=8.8						
ASAR				PcP	**PcP**	**22 17 57.0**	**-0.5**
	0.7nm,0.7s,baz=109,slow=3.9,SNR=5.5						
	1.4nm,0.9s						
WRA	**Warramunga Arr**	**45.17**	**265**	P	**P**	**22 16 18.9**	**-1.6**
	2.0nm,0.5s,baz=92,slow=8.4,SNR=33						
WRA				PcP	**PcP**	**22 17 58.5**	**-0.4**
	1.0nm,0.6s,baz=105,slow=3.2,SNR=4.9						
	2.0nm,0.5s						
VNDA	**Vanda**	**54.67**	**186**	P	**P**	**22 17 31.9**	**+0.6**
	0.8nm,0.9s,baz=348,slow=7.7,SNR=5.9						
	0.8nm,0.9s						
QSPA	**South Pole Qui**	**66.22**	**180**	P	**P**	**22 18 50.2**	**0.0**
	5.0nm,0.9s,baz=34,slow=2.3,SNR=14						
	5.0nm,0.9s						
MAW	**Mawson**	**78.74**	**200**	P	**P**	**22 20 04.5**	**+0.3**
	5.2nm,0.7s,baz=145,slow=7.0,SNR=14						
	5.2nm,0.7s						
NVAR	**Mina Array Bea**	**82.83**	**43**	P	**P**	**22 20 27.1**	**+0.5**
	1.4nm,0.8s,baz=218,slow=7.8,SNR=7.0						
	1.4nm,0.8s						
H03S2	**Juan Fernandez**	**83.32**	**124**	T	T	23 52 47.3	
	baz=246,slow=74,SNR=8.2						
H03S1	**Juan Fernandez**	**83.34**	**124**	T	T	23 52 52.5	
	baz=246,slow=74,SNR=13						
H03S3	**Juan Fernandez**	**83.34**	**124**	T	T	23 52 46.3	
	baz=246,slow=74,SNR=12						
TXAR	**Lajitas Array**	**88.08**	**57**	P	**P**	**22 20 53.2**	**+0.5**
	0.7nm,0.7s,baz=209,slow=8.0,SNR=10						
	0.7nm,0.7s						
PDAR	**Pinedale Array**	**90.76**	**43**	P	**P**	**22 21 05.0**	**-0.2**
	0.9nm,0.8s,baz=222,slow=2.0,SNR=7.9						
	0.9nm,0.8s						
ILAR	**Eielson Array**	**91.37**	**12**	P	**P**	**22 21 06.0**	**-1.1**
	0.7nm,0.9s,baz=226,slow=4.9,SNR=5.7						
	0.7nm,0.9s						
CMAR	**Chiang Mai Arr**	**92.12**	**289**	P	**P**	**22 21 11.9**	**+0.2**
	0.7nm,0.4s,baz=136,slow=3.6,SNR=8.2						
	0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**117.13**	**316**	PKP	**PKPdf**	**22 26 43.4**	**-2.6**
	0.7nm,0.8s,baz=106,slow=1.6,SNR=6.7						
BVAR	**Borovoye Array**	**122.24**	**319**	PKP	**PKPdf**	**22 26 54.5**	**-1.3**
	1.3nm,0.6s,baz=119,slow=1.9,SNR=6.9						
FINES	**FINESS Array B**	**139.25**	**343**	PKhKP	PKPpre	22 27 20.1	
	2.2nm,0.8s,baz=106,slow=6.2,SNR=3.4						
FINES				PKP	**PKPdf**	**22 27 28.1**	**+0.5**
	2.2nm,0.8s,baz=46,slow=5.5,SNR=4						
HFS	**Hagfors**	**142.99**	**351**	PKhKP	PKPpre	22 27 30.6	
	0.8nm,0.5s,baz=80,slow=7.9,SNR=7.0						
SUW	**Suwalki**	**146.30**	**338**	*eP*	**PKPab**	**22 27 42.2**	**-0.4**
AKASG	**Malin Array Be**	**146.39**	**330**	PKPbc	**PKPdf**	**22 27 40.8**	**+0.2**
	10nm,0.6s,baz=42,slow=4.4,SNR=54						
KMPD	**K-Podol'skiy**	**149.17**	**329**	PKP	**PKPbc**	**22 27 48.9**	**-0.6**
BRTR	**Keskin Array B**	**149.74**	**309**	PKPbc	**PKPbc**	**22 27 50.5**	**-1.0**
	1.5nm,0.7s,baz=158,slow=5.2,SNR=8.4						
MMAI	**Mount Meron Ar**	**150.20**	**295**	PKPbc	**PKPbc**	**22 27 52.7**	**0.0**
	5.7nm,0.7s,baz=46,slow=8.7,SNR=6.8						
OJC	**Ojcow**	**150.62**	**338**	*eP*	**PKPbc**	**22 27 52.8**	**-0.2**
NIE	**Niedzica**	**151.11**	**336**	*eP*	**PKPbc**	**22 27 53.7**	**-0.6**
KSP	**Ksiaz**	**151.16

OFUJ Ofunato 0.69 50 A A 22 21 02.7
comp=N,27nm,0.5s,comp=E,25nm,1.1s
JMM Marumori 0.78 191 *i* P **Pn** **22 21 03.0 +0.5**
JMM A A 22 21 03.0
comp=N,9.0nm,0.4s,comp=E,15nm,1.3s
JMM S **Sn** **22 21 16.4 +0.6**
JRG Rokugo 0.81 340 *i* P **Pn** **22 21 03.8 +1.1**
JRG A A 22 21 03.8
comp=N,24nm,0.5s,comp=E,20nm,0.6s
JRG S **Sn** **22 21 18.0 +1.8**
JYS Shirataka 0.83 240 *i* P **Pn** **22 21 03.7 +0.7**
JYS A A 22 21 03.7
comp=N,15nm,1.9s,comp=E,24nm,0.8s
JYS S **Sn** **22 21 17.3 +0.7**
JOM Ohasama 0.87 16⇓*i* P **Pn** **22 21 04.6 +1.2**
JOM A A 22 21 04.6
comp=N,64nm,0.3s,comp=E,66nm,0.3s
JOM ⇓S **Sn** **22 21 18.4 +1.0**
JMST Minamisoumatoc 0.91 185 A A 22 21 04.6
comp=N,27nm,0.6s,comp=E,27nm,0.4s
JYAR Yonezawaarcadi 0.98 223 A A 22 21 05.3
comp=N,35nm,1.2s,comp=E,17nm,1.0s
JYA Atsumi 0.99 268 *i* P **Pn** **22 21 05.4 +0.7**
JYA A A 22 21 05.4
comp=N,23nm,1.0s,comp=E,36nm,1.1s
JYA S **Sn** **22 21 20.4 +0.7**
JYW Yuwa 1.09 327 A A 22 21 06.7
comp=N,24nm,0.9s,comp=E,22nm,0.9s
JSZI Iwateshizukuis 1.10 359 A A 22 21 07.0
comp=N,13nm,1.5s,comp=E,18nm,1.6s
MIYJ Miyakonagasawa 1.14 34 A A 22 21 07.5
comp=N,7.0nm,0.3s,comp=E,12nm,1.8s
JOTO OTAMA OYAMA 1.19 206 *i* P **Pn** **22 21 08.1 +1.1**
JOTO A A 22 21 08.1
comp=N,20nm,1.4s,comp=E,13nm,0.7s
JOTO S **Sn** **22 21 25.1 +1.4**
JFK Kawauchi 1.27 184 *i* P **Pn** **22 21 08.6 +0.7**
JFK A A 22 21 08.6
comp=N,7.0nm,0.4s,comp=E,5.0nm,3.2s
JFK S **Sn** **22 21 26.0 +0.6**
JAW Awa shima 1.37 263 P **Pn** **22 21 09.9 +0.8**
JAW S **Sn** **22 21 28.3 +0.8**
JTH Tanohata 1.47 27 A A 22 21 11.6
comp=N,7.0nm,1.2s,comp=E,7.0nm,1.7s
ONAJ Iwakimizuishiy 1.54 186 A A 22 21 12.2
comp=N,11nm,4.1s,comp=E,13nm,0.3s
JNS Sasagawa 1.54 239 *i* P **Pn** **22 21 12.1 +0.8**
JNS A A 22 21 12.1
comp=N,6.0nm,1.7s,comp=E,7.0nm,2.1s
JNS S **Sn** **22 21 31.7 +0.3**
JAH Hinai 1.57 350 *i* P **Pn** **22 21 13.3 +1.7**
JAH S **Sn** **22 21 34.4 +2.4**
JKEN Kujiedanarisaw 1.67 20 A A 22 21 14.1
comp=N,12nm,0.7s,comp=E,10.0nm,0.2s
JTM Tenmabayashi 2.15 2 P **Pn** **22 21 20.3 +1.2**
JTM Sn **Sn** **22 21 42.5 -2.7**
JTM Tenmabayashi 2.15 2 P **Pn** **22 21 21.5 +2.4**
MJAR Matsushiro Arr 3.04 227 P **Pn** **22 21 31.5 +0.5**
comp=E,126nm,0.5s,baz=34,slow=13,SNR=521
MJAR LR LR 22 22 34.3
comp=E,114nm,20.9s,baz=70,slow=37
MAJO Matsushiro 3.04 227*d i* P **Pn** **22 21 32.5 +1.6**
MAJO Matsushiro 3.04 227 Pn **Pn** **22 21 32.2 +1.3**
MAJO Matsushiro 3.04 227 P **Pn** **22 21 32.6 +1.6**
ERM Erimo 3.76 26*ce* P **Pn** **22 21 40.9 +0.3**
ERM Erimo 3.76 26 P **Pn** **22 21 40.4 -0.2**
JGF Kuroka 4.19 225 P **Pn** **22 21 47.5 +0.9**
JGF Kuroka 4.19 225 P **Pn** **22 21 48.8 +2.3**
JSG Sagara 4.55 210 Pn **Pn** **22 21 52.3 +1.0**
INU Inuyama 4.56 225 **Pn** **22 21 52.6 +1.1**
INU Inuyama 4.56 225 P **Pn** **22 21 53.7 +2.2**
JHJ Hachijo jima 2 5.59 190 P **Pn** **22 22 04.2 -1.2**
comp=E,14nm,0.3s,baz=54,slow=19,SNR=7.0
JHJ S **Sn** **22 23 04.7 -3.7**
comp=E,21nm,0.3s,baz=45,slow=24,SNR=4.9
JHJ2 Mitsune 5.59 190 Pn **Pn** **22 22 04.0 -1.5**
ASAJ Asahikawa 5.61 12 P **Pn** **22 22 05.6 0.0**
comp=E,11nm,0.4s,baz=197,slow=15,SNR=22
ASAJ S **Sn** **22 23 07.3 -1.3**
comp=E,29nm,0.6s,baz=8.1,slow=5.3,SNR=3.5
JKA Kamikawa-asahi 5.61 12 Pn **Pn** **22 22 05.2 -0.5**
JKA **Sn** **22 23 06.5 -2.2**
NMR Nemuro--Hokkai 5.94 36 *e* P **Pn** **22 22 07.9 -2.2**
NMR *e* S **Sn** **22 23 10.2 -6.4**
RUSJ Misakicho 6.33 29 *e* P **Pn** **22 22 15.7 +0.2**
RUSJ *e* S **Sn** **22 23 24.0 -2.3**
YUK Yuzh-Kuril'sk 6.52 33 *e* P **Pn** **22 22 17.5 -0.6**
YUK *e* S **Sn** **22 23 25.8 -5.1**
YUK smax smax
comp=Z,328nm,0.2s
YUK smax smax
comp=N,45nm,0.1s
YUK smax smax
comp=E,15nm,0.1s
YUK smax smax
comp=N,761nm,0.4s
YUK smax smax
comp=E,1μm,0.4s
TEY Ternei 7.18 334 *e* P Pn 22 22 16.9 -10
JMN Monobe 7.55 232 Pn **Pn** **22 22 31.6 -0.6**
JMN Monobe 7.55 232 P **Pn** **22 22 32.6 +0.5**
comp=Z,43nm,2.3s
KUR Kuril'sk 8.35 36 *e* P **Pn** **22 22 42.0 -0.9**
KUR *e* S **Sn** **22 24 09.4 -6.0**
KUR smax smax
comp=Z,135nm,0.6s
KUR smax smax
comp=N,19nm,0.3s
KUR smax smax
comp=E,38nm,0.4s
KUR smax smax
comp=N,173nm,0.6s
KUR smax smax
comp=E,90nm,0.4s
YSS Yuzhno-Sakhali 8.41 8 *e* P **Pn** **22 22 44.7 +1.0**
YSS smax smax
comp=Z,30nm,0.8s
YSS Yuzhno-Sakhali 8.41 8 P **Pn** **22 22 44.8 +1.0**
comp=Z,45nm,1.0s
USA0B Ussuriysk Arra 8.75 312*de* P **Pn** **22 22 50.5 +2.2**
USA0B Ussuriysk Arra 8.75 312 Pn **Pn** **22 22 50.0 +1.7**
USRK Ussuriysk Ar. 8.75 312 P **Pn** **22 22 49.4 +1.1**
comp=Z,39nm,0.6s,baz=118,slow=14,SNR=118
JNU Nakatsue 9.87 239 P **Pn** **22 23 04.2 +0.4**
comp=Z,6.2nm,0.5s,baz=28,slow=1.6,SNR=7.7
JNU LR LR 22 27 36.2
comp=Z,50nm,18.7s,baz=52,slow=42
KSRS Korea Array 10.37 268 P **Pn** **22 23 11.8 +1.3**
comp=Z,14nm,0.5s,baz=81,slow=14,SNR=29
KSAR Wonju Array Be 10.40 267 P **Pn** **22 23 13.3 +2.4**
KSAR Wonju Array Be 10.40 267 Pn **Pn** **22 23 13.3 +2.4**
KS19 Wonju Array Si 10.40 268 Pn **Pn** **22 23 12.8 +1.8**
JCJ Chichijima 11.55 175 P Pn 22 23 19.3 -7.2
comp=Z,21nm,0.3s,baz=66,slow=20,SNR=5.9
JCJ S Sn 22 25 17.8 -16
comp=Z,56nm,0.8s,baz=243,slow=22,SNR=2.2
BNX BinXian 12.31 310 ⇓P **Pn** **22 23 36.8 +0.2**
BNX smax smax
comp=Z,13nm,1.2s
KLR Kul'dur 12.50 331 P **Pn** **22 23 38.0 -1.0**
comp=Z,1.4nm,0.5s,baz=141,slow=4.9,SNR=7.9
KLR LR LR 22 28 20.8
comp=Z,35nm,18.4s,baz=146,slow=37
KLR Kul'dur 12.50 331⇓*e* P **Pn** **22 23 42.0 +3.0**
DL2 Dalian 15.10 277 P **P** **22 24 15.4 -0.5**
DL2 sP **sP** **22 24 42.4 -3.2**
DL2 *e* S **S** **22 27 07.3 -3.3**
DL2 smax smax
comp=Z,85nm,0.8s
DL2 smax smax
comp=Z,390nm,5.2s
JOW Kunigami 15.88 226 P **Pn** **22 24 23.4 +0.5**
JOW IAmb IAmb 22 24 24.6
comp=Z,48nm,1.1s
PEA0B Petropavlovsk- 18.50 33 P **P** **22 24 53.6 +0.2**
PEA0B smax smax
comp=Z,19nm,1.1s
PEA0B Petropavlovsk- 18.50 33 P **P** **22 24 53.6 +0.2**
PETK Petropavlovsk- 18.50 33 P **P** **22 24 53.3 0.0**
comp=Z,2.7nm,0.7s,baz=174,slow=1.3,SNR=5.1
PETK LR LR 22 31 46.0
comp=Z,24nm,20.6s,baz=233,slow=36
HILR Hailar Array B 18.69 313 P **P** **22 24 52.9 -2.6**
comp=Z,14nm,0.6s,baz=114,slow=13,SNR=15
PET Petropavlovsk 18.86 35 P **P** **22 24 57.3 +0.1**
comp=Z,26nm,1.3s
TIA Tai'an 19.09 270 P **P** **22 24 58.0 -2.0**
TIA pmax pmax
comp=Z,21nm,1.0s
BJT Baijiatuau 19.23 282 P **P** **22 24 59.7 -1.8**
BJT pmax pmax
comp=Z,17nm,0.6s
BJT Baijiatuau 19.23 282 **P** **22 24 59.7 -1.8**
BJT IAmb IAmb 22 25 12.7
comp=Z,17nm,0.6s
BJT Baijiatuau 19.23 282 P **P** **22 24 59.6 -1.8**
comp=Z,26nm,0.7s
XLT XiLinHaoTe 19.41 294 *e* P **P** **22 25 01.3 -2.1**
XLT pmax pmax
comp=Z,19nm,0.7s
YHNB Yeheng 21.67 236 P **P** **22 25 25.4 -2.5**
comp=Z,48nm,2.4s
MA2 Magadan 21.87 13 P **P** **22 25 28.8 -0.7**
comp=Z,10nm,0.5s,baz=189,slow=9.5,SNR=7.4
MA2 LR LR 22 35 43.0
comp=Z,22nm,18.1s,baz=170,slow=41
comp=Z,10nm,0.5s
MA2 Magadan 21.87 13 P **P** **22 25 31.1 +1.5**
MA2 pmax pmax
comp=Z,14nm,1.0s
MA2 Magadan 21.87 13 P **P** **22 25 31.1 +1.5**
NACB Ninganchiao 21.88 234 P **P** **22 25 25.8 -4.2**
NACB IAmb IAmb 22 25 36.4
comp=Z,25nm,0.9s
NACB Ninganchiao 21.88 234 P **P** **22 25 26.1 -3.9**
comp=Z,36nm,1.0s
SSLB Suanglung 22.57 235 **P** **22 25 34.3 -3.0**
SSLB IAmb IAmb 22 25 49.1
comp=Z,20nm,0.9s
SSLB Suanglung 22.57 235 P **P** **22 25 33.5 -3.8**
comp=Z,28nm,1.1s
YULB Yu-li 22.63 234 P **P** **22 25 33.6 -4.4**
YULB IAmb IAmb 22 25 41.8
comp=Z,24nm,1.1s
YULB Yu-li 22.63 234 P **P** **22 25 33.6 -4.4**
comp=Z,23nm,1.0s
TPUB Ta-pu 23.12 235 P **P** **22 25 38.4 -4.4**
comp=Z,40nm,1.2s
TWG Pinlang 23.19 233 P **P** **22 25 43.4 0.0**
TWG Pinlang 23.19 233 P **P** **22 25 43.0 -0.4**
comp=Z,54nm,0.7s
LYN LuoYang 23.21 269 P **P** **22 25 41.1 -2.4**
LYN pmax pmax
comp=Z,31nm,0.9s
YAK Yakutsk 24.43 347⇓*e* P **P** **22 25 53.4 -0.8**
YAK pmax pmax
comp=Z,7.0nm,0.6s
SEY Seymchan 25.29 12⇓*i* P **P** **22 26 03.4 +1.3**
SEY pmax pmax
comp=Z,10.0nm,1.0s
ULN Ulaanbaatar 26.20 302*ce* P **P** **22 26 10.4 -0.2**
ULN pmax pmax
comp=Z,4.0nm,0.7s
ULN Ulaanbaatar 26.20 302 **P** **22 26 10.0 -0.6**
ULN Ulaanbaatar 26.20 302 P **P** **22 26 10.8 +0.1**
comp=Z,6.3nm,0.8s
SONM Songino Array 26.63 301 P **P** **22 26 13.4 -1.1**
comp=Z,5.1nm,0.7s,baz=104,slow=9.6,SNR=30
comp=Z,5.1nm,0.7s
SHEM Shemya Is, Ala 26.81 47 LR LR 22 37 35.5
comp=Z,12nm,20.8s,baz=287,slow=38
ENH Enshi 27.18 262 **P** **22 26 19.3 -0.2**
ENH Enshi 27.18 262 P **P** **22 26 18.4 -1.0**
comp=Z,111nm,0.7s
TLY Talaya 29.04 309 LR LR 22 37 21.9
comp=Z,19nm,19.5s,baz=90,slow=34
H11N2 WAKE ISLAND Hy 29.28 123 T T 22 57 07.7
baz=316,slow=75,SNR=1655
H11N1 WAKE ISLAND Hy 29.29 123 T T 22 57 05.2
baz=316,slow=75,SNR=1394
H11N3 WAKE ISLAND Hy 29.30 123 T T 22 57 08.9
baz=316,slow=75,SNR=1604
LZH Lanzhou 29.50 277 *e* P **P** **22 26 41.4 +1.2**
LZH sP pP 22 26 50.3 -11
LZH pmax pmax
comp=Z,44nm,1.3s
LZDM Lanzhou Array 29.65 277 P **P** **22 26 39.8 -2.0**
comp=Z,14nm,0.8s,baz=74,slow=5.4,SNR=4.2
comp=Z,14nm,0.8s
H11S1 WAKE ISLAND Hy 30.03 125 T T 22 58 06.0
baz=318,slow=76,SNR=192
H11S3 WAKE ISLAND Hy 30.03 125 T T 22 58 00.3
baz=318,slow=76,SNR=372
H11S2 WAKE ISLAND Hy 30.05 125 T T 22 58 03.5
baz=318,slow=76,SNR=230
GTA2 Gaotai 31.82 285 *e* P **P** **22 26 59.0 -1.6**
GTA2 pP pP 22 27 01.8 -20
GTA2 pmax pmax
comp=Z,2.0nm,0.7s
BILL Bilibino 32.59 17⇑*i* P **P** **22 27 07.1 +0.3**
BILL pmax pmax
comp=Z,14nm,2.0s
SLVN Son La 36.16 252 P **P** **22 27 39.2 +1.1**
comp=Z,6.1nm,0.8s
ZALV Zalesovo Beam 40.60 311 P **P** **22 28 14.7 -0.3**
comp=Z,7.6nm,0.6s,baz=84,slow=7.2,SNR=33
ZALV pP **pP** **22 28 37.0 -0.1**
comp=Z,3.2nm,0.6s,baz=86,slow=7.9,SNR=3.6
comp=Z,7.6nm,0.6s
CHTO Chiang Mai 41.38 254 P **P** **22 28 24.0 +2.2**
CHTO pmax pmax
comp=Z,12nm,0.6s
CHTO Chiang Mai 41.38 254 **P** **22 28 24.0 +2.2**
CHTO Chiang Mai 41.38 254 P **P** **22 28 21.2 -0.6**
comp=Z,18nm,0.7s
N14K Kuskokwak Cree 41.40 40 P **P** **22 28 22.3 +0.9**
CMAR Chiang Mai Arr 41.60 253 P **P** **22 28 22.9 -0.6**
comp=Z,0.8nm,0.4s,baz=46,slow=6.8,SNR=6.9
comp=Z,0.8nm,0.4s
CMAR Chiang Mai Arr 41.60 253 P **P** **22 28 23.0 -0.6**
NRIK Noril'sk 41.67 335 P **P** **22 28 23.4 -0.1**
comp=Z,1.8nm,0.4s,baz=2.1,slow=3.5,SNR=4.1
comp=Z,1.8nm,0.4s
NRIK Noril'sk 41.67 335⇓*e* P **P** **22 28 24.9 +1.4**
NRIK pmax pmax
comp=Z,17nm,3.7s
NRIK Noril'sk 41.67 335 P **P** **22 28 23.4 -0.1**
SANI Sanana 42.78 202 P **P** **22 28 32.5 -0.6**
comp=Z,8.2nm,0.9s
NPW Naypyitaw 42.94 257 P **P** **22 28 34.4 0.0**
comp=Z,26nm,0.9s
MK31 Makanchi Array 42.99 301*d i* P **P** **22 28 34.2 -0.4**
MKAR Makanchi Array 42.99 301 P **P** **22 28 34.4 -0.2**
comp=Z,7.3nm,0.8s,baz=82,slow=9.9,SNR=64
comp=Z,7.3nm,0.6s
MKAR Makanchi Array 42.99 301 **P** **22 28 34.5 -0.1**
SHL Shillong 43.11 267 IAmb IAmb 22 28 38.0
comp=Z,15nm,1.0s
E19K Redstone River 44.23 29 P **P** **22 28 45.8 +1.6**
E19K IAmb IAmb 22 28 48.5
comp=Z,6.8nm,0.8s
CHIR Chirikof Islan 44.66 46 P **P** **22 28 47.4 -0.3**
KURK Kurchatov 44.69 307*d i* P **P** **22 28 47.5 -0.5**
KURK pmax pmax
comp=Z,36nm,0.9s
KURK Kurchatov 44.69 307 **P** **22 28 47.6 -0.5**
KURK Kurchatov 44.69 307 P **P** **22 28 47.7 -0.3**
comp=Z,40nm,0.9s
KURBB Kurchatov Arra 44.76 307 P **P** **22 28 48.1 -0.5**
comp=Z,26nm,0.5s,baz=79,slow=8.0,SNR=325
KURBB pP **pP** **22 29 09.8 -1.3**
comp=Z,8.5nm,0.8s,baz=82,slow=8.0,SNR=4.2
comp=Z,26nm,0.5s
F20K Avaraart Lake 44.76 30 P **P** **22 28 49.4 +1.0**
L19K White Mountain 44.83 37 P **P** **22 28 49.9 +0.8**
PDGK Podgornoye 45.74 296 P **P** **22 28 56.3 -0.4**
PDGK Podgornoye 45.74 296 **P** **22 28 56.3 -0.4**
H21K Melozitna Rive 45.83 32 P **P** **22 28 58.0 +1.2**
EVN Everest 45.93 273 **P** **22 28 59.0 +0.1**
EVN Everest 45.93 273 P **P** **22 28 59.4 +0.5**
comp=Z,25nm,0.6s
D22K Ayikyak River 46.09 27 P **P** **22 29 00.4 +1.5**
CAST Castle Rocks 46.10 35 **P** **22 29 01.0 +1.9**
KDAK Kodiak Island 46.15 43 P **P** **22 28 59.9 +0.5**
KDAK pmax pmax
comp=Z,36nm,1.2s
KDAK Kodiak Island 46.15 43 P **P** **22 28 59.9 +0.5**
SPU Mount Spurr 46.18 38 P **P** **22 29 01.3 +1.5**
WUS Wushi 46.56 294 P **P** **22 29 03.5 +0.4**
comp=Z,16nm,0.9s
E23K Chandalar 47.17 29 **P** **22 29 09.2 +1.7**
E23K IAmb IAmb 22 29 10.0
comp=Z,16nm,1.1s
TOLK Toolik Lake Re 47.21 28 P **P** **22 29 09.0 +1.4**
TARG Taragay, Kyrgy 47.40 295 P **P** **22 29 10.2 +0.2**
comp=Z,16nm,0.8s
MCK McKinley 47.50 35 P **P** **22 29 10.9 +1.0**
MCK pmax pmax
comp=Z,3.0nm,1.0s
MCK McKinley 47.50 35 P **P** **22 29 10.9 +1.0**
E24K Your Creek 47.60 29 P **P** **22 29 12.5 +1.8**
E24K IAmb IAmb 22 29 12.9
comp=Z,6.2nm,0.8s
GHO Glory Hole Cre 47.64 37 P **P** **22 29 12.0 +0.9**
GHO IAmb IAmb 22 29 28.1
comp=Z,12nm,1.2s
KDJ Kajisay 47.72 296 P **P** **22 29 12.1 -0.1**
KDJ pmax pmax
comp=Z,9.0nm,0.6s
KDJ Kajisay 47.72 296 P **P** **22 29 12.1 -0.1**
KDJ IAmb IAmb 22 29 12.9
comp=Z,8.6nm,0.6s
F24K Squaw Lake 47.83 29 P **P** **22 29 13.8 +1.3**
F24K PcP **PcP** **22 30 40.3 +0.6**
H24K Noodor Dome 47.86 32 P **P** **22 29 14.6 +1.8**
KNK Knik Glacier 47.89 38 P **P** **22 29 13.4 +0.4**
POKR Poker Plat Res 48.08 33 P **P** **22 29 16.0 +1.6**
POKR IAmb IAmb 22 29 17.0
comp=Z,16nm,1.1s
DHY Denali Highway 48.25 35 P **P** **22 29 16.6 +0.7**
IL31 48.33 33 P **P** **22 29 17.1 +0.8**
IL31 IAmb IAmb 22 29 17.6
comp=Z,5.2nm,0.7s
ILAR Eielson Array 48.33 33 P **P** **22 29 16.9 +0.6**
comp=Z,3.4nm,0.6s,baz=268,slow=5.9,SNR=51
ILAR pP **pP** **22 29 39.9 +0.9**
comp=Z,1.6nm,0.7s,baz=264,slow=6.3,SNR=4.8
comp=Z,3.4nm,0.6s
D25K Kavik River 48.38 27 IAmb IAmb 22 29 18.7
comp=Z,5.2nm,0.8s
SCM Sheep Creek Mo 48.39 37 P **P** **22 29 17.5 +0.6**
SCM pmax pmax
comp=Z,16nm,1.2s
SCM Sheep Creek Mo 48.39 37 P **P** **22 29 17.5 +0.6**
SCM IAmb IAmb 22 29 27.9
comp=Z,16nm,1.2s
ASAI AK-SAY(Kyrgyzs 48.58 294 P **P** **22 29 19.4 +0.4**
comp=Z,9.6nm,1.1s
F25K Christian Rive 48.68 29 P **P** **22 29 20.2 +1.1**
F25K IAmb IAmb 22 29 21.7
comp=Z,3.9nm,0.6s
NRN Naryn 48.78 295 P **P** **22 29 20.6 +0.1**
NRN pmax pmax
comp=Z,3.0nm,0.7s
NRN Naryn 48.78 295 **P** **22 29 20.6 +0.1**
C26K Camden Bay 48.88 26 **P** **22 29 21.7 +1.2**
C26K IAmb IAmb 22 29 23.6
comp=Z,8.5nm,1.0s
F26K Sheenjek River 49.25 29 P **P** **22 29 25.7 +2.3**
BVAR Borovoye Array 49.25 311 P **P** **22 29 23.3 -0.2**
comp=Z,5.7nm,0.7s,baz=71,slow=8.1,SNR=23
comp=Z,5.7nm,0.7s
BORK Borovoye 49.29 311 P **P** **22 29 23.6 -0.2**
BORK pmax pmax
comp=Z,6.0nm,0.9s
BORK Borovoye 49.29 311 **P** **22 29 23.6 -0.2**
BORK IAmb IAmb 22 29 27.4
comp=Z,5.5nm,0.8s
C27K Jago River 49.31 27 IAmb IAmb 22 29 25.9
comp=Z,4.7nm,0.6s
KULM Kulim 49.35 238 P **P** **22 29 24.3 -0.4**
KULM IAmb IAmb 22 29 24.7
comp=Z,8.5nm,1.1s
AAK Ala-Archa 49.44 297 LR LR 22 51 51.5
comp=Z,23nm,18.7s,baz=64,slow=38
AAK Ala-Archa 49.44 297 P **P** **22 29 25.2 -0.2**
AAK pmax pmax
comp=Z,5.0nm,0.4s
AAK Ala-Archa 49.44 297 **P** **22 29 25.2 -0.2**
AAK IAmb IAmb 22 29 25.5
comp=Z,4.8nm,0.4s
AAK Ala-Archa 49.44 297 P **P** **22 29 25.3 0.0**
comp=Z,6.2nm,0.8s
SCRK Sand Creek 49.66 34 **P** **22 29 27.5 +0.9**
KSH2 Kashi 49.89 292 P **P** **22 29 29.3 +0.6**
KSH2 pmax pmax
comp=Z,6.0nm,0.8s
E27K Coleen River 50.17 28 P **P** **22 29 32.2 +1.9**
E27K IAmb IAmb 22 29 32.6
comp=Z,3.2nm,0.7s
D27M Malcolm River 50.30 27 P **P** **22 29 32.8 +1.5**
F28M Old Crow 50.88 29 IAmb IAmb 22 29 38.5
comp=Z,3.1nm,0.7s
F28M PcP **PcP** **22 30 51.2 +0.4**
I28M Miner Creek 51.18 32 **P** **22 29 39.6 +1.6**
I28M IAmb IAmb 22 29 40.1
comp=Z,4.0nm,0.6s
KK31 Karatay Array 52.04 299 P **P** **22 29 44.3 -0.4**
KK31 pmax pmax
comp=Z,4.0nm,1.0s
KK31 Karatay Array 52.04 299 **P** **22 29 44.3 -0.4**
KKAR Karatay Array 52.04 299 P **P** **22 29 44.3 -0.4**
KKAR Karatay Array 52.04 299 **P** **22 29 44.2 -0.4**
G30M tAoh Zraii Nji 52.39 30 IAmb IAmb 22 29 50.4
comp=Z,4.5nm,0.9s
M29M Somme Creek 52.39 35 IAmb IAmb 22 29 50.3
comp=Z,6.4nm,1.1s
L29M L29M 52.40 35 IAmb IAmb 22 29 51.1
comp=Z,11nm,0.9s
DRK Karamyk 52.47 294 P **P** **22 29 48.7 +0.4**
comp=Z,7.8nm,0.4s
K29M Barlow Dome 52.50 34 P **P** **22 29 49.8 +1.9**
BTK Batken 52.95 295 P **P** **22 29 52.1 +0.7**
comp=Z,7.4nm,0.9s
INK Inuvik 53.12 28 P **P** **22 29 53.2 +1.1**
comp=Z,15nm,0.9s
HYT Haines Junctio 53.22 37 **P** **22 29 55.3 +2.1**
H31M Peel River 53.38 31 IAmb IAmb 22 29 56.7
comp=Z,13nm,1.1s
NIL Nilore 53.81 287 P **P** **22 29 58.5 +0.7**
NIL pmax pmax
comp=Z,15nm,0.7s
NIL Nilore 53.81 287 **P** **22 29 58.5 +0.7**
NIL Nilore 53.81 287 P **P** **22 29 58.3 +0.5**
comp=Z,24nm,0.7s
ARTI Arti 55.05 318 LR LR 22 53 41.7
comp=Z,19nm,19.9s,baz=27,slow=36
ARTI Arti 55.05 318 P **P** **22 30 06.1 -0.3**
ARTI pmax pmax
comp=Z,37nm,0.3s
ARTI Arti 55.05 318 **P** **22 30 06.1 -0.3**
KNRA Kununurra 55.23 194 P **P** **22 30 07.8 -0.2**
P33M Teslin, Yukon 55.62 37 P **P** **22 30 12.4 +1.8**
P33M IAmb IAmb 22 30 13.5
comp=Z,7.7nm,1.0s
C36M Paulatuk 56.12 25 **P** **22 30 14.5 +0.7**
KBL Kabul 56.54 290 P **P** **22 30 17.0 -0.6**
comp=Z,7.7nm,0.9s
AB31 Akbulak array 56.66 309 IAmb IAmb 22 30 17.9
comp=Z,5.0nm,0.6s
ABKAR Akbulak array 56.66 309 **P** **22 30 17.2 -0.7**
WB0 Warramunga Arr 58.42 187 P **P** **22 30 30.2 -0.4**
WRAB Tennant Creek 58.59 187 P **P** **22 30 31.2 -0.5**
WRAB pmax pmax
comp=Z,7.0nm,1.1s
WRAB Tennant Creek 58.59 187 P **P** **22 30 31.2 -0.5**
WRAB IAmb IAmb 22 30 32.3
comp=Z,7.5nm,1.1s
WR8 Warramunga Arr 58.60 187 P **P** **22 30 31.4 -0.4**
WRA Warramunga Arr 58.60 187 P **P** **22 30 31.3 -0.5**
comp=Z,5.0nm,0.5s,baz=3.8,slow=7.4,SNR=90
comp=Z,5.0nm,0.5s
KIRV Kirov 58.77 322⇓*e* P **P** **22 30 32.4 -0.2**
SPITS Spitsbergen Ar 58.89 349 P **P** **22 30 33.0 -0.2**
comp=Z,6.4nm,0.8s,baz=73,slow=20,SNR=4.3
comp=Z,6.4nm,0.8s
SPITS Spitsbergen Ar 58.89 349 P **P** **22 30 33.0 -0.2**
RES Resolute Bay 61.14 15 P **P** **22 30 48.5 0.0**
comp=Z,5.8nm,0.8s
AS31 Alice Springs 62.33 187 **P** **22 30 57.1 -0.1**
ASAR Alice Springs 62.33 187 P **P** **22 30 57.0 -0.1**
comp=Z,2.9nm,0.6s,baz=3.3,slow=4.6,SNR=47
comp=Z,2.9nm,0.6s
ARCES ARCESS Array B 62.38 339 P **P** **22 30 56.7 -0.3**
comp=Z,5.7nm,1.0s,baz=44,slow=7.4,SNR=5.2
ARCES LR LR 23 00 35.2
comp=Z,23nm,18.1s,baz=333,slow=38

comp=Z,5.7nm,1.0s
BELG Belogornoye 62.40 316 ⇓*e*P **P** **22 30 57.4 +0.1**
BELG pmax pmax
comp=Z,10.0nm,4.6s
YKA Yellowknife Ar 62.60 30 P **P** **22 30 58.9 +0.4**
comp=Z,2.1nm,0.6s,baz=303,slow=6.3,SNR=16
comp=Z,2.1nm,0.6s
DAG Danmarks Havn 64.15 355 P **P** **22 31 08.3 -0.2**
comp=Z,7.4nm,2.0s
QLP Quilpie 64.95 177 P **P** **22 31 14.6 +0.3**
comp=Z,20nm,1.6s
OBN Obninsk 66.61 323 *e*P **P** **22 31 24.8 +0.1**
OBN *e**PP **pP** **22 31 49.6 +0.8**
OBN *e* 22 31 54.6
OBN *e**SP **sP** **22 32 01.2 +1.9**
OBN pmax pmax
comp=Z,5.0nm,0.9s
OBN MLR MLR
comp=Z,32nm,6.0s
FINES FINESS Array B 67.24 332 P **P** **22 31 28.6 -0.1**
comp=Z,3.6nm,0.9s,baz=95,slow=4.2,SNR=7.7
comp=Z,3.6nm,0.9s
JRO Jston Ridge Ob 67.44 48 P **P** **22 31 32.6 +2.2**
C09A Chrisman Ranch 68.85 45 IAmb IAmb 22 31 40.7
comp=Z,8.0nm,0.6s
SUMG Summit 69.08 360 P **P** **22 31 41.4 +0.9**
NEW Newport 69.22 44 P **P** **22 31 42.6 +1.3**
NEW pmax pmax
comp=Z,5.0nm,0.7s
NEW Newport 69.22 44 P **P** **22 31 42.6 +1.3**
NEW IAmb IAmb 22 31 43.3
comp=Z,5.0nm,0.7s
NEW Newport 69.22 44 P **P** **22 31 42.5 +1.2**
comp=Z,9.1nm,1.1s
PINE Pine Mountain 69.57 50 P **P** **22 31 45.2 +1.5**
PINE IAmb IAmb 22 31 46.8
comp=Z,9.1nm,0.7s
KBZ Khabaz 69.61 310 P **P** **22 31 43.8 +0.1**
comp=Z,1.2nm,0.5s,baz=266,slow=3.7,SNR=4.0
comp=Z,1.2nm,0.5s
L04D Klamath Falls 69.62 52 **P** **22 31 45.5 +1.5**
L04D IAmb IAmb 22 31 46.7
comp=Z,12nm,0.9s
STKA Stephens Creek 70.16 179 P **P** **22 31 47.1 +0.1**
comp=Z,1.6nm,0.7s,baz=351,slow=7.2,SNR=3.9
comp=Z,1.6nm,0.7s
STKA Stephens Creek 70.16 179 P **P** **22 31 47.1 +0.1**
STKA pmax pmax
comp=Z,9.0nm,0.8s
STKA Stephens Creek 70.16 179 IAmb IAmb 22 31 48.1
comp=Z,9.4nm,0.8s
K05A Summer Lake 70.20 51 IAmb IAmb 22 31 50.7
comp=Z,9.2nm,0.8s
MNK Minsk 70.98 325 *i* P **P** **22 31 51.5 -0.3**
MNK *i* 22 34 30.4
MNK *i* PPP PPP 22 36 12.7
MNK *i* S **S** **22 41 00.5 +0.6**
MNK *i* SS **SS** **22 45 37.4 +3.8**
MNK pmax pmax
comp=E,24nm,1.2s
MNK pmax pmax
comp=Z,5.0nm,0.9s
MNK pmax pmax
comp=N,16nm,1.2s
MNK MLR MLR
comp=N,93nm,19.0s
MNK MLR MLR
comp=Z,22nm,6.0s
MNK Minsk 70.98 325 *i* P **P** **22 31 51.5 -0.3**
comp=E,24nm,1.2s
MNK *i* P **P** **22 31 51.5 -0.3**
comp=N,16nm,1.2s
MNK *i* P **P** **22 31 51.5 -0.3**
comp=Z,5.0nm,0.9s,baz=49
MNK *i* PP **PP** **22 34 30.4 +0.7**
MNK *i* PPP PPP 22 36 12.7
MNK *i* S **S** **22 41 00.6 +0.6**
MNK *i* SS **SS** **22 45 37.5 +3.8**
MNK *i* LQ LQ 00 28 42.1
O03E Paynes Creek 71.01 53 P **P** **22 31 53.7 +1.2**
O03E IAmb IAmb 22 31 54.4
comp=Z,5.7nm,0.7s
BMO Blue Mountains 71.09 47 P **P** **22 31 54.0 +1.1**
BMO pmax pmax
comp=Z,3.0nm,0.7s
BMO Blue Mountains 71.09 47 P **P** **22 31 54.0 +1.1**
BBOO Buckleboo 71.23 184 P **P** **22 31 53.9 +0.4**
comp=Z,14nm,1.9s
WVOR Wild Horse Val 71.73 50 P **P** **22 31 58.1 +1.3**
comp=Z,5.6nm,2.2s
BEKR Beckworth 72.17 53 **P** **22 32 00.8 +1.3**
BEKR IAmb IAmb 22 32 01.7
comp=Z,6.7nm,0.7s
NC405 NORSAR Array S 72.37 337 P **P** **22 32 00.2 +0.1**
HFS Hagfors 72.49 335 P **P** **22 32 00.5 -0.3**
comp=Z,1.6nm,0.6s,baz=48,slow=6.6,SNR=8.3
comp=Z,1.6nm,0.6s
BLDU Ballidu 72.52 202 P **P** **22 31 59.0 -2.2**
NC204 NORSAR Array S 72.53 337 P **P** **22 32 01.2 +0.1**
NC204 IAmb IAmb 22 32 04.5
comp=Z,12nm,1.1s
FFC Flin Flon 72.54 33 P **P** **22 32 01.9 +0.6**
comp=Z,9.7nm,1.1s
NB2 NORSAR Subarra 72.58 337 P **P** **22 32 01.3 -0.1**
comp=Z,1.0nm,0.6s,baz=38,slow=6.2
NOA NORSAR Array B 72.58 337 P **P** **22 32 01.6 +0.3**
comp=Z,0.7nm,0.5s,baz=39,slow=6.1,SNR=6.2
NOA LR LR 23 06 38.2
comp=Z,6.0nm,19.5s,baz=250,slow=38
comp=Z,0.7nm,0.5s
AKASG Malin Array Be 72.83 322 P **P** **22 32 02.4 -0.6**
comp=Z,1.3nm,0.4s,baz=46,slow=5.8,SNR=11
AKASG pP **pP** **22 32 26.7 -0.7**
comp=Z,1.3nm,0.5s,baz=45,slow=6.4,SNR=2.6
comp=Z,1.3nm,0.4s
AKBB Malin Array Si 72.83 322⇑ *e*P **P** **22 32 02.9 -0.1**
AKBB pmax pmax
comp=Z,4.0nm,0.9s
PAHR Pah Rah Range 72.87 53 P **P** **22 32 04.8 +1.1**
CMB Columbia Colle 73.22 55 P **P** **22 32 06.9 +1.3**
CMB pmax pmax
comp=Z,4.0nm,0.8s
CMB Columbia Colle 73.22 55 **P** **22 32 06.9 +1.3**
EGMT Eagleton 73.30 41 **P** **22 32 06.9 +1.0**
EGMT IAmb IAmb 22 32 07.4
comp=Z,7.4nm,0.7s
DLMT Dillon 73.45 45 **P** **22 32 08.3 +1.4**
DLMT IAmb IAmb 22 32 09.2
comp=Z,8.9nm,0.7s
HLID Hailey 73.53 47 P **P** **22 32 09.0 +1.5**
comp=Z,3.8nm,1.0s
BOZ Bozeman (W) 73.83 44 IAmb IAmb 22 32 11.3
comp=Z,8.0nm,0.7s
KVN Kaiserville 74.06 53 P **P** **22 32 11.8 +1.1**
KVN pmax pmax
comp=Z,9.0nm,1.0s
KVN Kaiserville 74.06 53 **P** **22 32 11.8 +1.1**
KVN IAmb IAmb 22 32 13.2
comp=Z,8.5nm,1.0s
NVAR Mina Array Bea 74.30 53 P **P** **22 32 13.9 +1.8**
comp=Z,3.7nm,0.8s,baz=285,slow=5.2,SNR=20
comp=Z,3.7nm,0.8s
YHH Holmes Hill 74.77 45 **P** **22 32 16.5 +1.7**
YMR Madison River 74.78 45 P **P** **22 32 16.5 +1.7**
YNE Yellowstone No 75.09 44 P **P** **22 32 18.1 +1.5**
FRB Frobisher Bay 75.29 13 P **P** **22 32 17.3 +0.2**
comp=Z,35nm,2.6s
RLMT Red Lodge 75.42 44 P **P** **22 32 19.7 +1.2**
RLMT IAmb IAmb 22 32 20.4
comp=Z,4.3nm,0.6s
MPMC Manual Prospec 76.26 55 P **P** **22 32 24.6 +1.3**
DUG Dugway, Tooele 76.57 49 P **P** **22 32 26.8 +1.8**
DUG pmax pmax
comp=Z,6.0nm,0.8s
DUG Dugway, Tooele 76.57 49 P **P** **22 32 26.8 +1.8**
DUG IAmb IAmb 22 32 27.5
comp=Z,5.5nm,0.8s
DUG Dugway, Tooele 76.57 49 P **P** **22 32 26.8 +1.8**
comp=Z,9.1nm,0.8s
GWY Greenwater Val 76.70 54 **P** **22 32 27.1 +1.3**
GWY IAmb IAmb 22 32 27.6
comp=Z,5.0nm,0.6s
PDAR Pinedale Array 76.79 45 P **P** **22 32 27.2 +1.0**
comp=Z,2.0nm,0.6s,baz=268,slow=1.9,SNR=16
PDAR pP **pP** **22 32 51.5 +0.8**
comp=Z,0.5nm,0.5s,baz=290,slow=5.0,SNR=2.3
comp=Z,2.0nm,0.6s
PDAR Pinedale Array 76.79 45 **P** **22 32 27.1 +0.8**
P17A Butcher Ranch, 78.25 49 P **P** **22 32 35.8 +1.4**
P17A IAmb IAmb 22 32 36.8
comp=Z,6.9nm,0.8s
ULM Lac du Bonnet 78.35 33 P **P** **22 32 34.1 -0.4**
comp=Z,3.6nm,0.6s,baz=323,slow=5.1,SNR=8.8
comp=Z,3.6nm,0.6s
ULM Lac du Bonnet 78.35 33 P **P** **22 32 34.1 -0.4**
ULM pmax pmax
comp=Z,5.0nm,0.7s
ULM Lac du Bonnet 78.35 33 IAmb IAmb 22 32 35.3
comp=Z,4.5nm,0.7s
PFO Pinyon Flats O 78.43 56 *i* P **P** **22 32 38.3 +2.8**
SRU San Rafael Swe 78.61 49 P **P** **22 32 37.7 +1.2**
SRU pmax pmax
comp=Z,9.0nm,0.9s
SRU San Rafael Swe 78.61 49 P **P** **22 32 37.7 +1.2**
SRU IAmb IAmb 22 32 38.5
comp=Z,8.8nm,0.9s
VYHS Vyhne 79.22 325 *e*P **P** **22 32 42.4 +3.1**
HMU Henry Mountain 79.25 50 P **P** **22 32 41.4 +1.3**
HMU IAmb IAmb 22 32 42.3
comp=Z,6.9nm,0.7s
U15A North Rim 79.29 52 P **P** **22 32 41.2 +0.9**
EPLO Experimental L 79.70 33 P **P** **22 32 41.5 -0.4**
EPLO IAmb IAmb 22 32 42.4
comp=Z,7.9nm,0.9s
RAYN Ar Rayn 79.74 292 P **P** **22 32 42.2 -0.4**
RAYN pmax pmax
comp=Z,2.0nm,0.5s
RAYN Ar Rayn 79.74 292 P **P** **22 32 42.2 -0.4**
RAYN Ar Rayn 79.74 292 P **P** **22 32 42.0 -0.6**
comp=Z,3.3nm,1.4s
PV21 Cone Mtn., Par 79.89 48 P **P** **22 32 44.7 +1.2**
PV21 IAmb IAmb 22 32 45.7
comp=Z,11nm,0.7s
PV23 Carpenter Ridg 79.94 49 P **P** **22 32 45.3 +1.5**
PV23 IAmb IAmb 22 32 45.6
comp=Z,10nm,0.7s
PV10 Paradox Valley 79.97 49 P **P** **22 32 44.6 +0.7**
PV14 Lion Creek, Pa 79.98 49 P **P** **22 32 45.3 +1.3**
PV22 Blue Mesa, Par 80.01 48 **P** **22 32 45.1 +1.0**
PV22 IAmb IAmb 22 32 46.4
comp=Z,8.2nm,0.8s
PV20 West Nyswonger 80.04 49 P **P** **22 32 45.3 +1.1**
PV20 IAmb IAmb 22 32 46.5
comp=Z,12nm,0.7s
PV04 Paradox Valley 80.04 49 P **P** **22 32 46.2 +2.1**
PV04 IAmb IAmb 22 32 46.7
comp=Z,8.1nm,0.8s
PV17 East Wray Mesa 80.08 49 P **P** **22 32 45.5 +1.1**
PV16 Nyswonger Mesa 80.09 49 P **P** **22 32 46.0 +1.5**
PV16 IAmb IAmb 22 32 46.9
comp=Z,9.3nm,0.7s
PV11 David Mesa, Pa 80.12 49 P **P** **22 32 45.8 +1.1**
PV11 IAmb IAmb 22 32 48.2
comp=Z,9.1nm,0.6s
PV18 Skein Mesa, Pa 80.14 49 P **P** **22 32 46.3 +1.5**
PV18 IAmb IAmb 22 32 47.1
comp=Z,11nm,0.8s
PV03 Paradox Valley 80.17 49 P **P** **22 32 46.7 +1.7**
PV03 IAmb IAmb 22 32 47.2
comp=Z,8.3nm,0.7s
PV13 Radium Mtn., P 80.25 49 P **P** **22 32 47.0 +1.6**
PV13 IAmb IAmb 22 32 47.8
comp=Z,12nm,0.8s
PV02 Paradox Valley 80.26 49 P **P** **22 32 47.0 +1.6**
PV02 IAmb IAmb 22 32 48.5
comp=Z,7.8nm,0.7s
GERES GERESS Array B 81.17 328 P **P** **22 32 49.8 -0.2**
comp=Z,0.2nm,0.3s,baz=26,slow=4.7,SNR=4.1
comp=Z,0.2nm,0.3s
EKA Eskdalemuir Ar 81.51 340 P **P** **22 32 50.3 -1.1**
comp=Z,1.2nm,0.7s,baz=35,slow=6.4,SNR=1.8
comp=Z,1.2nm,0.7s
ANMO Albuquerque 83.81 50 ⇓*i*P **P** **22 33 06.0 +1.9**
ANMO pmax pmax
comp=Z,7.0nm,1.2s
SCHQ Schefferville 83.89 16 P **P** **22 33 03.6 -0.2**
comp=Z,5.5nm,0.7s,baz=338,slow=5.7,SNR=5.3
comp=Z,5.5nm,0.7s
SCHQ Schefferville 83.89 16 IAmb IAmb 22 33 04.9
comp=Z,7.6nm,0.9s
TX31 Lajitas Ar. Si 89.41 52 **P** **22 33 31.8 +0.5**
TXAR Lajitas Array 89.41 52 P **P** **22 33 31.9 +0.6**
TXAR pP **pP** **22 33 57.2 +0.9**
comp=Z,1.1nm,0.6s,baz=292,slow=3.4,SNR=19
comp=Z,0.7nm,0.7s,baz=320,slow=5.0,SNR=3.6
comp=Z,1.1nm,0.6s
QSPA South Pole Qui 128.38 180 PKP **PKPdf** **22 39 38.5 -0.8**
comp=Z,1.0nm,0.5s,baz=98,slow=0.5,SNR=3.7
LPAZ La Paz 146.14 57 PKPbc **PKPbc** **22 40 15.6 +0.4**
comp=Z,3.7nm,0.5s,baz=351,slow=2.4,SNR=20
LPAZ La Paz 146.14 57 PKP2 **PKPab** **22 40 15.7 -0.2**
LPAZ La Paz 146.14 57 PKPbc **PKPab** **22 40 15.7 -0.2**
PB12 IPOC Station P 146.29 63 PKPdf **PKPdf** **22 40 13.2 -0.4**
PB12 PKPbc **PKPab** **22 40 16.3 +0.5**
PB16 IPOC Station P 146.66 61 PKPbc **PKPab** **22 40 17.7 -0.2**
PSGCX Pisagua 147.09 64 PKPbc **PKPbc** **22 40 16.4 -0.8**

AFAD ***20*** *22:29:13.9, 38.01N×31.00E, h15km±1km, MW3.8*
CFUSG ***20*** *22:29:14.5, 38.16N×30.79E, h14km, MD3.1/1, MSH2.7/4*
ISK ***20*** *22:29:14.2, 38.02N×31.00E, h8km, ML3.6/17*
ISC 20 22:29:14.3±0.9, 38.02N±0.02×31.00E±0.02, h10km±7km, n86, σ0.98/123, 7C-18D, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BAGO	**Egridir - ISPA**	**0.17**	**260**	P	**Pg**	**22 29 18.1**	**+0.1**
BAGO				S	**Sg**	**22 29 20.4**	**-0.2**
YVAC	**Isparta, Yalva**	**0.32**	**37**	P	**Pb**	**22 29 21.2**	**-0.9**
YVAC				S	**Sb**	**22 29 26.1**	**-1.3**
ISP	**Isparta**	**0.43**	**243**	Pg	**Pg**	**22 29 22.5**	**-0.2**
ISP				Sg	**Sb**	**22 29 29.4**	**-1.1**
ISP				AML	AML		
DOGA	**KONYA_Doganhis**	**0.54**	**80**	P	**Pg**	**22 29 24.4**	**-0.3**
DOGA				S	**Sg**	**22 29 32.2**	**+0.3**
SHUT	**Suhut-Afyon**	**0.64**	**327**	Pg	**Pg**	**22 29 26.8**	**+0.1**
SHUT				Sg	**Sb**	**22 29 36.5**	**-0.2**
SHUT				AML	AML		
BCK	**Bucak**	**0.65**	**210**	Pg	**Pb**	**22 29 27.1**	**-0.6**
BCK				Sg	**Sb**	**22 29 36.9**	**+0.1**
BCK				AML	AML		
UCKU	**Afyonkarahisar**	**0.70**	**28**	P	**Pg**	**22 29 27.9**	**0.0**
UCKU				S	**Sg**	**22 29 37.2**	**+0.1**
KURO	**Afyon-Bolvadin**	**0.72**	**356**	P	**Pb**	**22 29 28.5**	**-0.5**
KURO				S	**Sb**	**22 29 38.2**	**-0.7**
KZIL	**AFYON_Kizioren**	**0.72**	**290**	P	**Pg**	**22 29 28.1**	**-0.1**
KZIL				S	**Sb**	**22 29 38.7**	**-0.2**
BASM	**Basmaki-Afyon**	**0.76**	**263**	Pg	**Pb**	**22 29 29.3**	**-0.3**
BASM				Sg	**Sb**	**22 29 40.6**	**+0.6**
BASM				AML	AML		
BUCA	**Burdur, Bucak-**	**0.77**	**207**	P	**Pb**	**22 29 29.5**	**-0.4**
BUCA				S	**Sn**	**22 29 41.1**	**-1.9**
BRDR	**BURDUR-Merkez**	**0.81**	**247**	P	**Pg**	**22 29 29.4**	**-0.6**
BRDR				S	**Sb**	**22 29 41.1**	**-0.4**
SEDI	**Konya, Seydise**	**0.82**	**133**	P	**Pg**	**22 29 29.7**	**-0.6**
SEDI				S	**Sg**	**22 29 41.1**	**+0.1**
SEYD	**Seydisehir-KON**	**0.90**	**132**	Pg	**Pg**	**22 29 31.6**	**-0.1**
SEYD				AML	AML		
BYAT	**Afyon-Bayat**	**0.93**	**359**	P	**Pg**	**22 29 32.3**	**+0.1**
BYAT				S	**Sb**	**22 29 44.8**	**-0.1**
AFYO	**Afyonkarahisar**	**0.94**	**325**	P	**Pn**	**22 29 32.9**	**-0.8**
AFYO				S	**Sn**	**22 29 45.7**	**-1.6**
KDHN	**Kadinhani**	**1.01**	**60**	P	**Pb**	**22 29 33.5**	**-0.5**
KDHN				S	**Sg**	**22 29 47.0**	**+0.1**
KONT	**Konya--Tatoy**	**1.08**	**93**	P	**Pn**	**22 29 34.9**	**-0.6**
KONT				S	**Sn**	**22 29 50.1**	**-0.4**
KONT	**Konya--Tatoy**	**1.08**	**93**	Pg	**Pg**	**22 29 35.1**	**+0.1**
KONT				AML	AML		
LADK	**Ladik-KONYA**	**1.09**	**80**	Pn	**Pg**	**22 29 35.3**	**0.0**
LADK				AML	AML		
BNAZ	**Uak-Banaz**	**1.10**	**307**	P	**Pb**	**22 29 35.1**	**-0.4**
BNAZ				S	**Sn**	**22 29 50.8**	**-0.4**
KIZT	**Kizilcal**	**1.10**	**39**	Pg	**Pb**	**22 29 34.6**	**-1.0**
KIZT				AML	AML		
KMER	**Konya-Meram**	**1.11**	**103**	P	**Pn**	**22 29 35.5**	**-0.5**
KMER				S	**Sg**	**22 29 50.1**	**-0.1**
CTIK	**Konya-Celtik**	**1.13**	**26**	P	**Pn**	**22 29 35.6**	**-0.6**
CTIK				S	**Sb**	**22 29 50.0**	**-0.7**
KORT	**Korkueli**	**1.14**	**207**	P	**Pg**	**22 29 37.2**	**+1.0**
KORT	**Korkueli**	**1.14**	**207**	Pn	**Pg**	**22 29 36.4**	**+0.2**
KORT				AML	AML		
ANTB	**Antalya**	**1.15**	**194**	Pn	**Pg**	**22 29 37.1**	**+0.7**
ANTB				AML	AML		
INCE	**Denizli-Bozkur**	**1.17**	**255**	P	**Pn**	**22 29 36.1**	**-0.7**
INCE				S	**Sn**	**22 29 53.4**	**+0.5**
KEPZ	**Antalya-Kepez**	**1.22**	**157**	P	**Pn**	**22 29 36.7**	**-0.7**
KEPZ				S	**Sg**	**22 29 53.6**	**+0.1**
PASA	**Karahalli, USA**	**1.24**	**286**	P	**Pb**	**22 29 37.5**	**-0.3**
PASA				S	**Sb**	**22 29 52.8**	**-1.1**
ALT	**Altintas**	**1.25**	**326**	Pn	**Pg**	**22 29 38.1**	**-0.2**
MNVG	**Manavgat-Antal**	**1.27**	**165**	Pn	**Pg**	**22 29 38.6**	**0.0**
MNVG				AML	AML		
AUKIR	**Kırka- Seyitga**	**1.31**	**344**	P	**Pg**	**22 29 39.3**	**-0.2**
AUKIR				S	**Sg**	**22 29 56.4**	**-0.1**
CIFT	**Cifteler, Eski**	**1.34**	**2**	Pn	**Pb**	**22 29 39.3**	**-0.3**
CIFT				AML	AML		
GOLH	**Golhisar**	**1.38**	**236**	P	**Pg**	**22 29 40.5**	**-0.4**
GOLH				S	**Sb**	**22 29 58.1**	**0.0**
APMY	**Acipayam-Deniz**	**1.45**	**248**	Pn	**Pb**	**22 29 40.9**	**-0.6**
APMY				AML	AML		
AUSIV	**SIVRIHISAR**	**1.48**	**16**	P	**Pb**	**22 29 41.5**	**-0.5**
AUSIV				S	**Sb**	**22 30 00.0**	**-0.9**
ALIN	**Konya, Altinte**	**1.51**	**79**	P	**Pb**	**22 29 42.2**	**-0.2**
ALIN				S	**Sb**	**22 30 01.2**	**-0.4**
SGAZ	**Eskisehir, Sey**	**1.51**	**355**	P	**Pb**	**22 29 41.6**	**-0.9**
SGAZ				S	**Sn**	**22 30 00.3**	**-1.1**
ELL	**Elmali**	**1.54**	**215**	Pn	**Pb**	**22 29 42.8**	**-0.2**
ELL				AML	AML		
CBEY	**Konya-Cihanbey**	**1.55**	**64**	P	**Pb**	**22 29 42.6**	**-0.6**
CBEY				S	**Sg**	**22 30 04.0**	**-0.3**
KUTH	**Kutahya**	**1.57**	**331**	P	**Pb**	**22 29 42.6**	**-0.9**
KUTH				S	**Sg**	**22 30 05.0**	**+0.1**
GDZ	**Gediz**	**1.60**	**312**	P	**Pn**	**22 29 42.8**	**+0.1**
GDZ				S	**Sn**	**22 30 02.9**	**-0.6**
DNIZ	**Denizli-Tavas-**	**1.60**	**256**	P	**Pb**	**22 29 43.3**	**-0.7**
DNIZ				S	**Sg**	**22 30 06.4**	**+0.6**
CAEL	**Denizli, Camel**	**1.61**	**237**	P	**Pb**	**22 29 44.2**	**+0.1**
GEDZ	**Gediz**	**1.61**	**310**	Pn	**Pb**	**22 29 43.8**	**-0.4**
GEDZ				AML	AML		
KNIK	**Mula-Seydike**	**1.63**	**225**	P	**Pg**	**22 29 44.9**	**-0.7**
KNIK				S	**Sb**	**22 30 04.2**	**-1.0**
USAK	**Uak-Merkez**	**1.71**	**295**	P	**Pn**	**22 29 44.1**	**0.0**
SHAP	**Saphane-Kutahy**	**1.72**	**306**	Pn	**Pb**	**22 29 45.1**	**-0.9**
SHAP				AML	AML		
ANDZ	**Kutahya, Merke**	**1.72**	**330**	P	**Pn**	**22 29 44.6**	**+0.2**
ANDZ				S	**Sn**	**22 30 05.0**	**-1.4**
CAME	**Cameli-Denizli**	**1.73**	**232**	Pn	**Pb**	**22 29 45.7**	**-0.5**
TAVA	**DENIZLI_Tavas**	**1.74**	**252**	P	**Pn**	**22 29 45.1**	**-1.3**
TAVA	**DENIZLI_Tavas**	**1.74**	**252**	⇓P	**Pb**	**22 29 45.6**	**-0.9**
SULTU	**Buldan**	**1.76**	**272**	P	**Pn**	**22 29 44.8**	**-0.2**
SULTU				S	**Sg**	**22 30 11.6**	**+0.6**
HARTU	**Esme**	**1.76**	**281**	P	**Pn**	**22 29 45.1**	**+0.2**
HARTU				S	**Sn**	**22 30 06.0**	**-1.5**
AKUM	**Antalya-Kumluc**	**1.77**	**197**	P	**Pg**	**22 29 47.6**	**-0.7**
KULA	**Kula-Manisa**	**1.91**	**286**	Pn	**Pn**	**22 29 47.3**	**+0.4**
KULA				AML	AML		
KIRS	**Kirsehir-Merke**	**2.54**	**63**	⇓P	**Pn**	**22 29 56.8**	**+1.2**
SAHE	**Sakarya_HENDEK**	**2.83**	**358**	⇓P	**Pn**	**22 30 01.7**	**+2.1**
BDRM	**Kayabasi**	**2.98**	**252**	⇓P	**Pn**	**22 30 03.1**	**+1.5**
EZN	**Ezine**	**4.07**	**298**	⇑P	**Pn**	**22 30 17.6**	**+1.1**
LOZB	**Loznitsa**	**6.31**	**329**	⇓P	**Pn**	**22 30 50.0**	**+2.7**
TIRR	**Tirgusor**	**6.72**	**344**	⇓P	**Pn**	**22 30 54.2**	**+1.2**
SEV	**Sevastopol'**	**6.82**	**16**	*e*S	**Sn**	**22 32 12.3**	**+0.3**
SEV				smax	smax	22 32 13.6	
	comp=E,5.0nm,0.4s						
SEV				smax	smax	22 32 13.7	
	comp=N,2.0nm,0.3s						
YAL	**Yalta**	**6.88**	**19**	*e*S	**Sn**	**22 32 13.7**	**+0.1**
YAL				smax	smax	22 32 18.3	
	comp=N,2.0nm,0.2s						
YAL				smax	smax	22 32 18.3	
	comp=E,10.0nm,0.5s						
TLBR	**Topalu**	**6.89**	**342**	⇓P	**Pn**	**22 30 56.7**	**+1.4**
TPGR	**Topolog**	**7.10**	**345**	⇑P	**Pn**	**22 30 58.9**	**+0.6**
TLCR		**7.35**	**348**	⇓P	**Pn**	**22 31 02.2**	**+0.7**
TARU	**Tarkhankut**	**7.44**	**8**	*e*S	**Sn**	**22 32 26.8**	**-0.4**
TARU				smax	smax	22 32 35.4	
	comp=N,1.0nm,0.2s						
DNZ2	**Donuzlav2**	**7.53**	**12**	*e*P	**Pn**	**22 31 06.0**	**+1.9**
DNZ2				pmax	pmax	22 31 14.6	
	comp=Z,15nm,0.4s						
DNZ2				*e*S	**Sn**	**22 32 30.4**	**+0.9**
DNZ2				smax	smax	22 32 35.6	
	comp=N,5.0nm,0.4s						
DNZ2				smax	smax	22 32 35.6	
	comp=E,2.0nm,0.3s						
MLR	**Muntele Rosu**	**8.37**	**335**	⇓P	**Pn**	**22 31 18.0**	**+2.3**
BLKB	**Belogradchik**	**8.43**	**314**	⇓P	**Pn**	**22 31 18.0**	**+1.5**
VRI	**Vrincioaia**	**8.46**	**339**	⇓P	**Pn**	**22 31 18.8**	**+1.9**
PLOR	**Plostina**	**8.47**	**339**	⇓P	**Pn**	**22 31 18.2**	**+1.1**
COVR	**Voineasa-Covas**	**8.60**	**337**	⇑P	**Pn**	**22 31 21.6**	**+2.8**
VOIR		**8.64**	**331**	⇑P	**Pn**	**22 31 21.6**	**+2.1**
ARR	**Arges**	**8.75**	**329**	⇓P	**Pn**	**22 31 21.7**	**+0.9**
TURR	**Turia**	**8.84**	**337**	⇓P	**Pn**	**22 31 24.2**	**+2.0**
OZUR		**8.95**	**336**	⇓P	**Pn**	**22 31 25.5**	**+1.8**
DOPR	**Dopca**	**8.97**	**334**	⇑P	**Pn**	**22 31 26.0**	**+2.1**
BOVS	**Bovan**	**9.00**	**311**	⇓P	**Pn**	**22 31 24.9**	**+0.6**
LOT	**Lotru**	**9.18**	**326**	⇓P	**Pn**	**22 31 29.5**	**+2.6**
HERR	**Herculane**	**9.40**	**320**	⇑P	**Pn**	**22 31 32.0**	**+2.2**
MDVR	**Moldovita**	**9.71**	**317**	⇓P	**Pn**	**22 31 34.6**	**+0.6**
MARR	**Marisel-Cluj**	**10.43**	**329**	⇑P	**Pn**	**22 31 45.3**	**+1.4**
MODS	**Modra-Piesok**	**14.37**	**320**	*e*P	**P**	**22 32 45.4**	**+0.6**

IDC 20 22:49:22.4±47.0, 16.62S×176.11W, h0km, mb3.8/3, mbtmp3.8/3, MS2.8/1, Error ellipse: s-maj=881.1km s-min=183.7km az=78.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAR	**Rarotonga**	**16.11**	**109**	LR	LR	22 58 17.4	
	comp=Z,33nm,20.6s,baz=192,slow=33						
STKA	**Stephens Creek**	**41.17**	**240**	P	P	22 57 09.7	+0.9
	1.8nm,1.0s,baz=104,slow=12,SNR=3.6						
	1.8nm,1.0s						
WRA	**Warramunga Arr**	**47.04**	**258**	P	P	22 57 56.0	-0.1
	0.1nm,0.4s,baz=96,slow=7.8,SNR=1.3						
	0.1nm,0.4s						
ASAR	**Alice Springs**	**47.26**	**253**	P	P	22 57 57.0	-0.8
	2.4nm,0.7s,baz=88,slow=8.1,SNR=24						
	2.4nm,0.7s						

IDC 20 23:14:27.3±6.1, 7.92S×128.00E, h170km±61km, mb3.5/2, mbtmp3.8/5, Error ellipse: s-maj=57.8km s-min=27.3km az=54.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**10.37**	**193**	P	Pn	23 16 53.0	+1.1
	0.7nm,0.3s,baz=7.6,slow=8.7,SNR=22						
FITZ				S	Sn	23 18 44.9	-2.2
	5.0nm,0.4s,baz=266,slow=15,SNR=12						
WRA	**Warramunga Arr**	**13.43**	**153**	P	Pn	23 17 29.9	-1.5
	0.4nm,0.4s,baz=334,slow=12,SNR=6.6						
WRA				S	Sn	23 19 56.0	-4.6
	2.3nm,0.5s,baz=333,slow=21,SNR=10						
ASAR	**Alice Springs**	**16.64**	**161**	P	Pn	23 18 12.1	+1.1
	2.2nm,0.6s,baz=345,slow=11,SNR=35						
ASAR				S	S	23 21 12.6	-2.5
	0.4nm,0.5s,baz=315,slow=21,SNR=5.4						
STKA	**Stephens Creek**	**26.98**	**154**	P	P	23 19 55.2	+1.9
	1.5nm,0.7s,baz=332,slow=10,SNR=2.8						
	1.5nm,0.7s						
MKAR	**Makanchi Array**	**67.93**	**328**	P	P	23 25 06.7	-1.0
	1.1nm,0.9s,baz=125,slow=7.6,SNR=2.4						
	1.1nm,0.9s						

IDC ***20*** *23:16:34.1±0.4, 21.38S×169.29E, h0km, mb4.9/25, mbtmp4.9/30, ML5.0/4, MS4.6/4/1, Error ellipse: s-maj=13.1km s-min=10.2km az=161.0*
MOS ***20*** *23:16:34.8±1.1, 21.41S×169.27E, h14km, mb5.4/25, Error ellipse: s-maj=9.2km s-min=8.5km az=24.5*
BJI ***20*** *23:16:35.9, 20.79S×169.21E, h5km, mB5.4/28, mb5.1/63, Ms5.0/25, Ms7 4.7/29*
GFZ ***20*** *23:16:37.2±0.2, 21.5±3.3×16.9E±., h10km, M5.3/48, mb5.1/48, Mw5.2/37, confirmed*
NEIC

s-maj=7.5km s-min=2.8km az=56.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.68; $M_{\theta\theta}$-0.38; $M_{\phi\phi}$-0.30; $M_{r\theta}$1.12; $M_{\theta\phi}$0.11; $M_{\phi r}$-1.28; Fault plane solution: $M_0$1.80000×10^{17} NP1:ϕ_s308.17000°, δ9.32000°, λ79.98000°. NP2:ϕ_s138.32000°, δ80.83000°, λ91.64000°. Principal axes: T 1.9124, Plg54.0000°, Azm50.0000°; N -0.2397, Plg2.0000°, Azm318.0000°; P -1.6726, Plg36.0000°, Azm227.0000°;

NEIC ***20*** *23:16:37.7,21.3°S×169.04°E,h10km*

BGR ***20*** *23:16:38.3,21.76°S×169.52°E,h33km*

GCMT ***20*** *23:16:39.7±0.1,21.37°S±0.01×169.13°E±0.01,h18km, MW5.3/132,Moment Tensor Solution. s112,c180; s132,c236; Duration: 1$\hat{s}$1 Moment tensor: Scale 10^{17} Nm; M_{rr}0.80±.02; $M_{\theta\theta}$-0.17±.01; $M_{\phi\phi}$-0.63±.01; $M_{r\theta}$0.48±.03; $M_{\theta\phi}$0.39±.01; $M_{\phi r}$-0.66±.03; Best double couple: $M_0$1.16400×10^{17} NP1:ϕ_s336.00000°,δ23.00000°, λ99.00000°. NP2:ϕ_s146.00000°,δ67.00000°,λ86.00000°. Principal axes: T 1.1420, Plg67.0000°, Azm49.0000°; N 0.0440, Plg4.0000°, Azm147.0000°; P -1.1860, Plg22.0000°, Azm239.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

PTWC ***20*** *23:16:40,21.30°S×169.00E,Mwp5.6/9*

NOU ***20*** *23:16:41.2,21.28°S×169.04E,h28km,mb5.0/87, Southeast of Loyalty Islands*

ISC 20 23:16:39.3±0.2,21.41°S±0.04×169.23°E±0.04,h29km,n702, σ1$\hat{s}$52/592,mb5.4/220,MS4.8/52,37C-32D,Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**1.12**	**266**	P	**Pn**	**23 16 56.6**	**-2.4**
MARNC	**Mare, Loyalty**	**1.12**	**266**	S	**Sn**	**23 17 12.0**	**-1.4**
MARNC	**Mare, Loyalty**	**1.12**	**266**		**Pn**	**23 16 55.7**	**-3.2**
MARNC	**Mare, Loyalty**	**1.12**	**266**	P	**Pn**	**23 16 56.1**	**-2.9**
PINNC	**Pines Island,**	**2.04**	**234**	P	**Pn**	**23 17 11.2**	**-0.5**
PINNC	**Pines Island,**	**2.04**	**234**		**Pn**	**23 17 08.8**	**-2.9**
PINNC	**Pines Island,**	**2.04**	**234**	P	**Pn**	**23 17 09.2**	**-2.5**
YATNC	**Mamie plateau,**	**2.27**	**253**	P	**Pn**	**23 17 12.8**	**-2.0**
OUENC	**Ouen Island, N**	**2.43**	**245**	P	**Pn**	**23 17 15.9**	**-1.2**
OUENC	**Ouen Island, N**	**2.43**	**245**		**Pn**	**23 17 15.1**	**-2.0**
OUENC	**Ouen Island, N**	**2.43**	**245**	P	**Pn**	**23 17 15.2**	**-1.9**
DZM	**Mont Dzumac**	**2.67**	**255**	Pn	**Pn**	**23 17 18.5**	**-1.9**
	158nm,0.6s,baz=123,slow=7.4,SNR=283						
DZM				LR	LR	23 17 47.3	
	comp=Z,6μm,19.0s,baz=178,slow=27						
DZM				Sn	**Sn**	**23 17 50.7**	**-1.2**
	91nm,0.3s,baz=112,slow=21,SNR=8.3						
ONTNC	**Ouen Toro**	**2.73**	**250**	P	**Pn**	**23 17 20.2**	**-0.9**
ONTNC	**Ouen Toro**	**2.73**	**250**		**Pn**	**23 17 18.5**	**-2.7**
ONTNC	**Ouen Toro**	**2.73**	**250**	P	**Pn**	**23 17 19.2**	**-1.9**
NOUC	**Port Laguerre**	**2.80**	**255**	P	**Pn**	**23 17 21.1**	**-1.1**
NOUC	**Port Laguerre**	**2.80**	**255**	P	**Pn**	**23 17 20.2**	**-2.0**
RTV	**Rentapao**	**3.68**	**348**	P	**Pn**	**23 17 33.5**	**-0.7**
RTV	**Rentapao**	**3.68**	**348**	P	**Pn**	**23 17 32.3**	**-1.9**
DVP	**Devils Point**	**3.79**	**345**	P	**Pn**	**23 17 34.8**	**-1.0**
DVP	**Devils Point**	**3.79**	**345**	P	**Pn**	**23 17 32.8**	**-3.0**
KOUNC	**Koumac, New Ca**	**4.70**	**280**	P	**Pn**	**23 17 47.3**	**-0.9**
KOUNC	**Koumac, New Ca**	**4.70**	**280**		**Pn**	**23 17 46.5**	**-1.7**
KOUNC	**Koumac, New Ca**	**4.70**	**280**	P	**Pn**	**23 17 46.8**	**-1.4**
SANVU	**Saraoutou**	**6.23**	**342**	P	**Pn**	**23 18 09.7**	**+0.3**
SANVU	**Saraoutou**	**6.23**	**342**		**Pn**	**23 18 08.5**	**-0.9**
SANVU	**Saraoutou**	**6.23**	**342**	P	**Pn**	**23 18 07.2**	**-2.2**
SANVU	**Saraoutou**	**6.23**	**342**	P	**Pn**	**23 18 10.9**	**+1.6**
	comp=Z,443nm,0.8s						
NFK	**Norfolk Island**	**7.69**	**188**	P	**Pn**	**23 18 30.7**	**+1.4**
	comp=Z,141nm,1.4s						
NFK	**Norfolk Island**	**7.69**	**188**	P	**Pn**	**23 18 30.4**	**+1.1**
	comp=Z,141nm,1.4s						
NFK	**Norfolk Island**	**7.69**	**188**	P	**Pn**	**23 18 28.8**	**-0.6**
	comp=Z,141nm,1.4s						
MSVF	**Nonsavu**	**9.09**	**68**	Pn	**Pn**	**23 18 49.9**	**+1.3**
	comp=Z,1.3nm,0.3s,baz=210,slow=12,SNR=53						
MSVF				LR	LR	23 21 29.8	
	comp=Z,14μm,18.2s,baz=208,slow=33						
	comp=Z,220nm,1.1s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**9.09**	**68**	P	**Pn**	**23 18 52.8**	**+4.2**
MSVF	**Nonsavu**	**9.09**	**68**		**Pn**	**23 18 51.9**	**+3.2**
MSVF	**Nonsavu**	**9.09**	**68**	P	**Pn**	**23 18 52.2**	**+3.6**
MSVF	**Nonsavu**	**9.09**	**68**	P	**Pn**	**23 18 52.3**	**+3.6**
	comp=Z,498nm,1.8s						
DGTI	**Dogotuki**	**11.17**	**65**	P	**Pn**	**23 19 19.8**	**+2.7**
DGTI	**Dogotuki**	**11.17**	**65**	P	**Pn**	**23 19 19.2**	**+2.1**
TAVE	**Taveuni**	**11.29**	**67**	P	**Pn**	**23 19 23.4**	**+4.7**
LKBA	**Tubou, Lakemba**	**11.69**	**76**	P	**Pn**	**23 19 28.5**	**+4.3**
RAO	**Raoul Island**	**13.99**	**126**	LR	LR	23 23 42.5	
	comp=Z,2μm,20.2s,baz=269,slow=31						
OUZ	**Omahuta**	**14.28**	**165**	P	**P**	**23 20 04.2**	**-2.3**
	comp=Z,36nm,1.7s						
HNR	**Honiara**	**14.88**	**322**	Pn	**Pn**	**23 20 08.4**	**+0.6**
	comp=Z,13nm,0.3s,baz=276,slow=6.5,SNR=8.7						
HNR				LR	LR	23 24 59.2	
	comp=Z,1μm,21.2s,baz=219,slow=34						
	comp=Z,56nm,0.4s						
HNR				AML	AML		
HNR	**Honiara**	**14.88**	**322**	P	**Pn**	**23 20 06.6**	**-1.2**
HNR	**Honiara**	**14.88**	**322**		**Pn**	**23 20 09.0**	**+1.2**
HNR	**Honiara**	**14.88**	**322**	P	**Pn**	**23 20 09.1**	**+1.2**
	comp=Z,270nm,1.2s						
SAVO	**Savo Central**	**15.19**	**322**	P	**Pn**	**23 20 12.6**	**+0.7**
AUBSH	**Beerwah State**	**15.81**	**247**	P	**Pn**	**23 20 20.5**	**+0.6**
TATA	**Tatamba Isabel**	**15.82**	**324**	P	**Pn**	**23 20 20.1**	**0.0**
FUNA	**Funafuti**	**16.01**	**38**	P	**P**	**23 20 24.4**	**-1.4**
FUNA	**Funafuti**	**16.01**	**38**	Pn	**Pn**	**23 20 23.9**	**+1.3**
FUNA	**Funafuti**	**16.01**	**38**	P	**P**	**23 20 25.1**	**-0.7**
	comp=Z,179nm,1.4s						
TW1H	**Toowoomba 1 Ha**	**16.84**	**245**	P	**P**	**23 20 35.1**	**+0.1**
EIDS	**Eidsvold**	**17.11**	**253**	P	**P**	**23 20 38.8**	**+0.8**
EIDS	**Eidsvold**	**17.11**	**253**	P	**Pn**	**23 20 35.5**	**-0.9**
	comp=Z,81nm,1.8s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**17.11**	**253**	P	**P**	**23 20 38.6**	**+0.6**
	comp=Z,81nm,1.8s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**17.11**	**253**	P	**Pn**	**23 20 37.1**	**+0.6**
EIDS	**Eidsvold**	**17.11**	**253**		**Pn**	**23 20 34.8**	**-1.6**
EIDS	**Eidsvold**	**17.11**	**253**	P	**P**	**23 20 37.4**	**-0.6**
	comp=Z,81nm,1.8s						
TOZ	**Tahuroa Road**	**17.15**	**163**		**Pn**	**23 20 37.1**	**+0.3**
AUNRC	**North Rockhamp**	**17.40**	**260**	P	**P**	**23 20 41.4**	**+0.3**
HIZ	**Hauiti**	**17.72**	**165**	P	**P**	**23 20 44.9**	**+0.3**
HIZ	**Hauiti**	**17.72**	**165**	P	**P**	**23 20 46.5**	**+1.9**
	comp=Z,113nm,1.5s						
URZ	**Urewera**	**18.12**	**160**	P	**Pn**	**23 20 47.6**	**-1.1**
	comp=Z,0.6nm,0.3s,baz=350,slow=3.3,SNR=14						
URZ				LR	LR	23 26 24.6	
	comp=Z,862nm,21.9s,baz=338,slow=33						
	comp=Z,14nm,1.1s						
URZ				AML	AML		
URZ	**Urewera**	**18.12**	**160**	P	**P**	**23 20 50.3**	**+1.4**
URZ	**Urewera**	**18.12**	**160**	P	**P**	**23 20 50.6**	**+1.7**
	comp=Z,83nm,1.5s						
ARMA	**Armidale**	**18.18**	**237**	P	**P**	**23 20 53.9**	**+4.2**
ARMA	**Armidale**	**18.18**	**237**	P	**Pn**	**23 20 48.8**	**-0.9**
	comp=Z,62nm,1.9s,comp=Z,0.0nm						
ARMA	**Armidale**	**18.18**	**237**	P	**Pn**	**23 20 49.5**	**-0.1**
	comp=Z,53nm,1.6s,comp=Z,0.0nm						
ARMA	**Armidale**	**18.18**	**237**	P	**P**	**23 20 51.1**	**+1.3**
ARMA	**Armidale**	**18.18**	**237**		**Pn**	**23 20 48.3**	**-1.4**
ARMA	**Armidale**	**18.18**	**237**	P	**P**	**23 20 53.0**	**+3.3**
	comp=Z,53nm,1.6s						
RTZ	**Ruatahuna**	**18.40**	**160**		**Pn**	**23 20 54.0**	**+1.6**
BKZ	**Black Stump Fm**	**18.76**	**162**	P	**Pn**	**23 20 57.9**	**+1.2**
AUPHS	**Peel High Scho**	**19.05**	**236**	P	**Pn**	**23 21 01.7**	**+1.6**
RMQ	**Roma**	**19.37**	**251**	P	**Pn**	**23 21 06.1**	**+2.0**
RMQ	**Roma**	**19.37**	**251**	P	**Pn**	**23 21 05.7**	**+1.6**
	comp=Z,52nm,1.5s						
RMQ	**Roma**	**19.37**	**251**	P	**Pn**	**23 21 04.0**	**-0.1**
RMQ	**Roma**	**19.37**	**251**	P	**Pn**	**23 21 06.8**	**+2.7**
	comp=Z,52nm,1.5s						
QRZ	**Quartz Range**	**19.56**	**172**	P	**P**	**23 21 04.5**	**-0.2**
AFI	**Afiamalu**	**19.57**	**71**	P	**P**	**23 21 03.5**	**-1.6**
	comp=Z,2.9nm,0.3s,baz=280,slow=21,SNR=4.8						
AFI				LR	LR	23 27 11.9	
	comp=Z,3μm,18.1s,baz=244,slow=33						
	comp=Z,68nm,0.8s						
AFI				AML	AML		
NIUE	**Niue**	**19.70**	**87**	P	**Pn**	**23 21 08.0**	**0.0**
NIUE				IAmb	IAmb	23 21 16.1	
	comp=Z,190nm,1.1s						
TKNZ	**Takaka Hill**	**19.82**	**172**	P	**Pn**	**23 21 08.8**	**-0.5**
AUKHS	**Kincumber High**	**19.84**	**229**	P	**Pn**	**23 21 09.8**	**+0.3**
MRZ	**Mangatainoka R**	**19.94**	**166**		**Pn**	**23 21 11.5**	**+0.8**
NNZ	**Nelson**	**20.06**	**171**	P	**Pn**	23 21 12.1	0.0
BFZ	**Birch Farm**	**20.12**	**164**	P	**Pn**	23 21 14.0	+1.2
BFZ	**Birch Farm**	**20.12**	**164**	P	**Pn**	23 21 13.2	+0.4
BFZ				IAmb	IAmb	23 21 25.4	
	comp=Z,392nm,1.9s						
MRNZ	**Matariki Terra**	**20.15**	**172**	P	**Pn**	23 21 13.1	0.0
RIV	**Riverview**	**20.20**	**228**	P	**Pn**	23 21 15.5	+1.8
RIV	**Riverview**	**20.20**	**228**	P	**Pn**	23 21 14.8	+1.0
	comp=Z,141nm,1.6s						
RIV	**Riverview**	**20.20**	**228**	P	**Pn**	23 21 14.2	+0.5
TCW	**Tory Channel**	**20.20**	**169**	P	**Pn**	23 21 12.9	-0.8
TUWZ	**Tuamarina**	**20.35**	**170**	P	**Pn**	23 21 14.5	-1.0
SYDH	**Sydney Hard Ro**	**20.45**	**229**	P	**Pn**	23 21 17.8	+1.1
AUAYR	**Ayr State High**	**20.52**	**271**	P	**Pn**	23 21 16.9	-0.7
THZ	**Tophouse**	**20.53**	**172**	P	**Pn**	23 21 18.2	+0.5
AULRC	**Lightning Ridg**	**20.76**	**243**	P	**P**	**23 21 19.0**	**+1.1**
KHZ	**Kahutara**	**21.26**	**171**		**P**	**23 21 23.8**	**+0.7**
AUDCS	**Dubbo College**	**21.27**	**235**	P	**P**	**23 21 25.1**	**+1.7**
LTZ	**Lake Taylor**	**21.46**	**174**	P	**P**	**23 21 26.9**	**+1.5**
CTA	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 28.1**	**+1.9**
	comp=Z,29nm,1.5s						
CTA	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 27.5**	**+1.3**
CTA	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 27.5**	**+1.3**
	comp=Z,29nm,1.6s						
CTA	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 26.6**	**+0.5**
	comp=Z,22nm,0.7s,baz=88,slow=11,SNR=12						
CTA				LR	LR	23 29 44.4	
	comp=Z,2μm,18.8s,baz=86,slow=37						
	comp=Z,22nm,0.7s						
CTA	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 27.6**	**+1.4**
CTAO	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 27.6**	**+1.4**
CTAO	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 25.4**	**-0.8**
CTAO				pmax	pmax		
	comp=Z,312nm,2.0s						
CTAO	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 25.4**	**-0.8**
CTAO				IAmb	IAmb	23 21 30.7	
	comp=Z,312nm,1.9s						
CTAO	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 27.0**	**+0.8**
CTAO	**Charters Tower**	**21.52**	**269**	P	**P**	**23 21 27.6**	**+1.4**
	comp=Z,73nm,1.6s						
CNB	**Canberra Magne**	**22.25**	**227**	P	**P**	**23 21 35.5**	**+1.6**
	comp=Z,66nm,1.9s						
CNB	**Canberra Magne**	**22.25**	**227**	P	**P**	**23 21 34.9**	**+0.9**
	comp=Z,66nm,1.9s						
CNB	**Canberra Magne**	**22.25**	**227**	P	**P**	**23 21 35.4**	**+1.5**
	comp=Z,66nm,1.9s						
RPZ	**Rata Peaks**	**22.30**	**177**		**P**	**23 21 35.2**	**+0.9**
RPZ				IAmb	IAmb	23 21 54.0	
	comp=Z,289nm,1.8s						
AUDAR	**Daramalan Coll**	**22.36**	**228**	P	**P**	**23 21 38.3**	**+3.2**
AUMTS	**Mt Stromlo**	**22.50**	**228**	P	**P**	**23 21 40.1**	**+3.5**
CAN	**Canberra**	**22.50**	**228**	P	**P**	**23 21 40.2**	**+3.6**
CAN	**Canberra**	**22.50**	**228**	P	**P**	**23 21 39.1**	**+2.5**
CAN	**Canberra**	**22.50**	**228**	P	**P**	**23 21 40.0**	**+3.5**
	comp=Z,39nm,1.7s						
CAN	**Canberra**	**22.50**	**228**	P	**P**	**23 21 40.1**	**+3.5**
CAN	**Canberra**	**22.50**	**228**	P	**P**	**23 21 36.2**	**-0.4**
CAN				pmax	pmax		
	comp=Z,147nm,1.6s						
CAN	**Canberra**	**22.50**	**228**		**P**	**23 21 36.2**	**-0.4**
CAN	**Canberra**	**22.50**	**228**	P	**P**	**23 21 40.2**	**+3.6**
	comp=Z,38nm,1.7s						
JCZ	**Jackson Bay**	**22.61**	**181**	P	**P**	**23 21 40.4**	**+2.7**
CMSA	**Cobar Meteorol**	**23.31**	**239**	P	**P**	**23 21 46.1**	**+1.0**
	comp=Z,124nm,1.8s						
CMSA	**Cobar Meteorol**	**23.31**	**239**	P	**P**	**23 21 45.4**	**+0.4**
	comp=Z,124nm,1.8s						
CMSA	**Cobar Meteorol**	**23.31**	**239**	P	**P**	**23 21 45.8**	**+0.8**
	comp=Z,124nm,1.8s						
CMSA	**Cobar Meteorol**	**23.31**	**239**	P	**P**	**23 21 46.0**	**+1.0**
CMSA	**Cobar Meteorol**	**23.31**	**239**	P	**P**	**23 21 46.0**	**+1.0**
	comp=Z,124nm,1.8s						
AUSMG	**Snowy Mountain**	**23.37**	**226**	P	**P**	**23 21 47.8**	**+2.2**
MILA	**Mila**	**23.37**	**224**	P	**P**	**23 21 47.8**	**+2.2**
	comp=Z,26nm,0.4s						
MILA	**Mila**	**23.37**	**224**	P	**P**	**23 21 47.1**	**+1.5**
	comp=Z,26nm,0.4s						
MILA	**Mila**	**23.37**	**224**	P	**P**	**23 21 47.6**	**+2.0**
	comp=Z,26nm,0.4s						
QLP	**Quilpie**	**23.39**	**252**	P	**P**	**23 21 46.5**	**+0.7**
	comp=Z,544nm,1.6s						
QLP	**Quilpie**	**23.39**	**252**	P	**P**	**23 21 45.8**	**0.0**
	comp=Z,544nm,1.6s						
QLP	**Quilpie**	**23.39**	**252**	P	**P**	**23 21 46.3**	**+0.6**
	comp=Z,544nm,1.6s						
QLP	**Quilpie**	**23.39**	**252**	P	**P**	**23 21 46.4**	**+0.7**
QLP	**Quilpie**	**23.39**	**252**	P	**P**	**23 21 46.1**	**+0.3**
QLP	**Quilpie**	**23.39**	**252**	P	**P**	**23 21 46.4**	**+0.7**
	comp=Z,544nm,1.6s						
MTSU	**Mount Surprise**	**23.66**	**274**	P	**P**	**23 21 49.6**	**+1.1**
	comp=Z,72nm,1.6s						
MTSU	**Mount Surprise**	**23.66**	**274**	P	**P**	**23 21 49.0**	**+0.4**
	comp=Z,72nm,1.6s						
MTSU	**Mount Surprise**	**23.66**	**274**	P	**P**	**23 21 50.0**	**+1.5**
	comp=Z,72nm,1.6s						
MTSU	**Mount Surprise**	**23.66**	**274**	P	**P**	**23 21 48.9**	**+0.4**
MTSU	**Mount Surprise**	**23.66**	**274**	P	**P**	**23 21 49.5**	**+1.0**
	comp=Z,72nm,1.6s						
KRVT	**Keravat (AS076**	**23.83**	**313**	P	**P**	**23 21 49.5**	**-0.7**
	comp=Z,85nm,0.3s,baz=54,slow=12,SNR=8.4						
	comp=Z,85nm,0.3s						
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 55.2**	**+0.2**
	comp=Z,20nm,0.7s,baz=93,slow=9.3,SNR=5.5						
PMG				LR	LR	23 29 34.1	
	comp=Z,891nm,19.1s,baz=92,slow=32						
	comp=Z,20nm,0.7s						
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 55.9**	**+1.0**
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 55.5**	**+0.5**
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 54.4**	**-0.5**
PMG				pmax	pmax		
	comp=Z,58nm,1.1s						
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 54.4**	**-0.5**
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 59.0**	**+4.1**
	comp=Z,62nm,1.6s						
PMG	**Port Moresby**	**24.35**	**296**	P	**P**	**23 21 55.5**	**+0.5**
	comp=Z,53nm,1.2s						
SYZ	**Scrubby Hill**	**25.07**	**180**	P	**P**	**23 22 05.1**	**+4.0**
COEN	**Coen**	**25.88**	**282**	P	**P**	**23 22 07.6**	**-1.2**
	comp=Z,593nm,0.7s						
COEN	**Coen**	**25.88**	**282**	P	**P**	**23 22 07.6**	**-1.2**
COEN	**Coen**	**25.88**	**282**	P	**P**	**23 22 07.6**	**-1.2**
TOO	**Toolangi**	**26.09**	**227**	P	**P**	**23 22 12.2**	**+1.6**
	comp=Z,17nm,1.6s						
TOO	**Toolangi**	**26.09**	**227**	P	**P**	**23 22 11.5**	**+1.0**
	comp=Z,17nm,1.6s						
TOO	**Toolangi**	**26.09**	**227**	P	**P**	**23 22 11.4**	**+0.8**
	comp=Z,20nm,1.8s						
TOO	**Toolangi**	**26.09**	**227**	P	**P**	**23 22 10.9**	**+0.3**
TOO				pmax	pmax		
	comp=Z,45nm,1.5s						
TOO	**Toolangi**	**26.09**	**227**		**P**	**23 22 10.9**	**+0.3**
INKA	**Innaminka**	**26.62**	**251**		**P**	**23 22 15.5**	**+0.1**
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 17.8**	**+1.3**
	comp=Z,219nm,1.7s						
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 17.1**	**+0.7**
	comp=Z,219nm,1.7s						
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 17.1**	**+0.7**
	comp=Z,219nm,1.7s						
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 16.4**	**-0.1**
	comp=Z,15nm,0.8s,baz=74,slow=10.0,SNR=19						
STKA				LR	LR	23 32 29.9	
	comp=Z,3μm,19.4s,baz=114,slow=36						
	comp=Z,15nm,0.8s						
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 17.1**	**+0.7**
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 16.2**	**-0.2**
STKA	**Stephens Creek**	**26.74**	**241**	P	**P**	**23 22 17.3**	**+0.8**
	comp=Z,219nm,1.7s						
BRAT	**Ballarat**	**27.15**	**228**	P	**P**	**23 22 22.4**	**+2.4**
AUMTC	**Mt Clear Colle**	**27.21**	**228**	P	**P**	**23 22 23.2**	**+2.6**
QIS	**Mount Isa**	**27.65**	**266**	P	**P**	**23 22 25.2**	**+0.4**
	comp=Z,19nm,1.2s						
QIS	**Mount Isa**	**27.65**	**266**	P	**P**	**23 22 24.6**	**-0.2**
	comp=Z,18nm,1.2s						
QIS	**Mount Isa**	**27.65**	**266**	P	**P**	**23 22 25.0**	**+0.2**
	comp=Z,18nm,1.2s						
QIS	**Mount Isa**	**27.65**	**266**	P	**P**	**23 22 25.7**	**+0.9**
QIS	**Mount Isa**	**27.65**	**266**	P	**P**	**23 22 25.2**	**+0.4**
	comp=Z,18nm,1.2s						
MOO	**Moorlands**	**27.95**	**216**	P	**P**	**23 22 28.8**	**+1.6**
	comp=Z,57nm,1.9s						
MOO	**Moorlands**	**27.95**	**216**	P	**P**	**23 22 28.7**	**+1.6**
	comp=Z,57nm,1.9s						
ARPS	**Mount Arapiles**	**28.28**	**231**	P	**P**	**23 22 31.8**	**+1.6**
	comp=Z,10nm,1.6s						
ARPS	**Mount Arapiles**	**28.28**	**231**	P	**P**	**23 22 32.5**	**+2.3**
ARPS	**Mount Arapiles**	**28.28**	**231**	P	**P**	**23 22 31.6**	**+1.4**
	comp=Z,10nm,1.6s						
RAR	**Rarotonga**	**28.86**	**95**	LR	LR	23 33 04.2	
	comp=Z,269nm,18.3s,baz=262,slow=34						
HTT	**Hallett**	**29.34**	**239**	P	**P**	**23 22 40.9**	**+1.2**
	comp=Z,18nm,1.7s						
HTT	**Hallett**	**29.34**	**239**	P	**P**	**23 22 41.5**	**+1.8**
HTT	**Hallett**	**29.34**	**239**	P	**P**	**23 22 40.2**	**+0.5**
	comp=Z,18nm,1.7s						
HTT	**Hallett**	**29.34**	**239**	P	**P**	**23 22 40.2**	**+0.5**
AUMBR	**Murray Bridge**	**29.57**	**236**	P	**P**	**23 22 43.9**	**+2.2**
BBOO	**Buckleboo**	**31.51**	**242**	P	**P**	**23 22 59.6**	**+0.7**
	comp=Z,44nm,1.5s						
BBOO	**Buckleboo**	**31.51**	**242**	P	**P**	**23 22 58.9**	**0.0**
	comp=Z,44nm,1.5s						
BBOO	**Buckleboo**	**31.51**	**242**	P	**P**	**23 22 58.8**	**0.0**
	comp=Z,44nm,1.5s						
BBOO	**Buckleboo**	**31.51**	**242**	P	**P**	**23 22 59.5**	**+0.7**
BBOO	**Buckleboo**	**31.51**	**242**	P	**P**	**23 22 58.1**	**-0.8**
BBOO				IAmb	IAmb	23 23 01.2	
	comp=Z,91nm,1.4s						
BBOO	**Buckleboo**	**31.51**	**242**	P	**P**	**23 22 59.0**	**+0.2**
	comp=Z,44nm,1.5s						
AS17	**Alice Springs**	**32.57**	**259**	P	**P**	**23 23 08.6**	**+0.2**
	comp=Z,15nm,0.8s						
AS17	**Alice Springs**	**32.57**	**259**	P	**P**	**23 23 08.2**	**-0.2**
	comp=Z,15nm,0.8s						
AS01	**Alice Springs**	**32.61**	**259**	P	**P**	**23 23 09.0**	**+0.3**
AS09	**Alice Springs**	**32.62**	**259**	P	**P**	**23 23 07.8**	**-1.0**
	comp=Z,20nm,1.0s						
AS09	**Alice Springs**	**32.62**	**259**	P	**P**	**23 23 07.6**	**-1.1**
	comp=Z,20nm,1.0s						
WRAB	**Tennant Creek**	**32.63**	**266**	P	**P**	**23 23 08.4**	**-0.4**
WRAB	**Tennant Creek**	**32.63**	**266**	*d* iP	**P**	**23 23 07.3**	**-1.5**
WRAB				pmax	pmax		
	comp=Z,39nm,1.5s						
WRAB	**Tennant Creek**	**32.63**	**266**	P	**P**	**23 23 07.4**	**-1.5**
WRAB	**Tennant Creek**	**32.63**	**266**	P	**P**	**23 23 08.1**	**-0.8**
	comp=Z,20nm,1.5s						
WRA	**Warramunga Arr**	**32.63**	**266**	P	**P**	**23 23 07.1**	**-1.8**
	comp=Z,5.0nm,0.8s,baz=99,slow=8.2,SNR=24						
WRA				S	**S**	**23 28 22.8**	**-0.5**
	comp=Z,1.3nm,1.0s,baz=93,slow=17,SNR=6.3						
WRA				LR	LR	23 36 24.3	
	comp=Z,2μm,18.7s,baz=94,slow=36						
	comp=Z,5.0nm,0.8s						
AS15	**Alice Springs**	**32.65**	**259**	P	**P**	**23 23 08.2**	**-0.8**
	comp=Z,24nm,0.7s						
AS15	**Alice Springs**	**32.65**	**259**	P	**P**	**23 23 08.2**	**-0.8**
	comp=Z,24nm,0.7s						
AS31	**Alice Springs**	**32.65**	**259**	P	**P**	23 23 03.5	-5.5
AS31	**Alice Springs**	**32.65**	**259**	P	**P**	**23 23 08.6**	**-0.5**
	comp=Z,7.7nm,1.1s						
ASAR	**Alice Springs**	**32.65**	**259**	P	**P**	**23 23 08.2**	**-0.8**
	comp=Z,6.9nm,0.6s,baz=86,slow=8.6,SNR=9.9						
ASAR				PcP	**PcP**	**23 25 54.8**	**0.0**
	comp=Z,5.6nm,1.0s,baz=86,slow=3.5,SNR=5.5						
ASAR				S	**S**	**23 28 24.4**	**+0.9**
	comp=Z,0.3nm,0.6s,baz=72,slow=16,SNR=4.1						
ASAR				LR	LR	23 37 10.0	
	comp=Z,2μm,18.0s,baz=92,slow=38						
	comp=Z,6.9nm,0.6s						
ASAR	**Alice Springs**	**32.65**	**259**		**P**	**23 23 07.4**	**-1.6**
AUALC	**St Philip's Co**	**32.67**	**259**	P	**P**	**23 23 09.2**	**0.0**
GENI	**Genyem**	**33.90**	**300**	P	**P**	**23 23 21.0**	**+1.0**
	comp=Z,71nm,1.3s						
WRKA	**Warakurna**	**37.69**	**256**	P	**P**	**23 23 52.3**	**-0.1**
	comp=Z,12nm,1.6s						
WRKA	**Warakurna**	**37.69**	**256**	P	**P**	**23 23 51.7**	**-0.8**
	comp=Z,12nm,1.6s						
WRKA	**Warakurna**	**37.69**	**256**	P	**P**	**23 23 51.1**	**-1.3**
	comp=Z,12nm,1.6s						
FORT	**Forrest**	**37.95**	**247**

comp=Z,89nm,1.6s
EDFI Ende, Flores 47.41 278 P **P** **23 25 11.1 -0.5**
comp=Z,493nmcomp=Z,11nm,1.0s
BLDU Ballidu 47.72 248 P **P** **23 25 13.9 +0.1**
comp=Z,24nm,1.6s
BLDU Ballidu 47.72 248 P **P** **23 25 13.6 -0.1**
MORW Morawa 48.38 250 P **P** **23 25 19.3 +0.5**
comp=Z,39nm,2.0s
MORW Morawa 48.38 250 P **P** **23 25 19.1 +0.3**
MORW Morawa 48.38 250 P **P** **23 25 18.6 -0.2**
MORW IAmb IAmb 23 25 20.3
comp=Z,92nm,1.6s
MORW Morawa 48.38 250 P **P** **23 25 18.7 -0.1**
comp=Z,39nm,2.0s
LUWI Luwuk 49.58 288 P **P** **23 25 27.9 -0.2**
LUWI IAmb IAmb 23 26 07.2
comp=Z,54nm,1.0s
GTOI Gorontalo 50.15 290 P **P** **23 25 34.8 +2.3**
comp=Z,462nmcomp=Z,27nm,0.9s
TAOE Nuku Hiva Isla 50.23 84 *e*PKP1 P 23 25 27.4 -5.9
comp=Z,123nm,24.7s
TAOE *e*S **S** **23 32 45.0 +0.9**
comp=Z,605nm,25.0s
TAOE *e*SS **SS** **23 36 23.6 +5.7**
comp=Z,122nm,23.1s
TAOE *e*LQ LQ 23 37 47.7
comp=Z,1μm,36.6s
TAOE *e*LR LR 23 39 58.1
comp=Z,950nm,22.6s
KAPI Kappang 50.60 281 P **P** **23 25 36.3 +0.4**
comp=Z,6.3nm,0.6s,baz=95,slow=5.4,SNR=13
KAPI LR LR 23 50 46.6
comp=Z,239nm,18.2s,baz=120,slow=40
comp=Z,6.3nm,0.6s
KAPI Kappang 50.60 281 P **P** **23 25 36.5 +0.6**
KAPI Kappang 50.60 281 P **P** **23 25 36.4 +0.4**
KAPI Kappang 50.60 281 P **P** **23 25 36.6 +0.6**
comp=Z,309nmcomp=Z,11nm,1.5s
TOLI2 Tolitoli 52.34 289 P **P** **23 25 48.1 -0.8**
TOLI2 Tolitoli 52.34 289 P **P** **23 25 47.8 -1.1**
TOLI2 Tolitoli 52.34 289 P **P** **23 25 48.1 -0.8**
comp=Z,24nm,1.1s
JAGI Jajag, Banyuwa 54.49 275 P **P** **23 26 03.9 -0.9**
JAGI Jajag, Banyuwa 54.49 275 P **P** **23 26 02.1 -2.7**
JAGI IAmb IAmb 23 26 04.8
comp=Z,57nm,1.2s
JCJ Chichijima 54.87 330 LR LR 23 47 14.9
comp=Z,272nm,21.2s,baz=125,slow=34
VNDA Vanda 56.27 182 P **P** **23 26 16.1 -0.6**
comp=Z,2.5nm,1.1s,baz=357,slow=8.3,SNR=11
VNDA LR LR 23 47 17.2
comp=Z,319nm,18.0s,baz=20,slow=33
comp=Z,2.5nm,1.1s
VNDA Vanda 56.27 182 P **P** **23 26 16.9 +0.2**
VNDA pmax pmax
comp=Z,14nm,1.3s
VNDA Vanda 56.27 182 P **P** **23 26 16.9 +0.2**
VNDA Vanda 56.27 182 P **P** **23 26 17.6 +0.9**
comp=Z,10nm,2.0s
SBA Scott Base 56.50 181 P **P** **23 26 19.1 +0.8**
SBA pmax pmax
comp=Z,22nm,1.0s
SBA Scott Base 56.50 181 P **P** **23 26 19.1 +0.8**
SBA Scott Base 56.50 181 P **P** **23 26 19.7 +1.4**
comp=Z,25nm,1.0s
SNJI Sawahan-Nganju 56.95 275 P **P** **23 26 24.5 +1.9**
comp=Z,47nm,1.4s
KKM Kota Kinabalu 58.70 292 P **P** **23 26 33.9 -0.9**
KKM IAmb IAmb 23 26 51.5
comp=Z,66nm,1.5s
KKM Kota Kinabalu 58.70 292 P **P** **23 26 37.8 +3.0**
comp=Z,576nmcomp=Z,24nm,1.4s
KKM Kota Kinabalu 58.70 292 P **P** **23 26 35.5 +0.7**
comp=Z,24nm,1.4s
TPI Tanjungpandan 62.59 278 P **P** **23 27 03.1 +1.9**
comp=Z,15nm,1.5s
MJAR Matsushiro Arr 64.66 333 P **P** **23 27 11.8 -2.6**
comp=Z,14nm,1.0s,baz=165,slow=7.1,SNR=15
MJAR LR LR 23 55 17.6
comp=Z,202nm,18.9s,baz=134,slow=36
comp=Z,14nm,1.0s
MAJO Matsushiro 64.66 333⇑ *e*P **P** **23 27 14.3 -0.2**
MAJO pmax pmax
comp=Z,77nm,2.7s
NACB Ninganchiao 64.80 312 P **P** **23 27 16.1 +0.5**
NACB Ninganchiao 64.80 312 P **P** **23 27 15.6 0.0**
NACB Ninganchiao 64.80 312 P **P** **23 27 15.5 0.0**
comp=Z,65nm,1.2s
TPUB Ta-pu 64.92 310 P **P** **23 27 16.1 -0.3**
TPUB Ta-pu 64.92 310 P **P** **23 27 15.9 -0.6**
SSLB Suanglung 65.00 311 P **P** **23 27 16.6 -0.4**
SSLB Suanglung 65.00 311 P **P** **23 27 16.3 -0.7**
SSLB IAmb IAmb 23 27 16.7
comp=Z,51nm,1.2s
YHNB Yeheng 65.28 312 P **P** **23 27 19.5 +0.7**
JNU Nakatsue 65.42 325 P **P** **23 27 19.3 -0.2**
comp=Z,28nm,1.0s,baz=89,slow=3.8,SNR=5.3
comp=Z,28nm,1.0s
QSPA South Pole Qui 68.65 180 P **P** **23 27 39.6 -0.2**
comp=Z,26nm,1.1s,baz=335,slow=1.4,SNR=31
QSPA LR LR 23 54 45.5
comp=Z,450nm,19.1s,baz=28,slow=33
comp=Z,26nm,1.1s
QSPA South Pole Qui 68.65 180 P **P** **23 27 39.6 -0.2**
QSPA IAmb IAmb 23 27 55.0
comp=Z,75nm,1.5s
ASAJ Asahikawa 69.62 340 LR LR 23 54 51.7
comp=Z,713nm,20.4s,baz=94,slow=33
TJN Taejon 69.77 325⇑ *i*P **P** **23 27 47.4 +0.6**
KSRS Korea Array 70.29 326 P **P** **23 27 49.1 -0.8**
comp=Z,6.7nm,1.0s,baz=144,slow=6.3,SNR=12
comp=Z,6.7nm,1.0s
KSAR Wonju Array Be 70.30 326 P **P** **23 27 49.7 -0.3**
KSAR Wonju Array Be 70.30 326 **P** **23 27 49.7 -0.3**
QIZ Qiongzhong 70.65 300 P **P** **23 27 53.3 +0.7**
QIZ S **S** **23 37 10.4 +5.3**
QIZ SS **SS** **23 41 41.0 +3.4**
QIZ pmax pmax
comp=Z,11nm,1.5s
QIZ pmax pmax
comp=Z,160nm,5.2s
QIZ L L
comp=Z,170nm,12.4s
QIZ L L
comp=Z,140nm,16.5s
QIZ L L
comp=Z,160nm,17.2s
QIZ Qiongzhong 70.65 300 P **P** **23 27 54.0 +1.4**
comp=Z,15nm,1.4s
INCN Inchon 70.99 325 P **P** **23 27 54.9 +0.6**
NJ2 Nanjing 71.76 316 *e*P **P** **23 28 01.3 +2.3**
NJ2 pmax pmax
comp=Z,7.0nm,0.7s
YSS Yuzhno-Sakhali 72.12 341 P **P** **23 28 01.4 +0.6**
YSS Yuzhno-Sakhali 72.12 341 *oe*P **P** **23 28 01.3 +0.5**
YSS *e*S **S** **23 37 19.4 -1.6**
YSS *e*SS **SS** **23 42 01.0 +1.8**
YSS pmax pmax
comp=Z,100nm,4.3s
YSS pmax pmax
comp=Z,40nm,1.1s
YSS smax smax
comp=N,200nm,3.9s
YSS MLR MLR
comp=Z,700nm,14.0s
YSS MLR MLR
comp=N,400nm,17.0s
YSS MLR MLR
comp=E,600nm,14.0s
YSS Yuzhno-Sakhali 72.12 341 **P** **23 28 01.6 +0.8**
YSS Yuzhno-Sakhali 72.12 341 P **P** **23 28 01.9 +1.0**
comp=Z,85nm,0.9s
RPN Rapa Nui 73.25 113 LR LR 23 52 43.9
comp=Z,137nm,19.4s,baz=238,slow=30
USRK Ussuriysk Ar. 73.65 333 P **P** **23 28 10.0 0.0**
comp=Z,10nm,0.9s,baz=130,slow=4.3,SNR=12
USRK LR LR 23 58 05.8
comp=Z,343nm,20.2s,baz=151,slow=34
comp=Z,10nm,0.9s
WHN Wuhan 73.80 313⇓ P **P** **23 28 11.5 +0.3**
WHN S **S** **23 37 42.6 +1.8**
WHN pmax pmax
comp=Z,76nm,0.9s
SHEM Shemya Is, Ala 73.94 3 LR LR 23 55 49.2
comp=Z,502nm,20.1s,baz=160,slow=32
PET Petropavlovsk 74.69 353 *e*P **P** **23 28 19.9 +4.1**
PET *e*S **S** **23 37 57.6 +7.8**
PET *e*PS **PnS** **23 38 31.3 +4.1**
PET pmax pmax
comp=Z,200nm,10.9s
DL2 Dalian 74.74 323 P **P** **23 28 16.6 +0.2**
DL2 S **S** **23 37 53.3 +2.4**
DL2 pmax pmax
comp=Z,80nm,1.4s
DL2 pmax pmax
comp=Z,500nm,7.7s
DL2 L L
comp=Z,370nm,14.3s
DL2 L L
comp=Z,470nm,17.5s
DL2 L L
comp=Z,480nm,15.7s
PEA0B Petropavlovsk- 74.88 353 *ci*P **P** **23 28 16.5 -0.4**
PEA0B Petropavlovsk- 74.88 353 IAmb IAmb 23 28 18.3
comp=Z,82nm,1.2s
PETK Petropavlovsk- 74.88 353 P **P** **23 28 16.3 -0.6**
comp=Z,21nm,1.0s,baz=119,slow=5.6,SNR=11
PETK LR LR 23 56 16.3
comp=Z,739nm,20.6s,baz=154,slow=32
comp=Z,21nm,1.0s
PETK Petropavlovsk- 74.88 353 P **P** **23 28 16.5 -0.4**
PETK Petropavlovsk- 74.88 353 **P** **23 28 16.5 -0.4**
TIA Tai'an 75.56 319 P **P** **23 28 21.0 -0.3**
TIA pmax pmax
comp=Z,38nm,1.1s
TYV Tymovskoe 75.67 343 *e*P **P** **23 28 21.7 +0.1**
TYV *e*S **S** **23 38 01.4 +0.5**
TYV pmax pmax
comp=Z,32nm,1.0s
TYV pmax pmax
comp=Z,200nm,3.0s
TYV smax smax
comp=N,300nm,3.4s
TYV smax smax
comp=E,200nm,3.4s
CN2 Changchun 76.30 329 P **P** **23 28 24.6 -0.7**
CN2 PP **PP** **23 31 16.0 -1.3**
CN2 S **S** **23 38 09.1 +1.0**
CN2 pmax pmax
comp=E,10.0nm,1.0s
CN2 L L
comp=E,200nm,12.0s
CN2 L L
comp=E,200nm,12.0s
CN2 L L
comp=E,200nm,13.0s
MAW Mawson 76.43 202 P **P** **23 28 26.9 +1.1**
comp=E,8.2nm,1.1s,baz=136,slow=12,SNR=7.2
MAW LR LR 23 57 44.2
comp=E,561nm,20.6s,baz=102,slow=32
comp=E,8.2nm,1.1s
MAW Mawson 76.43 202 **P** **23 28 27.3 +1.5**
MAW Mawson 76.43 202 P **P** **23 28 27.7 +1.9**
comp=Z,3.1nm,1.7s
SLVN Son La 76.62 299 P **P** **23 28 29.1 +1.4**
SLVN Son La 76.62 299 P **P** **23 28 29.0 +1.3**
comp=Z,6.5nm,1.6s
BNX BinXian 76.86 331⇓ P **P** **23 28 27.5 -1.0**
BNX pmax pmax
comp=Z,23nm,1.0s
ENH Enshi 77.04 310 P **P** **23 28 30.1 +0.2**
comp=Z,74nm,1.2s
GRNR Gornyy 77.47 339⇓ *i*P **P** **23 28 32.8 +1.0**
GRNR pmax pmax
comp=Z,20nm,1.2s
LYN LuoYang 77.48 315 P **P** **23 28 32.6 +0.4**
LYN S **S** **23 38 27.6 +6.2**
LYN pmax pmax
comp=Z,69nm,1.1s
LYN pmax pmax
comp=Z,490nm,4.0s
LYN L L
comp=Z,330nm,14.4s
LYN L L
comp=Z,260nm,15.5s
LYN L L
comp=Z,570nm,18.9s
HNS HongShan 77.80 318⇓ P **P** **23 28 34.8 +0.9**
HNS S **S** **23 38 29.0 +4.3**
HNS pmax pmax
comp=Z,30nm,1.3s
HNS L L
comp=Z,190nm,17.5s
HNS L L
comp=Z,310nm,17.6s
HNS L L
comp=Z,330nm,16.7s
KLR Kul'dur 77.84 336 P **P** **23 28 34.7 +0.8**
comp=Z,12nm,0.8s,baz=104,slow=2.2,SNR=26
KLR LR LR 00 00 58.1
comp=Z,435nm,19.3s,baz=150,slow=34
comp=Z,12nm,0.8s
KLR Kul'dur 77.84 336 *di*P **P** **23 28 34.6 +0.8**
KLR pmax pmax
comp=Z,28nm,1.0s
BJI2 Beijing 78.60 321 P **P** **23 28 38.1 -0.2**
BJI2 S **S** **23 38 38.0 +4.8**
BJI2 pmax pmax
comp=Z,9.0nm,1.2s
BJI2 L L
comp=Z,190nm,15.1s
BJI2 L L
comp=Z,170nm,15.8s
BJI2 L L
comp=Z,190nm,16.1s
BJT Baijiatuan 78.60 321 P **P** **23 28 38.3 0.0**
comp=Z,11nm,1.6s
CMAR Chiang Mai Arr 79.39 295 P **P** **23 28 44.3 +1.2**
comp=Z,3.4nm,0.5s,baz=130,slow=4.0,SNR=36
CMAR LR LR 00 04 59.2
comp=Z,54nm,19.8s,baz=130,slow=37
comp=Z,3.4nm,0.5s
KMI2 Kunming 79.42 302⇑ P **P** **23 28 44.3 +0.9**
KMI2 S **S** **23 38 48.1 +5.1**
KMI2 pmax pmax
comp=Z,31nm,1.1s
KMI2 pmax pmax
comp=Z,130nm,4.9s
KMI2 L L
comp=Z,170nm,18.7s
KMI2 L L
comp=Z,140nm,19.9s
KMI2 L L
comp=Z,240nm,20.3s
TIY Taiyuan 79.42 318 *e*P **P** **23 28 43.8 +0.9**
TIY S **S** **23 38 47.4 +5.2**
TIY pmax pmax
comp=Z,22nm,0.7s
TIY L L
comp=Z,170nm,9.6s
TIY L L
comp=Z,160nm,10.0s
TIY L L
comp=Z,180nm,18.5s
CHTO Chiang Mai 79.55 295 P **P** **23 28 44.4 +0.5**
CHTO Chiang Mai 79.55 295 P **P** **23 28 44.9 +1.0**
CHTO pmax pmax
comp=Z,42nm,1.4s
CHTO Chiang Mai 79.55 295 **P** **23 28 44.9 +1.0**
CHTO Chiang Mai 79.55 295 P **P** **23 28 45.0 +1.0**
comp=Z,21nm,1.3s
CHTO Chiang Mai 79.55 295 P **P** **23 28 45.1 +1.2**
comp=Z,21nm,1.3s
XAN Xi'an 79.57 313⇑ P **P** **23 28 43.8 0.0**
XAN S **S** **23 38 46.6 +2.7**
XAN pmax pmax
comp=Z,54nm,1.1s
XAN pmax pmax
comp=Z,170nm,3.5s
BELA Belgrano 2 79.95 175 **P** **23 28 44.3 -0.8**
HEH HeiHe 80.35 334 *e*P **P** **23 28 46.8 -0.8**
HEH pmax pmax
comp=Z,17nm,1.0s
PZH PanZhiHua 80.87 303 P **P** **23 28 51.5 +0.4**
PZH pmax pmax
comp=Z,10.0nm,1.1s
XLT XiLinHaoTe 81.19 324 *e*P **P** **23 28 51.4 -0.9**
XLT sP pP 23 29 01.0 +0.8
XLT sS sS 23 39 08.0 -5.3
XLT pmax pmax
comp=Z,8.0nm,1.3s
CD2 Chengdu 81.55 308 P **P** **23 28 54.4 -0.1**
CD2 S **S** **23 39 06.8 +2.1**
CD2 pmax pmax
comp=Z,20nm,1.0s
CD2 pmax pmax
comp=Z,300nm,4.0s
CD2 L L
comp=Z,340nm,10.8s
CD2 L L
comp=Z,270nm,8.3s
CD2 L L
comp=Z,320nm,13.3s
HHC Hu-ho-hao-te 81.86 320 *e*P **P** **23 28 55.3 -0.7**
HHC S **SKSac** **23 39 13.3 -0.9**
HHC sS sS 23 39 20.0 -0.5
HHC pmax pmax
comp=Z,17nm,1.6s
HHC pmax pmax
comp=Z,120nm,5.3s
HHC L L
comp=Z,230nm,12.6s
HHC L L
comp=Z,150nm,15.1s
HHC L L
comp=Z,190nm,17.7s
MA2 Magadan 82.10 351 LR LR 00 00 52.3
comp=Z,362nm,20.5s,baz=170,slow=32
NPW Naypyitaw 82.35 295 P **P** **23 29 00.9 +2.1**
comp=Z,19nm,1.1s
SYO Syowa Base 82.86 196⇑ *e*P **P** **23 29 00.5 -0.1**
SYO Syowa Base 82.86 196⇑ *e*P **P** **23 29 04.0 +3.4**
ZEA Zeya 83.13 336 *e*P **P** **23 29 03.5 +1.4**
ZEA *e* 23 40 33.3
ZEA pmax pmax
comp=Z,20nm,1.3s
ELIB Princess Elisa 84.01 190 *d*P **P** **23 29 06.6 -0.2**
comp=Z,8.9nm,1.4s
LZH Lanzhou 84.17 312 *e*P **P** **23 29 09.0 +0.9**
LZH pP PcP 23 29 13.6 +1.7
LZH sP sP 23 29 17.8 -1.2
LZH S **SKSac** **23 39 30.8 +1.0**
LZH pmax pmax
comp=Z,66nm,1.6s
LZH pmax pmax
comp=Z,190nm,5.1s
LZH L L
comp=Z,280nm,16.2s
LZH L L
comp=Z,300nm,15.9s
LZH L L
comp=Z,400nm,15.5s
LZDM Lanzhou Array 84.20 312 P **P** **23 29 09.1 +0.6**
comp=Z,4.1nm,0.6s,baz=92,slow=9.0,SNR=24
comp=Z,4.1nm,0.6s
KDAK Kodiak Island 85.07 19 LR LR 00 03 52.8
comp=Z,449nm,18.7s,baz=214,slow=33
SEY Seymchan 85.11 352⇑ *e*P **P** **23 29 10.2 -1.8**
SEY pmax pmax
comp=Z,40nm,1.1s
TROLL Troll, Antarti 86.38 184 P **P** **23 29 18.7 +0.1**
comp=Z,826nm,0.6s
NVL N'lazarevskaya 86.71 187 *e*P **P** **23 29 17.4 -2.7**
NVL pmax pmax
comp=Z,9.0nm,1.0s
NVL MLR MLR
comp=Z,578nm,17.0s
SNAA Sanae 87.00 183 P **P** **23 29 20.9 -0.7**
comp=Z,291nm,0.7s
SNAA Sanae 87.00 183 P **P** **23 29 20.9 -0.7**
comp=Z,19nm,0.9s,baz=178,slow=6.9,SNR=9.3
SNAA LR LR 00 05 35.3
comp=Z,292nm,20.1s,baz=194,slow=34
comp=Z,19nm,0.9s
SNAA Sanae 87.00 183 P **P** **23 29 20.8 -0.7**
SNAA pmax pmax
comp=Z,23nm,1.0s
SNAA Sanae 87.00 183 **P** **23 29 20.8 -0.8**
SNAA IAmb IAmb 23 29 25.1
comp=Z,23nm,1.0s
SNAA Sanae 87.00 183 P **P** **23 29 21.1 -0.5**
comp=Z,25nm,1.1s
SAO San Andreas Ge 87.25 49 IAmb IAmb 23 29 23.7
comp=Z,30nm,1.1s
CVS Carmenet Viney 87.33 47 IAmb IAmb 23 29 23.8
comp=Z,42nm,1.1s
GDXM Geysers 87.34 46 IAmb IAmb 23 29 24.5
comp=Z,43nm,1.3s
MHC Mount Hamilton 87.40 48 IAmb IAmb 23 29 24.6
comp=Z,29nm,1.0s
PMPB Monarch Peak 87.44 50 IAmb IAmb 23 29 24.9
comp=Z,28nm,0.9s
VNA3 Neumayer Olymp 87.59 180 P **P** **23 29 22.6 -1.7**
comp=Z,20nm,0.8s
VNA3 Neumayer Olymp 87.59 180 P **P** **23 29 24.3 -0.1**
comp=Z,32nm,0.8s
KHMM Horse Mountain 87.76 44 IAmb IAmb 23 29 26.7
comp=Z,34nm,1.0s
VNA2 Neumayer--Watz 87.88 181 P **P** **23 29 24.9 -0.8**
comp=Z,30nm,1.0s,baz=169,slow=4.9
VNA2 Neumayer--Watz 87.88 181 P **P** **23 29 25.9 +0.1**
comp=Z,44nm,1.1s
KHBM Hayfork Bally 87.99 45 IAmb IAmb 23 29 27.5
comp=Z,33nm,1.1s
KSXB Camp Six Broad 88.16 43 IAmb IAmb 23 29 28.4
comp=Z,40nm,1.3s
VNA1 Neumayer--Stat 88.17 181 P **P** **23 29 27.1 0.0**
comp=Z,22nm,0.9s
ORV Oroville 88.58 46 IAmb IAmb 23 29 29.8
comp=Z,28nm,1.1s
ULN Ulaanbaatar 88.59 323 *ci*P **P** **23 29 29.4 -0.1**
ULN pmax pmax
comp=Z,25nm,1.2s
ULN Ulaanbaatar 88.59 323 **P** **23 29 29.9 +0.4**
ULN IAmb IAmb 23 29 30.7
comp=Z,26nm,1.2s
ULN Ulaanbaatar 88.59 323 P **P** **23 29 29.7 +0.2**
ULN Ulaanbaatar 88.59 323 P **P** **23 29 30.0 +0.5**
comp=Z,20nm,1.2s
M02C Callahan 88.60 44 IAmb IAmb 23 29 30.7
comp=Z,51nm,1.1s
CMB Columbia Colle 88.61 48 IAmb IAmb 23 29 29.8
comp=Z,30nm,1.0s
AFDM Forest Hills D 88.64 47 IAmb IAmb 23 29 30.0
comp=Z,43nm,1.1s
GTA2 Gaotai 88.68 314 *e*P **P** **23 29 30.1 0.0**
GTA2 sP pP 23 29 36.8 -1.3
GTA2 pmax pmax
comp=Z,19nm,1.1s
GTA2 L L
comp=Z,270nm,17.8s
GTA2 L L
comp=Z,230nm,13.7s
GTA2 L L
comp=Z,280nm,18.4s
CBX Cerro Bola 88.68 55 IAmb IAmb 23 29 30.6
comp=Z,43nm,1.1s
ELS Elsinore Mount 88.70 53 IAmb IAmb 23 29 30.5
comp=Z,21nm,1.1s
K02D Willamette Mer 88.74 43 IAmb IAmb 23 29 30.8
comp=Z,30nm,1.2s
DPP Dos Picos Cty 88.78 54 IAmb IAmb 23 29 30.7
comp=Z,41nm,1.1s
BFSC Mount Baldy Ra 88.80 52 IAmb IAmb 23 29 30.8
comp=Z,36nm,1.1s
BAR Barrett 88.84 54 IAmb IAmb 23 29 31.0
comp=Z,21nm,1.1s
ISA Isabella, Lake 88.85 51 IAmb IAmb 23 29 31.4
comp=Z,49nm,1.1s
YBH Yreka Blue Hor 88.86 44 IAmb IAmb 23 29 31.6
comp=Z,26nm,1.1s
YAK Yakutsk 88.93 343 LR LR 00 08 58.2
comp=Z,344nm,18.6s,baz=138,slow=35
YAK Yakutsk 88.93 343 *e*P **P** **23 29 28.8 -1.7**
YAK *e**PP **PcP** **23 29 34.8 +2.8**
YAK *e* 23 32 57.6
YAK *e*PPP PPP 23 34 53.6
YAK *e*S **SKSac** **23 39 57.6 0.0**
YAK *e**SS **S** **23 40 12.9 -3.2**
YAK *e*SS **SS** **23 46 08.7 -1.1**
YAK *e*SSS SSS 23 49 43.9
YAK pmax pmax
comp=Z,31nm,1.0s
YAK pmax pmax
comp=E,9.0nm,1.5s
YAK pmax pmax
comp=N,13nm,1.4s
YAK pmax pmax
comp=Z,130nm,4.0s
YAK pmax pmax

YAK comp=N,104nm,2.8s pmax pmax
YAK comp=E,125nm,4.2s smax smax
YAK comp=N,190nm,3.4s smax smax
YAK comp=E,132nm,3.0s MLR MLR
YAK comp=E,331nm,20.0s MLR MLR
YAK comp=Z,435nm,18.0s MLR MLR
YAK Yakutsk 88.93 343 P 23 29 29.6 -0.9
YAK Yakutsk 88.93 343 P **P 23 29 29.4 -1.1**
comp=Z,50nm,0.8s
SONM Songino Array 88.94 323 P **P 23 29 30.2 -0.9**
comp=Z,9.2nm,1.0s,baz=144,slow=6.2,SNR=37
SONM PKKP **PKKPdf 23 47 06.7 -0.7**
comp=Z,1.0nm,1.0s,baz=152,slow=6.7,SNR=4.0
SONM LR LR 00 10 52.8
comp=Z,229nm,18.8s,baz=120,slow=37
comp=Z,9.2nm,1.0s
SONM Songino Array 88.94 323 P 23 29 31.2 +0.1
ESJX Sierra Juarez 89.09 55 IAmb IAmb 23 29 33.0
comp=Z,38nm,1.4s
BILL Bilibino 89.21 359*c i*P **P 23 29 30.1 -1.7**
BILL pmax pmax
comp=Z,65nm,1.0s
BILI Bilibino, Chuk 89.23 359 P **P 23 29 30.9 -0.9**
comp=Z,63nm,1.1s
DNR Dunn Ranch,Anz 89.26 53 IAmb IAmb 23 29 33.4
comp=Z,40nm,1.2s
MDPB Devils Postpil 89.33 49 IAmb IAmb 23 29 33.8
comp=Z,38nm,1.1s
LRMC Laurel Mtn Rad 89.34 51 IAmb IAmb 23 29 34.5
comp=Z,37nm,1.2s
L04D Klamath Falls 89.37 44 IAmb IAmb 23 29 33.6
comp=Z,46nm,1.1s
YUH Yuha Desert 89.39 55 IAmb IAmb 23 29 33.9
comp=Z,31nm,1.1s
PFO Pinyon Flats O 89.41 53 LR LR 00 01 47.9
comp=Z,347nm,19.7s,baz=278,slow=30
PFO Pinyon Flats O 89.41 53 *i* P **P 23 29 32.9 -0.8**
PFO Pinyon Flats O 89.41 53 **P 23 29 33.1 -0.6**
PFO IAmb IAmb 23 29 34.0
comp=Z,25nm,1.1s
PFO Pinyon Flats O 89.41 53 P **P 23 29 32.7 -1.0**
comp=Z,23nm,1.5s
I03D Drain, OR 89.45 42 IAmb IAmb 23 29 33.8
comp=Z,27nm,1.1s
MPK Martis Peak 89.45 47 IAmb IAmb 23 29 34.4
comp=Z,49nm,1.1s
CWC Cottonwood Cre 89.49 50 IAmb IAmb 23 29 34.4
comp=Z,35nm,1.2s
BEKR Beckworth 89.50 46 IAmb IAmb 23 29 34.3
comp=Z,29nm,1.1s
PNTR Pine Nut 89.65 47 IAmb IAmb 23 29 35.2
comp=Z,48nm,1.1s
YERR Yerington 89.85 48 IAmb IAmb 23 29 35.9
comp=Z,40nm,1.2s
GSC Goldstone, Bar 89.90 52 IAmb IAmb 23 29 36.2
comp=Z,29nm,1.2s
LHV Little Huntoon 90.02 49 IAmb IAmb 23 29 37.0
comp=Z,41nm,1.1s
I04A Tendick Farm, 90.08 42 IAmb IAmb 23 29 44.9
comp=Z,22nm,1.0s
PAHR Pah Rah Range 90.09 47 IAmb IAmb 23 29 37.0
comp=Z,42nm,1.1s
BC3 Big Chuckawall 90.19 54 IAmb IAmb 23 29 38.0
comp=Z,40nm,1.1s
NVAR Mina Array Bea 90.24 48 P **P 23 29 36.5 -1.1**
comp=Z,20nm,0.9s,baz=227,slow=8.2,SNR=93
NVAR LR LR 00 03 21.5
comp=Z,381nm,19.4s,baz=227,slow=31
comp=Z,20nm,0.9s
H04D Lebanon 90.25 42 IAmb IAmb 23 29 37.6
comp=Z,32nm,1.0s
G03D McMinnville, O 90.27 41 IAmb IAmb 23 29 37.7
comp=Z,46nm,1.2s
GWY Greenwater Val 90.39 51 IAmb IAmb 23 29 38.3
comp=Z,39nm,1.1s
K05A Summer Lake 90.52 44 IAmb IAmb 23 29 39.3
comp=Z,37nm,1.0s
MZP Montezuma Peak 90.56 49 IAmb IAmb 23 29 39.0
comp=Z,21nm,1.0s
WIFE Three Sisters- 90.59 42 IAmb IAmb 23 29 39.4
comp=Z,30nm,1.0s
GOMU GeErMu 90.62 309 P **P 23 29 39.8 +0.2**
GOMU pP PcP 23 29 43.1 +2.4
GOMU sP pP 23 29 47.3 -0.4
GOMU pmax pmax
comp=Z,6.0nm,0.8s
KVN Kaiserville 90.67 48 IAmb IAmb 23 29 39.6
comp=Z,28nm,0.9s
WCT Wildcat Mounta 90.69 51 IAmb IAmb 23 29 39.9
comp=Z,38nm,1.0s
GLB Gilahina Butte 90.73 21 IAmb IAmb 23 29 39.2
comp=Z,22nm,1.2s
PIX Pinacate 90.82 56 IAmb IAmb 23 29 40.2
comp=Z,32nm,1.1s
MTPC Mountain Pass 90.90 52 IAmb IAmb 23 29 41.0
comp=Z,51nm,1.4s
G19K Purcell Mounta 90.93 13 IAmb IAmb 23 31 08.3
comp=Z,32nm,1.7s
I05D Terrebonne, OR 91.03 42 IAmb IAmb 23 29 41.1
comp=Z,27nm,1.1s
F04A Amboy 91.15 40 IAmb IAmb 23 29 41.4
comp=Z,37nm,1.0s
HOOD Mount Hood Mea 91.31 41 IAmb IAmb 23 29 51.3
comp=Z,37nm,1.1s
SHPR Sheep Range 91.63 51 IAmb IAmb 23 29 44.6
comp=Z,35nm,1.3s
S11A Rachel 91.70 50 IAmb IAmb 23 29 44.5
comp=Z,34nm,1.0s
GNW Green Mountain 91.72 39 IAmb IAmb 23 29 44.2
comp=Z,26nm,1.2s
WRAK Wrangell Islan 91.75 28 IAmb IAmb 23 29 43.9
comp=Z,27nm,1.0s
HSIG 91.78 60 IAmb IAmb 23 29 44.8
comp=Z,26nm,1.1s
MENT Mentasta 91.85 20 P **P 23 29 45.5 +1.3**
WVOR Wild Horse Val 91.86 45 P **P 23 29 43.8 -1.1**
comp=Z,28nm,1.2s
BMN Battle Mountai 91.89 47 IAmb IAmb 23 29 45.3
comp=Z,27nm,1.1s
G06A Carlson Farm, 91.90 42 IAmb IAmb 23 30 05.2
comp=Z,26nm,1.5s
LON Longmire 91.92 40 IAmb IAmb 23 29 44.7
comp=Z,29nm,1.4s
W13A Hualapai Mount 91.97 53 IAmb IAmb 23 29 46.1
comp=Z,29nm,1.1s
HDA Harding Lake 92.00 18 IAmb IAmb 23 29 44.3
comp=Z,18nm,1.2s
G21K Allakaket 92.02 14 IAmb IAmb 23 29 44.5
comp=Z,49nm,1.6s
E19K Redstone River 92.03 12 IAmb IAmb 23 29 45.0
comp=Z,21nm,1.2s
D05A Enumclaw 92.03 40 P **P 23 29 45.7 +0.3**
BESE Bessie Mountai 92.04 26 P **P 23 29 44.8 -0.5**
ZAK Zakamensk 92.04 324 *eP* **P 23 29 44.1 -1.4**
ZAK pmax pmax
comp=Z,15nm,1.3s
I07A Izee 92.06 43 IAmb IAmb 23 29 46.0
comp=Z,18nm,1.1s
COLA College 92.11 17⇑ *iP* **P 23 29 42.7 -2.6**
COLA pmax pmax
comp=Z,22nm,1.3s
ILAR Eielson Array 92.30 17 P **P 23 29 44.2 -2.0**
comp=Z,2.0nm,0.7s,baz=239,slow=5.5,SNR=9.4
comp=Z,2.0nm,0.7s
ILAR Eielson Array 92.30 17 P 23 29 44.1 -2.1
J08A Circle Bar Ran 92.39 44 IAmb IAmb 23 29 47.3
comp=Z,24nm,1.1s
SKAG Skagway 92.41 25 P 23 29 46.1 -0.7
SKAG IAmb IAmb 23 29 46.7
comp=Z,21nm,1.2s
HYT Haines Junctio 92.48 23 IAmb IAmb 23 29 46.5
comp=Z,18nm,1.1s
TLY Talaya 92.53 325 LR LR 00 07 58.4
comp=Z,75nm,21.6s,baz=114,slow=33
TLY Talaya 92.53 325⇑ *eP* **P 23 29 46.5 -1.1**
TLY pmax pmax
comp=Z,12nm,1.0s
SCRK Sand Creek 92.54 19 IAmb IAmb 23 29 47.4
comp=Z,19nm,1.3s
F21K Alatna River 92.61 14 IAmb IAmb 23 29 47.9
comp=Z,19nm,1.3s

D19K Kuna River 92.76 11 IAmb IAmb 23 29 49.0
comp=Z,40nm,1.4s
G08A Pilot Rock 92.97 42 IAmb IAmb 23 29 49.9
comp=Z,19nm,1.2s
E07A Sunnyside 93.01 41 P **P 23 29 50.0 0.0**
E07A IAmb IAmb 23 29 50.1
comp=Z,21nm,1.3s
HAWA Hanford 93.13 41 P 23 29 49.6 -0.8
HAWA IAmb IAmb 23 29 50.7
comp=Z,27nm,1.3s
P32M Atlin 93.13 25 IAmb IAmb 23 29 49.9
comp=Z,23nm,1.2s
S34M Telegraph Cree 93.18 27 IAmb IAmb 23 29 50.6
comp=Z,23nm,1.1s
LCMT Little Creek M 93.24 52 IAmb IAmb 23 29 51.8
comp=Z,24nm,1.2s
E08A Dider Farm, El 93.46 41 IAmb IAmb 23 30 00.5
comp=Z,18nm,1.3s
EVN Everest 93.46 299 IAmb IAmb 23 29 55.5
comp=Z,22nm,1.1s
EVN Everest 93.46 299 P **P 23 29 53.9 +0.6**
comp=Z,19nm,1.1s
N31M Braeburn, Yuko 93.55 23 IAmb IAmb 23 29 51.3
comp=Z,24nm,1.1s
SZCU Shurtz Canyon 93.59 51 IAmb IAmb 23 29 54.5
comp=Z,60nm,1.9s
G24K Hadweenzic Riv 93.62 16 IAmb IAmb 23 29 52.1
comp=Z,22nm,1.4s
DLBC Dease Lake 93.97 27 LR LR 00 04 29.2
comp=Z,430nm,20.0s,baz=248,slow=31
PKCU Pink Cliffs 94.09 51 IAmb IAmb 23 30 32.3
comp=Z,12nm,0.9s
R33M Jennings River 94.13 26 IAmb IAmb 23 29 55.0
comp=Z,28nm,1.4s
D22K Ayikyak River 94.15 13 IAmb IAmb 23 29 54.9
comp=Z,23nm,1.2s
I27K Kandik River 94.42 18 IAmb IAmb 23 29 55.2
comp=Z,19nm,1.3s
D23K Nanushuk River 94.65 13 IAmb IAmb 23 29 57.9
comp=Z,32nm,1.2s
G26K Porcupine Rive 94.78 17 IAmb IAmb 23 29 57.3
comp=Z,28nm,1.2s
DUG Dugway, Tooele 94.84 49 P **P 23 29 57.2 -1.5**
comp=Z,3.4nm,1.8s
BMAR Burnt Mountain 94.92 16 P **P 23 29 57.4 -0.9**
HLID Hailey 95.13 45 P **P 23 29 59.4 -0.6**
comp=Z,6.7nm,2.2s
KNGR Kungurtug, Tuv 95.36 323⇓ *eP* **P 23 30 00.5 -0.3**
KNGR pmax pmax
comp=Z,9.0nm,1.0s
E27K Coleen River 96.25 17 IAmb IAmb 23 30 04.1
comp=Z,11nm,1.1s
P18A Preston Nutter 96.44 50 IAmb IAmb 23 32 17.1
comp=Z,22nm,1.4s
LDM Libby Dam 96.61 40 IAmb IAmb 23 31 32.8
comp=Z,14nm,1.5s
MVCO Mesa Verde 96.81 53 P **P 23 30 06.3 -1.5**
comp=Z,7.5nm,1.3s
PV14 Lion Creek, Pa 96.85 52 IAmb IAmb 23 31 40.5
comp=Z,14nm,0.9s
TIXI Tiksi 96.85 348 LR LR 00 13 55.3
comp=Z,248nm,18.7s,baz=184,slow=36
TIXI Tiksi 96.85 348⇓ *eP* **P 23 30 04.6 -2.3**
TIXI pmax pmax
comp=Z,9.0nm,1.4s
TIXI Tiksi 96.85 348 P **P 23 30 05.2 -1.7**
TIXI Tiksi 96.85 348 P **P 23 30 04.9 -2.0**
comp=Z,6.9nm,1.2s
PV21 Cone Mtn., Par 96.95 51 IAmb IAmb 23 31 43.0
comp=Z,28nm,1.4s
DLMT Dillon 97.05 44 IAmb IAmb 23 30 42.2
comp=Z,27nm,1.9s
MNTX Cornudas Mount 97.24 59 P **P 23 30 08.3 -1.4**
comp=Z,3.1nm,1.8s
E29M Blow River 97.40 17 IAmb IAmb 23 30 20.2
comp=Z,21nm,1.6s
F30M Barrier River 97.49 18 IAmb IAmb 23 30 09.5
comp=Z,20nm,1.2s
ANMO Albuquerque 97.53 56 LR LR 00 07 51.1
comp=Z,409nm,18.7s,baz=211,slow=32
TXAR Lajitas Array 97.81 62 P **P 23 30 10.7 -1.7**
comp=Z,1.7nm,1.0s,baz=237,slow=4.3,SNR=12
TXAR LR LR 00 08 01.7
comp=Z,504nm,18.1s,baz=222,slow=32
comp=Z,1.7nm,1.0s
PDAR Pinedale Array 98.09 47 P **P 23 30 11.8 -1.7**
comp=Z,2.9nm,1.1s,baz=215,slow=1.8,SNR=8.3
comp=Z,2.9nm,1.1s
PDAR Pinedale Array 98.09 47 Pdif 23 30 14.5 +0.9
INK Inuvik 98.60 18 P **P 23 30 12.9 -1.9**
comp=Z,14nm,1.3s
WMQ Urumqi 98.69 314 *eP* Pdif 23 30 16.1 +0.1
WMQ sP sP 23 30 26.4 -0.5
WMQ pmax pmax
comp=Z,10.0nm,1.3s
WMQ L L
comp=Z,95nm,20.9s
MKAR Makanchi Array 103.27 315 PP **PP 23 34 51.6 -0.4**
comp=Z,3.2nm,1.1s,baz=83,slow=12,SNR=4.2
KURBB Kurchatov Arra 106.68 318 PP **PP 23 35 13.6 -3.6**
comp=Z,0.1nm,0.3s,baz=103,slow=7.6,SNR=4.7
NEEM North Greenlan 120.64 9 *i* P **PKPdf 23 35 25.7 -2.1**
KDWAN Kaudwane 123.67 220 PKiKP 23 35 35.7 +0.4
DAG Danmarks Havn 124.45 2 *i* P **PKPdf 23 35 31.5 -3.2**
LKGWB Lokgwabe 125.08 216 PKiKP 23 35 38.1 0.0
BELG Belogornoye 125.88 320⇑ *i*PKIKP **PKPdf 23 35 37.6 -0.5**
ILULI Ilulissat 126.34 17 *i* P **PKPdf 23 35 37.3 -1.2**
SUMG Summit 126.49 10 *i* P **PKPdf 23 35 37.9 -1.4**
KOOLE Kule 126.53 216 PKiKP 23 35 41.3 +0.2
DBG Daneborg 126.83 3 *i* P **PKPdf 23 35 38.0 -1.4**
ARCES ARCESS Array B 127.15 345 PKP **PKPdf 23 35 38.0 -2.1**
comp=Z,6.4nm,0.8s,baz=73,slow=2.1,SNR=18
KLMR Klimovskoe 127.44 332 *e*PKIKP **PKPdf 23 35 38.2 -2.6**
KLMR pmax pmax
comp=Z,18nm,1.3s
BDFB Brasilia 128.13 132 PKP **PKPdf 23 35 42.1 -1.6**
comp=Z,2.2nm,0.6s,baz=68,slow=1.7,SNR=3.2
RAYN Ar Rayn 128.23 284 PKIKP **PKiKP 23 35 44.2 0.0**
RAYN Ar Rayn 128.23 284 PKiKP 23 35 44.2 0.0
KBZ Khabaz 130.55 310⇓ *i*PKIKP **PKiKP 23 35 49.6 +1.4**
SHA1 Shidzhatmaz 130.72 310⇓ *i*PKIKP **PKiKP 23 35 49.3 +0.4**
NEUR Neytrino 130.77 309⇑ *e*PKIKP **PKPdf 23 35 47.3 -0.7**
OBN Obninsk 131.28 326 *e*PKIKP **PKPdf 23 35 47.6 -0.7**
OBN *e* 23 38 06.0
OBN *e*PPP PPP 23 40 52.9
OBN pmax pmax
comp=Z,6.0nm,1.2s
GURO Guroymak-BITLI 131.83 303 PKiKP 23 35 51.2 +0.1
FINES FINESS Array B 132.57 337 PKP **PKPdf 23 35 48.3 -2.3**
comp=Z,2.3nm,0.7s,baz=22,slow=2.1,SNR=8.7
MNK Minsk 135.99 328 *i* PKIKP **PKPdf 23 35 56.9 -0.2**
MNK *i* PPP PPP 23 41 33.0
MNK *i* 23 43 08.0
MNK *i* SS SS 23 56 36.7 +3.0
MNK *i* SSS SSS 00 01 36.4
MNK pmax pmax
comp=N,15nm,1.0s
MNK pmax pmax
comp=Z,10.0nm,1.0s
MNK pmax pmax
comp=E,22nm,1.1s
MNK MLR MLR
comp=E,211nm,17.0s
MNK Minsk 135.99 328 *i* SSS SSS 22 48 56.8
MNK Minsk 135.99 328 *i* LQ LQ 22 58 40.0
MNK Minsk 135.99 328 *i* LR LR 23 04 02.5
MNK Minsk 135.99 328 *i* LRM MLR 23 06 15.1
comp=N,93nm,18.5s
MNK Minsk 135.99 328 *i* LRM MLR 23 06 34.2
comp=Z,22nm,6.0s
MNK Minsk 135.99 328 *i* PKP **PKPdf 23 35 57.0 -0.2**
comp=E,22nm,1.1s
MNK Minsk 135.99 328 *i* PKP **PKPdf 23 35 57.0 -0.2**
comp=N,15nm,1.0s
MNK Minsk 135.99 328 *i* PKP **PKPdf 23 35 57.0 -0.2**
comp=Z,10.0nm,1.0s,baz=58
MNK Minsk 135.99 328 *i* PPP PPP 23 41 33.0
MNK Minsk 135.99 328 *i* SKS **SKSdf 23 43 08.1 +2.1**
MNK Minsk 135.99 328 *i* SKKS 23 52 42.1
MNK Minsk 135.99 328 *i* SS SS 23 56 36.7 +3.0
MNK Minsk 135.99 328 *i* SSS SSS 00 01 36.5
AKASG Malin Array Be 137.22 323 PKP **PKPdf 23 35 59.0 -0.6**
comp=Z,1.4nm,0.6s,baz=68,slow=1.1,SNR=4.4
AKASG Malin Array Be 137.22 323 PKIKP **PKPdf 23 35 59.0 -0.6**
AKBB Malin Array Si 137.22 323⇑ *e*PKIKP **PKPdf 23 35 58.5 -1.1**
NOA NORSAR Array B 137.52 344 PKP **PKPdf 23 35 59.6 -0.3**
comp=Z,1.3nm,0.8s,baz=30,slow=1.9,SNR=3.5
BRTR Keskin Array B 138.10 306 PKP **PKPdf 23 36 00.3 -1.5**
comp=Z,1.0nm,0.8s,baz=211,slow=4.3,SNR=4.1
BRTR PP **PP 23 38 52.8 +2.1**
comp=Z,1.3nm,1.0s,baz=132,slow=7.0,SNR=4.4
KOLS Kolonicke sedl 141.99 324 *e*PKP **PKiKP 23 36 12.1 +0.8**
DRGR 142.91 321 ⇓PKIKP **PKPdf 23 36 05.8 -4.4**
DRGR 142.91 321 ⇓P **PKPdf 23 36 05.8 -4.4**
LOT Lotru 142.95 319⇑P **PKPdf 23 36 06.6 -3.8**
LANS Liptovska Anna 143.35 326 *e*PKP **PKiKP 23 36 12.8 -1.4**
GZR Gura Zlata 143.58 319⇑PKIKP PKPbc 23 36 08.7 -0.1
GZR Gura Zlata 143.58 319⇑P PKPbc 23 36 08.7 -0.1
STEB Steborice 143.70 329 *e*PKP PKPbc 23 36 09.9 +1.0
SURR Surduc 143.79 320 ⇓P PKPab 23 36 08.8 +0.2
SIRR Siria 143.80 321 ⇓P PKPab 23 36 08.8 +0.1
MORC Moravsky Berou 143.91 329 ⇓PKIKP PKPab 23 36 07.5 -1.5
MORC Moravsky Berou 143.91 329 *e*PKP PKPbc 23 36 10.4 +0.8
MORC Moravsky Berou 143.91 329 ⇓P PKPab 23 36 07.5 -1.5
OSTC Ostas 144.01 330 *e*PKP PKPbc 23 36 09.9 0.0
KARP Karpathos 144.03 301 PKPab 23 36 09.7 -0.2
MAUC Maruska 144.04 328 *e*PKP **PKPdf 23 36 11.3 -0.7**
HERR Herculane 144.06 318⇑P **PKPab 23 36 09.0 -0.6**
KRLC Kraliky 144.08 329 *e*PKP PKPbc 23 36 10.0 -0.1
KRLC *ep*PKP **PKiKP 23 36 17.5 +1.9**
VYHS Vyhne 144.08 326 *e*PKP PKPbc 23 36 10.6 +0.5
DPC Dobruska-Polom 144.11 330 *e*PKP **PKPab 23 36 09.6 -0.1**
UPC Upice 144.14 331 *e*PKP **PKPab 23 36 09.9 +0.1**
BZS Buzias 144.17 320⇑PKIKP **PKPab 23 36 08.8 -1.2**
BZS Buzias 144.17 320⇑P **PKPab 23 36 08.8 -1.2**
JAVC Velka Javorina 144.45 327 *e*PKP **PKPdf 23 36 12.5 -0.3**
BLKB Belogradchik 144.50 316⇑P PKPbc 23 36 12.3 +0.7
MDVR Moldovita 144.54 319 ⇓P **PKPab 23 36 11.5 0.0**
VRAC Vranov 144.69 329 ⇓PKIKP **PKPab 23 36 09.5 -2.4**
VRAC Vranov 144.69 329 *e*PKP **PKPab 23 36 11.1 -0.8**
VRAC Vranov 144.69 329 ⇓P **PKPab 23 36 09.4 -2.4**
FLTG Flechtingen 144.76 337 *e*PKPbc **PKPab 23 36 10.8 -1.2**
baz=39,slow=2.9
PVCC Panska Ves 144.77 332 *e*PKP **PKPab 23 36 11.9 -0.2**
BRG Berggiesshubel 144.79 333 *e*PKPbc **PKPab 23 36 11.2 -1.0**
baz=39,slow=2.9
BRG Berggiesshubel 144.79 333 *i* PKP **PKPab 23 36 11.4 -0.8**
BRG Amp 23 36 12.7
comp=Z,30nm,1.0s
BRG Berggiesshubel 144.79 333 P **PKiKP 23 36 17.5 +0.5**
BRG Amp 23 36 22.9
comp=Z,19nm,0.9s
CLL Collm 144.86 334 *e*PKPbc **PKPab 23 36 11.6 -0.8**
baz=39,slow=2.9
CLL Collm 144.86 334 *i* PKPbc **PKPab 23 36 11.3 -1.1**
comp=Z,25nm,1.0s
CLL *i* (PKiKP) **PKiKP 23 36 16.6 -0.5**
comp=Z,31nm,1.2s
CLL *i* x x 23 36 21.1
CLL LH 00 18 00.0
CLL LV 00 29 00.0
CLL AMS AMS 00 40 00.0
comp=Z,300nm,17.1s
CLL AMS AMS 00 40 00.0
comp=N,200nm,18.3s
CLL AMS AMS 00 40 00.0
comp=E,300nm,15.9s
KRUC Moravsky 144.95 328 *e*PKP **PKPab 23 36 11.9 -0.9**
MODS Modra-Piesok 144.96 327 *e*PKP **PKPdf 23 36 13.7 +0.1**
BOVS Bovan 145.11 317⇑P **PKPbc 23 36 13.1 -0.5**
ASSE Asse, Remlinge 145.12 337 *e*PKPbc **PKPbc 23 36 12.7 -0.5**
baz=39,slow=2.9
HSKC Hora Svate Kat 145.21 333 *e*PKP **PKPbc 23 36 13.2 -0.5**
NEUB Neuenburg 145.43 335 *e*PKPbc **PKPbc 23 36 13.5 -0.8**
baz=39,slow=2.9
CLZ Clausthal 145.47 337 *e*PKPbc **PKPdf 23 36 13.7 -0.8**
baz=39,slow=2.9
FRGS Fruska Gora 145.49 321⇑ *i*P **PKPdf 23 36 14.0 -0.7**
MORH Mrgy, Hungar 145.56 323 ⇓P **PKPdf 23 36 13.8 -0.9**
MORH Mrgy, Hungar 145.56 323⇑ *i*P **PKPdf 23 36 13.8 -0.9**
VAY Valandovo 145.59 313 *i* P **PKPdf 23 36 14.7 -0.2**
EKA Eskdalemuir Ar 145.65 352 PKPbc **PKPdf 23 36 13.0 -1.5**
comp=E,20nm,0.8s,baz=349,slow=2.2,SNR=28
ABNA Allensteig Bun 145.68 329 *i* PKP **PKPdf 23 36 14.8 -0.1**
comp=E,27nm,0.9s
ZVC Zvikov 145.73 331 *e*PKP **PKPdf 23 36 14.5 -0.4**
WINA Alland / Wiene 145.75 327 *e*PKP **PKPbc 23 36 15.3 -0.1**
comp=E,25nm,1.0s,SNR=7.2
TANN Tannenbergstha 145.76 333 *e*PKPbc **PKPdf 23 36 14.6 -0.5**
baz=39,slow=2.9
GTTG Gottingen 145.86 337 *e*PKPbc **PKPdf 23 36 14.5 -0.5**
baz=39,slow=2.9
RONA Rosalia, Austr 145.90 327 *e*PKP **PKPbc 23 36 15.7 -0.2**
comp=E,27nm,1.0s,SNR=10.0
NKC Novy Kostel 145.91 333 *e*PKP **PKPdf 23 36 15.2 0.0**
MOX Moxa 145.94 334 *e*PKPbc **PKPdf 23 36 14.5 -0.8**
baz=39,slow=2.9
CONA Conrad Observa 145.97 327 *i* PKP **PKPbc 23 36 15.9 -0.3**
comp=E,41nm,1.1s,SNR=20
IBBN Ibbenburen 145.99 340 *e*PKPbc **PKPdf 23 36 15.0 -0.2**
baz=39,slow=2.9
TEKS Tekeris 145.99 320⇑ *i*P **PKPdf 23 36 14.4 -1.1**
SKO Skopje 146.07 315 *i* P **PKPbc 23 36 16.5 -0.1**
CKRC Cesky Krumlov 146.11 330 *e*PKP **PKPdf 23 36 15.3 -0.3**
CKRC *ex* x 23 36 22.0
KHC Kasperske Hory 146.23 331 *e*PKP **PKPdf 23 36 15.6 -0.2**
KHC *ep*PKP **pPKPdf 23 36 22.8 -1.2**
GEC2 GERESS Array S 146.38 330 *e*PKPbc **PKPdf 23 36 16.6 +0.5**
baz=39,slow=2.9
GERES GERESS Array B 146.38 330 PKPbc **PKPdf 23 36 15.9 -0.2**
comp=E,12nm,0.8s,baz=25,slow=2.0,SNR=62
SJES Sjenica 146.39 318⇑ *i*P **PKPdf 23 36 16.8 +0.4**
BBLS Lazi&#263i 146.43 319⇑ *i*P **PKPdf 23 36 15.7 -0.7**
WET Wettzell 146.53 331 *e*PKPbc **PKPbc 23 36 16.6 +0.3**
baz=39,slow=2.9
ARSA Arzberg 146.59 327 *i* PKP **PKPdf 23 36 17.1 +0.6**
comp=E,7.6nm,1.2s
MOA Molln 146.81 329 *i* PKP **PKPdf 23 36 17.5 +0.7**
comp=E,20nm,1.3s
GRF Grafenberg Arr 146.83 334 *e*PKPbc **PKPbc 23 36 17.8 -0.8**
baz=39,slow=2.9
GRFO Grafenberg 146.83 334 PKP2 **PKPbc 23 36 18.9 +0.3**
GRFO Grafenberg 146.83 334 PKPbc 23 36 18.9 +0.3
OHR Ohrid 146.89 314 *i* P **PKPbc 23 36 18.9 -0.2**
SESA Seetaler Alpe, 147.17 327 *i* PKP **PKPdf 23 36 16.7 -1.0**
comp=E,25nm,1.2s,SNR=7.8
SOKA Soboth 147.22 326 *e*PKP **PKPbc 23 36 19.1 -0.8**
comp=E,23nm,1.3s
BIOA Bad Ischl, Aus 147.23 329 *i* PKP **PKPdf 23 36 17.8 +0.3**
comp=E,4.6nm,0.8s
BLY Banja Luka 147.26 322⇑P **PKPdf 23 36 18.4 +0.8**
BLY Banja Luka 147.26 322⇑ *i*P **PKPbc 23 36 19.2 -0.7**
PDG Podgorica 147.27 317 PKPbc 23 36 19.4 -0.7
PDG Podgorica 147.27 317 ⇓P **PKPbc 23 36 19.4 -0.7**
PDG Podgorica 147.27 317⇑ *i*P **PKPdf 23 36 18.4 +0.7**
DRME Dracevica, Mon 147.44 316⇑ *i*P **PKPbc 23 36 20.5 0.0**
TNS Taunus Mts 147.49 337 *e*PKPbc **PKPbc 23 36 19.4 -1.1**
baz=39,slow=2.9
OBKA Obir 147.59 327 *e*PKP **PKPdf 23 36 19.4 +1.1**
comp=E,5.0nm,1.0s
TREB Trebinje 147.69 318⇑ *i*P **PKPdf 23 36 17.7 -0.7**
HCY Herceg Novi 147.75 317⇑ *i*P **PKPbc 23 36 20.4 -1.0**
BMOL Mol 147.77 341 *d*PKPdf **PKPbc 23 36 20.6 -0.5**
KBA Koelnbreinsper 147.80 328 *i* PKP **PKPdf 23 36 20.0 +1.3**
comp=E,11nm,0.7s
LESA Schwarzleotal 147.88 329 *i* PKP **PKPdf 23 36 20.1 +1.4**
comp=E,12nm,0.6s
LJU Ljubljana 147.91 326 *e*PKPbc **PKPbc 23 36 21.2 -0.5**
MYKA Terra Mystica 147.96 328 *i* PKP **PKPdf 23 36 19.6 +0.7**
comp=E,19nm,1.4s
GORS Gorjuse 148.00 327 *e*PKPbc **PKPbc 23 36 20.9 -1.1**
MEM Membach 148.01 340 *d*PKPdf **PKPbc 23 36 20.6 -1.2**
GBAS Gorenja Brezov 148.02 326 *e*PKPbc **PKPbc 23 36 21.5 -0.5**
UCC Uccle 148.35 342 *d*PKPdf **PKPdf 23 36 18.5 -0.7**
BCLA Clavier 148.40 340 *d*PKP **PKPbc 23 36 22.1 -0.8**
ABTA Abfaltersbach 148.44 329 *i* PKP **PKPdf 23 36 19.5 -0.2**
comp=E,8.2nm,0.7s,SNR=5.0
WATA Walderalm 148.45 330 *i* PKP **PKPbc 23 36 21.8 -1.5**
comp=E,11nm,1.1s
WTTA Wattenberg 148.48 330 *i* PKP **PKPbc 23 36 22.1 -1.2**
comp=E,19nm,1.0s
BSKQ Steenkerk 148.57 342 *d*PKPdf **PKPbc 23 36 21.9 -1.3**
RCHB Rochefort 148.65 340 *d*PKPdf **PKPbc 23 36 22.2 -1.3**
MOTA Moosalm 148.66 331 *i* PKP **PKPdf 23 36 21.7 +1.6**
comp=E,30nm,1.1s,SNR=6.2
BMRD Maredsous 148.67 341 *d*PKP **PKPbc 23 36 22.2 -1.3**
SQTA Sankt Quirin 148.71 331 *i* PKP **PKPbc 23 36 22.2 -1.7**
comp=E,15nm,0.6s,SNR=5.1
RETA Reutte 148.71 331 *i* PKP **PKPbc 23 36 22.4 -1.4**
comp=E,4.9nm,0.6s

WLF	**Walferdange**	**148.77 339**	*d*PKP	**PKPbc**	**23 36 23.3**	**-0.5**
WLF	**Walferdange**	**148.77 339**	*e*PKPbc	**PKPbc**	**23 36 23.7**	**-0.1**
	baz=39,slow=2.9					
UBR	**Ueberruh**	**148.85 332**	*e*PKPbc	**PKPbc**	**23 36 23.3**	**-0.8**
	baz=39,slow=2.9					
DOU	**Dourbes**	**148.90 341**	*d*PKP	**PKPbc**	**23 36 23.6**	**-0.5**
FETA	**Feichten**	**149.07 331**	*i* pPKP	**PKPbc**	**23 36 23.8**	**-1.1**
	comp=E,26nm,1.0s,SNR=5.7					
BFO	**Black Forest**	**149.08 335**	PKP2	**PKPbc**	**23 36 23.3**	**-1.4**
BFO	**Black Forest**	**149.08 335**		**PKPbc**	**23 36 23.3**	**-1.4**
BFO	**Black Forest**	**149.08 335**	*e*PKPbc	**PKPbc**	**23 36 23.9**	**-0.7**
	baz=39,slow=2.9					
DAVA	**Damuels**	**149.25 332**	*i* PKP	**PKPdf**	**23 36 22.9**	**+1.9**
	comp=E,15nm,1.2s					
TIP	**Timpagrande**	**150.53 313**		**PKPbc**	**23 36 28.6**	**0.0**
TIP	**Timpagrande**	**150.53 313**	⇓P	**PKPbc**	**23 36 28.4**	**-0.2**
AQU	**L'Aquila**	**150.90 321**	⇑*i*P	**PKPbc**	**23 36 29.0**	**-0.3**
BNI	**Bardonecchia**	**152.39 333**	PKIKP	**PKPbc**	**23 36 32.2**	**-0.6**
BNI	**Bardonecchia**	**152.39 333**		**PKPbc**	**23 36 32.2**	**-0.6**
PBRG	**Braganca**	**159.38 351**	*e*PKPab	**PKPab**	**23 37 12.0**	**-0.7**
PGAV	**Gavieira, Arco**	**159.40 355**	*e*PKPab	**PKPab**	**23 37 12.2**	**-0.6**
POLO	**Lamas de Olo**	**159.94 353**	*e*PKPab	**PKPab**	**23 37 13.9**	**-1.3**
PVRL	**Vila Real**	**160.03 353**	*e*PKPab	**PKPab**	**23 37 14.4**	**-1.1**
PVIS	**Viseu**	**160.60 353**	*e*PKPab	**PKPab**	**23 37 17.1**	**-0.9**
MTE	**Manteigas**	**160.87 352**	*e*PKPab	**PKPab**	**23 37 17.4**	**-1.8**
ESDC	**Sonseca Array**	**160.88 344**	PKP	**PKPdf**	**23 36 37.5**	**+0.6**
	comp=E,0.3nm,0.7s,baz=78,slow=7.0,SNR=4.0					
ESDC			PKPab	**PKPab**	**23 37 18.2**	**-1.1**
	comp=E,3.1nm,0.9s,baz=7.8,slow=3.6,SNR=15					
ESDC			PP	**PP**	**23 40 59.4**	**-1.9**
	comp=E,1.7nm,1.1s,baz=16,slow=8.8,SNR=4.3					
ESDC	**Sonseca Array**	**160.88 344**		**PKPab**	**23 37 18.7**	**-0.6**
PCBR	**Castelo Branco**	**161.41 352**	*e*PKPab	**PKPab**	**23 37 20.8**	**-0.7**
PMRV	**Marv??o**	**161.81 352**	*e*PKPab	**PKPab**	**23 37 22.1**	**-1.1**
PSBE	**So Bento**	**161.88 355**	*e*PKPab	**PKPab**	**23 37 22.7**	**-0.9**
PMTG	**Montargil**	**162.26 353**	*e*PKPab	**PKPab**	**23 37 23.9**	**-1.4**
PESTR	**Estremoz**	**162.39 352**	*e*PKPab	**PKPab**	**23 37 24.9**	**-0.9**
PMAFR	**Mafra**	**162.47 356**	*e*PKPab	**PKPab**	**23 37 25.6**	**-0.6**
PARRA	**Arraiolos**	**162.49 353**	*e*PKPab	**PKPab**	**23 37 25.4**	**-0.9**
MOE	**Montemor**	**162.82 354**	*e*PKPab	**PKPab**	**23 37 26.0**	**-1.7**
TOA0	**Torodi Ar. Sit**	**165.54 237**		**PKPab**	**23 37 41.1**	**+0.6**
TORD	**Torodi Ar. Bea**	**165.54 237**	PKP	**PKPdf**	**23 36 41.4**	**-0.6**
	comp=E,2.4nm,1.1s,baz=232,slow=4.5,SNR=5.5					
TORD	**Torodi Ar. Bea**	**165.54 237**		**PKPdf**	**23 36 41.2**	**-0.8**

*IDC **20** 23:18:03.5±1.8, 12°.25N×140°.51E, h0km, mb4.1/7, mbtmp4.1/7, MS4.4/1, Error ellipse: s-maj=57.6km s-min=30.2km az=5.0*
ISC 20 23:18:08.6±2.0, 12°.2N±0°.4×140°.5E±0°.2, h35km, n11, σ0§75/9, mb4.2/8, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
JHJ	**Hachijo jima 2**	**20.86**	**358**	LR	LR		23 29 36.7	
	comp=Z,34nm,21.2s,baz=92,slow=33							
CMAR	**Chiang Mai Arr**	**40.48**	**284**	P	**P**		**23 25 44.8**	**+0.4**
	0.5nm,0.4s,baz=93,slow=7.0,SNR=5.6							
	0.5nm,0.4s							
SONM	**Songino Array**	**45.54**	**328**	P	**P**		**23 26 25.9**	**+0.8**
	0.2nm,0.6s,baz=147,slow=11,SNR=2.2							
MKAR	**Makanchi Array**	**59.58**	**317**	P	**P**		**23 28 08.3**	**-0.7**
	0.6nm,0.8s,baz=108,slow=8.0,SNR=4.4							
	0.6nm,0.8s							
KURBB	**Kurchatov Arra**	**62.98**	**321**	P	**P**		**23 28 31.8**	**-0.1**
	1.4nm,0.7s,baz=105,slow=7.1,SNR=12							
	1.4nm,0.7s							
BVAR	**Borovoye Array**	**68.41**	**322**	P	**P**		**23 29 06.4**	**-0.4**
	1.3nm,0.7s,baz=123,slow=7.6,SNR=7.9							
	1.3nm,0.7s							
ILAR	**Eielson Array**	**71.67**	**26**	P	**P**		**23 29 26.4**	**-0.2**
	2.3nm,0.6s,baz=247,slow=6.2,SNR=29							
	2.3nm,0.6s							
BBB	**Bella Bella**	**81.35**	**39**	LR	LR		00 08 02.5	
	comp=Z,190nm,18.0s,baz=282,slow=37							
YKA	**Yellowknife Ar**	**86.05**	**27**	P	**P**		**23 30 46.2**	**+0.7**
	1.3nm,0.7s,baz=287,slow=4.9,SNR=5.7							
	1.3nm,0.7s							
FINES	**FINESS Array B**	**90.60**	**334**	P	**P**		**23 31 06.0**	**-1.2**
	2.5nm,0.6s,baz=56,slow=5.1,SNR=17							
	2.5nm,0.6s							
LPAZ	**La Paz**	**151.97**	**102**	PKPbc	**PKiKP**		**23 38 02.4**	**+0.2**
	1.3nm,0.6s,baz=317,slow=3.4,SNR=4.9							

*IDC **20** 23:20:54.1±4.1, 6°.65N×126°.58E, h109km±33km, mb3.6/4, mbtmp4.0/4, Error ellipse: s-maj=105.7km s-min=23.7km az=63.0*
*MAN **20** 23:20:55.0, 6°.19N×125°.85E, h112km, MS3.3*
ISC 20 23:20:55.6±1.0, 6°.12N±0°.09×125°.9E±0°.1, h100km, n8, σ1§32/12, mb3.8/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**1.00**	**341**	P		**Pn**	**23 21 15.7**	**-0.3**
	223nm,0.4s,baz=103,slow=4.0,SNR=10							
DAV				S		**Sn**	**23 21 32.7**	**+1.4**
	520nm,0.3s,baz=298,slow=23,SNR=27							
DMPH	**Davao City--Mi**	**1.03**	**337**	*e*P		**Pn**	**23 21 17.0**	**+0.6**
DMPH				*i* S		**Sn**	**23 21 33.4**	**+1.3**
KCP	**Kidapawan**	**1.20**	**317**	*i* P		**Pn**	**23 21 19.2**	**+0.8**
KCP				*i* S		**Sn**	**23 21 36.5**	**+0.9**
BIPH	**Bislig**	**2.10**	**12**	*i* P		**Pn**	**23 21 30.3**	**+0.9**
BIPH				*e*S		**Sn**	**23 21 55.2**	**0.0**
WRA	**Warramunga Arr**	**27.20**	**162**	P		**P**	**23 26 29.6**	**-0.5**
	0.7nm,0.5s,baz=346,slow=9.5,SNR=2.8							
	0.7nm,0.5s							
ASAR	**Alice Springs**	**30.62**	**166**	P		**P**	**23 27 00.8**	**+0.4**
	1.4nm,0.4s,baz=340,slow=7.3,SNR=17							
	1.4nm,0.4s							
STKA	**Stephens Creek**	**40.64**	**159**	P		**P**	**23 28 26.8**	**+0.9**
	3.8nm,0.6s,baz=335,slow=9.6,SNR=6.0							
	3.8nm,0.6s							
MKAR	**Makanchi Array**	**55.14**	**325**	P		**P**	**23 30 14.8**	**-2.8**
	0.4nm,0.6s,baz=107,slow=6.6,SNR=2.2							
	0.4nm,0.6s							

*IDC **20** 23:32:47.0±0.7, 25°.39N×142°.59E, h0km, mb4.0/18, mbtmp3.9/18, MS4.6/2, Error ellipse: s-maj=23.3km s-min=13.8km az=78.0*
ISC 20 23:32:52.7±0.7, 25°.44N±0°.09×142°.6E±0°.2, h38km, n29, σ1§01/21, mb4.1/18, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**1.68**	**348**	Pn		**Pn**	**23 33 16.8**	**-2.7**
	71nm,0.3s,baz=279,slow=22,SNR=35							
JCJ				Sn		**Sn**	**23 33 41.2**	**+1.4**
	83nm,0.3s,baz=304,slow=23,SNR=5.6							
MJAR	**Matsushiro Arr**	**11.68**	**342**	LR	LR		23 39 59.2	
	comp=Z,107nm,18.6s,baz=111,slow=37							
H11N2	**WAKE ISLAND Hy 23.16**	**99**		T	T		00 01 51.1	
	baz=291,slow=75,SNR=11							
H11N1	**WAKE ISLAND Hy 23.16**	**99**		T	T		00 01 46.7	
	baz=291,slow=75,SNR=9.8							
H11N3	**WAKE ISLAND Hy 23.17**	**99**		T	T		00 01 49.0	
	baz=291,slow=75,SNR=13							
H11S3	**WAKE ISLAND Hy 23.39**	**102**		T	T		00 02 04.0	
	baz=292,slow=75,SNR=16							
H11S1	**WAKE ISLAND Hy 23.40**	**102**		T	T		00 02 05.9	
	baz=292,slow=75,SNR=16							
H11S2	**WAKE ISLAND Hy 23.41**	**102**		T	T		00 02 04.8	
	baz=292,slow=75,SNR=16							
KLR	**Kul'dur**	**25.20**	**343**	P		**P**	**23 38 15.1**	**+0.5**
	1.5nm,0.3s,baz=138,slow=12,SNR=4.5							
	1.5nm,0.3s							
LZDM	**Lanzhou Array**	**34.83**	**297**	P		**P**	**23 39 40.5**	**+0.1**
	0.7nm,0.3s,baz=123,slow=5.5,SNR=4.9							
	0.7nm,0.3s							
SONM	**Songino Array**	**36.15**	**318**	P		**P**	**23 39 52.2**	**+0.8**
	0.4nm,0.7s,baz=125,slow=9.9,SNR=2.5							
	0.4nm,0.7s							
WRA	**Warramunga Arr**	**45.82**	**191**	P		**P**	**23 41 10.9**	**0.0**
	4.6nm,1.0s,baz=12,slow=8.4,SNR=12							
	4.6nm,1.0s							
ASAR	**Alice Springs**	**49.54**	**190**	P		**P**	**23 41 39.4**	**-0.5**
	0.7nm,0.8s,baz=7.5,slow=6.2,SNR=6.4							
	0.7nm,0.8s							
ZALV	**Zalesovo Beam**	**50.96**	**320**	P		**P**	**23 41 50.6**	**+0.3**
	0.3nm,0.3s,baz=116,slow=13,SNR=1.9							
	0.3nm,0.3s							
MKAR	**Makanchi Array**	**51.80**	**311**	P		**P**	**23 41 56.7**	**0.0**
	2.6nm,1.1s,baz=81,slow=9.8,SNR=2.9							
	2.6nm,1.1s							
KURBB	**Kurchatov Arra**	**54.44**	**315**	P		**P**	**23 42 14.7**	**-1.3**
	1.1nm,0.5s,baz=94,slow=7.4,SNR=9.4							
	1.1nm,0.5s							
STKA	**Stephens Creek**	**57.01**	**181**	P		**P**	**23 42 34.0**	**-0.5**
	3.2nm,0.9s,baz=345,slow=9.3,SNR=5.0							
	3.2nm,0.9s							
ILAR	**Eielson Array**	**59.00**	**28**	P		**P**	**23 42 47.8**	**-0.4**
	0.8nm,0.9s,baz=261,slow=6.5,SNR=4.9							
	0.8nm,0.9s							
BVAR	**Borovoye Array**	**59.49**	**318**	P		**P**	**23 42 52.0**	**+0.2**
	1.3nm,0.5s,baz=97,slow=8.9,SNR=6.1							
	1.3nm,0.5s							
INK	**Inuvik**	**64.39**	**24**	LR	LR		00 11 03.9	
	comp=Z,351nm,20.2s,baz=276,slow=36							
YKA	**Yellowknife Ar**	**73.43**	**28**	P		**P**	**23 44 20.5**	**-0.2**
	0.9nm,0.9s,baz=296,slow=6.4,SNR=2.5							
	0.9nm,0.9s							
KBZ	**Khabaz**	**79.38**	**313**	P		**P**	**23 44 55.5**	**+0.8**
	4.8nm,0.9s,baz=36,slow=4.0,SNR=4.2							
	4.8nm,0.9s							
FINES	**FINESS Array B**	**79.58**	**334**	P		**P**	**23 44 55.7**	**+0.3**
	1.4nm,0.6s,baz=72,slow=4.6,SNR=18							
	1.4nm,0.6s							
NVAR	**Mina Array Bea**	**81.27**	**52**	P		**P**	**23 45 05.7**	**+0.4**
	0.4nm,0.6s,baz=304,slow=5.0,SNR=4.2							
	0.4nm,0.6s							
PDAR	**Pinedale Array**	**85.14**	**45**	P		**P**	**23 45 24.3**	**-1.0**
	0.2nm,0.6s,baz=174,slow=1.3,SNR=3.5							
	0.2nm,0.6s							
NOA	**NORSAR Array B**	**85.27**	**338**	P		**P**	**23 45 25.8**	**+0.5**
	1.0nm,0.8s,baz=48,slow=4.9,SNR=2.7							
	1.0nm,0.8s							
SFJD	**Kangerlussuaq**	**87.31**	**5**	LR	LR		00 29 00.4	
	comp=Z,292nm,18.4s,baz=316,slow=39							
TXAR	**Lajitas Array**	**96.31**	**54**	P		**P**	**23 46 19.7**	**+1.9**
	0.4nm,1.0s,baz=349,slow=7.0,SNR=2.7							
	0.4nm,1.0s							
LPAZ	**La Paz**	**149.97**	**78**	PKPbc	**PKiKP**		**23 52 41.1**	**-0.3**
	1.7nm,0.8s,baz=308,slow=3.3,SNR=5.7							

*JMA **20** 23:41:29.5±0.1, 24°.3N±0°.7×122°.0E±0°.5, h47km±2km, MV3.3/13, TAIWAN REGION*
*TAP **20** 23:41:30.4, 24°.41N×121°.96E, h30km, ML4.0, B*
ISC 20 23:41:30.2±0.8, 24°.40N±0°.01×122°.05E±0°.02, h31km±4km, n187, σ1§03/330, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
EOS2	**EOS2**	**0.17**	**82**	*i* P		**Pb**	**23 41 36.5**	**+0.4**
EOS2				*i* S		**Sb**	**23 41 42.0**	**+2.0**
EWUT	**Wuta**	**0.25**	**281**	*i* P		**Pb**	**23 41 36.1**	**-1.0**
EWUT				*i* S		**Sb**	**23 41 40.2**	**-1.2**
ESAO	**Su ao**	**0.26**	**314**	P		**Pb**	**23 41 36.7**	**-0.9**
ESAO				S		**Sb**	**23 41 40.9**	**-1.1**
EOS3	**EOS3**	**0.27**	**114**	*i* P		**Pb**	**23 41 37.5**	**+0.3**
EOS3				*i* S		**Sb**	**23 41 43.6**	**+1.7**
TWC	**Suao**	**0.28**	**320**	P		**Pb**	**23 41 36.8**	**-0.6**
TWC				S		**Sb**	**23 41 41.1**	**-1.3**
ENA	**Nanau**	**0.28**	**276**	*i* P		**Pb**	**23 41 36.5**	**-1.0**
ENA				S		**Sb**	**23 41 41.3**	**-1.1**
EAHA	**Aohua**	**0.29**	**257**	*i* P		**Pb**	**23 41 36.7**	**-0.9**
EAHA				S		**Sb**	**23 41 42.3**	**-0.3**
EHP	**Heping Village**	**0.29**	**253**	P		**Pb**	**23 41 37.1**	**-0.6**
EHP				S		**Sb**	**23 41 42.8**	**+0.1**
EOS4	**EOS4**	**0.37**	**138**	*i* P		**Pb**	**23 41 38.4**	**0.0**
EOS4				*i* S		**Sb**	**23 41 45.2**	**+1.2**
NDS	**Dongshan**	**0.38**	**308**	*i* P		**Pb**	**23 41 38.4**	**-0.5**
NDS				S		**Sb**	**23 41 44.0**	**-0.9**
ETL	**Fush Village**	**0.45**	**239**	*i* P		**Pb**	**23 41 39.5**	**-0.5**
ETL				S		**Sb**	**23 41 47.7**	**+1.0**
EGS		**0.46**	**347**	P		**Pb**	**23 41 40.1**	**0.0**
EGS				S		**Sn**	**23 41 47.1**	**-0.7**
NACB	**Ninganchiao**	**0.47**	**242**	P		**Pb**	**23 41 39.3**	**-0.9**
NACB	**Ninganchiao**	**0.47**	**242**	*i* P		**Pb**	**23 41 39.4**	**-0.7**
NACB				*i* S		**Sb**	**23 41 47.2**	**+0.2**
TWE	**Neicheng**	**0.47**	**313**	*i* P		**Pb**	**23 41 39.7**	**-0.5**
TWE				S		**Sb**	**23 41 46.6**	**-0.6**
LATG	**Datong**	**0.49**	**286**	*i* P		**Pb**	**23 41 40.4**	**-0.3**
LATG				S		**Sb**	**23 41 47.7**	**-0.2**
NTC	**Toucheng**	**0.50**	**337**	P		**Pb**	**23 41 39.0**	**-1.6**
NTC				S		**Sn**	**23 41 48.2**	**-0.6**
ENTT	**Nioudou**	**0.50**	**299**	*i* P		**Pb**	**23 41 40.3**	**-0.4**
ENTT				S		**Sb**	**23 41 47.4**	**-0.6**
TWD	**Chiawan**	**0.52**	**233**	*i* P		**Pb**	**23 41 40.3**	**-0.7**
TWD				*i* S		**Sb**	**23 41 48.9**	**+0.6**
NDT	**Datong Townshi**	**0.53**	**293**	P		**Pb**	**23 41 40.9**	**-0.3**
NDT				S		**Sn**	**23 41 48.6**	**-1.0**
ETLH	**Xiulin Townshi**	**0.55**	**250**	*i* P		**Pb**	**23 41 49.4**	**-0.7**
ETLH				*i* S		**Sb**	**23 41 49.7**	**+0.4**
FUSB	**Fushanzhiwuyua**	**0.55**	**311**	*i* P		**Pb**	**23 41 41.1**	**-0.5**
FUSB				S		**Sb**	**23 41 48.9**	**-0.5**
HWA	**Hwalien**	**0.58**	**224**	P		**Pb**	**23 41 42.1**	**+0.1**
HWA				S		**Sb**	**23 41 51.1**	**+1.0**
NNSB	**Datong**	**0.61**	**273**	*i* P		**Pb**	**23 41 42.1**	**-0.4**
NNSB				S		**Sb**	**23 41 50.7**	**-0.2**
NNSH	**Datong**	**0.61**	**273**	*i* P		**Pb**	**23 41 42.2**	**-0.3**
NNSH				*i* S		**Sb**	**23 41 50.6**	**-0.3**
TIPB	**Shuangxi**	**0.61**	**341**	*i* P		**Pb**	**23 41 42.4**	**-0.1**
TIPB				*i* S		**Sn**	**23 41 51.0**	**-0.6**
TWB1	**Santiao Chiao**	**0.61**	**355**	*i* P		**Pb**	**23 41 42.5**	**0.0**
TWB1				S		**Sn**	**23 41 51.3**	**-0.2**
NNS	**Nan Shan**	**0.62**	**274**	*i* P		**Pb**	**23 41 42.2**	**-0.4**
NNS				*i* S		**Sb**	**23 41 51.0**	**-0.2**
NWLT	**Wulai**	**0.62**	**307**	P		**Pb**	**23 41 42.5**	**-0.2**
ETM	**Tongmen**	**0.66**	**230**	*i* P		**Pb**	**23 41 42.6**	**-0.3**
ETM				S		**Sb**	**23 41 52.6**	**+0.3**
TEYL	**Yanliau Villag**	**0.67**	**218**	*i* P		**Pb**	**23 41 43.0**	**-0.4**
TEYL				S		**Sb**	**23 41 52.7**	**+0.2**
YHNB	**Yeheng**	**0.67**	**294**	P		**Pb**	**23 41 42.6**	**-0.9**
YHNB	**Yeheng**	**0.67**	**294**	S		**Sn**	**23 41 52.4**	**-0.7**
YHNB	**Yeheng**	**0.67**	**294**	*i* P		**Pb**	**23 41 43.0**	**-0.5**
YHNB				*i* S		**Sb**	**23 41 52.3**	**-0.3**
NSK	**Sanguang**	**0.69**	**294**	*i* P		**Pb**	**23 41 43.3**	**-0.5**
NSK				*i* S		**Sb**	**23 41 52.6**	**-0.5**
LXIB	**Xiulin Townshi**	**0.69**	**237**	*i* P		**Pb**	**23 41 43.0**	**-0.9**
LXIB				S		**Sb**	**23 41 53.8**	**+0.6**
SXI1	**Grass Mountain**	**0.71**	**347**	*i* P		**Pb**	**23 41 44.0**	**-0.2**
SXI1				*e*S		**Sn**	**23 41 54.1**	**-0.1**
NWF	**Wu-fen Shan**	**0.71**	**340**	*i* P		**Pn**	**23 41 44.6**	**+0.4**
NWF				*i* S		**Sn**	**23 41 54.8**	**+0.6**
WFSB	**Wu-fen Shan**	**0.71**	**340**	*i* P		**Pn**	**23 41 44.5**	**+0.3**
WFSB				*i* S		**Sn**	**23 41 54.2**	**+0.1**
TWA	**Mucha**	**0.72**	**324**	*i* P		**Pn**	**23 41 44.7**	**+0.4**
TWA				S		**Sn**	**23 41 54.5**	**+0.2**
NHDH	**Xindian Distri**	**0.74**	**320**	P		**Pn**	**23 41 45.0**	**+0.5**
NHDH				S		**Sn**	**23 41 55.0**	**+0.3**
FUSS	**Fushou**	**0.75**	**259**	P		**Pb**	**23 41 44.6**	**-0.3**
FUSS				S		**Sb**	**23 41 54.9**	**0.0**
SHUL	**Shoufeng**	**0.75**	**216**	*i* P		**Pb**	**23 41 44.2**	**-0.6**
SHUL				S		**Sb**	**23 41 55.7**	**+1.0**
WHF	**Hehuan Shan**	**0.76**	**251**	*i* P		**Pb**	**23 41 44.4**	**-0.8**
WHF				S		**Sb**	**23 41 55.3**	**-0.1**
TATO	**Taipei**	**0.77**	**319**	P		**Pn**	**23 41 45.4**	**+0.5**
TATO	**Taipei**	**0.77**	**319**	S		**Sn**	**23 41 56.1**	**+0.6**
TATO	**Taipei**	**0.77**	**319**	*i* P		**Pn**	**23 41 45.5**	**+0.5**
TATO				S		**Sn**	**23 41 55.5**	**0.0**
NHY	**Taipei**	**0.77**	**326**	P		**Pn**	**23 41 46.2**	**+1.2**
NHY				*e*S		**Sn**	**23 41 56.4**	**+0.8**
TNOU	**National Taiwa**	**0.79**	**342**	P		**Pb**	**23 41 45.1**	**-0.4**
TNOU				S		**Sn**	**23 41 56.5**	**+0.4**
ESL	**Shilin**	**0.81**	**224**	*i* P		**Pb**	**23 41 44.5**	**-1.2**
ESL				S		**Sb**	**23 41 56.1**	**-0.3**
TAP	**Taipei**	**0.81**	**323**	P		**Pn**	**23 41 46.3**	**+0.8**
TAP				*e*S		**Sn**	**23 41 56.9**	**+0.4**
TWT	**Tachien**	**0.81**	**260**	*i* P		**Pb**	**23 41 45.7**	**-0.2**
TWT				S		**Sb**	**23 41 56.5**	**-0.1**
BACT	**New Taipei Cit**	**0.81**	**317**	*e*P		**Pb**	**23 41 45.2**	**-0.7**
BACT				*e*S		**Sb**	**23 41 55.5**	**-1.1**
JYNG	**Yonagunijimaku**	**0.82**	**86**	*i* P		**Pb**	**23 41 45.5**	**-0.5**
JYNG				S		**Sb**	**23 41 57.4**	**+0.7**
TDCB	**Techi**	**0.82**	**260**	*i* P		**Pb**	**23 41 45.7**	**-0.5**
TDCB				S		**Sb**	**23 41 56.8**	**-0.2**
TEGC	**Jichi Village**	**0.83**	**214**	P		**Pb**	**23 41 45.5**	**-0.6**
TEGC				S		**Sb**	**23 41 57.8**	**+0.9**
YM01	**YM01**	**0.86**	**330**	*i* P		**Pb**	**23 41 46.5**	**-0.2**
YM01				S		**Sn**	**23 41 58.7**	**+0.9**
NWRT	**Kuosheng**	**0.88**	**336**	P		**Pb**	**23 41 46.1**	**-0.8**
NWRT				*e*S		**Sb**	**23 41 57.3**	**-1.0**
KSHI	**Guanxi Townshi**	**0.88**	**296**	*i* P		**Pn**	**23 41 47.4**	**+0.9**
KSHI				S		**Sn**	**23 41 58.7**	**+0.5**
NFF	**Wufeng Townshi**	**0.88**	**286**	P		**Pb**	**23 41 46.7**	**-0.3**
NFF				*i* S		**Sn**	**23 41 58.2**	**-0.1**
YOJ	**Yonaguni jima**	**0.88**	**86**	P		**Pn**	**23 41 46.0**	**-0.5**
YOJ	**Yonaguni jima**	**0.88**	**86**	S		**Sb**	**23 41 57.5**	**-0.9**
YOJ	**Yonaguni jima**	**0.88**	**86**	*i* P		**Pn**	**23 41 46.3**	**-0.1**
YOJ				S		**Sb**	**23 41 58.7**	**+0.2**
YOJ	**Yonaguni jima**	**0.88**	**86**	*e*P		**Pn**	**23 41 46.3**	**-0.1**
YOJ				S		**Sb**	**23 41 58.4**	**-0.1**
ZUZH	**Zhuzihu**	**0.89**	**329**	P		**Pb**	**23 41 46.8**	**-0.4**
ZUZH				S		**Sn**	**23 41 58.8**	**+0.3**
YM08	**YM08**	**0.89**	**332**	P		**Pb**	**23 41 46.4**	**-0.8**
YM08				S		**Sn**	**23 41 59.5**	**+0.9**
TWS1	**Kuangyinshan**	**0.91**	**321**	*i* P		**Pn**	**23 41 47.7**	**+0.9**
TWS1				S		**Sn**	**23 41 59.5**	**+0.6**
WARBT	**Fenglin Townsh**	**0.91**	**222**	*i* P		**Pn**	**23 41 45.7**	**-1.1**
WARBT				S		**Sb**	**23 41 58.8**	**-0.4**
NTY	**Taoyuan**	**0.91**	**312**	*e*P		**Pb**	**23 41 46.3**	**-1.2**
NTY				S		**Sb**	**23 41 57.4**	**-1.9**
OWD	**Renai**	**0.91**	**241**	P		**Pb**	**23 41 46.4**	**-1.2**
OWD				S		**Sb**	**23 41 58.7**	**-0.7**
EGFH	**Guangfu**	**0.92**	**218**	P		**Pn**	**23 41 46.7**	**-0.3**
EGFH				*i* S		**Sb**	**23 41 58.4**	**-1.2**
ANP	**Anpu**	**0.92**	**329**	P		**Pb**	**23 41 47.4**	**-0.3**
NJD	**Zhudong**	**0.94**	**291**	*e*P		**Pb**	**23 41 49.4**	**+1.4**
NTST	**Danshui**	**0.94**	**325**	*i* P		**Pb**	**23 41 48.0**	**0.0**
WUSB	**Renai**	**0.94**	**245**	*i* P		**Pn**	**23 41 47.2**	**-0.2**
WUSB				S		**Sn**	**23 42 01.0**	**+1.1**
TWY	**Chenhua**	**0.96**	**335**	P		**Pb**	**23 41 49.0**	**+0.5**
TWY				*i* S		**Sn**	**23 42 01.0**	**+0.7**
NCU	**National Centr**	**0.97**	**306**	P		**Pb**	**23 41 48.2**	**-0.2**
NCU				S		**Sn**	**23 42 01.5**	**+1.1**
LIOB	**Emei**	**0.97**	**285**	P		**Pb**	**23 41 48.5**	**0.0**
LIOB				S		**Sn**	**23 42 01.5**	**+0.9**
NSTT	**Nanjuang**	**0.98**	**284**	*i* P		**Pb**	**23 41 48.6**	**-0.1**
NSTT				S		**Sn**	**23 42 01.0**	**+0.3**
HSN1	**Hsinchu**	**1.01**	**292**	P		**Pb**	**23 41 49.4**	**+0.2**
WHP	**Taichung City**	**1.01**	**264**	P		**Pb**	**23 41 49.2**	**0.0**
WHP				*e*S		**Sb**	**23 42 01.6**	**-0.6**
SBCB	**Hsinchu**	**1.04**	**292**	*i* P		**Pb**	**23 41 49.9**	**+0.1**
SBCB				S		**Sn**	**23 42 05.8**	**+3.5**
VWDT	**VWDT**	**1.05**	**233**	P		**Pn**	**23 41 48.7**	**0.0**
VWDT				S		**Sn**	**23 42 02.6**	**+0.3**
HSN	**Hsinchu**	**1.06**	**293**	P		**Pn**	**23 41 48.9**	**-0.1**
HSN				S		**Sn**	**23 42 03.0**	**+0.4**
HGSD	**Ruisui**	**1.07**	**212**	*i* P		**Pn**	**23 41 48.3**	**-0.7**
HGSD				*e*S		**Sb**	**23 42 05.0**	**+1.3**
WPL	**Puli Township**	**1.07**	**249**	P		**Pn**	**23 41 49.5**	**+0.4**
WPL				*e*S		**Sn**	**23 42 03.5**	**+0.7**
DPDB	**Guoxing**	**1.08**	**251**	P		**Pn**	**23 41 49.9**	**+0.5**
DPDB				*e*S		**Sn**	**23 42 02.5**	**-0.8**
WCS	**

ICHU	**Yijhu**	**1.92 238**	P		**Pn**	**23 42 02.5**	**+1.7**
ICHU			S		**Sb**	**23 42 26.8**	**-1.3**
CHN8	**Yiju**	**1.98 238**	S		**Sb**	**23 42 28.5**	**-1.4**
SSHA	**Shanhua**	**2.04 232**	S		**Sn**	**23 42 29.7**	**+2.8**
JISG	**Ishigakijimahi**	**2.07 84**	P		**Pn**	**23 42 03.1**	**+0.3**
JISG			S		**Sn**	**23 42 28.4**	**+0.8**
SCST	**Cishan**	**2.07 224**	P		**Pn**	**23 42 05.4**	**+2.6**
SCST			S		**Sb**	**23 42 31.4**	**-1.0**
SCLT	**Jiali**	**2.09 235**	*e*S		**Sb**	**23 42 31.3**	**-1.7**
SSD	**Sandimen**	**2.09 219**	P		**Pn**	**23 42 04.8**	**+1.7**
SSD			S		**Sn**	**23 42 30.6**	**+2.4**
TSMG	**Majia**	**2.12 218**	P		**Sn**	**23 42 05.3**	**+1.8**
TSMG			S		**Sb**	**23 42 32.6**	**-1.3**
TSCK	**Chigu Township**	**2.19 236**	S		**Sb**	**23 42 33.9**	**-1.8**
MASBT	**Mashibuluo**	**2.20 216**	P		**Pn**	**23 42 05.9**	**+1.3**
MASBT			S		**Sn**	**23 42 33.6**	**+2.8**
EAST	**Anshuo**	**2.29 209**	*e*P		**Pn**	**23 42 05.4**	**-0.5**
EAST			*e*S		**Sn**	**23 42 31.4**	**-1.6**
LAY	**Lan-yu**	**2.39 191**	*e*P		**Pn**	**23 42 05.3**	**-2.0**
SCZT	**Fangliau**	**2.40 213**	*e*P		**Pn**	**23 42 09.2**	**+1.7**
SCZT			*e*S		**Sn**	**23 42 39.0**	**+3.1**
LYUB	**Lan-yu**	**2.42 190**	*e*P		**Pn**	**23 42 05.5**	**-2.2**
LYUB			*e*S		**Sn**	**23 42 32.2**	**-4.0**
PNG	**Penghu**	**2.42 251**	*e*P		**Pn**	**23 42 07.9**	**+0.2**
PNG			*e*S		**Sn**	**23 42 36.2**	**-0.1**
PHUB	**P'eng-hu**	**2.43 249**	P		**Pn**	**23 42 07.8**	**0.0**
PHUB			S		**Sn**	**23 42 36.4**	**-0.1**
VWUC	**VWUC**	**2.44 285**	*e*P		**Pn**	**23 42 07.4**	**-0.5**
VWUC			*e*S		**Sn**	**23 42 36.2**	**-0.4**
SLIU	**Shizi**	**2.46 208**	*e*P		**Pn**	**23 42 08.2**	**+0.1**
WDGT	**Dungji**	**2.46 243**	P		**Pn**	**23 42 09.0**	**+0.8**
WDGT			S		**Sn**	**23 42 39.1**	**+1.8**
MATB	**Ma-tsu**	**2.58 313**	*e*P		**Pn**	**23 42 08.8**	**-1.1**
MATB			*e*S		**Sn**	**23 42 40.6**	**+0.4**
SMST	**Manzhou Townsh**	**2.61 205**	*e*P		**Pn**	**23 42 10.8**	**+0.5**
SMST			*e*S		**Sn**	**23 42 40.3**	**-0.7**
HEN	**Hengchun**	**2.67 207**	*e*S		**Sn**	**23 42 45.2**	**+2.9**
VCHM	**Qimei**	**2.67 244**	P		**Pn**	**23 42 11.4**	**+0.3**
VCHM			S		**Sn**	**23 42 43.3**	**+0.9**
TWK1	**Hengchun**	**2.70 205**	*e*S		**Sn**	**23 42 44.2**	**+1.2**
TWKBT	**Hengchun**	**2.70 205**	*e*P		**Pn**	**23 42 12.9**	**+1.5**
TWKBT			S		**Sn**	**23 42 42.5**	**-0.6**
TSEB	**Hengchuen, Pin**	**2.70 203**	P		**Pn**	**23 42 13.7**	**+2.2**
TSEB			*e*S		**Sn**	**23 42 43.0**	**-0.1**
PTMZ	**Houxiangcun**	**2.74 284**	*e*P		**Pn**	**23 42 12.2**	**+0.2**
PTMZ			S		**Sn**	**23 42 43.8**	**-0.3**
LYJJ	**Jianjiangzhen**	**2.98 317**	*e*P		**Pn**	**23 42 15.4**	**+0.1**
LYJJ			*e*S		**Sn**	**23 42 50.2**	**+0.2**
XPSS	**Dashiqiu**	**3.03 327**	*e*P		**Pn**	**23 42 15.9**	**-0.1**
XPSS			*e*S		**Sn**	**23 42 51.7**	**+0.4**
KNMB	**Chin-men Tao**	**3.34 272**	*e*P		**Pn**	**23 42 20.0**	**-0.2**
KNMB			*e*S		**Sn**	**23 42 57.4**	**-1.4**
AXDP	**Jialang**	**3.74 279**	P		**Pn**	**23 42 26.1**	**+0.3**
AXDP			S		**Sn**	**23 43 08.8**	**-0.1**
ZPLA	**Ao Xicun**	**3.95 264**	P		**Pn**	**23 42 28.8**	**0.0**
ZPLA			S		**Sn**	**23 43 12.5**	**-1.5**
DSXP	**Dongshan**	**4.28 262**	*e*S		**Sn**	**23 43 23.0**	**+0.8**

*MAN **20** 23:50:53.0, 10˙.95N×124˙.86E, h11km, MS3.3*
*IDC **20** 23:50:54.2±2.2, 10˙.88N×124˙.53E, h0km, mb3.4/4, mbtmp3.4/4, Error ellipse: s-maj=220.4km s-min=27.1km az=68.0*

ISC 20 23:50:54.7±0.8, 11˚.0N±0˚.1×124˚.8E±0˚.1, h10km, n8, σ1§30/12, mb3.4/4, Leyte

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PLP	**Palo**	**0.25**	**46**	*i* P		**Pg**	**23 50 58.9**	**-0.9**
PLP				*i* S		**Sg**	**23 51 01.6**	**-1.7**
LLP	**Lapu-Lapu**	**1.05**	**231**	*e*P		**Pg**	**23 51 12.6**	**-2.4**
LLP				*i* S		**Sb**	**23 51 29.2**	**+0.4**
TBP	**Tagbilaran**	**1.58**	**215**	*i* P		**Pn**	**23 51 22.0**	**-0.8**
TBP				*e*S		**Sg**	**23 51 46.9**	**+1.3**
DCPH	**Dipolog City**	**2.78**	**211**	*i* P		**Pn**	**23 51 40.1**	**+0.8**
DCPH				*i* S		**Sg**	**23 52 23.4**	**-0.7**
ASAR	**Alice Springs**	**35.58**	**166**	P		**P**	**23 57 53.1**	**+0.6**
	0.2nm,0.5s,baz=345,slow=8.6,SNR=4.6 0.2nm,0.5s							
SONM	**Songino Array**	**39.85**	**341**	P		**P**	**23 58 29.6**	**+1.1**
	0.3nm,0.5s,baz=140,slow=7.5,SNR=2.5 0.3nm,0.5s							
MKAR	**Makanchi Array**	**50.58**	**323**	P		**P**	**23 59 54.0**	**+0.3**
	0.9nm,1.0s,baz=127,slow=8.3,SNR=1.6 0.9nm,1.0s							
KURBB	**Kurchatov Arra**	**54.66**	**326**	P		**P**	**00 00 24.5**	**+0.7**
	0.5nm,0.7s,baz=122,slow=7.0,SNR=4.9 0.5nm,0.7s							

*IDC **20** 23:58:19.9±0.4, 10˚.50N×69˚.13W, h0km, mb4.3/22, mbtmp4.4/27, ML4.1/5, MS3.9/30, Error ellipse: s-maj=13.4km s-min=9.9km az=113.0*
*GCMT **20** 23:58:22.5±0.4, 10˚.41N±0˚.02×69˚.10W±0˚.02, h19km±1km, MW4.8/76, Moment Tensor Solution. s5,c5; s76,c103; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr~0.05±.09; Mθθ~0.42±.08; Mφφ0.46±.08; Mrθ~0.17±.17; Mθφ~1.59±.08; Mφr~0.54±.17; Best double couple: M₀1.73700×10¹⁶ NP1:φs97.00000°, δ74.00000°, λ174.00000°. NP2: φs189.00000°, δ84.00000°, λ16.00000°. Principal axes: T 1.8260, Plg16.0000°, Azm54.0000°; N -0.1780, Plg73.0000°, Azm208.0000°; P -1.6480, Plg7.0000°, Azm322.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*GFZ **20** 23:58:22.8±0.2, 10˚.N±3˚×6˚9W±˚, h10km, M4.7/18, mb4.7/18, confirmed*
*NEIC **20** 23:58:22.5±1.8, 10˚.49N±0˚.05×69˚.16W±0˚.06, h10km±1km, mb4.6/188, Error ellipse: s-maj=10.9km s-min=8.9km az=108.0*
*RSNC **20** 23:58:22.8±0.0, 10˚.N±13˚×6˚9W±1˚3, h32km±22km, M5.0, mb5.3, mB5.4, ML4.5, Mw(mB)4.8, MwMwp4.4, Mwp4.8*
*FUNV **20** 23:58:22.9, 10˙.34N×69˙.10W, h5km, MW4.8, Presumed earthquake*
*CATAC **20** 23:58:24.3±0.8, 10˚N±2˚×6˚9W±˚, h26km±7km, M5.2/13, mb5.2/13, mB5.4/8, MLv5.4/8, Mw(mB)4.9/8, MwMwp4.5/1, Mwp4.9/1, Error ellipse: s-maj=5.8km s-min=3.2km az=131.8, confirmed*
*VAO **20** 23:58:28.9±1.9, 9˚.64N×69˚.08W, h10km, mb4.6, Presumed earthquake*

ISC 20 23:58:21.2±0.7, 10˚.43N±0˚.03×69˚.10W±0˚.03, h10km±4km, n355, σ1§71/380, mb4.6/107, MS3.9/26, Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TEPV	**Terepaima**	**0.47**	**191**	*e*P		**Pg**	**23 58 28.8**	**-1.6**
TEPV				*e*S		**Sg**	**23 58 34.8**	**-1.9**
JACV	**Jacura**	**0.71**	**22**	*e*P		**Pn**	**23 58 36.8**	**-0.6**
JACV				*e*S		**Sn**	**23 58 48.6**	**+0.3**
MAPV	**Macapo**	**0.87**	**133**	*e*P		**Pg**	**23 58 37.5**	**-0.5**
MAPV				*e*S		**Sg**	**23 58 49.7**	**+0.3**
TURV	**Turiamo**	**1.24**	**89**	*e*P		**Pg**	**23 58 45.0**	**-0.1**
TURV				*e*S		**Sn**	**23 59 02.8**	**+1.4**
BENV	**Beln**	**1.55**	**107**	*e*P		**Pg**	**23 58 50.9**	**-0.2**
BENV				*e*S		**Sg**	**23 59 11.3**	**+0.1**
BAUV	**El Baul**	**1.81**	**145**	*e*P		**Pn**	**23 58 53.5**	**+1.1**
BAUV				*e*S		**Sn**	**23 59 16.1**	**+0.6**
TACV	**Tcata**	**2.06**	**98**	*e*P		**Pb**	**23 58 57.8**	**-1.0**
TACV				*e*S		**Sb**	**23 59 23.6**	**-1.0**
SDV	**Santo Domingo**	**2.15**	**225**	Pn		**Pn**	**23 58 58.0**	**+0.7**
	409nm,0.3s,baz=60,slow=11,SNR=520							
SDV				Sn		**Sn**	**23 59 26.8**	**+2.7**
	539nm,0.3s,baz=327,slow=21,SNR=15							
SDV				LR		LR	00 00 01.3	
	comp=Z,4μm,20.6s,baz=52,slow=46 1μm,0.4s							
SDV				AML		AML		
SDV				AML		AML		
SDV	**Santo Domingo**	**2.15**	**225**			**Pn**	**23 58 57.8**	**+0.6**
SDV	**Santo Domingo**	**2.15**	**225**	P		**Pn**	**23 58 57.6**	**+0.3**
SDV				S		**Sn**	**23 59 26.2**	**+2.1**
SDV	**Santo Domingo**	**2.15**	**225**	*e*P		**Pn**	**23 58 58.6**	**+1.3**
SDV				*e*S		**Sn**	**23 59 24.8**	**+0.7**
SDV	**Santo Domingo**	**2.15**	**225**	P		**Pn**	**23 58 57.9**	**+0.6**
FUNV	**FUNVISIS**	**2.26**	**89**	*e*P		**Pn**	**23 58 59.4**	**+0.8**
FUNV				*e*S		**Sb**	**23 59 28.4**	**-1.8**
MERV	**Las Mercedes**	**3.00**	**113**	*e*P		**Pn**	**23 59 10.5**	**+1.6**
MERV				*e*S		**Sn**	**23 59 45.0**	**+0.1**

URI	**Uribia**	**3.10**	**294**	P		**Pn**	**23 59 09.1**	**-1.1**
URI				S		**Sb**	**23 59 53.9**	**-0.5**
URIC	**Uribia, Colomb**	**3.10**	**294**			**Pn**	**23 59 08.2**	**-2.0**
URIC	**Uribia, Colomb**	**3.10**	**294**	P		**Pn**	**23 59 08.4**	**-1.8**
URIC				S		**Sn**	**23 59 44.1**	**-3.3**
URIC	**Uribia, Colomb**	**3.10**	**294**	*e*S		**Sn**	**23 59 48.8**	**+1.4**
CRJC	**Cerrejon, Guaj**	**3.76**	**279**	P		**Pn**	**23 59 18.5**	**-0.8**
CRJC				S		**Sn**	**00 00 02.2**	**-1.5**
CACV	**CAICARA DEL OR**	**3.81**	**138**	*e*P		**Pb**	**23 59 26.1**	**-2.5**
CACV				*e*S		**Sb**	**00 00 13.1**	**-1.6**
CAPV	**Capacho**	**4.07**	**231**	*e*P		**Pn**	**23 59 24.1**	**+0.4**
CAPV				*e*S		**Sn**	**00 00 08.9**	**-2.6**
PCRV	**Puerto La Cruz**	**4.40**	**93**	*e*P		**Pn**	**23 59 29.6**	**+1.4**
PCRV				*e*S		**Sn**	**00 00 19.4**	**-0.2**
OCAC	**Ocana**	**4.69**	**243**	P		**Pn**	**23 59 32.6**	**+0.3**
OCAC				S		**Sn**	**00 00 27.4**	**+0.5**
TAMC	**Tame, Arauca**	**4.78**	**214**	P		**Pn**	**23 59 34.0**	**+0.7**
SMRC	**Santa Marta, M**	**5.08**	**279**			**Pn**	**23 59 35.5**	**-1.9**
SMRC	**Santa Marta, M**	**5.08**	**279**	P		**Pn**	**23 59 35.4**	**-2.1**
SMRC				S		**Sn**	**00 00 34.9**	**-1.4**
ARGC	**Ariguani, Magd**	**5.09**	**264**	P		**Pn**	**23 59 37.6**	**0.0**
	2μm293nm,0.9s							
ARGC				S		**Sn**	**00 00 32.8**	**-3.7**
	2μm293nm,0.9s							
ARGC				AML		AML		
BARC	**Barichara**	**5.55**	**227**	P		**Pn**	**23 59 45.2**	**+1.1**
	3μm268nm,0.7s							
BARC				S		**Sn**	**00 00 48.1**	**0.0**
	3μm268nm,0.7s							
BARC				AML		AML		
BRJC	**Barrancabermej**	**5.73**	**234**	P		**Pn**	**23 59 46.0**	**-0.4**
	2μm630nm,1.3s							
BRJC				S		**Sn**	**00 00 51.9**	**-0.3**
	2μm630nm,1.3s							
BRJC				AML		AML		
RUSC	**La Rusia**	**5.98**	**221**	P		**Pn**	**23 59 51.0**	**+0.7**
RUSC	**La Rusia**	**5.98**	**221**			**Pn**	**23 59 50.3**	**0.0**
RUSC	**La Rusia**	**5.98**	**221**	P		**Pn**	**23 59 50.2**	**-0.1**
	2μm4μm429nm,1.0s							
RUSC				AML		AML		
RUSC	**La Rusia**	**5.98**	**221**	*e*P		**Pn**	**23 59 49.8**	**-0.5**
SJCC	**San Jacinto, C**	**6.00**	**265**	P		**Pn**	**23 59 51.3**	**+1.1**
SJCC				S		**Sn**	**00 00 56.9**	**-2.1**
SJCC	**San Jacinto, C**	**6.00**	**265**			**Pn**	**23 59 50.6**	**+0.4**
SJCC	**San Jacinto, C**	**6.00**	**265**	P		**Pn**	**23 59 50.6**	**+0.4**
	2μm538nm,1.3s							
SJCC				S		**Sn**	**00 00 58.8**	**-0.3**
	2μm538nm,1.3s							
SJCC				AML		AML		
SJCC	**San Jacinto, C**	**6.00**	**265**	*e*P		**Pn**	**23 59 50.3**	**+0.1**
SJCC				*e*S		**Sn**	**00 00 55.8**	**-3.2**
PTBC	**PUERTO BERRIO,**	**6.55**	**234**	P		**Pn**	**23 59 56.2**	**-1.5**
	1μm142nm,1.0s							
PTBC				S		**Sn**	**00 01 12.3**	**-0.3**
	1μm142nm,1.0s							
LCBC	**Los crdobas,**	**7.33**	**258**			**Pn**	**00 00 08.1**	**-0.2**
DMDM	**Guralp CMG5TDE**	**7.43**	**87**	*e*P		**Pn**	**00 00 12.5**	**+2.7**
DMDM				*e*S		**Sn**	**00 01 35.4**	**+1.2**
PSKH	**Kent House, Po**	**7.46**	**87**	*e*P		**Pn**	**00 00 13.6**	**+3.4**
PSKH				*e*S		**Sn**	**00 01 35.7**	**+0.9**
GRW	**Mount Saint Ca**	**7.50**	**76**	*e*P		**Pn**	**00 00 10.2**	**-0.6**
GRW				*e*S		**Sn**	**00 01 32.3**	**-3.7**
GRGR	**Grenville**	**7.50**	**76**	P		**Pn**	**00 00 14.3**	**+3.5**
GRGR				S		**Sn**	**00 01 39.8**	**+3.8**
GRGR	**Grenville**	**7.50**	**76**	*e*P		**Pn**	**00 00 09.5**	**-1.2**
GRGR				*e*S		**Sn**	**00 01 32.0**	**-3.9**
TRN	**Trinidad (W)**	**7.58**	**88**	*e*P		**Pn**	**00 00 12.0**	**+0.3**
TRN	**Trinidad (W)**	**7.58**	**88**	*e*P		**Pn**	**00 00 12.3**	**+0.5**
TRN				*e*S		**Sn**	**00 01 37.1**	**-0.6**
GRSS	**Sisters**	**7.58**	**75**	*e*P		**Pn**	**00 00 11.7**	**0.0**
GRSS				*e*S		**Sn**	**00 01 35.6**	**-2.2**
ROSC	**El Rosal**	**7.58**	**223**	Pn		**Pn**	**00 00 14.0**	**+1.8**
	26nm,0.3s,baz=31,slow=9.1,SNR=43							
ROSC				LR		LR	00 03 22.3	
	comp=Z,2μm,20.7s,baz=13,slow=40 137nm,0.5s							
ROSC				AML		AML		
ROSC	**El Rosal**	**7.58**	**223**	Pn		**Pn**	**00 00 13.2**	**+1.0**
HELC	**Santa Helena**	**7.62**	**237**	P		**Pn**	**00 00 13.8**	**+1.1**
HELC				S		**Sn**	**00 01 35.5**	**-3.9**
HELC	**Santa Helena**	**7.62**	**237**			**Pn**	**00 00 11.0**	**-1.7**
HELC	**Santa Helena**	**7.62**	**237**	*e*P		**Pn**	**00 00 12.1**	**-0.6**
HELC				*e*S		**Sn**	**00 01 33.2**	**-6.2**
MLPR	**Magueyes Islan**	**7.76**	**15**	Pn		**Pn**	**00 00 14.1**	**-0.1**
CRPR	**Cabo Rojo, PR**	**7.78**	**14**			**Pn**	**00 00 12.6**	**-1.9**
OBIP	**Obispado Ponce**	**7.95**	**17**			**Pn**	**00 00 16.1**	**-0.8**
PRSN	**Puerto Rico Se**	**7.97**	**14**			**Pn**	**00 00 16.6**	**-0.6**
PODR	**Polo**	**7.98**	**345**			**Pn**	**00 00 16.9**	**-0.5**
CELP	**Cerrillos**	**7.99**	**18**			**Pn**	**00 00 16.5**	**-0.9**
BANI	**BANI**	**8.01**	**351**			**Pn**	**00 00 17.4**	**-0.4**
SDD	**Santo Domingo**	**8.02**	**354**	P		Pn	00 00 22.9	+5.0
SDD				S		**Sn**	**00 01 53.0**	**+4.4**
PDPR	**Patillas Dam,**	**8.12**	**21**			**Pn**	**00 00 18.2**	**-0.9**
SJG	**San Juan**	**8.16**	**20**	Pn		**Pn**	**00 00 18.1**	**-1.6**
	14nm,0.3s,baz=187,slow=15,SNR=24							
SJG				Sn		Sn	00 01 42.6	-9.4
	18nm,0.3s,baz=20,slow=20,SNR=7.8							
SJG				LR		LR	00 04 02.0	
	comp=Z,263nm,18.4s,baz=203,slow=42 44nm,0.3s							
SJG				AML		AML		
SJG	**San Juan**	**8.16**	**20**	P		**Pn**	**00 00 20.2**	**+0.5**
SJG	**San Juan**	**8.16**	**20**			**Pn**	**00 00 17.5**	**-2.2**
SJG	**San Juan**	**8.16**	**20**	P		**Pn**	**00 00 20.0**	**+0.3**
	comp=Z,103nm,0.6s							
SVB	**Belmont**	**8.19**	**69**	*e*P		**Pn**	**00 00 19.2**	**-1.0**
SVB	**Belmont**	**8.19**	**69**	*e*P		**Pn**	**00 00 18.9**	**-1.3**
SVB				*e*S		**Sn**	**00 01 48.2**	**-4.6**
AOPR	**Arecibo Observ**	**8.20**	**16**			**Pn**	**00 00 19.4**	**-0.8**
ECPR	**Experimental S**	**8.28**	**18**			**Pn**	**00 00 20.9**	**-0.5**
HUMP	**Col San Antoni**	**8.29**	**22**			**Pn**	**00 00 20.9**	**-0.7**
GCPR	**Guaynabo City**	**8.36**	**20**			**Pn**	**00 00 22.1**	**-0.4**
MCLT	**Moule a Chique**	**8.62**	**67**	*e*P		**Pn**	**00 00 22.4**	**-3.8**
MCLT				*e*S		**Sn**	**00 01 55.1**	**-8.4**
SLBI	**Saint Lucia, B**	**8.71**	**65**	*e*P		**Pn**	**00 00 25.1**	**-2.2**
SLBI				*e*S		**Sn**	**00 01 58.7**	**-7.0**
SDDR	**Presa de Saban**	**8.76**	**346**	P		**Pn**	**00 00 31.5**	**+3.4**
SDDR	**Presa de Saban**	**8.76**	**346**			**Pn**	**00 00 29.4**	**+1.3**
SDDR	**Presa de Saban**	**8.76**	**346**	P		**Pn**	**00 00 31.7**	**+3.6**
	comp=Z,72nm,0.6s							
PRAC	**Prado**	**8.80**	**221**	P		**Pn**	**00 00 27.9**	**-0.6**
PRAC				S		**Sn**	**00 02 05.4**	**-2.5**
BIM	**Bigot**	**8.84**	**62**	*e*P		**Pn**	**00 00 26.6**	**-2.4**
BIM				*e*S		**Sn**	**00 02 04.3**	**-4.4**
FDFM	**Morne la Roset**	**8.86**	**60**	P		**Pn**	**00 00 27.7**	**-1.7**
SVN	**Savane Anatole**	**8.90**	**60**	*e*P		Pn	00 00 22.8	-7.1
DSLB	**Salisbury**	**8.99**	**56**	*e*P		**Pn**	**00 00 28.6**	**-2.6**
DSLB				*e*S		**Sn**	**00 02 05.9**	**-6.7**
SC01	**Santiago de lo**	**9.08**	**350**	P		Pn	00 00 37.4	+4.9
SC01				S		**Sn**	**00 02 17.7**	**+2.9**
SC01	**Santiago de lo**	**9.08**	**350**			**Pn**	**00 00 31.8**	**-0.6**
SABA	**Saba**	**9.13**	**38**	P		Pn	00 00 37.4	+4.2
DHSZ	**Broadband at M**	**9.21**	**50**	*e*P		**Pn**	**00 00 33.7**	**-0.4**
DHSZ				*e*S		**Sn**	**00 02 09.6**	**-8.2**
MAGL	**Barre de l'ile**	**9.39**	**53**	*e*P		**Pn**	**00 00 34.4**	**-2.2**
MAGL				*e*S		Sn	00 02 08.0	-14
DSDZ	**La Diserade, G**	**9.77**	**52**	*e*P		**Pn**	**00 00 38.8**	**-3.0**
DSDZ				*e*S		**Sn**	**00 02 25.1**	**-6.5**
BOAV	**Boa Vista**	**11.68**	**133**			**Pn**	**00 01 06.5**	**-1.5**
BOAV	**Boa Vista**	**11.68**	**133**	*e*P		**Pn**	**00 01 06.2**	**-1.8**
BRU2	**Volcan**	**13.49**	**264**	Pn		**Pn**	**00 01 31.7**	**-1.3**
OTAV	**Otavalo**	**13.74**	**223**			**Pn**	**00 01 35.2**	**-1.4**
OTAV	**Otavalo**	**13.74**	**223**	P		**Pn**	**00 01 35.6**	**-1.0**
	comp=Z,40nm,1.2s							
OTAV	**Otavalo**	**13.74**	**223**	*e*P		**Pn**	**00 01 35.7**	**-0.9**
SLOR	**San Lorenzo -**	**14.50**	**221**			**Pn**	**00 01 47.9**	**+0.9**
LCR2	**La Lucha 2**	**14.69**	**269**			**Pn**	**00 01 49.1**	**-0.3**
JTS	**Las Juntas de**	**15.59**	**271**	Pn		**Pn**	**00 01 58.8**	**-2.5**
	comp=Z,0.8nm,0.3s,baz=63,slow=8.8,SNR=6.0							
JTS	**Las Juntas de**	**15.59**	**271**			**Pn**	**00 02 01.0**	**-0.3**
JTS	**Las Juntas de**	**15.59**	**271**	P		**Pn**	**00 01 59.0**	**-2.2**
BOAB	**BOACO BROADBAN**	**16.36**	**279**			**Pn**	**00 02 10.2**	**-0.9**
BOAB				IAmb		IAmb	00 02 19.6	
	comp=Z,64nm,1.1s							
BOAB	**BOACO BROADBAN**	**16.36**	**279**	P		**Pn**	**00 02 10.4**	**-0.7**
MDP	**Montagnes des**	**17.14**	**107**	Pn		**Pn**	**00 02 19.5**	**-1.6**
	comp=Z,0.9nm,0.3s,baz=290,slow=14,SNR=9.8							
MDP				Sn		**Sn**	**00 05 21.4**	**-10**
	comp=Z,1.1nm,0.3s,baz=19,slow=11,SNR=4.9							
MDP				LR		LR	00 08 21.1	
	comp=Z,398nm,19.0s,baz=289,slow=35 comp=Z,21nm,0.8s							

MDP				AML		AML		
CNGN	**Cerro Negro**	**17.37**	**279**	P		**P**	**00 02 27.4**	**+2.2**
	comp=Z,66nm,1.4s							
TGUH	**Tegucigalpa,Un**	**18.12**	**283**	P		**P**	**00 02 36.0**	**+2.4**
	comp=Z,37nm,1.5s							
CZSB	**Cruzeiro do Su**	**18.39**	**191**	*e*P		**P**	**00 02 35.0**	**-1.4**
ATAH	**Atahualpa**	**19.75**	**208**	P		**P**	**00 02 51.9**	**+0.1**
	comp=Z,0.5nm,0.3s,baz=359,slow=16,SNR=17 comp=Z,30nm,1.1s							
ATAH				AML		AML		
ITTB	**Itaituba**	**19.83**	**137**	*e*P		**Pn**	**00 02 53.9**	**+0.1**
MTO3	**Montecristo**	**20.17**	**283**	P		**P**	**00 02 57.1**	**+0.8**
MTO3				IAmb		IAmb	00 02 59.9	
	comp=Z,25nm,0.9s							
ESQI	**Esquipulas**	**20.18**	**284**	P		**P**	**00 02 56.5**	**+0.3**
ESQI				IAmb		IAmb	00 03 15.2	
	comp=Z,44nm,0.9s							
TEIG	**Tepich**	**20.88**	**300**	P		**P**	**00 03 03.7**	**+0.1**
TEIG				IAmb		IAmb	00 03 11.0	
	comp=Z,37nm,1.1s							
NPGB	**Novo Progresso**	**22.11**	**141**	*e*P		**P**	**00 03 18.2**	**+1.3**
VILB	**Vilhena**	**24.85**	**159**			**P**	**00 03 45.4**	**+1.3**
VILB	**Vilhena**	**24.85**	**159**	*e*P		**P**	**00 03 45.7**	**+1.6**
CLDB	**Colider**	**24.96**	**148**	P		**P**	**00 03 46.9**	**+1.9**
	comp=Z,21nm,1.4s							
CLDB	**Colider**	**24.96**	**148**	*e*P		**P**	**00 03 47.0**	**+2.0**
PDRB	**Porto dos Gac**	**25.11**	**150**	*e*P		**P**	**00 03 48.1**	**+1.7**
Y58A	**Scranton**	**25.30**	**339**	P		**P**	**00 03 46.5**	**-1.3**
JSC	**Jenkinsville**	**26.22**	**337**	P		**P**	**00 03 56.5**	**+0.2**
JSC				IAmb		IAmb	00 04 02.0	
	comp=Z,9.5nm,0.9s							
152A	**Waverly Hall**	**26.40**	**329**	P		**P**	**00 03 57.9**	**-0.1**
152A				IAmb		IAmb	00 04 04.9	
	comp=Z,12nm,0.8s							
LPAZ	**La Paz**	**26.56**	**178**	P		**P**	**00 04 02.0**	**+1.8**
	comp=Z,3.2nm,0.8s,baz=9.2,slow=10,SNR=12							
LPAZ				LR		LR	00 16 30.1	
	comp=Z,199nm,19.3s,baz=327,slow=41 comp=Z,3.2nm,0.8s							
LPAZ	**La Paz**	**26.56**	**178**			**P**	**00 04 00.1**	**-0.1**
LPAZ	**La Paz**	**26.56**	**178**	P		**P**	**00 04 00.3**	**+0.1**
	comp=Z,11nm,1.4s							
LPAZ	**La Paz**	**26.56**	**178**	*e*P		**P**	**00 04 00.9**	**+0.7**
Y52A	**Lilburn**	**27.06**	**332**			**P**	**00 04 03.3**	**-0.6**
Y52A				IAmb		IAmb	00 04 10.1	
	comp=Z,8.4nm,0.8s							
BG3	**Lake Jocassee**	**27.51**	**335**			**P**	**00 04 07.4**	**-0.6**
BG3				IAmb		IAmb	00 04 12.0	
	comp=Z,9.1nm,0.9s							
TKL	**Tuckaleechee C**	**28.44**	**334**	LR		LR	00 16 45.2	
	comp=Z,302nm,19.5s,baz=202,slow=39							
SMTB	**Santa Maria do**	**28.73**	**131**			**P**	**00 04 20.2**	**+1.1**
SMTB	**Santa Maria do**	**28.73**	**131**	*e*P		**P**	**00 04 21.9**	**+2.8**
GO01	**Chusmiza**	**29.91**	**180**	P		**P**	**00 04 29.2**	**-0.7**
GO01				IAmb		IAmb	00 04 34.4	
	comp=Z,11nm,0.8s							
GO01	**Chusmiza**	**29.91**	**180**	P		**P**	**00 04 30.6**	**+0.7**
	comp=Z,18nm,0.9s							
P57A	**Homestead Farm**	**30.00**	**346**	P		**P**	**00 04 29.4**	**-0.7**
T50A	**Nancy**	**30.05**	**334**			**P**	**00 04 29.4**	**-1.1**

comp=Z,16nm,0.9s
CPUP Villa Florida 38.29 163 P P 00 05 42.3 +0.4
comp=Z,3.3nm,0.9s,baz=338,slow=10,SNR=8.3
CPUP LR LR 00 24 04.7
comp=Z,112nm,19.2s,baz=320,slow=40
comp=Z,3.3nm,0.9s
CPUP Villa Florida 38.29 163 P 00 05 43.0 +1.1
TPB28 38.95 308 P P 00 05 48.4 +0.7
TPB28 IAmb IAmb 00 06 05.0
comp=Z,4.4nm,0.3s
VHRN Van Horn 38.97 307 P 00 05 47.4 -0.5
GUA01 Guaratinga, BA 39.50 132 *eP* **P 00 05 55.3 +3.0**
I37A Lemond, Waseca 39.52 332 P 00 05 53.0 +0.9
I37A IAmb IAmb 00 05 55.3
comp=Z,16nm,0.9s
MNTX Cornudas Mount 39.65 308 P 00 05 53.3 -0.1
MNTX Cornudas Mount 39.65 308 P P 00 05 52.2 -1.2
comp=Z,8.3nm,1.6s
SPMN Marine on St. 40.20 334 IAmb IAmb 00 06 00.3
comp=Z,9.9nm,0.6s
LPIG La Paz 41.47 295 LR LR 00 25 48.0
comp=Z,153nm,18.5s,baz=114,slow=40
ALQ Albuquerque 41.85 312 P 00 06 12.0 +0.3
ALQ Albuquerque 41.85 312 P 00 06 12.7 +0.9
ALQ IAmb IAmb 00 06 15.7
comp=Z,4.0nm,1.2s
121A Cookes Peak, D 41.85 308 P 00 06 11.9 +0.1
ANMO Albuquerque 41.85 312 P P 00 06 11.9 +0.1
comp=Z,1.6nm,0.8s,baz=123,slow=9.6,SNR=4.1
ANMO LR LR 00 24 58.0
comp=Z,81nm,22.0s,baz=146,slow=38
comp=Z,1.6nm,0.8s
ANMO Albuquerque 41.85 312 P P 00 06 12.5 +0.7
ANMO Albuquerque 41.85 312 P P 00 06 11.6 -0.1
ANMO IAmb IAmb 00 06 14.9
comp=Z,2.4nm,0.9s
ANMO Albuquerque 41.85 312 P P 00 06 11.4 -0.4
ANMO IAmb IAmb 00 06 14.9
comp=Z,2.4nm,0.9s
ANMO Albuquerque 41.85 312 P P 00 06 12.5 +0.7
comp=Z,5.5nm,2.7s
TASM ASL Pad, Albuq 41.85 312 P P 00 06 12.1 +0.2
TASM ASL Pad, Albuq 41.85 312 P P 00 06 11.9 +0.1
TASM IAmb IAmb 00 06 19.8
comp=Z,1.7nm,0.7s
TASM ASL Pad, Albuq 41.85 312 P P 00 06 11.8 0.0
TASM IAmb IAmb 00 06 16.5
comp=Z,2.0nm,0.9s
TASM ASL Pad, Albuq 41.85 312 P P 00 06 11.7 -0.1
TASM IAmb IAmb 00 06 19.8
comp=Z,1.9nm,0.7s
TASM ASL Pad, Albuq 41.85 312 P P 00 06 11.3 -0.5
TASM IAmb IAmb 00 06 19.8
comp=Z,1.6nm,0.7s
LENM Lemitar 41.89 310 P P 00 06 12.8 +0.7
F33A 5 Mile Ranch, 42.24 332 IAmb IAmb 00 06 20.2
comp=Z,5.9nm,0.7s
MT03 Universidad Ad 43.70 182 P P 00 06 27.4 +0.8
AGMN Agassiz Nation 43.91 334 P P 00 06 28.2 +0.1
comp=Z,39nm,0.7s
TUC Tucson 44.13 306 P 00 06 30.9 +0.8
TUC Tucson 44.13 306 P P 00 06 29.5 -0.7
comp=Z,5.0nm,2.0s
EPLO Experimental L 44.14 337 P 00 06 30.7 +0.8
EPLO IAmb IAmb 00 06 31.8
comp=Z,11nm,0.7s
BO04 La Punta 44.19 182 P P 00 06 30.2 -0.3
BO04 IAmb IAmb 00 06 32.5
comp=Z,7.7nm,0.9s
X18A Snowflake 44.29 309 P P 00 06 31.2 -0.3
X18A IAmb IAmb 00 06 37.0
comp=Z,8.9nm,0.9s
SCHQ Schefferville 44.33 2 P P 00 06 30.3 -1.0
comp=Z,5.2nm,0.8s,baz=176,slow=8.1,SNR=5.9
comp=Z,5.2nm,0.8s
SCHQ Schefferville 44.33 2 P P 00 06 31.1 -0.2
SCHQ IAmb IAmb 00 06 34.6
comp=Z,17nm,1.1s
MVCO Mesa Verde 44.34 314 P P 00 06 31.1 -0.9
PV01 Paradox Valley 44.81 315 P P 00 06 35.9 +0.1
PV15 Paradox Valley 44.84 315 P P 00 06 36.7 +0.7
E28A Huff 44.91 329 P P 00 06 36.2 +0.1
PV02 Paradox Valley 44.96 315 P P 00 06 37.4 +0.5
PV13 Radium Mtn., P 45.00 315 P P 00 06 34.8 -2.4
BO02 Sierra Bellavi 45.00 182 P P 00 06 37.1 +0.1
BO02 IAmb IAmb 00 06 42.8
comp=Z,9.8nm,1.0s
BO02 Sierra Bellavi 45.00 182 P P 00 06 38.2 +1.2
comp=Z,12nm,1.3s
PV07 Paradox Valley 45.01 315 P P 00 06 37.6 +0.4
PV07 IAmb IAmb 00 06 41.0
comp=Z,9.3nm,0.8s
PV12 Saucer Basin, 45.06 315 P P 00 06 38.1 +0.4
PV03 Paradox Valley 45.06 315 P P 00 06 38.3 +0.6
PV11 David Mesa, Pa 45.10 315 P P 00 06 37.7 -0.3
PV16 Skein Mesa, Pa 45.10 315 P P 00 06 37.6 -0.4
PV16 Nyswonger Mesa 45.13 315 P P 00 06 37.8 -0.5
PV22 Blue Mesa, Par 45.15 315 P P 00 06 38.8 +0.4
PV22 IAmb IAmb 00 06 42.6
comp=Z,12nm,1.0s
PV05 Paradox Valley 45.16 314 P P 00 06 38.5 0.0
PV04 Paradox Valley 45.16 315 P P 00 06 39.7 +1.2
PV04 IAmb IAmb 00 06 47.2
comp=Z,8.7nm,0.9s
PV20 West Nyswonger 45.18 315 P P 00 06 39.5 +0.9
PV20 IAmb IAmb 00 06 42.1
comp=Z,12nm,1.0s
PV14 Lion Creek, Pa 45.24 315 P P 00 06 39.9 +0.8
PV14 IAmb IAmb 00 06 52.1
comp=Z,13nm,1.2s
MDND Maddock 45.27 331 P P 00 06 39.2 +0.3
PV23 Carpenter Ridg 45.27 315 P P 00 06 38.8 -0.6
PV23 IAmb IAmb 00 06 44.3
comp=Z,8.2nm,0.7s
PV21 Cone Mtn., Par 45.29 315 P P 00 06 40.8 +1.3
PV21 IAmb IAmb 00 06 43.0
comp=Z,8.8nm,0.8s
X16A Lo Mia Camp, P 45.39 309 P 00 06 42.4 +2.1
ULM Lac du Bonnet 45.44 336 P P 00 06 38.8 -1.4
comp=Z,15nm,0.7s,baz=138,slow=8.7,SNR=32
comp=Z,15nm,0.7s
ULM Lac du Bonnet 45.44 336 P 00 06 39.0 -1.2
WUAZ Wupatki 45.75 310 P 00 06 43.9 +0.8
WUAZ IAmb IAmb 00 06 48.8
comp=Z,7.0nm,0.9s
SRU San Rafael Swe 46.62 315 P P 00 06 52.7 +2.8
SRU IAmb IAmb 00 06 54.9
comp=Z,5.4nm,0.7s
P18A Preston Nutter 46.66 316 P P 00 06 51.2 +0.8
U15A North Rim 46.78 311 P P 00 06 52.4 +1.0
U15A IAmb IAmb 00 07 00.5
comp=Z,4.0nm,0.9s
P17A Butcher Ranch, 46.93 315 P P 00 06 53.6 +1.2
P17A IAmb IAmb 00 06 57.9
comp=Z,7.7nm,0.9s
KNB Kanab 47.40 311 P 00 06 56.3 +0.2
KNB IAmb IAmb 00 07 16.1
comp=Z,6.6nm,1.0s
BSUT Blindstream Ca 47.42 317 P 00 06 56.5 0.0
W13A Hualapai Mount 47.51 308 P P 00 06 57.3 +0.3
BW06 Boulder Array 47.71 320 P P 00 06 57.3 -1.2
BW06 IAmb IAmb 00 07 01.7
comp=Z,4.0nm,1.1s
PD31 Pinedale Array 47.71 320 P 00 06 57.4 -1.1
PD31 IAmb IAmb 00 07 01.7
comp=Z,4.5nm,1.1s
PDAR Pinedale Array 47.71 320 P P 00 06 58.3 -0.2
comp=Z,1.9nm,0.8s,baz=123,slow=10,SNR=13
PDAR PcP PcP 00 08 28.4 +0.6
comp=Z,1.1nm,0.5s,baz=98,slow=2.2,SNR=5.2
PDAR LR LR 00 28 54.2
comp=Z,95nm,18.0s,baz=126,slow=38
comp=Z,1.9nm,0.8s
PDAR Pinedale Array 47.71 320 P P 00 06 57.7 -0.8
PDAR PcP 00 08 28.0 +0.3
LCMT Little Creek M 47.71 311 P P 00 06 59.1 +0.6
NLU North Lily Min 48.06 315 P P 00 07 01.1 -0.1
NLU IAmb IAmb 00 07 04.7
comp=Z,3.5nm,0.8s
IRM Iron Mountain 48.18 307 P 00 07 02.6 +0.6
IRM IAmb IAmb 00 07 06.0
comp=Z,10nm,1.1s
BC3 Big Chuckawall 48.27 306 P P 00 07 03.6 +0.7
HWUT Hardware Ranch 48.46 317 P 00 07 05.4 +1.2
HWUT IAmb IAmb 00 07 07.6
comp=Z,7.3nm,1.0s
HWUT Hardware Ranch 48.46 317 P P 00 07 07.0 +2.8
comp=Z,8.5nm,0.8s
AHID Auburn Hatcher 48.70 319 P P 00 07 05.4 -0.6
AHID IAmb IAmb 00 07 12.6
comp=Z,3.0nm,0.6s
RLMT Red Lodge 48.76 323 P P 00 07 07.0 +0.5
RLMT IAmb IAmb 00 07 09.2
comp=Z,4.7nm,0.8s
BELC Belle Mtn. Jos 48.81 306 P P 00 07 06.5 -0.5
SNOW Snow King Moun 48.82 320 P P 00 07 07.9 +0.8
PFO Pinyon Flats O 49.06 306 LR LR 00 31 37.5
comp=Z,95nm,18.0s,baz=39,slow=41
YMP Mirror Lake Pl 49.09 322 P P 00 07 08.9 -0.3
YMP IAmb IAmb 00 07 26.9
comp=Z,7.5nm,1.1s
BGU Big Grassy Mou 49.14 316 P 00 07 09.7 +0.3
BGU IAmb IAmb 00 07 13.3
comp=Z,3.8nm,0.9s
YNE Yellowstone No 49.14 322 P P 00 07 09.3 -0.2
YNE IAmb IAmb 00 07 23.3
comp=Z,4.0nm,0.9s
YHH Holmes Hill 49.54 321 P P 00 07 12.9 +0.3
YHL Hebgen Lake 49.78 321 P P 00 07 15.1 +0.7
YHL IAmb IAmb 00 07 24.7
comp=Z,10nm,1.0s
GO06 Curarrehue 49.80 182 P P 00 07 15.8 +1.4
GO06 IAmb IAmb 00 07 21.1
comp=Z,3.8nm,0.8s
QLMT Earthquake Lak 49.92 321 P P 00 07 16.2 +0.9
TPNV Topopah Spring 49.94 310 P 00 07 17.1 +1.5
GWY Greenwater Val 50.01 309 P 00 07 17.0 +0.8
ELK Elko 50.59 315 P P 00 07 19.4 -1.1
comp=Z,1.1nm,0.6s,baz=26,slow=1.1,SNR=3.6
comp=Z,1.1nm,0.6s
ELK Elko 50.59 315 P 00 07 18.7 -1.9
BCYI Bear Canyon 50.91 320 P P 00 07 24.5 +1.6
PLCA Paso Flores 50.92 181 P P 00 07 22.9 +0.2
comp=Z,5.4nm,0.8s,baz=360,slow=7.8,SNR=9.9
PLCA LR LR 00 29 29.3
comp=Z,107nm,20.0s,baz=3.5,slow=37
comp=Z,5.4nm,0.8s
PLCA Paso Flores 50.92 181 P 00 07 22.9 +0.2
PLCA IAmb IAmb 00 07 24.2
comp=Z,8.6nm,1.0s
PLCA Paso Flores 50.92 181 P P 00 07 23.3 +0.5
comp=Z,10nm,1.6s
PLCA Paso Flores 50.92 181 *eP* **P 00 07 23.0 +0.2**
HLID Hailey 51.22 318 P 00 07 25.9 +0.8
HLID Hailey 51.22 318 P P 00 07 26.6 +1.5
comp=Z,6.2nm,0.8s
FFC Flin Flon 51.26 336 P 00 07 24.6 -0.5
FFC Flin Flon 51.26 336 P P 00 07 26.6 +1.5
comp=Z,25nm,0.8s
NVAR Mina Array Bea 51.97 311 P P 00 07 31.4 +0.5
comp=Z,1.2nm,0.6s,baz=119,slow=7.6,SNR=7.8
NVAR LR LR 00 32 54.4
comp=Z,91nm,18.4s,baz=121,slow=40
comp=Z,1.2nm,0.6s
NVAR Mina Array Bea 51.97 311 P P 00 07 32.3 +1.4
KVN Kaiserville 52.02 312 P 00 07 31.9 +0.6
PLID Pearl Lake 52.91 320 P P 00 07 38.7 +0.9
MPK Martis Lake 53.52 311 IAmb IAmb 00 07 55.1
comp=Z,9.8nm,0.9s
RPN Rapa Nui 54.00 225 LR LR 00 27 49.3
comp=Z,80nm,18.7s,baz=12,slow=33
I07A Izee 54.79 317 IAmb IAmb 00 08 02.9
comp=Z,3.9nm,0.9s
G08A Pilot Rock 54.90 319 P 00 07 52.9 +0.6
G08A IAmb IAmb 00 07 55.8
comp=Z,3.1nm,0.6s
NEW Newport 55.01 323 LR LR 00 35 53.0
comp=Z,86nm,18.1s,baz=117,slow=41
PINE Pine Mountain 55.65 316 IAmb IAmb 00 08 02.4
comp=Z,9.6nm,1.1s
YBH Yreka Blue Hor 56.21 314 P P 00 08 01.7 0.0
comp=Z,1.4nm,0.6s,baz=143,slow=3.3,SNR=4.3
comp=Z,1.4nm,0.6s
YBH Yreka Blue Hor 56.21 314 P P 00 08 02.6 +0.9
WIFE Three Sisters- 56.34 316 IAmb IAmb 00 08 06.5
comp=Z,8.5nm,0.8s
YKA Yellowknife Ar 61.35 338 P P 00 08 36.1 -0.8
comp=Z,4.4nm,0.8s,baz=122,slow=6.9,SNR=18
YKA PcP PcP 00 09 20.3 +1.1
comp=Z,1.5nm,0.6s,baz=123,slow=4.3,SNR=7.9
YKA LR LR 00 36 33.6
comp=Z,123nm,19.2s,baz=255,slow=38
comp=Z,4.4nm,0.8s
YKA Yellowknife Ar 61.35 338 P P 00 08 35.1 -1.8
MD31 MD31 62.90 58 P 00 08 49.0 +1.0
MD31 IAmb IAmb 00 08 53.0
comp=Z,4.4nm,0.8s
BBB Bella Bella 63.03 324 LR LR 00 37 09.3
comp=Z,80nm,21.1s,baz=154,slow=37
DBIC Dimbokro 63.56 88 P P 00 08 54.1 +1.5
comp=Z,6.4nm,0.7s,baz=293,slow=4.7,SNR=4.9
comp=Z,6.4nm,0.7s
DBIC Dimbokro 63.56 88 P P 00 08 53.1 +0.6
PAB San Pablo 64.00 51 P P 00 08 56.0 +0.9
PAB IAmb IAmb 00 09 05.4
comp=Z,3.2nm,0.9s
ESDC Sonseca Array 64.31 51 P P 00 08 57.5 +0.4
comp=Z,1.6nm,0.9s,baz=266,slow=5.9,SNR=9.8
comp=Z,1.6nm,0.9s
ESDC Sonseca Array 64.31 51 P P 00 08 58.0 +0.8
ESBB Sonseca Array 64.31 51 P P 00 08 57.8 +0.6
ESBB IAmb IAmb 00 09 16.0
comp=Z,4.1nm,1.1s
SUMG Summit 64.76 10 P 00 09 00.2 +0.3
SUMG Summit 64.76 10 P P 00 09 02.3 +2.4
comp=Z,22nm,0.9s
SUMG Summit 64.76 10 *iP* **P 00 09 00.4 +0.5**
SUMG IAmb IAmb 00 09 00.8
comp=Z,4.0nm,0.6s
DLBC Dease Lake 66.15 330 LR LR 00 39 25.7
comp=Z,144nm,19.0s,baz=76,slow=37
NEEM North Greenlan 67.66 4 *iP* **P 00 09 18.5 +0.2**
NEEM IAmb IAmb 00 09 21.2
comp=Z,7.4nm,0.6s
EKA Eskdalemuir Ar 67.87 34 P P 00 09 18.7 -1.0
comp=Z,1.6nm,0.6s,baz=264,slow=4.8,SNR=5.2
comp=Z,1.6nm,0.6s
TORD Torodi Ar. Bea 69.16 80 P P 00 09 28.1 -0.4
comp=Z,3.4nm,0.8s,baz=274,slow=7.6,SNR=8.3
comp=Z,3.4nm,0.8s
DBG Daneborg 69.57 13 *iP* **P 00 09 32.5 +2.6**
DBG IAmb IAmb 00 09 32.9
comp=Z,2.1nm,0.7s
A36M Sachs Harbour 70.04 344 P 00 09 33.9 +1.1
H31M Peel River 70.51 337 P 00 09 36.9 +0.9
INK Inuvik 71.04 339 LR LR 00 40 46.3
comp=Z,110nm,21.6s,baz=34,slow=36
I30M Mount Dempster 71.14 336 P 00 09 40.5 +0.6
I30M IAmb IAmb 00 09 49.4
comp=Z,6.7nm,1.1s
DAG Danmarks Havn 71.38 11 *iP* **P 00 09 41.0 0.0**
DAG IAmb IAmb 00 09 42.1
comp=Z,1.1nm,0.6s
TAM Tamanrasset 71.95 69 P 00 09 46.8 +1.2
TAM Tamanrasset 71.95 69 P P 00 09 48.0 +2.4
comp=Z,6.4nm,1.5s
H29M Whitestone 72.20 337 P 00 09 46.8 +0.7
F28M Old Crow 73.13 338 P 00 09 52.0 +0.3
F28M IAmb IAmb 00 09 54.8
comp=Z,8.2nm,1.1s
E28M Babbage River 73.25 339 P 00 09 53.0 +0.7
E28M IAmb IAmb 00 09 57.4
comp=Z,4.0nm,0.9s
E27K Coleen River 73.89 338 P 00 09 57.3 +1.1
NOR Nord 74.57 7 *iP* **P 00 10 00.5 +0.7**
NOR IAmb IAmb 00 10 03.1
comp=Z,6.5nm,1.1s
PMSA Palmer Station 75.08 178 LR LR 00 44 00.2
comp=Z,78nm,19.4s,baz=260,slow=36
ILAR Eielson Array 75.42 334 P P 00 10 05.0 0.0
comp=Z,0.9nm,0.8s,baz=98,slow=3.8,SNR=7.1
ILAR PP PP 00 12 53.5 -0.2
comp=Z,0.6nm,0.9s,baz=96,slow=6.4,SNR=5.2
ILAR LR LR 00 44 25.7
comp=Z,82nm,21.7s,baz=86,slow=37
comp=Z,0.9nm,0.8s
ILAR Eielson Array 75.42 334 P P 00 10 05.4 +0.4
NB2 NORSAR Subarra 76.25 30 P P 00 10 12.5 +2.6
comp=Z,5.9nm,0.9s,baz=267,slow=5.9
NOA NORSAR Array B 76.25 30 P P 00 10 11.0 +1.1
comp=Z,3.5nm,0.8s,baz=269,slow=5.8,SNR=7.6
NOA LR LR 00 42 12.2
comp=Z,33nm,18.5s,baz=30,slow=34
comp=Z,3.5nm,0.8s
KHC Kasperske Hory 77.42 42 *eP* **P 00 10 17.1 +0.4**
GERES GERESS Array B 77.50 42 P P 00 10 18.5 +1.2
comp=Z,2.1nm,0.7s,baz=258,slow=4.9,SNR=12
comp=Z,2.1nm,0.7s
GERES GERESS Array B 77.50 42 P P 00 10 18.1 +0.8
KDAK Kodiak Island 77.78 327 LR LR 00 45 49.2
comp=Z,101nm,18.3s,baz=68,slow=37
CKRC Cesky Krumlov 77.91 42 *eP* **P 00 10 19.3 -0.1**
SPITS Spitsbergen Ar 78.93 12 P P 00 10 26.0 +1.5
comp=Z,8.3nm,0.8s,baz=204,slow=3.7,SNR=4.0
comp=Z,8.3nm,0.8s
SPB2 Spitsbergen Ar 78.94 12 P P 00 10 25.0 +0.4
VRAC Vranov 79.38 42 LR LR 00 41 19.7
comp=Z,190nm,20.8s,baz=34,slow=32
ARCES ARCESS Array B 81.92 21 P P 00 10 42.1 +1.4
comp=Z,2.1nm,0.6s,baz=302,slow=2.0,SNR=4.4
comp=Z,2.1nm,0.6s
ARCES ARCESS Array B 81.92 21 P P 00 10 40.9 +0.2
K15K Wolf Creek Mou 81.98 332 P P 00 10 42.8 +1.7
FINES FINESS Array B 83.39 29 P P 00 10 48.9 +0.4
comp=Z,2.0nm,0.7s,baz=297,slow=6.1,SNR=6.0
comp=Z,2.0nm,0.7s
FINES FINESS Array B 83.39 29 P P 00 10 48.8 +0.3
SPT South Point 83.46 288 P P 00 10 48.6 -1.1
PPT Papeete 84.18 251 LR LR 00 42 14.9
comp=Z,63nm,21.7s,baz=12,slow=31
MLR Muntele Rosu 86.16 45 P 00 11 03.6 +0.6
RAR Rarotonga 94.32 249 LR LR 00 47 45.7
comp=Z,71nm,18.2s,baz=48,slow=31
SHEM Shemya Is, Ala 97.29 327 LR LR 00 58 18.8
comp=Z,38nm,18.9s,baz=114,slow=37
NRIK Noril'sk 98.77 8 LR LR 00 59 20.1
comp=Z,40nm,18.9s,baz=350,slow=37
CMAR Chiang Mai Arr 148.97 22 PKPbc **PKPbc 00 18 10.1 -0.3**
comp=Z,2.2nm,0.6s,baz=319,slow=4.1,SNR=12
ASAR Alice Springs 154.42 236 PKP **PKPdf 00 18 13.8 -0.7**
comp=Z,0.4nm,0.6s,baz=104,slow=1.2,SNR=5.9
ASAR PKPbc **PKPbc 00 18 21.7 -1.2**
comp=Z,2.0nm,0.8s,baz=114,slow=2.6,SNR=15
ASAR Alice Springs 154.42 236 PKPdf 00 18 13.1 -1.5
WRA Warramunga Arr 155.51 245 PKP **PKPdf 00 18 15.3 -0.8**
comp=Z,1.0nm,1.0s,baz=109,slow=1.1,SNR=4.3
WRA PKPbc **sPKPdf 00 18 23.6 +2.6**
comp=Z,2.9nm,0.9s,baz=103,slow=2.1,SNR=12
WRA PKPab **PKPab 00 18 41.6 -0.1**
comp=Z,2.0nm,0.9s,baz=109,slow=4.3,SNR=6.6
WRA Warramunga Arr 155.51 245 PKPdif PKPdf 00 18 24.1 +8.0

*IDC **21** 00:05:46.9±1.4, 24°.07N×109°.02W, h0km, mb3.7/3, mbtmp3.8/7, ML3.9/4, MS4.1/4, Error ellipse: s-maj=23.4km s-min=13.2km az=161.0*
*MEX **21** 00:05:49.9±0.8, 24°.11N×108°.96W, h16km, MD4.2, Presumed earthquake*
*NEIC **21** 00:05:50.5±2.9, 24°.14N±0°.02×109°.18W±0°.06, h10km±1km, mb4.0/93, Md4.2/12(MEX), Error ellipse: s-maj=9.5km s-min=4.3km az=263.0*
ISC 21 00:05:51.5±0.6, 24°.20N±0°.06×109°.14W±0°.05, h22km, n138, σ1ş53/130, mb4.0/9, MS4.0/3, 1C, Gulf of California

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LPIG	**La Paz**	**1.07**	**265**	Pg	**Pn**	**00 06 08.9**	**-2.2**
	149nm,0.3s,baz=80,slow=12,SNR=25						
LPIG				Lg	Lg	00 06 26.4	
	338nm,0.3s,baz=107,slow=5.1,SNR=8.6						
LPIG	**La Paz**	**1.07**	**265**		**Pn**	**00 06 08.8**	**-2.4**
LPIG					**Sb**	**00 06 23.5**	**-1.3**
LPIG	**La Paz**	**1.07**	**265**	⇑*iP*	**Pn**	**00 06 08.8**	**-2.4**
	baz=91,slow=4.8						
LPIG				*i* S	**Sb**	**00 06 23.5**	**-1.3**
TSIG	**Topolobambo**	**1.40**	**4**	*i* P	**Pn**	**00 06 12.8**	**-3.0**
TSIG				*i* S	**Sn**	**00 06 28.9**	**-4.7**
CSIG	**Choix**	**2.72**	**15**	*e*	**Pn**	**00 06 32.9**	**-1.0**
CSIG				*e*S	**Sn**	**00 07 04.5**	**-1.6**
HPIG		**4.16**	**48**		**Pn**	**00 06 53.8**	**-0.2**
SRIG	**Santa Rosalia**	**4.18**	**319**	Pn	**Pn**	**00 06 54.5**	**+0.6**
HSIG		**5.07**	**342**	Pn	**Pn**	**00 07 05.4**	**-0.8**
ZAIG	**Zacatecas**	**6.20**	**102**		**Pn**	**00 07 21.7**	**-0.4**
TX31	**Lajitas Ar. Si**	**7.08**	**43**		**Pn**	**00 07 31.9**	**-2.0**
TXAR	**Lajitas Array**	**7.08**	**43**	Pn	**Pn**	**00 07 31.7**	**-2.3**
	0.2nm,0.3s,baz=228,slow=12,SNR=13						
TXAR				Sn	**Sn**	**00 08 49.4**	**-4.4**
	0.8nm,0.3s,baz=309,slow=32,SNR=6.2						
TXAR				Lg	Lg	00 09 31.0	
	0.6nm,0.3s,baz=222,slow=29,SNR=3.4						
	1.0nm,0.5s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**7.08**	**43**		**Pn**	**00 07 33.4**	**-0.6**
319A	**Douglas**	**7.16**	**359**	Pn	**Pn**	**00 07 34.5**	**-0.5**
VHRN	**Van Horn**	**7.53**	**28**		**Pn**	**00 07 39.8**	**-0.4**
MNTX	**Cornudas Mount**	**8.18**	**23**	Pn	**Pn**	**00 07 48.5**	**-0.5**
TUC	**Tucson**	**8.21**	**350**	Pn	**Pn**	**00 07 51.2**	**+1.8**
TPB01	**Permian Basin**	**8.23**	**34**	Pn	**Pn**	**00 07 50.1**	**+0.4**
DUN6	**Lazy B Ranch**	**8.33**	**0**	Pn	**Pn**	**00 07 52.8**	**+1.7**
TPB05	**Hovey Rd**	**8.46**	**36**	Pn	**Pn**	**00 07 53.5**	**+0.6**
SAND	**Sanderson**	**8.49**	**46**		**Pn**	**00 07 52.5**	**-0.7**
113A	**Mohawk Valley,**	**9.46**	**336**		**Pn**	**00 08 09.0**	**+2.5**
LENM	**Lemitar**	**10.11**	**10**		**Pn**	**00 08 17.1**	**+1.4**
PFO	**Pinyon Flats O**	**11.36**	**327**	Pn	**Pn**	**00 08 33.5**	**+0.9**
	0.3nm,0.3s,baz=152,slow=18,SNR=1.4						
PFO				LR	LR	00 12 21.4	
	comp=Z,539nm,18.1s,baz=154,slow=34						
	0.7nm,0.3s						
PFO				AML	AML		
LCMT	**Little Creek M**	**13.25**	**346**		**Pn**	**00 09 01.3**	**+2.9**
PKCU	**Pink Cliffs**	**13.48**	**349**		**Pn**	**00 09 02.9**	**+1.1**
HMU	**Henry Mountain**	**13.77**	**355**		**Pn**	**00 09 06.5**	**+0.8**
SZCU	**Shurtz Canyon**	**13.78**	**347**		**Pn**	**00 09 07.2**	**+1.4**
CCUT	**Cedar City**	**13.79**	**346**		**Pn**	**00 09 06.5**	**+0.5**
SDCO	**Great Sand Dun**	**13.86**	**12**		**Pn**	**00 09 06.6**	**-0.4**
PV02	**Paradox Valley**	**13.97**	**1**		**Pn**	**00 09 10.8**	**+2.3**
PV18	**Skein Mesa, Pa**	**14.01**	**1**	Pn	**Pn**	**00 09 10.4**	**+1.5**
PV03	**Paradox Valley**	**14.02**	**1**		**Pn**	**00 09 10.5**	**+1.5**
PV16	**Nyswonger Mesa**	**14.07**	**1**	Pn	**Pn**	**00 09 11.6**	**+1.8**
PV12	**Saucer Basin,**	**14.08**	**1**		**Pn**	**00 09 12.4**	**+2.4**
TPNV	**Topopah Spring**	**14.10**	**336**	Pn	**Pn**	**00 09 10.8**	**+0.7**
PV20	**West Nyswonger**	**14.10**	**1**		**Pn**	**00 09 12.1**	**+1.9**
WCT	**Wildcat Mounta**	**14.11**	**335**	Pn	**Pn**	**00 09 13.1**	**+2.9**
PV10	**Paradox Valley**	**14.14**	**0**		**Pn**	**00 09 11.5**	**+0.8**
PV07	**Paradox Valley**	**14.21**	**2**		**Pn**	**00 09 10.9**	**-0.7**
PV23	**Carpenter Ridg**	**14.21**	**0**	Pn	**Pn**	**00 09 14.2**	**+2.5**
S11A	**Rachel**	**14.55**	**339**	P	**P**	**00 09 21.3**	**-1.3**
Q16A	**Castle Valley**	**14.78**	**354**	P	**P**	**00 09 23.8**	**-1.5**
GMN	**Gold Mountain**	**14.80**	**334**	P	**Pn**	**00 09 23.2**	**+3.5**
PSUT	**Pine Spring**	**14.85**	**345**		**P**	**00 09 25.5**	**-0.5**
Q24A	**Divide**	**15.11**	**12**	P	**P**	**00 09 28.8**	**-0.2**
Q24A				IAmb	IAmb	00 09 32.8	
	comp=Z,5.9nm,1.0s						
TMUT	**Trail Mountain**	**15.16**	**354**	P	**P**	**00 09 28.4**	**-1.1**
TMUT				IAmb	IAmb	00 09 41.4	
	comp=Z,7.2nm,1.0s						
MZP	**Montezuma Peak**	**15.19**	**334**	P	**P**	**00 09 29.6**	**-0.3**
MZP				IAmb	IAmb	00 09 41.3	
	comp=Z,13nm,1.3s						
P17A	**Butcher Ranch,**	**15.29**	**355**	P	**P**	**00 09 30.3**	**-0.6**
P17A				IAmb	IAmb	00 09 37.6	
	comp=Z,14nm,1.3s						
P18A	**Preston Nutter**	**15.42**	**357**		**Pn**	**00 09 28.8**	**+0.8**
TPH	**Tonopah**	**15.46**	**335**		**Pn**	**00 09 29.0**	**+0.6**
TPH				IAmb	IAmb	00 09 35.1	
	comp=Z,17nm,1.5s						
ISCO	**Idaho Springs**	**15.84**	**10**		**Pn**	**00 09 33.8**	**+0.4**
ISCO				IAmb	IAmb	00 09 48.3	
	comp=Z,12nm,1.2s						
MDPB	**Devils Postpil**	**15.86**	**330**	Pn	**Pn**	**00 09 33.9**	**+0.2**
OK052	**Battle Ridge R**	**15.87**	**39**		**P**	**00 09 35.3**	**-1.8**
OK052				IAmb	IAmb	00 09 44.2	
	comp=Z,16nm,1.0s						
NLU	**North Lily Min**	**15.91**	**352**		**Pn**	**00 09 34.6**	**+0.4**
O20A	**White River Ci**	**15.91**	**3**		**Pn**	**00 09 34.7**	**+0.5**
O20A				IAmb	IAmb	00 09 48.4	
	comp=Z,21nm,1.3s						
LHV	**Little Huntoon**	**16.12**	**333**		**Pn**	**00 09 36.1**	**-0.6**
LHV				IAmb	IAmb	00 09 52.6	
	comp=Z,21nm,1.4s						
NV11	**Mina Array Sit**	**16.13**	**334**		**Pn**	**00 09 36.9**	**-0.1**
NVAR	**Mina Array Bea**	**16.19**	**333**		**Pn**	**00 09 37.4**	**-0.4**
OK051	**E0350 and S346**	**16.21**	**38**	Pn	**Pn**	**00 09 38.2**	**+0.3**
DUG	**Dugway, Tooele**	**16.25**	**350**		**Pn**	**00 09 37.8**	**-0.8**

DUG				IAmb	IAmb	00 09 46.7	
	comp=Z,12nm,1.2s						
RDMU	**Red Mountain**	**16.33**	**359**		**Pn**	**00 09 39.5**	**-0.2**
RDMU				IAmb	IAmb	00 09 52.8	
	comp=Z,18nm,1.2s						
BSUT	**Blindstream Ca**	**16.35**	**356**		**Pn**	**00 09 40.3**	**+0.3**
HAYD	**Hayden**	**16.36**	**5**	Pn	**Pn**	**00 09 40.1**	**+0.1**
CBKS	**Cedar Bluff**	**16.62**	**27**	Pn	**Pn**	**00 09 42.3**	**-0.8**
CBKS				IAmb	IAmb	00 10 00.7	
	comp=Z,16nm,1.1s						
KVN	**Kaiserville**	**16.64**	**335**	P	**Pn**	**00 09 44.9**	**+1.3**
CMB	**Columbia Colle**	**16.80**	**328**	Pn	**Pn**	**00 09 45.0**	**-0.5**
TCUT	**Toone Canyon**	**16.98**	**354**	Pn	**Pn**	**00 09 47.5**	**-0.4**
BGU	**Big Grassy Mou**	**17.00**	**350**	Pn	**Pn**	**00 09 47.6**	**-0.4**
MIAR	**Mount Ida**	**17.02**	**49**		**Pn**	**00 09 47.8**	**-0.4**
MIAR				IAmb	IAmb	00 09 57.5	
	comp=Z,18nm,1.4s						
YERR	**Yerington**	**17.05**	**332**	P	**Pn**	**00 09 49.8**	**+1.0**
YERR				IAmb	IAmb	00 09 58.5	
	comp=Z,22nm,1.4s						
ELK	**Elko**	**17.28**	**344**	P	**Pn**	**00 09 52.2**	**+0.7**
	baz=183,slow=17,SNR=5.8						
	comp=Z,3.8nm,1.1s						
ELK	**Elko**	**17.28**	**344**		**Pn**	**00 09 51.8**	**+0.2**
PNTR	**Pine Nut**	**17.29**	**332**	Pn	**Pn**	**00 09 49.6**	**-2.2**
PNTR				IAmb	IAmb	00 10 20.4	
	comp=Z,17nm,1.4s						
HWUT	**Hardware Ranch**	**17.48**	**354**		**Pn**	**00 09 54.2**	**+0.1**
HWUT				IAmb	IAmb	00 09 59.0	
	comp=Z,13nm,1.2s						
BMN	**Battle Mountai**	**17.56**	**339**	Pn	**Pn**	**00 09 54.8**	**-0.2**
MPK	**Martis Peak**	**17.65**	**331**		**Pn**	**00 09 56.6**	**+0.4**
MPK				IAmb	IAmb	00 10 14.3	
	comp=Z,15nm,1.3s						
BEKR	**Beckworth**	**18.27**	**331**	P	**Pn**	**00 10 05.4**	**+1.7**
BW06	**Boulder Array**	**18.53**	**359**	P	**P**	**00 10 06.4**	**-0.3**
BW06				IAmb	IAmb	00 10 18.5	
	comp=Z,10nm,1.1s						
PD31	**Pinedale Array**	**18.53**	**359**	P	**P**	**00 10 06.4**	**-0.3**
PD31				IAmb	IAmb	00 10 18.5	
	comp=Z,10nm,1.1s						
PDAR	**Pinedale Array**	**18.53**	**359**	P	**Pn**	**00 10 08.2**	**+1.2**
	comp=Z,0.1nm,0.3s,baz=167,slow=10.0,SNR=18						
	comp=Z,4.7nm,0.9s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**18.53**	**359**		**P**	**00 10 07.2**	**+0.4**
ORV	**Oroville**	**18.53**	**329**	P	**Pn**	**00 10 08.8**	**+2.0**
K22A	**Casper**	**18.54**	**6**	P	**P**	**00 10 06.8**	**+0.1**
AHID	**Auburn Hatcher**	**18.59**	**355**	P	**P**	**00 10 05.9**	**-1.5**
SNOW	**Snow King Moun**	**19.27**	**356**	P	**Pn**	**00 10 17.6**	**+1.7**
SNOW				IAmb	IAmb	00 10 23.5	
	comp=Z,10nm,1.1s						
BGNE	**Belgrade**	**19.46**	**25**	P	**Pn**	**00 10 17.8**	**-0.3**
HLID	**Hailey**	**19.80**	**349**	P	**P**	**00 10 22.0**	**+1.4**
WVOR	**Wild Horse Val**	**19.82**	**339**	P	**Pn**	**00 10 25.4**	**+3.0**
WVOR				IAmb	IAmb	00 10 34.4	
	comp=Z,12nm,1.3s						
YPP	**Pitchstone Pla**	**20.07**	**357**	P	Pn	00 10 28.9	+3.4
YPP				IAmb	IAmb	00 10 55.9	
	comp=Z,9.9nm,1.4s						
H17A	**Grant Village**	**20.18**	**357**	P	**P**	**00 10 24.4**	**-0.4**
H17A				IAmb	IAmb	00 10 46.0	
	comp=Z,9.2nm,1.1s						
KHBM	**Hayfork Bally**	**20.22**	**328**	P	**P**	**00 10 26.4**	**+1.2**
KHBM				IAmb	IAmb	00 10 40.7	
	comp=Z,19nm,1.4s						
YFT	**Old Faithful**	**20.25**	**356**	P	**P**	**00 10 25.7**	**+0.1**
BCYI	**Bear Canyon**	**20.37**	**351**	P	**P**	**00 10 27.5**	**+0.7**
YMR	**Madison River**	**20.48**	**356**	P	Pn	00 10 29.9	-0.3
YNR	**Norris Junctio**	**20.51**	**357**	P	Pn	00 10 31.4	+0.7
YNR				IAmb	IAmb	00 10 37.4	
	comp=Z,7.3nm,1.1s						
YMP	**Mirror Lake Pl**	**20.51**	**358**	P	Pn	00 10 31.2	+0.5
YHB	**Horse Butte**	**20.58**	**356**	P	**P**	**00 10 29.6**	**+0.5**
YHH	**Holmes Hill**	**20.59**	**357**	P	Pn	00 10 32.0	+0.3
YHH				IAmb	IAmb	00 10 52.1	
	comp=Z,8.1nm,1.2s						
J08A	**Circle Bar Ran**	**20.60**	**340**	P	**P**	**00 10 29.8**	**+0.5**
J08A				IAmb	IAmb	00 10 42.5	
	comp=Z,5.0nm,0.7s						
QLMT	**Earthquake Lak**	**20.67**	**355**	P	Pn	00 10 32.6	+0.2
YHL	**Hebgen Lake**	**20.67**	**356**	P	Pn	00 10 33.4	+0.8
YHL				IAmb	IAmb	00 10 37.6	
	comp=Z,9.8nm,1.3s						
YNE	**Yellowstone No**	**20.78**	**358**	P	Pn	00 10 33.6	-0.2
YNE				IAmb	IAmb	00 10 44.5	
	comp=Z,6.5nm,1.0s						
MCMT	**McKenzie Canyo**	**20.80**	**353**	P	Pn	00 10 34.3	+0.2
RLMT	**Red Lodge**	**20.88**	**360**	P	Pn	00 10 34.3	-0.6
RLMT				IAmb	IAmb	00 10 47.4	
	comp=Z,11nm,1.1s						
K05A	**Summer Lake**	**20.88**	**335**	P	**P**	**00 10 34.4**	**+2.0**
L04D	**Klamath Falls**	**21.03**	**332**	P	**P**	**00 10 36.1**	**+2.2**
BOZ	**Bozeman (W)**	**21.45**	**355**	P	**P**	**00 10 40.1**	**+1.7**
BOZ				IAmb	IAmb	00 11 00.1	
	comp=Z,8.6nm,1.3s						
GCMT	**Greycliff**	**21.55**	**359**	P	**P**	**00 10 40.7**	**+1.2**
PLID	**Pearl Lake**	**21.58**	**347**	P	**P**	**00 10 42.5**	**+2.6**
PLID				IAmb	IAmb	00 10 44.3	
	comp=Z,7.0nm,1.3s						
S44A	**Carbondale**	**21.67**	**47**	P	**P**	**00 10 44.0**	**+3.3**
BBOR	**Butler Butte**	**21.74**	**332**	P	**P**	**00 10 44.6**	**+3.0**
X48A	**Hartselle**	**21.77**	**57**	P	**P**	**00 10 43.4**	**+1.7**
X48A				IAmb	IAmb	00 10 53.4	
	comp=Z,6.7nm,1.0s						
J04A	**Umpqua Nationa**	**21.80**	**334**	P	**P**	**00 10 44.2**	**+2.0**
WVT	**Waverly**	**21.88**	**52**	P	**P**	**00 10 44.9**	**+2.0**
LAO	**LASA Array**	**22.57**	**5**	P	**P**	**00 10 51.9**	**+1.6**
GBMT	**Granite Butte,**	**22.77**	**354**	P	**P**	**00 10 55.0**	**+2.3**
GBMT				IAmb	IAmb	00 10 55.7	
	comp=Z,7.7nm,1.4s						
152A	**Waverly Hall**	**23.04**	**63**	P	**P**	**00 10 55.2**	**-0.1**
E28A	**Huff**	**23.34**	**15**	P	**P**	**00 10 59.3**	**+1.0**
W50A	**Signal Mountai**	**23.37**	**57**	P	**P**	**00 10 59.0**	**+0.3**
HOOD	**Mount Hood Mea**	**23.39**	**337**	P	**P**	**00 11 00.5**	**+1.6**
CPCT	**Cooper Cave**	**24.06**	**57**	P	**P**	**00 11 04.6**	**-0.7**
LON	**Longmire**	**24.69**	**339**	P	**P**	**00 11 10.5**	**-0.5**
LON				IAmb	IAmb	00 11 22.6	
	comp=Z,5.8nm,1.1s						
LDM	**Libby Dam**	**24.70**	**350**	P	**P**	**00 11 12.4**	**+1.4**
NEW	**Newport**	**24.84**	**347**	P	**P**	**00 11 13.2**	**+1.0**
NEW				IAmb	IAmb	00 11 21.3	
	comp=Z,4.4nm,1.1s						
DWPF	**Disney Wildern**	**25.16**	**75**	P	**P**	**00 11 16.2**	**+1.0**
ULM	**Lac du Bonnet**	**27.98**	**18**	LR	LR	00 22 58.6	
	comp=Z,220nm,18.7s,baz=170,slow=37						
PCDR	**Punta Cana, DR**	**38.28**	**90**	P	**P**	**00 13 10.1**	**-0.4**
YKA	**Yellowknife Ar**	**38.46**	**356**	P	**P**	**00 13 11.7**	**+0.2**
	comp=Z,1.3nm,1.0s,baz=184,slow=7.1,SNR=4.1						
	comp=Z,1.3nm,1.0s						
YKA	**Yellowknife Ar**	**38.46**	**356**	P	**P**	**00 13 13.5**	**+2.0**
ILAR	**Eielson Array**	**47.34**	**339**	P	**P**	**00 14 24.7**	**+1.3**
	comp=Z,0.8nm,1.1s,baz=116,slow=6.8,SNR=4.5						
	comp=Z,0.8nm,1.1s						
ILAR	**Eielson Array**	**47.34**	**339**	P	**P**	**00 14 24.0**	**+0.6**
PB09	**IPOC Station P**	**59.96**	**136**	P	**P**	**00 15 55.5**	**-1.1**
BI02	**San Fabin de**	**70.29**	**148**	P	**P**	**00 17 03.7**	**+0.4**
CMLA	**Cha da Macela**	**70.79**	**57**	P	**P**	**00 17 08.2**	**+1.7**
CPUP	**Villa Florida**	**70.92**	**132**	P	**P**	**00 17 05.5**	**-1.7**
	comp=Z,0.5nm,0.4s,baz=315,slow=5.7,SNR=4.3						
	comp=Z,0.5nm,0.4s						
CPUP	**Villa Florida**	**70.92**	**132**	P	**P**	**00 17 07.5**	**+0.3**
MDT	**Midelt**	**88.47**	**55**	LR	LR	00 57 51.2	
	comp=Z,307nm,19.6s,baz=122,slow=35						
HNR	**Honiara**	**94.62**	**262**	LR	LR	00 50 43.8	
	comp=Z,48nm,20.7s,baz=185,slow=28						

*NOU **21** 00:18:41.4, 10˚.40S × 161˚.46E, h24km, mb5.5/19, Solomon Islands*
*IDC **21** 00:18:42.6±2.1, 10˚.29S × 161˚.54E, h91km±17km, mb3.5/5, mbtmp4.1/7, Error ellipse: s-maj=26.0km s-min=17.5km az=56.0*
ISC 21 00:18:40.5±0.7, 10˚.39S±0˚.07 × 161˚.58E±0˚.06, h61km, n30, σ2s59/26, mb3.8/6, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
HURO	**Huro Makira**	**0.33**	**104**	P		**Pn**	**00 18 51.2**	**+0.3**
HURO	**Huro Makira**	**0.33**	**104**	S		**Sn**	**00 18 59.7**	**+1.2**
HNR	**Honiara**	**1.87**	**300**	P		**Pn**	**00 19 11.9**	**+1.7**
	811nm,0.4s,baz=249,slow=3.4,SNR=69							
HNR				S		**Sn**	**00 19 34.6**	**+1.9**
	823nm,0.3s,baz=142,slow=21,SNR=10							
HNR	**Honiara**	**1.87**	**300**	P		**Pn**	**00 19 11.1**	**+0.9**
NGOA	**Tingoa Renbel**	**1.89**	**232**	P		**Pn**	**00 19 10.1**	**-0.4**
NGOA	**Tingoa Renbel**	**1.89**	**232**	S		**Sn**	**00 19 32.6**	**-0.6**
SAVO	**Savo Central**	**2.13**	**305**	P		**Pn**	**00 19 15.4**	**+1.6**
TATA	**Tatamba Isabel**	**2.65**	**318**	P		**Pn**	**00 19 21.2**	**+0.4**
SANVU	**Saraoutou**	**7.44**	**133**	P		**Pn**	**00 20 28.5**	**+2.1**
DVP	**Devils Point**	**9.71**	**139**	P		**Pn**	**00 21 00.7**	**+3.2**
KOUNC	**Koumac, New Ca**	**10.44**	**166**	P		**Pn**	**00 21 10.6**	**+3.2**
NOUC	**Port Laguerre**	**12.50**	**159**	P		**Pn**	**00 21 38.7**	**+3.1**
DZM	**Mont Dzumac**	**12.52**	**159**	P		**Pn**	**00 21 39.6**	**+3.6**
	7.0nm,0.3s,baz=325,slow=16,SNR=110							
DZM				S		**Sn**	**00 23 49.6**	**-4.2**
	7.0nm,0.9s,baz=268,slow=20,SNR=2.6							
MARNC	**Mare, Loyalty**	**12.65**	**151**	P		**Pn**	**00 21 41.9**	**+4.2**
YATNC	**Mamie plateau,**	**12.67**	**157**	P		**Pn**	**00 21 41.5**	**+3.5**
ONTNC	**Ouen Toro**	**12.74**	**159**	P		**Pn**	**00 21 42.1**	**+3.2**
OUENC	**Ouen Island, N**	**12.98**	**158**	P		**Pn**	**00 21 45.9**	**+3.7**
CTA	**Charters Tower**	**17.64**	**235**	P		**P**	**00 22 44.5**	**+2.1**
	8.6nm,0.8s,baz=59,slow=12,SNR=8.7							
RAO	**Raoul Island**	**26.83**	**137**	P		**P**	**00 24 15.7**	**+0.5**
	286nm,0.3s,baz=67,slow=23,SNR=3.3							
WRA	**Warramunga Arr**	**27.91**	**247**	P		**P**	**00 24 24.3**	**-0.9**
	1.3nm,0.7s,baz=77,slow=9.4,SNR=9.1							
	1.3nm,0.7s							
H11S2	**WAKE ISLAND Hy**	**29.14**	**10**	T		T	00 53 30.2	
	baz=194,slow=76,SNR=13							
H11S3	**WAKE ISLAND Hy**	**29.14**	**10**	T		T	00 53 34.4	
	baz=194,slow=76,SNR=11							
H11S1	**WAKE ISLAND Hy**	**29.15**	**10**	T		T	00 53 31.5	
	baz=194,slow=76,SNR=10							
ASAR	**Alice Springs**	**29.50**	**240**	P		**P**	**00 24 37.4**	**-1.8**
	0.7nm,0.8s,baz=72,slow=11,SNR=6.2							
	0.7nm,0.8s							
H11N1	**WAKE ISLAND Hy**	**30.36**	**10**	T		T	00 55 02.1	
	baz=193,slow=76,SNR=7.5							
H11N3	**WAKE ISLAND Hy**	**30.37**	**10**	T		T	00 55 16.0	
	baz=193,slow=76,SNR=8.4							
H11N2	**WAKE ISLAND Hy**	**30.38**	**10**	T		T	00 55 03.5	
	baz=193,slow=76,SNR=11							
SONM	**Songino Array**	**75.75**	**325**	P		**P**	**00 30 19.2**	**-0.6**
	1.2nm,0.7s,baz=140,slow=7.1,SNR=11							
	1.2nm,0.7s							
ILAR	**Eielson Array**	**84.24**	**20**	P		**P**	**00 31 01.7**	**-3.4**
	0.6nm,1.0s,baz=207,slow=9.6,SNR=4.4							
	0.6nm,1.0s							
MKAR	**Makanchi Array**	**90.26**	**318**	P		**P**	**00 31 33.1**	**-1.6**
	0.5nm,0.6s,baz=110,slow=5.4,SNR=1.7							
	0.5nm,0.6s							

*MDD **21** 00:31:25.3±1.1, 37˚.09N × 13˚.48W, h1km, Mb4.1/5, M_mb3.5/5, Error ellipse: s-maj=9.7km s-min=8.2km az=4.0*
*INMG **21** 00:31:29.6±0.8, 37˚.04N × 13˚.73W, h32km, ML2.0, Error ellipse: s-maj=8.8km s-min=6.1km az=46.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Josephine*
ISC 21 00:31:28.4±4.1, 37˚.3N±0˚.1 × 13˚.3W±0˚.2, h10km, n19, σ1s26/28, 5C, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PFVI	**Vila Bisbo**	**3.54**	**91**	*eS*		**Sn**	**00 33 04.3**	**-1.1**
PFVI					IAML		00 33 05.5	
PTEO	**Sao Teotonio**	**3.62**	**85**	P		**Pn**	**00 32 23.9**	**-0.6**
PTEO				S		**Sn**	**00 33 06.0**	**-1.2**
MORF	**Marmelete**	**3.67**	**88**	*eS*		**Sn**	**00 33 07.8**	**-0.9**
PLOUS	**Minas do Lousa**	**3.91**	**78**	*eS*		**Sn**	**00 33 15.7**	**+1.3**
MOE	**Moimor**	**4.07**	**71**	*eP*		**Pn**	**00 32 32.6**	**+1.9**
PCVE	**Castro Verde**	**4.17**	**84**	*eS*		**Sn**	**00 33 20.2**	**-0.6**
PBDV	**Barranco-do-Ve**	**4.25**	**89**	*eS*		**Sn**	**00 33 22.9**	**0.0**
PBDV					IAML		00 33 28.6	
EVO	**Evora**	**4.33**	**72**	*eS*		**Sn**	**00 33 26.0**	**+1.3**
PMTG	**Montargil**	**4.34**	**64**	P		**Pn**	**00 32 35.7**	**+1.3**
PMTG				S		**Sn**	**00 33 26.1**	**+0.9**
PARRA	**Arraiolos**	**4.39**	**68**	*eP*		**Pn**	**00 32 36.6**	**+1.5**
PARRA				*eS*		**Sn**	**00 33 26.8**	**+0.5**
PVAQ	**Vaqueiros**	**4.42**	**87**	*eP*		**Pn**	**00 32 38.2**	**+2.7**
PVAQ				*eS*		**Sn**	**00 33 25.8**	**-1.2**
PVAQ					IAML		00 33 28.2	
PVAQ					IAML		00 33 30.0	
PVAQ					IAML		00 33 31.3	
EGRO	**El Granado**	**4.60**	**85**	P		**Pn**	**00 32 38.2**	**+0.1**
EGRO				⇑IVmb_VC			00 32 42.4	
	153nm,SNR=1.3							
EGRO				S		**Sn**	**00 33 30.8**	**-0.8**
PBAR	**Barrancos**	**5.01**	**78**	*eS*		**Sn**	**00 33 42.0**	**+0.5**
EBAD	**Badajoz**	**5.14**	**72**	P		**Pn**	**00 32 45.4**	**-0.1**
EBAD				⇑IVmb_VC			00 32 52.8	
	122nm,SNR=1.5							
EBAD				S		**Sn**	**00 33 44.3**	**-0.5**
EMIN	**Mina Concepcio**	**5.25**	**83**	P		**Pn**	**00 32 45.6**	**-1.5**
EMIN				⇑IVmb_VC			00 32 48.6	
	119nm,SNR=1.2							
EMIN				S		**Sn**	**00 33 46.5**	**-1.1**
ECAB	**El Cabril**	**6.26**	**80**	P		**Pn**	**00 33 01.8**	**+0.8**
ECAB				⇑IVmb_VC			00 33 04.4	
	90nm,SNR=1.3							
ECAB				S		**Sn**	**00 34 11.5**	**-1.1**
CIBOR	**Castaar de Ib**	**6.57**	**67**	S		**Sn**	**00 34 18.9**	**-1.3**
EAGO	**Agolada(Pontev**	**6.78**	**34**	P		**Pn**	**00 33 08.2**	**+0.3**
EAGO				⇑IVmb_VC			00 33 09.7	
	168nm,SNR=0.8							
EAGO				S		**Sn**	**00 34 22.8**	**-2.5**
EADA	**Adamuz**	**6.93**	**80**	S		**Sn**	**00 34 28.1**	**-1.0**

*IDC **21** 00:46:26.0±0.9, 71˚.00N × 6˚.41W, h0km, mb3.4/5, mbtmp3.6/11, ML3.2/5, MS3.5/4, Error ellipse: s-maj=19.1km s-min=13.6km az=13.0*
*NAO **21** 00:46:26.6±0.4, 70˚.92N × 6˚.36W, h10km, ML3.6*
*BER **21** 00:46:27.4±2.9, 70˚.99N × 6˚.39W, h10km, ML3.4, Mw3.9, ML3.6(NAO), Confirmed Earthquake*
*DNK **21** 00:46:31.3±2.7, 71˚.34N × 7˚.39W, h0km±60km, ML2.1, Confirmed Earthquake*
ISC 21 00:46:25.2±1.6, 71˚.04N±0˚.07 × 6˚.14W±0˚.06, h14km±13km, n78, σ2s82/97, mb3.4/5, MS3.6/3, 4C, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
JNE	**Jan Mayen East**	**0.71**	**267**	⇑*iP*		**Pg**	**00 46 38.7**	**-0.2**
JNE				*eS*		**Sg**	**00 46 47.3**	**-0.9**
JNE					IAML		00 46 53.2	
	comp=Z,2μm,0.4s							
JNW	**Jan Mayen West**	**0.75**	**270**	⇑*iP*		**Pg**	**00 46 39.2**	**-0.5**
JNW				*eS*		**Sg**	**00 46 48.2**	**-1.3**
JNW					IAML		00 46 48.8	
	comp=Z,2μm,0.4s							
JMIC	**Jan Mayen**	**0.78**	**267**	Pn		**Pg**	**00 46 39.5**	**-0.7**
	comp=Z,395nm,0.3s,baz=84,slow=5.4,SNR=354							
JMIC				Sn		**Sg**	**00 46 48.5**	**-1.9**
	comp=Z,481nm,0.3s,baz=168,slow=8.4,SNR=17							
JMIC				LR		LR	00 46 59.6	
	comp=Z,464nm,21.2s,baz=110,slow=49							
JMIC	**Jan Mayen**	**0.78**	**267**	Pg		**Pg**	**00 46 39.5**	**-0.7**
JMIC				Sg		**Sg**	**00 46 48.7**	**-1.7**
JMIC	**Jan Mayen**	**0.78**	**267**	Pg		**Pg**	**00 46 39.5**	**-0.7**
JMIC				Sg		**Sg**	**00 46 48.7**	**-1.7**
JMIC					IAML		00 46 49.8	
	comp=Z,2μm,0.3s							
JMIC	**Jan Mayen**	**0.78**	**267**	⇑*iP*		**Pg**	**00 46 39.5**	**-0.7**
JMIC				*iS*		**Sg**	**00 46 47.3**	**-3.1**
JMI	**Jan Mayen**	**0.86**	**264**	Pg		**Pg**	**00 46 41.1**	**-0.7**
JMI				Sg		**Sg**	**00 46 51.2**	**-1.7**
JMI	**Jan Mayen**	**0.86**	**264**	⇑*iP*		**Pg**	**00 46 41.1**	**-0.7**
JMI				*eS*		**Sg**	**00 46 51.5**	**-1.4**
JMI					IAML		00 46 53.9	
	comp=Z,2μm,0.3s							
SCO	**Scoresbysund**	**5.25**	**271**	*i* P		**Pn**	**00 47 45.9**	**+2.7**
SCO	**Scoresbysund**	**5.25**	**271**	*i* P		**Pn**	**00 47 45.9**	**+2.7**
DBG	**Daneborg**	**5.33**	**315**	Pn		**Pn**	**00 47 43.7**	**-0.4**
DBG				Sn		Sn	00 48 39.4	-5.7
DBG	**Daneborg**	**5.33**	**315**	*i* P		**Pn**	**00 47 43.7**	**-0.4**
DBG				*i* S		Sn	00 48 36.7	-8.5
DBG					IAML		00 48 52.6	
	comp=Z,7.8nm,0.7s							
DBG	**Daneborg**	**5.33**	**315**	*i* P		**Pn**	**00 47 43.7**	**-0.4**
DBG				*i* S		Sn	00 48 36.7	-8.5
DBG					IAML		00 48 52.6	
	comp=Z,7.8nm,0.7s							
DAG	**Danmarks Havn**	**6.71**	**335**	*i* P		**Pn**	**00 48 03.4**	**+0.3**
DAG				*i* S		**Sn**	**00 49 13.2**	**-5.9**
DAG					IAML		00 49 16.6	
	comp=Z,9.0nm,0.6s							
DAG					IAML		00 49 16.6	
	comp=Z,9.0nm,0.6s							
LOF	**Lofoten**	**7.46**	**103**	Pn		**Pn**	**00 48 13.0**	**-0.3**
LOF	**Lofoten**	**7.46**	**103**	*eP*		**Pn**	**00 48 12.8**	**-0.6**
LOF				*eS*		**Sn**	**00 49 31.1**	**-6.5**
LOF					IAML		00 49 44.4	
	comp=Z,3.9nm,0.8s							
STEI	**Steigen**	**8.11**	**102**	Pn		**Pn**	**00 48 22.9**	**+0.7**
STEI	**Steigen**	**8.11**	**102**	*eP*		**Pn**	**00 48 22.5**	**+0.2**
STEI				*eS*		**Sn**	**00 49 47.4**	**-6.1**
STEI					IAML		00 49 52.8	
	comp=Z,3.0nm,0.5s							
BEAR	**Bear Island, N**	**8.18**	**53**	Pn		**Pn**	**00 48 27.4**	**+4.2**
	baz=257,slow=18							
VAGH	**Vaagaholmen**	**8.20**	**112**	Pn		**Pn**	**00 48 23.3**	**-0.3**
VAGH	**Vaagaholmen**	**8.20**	**112**	*eP*		**Pn**	**00 48 23.3**	**-0.3**
VAGH				*eS*		**Sn**	**00 49 49.4**	**-6.5**
VAGH					IAML		00 49 50.9	
	comp=Z,4.2nm,0.8s							
KONS	**Konsvik**	**8.31**	**114**	*eP*		**Pn**	**00 48 24.9**	**-0.1**
KONS				*eS*		**Sn**	**00 49 51.5**	**-7.1**
KONS					IAML		00 49 53.0	
	comp=Z,5.9nm,0.4s							
STOK	**Stokkvaagen**	**8.39**	**115**	Pn		**Pn**	**00 48 26.3**	**+0.2**
STOK				Sn		**Sn**	**00 49 53.5**	**-7.0**
STOK	**Stokkvaagen**	**8.39**	**115**	*eP*		**Pn**	**00 48 26.1**	**0.0**
STOK				*eS*		**Sn**	**00 49 53.2**	**-7.4**
STOK					IAML		00 49 59.2	
	comp=Z,4.9nm,0.7s							
FAUS	**Fauske**	**8.43**	**105**	Pn		**Pn**	**00 48 26.8**	**+0.2**
FAUS	**Fauske**	**8.43**	**105**	*eP*		**Pn**	**00 48 26.5**	**-0.1**
FAUS				*eS*		**Sn**	**00 49 55.0**	**-6.4**
FAUS					IAML		00 50 02.1	
	comp=Z,3.1nm,0.6s							
TRO	**Tromso**	**8.54**	**87**	Pn		**Pn**	**00 48 27.2**	**-1.0**
TRO	**Tromso**	**8.54**	**87**	*eP*		**Pn**	**00 48 27.5**	**-0.7**
TRO					IAML		00 50 02.9	
	comp=Z,2.6nm,0.5s							
LEIR	**Leirfjorden**	**8.57**	**116**	Pn		**Pn**	**00 48 29.2**	**+0.6**
LEIR				Sn		**Sn**	**00 49 59.1**	**-5.9**
LEIR	**Leirfjorden**	**8.57**	**116**	*eP*		**Pn**	**00 48 29.1**	**+0.5**
LEIR				Sn		**Sn**	**00 49 59.1**	**-5.9**
LEIR					IAML		00 50 02.0	
	comp=Z,7.9nm,0.4s							
RAUS	**Rausandaksla**	**8.63**	**112**	*eP*		**Pn**	**00 48 29.4**	**0.0**
RAUS				*eS*		**Sn**	**00 49 59.3**	**-7.1**
RAUS					IAML		00 50 06.0	
	comp=Z,5.5nm,0.5s							
BRBA	**Barentsburg A**	**8.82**	**28**	Pn		**Pn**	**00 48 35.1**	**+3.0**
BRBA	**Barentsburg A**	**8.82**	**28**	Pn		**Pn**	**00 48 35.1**	**+3.0**
BRBB	**Barentsburg B**	**8.85**	**28**	Pn		**Pn**	**00 48 35.4**	**+3.0**
BRBB	**Barentsburg B**	**8.85**	**28**	Pn		**Pn**	**00 48 35.4**	**+3.0**
MOR8	**Moi Rana**	**8.93**	**113**	Pn		**Pn**	**00 48 34.5**	**+1.0**
MOR8	**Moi Rana**	**8.93**	**113**	Pn		**Pn**	**00 48 34.5**	**+1.0**
JETT	**Jettan, Norway**	**9.05**	**87**	Pn		**Pn**	**00 48 35.8**	**+0.6**
JETT	**Jettan, Norway**	**9.05**	**87**	Pn		**Pn**	**00 48 35.8**	**+0.6**
KBS	**Kingsbay**	**9.14**	**22**	Pn		**Pn**	**00 48 38.8**	**+2.5**
KBS	**Kingsbay**	**9.14**	**22**	*i* P		**Pn**	**00 48 38.7**	**+2.4**
KBS	**Kingsbay**	**9.14**	**22**	*i* P		**Pn**	**00 48 38.7**	**+2.4**
SPA0	**Spitsbergen Ar**	**9.24**	**29**	Pn		**Pn**	**00 48 41.0**	**+3.2**
	baz=225,slow=14							
SPA0	**Spitsbergen Ar**	**9.24**	**29**	Pn		**Pn**	**00 48 41.0**	**+3.2**
SPITS	**Spitsbergen Ar**	**9.24**	**29**	Pn		**Pn**	**00 48 41.0**	**+3.2**
	comp=Z,6.6nm,0.5s,baz=216,slow=14,SNR=33							
NSS	**Namsos**	**9.43**	**125**	Pn		**Pn**	**00 48 41.7**	**+1.4**
NSS	**Namsos**	**9.43**	**125**	*eP*		**Pn**	**00 48 41.3**	**+1.0**
**SALU

GOBA	**Gobu**	**0.71**	**74**	P		**Pn**	**00 56 25.8**	**+0.8**
GOBA				S		**Sn**	**00 56 39.1**	**+3.4**
IML	**Ismayilli**	**0.77**	**319**	P		**Pg**	**00 56 23.3**	**-1.1**
IML				S		**Sb**	**00 56 36.6**	**+1.7**
SIZA	**Siyzn**	**0.86**	**3**	P		**Pg**	**00 56 25.9**	**-0.3**
SIZA				S		**Sn**	**00 56 41.4**	**+1.7**
ZRD	**Zardab**	**0.89**	**275**	P		**Pb**	**00 56 26.7**	**+0.1**
ZRD				S		**Sn**	**00 56 42.8**	**+2.8**
NDR	**Nardaran**	**0.95**	**67**	P		**Pn**	**00 56 28.8**	**+0.5**
NDR				S		**Sn**	**00 56 46.3**	**+4.7**
GALA	**Gala**	**1.02**	**78**	P		**Pn**	**00 56 30.6**	**+1.3**
GALA				S		**Sn**	**00 56 48.0**	**+4.6**
GLBA	**Clilabad**	**1.03**	**200**	P		**Pn**	**00 56 30.1**	**+0.7**
GLBA				S		**Sn**	**00 56 46.8**	**+3.3**
QBL	**Gabala**	**1.06**	**314**	P		**Pg**	**00 56 28.0**	**-1.9**
QBL				S		**Sn**	**00 56 46.4**	**+2.0**
XNQ	**Khinaliq**	**1.10**	**331**	P		**Pg**	**00 56 28.8**	**-1.9**
XNQ				S		**Sn**	**00 56 48.2**	**+2.6**
BLQ	**Beylaqan**	**1.10**	**244**	P		**Pg**	**00 56 29.8**	**-0.9**
BLQ				S		**Sn**	**00 56 47.5**	**+2.1**
QUBA	**Quba, Azerbaij**	**1.17**	**347**	P		**Pg**	**00 56 31.7**	**-0.4**
QUBA				S		**Sn**	**00 56 49.8**	**+2.6**
BRDA	**Brd**	**1.27**	**273**	P		**Pn**	**00 56 33.2**	**+0.5**
BRDA				S		**Sn**	**00 56 54.3**	**+4.8**
AGDM	**Agdam**	**1.33**	**266**	P		**Pn**	**00 56 33.6**	**+0.1**
AGDM				S		**Sn**	**00 56 54.2**	**+3.1**
QSAR	**Qusar**	**1.37**	**342**	Pn		**Pn**	**00 56 34.8**	**+0.6**
QSAR				Sn		**Sn**	**00 56 55.8**	**+3.6**
YRD	**Yardimli**	**1.37**	**200**	Pn		**Pn**	**00 56 34.4**	**+0.1**
YRD				Sn		**Sn**	**00 56 56.6**	**+4.3**
QRD	**Qoradiz**	**1.39**	**238**	Pn		**Pn**	**00 56 34.1**	**-0.2**
QRD				Sn		**Sn**	**00 56 54.7**	**+2.2**
MNGR	**Mingechevir, A**	**1.45**	**293**	Pn		**Pn**	**00 56 35.7**	**+0.5**
MNGR				Sn		**Sg**	**00 56 58.0**	**+1.8**
KSMR	**Kasumkent**	**1.49**	**339**	*e*Pg		**Pn**	**00 56 36.3**	**+0.4**
	153nm,0.4s							
KSMR				*e*Sn		**Sg**	**00 56 59.3**	**+1.7**
	584nm,0.4s							
KSMR	**Kasumkent**	**1.49**	**339**	*e*PN		**Pn**	**00 56 36.2**	**+0.4**
KSMR				*e*S		**Sg**	**00 56 59.2**	**+1.7**
KSMR				pmax	pmax			
	comp=Z,153nm,0.4s							
LKRN	**Lenkeran, Azer**	**1.50**	**182**	Pn		**Pg**	**00 56 36.9**	**-1.3**
LKRN				Sn		**Sg**	**00 56 58.5**	**+0.8**
AKT	**Akhty**	**1.52**	**327**	*e*PN		**Pn**	**00 56 36.6**	**+0.3**
AKT				*e*S		**Sg**	**00 56 59.9**	**+1.4**
AKT				pmax	pmax			
	comp=Z,85nm,0.5s							
GRMI	**Germi**	**1.58**	**208**	Pg		**Pn**	**00 56 37.6**	**+0.5**
SEKA	**Sheki**	**1.60**	**309**	Pn		**Pn**	**00 56 36.5**	**-0.8**
SEKA				Sn		**Sb**	**00 57 00.1**	**+1.3**
LRK	**Lerik**	**1.61**	**194**	Pn		**Pn**	**00 56 37.7**	**+0.1**
LRK				Sn		**Sg**	**00 57 02.8**	**+1.3**
ASTR	**Astara**	**1.65**	**181**	Pn		**Pn**	**00 56 37.8**	**-0.1**
ASTR				Sn		**Sg**	**00 57 04.6**	**+2.0**
GAS1	**Astara - Iran**	**1.82**	**180**	Pg		**Pb**	**00 56 42.0**	**-0.5**
GANJ	**Ganja**	**1.97**	**284**	Pn		**Pn**	**00 56 42.1**	**-0.3**
GANJ				Sn		**Sb**	**00 57 10.0**	**+0.5**
URKR	**Urkarakh**	**2.15**	**335**	*e*Pn		**Pn**	**00 56 45.3**	**+0.2**
	comp=Z,29nm,1.1s							
URKR				*e*Sn		**Sb**	**00 57 15.7**	**+0.8**
	comp=Z,62nm,0.4s							
URKR	**Urkarakh**	**2.15**	**335**	*e*PN		**Pn**	**00 56 45.2**	**+0.2**
URKR				*e*S		**Sb**	**00 57 15.6**	**+0.8**
URKR				pmax	pmax			
	comp=Z,29nm,1.1s							
ZKTA	**Zakatala**	**2.20**	**311**	Pn		**Pn**	**00 56 47.0**	**+1.5**
ZKTA				Sn		**Sb**	**00 57 17.0**	**+0.8**
KMKR	**Kumukh**	**2.33**	**326**	*e*Pn		**Pn**	**00 56 48.8**	**+1.4**
	comp=Z,29nm,0.4s							
KMKR				*e*Sn		**Sb**	**00 57 21.4**	**+1.5**
	comp=Z,63nm,0.4s							
KMKR	**Kumukh**	**2.33**	**326**	*e*PN		**Pn**	**00 56 48.8**	**+1.4**
KMKR				*e*S		**Sb**	**00 57 21.3**	**+1.5**
KMKR				pmax	pmax			
	comp=Z,29nm,0.4s							
IHRS	**Heris**	**2.35**	**217**	Pn		**Pb**	**00 56 49.8**	**-1.8**
DDFL	**Dedoflistskaro**	**2.41**	**302**	P		**Pn**	**00 56 51.0**	**+2.6**
DDFL	**Dedoflistskaro**	**2.41**	**302**	PN		**Pn**	**00 56 51.0**	**+2.6**
GDB	**GEDABAY**	**2.41**	**283**	Pn		**Pn**	**00 56 48.3**	**-0.2**
GDB				Sn		**Sn**	**00 57 21.3**	**+3.4**
SGKR	**Sergokala**	**2.42**	**339**	*e*Pn		**Pn**	**00 56 49.0**	**+0.4**
	comp=Z,53nm,1.2s							
SGKR				*e*Sn		**Sb**	**00 57 22.0**	**-0.3**
	comp=Z,73nm,1.4s							
SGKR	**Sergokala**	**2.42**	**339**	*e*PN		**Pn**	**00 56 48.9**	**+0.4**
SGKR				*e*S		**Sb**	**00 57 22.0**	**-0.3**
SGKR				pmax	pmax			
	comp=Z,53nm,1.2s							
ORD	**Ordubad**	**2.55**	**241**	Pn		**Pn**	**00 56 52.2**	**+1.9**
ORD				Sn		**Sn**	**00 57 24.2**	**+3.1**
LGD	**Lagodekhi**	**2.55**	**310**	P		**Pn**	**00 56 51.8**	**+1.5**
LGD	**Lagodekhi**	**2.55**	**310**	PN		**Pn**	**00 56 51.8**	**+1.5**
ISRB	**Sarab**	**2.55**	**201**	Pn		**Pb**	**00 56 53.0**	**-2.1**
SBZ	**Shahbuz**	**2.66**	**253**	Pn		**Pn**	**00 56 53.9**	**+1.9**
SBZ				Sn		**Sb**	**00 57 28.2**	**-1.2**
TLTR	**Tlyarata**	**2.67**	**316**	*e*Pn		**Pn**	**00 56 53.2**	**+1.2**
	comp=Z,9.0nm,0.4s							
TLTR				*e*Sn		**Sb**	**00 57 29.6**	**-0.1**
	comp=Z,12nm,0.6s							
TLTR	**Tlyarata**	**2.67**	**316**	*e*PN		**Pn**	**00 56 53.2**	**+1.2**
TLTR				*e*S		**Sb**	**00 57 29.5**	**-0.1**
TLTR				pmax	pmax			
	comp=Z,9.0nm,0.4s							
QZX	**Qazax, Azerbai**	**2.77**	**289**	Pn		**Pn**	**00 56 54.5**	**+1.1**
QZX				Sn		**Sn**	**00 57 30.0**	**+3.4**
XNZR	**Khunzakh**	**2.83**	**326**	*e*Pn		**Pn**	**00 56 56.0**	**+1.6**
	comp=Z,14nm,0.7s							
XNZR				*e*Sn		**Sb**	**00 57 33.9**	**-0.4**
	comp=Z,13nm,0.4s							
HNZR	**Khunzah**	**2.84**	**326**	*e*PN		**Pn**	**00 56 55.9**	**+1.5**
HNZR				*e*S		**Sb**	**00 57 33.9**	**-0.7**
HNZR				pmax	pmax			
	comp=Z,14nm,0.7s							
IMRD	**Marand**	**2.85**	**239**	Pn		**Pn**	**00 56 57.3**	**+2.7**
BTNK	**Botanikuri**	**3.40**	**297**	PN		**Pn**	**00 57 03.3**	**+1.3**
TBLG	**Delisi**	**3.46**	**297**	P		**Pn**	**00 57 04.4**	**+1.6**
CHRG	**Chargali**	**3.63**	**307**	P		**Pn**	**00 57 06.1**	**+0.8**
CHRG				S		**Sn**	**00 57 50.7**	**+2.7**
TRLG	**Trialeti**	**3.83**	**292**	P		**Pn**	**00 57 08.7**	**+0.6**
TRLG	**Trialeti**	**3.83**	**292**	PN		**Pn**	**00 57 08.7**	**+0.6**
GUDG	**Gudauri**	**3.98**	**306**	P		**Pn**	**00 57 11.2**	**+1.0**
GUDG	**Gudauri**	**3.98**	**306**	PN		**Pn**	**00 57 11.2**	**+1.0**
TKB	**Tkibuli**	**4.89**	**298**	P		**Pn**	**00 57 24.3**	**+1.7**
TKB	**Tkibuli**	**4.89**	**298**	PN		**Pn**	**00 57 24.3**	**+1.7**
KBZ	**Khabaz**	**5.65**	**310**	Pn		**Pn**	**00 57 32.2**	**-0.7**
	comp=Z,0.2nm,0.3s,baz=100,slow=11,SNR=5.4							
	comp=Z,0.9nm,0.6s							
KBZ				AML	AML			
BVAR	**Borovoye Array**	**19.48**	**42**	P		**P**	**01 00 33.1**	**-2.6**
	baz=236,slow=11,SNR=5.2							
	comp=Z,0.8nm,0.6s							
KURBB	**Kurchatov Arra**	**23.15**	**53**	P		**P**	**01 01 12.1**	**-3.0**
	comp=Z,0.2nm,0.4s,baz=260,slow=10,SNR=1.6							
	comp=Z,0.2nm,0.4s							
KURK	**Kurchatov**	**23.23**	**53**	P		**P**	**01 01 12.1**	**-3.8**
MKAR	**Makanchi Array**	**25.01**	**64**	P		**P**	**01 01 30.9**	**-1.8**
	comp=Z,0.7nm,0.8s,baz=256,slow=8.8,SNR=2.3							
	comp=Z,0.7nm,0.8s							
FINES	**FINESS Array B**	**25.41**	**334**	P		**P**	**01 01 34.0**	**-2.1**
	comp=Z,3.9nm,1.1s,baz=141,slow=9.1,SNR=11							
	comp=Z,3.9nm,1.1s							
HFS	**Hagfors**	**29.52**	**324**	P		**P**	**01 02 10.5**	**-2.6**
	comp=Z,3.1nm,1.0s,baz=120,slow=10,SNR=1.7							
	comp=Z,3.1nm,1.0s							

*UPA **21** 00:57:51.0±1.1,8°.13N×83°.22W, h7^{km}±4^{km}, MW3.9, Presumed earthquake*
*UCR **21** 00:57:54.1±0.7,8°.32N×83°.09W, h0^{km}±4^{km}, MW3.9, Presumed earthquake*
ISC 21 00:57:53.7±1.0,**8°.28N**±0°.05×**83°.14W**±0°.03,**h15**^{km}±7^{km}, **n59,σ0^{s}96/80,3C-1D,Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIRO	**Carate, Puerto**	**0.23**	**302**	*e*P	**Pb**	**00 58 00.4**	**+0.9**
PIRO	**Carate, Puerto**	**0.23**	**302**	*e*P	**Pb**	**00 58 00.2**	**+0.7**
PIRO				*e*S	**Sg**	**00 58 02.6**	**+0.5**
PTPM	**Petroterminale**	**0.27**	**107**	*i*P	**Pg**	**00 57 60.0**	**+0.5**
PTPM				*e*S	**Sg**	**00 58 03.1**	**-0.3**
PTPA	**Petro Terminal**	**0.28**	**107**	*e*P	**Pg**	**00 57 59.9**	**+0.3**
PTPA				*e*S	**Sb**	**00 58 05.6**	**+0.6**
JIME	**Puerto Jimenez**	**0.31**	**325**	*e*P	**Pb**	**00 58 01.6**	**+0.6**
FITO	**Golfito**	**0.34**	**358**	*e*P	**Pb**	**00 58 00.8**	**-0.6**
FITO	**Golfito**	**0.34**	**358**	*e*P	**Pb**	**00 58 01.6**	**+0.1**
FITO				*e*S	**Sb**	**00 58 06.6**	**-0.2**
CDITO	**Canoas**	**0.39**	**43**	*e*P	**Pb**	**00 58 02.1**	**-0.3**
CDITO				*e*S	**Sb**	**00 58 10.8**	**+2.6**
NELY	**Ciudad Neily**	**0.41**	**28**	*e*P	**Pg**	**00 58 01.9**	**-0.1**
NELY				*e*S	**Sb**	**00 58 09.4**	**+0.6**
VITO	**San Vito**	**0.56**	**18**	*e*P	**Pb**	**00 58 06.1**	**+0.8**
VITO				*e*S	**Sn**	**00 58 15.1**	**-1.3**
MLIR3	**Monte Lirio, C**	**0.60**	**32**	*e*P	**Pb**	**00 58 06.8**	**+0.9**
MLIR3				*e*S	**Sn**	**00 58 18.1**	**+0.8**
BAGA3	**Bagala, Chiriq**	**0.64**	**73**	*e*P	**Pb**	**00 58 07.2**	**+0.7**
BAGA3				*e*S	**Sn**	**00 58 17.5**	**-0.5**
SCLRA	**Santa Clara, W**	**0.65**	**33**	*e*S	**Sn**	**00 58 19.0**	**+0.3**
BRU2	**Volcan**	**0.68**	**41**	*e*P	**Pb**	**00 58 07.7**	**+0.4**
BRU2				*e*S	**Sb**	**00 58 17.0**	**+0.4**
BRU2	**Volcan**	**0.68**	**41**	*i*P	**Pb**	**00 58 07.9**	**+0.6**
BRU2				*e*S	**Sn**	**00 58 20.4**	**+1.1**
CLLRA	**Cordillera,**	**0.70**	**49**	*e*P	**Pb**	**00 58 07.5**	**-0.1**
CLLRA	**Cordillera,**	**0.70**	**49**	*e*P	**Pb**	**00 58 07.7**	**+0.1**
CLLRA				*e*S	**Sn**	**00 58 21.1**	**+1.4**
DVD	**David**	**0.70**	**77**	*e*P	**Pg**	**00 58 06.6**	**-0.8**
DVD				*e*S	**Sn**	**00 58 19.8**	**+0.1**
CTCR	**Cotoan**	**0.72**	**32**	*e*P	**Pn**	**00 58 09.0**	**-0.5**
CTCR				*e*S	**Sn**	**00 58 21.5**	**+1.1**
EDP2	**Potrero Grande**	**0.73**	**357**	*e*P	**Pb**	**00 58 08.4**	**+0.3**
FIMO	**Fila Mora**	**0.73**	**343**	*e*P	**Pb**	**00 58 08.5**	**+0.2**
PANP	**Palmar Norte**	**0.74**	**335**	*e*P	**Pn**	**00 58 09.3**	**-0.4**
LOMA3	**Las Lomas, Chi**	**0.76**	**79**	*e*P	**Pg**	**00 58 08.6**	**+0.1**
LOMA3				*e*S	**Sn**	**00 58 20.9**	**-0.2**
PTAR3	**Potrerillos Ar**	**0.76**	**57**	*e*P	**Pn**	**00 58 09.9**	**-0.1**
PTAR3				*e*S	**Sn**	**00 58 23.2**	**+1.9**
BQTLY	**Boquete Panama**	**0.82**	**55**	*e*P	**Pg**	**00 58 09.6**	**-0.1**
BQTLY	**Boquete Panama**	**0.82**	**55**	*e*P	**Pg**	**00 58 09.7**	**-0.1**
BGUAL	**Bijagual, Pana**	**0.83**	**74**	*e*P	**Pg**	**00 58 09.2**	**-0.7**
BGUAL	**Bijagual, Pana**	**0.83**	**74**	*e*P	**Pg**	**00 58 09.3**	**-0.5**
BGUAL				*e*S	**Sb**	**00 58 21.2**	**+0.3**
BQSF3	**Alto Boquete,**	**0.84**	**57**	*e*P	**Pg**	**00 58 09.9**	**-0.1**
BQSF3				*e*S	**Sn**	**00 58 24.6**	**+1.4**
LNBQ3	**Los Naranjos,**	**0.86**	**54**	*e*P	**Pg**	**00 58 10.1**	**-0.3**
LNBQ3				*e*S	**Sn**	**00 58 25.0**	**+1.3**
EDPE	**Pejibaye, P**	**0.97**	**334**	*e*P	**Pb**	**00 58 12.3**	**+0.1**
SAJE	**San Jernim**	**1.12**	**341**	*e*P	**Pg**	**00 58 14.8**	**-0.5**
RBALA	**Bur**	**1.14**	**59**	*e*P	**Pb**	**00 58 14.1**	**-1.1**
RBALA	**Bur**	**1.14**	**59**	*i*P	**Pb**	**00 58 14.2**	**-1.0**
RBALA				*e*S	**Sb**	**00 58 28.4**	**-1.4**
CEUA	**Cerro Uatsi, L**	**1.34**	**9**	*e*P	**Pg**	**00 58 19.7**	**+0.1**
KKNTU	**Kakint²**	**1.43**	**67**	*e*P	**Pn**	**00 58 18.3**	**-0.9**
KKNTU	**Kakint²**	**1.43**	**67**	*i*P	**Pn**	**00 58 17.9**	**-1.2**
KKNTU				*e*S	**Sn**	**00 58 36.9**	**-0.8**
LAES	**El Progreso Va**	**1.47**	**4**	*e*P	**Pg**	**00 58 21.6**	**-0.5**
PIEC	**Cerro El Cedra**	**1.56**	**329**	*e*P	**Pg**	**00 58 23.1**	**-0.5**
VERH	**Veragua Rainfo**	**1.64**	**358**	*e*P	**Pb**	**00 58 23.8**	**+0.2**
ABE2	**San Pablo**	**1.68**	**328**	*e*P	**Pg**	**00 58 25.2**	**-0.7**
LCR2	**La Lucha 2**	**1.68**	**330**	*e*P	**Pb**	**00 58 24.5**	**0.0**
VTCV	**VTCV, Calle Va**	**1.79**	**341**	*e*P	**Pg**	**00 58 27.1**	**-0.9**
ABRB	**Las Abras (San**	**1.80**	**342**	*e*P	**Pg**	**00 58 27.4**	**-1.0**
RESJ	**San Isidro (Tu**	**1.81**	**344**	*e*P	**Pb**	**00 58 26.6**	**+0.1**
CVTV	**Tajo**	**1.81**	**341**	*e*P	**Pb**	**00 58 27.1**	**+0.3**
VICA	**Volcano Irazu**	**1.83**	**338**	*e*P	**Pb**	**00 58 26.8**	**-0.3**
VTR0	**Volcan Turrial**	**1.83**	**341**	*e*P	**Pb**	**00 58 27.2**	**+0.1**
CVTR	**Volcan Turrial**	**1.83**	**341**	*e*P	**Pb**	**00 58 27.0**	**-0.2**
LCOCO	**El Coco**	**1.84**	**347**	*e*P	**Pb**	**00 58 26.1**	**-0.9**
CVTG	**V. Turrialba,**	**1.96**	**341**	*e*P	**Pb**	**00 58 29.2**	**+0.2**
EGUB	**Earth Gujpi**	**1.97**	**347**	*e*P	**Pb**	**00 58 28.3**	**-1.0**
VBV1	**V. Barva**	**2.05**	**323**	*e*P	**Pb**	**00 58 30.2**	**-0.6**
VPS8	**V Poas**	**2.17**	**330**	*e*P	**Pb**	**00 58 33.3**	**+0.4**
TRT2	**Tortugero**	**2.33**	**346**	*e*P	**Pb**	**00 58 34.7**	**-0.8**
VARE2	**V. Arenal**	**2.67**	**324**	*e*P	**Pb**	**00 58 39.2**	**-2.0**
JTS	**Las Juntas de**	**2.68**	**318**	*e*P	**Pb**	**00 58 38.8**	**-2.5**
CUI	**Cuipilapa**	**3.09**	**320**	*e*P	**Pn**	**00 58 44.8**	**+2.8**
MESS	**Mesas**	**3.17**	**321**	*e*P	**Pb**	**00 58 46.8**	**-3.1**

*IDC **21** 01:05:22.0±3.2,24°.29N×109°.09W, h0^{km}, mb3.2/1, mbtmp3.3/6,ML3.5/5,MS3.4/7, Error ellipse: s-maj=53.8km s-min=11.3km az=151.0*
*MEX **21** 01:05:24.7±0.5,24°.11N×108°.96W, h16^{km}, MD4.2, Presumed earthquake*
ISC 21 01:05:23.2±1.3,**24°.1N**±0°.1×**109°.04W**±0°.05,**h22**^{km},**n17, σ1^{s}38/16,MS3.4/4,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	**La Paz**	**1.16**	**268**	Pg	**Pn**	**01 05 43.7**	**-0.4**
	50nm,0.3s,baz=59,slow=3.2,SNR=16						
LPIG				Lg	Lg	01 05 57.9	
	213nm,0.3s,baz=165,slow=4.7,SNR=9.9						
LPIG	**La Paz**	**1.16**	**268**	*e*P	**Pn**	**01 05 43.6**	**-0.5**
LPIG				*e*S	**Sb**	**01 05 58.3**	**-0.9**
TSIG	**Topolobambo**	**1.45**	**360**	*e*P	**Pn**	**01 05 47.6**	**-0.5**
TSIG				*e*S	**Sn**	**01 06 04.8**	**-1.7**
PDIG	**Papasquiaro**	**3.44**	**74**	*e*P	**Pn**	**01 06 15.9**	**+0.3**
PDIG				*e*S	**Sn**	**01 06 52.4**	**-3.4**
HPIG		**4.13**	**47**	*e*P	**Pn**	**01 06 25.2**	**+0.1**
HPIG				*e*S	**Sn**	**01 07 12.2**	**-0.6**
TXAR	**Lajitas Array**	**7.06**	**42**	Pn	**Pn**	**01 07 06.2**	**+0.9**
	0.2nm,0.3s,baz=221,slow=12,SNR=15						
TXAR				Sn	**Sn**	**01 08 24.2**	**-0.7**
	0.3nm,0.3s,baz=228,slow=26,SNR=1.4						
TXAR				Lg	Lg	01 09 02.3	
	0.3nm,0.3s,baz=226,slow=25,SNR=3.5						
	1.2nm,0.7s						
TXAR				AML	AML		
ANMO	**Albuquerque**	**11.00**	**11**	Pn	**Pn**	**01 07 58.6**	**-0.8**
	0.1nm,0.3s,baz=210,slow=16,SNR=1.7						
	0.3nm,0.4s						
ANMO				AML	AML		
PFO	**Pinyon Flats O**	**11.46**	**327**	LR	LR	01 12 24.1	
	comp=Z,98nm,18.1s,baz=137,slow=37						
CMIG	**Matias Romero**	**14.99**	**115**	LR	LR	01 14 33.8	
	comp=Z,211nm,21.6s,baz=296,slow=37						
NVAR	**Mina Array Bea**	**16.28**	**333**	Pn	**P**	**01 09 13.1**	**-0.5**
	0.1nm,0.3s,baz=151,slow=9.3,SNR=16						
	0.1nm,0.3s						
NVAR				AML	AML		
ELK	**Elko**	**17.36**	**344**	P	**P**	**01 09 25.8**	**+0.3**
	0.1nm,0.3s,baz=187,slow=11,SNR=5.8						
ELK				LR	LR	01 15 11.0	
	comp=Z,112nm,18.8s,baz=186,slow=34						
	0.4nm,0.2s						
ELK				AML	AML		
PDAR	**Pinedale Array**	**18.58**	**359**	P	**Pn**	**01 09 40.6**	**+1.3**
	0.1nm,0.3s,baz=172,slow=11,SNR=21						
	4.2nm,1.0s						
PDAR				AML	AML		
YBH	**Yreka Blue Hor**	**20.91**	**330**	LR	LR	01 17 31.8	
	comp=Z,69nm,21.9s,baz=163,slow=35						
TKL	**Tuckaleechee C**	**24.66**	**56**	LR	LR	01 21 39.5	
	comp=Z,178nm,18.3s,baz=93,slow=40						
JTS	**Las Juntas de**	**26.75**	**117**	LR	LR	01 20 50.3	
	comp=Z,73nm,20.1s,baz=345,slow=35						
ROSC	**El Rosal**	**38.52**	**114**	LR	LR	01 31 45.2	
	comp=Z,96nm,19.6s,baz=51,slow=41						
ILAR	**Eielson Array**	**47.42**	**339**	P	**P**	**01 13 57.7**	**+2.0**
	0.3nm,0.9s,baz=148,slow=6.3,SNR=11						
	0.3nm,0.9s						

*CNRM **21** 01:48:47.9, 35°.63N×4°.78W, h95^{km}, ML3.4*
*SFS **21** 01:48:48.7, 35°.75N×4°.64W, h83^{km}, ML3.7/36, MLv3.6/36*
*IGIL **21** 01:48:49.3, 35°.76N×4°.68W, h34^{km}, ML3.4*
*INMG **21** 01:48:49.2±1.6, 35°.78N×4°.74W, h77^{km}±4^{km}, ML3.5, Error ellipse: s-maj=3.2km s-min=2.7km az=136.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Alboran*
*MDD **21** 01:48:49.0±0.2, 35°.76N×4°.68W, h78^{km}±4^{km}, Mb3.7/84, Error ellipse: s-maj=2.1km s-min=1.6km az=163.0*
ISC 21 01:48:46.5±1.2,**35°.76N**±0°.03×**4°.65W**±0°.02,**h98**^{km}±7^{km}, **n135,σ1^{s}89/264,56C-1D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMIR	**Smir Dam**	**0.60**	**263**	P	**Pn**	**01 49 03.7**	**+0.8**
SMIR				S	**Sn**	**01 49 14.9**	**-0.2**
ECEU	**Ceuta**	**0.61**	**283**	Pg	**Pn**	**01 49 04.7**	**+1.7**
ECEU				Sg	**Sn**	**01 49 16.5**	**+1.2**
ECEU	**Ceuta**	**0.61**	**283**	P	**Pn**	**01 49 04.1**	**+1.1**
ECEU				S	**Sn**	**01 49 14.2**	**-1.0**
PALE	**Palemas**	**0.79**	**133**	P	**Pn**	**01 49 05.1**	**+0.5**
PALE				S	**Sn**	**01 49 18.7**	**+0.5**
EMIJ	**Mijas**	**0.81**	**353**	Pn	**Pn**	**01 49 05.2**	**+0.4**
EMIJ				Sn	**Sn**	**01 49 17.4**	**-1.1**
EMIJ	**Mijas**	**0.81**	**353**	*i*P	**Pn**	**01 49 05.2**	**+0.4**
EMIJ				*i*IVmb_VC		01 49 05.4	
	11µm,SNR=168						
EMIJ				S	**Sn**	**01 49 16.4**	**-2.1**
CHEFC	**Chefchaouen**	**0.87**	**221**	P	**Pn**	**01 49 06.2**	**+0.7**
CHEFC				S	**Sn**	**01 49 18.1**	**-1.6**
EJIF	**Jimena Fronter**	**0.96**	**316**	P	**Pn**	**01 49 07.4**	**+1.1**
EJIF				S	**Sn**	**01 49 20.9**	**-0.3**
EMAL	**Malaga-Limoner**	**1.01**	**10**	Pn	**Pn**	**01 49 07.8**	**+0.9**
EMAL				Sn	**Sn**	**01 49 21.3**	**-0.9**
EALB	**Alboran**	**1.32**	**82**	Pn	**Pn**	**01 49 10.8**	**+0.4**
EALB				Sn	**Sn**	**01 49 27.7**	**-0.8**
EALB	**Alboran**	**1.32**	**82**	P	**Pn**	**01 49 11.1**	**+0.7**
EALB				*i*IVmb_VC		01 49 11.4	
	4µm,SNR=9.5						
EALB				S	**Sn**	**01 49 27.8**	**-0.7**
ELGU	**Los Guajares,**	**1.38**	**36**	Pn	**Pn**	**01 49 11.6**	**+0.5**
ELGU				Sn	**Sn**	**01 49 28.8**	**-1.0**
ELGU	**Los Guajares,**	**1.38**	**36**	P	**Pn**	**01 49 11.7**	**+0.5**
ELGU				*i*IVmb_VC		01 49 15.7	
	4µm,SNR=69						
ELGU				S	**Sn**	**01 49 28.3**	**-1.5**
AKLM	**AKL**	**1.41**	**153**	P	**Pn**	**01 49 12.6**	**+1.0**
AKLM				S	**Sn**	**01 49 28.4**	**-2.1**
EGOR	**Sierra Gorda,**	**1.41**	**18**	Pn	**Pn**	**01 49 13.2**	**+1.5**
EGOR	**Sierra Gorda,**	**1.41**	**18**	P	**Pn**	**01 49 13.1**	**+1.5**
EGOR				*i*IVmb_VC		01 49 18.6	
	877nm,SNR=13						
EGOR				S	**Sn**	**01 49 31.4**	**+0.6**
SFS	**San Fernando**	**1.45**	**299**	Pn	**Pn**	**01 49 14.1**	**+2.2**
SFS				Sn	**Sn**	**01 49 30.6**	**-0.6**
WMELI	**Melilla**	**1.45**	**107**	Pn	**Pn**	**01 49 12.6**	**+0.6**
WMELI				Sn	**Sn**	**01 49 30.6**	**-0.7**
EMEL	**Melilla**	**1.45**	**108**	P	**Pn**	**01 49 12.6**	**+0.6**
EMEL				*i*IVmb_VC		01 49 12.8	
	20µm,SNR=7.6						
EMEL				S	**Sn**	**01 49 29.7**	**-1.7**
EMLI	**Melilla**	**1.46**	**108**	Pn	**Pn**	**01 49 12.7**	**+0.6**
EMLI				Sn	**Sn**	**01 49 30.0**	**-1.4**
ESPR	**Espera**	**1.48**	**319**	Pn	**Pn**	**01 49 14.4**	**+2.1**
ESPR				Sn	**Sn**	**01 49 32.1**	**+0.2**
ESPR	**Espera**	**1.48**	**319**	P	**Pn**	**01 49 14.4**	**+2.1**
ESPR				*i*IVmb_VC		01 49 17.5	
	1µm,SNR=12						
ESPR				S	**Sn**	**01 49 31.2**	**-0.7**
EQUE	**Quentar**	**1.74**	**34**	P	**Pn**	**01 49 17.7**	**+2.0**
EQUE				*i*IVmb_VC		01 49 21.3	
	568nm,SNR=13						
EQUE				S	**Sn**	**01 49 39.0**	**+1.1**
EQTA	**Presa de Quent**	**1.74**	**34**	Pn	**Pn**	**01 49 17.8**	**+2.0**
SICH	**Sidi Chah

MESJ					*e*S	**Sn**	**01 50 18.5**	**-1.8**
MORF	**Marmelete**	**3.58**	**297**		*e*P	**Pn**	**01 49 40.9**	**+1.0**
MORF					*e*S	**Sn**	**01 50 18.6**	**-2.7**
MORF					IAML		01 50 20.9	
	comp=N,228nm,0.2s							
MORF	**Marmelete**	**3.58**	**297**		*e*P	**Pn**	**01 49 41.0**	**+1.0**
MORF					*e*S	**Sn**	**01 50 20.0**	**-1.2**
MORF					IAML		01 50 21.1	
MORF					IAML		01 50 21.1	
MORF					IAML		01 50 23.2	
PFVI	**Vila Bisbo**	**3.64**	**293**		Pn	**Pn**	**01 49 41.8**	**+1.1**
PFVI					Sn	**Sn**	**01 50 20.6**	**-2.1**
PFVI	**Vila Bisbo**	**3.64**	**293**		P	**Pn**	**01 49 41.8**	**+1.1**
PFVI					S	**Sn**	**01 50 22.9**	**+0.2**
PFVI	**Vila Bisbo**	**3.64**	**293**		*e*P	**Pn**	**01 49 41.9**	**+1.1**
PFVI					*e*S	**Sn**	**01 50 21.0**	**-1.7**
PFVI					IAML		01 50 21.8	
PFVI					IAML		01 50 23.4	
PFVI					IAML		01 50 28.3	
PTEO	**Sao Teotonio**	**3.73**	**300**		*e*P	**Pn**	**01 49 43.6**	**+1.6**
PTEO					*e*S	**Sn**	**01 50 23.7**	**-1.2**
PTEO					IAML		01 50 25.5	
PTEO					IAML		01 50 25.7	
PTEO					IAML		01 50 27.8	
PLOUS	**Minas do Lousa**	**3.78**	**308**		*e*P	**Pn**	**01 49 43.9**	**+1.3**
PLOUS					*e*S	**Sn**	**01 50 25.1**	**-1.0**
PLOUS					IAML		01 50 26.2	
PLOUS					IAML		01 50 26.3	
PLOUS					IAML		01 50 26.6	
PAB	**San Pablo**	**3.78**	**3**		P	**Pn**	**01 49 44.2**	**+1.5**
PAB					⇑IVmb_VC		01 49 44.4	
	comp=N,244nm,SNR=3.7							
PAB					S	**Sn**	**01 50 24.0**	**-2.3**
ETOB	**Tobarra**	**3.79**	**40**		Pn	**Pn**	**01 49 44.9**	**+2.0**
ETOB					Sn	**Sn**	**01 50 25.1**	**-1.4**
ETOB	**Tobarra**	**3.79**	**40**		P	**Pn**	**01 49 45.0**	**+2.0**
ETOB					⇑IVmb_VC		01 49 50.0	
	comp=N,221nm,SNR=1.8							
ETOB					S	**Sn**	**01 50 26.0**	**-0.6**
EVO	**Evora**	**3.86**	**317**		Pn	**Pn**	**01 49 45.3**	**+1.6**
EVO					Sn	**Sn**	**01 50 26.5**	**-1.5**
EVO	**Evora**	**3.86**	**317**	⇑*i*	P	**Pn**	**01 49 45.3**	**+1.6**
EVO					*e*S	**Sn**	**01 50 26.8**	**-1.2**
EVO					IAML		01 50 27.0	
EVO					IAML		01 50 27.0	
EVO					IAML		01 50 28.9	
PESTR	**Estremoz**	**3.89**	**324**		Pn	**Pn**	**01 49 46.1**	**+2.0**
PESTR					Sn	**Sn**	**01 50 27.3**	**-1.5**
PESTR	**Estremoz**	**3.89**	**324**		P	**Pn**	**01 49 46.7**	**+2.6**
PESTR					S	**Sn**	**01 50 31.7**	**+3.0**
PESTR	**Estremoz**	**3.89**	**324**		*e*P	**Pn**	**01 49 46.1**	**+2.0**
PESTR					*e*S	**Sn**	**01 50 27.3**	**-1.5**
PESTR					IAML		01 50 27.7	
PESTR					IAML		01 50 29.4	
PESTR					IAML		01 50 29.5	
CIBOR	**Castaar de Ib**	**3.92**	**351**		⇑P	**Pn**	**01 49 46.1**	**+1.6**
CIBOR					S	**Sn**	**01 50 27.8**	**-1.6**
ESDC	**Sonseca Array**	**3.94**	**8**		P	**Pn**	**01 49 46.4**	**+1.5**
ESDC					⇑IVmb_VC		01 49 47.7	
	comp=N,175nm,SNR=2.8							
ESDC					S	**Sn**	**01 50 28.0**	**-2.1**
ESBB	**Sonseca Array**	**3.94**	**8**		P	**Pn**	**01 49 46.7**	**+1.8**
ESBB					⇑IVmb_VC		01 49 49.3	
	comp=N,143nm,SNR=2.1							
ESBB					S	**Sn**	**01 50 28.0**	**-2.2**
MOE	**Montemor**	**4.04**	**314**		*e*P	**Pn**	**01 49 47.5**	**+1.3**
MOE					*e*S	**Sn**	**01 50 31.1**	**-1.4**
MOE					IAML		01 50 42.7	
MOE					IAML		01 50 43.7	
MOE					IAML		01 50 43.9	
PARRA	**Arraiolos**	**4.08**	**319**		*e*P	**Pn**	**01 49 48.1**	**+1.4**
PARRA					*e*S	**Sn**	**01 50 31.6**	**-1.7**
PARRA					IAML		01 50 32.1	
PARRA					IAML		01 50 32.9	
PARRA					IAML		01 50 33.2	
SRHM	**Skhour des Reh**	**4.25**	**220**		P	**Pn**	**01 49 52.2**	**+3.1**
SRHM					Sn	**Sn**	**01 50 40.8**	**+3.2**
PMRV	**Marv??o**	**4.26**	**330**		*e*P	**Pn**	**01 49 50.7**	**+1.5**
PMRV					*e*S	**Sn**	**01 50 35.7**	**-2.0**
PMRV					IAML		01 50 49.2	
PMRV					IAML		01 50 50.3	
PMRV					IAML		01 50 50.4	
TISM	**Timmit**	**4.30**	**201**		P	**Pn**	**01 49 49.2**	**-0.5**
TISM					S	**Sn**	**01 50 36.7**	**-2.1**
PMTG	**Montargil**	**4.36**	**320**		*e*P	**Pn**	**01 49 52.2**	**+1.7**
PMTG					*e*S	**Sn**	**01 50 38.1**	**-2.1**
PMTG					IAML		01 50 52.1	
PMTG					IAML		01 50 53.8	
PMTG					IAML		01 50 57.9	
EPLA	**Plasencia**	**4.44**	**346**	⇑	P	**Pn**	**01 49 53.5**	**+1.9**
EPLA					⇑IVmb_VC		01 49 55.5	
	comp=N,308nm,SNR=4.1							
EPLA					S	**Sn**	**01 50 40.7**	**-1.5**
EVIV	**Cofrentes, Val**	**4.48**	**38**		P	**Pn**	**01 49 53.7**	**+1.6**
EVIV					⇑IVmb_VC		01 49 57.4	
	comp=N,192nm,SNR=1.5							
EVIV					S	**Sn**	**01 50 41.3**	**-1.9**
FIGM	**Figuig**	**4.58**	**141**		P	**Pn**	**01 49 54.4**	**+0.7**
FIGM					Sn	**Sn**	**01 50 46.4**	**+0.6**
PCBR	**Castelo Branco**	**4.65**	**332**		*e*P	**Pn**	**01 49 56.0**	**+1.6**
PCBR					*e*S	**Sn**	**01 50 45.0**	**-2.1**
PCBR					IAML		01 50 45.6	
PCBR					IAML		01 50 45.9	
PCBR					IAML		01 50 48.0	
UCM	**Universidad Co**	**4.67**	**13**		Pn	**Pn**	**01 49 56.8**	**+2.1**
UCM					Sn	**Sn**	**01 50 45.6**	**-2.1**
PSARD	**Sardoal**	**4.74**	**325**		*e*P	**Pn**	**01 49 57.1**	**+1.5**
PSARD					*e*S	**Sn**	**01 50 47.4**	**-2.0**
PSARD					IAML		01 50 47.6	
PSARD					IAML		01 51 02.8	
PSARD					IAML		01 51 03.9	
ECHE	**Chera**	**4.81**	**36**		Pn	**Pn**	**01 49 58.4**	**+1.8**
ECHE					Sn	**Sn**	**01 50 48.5**	**-2.6**
ECHE	**Chera**	**4.81**	**36**		P	**Pn**	**01 49 58.2**	**+1.7**
ECHE					⇑IVmb_VC		01 50 02.7	
	comp=N,175nm,SNR=1.1							
ECHE					S	**Sn**	**01 50 48.4**	**-2.6**
PMAFR	**Mafra**	**4.88**	**312**		Pn	**Pn**	**01 49 57.9**	**+0.4**
PMAFR					Sn	**Sn**	**01 50 51.3**	**-1.5**
PMAFR	**Mafra**	**4.88**	**312**		*e*P	**Pn**	**01 49 58.5**	**+1.0**
PMAFR					*e*S	**Sn**	**01 50 51.2**	**-1.5**
PMAFR					IAML		01 50 54.2	
PMAFR					IAML		01 51 02.7	
PMAFR					IAML		01 51 15.8	
GUD	**Guadarrama**	**4.89**	**4**		P	**Pn**	**01 49 59.5**	**+1.8**
GUD					⇑IVmb_VC		01 50 01.7	
	comp=N,76nm,SNR=3.1							
GUD					S	**Sn**	**01 50 50.9**	**-2.3**
YEBES	**Yebes (Guadala**	**4.91**	**14**		P	**Pn**	**01 50 00.1**	**+2.1**
YEBES					⇑IVmb_VC		01 50 04.1	
	comp=N,456nm,SNR=1.6							
YEBES					S	**Sn**	**01 50 51.0**	**-2.5**
PSBE	**So Bento**	**4.99**	**320**		*e*P	**Pn**	**01 50 00.5**	**+1.5**
PSBE					*e*S	**Sn**	**01 50 53.9**	**-1.5**
PSBE					IAML		01 50 58.7	
PSBE					IAML		01 51 07.7	
PSBE					IAML		01 51 21.3	
OUZM	**OUZ**	**5.15**	**201**		P	**Pn**	**01 50 02.9**	**+1.5**
OUZM					Sn	**Sn**	**01 51 01.3**	**+1.6**
MTE	**Manteigas**	**5.16**	**335**		*e*P	**Pn**	**01 50 02.9**	**+1.5**
MTE					*e*S	**Sn**	**01 50 56.9**	**-2.8**
MTE					IAML		01 51 00.4	
MTE					IAML		01 51 01.7	
MTE					IAML		01 51 12.1	
TIO	**Tiouine**	**5.30**	**205**		Pn	**Pn**	**01 50 04.9**	**+1.5**
TIO					Sn	**Sn**	**01 51 00.5**	**-2.7**
TIO	**Tiouine**	**5.30**	**205**		P	**Pn**	**01 50 03.4**	**+0.1**
TIO					Sn	**Sn**	**01 51 01.5**	**-1.7**
EJUZ	**Juzbado, Salam**	**5.40**	**350**		P	**Pn**	**01 50 06.7**	**+2.0**
EJUZ					S	**Sn**	**01 51 02.8**	**-2.8**
ETOR	**Torete**	**5.44**	**21**		P	**Pn**	**01 50 06.9**	**+1.7**
ETOR					⇑IVmb_VC		01 50 07.7	
	comp=N,305nm,SNR=3.1							
ETOR					S	**Sn**	**01 51 02.8**	**-3.8**
E0901	**Celadas (Terue**	**5.46**	**29**		P	**Pn**	**01 50 07.5**	**+2.0**
E0901					⇑IVmb_VC		01 50 17.0	
	comp=N,313nm,SNR=2.8							
E0901					S	**Sn**	**01 51 05.3**	**-1.8**
PVIS	**Viseu**	**5.57**	**334**		*e*P	**Pn**	**01 50 08.3**	**+1.4**
PVIS					*e*S	**Sn**	**01 51 08.2**	**-1.3**
EMOS	**Mosqueruela**	**5.65**	**34**		P	**Pn**	**01 50 10.0**	**+1.9**
EMOS					⇑IVmb_VC		01 50 15.2	
	comp=N,230nm,SNR=1.2							
EMOS					S	**Sn**	**01 51 09.5**	**-2.2**
PVRL	**Vila Real**	**6.01**	**337**		*e*P	**Pn**	**01 50 15.2**	**+2.3**
PVRL					*e*S	**Sn**	**01 51 17.1**	**-3.1**
PVRL					IAML		01 51 20.2	
PVRL					IAML		01 51 20.8	
PVRL					IAML		01 51 20.8	
POLO	**Lamas de Olo**	**6.12**	**337**		*e*P	**Pn**	**01 50 16.8**	**+2.4**
POLO					*e*S	**Sn**	**01 51 20.8**	**-2.3**
POLO					IAML		01 51 22.6	
POLO					IAML		01 51 22.8	
POLO					IAML		01 51 24.6	
PTO	**Porto**	**6.20**	**331**		*e*P	**Pn**	**01 50 18.0**	**+2.6**
PTO					*e*S	**Sn**	**01 51 22.8**	**-2.0**
PTO					IAML		01 51 25.3	
PTO					IAML		01 51 25.4	
PTO					IAML		01 51 26.5	
PBRG	**Braganca**	**6.25**	**345**		*e*P	**Pn**	**01 50 18.4**	**+2.3**
PBRG					*e*S	**Sn**	**01 51 23.1**	**-3.1**
PBRG					IAML		01 51 25.1	
PBRG					IAML		01 51 26.7	
PBRG					IAML		01 51 26.8	
ECAL	**Calabor**	**6.38**	**346**		Pn	**Pn**	**01 50 20.2**	**+2.2**
ECAL					Sn	**Sn**	**01 51 27.3**	**-2.1**
ECAL	**Calabor**	**6.38**	**346**		P	**Pn**	**01 50 20.4**	**+2.5**
ECAL					⇑IVmb_VC		01 50 29.7	
	comp=N,356nm,SNR=1.5							
ECAL					S	**Sn**	**01 51 27.5**	**-1.9**
ERTA	**Horta de San J**	**6.49**	**36**		P	**Pn**	**01 50 21.5**	**+2.1**
ERTA					⇑IVmb_VC		01 50 24.6	
	comp=N,27nm,SNR=2.3							
ERTA					S	**Sn**	**01 51 29.2**	**-2.8**
PCAB	**Cabril**	**6.50**	**337**		*e*P	**Pn**	**01 50 22.4**	**+2.9**
PCAB					*e*S	**Sn**	**01 51 29.8**	**-2.4**
PCAB					IAML		01 51 31.5	
PCAB					IAML		01 51 31.5	
PCAB					IAML		01 51 33.7	
ELOB	**Lobios**	**6.65**	**337**		P	**Pn**	**01 50 23.6**	**+1.9**
ELOB					⇑IVmb_VC		01 50 24.5	
	comp=N,201nm,SNR=1.2							
ELOB					S	**Sn**	**01 51 33.0**	**-3.0**
ESAC	**San Caprasio**	**6.79**	**27**		P	**Pn**	**01 50 25.5**	**+2.1**
ESAC					⇑IVmb_VC		01 50 28.5	
	comp=N,320nm,SNR=1.2							
ESAC					S	**Sn**	**01 51 38.0**	**-1.2**
PGAV	**Gavieira, Arco**	**6.81**	**337**		*e*P	**Pn**	**01 50 26.3**	**+2.5**
PGAV					*e*S	**Sn**	**01 51 36.6**	**-3.2**
PGAV					IAML		01 51 38.0	
PGAV					IAML		01 51 39.1	
PGAV					IAML		01 51 39.6	
EZAM	**Zamans**	**7.11**	**335**		P	**Pn**	**01 50 29.7**	**+1.8**
EZAM					⇑IVmb_VC		01 50 34.9	
	comp=N,143nm,SNR=1.1							
EZAM					S	**Sn**	**01 51 43.9**	**-3.2**
EARA	**Aranguren**	**7.39**	**18**	⇑	IVmb_VC		01 50 37.9	
	comp=N,272nm,SNR=1.2							
EARA					S	**Sn**	**01 51 51.0**	**-2.9**
ELAN	**Lanestosa**	**7.52**	**7**		P	**Pn**	**01 50 35.3**	**+2.0**
ELAN					⇑IVmb_VC		01 50 43.2	
	comp=N,189nm,SNR=1.5							
ELAN					S	**Sn**	**01 51 53.4**	**-3.6**
EAGO	**Agolada(Pontev**	**7.52**	**340**		P	**Pn**	**01 50 36.0**	**+2.7**
EAGO					⇑IVmb_VC		01 50 38.6	
	comp=N,207nm,SNR=1.8							
EAGO					S	**Sn**	**01 51 54.5**	**-2.5**
EARI	**Arriondas**	**7.54**	**357**		P	**Pn**	**01 50 35.8**	**+2.1**
EARI					⇑IVmb_VC		01 50 43.9	
	comp=N,327nm,SNR=1.4							
EARI					S	**Sn**	**01 51 53.0**	**-4.5**
EORO	**Oroz-Betelu**	**7.57**	**19**		P	**Pn**	**01 50 36.2**	**+2.0**
EORO					⇑IVmb_VC		01 50 39.7	
	comp=N,167nm,SNR=1.2							
EORO					S	**Sn**	**01 51 56.1**	**-2.3**
ALT03	**Santillana del**	**7.61**	**3**		P	**Pn**	**01 50 37.2**	**+2.6**
ALT03					⇑IVmb_VC		01 50 40.3	
	comp=N,165nm,SNR=1.5							
ALT03					S	**Sn**	**01 51 55.6**	**-3.6**
ALT04	**Santillana del**	**7.61**	**3**		P	**Pn**	**01 50 37.5**	**+2.9**
ALT04					⇑IVmb_VC		01 50 45.1	
	comp=N,263nm,SNR=1.6							
ALT04					S	**Sn**	**01 51 54.6**	**-4.7**
ALT01	**Santillana del**	**7.62**	**3**		P	**Pn**	**01 50 37.5**	**+2.9**
ALT01					⇑IVmb_VC		01 50 45.9	
	comp=N,386nm,SNR=1.3							
ALT01					S	**Sn**	**01 51 54.6**	**-4.7**
EPON	**Pontenova**	**7.80**	**346**		P	**Pn**	**01 50 39.2**	**+2.0**
EPON					⇑IVmb_VC		01 50 46.0	
	comp=N,276nm,SNR=1.3							
EPON					S	**Sn**	**01 51 58.2**	**-5.5**
EALK	**Alkurruntz**	**7.83**	**17**		P	**Pn**	**01 50 40.0**	**+2.3**
EALK					⇑IVmb_VC		01 50 47.6	
	comp=N,186nm,SNR=1.3							
EALK					S	**Sn**	**01 52 00.4**	**-4.3**
ECHI	**Chisagues Biel**	**7.85**	**27**		P	**Pn**	**01 50 40.1**	**+2.2**
ECHI					⇑IVmb_VC		01 50 47.2	
	comp=N,141nm,SNR=1.5							
ECHI					S	**Sn**	**01 52 00.6**	**-4.5**
EMAZ	**Mazaricos**	**7.92**	**336**		P	**Pn**	**01 50 41.2**	**+2.4**
EMAZ					⇑IVmb_VC		01 50 48.0	
	comp=N,240nm,SNR=1.3							
EMAZ					S	**Sn**	**01 52 02.9**	**-3.9**

*RSNC **21** 02:11:40.3±2.8,31°S±36″×7°1W±2°1,h10km,M5.6,mB6.0, mb5.7,Mw(mB)5.6,MwMwp5.3,Mwp5.5*

*VAO **21** 02:11:46.9±0.8,30°89S×71°06W,h36km±6km, mb5.8, Presumed earthquake*

*SJA **21** 02:11:46.5±1.4,30°92S×71°45W,h46km±13km,ML5.6, MW5.3*

*NEIC **21** 02:11:47.9,30°91S×71°41W,h44km*

*NEIC **21** 02:11:47.9,30°91S×71°41W,h44km*

*IPGP **21** 02:11:47.0,30°90S×71°51W,h60km,Mw5.5,Fault plane solution: NP1:φs341.00000°,δ37.00000°,λ.95.00000°. NP2:φs155.00000°,δ53.00000°,λ.86.00000°.*

*GUC **21** 02:11:47.0±0.7,30°92S×71°28W,h54km±2km,ML5.6, Presumed earthquake*

*MOS **21** 02:11:48.1±1.0,30°93S×71°35W,h64km,mb5.7/14, MS5.1/6,Error ellipse: s-maj=14.2km s-min=7.4km az=94.1*

*GFZ **21** 02:11:48.7±0.2,31°S±1°×7°1W±°,h53km±4km,M5.4/25, mb5.8/25*

*NEIC **21** 02:11:48.3,30°92S×71°42W,h49km*

*NEIC **21** 02:11:48.9,30°92S×71°65W,h60km,Moment Tensor Solution. Duration:3s0 Moment tensor: Scale 10¹⁷Nm; Mrr2.40; Mθθ-0.10; Mφφ-2.30; Mrθ0.41; Mθφ0.42; Mφr-0.47; Fault plane solution: M₀2.47000×10¹⁷ NP1: φs356.47000°,δ39.13000°,λ101.09000°. NP2: φs162.29000°,δ51.73000°,λ81.11000°. Principal axes: T 2.4974, Plg81.0000°, Azm31.0000°; N -0.0615, Plg7.0000°, Azm168.0000°; P -2.4359, Plg6.0000°, Azm259.0000°;*

*OSUNB **21** 02:11:48.0±0.7,30°97S×71°09W,h45km±6km,mb5.8/37 Error ellipse: s-maj=3.8km s-min=3.2km az=0.0*

*NEIC **21** 02:11:48.2±2.1,30°92S±0°04×71°45W±0°06,h51km±1km, mb5.6/654,Mwb5.6/84,Mwr5.5/84,Mww5.5/35, Mww5.6(GUC),Error ellipse: s-maj=9.2km s-min=7.5km az=269.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr2.42; Mθθ0.26; Mφφ-2.67; Mrθ0.31; Mθφ-0.21; Mφr-0.63; Fault plane solution: M₀2.66000×10¹⁷ NP1:φs13.02000°,δ39.04000°,λ103.79000°. NP2: φs175.47000°,δ52.29000°,λ79.06000°. Principal axes: T 2.5428, Plg79.0000°, Azm41.0000°; N 0.2159, Plg9.0000°, Azm182.0000°; P -2.7587, Plg7.0000°, Azm273.0000°; Moment Tensor Solution. Moment tensor: Scale 10¹⁷ Nm; Mrr2.01; Mθθ0.02; Mφφ-2.02; Mrθ0.30; Mθφ0.52; Mφr-1.48; Fault plane solution: M₀2.57000×10¹⁷ NP1: φs345.22000°,δ27.05000°,λ87.65000°. NP2: φs167.86000°,δ62.98000°,λ91.20000°. Principal axes: T 2.4962, Plg72.0000°, Azm81.0000°; N 0.1392, Plg1.0000°, Azm347.0000°; P -2.6354, Plg18.0000°, Azm257.0000°;*

*GFZ **21** 02:11:48.9,30°95S×71°17W,h58km,Mw5.6/69,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr2.44; Mθθ0.21; Mφφ-2.65; Mrθ0.38; Mθφ0.45; Mφr-0.87; Fault plane solution: M₀2.75555×10¹⁷ NP1: φs165.59007°,δ55.07071°,λ83.27060°. NP2: φs357.23446°,δ35.49058°,λ99.52500°. Principal axes: T 2.6178, Plg78.6954°, Azm50.5852°; N 0.2575, Plg5.5130°, Azm169.4550°; P -2.8753, Plg9.8384°, Azm260.4141°;*

*CATAC **21** 02:11:50.3±0.5,31°S±3×7°1W±1°0,h65km±4km,M5.8/12, mb5.6/12,mB5.8/12,MLv6.6/4,Mw(mB)5.4/12, MwMwp5.2/3,Mwp5.4/3 Error ellipse: s-maj=21.5km s-min=7.2km az=86.9,confirmed*

*IDC **21** 02:11:51.4±1.8,30°94S×71°27W,h85km±15km,mb5.2/16, mbtmp5.4/19,MS4.7/39,Error ellipse: s-maj=15.1km s-min=10.3km az=74.0*

*GCMT **21** 02:11:51.2±0.1,31°07S±0°01×71°47W±0°01,h62km, MW5.5/140,Moment Tensor Solution. s139,c257; s140,c257; Duration: 1s4 Moment tensor: Scale 10¹⁷ Nm; Mrr2.06±.03; Mθθ0.17±.02; Mφφ-2.23±.03; Mrθ0.39±.02; Mθφ0.53±.02; Mφr-1.02±.03; Best double couple: M₀2.45800×10¹⁷ NP1:φs353.00000°,δ32.00000°, λ98.00000°. NP2:φs164.00000°,δ58.00000°,λ85.00000°. Principal axes: T 2.3240, Plg76.0000°, Azm58.0000°; N 0.2710, Plg4.0000°, Azm166.0000°; P -2.5920, Plg13.0000°, Azm257.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 21 02:11:47.6±0.3,30°94S±0.02×71°36W±0°03,h53km±2km, h53km:pP-P,n957,σ1§69/757,mb5.6/327**,MS4.9**/44**, 13C-31D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.36**	**318**			**Pn**	**02 11 57.9**	**+0.3**
CO06	**Fray Jorge**	**0.36**	**318**	⇑*e*P		**Pn**	**02 11 57.9**	**+0.3**
CO06				IAML			02 12 09.7	
	comp=E,413μm,0.2s							
CO02	**Combarbal**	**0.40**	**131**	*i* P		**Pn**	**02 11 58.2**	**-0.1**
CO02				*i* S		**Sn**	**02 12 06.7**	**+0.9**
CO02				IAML			02 12 08.5	
	comp=Z,450μm,1.9s							
CO02	**Combarbal**	**0.40**	**131**	⇓*e*P		**Pn**	**02 11 58.1**	**-0.1**
CO02				IAML			02 12 08.0	
	comp=E,809μm,0.3s							
CO03	**El Pedregal**	**0.58**	**80**	*e*P		**Pn**	**02 12 00.0**	**-0.2**
CO03				*i* S		**Sn**	**02 12 09.1**	**-0.2**
CO03				IAML			02 12 09.9	
	comp=Z,290μm,0.9s							
CO03	**El Pedregal**	**0.58**	**80**	⇓*e*P		**Pn**	**02 11 59.9**	**-0.2**
CO03				*e*S		**Sn**	**02 12 09.2**	**-0.2**
CO03	**El Pedregal**	**0.58**	**80**	P		**Pn**	**02 11 59.8**	**-0.4**
GO04	**Tololo Observa**	**0.90**	**32**	*i* P		**Pn**	**02 12 04.6**	**+0.2**
GO04				*i* S		**Sn**	**02 12 17.5**	**+0.8**
GO04	**Tololo Observa**	**0.90**	**32**			**Pn**	**02 12 04.5**	**+0.1**
GO04	**Tololo Observa**	**0.90**	**32**	⇓*e*P		**Pn**	**02 12 04.5**	**+0.1**
GO04	**Tololo Observa**	**0.90**	**32**	P		**Pn**	**02 12 04.6**	**+0.2**
CO04	**Los Peladeros**	**1.15**	**164**	⇑*e*P		**Pn**	**02 12 07.8**	**+0.1**
CO04				*e*S		**Sn**	**02 12 23.0**	**+0.4**
CO04				IAML			02 12 27.2	
	comp=E,174μm,0.2s							
CO04	**Los Peladeros**	**1.15**	**164**	P		**Pn**	**02 12 08.1**	**+0.4**
CO01	**Juntas del Tor**	**1.45**	**49**	*i* P		**Pn**	**02 12 12.8**	**+1.0**
CO01				*i* S		**Sn**	**02 12 31.5**	**+1.6**
CO01				IAML			02 12 33.9	
	comp=Z,58μm,1.1s							
CO01	**Juntas del Tor**	**1.45**	**49**	⇓*e*P		**Pn**	**02 12 12.7**	**+1.0**
CO01				*e*S		**Sn**	**02 12 31.4**	**+1.6**
CO01	**Juntas del Tor**	**1.45**	**49**	P		**Pn**	**02 12 12.8**	**+1.0**
AROD	**Rodeo**	**1.80**	**65**	*i* P		**Pn**	**02 12 19.2**	**+2.6**
VA03	**San Esteban**	**1.94**	**160**	*i* P		**Pn**	**02 12 19.7**	**+1.4**
VA03	**San Esteban**	**1.94**	**160**	*e*P		**Pn**	**02 12 19.5**	**+1.1**
VA03				*e*S		**Sn**	**02 12 44.2**	**+2.6**
VA03				IAML			02 12 46.6	
	comp=E,82μm,0.6s							
VA03	**San Esteban**	**1.94**	**160**	P		**Pn**	**02 12 19.6**	**+1.3**
RTLS	**Leoncito**	**1.96**	**116**	*e*P		**Pn**	**02 12 21.3**	**+2.6**
RTLS				IAML			02 13 00.2	
	comp=Z,56μm,0.5s							
ACCO	**Cerro Coronel**	**2.00**	**80**	*i* P		**Pn**	**02 12 22.1**	**+2.8**
ACCO				*i* S		**Sn**	**02 12 49.9**	**+6.5**
ACCO				IAML			02 12 57.9	
	comp=Z,30μm,0.6s							
LCO	**Las Campanas**	**2.00**	**17**	*i* P		**Pn**	**02 12 20.1**	**+0.7**
LCO				IAML			02 12 49.7	
	comp=Z,142μm,0.8s							
LCO	**Las Campanas**	**2.00**	**17**	P		**Pn**	**02 12 20.4**	**+1.1**
LCO				S		**Sn**	**02 12 44.8**	**+1.4**
LCO	**Las Campanas**	**2.00**	**17**	P		**Pn**	**02 12 19.9**	**+0.6**
LCO	**Las Campanas**	**2.00**	**17**			**Pn**	**02 12 19.9**	**+0.6**
LCO	**Las Campanas**	**2.00**	**17**	*e*P		**Pn**	**02 12 20.0**	**+0.7**
LCO				*i* S		**Sn**	**02 12 45.2**	**+1.8**
ROCH	**El Roble**	**2.05**	**172**	*e*P		**Pn**	**02 12 20.8**	**+0.9**
ROCH				⇓*e*P			02 12 20.8	
ACDV	**Cuesta del Vie**	**2.08**	**69**	*i* P			21 02 23.1	
VA01	**Torpederas**	**2.09**	**187**	*i* P		**Pn**	**02 12 20.6**	**+0.4**
VA01	**Torpederas**	**2.09**	**187**			**Pn**	**02 12 20.1**	**-0.1**
VA01	**Torpederas**	**2.09**	**187**	⇓*e*P		**Pn**	**02 12 20.2**	**-0.1**
VA01	**Torpederas**	**2.09**	**187**	P		**Pn**	**02 12 20.3**	**0.0**
PEL	**Peldehue**	**2.27**	**166**	*e*P		**Pn**	**02 12 24.2**	**+1.4**
PEL				IAML			02 13 07.4	
	comp=Z,15μm,0.5s							
PEL	**Peldehue**	**2.27**	**166**	P		**Pn**	**02 12 24.4**	**+1.7**
PEL	**Peldehue**	**2.27**	**166**	P		**Pn**	**02 12 24.1**	**+1.4**
PEL	**Peldehue**	**2.27**	**166**			**Pn**	**02 12 24.1**	**+1.4**
PEL	**Peldehue**	**2.27**	**166**	*e*P		**Pn**	**02 12 23.9**	**+1.1**
PEL	**Peldehue**	**2.27**	**166**	P		**Pn**	**02 12 24.4**	**+1.7**
AC05	**El Transito**	**2.30**	**24**	*e*P		**Pn**	**02 12 24.7**	**+1.5**
AC05				*e*S		**Sn**	**02 12 52

VA05 Santo Domingo 2.72 185 P Pn 02 12 29.1 +0.3
AC04 Llanos de Chal 2.74 5 eP Pn 02 12 30.0 +0.9
AC04 IAML 02 13 15.3
comp=Z,47µm,0.6s
AC04 Llanos de Chal 2.74 5 Pn 02 12 30.0 +0.9
AC04 Llanos de Chal 2.74 5‖ eP Pn 02 12 29.8 +0.6
AC04 IAML 02 13 15.4
comp=E,119µm,0.3s
AC04 Llanos de Chal 2.74 5 P Pn 02 12 31.1 +2.0
MT08 Bocatoma Ro 2.74 156 i P Pn 02 12 33.1 +3.7
MT08 IAML 02 13 13.4
comp=Z,12µm,0.9s
MT08 Bocatoma Ro 2.74 156 Pn 02 12 32.3 +2.9
MT08 Bocatoma Ro 2.74 156‖ eP Pn 02 12 31.8 +2.4
MT08 IAML 02 13 14.2
comp=N,13µm,0.6s
MT15 Las Vizcachas 2.75 165 eP Pn 02 12 30.7 +1.4
CFA Coronel Fontan 2.75 105 P Pn 02 12 31.0 +1.6
comp=N,3µm,0.5s,baz=294,slow=13,SNR=3041
CFA S Sn 02 13 05.5 +4.1
comp=N,9µm,0.5s,baz=62,slow=18,SNR=10
CFA LR LR 02 13 49.1
comp=N,16µm,19.6s,baz=322,slow=44
CFA Coronel Fontan 2.75 105 i P Pn 02 12 31.7 +2.3
CFA IAML 02 13 12.6
comp=Z,24µm,1.2s
ARCO CERRO ARCO 2.80 133 i P Pn 02 12 34.2 +4.0
ARCO IAML 02 13 18.3
comp=Z,35µm,0.6s
MT09 Talagante 2.84 174 eP Pn 02 12 32.0 +1.3
MT12 Pirque 2.87 166 eP Pn 02 12 32.4 +1.5
MT12 IAML 02 13 22.5
comp=E,33µm,0.4s
MT01 Popeta 2.92 178 i P Pn 02 12 32.5 +0.9
MT01 IAML 02 13 28.5
comp=Z,9µm,0.6s
MT01 Popeta 2.92 178 eP Pn 02 12 32.3 +0.7
MT13 San Alfonso 2.94 162 i P Pn 02 12 34.6 +2.6
MT13 IAML 02 13 31.8
comp=Z,9µm,0.9s
MT13 San Alfonso 2.94 162 eP Pn 02 12 34.3 +2.4
AAGR Agrelo 3.03 136 i P Pn 02 12 36.7 +3.5
LMEL Las Melosas 3.06 162 eP Pn 02 12 36.0 +2.3
LMEL IAML 02 13 23.5
comp=E,12µm,0.5s
BO04 La Punta 3.10 168⇑ eP Pn 02 12 35.2 +1.0
BO04 IAML 02 13 33.9
comp=E,10µm,0.5s
BO01 Tunca 3.45 176 i P Pn 02 12 39.9 +1.0
BO01 IAML 02 13 32.5
comp=Z,5µm,0.8s
BO01 Tunca 3.45 176 eP Pn 02 12 40.3 +1.5
BO01 IAML 02 13 36.1
comp=E,8µm,0.6s
GO03 Copiapo 3.48 17 i P Pn 02 12 40.7 +1.4
GO03 i S Sn 02 13 22.9 +3.7
GO03 IAML 02 13 38.4
comp=Z,37µm,0.6s
GO03 Copiapo 3.48 17 Pn 02 12 40.5 +1.2
GO03 Copiapo 3.48 17 P Pn 02 12 40.9 +1.6
AVIZ Vizcacheras 3.49 137 i P Pn 02 12 42.0 +2.5
VCA Vinchina 3.51 52 i P Pn 02 12 43.7 +3.9
VCA Vinchina 3.51 52‖ eP Pn 02 12 43.4 +3.6
BO03 Pichilemu 3.58 188 eP Pn 02 12 40.3 -0.4
BO03 IAML 02 13 44.4
comp=N,6µm,0.3s
BO03 Pichilemu 3.58 188 P Pn 02 12 41.3 +0.6
AC06 Mina Casimiro 3.68 14 Pn 02 12 42.6 +0.6
ACAN Cantantal 3.80 112 i P Pn 02 12 45.3 +1.6
ACAN i S Sn 02 13 32.6 +5.5
BO02 Sierra Bellavi 3.87 173 i P Pn 02 12 46.1 +1.3
BO02 IAML 02 13 47.7
comp=Z,7µm,0.6s
BO02 Sierra Bellavi 3.87 173 eP Pn 02 12 46.6 +1.8
BO02 IAML 02 13 57.5
comp=E,8µm,0.4s
GO05 Hualane 4.09 187 i P Pn 02 12 47.6 0.0
GO05 Hualane 4.09 187‖ eP Pn 02 12 46.7 -0.9
ACLC CERRO LA CRUZ 4.10 70 i P Pn 02 12 49.9 +1.9
TINO Tinogasta 4.37 50 i P Pn 02 12 53.9 +2.2
RFA San Rafael 4.53 148 i P Pn 02 12 54.9 +1.1
RFA IAML 02 14 18.8
comp=Z,3µm,1.0s
AC02 Maricunga 4.53 26 i P Pn 02 12 55.6 +1.5
AC02 IAML 02 14 01.0
comp=Z,19µm,0.8s
AC02 Maricunga 4.53 26 Pn 02 12 55.5 +1.3
AC02 Maricunga 4.53 26 P Pn 02 12 55.8 +1.6
ML02 Panimavida 4.81 181 i P Pn 02 12 59.2 +1.8
ML02 IAML 02 14 18.4
comp=Z,3µm,1.6s
ML02 Panimavida 4.81 181 eP Pn 02 12 58.4 +0.9
ML02 Panimavida 4.81 181 P Pn 02 12 57.9 +0.4
AC01 Pan de Azucar 4.82 8 i P Pn 02 12 56.7 -1.0
AC01 Pan de Azucar 4.82 8 P Pn 02 12 59.3 +1.6
AC01 S Sn 02 13 49.9 +2.7
AC01 Pan de Azucar 4.82 8 P Pn 02 12 57.2 -0.5
comp=Z,4µm,0.7s
BI02 San Fabin de 5.71 179 Pn 02 13 10.3 +0.4
BI02 San Fabin de 5.71 179 P Pn 02 13 10.7 +0.8
comp=Z,622nm,0.6s
TCA Tanti 5.81 96‖ eP Pn 02 13 11.2 -0.1
BI05 Punta Hualpn 5.99 194 Pn 02 13 11.9 -1.8
PB14 IPOC Station P 6.35 8 Pn 02 13 17.0 -1.9
PB14 IPOC Station P 6.35 8 P Pn 02 13 17.4 -1.5
comp=Z,3µm,0.8s
H03N1 Juan Fernandez 6.87 247 P Pn 02 13 25.3 -0.2
baz=264,slow=74,SNR=9639
H03N1 T T 02 20 21.5
baz=74,slow=74,SNR=977
VA04 Juan Fernndez 6.88 245 Pn 02 13 24.8 -1.0
VA04 Juan Fernndez 6.88 245 eP Pn 02 13 24.9 -1.0
VA04 Juan Fernndez 6.88 245 P Pn 02 13 25.2 -0.6
comp=Z,1µm,0.4s
H03N2 Juan Fernandez 6.89 247 P Pn 02 13 25.5 -0.2
baz=357,slow=74,SNR=7908
H03N2 T T 02 20 20.3
baz=187,slow=74,SNR=1841
H03S3 Juan Fernandez 7.00 244 P Pn 02 13 26.4 -0.9
baz=358,slow=16,SNR=477
H03S1 Juan Fernandez 7.01 244 P Pn 02 13 26.2 -1.2
baz=358,slow=16,SNR=335
H03S2 Juan Fernandez 7.02 244 P Pn 02 13 26.5 -1.1
baz=358,slow=16,SNR=587
PB10 IPOC Station P 7.43 6 Pn 02 13 31.4 -2.1
SALTA 8.04 35 P Pn 02 13 42.5 +0.3
comp=Z,187nm,1.1s
PB05 IPOC Station P 8.12 8 P Pn 02 13 41.6 -1.5
comp=Z,1µm,0.8s
PB06 IPOC Station P 8.36 11 P Pn 02 13 49.1 +2.8
PB06 IPOC Station P 8.36 11 P Pn 02 13 45.2 -1.1
comp=Z,2µm,0.9s
GO06 Curarrehue 8.62 181 P Pn 02 13 50.8 +0.9
comp=Z,89nm,0.9s
PB03 IPOC Station P 8.97 10 P Pn 02 13 53.0 -1.8
comp=Z,1µm,0.5s
PB07 IPOC Station P 9.27 9 P Pn 02 13 58.1 -0.7
comp=Z,782nm,0.8s
PB09 IPOC Station P 9.30 12 P Pn 02 14 06.9 +7.6
PB09 IPOC Station P 9.30 12 P Pn 02 14 01.5 +2.3
comp=Z,1µm,0.7s
PB02 IPOC Station P 9.67 8 P Pn 02 14 17.6 +13
PB02 IPOC Station P 9.67 8 P Pn 02 14 01.5 -2.8
comp=Z,806nm,0.5s
PLCA Paso Flores 9.79 176 P Pn 02 14 07.6 +1.8
comp=Z,8.1nm,0.7s,baz=338,slow=12,SNR=37
PLCA LR LR 02 18 28.9
comp=Z,4µm,20.7s,baz=346,slow=41
PLCA Paso Flores 9.79 176 P Pn 02 14 06.5 +0.7
PLCA Paso Flores 9.79 176 P Pn 02 14 08.1 +2.3
comp=Z,44nm,1.0s
PLCA Paso Flores 9.79 176 eP Pn 02 14 06.1 +0.3
LL03 Petrohue 10.21 184 Pn 02 14 10.9 -0.5
LL03 Petrohue 10.21 184 P Pn 02 14 11.2 -0.2
comp=Z,307nm,0.7s
TA01 Diego Aracena 10.38 6 Pn 02 14 10.1 -3.8
LL05 Los Muermos 10.58 189 Pn 02 14 14.0 -2.5
PB08 IPOC Station P 10.94 11 Pn 02 14 18.1 -3.7
PB08 IPOC Station P 10.94 11 P Pn 02 14 26.9 +5.1
comp=Z,446nm,1.0s
PB11 IPOC Station P 11.24 8 Pn 02 14 21.7 -4.0
PB11 IPOC Station P 11.24 8 P Pn 02 14 29.8 +4.0
comp=Z,919nm,0.9s
GO01 Chusmiza 11.39 10 Pn 02 14 23.2 -5.0

GO01 Chusmiza 11.39 10 P Pn 02 14 31.1 +3.0
comp=Z,434nm,0.8s
ANCO Parque Anchore 11.77 110 eP Pn 02 14 29.5 -3.2
PSAL Palomas, Salto 11.80 94 eP Pn 02 14 29.4 -3.7
GO07 Milladeo Hill, 12.29 188 Pn 02 14 39.5 -0.3
GO07 Milladeo Hill, 12.29 188 P Pn 02 14 41.4 +1.6
comp=Z,153nm,0.4s
PB12 IPOC Station P 12.31 5 Pn 02 14 36.2 -4.1
PB12 IPOC Station P 12.31 5 P Pn 02 14 41.6 +1.4
comp=Z,257nm,0.5s
PB16 IPOC Station P 12.66 8 Pn 02 14 41.8 -3.7
ITQB Itaqui 12.80 88 P Pn 02 14 44.4 -2.4
ITQB S Sn 02 17 04.1 -3.5
ITQB Itaqui 12.80 88 eP Pn 02 14 42.9 -3.9
CPUP Villa Florida 13.15 73 P Pn 02 14 47.0 -4.6
comp=Z,51nm,0.5s,baz=247,slow=13,SNR=52
CPUP S Sn 02 17 07.0 -9.3
comp=Z,621nm,1.0s,baz=283,slow=18,SNR=3.6
CPUP LR LR 02 20 24.2
comp=Z,8µm,18.8s,baz=254,slow=39
CPUP Villa Florida 13.15 73 P Pn 02 14 47.4 -4.2
CPUP Villa Florida 13.15 73 Pn 02 14 47.4 -4.2
CPUP Villa Florida 13.15 73 P Pn 02 14 47.3 -4.3
CPUP S Sn 02 17 13.2 -3.1
PB18 Visviri 13.40 8 P P 02 15 00.2 -3.4
comp=Z,538nm,1.2s
COYC Coyhaique 14.62 182 P P 02 15 13.9 -2.4
comp=Z,112nm,0.9s
SJPY San Joaquin 14.72 70 eP Pn 02 15 08.9 -3.8
LPAZ La Paz 14.88 12 P Pn 02 15 16.5 +1.0
comp=Z,162nm,1.1s,baz=180,slow=7.5,SNR=163
LPAZ S Sn 02 18 02.0 +2.5
comp=Z,70nm,0.9s,baz=229,slow=9.8,SNR=2.5
LPAZ La Paz 14.88 12 Pn 02 15 12.7 -2.7
LPAZ La Paz 14.88 12 P Pn 02 15 16.1 +0.7
LPAZ La Paz 14.88 12 P Pn 02 15 16.7 +1.2
comp=Z,201nm,1.2s
LPAZ La Paz 14.88 12 eP Pn 02 15 13.0 -2.4
CPSB Cacapava Do Su 15.43 93 P Pn 02 15 18.4 -3.5
CPSB Cacapava Do Su 15.43 93 eP Pn 02 15 17.3 -4.6
COIM Forte Coimbra 16.44 51 eP Pn 02 15 29.7 -5.1
BDQN Bodoquena, MS 16.79 55 eP Pn 02 15 35.6 -3.5
BBSD Serra de San D 16.83 38 eP Pn 02 15 37.6 -2.1
ITAB Concordia 17.20 82 Pn 02 15 42.3 -2.0
ITAB Concordia 17.20 82 P Pn 02 15 42.9 -1.3
ITAB S Sn 02 18 48.7 -6.1
ITAB Concordia 17.20 82 P Pn 02 15 42.7 -1.6
comp=Z,538nm,2.1s
ITAB Concordia 17.20 82 eP Pn 02 15 41.7 -2.6
AQDB Aquidauana 17.52 57 Pn 02 15 46.0 -2.2
AQDB Aquidauana 17.52 57 P Pn 02 15 46.3 -1.9
AQDB Aquidauana 17.52 57 P Pn 02 15 45.8 -2.4
comp=Z,226nm,0.7s
AQDB Aquidauana 17.52 57 eP Pn 02 15 45.5 -2.7
GO08 Villa O'Higgin 17.53 183 Pn 02 15 48.1 0.0
GO08 Villa O'Higgin 17.53 183 P P 02 15 51.1 +2.5
comp=Z,50nm,2.3s
SIV San Ignacio 17.60 35 P Pn 02 15 46.1 -3.1
comp=Z,337nm,0.9s,baz=219,slow=7.1,SNR=282
CNLB Canela 17.81 90 P Pn 02 15 49.4 -2.4
CNLB Canela 17.81 90 P Pn 02 15 50.9 -0.9
comp=Z,350nm,1.0s
CNLB Canela 17.81 90 eP Pn 02 15 49.2 -2.6
PTGB Pitanga 18.15 75 P P 02 15 53.9 -1.8
PTGB S Sn 02 19 16.2 -1.5
PTGB Pitanga 18.15 75 eP P 02 15 53.9 -1.8
PTLB Pontes e Lacer 19.05 39 P 02 16 05.3 -0.2
PTLB IAmb IAmb 02 16 08.2
comp=Z,228nm,0.9s
PTLB Pontes e Lacer 19.05 39 P P 02 16 05.5 -0.1
PTLB Pontes e Lacer 19.05 39 eP P 02 16 04.5 -1.1
LDASE Londrina, Braz 19.50 72 eP P 02 16 08.8 -1.6
NNA Nana 19.53 344 P P 02 16 11.5 +0.7
comp=Z,34nm,0.8s,baz=214,slow=9.7,SNR=7.3
NNA LR LR 02 22 17.0
comp=Z,2µm,20.9s,baz=166,slow=32
NNA Nana 19.53 344 P P 02 16 11.5 +0.7
NNA pmax pmax
comp=Z,82nm,1.2s
NNA Nana 19.53 344 IAmb IAmb 02 16 18.7
comp=Z,82nm,1.2s
NNA Nana 19.53 344 P Pn 02 16 14.6 +2.1
comp=Z,64nm,0.9s
PP1B Ponte de Pedra 20.02 52 eP P 02 16 14.7 -1.4
PCMB Pacaembu 20.25 67 P P 02 16 18.4 -0.3
PCMB Pacaembu 20.25 67 P P 02 16 18.4 -0.3
comp=Z,1µm,0.9s
PCMB Pacaembu 20.25 67 eP P 02 16 17.1 -1.6
VILB Vilhena 20.65 32 P 02 16 22.3 -0.7
VILB Vilhena 20.65 32 P P 02 16 22.5 -0.5
VILB Vilhena 20.65 32 eP P 02 16 22.0 -0.9
SALV Santo Antonio 20.71 47 P P 02 16 22.6 -1.0
SALV Santo Antonio 20.71 47 eP P 02 16 22.1 -1.5
PET01 Itanhaem-SP 22.32 79 P P 02 16 39.5 -1.4
PET01 Itanhaem-SP 22.32 79 eP P 02 16 39.4 -1.4
SPB Sao Paulo 22.46 77 P P 02 16 41.8 -0.7
SPB Sao Paulo 22.46 77 P P 02 16 41.1 -1.3
SPB Sao Paulo 22.46 77 P P 02 16 41.8 -0.7
comp=Z,603nm,1.1s
SPB Sao Paulo 22.46 77 eP P 02 16 41.0 -1.4
BB19B Bebedouro 22.71 70 P P 02 16 43.1 -2.0
BB19B Bebedouro 22.71 70 eP P 02 16 42.6 -2.6
EFI East Falkland 22.93 158 P P 02 16 46.6 -0.4
EFI pmax pmax
comp=Z,150nm,0.8s
EFI East Falkland 22.93 158 P P 02 16 46.6 -0.4
EFI IAmb IAmb 02 16 51.0
comp=Z,150nm,0.8s
EFI East Falkland 22.93 158 P P 02 16 47.0 +0.1
comp=Z,236nm,0.8s
VABB Valinhos 23.10 76 P P 02 16 47.7 -1.3
VAO Valinhos 23.10 76 P P 02 16 47.6 -1.5
VAO Valinhos 23.10 76 eP P 02 16 47.7 -1.5
CZSB Cruzeiro do Su 23.13 357 P P 02 16 50.2 +0.9
CZSB IAmb IAmb 02 16 56.1
comp=Z,307nm,0.9s
CZSB Cruzeiro do Su 23.13 357 P P 02 16 50.8 +1.5
comp=Z,6µmcomp=Z,7µmcomp=Z,403nm,0.9s
CZSB Cruzeiro do Su 23.13 357 P P 02 16 50.4 +1.2
CZSB Cruzeiro do Su 23.13 357 eP P 02 16 50.2 +0.9
ARAG Araguaiana, MT 23.44 54 P P 02 16 50.6 -1.6
ARAG Araguaiana, MT 23.44 54 eP P 02 16 50.2 -2.0
PDRB Porto dos Gac 23.52 38 P P 02 16 51.9 -1.2
PDRB Porto dos Gac 23.52 38 eP P 02 16 51.0 -2.1
USHA Ushuaia 23.97 176 LR LR 02 26 58.1
comp=Z,2µm,18.7s,baz=6.5,slow=38
PARB Paraibuna 24.09 78 P P 02 16 57.3 -1.0
PARB Paraibuna 24.09 78 P P 02 16 57.4 -1.0
comp=Z,633nm,1.3s
PARB Paraibuna 24.09 78 eP P 02 16 56.9 -1.4
ATAH Atahualpa 24.58 343 LR LR 02 25 49.0
comp=Z,990nm,19.2s,baz=182,slow=34
CLDB Colider 24.64 39 P P 02 17 02.1 -1.3
CLDB Colider 24.64 39 eP P 02 17 02.2 -1.1
IPMB Ipameri, GO 24.64 64 P P 02 17 02.2 -1.2
IPMB Ipameri, GO 24.64 64 eP P 02 17 01.2 -2.2
CANS Sao Roque de M 24.83 71 eP P 02 17 04.5 -0.7
BDFB Brasilia 26.22 60 P P 02 17 17.1 -0.7
comp=Z,534nm,0.9s,baz=231,slow=7.5,SNR=311
BDFB LR LR 02 28 44.3
comp=Z,6µm,21.8s,baz=233,slow=39
comp=Z,534nm,0.9s
BDFB Brasilia 26.22 60 P P 02 17 16.9 -0.8
SNDB Serra Nova Dou 26.46 49 P P 02 17 19.6 -0.3
SNDB Serra Nova Dou 26.46 49 eP P 02 17 19.1 -0.7
CAM01 Campos-RJ 28.04 78 P P 02 17 33.2 -0.8
CAM01 Campos-RJ 28.04 78 eP P 02 17 33.1 -0.9
DIAM Diamantina, MG 28.05 70 P P 02 17 34.4 +0.1
DIAM Diamantina, MG 28.05 70 eP P 02 17 33.5 -0.8
SJMB Sao Joao De Ma 29.87 73 P P 02 17 49.8 -0.5
SJMB Sao Joao De Ma 29.87 73 eP P 02 17 49.4 -0.9
BSFB Barra de Sao F 30.09 74 P P 02 17 51.6 -0.5
BSFB Barra de Sao F 30.09 74 eP P 02 17 51.2 -1.0
ARCA Araçuai, MG 30.21 69 eP P 02 17 52.3 -0.9
RIB01 Linhares ES 30.23 75 eP P 02 17 52.5 -0.9
ITTB Itaituba 30.25 32 P P 02 17 52.5 -1.1
ITTB Itaituba 30.25 32 eP P 02 17 52.4 -1.2
PIAT Ana Tenorio 30.49 346 P P 02 17 59.9 +3.8
comp=Z,63nm,1.0s
SDBA SAO DESIDERIO 30.60 59 P P 02 17 56.7 -0.1
SDBA SAO DESIDERIO 30.60 59 eP P 02 17 55.9 -0.9
VCES Cotopaxi 30.71 346 P P 02 18 02.4 +4.2
SLOR San Lorenzo - 30.80 346 P P 02 18 01.7 +2.8

ANTS Antisana-Sarah 30.96 347 P P 02 18 04.8 +4.3
PTLC Puerto Leguiza 31.11 353 P P 02 18 00.1 -1.1
comp=Z,2µmcomp=Z,157nm,0.9s
SMTB Santa Maria do 31.20 50 P P 02 18 01.8 -0.2
SMTB Santa Maria do 31.20 50 P P 02 18 02.3 +0.3
SMTB Santa Maria do 31.20 50 eP P 02 18 01.3 -0.7
OTAV Otavalo 31.73 346 P P 02 18 10.2 +3.1
OTAV Otavalo 31.73 346 P P 02 18 10.1 +3.0
comp=Z,887nmcomp=Z,24nm,0.9s
OTAV Otavalo 31.73 346 P P 02 18 09.7 +2.6
OTAV Otavalo 31.73 346 eP P 02 18 07.7 +0.6
OTAV Otavalo 31.73 346 P P 02 18 09.9 +2.8
OTAV PcP PcP 02 20 59.3 +1.5
OTAV ScP ScP 02 24 38.5 +1.9
GUA01 Guaratinga, BA 32.09 71 P P 02 18 09.0 -0.8
GUA01 Guaratinga, BA 32.09 71 eP P 02 18 08.1 -1.7
CMBC Cumbal 32.30 348 P P 02 18 16.3 +4.2
CMC01 Camacan, BA 32.98 69 P P 02 18 17.3 -0.3
CMC01 Camacan, BA 32.98 69 eP P 02 18 16.6 -1.0
MACC Macarena, Meta 32.99 355 P P 02 18 19.8 +2.2
comp=Z,1µmcomp=Z,73nm,0.9s
MAL2 Monte Alegre, 33.04 33 P P 02 18 17.8 -0.3
GARC Garzon, Huila 33.18 352 P P 02 18 22.5 +2.9
comp=Z,3µmcomp=Z,851nmcomp=Z,43nm,0.9s
BBAC Balboa, Cauca 33.26 349 P P 02 18 23.7 +3.5
comp=Z,1µmcomp=Z,104nm,1.0s
RPN Rapa Nui 33.31 267 LR LR 02 29 19.5
comp=Z,5µm,18.8s,baz=168,slow=31
POPC Popayan, Colom 33.68 350 P P 02 18 27.1 +3.2
comp=Z,1µmcomp=Z,48nm,1.7s
PMSA Palmer Station 34.16 174 LR LR 02 32 06.1
comp=Z,3µm,21.4s,baz=342,slow=36
ORCD Orcadas 34.62 157 P P 02 18 31.5 +0.2
PRAC Prado 34.62 354 P P 02 18 34.5 +2.7
PRAC Prado 34.62 354 P P 02 18 35.0 +3.1
comp=Z,3µmcomp=Z,207nm,1.4s
BOAV Boa Vista 34.72 19 P P 02 18 32.0 -0.7
BOAV IAmb IAmb 02 18 34.0
comp=Z,128nm,1.1s
BOAV Boa Vista 34.72 19 P P 02 18 33.0 +0.4
comp=Z,2µmcomp=Z,104nm,0.8s
BOAV Boa Vista 34.72 19 P P 02 18 33.1 +0.4
BOAV Boa Vista 34.72 19 eP P 02 18 32.4 -0.3
ORTC Ortega, Tolima 34.85 353 P P 02 18 37.1 +3.3
comp=Z,3µmcomp=Z,292nm,1.2s
PAYG Puerto Ayora 35.05 326 P P 02 18 39.3 +3.8
NBPN Ponto Novo - B 35.12 62 P P 02 18 35.8 -0.4
NBPN Ponto Novo - B 35.12 62 eP P 02 18 35.0 -1.2
ROSC El Rosal 35.69 355 P P 02 18 43.5 +2.1
comp=Z,67nm,0.8s,baz=121,slow=3.0,SNR=22
comp=Z,67nm,0.8s
ROSC El Rosal 35.69 355 P P 02 18 44.4 +3.0
ROSC pmax pmax
comp=Z,137nm,1.1s
ROSC El Rosal 35.69 355 P P 02 18 44.4 +3.0
GUY2C Guyana, Caldas 36.16 353 P P 02 18 48.7 +3.1
comp=Z,2µmcomp=Z,1µmcomp=Z,97nm,0.9s
SPBC San Pablo de B 36.48 355 P P 02 18 50.8 +3.0
comp=Z,2µmcomp=Z,1µmcomp=Z,45nm,0.8s
RUSC La Rusia 36.66 357 P P 02 18 51.6 +1.8
RUSC La Rusia 36.66 357 P P 02 18 50.8 +1.0
RUSC La Rusia 36.66 357 P P 02 18 52.5 +2.7
comp=Z,5µmcomp=Z,568nm,1.2s
CBOC Ciudad Bolivar 36.87 352 P P 02 18 54.4 +3.2
comp=Z,1µmcomp=Z,139nm,1.1s
TAMC Tame, Arauca 37.17 359 P P 02 18 54.4 +0.8
comp=Z,4µmcomp=Z,435nm,0.9s
NBMA Muriti-CE 38.45 59 P P 02 19 04.5 0.0
NBMA Muriti-CE 38.45 59 eP P 02 19 03.5 -1.1
NBPS Pedro II - PI 38.60 53 P P 02 19 05.5 -0.3
NBPS Pedro II - PI 38.60 53 eP P 02 19 04.8 -1.0
UREC San Jos de Ur 38.68 353 P P 02 19 07.8 +1.5
comp=Z,1µmcomp=Z,52nm,1.0s
APAC Apartado, Choc 38.94 352 P P 02 19 12.8 +4.3
comp=Z,2µmcomp=Z,173nm,1.1s
NBPB Pedra_Branca-C 39.09 56 P P 02 19 09.3 -0.6
SDV Santo Domingo 39.60 1 LR LR 02 38 12.4
comp=Z,699nm,19.1s,baz=178,slow=40
SDV Santo Domingo 39.60 1 P P 02 19 14.1 -0.2
SDV IAmb IAmb 02 19 19.9
comp=Z,96nm,0.9s
SDV Santo Domingo 39.60 1 P P 02 19 14.8 +0.5
comp=Z,7µmcomp=Z,742nm,0.9s
SDV Santo Domingo 39.60 1 P P 02 19 14.4 +0.2
SDV pP pP 02 19 28.4 +0.2
SDV sP sP 02 19 34.9 +0.5
GMAL Guarumal, Vera 39.63 345 P P 02 19 17.8 +3.5
comp=Z,140nm,1.0s
NBLV Livramento - P 39.83 61 P P 02 19 15.8 -0.3
MDP Montagnes des 40.06 30 LR LR 02 37 02.5
comp=Z,2µm,21.3s,baz=202,slow=38
MPGF Montagnes des 40.06 30 P P 02 19 17.3 -0.6
MPGF pP pP 02 19 31.3 -0.6
PNME Penonome 40.13 346 P P 02 19 21.2 +2.8
comp=Z,77nm,1.0s
NBMO Morrinhos-CE 40.34 53 P P 02 19 19.5 -0.7
NBMO Morrinhos-CE 40.34 53 eP P 02 19 19.1 -1.1
ARGC Ariguani, Magd 40.66 356 P P 02 19 24.9 +2.1
comp=Z,2µmcomp=Z,141nm,0.7s
BCIP Isla Barro Col 40.70 347 P P 02 19 26.1 +3.0
comp=Z,76nm,0.9s
NBPA Parau_RN 40.74 59 P P 02 19 23.7 +0.1
NBPA Parau_RN 40.74 59 eP P 02 19 22.8 -0.8
SJCC San Jacinto, C 40.77 354 P P 02 19 24.8 +1.1
SJCC San Jacinto, C 40.77 354 P P 02 19 25.7 +2.0
comp=Z,2µmcomp=Z,217nm,1.1s
NBCL Cascavel-CE 40.93 56 P P 02 19 25.3 +0.2
RCBR Riachuelo 41.59 60 LR LR 02 38 12.8
comp=Z,1µm,19.0s,baz=218,slow=38
RCBR Riachuelo 41.59 60 P P 02 19 30.7 +0.1
RCBR pmax pmax
comp=Z,112nm,1.1s
RCBR Riachuelo 41.59 60 P P 02 19 30.7 +0.1
RCBR IAmb IAmb 02 19 32.5
comp=Z,112nm,1.1s
RCBR Riachuelo 41.59 60 P P 02 19 30.3 -0.3
RCBR Riachuelo 41.59 60 eP P 02 19 26.5 -4.1
RCBR Riachuelo 41.59 60 P P 02 19 30.7 +0.1
RCBR PcP PcP 02 21 27.3 +0.3
NBPV Pedro Velho 41.66 62 P P 02 19 31.7 +0.5
NBPV Pedro Velho 41.66 62 eP P 02 19 30.1 -1.0
SMRC Santa Marta, M 41.95 356 P P 02 19 32.9 -0.5
SMRC IAmb IAmb 02 19 35.3
comp=Z,155nm,1.5s
URI Uribia 42.40 359 P P 02 19 34.8 -2.2
URIC Uribia, Colomb 42.40 359 P P 02 19 35.0 -2.0
URIC IAmb IAmb 02 19 37.7
comp=Z,97nm,1.2s
HDC Heredia 42.51 341 eP P 02 19 39.7 +1.6
JTS Las Juntas de 43.02 340 P P 02 19 44.6 +2.5
JTS pP pP 02 19 57.5 +1.3
JTS sP sP 02 20 03.7 +1.3
APQ2 Apoyeque 45.24 339 P P 02 20 05.0 +5.2
BOAB BOACO BROADBAN 46.28 340 IAmb IAmb 02 20 10.1
comp=Z,97nm,1.0s
BIM Bigot 46.27 14 x x 02 20 07.5
TGUH Tegucigalpa,Un 47.28 339 P P 02 20 17.7 +1.7
COEG Centro de Oper 47.40 337 P P 02 20 15.5 -1.3
MTO3 Montecristo 48.29 336 IAmb IAmb 02 20 27.1
comp=Z,68nm,1.2s
HUMP Col San Antoni 49.09 7 IAmb IAmb 02 21 15.4
comp=Z,54nm,1.2s
AOPR Arecibo Observ 49.20 6 P P 02 20 29.8 -0.8
AOPR IAmb IAmb 02 20 36.2
comp=Z,69nm,0.8s
GCPR Guaynabo City 49.23 7 P P 02 20 29.8 -1.0
BELA Belgrano 2 49.79 170 P P 02 20 34.5 0.0
BELA IAmb IAmb 02 20 37.0
comp=Z,77nm,1.3s
CCIG Comitan 51.03 334 IAmb IAmb 02 20 47.5
comp=Z,78nm,1.1s
VNA3 Neumayer Olymp 51.98 159⇑ P P 02 20 51.2 +0.1
comp=Z,53nm,0.7s
VNA1 Neumayer--Stat 52.27 158⇑ P P 02 20 54.3 +1.2
comp=Z,58nm,0.8s
VNA2 Neumayer--Watz 52.62 158⇑ P P 02 20 55.9 +0.2
comp=Z,48nm,0.5s,baz=284,slow=7.8
CMIG Matias Romero 52.84 331 LR LR 02 38 21.7
comp=Z,468nm,21.0s,baz=166,slow=30
TEIG Tepich 53.41 340 P P 02 21 02.9 +0.8
SNAA Sanae 54.21 159⇑ P P 02 21 07.5 0.0
comp=Z,2µm,1.0s
SNAA Sanae 54.21 159 P P 02 21 07.8 +0.3
comp=Z,76nm,0.8s,baz=275,slow=6.3,SNR=76

SNAA LR LR 02 42 31.0
comp=Z,716nm,21.9s,baz=11,slow=34
comp=Z,76nm,0.8s
SNAA Sanae 54.21 159 P **P** **02 21 07.4 0.0**
SOR Soroa 54.58 347 P **P** **02 21 10.9 +0.3**
SOR pmax pmax
comp=Z,119nm,0.9s
SOR Soroa 54.58 347 P **P** **02 21 10.9 +0.3**
TROLL Troll, Antarti 55.92 159 ⇑P **P** **02 21 20.6 +0.7**
comp=Z,2µm,0.7s
RKT Rikitea 56.55 261 *e*S **S** **02 29 13.8 +1.0**
comp=Z,3µm,35.8s
RKT *e*LQ LQ 02 35 36.1
comp=Z,5µm,29.0s
RKT *e*LR LR 02 37 58.5
comp=Z,4µm,26.5s
NVL N'lazarevskaya 58.91 157 *e*P **P** **02 21 38.9 -1.8**
NVL *e*S **S** **02 29 37.5 -4.9**
NVL pmax pmax
comp=Z,49nm,0.9s
NVL MLR MLR
comp=Z,491nm,19.0s
QSPA South Pole Qui 59.29 180 P **P** **02 21 44.3 +0.6**
comp=Z,44nm,0.8s,baz=151,slow=2.4,SNR=101
QSPA LR LR 02 47 24.0
comp=Z,450nm,20.9s,baz=163,slow=36
QSPA PKPPKP **P'P'df** **02 51 17.2 -2.1**
comp=Z,4.4nm,1.0s,baz=349,slow=3.4,SNR=6.0
comp=Z,44nm,0.8s
QSPA South Pole Qui 59.29 180 P **P** **02 21 44.1 +0.5**
QSPA South Pole Qui 59.29 180 P **P** **02 21 44.5 +0.9**
QSPA pP **pP** **02 21 59.6 +1.1**
QSPA sP **sP** **02 22 05.1 +0.4**
DWPF Disney Wildern 59.50 350 P **P** **02 21 45.9 +0.6**
ELIB Princess Elisa 62.35 159 *d*P **P** **02 22 04.2 -0.1**
comp=Z,23nm,0.9s
ELIB *d*pP **pP** **02 22 19.9 +0.6**
352A Blakely 63.40 347 P **P** **02 22 12.1 +0.6**
250A Grady 64.15 346 IAmb IAmb 02 22 18.0
comp=Z,72nm,0.9s
152A Waverly Hall 64.52 348 IAmb IAmb 02 22 20.2
comp=Z,72nm,0.9s
SACV Santiago Islan 64.72 52 P **P** **02 22 20.2 -0.3**
SACV Santiago Islan 64.72 52 P **P** **02 22 20.4 -0.2**
HKT Hockley 64.88 337 P **P** **02 22 23.1 +1.9**
HKT sP **sP** **02 22 43.7 +1.7**
GOGA Godfrey 65.02 349 IAmb IAmb 02 22 23.5
comp=Z,45nm,0.8s
Y57A Sumter 65.17 352 IAmb IAmb 02 22 24.8
comp=Z,86nm,1.0s
LRAL Lakeview Retre 65.33 346 IAmb IAmb 02 22 25.9
comp=Z,68nm,1.2s
JSC Jenkinsville 65.54 351 IAmb IAmb 02 22 27.2
comp=Z,52nm,1.0s
BIRD Birdtown, Kers 65.80 352 IAmb IAmb 02 22 28.4
comp=Z,32nm,0.7s
Y49A Blount Mountai 66.00 346 IAmb IAmb 02 22 30.1
comp=Z,71nm,1.2s
W59A Clinton 66.09 354 IAmb IAmb 02 22 31.4
comp=Z,67nm,1.2s
PAULI Pauline 66.15 351 IAmb IAmb 02 22 31.2
comp=Z,99nm,1.3s
SBA Scott Base 66.18 191 P **P** **02 22 31.1 +2.0**
SBA pmax pmax
comp=Z,96nm,1.7s
SBA Scott Base 66.18 191 P **P** **02 22 31.1 +2.0**
SBA IAmb IAmb 02 22 48.3
comp=Z,96nm,1.7s
SBA Scott Base 66.18 191 P **P** **02 22 31.3 +2.2**
SBA pP **pP** **02 22 46.0 +1.8**
SBA PcP **PcP** **02 22 59.6 +0.6**
HPIG 66.23 327 IAmb IAmb 02 22 33.7
comp=Z,107nm,1.7s
LPIG La Paz 66.24 321 LR LR 02 46 49.9
comp=Z,176nm,18.6s,baz=132,slow=32
435B Jarrell 66.25 335 IAmb IAmb 02 22 33.1
comp=Z,60nm,1.0s
KMSC Kings Mountain 66.40 351 IAmb IAmb 02 22 32.7
comp=Z,51nm,0.9s
BG3 Lake Jocassee 66.48 350 IAmb IAmb 02 22 33.5
comp=Z,62nm,0.9s
W52A Murphy 66.74 349 IAmb IAmb 02 22 35.1
comp=Z,73nm,0.9s
V58A Windy Hill, Pi 66.78 353 IAmb IAmb 02 22 35.0
comp=Z,55nm,0.8s
Z41A Richland Creek 66.99 341 IAmb IAmb 02 22 37.8
comp=Z,86nm,1.0s
V55A Taylorsville 67.08 351 IAmb IAmb 02 22 37.2
comp=Z,72nm,0.8s
V53A Saluda 67.13 350 IAmb IAmb 02 22 37.3
comp=Z,64nm,0.8s
VNDA Vanda 67.21 191 P **P** **02 22 37.1 +1.4**
comp=Z,8.9nm,0.9s,baz=133,slow=5.2,SNR=49
VNDA LR LR 02 46 06.8
comp=Z,171nm,21.8s,baz=136,slow=31
VNDA PKPPKP P'P'df 02 50 58.0 -7.9
comp=Z,1.6nm,0.9s,baz=310,slow=4.4,SNR=8.4
comp=Z,8.9nm,0.9s
VNDA Vanda 67.21 191 P **P** **02 22 37.5 +1.9**
VNDA pmax pmax
comp=Z,19nm,1.2s
VNDA Vanda 67.21 191 P **P** **02 22 37.5 +1.9**
VNDA Vanda 67.21 191 P **P** **02 22 37.7 +2.1**
VNDA pP **pP** **02 22 52.1 +1.3**
BRDY Brady 67.22 334 IAmb IAmb 02 22 39.0
comp=Z,52nm,1.1s
SAND Sanderson 67.26 331 IAmb IAmb 02 22 39.9
comp=Z,129nm,1.4s
WHTX Lake Whitney, 67.30 336 IAmb IAmb 02 22 39.4
comp=Z,84nm,1.0s
CCAR Cane Creek 67.33 342 IAmb IAmb 02 22 39.7
comp=Z,94nm,1.1s
TAOE Nuku Hiva Isla 67.33 273 *e*S **S** **02 31 26.1 -3.2**
comp=Z,421nm,27.1s
TAOE *e*LR LR 02 42 53.9
comp=Z,2µm,31.6s
TXAR Lajitas Array 67.37 330 P **P** **02 22 38.5 +1.0**
comp=Z,8.8nm,0.7s,baz=156,slow=8.5,SNR=100
TXAR LR LR 02 48 03.7
comp=Z,565nm,18.9s,baz=150,slow=32
TXAR PKP2bc **P'P'bc** **02 51 00.0 -0.6**
comp=Z,4.3nm,1.1s,baz=288,slow=1.2,SNR=16
comp=Z,8.8nm,0.7s
TX31 Lajitas Ar. Si 67.37 330 IAmb IAmb 02 22 40.6
comp=Z,103nm,2.0s
U56A King 67.47 352 IAmb IAmb 02 22 39.8
comp=Z,55nm,0.7s
TREL Terrell 67.51 338 IAmb IAmb 02 22 41.0
comp=Z,75nm,1.0s
FW13 Cleburne 67.62 336 IAmb IAmb 02 22 41.2
comp=Z,51nm,0.9s
OZNA Ozona 67.71 333 IAmb IAmb 02 22 42.3
comp=Z,112nm,1.4s
T59A Double "B" Far 67.81 355 IAmb IAmb 02 22 42.2
comp=Z,77nm,1.0s
CLTN Cedars of Leba 68.14 347 IAmb IAmb 02 22 43.8
comp=Z,63nm,0.7s
PLPT Palo Pinto 68.34 336 IAmb IAmb 02 22 45.9
comp=Z,79nm,0.9s
MIAR Mount Ida 68.42 340 IAmb IAmb 02 22 46.1
comp=Z,84nm,1.2s
U49A Red Boiling Sp 68.45 348 IAmb IAmb 02 22 45.0
comp=Z,47nm,0.8s
WVT Waverly 68.49 346 P **P** **02 22 44.2 +0.1**
WVT pmax pmax
comp=Z,190nm,0.9s
WVT Waverly 68.49 346 P **P** **02 22 44.2 +0.1**
WVT Waverly 68.49 346 P **P** **02 22 44.4 +0.3**
WVT pP **pP** **02 22 59.8 +0.7**
WVT PcP **PcP** **02 23 09.2 +0.2**
SYO Syowa Base 68.50 159 ⇑*i*P **P** **02 22 43.8 -0.1**
TBI Tubuai 68.63 255 *e*P **P** **02 22 47.0 +1.5**
comp=Z,942nm,31.8s
TBI *e*S **S** **02 31 40.4 -4.0**
comp=Z,3µm,28.8s
TBI *e*LQ LQ 02 40 39.7
comp=Z,2µm,27.0s
TBI *e*LR LR 02 43 30.8
comp=Z,10µm,29.5s
TBI *e*LR LR 02 43 31.8
comp=Z,2µm,31.0s
ABTX Abilene, Hawle 68.65 335 IAmb IAmb 02 22 48.0
comp=Z,106nm,1.2s
S57A Dark Hollow, R 68.71 354 IAmb IAmb 02 22 47.7
comp=Z,69nm,1.1s
MNHN Monahans 68.73 331 IAmb IAmb 02 22 48.6
comp=Z,95nm,1.4s

TMB01 Midkiff 68.75 332 IAmb IAmb 02 22 48.7
comp=Z,59nm,1.3s
WHAR Wooly Hollow 68.76 342 IAmb IAmb 02 22 48.1
comp=Z,71nm,1.1s
R58B Mineral 68.82 354 IAmb IAmb 02 22 48.9
comp=Z,77nm,1.0s
S54A Dingess, Beckl 69.01 352 IAmb IAmb 02 22 48.9
comp=Z,97nm,1.2s
LOOK Love County 69.03 337 IAmb IAmb 02 22 50.1
comp=Z,73nm,1.1s
T47A Sharon Grove 69.17 347 IAmb IAmb 02 22 50.1
comp=Z,142nm,1.2s
S51A Beattyville 69.18 350 IAmb IAmb 02 22 49.9
comp=Z,61nm,0.8s
WTFS Witchita Falls 69.26 336 IAmb IAmb 02 22 51.4
comp=Z,76nm,0.9s
FCAR Ozark Folk Cen 69.28 342 IAmb IAmb 02 22 50.9
comp=Z,47nm,0.7s
R55A Marlinton 69.35 353 IAmb IAmb 02 22 52.0
comp=Z,56nm,0.9s
SOK Sop, Niakhar 69.44 58 P **P** **02 22 51.0 +0.5**
SOK PcP **PcP** **02 23 13.6 +0.1**
APMT Aspermont 69.46 335 IAmb IAmb 02 22 52.9
comp=Z,94nm,1.1s
BBTS Babate 69.49 58 LR LR 02 53 10.3
comp=Z,58nm,19.3s,baz=82,slow=36
SN07 Snyder 07 69.54 334 IAmb IAmb 02 22 53.2
comp=Z,55nm,1.2s
128A Castleberry Fa 69.74 332 IAmb IAmb 02 22 54.8
comp=Z,67nm,1.4s
TPB28 69.75 330 IAmb IAmb 02 22 55.5
comp=Z,42nm,1.0s
TPB11 China Draw 69.78 331 IAmb IAmb 02 22 56.0
comp=Z,99nm,1.1s
X34A Smith Ranch, M 69.80 337 IAmb IAmb 02 22 54.9
comp=Z,115nm,1.0s
CGM3 Cape Girardeau 70.01 345 IAmb IAmb 02 22 54.8
comp=Z,41nm,0.7s
WCI Wyandotte Cave 70.21 348 P **P** **02 22 54.0 -0.7**
WCI pmax pmax
comp=Z,65nm,0.8s
WCI Wyandotte Cave 70.21 348 P **P** **02 22 54.0 -0.7**
WCI IAmb IAmb 02 22 55.9
comp=Z,65nm,0.8s
FNO Franklin 70.26 338 IAmb IAmb 02 22 57.9
comp=Z,54nm,0.9s
Q52A Bidwell 70.28 351 IAmb IAmb 02 22 56.7
comp=Z,103nm,1.1s
P57A Homestead Farm 70.34 355 IAmb IAmb 02 22 58.4
comp=Z,77nm,1.0s
OKCSW OKLAHOMA CITY 70.41 338 IAmb IAmb 02 22 58.0
comp=Z,114nm,1.0s
U38A Gravette 70.42 340 IAmb IAmb 02 22 58.0
comp=Z,58nm,1.1s
Q51A Peebles 70.50 350 IAmb IAmb 02 22 58.0
comp=Z,67nm,0.9s
DEOK Depew 70.50 339 IAmb IAmb 02 22 58.6
comp=Z,92nm,0.9s
MGMO Mountain Grove 70.51 342 IAmb IAmb 02 22 58.8
comp=Z,72nm,1.0s
HSIG 70.55 324 IAmb IAmb 02 23 16.5
comp=Z,157nm,2.0s
MCWV Mont Chateau 70.68 353 IAmb IAmb 02 22 59.6
comp=Z,47nm,0.9s
P53A Whipple 70.69 352 IAmb IAmb 02 22 59.4
comp=Z,51nm,1.1s
OK029 Liberty Lake 70.77 338 IAmb IAmb 02 23 00.2
comp=Z,104nm,0.9s
P51A Williamsport 70.90 350 IAmb IAmb 02 23 00.3
comp=Z,62nm,0.8s
P52A Corning 70.93 351 IAmb IAmb 02 23 00.5
comp=Z,89nm,1.1s
PAGS Pennsylvania G 70.98 356 IAmb IAmb 02 23 01.8
comp=Z,101nm,1.2s
MSTX Muleshoe 71.04 333 IAmb IAmb 02 23 03.0
comp=Z,101nm,1.0s
OLIL Olney 71.05 346 IAmb IAmb 02 23 01.1
comp=Z,74nm,0.9s
SMWD Samnorwood 71.10 335 IAmb IAmb 02 23 02.7
comp=Z,126nm,1.1s
CCM Cathedral Cave 71.11 344 P **P** **02 23 00.8 +0.6**
CCM pmax pmax
comp=Z,118nm,0.8s
CCM Cathedral Cave 71.11 344 P **P** **02 23 00.8 +0.6**
BLO Bloomington 71.17 348 IAmb IAmb 02 23 01.7
comp=Z,59nm,0.8s
P48A Milroy 71.25 349 IAmb IAmb 02 23 02.0
comp=Z,75nm,0.7s
PPT2 Papeete2 71.28 260 *e*P **P** **02 22 59.1 -2.8**
comp=Z,165nm,29.2s
PPT2 *e*S **S** **02 32 14.0 -1.8**
comp=Z,933nm,35.2s
PPT2 *e*LR LR 02 44 41.5
comp=Z,1µm,26.2s
PPT2 *e*LR LR 02 44 43.8
comp=Z,1µm,24.8s
PPT Papeete 71.29 260 LR LR 02 46 57.7
comp=Z,216nm,19.7s,baz=124,slow=30
BRNJ Basking Ridge 71.33 357 IAmb IAmb 02 23 04.1
comp=Z,55nm,1.0s
O52A Adamsville 71.36 352 IAmb IAmb 02 23 03.1
comp=Z,51nm,0.9s
Q44A Meyer Farm, Va 71.41 346 IAmb IAmb 02 23 03.2
comp=Z,46nm,0.9s
O53A New Philadelph 71.42 352 IAmb IAmb 02 23 03.8
comp=Z,154nm,1.8s
AMTX Amarillo 71.43 334 IAmb IAmb 02 23 05.0
comp=Z,102nm,1.1s
SSPA Standing Stone 71.47 355 P **P** **02 23 02.9 +0.6**
SSPA IAmb IAmb 02 23 04.7
comp=Z,69nm,1.3s
SSPA Standing Stone 71.47 355 P **P** **02 23 03.0 +0.6**
SSPA PcP **sP** **02 23 23.1 -0.2**
T35A Sooner Cattle 71.50 339 IAmb IAmb 02 23 05.0
comp=Z,101nm,1.0s
BLOK Blackwell 71.57 338 IAmb IAmb 02 23 05.4
comp=Z,43nm,0.9s
CROK Carrier 71.59 338 IAmb IAmb 02 23 05.3
comp=Z,80nm,0.9s
N58A Sunbury 71.59 356 IAmb IAmb 02 23 05.6
comp=Z,58nm,1.1s
319A Douglas 71.66 326 IAmb IAmb 02 23 07.4
comp=Z,54nm,1.0s
ELIS Ellis County 71.67 336 IAmb IAmb 02 23 06.5
comp=Z,63nm,0.9s
ODNJ Ogdensburg 71.73 357 IAmb IAmb 02 23 06.4
comp=Z,47nm,1.0s
P46A Rosedale 71.73 347 IAmb IAmb 02 23 05.0
comp=Z,102nm,0.9s
WSPT Westport, CT 71.77 358 IAmb IAmb 02 23 06.6
comp=Z,61nm,1.1s
O49A Covington 71.79 350 IAmb IAmb 02 23 05.7
comp=Z,111nm,1.0s
OK038 West end E0370 71.81 337 IAmb IAmb 02 23 06.9
comp=Z,93nm,0.9s
121A Cookes Peak, D 71.93 328 IAmb IAmb 02 23 09.2
comp=Z,80nm,1.0s
PAMR Moraine State 71.98 353 IAmb IAmb 02 23 07.4
comp=Z,80nm,1.2s
PH02 Texas Public H 71.98 334 IAmb IAmb 02 23 08.3
comp=Z,120nm,1.1s
NOKA Waynoka 72.02 337 IAmb IAmb 02 23 08.3
comp=Z,59nm,0.9s
M57A Sunshine Farm, 72.11 355 IAmb IAmb 02 23 08.8
comp=Z,71nm,1.3s
N51A Ashland 72.22 351 IAmb IAmb 02 23 08.3
comp=Z,74nm,1.1s
P43A Skaggs, Pawnee 72.22 345 IAmb IAmb 02 23 08.4
comp=Z,94nm,0.8s
NPNY Mohonk Preserv 72.38 358 IAmb IAmb 02 23 10.4
comp=Z,94nm,1.1s
SFIN Lafayette 72.44 347 IAmb IAmb 02 23 09.1
comp=Z,81nm,1.3s
PAOC Oil Creek Stat 72.50 353 IAmb IAmb 02 23 10.2
comp=Z,64nm,1.2s
M52A Chesterland 72.71 352 IAmb IAmb 02 23 11.4
comp=Z,77nm,1.0s
M50A Fremont 72.79 351 IAmb IAmb 02 23 11.7
comp=Z,75nm,0.9s
L59A Walton 72.85 357 IAmb IAmb 02 23 13.1
comp=Z,74nm,0.9s
L56A Greenwood 72.94 355 IAmb IAmb 02 23 13.4
comp=Z,113nm,1.1s
L61B Northampton 73.04 359 IAmb IAmb 02 23 14.0
comp=Z,56nm,0.9s
HRV Adam Dziewonsk 73.09 360 P **P** **02 23 13.1 +1.2**
HRV PcP **PcP** **02 23 30.0 +1.7**
ERPA Erie 73.13 353 IAmb IAmb 02 23 14.0
comp=Z,106nm,1.2s
TUC Tucson 73.15 326 P **P** **02 23 14.2 +1.6**
TUC pmax pmax
comp=Z,29nm,1.3s
TUC Tucson 73.15 326 P **P** **02 23 14.2 +1.6**
RTBA Rita Blanca 73.20 334 IAmb IAmb 02 23 15.9
comp=Z,83nm,1.7s
TRY Troy 73.34 358 IAmb IAmb 02 23 16.2
comp=Z,85nm,1.0s
ALQ Albuquerque 73.39 330 IAmb IAmb 02 23 17.7
comp=Z,55nm,1.4s
ANMO Albuquerque 73.39 330 LR LR 02 51 13.0
comp=Z,591nm,20.7s,baz=156,slow=32
ANMO Albuquerque 73.39 330 P **P** **02 23 15.7 +1.5**
ANMO pmax pmax
comp=Z,59nm,1.5s
ANMO Albuquerque 73.39 330 P **P** **02 23 15.7 +1.5**
TASM ASL Pad, Albuq 73.40 330 IAmb IAmb 02 23 17.7
comp=Z,49nm,1.4s
KSU1 Kansas State U 73.54 340 IAmb IAmb 02 23 16.5
comp=Z,56nm,0.9s
MMNY Mt. Morris Dam 73.56 355 IAmb IAmb 02 23 16.8
comp=Z,134nm,1.3s
R32A Long Quarter, 73.57 338 IAmb IAmb 02 23 17.5
comp=Z,66nm,0.8s
M44A Midewin, Midew 73.60 347 IAmb IAmb 02 23 16.3
comp=Z,118nm,1.0s
DBIC Dimbokro 73.66 72 P **P** **02 23 15.9 -0.1**
comp=Z,150nm,0.9s,baz=233,slow=5.9,SNR=96
DBIC LR LR 02 52 44.9
comp=Z,1µm,20.6s,baz=233,slow=33
comp=Z,150nm,0.9s
DBIC Dimbokro 73.66 72 P **P** **02 23 15.7 -0.3**
DBIC Dimbokro 73.66 72 P **P** **02 23 16.5 +0.5**
DBIC Dimbokro 73.66 72 P **P** **02 23 16.0 0.0**
CCD Concordia, Ant 73.79 184 P **P** **02 23 17.2 +0.9**
CCD PcP **PcP** **02 23 32.9 +1.2**
MEDO Medina 74.03 355 IAmb IAmb 02 23 19.3
comp=Z,57nm,1.1s
J59A Piesco 74.10 358 IAmb IAmb 02 23 20.0
comp=Z,52nm,1.1s
J57A Williamstown 74.11 356 IAmb IAmb 02 23 19.8
comp=Z,63nm,0.9s
L44A Lake County Fo 74.34 347 IAmb IAmb 02 23 20.8
comp=Z,114nm,1.0s
T25A Trinidad 74.46 333 IAmb IAmb 02 23 23.9
comp=Z,103nm,1.1s
I63A Otisfield 74.63 1 IAmb IAmb 02 23 24.1
comp=Z,78nm,1.0s
WCNY West Carthage 74.66 357 IAmb IAmb 02 23 23.2
comp=Z,47nm,0.8s
PECO Prince Edward 74.69 356 IAmb IAmb 02 23 22.7
comp=Z,46nm,0.8s
LBNH Lisbon 74.82 360 IAmb IAmb 02 23 24.8
comp=Z,54nm,0.9s
J47A Sunmer 74.84 350 IAmb IAmb 02 23 22.9
comp=Z,55nm,0.8s
K43A Burlington 74.93 347 IAmb IAmb 02 23 24.2
comp=Z,74nm,0.9s
X16A Lo Mia Camp, P 75.19 327 IAmb IAmb 02 23 28.2
comp=Z,63nm,1.2s
FLET Fletcher 75.31 359 IAmb IAmb 02 23 27.3
comp=Z,76nm,1.0s
KSCO Kaye Shedlock' 75.44 335 IAmb IAmb 02 23 29.1
comp=Z,131nm,1.2s
HAL Halifax 75.55 6 IAmb IAmb 02 23 28.8
comp=Z,61nm,0.8s
WBO Williamsburg 75.66 357 IAmb IAmb 02 23 28.9
comp=Z,102nm,0.9s
SADO Sadowa 75.68 354 LR LR 02 59 03.7
comp=Z,118nm,20.8s,baz=171,slow=37
SADO Sadowa 75.68 354 IAmb IAmb 02 23 28.6
comp=Z,66nm,0.9s
GLA Glamis 75.76 323 IAmb IAmb 02 23 31.2
comp=Z,117nm,1.9s
G62A West of Eustis 75.80 1 P **P** **02 23 28.7 +1.0**
GGN Saint George 75.81 3 IAmb IAmb 02 23 30.3
comp=Z,52nm,0.9s
SUR Sutherland 75.81 119 P **P** **02 23 29.6 +1.0**
SUR IAmb IAmb 02 23 30.4
comp=Z,41nm,0.8s
SUR Sutherland 75.81 119 P **P** **02 23 29.5 +1.0**
SUR Sutherland 75.81 119 P **P** **02 23 29.3 +0.8**
SUR PcP **PcP** **02 23 41.8 +0.9**
MAW Mawson 75.94 164 P **P** **02 23 29.1 +0.9**
comp=Z,16nm,1.1s
MAW Mawson 75.94 164 P **P** **02 23 28.8 +0.5**
comp=Z,16nm,1.1s
MAW Mawson 75.94 164 P **P** **02 23 28.6 +0.3**
comp=Z,46nm,0.9s,baz=217,slow=6.8,SNR=86
MAW LR LR 02 58 54.1
comp=Z,751nm,19.9s,baz=230,slow=37
comp=Z,46nm,0.9s
WUAZ Wupatki 76.06 327 IAmb IAmb 02 23 33.2
comp=Z,55nm,1.1s
I42A Draeger Farm, 76.18 347 IAmb IAmb 02 23 31.7
comp=Z,87nm,1.1s
MVCO Mesa Verde 76.19 330 IAmb IAmb 02 23 33.6
comp=Z,54nm,1.1s
MERW Merweville 76.20 120 *e*P **P** **02 23 31.4 +0.8**
Q24A Divide 76.33 333 IAmb IAmb 02 23 34.5
comp=Z,97nm,1.0s
GLMI Grayling 76.37 350 IAmb IAmb 02 23 32.2
comp=Z,97nm,1.0s
BUKO Buck Lake 76.37 354 IAmb IAmb 02 23 32.8
comp=Z,98nm,1.1s
FRAZ Fraserburg 76.47 119 *e*P **P** **02 23 32.4 +0.3**
F64A Sherman 76.49 2 IAmb IAmb 02 23 34.2
comp=Z,71nm,0.9s
I40A Norwalk 76.53 346 IAmb IAmb 02 23 33.5
comp=Z,77nm,1.0s
H43A Windswept, Lux 76.53 348 IAmb IAmb 02 23 33.5
comp=Z,116nm,1.2s
BC3 Big Chuckawall 76.56 323 IAmb IAmb 02 23 35.8
comp=Z,38nm,0.9s
LMN Caledonia Moun 76.66 5 P **P** **02 23 33.5 +1.0**
TRQ Mont Tremblant 76.86 358 IAmb IAmb 02 23 35.4
comp=Z,72nm,1.0s
GRAN Grantham 76.86 120 *e*P **P** **02 23 34.9 +0.6**
ACRG Accra 76.92 75 P **P** **02 23 34.5 -0.2**
OGNE Ogallala 76.95 337 IAmb IAmb 02 23 37.3
comp=Z,80nm,1.2s
PV01 Paradox Valley 77.00 331 IAmb IAmb 02 23 38.4
comp=Z,86nm,1.2s
PFO Pinyon Flats O 77.04 323 LR LR 02 51 18.8
comp=Z,1605nm,21.5s,baz=141,slow=31
PFO Pinyon Flats O 77.04 323 P **P** **02 23 37.4 +2.3**
PFO pmax pmax
comp=Z,38nm,1.1s
PFO Pinyon Flats O 77.04 323 P **P** **02 23 37.4 +2.3**
PV02 Paradox Valley 77.13 331 IAmb IAmb 02 23 38.9
comp=Z,82nm,1.0s
PV15 Paradox Valley 77.14 331 IAmb IAmb 02 23 39.2
comp=Z,74nm,1.1s
PV05 Paradox Valley 77.17 330 IAmb IAmb 02 23 38.9
comp=Z,85nm,1.0s
PV03 Paradox Valley 77.22 331 IAmb IAmb 02 23 39.2
comp=Z,65nm,1.1s
PV18 Skein Mesa, Pa 77.23 331 IAmb IAmb 02 23 39.2
comp=Z,64nm,0.9s
ISCO Idaho Springs 77.24 334 IAmb IAmb 02 23 39.5
comp=Z,40nm,1.0s
PV12 Saucer Basin, 77.25 331 IAmb IAmb 02 23 39.5
comp=Z,55nm,1.0s
PV17 East Wray Mesa 77.28 331 IAmb IAmb 02 23 39.4
comp=Z,52nm,0.9s
PV07 Paradox Valley 77.28 331 IAmb IAmb 02 23 39.8
comp=Z,39nm,1.0s
PV16 Nyswonger Mesa 77.29 331 IAmb IAmb 02 23 39.6
comp=Z,63nm,1.2s
PV20 West Nyswonger 77.34 331 IAmb IAmb 02 23 39.8
comp=Z,68nm,1.2s
PV04 Paradox Valley 77.36 331 IAmb IAmb 02 23 40.1
comp=Z,67nm,1.2s
PV14 Lion Creek, Pa 77.39 331 IAmb IAmb 02 23 40.1
comp=Z,77nm,1.1s
PV10 Paradox Valley 77.40 331 IAmb IAmb 02 23 39.7
comp=Z,79nm,0.9s
PV22 Blue Mesa, Par 77.43 331 IAmb IAmb 02 23 40.5
comp=Z,60nm,1.1s
PV23 Carpenter Ridg 77.45 331 IAmb IAmb 02 23 40.6
comp=Z,60nm,1.1s
WIN Windhoek 77.49 109 P **P** **02 23 38.5 +0.4**
WIN pmax pmax
comp=Z,71nm,1.2s
WIN Windhoek 77.49 109 P **P** **02 23 38.5 +0.4**
WIN IAmb IAmb 02 23 40.0

comp=Z,70nm,1.2s
WIN Windhoek 77.49 109 P P 02 23 38.8 +0.7
PV21 Cone Mtn., Par 77.53 331 IAmb IAmb 02 23 41.0
comp=Z,58nm,1.2s
BRAK Brakfontein 77.65 120 *eP* **P 02 23 38.4 -0.4**
G40A Rib Lake 77.76 347 IAmb IAmb 02 23 40.5
comp=Z,44nm,0.9s
KNB Kanab 77.95 327 IAmb IAmb 02 23 44.0
comp=Z,79nm,1.2s
BATG Bathurst New B 78.00 4 P **P 02 23 41.1 +1.2**
BATG IAmb IAmb 02 23 42.4
comp=Z,50nm,0.8s
ALKP Alkanpan, Nort 78.04 118 *eP* **P 02 23 40.8 -0.2**
PKCU Pink Cliffs 78.07 328 IAmb IAmb 02 24 43.6
comp=Z,74nm,1.6s
LMQ La Malbaie 78.13 1 IAmb IAmb 02 23 42.8
comp=Z,72nm,1.1s
SPMN Marine on St. 78.28 345 IAmb IAmb 02 23 42.8
comp=Z,59nm,0.8s
HAYD Hayden 78.49 333 IAmb IAmb 02 23 46.9
comp=Z,47nm,1.0s
LDAQ Lac Daran 78.54 0 IAmb IAmb 02 23 45.1
comp=Z,75nm,1.1s
O20A White River Ci 78.56 332 IAmb IAmb 02 23 46.6
comp=Z,57nm,1.1s
SRU San Rafael Swe 78.65 330 IAmb IAmb 02 23 46.8
comp=Z,54nm,0.9s
Q16A Castle Valley 78.77 329 IAmb IAmb 02 23 48.0
comp=Z,50nm,1.0s
VLDQ Val d'Or 78.88 356 IAmb IAmb 02 23 46.8
comp=Z,84nm,0.9s
P18A Preston Nutter 78.96 330 IAmb IAmb 02 23 49.1
comp=Z,65nm,0.9s
CCCA Chr Cany lake 79.00 323 IAmb IAmb 02 24 04.7
comp=Z,125nm,1.6s
P17A Butcher Ranch, 79.04 330 IAmb IAmb 02 23 49.1
comp=Z,67nm,1.1s
PRN Pahroc Range 79.32 326 IAmb IAmb 02 23 51.5
comp=Z,57nm,1.1s
RDMU Red Mountain 79.47 331 IAmb IAmb 02 23 51.2
comp=Z,57nm,0.8s
GRHM Grahamstown, E 79.48 122 P **P 02 23 49.2 +0.4**
GRHM IAmb IAmb 02 23 50.5
comp=Z,61nm,0.9s
TSUM Tsumeb 79.50 106 LR LR 02 54 24.9
comp=Z,883nm,21.2s,baz=236,slow=32
TSUM Tsumeb 79.50 106 P **P 02 23 49.3 +0.1**
TSUM IAmb IAmb 02 23 51.1
comp=Z,75nm,0.9s
TSUM Tsumeb 79.50 106 P **P 02 23 50.0 +0.8**
TSUM Tsumeb 79.50 106 P **P 02 23 49.8 +0.6**
TSUM pP **pP 02 24 03.9 -0.7**
TSUM sP **sP 02 24 09.7 -1.0**
F33A 5 Mile Ranch, 79.70 343 IAmb IAmb 02 23 50.7
comp=Z,51nm,0.9s
KOOLE Kule 79.79 111 P **P 02 23 50.9 +0.2**
DRV Dumont d'Urvil 79.80 192 P **P 02 23 50.6 +0.8**
DRV PcP **PcP 02 23 58.7 +1.4**
DRV pP **pP 02 24 05.5 +0.2**
DRV sP **sP 02 24 11.6 +0.3**
K22A Casper 80.05 334 IAmb IAmb 02 23 54.5
comp=Z,92nm,1.1s
LKGWB Lokgwabe 80.06 112 IAmb IAmb 02 23 55.9
comp=Z,89nm,1.1s
LKGWB Lokgwabe 80.06 112 P **P 02 23 54.4 +2.3**
VES Vestal, Richgr 80.13 322 IAmb IAmb 02 23 55.3
comp=Z,95nm,1.0s
DUG Dugway, Tooele 80.54 329 IAmb IAmb 02 23 57.3
comp=Z,82nm,1.6s
EYMN Ely 80.58 346 IAmb IAmb 02 23 55.6
comp=Z,67nm,0.9s
TCUT Toone Canyon 80.69 330 IAmb IAmb 02 23 57.8
comp=Z,156nm,1.8s
DRLN Deer Lake 80.79 9 IAmb IAmb 02 23 56.8
comp=Z,51nm,0.9s
TBO Thunder Bay 80.86 348 IAmb IAmb 02 23 57.1
comp=Z,74nm,0.8s
BOSA Boshof 80.98 118 P **P 02 23 57.2 +0.2**
comp=Z,54nm,0.8s,baz=248,slow=4.5,SNR=80
BOSA LR LR 02 55 16.7
comp=Z,646nm,20.8s,baz=244,slow=32
comp=Z,54nm,0.8s
BOSA Boshof 80.98 118 IAmb IAmb 02 23 58.2
comp=Z,54nm,0.8s
BOSA Boshof 80.98 118 *eP* **P 02 23 56.7 -0.3**
BOSA Boshof 80.98 118 P **P 02 23 57.4 +0.4**
BOSA Boshof 80.98 118 P **P 02 23 57.1 0.0**
BOSA Boshof 80.98 118 P **P 02 23 57.0 0.0**
BOSA pP **pP 02 24 11.6 -0.9**
BOSA sP **sP 02 24 17.8 -0.8**
HWUT Hardware Ranch 81.16 331 IAmb IAmb 02 23 59.9
comp=Z,46nm,0.8s
PDAR Pinedale Array 81.31 333 P **P 02 23 59.1 +0.8**
comp=Z,6.7nm,0.7s,baz=143,slow=6.0,SNR=54
PDAR PKKPbc **PKKPbc 02 42 32.9 -2.0**
comp=Z,1.3nm,0.7s,baz=212,slow=0.3,SNR=12
PDAR PKPPKP **P'P'df 02 50 38.4 +4.5**
comp=Z,0.8nm,1.0s,baz=0.0,slow=3.0,SNR=4.4
PDAR LR LR 02 56 53.5
comp=Z,388nm,20.5s,baz=140,slow=33
comp=Z,6.7nm,0.7s
PDAR Pinedale Array 81.31 333 P **P 02 23 58.6 +0.3**
GRTLG Ghanzi 81.41 110 IAmb IAmb 02 24 00.9
comp=Z,96nm,1.1s
GRTLG Ghanzi 81.41 110 P **P 02 23 59.6 +0.2**
Q09A Carvers 81.48 326 IAmb IAmb 02 24 02.5
comp=Z,49nm,1.0s
LHV Little Huntoon 81.68 324 IAmb IAmb 02 24 03.9
comp=Z,47nm,1.1s
NVAR Mina Array Bea 81.72 325 P **P 02 24 02.5 +1.9**
comp=Z,13nm,0.9s,baz=152,slow=5.8,SNR=61
NVAR PKKPbc **PKKPbc 02 42 33.5 -0.1**
comp=Z,1.8nm,0.7s,baz=332,slow=3.8,SNR=13
comp=Z,13nm,0.9s
NVAR Mina Array Bea 81.72 325 P **P 02 24 01.8 +1.2**
AGMN Agassiz Nation 81.88 344 IAmb IAmb 02 24 02.7
comp=Z,82nm,0.9s
AHID Auburn Hatcher 81.93 332 IAmb IAmb 02 24 03.9
comp=Z,60nm,1.4s
ELK Elko 82.07 328 LR LR 02 56 23.0
comp=Z,373nm,20.2s,baz=152,slow=32
YERR Yerington 82.61 324 IAmb IAmb 02 24 08.7
comp=Z,53nm,1.2s
TORD Torodi Ar. Bea 82.63 70 P **P 02 24 05.4 -0.2**
comp=Z,128nm,0.7s,baz=266,slow=4.3,SNR=498
TORD LR LR 02 57 38.2
comp=Z,1µm,21.8s,baz=223,slow=33
comp=Z,128nm,0.7s
TORD Torodi Ar. Bea 82.63 70 P **P 02 24 05.1 -0.4**
EPLO Experimental L 82.69 346 IAmb IAmb 02 24 06.5
comp=Z,52nm,1.0s
PNTR Pine Nut 82.87 324 IAmb IAmb 02 24 10.1
comp=Z,50nm,0.9s
LBTB Lobatse 83.06 115 LR LR 02 55 44.3
comp=Z,2µm,21.9s,baz=232,slow=32
LBTB Lobatse 83.06 115 *eP* **P 02 24 07.6 -0.4**
LBTB Lobatse 83.06 115 P **P 02 24 07.9 -0.1**
LBTB Lobatse 83.06 115 P **P 02 24 07.8 -0.1**
LBTB PcP **PcP 02 24 13.1 +0.6**
LBTB pP **pP 02 24 23.2 -0.3**
LBTB sP **sP 02 24 28.5 -1.0**
CASY Casey 83.08 181 P **P 02 24 07.9 +0.8**
CASY IAmb IAmb 02 24 09.7
comp=Z,76nm,0.9s
CASY Casey 83.08 181 P **P 02 24 08.1 +1.0**
CASY PcP **PcP 02 24 12.8 +1.1**
CASY pP **pP 02 24 23.3 +0.7**
KDWAN Kaudwane 83.16 113 P **P 02 24 08.6 +0.1**
YFT Old Faithful 83.23 333 IAmb IAmb 02 24 28.7
comp=Z,77nm,2.0s
PAHR Pah Rah Range 83.24 325 IAmb IAmb 02 24 11.8
comp=Z,68nm,1.3s
MPK Martis Peak 83.25 324 IAmb IAmb 02 24 12.2
comp=Z,62nm,1.2s
LAO LASA Array 83.44 337 IAmb IAmb 02 24 11.4
comp=Z,53nm,0.9s
YHH Holmes Hill 83.51 333 IAmb IAmb 02 24 12.8
comp=Z,60nm,1.5s
YHL Hebgen Lake 83.70 333 IAmb IAmb 02 24 14.1
comp=Z,67nm,1.8s
ULM Lac du Bonnet 83.71 344 P **P 02 24 09.9 -0.4**
comp=Z,78nm,0.8s,baz=151,slow=4.7,SNR=82
comp=Z,78nm,0.8s
CVS Carmenet Viney 83.79 322 IAmb IAmb 02 24 14.2
comp=Z,57nm,1.1s
SUTB Sutter Butte 84.09 323 IAmb IAmb 02 24 30.7
comp=Z,60nm,1.6s

ORV Oroville 84.19 323 IAmb IAmb 02 24 31.7
comp=Z,75nm,1.4s
HRAO HartRAO 84.23 117 *eP* **P 02 24 10.9 -3.1**
MFID Camas Ranch 84.47 329 IAmb IAmb 02 24 32.7
comp=Z,62nm,1.8s
EDA Edea 84.66 82 IAmb IAmb 02 24 19.8
comp=Z,60nm,1.2s
DLMT Dillon 84.68 332 IAmb IAmb 02 24 18.4
comp=Z,51nm,1.3s
O03E Paynes Creek 84.90 324 IAmb IAmb 02 24 34.9
comp=Z,105nm,1.8s
HATC Hat Creek Radi 85.11 324 IAmb IAmb 02 24 20.6
comp=Z,63nm,1.2s
BUT Butte 85.20 333 IAmb IAmb 02 24 20.9
comp=Z,60nm,1.1s
MOD Modoc Plateau 85.36 326 IAmb IAmb 02 24 21.9
comp=Z,37nm,1.1s
SCHQ Schefferville 85.51 3 P **P 02 24 18.9 -0.4**
comp=Z,29nm,1.0s,baz=156,slow=4.8,SNR=10
SCHQ LR LR 03 02 38.5
comp=Z,200nm,21.7s,baz=163,slow=36
comp=Z,29nm,1.0s
SCHQ Schefferville 85.51 3 IAmb IAmb 02 24 20.7
comp=Z,46nm,1.1s
M03C McCloud 85.79 324 IAmb IAmb 02 24 23.4
comp=Z,28nm,1.0s
EGMT Eagleton 85.82 335 IAmb IAmb 02 24 22.9
comp=Z,42nm,1.2s
SOOWA Sowa 85.84 111 P **P 02 24 23.5 +1.5**
GBMT Granite Butte, 85.86 333 IAmb IAmb 02 24 39.5
comp=Z,66nm,2.0s
PLID Pearl Lake 85.87 330 IAmb IAmb 02 24 24.1
comp=Z,39nm,0.9s
KHBM Hayfork Bally 85.89 323 IAmb IAmb 02 24 41.6
comp=Z,90nm,1.8s
URZ Urewera 86.14 227 LR LR 02 53 34.4
comp=Z,586nm,21.4s,baz=142,slow=29
KMPM Mount Pierce 86.18 322 IAmb IAmb 02 24 26.6
comp=Z,66nm,1.1s
M02C Callahan 86.25 324 IAmb IAmb 02 24 42.5
comp=Z,32nm,1.2s
BMO Blue Mountains 86.25 329 IAmb IAmb 02 24 41.1
comp=Z,59nm,1.9s
K05A Summer Lake 86.27 326 IAmb IAmb 02 24 26.9
comp=Z,55nm,1.0s
CRAIL Swartwater, Li 86.28 114 *eP* **P 02 24 22.9 -1.3**
KHMM Horse Mountain 86.31 323 IAmb IAmb 02 24 26.6
comp=Z,34nm,1.0s
RPZ Rata Peaks 86.34 220 LR LR 02 55 09.8
comp=Z,51nm,18.6s,baz=31,slow=30
KSANE Kasane 86.42 108 IAmb IAmb 02 24 26.9
comp=Z,54nm,1.1s
KSANE Kasane 86.42 108 P **P 02 24 25.6 +0.6**
POGA Pongola 86.50 120 IAmb IAmb 02 24 26.7
comp=Z,40nm,1.0s
POGA Pongola 86.50 120 P **P 02 24 26.2 +1.1**
THZ Tophouse 86.54 222 P **P 02 24 27.7 +2.6**
L04D Klamath Falls 86.58 325 IAmb IAmb 02 24 26.7
comp=Z,22nm,0.9s
I07A Izee 86.65 327 IAmb IAmb 02 24 28.3
comp=Z,40nm,1.0s
J05D Fort Rock, OR 86.86 326 IAmb IAmb 02 24 29.4
comp=Z,46nm,1.1s
KRMB Red Mountain 86.88 323 IAmb IAmb 02 24 29.7
comp=Z,30nm,1.0s
F10A Beach Ranch, E 87.10 330 IAmb IAmb 02 24 46.3
comp=Z,51nm,1.6s
L02F Cave Junction 87.14 324 IAmb IAmb 02 24 30.7
comp=Z,32nm,1.1s
G08A Pilot Rock 87.33 329 IAmb IAmb 02 24 31.3
comp=Z,44nm,1.5s
TOZ Tahuroa Road 87.48 227 P **P 02 24 31.8 +2.2**
TOZ IAmb IAmb 02 24 33.0
comp=Z,44nm,1.2s
K02D Willamette Mer 87.61 324 IAmb IAmb 02 24 33.2
comp=Z,41nm,1.1s
WIFE Three Sisters- 87.72 326 IAmb IAmb 02 24 33.5
comp=Z,43nm,0.9s
MATP Matopo 87.73 112 LR LR 03 00 07.3
comp=Z,4µm,20.2s,baz=238,slow=33
I04A Tendick Farm, 87.81 326 IAmb IAmb 02 24 33.0
comp=Z,30nm,1.0s
G06A Carlson Farm, 88.05 328 IAmb IAmb 02 24 35.1
comp=Z,43nm,1.1s
I03D Drain, OR 88.19 325 IAmb IAmb 02 24 50.2
comp=Z,32nm,1.4s
F07A Phinny Hill Vi 88.23 328 IAmb IAmb 02 24 35.8
comp=Z,27nm,1.0s
BUCK Buck Mountain 88.38 326 IAmb IAmb 02 24 36.3
comp=Z,49nm,1.0s
HAWA Hanford 88.43 329 IAmb IAmb 02 24 36.4
comp=Z,50nm,1.1s
H04D Lebanon 88.50 326 IAmb IAmb 02 24 52.9
comp=Z,54nm,1.1s
HOOD Mount Hood Mea 88.58 327 IAmb IAmb 02 24 37.4
comp=Z,51nm,1.2s
D08A Wollman Farm, 88.68 330 IAmb IAmb 02 24 37.1
comp=Z,21nm,0.9s
E07A Sunnyside 88.70 329 IAmb IAmb 02 24 37.1
comp=Z,22nm,1.0s
WAH2 Wahluke Slope 88.73 329 IAmb IAmb 02 24 37.4
comp=Z,25nm,1.0s
NEW Newport 88.86 331 LR LR 03 01 50.0
comp=Z,414nm,18.1s,baz=138,slow=34
MXC Moxie City 88.91 329 IAmb IAmb 02 24 38.8
comp=Z,28nm,1.0s
C09A Chrisman Ranch 88.98 330 IAmb IAmb 02 24 38.4
comp=Z,45nm,1.1s
EPH Ephrata 89.20 330 IAmb IAmb 02 24 56.6
comp=Z,74nm,2.0s
FFC Flin Flon 89.30 343 P **P 02 24 37.2 -0.3**
FFC pmax pmax
comp=Z,30nm,1.1s
FFC Flin Flon 89.30 343 P **P 02 24 37.2 -0.3**
FFC IAmb IAmb 02 24 39.0
comp=Z,30nm,1.1s
FFC Flin Flon 89.30 343 P **P 02 24 37.5 0.0**
FFC pP **pP 02 24 52.1 -0.9**
MD31 MD31 89.38 51 IAmb IAmb 02 25 03.8
comp=Z,76nm,1.9s
F04A Amboy 89.40 327 IAmb IAmb 02 24 40.4
comp=Z,38nm,0.8s
MDT Midelt 89.45 51 LR LR 03 04 21.8
comp=Z,439nm,20.8s,baz=234,slow=35
JRO Jston Ridge Ob 89.56 327 IAmb IAmb 02 24 41.5
comp=Z,47nm,1.1s
LTY Liberty 89.60 329 IAmb IAmb 02 24 41.3
comp=Z,28nm,1.1s
MORF Marmelete 89.69 45 *eP* **P 02 24 40.3 +0.4**
MORF IAmb IAmb 02 24 43.4
comp=Z,154nm,1.8s
MORF Marmelete 89.69 45 *eP* **P 02 24 42.5 +2.6**
LON Longmire 89.73 328 IAmb IAmb 02 24 41.6
comp=Z,19nm,0.9s
PBDV Barranco-do-Ve 90.09 46 *eP* **P 02 24 44.2 +2.5**
PCVE Castro Verde 90.27 45 *eP* **P 02 24 43.5 +1.0**
MESJ Messejana 90.30 45 *eP* **P 02 24 43.2 +0.5**
MESJ IAmb IAmb 02 24 45.0
comp=Z,16nm,1.6s
MESJ Messejana 90.30 45 *eP* **P 02 24 43.6 +1.0**
PLOUS Minas do Lousa 90.30 45 *eP* **P 02 24 43.2 +0.6**
MOE Montemor 90.66 44 *eP* **P 02 24 44.9 +0.6**
GNW Green Mountain 90.80 328 IAmb IAmb 02 24 46.7
comp=Z,17nm,1.0s
EVO Evora 90.86 45 *eP* **P 02 24 46.0 +0.8**
PARRA Arraiolos 91.03 44 *eP* **P 02 24 44.7 -1.3**
PMTG Montargil 91.08 44 *eP* **P 02 24 46.7 +0.4**
PMTG IAmb IAmb 02 24 48.0
comp=Z,42nm,1.3s
PBAR Barrancos 91.23 45 *eP* **P 02 24 47.1 +0.2**
SHUK Shuksan-Mt. Ba 91.25 329 IAmb IAmb 02 24 48.5
comp=Z,16nm,0.8s
EDM Edmonton 91.42 336 IAmb IAmb 02 24 49.0
comp=Z,30nm,0.9s
PSARD Sardoal 91.46 44 *eP* **P 02 24 48.2 +0.1**
PMRV Marv??o 91.81 44 *eP* **P 02 24 49.7 0.0**
MTE Manteigas 92.33 43 *eP* **P 02 24 52.6 +0.4**
PAB San Pablo 93.72 46 P **P 02 24 58.6 0.0**
PAB pmax pmax
comp=Z,10.0nm,1.1s
PAB San Pablo 93.72 46 P **P 02 24 58.6 0.0**
ESDC Sonseca Array 94.04 46 P **P 02 25 00.2 +0.2**
comp=Z,6.3nm,1.1s,baz=246,slow=4.6,SNR=22
ESDC LR LR 03 06 48.9
comp=Z,568nm,18.4s,baz=220,slow=35
comp=Z,6.3nm,1.1s
ESDC Sonseca Array 94.04 46 P **P 02 25 00.7 +0.7**

BBB Bella Bella 96.50 329 LR LR 03 04 15.6
comp=Z,132nm,21.1s,baz=161,slow=33
SFJD Kangerlussuaq 98.89 8 LR LR 03 10 12.2
comp=Z,127nm,21.5s,baz=185,slow=35
YKA Yellowknife Ar 99.35 341 P **Pdif 02 25 22.9 -0.5**
comp=Z,3.7nm,0.8s,baz=146,slow=4.5,SNR=18
YKA PKKPbc **PKKPbc 02 41 46.6 -2.3**
comp=Z,0.4nm,0.5s,baz=321,slow=3.6,SNR=7.0
comp=Z,3.7nm,0.8s
GRF Grafenberg Arr 108.48 43 *e*L L 03 11 09.8
comp=Z,427nm,21.7s
MOX Moxa 109.12 42 *e*L L 03 12 24.2
comp=Z,482nm,20.8s
GERES GERESS Array B 109.58 44 PKKPbc PKKPbc 02 41 17.9 +0.4
comp=Z,1.2nm,0.9s,baz=14,slow=1.7,SNR=5.7
CLL Collm 110.20 42 *e*Sdif Sdif 02 38 18.0 -3.7
CLL *e*PS PS 02 40 18.0 0.0
CLL *e*PPS PPS 02 41 18.0
CLL *e*SS SS 02 46 00.0 -11
CLL *e*SSS SSS 02 50 18.0
CLL L L 03 04 00.0
CLL AMS AMS 03 13 00.0
comp=N,200nm,21.2s
CLL AMS AMS 03 13 00.0
comp=E,500nm,20.5s
CLL AMS AMS 03 13 00.0
comp=Z,600nm,20.8s
KRUC Moravsky 111.30 45 *e*PP **PP 02 30 50.3 -6.0**
VRAC Vranov 111.51 45 *e*PP **PP 02 30 53.1 -4.7**
ILAR Eielson Array 111.73 333 PKiKP **PKiKP 02 30 15.1 -0.4**
comp=Z,0.5nm,0.8s,baz=119,slow=1.1,SNR=5.1
ILAR PKKPbc **PKKPbc 02 41 08.7 -2.1**
comp=Z,1.4nm,0.8s,baz=294,slow=3.3,SNR=9.4
BURAR Bucovina Array 116.31 49 PKPdf **PKPdf 02 30 24.8 -0.2**
MMAI Mount Meron Ar 119.05 67 PKP **PKPdf 02 30 30.5 -0.2**
comp=Z,0.8nm,0.4s,baz=32,slow=7.1,SNR=2.0
NACGM Naroch 119.20 41 *e*PKP **PKPdf 02 30 29.8 -0.3**
comp=Z,16nm,1.0s,baz=257
KIEV Kiev 119.67 46 PKiKP **PKPdf 02 30 30.7 -0.5**
KIEV Kiev 119.67 46 **PKPdf 02 30 30.7 -0.5**
AKASG Malin Array Be 119.68 46 PKP **PKPdf 02 30 29.9 -1.2**
comp=Z,3.9nm,0.7s,baz=268,slow=2.7,SNR=14
AKBB Malin Array Si 119.68 46⇑ *i*PKiKP **PKPdf 02 30 30.1 -1.1**
MNK Minsk 119.74 42 *i* PKiKP **PKPdf 02 30 30.9 -0.2**
MNK *i* 02 30 48.5
MNK *i* 02 31 54.2
MNK *i* PPP PPP 02 34 26.5
MNK *i* 02 37 37.5
MNK *i* PS **PS 02 41 43.9 -1.0**
MNK *i* SS SS 02 48 15.1 -1.0
MNK *i* SSS SSS 02 52 41.0
MNK pmax pmax
comp=Z,16nm,0.7s
MNK pmax pmax
comp=N,9.0nm,0.8s
MNK pmax pmax
comp=E,26nm,1.0s
MNK MLR MLR
comp=E,162nm,19.0s
MNK MLR MLR
comp=N,284nm,18.0s
MNK MLR MLR
comp=Z,437nm,20.0s
MNK Minsk 119.74 42 *i* PKP **PKPdf 02 30 31.0 -0.2**
comp=E,26nm,1.0s
MNK *i* PKP **PKPdf 02 30 31.0 -0.2**
comp=N,9.0nm,0.8s
MNK *i* PKP **PKPdf 02 30 31.0 -0.2**
comp=Z,16nm,0.7s,baz=258
MNK *i* pPKP **pPKPdf 02 30 48.6 +1.3**
MNK *i* PP **PP 02 31 54.3 -1.1**
MNK *i* PPP PPP 02 34 26.5
MNK *i* SKS **SKSdf 02 37 37.6 -0.8**
MNK *i* PS **PS 02 41 44.0 -1.0**
MNK *i* SS **SS 02 48 15.2 -0.9**
MNK *i* SSS SSS 02 52 41.0
MNK *i* LQ LQ 03 14 56.7
BRTR Keskin Array B 119.81 59 PKP **PKPdf 02 30 32.0 0.0**
comp=Z,3.1nm,0.8s,baz=175,slow=3.3,SNR=15
BRTR PKKPab **PKKPab 02 40 42.7 +0.5**
comp=Z,1.0nm,0.9s,baz=311,slow=2.6,SNR=3.6
BRTR Keskin Array B 119.81 59 **PKPdf 02 30 31.5 -0.5**
FINES FINESS Array B 120.14 33 PKP **PKPdf 02 30 29.7 -2.0**
comp=Z,3.7nm,1.0s,baz=197,slow=2.0,SNR=4.3
FINES PKKPbc **PKKPbc 02 40 40.5 -0.6**
comp=Z,3.9nm,0.9s,baz=116,slow=4.4,SNR=7.2
MTSU Mount Surprise 120.36 220 P **PKPdf 02 30 32.2 -1.4**
AS09 Alice Springs 120.50 207 P **PKPdf 02 30 33.2 -0.6**
AS17 Alice Springs 120.52 207 P **PKPdf 02 30 33.3 -0.5**
AS31 Alice Springs 120.55 207 P **PKPdf 02 30 33.2 -0.7**
AS31 Alice Springs 120.55 207 **PKPdf 02 30 32.9 -1.1**
ASAR Alice Springs 120.55 207 PKP **PKPdf 02 30 32.9 -1.0**
comp=Z,8.7nm,0.7s,baz=148,slow=2.1,SNR=71
ASAR PKKPbc **PKKPbc 02 40 37.7 -1.4**
comp=Z,1.7nm,0.7s,baz=334,slow=3.1,SNR=13
ASAR Alice Springs 120.55 207 PKiKP **PKPdf 02 30 33.0 -1.0**
ASAR Alice Springs 120.55 207 **PKPdf 02 30 33.0 -0.9**
AS15 Alice Springs 120.57 207 P **PKPdf 02 30 33.4 -0.6**
ARCES ARCESS Array B 121.00 24 PKP **PKPdf 02 30 33.1 -0.1**
comp=Z,3.9nm,0.9s,baz=64,slow=2.8,SNR=3.5
ARCES PKKPbc **PKKPbc 02 40 37.7 -0.4**
comp=Z,5.6nm,1.0s,baz=38,slow=4.6,SNR=6.3
WRKA Warakurna 121.24 201 P **PKPdf 02 30 34.5 -0.7**
WRA Warramunga Arr 123.70 209 PKP **PKPdf 02 30 39.3 -0.7**
comp=Z,25nm,0.7s,baz=167,slow=1.6,SNR=74
WRA PKKPbc **PKKPbc 02 40 26.2 -0.7**
comp=Z,1.7nm,0.7s,baz=340,slow=4.4,SNR=12
WRAB Tennant Creek 123.71 209 *e*PKiKP **PKPdf 02 30 38.6 -1.4**
ANN Anapa 123.80 54 *i* PKiKP **PKPdf 02 30 37.7 -1.6**
ANN pmax pmax
comp=Z,38nm,1.3s
ANN MLR MLR
comp=Z,500nm,22.0s
APA Apatity 123.81 27 *i* PKiKP **PKPdf 02 30 37.4 -1.2**
APA *e* 02 32 19.9
APA pmax pmax
comp=Z,9.0nm,1.4s
OBN Obninsk 124.80 42⇑ *e*PKiKP **PKPdf 02 30 39.8 -1.0**
OBN *e* 02 32 30.9
OBN pmax pmax
comp=Z,42nm,1.4s
OBN MLR MLR
comp=Z,513nm,18.0s
VSLR Vesyoloye 125.37 56⇓ *e*PKiKP **PKiKP 02 30 42.8 +0.1**
PMG Port Moresby 125.47 229 PKP **PKPdf 02 30 41.0 -2.4**
comp=Z,32nm,0.8s,baz=281,slow=5.2,SNR=4.1
PMG Port Moresby 125.47 229 PKP **PKiKP 02 30 44.3 +0.5**
LPSR Galich'ya Gora 125.95 45 *e*PKiKP **PKPdf 02 30 41.8 -1.3**
LPSR pmax pmax
comp=Z,20nm,1.0s
VSR Storozhevoye 125.96 47 *e*PKiKP **PKPdf 02 30 41.2 -2.0**
VSR pmax pmax
comp=Z,10.0nm,1.0s
VORD Divnogorie 126.01 47 *e*PKiKP **PKPdf 02 30 41.4 -1.9**
VORD pmax pmax
comp=Z,9.0nm,0.9s
VORR Voronezh 126.03 46 *e*PKiKP **PKPdf 02 30 41.8 -1.5**
VORR pmax pmax
comp=Z,10.0nm,1.0s
ERBR Yeremizino-Bor 126.09 54 *i* PKiKP **PKPdf 02 30 43.7 +0.1**
ERBR pmax pmax
comp=Z,20nm,1.4s
ERBR MLR MLR
comp=Z,378nm,19.0s
H11S2 WAKE ISLAND Hyl 126.34 271 T T 04 49 37.8
baz=116,slow=75,SNR=2305
H11S1 WAKE ISLAND Hyl 126.35 271 T T 04 49 46.1
baz=116,slow=75,SNR=1309
H11S3 WAKE ISLAND Hyl 126.36 271 T T 04 49 36.4
baz=116,slow=75,SNR=2094
KLMR Klimovskoe 126.58 35 *e*PKiKP **PKPdf 02 30 41.6 -2.5**
KLMR pmax pmax
comp=Z,46nm,1.4s
H11N3 WAKE ISLAND Hyl 126.68 272 T T 04 50 02.4
baz=116,slow=75,SNR=292
H11N1 WAKE ISLAND Hyl 126.69 272 T T 04 50 05.1
baz=116,slow=75,SNR=92
H11N2 WAKE ISLAND Hyl 126.69 272 T T 04 50 05.0
baz=116,slow=75,SNR=550
MBWA Marble Bar 127.12 193 P **PKPdf 02 30 46.3 -0.2**
MBWA Marble Bar 127.12 193 PKP **PKPdf 02 30 45.9 -0.6**
MBWA PKP **PKiKP 02 30 46.4 -0.5**
KBZ Khabaz 127.47 56 PKP **PKPdf 02 30 46.3 0.0**
comp=Z,4.8nm,1.0s,baz=246,slow=11,SNR=4.0
VRH Novokhopyorsk 127.56 47 *e*PKiKP **PKPdf 02 30 44.5 -1.7**

VRH pmax pmax
comp=Z,10.0nm,0.9s
NCK Nalchik 127.93 57 ||e PKIKP **PKPdf 02 30 47.5 +0.2**
GNI Garni 128.19 61 ||e PKIKP **PKPdf 02 30 47.3 -0.8**
FITZ Fitzroy Crossi 128.58 201 PKP **PKPdf 02 30 49.1 -0.2**
comp=Z,26nm,0.8s,baz=237,slow=2.3,SNR=19
KNRA Kununurra 129.77 206 P **PKiKP 02 30 52.2 -0.2**
BILL Bilibino 130.32 335 ||e PKIKP **PKPdf 02 30 48.9 -2.1**
KDU Kakadu 130.95 211 P **PKiKP 02 30 54.4 -0.4**
BELG Belogornoye 131.25 45 *i* PKIKP **PKPdf 02 30 53.2 0.0**
MTN Manton Dam 131.40 210 P **PKiKP 02 30 56.0 +0.3**
KIRV Kirov 131.76 37 ||e PKIKP **PKPdf 02 30 53.9 -0.1**
GENI Genyem 135.13 228 PKP **PKiKP 02 31 02.6 -0.7**
SOEI Soe 136.85 203 PKP **PKPdf 02 31 05.6 +0.5**
ARTI Arti 136.94 39 PKP **PKPdf 02 31 04.3 +0.5**
comp=Z,15nm,1.1s,baz=242,slow=2.9,SNR=10
SEY Seymchan 137.64 332 ||e PKIKP **PKPdf 02 31 05.3 +0.4**
TIXI Tiksi 137.79 351 PKP **PKPdf 02 31 04.5 -0.4**
comp=Z,3.0nm,0.5s,baz=35,slow=2.4,SNR=8.7
TIXI Tiksi 137.79 351 ||e PKIKP **PKPdf 02 31 04.9 0.0**
AKTO Aktyubinsk 137.89 47 PKIKP **PKPdf 02 31 05.0 -0.8**
AKTO pmax pmax
comp=Z,7.0nm,1.2s
SVE Sverdlovsk 138.02 38 e PKIKP **PKPdf 02 31 06.6 +0.8**
PETK Petropavlovsk- 138.38 317 PKP **PKPdf 02 31 06.5 -0.1**
comp=Z,13nm,1.0s,baz=98,slow=11,SNR=5.8
EDFI Ende, Flores 138.60 200 PKP **PKPdf 02 31 01.5 -6.9**
AB31 Akbulak array 139.29 49 *i* PKHKP PKPpre 02 30 58.0
AB31 pmax pmax
comp=Z,8.0nm,0.8s
LBFI Labuhan Bajo, 139.35 197 PKP **PKPdf 02 31 05.2 -4.4**
DBNI Kabupaten Domp 139.70 195 PKP **PKPdf 02 31 06.6 -3.7**
NRIK Noril'sk 139.71 11 ||e PKIKP **PKPdf 02 31 09.2 +0.7**
SRBI Singaraja 140.69 190 PKP **PKPdf 02 31 11.0 -1.0**
PWJI Pagerwojo 141.14 185 PKP **PKPdf 02 31 11.7 -1.1**
BSSI Bau Bau, Buton 141.42 199 PKP **PKiKP 02 31 16.2 0.0**
KMMI Kalianget 141.88 189 PKP **PKPdf 02 31 15.1 +0.9**
BKSI Bulukumba 142.31 199 PKP **PKPdf 02 31 15.3 +0.4**
KAPI Kappang 142.70 198 PKP **PKPdf 02 31 12.8 -2.8**
comp=Z,11nm,0.6s,baz=218,slow=8.2,SNR=9.1
KAPI Kappang 142.70 198 PKP **PKPdf 02 31 13.7 -1.9**
SPSI Sidrap Palu 143.70 199 PKP **PKPdf 02 31 16.5 -0.9**
PMSI Majene 144.38 198 PKP **PKiKP 02 31 21.6 -0.7**
TTSI Tana Toraja 144.56 200 PKP PKiKP 02 31 30.5 +7.9
BORK Borovoye 144.57 40 PKIKP PKPbc 02 31 17.0 +0.5
BORK Borovoye 144.57 40 PKPbc 02 31 17.0 +0.5
BVAR Borovoye Array 144.62 40 PKP **PKPdf 02 31 17.2 -0.5**
comp=Z,29nm,0.4s,baz=315,slow=2.1,SNR=157
PALK Pallekele 144.82 126 PKIKP PKPbc 02 31 18.8 +0.3
PALK Pallekele 144.82 126 PKPbc 02 31 18.8 +0.3
PALK Pallekele 144.82 126 PKP PKPbc 02 31 18.8 +0.3
PALK Pallekele 144.82 126 PKP PKPbc 02 31 18.6 +0.1
KSI Kapahiang 145.12 169 PKP **PKiKP 02 31 23.4 -0.4**
MMSI Mamuju 145.15 198 PKP **PKPdf 02 31 20.7 +0.7**
MASI Maura Aman, Be 145.56 169 PKP **PKPab 02 31 21.7 +0.6**
YAK Yakutsk 146.02 342 e PKP2 **PKPbc 02 31 20.7 0.0**
YAK e 02 34 44.3
YAK pmax pmax
comp=Z,288nm,1.1s
YAK pmax pmax
comp=N,15nm,1.0s
YAK pmax pmax
comp=E,23nm,1.3s
YAK pmax pmax
comp=Z,182nm,4.0s
YAK pmax pmax
comp=E,83nm,2.8s
KRJI Kerinci 146.45 167 PKP **PKPab 02 31 24.7 +0.2**
TPI Tanjungpandan 146.48 178 PKP **PKPbc 02 31 23.7 +0.1**
KBL Kabul 146.65 73 PKP2 **PKPdf 02 31 22.4 +0.3**
KBL Kabul 146.65 73 **PKPdf 02 31 22.4 +0.3**
MNI Manado 146.89 211 PKP **PKPab 02 31 26.2 0.0**
BRLS Borolday 147.02 58 e PKIKP **PKPdf 02 31 22.2 0.0**
BRLS e 02 34 49.5
BRLS Borolday 147.02 58 e PKP **PKPdf 02 31 22.3 0.0**
BRLS ePP **PP 02 34 49.6 -0.2**
IUG luzhnay 147.28 59 e PKIKP **PKPdf 02 31 22.8 0.0**
IUG e 02 34 51.5
IUG luzhnay 147.28 59 e PKP **PKPdf 02 31 22.8 0.0**
IUG ePP **PP 02 34 51.6 +0.1**
KK31 Karatay Array 147.50 57 PKIKP **PKPdf 02 31 23.6 +0.6**
KK31 Karatay Array 147.50 57 **PKPdf 02 31 23.6 +0.6**
KKAR Karatay Array 147.50 57 PKIKP **PKPdf 02 31 23.3 +0.3**
KKAR Karatay Array 147.50 57 **PKPdf 02 31 23.3 +0.3**
MPSI Mapaga 147.74 201 PKP **PKPbc 02 31 27.0 -0.1**
PPI Padang Panjang 147.81 164 PKP **PKPbc 02 31 27.2 -0.1**
TYV Tymovskoe 147.90 318 e PKP2 **PKPbc 02 31 27.3 +0.9**
TYV pmax pmax
comp=Z,36nm,1.0s
TYV pmax pmax
comp=Z,400nm,3.0s
DZA Taraz 148.12 58 e PKIKP **PKPdf 02 31 24.2 +0.1**
DZA Taraz 148.12 58 e PKP **PKPdf 02 31 24.2 +0.1**
BKNI Bangkinang 148.71 165 PKP **PKPbc 02 31 29.8 +0.1**
YSS Yuzhno-Sakhali 149.32 311 *i* PKP2 **PKiKP 02 31 30.9 -0.4**
YSS e 02 35 04.0
YSS eSS SS 02 54 15.3 +3.3
YSS pmax pmax
comp=Z,30nm,1.1s
YSS MLR MLR
comp=Z,500nm,12.0s
HYB Hyderabad 149.54 109 e PKPbc **PKPbc 02 31 31.6 -0.1**
HYB e PKPab **PKPab 02 31 36.8 0.0**
HYB e PKKPdf **PKKPdf 02 40 16.9 +0.5**
TPRI Tanjung Pinang 149.89 172 PKP **PKiKP 02 31 33.3 -0.1**
NIL Nilore 150.05 75 PKIKP **PKPdf 02 31 27.7 +0.2**
NIL Nilore 150.05 75 **PKPdf 02 31 27.7 +0.2**
KURBB Kurchatov Arra 150.21 40 PKPbc **PKPdf 02 31 29.4 +2.3**
comp=Z,6.7nm,0.8s,baz=302,slow=3.0,SNR=19
KURBB PP **PP 02 35 11.0 +3.3**
comp=Z,5.9nm,0.8s,baz=278,slow=5.9,SNR=5.5
KURBB Kurchatov Arra 150.21 40 PKIKP **PKPdf 02 31 27.4 +0.3**
KURBB pmax pmax
comp=Z,46nm,1.1s
KURK Kurchatov 150.21 40 PKIKP **PKPdf 02 31 29.4 +2.3**
BTDF Bukit Timah Da 150.22 170 PKP **PKPab 02 31 38.9 -0.6**
TPTI 150.42 156 PKP **PKPbc 02 31 33.5 -0.4**
AAK Ala-Archa 150.46 57 PKIKP **PKiKP 02 31 34.5 +0.4**
AAK Ala-Archa 150.46 57 **PKiKP 02 31 34.5 +0.4**
AAK Ala-Archa 150.46 57 PKP **PKPdf 02 31 29.6 +1.7**
MLSI Meulaboh, Aceh 151.07 154 PKP **PKPbc 02 31 35.3 -0.1**
ZAA0 Zalesovo Array 151.31 30 **PKiKP 02 31 35.0 -0.2**
ZALV Zalesovo Beam 151.31 30 PKP **PKPdf 02 31 27.7 -1.0**
comp=Z,4.7nm,0.9s,baz=279,slow=3.4,SNR=9.7
ZALV PKPbc **PKPbc 02 31 34.8 0.0**
comp=Z,61nm,0.7s,baz=305,slow=3.1,SNR=105
GRNR Gornyy 151.40 322 ⇑ *i* PKIKP **PKiKP 02 31 35.8 +0.3**
GRNR pmax pmax
comp=Z,20nm,1.1s
BSI Banda Aceh 151.75 151 PKP **PKPbc 02 31 36.0 -1.0**
KSH2 Kashi 151.83 64 PKPbc **PKPdf 02 31 31.6 +1.4**
KSH2 sPKP sPKPdf 02 31 46.8 -5.5
TNSS Tian-Shan 152.12 55 e PKIKP **PKPdf 02 31 30.5 -0.3**
TNSS Tian-Shan 152.12 55 e PKP **PKPdf 02 31 30.6 -0.3**
MDOK Medeo 152.16 55 e PKIKP **PKPdf 02 31 30.5 0.0**
MDOK Medeo 152.16 55 e PKP **PKPdf 02 31 30.6 0.0**
LHMI Lhok Sumawe 152.16 154 **PKPbc 02 31 37.7 -0.2**
LHMI Lhok Sumawe 152.16 154 PKP **PKiKP 02 31 38.2 0.0**
TDK Taldyqorghan 152.52 51 e PKIKP **PKPdf 02 31 31.1 +0.3**
TDK Taldyqorghan 152.52 51 e PKP **PKPdf 02 31 31.1 +0.3**
IPM Ipoh 152.72 163 PKP **PKPbc 02 31 38.8 -0.4**
SATY Saty 153.14 55 e PKIKP **PKPdf 02 31 31.9 0.0**
SATY Saty 153.14 55 e PKP **PKPdf 02 31 32.0 0.0**
KULM Kulim 153.40 162 PKP **PKiKP 02 31 41.3 +0.5**
ZEA Zeya 153.55 335 *i* PKP2 **PKPab 02 31 53.2 +0.9**
ZEA pmax pmax
comp=Z,20nm,1.5s
UZB Uzunbulak 153.55 54 e PKIKP **PKPdf 02 31 32.5 -0.1**
UZB Uzunbulak 153.55 54 e PKP **PKPdf 02 31 32.5 -0.1**
PDGK Podgornoye 153.82 54 PKP2 **PKPab 02 31 53.6 -0.5**
PDGK pmax pmax
comp=Z,93nm,1.3s
SHLS Shalkode 153.85 54 e PKIKP **PKPdf 02 31 33.3 +0.4**
SHLS e 02 35 31.0
SHLS Shalkode 153.85 54 e PKP **PKPdf 02 31 33.4 +0.4**
SHLS ePP **PP 02 35 31.1 +2.0**
MAKZ Makanchi 154.06 45 PKIKP **PKPbc 02 31 38.9 -2.2**
MAKZ pmax pmax
comp=Z,18nm,1.1s
MK31 Makanchi Array 154.25 45 PKIKP **PKPbc 02 31 38.8 -2.7**
MK31 pmax pmax
comp=Z,7.0nm,0.8s
MKAR Makanchi Array 154.25 45 PKPbc **PKiKP 02 31 41.8 +0.2**
comp=Z,15nm,0.9s,baz=315,slow=2.2,SNR=27
MKAR PKPab **PKPab 02 31 56.5 +0.8**
comp=Z,32nm,0.8s,baz=293,slow=4.1,SNR=26
KLR Kul'dur 154.74 323 e PKIKP **PKPdf 02 31 32.9 -0.9**
MJAR Matsushiro Arr 154.84 291 PKP **PKPdf 02 31 33.5 -0.9**
comp=Z,2.9nm,0.6s,baz=49,slow=1.7,SNR=6.0
MJAR PKPab **pPKPbc 02 32 00.0 +0.9**
comp=Z,9.1nm,0.8s,baz=109,slow=2.2,SNR=12
ZSN Zaisan 155.42 41 e PKIKP **PKPdf 02 31 35.1 +0.3**
ZSN Zaisan 155.42 41 e PKP **PKPdf 02 31 35.2 +0.3**
HEH HeiHe 156.13 329 PKP **PKPab 02 32 03.5 0.0**
USRK Ussuriysk Ar. 157.34 312 PKPab **PKPab 02 32 08.8 -0.1**
comp=Z,3.6nm,0.9s,baz=78,slow=3.9,SNR=4.6
KNGR Kungurtug, Tuv 158.67 20 ||e PKIKP **PKPdf 02 31 38.7 -0.3**
TLY Talaya 158.95 9 PKPab **PKPab 02 32 14.9 -0.7**
comp=Z,7.7nm,0.4s,baz=349,slow=6.8,SNR=4.0
WMQ Urumqi 159.04 46 PKP **PKPdf 02 31 38.9 -0.7**
WMQ PKPab **PKPab 02 32 18.0 +1.6**
WMQ PP **PP 02 35 57.8 +0.3**
WMQ PPMZ
comp=Z,77nm,3.8s
WMQ L L
comp=Z,290nm,23.9s
BNX BinXian 159.22 321 ||P **PKPab 02 32 18.4 +1.4**
BNX pmax pmax
comp=Z,22nm,1.0s
HILR Hailar Array B 159.60 339 PKPab **PKPab 02 32 17.9 -0.7**
comp=Z,1.9nm,0.4s,baz=72,slow=4.8,SNR=5.1
ZAK Zakamensk 160.17 10 e PKP2 **PKPab 02 32 21.7 +0.7**
ZAK pmax pmax
comp=Z,7.0nm,1.2s
EVN Everest 160.76 93 **PKPdf 02 31 42.5 -0.3**
KSRS Korea Array 162.79 297 PKP **PKPdf 02 31 43.6 -0.1**
comp=Z,2.7nm,0.8s,baz=114,slow=3.1,SNR=6.7
KSRS PKPab **PKPab 02 32 32.0 -0.9**
comp=Z,3.6nm,0.8s,baz=84,slow=4.6,SNR=6.4
SONM Songino Array 163.04 5 PKP **PKPdf 02 31 43.5 -0.3**
comp=Z,1.3nm,0.8s,baz=48,slow=2.1,SNR=5.6
SONM PKPab **PKPab 02 32 33.4 -0.3**
comp=Z,3.4nm,0.8s,baz=320,slow=2.5,SNR=8.9
SONM PP **PP 02 36 18.7 +0.7**
comp=Z,4.3nm,1.1s,baz=2.3,slow=1.9,SNR=6.6
CMAR Chiang Mai Arr 164.78 142 PKP **PKPdf 02 31 46.2 +0.1**
comp=Z,5.6nm,0.8s,baz=256,slow=2.3,SNR=28
CMAR PKPab **PKPab 02 32 41.4 -0.5**
comp=Z,5.5nm,0.8s,baz=233,slow=5.8,SNR=11
CHTO Chiang Mai 165.07 142 PKP **PKPdf 02 31 47.1 +0.7**
DL2 Dalian 166.72 310 PKP **PKPdf 02 31 42.1 -5.0**
GOMU GeErMu 167.34 62 PKP **PKPdf 02 31 48.3 +0.1**
GOMU SS SS 02 57 23.9 -1.2
GOMU PPMZ
comp=Z,530nm,7.0s
GOMU L L
comp=Z,220nm,13.2s
GOMU L L
comp=Z,180nm,13.7s
GOMU L L
comp=Z,260nm,14.0s
QIZ Qiongzhong 168.09 186 PKP **PKPdf 02 31 47.3 -1.4**
QIZ PP **PP 02 36 45.1 +1.1**
QIZ SS SS 02 57 33.8 +4.8
QIZ L L
comp=Z,130nm,18.2s
QIZ L L
comp=Z,160nm,18.0s
QIZ L L
comp=Z,330nm,21.8s
GTA2 Gaotai 168.81 38 PKP **PKPdf 02 31 49.8 +1.1**
GTA2 PKPab **PKPab 02 33 00.4 +0.9**
GTA2 PP **PP 02 36 47.8 -0.8**
GTA2 L L
comp=Z,260nm,19.7s
GTA2 L L
comp=Z,240nm,21.3s
GTA2 L L
comp=Z,560nm,23.2s
BJI2 Beijing 169.06 328 PKP **PKPdf 02 31 48.6 -0.1**
BJI2 pPKP **pPKPdf 02 32 02.8 -2.1**
BJI2 PP **PP 02 36 52.0 +2.5**
BJI2 PPMZ
comp=Z,160nm,5.9s
BJI2 L L
comp=Z,190nm,21.3s
BJI2 L L
comp=Z,210nm,18.6s
BJI2 L L
comp=Z,360nm,24.1s
TNCH TengChong 169.29 121 PKP **PKPdf 02 31 49.0 -0.6**
TNCH PKPab **PKPab 02 33 02.0 -0.2**
TNCH PP **PP 02 36 52.8 +1.0**
TNCH PPMZ
comp=Z,310nm,3.6s
HHC Hu-ho-hao-te 169.83 347 e PKP **PKPdf 02 31 50.6 +1.3**
BTO2 Baotou 170.17 354 e PKPab **PKPab 02 33 12.0 +6.7**
BTO2 PP **PP 02 36 48.3 -6.4**
TIA Tai'an 171.19 309 PKP **PKPdf 02 31 50.8 +0.8**
NJ2 Nanjing 171.21 280 e PKP **PKPdf 02 31 50.4 +0.2**
HNS HongShan 171.83 324 ||PKP **PKPdf 02 31 51.5 +1.2**
HNS PKPab **PKPab 02 33 14.3 +1.6**
HNS PP **PP 02 37 04.3 +0.8**
HNS PPMZ
comp=Z,350nm,8.9s
HNS L L
comp=Z,260nm,20.7s
HNS L L
comp=Z,350nm,20.7s
KMI2 Kunming 172.23 137 PKP **PKPdf 02 31 50.5 -0.7**
KMI2 PP **PP 02 37 04.5 -1.5**
KMI2 PPMZ
comp=Z,190nm,6.1s
KMI2 L L
comp=Z,200nm,21.7s
KMI2 L L
comp=Z,220nm,20.1s
KMI2 L L
comp=Z,420nm,26.2s
WHN Wuhan 175.07 267 PKP **PKPdf 02 31 53.0 +1.3**
LYN LuoYang 175.17 319 PKP **PKPdf 02 31 51.3 -0.3**
LYN PP **PP 02 37 18.4 -1.5**
LYN PPMZ
comp=Z,420nm,8.6s
CD2 Chengdu 175.80 89 PKP **PKPdf 02 31 52.3 +0.3**
CD2 PKPab **PKPab 02 33 29.0 -1.9**
CD2 PP **PP 02 37 24.5 +0.3**
CD2 PPMZ
comp=Z,600nm,9.1s
CD2 L L
comp=Z,300nm,21.6s
CD2 L L
comp=Z,350nm,19.7s
CD2 L L
comp=Z,470nm,17.8s
XAN Xi'an 176.90 356 P **PKPab 02 33 35.8 +0.6**
XAN pP sPKPab 02 34 03.3 +6.6
XAN pmax pmax
comp=Z,19nm,0.9s
XAN Xi'an 176.90 356 PKP **PKPdf 02 31 53.3 +1.2**
XAN pPKP pPKPdf 02 32 04.8 -3.6
XAN PP **PP 02 37 29.1 +1.7**
XAN SS SS 02 58 56.5 +1.5
XAN L L
comp=Z,360nm,22.7s
XAN L L
comp=Z,290nm,24.8s
XAN L L
comp=Z,460nm,24.5s
ENH Enshi 179.01 228 **PKPdf 02 31 52.8 +0.3**

*IDC **21** 02:14:37.9±0.9, 0.°77S×127.°62E, h0km, mb4.1/8, mbtmp4.2/10, ML3.9/2, MS4.6/1, Error ellipse: s-maj=22.1km s-min=15.2km az=89.0*
*DJA **21** 02:14:41.0±0.1, 1.°5±1.°×12.°8E±.°, h10km, M4.5/29, mB4.9/7, mb4.9/13, MLv4.5/29, Mw(mB)4.2/7*
*NEIC **21** 02:14:43.2±0.9, 0.°72S±0.°07×127.°76E±0.°09, h37km±5km, mb4.2/8, Error ellipse: s-maj=13.9km s-min=9.1km az=61.0*
ISC 21 02:14:42.6±0.6, **0.°77S**±0.°05×**127.°61E**±0.°06, **h31**km, **n37,**
σ**1s64/44, mb4.3**/10, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.55**	**351**			**Pn**	**02 15 07.8**	**-0.3**
TNTI				Sn		**Sn**	**02 15 26.5**	**-0.7**
TNTI	**Ternate**	**1.55**	**351**	P		**Pn**	**02 15 08.2**	**+0.1**
TNTI				S		**Sb**	**02 15 29.2**	**-0.8**
SANI	**Sanana**	**2.06**	**232**	P		**Pn**	**02 15 14.8**	**-0.4**
SANI				S		**Sn**	**02 15 40.5**	**+0.7**
MNI	**Manado**	**3.54**	**308**	P		**Pn**	**02 15 35.7**	**+0.2**
MNI				S		**Sn**	**02 16 18.2**	**+1.9**
MNI				AML		AML		
KMSI	**Cibinong**	**3.87**	**290**	P		**Pn**	**02 15 39.1**	**-0.9**
KMSI				S		**Sn**	**02 16 24.9**	**+0.4**
GTOI	**Gorontalo**	**4.81**	**287**	P		**Pn**	**02 15 56.0**	**+3.0**
GTOI				S		**Sn**	**02 16 52.9**	**+5.2**
GTOI				AML		AML		
LUWI	**Luwuk**	**4.85**	**267**			**Pn**	**02 15 56.0**	**+2.5**
LUWI	**Luwuk**	**4.85**	**267**	P		**Pn**	**02 15 54.1**	**+0.6**
LUWI				AML		AML		
FAKI	**Fak Fak**	**5.10**	**115**			**Pn**	**02 15 55.6**	**-1.4**
FAKI	**Fak Fak**	**5.10**	**115**	P		**Pn**	**02 15 57.4**	**+0.4**
	0.2nm548nm63nm,0.9s							
FAKI				S		**Sn**	**02 16 58.9**	**+4.0**
	0.2nm548nm63nm,0.9s							
FAKI				AML		AML		
APSI	**Ampana**	**5.96**	**269**	P		**Pn**	**02 16 10.1**	**+1.2**
	0.5nm991nm57nm,0.5s							
APSI				AML		AML		
MWPI	**Manokwari, Pap**	**6.43**	**91**	P		**Pn**	**02 16 17.8**	**+2.6**
	0.4nm69nm,0.6s							
MWPI				AML		AML		
TOLI2	**Tolitoli**	**7.08**	**285**	Pn		**Pn**	**02 16 26.1**	**+1.9**
KAPI	**Kappang**	**8.91**	**242**	Pn		**Pn**	**02 16 51.4**	**+2.1**
	3.4nm,0.3s,baz=49,slow=7.8,SNR=10							
KAPI				Sn		**Sn**	**02 18 25.9**	**-2.8**
	0.5nm,0.3s,baz=59,slow=17,SNR=1.1							
KAPI				LR		LR	02 20 26.5	
	comp=Z,40nm,19.1s,baz=90,slow=39							
	13nm,0.5s							
KAPI				AML		AML		
KAPI	**Kappang**	**8.91**	**242**			**Pn**	**02 16 51.1**	**+1.8**
MTN	**Manton Dam**	**12.49**	**164**	Pn		**Pn**	**02 17 37.4**	**-1.0**
FITZ	**Fitzroy Crossi**	**17.33**	**186**	P		**Pn**	**02 18 41.2**	**-1.1**
	0.1nm,0.3s,baz=30,slow=7.9,SNR=7.3							
	2.1nm,0.7s							
FITZ				AML		AML		
FITZ	**Fitzroy Crossi**	**17.33**	**186**	P		**Pn**	**02 18 41.6**	**-0.7**
WRA	**Warramunga Arr**	**20.16**	**161**	P		**P**	**02 19 13.5**	**-1.1**
	2.7nm,0.7s,baz=340,slow=11,SNR=14							
	2.7nm,0.7s							
WRA	**Warramunga Arr**	**20.16**	**161**	P		**P**	**02 19 12.4**	**-2.3**
WR8	**Warramunga Arr**	**20.23**	**161**	P		**P**	**02 19 14.7**	**-0.6**
WR8				IAmb		IAmb	02 19 16.0	
	comp=Z,4.5nm,0.9s							
AS31	**Alice Springs**	**23.57**	**165**			**P**	**02 19 50.8**	**+0.2**
AS31				IAmb		IAmb	02 19 51.8	
	comp=Z,2.5nm,0.7s							
ASAR	**Alice Springs**	**23.57**	**165**	P		**P**	**02 19 50.2**	**-0.5**
	comp=Z,7.5nm,0.8s,baz=346,slow=10,SNR=62							
	comp=Z,7.5nm,0.8s							
ASAR	**Alice Springs**	**23.57**	**165**			**P**	**02 19 49.8**	**-0.9**
BBOO	**Buckleboo**	**32.85**	**167**	P		**P**	**02 21 12.8**	**-0.9**
BBOO				IAmb		IAmb	02 21 15.1	
	comp=Z,8.0nm,0.8s							
STKA	**Stephens Creek**	**33.64**	**158**	P		**P**	**02 21 20.5**	**-0.1**
	comp=Z,2.9nm,0.7s,baz=356,slow=7.0,SNR=4.8							
	comp=Z,2.9nm,0.7s							
STKA	**Stephens Creek**	**33.64**	**158**	P		**P**	**02 21 20.5**	**-0.1**
MJAR	**Matsushiro Arr**	**38.41**	**14**	P		**P**	**02 22 00.8**	**-0.6**
	comp=Z,1.6nm,0.6s,baz=186,slow=10,SNR=4.6							
	comp=Z,1.6nm,0.6s							
SONM	**Songino Array**	**51.82**	**342**	P		**P**	**02 23 48.6**	**+0.8**
	comp=Z,1.3nm,0.9s,baz=149,slow=6.2,SNR=4.5							
	comp=Z,1.3nm,0.9s							
MKAR	**Makanchi Array**	**61.75**	**326**	P		**P**	**02 24 58.1**	**-0.2**
	comp=Z,2.1nm,0.6s,baz=117,slow=8.1,SNR=13							
	comp=Z,2.1nm,0.6s							
MKAR	**Makanchi Array**	**61.75**	**326**	P		**P**	**02 24 57.8**	**-0.5**
MAKZ	**Makanchi**	**61.93**	**326**	P		**P**	**02 24 59.3**	**-0.2**
KURBB	**Kurchatov Arra**	**65.99**	**328**	P		**P**	**02 25 25.3**	**-0.7**
	comp=Z,2.5nm,0.8s,baz=128,slow=6.1,SNR=10							
	comp=Z,2.5nm,0.8s							
KURK	**Kurchatov**	**66.00**	**328**			**P**	**02 25 25.0**	**-1.1**
KURK				IAmb		IAmb	02 25 30.4	
	comp=Z,5.2nm,0.9s							
BVAR	**Borovoye Array**	**71.56**	**328**	P		**P**	**02 26 01.3**	**+0.6**
	comp=Z,2.4nm,0.9s,baz=118,slow=5.9,SNR=4.5							
	comp=Z,2.4nm,0.9s							
ABKAR	**Akbulak array**	**76.18**	**321**	P		**P**	**02 26 26.8**	**-1.0**
MLR	**Muntele Rosu**	**98.73**	**316**	LR		LR	03 18 40.7	
	comp=Z,280nm,21.9s,baz=184,slow=39							

*NEIC **21** 02:16:08.2±1.4, 36.°53N±0.°05×70.°7E±0.°1, h201km±8km, mb4.1/12, Error ellipse: s-maj=14.5km s-min=6.6km az=80.0*
*GFZ **21** 02:16:08.3±0.4, 37.°N±3.°×7.°1E±.°, h187km±5km, M5.0/8, mb4.3/8, Error ellipse: s-maj=13.1km s-min=6.6km az=90.5, confirmed*
*IDC **21** 02:16:10.2±2.4, 36.°56N×70.°82E, h220km±22km, mb3.4/13, mbtmp4.1/19, Error ellipse: s-maj=16.5km s-min=11.8km az=45.0*
*NNC **21** 02:16:10.1±2.4, 36.°80N×70.°44E, h190km±28km, mb3.5, mpv4.6, Error ellipse: s-maj=22.9km s-min=16.3km az=50.0*
ISC 21 02:16:07.2±0.6, **36.°45N**±0.°05×**70.°70E**±0.°06, **h204**km, **n84,**
σ**2s20/97, mb3.9**/19, **2C-5D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.34**	**216**			**Pn**	**02 16 49.5**	**-0.3**
KBL	**Kabul**	**2.34**	**216**	P		**Pn**	**02 16 49.6**	**-0.3**
DRK	**Karamyk**	**3.14**	**16**	Pn		**Pn**	**02 16 59.1**	**+0.2**
DRK	**Karamyk**	**3.14**	**16**	P		**Pn**	**02 16 59.3**	**+0.3**
NIL	**Nilore**	**3.49**	**142**			**Pn**	**02 17 05.3**	**+2.5**
NIL	**Nilore**	**3.49**	**142**	P		**Pn**	**02 17 05.4**	**+2.5**
BTK	**Batken**	**3.60**	**1**			**Pn**	**02 17 04.5**	**+0.4**
BTK	**Batken**	**3.60**	**1**	P		**Pn**	**02 17 04.6**	**+0.5**
SRNI	**Srinagar**	**4.12**	**124**	*i* P		Pn	02 17 05.0	-5.9
OHH	**Osh**	**4.38**	**21**	P		**Pn**	**02 17 12.3**	**-1.5**
KSH2	**Kashi**	**4.70**	**54**	Pn		**Pn**	**02 17 20.3**	**+2.4**
KSH2				Sn		**S**	**02 18 14.3**	**+1.1**
KSH2				smax		smax		
	comp=N,220nm,0.6s							
KSH2				smax		smax		
	comp=E,240nm,0.5s							
JMU	**Jammu**	**5.00**	**136**	IAML			02 18 00.5	
	comp=N,49nm,0.3s							
JMU				*i* S		**S**	**02 18 16.7**	**-3.4**
ARK	**Arkit**	**5.42**	**10**	P		**Pn**	**02 17 26.6**	**-0.5**
	comp=Z,258nm,1.1s							
ALCI	**Alchi Leh**	**5.75**	**111**	*i* P		**Pn**	**02 17 30.4**	**-1.2**
ALCI				*i* S		**S**	**02 18 33.4**	**-4.6**
TSSA	**Tissa**	**5.76**	**127**	*i* P		**Pn**	**02 17 30.6**	**-1.0**
TSSA				*i* S		**S**	**02 18 33.5**	**-4.5**
TSSA				IAML			02 18 39.7	
	comp=N,554nm,0.6s							
DHRM	**DHARAMSHALA**	**6.25**	**131**	*i* P		**Pn**	**02 17 36.8**	**-1.1**
DHRM				*i* S		**S**	**02 18 44.1**	**-5.4**
DHRM				IAML			02 18 54.6	
	comp=N,339nm,0.3s							
ASAI	**AK-SAY(Kyrgyzs**	**6.37**	**44**	P		**Pn**	**02 17 40.0**	**+0.6**
	comp=Z,13nm,0.7s							
NRN	**Naryn**	**6.46**	**38**			**Pn**	**02 17 39.3**	**-1.3**
KK31	**Karatay Array**	**6.64**	**359**	||P		**Pn**	**02 17 41.5**	**-1.1**
	comp=Z,32nm,0.3s,baz=192,slow=14,SNR=365							
KK31				||S		**S**	**02 18 53.3**	**-5.0**
	comp=Z,9.9nm,0.3s,baz=187,slow=15,SNR=8.4							
KK31	**Karatay Array**	**6.64**	**359**			**Pn**	**02 17 41.6**	**-1.1**
KKAR	**Karatay Array**	**6.64**	**359**			**Pn**	**02 17 41.5**	**-1.1**
AAK	**Ala-Archa**	**6.83**	**24**	P		**Pn**	**02 17 45.5**	**+0.2**
	comp=Z,47nm,0.3s,baz=171,slow=5.9,SNR=143							
AAK				S		**S**	**02 19 00.2**	**-2.9**
	comp=Z,13nm,0.5s,baz=337,slow=17,SNR=4.3							
AAK	**Ala-Archa**	**6.83**	**24**	||P		**Pn**	**02 17 44.9**	**-0.4**
	comp=Z,9.7nm,0.4s							
AAK				⇑S		**S**	**02 19 01.0**	**-2.1**
	comp=Z,6.9nm,0.6s							
AAK	**Ala-Archa**	**6.83**	**24**	P		**Pn**	**02 17 45.6**	**+0.3**
	comp=Z,66nm,0.8s							
BHK	**Bhakra**	**6.91**	**135**	*i* P		**Pn**	**02 17 47.6**	**+1.4**
FRU1	**Bishkek**	**7.03**	**24**			**Pn**	**02 17 48.5**	**+0.7**
SMLA	**Simla**	**7.56**	**133**	*i* P		**Pn**	**02 17 55.0**	**+0.3**
SMLA				*i* S		**S**	**02 19 14.4**	**-5.8**
TARG	**Taragay, Kyrgy**	**7.63**	**44**			**Pn**	**02 17 55.9**	**0.0**
TARG	**Taragay, Kyrgy**	**7.63**	**44**	P		**Pn**	**02 17 56.4**	**+0.5**

comp=Z,19nm,0.9s
HNLY HANLEY 7.74 116 *i* P Pn 02 17 58.5 +0.9
KLP Kalpa 7.96 126 *i* P Pn 02 18 00.1 -0.1
KLP *i* S S 02 19 25.1 -5.1
WUS Wushi 8.16 52 Pn 02 18 01.3 -1.2
WUS Wushi 8.16 52 P Pn 02 18 03.2 +0.7
comp=Z,14nm,1.1s
PRZ Przheval'sk 8.46 42 Pn 02 18 07.1 +0.6
PRZ Przheval'sk 8.46 42 P Pn 02 18 07.6 +1.1
comp=Z,65nm,0.9s
UTK UTTARKASHI 8.62 129 *i* P Pn 02 18 08.4 -0.2
UTK *i* S S 02 19 39.1 -6.5
PDGK Podgornoye 9.62 42 Pn 02 18 21.6 +0.1
MKAR Makanchi Array 13.47 36 P Pn 02 19 11.2 +0.9
comp=Z,2.5nm,0.4s,baz=212,slow=12,SNR=41
MKAR S S 02 21 33.1 -6.7
comp=Z,1.6nm,0.9s,baz=214,slow=25,SNR=2.0
MKAR Makanchi Array 13.47 36 Pn 02 19 10.7 +0.4
WMQ Urumqi 14.92 55 *eP* P 02 19 31.0 +2.2
AB31 Akbulak array 15.01 332 P Pn 02 19 27.1 -2.0
comp=Z,2.6nm,0.5s,baz=144,slow=11,SNR=74
AB31 ⇓S S 02 22 10.1 -5.3
comp=Z,2.8nm,0.7s,baz=151,slow=23,SNR=3.9
AB31 Akbulak array 15.01 332 Pn 02 19 27.5 -1.6
ABKAR Akbulak array 15.01 332 P Pn 02 19 27.3 -1.8
KURBB Kurchatov Arra 15.24 19 P Pn 02 19 31.1 -0.8
comp=Z,2.0nm,0.6s,baz=209,slow=11,SNR=19
KURK Kurchatov 15.35 19 Pn 02 19 32.8 -0.4
EVN Everest 16.04 117 P Pn 02 19 44.2 +1.8
EVN Everest 16.04 117 P Pn 02 19 44.5 +2.1
comp=Z,25nm,0.6s
BVAR Borovoye Array 16.57 359 P Pn 02 19 47.5 -0.4
comp=Z,3.3nm,0.4s,baz=168,slow=10,SNR=16
BORK Borovoye 16.59 359 P P 02 19 47.4 +0.3
BORK IAmb IAmb 02 19 51.1
comp=Z,3.6nm,0.5s
AKTO Aktyubinsk 16.70 331 P Pn 02 19 49.2 -0.3
comp=Z,15nm,0.8s,baz=143,slow=10,SNR=41
AKTO S S 02 22 47.7 -4.5
comp=Z,0.6nm,0.3s,baz=152,slow=23,SNR=1.6
AKTO Aktyubinsk 16.70 331 ⇓P P 02 19 48.1 -0.2
comp=Z,9.3nm,0.8s
AKTO ⇑S S 02 22 49.3 -3.0
comp=Z,3.8nm,1.0s
ZAA0 Zalesovo Array 20.06 25 P P 02 20 25.6 +1.0
ZAA0 IAmb IAmb 02 20 32.5
comp=Z,4.3nm,0.6s
ZALV Zalesovo Beam 20.06 25 P P 02 20 25.6 +1.0
comp=Z,4.2nm,0.3s,baz=209,slow=10,SNR=15
ZALV S S 02 23 56.8 -1.6
comp=Z,1.0nm,0.6s,baz=206,slow=19,SNR=3.1
ZALV Zalesovo Beam 20.06 25 P P 02 20 25.9 +1.4
SHL Shillong 21.11 115 P P 02 20 36.5 +0.3
ARTI Arti 21.61 341 P P 02 20 42.6 +1.7
comp=Z,1.1nm,0.4s,baz=167,slow=9.9,SNR=4.2
comp=Z,1.1nm,0.4s
ARTI Arti 21.61 341 IAmb IAmb 02 21 15.0
comp=Z,9.6nm,1.3s
KBZ Khabaz 22.41 297 P P 02 20 51.8 +3.1
comp=Z,4.4nm,1.0s,baz=32,slow=3.7,SNR=3.9
comp=Z,4.4nm,1.0s
GTA2 Gaotai 23.06 74 *eP* P 02 20 59.4 +4.6
GTA2 pmax pmax
comp=Z,5.0nm,0.9s
SONM Songino Array 28.56 55 P P 02 21 45.5 +1.5
comp=Z,0.5nm,0.6s,baz=272,slow=12,SNR=1.5
comp=Z,0.5nm,0.6s
CMAR Chiang Mai Arr 30.64 118 P P 02 22 05.2 +2.7
comp=Z,1.1nm,0.3s,baz=292,slow=7.4,SNR=5.9
comp=Z,1.1nm,0.3s
HHC Hu-ho-hao-te 32.00 69 *eP* P 02 22 16.0 +1.6
HHC pmax pmax
comp=Z,6.0nm,0.7s
FIA1 FINESS Array S 37.39 326 P P 02 23 00.5 +0.5
FINES FINESS Array B 37.39 326 P P 02 23 01.1 +1.2
comp=Z,1.3nm,0.4s,baz=122,slow=9.6,SNR=17
comp=Z,1.3nm,0.4s
FINES FINESS Array B 37.39 326 P P 02 23 00.9 +0.9
ARCES ARCESS Array B 41.09 338 P P 02 23 30.9 +0.4
comp=Z,2.3nm,0.8s,baz=90,slow=4.9,SNR=7.6
comp=Z,2.3nm,0.8s
HFS Hagfors 42.95 322 P P 02 23 46.7 +1.1
comp=Z,1.5nm,0.5s,baz=108,slow=9.8,SNR=7.7
comp=Z,1.5nm,0.5s
NB2 NORSAR Subarra 44.27 323 P P 02 23 56.7 +0.5
comp=Z,0.7nm,0.5s,baz=97,slow=7.9
NOA NORSAR Array B 44.27 323 P P 02 23 56.5 +0.2
comp=Z,1.0nm,0.6s,baz=97,slow=7.8,SNR=4.0
comp=Z,1.0nm,0.6s
NC204 NORSAR Array S 44.51 323 P P 02 23 56.4 -1.8
HSPB Hornsund (broa 47.12 345 P P 02 24 18.1 -0.1
comp=Z,119µm,0.8s
TOLK Toolik Lake Re 71.03 15 P P 02 27 03.1 +0.7
TOLK IAmb IAmb 02 27 40.7
comp=Z,6.5nm,1.5s
F21K Alatna River 71.35 17 P P 02 27 05.3 +1.0
F21K IAmb IAmb 02 27 29.8
comp=Z,3.4nm,1.2s
C36M Paulatuk 73.95 5 P P 02 27 20.1 +0.6
C36M IAmb IAmb 02 27 22.0
comp=Z,3.1nm,1.1s
ILAR Eielson Array 74.89 16 P P 02 27 26.1 +1.1
comp=Z,0.5nm,0.5s,baz=301,slow=5.0,SNR=12
comp=Z,0.5nm,0.5s
ILAR Eielson Array 74.89 16 P P 02 27 25.8 +0.8
FITZ Fitzroy Crossi 75.06 126 P P 02 27 27.0 +0.4
comp=Z,1.5nm,0.7s,baz=345,slow=5.1,SNR=1.3
comp=Z,1.5nm,0.7s
FITZ Fitzroy Crossi 75.06 126 P P 02 27 26.9 +0.3
YKA Yellowknife Ar 81.30 2 P P 02 28 01.5 +1.3
comp=Z,0.3nm,0.5s,baz=353,slow=5.3,SNR=11
comp=Z,0.3nm,0.5s
YKA Yellowknife Ar 81.30 2 P P 02 28 01.6 +1.4
WRA Warramunga Arr 82.17 122 P P 02 28 05.8 +0.4
comp=Z,1.8nm,0.7s,baz=323,slow=4.9,SNR=18
comp=Z,1.8nm,0.7s
WRA Warramunga Arr 82.17 122 P P 02 28 06.0 +0.5
ASAR Alice Springs 84.42 125 P P 02 28 17.5 +0.6
comp=Z,1.4nm,0.5s,baz=309,slow=4.7,SNR=16
comp=Z,1.4nm,0.5s
ASAR Alice Springs 84.42 125 P P 02 28 17.7 +0.8

*BJI **21** 02:25:25.2, 0.°99S× 128.°23E, h10km, mb4.8/12*
*IDC **21** 02:25:27.5± 0.7, 0.°66S× 127.°63E, h0km, mb4.4/13, mbtmp4.4/15, ML4.3/2, MS4.0/7, Error ellipse: s-maj=21.4km s-min=13.6km az=79.0*
*DJA **21** 02:25:30.4± 0.1, 1.°S± 1.°× 12.°8E± .°, h10km, M4.8/31, mb5.3/13, mb5.1/17, MLv4.8/31, Mw(mB)4.8/13*
*NEIC **21** 02:25:31.2± 1.9, 0.°73S± 0.°05× 127.°66E± 0.°08, h20km± 3km, mb4.7/16, Error ellipse: s-maj=12.1km s-min=6.9km az=69.0*
*GFZ **21** 02:25:31.3± 1.4, 1.°S± 3.°× 12.°8E± .°, h19km± 10km, M4.8/25, mb5.0/25, Error ellipse: s-maj=7.6km s-min=4.7km az=17.5, confirmed*

ISC 21 02:25:33.5±0.4, 0.°74S±0.°04×127.°65E±0.°05, h41km, n100, σ1§16/100, mb4.6/31, MS4.3/5, 1D, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		ISC	h m s ISC
TNTI	Ternate	1.53	349		Pn	02 25 57.4	-1.0
TNTI				Sn	Sn	02 26 16.4	-0.7
TNTI	Ternate	1.53	349	P	Pn	02 25 58.0	-0.4
TNTI				S	Sn	02 26 18.9	+1.9
SANI	Sanana	2.11	232	P	Pn	02 26 04.0	-2.3
SANI				S	Sn	02 26 33.6	+2.4
AAI	Ambon	2.98	169	P	Pn	02 26 20.0	+1.8
MNI	Manado	3.55	308	P	Pn	02 26 25.6	-0.5
MNI				AML	AML		
KMSI	Cibinong	3.89	290	P	Pn	02 26 30.5	-0.3
KMSI				S	Sn	02 27 16.5	+1.2
KMSI	Cibinong	3.89	290	P	Pn	02 26 28.7	-2.1
BNDI	Bandanaira	4.38	149	P	Pn	02 26 37.7	+0.2
BNDI				S	Sn	02 27 28.6	+1.3
BNDI				AML	AML		
BNDI	Bandanaira	4.38	149	P	Pn	02 26 39.0	+1.5
GTOI	Gorontalo	4.83	286	P	Pn	02 26 46.2	+2.4
	1.4nm2µm243nm,0.7s						
GTOI				AML	AML		
LUWI	Luwuk	4.88	266		Pn	02 26 43.5	-0.9
LUWI	Luwuk	4.88	266	P	Pn	02 26 43.7	-0.8
LUWI				AML	AML		
LUWI	Luwuk	4.88	266	P	Pn	02 26 44.1	-0.4
FAKI	Fak Fak	5.08	115		Pn	02 26 45.9	-1.2
FAKI	Fak Fak	5.08	115	P	Pn	02 26 46.7	-0.5
	0.6nm1µm185nm,0.9s						
FAKI				S	Sn	02 27 46.6	+1.9
	0.6nm1µm185nm,0.9s						
FAKI				AML	AML		
FAKI	Fak Fak	5.08	115	P	Pn	02 26 46.7	-0.5
	comp=Z,186nm,0.9s						
KDI	Kendari	5.95	237	P	Pn	02 26 58.3	-0.8
KDI				AML	AML		
APSI	Ampana	6.00	268	P	Pn	02 26 59.4	-0.4
	comp=Z,3µmcomp=Z,168nm,0.6s						
APSI	Ampana	6.00	268	P	Pn	02 26 58.7	-1.1
	comp=Z,164nm,0.6s						
MWPI	Manokwari, Pap	6.39	92	P	Pn	02 27 04.5	-0.7
	comp=Z,0.5nmcomp=Z,104nm,0.6s						
MWPI				AML	AML		
MWPI	Manokwari, Pap	6.39	92	P	Pn	02 27 04.8	-0.4
	comp=Z,1µm,0.6s						
BBSI	Bau Bau	6.92	227	P	Pn	02 27 11.9	-0.6
	comp=Z,0.3nmcomp=Z,69nm,1.0s						
BBSI				AML	AML		
TOLI2	Tolitoli	7.11	285		Pn	02 27 14.8	-0.2
TOLI2	Tolitoli	7.11	285	P	Pn	02 27 14.7	-0.4
	comp=Z,23nm,0.7s						
PCI	Palu	7.81	269	P	Pn	02 27 23.0	-1.7
	comp=Z,0.5nmcomp=Z,88nm,0.6s						
PCI				AML	AML		
MPSI	Mapaga	7.82	278	P	Pn	02 27 25.1	+0.2
	comp=Z,23nm,0.8s						
TTSI	Tana Toraja	8.15	254	P	Pn	02 27 29.2	-0.1
	comp=Z,68nm,0.7s						
TTSI	Tana Toraja	8.15	254	P	Pn	02 27 28.2	-1.1
	comp=Z,30nm,0.6s						
SPSI	Sidrap Palu	8.50	248	P	Pn	02 27 34.4	+0.3
	comp=Z,250nm,0.5s						
BKSI	Bulukumba	8.78	239	P	Pn	02 27 38.7	+0.7
	comp=Z,48nm,0.7s						
BSSI	Bau Bau, Buton	8.93	233	P	Pn	02 27 41.1	+1.0
	comp=Z,39nm,0.8s						
MMSI	Mamuju	8.95	257	P	Pn	02 27 40.2	0.0
	comp=Z,586nm,0.8s						
KAPI	Kappang	8.95	242	Pn	Pn	02 27 41.1	+0.8
	comp=Z,7.2nm,0.3s,baz=72,slow=6.0,SNR=26						
KAPI				Sn	Sn	02 29 16.7	-3.2
	comp=Z,0.8nm,0.3s,baz=100,slow=19,SNR=1.0						
KAPI				LR	LR	02 32 02.4	
	comp=Z,100nm,21.7s,baz=68,slow=44						
	comp=Z,33nm,0.5s						
KAPI				AML	AML		
KAPI	Kappang	8.95	242		Pn	02 27 39.6	-0.7
KAPI	Kappang	8.95	242	P	Pn	02 27 40.7	+0.3
	comp=Z,51nm,0.6s						
PMSI	Majene	9.15	252	P	Pn	02 27 43.4	+0.4
	comp=Z,108nm,0.9s						
EDFI	Ende, Flores	9.92	217	P	Pn	02 27 55.1	+1.4
	comp=Z,18nm,0.9s						
MTN	Manton Dam	12.51	164		Pn	02 28 26.3	-2.8
GENI	Genyem	12.65	99	P	Pn	02 28 31.1	+0.1
	comp=Z,44nm,0.9s						
KNRA	Kununurra	14.88	176		Pn	02 28 59.3	-1.9
GMJI	Gumukmas	16.00	242	P	Pn	02 29 16.6	+0.8
	comp=Z,69nm,1.0s						
FITZ	Fitzroy Crossi	17.36	186	P	P	02 29 33.7	-0.1
	comp=Z,0.4nm,0.3s,baz=14,slow=9.3,SNR=13						
FITZ				LR	LR	02 36 03.1	
	comp=Z,70nm,18.4s,baz=32,slow=36						
	comp=Z,5.0nm,0.8s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	17.36	186	P	P	02 29 33.6	-0.2
PWJI	Pagerwojo	17.36	245	P	P	02 29 35.1	+1.2
	comp=Z,16nm,0.7s						
KPJI	Karang Pucung	19.77	250	P	Pn	02 30 02.6	+0.5
	comp=Z,48nm,0.9s						
WB0	Warramunga Arr	20.03	161		P	02 30 01.4	-1.7
WB0				IAmb	IAmb	02 30 41.0	
	comp=Z,28nm,0.8s						
WRA	Warramunga Arr	20.18	161	P	P	02 30 03.5	-1.2
	comp=Z,6.6nm,0.7s,baz=340,slow=11,SNR=40						
WRA				S	S	02 33 46.6	-2.5
	comp=Z,1.8nm,0.8s,baz=346,slow=22,SNR=5.0						
	comp=Z,6.6nm,0.7s						
WRA	Warramunga Arr	20.18	161	P	P	02 30 02.9	-1.8
WR8	Warramunga Arr	20.24	161		P	02 30 04.1	-1.3
WR8				IAmb	IAmb	02 30 40.6	
	comp=Z,26nm,0.7s						
BBJI	Bungbulang	21.02	251	P	P	02 30 14.2	+0.2
BBJI				IAmb	IAmb	02 30 20.5	
	comp=Z,31nm,1.2s						
BBJI	Bungbulang	21.02	251	P	P	02 30 14.4	+0.5
	comp=Z,23nm,0.9s						
QIS	Mount Isa	22.90	150	P	P	02 30 34.8	+0.9
ASAR	Alice Springs	23.58	166	P	P	02 30 40.9	+0.2
	comp=Z,23nm,0.8s,baz=343,slow=11,SNR=107						
ASAR				S	S	02 34 52.1	-0.1
	comp=Z,4.8nm,1.1s,baz=346,slow=19,SNR=14						
	comp=Z,23nm,0.8s						
ASAR	Alice Springs	23.58	166	P	P	02 30 39.9	-0.7
JMJ	Miyako jima 2	25.51	355	P	P	02 30 57.5	-0.6
	comp=Z,1µm,1.0s						
SDSI	Sungai Dareh	26.22	269	P	P	02 31 05.4	+0.6
	comp=Z,109nm,1.3s						
QIZ	Qiongzhong	26.30	319	P	P	02 31 05.3	-0.2
	comp=Z,10nm,1.3s						
MNSI	Mandailing Nat	28.11	273	P	P	02 31 23.1	+1.4
	comp=Z,87nm,0.8s						
RPSI	Rantau Prapat	28.92	277	P	P	02 31 28.3	-0.7
RPSI	Rantau Prapat	28.92	277	P	P	02 31 29.1	+0.1
	comp=Z,159nm,1.0s						
FORT	Forrest	29.88	179	P	P	02 31 36.2	-1.0
FORT				IAmb	IAmb	02 32 09.1	
	comp=Z,15nm,1.2s						
KCSI	Kotacane, Aceh	30.16	278	PKP	P	02 31 34.4	-5.6
BBOO	Buckleboo	32.87	167	P	P	02 32 04.4	+0.8
BBOO				IAmb	IAmb	02 32 05.1	
	comp=Z,14nm,0.6s						
BBOO	Buckleboo	32.87	167	P	P	02 32 04.3	+0.8
	comp=Z,29nm,0.9s						
STKA	Stephens Creek	33.66	158	P	P	02 32 11.8	+1.3
	comp=Z,3.7nm,0.8s,baz=333,slow=9.7,SNR=6.9						
	comp=Z,3.7nm,0.6s						
STKA	Stephens Creek	33.66	158		P	02 32 11.8	+1.3
NJ2	Nanjing	33.66	346	*eP*	P	02 32 12.3	+1.8
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CMAR	Chiang Mai Arr	34.06	306	P	P	02 32 14.6	+0.3
	comp=Z,1.1nm,0.3s,baz=121,slow=8.5,SNR=5.1						
	comp=Z,1.1nm,0.3s						
CMSA	Cobar Meteorol	35.06	153	P	P	02 32 23.6	+0.9
	comp=Z,6.3nm,1.1s						
JHJ2	Mitsune	35.58	18	P	P	02 32 26.4	-0.6
	comp=Z,689nm,1.6s						
NPW	Naypyitaw	37.02	305	P	P	02 32 39.1	-0.4
ARMA	Armidale	37.28	145	P	P	02 32 43.3	+1.5
	comp=Z,31nm,2.9s						
XAN	Xi'an	38.81	335	P	P	02 32 56.6	+2.0
XAN				pmax	pmax		
	comp=Z,14nm,0.7s						
HHC	Hu-ho-hao-te	43.91	342	*eP*	P	02 33 37.6	+1.2
HHC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BNX	BinXian	46.28	360	⇓P	P	02 33 55.6	+0.6
BNX				pmax	pmax		
	comp=Z,7.0nm,1.2s						
EVN	Everest	48.45	309	P	P	02 34 13.7	+0.7
EVN	Everest	48.45	309	P	P	02 34 13.3	+0.4
	comp=Z,37nm,0.8s						
SONM	Songino Array	51.80	342	P	P	02 34 38.2	+0.8
	comp=Z,1.4nm,0.9s,baz=155,slow=8.2,SNR=1.6						
	comp=Z,1.4nm,0.9s						
WMQ	Urumqi	56.91	326	*eP*	P	02 35 19.6	+5.0
WMQ				pmax	pmax		
	comp=Z,18nm,0.9s						
MKAR	Makanchi Array	61.74	326	P	P	02 35 47.8	-0.1
	comp=Z,3.1nm,0.6s,baz=117,slow=7.7,SNR=5.8						
	comp=Z,3.1nm,0.6s						
ZALV	Zalesovo Beam	64.97	334	P	P	02 36 07.4	-1.6
	comp=Z,4.6nm,0.9s,baz=152,slow=6.5,SNR=2.7						
	comp=Z,4.6nm,0.9s						
KURBB	Kurchatov Arra	65.99	328	P	P	02 36 15.1	-0.6
	comp=Z,3.9nm,0.7s,baz=126,slow=5.9,SNR=8.4						
	comp=Z,3.9nm,0.7s						
KURK	Kurchatov	65.99	328	P	P	02 36 15.1	-0.6
KURK	Kurchatov	65.99	328	IAmb	IAmb	02 36 20.8	
	comp=Z,7.5nm,0.7s						
BVAR	Borovoye Array	71.55	328	P	P	02 36 49.7	-0.6
	comp=Z,4.4nm,0.8s,baz=116,slow=6.9,SNR=6.3						
	comp=Z,4.4nm,0.8s						
TIXI	Tiksi	72.28	0	P	P	02 36 52.5	-1.7
	comp=Z,5.7nm,0.2s,baz=249,slow=3.0,SNR=3.8						
	comp=Z,5.7nm,0.2s						
NRIK	Noril'sk	74.96	346	P	P	02 37 09.2	-0.9
	comp=Z,2.6nm,0.7s,baz=139,slow=9.3,SNR=2.6						
	comp=Z,2.6nm,0.7s						
NRIK	Noril'sk	74.96	346	IAmb	IAmb	02 37 15.8	
	comp=Z,6.5nm,1.1s						
AB31	Akbulak array	76.18	321		P	02 37 16.4	-1.0
AB31				IAmb	IAmb	02 37 21.9	
	comp=Z,5.4nm,1.1s						
ABKAR	Akbulak array	76.18	321	P	P	02 37 16.8	-0.7
VNDA	Vanda	78.90	173	P	P	02 37 32.7	+0.6
	comp=Z,0.8nm,0.6s,baz=330,slow=5.1,SNR=7.7						
	comp=Z,0.8nm,0.6s						
VNDA	Vanda	78.90	173	P	P	02 37 33.4	+1.3
VOI	Vohitsoka	81.23	248	P	P	02 37 46.4	+0.4
KDAK	Kodiak Island	85.17	32	LR	LR	03 12 38.3	
	comp=Z,122nm,19.7s,baz=87,slow=33						
QSPA	South Pole Qui	89.19	180	P	P	02 38 25.2	+0.4
	comp=Z,1.1nm,0.6s,baz=305,slow=3.0,SNR=7.5						
	comp=Z,1.1nm,0.6s						
QSPA	South Pole Qui	89.19	180	P	P	02 38 25.4	+0.6
QSPA				IAmb	IAmb	02 39 01.3	
	comp=Z,6.7nm,1.4s						
ASF	Jabal al Asfar	91.03	302	LR	LR	03 23 52.8	
	comp=Z,228nm,21.1s,baz=232,slow=38						
OBN	Obninsk	91.22	325	LR	LR	03 23 22.8	
	comp=Z,428nm,21.2s,baz=228,slow=38						
MMAI	Mount Meron Ar	92.29	303	LR	LR	03 24 24.5	
	comp=Z,98nm,20.9s,baz=248,slow=38						
INK	Inuvik	93.96	22	LR	LR	03 28 27.3	
	comp=Z,56nm,18.1s,baz=79,slow=40						

*IDC **21** 02:27:24.7± 0.9, 28.°78S× 112.°33W, h0km, mb4.0/7, mbtmp4.0/8, ML4.2/1, MS4.3/10, Error ellipse: s-maj=24.4km s-min=23.1km az=33.0*
*NEIC **21** 02:27:25.6± 1.6, 28.°9S± 0.°1× 111.°9W± 0.°2, h10km± 2km, mb4.8/37, Error ellipse: s-maj=27.2km s-min=18.1km az=312.0*
*GFZ **21** 02:27:31.4± 0.4, 28.°S± 5.°× 11.°2W± .°, h10km, M4.5/19, mb4.5/19, Error ellipse: s-maj=13.4km s-min=11.0km az=95.6, confirmed*

ISC 21 02:27:30.3±0.5, 28.°02S±0.°10×111.°85W±0.°10, h10km, n106, σ1§51/76, mb4.6/46, MS4.2/12, 3D, Easter Island region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		ISC	h m s ISC
VA02	Isla de Pascua	2.31	69		Pn	02 28 09.4	+1.0
VA02	Isla de Pascua	2.31	69	P	Pn	02 28 09.7	+1.3
RPN	Rapa Nui	2.40	69	Pn	Pn	02 28 11.4	+1.7
	31nm,0.3s,baz=247,slow=8.9,SNR=17						
	259nm,0.6s						
RPN				AML	AML		
RPN	Rapa Nui	2.40	69	P	Pn	02 28 10.6	+0.9
H03N2	Juan Fernandez	28.73	109	T	T	03 03 49.5	
	baz=346,slow=74,SNR=110						
H03N1	Juan Fernandez	28.75	109	T	T	03 03 49.5	
	baz=275,slow=74,SNR=144						
ML02	Panimavida	34.99	113	P	P	02 34 14.3	-8.6
BI02	San Fabin de	35.14	115	P	P	02 34 23.1	-1.1
	comp=Z,8.6nm,1.0s						
GO06	Curarrehue	35.21	120	P	P	02 34 24.7	-0.2
	comp=Z,5.4nm,1.4s						
BO01	Tunca	35.27	111	P	P	02 34 24.1	-1.1
	comp=Z,8.1nm,1.4s						
CO04	Los Pelederos	35.47	107	P	P	02 34 26.4	-0.9
	comp=Z,14nm,1.6s						
BO02	Sierra Bellavi	35.51	111	P	P	02 34 25.9	-1.5
CO02	Combarbal	35.52	105	P	P	02 34 26.4	-1.2
	comp=Z,15nm,1.9s						
PLCA	Paso Flores	36.05	122	P	P	02 34 27.0	-5.0
	comp=Z,1.0nm,0.8s,baz=302,slow=12,SNR=4.2						
	comp=Z,1.0nm,0.8s						
NNA	Nana	36.39	71	LR	LR	02 45 41.9	
	comp=Z,357nm,21.1s,baz=235,slow=30						
AC05	El Transito	36.44	101	P	P	02 34 34.8	-0.8
GO08	Villa O'Higgin	36.47	135	P	P	02 34 35.0	-0.4
	comp=Z,12nm,1.9s						
GO03	Copiapo	36.68	99	P	P	02 34 32.0	-5.5
GO03				IAmb	IAmb	02 35 51.2	
	comp=Z,42nm,1.7s						
PB14	IPOC Station P	37.18	95	P	P	02 34 40.6	-1.5
	comp=Z,14nm,0.7s						
ZON	Zonda	37.46	106		P	02 34 37.7	-6.4
ZON				IAmb	IAmb	02 34 58.7	
	comp=Z,20nm,1.4s						
ZON	Zonda	37.46	106	P	P	02 34 43.8	-0.3
	comp=E,8.8nm,1.8s						
ATAH	Atahualpa	37.85	63	LR	LR	02 46 41.6	
	comp=E,418nm,19.0s,baz=259,slow=30						
PB08	IPOC Station P	39.60	88	P	P	02 35 04.3	+1.7
	comp=Z,9.0nm,1.1s						
GO01	Chusmiza	39.73	87	P	P	02 35 04.5	+0.8
	comp=Z,6.5nm,1.2s						
PB16	IPOC Station P	39.93	85	P	P	02 35 06.7	+1.1
	comp=Z,6.5nm,2.2s						
PB18	Visviri	40.24	84	P	P	02 35 09.2	+1.2
	comp=Z,12nm,0.5s						
SALTA		40.86	95	P	P	02 35 14.0	+0.9
	comp=Z,4.2nm,2.3s						
SLOR	San Lorenzo -	41.90	55	P	P	02 35 20.8	-0.9
LPAZ	La Paz	41.94	83	P	P	02 35 21.9	-0.3
	comp=Z,14nm,1.2s,baz=252,slow=5.8,SNR=9.1						
LPAZ				LR	LR	02 50 13.7	
	comp=Z,206nm,18.5s,baz=280,slow=32						
	comp=Z,14nm,1.2s						
LPAZ	La Paz	41.94	83		P	02 35 17.3	-4.9
LPAZ	La Paz	41.94	83	P	P	02 35 23.2	+1.0
	comp=Z,12nm,1.2s						
CZSB	Cruzeiro do Su	42.10	69	P	P	02 35 19.1	-3.7
CZSB				IAmb	IAmb	02 35 27.8	
	comp=Z,37nm,1.1s						
OTAV	Otavalo	42.59	54	P	P	02 35 29.1	+1.8
	comp=Z,5.6nm,1.2s						
JTS	Las Juntas de	46.13	38	LR	LR	02 52 06.4	
	comp=Z,157nm,18.1s,baz=143,slow=32						
PMSA	Palmer Station	47.41	154	LR	LR	02 50 13.3	
	comp=Z,141nm,21.1s,baz=319,slow=29						
TGUH	Tegucigalpa,Un	48.13	33	P	P	02 36 11.4	+0.7
	comp=Z,9.2nm,1.1s						
CPSB	Cacapava Do Su	50.55	108	P	P	02 36 28.4	-0.7
	comp=Z,10nm,1.7s						
PCMB	Pacaembu	54.89	98	P	P	02 37 00.8	-0.6
	comp=Z,24nm,2.0s						
CLDB	Colider	55.07	84	P	P	02 37 01.9	-0.9
	comp=Z,13nm,2.1s						
TXAR	Lajitas Array	57.56	8	P	P	02 37 23.5	+3.2
	comp=Z,1.3nm,1.1s,baz=147,slow=7.0,SNR=5.6						
	comp=Z,1.3nm,1.1s						
TXAR	Lajitas Array	57.56	8	P	P	02 37 19.6	-0.6
SAND	Sanderson	58.39	10		P	02 37 28.5	+2.5
SAND				IAmb	IAmb	02 37 33.6	
	comp=Z,8.2nm,1.0s						
HNDO	Hondo	58.47	13		P	02 37 28.4	+1.9
319A	Douglas	59.12	3	P	P	02 37 30.7	-0.4
JCT	Junction City	59.30	12	P	P	02 37 37.8	+5.5
JCT				IAmb	IAmb	02 37 44.4	
	comp=Z,14nm,0.9s						
OZNA	Ozona	59.50	11		P	02 37 39.0	+5.3
MNTX	Cornudas Mount	59.70	6	P	P	02 37 35.7	+0.7
	comp=Z,3.4nm,1.2s						
TPB28		59.77	7	P

QSPA	**South Pole Qui**	**62.16**	**180**	P	P	02 37 41.1	-10	
QSPA				IAmb	IAmb	02 38 19.8		
	comp=Z,10nm,1.5s							
QSPA	**South Pole Qui**	**62.16**	**180**	P	**P**	**02 37 52.7**	**+1.2**	
ANMO	**Albuquerque**	**62.83**	**5**	P	**P**	**02 37 58.3**	**+1.9**	
	comp=Z,2.3nm,1.2s							
GSC	**Goldstone, Bar**	**63.15**	**355**	P	**P**	**02 37 58.8**	**+0.4**	
MPMC	**Manual Prospec**	**63.96**	**355**	P	**P**	**02 38 04.2**	**+0.4**	
MPMC				IAmb	IAmb	02 38 17.9		
	comp=Z,10nm,1.3s							
GWY	**Greenwater Val**	**64.02**	**356**	P	**P**	**02 38 05.1**	**+0.9**	
GWY				IAmb	IAmb	02 38 24.1		
	comp=Z,11nm,1.3s							
SHPR	**Sheep Range**	**64.26**	**357**	P	**P**	**02 38 05.7**	**-0.1**	
SHPR				IAmb	IAmb	02 38 13.4		
	comp=Z,7.3nm,1.2s							
MIAR	**Mount Ida**	**64.58**	**17**	P	**P**	**02 38 08.4**	**+0.7**	
BSFB	**Barra de Sao F**	**65.01**	**99**	P	**P**	**02 38 10.2**	**-0.8**	
	comp=Z,23nm,2.8s							
MZP	**Montezuma Peak**	**65.58**	**355**	P	**P**	**02 38 13.6**	**-0.8**	
MZP				IAmb	IAmb	02 38 28.6		
	comp=Z,6.3nm,1.2s							
MDP	**Montagnes des**	**65.82**	**70**	LR	LR	03 03 35.6		
	comp=Z,138nm,19.0s,baz=259,slow=33							
NVAR	**Mina Array Bea**	**66.38**	**354**	P	**P**	**02 38 21.6**	**+2.1**	
	comp=Z,2.8nm,1.1s,baz=174,slow=7.7,SNR=10							
	comp=Z,2.8nm,1.1s							
KVN	**Kaiserville**	**66.98**	**355**	P	**P**	**02 38 24.2**	**+0.9**	
KVN				IAmb	IAmb	02 38 43.4		
	comp=Z,13nm,1.3s							
SWET	**Sewanee**	**67.49**	**23**	P	**P**	**02 38 27.4**	**+0.9**	
RDMU	**Red Mountain**	**68.27**	**2**	IAmb	IAmb	02 38 38.5		
	comp=Z,8.8nm,1.0s							
BMN	**Battle Mountai**	**68.28**	**356**	IAmb	IAmb	02 38 50.7		
	comp=Z,6.4nm,1.1s							
PDAR	**Pinedale Array**	**70.47**	**2**	P	**P**	**02 38 44.7**	**-0.3**	
	comp=Z,0.3nm,0.5s,baz=235,slow=5.2,SNR=6.7							
	comp=Z,0.3nm,0.5s							
PDAR	**Pinedale Array**	**70.47**	**2**	P	**P**	**02 38 44.5**	**-0.5**	
K22A	**Casper**	**70.49**	**4**	IAmb	IAmb	02 39 07.8		
	comp=Z,16nm,1.5s							
HLID	**Hailey**	**71.27**	**358**		**P**	**02 38 49.9**	**0.0**	
O52A	**Adamsville**	**73.31**	**24**	P	**P**	**02 39 02.1**	**+0.2**	
ELIB	**Princess Elisa**	**75.61**	**167**	*d*P	**P**	**02 39 14.8**	**-0.4**	
	comp=Z,1.6nm,1.4s							
ELIB				*d*pP	**sP**	**02 39 18.8**	**+0.5**	
ELIB				*d*PcP	**PcP**	**02 39 28.2**	**+0.2**	
ULM	**Lac du Bonnet**	**79.20**	**10**	P	**P**	**02 39 34.7**	**-0.4**	
	comp=Z,2.0nm,1.0s,baz=159,slow=3.8,SNR=4.6							
	comp=Z,2.0nm,1.0s							
HNR	**Honiara**	**84.06**	**263**	LR	LR	03 12 44.6		
	comp=Z,101nm,18.5s,baz=222,slow=33							
H11S2	**WAKE ISLAND Hy**	**91.29**	**290**	T	T	04 21 25.2		
	baz=92							
H11S1	**WAKE ISLAND Hy**	**91.30**	**290**	T	T	04 21 32.3		
	baz=92							
H11S3	**WAKE ISLAND Hy**	**91.31**	**290**	T	T	04 21 24.9		
	baz=92							
H11N3	**WAKE ISLAND Hy**	**91.71**	**291**	T	T	04 21 56.5		
	baz=125							
H11N1	**WAKE ISLAND Hy**	**91.73**	**291**	T	T	04 21 54.6		
	baz=125							
H11N2	**WAKE ISLAND Hy**	**91.73**	**291**	T	T	04 21 58.8		
	baz=125							
KRVT	**Keravat (AS076**	**93.39**	**263**	LR	LR	03 15 03.3		
	comp=Z,249nm,21.7s,baz=244,slow=31							
PMG	**Port Moresby**	**95.19**	**257**	LR	LR	03 15 00.5		
	comp=Z,522nm,21.4s,baz=141,slow=30							
INK	**Inuvik**	**97.38**	**352**	LR	LR	03 19 34.5		
	comp=Z,280nm,19.6s,baz=78,slow=32							
MD31	**MD31**	**118.10**	**66**	PKPdf	**PKiKP**	**02 46 19.5**	**+1.7**	
NJ2	**Nanjing**	**136.24**	**288**	*e*P	**PKiKP**	**02 46 53.5**	**-0.5**	
NJ2				pmax	pmax			
	comp=Z,8.0nm,0.6s							
HHC	**Hu-ho-hao-te**	**142.34**	**301**	*e*P	**PKPdf**	**02 47 01.3**	**-2.0**	
SONM	**Songino Array**	**144.40**	**314**	PKP	**PKPab**	**02 47 01.3**	**-3.6**	
	comp=Z,1.1nm,0.6s,baz=138,slow=3.2,SNR=3.7							
LZDM	**Lanzhou Array**	**148.96**	**294**	PKPbc	**PKPdf**	**02 47 13.5**	**-1.5**	
	comp=Z,0.8nm,0.3s,baz=14,slow=1.8,SNR=1.3							
BRTR	**Keskin Array B**	**149.24**	**59**	PKPbc	**PKPdf**	**02 47 17.2**	**+2.0**	
	comp=Z,1.5nm,0.9s,baz=250,slow=2.5,SNR=6.1							
BRTR	**Keskin Array B**	**149.24**	**59**		**PKPdf**	**02 47 15.3**	**+0.2**	
ZALV	**Zalesovo Beam**	**151.35**	**339**	PKPbc	**PKPdf**	**02 47 20.3**	**+2.5**	
	comp=Z,2.6nm,0.7s,baz=351,slow=4.6,SNR=6.6							
ZALV	**Zalesovo Beam**	**151.35**	**339**		**PKPdf**	**02 47 19.4**	**+1.6**	
GTA2	**Gaotai**	**151.48**	**302**	pPKP	**PKPab**	**02 47 30.9**	**-2.3**	
GTA2	**Gaotai**	**151.48**	**302**	LR	LR			
	comp=Z,360nm,19.0s							
GTA2	**Gaotai**	**151.48**	**302**	LR	LR			
	comp=Z,240nm,19.7s							
GTA2	**Gaotai**	**151.48**	**302**	LR	LR			
	comp=N,270nm,20.9s							
GTA2	**Gaotai**	**151.48**	**302**	*e*PKPbc	**PKPdf**	**02 47 21.3**	**+2.7**	
BVAR	**Borovoye Array**	**154.97**	**357**	PKPab	**PKPab**	**02 47 48.2**	**+1.0**	
	comp=N,1.6nm,0.8s,baz=29,slow=3.3,SNR=5.4							
KURBB	**Kurchatov Arra**	**156.09**	**344**	PKPab	**PKPab**	**02 47 48.1**	**-3.9**	
	comp=N,0.8nm,0.7s,baz=18,slow=2.5,SNR=4.6							
WMQ	**Urumqi**	**157.74**	**320**	*e*PKP	**PKPdf**	**02 47 28.6**	**+1.5**	
WMQ				LR	LR			
	comp=Z,140nm,18.3s							

*THE **21** 02:27:47.7, 37.9N±0.8×26.9E±0.6, h9km±1km, M2.8/9, MLh2.8/9*
*AFAD **21** 02:27:47.2, 37.87N×26.93E, h11km±2km, ML2.6*
*ISK **21** 02:27:47.3, 37.85N×26.92E, h8km, ML2.7/22*
*ATH **21** 02:27:47.4, 37.82N×26.90E, h14km, ML2.7/6, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 21 02:27:47.4±0.8, 37.85N±0.01×26.92E±0.02, h14km±5km, n64, σ0s50/100, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
SMG	**Samos**	**0.15**	**205**	P		**Pg**	**02 27 51.1**	**-0.2**
SMG				AML		AML		
SMG	**Samos**	**0.15**	**205**	P		**Pg**	**02 27 51.0**	**-0.2**
SMG				S		**Sg**	**02 27 53.9**	**+0.1**
SMG				AML		AML		
KRL1	**Karlovasi Samo**	**0.18**	**253**	P		**Pg**	**02 27 51.3**	**-0.2**
KRL1				S		**Sg**	**02 27 54.0**	**-0.3**
KRL1				AML		AML		
DGB	**zmir**	**0.21**	**352**	P		**Pg**	**02 27 51.8**	**-0.2**
DGB				S		**Sg**	**02 27 54.4**	**-0.8**
GMLD	**Gumuldur**	**0.23**	**359**	Pg		**Pg**	**02 27 52.5**	**+0.1**
GMLD				Sg		**Sg**	**02 27 56.1**	**+0.3**
GMLD				AML		AML		
SAM2	**Drakei, Karlov**	**0.26**	**250**	P		**Pg**	**02 27 52.6**	**-0.3**
SAM2				S		**Sg**	**02 27 56.3**	**-0.4**
SAM2				AML		AML		
GCAM	**G?zelcaml?**	**0.29**	**121**	P		**Pg**	**02 27 53.5**	**+0.1**
GCAM				IAML			02 27 59.0	
	comp=N,757nm,0.2s							
GCAM				IAML			02 27 59.0	
	comp=E,606nm,0.1s							
GCAM	**G?zelcaml?**	**0.29**	**121**	Pg		**Pg**	**02 27 53.9**	**+0.5**
GCAM				Sg		**Sb**	**02 27 59.0**	**0.0**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**87**	Pg		**Pg**	**02 27 53.7**	**+0.2**
KUSD				Sg		**Sg**	**02 27 58.1**	**+0.5**
KUSD				AML		AML		
BEYE	**izmir**	**0.38**	**1**	P		**Pg**	**02 27 54.9**	**-0.1**
BEYE				S		**Sg**	**02 27 59.5**	**-0.8**
BEYE				IAML			02 28 00.0	
	comp=E,586nm,0.4s							
DDIM	**Aydin, Didim**	**0.47**	**147**	P		**Pb**	**02 27 57.2**	**-0.1**
DDIM				S		**Sb**	**02 28 03.7**	**-0.4**
DDIM				IAML			02 28 05.0	
	comp=E,366nm,0.7s							
ZEYE	**Izmir, Urla-Ze**	**0.51**	**320**	P		**Pg**	**02 27 57.0**	**-0.5**
ZEYE				S		**Sg**	**02 28 04.2**	**-0.1**
ZEYE				IAML			02 28 05.0	
	comp=N,552nm,0.2s							
ZEYE				IAML			02 28 08.0	
	comp=E,576nm,0.2s							
BLCB	**Balcova**	**0.55**	**10**	P		**Pg**	**02 27 58.1**	**0.0**
BLCB				S		**Sg**	**02 28 06.0**	**+0.6**
BLCB				AML		AML		
BLCB	**Balcova**	**0.55**	**10**	Pg		**Pg**	**02 27 58.2**	**0.0**
BLCB				Sg		**Sg**	**02 28 06.1**	**+0.6**
BLCB				AML		AML		
DUVT	**Torbali**	**0.56**	**48**	P		**Pg**	**02 27 58.3**	**0.0**
DUVT				S		**Sg**	**02 28 05.5**	**-0.4**
DUVT				IAML			02 28 10.0	
	comp=E,418nm,0.3s							

CESE	**eme**	**0.69**	**315**	Pg		**Pg**	**02 28 00.9**	**+0.1**
CESE				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.78**	**82**	Pg		**Pb**	**02 28 03.1**	**+0.4**
AYDB				AML		AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**158**	Pg		**Pb**	**02 28 02.7**	**+0.1**
YKAV				Sg		**Sb**	**02 28 13.8**	**+0.8**
YKAV				AML		AML		
AYDN	**Tasoluk**	**0.78**	**103**	P		**Pg**	**02 28 02.6**	**0.0**
AYDN				S		**Sg**	**02 28 12.6**	**-0.3**
AYDN				IAML			02 28 17.0	
	comp=N,237nm,0.3s							
KRBN	**Karaburun**	**0.80**	**339**	Pg		**Pb**	**02 28 03.7**	**+0.7**
KRBN				AML		AML		
BAGT	**Foa**	**0.81**	**356**	P		**Pb**	**02 28 03.3**	**+0.1**
BAGT				S		**Sg**	**02 28 12.5**	**-1.2**
BAGT				IAML			02 28 17.0	
	comp=N,378nm,0.8s							
BODT	**Bodrum**	**0.84**	**158**	P		**Pg**	**02 28 03.7**	**0.0**
BODT				S		**Sb**	**02 28 16.1**	**+1.1**
BODT				AML		AML		
BODT	**Bodrum**	**0.84**	**158**	Pg		**Pg**	**02 28 03.6**	**-0.1**
BODT				AML		AML		
IZMR	**zmir-demi**	**0.86**	**70**	P		**Pg**	**02 28 03.8**	**-0.3**
IZMR				S		**Sg**	**02 28 13.9**	**-1.6**
CHOS	**Chios island**	**0.87**	**309**	P		**Pg**	**02 28 04.2**	**-0.1**
CHOS				S		**Sb**	**02 28 16.7**	**+0.9**
CHOS				AML		AML		
CHOS	**Chios island**	**0.87**	**309**	Pg		**Pb**	**02 28 04.9**	**+0.6**
CHOS				AML		AML		
CHOS	**Chios island**	**0.87**	**309**	P		**Pb**	**02 28 04.7**	**+0.4**
CHOS				S		**Sb**	**02 28 16.7**	**+0.9**
CHOS				AML		AML		
MLSB	**Milas**	**0.88**	**129**	Pg		**Pb**	**02 28 04.9**	**+0.5**
MLSB				AML		AML		
FOCM	**Foa**	**0.88**	**350**	Pg		**Pn**	**02 28 05.2**	**-0.1**
FOCM				AML		AML		
BDRM	**Kayabasi**	**0.89**	**152**	P		**Pg**	**02 28 04.0**	**-0.5**
BDRM				S		**Sg**	**02 28 16.2**	**+0.1**
BDRM				IAML			02 28 17.0	
	comp=E,140nm,0.5s							
BDRM				IAML			02 28 22.0	
	comp=N,207nm,0.3s							
KLNA	**Kalymnos**	**0.89**	**177**	P		**Pg**	**02 28 04.6**	**0.0**
KLNA				S		**Sg**	**02 28 15.6**	**-0.6**
KLNA				AML		AML		
BODA	**Bodrum-Mula**	**0.91**	**153**	Pg		**Pg**	**02 28 04.5**	**-0.4**
KARB	**zmir-Karabur**	**0.91**	**334**	P		**Pg**	**02 28 04.5**	**-0.4**
KARB				S		**Sg**	**02 28 15.9**	**-0.9**
KARB				IAML			02 28 20.0	
	comp=N,186nm,0.4s							
KARB				IAML			02 28 21.0	
	comp=E,246nm,0.9s							
EAG2	**Marmaro, Chios**	**0.94**	**318**	P		**Pn**	**02 28 06.6**	**+0.4**
EAG2				S		**Sb**	**02 28 18.6**	**+0.7**
CAMT	**Merkez**	**0.95**	**19**	P		**Pg**	**02 28 04.8**	**-1.0**
CAMT				S		**Sg**	**02 28 18.0**	**-0.3**
CAMT				IAML			02 28 22.0	
	comp=E,182nm,0.4s							
CAMT				IAML			02 28 24.0	
	comp=N,289nm,0.7s							
NAZL	**Nazilli-Aydin**	**1.09**	**83**	Pn		**Pb**	**02 28 07.9**	**-0.2**
NAZL				AML		AML		
ZEDA	**zmir-Bergama**	**1.12**	**6**	P		**Pb**	**02 28 08.9**	**+0.3**
ZEDA				S		**Sb**	**02 28 22.4**	**-0.6**
ZEDA				IAML			02 28 26.0	
	comp=E,115nm,0.6s							
ESEN	**Aydn-Nazilli**	**1.13**	**92**	P		**Pb**	**02 28 08.9**	**+0.2**
GOMA	**Golmarmara-Man**	**1.16**	**42**	Pn		**Pg**	**02 28 09.9**	**+0.1**
GOMA				AML		AML		
KIRA	**zmir-Kiraz**	**1.22**	**73**	P		**Pn**	**02 28 09.6**	**-0.5**
DKL	**Dikili**	**1.22**	**359**	Pn		**Pg**	**02 28 11.1**	**+0.2**
DKL				AML		AML		
DKL	**Dikili**	**1.22**	**359**	P		**Pn**	**02 28 10.1**	**+0.1**
DKL				S		**Sn**	**02 28 27.1**	**+0.8**
DAT	**Datca**	**1.23**	**155**	Pn		**Pg**	**02 28 11.3**	**+0.1**
DAT				AML		AML		
YAZI	**Mula-Dat§a-**	**1.24**	**160**	P		**Pn**	**02 28 10.3**	**+0.1**
YAZI				S		**Sb**	**02 28 26.3**	**-0.1**
AKHS	**Akhisar**	**1.25**	**34**	P		**Pn**	**02 28 10.9**	**+0.5**
AKHS				IAML			02 28 29.0	
	comp=N,89nm,0.3s							
KTTT	**Salihli**	**1.25**	**47**	P		**Pb**	**02 28 11.2**	**+0.4**
KTTT				S		**Sb**	**02 28 27.0**	**+0.3**
KTTT				IAML			02 28 29.0	
	comp=N,98nm,0.4s							
MULA	**Mugla, Merkez-**	**1.26**	**118**	P		**Pg**	**02 28 12.3**	**+0.7**
YER	**Yerkesik**	**1.30**	**123**	P		**Pn**	**02 28 11.6**	**+0.4**
YER	**Yerkesik**	**1.30**	**123**	Pn		**Pn**	**02 28 11.5**	**+0.4**
YER				AML		AML		
APE	**Apeiranthos**	**1.35**	**235**	P		**Pn**	**02 28 11.5**	**-0.4**
APE				AML		AML		
APE	**Apeiranthos**	**1.35**	**235**	Pn		**Pb**	**02 28 13.0**	**+0.5**
APE				AML		AML		
APE	**Apeiranthos**	**1.35**	**235**	P		**Pn**	**02 28 11.5**	**-0.4**
APE				S		**Sb**	**02 28 28.9**	**-0.8**
APE				AML		AML		
SOMA	**Soma-Manisa**	**1.39**	**20**	Pn		**Pg**	**02 28 14.0**	**-0.2**
SOMA				AML		AML		
MANT	**Manisa**	**1.44**	**63**	P		**Pg**	**02 28 15.0**	**-0.1**
MANT				S		**Sn**	**02 28 31.0**	**-1.1**
GORD	**Gordes-Manisa**	**1.45**	**43**	Pn		**Pg**	**02 28 14.9**	**-0.3**
GORD				AML		AML		
AYVA	**Ayvalik**	**1.47**	**353**	P		**Pb**	**02 28 15.1**	**+0.6**
AYVA				S		**Sn**	**02 28 32.5**	**0.0**
AYVA				IAML			02 28 46.0	
	comp=N,68nm,0.6s							
SULTU	**Buldan**	**1.48**	**81**	P		**Pg**	**02 28 15.8**	**+0.1**
PRK	**Paraskevi**	**1.49**	**340**	P		**Pn**	**02 28 13.7**	**0.0**
PRK	**Paraskevi**	**1.49**	**340**	P		**Pn**	**02 28 14.4**	**+0.8**
PRK				S		**Sb**	**02 28 33.7**	**+0.2**
KULA	**Kula-Manisa**	**1.52**	**64**	Pn		**Pb**	**02 28 15.7**	**+0.2**
KULA				AML		AML		
HARTU	**Esme**	**1.56**	**71**	P		**Pg**	**02 28 17.4**	**0.0**
HARTU				S		**Sn**	**02 28 34.2**	**-0.7**
STEP	**BALIKESIR_Sava**	**1.65**	**22**	P		**Pg**	**02 28 18.6**	**-0.5**
STEP				S		**Sb**	**02 28 38.0**	**+0.5**
STEP				IAML			02 28 46.0	
	comp=E,62nm,0.3s							
STEP				IAML			02 28 50.0	
	comp=N,73nm,0.8s							
BUHA	**Balikesir, Bur**	**1.66**	**4**	P		**Pb**	**02 28 17.7**	**0.0**
BUHA				S		**Sn**	**02 28 36.9**	**-0.2**
BUHA				IAML			02 28 44.0	
	comp=E,86nm,0.7s							
BUHA				IAML			02 28 47.0	
	comp=N,67nm,0.9s							
YAYO	**Edremit-Balk**	**1.77**	**4**	Pn		**Pb**	**02 28 19.0**	**-0.5**
YAYO				AML		AML		

IDC 21 02:38:51.4±2.1, 0.43S×128.04E, h0km, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=190.7km s-min=23.1km az=68.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
WRA	**Warramunga Arr**	**20.35**	**163**	P		P	02 43 29.8	+0.1
	0.4nm,0.4s,baz=342,slow=11,SNR=4.1							
	0.4nm,0.4s							
ASAR	**Alice Springs**	**23.79**	**167**	P		P	02 44 06.0	0.0
	1.5nm,0.6s,baz=345,slow=11,SNR=17							
	1.5nm,0.6s							
MKAR	**Makanchi Array**	**61.71**	**326**	P		P	02 49 12.4	+0.8
	0.4nm,0.4s,baz=111,slow=6.6,SNR=4.7							
	0.4nm,0.4s							
KURBB	**Kurchatov Arra**	**65.93**	**328**	P		P	02 49 38.4	-0.9
	0.2nm,0.4s,baz=125,slow=5.9,SNR=4.4							
	0.2nm,0.4s							

*JMA **21** 02:45:37.9±0.2, 46.N×142.2E, h345km, MV3.1/23, SOUTH SAKHALIN*
*IDC **21** 02:45:38.2±1.3, 45.86N×142.52E, h341km±27km, mb2.8/5, mbtmp3.6/7, Error ellipse: s-maj=47.9km s-min=19.9km az=168.0*

ISC 21 02:45:37.5±0.8, 45.79N±0.08×142.56E±0.09, h333km, n20, σ1s57/25, mb2.8/5, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
JWK2	**Keihoku**	**0.66**	**225**	*e*P		**Pn**	**02 46 22.2**	**+1.9**
JWK2				*e*S		**S**	**02 46 56.0**	**+1.6**

JRBN	**Rebuntou**	**1.11**	**251**	P		**Pn**	**02 46 23.2**	**+1.3**
JSS	**Shosan**	**1.48**	**200**	*e*P		**Pn**	**02 46 26.0**	**+2.1**
ASAJ	**Asahikawa**	**1.68**	**179**	P		**Pn**	**02 46 26.6**	**+1.5**
	11nm,0.5s,baz=346,slow=6.4,SNR=6.6							
ASAJ	**Asahikawa**	**1.68**	**179**	*e*P		**Pn**	**02 46 27.1**	**+1.9**
JKK2	**Kamakawa 2**	**1.92**	**176**	*e*P		**Pn**	**02 46 29.0**	**+2.2**
JAR	**Ashorobuto**	**2.64**	**160**	*e*P		**Pn**	**02 46 34.6**	**+2.1**
JAR				*e*S		**S**	**02 47 18.1**	**+1.6**
JAK	**Akkeshi**	**3.19**	**150**	*e*S		**S**	**02 47 26.0**	**+0.5**
JCH	**Churui**	**3.23**	**169**	*e*P		**Pn**	**02 46 38.4**	**+0.6**
JCH				*e*S		**S**	**02 47 24.4**	**-1.9**
NEM2	**Nemuro 2**	**3.33**	**136**	*e*S		**S**	**02 47 26.2**	**-1.7**
JNBK	**Urakawa-nobuka**	**3.51**	**178**	*e*P		**Pn**	**02 46 42.6**	**+1.9**
JNBK				*e*S		**S**	**02 47 32.7**	**+1.4**
JOSM	**Okushiri--Mats**	**4.32**	**212**	*e*P		**Pn**	**02 46 50.4**	**+1.4**
JOT	**Ohata**	**4.54**	**194**	*e*P		**Pn**	**02 46 52.3**	**+1.0**
JOT				*e*S		**S**	**02 47 49.7**	**-1.2**
USRK	**Ussuriysk Ar.**	**7.66**	**262**	P		**Pn**	**02 47 28.8**	**+1.4**
	5.2nm,0.5s,baz=70,slow=12,SNR=25							
MJAR	**Matsushiro Arr**	**9.80**	**201**	P		**P**	**02 47 54.7**	**-0.8**
	3.0nm,0.6s,baz=13,slow=13,SNR=6.4							
SONM	**Songino Array**	**24.69**	**288**	P		**P**	**02 50 29.8**	**+0.4**
	0.9nm,0.7s,baz=90,slow=9.4,SNR=3.5							
	0.9nm,0.7s							
MKAR	**Makanchi Array**	**40.75**	**294**	P		**P**	**02 52 45.2**	**-1.7**
	1.0nm,0.9s,baz=84,slow=8.9,SNR=2.1							
	1.0nm,0.9s							
KURBB	**Kurchatov Arra**	**41.76**	**301**	P		**P**	**02 52 54.0**	**-0.9**
	0.2nm,0.4s,baz=70,slow=8.0,SNR=4.3							
	0.2nm,0.4s							
ILAR	**Eielson Array**	**41.81**	**37**	P		**P**	**02 52 54.6**	**-0.5**
	0.3nm,0.7s,baz=276,slow=8.4,SNR=4.1							
	0.3nm,0.7s							
YKA	**Yellowknife Ar**	**55.90**	**33**	P		**P**	**02 54 41.1**	**0.0**
	0.3nm,0.7s,baz=305,slow=7.3,SNR=1.5							
	0.3nm,0.7s							

*IDC **21** 02:53:45.4±1.5, 7.37S×154.59E, h0km, mb3.8/8, mbtmp3.9/8, Error ellipse: s-maj=48.0km s-min=25.8km az=113.0*

ISC 21 02:53:49.8±1.3, 7.4S±0.2×154.5E±0.3, h27km, n8, σ1s08/8, mb3.8/8, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
WRA	**Warramunga Arr**	**23.21**	**235**	P		**P**	**02 58 55.2**	**+0.3**
	1.5nm,0.8s,baz=60,slow=9.7,SNR=7.7							
	1.5nm,0.8s							
ASAR	**Alice Springs**	**25.57**	**228**	P		**P**	**02 59 17.1**	**+0.3**
	0.4nm,0.6s,baz=65,slow=8.4,SNR=9.9							
	0.4nm,0.6s							
CMAR	**Chiang Mai Arr**	**60.54**	**296**	P		**P**	**03 03 56.8**	**-1.4**
	2.5nm,0.3s,baz=114,slow=8.0,SNR=1.1							
	2.5nm,0.3s							
SONM	**Songino Array**	**69.42**	**328**	P		**P**	**03 04 57.4**	**+1.8**
	0.2nm,0.3s,baz=148,slow=6.8,SNR=2.2							
	0.2nm,0.3s							
QSPA	**South Pole Qui**	**82.58**	**180**	P		**P**	**03 06 10.3**	**0.0**
	0.9nm,0.8s,baz=10,slow=1.7,SNR=2.3							
	0.9nm,0.8s							
MKAR	**Makanchi Array**	**83.40**	**319**	P		**P**	**03 06 14.9**	**+0.2**
	1.1nm,0.9s,baz=126,slow=4.6,SNR=2.4							
	1.1nm,0.9s							
ILAR	**Eielson Array**	**83.91**	**22**	P		**P**	**03 06 16.5**	**-0.4**
	0.6nm,0.9s,baz=257,slow=5.1,SNR=4.3							
	0.6nm,0.9s							
ZALV	**Zalesovo Beam**	**84.25**	**326**	P		**P**	**03 06 18.2**	**-0.6**
	0.4nm,0.4s,baz=101,slow=6.0,SNR=1.9							
	0.4nm,0.4s							

*RSPR **21** 02:58:46.1, 18.25N×68.26W, h146km±1km, MD3.6/14*
*NEIC **21** 02:58:46.0±0.9, 18.3N±0.2×68.22W±0.03, h149km±7km, ML2.9/33, Md3.6/14(RSPR), Error ellipse: s-maj=22.4km s-min=2.8km az=187.0*
*SDD **21** 02:58:47.8±2.0, 18.36N×68.18W, h148km±10km, MD3.2, ML2.9, MW3.0, Presumed earthquake*
*OSPL **21** 02:58:47.2±2.0, 18.52N×68.21W, h150km±14km, ML3.3, Presumed earthquake*

ISC 21 02:58:46.1±1.5, 18.19N±0.09×68.25W±0.03, h144km±9km, n65, σ0s72/98, 20C-14D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
PCDR	**Punta Cana, DR**	**0.34**	**338**			**Pn**	**02 59 06.0**	**0.0**
PCDR						**Sn**	**02 59 21.8**	**+0.5**
PCDR	**Punta Cana, DR**	**0.34**	**338**	IAML			02 59 51.0	
	comp=N,194nm,2.1s							
PCDR	**Punta Cana, DR**	**0.34**	**338**	*e*Pg		**Pn**	**02 59 06.0**	**0.0**
PCDR				IAML			02 59 22.9	
	comp=E,38nm,0.5s							
PCDR				IAML			03 00 04.5	
	comp=N,122nm,2.4s							
PCDR	**Punta Cana, DR**	**0.34**	**338**	⇑*e*Pg		**Pn**	**02 59 06.1**	**0.0**
PCDR				⇓*e*Sg		**Sn**	**02 59 20.2**	**-1.1**
PCDR				IAML			03 00 04.5	
	comp=N,122nm,2.4s							
PCDR	**Punta Cana, DR**	**0.34**	**338**	⇑*e*P		**Pn**	**02 59 06.0**	**0.0**
PC

HATOM				⇑*e*Sg		**Sn**	**02 59 32.5**	**-0.1**
HATOM				IAML			02 59 35.7	
	comp=N,54nm,0.1s							
GBPR	**Guanica, Bosqu**	**1.32**	**99**			**Pn**	**02 59 13.9**	**+0.6**
GBPR						**Sn**	**02 59 34.8**	**+0.8**
GBPR	**Guanica, Bosqu**	**1.32**	**99**	⇑*i*P		**Pn**	**02 59 13.9**	**+0.6**
GBPR				*e*S		**Sn**	**02 59 34.8**	**+0.8**
SMDR	**Samana, DR**	**1.41**	**321**			**Pn**	**02 59 15.5**	**+1.3**
SMDR						**Sn**	**02 59 35.0**	**-0.8**
SMDR	**Samana, DR**	**1.41**	**321**	⇑*e*Pg		**Pn**	**02 59 13.8**	**-0.4**
SMDR				IAML			03 00 18.3	
	comp=N,145nm,0.7s							
SMDR	**Samana, DR**	**1.41**	**321**	⇓*e*P		**Pn**	**02 59 15.5**	**+1.3**
SMDR				*e*S		**Sn**	**02 59 35.0**	**-0.8**
AOPR	**Arecibo Observ**	**1.43**	**84**			**Pn**	**02 59 13.9**	**-0.6**
AOPR						**Sn**	**02 59 36.2**	**+0.1**
AOPR	**Arecibo Observ**	**1.43**	**84**	*e*Pg		**Pn**	**02 59 13.8**	**-0.7**
AOPR				⇓*e*Sg		**Sn**	**02 59 37.0**	**+0.9**
AOPR				IAML			02 59 37.6	
	comp=N,247nm,0.3s							
AOPR				IAML			02 59 40.1	
	comp=E,368nm,0.3s							
AOPR	**Arecibo Observ**	**1.43**	**84**	⇓*e*Pg		**Pn**	**02 59 13.7**	**-0.7**
AOPR				⇓*e*Sg		**Sn**	**02 59 34.5**	**-1.6**
AOPR				IAML			02 59 37.6	
	comp=N,246nm,0.3s							
AOPR	**Arecibo Observ**	**1.43**	**84**	⇑*e*P		**Pn**	**02 59 13.9**	**-0.6**
OBIP	**Obispado Ponce**	**1.57**	**95**			**Pn**	**02 59 15.0**	**-0.9**
OBIP						**Sn**	**02 59 38.7**	**-0.1**
OBIP	**Obispado Ponce**	**1.57**	**95**	⇓*e*P		**Pn**	**02 59 15.0**	**-0.9**
OBIP				*e*S		**Sn**	**02 59 38.7**	**-0.1**
OBIP	**Obispado Ponce**	**1.57**	**95**	*i* P		**Pn**	**02 59 14.8**	**-1.1**
OBIP				*e*S		**Sn**	**02 59 38.6**	**-0.2**
OBIP				IAML			02 59 42.0	
	comp=Z,162nm,0.6s							
CELP	**Cerrillos**	**1.59**	**94**			**Pn**	**02 59 16.1**	**-0.1**
CELP						**Sn**	**02 59 39.7**	**+0.5**
CELP	**Cerrillos**	**1.59**	**94**	IAML			02 59 43.7	
	comp=Z,94nm,0.3s							
CELP				IAML			02 59 44.0	
	comp=Z,111nm,0.3s							
CELP	**Cerrillos**	**1.59**	**94**	*e*Pg		**Pn**	**02 59 16.1**	**-0.1**
CELP				*e*Sg		**Sn**	**02 59 39.9**	**+0.7**
CELP				IAML			02 59 43.6	
	comp=E,34nm,0.3s							
CELP				IAML			02 59 43.9	
	comp=N,41nm,0.3s							
CELP	**Cerrillos**	**1.59**	**94**	⇑*e*Pg		**Pn**	**02 59 16.1**	**-0.1**
CELP				⇑*e*Sg		**Sn**	**02 59 38.1**	**-1.1**
CELP				IAML			02 59 43.9	
	comp=N,41nm,0.3s							
CELP	**Cerrillos**	**1.59**	**94**	⇓*e*P		**Pn**	**02 59 16.1**	**-0.1**
SDD	**Santo Domingo**	**1.60**	**280**	Pn		**Pn**	**02 59 15.3**	**-1.0**
SDD				IAML			03 00 39.4	
	comp=N,112nm,2.2s							
EMPR	**Esperanza - Ma**	**1.66**	**80**			**Pn**	**02 59 16.6**	**-0.2**
EMPR						**Sn**	**02 59 40.2**	**-0.3**
EMPR	**Esperanza - Ma**	**1.66**	**80**	⇑*e*P		**Pn**	**02 59 16.6**	**-0.2**
EMPR				*e*S		**Sn**	**02 59 40.2**	**-0.3**
ECPR	**Experimental S**	**1.80**	**86**			**Pn**	**02 59 17.3**	**-1.2**
ECPR						**Sn**	**02 59 42.9**	**-0.4**
ECPR	**Experimental S**	**1.80**	**86**	⇑*e*P		**Pn**	**02 59 17.3**	**-1.2**
BANI	**BANI**	**2.01**	**276**	⇑*e*Pg		**Pn**	**02 59 21.9**	**+0.7**
BANI				IAML			02 59 48.1	
	comp=N,84nm,3.0s							
IGPR	**InterUniversit**	**2.05**	**96**			**Pn**	**02 59 21.3**	**-0.1**
IGPR						**Sn**	**02 59 49.5**	**+0.9**
IGPR	**InterUniversit**	**2.05**	**96**	⇓*e*P		**Pn**	**02 59 21.3**	**-0.1**
GCPR	**Guaynabo City**	**2.06**	**86**	Pn		**Pn**	**02 59 20.0**	**-1.6**
GCPR				IAML			02 59 50.6	
	comp=N,36nm,0.3s							
PDPR	**Patillas Dam,**	**2.12**	**94**			**Pn**	**02 59 22.6**	**+0.2**
PDPR						**Sn**	**02 59 51.0**	**+0.9**
PDPR	**Patillas Dam,**	**2.12**	**94**	IAML			02 59 52.9	
	comp=N,45nm,0.2s							
PDPR				IAML			02 59 53.3	
	comp=N,46nm,0.6s							
PDPR	**Patillas Dam,**	**2.12**	**94**	⇑*e*P		**Pn**	**02 59 22.6**	**+0.2**
SFDR	**San Fco. de Ma**	**2.18**	**300**	⇑*e*Pg		**Pn**	**02 59 24.6**	**+1.6**
SFDR				IAML			03 00 00.7	
	comp=N,194nm,0.3s							
HUMP	**Col San Antoni**	**2.28**	**91**			**Pn**	**02 59 23.7**	**-0.5**
HUMP						**Sn**	**02 59 53.0**	**-0.6**
HUMP	**Col San Antoni**	**2.28**	**91**	⇑*e*P		**Pn**	**02 59 23.7**	**-0.5**
ABDR	**Alto Bandera**	**2.34**	**286**	⇑*e*Pg		**Pn**	**02 59 27.1**	**+1.8**
ABDR				IAML			03 00 00.7	
	comp=N,62nm,0.4s							
PODR	**Polo**	**2.88**	**270**	Pn		**Pn**	**02 59 32.4**	**+0.5**
PODR				IAML			03 00 39.0	
	comp=N,46nm,1.9s							
PODR				IAML			03 01 37.6	
	comp=E,45nm,1.6s							
LOVI	**El Cajuil, Ovi**	**2.99**	**263**	*i* P		**Pn**	**02 59 33.5**	**+0.4**
LOVI				*e*S		**Sn**	**03 00 07.6**	**-1.8**
LOVI				IAML			03 00 12.9	
	comp=Z,97nm,1.1s							
LODU1	**El Espartillar**	**3.07**	**273**	*i* P		**Pn**	**02 59 35.3**	**+1.2**
LOBH	**Bahia de las A**	**3.24**	**265**	*i* P		**Pn**	**02 59 36.8**	**+0.5**
LOBH				*e*S		**Sn**	**03 00 13.9**	**-1.2**
LOBH				IAML			03 00 20.5	
	comp=Z,43nm,2.1s							

*IDC **21** 03:16:34.4±2.4,51°.97N×172°.61W,h0km,mb3.3/2, mbtmp3.4/4,ML3.0/2,Error ellipse: s-maj=67.7km s-min=36.0km az=6.0*
*NEIC **21** 03:16:37.7±0.9,51°.66N±0°.07×172°.98W±0°.07,h35km±2km, ML3.6/12,ML3.2(AEIC),Error ellipse: s-maj=12.6km s-min=7.7km az=185.0*
*AEIC **21** 03:16:38.3±1.3,51°.67N±0°.08×172°.98W±0°.06,h28km±7km, Error ellipse: s-maj=11.6km s-min=5.1km az=182.0*
ISC 21 03:16:38.0±1.0,51°.73N±0°.09×172°.94W±0°.03,h37km,n40,
σ0°.90/52,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KOFP	**Korovin Flat P**	**0.90**	**308**		**Pn**	**03 16 53.9**	**-0.3**
KOFP					**Sn**	**03 17 06.4**	**+0.5**
ATKA	**Atka Island**	**0.91**	**302**		**Pn**	**03 16 53.3**	**-0.9**
ATKA				IAML		03 17 09.8	
	comp=N,1μm,0.5s						
ATKA	**Atka Island**	**0.91**	**302**		**Sn**	**03 17 05.9**	**-0.1**
KOSE	**Korovin Southe**	**0.92**	**312**		**Pn**	**03 16 54.3**	**-0.1**
KOSE					**Sn**	**03 17 07.2**	**+0.7**
KOKL	**Mount Kliuchef**	**0.98**	**308**		**Pn**	**03 16 55.1**	**-0.1**
KOKL					**Sn**	**03 17 08.3**	**+0.5**
KOKV	**Korovin Volcan**	**0.98**	**310**		**Pn**	**03 16 55.3**	**0.0**
KOKV					**Sn**	**03 17 09.1**	**+1.1**
GSIG	**Igitkin Island**	**1.87**	**279**		**Pn**	**03 17 06.7**	**-0.7**
GSIG					**Sn**	**03 17 28.4**	**-1.3**
GSMY	**Great Sitkin M**	**1.96**	**280**		**Pn**	**03 17 08.4**	**-0.2**
GSMY					**Sn**	**03 17 30.2**	**-1.7**
GSTR	**Great Sitkin T**	**1.96**	**282**	Pn	**Pn**	**03 17 08.6**	**-0.2**
GSTR				IAML		03 17 41.6	
	comp=E,658nm,0.4s						
GSTR	**Great Sitkin T**	**1.96**	**282**		**Sn**	**03 17 30.7**	**-1.4**
GSTD	**Great Sitkin T**	**2.01**	**280**		**Pn**	**03 17 09.2**	**-0.2**
GSTD					**Sn**	**03 17 32.5**	**-0.8**
ETKA	**Kagalaska Isla**	**2.15**	**275**		**Pn**	**03 17 10.8**	**-0.6**
ETKA					**Sn**	**03 17 35.4**	**-1.3**
CLES	**Cleveland East**	**2.17**	**59**		**Pn**	**03 17 12.4**	**+0.9**
CLES					**Sn**	**03 17 36.4**	**-0.6**
CLES					Lg	03 17 41.9	
CLCO	**Concord Point,**	**2.24**	**61**		**Pn**	**03 17 12.2**	**-0.3**
CLCO					**Sn**	**03 17 38.5**	**-0.4**
CLCO					Lg	03 17 42.4	
ADAG	**Mount Adagdak**	**2.28**	**278**		**Pn**	**03 17 13.0**	**-0.1**
ADAG					**Sn**	**03 17 39.0**	**-0.9**
ADK	**Adak**	**2.33**	**275**		**Pn**	**03 17 13.6**	**-0.1**
ADK					**Sn**	**03 17 40.0**	**-1.1**
ADK	**Adak**	**2.33**	**275**	IAML		03 17 44.8	
	comp=E,278nm,0.2s						
ADK				IAML		03 17 50.2	
	comp=E,270nm,0.4s						
KIRH	**Kanaga Island**	**2.58**	**275**		**Pn**	**03 17 17.6**	**+0.4**
KIRH					**Sn**	**03 17 45.6**	**-1.7**
KIRH					Lg	03 17 47.5	
KIWB	**Kanaga Island**	**2.62**	**274**		**Pn**	**03 17 17.8**	**+0.2**
KIWB					**Sn**	**03 17 47.8**	**-0.3**
KIWB	**Kanaga Island**	**2.62**	**274**	IAML		03 18 00.1	
	comp=E,226nm,0.5s						
KIWB				IAML		03 18 02.6	
	comp=N,212nm,0.5s						
KIKV	**Kanaga Island**	**2.63**	**275**		**Pn**	**03 17 18.2**	**+0.3**
KIKV					**Sn**	**03 17 48.8**	**+0.3**
KIKV					Lg	03 17 49.9	
KIMD	**Kanaga Island**	**2.67**	**272**		**Pn**	**03 17 19.4**	**+1.0**
KIMD					**Sn**	**03 17 48.8**	**-0.6**
TAPA	**Tanaga Point A**	**3.03**	**273**		**Pn**	**03 17 23.9**	**+0.6**
TAPA					**Sn**	**03 17 59.1**	**+0.8**
TAFL	**Tanaga Flats**	**3.08**	**272**		**Pn**	**03 17 25.4**	**+1.3**
TAFL					**Sn**	**03 18 00.0**	**+0.4**
TAFP	**Tanaga Falls P**	**3.13**	**275**		**Pn**	**03 17 25.7**	**+0.9**
TAFP					**Sn**	**03 18 01.1**	**+0.2**
TASE	**Tanaga Southea**	**3.17**	**274**		**Pn**	**03 17 25.7**	**+0.5**
TASE					**Sn**	**03 18 02.2**	**+0.4**
GAEA	**Gareloi East**	**3.61**	**273**		**Pn**	**03 17 31.7**	**+0.4**
GANE	**Gareloi Northe**	**3.62**	**274**		**Pn**	**03 17 31.7**	**+0.2**
GAKI	**Gareloi-Kavalg**	**3.66**	**269**		**Pn**	**03 17 32.9**	**+0.9**
UNV	**Unalaska Valle**	**4.44**	**59**	Pn	**Pn**	**03 17 43.2**	**+0.5**
PETK	**Petropavlovsk-** comp=N,0.1nm,0.3s,baz=62,slow=6.7,SNR=2.0 comp=N,2.8nm,0.8s	**17.91**	**286**	P	**P**	**03 20 46.6**	**+2.3**
PETK				AML	AML		
ILAR	**Eielson Array** comp=N,0.1nm,0.3s,baz=231,slow=9.6,SNR=8.5 comp=N,0.4nm,0.6s	**18.74**	**36**	P	**P**	**03 20 51.0**	**-2.3**
ILAR				AML	AML		
H11N2	**WAKE ISLAND Hy** baz=21,slow=76,SNR=28	**35.64**	**214**	T	T	04 01 36.6	
H11N3	**WAKE ISLAND Hy** baz=21,slow=76,SNR=28	**35.64**	**214**	T	T	04 01 39.5	
H11N1	**WAKE ISLAND Hy** baz=21,slow=76,SNR=22	**35.66**	**214**	T	T	04 01 37.3	
H11S1	**WAKE ISLAND Hy** baz=20,slow=76,SNR=23	**36.84**	**213**	T	T	04 03 02.5	
H11S2	**WAKE ISLAND Hy** baz=20,slow=76,SNR=18	**36.85**	**213**	T	T	04 02 56.7	
H11S3	**WAKE ISLAND Hy** baz=20,slow=76,SNR=8.1	**36.85**	**213**	T	T	04 02 55.7	
NVAR	**Mina Array Bea** comp=N,0.2nm,0.7s,baz=306,slow=7.0,SNR=1.8 comp=N,0.2nm,0.7s	**39.88**	**87**	P	**P**	**03 24 09.3**	**+1.1**
TXAR	**Lajitas Array** comp=N,0.3nm,0.7s,baz=311,slow=7.8,SNR=4.1 comp=N,0.3nm,0.7s	**54.98**	**86**	P	**P**	**03 26 04.5**	**-1.0**

*IDC **21** 03:17:03.8±1.1,16°.36S×175°.90W,h348km±11km,mb3.3/5, mbtmp4.0/7,Error ellipse: s-maj=27.4km s-min=12.8km az=146.0*
ISC 21 03:17:04.4±0.9,16°.3S±0°.2×175°.9W±0°.1,h364km,n9,
σ1°.33/11,mb3.5/5,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu** 6.0nm,0.3s,baz=243,slow=9.0,SNR=1.7	**4.64**	**59**	P	**Pn**	**03 18 20.8**	**-0.1**
AFI				S	**S**	**03 19 20.5**	**-2.3**
	16nm,0.8s,baz=302,slow=18,SNR=1.8						
MSVF	**Nonsavu** 20nm,0.8s,baz=101,slow=16,SNR=8.9	**5.97**	**256**	P	**Pn**	**03 18 36.1**	**+0.6**
MSVF				S	**S**	**03 19 47.0**	**-2.4**
	1.3nm,0.3s,baz=119,slow=23,SNR=1.5						
URZ	**Urewera** 2.6nm,0.3s,baz=350,slow=6.1,SNR=7.9 2.6nm,0.3s	**22.69**	**194**	P	**P**	**03 21 36.0**	**+0.3**
WRA	**Warramunga Arr** 0.2nm,0.5s,baz=91,slow=7.6,SNR=1.7 0.2nm,0.5s	**47.31**	**258**	P	**P**	**03 25 03.1**	**-0.1**
ASAR	**Alice Springs** 1.2nm,0.4s,baz=90,slow=8.1,SNR=4.3 1.2nm,0.4s	**47.56**	**253**	P	**P**	**03 25 04.6**	**-0.5**
PETK	**Petropavlovsk-** 3.5nm,0.9s,baz=161,slow=6.5,SNR=2.1 3.5nm,0.9s	**72.83**	**344**	P	**P**	**03 27 54.2**	**+0.2**
ILAR	**Eielson Array** 0.5nm,0.5s,baz=220,slow=5.3,SNR=14 0.5nm,0.5s	**83.84**	**12**	P	**P**	**03 28 54.5**	**+1.0**
BRTR	**Keskin Array B** 0.6nm,0.6s,baz=47,slow=4.4,SNR=3.3	**145.33**	**318**	PKPbc	**PKPab**	**03 36 01.8**	**+0.7**
DAVOX	**Davos/Dischmat** 1.8nm,0.6s,baz=41,slow=3.4,SNR=2.2	**149.28**	**352**	PKPbc	**PKiKP**	**03 36 12.7**	**+0.9**

*TIF **21** 03:23:54.3,38°.58N×41°.00E,h5km±1km*
*AFAD **21** 03:23:54.8,38°.57N×40°.96E,h6km±2km,MW3.8*
*IDC **21** 03:23:55.1±0.9,38°.56N×40°.84E,h0km,mb3.5/5, mbtmp3.4/12,ML3.2/7,Error ellipse: s-maj=19.9km s-min=11.3km az=143.0*
*ISK **21** 03:23:55.3,38°.57N×40°.98E,h8km,ML3.7/26*
ISC 21 03:23:55.2±1.0,38°.57N±0°.02×40°.98E±0°.02,h4km±8km, n88,σ1°.19/126,mb3.4/5,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SLHN	**Bingol, Solhan**	**0.39**	**5**	P	**Pg**	**03 24 02.6**	**-0.2**
SLHN				S	**Sg**	**03 24 07.8**	**-0.1**
MUSM	**Mu-Merkez**	**0.45**	**70**	P	**Pg**	**03 24 03.4**	**-0.5**
MUSM				S	**Sg**	**03 24 10.0**	**+0.3**
SVAN	**Silvan-Diyarba**	**0.45**	**157**	P	**Pg**	**03 24 04.5**	**+0.6**
SVAN				S	**Sg**	**03 24 09.9**	**+0.1**
SVAN	**Silvan-Diyarba**	**0.45**	**157**	Pg	**Pg**	**03 24 04.6**	**+0.6**
SVAN				Sg	**Sg**	**03 24 10.9**	**+1.0**
SVAN				AML	AML		
KKOY	**Diyarbakır**	**0.46**	**233**	P	**Pg**	**03 24 04.5**	**+0.4**
KKOY				S	**Sg**	**03 24 11.2**	**+1.0**
BNGB	**Bingl**	**0.48**	**331**	Pg	**Pg**	**03 24 04.6**	**+0.1**
BNGB				Sg	**Sb**	**03 24 12.7**	**-1.1**
BNGB				AML	AML		
VRTB	**Varto-Mus**	**0.70**	**32**	P	**Pg**	**03 24 09.0**	**+0.3**
VRTB				S	**Sb**	**03 24 18.8**	**-1.2**
VRTB	**Varto-Mus**	**0.70**	**32**	Pg	**Pg**	**03 24 08.9**	**+0.3**
VRTB				Sg	**Sb**	**03 24 20.1**	**0.0**
VRTB				AML	AML		
BTMN	**Batman**	**0.72**	**161**	P	**Pg**	**03 24 09.4**	**+0.4**
BTMN				S	**Sg**	**03 24 18.9**	**+0.6**
KARO	**Karliova-Bingo**	**0.74**	**4**	Pg	**Pg**	**03 24 09.4**	**-0.1**
KARO				Sg	**Sb**	**03 24 21.8**	**+0.5**
KARO				AML	AML		
GURO	**Guroymak-BITLI**	**0.83**	**91**	Pg	**Pg**	**03 24 10.9**	**-0.2**
GURO				Sg	**Sb**	**03 24 23.8**	**0.0**
GURO				AML	AML		
DYBB	**Diyarbakir**	**0.90**	**227**	Pg	**Pb**	**03 24 12.9**	**-0.6**
DYBB				Sg	**Sb**	**03 24 26.6**	**+0.7**
DYBB				AML	AML		
BLIS	**Bitlis-Merkez**	**0.91**	**100**	P	**Pg**	**03 24 12.0**	**-0.6**
BLIS				S	**Sb**	**03 24 25.0**	**-1.1**
KOVA	**Elazig, Kovanc**	**0.92**	**279**	P	**Pg**	**03 24 12.5**	**-0.5**
KOVA				S	**Sb**	**03 24 25.7**	**-0.8**
YEDI	**Yedisu-Bingol**	**0.93**	**339**	Pg	**Pb**	**03 24 13.5**	**-0.5**
YEDI				AML	AML		
DIYA	**Diyarbakir**	**0.93**	**227**	P	**Pb**	**03 24 13.5**	**-0.5**
DIYA				S	**Sg**	**03 24 24.9**	**-0.4**
SRTM	**Siirt_Merkez**	**0.94**	**128**	P	**Pg**	**03 24 13.5**	**+0.2**
SRTM				S	**Sg**	**03 24 25.7**	**+0.2**
MDNT	**Maden**	**1.03**	**261**	P	**Pg**	**03 24 14.3**	**-0.7**
MDNT				S	**Sb**	**03 24 28.8**	**-0.8**
ECAT	**Cat-ERZURUM**	**1.03**	**360**	P	**Pg**	**03 24 14.1**	**-1.0**
ECAT				S	**Sg**	**03 24 28.1**	**-0.4**
EKAR	**Karacoban**	**1.09**	**51**	P	**Pn**	**03 24 16.8**	**-0.7**
MIDY	**Mardin/Midyat-**	**1.21**	**164**	P	**Pg**	**03 24 18.2**	**-0.2**
MIDY				S	**Sg**	**03 24 32.2**	**-1.9**
MARD	**Mardin**	**1.26**	**187**	P	**Pg**	**03 24 18.7**	**-0.8**
MARD				S	**Sg**	**03 24 35.1**	**-0.8**
SVRC	**Sivrice-ELAZID**	**1.33**	**262**	Pn	**Pb**	**03 24 20.4**	**-0.4**
SVRC				AML	AML		
ATA5	**Erzurum, Merke**	**1.35**	**9**	P	**Pn**	**03 24 20.5**	**-0.5**
MLAZ	**Malazgirt-MUS**	**1.35**	**65**	Pn	**Pn**	**03 24 20.6**	**-0.4**
MLAZ				AML	AML		
CNGT	**ngs**	**1.37**	**255**	P	**Pn**	**03 24 20.8**	**-0.3**
CNGT				S	**Sb**	**03 24 37.7**	**-1.5**
ERZM	**Erzurum**	**1.37**	**13**	P	**Pn**	**03 24 20.9**	**-0.4**
ERZM				S	**Sb**	**03 24 38.6**	**-0.8**
PERV	**Siirt/Pervari-**	**1.38**	**116**	P	**Pn**	**03 24 21.1**	**-0.3**
PERV				S	**Sn**	**03 24 40.6**	**+0.5**
ADCV	**BITLIS_Adilcev**	**1.39**	**80**	P	**Pn**	**03 24 20.4**	**-1.1**
ADCV				S	**Sn**	**03 24 39.9**	**-0.4**
ELZ	**Elazig**	**1.39**	**275**	P	**Pn**	**03 24 20.3**	**-1.2**
ELZ				S	**Sb**	**03 24 39.6**	**-0.4**
ERZN	**Erzincan**	**1.41**	**316**	Pn	**Pb**	**03 24 21.9**	**-0.3**
ERZN				AML	AML		
EMRE	**Erzurum,Aziziy**	**1.46**	**360**	P	**Pb**	**03 24 22.6**	**-0.5**
EMRE				S	**Sb**	**03 24 41.4**	**-0.6**
KOPT	**Kop Dagi**	**1.49**	**346**	P	**Pg**	**03 24 24.0**	**+0.2**
EUZM	**Uzumlu**	**1.51**	**319**	P	**Pb**	**03 24 23.3**	**-0.6**
AKDA	**Akdag**	**1.56**	**11**	P	**Pb**	**03 24 24.6**	**-0.2**
AKDA				S	**Sb**	**03 24 44.4**	**-0.5**
SIRN	**Sırnak**	**1.56**	**133**	P	**Pn**	**03 24 23.1**	**-0.7**
SIRN				S	**Sn**	**03 24 42.6**	**-1.9**
ELZG	**Elazig**	**1.56**	**268**	P	**Pn**	**03 24 23.9**	**-0.1**
ELZG				S	**Sn**	**03 24 42.8**	**-2.0**
KOPR	**Koprukoy-ERZUR**	**1.57**	**25**	Pn	**Pb**	**03 24 24.3**	**-0.7**
KOPR				AML	AML		
AKDM	**Akdamar-Van**	**1.59**	**98**	Pn	**Pb**	**03 24 24.5**	**-0.8**
AKDM				AML	AML		
DORK	**Agr/Tutak/Do**	**1.62**	**59**	P	**Pb**	**03 24 25.0**	**-0.9**
DORK				S	**Sn**	**03 24 45.8**	**-0.4**
HOMI	**Horasan**	**1.64**	**26**	P	**Pb**	**03 24 25.5**	**-0.6**
HOMI				S	**Sn**	**03 24 44.9**	**-1.8**
GEVA	**Gevas**	**1.65**	**98**	P	**Pb**	**03 24 25.8**	**-0.6**
GEVA				S	**Sg**	**03 24 48.5**	**+0.1**
EATA	**Eleskirt**	**1.75**	**42**	P	**Pb**	**03 24 27.5**	**-0.5**
EATA				S	**Sn**	**03 24 47.5**	**-1.9**
KRIK	**Erzurum-spir**	**1.77**	**359**	P	**Pb**	**03 24 27.6**	**-0.7**
KRIK				S	**Sb**	**03 24 50.0**	**-0.8**
BAYB	**BAYBURT**	**1.78**	**342**	P	**Pb**	**03 24 28.5**	**+0.1**
BAYB				S	**Sn**	**03 24 49.9**	**-0.1**
AGRB	**Hanur-Agry**	**1.86**	**57**	Pn	**Pn**	**03 24 28.4**	**+0.3**
AGRB				AML	AML		
ERCV	**ERCIS-VAN**	**1.90**	**76**	Pn	**Pn**	**03 24 28.9**	**+0.4**
ERCV				AML	AML		
TVAN	**Van**	**1.91**	**91**	P	**Pb**	**03 24 29.6**	**-1.1**
BAYT	**Aydıntepe-Bayb**	**1.93**	**341**	Pn	**Pb**	**03 24 29.7**	**-1.4**
BAYT				AML	AML		
URFA	**Urfa**	**2.04**	**237**	Pn	**Pn**	**03 24 30.9**	**+0.5**
URFA				AML	AML		
VMUR	**Van-Muradiye**	**2.07**	**78**	P	**Pb**	**03 24 32.9**	**-0.6**
VMUR				S	**Sg**	**03 25 03.5**	**+1.8**
ILIC	**ilic-Erzincan**	**2.07**	**296**	Pn	**Pn**	**03 24 31.3**	**+0.4**
ILIC				AML	AML		
EOLT	**Oltu**	**2.12**	**21**	P	**Pb**	**03 24 33.5**	**-0.7**
KOTA	**Agri, Merkez-K**	**2.12**	**54**	P	**Pb**	**03 24 33.2**	**-1.1**
KOTA				S	**Sn**	**03 24 58.8**	**+0.2**
ARPR	**Arapgir-MALATY**	**2.13**	**285**	Pn	**Pn**	**03 24 32.3**	**+0.6**
ARPR				AML	AML		
SENK	**Senkaya-Erzuru**	**2.25**	**28**	Pn	**Pn**	**03 24 34.2**	**+0.7**
SENK				AML	AML		
DYDN	**Diyadin**	**2.32**	**64**	P	**Pb**	**03 24 37.8**	**0.0**
DYDN				S	**Sb**	**03 25 06.0**	**-0.9**
OZAP	**Van, Ozalp-Mer**	**2.36**	**87**	P	**Pb**	**03 24 36.7**	**-1.8**
OZAP				S	**Sg**	**03 25 13.5**	**+2.3**
CLDR	**Caldiran**	**2.37**	**75**	P	**Pb**	**03 24 37.1**	**-1.4**
CLDR	**Caldiran**	**2.37**	**75**	Pn	**Pn**	**03 24 35.6**	**+0.6**
CLDR				AML	AML		
HAKT	**HAKKARI**	**2.38**	**114**	P	**Pn**	**03 24 35.3**	**+0.1**
CUKT	**Cukurca**	**2.46**	**122**	Pn	**Pn**	**03 24 36.8**	**+0.5**
CUKT				AML	AML		
CHOM	**Cayeli-Rize**	**2.53**	**356**	Pn	**Pn**	**03 24 38.0**	**+0.9**
CHOM				AML	AML		
KTUT	**Trabzon**	**2.59**	**339**	Pn	**Pn**	**03 24 38.8**	**+1.0**
KTUT				AML	AML		
KARS	**Kars**	**2.62**	**38**	Pn	**Pn**	**03 24 39.3**	**+0.9**
KARS				AML	AML		
DARE	**Darende-Malaty**	**2.74**	**271**	Pn	**Pn**	**03 24 41.0**	**+1.0**
DARE				AML	AML		
TASB	**TASBURUN-IGDIR**	**2.90**	**60**	Pn	**Pn**	**03 24 43.2**	**+1.0**
TASB				AML	AML		
GNI	**Garni** 2.7nm,0.3s,baz=263,slow=16,SNR=8.8	**3.32**	**60**	Pn	**Pb**	**03 24 51.5**	**-3.2**
GNI				Pg	**Pg**	**03 24 57.5**	**-1.3**
	2.3nm,0.3s,baz=305,slow=3.4,SNR=6.4						
GNI				Lg	Lg	03 25 41.2	
	0.7nm,0.3s,baz=210,slow=21,SNR=3.2 7.0nm,0.3s						
GNI				AML	AML		
BGD	**Bogdanovka**	**3.36**	**36**	P	**Pb**	**03 24 52.2**	**-3.3**
AKH	**Akhalkalaki**	**3.43**	**33**	P	**Pn**	**03 24 52.2**	**+2.6**
TRLG	**Trialeti**	**3.81**	**38**	P	**Pn**	**03 24 58.0**	**+3.1**
TKB	**Tkibuli**	**4.08**	**22**	P	**Pn**	**03 25 01.2**	**+2.9**
GUDG	**Gudauri**	**4.72**	**33**	P	**Pn**	**03 25 10.2**	**+2.9**
CHRG	**Chargali**	**4.81**	**37**	P	**Pn**	**03 25 11.2**	**+2.7**
SHTL	**Shatili**	**5.17**	**37**	P	**Pn**	**03 25 16.9**	**+3.4**
LGD	**Lagodekhi**	**5.18**	**49**	P	**Pn**	03 25 18.5	+5.0
KBZ	**Khabaz** 0.2nm,0.3s,baz=251,slow=3.7,SNR=5.9 1.1nm,0.6s	**5.35**	**15**	Pn	**Pn**	**03 25 18.1**	**+2.3**
KBZ				AML	AML		
KVAR	**Kislovodsk Arr** baz=193,slow=18 1.6nm,0.4s	**5.53**	**13**	Pn	**Pn**	**03 25 21.2**	**+2.8**
BRTR	**Keskin Array B** 0.3nm,0.3s,baz=106,slow=14,SNR=8.3 2.0nm,0.6s	**5.82**	**284**	Pn	**Pn**	**03 25 23.3**	**+0.

FLYU	**Flymyra**	**1.11**	**351**	P	**Pg**	**03 24 47.9**	**-0.1**	
GRAU	**Graesoe**	**1.31**	**7**	P	**Pg**	**03 24 51.7**	**-0.2**	
GRAU	**Graesoe**	**1.31**	**7**	P	**Pg**	**03 24 51.7**	**-0.2**	
OSTU	**Oestervaala**	**1.32**	**336**	P	**Pg**	**03 24 51.7**	**-0.4**	
OSTU	**Oestervaala**	**1.32**	**336**	P	**Pg**	**03 24 51.7**	**-0.4**	
FORU	**Forsmark**	**1.35**	**359**	P	**Pg**	**03 24 52.3**	**-0.4**	
FORU	**Forsmark**	**1.35**	**359**	P	**Pg**	**03 24 52.3**	**-0.4**	
GOTU	**Gotland**	**1.37**	**172**	P	**Pg**	**03 24 51.8**	**-1.1**	
GOTU	**Gotland**	**1.37**	**172**	P	**Pg**	**03 24 51.8**	**-1.1**	
HFS	**Hagfors**	**2.56**	**297**	Pn	Pn	03 25 04.9	-4.5	
	0.5nm,0.3s,baz=132,slow=18,SNR=8.3							
HFS				Lg	Lg	03 25 42.4		
	2.6nm,0.3s,baz=113,slow=30,SNR=18							
	1.3nm,0.3s							
HFS				AML	AML			
BLEU	**Blekinge**	**3.03**	**206**	*i* P	**Pn**	**03 25 16.9**	**+1.0**	
BLEU				*i* S	**Sn**	**03 25 54.2**	**+1.3**	
DEL	**Delary**	**3.48**	**224**	*i* P	**Pn**	**03 25 23.0**	**+1.0**	
DEL				*i* S	**Sn**	**03 26 03.4**	**-0.4**	
FABU	**Falkenberg**	**3.57**	**238**	*i* P	**Pn**	**03 25 24.4**	**+1.0**	
TJOU	**Tjoern**	**3.61**	**257**	*e*P	**Pn**	**03 25 25.1**	**+1.3**	
TJOU				*i* S	**Sn**	**03 26 08.7**	**+1.6**	
STRU	**Stroemstad**	**3.64**	**273**	*e*P	**Pn**	**03 25 25.6**	**+1.3**	
STRU				*i* S	**Sn**	**03 26 07.8**	**-0.1**	
NC602	**NORSAR Array S**	**3.78**	**300**	*e*P	**Pn**	**03 25 26.7**	**+0.5**	
NB201	**NORSAR Array S**	**4.02**	**303**	*e*P	**Pn**	**03 25 30.1**	**+0.5**	
NOA	**NORSAR Array B**	**4.05**	**303**	Pn	**Pn**	**03 25 25.9**	**-4.1**	
	baz=132,slow=19,SNR=4.5							
NOA				Pg	Pb	03 25 30.3	-8.6	
	baz=51,slow=20,SNR=1.7							
NOA				Sn	**Sn**	**03 26 13.0**	**-5.0**	
	baz=210,slow=21,SNR=1.7							
NOA				Lg	Lg	03 26 29.1		
	0.1nm,0.3s,baz=160,slow=16,SNR=7.0							
	1.5nm,1.0s							
LUNU	**Lund**	**4.29**	**219**	*i* P	**Pn**	**03 25 33.4**	**+0.2**	
LUNU				*i* S	**Sn**	**03 26 21.8**	**-2.0**	
BSD	**Bornholm Skovb**	**4.33**	**206**	*i* P	**Pn**	**03 25 33.7**	**-0.1**	
BSD				*i* S	**Sn**	**03 26 23.7**	**-1.2**	
BSD				IAML		03 27 06.4		
	comp=Z,19nm,1.0s							
FINES	**FINESS Array B**	**4.60**	**55**	Pn	**Pn**	**03 25 38.4**	**+1.0**	
	comp=Z,0.3nm,0.3s,baz=246,slow=13,SNR=21							
FINES				Sn	**Sn**	**03 26 31.8**	**+0.3**	
	comp=Z,0.8nm,0.3s,baz=242,slow=19,SNR=11							
FINES				Lg	Lg	03 26 48.6		
	comp=Z,1.8nm,0.3s,baz=239,slow=26,SNR=18							
	comp=Z,0.6nm,0.2s							
FINES				AML	AML			
ARCES	**ARCESS Array B**	**10.99**	**14**	Pn	Pn	03 26 59.4	-5.7	
	comp=Z,0.1nm,0.3s,baz=190,slow=14,SNR=4.3							
	comp=Z,1.7nm,0.9s							
ARCES				AML	AML			

*ISK **21** 03:47:04.7, 34.°16N×34.°57E, h18km, ML2.8/16*
*GRAL **21** 03:47:07.6±0.3, 34.°20N×34.°69E, h4km±2km, MD2.9*
*AFAD **21** 03:47:08.3, 34.°58N×34.°46E, h7km±4km, ML2.2*
*NIC **21** 03:47:08.3, 34.°36N×34.°42E, h11km, Ml2.3/11*
*GII **21** 03:47:09.0±0.0, 34.°19N±0.°02×34.°57E±0.°01, h0km, Mws2.6, confirmed*
ISC 21 03:47:04.4±1.4, 34°28N±0.°03×34°62E±0.°03, h13km±11km, n67, σ1°94/66, Cyprus region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
PARAL	**Paralimni**	**0.86**	**326**	P		**Pb**	**03 47 23.2**	**+2.1**
PARAL				S		**Sb**	**03 47 33.5**	**+0.9**
PARAL				AML		AML	03 47 36.0	
	0.3nm,0.5s							
PARAL				AML		AML	03 47 37.2	
	0.2nm,0.8s							
BHL	**Bhannes**	**0.94**	**113**	*e*P		Pb	03 47 23.0	+0.4
BHL				*e*S		Sb	03 47 34.1	-0.8
DQRL	**Deir Qamar**	**0.97**	**126**	*e*P		Pb	03 47 23.5	+0.3
MVOU	**Mavrovouni**	**1.10**	**312**	P		**Pg**	**03 47 26.1**	**+0.6**
MVOU				S		**Sb**	**03 47 39.4**	**0.0**
MVOU				AML		AML	03 47 40.7	
	0.2nm,0.2s							
MVOU				AML		AML	03 47 41.1	
	0.1nm,0.2s							
HWQ	**Hawqa**	**1.10**	**90**	*e*P		Pn	03 47 26.4	+0.8
HWQ				*e*S		**Sb**	**03 47 40.3**	**+0.8**
ZAHL	**Zahle**	**1.13**	**111**	*e*P		Pn	03 47 26.4	+0.4
QRWL	**Qaraoun**	**1.15**	**129**	*e*P		Pn	03 47 26.5	+0.3
ASGA	**Asgata**	**1.24**	**294**	P		**Pb**	**03 47 27.9**	**+0.2**
ASGA				S		**Sn**	**03 47 43.8**	**-0.2**
ASGA				AML		AML	03 47 45.6	
	0.1nm,0.3s							
ASGA				AML		AML	03 47 46.2	
	0.1nm,0.2s							
CSS	**Mathiatis**	**1.26**	**303**	P		**Pb**	**03 47 28.5**	**+0.4**
CSS				S		**Sn**	**03 47 44.5**	**0.0**
CSS				AML		AML	03 47 45.3	
	0.1nm,0.3s							
CSS				AML		AML	03 47 54.8	
	0.1nm,0.4s							
CSS	**Mathiatis**	**1.26**	**303**	Pn		**Pb**	**03 47 28.7**	**+0.6**
CSS				Sn		**Sn**	**03 47 45.3**	**+0.7**
CSS				AML		AML		
CSS	**Mathiatis**	**1.26**	**303**	P		**Pb**	**03 47 28.9**	**+0.9**
CSS				S		**Sn**	**03 47 44.7**	**+0.1**
RCY	**Rachaya**	**1.28**	**127**	*e*P		Pn	03 47 28.6	+0.6
RCY				*e*S		Sn	03 47 44.2	-0.9
HNTI	**Hanita**	**1.28**	**159**	P		Pn	03 47 27.6	-0.4
HNTI				S		Sn	03 47 42.5	-2.5
ZRT	**Zar'it**	**1.30**	**154**	P		Pn	03 47 28.0	-0.3
ZRT				S		Sn	03 47 42.2	-3.4
BEIL	**Beino**	**1.32**	**78**	*e*P		**Pn**	**03 47 30.1**	**+1.6**
KIRY	**Kiryat Shemona**	**1.33**	**143**	P		Pn	03 47 28.9	+0.2
KIRY				S		Sn	03 47 44.5	-1.7
LFK	**Lefkose**	**1.34**	**318**	Pn		**Pb**	**03 47 30.2**	**+0.8**
LFK				Sn		**Sn**	**03 47 48.8**	**+2.2**
LFK				AML		AML		
GEM	**Giv'at Ha'Em**	**1.38**	**141**	P		Pn	03 47 29.8	+0.5
GEM				S		Sn	03 47 46.5	-0.8
NATI	**Neve Ativ**	**1.38**	**137**	P		Pn	03 47 29.7	+0.5
NATI				S		Sn	03 47 46.0	-1.3
MMA0B	**Mount Meron ar**	**1.42**	**152**	P		Pn	03 47 30.0	+0.1
MMA0B				S		Sn	03 47 46.0	-2.5
HULT	**Hulata**	**1.48**	**146**	P		Pn	03 47 31.5	+0.9
HULT				S		Sn	03 47 48.8	-1.0
XYLS	**Xyliatos**	**1.49**	**300**	P		**Pn**	**03 47 31.8**	**+0.9**
XYLS				S		**Sg**	**03 47 50.6**	**-1.8**
XYLS				AML		AML	03 47 52.0	
	0.3nm,0.4s							
XYLS				AML		AML	03 47 52.3	
	0.2nm,0.2s							
ZEFT	**Zefat**	**1.50**	**151**	P		Pn	03 47 31.4	+0.4
ZEFT				S		Sn	03 47 48.8	-1.6
APOL	**The Sanctuary**	**1.50**	**286**	P		**Pn**	**03 47 32.2**	**+1.2**
APOL				S		**Sg**	**03 47 51.0**	**-1.8**
APOL				AML		AML	03 47 54.0	
	0.3nm,0.2s							
APOL				AML		AML	03 47 54.4	
	0.1nm,0.2s							
TROD	**Troodos**	**1.59**	**295**	P		**Pn**	**03 47 33.7**	**+1.3**
TROD				S		**Sg**	**03 47 53.2**	**-2.5**
TROD				AML		AML	03 47 57.5	
	0.3nm,0.4s							
TROD				AML		AML	03 47 59.4	
	0.2nm,0.5s							
KNHM	**Kefar Nahum**	**1.61**	**150**	P		Pn	03 47 32.9	+0.5
KNHM				S		Sn	03 47 51.7	-1.3
BLGI	**Bet Lehem HaGe**	**1.61**	**163**	P		Pn	03 47 33.0	+0.4
BLGI				S		**Sn**	**03 47 52.0**	**-1.2**
RMOT	**Ramot**	**1.67**	**148**	P		Pn	03 47 34.2	+0.9
RMOT				S		Sn	03 47 53.7	-0.8
TVER	**Teveria**	**1.68**	**153**	P		Pn	03 47 34.2	+0.8
TVER				S		Sn	03 47 53.4	-1.4
OFRI	**`Ofer**	**1.68**	**169**	P		Pn	03 47 33.6	+0.1
OFRI				S		Sn	03 47 52.6	-2.4
NATA	**Nata**	**1.76**	**287**	P		**Pn**	**03 47 36.9**	**+2.2**
NATA				AML		AML	03 48 03.0	
	0.4nm,0.6s							
NATA				AML		AML	03 48 03.5	
	0.2nm,0.4s							
ALFC	**Alefka**	**1.88**	**298**	P		**Pn**	**03 47 37.9**	**+1.7**
ALFC				S		**Sb**	**03 48 00.5**	**-1.5**
ALFC				AML		AML	03 48 04.4	
	0.2nm,0.2s							
ALFC				AML		AML	03 48 09.4	
	0.2nm,0.4s							
MMLI	**Mount Malkishu**	**1.96**	**160**	P		Pn	03 47 37.5	+0.3
MMLI				S		**Sn**	**03 48 00.4**	**-1.3**
AKMS	**Akamas**	**2.02**	**292**	P		**Pn**	**03 47 40.8**	**+2.6**
AKMS				S		**Sb**	**03 48 04.1**	**-2.0**
AKMS				AML		AML	03 48 07.7	
	0.2nm,0.4s							
AKMS				AML		AML	03 48 07.7	
	0.1nm,0.3s							
TISA	**Tisan-Mersin**	**2.03**	**338**	Pn		**Pn**	**03 47 40.5**	**+2.2**
TISA				AML		AML		
BECE	**Buyukeceli-Mer**	**2.06**	**335**	Pn		**Pn**	**03 47 40.9**	**+2.2**
BECE				AML		AML		
SLTI	**Sal'it**	**2.06**	**170**	P		Pn	03 47 38.6	-0.1
SLTI				S		Sn	03 48 02.2	-2.1
YESI	**Yesilovacik-Me**	**2.07**	**338**	Pn		**Pn**	**03 47 41.2**	**+2.4**
GULN	**MERSIN_Gulnar**	**2.09**	**335**	P		**Pn**	**03 47 39.3**	**+0.2**
GULN				S		**Sn**	**03 48 02.1**	**-2.9**
GULN				IAML			03 48 11.0	
	comp=E,19nm,0.5s							
IKL	**Isikli**	**2.10**	**339**	Pn		**Pn**	**03 47 41.5**	**+2.3**
IKL				AML		AML		
ROII	**Roi**	**2.15**	**160**	P		**Pn**	**03 47 41.2**	**+1.3**
ROII				S		**Sn**	**03 48 05.5**	**-1.0**
SILI	**Silifke-Mersin**	**2.16**	**345**	Pn		**Pn**	**03 47 42.5**	**+2.5**
SILI				AML		AML		
ARIL	**Ariel Universi**	**2.23**	**167**	P		Pn	03 47 40.9	-0.1
ARIL				S		**Sn**	**03 48 06.7**	**-1.7**
TEKE	**Tekeli-Mersin**	**2.23**	**327**	Pn		**Pn**	**03 47 43.1**	**+2.1**
TEKE				AML		AML		
RGMN	**Argaman**	**2.24**	**160**	P		Pn	03 47 42.1	+1.1
RGMN				S		**Sn**	**03 48 07.8**	**-0.7**
KEBE	**Keben-Mersin**	**2.29**	**341**	Pn		**Pn**	**03 47 43.9**	**+2.0**
KEBE				AML		AML		
OSC2	**CSNet OBS 4**	**2.30**	**239**	S		**Sn**	**03 48 13.4**	**+3.3**
OSC2				AML		AML	03 48 13.6	
	0.1nm,0.6s							
TEVE	**Tevekalti-Mers**	**2.36**	**336**	Pn		**Pn**	**03 47 45.1**	**+2.3**
TEVE				AML		AML		
BERE	**Bereket-Mersin**	**2.36**	**331**	Pn		**Pn**	**03 47 45.0**	**+2.1**
BERE				AML		AML		
UJAP	**Al Uja**	**2.43**	**163**	P		Pn	03 47 44.5	+0.8
TAHT	**Tahtakopru-Hat**	**2.45**	**31**	Pn		**Pn**	**03 47 46.9**	**+2.8**
TAHT				AML		AML		
GAZI	**Gazipasa**	**2.71**	**317**	P		**Pn**	**03 47 45.6**	**-2.1**
GAZI				S		**Sn**	**03 48 17.7**	**-2.7**
GAZI	**Gazipasa**	**2.71**	**317**	Pn		**Pn**	**03 47 49.6**	**+1.9**
GAZI				AML		AML		
ERMK	**Ermenek**	**2.74**	**330**	P		Pg	03 48 02.1	+5.2
MZS	**Mizpe Shalem**	**2.78**	**166**	P		Pn	03 47 48.7	+0.1
GULE	**Gulek**	**3.00**	**2**	P		**Pn**	**03 47 53.2**	**+1.4**
GULE				S		**Sn**	**03 48 23.0**	**-4.7**
MSBI	**Mazada**	**3.02**	**168**	P		**Pn**	**03 47 53.7**	**+1.8**
KRMN	**Karaman**	**3.09**	**339**	Pn		**Pn**	**03 47 55.6**	**+2.6**
KERG	**Konya-Eregli**	**3.15**	**353**	P		**Pn**	**03 47 55.5**	**+1.6**
KERG				S		**Sn**	**03 48 28.6**	**-2.8**
KERG				IAML			03 48 30.0	
	comp=E,14nm,1.3s							
HDMB	**Hadim**	**3.19**	**328**	Pn		**Pn**	**03 47 56.7**	**+2.2**
HDMB				AML		AML		
KKBE	**Karaman, Kazim**	**3.24**	**336**	P		**Pn**	**03 47 53.9**	**-1.1**
KKBE				S		**Sn**	**03 48 31.6**	**-1.8**
KKBE				IAML			03 48 42.0	
	comp=N,9.0nm,2.4s							
KKBE				IAML			03 48 45.0	
	comp=E,6.9nm,1.1s							
AKO	**Adana**	**3.25**	**12**	P		**Pn**	**03 47 55.2**	**+0.2**
AKO				S		**Sn**	**03 48 30.6**	**-2.9**
AKO				IAML			03 49 22.0	
	comp=N,12nm,1.8s							
AKO				IAML			03 49 36.0	
	comp=E,15nm,2.6s							
KZIT	**Kziot**	**3.37**	**183**	P		**Pn**	**03 47 57.4**	**+0.7**
KZIT				S		**Sn**	**03 48 34.0**	**-2.5**
CMRD	**Camardi-Nigde**	**3.39**	**5**	Pn		**Pn**	**03 48 00.3**	**+3.2**
RMNI	**Mount Ramon**	**3.67**	**178**	P		**Pn**	**03 48 01.7**	**+0.7**
HRFI	**Mount Harif**	**4.25**	**175**	P		Pn	03 48 09.2	+0.4
HRFI				S		Sn	03 48 55.5	-2.7
EIL	**Elat**	**4.61**	**176**	P		**Pn**	**03 48 14.3**	**+0.6**
EIL				S		**Sn**	**03 49 05.1**	**-1.9**

*IDC **21** 03:47:45.7±2.2, 16.°89S×173.°34W, h68km±22km, mb3.7/9, mbtmp4.1/11, MS2.4/1, Error ellipse: s-maj=29.1km s-min=12.4km az=131.0*
*NEIC **21** 03:47:48.3±1.4, 16.°78S±0.°08×173.°4W±0.°1, h83km±7km, mb4.7/15, Error ellipse: s-maj=15.7km s-min=10.9km az=117.0*
ISC 21 03:47:43.8±0.6, 16°9S±0.°1×173°3W±0.°1, h52km, n32, σ1°34/29, mb4.3/18, 1D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
AFI	**Afiamalu**	**3.33**	**26**	P		Pn	03 48 37.4	+3.8
	286nm,0.3s,baz=255,slow=1.6,SNR=97							
AFI				S		**Sn**	**03 49 13.5**	**+1.5**
	248nm,0.3s,baz=74,slow=23,SNR=12							
NIUE	**Niue**	**3.82**	**124**			Pn	03 48 47.3	+7.2
MSVF	**Nonsavu**	**8.34**	**263**	P		Pn	03 49 51.3	+9.2
	28nm,0.8s,baz=110,slow=14,SNR=9.9							
MSVF	**Nonsavu**	**8.34**	**263**			Pn	03 49 51.0	+8.8
RAR	**Rarotonga**	**13.44**	**111**	P		**P**	**03 50 57.9**	**-1.8**
	2.9nm,0.3s,baz=285,slow=12,SNR=2.1							
RAR				LR		LR	03 53 59.4	
	comp=Z,17nm,21.9s,baz=204,slow=28							
MARNC	**Mare, Loyalty**	**18.23**	**253**	P		**P**	**03 51 52.0**	**-0.9**
OUENC	**Ouen Island, N**	**19.51**	**251**	P		**Pn**	**03 52 08.2**	**-0.3**
OUENC				IAmb		IAmb	03 52 48.0	
	comp=Z,40nm,1.3s							
DZM	**Mont Dzumac**	**19.79**	**252**	P		**Pn**	**03 52 11.7**	**-0.3**
	comp=Z,9.2nm,1.0s,baz=280,slow=6.1,SNR=2.7							
URZ	**Urevera**	**22.86**	**200**	P		**P**	**03 52 45.2**	**+2.4**
	comp=Z,23nm,0.5s,baz=34,slow=5.0,SNR=26							
	comp=Z,23nm,0.5s							
RTZ	**Ruatahuna**	**23.23**	**200**	P		**P**	**03 52 48.9**	**+2.4**
RTZ				IAmb		IAmb	03 53 00.5	
	comp=Z,12nm,0.8s							
DSZ	**Denniston Nort**	**27.85**	**204**	P		**P**	**03 53 30.2**	**+1.7**
ARMA	**Armidale**	**34.69**	**241**	P		**P**	**03 54 29.6**	**+0.7**
ARMA				IAmb		IAmb	03 54 57.0	
	comp=Z,37nm,1.5s							
HLK	**Haleakala**	**41.01**	**25**	P		**P**	**03 55 20.3**	**-2.1**
TOO	**Toolangi**	**41.62**	**232**	P		**P**	**03 55 26.7**	**-0.4**
TOO				IAmb		IAmb	03 55 44.0	
	comp=Z,7.9nm,1.5s							
STKA	**Stephens Creek**	**43.40**	**241**	P		**P**	**03 55 41.4**	**-0.1**
	comp=Z,4.8nm,0.4s,baz=93,slow=9.5,SNR=13							
	comp=Z,4.8nm,0.4s							
STKA	**Stephens Creek**	**43.40**	**241**	P		**P**	**03 55 41.6**	**0.0**
STKA				IAmb		IAmb	03 55 43.1	
	comp=Z,39nm,1.1s							
INKA	**Innaminka**	**43.66**	**247**	P		**P**	**03 55 43.6**	**-0.1**
BBOO	**Buckleboo**	**48.17**	**241**	P		**P**	**03 56 18.8**	**-0.4**
BBOO				IAmb		IAmb	03 56 37.1	
	comp=Z,25nm,1.5s							
WR8	**Warramunga Arr**	**49.49**	**258**	P		**P**	**03 56 28.1**	**-1.3**
WR8				IAmb		IAmb	03 56 56.7	
	comp=Z,6.6nm,1.3s							
WRA	**Warramunga Arr**	**49.64**	**258**	P		**P**	**03 56 29.2**	**-1.4**
	comp=Z,1.1nm,0.4s,baz=97,slow=7.0,SNR=34							
	comp=Z,1.1nm,0.4s							
WRA	**Warramunga Arr**	**49.64**	**258**	P		**P**	**03 56 29.1**	**-1.5**
AS31	**Alice Springs**	**49.78**	**253**	P		**P**	**03 56 30.7**	**-0.9**
AS31				IAmb		IAmb	03 56 31.8	
	comp=Z,8.8nm,0.5s							
ASAR	**Alice Springs**	**49.78**	**253**	P		**P**	**03 56 30.9**	**-0.8**
	comp=Z,28nm,0.5s,baz=88,slow=8.5,SNR=511							
FITZ	**Fitzroy Crossi**	**58.03**	**259**	P		**P**	**03 57 31.6**	**-0.3**
FITZ				IAmb		IAmb	03 57 38.7	
	comp=Z,4.0nm,1.5s							
VNDA	**Vanda**	**61.87**	**186**	P		**P**	**03 57 57.2**	**-0.1**
	comp=Z,0.5nm,0.6s,baz=17,slow=5.0,SNR=4.1							
	comp=Z,0.5nm,0.6s							
QSPA	**South Pole Qui**	**73.11**	**180**	P		**P**	**03 59 07.6**	**-1.0**
	comp=Z,0.4nm,0.3s,baz=73,slow=2.9,SNR=5.4							
	comp=Z,0.4nm,0.3s							
NVAR	**Mina Array Bea**	**75.38**	**42**	P		**P**	**03 59 24.1**	**+1.8**
	comp=Z,0.8nm,0.8s,baz=225,slow=8.9,SNR=5.5							
	comp=Z,0.8nm,0.8s							
GMN	**Gold Mountain**	**75.40**	**43**	P		**P**	**03 59 24.1**	**+1.6**
TXAR	**Lajitas Array**	**81.36**	**56**	P		**P**	**03 59 55.2**	**-0.1**
	comp=Z,0.4nm,0.8s,baz=212,slow=4.4,SNR=4.0							
	comp=Z,0.4nm,0.8s							
PDAR	**Pinedale Array**	**83.32**	**42**	P		**P**	**04 00 04.5**	**-1.0**
	comp=Z,0.5nm,0.8s,baz=209,slow=2.7,SNR=4.3							
	comp=Z,0.5nm,0.8s							
ILAR	**Eielson Array**	**83.92**	**11**	P		**P**	**04 00 09.1**	**+1.3**
	comp=Z,0.4nm,0.6s,baz=225,slow=6.1,SNR=9.2							
	comp=Z,0.4nm,0.6s							
ELIB	**Princess Elisa**	**90.62**	**185**	*d*P		**P**	**04 00 42.4**	**+2.0**
	comp=Z,0.9nm,0.6s							

*IDC **21** 04:14:20.7±0.9, 7.°16N×127.°09E, h0km, mb3.8/5, mbtmp3.8/5, MS2.9/1, Error ellipse: s-maj=21.6km s-min=17.9km az=10.0*
*MAN **21** 04:14:23.0, 7.°01N×127.°20E, h23km, MS3.3*
*NEIC **21** 04:14:29.4±1.6, 7.°17N±0.°09×126.°96E±0.°09, h59km±4km, mb4.1/9, Error ellipse: s-maj=13.5km s-min=12.6km az=212.0*
ISC 21 04:14:29.1±0.7, 7°01N±0.°06×126°94E±0.°08, h60km, n31, σ2°36/40, mb4.0/10, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
BIPH	**Bislig**	**1.30**	**334**	*e*P		**Pn**	**04 14 49.8**	**-1.3**
BIPH				*e*S		**Sn**	**04 15 01.4**	**-6.2**
DAV	**Davao City (W)**	**1.35**	**273**	Pg		**Pn**	**04 14 48.7**	**-3.1**
	230nm,0.3s,baz=84,slow=9.2,SNR=6.3							
DAV				Lg		Lg	04 15 09.7	
	140nm,0.3s,baz=237,slow=20,SNR=22							
DAV	**Davao City (W)**	**1.35**	**273**			**Pn**	**04 14 51.9**	**+0.1**
DAV				Sn		**Sn**	**04 15 09.4**	**+0.6**
DMPH	**Davao City--Mi**	**1.42**	**273**	*i* P		**Pn**	**04 14 53.0**	**+0.2**
DMPH				*i* S		**Sn**	**04 15 12.9**	**+2.4**
KCP	**Kidapawan**	**1.83**	**270**	*e*P		**Pn**	**04 14 57.9**	**-0.4**
KCP				*i* S		Sn	04 15 09.0	-12
CGP	**Cagayan de Oro**	**2.65**	**303**	*e*P		**Pn**	**04 15 09.4**	**0.0**
CGP				*e*S		**Sn**	**04 15 40.6**	**+0.2**
SCPH	**Surigao**	**3.11**	**333**	*e*P		**Pn**	**04 15 18.2**	**+2.5**
SCPH				*e*S		**Sn**	**04 15 56.6**	**+5.0**
DCPH	**Dipolog City**	**3.88**	**294**	*i* P		**Pn**	**04 15 25.7**	**-0.6**
TBP	**Tagbilaran**	**4.04**	**311**	*e*P		**Pn**	**04 15 27.8**	**-0.7**
TBP				*e*S		**Sn**	**04 16 12.5**	**-2.2**
LLP	**Lapu-Lapu**	**4.41**	**318**	*e*P		**Pn**	**04 15 33.1**	**-0.4**
LLP				*i* S		**Sn**	**04 16 29.5**	**+5.9**
PLP	**Palo**	**4.56**	**335**	*e*P		**Pn**	**04 15 37.6**	**+2.0**
PLP				*e*S		**Sn**	**04 16 34.4**	**+7.1**
LUWI	**Luwuk**	**9.01**	**208**	Pn		**Pn**	**04 16 38.5**	**+1.9**
FAKI	**Fak Fak**	**11.20**	**152**	Pn		**Pn**	**04 17 06.3**	**-0.2**
KNRA	**Kununurra**	**22.61**	**175**	P		**P**	**04 19 26.5**	**+1.4**
KNRA				IAmb		IAmb	04 19 43.9	
	comp=Z,13nm,1.5s							
FITZ	**Fitzroy Crossi**	**24.98**	**183**	P		**P**	**04 19 48.8**	**+1.5**
WB0	**Warramunga Arr**	**27.60**	**165**	P		**P**	**04 20 10.4**	**-0.5**
WRA	**Warramunga Arr**	**27.75**	**165**	P		**P**	**04 20 12.1**	**-0.3**
	comp=Z,0.2nm,0.5s,baz=340,slow=10,SNR=15							
WRA				PcP		**PcP**	**04 23 26.9**	**-1.0**
	comp=Z,0.2nm,0.6s,baz=337,slow=2.6,SNR=1.6							
	comp=Z,0.2nm,0.5s							
WR8	**Warramunga Arr**	**27.81**	**165**	P		**P**	**04 20 13.4**	**+0.6**
WR8				IAmb		IAmb	04 20 43.8	
	comp=Z,4.5nm,1.1s							
CMAR	**Chiang Mai Arr**	**29.53**	**295**	LR		LR	04 32 15.1	
	comp=Z,24nm,19.4s,baz=300,slow=36							
ASAR	**Alice Springs**	**31.24**	**168**	P		**P**	**04 20 43.8**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=340,slow=7.4,SNR=6.7							
ASAR				PcP		**PcP**	**04 23 37.2**	**+0.5**
	comp=Z,0.3nm,0.4s,baz=345,slow=2.6,SNR=5.3							
	comp=Z,0.2nm,0.3s							
NWAO	**Narrogin (SRO)**	**40.77**	**193**	P		**P**	**04 22 05.8**	**+1.3**
PETK	**Petropavlovsk-**	**52.34**	**23**	P		**P**	**04 23 32.8**	**-2.0**
	comp=Z,2.9nm,0.8s,baz=232,slow=8.9,SNR=1.9							
	comp=Z,2.9nm,0.8s							
MKAR	**Makanchi Array**	**55.02**	**324**	P		**P**	**04 23 53.0**	**-1.6**
	comp=Z,0.7nm,0.4s,baz=120,slow=6.5,SNR=7.8							
	comp=Z,0.7nm,0.4s							
KKAR	**Karatay Array**	**61.02**	**316**	P		**P**	**04 24 34.4**	**-2.2**
D22K	**Ayikyak River**	**80.03**	**21**	P		**P**	**04 26 32.2**	**+0.3**
D22K				IAmb		IAmb	04 26 56.6	
	comp=Z,2.6nm,1.1s							
I23K	**Minto, Yukon-K**	**81.03**	**25**	P		**P**	**04 26 37.6**	**+0.3**
I23K				IAmb		IAmb	04 27 08.6	
	comp=Z,3.0nm,1.1s							
TOLK	**Toolik Lake Re**	**81.14**	**22**	P		**P**	**04 26 37.3**	**-0.6**
ILAR	**Eielson Array**	**82.08**	**26**	P		**P**	**04 26 42.4**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=251,slow=5.2,SNR=8.4							

STKA	**Stephens Creek**	**29.90 227**	P		**P**		**04 33 38.5**	**-0.4**
	comp=Z,3.6nm,0.8s,baz=29,slow=9.6,SNR=6.9							
	comp=Z,3.6nm,0.8s							
STKA	**Stephens Creek**	**29.90 227**	P		**P**		**04 33 39.1**	**+0.3**
STKA			IAmb		IAmb		04 33 41.1	
	comp=E,15nm,0.8s							
STKA	**Stephens Creek**	**29.90 227**	P		**P**		**04 33 38.8**	**0.0**
	comp=Z,24nm,1.3s							
WR8	**Warramunga Arr**	**31.75 253**	P		**P**		**04 33 54.5**	**-0.8**
WR8			IAmb		IAmb		04 33 55.8	
	comp=Z,7.7nm,1.1s							
WRA	**Warramunga Arr**	**31.90 253**	P		**P**		**04 33 55.4**	**-1.2**
	comp=Z,5.0nm,0.7s,baz=87,slow=9.0,SNR=44							
	comp=Z,5.0nm,0.7s							
WRA	**Warramunga Arr**	**31.90 253**	P		**P**		**04 33 55.6**	**-1.0**
AS31	**Alice Springs**	**32.96 246**			**P**		**04 34 05.0**	**-0.9**
AS31			IAmb		IAmb		04 34 06.5	
	comp=Z,5.2nm,0.7s							
ASAR	**Alice Springs**	**32.97 246**	P		**P**		**04 34 05.0**	**-1.0**
	comp=Z,15nm,0.7s,baz=70,slow=9.8,SNR=190							
ASAR			LR		LR		04 45 45.9	
	comp=Z,59nm,21.9s,baz=80,slow=33							
	comp=Z,15nm,0.7s							
ASAR	**Alice Springs**	**32.97 246**			**P**		**04 34 04.9**	**-1.1**
GUMO	**Guam**	**34.12 320**	LR		LR		04 47 44.3	
	comp=Z,27nm,21.8s,baz=114,slow=35							
BBOO	**Buckleboo**	**34.40 230**	P		**P**		**04 34 18.5**	**+0.2**
BBOO			IAmb		IAmb		04 34 19.9	
	comp=Z,7.3nm,0.8s							
BBOO	**Buckleboo**	**34.40 230**	P		**P**		**04 34 17.8**	**-0.5**
MTN	**Manton Dam**	**34.77 266**	P		**P**		**04 34 22.2**	**+0.6**
MTN			IAmb		IAmb		04 34 45.0	
	comp=Z,5.8nm,0.9s							
KNRA	**Kununurra**	**36.95 261**			**P**		**04 34 40.4**	**+0.2**
FITZ	**Fitzroy Crossi**	**39.96 257**	LR		LR		04 50 02.2	
	comp=Z,57nn,19.9s,baz=174,slow=34							
FITZ	**Fitzroy Crossi**	**39.96 257**	P		**P**		**04 35 05.4**	**0.0**
FITZ	**Fitzroy Crossi**	**39.96 257**	P		**P**		**04 35 04.1**	**-1.3**
	comp=Z,2.5nm,1.4s							
SANI	**Sanana**	**41.81 281**	P		**P**		**04 35 21.1**	**+0.4**
	comp=Z,17nm,0.9s							
PPT	**Papeete**	**42.27 102**	LR		LR		04 48 19.7	
	comp=Z,30nn,20.4s,baz=282,slow=29							
EDFI	**Ende, Flores**	**44.47 271**	P		**P**		**04 35 41.1**	**-1.1**
	comp=Z,13nm,1.2s							
MBWA	**Marble Bar**	**45.63 253**	P		**P**		**04 35 52.0**	**+0.7**
BSSI	**Bau Bau, Buton**	**46.12 274**	P		**P**		**04 35 55.0**	**-0.2**
	comp=Z,22nm,1.6s							
LBFI	**Labuhan Bajo,**	**46.27 271**	P		**P**		**04 35 57.0**	**+0.7**
	comp=Z,31nn,0.9s							
KAPI	**Kappang**	**47.08 275**			**P**		**04 36 02.9**	**+0.3**
KAPI			IAmb		IAmb		04 36 04.3	
	comp=Z,16nm,1.1s							
KAPI	**Kappang**	**47.08 275**	P		**P**		**04 36 02.8**	**+0.1**
	comp=Z,17nm,1.1s							
MEEK	**Meekatharra**	**47.12 246**	P		**P**		**04 36 02.8**	**-0.1**
	comp=Z,52nn,0.9s							
SPSI	**Sidrap Palu**	**47.30 277**	P		**P**		**04 36 03.5**	**-0.8**
	comp=Z,10nm,1.0s							
DBNI	**Kabupaten Domp**	**47.80 270**	P		**P**		**04 36 07.8**	**-0.4**
	comp=Z,20nn,0.9s							
PLAI	**Plampang**	**48.27 270**	P		**P**		**04 36 11.6**	**-0.3**
	comp=Z,25nn,0.8s							
KLBR	**Kellerberrin**	**48.65 239**	P		**P**		**04 36 14.2**	**-0.4**
	comp=Z,15nn,1.5s							
NWAO	**Narrogin (SRO)**	**49.34 238**	LR		LR		04 57 02.9	
	comp=Z,29nn,19.0s,baz=64,slow=36							
NWAO	**Narrogin (SRO)**	**49.34 238**	P		**P**		**04 36 19.8**	**0.0**
NWAO	**Narrogin (SRO)**	**49.34 238**	P		**P**		**04 36 19.6**	**-0.2**
	comp=Z,18nn,2.5s							
BLDU	**Ballidu**	**49.35 241**	P		**P**		**04 36 19.0**	**-0.9**
	comp=Z,15nn,0.8s							
MORW	**Morawa**	**49.70 243**	P		**P**		**04 36 22.9**	**+0.3**
MORW	**Morawa**	**49.70 243**	P		**P**		**04 36 22.6**	**0.0**
KKM	**Kota Kinabalu**	**53.67 287**	P		**P**		**04 36 53.4**	**+0.9**
	comp=Z,14nn,1.0s							
JOW	**Kunigami**	**54.39 317**	P		**P**		**04 36 58.0**	**+0.7**
	comp=Z,48nn,1.9s							
JEW	**Eniwo**	**60.12 339**	P		**P**		**04 37 37.4**	**+0.1**
	comp=Z,0.5nn,0.9s							
CGJI	**Cibinong**	**60.45 270**	P		**P**		**04 37 39.0**	**-1.1**
	comp=Z,28nn,0.9s							
NJ2	**Nanjing**	**64.05 315**	*e*P		**P**		**04 38 05.8**	**+2.0**
NJ2			pmax		pmax			
	comp=Z,10.0nm,0.5s							
VNDA	**Vanda**	**64.70 181**	P		**P**		**04 38 07.8**	**+0.5**
	comp=Z,0.6nm,0.7s,baz=356,slow=4.0,SNR=3.1							
	comp=Z,0.6nm,0.7s							
VNDA	**Vanda**	**64.70 181**	P		**P**		**04 38 08.3**	**+0.9**
VNDA	**Vanda**	**64.70 181**	P		**P**		**04 38 06.0**	**-1.3**
	comp=Z,1.8nm,1.4s							
SBA	**Scott Base**	**64.98 180**	P		**P**		**04 38 10.5**	**+1.3**
XAN	**Xi'an**	**72.11 312**	*e*P		**P**		**04 38 55.0**	**+0.7**
CMAR	**Chiang Mai Arr**	**73.80 294**	P		**P**		**04 39 05.8**	**+1.3**
	comp=Z,1.4nm,0.4s,baz=119,slow=4.3,SNR=12							
	comp=Z,1.4nm,0.4s							
CMAR	**Chiang Mai Arr**	**73.80 294**	P		**P**		**04 39 05.5**	**+1.0**
HHC	**Hu-ho-hao-te**	**73.89 320**	*e*P		**P**		**04 39 07.8**	**+3.0**
HHC			pmax		pmax			
	comp=Z,5.0nm,0.7s							
QSPA	**South Pole Qui**	**77.15 180**	P		**P**		**04 39 23.5**	**+0.5**
	comp=Z,2.5nm,1.0s,baz=6.9,slow=5.2,SNR=6.9							
	comp=Z,2.5nm,1.0s							
QSPA	**South Pole Qui**	**77.15 180**	P		**P**		**04 39 24.0**	**+1.0**
SONM	**Songino Array**	**80.75 324**	P		**P**		**04 39 43.3**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=151,slow=7.1,SNR=4.8							
	comp=Z,0.4nm,0.3s							
ILAR	**Eielson Array**	**84.91 18**	P		**P**		**04 40 03.0**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=247,slow=4.9,SNR=11							
	comp=Z,0.6nm,0.5s							
ILAR	**Eielson Array**	**84.91 18**	P		**P**		**04 40 03.9**	**+0.1**
NVAR	**Mina Array Bea**	**86.40 49**	P		**P**		**04 40 12.2**	**0.0**
	comp=Z,0.1nm,0.3s,baz=242,slow=8.2,SNR=2.0							
	comp=Z,0.1nm,0.3s							
MKAR	**Makanchi Array**	**95.56 317**	P		**P**		**04 40 54.4**	**-0.1**
	comp=Z,1.1nm,0.8s,baz=73,slow=9.0,SNR=5.0							
	comp=Z,1.1nm,0.8s							
MKAR	**Makanchi Array**	**95.56 317**	P		**P**		**04 40 54.9**	**+0.5**
ZALV	**Zalesovo Beam**	**95.64 324**	P		**P**		**04 40 53.7**	**-0.8**
	comp=Z,0.4nm,0.3s,baz=116,slow=3.4,SNR=2.2							
	comp=Z,0.4nm,0.3s							
YKA	**Yellowknife Ar**	**96.11 27**	P		**P**		**04 40 54.3**	**-2.2**
	comp=Z,0.4nm,0.7s,baz=257,slow=5.6,SNR=2.5							
	comp=Z,0.4nm,0.7s							
ESDC	**Sonseca Array**	**152.09 345**	PKPab		**PKPab**		**04 47 35.0**	**+0.7**
	comp=Z,0.8nm,0.9s,baz=15,slow=4.5,SNR=7.7							
ESDC	**Sonseca Array**	**152.09 345**			**PKPab**		**04 47 35.1**	**+0.8**

*IDC **21** 04:49:30.8±0.5,24.°75N×94.°84E, h0km, mb4.2/18, mbtmp4.2/21, ML4.2/3, Error ellipse: s-maj=16.0km s-min=10.8km az=68.0*
*NEIC **21** 04:49:33.5±2.1,24.°96N±0.°06×95.°00E±0.°05, h10km±1km, mb4.5/31, Error ellipse: s-maj=12.2km s-min=5.2km az=144.0*
*BKK **21** 04:49:34.8±0.4,25.°N±5.°×9.°5E±.°, h10km, M4.4/7, mB5.2/3, mb4.1/4, Mjma4.2/7, ML4.6/6, MLv4.5/4, Mw(mB)4.5/3*
*GFZ **21** 04:49:35.1±0.2,25.°N±3.°×9.°5E±.°, h10km, M4.5/12, mb4.5/12, confirmed*

ISC 21 04:49:33.8±1.4, 24.°90N±0.°04×94.°95E±0.°03, h17km±8km, n100, σ1°59/114, mb4.3/36, 2D, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MORE	**Moreh**	**0.89**	**222**		**Pn**	**04 49 52.0**	**+0.4**
IMP	**Imphal**	**0.91**	**266**	*i* P	Pb	04 49 45.4	-5.9
IMP				*i* S	**Sb**	**04 50 02.0**	**-1.2**
IMP				IAML		04 50 09.1	
	comp=N,1μm,0.7s						
KOHI	**KOHIMA**	**1.12**	**317**	*i* P	**Pn**	**04 49 51.6**	**-3.3**
KOHI				*i* S	**Sg**	**04 50 13.2**	**+3.1**
KOHI				IAML		04 50 14.2	
	comp=N,6μm,0.6s						
MOKO	**MOKOCHONG**	**1.47**	**345**	*i* P	**Pn**	**04 49 58.4**	**-1.3**
MOKO				*i* S	**Sg**	**04 50 20.6**	**-0.7**
MOKO				IAML		04 50 28.3	
	comp=N,2μm,0.6s						
JORH	**JORHAT**	**1.94**	**341**	*i* S	**Sb**	**04 50 32.7**	**0.0**
SILR	**SILCHAR**	**1.95**	**267**	*i* P	**Pn**	**04 50 03.2**	**-3.0**
SILR				*i* S	**Sn**	**04 50 32.2**	**+1.8**
AZL	**Aizawl**	**2.36**	**241**	*i* P	**Pn**	**04 50 08.1**	**-3.9**
AZL				*i* S	**Sn**	**04 50 39.8**	**-0.9**
AZL				IAML		04 50 51.5	
	comp=N,612nm,0.7s						
ITAN	**ITANAGAR**	**2.49**	**334**	*i* P	**Pn**	**04 50 12.3**	**-1.4**
ITAN				*i* S	**Sb**	**04 50 47.0**	**-1.6**
TEZP	**TEZPUR**	**2.58**	**312**	*i* P	**Pn**	**04 50 14.6**	**-0.3**
TEZP				*i* S	**Sb**	**04 50 49.7**	**-1.6**
TEZP				IAML		04 50 56.8	
	comp=N,410nm,0.7s						
ZIRO	**ZIRO**	**2.79**	**340**	*i* P	**Pn**	**04 50 16.5**	**-1.5**
ZIRO				*i* S	**Sb**	**04 50 55.2**	**-2.3**
ZIRO				IAML		04 51 09.1	
	comp=N,2μm,0.6s						
SHL	**Shillong**	**2.85**	**284**	*i* P	**Pn**	**04 50 18.4**	**-0.4**
SHL				*i* S	**Sn**	**04 50 57.1**	**+4.2**
TNCH	**TengChong**	**3.24**	**87**	Pn	**Pn**	**04 50 24.1**	**-0.1**
TNCH				Pg	**Pg**	**04 50 34.5**	**-1.5**
TNCH				Sn	**Sn**	**04 51 03.6**	**+1.1**
TNCH				Sg	**Sg**	**04 51 17.0**	**-1.1**
TNCH				smax	smax		
	comp=N,160nm,0.9s						
TNCH				smax	smax		
	comp=E,150nm,0.8s						
TNCH				LR	LR		
	comp=N,1μm,2.0s						
TNCH				LR	LR		
	comp=E,1μm,1.8s						
BRDH	**Bariadhala**	**3.75**	**235**	Pn	**Pn**	**04 50 27.1**	**-3.8**
	comp=E,50nm,0.3s,baz=261,slow=22,SNR=2.5						
BRDH				Sn	**Sn**	**04 51 11.9**	**-2.9**
	comp=E,37nm,0.3s,baz=248,slow=18,SNR=7.4						
	comp=E,109nm,0.3s						
BRDH				AML	AML		
NPW	**Naypyitaw**	**5.21**	**168**	P	**Pn**	**04 50 54.3**	**+3.2**
	comp=Z,35nm,0.5s						
LSA	**Lhasa**	**5.85**	**326**	Pn	Pn	04 51 05.8	+5.5
LSA				Sn	**Sn**	**04 52 08.8**	**+1.5**
LSA				smax	smax		
	comp=N,23nm,0.5s						
LSA				smax	smax		
	comp=E,26nm,0.7s						
LSA	**Lhasa**	**5.85**	**326**	P	**Pn**	**04 51 04.6**	**+4.3**
	comp=Z,31nm,0.8s						
CHTO	**Chiang Mai**	**7.10**	**148**		**Pn**	**04 51 18.4**	**+1.4**
CHTO	**Chiang Mai**	**7.10**	**148**	P	**Pn**	**04 51 19.8**	**+2.7**
	comp=Z,11nm,1.0s						
CMAR	**Chiang Mai Arr**	**7.41**	**149**	Pn	**Pn**	**04 51 19.3**	**-2.0**
	comp=Z,0.6nm,0.3s,baz=328,slow=13,SNR=4.4						
CMAR				Lg	Lg	04 53 19.9	
	baz=325,slow=27						
	comp=Z,0.9nm,0.3s						
CMAR				AML	AML		
EVN	**Everest**	**7.90**	**294**		**Pn**	**04 51 29.5**	**+0.9**
EVN	**Everest**	**7.90**	**294**	P	**Pn**	**04 51 30.4**	**+1.8**
	comp=Z,91nm,0.8s						
LZDM	**Lanzhou Array**	**13.35**	**32**	Pn	**Pn**	**04 52 43.2**	**+0.4**
	baz=213,slow=2.5						
	comp=Z,0.9nm,0.3s						
QIZ	**Qiongzhong**	**15.00**	**110**	P	**Pn**	**04 53 05.3**	**+0.2**
QIZ				S	**Sn**	**04 55 53.3**	**+2.3**
QIZ				LR	LR		
	comp=N,150nm,12.9s						
QIZ				LR	LR		
	comp=E,230nm,13.2s						
QIZ				LR	LR		
	comp=Z,320nm,13.5s						
GTA2	**Gaotai**	**15.10**	**14**	*e*P	**P**	**04 53 13.4**	**+1.7**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WMQ	**Urumqi**	**19.79**	**344**	*e*P	**P**	**04 54 04.0**	**+0.7**
WMQ				S	**S**	**04 57 39.9**	**-5.8**
WMQ				pmax	pmax		
	comp=Z,18nm,0.7s						
NIL	**Nilore**	**20.81**	**300**	P	**P**	**04 54 14.2**	**-0.3**
	comp=Z,20nm,0.7s						
WUS	**Wushi**	**20.88**	**325**		**P**	**04 54 14.1**	**-1.2**
WUS				IAmb	IAmb	04 54 19.3	
	comp=Z,19nm,0.6s						
WUS	**Wushi**	**20.88**	**325**	P	**P**	**04 54 16.5**	**+1.2**
	comp=Z,25nm,0.9s						
HHC	**Hu-ho-hao-te**	**21.10**	**37**	*e*P	**P**	**04 54 18.4**	**+0.7**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s						
IPM	**Ipoh**	**21.13**	**163**	P	**P**	**04 54 19.1**	**+1.1**
	comp=Z,10nm,0.7s						
KCSI	**Kocane, Aceh**	**21.43**	**172**	P	**P**	**04 54 24.1**	**+2.8**
	comp=Z,7.1nm,1.2s						
KSH2	**Kashi**	**21.66**	**316**	P	**P**	**04 54 24.3**	**+0.6**
KSH2				pP	pP	04 54 26.9	-1.7
KSH2				pmax	pmax		
	comp=Z,8.0nm,1.2s						
TARG	**Taragay, Kyrgy**	**22.00**	**324**		**P**	**04 54 28.5**	**+0.8**
TARG				IAmb	IAmb	04 54 34.1	
	comp=Z,7.3nm,0.7s						
TARG	**Taragay, Kyrgy**	**22.00**	**324**	P	**P**	**04 54 28.8**	**+1.2**
	comp=Z,12nm,0.7s						
NJ2	**Nanjing**	**22.16**	**66**	*e*P	**P**	**04 54 29.3**	**+0.3**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
ASAI	**AK-SAY(Kyrgyzs**	**22.16**	**321**	P	**P**	**04 54 30.9**	**+1.5**
	comp=Z,22nn,1.0s						
MKAR	**Makanchi Array**	**24.07**	**338**	P	**P**	**04 54 48.6**	**+0.3**
	comp=Z,13nm,0.7s,baz=148,slow=8.0,SNR=60						
	comp=Z,13nm,0.7s						
MKAR	**Makanchi Array**	**24.07**	**338**		**P**	**04 54 48.8**	**+0.5**
MAKZ	**Makanchi**	**24.19**	**338**		**P**	**04 54 50.3**	**+0.9**
MAKZ				IAmb	IAmb	04 54 52.0	
	comp=Z,9.6nm,0.7s						
KBL	**Kabul**	**24.41**	**299**	P	**P**	**04 54 52.6**	**+0.9**
KBL				IAmb	IAmb	04 55 03.5	
	comp=Z,8.0nm,0.8s						
KBL	**Kabul**	**24.41**	**299**	P	**P**	**04 54 52.8**	**+1.1**
	comp=Z,13nm,0.7s						
AAK	**Ala-Archa**	**24.43**	**321**	P	**P**	**04 54 53.5**	**+1.7**
SONM	**Songino Array**	**24.62**	**19**	P	**P**	**04 54 54.6**	**+1.2**
	comp=Z,2.4nm,0.7s,baz=193,slow=11,SNR=13						
	comp=Z,2.4nm,0.7s						
SONM	**Songino Array**	**24.62**	**19**	P	**P**	**04 54 52.2**	**-1.2**
ULN	**Ulaanbaatar**	**24.84**	**20**	P	**P**	**04 54 54.8**	**-0.7**
BTK	**Batken**	**25.24**	**313**	P	**P**	**04 54 58.8**	**-0.3**
BTK				IAmb	IAmb	04 55 23.0	
	comp=Z,5.2nm,0.7s						
BTK	**Batken**	**25.24**	**313**	P	**P**	**04 55 00.6**	**+1.5**
	comp=Z,7.6nm,0.8s						
KKAR	**Karatay Array**	**27.05**	**318**	P	**P**	**04 55 15.4**	**+0.1**
KURBB	**Kurchatov Arra**	**28.64**	**338**	P	**P**	**04 55 30.3**	**+0.8**
	comp=Z,1.8nm,0.3s,baz=149,slow=8.9,SNR=11						
	comp=Z,1.8nm,0.3s						
KURK	**Kurchatov**	**28.69**	**338**		**P**	**04 55 29.8**	**0.0**
KURK				IAmb	IAmb	04 55 31.5	
	comp=Z,4.9nm,0.7s						
KURK	**Kurchatov**	**28.69**	**338**	P	**P**	**04 55 30.5**	**+0.7**
	comp=Z,7.5nm,0.8s						
ZAA0	**Zalesovo Array**	**29.98**	**348**	P	**P**	**04 55 42.2**	**+0.9**
ZALV	**Zalesovo Beam**	**29.98**	**348**	P	**P**	**04 55 42.3**	**+1.0**
	comp=Z,2.1nm,0.6s,baz=163,slow=7.0,SNR=8.6						
	comp=Z,2.1nm,0.6s						
ZALV	**Zalesovo Beam**	**29.98**	**348**		**P**	**04 55 42.1**	**+0.8**
BVAR	**Borovoye Array**	**33.63**	**333**	P	**P**	**04 56 13.8**	**+0.4**
	comp=Z,1.9nm,0.6s,baz=137,slow=10,SNR=8.5						
	comp=Z,1.9nm,0.6s						
BORK	**Borovoye**	**33.68**	**333**	P	**P**	**04 56 14.2**	**+0.4**
BORK				IAmb	IAmb	04 56 15.0	
	comp=Z,2.9nm,0.8s						
AB31	**Akbulak array**	**36.52**	**321**	P	**P**	**04 56 39.0**	**+0.6**
AB31				IAmb	IAmb	04 56 39.9	
	comp=Z,9.6nm,1.2s						
ABKAR	**Akbulak array**	**36.52**	**321**	P	**P**	**04 56 39.0**	**+0.6**
NRIK	**Noril'sk**	**44.68**	**356**	P	**P**	**04 57 45.9**	**+0.5**
	comp=Z,2.5nm,0.6s,baz=173,slow=8.1,SNR=4.6						
	comp=Z,2.5nm,0.6s						
NRIK	**Noril'sk**	**44.68**	**356**	P	**P**	**04 57 46.5**	**+1.1**
NRIK				IAmb	IAmb	04 57 49.6	
	comp=Z,3.0nm,0.8s						
ILGA	**Ilgaz**	**52.81**	**304**	P	**P**	**04 58 48.0**	**-0.7**
ILGA				IAmb	IAmb	04 59 00.2	
	comp=Z,13nm,1.1s						
BR131	**Keskin Array S**	**52.93**	**302**	P	**P**	**04 58 48.8**	**-0.7**
BR131				IAmb	IAmb	04 58 50.2	
	comp=Z,10nm,1.5s						
BRTR	**Keskin Array B**	**52.93**	**302**	P	**P**	**04 58 49.4**	**-0.1**
	comp=Z,0.4nm,0.4s,baz=124,slow=8.0,SNR=4.9						
	comp=Z,0.4nm,0.4s						
BRTR	**Keskin Array B**	**52.93**	**302**	P	**P**	**04 58 48.7**	**-0.7**
AKASG	**Malin Array Be**	**55.91**	**316**	P	**P**	**04 59 09.9**	**-0.8**
	comp=Z,1.6nm,0.5s,baz=82,slow=6.3,SNR=9.9						
	comp=Z,1.6nm,0.5s						
ELL	**Elmali**	**56.14**	**299**	P	**P**	**04 59 12.8**	**0.0**
FINES	**FINESS Array B**	**58.37**	**328**	P	**P**	**04 59 28.1**	**+0.1**
	comp=Z,3.0nm,0.8s,baz=94,slow=10,SNR=11						
	comp=Z,3.0nm,0.8s						
BURAR	**Bucovina Array**	**58.59**	**312**	P	**P**	**04 59 30.1**	**+0.2**
WRA	**Warramunga Arr**	**58.78**	**136**	P	**P**	**04 59 31.4**	**0.0**
	comp=Z,1.5nm,0.8s,baz=323,slow=7.4,SNR=12						
	comp=Z,1.5nm,0.8s						
WRA	**Warramunga Arr**	**58.78**	**136**	P	**P**	**04 59 30.9**	**-0.5**
WR8	**Warramunga Arr**	**58.89**	**136**	P	**P**	**04 59 32.5**	**+0.3**
WR8				IAmb	IAmb	04 59 32.9	
	comp=Z,4.7nm,0.9s						
KOLS	**Kolonicke sedl**	**60.46**	**314**	*e*P	**P**	**04 59 44.7**	**+2.0**
ASAR	**Alice Springs**	**61.29**	**139**	P	**P**	**04 59 48.8**	**+0.2**
	comp=Z,1.4nm,0.7s,baz=319,slow=6.8,SNR=16						
	comp=Z,1.4nm,0.7s						
LANS	**Liptovska Anna**	**62.27**	**314**	*e*P	**P**	**04 59 57.5**	**+2.5**
VYHS	**Vyhne**	**62.77**	**313**	*e*P	**P**	**05 00 01.4**	**+3.1**
MORC	**Moravsky Berou**	**63.44**	**315**	*e*P	**P**	**05 00 04.9**	**+2.2**
VRAC	**Vranov**	**64.12**	**315**	*e*P	**P**	**05 00 07.6**	**+0.4**
HFS	**Hagfors**	**64.43**	**327**	P	**P**	**05 00 09.1**	**+0.1**
	comp=Z,1.6nm,0.5s,baz=75,slow=6.3,SNR=7.9						
	comp=Z,1.6nm,0.5s						
NB2	**NORSAR Subarra**	**65.54**	**328**	P	**P**	**05 00 15.4**	**-0.9**
	comp=Z,1.0nm,0.6s,baz=91,slow=6.2						
NOA	**NORSAR Array B**	**65.54**	**328**	P	**P**	**05 00 15.8**	**-0.5**
	comp=Z,1.5nm,0.7s,baz=83,slow=6.6,SNR=5.0						
	comp=Z,1.5nm,0.7s						
NC204	**NORSAR Array S**	**65.73**	**328**	P	**P**	**05 00 17.1**	**-0.4**
VOI	**Vohitsoka**	**65.97**	**229**	P	**P**	**05 00 19.3**	**-0.3**
GEC2	**GERESS Array S**	**66.07**	**314**	P	**P**	**05 00 19.9**	**-0.1**
GEC2				IAmb	IAmb	05 00 34.7	
	comp=Z,4.0nm,1.2s						
GERES	**GERESS Array B**	**66.07**	**314**	P	**P**	**05 00 20.2**	**+0.3**
	comp=Z,1.6nm,0.5s,baz=70,slow=5.9,SNR=17						
	comp=Z,1.6nm,0.5s						
STAL	**STALIGIAL**	**67.25**	**312**	P	**P**	**05 00 25.8**	**-1.7**
FUORN	**Ofenpass-Fuorn**	**68.82**	**313**	P	**P**	**05 00 36.4**	**-1.2**
FUORN				IAmb	IAmb	05 00 48.0	
	comp=Z,7.8nm,1.3s						
BMRD	**Maredsous**	**71.37**	**317**	*d*P	**P**	**05 00 52.3**	**-0.6**
BMRD				*d*PcP	**PcP**	**05 01 12.3**	**-0.2**
D22K	**Ayikyak River**	**74.63**	**20**	P	**P**	**05 01 11.5**	**-0.4**
D22K				IAmb	IAmb	05 01 17.4	
	comp=Z,5.6nm,1.2s						
E24K	**Your Creek**	**76.38**	**20**	P	**P**	**05 01 21.3**	**-0.7**
ILAR	**Eielson Array**	**78.78**	**23**	P	**P**	**05 01 34.3**	**-1.0**
	comp=Z,0.3nm,0.7s,baz=307,slow=5.9,SNR=1.8						
	comp=Z,0.3nm,0.7s						
A36M	**Sachs Harbour**	**79.51**	**12**	P	**P**	**05 01 38.4**	**-0.8**
A36M				IAmb	IAmb	05 01 46.6	
	comp=Z,6.5nm,0.8s						
POGA	**Pongola**	**80.08**	**234**	P	**P**	**05 01 43.0**	**0.0**
RES	**Resolute Bay**	**80.45**	**3**	P	**P**	**05 01 43.8**	**-0.5**
	comp=Z,1.3nm,0.8s,baz=333,slow=2.3,SNR=1.8						
	comp=Z,1.3nm,0.8s						
RES	**Resolute Bay**	**80.45**	**3**	IAmb	IAmb	05 02 07.3	
	comp=Z,7.7nm,1.3s						
LBTB	**Lobatse**	**83.43**	**239**	P	**P**	**05 02 01.5**	**+0.6**
BOSA	**Boshof**	**85.55**	**236**	P	**P**	**05 02 11.9**	**+0.3**
	comp=Z,9.0nm,0.7s,baz=73,slow=3.8,SNR=21						
	comp=Z,9.0nm,0.7s						
BOSA	**Boshof**	**85.55**	**236**	P	**P**	**05 02 11.8**	**+0.3**
YKA	**Yellowknife Ar**	**89.77**	**13**	P	**P**	**05 02 30.1**	**-1.0**
	comp=Z,0.5nm,0.9s,baz=336,slow=4.8,SNR=2.0						
	comp=Z,0.5nm,0.9s						
BDFB	**Brasilia**	**144.15**	**278**	PKP	**PKPdf**	**05 09 08.7**	**-1.0**
	comp=Z,3.0nm,0.9s,baz=45,slow=5.7,SNR=3.6						
ROSC	**El Rosal**	**148.65**	**339**	PKPbc	**PKPbc**	**05 09 22.0**	**+0.5**
	comp=Z,10nm,0.6s,baz=110,slow=16,SNR=6.0						

*ATH **21** 05:05:13.7, 34.°60N×25.°52E, h7km±2km, ML2.9/6, Latitude uncertainty: 5 km; Longitude uncertainty: 4 km*
*THE **21** 05:05:18.8, 35.°N±2.°×25.°3E±0.°8, h12km±4km, M2.5/7, MLh2.5/7*

ISC 21 05:05:17.2±2.2, 34.°70N±0.°09×25.°34E±0.°06, h9km±11km, n10, σ0°74/16, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIVA	**Sivas**	**0.54**	**306**	P	**Pg**	**05 05 27.8**	**+0.1**
SIVA				S	**Sg**	**05 05 34.8**	**+0.1**
SIVA				AML	AML		
SIVA	**Sivas**	**0.54**	**306**	P	**Pg**	**05 05 27.5**	**-0.1**
NPS	**Neapolis**	**0.60**	**22**	P	**Pn**	**05 05 30.4**	**-1.6**
NPS				S	**Sb**	**05 05 39.2**	**+0.6**
N

	7.0nm,0.4s						
UZB	**Uzynbulak**	**3.92**	**306**	*e*P	**Pb**	**05 09 37.0**	**+1.4**
	3.0nm,0.2s						
UZB				*e*S	**Sg**	**05 10 30.4**	**-1.7**
	7.0nm,0.4s						
SATY	**Saty**	**4.26**	**301**	Pg	**Pb**	**05 09 44.9**	**+3.5**
	2.2nm,0.3s						
SATY				Lg	Lg	05 10 44.1	
	5.3nm,0.2s						
SATY	**Saty**	**4.26**	**301**	*e*P	**Pb**	**05 09 44.9**	**+3.5**
	2.2nm,0.3s						
SATY				*e*S	**Sg**	**05 10 44.1**	**+0.9**
	5.3nm,0.2s						
DJR	**Jarkent**	**4.30**	**323**	Pg	**Pg**	**05 09 45.7**	**-2.9**
	1.2nm,0.3s						
DJR				Lg	Lg	05 10 46.0	
	2.9nm,0.4s						
DJR	**Jarkent**	**4.30**	**323**	*e*P	**Pg**	**05 09 45.7**	**-2.9**
	1.2nm,0.3s						
DJR				*e*S	**Sg**	**05 10 46.0**	**+1.7**
	2.9nm,0.4s						
KPKS	**Kokpek**	**4.30**	**307**	Pg	**Pb**	**05 09 45.0**	**+2.9**
	0.5nm,0.1s						
KPKS				Lg	Lg	05 10 44.4	
	14nm,0.3s						
KPKS	**Kokpek**	**4.30**	**307**	*e*P	**Pb**	**05 09 45.0**	**+2.9**
	0.5nm,0.1s						
KPKS				*e*S	**Sg**	**05 10 44.4**	**0.0**
	14nm,0.3s						
MK31	**Makanchi Array**	**5.90**	**353**	⇑Pg	**Pb**	**05 10 10.8**	**+1.5**
	0.8nm,0.7s,baz=164,slow=16						
MK31				⇓Lg	Lg	05 11 33.4	
	4.0nm,0.8s,baz=156,slow=26,SNR=4.4						
MAKZ	**Makanchi**	**5.95**	**351**	⇓Pg	**Pb**	**05 10 12.1**	**+2.0**
	2.3nm,0.8s						
MAKZ				⇑Lg	Lg	05 11 33.2	
	6.3nm,1.1s						

*JMA **21** 05:09:18.8±0.1,24°N±1°×122°9E±0°4,h54km±4km, MV2.7/14,NEAR ISHIGAKIJIMA ISLAND*
*TAP **21** 05:09:20.3,23°67N×122°85E,h82km±1km,ML3.6,D*
ISC 21 05:09:18.7±1.1**,23°65N**±0°03×**122°95E**±0°02**,h28**km±12km**, n140,**σ1s36**/271,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.75**	**309**	*e*P	**Pb**	**05 09 32.9**	**0.0**
JYNG	**Yonagunijimaku**	**0.80**	**360**	P	**Pb**	**05 09 33.3**	**-0.7**
JYNG				S	**Sb**	**05 09 44.2**	**-0.3**
YOJ	**Yonaguni jima**	**0.81**	**4**	P	**Pb**	**05 09 33.6**	**-0.7**
YOJ				S	**Sb**	**05 09 44.1**	**-0.8**
EOS3	**EOS3**	**0.86**	**318**	*e*P	**Pb**	**05 09 35.0**	**+0.1**
HATJ	**Hateruma jima**	**0.88**	**62**	P	**Pb**	**05 09 35.2**	**-0.1**
HATJ				S	**Sb**	**05 09 47.1**	**+0.3**
IRIF	**Iriomote-Funau**	**0.99**	**46**	P	**Pn**	**05 09 36.6**	**0.0**
IRIF				*e*S	**Sb**	**05 09 49.9**	**0.0**
EOS2	**EOS2**	**1.01**	**320**	*e*P	**Pn**	**05 09 38.0**	**+1.1**
EOS2				*e*S	**Sb**	**05 09 51.3**	**+0.9**
JKRS	**Kuro-shima**	**1.13**	**58**	P	**Pn**	**05 09 39.1**	**+0.5**
JKRS				*e*S	**Sn**	**05 09 53.3**	**0.0**
TEYL	**Yanliau Villag**	**1.26**	**280**	*e*P	**Pn**	**05 09 40.3**	**-0.1**
TEYL				*e*S	**Sn**	**05 09 54.8**	**-1.6**
HWA	**Hwalien**	**1.28**	**285**	P	**Pn**	**05 09 42.0**	**+1.4**
HWA				S	**Sn**	**05 09 57.4**	**+0.6**
SHUL	**Shoufeng**	**1.28**	**277**	*e*P	**Sn**	**05 09 40.2**	**-0.5**
SHUL				*e*S	**Sn**	**05 09 55.7**	**-1.2**
EHP	**Heping Village**	**1.29**	**301**	P	**Pn**	**05 09 42.2**	**+1.4**
EHP				S	**Sn**	**05 09 57.8**	**+0.6**
TEGC	**Jichi Village**	**1.30**	**273**	P	**Pn**	**05 09 42.3**	**+1.5**
TEGC				*e*S	**Sn**	**05 09 56.5**	**-0.8**
EAHA	**Aohua**	**1.30**	**302**	P	**Pn**	**05 09 41.9**	**+1.0**
EAHA				S	**Sn**	**05 09 58.5**	**+1.1**
JIJ	**Ishigaki jima**	**1.30**	**56**	P	**Pn**	**05 09 41.0**	**0.0**
JIJ				S	**Sn**	**05 09 56.7**	**-0.8**
TWD	**Chiawan**	**1.31**	**289**	P	**Pn**	**05 09 41.8**	**+0.7**
TWD				S	**Sn**	**05 09 57.5**	**-0.2**
ETL	**Fush Village**	**1.32**	**293**	P	**Pn**	**05 09 42.1**	**+0.9**
ETL				*e*S	**Sn**	**05 09 56.0**	**-2.0**
EWUT	**Wuta**	**1.34**	**307**	*e*P	**Pn**	**05 09 41.6**	**+0.2**
EWUT				*e*S	**Sn**	**05 09 58.3**	**0.0**
NACB	**Ninganchiao**	**1.35**	**293**	*e*P	**Pn**	**05 09 41.0**	**-0.7**
NACB				S	**Sn**	**05 09 56.9**	**-1.8**
ENA	**Nanau**	**1.35**	**305**	P	**Pn**	**05 09 41.6**	**-0.1**
ENA				*e*S	**Sn**	**05 09 57.1**	**-1.6**
ESAO	**Su ao**	**1.37**	**313**	P	**Pn**	**05 09 43.5**	**+1.6**
ESAO				S	**Sn**	**05 09 58.9**	**-0.2**
ETM	**Tongmen**	**1.37**	**284**	*e*P	**Pn**	**05 09 41.0**	**-1.0**
ETM				*e*S	**Sn**	**05 09 57.9**	**-1.3**
TWC	**Suao**	**1.39**	**314**	*e*P	**Pn**	**05 09 44.4**	**+2.2**
TWC				*e*S	**Sn**	**05 10 00.6**	**+1.0**
EGFH	**Guangfu**	**1.40**	**271**	P	**Pn**	**05 09 42.1**	**-0.2**
EGFH				S	**Sn**	**05 09 58.5**	**-1.3**
ESL	**Shilin**	**1.40**	**277**	*e*P	**Pn**	**05 09 40.8**	**-1.5**
ESL				*e*S	**Sn**	**05 09 56.4**	**-3.5**
HGSD	**Ruisui**	**1.41**	**264**	*i* P	**Pn**	**05 09 42.1**	**-0.3**
HGSD				*e*S	**Sn**	**05 09 57.9**	**-2.2**
ECBN	**Changbin**	**1.42**	**257**	*e*P	**Pn**	**05 09 44.2**	**+1.7**
ECBN				*e*S	**Sn**	**05 09 59.2**	**-1.3**
WARBT	**Fenglin Townsh**	**1.44**	**273**	*e*P	**Sn**	**05 09 42.1**	**-0.7**
WARBT				*e*S	**Sn**	**05 09 59.3**	**-1.6**
ETLH	**Xiulin Townshi**	**1.46**	**293**	*e*P	**Sn**	**05 09 42.8**	**-0.4**
ETLH				*e*S	**Sn**	**05 09 59.5**	**-1.9**
LXIB	**Xiulin Townshi**	**1.46**	**285**	*e*P	**Sn**	**05 09 43.0**	**-0.3**
LXIB				*e*S	**Sn**	**05 09 59.9**	**-1.6**
EHYH	**Wanrong**	**1.48**	**264**	P	**Sn**	**05 09 43.6**	**+0.1**
EHYH				S	**Sn**	**05 10 01.1**	**-0.8**
NDS	**Dongshan**	**1.50**	**311**	*e*P	**Pn**	**05 09 45.5**	**+1.8**
NDS				S	**Sn**	**05 10 02.3**	**0.0**
CHKH	**Chenggong**	**1.50**	**253**	*e*P	**Pn**	**05 09 45.0**	**+1.3**
CHKH				*e*S	**Sn**	**05 10 00.3**	**-2.0**
EHY	**Hungye**	**1.50**	**265**	*e*P	**Pn**	**05 09 44.0**	**+0.3**
EHY				S	**Sn**	**05 10 01.7**	**-0.7**
EGS		**1.51**	**322**	*e*P	**Pn**	**05 09 42.0**	**-1.9**
EGS				S	**Sn**	**05 10 02.5**	**-0.1**
EYUL	**Yuli**	**1.53**	**259**	*e*P	**Pn**	**05 09 44.0**	**0.0**
EYUL				*i* S	**Sn**	**05 10 02.3**	**-0.7**
YULB	**Yu-li**	**1.54**	**261**	P	**Pn**	**05 09 44.7**	**+0.4**
YULB				S	**Sn**	**05 10 02.5**	**-0.9**
TWF1	**Yuli**	**1.55**	**259**	*e*P	**Pn**	**05 09 44.7**	**+0.3**
TWF1				*e*S	**Sn**	**05 10 02.6**	**-0.9**
CHKT	**Chengkung**	**1.56**	**250**	*e*P	**Pn**	**05 09 46.2**	**+1.7**
CHKT				*e*S	**Sn**	**05 10 01.1**	**-2.6**
JISG	**Ishigakijimahi**	**1.56**	**53**	*e*P	**Pn**	**05 09 44.0**	**-0.5**
JISG				*e*S	**Sn**	**05 10 02.8**	**-0.9**
LATG	**Datong**	**1.57**	**305**	*e*P	**Pn**	**05 09 45.5**	**+0.6**
LATG				S	**Sn**	**05 10 04.1**	**-0.2**
FULB	**Fuli**	**1.59**	**254**	P	**Pn**	**05 09 44.9**	**0.0**
FULB				*e*S	**Sn**	**05 10 02.2**	**-2.3**
TWE	**Neicheng**	**1.59**	**313**	*e*P	**Pb**	**05 09 48.4**	**+1.0**
TWE				*e*S	**Sn**	**05 10 02.5**	**-2.0**
ENTT	**Nioudou**	**1.61**	**308**	*e*P	**Pn**	**05 09 45.9**	**+0.7**
ENTT				*e*S	**Sn**	**05 10 04.4**	**-0.6**
TWB1	**Santiao Chiao**	**1.62**	**327**	P	**Pn**	**05 09 46.1**	**+0.8**
TWB1				*e*S	**Sn**	**05 10 04.0**	**-1.3**
WHF	**Hehuan Shan**	**1.62**	**288**	*e*P	**Pn**	**05 09 45.5**	**-0.3**
WHF				S	**Sn**	**05 10 04.6**	**-1.4**
NDT	**Datong Townshi**	**1.62**	**306**	P	**Pn**	**05 09 46.3**	**+0.9**
NDT				S	**Sn**	**05 10 05.4**	**0.0**
NNSB	**Datong**	**1.63**	**299**	P	**Pn**	**05 09 46.0**	**+0.4**
NNSB				*i* S	**Sn**	**05 10 04.8**	**-1.0**
NNSH	**Datong**	**1.63**	**299**	P	**Pn**	**05 09 45.2**	**-0.4**
NNSH				S	**Sn**	**05 10 04.5**	**-1.3**
NNS	**Nan Shan**	**1.65**	**299**	S	**Sn**	**05 10 05.1**	**-1.0**
OWD	**Renai**	**1.66**	**281**	*e*P	**Pn**	**05 09 46.0**	**+0.1**
OWD				S	**Sn**	**05 10 05.4**	**-1.0**
EDH	**Donghe**	**1.66**	**246**	*e*P	**Pn**	**05 09 45.8**	**-0.1**
EDH				*i* S	**Sn**	**05 10 04.2**	**-2.0**
VWDT	**VWDT**	**1.66**	**274**	*i* P	**Pn**	**05 09 46.2**	**+0.3**
VWDT				*e*S	**Sn**	**05 10 06.1**	**-0.3**
FUSB	**Fushanzhiwuyua**	**1.67**	**312**	*e*P	**Pn**	**05 09 47.0**	**+0.9**
FUSB				*e*S	**Sn**	**05 10 06.0**	**-0.7**
LDUT	**Ludao**	**1.67**	**235**	*i* P	**Pn**	**05 09 45.8**	**-0.3**
LDUT				*e*S	**Sn**	**05 10 03.5**	**-3.1**
TIPB	**Shuangxi**	**1.67**	**322**	*e*P	**Pn**	**05 09 47.9**	**+1.8**
TIPB				*e*S	**Sn**	**05 10 07.0**	**+0.3**
FUSS	**Fushou**	**1.67**	**291**	*i* P	**Pn**	**05 09 46.5**	**+0.1**
FUSS				S	**Sn**	**05 10 06.5**	**-0.5**
EHD	**Haiduan**	**1.68**	**253**	*e*P	**Pn**	**05 09 47.8**	**+1.6**
EHD				*e*S	**Sn**	**05 10 05.5**	**-1.3**
ECS	**Chishang**	**1.68**	**251**	P	**Pn**	**05 09 47.3**	**+1.1**
ECS				*e*S	**Sn**	**05 10 07.0**	**+0.1**
WUSB	**Renai**	**1.71**	**282**	P	**Pn**	**05 09 47.2**	**+0.4**
WUSB				*e*S	**Sn**	**05 10 07.5**	**-0.3**
TWT	**Tachien**	**1.73**	**291**	*e*P	**Pn**	**05 09 49.6**	**+2.5**
TWT				S	**Sn**	**05 10 07.8**	**-0.6**
NWLT	**Wulai**	**1.74**	**311**	P	**Pn**	**05 09 47.2**	**+0.2**
NWLT				*e*S	**Sn**	**05 10 07.9**	**-0.4**
SXI1	**Grass Mountain**	**1.75**	**326**	*e*P	**Pn**	**05 09 47.4**	**+0.2**
SXI1				S	**Sn**	**05 10 08.5**	**0.0**
TDCB	**Techi**	**1.75**	**291**	*e*P	**Pn**	**05 09 48.1**	**+0.8**
TDCB				S	**Sn**	**05 10 08.4**	**-0.3**
YHNB	**Yeheng**	**1.76**	**306**	*e*P	**Pn**	**05 09 48.0**	**+0.6**
YHNB				*e*S	**Sn**	**05 10 06.8**	**-2.2**
NWF	**Wu-fen Shan**	**1.78**	**323**	*e*P	**Pn**	**05 09 49.5**	**+1.9**
NWF				*e*S	**Sn**	**05 10 10.1**	**+0.9**
WFSB	**Wu-fen Shan**	**1.78**	**323**	*e*P	**Pn**	**05 09 49.8**	**+2.3**
WFSB				*e*S	**Sn**	**05 10 09.5**	**+0.3**
NSK	**Sanguang**	**1.78**	**306**	P	**Pn**	**05 09 49.0**	**+1.4**
NSK				S	**Sn**	**05 10 09.4**	**0.0**
TWA	**Mucha**	**1.82**	**317**	P	**Pn**	**05 09 49.1**	**+1.0**
TWA				S	**Sn**	**05 10 10.1**	**-0.3**
LONT	**Longtian**	**1.83**	**247**	P	**Pn**	**05 09 49.1**	**+0.9**
LONT				*e*S	**Sn**	**05 10 10.4**	**-0.1**
ELDTW	**Lidau**	**1.83**	**256**	*e*P	**Pn**	**05 09 49.3**	**+0.9**
ELDTW				S	**Sn**	**05 10 08.7**	**-2.0**
TNOU	**National Taiwa**	**1.84**	**325**	P	**Pn**	**05 09 49.6**	**+1.1**
TNOU				*e*S	**Sn**	**05 10 10.9**	**+0.1**
WPL	**Puli Township**	**1.86**	**282**	*e*P	**Pb**	**05 09 51.8**	**-0.2**
WPL				*e*S	**Sn**	**05 10 11.9**	**+0.6**
JTJ	**Tarama**	**1.88**	**58**	*e*S	**Sn**	**05 10 11.6**	**-0.1**
TATO	**Taipei**	**1.88**	**315**	P	**Pn**	**05 09 50.3**	**+1.4**
TATO				S	**Sn**	**05 10 11.9**	**+0.2**
DPDB	**Guoxing**	**1.89**	**282**	*e*P	**Pb**	**05 09 52.4**	**-0.2**
SMLT	**Sun Moon Lake**	**1.90**	**278**	*e*P	**Pn**	**05 09 50.8**	**+1.5**
SMLT				S	**Sn**	**05 10 12.0**	**-0.2**
TWGBT	**Beinan**	**1.91**	**245**	P	**Pn**	**05 09 49.4**	**0.0**
TWGBT				*e*S	**Sn**	**05 10 11.2**	**-1.3**
WCS	**Beigang Elemen**	**1.91**	**283**	*e*P	**Pb**	**05 09 53.0**	**+0.1**
WCS				S	**Sn**	**05 10 12.9**	**+0.4**
TAP	**Taipei**	**1.91**	**317**	P	**Pn**	**05 09 50.0**	**+0.6**
TAP				*e*S	**Sn**	**05 10 11.1**	**-1.5**
TWG	**Pinlang**	**1.91**	**245**	P	**Pn**	**05 09 49.9**	**+0.5**
TWG				*e*S	**Sn**	**05 10 11.1**	**-1.5**
WHYT	**Xinyi Township**	**1.93**	**272**	*e*P	**Pn**	**05 09 52.3**	**+2.7**
WHYT				S	**Sn**	**05 10 13.4**	**+0.5**
TYC	**Yuchr**	**1.94**	**278**	P	**Pn**	**05 09 51.2**	**+1.5**
TYC				*e*S	**Sn**	**05 10 13.4**	**+0.3**
WHP	**Taichung City**	**1.94**	**289**	*e*P	**Pn**	**05 09 52.7**	**+2.8**
WHP				S	**Sn**	**05 10 13.3**	**0.0**
NFF	**Wufeng Townshi**	**1.94**	**301**	*e*P	**Pn**	**05 09 51.7**	**+1.9**
NFF				*e*S	**Sn**	**05 10 14.2**	**+0.8**
YM01	**YM01**	**1.96**	**320**	P	**Pn**	**05 09 51.4**	**+1.4**
YM01				*e*S	**Sn**	**05 10 13.5**	**-0.1**
ALS	**Alishan**	**1.97**	**267**	P	**Pn**	**05 09 52.0**	**+1.5**
ALS				S	**Sn**	**05 10 14.2**	**-0.2**
KSHI	**Guanxi Townshi**	**1.97**	**305**	*e*P	**Pn**	**05 09 49.6**	**-0.7**
KSHI				S	**Sn**	**05 10 14.7**	**+0.6**
YM08	**YM08**	**1.98**	**321**	P	**Pn**	**05 09 51.1**	**+0.8**
YM08				*e*S	**Sn**	**05 10 13.5**	**-0.6**
ZUZH	**Zhuzihu**	**1.98**	**320**	P	**Pn**	**05 09 51.0**	**+0.6**
ZUZH				*e*S	**Sn**	**05 10 13.9**	**-0.4**
TWS1	**Kuangyinshan**	**2.01**	**316**	P	**Pn**	**05 09 52.1**	**+1.4**
TWS1				S	**Sn**	**05 10 14.0**	**-1.0**
LIOB	**Emei**	**2.03**	**300**	P	**Pn**	**05 09 52.2**	**+1.2**
LIOB				S	**Sn**	**05 10 15.7**	**+0.3**
NSTT	**Nanjuang**	**2.03**	**299**	*e*P	**Pn**	**05 09 51.1**	**0.0**
NSTT				S	**Sn**	**05 10 15.8**	**+0.3**
TWY	**Chenhua**	**2.04**	**323**	P	**Pn**	**05 09 52.2**	**+1.1**
TWY				S	**Sn**	**05 10 14.9**	**-0.7**
NTST	**Danshui**	**2.04**	**318**	P	**Pn**	**05 09 51.1**	**-0.1**
NTST				S	**Sn**	**05 10 15.1**	**-0.6**
STYH	**Taoyuan**	**2.05**	**257**	*e*P	**Pn**	**05 09 50.7**	**-0.6**
STYH				S	**Sn**	**05 10 15.5**	**-0.5**
LAY	**Lan-yu**	**2.06**	**219**	P	**Pn**	**05 09 51.2**	**-0.2**
LAY				*e*S	**Sn**	**05 10 13.7**	**-2.4**
LYUB	**Lan-yu**	**2.07**	**218**	P	**Pn**	**05 09 51.0**	**-0.5**
LYUB				*e*S	**Sn**	**05 10 13.8**	**-2.5**
STYT	**Tauyuan**	**2.07**	**257**	P	**Pn**	**05 09 53.1**	**+1.4**
STYT				*e*S	**Sn**	**05 10 16.8**	**+0.2**
CHN5	**Tsauling**	**2.09**	**269**	P	**Pn**	**05 09 53.4**	**+1.6**
CHN5				S	**Sn**	**05 10 19.2**	**+2.3**
WNT	**Mingjian**	**2.09**	**277**	*e*S	**Sn**	**05 10 19.8**	**+2.9**
WNT1	**Nantou City**	**2.10**	**278**	P	**Pn**	**05 09 53.3**	**+1.4**
WNT1				*e*S	**Sb**	**05 10 21.5**	**-0.2**
WWF	**Wufeng**	**2.10**	**281**	P	**Pn**	**05 09 54.0**	**+2.1**
WWF				*e*S	**Sb**	**05 10 21.1**	**-0.7**
TWQ1	**Liyutan**	**2.11**	**290**	P	**Pn**	**05 09 53.2**	**+1.1**
TWQ1				*e*S	**Sn**	**05 10 19.6**	**+2.1**
ECL	**Taimali**	**2.11**	**241**	*e*P	**Pn**	**05 09 52.3**	**+0.2**
ECL				*e*S	**Sn**	**05 10 15.9**	**-1.6**
PCYT	**Pengchaiyu**	**2.13**	**338**	P	**Pn**	**05 09 53.2**	**+0.8**
PCYT				*e*S	**Sn**	**05 10 17.9**	**-0.1**
NSY	**Sanyi**	**2.15**	**291**	P	**Pn**	**05 09 53.7**	**+1.1**
NSY				*e*S	**Sn**	**05 10 18.0**	**-0.3**
TPUB	**Ta-pu**	**2.16**	**261**	*e*P	**Pn**	**05 09 54.9**	**+2.1**
TPUB				*e*S	**Sn**	**05 10 20.1**	**+1.4**
WCKO	**Fanlu**	**2.16**	**265**	P	**Pn**	**05 09 53.8**	**+1.0**
WCKO				S	**Sn**	**05 10 20.9**	**+2.1**
WTP	**Ta-pu**	**2.18**	**260**	P	**Pn**	**05 09 55.1**	**+1.9**
WTP				*e*S	**Sn**	**05 10 21.9**	**+2.6**
CHN4	**Tsaushan**	**2.19**	**263**	P	**Pn**	**05 09 55.2**	**+2.1**
CHN4				*e*S	**Sn**	**05 10 22.0**	**+2.7**
WYL	**Yuanlin Townsh**	**2.19**	**279**	*e*P	**Pn**	**05 09 54.1**	**+0.9**
WYL				*e*S	**Sn**	**05 10 19.5**	**0.0**
WDLH	**Douliu**	**2.21**	**272**	P	**Pn**	**05 09 56.0**	**+2.4**
WDLH				*e*S	**Sn**	**05 10 23.3**	**+3.3**
SLGT	**Liugui**	**2.22**	**253**	*e*P	**Pn**	**05 09 56.2**	**+2.6**
SLGT				*e*S	**Sn**	**05 10 21.4**	**+1.3**
SGST	**Jiashian**	**2.25**	**256**	P	**Pn**	**05 09 55.3**	**+1.3**
SGST				S	**Sn**	**05 10 22.0**	**+1.2**
CHN1	**Nanshi**	**2.27**	**259**	P	**Pn**	**05 09 56.7**	**+2.3**
CHN1				*e*S	**Sn**	**05 10 24.1**	**+2.7**
SNST	**Tainan City**	**2.29**	**260**	P	**Pn**	**05 09 55.7**	**+1.1**
SNST				S	**Sn**	**05 10 22.6**	**+0.7**
TWK	**Hsinying**	**2.29**	**261**	P	**Pn**	**05 09 56.6**	**+1.9**
TWK				S	**Sn**	**05 10 24.4**	**+2.3**
TAWH	**Dawu Township**	**2.30**	**236**	*e*P	**Pn**	**05 09 57.3**	**+2.6**
TAWH				S	**Sn**	**05 10 21.3**	**-0.9**
EAST	**Anshuo**	**2.31**	**237**	P	**Pn**	**05 09 55.0**	**+0.1**
EAST				*e*S	**Sn**	**05 10 21.3**	**-2.1**
SSD	**Sandimen**	**2.31**	**248**	P	**Sn**	**05 09 56.3**	**+1.8**
SSD				S	**Sn**	**05 10 21.1**	**-1.4**
TSMG	**Majia**	**2.32**	**247**	P	**Pn**	**05 09 56.4**	**+1.4**
TSMG				*e*S	**Sn**	**05 10 23.8**	**+1.2**
WTK	**Tuku**	**2.35**	**272**	*e*P	**Pn**	**05 09 56.1**	**+0.7**
WTK				*e*S	**Sn**	**05 10 23.3**	**0.0**
MASBT	**Mashibuluo**	**2.37**	**245**	*i* P	**Pn**	**05 09 57.0**	**+1.3**
MASBT				*e*S	**Sn**	**05 10 23.9**	**+0.1**
WRL	**Guolierlin Hig**	**2.37**	**277**	*e*P	**Sn**	**05 09 56.3**	**+0.6**
WRL				*e*S	**Sn**	**05 10 23.9**	**+0.1**
RLNB	**Erlin**	**2.39**	**276**	P	**Pn**	**05 09 57.3**	**+1.5**
RLNB				*e*S	**Sn**	**05 10 23.7**	**-0.5**
JMJ	**Miyako jima 2**	**2.43**	**61**	*e*P	**Sn**	**05 09 59.4**	**+2.8**
JMJ				*e*S	**Sn**	**05 10 25.7**	**+0.3**
SLIU	**Shizi**	**2.44**	**235**	*e*P	**Pn**	**05 09 55.9**	**-0.8**
SCZT	**Fangliau**	**2.49**	**240**	*e*P	**Pn**	**05 10 00.2**	**+2.8**
SCZT				*e*S	**Sn**	**05 10 25.4**	**-1.5**
SMST	**Manzhou Townsh**	**2.53**	**231**	*e*P	**Pn**	**05 10 04.1**	**+2.1**
SMST				*e*S	**Sn**	**05 10 28.4**	**+0.5**
TWKBT	**Hengchun**	**2.60**	**230**	*e*P	**Pn**	**05 10 02.2**	**+3.4**
TWKBT				*e*S	**Sn**	**05 10 31.3**	**+1.7**
TWK1	**Hengchun**	**2.61**	**230**	*e*P	**Pn**	**05 10 02.0**	**+3.1**
TWK1				*e*S	**Sn**	**05 10 30.2**	**+0.6**
WDGT	**Dungji**	**3.05**	**263**	*e*S	**Sn**	**05 10 39.9**	**-0.6**
PHUB	**P'eng-hu**	**3.10**	**268**	P	**Pn**	**05 10 06.9**	**+1.2**
PHUB				*e*S	**Sn**	**05 10 38.7**	**-3.2**
VCHM	**Qimei**	**3.26**	**263**	P	**Pn**	**05 10 09.2**	**+1.3**
VCHM				*e*S	**Sn**	**05 10 44.6**	**-1.3**
VWUC	**VWUC**	**3.46**	**293**	P	**Pn**	**05 10 11.1**	**+0.3**
VWUC				S	**Sn**	**05 10 48.7**	**-2.1**
PTMZ	**Houxiangcun**	**3.76**	**292**	P	**Pn**	**05 10 15.1**	**+0.3**
PTMZ				S	**Sn**	**05 10 55.2**	**-2.9**
LYJJ	**Jianjiangzhen**	**4.09**	**316**	*e*S	**Sn**	**05 11 03.0**	**-3.3**
XPSS	**Dashiqiu**	**4.12**	**323**	*e*P	**Pn**	**05 10 18.9**	**-0.7**
XPSS				*e*S	**Sn**	**05 11 03.9**	**-3.0**
KNMB	**Chin-men Tao**	**4.25**	**282**	P	**Pn**	**05 10 22.2**	**+0.7**
KNMB				*e*S	**Sn**	**05 11 07.9**	**-2.4**

*IDC **21** 05:10:46.1±1.6,17°68S×175°01W,h231km±19km,mb3.3/6, mbtmp3.9/8,Error ellipse: s-maj=25.1km s-min=16.7km az=144.0*
ISC 21 05:10:47.9±0.8**,17°5S**±0°1×**175°1W**±0°1**,h256**km**,n13,** σ1s**59**/10**,mb3.5/6,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.78**	**42**	P	**Pn**	**05 12 01.8**	**+0.5**
	25nm,0.4s,baz=217,slow=20,SNR=12						
AFI				S	**S**	**05 12 57.8**	**-2.2**
	78nm,0.5s,baz=248,slow=18,SNR=10						
MSVF	**Nonsavu**	**6.58**	**267**	P	**Pn**	**05 12 22.2**	**-1.3**
	3.6nm,0.6s,baz=90,slow=20,SNR=4.3						
URZ	**Urewera**	**21.77**	**197**	P	**P**	**05 15 16.8**	**-2.4**
	3.8nm,0.6s,baz=18,slow=3.0,SNR=1.8						
	3.8nm,0.6s						
WRA	**Warramunga Arr**	**47.85**	**259**	P	**P**	**05 19 00.7**	**+0.2**
	0.4nm,0.3s,baz=97,slow=7.7,SNR=11						
	0.4nm,0.3s						
ASAR	**Alice Springs**	**47.97**	**254**	P	**P**	**05 19 02.2**	**+0.8**
	3.9nm,0.7s,baz=93,slow=8.6,SNR=48						
ASAR				PcP	**PcP**	**05 20 27.2**	**+1.8**
	0.3nm,0.5s,baz=82,slow=3.9,SNR=2.1						
	3.9nm,0.7s						
VNDA	**Vanda**	**61.11**	**186**	P	**P**	**05 20 35.1**	**+0.4**
	0.7nm,0.7s,baz=4.4,slow=1.8,SNR=6.0						
	0.7nm,0.7s						
QSPA	**South Pole Qui**	**72.53**	**180**	P	**P**	**05 21 47.0**	**+0.2**
	0.9nm,0.8s,baz=30,slow=0.6,SNR=2.6						
	0.9nm,0.8s						
ILAR	**Eielson Array**	**84.83**	**12**	P	**P**	**05 22 54.4**	**+1.2**
	0.2nm,0.5s,baz=205,slow=5.2,SNR=6.6						
	0.2nm,0.5s						
H03S2	**Juan Fernandez**	**85.34**	**124**	T	T	06 57 49.6	
	baz=254,slow=74,SNR=23						
H03S1	**Juan Fernandez**	**85.36**	**124**	T	T	06 57 50.5	
	baz=254,slow=74,SNR=13						
H03S3	**Juan Fernandez**	**85.36**	**124**	T	T	06 57 49.1	
	baz=254,slow=74,SNR=12						
H03N2	**Juan Fernandez**	**85.46**	**123**	T	T	06 57 48.1	
	baz=3.9,slow=74,SNR=15						
H03N1	**Juan Fernandez**	**85.48**	**123**	T	T	06 57 46.8	
	baz=258,slow=74,SNR=28						

*ATH **21** 05:40:17.2,34°61N×25°31E,h10km±3km,ML2.7/4, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
*THE **21** 05:40:19.0,35°N±2°×2°5E±°,h8km±4km,M2.6/6,MLh2.6/6*
*ISK **21** 05:40:19.2,34°68N×25°14E,h2km,ML2.6/4*
ISC 21 05:40:19.5±1.6**,34°69N**±0°07×**25°23E**±0°03**,h9**km±11km**, n15,**σ0s**73**/23**,Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIVA	**Sivas**	**0.47**	**313**	P	**Pg**	**05 40 28.8**	**+0.1**
SIVA				S	**Sb**	**05 40 36.7**	**-0.4**
SIVA				AML	AML		
SIVA	**Sivas**	**0.47**	**313**	P	**Pg**	**05 40 28.6**	**-0.1**
SIVA				S	**Sg**	**05 40 36.1**	**+1.1**
SIVA				AML	AML		
IACM	**Heraklion**	**0.62**	**348**	P	**Pb**	**05 40 32.4**	**-0.1**
NPS	**Neapolis**	**0.65**

IGAR	**Gharneh**	**4.43**	**208**	Pn		**Pn**	**05 43 28.6**	**+3.2**
KHMZ	**Khomeyn**	**4.55**	**236**	*e*Pn		**Pn**	**05 43 30.8**	**+3.8**
KHMZ				IAML			05 44 56.5	
	comp=Z,80nm,1.0s							
TAFT	**Taft - Yazd**	**4.62**	**184**	Pn		**Pn**	**05 43 30.8**	**+2.8**
AFRZ	**Afriz**	**4.71**	**127**	Pn		**Pn**	**05 43 32.3**	**+3.2**
JRKH	**Jarkhoshk**	**4.75**	**94**	Pn		**Pn**	**05 43 32.5**	**+2.9**
IBAF	**Bafgh**	**4.83**	**169**	Pn		**Pn**	**05 43 33.9**	**+3.2**
IMEH	**Mehriz**	**4.95**	**179**	Pn		**Pn**	**05 43 35.9**	**+3.4**
SHRT	**Shahrakht**	**5.46**	**118**	*e*Pn		**Pn**	**05 43 42.2**	**+2.9**
SHRT				IAML			05 45 30.6	
	comp=Z,41nm,1.0s							
GRMI	**Germi**	**5.80**	**297**	*e*Pn		**Pn**	**05 43 45.9**	**+1.8**
GRMI				IAML			05 45 00.0	
	comp=Z,28nm,1.0s							
BSRN	**Basiran**	**5.81**	**138**	*e*Pn		**Pn**	**05 43 47.3**	**+3.1**
BSRN				IAML			05 45 38.9	
	comp=Z,37nm,1.0s							
KLNJ	**Kolanjah**	**5.86**	**205**	*e*Pn		Pn	05 43 49.4	+4.3
KLNJ				IAML			05 45 03.1	
	comp=Z,43nm,1.0s							
GTMR	**Gotvand**	**5.91**	**231**	*e*Pn		**Pn**	**05 43 49.6**	**+4.2**
GTMR				IAML			05 45 52.9	
	comp=Z,36nm,1.0s							
SNGE	**Sanandaj**	**5.96**	**260**	*e*Pn		**Pn**	**05 43 49.2**	**+2.8**
SNGE				IAML			05 45 39.1	
	comp=Z,21nm,1.0s							
KHGB	**Koh Gabri**	**6.18**	**164**	Pn		**Pn**	**05 43 52.8**	**+3.4**
HRA	**Herat**	**6.61**	**105**	Pn		**Pn**	**05 43 56.0**	**+0.7**
CHMN	**Cheshme madani**	**6.95**	**158**	Pn		**Pn**	**05 44 03.4**	**+3.3**
GNI	**Garni**	**8.57**	**299**	Pn		**Pn**	**05 44 22.9**	**+0.8**
	comp=Z,3.4nm,0.3s,baz=121,slow=12,SNR=1.7							
	comp=Z,7.4nm,0.3s							
GNI				AML		AML		
GNI	**Garni**	**8.57**	**299**			**Pn**	**05 44 23.1**	**+1.0**
GURO	**Guroymak-BITLI**	**10.16**	**286**	Pn		**Pn**	**05 44 46.0**	**+2.1**
KBZ	**Khabaz**	**11.55**	**313**	Pn		**Pn**	**05 45 02.4**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=129,slow=6.5,SNR=5.9							
KBZ				Sn		**Sn**	**05 47 07.6**	**-4.0**
	comp=Z,0.1nm,0.3s,baz=77,slow=19,SNR=1.5							
	comp=Z,2.0nm,0.7s							
KBZ				AML		AML		
AB31	**Akbulak array**	**13.49**	**15**			**Pn**	**05 45 26.7**	**-2.5**
ABKAR	**Akbulak array**	**13.49**	**15**	Pn		**Pn**	**05 45 26.7**	**-2.5**
AKTO	**Aktyubinsk**	**14.30**	**9**	Pn		**Pn**	**05 45 39.0**	**-1.3**
	comp=Z,0.7nm,0.3s,baz=185,slow=13,SNR=8.0							
AKTO				Sn		Sn	05 48 07.1	-12
	comp=Z,0.1nm,0.3s,baz=233,slow=19,SNR=1.1							
AKTO				LR		LR	05 52 34.3	
	comp=Z,119nm,19.4s,baz=34,slow=43							
	comp=Z,3.7nm,0.5s							
AKTO				AML		AML		
AAK	**Ala-Archa**	**16.64**	**62**	Pn		**Pn**	**05 46 10.5**	**-0.7**
	comp=Z,4.5nm,0.8s,baz=232,slow=19,SNR=2.3							
AAK				LR		LR	05 52 56.7	
	comp=Z,122nm,18.2s,baz=284,slow=38							
AAK	**Ala-Archa**	**16.64**	**62**			**Pn**	**05 46 10.2**	**-1.1**
BELG	**Belogornoye**	**16.77**	**345**	Pn		**Pn**	**05 46 08.8**	**-3.8**
	comp=Z,1.1nm,0.3s,baz=168,slow=3.0,SNR=12							
BELG				Sn		Sn	05 49 06.9	-12
	comp=Z,0.6nm,0.3s,baz=156,slow=20,SNR=1.3							
BELG				LR		LR	05 55 04.8	
	comp=Z,113nm,18.5s,baz=94,slow=46							
	comp=Z,4.1nm,0.6s							
BELG				AML		AML		
BRTR	**Keskin Array B**	**16.78**	**288**	Pn		**P**	**05 46 17.1**	**+1.8**
	comp=Z,0.1nm,0.3s,baz=96,slow=10,SNR=4.8							
	comp=Z,0.2nm,0.3s							
BRTR				AML		AML		
BRTR	**Keskin Array B**	**16.78**	**288**			**P**	**05 46 14.1**	**-1.2**
KSH2	**Kashi**	**16.88**	**74**	P		**P**	**05 46 15.8**	**-0.6**
KSH2				pmax		pmax		
	comp=Z,8.0nm,0.8s							
NRN	**Naryn**	**17.47**	**67**	Pn		**Pn**	**05 46 20.3**	**-1.5**
EIL	**Elat**	**17.69**	**253**	LR		LR	05 54 27.5	
	comp=Z,96nm,18.6s,baz=72,slow=42							
TARG	**Taragay, Kyrgy**	**18.85**	**66**	P		**P**	**05 46 37.1**	**-1.3**
BORK	**Borovoye**	**20.05**	**29**	P		**P**	**05 46 50.7**	**-0.2**
BORK				IAmb		IAmb	05 46 53.6	
	comp=Z,9.7nm,0.8s							
BVAR	**Borovoye Array**	**20.06**	**29**	P		Pn	05 46 52.9	+0.1
	comp=Z,11nm,0.6s,baz=217,slow=10,SNR=46							
	comp=Z,11nm,0.6s							
ARTI	**Arti**	**20.21**	**6**	P		Pn	05 46 53.7	-0.9
	comp=Z,20nm,0.9s,baz=199,slow=6.5,SNR=24							
	comp=Z,20nm,0.9s							
ARTI	**Arti**	**20.21**	**6**	P		Pn	05 46 53.2	-1.4
KURBB	**Kurchatov Arra**	**22.39**	**43**	P		**P**	**05 47 17.5**	**+1.3**
	comp=Z,1.2nm,0.8s,baz=246,slow=11,SNR=7.6							
	comp=Z,1.2nm,0.8s							
KURK	**Kurchatov**	**22.48**	**43**	P		**P**	**05 47 15.4**	**-1.7**
KURK				IAmb		IAmb	05 47 22.0	
	comp=Z,5.5nm,1.0s							
AKASG	**Malin Array Be**	**23.13**	**316**	P		**P**	**05 47 23.6**	**-0.3**
	comp=Z,1.4nm,0.7s,baz=119,slow=9.6,SNR=4.7							
	comp=Z,1.4nm,0.7s							
KIEV	**Kiev**	**23.14**	**316**	P		**P**	**05 47 22.5**	**-1.5**
KIEV				IAmb		IAmb	05 47 31.0	
	comp=Z,11nm,1.1s							
MKAR	**Makanchi Array**	**23.14**	**55**	P		**P**	**05 47 25.3**	**+1.1**
	comp=Z,2.2nm,1.1s,baz=248,slow=12,SNR=3.4							
MKAR				LR		LR	05 57 43.7	
	comp=Z,76nm,18.3s,baz=281,slow=40							
	comp=Z,2.2nm,1.1s							
MKAR	**Makanchi Array**	**23.14**	**55**	P		**P**	**05 47 24.1**	**-0.1**
MLR	**Muntele Rosu**	**23.34**	**302**	P		**P**	**05 47 26.7**	**+0.4**
BURAR	**Bucovina Array**	**24.37**	**307**	P		**P**	**05 47 37.6**	**+1.5**
BURAR				IAmb		IAmb	05 47 45.8	
	comp=Z,2.7nm,0.8s							
BUR08	**Bucovina Ar. S**	**24.39**	**307**	P		**P**	**05 47 37.3**	**+1.0**
BUR08				IAmb		IAmb	05 48 08.2	
	comp=Z,5.6nm,1.2s							
KOLS	**Kolonicke sedl**	**26.63**	**308**	*e*P		**P**	**05 48 00.2**	**+3.7**
ZALV	**Zalesovo Beam**	**27.38**	**40**	P		**P**	**05 48 03.0**	**-0.1**
	comp=Z,0.3nm,0.4s,baz=248,slow=9.7,SNR=1.9							
	comp=Z,0.3nm,0.4s							
ZALV	**Zalesovo Beam**	**27.38**	**40**	P		**P**	**05 48 02.0**	**-1.1**
SUW	**Suwalki**	**27.95**	**319**	P		**P**	**05 48 08.0**	**-0.2**
FIA1	**FINESS Array S**	**30.83**	**333**	P		**P**	**05 48 34.1**	**+0.4**
FINES	**FINESS Array B**	**30.83**	**333**	P		**P**	**05 48 34.2**	**+0.5**
	comp=Z,2.5nm,0.8s,baz=116,slow=13,SNR=3.4							
	comp=Z,2.5nm,0.8s							
FINES	**FINESS Array B**	**30.83**	**333**	P		**P**	**05 48 33.7**	**0.0**
GERES	**GERESS Array B**	**32.15**	**306**	P		**P**	**05 48 45.5**	**-0.1**
	comp=Z,0.5nm,0.7s,baz=99,slow=8.2,SNR=4.4							
	comp=Z,0.5nm,0.7s							
GERES	**GERESS Array B**	**32.15**	**306**	P		**P**	**05 48 46.6**	**+1.0**
HFS	**Hagfors**	**35.24**	**325**	P		**P**	**05 49 13.1**	**+0.9**
	comp=Z,1.4nm,0.7s,baz=103,slow=16,SNR=1.4							
	comp=Z,1.4nm,0.7s							
KEST	**Kesra**	**36.27**	**283**	P		**P**	**05 49 20.0**	**-1.5**
	comp=Z,4.9nm,0.5s,baz=118,slow=5.0,SNR=6.3							
	comp=Z,4.9nm,0.5s							
SENIN	**Lac Senin/Sane**	**36.34**	**301**	P		**P**	**05 49 22.4**	**+0.3**
SENIN				IAmb		IAmb	05 49 24.8	
	comp=Z,3.0nm,0.8s							
TLY	**Talaya**	**37.75**	**50**	LR		LR	06 07 04.9	
	comp=Z,54nm,19.0s,baz=268,slow=39							
CMAR	**Chiang Mai Arr**	**42.87**	**102**	P		**P**	**05 50 17.8**	**+1.3**
	comp=Z,1.8nm,0.7s,baz=304,slow=7.5,SNR=10							
	comp=Z,1.8nm,0.7s							
CMAR	**Chiang Mai Arr**	**42.87**	**102**	P		**P**	**05 50 17.2**	**+0.7**
EKA	**Eskdalemuir Ar**	**43.03**	**315**	P		**P**	**05 50 18.5**	**+1.2**
	comp=Z,1.5nm,0.6s,baz=88,slow=8.3,SNR=2.1							
	comp=Z,1.5nm,0.6s							
ESDC	**Sonseca Array**	**45.49**	**293**	P		**P**	**05 50 39.3**	**+1.9**
	comp=Z,0.4nm,0.6s,baz=88,slow=8.0,SNR=4.6							
	comp=Z,0.4nm,0.6s							
ESDC	**Sonseca Array**	**45.49**	**293**	P		**P**	**05 50 37.7**	**+0.3**
TIXI	**Tiksi**	**51.04**	**23**	LR		LR	06 16 17.3	
	comp=Z,52nm,19.3s,baz=189,slow=40							
TORD	**Torodi Ar. Bea**	**52.51**	**258**	P		**P**	**05 51 30.8**	**-0.6**
	comp=Z,1.9nm,1.1s,baz=54,slow=7.3,SNR=4.0							
	comp=Z,1.9nm,1.1s							
TORD	**Torodi Ar. Bea**	**52.51**	**258**	P		**P**	**05 51 33.3**	**+2.0**
TORD				IAmb		IAmb	05 51 38.8	
	comp=Z,2.0nm,1.2s							
KSRS	**Korea Array**	**57.26**	**65**	P		**P**	**05 52 06.0**	**+0.4**
	comp=Z,1.0nm,0.7s,baz=280,slow=6.9,SNR=2.6							
	comp=Z,1.0nm,0.7s							

*IDC **21** 05:42:27.9±1.3, 10˚.47N×69˚.13W, h0km, mb3.5/3, mbtmp3.9/6, ML3.1/3, MS2.8/2, Error ellipse: s-maj=30.4km s-min=14.6km az=132.0*
*RSNC **21** 05:42:27.5±1.1, 11˚N±6˚×6˚.9W±˚, h139km±17km, M3.3, mb4.5, ML3.2*
*FUNV **21** 05:42:30.6, 10˚.33N×69˚.14W, h5km, MW3.5, Presumed earthquake*

ISC 21 05:42:28.8±1.3, 10˚.42N±0˚.04×69˚.19W±0˚.03, h6km±9km, n19, σ1§87/30, Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
TEPV	**Terepaima**	**0.45**	**181**	*e*P		**Pg**	**05 42 37.2**	**-0.3**
TEPV				*e*S		**Sg**	**05 42 43.3**	**0.0**
JACV	**Jacura**	**0.75**	**28**	*e*P		**Pg**	**05 42 45.1**	**+1.9**
JACV				*e*S		**Sb**	**05 42 57.7**	**+2.8**
MAPV	**Macapo**	**0.92**	**129**	*e*P		**Pg**	**05 42 46.0**	**-0.5**
MAPV				*e*S		**Sg**	**05 42 57.4**	**-1.1**
TURV	**Turiamo**	**1.32**	**88**	*e*P		**Pn**	**05 42 53.5**	**-0.4**
TURV				*e*S		**Sg**	**05 43 10.6**	**-0.7**
BENV	**Beln**	**1.62**	**106**	*e*P		**Pn**	**05 42 59.0**	**+0.9**
BENV				*e*S		**Sn**	**05 43 19.7**	**+0.4**
BAUV	**El Baul**	**1.85**	**142**	*e*P		**Pn**	**05 43 01.4**	**+0.3**
BAUV				*e*S		**Sn**	**05 43 24.0**	**-0.7**
SDV	**Santo Domingo**	**2.09**	**223**	Pn		**Pn**	**05 43 06.1**	**+1.6**
	55nm,0.3s,baz=46,slow=19,SNR=105							
SDV				Lg		Lg	05 43 37.8	
	42nm,0.3s,baz=351,slow=19,SNR=7.7							
SDV				LR		LR	05 44 09.7	
	comp=Z,129nm,21.7s,baz=306,slow=47							
	146nm,0.4s							
SDV				AML		AML		
SDV	**Santo Domingo**	**2.09**	**223**	P		**Pn**	**05 43 06.3**	**+1.8**
SDV				S		**Sb**	**05 43 33.5**	**+0.1**
TACV	**Tcata**	**2.14**	**97**	*e*P		**Pn**	**05 43 06.0**	**+0.9**
TACV				*e*S		**Sn**	**05 43 32.3**	**+0.2**
URIC	**Uribia, Colomb**	**3.04**	**295**	P		**Pn**	**05 43 16.7**	**-0.7**
URIC				S		Sn	05 43 47.9	-6.3
MERV	**Las Mercedes**	**3.07**	**112**	*e*P		**Pn**	**05 43 18.1**	**+0.2**
MERV				*e*S		**Sn**	**05 43 53.4**	**-1.6**
CRJC	**Cerrejon, Guaj**	**3.68**	**280**	P		**Pn**	**05 43 26.6**	**+0.2**
CRJC				S		**Sn**	**05 44 08.8**	**-1.4**
SMRC	**Santa Marta, M**	**5.01**	**279**	P		**Pn**	**05 43 43.5**	**-1.0**
SMRC				S		**Sn**	**05 44 39.5**	**-3.3**
ROSC	**El Rosal**	**7.52**	**223**	Pn		**Pn**	**05 44 21.8**	**+2.4**
	3.8nm,0.3s,baz=17,slow=19,SNR=5.2							
ROSC				Sn		**Sn**	**05 45 51.7**	**+6.4**
	0.9nm,0.3s,baz=73,slow=19,SNR=1.4							
	7.1nm,0.3s							
ROSC				AML		AML		
MDP	**Montagnes des**	**17.22**	**107**	Pn		**Pn**	**05 46 28.0**	**-2.1**
	0.2nm,0.3s,baz=318,slow=14,SNR=2.1							
	14nm,1.1s							
MDP				AML		AML		
TXAR	**Lajitas Array**	**37.29**	**305**	P		**P**	**05 49 42.4**	**+0.4**
	0.1nm,0.4s,baz=120,slow=8.2,SNR=1.4							
	0.1nm,0.4s							
CPUP	**Villa Florida**	**38.30**	**163**	LR		LR	06 07 53.7	
	comp=Z,27nm,21.2s,baz=74,slow=40							
ULM	**Lac du Bonnet**	**45.41**	**336**	P		**P**	**05 50 47.5**	**-0.8**
	2.1nm,0.7s,baz=142,slow=19,SNR=2.1							
	2.1nm,0.7s							
TORD	**Torodi Ar. Bea**	**69.24**	**80**	P		**P**	**05 53 36.5**	**-0.7**
	0.4nm,0.9s,baz=280,slow=8.1,SNR=1.6							
	0.4nm,0.9s							

*HEL **21** 05:47:14.9±0.3, 67˚.17N×20˚.49E, h0km, ML1.0, Suspected explosion*
*UPP **21** 05:47:15.0±0.1, 67˚.20N×20˚.69E, h0km, ML2.5, Confirmed Induced event*

ISC 21 05:47:15.7±0.9, 67˚.20N±0˚.03×20˚.71E±0˚.03, h0km, n19, σ1§30/24, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
DUNU	**Dundret**	**0.09**	**215**	P		**Pg**	**05 47 17.0**	**-0.4**
DUNU				S		**Sg**	**05 47 18.3**	**-0.4**
RATU	**Laukkuluspa**	**0.76**	**326**	P		**Pg**	**05 47 29.3**	**-0.9**
RATU				S		**Sg**	**05 47 39.7**	**-0.4**
KUA	**Kurravaara**	**0.77**	**350**	P		**Pg**	**05 47 29.4**	**-1.0**
ERTU	**Ertsjaerv**	**0.87**	**137**	P		**Pg**	**05 47 31.5**	**-0.9**
ERTU	**Ertsjaerv**	**0.87**	**137**	PG		**Pg**	**05 47 31.4**	**-1.0**
SALU	**Saltoluokta**	**0.87**	**283**	P		**Pg**	**05 47 31.3**	**-1.1**
NIKU	**Nikkaluokta**	**0.93**	**317**	P		**Pg**	**05 47 32.4**	**-1.1**
LANU	**Lannavaara**	**0.99**	**29**	PG		**Pg**	**05 47 34.2**	**-0.4**
HARU	**Harads**	**1.04**	**174**	P		**Pg**	**05 47 34.5**	**-1.2**
KLF	**Kolari**	**1.27**	**87**	PG		**Pg**	**05 47 39.3**	**-0.7**
KLF				MSG			05 47 55.9	
	comp=Z,0.9nm,0.2s							
KLF				SG		**Sg**	**05 47 56.8**	**+0.4**
HEF	**Hetta**	**1.65**	**41**	PG		**Pn**	**05 47 45.8**	**-0.2**
HEF				MSG			05 48 06.7	
	comp=Z,0.8nm,0.2s							
HEF				SN		**Sn**	**05 48 08.2**	**+0.3**
TOF	**Tornio**	**1.83**	**126**	PG		**Pb**	**05 47 49.0**	**-1.0**
TOF				MSG			05 48 11.1	
	comp=Z,0.6nm,0.2s							
TOF				SG		**Sb**	**05 48 13.0**	**-0.3**
KTK1	**Kautokeino**	**2.05**	**26**	SG		**Sb**	**05 48 20.3**	**+0.4**
RNF	**Rovaniemi**	**2.17**	**103**	SB		**Sn**	**05 48 22.3**	**+1.6**
RANF	**Ranua**	**2.70**	**113**	SB		**Sb**	**05 48 39.0**	**+0.5**
ARA0	**ARCESS Array S**	**2.94**	**35**	SB		**Sb**	**05 48 45.1**	**-0.4**
UMAU	**Umeaa**	**3.33**	**180**	PB		**Pn**	**05 48 11.0**	**+2.1**
KEV	**Kevo**	**3.46**	**39**	SB		**Sn**	**05 48 56.0**	**+3.6**
MSF	**Maaselka**	**3.57**	**107**	SG		**Sg**	**05 49 08.0**	**-2.3**

*IDC **21** 06:39:01.2±5.0, 7˚.00S×129˚.45E, h197km±50km, mb3.7/7, mbtmp4.3/10, Error ellipse: s-maj=61.9km s-min=17.4km az=64.0*

ISC 21 06:39:01.4±1.0, 7˚.14S±0˚.08×129˚.3E±0˚.2, h200km, n10, σ1§50/12, mb3.9/7, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.46**	**198**	P		**Pn**	**06 41 41.3**	**+1.8**
	2.6nm,0.2s,baz=28,slow=12,SNR=28							
FITZ				S		**Sn**	**06 43 45.2**	**-2.1**
	8.9nm,0.3s,baz=53,slow=20,SNR=9.5							
WRA	**Warramunga Arr**	**13.64**	**159**	P		**Pn**	**06 42 05.9**	**-1.2**
	1.5nm,0.5s,baz=341,slow=13,SNR=19							
WRA				S			06 44 30.4	-8.8
	4.6nm,0.8s,baz=350,slow=20,SNR=7.2							
ASAR	**Alice Springs**	**17.03**	**165**	P		**Pn**	**06 42 49.4**	**+1.3**
	8.7nm,0.5s,baz=345,slow=10,SNR=133							
ASAR				S		**S**	**06 45 52.6**	**-1.5**
	1.2nm,0.5s,baz=354,slow=25,SNR=5.3							
STKA	**Stephens Creek**	**27.17**	**157**	P		**P**	**06 44 28.5**	**+2.1**
	1.2nm,0.4s,baz=338,slow=9.4,SNR=3.8							
	1.2nm,0.4s							
CMAR	**Chiang Mai Arr**	**39.27**	**311**	P		**P**	**06 46 11.4**	**+0.3**
	1.7nm,0.3s,baz=123,slow=7.8,SNR=5.0							
	1.7nm,0.3s							
SONM	**Songino Array**	**58.35**	**342**	P		**P**	**06 48 34.2**	**-1.5**
	1.1nm,0.6s,baz=158,slow=6.5,SNR=6.9							
	1.1nm,0.6s							
MKAR	**Makanchi Array**	**67.95**	**327**	P		**P**	**06 49 39.4**	**+0.6**
	3.6nm,0.4s,baz=126,slow=5.5,SNR=55							
	3.6nm,0.4s							
ZALV	**Zalesovo Beam**	**71.39**	**334**	P		**P**	**06 49 59.0**	**-0.5**
	1.0nm,0.6s,baz=111,slow=7.9,SNR=4.4							
	1.0nm,0.6s							
KURBB	**Kurchatov Arra**	**72.25**	**329**	P		**P**	**06 50 04.7**	**-0.1**
	2.0nm,0.6s,baz=126,slow=4.9,SNR=21							
	2.0nm,0.6s							
BVAR	**Borovoye Array**	**77.80**	**328**	P		**P**	**06 50 36.8**	**+0.4**
	0.7nm,0.5s,baz=126,slow=7.3,SNR=2.5							
	0.7nm,0.5s							

NNC 21 06:56:17.8±4.0, 36˚.54N×70˚.73E, h97km±96km, mb3.4, mpv4.0, 2C-4D, Error ellipse: s-maj=32.9km s-min=29.7km az=81.0, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KK31	**Karatay Array**	**6.55**	**359**	⇓P		Pn	06 57 52.1	+0.5
	5.0nm,0.2s,baz=176,slow=12,SNR=87							
KK31				⇑S		Sn	06 59 05.4	+0.6
	1.5nm,0.3s,baz=188,slow=22,SNR=5.3							
AAK	**Ala-Archa**	**6.75**	**24**	⇓P		Pn	06 57 53.8	-0.5
	3.0nm,0.5s							
AAK				⇓S		Sn	06 59 10.3	+0.6
	2.8nm,0.7s							
AB31	**Akbulak array**	**14.94**	**332**	⇑P		Pn	06 59 44.1	+0.3
	0.4nm,0.3s,baz=162,slow=10,SNR=23							
AB31				⇓S		Sn	07 02 28.2	-0.2
	0.7nm,0.4s,baz=153,slow=23,SNR=5.5							

*NNC **21** 07:18:39.9±7.6, 34˚.95N×69˚.81E, h57km±122km, mb4.0, mpv4.2, Error ellipse: s-maj=53.7km s-min=40.8km az=38.0*
*IDC **21** 07:18:41.6±4.1, 34˚.85N×70˚.41E, h105km±35km, mb3.5/16, mbtmp3.9/21, MS3.3/4, Error ellipse: s-maj=23.0km s-min=17.1km az=34.0*

ISC 21 07:18:30.8±0.6, 34˚.64N±0˚.06×69˚.90E±0˚.05, h10km, n41, σ2§55/49, mb3.9/15, MS3.4/3, 3C-5D, Southeastern Afghanistan

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
SRNI	**Srinagar**	**4.10**	**97**	*i* S		**Sg**	**07 20 47.0**	**+4.5**
SRNI				IAML			07 21 13.2	
	comp=N,971nm,0.8s							
JMU	**Jammu**	**4.51**	**113**	*i* P		**Pn**	**07 19 42.5**	**+3.4**
JMU				*i* S		**Sg**	**07 20 54.3**	**-1.3**
JMU				IAML			07 21 10.8	
	comp=N,383nm,0.6s							
THN	**Thein Dam**	**5.36**	**113**	*i* P		**Pn**	**07 19 52.9**	**+2.0**
TSSA	**Tissa**	**5.51**	**107**	*i* P		**Pn**	**07 19 55.8**	**+2.7**
TSSA				IAML			07 21 30.1	
	comp=N,368nm,0.6s							
DHRM	**DHARAMSHALA**	**5.86**	**112**	*i* P		**Pn**	**07 20 01.2**	**+3.3**
DHRM				*i* S		**Sb**	**07 21 26.2**	**+2.7**
ALCI	**Alchi Leh**	**6.04**	**92**	*i* P		**Pn**	**07 20 02.6**	**+2.2**
ALCI				*i* S		**Sb**	**07 21 32.2**	**+3.5**
BHK	**Bhakra**	**6.33**	**119**	*i* P		**Pn**	**07 20 05.1**	**+0.9**
BHK				*e*Pn		**Sb**	**07 21 33.5**	**-3.5**
BHK				*i* S		Sn	07 21 33.9	+17
SMLA	**Simla**	**7.05**	**118**	*i* P		**Pn**	**07 20 14.6**	**+0.6**
SMLA				*i* S		Sb	07 21 49.2	-8.1
KLP	**Kalpa**	**7.66**	**112**	*i* P		**Pn**	**07 20 24.4**	**+1.7**
KLP				*i* S		Sb	07 22 07.0	-8.5
HNLY	**HANLEY**	**7.79**	**101**	*i* P		**Pn**	**07 20 28.2**	**+3.6**
HNLY				*i* S		**Sb**	**07 22 13.9**	**-5.2**
UTK	**UTTARKASHI**	**8.19**	**116**	*i* P		**Pn**	**07 20 30.3**	**+0.5**
UTK				*i* S		Sn	07 22 16.1	+14
KK31	**Karatay Array**	**8.46**	**3**	⇑P		**Pn**	**07 20 36.1**	**+2.7**
	comp=N,7.3nm,0.3s,baz=182,slow=13,SNR=148							
KK31				⇑S		**Sn**	**07 22 11.0**	**+2.0**
	comp=N,6.8nm,0.4s,baz=188,slow=22,SNR=5.1							
KUDL	**Kundal**	**8.58**	**137**	*i* P		Pn	07 20 29.8	-5.2
AAK	**Ala-Archa**	**8.75**	**23**	P		**Pn**	**07 20 39.9**	**+2.4**
	comp=N,6.1nm,0.3s,baz=204,slow=7.8,SNR=27							
AAK				S		**Sn**	**07 22 14.7**	**-1.6**
	comp=N,6.7nm,0.4s,baz=180,slow=20,SNR=2.1							
AAK				LR		LR	07 24 07.8	
	comp=N,71nm,19.0s,baz=259,slow=39							
AAK	**Ala-Archa**	**8.75**	**23**	⇑P		**Pn**	**07 20 39.8**	**+2.2**
	comp=N,2.8nm,0.5s							
AAK				⇓S		**Sn**	**07 22 12.9**	**-3.4**
	comp=N,10.0nm,0.8s							
MKAR	**Makanchi Array**	**15.32**	**34**	P		**Pn**	**07 22 06.2**	**-0.9**
	comp=N,0.9nm,0.5s,baz=216,slow=12,SNR=7.7							
AB31	**Akbulak array**	**16.35**	**336**	⇓P		**Pn**	**07 22 21.5**	**+1.2**
	comp=N,1.5nm,0.3s,baz=161,slow=12,SNR=71							
AB31				⇓S		**Sn**	**07 25 17.2**	**-4.4**
	comp=N,1.0nm,0.5s,baz=162,slow=22,SNR=5.5							
KURBB	**Kurchatov Arra**	**17.17**	**19**	P		**Pn**	**07 22 30.9**	**+0.3**
	comp=N,1.5nm,0.5s,baz=206,slow=10.0,SNR=4.7							
AKTO	**Aktyubinsk**	**18.01**	**335**	P		**P**	**07 22 44.0**	**+2.4**
	comp=N,5.5nm,0.7s,baz=134,slow=12,SNR=11							
AKTO				S		**Sn**	**07 25 59.5**	**-2.4**
	comp=N,1.4nm,0.5s,baz=176,slow=16,SNR=2.3							
AKTO	**Aktyubinsk**	**18.01**	**335**	⇓P		**P**	**07 22 43.5**	**+1.9**
	comp=N,4.3nm,0.9s							
AKTO				⇓S		**Sn**	**07 25 58.2**	**-3.6**
	comp=N,1.2nm,0.7s							
BVAR	**Borovoye Array**	**18.38**	**1**	P		**Pn**	**07 22 45.4**	**-0.1**
	comp=N,3.4nm,0.4s,baz=174,slow=8.3,SNR=15							
ZALV	**Zalesovo

AHB					Sn	07 20 03.8	+1.1
LVA	**Lava Point**	**0.56**	**10**		**Pn**	**07 19 53.2**	**+0.5**
LVA					**Sn**	**07 20 03.6**	**+0.7**
LVA				IAML		07 20 07.5	
	comp=E,2μm,0.5s						
AKLV	**Akutan Long Va**	**0.57**	**15**		**Pn**	**07 19 53.4**	**+0.6**
AKLV					**Sn**	**07 20 04.1**	**+1.0**
AKUT	**Akutan**	**0.59**	**26**	P	**Pn**	**07 19 53.4**	**+0.6**
AKUT	**Akutan**	**0.59**	**26**	S	**Sn**	**07 20 04.1**	**+1.0**
AKUT	**Akutan**	**0.59**	**26**		**Pn**	**07 19 53.2**	**+0.4**
AKUT	**Akutan**	**0.59**	**26**		**Sn**	**07 20 04.4**	**+1.3**
AKUT	**Akutan**	**0.59**	**26**	IAML		07 20 05.4	
	comp=E,2μm,0.4s						
AKUT				IAML		07 20 06.8	
	comp=N,2μm,0.3s						
OKFG	**Magazine Ridge**	**1.04**	**260**		**Pn**	**07 19 58.6**	**+0.6**
OKFG					**Sn**	**07 20 13.0**	**+0.7**
OKTU	**Okmok Mt. Tuli**	**1.12**	**259**		**Pn**	**07 19 59.7**	**+0.6**
OKNC	**Okmok New Cone**	**1.16**	**263**		**Pn**	**07 19 59.9**	**+0.4**
OKNC	**Okmok New Cone**	**1.16**	**263**		**Sn**	**07 20 15.5**	**+0.5**
OKNC	**Okmok New Cone**	**1.16**	**263**	IAML		07 20 24.6	
	comp=N,660nm,1.1s						
OKNC				IAML		07 20 27.3	
	comp=E,502nm,0.9s						
OKCE	**Okmok Cone E**	**1.19**	**262**		**Pn**	**07 20 00.7**	**+0.8**
OKCE					**Sn**	**07 20 17.4**	**+1.8**
WESP	**Westdahl Peak**	**1.25**	**44**		**Pn**	**07 20 01.7**	**+1.0**
WESP					**Sn**	**07 20 19.4**	**+2.3**
WECS	**Westdahl Cape**	**1.25**	**42**		**Pn**	**07 20 01.9**	**+1.2**
WTUG	**Tugumak**	**1.64**	**40**		**Pn**	**07 20 06.6**	**+0.9**
WTUG					**Sn**	**07 20 27.8**	**+1.7**
SSBA	**Shishaldin**	**1.69**	**45**		**Pn**	**07 20 07.4**	**+1.0**
SSLS	**Shishaldin Sou**	**1.71**	**49**		**Pn**	**07 20 07.8**	**+1.1**
SSLN	**Shishaldin Nor**	**1.77**	**46**		**Pn**	**07 20 09.0**	**+1.4**
ISLZ	**Isanotski Laza**	**1.84**	**52**		**Pn**	**07 20 09.6**	**+1.1**
CLCO	**Concord Point,**	**2.27**	**250**		**Pn**	**07 20 15.1**	**+0.9**
CLCO					**Sn**	**07 20 43.0**	**+1.8**
CLES	**Cleveland East**	**2.35**	**252**		**Sn**	**07 20 45.8**	**+2.6**
CLES	**Cleveland East**	**2.35**	**252**	Pn	**Pn**	**07 20 16.6**	**+1.4**
CLES	**Cleveland East**	**2.35**	**252**	IAML		07 20 47.5	
	comp=E,854nm,0.2s						
CLES				IAML		07 21 03.9	
	comp=N,875nm,1.4s						
DT1	**Dutton Round H**	**2.74**	**55**		**Pn**	**07 20 21.8**	**+1.2**
DT1					**Sn**	**07 20 53.9**	**+1.3**
DTNA	**Dutton South F**	**2.78**	**55**		**Pn**	**07 20 22.4**	**+1.3**
DTNA					**Sn**	**07 20 55.4**	**+1.9**
DOL	**Dolgoi Island**	**2.97**	**57**		**Pn**	**07 20 25.0**	**+1.4**
DOL					**Sn**	**07 20 59.4**	**+1.2**
HAG	**Hague Volcano**	**3.04**	**54**		**Pn**	**07 20 26.2**	**+1.6**
PN7A	**Pavlof North-7**	**3.06**	**52**		**Pn**	**07 20 26.7**	**+1.8**
PS4A	**Pavlof South-4**	**3.08**	**54**		**Pn**	**07 20 26.7**	**+1.7**
PVV	**Pavlof Volcano**	**3.12**	**54**		**Pn**	**07 20 27.3**	**+1.6**
PS1A	**Pavlof South-1**	**3.17**	**53**		**Pn**	**07 20 28.1**	**+1.7**
PS1A					**Sn**	**07 21 04.5**	**+1.4**
S12K	**Black Hills**	**3.19**	**47**		**Pn**	**07 20 28.0**	**+1.4**
S12K	**Black Hills**	**3.19**	**47**	IAML		07 20 54.9	
	comp=N,117nm,1.4s						
S12K				IAML		07 21 26.6	
	comp=E,140nm,1.2s						
SDPT	**Sand Point**	**3.77**	**60**	P	**Pn**	**07 20 35.4**	**+1.0**
SDPT	**Sand Point**	**3.77**	**60**	S	**Sn**	**07 21 17.1**	**-0.4**
SDPT	**Sand Point**	**3.77**	**60**		**Pn**	**07 20 35.1**	**+0.6**
SDPT				IAML		07 21 36.3	
	comp=N,81nm,1.1s						
CNBA	**Chernabura Isl**	**4.07**	**70**	Pn	**Pn**	**07 20 38.5**	**-0.1**
VNKR	**Veniaminof 5**	**4.64**	**56**		**Pn**	**07 20 47.5**	**+1.1**
VNFG	**Fog Glacier, M**	**4.68**	**52**	Pn	**Pn**	**07 20 48.5**	**+1.5**
ATKA	**Atka Island**	**5.04**	**257**	S	**Sn**	**07 21 49.4**	**+0.8**
ATKA	**Atka Island**	**5.04**	**257**	P	**Pn**	**07 20 52.6**	**+0.8**
ATKA	**Atka Island**	**5.04**	**257**	Pn	**Pn**	**07 20 53.0**	**+1.2**
ATKA				IAML		07 21 42.9	
	comp=N,40nm,1.5s						
ATKA				IAML		07 22 27.1	
	comp=E,53nm,1.4s						
CHGN	**Chignik**	**5.24**	**56**	Pn	**Pn**	**07 20 55.4**	**+1.0**
CHGN				IAML		07 21 42.1	
	comp=E,51nm,1.5s						
GSMY	**Great Sitkin M**	**6.17**	**259**		**Pn**	**07 21 08.1**	**+0.7**
O14K	**Tigyukauivet M**	**6.29**	**24**	Pn	**Pn**	**07 21 10.6**	**+1.8**
ETKA	**Kagalaska Isla**	**6.44**	**258**		**Pn**	**07 21 11.5**	**+0.6**
CHIR	**Chirikof Islan**	**6.52**	**66**	P	**Pn**	**07 21 11.7**	**-0.3**
ADK	**Adak**	**6.59**	**259**	P	**Pn**	**07 21 15.5**	**+2.5**
ADK	**Adak**	**6.59**	**259**	S	**Sn**	**07 22 27.7**	**+1.0**
ADK	**Adak**	**6.59**	**259**	Pn	**Pn**	**07 21 13.8**	**+0.8**
O15K	**Ungalikthiuk R**	**6.61**	**30**	Pn	**Pn**	**07 21 15.7**	**+2.6**
N14K	**Kuskokwak Cree**	**6.80**	**20**	Pn	**Pn**	**07 21 17.4**	**+1.6**
R17L	**Mt. Peulik Vol**	**6.88**	**50**		**Pn**	**07 21 18.1**	**+1.2**
PLK3	**Peulik 3**	**6.95**	**50**		**Pn**	**07 21 19.4**	**+1.6**
P16K	**Nushagak River**	**7.10**	**37**	Pn	**Pn**	**07 21 22.1**	**+2.3**
N15K	**Kwethluk River**	**7.38**	**24**	Pn	**Pn**	**07 21 25.5**	**+1.8**
O16K	**Kokwok River B**	**7.48**	**33**	Pn	**Pn**	**07 21 26.7**	**+1.6**
SII	**Sitkinak Islan**	**7.50**	**62**	P	**Pn**	**07 21 25.3**	**-0.1**
ANCK	**Angle Creek**	**7.57**	**48**		**Pn**	**07 21 27.9**	**+1.5**
ACHA	**Angle Creek He**	**7.65**	**49**	Pn	**Pn**	**07 21 29.5**	**+2.0**
M15K	**Kasigluk River**	**7.71**	**21**		**Pn**	**07 21 30.0**	**+1.8**
KAWH	**Katmai**	**7.98**	**49**		**Pn**	**07 21 33.0**	**+1.0**
Q18K	**Katmai Hardscr**	**8.03**	**47**		**Pn**	**07 21 34.6**	**+1.9**
OHAK	**Old Harbor**	**8.19**	**59**	P	**Pn**	**07 21 33.6**	**-1.2**
OHAK	**Old Harbor**	**8.19**	**59**		**Pn**	**07 21 33.7**	**-1.0**
M16K	**Timber Creek**	**8.40**	**25**	Pn	**Pn**	**07 21 39.4**	**+1.7**
KDAK	**Kodiak Island**	**8.75**	**56**	Pn	**Pn**	**07 21 41.4**	**-1.0**
	comp=E,1.0nm,0.3s,baz=243,slow=4.5,SNR=25						
KDAK				Sn	**Sn**	**07 23 14.4**	**-4.9**
	comp=E,0.2nm,0.3s,baz=162,slow=16,SNR=1.7						
	comp=E,11nm,0.9s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**8.75**	**56**		**Pn**	**07 21 41.1**	**-1.3**
N18K	**Kilae Creek**	**9.03**	**34**	Pn	**Pn**	**07 21 46.9**	**+0.7**
N19K	**Bonanza Creek**	**9.61**	**37**	Pn	**Pn**	**07 21 56.0**	**+1.8**
L19K	**White Mountain**	**10.49**	**30**	Pn	**Pn**	**07 22 07.9**	**+1.8**
SLKM	**Skilak Lake**	**11.09**	**45**		**Pn**	**07 22 13.8**	**-0.5**
ILAR	**Eielson Array**	**14.85**	**34**	Pn	**Pn**	**07 23 02.0**	**-2.4**
	comp=E,0.1nm,0.3s,baz=225,slow=13,SNR=4.7						
	comp=E,0.1nm,0.5s						
ILAR				AML	AML		
M26K	**Nabesna, AK**	**15.04**	**45**	Pn	**Pn**	**07 23 05.7**	**-1.3**
M26K				IAmb	IAmb	07 23 17.7	
	comp=E,10nm,1.5s						
BARN	**Barnard Glacie**	**15.13**	**51**	Pn	**Pn**	**07 23 09.7**	**+1.4**
H24K	**Noodor Dome**	**15.27**	**29**	Pn	**Pn**	**07 23 08.8**	**-1.0**
H24K				IAmb	IAmb	07 23 19.0	
	comp=E,5.8nm,1.4s						
J25K	**Salcha River,**	**15.27**	**36**	Pn	**Pn**	**07 23 09.1**	**-0.7**
J25K				IAmb	IAmb	07 23 17.8	
	comp=E,5.9nm,1.4s						
M27K	**Edge Creek, AK**	**15.50**	**46**	Pn	**Pn**	**07 23 12.4**	**-0.5**
M27K				IAmb	IAmb	07 23 15.9	
	comp=E,16nm,1.4s						
PNL	**Peninsula**	**15.87**	**57**	P	**Pn**	**07 23 18.5**	**+1.0**
O29M	**Mount Kennedy**	**16.40**	**55**	Pn	**Pn**	**07 23 25.0**	**+0.8**
O29M				IAmb	IAmb	07 23 47.5	
	comp=E,12nm,1.2s						
D23K	**Nanushuk River**	**17.02**	**19**	Pn	**Pn**	**07 23 30.6**	**-1.1**
H27K	**Steamboat Moun**	**17.52**	**34**	P	**Pn**	**07 23 38.2**	**+0.3**
H27K				IAmb	IAmb	07 23 47.3	
	comp=E,7.1nm,1.4s						
I28M	**Miner Creek**	**17.66**	**38**	P	**P**	**07 23 38.9**	**-0.7**
SKAG	**Skagway**	**17.89**	**59**	P	**Pn**	**07 23 45.6**	**+3.3**
K29M	**Barlow Dome**	**17.90**	**44**	P	**P**	**07 23 42.5**	**+0.2**
INK	**Inuvik**	**21.25**	**34**	P	**P**	**07 24 16.9**	**-1.6**
	comp=E,1.7nm,0.5s,baz=239,slow=5.9,SNR=1.9						
	comp=E,1.7nm,0.5s						
INK	**Inuvik**	**21.25**	**34**	P	**P**	**07 24 16.5**	**-2.0**
INK				IAmb	IAmb	07 24 43.2	
	comp=E,5.9nm,1.4s						
PEA0B	**Petropavlovsk-**	**21.41**	**283**	P	**P**	**07 24 20.4**	**+0.1**
PETK	**Petropavlovsk-**	**21.41**	**283**	P	**P**	**07 24 20.1**	**-0.2**
YKA	**Yellowknife Ar**	**27.98**	**51**	P	**P**	**07 25 20.8**	**-1.2**
	comp=E,0.5nm,0.3s,baz=278,slow=8.7,SNR=16						
	comp=E,0.5nm,0.3s						
RES	**Resolute Bay**	**34.42**	**26**	P	**P**	**07 26 18.7**	**+0.3**
	comp=E,1.3nm,0.8s,baz=265,slow=4.6,SNR=1.1						
	comp=E,1.3nm,0.8s						
PDAR	**Pinedale Array**	**38.32**	**83**	P	**P**	**07 26 51.6**	**-0.7**
	comp=E,0.2nm,0.6s,baz=307,slow=7.5,SNR=2.0						
	comp=E,0.2nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**39.64**	**222**	T	T	08 09 11.0	
	baz=25,slow=76,SNR=26						
H11N3	**WAKE ISLAND Hy**	**39.64**	**222**	T	T	08 08 57.9	
	baz=25,slow=76,SNR=32						
H11N1	**WAKE ISLAND Hy**	**39.66**	**222**	T	T	08 09 12.2	
	baz=25,slow=76,SNR=13						
H11S1	**WAKE ISLAND Hy**	**40.82**	**221**	T	T	08 10 40.8	
	baz=25,slow=76,SNR=27						
H11S2	**WAKE ISLAND Hy**	**40.83**	**221**	T	T	08 10 34.0	
	baz=25,slow=76,SNR=17						
H11S3	**WAKE ISLAND Hy**	**40.84**	**221**	T	T	08 10 35.6	
	baz=25,slow=76,SNR=13						
TXAR	**Lajitas Array**	**50.85**	**92**	P	**P**	**07 28 33.4**	**+1.4**
	comp=Z,0.1nm,0.4s,baz=329,slow=8.7,SNR=4.1						
	comp=Z,0.1nm,0.4s						
TXAR	**Lajitas Array**	**50.85**	**92**	P	**P**	**07 28 32.4**	**+0.5**
FINES	**FINESS Array B**	**64.88**	**354**	P	**P**	**07 30 08.7**	**-0.8**
	comp=Z,2.9nm,1.1s,baz=22,slow=7.0,SNR=1.4						
	comp=Z,2.9nm,1.1s						
HFS	**Hagfors**	**66.61**	**0**	P	**P**	**07 30 19.8**	**-0.9**
	comp=Z,4.2nm,0.9s,baz=5.7,slow=2.9,SNR=2.7						
	comp=Z,4.2nm,0.9s						

IDC 21 08:15:41.3±2.4, 0°.99N×127°.52E, h0km, mb3.2/3, mbtmp3.3/3, Error ellipse: s-maj=207.1km s-min=27.1km az=67.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**21.85**	**163**	P	P	08 20 35.7	+0.1
	0.7nm,1.1s,baz=342,slow=9.5,SNR=2.5						
	0.7nm,1.1s						
ASAR	**Alice Springs**	**25.28**	**166**	P	P	08 21 09.7	+0.2
	0.2nm,0.7s,baz=344,slow=9.6,SNR=2.0						
	0.2nm,0.7s						
MKAR	**Makanchi Array**	**60.25**	**326**	P	P	08 25 51.3	-0.2
	0.3nm,0.3s,baz=116,slow=7.8,SNR=7.3						
	0.3nm,0.3s						

*ISK **21** 08:28:21.4, 37°.89N×26°.90E, h6km, ML3.1/21*
*THE **21** 08:28:21.0, 37°.9N±0°.8×26°.9E±0°.7, h12km±1km, M3.0/6, MLh3.0/6*
*AFAD **21** 08:28:21.1, 37°.88N×26°.85E, h7km±2km, ML3.0*
*ATH **21** 08:28:21.1, 37°.88N×26°.86E, h9km±1km, ML2.9/7, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 21 08:28:21.0±0.8, 37°.87N±0°.02×26°.86E±0°.02, h12km±5km, n50, σ0°54/78, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.14**	**237**	P	**Pg**	**08 28 24.3**	**-0.1**
KRL1				S	**Sg**	**08 28 27.0**	**+0.1**
KRL1				AML	AML		
SMG	**Samos**	**0.17**	**186**	P	**Pg**	**08 28 24.8**	**-0.1**
SMG				S	**Sg**	**08 28 27.8**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.17**	**186**	P	**Pg**	**08 28 24.8**	**-0.1**
SMG				S	**Sg**	**08 28 27.6**	**+0.1**
SMG				AML	AML		
DGB	**zmir**	**0.18**	**6**	P	**Pg**	**08 28 25.0**	**-0.1**
DGB				S	**Sg**	**08 28 27.7**	**-0.1**
GMLD	**Gumuldur**	**0.21**	**13**	Pg	**Pg**	**08 28 25.7**	**+0.2**
GMLD				Sg	**Sg**	**08 28 29.0**	**+0.4**
GMLD				AML	AML		
SAM2	**Drakei, Karlov**	**0.23**	**240**	P	**Pg**	**08 28 25.6**	**-0.3**
SAM2				S	**Sg**	**08 28 28.6**	**-0.6**
SAM2				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**92**	Pg	**Pg**	**08 28 28.2**	**+0.3**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**120**	P	**Pg**	**08 28 28.0**	**0.0**
GCAM				S	**Sb**	**08 28 33.9**	**-0.6**
GCAM				IAML		08 28 34.0	
	comp=N,4μm,0.2s						
GCAM				IAML		08 28 34.0	
	comp=E,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.34**	**120**	Pg	**Pg**	**08 28 28.2**	**+0.2**
GCAM				Sg	**Sg**	**08 28 33.6**	**+1.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.36**	**9**	P	**Pg**	**08 28 28.0**	**-0.2**
BEYE				S	**Sg**	**08 28 34.0**	**+0.9**
ZEYE	**Izmir, Urla-Ze**	**0.46**	**323**	P	**Pg**	**08 28 30.1**	**0.0**
ZEYE				S	**Sg**	**08 28 37.0**	**+0.8**
ZEYE				IAML		08 28 40.0	
	comp=N,1μm,0.3s						
ZEYE				IAML		08 28 41.0	
	comp=E,1μm,0.1s						
DDIM	**Aydin, Didim**	**0.52**	**144**	P	**Pg**	**08 28 31.4**	**+0.2**
DDIM				S	**Sb**	**08 28 39.5**	**0.0**
DDIM				IAML		08 28 40.0	
	comp=N,1μm,0.3s						
DDIM				IAML		08 28 42.0	
	comp=E,1μm,0.4s						
BLCB	**Balcova**	**0.53**	**16**	P	**Pg**	**08 28 31.5**	**+0.1**
BLCB				S	**Sg**	**08 28 39.1**	**+0.6**
BLCB	**Balcova**	**0.53**	**16**	Pg	**Pg**	**08 28 31.5**	**+0.1**
BLCB				Sg	**Sg**	**08 28 39.1**	**+0.6**
BLCB				AML	AML		
DUVT	**Torbali**	**0.58**	**53**	P	**Pg**	**08 28 32.1**	**-0.2**
DUVT				S	**Sg**	**08 28 40.0**	**-0.1**
DUVT				IAML		08 28 44.0	
	comp=E,2μm,0.3s						
CESE	**eme**	**0.63**	**316**	Pg	**Pb**	**08 28 34.4**	**+0.3**
CESE				AML	AML		
DAGE	**izmir**	**0.72**	**79**	P	**Pg**	**08 28 35.4**	**+0.4**
DAGE				IAML		08 28 47.0	
	comp=N,754nm,0.2s						
DAGE				IAML		08 28 47.0	
	comp=E,485nm,0.1s						
KRBN	**Karaburun**	**0.76**	**342**	Pg	**Pb**	**08 28 36.2**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**360**	P	**Pg**	**08 28 36.0**	**-0.2**
BAGT				S	**Sn**	**08 28 49.1**	**-0.4**
BAGT				IAML		08 28 50.0	
	comp=N,1μm,0.6s						
BAGT				IAML		08 28 50.0	
	comp=E,698nm,0.8s						
CHOS	**Chios island**	**0.81**	**309**	S	**Sb**	**08 28 48.6**	**+0.4**
CHOS	**Chios island**	**0.81**	**309**	Pg	**Pb**	**08 28 37.9**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.81**	**309**	P	**Pb**	**08 28 37.1**	**-0.1**
CHOS				S	**Sg**	**08 28 47.7**	**+0.2**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**85**	Pg	**Pg**	**08 28 36.9**	**0.0**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.82**	**156**	Pg	**Pb**	**08 28 37.7**	**+0.5**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.84**	**104**	P	**Pg**	**08 28 37.5**	**+0.3**
AYDN				S	**Sb**	**08 28 49.0**	**+0.2**
AYDN				IAML		08 28 52.0	
	comp=E,452nm,0.2s						
AYDN				IAML		08 28 55.0	
	comp=N,326nm,0.3s						
KARB	**zmir-Karabur**	**0.86**	**336**	P	**Pg**	**08 28 36.8**	**-0.9**
KARB				S	**Sn**	**08 28 51.4**	**-0.1**
KARB				IAML		08 28 52.0	
	comp=E,514nm,0.8s						
BODT	**Bodrum**	**0.89**	**156**	P	**Pg**	**08 28 37.7**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**156**	Pg	**Pg**	**08 28 38.5**	**+0.3**
BODT				AML	AML		
EAG2	**Marmaro, Chios**	**0.89**	**319**	P	**Pb**	**08 28 38.7**	**+0.2**
EAG2				S	**Sg**	**08 28 50.1**	**+0.1**
IZMR	**zmir-demi**	**0.90**	**73**	P	**Pg**	**08 28 38.5**	**0.0**
IZMR				S	**Sg**	**08 28 49.5**	**-0.8**
KLNA	**Kalymnos**	**0.92**	**174**	P	**Pb**	**08 28 39.4**	**+0.4**
KLNA				S	**Sb**	**08 28 51.8**	**+0.7**
MLSB	**Milas**	**0.93**	**128**	Pg	**Pg**	**08 28 39.3**	**+0.3**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.93**	**150**	P	**Pg**	**08 28 37.2**	**-1.8**
BDRM				S	**Sb**	**08 28 52.3**	**+0.8**
CAMT	**Merkez**	**0.94**	**22**	P	**Pg**	**08 28 39.0**	**-0.2**
CAMT				S	**Sn**	**08 28 53.8**	**+0.2**
CAMT				IAML		08 28 54.0	
	comp=N,1μm,0.6s						
CAMT				IAML		08 28 54.0	
	comp=E,1μm,0.4s						
ZEDA	**zmir-Bergama**	**1.10**	**9**	P	**Pg**	**08 28 42.2**	**-0.1**
ZEDA				S	**Sn**	**08 28 58.8**	**+1.3**
ZEDA				IAML		08 29 00.0	
	comp=N,274nm,0.6s						
ZEDA				IAML		08 29 00.0	
	comp=E,321nm,0.6s						
NAZL	**Nazilli-Aydin**	**1.14**	**85**	Pn	**Pg**	**08 28 42.6**	**-0.3**
NAZL				AML	AML		
DKL	**Dikili**	**1.20**	**2**	Pn	**Pg**	**08 28 44.9**	**+0.8**
DKL				AML	AML		
DKL	**Dikili**	**1.20**	**2**	P	**Pg**	**08 28 44.2**	**+0.2**
DKL				S	**Sg**	**08 28 59.8**	**+0.2**
DAT	**Datca**	**1.28**	**153**	P	**Pn**	**08 28 43.5**	**-1.4**
DAT				AML	AML		
APE	**Apeiranthos**	**1.33**	**233**	P	**Pn**	**08 28 44.1**	**-1.3**
APE				S	**Sb**	**08 29 02.8**	**-0.1**
APE	**Apeiranthos**	**1.33**	**233**	Pn	**Pg**	**08 28 47.4**	**+0.9**
APE				AML	AML		
APE	**Apeiranthos**	**1.33**	**233**	P	**Pb**	**08 28 46.4**	**+0.5**
APE				S	**Sn**	**08 29 03.6**	**+0.5**
YER	**Yerkesik**	**1.35**	**123**	Pn	**Pg**	**08 28 47.2**	**+0.2**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.39**	**22**	Pn	**Pg**	**08 28 47.4**	**-0.3**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.45**	**342**	P	**Pn**	**08 28 47.2**	**+0.2**
PRK				S	**Sn**	**08 29 05.9**	**0.0**
PRK				AML	AML		
GORD	**Gordes-Manisa**	**1.46**	**45**	Pn	**Pb**	**08 28 48.3**	**0.0**
GORD				AML	AML		
TURN	**Turunc**	**1.56**	**134**	Pn	**Pb**	**08 28 50.4**	**+0.6**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.56**	**65**	Pn	**Pb**	**08 28 50.1**	**+0.2**
KULA				AML	AML		
YAYO	**Edremit-Balk**	**1.74**	**5**	Pn	**Pb**	**08 28 52.7**	**-0.3**
YAYO				AML	AML		
BALB	**Balikesir**	**1.94**	**24**	Pn	**Pb**	**08 28 55.5**	**-0.8**
BALB				AML	AML		

*IDC **21** 09:03:15.5±0.8, 0°.69S×127°.75E, h0km, mb4.0/9, mbtmp4.1/11, ML3.9/2, MS2.8/1, Error ellipse: s-maj=28.4km s-min=15.5km az=74.0*
*DJA **21** 09:03:18.4±0.2, 1°.5±1°×12°.8E±°, h10km, M4.5/19, mB5.0/7, mb4.7/12, MLv4.4/19, Mw(mB)4.4/7*
*NEIC **21** 09:03:21.1±0.9, 0°.74S±0°.07×127°.75E±0°.08, h39km±9km, mb4.1/16, Error ellipse: s-maj=12.7km s-min=9.3km az=65.0*

ISC 21 09:03:20.6±0.5, 0°.81S±0°.05×127°.72E±0°.07, h35km, n51, σ1s39/55, mb4.3/12, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.61**	**347**		**Pn**	**09 03 46.1**	**-0.5**
TNTI	**Ternate**	**1.61**	**347**	P	**Pn**	**09 03 45.9**	**-0.7**
TNTI				S	**Sn**	**09 04 06.4**	**+0.2**
TNTI				AML	AML		
SANI	**Sanana**	**2.12**	**235**	P	**Pn**	**09 03 52.9**	**-0.7**
SANI				S	**Sn**	**09 04 20.9**	**+2.2**
KMSI	**Cibinong**	**3.98**	**290**	P	**Pn**	**09 04 18.9**	**-0.3**
KMSI				AML	AML		
GTOI	**Gorontalo**	**4.92**	**287**	P	**Pn**	**09 04 33.7**	**+1.6**
	0.5nm1μm107nm,0.7s						
GTOI				AML	AML		
LUWI	**Luwuk**	**4.95**	**267**	Pn	**Pn**	**09 04 33.2**	**+0.7**
FAKI	**Fak Fak**	**4.99**	**115**		**Pn**	**09 04 34.1**	**+1.0**
FAKI	**Fak Fak**	**4.99**	**115**	P	**Pn**	**09 04 34.8**	**+1.7**
	0.3nm612nm70nm,0.9s						
FAKI				AML	AML		
APSI	**Ampana**	**6.07**	**269**	P	**Pn**	**09 04 47.1**	**-0.8**
APSI				AML	AML		
MWPI	**Manokwari, Pap**	**6.32**	**91**	P	**Pn**	**09 04 52.3**	**+0.9**
	63nm,1.1s						
TOLI2	**Tolitoli**	**7.19**	**285**		**Pn**	**09 05 04.4**	**+1.1**
DAV	**Davao City (W)**	**8.12**	**345**	LR	LR	09 08 33.3	
	comp=Z,65nm,21.4s,baz=164,slow=40						
TTSI	**Tana Toraja**	**8.20**	**254**	P	**Pn**	**09 05 15.8**	**-1.4**
	3μm27nm,0.8s						
SPSI	**Sidrap Palu**	**8.53**	**248**	P	**Pn**	**09 05 21.7**	**-0.1**
BKSI	**Bulukumba**	**8.80**	**239**	P	**Pn**	**09 05 25.4**	**-0.1**
KAPI	**Kappang**	**8.98**	**242**	Pn	**Pn**	**09 05 30.4**	**+2.5**
	4.3nm,0.3s,baz=108,slow=5.5,SNR=6.1						
	15nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**8.98**	**242**		**Pn**	**09 05 29.4**	**+1.5**
MTN	**Manton Dam**	**12.42**	**164**	Pn	**Pn**	**09 06 16.1**	**+1.1**
KNRA	**Kununurra**	**14.80**	**176**	Pn	**Pn**	**09 06 48.4**	**+0.8**
JAGI	**Jajag, Banyuwa**	**15.50**	**240**	Pn	**Pn**	**09 06 58.0**	**+1.2**
JAGI				IAmb	IAmb	09 07 17.6	
	comp=Z,18nm,1.0s						
FITZ	**Fitzroy Crossi**	**17.30**	**187**	P	**P**	**09 07 20.8**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=20,slow=7.5,SNR=5.4						
	comp=Z,1.3nm,0.7s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.30**	**187**	P	**P**	**09 07 20.5**	**-0.2**
WB0	**Warramunga Arr**	**19.94**	**161**	P	**P**	**09 07 49.5**	**-0.3**
WB0				IAmb	IAmb	09 07 56.6	
	comp=Z,4.4nm,0.8s						
WRAB	**Tennant Creek**	**20.08**	**162**	P	**P**	**09 07 51.3**	**+0.1**
WRAB				IAmb	IAmb	09 07 58.9	
	comp=Z,6.2nm,0.8s						
WRA	**Warramunga Arr**	**20.09**	**162**	P	**P**	**09 07 51.5**	**+0.1**
	comp=Z,1

AF01	**San Pedro de A**	**0.47**	**244**	*eP*		**Pn**	**09 10 07.8**	**+0.4**
AF01	**San Pedro de A**	**0.47**	**244**	*eP*		**Pn**	**09 10 07.4**	**0.0**
AF01				*eS*		**Sn**	**09 10 26.0**	**-0.9**
PB09	**IPOC Station P**	**1.69**	**304**	*eP*		**Pn**	**09 10 17.4**	**+1.1**
PB09				*eS*		**Sn**	**09 10 42.9**	**0.0**
PB09				IAML			09 10 44.0	
	comp=Z,264nm,0.6s							
PB09	**IPOC Station P**	**1.69**	**304**	*eP*		**Pn**	**09 10 17.2**	**+0.9**
PB09				*eS*		**Sn**	**09 10 42.1**	**-0.7**
PB09				IAML			09 10 44.7	
	comp=N,264nm,0.3s							
PB09	**IPOC Station P**	**1.69**	**304**	P		**Pn**	**09 10 16.6**	**+0.3**
PB06	**IPOC Station P**	**1.71**	**271**	*eP*		**Pn**	**09 10 17.3**	**+0.8**
PB06				*eS*		**Sn**	**09 10 43.6**	**+0.6**
PB06				IAML			09 10 44.3	
	comp=Z,228nm,0.3s							
PB06	**IPOC Station P**	**1.71**	**271**	*eP*		**Pn**	**09 10 17.1**	**+0.7**
PB06				*eS*		**Sn**	**09 10 42.7**	**-0.3**
PB06				IAML			09 10 45.2	
	comp=E,521nm,0.2s							
PB06	**IPOC Station P**	**1.71**	**271**	P		**Pn**	**09 10 16.6**	**+0.2**
SALTA		**1.95**	**140**	*eP*		**Pn**	**09 10 20.0**	**+0.7**
PB03	**IPOC Station P**	**2.00**	**290**	*eP*		**Pn**	**09 10 20.2**	**+0.7**
PB03				*eS*		**Sn**	**09 10 47.9**	**-0.6**
PB03				IAML			09 10 48.3	
	comp=Z,664nm,0.2s							
PB03	**IPOC Station P**	**2.00**	**290**	*iP*		**Pn**	**09 10 20.1**	**+0.7**
PB03				*eS*		**Sn**	**09 10 47.4**	**-1.1**
PB03				IAML			09 10 48.2	
	comp=E,788nm,0.2s							
YJA	**Yavi**	**2.12**	**75**	P		**Pn**	**09 10 21.6**	**+0.5**
PB07	**IPOC Station P**	**2.24**	**296**	*eP*		**Pn**	**09 10 22.9**	**+0.7**
PB07				*eS*		**Sn**	**09 10 52.8**	**-0.6**
PB07				IAML			09 10 53.5	
	comp=Z,445nm,0.4s							
PB07	**IPOC Station P**	**2.24**	**296**	*eP*		**Pn**	**09 10 22.9**	**+0.7**
PB07				*eS*		**Sn**	**09 10 52.1**	**-1.2**
PB05	**IPOC Station P**	**2.29**	**267**	*eP*		**Pn**	**09 10 23.4**	**+0.8**
PB05				*eS*		**Sn**	**09 10 53.9**	**-0.3**
PB05				IAML			09 10 54.4	
	comp=Z,163nm,0.3s							
PB05	**IPOC Station P**	**2.29**	**267**	*iP*		**Pn**	**09 10 23.3**	**+0.7**
PB05				*eS*		**Sn**	**09 10 53.1**	**-1.0**
PB05				IAML			09 10 55.0	
	comp=N,165nm,0.3s							
MOCB	**Mochara**	**2.44**	**53**	P		**Pn**	**09 10 24.8**	**+0.1**
PB02	**IPOC Station P**	**2.46**	**305**	*eP*		**Pn**	**09 10 25.2**	**+0.6**
PB02				*eS*		**Sn**	**09 10 56.9**	**-0.8**
PB02				IAML			09 11 01.6	
	comp=Z,489nm,0.4s							
PB02	**IPOC Station P**	**2.46**	**305**	*eP*		**Pn**	**09 10 25.1**	**+0.5**
PB02				*eS*		**Sn**	**09 10 55.8**	**-1.9**
PB02				IAML			09 10 57.8	
	comp=E,637nm,0.5s							
PB02	**IPOC Station P**	**2.46**	**305**	P		**Pn**	**09 10 25.2**	**+0.6**
PB02				S		**Sn**	**09 10 55.8**	**-1.9**
PB02				IAML			09 10 57.6	
	comp=E,574nm,0.5s							
PB10	**IPOC Station P**	**2.71**	**253**	*eP*		**Pn**	**09 10 28.3**	**+0.9**
PB10				*eS*		**Sn**	**09 11 02.2**	**-0.6**
PB10	**IPOC Station P**	**2.71**	**253**	*eP*		**Pn**	**09 10 28.2**	**+0.8**
PB10				IAML			09 11 05.0	
	comp=N,82nm,0.2s							
SLA	**San Lorenzo**	**2.83**	**135**	*eP*		**Pn**	**09 10 30.1**	**+1.1**
SLA	**San Lorenzo**	**2.83**	**135**	*eP*		**Pn**	**09 10 29.8**	**+0.8**
PB08	**IPOC Station P**	**2.91**	**333**	*eP*		**Pn**	**09 10 31.5**	**+1.4**
PB08				*eS*		**Sn**	**09 11 08.5**	**+0.8**
PB08				*eS*			09 11 11.7	
PB08	**IPOC Station P**	**2.91**	**333**	*eP*		**Pn**	**09 10 31.5**	**+1.4**
PB08				*eS*		**Sn**	**09 11 07.8**	**+0.1**
PB08				IAML			09 11 10.4	
	comp=E,53nm,0.4s							
PB08	**IPOC Station P**	**2.91**	**333**	P		**Pn**	**09 10 31.6**	**+1.4**
AOVT	**TarijaAcel**	**3.05**	**67**	P		**Pn**	**09 10 31.5**	**-0.1**
PB14	**IPOC Station P**	**3.09**	**232**	*eP*		**Pn**	**09 10 33.3**	**+1.1**
PB14				*eS*		**Sn**	**09 11 11.7**	**+0.3**
PB14				IAML			09 11 13.3	
	comp=Z,44nm,0.3s							
PB14	**IPOC Station P**	**3.09**	**232**	*eP*		**Pn**	**09 10 33.0**	**+0.8**
PB14	**IPOC Station P**	**3.09**	**232**	P		**Pn**	**09 10 33.1**	**+0.9**
TA01	**Diego Aracena**	**3.15**	**313**	*eP*		**Pn**	**09 10 32.8**	**+0.1**
TA01				*eS*		**Sn**	**09 11 11.2**	**-1.0**
TA01				IAML			09 11 13.8	
	comp=Z,50nm,1.1s							
TA01	**Diego Aracena**	**3.15**	**313**	*eP*		**Pn**	**09 10 33.1**	**+0.4**
TA01				IAML			09 11 11.5	
	comp=E,159nm,0.3s							
GO01	**Chusmiza**	**3.35**	**336**	*eP*		**Pn**	**09 10 37.6**	**+2.0**
GO01				*eS*		**Sn**	**09 11 19.7**	**+2.2**
GO01	**Chusmiza**	**3.35**	**336**	*eP*		**Pn**	**09 10 36.5**	**+0.9**
GO01	**Chusmiza**	**3.35**	**336**	P		**Pn**	**09 10 36.8**	**+1.1**
PB11	**IPOC Station P**	**3.47**	**328**	*eP*		**Pn**	**09 10 37.0**	**+0.2**
PB11				*eS*		**Sn**	**09 11 18.2**	**-1.4**
PB11				IAML			09 11 19.5	
	comp=Z,45nm,0.4s							
PB11	**IPOC Station P**	**3.47**	**328**	*eP*		**Pn**	**09 10 36.7**	**-0.1**
PB11	**IPOC Station P**	**3.47**	**328**	P		**Pn**	**09 10 37.0**	**+0.2**
PB11				S		**Sn**	**09 11 18.3**	**-1.3**
PB11				IAML			09 11 25.9	
	comp=Z,74nm,0.2s							
FSA	**Cafayete**	**3.71**	**155**	*eP*		**Pn**	**09 10 41.2**	**+1.4**
PSGCX	**Pisagua**	**3.85**	**324**	*eP*		**Pn**	**09 10 40.7**	**-0.8**
SOEO	**Opoqueri**	**4.16**	**358**	P		**Pn**	**09 10 47.4**	**+1.6**
AC02	**Maricunga**	**4.27**	**197**	*eP*		**Pn**	**09 10 48.3**	**+1.2**
AC01	**Pan de Azucar**	**4.28**	**217**	*eP*		**Pn**	**09 10 46.8**	**-0.1**
AC01				*eS*		**Sn**	**09 11 36.3**	**-1.4**
AC01				IAML			09 11 38.2	
	comp=Z,26nm,0.5s							
TINO	**Tinogasta**	**5.30**	**179**	*eP*		**Pn**	**09 11 02.7**	**+2.7**
GO03	**Copiapo**	**5.34**	**205**	*eP*		**Pn**	**09 11 00.0**	**-0.5**
GO03				*eS*		**Sn**	**09 12 00.7**	**-1.5**
GO03				IAML			09 12 01.1	
	comp=Z,23nm,0.2s							
BBOJ	**La Paz, Jacaqu**	**5.75**	**356**	P		**Pn**	**09 11 07.8**	**+1.3**
SOEJ	**Jacaque**	**5.75**	**356**	P		**Pn**	**09 11 07.7**	**+1.3**
BBOD	**La Paz, Gloria**	**6.13**	**352**	P		**Pn**	**09 11 12.5**	**+1.1**
LPAZ	**La Paz**	**6.43**	**357**	P		**Pn**	**09 11 16.5**	**+1.1**
BBOB	**La Paz, Bander**	**6.58**	**357**	P		**Pn**	**09 11 18.4**	**+1.2**
BBSD	**Serra de San D**	**8.68**	**52**	P		**Pn**	**09 11 42.9**	**-1.4**
SIV	**San Ignacio**	**9.19**	**44**	P		**Pn**	**09 11 49.4**	**-1.7**

*IDC **21** 09:14:26.2±0.5,6˙24S±133˙37E,h0km,mb4.2/15, mbtmp4.3/20,ML4.0/5,MS3.6/14,Error ellipse: s-maj=16.8km s-min=9.9km az=83.0*
*NEIC **21** 09:14:27.7±1.9,6˚25S±0.05×133˙23E±0˙07,h10km±1km, mb4.5/20,Error ellipse: s-maj=12.4km s-min=6.9km az=238.0*
*GFZ **21** 09:14:27.9±0.2,6˚S±2˚×13˚3E±˚,h12km,M4.8/44, mb4.9/44,confirmed*
*BJI **21** 09:14:30.7,5˙87S×133˙04E,h13km,mb4.5/16*
*DJA **21** 09:14:31.7±0.3,6˚S±2˚×13˚3E±˚,h76km±5km,M5.0/17, mB5.4/12,mb5.3/13,MLv5.1/17,Mw(mB)4.9/12*
ISC 21 09:14:31.0±0.3,6˚30S±0˙04×133˚17E±0˙05,h35km,n176, σ1ş49/172,mb4.6/48,MS3.6/8,2D,Aru Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
SAUI	**Saumlaki**	**2.50**	**228**	P		**Pn**	**09 15 10.0**	**+0.8**
SAUI	**Saumlaki**	**2.50**	**228**			**Pn**	**09 15 09.0**	**-0.2**
SAUI	**Saumlaki**	**2.50**	**228**	P		**Pn**	**09 15 11.3**	**+2.1**
SAUI	**Saumlaki**	**2.50**	**228**	Pg		Pn	09 15 16.8	+7.5
FAKI	**Fak Fak**	**3.48**	**345**	P		**Pn**	**09 15 21.7**	**-0.9**
FAKI	**Fak Fak**	**3.48**	**345**			**Pn**	**09 15 21.4**	**-1.3**
FAKI	**Fak Fak**	**3.48**	**345**	P		**Pn**	**09 15 21.5**	**-1.2**
FAKI				S		**Sn**	**09 15 59.1**	**-3.6**
FAKI				AML	AML			
FAKI	**Fak Fak**	**3.48**	**345**	P		**Pn**	**09 15 21.8**	**-0.9**
BNDI	**Bandanaira**	**3.70**	**298**	P		**Pn**	**09 15 26.1**	**+0.4**
BNDI	**Bandanaira**	**3.70**	**298**	P		**Pn**	**09 15 25.8**	**+0.1**
BNDI	**Bandanaira**	**3.70**	**298**	P		**Pn**	**09 15 26.7**	**+1.0**
MWPI	**Manokwari, Pap** 2.3nm5μm250nm,0.6s	**5.40**	**9**	P		**Pn**	**09 15 47.9**	**-1.2**
MWPI	2.3nm5μm250nm,0.6s			S		**Sn**	**09 16 47.4**	**-2.7**
MWPI				AML	AML			
MWPI	**Manokwari, Pap** comp=Z,3μm,0.6s	**5.40**	**9**	P		**Pn**	**09 15 47.8**	**-1.2**
AAI	**Ambon** comp=Z,403nm,0.8s	**5.60**	**297**	P		**Pn**	**09 15 52.2**	**+0.4**
BAKI	**Biak**	**5.85**	**30**	P		**Pn**	**09 15 55.5**	**+0.2**
	comp=Z,0.5nmcomp=Z,2μmcomp=Z,116nm,0.5s							
BAKI				S		**Sn**	**09 16 59.0**	**-2.3**
	comp=Z,0.5nmcomp=Z,2μmcomp=Z,116nm,0.5s							
BAKI				AML	AML			
WAMI	**Wamena**	**6.01**	**67**	P		**Pn**	**09 16 00.0**	**+2.5**
DRS	**Darwin Rock St**	**6.50**	**200**	P		**Pn**	**09 16 04.4**	**+0.3**
MTN	**Manton Dam**	**6.81**	**197**			**Pn**	**09 16 08.3**	**-0.2**
GENI	**Genyem**	**7.88**	**62**	P		**Pn**	**09 16 23.5**	**+0.3**
	comp=Z,0.5nmcomp=Z,77nm,0.6s							
GENI				AML	AML			
GENI	**Genyem**	**7.88**	**62**	P		**Pn**	**09 16 22.4**	**-0.8**
	comp=Z,68nm,0.7s							
SANI	**Sanana**	**8.31**	**300**	P		**Pn**	**09 16 27.5**	**-1.7**
SANI	**Sanana**	**8.31**	**300**	P		**Pn**	**09 16 27.4**	**-1.7**
	comp=Z,4μmcomp=Z,197nm,0.5s							
SANI	**Sanana**	**8.31**	**300**	P		**Pn**	**09 16 28.1**	**-1.1**
	comp=Z,189nm,0.5s							
TNTI	**Ternate**	**9.11**	**320**	Pn		**Pn**	**09 16 38.6**	**-1.3**
TNTI	**Ternate**	**9.11**	**320**	P		**Pn**	**09 16 37.2**	**-2.8**
	comp=Z,50nm,0.7s							
SOEI	**Soe**	**9.46**	**248**	P		**Pn**	**09 16 45.2**	**+0.2**
SOEI	**Soe**	**9.46**	**248**			**Pn**	**09 16 44.2**	**-0.8**
SOEI	**Soe**	**9.46**	**248**	P		**Pn**	**09 16 44.2**	**-0.8**
SOEI	**Soe**	**9.46**	**248**	P		**Pn**	**09 16 46.5**	**+1.5**
	comp=Z,104nm,0.9s							
KNRA	**Kununurra**	**10.28**	**205**			**Pn**	**09 16 56.8**	**+0.7**
KMSI	**Cibinong**	**11.44**	**306**	P		**Pn**	**09 17 09.7**	**-2.3**
	comp=Z,266nm,0.9s							
LUWI	**Luwuk**	**11.62**	**296**	P		**Pn**	**09 17 13.8**	**-0.6**
	comp=Z,90nm,0.8s							
EDFI	**Ende, Flores**	**11.64**	**257**	P		**Pn**	**09 17 16.0**	**+1.1**
	comp=Z,11nm,0.7s							
BSSI	**Bau Bau, Buton**	**12.61**	**270**	P		**Pn**	**09 17 29.2**	**+1.2**
	comp=Z,52nm,0.7s							
APSI	**Ampana**	**12.68**	**294**	P		**Pn**	**09 17 28.4**	**-0.6**
	comp=Z,37nm,1.0s							
BKSI	**Bulukumba**	**13.02**	**274**	P		**Pn**	**09 17 35.0**	**+1.4**
	comp=Z,23nm,0.8s							
BASI	**Baing, Sumba**	**13.06**	**252**	P		**Pn**	**09 17 35.4**	**+1.2**
	comp=Z,123nm,0.7s							
KAPI	**Kappang**	**13.42**	**275**	Pn		**P**	**09 17 43.5**	**-4.4**
	comp=Z,2.5nm,0.3s,baz=146,slow=7.4,SNR=6.2							
KAPI				LR		LR	09 23 17.7	
	comp=Z,152nm,20.6s,baz=88,slow=39 comp=Z,16nm,0.6s							
KAPI				AML	AML			
KAPI	**Kappang**	**13.42**	**275**	Pn		**Pn**	**09 17 37.8**	**-1.3**
WB0	**Warramunga Arr**	**13.44**	**175**			**Pn**	**09 17 37.9**	**-1.5**
WRAB	**Tennant Creek**	**13.61**	**175**	P		**Pn**	**09 17 40.9**	**-0.7**
WRAB	**Tennant Creek**	**13.61**	**175**			**Pn**	**09 17 39.4**	**-2.2**
WRAB	**Tennant Creek**	**13.61**	**175**	P		**Pn**	**09 17 40.4**	**-1.1**
	comp=Z,30nm,0.6s							
WRA	**Warramunga Arr**	**13.61**	**175**	Pn		**Pn**	**09 17 38.1**	**-3.5**
	comp=Z,1.1nm,0.3s,baz=0.4,slow=14,SNR=35							
WRA				Sn		Sn	09 19 59.7	-12
	comp=Z,1.3nm,0.3s,baz=360,slow=23,SNR=2.3							
WRA				Lg		Lg	09 21 35.2	
	comp=Z,2.4nm,0.3s,baz=358,slow=26,SNR=6.0 comp=Z,2.0nm,0.5s							
WRA				AML	AML			
WRA	**Warramunga Arr**	**13.61**	**175**			**Pn**	**09 17 39.2**	**-2.5**
TTSI	**Tana Toraja**	**13.70**	**283**	P		**Pn**	**09 17 43.2**	**+0.3**
	comp=Z,15nm,0.8s							
FITZ	**Fitzroy Crossi**	**13.84**	**211**	Pn		**Pn**	**09 17 42.1**	**-2.7**
	comp=Z,1.7nm,0.3s,baz=38,slow=13,SNR=23							
FITZ				Sn		Sn	09 20 05.2	-12
	comp=Z,5.4nm,0.3s,baz=188,slow=18,SNR=8.9							
FITZ				LR		LR	09 24 14.4	
	comp=Z,160nm,18.6s,baz=29,slow=42 comp=Z,2.6nm,0.3s							
FITZ				AML	AML			
FITZ	**Fitzroy Crossi**	**13.84**	**211**	P		**Pn**	**09 17 44.2**	**-0.6**
FITZ	**Fitzroy Crossi**	**13.84**	**211**			**Pn**	**09 17 44.2**	**-0.6**
FITZ	**Fitzroy Crossi**	**13.84**	**211**	P		**Pn**	**09 17 45.4**	**+0.5**
	comp=Z,6.2nm,0.6s							
PMG	**Port Moresby**	**14.19**	**103**	Pn		Pn	09 17 45.1	-4.5
	comp=Z,3.7nm,0.3s,baz=65,slow=0.8,SNR=8.5							
PMG				LR		LR	09 24 28.7	
	comp=Z,413nm,18.2s,baz=279,slow=43 comp=Z,24nm,0.8s							
PMG				AML	AML			
PMG	**Port Moresby**	**14.19**	**103**	P		**Pn**	**09 17 49.5**	**-0.1**
PMG	**Port Moresby**	**14.19**	**103**	P		**Pn**	**09 17 49.3**	**-0.3**
PMG	**Port Moresby**	**14.19**	**103**			**Pn**	**09 17 47.1**	**-2.6**
PMG	**Port Moresby**	**14.19**	**103**	P		**Pn**	**09 17 49.3**	**-0.3**
	comp=Z,58nm,0.9s							
TOLI2	**Tolitoli**	**14.39**	**300**			**Pn**	**09 17 50.6**	**-1.8**
TOLI2	**Tolitoli**	**14.39**	**300**	P		**Pn**	**09 17 51.1**	**-1.3**
	comp=Z,16nm,0.8s							
PMSI	**Majene**	**14.47**	**280**	P		**Pn**	**09 17 54.1**	**+0.6**
	comp=Z,52nm,0.7s							
MMSI	**Mauju**	**14.66**	**284**	P		**Pn**	**09 17 56.1**	**+0.1**
	comp=Z,238nm,0.8s							
MPSI	**Mapaga**	**14.80**	**296**	P		**Pn**	**09 17 56.5**	**-1.3**
	comp=Z,10nm,0.5s							
DBNI	**Kabupaten Domp**	**14.90**	**261**	P		**Pn**	**09 18 00.8**	**+1.6**
	comp=Z,28nm,0.7s							
PLAI	**Plampang**	**15.47**	**260**	P		**Pn**	**09 18 06.7**	**0.0**
PLAI	**Plampang**	**15.47**	**260**	P		**Pn**	**09 18 05.8**	**-0.9**
	comp=Z,46nm,0.7s							
QIS	**Mount Isa**	**15.49**	**157**	P		**Pn**	**09 18 06.9**	**-0.1**
QIS	**Mount Isa**	**15.49**	**157**	P		**Pn**	**09 18 04.3**	**-2.6**
MTSU	**Mount Surprise**	**16.02**	**138**	P		**Pn**	**09 18 12.9**	**-0.9**
	comp=Z,46nm,0.7s							
AS31	**Alice Springs**	**17.28**	**178**			**Pn**	**09 18 27.9**	**-1.8**
AS01	**Alice Springs**	**17.29**	**178**	P		**Pn**	**09 18 30.5**	**+0.8**
ASAR	**Alice Springs**	**17.29**	**178**	Pn		**Pn**	**09 18 25.8**	**-4.0**
	comp=Z,0.3nm,0.3s,baz=1.9,slow=11,SNR=42							
ASAR				Sn		**Sn**	**09 21 32.1**	**-9.0**
	comp=Z,0.6nm,0.3s,baz=357,slow=29,SNR=5.2							
ASAR				Lg		Lg	09 23 31.5	
	baz=355,slow=30							
ASAR				LR		LR	09 25 39.8	
	comp=Z,504nm,18.4s,baz=352,slow=39 comp=Z,3.0nm,0.7s							
ASAR				AML	AML			
ASAR	**Alice Springs**	**17.29**	**178**			**Pn**	**09 18 28.4**	**-1.4**
CTA	**Charters Tower**	**18.69**	**138**	P		**Pn**	**09 18 48.0**	**+1.1**
	comp=Z,19nm,0.6s,baz=313,slow=12,SNR=23							
CTA				LR		LR	09 26 41.0	
	comp=Z,313nm,19.1s,baz=258,slow=40							
CTA	**Charters Tower**	**18.69**	**138**	P		**Pn**	**09 18 47.9**	**+0.9**
CTAO	**Charters Tower**	**18.69**	**138**	P		**Pn**	**09 18 47.4**	**+0.4**
CTAO	**Charters Tower**	**18.69**	**138**	P		**P**	**09 18 47.1**	**+0.7**
	comp=Z,42nm,0.9s							
KRVT	**Keravat (AS076**	**18.87**	**85**	LR		LR	09 25 54.7	
	comp=Z,108nm,21.4s,baz=248,slow=37							
JAGI	**Jajag, Banyuwa**	**18.99**	**262**	P		**P**	**09 18 49.5**	**-0.2**
	comp=Z,26nm,1.0s							
BLJI	**Banyuglugur**	**19.49**	**265**	P		**P**	**09 18 55.3**	**+0.2**
	comp=Z,38nm,0.6s							
MBWA	**Marble Bar**	**19.69**	**220**	P		**Pn**	**09 18 59.0**	**0.0**
MBWA	**Marble Bar**	**19.69**	**220**	P		**P**	**09 18 58.0**	**+0.7**
MBWA				IAmb		IAmb	09 19 26.9	
	comp=Z,19nm,1.1s							
KKM	**Kota Kinabalu**	**20.90**	**306**	P		**P**	**09 19 10.4**	**-0.3**
KKM	**Kota Kinabalu**	**20.90**	**306**	P		**P**	**09 19 10.6**	**0.0**
KKM	**Kota Kinabalu**	**20.90**	**306**	P		**P**	**09 19 10.3**	**-0.3**
	comp=Z,42nm,0.6s							
SJI	**Sawahan**	**21.30**	**265**	P		**P**	**09 19 16.2**	**+1.3**
	comp=Z,14nm,0.6s							
INKA	**Innaminka**	**22.51**	**162**	P		**P**	**09 19 28.5**	**+0.9**
INKA						IAmb	IAmb	09 19 46.3
	comp=Z,14nm,0.9s							
QLP	**Quilpie**	**22.76**	**154**	P		**P**	**09 19 31.6**	**+1.2**
QLP	**Quilpie**	**22.76**	**154**	P		**P**	**09 19 32.0**	**+1.6**
	comp=Z,40nm,0.8s							
GUMO	**Guam**	**22.91**	**30**	LR		LR	09 29 02.3	
	comp=Z,23nm,20.4s,baz=46,slow=38							
KPJI	**Karang Pucung**	**24.09**	**266**	P		**P**	**09 19 44.2**	**+0.7**
	comp=Z,21nm,0.7s							
MEEK	**Meekatharra**	**24.53**	**213**	P		**P**	**09 19 48.4**	**+0.9**
MEEK	**Meekatharra**	**24.53**	**213**	P		**P**	**09 19 49.2**	**+1.7**
	comp=Z,16nm,2.4s							
FORT	**Forrest**	**24.82**	**191**	P		**P**	**09 19 50.3**	**+0.2**
BBJI	**Bungbulang**	**25.37**	**266**	P		**P**	**09 19 53.8**	**-1.4**
BBJI	**Bungbulang**	**25.37**	**266**	P		**P**	**09 19 54.2**	**-1.0**
	comp=Z,29nm,0.7s							
EIDS	**Eidsvold**	**25.56**	**140**	P		**P**	**09 19 57.3**	**+0.6**
	comp=Z,19nm,2.1s							
SKJI	**Sukabumi**	**26.45**	**267**	P		**P**	**09 20 03.5**	**-1.5**
	comp=Z,79nm,0.6s							
BBOO	**Buckleboo**	**26.52**	**175**	P		**P**	**09 20 05.5**	**+0.1**
BBOO	**Buckleboo**	**26.52**	**175**	P		**P**	**09 20 04.9**	**-0.5**
BBOO				IAmb		IAmb	09 20 26.1	
	comp=Z,9.1nm,0.8s							
STKA	**Stephens Creek**	**26.64**	**164**	P		**P**	**09 20 06.6**	**+0.1**
	comp=Z,2.3nm,0.3s,baz=340,slow=7.3,SNR=19							
STKA				LR		LR	09 31 40.9	
	comp=Z,279nm,18.2s,baz=6.2,slow=39 comp=Z,2.3nm,0.3s							
STKA	**Stephens Creek**	**26.64**	**164**	P		**P**	**09 20 06.8**	**+0.3**
STKA	**Stephens Creek**	**26.64**	**164**	P		**P**	**09 20 06.1**	**-0.4**
STKA	**Stephens Creek**	**26.64**	**164**	P		**P**	**09 20 06.8**	**+0.3**
	comp=Z,64nm,0.9s							
STKA				pP		**pP**	**09 20 10.3**	**-5.6**
HNR	**Honiara**	**26.70**	**98**	LR		LR	09 31 04.8	
	comp=Z,100nm,21.5s,baz=3.0,slow=38							
HTT	**Hallett**	**27.52**	**170**	P		**P**	**09 20 15.2**	**+0.7**
CMSA	**Cobar Meteorol**	**27.71**	**157**	P		**P**	**09 20 16.3**	**+0.2**
CMSA	**Cobar Meteorol**	**27.71**	**157**	P		**P**	**09 20 16.5**	**+0.4**
	comp=Z,12nm,0.8s							
BLDU	**Ballidu**	**28.71**	**211**	P		**P**	**09 20 26.1**	**+1.0**
	comp=Z,16nm,1.9s							
TPRI	**Tanjung Pinang**	**29.48**	**283**	P		**P**	**09 20 32.5**	**+0.4**
ARMA	**Armidale**	**29.61**	**146**	P		**P**	**09 20 32.9**	**-0.3**
ARMA				IAmb		IAmb	09 20 49.1	
	comp=Z,4.5nm,0.8s							
NACB	**Ninganchiao**	**32.32**	**340**	P		**P**	**09 20 56.2**	**-0.7**
CAN	**Canberra**	**32.35**	**155**	P		**P**	**09 20 57.3**	**+0.1**
CAN				IAmb		IAmb	09 20 59.7	
	comp=Z,6.0nm,0.7s							
IPM	**Ipoh**	**33.84**	**288**	P		**P**	**09 21 10.2**	**-0.2**
	comp=Z,13nm,0.9s							
MNSI	**Mandailing Nat**	**34.27**	**281**	P		**P**	**09 21 14.5**	**+0.4**
KULM	**Kulim**	**34.45**	**289**	P		**P**	**09 21 16.1**	**+0.5**
	comp=Z,8.9nm,1.0s							
SANVU	**Sarautou**	**34.59**	**108**	P		**P**	**09 21 17.2**	**+0.3**
	comp=Z,43nm,1.8s							
DZM	**Mont Dzumac**	**35.74**	**119**	LR		LR	09 35 27.6	
	comp=Z,172nm,18.9s,baz=4.0,slow=35							
TPTI		**37.17**	**284**	P		**P**	**09 21 37.5**	**-1.5**
	comp=Z,187nm,1.1s							
MOO	**Moorlands**	**38.08**	**163**	P		**P**	**09 21 47.4**	**+1.1**
	comp=Z,25nm,1.1s							
MLSI	**Meulaboh, Aceh**	**38.18**	**285**	P		**P**	**09 21 46.7**	**-0.9**
	comp=Z,60nm,0.5s							
NJ2	**Nanjing**	**40.50**	**341**	*eP*		**P**	**09 22 08.8**	**+2.1**
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.5s							
CMAR	**Chiang Mai Arr**	**41.77**	**307**	P		**P**	**09 22 18.4**	**+1.0**
	comp=Z,4.0nm,0.6s,baz=137,slow=7.7,SNR=29							
CMAR				LR		LR	09 43 49.3	
	comp=Z,16nm,18.3s,baz=35,slow=42 comp=Z,4.0nm,0.6s							
CHTO	**Chiang Mai**	**41.96**	**307**	P		**P**	**09 22 19.7**	**+0.8**
CHTO				IAmb		IAmb	09 22 20.4	
	comp=Z,7.2nm,0.7s							
CHTO	**Chiang Mai**	**41.96**	**307**	P		**P**	**09 22 19.5**	**+0.6**
	comp=Z,12nm,0.8s							
KSAR	**Wonju Array Be**	**43.79**	**354**	P		**P**	**09 22 33.0**	**-0.4**
KSRS	**Korea Array**	**43.80**	**354**	P		**P**	**09 22 34.7**	**+1.3**
	comp=Z,1.6nm,0.8s,baz=181,slow=10,SNR=6.3 comp=Z,1.6nm,0.8s							
XAN	**Xi'an**	**46.22**	**332**	P		**P**	**09 22 53.3**	**+0.5**
XAN				pmax		pmax		
	comp=Z,12nm,0.9s							
RPZ	**Rata Peaks**	**49.91**	**144**	LR		LR	09 43 45.9	
	comp=Z,30nm,19.0s,baz=125,slow=35							
USRK	**Ussuriysk Ar.**	**50.27**	**359**	P		**P**	**09 23 24.0**	**+0.2**
	comp=Z,1.6nm,0.6s,baz=206,slow=4.8,SNR=2.7 comp=Z,1.6nm,0.6s							
USRK	**Ussuriysk Ar.**	**50.27**	**359

CPUP	**Villa Florida**	**146.00**	**163**	PKPbc	**PKPdf**	**09**	**34**	**07.5 +0.4**
	comp=Z,2.8nm,0.9s,baz=222,slow=0.9,SNR=6.6							
CPUP	**Villa Florida**	**146.00**	**163**		**PKPab**	**09**	**34**	**09.2 +0.8**
LPAZ	**La Paz**	**149.21**	**137**	PKPbc	**PKiKP**	**09**	**34**	**19.1 +0.1**
	comp=Z,1.8nm,0.4s,baz=26,slow=4.2,SNR=9.9							
LPAZ	**La Paz**	**149.21**	**137**		**PKiKP**	**09**	**34**	**19.4 +0.4**
SIV	**San Ignacio**	**153.75**	**148**	PKPbc	**PKiKP**	**09**	**34**	**28.2 +0.6**
	comp=Z,1.1nm,0.6s,baz=337,slow=4.9,SNR=5.8							

*SOME **21** 09:18:35.1, 44.°63N × 82.°10E, h5 km*
*NNC **21** 09:18:39.0 ± 1.2, 44.°70N × 82.°00E, h0 km, mb3.6, mpv3.3, Error ellipse: s-maj=14.0km s-min=3.9km az=120.0, Suspected Mining explosion.*

ISC 21 09:18:35.3 ± 1.5, 44.°69N ± 0.°04 × 82.°21E ± 0.°08, h0 km, n17, σ 0 s 75/28, 4C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DJR	**Jarkent**	**1.77**	**259**	P	**Pb**	**09 19 08.6**	**0.0**
	11nm,0.1s						
DJR				S	**Sg**	**09 19 32.9**	**+0.9**
	8.8nm,0.2s						
DJR	**Jarkent**	**1.77**	**259**	*e*P	**Pb**	**09 19 08.6**	**0.0**
	11nm,0.1s						
DJR				*e*S	**Sg**	**09 19 32.9**	**+0.9**
	8.8nm,0.2s						
KTMS	**Ketmen**	**1.83**	**228**	P	**Pg**	**09 19 09.9**	**-0.5**
	5.0nm,0.1s						
KTMS				S	**Sg**	**09 19 34.5**	**+0.5**
	13nm,0.2s						
KTMS	**Ketmen**	**1.83**	**228**	*e*P	**Pb**	**09 19 09.1**	**-0.6**
	5.0nm,0.1s						
KTMS				*e*S	**Sb**	**09 19 33.2**	**0.0**
	13nm,0.2s						
MK31	**Makanchi Array**	**2.10**	**2**	⇑Pn	**Pg**	**09 19 15.9**	**+0.3**
	3.0nm,0.3s,baz=186,slow=15,SNR=334						
MK31				⇑Sn	**Sg**	**09 19 43.6**	**+0.8**
	3.2nm,0.5s,baz=196,slow=28,SNR=15						
KAPS	**Kapalarasan**	**2.11**	**287**	Pg	**Pb**	**09 19 13.8**	**-0.6**
	4.8nm,0.2s						
KAPS				Lg	Lg	09 19 41.3	
	30nm,0.1s						
KAPS	**Kapalarasan**	**2.11**	**287**	*e*P	**Pb**	**09 19 13.8**	**-0.6**
	4.8nm,0.2s						
KAPS				*e*S	**Sb**	**09 19 41.3**	**+0.2**
	30nm,0.1s						
MAKZ	**Makanchi**	**2.12**	**356**	⇑Pn	**Pg**	**09 19 15.5**	**-0.5**
	3.3nm,0.3s						
MAKZ				⇓Sn	**Sg**	**09 19 43.4**	**-0.1**
	12nm,0.7s						
PDGK	**Podgornoye**	**2.39**	**236**	⇓Pn	**Pb**	**09 19 18.1**	**-1.2**
	5.0nm,0.5s						
PDGK				⇑Sn	**Sb**	**09 19 48.6**	**-0.7**
	9.6nm,0.5s						
SHLS	**Shalkode**	**2.51**	**233**	Pg	**Pn**	**09 19 18.1**	**+0.7**
	20nm,0.1s						
SHLS				Lg	Lg	09 19 48.5	
	30nm,0.3s						
BLB	**Baldybastay**	**2.74**	**259**	Pg	**Pb**	**09 19 24.4**	**-0.8**
	8.7nm,0.2s						
BLB				Lg	Lg	09 19 59.6	
	16nm,0.2s						
UZB	**Uzynbulak**	**2.77**	**237**	Pg	**Pb**	**09 19 25.6**	**-0.2**
	7.6nm,0.2s						
UZB				Lg	Lg	09 20 01.5	
	9.8nm,0.2s						
UZB	**Uzynbulak**	**2.77**	**237**	*e*P	**Pb**	**09 19 25.6**	**-0.2**
	7.6nm,0.2s						
UZB				*e*S	**Sb**	**09 20 01.5**	**+1.1**
	9.8nm,0.2s						
KPKS	**Kokpek**	**2.82**	**245**	Pg	**Pb**	**09 19 25.8**	**-0.8**
	0.3nm,0.2s						
KPKS				Lg	Lg	09 20 01.9	
	7.5nm,0.3s						
KPKS	**Kokpek**	**2.82**	**245**	*e*P	**Pb**	**09 19 25.8**	**-0.8**
	0.3nm,0.2s						
KPKS				*e*S	**Sb**	**09 20 01.9**	**+0.2**
	7.5nm,0.3s						
ARXS	**Arharly**	**3.17**	**263**	Pg	**Pb**	**09 19 31.2**	**-1.4**
	5.5nm,0.3s						
ARXS				Lg	Lg	09 20 11.4	
	10nm,0.3s						
ARXS	**Arharly**	**3.17**	**263**	*e*P	**Pb**	**09 19 31.2**	**-1.4**
	5.5nm,0.3s						
ARXS				*e*S	**Sb**	**09 20 11.4**	**-0.4**
	10nm,0.3s						

IDC 21 09:30:21.3 ± 3.2, 32.°42S × 177.°82W, h0 km, mb3.6/2, mbtmp3.7/3, ML3.1/1, Error ellipse: s-maj=73.8km s-min=37.2km az=118.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**7.15**	**214**	Pn	Pn	09 32 06.4	-0.8
	0.4nm,0.3s,baz=1.1,slow=11,SNR=1.4						
URZ				Sn	Sn	09 33 28.6	-0.5
	1.0nm,0.3s,baz=163,slow=20,SNR=9.6						
	5.0nm,0.7s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.19**	**269**	P	P	09 38 24.4	+0.2
	0.4nm,0.6s,baz=107,slow=7.0,SNR=8.4						
	0.4nm,0.6s						
WRA	**Warramunga Arr**	**44.36**	**274**	P	P	09 38 33.5	-0.2
	0.5nm,0.3s,baz=113,slow=8.0,SNR=15						
	0.5nm,0.3s						
FINES	**FINESS Array B**	**147.08**	**339**	PKPbc	PKPbc	09 50 04.7	-0.7
	4.8nm,1.0s,baz=45,slow=2.2,SNR=5.4						

*UPP **21** 10:13:37.0 ± 0.1, 67.°19N × 20.°70E, h0 km, ML2.5, Confirmed Induced event*
*HEL **21** 10:13:37.8 ± 0.6, 67.°18N × 20.°68E, h0 km, ML1.2, Suspected explosion*

ISC 21 10:13:37.2 ± 0.8, 67.°19N ± 0.°02 × 20.°72E ± 0.°03, h0 km, n25, σ 1 s 19/36, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.09**	**220**	P	**Pg**	**10 13 39.0**	**0.0**
	baz=75						
DUNU				S	**Sg**	**10 13 40.2**	**+0.1**
RATU	**Laukkuluspa**	**0.77**	**326**	P	**Pg**	**10 13 51.5**	**-0.4**
RATU				S	**Sg**	**10 14 01.6**	**-0.2**
KUA	**Kurravaara**	**0.78**	**349**	P	**Pg**	**10 13 51.7**	**-0.4**
ERTU	**Ertsjaerv**	**0.86**	**137**	P	**Pg**	**10 13 53.2**	**-0.6**
ERTU	**Ertsjaerv**	**0.86**	**137**	PG	**Pg**	**10 13 53.2**	**-0.6**
ERTU				SB	**Sg**	**10 14 04.9**	**0.0**
SALU	**Saltoluokta**	**0.88**	**283**	P	**Pg**	**10 13 53.3**	**-0.8**
SALU	**Saltoluokta**	**0.88**	**283**	*e*P	**Pg**	**10 13 53.2**	**-0.8**
NIKU	**Nikkaluokta**	**0.94**	**317**	P	**Pg**	**10 13 54.4**	**-0.8**
LANU	**Lannavaara**	**0.99**	**29**	PG	**Pg**	**10 13 56.0**	**-0.1**
LANU				SN	**Sn**	**10 14 12.6**	**-0.5**
HARU	**Harads**	**1.04**	**174**	P	**Pg**	**10 13 56.1**	**-1.0**
KOVU	**Salmi**	**1.06**	**349**	P	**Pg**	**10 13 56.9**	**-0.5**
KLF	**Kolari**	**1.26**	**87**	PG	**Pg**	**10 14 00.6**	**-0.8**
	baz=271						
KLF				MSG		10 14 16.4	
	comp=Z,0.9nm,0.2s						
KLF				SG	**Sg**	**10 14 17.8**	**+0.1**
HEF	**Hetta**	**1.66**	**41**	*e*P	**Pn**	**10 14 06.4**	**-1.1**
HEF	**Hetta**	**1.66**	**41**	PG	**Pn**	**10 14 07.7**	**+0.2**
	baz=229						
HEF				MSG		10 14 27.8	
	comp=Z,2.0nm,0.2s						
HEF				SG	**Sn**	**10 14 29.2**	**-0.3**
TOF	**Tornio**	**1.82**	**126**	PG	**Pn**	**10 14 10.6**	**+0.9**
	baz=304						
TOF				MSG		10 14 32.2	
	comp=Z,1.2nm,0.2s						
TOF				SG	**Sb**	**10 14 35.2**	**+0.6**
KTK1	**Kautokeino**	**2.06**	**26**	PG	**Pb**	**10 14 14.7**	**-0.7**
KTK1				SG	**Sb**	**10 14 42.5**	**+1.0**
RNF	**Rovaniemi**	**2.17**	**103**	PG	**Pn**	**10 14 15.8**	**+1.3**
RNF				SG	**Sb**	**10 14 45.5**	**+0.8**
TRO	**Tromso**	**2.54**	**346**	SG	**Sb**	**10 14 57.0**	**+1.6**
RANF	**Ranua**	**2.69**	**113**	PG	**Pb**	**10 14 27.7**	**+1.4**
RANF				SG	**Sb**	**10 14 59.9**	**+0.1**
ARA0	**ARCESS Array S**	**2.95**	**35**	PN	**Pn**	**10 14 26.3**	**+1.0**
ARA0				SB	**Sb**	**10 15 05.3**	**-1.7**
OBF4	**Vikkela, Lumij**	**2.99**	**141**	SN	**Sn**	**10 14 58.6**	**-3.6**
OBF4				MSG		10 15 05.6	
	comp=Z,0.9nm,0.2s						
RAJF	**Raja-Jooseppi**	**3.15**	**62**	SG	**Sb**	**10 15 14.8**	**+1.8**
KEV	**Kevo**	**3.46**	**39**	SN	**Sn**	**10 15 14.2**	**+0.3**
OLKF	**Oulanka, Finla**	**3.55**	**100**	PG	**Pb**	**10 14 42.6**	**+1.8**
MSF	**Maaselka**	**3.57**	**107**	SG	**Sg**	**10 15 29.0**	**-2.7**

*NEIC **21** 10:16:26.9 ± 1.4, 7.°24S ± 0.°05 × 129.°19E ± 0.°09, h172 km ± 14 km, mb4.3/4, Error ellipse: s-maj=13.6km s-min=7.9km az=89.0.*
*IDC **21** 10:16:34.6 ± 5.5, 7.°95S × 128.°49E, h227 km ± 57 km, mb3.3/4, mbtmp4.0/7, Error ellipse: s-maj=57.1km s-min=19.7km az=59.0*

ISC 21 10:16:25.6 ± 0.7, 7.°53S ± 0.°06 × 128.°96E ± 0.°08, h131 km, n23, σ 1 s 94/25, mb3.9/6, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**2.36**	**101**	Pn	**Pn**	**10 17 05.5**	**+1.4**
SAUI				Sn	**Sn**	**10 17 36.2**	**+2.5**
SOEI	**Soe**	**5.14**	**244**		Pn	10 17 47.3	+6.6
FAKI	**Fak Fak**	**5.63**	**36**	Pn	**Pn**	**10 17 45.4**	**-1.8**
FAKI				Sn	Sn	10 18 43.8	-7.1
MTN	**Manton Dam**	**5.69**	**158**		Pn	10 17 53.1	+5.0
KNRA	**Kununurra**	**8.10**	**181**		**Pn**	**10 18 24.4**	**+4.1**
LUWI	**Luwuk**	**8.92**	**316**	Pn	**Pn**	**10 18 32.0**	**+0.4**
FITZ	**Fitzroy Crossi**	**10.99**	**197**	P	**Pn**	**10 19 00.2**	**+1.0**
	4.0nm,0.4s,baz=28,slow=12,SNR=30						
FITZ				S	**Sn**	**10 20 58.5**	**-1.9**
	4.3nm,0.3s,baz=24,slow=20,SNR=6.9						
FITZ	**Fitzroy Crossi**	**10.99**	**197**		**Pn**	**10 19 01.8**	**+2.6**
WB0	**Warramunga Arr**	**13.26**	**157**		**Pn**	**10 19 29.6**	**+0.8**
WRAB	**Tennant Creek**	**13.39**	**158**	Pn	**Pn**	**10 19 31.6**	**+1.1**
WRA	**Warramunga Arr**	**13.39**	**158**	P	**Pn**	**10 19 31.8**	**+1.2**
	1.5nm,0.3s,baz=330,slow=14,SNR=44						
WRA				S	**Sn**	**10 21 56.3**	**-2.3**
	6.4nm,0.5s,baz=330,slow=24,SNR=12						
WRA	**Warramunga Arr**	**13.39**	**158**	Pn	**Pn**	**10 19 30.2**	**-0.4**
WR8	**Warramunga Arr**	**13.47**	**157**		**Pn**	**10 19 32.5**	**+0.9**
AS31	**Alice Springs**	**16.73**	**164**	P	**P**	**10 20 13.0**	**+0.7**
ASAR	**Alice Springs**	**16.73**	**164**	P	**P**	**10 20 13.6**	**+1.2**
	4.0nm,0.5s,baz=340,slow=10,SNR=87						
ASAR				S	**Sn**	**10 23 13.9**	**-5.0**
	1.2nm,0.5s,baz=323,slow=18,SNR=5.6						
ASAR	**Alice Springs**	**16.73**	**164**	P	**P**	**10 20 13.1**	**+0.8**
BBJI	**Bungbulang**	**21.13**	**269**	P	**P**	**10 21 00.0**	**-0.3**
BBJI				IAmb	IAmb	10 21 07.8	
	comp=Z,12nm,1.0s						
MORW	**Morawa**	**24.64**	**208**	P	**P**	**10 21 34.3**	**+0.2**
BBOO	**Buckleboo**	**26.00**	**166**	P	**P**	**10 21 45.9**	**-0.5**
BBOO				IAmb	IAmb	10 21 56.4	
	comp=Z,6.1nm,1.1s						
STKA	**Stephens Creek**	**26.93**	**156**	P	**P**	**10 21 53.5**	**-1.2**
	comp=Z,1.7nm,0.4s,baz=330,slow=8.8,SNR=9.4						
	comp=Z,1.7nm,0.4s						
SONM	**Songino Array**	**58.62**	**342**	P	**P**	**10 26 10.4**	**+1.4**
	comp=Z,0.2nm,0.6s,baz=148,slow=6.5,SNR=1.6						
	comp=Z,0.2nm,0.6s						
MKAR	**Makanchi Array**	**68.11**	**327**	P	**P**	**10 27 10.7**	**-0.7**
	comp=Z,0.8nm,0.8s,baz=117,slow=7.4,SNR=3.8						
	comp=Z,0.8nm,0.8s						
KURBB	**Kurchatov Arra**	**72.43**	**329**	P	**P**	**10 27 35.9**	**-1.6**
	comp=Z,0.8nm,0.4s,baz=115,slow=4.9,SNR=1.9						
	comp=Z,0.8nm,0.4s						

*BER **21** 10:28:41.5 ± 2.5, 79.°41N × 3.°02E, h10 km, Mw3.5, ML1.7(DNK), Confirmed Earthquake*
*DNK **21** 10:28:42.8 ± 2.9, 79.°39N × 3.°66E, h36 km ± 21 km, ML1.7, Presumed earthquake*

ISC 21 10:28:33.9 ± 0.8, 79.°76N ± 0.°08 × 3.°20E ± 0.°05, h10 km, n15, σ 2 s 73/25, Greenland Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBS	**Kingsbay**	**1.83**	**113**	*i* P	**Pg**	**10 29 09.6**	**+0.7**
KBS				*i* S	**Sn**	**10 29 25.9**	**-2.6**
KBS	**Kingsbay**	**1.83**	**113**	*i* P	**Pg**	**10 29 09.6**	**+0.7**
KBS				*i* S	**Sn**	**10 29 25.9**	**-2.6**
BRBB	**Barentsburg B**	**2.70**	**123**	*e*P	**Pb**	**10 29 21.6**	**-0.6**
BRBB				*e*S	**Sn**	**10 29 48.9**	**-1.0**
SPA0	**Spitsbergen Ar**	**2.99**	**116**	*e*P	**Pb**	**10 29 26.2**	**-0.9**
SPA0				*e*S	**Sn**	**10 29 57.1**	**+0.2**
SPA0				IAML		10 30 05.2	
	comp=Z,12nm,0.8s						
NOR	**Nord**	**3.70**	**309**	*i* P	**Pb**	**10 29 39.6**	**+0.3**
NOR				*i* S	**Sb**	**10 30 22.4**	**-1.7**
NOR				IAML		10 30 30.2	
	comp=Z,2.0nm,0.4s						
NOR	**Nord**	**3.70**	**309**	*i* P	**Pb**	**10 29 39.6**	**+0.3**
NOR				*i* S	**Sb**	**10 30 22.4**	**-1.7**
NOR				IAML		10 30 30.2	
	comp=Z,2.0nm,0.4s						
DAG	**Danmarks Havn**	**5.34**	**247**	*i* P	**Pn**	**10 29 57.5**	**+4.0**
DAG				*i* S	**Sn**	**10 30 51.3**	**-3.6**
DAG				IAML		10 30 53.5	
	comp=Z,3.7nm,0.1s						
DAG	**Danmarks Havn**	**5.34**	**247**	*i* P	**Pn**	**10 29 57.5**	**+4.0**
DAG				*i* S	**Sn**	**10 30 51.3**	**-3.6**
DAG				IAML		10 30 53.5	
	comp=Z,3.7nm,0.1s						
HOPEN	**Hopen**	**5.52**	**115**	*e*P	Pn	10 30 02.5	+6.6
HOPEN				*e*S	**Sn**	**10 30 58.1**	**-1.2**
HOPEN				IAML		10 31 00.2	
	comp=Z,8.0nm,0.9s						
DBG	**Daneborg**	**7.52**	**236**	*i* P	**Pn**	**10 30 26.4**	**+3.1**
DBG				*i* S	Sn	10 31 40.7	-7.7
DBG				IAML		10 31 47.4	
	comp=Z,2.2nm,0.4s						
DBG	**Daneborg**	**7.52**	**236**	*i* P	**Pn**	**10 30 26.4**	**+3.1**
DBG				*i* S	Sn	10 31 40.7	-7.7
DBG				IAML		10 31 47.4	
	comp=Z,2.2nm,0.4s						
NEEM	**North Greenlan**	**10.61**	**285**	*i* P	**Pn**	**10 31 09.6**	**+3.7**
NEEM				*i* S	**Sn**	**10 33 01.2**	**-3.5**
NEEM				IAML		10 33 05.5	
	comp=Z,1.7nm,0.3s						
NEEM	**North Greenlan**	**10.61**	**285**	*i* P	**Pn**	**10 31 09.6**	**+3.7**
NEEM				*i* S	**Sn**	**10 33 01.2**	**-3.5**
NEEM				IAML		10 33 05.5	
	comp=Z,1.7nm,0.3s						
SUMG	**Summit**	**11.92**	**256**	*i* P	**Pn**	**10 31 26.2**	**+2.2**
SUMG				*i* S	Sn	10 33 25.7	-11
SUMG	**Summit**	**11.92**	**256**	*i* P	**Pn**	**10 31 26.2**	**+2.2**
SUMG				*i* S	Sn	10 33 25.7	-11

*IDC **21** 10:38:19.1 ± 1.9, 0.°65S × 127.°82E, h0 km, mb3.5/4, mbtmp3.6/4, Error ellipse: s-maj=166.1km s-min=22.9km az=68.0*
*DJA **21** 10:38:22.5 ± 0.2, 1.°S ± 1.°12 × 128.°8E ± .°, h10 km, M4.3/19, mb4.4/6, mB5.3/5, MLv4.0/19, Mw(mB)4.7/5*

ISC 21 10:38:21.9 ± 1.3, 0.°90S ± 0.°07 × 127.°8E ± 0.°1, h10 km, n11, σ 1 s 35/12, mb3.9/3, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.71**	**346**	P	**Pn**	**10 38 51.6**	**-0.2**
TNTI				Sg	**Sb**	**10 39 17.3**	**+2.2**
TNTI				AML	AML		
SANI	**Sanana**	**2.12**	**237**	P	**Pn**	**10 38 56.6**	**-0.8**
SANI				S	**Sn**	**10 39 24.8**	**+1.1**
MNI	**Manado**	**3.75**	**308**	P	**Pn**	**10 39 18.6**	**-1.2**
MNI				AML	AML		
KMSI	**Cibinong**	**4.07**	**291**	P	**Pn**	**10 39 23.2**	**-1.0**
KMSI				AML	AML		
GTOI	**Gorontalo**	**5.00**	**288**	P	**Pn**	**10 39 37.8**	**+0.7**
	0.1nm23nm,0.6s						
GTOI				AML	AML		
APSI	**Ampana**	**6.12**	**270**	P	**Pn**	**10 39 51.7**	**-0.8**
	0.2nm656nm25nm,0.6s						
APSI				AML	AML		
TTSI	**Tana Toraja**	**8.23**	**255**	P	**Pn**	**10 40 21.6**	**+0.2**
WRA	**Warramunga Arr**	**19.98**	**162**	P	**P**	**10 42 55.8**	**+1.1**
	0.7nm,0.7s,baz=341,slow=11,SNR=6.7						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**23.40**	**166**	P	**P**	**10 43 32.1**	**+1.0**
	2.0nm,0.8s,baz=346,slow=10,SNR=19						
	2.0nm,0.8s						
MKAR	**Makanchi Array**	**61.95**	**326**	P	P	10 48 39.2	-2.9
	0.6nm,0.7s,baz=112,slow=9.4,SNR=4.1						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**66.19**	**328**	P	**P**	**10 49 07.8**	**-2.0**
	0.6nm,0.8s,baz=126,slow=6.1,SNR=4.7						
	0.6nm,0.8s						

*GCG **21** 10:53:44.5 ± 2.0, 15.°55N × 89.°05W, h14 km ± 17 km, MD4.3, Presumed earthquake*
*CATAC **21** 10:53:45.4, 15.°5N ± 1.°0 × 89.°0W ± 1.°0, h13 km ± 3 km, M3.7/19, MLv3.7/19, confirmed*

ISC 21 10:53:43.4 ± 1.3, 15.°53N ± 0.°03 × 89.°03W ± 0.°03, h9 km ± 11 km, n32, σ 1 s 38/59, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IZABA	**Izabal, Puerto**	**0.47**	**65**	P	**Pb**	**10 53 54.1**	**+0.1**
IZABA				S	**Sb**	**10 54 01.8**	**+0.7**
SARH	**Santa Rosa de**	**0.80**	**161**	P	**Pn**	**10 54 00.1**	**-0.8**
SARH				S	**Sb**	**10 54 11.2**	**+0.8**
SARH	**Santa Rosa de**	**0.80**	**161**	*i* P	**Pn**	**10 54 00.0**	**-0.8**
SARH				*i* S	**Sb**	**10 54 10.0**	**-0.4**
ZAFR2	**Estanzuela, Za**	**1.00**	**198**	*i* P	**Pb**	**10 53 59.5**	**-3.4**
ZAFR2				*i* S	**Sg**	**10 54 08.7**	**-6.8**
ESQI	**Esquipulas**	**1.01**	**197**	P	**Pn**	**10 54 03.9**	**0.0**
ESQI				S	**Sn**	**10 54 18.3**	**0.0**
MTO3	**Montecristo**	**1.17**	**196**	P	**Pg**	**10 54 06.4**	**+0.5**
MTO3				S	**Sn**	**10 54 22.6**	**+0.1**
MTO3	**Montecristo**	**1.17**	**196**	*i* P	**Pb**	**10 54 05.9**	**-0.1**
MTO3				*i* S	**Sb**	**10 54 21.2**	**-0.2**
AVCB	**Coban**	**1.33**	**268**	*i* P	**Pn**	**10 54 08.6**	**+0.2**
AVCB				*e*S	**Sb**	**10 54 26.0**	**+0.1**
JUAM	**Asuncion Mita**	**1.36**	**209**	*i* P	**Pb**	**10 54 09.1**	**+0.1**
JUAM				*i* S	**Sb**	**10 54 26.6**	**+0.1**
PETF	**Flores**	**1.59**	**330**	P	**Pn**	**10 54 12.3**	**+0.4**
PETF				S	**Sn**	**10 54 32.4**	**-0.3**
PETF	**Flores**	**1.59**	**330**	*i* P	**Pn**	**10 54 11.7**	**-0.1**
PETF				*i* S	**Sn**	**10 54 30.9**	**-1.8**
UNIC	**Universidad Ca**	**1.62**	**198**	P	**Pb**	**10 54 14.0**	**+0.4**
UNIC				S	**Sg**	**10 54 36.0**	**+0.4**
SLOZ	**Alcaldia de Sa**	**1.66**	**206**	P	**Pb**	**10 54 14.8**	**+0.5**
LOAL	**Lomas de Alarc**	**1.69**	**206**	P	**Pg**	**10 54 16.4**	**+0.6**
LOAL				S	**Sg**	**10 54 39.2**	**+1.4**
NUBE	**Las Nubes**	**1.77**	**204**	P	**Pb**	**10 54 16.6**	**+0.4**
NUBE				S	**Sg**	**10 54 41.2**	**+0.7**
NUBE	**Las Nubes**	**1.77**	**204**	*i* P	**Pb**	**10 54 16.4**	**+0.1**
NUBE				*i* S	**Sg**	**10 54 40.1**	**-0.4**
PAVA	**Las Pavas**	**1.81**	**177**	P	**Pg**	**10 54 18.6**	**+0.5**
PAVA				S	**Sg**	**10 54 42.7**	**+1.1**
UEES	**Universidad Ev**	**1.81**	**186**	P	**Pg**	**10 54 18.6**	**+0.4**
UEES				S	**Sg**	**10 54 42.8**	**+1.0**
PMON	**Piamonte**	**1.83**	**189**	P	**Pg**	**10 54 19.1**	**+0.5**
PMON				S	**Sg**	**10 54 44.6**	**+2.3**
LOMA	**Loma Larga**	**1.88**	**184**	P	**Pg**	**10 54 19.2**	**-0.3**
LOMA				S	**Sg**	**10 54 44.4**	**+0.5**
COEG	**Centro de Oper**	**1.91**	**176**	P	**Pg**	**10 54 20.7**	**+0.7**
COEG				S	**Sg**	**10 54 45.2**	**+0.5**
JAYA	**Jayaque - finc**	**1.91**	**192**	P	**Pb**	**10 54 18.9**	**+0.3**
JAYA				S	**Sg**	**10 54 45.6**	**+0.8**
FAME	**Alcaldia de Sa**	**1.93**	**210**	P	**Pb**	**10 54 19.1**	**+0.3**
FAME				S	**Sg**	**10 54 45.6**	**+0.2**
TECO	**Alcaldia de Te**	**2.00**	**173**	P	**Pb**	**10 54 20.1**	**+0.1**
TECO				S	**Sg**	**10 54 47.6**	**0.0**
PACA	**Pacayal**	**2.16**	**161**	P	**Pb**	**10 54 23.9**	**+1.1**
PACA				S	**Sg**	**10 54 51.7**	**-1.3**
ALJI	**Alcalda de J**	**2.24**	**168**	P	**Pg**	**10 54 27.9**	**+1.6**
TGUH	**Tegucigalpa,Un**	**2.25**	**131**	P	**Pb**	**10 54 24.3**	**0.0**
TGUH				S	**Sg**	**10 54 54.4**	**-1.2**
LCND	**La Caada**	**2.47**	**153**	P	**Pb**	**10 54 29.1**	**+1.1**
CNCH	**Conchagua**	**2.52**	**152**	P	**Pb**	**10 54 29.8**	**+0.8**
CNCH				S	**Sg**	**10 55 04.5**	**-0.1**
CSGN	**Cosiguina Volc**	**2.91**	**150**	P	**Pg**	**10 54 38.3**	**-1.0**
OCON	**Estacion meteo**	**3.11**	**127**	P	**Pb**	**10 54 40.6**	**+1.6**
OCON				S	**Sg**	**10 55 20.1**	**-3.3**
RCVN	**Varillal2**	**3.36**	**125**	P	**Pb**	**10 54 45.2**	**+1.9**

SOME 21 10:54:06.7, 42.°08N × 79.°90E, h5 km, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UZB	**Uzynbulak**	**1.25**	**329**	*e*P	Pg	10 54 27.1	-3.5
	1.1nm,0.1s						
UZB				*e*S	Sn	10 54 50.0	+1.9
	1.6nm,0.1s						
UZB	**Uzynbulak**	**1.25**	**329**	*e*P	Pn	10 54 31.8	+0.9
	1.4nm,0.2s						
UZB				*e*S	Sn	10 54 49.9	+1.7
	1.3nm,0.2s						
SATY	**Saty**	**1.47**	**312**	*e*P	Pn	10 54 34.2	+0.2
	0.5nm,0.1s						
SATY				*e*S	Sg	10 55 02.4	+8.4
	6.8nm,0.2s						
KPKS	**Kokpek**	**1.65**	**327**	*e*P	Pn	10 54 32.8	-3.6
	0.2nm,0.1s						
KPKS				*e*S	Sg	10 55 00.2	+0.5
	4.8nm,0.4s						
KPKS	**Kokpek**	**1.65**	**327**	*e*P	Pb	10 54 37.4	-0.2
	0.2nm,0.4s						
KPKS				*e*S	Sg	10 54 59.4	-0.2
	3.7nm,0.3s						

*UCR **21** 10:54:24.6 ± 0.6, 8.°45N × 83.°04W, h26 km ± 2 km, MW3.5, Presumed earthquake*
*UPA **21** 10:54:24.7 ± 0.9, 8.°47N × 83.°04W, h22 km ± 4 km, MW3.6, Presumed earthquake*

ISC 21 10:54:24.6 ± 0.9, 8.°46N ± 0.°03 × 83.°04W ± 0.°02, h27 km ± 5 km, n68, σ 0 s 75/95, 3C-7D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDITO	**Canoas**	**0.20**	**55**	⇓*i*P	**P

PSOM3				eS	**Sb**	10 54 49.0	+0.1
BURE	**Buenos Aires**	**0.77**	**337**	eP	**Pb**	10 54 38.9	-0.6
EDPE	**Pejibaye, P**	**0.87**	**323**	eP	**Pb**	10 54 40.3	-1.0
RBALA	**Bur**	**0.97**	**64**	eP	**Pb**	10 54 41.8	-1.0
RBALA	**Bur**	**0.97**	**64**	⇓iP	**Pb**	10 54 41.8	-1.0
RBALA				eS	**Sb**	10 54 55.1	-0.3
SAJE	**San Jernim**	**1.00**	**332**	eP	**Pn**	10 54 41.8	-1.1
CHGR2	**Aguacate**	**1.00**	**62**	eP	**Pn**	10 54 42.1	-0.8
CHGR2				eS	**Sb**	10 54 55.7	-0.6
CNI2	**El Empalme, Bo**	**1.11**	**30**	eP	**Pn**	10 54 44.0	-0.5
REME3	**Remedios, Chir**	**1.22**	**101**	eP	**Pn**	10 54 45.9	+0.1
REME3				eS	**Sn**	10 55 00.3	-1.1
PDCAN	**Manzana , Fuen**	**1.34**	**97**	eP	**Pn**	10 54 48.2	+0.6
PDCAN				eS	**Sb**	10 55 05.4	-0.4
VERH	**Veragua Rainfo**	**1.47**	**354**	eP	**Pn**	10 54 49.9	+0.6
PIEC	**Cerro El Cedra**	**1.47**	**322**	eP	**Pn**	10 54 49.5	-0.1
LCR2	**La Lucha 2**	**1.59**	**323**	eP	**Pn**	10 54 50.8	-0.4
LCR2	**La Lucha 2**	**1.59**	**323**	eP	**Pn**	10 54 51.4	+0.2
ABE2	**San Pablo**	**1.59**	**321**	eP	**Pn**	10 54 51.3	0.0
VTCV	**VTCV, Calle Va**	**1.66**	**336**	eP	**Pn**	10 54 52.7	+0.6
RESJ	**San Isidro (Tu**	**1.67**	**339**	eP	**Pn**	10 54 53.4	+1.2
ABRB	**Las Abras (San**	**1.68**	**337**	eP	**Pn**	10 54 53.1	+0.7
CVTV	**Tajo**	**1.69**	**336**	eP	**Pn**	10 54 53.3	+0.6
VTR0	**Volcan Turrial**	**1.71**	**335**	eP	**Pn**	10 54 53.6	+0.6
CVTR	**Volcan Turrial**	**1.71**	**335**	eP	**Pn**	10 54 54.0	+1.1
VICA	**Volcano Irazu**	**1.71**	**332**	eP	**Pn**	10 54 53.2	+0.1
ACOS	**Acosta**	**1.73**	**320**	eP	**Pn**	10 54 53.1	+0.1
CVTG	**V. Turrialba,**	**1.83**	**337**	eP	**Pn**	10 54 55.4	+1.1
BELE	**Belen**	**1.89**	**323**	eP	**Pn**	10 54 55.2	0.0
GMAL	**Guarumal, Vera**	**1.92**	**111**	eP	**Pn**	10 54 54.7	-0.8
VBV1	**V. Barva**	**1.95**	**328**	eP	**Pn**	10 54 56.7	+0.5
TRB2	**Turrubares**	**2.01**	**316**	eP	**Pn**	10 54 56.2	-0.5
TRT2	**Tortugero**	**2.20**	**342**	eP	**Pn**	10 55 00.7	+1.3
MTEVE	**Monteverde**	**2.56**	**316**	eP	**Pn**	10 55 06.2	+1.8
FORC	**Fortuna**	**2.56**	**321**	eP	**Pn**	10 55 05.2	+0.8
VACR	**Volcan Arenal**	**2.57**	**321**	eP	**Pn**	10 55 05.4	+0.9
VARE2	**V. Arenal**	**2.59**	**320**	eP	**Pn**	10 55 06.5	+1.7
CEDE	**Laguna Cedeo**	**2.60**	**321**	eP	**Pn**	10 55 05.8	+0.8
JTS	**Las Juntas de**	**2.62**	**314**	eP	**Pn**	10 55 04.8	-0.4
CUI	**Cuipilapa**	**3.03**	**316**	eP	**Pn**	10 55 11.9	+1.1
ALIBA	**Liberia Airpor**	**3.26**	**311**	eP	**Pn**	10 55 16.3	+2.3

*IDC **21** 11:03:37.6±0.7, 6°.85N×73°.03W, h157^{km}±11^{km}, mb3.1/5, mbtmp3.7/7, Error ellipse: s-maj=32.9km s-min=7.6km az=131.0*
*CATAC **21** 11:03:37.0±0.5, 7°.2″×7°.3W″, h155^{km}±5^{km}, M4.1/8, MLv4.1/8, Error ellipse: s-maj=8.1km s-min=4.9km az=109.8, confirmed*
*RSNC **21** 11:03:37.7±0.0, 7°.3″×7°.3W″, h143^{km}±5^{km}, M3.6, mb3.8, ML3.3*

ISC 21 11:03:37.2±0.8, 6°.88N±0°.03×73°.12W±0°.03, h154^{km}±6^{km}, n45, σ1§48/82, mb3.2/5, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.29**	**192**	P	**Pn**	**11 03 58.6**	**+0.1**
BARC				S	**Sn**	**11 04 13.7**	**-1.1**
BRJC	**Barrancabermej**	**0.63**	**279**	P	**Pn**	**11 04 00.2**	**+0.6**
BRJC				S	**Sn**	**11 04 17.1**	**+0.3**
RUSC	**La Rusia**	**0.98**	**178**	P	**Pn**	**11 04 02.7**	**-0.1**
RUSC				S	**Sn**	**11 04 21.7**	**-0.5**
RUSC	**La Rusia**	**0.98**	**178**	P	**Pn**	**11 04 02.5**	**-0.2**
RUSC				S	**Sn**	**11 04 21.4**	**-0.9**
OCAC	**Ocana**	**1.37**	**352**	P	**Pn**	**11 04 06.4**	**+0.5**
OCAC				S	**Sn**	**11 04 28.7**	**+0.8**
PTBC	**PUERTO BERRIO,**	**1.37**	**256**	P	**Pn**	**11 04 05.0**	**-0.7**
PTBC				S	**Sn**	**11 04 25.6**	**-2.0**
TAMC	**Tame, Arauca**	**1.39**	**108**	P	**Pn**	**11 04 07.0**	**+1.0**
TAMC				S	**Sn**	**11 04 28.5**	**+0.5**
SPBC	**San Pablo de B**	**1.54**	**218**	P	**Pn**	**11 04 07.6**	**0.0**
SPBC				S	**Sn**	**11 04 30.3**	**-0.6**
NORC	**Norcasia**	**2.17**	**233**	P	**Pn**	**11 04 14.0**	**-0.6**
NORC				S	**Sn**	**11 04 42.4**	**-1.1**
CHIC	**Chingaza**	**2.31**	**195**	P	**Pn**	**11 04 17.0**	**+0.3**
CHIC				S	**Sn**	**11 04 46.6**	**-0.5**
ROSC	**El Rosal**	**2.35**	**211**	P	**Pn**	**11 04 18.6**	**+1.6**
	181nm,0.3s,baz=300,slow=18,SNR=118						
ROSC				S	**Sn**	**11 04 49.4**	**+1.6**
	337nm,0.4s,baz=62,slow=22,SNR=12						
ROSC	**El Rosal**	**2.35**	**211**	P	**Pn**	**11 04 18.5**	**+1.4**
ROSC				S	**Sn**	**11 04 48.9**	**+1.1**
CVER	**Cruz Verde, Cu**	**2.52**	**202**	P	**Pn**	**11 04 20.2**	**+0.9**
CVER				S	**Sn**	**11 04 51.8**	**0.0**
UREC	**San Jos de Ur**	**2.54**	**290**	P	**Pn**	**11 04 18.7**	**-0.4**
UREC				S	**Sn**	**11 04 49.7**	**-1.7**
GUY2C	**Guyana, Caldas**	**2.77**	**234**	P	**Pn**	**11 04 20.9**	**+0.7**
GUY2C				S	**Sn**	**11 04 56.3**	**-0.8**
PTGC	**Puerto Gaitan,**	**2.84**	**160**	P	**Pn**	**11 04 21.9**	**-0.8**
PTGC				S	**Sn**	**11 04 54.4**	**-3.5**
NIZA	**Niza - Manizal**	**2.96**	**232**	P	**Pn**	**11 04 25.2**	**+0.8**
NIZA				S	**Sn**	**11 05 00.8**	**-0.1**
CBOC	**Ciudad Bolivar**	**3.04**	**251**	P	**Pn**	**11 04 26.1**	**+0.7**
CBOC				S	**Sn**	**11 05 02.6**	**-0.2**
ARGC	**Ariguani, Magd**	**3.16**	**339**	P	**Pn**	**11 04 28.7**	**+1.9**
ARGC				S	**Sn**	**11 05 06.3**	**+1.0**
SDV	**Santo Domingo**	**3.17**	**51**	P	**Pn**	**11 04 28.0**	**+0.9**
	34nm,0.3s,baz=242,slow=7.2,SNR=20						
SDV				S	**Sn**	**11 05 05.3**	**-0.4**
	72nm,0.4s,baz=96,slow=20,SNR=15						
SDV	**Santo Domingo**	**3.17**	**51**	P	**Pn**	**11 04 28.1**	**+1.0**
SDV				S	**Sn**	**11 05 04.8**	**-0.9**
APAC	**Apartado, Choc**	**3.58**	**287**	P	**Pn**	**11 04 32.5**	**+0.4**
APAC				S	**Sn**	**11 05 13.6**	**-1.1**
PRAC	**Prado**	**3.60**	**209**	P	**Pn**	**11 04 31.9**	**-0.5**
PRAC				S	**Sn**	**11 05 15.0**	**-0.4**
PRAC	**Prado**	**3.60**	**209**	P	**Pn**	**11 04 32.0**	**-0.5**
PRAC				S	**Sn**	**11 05 13.9**	**-1.5**
SJCC	**San Jacinto, C**	**3.63**	**326**	P	**Pn**	**11 04 32.8**	**0.0**
SJCC				S	**Sn**	**11 05 14.4**	**-1.5**
SJCC	**San Jacinto, C**	**3.63**	**326**	P	**Pn**	**11 04 32.5**	**-0.3**
SJCC				S	**Sn**	**11 05 13.8**	**-2.2**
ORTC	**Ortega, Tolima**	**3.63**	**216**	P	**Pn**	**11 04 32.7**	**-0.1**
ORTC				S	**Sn**	**11 05 15.6**	**-0.4**
LCBC	**Los crdobas,**	**3.77**	**302**	P	**Pn**	**11 04 33.0**	**-1.6**
LCBC				S	**Sn**	**11 05 17.1**	**-2.1**
URMC	**La Uribe, Meta**	**3.82**	**199**	P	**Pn**	**11 04 35.4**	**+0.1**
URMC				S	**Sn**	**11 05 19.5**	**-1.0**
CRJC	**Cerrejon, Guaj**	**4.12**	**3**	P	**Pn**	**11 04 38.7**	**-0.5**
CRJC				S	**Sn**	**11 05 24.4**	**-3.2**
YOTC	**Yotoco, Valle**	**4.31**	**228**	P	**Pn**	**11 04 41.4**	**-0.3**
YOTC				S	**Sn**	**11 05 34.5**	**+2.6**
GUVC	**San Jose del G**	**4.33**	**173**	P	**Pn**	**11 04 40.9**	**-1.0**
GUVC				S	**Sn**	**11 05 28.8**	**-3.6**
SMRC	**Santa Marta, M**	**4.40**	**346**	P	**Pn**	**11 04 43.3**	**+0.6**
SMRC				S	**Sn**	**11 05 31.7**	**-2.2**
MACC	**Macarena, Meta**	**4.76**	**189**	P	**Pn**	**11 04 45.9**	**-1.6**
MACC				S	**Sn**	**11 05 38.0**	**-4.4**
BETC	**Betania**	**4.77**	**209**	P	**Pn**	**11 04 45.4**	**-2.3**
BETC				S	**Sn**	**11 05 37.9**	**-4.8**
URI	**Uribia**	**4.92**	**13**	P	**Pn**	**11 04 48.7**	**-0.9**
URIC	**Uribia, Colomb**	**4.92**	**13**	P	**Pn**	**11 04 49.0**	**-0.6**
URIC				S	**Sn**	**11 05 42.2**	**-4.0**
JAMC	**Jamundi, Valle**	**5.08**	**224**	P	**Pn**	**11 04 51.6**	**-0.3**
JAMC				S	**Sn**	**11 05 50.9**	**+0.7**
TXAR	**Lajitas Array**	**36.42**	**312**	P	**P**	**11 10 27.9**	**+0.6**
	0.3nm,0.6s,baz=129,slow=9.3,SNR=4.0 0.3nm,0.6s						
ULM	**Lac du Bonnet**	**47.23**	**340**	P	**P**	**11 11 54.5**	**0.0**
	1.2nm,0.5s,baz=122,slow=7.7,SNR=5.3 1.2nm,0.5s						
PDAR	**Pinedale Array**	**48.03**	**324**	P	**P**	**11 12 02.1**	**+1.0**
	0.2nm,0.5s,baz=144,slow=7.7,SNR=2.7 0.2nm,0.5s						
NVAR	**Mina Array Bea**	**51.44**	**315**	P	**P**	**11 12 27.6**	**+0.6**
	0.1nm,0.6s,baz=85,slow=6.3,SNR=1.6 0.1nm,0.6s						
YKA	**Yellowknife Ar**	**63.21**	**340**	P	**P**	**11 13 49.3**	**+0.6**
	0.9nm,0.5s,baz=137,slow=6.5,SNR=13 0.9nm,0.5s						
ASAR	**Alice Springs**	**149.14**	**234**	PKPbc	**PKPbc**	**11 23 07.7**	**-0.5**
	0.2nm,0.8s,baz=119,slow=3.5,SNR=5.1						
WRA	**Warramunga Arr**	**150.36**	**241**	PKPbc	**PKPbc**	**11 23 11.2**	**0.0**
	0.2nm,0.4s,baz=108,slow=2.7,SNR=7.1						

*TEH **21** 11:10:03.8, 36°.35N×54°.52E, h7^{km}±77^{km}, ML3.9, Presumed earthquake*
*IDC **21** 11:10:03.1±2.9, 36°.25N×54°.25E, h0^{km}, mb3.7/7, mbtmp3.8/9, ML3.6/2, Error ellipse: s-maj=42.9km s-min=20.3km az=10.0*

ISC 21 11:10:04.0±0.6, 36°.38N±0°.04×54°.53E±0°.03, h10^{km}, n45, σ2§66/50, mb3.4/5, 1C-3D, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGLO	**Ghaloghah**	**0.58**	**283**	Pg	**Pb**	**11 10 16.4**	**+0.1**
IANJ	**Anjilo**	**1.04**	**209**	Pg	**Pn**	**11 10 24.2**	**-0.6**
IMND	**Minoodasht**	**1.12**	**39**	Pg	**Pn**	**11 10 26.2**	**+0.4**
ISHM	**Shahmirzad**	**1.15**	**241**	Pg	**Pn**	**11 10 26.1**	**-0.4**
SHRO	**Shahrood**	**1.26**	**108**	Pg	**Pg**	**11 10 28.8**	**+0.6**
IFIR	**Firoozkooh**	**1.62**	**243**	Pg	**Pg**	**11 10 34.6**	**-0.4**
ILAS	**Lasjerd**	**1.62**	**232**	Pg	**Pg**	**11 10 34.9**	**-0.2**
IPRN	**Peran**	**1.77**	**266**	Pg	**Pg**	**11 10 37.6**	**-0.4**
MRVT	**Maraveh tapeh**	**1.79**	**44**	Pn	**Pb**	**11 10 37.5**	**+0.6**
IDMV	**Damavand**	**2.18**	**249**	Pn	**Pb**	**11 10 44.2**	**+0.5**
MZPU	**Pul - Mazandar**	**2.39**	**272**	Pn	**Pb**	**11 10 46.6**	**-0.6**
SBZV	**Sabzevar**	**2.49**	**89**	Pn	**Pb**	**11 10 47.9**	**-1.0**
TAPT	**Tabas- Tapeh t**	**2.61**	**124**	Pn	**Pb**	**11 10 49.3**	**-1.7**
IVRN	**Varamin**	**2.67**	**240**	Pn	**Pb**	**11 10 50.1**	**-1.7**
ISFR	**Sfrayin**	**2.87**	**75**	Pn	**Pb**	**11 10 53.5**	**-2.0**
TNSJ	**Nasanj**	**2.95**	**144**	Pn	**Pb**	**11 10 53.9**	**-2.8**
TSHB	**Tabas_ShorAb**	**3.12**	**149**	Pn	**Pb**	**11 10 56.0**	**-3.5**
ANAR	**Anarak**	**3.25**	**192**	Pn	**Pn**	**11 10 57.5**	**+2.3**
IAKL	**Akhelmad**	**3.41**	**85**	Pn	**Pn**	**11 11 00.7**	**+3.2**
TKDS	**Koohdasht(Taba**	**3.48**	**142**	Pn	**Pn**	**11 11 01.3**	**+3.0**
IPAY	**Payeh**	**3.60**	**88**	Pn	**Pn**	**11 11 03.0**	**+2.9**
TPRV	**Parvadeh(Tabas**	**3.79**	**151**	Pn	**Pn**	**11 11 05.0**	**+2.5**
QABG	**Abgarm-Qazvin**	**4.06**	**262**	Pn	**Pn**	**11 11 10.0**	**+3.5**
ICHK	**Chekchek**	**4.13**	**181**	Pn	**Pn**	**11 11 09.9**	**+2.6**
DOBD	**Dorbid, Yazd**	**4.38**	**180**	Pn	**Pn**	**11 11 13.4**	**+2.7**
TAFT	**Taft - Yazd**	**4.65**	**184**	Pn	**Pn**	**11 11 17.3**	**+2.7**
TBJM	**Torbat-e-JAM**	**4.84**	**102**	Pn	**Pn**	**11 11 20.6**	**+3.5**
IBAF	**Bafgh**	**4.85**	**169**	Pn	**Pn**	**11 11 20.1**	**+2.8**
ITEG	**Tejag**	**4.92**	**134**	Pn	**Pn**	**11 11 21.1**	**+3.0**
VSHL	**Vashlovani**	**7.98**	**310**	P	**Pn**	**11 12 02.1**	**+2.1**
VSHL				S	**Sn**	**11 13 28.5**	**-1.9**
LGD	**Lagodekhi**	**8.43**	**313**	P	**Pn**	**11 12 08.6**	**+2.4**
LGD				S	**Sn**	**11 13 41.1**	**-0.3**
CHRG	**Chargali**	**9.52**	**312**	P	**Pn**	**11 12 22.8**	**+1.6**
CHRG				S	**Sn**	**11 14 07.3**	**-0.9**
SHTL	**Shatili**	**9.58**	**314**	P	**Pn**	**11 12 24.1**	**+2.1**
KBZ	**Khabaz**	**11.54**	**313**	Pn	**Pn**	**11 12 48.4**	**-0.3**
	0.2nm,0.3s,baz=104,slow=12,SNR=2.1						
KBZ				Sn	**Sn**	**11 14 53.2**	**-4.3**
	0.2nm,0.3s,baz=150,slow=16,SNR=2.1 2.0nm,0.8s						
KBZ				AML	AML		
AB31	**Akbulak array**	**13.46**	**15**	⇑Pn	**Pn**	**11 13 14.7**	**-0.2**
	0.9nm,0.7s,baz=203,slow=14,SNR=11						
AB31				⇓Sn	**Sn**	**11 15 36.8**	**-7.8**
	1.5nm,0.5s,baz=198,slow=28,SNR=9.6						
AKTO	**Aktyubinsk**	**14.27**	**9**	Pn	**Pn**	**11 13 26.8**	**+0.7**
	0.5nm,0.3s,baz=168,slow=12,SNR=6.4						
AKTO				Sn	**Sn**	**11 15 58.5**	**-5.9**
	0.2nm,0.3s,baz=191,slow=16,SNR=3.6 2.2nm,0.6s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**14.27**	**9**	⇓Pn	**Pn**	**11 13 25.8**	**-0.2**
	2.8nm,0.9s						
AKTO				⇓Sn	**Sn**	**11 15 58.8**	**-5.6**
	2.0nm,0.8s						
KSH2	**Kashi**	**16.86**	**74**	P	**P**	**11 14 02.3**	**0.0**
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.1s						
BVAR	**Borovoye Array**	**20.02**	**29**	P	Pn	11 14 39.7	+1.1
	comp=Z,7.4nm,0.6s,baz=212,slow=11,SNR=13 comp=Z,7.4nm,0.6s						
ARTI	**Arti**	**20.18**	**6**	P	Pn	11 14 40.7	+0.3
	comp=Z,9.6nm,0.7s,baz=197,slow=6.1,SNR=16 comp=Z,9.6nm,0.7s						
KURBB	**Kurchatov Arra**	**22.36**	**43**	P	**P**	**11 15 04.9**	**+2.9**
	comp=Z,0.7nm,0.7s,baz=245,slow=10,SNR=4.7 comp=Z,0.7nm,0.7s						
MKAR	**Makanchi Array**	**23.11**	**55**	P	**P**	**11 15 13.4**	**+3.4**
	comp=Z,1.0nm,0.8s,baz=251,slow=11,SNR=3.9 comp=Z,1.0nm,0.8s						
AKASG	**Malin Array Be**	**23.12**	**316**	P	**P**	**11 15 11.1**	**+1.1**
	comp=Z,0.6nm,0.5s,baz=123,slow=8.7,SNR=5.6 comp=Z,0.6nm,0.5s						
ZALV	**Zalesovo Beam**	**27.35**	**40**	P	**P**	**11 15 51.6**	**+2.7**
	comp=Z,0.4nm,0.4s,baz=259,slow=12,SNR=2.7 comp=Z,0.4nm,0.4s						
FINES	**FINESS Array B**	**30.81**	**333**	P	**P**	**11 16 19.9**	**+0.2**
	comp=Z,1.4nm,0.7s,baz=122,slow=13,SNR=3.5 comp=Z,1.4nm,0.7s						

IDC 21 11:11:03.0±1.9, 31°.81S×177°.88W, h0^{km}, mb3.5/3, mbtmp3.6/4, ML3.5/1, MS2.4/1, Error ellipse: s-maj=47.6km s-min=35.8km az=63.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**2.55**	**359**	LR	LR	11 12 16.6	
	comp=Z,73nm,21.7s,baz=154,slow=29						
URZ	**Urewera**	**7.63**	**211**	Pn	Pn	11 12 53.8	-1.6
	0.6nm,0.3s,baz=276,slow=5.7,SNR=2.8						
URZ				Sn	Sn	11 14 16.3	-6.2
	3.3nm,0.3s,baz=28,slow=22,SNR=12 2.9nm,0.4s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.16**	**268**	P	P	11 19 05.7	+0.1
	0.3nm,0.5s,baz=102,slow=7.7,SNR=7.0 0.3nm,0.5s						
WRA	**Warramunga Arr**	**44.27**	**274**	P	P	11 19 14.7	+0.1
	0.7nm,0.4s,baz=115,slow=7.9,SNR=6.7 0.7nm,0.4s						
QSPA	**South Pole Qui**	**58.30**	**180**	P	P	11 20 59.7	+0.3
	0.3nm,0.7s,baz=40,slow=3.2,SNR=5.7 0.3nm,0.7s						
USHA	**Ushuaia**	**74.70**	**146**	LR	LR	11 50 08.8	
	comp=Z,292nm,19.9s,baz=24,slow=31						
FINES	**FINESS Array B**	**146.50**	**339**	PKPbc	PKPdf	11 30 44.1	+0.2
	4.4nm,1.0s,baz=64,slow=4.4,SNR=9.3						

*IDC **21** 11:12:57.8±0.8, 7°.80N×126°.34E, h0^{km}, mb3.9/12, mbtmp3.9/12, MS2.9/5, Error ellipse: s-maj=19.7km s-min=12.5km az=101.0*
*MAN **21** 11:12:59.0, 7°.52N×126°.18E, h5^{km}, MS4.0*
MAN INTENSITY IV - NEW BATAAN AND NABUNTURAN DAVAO DE ORO; . INTENSITY III - MAWAB AND MACO DAVAO DE ORO.
*NEIC **21** 11:12:59.5±1.0, 7°.72N±0°.06×126°.1E±0°.1, h10^{km}±1^{km}, mb4.2/12, Error ellipse: s-maj=19.0km s-min=7.7km az=288.0*

ISC 21 11:12:58.6±0.6, 7°.70N±0°.04×126°.21E±0°.05, h10^{km}, n43, σ1§54/46, mb4.0/17, MS2.7/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.51**	**17**	eP	**Pn**	**11 13 12.2**	**+0.3**
BIPH				eS	**Sn**	**11 13 21.4**	**+0.7**
DAV	**Davao City (W)**	**0.88**	**225**	Pg	**Pn**	**11 13 17.0**	**-0.1**
	200nm,0.3s,baz=63,slow=5.7,SNR=21						
DAV				Lg	Lg	11 13 33.0	
	393nm,0.3s,baz=80,slow=22,SNR=6.7						
DAV	**Davao City (W)**	**0.88**	**225**		**Pg**	**11 13 15.0**	**-0.6**
DAV	**Davao City (W)**	**0.88**	**225**	P	**Pg**	**11 13 15.0**	**-0.6**
DMPH	**Davao City--Mi**	**0.93**	**229**	eP	**Pn**	**11 13 17.1**	**-0.6**
DMPH				iS	**Sn**	**11 13 34.3**	**+3.2**
KCP	**Kidapawan**	**1.30**	**239**	iP	**Pg**	**11 13 23.8**	**+0.1**
KCP				iS	**Sn**	**11 13 41.4**	**+0.9**
CGP	**Cagayan de Oro**	**1.68**	**297**	iP	**Pg**	**11 13 30.4**	**-0.5**
CGP				iS	**Sg**	**11 13 55.7**	**+3.0**
DCPH	**Dipolog City**	**2.96**	**288**	iP	**Pn**	**11 13 48.5**	**-3.0**
TBP	**Tagbilaran**	**3.05**	**311**	iP	**Pb**	**11 13 50.6**	**-2.5**
TBP				iS	**Sb**	**11 14 28.4**	**-2.1**
LLP	**Lapu-Lapu**	**3.42**	**320**	iP	**Pb**	**11 13 56.7**	**-2.7**
LLP				iS	**Sb**	**11 14 42.5**	**+1.5**
PLP	**Palo**	**3.66**	**341**	eP	**Pb**	**11 14 00.4**	**-3.0**
PLP				eS	**Sb**	**11 14 50.4**	**+2.6**
TOLI2	**Tolitoli**	**8.49**	**220**	Pn	**Pn**	**11 15 00.6**	**-1.1**
KAPI	**Kappang**	**14.17**	**207**	LR	LR	11 22 23.6	
	comp=Z,38nm,20.4s,baz=24,slow=40						
SOEI	**Soe**	**17.44**	**186**	Pn	**Pn**	**11 16 59.8**	**-2.6**
SOEI				IAmb	IAmb	11 17 23.6	
	comp=Z,24nm,1.0s						
MTN	**Manton Dam**	**20.98**	**166**	P	**P**	**11 17 43.6**	**+1.3**
KNRA	**Kununurra**	**23.36**	**174**	P	**P**	**11 18 07.6**	**+0.1**
FITZ	**Fitzroy Crossi**	**25.64**	**181**	P	**P**	**11 18 30.9**	**+2.3**
	comp=Z,2.3nm,0.5s,baz=5.5,slow=6.5,SNR=14						
	comp=Z,2.3nm,0.5s						
CMAR	**Chiang Mai Arr**	**28.59**	**295**	P	**P**	**11 18 57.2**	**+1.9**
	comp=Z,0.5nm,0.3s,baz=128,slow=8.4,SNR=2.8 comp=Z,0.5nm,0.3s						
WRA	**Warramunga Arr**	**28.61**	**164**	P	**P**	**11 18 57.4**	**+2.0**
	comp=Z,0.4nm,0.5s,baz=212,slow=7.9,SNR=6.6 comp=Z,0.4nm,0.5s						
WRA	**Warramunga Arr**	**28.61**	**164**	P	**P**	**11 18 56.3**	**+0.9**
WR8	**Warramunga Arr**	**28.66**	**164**	P	**P**	**11 18 55.6**	**-0.3**
WR8				IAmb	IAmb	11 19 17.4	
	comp=Z,4.7nm,1.1s						
KSRS	**Korea Array**	**29.66**	**3**	LR	LR	11 31 30.5	
	comp=Z,17nm,20.3s,baz=335,slow=38						
MJAR	**Matsushiro Arr**	**30.73**	**19**	P	**P**	**11 19 13.0**	**-1.0**
	comp=Z,0.9nm,0.8s,baz=184,slow=7.4,SNR=2.3						
MJAR				LR	LR	11 32 12.8	
	comp=Z,18nm,18.3s,baz=196,slow=38 comp=Z,0.9nm,0.8s						
ASAR	**Alice Springs**	**32.06**	**167**	P	**P**	**11 19 26.9**	**+1.0**
	comp=Z,0.6nm,0.7s,baz=342,slow=7.2,SNR=10 comp=Z,0.6nm,0.7s						
FORT	**Forrest**	**38.30**	**177**	P	**P**	**11 20 19.8**	**+0.4**
ASAJ	**Asahikawa**	**39.00**	**19**	LR	LR	11 38 42.0	
	comp=Z,9.7nm,18.9s,baz=151,slow=40						
JKA	**Kamikawa-asahi**	**39.00**	**19**	P	**P**	**11 20 25.6**	**+0.3**
BBOO	**Buckleboo**	**41.36**	**167**	P	**P**	**11 20 45.7**	**+0.8**
STKA	**Stephens Creek**	**42.01**	**160**	P	**P**	**11 20 50.9**	**+0.6**
	comp=Z,2.0nm,0.6s,baz=327,slow=8.5,SNR=4.1 comp=Z,2.0nm,0.6s						
MK31	**Makanchi Array**	**54.05**	**324**	P	**P**	**11 22 22.9**	**-0.4**
MK31				IAmb	IAmb	11 22 26.9	
	comp=Z,3.0nm,1.0s						
MKAR	**Makanchi Array**	**54.05**	**324**	P	**P**	**11 22 25.0**	**+1.6**
	comp=Z,1.0nm,0.6s,baz=123,slow=7.1,SNR=9.8 comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**54.05**	**324**	P	**P**	**11 22 23.3**	**-0.1**
ZALV	**Zalesovo Beam**	**56.85**	**332**	P	**P**	**11 22 43.9**	**+0.5**
	comp=Z,0.9nm,0.6s,baz=133,slow=6.1,SNR=3.7 comp=Z,0.9nm,0.6s						
KURK	**Kurchatov**	**58.16**	**326**	P	**P**	**11 22 52.6**	**0.0**
KURK				IAmb	IAmb	11 23 00.7	
	comp=Z,2.6nm,1.0s						
KURBB	**Kurchatov Arra**	**58.16**	**326**	P	**P**	**11 22 52.9**	**+0.3**
	comp=Z,0.4nm,0.4s,baz=124,slow=6.8,SNR=6.2 comp=Z,0.4nm,0.4s						
KK31	**Karatay Array**	**60.02**	**316**	P	**P**	**11 23 05.2**	**-0.6**
KK31				IAmb	IAmb	11 23 08.2	
	comp=Z,1.6nm,0.8s						
KKAR	**Karatay Array**	**60.02**	**316**	P	**P**	**11 23 05.1**	**-0.7**
BVAR	**Borovoye Array**	**63.75**	**326**	P	**P**	**11 23 31.9**	**+1.3**
	comp=Z,1.3nm,0.7s,baz=129,slow=11,SNR=2.1 comp=Z,1.3nm,0.7s						
TIXI	**Tiksi**	**63.91**	**1**	LR	LR	11 51 04.2	
	comp=Z,21nm,21.9s,baz=22,slow=36						
AB31	**Akbulak array**	**68.79**	**320**	P	**P**	**11 24 02.5**	**-0.5**
AB31				IAmb	IAmb	11 24 07.8	
	comp=Z,2.5nm,1.2s						
ABKAR	**Akbulak array**	**68.79**	**320**	P	**P**	**11 24 02.5**	**-0.5**
ILAR	**Eielson Array**	**81.77**	**26**	P	**P**	**11 25 17.9**	**+0.4**
	comp=Z,0.2nm,0.7s,baz=266,slow=5.1,SNR=3.1 comp=Z,0.2nm,0.7s						
FINES	**FINESS Array B**	**88.12**	**332**	P	**P**	**11 25 48.3**	**-1.1**
	comp=Z,3.1nm,0.9s,baz=68,slow=5.9,SNR=7.1 comp=Z,3.1nm,0.9s						

*IDC **21** 11:39:06.8±1.3, 4°.84S×153°.40E, h55^{km}±10^{km}, mb3.9/20, mbtmp4.2/23, MS3.5/

JCJ	**Chichijima**	**33.51 342**	LR	LR	11 57 39.7	
	comp=Z,65nm,21.8s,baz=43,slow=33					
FORT	**Forest**	**35.12 220**	P	**P**	**11 45 54.4**	**-0.7**
OUZ	**Omahuta**	**35.58 151**	P	**P**	**11 45 59.7**	**+0.8**
MBWA	**Marble Bar**	**36.43 240**	P	**P**	**11 46 04.2**	**-2.2**
MBWA			IAmb	IAmb	11 46 06.2	
	comp=Z,10nm,1.0s					
RAO	**Raoul Island**	**36.48 135**	LR	LR	11 57 52.9	
	comp=Z,117nm,20.6s,baz=118,slow=31					
TOZ	**Tahuroa Road**	**38.50 151**	P	**P**	**11 46 24.4**	**+0.7**
NIUE	**Niue**	**38.52 115**	P	P	11 46 09.2	-15
URZ	**Urewera**	**39.70 150**	LR	LR	12 02 17.4	
	comp=Z,154nm,19.2s,baz=296,slow=35					
URZ	**Urewera**	**39.70 150**	P	**P**	**11 46 34.5**	**+0.7**
NGZ	**Ngauruhoe**	**39.71 153**	P	**P**	**11 46 34.9**	**+1.0**
QRZ	**Quartz Range**	**39.78 157**	P	**P**	**11 46 35.0**	**+0.6**
RTZ	**Ruatahuna**	**39.92 151**	P	**P**	**11 46 32.5**	**-3.1**
MWZ	**Matawai**	**39.97 150**	P	**P**	**11 46 37.1**	**+1.1**
BKZ	**Black Stump Fm**	**40.12 152**	P	**P**	**11 46 37.0**	**-0.3**
PUZ	**Puketiti**	**40.14 149**	P	**P**	**11 46 36.8**	**-0.5**
TSZ	**Takapari Road**	**40.58 153**	P	**P**	**11 46 40.9**	**-0.1**
THZ	**Tophouse**	**40.73 157**	P	**P**	**11 46 39.5**	**-2.8**
THZ	**Tophouse**	**40.73 157**	P	**P**	**11 46 41.6**	**-0.6**
KAHZ	**Kahuranaki**	**40.79 152**	P	**P**	**11 46 43.2**	**+0.4**
TCW	**Tory Channel**	**40.80 156**	P	**P**	**11 46 43.3**	**+0.5**
OGWZ	**Otaki Gorge**	**40.85 154**	P	**P**	**11 46 42.9**	**-0.3**
MRZ	**Mangatainoka R**	**40.90 154**	P	**P**	**11 46 43.0**	**-0.6**
CAW	**Cannon Point**	**41.05 155**	P	**P**	**11 46 44.5**	**-0.3**
HOWZ	**Holdsworth Sta**	**41.07 154**	P	**P**	**11 46 44.4**	**-0.6**
LTZ	**Lake Taylor**	**41.37 159**	P	**P**	**11 46 47.3**	**-0.2**
MSWZ	**Moikau Station**	**41.38 155**	P	**P**	**11 46 46.7**	**-0.8**
KHZ	**Kahutara**	**41.53 157**	P	**P**	**11 46 47.6**	**-1.1**
MSZ	**Milford Sound**	**41.71 164**	P	**P**	**11 46 51.4**	**+1.3**
RPZ	**Rata Peaks**	**41.77 161**	LR	LR	12 02 38.9	
	comp=Z,47nm,18.6s,baz=232,slow=34					
GVZ	**Greta Valley S**	**41.81 158**	P	**P**	**11 46 50.3**	**-0.8**
LBZ	**Lake Benmore**	**42.10 162**	P	**P**	**11 46 53.1**	**-0.2**
MJAR	**Matsushiro Arr**	**43.51 342**	P	**P**	**11 47 04.7**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=123,slow=3.8,SNR=1.5					
MJAR			LR	LR	12 02 34.9	
	comp=Z,75nm,20.0s,baz=160,slow=32					
	comp=Z,0.8nm,0.8s					
KSRS	**Korea Array**	**48.26 333**	P	**P**	**11 47 43.0**	**+0.7**
	comp=Z,1.5nm,0.8s,baz=154,slow=8.8,SNR=4.7					
KSRS			LR	LR	12 06 31.4	
	comp=Z,14nm,18.0s,baz=70,slow=34					
	comp=Z,1.5nm,0.8s					
ASAJ	**Asahikawa**	**49.66 350**	LR	LR	12 06 14.3	
	comp=Z,36nm,20.8s,baz=117,slow=33					
USRK	**Ussuriysk Ar.**	**52.44 341**	P	**P**	**11 48 14.6**	**+0.9**
	comp=Z,0.9nm,0.6s,baz=191,slow=6.8,SNR=2.5					
USRK			LR	LR	12 06 48.4	
	comp=Z,26nm,21.9s,baz=154,slow=32					
	comp=Z,0.9nm,0.6s					
BNX	**BinXian**	**55.38 338**	⇓P	**P**	**11 48 34.6**	**-0.6**
BNX			pmax	pmax		
	comp=Z,4.0nm,0.9s					
KLR	**Kul'dur**	**57.01 343**	LR	LR	12 13 51.8	
	comp=Z,21nm,18.5s,baz=322,slow=36					
PETK	**Petropavlovsk-**	**57.83 3**	P	**P**	**11 48 53.1**	**+0.6**
	comp=Z,4.5nm,1.0s,baz=230,slow=5.2,SNR=1.9					
PETK			LR	LR	12 09 36.9	
	comp=Z,25nm,21.9s,baz=167,slow=32					
	comp=Z,4.5nm,1.0s					
PETK	**Petropavlovsk-**	**57.83 3**	P	**P**	**11 48 52.0**	**-0.4**
CMAR	**Chiang Mai Arr**	**58.37 295**	P	**P**	**11 48 56.5**	**-0.3**
	comp=Z,0.9nm,0.5s,baz=116,slow=5.4,SNR=9.5					
CMAR			LR	LR	12 12 32.8	
	comp=Z,27nm,20.9s,baz=155,slow=34					
	comp=Z,0.9nm,0.5s					
CMAR	**Chiang Mai Arr**	**58.37 295**	P	**P**	**11 48 56.2**	**-0.7**
SHEM	**Shemya Is, Ala**	**59.97 14**	LR	LR	12 10 48.1	
	comp=Z,50nm,20.0s,baz=267,slow=32					
LZDM	**Lanzhou Array**	**61.66 315**	P	**P**	**11 49 20.2**	**+0.7**
	comp=Z,1.4nm,0.3s,baz=126,slow=7.3,SNR=1.6					
	comp=Z,1.4nm,0.3s					
MA2	**Magadan**	**64.22 359**	LR	LR	12 17 37.4	
	comp=Z,14nm,19.1s,baz=170,slow=36					
GTA2	**Gaotai**	**66.11 317**	*e*P	**P**	**11 49 50.1**	**+1.6**
GTA2			pmax	pmax		
	comp=Z,4.0nm,1.0s					
BRDH	**Bariadhala**	**66.14 297**	LR	LR	12 19 22.6	
	comp=Z,40nm,19.2s,baz=255,slow=36					
SONM	**Songino Array**	**66.63 328**	P	**P**	**11 49 52.8**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=127,slow=4.3,SNR=2.6					
SONM			LR	LR	12 17 08.7	
	comp=Z,34nm,22.0s,baz=190,slow=34					
	comp=Z,0.4nm,0.6s					
SONM	**Songino Array**	**66.63 328**	P	**P**	**11 49 51.9**	**+0.3**
SONM			IAmb	IAmb	11 50 36.0	
	comp=Z,2.4nm,1.0s					
CASY	**Casey**	**68.16 197**	P	**P**	**11 50 01.0**	**+0.2**
TLY	**Talaya**	**70.36 330**	LR	LR	12 21 30.8	
	comp=Z,28nm,18.1s,baz=32,slow=36					
VNDA	**Vanda**	**72.79 178**	P	**P**	**11 50 29.7**	**+0.8**
	comp=Z,3.9nm,1.0s,baz=335,slow=6.4,SNR=17					
	comp=Z,3.9nm,1.0s					
VNDA	**Vanda**	**72.79 178**	P	**P**	**11 50 29.8**	**+0.8**
VNDA			IAmb	IAmb	11 50 30.7	
	comp=Z,11nm,1.4s					
MK31	**Makanchi Array**	**80.69 319**	P	**P**	**11 51 14.8**	**+0.8**
MK31			IAmb	IAmb	11 51 36.8	
	comp=Z,5.0nm,1.2s					
MKAR	**Makanchi Array**	**80.69 319**	P	**P**	**11 51 14.7**	**+0.6**
	comp=Z,1.6nm,0.6s,baz=94,slow=7.9,SNR=17					
	comp=Z,1.6nm,0.6s					
MKAR	**Makanchi Array**	**80.69 319**	P	**P**	**11 51 14.3**	**+0.3**
MAKZ	**Makanchi**	**80.90 319**	P	**P**	**11 51 14.1**	**-1.1**
MAKZ			IAmb	IAmb	11 51 33.9	
	comp=Z,5.2nm,0.8s					
ZALV	**Zalesovo Beam**	**81.47 326**	P	**P**	**11 51 17.5**	**-0.4**
	comp=Z,1.5nm,0.6s,baz=116,slow=6.3,SNR=7.4					
ZALV			LR	LR	12 28 26.7	
	comp=Z,46nm,18.2s,baz=355,slow=36					
	comp=Z,1.5nm,0.6s					
ZALV	**Zalesovo Beam**	**81.47 326**	P	**P**	**11 51 17.8**	**-0.1**
ILAR	**Eielson Array**	**81.97 22**	P	**P**	**11 51 20.1**	**-0.3**
	comp=Z,0.5nm,0.9s,baz=209,slow=9.2,SNR=3.7					
ILAR			LR	LR	12 21 53.6	
	comp=Z,25nm,20.7s,baz=20,slow=31					
	comp=Z,0.5nm,0.9s					
ILAR	**Eielson Array**	**81.97 22**	P	**P**	**11 51 19.3**	**-1.1**
KURK	**Kurchatov**	**84.11 322**	P	**P**	**11 51 30.4**	**-1.3**
KURK			IAmb	IAmb	11 51 47.1	
	comp=Z,6.8nm,1.0s					
KURBB	**Kurchatov Arra**	**84.14 322**	P	**P**	**11 51 32.1**	**+0.2**
	comp=Z,0.7nm,0.6s,baz=105,slow=3.9,SNR=8.3					
	comp=Z,0.7nm,0.6s					
QSPA	**South Pole Qui**	**85.14 180**	P	**P**	**11 51 37.1**	**+0.3**
	comp=Z,12nm,0.7s,baz=330,slow=1.1,SNR=108					
	comp=Z,12nm,0.7s					
QSPA	**South Pole Qui**	**85.14 180**	P	**P**	**11 51 37.0**	**+0.2**
MAW	**Mawson**	**85.76 203**	P	**P**	**11 51 39.4**	**-0.2**
	comp=Z,2.6nm,0.6s,baz=120,slow=4.9,SNR=10					
	comp=Z,2.6nm,0.6s					
MAW	**Mawson**	**85.76 203**	P	**P**	**11 51 39.7**	**+0.1**
MAW			IAmb	IAmb	11 52 22.1	
	comp=Z,1.1nm,0.8s					
NRIK	**Noril'sk**	**86.15 341**	P	**P**	**11 51 41.5**	**0.0**
	comp=Z,1.4nm,0.6s,baz=131,slow=9.0,SNR=2.4					
NRIK			LR	LR	12 29 56.1	
	comp=Z,34nm,19.0s,baz=323,slow=35					
	comp=Z,1.4nm,0.6s					
DLBC	**Dease Lake**	**87.12 31**	LR	LR	12 23 02.8	
	comp=Z,31nm,20.3s,baz=274,slow=30					
BVAR	**Borovoye Array**	**89.58 323**	P	**P**	**11 51 58.4**	**+0.1**
	comp=Z,2.5nm,0.6s,baz=112,slow=5.1,SNR=6.3					
	comp=Z,2.5nm,0.6s					
ARTI	**Arti**	**96.73 326**	LR	LR	12 39 34.5	
	comp=Z,33nm,18.2s,baz=310,slow=38					
GERES	**GERESS Array B**	**124.35 329**	PKP	**PKPdf**	**11 57 58.9**	**-0.8**
	comp=Z,0.3nm,0.4s,baz=75,slow=1.1,SNR=2.3					
TORD	**Torodi Ar. Bea**	**150.82 288**	PKPbc	**PKPbc**	**11 58 53.3**	**-0.8**
	comp=Z,3.8nm,0.8s,baz=62,slow=2.2,SNR=17					

*SJA **21** 11:49:45.3±1.1,20.75S×69.23W,h117km±6km, ML3.3, MW3.5*
*GUC **21** 11:49:46.9±0.6,20.77S×69.14W,h110km±3km, ML3.5, Presumed earthquake*

ISC 21 11:49:45.7±1.6,20.77S±0.03×69.24W±0.08, h121km±10km,n30,σ0966/51,7C-2D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
PB08	**IPOC Station P**	**0.63**	**7**	*i* P		**Pn**		**11 50 04.9**	**-0.2**
PB08				*i* S		**Sn**		**11 50 18.7**	**-1.0**
PB08				IAML				11 50 19.9	
	comp=Z,1μm,0.1s								
PB08	**IPOC Station P**	**0.63**	**7**	⇓*i* P		**Pn**		**11 50 04.8**	**-0.2**
PB08				*i* S		**Sn**		**11 50 18.4**	**-1.2**
PB08				IAML				11 50 19.6	
	comp=E,3μm,0.2s								
PB02	**IPOC Station P**	**0.82**	**228**	*i* P		**Pn**		**11 50 06.9**	**+0.5**
PB02				*i* S		**Sn**		**11 50 22.6**	**+0.7**
PB02				IAML				11 50 23.3	
	comp=Z,2μm,0.3s								
PB02	**IPOC Station P**	**0.82**	**228**	⇑*i* P		**Pn**		**11 50 06.8**	**+0.5**
PB02				*i* S		**Sn**		**11 50 22.0**	**0.0**
PB02				IAML				11 50 23.8	
	comp=E,2μm,0.2s								
TA01	**Diego Aracena**	**0.90**	**283**	*i* P		**Pn**		**11 50 07.3**	**+0.4**
TA01				*i* S		**Sn**		**11 50 22.7**	**-0.2**
TA01				IAML				11 50 25.1	
	comp=Z,234nm,0.2s								
TA01	**Diego Aracena**	**0.90**	**283**	⇑*i* P		**Pn**		**11 50 07.2**	**+0.3**
TA01				*i* S		**Sn**		**11 50 23.0**	**+0.1**
TA01				IAML				11 50 23.6	
	comp=E,1μm,0.1s								
TA02	**Huaiquique**	**0.97**	**300**	*i* P		**Pn**		**11 50 08.0**	**+0.5**
PB09	**IPOC Station P**	**1.03**	**180**	*i* P		**Pn**		**11 50 08.8**	**+0.5**
PB09				*i* S		**Sn**		**11 50 26.0**	**+0.6**
PB09				IAML				11 50 26.4	
	comp=Z,1μm,0.6s								
PB09	**IPOC Station P**	**1.03**	**180**	*i* P		**Pn**		**11 50 08.5**	**+0.3**
PB09				*i* S		**Sn**		**11 50 25.2**	**-0.2**
PB09				IAML				11 50 27.4	
	comp=E,964nm,0.2s								
PB11	**IPOC Station P**	**1.07**	**339**	*i* P		**Pn**		**11 50 09.0**	**+0.2**
PB11				*i* S		**Sn**		**11 50 25.7**	**-0.5**
PB11				IAML				11 50 26.3	
	comp=Z,549nm,0.4s								
PB11	**IPOC Station P**	**1.07**	**339**	⇓*i* P		**Pn**		**11 50 09.0**	**+0.2**
PB11				*i* S		**Sn**		**11 50 25.8**	**-0.3**
PB11				IAML				11 50 27.0	
	comp=E,2μm,0.4s								
GO01	**Chusmiza**	**1.09**	**2**	*i* P		**Pn**		**11 50 09.7**	**+0.4**
GO01				*i* S		**Sn**		**11 50 26.8**	**-0.3**
GO01				IAML				11 50 28.0	
	comp=Z,820nm,0.1s								
GO01	**Chusmiza**	**1.09**	**2**	*i* P		**Pn**		**11 50 09.5**	**+0.2**
GO01				*i* S		**Sn**		**11 50 26.7**	**-0.4**
PB07	**IPOC Station P**	**1.13**	**212**	*i* P		**Pn**		**11 50 09.3**	**+0.5**
PB07				*e*S		**Sn**		**11 50 27.2**	**-0.1**
PB07				IAML				11 50 28.5	
	comp=Z,770nm,0.1s								
PB07	**IPOC Station P**	**1.13**	**212**	⇑*i* P		**Pn**		**11 50 09.8**	**+0.5**
PB07				*i* S		**Sn**		**11 50 26.9**	**-0.3**
PB07				IAML				11 50 28.8	
	comp=E,1μm,0.1s								
PB03	**IPOC Station P**	**1.36**	**200**	*i* P		**Pn**		**11 50 12.3**	**+0.5**
PB03				*i* S		**Sn**		**11 50 31.7**	**0.0**
PB03				IAML				11 50 33.2	
	comp=Z,743nm,0.3s								
PB03	**IPOC Station P**	**1.36**	**200**	⇑*i* P		**Pn**		**11 50 12.3**	**+0.5**
PB03				*i* S		**Sn**		**11 50 31.6**	**0.0**
PB03				IAML				11 50 33.0	
	comp=E,458nm,0.4s								
PSGCX	**Pisagua**	**1.43**	**324**	*i* P		**Pn**		**11 50 12.7**	**+0.2**
PSGCX				IAML				11 50 35.6	
	comp=Z,231nm,0.4s								
PSGCX	**Pisagua**	**1.43**	**324**	⇑*i* P		**Pn**		**11 50 12.6**	**+0.1**
PSGCX				*i* S		**Sn**		**11 50 32.4**	**-0.5**
PB06	**IPOC Station P**	**1.96**	**189**	*i* P		**Pn**		**11 50 19.2**	**+0.4**
PB06				*i* S		**Sn**		**11 50 43.9**	**-0.2**
PB06				IAML				11 50 51.8	
	comp=Z,182nm,0.4s								
PB06	**IPOC Station P**	**1.96**	**189**	⇑*i* P		**Pn**		**11 50 19.2**	**+0.4**
PB06				*i* S		**Sn**		**11 50 43.4**	**-0.8**
PB06				IAML				11 50 49.4	
	comp=E,378nm,0.1s								
PB05	**IPOC Station P**	**2.26**	**203**	*i* P		**Pn**		**11 50 23.1**	**+0.5**
PB05				IAML				11 50 53.1	
	comp=Z,66nm,0.3s								
PB05	**IPOC Station P**	**2.26**	**203**	⇑*i* P		**Pn**		**11 50 22.9**	**+0.3**
PB05				IAML				11 50 51.8	
	comp=E,97nm,0.4s								
PB12	**IPOC Station P**	**2.37**	**334**	*i* P		**Pn**		**11 50 23.9**	**-0.1**
PB12				IAML				11 50 55.3	
	comp=Z,64nm,0.2s								
PB12	**IPOC Station P**	**2.37**	**334**	*i* P		**Pn**		**11 50 23.9**	**-0.1**
PB12				*i* S		**Sn**		**11 50 51.4**	**-2.0**
PB16	**IPOC Station P**	**2.43**	**354**	*i* P		**Pn**		**11 50 26.9**	**+1.7**
PB16				IAML				11 50 59.4	
	comp=Z,33nm,0.4s								
PB16	**IPOC Station P**	**2.43**	**354**	*i* P		**Pn**		**11 50 26.5**	**+1.3**
PB16				*i* S		**Sn**		**11 50 57.0**	**+1.5**
PB10	**IPOC Station P**	**2.99**	**204**	*i* P		**Pn**		**11 50 31.6**	**-0.3**
PB10				IAML				11 51 21.0	
	comp=Z,27nm,1.9s								
PB10	**IPOC Station P**	**2.99**	**204**	*i* P		**Pn**		**11 50 31.5**	**-0.4**
PB14	**IPOC Station P**	**3.99**	**195**	*i* P		**Pn**		**11 50 44.5**	**-0.9**
PB14				IAML				11 52 00.3	
	comp=Z,19nm,0.7s								

IDC 21 12:04:10.4±12.0,24.32S×177.38W,h474km±84km, mb3.0/3,mbtmp3.9/5,Error ellipse: s-maj=185.1km s-min=83.8km az=115.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
MSVF	**Nonsavu**	**7.82**	**326**	P		P		12 06 04.9	+0.5
	2.4nm,0.5s,baz=116,slow=24,SNR=2.0								
DZM	**Mont Dzumac**	**15.04**	**275**	P		P		12 07 20.2	-1.5
	4.3nm,0.5s,baz=59,slow=18,SNR=6.9								
STKA	**Stephens Creek**	**36.80**	**249**	P		P		12 10 35.9	-1.0
	0.9nm,0.5s,baz=98,slow=14,SNR=3.8								
	0.9nm,0.5s								
ASAR	**Alice Springs**	**44.33**	**260**	P		P		12 11 37.5	0.0
	0.7nm,0.4s,baz=99,slow=7.5,SNR=15								
	0.7nm,0.4s								
WRA	**Warramunga Arr**	**44.77**	**266**	P		P		12 11 41.1	+0.2
	1.0nm,0.6s,baz=100,slow=6.4,SNR=22								
	1.0nm,0.6s								

*ISU **21** 12:18:30,39.92N×70.60E,h11km*
*KRNET **21** 12:18:31.6±0.1,40.25N×70.70E,h9km,mb2.6*

ISC 21 12:18:33.8±1.1,40.12N±0.05×70.82E±0.06,h10km±8km, n11,σ1905/19,8C-8D,Tajikistan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
BTK	**Batken**	**0.06**	**178**	⇑*i* P		**Pg**		**12 18 35.7**	**-0.3**
BTK				⇓*i* S		**Sg**		**12 18 38.8**	**+1.3**
DRK	**Karamyk**	**0.99**	**130**	⇓*e* P		**Pn**		**12 18 53.6**	**-0.5**
DRK				⇑*e* S		**Sn**		**12 19 09.6**	**+1.3**
CHMG	**Chimgan**	**1.56**	**337**	S		**Sg**		**12 19 24.4**	**+0.5**
OHH	**Osh**	**1.56**	**74**	⇓*e* P		**Pb**		**12 19 02.1**	**-0.8**
OHH				⇓*e* S		**Sg**		**12 19 24.4**	**+0.4**
TVKS	**Tavaksay**	**1.70**	**329**	S		**Sg**		**12 19 28.3**	**-0.3**
PSK	**Pskem**	**1.84**	**350**	S		**Sg**		**12 19 33.8**	**+0.8**
ARK	**Arkit**	**1.89**	**27**	⇑*e* P		**Pn**		**12 19 05.8**	**-0.5**
ARK				⇑*e* S		**Sn**		**12 19 30.9**	**+0.6**
SFK	**Sufi-Kurgan**	**2.06**	**92**	⇑*e* P		**Pb**		**12 19 11.2**	**-0.4**
SFK				⇑*e* S		**Sg**		**12 19 40.0**	**-0.2**
SALK	**Salom-Alik**	**2.42**	**71**	⇓*i* P		**Pb**		**12 19 15.3**	**-2.2**
SALK				⇓*i* S		**Sb**		**12 19 47.3**	**-0.1**
MNAS	**Manas**	**2.69**	**28**	⇓*e* P		**Pn**		**12 19 17.4**	**+0.1**
MNAS				⇓*i* S		**Sn**		**12 19 51.0**	**+1.0**
UCH	**Uchtor**	**3.50**	**52**	⇓*e* P		**Pn**		**12 19 29.8**	**+1.1**
UCH				⇓*e* S		**Sn**		**12 20 12.3**	**+1.9**

SSNC 21 12:42:17.0±2.9,17.85N×80.41W,h20km±151km,MD3.7, Presumed earthquake,North of Honduras

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
PILO	**Pilon**	**3.50**	**54**	*e* P		Pn		12 43 09.5	-0.9
PILO				*e* S		Sb		12 43 56.9	-3.7
LMGC	**Las Mercedes**	**3.90**	**55**	*e* P		Pn		12 43 14.8	-1.0
LMGC				*e* S		Sn		12 44 05.7	+4.6
LMGC				*e* Sg		Sb		12 44 08.0	-4.0
CCCC	**Cccc**	**4.16**	**36**	*e* P		Pn		12 43 21.5	+2.1
YAR	**Yar**	**4.58**	**56**	*e* P		Pn		12 43 24.8	-0.3
MARVS	**Santiago de Cu**	**4.78**	**63**	*e* P		Pn		12 43 27.0	-0.9
HLGC	**Holguin**	**5.10**	**53**	*e* P		Pn		12 43 31.6	-0.7
SABCS	**La Quijada**	**5.43**	**62**	*e* P		Pn		12 43 37.1	+0.2

*NOU **21** 12:49:45.0,32.23S×176.42W,h25km,mb4.8/17,South of Kermadec Islands*
*WEL **21** 12:49:50.4±0.7,32.5S±5.1°×17.8W±1.1°,h10km,M4.7/12, mB5.0/7,ML5.1/13,MLv5.1/12,Mw(mB)4.3/7,Error ellipse: s-maj=21.3km s-min=2.8km az=107.7*
*IDC **21** 12:49:51.2±0.6,31.93S×178.15W,h0km,mb4.3/9, mbtmp4.3/13,ML4.3/4,MS3.8/23,Error ellipse: s-maj=22.7km s-min=13.5km az=103.0*
*NEIC **21** 12:49:52.4±1.1,31.90S±0.08×178.0W±0.2,h10km±1km, mb4.8/22,Error ellipse: s-maj=25.7km s-min=12.1km az=104.0*

ISC 21 12:49:53.9±0.5,31.97S±0.05×178.01W±0.09,h24km, n136,σ2801/129,mb4.7/25,MS4.0/21,3D,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
GLKZ	**Green Lake**	**2.70**	**2**	P		**Pn**		**12 50 32.9**	**-3.0**
GLKZ				S		**Sn**		**12 51 05.0**	**-2.8**
RAO	**Raoul Island**	**2.71**	**2**	Pn		**Pn**		**12 50 33.9**	**-2.2**
	149nm,0.3s,baz=50,slow=22,SNR=12								
RAO				Sn		**Sn**		**12 51 05.2**	**-3.0**
	511nm,0.3s,baz=176,slow=19,SNR=7.0								
RAO				LR		LR		12 51 30.1	
	comp=Z,409nm,18.5s,baz=136,slow=37								
	386nm,0.2s								
RAO				AML		AML			
RAO	**Raoul Island**	**2.71**	**2**	P		**Pn**		**12 50 34.2**	**-1.8**
RAO	**Raoul Island**	**2.71**	**2**	Pn		**Pn**		**12 50 33.7**	**-2.4**
RAO	**Raoul Island**	**2.71**	**2**	P		**Pn**		**12 50 34.8**	**-1.2**
RAO				S		**Sn**		**12 51 06.3**	**-1.8**
RIZ	**Raoul Island**	**2.72**	**1**	P		**Pn**		**12 50 34.7**	**-1.4**
RIZ				S		**Sn**		**12 51 05.7**	**-2.6**
RIZ				AML		AML			
RIZ				AML		AML			
MXZ	**Matakaoa Point**	**6.35**	**208**	P		**Pn**		**12 51 25.5**	**-0.4**
MXZ	**Matakaoa Point**	**6.35**	**208**	P		**Pn**		**12 51 24.9**	**-1.0**
MXZ				S		**Sn**		**12 52 35.4**	**-2.2**
MXZ				AML		AML			
MXZ				AML		AML			
HAZ	**Te Kaha**	**6.73**	**210**	P		**Pn**		**12 51 29.7**	**-1.5**
HAZ				S		**Sn**		**12 52 48.5**	**+1.5**
HAZ				AML		AML			
HAZ				AML		AML			
PUZ	**Puketiti**	**6.81**	**206**	P		**Pn**		**12 51 29.1**	**-3.2**
PUZ				S		**Sn**		**12 52 47.9**	**-1.2**
PUZ				AML		AML			
PUZ				AML		AML			
RUGZ	**Raukumara Rang**	**6.95**	**209**	P		**Pn**		**12 51 32.1**	**-2.2**
RUGZ				S		**Sn**		**12 52 51.2**	**-1.4**
RUGZ				AML		AML			
RUGZ				AML		AML			
TWGZ	**Tauwhareparae**	**7.01**	**207**	P		**Pn**		**12 51 32.9**	**-2.2**
TWGZ				S		**Sn**		**12 52 53.5**	**-0.6**
TWGZ				AML		AML			
TWGZ				AML		AML			
CNGZ	**Carnagh Statio**	**7.20**	**204**	P		**Pn**		**12 51 34.8**	**-2.8**
CNGZ				S		**Sn**		**12 52 56.1**	**-2.5**
CNGZ				AML		AML			
CNGZ				AML		AML			
TKGZ	**Te Karaka**	**7.29**	**207**	P		**Pn**		**12 51 36.7**	**-2.2**
TKGZ				S		**Sn**		**12 52 57.7**	**-3.1**
TKGZ				AML		AML			
TKGZ				AML		AML			
MWZ	**Matawai**	**7.32**	**209**	P		**Pn**		**12 51 36.4**	**-3.0**
MWZ				S		**Sn**		**12 53 00.0**	**-1.7**
MWZ				AML		AML			
MWZ				AML		AML			
OPRZ	**Ohinepanea**	**7.37**	**216**	P		**Pn**		**12 51 40.1**	**+0.2**
OPRZ				S		**Sn**		**12 53 02.5**	**-0.3**
OPRZ				AML		AML			
OPRZ				AML		AML			
URZ	**Urewera**	**7.44**	**211**	Pn		**Pn**		**12 51 39.5**	**-1.4**
	3.1nm,0.3s,baz=347,slow=3.0,SNR=21								
URZ				Sn		**Sn**		**12 53 02.8**	**-1.6**
	28nm,0.3s,baz=210,slow=21,SNR=17								
	10nm,0.4s								
URZ				AML		AML			
URZ	**Urewera**	**7.44**	**211**	P		**Pn**		**12 51 38.5**	**-2.4**
URZ	**Urewera**	**7.44**	**211**	P		**Pn**		**12 51 38.7**	**-2.3**
URZ				S		**Sn**		**12 53 02.9**	**-1.6**
URZ				AML		AML			
URZ				AML		AML			
WCZ	**Waipu Caves**	**7.48**	**236**	P		**Pn**		**12 51 44.0**	**+2.5**
RAGZ	**Rawiri**	**7.51**	**209**	P		**Pn**		**12 51 38.0**	**-4.0**
RAGZ				S		**Sn**		**12 53 03.4**	**-3.0**
PRGZ	**Paritu Road**	**7.70**	**205**	P		**Pn**		**12 51 44.5**	**-0.1**
PRGZ				S		**Sn**		**12 53 07.7**	**-3.3**
OUZ	**Omahuta**	**7.72**	**243**	P		Pn		12 51 50.2	+5.4
OUZ	**Omahuta**	**7.72**	**243**	P		P

INKA	**Innaminka**	**35.87**	**266**			**P**	12 56 52.6	**+0.6**
INKA				IAmb		IAmb	12 57 08.2	
	comp=Z,6.5nm,0.8s							
HTT	**Hallett**	**36.09**	**256**	P		**P**	12 56 56.5	**+2.6**
BBOO	**Buckleboo**	**38.56**	**256**	P		**P**	12 57 15.1	**+0.2**
BBOO	**Buckleboo**	**38.56**	**256**	P		**P**	12 57 14.6	**-0.3**
BBOO				IAmb		IAmb	12 57 15.7	
	comp=Z,10nm,0.8s							
RKT	**Rikitea**	**38.95**	**88**	*e*LR		LR	13 07 42.8	
	comp=Z,2µm,30.5s							
PMG	**Port Moresby**	**39.30**	**297**	LR		LR	13 12 13.6	
	comp=Z,121nm,18.2s,baz=111,slow=34							
TAOE	**Nuku Hiva Isla**	**41.95**	**65**	*e*LR		LR	13 09 10.2	
	comp=Z,98nm,26.3s							
AS31	**Alice Springs**	**43.04**	**269**	P		**P**	12 57 52.0	**0.0**
ASAR	**Alice Springs**	**43.04**	**269**	P		**P**	12 57 52.1	**+0.1**
	comp=Z,2.9nm,0.4s,baz=106,slow=7.0,SNR=96							
ASAR				PcP		**PcP**	12 59 41.3	**-0.7**
	comp=Z,0.8nm,0.8s,baz=110,slow=5.2,SNR=1.9							
ASAR				LR		LR	13 15 44.0	
	comp=Z,161nm,18.8s,baz=114,slow=36							
	comp=Z,2.9nm,0.4s							
ASAR	**Alice Springs**	**43.04**	**269**			**P**	12 57 51.6	**-0.4**
WR8	**Warramunga Arr**	**44.03**	**274**			**P**	12 58 00.0	**+0.1**
WR8				IAmb		IAmb	12 58 14.3	
	comp=Z,17nm,0.7s							
WRAB	**Tennant Creek**	**44.17**	**274**	P		**P**	12 58 01.4	**+0.4**
WRAB	**Tennant Creek**	**44.17**	**274**	P		**P**	12 58 01.2	**+0.2**
WRAB				IAmb		IAmb	12 58 15.3	
	comp=Z,13nm,0.7s							
WRA	**Warramunga Arr**	**44.17**	**274**	P		**P**	12 58 01.1	**0.0**
	comp=Z,7.0nm,0.4s,baz=114,slow=7.9,SNR=183							
	comp=Z,7.0nm,0.4s							
WRA	**Warramunga Arr**	**44.17**	**274**	P		**P**	12 58 00.9	**-0.2**
WB0	**Warramunga Arr**	**44.20**	**274**			**P**	12 58 01.5	**+0.2**
FORT	**Forrest**	**45.66**	**257**	P		**P**	12 58 12.6	**-0.2**
FORT				IAmb		IAmb	12 58 17.6	
	comp=Z,10nm,0.8s							
VNDA	**Vanda**	**46.53**	**186**	P		**P**	12 58 21.2	**+2.2**
	comp=Z,0.7nm,0.9s,baz=350,slow=7.1,SNR=4.0							
VNDA				LR		LR	13 14 35.5	
	comp=Z,69nm,18.4s,baz=357,slow=32							
	comp=Z,0.7nm,0.9s							
VNDA	**Vanda**	**46.53**	**186**	P		**P**	12 58 20.2	**+1.2**
MTN	**Manton Dam**	**50.24**	**280**	P		**P**	12 58 48.5	**+0.2**
MTN				IAmb		IAmb	12 59 02.2	
	comp=Z,4.5nm,0.8s							
FITZ	**Fitzroy Crossi**	**52.37**	**271**	LR		LR	13 21 02.6	
	comp=Z,353nm,18.8s,baz=158,slow=36							
FITZ	**Fitzroy Crossi**	**52.37**	**271**	P		**P**	12 59 04.1	**-0.2**
CASY	**Casey**	**53.75**	**208**	P		**P**	12 59 15.2	**+1.4**
MBWA	**Marble Bar**	**56.06**	**265**	P		**P**	12 59 30.0	**-1.2**
MBWA				IAmb		IAmb	13 00 21.3	
	comp=Z,20nm,1.2s							
QSPA	**South Pole Qui**	**58.14**	**180**	P		**P**	12 59 48.1	**+2.6**
	comp=Z,4.4nm,1.1s,baz=27,slow=1.1,SNR=7.7							
QSPA				LR		LR	13 22 51.7	
	comp=Z,126nm,18.8s,baz=42,slow=34							
	comp=Z,4.4nm,1.1s							
QSPA	**South Pole Qui**	**58.14**	**180**	P		**P**	12 59 47.1	**+1.7**
RPN	**Rapa Nui**	**59.04**	**104**	LR		LR	13 18 45.8	
	comp=Z,76nm,19.9s,baz=232,slow=29							
KAPI	**Kappang**	**63.89**	**281**	LR		LR	13 27 14.1	
	comp=Z,134nm,20.5s,baz=104,slow=35							
JCJ	**Chichijima**	**69.92**	**323**	LR		LR	13 26 41.3	
	comp=Z,68nm,19.5s,baz=100,slow=32							
MAW	**Mawson**	**70.84**	**201**	P		**P**	13 01 10.2	**+2.0**
USHA	**Ushuaia**	**74.63**	**146**	LR		LR	13 28 46.4	
	comp=Z,5µm,19.7s,baz=184,slow=31							
ELIB	**Princess Elisa**	**75.29**	**187**	*d*P		**P**	13 01 37.2	**+2.5**
	comp=Z,3.3nm,0.8s							
SNAA	**Sanae**	**76.59**	**178**	P		**P**	13 01 43.9	**+1.9**
	comp=Z,6.0nm,1.0s,baz=222,slow=4.9,SNR=4.4							
	comp=Z,6.0nm,1.0s							
SNAA	**Sanae**	**76.59**	**178**	P		**P**	13 01 43.0	**+1.0**
SNAA				IAmb		IAmb	13 02 10.4	
	comp=Z,15nm,1.2s							
MJAR	**Matsushiro Arr**	**79.53**	**325**	LR		LR	13 30 56.4	
	comp=Z,26nm,20.1s,baz=165,slow=31							
H03S2	**Juan Fernandez**	**79.60**	**123**	T		T	14 30 50.9	
	baz=237							
H03S1	**Juan Fernandez**	**79.61**	**123**	T		T	14 31 02.5	
	baz=237							
H03S3	**Juan Fernandez**	**79.62**	**123**	T		T	14 31 15.6	
	baz=237							
H03N3	**Juan Fernandez**	**79.80**	**123**	T		T	14 31 06.6	
	baz=250							
H03N2	**Juan Fernandez**	**79.81**	**123**	T		T	14 31 05.8	
	baz=250							
H03N1	**Juan Fernandez**	**79.82**	**123**	T		T	14 31 10.5	
	baz=250							
PLCA	**Paso Flores**	**81.44**	**133**	LR		LR	13 31 39.9	
	comp=Z,59nm,18.4s,baz=215,slow=31							
ASAJ	**Asahikawa**	**83.83**	**333**	LR		LR	13 36 24.7	
	comp=Z,36nm,19.3s,baz=211,slow=33							
NJ2	**Nanjing**	**87.26**	**311**	*e*P		**P**	13 02 39.3	**+0.8**
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.5s							
PFO	**Pinyon Flats O**	**87.27**	**47**	LR		LR	13 40 52.1	
	comp=Z,58nm,18.2s,baz=0.0,slow=35							
PETK	**Petropavlovsk-**	**87.33**	**346**	P		**P**	13 02 38.8	**+0.5**
	comp=Z,2.8nm,0.7s,baz=131,slow=4.1,SNR=5.9							
PETK				LR		LR	13 35 09.7	
	comp=Z,35nm,21.8s,baz=142,slow=31							
	comp=Z,2.8nm,0.7s							
PETK	**Petropavlovsk-**	**87.33**	**346**	P		**P**	13 02 38.0	**-0.3**
BELC	**Belle Mtn. Jos**	**87.82**	**47**	P		**P**	13 02 40.3	**-1.1**
BELC				IAmb		IAmb	13 02 44.3	
	comp=Z,13nm,1.6s							
IRM	**Iron Mountain**	**88.45**	**48**	P		**P**	13 02 44.7	**+0.5**
IRM				IAmb		IAmb	13 02 48.1	
	comp=Z,11nm,1.4s							
YBH	**Yreka Blue Hor**	**89.27**	**38**	LR		LR	13 35 03.5	
	comp=Z,37nm,19.8s,baz=230,slow=30							
WHN	**Wuhan**	**89.29**	**307**	P		**P**	13 02 47.3	**-0.8**
WHN				pmax		pmax		
	comp=Z,38nm,1.0s							
NVAR	**Mina Array Bea**	**89.39**	**43**	P		**P**	13 02 50.4	**+1.7**
	comp=Z,0.9nm,0.8s,baz=232,slow=7.3,SNR=6.7							
	comp=Z,0.9nm,0.8s							
CN2	**Changchun**	**91.39**	**323**	P		**P**	13 02 56.3	**-1.3**
CN2				pmax		pmax		
	comp=Z,10.0nm,0.5s							
BNX	**BinXian**	**91.79**	**325**	⇓P		**P**	13 02 59.3	**-0.1**
BNX				pmax		pmax		
	comp=Z,7.0nm,0.9s							
KLR	**Kul'dur**	**92.39**	**330**	LR		LR	13 45 32.7	
	comp=Z,46nm,18.2s,baz=336,slow=36							
NNA	**Nana**	**93.00**	**106**	LR		LR	13 37 25.6	
	comp=Z,46nm,18.8s,baz=190,slow=31							
TXAR	**Lajitas Array**	**93.24**	**57**	P		**P**	13 03 08.5	**+1.8**
	comp=Z,0.3nm,0.9s,baz=155,slow=3.6,SNR=3.9							
	comp=Z,0.3nm,0.9s							
MA2	**Magadan**	**94.80**	**345**	LR		LR	13 50 30.1	
	comp=Z,31nm,18.0s,baz=159,slow=38							
XAN	**Xi'an**	**95.06**	**307**	*e*P		P	13 03 22.3	+7.4
PDAR	**Pinedale Array**	**97.27**	**44**	LR		LR	13 43 49.7	
	comp=Z,64nm,18.2s,baz=334,slow=33							
HHC	**Hu-ho-hao-te**	**97.32**	**314**	*e*P		Pdif	13 03 26.0	+0.9
HHC				pmax		pmax		
	comp=Z,11nm,0.7s							
MKAR	**Makanchi Array**	**118.77**	**309**	PKP		**PKiKP**	13 08 40.0	**+0.1**
	comp=Z,0.5nm,0.4s,baz=168,slow=1.0,SNR=10							
ZALV	**Zalesovo Beam**	**119.20**	**318**	PKP		**PKiKP**	13 08 41.0	**+0.6**
	comp=Z,0.4nm,0.3s,baz=98,slow=2.2,SNR=3.6							
NRIK	**Noril'sk**	**121.07**	**336**	PKP		**PKiKP**	13 08 44.8	**+1.2**
	comp=Z,1.4nm,0.4s,baz=90,slow=1.0,SNR=5.0							
KSH2	**Kashi**	**121.21**	**299**	PKP		**PKiKP**	13 08 46.1	**+1.0**
KURBB	**Kurchatov Arra**	**122.16**	**313**	PKP		**PKiKP**	13 08 46.2	**-0.1**
	comp=Z,1.5nm,0.5s,baz=111,slow=1.9,SNR=14							
BVAR	**Borovoye Array**	**127.52**	**315**	PKP		**PKiKP**	13 08 57.0	**+0.1**
	comp=Z,1.6nm,0.4s,baz=132,slow=1.9,SNR=10.0							
ARCES	**ARCESS Array B**	**140.12**	**347**	PKP		**PKPdf**	13 09 19.2	**-0.3**
	comp=Z,3.0nm,1.0s,baz=106,slow=1.8,SNR=3.8							
KBZ	**Khabaz**	**145.96**	**302**	PKPbc		**PKPab**	13 09 30.9	**-1.0**
	comp=Z,4.9nm,1.0s,baz=126,slow=5.1,SNR=3.9							
FINES	**FINESS Array B**	**146.61**	**339**	PKPbc		**PKPab**	13 09 32.5	**-1.2**
	comp=Z,7.0nm,0.4s,baz=48,slow=4.0,SNR=92							
NOA	**NORSAR Array B**	**150.30**	**351**	PKPbc		**PKiKP**	13 09 43.5	**+0.3**
	comp=Z,0.7nm,0.8s,baz=16,slow=2.5,SNR=1.5							
HFS	**Hagfors**	**150.78**	**348**	PKPbc		**PKiKP**	13 09 44.5	**+0.4**
	comp=Z,2.6nm,0.7s,baz=192,slow=4.2,SNR=5.1							
EIL	**Elat**	**151.66**	**274**	PKPbc		**PKiKP**	13 09 46.8	**-0.1**
	comp=Z,6.7nm,0.9s,baz=155,slow=6.5,SNR=4.5							
MMAI	**Mount Meron Ar**	**151.87**	**281**	PKPbc		**PKiKP**	13 09 48.5	**+1.2**
	comp=Z,1.8nm,0.4s,baz=70,slow=7.2,SNR=12							
AKASG	**Malin Array Be**	**152.53**	**321**	PKPbc		**PKiKP**	13 09 48.5	**+0.5**
	comp=Z,1.7nm,0.5s,baz=50,slow=2.9,SNR=8.3							
BRTR	**Keskin Array B**	**153.31**	**296**	PKPbc		**PKiKP**	13 09 50.1	**-0.1**
	comp=Z,1.3nm,0.5s,baz=134,slow=3.8,SNR=9.1							
TORD	**Torodi Ar. Bea**	**161.26**	**179**	PKPab		**PKPab**	13 10 36.5	**-0.1**
	comp=Z,0.8nm,0.6s,baz=159,slow=3.5,SNR=4.4							
BMRD	**Maredsous**	**161.57**	**354**	*d*PKPdf		**PKPdf**	13 09 50.4	**-1.9**

*IDC **21** 13:11:04.4±0.5,5˚.31N×125˚.54E,h171km±4km,mb3.9/22, mbtmp4.4/23,MS3.2/2,Error ellipse: s-maj=17.4km s-min=5.9km az=81.0*
*MAN **21** 13:11:05.0,5˚.29N×125˚.60E,h160km,MS4.4*
*NEIC **21** 13:11:05.9±2.2,5˚.33N±0˚.07×125˚.5E±0˚.1,h178km±7km, mb4.7/28,Error ellipse: s-maj=16.7km s-min=9.5km az=83.0*
*GFZ **21** 13:11:05.6±0.2,5˚N±3˚×12˚6E±˚,h174km,M5.0/25, mb4.7/25,confirmed*
*DJA **21** 13:11:06.1±0.3,5˚N±2˚×12˚6E±˚,h10km,M4.9/19, mb5.0/19,mB5.3/15,MLv5.1/15,Mw(mB)4.7/15*

ISC 21 13:11:05.0±0.5,**5˚28N**±0˚.04×**125˚57E**±0˚.06,**h174**km±4km, **n153,**σ1**$45/177,mb4.4/51,Mindanao**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GSPH	**General Santos**	**1.01**	**323**	*i* P			**Pn**	**13 11 31.5**	**-0.8**
GSPH				*i* S			**Sn**	**13 11 51.3**	**-2.1**
DAV	**Davao City (W)**	**1.78**	**0**	P			**Pn**	**13 11 38.8**	**-0.5**
	516nm,0.4s,baz=144,slow=3.5,SNR=15								
DAV				S			**Sn**	**13 12 02.9**	**-3.0**
	807nm,0.4s,baz=101,slow=9.8,SNR=6.6								
DAV				LR			LR	13 12 21.1	
	comp=Z,674nm,19.9s,baz=82,slow=44								
DAV	**Davao City (W)**	**1.78**	**0**	P			**Pn**	**13 11 39.4**	**+0.1**
DAV	**Davao City (W)**	**1.78**	**0**				**Pn**	**13 11 40.2**	**+0.9**
DAV				Sn			**Sn**	**13 12 06.8**	**+0.9**
DAV	**Davao City (W)**	**1.78**	**0**	P			**Pn**	**13 11 40.4**	**+1.1**
DAV				S			**Sn**	**13 12 06.2**	**+0.3**
DAV				AML			AML		
DAV	**Davao City (W)**	**1.78**	**0**	P			**Pn**	**13 11 40.6**	**+1.3**
DAV	**Davao City (W)**	**1.78**	**0**	P			**Pn**	**13 11 39.0**	**-0.3**
KCP	**Kidapawan**	**1.78**	**345**	*i* P			**Pn**	**13 11 39.7**	**+0.3**
KCP				*i* S				13 42 05.3	
DMPH	**Davao City--Mi**	**1.79**	**358**	*e*P			**Pn**	**13 11 40.5**	**+1.1**
DMPH				*i* S			**Sn**	**13 12 06.3**	**+0.1**
BIPH	**Bislig**	**2.99**	**15**	*e*P			**Pn**	**13 11 55.8**	**+2.5**
BIPH				*e*S			**Sn**	**13 12 22.8**	**-8.2**
CGP	**Cagayan de Oro**	**3.27**	**345**	*i* P			**Pn**	**13 11 57.0**	**+0.3**
CGP				*i* S			**Sn**	**13 12 41.5**	**+4.3**
MNI	**Manado**	**3.88**	**191**	P			**Pn**	**13 12 03.4**	**-1.0**
MNI				AML			AML		
DCPH	**Dipolog City**	**3.95**	**326**	*i* P			**Pn**	**13 12 07.3**	**+2.0**
TBP	**Tagbilaran**	**4.70**	**339**	*e*P			**Pn**	**13 12 14.7**	**-0.3**
TBP				*e*S			Sn	13 13 34.5	+25
TNTI	**Ternate**	**4.83**	**158**	P			**Pn**	**13 12 15.4**	**-1.2**
TNTI	**Ternate**	**4.83**	**158**				**Pn**	**13 12 16.6**	**0.0**
TNTI	**Ternate**	**4.83**	**158**	P			**Pn**	**13 12 16.6**	**0.0**
TNTI				S			**Sn**	**13 13 10.4**	**-2.4**
TNTI				AML			AML		
TNTI	**Ternate**	**4.83**	**158**	P			**Pn**	**13 12 16.9**	**+0.3**
KMSI	**Cibinong**	**4.93**	**199**	P			**Pn**	**13 12 18.6**	**+0.6**
KMSI				AML			AML		
LLP	**Lapu-Lapu**	**5.25**	**343**	*e*P			**Pn**	**13 12 24.3**	**+2.2**
LLP				*e*S			**Sn**	**13 13 26.3**	**+3.5**
GTOI	**Gorontalo**	**5.27**	**209**	P			**Pn**	**13 12 22.0**	**-0.4**
	1.4nm4µm389nm,1.0s								
GTOI				AML			AML		
PLP	**Palo**	**5.88**	**354**	*e*P			**Pn**	**13 12 30.9**	**+0.5**
PLP				*e*S			**Sn**	**13 13 36.8**	**-0.7**
TOLI2	**Tolitoli**	**6.32**	**229**	P			**Pn**	**13 12 34.4**	**-1.8**
TOLI2	**Tolitoli**	**6.32**	**229**				**Pn**	**13 12 35.4**	**-0.8**
TOLI2	**Tolitoli**	**6.32**	**229**	P			**Pn**	**13 12 35.9**	**-0.3**
	comp=Z,100nm,1.0s								
LUWI	**Luwuk**	**6.87**	**204**				**Pn**	**13 12 45.4**	**+1.9**
LUWI	**Luwuk**	**6.87**	**204**	P			**Pn**	**13 12 44.6**	**+1.1**
	comp=Z,0.8nmcomp=Z,2µmcomp=Z,169nm,0.9s								
LUWI				AML			AML		
APSI	**Ampana**	**7.29**	**213**	P			**Pn**	**13 12 51.1**	**+2.1**
	comp=Z,0.5nmcomp=Z,1µmcomp=Z,136nm,1.1s								
APSI				AML			AML		
SANI	**Sanana**	**7.29**	**177**	P			**Pn**	**13 12 46.7**	**-2.3**
SANI	**Sanana**	**7.29**	**177**	P			**Pn**	**13 12 46.4**	**-2.6**
PCI	**Palu**	**8.40**	**223**	P			**Pn**	**13 13 05.7**	**+2.1**
	comp=Z,41nm,0.7s								
LQP	**Lukban**	**9.63**	**336**	*e*P			**Pn**	**13 13 22.6**	**+2.6**
TTSI	**Tana Toraja**	**10.07**	**215**	P			**Pn**	**13 13 27.0**	**+1.4**
FAKI	**Fak Fak**	**10.53**	**141**	P			**Pn**	**13 13 34.4**	**+2.7**
KAPI	**Kappang**	**11.76**	**210**	P			**Pn**	**13 13 48.3**	**+0.7**
	comp=Z,8.0nm,0.4s,baz=46,slow=13,SNR=4.6								
KAPI	**Kappang**	**11.76**	**210**				**Pn**	**13 13 47.9**	**+0.3**
SOEI	**Soe**	**14.99**	**185**	P			**Pn**	**13 14 28.0**	**-0.5**
SOEI	**Soe**	**14.99**	**185**	P			**Pn**	**13 14 27.8**	**-0.7**
	comp=Z,40nm,1.0s								
JAGI	**Jajag, Banyuwa**	**17.78**	**220**	P			**P**	**13 15 01.0**	**+0.7**
DLV	**Lat**	**18.13**	**293**				**P**	**13 15 02.4**	**-2.0**
DLV				IAmb			IAmb	13 15 06.8	
	comp=Z,24nm,0.6s								
DRS	**Darwin Rock St**	**18.38**	**163**	P			**P**	**13 15 07.8**	**+1.0**
YULB	**Yu-li**	**18.47**	**348**	P			**P**	**13 15 07.0**	**-0.8**
TPUB	**Ta-pu**	**18.54**	**346**	P			**P**	**13 15 07.3**	**-1.2**
MTN	**Manton Dam**	**18.84**	**163**				**Pn**	**13 15 13.2**	**-1.1**
MTN				IAmb			IAmb	13 15 17.2	
	comp=Z,6.8nm,0.3s								
KNRA	**Kununurra**	**21.06**	**171**				**P**	**13 15 36.0**	**+0.4**
JMZ	**Minamidaito 2**	**21.13**	**14**	P			**P**	**13 15 36.9**	**+0.6**
	comp=Z,308nm,2.0s								
JOW	**Kunigami**	**21.59**	**7**	P			**P**	**13 15 42.3**	**+1.1**
FITZ	**Fitzroy Crossi**	**23.23**	**180**	P			**P**	**13 15 57.6**	**+0.8**
	comp=Z,15nm,0.4s,baz=4.4,slow=8.1,SNR=116								
FITZ				S			**S**	**13 19 52.6**	**-3.2**
	comp=Z,3.5nm,0.9s,baz=90,slow=22,SNR=3.1								
	comp=Z,15nm,0.4s								
FITZ	**Fitzroy Crossi**	**23.23**	**180**	P			**P**	**13 15 57.1**	**+0.3**
FITZ	**Fitzroy Crossi**	**23.23**	**180**	P			**P**	**13 15 58.0**	**+1.2**
	comp=Z,6.6nm,1.1s								
IPM	**Ipoh**	**24.46**	**269**	P			**P**	**13 16 08.1**	**-0.1**
IPM	**Ipoh**	**24.46**	**269**				**P**	**13 16 07.7**	**-0.6**
IPM	**Ipoh**	**24.46**	**269**	P			**P**	**13 16 08.2**	**-0.1**
	comp=Z,56nm,0.8s								
MASI	**Maura Aman, Be**	**24.76**	**251**	P			**P**	**13 16 12.9**	**+2.0**
	comp=Z,163nm,0.8s								
KULM	**Kulim**	**24.81**	**271**	P			**P**	**13 16 11.4**	**+0.1**
KULM	**Kulim**	**24.81**	**271**				**P**	**13 16 10.9**	**-0.4**
KULM				IAmb			IAmb	13 16 12.5	
	comp=Z,31nm,1.1s								
KULM	**Kulim**	**24.81**	**271**	P			**P**	**13 16 11.5**	**+0.1**
	comp=Z,27nm,1.2s								
PMG	**Port Moresby**	**26.00**	**124**	LR			LR	13 27 17.7	
	comp=Z,35nm,20.5s,baz=288,slow=37								
WB0	**Warramunga Arr**	**26.36**	**161**				**P**	**13 16 25.5**	**+0.3**
WB0				IAmb			IAmb	13 17 09.2	
	comp=Z,11nm,0.8s								
WRAB	**Tennant Creek**	**26.50**	**161**	P			**P**	**13 16 26.5**	**0.0**
WRAB	**Tennant Creek**	**26.50**	**161**	P			**P**	**13 16 26.3**	**-0.2**
WRAB				IAmb			IAmb	13 16 27.8	
	comp=Z,7.5nm,0.8s								
WRAB	**Tennant Creek**	**26.50**	**161**	P			**P**	**13 16 26.9**	**+0.5**
	comp=Z,13nm,2.0s								
WRA	**Warramunga Arr**	**26.51**	**161**	P			**P**	**13 16 27.0**	**+0.5**
	comp=Z,6.4nm,0.8s,baz=334,slow=10,SNR=45								
WRA				pP			**pP**	**13 17 02.8**	**+0.8**
	comp=Z,5.4nm,0.8s,baz=341,slow=10,SNR=6.3								
WRA				S			**S**	**13 20 44.0**	**-3.9**
	comp=Z,1.5nm,0.8s,baz=338,slow=16,SNR=6.3								
WRA				ScP			**ScP**	**13 23 10.2**	**-0.4**
	comp=Z,0.6nm,0.6s,baz=336,slow=3.2,SNR=6.8								
	comp=Z,6.4nm,0.8s								
WRA	**Warramunga Arr**	**26.51**	**161**	P			**P**	**13 16 26.5**	**0.0**
WR8	**Warramunga Arr**	**26.57**	**161**				**P**	**13 16 27.4**	**+0.3**
WR8				IAmb			IAmb	13 17 05.6	
	comp=Z,14nm,1.2s								
RPSI	**Rantau Prapat**	**26.70**	**266**				**P**	**13 16 27.8**	**-0.5**
RPSI				IAmb			IAmb	13 16 29.2	
	comp=Z,20nm,0.9s								
RPSI	**Rantau Prapat**	**26.70**	**266**	P			**P**	**13 16 28.6**	**+0.3**
	comp=Z,27nm,1.1s								
MBWA	**Marble Bar**	**26.89**	**192**	P			**P**	**13 16 29.7**	**-0.2**
NJ2	**Nanjing**	**27.37**	**348**	*e*P			**P**	**13 16 35.4**	**+1.4**
NJ2				pmax			pmax		
	comp=Z,7.0nm,0.5s								
CM31	**Chiang Mai Arr**	**29.10**	**299**	P			**P**	**13 16 49.0**	**-0.6**
CMAR	**Chiang Mai Arr**	**29.10**	**299**	P			**P**	**13 16 49.0**	**-0.6**
	comp=Z,12nm,0.7s,baz=118,slow=7.5,SNR=99								
CMAR				ScP			**ScP**	**13 23 17.1**	**-1.6**
	comp=Z,0.4nm,0.4s,baz=139,slow=1.4,SNR=5.0								
	comp=Z,12nm,0.7s								
CMAR	**Chiang Mai Arr**	**29.10**	**299**				**P**	**13 16 47.6**	**-2.0**
CHTO	**Chiang Mai**	**29.24**	**300**	P			**P**	**13 16 50.9**	**0.0**
CHTO	**Chiang Mai**	**29.24**	**300**	P			**P**	**13 16 51.1**	**+0.2**
CHTO				IAmb			IAmb	13 16 52.0	
	comp=Z,15nm,0.6s								
CHTO	**Chiang Mai**	**29.24**	**300**	P			**P**	**13 16 51.7**	**+0.8**
	comp=Z,26nm,1.1s								
MTSU	**Mount Surprise**	**29.72**	**142**	P			**P**	**13 16 55.1**	**0.0**
	comp=Z,6.9nm,1.2s								
AS31	**Alice Springs**	**29.90**	**165**				**P**	**13 16 57.1**	**+0.5**
ASAR	**Alice Springs**	**29.90**	**165**	P			**P**	**13 16 57.5**	**+0.9**
	comp=Z,3.5nm,0.5s,baz=341,slow=7.0,SNR=132								
ASAR				pP			**pP**	**13 17 31.6**	**-0.9**
	comp=Z,1.1nm,0.5s,baz=343,slow=7.1,SNR=1.9								
ASAR				PcP			**PcP**	**13 19 55.5**	**+0.3**
	comp=Z,2.2nm,0.4s,baz=344,slow=2.4,SNR=13								
ASAR				S			**S**	**13 21 41.6**	**+0.5**
	comp=Z,1.2nm,0.8s,baz=336,slow=12,SNR=5.9								
ASAR				ScP			**ScP**	**13 23 20.2**	**-0.9**
	comp=Z,2.1nm,0.8s,baz=329,slow=2.5,SNR=13								
	comp=Z,3.5nm,0.5s								
ASAR	**Alice Springs**	**29.90**	**165**				**P**	**13 16 57.2**	**+0.6**
ASAR				PcP			**PcP**	**13 19 54.9**	**-0.4**
ASAR				ScP			**ScP**	**13 23 20.0**	**-1.2**
AS01	**Alice Springs**	**29.91**	**164**	P			**P**	**13 16 57.4**	**+0.7**
INU	**Inuyama**	**31.73**	**18**	P			**P**	**13 17 14.9**	**+2.3**
KSRS	**Korea Array**	**32.10**	**4**	P			**P**	**13 17 15.4**	**-0.2**
	comp=Z,1.9nm,0.8s,baz=176,slow=9.4,SNR=8.2								
	comp=Z,1.9nm,0.8s								
MEEK	**Meekatharra**	**32.44**	**192**	P			**P**	**13 17 19.0**	**+0.1**
	comp=Z,27nm,0.8s								
XAN	**Xi'an**	**32.52**	**334**	P			**P**	**13 17 19.1**	**-0.4**
XAN				pP			pP	13 17 54.3	-2.0
XAN				pmax			pmax		
	comp=Z,12nm,0.7s								
XAN				LR			LR		
	comp=N,310nm,16.5s								
XAN				LR			LR		
	comp=E,250nm,12.4s								
XAN				LR			LR		
	comp=Z,320nm,15.1s								
MJAR	**Matsushiro Arr**	**33.21**	**19**	P			**P**	**13 17 24.9**	**-0.5**
	comp=Z,4.0nm,0.8s,baz=194,slow=9.6,SNR=13								
	comp=Z,4.0nm,0.8s								
MORW	**Morawa**	**35.36**	**194**	P			**P**	**13 17 43.8**	**-0.2**
MORW	**Morawa**	**35.36**	**194**				**P**	**13 17 42.5**	**-1.5**
MORW				IAmb			IAmb	13 17 44.6	
	comp=Z,18nm,0.8s								
MORW	**Morawa**	**35.36**	**194**	P			**P**	**13 17 44.0**	**0.0**
	comp=Z,25nm,0.9s								
INKA	**Innaminka**	**35.95**	**157**				**P**	**13 17 49.4**	**+0.4**
BLDU

comp=Z,1.0nm,0.8s,baz=128,slow=4.3,SNR=4.7
comp=Z,1.0nm,0.8s
KMBO Kilima Mbogo 88.42 269 P **P** **13 23 38.3 -0.3**
comp=Z,3.0nm,0.8s
ARCES ARCESS Array B 88.60 340 P **P** **13 23 35.9 -2.0**
comp=Z,3.6nm,0.9s,baz=95,slow=3.9,SNR=5.5
comp=Z,3.6nm,0.9s
ARCES ARCESS Array B 88.60 340 P **P** **13 23 35.2 -2.7**
ARCES IAmb IAmb 13 23 57.5
comp=Z,18nm,1.4s
FINES FINESS Array B 89.93 332 P **P** **13 23 41.9 -2.3**
comp=Z,1.6nm,0.6s,baz=64,slow=4.4,SNR=9.7
comp=Z,1.6nm,0.6s
FINES FINESS Array B 89.93 332 P **P** **13 23 41.5 -2.7**
QSPA South Pole Qui 95.18 180 P **P** **13 24 08.7 +0.3**
comp=Z,0.7nm,0.4s,baz=300,slow=1.7,SNR=10.0
comp=Z,0.7nm,0.4s
QSPA South Pole Qui 95.18 180 P **P** **13 24 08.8 +0.3**
QSPA IAmb IAmb 13 24 13.3
comp=Z,3.5nm,1.1s
RJOB Jochberg 101.11 321 P **Pdif** **13 24 37.0 +1.5**
comp=Z,187nm,0.6s
TORD Torodi Ar. Bea 121.33 289 PKP **PKPdf** **13 29 38.5 0.0**
comp=Z,0.2nm,0.3s,baz=70,slow=1.4,SNR=4.7
TXAR Lajitas Array 121.55 51 PKP **PKiKP** **13 29 38.9 0.0**
comp=Z,0.6nm,0.6s,baz=277,slow=0.9,SNR=7.7

IDC 21 13:31:11.2±4.1, 50.44N×30.73W, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=171.1km s-min=38.6km az=171.0, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PDAR	**Pinedale Array**	**52.31**	**294**	P	P	13 40 24.6	-0.1
	0.4nm,0.5s,baz=107,slow=4.2,SNR=4.0						
	0.4nm,0.5s						
BVAR	**Borovoye Array**	**57.44**	**45**	P	P	13 41 01.6	+0.2
	0.5nm,0.5s,baz=316,slow=4.0,SNR=2.5						
	0.5nm,0.5s						
MKAR	**Makanchi Array**	**67.24**	**43**	P	P	13 42 06.9	-0.3
	0.6nm,0.7s,baz=315,slow=5.6,SNR=4.7						
	0.6nm,0.7s						
WRA	**Warramunga Arr**	**147.35**	**27**	PKPbc	PKPbc	13 50 56.0	-0.8
	0.4nm,0.8s,baz=340,slow=2.6,SNR=4.6						
ASAR	**Alice Springs**	**150.72**	**30**	PKPbc	PKPbc	13 51 05.1	-0.2
	0.2nm,0.7s,baz=343,slow=1.9,SNR=4.7						

*SJA **21** 13:54:52.4±0.7, 21.14S×69.62W, h72km±4km, ML3.8, MW3.8*
*GUC **21** 13:54:53.9±0.6, 21.15S×69.60W, h72km±3km, ML3.8, Presumed earthquake*
ISC 21 13:54:54.7±1.3, 21.13S±0.02×69.66W±0.05, h66km±8km, n35, σ1s60/57, 4C-5D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB02	**IPOC Station P**	**0.29**	**230**	*e*P	**Pn**	**13 55 04.9**	**-0.6**
PB02				IAML		13 55 18.6	
	comp=Z,5μm,0.3s						
PB02				*e*S	**Sn**	**13 55 18.8**	**+5.4**
PB02	**IPOC Station P**	**0.29**	**230**	*i*P	**Pn**	**13 55 05.0**	**-0.6**
PB02				*e*S	**Sn**	**13 55 13.6**	**+0.2**
PB02				IAML		13 55 14.2	
	comp=N,11μm,0.3s						
PB07	**IPOC Station P**	**0.63**	**200**	*e*P	**Pn**	**13 55 07.8**	**-0.9**
PB07				*e*S	**Sn**	**13 55 18.9**	**-0.2**
PB07				IAML		13 55 19.9	
	comp=Z,5μm,0.2s						
PB07	**IPOC Station P**	**0.63**	**200**	*i*P	**Pn**	**13 55 07.9**	**-0.9**
PB07				*e*S	**Sn**	**13 55 18.9**	**-0.2**
PB07				IAML		13 55 19.9	
	comp=E,5μm,0.5s						
TA01	**Diego Aracena**	**0.75**	**319**	*e*P	**Pn**	**13 55 09.1**	**-0.8**
TA01				*e*S	**Sn**	**13 55 22.0**	**+0.9**
TA01				IAML		13 55 23.0	
	comp=Z,2μm,0.2s						
TA01	**Diego Aracena**	**0.75**	**319**	*e*P	**Pn**	**13 55 09.2**	**-0.7**
TA01				*e*S	**Sn**	**13 55 21.6**	**+0.5**
TA01				IAML		13 55 23.2	
	comp=E,4μm,0.4s						
PB09	**IPOC Station P**	**0.77**	**150**	*e*P	**Pn**	**13 55 09.5**	**-0.9**
PB09				*e*S	**Sn**	**13 55 21.6**	**-0.2**
PB09				IAML		13 55 22.3	
	comp=Z,2μm,0.6s						
PB09	**IPOC Station P**	**0.77**	**150**	*i*P	**Pn**	**13 55 09.4**	**-0.9**
PB09				*e*S	**Sn**	**13 55 21.2**	**-0.5**
PB03	**IPOC Station P**	**0.92**	**186**	*e*P	**Pn**	**13 55 11.2**	**-0.9**
PB03				*e*S	**Sn**	**13 55 25.2**	**+0.1**
PB03				IAML		13 55 25.9	
	comp=Z,4μm,0.2s						
PB03	**IPOC Station P**	**0.92**	**186**	*i*P	**Pn**	**13 55 11.2**	**-0.9**
PB03				*e*S	**Sn**	**13 55 24.3**	**-0.7**
PB03				IAML		13 55 26.2	
	comp=E,5μm,0.5s						
TA02	**Huaiquique**	**0.96**	**332**	*e*P	**Pn**	**13 55 12.2**	**-0.4**
TA02				IAML		13 55 29.9	
	comp=Z,3μm,0.1s						
TA02	**Huaiquique**	**0.96**	**332**	*e*P	**Pn**	**13 55 11.7**	**-0.8**
TA02				*e*S	**Sn**	**13 55 25.9**	**+0.1**
TA02				IAML		13 55 29.0	
PB08	**IPOC Station P**	**1.09**	**26**	*e*P	**Pn**	**13 55 13.6**	**-1.0**
PB08				IAML		13 55 30.6	
	comp=Z,1μm,0.2s						
PB08	**IPOC Station P**	**1.09**	**26**	*i*P	**Pn**	**13 55 13.4**	**-1.1**
PB08				*e*S	**Sn**	**13 55 28.5**	**-0.8**
PB08				IAML		13 55 29.3	
	comp=E,5μm,0.3s						
PB11	**IPOC Station P**	**1.36**	**360**	*e*P	**Pn**	**13 55 16.9**	**-1.0**
PB11				IAML		13 55 36.9	
	comp=Z,829nm,0.3s						
PB11	**IPOC Station P**	**1.36**	**360**	*i*P	**Pn**	**13 55 16.5**	**-1.4**
PB11				*e*S	**Sn**	**13 55 34.6**	**-0.7**
PB11				IAML		13 55 40.2	
	comp=E,2μm,0.4s						
GO01	**Chusmiza**	**1.52**	**17**	*e*P	**Pn**	**13 55 19.4**	**-0.8**
GO01				*e*S	**Sn**	**13 55 39.5**	**+0.1**
GO01				IAML		13 55 40.7	
	comp=Z,1μm,0.3s						
GO01	**Chusmiza**	**1.52**	**17**	*i*P	**Pn**	**13 55 19.2**	**-1.0**
GO01				*e*S	**Sn**	**13 55 39.0**	**-0.4**
PB06	**IPOC Station P**	**1.57**	**177**	*e*P	**Pn**	**13 55 20.0**	**-0.6**
PB06				IAML		13 55 42.4	
	comp=Z,1μm,0.6s						
PB06	**IPOC Station P**	**1.57**	**177**	*e*P	**Pn**	**13 55 19.6**	**-1.0**
PB06				*e*S	**Sn**	**13 55 39.3**	**-0.9**
PB06				IAML		13 55 44.3	
	comp=E,2μm,0.4s						
PSGCX	**Pisagua**	**1.59**	**344**	*e*P	**Pn**	**13 55 19.4**	**-1.4**
PSGCX				IAML		13 55 46.9	
	comp=Z,537nm,0.3s						
PSGCX	**Pisagua**	**1.59**	**344**	*i*P	**Pn**	**13 55 19.3**	**-1.6**
PSGCX				*e*S	**Sn**	**13 55 39.6**	**-0.9**
PB05	**IPOC Station P**	**1.79**	**196**	*e*P	**Pn**	**13 55 22.2**	**-1.3**
PB05				*e*S	Sn	13 55 33.8	-12
PB05				IAML		13 55 51.0	
	comp=Z,714nm,0.6s						
PB05	**IPOC Station P**	**1.79**	**196**	*i*P	**Pn**	**13 55 21.9**	**-1.6**
PB05				*e*S	**Sn**	**13 55 44.1**	**-1.2**
PB05				IAML		13 55 50.5	
	comp=E,1μm,0.2s						
AF01	**San Pedro de A**	**2.27**	**143**	*e*P	**Pn**	**13 55 31.1**	**+0.8**
AF01				*e*S	**Sn**	**13 55 59.7**	**+2.4**
AF01				IAML		13 56 20.0	
	comp=Z,867nm,0.7s						
PB10	**IPOC Station P**	**2.51**	**199**	*e*P	**Pn**	**13 55 31.4**	**-1.8**
PB10				IAML		13 56 12.7	
	comp=Z,208nm,0.3s						
PB10	**IPOC Station P**	**2.51**	**199**	*e*P	**Pn**	**13 55 30.9**	**-2.4**
PB10				*e*S	**Sn**	**13 56 07.4**	**+4.6**
PB10				IAML		13 56 10.8	
	comp=E,435nm,0.7s						
PB12	**IPOC Station P**	**2.58**	**346**	*e*P	**Pn**	**13 55 32.9**	**-1.4**
PB12				*e*S	Sn	13 55 46.2	-18
PB12				IAML		13 56 10.7	
	comp=Z,396nm,0.6s						
PB12	**IPOC Station P**	**2.58**	**346**	*e*P	**Pn**	**13 55 32.5**	**-1.9**
PB16	**IPOC Station P**	**2.79**	**3**	*e*P	**Pn**	**13 55 38.3**	**+0.8**
PB16				IAML		13 56 16.3	
	comp=Z,190nm,0.5s						
PB16	**IPOC Station P**	**2.79**	**3**	*e*P	**Pn**	**13 55 37.6**	**+0.1**
PB16				*e*S	**Sn**	**13 56 14.1**	**+3.8**
PB16				IAML		13 56 19.7	
	comp=E,356nm,0.8s						
AP01	**Chacalluta**	**2.82**	**347**	*e*P	**Pn**	**13 55 37.6**	**+0.1**
AP01				*e*S	**Sn**	**13 56 12.8**	**+2.5**
AP01				IAML		13 56 20.6	
	comp=Z,342nm,0.4s						
AP01	**Chacalluta**	**2.82**	**347**	*e*P	**Pn**	**13 55 37.0**	**-0.4**
PB18	**Visviri**	**3.53**	**3**	*e*P	Pn	13 55 52.9	+5.3
PB14	**IPOC Station P**	**3.55**	**191**	*e*P	**Pn**	**13 55 46.4**	**-1.3**
PB14				*e*S	**Sn**	**13 56 31.7**	**+3.2**
PB14				IAML		13 56 42.6	
	comp=Z,151nm,0.6s						

*BKK **21** 14:04:43.1±1.1, 25.N±10.×9.8E±., h10km, M4.4/14, mB4.6/10, mb4.6/10, Mjma4.2/14, ML4.9/13, MLv4.8/10, Mw(mB)3.9/10*
*IDC **21** 14:04:47.6±0.8, 24.46N×98.89E, h0km, mb3.8/7, mbtmp3.7/8, ML3.9/1, Error ellipse: s-maj=40.3km s-min=11.2km az=80.0*
*GFZ **21** 14:04:49.9±0.5, 24.N±4.×9.8E±., h10km, M4.0/5, mb4.0/5, Error ellipse: s-maj=10.7km s-min=7.3km az=37.0, confirmed*
ISC 21 14:04:48.3±0.7, 24.45N±0.04×98.47E±0.07, h6km, n23, σ1s60/26, mb3.9/11, 1D, Myanmar-China border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNCH	**TengChong**	**0.57**	**5**	*i*Pg	**Pg**	**14 04 56.8**	**-2.6**
TNCH				Sg	**Sg**	**14 05 03.6**	**-3.3**
TNCH				smax	smax		
	comp=N,23μm,0.6s						
TNCH				smax	smax		
	comp=E,24μm,0.5s						
TNCH				LR	LR		
	comp=N,17μm,1.0s						
TNCH				LR	LR		
	comp=E,16μm,0.8s						
PZH	**PanZhiHua**	**3.59**	**55**	Pg	**Pb**	**14 05 52.9**	**+0.5**
PZH				Sg	**Sb**	**14 06 38.9**	**+2.6**
PZH				smax	smax		
	comp=N,370nm,1.0s						
PZH				smax	smax		
	comp=E,240nm,1.2s						
CHTO	**Chiang Mai**	**5.63**	**175**	P	**Pn**	**14 06 12.7**	**+0.1**
	comp=E,0.3nmcomp=E,0.5nmcomp=E,0.6nmcomp=E,274nm						
	comp=E,26nm,0.8s						
CHTO				AML	AML		
CHTO				AML	AML		
CHTO	**Chiang Mai**	**5.63**	**175**	P	**Pn**	**14 06 12.4**	**-0.2**
	comp=Z,26nm,0.8s						
SLVN	**Son La**	**5.90**	**121**	P	**Pn**	**14 06 16.0**	**-0.3**
	comp=Z,16nm,1.0s						
CMAR	**Chiang Mai Arr**	**5.98**	**176**	Pn	**Pn**	**14 06 17.8**	**+0.4**
	comp=Z,0.8nm,0.3s,baz=350,slow=13,SNR=7.9						
CMAR				Pg	**Pg**	**14 06 40.9**	**-2.1**
	comp=Z,2.2nm,0.3s,baz=347,slow=18,SNR=38						
CMAR				Lg	Lg	14 07 56.3	
	comp=Z,3.4nm,0.3s,baz=353,slow=28,SNR=7.6						
	comp=Z,1.4nm,0.4s						
CMAR				AML	AML		
CM15	**Chiang Mai Arr**	**5.99**	**176**	P	**Pn**	**14 06 18.0**	**+0.5**
CM15				AML	AML		
CM09	**Chiang Mai Arr**	**6.00**	**175**	P	**Pn**	**14 06 18.3**	**+0.6**
	comp=Z,0.5nmcomp=Z,0.4nmcomp=Z,334nmcomp=Z,42nm,0.8s						
CM09				AML	AML		
LAMP	**Lampang**	**6.00**	**169**	P	**Pn**	**14 06 17.9**	**+0.2**
	comp=Z,0.6nmcomp=Z,0.6nmcomp=Z,0.7nmcomp=Z,443nm						
	comp=Z,38nm,0.7s						
LAMP				AML	AML		
LAMP				AML	AML		
CM13	**Chiang Mai Arr**	**6.02**	**176**	P	**Pn**	**14 06 18.2**	**+0.3**
	comp=Z,0.4nmcomp=Z,0.4nmcomp=Z,23nm,0.8s						
CM13				AML	AML		
MHMT	**Maesarieng**	**6.27**	**185**	P	**Pn**	**14 06 22.0**	**+0.7**
	comp=Z,1.4nmcomp=Z,0.7nmcomp=Z,648nmcomp=Z,58nm,0.9s						
MHMT				AML	AML		
EVN	**Everest**	**11.03**	**291**	P	**Pn**	**14 07 25.9**	**-1.3**
	comp=Z,6.0nm,0.8s						
WMQ	**Urumqi**	**21.24**	**338**	*e*P	**P**	**14 09 36.8**	**+1.7**
WMQ				pmax	pmax		
	comp=Z,11nm,0.9s						
WUS	**Wushi**	**23.16**	**321**	P	**P**	**14 09 58.1**	**+2.4**
	comp=Z,5.2nm,1.1s						
SONM	**Songino Array**	**24.17**	**13**	P	**P**	**14 10 06.1**	**+0.7**
	comp=Z,3.3nm,0.6s,baz=185,slow=12,SNR=2.4						
	comp=Z,0.3nm,0.6s						
KSH2	**Kashi**	**24.27**	**313**	P	**P**	**14 10 08.3**	**+1.8**
KSH2				pmax	pmax		
	comp=Z,5.0nm,1.5s						
ASAI	**AK-SAY(Kyrgyzs**	**24.61**	**317**	P	**P**	**14 10 10.0**	**+0.2**
	comp=Z,3.5nm,1.6s						
MKAR	**Makanchi Array**	**25.78**	**334**	P	**P**	**14 10 21.3**	**+1.3**
	comp=Z,0.7nm,0.6s,baz=152,slow=12,SNR=5.0						
	comp=Z,0.7nm,0.6s						
ZALV	**Zalesovo Beam**	**31.18**	**344**	P	**P**	**14 11 09.2**	**+1.2**
	comp=Z,1.3nm,0.7s,baz=171,slow=10,SNR=5.3						
	comp=Z,1.3nm,0.7s						
BVAR	**Borovoye Array**	**35.53**	**331**	P	**P**	**14 11 47.3**	**+1.4**
	comp=Z,2.1nm,1.1s,baz=140,slow=12,SNR=4.9						
	comp=Z,2.1nm,1.1s						
WRA	**Warramunga Arr**	**56.28**	**138**	P	**P**	**14 14 27.7**	**-2.2**
	comp=Z,1.1nm,0.6s,baz=326,slow=7.4,SNR=9.9						
	comp=Z,1.1nm,0.6s						
ASAR	**Alice Springs**	**58.90**	**142**	P	**P**	**14 14 47.1**	**-1.3**
	comp=Z,0.3nm,0.6s,baz=326,slow=6.7,SNR=7.1						
	comp=Z,0.3nm,0.6s						
FINES	**FINESS Array B**	**60.43**	**328**	P	**P**	**14 14 59.9**	**+1.5**
	comp=Z,5.9nm,1.1s,baz=177,slow=10,SNR=1.5						
	comp=Z,5.9nm,1.1s						

*IDC **21** 14:11:30.4±0.8, 4.13N×127.07E, h0km, mb3.7/11, mbtmp3.7/11, MS2.8/3, Error ellipse: s-maj=48.0km s-min=15.3km az=68.0*
*MAN **21** 14:11:36.0, 3.41N×125.49E, h161km, MS3.7*
ISC 21 14:11:42.2±1.2, 4.2N±0.2×127.3E±0.3, h100km, n16, σ1s73/7, mb3.7/11, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KCP	**Kidapawan**	**3.58**	**321**	*e*P	Pn	14 12 37.1	+1.3
KCP				*i*S	**Sn**	**14 13 17.5**	**+0.3**
BIPH	**Bislig**	**4.08**	**346**	*e*P	Pn	14 12 46.2	+3.7
BIPH				*e*S	**Sn**	**14 13 29.5**	**+0.3**
KAPI	**Kappang**	**11.88**	**220**	LR	LR	14 18 58.7	
	comp=Z,38nm,22.0s,baz=68,slow=38						
GUMO	**Guam**	**19.66**	**61**	LR	LR	14 23 09.4	
	comp=Z,11nm,20.9s,baz=76,slow=35						
WRA	**Warramunga Arr**	**24.96**	**164**	P	**P**	**14 16 55.4**	**-1.1**
	0.9nm,0.6s,baz=343,slow=10,SNR=12						
	0.9nm,0.6s						
ASAR	**Alice Springs**	**28.43**	**167**	P	P	14 17 26.9	-0.8
	0.2nm,0.6s,baz=347,slow=11,SNR=8.4						
ASAR				PcP	**PcP**	**14 20 39.5**	**+1.7**
	0.2nm,0.6s,baz=349,slow=2.3,SNR=2.2						
	0.2nm,0.6s						
CMAR	**Chiang Mai Arr**	**31.16**	**299**	P	P	14 17 50.5	-1.5
	1.0nm,0.6s,baz=113,slow=6.6,SNR=7.5						
	1.0nm,0.6s						
KSRS	**Korea Array**	**33.10**	**1**	P	P	14 18 10.1	+1.5
	0.4nm,0.5s,baz=187,slow=9.1,SNR=2.0						
	0.4nm,0.5s						
STKA	**Stephens Creek**	**38.36**	**160**	P	P	14 18 53.8	+0.1
	0.7nm,0.4s,baz=338,slow=7.5,SNR=4.1						
	0.7nm,0.4s						
SONM	**Songino Array**	**47.05**	**341**	P	**P**	**14 20 02.5**	**-1.4**
	0.3nm,0.6s,baz=96,slow=4.5,SNR=2.2						
SONM				PcP	**PcP**	**14 21 36.7**	**+2.3**
	0.2nm,0.4s,baz=107,slow=2.0,SNR=2.9						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	**57.52**	**325**	P	P	14 21 20.6	-0.6
	0.5nm,0.5s,baz=119,slow=7.5,SNR=12						
	0.5nm,0.5s						
YAK	**Yakutsk**	**57.73**	**1**	LR	LR	14 49 31.9	
	comp=Z,31nm,18.7s,baz=338,slow=40						
ZALV	**Zalesovo Beam**	**60.45**	**333**	P	**P**	**14 21 40.5**	**-0.7**
	0.3nm,0.4s,baz=121,slow=11,SNR=1.4						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**61.67**	**327**	P	P	14 21 49.1	-0.5
	0.5nm,0.4s,baz=127,slow=6.8,SNR=8.0						
	0.5nm,0.4s						
BVAR	**Borovoye Array**	**67.26**	**327**	P	P	14 22 26.3	+0.3
	0.8nm,0.6s,baz=133,slow=5.8,SNR=4.2						
	0.8nm,0.6s						
ILAR	**Eielson Array**	**84.42**	**25**	P	P	14 24 05.1	+1.8
	0.6nm,0.9s,baz=272,slow=7.4,SNR=3.0						
	0.6nm,0.9s						

DJA 21 14:33:34.7±1.8, 11.S±16.×11.9E±., h10km, M4.2/7, mB4.5/2, mb4.5/3, MLv4.0/7, Mw(mB)3.7/2, South of Sumbawa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PLAI	**Plampang**	**2.01**	**339**	P	Pn	14 34 08.1	-0.6
PLAI				S	Sn	14 34 29.6	-4.4
PLAI				AML	AML		
WSI	**Waingapu**	**2.06**	**60**	P	Pn	14 34 09.9	+0.6
WSI				S	Sn	14 34 35.1	+0.1
WSI				AML	AML		
DBNI	**Kabupaten Domp**	**2.21**	**355**	P	Pn	14 34 10.4	-1.1
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**2.61**	**32**	P	Pn	14 34 16.9	-0.1
EDFI	**Ende, Flores**	**3.70**	**58**	P	Pn	14 34 31.0	-1.1
EDFI				AML	AML		
BKSI	**Bulukumba**	**5.60**	**17**	P	Pn	14 34 58.1	0.0
	0.2nm509nm21nm,0.7s						
BKSI				AML	AML		
GTOI	**Gorontalo**	**12.14**	**22**	P	Pn	14 36 34.2	+6.3

*MAN **21** 14:35:02.0, 6.07N×126.22E, h133km, MS3.8*
*IDC **21** 14:35:03.4±0.7, 6.10N×125.92E, h156km±5km, mb3.5/13, mbtmp3.9/13, Error ellipse: s-maj=29.3km s-min=11.4km az=78.0*
ISC 21 14:35:02.9±1.0, 6.06N±0.08×126.0E±0.1, h151km±8km, n19, σ0s94/26, mb3.8/13, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.06**	**271**	*i*P	**Pn**	**14 35 28.3**	**-0.1**
GSPH				*i*S	**Sn**	**14 35 47.7**	**-0.1**
DAV	**Davao City (W)**	**1.09**	**337**	P	**Pn**	**14 35 28.7**	**+0.2**
	301nm,0.5s,baz=112,slow=4.7,SNR=9.7						
DAV				S	**Sn**	**14 35 48.8**	**+0.7**
	435nm,0.3s,baz=179,slow=22,SNR=5.9						
DMPH	**Davao City--Mi**	**1.13**	**334**	*e*P	**Pn**	**14 35 28.5**	**-0.4**
DMPH				*i*S	**Sn**	**14 35 48.3**	**-0.5**
KCP	**Kidapawan**	**1.32**	**316**	*i*P	**Pn**	**14 35 31.1**	**+0.4**
KCP				*i*S	**Sn**	**14 35 52.2**	**+0.2**
BIPH	**Bislig**	**2.13**	**9**	*e*P	**Pn**	**14 35 41.0**	**+1.3**
BIPH				*e*S	**Sn**	**14 36 06.2**	**-1.7**
CGP	**Cagayan de Oro**	**2.71**	**331**	*e*P	**Pn**	**14 35 49.1**	**+2.4**
CGP				*e*S	**Sn**	**14 36 20.4**	**-0.2**
WRA	**Warramunga Arr**	**27.11**	**163**	P	**P**	**14 40 32.1**	**+0.2**
	0.4nm,0.4s,baz=344,slow=10.0,SNR=5.5						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**30.54**	**166**	P	**P**	**14 41 03.5**	**+1.2**
	0.6nm,0.4s,baz=346,slow=7.3,SNR=22						
ASAR				PcP	**PcP**	**14 43 58.2**	**+0.5**
	0.2nm,0.7s,baz=353,slow=2.6,SNR=1.9						
	0.6nm,0.4s						
KSRS	**Korea Array**	**31.29**	**3**	P	**P**	**14 41 09.2**	**+0.5**
	0.9nm,0.7s,baz=171,slow=8.3,SNR=2.6						
	0.9nm,0.7s						
USRK	**Ussuriysk Ar.**	**38.34**	**7**	P	**P**	**14 42 08.1**	**-1.0**
	1.9nm,0.7s,baz=207,slow=9.1,SNR=4.2						
	1.9nm,0.7s						
STKA	**Stephens Creek**	**40.55**	**159**	P	**P**	**14 42 28.1**	**+0.6**
	2.0nm,0.7s,baz=345,slow=10.0,SNR=5.9						
	2.0nm,0.7s						
ASAJ	**Asahikawa**	**40.60**	**18**	P	**P**	**14 42 27.9**	**+0.2**
	3.3nm,0.6s,baz=264,slow=9.2,SNR=1.1						
	3.3nm,0.6s						
PETK	**Petropavlovsk-**	**53.56**	**23**	P	**P**	**14 44 08.8**	**+0.7**
	1.7nm,0.7s,baz=241,slow=1.5,SNR=4.1						
	1.7nm,0.7s						
MKAR	**Makanchi Array**	**55.25**	**325**	P	**P**	**14 44 19.8**	**-0.7**
	0.5nm,0.4s,baz=118,slow=7.2,SNR=13						
	0.5nm,0.4s						
ZALV	**Zalesovo Beam**	**58.20**	**333**	P	**P**	**14 44 40.1**	**-0.9**
	0.5nm,0.3s,baz=132,slow=7.7,SNR=2.5						
	0.5nm,0.3s						
KURBB	**Kurchatov Arra**	**59.41**	**327**	P	**P**	**14 44 49.1**	**-0.3**
	0.5nm,0.4s,baz=130,slow=7.3,SNR=9.6						
	0.5nm,0.4s						
BVAR	**Borovoye Array**	**64.99**	**327**	P	**P**	**14 45 26.0**	**-0.6**
	0.4nm,0.4s,baz=119,slow=5.6,SNR=2.7						
	0.4nm,0.4s						
ILAR	**Eielson Array**	**83.32**	**26**	P	**P**	**14 47 11.4**	**-1.2**
	0.8nm,0.6s,baz=242,slow=4.7,SNR=17						
	0.8nm,0.6s						
MAW	**Mawson**	**85.69**	**200**	P	**P**	**14 47 23.5**	**-0.8**
	0.9nm,0.4s,baz=55,slow=10.0,SNR=16						
	0.9nm,0.4s						

IDC 21 14:38:22.8±3.5, 32.39S×177.90W, h0km, mb3.8/3, mbtmp3.8/4, ML3.2/1, Error ellipse: s-maj=75.7km s-min=38.6km az=115.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**7.13**	**213**	Pn	Pn	14 40 08.0	-0.4
	0.4nm,0.3s,baz=332,slow=18,SNR=1.3						
URZ				Sn	Sn	14 41 29.6	-0.6
	baz=148,slow=19						
	3.8nm,0.6s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.13**	**269**	P	P	14 46 25.4	+0.2
	0.5nm,0.5s,baz=106,slow=6.9,SNR=13						
	0.5nm,0.5s						
WRA	**Warramunga Arr**	**44.29**	**274**	P	P	14 46 34.6	-0.1
	0.6nm,0.3s,baz=113,slow=8.0,SNR=25						
	0.6nm,0.3s						
FITZ	**Fitzroy Crossi**	**52.47**	**271**	P	P	14 47 37.4	-0.3
	1.7nm,0.9s,baz=113,slow=7.7,SNR=3.1						
	1.7nm,0.9s						
FINES	**FINESS Array B**	**147.04**	**339**	PKPbc	PKPbc	14 58 05.9	-0.9
	8.1nm,1.1s,baz=48,slow=4.1,SNR=2.4						

*MOS **21** 14:45:40.1±1.6, 44.93N×147.19E, h155km, mb4.0/5, Error ellipse: s-maj=10.1km s-min=8.2km az=100.4*
*NEIC **21** 14:45:40.0±2.0, 45.1N±0.1×147.2E±0.1, h137km±9km, mb4.3/6, Error ellipse: s-maj=16.2km s-min=12.8km az=171.0*
*SKHL **21** 14:45:40.9±0.9, 44.70N×147.20E, h145km±5km, mb5.2/4, msha5.4/4*
*NIED **21** 14:45:41.3, 44.52N×147.29E, h158km, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}3.05; $M_{\theta\theta}$-0.61; $M_{\phi\phi}$-2.44; $M_{r\theta}$5.29; $M_{\theta\phi}$1.25; $M_{\phi r}$6.27; Fault plane solution: $M_0$8.49000×10^{14} NP1: ϕ_s160.00000°, δ11.00000°, λ36.00000°. NP2:ϕ_{ss}35.00000°, δ83.00000°, λ99.

YUK	Yuzh-Kuril'sk	1.20 235	*d*	*i*	PN	Pn	14 46 08.0	+0.1
YUK				*i*	S	Sn	14 46 28.4	-0.4
YUK					pmax	pmax		
	comp=Z,2µm,0.2s							
YUK					pmax	pmax		
	comp=N,170nm,0.1s							
YUK					smax	smax		
	comp=N,4µm,0.5s							
YUK					smax	smax		
	comp=E,2µm,0.5s							
YUK					smax	smax		
	comp=E,3µm,1.0s							
YUK					smax	smax		
	comp=N,7µm,0.9s							
YUK	**Yuzh-Kuril'sk**	**1.20 235**		*i*	P	**Pn**	**14 46 08.0**	**+0.1**
YUK					AMB	AMB	14 46 08.7	
	comp=N,1µm,0.3s							
YUK				*e*	S	**Sn**	**14 46 28.3**	**-0.5**
YUK					A	A	14 46 32.4	
	comp=N,4µm,0.5s							
YUK					A	A	14 46 32.4	
	comp=N,4µm,0.5s							
RUSJ	**Misakicho**	**1.55 247**	⇓	*i*	PN	**Pn**	**14 46 11.7**	**+0.4**
RUSJ				*i*	S	**Sn**	**14 46 40.2**	**+5.3**
JRA	**Rausu**	**1.70 243**			P	**Pn**	**14 46 13.2**	**+0.3**
JRA				*e*	S	**Sn**	**14 46 42.8**	**+5.0**
NEM2	**Nemuro 2**	**1.73 219**			P	**Pn**	**14 46 12.5**	**-0.8**
NEM2					S	**Sn**	**14 46 35.4**	**-3.0**
NMR	**Nemuro--Hokkai**	**1.74 219**	⇓	*i*	PN	**Pn**	**14 46 12.4**	**-0.9**
NMR	**Nemuro--Hokkai**	**1.74 219**		*e*	P	**Pn**	**14 46 12.5**	**-0.9**
NMR				*e*	S	**Sn**	**14 46 35.2**	**-3.3**
JNSB	**Nemuroshibetsu**	**1.86 240**			P	**Pn**	**14 46 15.2**	**+0.5**
JNSB					S	**Sn**	**14 46 41.8**	**+0.9**
JNK	**Nakash**	**2.14 238**			P	**Pn**	**14 46 18.2**	**+0.3**
JNK				*e*	S	**Sn**	**14 46 47.2**	**+0.7**
JKHN	**Kushirohamanak**	**2.22 223**		*i*	P	**Pn**	**14 46 18.2**	**-0.6**
JKHN					S	**Sn**	**14 46 45.7**	**-2.6**
JTKR	**Abashiri--Toko**	**2.50 253**			P	**Pn**	**14 46 22.5**	**+0.4**
JTKR				*e*	S	**Sn**	**14 46 54.7**	**+0.6**
JAK	**Akkeshi**	**2.52 227**			P	**Pn**	**14 46 21.9**	**-0.5**
JAK					S	**Sn**	**14 46 52.6**	**-2.0**
JMP	**Maruseppu**	**2.86 257**			P	**Pn**	**14 46 27.2**	**+0.6**
JAR	**Ashorobuto**	**2.88 241**			P	**Pn**	**14 46 27.6**	**+0.9**
JAR					A	A	14 46 27.6	
	comp=N,2.0nm,6.3s,comp=E,2.0nm,5.6s							
JAR				*e*	S	**Sn**	**14 47 04.4**	**+2.0**
JKK2	**Kamakawa 2**	**3.33 257**			P	**Pn**	**14 46 33.5**	**+1.1**
JKK2				*e*	S	**Sn**	**14 47 14.5**	**+1.9**
JKA	**Kamikawa-asahi**	**3.37 261**				**Pn**	**14 46 33.7**	**+0.8**
JKA					Sn	**Sn**	**14 47 12.2**	**-1.4**
JKA	**Kamikawa-asahi**	**3.37 261**		*e*	P	**Pn**	**14 46 34.4**	**+1.4**
ASAJ	**Asahikawa**	**3.37 261**			P	**Pn**	**14 46 34.4**	**+1.4**
	comp=E,164nm,0.6s,baz=82,slow=18,SNR=208							
ASAJ					S	**Sn**	**14 47 15.0**	**+1.4**
	comp=E,32nm,0.7s,baz=23,slow=25,SNR=4.7							
JCH	**Churui**	**3.51 234**			P	**Pn**	**14 46 34.5**	**-0.3**
JCH					S	**Sn**	**14 47 14.7**	**-2.1**
YSS	**Yuzhno-Sakhali**	**3.83 307**		*e*	PN	**Pn**	**14 46 39.9**	**+1.0**
YSS				*e*	S	**Sn**	**14 47 25.3**	**+1.1**
YSS					pmax	pmax		
	comp=Z,30nm,1.1s							
YSS					smax	smax		
	comp=E,20nm,0.9s							
YSS					smax	smax		
	comp=E,20nm,0.8s							
YSS	**Yuzhno-Sakhali**	**3.83 307**				**Pn**	**14 46 36.3**	**-2.5**
YSS	**Yuzhno-Sakhali**	**3.83 307**		*e*	P	**Pn**	**14 46 39.7**	**+0.8**
ERM	**Erimo**	**4.02 229**			PN	**Pn**	**14 46 41.9**	**+0.6**
ERM	**Erimo**	**4.02 229**				**Pn**	**14 46 41.9**	**+0.6**
JEW	**Eniwo**	**4.59 248**		*e*	P	**Pn**	**14 46 50.0**	**+1.2**
JTM	**Tenmabayashi**	**6.00 231**		Pn	Pn	**Pn**	**14 47 05.5**	**-2.0**
PEA0B	**Petropavlovsk-**	**10.84 36**		PN	Pn	**Pn**	**14 48 07.2**	**-4.2**
PEA0B	**Petropavlovsk-**	**10.84 36**		Pn	Pn	**Pn**	**14 48 07.2**	**-4.2**
PETK	**Petropavlovsk-**	**10.84 36**		P	Pn	**Pn**	**14 48 10.8**	**-0.6**
	comp=E,1.6nm,0.6s,baz=176,slow=12,SNR=6.7							
PETK					LR	LR	14 52 22.2	
	comp=E,27nm,19.5s,baz=107,slow=38							
PETK	**Petropavlovsk-**	**10.84 36**				**Pn**	**14 48 07.3**	**-4.1**
USA0B	**Ussuriysk Arra**	**10.91 273**		PN		**Pn**	**14 48 10.4**	**-1.9**
USA0B	**Ussuriysk Arra**	**10.91 273**		Pn		**Pn**	**14 48 10.4**	**-1.9**
USRK	**Ussuriysk Ar.**	**10.91 273**		P		**Pn**	**14 48 12.2**	**-0.1**
	comp=E,3.4nm,0.8s,baz=88,slow=13,SNR=6.4							
USRK	**Ussuriysk Ar.**	**10.91 273**				**Pn**	**14 48 08.1**	**-4.2**
KLR	**Kul'dur**	**11.48 299**		P		**Pn**	**14 48 19.4**	**-0.4**
	comp=E,2.4nm,0.9s,baz=108,slow=16,SNR=4.9							
KLR	**Kul'dur**	**11.48 299**	*e*	*i*	PN	**Pn**	**14 48 20.6**	**+0.8**
KLR	**Kul'dur**	**11.48 299**		*i*	P	**Pn**	**14 48 20.7**	**+0.9**
HEH	**HeiHe**	**14.47 299**		*e*	P	**P**	**14 48 59.0**	**-1.1**
HEH					pmax	pmax		
	comp=Z,9.0nm,0.6s							
ZEA	**Zeya**	**15.81 312**		*e*	P	**P**	**14 49 15.6**	**+0.7**
HILR	**Hailar Array B**	**19.25 294**			P	**P**	**14 49 50.8**	**-1.9**
	comp=Z,1.6nm,0.3s,baz=96,slow=12,SNR=4.8							
YAK	**Yakutsk**	**20.12 336**			P	**P**	**14 49 58.8**	**-3.1**
	comp=Z,25nm,0.7s,baz=141,slow=0.8,SNR=9.6							
YAK	**Yakutsk**	**20.12 336**		*e*	P	**P**	**14 49 59.2**	**-2.6**
YAK				*e*	S	**S**	**14 53 36.3**	**-2.5**
YAK					pmax	pmax		
	comp=Z,18nm,0.9s							
YAK					pmax	pmax		
	comp=N,7.0nm,1.5s							
YAK					smax	smax		
	comp=E,74nm,3.2s							
YAK					smax	smax		
	comp=N,62nm,2.3s							
YAK	**Yakutsk**	**20.12 336**				**P**	**14 49 59.5**	**-2.3**
YAK	**Yakutsk**	**20.12 336**		*e*	P	**P**	**14 49 59.2**	**-2.6**
BILL	**Bilibino**	**25.40 17**		*i*	P	**P**	**14 50 54.5**	**+1.6**
BILL					pmax	pmax		
	comp=Z,3.0nm,1.1s							
BILL	**Bilibino**	**25.40 17**		*e*	P	**P**	**14 50 54.5**	**+1.6**
SONM	**Songino Array**	**28.16 291**			P	**P**	**14 51 18.3**	**+0.4**
	comp=Z,1.5nm,0.4s,baz=85,slow=8.8,SNR=14							
	comp=Z,1.5nm,0.4s							
SONM	**Songino Array**	**28.16 291**		P		**P**	**14 51 17.2**	**-0.7**
H11N2	**WAKE ISLAND Hy**	**29.82 140**		T		T	15 22 45.4	
	baz=330,slow=75,SNR=101							
H11N1	**WAKE ISLAND Hy**	**29.83 140**		T		T	15 22 51.7	
	baz=330,slow=75,SNR=131							
H11N3	**WAKE ISLAND Hy**	**29.83 140**		T		T	15 22 46.7	
	baz=330,slow=75,SNR=103							
H11S1	**WAKE ISLAND Hy**	**30.80 142**		T		T	15 23 58.8	
	baz=331,slow=76,SNR=183							
H11S3	**WAKE ISLAND Hy**	**30.80 142**		T		T	15 23 58.0	
	baz=331,slow=76,SNR=158							
H11S2	**WAKE ISLAND Hy**	**30.82 142**		T		T	15 23 58.6	
	baz=331,slow=76,SNR=135							
GTA2	**Gaotai**	**35.20 278**		P		**P**	**14 52 21.0**	**+1.4**
GTA2					pmax	pmax		
	comp=Z,8.0nm,0.8s							
NRIK	**Noril'sk**	**38.42 330**		*i*	P	**P**	**14 52 45.9**	**-0.3**
NRIK					pmax	pmax		
	comp=Z,3.0nm,1.2s							
ZALV	**Zalesovo Beam**	**40.46 306**		P		**P**	**14 53 03.7**	**+0.5**
	comp=Z,0.6nm,0.5s,baz=89,slow=7.6,SNR=2.9							
	comp=Z,0.6nm,0.5s							
ILAR	**Eielson Array**	**40.67 37**		P		**P**	**14 53 06.3**	**+1.5**
	comp=Z,0.5nm,0.5s,baz=274,slow=9.3,SNR=7.1							
	comp=Z,0.5nm,0.5s							
MKAR	**Makanchi Array**	**44.18 297**		P		**P**	**14 53 34.2**	**+0.8**
	comp=Z,3.5nm,0.6s,baz=80,slow=7.2,SNR=34							
	comp=Z,3.5nm,0.6s							
MKAR	**Makanchi Array**	**44.18 297**		P		**P**	**14 53 33.8**	**+0.3**
KURK	**Kurchatov**	**45.03 303**		*i*	P	**P**	**14 53 40.8**	**+0.7**
KURK					pmax	pmax		
	comp=Z,1.0nm,1.1s							
KURK	**Kurchatov**	**45.03 303**			P	**P**	**14 53 39.7**	**-0.4**
KURK					IAmb	IAmb	14 54 04.1	
	comp=Z,2.4nm,0.6s							
KURK	**Kurchatov**	**45.03 303**		*e*	P	**P**	**14 53 40.8**	**+0.7**
KURBB	**Kurchatov Arra**	**45.12 303**		P		**P**	**14 53 40.3**	**-0.5**
	comp=Z,0.6nm,0.3s,baz=71,slow=9.2,SNR=4.1							
	comp=Z,0.6nm,0.3s							
BVAR	**Borovoye Array**	**48.93 309**		P		**P**	**14 54 11.2**	**+1.0**
	comp=Z,1.2nm,0.5s,baz=79,slow=10,SNR=2.8							
	comp=Z,1.2nm,0.5s							
KDJ	**Kajisay**	**49.48 293**		P		**P**	**14 54 14.9**	**+0.1**
KDJ					pmax	pmax		
	comp=Z,5.0nm,0.6s							
KDJ	**Kajisay**	**49.48 293**		P		**P**	**14 54 14.9**	**+0.1**
KDJ					IAmb	IAmb	14 54 17.5	
	comp=Z,4.8nm,0.6s							
KKAR	**Karatay Array**	**53.31 297**		P		**P**	**14 54 42.4**	**-0.7**
KKAR	**Karatay Array**	**53.31 297**				**P**	**14 54 42.4**	**-0.7**
AB31	**Akbulak array**	**56.49 308**				**P**	**14 55 04.5**	**-1.2**
AB31					IAmb	IAmb	14 55 07.7	
	comp=Z,4.3nm,1.2s							
ARCES	**ARCESS Array B**	**58.35 339**		P		**P**	**14 55 17.1**	**-1.4**
	comp=Z,3.3nm,0.9s,baz=39,slow=7.8,SNR=5.7							
	comp=Z,3.3nm,0.9s							
FINES	**FINESS Array B**	**64.03 333**		P		**P**	**14 55 55.2**	**-1.5**
	comp=Z,3.9nm,0.6s,baz=46,slow=6.0,SNR=24							
	comp=Z,3.9nm,0.6s							
FINES	**FINESS Array B**	**64.03 333**		P		**P**	**14 55 55.5**	**-1.2**
FINES	**FINESS Array B**	**64.03 333**		P		**P**	**14 55 55.5**	**-1.2**
OBN	**Obninsk**	**64.56 323**	⇑	*e*	P	**P**	**14 56 02.4**	**+2.1**
OBN				*e*	*e*PP	**pwP**	**14 56 43.0**	**+2.2**
OBN				*e*	*e*		14 58 24.1	
OBN				*e*	PPP	PPP	14 59 57.8	
OBN					pmax	pmax		
	comp=Z,4.0nm,0.9s							
OBN	**Obninsk**	**64.56 323**		*e*	P	**P**	**14 56 02.4**	**+2.1**
WRA	**Warramunga Arr**	**65.43 193**			P	P	14 56 11.6	+5.4
	comp=Z,0.8nm,1.2s,baz=7.9,slow=6.6,SNR=2.0							
	comp=Z,0.8nm,1.2s							
NVAR	**Mina Array Bea**	**67.01 58**		P		**P**	**14 56 18.7**	**+2.1**
	comp=Z,1.0nm,0.7s,baz=293,slow=7.5,SNR=7.2							
	comp=Z,1.0nm,0.7s							
NVAR	**Mina Array Bea**	**67.01 58**		P		**P**	**14 56 17.1**	**+0.5**
NOA	**NORSAR Array B**	**68.71 339**		P		**P**	**14 56 26.0**	**-0.6**
	comp=Z,0.9nm,0.7s,baz=28,slow=6.4,SNR=1.8							
	comp=Z,0.9nm,0.7s							
NOA	**NORSAR Array B**	**68.71 339**		P		**P**	**14 56 26.0**	**-0.6**
HFS	**Hagfors**	**68.81 337**		P		**P**	**14 56 26.2**	**-0.9**
	comp=Z,2.4nm,0.7s,baz=14,slow=9.2,SNR=5.1							
	comp=Z,2.4nm,0.7s							
ASAR	**Alice Springs**	**69.15 193**		P		P	14 56 35.0	+5.4
	comp=Z,0.3nm,0.7s,baz=11,slow=6.9,SNR=4.3							
	comp=Z,0.3nm,0.7s							
ASAR	**Alice Springs**	**69.15 193**		P		P	14 56 35.0	+5.4
ASAR	**Alice Springs**	**69.15 193**		P		**P**	**14 56 33.5**	**+3.9**
KBZ	**Khabaz**	**69.19 311**		P		**P**	**14 56 31.3**	**+1.5**
	comp=Z,5.6nm,0.8s,baz=73,slow=4.0,SNR=14							
	comp=Z,5.6nm,0.8s							
PDAR	**Pinedale Array**	**69.24 50**		P		**P**	**14 56 32.1**	**+1.7**
	comp=Z,0.5nm,0.6s,baz=244,slow=1.6,SNR=6.0							
	comp=Z,0.5nm,0.6s							
SHA1	**Shidzhatmaz**	**69.31 311**		*i*	P	**P**	**14 56 32.2**	**+1.4**
AKASG	**Malin Array Be**	**70.82 324**		P		**P**	**14 56 39.5**	**-0.1**
	comp=Z,0.8nm,0.3s,baz=43,slow=6.7,SNR=6.7							
	comp=Z,0.8nm,0.3s							
BUR08	**Bucovina Ar. S**	**74.86 324**				**P**	**14 57 04.2**	**+0.6**
BUR08					IAmb	IAmb	14 57 04.9	
	comp=Z,3.6nm,0.6s							
DPC	**Dobruska-Polom**	**76.14 330**		*e*	P	**P**	**14 57 12.1**	**+1.4**
KRLC	**Kraliky**	**76.20 330**		*e*	P	**P**	**14 57 12.1**	**+1.0**
CLL	**Collm**	**76.47 332**		*i*	P	**P**	**14 57 12.9**	**+0.4**
BRTR	**Keskin Array B**	**76.91 313**		P		**P**	**14 57 16.1**	**+0.7**
	comp=Z,0.6nm,0.7s,baz=52,slow=6.4,SNR=3.5							
	comp=Z,0.6nm,0.7s							
KHC	**Kasperske Hory**	**78.13 331**		*e*	P	**P**	**14 57 22.7**	**+0.9**
CKRC	**Cesky Krumlov**	**78.14 330**		*e*	P	**P**	**14 57 23.1**	**+1.2**
GERES	**GERESS Array B**	**78.33 331**		P		**P**	**14 57 23.9**	**+0.9**
	comp=Z,1.3nm,0.5s,baz=42,slow=5.5,SNR=8.3							
	comp=Z,1.3nm,0.5s							
TXAR	**Lajitas Array**	**82.06 56**		P		**P**	**14 57 45.2**	**+1.9**
	comp=Z,0.6nm,0.5s,baz=303,slow=3.8,SNR=10							
	comp=Z,0.6nm,0.5s							

*IDC **21** 14:46:34.7±5.9, 14°.58S×167°.46E, h152km±58km, mb3.6/8, mbtmp4.1/9, MS3.3/1, Error ellipse: s-maj=54.6km s-min=28.4km az=155.0*

ISC 21 14:46:34.0±1.3, 14°.7S±0°.1×167°.6E±0°.2, h150km, n9, σ1§48/11, mb4.0/8, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**7.41**	**188**	P		**Pn**		**14 48 20.6**	**+1.1**
	4.6nm,0.3s,baz=130,slow=11,SNR=3.6								
DZM				S		**Sn**		**14 49 40.4**	**-2.0**
	5.4nm,0.6s,baz=141,slow=23,SNR=1.8								
CTA	**Charters Tower**	**21.01**	**252**	P		**P**		**14 51 06.8**	**+0.9**
	4.9nm,0.9s,baz=44,slow=14,SNR=2.1								
	4.9nm,0.9s								
STKA	**Stephens Creek**	**29.22**	**230**	P		**P**		**14 52 23.2**	**+1.5**
	3.0nm,0.5s,baz=56,slow=9.2,SNR=18								
	3.0nm,0.5s								
WRA	**Warramunga Arr**	**32.10**	**256**	P		**P**		**14 52 46.8**	**-0.4**
	1.1nm,0.9s,baz=86,slow=8.9,SNR=7.9								
	1.1nm,0.9s								
ASAR	**Alice Springs**	**32.94**	**249**	P		**P**		**14 52 54.1**	**-0.4**
	1.8nm,0.5s,baz=79,slow=9.2,SNR=71								
ASAR				PcP		**PcP**		**14 55 33.9**	**-1.5**
	0.1nm,0.8s,baz=84,slow=1.9,SNR=3.1								
	1.8nm,0.5s								
FITZ	**Fitzroy Crossi**	**40.29**	**259**	P		**P**		**14 53 57.4**	**+0.6**
	3.5nm,0.6s,baz=90,slow=10,SNR=22								
FITZ				LR		LR		15 09 09.9	
	comp=Z,38nm,19.1s,baz=138,slow=34								
	3.5nm,0.6s								
CMAR	**Chiang Mai Arr**	**75.19**	**294**	P		**P**		**14 57 59.4**	**-1.1**
	0.2nm,0.3s,baz=119,slow=5.2,SNR=1.2								
	0.2nm,0.3s								
ILAR	**Eielson Array**	**86.42**	**18**	P		**P**		**14 59 00.5**	**+1.5**
	0.6nm,0.8s,baz=232,slow=4.4,SNR=5.2								
	0.6nm,0.8s								
MKAR	**Makanchi Array**	**97.37**	**316**	P		**P**		**14 59 48.7**	**-1.7**
	0.6nm,0.8s,baz=98,slow=5.6,SNR=1.5								
	0.6nm,0.8s								

*JMA **21** 14:57:30.6±0.4, 44°.N±2°.×14°.4E±°, h178km±3km, MV2.6/19, ABASHIRI REGION*
*SKHL **21** 14:57:31.3±0.5, 43°.90N×144°.30E, h141km±6km, mb4.1/2, msha4.4/2*

ISC 21 14:57:28.0±3.5, 43°.9N±0°.1×144°.26E±0°.07, h187km±22km, n11, σ1§42/22, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JMP	**Maruseppu**	**0.66**	**283**	P		**Pn**		**14 57 55.4**	**+1.1**
JMP				S		**Sn**		**14 58 14.0**	**-0.7**
JAR	**Ashorobuto**	**0.67**	**212**	P		**Pn**		**14 57 55.7**	**+1.3**
JAR				*e*S		**Sn**		**14 58 15.2**	**+0.5**
JAK	**Akkeshi**	**0.92**	**159**	P		**Pn**		**14 57 57.0**	**+1.1**
JAK				S		**Sn**		**14 58 17.4**	**0.0**
AKK	**Akkeshi**	**0.94**	**153**	*e*P		**Pn**		**14 57 56.7**	**+0.7**
AKK				*e*S		**Sn**		**14 58 15.7**	**-1.9**
JOB	**Onbets**	**1.00**	**198**	P		**Pn**		**14 57 57.7**	**+1.2**
JOB				S		**Sn**		**14 58 17.8**	**-0.5**
JKHN	**Kushirohamanak**	**1.02**	**139**	P		**Pn**		**14 57 59.4**	**+1.3**
JKHN				S		**Sn**		**14 58 18.5**	**0.0**
YUK	**Yuzh-Kuril'sk**	**1.17**	**81**	*e*P		**Pn**		**14 57 57.8**	**+0.1**
YUK				AMB		AMB		14 57 58.4	
	80nm,0.3s								
YUK				*e*S		**Sn**		**14 58 17.6**	**-3.0**
YUK				A		A		14 58 22.7	
	110nm,0.4s								
YUK				A		A		14 58 22.7	
	80nm,0.4s								
NMR	**Nemuro--Hokkai**	**1.18**	**114**	*e*P		**Pn**		**14 57 59.4**	**+1.7**
NMR				*e*S		**Sn**		**14 58 19.5**	**-1.1**
NEM2	**Nemuro 2**	**1.19**	**114**	P		**Pn**		**14 57 59.3**	**+1.4**
NEM2				S		**Sn**		**14 58 20.4**	**-0.4**
JCH	**Churui**	**1.41**	**208**	P		**Pn**		**14 58 00.2**	**+0.5**
JCH				S		**Sn**		**14 58 21.7**	**-2.5**
JNBK	**Urakawa-nobuka**	**1.93**	**215**	P		**Pn**		**14 58 05.1**	**+0.3**
JNBK				*e*S		**Sn**		**14 58 31.8**	**-1.5**

*SDD **21** 14:59:08.2±1.4, 18°.90N×71°.93W, h20km±14km, MD2.9, ML2.5, MW2.8, Presumed earthquake*
*OSPL **21** 14:59:08.4±1.3, 18°.89N×71°.93W, h0km±389km, ML2.5, Presumed earthquake*

ISC 21 14:59:06.6±1.7, 18°.85N±0°.05×71°.85W±0°.08, h3km±13km, n15, σ0§51/21, 3C-2D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JIDR	**Jimani**	**0.36**	**181**	⇓ *e*P		**Pb**		**14 59 15.4**	**-0.3**
JIDR				*e*Sg		**Sb**		**14 59 22.1**	**+0.4**
JIDR				IAML				14 59 23.2	
	comp=N,366nm,0.3s								
REDR	**Restauracion**	**0.53**	**54**	*e*Pg		**Pg**		**14 59 16.2**	**-0.6**
REDR				⇑ *e*Sg		**Sg**		**14 59 22.7**	**-1.0**
REDR				IAML				14 59 23.0	
	comp=N,1µm,0.1s								
SDDR	**Presa de Saban**	**0.54**	**76**	⇑ *e*Pg		**Pb**		**14 59 19.0**	**+0.2**
SDDR				⇑ *e*Sg		**Sb**		**14 59 27.1**	**+0.1**
SDDR				IAML				14 59 34.1	
	comp=N,114nm,0.2s								
SDDR	**Presa de Saban**	**0.54**	**76**	*i* P		**Pb**		**14 59 19.0**	**+0.2**
SDDR				*e*S		**Sb**		**14 59 27.2**	**+0.1**
SDDR				IAML				14 59 30.6	
	comp=Z,125nm,0.5s								
NEDR	**Neiba UASD**	**0.55**	**132**	*e*Sg		**Sb**		**14 59 28.0**	**+0.8**
NEDR				IAML				14 59 30.8	
	comp=N,91nm,0.5s								
PODR	**Polo**	**0.87**	**142**	*e*Pg		**Pb**		**14 59 25.0**	**+0.5**
PODR				IAML				14 59 47.9	
	comp=N,145nm,0.5s								
PODR	**Polo**	**0.87**	**142**	*i* P		**Pb**		**14 59 24.6**	**+0.1**
PODR				*e*S		**Sn**		**14 59 38.5**	**-0.7**
MADR	**Mao Valverde**	**1.00**	**45**	*e*Sg		**Sg**		**14 59 39.5**	**+0.7**
MADR				IAML				14 59 42.5	
	comp=N,241nm,0.2s								
LOBH	**Bahia de las A**	**1.01**	**169**	*i* P		**Pb**		**14 59 26.8**	**+0.1**
LOBH				*e*S		**Sn**		**14 59 41.9**	**-0.4**
LOBH				IAML				14 59 43.6	
	comp=Z,59nm,0.3s								
ABDR	**Alto Bandera**	**1.16**	**92**	⇓ *e*Pg		**Pn**		**14 59 30.1**	**+0.1**
ABDR				IAML				14 59 49.2	
	comp=N,77nm,0.2s								
LOPP1	**Punta Rusia, P**	**1.17**	**31**	*i* P		**Pn**		**14 59 29.8**	**-0.1**
LOPP1				*e*S		**Sn**		**14 59 46.2**	**0.0**
SC01	**Santiago de lo**	**1.20**	**61**	IAML				14 59 56.8	
	comp=N,88nm,0.4s								
LUDR	**Luperon**	**1.33**	**39**	*e*Pg		**Pg**		**14 59 32.8**	**+0.6**
BANI	**BANI**	**1.48**	**108**	*e*Pg		**Pb**		**14 59 35.4**	**+0.5**
BANI				IAML				14 59 58.3	
	comp=N,198nm,0.2s								
HATOM	**Hato Mayor del**	**2.34**	**91**	*e*Pg		**Pb**		**14 59 48.9**	**-0.6**
HATOM				IAML				15 00 28.6	
	comp=N,18nm,1.9s								

*CNRM **21** 15:23:54.1, 35°.33N×9°.48W, h34km, ML2.7*
*INMG **21** 15:23:55.5±1.2, 35°.45N×9°.62W, h29km, ML1.8, Error ellipse: s-maj=9.6km s-min=5.5km az=102.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Mar de Marrocos*
*IGIL **21** 15:23:55.6, 35°.42N×9°.62W, h31km, ML2.0*

ISC 21 15:23:53.7±1.6, 35°.44N±0°.03×9°.6W±0°.1, h35km, n23, σ1§24/42, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.79**	**19**	*e*P		**Pn**		**15 24 22.7**	**+0.6**
PFVI				*e*S		**Sn**		**15 24 43.1**	**-0.5**
PFVI				IAML				15 24 45.0	
PFVI				IAML				15 24 45.2	
PFVI				IAML				15 24 45.3	
MORF	**Marmelete**	**2.00**	**21**	*e*P		**Pn**		**15 24 25.6**	**+0.6**
MORF				*e*S		**Sn**		**15 24 47.8**	**-1.1**
MORF				IAML				15 24 49.3	
	comp=N,9.2nm,0.1s								
MORF	**Marmelete**	**2.00**	**21**	*e*P		**Pn**		**15 24 25.7**	**+0.6**
MORF				*e*S		**Sn**		**15 24 48.3**	**-0.6**
MORF				IAML				15 24 49.4	
MORF				IAML				15 24 49.6	
MORF				IAML				15 24 50.1	
PTEO	**Sao Teotonio**	**2.21**	**17**	*e*P		**Pn**		**15 24 28.6**	**+0.8**
PTEO				*e*S		**Sn**		**15 24 53.3**	**-0.6**
PTEO				IAML				15 24 54.7	
PTEO				IAML				15 24 55.8	
PTEO				IAML				15 24 57.2	
PBDV	**Barranco-do-Ve**	**2.23**	**35**	*e*P		**Pn**		**15 24 29.2**	**+1.1**
PBDV				*e*S		**Sn**		**15 24 54.3**	**-0.1**
PBDV				IAML				15 24 56.5	
PBDV				IAML				15 24 57.0	
PBDV				IAML				15 24 58.5	
PCVE	**Castro Verde**	**2.51**	**29**	*e*P		**Pn**		**15 24 33.0**	**+1.1**
PCVE				*e*S		**Sn**		**15 25 01.2**	**-0.1**
PCVE				IAML				15 25 05.9	
MESJ	**Messejana**	**2.63**	**24**	*e*P		**Pn**		**15 24 34.5**	**+0.9**
MESJ	**Messejana**	**2.63**	**24**	*e*P		**Pn**		**15 24 34.5**	**+0.9**
MESJ				*e*S		**Sn**		**15 25 04.1**	**-0.2**
PLOUS	**Minas do Lousa**	**2.75**	**19**	*e*P		**Pn**		**15 24 36.5**	**+1.4**
PLOUS				*e*S		**Sn**		**15 25 06.3**	**-0.9**
PLOUS				I

SMDO				S	Sn	15 26 18.8	-2.1
BSY	**Bisya**	**5.17**	**188**	P	Pn	15 25 31.1	+1.1
BSY				S	Sn	15 26 30.7	+0.9
WBK	**Wadi Bani Khal** SNR=16	**5.33**	**170**	P	Pn	15 25 34.0	+1.8
WBK				S	Sn	15 26 31.4	-2.3
JLN	**Jalan Bani Buh**	**5.86**	**167**	P	Pn	15 25 41.2	+1.8
JLN				S	Sn	15 26 43.3	-3.4

*TRN **21** 15:33:45.0, 11.89N×61.66W, h130km, MD3.4, South of Grenada.*
*FUNV **21** 15:34:15.2, 11.89N×61.63W, h108km, MW3.4, Presumed earthquake*
ISC 21 15:34:12.6±1.4, **11.89N**±0.04×**61.67W**±0.06, **h129**km±8km, **n22**, σ1§**17**/39, **1C**, **Windward Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GRGR	**Grenville**	**0.24**	**3**	*e*P	**Pn**	**15 34 30.6**	**+0.1**
GRGR				*e*S	**Sn**	**15 34 41.1**	**-2.8**
GRGR	**Grenville**	**0.24**	**3**	*e*P	**Pn**	**15 34 30.6**	**+0.1**
GRGR				*e*S	**Sn**	**15 34 44.1**	**+0.1**
GRW	**Mount Saint Ca**	**0.26**	**1**	*e*P	**Pn**	**15 34 30.8**	**+0.1**
GRW				*e*S	**Sn**	**15 34 45.5**	**+1.2**
GRIC	**Isle de Caille**	**0.40**	**12**	*e*P	**Pn**	**15 34 32.2**	**+1.1**
GRSS	**Sisters**	**0.41**	**8**	*e*P	**Pn**	**15 34 31.4**	**+0.3**
GRSS				*e*S	**Sn**	**15 34 46.0**	**+0.9**
DMDM	**Guralp CMG5TDE**	**1.20**	**174**	*e*P	**Pn**	**15 34 38.1**	**+0.8**
DMDM				*e*S	**Sn**	**15 34 56.0**	**-0.2**
PSGH	**Port of Spain**	**1.24**	**173**	*e*P	**Pn**	**15 34 38.5**	**+0.7**
PSGH				*e*S	**Sn**	**15 34 56.4**	**-0.5**
TRN	**Trinidad (W)**	**1.27**	**168**	*e*P	**Pn**	**15 34 38.6**	**+0.5**
TRN				*e*S	**Sn**	**15 34 56.3**	**-1.2**
TRN	**Trinidad (W)**	**1.27**	**168**	⇑*i*P	**Pn**	**15 34 38.6**	**+0.5**
TRN				*e*S	**Sn**	**15 34 56.7**	**-0.8**
SVB	**Belmont**	**1.43**	**16**	*e*P	**Pn**	**15 34 39.9**	**0.0**
SVB				*e*S	**Sn**	**15 34 59.1**	**-1.5**
SVB	**Belmont**	**1.43**	**16**	*e*P	**Pn**	**15 34 40.0**	**0.0**
SVB				*e*S	**Sn**	**15 35 00.7**	**0.0**
MCLT	**Moule a Chique**	**1.94**	**21**	*e*P	**Pn**	**15 34 46.0**	**+0.1**
MCLT				*e*S	**Sn**	**15 35 11.5**	**+0.2**
SLCP	**Castries, St.**	**2.20**	**17**	*e*P	**Pn**	**15 34 49.5**	**+0.4**
SLCP				*e*S	**Sn**	**15 35 16.3**	**-0.7**
SLBI	**Saint Lucia, B**	**2.22**	**18**	*e*P	**Pn**	**15 34 49.6**	**+0.3**
SLBI				*e*S	**Sn**	**15 35 16.5**	**-0.9**
BBGH	**Gun Hill**	**2.41**	**59**	*e*P	**Pn**	**15 34 51.3**	**-0.3**
BBGH				*e*S	**Sn**	**15 35 22.1**	**+0.6**
BIM	**Bigot**	**2.67**	**13**	*e*P	**Pn**	**15 34 55.7**	**+0.7**
BIM				*e*S	**Sn**	**15 35 26.8**	**-0.8**
BIM	**Bigot**	**2.67**	**13**	*e*P	**Pn**	**15 34 56.5**	**+1.4**
BIM				*e*S	**Sn**	**15 35 26.7**	**-0.9**
PCRV	**Puerto La Cruz**	**3.38**	**240**	*e*P	**Pn**	**15 35 06.3**	**+2.1**
PCRV				*e*S	**Sn**	**15 35 41.6**	**-2.4**
DSLB	**Salisbury**	**3.53**	**4**	*e*P	**Pn**	**15 35 06.4**	**+0.2**
MERV	**Las Mercedes**	**5.25**	**240**	*e*P	**Pn**	**15 35 29.9**	**+0.8**
MERV				*e*S	**Sn**	**15 36 25.8**	**-2.9**
BENV	**Beln**	**6.13**	**252**	*e*P	**Pn**	**15 35 43.0**	**+1.9**
CACV	**CAICARA DEL OR**	**6.45**	**229**	*e*P	Pn	15 35 39.9	-5.3
CACV				*e*S	Sn	15 36 44.3	-13

*IDC **21** 15:34:50.9±2.3, 36.14N×70.82E, h112km±20km, mb3.7/20, mbtmp4.1/25, MS3.7/1, Error ellipse: s-maj=16.0km s-min=10.1km az=34.0*
*NEIC **21** 15:34:52.5±2.3, 36.28N±0.07×70.74E±0.10, h125km±9km, mb4.4/20, Error ellipse: s-maj=11.4km s-min=9.7km az=92.0*
*GFZ **21** 15:34:52.8±0.3, 36°N±3'×7°1E±°, h106km±4km, M4.4/20, mb4.4/20, Error ellipse: s-maj=7.2km s-min=5.0km az=35.0, confirmed*
*NNC **21** 15:34:55.9±7.5, 36.64N×70.92E, h213km±75km, mb3.5, mpv4.2, Error ellipse: s-maj=72.3km s-min=55.5km az=57.0*
ISC 21 15:34:50.6±0.4, **36.25N**±0.04×**70.85E**±0.04, **h100**km, **n130**, σ1§**84**/139, **mb4.2**/46, **6C-2D**, **Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.25**	**221**		**Pn**	**15 35 28.8**	**+2.1**
KBL				Sn	**Sn**	**15 35 56.8**	**+2.6**
KBL	**Kabul**	**2.25**	**221**	P	**Pn**	**15 35 28.8**	**+2.1**
NIL	**Nilore**	**3.26**	**142**		**Pn**	**15 35 43.5**	**+3.7**
NIL	**Nilore**	**3.26**	**142**	P	**Pn**	**15 35 43.5**	**+3.7**
DRK	**Karamyk**	**3.31**	**13**		**Pn**	**15 35 42.9**	**+2.1**
DRK	**Karamyk**	**3.31**	**13**	P	**Pn**	**15 35 43.2**	**+2.4**
BTK	**Batken**	**3.80**	**360**		**Pn**	**15 35 49.0**	**+1.8**
BTK	**Batken**	**3.80**	**360**	P	**Pn**	**15 35 49.2**	**+2.0**
SRNI	**Srinagar**	**3.91**	**123**	*i* S	**Sn**	**15 36 34.0**	**+0.2**
OHH	**Osh**	**4.53**	**19**	P	**Pn**	**15 35 57.4**	**+0.4**
KSH2	**Kashi**	**4.73**	**51**	Pn	Pn	15 36 04.8	+5.1
KSH2				Sn	**Sn**	**15 36 58.1**	**+4.6**
KSH2	comp=N,970nm,0.8s			smax	smax		
KSH2	comp=E,930nm,0.9s			smax	smax		
JMU	**Jammu**	**4.77**	**135**	*i* P	**Pn**	**15 35 59.2**	**-1.1**
ARSB	**Arslanbob**	**5.33**	**18**		**Pn**	**15 36 08.2**	**+0.3**
TSSA	**Tissa**	**5.54**	**126**	*i* P	**Pn**	**15 36 10.6**	**-0.3**
THN	**Thein Dam**	**5.56**	**132**	*i* P	Pn	15 36 08.4	-2.5
DHRM	**DHARAMSHALA**	**6.02**	**130**	*i* P	**Pn**	**15 36 16.2**	**-1.2**
DHRM				*i* S	**Sn**	**15 37 20.6**	**-4.5**
ASAI	**AK-SAY(Kyrgyzs** comp=Z,22nm,0.7s	**6.44**	**42**	P	**Pn**	**15 36 25.1**	**+1.9**
NRN	**Naryn**	**6.55**	**36**		**Pn**	**15 36 25.2**	**+0.5**
KK31	**Karatay Array** comp=Z,26nm,0.5s,baz=189,slow=13,SNR=374	**6.85**	**358**	⇑P	**Pn**	**15 36 27.6**	**-0.8**
KK31				⇑S	**Sn**	**15 37 45.5**	**+0.7**
KK31	**Karatay Array** comp=Z,22nm,0.5s,baz=189,slow=23,SNR=7.3	**6.85**	**358**	Pn	**Pn**	**15 36 27.9**	**-0.5**
KKAR	**Karatay Array**	**6.85**	**358**		**Pn**	**15 36 28.0**	**-0.4**
AAK	**Ala-Archa** comp=Z,7.4nm,0.3s,baz=171,slow=5.2,SNR=24	**6.98**	**23**	P	**Pn**	**15 36 31.2**	**+0.9**
AAK				S	**Sn**	**15 37 45.7**	**-2.4**
AAK	**Ala-Archa** comp=Z,36nm,0.6s,baz=327,slow=23,SNR=11	**6.98**	**23**	⇑P	**Pn**	**15 36 31.3**	**+1.1**
AAK	comp=Z,3.3nm,0.4s			⇓S	**Sn**	**15 37 46.1**	**-2.0**
AAK	**Ala-Archa** comp=Z,28nm,0.6s	**6.98**	**23**		**Pn**	**15 36 30.8**	**+0.5**
AAK	**Ala-Archa** comp=Z,22nm,0.5s	**6.98**	**23**	P	**Pn**	**15 36 31.6**	**+1.3**
HRA	**Herat**	**7.27**	**258**		**Pn**	**15 36 34.0**	**-0.4**
SMLA	**Simla**	**7.33**	**132**	*i* P	**Pn**	**15 36 34.8**	**-0.1**
SMLA				*i* S	Sn	15 37 50.1	-6.5
KDJ	**Kajisay**	**7.66**	**38**	Pn	**Pn**	**15 36 42.0**	**+2.5**
TARG	**Taragay, Kyrgy**	**7.70**	**43**		**Pn**	**15 36 41.4**	**+1.1**
TARG	**Taragay, Kyrgy** comp=Z,16nm,0.6s	**7.70**	**43**	P	**Pn**	**15 36 42.8**	**+2.6**
KLP	**Kalpa**	**7.74**	**125**	*i* P	**Pn**	**15 36 41.1**	**+0.2**
KLP				*i* S	Sn	15 38 02.2	-4.9
WUS	**Wushi** comp=Z,13nm,1.0s	**8.20**	**50**	P	**Pn**	**15 36 49.8**	**+2.9**
UTK	**UTTARKASHI**	**8.40**	**129**	*i* P	**Pn**	**15 36 49.0**	**-0.6**
PRZ	**Przheval'sk** comp=Z,26nm,0.7s	**8.54**	**41**	P	**Pn**	**15 36 52.8**	**+1.3**
JOSI	**Joshimath**	**9.23**	**125**	*i* P	**Pn**	**15 37 00.6**	**-0.4**
NDI	**New Delhi**	**9.26**	**143**	*i* P	Pn	15 36 59.2	-2.0
NDI				*i* S	Sn	15 38 31.2	-12
KUDL	**Kundal**	**9.38**	**148**	*i* P	Pn	15 36 58.2	-4.7
KUDL				*i* S	Sn	15 38 32.4	-14
PDGK	**Podgornoye**	**9.70**	**41**		**Pn**	**15 37 07.9**	**+0.6**
PTH	**Pithoragarh**	**10.29**	**128**	*i* P	**Pn**	**15 37 14.5**	**-0.9**
MAKZ	**Makanchi**	**13.43**	**35**	Pn	**Pn**	**15 37 57.8**	**+0.8**
MKAR	**Makanchi Array** comp=Z,1.2nm,0.7s,baz=225,slow=14,SNR=5.9	**13.57**	**36**	P	**Pn**	**15 37 60.0**	**+1.2**
MKAR	**Makanchi Array**	**13.57**	**36**	Pn	**Pn**	**15 37 58.7**	**-0.1**
WMQ	**Urumqi**	**14.94**	**54**	*e*P	**Pn**	**15 38 18.8**	**+2.3**
WMQ	comp=Z,13nm,0.9s			pmax	pmax		
AB31	**Akbulak array** comp=Z,7.6nm,0.4s,baz=154,slow=12,SNR=356	**15.25**	**332**	⇑P	**Pn**	**15 38 17.7**	**-2.5**
AB31				⇓S	**Sn**	**15 41 00.5**	**-7.9**
AB31	comp=Z,13nm,0.6s,baz=155,slow=23,SNR=6.7 **Akbulak array**	**15.25**	**332**	Pn	**Pn**	**15 38 17.8**	**-2.5**
AB31	comp=Z,14nm,0.6s			IAmb	IAmb	15 38 20.4	
ABKAR	**Akbulak array**	**15.25**	**332**		**Pn**	**15 38 18.3**	**-1.9**
KURBB	**Kurchatov Arra** comp=Z,1.7nm,0.7s,baz=210,slow=10,SNR=13	**15.40**	**19**	P	**Pn**	**15 38 22.9**	**+0.8**
KURK	**Kurchatov**	**15.51**	**19**	P	**Pn**	**15 38 26.0**	**+2.5**
	comp=Z,6.8nm,1.7s						
EVN	**Everest**	**15.84**	**117**		**Pn**	**15 38 26.4**	**-2.1**
EVN	comp=Z,10nm,0.8s			IAmb	IAmb	15 38 39.1	
EVN	**Everest** comp=Z,14nm,0.6s	**15.84**	**117**	P	**Pn**	**15 38 27.1**	**-1.4**
BVAR	**Borovoye Array** comp=Z,4.0nm,0.6s,baz=165,slow=8.8,SNR=14	**16.78**	**359**	P	**Pn**	**15 38 38.6**	**-0.6**
BVAR				S	**Sn**	**15 41 48.0**	**+2.7**
AKTO	**Aktyubinsk** comp=Z,30nm,0.7s,baz=144,slow=8.7,SNR=55	**16.94**	**331**	P	**Pn**	**15 38 40.4**	**-0.8**
AKTO				S	Sn	15 41 37.5	-12
AKTO	**Aktyubinsk** comp=Z,23nm,0.8s	**16.94**	**331**	⇑P	**Pn**	**15 38 38.8**	**-2.4**
AKTO	comp=Z,11nm,1.0s			⇑S	Sn	15 41 37.4	-12
LSA	**Lhasa** comp=Z,30nm,0.8s	**18.23**	**105**	P	**P**	**15 38 59.4**	**+3.0**
ZAA0	**Zalesovo Array**	**20.19**	**24**		**P**	**15 39 16.9**	**-0.2**
ZAA0	comp=Z,8.8nm,0.5s			IAmb	IAmb	15 39 26.1	
ZALV	**Zalesovo Beam** comp=Z,5.2nm,0.4s,baz=221,slow=10,SNR=32 comp=Z,5.2nm,0.4s	**20.19**	**24**	P	**P**	**15 39 17.4**	**+0.3**
ZALV	**Zalesovo Beam**	**20.19**	**24**		**P**	**15 39 17.2**	**+0.1**
GNI	**Garni** comp=Z,20nm,0.6s,baz=95,slow=1.3,SNR=11	**20.86**	**289**	P	Pn	15 39 27.3	-0.6
GNI	**Garni**	**20.86**	**289**	P	**P**	**15 39 23.7**	**-0.8**
GNI	**Garni** comp=Z,46nm,0.9s	**20.86**	**289**	P	Pn	15 39 27.8	-0.2
ARTI	**Arti** comp=Z,7.7nm,1.0s,baz=157,slow=10,SNR=8.2	**21.84**	**341**	P	**P**	**15 39 35.3**	**+0.6**
ARTI	comp=Z,1.3nm,0.4s,baz=322,slow=21,SNR=1.9 comp=Z,7.7nm,1.0s			S	**S**	**15 43 30.2**	**+0.2**
ARTI	**Arti**	**21.84**	**341**		**P**	**15 39 34.8**	**+0.1**
KBZ	**Khabaz** comp=Z,2.6nm,0.7s,baz=89,slow=13,SNR=5.4	**22.61**	**298**	P	**P**	**15 39 43.8**	**+0.9**
KBZ	comp=Z,3.8nm,1.1s,baz=9.2,slow=9.5,SNR=1.9 comp=Z,2.6nm,0.7s			S	**S**	**15 43 45.0**	**+1.9**
GTA2	**Gaotai**	**23.01**	**73**	*e*P	**P**	**15 39 48.8**	**+1.8**
GTA2				pP	sP	15 40 19.4	-2.1
GTA2	comp=Z,6.0nm,0.6s			pmax	pmax		
BELG	**Belogornoye** comp=Z,204nm,21.2s,baz=85,slow=42	**23.01**	**322**	LR	LR	15 51 06.7	
MORE	**Moreh**	**23.47**	**114**		**P**	**15 39 52.6**	**+1.3**
MORE	comp=Z,8.2nm,0.6s			IAmb	IAmb	15 39 53.8	
KEMA	**Kemaliye** comp=Z,19nm,1.0s	**25.68**	**287**	P	**P**	**15 40 13.8**	**+2.5**
SONM	**Songino Array** comp=Z,0.7nm,0.7s,baz=254,slow=9.9,SNR=4.6 comp=Z,0.7nm,0.7s	**28.58**	**55**	P	**P**	**15 40 38.2**	**+1.0**
BR131	**Keskin Array S**	**29.39**	**288**	P	**P**	**15 40 45.2**	**+0.7**
BRTR	**Keskin Array B** comp=Z,1.8nm,0.6s,baz=93,slow=9.5,SNR=11 comp=Z,1.8nm,0.6s	**29.39**	**288**	P	**P**	**15 40 45.4**	**+0.8**
BRTR	**Keskin Array B**	**29.39**	**288**	P	**P**	**15 40 43.0**	**-1.5**
KKUL	**Konya-Kulu** comp=Z,8.1nm,1.3s	**30.01**	**287**	P	**P**	**15 40 51.9**	**+2.0**
CHTO	**Chiang Mai** comp=Z,2.3nm,0.8s	**30.21**	**118**	P	**P**	**15 40 53.0**	**+1.3**
CMAR	**Chiang Mai Arr** comp=Z,1.2nm,0.5s,baz=298,slow=8.1,SNR=12 comp=Z,1.2nm,0.5s	**30.44**	**118**	P	**P**	**15 40 54.4**	**+0.6**
CMAR	**Chiang Mai Arr**	**30.44**	**118**	P	**P**	**15 40 53.0**	**-0.8**
HHC	**Hu-ho-hao-te**	**31.97**	**69**	*e*P	**P**	**15 41 08.4**	**+1.3**
HHC	comp=Z,10.0nm,0.7s			pmax	pmax		
ELL	**Elmali**	**32.74**	**283**	P	P	15 41 10.2	-3.7
ELL	comp=Z,5.2nm,0.7s			IAmb	IAmb	15 41 14.1	
AKASG	**Malin Array Be** comp=Z,1.7nm,0.5s,baz=85,slow=6.9,SNR=9.6 comp=Z,1.7nm,0.5s	**33.01**	**309**	P	**P**	**15 41 15.8**	**-0.1**
KIEV	**Kiev**	**33.02**	**309**	P	**P**	**15 41 15.9**	**-0.1**
KIEV	comp=Z,3.0nm,0.6s			IAmb	IAmb	15 41 16.4	
KIEV	**Kiev**	**33.02**	**309**	P	**P**	**15 41 15.9**	**-0.1**
TIRR	**Tirgusor**	**33.06**	**298**	P	**P**	**15 41 15.7**	**-0.7**
TESR	**Tescani**	**34.31**	**301**	P	**P**	**15 41 27.9**	**+0.6**
NRIK	**Norilsk** comp=Z,2.5nm,0.8s,baz=186,slow=8.9,SNR=3.6 comp=Z,2.5nm,0.8s	**34.40**	**10**	P	**P**	**15 41 28.8**	**+1.1**
MNK	**Minsk** comp=E,14nm,1.0s	**34.59**	**316**	*i* P	**P**	**15 41 29.9**	**+0.3**
MNK	comp=N,16nm,1.0s			*i* P	**P**	**15 41 29.9**	**+0.3**
MNK	comp=Z,2.0nm,0.5s,baz=104			*i* P	**P**	**15 41 29.9**	**+0.3**
MNK				*i* pP	**pP**	**15 41 59.3**	**+6.2**
MNK				*i* PP	**PP**	**15 42 50.4**	**+0.7**
MNK				*i* S	**S**	**15 46 49.9**	**-1.4**
MNK				*i* sS	**ScP**	**15 47 41.8**	**+3.9**
MNK				*i* SS	**SnSn**	**15 49 18.7**	**+5.1**
MNK				*i* LR	LR	15 54 53.0	
MNK	comp=Z,272nm,12.4s			*i* LRM	MLR	15 56 08.4	
MNK	comp=E,178nm,10.9s			*i* LRM	MLR	15 56 18.5	
MNK	comp=N,148nm,9.5s			*i* LRM	MLR	15 56 19.2	
MLR	**Muntele Rosu**	**34.80**	**300**		**P**	**15 41 28.9**	**-2.7**
MLR	**Muntele Rosu** comp=Z,16nm,0.9s	**34.80**	**300**	P	**P**	**15 41 33.3**	**+1.6**
ALN	**Alexandroupoli**	**35.04**	**292**	P	**P**	**15 41 31.1**	**-2.5**
BURAR	**Bucovina Array**	**35.32**	**303**	P	**P**	**15 41 35.2**	**-0.9**
BUR08	**Bucovina Ar. S**	**35.33**	**303**	P	**P**	**15 41 34.9**	**-1.3**
VOIR		**35.43**	**299**	P	**P**	**15 41 38.2**	**+1.2**
ARR	**Arges**	**35.72**	**299**	P	**P**	**15 41 40.7**	**+1.2**
DRGR		**37.02**	**302**	P	**P**	**15 41 51.9**	**+1.3**
KOLS	**Kolonicke sedl**	**37.32**	**305**	*e*P	**P**	**15 41 54.4**	**+1.4**
KOLS	**Kolonicke sedl** comp=Z,4.9nm,0.8s	**37.32**	**305**	P	**P**	**15 41 54.2**	**+1.2**
FIA1	**FINESS Array S**	**37.62**	**326**	P	**P**	**15 41 54.0**	**-1.3**
FINES	**FINESS Array B** comp=Z,1.9nm,0.6s,baz=121,slow=8.5,SNR=15 comp=Z,1.9nm,0.6s	**37.62**	**326**	P	**P**	**15 41 55.7**	**+0.4**
FINES	**FINESS Array B**	**37.62**	**326**	P	**P**	**15 41 54.5**	**-0.8**
BZS	**Buzias** comp=Z,7.2nm,0.9s	**37.83**	**300**	P	**P**	**15 41 58.5**	**+1.2**
VYHS	**Vyhne**	**39.60**	**305**	*e*P	**P**	**15 42 13.7**	**+1.6**
VRAC	**Vranov** comp=Z,1.5nm,2.1s	**41.05**	**306**	P	**P**	**15 42 25.0**	**+1.0**
ARCES	**ARCESS Array B** comp=Z,2.7nm,0.7s,baz=100,slow=5.0,SNR=9.4 comp=Z,2.7nm,0.7s	**41.33**	**338**	P	**P**	**15 42 26.7**	**+0.7**
ARCES	**ARCESS Array B**	**41.33**	**338**	P	**P**	**15 42 26.6**	**+0.7**
CONA	**Conrad Observa** comp=Z,2.4nm,0.6s	**41.62**	**304**	*e*P	**P**	**15 42 29.6**	**+0.8**
TREC	**Trest**	**41.77**	**306**	P	**P**	**15 42 31.0**	**+1.1**
IPM	**Ipoh** comp=Z,8.9nm,0.8s	**42.07**	**132**	P	**P**	**15 42 32.6**	**0.0**
SESA	**Seetaler Alpe,** comp=Z,0.7nm,0.5s	**42.57**	**303**	*e*P	**P**	**15 42 37.6**	**+0.9**
MOA	**Molln** comp=Z,1.3nm,0.7s	**42.69**	**304**	*e*P	**P**	**15 42 38.1**	**+0.6**
GERES	**GERESS Array B** comp=Z,0.5nm,0.6s,baz=76,slow=7.2,SNR=5.2 comp=Z,0.5nm,0.6s	**42.98**	**306**	P	**P**	**15 42 40.1**	**+0.4**
HFS	**Hagfors** comp=Z,2.6nm,0.5s,baz=96,slow=11,SNR=14 comp=Z,2.6nm,0.5s	**43.19**	**322**	P	**P**	**15 42 40.3**	**-0.9**
LESA	**Schwarzleotal** comp=Z,3.6nm,0.7s	**43.81**	**304**	*e*P	**P**	**15 42 46.8**	**+0.3**
FLTG	**Flechtingen** comp=Z,17nm,2.9s	**44.29**	**311**	P	**P**	**15 42 51.1**	**+1.0**
GRC1	**Grafenberg Arr** comp=Z,9.3nm,1.3s	**44.39**	**306**	P	**P**	**15 42 52.3**	**+1.3**
NC303	**NORSAR Array S**	**44.45**	**323**	P	**P**	**15 42 50.6**	**-0.7**
NC303	comp=Z,11nm,1.1s			IAmb	IAmb	15 43 02.6	
NB2	**NORSAR Subarra** comp=Z,4.8nm,0.8s,baz=96,slow=8.6	**44.51**	**323**	P	**P**	**15 42 50.4**	**-1.4**
NOA	**NORSAR Array B** comp=Z,0.8nm,0.4s,baz=98,slow=7.7,SNR=5.2 comp=Z,0.8nm,0.4s	**44.51**	**323**	P	**P**	**15 42 50.6**	**-1.1**
WTTA	**Wattenberg** comp=Z,0.6nm,0.3s	**44.53**	**303**	*e*P	**P**	**15 42 52.9**	**+0.5**
NC204	**NORSAR Array S** comp=Z,10nm,1.1s	**44.75**	**324**	P	**P**	**15 42 52.6**	**-1.2**
NC204				IAmb	IAmb	15 42 56.2	
MOTA	**Moosalm**	**44.88**	**304**	*e*P	**P**	**15 42 54.3**	**-0.8**
	comp=Z,0.1nm,0.2s						
KSRS	**Korea Array** comp=Z,1.5nm,0.6s,baz=273,slow=7.4,SNR=11 comp=Z,1.5nm,0.6s	**45.08**	**71**	P	**P**	**15 42 56.8**	**+0.2**
DAVA	**Damuels** comp=Z,6.0nm,0.6s	**45.71**	**304**	*e*P	**P**	**15 43 01.6**	**0.0**
DAVA	**Damuels** comp=Z,13nm,2.4s	**45.71**	**304**	P	**P**	**15 43 01.8**	**+0.1**
SENIN	**Lac Senin/Sane**	**47.62**	**303**	P	**P**	**15 43 15.4**	**-1.3**
SENIN	comp=Z,3.0nm,0.7s			IAmb	IAmb	15 43 17.4	
GIMEL	**St. Georges /** comp=Z,10nm,0.6s	**48.28**	**303**	P	**P**	**15 43 22.3**	**+0.7**
EKA	**Eskdalemuir Ar** comp=Z,0.6nm,0.5s,baz=82,slow=7.7,SNR=3.5 comp=Z,2.0nm,0.5s	**52.38**	**316**	P	**P**	**15 43 51.2**	**-1.0**
TOLI2	**Tolitoli**	**57.89**	**115**	P	**P**	**15 44 31.1**	**-1.2**
TOLI2	comp=Z,3.9nm,0.9s			IAmb	IAmb	15 44 43.2	
TORD	**Torodi Ar. Bea** comp=Z,2.3nm,0.6s,baz=44,slow=5.8,SNR=12 comp=Z,2.3nm,0.6s	**65.59**	**269**	P	**P**	**15 45 21.1**	**-2.9**
ILAR	**Eielson Array** comp=Z,0.3nm,0.7s,baz=316,slow=6.2,SNR=2.6 comp=Z,0.3nm,0.7s	**75.05**	**16**	P	**P**	**15 46 19.7**	**-1.2**
YKA	**Yellowknife Ar** comp=Z,0.5nm,0.6s,baz=352,slow=5.4,SNR=4.8 comp=Z,0.5nm,0.6s	**81.50**	**3**	P	**P**	**15 46 55.3**	**-1.2**
WRA	**Warramunga Arr** comp=Z,1.4nm,0.7s,baz=324,slow=4.9,SNR=14 comp=Z,1.4nm,0.7s	**81.96**	**122**	P	**P**	**15 46 57.6**	**-1.9**
ASAR	**Alice Springs** comp=Z,0.8nm,0.7s,baz=310,slow=5.1,SNR=12 comp=Z,0.8nm,0.7s	**84.21**	**125**	P	**P**	**15 47 09.1**	**-2.0**

*SOME **21** 16:06:51.2, 42.25N×81.00E, h5km*
KRNET 21 16:06:37.1±0.1, **40.11N×77.88E**, **mb2.6, 8C-4D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TARG	**Taragay, Kyrgy**	**1.62**	**358**	⇑*i*P	Pn	16 07 05.2	-2.2
TARG				⇑*i*S	Sn	16 07 25.6	-3.6
NRN	**Naryn**	**1.95**	**313**	⇑*i*P	Pn	16 07 09.7	-2.1
NRN				⇑*i*S	Sn	16 07 33.7	-3.4
KDJ	**Kajisay**	**2.09**	**346**	⇑*i*P	Pn	16 07 11.5	-2.1
KDJ				⇑*i*S	Sn	16 07 36.6	-3.8
PRZ	**Przheval'sk**	**2.41**	**9**	⇓*e*P	Pn	16 07 15.7	-2.2
PRZ				⇓*e*S	Sn	16 07 44.2	-4.0
ULHL	**Ulahol**	**2.47**	**330**	⇑*i*P	Pn	16 07 16.8	-2.0
ULHL				⇑*i*S	Sn	16 07 45.8	-4.0
ANVS	**Anan'yevo**	**2.68**	**357**	⇓*e*P	Pn	16 07 19.4	-2.3
ANVS				⇓*e*S	Sn	16 07 50.7	-4.2
SATY	**Saty** 1.1nm,0.1s	**2.98**	**7**	*e*P	Pb	16 07 30.9	-0.2
SATY	3.6nm,0.2s			*e*S	Sn	16 07 59.4	-2.7
KPKS	**Kokpek** 0.4nm,0.2s	**3.41**	**10**	*e*P	Pn	16 07 30.3	-1.4
KPKS	1.8nm,0.1s			*e*S	Sn	16 07 58.1	-15

*MEX **21** 16:06:57.6±1.2, 14.29N×92.33W, h57km±73km, MD3.7, Presumed earthquake*
*GCG **21** 16:06:59.1±0.6, 14.50N×91.99W, h68km±39km, MD3.6, Presumed earthquake*
ISC 21 16:06:50.7±2.6, **13.9N**±0.2×**92.3W**±0.1, **h62**km±35km, **n10**, σ2§**83**/19, **Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RTAL	**Retalhuleu**	**0.82**	**43**	*e*P	**Pn**	**16 07 09.6**	**+3.1**
RTAL				*e*S	**Sn**	**16 07 19.6**	**+1.4**
STG8	**El Palmar, Qui**	**1.03**	**59**	*i* P	**Pn**	**16 07 12.0**	**+2.5**
STG8				*i* S	**Sn**	**16 07 22.8**	**-0.6**
CHUJ	**Union Juarez**	**1.17**	**7**	*e*P	**Pn**	**16 07 12.3**	**+0.9**
CHUJ				*e*S	**Sn**	**16 07 22.7**	**-4.0**
PATR	**El Naranjo**	**1.19**	**2**	*e*P	**Pn**	**16 07 11.8**	**+0.2**
PATR				*e*S	**Sn**	**16 07 23.1**	**-4.0**
PAVE	**Pavencul**	**1.27**	**4**	*e*P	**Pn**	**16 07 12.9**	**+0.3**
PAVE				*e*S	**Sn**	**16 07 25.1**	**-3.8**
FG8		**1.69**	**78**	*i* P	**Pn**	**16 07 18.3**	**+0.1**
FG16	**Alotenango, Sa**	**1.74**	**78**	*i* P	**Pn**	**16 07 19.6**	**+0.7**
FG16				*i* S	**Sn**	**16 07 35.7**	**-4.5**
PCIG		**2.00**	**333**	*e*P	**Pn**	**16 07 22.6**	**+0.4**
PCIG				*e*S	**Sn**	**16 07 43.7**	**-2.5**
CCIG	**Comitan**	**2.35**	**3**	*e*P	**Pn**	**16 07 29.6**	**+2.5**
CCIG				*e*S	**Sn**	**16 07 58.0**	**+3.0**
UXUV	**UXUV**	**3.83**	**332**	*e*P	**Pn**	**16 07 50.4**	**+3.1**
UXUV				*e*S	**Sn**	**16 08 29.5**	**-1.6**

*IDC **21** 16:19:09.0±1.5, 17.63S×174.94W, h291km±23km, mb3.6/4, mbtmp4.2/6, Error ellipse: s-maj=34.7km s-min=21.9km az=147.0*
ISC 21 16:19:09.7±1.1, **17.6S**±0.2×**174.9W**±0.2, **h300**km, **n6**, σ1§**44/8**, **mb3.8**/4, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu** 22nm,0.3s,baz=207,slow=18,SNR=11	**4.76**	**40**	P	**Pn**	**16 20 25.8**	**+1.3**
AFI	50nm,0.4s,baz=190,slow=7.3,SNR=9.7			S	**S**	**16

BLCB	**Balcova**	**0.60**	**26**	P	**Pg**	**16 32 05.3**	**-0.4**
BLCB				S	**Sg**	**16 32 13.8**	**+0.2**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**26**	Pg	**Pg**	**16 32 05.7**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.70**	**57**	P	**Pg**	**16 32 07.2**	**-0.3**
DUVT				S	**Sg**	**16 32 16.2**	**-0.5**
DUVT				IAML		16 32 20.0	
	comp=E,125nm,0.3s						
CHOS	**Chios island**	**0.74**	**317**	P	**Pg**	**16 32 08.7**	**+0.4**
CHOS				S	**Sg**	**16 32 18.7**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.74**	**317**	Pg	**Pg**	**16 32 08.2**	**-0.1**
CHOS				Sg	**Sg**	**16 32 18.3**	**+0.2**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.85**	**345**	P	**Pb**	**16 32 11.2**	**+0.5**
KARB				S	**Sb**	**16 32 23.0**	**+1.0**
KARB				IAML		16 32 24.0	
	comp=N,162nm,0.5s						
KARB				IAML		16 32 24.0	
	comp=E,145nm,0.5s						
YKAV	**Yalıkavak-Bodr**	**0.85**	**147**	Pg	**Pg**	**16 32 10.1**	**-0.3**
YKAV				AML	AML		
BODT	**Bodrum**	**0.92**	**148**	P	**Pg**	**16 32 11.9**	**+0.3**
BODT				S	**Sb**	**16 32 24.9**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.92**	**148**	Pg	**Pg**	**16 32 11.4**	**-0.3**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.95**	**84**	Pg	**Pg**	**16 32 11.9**	**-0.3**
AYDB				AML	AML		
MLSB	**Milas**	**1.02**	**122**	Pg	**Pg**	**16 32 13.3**	**-0.2**
MLSB				AML	AML		
CAMT	**Merkez**	**1.02**	**28**	P	**Pb**	**16 32 14.2**	**+0.5**
CAMT				S	**Sb**	**16 32 28.0**	**+0.9**
APE	**Apeiranthos**	**1.21**	**231**	P	**Pb**	**16 32 15.8**	**-1.1**
DKL	**Dikili**	**1.23**	**7**	Pn	**Pb**	**16 32 16.8**	**-0.5**
DKL				AML	AML		
NAZL	**Nazilli-Aydin**	**1.27**	**84**	Pn	**Pn**	**16 32 17.2**	**-0.4**
NAZL				AML	AML		
GORD	**Gordes-Manisa**	**1.57**	**47**	Pn	**Pn**	**16 32 21.6**	**-0.2**
GORD				AML	AML		

*BUC **21** 16:35:20.2±0.2, 45˚.49N×26˚.34E, h125km±1km, ml3.5/60, Error ellipse: s-maj=1.2km s-min=1.1km az=163.0*
ISC 21 16:35:19.5±1.4,**45˚.49N**±0˚.03×**26˚.34E**±0˚.03,**h132**km±7km, **n72**,σ0**51**/113,**69C-43D, Romania**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NEHR	**Nehoiu**	**0.07**	**207**	⇑P	**Pn**	**16 35 38.1**	**+0.5**
NEHR				⇓S	**Sn**	**16 35 51.0**	**-0.1**
BISRR	**Bisoca**	**0.27**	**77**	⇓P	**Pn**	**16 35 38.4**	**+0.5**
BISRR				⇑S	**Sn**	**16 35 51.5**	**-0.4**
BISRR				AML	AML		
BISRR				AML	AML		
MLR	**Muntele Rosu**	**0.28**	**271**	⇓P	**Pn**	**16 35 38.6**	**+0.6**
MLR				⇑S	**Sn**	**16 35 52.2**	**+0.2**
MLR				AML	AML		
MLR				AML	AML		
SAHR	**Sahastru**	**0.34**	**45**	⇑P	**Pn**	**16 35 38.9**	**+0.7**
SAHR				⇑S	**Sn**	**16 35 52.4**	**0.0**
SAHR				AML	AML		
SAHR				AML	AML		
COVR	**Voineasa-Covas**	**0.37**	**345**	⇑P	**Pn**	**16 35 38.5**	**+0.2**
COVR				⇓S	**Sn**	**16 35 52.1**	**-0.4**
COVR				AML	AML		
COVR				AML	AML		
ISR	**Istrita**	**0.40**	**158**	⇑P	**Pn**	**16 35 39.0**	**+0.6**
ISR				⇓S	**Sn**	**16 35 52.7**	**0.0**
ISR				AML	AML		
ISR				AML	AML		
PLOR	**Plostina**	**0.42**	**31**	⇑P	**Pn**	**16 35 38.9**	**+0.4**
PLOR				⇓S	**Sn**	**16 35 51.8**	**-1.2**
PLOR				AML	AML		
PLOR				AML	AML		
GRER		**0.46**	**103**	⇑P	**Pn**	**16 35 38.8**	**+0.1**
GRER				AML	AML		
VRI	**Vrincioaia**	**0.47**	**36**	⇑P	**Pn**	**16 35 39.3**	**+0.6**
VRI				⇑S	**Sn**	**16 35 52.9**	**-0.4**
VRI				AML	AML		
VRI				AML	AML		
ODBI	**Odobesti**	**0.57**	**61**	⇑S	**Sn**	**16 35 54.0**	**-0.2**
ODBI				AML	AML		
TURR	**Turia**	**0.61**	**339**	⇑P	**Pn**	**16 35 40.0**	**+0.4**
TURR				⇓S	**Sn**	**16 35 54.3**	**-0.6**
PLAR	**PLOIESTI**	**0.61**	**201**	⇑S	**Sn**	**16 35 54.9**	**+0.2**
PANC	**Panciu**	**0.69**	**56**	⇑P	**Pn**	**16 35 40.3**	**+0.3**
PANC				⇑S	**Sn**	**16 35 55.5**	**-0.1**
OZUR		**0.72**	**328**	⇑P	**Pn**	**16 35 40.5**	**+0.2**
OZUR				⇑S	**Sn**	**16 35 55.1**	**-1.1**
OZUR				AML	AML		
OZUR				AML	AML		
PGOR	**Pogoanele**	**0.74**	**141**	⇑S	**Sn**	**16 35 56.3**	**+0.1**
PGOR				AML	AML		
BOSR	**Bodos**	**0.76**	**321**	⇑S	**Sn**	**16 35 55.8**	**-0.9**
COSR	**Cosmesti PH**	**0.78**	**61**	⇓P	**Pn**	**16 35 41.0**	**+0.3**
COSR				⇓S	**Sn**	**16 35 56.6**	**-0.1**
COSR				AML	AML		
COSR				AML	AML		
SULR		**0.81**	**184**	⇓P	**Pn**	**16 35 41.0**	**0.0**
SULR				⇓S	**Sn**	**16 35 57.1**	**-0.1**
SULR				AML	AML		
SULR				AML	AML		
DOPR	**Dopca**	**0.82**	**306**	⇑P	**Pn**	**16 35 41.3**	**+0.2**
DOPR				⇑S	**Sn**	**16 35 56.8**	**-0.7**
DOPR				AML	AML		
DOPR				AML	AML		
ONER	**Baraj Valea Uz**	**0.85**	**3**	⇓P	**Pn**	**16 35 42.1**	**+0.8**
ONER				⇓S	**Sn**	**16 35 57.3**	**-0.6**
VOIR		**0.91**	**267**	⇑P	**Pn**	**16 35 42.2**	**+0.3**
VOIR				⇑S	**Sn**	**16 35 58.0**	**-0.9**
VOIR				AML	AML		
VOIR				AML	AML		
MTUR	**Matau**	**0.94**	**254**	⇓P	**Pn**	**16 35 42.1**	**-0.1**
TUDR		**0.94**	**83**	⇓P	**Pn**	**16 35 42.1**	**0.0**
TUDR				⇓S	**Sn**	**16 35 58.9**	**-0.2**
TUDR				AML	AML		
TUDR				AML	AML		
GHRR		**0.94**	**52**	⇑P	**Pn**	**16 35 42.3**	**+0.2**
GHRR				⇓S	**Sn**	**16 35 59.4**	**+0.2**
GHRR				AML	AML		
GHRR				AML	AML		
IZVR	**Izvoarele**	**1.01**	**86**	⇑P	**Pn**	**16 35 42.6**	**0.0**
IZVR				⇑S	**Sn**	**16 35 59.0**	**-1.2**
IZVR				AML	AML		
IZVR				AML	AML		
TESR	**Tescani**	**1.05**	**12**	⇑P	**Pn**	**16 35 43.5**	**+0.4**
TESR				⇑S	**Sn**	**16 36 00.1**	**-1.0**
TESR				AML	AML		
TESR				AML	AML		
SCHL	**Schela**	**1.05**	**89**	⇓S	**Sn**	**16 35 59.7**	**-1.2**
LEHL	**Lehliu**	**1.07**	**161**	⇑P	**Pn**	**16 35 44.0**	**+0.7**
LEHL				⇓S	**Sn**	**16 36 01.7**	**+0.4**
LEHL				AML	AML		
LEHL				AML	AML		
NEGRR	**Negrea**	**1.08**	**87**	⇑P	**Pn**	**16 35 43.8**	**+0.4**
NEGRR				⇓S	**Sn**	**16 36 00.8**	**-0.7**
NEGRR				AML	AML		
NEGRR				AML	AML		
AMRR	**Amara**	**1.13**	**141**	⇑P	**Pn**	**16 35 44.0**	**+0.2**
AMRR				⇓S	**Sn**	**16 36 02.4**	**+0.1**
AMRR				AML	AML		
AMRR				AML	AML		
VARL	**Varlezi**	**1.14**	**68**	⇓P	**Pn**	**16 35 43.6**	**-0.3**
VARL				⇓S	**Sn**	**16 36 02.3**	**-0.1**
VARL				AML	AML		
VARL				AML	AML		
STFAR	**Stefanesti-Arg**	**1.16**	**238**	⇓S	**Sn**	**16 36 03.4**	**+0.5**
STFAR				AML	AML		
BUC1	**Bucharest**	**1.16**	**191**	⇑P	**Pn**	**16 35 44.1**	**-0.1**
BUC1				⇓S	**Sn**	**16 36 03.1**	**+0.2**
BUC1				AML	AML		
BUC1				AML	AML		
SCTR	**Scanteiesti**	**1.18**	**80**	⇓P	**Pn**	**16 35 44.9**	**+0.6**
SCTR				⇑S	**Sn**	**16 36 03.4**	**+0.1**
SCTR				AML	AML		
SCTR				AML	AML		
BIR	**Birlad**	**1.19**	**49**	⇑P	**Pn**	**16 35 44.8**	**+0.4**
BIR				⇑S	**Sn**	**16 36 03.1**	**-0.4**
BIR				AML	AML		
BIR				AML	AML		
ARR	**Arges**	**1.21**	**265**	⇓S	**Sn**	**16 36 03.8**	**0.0**
TATR	**Tatarca**	**1.21**	**84**	⇓P	**Pn**	**16 35 45.4**	**+0.7**
TATR				⇑S	**Sn**	**16 36 03.4**	**-0.3**
TATR				AML	AML		
TATR				AML	AML		
VLDR	**Vladesti**	**1.27**	**73**	⇓P	**Pn**	**16 35 45.8**	**+0.5**
VLDR				⇑S	**Sn**	**16 36 04.5**	**-0.4**
VLDR				AML	AML		
VLDR				AML	AML		
SGRR	**Singureni**	**1.29**	**192**	⇓P	**Pn**	**16 35 45.8**	**+0.2**
SGRR				⇑S	**Sn**	**16 36 05.2**	**-0.1**
SGRR				AML	AML		
SGRR				AML	AML		
CFR	**Carcaliu**	**1.31**	**103**	⇑P	**Pn**	**16 35 45.9**	**+0.3**
CFR				AML	AML		
GIUM	**Giurgiulesti**	**1.32**	**89**	⇑P	**Pn**	**16 35 45.8**	**+0.1**
GIUM				⇑S	**Sn**	**16 36 06.0**	**+0.3**
GIUM				AML	AML		
GIUM				AML	AML		
HUMR	**Humele**	**1.36**	**226**	⇑P	**Pn**	**16 35 46.5**	**+0.3**
HUMR				⇓S	**Sn**	**16 36 06.3**	**-0.3**
HUMR				AML	AML		
HUMR				AML	AML		
CICN	**Ciocanesti**	**1.38**	**159**	⇑P	**Pn**	**16 35 46.7**	**+0.2**
CICN				⇑S	**Sn**	**16 36 06.8**	**-0.1**
CICN				AML	AML		
CICN				AML	AML		
HARR	**Harsova**	**1.38**	**125**	⇓P	**Pn**	**16 35 46.7**	**+0.3**
HARR				⇓S	**Sn**	**16 36 06.2**	**-0.8**
HARR				AML	AML		
HARR				AML	AML		
DMBR	**Dumbraveni**	**1.46**	**28**	⇓P	**Pn**	**16 35 46.9**	**-0.4**
DMBR				AML	AML		
TNR	**Turnu Rosu**	**1.46**	**277**	⇑P	**Pn**	**16 35 47.6**	**+0.2**
TNR				⇑S	**Sn**	**16 36 07.7**	**-0.8**
TNR				AML	AML		
TNR				AML	AML		
BIZ	**Bicaz**	**1.46**	**354**	⇓P	**Pn**	**16 35 48.0**	**+0.7**
BIZ				⇑S	**Sn**	**16 36 08.2**	**-0.4**
GIRR	**Girov**	**1.47**	**4**	⇑S	**Sn**	**16 36 08.3**	**-0.5**
GIRR				AML	AML		
PDRR	**Padureni**	**1.51**	**30**	⇓S	**Sn**	**16 36 08.6**	**-0.9**
PDRR				AML	AML		
MDB	**Medias**	**1.52**	**296**	⇑S	**Sn**	**16 36 09.3**	**-0.3**
MDB				AML	AML		
MNTR	**Muntenesti**	**1.52**	**33**	⇑P	**Pn**	**16 35 48.5**	**+0.5**
MNTR				⇑S	**Sn**	**16 36 09.0**	**-0.7**
MNTR				AML	AML		
MNTR				AML	AML		
TLBR	**Topalu**	**1.54**	**127**	⇑P	**Pn**	**16 35 48.6**	**+0.4**
TLBR				AML	AML		
VASR	**Vaslui**	**1.54**	**41**	⇓S	**Sn**	**16 36 09.3**	**-0.8**
COPA	**Copaceanca**	**1.57**	**211**	⇑P	**Pn**	**16 35 48.8**	**+0.3**
COPA				⇑S	**Sn**	**16 36 10.0**	**-0.7**
COPA				AML	AML		
COPA				AML	AML		
TPGR	**Topolog**	**1.60**	**112**	⇑P	**Pn**	**16 35 49.0**	**0.0**
TPGR				AML	AML		
CVDA	**Cernavoda**	**1.67**	**133**	⇑P	**Pn**	**16 35 49.6**	**-0.1**
CVDA				AML	AML		
ICOR	**Ion Corvin**	**1.72**	**142**	⇑P	**Pn**	**16 35 50.2**	**-0.1**
ICOR				⇑S	**Sn**	**16 36 13.3**	**-0.5**
ICOR				AML	AML		
ICOR				AML	AML		
TLCR		**1.77**	**99**	⇑P	**Pn**	**16 35 51.3**	**+0.4**
TLCR				⇑S	**Sn**	**16 36 14.4**	**-0.4**
TLCR				AML	AML		
TLCR				AML	AML		
TIRR	**Tirgusor**	**1.80**	**124**	⇓P	**Pn**	**16 35 51.4**	**+0.3**
TIRR				AML	AML		
LOT	**Lotru**	**1.81**	**270**	⇑P	**Pn**	**16 35 51.6**	**+0.2**
LOT				⇑S	**Sn**	**16 36 15.7**	**-0.1**
LOT				AML	AML		
LOT				AML	AML		
VLAD	**Vladila**	**2.03**	**223**	⇑P	**Pn**	**16 35 54.0**	**+0.1**
VLAD				AML	AML		
LOZB	**Loznitsa**	**2.12**	**175**	⇓P	**Pn**	**16 35 55.6**	**+0.4**
LOZB				AML	AML		
BURAR	**Bucovina Array**	**2.27**	**340**	⇓P	**Pn**	**16 35 58.3**	**+1.3**
CJR	**Cluj-Napoca**	**2.27**	**304**	⇑P	**Pn**	**16 35 57.7**	**+0.8**
CJR				AML	AML		
SRE	**Strehaia**	**2.37**	**251**	⇓P	**Pn**	**16 35 58.3**	**+0.2**
SRE				AML	AML		
PLVB	**Pleven**	**2.43**	**211**	⇑P	**Pn**	**16 35 58.5**	**-0.5**
MARR	**Marisel-Cluj**	**2.54**	**299**	⇓P	**Pn**	**16 36 00.9**	**+0.6**
HERR	**Herculane**	**2.84**	**259**	⇑P	**Pn**	**16 36 04.1**	**-0.1**
DRGR		**2.84**	**299**	⇓P	**Pn**	**16 36 04.4**	**+0.2**
SORM	**Soroca**	**2.99**	**27**	⇓P	**Pn**	**16 36 06.8**	**+0.8**
SORM				AML	AML		
MDVR	**Moldovita**	**3.35**	**259**	⇑P	**Pn**	**16 36 10.5**	**-0.2**
KECS	**Kecovo**	**5.00**	**309**	*e*PN	**Pn**	**16 36 33.4**	**+0.8**

*THE **21** 16:46:45.6, 37˚.9N±1˚.0×26˚.9E±0˚.7, h11km±2km, M2.7/6, MLh2.7/6*
*AFAD **21** 16:46:45.5, 37˚.89N×26˚.88E, h6km±1km, ML2.2*
*ISK **21** 16:46:45.4, 37˚.89N×26˚.89E, h5km, ML2.4/16*
ISC 21 16:46:45.7±0.9,**37˚.89N**±0˚.02×**26˚.89E**±0˚.03,**h11**km±6km, **n31**,σ0**44**/50,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.17**	**359**	P	**Pg**	**16 46 49.2**	**-0.3**
DGB				S	**Sg**	**16 46 51.9**	**-0.2**
SMG	**Samos**	**0.18**	**192**	P	**Pg**	**16 46 49.5**	**-0.2**
SMG				S	**Sg**	**16 46 52.7**	**+0.2**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.19**	**7**	Pg	**Pg**	**16 46 49.6**	**-0.3**
GMLD				Sg	**Sg**	**16 46 52.7**	**-0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.32**	**94**	Pg	**Pg**	**16 46 52.0**	**-0.2**
KUSD				Sg	**Sg**	**16 46 57.1**	**+0.6**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.33**	**124**	P	**Pg**	**16 46 52.2**	**-0.2**
GCAM				S	**Sg**	**16 46 57.9**	**+1.0**
GCAM				IAML		16 46 58.0	
	comp=N,414nm,0.1s						
GCAM				IAML		16 46 58.0	
	comp=E,297nm,0.1s						
GCAM	**G?zelcaml?**	**0.33**	**124**	Pg	**Pg**	**16 46 52.5**	**+0.1**
GCAM				Sg	**Sg**	**16 46 57.8**	**+1.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.34**	**6**	P	**Pg**	**16 46 52.4**	**-0.3**
BEYE				IAML		16 46 57.0	
	comp=E,378nm,0.3s						
BEYE				S	**Sg**	**16 46 57.4**	**+0.2**
BEYE				IAML		16 46 58.0	
	comp=N,319nm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.46**	**320**	P	**Pg**	**16 46 54.4**	**-0.4**
ZEYE				IAML		16 47 01.0	
	comp=E,261nm,0.2s						
ZEYE				S	**Sg**	**16 47 01.6**	**+0.5**
DDIM	**Aydin, Didim**	**0.51**	**146**	P	**Pg**	**16 46 56.0**	**+0.2**
DDIM				S	**Sb**	**16 47 03.8**	**-0.4**
DDIM				IAML		16 47 04.0	
	comp=N,185nm,0.2s						
DDIM				IAML		16 47 04.0	
	comp=E,267nm,0.6s						
BLCB	**Balcova**	**0.51**	**14**	P	**Pg**	**16 46 55.6**	**-0.2**
BLCB				S	**Sg**	**16 47 02.9**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.51**	**14**	Pg	**Pg**	**16 46 55.8**	**0.0**
BLCB				Sg	**Sg**	**16 47 02.7**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.56**	**53**	P	**Pg**	**16 46 56.4**	**-0.2**
DUVT				S	**Sg**	**16 47 03.5**	**-0.5**
DUVT				IAML		16 47 07.0	
	comp=E,162nm,0.3s						
KRBN	**Karaburun**	**0.75**	**340**	Pg	**Pb**	**16 47 00.8**	**-0.1**
KRBN				Sg	**Sb**	**16 47 11.6**	**+0.5**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.80**	**85**	Pg	**Pb**	**16 47 01.4**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.82**	**106**	P	**Pg**	**16 47 01.4**	**-0.2**
AYDN				S	**Sb**	**16 47 12.8**	**-0.3**
AYDN				IAML		16 47 16.0	
	comp=N,80nm,0.3s						
AYDN				IAML		16 47 16.0	
	comp=E,100nm,0.5s						
YKAV	**Yalıkavak-Bodr**	**0.82**	**157**	Pg	**Pg**	**16 47 01.3**	**-0.3**
YKAV				AML	AML		
CHOS	**Chios island**	**0.82**	**308**	P	**Pg**	**16 47 01.6**	**-0.1**
CHOS				S	**Sb**	**16 47 13.4**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**308**	Pg	**Pb**	**16 47 01.8**	**-0.3**
CHOS				AML	AML		
FOCM	**Foa**	**0.83**	**352**	Pg	**Pg**	**16 47 01.4**	**-0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.86**	**335**	P	**Pb**	**16 47 03.1**	**+0.4**
KARB				S	**Sb**	**16 47 15.2**	**+1.0**
IZMR	**zmir-demi**	**0.88**	**73**	P	**Pg**	**16 47 02.2**	**-0.5**
IZMR				S	**Sg**	**16 47 13.2**	**-1.0**
BODT	**Bodrum**	**0.89**	**157**	Pg	**Pg**	**16 47 02.8**	**-0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.92**	**129**	Pg	**Pg**	**16 47 03.4**	**-0.1**
MLSB				AML	AML		
CAMT	**Merkez**	**0.93**	**21**	P	**Pb**	**16 47 03.8**	**+0.1**
CAMT				S	**Sb**	**16 47 16.7**	**+0.6**
ZEDA	**zmir-Bergama**	**1.09**	**8**	P	**Pn**	**16 47 07.2**	**+0.2**
ZEDA				S	**Sn**	**16 47 21.8**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.12**	**86**	Pn	**Pg**	**16 47 06.7**	**-0.5**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.16**	**44**	Pn	**Pn**	**16 47 08.3**	**+0.5**
GOMA				AML	AML		
DKL	**Dikili**	**1.18**	**1**	Pn	**Pn**	**16 47 08.5**	**+0.3**
DKL				AML	AML		
APE	**Apeiranthos**	**1.35**	**233**	P	**Pn**	**16 47 09.8**	**-0.8**
SOMA	**Soma-Manisa**	**1.37**	**22**	Pn	**Pb**	**16 47 11.4**	**+0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.44**	**44**	Pn	**Pg**	**16 47 12.9**	**-0.5**
GORD				AML	AML		

*IDC **21** 16:58:30.6±0.5, 4˚.23S×102˚.16E, h0km, mb4.5/27, mbtmp4.5/28, ML4.3/1, MS3.7/32, Error ellipse: s-maj=18.7km s-min=12.8km az=65.0*
*BJI **21** 16:58:31.2, 5˚.00S×102˚.16E, h53km, mB5.1/8, mb4.9/45, Ms4.5/5, Ms7 4.2/6*
*GFZ **21** 16:58:33.0, 4˚.41S×102˚.00E, h55km, Mw4.6/53, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}6.86; $M_{\theta\theta}$-2.20; $M_{\phi\phi}$-4.66; $M_{r\theta}$3.62; $M_{\theta\phi}$6.52; $M_{\phi r}$-1.31; Fault plane solution: $M_0$9.70473×10^{15} NP1: ϕ_s121.84646°, δ58.92428°, λ66.11322°. NP2: ϕ_s342.47534°, δ38.45235°, λ123.89734°. Principal axes: T 8.2214, Plg66.7427°, Azm345.3660°; N 2.4839, Plg20.2928°, Azm134.7226°; P -10.7053, Plg10.8808°, Azm228.7985°;*
*DJA **21** 16:58:37.6±0.5, 4˚.5S±2˚×10˚.2E±˚, h20km±4km, M4.8/45, mb5.0/38, mB5.3/23, MLv5.1/45, Mw(mB)4.7/23, MwMwp4.3/2, Mwp4.8/2*
*NEIC **21** 16:58:37.2±1.7, 4˚.29S±0˚.06×102˚.12E±0˚.05, h46km±2km, mb4.9/65, Error ellipse: s-maj=9.2km s-min=7.2km az=189.0*
*GFZ **21** 16:58:37.6±0.3, 4˚.5S±3˚×10˚.2E±˚, h51km±3km, M4.9/35, mb4.9/35, Error ellipse: s-maj=8.8km s-min=5.4km az=48.7, confirmed*
ISC 21 16:58:37.1±0.4,**4˚.37S**±0˚.04×**102˚.15E**±0˚.05,**h49**km±3km, **h49**km:**pP-P, n307,**σ1**34**/284,**mb4.8**/97,**MS3.8**/35,**3C-5D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UBSI	**University, Be**	**0.61**	**12**	P	**Pn**	**16 58 49.5**	**-0.2**
UBSI				S	**Sn**	**16 58 59.8**	**+1.1**
UBSI				AML	AML		
MNAI	**Manna**	**0.81**	**90**	P	**Pn**	**16 58 52.8**	**+0.6**
MNAI	**Manna**	**0.81**	**90**	S	**Sn**	**16 59 04.2**	**+1.0**
MNAI	**Manna**	**0.81**	**90**		**Pn**	**16 58 52.5**	**+0.3**
MNAI				Sn	**Sn**	**16 59 03.1**	**-0.1**
MNAI	**Manna**	**0.81**	**90**	P	**Pn**	**16 58 52.9**	**+0.6**
MNAI				AML	AML		
MNAI	**Manna**	**0.81**	**90**	P	**Pn**	**16 58 52.8**	**+0.6**
KSI	**Kapahiang**	**0.84**	**32**	P	**Pn**	**16 58 52.1**	**-0.6**
KSI				AML	AML		
MASI	**Maura Aman, Be**	**1.22**	**4**	P	**Pn**	**16 58 58.2**	**+0.4**
MASI				AML	AML		
KRJI	**Kerinci**	**2.36**	**343**	P	**Pn**	**16 59 14.4**	**+0.9**
KRJI				AML	AML		
PMBI	**Palembang**	**2.99**	**61**	P	**Pn**	**16 59 22.9**	**+1.0**
PMBI	**Palembang**	**2.99**	**61**		**Pn**	**16 59 20.9**	**-1.0**
PMBI	**Palembang**	**2.99**	**61**	P	**Pn**	**16 59 21.3**	**-0.6**
PMBI				AML	AML		
PMBI	**Palembang**	**2.99**	**61**	P	**Pn**	**16 59 22.6**	**+0.6**
JMBI	**JAMBI**	**3.10**	**29**	P	**Pn**	**16 59 25.0**	**+1.5**
JMBI				AML	AML		
RGRI	**Rengat**	**4.00**	**3**	P	**Pn**	**16 59 39.8**	**+4.0**
RGRI				AML	AML		
CGJI	**Cibinong**	**4.18**	**122**	P	**Pn**	**16 59 40.2**	**+1.9**
CGJI				AML	AML		
PPI	**Padang Panjang**	**4.26**	**336**	P	**Pn**	**16 59 41.2**	**+1.8**
PPI				AML	AML		
SBJI	**Serang**	**4.33**	**114**	P	Pn	16 59 59.0	+19
BKNI	**Bangkinang**	**4.79**	**347**	P	**Pn**	**16 59 49.9**	**+3.2**
BKNI	**Bangkinang**	**4.79**	**347**		**Pn**	**16 59 46.0**	**-0.8**
BKNI	**Bangkinang**	**4.79**	**347**	P	**Pn**	**16 59 48.7**	**+2.0**
BKNI				AML	AML		
BKNI	**Bangkinang**	**4.79**	**347**	P	**Pn**	**16 59 48.7**	**+2.0**
SKJI	**Sukabumi**	**5.11**	**121**	P	Pn	17 00 03.0	+12
TPI	**Tanjungpandan** 0.6nm1µm21nm,0.5s	**5.73**	**74**	P	**Pn**	**17 00 02.5**	**+2.9**
TPI				AML	AML		
TPRI	**Tanjung Pinang** 0.8nm1µm3µm147nm,0.7s	**5.76**	**24**	P	**Pn**	**17 00 02.3**	**+2.2**
TPRI				AML	AML		
PBSI	**Pulau Batu** 2.3nm273nm,0.8s	**5.77**	**318**	P	**Pn**	**17 00 01.4**	**+1.3**
PBSI				AML	AML		
BTDF	**Bukit Timah Da**	**5.92**	**16**	P	**Pn**	**17 00 05.1**	**+2.9**
BTDF	**Bukit Timah Da** 990nm88nm,0.7s	**5.92**	**16**	P	**Pn**	**17 00 04.1**	**+1.9**
BBJI	**Bungbulang**	**6.28**	**120**	P	**Pn**	**17 00 08.7**	**+1.5**
BBJI	**Bungbulang**	**6.28**	**120**	S	**Sn**	**17 01 20.0**	**+2.2**
BBJI	**Bungbulang**	**6.28**	**120**		**Pn**	**17 00 08.1**	**+0.9**
BBJI	**Bungbulang** 58nm,0.9s	**6.28**	**120**	P	**Pn**	**17 00 08.6**	**+1.4**
BBJI	**Bungbulang** comp=Z,57nm,0.9s	**6.28**	**120**	P	**Pn**	**17 00 08.1**	**+0.9**
KPJI	**Karang Pucung** comp=Z,0.2nmcomp=Z,34nm,0.7s	**7.37**	**114**	P	**Pn**	**17 00 26.3**	**+4.2**
KPJI				AML	AML		
RPSI	**Rantau Prapat**	**7.72**	**335**	Pn	**Pn**	**17 00 25.7**	**-1.2**
RPSI	**Rantau Prapat** comp=Z,32nm,0.9s	**7.72**	**335**	P	**Pn**	**17 00 27.4**	**+0.5**
PSI	**Prapat**	**7.81**	**336**	P	**Pn**	**17 00 29.0**	**+0.7**
IPM	**Ipoh**	**8.86**	**353**	P	**Pn**	**17 00 46.5**	**+3.9**
IPM	**Ipoh**	**8.86**	**353**		**Pn**	**17 00 41.5**	**-1.1**
IPM	**Ipoh** comp=Z,45nm,0.8s	**8.86**	**353**	P	**Pn**	**

KAPI	**Kappang**	**17.56**	**93**	P	**Pn**	**17 02 38.0**	**-0.5**
	comp=Z,1.1nm,0.3s,baz=254,slow=16,SNR=4.8						
KAPI				LR	LR	17 09 58.8	
	comp=Z,224nm,19.9s,baz=270,slow=39						
	comp=Z,5.6nm,0.5s						
KAPI				AML	AML		
KAPI	**Kappang**	**17.56**	**93**	P	**Pn**	**17 02 38.2**	**-0.3**
BKSI	**Bulukumba**	**17.94**	**94**	P	**P**	**17 02 46.7**	**+3.5**
	comp=Z,26nm,0.8s						
PCI	**Palu**	**18.00**	**79**	P	P	17 02 54.4	+10
TOLI2	**Tolitoli**	**19.40**	**74**	P	**P**	**17 02 58.8**	**-0.5**
TOLI2	**Tolitoli**	**19.40**	**74**	P	**Pn**	**17 03 01.1**	**+0.3**
	comp=Z,22nm,1.1s						
APSI	**Ampana**	**19.78**	**81**	P	**Pn**	**17 03 06.1**	**+0.8**
	comp=Z,695nmcomp=Z,70nm,1.0s						
MMRI	**Maumere**	**20.40**	**103**	P	**P**	**17 03 08.6**	**-1.6**
KDI	**Kendari**	**20.42**	**90**	P	Pn	17 03 15.5	+2.6
	comp=Z,1µmcomp=Z,50nm,1.2s						
LUWI	**Luwuk**	**20.86**	**81**	P	**P**	**17 03 14.3**	**-0.9**
LUWI				IAmb	IAmb	17 03 31.2	
	comp=Z,69nm,1.1s						
LUWI	**Luwuk**	**20.86**	**81**	P	Pn	17 03 17.8	-0.3
LUWI	**Luwuk**	**20.86**	**81**	P	Pn	17 03 17.1	-1.0
	comp=Z,60nm,0.9s						
SOEI	**Soe**	**22.59**	**105**	P	**P**	**17 03 33.6**	**-0.2**
SOEI				IAmb	IAmb	17 03 53.5	
	comp=Z,21nm,0.8s						
CM31	**Chiang Mai Arr**	**22.90**	**352**	P	**P**	**17 03 35.6**	**-1.3**
CM31				IAmb	IAmb	17 03 39.6	
	comp=Z,23nm,0.9s						
CMAR	**Chiang Mai Arr**	**22.90**	**352**	P	**P**	**17 03 35.1**	**-1.7**
	comp=Z,14nm,0.8s,baz=184,slow=8.6,SNR=53						
CMAR				PcP	**PcP**	**17 07 26.8**	**+0.5**
	comp=Z,1.5nm,0.9s,baz=212,slow=3.6,SNR=5.4						
CMAR				LR	LR	17 12 53.5	
	comp=Z,105nm,18.5s,baz=175,slow=38						
	comp=Z,14nm,0.8s						
CHTO	**Chiang Mai**	**23.25**	**352**	P	**P**	**17 03 39.1**	**-1.3**
CHTO	**Chiang Mai**	**23.25**	**352**	P	**P**	**17 03 39.3**	**-1.1**
CHTO	**Chiang Mai**	**23.25**	**352**	P	**P**	**17 03 38.9**	**-1.5**
	comp=Z,15nm,1.0s						
SANI	**Sanana**	**23.91**	**85**	P	**P**	**17 03 46.7**	**0.0**
	comp=Z,16nm,1.1s						
PALK	**Pallekele**	**24.32**	**298**	LR	LR	17 12 18.5	
	comp=Z,117nm,19.8s,baz=120,slow=34						
QIZ	**Qiongzhong**	**24.45**	**18**	P	**P**	**17 03 52.5**	**+1.0**
QIZ				S	**S**	**17 08 14.8**	**+6.3**
QIZ				pmax	pmax		
	comp=Z,23nm,0.9s						
QIZ				L	L		
	comp=Z,130nm,13.9s						
QIZ				L	L		
	comp=Z,180nm,16.0s						
QIZ				L	L		
	comp=Z,170nm,15.1s						
QIZ	**Qiongzhong**	**24.45**	**18**	P	**P**	**17 03 51.8**	**+0.2**
QIZ				IAmb	IAmb	17 03 54.3	
	comp=Z,23nm,1.0s						
NPW	**Naypyitaw**	**24.71**	**346**	P	**P**	**17 03 53.7**	**-0.1**
	comp=Z,24nm,1.1s						
SLVN	**Son La**	**25.60**	**4**	P	**P**	**17 04 01.4**	**-0.6**
SLVN				IAmb	IAmb	17 04 05.5	
	comp=Z,30nm,0.9s						
SLVN	**Son La**	**25.60**	**4**	P	**P**	**17 04 02.3**	**+0.3**
DAV	**Davao City (W)**	**26.00**	**64**	LR	LR	17 14 46.8	
	comp=Z,90nm,18.2s,baz=263,slow=38						
FITZ	**Fitzroy Crossi**	**26.73**	**123**	LR	LR	17 14 15.2	
	comp=Z,81nm,22.0s,baz=334,slow=35						
FITZ	**Fitzroy Crossi**	**26.73**	**123**	P	**P**	**17 04 12.8**	**+0.6**
FITZ	**Fitzroy Crossi**	**26.73**	**123**	P	**P**	**17 04 12.2**	**0.0**
	comp=Z,2.9nm,0.9s						
KNRA	**Kununurra**	**28.48**	**115**	P	**P**	**17 04 26.8**	**-1.1**
BRDH	**Bariadhala**	**28.77**	**340**	LR	LR	17 17 49.0	
	comp=Z,219nm,18.7s,baz=210,slow=40						
MORE	**Moreh**	**29.44**	**345**	P	**P**	**17 04 35.0**	**-1.3**
MORE				IAmb	IAmb	17 04 37.2	
	comp=Z,19nm,0.7s						
H08S2	**Diego Garcia H**	**29.66**	**262**	T	T	17 35 14.5	
	baz=85,slow=76,SNR=167						
H08S3	**Diego Garcia H**	**29.67**	**262**	T	T	17 34 57.1	
	baz=85,slow=76,SNR=286						
H08S1	**Diego Carcia H**	**29.68**	**262**	T	T	17 35 07.8	
	baz=85,slow=76,SNR=74						
MTN	**Manton Dam**	**29.84**	**108**	P	**P**	**17 04 38.8**	**-1.2**
FAKI	**Fak Fak**	**30.08**	**88**	P	**P**	**17 04 42.0**	**-0.1**
FAKI				IAmb	IAmb	17 05 40.5	
	comp=Z,31nm,1.2s						
NWAO	**Narrogin (SRO)**	**31.72**	**155**	LR	LR	17 16 39.7	
	comp=Z,146nm,21.2s,baz=300,slow=34						
H01W3	**Cape Leeuwin H**	**32.33**	**161**	T	T	17 39 13.0	
	baz=339,slow=75,SNR=33						
H01W2	**Cape Leeuwin H**	**32.35**	**161**	T	T	17 39 01.4	
	baz=339,slow=75,SNR=14						
H01W1	**Cape Leeuwin H**	**32.35**	**161**	T	T	17 39 04.4	
	baz=339,slow=75,SNR=26						
YULB	**Yu-li**	**33.33**	**33**	P	**P**	**17 05 10.1**	**-0.4**
YULB				IAmb	IAmb	17 06 17.2	
	comp=Z,44nm,1.5s						
NACB	**Ninganchiao**	**34.11**	**33**	P	**P**	**17 05 17.2**	**-0.1**
WRA	**Warramunga Arr**	**34.97**	**119**	P	**P**	**17 05 24.6**	**-0.2**
	comp=Z,1.2nm,0.5s,baz=306,slow=8.8,SNR=47						
WRA				PcP	**PcP**	**17 07 57.1**	**+0.5**
	comp=Z,0.3nm,0.4s,baz=307,slow=2.0,SNR=2.3						
WRA				S	**S**	**17 10 52.8**	**-0.8**
	comp=Z,0.5nm,1.0s,baz=344,slow=13,SNR=2.4						
	comp=Z,1.2nm,0.5s						
WRAB	**Tennant Creek**	**34.97**	**119**	P	**P**	**17 05 24.6**	**-0.3**
WRAB				IAmb	IAmb	17 05 40.1	
	comp=Z,10nm,0.9s						
WRAB	**Tennant Creek**	**34.97**	**119**	P	**P**	**17 05 24.1**	**-0.8**
	comp=Z,15nm,0.8s						
WR8	**Warramunga Arr**	**35.11**	**119**		**P**	**17 05 26.0**	**-0.1**
WR8				IAmb	IAmb	17 05 46.0	
	comp=Z,24nm,1.4s						
CD2	**Chengdu**	**35.11**	**2**	P	**P**	**17 05 24.4**	**-1.6**
CD2				pmax	pmax		
	comp=Z,30nm,0.7s						
CD2				L	L		
	comp=Z,450nm,15.9s						
CD2				L	L		
	comp=Z,350nm,15.2s						
CD2				L	L		
	comp=Z,390nm,17.8s						
EVN	**Everest**	**35.37**	**336**	IAmb	IAmb	17 05 30.4	
	comp=Z,22nm,0.8s						
EVN	**Everest**	**35.37**	**336**	P	**P**	**17 05 29.6**	**+0.7**
	comp=Z,32nm,0.9s						
AS31	**Alice Springs**	**36.14**	**125**	P	**P**	**17 05 35.0**	**0.0**
ASAR	**Alice Springs**	**36.14**	**125**	P	**P**	**17 05 35.5**	**+0.6**
	comp=Z,2.2nm,0.5s,baz=298,slow=7.8,SNR=26						
ASAR				PcP	**PcP**	**17 08 00.7**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=310,slow=2.8,SNR=2.4						
ASAR				S	**S**	**17 11 10.4**	**-1.1**
	comp=Z,0.5nm,0.6s,baz=298,slow=17,SNR=5.0						
ASAR				LR	LR	17 21 36.0	
	comp=Z,40nm,19.7s,baz=292,slow=38						
	comp=Z,2.2nm,0.5s						
ASAR	**Alice Springs**	**36.14**	**125**	P	**P**	**17 05 35.3**	**+0.3**
XAN	**Xi'an**	**38.73**	**9**	P	**P**	**17 05 55.5**	**-1.2**
XAN				pmax	pmax		
	comp=Z,16nm,1.0s						
XAN	**Xi'an**	**38.73**	**9**	P	**P**	**17 05 55.6**	**-1.0**
XAN				pP	**pP**	**17 06 08.6**	**-1.0**
NJ2	**Nanjing**	**39.55**	**23**	eP	**P**	**17 06 04.8**	**+1.3**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
QIS	**Mount Isa**	**39.81**	**117**	P	**P**	**17 06 05.7**	**-0.2**
	comp=Z,7.6nm,0.7s						
QIS				P	**pP**	**17 06 17.3**	**-1.6**
LYN	**LuoYang**	**39.91**	**13**	P	**P**	**17 06 06.8**	**+0.3**
LYN				pmax	pmax		
	comp=Z,39nm,0.8s						
LZDM	**Lanzhou Array**	**40.14**	**2**	P	**P**	**17 06 07.9**	**-0.8**
	comp=Z,3.5nm,0.4s,baz=182,slow=10,SNR=9.5						
	comp=Z,3.5nm,0.4s						
BBOO	**Buckleboo**	**42.47**	**136**	P	**P**	**17 06 28.4**	**+0.8**
BBOO				IAmb	IAmb	17 07 05.4	
	comp=Z,31nm,1.4s						
HNS	**HongShan**	**43.17**	**15**	⇑P	**P**	**17 06 33.8**	**+0.7**
MTSU	**Mount Surprise**	**43.43**	**112**	P	**P**	**17 06 35.0**	**-0.6**
	comp=Z,6.9nm,0.9s						
INKA	**Innaminka**	**43.47**	**127**	P	**P**	**17 06 36.2**	**+0.4**
GTA2	**Gaotai**	**43.69**	**357**	P	**P**	**17 06 37.5**	**+0.1**
GTA2				sP	sP	17 06 55.6	-0.5
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PMG	**Port Moresby**	**44.94**	**99**	LR	LR	17 27 46.3	
	comp=Z,48nm,22.0s,baz=274,slow=39						
BTO2	**Baotou**	**45.45**	**8**	eP	**P**	**17 06 54.0**	**+2.6**
BTO2				S	**S**	**17 13 34.5**	**+4.9**
BTO2				pmax	pmax		
	comp=Z,11nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,320nm,7.0s						
BTO2				L	L		
	comp=Z,400nm,7.8s						
BTO2				L	L		
	comp=Z,300nm,11.6s						
BTO2				L	L		
	comp=Z,450nm,7.7s						
CTA	**Charters Tower**	**45.67**	**114**	LR	LR	17 27 51.8	
	comp=Z,53nm,18.8s,baz=306,slow=38						
CTAO	**Charters Tower**	**45.67**	**114**	P	**P**	**17 06 54.0**	**+0.5**
CTAO				IAmb	IAmb	17 07 06.3	
	comp=Z,15nm,0.9s						
HHC	**Hu-ho-hao-te**	**45.82**	**10**	⇓iP	**P**	**17 06 55.1**	**+0.8**
HHC				S	**S**	**17 13 39.1**	**+4.2**
HHC				pmax	pmax		
	comp=Z,13nm,1.1s						
STKA	**Stephens Creek**	**45.99**	**131**	P	**P**	**17 06 56.9**	**+1.1**
	comp=Z,1.0nm,0.3s,baz=293,slow=9.0,SNR=3.4						
STKA				LR	LR	17 28 07.5	
	comp=Z,57nm,20.3s,baz=352,slow=39						
	comp=Z,1.0nm,0.3s						
STKA	**Stephens Creek**	**45.99**	**131**	P	**P**	**17 06 56.5**	**+0.7**
JNU	**Nakatsue**	**46.16**	**34**	P	**P**	**17 06 56.4**	**-0.7**
	comp=Z,4.1nm,0.8s,baz=241,slow=20,SNR=2.0						
	comp=Z,4.1nm,0.8s						
NIL	**Nilore**	**46.65**	**326**	P	**P**	**17 07 00.3**	**-0.5**
NIL				IAmb	IAmb	17 07 15.0	
	comp=Z,20nm,0.7s						
NIL	**Nilore**	**46.65**	**326**	P	**P**	**17 07 01.2**	**+0.3**
	comp=Z,33nm,0.7s						
KSRS	**Korea Array**	**48.03**	**28**	P	**P**	**17 07 11.2**	**-0.3**
	comp=Z,5.2nm,0.9s,baz=220,slow=7.8,SNR=16						
KSRS				LR	LR	17 28 45.5	
	comp=Z,19nm,18.4s,baz=205,slow=38						
	comp=Z,5.2nm,0.9s						
CMSA	**Cobar Meteorol**	**48.97**	**129**	P	**P**	**17 07 20.3**	**+1.4**
	comp=Z,24nm,0.9s						
XLT	**XiLinHaoTe**	**49.66**	**13**	eP	**P**	**17 07 23.6**	**-0.4**
XLT				pmax	pmax		
	comp=Z,14nm,1.1s						
XLT				pmax	pmax		
	comp=Z,97nm,5.3s						
WMQ	**Urumqi**	**49.70**	**346**	eP	**P**	**17 07 24.8**	**+0.4**
WMQ				pmax	pmax		
	comp=Z,38nm,1.1s						
WMQ				L	L		
	comp=Z,85nm,11.7s						
WMQ	**Urumqi**	**49.70**	**346**	P	**P**	**17 07 25.4**	**+1.1**
WMQ				pP	**pP**	**17 07 39.5**	**+1.9**
KSH2	**Kashi**	**49.77**	**333**	P	**P**	**17 07 24.4**	**-0.6**
KSH2				pmax	pmax		
	comp=Z,12nm,0.8s						
WUS	**Wushi**	**49.96**	**337**	P	**P**	**17 07 26.8**	**+0.3**
	comp=Z,33nm,0.9s						
WUS	**Wushi**	**49.96**	**337**	P	**P**	**17 07 26.7**	**+0.3**
WUS				pP	**pP**	**17 07 39.8**	**+0.2**
WUS				sP	**sP**	**17 07 45.7**	**+0.5**
ASAI	**AK-SAY(Kyrgyzs**	**50.80**	**335**	P	**P**	**17 07 34.1**	**+1.0**
	comp=Z,7.1nm,1.6s						
TARG	**Taragay, Kyrgy**	**50.96**	**337**	IAmb	IAmb	17 07 54.1	
	comp=Z,17nm,1.2s						
TARG	**Taragay, Kyrgy**	**50.96**	**337**	P	**P**	**17 07 32.9**	**-1.4**
	comp=Z,12nm,1.0s						
PRZ	**Przheval'sk**	**51.37**	**338**	P	**P**	**17 07 36.6**	**-0.5**
	comp=Z,35nm,0.7s						
NRN	**Naryn**	**51.45**	**335**	IAmb	IAmb	17 07 38.8	
	comp=Z,14nm,1.1s						
KDJ	**Kajisay**	**51.55**	**336**	P	**P**	**17 07 39.1**	**+0.7**
	comp=Z,41nm,1.0s						
SHLS	**Shalkode**	**51.56**	**339**	eP	**P**	**17 07 37.8**	**-0.6**
	comp=Z,9.4nm,0.7s						
JGF	**Kuroka**	**51.68**	**37**	P	**P**	**17 07 38.3**	**-1.0**
UZB	**Uzynbulak**	**51.71**	**339**	eP	**P**	**17 07 39.9**	**+0.3**
	comp=Z,6.7nm,0.8s						
DRK	**Karamyk**	**51.82**	**330**	P	**P**	**17 07 41.1**	**+0.4**
	comp=Z,22nm,0.6s						
SATY	**Saty**	**51.86**	**338**	eP	**P**	**17 07 41.0**	**+0.3**
	comp=Z,4.7nm,0.8s						
SONM	**Songino Array**	**52.12**	**4**	P	**P**	**17 07 42.1**	**-0.4**
	comp=Z,12nm,0.8s,baz=182,slow=10,SNR=84						
SONM				PcP	**PcP**	**17 08 54.3**	**+0.5**
	comp=Z,0.8nm,0.3s,baz=195,slow=4.4,SNR=7.2						
SONM				LR	LR	17 32 15.1	
	comp=Z,76nm,19.8s,baz=216,slow=39						
	comp=Z,12nm,0.8s						
SONM	**Songino Array**	**52.12**	**4**	P	**P**	**17 07 42.5**	**0.0**
SONM				IAmb	IAmb	17 07 43.8	
	comp=Z,12nm,0.8s						
ULN	**Ulaanbaatar**	**52.19**	**4**	P	**P**	**17 07 42.5**	**-0.6**
ULN				IAmb	IAmb	17 07 44.3	
	comp=Z,8.1nm,0.8s						
ULN	**Ulaanbaatar**	**52.19**	**4**	P	**P**	**17 07 43.3**	**+0.2**
	comp=Z,10nm,1.0s						
ULN	**Ulaanbaatar**	**52.19**	**4**	P	**P**	**17 07 42.6**	**-0.4**
ULN				pP	**pP**	**17 07 56.1**	**-0.2**
ULN				sP	**sP**	**17 08 01.8**	**-0.2**
CN2	**Changchun**	**52.34**	**21**	P	P	17 07 38.5	-5.6
CN2				pP	pP	17 07 42.9	-15
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
TNSS	**Tian-Shan**	**52.41**	**337**	eP	**P**	**17 07 45.1**	**0.0**
MDOK	**Medeo**	**52.47**	**337**	eP	**P**	**17 07 45.6**	**+0.4**
AAA	**Alma-Ata**	**52.56**	**337**	eP	**P**	**17 07 46.2**	**+0.4**
	comp=Z,4.5nm,0.4s						
ARSB	**Arslanbob**	**52.70**	**333**	P	**P**	**17 07 46.9**	**-0.1**
BTK	**Batken**	**52.75**	**330**	IAmb	IAmb	17 08 06.6	
	comp=Z,29nm,1.8s						
BTK	**Batken**	**52.75**	**330**	P	**P**	**17 07 47.6**	**+0.3**
	comp=Z,7.6nm,0.5s						
MJAR	**Matsushiro Arr**	**52.82**	**37**	P	**P**	**17 07 46.1**	**-1.7**
	comp=Z,2.8nm,0.7s,baz=206,slow=8.0,SNR=17						
	comp=Z,2.8nm,0.7s						
MJAR	**Matsushiro Arr**	**52.82**	**37**	P	**P**	**17 07 45.6**	**-2.2**
MJAR				IAmb	IAmb	17 07 49.3	
	comp=Z,14nm,1.7s						
AAK	**Ala-Archa**	**53.08**	**335**	LR	LR	17 36 08.6	
	comp=Z,70nm,19.4s,baz=344,slow=43						
TDK	**Taldyqorghan**	**53.54**	**339**	eP	**P**	**17 07 53.4**	**+0.4**
	comp=Z,8.5nm,0.7s						
ZSN	**Zaisan**	**53.80**	**346**	eP	**P**	**17 07 55.3**	**+0.5**
	comp=Z,5.4nm,0.7s						
MKAR	**Makanchi Array**	**53.88**	**343**	P	**P**	**17 07 55.0**	**-0.4**
	comp=Z,48nm,1.0s,baz=151,slow=9.2,SNR=124						
MKAR				LR	LR	17 32 15.7	
	comp=Z,99nm,20.2s,baz=316,slow=38						
	comp=Z,48nm,1.0s						
MKAR	**Makanchi Array**	**53.88**	**343**	P	**P**	**17 07 54.5**	**-0.9**
MAKZ	**Makanchi**	**53.99**	**343**	P	**P**	**17 07 55.4**	**-0.8**
MAKZ				IAmb	IAmb	17 07 56.6	
	comp=Z,6.8nm,0.9s						
MAKZ	**Makanchi**	**53.99**	**343**	P	**P**	**17 07 55.5**	**-0.7**
	comp=Z,8.6nm,0.9s						
MAKZ	**Makanchi**	**53.99**	**343**	P	**P**	**17 07 55.7**	**-0.4**
MAKZ				pP	**pP**	**17 08 10.4**	**+0.9**
BNX	**BinXian**	**54.72**	**21**	⇓P	**P**	**17 08 01.3**	**-0.2**
BNX				pmax	pmax		
	comp=Z,27nm,1.0s						
IUG	**luzhnay**	**54.73**	**331**	eP	**P**	**17 08 02.3**	**+0.6**
	comp=Z,6.2nm,0.8s						
CHM	**Chimkent**	**55.06**	**331**	eP	**P**	**17 08 04.8**	**+0.7**
KKAR	**Karatay Array**	**55.23**	**332**	P	**P**	**17 08 04.5**	**-0.7**
USA0B	**Ussuriysk Arra**	**55.28**	**26**		**P**	**17 08 05.0**	**-0.5**
USA0B				IAmb	IAmb	17 08 06.0	
	comp=Z,9.3nm,0.7s						
USRK	**Ussuriysk Ar.**	**55.28**	**26**	P	**P**	**17 08 05.2**	**-0.4**
	comp=Z,5.7nm,0.5s,baz=215,slow=3.8,SNR=28						
USRK				LR	LR	17 31 46.1	
	comp=Z,89nm,20.0s,baz=252,slow=36						
	comp=Z,5.7nm,0.5s						
USRK	**Ussuriysk Ar.**	**55.28**	**26**		**P**	**17 08 04.9**	**-0.6**
BRLS	**Boroldoy**	**55.49**	**332**	eP	**P**	**17 08 06.9**	**-0.3**
HILR	**Hailar Array B**	**55.84**	**14**	P	**P**	**17 08 09.1**	**-0.4**
	comp=Z,1.9nm,0.3s,baz=188,slow=9.5,SNR=4.7						
	comp=Z,1.9nm,0.3s						
HNR	**Honiara**	**57.55**	**98**	LR	LR	17 34 56.5	
	comp=Z,31nm,20.4s,baz=13,slow=38						
SEM	**Semipalatinsk**	**57.73**	**344**	eP	**P**	**17 08 23.6**	**+0.4**
	comp=Z,7.0nm,0.6s						
KURBB	**Kurchatov Arra**	**58.42**	**343**	P	**P**	**17 08 27.1**	**-0.6**
	comp=Z,10nm,0.8s,baz=158,slow=6.6,SNR=64						
	comp=Z,10nm,0.8s						
KURK	**Kurchatov**	**58.48**	**343**	P	**P**	**17 08 27.4**	**-0.7**
KURK				IAmb	IAmb	17 08 28.9	
	comp=Z,16nm,0.8s						
KURK	**Kurchatov**	**58.48**	**343**	P	**P**	**17 08 27.7**	**-0.4**
	comp=Z,25nm,0.9s						
KURK	**Kurchatov**	**58.48**	**343**	P	**P**	**17 08 27.4**	**-0.7**
KURK				pP	**pP**	**17 08 41.9**	**+0.3**
HEH	**HeiHe**	**58.61**	**19**	eP	**P**	**17 08 27.5**	**-1.5**
HEH				pmax	pmax		
	comp=Z,16nm,1.0s						
KLR	**Kul'dur**	**59.26**	**22**	LR	LR	17 37 38.4	
	comp=Z,74nm,18.6s,baz=212,slow=40						
ERM	**Erimo**	**59.32**	**35**	P	**P**	**17 08 33.5**	**-0.6**
ZAA0	**Zalesovo Array**	**59.89**	**348**		**P**	**17 08 36.6**	**-1.2**
ZALV	**Zalesovo Beam**	**59.89**	**348**	P	**P**	**17 08 36.9**	**-0.9**
	comp=Z,28nm,0.6s,baz=168,slow=4.9,SNR=120						
ZALV				LR	LR	17 36 46.4	
	comp=Z,110nm,21.1s,baz=325,slow=38						
	comp=Z,28nm,0.6s						
ZALV	**Zalesovo Beam**	**59.89**	**348**		**P**	**17 08 36.8**	**-1.0**
H04N2	**CROZET ISLANDS**	**60.22**	**218**	T	T	18 13 31.5	
	baz=61,slow=74,SNR=888						
H04N1	**CROZET ISLANDS**	**60.23**	**218**	T	T	18 13 38.2	
	baz=61,slow=74,SNR=839						
H04N3	**CROZET ISLANDS**	**60.24**	**218**	T	T	18 13 35.2	
	baz=61,slow=74,SNR=908						
CRZF	**Crozet Islands**	**60.31**	**218**	P	**P**	**17 08 39.6**	**-1.2**
ASAJ	**Asahikawa**	**60.39**	**33**	LR	LR	17 38 37.5	
	comp=Z,35nm,18.2s,baz=256,slow=40						
JKA	**Kamikawa-asahi**	**60.40**	**33**	P	**P**	**17 08 40.2**	**-1.2**
H04S1	**CROZET ISLANDS**	**60.47**	**217**	T	T	18 14 01.0	
	baz=59,slow=75,SNR=108						
H04S3	**CROZET ISLANDS**	**60.48**	**217**	T	T	18 14 01.2	
	baz=59,slow=75,SNR=247						
H04S2	**CROZET ISLANDS**	**60.49**	**217**	T	T	18 13 45.1	
	baz=59,slow=75,SNR=122						
RAYN	**Ar Rayn**	**61.76**	**300**	P	**P**	**17 08 52.1**	**+1.0**
RAYN				pP	**pP**	**17 09 06.4**	**+1.9**
BORK	**Borovoye**	**63.18**	**339**	P	**P**	**17 08 59.1**	**-0.8**
BORK				IAmb	IAmb	17 08 59.9	
	comp=Z,9.2nm,0.7s						
AB31	**Akbulak array**	**64.73**	**331**	IAmb	IAmb	17 09 10.7	
	comp=Z,21nm,0.8s						
ABKAR	**Akbulak array**	**64.73**	**331**		**P**	**17 09 09.6**	**-0.6**
MAW	**Mawson**	**68.55**	**195**	P	**P**	**17 09 36.6**	**+2.4**
	comp=Z,1.2nm,0.9s,baz=176,slow=5.7,SNR=2.7						
MAW				LR	LR	17 34 01.3	
	comp=Z,110nm,19.9s,baz=38,slow=31						
	comp=Z,1.2nm,0.9s						
MAW	**Mawson**	**68.55**	**195**	P	**P**	**17 09 35.0**	**+0.7**
YAK	**Yakutsk**	**69.50**	**13**	LR	LR	17 42 38.1	
	comp=Z,117nm,18.0s,baz=242,slow=38						
YAK	**Yakutsk**	**69.50**	**13**	P	**P**	**17 09 38.7**	**-1.5**
YAK				IAmb	IAmb	17 09 40.0	
	comp=Z,26nm,0.9s						
YAK	**Yakutsk**	**69.50**	**13**	P	**P**	**17 09 38.7**	**-1.5**
	comp=Z,36nm,1.0s						
YAK	**Yakutsk**	**69.50**	**13**	P	**P**	**17 09 38.3**	**-2.0**
YAK				pP	**pP**	**17 09 53.1**	**-1.0**
YAK				sP	**sP**	**17 09 58.3**	**-1.3**
ARTI	**Arti**	**70.27**	**336**	P	**P**	**17 09 44.1**	**-1.0**
ARTI	**Arti**	**70.27**	**336**	P	**P**	**17 09 44.4**	**-0.6**
ARTI				pP	**pP**	**17 09 59.3**	**+0.6**
MBAR	**Mbarara**	**71.42**	**271**	LR	LR	17 39 28.0	
	comp=Z,15nm,19.1s,baz=77,slow=34						
KBZ	**Khabaz**	**71.49**	**319**	P	**P**	**17 09 53.8**	**+1.1**
	comp=Z,5.4nm,0.9s,baz=146,slow=6.3,SNR=5.9						
	comp=Z,5.4nm,0.9s						
KIV	**Kislovodsk**	**71.72**	**319**	P	**P**	**17 09 53.8**	**-0.5**
	comp=Z,8.2nm,1.5s						
EIL	**Elat**	**72.59**	**303**	LR	LR	17 42 40.2	
	comp=Z,44nm,18.1s,baz=59,slow=36						
HRFI	**Mount Harif**	**72.62**	**303**	P	**P**	**17 10 00.0**	**+0.1**
	comp=Z,18nm,1.1s						
THZ	**Tophouse**	**72.78**	**132**	P	**P**	**17 10 00.8**	**+0.2**
KEMA	**Kemaliye**	**72.79**	**313**	P	**P**	**17 10 01.9**	**+1.1**
	comp=Z,17nm,0.9s						
PETK	**Petropavlovsk-**	**73.76**	**31**	P	**P**	**17 10 04.8**	**-1.3**
	comp=Z,3.1nm,0.8s,baz=277,slow=2.7,SNR=6.9						
	comp=Z,3.1nm,0.8s						
PETK	**Petropavlovsk-**	**73.76**	**31**	P	**P**	**17 10 04.7**	**-1.4**
ANDN	**Andirin**	**73.81**	**311**	P	**P**	**17 10 08.0**	**+1.1**
PET	**Petropavlovsk**	**74.21**	**32**	P	**P**	**17 10 07.3**	**-1.3**
PET	**Petropavlovsk**	**74.21**	**32**	P	**P**	**17 10 07.5**	**-1.2**
	comp=Z,24nm,0.9s						
PET	**Petropavlovsk**	**74.21**	**32**	P	**P**	**17 10 07.5**	**-1.2**
NRIK	**Noril'sk**	**74.23**	**355**	P	**P**	**17 10 07.2**	**-1.3**
	comp=Z,6.9nm,0.8s,baz=165,slow=5.6,SNR=8.2						
NRIK				LR	LR	17 44 16.7	
	comp=Z,134nm,18.7s,baz=313,slow=37						
	comp=Z,6.9nm,0.8s						
NRIK	**Noril'sk**	**74.23**	**355**	IAmb	IAmb	17 10 08.4	
	comp=Z,14nm,1.1s						
MA2	**Magadan**	**74.32**

comp=Z,25nm,3.0s
LUBAR Lubar, Ukraine 83.35 321 P P 17 10 58.6 -0.4
TSUM Tsumeb 83.45 251 LR LR 17 43 34.2
comp=Z,54nm,20.4s,baz=158,slow=32
MLR Muntele Rosu 83.48 317 P P 17 11 00.5 +0.6
comp=Z,12nm,1.1s
BOSR Bodos 83.81 317 ⇑P P 17 11 07.0 +5.6
KMPD K-Podol'skiy 83.84 320 P P 17 11 01.2 -0.3
BURAR Bucovina Array 84.44 319 P P 17 11 06.3 +0.9
BURAR Bucovina Array 84.44 319 ⇓P **P 17 11 06.3 +1.6**
BUR08 Bucovina Ar. S 84.46 319 ⇑P **P 17 11 06.1 +1.3**
BUR08 IAmb IAmb 17 11 41.6
comp=Z,46nm,2.0s
QSPA South Pole Qui 85.61 180 P P 17 11 11.4 +1.2
comp=Z,1.0nm,0.9s,baz=357,slow=1.0,SNR=5.9
QSPA LR LR 17 49 07.1
comp=Z,18nm,18.9s,baz=322,slow=35
comp=Z,1.0nm,0.9s
QSPA South Pole Qui 85.61 180 P P 17 11 11.2 +1.0
QSPA IAmb IAmb 17 13 58.2
comp=Z,18nm,2.0s
MARR Marisel-Cluj 85.65 317 ⇓P **P 17 11 12.3 +1.6**
KOLS Kolonicke sedl 86.63 319 *e*P **P 17 11 17.4 +1.9**
KOLS Kolonicke sedl 86.63 319 P P 17 11 17.4 +1.9
comp=Z,6.2nm,0.8s
FINES FINESS Array B 87.19 332 P P 17 11 18.0 +0.2
comp=Z,5.1nm,0.9s,baz=112,slow=4.4,SNR=9.3
comp=Z,5.1nm,0.9s
FINES FINESS Array B 87.19 332 P P 17 11 18.2 +0.4
ARCES ARCESS Array B 89.41 340 P P 17 11 28.9 +0.5
comp=Z,5.6nm,0.8s,baz=90,slow=4.9,SNR=8.9
comp=Z,5.6nm,0.8s
ARCES ARCESS Array B 89.41 340 P P 17 11 28.8 +0.5
GERES GERESS Array B 92.23 319 P P 17 11 42.2 +0.3
comp=Z,0.5nm,0.6s,baz=96,slow=4.0,SNR=5.2
comp=Z,0.5nm,0.6s
HFS Hagfors 92.98 330 P P 17 11 43.7 -1.2
comp=Z,1.8nm,0.8s,baz=86,slow=4.5,SNR=1.2
comp=Z,1.8nm,0.8s
SPITS Spitsbergen Ar 93.38 348 P P 17 11 45.4 -1.2
comp=Z,5.5nm,0.9s,baz=106,slow=8.8,SNR=7.8
comp=Z,5.5nm,0.9s
PPT2 Papeete2 106.00 110 *e*LR LR 17 47 44.5
comp=Z,105nm,28.0s
PPT2 *e*LR LR 17 47 46.2
comp=Z,35nm,23.5s
NVAR Mina Array Bea 130.00 42 PKP **PKiKP 17 17 43.9 +0.9**
comp=Z,0.1nm,0.4s,baz=344,slow=3.4,SNR=2.4
PDAR Pinedale Array 132.52 32 PKP **PKPdf 17 17 46.4 -0.5**
comp=Z,0.3nm,0.6s,baz=170,slow=2.6,SNR=2.5
CPUP Villa Florida 143.58 212 PKP PKPbc 17 18 06.3 +1.6
comp=Z,0.7nm,0.3s,baz=98,slow=7.2,SNR=4.0
BDFB Brasilia 144.39 235 PKP **PKPab 17 18 07.8 +0.5**
comp=Z,2.2nm,0.4s,baz=175,slow=2.6,SNR=4.6
TXAR Lajitas Array 145.15 42 PKPbc **PKPdf 17 18 10.1 0.0**
comp=Z,6.8nm,0.4s,baz=312,slow=0.9,SNR=202

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*SJA **21** 17:01:27.6±0.7, 32.30S×71.78W, h41km±395km, ML3.9, MW3.8*
*GUC **21** 17:01:29.7±0.8, 32.30S×71.60W, h69km±4km, ML4.1, Presumed earthquake*
ISC 21 17:01:29.6±1.2, **32.30S**±0.02×**71.74W**±0.04, **h55**km±14km, **n61**, σ1§**39**/114, **14C-14D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
CO04	**Los Peladeros**	**0.70**	**68**⇑	*e*P		**Pn**	**17 01 43.8**	**0.0**
CO04				*e*S		**Sn**	**17 01 53.8**	**-0.5**
VA01	**Torpederas**	**0.72**	**174**	*e*P		**Pn**	**17 01 45.0**	**+1.1**
VA01				*e*S		**Sn**	**17 01 45.0**	**+1.1**
VA01	**Torpederas**	**0.72**	**174**	*e*P		**Pn**	**17 01 45.0**	**+1.1**
VA01				*e*S		**Sn**	**17 01 55.8**	**+1.5**
VA01				IAML			17 01 56.3	
	comp=E,7μm,0.3s							
ROCH	**El Roble**	**0.91**	**138**⇓	*e*P		**Pn**	**17 01 46.3**	**-0.2**
ROCH				*e*S		**Sn**	**17 01 58.3**	**-0.6**
ROCH				IAML			17 01 59.1	
	comp=N,11μm,0.3s							
MT02	**Curacav**	**1.08**	**152**	*e*P		**Pn**	**17 01 48.1**	**-0.4**
MT02				*e*S		**Sn**	**17 02 01.9**	**-0.7**
MT02	**Curacav**	**1.08**	**152**⇓	*e*P		**Pn**	**17 01 48.5**	**0.0**
MT02				*e*S		**Sn**	**17 02 01.8**	**-0.9**
VA03	**San Esteban**	**1.10**	**115**	*e*P		**Pn**	**17 01 48.1**	**-0.8**
VA03				*e*S		**Sn**	**17 02 02.2**	**-1.1**
VA03				*e*S			17 02 03.7	
VA03				IAML			17 02 09.4	
	comp=Z,1μm,0.2s							
VA03	**San Esteban**	**1.10**	**115**⇓	*e*P		**Pn**	**17 01 48.2**	**-0.8**
VA03				*e*S		**Sn**	**17 02 01.9**	**-1.4**
VA03				IAML			17 02 05.3	
	comp=E,6μm,0.1s							
PEL	**Peldehue**	**1.22**	**134**⇓	*e*P		**Pn**	**17 01 49.7**	**-0.8**
PEL				*e*S		**Sn**	**17 02 05.3**	**-0.7**
PEL				IAML			17 02 06.2	
	comp=E,7μm,0.4s							
CO02	**Combarbal**	**1.26**	**30**	*e*P		**Pn**	**17 01 50.7**	**-0.5**
CO02				*e*S		**Sn**	**17 02 07.4**	**+0.2**
CO02				*e*S			17 02 09.6	
CO02				IAML			17 02 10.7	
	comp=Z,3μm,0.1s							
CO02	**Combarbal**	**1.26**	**30**⇑	*e*P		**Pn**	**17 01 51.1**	**0.0**
CO02				*e*S		**Sn**	**17 02 06.9**	**-0.3**
VA05	**Santo Domingo**	**1.35**	**176**⇑	*e*P		**Pn**	**17 01 52.8**	**+0.5**
VA05				*e*S		**Sn**	**17 02 09.6**	**+0.5**
VA05				IAML			17 02 10.7	
	comp=E,5μm,0.2s							
MT05	**Renca**	**1.38**	**142**	*e*P		**Pn**	**17 01 52.4**	**-0.1**
MT05				*e*S		**Sn**	**17 02 09.6**	**-0.1**
MT05				*e*S			17 02 10.5	
MT05				IAML			17 02 13.8	
	comp=Z,2μm,0.1s							
MT05	**Renca**	**1.38**	**142**	*e*P		**Pn**	**17 01 52.6**	**0.0**
MT05				*e*S		**Sn**	**17 02 09.2**	**-0.6**
MT05				IAML			17 02 10.9	
	comp=E,6μm,0.2s							
MT10	**Hacienda Santa**	**1.40**	**134**⇓	*e*P		**Pn**	**17 01 53.0**	**-0.1**
MT10				*e*S		**Sn**	**17 02 09.9**	**-0.7**
MT14	**Cerro Cal¡n**	**1.49**	**137**⇓	*e*P		**Pn**	**17 01 54.2**	**+0.1**
MT14				*e*S		**Sn**	**17 02 11.8**	**-0.7**
MT14				IAML			17 02 12.9	
	comp=N,7μm,0.4s							
MT16	**CCHEN**	**1.52**	**138**⇓	*e*P		**Pn**	**17 01 54.6**	**+0.1**
MT16				*e*S		**Sn**	**17 02 12.3**	**-1.0**
MT16				IAML			17 02 13.8	
	comp=N,3μm,0.2s							
FCH	**Farellones**	**1.59**	**130**⇓	*e*P		**Pn**	**17 01 55.3**	**-0.4**
FCH				*e*S		**Sn**	**17 02 14.2**	**-1.3**
MT09	**Talagante**	**1.60**	**157**⇑	*e*P		**Pn**	**17 01 56.2**	**+0.5**
MT09				*e*S		**Sn**	**17 02 15.1**	**-0.2**
MT09				IAML			17 02 16.5	
	comp=E,5μm,0.3s							
MT01	**Popeta**	**1.61**	**165**	*e*P		**Pn**	**17 01 55.9**	**+0.2**
MT01				*e*S		**Sn**	**17 02 15.8**	**+0.4**
MT01				IAML			17 02 17.8	
	comp=Z,1μm,0.1s							
MT01	**Popeta**	**1.61**	**165**⇑	*e*P		**Pn**	**17 01 56.1**	**+0.3**
MT01				*e*S		**Sn**	**17 02 15.5**	**+0.1**
MT01				IAML			17 02 20.0	
	comp=E,2μm,0.3s							
CO06	**Fray Jorge**	**1.63**	**3**⇑	*e*P		**Pn**	**17 01 56.1**	**+0.2**
CO06				*e*S		**Sn**	**17 02 15.4**	**-0.3**
CO06				IAML			17 02 16.2	
	comp=E,2μm,0.1s							
MT15	**Las Vizcachas**	**1.66**	**142**⇓	*e*P		**Pn**	**17 01 56.1**	**-0.3**
MT15				*e*S		**Sn**	**17 02 15.8**	**-0.9**
MT15				IAML			17 02 17.5	
	comp=N,8μm,0.3s							
CO03	**El Pedregal**	**1.71**	**32**	*e*P		**Pn**	**17 01 57.0**	**-0.2**
CO03				*e*S		**Sn**	**17 02 18.2**	**+0.2**
CO03				IAML			17 02 20.2	
	comp=Z,1μm,0.2s							
CO03	**El Pedregal**	**1.71**	**32**⇑	*e*P		**Pn**	**17 01 57.2**	**0.0**
CO03				*e*S		**Sn**	**17 02 17.7**	**-0.3**
CO03				IAML			17 02 18.6	
	comp=E,4μm,0.2s							
MT04	**Ro Olivares**	**1.74**	**130**	*e*P		**Pn**	**17 01 57.6**	**-0.1**
MT04				*e*S		**Sn**	**17 02 19.1**	**+0.2**
MT04				IAML			17 02 20.8	
	comp=Z,851nm,0.2s							
MT04	**Ro Olivares**	**1.74**	**130**⇓	*i*P		**Pn**	**17 01 57.4**	**-0.3**
MT04				*e*S		**Sn**	**17 02 18.2**	**-0.7**
MT04				IAML			17 02 20.0	
	comp=E,2μm,0.2s							
MT12	**Pirque**	**1.74**	**145**⇓	*e*P		**Pn**	**17 01 57.6**	**+0.1**
MT12				*e*S		**Sn**	**17 02 18.1**	**-0.6**
MT12				IAML			17 02 24.3	
	comp=N,4μm,0.3s							
MT08	**Bocatoma Ro**	**1.84**	**129**	*e*P		**Pn**	**17 01 59.3**	**+0.2**
MT08				*e*P			17 01 59.4	
MT08				*e*S		**Sn**	**17 02 22.5**	**+1.0**
MT08				IAML			17 02 23.1	
	comp=Z,532nm,0.5s							
MT08	**Bocatoma Ro**	**1.84**	**129**⇓	*e*P		**Pn**	**17 01 59.4**	**+0.2**
MT08				*e*S		**Sn**	**17 02 22.1**	**+0.6**
MT08				IAML			17 02 24.7	
	comp=E,1μm,0.2s							
MT13	**San Alfonso**	**1.89**	**140**	*e*P		**Pn**	**17 01 59.9**	**+0.3**
MT13				*e*S		**Sn**	**17 02 22.2**	**-0.1**
MT13				IAML			17 02 23.4	
	comp=Z,2μm,0.1s							
MT13	**San Alfonso**	**1.89**	**140**⇓	*e*P		**Pn**	**17 01 59.6**	**0.0**
MT13				*e*S		**Sn**	**17 02 21.7**	**-0.6**
MT13				IAML			17 02 22.8	
	comp=N,5μm,0.3s							
BO04	**La Punta**	**1.93**	**151**	*e*P		**Pn**	**17 02 00.3**	**+0.2**
BO04				*e*S		**Sn**	**17 02 22.9**	**-0.4**
LMEL	**Las Melosas**	**2.01**	**140**⇓	*e*P		**Pn**	**17 02 01.6**	**+0.3**
LMEL				*e*S		**Sn**	**17 02 25.1**	**-0.3**
RTLS	**Leoncito**	**2.13**	**77**	*e*P		**Pn**	**17 02 03.8**	**+0.7**
RTLS				*e*S		Sn	17 02 11.3	-17
RTLS				*e*S			17 02 30.6	
RTLS				IAML			17 02 33.7	
	comp=Z,823nm,0.4s							
BO01	**Tunca**	**2.15**	**165**	*e*P		**Pn**	**17 02 03.2**	**+0.1**
BO01				*e*S		**Sn**	**17 02 28.8**	**+0.1**
BO01	**Tunca**	**2.15**	**165**⇑	*e*P		**Pn**	**17 02 03.3**	**+0.2**
BO01				*e*S		**Sn**	**17 02 27.4**	**-1.3**
BO01				IAML			17 02 32.4	
	comp=E,808nm,0.3s							
BO03	**Pichilemu**	**2.19**	**185**	*e*P		**Pn**	**17 02 04.0**	**+0.3**
BO03				*e*S		**Sn**	**17 02 29.6**	**-0.1**
GO04	**Tololo Observa**	**2.27**	**21**	*e*P		**Pn**	**17 02 04.8**	**-0.1**
GO04				*e*S		**Sn**	**17 02 31.8**	**-0.1**
GO04				IAML			17 02 33.0	
	comp=Z,787nm,0.2s							
GO04	**Tololo Observa**	**2.27**	**21**⇑	*e*P		**Pn**	**17 02 04.6**	**-0.3**
GO04				*e*S		**Sn**	**17 02 31.3**	**-0.6**
GO04				IAML			17 02 33.1	
	comp=E,3μm,0.3s							
ARCO	**CERRO ARCO**	**2.43**	**104**	*e*P		**Pn**	**17 02 08.8**	**+1.8**
ARCO				*e*S		**Sn**	**17 02 42.6**	**+6.9**
AAGR	**Agrelo**	**2.58**	**108**	*e*P		**Pn**	**17 02 10.6**	**+1.6**
AAGR				IAML			17 02 30.7	
	comp=Z,256nm,0.9s							
AAGR				*e*S		**Sn**	**17 02 30.7**	**-8.4**
BO02	**Sierra Bellavi**	**2.61**	**162**	*e*P		**Pn**	**17 02 09.6**	**+0.2**
BO02				*e*S		**Sn**	**17 02 40.5**	**+0.6**
BO02				IAML			17 02 46.9	
	comp=Z,1μm,0.2s							
BO02	**Sierra Bellavi**	**2.61**	**162**	*e*P		**Pn**	**17 02 09.6**	**+0.2**
BO02				*e*S		**Sn**	**17 02 39.6**	**-0.4**
BO02				IAML			17 02 41.7	
	comp=E,2μm,0.2s							
GO05	**Hualane**	**2.71**	**183**	*e*P		**Pn**	**17 02 10.5**	**-0.1**
GO05				*e*P			17 02 10.7	
GO05				*e*S		**Sn**	**17 02 41.0**	**-0.6**
GO05				IAML			17 02 42.3	
	comp=Z,426nm,0.2s							
GO05	**Hualane**	**2.71**	**183**⇑	*e*P		**Pn**	**17 02 10.6**	**-0.1**
GO05				*e*S		**Sn**	**17 02 40.6**	**-1.6**
GO05				IAML			17 02 41.9	
	comp=E,1μm,0.4s							
CO01	**Juntas del Tor**	**2.71**	**32**	*e*P		**Pn**	**17 02 11.3**	**+0.3**
CO01				*e*S		**Sn**	**17 02 42.2**	**-0.5**
CO01	**Juntas del Tor**	**2.71**	**32**⇑	*e*P		**Pn**	**17 02 11.3**	**+0.3**
CO01				*e*S		**Sn**	**17 02 41.8**	**-0.9**
ACCO	**Cerro Coronel**	**2.85**	**54**	*e*P		**Pn**	**17 02 14.4**	**+1.4**
ACCO				*e*S		**Sn**	**17 02 45.1**	**-1.2**
ARCD	**Rodeo**	**2.88**	**43**	*e*P		**Pn**	**17 02 14.8**	**+1.5**
LCO	**Las Campanas**	**3.40**	**16**	*e*S		**Sn**	**17 02 59.4**	**-0.2**
LCO				IAML			17 03 02.2	
	comp=Z,315nm,0.1s							
LCO	**Las Campanas**	**3.40**	**16**⇑	*e*P		**Pn**	**17 02 20.0**	**-0.4**
LCO				*e*S		**Sn**	**17 02 58.8**	**-0.9**
ML02	**Panimavida**	**3.46**	**176**	*e*P		**Pn**	**17 02 21.4**	**+0.3**
ML02				*e*S		**Sn**	**17 03 00.1**	**-0.6**
ML02				IAML			17 03 00.9	
	comp=N,424nm,0.7s							
AC05	**El Transito**	**3.68**	**20**⇑	*e*P		**Pn**	**17 02 24.2**	**0.0**
AC05				*e*S		**Sn**	**17 03 05.2**	**-1.1**
RFA	**San Rafael**	**3.68**	**133**	*e*P		**Pn**	**17 02 24.8**	**+0.7**
ACAN	**Cantantal**	**3.85**	**91**	*e*P		**Pn**	**17 02 26.3**	**-0.2**
ACAN				IAML			17 03 42.6	
	comp=Z,245nm,0.5s							
AC04	**Llanos de Chal**	**4.12**	**8**	*e*P		**Pn**	**17 02 29.6**	**-0.5**
BI02	**San Fabin de**	**4.37**	**175**	*e*P		**Pn**	**17 02 34.2**	**+0.7**
BI02	**San Fabin de**	**4.37**	**175**⇑	*e*P		**Pn**	**17 02 34.0**	**+0.5**
BI02				*e*S		**Sn**	**17 03 21.3**	**-1.8**
VCA	**Vinchina**	**4.68**	**42**	*e*S		**Sn**	**17 03 37.3**	**+6.3**
VCA				IAML			17 03 51.1	
	comp=Z,141nm,0.5s							
GO03	**Copiapo**	**4.87**	**16**	*e*P		**Pn**	**17 02 39.7**	**-0.7**
GO03				*e*S		**Sn**	**17 03 33.7**	**-1.8**

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*MAN **21** 17:06:16.0, 14.15N×120.31E, h107km, MS4.3*
*IDC **21** 17:06:18.6±0.7, 14.08N×120.74E, h136km±6km, mb3.7/18, mbtmp4.1/19, Error ellipse: s-maj=18.5km s-min=9.6km az=74.0*
*NEIC **21** 17:06:18.5±1.9, 14.09N±0.06×120.62E±0.09, h135km±6km, mb4.4/71, Error ellipse: s-maj=12.8km s-min=9.2km az=89.0*
*GFZ **21** 17:06:19.2±0.7, 14.1°N±3.3°×121°E±1.1°, h144km±7km, M4.5/25, mb4.5/25, Error ellipse: s-maj=12.0km s-min=5.5km az=65.3, confirmed*
*DJA **21** 17:06:21.4±3.7, 14.1°N±27.1°×121°E±1.7°, h161km±21km, M4.5/12, mB5.4/3, mb4.5/12, Mw(mB)4.9/3*
ISC 21 17:06:16.8±0.3, **14.08N**±0.04×**120.54E**±0.05, **h120**km, **n155**, σ1§**60**/165, **mb4.4**/67, **1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
TGY	**Tagaytay City**	**0.39**	**86**	*i*P		**Pn**	**17 06 35.9**	**+1.7**
TGY				*e*S		**Sn**	**17 06 49.9**	**+2.6**
LQP	**Lukban**	**0.97**	**88**	*i*P		**Pn**	**17 06 40.5**	**+1.8**
GQP	**Guinayangan**	**1.86**	**95**	*e*P		**Pn**	**17 06 51.2**	**+2.7**
GQP				*e*S		**Sn**	**17 07 18.7**	**+5.9**
SZP	**Santa**	**3.46**	**359**			**Pn**	**17 07 09.8**	**+0.8**
SZP						Sn	**17 07 48.6**	**-0.9**
SZP	**Santa**	**3.46**	**359**	P		**Pn**	**17 07 10.5**	**+1.5**
SIPP	**Brgy, Tapao**	**3.83**	**359**	*e*P		**Pn**	**17 07 17.2**	**+3.2**
SIPP				*e*S		**Sn**	**17 07 57.2**	**-1.1**
PPR	**Puerto Princes**	**4.62**	**203**	*e*P		Pn	17 07 35.8	+11
PLP	**Palo**	**5.21**	**123**	*e*P		**Pn**	**17 07 36.0**	**+3.3**
KKM	**Kota Kinabalu**	**9.04**	**208**	Pn		**Pn**	**17 08 23.3**	**-1.2**
TPUB	**Ta-pu**	**9.18**	**1**	Pn		**Pn**	**17 08 24.9**	**-1.2**
YULB	**Yu-li**	**9.29**	**4**	Pn		**Pn**	**17 08 27.3**	**-0.5**
HKPS	**Hong Kong Po S**	**10.17**	**324**	Pn		**Pn**	**17 08 38.4**	**-1.2**
QIZ	**Qiongzhong**	**11.37**	**297**	Pn		**Pn**	**17 08 55.8**	**+0.1**
DLV	**Lat**	**11.93**	**261**	Pn		**Pn**	**17 09 02.8**	**-0.5**
TOLI2	**Tolitoli**	**12.88**	**179**	Pn		**Pn**	**17 09 18.1**	**+2.5**
LUWI	**Luwuk**	**15.18**	**171**	Pn		**Pn**	**17 09 44.7**	**-0.3**
LUWI				IAmb		IAmb	17 10 07.5	
	comp=Z,16nm,0.9s							
JMZ	**Minamidaito 2**	**15.40**	**39**	Pn		**Pn**	**17 09 46.4**	**-1.2**
MMSI	**Mamuju**	**16.74**	**186**	P		**P**	**17 10 05.9**	**+1.5**
KAPI	**Kappang**	**18.98**	**182**	P		**Pn**	**17 10 31.6**	**+0.6**
	comp=Z,6.9nm,0.5s,baz=58,slow=7.6,SNR=6.9							
KAPI	**Kappang**	**18.98**	**182**			**P**	**17 10 29.0**	**-0.1**
KAPI				IAmb		IAmb	17 10 33.9	
	comp=Z,13nm,1.1s							
KAPI	**Kappang**	**18.98**	**182**	P		**Pn**	**17 10 32.0**	**+1.0**
	comp=Z,16nm,1.1s							
JSU	**Suzuyama**	**19.59**	**26**	P		**P**	**17 10 34.3**	**-1.3**
JSU				IAmb		IAmb	17 10 40.2	
	comp=Z,29nm,1.0s							
BSSI	**Bau Bau, Buton**	**20.09**	**180**	P		Pn	17 10 44.7	+0.7
	comp=Z,21nm,0.7s							
TPI	**Tanjungpandan**	**21.04**	**218**	P		**P**	**17 10 55.1**	**+3.8**
	comp=Z,22nm,1.2s							
CM31	**Chiang Mai Arr**	**21.18**	**285**	P		**P**	**17 10 53.0**	**+0.3**
CM31				IAmb		IAmb	17 10 57.5	
	comp=Z,13nm,1.0s							
CMAR	**Chiang Mai Arr**	**21.18**	**285**	P		**P**	**17 10 55.2**	**+2.5**
	comp=Z,8.0nm,1.1s,baz=95,slow=7.5,SNR=31							
CMAR				pP		**pwP**	**17 11 20.3**	**+1.7**
	comp=Z,1.4nm,0.9s,baz=101,slow=8.6,SNR=2.2							
	comp=Z,8.0nm,1.1s							
CMAR	**Chiang Mai Arr**	**21.18**	**285**			**P**	**17 10 53.0**	**+0.3**
CHTO	**Chiang Mai**	**21.23**	**286**	P		**P**	**17 10 53.8**	**+0.4**
CHTO	**Chiang Mai**	**21.23**	**286**	P		**P**	**17 10 56.1**	**+2.8**
CHTO	**Chiang Mai**	**21.23**	**286**	P		**P**	**17 10 55.3**	**+2.0**
	comp=Z,7.4nm,0.9s							
KULM	**Kulim**	**21.44**	**248**	P		**P**	**17 10 55.6**	**0.0**
IPM	**Ipoh**	**21.47**	**245**	P		**P**	**17 10 55.8**	**-0.1**
IPM				IAmb		IAmb	17 10 59.4	
	comp=Z,7.5nm,0.7s							
IPM	**Ipoh**	**21.47**	**245**	P		**P**	**17 10 57.7**	**+1.8**
	comp=Z,12nm,0.8s							
LYN	**LuoYang**	**21.65**	**342**	P		**P**	**17 10 59.5**	**+1.9**
LYN				pmax		pmax		
	comp=Z,15nm,0.5s							
TIA	**Tai'an**	**22.25**	**353**	P		**P**	**17 11 04.6**	**+0.7**
TIA				pmax		pmax		
	comp=Z,13nm,1.0s							
LBFI	**Labuhan Bajo,**	**22.42**	**182**	P		**P**	**17 11 08.5**	**+2.8**
LBFI	**Labuhan Bajo,**	**22.42**	**182**	P		**P**	**17 11 08.2**	**+2.5**
	comp=Z,45nm,0.8s							
XAN	**Xi'an**	**22.49**	**334**	*e*P		**P**	**17 11 04.9**	**-1.5**
DBNI	**Kabupaten Domp**	**22.54**	**186**	P		**P**	**17 11 08.4**	**+1.5**
DBNI	**Kabupaten Domp**	**22.54**	**186**	P		**P**	**17 11 08.5**	**+1.6**
	comp=Z,13nm,0.8s							
MMRI	**Maumere**	**22.63**	**176**	P		**P**	**17 11 07.1**	**-0.7**
MMRI				IAmb		IAmb	17 11 12.6	
	comp=Z,18nm,0.9s							
EDFI	**Ende, Flores**	**22.71**	**177**	P		**P**	**17 11 10.4**	**+1.7**
	comp=Z,401nmcomp=Z,42nm,0.8s							
EDFI	**Ende, Flores**	**22.71**	**177**	P		**P**	**17 11 10.6**	**+1.9**
	comp=Z,42nm,0.8s							
PLAI	**Plampang**	**22.92**	**187**	P		**P**	**17 11 12.4**	**+1.7**
	comp=Z,31nm,0.8s							
JMN	**Monobe**	**23.01**	**29**	P		**P**	**17 11 11.3**	**-0.1**
SMRI	**Semarang**	**23.26**	**206**	P		**P**	**17 11 14.8**	**+1.0**
JAGI	**Jajag, Banyuwa**	**23.28**	**196**	P		**P**	**17 11 14.8**	**+0.8**
SNJI	**Sawahan-Nganju**	**23.40**	**202**	P		**P**	**17 11 19.1**	**+3.8**
	comp=Z,32nm,1.7s							
PWJI	**Pagerwojo**	**23.60**	**202**	P		**P**	**17 11 18.9**	**+2.0**
	comp=Z,26nm,0.9s							
WOJI	**Wonogiri, Jawa**	**23.77**	**204**	P		**P**	**17 11 20.5**	**+2.1**
	comp=Z,53nm,1.4s							
SOEI	**Soe**	**23.96**	**171**	P		**P**	**17 11 19.5**	**-0.9**
SOEI				IAmb		IAmb	17 11 30.9	
	comp=Z,13nm,0.7s							
UGM	**Wanagama**	**24.00**	**205**	P		**P**	**17 11 22.1**	**+1.6**
JCJ	**Chichijima**	**24.00**	**54**	P		**P**	**17 11 19.2**	**-1.3**
NPW	**Naypyitaw**	**24.01**	**287**	P		**P**	**17 11 22.1**	**+1.5**
	comp=Z,23nm,1.0s							
SDSI	**Sungai Dareh**	**24.09**	**233**	P		**P**	**17 11 22.8**	**+1.4**
	comp=Z,21nm,0.8s							
PSI	**Prapat**	**24.10**	**244**	P		**P**	**17 11 23.1**	**+1.4**
RPSI	**Rantau Prapat**	**24.15**	**244**			**P**	**17 11 21.6**	**-0.4**
RPSI				IAmb		IAmb	17 11 23.9	
	comp=Z,16nm,0.9s							
RPSI	**Rantau Prapat**	**24.15**	**244**	P		**P**	**17 11 23.0**	**+1.0**
	comp=Z,19nm,0.9s							
KSAR	**Wonju Array Be**	**24.17**	**14**	P		**P**	**17 11 21.3**	**-0.6**
KSRS	**Korea Array**	**24.20**	**14**	P		**P**	**17 11 21.4**	**-0.6**
	comp=Z,0.7nm,0.5s,baz=197,slow=9.3,SNR=5.3							
KSRS				pP		**pP**	**17 11 49.9**	**+2.7**
	comp=Z,0.7nm,0.5s,baz=196,slow=11,SNR=2.1							
	comp=Z,0.7nm,0.5s							
BBJI	**Bungbulang**	**24.93**	**212**			**P**	**17 11 29.0**	**0.0**
BBJI				IAmb		IAmb	17 11 32.9	
	comp=Z,16nm,0.8s							
BBJI	**Bungbulang**	**24.93**	**212**	P		**P**	**17 11 30.0**	**+0.9**
	comp=Z,22nm,1.1s							
INU	**Inuyama**	**25.86**	**32**	P		**P**	**17 11 35.7**	**-1.6**
BJT	**Baijiatuau**	**26.13**	**352**	P		**P**	**17 11 39.1**	**-0.5**
BJT				IAmb		IAmb	17 11 40.5	
	comp=Z,6.2nm,0.5s							
JGF	**Kuroka**	**26.23**	**32**	P		**P**	**17 11 38.9**	**-1.7**
JGF				IAmb		IAmb	17 11 45.7	
	comp=Z,15nm,1.1s							
MJAR	**Matsushiro Arr**	**27.40**	**32**	P		**P**	**17 11 50.7**	**-0.3**
	comp=Z,0.6nm,0.7s,baz=205,slow=9.0,SNR=4.8							
	comp=Z,0.6nm,0.7s							
MJAR	**Matsushiro Arr**	**27.40**	**32**	P		**P**	**17 11 50.2**	**-0.8**
HHC	**Hu-ho-hao-te**	**27.80**	**345**	*e*P		**P**	**17 11 58.5**	**+3.8**
HHC				pmax		pmax		
	comp=Z,6.0nm,0.7s							
MTN	**Manton Dam**	**28.73**	**158**	P		**P**	**17 12 01.1**	**-1.9**
MTN				IAmb		IAmb	17 12 21.6	
	comp=Z,5.9nm,1.2s							
SHL	**Shillong**	**29.21**	**297**			**P**	**17 12 06.9**	**-0.6**
KNRA	**Kununurra**	**30.66**	**164**	P		**P**	**17 12 18.2**	**-1.9**
KNRA				IAmb		IAmb	17 12 50.0	
	comp=Z,7.2n

comp=Z,0.3nm,0.4s,baz=113,slow=8.1,SNR=5.9
comp=Z,0.3nm,0.4s

MKAR	**Makanchi Array**	**45.64**	**323**	P		**P**	**17 14 26.3**	**+1.1**
INKA	**Innaminka**	**45.96**	**155**	P		**P**	**17 14 27.8**	**-0.1**
NWAO	**Narrogin (SRO)**	**46.84**	**184**	P		**P**	**17 14 33.9**	**-0.8**
NRN	**Naryn**	**47.20**	**314**	P		**P**	**17 14 38.3**	**+0.4**
YAK	**Yakutsk**	**48.33**	**6**	P		**P**	**17 14 44.4**	**-1.4**
YAK				IAmb		IAmb	17 14 45.7	

comp=Z,5.8nm,0.7s

ZALV	**Zalesovo Beam**	**48.65**	**333**	P		**P**	**17 14 48.5**	**+0.1**
ZALV				pP		**pP**	**17 15 19.7**	**+3.3**

comp=Z,0.6nm,0.4s,baz=117,slow=7.3,SNR=4.7
comp=Z,0.5nm,0.6s,baz=130,slow=6.2,SNR=2.1
comp=Z,0.6nm,0.4s

PEA0B	**Petropavlovsk-**	**48.77**	**29**	P		**P**	**17 14 48.7**	**-0.7**
PETK	**Petropavlovsk-**	**48.77**	**29**	P		**P**	**17 14 49.4**	**0.0**

comp=Z,3.6nm,0.7s,baz=216,slow=7.6,SNR=4.9
comp=Z,3.6nm,0.7s

PETK	**Petropavlovsk-**	**48.77**	**29**	P		**P**	**17 14 48.7**	**-0.7**
BBOO	**Buckleboo**	**48.93**	**163**	P		**P**	**17 14 49.4**	**-1.4**
BBOO				IAmb		IAmb	17 14 51.0	

comp=Z,11nm,1.1s

BBOO				PcP		**PcP**	**17 16 12.4**	**-0.9**
BBOO	**Buckleboo**	**48.93**	**163**	P		**P**	**17 14 50.0**	**-0.8**

comp=Z,12nm,0.8s

ARSB	**Arslanbob**	**49.29**	**313**	P		**P**	**17 14 54.4**	**+0.6**
ARSB				IAmb		IAmb	17 15 31.8	

comp=Z,9.7nm,1.4s

KURBB	**Kurchatov Arra**	**49.79**	**326**	P		**P**	**17 14 58.1**	**+0.9**
KURBB				pP		**pP**	**17 15 30.8**	**+5.8**

comp=Z,2.1nm,1.0s,baz=119,slow=8.7,SNR=3.2
comp=Z,1.5nm,1.0s,baz=119,slow=8.7,SNR=3.2
comp=Z,2.1nm,0.8s

KURK	**Kurchatov**	**49.79**	**326**			**P**	**17 14 57.6**	**+0.4**
KURK				IAmb		IAmb	17 14 59.3	

comp=Z,15nm,1.4s

KURK	**Kurchatov**	**49.79**	**326**			pP	17 15 30.8	+5.8
KURK	**Kurchatov**	**49.79**	**326**	P		**P**	**17 14 58.2**	**+1.1**

comp=Z,7.1nm,1.1s

STKA	**Stephens Creek**	**49.95**	**156**	P		**P**	**17 14 58.4**	**-0.3**

comp=Z,0.9nm,0.3s,baz=302,slow=4.3,SNR=3.1
comp=Z,0.9nm,0.3s

STKA	**Stephens Creek**	**49.95**	**156**	P		**P**	**17 14 58.6**	**0.0**

comp=Z,22nm,2.3s

BTK	**Batken**	**50.47**	**311**	P		**P**	**17 15 03.2**	**+0.6**
BTK				IAmb		IAmb	17 15 05.0	

comp=Z,2.5nm,0.5s

CMSA	**Cobar Meteorol**	**51.38**	**152**	P		**P**	**17 15 10.1**	**+0.8**
KK31	**Karatay Array**	**51.60**	**314**			**P**	**17 15 11.4**	**+0.4**
KK31				IAmb		IAmb	17 15 12.7	

comp=Z,2.3nm,0.6s

KKAR	**Karatay Array**	**51.60**	**314**			**P**	**17 15 11.6**	**+0.7**
TIXI	**Tiksi**	**57.77**	**3**	P		**P**	**17 15 53.6**	**-1.3**

comp=Z,5.9nm,0.8s

AB31	**Akbulak array**	**60.35**	**319**	P		**P**	**17 16 13.4**	**+0.4**
ABKAR	**Akbulak array**	**60.35**	**319**	P		**P**	**17 16 13.6**	**+0.5**
RAYN	**Ar Rayn**	**70.98**	**290**	P		**P**	**17 17 22.3**	**+0.4**

comp=Z,9.7nm,1.5s

C18K	**Utukok River**	**72.71**	**22**	P		**P**	**17 17 31.0**	**-0.5**
D19K	**Kuna River**	**73.83**	**22**			**P**	**17 17 37.0**	**-0.9**
D19K				IAmb		IAmb	17 17 59.0	

comp=Z,15nm,1.3s

M17K	**Holitna River**	**73.94**	**30**	P		**P**	**17 17 39.4**	**+0.7**
M17K				IAmb		IAmb	17 17 40.8	

comp=Z,11nm,1.1s

N17K	**Nushagak Hills**	**74.06**	**31**	P		**P**	**17 17 39.6**	**+0.2**
E19K	**Redstone River**	**74.12**	**23**	P		**P**	**17 17 39.6**	**-0.1**
E19K				IAmb		IAmb	17 17 48.8	

comp=Z,9.1nm,1.4s

L18K	**Granite Mounta**	**74.30**	**29**	P		**P**	**17 17 40.9**	**+0.1**
G21K	**Allakaket**	**75.59**	**24**	P		**P**	**17 17 48.4**	**+0.2**
G21K				IAmb		IAmb	17 17 53.5	

comp=Z,5.2nm,1.1s

SII	**Sitkinak Islan**	**75.79**	**35**	P		**P**	**17 17 48.2**	**-1.3**
TOLK	**Toolik Lake Re**	**76.97**	**22**	P		**P**	**17 17 56.4**	**+0.5**
F24K	**Squaw Lake**	**77.71**	**23**	P		**P**	**17 18 00.2**	**+0.1**
C26K	**Camden Bay**	**78.45**	**21**	P		**P**	**17 18 04.0**	**0.0**
C26K				IAmb		IAmb	17 18 05.7	

comp=Z,11nm,1.4s

ILAR	**Eielson Array**	**78.48**	**26**	P		**P**	**17 18 03.0**	**-1.3**

comp=Z,0.4nm,1.0s,baz=279,slow=6.2,SNR=1.8
comp=Z,0.4nm,1.0s

ARCES	**ARCESS Array B**	**78.68**	**339**	P		**P**	**17 18 05.2**	**-0.1**

comp=Z,2.5nm,0.9s,baz=79,slow=9.3,SNR=1.5
comp=Z,2.5nm,0.9s

ARCES	**ARCESS Array B**	**78.68**	**339**	P		**P**	**17 18 04.5**	**-0.8**
FINES	**FINESS Array B**	**79.88**	**331**	P		**P**	**17 18 11.5**	**-0.4**

comp=Z,7.5nm,1.1s,baz=74,slow=4.4,SNR=4.2
comp=Z,7.5nm,1.1s

D27M	**Malcolm River**	**79.94**	**21**	P		**P**	**17 18 12.4**	**+0.1**
CASY	**Casey**	**80.47**	**184**	P		**P**	**17 18 13.5**	**-1.3**
E28M	**Babbage River**	**80.59**	**21**	P		**P**	**17 18 15.9**	**+0.2**
CTZ	**Chatham Island**	**81.11**	**139**	P		**P**	**17 18 17.9**	**-0.9**
AKAS	**Kas**	**82.56**	**305**	P		**P**	**17 18 26.6**	**-0.2**
INK	**Inuvik**	**82.80**	**21**	P		**P**	**17 18 26.9**	**-0.3**

comp=Z,1.9nm,0.9s,baz=249,slow=7.2,SNR=3.9
comp=Z,1.9nm,0.9s

INK	**Inuvik**	**82.80**	**21**	IAmb		IAmb	17 19 07.4	

comp=Z,6.0nm,1.3s

BURAR	**Bucovina Array**	**83.27**	**317**	P		**P**	**17 18 30.5**	**+0.2**
BUR08	**Bucovina Ar. S**	**83.28**	**317**	P		**P**	**17 18 30.3**	**0.0**
A36M	**Sachs Harbour**	**83.92**	**17**	P		**P**	**17 18 32.2**	**-0.7**
A36M				IAmb		IAmb	17 19 11.6	

comp=Z,3.3nm,1.0s

C36M	**Paulatuk**	**85.51**	**19**	P		**P**	**17 18 40.2**	**-0.7**
C36M				IAmb		IAmb	17 18 41.2	

comp=Z,3.9nm,0.8s

YKA	**Yellowknife Ar**	**92.49**	**22**	P		**P**	**17 19 14.1**	**+0.1**

comp=Z,0.8nm,0.5s,baz=308,slow=4.7,SNR=7.9
comp=Z,0.8nm,0.5s

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*IDC **21** 17:20:35.5±1.0,61.˙73N×148.˙45W,h0km,mb3.7/3, mbtmp3.7/7,ML3.4/4,MS2.9/1,Error ellipse: s-maj=26.3km s-min=13.6km az=119.0*

*NEIC **21** 17:20:40.7±1.1,61.˙69N±0.˙03×148.˙03W±0.˙04,h33km±9km, mb4.0/4,ML3.8/224,ML3.6(AEIC),Error ellipse: s-maj=3.7km s-min=2.5km az=189.0*

*AEIC **21** 17:20:41.2±1.4,61.˙71N±0.˙03×147.˙98W±0.˙04,h35km±8km, Error ellipse: s-maj=3.9km s-min=2.6km az=182.0*

ISC 21 17:20:39.9±0.7,61.˙68N±0.˙02×148.˙04W±0.˙02,h35km, n311,σ1s49/311,mb3.8/3,Southern Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SML	**Sawmill**	**0.19**	**312**		**Pn**	**17 20 46.4**	**-0.3**
SML				Sg	**Sn**	**17 20 51.8**	**+0.4**
SML				IAML		17 20 52.2	

comp=N,14μm,0.5s

SML				IAML		17 20 52.3	

comp=E,15μm,0.4s

M23K	**Glacier View**	**0.19**	**54**		**Pn**	**17 20 46.4**	**-0.3**
M23K					**Sn**	**17 20 51.5**	**+0.2**
KNK	**Knik Glacier**	**0.34**	**217**		**Pn**	**17 20 48.6**	**+0.3**
KNK				Sg	**Sn**	**17 20 55.1**	**+1.0**
KNK				IAML		17 20 56.3	

comp=E,12μm,0.3s

KNK				IAML		17 20 56.5	

comp=N,9μm,0.6s

SCM	**Sheep Creek Mo**	**0.37**	**66**		**Pn**	**17 20 48.3**	**-0.5**
SCM				Sg	**Sn**	**17 20 54.7**	**-0.3**
GHO	**Glory Hole Cre**	**0.43**	**282**		**Pn**	**17 20 49.4**	**-0.2**
GHO				Sg	**Sn**	**17 20 56.7**	**+0.3**
GHO				IAML		17 20 57.2	

comp=E,5μm,0.3s

GHO				IAML		17 20 57.4	

comp=N,6μm,0.5s

PMR	**Palmer**	**0.53**	**261**	P		**Pn**	**17 20 50.7**	**-0.2**
PMR	**Palmer**	**0.53**	**261**	S		**Sn**	**17 20 59.0**	**+0.4**
PMR	**Palmer**	**0.53**	**261**			**Pn**	**17 20 50.8**	**-0.2**
PMR						**Sn**	**17 20 58.7**	**+0.1**
PWL	**Port Wells**	**0.84**	**190**			**Pn**	**17 20 55.6**	**+0.4**
PWL				Sn		**Sn**	**17 21 07.3**	**+1.0**
PWL				IAML		17 21 09.9	

comp=E,2μm,0.5s

PWL				IAML		17 21 11.2	

comp=N,3μm,0.5s

WAT6	**Susitna Watana**	**0.91**	**9**		**Sn**	**17 21 07.2**	**-1.2**
GLI	**Glacier Island**	**0.93**	**150**		**Pn**	**17 20 56.6**	**+0.2**
GLI				Sn	**Sn**	**17 21 09.8**	**+1.3**
M22K	**Willow**	**0.99**	**275**		**Pn**	**17 20 57.6**	**+0.3**
M22K				Sn	**Sn**	**17 21 10.9**	**+0.9**
M22K				IAML		17 21 18.2	

comp=E,2μm,0.6s

M22K				IAML		17 21 25.1	

comp=N,2μm,0.6s

VMT	**TAPS TI Valdez**	**1.01**	**126**		**Pn**	**17 20 57.0**	**-0.5**
VMT					**Sn**	**17 21 11.2**	**+0.9**
RC01	**Rabbit Creek A**	**1.01**	**235**		**Pn**	**17 20 58.6**	**+1.0**
RC01				Sn	**Sn**	**17 21 11.7**	**+1.2**
RC01				IAML		17 21 15.8	

comp=E,2μm,0.6s

RC01				IAML		17 21 16.1	

comp=N,2μm,0.4s

KLU	**Klutina**	**1.03**	**100**		**Pn**	**17 20 57.5**	**-0.4**
KLU				Sn	**Sn**	**17 21 10.4**	**-0.8**
KLU				IAML		17 21 15.4	

comp=E,2μm,0.3s

WAT1	**Susitna Watana**	**1.18**	**349**		**Sn**	**17 21 14.4**	**-0.3**
FIS	**Fire Island**	**1.18**	**244**	Pn	**Pn**	**17 21 01.1**	**+1.2**
FIS				IAML		17 21 25.7	

comp=E,3μm,0.5s

FIS				IAML		17 21 28.0	

comp=N,2μm,0.5s

FID	**Port Fidalgo**	**1.20**	**140**		**Pn**	**17 21 00.6**	**+0.3**
FID				Sn	**Sn**	**17 21 16.2**	**+0.9**
WAT7	**Susitna Watana**	**1.22**	**342**		**Sn**	**17 21 15.7**	**-0.1**
DIV	**Divide**	**1.23**	**116**		**Pn**	**17 21 00.3**	**-0.3**
DIV				IAML		17 21 18.4	

comp=E,2μm,0.3s

DIV	**Divide**	**1.23**	**116**		**Sn**	**17 21 16.3**	**+0.4**
CUT	**Chulitna**	**1.27**	**306**		**Pn**	**17 21 01.7**	**+0.5**
CUT	**Chulitna**	**1.27**	**306**		**Sn**	**17 21 19.2**	**+2.1**
CUT	**Chulitna**	**1.27**	**306**	IAML		17 21 19.6	

comp=N,4μm,0.6s

CUT				IAML		17 21 19.8	

comp=E,4μm,0.8s

PS11	**TAPS Pump St11**	**1.28**	**71**		**Sn**	**17 21 18.3**	**+1.1**
SUA	**Susitna One**	**1.31**	**262**		**Pn**	**17 21 02.9**	**+1.1**
SUA	**Susitna One**	**1.31**	**262**		**Sn**	**17 21 20.5**	**+2.4**
SUA	**Susitna One**	**1.31**	**262**	IAML		17 21 22.6	

comp=E,1μm,0.5s

SUA				IAML		17 21 22.7	

comp=N,2μm,0.8s

PS12	**TAPS Pump St12**	**1.40**	**97**		**Pn**	**17 21 03.0**	**0.0**
PS12					**Sn**	**17 21 21.4**	**+1.2**
DHY	**Denali Highway**	**1.43**	**12**		**Pn**	**17 21 03.6**	**+0.1**
DHY	**Denali Highway**	**1.43**	**12**		**Sn**	**17 21 21.7**	**+0.5**
DHY	**Denali Highway**	**1.43**	**12**	IAML		17 21 23.0	

comp=E,708nm,0.4s

DHY				IAML		17 21 25.8	

comp=N,801nm,0.4s

O22K	**Cooper Landing**	**1.46**	**215**		**Pn**	**17 21 04.6**	**+0.9**
O22K	**Cooper Landing**	**1.46**	**215**		**Sn**	**17 21 23.4**	**+1.9**
O22K	**Cooper Landing**	**1.46**	**215**	IAML		17 21 30.9	

comp=N,3μm,0.7s

O22K				IAML		17 21 34.6	

comp=E,3μm,1.0s

HIN	**Hinchinbrook I**	**1.49**	**149**		**Pn**	**17 21 05.5**	**+1.3**
HIN	**Hinchinbrook I**	**1.49**	**149**		**Sn**	**17 21 24.9**	**+2.5**
HIN	**Hinchinbrook I**	**1.49**	**149**	IAML		17 21 27.5	

comp=E,3μm,0.5s

HIN				IAML		17 21 27.6	

comp=N,3μm,0.7s

L22K	**Petersville**	**1.54**	**305**	Pn	**Pn**	**17 21 04.8**	**0.0**
L22K				IAML		17 21 26.9	

comp=E,1μm,0.3s

L22K				IAML		17 21 30.2	

comp=N,885nm,0.5s

HARP	**HAARP**	**1.54**	**61**		**Pn**	**17 21 05.8**	**+1.0**
HARP	**HAARP**	**1.54**	**61**		**Sn**	**17 21 25.4**	**+1.8**
HARP	**HAARP**	**1.54**	**61**	IAML		17 21 28.4	

comp=E,2μm,0.5s

HARP				IAML		17 21 28.4	

comp=N,3μm,0.4s

SLKM	**Skilak Lake**	**1.58**	**223**		**Pn**	**17 21 07.2**	**+1.8**
SLKM	**Skilak Lake**	**1.58**	**223**		**Sn**	**17 21 27.4**	**+2.6**
SLKM	**Skilak Lake**	**1.58**	**223**	IAML		17 21 29.8	

comp=N,1μm,0.7s

SLKM				IAML		17 21 30.4	

comp=E,1μm,0.5s

N25K	**Chitina, Valde**	**1.65**	**91**		**Sn**	**17 21 28.4**	**+2.1**
SKT	**Skwentna**	**1.68**	**282**		**Pn**	**17 21 08.3**	**+1.4**
SKT	**Skwentna**	**1.68**	**282**		**Sn**	**17 21 29.1**	**+1.9**
SKT	**Skwentna**	**1.68**	**282**	IAML		17 21 31.7	

comp=E,638nm,0.5s

SKT				IAML		17 21 32.5	

comp=N,1μm,0.3s

P23K	**Montague Islan**	**1.72**	**169**		**Pn**	**17 21 09.1**	**+1.8**
P23K				IAML		17 21 35.6	

comp=E,1μm,0.4s

P23K	**Montague Islan**	**1.72**	**169**		**Sn**	**17 21 30.9**	**+2.8**
SEW	**Seward**	**1.73**	**204**		**Pn**	**17 21 08.9**	**+1.6**
SEW	**Seward**	**1.73**	**204**		**Sn**	**17 21 30.5**	**+2.3**
SEW	**Seward**	**1.73**	**204**	IAML		17 21 33.9	

comp=E,458nm,0.7s

SEW				IAML		17 21 36.8	

comp=N,428nm,0.5s

CAPN	**Captain Cook N**	**1.76**	**240**	Pn	**Pn**	**17 21 09.9**	**+2.0**
PAX	**Paxson**	**1.76**	**42**		**Pn**	**17 21 08.8**	**+0.8**
PAX	**Paxson**	**1.76**	**42**		**Sn**	**17 21 30.6**	**+1.3**
PAX	**Paxson**	**1.76**	**42**	IAML		17 21 33.6	

comp=N,1μm,0.6s

PAX				IAML		17 21 33.7	

comp=E,806nm,0.3s

RND	**Reindeer**	**1.77**	**348**		**Pn**	**17 21 08.7**	**+0.6**
RND	**Reindeer**	**1.77**	**348**		**Sn**	**17 21 30.8**	**+1.4**
RND	**Reindeer**	**1.77**	**348**	IAML		17 21 32.3	

comp=N,921nm,0.4s

RND				IAML		17 21 33.1	

comp=E,625nm,0.6s

WACK	**Wrangell Chich**	**1.79**	**79**		**Sn**	**17 21 31.9**	**+1.8**
BMRM	**Bremner River**	**1.81**	**112**		**Pn**	**17 21 09.6**	**+1.1**
BMRM				IAML		17 21 35.7	

comp=N,1μm,0.4s

BMRM				IAML		17 21 37.0	

comp=E,1μm,0.3s

BMRM	**Bremner River**	**1.81**	**112**		**Sn**	**17 21 32.2**	**+2.0**
STLK	**Strandline Lak**	**1.82**	**266**		**Pn**	**17 21 10.5**	**+1.8**
STLK	**Strandline Lak**	**1.82**	**266**		**Sn**	**17 21 33.0**	**+2.3**
STLK	**Strandline Lak**	**1.82**	**266**	IAML		17 21 35.6	

comp=E,585nm,0.6s

STLK				IAML		17 21 36.1	

comp=N,1μm,0.5s

WASW	**Wrangell South**	**1.85**	**81**		**Pn**	**17 21 10.3**	**+0.9**
WASW					**Sn**	**17 21 33.4**	**+1.7**
SPCG	**Spurr Capps Gl**	**1.95**	**260**		**Sn**	**17 21 36.5**	**+2.6**
SPCG						17 21 37.5	
GOAT	**Goat Mountain**	**1.95**	**123**		**Sn**	**17 21 36.4**	**+2.6**
SPU	**Mount Spurr**	**1.99**	**257**		**Pn**	**17 21 12.8**	**+1.7**
SPU	**Mount Spurr**	**1.99**	**257**		**Sn**	**17 21 37.2**	**+2.4**
SPU	**Mount Spurr**	**1.99**	**257**	IAML		17 21 40.7	

comp=N,441nm,0.5s

SPU				IAML		17 21 40.7	

comp=E,358nm,0.7s

SPCP	**Crater Peak Br**	**2.02**	**260**		**Pn**	**17 21 13.7**	**+2.1**
SPCP					**Sn**	**17 21 38.1**	**+2.5**
GLB	**Gilahina Butte**	**2.04**	**95**		**Pn**	**17 21 12.6**	**+0.9**
GLB				IAML		17 21 42.1	

comp=E,445nm,0.4s

GLB				IAML		17 21 43.7	

comp=N,654nm,0.6s

GLB	**Gilahina Butte**	**2.04**	**95**		**Sn**	**17 21 37.7**	**+1.7**
PS10	**TAPS Pump St10**	**2.04**	**30**		**Pn**	**17 21 13.4**	**+1.7**
PS10					**Sn**	**17 21 38.2**	**+2.2**
TRF	**Thorofare Moun**	**2.06**	**331**		**Pn**	**17 21 13.1**	**+1.0**
TRF	**Thorofare Moun**	**2.06**	**331**		**Sn**	**17 21 38.8**	**+2.2**
TRF	**Thorofare Moun**	**2.06**	**331**	IAML		17 21 41.9	

comp=N,718nm,0.6s

TRF				IAML		17 21 43.4	

comp=E,460nm,0.7s

SPCR	**Spurr Chakacha**	**2.06**	**258**		**Pn**	**17 21 13.8**	**+1.7**
SPCR					**Sn**	**17 21 38.8**	**+2.2**
RAGM	**Ragged Mountai**	**2.09**	**127**		**Pn**	**17 21 13.5**	**+1.1**
MCK	**McKinley**	**2.10**	**349**		**Pn**	**17 21 13.9**	**+1.3**
MCK				IAML		17 21 42.4	

comp=N,817nm,0.5s

MCK	**McKinley**	**2.10**	**349**		**Sn**	**17 21 39.0**	**+1.6**
SPBG	**Spurr Blockage**	**2.12**	**260**		**Pn**	**17 21 14.8**	**+1.9**
SPBG					**Pn**	**17 21 15.0**	**+2.1**
SPBG					**Sn**	**17 21 40.6**	**+2.6**
VRDI	**Verde Repeater**	**2.25**	**100**		**Pn**	**17 21 15.8**	**+1.0**
VRDI	**Verde Repeater**	**2.25**	**100**		**Sn**	**17 21 43.7**	**+2.3**
VRDI	**Verde Repeater**	**2.25**	**100**	IAML		17 21 48.5	

comp=E,411nm,0.8s

VRDI				IAML		17 21 49.2	

comp=N,388nm,0.7s

PPLA	**Purkeypile**	**2.29**	**304**		**Pn**	**17 21 16.2**	**+1.0**
PPLA	**Purkeypile**	**2.29**	**304**		**Sn**	**17 21 45.1**	**+2.8**
PPLA	**Purkeypile**	**2.29**	**304**	IAML		17 21 57.2	

comp=N,727nm,0.7s

BRSE	**Bradley Lake S**	**2.36**	**215**		**Sn**	**17 21 46.5**	**+2.7**
K24K	**Donnelly Dome**	**2.37**	**25**		**Pn**	**17 21 17.9**	**+1.6**
K24K	**Donnelly Dome**	**2.37**	**25**		**Sn**	**17 21 46.1**	**+1.9**
BRLK	**Bradley Lake**	**2.38**	**217**		**Pn**	**17 21 17.7**	**+1.3**
BRLK	**Bradley Lake**	**2.38**	**217**		**Sn**	**17 21 47.3**	**+3.0**
BRLK	**Bradley Lake**	**2.38**	**217**	IAML		17 21 55.1	

comp=E,429nm,0.6s

BRLK				IAML		17 21 58.7	

comp=N,280nm,1.7s

MENT	**Mentasta**	**2.38**	**56**	P	**Pn**	**17 21 19.1**	**+2.7**
MENT	**Mentasta**	**2.38**	**56**	S	**Sn**	**17 21 49.9**	**+5.5**
MENT	**Mentasta**	**2.38**	**56**		**Pn**	**17 21 17.8**	**+1.4**
MENT	**Mentasta**	**2.38**	**56**		**Sn**	**17 21 45.8**	**+1.4**
RDT	**Redoubt**	**2.39**	**244**		**Pn**	**17 21 18.4**	**+1.8**
RDT					**Sn**	**17 21 47.8**	**+3.1**
MCARA	**McCarthy VSAT**	**2.42**	**95**		**Pn**	**17 21 18.8**	**+1.8**
MCARA	**McCarthy VSAT**	**2.42**	**95**		**Sn**	**17 21 47.4**	**+2.1**
MCARA	**McCarthy VSAT**	**2.42**	**95**	IAML		17 21 54.2	

comp=E,809nm,0.6s

MCARA				IAML		17 21 55.0	

comp=N,1μm,0.6s

M20K	**Styx River**	**2.43**	**277**		**Pn**	**17 21 18.5**	**+1.4**
M20K	**Styx River**	**2.43**	**277**		**Sn**	**17 21 47.8**	**+2.2**
M20K	**Styx River**	**2.43**	**277**	IAML		17 21 53.7	

comp=N,213nm,0.8s

M20K				IAML		17 21 55.8	

comp=E,188nm,0.8s

BERG	**Berg Lake**	**2.48**	**120**		**Pn**	**17 21 20.0**	**+2.3**
BERG					**Sn**	**17 21 49.0**	**+2.3**
M26K	**Nabesna, AK**	**2.48**	**71**		**Pn**	**17 21 19.7**	**+1.8**
M26K	**Nabesna, AK**	**2.48**	**71**		**Sn**	**17 21 48.6**	**+1.6**
KAIM	**Kayak Island**	**2.50**	**133**	Pn	**Pn**	**17 21 18.8**	**+0.8**
KAIM				IAML		17 22 29.9	

comp=E,679nm,3.4s

KAIM	**Kayak Island**	**2.50**	**133**		**Sn**	**17 21 49.2**	**+1.9**
DFR	**Drift River**	**2.50**	**246**		**Pn**	**17 21 19.6**	**+1.5**
DFR					**Sn**	**17 21 50.4**	**+2.9**
RIDG	**Independent Ri**	**2.54**	**34**		**

L19K				IAML			17 22 26.3	
	comp=E,170nm,1.0s							
K20K	**Telida**	**3.26**	**304**			**Pn**	**17 21 29.4**	**+0.9**
K20K				IAML			17 22 26.2	
	comp=E,189nm,0.9s							
O19K	**Port Alsworth**	**3.41**	**247**			**Pn**	**17 21 31.7**	**+1.3**
O19K				IAML			17 22 17.6	
	comp=E,199nm,0.5s							
O19K				IAML			17 22 21.9	
	comp=N,252nm,0.5s							
YUK2	**White River**	**3.43**	**85**			**Pn**	**17 21 32.0**	**+1.1**
POKR	**Poker Plat Res**	**3.46**	**4**			**Pn**	**17 21 32.5**	**+1.3**
POKR				IAML			17 22 16.6	
	comp=N,212nm,0.6s							
POKR				IAML			17 22 17.1	
	comp=E,158nm,0.6s							
BVCY	**Beaver Creek**	**3.46**	**75**			**Pn**	**17 21 32.4**	**+1.2**
BVCY						**Pn**	**17 21 32.8**	**+1.5**
LOGN	**Logan Glacier**	**3.51**	**101**			**Pn**	**17 21 32.8**	**+0.7**
LOGN				IAML			17 22 25.7	
	comp=N,218nm,0.5s							
LOGN				IAML			17 22 31.6	
	comp=E,220nm,1.0s							
I23K	**Minto, Yukon-K**	**3.53**	**351**			**Pn**	**17 21 33.2**	**+1.1**
AUI	**Augustine Isla**	**3.55**	**231**			**Pn**	**17 21 34.5**	**+2.0**
MLY	**Manley**	**3.57**	**341**			**Pn**	**17 21 33.7**	**+0.9**
K27K	**Chicken**	**3.61**	**47**			**Pn**	**17 21 33.9**	**+0.6**
YUK3	**Moose Creek**	**3.61**	**85**			**Pn**	**17 21 34.6**	**+1.1**
YUK3						**Pn**	**17 21 34.7**	**+1.3**
PS07	**TAPS Pump Stn7**	**3.64**	**358**			**Pn**	**17 21 35.3**	**+1.6**
J20K	**Nowinta River**	**3.75**	**315**			**Pn**	**17 21 35.8**	**+0.7**
J20K				IAML			17 22 38.0	
	comp=N,213nm,0.7s							
J20K				IAML			17 22 38.1	
	comp=E,215nm,0.7s							
O28M	**Mount Upton**	**3.91**	**100**			**Pn**	**17 21 39.3**	**+1.7**
O28M				IAML			17 22 40.1	
	comp=E,98nm,0.8s							
O28M				IAML			17 22 41.9	
	comp=N,134nm,0.7s							
Q19K	**Cape Douglas,**	**3.92**	**228**	Pn		**Pn**	**17 21 38.6**	**+1.0**
N18K	**Kilae Creek**	**3.93**	**259**			**Pn**	**17 21 38.3**	**+0.6**
PRP	**Porcupine Dome**	**4.01**	**15**			**Pn**	**17 21 40.7**	**+1.8**
PRP	**Porcupine Dome**	**4.01**	**15**	IAML			17 22 28.8	
	comp=N,161nm,0.6s							
PRP				IAML			17 22 30.1	
	comp=E,120nm,0.6s							
L18K	**Granite Mounta**	**4.12**	**281**			**Pn**	**17 21 40.5**	**+0.2**
L18K				IAML			17 23 19.1	
	comp=E,73nm,4.6s							
PCA	**Pinnacle**	**4.12**	**109**	Pn		**Pn**	**17 21 41.5**	**+1.1**
H24K	**Noodor Dome**	**4.17**	**1**			**Pn**	**17 21 42.4**	**+1.3**
H24K	**Noodor Dome**	**4.17**	**1**	IAML			17 23 03.6	
	comp=E,72nm,1.4s							
J19K	**Poorman**	**4.18**	**307**			**Pn**	**17 21 41.6**	**+0.6**
J19K				IAML			17 22 56.2	
	comp=N,94nm,1.4s							
J19K				IAML			17 23 03.1	
	comp=E,97nm,1.4s							
P18K	**Big Mountain,**	**4.23**	**240**			**Pn**	**17 21 43.0**	**+1.2**
I26K	**Coal Creek Min**	**4.25**	**29**			**Pn**	**17 21 43.6**	**+1.7**
I26K	**Coal Creek Min**	**4.25**	**29**	IAML			17 22 54.8	
	comp=N,102nm,0.7s							
I26K				IAML			17 23 00.2	
	comp=E,116nm,0.7s							
I20K	**Naaghedeneel**	**4.27**	**320**			**Pn**	**17 21 43.2**	**+0.9**
J18K	**Innoko River**	**4.39**	**298**			**Pn**	**17 21 45.0**	**+1.0**
H22K	**Ishtalitna Cre**	**4.48**	**342**			**Pn**	**17 21 46.4**	**+1.2**
H22K				IAML			17 22 39.0	
	comp=E,77nm,0.7s							
H22K				IAML			17 22 39.5	
	comp=N,59nm,0.6s							
M17K	**Holitna River**	**4.50**	**271**			**Pn**	**17 21 46.0**	**+0.4**
M17K				IAML			17 22 59.7	
	comp=N,103nm,2.5s							
H21K	**Melozitna Rive**	**4.52**	**334**			**Pn**	**17 21 46.3**	**+0.5**
H21K				IAML			17 22 37.6	
	comp=E,55nm,0.8s							
H21K				IAML			17 23 10.9	
	comp=N,57nm,1.1s							
KDAK	**Kodiak Island**	**4.54**	**212**	Pn		**Pn**	**17 21 46.3**	**+0.3**
	comp=N,1.6nm,0.3s,baz=35,slow=4.2,SNR=29							
KDAK				Sn		**Sn**	**17 22 34.5**	**-2.9**
	comp=N,3.0nm,0.3s,baz=48,slow=12,SNR=9.8							
	comp=N,7.1nm,0.4s							
KDAK				AML	AML			
KDAK	**Kodiak Island**	**4.54**	**212**	Pn		**Pn**	**17 21 46.4**	**+0.3**
KAHG	**Katmai Hook Gl**	**4.56**	**228**			**Pn**	**17 21 47.9**	**+1.5**
M29M	**Somme Creek**	**4.57**	**76**			**Pn**	**17 21 48.2**	**+1.6**
N17K	**Nushagak Hills**	**4.59**	**259**			**Pn**	**17 21 47.5**	**+0.8**
N17K	**Nushagak Hills**	**4.59**	**259**	IAML			17 22 40.5	
	comp=E,66nm,4.7s							
Q18K	**Katmai Hardscr**	**4.62**	**232**			**Pn**	**17 21 48.6**	**+1.3**
DAWY	**Dawson**	**4.63**	**55**			**Pn**	**17 21 48.0**	**+0.8**
DAWY				IAML			17 23 08.6	
	comp=N,72nm,1.0s							
PNL	**Peninsula**	**4.71**	**112**	P		**Pn**	**17 21 47.5**	**-0.9**
PNL	**Peninsula**	**4.71**	**112**	S		**Sn**	**17 22 44.7**	**+3.0**
YUK6	**Outpost Mounta**	**4.72**	**95**			**Pn**	**17 21 50.4**	**+1.6**
KAWH	**Katmai**	**4.74**	**229**			**Pn**	**17 21 49.8**	**+1.0**
O29M	**Mount Kennedy**	**4.81**	**103**			**Pn**	**17 21 50.2**	**+0.2**
O29M				IAML			17 23 04.0	
	comp=E,75nm,0.5s							
O29M				IAML			17 23 06.5	
	comp=N,69nm,1.0s							
L29M	**L29M**	**4.83**	**68**			**Pn**	**17 21 51.5**	**+1.4**
L29M	**L29M**	**4.83**	**68**	IAML			17 23 18.2	
	comp=E,70nm,0.8s							
L29M				IAML			17 23 25.3	
	comp=N,53nm,1.1s							
O17K	**Koliganek Bris**	**4.84**	**251**			**Pn**	**17 21 52.1**	**+1.1**
P17K	**Kvichak River**	**4.85**	**243**			**Pn**	**17 21 51.1**	**+0.9**
I27K	**Kandik River**	**4.87**	**33**			**Pn**	**17 21 52.2**	**+1.6**
I27K	**Kandik River**	**4.87**	**33**	IAML			17 23 15.6	
	comp=E,75nm,0.9s							
I27K				IAML			17 23 17.6	
	comp=N,84nm,0.6s							
H20K	**Anotleneega Mo**	**4.89**	**324**			**Pn**	**17 21 52.0**	**+1.1**
H20K						**Pn**	**17 21 52.1**	**+1.2**
K17K	**Iditarod**	**4.92**	**287**			**Pn**	**17 21 52.0**	**+0.8**
K17K	**Iditarod**	**4.92**	**287**	IAML			17 23 11.9	
	comp=E,84nm,3.6s							
K17K				IAML			17 23 28.6	
	comp=N,90nm,2.8s							
IMAR	**Indian Mountai**	**5.00**	**332**			**Pn**	**17 21 53.3**	**+0.9**
G24K	**Hadweenzic Riv**	**5.04**	**3**			**Pn**	**17 21 54.4**	**+1.5**
G24K	**Hadweenzic Riv**	**5.04**	**3**	IAML			17 23 07.1	
	comp=N,55nm,1.0s							
G24K				IAML			17 23 10.8	
	comp=E,39nm,1.8s							
HYT	**Haines Junctio**	**5.16**	**95**			**Pn**	**17 21 55.5**	**+0.8**
HYT				IAML			17 23 23.9	
	comp=N,35nm,3.3s							
G25K	**Bearman Lake**	**5.17**	**9**			**Pn**	**17 21 56.0**	**+1.3**
I28M	**Miner Creek**	**5.23**	**40**			**Pn**	**17 21 57.8**	**+2.2**
I28M				IAML			17 23 28.2	
	comp=E,70nm,1.6s							
I28M				IAML			17 23 41.0	
	comp=N,48nm,4.5s							
N30M	**Aishikik Lake**	**5.24**	**88**			**Pn**	**17 21 55.3**	**-0.4**
J29N	**Klondike Camp**	**5.26**	**54**			**Pn**	**17 21 56.0**	**0.0**
M16K	**Timber Creek**	**5.30**	**268**			**Pn**	**17 21 57.3**	**+0.8**
M16K	**Timber Creek**	**5.30**	**268**	IAML			17 22 48.3	
	comp=E,59nm,3.6s							
M16K				IAML			17 22 57.7	
	comp=N,73nm,3.4s							
K29M	**Barlow Dome**	**5.30**	**61**			**Pn**	**17 21 55.6**	**-0.9**
M30M	**Minto, Yukon**	**5.35**	**75**			**Pn**	**17 21 56.9**	**-0.3**
M30M				IAML			17 23 28.9	
	comp=E,33nm,4.8s							
M30M				IAML			17 25 01.8	
	comp=N,34nm,4.5s							
H19K	**Roundabout Mou**	**5.38**	**319**			**Pn**	**17 21 56.6**	**-0.9**
H19K				IAML			17 23 32.2	
	comp=E,44nm,2.0s							
J17K	**VABM Dome**	**5.39**	**293**			**Pn**	**17 21 58.1**	**+0.4**
J17K	**VABM Dome**	**5.39**	**293**	IAML			17 23 37.4	
	comp=E,41nm,3.1s							
J17K				IAML			17 24 41.8	
	comp=N,48nm,4.6s							
H27K	**Steamboat Moun**	**5.39**	**29**			**Pn**	**17 21 59.0**	**+1.3**
H27K	**Steamboat Moun**	**5.39**	**29**	IAML			17 23 40.6	
	comp=E,40nm,1.3s							
G21K	**Allakaket**	**5.41**	**336**			**Pn**	**17 21 58.7**	**+0.8**
L16K	**Owhat River**	**5.44**	**275**			**Pn**	**17 21 58.7**	**+0.3**
G26K	**Porcupine Rive**	**5.60**	**17**			**Pn**	**17 22 02.2**	**+1.6**
P16K	**Nushagak River**	**5.61**	**246**			**Pn**	**17 22 01.8**	**+1.2**
H18K	**Honhosa River**	**5.79**	**311**			**Pn**	**17 22 04.4**	**+1.1**
G27K	**Doyon Strip**	**5.85**	**26**			**Pn**	**17 22 05.3**	**+1.3**
F24K	**Squaw Lake**	**5.86**	**1**			**Pn**	**17 22 05.1**	**+0.9**
BMAR	**Burnt Mountain**	**5.96**	**13**			**Pn**	**17 22 06.2**	**+0.7**
BM01	**Burnt Mountain**	**5.99**	**13**			**Pn**	**17 22 06.6**	**+0.7**
G19K	**Purcell Mounta**	**5.99**	**322**			**Pn**	**17 22 06.9**	**+0.9**
F25K	**Christian Rive**	**6.02**	**9**			**Pn**	**17 22 07.3**	**+0.9**
F21K	**Alatna River**	**6.04**	**339**			**Pn**	**17 22 07.5**	**+0.9**
J16K	**Anvik River**	**6.04**	**291**			**Pn**	**17 22 07.0**	**+0.4**
J30M	**Hart River**	**6.05**	**56**	Pn		**Pn**	**17 22 08.2**	**+1.4**
N15K	**Kwethluk River**	**6.07**	**261**			**Pn**	**17 22 08.2**	**+1.2**
F22K	**John River**	**6.11**	**345**			**Pn**	**17 22 08.8**	**+1.2**
I17K	**Unalakleet**	**6.21**	**296**			**Pn**	**17 22 09.6**	**+0.6**
H29M	**Whitestone**	**6.23**	**39**			**Pn**	**17 22 11.2**	**+1.9**
F26K	**Sheenjek River**	**6.26**	**14**			**Pn**	**17 22 10.4**	**+0.7**
H17K	**Granite Mounta**	**6.26**	**307**			**Pn**	**17 22 10.6**	**+1.0**
G18K	**Tagagawik**	**6.32**	**317**			**Pn**	**17 22 11.6**	**+1.2**
I30M	**Mount Dempster**	**6.32**	**51**			**Pn**	**17 22 11.3**	**+0.7**
L15K	**Ungalak Mounta**	**6.40**	**276**			**Pn**	**17 22 11.7**	**+0.2**
E24K	**Your Creek**	**6.42**	**359**			**Pn**	**17 22 13.0**	**+1.1**
SKAG	**Skagway**	**6.65**	**104**	P		**Pn**	**17 22 16.8**	**+1.8**
F19K	**Shaleruckik Mo**	**6.68**	**325**			**Pn**	**17 22 16.0**	**+0.7**
G29M	**Pine Creek**	**6.81**	**35**			**Pn**	**17 22 17.5**	**+0.3**
EPYK	**Eagle Plains**	**6.84**	**42**			**Pn**	**17 22 17.9**	**+0.4**
E19K	**Redstone River**	**7.01**	**330**			**Pn**	**17 22 20.5**	**+0.6**
L14K	**Kuka Creek**	**7.01**	**274**	Pn		**Pn**	**17 22 20.9**	**+0.9**
TOLK	**Toolik Lake Re**	**7.02**	**355**			**Pn**	**17 22 21.2**	**+1.2**
F18K	**Selawik**	**7.07**	**319**			**Pn**	**17 22 21.8**	**+1.1**
E27K	**Coleen River**	**7.08**	**20**			**Pn**	**17 22 21.2**	**+0.4**
J14K	**Nanvaranak Lak**	**7.33**	**285**			**Pn**	**17 22 25.4**	**+1.1**
P32M	**Atlin**	**7.35**	**100**			**Pn**	**17 22 25.4**	**+0.7**
G30M	**tAoh Zraii Nji**	**7.38**	**39**			**Pn**	**17 22 25.9**	**+0.8**
G16K	**Koyuk River**	**7.39**	**306**	Pn		**Pn**	**17 22 25.6**	**+0.5**
E20K	**Nigu River**	**7.44**	**336**			**Pn**	**17 22 27.0**	**+1.1**
JIS	**Juneau Island**	**7.65**	**110**	P		**Pn**	**17 22 30.3**	**+1.6**
D25K	**Kavik River**	**7.70**	**4**			**Pn**	**17 22 31.5**	**+2.1**
D20K	**Etivluk River**	**7.92**	**337**			**Pn**	**17 22 33.5**	**+1.1**
E29M	**Blow River**	**7.97**	**28**			**Pn**	**17 22 33.9**	**+0.8**
C21K	**Knifeblade Rid**	**8.01**	**342**			**Pn**	**17 22 33.6**	**0.0**
D19K	**Kuna River**	**8.04**	**333**	Pn		**Pn**	**17 22 34.6**	**+0.6**
E17K	**Hotham Inlet**	**8.05**	**318**			**Pn**	**17 22 35.3**	**+1.2**
C24K	**Franklin Bluff**	**8.08**	**358**			**Pn**	**17 22 35.4**	**+0.9**
Q32M	**Nakina River**	**8.29**	**102**	Pn		**Pn**	**17 22 38.3**	**+0.7**
F31M	**Tsiigehtchic**	**8.42**	**41**			**Pn**	**17 22 39.8**	**+0.6**
R33M	**Jennings River**	**8.72**	**98**	Pn		**Pn**	**17 22 44.0**	**+0.5**
INK	**Inuvik**	**9.03**	**36**	Pn		**Pn**	**17 22 49.5**	**+2.0**
	comp=E,0.6nm,0.3s,baz=244,slow=16,SNR=14							
INK				Sn		**Sn**	**17 24 27.3**	**-0.5**
	comp=E,0.4nm,0.3s,baz=291,slow=17,SNR=3.6							
	comp=E,1.9nm,0.4s							
INK				AML	AML			
DLBC	**Dease Lake**	**9.57**	**102**	LR	LR		17 26 28.1	
	comp=E,68nm,19.9s,baz=69,slow=36							
C36M	**Paulatuk**	**12.47**	**42**			**Pn**	**17 23 34.5**	**-0.1**
A36M	**Sachs Harbour**	**13.56**	**31**	Pn		**Pn**	**17 23 47.5**	**-1.9**
YKA	**Yellowknife Ar**	**15.58**	**72**	Pn		**Pn**	**17 24 17.6**	**+1.1**
	baz=277,slow=12,SNR=1.4							
	comp=E,0.4nm,0.8s							
HOLB	**Holberg**	**15.58**	**126**	Pn		**Pn**	**17 24 14.8**	**-1.9**
YKAW1	**Yellowknife Wh**	**15.64**	**72**			**Pn**	**17 24 15.1**	**-2.1**
YKAW1				IAmb	IAmb		17 24 20.2	
	comp=Z,4.0nm,1.1s							
ATKA	**Atka Island**	**17.02**	**248**	P		**Pn**	**17 24 34.1**	**-0.7**
ATKA				IAmb	IAmb		17 24 44.1	
	comp=Z,73nm,1.2s							
SONM	**Songino Array**	**55.71**	**308**	P		**P**	**17 30 12.4**	**-0.1**
	comp=Z,1.1nm,0.8s,baz=37,slow=7.1,SNR=8.2							
	comp=Z,1.1nm,0.8s							
SONM	**Songino Array**	**55.71**	**308**	IAmb	IAmb		17 30 13.5	
	comp=Z,1.1nm,0.8s							
MKAR	**Makanchi Array**	**64.56**	**324**	P		**P**	**17 31 11.1**	**-1.9**
	comp=Z,0.7nm,0.8s,baz=36,slow=6.5,SNR=4.2							
	comp=Z,0.7nm,0.8s							
CMAR	**Chiang Mai Arr**	**84.28**	**299**	P		**P**	**17 33 07.3**	**-0.6**
	comp=Z,0.3nm,0.6s,baz=35,slow=4.3,SNR=4.0							
	comp=Z,0.3nm,0.6s							
QSPA	**South Pole Qui**	**151.49**	**180**	PKPbc		**PKPbc**	**17 40 28.0**	**-0.4**
	comp=Z,0.8nm,1.1s,baz=339,slow=3.0,SNR=1.8							

IDC 21 17:25:37.4±418.0, 34°24N×118°57W, h0km, Error ellipse: s-maj=171.6km s-min=48.5km az=106.0, Southern California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I57US	**PINON FLAT INF**	**1.87**	**109**	I	I	17 37 47.0	
	0.7nm,0.8s,baz=290,slow=303,SNR=16						
I56US	**NEWPORT INFRAS**	**4.05**	**4**	I	I	18 41 10.0	
	baz=186,slow=329,SNR=2.0						
I10CA	**LAC DU BONNET**	**22.95**	**39**	I	I	19 43 50.0	
	0.1nm,1.6s,baz=231,slow=247,SNR=1.4						
I18DK	**QAANAAQ INFRAS**	**38.35**	**13**	I	I	22 24 10.0	
	0.1nm,0.9s,baz=236,slow=333,SNR=2.5						

*IDC **21** 17:46:01.0±0.8, 11°.92N×143°.47E, h0km, mb3.7/12, mbtmp3.7/13, ML3.8/1,MS2.6/3, Error ellipse: s-maj=24.9km s-min=15.3km az=121.0*

ISC 21 17:46:04.8±0.9, 12°.0N±0°.1×143°.7E±0°.2, h25km, n21, σ1s34/15, mb3.9/13, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.97**	**36**	Pn	**Pn**	**17 46 36.2**	**-0.3**
	32nm,0.3s,baz=173,slow=8.1,SNR=24						
GUMO				Sn	**Sn**	**17 46 58.3**	**-2.2**
	92nm,0.3s,baz=180,slow=20,SNR=22						
GUMO				LR	LR	17 47 19.2	
	comp=Z,37nm,20.0s,baz=186,slow=36						
	70nm,0.3s						
GUMO				AML	AML		
DAV	**Davao City (W)**	**18.51**	**256**	LR	LR	17 59 01.7	
	comp=Z,33nm,18.9s,baz=344,slow=43						
H11S3	**WAKE ISLAND Hy**	**23.10**	**71**	T	T	18 15 19.4	
	baz=257,slow=70,SNR=9.0						
H11S1	**WAKE ISLAND Hy**	**23.12**	**71**	T	T	18 15 23.7	
	baz=257,slow=70,SNR=6.4						
H11S2	**WAKE ISLAND Hy**	**23.12**	**71**	T	T	18 15 21.3	
	baz=257,slow=70,SNR=12						
H11N1	**WAKE ISLAND Hy**	**23.59**	**68**	T	T	18 16 00.9	
	baz=255,slow=75,SNR=17						
H11N2	**WAKE ISLAND Hy**	**23.60**	**68**	T	T	18 16 00.2	
	baz=255,slow=75,SNR=17						
H11N3	**WAKE ISLAND Hy**	**23.61**	**68**	T	T	18 16 01.3	
	baz=255,slow=75,SNR=18						
WRA	**Warramunga Arr**	**33.04**	**196**	P	**P**	**17 52 37.0**	**-1.4**
	1.0nm,0.7s,baz=19,slow=9.6,SNR=12						
	1.0nm,0.7s						
ASAR	**Alice Springs**	**36.70**	**195**	P	**P**	**17 53 09.2**	**-0.9**
	0.2nm,0.7s,baz=18,slow=12,SNR=7.8						
	0.2nm,0.7s						
CMAR	**Chiang Mai Arr**	**43.56**	**284**	P	**P**	**17 54 06.3**	**-0.8**
	0.3nm,0.8s,baz=89,slow=7.9,SNR=2.4						
CMAR				LR	LR	18 11 38.4	
	comp=Z,12nm,19.4s,baz=305,slow=35						
	0.3nm,0.8s						
SONM	**Songino Array**	**47.39**	**326**	P	**P**	**17 54 38.0**	**+0.9**
	0.4nm,0.8s,baz=129,slow=8.4,SNR=1.2						
	0.4nm,0.8s						
MKAR	**Makanchi Array**	**61.85**	**317**	P	**P**	**17 56 21.9**	**-0.1**
	0.5nm,0.8s,baz=98,slow=8.8,SNR=2.4						
	0.5nm,0.8s						
ZALV	**Zalesovo Beam**	**62.26**	**325**	P	**P**	**17 56 23.2**	**-1.3**
	0.6nm,0.4s,baz=110,slow=7.4,SNR=2.8						
	0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**65.11**	**320**	P	**P**	**17 56 42.4**	**-1.0**
	1.0nm,0.7s,baz=104,slow=6.8,SNR=8.8						
	1.0nm,0.7s						
NRIK	**Noril'sk**	**67.27**	**341**	P	**P**	**17 56 57.9**	**+1.0**
	0.8nm,0.5s,baz=40,slow=18,SNR=1.3						
	0.8nm,0.5s						
BVAR	**Borovoye Array**	**70.47**	**322**	P	**P**	**17 57 16.3**	**-0.8**
	1.2nm,0.5s,baz=119,slow=7.7,SNR=5.8						
	1.2nm,0.5s						
ILAR	**Eielson Array**	**70.50**	**25**	P	**P**	**17 57 16.6**	**-0.6**
	0.5nm,0.7s,baz=249,slow=5.9,SNR=6.8						
	0.5nm,0.7s						
YKA	**Yellowknife Ar**	**84.80**	**27**	P	**P**	**17 58 39.1**	**+2.2**
	0.3nm,0.4s,baz=288,slow=5.2,SNR=4.7						
	0.3nm,0.4s						
NVAR	**Mina Array Bea**	**88.82**	**51**	P	**P**	**17 58 59.0**	**+1.7**
	0.4nm,0.4s,baz=242,slow=3.2,SNR=3.6						
	0.4nm,0.4s						

FINES	**FINESS Array B**	**92.12**	**335**	P		**P**	**17 59 12.0**	**+0.2**
	8.0nm,1.1s,baz=78,slow=4.4,SNR=3.7							

*NOU **21** 18:00:51.0, 47°.65S×165°.55E, h0km, mb4.9/36, Off W. Coast of S. Island, N.Z.*

*IDC **21** 18:00:54.0±0.5, 47°.37S×165°.39E, h0km, mb4.4/10, mbtmp4.4/12, ML4.1/2, MS4.2/35, Error ellipse: s-maj=17.6km s-min=12.2km az=133.0*

*NEIC **21** 18:00:54.6±1.5, 47°.33S±0°.07×165°.5E±0°.1, h10km±1km, mb4.7/38, Error ellipse: s-maj=13.7km s-min=11.4km az=102.0*

*GFZ **21** 18:00:55.2±0.2, 47°S±4°×16°6E±°, h10km, M4.7/20, mb4.7/20, confirmed*

*GCMT **21** 18:00:58.6±0.2, 47°.41S±0°.01×165°.45E±0°.02, h15km±1km, MW5.0/119, Moment Tension Solution. s50,c72; s119,c176; Duration: 0 Moment tensor: Scale 10^16^Nm; M_{rr}-0.17±.10; $M_{\theta\theta}$3.58±.10; $M_{\phi\phi}$-3.41±.10; $M_{r\theta}$1.03±.31; $M_{\theta\phi}$2.27±.09; $M_{\phi r}$-1.10±.32; Best double couple: M_{σ}4.43200×10^16^ NP1:ϕ_s30.00000°, δ71.00000°, λ-174.00000°. NP2:ϕ_s298.00000°, δ84.00000°, λ-19.00000°. Principal axes: T 4.3580, Plg9.0000°, Azm345.0000°; N 0.1520, Plg70.0000°, Azm101.0000°; P -4.5060, Plg17.0000°, Azm252.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 21 18:00:53.6±2.4, 47°.37S±0°.05×165°.49E±0°.05, h3km±14km, n358, σ1s80/330, mb4.7/44, MS4.2/34, 12C-3D, Off west coast of South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYZ	**Puysegur Point**	**1.45**	**35**	P	**Pn**	**18 01 19.6**	**-1.1**
PYZ	**Puysegur Point**	**1.45**	**35**		**Pn**	**18 01 19.4**	**-1.3**
PYZ	**Puysegur Point**	**1.45**	**35**	P	**Pn**	**18 01 19.8**	**-0.9**
PYZ				S	**Sb**	**18 01 40.6**	**+0.5**
PYZ				AML	AML		
PYZ				AML	AML		
APZ	**The Paps**	**1.79**	**73**	P	**Pn**	**18 01 23.6**	**-1.8**
APZ				S	**Sn**	**18 01 46.4**	**-2.2**
APZ				AML	AML		
APZ				AML	AML		
RRKS	**Rarakau**	**1.83**	**49**	P	**Pn**	**18 01 25.6**	**-0.3**
RRKS				S	**Sb**	**18 01 50.1**	**-0.8**
ORPS	**Orepuki**	**1.90**	**56**	P	**Pn**	**18 01 26.4**	**-0.5**
ORPS				S	**Sn**	**18 01 51.5**	**+0.3**
ICCS	**Invercargill C**	**2.18**	**65**	P	**Pn**	**18 01 30.7**	**0.0**
ICCS				S	**Sn**	**18 01 58.1**	**0.0**
DCZ	**Deep Cove**	**2.22**	**32**		**Pn**	**18 01 30.9**	**-0.3**
DCZ	**Deep Cove**	**2.22**	**32**	P	**Pn**	**18 01 31.0**	**-0.3**
DCZ				AML	AML		
DCZ				AML	AML		
WHZ	**Wether Hill Ro**	**2.25**	**50**		**Pn**	**18 01 30.6**	**-1.0**
WHZ				Sn	**Sn**	**18 01 57.1**	**-2.7**
WHZ	**Wether Hill Ro**	**2.25**	**50**	P	**Pn**	**18 01 31.1**	**-0.5**
WHZ				S	**Sn**	**18 01 59.2**	**-0.6**
WHZ				AML	AML		
WHZ				AML	AML		
TAFS	**Te Anau Fire S**	**2.49**	**39**	P	**Pn**	**18 01 36.6**	**+1.7**
TAFS				S	**Sb**	**18 02 08.7**	**-1.2**
MOSS	**Mossburn Schoo**	**2.55**	**49**	P	**Pn**	**18 01 36.2**	**+0.4**
MOSS				S	**Sn**	**18 02 08.4**	**+1.1**
SYZ	**Scrubby Hill**	**2.63**	**73**	P	**Pn**	**18 01 35.9**	**-1.0**
SYZ	**Scrubby Hill**	**2.63**	**73**	S	**Sn**	**18 02 09.2**	**-0.1**
SYZ	**Scrubby Hill**	**2.63**	**73**	P	**Pn**	**18 01 36.2**	**-0.7**
SYZ				S	**Sn**	**18 02 08.5**	**-0.8**
SYZ				AML	AML		
SYZ				AML	AML		
GODC	**Gore District**	**2.69**	**63**	P	**Pn**	**18 01 38.2**	**+0.5**
GODC				S	**Sn**	**18 02 11.5**	**+0.8**
MLZ	**Mavora Lakes**	**2.70**	**43**		**Pn**	**18 01 37.5**	**-0.4**
MLZ				Sn	**Sn**	**18 02 10.3**	**-0.9**
MLZ	**Mavora Lakes**	**2.70**	**43**	P	**Pn**	**18 01 38.3**	**+0.4**
MLZ				S	**Sn**	**18 02 13.0**	**+1.8**
MLZ				AML	AML		
MLZ				AML	AML		
TUZ	**Tuapeka**	**3.18**	**65**	P	**Pn**	**18 01 44.0**	**-0.4**
TUZ				S	**Sn**	**18 02 22.0**	**-0.8**
TUZ				AML	AML		
TUZ				AML	AML		
MSZ	**Milford Sound**	**3.18**	**33**	P	**Pn**	**18 01 46.5**	**+2.0**
MSZ				AML	AML		
MSZ				AML	AML		
EAZ	**Earnscleugh**	**3.40**	**52**	P	**P

QRZ **Quartz Range** 8.27 40 P Pn 18 02 53.9 -0.4
QRZ **Quartz Range** 8.27 40 P Pn 18 02 54.5 +0.2
TKNZ **Takaka Hill** 8.30 43 P Pn 18 02 55.5 +0.7
NNZ **Nelson** 8.35 45 P Pn 18 02 56.8 +1.4
CMWZ **Cape Campbell** 8.38 51 Pn Pn 18 02 57.7 +1.8
TUWZ **Tuamarina** 8.47 49 Pn Pn 18 02 57.7 +0.6
TUWZ **Tuamarina** 8.47 49 P Pn 18 02 60.0 +2.9
TCW **Tory Channel** 8.80 49 P Pn 18 03 04.1 +2.5
DUWZ **D'Urville Isla** 8.93 46 P Pn 18 03 05.9 +2.5
SNZO **South Karori** 8.95 51 P Pn 18 03 04.7 +1.0
SNZO **South Karori** 8.95 51 S Sn 18 04 47.3 +2.3
WEL **Wellington** 9.01 51 P Pn 18 03 07.8 +3.3
PLWZ **Palliser** 9.07 54 Pn Pn 18 03 05.8 +0.5
MSWZ **Moikau Station** 9.17 53 Pn Pn 18 03 06.9 +0.2
MSWZ **Moikau Station** 9.17 53 P Pn 18 03 09.4 +2.7
CAW **Cannon Point** 9.29 51 P Pn 18 03 09.1 +0.8
PAWZ **Paruwai Farm** 9.29 54 P Pn 18 03 11.5 +3.1
KIW **Kapiti Island** 9.39 50 P Pn 18 03 08.8 -0.8
TRWZ **Traveller** 9.42 54 P Pn 18 03 11.9 +1.7
MTW **Mount Morrison** 9.49 53 P Pn 18 03 12.5 +1.4
HOWZ **Holdsworth Sta** 9.68 52 P Pn 18 03 15.2 +1.6
MRZ **Mangatainoka R** 9.88 51 P Pn 18 03 17.8 +1.4
NBEZ **Newall Road No** 10.13 40 P Pn 18 03 21.2 +1.4
KHEZ **Kahui Hut** 10.18 41 P Pn 18 03 21.1 +0.6
KHEZ **Kahui Hut** 10.18 41 P Pn 18 03 21.6 +1.1
LREZ **Lake Rotokare** 10.21 43 P Pn 18 03 23.8 +2.8
BFZ **Birch Farm** 10.22 53 P Pn 18 03 22.7 +1.6
BFZ **Birch Farm** 10.22 53 S Sn 18 05 18.2 +2.0
NEZ **North Egmont** 10.23 41 P Pn 18 03 23.8 +2.5
WAZ **Wanganui** 10.26 46 P Pn 18 03 25.1 +3.5
DVHZ **Dannevirke** 10.45 51 P Pn 18 03 25.5 +1.2
TSZ **Takapari Road** 10.52 50 P Pn 18 03 26.7 +1.5
VRZ **Vera Road** 10.65 43 P Pn 18 03 28.7 +1.8
PNHZ **Pukenui** 10.75 50 P Pn 18 03 29.8 +1.5
PKVZ **Pokaka** 10.80 45 P Pn 18 03 33.3 +4.3
TRVZ **Turoa** 10.89 46 P Pn 18 03 34.6 +4.2
WNVZ **Wahianoa** 10.89 46 P Pn 18 03 31.1 +0.7
MOVZ **Moawhango** 10.90 47 P Pn 18 03 33.3 +2.8
TUVZ **Tukino** 10.96 46 P Pn 18 03 35.2 +3.8
BHHZ **Black Hill Sta** 11.00 48 P Pn 18 03 33.9 +2.1
NGZ **Ngauruhoe** 11.01 46 P Pn 18 03 33.4 +1.4
WTVZ **West Tongariro** 11.05 45 P Pn 18 03 36.3 +3.8
TMVZ **Te Maari** 11.10 46 P Pn 18 03 35.4 +2.2
HIZ **Hauiti** 11.19 41 P Pn 18 03 34.5 +0.2
HIZ **Hauiti** 11.19 41 P Pn 18 03 34.8 +0.5
HIZ **Hauiti** 11.19 41 P Pn 18 03 33.7 -0.7
comp=Z,60nm,0.7s
KAHZ **Kahuranaki** 11.19 52 P Pn 18 03 35.9 +1.5
BKZ **Black Stump Fm** 11.46 48 P Pn 18 03 38.0 -0.1
MTHZ **Maungataniwha** 11.87 48 P Pn 18 03 47.3 +3.6
WHHZ **Waihua** 11.91 50 P Pn 18 03 49.3 +5.2
RAHZ **Arahi** 11.95 49 P Pn 18 03 48.3 +3.6
TOZ **Tahuroa Road** 12.12 41 P Pn 18 03 47.9 +0.8
RTZ **Ruatahuna** 12.12 48 Pn 18 03 45.4 -1.8
RTZ **Ruatahuna** 12.12 48 P Pn 18 03 51.9 +4.7
KNZ **Kokohu** 12.18 51 P Pn 18 03 48.1 +0.2
MHGZ **Mahia Peninsul** 12.21 52 P Pn 18 03 50.8 +2.6
PRGZ **Paritu Road** 12.36 51 P Pn 18 03 53.6 +3.2
WTAZ **Waiatarua** 12.40 36 P Pn 18 03 53.3 +2.4
RAGZ **Rawiri** 12.44 49 P Pn 18 03 53.6 +2.2
RIGZ **Rimuhau** 12.46 50 P Pn 18 03 55.0 +3.3
URZ **Urewera** 12.46 47 Pn Pn 18 03 50.0 -1.8
comp=Z,4.3nm,0.3s,baz=228,slow=5.4,SNR=13
URZ Sn **Sn** 18 06 02.7 -8.3
comp=Z,0.4nm,0.3s,baz=121,slow=22,SNR=1.7
URZ LR LR 18 09 35.5
comp=Z,6µm,18.9s,baz=230,slow=42
comp=Z,10nm,0.5s
URZ AML AML
URZ **Urewera** 12.46 47 P Pn 18 03 49.9 -1.8
URZ **Urewera** 12.46 47 P Pn 18 03 51.6 -0.1
URZ **Urewera** 12.46 47 P Pn 18 03 48.9 -2.8
comp=Z,38nm,0.6s
MKAZ **Moumakai** 12.50 38 P Pn 18 03 53.3 +1.1
MWZ **Matawai** 12.62 49 P Pn 18 03 54.0 +0.1
MBAZ **Motutapu North** 12.68 37 P Pn 18 03 55.6 +1.0
RUGZ **Raukumara Rang** 12.97 48 P Pn 18 03 59.1 +0.3
CTZ **Chatham Island** 13.05 80 P Pn 18 03 57.6 -2.2
HAZ **Te Kaha** 13.19 48 P Pn 18 04 02.6 +1.0
WCZ **Waipu Caves** 13.19 33 P Pn 18 04 03.6 +2.0
PUZ **Puketiti** 13.19 50 P Pn 18 04 02.4 +0.7
OUZ **Omahuta** 13.57 29 P Pn 18 04 08.0 +1.2
OUZ **Omahuta** 13.57 29 P Pn 18 04 09.1 +2.3
OUZ **Omahuta** 13.57 29 P Pn 18 04 09.2 +2.3
comp=Z,40nm,0.6s
TAU **Tasmania Unive** 13.57 283 P Pn 18 04 04.8 -2.1
TAU **Tasmania Unive** 13.57 283 Pn Pn 18 04 03.1 -3.8
TAU **Tasmania Unive** 13.57 283 P Pn 18 04 04.7 -2.2
MXZ **Matakaoa Point** 13.60 49 P Pn 18 04 08.3 +1.0
MOO **Moorlands** 13.87 284 P Pn 18 04 09.0 -1.9
MOO **Moorlands** 13.87 284 P Pn 18 04 10.7 -0.2
comp=Z,35nm,1.0s
MOO **Moorlands** 13.87 284 P Pn 18 04 09.5 -1.4
MOO **Moorlands** 13.87 284 P Pn 18 04 11.1 +0.2
comp=Z,35nm,1.0s
GLAD **Gladstone** 14.06 291 P Pn 18 04 11.3 -2.3
MILA **Mila** 15.86 305 P Pn 18 04 39.6 +1.8
comp=Z,19nm,1.3s
MILA **Mila** 15.86 305 P P 18 04 40.8 -0.9
comp=Z,19nm,1.3s
LHI **Lord Howe Isla** 16.58 340 P P 18 04 48.6 -0.9
comp=Z,13nm,1.8s
LHI **Lord Howe Isla** 16.58 340 Pn Pn 18 04 46.2 -0.7
CNB **Canberra Magne** 17.04 309 P P 18 04 57.8 +3.1
comp=Z,47nm,1.8s
CNB **Canberra Magne** 17.04 309 P P 18 04 54.6 -0.1
comp=Z,47nm,1.8s
CAN **Canberra** 17.23 308 P P 18 04 57.4 +0.6
comp=Z,29nm,2.0s
CAN **Canberra** 17.23 308 P P 18 04 57.2 +0.5
comp=Z,29nm,2.0s
CAN **Canberra** 17.23 308 P Pn 18 04 55.8 +0.7
CAN **Canberra** 17.23 308 Pn 18 04 54.9 -0.3
CAN IAmb IAmb 18 05 00.3
comp=Z,36nm,1.2s
CAN **Canberra** 17.23 308 P P 18 04 56.5 -0.2
comp=Z,29nm,2.0s
RIV **Riverview** 17.32 316 P Pn 18 04 50.7 -5.5
RIV **Riverview** 17.32 316 P Pn 18 04 56.5 +0.2
comp=Z,67nm,0.7s
RIV **Riverview** 17.32 316 P Pn 18 04 56.6 +0.4
RIV **Riverview** 17.32 316 P Pn 18 04 55.9 -0.4
comp=Z,67nm,0.7s
TOO **Toolangi** 17.66 296 P P 18 05 01.9 +0.3
comp=Z,10.0nm,1.5s
TOO **Toolangi** 17.66 296 Pn 18 04 59.3 -1.2
NFK **Norfolk Island** 18.39 7 P Pn 18 05 12.2 +2.6
comp=Z,34nm,1.0s
ARMA **Armidale** 20.02 323 P Pn 18 05 30.6 +1.4
comp=Z,24nm,1.4s
ARMA **Armidale** 20.02 323 P Pn 18 05 31.0 +1.8
comp=Z,24nm,1.4s
ARMA **Armidale** 20.02 323 P P 18 05 25.3 -2.2
ARMA IAmb IAmb 18 05 31.1
comp=Z,20nm,1.1s
ARMA **Armidale** 20.02 323 P Pn 18 05 30.5 +1.3
comp=Z,24nm,1.4s
ARPS **Mount Arapiles** 20.43 293 P Pn 18 05 33.9 0.0
comp=Z,12nm,1.1s,comp=Z,0.0nm
ARPS **Mount Arapiles** 20.43 293 P P 18 05 32.9 +1.1
comp=Z,12nm,1.1s,comp=Z,0.0nm
MGBR **Mount Gambier** 20.66 289 P P 18 05 34.6 +0.3
MGBR IAmb IAmb 18 05 54.3
comp=Z,29nm,1.4s
CMSA **Cobar Meteorol** 21.90 309 P P 18 05 49.5 +1.8
comp=Z,31nm,1.7s
CMSA **Cobar Meteorol** 21.90 309 P P 18 05 49.3 +1.6
comp=Z,31nm,1.7s
CMSA **Cobar Meteorol** 21.90 309 P P 18 05 49.2 +1.5
CMSA **Cobar Meteorol** 21.90 309 P P 18 05 49.5 +1.8
comp=Z,31nm,1.7s
RAO **Raoul Island** 22.20 41 LR LR 18 15 46.1
comp=Z,2µm,18.8s,baz=190,slow=40
STKA **Stephens Creek** 23.91 302 P P 18 06 10.9 +2.4
comp=Z,80nm,2.2s
STKA **Stephens Creek** 23.91 302 P P 18 06 10.3 +1.8
comp=Z,80nm,2.2s
STKA **Stephens Creek** 23.91 302 P P 18 06 09.8 +1.3
comp=Z,5.0nm,0.7s,baz=130,slow=9.8,SNR=11
STKA LR LR 18 14 07.4
comp=Z,621nm,18.9s,baz=120,slow=33
comp=Z,5.0nm,0.7s
STKA **Stephens Creek** 23.91 302 P P 18 06 08.2 -0.3
STKA **Stephens Creek** 23.91 302 P P 18 06 10.9 +2.4
comp=Z,80nm,2.2s
HTT **Hallett** 24.41 295 P P 18 06 14.6 +1.3
comp=Z,9.8nm,0.9s
HTT **Hallett** 24.41 295 P P 18 06 14.4 +1.1
comp=Z,9.8nm,0.9s
HTT **Hallett** 24.41 295 P P 18 06 13.4 +0.1
EIDS **Eidsvold** 24.75 327 P P 18 06 17.9 +1.6
comp=Z,34nm,1.6s
EIDS **Eidsvold** 24.75 327 P 18 06 16.4 +0.1
EIDS **Eidsvold** 24.75 327 P P 18 06 18.1 +1.8
comp=Z,34nm,1.6s
DZM **Mont Dzumac** 25.25 2 LR LR 18 14 32.9
comp=Z,642nm,19.8s,baz=192,slow=32
BBOO **Buckleboo** 26.61 292 P P 18 06 34.4 +1.4
comp=Z,26nm,1.7s
BBOO **Buckleboo** 26.61 292 P P 18 06 34.2 +1.1
comp=Z,26nm,1.7s
BBOO **Buckleboo** 26.61 292 P P 18 06 33.0 -0.1
BBOO IAmb IAmb 18 06 37.5
comp=Z,27nm,1.1s
QLP **Quilpie** 26.65 314 P P 18 06 35.3 +1.9
comp=Z,40nm,2.4s
QLP **Quilpie** 26.65 314 P P 18 06 35.1 +1.6
comp=Z,40nm,1.9s
QLP **Quilpie** 26.65 314 P P 18 06 35.4 +1.9
comp=Z,40nm,2.4s
INKA **Innaminka** 27.53 307 P P 18 06 41.5 +0.1
VNDA **Vanda** 30.29 182 P P 18 07 06.2 +0.7
comp=Z,1.9nm,1.1s,baz=15,slow=7.9,SNR=3.2
VNDA LR LR 18 16 46.4
comp=Z,550nm,19.4s,baz=19,slow=31
comp=Z,1.9nm,1.1s
VNDA **Vanda** 30.29 182 P P 18 07 06.0 +0.5
MSVF **Nonsavu** 31.31 24 LR LR 18 18 10.2
comp=Z,659nm,20.1s,baz=196,slow=33
CTA **Charters Tower** 31.39 324 LR LR 18 18 14.4
comp=Z,516nm,20.9s,baz=138,slow=33
CTAO **Charters Tower** 31.39 324 P P 18 07 16.6 +0.9
CTAO IAmb IAmb 18 07 32.3
comp=Z,25nm,1.3s
MTSU **Mount Surprise** 33.94 322 P P 18 07 39.4 +1.4
comp=Z,4.2nm,0.9s
MTSU **Mount Surprise** 33.94 322 P P 18 07 38.1 +0.1
MTSU **Mount Surprise** 33.94 322 P P 18 07 38.9 +0.9
comp=Z,4.3nm,0.9s
QIS **Mount Isa** 33.99 313 P P 18 07 39.3 +0.8
comp=Z,15nm,1.2s
QIS **Mount Isa** 33.99 313 P P 18 07 39.1 +0.7
comp=Z,15nm,1.2s
QIS **Mount Isa** 33.99 313 P P 18 07 39.3 +0.8
comp=Z,15nm,1.2s
AS17 **Alice Springs** 34.50 302 P P 18 07 43.5 +0.6
comp=Z,23nm,1.1s
AS17 **Alice Springs** 34.50 302 P P 18 07 43.3 +0.4
comp=Z,23nm,1.1s
AS09 **Alice Springs** 34.50 302 P P 18 07 43.5 +0.6
comp=Z,23nm,0.8s
AS09 **Alice Springs** 34.50 302 P P 18 07 43.0 +0.2
comp=Z,23nm,0.8s
AS01 **Alice Springs** 34.52 302 P P 18 07 42.8 -0.3
AS31 **Alice Springs** 34.55 302 P P 18 07 43.6 +0.3
comp=Z,8.9nm,0.8s
AS31 **Alice Springs** 34.55 302 P P 18 07 43.4 +0.1
comp=Z,8.9nm,0.8s
AS31 **Alice Springs** 34.55 302 P 18 07 43.1 -0.2
AS31 IAmb IAmb 18 07 51.5
comp=Z,6.5nm,0.7s
ASAR **Alice Springs** 34.55 302 P P 18 07 43.4 +0.1
comp=Z,12nm,0.7s,baz=134,slow=8.1,SNR=321
ASAR PcP PcP 18 10 20.3 +2.2
comp=Z,1.5nm,1.0s,baz=139,slow=4.1,SNR=4.2
ASAR LR LR 18 21 01.8
comp=Z,643nm,19.0s,baz=150,slow=35
comp=Z,12nm,0.7s
ASAR **Alice Springs** 34.55 302 P 18 07 43.2 -0.1
AS15 **Alice Springs** 34.56 302 P P 18 07 43.9 +0.4
comp=Z,29nm,1.0s
FUTU **Fugatoga** 35.68 28 P P 18 07 52.7 -0.3
WRKA **Warakurna** 36.88 294 P P 18 08 04.0 +0.6
comp=Z,9.9nm,1.3s
WRKA **Warakurna** 36.88 294 P P 18 08 04.0 +0.6
comp=Z,9.9nm,1.3s
WR8 **Warramunga Arr** 37.16 307 P 18 08 04.9 -0.8
WR8 IAmb IAmb 18 08 06.6
comp=Z,9.7nm,0.7s
WRA **Warramunga Arr** 37.26 306 P P 18 08 05.8 -0.7
comp=Z,5.6nm,0.6s,baz=140,slow=7.8,SNR=97
WRA PcP PcP 18 10 29.1 +2.9
comp=Z,0.2nm,0.7s,baz=145,slow=3.0,SNR=3.4
comp=Z,5.6nm,0.6s
WRA **Warramunga Arr** 37.26 306 P P 18 08 05.3 -1.2
WRAB **Tennant Creek** 37.26 307 P P 18 08 06.0 -0.5
WRAB **Tennant Creek** 37.26 307 P P 18 08 05.9 -0.5
WRAB IAmb IAmb 18 08 16.6
comp=Z,13nm,1.0s
WRAB **Tennant Creek** 37.26 307 P P 18 08 06.0 -0.5
comp=Z,18nm,1.0s
WB0 **Warramunga Arr** 37.37 307 P 18 08 06.1 -1.4
WB0 IAmb IAmb 18 08 18.1
comp=Z,7.0nm,0.8s
HNR **Honiara** 38.10 351 LR LR 18 22 02.4
comp=Z,777nm,19.8s,baz=264,slow=33
AFI **Afiamalu** 38.37 37 LR LR 18 22 48.0
comp=Z,184nm,20.8s,baz=192,slow=34
NWAO **Narrogin (SRO)** 38.98 274 LR LR 18 20 15.1
comp=Z,220nm,20.6s,baz=95,slow=30
NWAO **Narrogin (SRO)** 38.98 274 P P 18 08 19.0 -1.9
NWAO IAmb IAmb 18 08 19.6
comp=Z,24nm,1.2s
KLBR **Kellerberrin** 39.42 276 P P 18 08 31.8 +7.1
KLBR **Kellerberrin** 39.42 276 P P 18 08 24.5 -0.2
comp=Z,34nm,0.8s
H01W1 **Cape Leeuwin H** 39.94 269 T T 18 50 45.7
baz=123,slow=75,SNR=809
H01W2 **Cape Leeuwin H** 39.95 269 T T 18 50 46.1
baz=123,slow=75,SNR=856
H01W3 **Cape Leeuwin H** 39.95 269 T T 18 50 49.3
baz=123,slow=75,SNR=833
PMG **Port Moresby** 40.91 332 LR LR 18 24 02.1
comp=Z,300nm,18.5s,baz=154,slow=34
PMG **Port Moresby** 40.91 332 P P 18 08 34.6 -2.4
PMG IAmb IAmb 18 08 42.8
comp=Z,32nm,1.1s
MEEK **Meekatharra** 42.02 283 P P 18 08 52.9 +6.7
MEEK **Meekatharra** 42.02 283 P P 18 08 45.8 -0.4
comp=Z,21nm,1.4s
MORW **Morawa** 42.15 278 P P 18 08 55.3 +8.0
MORW **Morawa** 42.15 278 P P 18 08 55.0 +7.8
MORW **Morawa** 42.15 278 P P 18 08 46.3 -0.9
QSPA **South Pole Qui** 42.76 180 P P 18 08 52.2 +0.3
comp=Z,8.0nm,1.0s,baz=4.2,slow=1.3,SNR=14
QSPA LR LR 18 24 26.0
comp=Z,255nm,18.0s,baz=29,slow=33
comp=Z,8.0nm,1.0s
QSPA **South Pole Qui** 42.76 180 P P 18 08 51.8 -0.2
QSPA IAmb IAmb 18 08 57.4
comp=Z,13nm,1.1s
QSPA **South Pole Qui** 42.76 180 P P 18 08 53.0 +1.0
comp=Z,20nm,1.9s
TBI **Tubuai** 43.08 72 eS S 18 15 18.7 -2.6
comp=Z,858nm,29.2s
TBI eLQ LQ 18 18 40.4
comp=Z,761nm,26.8s
TBI eLR LR 18 20 46.0
comp=Z,827nm,29.0s
TBI eLR LR 18 20 47.7
comp=Z,4µm,31.0s
FITZ **Fitzroy Crossi** 43.71 298 LR LR 18 27 05.7
comp=Z,350nm,18.1s,baz=142,slow=36
FITZ **Fitzroy Crossi** 43.71 298 P P 18 08 59.4 -0.5
FITZ **Fitzroy Crossi** 43.71 298 P P 18 08 59.7 -0.2
FITZ **Fitzroy Crossi** 43.71 298 P P 18 08 59.7 -0.2
comp=Z,2.0nm,0.8s
KNRA **Kununurra** 43.80 304 P P 18 08 59.8 -0.9
KNRA IAmb IAmb 18 09 11.2
comp=Z,7.0nm,1.1s
KRVT **Keravat (AS076** 44.44 341 LR LR 18 24 38.1
comp=Z,181nm,20.4s,baz=171,slow=32
RABL **Rabaul** 44.52 341 P P 18 09 05.3 -1.2
RABL IAmb IAmb 18 09 33.5
comp=Z,12nm,0.9s
MTN **Manton Dam** 44.82 309 P P 18 09 09.3 +0.4
comp=Z,7.5nm,0.9s
MTN **Manton Dam** 44.82 309 P P 18 09 07.5 -1.3
MTN IAmb IAmb 18 09 36.8
comp=Z,16nm,1.4s
MBWA **Marble Bar** 45.10 289 P P 18 09 10.6 -0.5
PPT2 **Papeete2** 47.21 67 eS S 18 16 17.6 -3.8
comp=Z,224nm,28.5s
PPT2 eSS SS 18 19 49.8 +1.3
comp=Z,245nm,23.2s
PPT2 eLQ LQ 18 20 40.6
comp=Z,315nm,28.8s
PPT2 eLR LR 18 22 36.3
comp=Z,689nm,32.2s
PPT2 eLR LR 18 22 44.1
comp=Z,940nm,29.5s
PPT **Papeete** 47.23 67 LR LR 18 26 20.6
comp=Z,283nm,20.6s,baz=219,slow=32
GIRL **Giralia** 47.64 283 P P 18 09 30.0 -1.0
MAW **Mawson** 51.65 208 P P 18 10 02.5 +1.6
comp=Z,5.9nm,1.0s,baz=109,slow=6.8,SNR=8.4
MAW LR LR 18 29 35.3
comp=Z,226nm,21.3s,baz=112,slow=33
comp=Z,5.9nm,1.0s
MAW **Mawson** 51.65 208 P P 18 10 01.3 +0.4
MAW **Mawson** 51.65 208 P P 18 10 03.7 +2.8
comp=Z,1.2nm,1.8s
FAKI **Fak Fak** 52.78 317 P P 18 10 08.3 -1.7
FAKI IAmb IAmb 18 10 40.0
comp=Z,19nm,1.1s
RKT **Rikitea** 52.87 84 eLR LR 18 25 17.9
comp=Z,2µm,29.2s
BELA **Belgrano 2** 54.41 175 P P 18 10 21.4 +0.2
BELA IAmb IAmb 18 10 23.7
comp=Z,11nm,1.2s
KAPI **Kappang** 57.57 302 LR LR 18 36 05.7
comp=Z,252nm,18.1s,baz=147,slow=37
TAOE **Nuku Hiva Isla** 59.76 68 eLR LR 18 28 26.8
comp=Z,711nm,32.0s
TROLL **Troll, Antarti** 60.32 186 ⇑P P 18 11 02.3 -0.9
comp=Z,130nm,0.5s
SNAA **Sanae** 60.98 184 ⇑P P 18 11 08.9 +1.4
comp=Z,101nm,0.5s
SNAA **Sanae** 60.98 184 P P 18 11 08.5 +1.0
comp=Z,7.5nm,0.8s,baz=180,slow=10,SNR=8.3
SNAA LR LR 18 36 42.9
comp=Z,257nm,18.3s,baz=193,slow=35
comp=Z,7.5nm,0.8s
SNAA **Sanae** 60.98 184 P P 18 11 07.2 -0.4
SNAA **Sanae** 60.98 184 P P 18 11 07.5 -0.1
comp=Z,12nm,1.1s
VNA3 **Neumayer Olymp** 61.65 182 ⇑P P 18 11 14.5 +2.5
comp=Z,7.0nm,0.8s
VNA3 **Neumayer Olymp** 61.65 182 P P 18 11 13.7 +1.7
comp=Z,17nm,1.1s
PMSA **Palmer Station** 61.73 158 LR LR 18 34 13.0
comp=Z,277nm,19.2s,baz=258,slow=32
VNA2 **Neumayer--Watz** 61.91 183 ⇑P P 18 11 16.0 +2.3
comp=Z,9.6nm,0.7s,baz=170,slow=4.5
TOLI2 **Tolitoli** 62.04 307 P P 18 11 14.3 -1.0
TOLI2 **Tolitoli** 62.04 307 P P 18 11 15.7 +0.3
comp=Z,7.6nm,1.1s
VNA1 **Neumayer--Stat** 62.21 182 ⇑P P 18 11 13.9 -1.8
comp=Z,18nm,0.9s
GUMO **Guam** 63.42 337 LR LR 18 36 27.1
comp=Z,56nm,19.3s,baz=121,slow=34
GUMO **Guam** 63.42 337 P P 18 11 23.2 -1.2
RPN **Rapa Nui** 67.44 106 LR LR 18 33 31.5
comp=Z,94nm,19.9s,baz=146,slow=29
H04S2 **CROZET ISLANDS** 69.72 222 T T 19 28 59.6
baz=138,slow=76,SNR=40
H04S1 **CROZET ISLANDS** 69.72 222 T T 19 29 03.4
baz=138,slow=76,SNR=46
H04S3 **CROZET ISLANDS** 69.73 222 T T 19 28 54.4
baz=138,slow=76,SNR=42
KULM **Kulim** 77.26 292 P P 18 12 48.3 -1.0
PLCA **Paso Flores** 79.15 140 LR LR 18 38 53.2
comp=Z,98nm,20.3s,baz=211,slow=29
BI02 **San Fabin de** 82.16 137 P P 18 13 16.8 +1.1
comp=Z,7.9nm,1.3s
JHJ **Hachijo jima 2** 83.39 339 LR LR 18 45 54.9
comp=Z,111nm,19.8s,baz=172,slow=32
JMN **Monobe** 85.58 334 P P 18 13 32.1 -0.8
JNU **Nakatsue** 85.95 331 LR LR 18 46 36.5
comp=Z,68nm,20.8s,baz=154,slow=32
H08S2 **Diego Garcia H** 86.46 263 T T 19 48 46.4
baz=138,slow=76,SNR=846
H08S1 **Diego Carcia H** 86.48 263 T T 19 48 51.6
baz=138,slow=76,SNR=825
H08S3 **Diego Garcia H** 86.48 263 T T 19 48 47.9
baz=138,slow=76,SNR=1081
MJAR **Matsushiro Arr** 87.03 338 P P 18 13 40.7 +0.8
comp=Z,1.5nm,1.0s,baz=173,slow=6.1,SNR=5.6
comp=Z,1.5nm,1.0s
SLVN **Son La** 87.92 305 P P 18 13 44.5 -0.2
SLVN IAmb IAmb 18 13 53.9
comp=Z,7.6nm,1.3s
SLVN **Son La** 87.92 305 P P 18 13 46.6 +1.9
comp=Z,4.3nm,1.3s
CMAR **Chiang Mai Arr** 88.51 299 P P 18 13 48.6 +1.2
comp=Z,1.5nm,0.3s,baz=162,slow=3.5,SNR=20
CMAR LR LR 18 54 44.3
comp=Z,33nm,20.8s,baz=140,slow=36
comp=Z,1.5nm,0.3s
CMAR **Chiang Mai Arr** 88.51 299 P P 18 13 46.2 -1.2
CHTO **Chiang Mai** 88.79 300 P P 18 13 48.4 -0.4
CHTO IAmb IAmb 18 13 57.3
comp=Z,4.2nm,1.1s
CHTO **Chiang Mai** 88.79 300 P P 18 13 49.4 +0.6
comp=Z,3.6nm,1.6s
NJ2 **Nanjing** 89.48 322 eP P 18 13 52.8 +1.1
NJ2 pmax pmax
comp=Z,4.0nm,0.6s
KSRS **Korea Array** 90.88 331 P P 18 13 59.4 +1.4
comp=Z,1.4nm,1.0s,baz=152,slow=7.0,SNR=5.9
KSRS LR LR 18 51 40.5
comp=Z,58nm,19.8s,baz=155,slow=34
comp=Z,1.4nm,1.0s
PALK **Pallekele** 91.78 279 LR LR 18 50 26.6
comp=Z,50nm,18.8s,baz=130,slow=32
ASAJ **Asahikawa** 93.31 344 LR LR 18 51 21.1
comp=Z,162nm,21.5s,baz=84,slow=32
SUR **Sutherland** 94.50 209 LR LR 18 55 41.1
comp=Z,100nm,18.4s,baz=160,slow=35
BRDH **Bariadhala** 96.11 297 LR LR 19 03 57.0
comp=Z,85nm,18.1s,baz=174,slow=39
BOSA **Boshof** 96.31 214 LR LR 18 50 47.6
comp=Z,92nm,21.2s,baz=195,slow=31
CPUP **Villa Florida** 97.12 142 LR LR 18 56 28.5
comp=Z,66nm,18.2s,baz=243,slow=34
NNA **Nana** 99.06 119 LR LR 18 51 32.6
comp=Z,141nm,18.1s,baz=186,slow=31
LBTB **Lobatse** 99.40 216 LR LR 18 54 43.9
comp=Z,74nm,18.7s,baz=158,slow=32
HHC **Hu-ho-hao-te** 100.03 321 eP Pdif 18 14 41.8 +1.9
PDAR **Pinedale Array** 116.88 55 PKP PKiKP 18 19 40.7 +1.4
comp=Z,0.1nm,0.5s,baz=167,slow=5.9,SNR=1.6
ILAR **Eielson Array** 117.80 21 PKP PKiKP 18 19 41.6 +1.6
comp=Z,1.0nm,0.8s,baz=281,slow=2.5,SNR=6.0
MKAR **Makanchi Array** 118.53 309 PKP PKiKP 18 19 43.8 +1.8
comp=Z,0.6nm,0.7s,baz=132,slow=7.2,SNR=3.7
TIXI **Tiksi** 121.53 347 PKP PKiKP 18 19 47.5 +0.4
baz=114,slow=3.2,SNR=5.6
ZALV **Zalesovo Beam** 121.77 317 PKP PKiKP 18 19 49.0 +1.0
comp=Z,0.3nm,0.3s,baz=150,slow=3.3,SNR=4.5
KURBB **Kurchatov Arra** 122.85 311 PKP PKPdf 18 19 49.6 -0.4
comp=Z,0.5nm,0.6s,baz=114,slow=1.8,SNR=5.8
KURK **Kurchatov** 122.86 311 PKPdf 18 19 49.6 -0.5
YKA **Yellowknife Ar** 126.46 35 PKP PKiKP 18 19 56.8 -0.3
comp=Z,0.8nm,0.8s,baz=257,slow=1.8,SNR=5.3
BVAR **Borovoye Array** 128.39 310 PKhKP PKPpre 18 19 57.1
comp=Z,0.2nm,0.4s,baz=155,slow=7.2,SNR=2.2
TORD **Torodi Ar. Bea** 143.29 207 PKP PKPdf 18 20 28.6 -0.9
comp=Z,1.9nm,0.8s,baz=187,slow=1.8,SNR=9.3
TORD **Torodi Ar. Bea** 143.29 207 PKPbc 18 20 27.3 +0.8
BRTR **Keskin Array B** 144.75 275 PKP PKPab 18 20 30.3 0.0
comp=Z,5.4nm,0.8s,baz=141,slow=4.2,SNR=27
BRTR **Keskin Array B** 144.75 275 PKPab 18 20 30.0 -0.4
SPITS **Spitsbergen Ar** 146.93 349 PKPbc PKPbc 18 20 35.5 -0.3
comp=Z,6.0nm,0.5s,baz=81,slow=6.8,SNR=8.2
ARCES **ARCESS Array B** 150.42 333 PKPbc PKPbc 18 20 44.9 -0.1
comp=Z,4.9nm,0.8s,baz=64,slow=4.7,SNR=7.6
CFR **Carcaliu** 150.71 282 ⇑P PKiKP 18 20 48.5 +1.5
SORM **Soroca** 151.44 288 ⇑P PKPab 18 20 53.0 -3.5
AKASG **Malin Array Be** 151.45 293 PKPbc PKPbc 18 20 47.8 -0.1
comp=Z,2.4nm,0.6s,baz=80,slow=2.5,SNR=8.4
DMBR **Dumbraveni** 151.73 284 ⇑P PKiKP 18 20 52.8 +3.6
VRI **Vrincioaia** 151.87 282 ⇑P PKPab 18 20 56.5 -1.8
TESR **Tescani** 152.12 284 ⇓P PKPab 18 20 57.9 -1.5
ONER **Baraj Valea Uz** 152.23 283 ⇑P PKPab 18 20 58.2 -1.7
MLR **Muntele Rosu** 152.27 281 ⇑P PKiKP 18 20 50.3 -0.2
DOPR **Dopca** 152.79 282 ⇓P PKPab 18 20 57.5 -4.7

FINES	**FINESS Array B**	**153.03**	**316**	PKPbc	**PKPbc**	**18 20 50.2**	**-1.0**
	comp=Z,2.6nm,0.6s,baz=28,slow=8.6,SNR=8.4						
ARR	**Arges**	**153.11**	**280**	⇓P	**PKPab**	**18 21 03.2**	**-0.5**
BLKB	**Belogradchik**	**153.83**	**276**	⇑P	**PKiKP**	**18 20 57.5**	**+3.8**
GERES	**GERESS Array B**	**161.14**	**285**	PKPab	**PKPab**	**18 21 38.4**	**+0.2**
	comp=Z,0.9nm,0.7s,baz=97,slow=4.4,SNR=7.1						

*IDC **21** 18:31:08.2±0.8,29.°38S×72.°32W,h0km,mb4.3/4, mbtmp3.9/9,ML3.6/5,MS3.7/3,Error ellipse: s-maj=20.8km s-min=16.5km az=104.0*
*GFZ **21** 18:31:10.8±0.3,29.°5S±2.°×7.°2W±.°,h10km,M4.3/8,mb4.3/8, confirmed*
*NEIC **21** 18:31:11.4±2.5,29.°32S±0.°03×71.°99W±0.°07,h30km±5km, mb4.2/5,ML4.1(GUC),Error ellipse: s-maj=8.7km s-min=4.0km az=93.0*
*SJA **21** 18:31:12.6±0.6,29.°34S×71.°83W,h41km±453km,ML4.1, MW4.2*
*GUC **21** 18:31:13.7±0.8,29.°38S×71.°75W,h50km±2km,ML4.1, Presumed earthquake*

ISC 21 18:31:08.0±1.4,29.°31S±0.°02×72.°01W±0.°04,h4km±8km, n163,σ1§82/195,mb4.3/7,7C-2D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CO05	**La Serena**	**0.91**	**133**				**Pn**	**18 31 27.9**	**+0.3**
LCO	**Las Campanas**	**1.18**	**76**	*eP*			**Pg**	**18 31 32.2**	**+1.6**
LCO				*eS*			**Sg**	**18 31 45.4**	**-0.5**
LCO				IAML				18 31 46.8	
	comp=Z,4μm,0.2s								
LCO	**Las Campanas**	**1.18**	**76**				**Pg**	**18 31 32.1**	**+1.5**
LCO						Sn	**Sg**	**18 31 45.1**	**-0.8**
LCO	**Las Campanas**	**1.18**	**76**	*eP*			**Pg**	**18 31 31.6**	**+1.0**
LCO				*eS*			**Sg**	**18 31 45.4**	**-0.5**
GO04	**Tololo Observa**	**1.36**	**130**	*eP*			**Pg**	**18 31 34.6**	**+0.6**
GO04				*eS*			**Sn**	**18 31 50.0**	**-2.7**
GO04				IAML				18 31 50.4	
	comp=Z,6μm,0.9s								
GO04	**Tololo Observa**	**1.36**	**130**				**Pg**	**18 31 34.4**	**+0.3**
GO04						Sn	**Sb**	**18 31 49.6**	**-2.5**
GO04	**Tololo Observa**	**1.36**	**130**	*eP*			**Pg**	**18 31 34.4**	**+0.3**
GO04				*eS*			**Sb**	**18 31 49.6**	**-2.5**
GO04	**Tololo Observa**	**1.36**	**130**	P			**Pg**	**18 31 34.7**	**+0.6**
GO04				S			**Sn**	**18 31 49.9**	**-2.7**
AC04	**Llanos de Chal**	**1.37**	**37**	*eP*			**Pn**	**18 31 31.8**	**-2.1**
AC04	**Llanos de Chal**	**1.37**	**37**				**Pg**	**18 31 35.4**	**+1.2**
AC04						Sn	**Sn**	**18 31 50.8**	**-1.7**
AC04	**Llanos de Chal**	**1.37**	**37**	*eP*			**Pg**	**18 31 35.6**	**+1.4**
AC04				*eS*			**Sn**	**18 31 50.8**	**-1.7**
AC04				IAML				18 31 52.2	
	comp=N,4μm,0.2s								
AC04	**Llanos de Chal**	**1.37**	**37**	P			**Pg**	**18 31 35.6**	**+1.4**
AC04				S			**Sn**	**18 31 51.1**	**-1.4**
CO06	**Fray Jorge**	**1.40**	**167**				**Pg**	**18 31 35.6**	**+0.8**
CO06						Sn	**Sn**	**18 31 51.4**	**-1.9**
CO06	**Fray Jorge**	**1.40**	**167**	⇑*iP*			**Pg**	**18 31 35.7**	**+0.8**
CO06				*eS*			**Sb**	**18 31 51.9**	**-1.1**
CO06				IAML				18 31 52.9	
	comp=E,4μm,0.2s								
AC05	**El Transito**	**1.59**	**73**	*eP*			**Pg**	**18 31 38.3**	**-0.1**
AC05				*eS*			**Sb**	**18 31 56.7**	**-1.8**
AC05	**El Transito**	**1.59**	**73**				**Pb**	**18 31 38.1**	**+0.1**
AC05						Sn	**Sn**	**18 31 55.8**	**-2.3**
AC05	**El Transito**	**1.59**	**73**	⇓*iP*			**Pb**	**18 31 38.2**	**+0.2**
AC05				*eS*			**Sn**	**18 31 55.9**	**-2.3**
AC05				IAML				18 31 57.8	
	comp=N,4μm,0.1s								
AC05	**El Transito**	**1.59**	**73**	P			**Pg**	**18 31 38.4**	**-0.1**
AC05				S			**Sb**	**18 31 56.5**	**-2.0**
CO01	**Juntas del Tor**	**1.79**	**112**	*eP*			**Pb**	**18 31 41.2**	**-0.4**
CO01				IAML				18 32 01.5	
	comp=Z,1μm,0.5s								
CO01				*eS*			**Sb**	**18 32 01.6**	**-2.9**
CO01	**Juntas del Tor**	**1.79**	**112**				**Pb**	**18 31 41.1**	**-0.4**
CO01						Sn	**Sn**	**18 32 00.5**	**-2.8**
CO01	**Juntas del Tor**	**1.79**	**112**	*eP*			**Pb**	**18 31 41.2**	**-0.4**
CO01				*eS*			**Sn**	**18 32 00.6**	**-2.8**
CO01	**Juntas del Tor**	**1.79**	**112**	P			**Pb**	**18 31 41.3**	**-0.3**
CO01				S			**Sn**	**18 32 01.1**	**-2.3**
CO03	**El Pedregal**	**1.91**	**144**	*eP*			**Pb**	**18 31 42.6**	**-0.9**
CO03				*eS*			**Sn**	**18 32 03.2**	**-2.7**
CO03				IAML				18 32 04.3	
	comp=Z,2μm,0.9s								
CO03	**El Pedregal**	**1.91**	**144**				**Pb**	**18 31 42.5**	**-0.9**
CO03						Sn	**Sn**	**18 32 02.8**	**-3.2**
CO03	**El Pedregal**	**1.91**	**144**	⇑*iP*			**Pb**	**18 31 42.5**	**-0.9**
CO03				*eS*			**Sn**	**18 32 03.3**	**-2.7**
CO03				IAML				18 32 03.6	
	comp=E,3μm,0.2s								
CO03	**El Pedregal**	**1.91**	**144**	P			**Pb**	**18 31 42.6**	**-0.9**
CO02	**Combarbal**	**2.08**	**156**	*eP*			**Pb**	**18 31 45.6**	**-0.9**
CO02				*eS*			**Sn**	**18 32 09.2**	**-1.1**
CO02				IAML				18 32 10.2	
	comp=Z,2μm,0.3s								
CO02	**Combarbal**	**2.08**	**156**				**Pb**	**18 31 45.5**	**-0.9**
CO02						Sn	**Sn**	**18 32 08.2**	**-2.1**
CO02	**Combarbal**	**2.08**	**156**	⇑*iP*			**Pb**	**18 31 45.6**	**-0.9**
CO02				*eS*			**Sn**	**18 32 09.0**	**-1.4**
CO02				IAML				18 32 10.6	
	comp=E,5μm,0.4s								
CO02	**Combarbal**	**2.08**	**156**	P			**Pb**	**18 31 45.7**	**-0.7**
GO03	**Copiapo**	**2.31**	**43**	*eP*			**Pb**	**18 31 49.0**	**-1.3**
GO03				*eS*			**Sn**	**18 32 15.8**	**-0.2**
GO03				IAML				18 32 26.1	
	comp=Z,796nm,0.7s								
GO03	**Copiapo**	**2.31**	**43**				**Pn**	**18 31 48.1**	**+1.2**
GO03						Sn	**Sn**	**18 32 14.2**	**-1.7**
GO03	**Copiapo**	**2.31**	**43**	*eP*			**Pn**	**18 31 48.8**	**+1.8**
GO03				IAML				18 32 26.7	
	comp=E,816nm,0.5s								
GO03	**Copiapo**	**2.31**	**43**	P			**Pb**	**18 31 49.2**	**-1.1**
AROD	**Rodeo**	**2.36**	**112**	*eP*			**Pb**	**18 31 50.3**	**-1.1**
AROD				*eS*			**Sb**	**18 32 18.3**	**-2.8**
AC06	**Mina Casimiro**	**2.43**	**37**				**Pn**	**18 31 50.7**	**+2.2**
AC06						Sn	**Sn**	**18 32 17.2**	**-1.4**
AC06	**Mina Casimiro**	**2.43**	**37**	*eP*			**Pb**	**18 31 51.0**	**-1.2**
AC06				IAML				18 32 29.8	
	comp=E,1μm,0.6s								
ACCO	**Cerro Coronel**	**2.85**	**117**	*eP*			**Pb**	**18 31 57.8**	**-2.0**
ACCO				*eS*			**Sb**	**18 32 31.9**	**-3.3**
ACCO				IAML				18 32 45.9	
	comp=Z,340nm,0.6s								
CO04	**Los Peleaderos**	**2.87**	**162**	Pn			**Pn**	**18 31 55.4**	**+0.6**
CO04				Sn			**Sn**	**18 32 27.6**	**-2.4**
CO04	**Los Peleaderos**	**2.87**	**162**	*eP*			**Pn**	**18 31 56.8**	**+1.9**
CO04				*eS*			**Sn**	**18 32 28.7**	**-1.3**
CO04				IAML				18 32 32.5	
	comp=E,1μm,0.6s								
CO04	**Los Peleaderos**	**2.87**	**162**	P			**Pn**	**18 31 57.1**	**+2.3**
VCA	**Vinchina**	**3.38**	**81**	*eP*			**Pb**	**18 32 06.6**	**-1.9**
VCA				*eS*			**Sb**	**18 32 46.5**	**-3.5**
VCA				IAML				18 33 02.8	
	comp=Z,423nm,1.2s								
VCA	**Vinchina**	**3.38**	**81**	⇓*eP*			**Pb**	**18 32 06.5**	**-2.0**
AC01	**Pan de Azucar**	**3.38**	**22**				**Pn**	**18 32 02.8**	**+1.1**
AC01						Sn	**Sn**	**18 32 38.7**	**-3.7**
AC01	**Pan de Azucar**	**3.38**	**22**	*eP*			**Pn**	**18 32 02.9**	**+1.2**
AC01	**Pan de Azucar**	**3.38**	**22**	P			**Pn**	**18 32 02.8**	**+1.1**
RTLS	**Leoncito**	**3.41**	**137**	*eP*			Pn	18 31 56.2	-6.1
RTLS				*eS*			**Sb**	**18 32 49.8**	**-1.4**
RTLS				IAML				18 33 01.0	
	comp=Z,916nm,0.6s								
AC02	**Maricunga**	**3.54**	**47**	*eP*			**Pn**	**18 32 06.8**	**+2.5**
AC02				*eS*			**Sn**	**18 32 47.1**	**+0.3**
AC02				IAML				18 33 38.1	
	comp=Z,361nm,0.8s								
AC02	**Maricunga**	**3.54**	**47**				**Pn**	**18 32 06.5**	**+2.2**
AC02						Sn	**Sn**	**18 32 45.6**	**-1.2**
AC02	**Maricunga**	**3.54**	**47**	*eP*			**Pn**	**18 32 06.9**	**+2.7**
AC02				IAML				18 33 05.3	
	comp=N,891nm,0.6s								
AC02	**Maricunga**	**3.54**	**47**	P			**Pn**	**18 32 06.9**	**+2.7**
ZON	**Zonda**	**3.64**	**129**				**Pn**	**18 32 07.2**	**+2.0**
VA03	**San Esteban**	**3.67**	**160**	*eP*			Pn	18 31 56.1	-10
VA03				*eS*			**Sn**	**18 32 50.9**	**+1.5**
VA03				IAML				18 33 08.8	
	comp=Z,430nm,0.8s								
VA03	**San Esteban**	**3.67**	**160**				**Pn**	**18 32 07.5**	**+1.9**
VA03	**San Esteban**	**3.67**	**160**	*eP*			**Pn**	**18 32 08.4**	**+2.8**
VA03				IAML				18 33 04.3	
	comp=E,804nm,0.3s								
VA03	**San Esteban**	**3.67**	**160**	P			**Pn**	**18 32 08.2**	**+2.5**
VA01	**Torpederas**	**3.72**	**175**	Pn			**Pn**	**18 32 06.4**	**+0.1**
ROCH	**El Roble**	**3.75**	**167**	*eP*			**Pn**	**18 32 08.7**	**+1.8**
CFA	**Coronel Fontan**	**3.98**	**126**	Pn			**Pn**	**18 32 13.0**	**+3.1**
	comp=E,4.2nm,0.3s,baz=311,slow=13,SNR=58								
CFA					Sn		**Sn**	**18 32 57.2**	**+0.1**
	comp=E,9.0nm,0.3s,baz=66,slow=20,SNR=14								
	comp=E,12nm,0.3s								
CFA					AML		AML		
PEL	**Peldehue**	**3.99**	**164**				**Pn**	**18 32 10.1**	**0.0**
PEL	**Peldehue**	**3.99**	**164**	*eP*			**Pn**	**18 32 12.0**	**+2.0**
PEL	**Peldehue**	**3.99**	**164**	P			**Pn**	**18 32 12.3**	**+2.3**
MT02	**Curacav**	**4.01**	**170**				**Pn**	**18 32 10.9**	**+0.6**
MT02	**Curacav**	**4.01**	**170**	*eP*			**Pn**	**18 32 11.8**	**+1.6**
TINO	**Tinogasta**	**4.09**	**73**	*eP*			**Pn**	**18 32 14.2**	**+2.7**
TINO					IAML			18 33 30.9	
	comp=Z,126nm,1.0s								
MT10	**Hacienda Santa**	**4.15**	**163**	*eP*			**Pn**	**18 32 14.8**	**+2.4**
MT05	**Renca**	**4.21**	**165**				**Pn**	**18 32 13.8**	**+0.7**
MT05	**Renca**	**4.21**	**165**	*eP*			**Pn**	**18 32 14.8**	**+1.7**
MT14	**Cerro Cal¡n**	**4.27**	**163**	*eP*			**Pn**	**18 32 16.2**	**+2.3**
FCH	**Farellones**	**4.27**	**160**	*eP*			**Pn**	**18 32 17.8**	**+3.7**
MT16	**CCHEN**	**4.30**	**163**				**Pn**	**18 32 14.8**	**+0.5**
MT16	**CCHEN**	**4.30**	**163**	*eP*			**Pn**	**18 32 16.4**	**+2.1**
VA05	**Santo Domingo**	**4.35**	**176**				**Pn**	**18 32 15.5**	**+0.6**
VA05	**Santo Domingo**	**4.35**	**176**	*eP*			**Pn**	**18 32 15.9**	**+1.0**
VA05	**Santo Domingo**	**4.35**	**176**	P			**Pn**	**18 32 15.7**	**+0.8**
MT04	**Ro Olivares**	**4.39**	**159**	*eP*			Pn	18 32 08.5	-7.2
MT04				*eS*			**Sn**	**18 33 08.6**	**+1.2**
MT04				IAML				18 33 11.6	
	comp=Z,190nm,0.6s								
MT04	**Ro Olivares**	**4.39**	**159**	*eP*			**Pn**	**18 32 19.3**	**+3.7**
MT08	**Bocatoma Ro**	**4.46**	**158**				**Pn**	**18 32 16.1**	**-0.6**
MT08	**Bocatoma Ro**	**4.46**	**158**	*eP*			**Pn**	**18 32 21.0**	**+4.3**
MT15	**Las Vizcachas**	**4.47**	**164**	*eP*			**Pn**	**18 32 18.8**	**+2.2**
MT09	**Talagante**	**4.54**	**169**				**Pn**	**18 32 19.0**	**+1.3**
MT09	**Talagante**	**4.54**	**169**	*eP*			**Pn**	**18 32 19.6**	**+1.9**
MT12	**Pirque**	**4.58**	**165**	*eP*			**Pn**	**18 32 20.2**	**+2.0**
MT01	**Popeta**	**4.59**	**172**				**Pn**	**18 32 19.4**	**+1.2**
MT01	**Popeta**	**4.59**	**172**	*eP*			**Pn**	**18 32 19.9**	**+1.7**
AAGR	**Agrelo**	**4.65**	**145**	*eP*			**Pn**	**18 32 16.2**	**-2.9**
AAGR					IAML			18 33 49.1	
	comp=Z,171nm,0.9s								
MT13	**San Alfonso**	**4.66**	**162**				**Pn**	**18 32 20.8**	**+1.5**
MT13	**San Alfonso**	**4.66**	**162**	*eP*			**Pn**	**18 32 22.2**	**+2.9**
LMEL	**Las Melosas**	**4.78**	**162**	*eP*			**Pn**	**18 32 24.0**	**+3.0**
BO04	**La Punta**	**4.82**	**166**				**Pn**	**18 32 20.8**	**-0.6**
BO04	**La Punta**	**4.82**	**166**	*eP*			**Pn**	**18 32 23.2**	**+1.8**
PB14	**IPOC Station P**	**4.88**	**17**	Pn			**Pn**	**18 32 22.1**	**-0.3**
PB14	**IPOC Station P**	**4.88**	**17**	*eP*			**Pn**	**18 32 22.2**	**-0.3**
PB14	**IPOC Station P**	**4.88**	**17**	P			**Pn**	**18 32 22.7**	**+0.2**
BO01	**Tunca**	**5.13**	**171**				**Pn**	**18 32 24.8**	**-0.8**
BO01	**Tunca**	**5.13**	**171**	P			**Pn**	**18 32 27.2**	**+1.6**
	comp=Z,30nm,0.5s								
CYA	**Choya**	**5.51**	**83**	*eP*			**Pn**	**18 32 32.9**	**+2.0**
BO02	**Sierra Bellavi**	**5.57**	**170**				**Pn**	**18 32 31.3**	**-0.4**
BO02	**Sierra Bellavi**	**5.57**	**170**	P			**Pn**	**18 32 33.6**	**+1.8**
	comp=Z,31nm,0.5s								
GO05	**Hualane**	**5.69**	**179**				**Pn**	**18 32 33.1**	**-0.3**
GO05	**Hualane**	**5.69**	**179**	P			**Pn**	**18 32 33.8**	**+0.4**
	comp=Z,20nm,0.7s								
PB10	**IPOC Station P**	**5.91**	**13**	Pn			**Pn**	**18 32 37.3**	**+0.8**
ML02	**Panimavida**	**6.46**	**176**				**Pn**	**18 32 44.0**	**+0.1**
ML02	**Panimavida**	**6.46**	**176**	P			**Pn**	**18 32 45.0**	**+1.1**
	comp=Z,32nm,0.7s								
PB05	**IPOC Station P**	**6.63**	**15**	Pn			**Pn**	**18 32 46.0**	**-0.4**
PB06	**IPOC Station P**	**6.93**	**19**	Pn			**Pn**	**18 32 49.9**	**-0.6**
H03N1	**Juan Fernandez**	**7.20**	**233**	Pn			**Pn**	**18 32 55.5**	**+1.6**
	baz=255,slow=74								
H03N1					Sn		**Sn**	**18 34 11.9**	**-4.0**
	baz=91,slow=74								
AF01	**San Pedro de A**	**7.20**	**29**	Pn			**Pn**	**18 32 55.0**	**+0.6**
H03N2	**Juan Fernandez**	**7.21**	**233**	Pn			**Pn**	**18 32 55.5**	**+1.4**
	baz=6.5,slow=74								
H03N2					Sn		**Sn**	**18 34 11.9**	**-4.3**
	baz=170,slow=74								
VA04	**Juan Fernndez**	**7.26**	**232**				**Pn**	**18 32 54.5**	**-0.3**
BI02	**San Fabin de**	**7.36**	**175**				**Pn**	**18 32 56.5**	**+0.1**
BI02	**San Fabin de**	**7.36**	**175**	P			**Pn**	**18 32 57.8**	**+1.4**
	comp=Z,38nm,0.5s								
H03S3	**Juan Fernandez**	**7.42**	**231**	Pn			**Pn**	**18 32 57.7**	**+1.0**
H03S3					Sn		**Sn**	**18 34 13.6**	**-7.7**
H03S1	**Juan Fernandez**	**7.42**	**231**	Pn			**Pn**	**18 32 57.5**	**+0.7**
	baz=234,slow=74								
H03S1					Sn		Sn	18 34 13.3	-8.1
H03S2	**Juan Fernandez**	**7.43**	**231**	Pn			**Pn**	**18 32 57.8**	**+0.7**
	baz=186,slow=74								
H03S2					Sn		Sn	18 34 13.6	-8.1
BI05	**Punta Hualpn**	**7.49**	**187**				**Pn**	**18 32 57.8**	**-0.3**
PB03	**IPOC Station P**	**7.51**	**16**	Pn			**Pn**	**18 32 57.9**	**-0.6**
PB07	**IPOC Station P**	**7.79**	**15**	Pn			**Pn**	**18 33 01.9**	**-0.4**
PB09	**IPOC Station P**	**7.88**	**19**	Pn			**Pn**	**18 33 03.1**	**-0.5**
PB02	**IPOC Station P**	**8.18**	**14**	Pn			**Pn**	**18 33 07.8**	**+0.1**
PB11	**IPOC Station P**	**9.74**	**13**	Pn			**Pn**	**18 33 28.0**	**-1.2**
PSGCX	**Pisagua**	**9.82**	**10**	Pn			**Pn**	**18 33 28.9**	**-1.3**
PSGCX	**Pisagua**	**9.82**	**10**	P			**Pn**	**18 33 28.8**	**-1.3**
	comp=Z,111nm,1.7s								
GO01	**Chusmiza**	**9.93**	**16**	Pn			**Pn**	**18 33 30.3**	**-1.7**
GO06	**Curarrehue**	**10.26**	**178**	Pn			**Pn**	**18 33 35.3**	**-0.9**
GO06	**Curarrehue**	**10.26**	**178**	P			**Pn**	**18 33 37.7**	**+1.5**
	comp=Z,6.6nm,1.0s								
LR04	**Corral**	**10.61**	**186**	Pn			**Pn**	**18 33 39.9**	**-1.0**
PB12	**IPOC Station P**	**10.75**	**9**	Pn			**Pn**	**18 33 41.6**	**-1.4**
PLCA	**Paso Flores**	**11.46**	**174**	Pn			**Pn**	**18 33 52.2**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=329,slow=9.9,SNR=4.0								
	comp=Z,1.1nm,0.5s								
PLCA					AML		AML		
PLCA	**Paso Flores**	**11.46**	**174**	Pn			**Pn**	**18 33 51.0**	**-1.6**
PLCA	**Paso Flores**	**11.46**	**174**	P			**Pn**	**18 33 54.3**	**+1.7**
	comp=Z,9.0nm,2.6s								
CPUP	**Villa Florida**	**13.32**	**81**	Pn			Pn	18 34 22.2	+4.2
	comp=Z,0.1nm,0.3s,baz=246,slow=14,SNR=1.9								
CPUP					Sn		**Sn**	**18 36 50.7**	**+4.1**
	comp=Z,0.1nm,0.3s,baz=231,slow=19,SNR=1.2								
	comp=Z,0.6nm,0.5s								
CPUP					AML		AML		
LPAZ	**La Paz**	**13.44**	**16**	Pn			**Pn**	**18 34 24.6**	**+4.4**
	comp=Z,0.1nm,0.3s,baz=180,slow=12,SNR=1.7								
LPAZ					LR		LR	18 39 44.5	
	comp=Z,52nm,22.0s,baz=190,slow=38								
	comp=Z,0.5nm,0.4s								
LPAZ					AML		AML		
LPAZ	**La Paz**	**13.44**	**16**				**Pn**	**18 34 23.3**	**+3.1**
SIV	**San Ignacio**	**16.64**	**40**	Pn			**P**	**18 35 06.4**	**+1.6**
	baz=231,slow=14,SNR=4.6								
	comp=Z,0.9nm,0.6s								
PCMB	**Pacaembu**	**20.22**	**72**	P			**P**	**18 35 44.4**	**+0.2**
	comp=Z,17nm,2.4s								
SMAI	**San Martin Ant**	**38.96**	**177**	P			**P**	**18 38 35.5**	**+0.7**
SMAI					IAmb		IAmb	18 38 44.6	
	comp=Z,1.9nm,1.1s								
VNA3	**Neumayer Olymp**	**53.70**	**159**	⇑P			**P**	**18 40 31.3**	**+0.6**
	comp=Z,4.8nm,0.6s								
VNA2	**Neumayer--Watz**	**54.34**	**159**	⇑P			**P**	**18 40 35.6**	**+0.3**
	comp=Z,9.2nm,0.6s,baz=283,slow=7.7								
SNAA	**Sanae**	**55.93**	**159**	⇑P			**P**	**18 40 47.3**	**+0.5**
	comp=Z,119nm,0.6s								
SNAA	**Sanae**	**55.93**	**159**	P			**P**	**18 40 47.1**	**+0.2**
	comp=Z,3.8nm,0.5s,baz=270,slow=9.2,SNR=6.8								
	comp=Z,3.8nm,0.5s								
SNAA	**Sanae**	**55.93**	**159**	P			**P**	**18 40 47.1**	**+0.2**
SNAA					IAmb		IAmb	18 40 47.8	
	comp=Z,4.5nm,0.7s								
TROLL	**Troll, Antarti**	**57.64**	**159**	⇑P			**P**	**18 40 59.5**	**+0.4**
	comp=Z,175nm,0.6s								
QSPA	**South Pole Qui**	**60.92**	**180**	P			**P**	**18 41 22.8**	**+0.9**
	comp=Z,1.8nm,0.7s,baz=169,slow=0.9,SNR=12								
	comp=Z,1.8nm,0.7s								
QSPA	**South Pole Qui**	**60.92**	**180**	P			**P**	**18 41 22.3**	**+0.4**
DBIC	**Dimbokro**	**73.70**	**72**	LR			LR	19 14 01.8	
	comp=Z,93nm,20.5s,baz=178,slow=35								
MAW	**Mawson**	**77.66**	**164**	P			**P**	**18 43 05.8**	**+0.5**
	comp=Z,1.3nm,0.5s,baz=221,slow=6.1,SNR=6.2								
	comp=Z,1.3nm,0.5s								
MAW	**Mawson**	**77.66**	**164**	IAmb			IAmb	18 43 06.8	
	comp=Z,0.3nm,0.9s								
TORD	**Torodi Ar. Bea**	**82.60**	**71**	P			**P**	**18 43 33.4**	**+0.5**
	comp=Z,1.4nm,0.8s,baz=255,slow=5.7,SNR=6.8								
	comp=Z,1.4nm,0.8s								
TORD	**Torodi Ar. Bea**	**82.60**	**71**	P			**P**	**18 43 32.5**	**-0.4**
TORD					IAmb		IAmb	18 43 34.0	
	comp=Z,2.1nm,1.1s								
SCHQ	**Schefferville**	**83.91**	**3**	LR			LR	19 24 23.1	
	comp=Z,154nm,18.1s,baz=268,slow=38								
ASAR	**Alice Springs**	**121.73**	**208**	PKP			**PKPdf**	**18 50 03.9**	**-0.1**
	comp=Z,0.2nm,0.8s,baz=130,slow=1.6,SNR=5.5								
WRA	**Warramunga Arr**	**124.84**	**211**	PKP			**PKiKP**	**18 50 10.2**	**0.0**
	comp=Z,0.3nm,0.4s,baz=155,slow=1.8,SNR=9.4								
H11S2	**WAKE ISLAND Hyl**	**25.73**	**272**	T			T	21 09 07.3	
	baz=114,slow=75,SNR=13								
H11S1	**WAKE ISLAND Hyl**	**25.74**	**273**	T			T	21 09 08.0	
	baz=114,slow=75,SNR=8.2								
H11S3	**WAKE ISLAND Hyl**	**25.75**	**272**	T			T	21 09 08.7	
	baz=114,slow=75,SNR=6.1								
H11N3	**WAKE ISLAND Hyl**	**26.03**	**274**	T			T	21 09 36.4	
	baz=110								
H11N1	**WAKE ISLAND Hyl**	**26.04**	**274**	T			T	21 09 34.2	
	baz=110								
H11N2	**WAKE ISLAND Hyl**	**26.04**	**274**	T			T	21 09 35.9	
	baz=110								
YAK	**Yakutsk**	**144.30**	**343**	PKP			**PKPdf**	**18 50 44.9**	**+0.2**
	comp=Z,3.4nm,0.4s,baz=331,slow=1.8,SNR=2.5								
KURBB	**Kurchatov Arra**	**149.29**	**38**	PKPbc			**PKiKP**	**18 50 58.5**	**-0.4**
	comp=Z,1.0nm,0.4s,baz=305,slow=3.1,SNR=12								
ZALV	**Zalesovo Beam**	**150.16**	**28**	PKPbc			**PKiKP**	**18 51 01.2**	**+0.6**
	comp=Z,3.1nm,0.5s,baz=296,slow=3.7,SNR=19								
MKAR	**Makanchi Array**	**153.45**	**42**	PKPbc			**PKiKP**	**18 51 08.2**	**+0.5**
	comp=Z,0.6nm,0.9s,baz=316,slow=6.0,SNR=3.8								

*IDC **21** 18:48:15.5±1.0,6.°73S×153.°90E,h0km,mb3.8/11, mbtmp3.9/13,ML2.9/2,MS3.3/3,Error ellipse: s-maj=24.9km s-min=16.2km az=124.0*
*NEIC **21** 18:48:19.7±1.3,6.°49S±0.°07×153.°6E±0.°1,h18km±6km, mb4.2/15,Error ellipse: s-maj=19.0km s-min=10.4km az=99.0*

ISC 21 18:48:20.6±0.8,6.°47S±0.°06×153.°6E±0.°1,h29km,n39, σ1§41/42,mb4.0/18,MS3.0/3,New Britain region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.66**	**324**		Pn		**Pn**	**18 49 02.9**	**+1.3**
	11nm,0.3s,baz=167,slow=14,SNR=5.4								
KRVT					Sn		**Sn**	**18 49 33.4**	**+0.5**
	63nm,0.3s,baz=162,slow=20,SNR=18								
	22nm,0.3s								
KRVT					AML		AML		
RABL	**Rabaul**	**2.68**	**328**				**Pn**	**18 49 01.6**	**-0.3**
RABL					Sn		**Sn**	**18 49 31.4**	**-2.0**
PMG	**Port Moresby**	**7.00**	**245**	Pn			**Pn**	**18 50 02.8**	**+1.4**
	2.9nm,0.3s,baz=52,slow=9.8,SNR=14								
PMG					Sn		**Sn**	**18 51 21.9**	**+1.8**
	0.6nm,0.3s,baz=73,slow=22,SNR

H10S2	**ASCENSION HYDR**	**37.71**	**155**	T	T	21 44 17.5	
	baz=205						
H10N3	**ASCENSION HYDR**	**38.80**	**155**	T	T	21 45 38.3	
	baz=203,slow=75,SNR=5.4						
H10N1	**ASCENSION HYDR**	**38.80**	**155**	T	T	21 45 31.8	
	baz=203,slow=75,SNR=8.0						
H10N2	**ASCENSION HYDR**	**38.81**	**155**	T	T	21 45 39.3	
	baz=203,slow=75,SNR=4.4						
FINES	**FINESS Array B**	**145.15**	**340**	PKPbc	**PKPbc**	**19 10 06.4**	**+0.1**
	1.9nm,0.5s,baz=40,slow=2.4,SNR=14						
AKASG	**Malin Array Be**	**151.33**	**323**	PKPbc	**PKPbc**	**19 10 23.6**	**+0.4**
	0.2nm,0.2s,baz=45,slow=0.5,SNR=1.9						

*IDC **21** 19:00:18.4±0.7,23°.95S×177°.21W,h0km,mb4.1/10, mbtmp4.1/11,ML5.2/1,MS3.6/18,Error ellipse: s-maj=25.7km s-min=20.6km az=151.0*
*NEIC **21** 19:00:19.5±1.0,23°.97S±0°.03×177°.0W±0°.1,h10km±1km, mb4.1/6,Error ellipse: s-maj=17.6km s-min=5.9km az=96.0*
ISC 21 19:00:19.4±0.5,**23°.9S**±0°.1×**177°.06W**±0°.10,**h10**km,**n59, σ0s82/41,mb4.2/15,MS3.6/16,3C,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**7.68**	**323**	Pn	**Pn**	**19 02 12.1**	**+0.6**
	1.2nm,0.3s,baz=137,slow=15,SNR=8.8						
MSVF				LR	LR	19 04 51.6	
	comp=Z,948nm,18.2s,baz=161,slow=36						
	13nm,0.7s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**7.68**	**323**		**Pn**	**19 02 12.0**	**+0.5**
NIUE	**Niue**	**8.21**	**55**	Pn	**Pn**	**19 02 17.8**	**-0.9**
DZM	**Mont Dzumac**	**15.31**	**274**	LR	LR	19 08 42.3	
	comp=Z,233nm,21.2s,baz=98,slow=33						
RAR	**Rarotonga**	**16.19**	**84**	Pn	**P**	**19 04 08.6**	**-1.7**
	0.9nm,0.3s,baz=281,slow=5.2,SNR=6.9						
TBI	**Tubuai**	**25.27**	**94**	*e*LR	LR	19 11 41.2	
	2μm,29.0s						
HNR	**Honiara**	**26.27**	**299**	LR	LR	19 14 35.1	
	comp=Z,175nm,19.3s,baz=234,slow=33						
PPT2	**Papeete2**	**26.43**	**81**	*e*S	S	19 10 14.1	-16
	44nm,25.0s						
PPT2				*e*LQ	LQ	19 11 17.3	
	188nm,23.0s						
PPT2				*e*LR	LR	19 12 11.4	
	429nm,28.0s						
PPT2				*e*LR	LR	19 12 19.5	
	215nm,28.2s						
PPT	**Papeete**	**26.44**	**81**	LR	LR	19 16 25.2	
	comp=Z,75nm,18.4s,baz=264,slow=36						
CTA	**Charters Tower**	**34.17**	**269**	LR	LR	19 18 49.7	
	comp=Z,67nm,20.4s,baz=57,slow=33						
KRVT	**Keravat (AS076**	**35.62**	**298**	LR	LR	19 19 55.2	
	comp=Z,108nm,21.9s,baz=115,slow=33						
STKA	**Stephens Creek**	**37.21**	**248**	P	**P**	**19 07 30.8**	**-0.3**
	2.6nm,1.0s,baz=90,slow=15,SNR=3.4						
STKA				LR	LR	19 20 06.9	
	comp=Z,89nm,20.8s,baz=36,slow=32						
	2.6nm,1.0s						
TAOE	**Nuku Hiva Isla**	**38.30**	**73**	*e*LR	LR	19 17 54.1	
	319nm,26.9s						
AS31	**Alice Springs**	**44.68**	**260**	P	**P**	**19 08 32.2**	**-0.7**
AS31				IAmb	IAmb	19 08 34.0	
	comp=Z,2.5nm,1.1s						
ASAR	**Alice Springs**	**44.69**	**260**	P	**P**	**19 08 32.5**	**-0.4**
	comp=Z,3.9nm,0.9s,baz=100,slow=7.9,SNR=24						
ASAR				PcP	**PcP**	**19 10 15.8**	**+0.3**
	comp=Z,0.3nm,0.9s,baz=100,slow=2.7,SNR=1.6						
ASAR				LR	LR	19 26 12.6	
	comp=Z,121nm,18.4s,baz=100,slow=35						
	comp=Z,3.9nm,0.9s						
ASAR	**Alice Springs**	**44.69**	**260**	P	**P**	**19 08 31.8**	**-1.1**
WB0	**Warramunga Arr**	**45.09**	**265**	P	**P**	**19 08 34.8**	**-1.3**
WB0				IAmb	IAmb	19 08 42.7	
	comp=Z,5.2nm,1.0s						
WRA	**Warramunga Arr**	**45.09**	**265**	P	**P**	**19 08 34.8**	**-1.4**
	comp=Z,3.0nm,0.9s,baz=101,slow=8.0,SNR=15						
	comp=Z,3.0nm,0.9s						
WRA	**Warramunga Arr**	**45.09**	**265**	P	**P**	**19 08 35.1**	**-1.0**
GUMO	**Guam**	**52.68**	**311**	LR	LR	19 30 04.4	
	comp=Z,24nm,20.3s,baz=112,slow=34						
FITZ	**Fitzroy Crossi**	**53.51**	**265**	P	**P**	**19 09 40.5**	**-0.1**
	comp=Z,3.8nm,1.0s,baz=110,slow=12,SNR=3.5						
FITZ				LR	LR	19 31 19.6	
	comp=Z,95nm,20.1s,baz=130,slow=35						
	comp=Z,3.8nm,1.0s						
FITZ	**Fitzroy Crossi**	**53.51**	**265**	P	**P**	**19 09 39.5**	**-1.0**
FITZ				IAmb	IAmb	19 09 42.0	
	comp=Z,2.7nm,1.3s						
KAPI	**Kappang**	**63.50**	**277**	LR	LR	19 36 09.5	
	comp=Z,30nm,21.3s,baz=102,slow=34						
QSPA	**South Pole Qui**	**66.15**	**180**	P	**P**	**19 11 07.6**	**+0.7**
	comp=Z,1.8nm,0.9s,baz=43,slow=3.2,SNR=6.0						
	comp=Z,1.8nm,0.9s						
QSPA	**South Pole Qui**	**66.15**	**180**	P	**P**	**19 11 06.8**	**-0.1**
MJAR	**Matsushiro Arr**	**73.48**	**324**	LR	LR	19 39 18.3	
	comp=Z,45nm,19.9s,baz=37,slow=32						
ASAJ	**Asahikawa**	**77.15**	**331**	LR	LR	19 43 53.7	
	comp=Z,80nm,18.0s,baz=263,slow=34						
PMSA	**Palmer Station**	**77.81**	**156**	LR	LR	19 41 16.5	
	comp=Z,62nm,18.9s,baz=268,slow=32						
MAW	**Mawson**	**78.64**	**200**	P	**P**	**19 12 21.8**	**+0.6**
	comp=Z,7.6nm,1.0s,baz=117,slow=7.4,SNR=14						
	comp=Z,7.6nm,1.0s						
MAW	**Mawson**	**78.64**	**200**	P	**P**	**19 12 21.6**	**+0.4**
MAW				IAmb	IAmb	19 12 22.8	
	comp=Z,1.9nm,1.0s						
KSRS	**Korea Array**	**80.03**	**319**	LR	LR	19 46 38.9	
	comp=Z,21nm,18.5s,baz=335,slow=35						
NVAR	**Mina Array Bea**	**82.93**	**43**	P	**P**	**19 12 47.2**	**+2.4**
	comp=Z,0.5nm,0.6s,baz=232,slow=5.5,SNR=5.6						
	comp=Z,0.5nm,0.6s						
NVAR	**Mina Array Bea**	**82.93**	**43**	P	**P**	**19 12 45.1**	**+0.3**
H03S2	**Juan Fernandez**	**83.34**	**124**	T	T	20 44 36.2	
	baz=244,slow=74,SNR=35						
H03S1	**Juan Fernandez**	**83.36**	**124**	T	T	20 44 37.3	
	baz=244,slow=74,SNR=32						
H03S3	**Juan Fernandez**	**83.36**	**124**	T	T	20 44 36.1	
	baz=244,slow=74,SNR=29						
H03N2	**Juan Fernandez**	**83.50**	**124**	T	T	20 44 43.8	
	baz=250,slow=74,SNR=18						
H03N1	**Juan Fernandez**	**83.52**	**124**	T	T	20 44 46.3	
	baz=12,slow=74,SNR=24						
TROLL	**Troll, Antarti**	**84.31**	**180**	⇑P	**P**	**19 12 51.8**	**+0.3**
	comp=Z,276nm,1.0s						
VNA3	**Neumayer Olymp**	**84.67**	**176**	P	**P**	**19 12 53.3**	**+0.2**
	comp=Z,4.1nm,0.7s						
VNA2	**Neumayer--Watz**	**85.12**	**177**	⇑P	**P**	**19 12 55.7**	**+0.4**
	comp=Z,4.2nm,0.7s,baz=190,slow=2.4						
VNA1	**Neumayer--Stat**	**85.35**	**176**	⇑P	**P**	**19 12 57.5**	**+1.1**
	comp=Z,9.6nm,0.9s						
PLCA	**Paso Flores**	**86.29**	**133**	LR	LR	19 42 32.0	
	comp=Z,29nm,19.6s,baz=248,slow=29						
TXAR	**Lajitas Array**	**88.18**	**57**	P	**P**	**19 13 12.0**	**+0.9**
	comp=Z,0.9nm,0.8s,baz=242,slow=5.9,SNR=9.8						
	comp=Z,0.9nm,0.8s						
TXAR	**Lajitas Array**	**88.18**	**57**	P	**P**	**19 13 11.2**	**+0.2**
CMIG	**Matias Romero**	**89.92**	**71**	LR	LR	19 44 39.5	
	comp=Z,26nm,20.5s,baz=5.5,slow=30						
PDAR	**Pinedale Array**	**90.86**	**43**	P	**P**	**19 13 24.5**	**+1.0**
	comp=Z,0.5nm,0.9s,baz=243,slow=5.3,SNR=2.9						
	comp=Z,0.5nm,0.9s						
CMAR	**Chiang Mai Arr**	**92.07**	**289**	P	**P**	**19 13 28.2**	**-1.2**
	comp=Z,0.5nm,0.9s,baz=122,slow=4.8,SNR=4.2						
CMAR				LR	LR	19 57 41.4	
	comp=Z,10nm,18.2s,baz=135,slow=37						
	comp=Z,0.5nm,0.9s						
KHAM	**Kharkiv**	**143.29**	**324**	PKP	**PKPdf**	**19 19 53.1**	**-0.8**
AKASG	**Malin Array Be**	**146.41**	**329**	PKPbc	**PKPdf**	**19 19 59.2**	**0.0**
	comp=Z,4.2nm,0.7s,baz=44,slow=4.6,SNR=16						
KIEV	**Kiev**	**146.43**	**329**		**PKPbc**	**19 20 00.2**	**-0.3**
KIEV	**Kiev**	**146.43**	**329**	PKP	**PKPdf**	**19 19 59.8**	**+0.6**
RNPP9	**Sopachiv**	**147.37**	**333**	PKP	**PKPdf**	**19 20 00.8**	**+0.1**
RNPP9				PKP	**PKPbc**	**19 20 03.0**	**-0.2**
LUBAR	**Lubar, Ukraine**	**147.63**	**330**	PKP	**PKPbc**	**19 20 04.1**	**+0.1**
EKA	**Eskdalemuir Ar**	**148.31**	**7**	PKPbc	**PKPbc**	**19 20 05.4**	**-0.1**
	comp=Z,1.1nm,0.6s,baz=356,slow=2.6,SNR=2.5						
KMPD	**K-Podol'skiy**	**149.19**	**329**	PKP	**PKPdf**	**19 20 04.2**	**+0.4**
KMPD				PKP	**PKPdf**	**19 20 04.3**	**+0.4**
BRTR	**Keskin Array B**	**149.72**	**309**	PKPbc	**PKPbc**	**19 20 09.9**	**0.0**
	comp=Z,1.4nm,0.7s,baz=66,slow=3.7,SNR=8.7						
CLL	**Collm**	**151.59**	**347**	*i* PKPbc	**PKiKP**	**19 20 14.8**	**+0.7**
	comp=Z,11nm,1.0s						
TORD	**Torodi Ar. Bea**	**169.21**	**173**	PKPab	**PKPab**	**19 21 39.3**	**-0.2**
	comp=Z,1.9nm,1.1s,baz=197,slow=5.6,SNR=5.0						

*IPEC **21** 19:11:22.0±0.2,51°.63N×16°.07E,h1km,ML2.0/7,Error ellipse: s-maj=1.4km s-min=0.9km az=35.0*
*VIE **21** 19:11:23.5±0.8,51°.54N×16°.42E,h0km,mb2.6/3,ml2.5/4, ml2.4/4,Error ellipse: s-maj=7.3km s-min=4.1km az=116.0*
65 km NW of Wroclaw Suspected Mining induced.
*PRU **21** 19:11:24.3,51°.55N×16°.01E,h0km*
ISC 21 19:11:20.2±1.6,**51.72N**±0°.07×**16.12E**±0°.04,**h0**km,**n27, σ0s74/53,Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.88**	**173**	*e*Pg	**Pb**	**19 11 37.9**	**-0.5**
KSP				*e*Sg	**Sg**	**19 11 47.8**	**-0.7**
CHVC	**Chvalec**	**1.13**	**182**	*e*PG	**Pg**	**19 11 42.0**	**+0.2**
CHVC				*e*SG	**Sg**	**19 11 56.1**	**-0.4**
	comp=Z,19nm,0.5s						
CHVC				AML	AML		
OSTC	**Ostas**	**1.17**	**177**	*e*PG	**Pb**	**19 11 43.2**	**0.0**
OSTC				*e*SG	**Sg**	**19 11 56.7**	**-0.8**
UPC	**Upice**	**1.21**	**183**	*e*PG	**Pg**	**19 11 43.2**	**-0.2**
UPC				*e*SG	**Sg**	**19 11 58.0**	**-1.1**
	comp=Z,23nm,0.3s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.38**	**175**	*e*PG	**Pg**	**19 11 45.9**	**-0.6**
DPC				*e*SG	**Sg**	**19 12 02.8**	**-1.5**
	comp=Z,11nm,0.3s						
DPC				AML	AML		
PVCC	**Panska Ves**	**1.54**	**220**	*e*PG	**Pn**	**19 11 48.9**	**0.0**
PVCC				*e*SG	**Sg**	**19 12 08.3**	**-1.3**
	comp=Z,37nm,0.2s						
PVCC				AML	AML		
PIVO	**Bartosovice**	**1.56**	**170**	*e*Pg	**Pn**	**19 11 49.1**	**-0.1**
	baz=348						
PIVO				*e*Sg	**Sg**	**19 12 08.1**	**-2.1**
	12nm,0.1s,baz=348						
PIVO				AML	AML		
BRG	**Berggiesshubel**	**1.61**	**239**	Pg	**Pn**	**19 11 50.3**	**+0.5**
BRG				Sg	**Sn**	**19 12 10.6**	**-0.6**
BRG				Amp		19 12 13.3	
	comp=Z,12nm,0.4s						
KRLC	**Kraliky**	**1.70**	**165**	*e*PG	**Pn**	**19 11 51.4**	**+0.3**
KRLC				*e*SG	**Sn**	**19 12 13.2**	**-0.3**
	comp=Z,17nm,0.3s						
KRLC				AML	AML		
ANAC	**Anensky vrch**	**1.83**	**154**	*e*Pn	**Pn**	**19 11 53.6**	**+0.7**
	baz=332						
ANAC				*e*Sg	**Sn**	**19 12 17.1**	**+0.3**
	comp=Z,9.0nm,0.2s,baz=332						
ANAC				AML	AML		
RYBC	**Ceska Rybna**	**1.91**	**181**	*e*Pn	**Pn**	**19 11 54.2**	**+0.2**
	baz=0.2						
RYBC				*e*Sg	**Sn**	**19 12 19.0**	**+0.2**
	comp=Z,8.1nm,0.1s,baz=0.2						
RYBC				AML	AML		
CLL	**Collm**	**1.99**	**259**	*e*Pn	**Pn**	**19 11 55.0**	**0.0**
CLL				*e*Pg	**Pb**	**19 11 57.0**	**-0.2**
CLL				*i* x	x	19 12 01.4	
CLL				*e*Sg	**Sb**	**19 12 23.0**	**+0.5**
STEB	**Steborice**	**2.07**	**149**	*e*PG	**Pb**	**19 11 58.9**	**+0.3**
STEB				*e*SG	**Sg**	**19 12 26.8**	**+0.1**
	comp=Z,20nm,0.3s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**2.14**	**154**	*e*Pn	**Pn**	**19 11 57.6**	**+0.4**
	baz=334						
MORC				*e*Sg	**Sb**	**19 12 26.8**	**-0.2**
	comp=Z,9.5nm,0.4s,baz=334						
MORC				AML	AML		
MORC	**Moravsky Berou**	**2.14**	**154**	*e*PN	**Pn**	**19 11 57.7**	**+0.5**
MORC				*e*SG	**Sb**	**19 12 26.9**	**-0.1**
VRAC	**Vranov**	**2.43**	**173**	*e*Pn	**Pn**	**19 12 01.6**	**+0.4**
	baz=352						
VRAC				*e*Sg	**Sb**	**19 12 35.4**	**+0.1**
	comp=Z,6.9nm,0.4s,baz=352						
VRAC				AML	AML		
TREC	**Trest**	**2.46**	**190**	*e*PG	**Pb**	**19 12 05.6**	**+0.4**
TREC				*e*SG	**Sb**	**19 12 36.3**	**+0.2**
KRUC	**Moravsky**	**2.67**	**176**	*e*Pn	**Pn**	**19 12 04.9**	**+0.6**
	baz=356						
KRUC				*e*Sg	**Sb**	**19 12 42.5**	**+0.5**
	comp=Z,7.4nm,0.7s,baz=356						
KRUC				AML	AML		
NKC	**Novy Kostel**	**2.75**	**239**	*e*PG	**Pg**	**19 12 12.0**	**-0.9**
NKC				*e*SG	**Sb**	**19 12 46.3**	**+1.7**
KHC	**Kasperske Hory**	**3.06**	**213**	*e*PN	**Pn**	**19 12 10.5**	**+0.7**
KHC				*e*PG	**Pb**	**19 12 15.6**	**+0.2**
KHC				*e*SG	**Sb**	**19 12 54.9**	**+1.6**
ABNA	**Allensteig Bun**	**3.08**	**188**	Pn	**Pn**	**19 12 10.7**	**+0.6**
	comp=Z,0.1nm,0.1s						
ABNA				*e*Sn	**Sn**	**19 12 48.5**	**+0.8**
	comp=Z,0.4nm,0.1s						
CKRC	**Cesky Krumlov**	**3.12**	**202**	*e*PN	**Pn**	**19 12 11.1**	**+0.4**
CKRC				*e*PG	**Pb**	**19 12 17.2**	**+0.6**
LANS	**Liptovska Anna**	**3.35**	**139**	*e*SG	**Sg**	**19 13 07.3**	**-0.3**
MODS	**Modra-Piesok**	**3.43**	**167**	*e*SG	**Sg**	**19 13 10.3**	**0.0**
CONA	**Conrad Observa**	**3.80**	**183**	*e*Pn	**Pn**	**19 12 20.7**	**+0.7**
	comp=Z,0.1nm,0.1s						
CONA				*e*Sn	**Sn**	**19 13 04.8**	**-0.6**
	comp=Z,0.2nm,0.2s						
RONA	**Rosalia, Austr**	**4.02**	**178**	*e*Sn	**Sn**	**19 13 10.2**	**-0.7**
	comp=Z,0.1nm,0.2s						
MOA	**Molln**	**4.05**	**198**	*i* Pn	**Pn**	**19 12 23.7**	**+0.2**
	comp=Z,0.5nm,0.3s						
MOA				*i* Sn	**Sn**	**19 13 13.3**	**+1.7**
	comp=Z,0.3nm,0.2s						

*AFAD **21** 19:21:04.9,37°.74N×27°.05E,h7km±1km,ML2.2*
*ATH **21** 19:21:04.4,37°.74N×27°.09E,h6km±1km,ML2.6/6,Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*THE **21** 19:21:05.2,37°.7N±0°.8×27°.0E±0°.8,h2km±1km,M2.4/9, MLh2.4/9*
ISC 21 19:21:05.1±0.9,**37°.74N**±0°.02×**27°.05E**±0°.02,**h9**km±7km, **n25,σ0s48/44,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GCAM	**G?zelcaml?**	**0.15**	**104**	P	**Pg**	**19 21 08.6**	**+0.2**
GCAM				IAML		19 21 12.0	
	comp=N,1μm,0.3s						
GCAM				IAML		19 21 12.0	
	comp=E,1μm,0.2s						
SMG	**Samos**	**0.17**	**261**	P	**Pg**	**19 21 08.4**	**-0.3**
SMG				S	**Sg**	**19 21 10.6**	**-0.5**
SMG				AML	AML		
SMG	**Samos**	**0.17**	**261**	P	**Pg**	**19 21 08.4**	**-0.3**
SMG				S	**Sg**	**19 21 11.3**	**+0.1**
SMG				AML	AML		

KRL1	**Karlovasi Samo**	**0.28**	**282**	P	**Pg**	**19 21 10.5**	**-0.2**
KRL1				S	**Sg**	**19 21 14.9**	**+0.6**
KRL1				AML	AML		
DDIM	**Aydin, Didim**	**0.32**	**151**	P	**Pg**	**19 21 11.5**	**+0.1**
DDIM				S	**Sg**	**19 21 16.4**	**+0.8**
DDIM				IAML		19 21 17.0	
	comp=N,361nm,0.4s						
DDIM				IAML		19 21 18.0	
	comp=E,282nm,0.4s						
DGB	**zmir**	**0.34**	**338**	P	**Pg**	**19 21 11.9**	**0.0**
DGB				S	**Sg**	**19 21 16.5**	**+0.1**
DGB				IAML		19 21 17.0	
	comp=E,213nm,0.3s						
DGB				IAML		19 21 19.0	
	comp=N,159nm,0.6s						
SAM2	**Drakei, Karlov**	**0.35**	**274**	P	**Pg**	**19 21 11.8**	**-0.1**
SAM2				S	**Sg**	**19 21 17.2**	**+0.7**
SAM2				AML	AML		
BEYE	**izmir**	**0.50**	**349**	P	**Pg**	**19 21 14.9**	**+0.1**
BEYE				S	**Sg**	**19 21 22.0**	**+0.6**
BEYE				IAML		19 21 26.0	
	comp=N,235nm,0.2s						
BEYE				IAML		19 21 26.0	
	comp=E,212nm,0.2s						
DUVT	**Torbali**	**0.58**	**33**	P	**Pg**	**19 21 16.3**	**0.0**
DUVT				S	**Sg**	**19 21 24.4**	**+0.5**
DUVT				IAML		19 21 29.0	
	comp=E,115nm,0.8s						
BLCB	**Balcova**	**0.65**	**360**	P	**Pg**	**19 21 17.4**	**-0.2**
BLCB				S	**Sb**	**19 21 27.1**	**-0.6**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.66**	**320**	P	**Pg**	**19 21 16.9**	**-1.0**
ZEYE				S	**Sb**	**19 21 27.4**	**-0.7**
ZEYE				IAML		19 21 28.0	
	comp=N,229nm,0.5s						
ZEYE				IAML		19 21 31.0	
	comp=E,87nm,0.5s						
BODT	**Bodrum**	**0.70**	**163**	P	**Pg**	**19 21 18.2**	**-0.5**
BODT				S	**Sb**	**19 21 28.8**	**-0.5**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.78**	**184**	P	**Pg**	**19 21 19.7**	**-0.4**
KLNA				S	**Sb**	**19 21 30.9**	**-0.6**
CHOS	**Chios island**	**1.02**	**310**	P	**Pb**	**19 21 24.8**	**-0.1**
CHOS				S	**Sb**	**19 21 39.5**	**+1.1**
CHOS				AML	AML		
CHOS	**Chios island**	**1.02**	**310**	P	**Pb**	**19 21 24.8**	**-0.1**
CHOS				S	**Sg**	**19 21 37.8**	**-0.1**
CHOS				AML	AML		
DAT	**Datca**	**1.09**	**157**	P	**Pg**	**19 21 25.8**	**-0.2**
DAT				AML	AML		
YER	**Yerkesik**	**1.15**	**121**	P	**Pg**	**19 21 27.1**	**-0.2**
YER				S	**Sn**	**19 21 43.5**	**+0.2**
DKL	**Dikili**	**1.34**	**355**	P	**Pn**	**19 21 29.6**	**-0.3**
DKL				S	**Sg**	**19 21 48.0**	**-0.2**
APE	**Apeiranthos**	**1.38**	**242**	P	**Pn**	**19 21 30.9**	**+0.4**
APE				S	**Sn**	**19 21 49.9**	**+1.0**
APE	**Apeiranthos**	**1.38**	**242**	P	**Pn**	**19 21 30.3**	**-0.3**
APE				S	**Sb**	**19 21 48.4**	**-0.3**
APE				AML	AML		
PRK	**Paraskevi**	**1.63**	**338**	P	**Pn**	**19 21 34.3**	**+0.4**
PRK				S	**Sn**	**19 21 55.0**	**+0.1**
PRK				AML	AML		
THERA	**Ancient Thera,**	**1.86**	**223**	P	**Pn**	**19 21 37.3**	**+0.2**
THR3	**Thira Island,**	**1.87**	**225**	P	**Pn**	**19 21 37.5**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.88**	**225**	P	**Pn**	**19 21 38.1**	**+0.8**
ELL	**Elmali**	**2.49**	**113**	P	**Pn**	**19 21 45.3**	**-0.6**

*ISK **21** 19:31:02.7,37°.86N×26°.98E,h12km,ML3.2/18*
*ATH **21** 19:31:02.8,37°.83N×26°.99E,h15km,ML3.1/13,Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*AFAD **21** 19:31:03.0,37°.85N×26°.96E,h7km±1km,ML2.9*
*THE **21** 19:31:03.1,37°.9N±1°.0×27°.0E±0°.9,h11km±1km,M3.1/11, MLh3.1/11*
ISC 21 19:31:03.1±0.8,**37°.84N**±0°.02×**26°.97E**±0°.02,**h16**km±5km, **n72,σ0s56/99,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**218**	P	**Pg**	**19 31 07.1**	**-0.3**
SMG				S	**Sg**	**19 31 10.6**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.17**	**218**	P	**Pg**	**19 31 07.1**	**-0.3**
SMG				S	**Sg**	**19 31 10.6**	**+0.3**
SMG				AML	AML		
KRL1	**Karlovasi Samo**	**0.21**	**257**	P	**Pg**	**19 31 07.9**	**-0.1**
KRL1				S	**Sg**	**19 31 11.5**	**+0.2**
KRL1				AML	AML		
DGB	**zmir**	**0.22**	**342**	P	**Pg**	**19 31 07.7**	**-0.5**
DGB				S	**Sg**	**19 31 10.8**	**-0.7**
DGB				IAML		19 31 11.0	
	comp=N,4μm,0.1s						
DGB				IAML		19 31 11.0	
	comp=E,5μm,0.2s						
GMLD	**Gumuldur**	**0.24**	**350**	Pg	**Pg**	**19 31 08.1**	**-0.3**
GMLD				Sg	**Sg**	**19 31 11.5**	**-0.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.25**	**86**	Pg	**Pg**	**19 31 08.4**	**-0.2**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**124**	P	**Pg**	**19 31 08.6**	**0.0**
GCAM				S	**Sg**	**19 31 12.8**	**+0.4**
GCAM				IAML		19 31 13.0	
	comp=N,4μm,0.6s						
GCAM				IAML		19 31 13.0	
	comp=E,1μm,0.7s						
GCAM	**G?zelcaml?**	**0.25**	**124**	Pg	**Pg**	**19 31 08.6**	**0.0**
GCAM				Sg	**Sg**	**19 31 12.6**	**+0.2**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.30**	**254**	P	**Pg**	**19 31 09.0**	**-0.4**
SAM2				S	**Sg**	**19 31 13.4**	**-0.3**
SAM2				AML	AML		
BEYE	**izmir**	**0.39**	**355**	P	**Pg**	**19 31 10.7**	**-0.3**
BEYE				IAML		19 31 20.0	
	comp=N,788nm,0.4s						
BEYE				IAML		19 31 22.0	
	comp=E,758nm,0.2s						
DDIM	**Aydin, Didim**	**0.44**	**151**	P	**Pg**	**19 31 12.2**	**+0.3**
DDIM				S	**Sb**	**19 31 18.9**	**0.0**
DDIM				IAML		19 31 19.0	
	comp=E,987nm,0.6s						
DDIM				IAML		19 31 20.0	
	comp=N,881nm,0.4s						
DUVT	**Torbali**	**0.53**	**45**	P	**Pg**	**19 31 13.3**	**-0.4**
DUVT				S	**Sg**	**19 31 20.0**	**-0.8**
DUVT				IAML		19 31 24.0	
	comp=E,1μm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**317**	P	**Pg**	**19 31 13.4**	**-0.4**
ZEYE				S	**Sg**	**19 31 21.4**	**+0.3**
ZEYE				IAML		19 31 24.0	
	comp=E,2μm,0.2s						
BLCB	**Balcova**	**0.55**	**6**	P	**Pg**	**19 31 13.4**	**-0.5**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**6**	Pg	**Pg**	**19 31 13.4**	**-0.5**
BLCB				AML	AML		
CESE	**eme**	**0.72**	**313**	Pg	**Pb**	**19 31 17.4**	**+0.1**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.74**	**82**	Pg	**Pb**	**19 31 17.5**	**-0.1**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.76**	**161**	Pg	**Pg**	**19 31 17.6**	**-0.3**
YKAV				AML	AML		
BAGT	**Foa**	**0.82**	**353**	Pg	**Pg**	**19 31 18.7**	**-0.3**
BAGT				S	**Sb**	**19 31 30.5**	**+0.8**
BAGT				IAML		19 31 33.0	
	comp=E,488nm,0.4s						
BAGT				IAML		19 31 36.0	
	comp=N,446n

CHOS				S	**Sb**	19 31 33.2	+0.9		
CHOS				AML	AML				
CHOS	**Chios island**	**0.90**	**307**	Pg	**Pg**	19 31 20.6	0.0		
CHOS				AML	AML				
CHOS	**Chios island**	**0.90**	**307**	P	**Pg**	19 31 20.6	0.0		
CHOS				S	**Sb**	19 31 33.1	+0.9		
CHOS				AML	AML				
KARB	**zmir-Karabur**	**0.93**	**332**	P	**Pg**	19 31 20.2	-0.9		
KARB				IAML		19 31 36.0			
	comp=N,455nm,0.5s								
KARB				IAML		19 31 36.0			
	comp=E,596nm,0.5s								
EAG2	**Marmaro, Chios**	**0.98**	**316**	P	**Pn**	19 31 22.4	+0.3		
EAG2				S	**Sb**	19 31 35.0	+0.7		
NAZL	**Nazilli-Aydin**	**1.05**	**83**	Pg	**Pb**	19 31 23.0	0.0		
NAZL				AML	AML				
GOMA	**Golmarmara-Man**	**1.14**	**40**	Pn	**Pb**	19 31 24.5	+0.1		
GOMA				AML	AML				
DAT	**Datca**	**1.21**	**156**	P	**Pn**	19 31 25.3	-0.2		
DAT				S	**Sg**	19 31 42.3	0.0		
DAT				AML	AML				
DKL	**Dikili**	**1.23**	**358**	Pn	**Pn**	19 31 25.6	0.0		
DKL				AML	AML				
DKL	**Dikili**	**1.23**	**358**	P	**Pn**	19 31 25.4	-0.2		
DKL				S	**Sg**	19 31 42.1	-0.7		
AKS	**Akhisar**	**1.23**	**32**	Pn	**Pb**	19 31 26.2	+0.2		
AKS				AML	AML				
YER	**Yerkesik**	**1.26**	**124**	P	**Pn**	19 31 26.4	+0.3		
YER				S	**Sn**	19 31 43.2	+0.4		
APE	**Apeiranthos**	**1.38**	**236**	S	**Sg**	19 31 47.9	+0.2		
APE	**Apeiranthos**	**1.38**	**236**	P	**Pn**	19 31 27.0	-0.8		
APE				S	**Sn**	19 31 45.9	+0.1		
APE				AML	AML				
ASTA	**Astypalaia**	**1.39**	**201**	P	**Pn**	19 31 27.9	+0.2		
ASTA				AML	AML				
SOMA	**Soma-Manisa**	**1.39**	**18**	Pn	**Pn**	19 31 28.1	+0.3		
SOMA				AML	AML				
GORD	**Gordes-Manisa**	**1.43**	**41**	Pn	**Pb**	19 31 29.6	+0.2		
GORD				AML	AML				
TNSA	**Tinos**	**1.47**	**259**	P	**Pn**	19 31 27.7	-1.1		
TNSA				S	**Sn**	19 31 47.0	-0.7		
TNSA				AML	AML				
NAX1	**Naxos Island**	**1.47**	**240**	P	**Pn**	19 31 29.7	+0.8		
NAX1				AML	AML				
PRK	**Paraskevi**	**1.50**	**339**	P	**Pn**	19 31 29.3	-0.1		
PRK				S	**Sb**	19 31 49.7	+0.2		
PRK				AML	AML				
PRK	**Paraskevi**	**1.50**	**339**	P	**Pn**	19 31 29.1	-0.3		
PRK				S	**Sn**	19 31 49.5	+0.8		
PRK				AML	AML				
CMBO	**Columbo, Santo**	**1.85**	**223**	P	**Pn**	19 31 34.9	+0.7		
THR2	**Thira island,**	**1.86**	**222**	P	**Pn**	19 31 34.9	+0.6		
THR8	**Santorini-Mono**	**1.86**	**220**	P	**Pn**	19 31 34.1	-0.2		
ARG	**Arkhangelos**	**1.87**	**150**	P	**Pn**	19 31 34.5	+0.1		
ARG				S	**Sn**	19 31 55.8	-1.9		
ARG	**Arkhangelos**	**1.87**	**150**	P	**Pn**	19 31 33.0	-1.4		
ARG				AML	AML				
THRA	**Thira**	**1.88**	**221**	P	**Pn**	19 31 35.0	+0.4		
THERA	**Ancient Thera,**	**1.90**	**220**	P	**Pn**	19 31 34.2	-0.6		
THERA				S	**Sn**	19 31 57.9	-0.5		
THERA				AML	AML				
THR3	**Thira Island,**	**1.90**	**222**	P	**Pn**	19 31 36.4	+1.6		
SNT5	**Nea Kammeni, S**	**1.91**	**222**	P	**Pn**	19 31 35.6	+0.6		
SAP3	**Santorini-Thir**	**1.91**	**223**	P	**Pn**	19 31 35.5	+0.5		
THR5	**Thira Island,**	**1.93**	**223**	P	**Pn**	19 31 35.5	+0.3		
BALB	**Balikesir**	**1.93**	**21**	P	**Pn**	19 31 36.0	+0.8		
BALB				S	**Sn**	19 31 60.0	+0.8		
BALB				AML	AML				
THR6	**Thira Island,**	**1.94**	**221**	P	**Pn**	19 31 36.0	+0.6		
KARY	**Karystos**	**2.01**	**276**	P	**Pn**	19 31 35.9	-0.5		
KARP	**Karpathos**	**2.30**	**176**	P	**Pn**	19 31 39.8	-0.5		
MHLO	**Agia Marina, M**	**2.35**	**241**	P	**Pn**	19 31 40.9	-0.1		
DION	**Dionisos Attik**	**2.41**	**277**	P	**Pn**	19 31 41.8	-0.2		
LIA	**Limnos Island**	**2.48**	**326**	P	**Pn**	19 31 43.1	+0.3		
VLY	**Voula,Athens**	**2.51**	**271**	P	**Pn**	19 31 42.6	-0.7		
ATHU	**Athens Univers**	**2.52**	**274**	P	**Pn**	19 31 43.1	-0.3		
ZKR	**Zakros**	**2.79**	**193**	P	**Pn**	19 31 47.2	+0.2		
NPS	**Neapolis**	**2.80**	**203**	P	**Pn**	19 31 46.7	-0.5		
VIL2	**Platees**	**2.95**	**278**	P	**Pn**	19 31 48.1	-1.2		
IDI	**Anoyia**	**3.05**	**214**	P	**Pn**	19 31 50.5	-0.3		
ALN	**Alexandroupoli**	**3.13**	**347**	P	**Pn**	19 31 51.9	0.0		

ASRS 21 19:31:19.3±0.6, 48°N±3°×10°0E±°, h8km, MLh3.9/6, Error ellipse: s-maj=7.2km s-min=3.8km az=24.7, confirmed, Mongolia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KNGR	**Kungurtug, Tuv**	**3.44**	**333**	Pn	Pn	19 32 11.6	-1.7
KNGR				Pg	Pg	19 32 27.5	+2.3
KNGR				Sg	Sg	19 33 16.0	+6.3
KNGR				AML	AML		
ZAK	**Zakamensk**	**3.57**	**37**	Pn	Pn	19 32 14.4	-0.8
ZAK				Pg	Pg	19 32 29.8	+2.0
ZAK				Sg	Sg	19 33 20.6	+6.5
ZAK				AML	AML		
MOY	**Mondy**	**4.16**	**9**	Pn	Pn	19 32 25.0	+1.7
MOY				Sg	Sg	19 33 37.7	+4.7
MOY				AML	AML		
TLY	**Talaya**	**4.77**	**29**	Pg	Pg	19 32 49.6	-1.0
TLY				Sg	Sg	19 33 55.5	+3.1
TLY				AML	AML		
ULN	**Ulaanbaatar**	**4.81**	**84**	Pn	Pn	19 32 33.1	+0.9
ULN				Pg	Pg	19 32 50.9	-0.5
ULN				Sg	Sg	19 33 53.9	+0.3
ULN				AML	AML		
TDJR	**Todzha**	**5.44**	**334**	Pn	Pn	19 32 46.2	+5.4
TDJR				Pg	Pg	19 33 03.3	-0.2
TDJR				Sg	Sg	19 34 17.7	+3.8
TDJR				AML	AML		
KZLR	**Kyzyl**	**5.47**	**321**	Sg	Sg	19 34 14.6	-0.3
ARDR	**Aradan**	**6.54**	**323**	Pg	Pg	19 33 20.6	-3.9
ARDR				Sg	Sg	19 34 47.6	-1.7
TEL	**Teeli**	**7.25**	**302**	Pg	Pg	19 33 31.9	-6.3
TEL				Sg	Sg	19 35 08.7	-3.2

*IDC **21** 19:35:40.4±4.3, 44°.33N×130°.91W, h0km, mb3.2/3, mbtmp3.2/4, Error ellipse: s-maj=105.8km s-min=24.4km az=54.0*
*PGC **21** 19:36:26.7±9.9, 46°.33N×126°.65W, h10km, MLSn2.8/9, Mw3.4/9, 299km southwest of Port Renfrew, Bc Off Coast Of Washington*
ISC 21 19:35:45.0±2.4, 44°.5N±0°.2×130°.2W±0°.2, h15km, n27, σ0s77/21, Off coast of Oregon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CPW	**Capitol Peak**	**5.52**	**61**	Pn	**Pn**	19 37 05.8	-0.9
OSD	**Olympics--Snow**	**5.59**	**52**	Pn	**Pn**	19 37 07.0	-0.7
PTRF	**Port Renfrew**	**5.67**	**43**	Pn	**Pn**	19 37 08.0	-0.6
PTRF				Sn	Pg	19 37 39.0	+5.6
SYMB	**Survey Mountai**	**5.98**	**45**	Pn	**Pn**	19 37 12.3	-0.7
B926	**Mesachie Lake**	**5.99**	**42**	Pn	**Pn**	19 37 12.7	-0.3
CLRS	**Cowichan Lake**	**5.99**	**42**	Pn	**Pn**	19 37 12.7	-0.4
VGZ	**Gonzales**	**6.14**	**48**	Pn	**Pn**	19 37 14.4	-0.7
B009	**North Saanich**	**6.22**	**46**	Pn	**Pn**	19 37 15.7	-0.4
B010	**North Saanich**	**6.22**	**46**	Pn	**Pn**	19 37 15.5	-0.6
PGC	**Sidney**	**6.22**	**46**	Pn	**Pn**	19 37 15.6	-0.5
B011	**North Saanich**	**6.22**	**46**	Pn	**Pn**	19 37 15.6	-0.5
NLLB	**Nanaimo Lost L**	**6.34**	**40**	Pn	**Pn**	19 37 18.2	+0.4
SNB	**Saturna Island**	**6.44**	**46**	Pn	**Pn**	19 37 19.1	-0.1
SNB				Sn	Pg	19 37 56.0	+7.8
FMW	**Mount Fremont**	**6.44**	**65**	Pn	**Pn**	19 37 18.8	-0.6
TXDB	**Texada**	**6.50**	**35**	Pn	**Pn**	19 37 20.9	+0.9
SHB	**Sechelt**	**6.66**	**38**	Pn	**Pn**	19 37 23.2	+0.9
A05A	**Maple Falls**	**7.15**	**48**	Pn	**Pn**	19 37 29.6	+0.7
NVAR	**Mina Array Bea** 0.1nm,0.4s,baz=306,slow=5.8,SNR=0.9	**10.81**	**120**	Pn	**Pn**	19 38 20.5	+1.1
YKA	**Yellowknife Ar** 1.1nm,0.8s,baz=216,slow=11,SNR=4.2 1.1nm,0.8s	**20.14**	**21**	P	**P**	19 40 19.2	+0.9
ILAR	**Eielson Array** 0.7nm,0.9s,baz=161,slow=9.5,SNR=4.6 0.7nm,0.9s	**22.31**	**341**	P	**P**	19 40 40.2	-1.4
TXAR	**Lajitas Array** 0.3nm,0.7s,baz=324,slow=8.3,SNR=4.6 0.3nm,0.7s	**25.93**	**117**	P	**P**	19 41 16.7	0.0
H11N3	**WAKE ISLAND Hy** baz=49,slow=75,SNR=44	**57.20**	**266**	T	T	20 47 20.2	
H11N2	**WAKE ISLAND Hy** baz=49,slow=75,SNR=33	**57.21**	**266**	T	T	20 47 21.8	
H11N1	**WAKE ISLAND Hy** baz=49,slow=75,SNR=29	**57.22**	**266**	T	T	20 47 19.7	
H11S1	**WAKE ISLAND Hy** baz=49	**58.15**	**265**	T	T	20 48 36.3	
H11S2	**WAKE ISLAND Hy**	**58.15**	**265**	T	T	20 48 37.9	
H11S3	**WAKE ISLAND Hy** baz=49	**58.16**	**265**	T	T	20 48 37.7	

*CNRM **21** 19:41:02.2, 36°.92N×3°.18W, h21km, ML2.4*
*SFS **21** 19:41:19.8, 36°.75N×1°.82W, h14km, ML2.2/9, ML2.4/9, MLv2.5/7*
*MDD **21** 19:41:19.3±0.6, 36°.72N×1°.83W, h10km±2km, mb_Lg2.4/24, Error ellipse: s-maj=4.6km s-min=2.1km az=146.0*
ISC 21 19:41:18.5±1.6, 36°.69N±0°.07×1°.84W±0°.04, h17km±9km, n30, σ0s68/50, Western Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EXEJI	**El Ejido**	**0.79**	**276**	Pg	**Pg**	**19 41 33.9**	**0.0**
EXEJI				Sg	**Sg**	**19 41 44.4**	**+0.1**
EBER	**Berja**	**0.87**	**284**	Pg	**Pg**	**19 41 35.8**	**+0.4**
EBER				Sg	**Sg**	**19 41 47.3**	**+0.3**
EBER				IVmb_Lg		19 41 50.4	
ELOR	**Lorca, Murcia**	**0.95**	**4**	Pg	**Pg**	**19 41 36.0**	**-0.8**
ELOR				Sg	**Sb**	**19 41 48.9**	**+0.2**
ELOR				IVmb_Lg		19 41 50.8	
TLOR	**Lorca, Murcia**	**0.97**	**7**	Sg	**Sg**	**19 41 48.8**	**-1.1**
TLOR	**Lorca, Murcia**	**0.97**	**7**	Pg	**Pg**	**19 41 37.2**	**0.0**
TLOR				Sg	**Sb**	**19 41 49.1**	**-0.2**
CART	**Cartagena**	**1.11**	**37**	Pg	**Pb**	**19 41 39.6**	**+0.4**
CART				Sg	**Sb**	**19 41 53.5**	**+0.1**
CART	**Cartagena**	**1.11**	**37**	P	Pb	19 41 33.8	-5.4
CART				S	**Sn**	**19 41 55.8**	**+1.7**
EZAR	**Zarzadilla de**	**1.18**	**5**	Pg	**Pb**	**19 41 40.8**	**+0.3**
EZAR				Sg	**Sb**	**19 41 55.6**	**0.0**
EZAR				IVmb_Lg		19 41 59.1	
EMUR	**La Murta**	**1.24**	**22**	Pg	**Pn**	**19 41 41.2**	**+0.2**
EMUR				Sg	**Sb**	**19 41 55.9**	**-1.3**
EMUR	**La Murta**	**1.24**	**22**	Pg	**Pn**	**19 41 41.3**	**+0.2**
EMUR				Sg	**Sn**	**19 41 57.5**	**+0.1**
EMUR				IVmb_Lg		19 41 59.6	
EQUE	**Quentar**	**1.38**	**292**	Pn	**Pn**	**19 41 43.1**	**+0.1**
EQUE				Pg	**Pb**	**19 41 44.7**	**+0.7**
EQUE				Sn	**Sn**	**19 42 01.9**	**+0.8**
EQUE				IVmb_Lg		19 42 02.7	
EQTA	**Presa de Quent**	**1.39**	**292**	Pn	**Pb**	**19 41 44.7**	**+0.7**
EQTA				Sn	**Sn**	**19 42 00.6**	**-0.5**
ELGU	**Los Guajares,**	**1.45**	**277**	Pn	**Pn**	**19 41 43.8**	**-0.1**
ELGU				Sn	**Sn**	**19 42 03.1**	**+0.5**
ELGU	**Los Guajares,**	**1.45**	**277**	Pn	**Pn**	**19 41 43.9**	**-0.1**
ELGU				Sn	**Sn**	**19 42 02.8**	**+0.2**
ELGU				IVmb_Lg		19 42 08.7	
EQES	**Quesada**	**1.48**	**319**	Pn	**Pn**	**19 41 45.0**	**+0.5**
EQES				Pg	**Pg**	**19 41 46.7**	**-0.3**
EQES				Sn	**Sn**	**19 42 03.4**	**0.0**
EQES				Sg	**Sg**	**19 42 06.4**	**0.0**
EQES				IVmb_Lg		19 42 08.0	
EGOR	**Sierra Gorda,**	**1.87**	**284**	Pn	**Pn**	**19 41 49.4**	**-0.4**
EGOR				Sn	**Sn**	**19 42 12.7**	**-0.4**
EGOR				Sg	**Sg**	**19 42 18.8**	**0.0**
EGOR				IVmb_Lg		19 42 21.4	
TAF	**Taforalt**	**1.93**	**194**	P	Pn	19 41 37.0	-14
TAF				S	Sn	19 42 04.5	-10
ETOB	**Tobarra**	**1.96**	**7**	Pn	**Pn**	**19 41 52.2**	**+1.2**
ETOB				Sn	**Sn**	**19 42 15.7**	**+0.4**
ETOB				IVmb_Lg		19 42 17.6	
PALE	**Palemas**	**2.25**	**230**	P	Pn	19 41 32.4	-23
PALE				S	Sn	19 41 54.9	-28
EMIJ	**Mijas**	**2.37**	**268**	Pn	**Pn**	**19 41 55.7**	**-0.8**
EMIJ	**Mijas**	**2.37**	**268**	Pn	**Pn**	**19 41 55.8**	**-0.7**
EMIJ				Sn	**Sn**	**19 42 23.8**	**-1.3**
EMIJ				IVmb_Lg		19 42 28.8	
EBEN2	**Beniarda presa**	**2.37**	**33**	Pn	**Pn**	**19 41 56.4**	**-0.1**
EBEN2				Sn	**Sn**	**19 42 24.5**	**-0.8**
EBEN2				IVmb_Lg		19 42 28.5	
JBK	**JBK**	**2.43**	**194**	P	Pn	19 41 43.9	-14
JBK				S	Sn	19 42 17.6	-9.4
PSIM	**Granatula de C**	**2.61**	**325**	Pn	**Pn**	**19 42 00.7**	**+0.8**
PSIM				Sn	**Sn**	**19 42 30.6**	**-0.6**
EADA	**Adamuz**	**2.63**	**305**	Pn	**Pn**	**19 42 00.4**	**+0.2**
EADA				Sn	**Sn**	**19 42 31.1**	**-0.6**
EADA				IVmb_Lg		19 42 38.7	
AKLM	**AKL**	**2.73**	**218**	P	Pn	19 41 39.9	-22
AKLM				S	Sn	19 42 09.2	-25
ECAB	**El Cabril**	**3.17**	**297**	Pn	**Pn**	**19 42 08.2**	**+0.6**
ECAB	**El Cabril**	**3.17**	**297**	Pn	**Pn**	**19 42 08.1**	**+0.6**
ECAB				Sn	**Sn**	**19 42 44.4**	**-0.6**
ECAB				IVmb_Lg		19 42 47.3	
PAB	**San Pablo**	**3.47**	**326**	Pn	**Pn**	**19 42 12.1**	**+0.3**
PAB				Sn	**Sn**	**19 42 50.6**	**-1.9**
PAB				IVmb_Lg		19 42 51.9	
MD31	**MD31**	**4.51**	**213**	P	Pn	19 42 05.4	-21
MD31				S	Sn	19 42 56.3	-22

*GII **21** 19:52:43.0±0.0, 37°.995N±0°.002×30°.147E±0°.001, h0km, Mws3.9, confirmed*
*IDC **21** 19:52:45.8±1.2, 38°.00N×30°.98E, h0km, mb3.6/2, mbtmp3.6/5, ML2.5/2, MS3.7/1, Error ellipse: s-maj=20.2km s-min=12.7km az=148.0*
*ISK **21** 19:52:46.9, 38°.02N×31°.00E, h8km, ML3.7/26*
*AFAD **21** 19:52:47.5, 38°.02N×31°.00E, h7km±3km, MW3.6*
*CFUSG **21** 19:52:51.3, 38°.22N×31°.03E, h5km, Mb2.6/2, MD3.3/5, MSH3.0/7*
ISC 21 19:52:47.3±1.0, 38°.03N±0°.02×31°.01E±0°.02, h8km±7km, n68, σ1s51/100, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAGO	**Egridir - ISPA**	**0.18**	**258**	P	**Pg**	**19 52 51.1**	**0.0**
BAGO				S	**Sg**	**19 52 54.6**	**+1.0**
YVAC	**Isparta, Yalva**	**0.30**	**37**	P	**Pb**	**19 52 54.1**	**-0.9**
YVAC				S	**Sb**	**19 52 59.1**	**-1.1**
ISP	**Isparta**	**0.43**	**242**	Pg	**Pg**	**19 52 55.3**	**-0.6**
ISP				Sg	**Sg**	**19 53 02.1**	**+0.5**
ISP				AML	AML		
AFYN	**Afyon-Dinar-K**	**0.47**	**302**	P	**Pg**	**19 52 56.5**	**+0.1**
AFYN				S	**Sb**	**19 53 04.5**	**-0.5**
DOGA	**KONYA_Doganhis**	**0.53**	**81**	P	**Pb**	**19 52 58.2**	**-0.7**
DOGA				S	**Sb**	**19 53 06.3**	**-0.4**
SHUT	**Suhut-Afyon**	**0.64**	**326**	Pg	**Pg**	**19 52 59.7**	**+0.1**
SHUT				AML	AML		
BCK	**Bucak**	**0.66**	**210**	Pg	**Pg**	**19 52 59.8**	**-0.2**
BCK				AML	AML		
UCKU	**Afyonkarahisar**	**0.69**	**28**	P	**Pg**	**19 53 00.8**	**+0.1**
UCKU				S	**Sb**	**19 53 10.9**	**-0.5**
KURO	**Afyon-Bolvadin**	**0.71**	**355**	P	**Pg**	**19 53 01.2**	**+0.2**
KURO				S	**Sb**	**19 53 11.7**	**-0.2**
KZIL	**AFYON_Kizioren**	**0.72**	**289**	P	**Pg**	**19 53 00.9**	**-0.4**
KZIL				S	**Sb**	**19 53 13.1**	**+0.9**
BASM	**Basmaki-Afyon**	**0.76**	**262**	Pg	**Pg**	**19 53 01.9**	**-0.2**
BASM				AML	AML		
BUCA	**Burdur, Bucak-**	**0.79**	**207**	P	**Pb**	**19 53 02.9**	**-0.4**
BUCA				S	**Sn**	**19 53 15.9**	**-0.8**
BRDR	**BURDUR-Merkez**	**0.82**	**246**	P	**Pg**	**19 53 02.3**	**-0.8**
BRDR				S	**Sb**	**19 53 15.8**	**+0.8**
SEDI	**Konya, Seydise**	**0.83**	**134**	P	**Pg**	**19 53 02.8**	**-0.5**
SEDI				S	**Sb**	**19 53 15.3**	**0.0**
SEYD	**Seydisehir-KON**	**0.91**	**133**	Pg	**Pg**	**19 53 04.2**	**-0.6**
SEYD				AML	AML		
AFYO	**Afyonkarahisar**	**0.94**	**324**	P	**Pb**	**19 53 05.8**	**-0.1**
AFYO				S	**Sb**	**19 53 19.5**	**+1.0**
KONT	**Konya--Tatoy**	**1.07**	**94**	Pn	**Pb**	**19 53 07.9**	**-0.2**
KONT				AML	AML		
LADK	**Ladik-KONYA**	**1.08**	**81**	Pn	**Pg**	**19 53 08.1**	**-0.1**
LADK				AML	AML		
KIZT	**Kizilcal**	**1.09**	**39**	Pg	**Pg**	**19 53 07.8**	**-0.5**
KIZT				AML	AML		
KORT	**Korkueli**	**1.15**	**207**	Pn	**Pn**	**19 53 09.5**	**-0.3**
KORT				AML	AML		
ANTB	**Antalya**	**1.16**	**194**	Pn	**Pn**	**19 53 09.7**	**-0.1**
ANTB				AML	AML		
ALT	**Altintas**	**1.24**	**326**	Pn	**Pg**	**19 53 10.7**	**-0.5**
ALT				AML	AML		
MNVG	**Manavgat-Antal**	**1.27**	**165**	Pn	**Pb**	**19 53 11.5**	**-0.1**
MNVG				AML	AML		
CIFT	**Cifteler, Eski**	**1.33**	**2**	Pn	**Pn**	**19 53 12.0**	**-0.3**
CIFT				AML	AML		
APMY	**Acipayam-Deniz**	**1.46**	**248**	Pn	**Pn**	**19 53 13.6**	**-0.5**
APMY				AML	AML		
ELL	**Elmali**	**1.55**	**215**	Pn	**Pb**	**19 53 15.6**	**-0.7**
ELL				AML	AML		
HDMB	**Hadim**	**1.58**	**132**	Pn	**Pn**	**19 53 16.3**	**+0.4**
HDMB				AML	AML		
GEDZ	**Gediz**	**1.61**	**309**	Pn	**Pn**	**19 53 16.6**	**+0.5**
GEDZ				AML	AML		
ALAN	**Alanya-ANTALYA**	**1.68**	**151**	Pn	**Pn**	**19 53 16.7**	**-0.3**
ALAN				AML	AML		
SHAP	**Saphane-Kutahy**	**1.72**	**306**	Pn	**Pn**	**19 53 17.6**	**0.0**
SHAP				AML	AML		
CAME	**Cameli-Denizli**	**1.74**	**232**	Pn	**Pb**	**19 53 18.6**	**-0.9**
CAME				AML	AML		
SIMA	**Simav-Kutahya**	**1.91**	**304**	Pn	**Pn**	**19 53 20.4**	**+0.2**
SIMA				AML	AML		
KULA	**Kula-Manisa**	**1.91**	**285**	Pn	**Pn**	**19 53 20.3**	**+0.1**
KULA				AML	AML		
FETY	**Fethiye**	**2.07**	**228**	Pn	**Pn**	**19 53 23.1**	**+0.7**
FETY				AML	AML		
AKAS	**Kas**	**2.11**	**212**	Pn	**Pn**	**19 53 23.5**	**+0.4**
AKAS				AML	AML		
NAZL	**Nazilli-Aydin**	**2.15**	**269**	Pn	**Pn**	**19 53 23.9**	**+0.5**
NAZL				AML	AML		
DALY	**Dalyan (Mula)**	**2.23**	**238**	Pn	**Pn**	**19 53 25.4**	**+0.9**
DALY				AML	AML		
BR105	**Keskin Array S** 0.4nm1um101nm,0.7s	**2.65**	**50**	P	**Pn**	**19 53 30.7**	**+0.3**
BRTR	**Keskin Array B** 5.8nm,0.3s,baz=228,slow=14,SNR=123	**2.66**	**50**	Pn	**Pn**	**19 53 31.0**	**+0.3**
BRTR				Sn	**Sn**	**19 54 04.7**	**+1.5**
	6.5nm,0.3s,baz=220,slow=24,SNR=6.5 12nm,0.4s						
BRTR				AML	AML		
CSS	**Mathiatis**	**3.59**	**148**	P	**Pn**	**19 53 42.7**	**-0.6**
CSS				S	**Sn**	**19 54 29.3**	**+3.5**
IDI	**Anoyia** 1.0nm,0.3s,baz=56,slow=11,SNR=7.2	**5.63**	**243**	Pn	**Pn**	**19 54 12.1**	**+0.8**
IDI				Sn	**Sn**	**19 55 16.6**	**+0.5**
	0.6nm,0.3s,baz=90,slow=20,SNR=1.4 9.7nm,0.8s						
IDI				AML	AML		
NATI	**Neve Ativ**	**6.12**	**140**	P	**Pn**	**19 54 18.7**	**+0.7**
NATI				S	**Sn**	**19 55 32.8**	**+4.6**
GEM	**Giv'at Ha'Em**	**6.12**	**140**	P	**Pn**	**19 54 18.7**	**+0.7**
GEM				S	**Sn**	**19 55 33.5**	**+5.3**
MMA0B	**Mount Meron ar**	**6.15**	**143**	P	**Pn**	**19 54 18.9**	**+0.4**
MMA0B				S	**Sn**	**19 55 33.3**	**+4.2**
MMAI	**Mount Meron Ar** 2.5nm,0.3s,baz=339,slow=16,SNR=16	**6.15**	**143**	Pn	**Pn**	**19 54 18.7**	**+0.1**
MMAI				Sn	**Sn**	**19 55 28.5**	**-0.6**
	baz=327,slow=31						
OFRI	**`Ofer**	**6.30**	**148**	P	**Pn**	**19 54 19.9**	**-0.6**
OFRI				S	**Sn**	**19 55 35.6**	**+2.9**
KNHM	**Kefar Nahum**	**6.34**	**143**	P	**Pn**	**19 54 21.7**	**+0.6**
KNHM				S	**Sn**	**19 55 37.8**	**+4.1**
MMLI	**Mount Malkishu**	**6.64**	**146**	P	**Pn**	**19 54 25.0**	**-0.3**
MMLI				S	**Sn**	**19 55 44.4**	**+3.2**
SEV	**Sevastopol'**	**6.81**	**16**	*eP*	**Pn**	**19 54 27.6**	**+0.1**
SEV				pmax	pmax	19 54 35.6	
	comp=Z,1.0nm,0.3s						
SEV				*eS*	**Sn**	**19 55 43.6**	**-1.5**
ROII	**Roi**	**6.83**	**146**	P	**Pn**	**19 54 27.5**	**-0.3**
ROII				S	**Sn**	**19 55 49.5**	**+3.7**
YAL	**Yalta**	**6.87**	**19**	*eP*	**Pn**	**19 54 29.4**	**+1.1**
YAL				pmax	pmax	19 54 33.1	
	comp=Z,3.0nm,0.3s						
YAL				*ex*	x	19 55 46.9	
YAL				smax	smax	19 55 49.0	
	comp=N,5.0nm,0.3s						
YAL				smax	smax	19 55 49.0	
	comp=E,1.0nm,0.2s						
YITV	**Yitav**	**7.07**	**148**	P	**Pn**	**19 54 30.8**	**-0.2**
YITV				S	**Sn**	**19 55 54.3**	**+2.8**
ALU	**Alushta**	**7.12**	**20**	*ex*	x	19 54 32.3	
ALU				*eS*	**Sn**	**19 55 50.7**	**-2.0**
ALU				smax	smax	19 55 51.9	
	comp=N,32nm,0.2s						
ALU				smax	smax	19 55 51.9	
	comp=E,5.0nm,0.3s						
SIM	**Simferopol'**	**7.30**	**18**	*ex*	x	19 55 57.5	
SIM				smax	smax	19 55 58.1	
	comp=N,3.0nm,0.4s						
SIM				smax	smax	19 55 58.1	
	comp=E,6.0nm,0.4s						
TARU	**Tarkhankut**	**7.43**	**8**	*eP*	**Pn**	**19 54 36.1**	**+0.2**
TARU				pmax	pmax	19 54 40.1	
	comp=Z,4.0nm,0.4s						
TARU				*ex*	x	19 56 01.3	
TARU				smax	smax	19 56 03.7	
	comp=N,3.0nm,0.3s						
TARU				smax	smax	19 56 03.7	
	comp=E,1.0nm,0.5s						
SUDU	**Sudak**	**7.48**	**22**	*eP*	**Pn**	**19 54 36.9**	**+0.2**
SUDU				pmax	pmax	19 54 41.5	
	comp=Z,6.0nm,0.3s						
SUDU				*eS*	**Sn**	**19 56 00.0**	**-1.6**
SUDU				smax	smax	19 56 04.0	
	comp=N,5.0nm,0.3s						
SUDU				smax	smax	19 56 04.0	
	comp=E,2.0nm,0.3s						
DNZ2	**Donuzlav2**	**7.52**	**12**	*eP*	**Pn**	**19 54 38.5**	**+1.

JTH					S		Sn	20 06 16.4	-1.2
JANG	**Nango**	**0.55**	**267**	⇓	*i* P		**Pn**	**20 06 09.1**	**-0.1**
JANG					⇓S		**Sn**	**20 06 16.8**	**-0.9**
JKZ	**Kuzumaki**	**0.81**	**239**	⇓	*i* P		**Pn**	**20 06 12.7**	**+0.1**
JARK	**Aomorirokkasho**	**0.89**	**313**	⇓	*i* P		**Pn**	**20 06 13.6**	**0.0**
JARK					⇓S		**Sn**	**20 06 25.2**	**-0.4**
JTM	**Tenmabayashi**	**0.97**	**294**				**Pn**	**20 06 14.7**	**0.0**
JTM						Sn	**Sn**	**20 06 26.2**	**-1.1**
JTM	**Tenmabayashi**	**0.97**	**294**	⇓	*i* P		**Pn**	**20 06 14.6**	**0.0**
JTM					⇓S		**Sn**	**20 06 26.4**	**-0.9**
JOM	**Ohasama**	**1.18**	**218**	⇓	*i* P		**Pn**	**20 06 17.6**	**+0.1**
JOM					⇓S		**Sn**	**20 06 32.1**	**-0.4**
JAH	**Hinai**	**1.24**	**261**	⇓	*i* P		**Pn**	**20 06 18.8**	**+0.4**
JOT	**Ohata**	**1.33**	**318**		*i* P		**Pn**	**20 06 19.6**	**+0.1**
ERM	**Erimo**	**1.75**	**23**			Pn	**Pn**	**20 06 26.7**	**+1.4**
ERM						Sn	**Sn**	**20 06 45.2**	**-1.3**
ASAJ	**Asahikawa**	**3.72**	**4**		P		**Pn**	**20 06 53.7**	**+1.4**
	8.2nm,0.4s,baz=204,slow=9.9,SNR=18								
ASAJ					S		**Sn**	**20 07 34.0**	**-0.8**
	10nm,0.7s,baz=180,slow=20,SNR=1.4								
JKA	**Kamikawa-asahi**	**3.72**	**4**				**Pn**	**20 06 53.4**	**+1.1**
JKA						Sn	**Sn**	**20 07 33.7**	**-1.1**
MJAR	**Matsushiro Arr**	**4.98**	**221**		P		**Pn**	**20 07 12.3**	**+2.7**
	3.0nm,0.6s,baz=34,slow=13,SNR=17								
MJAR	**Matsushiro Arr**	**4.98**	**221**				**Pn**	**20 07 11.9**	**+2.2**
MJB9	**Matsu-Tunnel**	**4.98**	**221**				**Pn**	**20 07 12.6**	**+2.9**
MAJO	**Matsushiro**	**4.99**	**221**				**Pn**	**20 07 11.7**	**+2.0**
JGF	**Kuroka**	**6.15**	**220**		Pn		**Pn**	**20 07 28.8**	**+3.1**
INU	**Inuyama**	**6.52**	**221**		Pn		**Pn**	**20 07 33.9**	**+3.2**
USA0B	**Ussuriysk Arra**	**8.49**	**300**		Pn		**Pn**	**20 07 59.2**	**+1.6**
USRK	**Ussuriysk Ar.**	**8.49**	**300**		P		**Pn**	**20 08 00.7**	**+3.1**
	2.0nm,0.5s,baz=101,slow=15,SNR=8.8								
KSRS	**Korea Array**	**11.53**	**260**		P		**Pn**	**20 08 42.2**	**+2.9**
	0.7nm,0.8s,baz=70,slow=13,SNR=2.0								
SONM	**Songino Array**	**26.60**	**298**		P		**P**	**20 11 30.5**	**-0.5**
	0.2nm,0.4s,baz=92,slow=7.9,SNR=2.5								
	0.2nm,0.4s								
SONM	**Songino Array**	**26.60**	**298**		P		**P**	**20 11 30.3**	**-0.8**
SONM					IAmb		IAmb	20 11 51.6	
	comp=Z,1.2nm,1.4s								
H11N2	**WAKE ISLAND Hy**	**29.49**	**127**		T		T	20 42 49.8	
	baz=319,slow=75,SNR=56								
H11N1	**WAKE ISLAND Hy**	**29.50**	**127**		T		T	20 42 45.0	
	baz=319,slow=75,SNR=52								
H11N3	**WAKE ISLAND Hy**	**29.51**	**127**		T		T	20 42 49.7	
	baz=319,slow=75,SNR=57								
H11S1	**WAKE ISLAND Hy**	**30.31**	**129**		T		T	20 43 57.1	
	baz=321,slow=76,SNR=33								
H11S3	**WAKE ISLAND Hy**	**30.32**	**129**		T		T	20 44 08.0	
	baz=321,slow=76,SNR=27								
H11S2	**WAKE ISLAND Hy**	**30.33**	**129**		T		T	20 44 12.0	
	baz=321,slow=76,SNR=27								
LZDM	**Lanzhou Array**	**30.45**	**274**		P		**P**	**20 12 06.1**	**+0.3**
	comp=Z,0.8nm,0.3s,baz=61,slow=8.9,SNR=1.6								
	comp=Z,0.8nm,0.3s								
ZAA0	**Zalesovo Array**	**40.19**	**309**		P		**P**	**20 13 28.3**	**-0.4**
ZAA0					IAmb		IAmb	20 13 30.1	
	comp=Z,1.3nm,0.8s								
ZALV	**Zalesovo Beam**	**40.19**	**309**		P		**P**	**20 13 29.0**	**+0.3**
	comp=Z,0.7nm,0.4s,baz=82,slow=11,SNR=4.3								
	comp=Z,0.7nm,0.4s								
ZALV	**Zalesovo Beam**	**40.19**	**309**		P		**P**	**20 13 28.0**	**-0.6**
MKAR	**Makanchi Array**	**42.95**	**299**		P		**P**	**20 13 50.9**	**-0.5**
	comp=Z,1.3nm,0.8s,baz=85,slow=10.0,SNR=5.8								
	comp=Z,1.3nm,0.8s								
KURK	**Kurchatov**	**44.43**	**306**		P		**P**	**20 14 02.7**	**-0.5**
KURK					IAmb		IAmb	20 14 04.2	
	comp=Z,2.0nm,0.8s								
KURBB	**Kurchatov Arra**	**44.50**	**305**		P		**P**	**20 14 03.4**	**-0.4**
	comp=Z,0.7nm,0.2s,baz=79,slow=8.7,SNR=8.7								
	comp=Z,0.7nm,0.2s								
BVAR	**Borovoye Array**	**48.83**	**310**		P		**P**	**20 14 37.1**	**-0.5**
	comp=Z,1.2nm,0.4s,baz=76,slow=7.5,SNR=8.8								
	comp=Z,1.2nm,0.4s								
ARTI	**Arti**	**54.40**	**317**		P		**P**	**20 15 19.6**	**+0.5**
	comp=Z,1.0nm,0.4s,baz=63,slow=4.5,SNR=3.2								
	comp=Z,1.0nm,0.4s								
ARTI	**Arti**	**54.40**	**317**		P		**P**	**20 15 18.9**	**-0.2**
ARTI					IAmb		IAmb	20 15 21.3	
	comp=Z,5.3nm,1.2s								
AB31	**Akbulak array**	**56.30**	**309**		P		**P**	**20 15 32.4**	**-0.5**
AB31					IAmb		IAmb	20 15 46.5	
	comp=Z,3.4nm,1.5s								
ABKAR	**Akbulak array**	**56.30**	**309**		P		**P**	**20 15 32.6**	**-0.2**
WB0	**Warramunga Arr**	**60.30**	**189**		P		**P**	**20 16 00.3**	**-0.7**
WRA	**Warramunga Arr**	**60.48**	**189**		P		**P**	**20 16 00.6**	**-1.6**
	comp=Z,0.4nm,1.0s,baz=7.0,slow=6.6,SNR=5.5								
	comp=Z,0.4nm,1.0s								
ASAR	**Alice Springs**	**64.21**	**188**		P		**P**	**20 16 27.4**	**+0.3**
FINES	**FINESS Array B**	**66.14**	**332**		P		**P**	**20 16 39.5**	**+0.3**
	comp=Z,6.4nm,1.0s,baz=57,slow=5.1,SNR=3.7								
	comp=Z,6.4nm,1.0s								
AKASG	**Malin Array Be**	**72.03**	**322**		P		**P**	**20 17 14.2**	**-1.7**
	comp=Z,0.8nm,0.5s,baz=44,slow=7.3,SNR=4.4								
	comp=Z,0.8nm,0.5s								

*IDC **21** 20:15:01.5±0.6,22˚.00N×79˚.56E,h0km,mb4.1/24, mbtmp4.1/26,ML4.7/3,MS3.4/1,Error ellipse: s-maj=15.9km s-min=11.1km az=63.0*
*NEIC **21** 20:15:03.9±1.2,22˚.14N±0˚.09×79˚.63E±0˚.09,h10km±1km, mb4.3/37,Error ellipse: s-maj=15.9km s-min=13.1km az=212.0*
*GFZ **21** 20:15:03.3±0.3,22˚N±4˚×7˚.9E±˚,h10km,M4.4/19, mb4.4/19,confirmed*

ISC 21 20:15:02.9±0.4,22˚.12N±0˚.04×79˚.59E±0˚.03,h10km,n135, σ2s37/145,mb4.4/42,1C-1D,Southern India

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
NGP	**Nagpur**	**1.07**	**208**	*i* P		Pn	20 15 30.1	+6.1
BHPL	**Bhopal**	**2.29**	**300**	*i* P		Pn	20 15 37.2	-3.5
BHPL				*i* S		**Sn**	**20 16 07.1**	**-1.9**
BHPL				IAML			20 16 15.6	
	comp=N,4μm,0.4s							
AKL	**Akola**	**2.78**	**240**	*i* P		**Pb**	**20 15 52.0**	**-0.7**
AKL				*i* S		**Sg**	**20 16 32.8**	**+0.5**
AKL				IAML			20 16 33.4	
	comp=N,889nm,0.3s							
GUNA	**GUNA**	**3.26**	**321**	*i* P		Pn	20 15 48.4	-5.7
GUNA				*i* S		**Sn**	**20 16 27.7**	**-5.3**
GUNA				IAML			20 16 38.5	
	comp=N,596nm,0.5s							
JHNI	**Jhansi**	**3.44**	**345**	*i* P		Pn	20 15 50.6	-5.9
JHSG	**JHARSUGUGA**	**3.90**	**94**	*i* S		**Sn**	**20 16 44.4**	**-4.5**
VAR	**Varanasi**	**4.42**	**44**	*i* S		**Sn**	**20 16 59.7**	**-1.9**
RAGD	**RAYAGADA**	**4.62**	**128**	*i* P		**Pb**	**20 16 20.1**	**-3.9**
RAGD				*i* S		**Sb**	**20 17 21.5**	**+1.8**
HYB	**Hyderabad**	**4.78**	**192**	*i* P		**Pb**	**20 16 25.1**	**-1.8**
HYB				*i* S		**Sb**	**20 17 29.7**	**+5.3**
BRCI	**Bahraich**	**5.72**	**18**	*i* S		**Sn**	**20 17 27.0**	**-6.6**
GAYA	**Gaya**	**5.83**	**62**	*i* P		**Pn**	**20 16 28.5**	**-0.9**
GAYA				*i* S		**Sn**	**20 17 34.6**	**-1.8**
POO	**Poona**	**6.46**	**237**	*i* P		Pn	20 16 48.5	+10
POO				*i* S		**Sb**	**20 18 06.7**	**-6.1**
KUDL	**Kundal**	**6.62**	**336**	*i* P		**Pn**	**20 16 38.3**	**-2.0**
KUDL				*i* S		**Sn**	**20 17 51.8**	**-4.0**
NPLP	**NPLP New Delhi**	**6.85**	**342**	*i* P		Pn	20 16 38.4	-5.0
NPLP				*i* S		**Sn**	**20 17 53.6**	**-7.8**
NDI	**New Delhi**	**6.88**	**342**	*i* S		Sn	20 17 51.7	-10
NDI				*i* S		Sb	20 17 57.5	-27
KAD	**Karad**	**6.99**	**228**	*i* P		Pn	20 16 56.0	+11
KAD				*i* S		**Sb**	**20 18 22.3**	**-5.6**
KAD				IAML			20 18 39.5	
	comp=N,198nm,1.0s							
LGTI	**Lohaghat**	**7.26**	**3**	*i* P		**Pn**	**20 16 47.1**	**-2.2**
LGTI				*i* S		**Sn**	**20 18 07.8**	**-4.1**
PTH	**Pithoragarh**	**7.45**	**4**	*i* P		**Pn**	**20 16 51.1**	**-0.8**
PTH				*i* S		**Sn**	**20 18 12.5**	**-4.1**
SHBG	**Sahibganj**	**8.00**	**66**	*i* P		**Pn**	**20 17 03.3**	**+4.1**
SHBG				*i* S		**Sn**	**20 18 31.2**	**+1.4**
BKNR	**BIKANER**	**8.20**	**317**	*i* S		**Sn**	**20 18 34.1**	**-0.5**
JOSI	**Joshimath**	**8.40**	**360**	*i* P		**Pn**	**20 17 04.1**	**-0.8**
JOSI				*i* S		**Sn**	**20 18 36.1**	**-3.8**
GOA	**Goa**	**8.56**	**221**	*i* P		Pn	20 17 21.1	+14
UTK	**UTTARKASHI**	**8.63**	**353**	*i* P		**Pn**	**20 17 07.7**	**-0.3**
UTK				*i* S		**Sn**	**20 18 44.5**	**-1.1**
EVN	**Everest**	**8.76**	**47**			**Pn**	**20 17 09.1**	**-1.1**
SMLA	**Simla**	**9.23**	**347**	*i* P		**Pn**	**20 17 15.3**	**-0.7**
SMLA				*i* S		**Sn**	**20 18 56.3**	**-3.7**
BHK	**Bhakra**	**9.67**	**343**	*i* P		**Pn**	**20 17 21.3**	**-0.8**
BHK				*i* S		**Sn**	**20 19 06.1**	**-4.7**
MNGI	**Mangalore**	**10.22**	**207**	*i* P		Pn	20 17 41.8	+12
MNGI				*i* S		Sn	20 19 41.0	+17
DHRM	**DHARAMSHALA**	**10.50**	**345**	*i* P		**Pn**	**20 17 33.7**	**-0.1**
DHRM				*i* S		**Sn**	**20 19 26.3**	**-5.3**
THN	**Thein Dam**	**10.83**	**343**	*i* P		**Pn**	**20 17 38.5**	**+0.5**
THN				*i* S		**Sn**	**20 19 33.0**	**-6.3**
BRDH	**Bariadhala**	**11.17**	**85**		Pn	**Pn**	**20 17 44.2**	**+1.6**
	comp=N,31nm,0.3s,baz=266,slow=19,SNR=12							
BRDH					Sn	**Sn**	**20 19 39.7**	**-8.0**
	comp=N,45nm,0.3s,baz=253,slow=19,SNR=5.7							
BRDH					AML	AML		
JMU	**Jammu**	**11.43**	**339**	*i* P		**Pn**	**20 17 45.1**	**-1.1**
JMU				*i* S		**Sn**	**20 19 46.2**	**-7.7**
SHL	**Shillong**	**11.77**	**71**		Pn	**Pn**	**20 17 49.2**	**-1.8**
KOD	**Kodaikanal**	**12.00**	**190**	*i* P		Pn	20 18 07.3	+13
KOD				*i* S		Sn	20 20 24.4	+16
NIL	**Nilore**	**12.77**	**335**			**Pn**	**20 18 03.5**	**-1.1**
NIL	**Nilore**	**12.77**	**335**		P	**Pn**	**20 18 03.9**	**-0.7**
	comp=Z,28nm,0.7s							
LSA	**Lhasa**	**12.85**	**52**	⇑	*e*P	**Pn**	**20 18 06.8**	**+0.7**
LSA					S	**Sn**	**20 20 23.0**	**-6.4**
LSA					pmax	pmax		
	comp=Z,11nm,0.7s							
LSA					LR	LR		
	comp=N,8.0nm,0.7s							
LSA					LR	LR		
	comp=E,5.0nm,0.7s							
LSA	**Lhasa**	**12.85**	**52**		Pn	**Pn**	**20 18 05.4**	**-0.7**
MALK	**Mahakanadarawa**	**13.68**	**176**		P	**Pn**	**20 18 15.2**	**-1.9**
	comp=Z,26nm,0.7s							
MORE	**Moreh**	**13.70**	**78**			**Pn**	**20 18 18.3**	**+1.1**
PALK	**Pallekele**	**14.80**	**176**		Pn	Pn	20 18 27.5	-5.0
	comp=Z,2.2nm,0.3s,baz=5.3,slow=12,SNR=15							
PALK					Sn	Sn	20 21 04.5	-12
	comp=Z,1.6nm,0.3s,baz=291,slow=8.6,SNR=4.9							
PALK					LR	LR	20 24 06.8	
	comp=Z,132nm,18.3s,baz=352,slow=37							
	comp=Z,9.0nm,0.8s							
PALK					AML	AML		
PALK	**Pallekele**	**14.80**	**176**		Pn	**Pn**	**20 18 31.4**	**-1.1**
PALK	**Pallekele**	**14.80**	**176**		P	**Pn**	**20 18 31.3**	**-1.1**
	comp=Z,16nm,1.4s							
KBL	**Kabul**	**15.45**	**325**			**Pn**	**20 18 39.1**	**-2.1**
KBL					IAmb	IAmb	20 18 41.5	
	comp=Z,11nm,0.6s							
KBL	**Kabul**	**15.45**	**325**		P	**Pn**	**20 18 40.0**	**-1.2**
	comp=Z,15nm,0.6s							
NPW	**Naypyitaw**	**15.64**	**96**		P	**P**	**20 18 46.4**	**-1.2**
	comp=Z,17nm,0.6s							
KSH2	**Kashi**	**17.32**	**349**		P	**Pn**	**20 19 03.5**	**-1.4**
KSH2					pP	P	20 19 08.6	+2.3
KSH2					S	Sn	20 22 07.3	-10
KSH2					pmax	pmax		
	comp=Z,13nm,0.9s							
CHTO	**Chiang Mai**	**18.43**	**97**			**Pn**	**20 19 18.3**	**-0.3**
CHTO	**Chiang Mai**	**18.43**	**97**		P	**P**	**20 19 20.5**	**+1.8**
	comp=Z,6.1nm,0.9s							
CM31	**Chiang Mai Arr**	**18.52**	**98**		P	**P**	**20 19 18.8**	**-0.8**
CMAR	**Chiang Mai Arr**	**18.52**	**98**		P	**P**	**20 19 18.8**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=286,slow=11,SNR=9.4							
	comp=Z,0.7nm,0.4s							
CMAR					AML	AML		
DRK	**Karamyk**	**18.54**	**341**		P	**P**	**20 19 20.1**	**+0.2**
DRK	**Karamyk**	**18.54**	**341**		P	**Pn**	**20 19 22.2**	**+2.1**
	comp=Z,7.1nm,0.8s							
ASAI	**AK-SAY(Kyrgyzs**	**18.92**	**353**		P	**P**	**20 19 23.1**	**-1.1**
	comp=Z,7.0nm,0.6s							
WUS	**Wushi**	**19.02**	**359**			**P**	**20 19 25.1**	**0.0**
WUS					IAmb	IAmb	20 19 27.4	
	comp=Z,9.6nm,0.8s							
BTK	**Batken**	**19.37**	**339**			**P**	**20 19 29.8**	**+0.9**
BTK					IAmb	IAmb	20 19 32.7	
	comp=Z,14nm,0.8s							
BTK	**Batken**	**19.37**	**339**		P	**Pn**	**20 19 31.6**	**+1.6**
	comp=Z,19nm,1.1s							
NRN	**Naryn**	**19.49**	**352**			**P**	**20 19 31.4**	**+1.0**
NRN					IAmb	IAmb	20 19 46.5	
	comp=Z,6.5nm,0.6s							
TARG	**Taragay, Kyrgy**	**19.61**	**356**			**P**	**20 19 30.6**	**-1.1**
TARG	**Taragay, Kyrgy**	**19.61**	**356**		P	**Pn**	**20 19 34.6**	**+1.5**
	comp=Z,8.0nm,0.7s							
KDJ	**Kajisay**	**20.05**	**355**		P	**P**	**20 19 35.1**	**-1.3**
KDJ					IAmb	IAmb	20 19 39.8	
	comp=Z,6.3nm,0.6s							
PRZ	**Przheval'sk**	**20.33**	**357**		P	**P**	**20 19 40.1**	**+0.7**
PRZ					IAmb	IAmb	20 19 43.6	
	comp=Z,18nm,0.6s							
PRZ	**Przheval'sk**	**20.33**	**357**		P	Pn	20 19 41.8	+0.4
	comp=Z,27nm,0.6s							
AAK	**Ala-Archa**	**20.90**	**349**		P	**P**	**20 19 47.6**	**+2.1**
	comp=Z,4.5nm,0.7s,baz=191,slow=10,SNR=5.3							
	comp=Z,4.5nm,0.7s							
AAK	**Ala-Archa**	**20.90**	**349**		P	**P**	**20 19 46.9**	**+1.3**
AAK	**Ala-Archa**	**20.90**	**349**		P	Pn	20 19 47.8	-0.2
	comp=Z,8.3nm,1.0s							
PDGK	**Podgornoye**	**21.15**	**360**			**P**	**20 19 49.7**	**+1.5**
KK31	**Karatay Array**	**22.25**	**342**			**P**	**20 19 59.5**	**-0.4**
KK31					IAmb	IAmb	20 20 09.4	
	comp=Z,5.5nm,0.8s							
KKAR	**Karatay Array**	**22.25**	**342**			**P**	**20 19 59.9**	**+0.1**
SLVN	**Son La**	**22.60**	**87**		P	**P**	**20 20 06.7**	**+2.8**
	comp=Z,3.3nm,2.2s							
WMQ	**Urumqi**	**22.66**	**15**	*e*P		**P**	**20 20 05.8**	**+1.5**
WMQ					pmax	pmax		
	comp=Z,17nm,0.7s							
GTA2	**Gaotai**	**24.40**	**40**		P	**P**	**20 20 22.6**	**+1.0**
GTA2					pmax	pmax		
	comp=Z,4.0nm,1.1s							
MKAR	**Makanchi Array**	**24.71**	**4**		P	**P**	**20 20 25.6**	**+1.4**
	comp=Z,1.2nm,0.5s,baz=186,slow=10,SNR=11							
MKAR					S	**S**	**20 24 50.8**	**+4.7**
	comp=Z,0.5nm,0.8s,baz=183,slow=22,SNR=1.3							
	comp=Z,1.2nm,0.5s							
MKAR	**Makanchi Array**	**24.71**	**4**		P	**P**	**20 20 24.0**	**-0.2**
LZDM	**Lanzhou Array**	**25.10**	**51**		P	**P**	**20 20 29.3**	**+1.1**
	comp=Z,9.4nm,0.4s,baz=243,slow=6.3,SNR=20							
	comp=Z,9.4nm,0.4s							
KULM	**Kulim**	**26.37**	**126**		P	**P**	**20 20 40.0**	**+0.6**
KULM					IAmb	IAmb	20 21 14.7	
	comp=Z,18nm,1.3s							
KULM	**Kulim**	**26.37**	**126**		P	**P**	**20 20 41.3**	**+1.8**
	comp=Z,11nm,1.4s							
IPM	**Ipoh**	**27.18**	**127**		P	**P**	**20 20 47.4**	**+0.6**
IPM					IAmb	IAmb	20 20 51.5	
	comp=Z,8.7nm,0.8s							
KURBB	**Kurchatov Arra**	**28.46**	**359**		P	**P**	**20 20 59.2**	**+1.3**
	comp=Z,0.5nm,0.2s,baz=186,slow=8.8,SNR=4.8							
	comp=Z,0.5nm,0.2s							
KURK	**Kurchatov**	**28.55**	**359**		P	**P**	**20 21 00.1**	**+1.4**
	comp=Z,4.0nm,1.1s							
AB31	**Akbulak array**	**31.24**	**335**		P	**P**	**20 21 22.8**	**+0.3**
AB31					IAmb	IAmb	20 22 00.9	
	comp=Z,3.2nm,1.3s							
ABKAR	**Akbulak array**	**31.24**	**335**		P	**P**	**20 21 22.9**	**+0.4**
BVAR	**Borovoye Array**	**31.65**	**349**		P	**P**	**20 21 28.5**	**+2.4**
	comp=Z,0.5nm,0.5s,baz=168,slow=16,SNR=2.6							
	comp=Z,0.5nm,0.5s							
ZAA0	**Zalesovo Array**	**32.02**	**6**		P	**P**	**20 21 29.4**	**0.0**
ZAA0					IAmb	IAmb	20 21 31.4	
	comp=Z,6.9nm,1.3s							
ZALV	**Zalesovo Beam**	**32.02**	**6**		P	**P**	**20 21 30.6**	**+1.2**
	comp=Z,1.5nm,0.5s,baz=195,slow=8.8,SNR=11							
	comp=Z,1.5nm,0.5s							
ZALV	**Zalesovo Beam**	**32.02**	**6**		P	**P**	**20 21 29.8**	**+0.4**
HHC	**Hu-ho-hao-te**	**32.79**	**48**	*e*P		**P**	**20 21 37.8**	**+1.3**
HHC					pmax	pmax		
	comp=Z,6.0nm,0.6s							
AKTO	**Aktyubinsk**	**32.93**	**334**		P	**P**	**20 21 38.8**	**+1.4**
	comp=Z,1.7nm,0.7s,baz=152,slow=4.5,SNR=4.3							
	comp=Z,1.7nm,0.7s							
SONM	**Songino Array**	**33.46**	**33**		P	**P**	**20 21 44.0**	**+1.7**
	comp=Z,1.2nm,0.5s,baz=223,slow=9.1,SNR=20							
SONM					PcP	**PcP**	**20 24 24.9**	**+1.6**
	comp=Z,0.5nm,0.6s,baz=246,slow=2.5,SNR=3.7							
	comp=Z,1.2nm,0.5s							
SONM	**Songino Array**	**33.46**	**33**		P	**P**	**20 21 42.1**	**-0.1**
ULN	**Ulaanbaatar**	**33.82**	**34**		P	**P**	**20 21 45.2**	**-0.2**
ULN					IAmb	IAmb	20 21 48.8	
	comp=Z,1.6nm,0.7s							
ULN	**Ulaanbaatar**	**33.82**	**34**		P	**P**	**20 21 46.9**	**+1.5**
	comp=Z,3.3nm,1.9s							
XLT	**XiLinHaoTe**	**37.10**	**45**	*e*P		**P**	**20 22 15.9**	**+2.3**
XLT					pmax	pmax		
	comp=Z,10.0nm,0.8s							
XLT					pmax	pmax		
	comp=Z,140nm,6.4s							
KSRS	**Korea Array**	**44.17**	**59**		P	**P**	**20 23 11.8**	**-0.2**
	comp=Z,0.9nm,0.5s,baz=255,slow=7.8,SNR=5.5							
	comp=Z,0.9nm,0.5s							
ELL	**Elmali**	**45.17**	**300**		P	**P**	**20 23 21.2**	**+1.1**
ELL					IAmb	IAmb	20 23 53.2	
	comp=Z,9.4nm,1.2s							
BNX	**BinXian**	**45.31**	**47**	⇓	P	**P**	**20 23 22.1**	**+1.2**
BNX					pmax	pmax		
	comp=Z,7.0nm,0.8s							
NRIK	**Noril'sk**	**47.47**	**4**		P	**P**	**20 23 38.9**	**+1.3**
	comp=Z,4.0nm,0.6s,baz=192,slow=14,SNR=5.5							
	comp=Z,4.0nm,0.6s							
NRIK	**Noril'sk**	**47.47**	**4**		P	**P**	**20 23 38.6**	**+1.0**
USRK	**Ussuriysk Ar.**	**48.16**	**50**		P	**P**	**20 23 43.7**	**+0.4**
	comp=Z,3.0nm,0.7s,baz=257,slow=7.8,SNR=6.9							
	comp=Z,3.0nm,0.7s							
AKASG	**Malin Array Be**	**48.31**	**319**		P	**P**	**20 23 45.2**	**+0.9**
	comp=Z,0.4nm,0.3s,baz=94,slow=6.2,SNR=2.8							
	comp=Z,0.4nm,0.3s							
BURAR	**Bucovina Array**	**50.12**	**314**		P	**P**	**20 23 59.6**	**+1.2**
YAK	**Yakutsk**	**52.37**	**27**		P	**P**	**20 24 15.1**	**+0.3**
YAK					IAmb	IAmb	20 24 16.4	
	comp=Z,4.3nm,0.7s							
YAK	**Yakutsk**	**52.37**	**27**		P	**P**	**20 24 15.8**	**+1.0**
	comp=Z,6.7nm,0.8s							
FINES	**FINESS Array B**	**53.61**	**331**		P	**P**	**20 24 24.6**	**+0.6**
	comp=Z,5.2nm,1.0s,baz=110,slow=9.0,SNR=7.8							
	comp=Z,5.2nm,1.0s							
FINES	**FINESS Array B**	**53.61**	**331**		P	**P**	**20 24 24.3**	**+0.3**
TIXI	**Tiksi**	**56.86**	**17**		P	**P**	**20 24 47.9**	**+0.5**
TIXI					IAmb	IAmb	20 24 48.5	
	comp=Z,2.8nm,0.5s							
TIXI	**Tiksi**	**56.86**	**17**		P	**P**	**20 24 47.8**	**+0.5**
	comp=Z,3.2nm,0.5s							
ARCES	**ARCESS Array B**	**57.19**	**340**		P	**P**	**20 24 50.8**	**+1.0**
	comp=Z,3.5nm,0.9s,baz=111,slow=6.8,SNR=7.8							
	comp=Z,3.5nm,0.9s							
GERES	**GERESS Array B**	**57.90**	**315**		P	**P**	**20 24 55.6**	**+0.4**
	comp=Z,0.2nm,0.6s,baz=77,slow=8.3,SNR=1.6							
	comp=Z,0.2nm,0.6s							
KNRA	**Kununurra**	**61.09**	**124**		P	**P**	**20 25 17.7**	**+0.2**
SPITS	**Spitsbergen Ar**	**63.09**	**348**		P	**P**	**20 25 31.0**	**+0.9**
	comp=Z,4.3nm,0.8s,baz=103,slow=13,SNR=1.5							
	comp=Z,4.3nm,0.8s							
WB0	**Warramunga Arr**	**67.83**	**124**		P	**P**	**20 26 01.4**	**-0.2**
WRA	**Warramunga Arr**	**67.88**	**124**		P	**P**	**20 26 02.0**	**0.0**
	comp=Z,2.6nm,0.5s,baz=313,slow=6.1,SNR=114							
	comp=Z,2.6nm,0.5s							
WRA	**Warramunga Arr**	**67.88**	**124**		P	**P**	**20 26 01.7**	**-0.3**
EKA	**Eskdalemuir Ar**	**68.03**	**322**		P	**P**	**20 26 02.7**	**+0.4**
	comp=Z,2.6nm,0.8s,baz=80,slow=8.7,SNR=2.5							
	comp=Z,2.6nm,0.8s							
AS31	**Alice Springs**	**69.73**	**127**		P	**P**	**20 26 13.5**	**+0.1**
AS31					IAmb	IAmb	20 26 14.2	
	comp=Z,1.2nm,0.6s							
ASAR	**Alice Springs**	**69.73**	**127**		P	**P**	**20 26 13.6**	**+0.2**
	comp=Z,2.8nm,0.5s,baz=307,slow=6.7,SNR=78							
	comp=Z,2.8nm,0.5s							
ASAR	**Alice Springs**	**69.73**	**127**		P	**P**	**20

ROCH					IAML			20 15 51.8	
	comp=E,4μm,0.3s								
MT05	**Renca**	**1.12**	**220**	*eP*		**Pn**	**20 15 34.4**	**+0.5**	
MT05				*eS*		**Sn**	**20 15 52.8**	**-0.2**	
MT05					IAML		20 15 52.8		
	comp=Z,1μm,0.3s								
MT05	**Renca**	**1.12**	**220**	⇓*iP*		**Pn**	**20 15 34.5**	**+0.5**	
MT05				*eS*		**Sn**	**20 15 52.4**	**-0.6**	
MT05					IAML		20 15 53.4		
	comp=E,5μm,0.3s								
MT15	**Las Vizcachas**	**1.19**	**206**	⇓*iP*		**Pn**	**20 15 35.2**	**+0.6**	
MT15				*eS*		**Sn**	**20 15 53.7**	**-0.4**	
MT13	**San Alfonso**	**1.26**	**196**	*eP*		**Pn**	**20 15 36.5**	**+1.1**	
MT13				*eS*		**Sn**	**20 15 56.4**	**+0.9**	
MT13					IAML		20 15 58.0		
	comp=Z,723nm,0.5s								
MT13	**San Alfonso**	**1.26**	**196**	*eP*		**Pn**	**20 15 36.4**	**+1.1**	
MT13				*eS*		**Sn**	**20 15 55.5**	**+0.1**	
MT13					IAML		20 15 58.4		
	comp=N,2μm,0.3s								
MT02	**Curacav**	**1.29**	**235**	*eP*		**Pn**	**20 15 35.5**	**0.0**	
MT02				*eS*		**Sn**	**20 15 54.9**	**-0.7**	
MT02					IAML		20 15 58.0		
	comp=Z,283nm,0.7s								
MT02	**Curacav**	**1.29**	**235**	⇓*iP*		**Pn**	**20 15 35.4**	**0.0**	
MT12	**Pirque**	**1.32**	**205**	⇓*iP*		**Pn**	**20 15 36.7**	**+0.8**	
MT12				*eS*		**Sn**	**20 15 56.2**	**-0.3**	
MT12					IAML		20 15 58.2		
	comp=E,3μm,0.5s								
LMEL	**Las Melosas**	**1.34**	**192**	*eP*		**Pn**	**20 15 37.3**	**+1.1**	
LMEL				*eS*		**Sn**	**20 15 57.2**	**+0.1**	
LMEL					IAML		20 16 02.9		
	comp=E,989nm,0.4s								
ZON	**Zonda**	**1.41**	**46**	*eP*		**Pn**	**20 15 37.3**	**+0.4**	
ZON				*eS*		**Sn**	**20 15 57.3**	**-0.8**	
ZON					IAML		20 16 01.3		
	comp=Z,262nm,0.4s								
AVIZ	**Vizcacheras**	**1.48**	**130**	*eP*		**Pn**	**20 15 38.5**	**+0.9**	
AVIZ				*eS*		**Sn**	**20 15 58.7**	**-0.7**	
SJA	**San Juan**	**1.50**	**49**	*eP*		Pn	20 15 23.8	-14	
MT09	**Talagante**	**1.55**	**217**	⇓*iP*		**Pn**	**20 15 38.8**	**+0.3**	
MT09				*eS*		**Sn**	**20 16 00.3**	**-0.7**	
MT09					IAML		20 16 01.3		
	comp=E,3μm,0.4s								
VA01	**Torpederas**	**1.57**	**251**	*eP*		**Pn**	**20 15 38.5**	**+0.1**	
VA01				*eP*			20 15 40.8		
VA01				*eS*		**Sn**	**20 16 00.2**	**-0.7**	
VA01					IAML		20 16 02.3		
	comp=Z,227nm,0.3s								
BO04	**La Punta**	**1.58**	**203**	⇓*iP*		**Pn**	**20 15 39.6**	**+1.0**	
CO02	**Combarbal**	**1.63**	**324**	*eP*		**Pn**	**20 15 40.3**	**+1.0**	
CO02				*eS*		**Sn**	**20 16 02.8**	**+0.4**	
CO02					IAML		20 16 03.2		
	comp=Z,1μm,0.3s								
CO02	**Combarbal**	**1.63**	**324**	⇑*iP*		**Pn**	**20 15 40.0**	**+0.7**	
CO02				*eS*		**Sn**	**20 16 02.0**	**-0.5**	
CFA	**Coronel Fontan**	**1.67**	**57**	*iP*		**Pn**	**20 15 40.0**	**+0.3**	
	comp=Z,327nm,0.2s								
CFA				*eS*		**Sn**	**20 16 02.4**	**-0.7**	
CFA					IAML		20 16 03.1		
	comp=Z,327nm,0.2s								
RTLL	**Cerro Villicun**	**1.69**	**45**	*eP*		**Pn**	**20 15 40.5**	**+0.6**	
RTLL				*eS*		**Sn**	**20 16 03.6**	**+0.1**	
RTLL					IAML		20 16 04.4		
	comp=Z,1μm,0.3s								
MT01	**Popeta**	**1.76**	**221**	*eP*		**Pn**	**20 15 40.8**	**+0.1**	
MT01				*eS*		**Sn**	**20 16 03.8**	**-1.1**	
MT01					IAML		20 16 06.7		
	comp=Z,355nm,0.2s								
MT01	**Popeta**	**1.76**	**221**	⇓*iP*		**Pn**	**20 15 40.7**	**+0.1**	
MT01				*eS*		**Sn**	**20 16 03.5**	**-1.4**	
MT01					IAML		20 16 04.2		
	comp=E,659nm,0.2s								
CO03	**El Pedregal**	**1.82**	**337**	*eP*		**Pn**	**20 15 42.7**	**+1.2**	
CO03				*eS*		**Sn**	**20 16 07.5**	**+1.2**	
CO03					IAML		20 16 09.0		
	comp=Z,467nm,0.6s								
CO03	**El Pedregal**	**1.82**	**337**	⇑*iP*		**Pn**	**20 15 42.7**	**+1.2**	
CO03				*eS*		**Sn**	**20 16 06.8**	**+0.5**	
CO03					IAML		20 16 07.8		
	comp=E,1μm,0.3s								
VA05	**Santo Domingo**	**1.84**	**232**	*eP*		**Pn**	**20 15 41.7**	**+0.2**	
VA05				*eS*		**Sn**	**20 16 04.9**	**-1.6**	
VA05					IAML		20 16 16.5		
	comp=E,1μm,0.5s								
ACCO	**Cerro Coronel**	**2.06**	**20**	*eP*		**Pn**	**20 15 45.9**	**+1.3**	
ACCO				*eS*		**Sn**	**20 16 12.3**	**+0.6**	
ACCO					IAML		20 16 14.3		
	comp=Z,887nm,0.4s								
BO01	**Tunca**	**2.11**	**208**	*eP*		**Pn**	**20 15 45.3**	**+0.5**	
BO01				*eS*		**Sn**	**20 16 12.0**	**-0.3**	
BO01					IAML		20 16 12.6		
	comp=Z,174nm,0.6s								
BO01	**Tunca**	**2.11**	**208**	⇓*iP*		**Pn**	**20 15 45.2**	**+0.4**	
BO01				*eS*		**Sn**	**20 16 11.9**	**-0.5**	
BO01					IAML		20 16 12.8		
	comp=E,543nm,0.3s								
ACAN	**Cantantal**	**2.29**	**84**	*eP*		**Pn**	**20 15 47.7**	**+0.7**	
ACAN					IAML		20 16 17.9		
	comp=Z,961nm,0.4s								
BO02	**Sierra Bellavi**	**2.38**	**198**	*eP*		**Pn**	**20 15 49.6**	**+1.4**	
BO02				*eS*		**Sn**	**20 16 20.3**	**+2.0**	
BO02					IAML		20 16 22.7		
	comp=Z,501nm,0.5s								
BO02	**Sierra Bellavi**	**2.38**	**198**	⇓*iP*		**Pn**	**20 15 49.5**	**+1.4**	
BO02					IAML		20 16 21.8		
	comp=N,919nm,0.2s								
AROD	**Rodeo**	**2.38**	**8**	*eP*		**Pn**	**20 15 51.0**	**+2.5**	
AROD				*eS*		**Sn**	**20 16 14.8**	**-3.9**	
CO06	**Fray Jorge**	**2.38**	**321**	*eP*		**Pn**	**20 15 48.9**	**+0.7**	
CO06					IAML		20 16 27.4		
	comp=E,300nm,0.3s								
ACDV	**Cuesta del Vie**	**2.44**	**16**	*eP*		**Pn**	**20 15 52.0**	**+2.9**	
ACDV				*eS*		**Sn**	**20 16 16.8**	**-3.0**	
ACDV					IAML		20 16 24.8		
	comp=Z,290nm,0.3s								
GO04	**Tololo Observa**	**2.48**	**341**	*eP*		**Pn**	**20 15 50.7**	**+1.1**	
GO04				*eS*		**Sn**	**20 16 21.6**	**+0.8**	
GO04					IAML		20 16 26.5		
	comp=Z,614nm,0.2s								
GO04	**Tololo Observa**	**2.48**	**341**	⇑*iP*		**Pn**	**20 15 50.5**	**+0.9**	
RFA	**San Rafael**	**2.53**	**153**	*eP*		**Pn**	**20 15 50.9**	**+0.9**	
RFA				*eS*		**Sn**	**20 16 16.1**	**-5.4**	
RFA					IAML		20 16 21.2		
	comp=Z,109nm,1.3s								
CO01	**Juntas del Tor**	**2.55**	**356**	*eP*		**Pn**	**20 15 53.1**	**+2.6**	
CO01				*eS*		Sn	20 16 13.1	-9.3	
CO01					IAML		20 16 25.4		
	comp=Z,113nm,0.6s								
CO01	**Juntas del Tor**	**2.55**	**356**	*eP*		**Pn**	**20 15 53.0**	**+2.5**	
CO01					IAML		20 16 28.0		
	comp=E,290nm,0.5s								
AVFE	**Valle Fertil**	**2.78**	**49**	*eP*		**Pn**	**20 15 54.0**	**+0.8**	
AVFE				*eS*		**Sn**	**20 16 27.2**	**-0.2**	
AVFE					IAML		20 16 27.6		
	comp=Z,159nm,0.7s								
GO05	**Hualane**	**3.01**	**214**	*eP*		**Pn**	**20 15 56.3**	**+0.3**	
GO05				*eS*		**Sn**	**20 16 32.7**	**+0.3**	
GO05					IAML		20 16 35.1		
	comp=Z,112nm,0.9s								
EDS3	**Malargue**	**3.26**	**173**	*eP*		Pn	20 15 56.3	-3.1	
ML02	**Panimavida**	**3.47**	**201**	*eP*		**Pn**	**20 16 02.6**	**+0.6**	
ML02				*eS*		**Sn**	**20 16 42.2**	**-0.8**	
ML02					IAML		20 16 45.6		
	comp=Z,175nm,0.5s								
MRA	**San Martin**	**3.52**	**89**	*eP*		Pn	20 15 51.0	-12	
MRA				*eS*		Sn	20 16 32.6	-12	
MRA					IAML		20 16 33.3		
	comp=Z,238nm,0.6s								
LCO	**Las Campanas**	**3.58**	**348**	*eP*		**Pn**	**20 16 04.8**	**+1.0**	
LCO				*eS*		**Sn**	**20 16 45.6**	**-0.5**	
LCO					IAML		20 16 48.1		
	comp=Z,475nm,0.3s								
AC05	**El Transito**	**3.70**	**355**	*eP*		**Pn**	**20 16 07.1**	**+1.9**	
AC05				*eS*		**Sn**	**20 16 49.0**	**+0.4**	
AC05					IAML		20 16 50.5		
	comp=Z,109nm,0.2s								
ACLC	**CERRO LA CRUZ**	**3.99**	**40**	*eP*		**Pn**	**20 16 09.6**	**+0.6**	
ACLC				*eS*		**Sn**	**20 16 55.9**	**+0.4**	
ACLC					IAML		20 17 19.6		
	comp=Z,60nm,0.4s								
VCA	**Vinchina**	**4.05**	**21**	*eP*		**Pn**	**20 16 07.5**	**-2.3**	
VCA				*eP*			20 16 11.8		
VCA				*eS*		**Sn**	**20 16 52.8**	**-4.1**	
VCA					IAML		20 17 01.7		
	comp=Z,233nm,0.3s								
BI02	**San Fabin de**	**4.28**	**195**	*eP*		**Pn**	**20 16 14.1**	**+1.3**	
BI02					IAML		20 17 05.7		
	comp=Z,51nm,0.4s								
AC04	**Llanos de Chal**	**4.43**	**346**	*eP*		**Pn**	**20 16 16.3**	**+1.6**	
AC04					IAML		20 17 11.3		
	comp=Z,62nm,0.8s								
TCA	**Tanti**	**4.64**	**77**	*eP*		**Pn**	**20 16 17.9**	**+0.3**	
TCA				*eS*		**Sn**	**20 17 08.0**	**-3.0**	
TCA					IAML		20 17 25.1		
	comp=Z,71nm,0.5s								
TINO	**Tinogasta**	**4.88**	**25**	*eP*		**Pn**	**20 16 22.2**	**+1.4**	
TINO				*eS*		Sn	20 16 57.1	-20	
TINO					IAML		20 17 20.7		
	comp=Z,141nm,0.6s								
GO03	**Copiapo**	**4.93**	**356**	*eP*		**Pn**	**20 16 22.5**	**+1.1**	
GO03				*eS*		**Sn**	**20 17 15.4**	**-2.4**	
GO03					IAML		20 17 20.6		
	comp=Z,63nm,0.3s								
BI05	**Punta Hualpn**	**5.02**	**212**	*eP*		**Pn**	**20 16 21.6**	**-0.8**	
BI05					IAML		20 17 18.3		
	comp=Z,48nm,0.2s								
CYA	**Choya**	**5.38**	**42**	*eP*		**Pn**	**20 16 26.9**	**-0.6**	
CYA					IAML		20 17 29.3		
	comp=Z,21nm,0.3s								

*IDC **21** 20:28:26.5±1.5, 42°.56N×122°.85E, h0km, mbtmp3.0/4, ML3.1/4, Error ellipse: s-maj=19.5km s-min=11.8km az=45.0*
*KEA **21** 20:28:32.6, 42°.53N×123°.22E, h16km, ML3.5/6*
ISC 21 20:28:29.6±1.5, 42°.58N±0°.06×123°.15E±0°.09, h10km, n11, σ1§10/20, Northeastern China

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
SUJ	**Sinuiju**	**2.67**	**157**	Pg	**Pg**		**20 29 22.0**	**+1.1**
SUJ				Sg	**Sg**		**20 29 56.3**	**+0.8**
SUJ				AML	AML			
	comp=N,555nm,0.5s							
SUJ				AML	AML			
	comp=E,431nm,0.6s							
SUJ				AML	AML			
	comp=Z,74nm,0.4s							
KGE	**Kanggye**	**3.06**	**121**	Sn	**Sn**		**20 29 55.9**	**+1.1**
KGE				Sg	**Sg**		**20 30 08.5**	**+0.6**
KGE				AML	AML			
	comp=N,193nm,0.2s							
KGE				AML	AML			
	comp=E,150nm,0.2s							
KGE				AML	AML			
	comp=Z,4.3nm,0.1s							
PYS	**Pyongsong**	**3.91**	**147**	Pn	**Pn**		**20 29 31.2**	**+1.5**
PYS				Pg	**Pg**		**20 29 43.8**	**-0.7**
PYS				Sn	**Sn**		**20 30 15.5**	**-0.1**
PYS				Sg	**Sg**		**20 30 35.2**	**+0.1**
PYS				AML	AML			
	comp=N,150nm,1.0s							
PYS				AML	AML			
	comp=E,316nm,1.0s							
PYS				AML	AML			
	comp=Z,114nm,0.6s							
PYAG	**Pyongyang**	**4.04**	**150**	Pg	**Pg**		**20 29 46.8**	**-0.3**
PYAG				Sn	**Sn**		**20 30 18.8**	**-0.1**
PYAG				Sg	**Sg**		**20 30 38.8**	**-0.7**
PYAG				AML	AML			
	comp=N,53nm,0.5s							
PYAG				AML	AML			
	comp=E,75nm,0.6s							
PYAG				AML	AML			
	comp=Z,52nm,0.4s							
HHU	**Hamhung**	**4.23**	**127**	Pg	**Pg**		**20 29 50.0**	**-0.7**
HHU				Sg	**Sg**		**20 30 44.9**	**-0.7**
HHU				AML	AML			
	comp=N,121nm,1.0s							
HHU				AML	AML			
	comp=E,126nm,1.0s							
HHU				AML	AML			
	comp=Z,44nm,0.5s							
HJU	**Haeju**	**4.94**	**156**	Pg	**Pg**		**20 30 03.7**	**-0.5**
HJU				Sg	**Sg**		**20 31 07.9**	**-0.4**
HJU				AML	AML			
	comp=N,60nm,0.5s							
HJU				AML	AML			
	comp=E,83nm,0.9s							
HJU				AML	AML			
	comp=Z,52nm,0.7s							
KSRS	**Korea Array**	**6.29**	**143**	Pn	**Pn**		**20 30 02.7**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=322,slow=14,SNR=4.0							
KSRS				Pg	**Pg**		**20 30 27.2**	**-3.0**
	comp=Z,0.7nm,0.3s,baz=328,slow=17,SNR=10							
KSRS				Sn	**Sn**		**20 31 14.1**	**-0.3**
	comp=Z,0.6nm,0.3s,baz=326,slow=24,SNR=4.8							
KSRS				Lg	Lg		20 31 48.5	
	comp=Z,0.6nm,0.3s,baz=325,slow=29,SNR=4.2							
	comp=Z,0.3nm,0.3s							
KSRS				AML	AML			
USRK	**Ussuriysk Ar.**	**6.64**	**73**	Pn	**Pn**		**20 30 08.7**	**+1.5**
	comp=Z,0.3nm,0.3s,baz=258,slow=12,SNR=7.5							
USRK				Pg	Pg		20 30 33.9	-2.8
	comp=Z,0.4nm,0.3s,baz=259,slow=14,SNR=5.0							
USRK				Lg	Lg		20 32 00.7	
	comp=Z,1.1nm,0.3s,baz=259,slow=28,SNR=7.2							
	comp=Z,0.6nm,0.3s							
USRK				AML	AML			
HILR	**Hailar Array B**	**7.37**	**342**	Pn	Pn		20 30 12.9	-4.3
	baz=159,slow=20							
HILR				Sn	**Sn**		**20 31 39.7**	**-1.1**
	baz=158,slow=28							
HILR				Lg	Lg		20 32 21.5	
	baz=162,slow=30							
	comp=Z,1.2nm,0.4s							
KLR	**Kul'dur**	**8.95**	**39**	Lg	Lg		20 33 13.0	
	comp=Z,0.5nm,0.3s,baz=286,slow=17,SNR=5.7							
SONM	**Songino Array**	**12.92**	**300**	Pn	Pn		20 31 27.8	-5.6
	comp=Z,0.1nm,0.3s,baz=110,slow=25,SNR=1.7							
SONM				Lg	Lg		20 35 11.1	
	baz=112,slow=23,SNR=2.4							
	comp=Z,0.1nm,0.5s							
SONM				AML	AML			

*IDC **21** 20:42:55.9±1.4, 55°.25N×163°.33E, h0km, mb3.2/3, mbtmp3.2/4, ML2.0/1, Error ellipse: s-maj=124.5km s-min=19.3km az=147.0*
*KRSC **21** 20:43:04.0±0.7, 55°.99N×161°.00E, h131km±6km, Ml3.7*
ISC 21 20:43:05.3±1.4, 56°.00N±0°.06×160°.99E±0°.06, h130km±9km, n26, σ0§67/30, mb3.0/3, Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
KMNR	**Kamenistaya**	**0.49**	**241**	*eP*	**Pn**		**20 43 24.2**	**-0.2**
SMKR	**Semkarok**	**0.64**	**24**	*eP*	**Pn**		**20 43 25.3**	**0.0**
SMKR				*eS*	**Sn**		**20 43 41.2**	**+0.7**
SRKR	**Sorokina**	**0.67**	**9**	*eP*	**Pn**		**20 43 25.7**	**+0.3**
SRKR				*eS*	**Sn**		**20 43 41.2**	**+0.4**
SRDR	**Sredinnyy**	**0.78**	**295**	*eP*	**Pn**		**20 43 25.7**	**-0.6**
TUMR	**Tumrok**	**0.86**	**214**	*eP*	**Pn**		**20 43 27.3**	**+0.2**
TUMR				*eS*	**Sn**		**20 43 44.3**	**+0.7**
TUMD	**Tumrok D**	**0.86**	**203**	*eP*	**Pn**		**20 43 26.9**	**-0.1**
TUMD				*eS*	**Sn**		**20 43 43.3**	**-0.1**
KZV	**Kizimen**	**0.97**	**204**	*eP*	**Pn**		**20 43 28.1**	**0.0**
KZV				*eS*	**Sn**		**20 43 45.2**	**-0.1**
KBTR	**Krutoberegovo**	**1.05**	**78**	*eP*	**Pn**		**20 43 28.7**	**+0.1**
KBTR				*eS*	**Sn**		**20 43 46.6**	**+0.4**
ESO	**Esso**	**1.29**	**268**	*eP*	**Pn**		**20 43 30.5**	**-0.6**
MKZ	**Mys Kozlova**	**1.51**	**163**	*eP*	**Pn**		**20 43 33.2**	**-0.2**
MKZ				*eS*	**Sn**		**20 43 54.6**	**-0.2**
KII	**Karymskiy**	**2.16**	**205**	*eP*	**Pn**		**20 43 41.5**	**+0.3**
BKI	**Bering**	**2.94**	**104**	*eP*	**Pn**		**20 43 51.4**	**+0.4**
BKI				*eS*	**Sn**		**20 44 25.6**	**-0.7**
SPN	**Mys Shipunski**	**2.96**	**191**	*eP*	**Pn**		**20 43 50.8**	**-0.6**
SPN				*eS*	**Sn**		**20 44 26.0**	**-0.9**
KRX	**Arik**	**2.97**	**208**	*eP*	**Pn**		**20 43 53.6**	**+1.9**
NLC	**Nalytchevo**	**2.99**	**199**	*eP*	**Pn**		**20 43 51.7**	**0.0**
KRER	**Koryakskii**	**3.00**	**207**	*eP*	**Pn**		**20 43 53.0**	**+0.9**
SMAR	**Somma**	**3.02**	**206**	*eP*	**Pn**		**20 43 53.4**	**+1.1**
AVH	**Ayacha**	**3.04**	**206**	*eP*	**Pn**		**20 43 53.7**	**+1.3**
UGLR	**Uglovaya**	**3.07**	**205**	*eP*	**Pn**		**20 43 52.6**	**-0.2**
PETK	**Petropavlovsk-**	**3.47**	**215**	Pn	**Pn**		**20 43 58.5**	**+0.5**
	0.5nm,0.3s,baz=55,slow=15,SNR=10							
	2.1nm,0.6s							
PETK					AML	AML		
ILAR	**Eielson Array**	**26.46**	**49**	P	**P**		**20 48 29.3**	**-0.4**
	0.3nm,0.6s,baz=273,slow=8.0,SNR=5.6							
	0.3nm,0.6s							
H11N2	**WAKE ISLAND Hy**	**36.48**	**171**	T	T		21 27 47.2	
	baz=354							
H11N3	**WAKE ISLAND Hy**	**36.50**	**171**	T	T		21 27 48.8	
	baz=354							
H11N1	**WAKE ISLAND Hy**	**36.50**	**171**	T	T		21 27 50.6	
	baz=354							
YKA	**Yellowknife Ar**	**40.70**	**45**	P	P		20 50 33.9	+1.3
	0.2nm,0.6s,baz=296,slow=7.2,SNR=1.7							
	0.2nm,0.6s							
TXAR	**Lajitas Array**	**69.05**	**69**	P	P		20 53 57.8	+0.8
	0.1nm,0.5s,baz=324,slow=7.8,SNR=2.0							
	0.1nm,0.5s							

*IDC **21** 21:18:31.6±0.9, 36°.40S×78°.95E, h0km, mb4.1/11, mbtmp4.1/11, MS3.8/23, Error ellipse: s-maj=29.6km s-min=22.3km az=65.0*
*NEIC **21** 21:18:33.7±0.9, 36°.47S±0°.06×79°.0E±0°.1, h10km±1km, mb4.6/14, Error ellipse: s-maj=18.0km s-min=9.3km az=86.0*
ISC 21 21:18:33.5±0.6, 36°.4S±0°.1×78°.9E±0°.1, h12km, n56, σ0§62/32, mb4.3/17, MS3.9/23, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
AIS	**Amsterdam Isla**	**1.75**	**218**	Pn	**Pn**		**21 19 03.4**	**-0.3**
H04N2	**CROZET ISLANDS**	**22.50**	**236**	T	T		21 47 08.6	
	baz=74,slow=74,SNR=4310							
H04N1	**CROZET ISLANDS**	**22.51**	**236**	T	T		21 47 09.3	
	baz=74,slow=74,SNR=6077							
H04N3	**CROZET ISLANDS**	**22.51**	**236**	T	T		21 47 08.0	
	baz=74,slow=74,SNR=5605							
H01W2	**Cape Leeuwin H**	**28.54**	**97**	T	T		21 54 05.1	
	baz=256,slow=74,SNR=214							
H01W3	**Cape Leeuwin H**	**28.55**	**97**	T	T		21 54 05.7	
	baz=256,slow=74,SNR=564							
H01W1	**Cape Leeuwin H**	**28.56**	**97**	T	T		21 54 06.6	
	baz=256,slow=74,SNR=771							
H08S2	**Diego Garcia H**	**29.25**	**347**	T	T		21 55 16.8	
	baz=169,slow=76,SNR=342							
H08S1	**Diego Carcia H**	**29.25**	**347**	T	T		21 55 18.6	
	baz=169,slow=76,SNR=300							
H08S3	**Diego Garcia H**	**29.27**	**347**	T	T		21 55 18.4	
	baz=169,slow=76,SNR=680							
NWAO	**Narrogin (SRO)**	**31.55**	**95**	LR	LR		21 34 29.0	
	comp=Z,326nm,21.0s,baz=265,slow=30							
MAW	**Mawson**	**32.53**	**191**	LR	LR		21 35 43.0	
	comp=Z,174nm,18.3s,baz=38,slow=32							
PALK	**Pallekele**	**43.50**	**3**	LR	LR		21 41 41.0	
	comp=Z,60nm,18.7s,baz=187,slow=32							
FITZ	**Fitzroy Crossi**	**44.87**	**79**	P	**P**		**21 26 48.0**	**0.0**
	2.0nm,0.8s,baz=218,slow=12,SNR=2.7							
FITZ				LR	LR		21 42 21.4	
	comp=Z,132nm,19.4s,baz=204,slow=32							
	2.0nm,0.8s							
FITZ	**Fitzroy Crossi**	**44.87**	**79**	P	**P**		**21 26 47.7**	**-0.3**
BOSA	**Boshof**	**45.45**	**264**	LR	LR		21 42 03.2	
	comp=Z,60nm,19.7s,baz=98,slow=31							
LBTB	**Lobatse**	**46.73**	**269**	LR	LR		21 43 10.0	
	comp=Z,136nm,19.5s,baz=134,slow=32							
ALKP	**Alkanpan, Nort**	**47.31**	**261**	P	**P**		**21 27 07.4**	**+0.1**
SUR	**Sutherland**	**47.51**	**257**	LR	LR		21 42 41.1	
	comp=Z,102nm,21.0s,baz=110,slow=30							
KDWAN	**Kaudwane**	**48.25**	**270**	P	**P**		**21 27 14.7**	**+0.1**
ASAR	**Alice Springs**	**48.66**	**91**	P	**P**		**21 27 16.6**	**-1.1**
	2.5nm,0.9s,baz=238,slow=6.8,SNR=19							
ASAR				PcP	**PcP**		**21 28 42.4**	**-0.6**
	0.6nm,0.9s,baz=231,slow=3.5,SNR=4.8							
ASAR				LR	LR		21 45 22.4	
	comp=Z,162nm,20.0s,baz=239,slow=33							
	2.5nm,0.9s							
ASAR	**Alice Springs**	**48.66**	**91**	P	**P**		**21 27 17.6**	**0.0**
KNRA	**Kununurra**	**48.70**	**78**	P	**P**		**21 27 17.4**	**-0.5**
KNRA				IAmb	IAmb		21 27 20.8	
	comp=Z,6.0nm,1.1s							
KAPI	**Kappang**	**48.74**	**60**	LR	LR		21 44 13.7	
	comp=Z,87nm,21.2s,baz=240,slow=32							
WRA	**Warramunga Arr**	**50.85**	**87**	P	**P**		**21 27 33.6**	**-0.7**
	comp=Z,4.9nm,0.8s,baz=238,slow=7.6,SNR=18							
	comp=Z,4.9nm,0.8s							
WRA	**Warramunga Arr**	**50.85**	**87**	P	**P**		**21 27 34.2**	**-0.2**
WR8	**Warramunga Arr**	**50.97**	**87**	P	**P**		**21 27 35.0**	**-0.3**
WR8				IAmb	IAmb		21 27 37.5	
	comp=Z,7.9nm,0.9s							
STKA	**Stephens Creek**	**51.25**	**104**	P	**P**		**21 27 38.5**	**+1.3**
	comp=Z,4.3nm,0.8s,baz=264,slow=7.6,SNR=7.1							
STKA				LR	LR		21 45 33.9	
	comp=Z,143nm,20.2s,baz=208,slow=32							
	comp=Z,4.3nm,0.8s							
STKA	**Stephens Creek**	**51.25**	**104**	P	**P**		**21 27 37.0**	**-0.2**
GRTLG	**Ghanzi**	**52.01**	**270**	P	**P**		**21 27 43.1**	**0.0**
GRTLG				IAmb	IAmb		21 27 50.7	
	comp=Z,5.0nm,0.8s							
VNDA	**Vanda**	**53.22**	**164**	P	**P**		**21 27 51.3**	**+0.1**
	comp=Z,0.7nm,0.7s,baz=251,slow=3.1,SNR=2.0							
VNDA				LR	LR		21 48 13.6	
	comp=Z,108nm,19.1s,baz=264,slow=34							
	comp=Z,0.7nm,0.7s							
VNDA	**Vanda**	**53.22**	**164**	P	**P**		**21 27 51.0**	**-0.2**
VNDA				IAmb	IAmb		21 27 57.3	
	comp=Z,13nm,1.4s							

*MAN **21** 21:25:48.0,2.97N×124.52E,h402km,MS4.3*
*IDC **21** 21:25:51.0±0.9,3.42N×123.98E,h420km±10km,mb3.6/18, mbtmp4.4/20,Error ellipse: s-maj=20.4km s-min=7.4km az=71.0*
*DJA **21** 21:25:50.5±1.5,4.N±16°×12°4E±°,h398km±9km,M4.2/13, mb4.2/7,mB4.6/5,MLv4.5/13,Mw(mB)3.8/5*
*NEIC **21** 21:25:50.4±1.8,3.41N±0.07°×123.91E±0.09,h409km±7km, mb4.3/50,Error ellipse: s-maj=12.4km s-min=10.5km az=82.0*
*GFZ **21** 21:25:50.6±0.2,3°N±3°×12°4E±°,h403km±3km,M4.3/27, mb4.3/27,Error ellipse: s-maj=8.8km s-min=5.4km az=54.7,confirmed*

ISC 21 21:25:51.1±0.3,3.44N±0.05×123.97E±0.07,h423km,n147, σ1§32/155,mb4.2/58,Celebes Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNI	**Manado**	**2.16**	**156**	P	**P**	**21 26 48.9**	**-1.3**
MNI				AML	AML		
KMSI	**Cibinong**	**2.84**	**180**	P	**P**	**21 26 55.0**	**+0.2**
KMSI				AML	AML		
KMSI	**Cibinong**	**2.84**	**180**	P	**P**	**21 26 53.4**	**-1.4**
GTOI	**Gorontalo**	**2.94**	**199**	P	**P**	**21 26 53.1**	**-2.5**
DMPH	**Davao City--Mi**	**3.93**	**23**	*eP*	**P**	**21 27 03.4**	**-0.5**
DMPH				*i* S	**S**	**21 27 59.9**	**-3.2**
TOLI2	**Tolitoli**	**3.94**	**234**	P	**P**	**21 27 01.6**	**-2.3**
TOLI2	**Tolitoli**	**3.94**	**234**		**P**	**21 27 01.5**	**-2.4**
TOLI2	**Tolitoli**	**3.94**	**234**	P	**P**	**21 27 01.7**	**-2.3**
DAV	**Davao City (W)**	**3.95**	**24**	P	**P**	**21 27 03.0**	**-1.1**
	81nm,0.4s,baz=92,slow=0.4,SNR=6.5						
DAV				S	**S**	**21 28 03.4**	**0.0**
	113nm,0.4s,baz=258,slow=16,SNR=4.1						
DAV	**Davao City (W)**	**3.95**	**24**		**P**	**21 27 02.7**	**-1.4**
DAV					**S**	**21 28 01.4**	**-2.0**
DAV	**Davao City (W)**	**3.95**	**24**	P	**P**	**21 27 03.3**	**-0.7**
TNTI	**Ternate**	**4.30**	**128**	P	**P**	**21 27 05.9**	**-1.4**
TNTI	**Ternate**	**4.30**	**128**	S	**S**	**21 28 06.4**	**-3.0**
TNTI	**Ternate**	**4.30**	**128**		**P**	**21 27 05.4**	**-1.9**
TNTI	**Ternate**	**4.30**	**128**	P	**P**	**21 27 05.6**	**-1.7**
TNTI				AML	AML		
TNTI	**Ternate**	**4.30**	**128**	P	**P**	**21 27 05.8**	**-1.6**
LUWI	**Luwuk**	**4.61**	**195**		**P**	**21 27 07.2**	**-3.0**
CGP	**Cagayan de Oro**	**5.04**	**8**	*eP*	**P**	**21 27 13.9**	**-0.5**
BIPH	**Bislig**	**5.28**	**27**	*eP*	**P**	**21 27 15.6**	**-1.3**
BIPH				*eS*	**S**	**21 28 21.9**	**-5.1**
SANI	**Sanana**	**5.81**	**160**	P	**P**	**21 27 19.4**	**-3.0**
SANI	**Sanana**	**5.81**	**160**	P	**P**	**21 27 19.4**	**-3.0**
	0.8nm1μm44nm,0.6s						
SANI				AML	AML		
SANI	**Sanana**	**5.81**	**160**	P	**P**	**21 27 19.5**	**-2.9**
	comp=Z,45nm,0.6s						
TTSI	**Tana Toraja**	**7.66**	**213**	P	**P**	**21 27 42.9**	**+0.2**
	comp=Z,0.1nmcomp=Z,35nm,0.8s						
TTSI				AML	AML		
PLP	**Palo**	**7.74**	**7**	*eP*	**P**	**21 27 44.1**	**+0.5**
KKM	**Kota Kinabalu**	**8.15**	**289**	P	**P**	**21 27 46.5**	**-1.6**
KKM	**Kota Kinabalu**	**8.15**	**289**	P	**P**	**21 27 46.1**	**-2.0**
KKM	**Kota Kinabalu**	**8.15**	**289**	P	**P**	**21 27 46.4**	**-1.6**
	comp=Z,39nm,0.6s						
KAPI	**Kappang**	**9.39**	**207**	P	**P**	**21 28 01.3**	**-0.3**
	comp=Z,31nm,0.9s,baz=36,slow=5.6,SNR=11						
KAPI	**Kappang**	**9.39**	**207**	P	**P**	**21 28 01.8**	**+0.1**
KAPI	**Kappang**	**9.39**	**207**	P	**P**	**21 28 00.8**	**-0.9**
KAPI	**Kappang**	**9.39**	**207**	P	**P**	**21 28 01.5**	**-0.2**
	comp=Z,40nm,1.1s						
BNDI	**Bandanaira**	**9.88**	**143**	P	**P**	**21 28 08.0**	**+0.9**
	comp=Z,295nm,1.3s						
FAKI	**Fak Fak**	**10.41**	**127**	P	**P**	**21 28 14.3**	**+1.4**
FAKI	**Fak Fak**	**10.41**	**127**		**P**	**21 28 11.8**	**-1.2**
FAKI	**Fak Fak**	**10.41**	**127**	P	**P**	**21 28 14.0**	**+1.1**
FAKI	**Fak Fak**	**10.41**	**127**	P	**P**	**21 28 14.1**	**+1.1**
	comp=Z,32nm,0.9s						
SOEI	**Soe**	**13.11**	**179**	P	**P**	**21 28 44.6**	**+2.0**
SOEI	**Soe**	**13.11**	**179**	P	**P**	**21 28 43.0**	**+0.4**
SOEI	**Soe**	**13.11**	**179**	P	**P**	**21 28 40.2**	**-2.4**
	comp=Z,17nm,0.9s						
PLAI	**Plampang**	**13.66**	**207**	P	**P**	**21 28 49.4**	**+0.9**
PLAI	**Plampang**	**13.66**	**207**	P	**P**	**21 28 49.4**	**+0.9**
	comp=Z,56nm,0.8s						
JAGI	**Jajag, Banyuwa**	**15.36**	**220**	P	**P**	**21 29 07.7**	**+0.9**
JAGI	**Jajag, Banyuwa**	**15.36**	**220**		**P**	**21 29 07.0**	**+0.2**
JAGI	**Jajag, Banyuwa**	**15.36**	**220**	P	**P**	**21 29 09.8**	**+3.0**
	comp=Z,45nm,0.8s						
DRS	**Darwin Rock St**	**17.20**	**157**	P	**P**	**21 29 26.7**	**+0.3**
UGM	**Wanagama**	**17.52**	**230**	P	**P**	**21 29 29.1**	**-0.9**
MTN	**Manton Dam**	**17.67**	**156**		**P**	**21 29 30.7**	**-0.7**
MTN				IAmb	IAmb	21 29 31.8	
	comp=Z,11nm,1.1s						
BBJI	**Bungbulang**	**19.56**	**236**	P	**P**	**21 29 49.4**	**-0.9**
BBJI	**Bungbulang**	**19.56**	**236**		**P**	**21 29 48.8**	**-1.5**
BBJI	**Bungbulang**	**19.56**	**236**	P	**P**	**21 29 49.1**	**-1.1**
	comp=Z,25nm,0.7s						
KNRA	**Kununurra**	**19.57**	**166**		**P**	**21 29 49.2**	**-1.1**
KNRA				IAmb	IAmb	21 29 52.1	
	comp=Z,6.5nm,0.5s						
YULB	**Yu-li**	**20.00**	**353**	P	**P**	**21 29 53.5**	**-0.7**
YULB				IAmb	IAmb	21 30 06.0	
	comp=Z,30nm,1.4s						
TPUB	**Ta-pu**	**20.01**	**351**	P	**P**	**21 29 55.7**	**+1.5**
TPUB	**Ta-pu**	**20.01**	**351**	P	**P**	**21 29 55.1**	**+0.9**
PMBI	**Palembang**	**20.20**	**252**	P	**P**	**21 29 57.4**	**+1.3**
	comp=Z,187nm,0.5s						
BTDF	**Bukit Timah Da**	**20.28**	**265**	P	**P**	**21 29 57.1**	**+0.3**
FITZ	**Fitzroy Crossi**	**21.46**	**176**	P	**P**	**21 30 07.6**	**+0.1**
	comp=Z,5.1nm,0.4s,baz=8.4,slow=7.8,SNR=72						
FITZ				ScP	**ScP**	**21 36 50.5**	**+0.5**
	comp=Z,1.1nm,0.4s,baz=336,slow=4.2,SNR=5.8 comp=Z,5.1nm,0.4s						
FITZ	**Fitzroy Crossi**	**21.46**	**176**		**P**	**21 30 07.5**	**+0.1**
FITZ	**Fitzroy Crossi**	**21.46**	**176**	P	**P**	**21 30 07.5**	**+0.1**
	comp=Z,2.0nm,0.6s						
MNAI	**Manna**	**22.38**	**250**	P	**P**	**21 30 15.2**	**-0.7**
IPM	**Ipoh**	**22.91**	**273**	P	**P**	**21 30 20.3**	**-0.4**
IPM				IAmb	IAmb	21 30 28.4	
	comp=Z,12nm,1.2s						
KULM	**Kulim**	**23.32**	**275**	P	**P**	**21 30 23.1**	**-1.3**
KULM				IAmb	IAmb	21 30 51.5	
	comp=Z,12nm,1.2s						
WB0	**Warramunga Arr**	**25.23**	**156**	P	**P**	**21 30 40.4**	**-1.0**
WB0				IAmb	IAmb	21 30 42.7	
	comp=Z,18nm,1.3s						
WRAB	**Tennant Creek**	**25.37**	**157**	P	**P**	**21 30 42.2**	**-0.3**
	comp=Z,16nm,1.0s						
WRA	**Warramunga Arr**	**25.37**	**157**	P	**P**	**21 30 42.1**	**-0.5**
	comp=Z,6.9nm,0.6s,baz=337,slow=9.7,SNR=85						
WRA				S	**S**	**21 34 35.1**	**-2.7**
	comp=Z,1.3nm,1.0s,baz=334,slow=15,SNR=4.5						
WRA				ScP	**ScP**	**21 37 01.4**	**+0.7**
	comp=Z,0.5nm,0.4s,baz=339,slow=3.0,SNR=5.9 comp=Z,6.9nm,0.6s						
WRA	**Warramunga Arr**	**25.37**	**157**	P	**P**	**21 30 41.2**	**-1.4**
QIS	**Mount Isa**	**28.36**	**148**	P	**P**	**21 31 09.6**	**+0.6**
	comp=Z,13nm,1.0s						
AS31	**Alice Springs**	**28.63**	**161**		**P**	**21 31 11.1**	**-0.2**
ASAR	**Alice Springs**	**28.63**	**161**	P	**P**	**21 31 11.4**	**+0.1**
	comp=Z,4.2nm,0.5s,baz=341,slow=7.2,SNR=116						
ASAR				ScP	**ScP**	**21 37 11.8**	**+1.3**
	comp=Z,0.7nm,0.6s,baz=340,slow=3.0,SNR=7.2 comp=Z,4.2nm,0.5s						
ASAR	**Alice Springs**	**28.63**	**161**	P	**P**	**21 31 11.0**	**-0.4**
CMAR	**Chiang Mai Arr**	**28.68**	**303**	P	**P**	**21 31 11.9**	**0.0**
	comp=Z,1.0nm,0.9s,baz=129,slow=7.4,SNR=7.3 comp=Z,1.0nm,0.9s						
CHTO	**Chiang Mai**	**28.85**	**304**		**P**	**21 31 12.1**	**-1.3**
CHTO	**Chiang Mai**	**28.85**	**304**	P	**P**	**21 31 13.7**	**+0.3**
	comp=Z,3.0nm,0.9s						
CTA	**Charters Tower**	**32.02**	**138**	P	**P**	**21 31 42.4**	**+1.4**
	comp=Z,8.0nm,0.9s,baz=298,slow=11,SNR=3.3 comp=Z,8.0nm,0.9s						
CTAO	**Charters Tower**	**32.02**	**138**	P	**P**	**21 31 40.0**	**-0.9**
CTAO				IAmb	IAmb	21 31 42.6	
	comp=Z,27nm,1.2s						
FORT	**Forrest**	**34.25**	**174**	P	**P**	**21 31 59.5**	**-0.2**
FORT				IAmb	IAmb	21 32 27.3	
	comp=Z,13nm,1.1s						
INKA	**Innaminka**	**34.96**	**153**	P	**P**	**21 32 06.7**	**+0.9**
MJAR	**Matsushiro Arr**	**35.46**	**20**	P	**P**	**21 32 09.9**	**-0.1**
	comp=Z,1.2nm,0.7s,baz=198,slow=10,SNR=4.8 comp=Z,1.2nm,0.7s						
QLP	**Quilpie**	**35.70**	**148**	P	**P**	**21 32 12.7**	**+0.6**
	comp=Z,11nm,1.2s						
BBOO	**Buckleboo**	**37.83**	**163**	P	**P**	**21 32 29.6**	**0.0**
BBOO				IAmb	IAmb	21 32 31.5	
	comp=Z,8.7nm,0.7s						
SHL	**Shillong**	**37.87**	**309**	P	**P**	**21 32 29.2**	**-1.1**
SHL				IAmb	IAmb	21 32 31.8	
	comp=Z,6.1nm,0.8s						
EIDS	**Eidsvold**	**38.88**	**139**	P	**P**	**21 32 38.6**	**+0.2**
EIDS				IAmb	IAmb	21 32 46.9	
	comp=Z,22nm,1.5s						
HHC	**Hu-ho-hao-te**	**38.89**	**345**	*eP*	**P**	**21 32 39.8**	**+1.4**
HHC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
STKA	**Stephens Creek**	**38.91**	**156**	P	**P**	**21 32 39.8**	**+1.2**
	comp=Z,8.6nm,0.7s,baz=326,slow=7.1,SNR=16 comp=Z,8.6nm,0.7s						
STKA	**Stephens Creek**	**38.91**	**156**	P	**P**	**21 32 39.0**	**+0.5**
STKA	**Stephens Creek**	**38.91**	**156**	P	**P**	**21 32 40.0**	**+1.4**
	comp=Z,48nm,0.8s						
CMSA	**Cobar Meteorol**	**40.46**	**151**	P	**P**	**21 32 53.0**	**+1.9**
	comp=Z,16nm,1.5s						
LSA	**Lhasa**	**40.60**	**314**	P	**P**	**21 32 55.1**	**+2.2**
	comp=Z,9.8nm,0.6s						
GTA2	**Gaotai**	**42.08**	**332**	*eP*	**P**	**21 33 05.6**	**+1.5**
GTA2				pmax	pmax		
	comp=Z,11nm,0.6s						
ARMA	**Armidale**	**42.80**	**144**	P	**P**	**21 33 11.2**	**+1.3**
ARMA				IAmb	IAmb	21 33 14.4	
	comp=Z,14nm,1.2s						
EVN	**Everest**	**42.98**	**308**	P	**P**	**21 33 12.2**	**+0.1**
EVN				IAmb	IAmb	21 33 14.2	
	comp=Z,11nm,0.7s						
EVN	**Everest**	**42.98**	**308**	P	**P**	**21 33 13.5**	**+1.4**
	comp=Z,16nm,0.6s						
MGBR	**Mount Gambier**	**43.76**	**161**	P	**P**	**21 33 17.7**	**+0.5**
MGBR				IAmb	IAmb	21 33 34.1	
	comp=Z,20nm,1.4s						
CAN	**Canberra**	**45.14**	**151**	P	**P**	**21 33 29.5**	**+1.3**
CAN				IAmb	IAmb	21 33 46.7	
	comp=Z,24nm,1.4s						
CAN	**Canberra**	**45.14**	**151**	P	**P**	**21 33 30.4**	**+2.2**
	comp=Z,18nm,1.6s						
SONM	**Songino Array**	**46.75**	**344**	P	**P**	**21 33 40.9**	**+0.5**
	comp=Z,0.8nm,0.7s,baz=158,slow=11,SNR=7.1 comp=Z,0.8nm,0.7s						
SONM	**Songino Array**	**46.75**	**344**	P	**P**	**21 33 40.5**	**+0.1**
OUENC	**Ouen Island, N**	**49.13**	**124**	P	**P**	**21 34 00.2**	**+1.6**
OUENC				IAmb	IAmb	21 34 16.6	
	comp=Z,14nm,0.9s						
WMQ	**Urumqi**	**51.42**	**327**	*eP*	**P**	**21 34 16.3**	**+1.0**
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.9s						
WUS	**Wushi**	**54.97**	**320**	P	**P**	**21 34 42.3**	**+1.4**
	comp=Z,6.5nm,1.0s						
PDGK	**Podgornoye**	**55.91**	**322**	P	**P**	**21 34 47.6**	**+0.2**
NIL	**Nilore**	**55.94**	**309**	P	**P**	**21 34 47.1**	**-0.7**
NIL	**Nilore**	**55.94**	**309**	P	**P**	**21 34 48.0**	**+0.3**
	comp=Z,4.6nm,0.5s						
PRZ	**Przheval'sk**	**56.15**	**321**	P	**P**	**21 34 49.9**	**+0.6**
PRZ	**Przheval'sk**	**56.15**	**321**	P	**P**	**21 34 51.2**	**+2.0**
	comp=Z,16nm,1.3s						
TARG	**Taragay, Kyrgy**	**56.15**	**319**	P	**P**	**21 34 49.4**	**-0.2**
MKAR	**Makanchi Array**	**56.25**	**327**	P	**P**	**21 34 50.2**	**+0.6**
	comp=Z,8.3nm,0.4s,baz=122,slow=7.7,SNR=184 comp=Z,8.3nm,0.4s						
MAKZ	**Makanchi**	**56.43**	**327**	P	**P**	**21 34 51.6**	**+0.7**
	comp=Z,14nm,1.0s						
KSH2	**Kashi**	**56.44**	**316**	P	**P**	**21 34 51.9**	**+0.6**
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**56.60**	**318**	P	**P**	**21 34 53.8**	**+1.2**
	comp=Z,5.1nm,1.3s						
KDJ	**Kajisay**	**56.76**	**320**	P	**P**	**21 34 54.0**	**+0.5**
KDJ				IAmb	IAmb	21 34 55.3	
	comp=Z,9.2nm,0.8s						
NRN	**Naryn**	**57.19**	**318**	P	**P**	**21 34 56.5**	**-0.1**
AAK	**Ala-Archa**	**58.75**	**319**	P	**P**	**21 35 08.5**	**+1.5**
	comp=Z,6.9nm,0.8s						
ARSB	**Arslanbob**	**59.17**	**317**	P	**P**	**21 35 10.0**	**+0.1**
ARSB				IAmb	IAmb	21 35 11.4	
	comp=Z,9.0nm,1.1s						
DRK	**Karamyk**	**59.23**	**315**	P	**P**	**21 35 11.4**	**+0.8**
	comp=Z,6.2nm,0.5s						
KBL	**Kabul**	**59.53**	**308**	P	**P**	**21 35 11.8**	**-0.7**
KBL				IAmb	IAmb	21 35 13.3	
	comp=Z,11nm,0.7s						
KBL	**Kabul**	**59.53**	**308**	P	**P**	**21 35 12.6**	**+0.1**
	comp=Z,16nm,0.7s						
ZAA0	**Zalesovo Array**	**59.63**	**334**	P	**P**	**21 35 12.1**	**-0.5**
ZALV	**Zalesovo Beam**	**59.63**	**334**	P	**P**	**21 35 12.3**	**-0.2**
	comp=Z,1.1nm,0.3s,baz=136,slow=6.9,SNR=11 comp=Z,1.1nm,0.3s						
ZALV	**Zalesovo Beam**	**59.63**	**334**	P	**P**	**21 35 12.1**	**-0.4**
BTK	**Batken**	**60.16**	**315**	P	**P**	**21 35 16.1**	**-0.4**
BTK				IAmb	IAmb	21 35 18.6	
	comp=Z,4.6nm,0.6s						
BTK	**Batken**	**60.16**	**315**	P	**P**	**21 35 17.2**	**+0.7**
	comp=Z,7.3nm,1.2s						
KURBB	**Kurchatov Arra**	**60.52**	**329**	P	**P**	**21 35 19.2**	**+0.6**
	comp=Z,5.9nm,0.6s,baz=131,slow=6.3,SNR=80 comp=Z,5.9nm,0.6s						
KURK	**Kurchatov**	**60.53**	**329**	P	**P**	**21 35 18.5**	**-0.1**
KURK	**Kurchatov**	**60.53**	**329**	P	**P**	**21 35 19.5**	**+0.8**
	comp=Z,25nm,0.6s						
KK31	**Karatay Array**	**61.58**	**318**	P	**P**	**21 35 25.8**	**0.0**
KK31				IAmb	IAmb	21 35 26.9	
	comp=Z,4.4nm,0.7s						
KKAR	**Karatay Array**	**61.58**	**318**	P	**P**	**21 35 25.7**	**-0.1**
RTZ	**Ruatahuna**	**64.31**	**136**	P	**P**	**21 35 44.2**	**+0.6**
BVAR	**Borovoye Array**	**66.08**	**328**	P	**P**	**21 35 54.9**	**+0.4**
	comp=Z,3.4nm,0.8s,baz=140,slow=8.9,SNR=19 comp=Z,3.4nm,0.8s						
BORK	**Borovoye**	**66.13**	**328**	P	**P**	**21 35 54.5**	**-0.3**
BORK				IAmb	IAmb	21 35 56.2	
	comp=Z,4.1nm,0.7s						
TIXI	**Tiksi**	**68.19**	**2**	P	**P**	**21 36 06.9**	**-0.3**
TIXI	**Tiksi**	**68.19**	**2**	P	**P**	**21 36 07.5**	**+0.3**
	comp=Z,3.1nm,1.4s						
NRIK	**Noril'sk**	**70.08**	**347**	P	**P**	**21 36 20.0**	**+1.3**
	comp=Z,5.1nm,0.6s,baz=145,slow=6.0,SNR=7.0 comp=Z,5.1nm,0.6s						
NRIK	**Noril'sk**	**70.08**	**347**	P	**P**	**21 36 18.8**	**+0.1**
NRIK				IAmb	IAmb	21 36 20.5	
	comp=Z,4.9nm,0.5s						
AB31	**Akbulak array**	**70.64**	**321**	P	**P**	**21 36 22.1**	**-0.4**
AB31				IAmb	IAmb	21 36 23.2	
	comp=Z,4.4nm,0.8s						
ABKAR	**Akbulak array**	**70.64**	**321**	P	**P**	**21 36 22.0**	**-0.5**
ARTI	**Arti**	**73.80**	**328**	P	**P**	**21 36 40.0**	**-0.8**
ARTI				IAmb	IAmb	21 36 42.1	
	comp=Z,5.2nm,0.8s						
VOI	**Vohitsoka**	**79.42**	**247**	P	**P**	**21 37 11.4**	**-1.3**
H18K	**Honhosa River**	**81.72**	**25**	P	**P**	**21 37 23.7**	**0.0**
J18K	**Innoko River**	**82.16**	**26**	P	**P**	**21 37 27.6**	**+1.6**
J18K				IAmb	IAmb	21 37 54.5	
	comp=Z,13nm,1.5s						
MAW	**Mawson**	**82.54**	**200**	P	**P**	**21 37 27.8**	**+0.1**
ILAR	**Eielson Array**	**86.55**	**25**	P	**P**	**21 37 47.7**	**0.0**
	comp=Z,0.3nm,0.6s,baz=318,slow=33,SNR=1.7 comp=Z,0.3nm,0.6s						
MMAI	**Mount Meron Ar**	**86.95**	**303**	P	**P**	**21 37 51.5**	**+1.1**
	comp=Z,0.5nm,0.5s,baz=57,slow=10,SNR=1.1 comp=Z,0.5nm,0.5s						
SPITS	**Spitsbergen Ar**	**90.23**	**349**	P	**P**	**21 38 04.0**	**-0.7**
	comp=Z,6.0nm,0.9s,baz=114,slow=8.4,SNR=4.5 comp=Z,6.0nm,0.9s						
AKASG	**Malin Array Be**	**90.38**	**321**	P	**P**	**21 38 05.0**	**-0.8**
	comp=Z,0.5nm,0.4s,baz=90,slow=1.1,SNR=1.8 comp=Z,0.5nm,0.4s						
FINES	**FINESS Array B**	**90.78**	**332**	P	**P**	**21 38 05.8**	**-1.7**
	comp=Z,2.7nm,0.6s,baz=66,slow=4.6,SNR=13 comp=Z,2.7nm,0.6s						
FINES	**FINESS Array B**	**90.78**	**332**	P	**P**	**21 38 06.3**	**-1.1**

*CNRM **21** 21:32:42.9,35.81N×3.55W,h13km,ML2.0*
*SFS **21** 21:32:46.8,35.55N×3.66W,h0km,ML2.2/6,ML2.5/6, MLv2.7/5*
*MDD **21** 21:32:48.0±0.6,35.46N×3.64W,h0km,mb_Lg2.2/16, Error ellipse: s-maj=5.6km s-min=3.0km az=26.0*

ISC 21 21:32:43.2±1.1,35.79N±0.02×3.54W±0.03,h13km±10km, n29,σ2§88/38,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.66**	**210**	P	**Pg**	**21 32 55.5**	**-0.5**
PALE				S	**Sb**	**21 33 05.8**	**+0.3**
WMELI	**Melilla**	**0.67**	**134**	Pg	**Pn**	**21 32 58.4**	**0.0**
WMELI				Sg	**Sg**	**21 33 05.9**	**+0.8**
EMEL	**Melilla**	**0.68**	**135**	Pg	**Pn**	**21 32 58.8**	**+0.3**
EMEL				Sg	**Sb**	**21 33 06.3**	**+0.2**
EMLI	**Melilla**	**0.68**	**135**	Pg	**Pn**	**21 32 58.9**	**+0.4**
EMLI				Sg	**Sg**	**21 33 06.2**	**+0.7**
ELGU	**Los Guajares,**	**1.08**	**356**	Pg	Pn	21 33 11.8	+7.6
ELGU				Sg	Sn	21 33 28.4	+9.3
ELGU	**Los Guajares,**	**1.08**	**356**	Pg	Pn	21 33 11.7	+7.6
ELGU				Sn	Sn	21 33 28.4	+9.3
ELGU				IVmb_Lg		21 33 33.0	
EMAL	**Malaga-Limoner**	**1.21**	**324**	Sg	**Sn**	**21 33 29.1**	**+6.9**
EBER	**Berja**	**1.23**	**25**	Pn	Pg	21 33 14.6	+7.7
EBER	**Berja**	**1.23**	**25**	Pn	Pg	21 33 15.3	+8.4
EBER				Sn	Sn	21 33 34.3	+12
EBER				IVmb_Lg		21 33 37.2	
EMIJ	**Mijas**	**1.27**	**308**	Pg	Pg	21 33 12.0	+4.4
EMIJ				Sg	**Sg**	**21 33 29.3**	**+5.1**
EMIJ	**Mijas**	**1.27**	**308**	Pg	Pg	21 33 12.1	+4.4
EMIJ				Sn	**Sg**	**21 33 29.5**	**+5.4**
EMIJ				IVmb_Lg		21 33 31.7	
AKLM	**AKL**	**1.30**	**192**	P	**Pn**	**21 33 06.7**	**-0.4**
AKLM				S	**Sb**	**21 33 22.4**	**-1.7**
EGOR	**Sierra Gorda,**	**1.40**	**341**	Sn	Sg	21 33 39.5	+11
EGOR				IVmb_Lg		21 33 41.9	
EQUE	**Quentar**	**1.42**	**3**	Pn	Pg	21 33 18.2	+7.7
EQUE				Sn	Sg	21 33 38.6	+10
EQUE				IVmb_Lg		21 33 45.9	
SMIR	**Smir Dam**	**1.50**	**267**	P	**Pn**	**21 33 09.7**	**-0.1**
SMIR				S	**Sg**	**21 33 30.3**	**-1.4**
JBK	**JBK**	**1.65**	**151**	P	**Pn**	**21 33 11.6**	**-0.5**
JBK				S	**Sb**	**21 33 34.5**	**+0.1**
EJIF	**Jimena Fronter**	**1.70**	**294**	Sn	**Sg**	**21 33 40.2**	**+2.2**
EQES	**Quesada**	**2.05**	**10**	Pn	Pg	21 33 28.1	+5.5
EQES				Sn	**Sg**	**21 33 56.7**	**+7.5**
EQES				IVmb_Lg		21 34 00.0	
LCRM	**LCR**	**2.36**	**208**	P	**Pb**	**21 33 23.8**	**-1.9**
LCRM				S	**Sb**	**21 33 54.6**	**-0.2**
EADA	**Adamuz**	**2.52**	**341**	Pn	**Pg**	**21 33 32.8**	**+1.2**
EADA				Sn	**Sg**	**21 34 06.0**	**+1.8**
EADA				Sg	Sb	21 34 11.8	+13
EADA				IVmb_Lg		21 34 12.7	
EZAR	**Zarzadilla de**	**2.56**	**35**	Sn	**Sg**	**21 34 05.2**	**-0.2**
EZAR				IVmb_Lg		21 34 05.9	
ECAB	**El Cabril**	**2.74**	**327**	Sn	**Sg**	**21 34 10.8**	**-0.5**
ECAB				Sg	Sb	21 34 17.8	+12
ECAB				IVmb_Lg		21 34 19.3	
PSIM	**Granatula de C**	**3.04**	**357**	Pn	**Pg**	**21 33 41.7**	**+0.3**
PSIM				Sn	**Sg**	**21 34 19.2**	**-1.5**
MD31	**MD31**	**3.08**	**200**	P	**Pn**	**21 33 32.0**	**+0.3**
MD31				S	**Sn**	**21 34 09.8**	**+1.4**
MDT	**Midelt**	**3.09**	**197**	P	**Pn**	**21 33 32.3**	**+0.5**
MDT				S	**Sn**	**21 34 11.5**	**+2.8**
ETOB	**Tobarra**	**3.27**	**28**	Pn	**Pg**	**21 33 44.5**	**-1.3**
ETOB				Sn	**Sg**	**21 34 26.2**	**-1.9**
ETOB				IVmb_Lg		21 34 29.9	
EGRO	**El Granado**	**3.62**	**300**	Pn	**Pb**	**21 33 44.5**	**-2.6**
EGRO				Sn	**Sb**	**21 34 26.6**	**-4.3**
EGRO				IVmb_Lg		21 34 27.4	
EBAD	**Badajoz**	**4.06**	**318**	Pn	**Pb**	**21 33 53.1**	**-1.5**
EBAD				IVmb_Lg		21 34 40.0	
EBAD				Sn	**Sb**	**21 34 40.4**	**-3.1**
PMTG	**Montargil**	**4.97**	**313**	Sn	**Sb**	**21 35 02.8**	**-6.8**

*GII **21** 21:41:40.8±0.0,36.585N±0.002×23.673E±0.001,h0km, Mws3.2,confirmed*
*BEO **21** 21:41:40.2±0.7,37.58N×22.87E,h1km±5km,ML3.6/9*
*THE **21** 21:41:42.9,38°N±1°×2°4E±°,h121km±1km,M3.1/81, MLh3.1/81*
*ATH **21** 21:41:42.7,37.54N×23.52E,h123km±1km,ML3.1/19, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*IDC **21** 21:41:43.7±5.6,37.02N×23.70E,h210km±54km,mb3.5/4, mbtmp3.7/7,Error ellipse: s-maj=94.6km s-min=34.8km az=43.0*

ISC 21 21:41:39.6±0.7,37.54N±0.03×23.59E±0.03,h140km±5km, n208,σ2§16/269,mb3.9/4,Southern Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MET1	**Methana Town,**	**0.17**	**283**	P	**Pn**	**21 41 59.5**	**+1.1**
MET1				S	**Sn**	**21 42 12.2**	**-0.6**
YDRA	**Hydra**	**0.22**	**208**	P	**Pn**	**21 41 59.8**	**+1.1**
YDRA				S	**Sn**	**21 42 12.6**	**-0.4**
YDRA				AML	AML		
MET2	**Kameni Chora,**	**0.22**	**289**	P	**Pn**	**21 41 59.6**	**+1.0**

MHLO	**Agia Marina, M**	**1.07 142**	P	**Pn**	**21 42 06.3 +2.3**
MHLO			AML	AML	
MHLO	**Agia Marina, M**	**1.07 142**	P	**Pn**	**21 42 06.1 +2.1**
GUR	**Goura**	**1.07 292**	P	**Pn**	**21 42 05.1 +1.0**
GUR			S	**Sn**	**21 42 21.8 -1.0**
GUR			AML	AML	
GUR	**Goura**	**1.07 292**	P	**Pn**	**21 42 05.1 +1.0**
NPS1	**Neapolis Lacon**	**1.11 203**	P	**Pn**	**21 42 05.6 +1.2**
KYMI	**Kymi, Euboea I**	**1.16 20**	P	**Pn**	**21 42 06.8 +1.9**
KYMI			S	**Sn**	**21 42 24.5 +0.3**
KYMI			AML	AML	
KYMI	**Kymi, Euboea I**	**1.16 20**	P	**Pn**	**21 42 06.7 +1.9**
LKR	**Lokris**	**1.20 337**	P	**Pn**	**21 42 06.5 +1.3**
LKR			AML	AML	
LKR	**Lokris**	**1.20 337**	P	**Pn**	**21 42 06.3 +1.0**
ATAL	**Atalanti**	**1.24 339**	P	**Pn**	**21 42 06.9 +1.3**
ATAL	**Atalanti**	**1.24 339**	P	**Pn**	**21 42 06.8 +1.3**
TNSA	**Tinos**	**1.25 90**	P	**Pn**	**21 42 07.9 +2.3**
KLV	**Kalavryta, Ach**	**1.25 294**	P	**Pn**	**21 42 06.9 +1.1**
KLV			S	**Sn**	**21 42 25.4 -0.4**
KLV			AML	AML	
KLV	**Kalavryta, Ach**	**1.25 294**	P	**Pn**	**21 42 06.7 +0.9**
KLV			AML	AML	
DLFA	**Delphi**	**1.28 318**	P	**Pn**	**21 42 07.0 +0.9**
KLV1	**Kalavrita**	**1.28 293**	P	**Pn**	**21 42 07.2 +1.1**
VALY	**Valyra**	**1.34 254**	P	**Pn**	**21 42 08.8 +2.2**
VALY			S	**Sn**	**21 42 27.9 +0.7**
VALY			AML	AML	
VALY	**Valyra**	**1.34 254**	P	**Pn**	**21 42 08.8 +2.2**
KTHA	**Kythira Island**	**1.35 199**	P	**Pn**	**21 42 08.6 +1.8**
KTHA			S	**Sn**	**21 42 27.3 -0.2**
KTHA			AML	AML	
KTHA	**Kythira Island**	**1.35 199**	P	**Pn**	**21 42 08.2 +1.4**
ITM	**Ithomi**	**1.38 255**	P	**Pn**	**21 42 09.2 +2.2**
ITM			S	**Sn**	**21 42 29.1 +1.1**
ITM			AML	AML	
ITM	**Ithomi**	**1.38 255**	P	**Pn**	**21 42 09.1 +2.1**
ITM			AML	AML	
KTHR	**Kythira**	**1.38 201**	P	**Pn**	**21 42 08.8 +1.7**
KTHR			S	**Sn**	**21 42 28.4 +0.4**
KTHR			AML	AML	
AGEO	**AgiosGiorgios,**	**1.41 301**	P	**Pn**	**21 42 09.9 +2.6**
AXAR	**Agios Charalam**	**1.43 329**	P	**Pn**	**21 42 09.2 +1.6**
AXAR			S	**Sn**	**21 42 28.6 -0.4**
AXAR			AML	AML	
AXAR	**Agios Charalam**	**1.43 329**	P	**Pn**	**21 42 09.2 +1.6**
KALE	**Kalithea**	**1.43 307**	P	**Pn**	**21 42 08.9 +1.2**
KALE			S	**Sn**	**21 42 28.3 -0.8**
KALE			AML	AML	
KALE	**Kalithea**	**1.43 307**	P	**Pn**	**21 42 09.0 +1.4**
KALE			AML	AML	
LAKA	**Lakka**	**1.46 299**	P	**Pn**	**21 42 09.3 +1.4**
LAKA			S	**Sn**	**21 42 29.1 -0.4**
LAKA			AML	AML	
LAKA	**Lakka**	**1.46 299**	P	**Pn**	**21 42 09.3 +1.4**
SERG	**Sergoula**	**1.50 306**	P	**Pn**	**21 42 09.8 +1.5**
SERG			S	**Sn**	**21 42 29.6 -0.7**
SERG			AML	AML	
SERG	**Sergoula**	**1.50 306**	P	**Pn**	**21 42 09.7 +1.5**
SERG			AML	AML	
AMT	**Artemida-Makis**	**1.50 270**	P	**Pn**	**21 42 11.5 +3.1**
AMT			S	**Sn**	**21 42 31.8 +1.5**
AMT			AML	AML	
AMT	**Artemida-Makis**	**1.50 270**	P	**Pn**	**21 42 10.2 +1.8**
AMT			AML	AML	
PYRG	**Pyrgos, Dorida**	**1.52 305**	P	**Pn**	**21 42 09.9 +1.4**
DRO	**Drossia**	**1.55 286**	P	**Pn**	**21 42 10.9 +2.0**
DRO			S	**Sn**	**21 42 33.3 +2.0**
DRO			AML	AML	
DRO	**Drossia**	**1.55 286**	P	**Pn**	**21 42 09.9 +1.1**
DRO			AML	AML	
MG00	**Magoula, Dorid**	**1.57 304**	P	**Pn**	**21 42 10.3 +1.2**
EFP	**Efpalio**	**1.60 304**	P	**Pn**	**21 42 11.0 +1.5**
EFP			AML	AML	
EFP	**Efpalio**	**1.60 304**	P	**Pn**	**21 42 10.9 +1.5**
EFP			AML	AML	
APE	**Apeiranthos**	**1.61 106**	P	**Pn**	**21 42 12.5 +2.9**
APE			AML	AML	
APE	**Apeiranthos**	**1.61 106**	P	**Pn**	**21 42 12.5 +2.9**
AOS2	**Alonissos-2**	**1.62 7**	P	**Pn**	**21 42 11.2 +1.6**
PYL1	**Pylos**	**1.64 248**	P	**Pn**	**21 42 10.8 +0.9**
AOS	**Alonnisos**	**1.64 8**	P	**Pn**	**21 42 11.5 +1.6**
AOS			AML	AML	
VVK	**Vomvokou**	**1.66 303**	P	**Pn**	**21 42 12.2 +2.0**
VVK			AML	AML	
MTHA	**Methoni**	**1.67 245**	P	**Pn**	**21 42 12.3 +2.1**
ANKY	**Antikythira Is**	**1.69 188**	P	**Pn**	**21 42 12.3 +1.9**
ANKY			AML	AML	
ANKY	**Antikythira Is**	**1.69 188**	P	**Pn**	**21 42 12.3 +1.9**
ANX	**Ano Chora**	**1.69 309**	P	**Pn**	**21 42 11.9 +1.4**
ANX			S	**Sn**	**21 42 33.7 -0.5**
ANX			AML	AML	
ANX	**Ano Chora**	**1.69 309**	P	**Pn**	**21 42 11.9 +1.4**
AGRP	**Agrapidokambos**	**1.71 301**	P	**Pn**	**21 42 12.8 +2.1**
AGRP			AML	AML	
RLS	**Riolos of Patr**	**1.76 288**	P	**Pn**	**21 42 13.9 +2.6**
RLS			AML	AML	
RLS	**Riolos of Patr**	**1.76 288**	P	**Pn**	**21 42 13.8 +2.6**
AGG	**Agios Georgios**	**1.78 326**	P	**Pn**	**21 42 13.4 +1.9**
AGG			S	**Sn**	**21 42 35.7 -0.4**
AGG			AML	AML	
AGG	**Agios Georgios**	**1.78 326**	P	**Pn**	**21 42 13.2 +1.6**
AGG			AML	AML	
SAP3	**Santorini-Thir**	**1.78 128**	P	**Pn**	**21 42 14.7 +3.2**
SAP3			AML	AML	
SAP3	**Santorini-Thir**	**1.78 128**	P	**Pn**	**21 42 14.0 +2.4**
NEO	**Neokhori**	**1.79 351**	P	**Pn**	**21 42 13.3 +1.7**
NEO			AML	AML	
NEO	**Neokhori**	**1.79 351**	P	**Pn**	**21 42 13.3 +1.7**
THR5	**Thira Island,**	**1.80 128**	P	**Pn**	**21 42 14.6 +2.9**
THR5	**Thira Island,**	**1.80 128**	P	**Pn**	**21 42 14.7 +3.0**
CMBO	**Columbo, Santo**	**1.80 126**	P	**Pn**	**21 42 14.2 +2.5**
THR2	**Thira island,**	**1.83 126**	P	**Pn**	**21 42 15.3 +3.2**
THR2	**Thira island,**	**1.83 126**	P	**Pn**	**21 42 15.3 +3.2**
SNT5	**Nea Kammeni, S**	**1.83 128**	P	**Pn**	**21 42 15.4 +3.3**
SNT5			AML	AML	
SNT5	**Nea Kammeni, S**	**1.83 128**	P	**Pn**	**21 42 15.0 +2.9**
THR3	**Thira Island,**	**1.83 127**	P	**Pn**	**21 42 15.6 +3.4**
THR3	**Thira Island,**	**1.83 127**	P	**Pn**	**21 42 15.5 +3.4**
THRA	**Thira**	**1.85 127**	P	**Pn**	**21 42 15.0 +2.6**
THR6	**Thira Island,**	**1.87 129**	P	**Pn**	**21 42 15.4 +2.9**
AXS	**Araxos**	**1.87 291**	P	**Pn**	**21 42 15.2 +2.7**
AXS			S	**Sn**	**21 42 39.2 +1.4**
AXS			AML	AML	
AXS	**Araxos**	**1.87 291**	P	**Pn**	**21 42 15.1 +2.6**
THR8	**Santorini-Mono**	**1.89 126**	P	**Pn**	**21 42 15.8 +3.1**
THR8	**Santorini-Mono**	**1.89 126**	P	**Pn**	**21 42 15.5 +2.8**
THERA	**Ancient Thera,**	**1.91 127**	P	**Pn**	**21 42 15.9 +2.9**
THERA			AML	AML	
THERA	**Ancient Thera,**	**1.91 127**	P	**Pn**	**21 42 15.8 +2.8**
PLEV	**Plevrona-Mesol**	**1.94 297**	P	**Pn**	**21 42 15.3 +2.1**
PVO	**Paravola**	**1.95 304**	P	**Pn**	**21 42 16.7 +3.2**
PVO			S	**Sn**	**21 42 41.9 +2.4**
PVO			AML	AML	
PVO	**Paravola**	**1.95 304**	P	**Pn**	**21 42 16.2 +2.7**
EVR	**Evrytania**	**1.97 315**	P	**Pn**	**21 42 16.2 +2.4**
EVR			S	**Sn**	**21 42 40.2 +0.3**
EVR			AML	AML	
EVR	**Evrytania**	**1.97 315**	P	**Pn**	**21 42 15.7 +2.0**
RODP	**Rodopos**	**1.98 176**	P	**Pn**	**21 42 15.8 +1.9**
RODP			AML	AML	
RODP	**Rodopos**	**1.98 176**	P	**Pn**	**21 42 15.6 +1.8**
CLEM	**Kyllini,Ilia,G**	**1.98 281**	P	**Pn**	**21 42 16.2 +2.4**
CH01	**Chania**	**2.05 170**	P	**Pn**	**21 42 16.3 +1.6**
CHAN	**Chania**	**2.05 170**	P	**Pn**	**21 42 16.4 +1.7**
CHNB	**Souda**	**2.08 169**	P	**Pn**	**21 42 16.6 +1.5**
IMMV	**Iera Moni Meta**	**2.10 171**	P	**Pn**	**21 42 17.2 +1.9**
IMMV			AML	AML	
IMMV	**Iera Moni Meta**	**2.10 171**	P	**Pn**	**21 42 17.0 +1.8**
CHOS	**Chios island**	**2.12 66**	P	**Pn**	**21 42 18.9 +3.4**
CHOS			AML	AML	
CHOS	**Chios island**	**2.12 66**	P	**Pn**	**21 42 18.8 +3.2**
PDO	**Prodromos**	**2.18 300**	P	**Pn**	**21 42 18.5 +2.4**
PDO			AML	AML	
PDO	**Prodromos**	**2.18 300**	P	**Pn**	**21 42 18.5 +2.4**
VAM	**Vamos**	**2.18 167**	P	**Pn**	**21 42 17.7 +1.4**
VAM			AML	AML	
VAM	**Vamos**	**2.18 167**	P	**Pn**	**21 42 17.8 +1.4**
KNDR	**Palaiochora Ch**	**2.30 179**	P	**Pn**	**21 42 20.1 +2.3**
KNDR			AML	AML	
KNDR	**Palaiochora Ch**	**2.30 179**	P	**Pn**	**21 42 19.9 +2.2**
AMPL	**Ampelaki**	**2.33 307**	P	**Pn**	**21 42 20.4 +2.4**
AMPL			S	**Sn**	**21 42 47.3 -0.3**
AMPL			AML	AML	
AMPL	**Ampelaki**	**2.33 307**	P	**Pn**	**21 42 20.2 +2.2**
THL	**Klokotos Trika**	**2.37 329**	P	**Pn**	**21 42 19.9 +1.4**
THL			AML	AML	
TYRN	**Tyrnavos**	**2.42 334**	P	**Pn**	**21 42 20.6 +1.5**
TYRN			AML	AML	
VLS	**Valsamata**	**2.46 286**	P	**Pn**	**21 42 20.9 +1.2**
VLS			AML	AML	
IDI	**Anoyia**	**2.48 155**	P	**Pn**	**21 42 21.5 +1.5**
IDI			AML	AML	
IACM	**Heraklion**	**2.53 151**	P	**Pn**	**21 42 22.4 +1.9**
EVGI	**Lefkada island**	**2.56 296**	P	**Pn**	**21 42 22.5 +1.7**
EVGI			AML	AML	
TETR	**Tetrakomo, Epi**	**2.56 315**	P	**Pn**	**21 42 23.5 +2.5**
TETR			AML	AML	
NYDR	**Nydri-Lefkada**	**2.57 298**	P	**Pn**	**21 42 22.4 +1.5**
NYDR			AML	AML	
SMG	**Samos**	**2.58 85**	P	**Pn**	**21 42 24.8 +3.6**
SMG			AML	AML	
LKD2	**Lefkada island**	**2.63 299**	P	**Pn**	**21 42 23.9 +2.1**
LKD2			AML	AML	
DMLN	**Damoulianata-K**	**2.64 286**	P	**Pn**	**21 42 23.4 +1.4**
DMLN			AML	AML	
DRAG	**Dragano-Lefkad**	**2.64 297**	P	**Pn**	**21 42 23.8 +1.9**
TSLK	**Tsoukalades, L**	**2.65 300**	P	**Pn**	**21 42 24.2 +2.2**
TSLK			AML	AML	
LIT	**Litokhoron**	**2.70 342**	P	**Pn**	**21 42 24.3 +1.7**
LIT			AML	AML	
SIVA	**Sivas**	**2.70 158**	P	**Pn**	**21 42 25.2 +2.5**
SIVA			AML	AML	
GVDS	**Gavdos**	**2.72 172**	P	**Pn**	**21 42 25.0 +2.0**
GVDS			AML	AML	
GVD	**Gavdhos**	**2.73 171**	P	**Pn**	**21 42 24.9 +1.9**
PRMD	**Pramanda**	**2.79 316**	P	**Pn**	**21 42 26.6 +2.7**
PRMD			AML	AML	
NPS	**Neapolis**	**2.80 144**	P	**Pn**	**21 42 25.6 +1.6**
NPS			AML	AML	
OUR	**Ouranopolis**	**2.81 6**	P	**Pn**	**21 42 26.5 +2.5**
PLG	**Polygyros**	**2.83 358**	P	**Pn**	**21 42 26.1 +1.8**
PLG			AML	AML	
KPRO	**Kipourio**	**2.98 325**	P	**Pn**	**21 42 28.0 +1.8**
KPRO			AML	AML	
JAN	**Janina**	**3.01 315**	P	**Pn**	**21 42 28.9 +2.2**
JAN			AML	AML	
KZN	**Kozani**	**3.11 333**	P	**Pn**	**21 42 29.8 +1.9**
KZN			AML	AML	
IGT	**Igoumenitsa**	**3.24 309**	P	**Pn**	**21 42 30.7 +1.1**
IGT			AML	AML	
IGT	**Igoumenitsa**	**3.24 309**	*e*Pg	**Pn**	**21 42 30.8 +1.2**
IGT			*e*Sg	**Sn**	**21 43 08.1 -0.2**
PENT	**Pentalofos**	**3.27 325**	P	**Pn**	**21 42 32.1 +2.0**
SOH	**Sokhos**	**3.28 357**	P	**Pn**	**21 42 32.7 +2.5**
SOH			AML	AML	
NEST	**Nestorio**	**3.49 326**	P	**Pn**	**21 42 34.6 +1.7**
NEST			AML	AML	
KARP	**Karpathos**	**3.49 124**	P	**Pn**	**21 42 35.8 +2.9**
KARP			AML	AML	
GRG	**Griva**	**3.54 345**	P	**Pn**	**21 42 34.7 +1.2**
GRG			AML	AML	
SRS	**Serrai**	**3.57 360**	P	**Pn**	**21 42 36.2 +2.3**
SRS			AML	AML	
SRS	**Serrai**	**3.57 360**	*e*Pn	**Pn**	**21 42 36.0 +2.1**
SRN	**Sarande**	**3.66 311**	P	**Pn**	**21 42 35.8 +0.9**
SRN			AML	AML	
KNT	**Kendrikon**	**3.66 352**	P	**Pn**	**21 42 37.0 +2.0**
KNT			AML	AML	
NVR	**Nevrokopi**	**3.81 3**	P	**Pn**	**21 42 39.3 +2.3**
NVR			AML	AML	
RZN	**Rozhen**	**4.24 12**	P	**Pn**	**21 42 45.6 +2.8**
BARS	**Barje**	**5.44 346**	*e*Pn	**Pn**	**21 43 00.3 +1.7**
BARS			*e*Sn	**Sn**	**21 44 00.0 -0.4**
ZAPS	**Zavoj**	**5.77 353**	*e*Pn	**Pn**	**21 43 05.5 +2.4**
PDG	**Podgorica**	**5.91 327**	*e*Pn	**Pn**	**21 43 04.3 -0.6**
PDG			*e*Sn	**Sn**	**21 44 07.5 -4.0**
SELS	**Selova**	**5.98 342**	*e*Pn	**Pn**	**21 43 06.5 +0.7**
SELS			*e*Sn	**Sn**	**21 44 11.5 -1.7**
SJES	**Sjenica**	**6.35 335**	*e*Pn	**Pn**	**21 43 10.6 -0.2**
SJES			*e*Sn	**Sn**	**21 44 17.7 -4.5**
ZAGS	**Zajecar**	**6.35 351**	*e*Pn	**Pn**	**21 43 13.0 +2.2**
GOCS	**Kraljevo Serbi**	**6.36 342**	*e*Pn	**Pn**	**21 43 11.4 +0.4**
GOCS			*e*Sn	**Sn**	**21 44 20.9 -1.6**
TREB	**Trebinje**	**6.55 324**	*e*Pn	**Pn**	**21 43 12.1 -1.3**
TREB			*e*Sn	**Sn**	**21 44 20.3 -6.5**
IVAS	**Ivanjica**	**6.57 338**	*e*Pn	**Pn**	**21 43 13.0 -0.8**
GRUS	**Gruza**	**6.71 342**	*e*Pn	**Pn**	**21 43 15.3 -0.2**
STON	**Ston**	**6.98 322**	*e*Pn	**Pn**	**21 43 17.7 -1.4**
STON			*e*Sn	**Sn**	**21 44 30.0 -7.1**
BBLS	**Lazi&#263i**	**7.07 335**	*e*Pn	**Pn**	**21 43 19.5 -1.0**
BBLS			*e*Sn	**Sn**	**21 44 36.0 -3.6**
DIVS	**Divibare**	**7.10 339**	*e*Pn	**Pn**	**21 43 20.1 -0.8**
DIVS			*e*Sn	**Sn**	**21 44 37.1 -3.1**
TEKS	**Tekeris**	**7.64 338**	*e*Pn	**Pn**	**21 43 27.3 -0.8**
CSS	**Mathiatis**	**8.28 105**	P	**Pn**	**21 43 36.7 0.0**
CSS			S	**Sn**	**21 45 07.2 -1.4**
MMAI	**Mount Meron Ar**	**10.65 112**	P	**Pn**	**21 44 07.9 -0.5**
	1.0nm,0.6s,baz=299,slow=13,SNR=1.7				
GEM	**Giv'at Ha'Em**	**10.76 110**	P	**Pn**	**21 44 09.3 -0.5**
GEM			S	**Sn**	**21 46 05.7 -2.9**
MMLI	**Mount Malkishu**	**10.95 114**	P	**Pn**	**21 44 11.1 -1.3**
MMLI			S	**Sn**	**21 46 09.2 -4.1**
AMAZ	**Amatzia**	**11.09 119**	P	**Pn**	**21 44 12.1 -2.2**
AMAZ			S	**Sn**	**21 46 10.5 -6.2**
KZIT	**Kziot**	**11.12 123**	P	**Pn**	21 44 11.5 -3.1
KZIT			S	Sn	21 46 09.2 -8.1
MSBI	**Mazada**	**11.53 119**	P	**Pn**	**21 44 17.9 -2.0**
MSBI			S	**Sn**	**21 46 21.1 -5.9**
RMNI	**Mount Ramon**	**11.56 124**	P	**Pn**	**21 44 17.8 -2.7**
RMNI			S	**Sn**	**21 46 20.8 -7.2**
GHAJ	**Ghor Haditha**	**11.68 119**	P	**Pn**	**21 44 20.4 -1.4**
GHAJ			S	**Sn**	**21 46 24.6 -6.0**
IDAN	**Idan**	**11.75 121**	P	**Pn**	**21 44 20.9 -2.0**
IDAN			S	**Sn**	**21 46 25.9 -6.7**
HRFI	**Mount Harif**	**12.10 125**	P	**Pn**	**21 44 24.8 -2.6**
HRFI			S	Sn	21 46 33.5 -7.6
EIL	**Elat**	**12.29 126**	P	**Pn**	**21 44 27.0 -2.9**
EIL			S	Sn	21 46 37.0 -8.5
GERES	**GERESS Array B**	**13.39 331**	P	**P**	**21 44 52.1 +3.6**
	0.4nm,0.6s,baz=144,slow=12,SNR=5.3				
AKASG	**Malin Array Be**	**13.76 15**	P	**P**	**21 44 55.7 +3.2**
	0.2nm,0.3s,baz=213,slow=10,SNR=3.4				
HFS	**Hagfors**	**23.48 348**	P	**P**	**21 46 39.0 +2.7**
	9.4nm,1.1s,baz=187,slow=11,SNR=5.8				
	9.4nm,1.1s				
FINES	**FINESS Array B**	**23.98 3**	P	**P**	**21 46 43.4 +2.6**
	6.2nm,1.1s,baz=182,slow=10.0,SNR=5.2				
	6.2nm,1.1s				
NOA	**NORSAR Array B**	**24.78 346**	P	**P**	**21 46 50.6 +2.4**
	0.7nm,0.8s,baz=166,slow=7.3,SNR=1.3				
	0.7nm,0.8s				
ARCES	**ARCESS Array B**	**32.07 1**	P	**P**	**21 47 54.9 +2.2**
	1.8nm,0.9s,baz=187,slow=9.4,SNR=1.1				
	1.8nm,0.9s				

*IDC **21** 21:49:18.5±0.7,29°.89N×88°.09E,h0km,mb4.0/17, mbtmp4.0/20,ML4.0/2,MS4.3/1,Error ellipse: s-maj=22.1km s-min=13.8km az=46.0*
*MOS **21** 21:49:18.9±1.0,29°.98N×87°.93E,h10km,mb4.5/11,Error ellipse: s-maj=12.0km s-min=5.5km az=125.4*
*NEIC **21** 21:49:21.5±1.3,30°.19N±0°.07×88°.10E±0°.06,h10km±1km, mb4.5/29,Error ellipse: s-maj=13.3km s-min=6.4km az=330.0*
ISC 21 21:49:23.9±0.4,**29°.97N**±0°.05×**88°.05E**±0°.04,**h37**km,**n122,** σ1**98**/137,**mb4.4**/38,**5C-1D,Xizang**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
EVN	**Everest**	**2.28**	**209**				**Pn**	**21 50 03.4**	**+3.8**
EVN						Sn	**Sn**	**21 50 33.8**	**+7.1**
LSA	**Lhasa**	**2.71**	**95**	⇑P		n	**Pn**	**21 50 08.3**	**+3.0**
LSA						Sn	**Sn**	**21 50 43.0**	**+5.9**
LSA						pmax	pmax		
	comp=Z,1μm,0.6s								
LSA						smax	smax		
	comp=N,190nm,0.7s								
LSA						smax	smax		
	comp=E,230nm,0.6s								
LSA	**Lhasa**	**2.71**	**95**	P			**Pn**	**21 50 06.0**	**+0.7**
LSA	**Lhasa**	**2.71**	**95**	Pn			**Pn**	**21 50 06.0**	**+0.7**
SHL	**Shillong**	**5.55**	**141**	P			**Pn**	**21 50 44.7**	**+0.6**
SHL	**Shillong**	**5.55**	**141**				**Pn**	**21 50 44.7**	**+0.6**
SHL	**Shillong**	**5.55**	**141**	*i* P			**Pn**	**21 50 42.7**	**-1.4**
SHL					IAmb		IAmb	21 50 50.0	
	comp=Z,30nm,0.8s								
SHL				*i* S			**Sn**	**21 51 43.4**	**-3.3**
ITAN	**ITANAGAR**	**5.73**	**118**	*i* P			**Pn**	**21 50 47.5**	**+1.1**
ITAN					IAmb		IAmb	21 51 09.8	
	comp=Z,81nm,1.1s								
ITAN				*i* S			**Sn**	**21 51 50.7**	**-0.3**
MOKO	**MOKOCHONG**	**6.77**	**121**	*i* P			**Pn**	**21 50 60.0**	**-0.9**
MOKO					IAmb		IAmb	21 51 10.3	
	comp=Z,14nm,0.6s								
MOKO				*i* S			**Sn**	**21 52 14.0**	**-2.7**
PTH	**Pithoragarh**	**6.83**	**269**	*i* P			**Pn**	**21 50 58.8**	**-2.9**
KOHI	**KOHIMA**	**6.83**	**127**	*i* P			**Pn**	**21 51 00.3**	**-1.4**
KOHI					IAmb		IAmb	21 51 20.9	
	comp=Z,14nm,0.5s								
IMP	**Imphal**	**7.33**	**133**	*i* P			**Pn**	**21 51 06.1**	**-2.3**
IMP					IAmb		IAmb	21 51 19.7	
	comp=Z,4.9nm,0.7s								
IMP				*i* S			**Sn**	**21 52 25.6**	**-4.8**
JOSI	**Joshimath**	**7.37**	**277**	*i* P			**Pn**	**21 51 06.7**	**-2.4**
JOSI					IAmb		IAmb	21 51 20.6	
	comp=Z,49nm,0.5s								
JOSI				*i* S			**Sn**	**21 52 26.9**	**-4.6**
AZL	**Aizawl**	**7.46**	**145**	*i* P			**Pn**	**21 51 08.5**	**-1.8**
AZL					IAmb		IAmb	21 51 21.1	
	comp=Z,12nm,0.8s								
MORE	**Moreh**	**7.98**	**134**				**Pn**	**21 51 18.2**	**+0.9**
UTK	**UTTARKASHI**	**8.33**	**278**	*i* P			**Pn**	**21 51 19.6**	**-2.7**
KLP	**Kalpa**	**8.57**	**283**	*i* P			**Pn**	**21 51 23.3**	**-2.5**
SMLA	**Simla**	**9.45**	**280**	*i* P			**Pn**	**21 51 35.2**	**-2.3**
SMLA				*i* S			**Sn**	**21 53 15.7**	**-6.8**
ALCI	**Alchi Leh**	**10.14**	**297**	*i* P			**Pn**	**21 51 46.0**	**-1.2**
DHRM	**DHARAMSHALA**	**10.32**	**286**	*i* P			**Pn**	**21 51 47.4**	**-2.3**
NIL	**Nilore**	**13.11**	**290**	P			**Pn**	**21 52 25.0**	**-2.5**
NIL	**Nilore**	**13.11**	**290**				**Pn**	**21 52 25.0**	**-2.5**
KSH2	**Kashi**	**13.76**	**315**	P			**Pn**	**21 52 37.9**	**+1.4**
KSH2				sP			P	21 52 44.8	+0.3
KSH2				pmax			pmax		
	comp=Z,5.0nm,1.1s								
WMQ	**Urumqi**	**13.83**	**359**	*e*P			**Pn**	**21 52 36.4**	**-0.9**
WMQ				pmax			pmax		
	comp=Z,7.0nm,0.9s								
TARG	**Taragay, Kyrgy**	**14.36**	**328**	P			**Pn**	**21 52 42.5**	**-2.5**
TARG	**Taragay, Kyrgy**	**14.36**	**328**	Pn			**Pn**	**21 52 42.5**	**-2.5**
LZDM	**Lanzhou Array**	**14.42**	**61**	Pn			**Pn**	**21 52 43.5**	**-2.3**
	baz=290,slow=8.8								
	comp=Z,0.6nm,0.3s								
PDGK	**Podgornoye**	**14.98**	**335**	P			**Pn**	**21 52 52.0**	**-1.0**
PDGK	**Podgornoye**	**14.98**	**335**	Pn			**Pn**	**21 52 52.0**	**-1.0**
NRN	**Naryn**	**15.04**	**323**	P			**Pn**	**21 52 53.7**	**-0.2**
NRN	**Naryn**	**15.04**	**323**	Pn			**Pn**	**21 52 53.7**	**-0.2**
CMAR	**Chiang Mai Arr**	**15.16**	**137**	Pn			**Pn**	**21 52 51.8**	**-3.6**
	comp=Z,1.1nm,0.9s,baz=316,slow=14,SNR=8.2								
CMAR	**Chiang Mai Arr**	**15.16**	**137**	P			**Pn**	**21 52 55.4**	**+0.1**
CMAR	**Chiang Mai Arr**	**15.16**	**137**				**Pn**	**21 52 55.4**	**+0.1**
DRK	**Karamyk**	**16.36**	**310**	P			**Pn**	**21 53 07.7**	**-3.3**
DRK				pmax			pmax		
	comp=Z,7.0nm,0.8s								
DRK	**Karamyk**	**16.36**	**310**				**Pn**	**21 53 07.7**	**-3.3**
ARSB	**Arslanbob**	**16.66**	**317**	P			**Pn**	**21 53 13.0**	**-1.6**
ARSB				pmax			pmax		
	comp=Z,11nm,1.3s								
ARSB	**Arslanbob**	**16.66**	**317**				**Pn**	**21 53 13.0**	**-1.6**
KBL	**Kabul**	**16.71**	**291**	P			**Pn**	**21 53 12.8**	**-2.5**
KBL				pmax			pmax		
	comp=Z,9.0nm,0.9s								
KBL	**Kabul**	**16.71**	**291**				**Pn**	**21 53 12.8**	**-2.5**
KBL					IAmb		IAmb	21 53 20.3	
	comp=Z,8.8nm,0.9s								
GYA	**Guiyang**	**16.78**	**98**	⇑P			**Pn**	**21 53 16.8**	**+0.6**
GYA				pmax			pmax		
	comp=Z,5.0nm,0.9s								
BTK	**Batken**	**17.31**	**310**	P			**Pn**	**21 53 20.7**	**-2.0**
BTK				pmax			pmax		
	comp=Z,13nm,0.8s								
BTK	**Batken**	**17.31**	**310**				**Pn**	**21 53 20.7**	**-2.0**
BTK					IAmb		IAmb	21 53 26.4	
	comp=Z,13nm,0.8s								
MKAR	**Makanchi Array**	**17.38**	**347**	P			**Pn**	**21 53 23.0**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=147,slow=12,SNR=12								
	comp=Z,2.7nm,0.7s								
MKAR					AML		AML		
MKAR	**Makanchi Array**	**17.38**	**347**	P			**Pn**	**21 53 23.0**	**-0.5**
MKAR	**Makanchi Array**	**17.38**	**347**	Pn			**Pn**	**21 53 20.8**	**-2.7**
XAN	**Xi'an**	**18.16**	**72**	*e*P			**Pn**	**21 53 34.5**	**+1.3**
XAN				pmax			pmax		
	comp=Z,5.0nm,1.1s								
KK31	**Karatay Array**	**19.19**	**318**	P			**P**	**21 53 43.4**	**-1.1**
KK31				pmax			pmax		
	comp=Z,2.0nm,0.8s								
KK31	**Karatay Array**	**19.19**	**318**	P			**P**	**21 53 43.4**	**-1.1**
KKAR	**Karatay Array**	**19.19**	**318**	P			**P**	**21 53 43.9**	**-0.6**
KKAR	**Karatay Array**	**19.19**	**318**	P			**P

TIXI pmax pmax
comp=Z,3.0nm,1.1s
AKASG Malin Array Be 47.99 313 P **P** **21 57 59.4 +0.4**
comp=Z,1.4nm,0.6s,baz=82,slow=6.9,SNR=8.2
comp=Z,1.4nm,0.6s
AKBB Malin Array Si 47.99 313 *i* P **P** **21 57 59.9 +0.9**
AKBB pmax pmax
comp=Z,5.0nm,1.1s
ELL Elmali 48.40 294 P **P** **21 58 03.4 +0.9**
ELL pmax pmax
comp=Z,24nm,0.7s
ELL Elmali 48.40 294 **P** **21 58 03.4 +0.9**
MNK Minsk 49.04 318 *i* P **P** **21 58 08.4 +1.4**
MNK *i* 21 59 32.5
MNK *i* 22 00 01.9
MNK *i* PPP PPP 22 00 52.1
MNK *i* S **S** **22 05 13.1 +4.2**
MNK pmax pmax
comp=Z,6.0nm,0.8s
MNK pmax pmax
comp=N,9.0nm,0.8s
MNK pmax pmax
comp=E,8.0nm,1.0s
MNK MLR MLR
comp=E,209nm,9.0s
MNK MLR MLR
comp=Z,205nm,9.0s
MNK MLR MLR
comp=N,138nm,9.0s
MNK Minsk 49.04 318 *i* P **P** **21 58 08.5 +1.4**
comp=E,8.0nm,1.0s
MNK *i* P **P** **21 58 08.5 +1.4**
comp=N,9.0nm,0.8s
MNK *i* P **P** **21 58 08.5 +1.4**
comp=Z,6.0nm,0.8s,baz=94
MNK *i* PcP **PcP** **21 59 32.5 +2.2**
MNK *i* PP **PP** **22 00 01.9 +1.4**
MNK *i* PPP PPP 22 00 52.2
MNK *i* S **S** **22 05 13.1 +4.2**
MNK *i* SS **SS** **22 08 45.5 +5.6**
MNK *i* SSS SSS 22 09 49.2
MNK *i* LQ LQ 22 15 16.6
MNK *i* LR LR 22 19 00.1
MNK *i* LRM MLR 22 21 06.8
comp=E,209nm,9.3s
MNK *i* LRM MLR 22 21 22.2
comp=Z,205nm,8.8s
MNK *i* LRM MLR 22 21 45.0
comp=N,138nm,9.2s
KARP Karpathos 50.81 293 P **P** **21 58 20.8 0.0**
FIA1 FINESS Array S 50.81 327 P **P** **21 58 20.6 +0.3**
FINES FINESS Array B 50.81 327 P **P** **21 58 21.8 +1.4**
comp=N,6.2nm,0.9s,baz=116,slow=8.5,SNR=15
comp=N,6.2nm,0.9s
FINES FINESS Array B 50.81 327 P **P** **21 58 20.8 +0.4**
AGG Agios Georgios 53.87 298 P **P** **21 58 43.6 +0.1**
AGG Agios Georgios 53.87 298 P **P** **21 58 43.5 +0.1**
HFS Hagfors 56.81 325 P **P** **21 59 04.2 -0.1**
comp=N,2.5nm,0.6s,baz=116,slow=5.1,SNR=4.7
comp=N,2.5nm,0.6s
NOA NORSAR Array B 57.97 326 P **P** **21 59 12.7 +0.2**
comp=N,1.8nm,0.8s,baz=86,slow=6.8,SNR=4.6
comp=N,1.8nm,0.8s
GERES GERESS Array B 58.14 312 P **P** **21 59 14.2 +0.3**
comp=N,1.1nm,0.7s,baz=64,slow=6.1,SNR=9.0
comp=N,1.1nm,0.7s
GERES GERESS Array B 58.14 312 P **P** **21 59 13.2 -0.7**
CLL Collm 58.16 314 *e*P **P** **21 59 16.0 +2.1**
CLL LH 22 15 00.0
CLL LV 22 18 00.0
BILL Bilibino 58.19 26 *i* P **P** **21 59 14.9 +1.1**
BILL pmax pmax
comp=Z,15nm,1.8s
WB0 Warramunga Arr 66.61 132 P **P** **22 00 10.9 +0.2**
WB0 IAmb IAmb 22 00 29.9
comp=Z,9.6nm,1.4s
WRA Warramunga Arr 66.70 132 P **P** **22 00 11.2 -0.1**
comp=Z,0.8nm,0.6s,baz=324,slow=6.3,SNR=7.9
comp=Z,0.8nm,0.6s
WRA Warramunga Arr 66.70 132 P **P** **22 00 11.9 +0.6**
WRA Warramunga Arr 66.70 132 P **P** **22 00 11.9 +0.6**
WRAB Tennant Creek 66.70 132 *i* P **P** **22 00 13.8 +2.5**
WRAB pmax pmax
comp=Z,3.0nm,0.9s
ASAR Alice Springs 69.16 135 P **P** **22 00 26.6 -0.2**
comp=Z,1.0nm,0.7s,baz=321,slow=6.1,SNR=8.3
comp=Z,1.0nm,0.7s
ASAR Alice Springs 69.16 135 P **P** **22 00 27.4 +0.6**
ASAR Alice Springs 69.16 135 P **P** **22 00 27.4 +0.6**
C18K Utukok River 69.52 21 P **P** **22 00 27.8 -0.6**
C18K IAmb IAmb 22 00 37.0
comp=Z,13nm,1.2s
D19K Kuna River 70.57 21 P **P** **22 00 35.4 +0.6**
D19K IAmb IAmb 22 00 37.6
comp=Z,11nm,1.1s
E19K Redstone River 71.42 22 P **P** **22 00 40.6 +0.7**
E19K IAmb IAmb 22 00 41.5
comp=Z,6.8nm,1.1s
J19K Poorman 73.95 24 P **P** **22 00 55.3 +0.3**
J19K IAmb IAmb 22 01 00.4
comp=Z,11nm,1.3s
J20K Nowinta River 74.36 24 P **P** **22 00 57.7 +0.2**
J20K IAmb IAmb 22 01 10.5
comp=Z,15nm,1.5s
BMAR Burnt Mountain 75.22 18 P **P** **22 01 03.5 +1.1**
CAST Castle Rocks 75.55 24 P **P** **22 01 05.7 +1.3**
CAST IAmb IAmb 22 01 10.1
comp=Z,4.8nm,0.9s
A36M Sachs Harbour 75.72 10 P **P** **22 01 05.4 +0.4**
A36M IAmb IAmb 22 01 11.6
comp=Z,5.4nm,0.9s
PPLA Purkeypile 75.84 24 P **P** **22 01 06.5 +0.3**
E29M Blow River 76.22 16 P **P** **22 01 08.7 +0.6**
E29M IAmb IAmb 22 01 10.3
comp=Z,3.1nm,0.8s
ILAR Eielson Array 76.38 21 P **P** **22 01 09.6 +0.5**
comp=Z,0.9nm,0.8s,baz=292,slow=4.1,SNR=7.3
comp=Z,0.9nm,0.8s
ILAR Eielson Array 76.38 21 P **P** **22 01 09.3 +0.3**
SKT Skwentna 76.67 25 P **P** **22 01 11.1 +0.4**
TORD Torodi Ar. Bea 80.44 280 P **P** **22 01 32.6 +0.3**
comp=Z,0.7nm,0.8s,baz=44,slow=4.1,SNR=3.8
comp=Z,0.7nm,0.8s
KOOLE Kule 83.78 239 P **P** **22 01 51.6 +1.9**
YKA Yellowknife Ar 86.08 10 P **P** **22 02 00.8 +0.3**
comp=Z,1.6nm,0.8s,baz=330,slow=4.7,SNR=8.0
comp=Z,1.6nm,0.8s
DBIC Dimbokro 89.22 277 P **P** **22 02 17.6 +1.2**
comp=Z,6.2nm,1.0s,baz=117,slow=2.3,SNR=2.6
comp=Z,6.2nm,1.0s
DBIC Dimbokro 89.22 277 P **P** **22 02 16.9 +0.4**
DBIC IAmb IAmb 22 02 21.6
comp=Z,8.8nm,1.1s
CPUP Villa Florida 149.33 268 PKPbc **PKPbc** **22 09 09.5 +0.3**
comp=Z,2.3nm,0.7s,baz=98,slow=2.6,SNR=9.5

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*CNRM **21** 22:00:10.2,36˚58N×11˚29W,h28km,ML3.9*
*MDD **21** 22:00:10.2±0.4,36˚79N×11˚46W,h31km±10km,Mb4.3/44, M_mb3.7/45,Error ellipse: s-maj=4.4km s-min=3.1km az=68.0*
*IGIL **21** 22:00:12.0,36˚79N×11˚33W,h32km,ML2.4*
*INMG **21** 22:00:12.2±2.1,36˚80N×11˚34W,h31km±13km,ML2.9, Error ellipse: s-maj=7.7km s-min=3.9km az=63.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*
ISC 21 22:00:09.3±1.2,36˚80N±0˚04×11˚33W±0˚06,h66km±38km, n123,σ1§85/231,26C-4D,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**2.03**	**80**	P	**Pn**	**22 00 41.4**	**+0.1**
PFVI				S	**Sn**	**22 01 04.5**	**-1.1**
PFVI	**Vila Bisbo**	**2.03**	**80**	P	**Pn**	**22 00 42.2**	**+0.9**
PFVI				S	**Sn**	**22 01 07.9**	**+2.3**
PFVI	**Vila Bisbo**	**2.03**	**80**	⇓*e*P	**Pn**	**22 00 42.7**	**+1.4**
PFVI				*e*S	**Sn**	**22 01 04.9**	**-0.7**
PFVI				IAML		22 01 05.8	
PFVI				IAML		22 01 05.9	
PFVI				IAML		22 01 06.1	
MORF	**Marmelete**	**2.20**	**76**	*e*P	**Pn**	**22 00 45.1**	**+1.5**
MORF				*e*S	**Sn**	**22 01 09.5**	**-0.3**
MORF				IAML		22 01 11.7	
	comp=E,80nm,0.2s						
MORF	**Marmelete**	**2.20**	**76**	*e*P	**Pn**	**22 00 45.2**	**+1.6**
MORF				*e*S	**Sn**	**22 01 08.6**	**-1.2**
MORF				IAML		22 01 10.8	
MORF				IAML		22 01 11.3	
MORF				IAML		22 01 11.7	
PTEO	**Sao Teotonio**	**2.21**	**69**	*e*P	**Pn**	**22 00 45.5**	**+1.8**
PTEO				*e*S	**Sn**	**22 01 09.7**	**-0.3**
PTEO				IAML		22 01 11.0	
PTEO				IAML		22 01 11.9	
PTEO				IAML		22 01 12.0	
PMONC	**Monchique**	**2.29**	**76**	*e*P	**Pn**	**22 00 46.5**	**+1.7**
PMONC				*e*S	**Sn**	**22 01 11.9**	**+0.1**
PMONC				IAML		22 01 13.7	
PMONC				IAML		22 01 14.0	
PMONC				IAML		22 01 14.3	
LIS	**Lisbon**	**2.58**	**41**	*e*S	**Sn**	**22 01 19.9**	**+0.9**
LIS				IAML		22 01 21.4	
LIS				IAML		22 01 21.7	
LIS				IAML		22 01 23.1	
PLOUS	**Minas do Lousa**	**2.62**	**61**	*e*P	**Pn**	**22 00 50.8**	**+1.5**
PLOUS				*e*S	**Sn**	**22 01 19.4**	**-0.5**
PLOUS				IAML		22 01 23.2	
PLOUS				IAML		22 01 23.2	
PLOUS				IAML		22 01 24.3	
MESJ	**Messejana**	**2.69**	**66**	*e*P	**Pn**	**22 00 51.9**	**+1.7**
MESJ				*e*S	**Sn**	**22 01 21.2**	**-0.4**
MESJ				IAML		22 01 25.1	
	comp=N,4.9nm,0.3s						
MESJ	**Messejana**	**2.69**	**66**	*e*P	**Pn**	**22 00 52.2**	**+2.0**
MESJ				*e*S	**Sn**	**22 01 21.1**	**-0.5**
PMAFR	**Mafra**	**2.70**	**36**	P	**Pn**	**22 00 50.8**	**+0.5**
PMAFR				S	**Sn**	**22 01 22.2**	**+0.4**
PMAFR	**Mafra**	**2.70**	**36**	⇓*e*P	**Pn**	**22 00 51.7**	**+1.4**
PMAFR				*e*S	**Sn**	**22 01 21.0**	**-0.8**
PMAFR				IAML		22 01 24.0	
PMAFR				IAML		22 01 24.6	
PMAFR				IAML		22 01 26.8	
PBDV	**Barranco-do-Ve**	**2.75**	**80**	P	**Pn**	**22 00 52.5**	**+1.4**
PBDV				S	**Sn**	**22 01 22.5**	**-0.7**
PBDV	**Barranco-do-Ve**	**2.75**	**80**	*e*P	**Pn**	**22 00 53.2**	**+2.1**
PBDV				*e*S	**Sn**	**22 01 22.8**	**-0.5**
PBDV				IAML		22 01 28.1	
PBDV				IAML		22 01 28.4	
PBDV				IAML		22 01 30.1	
PCVE	**Castro Verde**	**2.75**	**71**	P	**Pn**	**22 00 52.6**	**+1.5**
PCVE				S	**Sn**	**22 01 22.2**	**-1.1**
PCVE	**Castro Verde**	**2.75**	**71**	*e*P	**Pn**	**22 00 53.0**	**+1.9**
PCVE				*e*S	**Sn**	**22 01 22.7**	**-0.6**
PCVE				IAML		22 01 24.1	
PCVE				IAML		22 01 24.7	
PCVE				IAML		22 01 34.8	
MOE	**Montemor**	**2.92**	**53**	*e*P	**Pn**	**22 00 54.8**	**+1.4**
MOE				*e*S	**Sn**	**22 01 27.1**	**-0.3**
MOE				IAML		22 01 27.9	
MOE				IAML		22 01 28.5	
MOE				IAML		22 01 30.8	
PBEJ	**Beja**	**3.02**	**65**	*e*P	**Pn**	**22 00 56.2**	**+1.5**
PBEJ				*e*S	**Sn**	**22 01 28.9**	**-0.8**
PBEJ				IAML		22 01 30.1	
PBEJ				IAML		22 01 30.6	
PBEJ				IAML		22 01 32.7	
EVO	**Evora**	**3.15**	**56**	P	**Pn**	**22 00 58.0**	**+1.6**
EVO				S	**Sn**	**22 01 32.3**	**-0.6**
EVO	**Evora**	**3.15**	**56**	*e*P	**Pn**	**22 00 58.6**	**+2.1**
EVO				*e*S	**Sn**	**22 01 32.3**	**-0.6**
EVO				IAML		22 01 35.0	
EVO				IAML		22 01 35.2	
EVO				IAML		22 01 36.8	
EGRO	**El Granado**	**3.16**	**75**	P	**Pn**	**22 00 58.1**	**+1.5**
EGRO				S	**Sn**	**22 01 31.5**	**-1.5**
EGRO	**El Granado**	**3.16**	**75**	Pn	**Pn**	**22 00 58.4**	**+1.8**
EGRO				⇑IVmb_VC		22 01 02.6	
	comp=N,272nm,SNR=2.0						
EGRO				Sn	**Sn**	**22 01 32.0**	**-1.1**
EXAYA	**Ayamonte**	**3.17**	**81**	Pn	**Pn**	**22 00 58.8**	**+2.0**
EXAYA				Sn	**Sn**	**22 01 33.2**	**-0.1**
PARRA	**Arraiolos**	**3.29**	**51**	*e*P	**Pn**	**22 01 00.1**	**+1.7**
PARRA				*e*S	**Sn**	**22 01 35.8**	**-0.6**
PARRA				IAML		22 01 39.0	
PARRA				IAML		22 01 40.2	
PARRA				IAML		22 01 41.6	
PMTG	**Montargil**	**3.34**	**46**	*e*P	**Pn**	**22 01 00.9**	**+1.1**
PMTG				*e*S	**Sn**	**22 01 36.4**	**-1.2**
PMTG				IAML		22 01 38.4	
PMTG				IAML		22 01 41.9	
PMTG				IAML		22 01 43.8	
PSBE	**So Bento**	**3.37**	**36**	⇓*e*P	**Pn**	**22 01 01.1**	**+1.6**
PSBE				*e*S	**Sn**	**22 01 38.7**	**+0.4**
PSBE				IAML		22 01 42.2	
PSBE				IAML		22 01 42.4	
PSBE				IAML		22 01 47.7	
PESTR	**Estremoz**	**3.61**	**54**	P	**Pn**	**22 01 04.7**	**+1.9**
PESTR				S	**Sn**	**22 01 43.4**	**-0.8**
PESTR	**Estremoz**	**3.61**	**54**	P	**Pn**	**22 01 05.1**	**+2.3**
PESTR				S	**Sn**	**22 01 49.2**	**+5.0**
PESTR	**Estremoz**	**3.61**	**54**	*e*P	**Pn**	**22 01 05.2**	**+2.5**
PESTR				*e*S	**Sn**	**22 01 43.3**	**-0.8**
PESTR				IAML		22 01 48.2	
PESTR				IAML		22 01 51.7	
PESTR				IAML		22 01 58.9	
PBAR	**Barrancos**	**3.68**	**67**	P	**Pn**	**22 01 05.7**	**+2.0**
PBAR				S	**Sn**	**22 01 43.9**	**-2.0**
PBAR	**Barrancos**	**3.68**	**67**	*e*P	**Pn**	**22 01 06.0**	**+2.3**
PBAR				*e*S	**Sn**	**22 01 44.0**	**-1.8**
PBAR				IAML		22 01 47.0	
PBAR				IAML		22 01 49.2	
PBAR				IAML		22 01 55.0	
PSARD	**Sardoal**	**3.75**	**41**	*e*P	**Pn**	**22 01 06.1**	**+1.4**
PSARD				*e*S	**Sn**	**22 01 46.8**	**-0.8**
PSARD				IAML		22 01 48.2	
PSARD				IAML		22 01 48.9	
PSARD				IAML		22 01 49.2	
EMIN	**Mina Concepcio**	**3.84**	**74**	P	**Pn**	**22 01 07.1**	**+1.3**
EMIN				S	**Sn**	**22 01 48.7**	**-1.1**
EMIN	**Mina Concepcio**	**3.84**	**74**	Pn	**Pn**	**22 01 07.7**	**+1.8**
EMIN				⇑IVmb_VC		22 01 10.9	
	comp=N,146nm,SNR=1.7						
EMIN				Sn	**Sn**	**22 01 48.9**	**-0.8**
EBAD	**Badajoz**	**3.94**	**59**	P	**Pn**	**22 01 09.0**	**+1.7**
EBAD				S	**Sn**	**22 01 50.7**	**-1.5**
EBAD	**Badajoz**	**3.94**	**59**	Pn	**Pn**	**22 01 08.9**	**+1.6**
EBAD				⇑IVmb_VC		22 01 12.2	
	comp=N,254nm,SNR=2.2						
EBAD				Sn	**Sn**	**22 01 51.5**	**-0.7**
PMRV	**Marv??o**	**4.07**	**49**	⇓*e*P	**Pn**	**22 01 10.2**	**+1.1**
PMRV				*e*S	**Sn**	**22 01 53.5**	**-1.9**
PMRV				IAML		22 01 57.1	
PMRV				IAML		22 01 57.2	
PMRV				IAML		22 01 59.3	
COI	**Coimbra**	**4.10**	**33**	*e*P		22 04 37.4	
COI				*e*S		22 05 22.0	
COI				IAML		22 05 24.0	
COI				IAML		22 05 24.9	
COI				IAML		22 05 25.2	
PCBR	**Castelo Branco**	**4.29**	**44**	*e*P	**Pn**	**22 01 13.4**	**+1.3**
PCBR				*e*S	**Sn**	**22 01 59.3**	**-1.5**
PCBR				IAML		22 02 01.1	
PCBR				IAML		22 02 01.4	
PCBR				IAML		22 02 03.1	
ESPR	**Espera**	**4.39**	**87**	P	**Pn**	**22 01 15.2**	**+1.8**
ESPR				S	**Sn**	**22 02 02.7**	**-0.6**
ESPR	**Espera**	**4.39**	**87**	Pn	**Pn**	**22 01 15.1**	**+1.7**
ESPR				⇑IVmb_VC		22 01 17.7	
	comp=N,436nm,SNR=3.7						
ESPR				Sn	**Sn**	**22 02 02.3**	**-1.0**
RTC	**Rabat Centre**	**4.60**	**126**	P	**Pn**	**22 01 16.9**	**+0.6**
RTC				S	**Sn**	**22 02 04.4**	**-4.0**
MTE	**Manteigas**	**4.66**	**38**	*e*P	**Pn**	**22 01 18.6**	**+1.4**
MTE				*e*S	**Sn**	**22 02 08.6**	**-1.5**
MTE				IAML		22 02 10.6	
MTE				IAML		22 02 11.9	
MTE				IAML		22 02 13.8	
EJIF	**Jimena Fronter**	**4.72**	**92**	Pn	**Pn**	**22 01 20.9**	**+2.9**
AVE	**Averroes**	**4.74**	**136**	P	**Pn**	**22 01 18.3**	**0.0**
AVE				S	**Sn**	**22 02 09.0**	**-2.9**
AVE	**Averroes**	**4.74**	**136**	P	**Pn**	**22 01 19.1**	**+0.8**
AVE				S	**Sn**	**22 02 11.1**	**-0.8**
PVIS	**Viseu**	**4.75**	**33**	*e*P	**Pn**	**22 01 19.5**	**+1.2**
PVIS				*e*S	**Sn**	**22 02 10.6**	**-1.5**
PTO	**Porto**	**4.83**	**25**	*e*P	**Pn**	**22 01 20.6**	**+1.2**
PTO				*e*S	**Sn**	**22 02 12.0**	**-2.0**
ECAB	**El Cabril**	**4.87**	**73**	P	**Pn**	**22 01 21.0**	**+0.9**
ECAB				S	**Sn**	**22 02 13.5**	**-1.7**
ECAB	**El Cabril**	**4.87**	**73**	Pn	**Pn**	**22 01 21.7**	**+1.7**
ECAB				⇑IVmb_VC		22 01 24.0	
	comp=N,152nm,SNR=2.5						
ECAB				Sn	**Sn**	**22 02 12.7**	**-2.4**
EXCBR	**El Cabril**	**4.88**	**73**	Sn	**Sn**	**22 02 14.5**	**-0.7**
SMIR	**Smir Dam**	**4.93**	**101**	P	**Pn**	**22 01 21.1**	**+0.2**
SMIR				S	**Sn**	**22 02 16.2**	**-0.4**
ZHG	**ZHG**	**5.09**	**130**	P	**Pn**	**22 01 24.0**	**+0.9**
ZHG				S	**Sn**	**22 02 19.5**	**-1.1**
SRHM	**Skhour des Reh**	**5.16**	**146**	P	**Pn**	**22 01 24.1**	**0.0**
SRHM				Sn	**Sn**	**22 02 23.9**	**+1.6**
EPLA	**Plasencia**	**5.25**	**50**	Pn	**Pn**	**22 01 26.9**	**+1.6**
EPLA				⇑IVmb_VC		22 01 27.8	
	comp=N,122nm,SNR=1.3						
EPLA				Sn	**Sn**	**22 02 22.9**	**-1.7**
EMIJ	**Mijas**	**5.27**	**91**	P	**Pn**	**22 01 26.6**	**+1.1**
EMIJ				S	**Sn**	**22 02 24.6**	**-0.4**
EMIJ	**Mijas**	**5.27**	**91**	Pn	**Pn**	**22 01 27.6**	**+2.1**
EMIJ				⇑IVmb_VC		22 01 30.1	
	comp=N,220nm,SNR=1.3						
EMIJ				Sn	**Sn**	**22 02 24.0**	**-1.0**
PVRL	**Vila Real**	**5.28**	**31**	*e*P	**Pn**	**22 01 26.9**	**+1.2**
PVRL				*e*S	**Sn**	**22 02 22.5**	**-2.7**
PVRL				IAML		22 02 26.3	
PVRL				IAML		22 02 26.4	
PVRL				IAML		22 02 27.2	
POLO	**Lamas de Olo**	**5.33**	**30**	*e*P	**Pn**	**22 01 27.7**	**+1.3**
POLO				*e*S	**Sn**	**22 02 24.3**	**-2.2**
POLO				IAML		22 02 25.4	
POLO				IAML		22 02 25.6	
POLO				IAML		22 02 26.9	
CIBOR	**Castaar de Ib**	**5.44**	**57**	Pn	**Pn**	**22 01 29.4**	**+1.5**
CIBOR				Sn	**Sn**	**22 02 26.7**	**-2.4**
PCAB	**Cabril**	**5.54**	**27**	*e*P	**Pn**	**22 01 30.4**	**+1.3**
PCAB				*e*S	**Sn**	**22 02 28.8**	**-2.6**
PCAB				IAML		22 02 31.0	
PCAB				IAML		22 02 31.4	
PCAB				IAML		22 02 32.6	
PMPST	**Porto Santo, M**	**5.54**	**229**	*e*P	**Pn**	**22 01 29.9**	**+0.7**
PMPST				*e*S	**Sn**	**22 02 25.9**	**-5.6**
EMAL	**Malaga-Limoner**	**5.54**	**88**	P	**Pn**	**22 01 31.1**	**+2.0**
EMAL				S	**Sn**	**22 02 33.2**	**+1.8**
EADA	**Adamuz**	**5.54**	**74**	P	**Pn**	**22 01 30.6**	**+1.4**
EADA				S	**Sn**	**22 02 29.8**	**-1.8**
EADA	**Adamuz**	**5.54**	**74**	Pn	**Pn**	**22 01 31.1**	**+1.9**
EADA				⇑IVmb_VC		22 01 35.0	
	comp=N,127nm,SNR=1.3						
EADA				Sn	**Sn**	**22 02 28.9**	**-2.7**
PMPS	**Porto Santo**	**5.55**	**229**	*e*P	**Pn**	**22 01 29.3**	**0.0**
SICH	**Sidi Chahed**	**5.59**	**117**	P	**Pn**	**22 01 28.9**	**-1.0**
SICH				Sn	**Sn**	**22 02 32.7**	**-0.1**
ELOB	**Lobios**	**5.66**	**26**	Pn	**Pn**	**22 01 31.9**	**+1.0**
ELOB				⇑IVmb_VC		22 01 33.1	
	comp=N,237nm,SNR=1.8						
ELOB				Sn	**Sn**	**22 02 32.0**	**-2.5**
PGAV	**Gavieira, Arco**	**5.68**	**24**	*e*P	**Pn**	**22 01 32.2**	**+1.1**
PGAV				*e*S	**Sn**	**22 02 33.2**	**-1.8**
PGAV				IAML		22 02 36.0	
PGAV				IAML		22 02 37.3	
PGAV				IAML		22 02 37.3	
EZAM	**Zamans**	**5.72**	**20**	Pn	**Pn**	**22 01 32.2**	**+0.6**
EZAM				⇑IVmb_VC		22 01 36.7	
	comp=N,250nm,SNR=1.6						
EZAM				Sn	**Sn**	**22 02 32.8**	**-3.1**
EGOR	**Sierra Gorda,**	**5.79**	**85**	P	**Pn**	**22 01 34.6**	**+1.9**
EGOR				S	**Sn**	**22 02 39.0**	**+1.2**
EGOR	**Sierra Gorda,**	**5.79**	**85**	Pn	**Pn**	**22 01 35.3**	**+2.5**
EGOR				Sn	**Sn**	**22 02 38.4**	**+0.6**
EJUZ	**Juzbado, Salam**	**6.03**	**43**	Sn	**Sn**	**22 02 41.7**	**-1.8**
IFR	**Ifrane**	**6.04**	**121**	P	**Pn**	**22 01 37.1**	**+0.8**
PMAR	**Madeira**	**6.13**	**230**	P	**Pn**	**22 01 37.7**	**+0.2**
PMAR				Sn	**Sn**	**22 02 46.5**	**+0.2**
PMAR	**Madeira**	**6.13**	**230**	*e*P	**Pn**	**22 01 40.0**	**+2.5**
PMAR				*e*S	Sn	22 02 38.7	-7.6
LCRM	**LCR**	**6.13**	**118**	P	**Pn**	**22 01 37.5**	**+0.1**
LCRM				Sn	**Sn**	**22 02 44.8**	**-1.6**
PBRG	**Braganca**	**6.14**	**34**	*e*P	**Pn**	**22 01 38.5**	**+1.2**
PBRG				*e*S	**Sn**	**22 02 43.3**	**-2.9**
PBRG				IAML		22 02 45.7	
PBRG				IAML		22 02 45.8	
PBRG				IAML		22 02 46.1	
PAB	**San Pablo**	**6.15**	**61**	Pn	**Pn**	**22 01 39.4**	**+1.9**
PAB				⇑IVmb_VC		22 01 42.9	
	comp=N,94nm,SNR=1.3						
PAB				Sn	**Sn**	**22 02 43.3**	**-3.2**
ELGU	**Los Guajares,**	**6.18**	**87**	P	**Pn**	**22 01 39.2**	**+1.3**
ELGU				S	**Sn**	**22 02 47.8**	**+0.6**
ELGU	**Los Guajares,**	**6.18**	**87**	Pn	**Pn**	**22 01 40.1**	**+2.1**
ELGU				⇑IVmb_VC		22 01 46.7	
	comp=N,125nm,SNR=0.9						
ELGU				Sn	**Sn**	**22 02 48.3**	**+1.1**
PMOZ	**Porto Moniz, M**	**6.25**	**232**	P	**Pn**	**22 01 40.4**	**+1.5**
PMOZ				S	**Sn**	**22 02 44.6**	**-4.4**
PMOZ	**Porto Moniz, M**	**6.25**	**232**	P	**Pn**	**22 01 37.8**	**-1.2**
PMOZ				S	**Sn**	**22 02 48.9**	**0.0**
PMOZ	**Porto Moniz, M**	**6.25**	**232**	*e*P	**Pn**	**22 01 42.9**	**+3.9**
PMOZ				*e*S	**Sn**	**22 02 43.7**	**-5.2**
ECAL	**Calabor**	**6.25**	**33**	P	**Pn**	**22 01 39.3**	**+0.4**
ECAL				S	**Sn**	**22 02 46.4**	**-2.6**
ECAL	**Calabor**	**6.25**	**33**	Pn	**Pn**	**22 01 40.0**	**+1.1**
ECAL				⇑IVmb_VC		22 01 40.4	
	comp=N,320nm,SNR=1.6						
ECAL				Sn	**Sn**	**22 02 46.1**	**-2.9**
OUK	**Oukaimeden**	**6.27**	**152**	P	**Pn**	**22 01 38.7**	**-0.8**
OUK				Sn	**Sn**	**22 02 47.8**	**-2.2**
EQTA	**Presa de Quent**	**6.32**	**84**	P	**Pn**	**22 01 42.5**	**+2.5**
EQTA				S	**Sn**	**22 02 51.2**	**+0.4**
EQUE	**Quentar**	**6.33**	**84**	Pn	**Pn**	**22 01 43.3**	**+3.3**
EQUE				⇑IVmb_VC		22 01 47.0	
	comp=N,62nm,SNR=1.1						
EQUE				Sn	**Sn**	**22 02 51.1**	**+0.2**
PSIM	**Granatula de C**	**6.33**	**69**	Pn	**Pn**	**22 01 42.1**	**+2.2**
PSIM				Sn	**Sn**	**22 02 49.4**	**-1.5**
EMAZ	**Mazaricos**	**6.41**	**16**	Pn	**Pn**	**22 01 41.1**	**+0.1**
EMAZ				⇑IVmb_VC		22 01 46.8	
	comp=N,196nm,SNR=1.0						
EMAZ				Sn	**Sn**	**22 02 47.4**	**-5.3**
STS	**Santiago**	**6.45**	**18**	Pn	**Pn**	**22 01 42.6**	**+1.1**
STS				Sn	**Sn**	**22 02 51.0**	**-2.6**
ESDC	**Sonseca Array**	**6.47**	**61**	Pn	**Pn**	**22 01 43.8**	**+1.9**
ESDC				⇑IVmb_VC		22 01 48.3	
	comp=N,69nm,SNR=1.1						
ESDC				Sn	**Sn**	**22 02 52.0**	**-2.4**
ESBB	**Sonseca Array**	**6.47**	**61**	⇑IVmb_VC		22 01 43.3	
	comp=N,67nm,SNR=1.0						
ESBB				Sn	**Sn**	**22 02 52.8**	**-1.6**
TISM	**Timmit**	**6.48**	**140**	P	**Pn**	**22 01 40.0**	**-2.0**
TISM				Sn	**Sn**	**22 02 53.5**	**-1.0**
AKLM	**AKL**	**6.49**	**108**	P	**Pn**	**22 01 41.6**	**-0.6**
AKLM				Sn	**Sn**	**22 02 53.1**	**-1.9**
EAGO	**Agolada(Pontev**	**6.50**	**22**	Pn	**Pn**	**22 01 42.7**	**+0.5**
EAGO				⇑IVmb_VC		22 01 45.6	
	comp=N,148nm,SNR=1.3						
EAGO				Sn	**Sn**	**22 02 51.1**	**-3.9**
EQES	**Quesada**	**6.66**	**79**	Pn	**Pn**	**22 01 46.2**	**+1.6**
EQES				⇑IVmb_VC		22 01 47.6	
	comp=N,91nm,SNR=1.1						
EQES				Sn	**Sn**	**22 02 57.4**	**-1.7

JBK					Sn	**Sn**	22 03 19.1	-1.9
TZRR	**Tazzarine**	**7.67**	**140**		P	**Pn**	**22 01 57.9**	**-0.6**
TZRR					Sn	**Sn**	**22 03 22.3**	**-1.7**
EZAR	**Zarzadilla de**	**7.75**	**79**		Pn	**Pn**	**22 02 01.7**	**+2.2**
EZAR					⇑IVmb_VC		22 02 09.2	
	comp=N,156nm,SNR=1.5							
EZAR					Sn	**Sn**	**22 03 24.4**	**-1.4**
ARF	**Arif**	**7.96**	**130**		P	**Pn**	**22 02 01.3**	**-1.0**
ARF					Sn	**Sn**	**22 03 30.2**	**-0.8**
ETOB	**Tobarra**	**7.97**	**74**		P	**Pn**	**22 02 04.0**	**+1.6**
ETOB					S	**Sn**	**22 03 28.5**	**-2.6**
ETOB	**Tobarra**	**7.97**	**74**		Pn	**Pn**	**22 02 03.8**	**+1.4**
ETOB					⇑IVmb_VC		22 02 10.1	
	comp=N,151nm,SNR=1.4							
ETOB					Sn	**Sn**	**22 03 27.8**	**-3.3**
EARI	**Arriondas**	**8.01**	**34**		Pn	**Pn**	**22 02 04.7**	**+1.7**
EARI					⇑IVmb_VC		22 02 06.2	
	comp=N,227nm,SNR=0.9							
EARI					Sn	**Sn**	**22 03 29.5**	**-2.6**
ZGR	**Zagora**	**8.19**	**143**		P	**Pn**	**22 02 05.4**	**-0.1**
ZGR					Sn	**Sn**	**22 03 34.2**	**-2.4**
ETOR	**Torete**	**8.28**	**58**		Pn	**Pn**	**22 02 08.6**	**+1.9**
ETOR					⇑IVmb_VC		22 02 14.2	
	comp=N,80nm,SNR=0.7							
ETOR					Sn	**Sn**	**22 03 35.5**	**-3.2**
EVIV	**Cofrentes, Val**	**8.43**	**70**	⇑	IVmb_VC		22 02 16.9	
	comp=N,118nm,SNR=0.9							
EVIV					Sn	**Sn**	**22 03 41.7**	**-0.6**
ECHE	**Chera**	**8.62**	**68**		P	**Pn**	**22 02 11.5**	**+0.2**
ECHE					S	**Sn**	**22 03 46.3**	**-0.8**
EMOS	**Mosqueruela**	**9.22**	**64**	⇑	IVmb_VC		22 02 26.0	
	comp=N,118nm,SNR=0.9							
EMOS					Sn	**Sn**	**22 03 59.8**	**-1.9**
EALK	**Alkurruntz**	**9.89**	**47**	⇑	IVmb_VC		22 02 34.7	
	comp=N,150nm,SNR=1.1							
EALK					Sn	**Sn**	**22 04 14.6**	**-3.5**

*SDD **21** 22:20:31.1±1.6, 18°.15N×71°.87W, h17km±7km, MD2.4, ML1.7, MW2.2, Presumed earthquake*

OSPL 21 22:20:32.4±0.5, 18°.46N×71°.73W, h12km±3km, ML1.9, 7C, Presumed earthquake, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIDR	**Jimani**	**0.12**	**286**	*e*Pg	Pb	22 20 38.3	+1.6
JIDR				*e*Sg	Sg	22 20 44.2	+6.6
JIDR	**Jimani**	**0.12**	**286**	⇑*i*P	Pb	22 20 37.6	+0.9
JIDR				⇑*i*S	Sg	22 20 43.0	+5.4
LODU1	**El Espartillar**	**0.27**	**113**	*i* P	Pg	22 20 37.8	-0.1
LODU1				*e*S	Sg	22 20 41.2	-0.3
LODU1				IAML		22 20 43.0	
	comp=Z,76nm,0.5s						
NEDR	**Neiba UASD**	**0.30**	**85**	⇑*i*S	Sb	22 20 46.4	+1.7
NEDR				IAML		22 20 47.7	
	comp=N,53nm,0.3s						
PODR	**Polo**	**0.52**	**124**	*e*Pg	Pg	22 20 41.2	-1.4
PODR				*e*Sg	Sg	22 20 49.8	+0.3
PODR				IAML		22 20 51.1	
	comp=N,53nm,0.8s						
PODR				IAML		22 20 52.6	
	comp=E,52nm,0.3s						
PODR	**Polo**	**0.52**	**124**	⇑*i*P	Pg	22 20 40.7	-1.8
PODR				⇑*i*S	Sg	22 20 49.9	+0.4
PODR				IAML		22 20 51.0	
	comp=N,53nm,0.8s						
PODR	**Polo**	**0.52**	**124**	*i* P	Pg	22 20 41.8	-0.8
PODR				*e*S	Sg	22 20 49.0	-0.4
PODR				IAML		22 20 50.7	
	comp=Z,273nm,0.1s						
LOBH	**Bahia de las A**	**0.60**	**171**	*i* P	Pg	22 20 43.3	-0.8
LOBH				*e*S	Sg	22 20 51.2	-0.8
LOBH				IAML		22 20 53.4	
	comp=Z,39nm,0.9s						
SDDR	**Presa de Saban**	**0.67**	**39**	⇑*i*S	Sn	22 21 01.9	+3.5
SDDR				IAML		22 21 39.5	
	comp=N,22nm,3.4s						
LOVI	**El Cajuil, Ovi**	**0.74**	**152**	*i* P	Pg	22 20 45.4	-1.4
LOVI				IAML		22 21 00.6	
	comp=Z,57nm,0.8s						
REDR	**Restauracion**	**0.77**	**24**	*e*Pg	Pn	22 20 50.9	+1.7
REDR				*e*Sg	Sn	22 21 04.1	+3.3
REDR	**Restauracion**	**0.77**	**24**	⇑*i*P	Pn	22 20 50.9	+1.7
REDR				*i* S	Sn	22 21 04.2	+3.4

*IDC **21** 22:29:27.2±1.2, 30°.08N×67°.41E, h0km, mb3.5/8, mbtmp3.6/8, MS3.7/2, Error ellipse: s-maj=36.7km s-min=26.9km az=104.0*

ISC 21 22:29:30.1±1.2, 30°.1N±0°.2×67°.4E±0°.2, h17km, n10, σ0s74/8, mb3.5/6, Pakistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**20.27**	**31**	P	**P**	**22 34 04.5**	**-0.2**
	0.5nm,0.5s,baz=204,slow=9.7,SNR=4.9 0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**22.12**	**19**	P	**P**	**22 34 24.4**	**-0.2**
	1.0nm,0.9s,baz=209,slow=9.8,SNR=6.2 1.0nm,0.9s						
BVAR	**Borovoye Array**	**23.00**	**5**	P	**P**	**22 34 33.6**	**-0.3**
	1.3nm,0.6s,baz=187,slow=10,SNR=2.7 1.3nm,0.6s						
ZALV	**Zalesovo Beam**	**26.96**	**23**	P	**P**	**22 35 10.4**	**-0.1**
	0.4nm,0.4s,baz=219,slow=11,SNR=2.4 0.4nm,0.4s						
EIL	**Elat**	**28.09**	**277**	LR	LR	22 48 41.7	
	comp=Z,74nm,18.9s,baz=347,slow=41						
NRIK	**Noril'sk**	**40.94**	**11**	LR	LR	22 55 52.2	
	comp=Z,195nm,20.1s,baz=306,slow=39						
TORD	**Torodi Ar. Bea**	**62.61**	**270**	P	**P**	**22 39 53.5**	**-0.3**
	0.7nm,0.7s,baz=53,slow=5.3,SNR=3.6 0.7nm,0.7s						
WRA	**Warramunga Arr**	**81.36**	**119**	P	**P**	**22 41 45.0**	**-1.1**
	0.3nm,0.7s,baz=312,slow=5.1,SNR=2.3 0.3nm,0.7s						
ASAR	**Alice Springs**	**83.25**	**122**	P	**P**	**22 41 56.9**	**+0.9**
	0.3nm,0.6s,baz=303,slow=5.5,SNR=2.4 0.3nm,0.6s						
YKA	**Yellowknife Ar**	**87.70**	**1**	P	**P**	**22 42 18.2**	**+0.7**
	0.3nm,0.5s,baz=354,slow=4.8,SNR=4.7 0.3nm,0.5s						

*IDC **21** 22:33:57.9±0.7, 0°.10S×123°.32E, h0km, mb3.9/9, mbtmp3.9/11, ML3.9/2, MS2.8/2, Error ellipse: s-maj=26.0km s-min=12.0km az=76.0*
*DJA **21** 22:34:08.6±0.2, 0°.5±3°×12°.3E±°, h41km±16km, M4.6/21, mB5.0/2, mb4.9/2, MLv4.5/21, Mw(mB)4.3/2*

ISC 21 22:34:09.3±0.7, 0°.24S±0°.06×123°.13E±0°.06, h100km, n22, σ2s67/22, mb3.9/9, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUWI	**Luwuk**	**0.87**	**204**	P	**Pn**	**22 34 24.8**	**-3.6**
LUWI				AML	AML		
GTOI	**Gorontalo**	**0.88**	**352**	P	**Pn**	**22 34 25.8**	**-2.6**
KMSI	**Cibinong**	**1.18**	**47**	P	**Pn**	**22 34 30.3**	**-1.4**
KMSI				AML	AML		
APSI	**Ampana**	**1.62**	**246**	P	**Pn**	**22 34 34.7**	**-2.3**
APSI				AML	AML		
MNI	**Manado**	**2.40**	**46**	P	**Pn**	**22 34 46.0**	**-1.0**
PCI	**Palu**	**3.35**	**259**	P	**Pn**	**22 34 59.3**	**-0.5**
PCI				AML	AML		
SANI	**Sanana**	**3.38**	**122**	P	**Pn**	**22 34 57.0**	**-3.1**
SANI				AML	AML		
KKSI	**Kolaka, Sulawe**	**4.17**	**201**	P	**Pn**	**22 35 09.3**	**-1.5**
KKSI				AML	AML		
TTSI	**Tana Toraja**	**4.32**	**230**	P	**Pn**	**22 35 10.8**	**-2.0**
TTSI				AML	AML		
MMSI	**Mamuju**	**4.87**	**240**	P	Pn	22 35 25.4	+5.2
KAPI	**Kappang**	**5.82**	**215**	Pn	**Pn**	**22 35 31.1**	**-2.0**
	4.1nm,0.3s,baz=9.3,slow=7.3,SNR=6.6 18nm,0.5s						
KAPI				AML	AML		
DAV	**Davao City (W)**	**7.66**	**19**	LR	LR	22 38 49.8	
	comp=Z,49nm,21.8s,baz=4.0,slow=39						
FITZ	**Fitzroy Crossi**	**17.92**	**172**	P	**Pn**	**22 38 11.6**	**-0.5**
	0.2nm,0.3s,baz=0.7,slow=8.1,SNR=6.7 1.6nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.45**	**151**	P	**P**	**22 38 59.7**	**-0.5**
	2.4nm,0.9s,baz=334,slow=10.0,SNR=14 2.4nm,0.9s						
ASAR	**Alice Springs**	**25.53**	**157**	P	**P**	**22 39 30.1**	**+1.3**
	0.7nm,0.5s,baz=343,slow=15,SNR=13						
ASAR				PcP	**PcP**	**22 42 59.1**	**+1.2**
	0.2nm,0.4s,baz=348,slow=2.4,SNR=4.8						
ASAR				S	**S**	**22 43 57.6**	**+8.5**
	0.3nm,0.6s,baz=322,slow=12,SNR=4.8 0.7nm,0.5s						
CMAR	**Chiang Mai Arr**	**30.17**	**309**	P	**P**	**22 40 10.6**	**+0.4**
	0.7nm,0.3s,baz=131,slow=7.3,SNR=5.7						
CMAR				LR	LR	22 53 43.2	
	comp=Z,21nm,18.1s,baz=325,slow=39 0.7nm,0.3s						
MJAR	**Matsushiro Arr**	**39.19**	**19**	P	**P**	**22 41 24.6**	**-3.0**
	1.8nm,0.8s,baz=191,slow=9.8,SNR=6.2 1.8nm,0.8s						
SONM	**Songino Array**	**50.05**	**345**	P	**P**	**22 42 54.4**	**+0.5**
	1.8nm,0.8s,baz=157,slow=10,SNR=13 1.8nm,0.8s						
MKAR	**Makanchi Array**	**58.88**	**328**	P	**P**	**22 43 58.7**	**+1.0**
	0.9nm,0.5s,baz=124,slow=8.6,SNR=18 0.9nm,0.5s						
PETK	**Petropavlovsk-**	**60.46**	**23**	P	**P**	**22 44 09.2**	**+0.9**
	2.9nm,0.7s,baz=210,slow=4.0,SNR=5.5 2.9nm,0.7s						
ZALV	**Zalesovo Beam**	**62.58**	**336**	P	**P**	**22 44 22.5**	**-0.1**
	0.6nm,0.6s,baz=131,slow=8.2,SNR=2.4 0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**63.23**	**330**	P	**P**	**22 44 27.2**	**+0.2**
	0.9nm,0.8s,baz=132,slow=6.1,SNR=8.6 0.9nm,0.8s						

*UPP **21** 23:07:26.6±0.1, 67°.19N×20°.69E, h0km, ML2.8, Suspected explosion*
*DNK **21** 23:07:26.9±0.4, 67°.18N×20°.70E, h0km, ML2.8(UPP), Explosion*
*HEL **21** 23:07:26.8±0.4, 67°.16N×20°.68E, h0km, ML1.2, Suspected explosion*

ISC 21 23:07:26.7±0.8, 67°.18N±0°.02×20°.71E±0°.02, h0km, n31, σ0s80/48, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.08**	**222**	P	**Pg**	**23 07 28.4**	**+0.1**
DUNU				S	**Sg**	**23 07 29.6**	**+0.2**
DUNU	**Dundret**	**0.08**	**222**	P	**Pg**	**23 07 28.4**	**+0.1**
DUNU				S	**Sg**	**23 07 29.6**	**+0.2**
MASU	**Masugnsbyn**	**0.57**	**61**	P	**Pg**	**23 07 37.7**	**0.0**
MASU				S	**Sg**	**23 07 45.4**	**+0.4**
MASU	**Masugnsbyn**	**0.57**	**61**	P	**Pg**	**23 07 37.7**	**0.0**
MASU				S	**Sg**	**23 07 45.4**	**+0.4**
RATU	**Laukkuluspa**	**0.78**	**327**	P	**Pg**	**23 07 41.0**	**-0.6**
RATU				S	**Sg**	**23 07 51.4**	**-0.1**
RATU	**Laukkuluspa**	**0.78**	**327**	P	**Pg**	**23 07 41.0**	**-0.6**
RATU				S	**Sg**	**23 07 51.4**	**-0.1**
KUA	**Kurravaara**	**0.79**	**350**	P	**Pg**	**23 07 41.2**	**-0.6**
KUA				S	**Sg**	**23 07 51.8**	**-0.3**
KUA	**Kurravaara**	**0.79**	**350**	P	**Pg**	**23 07 41.2**	**-0.6**
KUA				S	**Sg**	**23 07 51.8**	**-0.3**
ERTU	**Ertsjaerv**	**0.86**	**137**	P	**Pg**	**23 07 42.5**	**-0.7**
ERTU	**Ertsjaerv**	**0.86**	**137**	P	**Pg**	**23 07 42.5**	**-0.7**
ERTU	**Ertsjaerv**	**0.86**	**137**	PG	**Pg**	**23 07 42.4**	**-0.8**
ERTU				SB	**Sg**	**23 07 54.1**	**-0.2**
SALU	**Saltoluokta**	**0.88**	**284**	P	**Pg**	**23 07 42.9**	**-0.6**
SALU				S	**Sg**	**23 07 54.6**	**-0.3**
SALU	**Saltoluokta**	**0.88**	**284**	P	**Pg**	**23 07 42.9**	**-0.6**
SALU				S	**Sg**	**23 07 54.6**	**-0.3**
NIKU	**Nikkaluokta**	**0.94**	**318**	P	**Pg**	**23 07 44.0**	**-0.8**
NIKU	**Nikkaluokta**	**0.94**	**318**	P	**Pg**	**23 07 44.0**	**-0.8**
LANU	**Lannavaara**	**1.00**	**29**	PG	**Pg**	**23 07 45.4**	**-0.4**
LANU				SN	**Sn**	**23 08 02.7**	**-0.1**
HARU	**Harads**	**1.03**	**174**	P	**Pg**	**23 07 45.4**	**-1.0**
HARU	**Harads**	**1.03**	**174**	P	**Pg**	**23 07 45.4**	**-1.0**
KOVU	**Salmi**	**1.06**	**349**	P	**Pg**	**23 07 46.4**	**-0.8**
KOVU	**Salmi**	**1.06**	**349**	P	**Pg**	**23 07 46.4**	**-0.8**
KLF	**Kolari**	**1.27**	**86**	PG	**Pg**	**23 07 49.9**	**-1.1**
KLF				MSG		23 08 05.4	
	comp=Z,1.1nm,0.2s						
KLF				SG	**Sg**	**23 08 06.7**	**-0.7**
HEF	**Hetta**	**1.66**	**41**	PG	**Pn**	**23 07 57.4**	**+0.3**
	baz=223						
HEF				MSG		23 08 17.3	
	comp=Z,1.5nm,0.2s						
HEF				SG	**Sn**	**23 08 18.0**	**-1.2**
TOF	**Tornio**	**1.82**	**126**	PG	**Pn**	**23 07 59.6**	**+0.4**
TOF				MSG		23 08 21.0	
	comp=Z,1.5nm,0.2s						
TOF				SN	**Sb**	**23 08 24.0**	**-0.1**
KTK1	**Kautokeino**	**2.07**	**26**	PG	**Pb**	**23 08 04.1**	**-1.0**
KTK1				SG	**Sb**	**23 08 31.5**	**+0.2**
RNF	**Rovaniemi**	**2.17**	**103**	PG	**Pn**	**23 08 05.2**	**+1.2**
	baz=292						
RNF				SG	**Sb**	**23 08 34.4**	**+0.2**
TRO	**Tromso**	**2.55**	**346**	SG	**Sb**	**23 08 46.0**	**+1.0**
BUPU	**Burvik**	**2.63**	**174**	PB	**Pn**	**23 08 11.7**	**+0.8**
RANF	**Ranua**	**2.69**	**113**	SG	**Sb**	**23 08 49.2**	**+0.1**
ARA0	**ARCESS Array S**	**2.96**	**35**	SB	**Sn**	**23 08 54.1**	**+3.2**
RAJF	**Raja-Jooseppi**	**3.16**	**62**	SG	**Sb**	**23 09 04.0**	**+1.3**
KEV	**Kevo**	**3.47**	**39**	SN	**Sn**	**23 09 04.0**	**+0.4**

*UPP **21** 23:15:42.8±0.1, 67°.16N×20°.70E, h0km, ML3.0, Suspected explosion*
*HEL **21** 23:15:42.8±0.5, 67°.18N×20°.60E, h0km, ML1.1, Suspected explosion*
*DNK **21** 23:15:43.2±0.3, 67°.16N×20°.70E, h0km, ML3.0(UPP), Explosion*

ISC 21 23:15:43.0±0.9, 67°.18N±0°.03×20°.73E±0°.03, h0km, n19, σ0s82/31, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.08**	**229**	P	**Pg**	**23 15 44.3**	**-0.3**
DUNU				S	**Sg**	**23 15 45.4**	**-0.3**
DUNU	**Dundret**	**0.08**	**229**	P	**Pg**	**23 15 44.3**	**-0.3**
DUNU				S	**Sg**	**23 15 45.4**	**-0.3**
MASU	**Masugnsbyn**	**0.57**	**60**	P	**Pg**	**23 15 53.9**	**0.0**
MASU				S	**Sg**	**23 16 01.9**	**+0.6**
MASU	**Masugnsbyn**	**0.57**	**60**	P	**Pg**	**23 15 53.9**	**0.0**
MASU				S	**Sg**	**23 16 01.9**	**+0.6**
ERTU	**Ertsjaerv**	**0.85**	**137**	P	**Pg**	**23 15 58.7**	**-0.6**
ERTU	**Ertsjaerv**	**0.85**	**137**	P	**Pg**	**23 15 58.7**	**-0.6**
ERTU	**Ertsjaerv**	**0.85**	**137**	PG	**Pg**	**23 15 58.6**	**-0.7**
ERTU				SB	**Sb**	**23 16 11.2**	**-1.4**
LANU	**Lannavaara**	**1.00**	**28**	PG	**Pg**	**23 16 01.2**	**-1.0**
LANU				SG	**Sg**	**23 16 14.0**	**-1.1**
KLF	**Kolari**	**1.26**	**86**	PG	**Pg**	**23 16 06.1**	**-1.0**
KLF				MSG		23 16 22.5	
	comp=Z,1.0nm,0.2s						
KLF				SG	**Sg**	**23 16 23.8**	**+0.3**
HEF	**Hetta**	**1.66**	**41**	PG	**Pn**	**23 16 12.8**	**-0.7**
	baz=228						
HEF				MSG		23 16 33.6	
	comp=Z,1.3nm,0.2s						
HEF				SG	**Sn**	**23 16 35.2**	**-0.3**
TOF	**Tornio**	**1.81**	**126**	PG	**Pn**	**23 16 15.9**	**+0.6**
TOF				MSG		23 16 38.0	
	comp=Z,1.3nm,0.2s						
TOF				SG	**Sg**	**23 16 41.3**	**+0.2**
KTK1	**Kautokeino**	**2.07**	**26**	PG	**Pn**	**23 16 20.1**	**+1.1**
KTK1				SG	**Sb**	**23 16 47.5**	**-0.2**
RNF	**Rovaniemi**	**2.16**	**103**	PG	**Pn**	**23 16 21.3**	**+1.0**
RNF				SG	**Sb**	**23 16 50.9**	**+0.7**
BURU	**Burvik**	**2.62**	**174**	PB	**Pn**	**23 16 27.1**	**+0.6**
RANF	**Ranua**	**2.69**	**113**	PG	**Pb**	**23 16 32.4**	**+0.5**
RANF				SG	**Sb**	**23 17 05.5**	**+0.1**
ARA0	**ARCESS Array S**	**2.96**	**35**	SB	**Sb**	**23 17 12.5**	**-0.7**
UMAU	**Umeaa**	**3.31**	**180**	PB	**Pn**	**23 16 36.7**	**+0.7**
	baz=359						
KEV	**Kevo**	**3.47**	**39**	SN	**Sn**	**23 17 20.8**	**+0.9**
MSF	**Maaselka**	**3.56**	**107**	SG	**Sg**	**23 17 35.0**	**-2.1**

IDC 21 23:15:53.6±5.8, 20°.09S×176°.87W, h0km, mb3.9/2, mbtmp3.9/2, Error ellipse: s-maj=290.8km s-min=58.7km az=150.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	**Alice Springs**	**45.65**	**256**	P	P	23 24 16.1	-0.2
	1.3nm,0.5s,baz=94,slow=8.2,SNR=35 1.3nm,0.5s						
WRA	**Warramunga Arr**	**45.71**	**261**	P	P	23 24 16.8	0.0
	0.4nm,0.3s,baz=97,slow=7.6,SNR=9.6 0.4nm,0.3s						
AKASG	**Malin Array Be**	**143.16**	**332**	PKP	PKPdf	23 35 28.1	-1.4
	1.1nm,0.4s,baz=45,slow=4.0,SNR=6.1						
BRTR	**Keskin Array B**	**147.34**	**313**	PKPbc	PKPbc	23 35 39.1	-0.5
	0.3nm,0.5s,baz=142,slow=4.5,SNR=4.3						

IDC 21 23:43:52.3±3.2, 24°.11S×177°.18W, h0km, mb4.0/5, mbtmp3.9/6, ML5.0/1, MS3.2/7, Error ellipse: s-maj=81.1km s-min=30.7km az=50.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**5.16**	**187**	LR	LR	23 46 28.6	
	comp=Z,64nm,18.9s,baz=52,slow=30						
MSVF	**Nonsavu**	**7.75**	**324**	Pn	Pn	23 45 46.9	+0.3
	0.7nm,0.3s,baz=99,slow=21,SNR=7.9 4.2nm,0.7s						
MSVF				AML	AML		
URZ	**Urewera**	**14.92**	**198**	LR	LR	23 52 16.3	
	comp=Z,156nm,20.1s,baz=14,slow=34						
DZM	**Mont Dzumac**	**15.20**	**274**	LR	LR	23 51 37.3	
	comp=Z,134nm,20.8s,baz=320,slow=31						
RAR	**Rarotonga**	**16.33**	**83**	LR	LR	23 52 25.2	
	comp=Z,55nm,20.8s,baz=269,slow=31						
HNR	**Honiara**	**26.25**	**300**	LR	LR	23 58 18.3	
	comp=Z,53nm,18.6s,baz=277,slow=33						
PPT	**Papeete**	**26.58**	**81**	LR	LR	23 56 55.5	
	comp=Z,45nm,20.3s,baz=215,slow=30						
CTA	**Charters Tower**	**34.05**	**269**	P	P	23 50 39.7	+1.1
	3.5nm,0.7s,baz=108,slow=13,SNR=1.6 3.5nm,0.7s						
ASAR	**Alice Springs**	**44.54**	**260**	P	P	23 52 06.2	+0.1
	1.3nm,0.9s,baz=90,slow=8.2,SNR=10						
ASAR				LR	LR	00 08 42.5	
	comp=Z,47nm,21.6s,baz=96,slow=34 1.3nm,0.9s						
WRA	**Warramunga Arr**	**44.96**	**265**	P	P	23 52 08.1	-1.4
	0.9nm,0.8s,baz=103,slow=8.0,SNR=5.1 0.9nm,0.8s						
QSPA	**South Pole Qui**	**65.97**	**180**	P	P	23 54 40.4	+0.1
	0.6nm,0.8s,baz=342,slow=2.6,SNR=1.9 0.6nm,0.8s						
MAW	**Mawson**	**78.44**	**200**	P	P	23 55 54.7	+0.1
	2.5nm,0.9s,baz=111,slow=3.9,SNR=5.4 2.5nm,0.9s						
H03S2	**Juan Fernandez**	**83.34**	**124**	T	T	01 28 14.1	
	baz=244,slow=74,SNR=4.2						
H03S1	**Juan Fernandez**	**83.36**	**124**	T	T	01 28 18.7	
	baz=244,slow=74,SNR=4.7						
H03S3	**Juan Fernandez**	**83.36**	**124**	T	T	01 28 10.2	
	baz=244,slow=74,SNR=4.8						

*MDD **21** 23:47:16.7±0.6, 35°.54N×3°.72W, h0km, mb_Lg2.2/15, Error ellipse: s-maj=4.8km s-min=2.7km az=34.0*
*SFS **21** 23:47:17.7, 35°.56N×3°.67W, h0km, ML2.2/5, ML2.5/5, MLv2.6/5*
*CNRM **21** 23:47:18.9, 35°.53N×3°.77W, h25km, ML1.9*

ISC 21 23:47:16.5±1.1, 35°.55N±0°.02×3°.68W±0°.03, h12km±10km, n24, σ1s105/44, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.40**	**212**	P	**Pb**	**23 47 25.9**	**+0.4**
PALE				S	**Sb**	**23 47 32.0**	**+0.4**
WMELI	**Melilla**	**0.64**	**111**	Pg	**Pb**	**23 47 29.3**	**-0.3**
WMELI				Sg	**Sg**	**23 47 37.1**	**-0.2**
EMEL	**Melilla**	**0.64**	**113**	Pg	**Pb**	**23 47 29.3**	**-0.4**
EMEL				Sg	**Sg**	**23 47 37.5**	**+0.1**
EMLI	**Melilla**	**0.65**	**113**	Pg	**Pb**	**23 47 29.3**	**-0.4**
AKLM	**AKL**	**1.05**	**188**	P	**Pn**	**23 47 37.2**	**0.0**
AKLM				S	**Sg**	**23 47 50.0**	**-0.5**
ELGU	**Los Guajares,**	**1.31**	**2**	Pg	**Pg**	**23 47 42.1**	**+0.4**
ELGU				Sg	**Sg**	**23 47 59.6**	**+0.8**
ELGU	**Los Guajares,**	**1.31**	**2**	Pg	**Pg**	**23 47 41.9**	**+0.1**
ELGU				Sg	**Sg**	**23 47 59.1**	**+0.4**
ELGU				IVmb_Lg		23 48 00.7	
EMIJ	**Mijas**	**1.34**	**319**	Pn	**Pg**	**23 47 42.9**	**+0.6**
EMIJ				Sg	**Sg**	**23 47 59.7**	**-0.1**
EMIJ	**Mijas**	**1.34**	**319**	Pg	**Pn**	**23 47 41.5**	**+0.3**
EMIJ				Sg	**Sg**	**23 47 59.5**	**-0.2**
EMIJ				IVmb_Lg		23 48 03.1	
EMAL	**Malaga-Limoner**	**1.35**	**334**	Pn	**Pg**	**23 47 43.0**	**+0.5**
EMAL				Sg	**Sg**	**23 48 00.4**	**+0.4**
SMIR	**Smir Dam**	**1.39**	**276**	P	**Pn**	**23 47 41.6**	**-0.2**
SMIR				S	**Sn**	**23 48 00.3**	**+0.2**
ECEU	**Ceuta**	**1.42**	**284**	Sn	**Sb**	**23 48 01.5**	**+0.4**
ECEU				IVmb_Lg		23 48 02.6	
EBER	**Berja**	**1.48**	**25**	Pg	**Pg**	**23 47 45.7**	**+0.6**
EBER				Sn	**Sg**	**23 48 04.3**	**-0.1**
EBER				IVmb_Lg		23 48 07.2	
JBK	**JBK**	**1.52**	**143**	P	**Pg**	**23 47 45.2**	**-0.6**
JBK				S	**Sb**	**23 48 04.0**	**-0.2**
EGOR	**Sierra Gorda,**	**1.59**	**348**	Sn	**Sb**	**23 48 06.2**	**+0.1**
EQUE	**Quentar**	**1.66**	**7**	Pg	**Pg**	**23 47 49.3**	**+0.9**
EQUE				Sg	**Sb**	**23 48 09.2**	**+1.2**
EQUE				IVmb_Lg		23 48 16.0	
ESPR	**Espera**	**2.19**	**307**	Pn	**Pn**	**23 47 51.0**	**-1.8**
ESPR				Sn	**Sn**	**23 48 19.**	**-0.4**
ESPR				IVmb_Lg		23 48 21.0	
ESPR				Sg	**Sg**	**23 48 27.1**	**0.0**
EQES	**Quesada**	**2.30**	**12**	Pg	**Pb**	**23 47 58.4**	**+0.4**
EQES				Sg	**Sb**	**23 48 27.2**	**+0.8**
EQES				IVmb_Lg		23 48 29.9	
EADA	**Adamuz**	**2.71**	**345**	Pg	**Pb**	**23 48 05.0**	**+0.1**
EADA				Sg	**Sg**	**23 48 41.5**	**-1.9**
EADA				IVmb_Lg		23 48 43.3	
MD31	**MD31**	**2.83**	**199**	P	**Pn**	**23 48 02.7**	**+1.1**
MD31				S	**Sn**	**23 48 35.2**	**-0.5**
MDT	**Midelt**	**2.84**	**196**	P	**Pn**	**23 48 02.9**	**+1.1**
MDT				S	**Sn**	**23 48 36.1**	**+0.1**
ECAB	**El Cabril**	**2.88**	**332**	Sn	**Sn**	**23 48 35.1**	**-1.8**

KURK	**Kurchatov**	**38.40**	**346**	P	**P**	**00 08 01.3**	**-0.4**
KURK				IAmb	IAmb	00 08 13.2	
	comp=Z,4.1nm,1.0s						
KSRS	**Korea Array**	**39.07**	**47**	P	**P**	**00 08 08.8**	**+1.3**
	comp=Z,1.8nm,1.1s,baz=235,slow=10,SNR=3.5						
	comp=Z,1.8nm,1.1s						
ZALV	**Zalesovo Beam**	**40.37**	**353**	P	**P**	**00 08 20.4**	**+2.2**
	comp=Z,0.5nm,0.6s,baz=173,slow=8.8,SNR=6.6						
	comp=Z,0.5nm,0.6s						
ZALV	**Zalesovo Beam**	**40.37**	**353**	P	**P**	**00 08 18.5**	**+0.4**
BVAR	**Borovoye Array**	**42.81**	**340**	P	**P**	**00 08 40.8**	**+2.6**
	comp=Z,0.4nm,0.5s,baz=134,slow=11,SNR=5.1						
	comp=Z,0.4nm,0.5s						
AB31	**Akbulak array**	**44.27**	**329**	P	**P**	**00 08 46.6**	**-3.3**
AB31				IAmb	IAmb	00 09 02.6	
	comp=Z,3.9nm,0.9s						
ABKAR	**Akbulak array**	**44.27**	**329**	P	**P**	**00 08 46.8**	**-3.1**
FITZ	**Fitzroy Crossi**	**45.50**	**134**	P	**P**	**00 08 58.8**	**-1.2**
	comp=Z,1.4nm,0.7s,baz=333,slow=4.4,SNR=1.7						
	comp=Z,1.4nm,0.7s						
FITZ	**Fitzroy Crossi**	**45.50**	**134**	P	**P**	**00 08 59.6**	**-0.4**
WRA	**Warramunga Arr**	**53.04**	**129**	P	**P**	**00 09 56.8**	**-1.0**
	comp=Z,0.5nm,0.7s,baz=309,slow=7.3,SNR=3.3						
	comp=Z,0.5nm,0.7s						
WR8	**Warramunga Arr**	**53.17**	**128**	P	**P**	**00 09 58.3**	**-0.4**
WR8				IAmb	IAmb	00 10 22.2	
	comp=Z,7.0nm,1.2s						
ASAR	**Alice Springs**	**54.97**	**132**	P	**P**	**00 10 10.7**	**-1.1**
	comp=Z,0.5nm,0.5s,baz=307,slow=6.5,SNR=13						
	comp=Z,0.5nm,0.5s						
BRTR	**Keskin Array B**	**57.48**	**308**	P	**P**	**00 10 32.4**	**+2.6**
	comp=Z,0.7nm,1.0s,baz=119,slow=8.0,SNR=8.9						
	comp=Z,0.7nm,1.0s						
BRTR	**Keskin Array B**	**57.48**	**308**	P	**P**	**00 10 29.2**	**-0.6**
FINES	**FINESS Array B**	**66.71**	**331**	P	**P**	**00 11 33.3**	**+2.2**
	comp=Z,3.0nm,0.9s,baz=94,slow=4.2,SNR=5.1						
	comp=Z,3.0nm,0.9s						
FINES	**FINESS Array B**	**66.71**	**331**	P	**P**	**00 11 31.5**	**+0.4**
ARCES	**ARCESS Array B**	**69.10**	**340**	P	**P**	**00 11 48.5**	**+2.5**
	comp=Z,6.5nm,1.1s,baz=69,slow=4.0,SNR=3.6						
	comp=Z,6.5nm,1.1s						
GERES	**GERESS Array B**	**72.40**	**317**	P	**P**	**00 12 09.8**	**+3.2**
	comp=Z,0.3nm,0.5s,baz=108,slow=4.3,SNR=4.9						
	comp=Z,0.3nm,0.5s						
GERES	**GERESS Array B**	**72.40**	**317**	P	**P**	**00 12 07.1**	**+0.5**
BOSA	**Boshof**	**77.69**	**236**	P	**P**	**00 12 36.8**	**-0.7**
	comp=Z,1.2nm,0.9s,baz=99,slow=4.3,SNR=8.6						
	comp=Z,1.2nm,0.9s						
BOSA	**Boshof**	**77.69**	**236**	P	**P**	**00 12 36.6**	**-0.9**

UPP ***22*** *00:26:53.3±0.1, 67.82N×20.20E, h0km, ML3.0, Suspected explosion*
DNK ***22*** *00:26:53.7±0.4, 67.83N×20.21E, h0km, ML3.0(UPP), Explosion*
HEL ***22*** *00:26:54.2±0.3, 67.82N×20.28E, h0km, ML1.3, Suspected explosion*

ISC 22 00:26:52.6±0.8**, 67.79N**±0.02×**20.32E**±0.02**, h0**km**, n35,** σ1s**21**/54**, Sweden**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RATU	**Laukkuluspa**	**0.28**	**278**	P	**Pg**	**00 26 57.9**	**0.0**
RATU				S	**Sg**	**00 27 01.3**	**-0.1**
RATU	**Laukkuluspa**	**0.28**	**278**	P	**Pg**	**00 26 57.9**	**0.0**
RATU				S	**Sg**	**00 27 01.3**	**-0.1**
KOVU	**Salmi**	**0.44**	**352**	P	**Pg**	**00 27 01.0**	**-0.1**
KOVU				S	**Sg**	**00 27 06.3**	**-0.5**
KOVU	**Salmi**	**0.44**	**352**	P	**Pg**	**00 27 01.0**	**-0.1**
KOVU				S	**Sg**	**00 27 06.3**	**-0.5**
NIKU	**Nikkaluokta**	**0.49**	**280**	P	**Pg**	**00 27 01.8**	**-0.2**
NIKU				S	**Sg**	**00 27 08.1**	**-0.3**
NIKU	**Nikkaluokta**	**0.49**	**280**	P	**Pg**	**00 27 01.8**	**-0.2**
NIKU				S	**Sg**	**00 27 08.1**	**-0.3**
DUNU	**Dundret**	**0.68**	**172**	P	**Pb**	**00 27 06.7**	**-0.5**
DUNU	**Dundret**	**0.68**	**172**	P	**Pb**	**00 27 06.7**	**-0.5**
LANU	**Lannavaara**	**0.69**	**67**	PG	**Pb**	**00 27 06.6**	**-0.8**
LANU				SG	**Sg**	**00 27 14.9**	**+0.3**
MASU	**Masugnsbyn**	**0.72**	**116**	P	**Pb**	**00 27 08.1**	**0.0**
MASU				S	**Sb**	**00 27 18.6**	**+0.1**
MASU	**Masugnsbyn**	**0.72**	**116**	P	**Pb**	**00 27 08.1**	**0.0**
MASU				S	**Sb**	**00 27 18.6**	**+0.1**
SALU	**Saltoluokta**	**0.81**	**240**	P	**Pg**	**00 27 08.1**	**+0.1**
SALU	**Saltoluokta**	**0.81**	**240**	*e*P	**Pg**	**00 27 08.4**	**+0.5**
SALU	**Saltoluokta**	**0.81**	**240**	P	**Pg**	**00 27 08.1**	**+0.1**
HEF	**Hetta**	**1.40**	**62**	*e*P	**Pn**	**00 27 19.1**	**-0.3**
HEF	**Hetta**	**1.40**	**62**	PG	**Pb**	**00 27 19.4**	**-0.2**
HEF				MSG		00 27 36.5	
	comp=Z,2.3nm,0.2s						
HEF				SN	**Sn**	**00 27 41.8**	**+3.3**
ERTU	**Ertsjaerv**	**1.44**	**149**	P	**Pb**	**00 27 20.6**	**+0.4**
ERTU	**Ertsjaerv**	**1.44**	**149**	P	**Pb**	**00 27 20.6**	**+0.4**
ERTU	**Ertsjaerv**	**1.44**	**149**	PG	**Pb**	**00 27 20.4**	**+0.3**
ERTU				SN	**Sn**	**00 27 41.4**	**+2.1**
KLF	**Kolari**	**1.51**	**110**	PG	**Pg**	**00 27 21.8**	**+0.3**
KLF				MSG		00 27 40.1	
	comp=Z,1.7nm,0.2s						
KLF				SG	**Sn**	**00 27 42.8**	**+1.7**
KTK1	**Kautokeino**	**1.64**	**40**	PG	**Pb**	**00 27 23.2**	**-0.5**
KTK1				SN	**Sg**	**00 27 45.8**	**+0.6**
HARU	**Harads**	**1.65**	**171**	P	**Pg**	**00 27 24.1**	**-0.1**
HARU	**Harads**	**1.65**	**171**	P	**Pg**	**00 27 24.1**	**-0.1**
TRO	**Tromso**	**1.92**	**345**	SG	**Sb**	**00 27 52.5**	**-0.5**
TOF	**Tornio**	**2.33**	**135**	PB	**Pb**	**00 27 35.0**	**-0.4**
TOF				MSG		00 28 04.2	
	comp=Z,1.1nm,0.2s						
TOF				SG	**Sg**	**00 28 07.2**	**-0.1**
RNF	**Rovaniemi**	**2.52**	**115**	PB	**Pb**	**00 27 37.8**	**-0.7**
RNF				SG	**Sg**	**00 28 12.9**	**-0.4**
ARA0	**ARCESS Array S**	**2.59**	**45**	PB	**Pb**	**00 27 37.8**	**-2.0**
	baz=228						
ARA0				SB	**Sb**	**00 28 10.9**	**-1.1**
RAJF	**Raja-Jooseppi**	**3.07**	**73**	PN	**Pb**	**00 27 45.2**	**-2.9**
RAJF				SB	**Sb**	**00 28 27.3**	**+1.3**
RANF	**Ranua**	**3.11**	**122**	PG	**Pg**	**00 27 51.4**	**-0.7**
RANF				SG	**Sg**	**00 28 30.2**	**-2.2**
KEV	**Kevo**	**3.14**	**48**	SN	**Sn**	**00 28 22.9**	**+1.7**
BURU	**Burvik**	**3.25**	**172**	PB	**Pb**	**00 27 48.0**	**-2.9**
OUL	**Oulu**	**3.52**	**138**	PG	**Pg**	**00 27 58.0**	**-1.9**
	baz=327						
VRF	**Varrio**	**3.53**	**86**	PG	**Pb**	**00 27 57.8**	**+1.9**
OLKF	**Oulanka, Finla**	**3.85**	**108**	PG	**Pg**	**00 28 04.0**	**-2.3**
KU6	**Riekki**	**4.17**	**111**	PG	**Pb**	**00 28 09.3**	**+2.7**
	baz=296						
KU6				SG	**Sg**	**00 29 05.7**	**-0.5**

UPP ***22*** *00:31:01.5±0.0, 67.85N×20.21E, h0km, ML2.8, Suspected explosion*
DNK ***22*** *00:31:01.9±0.8, 67.86N×20.21E, h0km, ML2.8(UPP), Explosion*
HEL ***22*** *00:31:02.1±0.3, 67.84N×20.15E, h0km, ML1.7, Suspected explosion*

ISC 22 00:31:01.9±0.8**, 67.85N**±0.02×**20.22E**±0.02**, h0**km**, n39,** σ0s**86**/64**, Sweden**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RATU	**Laukkuluspa**	**0.24**	**264**	P	**Pg**	**00 31 06.2**	**-0.3**
	baz=77						
RATU				S	**Sg**	**00 31 09.1**	**-0.4**
RATU	**Laukkuluspa**	**0.24**	**264**	P	**Pg**	**00 31 06.2**	**-0.3**
	baz=77						
RATU				S	**Sg**	**00 31 09.1**	**-0.4**
KOVU	**Salmi**	**0.38**	**357**	P	**Pg**	**00 31 08.8**	**-0.3**
KOVU				S	**Sg**	**00 31 13.8**	**-0.1**
KOVU	**Salmi**	**0.38**	**357**	P	**Pg**	**00 31 08.8**	**-0.3**
KOVU				S	**Sg**	**00 31 13.8**	**-0.1**
NIKU	**Nikkaluokta**	**0.45**	**273**	P	**Pg**	**00 31 10.0**	**-0.5**
NIKU				S	**Sg**	**00 31 16.3**	**0.0**
NIKU	**Nikkaluokta**	**0.45**	**273**	P	**Pg**	**00 31 10.0**	**-0.5**
NIKU				S	**Sg**	**00 31 16.3**	**0.0**
LANU	**Lannavaara**	**0.70**	**73**	P	**Pg**	**00 31 14.8**	**-0.5**
LANU	**Lannavaara**	**0.70**	**73**	P	**Pg**	**00 31 14.8**	**-0.5**
LANU	**Lannavaara**	**0.70**	**73**	PG	**Pg**	**00 31 14.8**	**-0.5**
LANU				SG	**Sg**	**00 31 24.4**	**+0.1**
DUNU	**Dundret**	**0.74**	**169**	P	**Pg**	**00 31 15.3**	**-0.8**
DUNU				S	**Sg**	**00 31 25.4**	**-0.4**
DUNU	**Dundret**	**0.74**	**169**	P	**Pg**	**00 31 15.3**	**-0.8**
DUNU				S	**Sg**	**00 31 25.4**	**-0.4**
MASU	**Masugnsbyn**	**0.79**	**119**	P	**Pg**	**00 31 16.4**	**-0.6**
MASU				S	**Sg**	**00 31 27.2**	**+0.1**
MASU	**Masugnsbyn**	**0.79**	**119**	P	**Pg**	**00 31 16.4**	**-0.6**
MASU				S	**Sg**	**00 31 27.2**	**+0.1**
SALU	**Saltoluokta**	**0.81**	**235**	P	**Pg**	**00 31 16.6**	**-0.8**
SALU				S	**Sg**	**00 31 27.8**	**0.0**
SALU	**Saltoluokta**	**0.81**	**235**	*e*P	**Pg**	**00 31 16.6**	**-0.8**
SALU	**Saltoluokta**	**0.81**	**235**	P	**Pg**	**00 31 16.6**	**-0.8**
SALU				S	**Sg**	**00 31 27.8**	**0.0**
HEF	**Hetta**	**1.41**	**65**	*e*P	**Pn**	**00 31 27.1**	**-1.7**
HEF	**Hetta**	**1.41**	**65**	PG	**Pn**	**00 31 27.5**	**-1.2**
HEF				MSG		00 31 45.1	
	comp=Z,6.4nm,0.2s						
HEF				SG	**Sg**	**00 31 46.0**	**-1.1**
ERTU	**Ertsjaerv**	**1.51**	**149**	P	**Pn**	**00 31 28.9**	**-1.3**
ERTU	**Ertsjaerv**	**1.51**	**149**	P	**Pn**	**00 31 28.9**	**-1.3**
ERTU	**Ertsjaerv**	**1.51**	**149**	PG	**Pn**	**00 31 28.9**	**-1.3**
ERTU				SN	**Sg**	**00 31 49.9**	**-0.5**
KLF	**Kolari**	**1.57**	**112**	PG	**Pn**	**00 31 30.1**	**-0.8**
KLF				MSG		00 31 49.5	
	comp=Z,5.3nm,0.2s						
KLF				SN	**Sg**	**00 31 52.8**	**+0.7**
KTK1	**Kautokeino**	**1.61**	**42**	PG	**Pn**	**00 31 30.9**	**-0.7**
KTK1				SN	**Sn**	**00 31 52.4**	**-0.8**
HARU	**Harads**	**1.72**	**170**	P	**Pn**	**00 31 32.7**	**-0.4**
HARU	**Harads**	**1.72**	**170**	P	**Pn**	**00 31 32.7**	**-0.4**
TRO	**Tromso**	**1.85**	**346**	PG	**Pn**	**00 31 35.3**	**+0.4**
TRO				SN	**Sn**	**00 31 59.6**	**+0.6**
TOF	**Tornio**	**2.40**	**136**	PB	**Pn**	**00 31 43.3**	**+0.9**
TOF				MSG		00 32 13.6	
	comp=Z,3.2nm,0.2s						
TOF				SB	**Sb**	**00 32 14.8**	**-1.2**
ARA0	**ARCESS Array S**	**2.57**	**46**	PB	**Pn**	**00 31 45.0**	**+0.3**
ARA0				SG	**Sb**	**00 32 19.1**	**-1.8**
RNF	**Rovaniemi**	**2.58**	**116**	PB	**Pn**	**00 31 46.1**	**+1.3**
RNF				SB	**Sb**	**00 32 20.3**	**-0.8**
RAJF	**Raja-Jooseppi**	**3.09**	**75**	PN	**Pn**	**00 31 52.0**	**+0.2**
RAJF				SN	**Sn**	**00 32 30.7**	**+1.2**
KEV	**Kevo**	**3.12**	**49**	PN	**Pn**	**00 31 53.3**	**+1.0**
	baz=234						
KEV				SN	**Sn**	**00 32 32.0**	**+1.8**
RANF	**Ranua**	**3.18**	**122**	PN	**Pn**	**00 31 54.1**	**+1.0**
BURU	**Burvik**	**3.31**	**171**	PB	**Pn**	**00 31 56.2**	**+1.3**
BURU				SB	**Sn**	**00 32 36.8**	**+1.8**
VRF	**Varrio**	**3.57**	**87**	PG	**Pb**	**00 32 06.1**	**+0.3**
KU2	**Taivalkoski**	**3.83**	**120**	PG	**Pb**	**00 32 11.4**	**+1.1**
	baz=309						
OLKF	**Oulanka, Finla**	**3.91**	**109**	PN	**Pn**	**00 32 04.1**	**+1.0**
MSF	**Maaselka**	**3.99**	**115**	SN	**Sn**	**00 32 52.2**	**+0.7**
KU6	**Riekki**	**4.22**	**111**	PG	**Pb**	**00 32 17.5**	**+0.6**
KU1	**Kurvinen**	**4.36**	**117**	PN	**Pn**	**00 32 10.4**	**+1.1**
KU1				SN	**Sn**	**00 33 01.0**	**+0.3**

GII ***22*** *00:34:04.6±0.0, 36.975N±0.004×20.223E±0.001, h0km, Mws3.9, confirmed*
THE ***22*** *00:34:13.8, 37.N±3.×2.0E±., h0km±2km, M3.3/15, MLh3.3/15*
BEO ***22*** *00:34:14.6±0.7, 37.06N×20.17E, h52km±4km, ML3.6/20*
ATH ***22*** *00:34:14.7±0.4, 37.22N×20.39E, h5km, ML3.3/23, Latitude uncertainty: 1 km; Longitude uncertainty: 3 km*
PDG ***22*** *00:34:15.3±0.7, 37.20N×20.33E, h24km±2km, ML3.5/9, Error ellipse: s-maj=1.2km s-min=1.4km az=0.0*
IDC ***22*** *00:34:16.1±2.7, 37.69N×21.07E, h0km, mb3.9/2, mbtmp3.4/4, ML2.9/2, Error ellipse: s-maj=46.0km s-min=28.1km az=32.0*
NEIC ***22*** *00:34:17.3±1.4, 37.33N±0.08×20.34E±0.03, h42km±15km, mb4.4/3, Error ellipse: s-maj=11.6km s-min=3.7km az=185.0*

ISC 22 00:34:11.5±0.6**, 37.19N**±0.03×**20.35E**±0.03**, h6**km**, n166,** σ2s**50**/216**, mb4.2/3, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LTHK	**Lithakia**	**0.65**	**37**	P	**Pb**	**00 34 26.4**	**+1.2**
LTHK				S	**Sb**	**00 34 36.6**	**+2.1**
LTHK				AML	AML		
LTHK	**Lithakia**	**0.65**	**37**	P	**Pb**	**00 34 26.3**	**+1.0**
LTHK				S	**Sb**	**00 34 35.0**	**+0.5**
LTHK				AML	AML		
KYPS	**Kipseli, Zakin**	**0.73**	**31**	P	**Pn**	**00 34 28.5**	**+0.1**
KYPS				S	**Sb**	**00 34 38.1**	**+1.1**
CLEM	**Kyllini,Ilia,G**	**0.94**	**41**	P	**Pn**	**00 34 32.1**	**+0.9**
PSDA	**Pessada-Kefalo**	**0.94**	**11**	P	**Pn**	**00 34 32.2**	**+0.9**
PSDA				AML	AML		
PSDA	**Pessada-Kefalo**	**0.94**	**11**	P	**Pn**	**00 34 32.1**	**+0.9**
PSDA				S	**Sb**	**00 34 44.4**	**+1.4**
PSDA				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.95**	**21**	P	**Pn**	**00 34 32.5**	**+1.1**
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.95**	**21**	P	**Pn**	**00 34 32.5**	**+1.1**
RTZL				S	**Sb**	**00 34 43.9**	**+0.8**
VLS	**Valsamata**	**1.00**	**11**	P	**Pn**	**00 34 33.1**	**+0.9**
VLS				AML	AML		
VLS	**Valsamata**	**1.00**	**11**	P	**Pn**	**00 34 32.8**	**+0.6**
VLS				S	**Sb**	**00 34 46.5**	**+1.7**
VLS				AML	AML		
LXR1	**Lixouri, Cepha**	**1.01**	**4**	P	**Pn**	**00 34 33.1**	**+0.9**
LCHA	**Lechaina**	**1.04**	**44**	P	**Pn**	**00 34 34.4**	**+1.8**
LCHA				S	**Sn**	**00 34 47.9**	**+0.4**
DMLN	**Damoulianata-K**	**1.05**	**1**	P	**Pn**	**00 34 33.8**	**+1.0**
DMLN				S	**Sn**	**00 34 49.4**	**+1.6**
DMLN	**Damoulianata-K**	**1.05**	**1**	P	**Pn**	**00 34 33.7**	**+0.9**
ZARO	**Zacharo**	**1.08**	**74**	P	**Pn**	**00 34 34.7**	**+1.6**
ZARO				AML	AML		
PYL1	**Pylos**	**1.11**	**104**	P	**Pn**	**00 34 34.9**	**+1.4**
PYL1				AML	AML		
AMT	**Artemida-Makis**	**1.14**	**72**	P	**Pn**	**00 34 35.7**	**+1.8**
AMT				AML	AML		
AMT	**Artemida-Makis**	**1.14**	**72**	P	**Pn**	**00 34 35.5**	**+1.5**
AMT				AML	AML		
MTHA	**Methoni**	**1.15**	**108**	P	**Pn**	**00 34 35.5**	**+1.4**
VSK1	**VASILIKIADES**	**1.23**	**8**	P	**Pn**	**00 34 36.8**	**+1.5**
RLS	**Riolos of Patr**	**1.24**	**45**	P	**Pn**	**00 34 37.4**	**+2.0**
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.24**	**45**	P	**Pn**	**00 34 37.0**	**+1.6**
RLS				S	**Sb**	**00 34 52.5**	**+1.0**
ITM	**Ithomi**	**1.26**	**90**	P	**Pg**	**00 34 37.7**	**+2.0**
ITM				AML	AML		
ITM	**Ithomi**	**1.26**	**90**	Pn	**Pg**	**00 34 37.4**	**+1.8**
ITM					**Sn**	**00 34 55.1**	**+2.2**
ITM	**Ithomi**	**1.26**	**90**	P	**Pg**	**00 34 37.2**	**+1.6**
ITM				AML	AML		
AXS	**Araxos**	**1.29**	**39**	P	**Pg**	**00 34 38.6**	**+2.3**
AXS				AML	AML		
AXS	**Araxos**	**1.29**	**39**	P	**Pg**	**00 34 38.2**	**+1.9**
DRO	**Drossia**	**1.32**	**54**	P	**Pg**	**00 34 38.6**	**+1.8**
DRO				AML	AML		
DRO	**Drossia**	**1.32**	**54**	P	**Pg**	**00 34 38.4**	**+1.6**
DRO				AML	AML		
EVGI	**Lefkada island**	**1.45**	**9**	P	**Pg**	**00 34 40.3**	**+1.0**
EVGI				AML	AML		
MSL1	**Messolongi**	**1.46**	**35**	P	**Pg**	**00 34 41.5**	**+2.1**
AST1	**Astakos**	**1.47**	**23**	P	**Pg**	**00 34 41.3**	**+1.6**
PLEV	**Plevrona-Mesol**	**1.48**	**34**	P	**Pg**	**00 34 41.5**	**+1.6**
DRAG	**Dragano-Lefkad**	**1.50**	**7**	P	**Pg**	**00 34 41.2**	**+0.8**
DRAG	**Dragano-Lefkad**	**1.50**	**7**	P	**Pg**	**00 34 40.9**	**+0.6**
PATG	**Patra B**	**1.51**	**46**	P	**Pg**	**00 34 42.1**	**+1.6**
NYDR	**Nydri-Lefkada**	**1.55**	**10**	P	**Pg**	**00 34 42.0**	**+0.9**
NYDR				S	**Sg**	**00 35 04.5**	**+3.2**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**1.55**	**10**	P	**Pg**	**00 34 41.8**	**+0.7**
PATC	**Patra C**	**1.55**	**46**	P	**Pg**	**00 34 42.7**	**+1.4**
PDO	**Prodromos**	**1.55**	**25**	P	**Pg**	**00 34 42.6**	**+1.3**
PDO				AML	AML		
PDO	**Prodromos**	**1.55**	**25**	P	**Pg**	**00 34 42.4**	**+1.1**
LKD2	**Lefkada island**	**1.62**	**9**	P	**Pb**	**00 34 42.9**	**+1.1**
LKD2				AML	AML		
AGRP	**Agrapidokambos**	**1.62**	**42**	P	**Pg**	**00 34 43.5**	**+0.9**
KLV1	**Kalavrita**	**1.63**	**58**	P	**Pb**	**00 34 43.3**	**+1.3**
KLV1				AML	AML		
TSLK	**Tsoukalades, L**	**1.65**	**8**	P	**Pb**	**00 34 43.5**	**+1.1**
KLV	**Kalavryta, Ach**	**1.66**	**59**	P	**Pb**	**00 34 43.6**	**+1.0**
LAKA	**Lakka**	**1.66**	**50**	P	**Pg**	**00 34 44.1**	**+0.7**
VVK	**Vomvokou**	**1.69**	**43**	P	**Pg**	**00 34 44.8**	**+0.8**
PVO	**Paravola**	**1.70**	**33**	P	**Pg**	**00 34 45.1**	**+1.0**
PVO				AML	AML		
PVO	**Paravola**	**1.70**	**33**	P	**Pg**	**00 34 44.9**	**+0.7**
PVO				AML	AML		
AGEO	**AgiosGiorgios,**	**1.73**	**51**	P	**Pg**	**00 34 45.5**	**+0.8**
EFP	**Efpalio**	**1.75**	**44**	P	**Pg**	**00 34 45.5**	**+0.6**
EFP				AML	AML		
GUR	**Goura**	**1.75**	**64**	P	**Pb**	**00 34 44.6**	**+0.5**
GUR				AML	AML		
MG00	**Magoula, Dorid**	**1.76**	**45**	P	**Pg**	**00 34 45.8**	**+0.6**
MG00				AML	AML		
PYRG	**Pyrgos, Dorida**	**1.80**	**47**	P	**Pb**	**00 34 46.3**	**+1.4**
SERG	**Sergoula**	**1.82**	**47**	P	**Pb**	**00 34 46.6**	**+1.4**
SERG				AML	AML		
KALE	**Kalithea**	**1.86**	**49**	P	**Pb**	**00 34 46.1**	**+0.2**
KALE				AML	AML		
KALE	**Kalithea**	**1.86**	**49**	P	**Pb**	**00 34 47.2**	**+1.3**
KALE				AML	AML		
AMPL	**Ampelaki**	**1.86**	**21**	P	**Pb**	**00 34 46.3**	**+0.4**
AMPL				AML	AML		
ANX	**Ano Chora**	**1.87**	**41**	P	**Pb**	**00 34 47.6**	**+1.4**
ANX	**Ano Chora**	**1.87**	**41**	P	**Pb**	**00 34 47.4**	**+1.2**
ANX				AML	AML		
THAL	**Thalero**	**2.02**	**65**	P	**Pb**	**00 34 48.8**	**+0.1**
ARTB	**Arta**	**2.03**	**14**	P	**Pb**	**00 34 48.7**	**0.0**
EVR	**Evrytania**	**2.07**	**33**	P	**Pb**	**00 34 50.4**	**+0.8**
EVR				AML	AML		
ACOR	**Acrocorinthos**	**2.12**	**70**	P	**Pn**	**00 34 49.5**	**+2.0**
VLI	**Veliai**	**2.12**	**102**	P	**Pb**	**00 34 51.0**	**+0.6**
DLFA	**Delphi**	**2.13**	**52**	P	**Pb**	**00 34 50.6**	**0.0**
LTK	**Loutraki**	**2.24**	**67**	P	**Pn**	**00 34 51.0**	**+1.8**
EPID	**Epidavros**	**2.25**	**78**	P	**Pn**	**00 34 51.1**	**+1.9**
TETR	**Tetrakomo, Epi**	**2.27**	**18**	P	**Pb**	**00 34 52.5**	**-0.5**
TETR				AML	AML		
MET3	**Ano Fanari,Met**	**2.32**	**80**	P	**Pn**	**00 34 52.0**	**+1.7**
IGT	**Igoumenitsa**	**2.34**	**360**	*e*Pn	**Pn**	**00 34 52.0**	**+1.5**
IGT				*e*Sn	**Sn**	**00 35 18.8**	**-0.8**
IGT				*e*Sg	**Sg**	**00 35 33.1**	**+6.4**
IGT	**Igoumenitsa**	**2.34**	**360**	P	**Pn**	**00 34 51.9**	**+1.4**
KTHA	**Kythira Island**	**2.37**	**112**	P	**Pn**	**00 34 53.8**	**+2.9**
AGG	**Agios Georgios**	**2.41**	**40**	Pn	**Pn**	**00 34 54.1**	**+2.7**
KEK	**Kerkira**	**2.56**	**350**	Pn	**Pn**	**00 34 52.7**	**-0.8**
PLAC	**Placanica**	**3.34**	**293**	P	**Pn**	**00 35 07.2**	**+2.8**
LIT	**Litokhoron**	**3.35**	**29**	Pn	**Pn**	**00 35 05.3**	**+0.9**
TIP	**Timpagrande**	**3.46**	**306**	Pn	**Pn**	**00 35 07.4**	**+1.4**
SOI	**Samo**	**3.52**	**286**	P	**Pn**	**00 35 09.0**	**+2.3**
SOI				S	**Sn**	**00 35 47.4**	**-1.4**
FERC	**Galatro**	**3.57**	**292**	P	**Pn**	**00 35 11.1**	**+3.6**
CEL	**Celeste**	**3.69**	**288**	Pn	**Pn**	**00 35 11.3**	**+2.2**
CEL	**Celeste**	**3.69**	**288**	P	**Pn**	**00 35 11.3**	**+2.2**
MTTG	**Motta San Giov**	**3.79**	**284**	P	**Pn**	**00 35 12.7**	**+2.3**
MTTG				S	**Sn**	**00 35 54.3**	**-1.0**
MTTG				AML	AML		
	comp=E,157μm,2.3s						
MTTG				AML	AML		
	comp=N,169μm,0.6s						
JOPP	**Joppolo**	**3.81**	**293**	P	**Pn**	**00 35 12.6**	**+2.0**
OHR	**Ohrid**	**3.93**	**5**	*i* Pn	**Pn**	**00 35 15.9**	**+3.4**
OHR				*i* Sn	**Sn**	**00 35 59.3**	**+0.4**
MSRU	**Castanea**	**3.98**	**287**	P	**Pn**	**00 35 16.1**	**+2.9**
MSRU				S	**Sn**	**00 35 59.2**	**-1.0**
MSRU				AML	AML		
	comp=E,238μm,0.5s						
MSRU				AML	AML		
	comp=N,161μm,0.4s						
IDI	**Anoyia**	**4.13**	**116**	Pn	**Pn**	**00 35 19.4**	**+4.2**
AIO	**Antillo**	**4.14**	**282**	P	**Pn**	**00 35 17.5**	**+2.1**
HAVL	**Avola**	**4.18**	**268**	P	**Pn**	**00 35 17.0**	**+1.1**
HAVL				S	**Sn**	**00 36 03.0**	**-2.1**
HAVL				AML	AML		
	comp=E,386μm,1.6s						
HAVL				AML	AML		
	comp=N,452μm,1.4s						
HAVL				AML	AML		
	comp=E,348μm,0.2s						
HAVL				AML	AML		
	comp=N,392μm,0.1s						
SSY	**Sortino**	**4.22**	**271**	P	**Pn**	**00 35 17.0**	**+0.7**
SSY				S	**Sn**	**00 36 03.0**	**-3.0**
SSY				AML	AML		
	comp=N,766μm,0.1s						
SSY				AML	AML		
	comp=E,651μm,1.7s						
NOV	**Novara**	**4.22**	**283**	P	**Pn**	**00 35 18.8**	**+2.3**
NOV				AML	AML		
	comp=N,355μm,0.3s						
HCRL	**Carlentini**	**4.25**	**273**	P	**Pn**	**00 35 17.5**	**+0.8**
HCRL				S	**Sn**	**00 36 03.1**	**-3.5**
HCRL				AML	AML		
	comp=N,230μm,0.1s						
HCRL				AML	AML		
	comp=E,272μm,

BOVS				*e*Sn		**Sn**	**00 36 58.1**	**-4.5**
BLKB	**Belogradchik**	**6.67**	**15**	*e*Pn		**Pn**	**00 35 51.5**	**+1.5**
GRUS	**Gruza**	**6.70**	**2**	*e*Pn		**Pn**	**00 35 50.8**	**+0.4**
GRUS				*e*Sn		**Sn**	**00 37 02.7**	**-4.3**
BBLS	**Lazi&#263i**	**6.71**	**354**	*e*Pn		**Pn**	**00 35 51.5**	**+0.9**
ZAGS	**Zajecar**	**6.77**	**12**	*e*Pn		**Pn**	**00 35 51.9**	**+0.5**
ZAGS				*e*Sn		**Sn**	**00 37 04.7**	**-4.0**
DIVS	**Divibare**	**6.91**	**358**	*e*Pn		**Pn**	**00 35 53.5**	**+0.2**
DIVS				*e*Sn		**Sn**	**00 37 06.9**	**-5.4**
TRUS	**Trudelj**	**7.03**	**0**	*e*Pn		**Pn**	**00 35 55.3**	**+0.4**
TRUS				*e*Sn		**Sn**	**00 37 09.9**	**-5.2**
KUBS	**Kucevo**	**7.29**	**8**	*e*Pn		**Pn**	**00 35 59.8**	**+1.3**
AKAS	**Kas**	**7.50**	**95**	Pn		**Pn**	**00 36 05.1**	**+3.6**
AVAS	**Avala Beograd**	**7.50**	**1**	*e*Pn		**Pn**	**00 36 01.1**	**-0.3**
AVAS				*e*Sn		**Sn**	**00 37 21.2**	**-5.6**
ELL	**Elmali**	**7.66**	**90**	Pn		**Pn**	**00 36 06.1**	**+2.3**
BLY	**Banja Luka**	**7.92**	**343**	Pn		**Pn**	**00 36 08.1**	**+0.9**
VRSS	**Vrsac**	**7.96**	**5**	*e*Pn		**Pn**	**00 36 07.3**	**-0.4**
VRSS				*e*Sn		**Sn**	**00 37 32.3**	**-5.8**
FRGS	**Fruska Gora**	**7.97**	**357**	*e*Pn		**Pn**	**00 36 07.5**	**-0.4**
FRGS				*e*Sn		**Sn**	**00 37 33.2**	**-5.2**
SABO	**M.te Sabotino**	**10.13**	**332**	Pn		**Pn**	**00 36 38.0**	**+0.5**
ARSA	**Arzberg**	**10.67**	**342**	Pn		**Pn**	**00 36 45.6**	**+0.7**
CSS	**Mathiatis**	**10.74**	**98**	P		Pn	00 36 39.1	-6.7
CSS				S		**Sn**	**00 38 39.9**	**-6.5**
CTI	**Castel Tesino**	**10.98**	**326**	Pn		**Pn**	**00 36 50.8**	**+1.6**
TUE	**Stuetta**	**12.37**	**322**	Pn		**Pn**	**00 37 08.8**	**+0.5**
GERES	**GERESS Array B** baz=152,slow=14,SNR=2.0	**12.62**	**340**	Pn		**Pn**	**00 37 13.2**	**+1.7**
GERES				Sn		**Sn**	**00 39 25.3**	**-7.1**
	baz=154,slow=25,SNR=2.0 comp=N,0.2nm,0.5s							
GEM	**Giv'at Ha'Em**	**13.14**	**103**	P		Pn	00 37 12.1	-6.5
GEM				S		**Sn**	**00 39 38.5**	**-6.5**
KZIT	**Kziot**	**13.22**	**114**	P		Pn	00 37 10.9	-8.9
KZIT				S		Sn	00 39 39.1	-8.1
MMLI	**Mount Malkishu**	**13.26**	**106**	P		Pn	00 37 13.3	-6.9
MMLI				S		**Sn**	**00 39 41.1**	**-7.0**
AMAZ	**Amatzia**	**13.29**	**111**	P		Pn	00 37 13.0	-7.6
AMAZ				S		**Sn**	**00 39 41.1**	**-7.6**
RMNI	**Mount Ramon**	**13.65**	**115**	P		Pn	00 37 18.2	-7.5
RMNI				S		**Sn**	**00 39 50.2**	**-7.6**
GHAJ	**Ghor Haditha**	**13.88**	**111**	Pn		**Pn**	**00 37 30.8**	**+2.1**
GHAJ	**Ghor Haditha**	**13.88**	**111**	P		Pn	00 37 21.3	-7.4
GHAJ				S		**Sn**	**00 39 55.5**	**-7.7**
HRFI	**Mount Harif**	**14.16**	**116**	P		Pn	00 37 24.8	-7.8
HRFI				S		Sn	00 40 01.8	-8.2
EIL	**Elat**	**14.30**	**117**	P		Pn	00 37 26.4	-8.2
EIL				S		**Sn**	**00 40 05.9**	**-7.7**
CLL	**Collm**	**15.05**	**342**	*e*pP		**pP**	**00 37 52.0**	**+1.2**
CLL				*e*(PP)		pwP	00 37 56.0	+0.7
ESDC	**Sonseca Array** baz=93,slow=13,SNR=2.9 comp=N,0.3nm,0.9s	**19.20**	**285**	P		Pn	00 38 46.2	+9.3
FINES	**FINESS Array B** comp=N,6.0nm,1.0s,baz=165,slow=9.1,SNR=4.0 comp=N,6.0nm,1.0s	**24.54**	**7**	P		**P**	**00 39 31.0**	**-0.7**
FINES	**FINESS Array B**	**24.54**	**7**	P		**P**	**00 39 32.1**	**+0.5**
KKAR	**Karatay Array**	**38.33**	**65**	P		**P**	**00 41 33.3**	**+0.3**
MKAR	**Makanchi Array** comp=N,0.6nm,0.6s,baz=271,slow=9.2,SNR=6.4 comp=N,0.6nm,0.6s	**45.94**	**58**	P		**P**	**00 42 34.9**	**-0.2**
MKAR	**Makanchi Array**	**45.94**	**58**	P		**P**	**00 42 34.3**	**-0.8**
ZAA0	**Zalesovo Array**	**46.45**	**47**	P		**P**	**00 42 37.5**	**-1.5**
ZAA0				IAmb		IAmb	00 42 39.7	
	comp=Z,3.0nm,0.6s							
ZALV	**Zalesovo Beam**	**46.45**	**47**	P		**P**	**00 42 38.0**	**-1.0**

UCR **22** *00:54:40.1±2.3, 37.°45S×76.°31W, h15km±999km, MW6.1, Presumed earthquake*

BJI **22** *00:54:54.2, 34.°55S×73.°16W, h10km, mB6.0/60, Ms6.2/86, Ms7 6.2/83*

SJA **22** *00:54:54.8±0.7, 34.°59S×73.°17W, h38km±5km, ML5.7, MW6.1*

PTWC **22** *00:54:54, 34.°60S×73.°20W, h15km, Mwp6.3/17*

VAO **22** *00:54:55.4±0.6, 34.°66S×72.°81W, h12km±3km, mb6.0, Presumed earthquake*

ISC-PP **22** *00:54:56, 34.°60S×73.°06W, h4km, Mwppsm6.4, Moment Tensor Solution. s27 Moment tensor: Scale 10¹⁸Nm; Mrr0.61±.12; Mθθ0.03±.21; Mϕϕ-0.56±.15; Mrθ-0.23±.10; Mθϕ-0.31±.21; Mϕr0.10±.13; Fault plane solution: M₀5.69000×10¹⁸ NP1:ϕs333.00000°, δ35.80000°, λ56.90000°. NP2:ϕs191.90000°, δ60.70000°, λ111.50000°.*

IPGP **22** *00:54:56.0, 34.°62S×73.°08W, h27km, Mw6.1, Fault plane solution: NP1:ϕs150.00000°, δ38.00000°, λ166.00000°. NP2:ϕs251.00000°, δ81.00000°, λ52.00000°.*

NEIC **22** *00:54:56.8±1.2, 34.°60S±0.°04×73.°06W±0.°06, h22km±1km, mb6.1/219,Ms_20 6.0/652,Mwb6.0/102,Mww6.1/83, Mww6.1(GUC),Error ellipse: s-maj=7.8km s-min=6.3km az=273.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr0.03; Mθθ-0.53; Mϕϕ0.50; Mrθ-0.75; Mθϕ1.01; Mϕr-0.38; Fault plane solution: M₀1.41000×10¹⁸ NP1:ϕs164.10000°, δ54.76000°, λ175.15000°. NP2: ϕs256.91000°, δ86.04000°, λ35.34000°. Principal axes: T 1.4895, Plg27.0000°, Azm126.0000°; N -0.1640, Plg54.0000°, Azm262.0000°; P -1.3255, Plg21.0000°, Azm25.0000°;*

NEIC **22** *00:54:56.1, 34.°62S×73.°07W, h15km*

NEIC **22** *00:54:56.3, 34.°60S×73.°07W, h19km*

GUC **22** *00:54:56.4±0.8, 34.°53S×73.°10W, h25km±4km, ML6.0, Presumed earthquake*

GFZ **22** *00:54:56.9, 34.°58S×73.°00W, h21km, Mw6.1/66, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr0.27; Mθθ-0.12; Mϕϕ-0.14; Mrθ-1.12; Mθϕ1.02; Mϕr-0.20; Fault plane solution: M₀1.54422×10¹⁸ NP1: ϕs272.60504°, δ82.56071°, λ47.71186°. NP2: ϕs174.50336°, δ42.81572°, λ169.01772°. Principal axes: T 1.6153, Plg37.6073°, Azm145.6939°; N -0.1537, Plg41.8510°, Azm279.3215°; P -1.4616, Plg25.2862°, Azm34.3542°;*

GFZ **22** *00:54:56.9±0.2, 35.°S±1.°×7.°3W±.°, h23km±1km, M6.0/109, mB6.4/96, mb6.0/109, Mw(mB)6.2/96, MwMwp5.9/85, Mwp5.9/85 Error ellipse: s-maj=4.0km s-min=2.6km az=92.4, confirmed*

MOS **22** *00:54:56.2±0.9, 34.°56S×73.°15W, h25km, mb6.2/61, MS5.9/28, Error ellipse: s-maj=11.2km s-min=6.2km az=88.5*

CATAC **22** *00:54:57.1±1.4, 34.°S±4.°×7.°3W±.°, h16km±11km, M6.1/8, mb6.1/8, mB6.4/8, MLv6.3/2, Mw(mB)6.2/8, MwMwp5.8/7, Mwp5.9/7, Error ellipse: s-maj=12.0km s-min=8.6km az=88.7, confirmed*

GCMT **22** *00:54:59.8±0.1, 34.°67S×73.°12W, h34km, MW6.1/165, Moment Tensor Solution. s163,c372; s165,c623; Duration: 2s8 Moment tensor: Scale 10¹⁸Nm; Mrr0.17±.01; Mθθ-0.12±.01; Mϕϕ-0.05±.01; Mrθ-1.27±.02; Mθϕ1.28±.01; Mϕr-0.71±.01; Best double couple: M₀1.86100×10¹⁸ NP1:ϕs171.00000°, δ48.00000°, λ169.00000°. NP2:ϕs268.00000°, δ82.00000°, λ43.00000°. Principal axes: T 2.1850, Plg35.0000°, Azm139.0000°; N -0.6480, Plg46.0000°, Azm277.0000°; P -1.5370, Plg22.0000°, Azm32.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

OSUNB **22** *00:54:60.0±0.7, 34.°71S×72.°92W, h50km±6km, mb6.0/43 Error ellipse: s-maj=3.1km s-min=3.5km az=0.0*

IDC **22** *00:54:59.9±1.9, 34.°61S×73.°00W, h44km±17km, mb5.6/26, mbtmp5.8/29, ML6.0/3, MS5.9/48, Error ellipse: s-maj=12.6km s-min=9.5km az=100.0*

NEIC **22** *00:55:03.7, 34.°62S×73.°19W, h22km, Moment Tensor Solution. Duration: 5s1.0 Moment tensor: Scale 10¹⁸ Nm; Mrr0.14; Mθθ-0.04; Mϕϕ-0.10; Mrθ-1.02; Mθϕ1.42; Mϕr-0.70; Fault plane solution: M₀1.89000×10¹⁸ NP1: ϕs174.71000°, δ60.01000°, λ163.37000°. NP2: ϕs273.20000°, δ75.65000°, λ31.06000°. Principal axes: T 2.1120, Plg32.0000°, Azm138.0000°; N -0.5786, Plg56.0000°, Azm296.0000°; P -1.5334, Plg10.0000°, Azm41.0000°;*

ISC 22 00:54:55.2±0.4, 34.°62S±0.°02×73.°14W±0.°02, h14km±2km, h14km:pP-P,n1793,σ1s48/1674, mb6.1/256, MS6.0/384, 103C-155D, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
BO03	**Pichilemu**	**0.98**	**83**	⇓*i*P		**Pb**	**00 55 13.7**	**-0.4**
BO03				*e*S		**Sb**	**00 55 25.8**	**-1.1**
BO03				IAML			00 55 26.8	
	comp=N,874μm,0.4s							
BO03	**Pichilemu**	**0.98**	**83**	P		**Pb**	**00 55 13.7**	**-0.4**
GO05	**Hualane**	**1.07**	**112**	*e*P		**Pb**	**00 55 14.9**	**-0.7**
GO05				IAML			00 55 30.5	
	comp=Z,312μm,0.8s							
GO05	**Hualane**	**1.07**	**112**			**Pb**	**00 55 14.9**	**-0.7**
GO05				Sn		**Sb**	**00 55 27.6**	**-2.0**
GO05	**Hualane**	**1.07**	**112**	P		**Pb**	**00 55 14.9**	**-0.7**
GO05	**Hualane**	**1.07**	**112**	*i* P		**Pb**	**00 55 14.8**	**-0.8**
GO05				*e*S		**Sb**	**00 55 27.9**	**-1.6**
GO05				IAML			00 55 28.8	
	comp=N,944μm,0.9s							
GO05	**Hualane**	**1.07**	**112**	⇑P		**Pb**	**00 55 14.8**	**-0.8**
GO05	**Hualane**	**1.07**	**112**	⇑P		**Pb**	**00 55 14.9**	**-0.8**
VA05	**Santo Domingo**	**1.59**	**53**			**Pn**	**00 55 22.3**	**-0.6**
VA05	**Santo Domingo**	**1.59**	**53**	*e*P		**Pn**	**00 55 22.1**	**-0.8**
VA05				*e*S		**Sn**	**00 55 40.2**	**-3.1**
VA05				IAML			00 55 42.3	
	comp=E,432μm,0.5s							
VA05	**Santo Domingo**	**1.59**	**53**	⇓P		**Pn**	**00 55 22.1**	**-0.8**
BO01	**Tunca**	**1.71**	**83**	*e*P		**Pn**	**00 55 24.0**	**-0.8**
BO01				*e*S		**Sn**	**00 55 45.4**	**-1.0**
BO01				IAML			00 55 48.2	
	comp=Z,91μm,0.5s							
BO01	**Tunca**	**1.71**	**83**			**Pn**	**00 55 24.0**	**-0.8**
BO01				Sn		**Sn**	**00 55 44.3**	**-2.1**
BO01	**Tunca**	**1.71**	**83**	⇑*i*P		**Pn**	**00 55 23.9**	**-0.8**
BO01				*i* S		**Sn**	**00 55 44.3**	**-2.1**
BO01	**Tunca**	**1.71**	**83**	P		**Pn**	**00 55 23.9**	**-0.8**
MT01	**Popeta**	**1.74**	**65**	*e*P		**Pn**	**00 55 24.0**	**-1.1**
MT01				*e*S		**Sn**	**00 55 44.6**	**-2.4**
MT01				IAML			00 55 46.8	
	comp=Z,40μm,0.3s							
MT01	**Popeta**	**1.74**	**65**			**Pn**	**00 55 23.9**	**-1.1**
MT01				Sn		**Sn**	**00 55 44.3**	**-2.7**
MT01	**Popeta**	**1.74**	**65**	*i* P		**Pn**	**00 55 23.9**	**-1.2**
MT01				*e*S		**Sn**	**00 55 44.3**	**-2.7**
ML02	**Panimavida**	**1.82**	**129**	*e*P		**Pn**	**00 55 26.0**	**-0.1**
ML02				*e*S		**Sn**	**00 55 49.7**	**+0.7**
ML02				IAML			00 55 55.8	
	comp=Z,162μm,1.1s							
ML02	**Panimavida**	**1.82**	**129**			**Pn**	**00 55 26.1**	**0.0**
ML02				Sn		**Sn**	**00 55 47.6**	**-1.4**
ML02	**Panimavida**	**1.82**	**129**	⇑*i*P		**Pn**	**00 55 26.2**	**0.0**
ML02				*e*S		**Sn**	**00 55 47.8**	**-1.2**
ML02				IAML			00 55 53.0	
	comp=E,477μm,0.9s							
ML02	**Panimavida**	**1.82**	**129**	⇑P		**Pn**	**00 55 26.2**	**0.0**
BO02	**Sierra Bellavi**	**1.95**	**96**	*e*P		**Pn**	**00 55 28.0**	**-0.1**
BO02				*e*S		**Sn**	**00 55 51.8**	**-0.7**
BO02				IAML			00 55 56.0	
	comp=Z,394μm,0.6s							
BO02	**Sierra Bellavi**	**1.95**	**96**			**Pn**	**00 55 27.9**	**-0.1**
BO02	**Sierra Bellavi**	**1.95**	**96**	⇑*i*P		**Pn**	**00 55 27.9**	**-0.1**
BO02				*i* S		**Sn**	**00 55 51.3**	**-1.1**
BO02	**Sierra Bellavi**	**1.95**	**96**	⇑P		**Pn**	**00 55 28.0**	**-0.1**
MT09	**Talagante**	**1.97**	**65**			**Pn**	**00 55 27.6**	**-0.8**
MT09	**Talagante**	**1.97**	**65**	⇓*e*P		**Pn**	**00 55 27.6**	**-0.8**
MT09				*e*S		**Sn**	**00 55 51.7**	**-1.3**
MT09				IAML			00 55 53.7	
	comp=N,104μm,0.4s							
VA01	**Torpederas**	**2.02**	**38**	*e*P		**Pn**	**00 55 28.2**	**-0.7**
VA01				*e*S		**Sn**	**00 55 51.8**	**-2.1**
VA01				IAML			00 55 53.4	
	comp=Z,43μm,0.8s							
VA01	**Torpederas**	**2.02**	**38**			**Pn**	**00 55 28.0**	**-0.8**
VA01	**Torpederas**	**2.02**	**38**	P		**Pn**	**00 55 28.1**	**-0.8**
VA01	**Torpederas**	**2.02**	**38**	*e*P		**Pn**	**00 55 28.0**	**-0.8**
VA01				*e*S		**Sn**	**00 55 51.8**	**-2.1**
VA01	**Torpederas**	**2.02**	**38**	⇓P		**Pn**	**00 55 28.0**	**-0.8**
BI05	**Punta Hualpn**	**2.13**	**181**	*e*P		**Pn**	**00 55 29.2**	**-1.2**
BI05				IAML			00 56 04.7	
	comp=Z,44μm,0.9s							
BI05	**Punta Hualpn**	**2.13**	**181**			**Pn**	**00 55 29.1**	**-1.2**
BI05	**Punta Hualpn**	**2.13**	**181**	P		**Pn**	**00 55 29.2**	**-1.2**
BI05	**Punta Hualpn**	**2.13**	**181**	*i* P		**Pn**	**00 55 29.1**	**-1.3**
BI05				*i* S		**Sn**	**00 55 52.0**	**-4.7**
MT02	**Curacav**	**2.15**	**51**	*e*P		**Pn**	**00 55 29.9**	**-0.9**
MT02				*e*S		**Sn**	**00 55 55.1**	**-2.1**
MT02				IAML			00 55 57.4	
	comp=Z,38μm,0.4s							
MT02	**Curacav**	**2.15**	**51**			**Pn**	**00 55 30.0**	**-0.7**
MT02	**Curacav**	**2.15**	**51**	⇓*i*P		**Pn**	**00 55 29.8**	**-0.9**
MT02				*e*S		**Sn**	**00 55 54.9**	**-2.3**
BO04	**La Punta**	**2.19**	**74**			**Pn**	**00 55 31.3**	**0.0**
BO04	**La Punta**	**2.19**	**74**	*i* P		**Pn**	**00 55 31.3**	**0.0**
BO04				*e*S		**Sn**	**00 55 57.5**	**-0.7**
BO04				IAML			00 55 59.8	
	comp=N,136μm,0.4s							
MT12	**Pirque**	**2.32**	**68**	⇓*i*P		**Pn**	**00 55 33.2**	**+0.1**
MT12				*i* S		**Sn**	**00 56 00.5**	**-1.1**
MT12				IAML			00 56 15.9	
	comp=N,153μm,0.7s							
MT05	**Renca**	**2.34**	**59**	*e*P		**Pn**	**00 55 33.4**	**0.0**
MT05				*e*S		**Sn**	**00 56 01.9**	**-0.1**
MT05				IAML			00 56 03.8	
	comp=Z,41μm,1.3s							
MT05	**Renca**	**2.34**	**59**			**Pn**	**00 55 33.1**	**-0.3**
MT05	**Renca**	**2.34**	**59**	⇓*i*P		**Pn**	**00 55 33.2**	**-0.2**
MT05				*i* S		**Sn**	**00 56 00.6**	**-1.4**
MT05				IAML			00 56 02.3	
	comp=N,107μm,0.4s							
MT15	**Las Vizcachas**	**2.41**	**66**	⇓*i*P		**Pn**	**00 55 34.2**	**-0.1**
MT15				*i* S		**Sn**	**00 56 02.7**	**-1.0**
MT15				IAML			00 56 08.2	
	comp=N,133μm,0.4s							
ROCH	**El Roble**	**2.42**	**48**	⇓*i*P		**Pn**	**00 55 34.3**	**-0.3**
ROCH				⇓*e*P		**Pn**	**00 55 34.2**	**-0.3**
ROCH				*i* S		**Sn**	**00 56 03.2**	**-0.9**
ROCH				IAML			00 56 08.7	
	comp=N,126μm,0.6s							
MT03	**Universidad Ad**	**2.46**	**64**	Pn		**Pn**	**00 55 34.8**	**-0.2**
MT16	**CCHEN**	**2.48**	**62**			**Pn**	**00 55 35.1**	**-0.1**
MT16	**CCHEN**	**2.48**	**62**	⇓*i*P		**Pn**	**00 55 35.1**	**-0.1**
MT16				*i* S		**Sn**	**00 56 03.5**	**-1.8**
MT16				IAML			00 56 10.4	
	comp=E,56μm,0.6s							
MT14	**Cerro Cal¡n**	**2.48**	**61**	⇓*i*P		**Pn**	**00 55 35.4**	**0.0**
MT14				*i* S		**Sn**	**00 56 04.6**	**-0.9**
MT14				IAML			00 56 05.7	
	comp=N,104μm,0.7s							
PEL	**Peldehue**	**2.52**	**55**	*e*P		**Pn**	**00 55 35.9**	**+0.1**
PEL				*e*S		**Sn**	**00 56 06.7**	**+0.4**
PEL				IAML			00 56 13.2	
	comp=Z,45μm,0.6s							
PEL	**Peldehue**	**2.52**	**55**	P		**Pn**	**00 55 36.2**	**+0.3**
PEL				S		**Sn**	**00 56 06.1**	**-0.2**
PEL	**Peldehue**	**2.52**	**55**	P		**Pn**	**00 55 35.9**	**+0.1**
PEL	**Peldehue**	**2.52**	**55**			**Pn**	**00 55 35.9**	**+0.1**
PEL	**Peldehue**	**2.52**	**55**	P		**Pn**	**00 55 36.1**	**+0.3**
PEL	**Peldehue**	**2.52**	**55**	⇓P		**Pn**	**00 55 35.8**	**+0.1**
PEL				*e*S		**Sn**	**00 56 05.4**	**-0.9**
PEL				IAML			00 56 07.0	
	comp=E,70μm,0.4s							
PEL	**Peldehue**	**2.52**	**55**	⇑P		**Pn**	**00 55 36.0**	**+0.1**
PEL	**Peldehue**	**2.52**	**55**	⇓P		**Pn**	**00 55 35.9**	**+0.1**
MT13	**San Alfonso**	**2.52**	**71**	*e*P		**Pn**	**00 55 36.1**	**+0.1**
MT13				*e*S		**Sn**	**00 56 06.9**	**+0.3**
MT13				IAML			00 56 17.9	
	comp=Z,55μm,1.1s							
MT13	**San Alfonso**	**2.52**	**71**			**Pn**	**00 55 36.1**	**+0.1**
MT13	**San Alfonso**	**2.52**	**71**	⇓*i*P		**Pn**	**00 55 36.1**	**+0.1**
MT13				*e*S		**Sn**	**00 56 09.5**	**-0.7**
MT13				IAML			00 56 08.7	
	comp=E,77μm,0.4s							
BI02	**San Fabin de**	**2.55**	**144**	*e*P		**Pn**	**00 55 36.4**	**+0.2**
BI02				IAML			00 56 26.0	
	comp=Z,34μm,1.7s							
BI02	**San Fabin de**	**2.55**	**144**			**Pn**	**00 55 36.2**	**-0.1**
BI02	**San Fabin de**	**2.55**	**144**	P		**Pn**	**00 55 36.3**	**0.0**
BI02	**San Fabin de**	**2.55**	**144**	⇑*i*P		**Pn**	**00 55 36.1**	**-0.1**
BI02				*e*S		**Sn**	**00 56 04.9**	**-2.2**
BI02				IAML			00 56 15.8	
	comp=E,94μm,0.8s							
BI02	**San Fabin de**	**2.55**	**144**	⇑P		**Pn**	**00 55 36.1**	**-0.1**
MT10	**Hacienda Santa**	**2.55**	**59**	⇓*i*P		**Pn**	**00 55 36.5**	**+0.1**
LMEL	**Las Melosas**	**2.55**	**73**	⇑*i*P		**Pn**	**00 55 36.6**	**+0.2**
LMEL				*e*S		**Sn**	**00 56 07.2**	**-0.2**
LMEL				IAML			00 56 12.2	
	comp=N,120μm,0.3s							
FCH	**Farellones**	**2.70**	**62**	⇓*i*P		**Pn**	**00 55 38.3**	**-0.2**
FCH				*e*S		**Sn**	**00 56 10.1**	**-1.0**
FCH				IAML			00 56 13.4	
	comp=N,52μm,0.2s							
MT04	**Ro Olivares**	**2.77**	**65**	*e*P		**Pn**	**00 55 39.5**	**0.0**
MT04				*e*S		**Sn**	**00 56 12.2**	**-0.7**
MT04				IAML			00 56 21.4	
	comp=Z,21μm,1.1s							
MT04	**Ro Olivares**	**2.77**	**65**	*e*P		**Pn**	**00 55 39.4**	**-0.1**
MT04				*i* S		**Sn**	**00 56 12.0**	**-0.9**
MT04				IAML			00 56 22.4	
	comp=N,35μm,0.6s							
VA03	**San Esteban**	**2.84**	**50**	*e*P		**Pn**	**00 55 40.6**	**+0.3**
VA03				*e*S		**Sn**	**00 56 14.2**	**-0.2**
VA03				IAML			00 56 16.2	
	comp=Z,29μm,0.2s							
VA03	**San Esteban**	**2.84**	**50**			**Pn**	**00 55 40.6**	**+0.3**
VA03	**San Esteban**	**2.84**	**50**	⇓*e*P		**Pn**	**00 55 40.5**	**+0.1**
VA03				*e*S		**Sn**	**00 56 13.6**	**-0.8**
VA03				IAML			00 56 15.9	
	comp=N,142μm,0.5s							
VA03	**San Esteban**	**2.84**	**50**	⇓P		**Pn**	**00 55 40.7**	**+0.3**
MT08	**Bocatoma Ro**	**2.85**	**67**	*e*P		**Pn**	**00 55 40.7**	**+0.2**
MT08				*e*S		**Sn**	**00 56 15.4**	**+0.7**
MT08				IAML			00 56 21.2	
	comp=Z,15μm,0.5s							
MT08	**Bocatoma Ro**	**2.85**	**67**			**Pn**	**00 55 40.4**	**-0.1**
MT08	**Bocatoma Ro**	**2.85**	**67**	⇓*i*P		**Pn**	**00 55 40.8**	**+0.3**
CO04	**Los Peladeros**	**3.14**	**36**			**Pn**	**00 55 44.0**	**-0.7**
CO04	**Los Peladeros**	**3.14**	**36**	⇓*i*P		**Pn**	**00 55 43.8**	**-0.8**
CO04				*i* S		**Sn**	**00 56 19.4**	**-2.7**
CO04				IAML			00 56 26.9	
	comp=N,45μm,0.3s							
CO04	**Los Peladeros**	**3.14**	**36**	⇓P		**Pn**	**00 55 44.0**	**-0.7**
EDS3	**Malargue**	**3.27**	**112**	*e*P		**Pn**	**00 55 48.3**	**+2.0**
EDS3				*e*S		**Sg**	**00 56 40.9**	**+0.4**
CANA	**Caviahue**	**3.67**	**153**	*e*P		**Pn**	**00 55 53.3**	**+1.5**
CANA				*e*S		**Sb**	**00 56 42.1**	**-2.4**
CANA				IAML			00 57 03.8	
	comp=Z,9μm,1.0s							
BI04	**Isla Mocha**	**3.83**	**189**	P		**Pn**	**00 55 52.1**	**-1.7**
BI04	**Isla Mocha**	**3.83**	**189**	*i* P		**Pn**	**00 55 51.8**	**-2.1**
BI04				*i* S		**Sn**	**00 56 33.1**	**-5.6**
CO02	**Combarbal**	**3.85**	**28**	*e*P		**Pn**	**00 55 54.0**	**-0.3**
CO02				*e*S		**Sn**	**00 56 38.1**	**-1.2**
CO02				IAML			00 56 40.1	
	comp=Z,33μm,0.5s							
CO02	**Combarbal**	**3.85**	**28**			**Pn**	**00 55 53.9**	**-0.3**
CO02	**Combarbal**	**3.85**	**28**	P		**Pn**	**00 55 54.1**	**-0.1**
CO02	**Combarbal**	**3.85**	**28**	⇓*i*P		**Pn**	**00 55 53.8**	**-0.5**
CO02				*i* S		**Sn**	**00 56 37.5**	**-1.8**
CO02	**Combarbal**	**3.85**	**28**	⇑P		**Pn**	**00 55 53.9**	**-0.3**
CO02	**Combarbal**	**3.85**	**28**	⇓P		**Pn**	**00 55 53.9**	**-0.3**
RFA	**San Rafael**	**3.86**	**94**	*e*P		**Pn**	**00 55 55.3**	**+1.1**
RFA				*e*S		**Sg**	**00 56 57.8**	**-1.3**
RFA				IAML			00 57 00.7	
	comp=Z,11μm,1.0s							
AAGR	**Agrelo**	**3.90**	**68**	*e*P		**Pn**	**00 55 57.2**	**+2.3**
AAGR				IAML			00 57 32.7	
	comp=Z,3μm,2.0s							
ARCO	**CERRO ARCO**	**3.93**	**64**	*e*P		**Pn**	**00 55 57.5**	**+2.2**
ARCO				IAML			00 57 11.8	
	comp=Z,8μm,1.7s							
AVIZ	**Vizcacheras**	**4.01**	**75**	*e*P		**Pn**	**00 55 59.4**	**+3.0**
CO06	**Fray Jorge**	**4.13**	**18**			**Pn**	**00 55 56.8**	**-1.2**
CO06	**Fray Jorge**	**4.13**	**18**	⇓*i*P		**Pn**	**00 55 56.7**	**-1.3**
CO06				*i* S		**Sn**	**00 56 40.8**	**-5.3**
RTLS	**Leoncito**	**4.28**	**50**	*e*P		**Pn**	**00 56 02.2**	**+2.0**
RTLS				IAML			00 57 17.4	
	comp=Z,24μm,1.3s							
CO03	**El Pedregal**	**4.30**	**29**	*e*S		**Sn**	**00 56 49.2**	**-1.1**
CO03				IAML			00 56 55.8	
	comp=Z,14μm,0.7s							
CO03	**El Pedregal**	**4.30**	**29**			**Pn**	**00 56 00.2**	**-0.2**
CO03	**El Pedregal**	**4.30**	**29**	⇓*i*P		**Pn**	**00 56 00.1**	**-0.2**
CO03	**El Pedregal**	**4.30**	**29**	⇓P		**Pn**	**00 56 00.2**	**-0.2**
I14CL	**ROBINSON CRUSO** baz=109,slow=12,SNR=2.2	**4.79**	**280**	P		**Pn**	**00 56 08.2**	**+1.2**
I14CL				S		**Sn**	**00 57 00.1**	**-2.1**
I14C

PLCA Paso Flores 6.44 162 ⇑P Pn 00 56 29.4 -0.3
PLCA Paso Flores 6.44 162 P Pn 00 56 30.5 +0.7
PLCA Paso Flores 6.44 162 ⇑P Pn 00 56 30.4 +0.6
comp=Z,58μmcomp=Z,30μmcomp=Z,2μm,0.6s
PLCA Paso Flores 6.44 162 eP Pn 00 56 28.7 -1.0
PLCA epP Pb 00 56 31.5 -16
LL03 Petrohue 6.54 175 Pn 00 56 30.0 -1.0
LL03 Petrohue 6.54 175 P Pn 00 56 30.0 -1.0
comp=Z,109μmcomp=Z,62μmcomp=Z,7μm,0.7s
AC04 Llanos de Chal 6.63 16 Pn 00 56 30.6 -1.7
AC04 Llanos de Chal 6.63 16 P Pn 00 56 30.5 -1.8
AC04 Llanos de Chal 6.63 16 ⇓P Pn 00 56 30.7 -1.7
comp=Z,48μmcomp=Z,37μmcomp=Z,3μm,0.8s
LL05 Los Muermos 6.78 182 Pn 00 56 33.0 -1.3
LL05 Los Muermos 6.78 182 P Pn 00 56 33.2 -1.2
LL05 Los Muermos 6.78 182 P Pn 00 56 33.1 -1.3
comp=Z,92μmcomp=Z,128μmcomp=Z,17μm,0.8s
GO03 Copiapo 7.43 20 Pn 00 56 41.8 -1.6
GO03 Copiapo 7.43 20 P Pn 00 56 41.9 -1.5
GO03 Copiapo 7.43 20 ⇓P Pn 00 56 41.7 -1.6
GO03 Copiapo 7.43 20 ⇓P Pn 00 56 41.7 -1.6
comp=Z,49μmcomp=Z,24μmcomp=Z,2μm,0.8s
AC06 Mina Casimiro 7.62 19 Pn 00 56 44.4 -1.6
TCA Tanti 7.89 68 ⇓eP Pn 00 56 48.4 -1.2
LL07 Hotel Espejo d 8.21 182 Pn 00 56 52.2 -1.7
LL07 Hotel Espejo d 8.21 182 P Pn 00 56 51.7 -2.2
comp=Z,66μmcomp=Z,29μmcomp=Z,1μm,0.6s
AC02 Maricunga 8.49 25 Pn 00 56 56.9 -1.4
AC02 Maricunga 8.49 25 ⇓P Pn 00 56 56.9 -1.4
comp=Z,50μmcomp=Z,21μmcomp=Z,1μm,1.0s
GO07 Milladed Hill, 8.49 183 Pn 00 56 56.4 -1.5
GO07 Milladed Hill, 8.49 183 ⇑P Pn 00 56 56.1 -1.8
comp=Z,86μmcomp=Z,43μmcomp=Z,3μm,0.5s
LL02 Futaleuf 8.62 174 Pn 00 56 59.1 -0.5
LL02 Futaleuf 8.62 174 ⇑P Pn 00 56 58.8 -0.8
LL02 Futaleuf 8.62 174 ⇑P Pn 00 56 59.0 -0.6
comp=Z,47μmcomp=Z,12μmcomp=Z,874nm,1.4s
AC01 Pan de Azucar 8.72 15 P Pn 00 56 57.7 -3.4
AC01 S Sn 00 58 33.2 -6.0
AC01 Pan de Azucar 8.72 15 P Pn 00 56 57.4 -3.6
comp=Z,28μmcomp=Z,13μmcomp=Z,581nm,1.0s
PB14 IPOC Station P 10.24 14 P Pn 00 57 17.4 -4.6
PB14 IPOC Station P 10.24 14 P Pn 00 57 16.9 -5.2
comp=Z,25μmcomp=Z,8μmcomp=Z,637nm,0.9s
COYC Coyhaique 10.97 176 Pn 00 57 32.2 +0.4
COYC Coyhaique 10.97 176 ⇓P Pn 00 57 31.9 +0.2
COYC Coyhaique 10.97 176 ⇑P Pn 00 57 31.0 -0.8
comp=Z,32μmcomp=Z,12μmcomp=Z,924nm,0.9s
AY02 Valle Explorad 11.86 180 Pn 00 57 44.2 +0.4
SALTA 11.93 32 ⇓P Pn 00 57 42.2 -3.2
comp=Z,73μmcomp=Z,6μmcomp=Z,328nm,1.4s
PB05 IPOC Station P 12.00 13 P Pn 00 57 39.7 -6.3
comp=Z,28μmcomp=Z,12μmcomp=Z,708nm,1.3s
PB06 IPOC Station P 12.27 16 P Pn 00 57 45.3 -4.5
PB06 IPOC Station P 12.27 16 ⇓P Pn 00 57 44.4 -5.4
comp=Z,24μmcomp=Z,12μmcomp=Z,764nm,1.4s
LPA La Plata 12.51 96 iP Pn 00 57 45.1 -7.8
LPA La Plata 12.51 96 PN Pn 00 57 51.1 -1.8
LPA pP P 00 57 57.8 -6.8
LPA sP 00 58 05.9
LPA PP PnPn 00 58 12.8 +12
LPA pPP 00 58 31.3
LPA PPP PPP 00 58 44.2
LPA S Sn 01 00 05.0 -7.1
LPA La Plata 12.51 96 SN Sn 01 00 11.9 -0.2
LPA sS 01 00 19.3
LPA SS SbSb 01 01 14.3 +10
LPA SSS SSS 01 01 46.4
LPA PCP PcP 01 03 35.1 +3.1
LPA SCS ScS 01 10 39.5 -1.3
LPA PKIKP PKiKP 01 11 33.0 +3.5
LPA SKIKP 01 15 23.4
LPA PKIKS 01 15 30.0
LPA SKIKS 01 18 33.8
ANCO Parque Anchore 12.54 93 eP Pn 00 57 50.5 -2.6
AY03 Cochrane 12.63 178 Pn 00 57 54.5 0.0
PB03 IPOC Station P 12.87 14 P Pn 00 57 57.6 -0.4
comp=Z,26μmcomp=Z,12μmcomp=Z,511nm,1.3s,comp=Z,12μm
PB07 IPOC Station P 13.16 13 ⇓P Pn 00 57 59.5 -2.4
comp=Z,24μmcomp=Z,12μmcomp=Z,595nm,1.5s
PB09 IPOC Station P 13.22 16 P Pn 00 58 03.7 +0.8
PB09 IPOC Station P 13.22 16 P Pn 00 58 03.2 +0.4
comp=Z,30μmcomp=Z,22μmcomp=Z,1μm,1.3s
PSAL Palomas, Salto 13.53 79 eP Pn 00 58 02.5 -4.2
PB02 IPOC Station P 13.55 13 P Pn 00 58 06.3 -0.9
PB02 S Sn 01 00 29.2 -8.5
PB02 IPOC Station P 13.55 13 P Pn 00 58 08.1 +0.9
comp=Z,27μmcomp=Z,11μmcomp=Z,398nm,1.1s
GO08 Villa O'Higgin 13.84 178 Pn 00 58 10.4 -0.6
GO08 Villa O'Higgin 13.84 178 ⇑P Pn 00 58 09.1 -1.9
comp=Z,27μmcomp=Z,9μmcomp=Z,464nm,1.0s
TA01 Diego Aracena 14.24 11 Pn 00 58 12.2 -4.3
TA01 Diego Aracena 14.24 11 ⇓P Pn 00 58 15.9 -0.6
comp=Z,30μmcomp=Z,14μmcomp=Z,596nm,1.5s
ITQB Itaqui 14.83 75 eP Pn 00 58 18.8 -5.8
PB08 IPOC Station P 14.85 15 P Pn 00 58 24.4 -0.7
PB08 IPOC Station P 14.85 15 ⇓P Pn 00 58 23.8 -1.4
comp=Z,27μmcomp=Z,12μmcomp=Z,613nm,1.6s
PB11 IPOC Station P 15.12 13 Pn 00 58 23.2 -5.4
PB11 IPOC Station P 15.12 13 P Pn 00 58 28.6 -0.1
comp=Z,31μmcomp=Z,12μmcomp=Z,849nm,1.4s,comp=Z,12μm
PSGCX Pisagua 15.20 11 P Pn 00 58 30.1 +0.4
comp=Z,31μmcomp=Z,21μmcomp=Z,1μm,1.5s,comp=Z,21μm
GO01 Chusmiza 15.30 14 P Pn 00 58 31.4 +0.1
comp=Z,28μmcomp=Z,13μmcomp=Z,577nm,1.2s,comp=Z,13μm
CPUP Villa Florida 15.93 63 P Pn 00 58 32.5 -6.5
comp=Z,49nm,0.9s,baz=234,slow=13,SNR=51
CPUP LR LR 01 05 29.9
comp=Z,33μm,19.4s,baz=242,slow=40
CPUP Villa Florida 15.93 63 eP Pn 00 58 31.9 -7.0
PB12 IPOC Station P 16.13 10 P Pn 00 58 42.8 +1.0
comp=Z,35μmcomp=Z,35μmcomp=Z,2μm,1.7s,comp=Z,35μm
AP01 Chacalluta 16.37 9 P P 00 58 46.1 -1.4
comp=Z,37μmcomp=Z,50μmcomp=Z,2μm,1.8s,comp=Z,50μm
PB16 IPOC Station P 16.54 12 Pn 00 58 44.8 -2.6
PB16 IPOC Station P 16.54 12 P P 00 58 48.9 -1.0
comp=Z,32μmcomp=Z,46μmcomp=Z,2μm,1.7s,comp=Z,46μm
CPSB Cacapava Do Su 17.14 81 Pn 00 58 49.9 -4.5
CPSB Cacapava Do Su 17.14 81 P Pn 00 58 52.0 -2.4
CPSB Cacapava Do Su 17.14 81 P Pn 00 58 51.4 -2.9
comp=Z,17μmcomp=Z,4μmcomp=Z,218nm,0.9s,comp=Z,4μm
CPSB Cacapava Do Su 17.14 81 eP Pn 00 58 50.9 -3.5
PB18 Visviri 17.27 12 Pn 00 58 55.7 -0.9
SJPY San Joaquin 17.60 62 eP Pn 00 58 57.1 -3.1
MURT Porto Murtinho 18.79 51 eP P 00 59 11.5 -2.8
LPAZ La Paz 18.80 15 P Pn 00 59 16.9 +1.4
comp=Z,10nm,0.3s,baz=182,slow=9.0,SNR=217
comp=Z,809nm,1.0s
LPAZ AML AML
LPAZ La Paz 18.80 15 P P 00 59 13.1 -1.9
LPAZ IAmb IAmb 00 59 21.4
comp=Z,967nm,1.0s
LPAZ La Paz 18.80 15 P P 00 59 14.7 -0.3
comp=Z,64μmcomp=Z,23μmcomp=Z,1μm,1.2s
LPAZ La Paz 18.80 15 ⇑P P 00 59 14.5 -0.5
LPAZ La Paz 18.80 15 P Pn 00 59 16.8 +1.4
LPAZ S S 01 02 49.4 +0.4
LPAZ La Paz 18.80 15 P Pn 00 59 15.7 +0.2
comp=Z,54μmcomp=Z,25μmcomp=Z,1μm,1.2s,comp=Z,25μm
LPAZ La Paz 18.80 15 eP P 00 59 14.2 -0.8
ITAB Concordia 19.45 73 P P 00 59 19.5 -2.0
ITAB Concordia 19.45 73 P P 00 59 21.1 -0.4
ITAB S Sn 01 02 56.5 -4.2
ITAB Concordia 19.45 73 P P 00 59 20.7 -0.7
comp=Z,28μmcomp=Z,39μmcomp=Z,4μm,1.3s,comp=Z,39μm
ITAB Concordia 19.45 73 eP P 00 59 19.3 -2.2
CNLB Canela 19.62 81 P P 00 59 22.8 -0.6
CNLB S S 01 03 01.0 -3.6
CNLB Canela 19.62 81 P P 00 59 22.9 -0.6
comp=Z,22μmcomp=Z,18μmcomp=Z,2μm,1.4s,comp=Z,18μm
CNLB Canela 19.62 81 eP P 00 59 21.6 -1.8
COIM Forte Coimbra 19.98 47 eP P 00 59 26.2 -1.1
BDQN Bodoquena, MS 20.22 50 eP P 00 59 28.4 -1.5
EFI East Falkland 20.22 152 P P 00 59 30.3 +0.7
EFI East Falkland 20.22 152 eP P 00 59 29.3 -0.4
EFI pmax pmax
comp=Z,1μm,1.4s
EFI MLR MLR
comp=Z,145μm,14.0s
EFI East Falkland 20.22 152 P P 00 59 28.0 -1.7
EFI IAmb IAmb 00 59 30.9
comp=Z,1μm,1.4s
EFI East Falkland 20.22 152 IAMs_20 IAMs_20 01 07 52.0
comp=Z,100μm,19.0s
EFI East Falkland 20.22 152 ⇑P P 00 59 29.0 -0.7
EFI East Falkland 20.22 152 P P 00 59 29.0 -0.7
comp=Z,51μmcomp=Z,24μmcomp=Z,785nm,0.8s
USHA Ushuaia 20.48 172 P Pn 00 59 33.8 -0.9
comp=Z,757nm,0.9s,baz=344,slow=8.0,SNR=28
comp=Z,757nm,0.9s
BBSD Serra de San D 20.66 36 eP P 00 59 34.4 -0.3
PTGB Pitanga 20.77 67 P P 00 59 35.7 -0.3
PTGB S S 01 03 25.6 -2.0
PTGB Pitanga 20.77 67 eP P 00 59 34.6 -1.3
AQDB Aquidauana 20.87 52 P P 00 59 35.6 -1.4
AQDB Aquidauana 20.87 52 P P 00 59 36.7 -0.2
AQDB Aquidauana 20.87 52 P P 00 59 36.8 -0.2
comp=Z,26μmcomp=Z,29μmcomp=Z,3μm,1.4s,comp=Z,29μm
AQDB Aquidauana 20.87 52 eP P 00 59 36.4 -0.6
SIV San Ignacio 21.48 33 P P 00 59 43.2 -0.4
comp=Z,497nm,0.8s,baz=211,slow=9.2,SNR=1133
comp=Z,497nm,0.8s
LDASE Londrina, Braz 22.22 66 eP P 00 59 49.1 -2.4
NNA Nana 22.78 351 LR LR 01 06 54.7
comp=Z,50μm,18.6s,baz=184,slow=31
NNA Nana 22.78 351 diP P 00 59 58.3 +0.8
NNA pmax pmax
comp=Z,1μm,2.4s
NNA MLR MLR
comp=Z,77μm,15.0s
NNA Nana 22.78 351 P P 00 59 56.7 -0.7
NNA IAmb IAmb 01 00 14.8
comp=Z,690nm,0.9s
NNA Nana 22.78 351 IAMs_20 IAMs_20 01 06 43.2
comp=Z,48μm,18.0s
NNA Nana 22.78 351 P P 00 59 57.4 -0.1
comp=Z,31μmcomp=Z,10μmcomp=Z,808nm,1.1s
NNA Nana 22.78 351 ⇓P P 00 59 58.3 +0.8
NNA Nana 22.78 351 P P 00 59 58.1 +0.6
comp=Z,28μmcomp=Z,10μmcomp=Z,790nm,1.4s
PTLB Pontes e Lacer 22.87 37 P P 00 59 57.4 -1.0
PTLB Pontes e Lacer 22.87 37 P P 00 59 58.1 -0.3
PTLB Pontes e Lacer 22.87 37 eP P 00 59 58.1 -0.3
PCMB Pacaembu 23.19 62 P P 01 00 00.5 -1.2
PCMB Pacaembu 23.19 62 P P 00 59 59.9 -1.8
comp=Z,7μmcomp=Z,21μmcomp=Z,2μm,0.7s,comp=Z,21μm
PCMB Pacaembu 23.19 62 eP P 00 59 59.3 -2.4
PP1B Ponte de Pedra 23.52 49 eP P 01 00 03.5 -1.5
SALV Santo Antonio 24.35 44 P P 01 00 11.9 -0.9
SALV Santo Antonio 24.35 44 eP P 01 00 11.7 -1.2
VILB Vilhena 24.55 32 P P 01 00 13.4 -1.4
VILB Vilhena 24.55 32 P P 01 00 14.6 -0.2
VILB Vilhena 24.55 32 eP P 01 00 14.4 -0.4
PET01 Itanhaem-SP 24.70 72 P P 01 00 15.0 -1.1
PET01 Itanhaem-SP 24.70 72 eP P 01 00 13.8 -2.2
SPB Sao Paulo 24.94 71 P P 01 00 17.9 -0.2
SPB Sao Paulo 24.94 71 P P 01 00 17.2 -0.9
SPB IAmb IAmb 01 00 33.1
comp=Z,731nm,1.0s
SPB IAMs_20 IAMs_20 01 10 43.9
comp=Z,50μm,20.0s
SPB Sao Paulo 24.94 71 ⇓P P 01 00 17.8 -0.4
SPB Sao Paulo 24.94 71 P P 01 00 17.9 -0.2
comp=Z,14μmcomp=Z,11μmcomp=Z,807nm,1.2s,comp=Z,11μm
SPB Sao Paulo 24.94 71 eP P 01 00 16.2 -1.9
BB19B Bebedouro 25.53 65 P P 01 00 22.9 -0.7
BB19B Bebedouro 25.53 65 eP P 01 00 22.6 -1.0
VABB Valinhos 25.61 70 P P 01 00 23.8 -0.6
VAO Valinhos 25.61 70 P P 01 00 23.6 -0.8
VAO IAmb IAmb 01 00 38.1
comp=Z,1μm,1.3s
VAO Valinhos 25.61 70 eP P 01 00 23.9 -0.4
PARB Paraibuna 26.49 72 P P 01 00 31.3 -0.9
PARB Paraibuna 26.49 72 P P 01 00 33.2 +0.9
comp=Z,23μmcomp=Z,10μmcomp=Z,677nm,1.0s
PARB Paraibuna 26.49 72 eP P 01 00 31.0 -1.3
CZSB Cruzeiro do Su 26.76 1 P P 01 00 34.7 +0.1
CZSB IAmb IAmb 01 00 59.4
comp=Z,561nm,1.0s
CZSB Cruzeiro do Su 26.76 1 P P 01 00 34.8 +0.1
comp=Z,19μmcomp=Z,10μmcomp=Z,589nm,1.2s
CZSB Cruzeiro do Su 26.76 1 P P 01 00 35.3 +0.6
CZSB Cruzeiro do Su 26.76 1 eP P 01 00 35.4 +0.7
ARAG Araguaiana, MT 26.87 51 P P 01 00 35.0 -0.7
ARAG Araguaiana, MT 26.87 51 eP P 01 00 34.1 -1.6
ITU3 Itumbabzu 27.08 59 P P 01 00 36.6 -1.0
PDRB Porto dos Gac 27.34 37 P P 01 00 40.0 0.0
PDRB Porto dos Gac 27.34 37 eP P 01 00 39.8 -0.2
CANS Sao Roque de M 27.59 66 eP P 01 00 41.1 -1.2
IPMB Ipameri, GO 27.71 60 P P 01 00 41.9 -1.4
IPMB Ipameri, GO 27.71 60 eP P 01 00 41.4 -1.9
ATAH Atahualpa 27.77 349 LR LR 01 09 57.0
comp=Z,36μm,18.7s,baz=184,slow=32
CLDB Colider 28.44 38 P P 01 00 49.1 -0.7
CLDB Colider 28.44 38 P P 01 00 49.1 -0.7
comp=Z,10μmcomp=Z,7μmcomp=Z,635nm,1.4s,comp=Z,7μm
CLDB Colider 28.44 38 eP P 01 00 49.1 -0.7
BDFB Brasilia 29.43 56 P P 01 00 57.2 -1.5
comp=Z,174nm,1.0s,baz=223,slow=8.6,SNR=95
BDFB LR LR 01 14 08.0
comp=Z,38μm,18.2s,baz=229,slow=39
comp=Z,174nm,1.0s
BDFB Brasilia 29.43 56 P P 01 00 56.9 -1.8
BDFB IAmb IAmb 01 01 16.4
comp=Z,310nm,1.0s
SIM2 UHE Simplicio 29.44 73 P P 01 00 58.4 -0.3
SNDB Serra Nova Dou 30.04 47 P P 01 01 02.9 -1.1
SNDB Serra Nova Dou 30.04 47 eP P 01 01 02.9 -1.1
CAM01 Campos-RJ 30.40 74 P P 01 01 06.9 -0.2
CAM01 Campos-RJ 30.40 74 eP P 01 01 05.7 -1.4
ESPZ Base Esperanza 30.50 166 P P 01 01 07.0 -0.6
ESPZ IAmb IAmb 01 02 09.0
comp=Z,345nm,1.2s
PMSA Palmer Station 30.69 172 LR LR 01 13 31.9
comp=Z,59μm,18.4s,baz=342,slow=36
PMSA Palmer Station 30.69 172 P P 01 01 09.3 +0.1
PMSA IAmb IAmb 01 01 11.8
comp=Z,422nm,1.1s
PMSA Palmer Station 30.69 172 ⇑P P 01 01 09.9 +0.7
PMSA Palmer Station 30.69 172 P P 01 01 10.3 +1.1
comp=Z,39μmcomp=Z,7μmcomp=Z,330nm,1.5s
PMSA Palmer Station 30.69 172 eP P 01 01 10.3 +1.1
DIAM Diamantina, MG 30.84 66 P P 01 01 10.5 -0.7
DIAM Diamantina, MG 30.84 66 eP P 01 01 08.7 -2.5
JQT1 Jequitai-MG 30.98 63 P P 01 01 11.4 -1.0
MC01 Montes Claros 31.62 63 P P 01 01 16.6 -1.4
RPN Rapa Nui 31.82 274 LR LR 01 10 36.3
comp=Z,39μm,20.1s,baz=114,slow=29
RPN Rapa Nui 31.82 274 IAMs_20 IAMs_20 01 10 14.3
comp=Z,39μm,21.0s
VA02 Isla de Pascua 31.89 273 IAMs_20 IAMs_20 01 10 17.2
comp=Z,40μm,22.0s
ORCD Orcadas 31.90 154 P P 01 01 18.9 -1.1
NPGB Novo Progresso 31.96 35 P P 01 01 20.1 -0.8
NPGB Novo Progresso 31.96 35 eP P 01 01 20.2 -0.8
HOPE Hope Point 32.22 139 P P 01 01 22.6 -0.2
HOPE pmax pmax
comp=Z,772nm,1.0s
HOPE MLR MLR
comp=Z,28μm,18.0s
HOPE Hope Point 32.22 139 P P 01 01 22.6 -0.2
HOPE Hope Point 32.22 139 IAMs_20 IAMs_20 01 16 47.2
comp=Z,28μm,18.0s
HOPE Hope Point 32.22 139 P P 01 01 23.5 +0.8
comp=Z,16μmcomp=Z,12μmcomp=Z,854nm,1.3s
SJMB Sao Joao De Ma 32.49 69 P P 01 01 25.2 -0.3
SJMB Sao Joao De Ma 32.49 69 eP P 01 01 24.3 -1.3
BSFB Barra de Sao F 32.67 70 P P 01 01 25.9 -1.3
BSFB Barra de Sao F 32.67 70 P P 01 01 24.9 -2.2
comp=Z,5μmcomp=Z,2μmcomp=Z,211nm,1.1s
BSFB Barra de Sao F 32.67 70 eP P 01 01 26.1 -1.1
RIB01 Linhares ES 32.75 71 P P 01 01 27.2 -0.6
RIB01 Linhares ES 32.75 71 eP P 01 01 26.2 -1.7
ARCA Araçuai, MG 33.01 66 eP P 01 01 29.4 -0.8
PPLP Puerto Lpez 33.66 346 P P 01 01 38.1 +2.3
SMAI San Martin Ant 33.74 176 P P 01 01 35.5 -0.4
PIAT Ana Tenorio 33.79 351 P P 01 01 39.6 +2.3
comp=Z,11μmcomp=Z,5μmcomp=Z,414nm,1.3s
SDBA SAO DESIDERIO 33.84 56 P P 01 01 36.1 -1.3
SDBA SAO DESIDERIO 33.84 56 eP P 01 01 36.0 -1.4
ITTB Itaituba 34.16 32 P P 01 01 39.4 -0.7
ITTB Itaituba 34.16 32 eP P 01 01 39.4 -0.7
PTLC Puerto Leguiza 34.64 357 P P 01 01 43.0 -1.3
comp=Z,10μmcomp=Z,6μmcomp=Z,563nm,0.9s
FLF1 Flavio Alfaro- 34.65 348 P P 01 01 43.8 -0.6
comp=Z,14μmcomp=Z,1μm,1.1s
GUA01 Guaratinga, BA 34.80 67 P P 01 01 44.8 -0.9
GUA01 Guaratinga, BA 34.80 67 eP P 01 01 43.6 -2.0
OTAV Otavalo 35.03 351 P P 01 01 48.7 +0.6
OTAV Otavalo 35.03 351 P P 01 01 48.4 +0.3
OTAV Otavalo 35.03 351 IAMs_20 IAMs_20 01 14 12.9
comp=Z,20μm,20.0s
OTAV Otavalo 35.03 351 P P 01 01 49.9 +1.8
comp=Z,10μmcomp=Z,4μmcomp=Z,309nm,1.3s
OTAV Otavalo 35.03 351 P P 01 01 49.4 +1.3
OTAV Otavalo 35.03 351 P P 01 01 50.0 +1.8
comp=Z,10μmcomp=Z,4μmcomp=Z,310nm,1.4s
OTAV pP pwP 01 01 56.9 +1.4
OTAV Otavalo 35.03 351 eP P 01 01 49.6 +1.5
TULM Tulcn-Chalpat 35.42 352 P P 01 01 53.3 +1.8
comp=Z,4μmcomp=Z,192nm,0.9s
CMBC Cumbal 35.64 352 P P 01 01 56.2 +2.8
CMC01 Camacan, BA 35.77 66 P P 01 01 53.0 -1.0
CMC01 Camacan, BA 35.77 66 eP P 01 01 52.8 -1.2
MACC Macarena, Meta 36.57 359 P P 01 02 02.5 +1.6
comp=Z,9μmcomp=Z,6μmcomp=Z,373nm,1.0s
BBAC Balboa, Cauca 36.65 353 P P 01 02 03.9 +2.2
comp=Z,11μmcomp=Z,5μmcomp=Z,354nm,1.4s
GARC Garzon, Huila 36.68 356 P P 01 02 03.8 +1.8
ATM1 UHE Belo Monte 36.74 37 P P 01 02 01.9 -0.4
MAL2 Monte Alegre, 36.94 33 P P 01 02 03.8 -0.2
BMO1 UHE Belo Monte 37.09 37 P P 01 02 04.7 -0.6
POPC Popayan, Colom 37.11 354 P P 01 02 07.1 +1.4
comp=Z,12μmcomp=Z,3μmcomp=Z,192nm,1.2s
PAYG Puerto Ayora 37.38 331 P P 01 02 08.4 +0.7
PAYG IAmb IAmb 01 02 25.7
comp=Z,487nm,1.1s
PAYG Puerto Ayora 37.38 331 P P 01 02 10.8 +3.1
comp=Z,10μmcomp=Z,5μmcomp=Z,383nm,1.2s
PAYG Puerto Ayora 37.38 331 P P 01 02 10.4 +2.6
comp=Z,10μmcomp=Z,5μmcomp=Z,393nm,1.2s
PAYG Puerto Ayora 37.38 331 ⇓eP P 01 02 09.2 +1.5
URMC La Uribe, Meta 37.68 358 P P 01 02 11.1 +0.8
comp=Z,9μmcomp=Z,7μmcomp=Z,677nm,0.8s
JAMC Jamundi, Valle 37.78 354 P P 01 02 12.7 +1.4
comp=Z,9μmcomp=Z,2μmcomp=Z,167nm,1.4s
PRAC Prado 38.16 357 P P 01 02 16.7 +2.3
PRAC Prado 38.16 357 P P 01 02 16.7 +2.3
comp=Z,10μmcomp=Z,9μmcomp=Z,814nm,1.3s
NBPN Ponto Novo - B 38.22 60 P P 01 02 14.1 -0.8
NBPN Ponto Novo - B 38.22 60 eP P 01 02 13.8 -1.2
ORTC Ortega, Tolima 38.37 357 P P 01 02 18.5 +2.4
comp=Z,10μmcomp=Z,10μmcomp=Z,925nm,0.9s
YOTC Yotoco, Valle 38.51 355 P P 01 02 18.6 +1.2
comp=Z,3μmcomp=Z,166nm,1.3s
PTGC Puerto Gaitan, 38.62 2 P P 01 02 15.5 -2.7
comp=Z,4μmcomp=Z,135nm,0.9s
BOAV Boa Vista 38.68 20 P P 01 02 17.8 -0.9
BOAV Boa Vista 38.68 20 P P 01 02 18.5 -0.2
comp=Z,12μmcomp=Z,4μmcomp=Z,152nm,0.9s
BOAV Boa Vista 38.68 20 P P 01 02 18.4 -0.2
BOAV Boa Vista 38.68 20 eP P 01 02 18.2 -0.5
CVER Cruz Verde, Cu 38.94 359 P P 01 02 24.4 +3.0
comp=Z,5μmcomp=Z,295nm,0.9s
CHIC Chingaza 39.04 359 P P 01 02 24.2 +2.0
comp=Z,11μmcomp=Z,4μmcomp=Z,223nm,0.9s
ROSC El Rosal 39.26 358 P P 01 02 25.0 +1.0
comp=Z,232nm,0.8s,baz=160,slow=4.8,SNR=68
ROSC LR LR 01 18 26.2
comp=Z,35μm,18.6s,baz=190,slow=36
comp=Z,232nm,0.8s
ROSC El Rosal 39.26 358 P P 01 02 25.6 +1.6
ROSC pmax pmax
comp=Z,211nm,0.8s
ROSC El Rosal 39.26 358 P P 01 02 25.6 +1.6
ROSC IAmb IAmb 01 02 28.8
comp=Z,211nm,0.8s
ROSC El Rosal 39.26 358 P P 01 02 29.4 +5.4
GUY2C Guyana, Caldas 39.68 357 P P 01 02 29.6 +2.0
comp=Z,12μmcomp=Z,5μmcomp=Z,276nm,0.9s
NORC Norcasia 40.00 357 P P 01 02 29.1 -0.6
comp=Z,4μmcomp=Z,4μmcomp=Z,158nm,0.9s
SPBC San Pablo de B 40.06 359 P P 01 02 32.4 +2.1
comp=Z,9μmcomp=Z,4μmcomp=Z,172nm,1.5s
RUSC La Rusia 40.29 0 P P 01 02 34.3 +1.6
RUSC La Rusia 40.29 0 P P 01 02 33.2 +0.6
RUSC La Rusia 40.29 0 P P 01 02 34.8 +2.1
comp=Z,11μmcomp=Z,11μmcomp=Z,1μm,1.4s
CBOC Ciudad Bolivar 40.35 356 P P 01 02 34.3 +1.5
comp=Z,10μmcomp=Z,5μmcomp=Z,506nm,1.0s
TAMC Tame, Arauca 40.85 2 P P 01 02 37.5 +0.7
comp=Z,11μmcomp=Z,7μmcomp=Z,546nm,1.0s
PTBC PUERTO BERRIO, 40.95 358 P P 01 02 37.7 +0.1
comp=Z,9μmcomp=Z,3μmcomp=Z,156nm,0.8s
BARC Barichara 40.98 360 P P 01 02 37.9 -0.2
comp=Z,3μmcomp=Z,172nm,1.5s
BRJC Barrancabermej 41.37 359 P P 01 02 38.8 -2.2
comp=Z,11μmcomp=Z,4μmcomp=Z,336nm,0.9s
NBMA Muriti-CE 41.65 57 P P 01 02 43.0 -0.5
NBMA Muriti-CE 41.65 57 eP P 01 02 42.8 -0.7
NBPS Pedro II - PI 42.03 51 P P 01 02 45.9 -0.8
NBPS Pedro II - PI 42.03 51 eP P 01 02 45.5 -1.1
UREC San Jos de Ur 42.20 356 P P 01 02 48.5 +0.7
comp=Z,9μmcomp=Z,3μmcomp=Z,125nm,0.8s
UREC San Jos de Ur 42.20 356 iP P 01 02 47.0 -0.8
TOSI3 Tonosi 42.36 349 eP P 01 02 50.5 +1.4
CACAO El Cacao, Vera 42.37 349 P P 01 02 50.8 +1.6
comp=Z,4μmcomp=Z,305nm,1.1s
CACAO El Cacao, Vera 42.37 349 ⇓iP P 01 02 50.2 +1.0
NBPB Pedra_Branca-C 42.41 55 P P 01 02 49.3 -0.3
APAC Apartado, Choc 42.41 355 P P 01 02 52.9 +3.4
comp=Z,16μmcomp=Z,7μmcomp=Z,307nm,1.6s
PEDA3 Pedasi 42.42 350 eP P 01 02 50.6 +1.0
PCRI3 Pocri, Los San 42.56 350 eP P 01 02 51.6 +0.8
OCAC Ocana 42.62 360 P P 01 02 49.9 -1.5
comp=Z,6μmcomp=Z,3μmcomp=Z,260nm,0.8s
MARI3 Mariato, Verag 42.69 348 eP P 01 02 53.6 +1.9
GMAL Guarumal, Vera 42.84 348 P P 01 02 55.1 +2.1
comp=Z,7μmcomp=Z,409nm,1.3s
GMAL Guarumal, Vera 42.84 348 iP P 01 02 54.6 +1.6
PFBR Pau dos Ferros 42.88 57 P P 01 02 52.7 -0.8
CHIT3 Chitre 42.90 349 iP P 01 02 54.3 +0.9
NBLV Livramento - P 42.95 59 P P 01 02 53.4 -0.7
RSUS3 Rio de Jesus, 43.04 348 eP P 01 02 56.0 +1.4
PVID3 Puerto Vidal, 43.18 348 eP P 01 02 57.6 +1.9
SDV Santo Domingo 43.33 4 LR LR 01 22 05.6
comp=Z,13μm,19.8s,baz=190,slow=38
SDV Santo Domingo 43.33 4 P P 01 02 56.6 -0.6
SDV IAMs_20 IAMs_20 01 23 51.1
comp=Z,20μm,18.0s
SDV Santo Domingo 43.33 4 P P 01 02 57.0 -0.2
comp=Z,50μmcomp=Z,20μmcomp=Z,1μm,0.7s
SDV Santo Domingo 43.33 4 P P 01 02 57.0 -0.2
comp=Z,55μmcomp=Z,19μmcomp=Z,1μm,0.7s
LCBC Los crdobas, 43.34 355 P P 01 02 58.2 +1.2
LCBC IAmb IAmb 01 03 14.9
comp=Z,592nm,1.0s
LCBC Los crdobas, 43.34 355 P P 01 02 56.8 -0.3
comp=Z,13μmcomp=Z,9μmcomp=Z,591nm,0.9s
NANC3 Nancito, Chiri 43.39 348 eP P 01 02 59.0 +1.5
REME3 Remedios, Chir 43.40 347 eP P 01 02 59.6 +2.1
PNME Penonome 43.40 350 P P 01 02 59.0 +1.4
comp=Z,8μmcomp=Z,8μmcomp=Z,110nm,1.1s
PNME Penonome 43.40 350 eP P 01 02 58.1 +0.5
LIMO3 Limones 43.47 346 eP P 01 02 57.0 -1.1
SAFE3 Santa Fe, Vera 43.55 349 eP P 01 02 59.9 +1.1
PTPM Petroterminale 43.57 346 eP P 01 03 01.3 +2.4
FLAM Flamenco Islan 43.71 351 eP P 01 02 59.9 -0.2
DVD David 43.72 347 iP P 01 02 59.9 -0.2
BAGA3 Bagala, Chiriq 43.76 347 iP P 01 03 01.9 +1.5
NBMO Morrinhos-CE 43.76 52 P P 01 02 59.8 -0.8
NBMO Morrinhos-CE 43.76 52 eP P 01 02 59.5 -1.1
UPA Univ. de Panam 43.78 351 P P 01 02 59.5 -1.1
comp=Z,2μmcomp=Z,113nm,1.0s
UPA Univ. de Panam 43.78 351 iP P 01 03 01.6 +1.0
ARRA3 Arraijan, Pana 43.78 351 eP P 01 03 01.5 +0.9
ZANG Zanguenga, Cho 43.80 350 ⇓iP P 01 03 01.9 +1.1
CHPO Chepo, Panama 43.91 351 iP P 01 03 02.2 +0.6
CDITO Canoas 43.93 346 eP P 01 03 02.5 +0.7
PSOM3 Paja de Sombre 43.93 347 eP P 01 03 02.8 +0.9
GAMB1 Gamboa 43.94 351 eP P 01 03 02.7 +0.8
NBPA Parau_RN 43.95 57 P P 01 03 01.4 -0.7
NBPA Parau_RN 43.95 57 eP P 01 03 01.8 -0.3
PTAR3 Potrerillos Ar 43.97 347 eP P 01 03 04.1 +1.8
MDP Montagnes des 43.98 30 LR LR 01 22 59.5
comp=Z,29μm,20.5s,baz=198,slow=38
BCIP Isla Barro Col 44.00 350 P P 01 03 03.8 +1.4
comp=Z,1μmcomp=Z,119nm,1.1s
BCIP Isla Barro Col 44.00 350 P P 01 03 03.6 +1.2
comp=Z,1μmcomp=Z,121nm,1.1s
BCIP Isla Barro Col 44.00 350 ⇓iP P 01 03 03.0 +0.7
FRIJ El Hiral 44.04 351 ⇓iP P 01 03 03.5 +0.8
BRU2 Volcan 44.11 346 P P 01 03 03.6 +0.2

BRU2 Volcan 44.11 346 *i* P P 01 03 04.8 +1.4
CHGR2 Aguacate 44.15 347 *e*P P 01 03 04.3 +0.7
CTCR Cotoan 44.22 346 *e*P P 01 03 05.8 +1.4
ARGC Ariguani, Magd 44.24 358 P P 01 03 05.4 +1.1
comp=Z,11μmcomp=Z,9μmcomp=Z,405nm,1.3s
NBCL Cascavel-CE 44.24 55 P P 01 03 03.8 -0.6
SJCC San Jacinto, C 44.31 357 P P 01 03 04.6 -0.3
SJCC IAmb IAmb 01 03 23.3
comp=Z,280nm,0.9s
SJCC San Jacinto, C 44.31 357 P P 01 03 06.2 +1.3
comp=Z,10μmcomp=Z,3μmcomp=Z,334nm,1.0s
SJCC San Jacinto, C 44.31 357 *i* P P 01 03 03.7 -1.2
RCBR Riachuelo 44.74 59 LR LR 01 21 57.7
comp=Z,6μm,19.3s,baz=216,slow=36
RCBR Riachuelo 44.74 59 P P 01 03 07.5 -0.9
RCBR pmax pmax
comp=Z,236nm,1.5s
RCBR MLR MLR
comp=Z,19μm,18.0s
RCBR Riachuelo 44.74 59 P P 01 03 07.5 -0.9
RCBR Riachuelo 44.74 59 IAms_20 IAms_20 01 20 53.1
comp=Z,19μm,18.0s
RCBR Riachuelo 44.74 59 P P 01 03 07.7 -0.8
RCBR Riachuelo 44.74 59 P P 01 03 08.4 0.0
comp=Z,2μmcomp=Z,84nm,1.4s
RCBR Riachuelo 44.74 59 *e*P P 01 03 08.2 -0.3
NBPV Pedro Velho 44.77 60 P P 01 03 08.8 +0.2
NBPV Pedro Velho 44.77 60 *e*P P 01 03 08.7 +0.1
LCR2 La Lucha 2 45.30 345 P P 01 03 12.2 -0.8
LCR2 La Lucha 2 45.30 345 *e*P P 01 03 12.8 -0.2
CRJC Cerrejon, Guaj 45.38 0 P P 01 03 12.7 -0.8
comp=Z,8μmcomp=Z,2μmcomp=Z,99nm,1.4s
RAFA San Farael, Vo 45.47 345 P P 01 03 14.2 -0.3
SMRC Santa Marta, M 45.54 359 P P 01 03 13.6 -1.0
SMRC IAmb IAmb 01 03 16.8
comp=Z,194nm,0.9s
SMRC Santa Marta, M 45.54 359 P P 01 03 13.1 -1.5
comp=Z,8μmcomp=Z,6μmcomp=Z,289nm,0.9s
HDC Heredia 45.58 345 P P 01 03 16.8 +1.7
comp=Z,9μmcomp=Z,5μmcomp=Z,258nm,1.7s
HDC Heredia 45.58 345 *e*P P 01 03 16.3 +1.2
CMARA Lajas Hojancha 45.89 343 *e*P P 01 03 17.5 0.0
TRT2 Tortugero 46.03 345 *e*P P 01 03 19.0 +0.4
JTS Las Juntas de 46.04 344 LR LR 01 18 20.4
comp=Z,14μm,20.2s,baz=158,slow=30
JTS Las Juntas de 46.04 344 *d i*P P 01 03 19.9 +1.2
JTS pmax pmax
comp=Z,158nm,1.2s
JTS MLR MLR
comp=Z,7μm,16.0s
JTS Las Juntas de 46.04 344 P P 01 03 18.6 -0.1
JTS IAmb IAmb 01 03 35.6
comp=Z,436nm,1.6s
JTS Las Juntas de 46.04 344 IAMs_20 IAMs_20 01 18 08.6
comp=Z,14μm,20.0s
JTS Las Juntas de 46.04 344 P P 01 03 18.8 +0.1
JTS Las Juntas de 46.04 344 P P 01 03 20.2 +1.6
comp=Z,8μmcomp=Z,3μmcomp=Z,178nm,1.5s
JTS Las Juntas de 46.04 344 ⇓ *i*P P 01 03 19.9 +1.2
URIC Uribia, Colomb 46.08 2 P P 01 03 14.9 -3.9
comp=Z,7μmcomp=Z,2μmcomp=Z,155nm,0.9s
COTE Lago Cote 46.31 344 *e*P P 01 03 22.3 +1.5
TIMP Tierras Morena 46.34 344 *e*P P 01 03 22.7 +1.7
BAGA Bagaces 46.34 343 *e*P P 01 03 22.5 +1.5
QUEB Quebradon, Cot 46.35 344 *e*P P 01 03 22.7 +1.6
BELA Belgrano 2 46.44 170 P P 01 03 21.5 +0.4
CUI Cuipilapa 46.45 344 *e*P P 01 03 22.7 +0.9
MESS Mesas 46.53 344 *e*P P 01 03 24.0 +1.5
CLARA Aguas Claras 46.57 344 *e*P P 01 03 24.5 +1.7
LAPC Finca la Perla 46.62 343 *e*P P 01 03 24.4 +1.2
UPAL Upala 46.64 344 *e*P P 01 03 24.8 +1.4
CARN Rivas 47.04 343 P P 01 03 25.9 -0.6
CARN IAmb IAmb 01 04 07.5
comp=Z,363nm,1.2s
BLUN Bluefields 47.45 346 P P 01 03 30.1 +0.5
comp=Z,39nm,1.0s
GRGR Grenville 47.75 15 IAMs_20 IAMs_20 01 26 54.1
comp=Z,15μm,19.0s
GRGR Grenville 47.75 15 P P 01 03 32.0 0.0
comp=Z,8μmcomp=Z,781nm,1.5s
GRGR Grenville 47.75 15 P P 01 03 32.0 0.0
comp=Z,11μmcomp=Z,11μmcomp=Z,975nm,1.5s
MGAN Managua 48.14 343 P P 01 03 34.4 -0.6
MGAN IAmb IAmb 01 03 37.5
comp=Z,162nm,0.9s
MGAN Managua 48.14 343 P P 01 03 35.4 +0.4
comp=Z,4μmcomp=Z,160nm,1.1s
MGAN Managua 48.14 343 P P 01 03 35.4 +0.4
comp=Z,7μmcomp=Z,4μmcomp=Z,166nm,1.1s
BOAB BOACO BROADBAND 48.29 344 P P 01 03 35.7 -0.4
BOAB BOACO BROADBAND 48.29 344 P P 01 03 36.2 +0.1
comp=Z,18μmcomp=Z,5μmcomp=Z,324nm,1.4s
CNGN Cerro Negro 48.59 342 P P 01 03 38.7 +0.2
comp=Z,7μmcomp=Z,3μmcomp=Z,221nm,1.2s
TRIS Tristan da Cun 48.63 111 P P 01 03 38.1 -0.5
TRIS IAMs_20 IAMs_20 01 22 05.8
comp=Z,12μm,20.0s
TRIS Tristan da Cun 48.63 111 P P 01 03 39.9 +1.2
comp=Z,8μmcomp=Z,366nm,1.8s
CRIN San Cristobal 48.88 342 P P 01 03 40.2 -0.5
CRIN IAmb IAmb 01 04 12.4
comp=Z,242nm,1.0s
VNA3 Neumayer Olymp 49.14 157 ⇑P P 01 03 42.4 +0.3
comp=Z,310nm,0.9s
VNA3 ⇑pP PP 01 05 34.7 -0.9
comp=Z,1μm,3.6s
VNA3 Neumayer Olymp 49.14 157 P P 01 03 42.6 +0.5
comp=Z,10μmcomp=Z,679nm,1.4s
BBGH Gun Hill 49.22 18 IAMs_20 IAMs_20 01 25 01.8
comp=Z,19μm,22.0s
SIUN Universidad Ur 49.32 345 P P 01 03 44.0 0.0
BILN Bilwi Airport 49.36 347 P P 01 03 44.2 -0.2
BILN IAmb IAmb 01 03 46.2
comp=Z,231nm,0.9s
VNA1 Neumayer--Stat 49.47 157 ⇑P P 01 03 45.3 +0.7
comp=Z,326nm,1.0s
PTCN Pitcairn Islan 49.75 265 IAMs_20 IAMs_20 01 19 25.7
comp=Z,13μm,18.0s
VNA2 Neumayer--Watz 49.80 157 ⇑P P 01 03 47.5 +0.3
comp=Z,312nm,0.7s,baz=282,slow=7.7
VNA2 ⇑pP PP 01 05 41.1 -0.5
comp=Z,1μm,2.4s,baz=252,slow=5.3
VNA2 Neumayer--Watz 49.80 157 P P 01 03 47.7 +0.5
comp=Z,10μmcomp=Z,11μmcomp=Z,814nm,1.6s
MPOM Morne Pois Mar 50.17 16 P P 01 03 49.4 -1.1
MPOM IAMs_20 IAMs_20 01 28 34.9
comp=Z,11μm,20.0s
MPOM Morne Pois Mar 50.17 16 P P 01 03 49.6 -0.9
comp=Z,7μmcomp=Z,11μmcomp=Z,940nm,1.2s,comp=Z,11μm
MPOM pP pwP 01 03 57.5 -0.5
BIM Bigot 50.19 15 P P 01 03 49.5 -1.2
BIM IAMs_20 IAMs_20 01 28 25.5
comp=Z,10μm,19.0s
BIM Bigot 50.19 15 x P 01 03 49.2 -1.5
BIM Bigot 50.19 15 P P 01 03 49.2 -1.5
comp=Z,7μmcomp=Z,7μmcomp=Z,438nm,1.0s
BIM pP pwP 01 03 57.8 -0.5
TGUH Tegucigalpa,Un 50.23 342 P P 01 03 50.7 -0.4
TGUH IAmb IAmb 01 04 06.5
comp=Z,413nm,1.3s
TGUH IAMs_20 IAMs_20 01 20 19.5
comp=Z,13μm,20.0s
TGUH Tegucigalpa,Un 50.23 342 P P 01 03 51.7 +0.6
comp=Z,9μmcomp=Z,4μmcomp=Z,272nm,1.4s
TGUH Tegucigalpa,Un 50.23 342 P P 01 03 51.7 +0.6
comp=Z,7μmcomp=Z,4μmcomp=Z,274nm,1.4s
FDFM Morne la Roset 50.38 15 P P 01 03 50.5 -1.6
ILAM Ilet Lapin Mar 50.48 15 IAMs_20 IAMs_20 01 25 08.2
comp=Z,11μm,20.0s
SVN Savane Anatole 50.48 15 P P 01 03 51.6 -1.3
SVN Savane Anatole 50.48 15 x P 01 03 50.7 -2.2
MTO3 Montecristo 51.12 340 P P 01 03 58.0 0.0
ESQI Esquipulas 51.27 340 P P 01 03 59.1 +0.1
ESQI IAmb IAmb 01 04 17.5
comp=Z,277nm,1.2s
SNAA Sanae 51.36 158 ⇑P P 01 03 59.3 +0.2
comp=Z,7μm,0.7s
SNAA ⇓pP PP 01 05 59.7 +3.9
comp=Z,68μm,5.8s
SNAA Sanae 51.36 158 P P 01 03 59.4 +0.4
comp=Z,381nm,0.8s,baz=276,slow=5.9,SNR=354
SNAA LR LR 01 24 53.0
comp=Z,14μm,19.1s,baz=293,slow=35
comp=Z,381nm,0.8s
SNAA Sanae 51.36 158 P P 01 03 59.0 0.0
SNAA IAMs_20 IAMs_20 01 22 34.7
comp=Z,17μm,22.0s
SNAA Sanae 51.36 158 P P 01 03 59.5 +0.4
comp=Z,13μmcomp=Z,14μmcomp=Z,907nm,1.6s
MAGL Barre de l'ile 51.53 15 IAMs_20 IAMs_20 01 29 06.1
comp=Z,10μm,18.0s
CBE Ff, Capester 51.59 14 P P 01 03 59.7 -1.5
CBE IAmb IAmb 01 04 22.1
comp=Z,312nm,1.0s
CBE IAMs_20 IAMs_20 01 29 34.4
comp=Z,13μm,20.0s
CBE Ff, Capester 51.59 14 P P 01 03 59.5 -1.7
comp=Z,325nm,1.2s
GDHS Morne Mazeau, 51.75 14 P P 01 04 00.8 -1.6
GDHS IAMs_20 IAMs_20 01 29 07.3
comp=Z,14μm,20.0s
GDHS Morne Mazeau, 51.75 14 P P 01 04 00.9 -1.6
comp=Z,5μmcomp=Z,384nm,1.3s
GDSD La Dsirade Is 51.93 15 P P 01 04 01.8 -2.0
GDSD IAmb IAmb 01 04 12.5
comp=Z,382nm,1.0s
GDSD La Dsirade Is 51.93 15 P P 01 04 02.2 -1.5
comp=Z,7μmcomp=Z,5μmcomp=Z,384nm,1.1s,comp=Z,5μm
GDSD pP pwP 01 04 09.7 -1.7
ABD La Joyeuse, An 52.00 14 IAMs_20 IAMs_20 01 29 53.7
comp=Z,12μm,20.0s
PODR Polo 52.52 2 P P 01 04 07.4 -0.9
SEUS St. Eustatius 52.71 12 IAMs_20 IAMs_20 01 30 30.6
comp=Z,14μm,18.0s
SEUS St. Eustatius 52.71 12 ⇓P P 01 04 08.8 -0.7
comp=Z,115μmcomp=Z,494nm,1.6s
BANI BANI 52.78 3 P P 01 04 09.3 -0.9
SABA Saba 52.79 12 P P 01 04 08.9 -1.2
SABA IAMs_20 IAMs_20 01 26 23.7
comp=Z,15μm,22.0s
SABA Saba 52.79 12 x P 01 04 09.3 -0.8
SABA Saba 52.79 12 ⇓P P 01 04 09.1 -1.0
comp=Z,7μmcomp=Z,484nm,1.3s
SJG San Juan 52.85 8 LR LR 01 26 51.7
comp=Z,7μm,18.8s,baz=182,slow=36
SJG San Juan 52.85 8 P P 01 04 09.1 -1.4
SJG pmax pmax
comp=Z,271nm,1.2s
SJG MLR MLR
comp=Z,13μm,19.0s
SJG San Juan 52.85 8 P P 01 04 09.1 -1.4
SJG IAmb IAmb 01 04 28.6
comp=Z,271nm,1.2s
SJG San Juan 52.85 8 IAMs_20 IAMs_20 01 30 15.4
comp=Z,13μm,19.0s
SJG San Juan 52.85 8 P P 01 04 09.6 -0.9
comp=Z,6μmcomp=Z,4μmcomp=Z,197nm,1.0s
SJG San Juan 52.85 8 x P 01 04 11.2 +0.7
SJG San Juan 52.85 8 P P 01 04 08.9 -1.6
comp=Z,6μmcomp=Z,4μmcomp=Z,197nm,1.0s
TROLL Troll, Antarti 53.06 158 ⇑P P 01 04 12.1 +0.3
comp=Z,14μm,0.7s
ANWB Willy Bob 53.10 14 IAMs_20 IAMs_20 01 26 08.9
comp=Z,11μm,22.0s
ANWB Willy Bob 53.10 14 P P 01 04 10.5 -1.9
comp=Z,7μmcomp=Z,496nm,1.2s
SMRT St. Maarten 53.24 12 IAMs_20 IAMs_20 01 26 37.6
comp=Z,11μm,21.0s
SMRT St. Maarten 53.24 12 ⇓P P 01 04 12.5 -0.9
comp=Z,191nm,1.3s
SDDR Presa de Saban 53.33 2 P P 01 04 13.3 -0.8
SDDR IAMs_20 IAMs_20 01 29 57.2
comp=Z,11μm,18.0s
SDDR Presa de Saban 53.33 2 P P 01 04 14.2 +0.1
comp=Z,7μmcomp=Z,2μmcomp=Z,97nm,1.0s
SDDR Presa de Saban 53.33 2 *e*P P 01 04 10.1 -4.0
SDDR Presa de Saban 53.33 2 ⇓P P 01 04 13.0 -1.1
comp=Z,7μmcomp=Z,2μmcomp=Z,97nm,1.0s
CCIG Comitan 53.74 337 P P 01 04 17.2 -0.1
CCIG IAmb IAmb 01 04 48.8
comp=Z,186nm,1.1s
GTBY Guantanamo Bay 54.27 358 P P 01 04 20.4 -0.5
GTBY IAmb IAmb 01 04 36.2
comp=Z,207nm,0.8s
GTBY IAMs_20 IAMs_20 01 26 59.3
comp=Z,9μm,20.0s
GTBY Guantanamo Bay 54.27 358 P P 01 04 21.0 +0.1
comp=Z,8μmcomp=Z,4μmcomp=Z,358nm,1.0s
GTBY Guantanamo Bay 54.27 358 *e*P P 01 04 20.4 -0.5
GTBY Guantanamo Bay 54.27 358 P P 01 04 21.1 +0.1
comp=Z,8μmcomp=Z,4μmcomp=Z,362nm,1.0s
PILO Pilon 54.37 355 *e*P P 01 04 20.3 -1.4
MARVS Santiago de Cu 54.38 357 *e*P P 01 04 19.6 -2.1
LCCY Blossom Villag 54.38 352 P P 01 04 21.3 -0.4
LCCY Blossom Villag 54.38 352 *e*P P 01 04 19.3 -2.4
CBCY The Bluff, Cay 54.42 352 *e*P P 01 04 19.8 -2.2
LMGC Las Mercedes 54.50 356 *e*P P 01 04 21.0 -1.6
QMBU Quimbuelo 54.53 358 *e*P P 01 04 21.5 -1.4
RKT Rikitea 54.60 265 *e*P P 01 04 28.8 +5.3
comp=Z,1μm,28.8s
RKT *e*S S 01 12 02.4 -0.5
comp=Z,19μm,28.5s
RKT *e*LQ LQ 01 17 53.7
comp=Z,68μm,33.0s
RKT *e*LR LR 01 20 14.0
comp=Z,43μm,25.5s
SABCS La Quijada 54.71 358 *e*P P 01 04 23.3 -0.9
YAR Yar 54.77 356 *e*P P 01 04 24.3 -0.2
PINC Pinares de May 54.86 357 *e*P P 01 04 24.7 -0.4
NMDO Nuevo Mundo 54.90 358 P P 01 04 24.6 -0.8
NMDO Nuevo Mundo 54.90 358 *e*P P 01 04 22.8 -2.6
HLGC Holguin 55.27 357 *e*P P 01 04 28.8 +0.6
CMIG Matias Romero 55.42 335 LR LR 01 22 29.5
comp=Z,12μm,21.0s,baz=146,slow=30
QSPA South Pole Qui 55.62 180 P P 01 04 31.0 +0.5
comp=Z,420nm,1.1s,baz=145,slow=2.6,SNR=294
QSPA LR LR 01 26 55.0
comp=Z,7μm,21.7s,baz=158,slow=34
comp=Z,420nm,1.1s
QSPA South Pole Qui 55.62 180 P P 01 04 30.9 +0.5
QSPA South Pole Qui 55.62 180 ⇑P P 01 04 31.3 +0.9
comp=Z,14μmcomp=Z,10μmcomp=Z,600nm,1.2s
CCCC Cccc 55.68 355 *e*P P 01 04 31.1 0.0
GRTK Grand Turk 55.85 2 IAMs_20 IAMs_20 01 31 42.9
comp=Z,10μm,19.0s
GRTK Grand Turk 55.85 2 *e*P P 01 04 29.0 -3.3
NVL N'lazarevskaya 56.12 157 *e*P P 01 04 29.7 -4.0
NVL *e*PPP PPP 01 07 55.4
NVL *e*S S 01 12 17.8 -4.1
NVL *e*SS SS 01 16 07.1 -0.5
NVL *e*SSS SSS 01 18 10.9
NVL pmax pmax
comp=Z,441nm,0.8s
NVL MLR MLR
comp=Z,7μm,17.0s
TEIG Tepich 56.41 343 P P 01 04 36.0 -0.3
TEIG Tepich 56.41 343 P P 01 04 37.2 +0.9
TEIG Tepich 56.41 343 ⇓P P 01 04 36.4 +0.1
comp=Z,8μmcomp=Z,5μmcomp=Z,461nm,0.9s
TEIG Tepich 56.41 343 ⇓ *i*P P 01 04 36.4 +0.1
CAIB Caibarien 57.11 353 *e*P P 01 04 40.9 -0.4
TLIG Tlapa 57.25 331 P P 01 04 42.9 +0.4
TLIG IAmb IAmb 01 05 00.6
comp=Z,173nm,1.2s
SOR Soroa 57.86 349 *e*P P 01 04 46.2 -0.3
SOR Soroa 57.86 349 ⇓P P 01 04 46.4 -0.1
comp=Z,7μmcomp=Z,5μmcomp=Z,310nm,1.2s
CAMR Camarioca 57.89 351 *e*P P 01 04 46.4 -0.3
UNM Universidad Na 59.09 331 P P 01 04 57.6 +2.1
comp=Z,8μmcomp=Z,5μmcomp=Z,301nm,1.1s
ELIB Princess Elisa 59.45 159 *d*P P 01 04 57.4 0.0
comp=Z,281nm,0.9s
ELIB *d*PP PP 01 07 10.1 +1.9
ELIB *d*S S 01 13 05.3 -0.6
ELIB *d*ScS ScS 01 14 44.6 -2.3
ASCN Ascension 59.94 78 P P 01 05 00.8 -0.5
ASCN IAmb IAmb 01 05 11.3
comp=Z,322nm,1.4s
ASCN IAMs_20 IAMs_20 01 30 33.0
comp=Z,9μm,18.0s
ASCN Ascension 59.94 78 P P 01 05 01.0 -0.3
comp=Z,5μmcomp=Z,181nm,1.5s
MOIG Morelia 60.22 329 P P 01 05 03.3 0.0
MOIG IAmb IAmb 01 05 23.5
comp=Z,149nm,0.9s
SBA Scott Base 62.29 192 P P 01 05 16.7 +0.3
SBA pmax pmax
comp=Z,340nm,1.4s
SBA Scott Base 62.29 192 P P 01 05 16.6 +0.3
SBA Scott Base 62.29 192 P P 01 05 18.2 +1.9
comp=Z,13μmcomp=Z,6μmcomp=Z,188nm,1.2s
SHEL Horse Pasture 62.65 91 P P 01 05 18.6 -1.1
SHEL pmax pmax
comp=Z,197nm,0.9s
SHEL Horse Pasture 62.65 91 P P 01 05 18.6 -1.1
SHEL IAmb IAmb 01 05 31.2
comp=Z,197nm,0.8s
SHEL Horse Pasture 62.65 91 P P 01 05 20.3 +0.6
comp=Z,5μmcomp=Z,282nm,0.8s
DWPF Disney Wildern 62.88 352 P P 01 05 20.4 -0.4
DWPF IAmb IAmb 01 05 21.7
comp=Z,148nm,0.8s
VNDA Vanda 63.32 192 P P 01 05 24.8 +1.5
comp=Z,37nm,1.0s,baz=136,slow=6.0,SNR=31
VNDA LR LR 01 29 35.3
comp=Z,3μm,20.3s,baz=132,slow=33
VNDA PKPPKP P'P'df 01 34 18.8 -10
comp=Z,2.9nm,0.9s,baz=300,slow=7.1,SNR=4.7
comp=Z,37nm,1.0s
VNDA Vanda 63.32 192 P P 01 05 24.1 +0.9
VNDA IAmb IAmb 01 05 50.4
comp=Z,242nm,1.1s
VNDA Vanda 63.32 192 ⇑P P 01 05 24.7 +1.5
comp=Z,8μmcomp=Z,4μmcomp=Z,212nm,1.2s
ZAIG Zacatecas 63.55 330 P P 01 05 25.7 0.0
ZAIG Zacatecas 63.55 330 ⇓P P 01 05 27.5 +1.8
comp=Z,7μmcomp=Z,2μmcomp=Z,64nm,1.3s
456A Hilliard 65.53 352 IAMs_20 IAMs_20 01 31 18.5
comp=Z,8μm,20.0s
SYO Syowa Base 65.63 159 ⇑ *i*P P 01 05 38.0 -0.4
SYO Syowa Base 65.63 159 ⇑ *i*P P 01 05 45.0 +6.6
KVTX Kingsville 66.11 336 IAMs_20 IAMs_20 01 36 14.5
comp=Z,10μm,18.0s
KVTX Kingsville 66.11 336 ⇓P P 01 05 43.9 +1.9
comp=Z,9μmcomp=Z,4μmcomp=Z,232nm,1.0s
TAOE Nuku Hiva Isla 66.12 276 *e*PKIKP P 01 05 43.7 +1.2
comp=Z,473nm,1.4s
TAOE *e*S S 01 14 26.6 -4.3
comp=Z,1μm,24.6s
TAOE *e*SS SS 01 18 50.2 +3.5
comp=Z,3μm,28.6s
TAOE *e*LQ LQ 01 22 29.1
comp=Z,7μm,42.4s
TAOE *e*LR LR 01 25 35.0
comp=Z,13μm,25.5s
TAOE Nuku Hiva Isla 66.12 276 P P 01 05 42.4 -0.2
TAOE IAmb IAmb 01 05 46.4
comp=Z,259nm,1.3s
TBI Tubuai 66.29 257 *e*P P 01 05 44.0 +0.6
comp=Z,518nm,1.3s
TBI *e*S S 01 14 33.2 +0.6
comp=Z,8μm,30.5s
TBI *e*SS SS 01 18 47.3 -1.4
comp=Z,6μm,25.2s
TBI *e*LQ LQ 01 22 36.2
comp=Z,41μm,33.2s
TBI *e*LR LR 01 25 34.7
comp=Z,16μm,27.0s
TBI *e*LR LR 01 25 41.7
comp=Z,68μm,27.2s
545A Edgard 66.36 344 IAMs_20 IAMs_20 01 35 51.9
comp=Z,10μm,18.0s
TIGA Tifton 66.44 350 IAMs_20 IAMs_20 01 31 31.5
comp=Z,7μm,20.0s
BRAL Brewton 66.73 347 P P 01 05 45.7 -0.1
BBSR BB Station 67.11 8 P P 01 05 47.5 -0.6
BBSR IAmb IAmb 01 06 08.7
comp=Z,169nm,1.1s
BBSR BB Station 67.11 8 ⇓P P 01 05 48.5 +0.3
comp=Z,4μmcomp=Z,3μmcomp=Z,144nm,1.2s
735A Kenedy 67.30 337 P P 01 05 50.2 +0.8
735A IAMs_20 IAMs_20 01 31 57.8
comp=Z,7μm,21.0s
EF02 Christine 67.46 336 P P 01 05 51.0 +0.5
CSU Charleston Sou 67.56 354 P P 01 05 50.8 -0.3
NHSC New Hope 67.69 354 P P 01 05 51.8 -0.1
HKT Hockley 67.70 339 *d i*P P 01 05 52.7 +0.8
HKT pmax pmax
comp=Z,184nm,1.5s
HKT MLR MLR
comp=Z,6μm,18.0s
HKT Hockley 67.70 339 P P 01 05 52.3 +0.4
HKT IAmb IAmb 01 06 08.2
comp=Z,317nm,1.5s
HKT IAMs_20 IAMs_20 01 36 33.7
comp=Z,7μm,18.0s
HKT Hockley 67.70 339 ⇓P P 01 05 52.8 +0.8
comp=Z,7μmcomp=Z,3μmcomp=Z,124nm,1.5s
HKT pP pwP 01 06 00.5 +1.1
441A DeRidder 67.71 341 P P 01 05 52.5 +0.5
441A IAMs_20 IAMs_20 01 35 14.5
comp=Z,8μm,20.0s
SACV Santiago Islan 68.15 52 P P 01 05 54.1 -1.1
SACV IAmb IAmb 01 06 16.8
comp=Z,121nm,1.1s
SACV Santiago Islan 68.15 52 IAMs_20 IAMs_20 01 34 36.5
comp=Z,7μm,21.0s
SACV Santiago Islan 68.15 52 P P 01 05 54.7 -0.5
comp=Z,116nm,1.1s
SACV pP sP 01 06 00.9 +0.9
LPIG La Paz 68.22 324 LR LR 01 28 43.8
comp=Z,8μm,21.6s,baz=145,slow=30
GOGA Godfrey 68.36 351 IAMs_20 IAMs_20 01 32 43.5
comp=Z,8μm,20.0s
GOGA Godfrey 68.36 351 ⇓P P 01 05 55.5 -0.5
comp=Z,5μmcomp=Z,2μmcomp=Z,127nm,1.0s
VBMS Vicksburg 68.46 344 P P 01 05 56.8 +0.1
HPIG 68.53 329 P P 01 05 57.8 +0.3
HPIG IAmb IAmb 01 06 13.0
comp=Z,204nm,1.3s
HPIG 68.53 329 ⇓P P 01 05 58.4 +0.8
comp=Z,6μmcomp=Z,3μmcomp=Z,125nm,1.1s
LRAL Lakeview Retre 68.54 348 P P 01 05 56.8 -0.4
LRAL IAmb IAmb 01 06 12.3
comp=Z,112nm,0.9s
Y57A Sumter 68.61 354 IAMs_20 IAMs_20 01 36 58.0
comp=Z,8μm,21.0s
VAH Vaihoa 68.86 266 *e*P P 01 06 00.2 +0.5
comp=Z,283nm,1.3s
VAH *e*LR LR 01 26 48.1
comp=Z,9μm,22.4s
TVO Taravao 68.88 263 *e*PKP2 P 01 06 02.1 +2.2
comp=Z,241nm,1.2s
TVO *e*LR LR 01 26 42.9
comp=Z,6μm,23.5s
Y52A Lilburn 68.89 350 IAMs_20 IAMs_20 01 32 09.4
comp=Z,8μm,21.0s
HODGE Hodges 69.02 352 P P 01 05 59.4 -0.8
HODGE IAmb IAmb 01 06 15.0
comp=Z,125nm,1.1s
X58A Rowland 69.06 355 IAMs_20 IAMs_20 01 35 01.7
comp=Z,7μm,21.0s
NATX Nacogdoches 69.06 340 P P 01 06 01.2 +0.7
TIAR Tiarei 69.07 263 *e*PKP2 P 01 06 02.7 +1.6
comp=Z,727nm,0.9s
TIAR *e*LR LR 01 26 58.6
comp=Z,46μm,25.1s
PMOR Pomariorio Ree 69.20 266 *e*P P 01 06 02.5 +0.6
comp=Z,102nm,1.1s
PMOR *e*LR LR 01 26 56.4
comp=Z,11μm,22.7s
PAE Paea 69.21 262 *e*PKP2 P 01 06 03.9 +2.0
comp=Z,377nm,1.3s
PAE *e*LR LR 01 26 50.8
comp=Z,10μm,24.3s
PPTF Pamatai, Papee 69.24 263 P P 01 06 04.0 +1.8
PPTF Pamatai, Papee 69.24 263 P P 01 06 02.2 0.0
PPTF IAMs_20 IAMs_20 01 28 38.9
comp=Z,7μm,18.0s
PPTF Pamatai, Papee 69.24 263 ⇑P P 01 06 04.2 +2.0
comp=Z,213nm,1.0s
PPT2 Papeete2 69.25 263 *e*PKP2 P 01 06 02.7 +0.5
comp=Z,317nm,1.4s
PPT2 *e*S S 01 15 06.3 -2.1
comp=Z,2μm,24.2s
PPT2 *e*SS SS 01 19 30.6 -4.2
comp=Z,2μm,24.2s
PPT2 *e*LQ LQ 01 23 26.4
comp=Z,9μm,29.0s
PPT2 *e*LR LR 01 26 54.1
comp=Z,12μm,27.8s
PPT2 *e*LR LR 01 26 55.2
comp=Z,16μm,26.2s
PPT Papeete 69.26 263 P P 01 06 03.3 +1.1
comp=Z,169nm,1.1s,baz=95,slow=9.8,SNR=14
PPT LR LR 01 28 50.9
comp=Z,7μm,18.9s,baz=122,slow=29
comp=Z,169nm,1.1s

JCT Junction City 69.46 336 P **P** **01 06 03.2 +0.1**
JCT pmax pmax
comp=Z,397nm,1.2s
JCT Junction City 69.46 336 P **P** **01 06 03.2 +0.1**
W59A Clinton 69.60 355 IAMs_20 IAMs_20 01 35 02.1
comp=Z,9µm,21.0s
FPAL Fort Paine 69.78 349 P **P** **01 06 04.3 -0.7**
TXAR Lajitas Array 69.83 332 P **P** **01 06 06.0 +0.6**
comp=Z,100nm,1.2s,baz=149,slow=7.4,SNR=258
TXAR LR LR 01 32 03.9
comp=Z,23µm,18.6s,baz=140,slow=32
TXAR PKPPKP **P'P'df** **01 34 09.4 +4.5**
comp=Z,2.7nm,1.0s,baz=304,slow=2.0,SNR=12
comp=Z,100nm,1.2s
TXAR Lajitas Array 69.83 332 P **P** **01 06 05.7 +0.2**
W52A Murphy 70.08 351 IAMs_20 IAMs_20 01 33 46.0
comp=Z,8µm,20.0s
CCAR Cane Creek 70.38 344 P **P** **01 06 08.7 +0.1**
OXF Oxford 70.44 346 P **P** **01 06 08.3 -0.6**
OXF pmax pmax
comp=Z,378nm,1.0s
OXF MLR MLR
comp=Z,4µm,20.0s
OXF Oxford 70.44 346 P **P** **01 06 08.3 -0.6**
V53A Saluda 70.50 352 IAMs_20 IAMs_20 01 40 18.2
comp=Z,7µm,20.0s
V55A Taylorsville 70.51 353 IAMs_20 IAMs_20 01 34 15.3
comp=Z,7µm,22.0s
TKL Tuckaleechee C 70.61 351 LR LR 01 34 34.7
comp=Z,5µm,20.4s,baz=160,slow=34
TKL Tuckaleechee C 70.61 351 P **P** **01 06 09.2 -0.8**
TKL pmax pmax
comp=Z,133nm,1.1s
TKL Tuckaleechee C 70.61 351 P **P** **01 06 09.2 -0.8**
TKL IAmb IAmb 01 06 24.6
comp=Z,133nm,1.1s
U56A King 70.92 354 IAMs_20 IAMs_20 01 35 00.2
comp=Z,7µm,22.0s
U54A Nelsons Funny 71.23 353 IAMs_20 IAMs_20 01 35 22.5
comp=Z,6µm,21.0s
T59A Double "B" Far 71.34 356 IAMs_20 IAMs_20 01 40 56.2
comp=Z,7µm,19.0s
MIAR Mount Ida 71.41 342 P **P** **01 06 14.6 -0.3**
MIAR pmax pmax
comp=Z,135nm,1.2s
MIAR MLR MLR
comp=Z,3µm,19.0s
MIAR Mount Ida 71.41 342 P **P** **01 06 14.6 -0.3**
MIAR IAmb IAmb 01 06 17.3
comp=Z,135nm,1.2s
MIAR Mount Ida 71.41 342 ⇓P **P** **01 06 14.8 -0.1**
comp=Z,6µmcomp=Z,2µmcomp=Z,101nm,1.4s
MIAR pP **pwP** **01 06 23.4 +0.9**
TZTN Tazewell 71.46 351 IAMs_20 IAMs_20 01 34 40.5
comp=Z,8µm,19.0s
TZTN Tazewell 71.46 351 ⇓P **P** **01 06 14.5 -0.6**
comp=Z,26µmcomp=Z,2µmcomp=Z,153nm,1.2s
WVT Waverly 71.70 348 P **P** **01 06 16.2 -0.3**
WVT Waverly 71.70 348 ⇓P **P** **01 06 16.3 -0.3**
comp=Z,6µmcomp=Z,6µmcomp=Z,479nm,1.2s
BLA Blacksburg 71.78 354 P **P** **01 06 16.4 -0.7**
BLA pmax pmax
comp=Z,65nm,0.9s
BLA Blacksburg 71.78 354 P **P** **01 06 16.4 -0.7**
BLA IAMs_20 IAMs_20 01 35 37.0
comp=Z,6µm,21.0s
SRIG Santa Rosalia 71.86 324 P **P** **01 06 17.9 +0.2**
SRIG Santa Rosalia 71.86 324 ⇓P **P** **01 06 18.9 +1.2**
comp=Z,6µmcomp=Z,2µmcomp=Z,140nm,1.1s
S61A Accomac 71.97 358 IAMs_20 IAMs_20 01 36 20.8
comp=Z,6µm,21.0s
T50A Nancy 72.10 350 IAMs_20 IAMs_20 01 33 58.5
comp=Z,8µm,22.0s
S54A Dingess, Beckl 72.45 353 IAMs_20 IAMs_20 01 36 38.6
comp=Z,6µm,21.0s
S51A Beattyville 72.54 351 IAMs_20 IAMs_20 01 34 46.2
comp=Z,8µm,21.0s
CBN Corbin Frederi 72.56 357 P **P** **01 06 21.7 +0.1**
MNTX Cornudas Mount 72.61 332 ⇓P **P** **01 06 21.5 -0.6**
comp=Z,5µmcomp=Z,6µmcomp=Z,74nm,1.0s
X34A Smith Ranch, M 72.63 339 P **P** **01 06 22.4 +0.1**
X34A IAmb IAmb 01 06 37.0
comp=Z,266nm,1.1s
HSIG 72.67 326 P **P** **01 06 23.0 +0.4**
R55A Marlinton 72.82 354 IAMs_20 IAMs_20 01 38 58.4
comp=Z,6µm,20.0s
MAW Mawson 72.85 164 P **P** **01 06 23.5 +0.3**
comp=Z,64nm,1.8s,comp=Z,0.0nm
MAW Mawson 72.85 164 P **P** **01 06 23.2 0.0**
comp=Z,64nm,1.7s,comp=Z,0.0nm
MAW Mawson 72.85 164 P **P** **01 06 23.3 +0.2**
comp=Z,123nm,0.8s,baz=209,slow=6.6,SNR=216
MAW PKPPKP P'P'df 01 34 02.1 -10
comp=Z,2.0nm,0.9s,baz=20,slow=10,SNR=3.9
MAW LR LR 01 40 41.8
comp=Z,21µm,18.2s,baz=230,slow=38
comp=Z,123nm,0.8s
MAW Mawson 72.85 164 P **P** **01 06 23.2 0.0**
MAW Mawson 72.85 164 ⇑P **P** **01 06 23.4 +0.3**
comp=Z,2µmcomp=Z,1µmcomp=Z,64nm,1.8s
WMOK Wichita Mounta 73.05 338 P **P** **01 06 24.2 -0.5**
WMOK pmax pmax
comp=Z,228nm,1.6s
WMOK Wichita Mounta 73.05 338 P **P** **01 06 24.1 -0.5**
WMOK IAmb IAmb 01 06 26.8
comp=Z,228nm,1.6s
WMOK Wichita Mounta 73.05 338 ⇓P **P** **01 06 24.3 -0.3**
comp=Z,2µmcomp=Z,84nm,1.2s
WMOK pP **pwP** **01 06 31.9 -0.2**
R50A Paris 73.27 351 IAMs_20 IAMs_20 01 34 46.4
comp=Z,6µm,20.0s
R49A Shelbyville 73.39 350 IAMs_20 IAMs_20 01 34 48.8
comp=Z,7µm,22.0s
WCI Wyandotte Cave 73.50 349 P **P** **01 06 26.1 -1.1**
WCI pmax pmax
comp=Z,136nm,1.4s
WCI MLR MLR
comp=Z,5µm,20.0s
WCI Wyandotte Cave 73.50 349 P **P** **01 06 26.1 -1.1**
WCI Wyandotte Cave 73.50 349 ⇓P **P** **01 06 26.1 -1.1**
comp=Z,5µmcomp=Z,2µmcomp=Z,70nm,1.8s
WCI pP **pwP** **01 06 35.3 +0.5**
Q56A Snyder Ridge, 73.50 355 IAMs_20 IAMs_20 01 42 11.4
comp=Z,6µm,19.0s
Q54A Coxs Mills 73.58 354 IAMs_20 IAMs_20 01 36 31.5
comp=Z,7µm,22.0s
Q52A Bidwell 73.70 353 IAMs_20 IAMs_20 01 36 02.7
comp=Z,8µm,22.0s
SDMD Soldier's Deli 73.74 357 P **P** **01 06 28.5 -0.1**
Q51A Peebles 73.88 352 IAMs_20 IAMs_20 01 35 47.6
comp=Z,7µm,20.0s
AMTX Amarillo 74.11 336 P **P** **01 06 31.1 +0.1**
AMTX IAmb IAmb 01 06 33.7
comp=Z,391nm,1.2s
P53A Whipple 74.13 353 IAMs_20 IAMs_20 01 37 50.1
comp=Z,7µm,20.0s
121A Cookes Peak, D 74.31 330 P **P** **01 06 32.9 +0.6**
121A IAmb IAmb 01 06 36.1
comp=Z,191nm,1.2s
MVL Millersville 74.31 357 P **P** **01 06 31.8 -0.1**
MVL IAmb IAmb 01 06 34.7
comp=Z,193nm,1.3s
P48A Milroy 74.58 350 IAMs_20 IAMs_20 01 35 36.1
comp=Z,6µm,22.0s
SLM Saint Louis 74.59 346 P **P** **01 06 33.1 -0.5**
SLM pmax pmax
comp=Z,241nm,1.0s
SLM Saint Louis 74.59 346 P **P** **01 06 33.0 -0.5**
SLM IAmb IAmb 01 06 34.9
comp=Z,240nm,0.9s
O54A Avella 74.73 354 IAMs_20 IAMs_20 01 40 05.9
comp=Z,6µm,20.0s
O52A Adamsville 74.80 353 IAMs_20 IAMs_20 01 37 59.7
comp=Z,6µm,20.0s
DUN6 Lazy B Ranch 74.87 329 P **P** **01 06 36.2 +0.7**
P46A Rosedale 75.00 349 IAMs_20 IAMs_20 01 42 42.3
comp=Z,6µm,21.0s
SSPA Standing Stone 75.01 356 P **P** **01 06 35.4 -0.5**
SSPA IAmb IAmb 01 06 38.2
comp=Z,274nm,1.6s
SSPA Standing Stone 75.01 356 P **P** **01 06 35.9 -0.1**
comp=Z,6µmcomp=Z,2µmcomp=Z,105nm,1.3s
SSPA pP **pwP** **01 06 44.4 +0.8**
ACSO Alum Creek Sta 75.03 352 P **P** **01 06 35.4 -0.7**
CVNA Calvinia 75.04 118 ⇑P **P** **01 06 37.2 +0.4**
comp=Z,5µmcomp=Z,3µmcomp=Z,171nm,1.6s

O49A Covington 75.15 351 IAMs_20 IAMs_20 01 37 13.1
comp=Z,7µm,21.0s
N58A Sunbury 75.16 357 IAMs_20 IAMs_20 01 38 21.2
comp=Z,6µm,21.0s
Y22A Socorro 75.20 331 P **P** **01 06 37.9 +0.4**
SUR Sutherland 75.33 119 LR LR 01 36 58.9
comp=Z,16µm,19.0s,baz=234,slow=34
SUR Sutherland 75.33 119 P **P** **01 06 39.7 +1.1**
SUR S **S** **01 16 17.4 -0.6**
SUR Sutherland 75.33 119 P **P** **01 06 38.3 -0.3**
SUR IAmb IAmb 01 06 41.0
comp=Z,270nm,1.2s
SUR Sutherland 75.33 119 ⇑P **P** **01 06 39.3 +0.8**
comp=Z,8µmcomp=Z,5µmcomp=Z,236nm,1.3s
SUR Sutherland 75.33 119 P **P** **01 06 39.1 +0.5**
N53A Lisbon 75.39 354 IAMs_20 IAMs_20 01 38 47.4
comp=Z,5µm,20.0s
TUC Tucson 75.39 328 P **P** **01 06 39.0 +0.5**
TUC Tucson 75.39 328 IAMs_20 IAMs_20 01 35 03.3
comp=Z,9µm,19.0s
TUC Tucson 75.39 328 P **P** **01 06 39.6 +1.1**
comp=Z,5µmcomp=Z,2µmcomp=Z,84nm,1.5s,comp=Z,2µm
TUC pP **PcP** **01 06 48.9 -2.8**
RAR Rarotonga 75.60 254 P **P** **01 06 39.7 -0.3**
comp=Z,53nm,1.1s,baz=192,slow=5.8,SNR=10.0
RAR LR LR 01 32 00.3
comp=Z,6µm,18.4s,baz=132,slow=29
comp=Z,53nm,1.1s
RAR Rarotonga 75.60 254 P **P** **01 06 41.7 +1.7**
RAR Rarotonga 75.60 254 P **P** **01 06 39.6 -0.4**
RAR IAmb IAmb 01 06 42.4
comp=Z,176nm,1.4s
RAR Rarotonga 75.60 254 IAMs_20 IAMs_20 01 31 49.1
comp=Z,7µm,18.0s
RAR Rarotonga 75.60 254 P **P** **01 06 39.9 -0.1**
comp=Z,87nm,1.4s
N51A Ashland 75.64 353 IAMs_20 IAMs_20 01 37 24.2
comp=Z,9µm,22.0s
SFIN Lafayette 75.73 349 IAMs_20 IAMs_20 01 44 00.6
comp=Z,7µm,19.0s
M65A Busby, Falmout 75.84 2 IAMs_20 IAMs_20 01 39 34.1
comp=Z,5µm,20.0s
N49A Columbus Grove 75.85 351 IAMs_20 IAMs_20 01 36 47.8
comp=Z,6µm,20.0s
ALQ Albuquerque 75.89 332 IAMs_20 IAMs_20 01 35 10.5
comp=Z,23µm,20.0s
ANMO Albuquerque 75.89 332 P **P** **01 06 42.3 +0.9**
comp=Z,88nm,1.1s,baz=155,slow=7.2,SNR=119
ANMO LR LR 01 35 31.5
comp=Z,23µm,19.6s,baz=152,slow=32
comp=Z,88nm,1.1s
ANMO Albuquerque 75.89 332 *d* iP **P** **01 06 42.5 +1.0**
ANMO pmax pmax
comp=Z,172nm,1.3s
ANMO MLR MLR
comp=Z,6µm,14.0s
ANMO Albuquerque 75.89 332 P **P** **01 06 41.6 +0.1**
ANMO IAmb IAmb 01 06 44.7
comp=Z,143nm,1.1s
ANMO Albuquerque 75.89 332 P **P** **01 06 42.4 +0.9**
comp=Z,5µmcomp=Z,2µmcomp=Z,139nm,1.2s
TASM ASL Pad, Albuq 75.89 332 IAMs_20 IAMs_20 01 35 10.1
comp=Z,23µm,20.0s
TASM ASL Pad, Albuq 75.89 332 IAMs_20 IAMs_20 01 35 10.1
comp=Z,23µm,20.0s
TASM ASL Pad, Albuq 75.89 332 IAMs_20 IAMs_20 01 35 10.2
comp=Z,23µm,20.0s
DRV Dunant d'Urvil 75.90 193 P **P** **01 06 40.4 -0.5**
PIX Pinacate 75.98 325 P **P** **01 06 42.0 +0.3**
M52A Chesterland 76.16 354 IAMs_20 IAMs_20 01 39 00.9
comp=Z,7µm,20.0s
M50A Fremont 76.19 352 IAMs_20 IAMs_20 01 37 29.8
comp=Z,9µm,21.0s
L64A Middleborough 76.21 2 IAMs_20 IAMs_20 01 39 44.9
comp=Z,6µm,21.0s
DBIC Dimbokro 76.24 72 P **P** **01 06 43.6 -0.1**
comp=Z,153nm,0.9s,baz=231,slow=5.3,SNR=91
DBIC LR LR 01 38 58.8
comp=Z,4µm,18.3s,baz=236,slow=35
comp=Z,153nm,0.9s
DBIC Dimbokro 76.24 72 P **P** **01 06 43.0 -0.7**
DBIC IAmb IAmb 01 06 45.0
comp=Z,160nm,0.8s
DBIC Dimbokro 76.24 72 P **P** **01 06 43.9 +0.2**
DBIC Dimbokro 76.24 72 P **P** **01 06 43.5 -0.1**
comp=Z,3µmcomp=Z,2µmcomp=Z,225nm,1.4s
HDIL Hopedale 76.27 347 P **P** **01 06 42.7 -0.5**
HDIL IAmb IAmb 01 06 45.7
comp=Z,189nm,1.0s
BINY Binghamton 76.49 358 P **P** **01 06 44.1 -0.4**
BINY Binghamton 76.49 358 P **P** **01 06 44.5 0.0**
comp=Z,5µmcomp=Z,3µmcomp=Z,154nm,1.0s
KSU1 Kansas State U 76.50 341 P **P** **01 06 44.0 -0.6**
BCX Boston College 76.60 2 IAMs_20 IAMs_20 01 40 07.2
comp=Z,7µm,21.0s
ERPA Erie 76.62 355 IAMs_20 IAMs_20 01 39 08.0
comp=Z,5µm,20.0s
WES Weston 76.65 1 IAMs_20 IAMs_20 01 40 09.5
comp=Z,7µm,21.0s
HRV Adam Dziewonsk 76.77 1 P **P** **01 06 46.1 +0.2**
HRV pmax pmax
comp=Z,134nm,0.9s
HRV MLR MLR
comp=Z,6µm,20.0s
HRV Adam Dziewonsk 76.77 1 P **P** **01 06 46.1 +0.2**
HRV IAmb IAmb 01 06 48.3
comp=Z,134nm,0.9s
HRV Adam Dziewonsk 76.77 1 IAMs_20 IAMs_20 01 39 50.6
comp=Z,6µm,20.0s
HRV Adam Dziewonsk 76.77 1 P **P** **01 06 46.6 +0.7**
comp=Z,6µmcomp=Z,2µmcomp=Z,179nm,1.0s
M44A Midewin, Midew 76.86 349 IAMs_20 IAMs_20 01 44 47.7
comp=Z,7µm,20.0s
TRY Troy 76.98 360 P **P** **01 06 47.8 +0.6**
TRY IAmb IAmb 01 06 50.0
comp=Z,239nm,1.0s
K57A Scipio Center 77.04 357 IAMs_20 IAMs_20 01 39 26.9
comp=Z,7µm,21.0s
T25A Trinidad 77.09 335 P **P** **01 06 48.6 +0.4**
T25A IAMs_20 IAMs_20 01 36 06.3
comp=Z,7µm,22.0s
AAM Ann Arbor 77.15 352 IAMs_20 IAMs_20 01 37 59.1
comp=Z,11µm,22.0s
K50A Casco 77.51 353 IAMs_20 IAMs_20 01 38 42.5
comp=Z,7µm,21.0s
MEDO Medina 77.56 356 P **P** **01 06 50.0 -0.4**
MEDO IAmb IAmb 01 06 51.7
comp=Z,183nm,0.9s
L44A Lake County Fo 77.61 349 IAMs_20 IAMs_20 01 45 06.5
comp=Z,5µm,19.0s
WIN Windhoek 77.73 109 P **P** **01 06 51.7 -0.6**
WIN pmax pmax
comp=Z,289nm,1.2s
WIN Windhoek 77.73 109 P **P** **01 06 51.7 -0.6**
WIN IAmb IAmb 01 06 54.2
comp=Z,289nm,1.2s
WIN Windhoek 77.73 109 P **P** **01 06 52.5 +0.2**
comp=Z,4µmcomp=Z,230nm,1.7s
WIN Windhoek 77.73 109 P **P** **01 06 52.6 +0.3**
L42A Oliver, Polo 77.74 347 IAMs_20 IAMs_20 01 43 17.9
comp=Z,5µm,21.0s
SDCO Great Sand Dun 78.02 334 P **P** **01 06 53.5 0.0**
SDCO IAMs_20 IAMs_20 01 37 13.9
comp=Z,10µm,19.0s
KSCO Kaye Shedlock' 78.18 337 IAMs_20 IAMs_20 01 39 23.0
comp=Z,6µm,18.0s
J47A Sunmer 78.21 351 IAMs_20 IAMs_20 01 38 20.3
comp=Z,7µm,21.0s
BLYC Blythe 78.29 326 P **P** **01 06 55.4 +0.7**
BLYC IAmb IAmb 01 06 58.8
comp=Z,312nm,1.8s
SCIA State Center 78.35 345 P **P** **01 06 54.4 -0.4**
SCIA IAmb IAmb 01 06 56.9
comp=Z,308nm,1.1s
LBNH Lisbon 78.49 1 P **P** **01 06 55.5 -0.1**
LBNH pmax pmax
comp=Z,141nm,0.9s
LBNH MLR MLR
comp=Z,6µm,21.0s
LBNH Lisbon 78.49 1 P **P** **01 06 55.5 -0.1**
LBNH IAmb IAmb 01 06 57.9
comp=Z,141nm,0.9s
LBNH IAMs_20 IAMs_20 01 41 05.3
comp=Z,6µm,21.0s
MVCO Mesa Verde 78.67 332 P **P** **01 06 56.6 -0.4**
MVCO IAmb IAmb 01 07 00.3
comp=Z,233nm,1.3s

MVCO Mesa Verde 78.67 332 P **P** **01 06 57.9 +0.9**
comp=Z,5µmcomp=Z,3µmcomp=Z,154nm,1.3s
I49A Point Hope 78.68 353 IAMs_20 IAMs_20 01 39 16.6
comp=Z,8µm,22.0s
JFWS Jewell Farm 78.73 347 IAMs_20 IAMs_20 01 46 06.1
comp=Z,6µm,20.0s
GRHM Grahamstown, E 78.78 123 P **P** **01 06 57.2 -0.6**
H62A Milan 78.84 1 IAMs_20 IAMs_20 01 41 13.5
comp=Z,6µm,21.0s
WVL Waterville 78.87 3 IAMs_20 IAMs_20 01 43 21.3
comp=Z,5µm,20.0s
FLET Fletcher 78.97 0 P **P** **01 06 58.1 -0.1**
FLET IAmb IAmb 01 07 00.2
comp=Z,285nm,0.9s
Q24A Divide 78.98 335 P **P** **01 06 59.2 +0.4**
Q24A IAmb IAmb 01 07 14.3
comp=Z,151nm,1.0s
Q24A IAMs_20 IAMs_20 01 37 31.9
comp=Z,5µm,21.0s
BGNE Belgrade 79.07 341 IAMs_20 IAMs_20 01 41 35.3
comp=Z,5µm,19.0s
PFO Pinyon Flats O 79.09 324 P **P** **01 07 00.9 +1.6**
comp=Z,59nm,1.1s,baz=135,slow=4.1,SNR=51
PFO LR LR 01 35 40.8
comp=Z,8µm,18.1s,baz=142,slow=31
comp=Z,59nm,1.1s
PFO Pinyon Flats O 79.09 324 P **P** **01 06 59.8 +0.5**
PFO Pinyon Flats O 79.09 324 IAMs_20 IAMs_20 01 34 15.2
comp=Z,10µm,21.0s
PFO Pinyon Flats O 79.09 324 P **P** **01 07 01.0 +1.7**
comp=Z,5µmcomp=Z,2µmcomp=Z,105nm,1.6s,comp=Z,2µm
L34A Svendsen Farm, 79.14 343 IAMs_20 IAMs_20 01 44 17.1
comp=Z,5µm,18.0s
I45A Fountain 79.18 350 IAMs_20 IAMs_20 01 40 51.0
comp=Z,8µm,22.0s
SADO Sadowa 79.20 356 LR LR 01 44 52.0
comp=Z,2µm,19.6s,baz=188,slow=38
SADO Sadowa 79.20 356 P **P** **01 06 58.9 -0.6**
SADO IAmb IAmb 01 07 00.6
comp=Z,141nm,0.9s
WBO Williamsburg 79.27 358 P **P** **01 06 59.8 0.0**
WBO IAmb IAmb 01 07 01.4
comp=Z,249nm,0.9s
ACRG Accra 79.30 76 P **P** **01 06 59.8 -1.0**
ACRG IAmb IAmb 01 07 01.9
comp=Z,115nm,0.9s
ACRG Accra 79.30 76 P **P** **01 07 00.2 -0.6**
comp=Z,2µmcomp=Z,1µmcomp=Z,139nm,0.9s
HAL Halifax 79.36 7 P **P** **01 07 00.4 +0.1**
HAL pmax pmax
comp=Z,172nm,0.9s
HAL Halifax 79.36 7 P **P** **01 07 00.4 +0.1**
HAL IAmb IAmb 01 07 02.9
comp=Z,172nm,0.9s
CASY Casey 79.39 182 P **P** **01 07 00.4 0.0**
CASY Casey 79.39 182 IAMs_20 IAMs_20 01 40 18.0
comp=Z,12µm,22.0s
CASY Casey 79.39 182 P **P** **01 07 00.9 +0.5**
comp=Z,9µmcomp=Z,5µmcomp=Z,363nm,1.2s
GGN Saint George 79.57 5 P **P** **01 07 01.9 +0.5**
GGN IAmb IAmb 01 07 03.9
comp=Z,160nm,0.9s
PKME Peaks-Kenny Pk 79.58 3 IAMs_20 IAMs_20 01 42 20.2
comp=Z,5µm,19.0s
I40A Norwalk 79.74 347 IAMs_20 IAMs_20 01 46 44.9
comp=Z,6µm,20.0s
MNTQ Montreal, Queb 79.75 360 P **P** **01 07 02.1 -0.2**
GLMI Grayling 79.75 352 IAMs_20 IAMs_20 01 39 29.0
comp=Z,11µm,22.0s
H43A Windswept, Lux 79.83 349 IAMs_20 IAMs_20 01 43 40.1
comp=Z,6µm,19.0s
ISCO Idaho Springs 79.89 335 P **P** **01 07 04.1 +0.3**
ISCO pmax pmax
comp=Z,186nm,1.6s
ISCO Idaho Springs 79.89 335 P **P** **01 07 04.1 +0.3**
ISCO IAMs_20 IAMs_20 01 38 01.0
comp=Z,8µm,21.0s
ISCO Idaho Springs 79.89 335 P **P** **01 07 04.7 +0.9**
comp=Z,6µmcomp=Z,2µmcomp=Z,74nm,1.2s
KOOLE Kule 79.90 111 P **P** **01 07 03.6 -0.6**
KOOLE Kule 79.90 111 P **P** **01 07 04.1 0.0**
TSUM Tsumeb 79.92 106 LR LR 01 37 04.3
comp=Z,12µm,21.8s,baz=238,slow=32
TSUM Tsumeb 79.92 106 P **P** **01 07 03.6 -0.7**
TSUM IAmb IAmb 01 07 06.1
comp=Z,277nm,1.4s
TSUM Tsumeb 79.92 106 IAMs_20 IAMs_20 01 37 03.3
comp=Z,12µm,22.0s
TSUM Tsumeb 79.92 106 P **P** **01 07 04.3 0.0**
comp=Z,3µmcomp=Z,153nm,1.4s
TSUM Tsumeb 79.92 106 P **P** **01 07 04.5 +0.1**
LKGWB Lokgwabe 80.07 112 P **P** **01 07 06.4 +1.3**
LKGWB Lokgwabe 80.07 112 P **P** **01 07 07.0 +2.0**
HMU Henry Mountain 80.19 331 P **P** **01 07 05.8 +0.5**
HMU IAmb IAmb 01 07 09.2
comp=Z,377nm,1.4s
GBN Guysborough 80.35 8 P **P** **01 07 05.5 -0.1**
GBN IAmb IAmb 01 07 08.7
comp=Z,455nm,1.8s
PASC Pasadena Art C 80.39 323 IAMs_20 IAMs_20 01 37 48.5
comp=Z,9µm,18.0s
TRQ Mont Tremblant 80.48 359 P **P** **01 07 06.1 -0.3**
TRQ IAmb IAmb 01 07 07.8
comp=Z,254nm,0.9s
BOSA Boshof 80.59 118 P **P** **01 07 07.5 -0.3**
comp=Z,259nm,0.9s,baz=235,slow=5.2,SNR=148
BOSA LR LR 01 38 27.9
comp=Z,8µm,20.4s,baz=232,slow=32
comp=Z,259nm,0.9s
BOSA Boshof 80.59 118 P **P** **01 07 07.2 -0.6**
BOSA Boshof 80.59 118 P **P** **01 07 07.6 -0.2**
BOSA Boshof 80.59 118 P **P** **01 07 07.4 -0.3**
comp=Z,6µmcomp=Z,6µmcomp=Z,409nm,1.1s
BOSA Boshof 80.59 118 P **P** **01 07 07.6 -0.2**
ECSD EROS Data Cent 80.86 343 P **P** **01 07 08.3 -0.2**
ECSD IAmb IAmb 01 07 10.0
comp=Z,270nm,0.9s
ECSD EROS Data Cent 80.86 343 P **P** **01 07 08.4 0.0**
comp=Z,7µmcomp=Z,4µmcomp=Z,330nm,1.2s
OSI Osito Audit: C 81.01 323 IAMs_20 IAMs_20 01 37 48.9
comp=Z,8µm,18.0s
HAYD Hayden 81.11 334 IAMs_20 IAMs_20 01 40 36.5
comp=Z,6µm,18.0s
O20A White River Ci 81.13 334 IAMs_20 IAMs_20 01 38 18.7
comp=Z,9µm,22.0s
F42A Maple Grove Fa 81.14 349 IAMs_20 IAMs_20 01 43 01.9
comp=Z,5µm,20.0s
E46A Sault Ste Mari 81.24 352 IAMs_20 IAMs_20 01 40 34.2
comp=Z,10µm,21.0s
D62A Allapoint, Atl 81.41 3 IAMs_20 IAMs_20 01 43 24.4
comp=Z,5µm,19.0s
SPMN Marine on St. 81.44 346 IAMs_20 IAMs_20 01 47 47.9
comp=Z,5µm,20.0s
BFZ Birch Farm 81.58 226 P **P** **01 07 13.3 +0.6**
BFZ IAmb IAmb 01 07 29.8
comp=Z,237nm,1.2s
BFZ Birch Farm 81.58 226 P **P** **01 07 14.6 +1.9**
BFZ Birch Farm 81.58 226 P **P** **01 07 13.6 +0.9**
comp=Z,175nm,1.3s
GRTLG Ghanzi 81.58 110 P **P** **01 07 12.6 -0.6**
GRTLG IAmb IAmb 01 07 14.5
comp=Z,295nm,0.9s
GRTLG Ghanzi 81.58 110 P **P** **01 07 13.1 -0.1**
FURC Furnace Creek, 81.61 326 IAMs_20 IAMs_20 01 37 33.9
comp=Z,9µm,20.0s
BATG Bathurst New B 81.77 5 P **P** **01 07 13.3 +0.1**
LMQ La Malbaie 81.83 2 P **P** **01 07 13.2 -0.3**
LMQ IAmb IAmb 01 07 15.8
comp=Z,298nm,1.3s
SKOMA Sekoma 81.91 114 P **P** **01 07 14.4 -0.4**
ODZ Otahua Downs 81.92 220 P **P** **01 07 14.8 +0.4**
ODZ IAmb IAmb 01 07 16.9
comp=Z,188nm,1.4s
ODZ Otahua Downs 81.92 220 P **P** **01 07 15.4 +1.1**
ODZ Otahua Downs 81.92 220 P **P** **01 07 16.1 +1.7**
MRZ Mangatainoka R 81.99 226 P **P** **01 07 15.3 +0.4**
MRZ IAmb IAmb 01 07 17.6
comp=Z,261nm,1.2s
MRZ Mangatainoka R 81.99 226 P **P** **01 07 16.6 +1.8**
KHZ Kahutara 82.05 223 P **P** **01 07 16.5 +1.4**
KHZ Kahutara 82.05 223 P **P** **01 07 15.1 0.0**
KHZ Kahutara 82.05 223 P **P** **01 07 16.6 +1.6**
comp=Z,144nm,1.2s
APZ The Paps 82.08 217 P **P** **01 07 16.5 +1.3**
PNHZ Pukenui 82.09 227 P **P** **01 07 17.5 +2.1**
TSZ Takapari Road 82.14 226 P **P** **01 07 17.7 +2.0**

MXZ Matakaoa Point 82.25 229 P **P** **01 07 18.2 +1.9**
OXZ Oxford 82.30 222 IAMs_20 IAMs_20 01 36 12.6
comp=Z,5µm,21.0s
MACI Morro de la Ar 82.31 48 P **P** **01 07 16.4 -0.3**
MACI IAmb IAmb 01 07 29.1
comp=Z,190nm,1.1s
MACI Morro de la Ar 82.31 48 P **P** **01 07 17.0 +0.3**
comp=Z,173nm,0.9s
BKZ Black Stump Fm 82.38 227 P **P** **01 07 18.5 +1.5**
BKZ Black Stump Fm 82.38 227 P **P** **01 07 19.2 +2.2**
RUGZ Raukumara Rang 82.40 229 P **P** **01 07 20.0 +2.8**
RTZ Ruatahuna 82.43 228 P **P** **01 07 19.7 +2.4**
BHHZ Black Hill Sta 82.44 227 P **P** **01 07 19.6 +2.3**
VLDQ Val d'Or 82.45 357 P **P** **01 07 16.4 -0.2**
VLDQ IAmb IAmb 01 07 18.2
comp=Z,193nm,0.9s
TUWZ Tuamarina 82.46 224 P **P** **01 07 17.9 +0.6**
HAZ Te Kaha 82.46 229 P **P** **01 07 19.5 +2.1**
EAZ Earnscleugh 82.50 219 P **P** **01 07 18.4 +1.0**
LTZ Lake Taylor 82.53 222 P **P** **01 07 17.8 +0.1**
LTZ IAmb IAmb 01 07 20.3
comp=Z,288nm,1.3s
LTZ Lake Taylor 82.53 222 P **P** **01 07 19.0 +1.3**
E38A The Farm, Brul 82.54 347 IAMs_20 IAMs_20 01 44 27.8
comp=Z,5µm,22.0s
URZ Urewera 82.57 228 P **P** **01 07 19.5 +1.6**
comp=Z,42nm,0.8s,baz=88,slow=2.4,SNR=14
URZ LR LR 01 36 59.3
comp=Z,3µm,18.6s,baz=128,slow=30
comp=Z,42nm,0.8s
URZ Urewera 82.57 228 P **P** **01 07 19.5 +1.6**
URZ Urewera 82.57 228 P **P** **01 07 19.6 +1.7**
comp=Z,2µmcomp=Z,104nm,1.3s,comp=Z,2µm
RPZ Rata Peaks 82.58 221 LR LR 01 36 42.4
comp=Z,855nm,20.5s,baz=148,slow=30
RPZ Rata Peaks 82.58 221 P **P** **01 07 19.4 +1.5**
LBZ Lake Benmore 82.60 220 P **P** **01 07 18.1 +0.1**
LBZ IAmb IAmb 01 07 20.3
comp=Z,176nm,1.3s
LBZ IAMs_20 IAMs_20 01 39 11.5
comp=Z,4µm,18.0s
LBZ Lake Benmore 82.60 220 P **P** **01 07 19.1 +1.1**
TIN Tinemaha, Big 82.73 325 IAMs_20 IAMs_20 01 37 18.4
comp=Z,10µm,21.0s
WHZ Wether Hill Ro 82.75 218 P **P** **01 07 19.8 +1.1**
WNVZ Wahianoa 82.82 227 P **P** **01 07 21.4 +1.9**
THZ Tophouse 82.83 224 P **P** **01 07 21.0 +1.7**
TRVZ Turoa 82.87 227 P **P** **01 07 21.6 +1.8**
LBTB Lobatse 82.87 115 LR LR 01 38 48.7
comp=Z,7µm,21.5s,baz=225,slow=32
LBTB Lobatse 82.87 115 P **P** **01 07 18.8 -1.1**
LBTB pmax pmax
comp=Z,309nm,1.0s
LBTB Lobatse 82.87 115 P **P** **01 07 18.8 -1.1**
LBTB Lobatse 82.87 115 P **P** **01 07 19.6 -0.3**
comp=Z,5µmcomp=Z,5µmcomp=Z,382nm,1.7s
LBTB Lobatse 82.87 115 P **P** **01 07 19.6 -0.3**
SNVZ South Ngauruho 82.88 227 P **P** **01 07 21.6 +1.8**
NNZ Nelson 82.92 224 P **P** **01 07 19.9 +0.3**
NNZ Nelson 82.92 224 P **P** **01 07 21.3 +1.7**
NTVZ North Tongarir 82.92 227 P **P** **01 07 21.8 +1.9**
WKZ Wanaka 82.92 219 IAMs_20 IAMs_20 01 37 14.7
comp=Z,5µm,21.0s
WKZ Wanaka 82.92 219 P **P** **01 07 21.2 +1.5**
DUG Dugway, Tooele 82.95 330 P **P** **01 07 20.1 +0.4**
DUG pmax pmax
comp=Z,312nm,1.3s
DUG Dugway, Tooele 82.95 330 P **P** **01 07 20.1 +0.4**
DUG Dugway, Tooele 82.95 330 P **P** **01 07 20.7 +1.0**
comp=Z,6µmcomp=Z,3µmcomp=Z,212nm,1.3s
PKD Bear Valley Ra 82.96 323 P **P** **01 07 20.3 +0.5**
PKD IAmb IAmb 01 07 23.5
comp=Z,184nm,1.4s
PKD IAMs_20 IAMs_20 01 36 14.5
comp=Z,9µm,20.0s
MLZ Mavora Lakes 83.02 219 P **P** **01 07 21.0 +0.8**
INZ Inchbonnie 83.02 222 IAMs_20 IAMs_20 01 36 46.6
comp=Z,5µm,20.0s
KDWAN Kaudwane 83.09 114 P **P** **01 07 20.7 -0.3**
KDWAN Kaudwane 83.09 114 P **P** **01 07 21.1 0.0**
MRNZ Matariki Terra 83.16 224 P **P** **01 07 22.9 +2.0**
WVZ Waitaha Valley 83.18 221 P **P** **01 07 21.8 +0.9**
HULI Fort Hunter Li 83.37 323 P **P** **01 07 22.1 +0.3**
HULI IAmb IAmb 01 07 43.2
comp=Z,173nm,1.2s
FOZ Fox Glacier 83.37 221 IAMs_20 IAMs_20 01 39 38.8
comp=Z,4µm,18.0s
FOZ Fox Glacier 83.37 221 P **P** **01 07 23.2 +1.2**
VRZ Vera Road 83.45 227 P **P** **01 07 23.9 +1.4**
DSZ Denniston Nort 83.47 223 P **P** **01 07 22.4 -0.1**
DSZ Denniston Nort 83.47 223 P **P** **01 07 23.1 +0.5**
JCZ Jackson Bay 83.56 220 P **P** **01 07 24.4 +1.4**
JCZ Jackson Bay 83.56 220 P **P** **01 07 24.1 +1.1**
MSZ Milford Sound 83.59 219 P **P** **01 07 23.9 +0.8**
HOR Horta 83.66 34 *eP* **P** **01 07 26.0 +2.8**
HOR *i* IAmb IAmb 01 07 26.1
comp=Z,274nm,2.0s
HWUT Hardware Ranch 83.66 332 P **P** **01 07 23.3 -0.1**
HWUT IAmb IAmb 01 07 25.4
comp=Z,196nm,1.1s
HWUT Hardware Ranch 83.66 332 P **P** **01 07 23.8 +0.4**
comp=Z,4µmcomp=Z,3µmcomp=Z,191nm,1.1s
QRZ Quartz Range 83.66 224 P **P** **01 07 23.8 +0.3**
PCAN Candelaria 83.67 34 *eP* P 01 07 32.5 +9.2
PCAN *i* IAmb IAmb 01 07 47.8
comp=Z,249nm,1.6s
PICO Pico 83.73 34 *eP* **P** **01 07 26.7 +3.0**
PICO *i* IAmb IAmb 01 07 29.4
comp=Z,382nm,1.8s
PPNO Prainha do Nor 83.78 34 *eP* **P** **01 07 25.7 +1.7**
PPNO *i* IAmb IAmb 01 07 41.8
comp=Z,336nm,1.6s
HIZ Hauiti 83.78 227 P **P** **01 07 25.8 +1.6**
comp=Z,5µmcomp=Z,4µmcomp=Z,234nm,1.5s,comp=Z,4µm
EYMN Ely 83.82 348 P **P** **01 07 23.3 -0.5**
EYMN IAmb IAmb 01 07 25.4
comp=Z,165nm,1.1s
EYMN Ely 83.82 348 P **P** **01 07 23.4 -0.5**
comp=Z,5µmcomp=Z,2µmcomp=Z,175nm,1.1s
PID Ribeirinha 83.82 34 *eP* P 01 07 31.0 +6.9
PID *i* IAmb IAmb 01 07 43.0
comp=Z,576nm,1.6s
NVAR Mina Array Bea 83.87 326 P **P** **01 07 25.7 +1.1**
comp=Z,36nm,1.0s,baz=150,slow=5.4,SNR=122
NVAR PKKPbc **PKKPbc 01 25 41.4 0.0**
comp=Z,1.5nm,0.6s,baz=301,slow=1.9,SNR=7.5
NVAR PKPPKP **P'P'df 01 33 46.2 +5.3**
comp=Z,0.7nm,0.7s,baz=282,slow=3.6,SNR=4.9
NVAR LR LR 01 39 16.9
comp=Z,5µm,21.3s,baz=138,slow=32
comp=Z,36nm,1.0s
NVAR Mina Array Bea 83.87 326 P **P** **01 07 25.3 +0.6**
TOZ Tahuroa Road 83.89 228 P **P** **01 07 26.3 +1.6**
PDAR Pinedale Array 83.91 334 P **P** **01 07 24.4 -0.4**
comp=Z,53nm,1.1s,baz=145,slow=5.4,SNR=129
PDAR PKKPbc **PKKPbc 01 25 39.0 -2.6**
comp=Z,1.2nm,0.5s,baz=343,slow=1.5,SNR=8.8
PDAR PKPPKP **P'P'df 01 33 43.5 +3.4**
comp=Z,0.4nm,0.3s,baz=228,slow=1.8,SNR=5.1
PDAR LR LR 01 40 43.9
comp=Z,18µm,20.0s,baz=140,slow=33
comp=Z,53nm,1.1s
PDAR Pinedale Array 83.91 334 P **P** **01 07 24.2 -0.6**
ROSA Rosais 83.99 34 *eP* **P** **01 07 26.8 +1.8**
ROSA *i* IAmb IAmb 01 07 30.7
comp=Z,271nm,1.5s
PSMN Pico do Norte, 84.13 37 *eP* **P** **01 07 26.8 +1.1**
PSMN *i* IAmb IAmb 01 07 30.2
comp=Z,186nm,1.5s
PSCRZ Santa Cruz da 84.39 34 *eP* **P** **01 07 27.7 +0.8**
PSCRZ *i* IAmb IAmb 01 07 44.6
comp=Z,194nm,1.4s
ELK Elko 84.42 329 P **P** **01 07 27.9 +0.5**
comp=Z,60nm,1.0s,baz=156,slow=3.6,SNR=155
ELK LR LR 01 41 42.3
comp=Z,8µm,18.8s,baz=152,slow=33
comp=Z,60nm,1.0s
ELK Elko 84.42 329 P **P** **01 07 27.6 +0.2**
ELK IAmb IAmb 01 07 29.6
comp=Z,91nm,1.1s
POVGA Lagoa 84.46 36 *eP* **P** **01 07 25.5 -1.8**
POVGA *i* IAmb IAmb 01 07 33.4
comp=Z,146nm,1.1s
AHID Auburn Hatcher 84.47 333 P **P** **01 07 27.5 -0.1**
AHID IAmb IAmb 01 07 30.2
comp=Z,345nm,1.8s
AHID Auburn Hatcher 84.47 333 P **P** **01 07 27.8 +0.2**
comp=Z,5µmcomp=Z,2µmcomp=Z,106nm,1.5s
PSCM Serra do Cume 84.49 34 *eP* **P** **01 07 29.3 +1.8**
PSCM *i* IAmb IAmb 01 07 30.9
comp=Z,217nm,1.4s
CMLA Cha da Macela 84.51 36 *eP* **P** **01 07 27.3 -0.3**
CMLA *i* IAmb IAmb 01 07 32.8
comp=Z,161nm,2.2s
CMLA Cha da Macela 84.51 36 IAMs_20 IAMs_20 01 43 36.9
comp=Z,6µm,21.0s
CMB Columbia Colle 84.54 324 P **P** **01 07 28.2 +0.4**
CMB pmax pmax
comp=Z,61nm,1.3s
CMB Columbia Colle 84.54 324 P **P** **01 07 28.2 +0.4**
CMB IAMs_20 IAMs_20 01 40 54.2
comp=Z,7µm,18.0s
PCALD Caldeiras da R 84.55 36 *eP* **P** **01 07 30.4 +2.6**
PCALD *i* IAmb IAmb 01 07 34.9
comp=Z,2.8nm,1.3s
PGRON Lagoa das Cont 84.58 36 *eP* **P** **01 07 28.6 +0.6**
PGRON *i* IAmb IAmb 01 07 36.0
comp=Z,288nm,1.4s
MHC Mount Hamilton 84.61 323 IAMs_20 IAMs_20 01 37 03.0
comp=Z,10µm,21.0s
BART Pico Bartolome 84.69 36 *eP* **P** **01 07 30.2 +1.6**
BART *i* IAmb IAmb 01 07 40.2
comp=Z,358nm,1.3s
RAO Raoul Island 84.77 238 LR LR 01 39 37.4
comp=Z,851nm,18.1s,baz=137,slow=32
SNOW Snow King Moun 84.95 334 P **P** **01 07 30.1 +0.1**
AGMN Agassiz Nation 85.01 345 IAMs_20 IAMs_20 01 47 54.8
comp=Z,5µm,19.0s
AGMN Agassiz Nation 85.01 345 P **P** **01 07 29.6 -0.2**
comp=Z,5µmcomp=Z,3µmcomp=Z,147nm,1.0s
WELL Weller Preserv 85.02 324 IAMs_20 IAMs_20 01 37 60.0
comp=Z,7µm,20.0s
PMOZ Porto Moniz, M 85.19 44 P **P** **01 07 32.2 +1.0**
PMOZ Porto Moniz, M 85.19 44 *eP* **P** **01 07 33.1 +1.8**
PMOZ IAmb IAmb 01 07 34.4
comp=Z,166nm,1.1s
PMOZ *eS* **S** **01 18 04.8 +3.8**
PMOZ *eLR* LR 01 34 38.1
PMOZ IAMs_20 IAMs_20 01 44 15.1
comp=Z,4µm,18.0s
TORD Torodi Ar. Bea 85.28 71 P **P** **01 07 31.6 -0.4**
comp=Z,94nm,0.9s,baz=254,slow=4.2,SNR=264
TORD LR LR 01 45 09.1
comp=Z,8µm,18.1s,baz=230,slow=35
comp=Z,94nm,0.9s
TORD Torodi Ar. Bea 85.28 71 P **P** **01 07 31.2 -0.8**
TORD IAmb IAmb 01 07 33.1
comp=Z,113nm,1.0s
PMAR Madeira 85.28 45 *eP* **P** **01 07 33.0 +1.1**
PMAR IAmb IAmb 01 08 22.9
comp=Z,276nm,1.6s
CRZF Crozet Islands 85.34 145 P **P** **01 07 30.7 -1.2**
CRZF IAmb IAmb 01 07 32.9
comp=Z,359nm,1.9s
CRZF IAMs_20 IAMs_20 01 39 04.6
comp=Z,7µm,21.0s
H04N3 CROZET ISLANDS 85.49 145 P **P** **01 07 32.1 -0.3**
baz=210,slow=6.9,SNR=5.5
H04N1 CROZET ISLANDS 85.50 145 P **P** **01 07 32.6 +0.1**
baz=210,slow=6.9,SNR=3.2
H04N2 CROZET ISLANDS 85.51 145 P **P** **01 07 32.0 -0.5**
baz=210,slow=6.9,SNR=3.9
FARB Farallon Islan 85.56 323 IAMs_20 IAMs_20 01 37 01.4
comp=Z,9µm,20.0s
H17A Green Village 85.69 334 P **P** **01 07 33.8 +0.1**
CVS Carmenet Viney 85.79 323 IAMs_20 IAMs_20 01 41 19.4
comp=Z,8µm,18.0s
MCCM Marconi Confer 85.85 323 IAMs_20 IAMs_20 01 37 00.9
comp=Z,10µm,22.0s
RLMT Red Lodge 85.86 335 P **P** **01 07 34.4 -0.1**
RLMT IAmb IAmb 01 07 36.2
comp=Z,144nm,1.1s
RLMT IAMs_20 IAMs_20 01 43 06.7
comp=Z,8µm,18.0s
PMPS Porto Santo 85.86 45 *eP* **P** **01 07 36.5 +2.1**
SOOWA **Sowa 85.89 112** P **P** **01 07 35.7 +0.5**
EPLO Experimental L 85.89 347 P **P** **01 07 33.4 -0.8**
EPLO IAmb IAmb 01 07 35.0
comp=Z,93nm,1.0s
POGA Pongola 85.96 120 P **P** **01 07 34.4 -1.0**
POGA Pongola 85.96 120 P **P** **01 07 35.3 0.0**
comp=Z,14µmcomp=Z,10µmcomp=Z,727nm,1.4s
POGA Pongola 85.96 120 P **P** **01 07 35.5 +0.1**
YMR Madison River 86.06 334 P **P** **01 07 36.0 +0.5**
YMR IAmb IAmb 01 07 38.1
comp=Z,96nm,1.0s
SUTB Sutter Butte 86.15 324 IAMs_20 IAMs_20 01 39 45.0
comp=Z,8µm,18.0s
LAO LASA Array 86.24 338 P **P** **01 07 35.9 -0.2**
LAO IAmb IAmb 01 07 37.6
comp=Z,211nm,1.1s
LAO IAMs_20 IAMs_20 01 43 13.7
comp=Z,7µm,19.0s
ORV Oroville 86.27 325 IAMs_20 IAMs_20 01 38 47.1
comp=Z,8µm,20.0s
QLMT Earthquake Lak 86.37 334 P **P** **01 07 37.6 +0.6**
HLID Hailey 86.43 331 P **P** **01 07 37.8 +0.6**
HLID IAmb IAmb 01 07 39.9
comp=Z,110nm,1.1s
HLID IAMs_20 IAMs_20 01 42 34.0
comp=Z,7µm,18.0s
HLID Hailey 86.43 331 P **P** **01 07 38.2 +1.0**
comp=Z,5µmcomp=Z,2µmcomp=Z,104nm,1.5s
EDA Edea 86.61 83 P **P** **01 07 37.8 -0.9**
KSANE Kasane 86.66 109 P **P** **01 07 38.1 -1.0**
KSANE IAmb IAmb 01 07 40.7
comp=Z,147nm,1.2s
KSANE Kasane 86.66 109 P **P** **01 07 39.3 +0.3**
OUZ Omahuta 86.68 229 P **P** **01 07 39.8 +1.1**
comp=Z,52nm,1.5s
ELFS Eagle Lake Fie 86.75 326 IAMs_20 IAMs_20 01 39 17.8
comp=Z,13µm,21.0s
AONC Vina, CA USA 86.84 325 IAMs_20 IAMs_20 01 40 07.2
comp=Z,8µm,18.0s
ULM Lac du Bonnet 86.86 346 P **P** **01 07 38.2 -0.8**
comp=Z,135nm,0.9s,baz=163,slow=3.7,SNR=101
ULM PKKPbc **PKKPdf 01 25 31.5 +2.4**
comp=Z,1.6nm,0.5s,baz=356,slow=3.2,SNR=7.7
comp=Z,135nm,0.9s
ULM Lac du Bonnet 86.86 346 P **P** **01 07 38.2 -0.8**
ULM pmax pmax
comp=Z,188nm,1.0s
ULM Lac du Bonnet 86.86 346 P **P** **01 07 38.2 -0.8**
ULM IAmb IAmb 01 07 40.4
comp=Z,188nm,1.0s
MFID Camas Ranch 86.88 330 IAMs_20 IAMs_20 01 42 46.8
comp=Z,6µm,18.0s
BOZ Bozeman (W) 87.10 334 P **P** **01 07 40.0 -0.4**
BOZ pmax pmax
comp=Z,52nm,1.1s
BOZ Bozeman (W) 87.10 334 P **P** **01 07 40.0 -0.4**
DGMT Dagmar 87.24 340 P **P** **01 07 41.1 +0.2**
DLMT Dillon 87.25 333 P **P** **01 07 41.6 +0.4**
WVOR Wild Horse Val 87.26 328 P **P** **01 07 41.3 0.0**
WVOR pmax pmax
comp=Z,94nm,1.2s
WVOR Wild Horse Val 87.26 328 P **P** **01 07 41.3 0.0**
WVOR IAmb IAmb 01 07 56.9
comp=Z,94nm,1.2s
WVOR Wild Horse Val 87.26 328 P **P** **01 07 42.0 +0.7**
comp=Z,4µmcomp=Z,2µmcomp=Z,70nm,1.1s
KCPM Cahto Peak 87.38 323 IAMs_20 IAMs_20 01 39 14.5
comp=Z,9µm,19.0s
PLID Pearl Lake 88.33 331 IAMs_20 IAMs_20 01 43 47.3
comp=Z,6µm,20.0s
M02C Callahan 88.35 325 IAMs_20 IAMs_20 01 45 15.1
comp=Z,7µm,19.0s
JCC Jacoby Creek, 88.47 324 IAMs_20 IAMs_20 01 41 54.3
comp=Z,8µm,18.0s
YBH Yreka Blue Hor 88.55 325 P **P** **01 07 47.5 +0.1**
comp=Z,46nm,0.9s,baz=92,slow=2.5,SNR=108
YBH LR LR 01 39 53.1
comp=Z,4µm,22.0s,baz=145,slow=30
comp=Z,46nm,0.9s
EGMT Eagleton 88.55 336 P **P** **01 07 46.6 -0.7**
EGMT IAmb IAmb 01 07 49.0
comp=Z,110nm,1.4s
BMO Blue Mountains 88.66 330 P **P** **01 07 47.3 -0.6**
BMO pmax pmax
comp=Z,53nm,1.2s
BMO Blue Mountains 88.66 330 P **P** **01 07 47.3 -0.6**
BMO IAMs_20 IAMs_20 01 42 05.1
comp=Z,9µm,21.0s
KRMB Red Mountain 88.95 324 IAMs_20 IAMs_20 01 40 09.1
comp=Z,8µm,22.0s
MSO Missoula 88.99 333 P **P** **01 07 49.7 +0.3**
J05D Fort Rock, OR 89.09 327 P **P** **01 07 50.6 +0.6**
J05D IAmb IAmb 01 07 52.7
comp=Z,144nm,1.1s
AFI Afiamalu 89.15 254 LR LR 01 38 19.9
comp=Z,5µm,20.8s,baz=127,slow=29
KSXB Camp Six Broad 89.18 325 IAMs_20 IAMs_20 01 41 32.9
comp=Z,8µm,21.0s
SCHQ Schefferville 89.25 4 P **P** **01 07 50.0 -0.3**
comp=Z,73nm,0.9s,baz=160,slow=4.1,SNR=24
SCHQ LR LR 01 47 51.0
comp=Z,4µm,20.4s,baz=182,slow=36
comp=Z,73nm,0.9s
WIFE Three Sisters- 89.96 327 P **P** **01 07 54.0 -0.1**
TIO Tiouine 89.98 52 P **P** **01 07 55.7 +1.2**
TIO Tiouine 89.98 52 P **P** **01 07 55.8 +1.4**
comp=Z,4µmcomp=Z,2µmcomp=Z,94nm,0.9s
PAF Port-aux-Franc 90.28 157 IAMs_20 IAMs_20 01 52 37.8
comp=Z,5µm,18.0s
F07A Phinny Hill Vi 90.59 329 P **P** **01 07 57.0 +0.3**
NEW Newport 91.39 332 P **P** **01 08 00.2 -0.2**
comp=Z,30nm,1.1s,baz=145,slow=3.8,SNR=25
NEW LR LR 01 45 32.8
comp=Z,7µm,19.5s,baz=146,slow=33
comp=Z,30nm,1.1s
NEW Newport 91.39 332 P **P** **01 07 59.7 -0.8**
NEW Newport 91.39 332 IAMs_20 IAMs_20 01 45 12.1
comp=Z,7µm,20.0s
NEW Newport 91.39 332 P **P** **01 07 59.9 -0.6**
comp=Z,3µmcomp=Z,43nm,1.3s
AVE Averroes 91.44 50 P **P** **01 08 00.9 -0.1**
AVE Averroes 91.44 50 P **P** **01 08 00.1 -0.9**
FFC Flin Flon 92.38 344 *i* P **P** **01 08 04.7 -0.1**
FFC Flin Flon 92.38 344 P **P** **01 08 03.9 -0.9**
FFC Flin Flon 92.38 344 IAMs_20 IAMs_20 01 50 32.9
comp=Z,5µm,21.0s
FFC Flin Flon 92.38 344 P **P** **01 08 04.6 -0.2**
comp=Z,1µmcomp=Z,27nm,2.5s
MD01 Midelt array s 92.85 52 P **P** **01 08 07.3 -0.4**
MD31 MD31 92.85 52 P **P** **01 08 07.4 -0.3**
MDT Midelt 92.92 52 LR LR 01 49 03.3
comp=Z,4µm,19.6s,baz=240,slow=35
IFR Ifrane 93.03 51 P **P** **01 08 08.9 +0.3**
IFR Ifrane 93.03 51 P **P** **01 08 09.5 +0.9**
comp=Z,9.2nm,1.3s
PFVI Vila Bisbo 93.11 46 *e*SKSac **SKSac 01 18 46.0 +3.8**
PFVI IAMs_20 IAMs_20 01 51 24.2
comp=Z,7µm,20.0s
MORF Marmelete 93.33 46 *e*SKSac **SKSac 01 18 43.2 -0.3**
MORF IAMs_20 IAMs_20 01 51 04.0
comp=Z,6µm,15.2s
MORF Marmelete 93.33 46 *e*SKSac **SKSac 01 18 49.6 +6.2**
MORF IAMs_20 IAMs_20 01 47 59.0
comp=Z,6µm,20.0s
PTEO Sao Teotonio 93.44 46 *eP* **P** **01 08 10.7 +0.6**
PTEO IAmb IAmb 01 08 36.6
comp=Z,103nm,1.5s
PTEO *e*SKSac **SKSac 01 18 49.8 +5.8**
PTEO IAMs_20 IAMs_20 01 48 12.6
comp=Z,7µm,20.0s
NLWA Neilton Lookou 93.45 328 IAMs_20 IAMs_20 01 46 02.9
comp=Z,7µm,20.0s
PBDV Barranco-do-Ve 93.72 47 *e*SKSac **SKSac 01 18 50.8 +5.2**
PBDV IAMs_20 IAMs_20 01 50 13.8
comp=Z,8µm,18.0s
PCVE Castro Verde 93.91 46 P **P** **01 08 12.3 0.0**
PCVE Castro Verde 93.91 46 *eP* **P** **01 08 12.7 +0.4**
PCVE IAmb IAmb 01 08 27.6
comp=Z,55nm,1.9s
PCVE *e*SKSac **SKSac 01 18 50.8 +4.2**
PCVE *e*S **ScS 01 19 32.1 +8.8**
PCVE IAMs_20 IAMs_20 01 48 34.9
comp=Z,7µm,20.0s
TAM Tamanrasset 93.91 65 P **P** **01 08 12.9 0.0**
TAM pmax pmax
comp=Z,64nm,0.8s
TAM MLR MLR
comp=Z,6µm,20.0s
TAM Tamanrasset 93.91 65 P **P** **01 08 12.9 0.0**
TAM IAmb IAmb 01 08 14.4
comp=Z,64nm,0.8s
TAM IAMs_20 IAMs_20 01 49 03.5
comp=Z,5µm,20.0s
TAM Tamanrasset 93.91 65 P **P** **01 08 13.3 +0.4**
comp=Z,697nmcomp=Z,56nm,1.4s
MESJ Messejana 93.94 46 *eP* **P** **01 08 12.8 +0.3**
MESJ *e*SKSac **SKSac 01 18 46.4 -0.3**
MESJ IAMs_20 IAMs_20 01 48 09.0
comp=Z,2µm,22.0s
MESJ Messejana 93.94 46 *eP* **P** **01 08 12.8 +0.3**
PLOUS Minas do Lousa 93.95 46 *eP* **P** **01 08 13.7 +1.3**
PLOUS IAmb IAmb 01 08 35.4
comp=Z,42nm,1.7s
PLOUS *e*SKSac **SKSac 01 18 49.3 +2.6**
PLOUS *e*S **ScS 01 19 25.8 +2.3**
PLOUS IAMs_20 IAMs_20 01 48 36.4
comp=Z,7µm,20.0s
PMAFR Mafra 94.06 45 *e*SKSac **SKSac 01 18 53.8 +6.4**
PMAFR *e*S **ScS 01 19 28.8 +4.3**
PMAFR IAMs_20 IAMs_20 01 48 55.7
comp=Z,4µm,18.0s
EDM Edmonton 94.19 337 P **P** **01 08 11.6 -1.7**
EDM pmax pmax
comp=Z,86nm,1.1s
EDM Edmonton 94.19 337 P **P** **01 08 11.6 -1.7**
EDM IAmb IAmb 01 08 13.1
comp=Z,86nm,1.1s
PBEJ Beja 94.27 46 *eP* **P** **01 08 14.6 +0.7**
PBEJ IAmb IAmb 01 08 39.8
comp=Z,39nm,1.7s
MOE Montemor 94.31 45 *eP* **P** **01 08 14.3 +0.2**
MOE IAmb IAmb 01 08 37.0
comp=Z,49nm,1.3s
MOE *e*SKSac **SKSac 01 18 51.0 +2.3**
MOE *e*S **ScS 01 19 30.4 +3.8**
MOE IAMs_20 IAMs_20 01 49 17.3
comp=Z,6µm,20.0s
TAU Tasmania Unive 94.44 209 P **P** **01 08 16.1 +1.2**
TAU Tasmania Unive 94.44 209 P **P** **01 08 14.5 -0.4**
TAU pmax pmax
comp=Z,196nm,1.8s
TAU Tasmania Unive 94.44 209 P **P** **01 08 14.5 -0.4**
TAU IAmb IAmb 01 08 16.4
comp=Z,196nm,1.8s
TAU Tasmania Unive 94.44 209 P **P** **01 08 14.6 -0.4**
comp=Z,55nm,1.6s
EVO Evora 94.52 46 P **P** **01 08 14.4 -0.7**
EVO Evora 94.52 46 *eP* **P** **01 08 14.8 -0.3**
FCC Fort Churchill 94.66 349 P **P** **01 08 15.0 -0.2**
FCC pmax pmax
comp=Z,78nm,1.0s
FCC Fort Churchill 94.66 349 P **P** **01 08 15.0 -0.2**
FCC IAmb IAmb 01 08 16.3
comp=Z,78nm,1.0s
PARRA Arraiolos 94.69 45 *eP* **P** **01 08 15.9 +0.1**
PARRA IAmb IAmb 01 08 17.2
comp=Z,34nm,1.4s
PARRA IAMs_20 IAMs_20 01 49 27.4
comp=Z,6µm,20.0s
PSBE So Bento 94.71 44 *eP* **P** **01 08 16.4 +0.4**
PSBE IAmb IAmb 01 08 18.0
comp=Z,79nm,2.0s
PSBE IAMs_20 IAMs_20 01 51 50.7
comp=Z,5µm,18.0s
MSVF Nonsavu 94.72 245 P **P** **01 08 17.8 +1.1**
comp=Z,4.4nm,0.7s,baz=153,slow=4.5,SNR=5.2
MSVF LR LR 01 45 40.0
comp=Z,2µm,18.0s,baz=130,slow=32
comp=Z,4.4nm,0.7s
MSVF Nonsavu 94.72 245 P **P** **01 08 18.1 +1.4**
MSVF Nonsavu 94.72 245 P **P** **01 08 17.1 +0.4**
MSVF Nonsavu 94.72 245 P **P** **01 08 15.0 -1.7**
comp=Z,34nm,1.3s
ESPR Espera 94.73 48 P **P** **01 08 16.1 0.0**
PMTG Montargil 94.75 45 *eP* **P** **01 08 15.9 -0.2**
PMTG IAmb IAmb 01 08 32.9
comp=Z,60nm,1.5s
PMTG *e*SKSac **SKSac 01 18 54.9 +3.8**
PMTG *e*S **ScS 01 19 35.8 +5.7**
PMTG IAMs_20 IAMs_20 01 49 27.0
comp=Z,4µm,20.0s

EMIN	**Mina Concepcio**	**94.81**	**47**	P	**P**		**01 08 16.0**	**-0.5**		
PBAR	**Barrancos**	**94.86**	**46**	P	**P**		**01 08 15.7**	**-1.0**		
PBAR	**Barrancos**	**94.86**	**46**	*e*P	**P**		**01 08 16.9**	**+0.2**		
PBAR				IAmb	IAmb	01 08 26.6				
	comp=Z,38nm,1.7s									
PBAR				*e*S	**S**		**01 19 35.5**	**+5.4**		
PBAR				*e*SS	**SS**		**01 25 58.2**	**+2.6**		
PBAR				IAMs_20	IAMs_20	01 49 06.1				
	comp=Z,6µm,20.0s									
MOO	**Moorlands**	**94.89**	**209**	P	**P**		**01 08 18.9**	**+2.0**		
	comp=Z,68nm,1.5s									
MOO	**Moorlands**	**94.89**	**209**	P	**P**		**01 08 18.2**	**+1.2**		
MOO	**Moorlands**	**94.89**	**209**	P	**P**		**01 08 18.4**	**+1.5**		
	comp=Z,68nm,1.4s									
PESTR	**Estremoz**	**94.99**	**46**	P	**P**		**01 08 16.3**	**-1.0**		
PESTR	**Estremoz**	**94.99**	**46**	*e*P	**P**		**01 08 16.7**	**-0.5**		
PESTR				IAMs_20	IAMs_20	01 49 09.9				
	comp=Z,5µm,18.0s									
LLLB	**Lillooet**	**95.12**	**331**	P	**P**		**01 08 17.0**	**-0.6**		
PSARD	**Sardoal**	**95.14**	**45**	*e*P	**P**		**01 08 17.6**	**-0.3**		
PSARD				IAMs_20	IAMs_20	01 52 03.1				
	comp=Z,4µm,18.0s									
EBAD	**Badajoz**	**95.25**	**46**	P	**P**		**01 08 18.2**	**-0.2**		
PMRV	**Marv??o**	**95.47**	**45**	*e*P	**P**		**01 08 19.1**	**-0.4**		
PMRV				IAmb	IAmb	01 08 41.7				
	comp=Z,28nm,1.3s									
PMRV				*e*SKSac	**SKSac**		**01 18 59.7**	**+4.8**		
PMRV				*e*S	**ScS**		**01 19 37.2**	**+1.0**		
PMRV				*e*SS	**SS**		**01 26 06.7**	**+2.4**		
PMRV				*e*LR	LR	01 40 14.5				
PMRV				IAMs_20	IAMs_20	01 49 59.8				
	comp=Z,4µm,18.0s									
EMAL	**Malaga-Limoner**	**95.54**	**49**	P	**P**		**01 08 19.9**	**+0.2**		
PCBR	**Castelo Branco**	**95.69**	**45**	*e*P	**P**		**01 08 20.2**	**-0.2**		
PCBR				IAmb	IAmb	01 08 42.6				
	comp=Z,38nm,1.5s									
PTO	**Porto**	**95.90**	**43**	*e*P	**P**		**01 08 21.5**	**+0.1**		
PTO				IAmb	IAmb	01 08 22.8				
	comp=Z,42nm,1.8s									
MTE	**Manteigas**	**96.02**	**44**	P	**P**		**01 08 21.3**	**-0.7**		
MTE				IAMs_20	IAMs_20	01 52 15.6				
	comp=Z,7µm,19.0s									
MTE	**Manteigas**	**96.02**	**44**	*e*P	**P**		**01 08 21.7**	**-0.3**		
MTE				IAmb	IAmb	01 08 25.4				
	comp=Z,27nm,1.8s									
MTE				*e*SKSac	**SKSac**		**01 19 00.5**	**+2.6**		
MTE				*e*S	**ScS**		**01 19 41.7**	**+0.9**		
MTE				*e*SS	**SS**		**01 26 12.4**	**+0.3**		
MTE				*e*LR	LR	01 41 15.0				
MTE				IAMs_20	IAMs_20	01 52 39.5				
	comp=Z,6µm,20.0s									
MTE	**Manteigas**	**96.02**	**44**	P	**P**		**01 08 21.7**	**-0.3**		
	comp=Z,30nm,1.1s									
PVIS	**Viseu**	**96.03**	**44**	*e*P	**P**		**01 08 21.5**	**-0.5**		
PVRL	**Vila Real**	**96.50**	**44**	*e*P	**P**		**01 08 23.6**	**-0.5**		
PVRL				IAmb	IAmb	01 08 54.1				
	comp=Z,38nm,1.6s									
POLO	**Lamas de Olo**	**96.51**	**44**	*e*P	**P**		**01 08 23.9**	**-0.3**		
POLO				IAmb	IAmb	01 08 27.4				
	comp=Z,16nm,1.8s									
POLO				*e*SS	SS	01 26 21.9		+2.7		
POLO				IAMs_20	IAMs_20	01 49 58.4				
	comp=Z,3µm,20.0s									
PCAB	**Cabril**	**96.60**	**43**	*e*P	**P**		**01 08 24.2**	**-0.3**		
PGAV	**Gavieira, Arco**	**96.64**	**43**	*e*SKSac	**SKSac**		**01 19 03.4**	**+2.2**		
PGAV				*e*S	**ScS**		**01 19 51.1**	**+5.1**		
PGAV				*e*SS	**SS**		**01 26 23.8**	**+2.9**		
PGAV				*e*LR	LR	01 40 13.0				
PGAV				IAMs_20	IAMs_20	01 48 32.6				
	comp=Z,4µm,22.0s									
PAB	**San Pablo**	**97.35**	**47**	P	**P**		**01 08 27.3**	**-0.8**		
PAB				pmax	pmax					
	comp=Z,27nm,1.3s									
PAB				MLR	MLR					
	comp=Z,7µm,20.0s									
PAB	**San Pablo**	**97.35**	**47**	P	**P**		**01 08 27.3**	**-0.8**		
PAB	**San Pablo**	**97.35**	**47**	IAMs_20	IAMs_20	01 50 26.8				
	comp=Z,7µm,20.0s									
PAB	**San Pablo**	**97.35**	**47**	P	Pdif	01 08 28.7		+0.6		
	comp=Z,18nm,1.7s									
PBRG	**Braganca**	**97.39**	**44**	*e*P	**P**		**01 08 28.0**	**-0.2**		
PBRG				IAmb	IAmb	01 08 56.1				
	comp=Z,39nm,1.5s									
PBRG				*e*S	**S**		**01 19 57.7**	**+5.8**		
PBRG				*e*SS	**SS**		**01 26 41.2**	**+10**		
PBRG				IAMs_20	IAMs_20	01 50 14.4				
	comp=Z,5µm,20.0s									
ESDC	**Sonseca Array**	**97.66**	**47**	P	**P**		**01 08 29.4**	**0.0**		
	comp=Z,8.6nm,0.9s,baz=248,slow=4.2,SNR=40									
ESDC				PP	**PP**		**01 12 25.6**	**-2.2**		
	comp=Z,5.2nm,1.2s,baz=238,slow=7.6,SNR=4.1									
ESDC				LR	LR	01 51 44.9				
	comp=Z,5µm,18.6s,baz=235,slow=35									
	comp=Z,8.6nm,0.9s									
ESDC	**Sonseca Array**	**97.66**	**47**	P	**P**		**01 08 28.5**	**-0.9**		
ESDC				IAmb	IAmb	01 08 58.5				
	comp=Z,140nm,1.7s									
ESBB	**Sonseca Array**	**97.66**	**47**	P	**P**		**01 08 29.1**	**-0.4**		
FRB	**Frobisher Bay**	**98.10**	**2**	LR	LR	01 52 47.7				
	comp=Z,2µm,21.6s,baz=176,slow=35									
BBB	**Bella Bella**	**98.87**	**329**	LR	LR	01 49 44.5				
	comp=Z,3µm,18.2s,baz=144,slow=33									
TOO	**Toolangi**	**99.70**	**210**	P	**Pdif**		**01 08 38.5**	**-0.3**		
	comp=Z,11nm,1.6s									
U35K	**Hyder**	**102.34**	**331**	IAMs_20	IAMs_20	01 51 55.8				
	comp=Z,7µm,20.0s									
YKA	**Yellowknife Ar**	**102.35**	**342**	P	**Pdif**		**01 08 48.5**	**-1.2**		
	comp=Z,9.5nm,0.9s,baz=144,slow=4.5,SNR=32									
YKA				PP	**PP**		**01 13 05.9**	**+3.2**		
	comp=Z,3.6nm,0.8s,baz=139,slow=7.3,SNR=4.3									
YKA				PKKPbc	**PKKPbc**		**01 24 49.8**	**-3.3**		
	comp=Z,0.7nm,0.5s,baz=322,slow=3.8,SNR=6.4									
V35K	**Ketchikan**	**102.57**	**330**	IAMs_20	IAMs_20	01 52 48.0				
	comp=Z,6µm,20.0s									
T35M	**Bob Quinn**	**103.18**	**332**	IAMs_20	IAMs_20	01 52 46.0				
	comp=Z,6µm,19.0s									
WRAK	**Wrangell Islan**	**103.62**	**331**	IAMs_20	IAMs_20	01 52 34.8				
	comp=Z,6µm,21.0s									
U33K	**Whale Pass**	**103.73**	**330**	IAMs_20	IAMs_20	01 53 29.7				
	comp=Z,7µm,19.0s									
DLBC	**Dease Lake**	**104.12**	**333**	PP	**PP**		**01 13 19.1**	**+2.9**		
	comp=Z,11nm,1.1s,baz=19,slow=16,SNR=3.9									
Q32M	**Nakina River**	**105.33**	**333**	IAMs_20	IAMs_20	01 53 20.9				
	comp=Z,6µm,21.0s									
R32K	**Eaglecrest**	**105.74**	**331**	IAMs_20	IAMs_20	01 53 59.9				
	comp=Z,4µm,20.0s									
VSL	**Villasalto**	**105.97**	**53**	IAMs_20	IAMs_20	01 58 45.8				
	comp=Z,4µm,20.0s									
SSB	**Saint Sauveur**	**106.04**	**46**	IAMs_20	IAMs_20	01 57 52.8				
	comp=Z,5µm,18.0s									
BESE	**Bessie Mountai**	**106.08**	**331**	IAMs_20	IAMs_20	01 54 28.7				
	comp=Z,5µm,19.0s									
STKA	**Stephens Creek**	**106.23**	**210**	P	**Pdif**		**01 09 06.8**	**-1.1**		
STKA	**Stephens Creek**	**106.23**	**210**	Pdiff	**Pdif**		**01 09 07.9**	**0.0**		
	comp=Z,2.6nm,0.9s,baz=80,slow=5.6,SNR=3.9									
STKA				PKKPbc	**PKKPbc**		**01 24 39.9**	**-0.2**		
	comp=Z,3.4nm,0.8s,baz=243,slow=2.3,SNR=4.1									
S31K	**Pelican**	**106.23**	**330**	IAMs_20	IAMs_20	01 59 50.8				
	comp=Z,4µm,18.0s									
RER	**Riviere de l'E**	**106.28**	**131**	IAMs_20	IAMs_20	01 58 21.8				
	comp=Z,4µm,20.0s									
LODK	**Lodwar**	**107.15**	**98**	IAMs_20	IAMs_20	01 57 53.1				
	comp=Z,5µm,20.0s									
SENIN	**Lac Senin/Sane**	**108.25**	**46**	IAMs_20	IAMs_20	01 56 03.2				
	comp=Z,5µm,22.0s									
N31M	**Braeburn, Yuko**	**108.31**	**333**	IAMs_20	IAMs_20	01 56 38.7				
	comp=Z,6µm,20.0s									
O29M	**Mount Kennedy**	**108.64**	**331**	IAMs_20	IAMs_20	01 53 26.6				
	comp=Z,5µm,22.0s									
BCPM	**Bancas Point**	**108.85**	**331**	IAMs_20	IAMs_20	01 57 25.8				
	comp=Z,4µm,19.0s									
ECH	**Echery**	**109.11**	**44**	IAMs_20	IAMs_20	01 53 42.2				
	comp=Z,4µm,22.0s									
PCA	**Pinnacle**	**109.19**	**331**	IAMs_20	IAMs_20	01 51 25.9				
	comp=Z,4µm,22.0s									
M30M	**Minto, Yukon**	**109.38**	**334**	IAMs_20	IAMs_20	01 56 41.8				
	comp=Z,5µm,19.0s									
TUE	**Stuetta**	**109.52**	**47**	IAMs_20	IAMs_20	01 54 06.0				
	comp=Z,6µm,22.0s									
O28M	**Mount Upton**	**109.56**	**331**	IAMs_20	IAMs_20	01 57 18.9				
	comp=Z,6µm,18.0s									
BFO	**Black Forest**	**109.85**	**45**	IAMs_20	IAMs_20	02 00 07.6				
	comp=Z,3µm,19.0s									
M29M	**Somme Creek**	**109.91**	**333**	IAMs_20	IAMs_20	01 57 54.8				
	comp=Z,6µm,18.0s									
LOGN	**Logan Glacier**	**109.92**	**331**	IAMs_20	IAMs_20	01 57 18.2				
	comp=Z,5µm,20.0s									
C36M	**Paulatuk**	**110.14**	**343**	IAMs_20	IAMs_20	02 00 12.8				
	comp=Z,4µm,18.0s									
GRNC	**Granite Creek**	**110.16**	**331**	IAMs_20	IAMs_20	01 57 39.8				
	comp=Z,4µm,19.0s									
L29M	**L29M**	**110.19**	**334**	IAMs_20	IAMs_20	01 57 17.2				
	comp=Z,6µm,19.0s									
DAVA	**Damuels**	**110.24**	**46**	*e*PKiKP	**PKiKP**		**01 13 26.8**	**+0.2**		
	comp=Z,8.8nm,1.0s									
DAVA				*e*PKKP	**PKKPab**		**01 24 37.5**	**+1.1**		
	comp=Z,7.1nm,1.2s									
BARN	**Barnard Glacie**	**110.32**	**331**	IAMs_20	IAMs_20	01 52 02.8				
	comp=Z,4µm,22.0s									
CUC	**Castrocucco**	**110.52**	**55**	IAMs_20	IAMs_20	02 01 46.1				
	comp=Z,4µm,20.0s									
TGL	**Tana Glacier**	**110.61**	**331**	IAMs_20	IAMs_20	01 56 17.6				
	comp=Z,5µm,21.0s									
FETA	**Feichten**	**110.62**	**47**	*e*PKiKP	**PKiKP**		**01 13 27.3**	**0.0**		
	comp=Z,6.1nm,1.1s									
CRQM	**Cirque**	**110.74**	**330**	IAMs_20	IAMs_20	01 49 45.4				
	comp=Z,5µm,20.0s									
TULEG	**Thule**	**110.92**	**1**	IAMs_20	IAMs_20	02 00 48.7				
	comp=Z,4µm,21.0s									
MOTA	**Moosalm**	**111.00**	**46**	PKiKP	**PKiKP**		**01 13 27.8**	**-0.2**		
	comp=Z,7.2nm,1.0s									
SQTA	**Sankt Quirin**	**111.00**	**47**	*e*PKiKP	**PKiKP**		**01 13 27.7**	**-0.3**		
	comp=Z,9.6nm,1.1s									
SQTA				*e*PKKP	**PKKPbc**		**01 24 23.1**	**-2.6**		
	comp=Z,4.1nm,1.3s									
MCARA	**McCarthy VSAT**	**111.04**	**331**	IAMs_20	IAMs_20	01 57 43.0				
	comp=Z,4µm,20.0s									
VRDI	**Verde Repeater**	**111.13**	**331**	IAMs_20	IAMs_20	01 56 33.3				
	comp=Z,4µm,22.0s									
G31M	**Satah River**	**111.27**	**338**	IAMs_20	IAMs_20	01 59 27.2				
	comp=Z,5µm,18.0s									
WTTA	**Wattenberg**	**111.28**	**47**	PKiKP	**PKiKP**		**01 13 29.0**	**+0.4**		
	comp=Z,12nm,1.2s									
GLB	**Gilahina Butte**	**111.39**	**331**	IAMs_20	IAMs_20	01 57 45.2				
	comp=Z,5µm,20.0s									
MATE	**Matera**	**111.42**	**55**	⇓P	**PKiKP**		**01 13 27.7**	**-1.0**		
F31M	**Tsiigehtchic**	**111.44**	**339**	IAMs_20	IAMs_20	01 59 15.0				
	comp=Z,5µm,19.0s									
BMRM	**Bremner River**	**111.45**	**330**	IAMs_20	IAMs_20	01 56 56.9				
	comp=Z,5µm,22.0s									
ABTA	**Abfaltersbach**	**111.57**	**48**	*e*PKiKP	**PKiKP**		**01 13 28.9**	**-0.1**		
	comp=Z,15nm,1.4s									
ABTA				*e*PKKP	**PKKPbc**		**01 24 22.3**	**-1.4**		
	comp=Z,12nm,1.4s									
M26K	**Nabesna, AK**	**111.60**	**332**	IAMs_20	IAMs_20	01 57 48.7				
	comp=Z,5µm,18.0s									
ROCAM	**Rodrigues Isla**	**111.94**	**136**	IAMs_20	IAMs_20	01 53 54.3				
	comp=Z,4µm,20.0s									
LESA	**Schwarzleotal**	**111.98**	**47**	*e*PKiKP	**PKiKP**		**01 13 29.1**	**-0.7**		
	comp=Z,2.7nm,0.6s									
DIV	**Divide**	**112.02**	**330**	IAMs_20	IAMs_20	01 52 46.9				
	comp=Z,5µm,19.0s									
NWAO	**Narrogin (SRO)**	**112.11**	**189**	PKKPbc	PKKPbc	01 24 20.0		-1.6		
	comp=Z,7.5nm,1.0s,baz=57,slow=5.5,SNR=4.0									
NWAO	**Narrogin (SRO)**	**112.11**	**189**	IAMs_20	IAMs_20	01 55 39.8				
	comp=Z,3µm,21.0s									
FID	**Port Fidalgo**	**112.11**	**329**	IAMs_20	IAMs_20	01 52 22.4				
	comp=Z,5µm,20.0s									
K27K	**Chicken**	**112.16**	**334**	IAMs_20	IAMs_20	01 58 46.1				
	comp=Z,5µm,19.0s									
GRFO	**Grafenberg**	**112.17**	**44**	IAMs_20	IAMs_20	01 59 29.0				
	comp=Z,5µm,22.0s									
GRA1	**Grafenberg Arr**	**112.17**	**44**	IAMs_20	IAMs_20	01 59 29.1				
	comp=Z,4µm,22.0s									
KBA	**Koelnbreinsper**	**112.23**	**47**	*e*PKiKP	**PKiKP**		**01 13 29.4**	**-0.9**		
	comp=Z,9.6nm,0.9s									
KLU	**Klutina**	**112.27**	**330**	IAMs_20	IAMs_20	01 52 24.6				
	comp=Z,4µm,21.0s									
A36M	**Sans Harbour**	**112.32**	**345**	IAMs_20	IAMs_20	02 00 27.5				
	comp=Z,5µm,19.0s									
NEEM	**North Greenlan**	**112.62**	**5**	*i* P	**PKiKP**		**01 13 30.3**	**-0.1**		
BIOA	**Bad Ischl, Aus**	**112.68**	**47**	*e*PKiKP	**PKiKP**		**01 13 30.5**	**-0.5**		
	comp=Z,19nm,1.7s									
OBKA	**Obir**	**112.71**	**48**	*e*PKiKP	**PKiKP**		**01 13 31.1**	**0.0**		
	comp=Z,19nm,1.6s									
PAX	**Paxson**	**112.87**	**332**	IAMs_20	IAMs_20	01 58 39.2				
	comp=Z,5µm,20.0s									
SESA	**Seetaler Alpe,**	**112.99**	**48**	*e*PKiKP	**PKiKP**		**01 13 31.0**	**-0.9**		
	comp=Z,5.7nm,1.1s									
SESA				*e*PKKP	**PKKPbc**		**01 24 17.4**	**-1.7**		
	comp=Z,4.8nm,1.1s									
SCM	**Sheep Creek Mo**	**113.03**	**330**	IAMs_20	IAMs_20	01 57 08.4				
	comp=Z,5µm,22.0s									
SOKA	**Soboth**	**113.08**	**48**	*e*PKiKP	**PKiKP**		**01 13 32.0**	**+0.1**		
	comp=Z,7.8nm,1.1s									
NKC	**Novy Kostel**	**113.12**	**44**	*e*PKP	**PKiKP**		**01 13 32.5**	**+0.7**		
NKC				AMS	AMS	02 02 30.0				
	comp=Z,4µm,22.2s									
MOA	**Molln**	**113.13**	**47**	*e*PKiKP	**PKiKP**		**01 13 31.3**	**-0.6**		
	comp=Z,8.5nm,1.1s									
MOA				*e*PKKP	**PKKPbc**		**01 24 18.1**	**-0.3**		
	comp=Z,7.2nm,1.4s									
GERES	**GERESS Array B**	**113.24**	**46**	PKiKP	**PKiKP**		**01 13 31.9**	**-0.2**		
	comp=Z,5.3nm,0.8s,baz=215,slow=1.6,SNR=21									
GERES				PKKPbc	**PKKPbc**		**01 24 17.6**	**-0.6**		
	comp=Z,0.6nm,0.6s,baz=48,slow=2.0,SNR=7.1									
GERES	**GERESS Array B**	**113.24**	**46**		**PKiKP**		**01 13 31.6**	**-0.5**		
I26K	**Coal Creek Min**	**113.25**	**335**	IAMs_20	IAMs_20	01 59 40.1				
	comp=Z,6µm,21.0s									
KNK	**Knik Glacier**	**113.28**	**330**	IAMs_20	IAMs_20	01 53 27.2				
	comp=Z,4µm,19.0s									
KHC	**Kasperske Hory**	**113.29**	**46**	*c i*PKIKP	**PKiKP**		**01 13 33.4**	**+1.3**		
KHC				pmax	pmax					
	comp=Z,10.0nm,1.3s									
KHC	**Kasperske Hory**	**113.29**	**46**	IAMs_20	IAMs_20	02 03 28.7				
	comp=Z,5µm,20.0s									
KHC	**Kasperske Hory**	**113.29**	**46**	*e*PKP	**PKiKP**		**01 13 31.0**	**-1.1**		
KHC				AMS	AMS	02 03 00.0				
	comp=Z,6µm,21.5s									
O22K	**Cooper Landing**	**113.36**	**328**	IAMs_20	IAMs_20	01 52 01.5				
	comp=Z,4µm,20.0s									
SML	**Sawmill**	**113.42**	**330**	IAMs_20	IAMs_20	01 53 59.0				
	comp=Z,4µm,21.0s									
BLY	**Banja Luka**	**113.58**	**51**	IAMs_20	IAMs_20	01 57 51.2				
	comp=Z,5µm,22.0s									
BLY	**Banja Luka**	**113.58**	**51**	⇓P	**PKiKP**		**01 13 33.2**	**+0.4**		
CKRC	**Cesky Krumlov**	**113.59**	**46**	*e*PKP	**PKiKP**		**01 13 25.4**	**-7.3**		
CKRC				AMS	AMS	02 01 20.0				
	comp=Z,4µm,20.1s									
SLKM	**Skilak Lake**	**113.59**	**328**	IAMs_20	IAMs_20	01 52 09.5				
	comp=Z,5µm,22.0s									
ARSA	**Arzberg**	**113.63**	**48**	*e*PKP	**PKiKP**		**01 13 32.5**	**-0.4**		
	comp=Z,7.0nm,0.9s									
ARSA				*e*PKKP	**PKKPbc**		**01 24 16.6**	**-0.2**		
	comp=Z,4.4nm,1.2s									
DHY	**Denali Highway**	**113.67**	**331**	IAMs_20	IAMs_20	01 57 59.4				
	comp=Z,5µm,22.0s									
J25K	**Salcha River,**	**113.69**	**333**	IAMs_20	IAMs_20	01 58 39.8				
	comp=Z,5µm,22.0s									
ZVC	**Zvikov**	**113.79**	**45**	*e*PKP	**PKiKP**		**01 13 33.1**	**+0.1**		
ZVC				AMS	AMS	02 02 50.0				
	comp=Z,3µm,21.5s									
HSKC	**Hora Svate Kat**	**113.86**	**44**	AMS	AMS	02 00 30.0				
	comp=Z,5µm,24.0s									
CLL	**Collm**	**113.92**	**43**	*i* PKiKP	**PKiKP**		**01 13 33.6**	**+0.4**		
	comp=Z,22nm,1.5s									
CLL				*i* sPKiKP	**sPKiKP**		**01 13 44.1**	**+6.0**		
CLL				*e*PP	**PP**		**01 14 27.0**	**-0.5**		
CLL				*i* x	x	01 14 42.7				
CLL				*e*SKPdf	**SKiKP**		**01 17 12.0**	**+3.7**		
CLL				*e*SKSac	**SKSac**		**01 20 18.0**	**-0.6**		
CLL				*e*Sdif	**Sdif**		**01 22 12.0**	**+2.5**		
CLL				*e*PS	**PS**		**01 24 06.0**	**+1.8**		
CLL				*i* PKKPbc	**PKKPbc**		**01 24 16.1**	**+0.3**		
CLL				*i* PKKPab	**PKKPab**		**01 24 22.9**	**+3.2**		
CLL				*i* PKKPdf	**PKKPdf**		**01 24 37.0**	**-1.6**		
CLL				*ex*	x	01 24 58.0				
CLL				*e*PPS	PPS	01 25 11.0				
CLL				*e*SS	**SS**		**01 30 10.0**	**-6.6**		
CLL				*e*SSS	SSS	01 34 24.0				
CLL				*e*SSSS		01 37 48.0				
CLL				LH		01 41 00.0				
CLL				LH		01 47 00.0				
CLL				AMS	AMS	01 56 00.0				
	comp=N,2µm,23.9s									
CLL				AMS	AMS	01 56 00.0				
	comp=E,3µm,22.3s									
CLL				AMS	AMS	01 56 00.0				
	comp=Z,5µm,22.4s									
CLL				AMS	AMS	02 01 00.0				
	comp=Z,4µm,19.1s									
PDG	**Podgorica**	**113.93**	**54**	IAMs_20	IAMs_20	02 04 13.6				
	comp=Z,3µm,20.0s									
PDG	**Podgorica**	**113.93**	**54**	⇑P	**PKiKP**		**01 13 30.4**	**-3.1**		
DBG	**Daneborg**	**114.13**	**14**	*i* P	PKPdf	01 13 32.3		-0.7		
CONA	**Conrad Observa**	**114.13**	**47**	*i* PKP	PKPdf	01 13 33.2		-0.6		
	comp=Z,9.0nm,0.9s									
M22K	**Willow**	**114.14**	**329**	IAMs_20	IAMs_20	01 54 03.1				
	comp=Z,4µm,20.0s									
ABNA	**Allensteig Bun**	**114.19**	**47**	*e*PKP	PKPdf	01 13 33.5		-0.4		
	comp=Z,7.5nm,0.9s									
ABNA				*e*PKKP	**PKKPab**		**01 24 20.2**	**+1.4**		
	comp=Z,9.0nm,1.3s									
PRP	**Porcupine Dome**	**114.21**	**334**	IAMs_20	IAMs_20	01 59 57.4				
	comp=Z,4µm,19.0s									
RICC	**Richard**	**114.21**	**44**	AMS	AMS	01 56 20.0				
	comp=Z,4µm,22.1s									
BRG	**Berggiesshubel**	**114.26**	**44**	⇓*e*Pdif	**Pdif**		**01 09 42.4**	**-0.5**		
BRG				Amp		01 09 43.0				
	comp=Z,1.6nm,0.8s									
BRG				⇓PKPdf	**PKiKP**		**01 13 34.2**	**+0.4**		
BRG				Amp		01 13 35.1				
	comp=Z,14nm,1.1s									
BRG	**Berggiesshubel**	**114.26**	**44**	⇓Sdif	Sdif	01 22 27.0		+15		
BRG	**Berggiesshubel**	**114.26**	**44**	SP	SP	01 24 09.0		+3.7		
BRG				⇑PKKPb		01 24 14.8				
BRG				Amp		01 24 17.0				
	comp=Z,3.0nm,0.8s									
BRG				PKKPab	PKKPab	01 24 21.7		+3.4		
BRG				Amp		01 24 22.5				
	comp=Z,5.8nm,0.9s									
BRG				⇓SKKPf		01 28 11.1				
BRG				Amp		01 28 13.8				
	comp=Z,2.5nm,0.9s									
BRG	**Berggiesshubel**	**114.26**	**44**	SS	SS	01 30 24.0		+2.8		
SUA	**Susitna One**	**114.27**	**329**	IAMs_20	IAMs_20	02 00 08.5				
	comp=Z,4µm,21.0s									
RONA	**Rosalia, Austr**	**114.30**	**48**	*e*PKP	PKPdf	01 13 33.3		-0.8		
	comp=Z,4.0nm,1.0s									
ILAR	**Eielson Array**	**114.33**	**333**	PKP	PKPdf	01 13 33.4		-0.2		
	comp=Z,6.1nm,0.9s,baz=188,slow=1.3,SNR=26									
ILAR				PKKPbc	**PKKPbc**		**01 24 12.5**	**-2.3**		
	comp=Z,3.1nm,1.0s,baz=313,slow=4.1,SNR=13									
ILAR	**Eielson Array**	**114.33**	**333**							
WINA	**Alland / Wiene**	**114.34**	**47**	*e*PKP	PKPdf	01 13 33.3		-0.8		
	comp=Z,5.7nm,1.2s									
G26K	**Porcupine Rive**	**114.34**	**336**	IAMs_20	IAMs_20	01 59 40.9				
	comp=Z,6µm,19.0s									
Q19K	**Cape Douglas,**	**114.39**	**326**	IAMs_20	IAMs_20	01 52 21.7				
	comp=Z,5

comp=Z,5µm,19.0s
BLKB Belogradchik 116.71 54 ⇑P PKiKP 01 13 39.2 +0.3
O16K Kokwok River B 116.74 325 IAMs_20 IAMs_20 01 52 28.1
comp=Z,5µm,21.0s
BZS Buzias 116.80 52 ⇓PKIKP PKiKP 01 13 39.0 +0.1
BZS Buzias 116.80 52 ⇓P PKiKP 01 13 39.0 +0.1
LANS Liptovska Anna 116.82 47 ePKP PKiKP 01 13 40.2 +1.3
J20K Nowinta River 116.86 331 IAMs_20 IAMs_20 01 57 22.0
comp=Z,4µm,22.0s
QIS Mount Isa 116.91 215 P PKiKP 01 13 40.1 +0.1
HERR Herculane 117.03 53 ⇑P PKPdf 01 13 39.0 -0.4
NB2 NORSAR Subarra 117.03 33 PKPdf PKPdf 01 13 38.6 -0.4
comp=Z,0.9nm,0.6s,baz=234,slow=1.9
NOA NORSAR Array B 117.03 33 PKP PKPdf 01 13 38.6 -0.4
comp=Z,4.1nm,1.0s,baz=251,slow=2.1,SNR=5.1
NOA PKKPbc PKKPab 01 24 07.7 +2.0
comp=Z,3.5nm,0.8s,baz=77,slow=4.3,SNR=7.8
SIRR Siria 117.08 51 ⇓P PKiKP 01 13 39.5 0.0
GKP Gorka Klasztor 117.09 42 ePKP PKiKP 01 13 39.8 +0.5
L18K Granite Mounta 117.14 328 IAMs_20 IAMs_20 01 55 20.4
comp=Z,5µm,22.0s
M17K Holitna River 117.15 327 IAMs_20 IAMs_20 01 56 06.7
comp=Z,5µm,18.0s
SURR Surduc 117.18 52 ⇑P PKPdf 01 13 39.6 0.0
WRKA Warakurna 117.28 202 P PKPdf 01 13 40.2 -0.5
J19K Poorman 117.39 331 IAMs_20 IAMs_20 02 02 06.8
comp=Z,4µm,20.0s
O15K Ungalikthiuk R 117.40 325 IAMs_20 IAMs_20 01 53 24.5
comp=Z,6µm,22.0s
OJC Ojcow 117.42 46 ePKP PKPdf 01 13 39.8 -0.2
NIE Niedzica 117.42 47 ePKP PKiKP 01 13 41.0 +0.9
IMAR Indian Mountai 117.44 333 PKiKP 01 13 40.0 +0.4
GZR Gura Zlata 117.46 52 ⇓PKIKP PKPdf 01 13 40.3 0.0
GZR Gura Zlata 117.46 52 ⇓P PKPdf 01 13 40.3 0.0
G21K Allakaket 117.57 334 IAMs_20 IAMs_20 02 00 49.4
comp=Z,4µm,22.0s
J18K Innoko River 117.63 330 IAMs_20 IAMs_20 02 02 23.3
comp=Z,4µm,20.0s
M16K Timber Creek 117.69 327 IAMs_20 IAMs_20 02 00 40.0
comp=Z,5µm,20.0s
EZN Ezine 117.72 59 ⇓PKIKP PKiKP 01 13 42.0 +1.1
EZN Ezine 117.72 59 ⇓P PKiKP 01 13 42.0 +1.1
DEV Deva 117.73 52 ⇓PKIKP PKiKP 01 13 40.9 +0.2
DEV Deva 117.73 52 ⇓P PKiKP 01 13 40.9 +0.2
ATD Arta Tunnel 117.81 95 IAMs_20 IAMs_20 02 09 24.9
comp=Z,5µm,18.0s
HFS Hagfors 117.83 34 PKP PKPdf 01 13 39.2 -1.2
comp=Z,3.3nm,0.7s,baz=190,slow=7.4,SNR=4.3
HFS PKKPbc PKKPbc 01 24 03.3 +0.9
comp=Z,6.0nm,0.8s,baz=159,slow=2.5,SNR=6.5
F21K Alatna River 117.84 334 IAMs_20 IAMs_20 02 01 42.5
comp=Z,3µm,21.0s
MSEY Mahe Island 117.86 118 IAMs_20 IAMs_20 02 02 46.8
comp=Z,5µm,20.0s
N15K Kwethluk River 117.89 326 IAMs_20 IAMs_20 01 59 49.5
comp=Z,6µm,20.0s
PLVB Pieven 117.92 55 ⇑P PKPdf 01 13 40.8 -0.3
DRGR 117.95 51 ⇑PKIKP PKPdf 01 13 40.9 -0.3
DRGR 117.95 51 ⇑P PKPdf 01 13 40.9 -0.3
VLAD Vladila 118.01 54 ⇑P PKPdf 01 13 40.3 -1.0
K17K Iditarod 118.02 329 IAMs_20 IAMs_20 02 00 20.7
comp=Z,6µm,20.0s
LOT Lotru 118.13 52 ⇑P PKPdf 01 13 40.7 -1.0
MARR Marisel-Cluj 118.17 51 ⇓P PKiKP 01 13 41.9 +0.2
KOLS Kolonicke sedl 118.45 48 ePKP PKiKP 01 13 42.2 +0.1
E21K Killik River 118.48 335 IAMs_20 IAMs_20 02 02 48.0
comp=Z,5µm,19.0s
CJR Cluj-Napoca 118.49 51 ⇑PKIKP PKPdf 01 13 41.6 -0.6
CJR Cluj-Napoca 118.49 51 ⇑P PKPdf 01 13 41.6 -0.6
TNR Turnu Rosu 118.54 52 ⇓PKIKP PKiKP 01 13 42.4 0.0
TNR Turnu Rosu 118.54 52 ⇓P PKiKP 01 13 42.4 0.0
F20K Avaraart Lake 118.58 334 IAMs_20 IAMs_20 02 01 42.2
comp=Z,5µm,22.0s
BEL Belsk 118.59 45 ePKP PKiKP 01 13 42.2 0.0
HUMR Humele 118.59 54 ⇑P PKiKP 01 13 42.9 +0.4
J17K VABM Dome 118.59 329 IAMs_20 IAMs_20 02 02 53.8
comp=Z,5µm,19.0s
TAVA DENIZLI_Tavas 118.66 62 ⇑P PKPdf 01 13 42.7 -0.2
ARR Arges 118.67 53 ⇑P PKPdf 01 13 42.0 -0.7
G19K Purcell Mounta 118.77 333 IAMs_20 IAMs_20 02 02 46.1
comp=Z,5µm,20.0s
BMR Baia Mare 118.77 50 ⇓PKIKP PKiKP 01 13 42.7 0.0
BMR Baia Mare 118.77 50 ⇓P PKiKP 01 13 42.7 0.0
MDB Medias 118.78 52 ⇑PKIKP PKiKP 01 13 43.4 +0.6
MDB Medias 118.78 52 ⇑P PKiKP 01 13 43.4 +0.6
H18K Honhosa River 118.91 331 IAMs_20 IAMs_20 02 02 47.1
comp=Z,4µm,18.0s
UNV Unalaska Valle 118.96 317 IAMs_20 IAMs_20 01 53 52.3
comp=Z,3µm,20.0s
KWP Kalwaria Pacla 118.97 48 ePKP PKPdf 01 13 42.7 -0.3
VOIR 118.97 53 ⇓PKIKP PKPdf 01 13 42.9 -0.3
VOIR 118.97 53 ⇓P PKPdf 01 13 42.9 -0.3
ARCR ARCALIA 119.10 51 ⇓P PKiKP 01 13 43.5 +0.1
ELL Elmali 119.11 64 PKIKP PKiKP 01 13 43.9 0.0
ELL Elmali 119.11 64 PKiKP 01 13 43.9 0.0
SGRR Singureni 119.14 54 ⇑P PKPdf 01 13 43.4 -0.1
BAND Balkesir-Ban 119.18 59 ⇑P PKPdf 01 13 43.0 -0.7
J16K Anvik River 119.20 329 IAMs_20 IAMs_20 02 01 07.0
comp=Z,5µm,19.0s
LOZB Loznitsa 119.25 55 ⇓P PKPdf 01 13 43.6 -0.1
F19K Shaleruckik Mo 119.26 333 IAMs_20 IAMs_20 02 03 20.2
comp=Z,5µm,19.0s
E19K Redstone River 119.28 334 IAMs_20 IAMs_20 02 02 27.1
comp=Z,4µm,20.0s
G18K Tagagawik 119.28 332 IAMs_20 IAMs_20 02 03 04.8
comp=Z,5µm,19.0s
K15K Wolf Creek Mou 119.28 328 IAMs_20 IAMs_20 02 01 44.1
comp=Z,5µm,21.0s
DOPR Dopca 119.38 52 ⇑P PKPdf 01 13 43.6 -0.3
H17K Granite Mounta 119.46 331 IAMs_20 IAMs_20 02 01 43.6
comp=Z,4µm,20.0s
L14K Kuka Creek 119.49 326 IAMs_20 IAMs_20 02 02 05.7
comp=Z,5µm,20.0s
NOR Nord 119.49 8 i P PKPdf 01 13 43.0 -0.1
MLR Muntele Rosu 119.58 53 ⇓PKIKP PKPdf 01 13 43.9 -0.5
MLR Muntele Rosu 119.58 53 PKPdf 01 13 43.7 -0.8
MLR IAMs_20 IAMs_20 02 03 58.2
comp=Z,5µm,19.0s
MLR Muntele Rosu 119.58 53 ⇓P PKPdf 01 13 43.9 -0.5
BOSR Bodos 119.59 52 ⇓P PKiKP 01 13 44.5 +0.1
WR0 Warramunga Arr 119.68 210 PKPdf PKPdf 01 13 44.7 -0.7
WRA Warramunga Arr 119.78 210 PKP PKPdf 01 13 44.5 -1.1
comp=Z,36nm,1.0s,baz=164,slow=1.6,SNR=166
WRA PP PP 01 15 09.7 +2.1
comp=Z,9.6nm,1.2s,baz=175,slow=6.2,SNR=4.8
WRA PKKPbc PKKPbc 01 23 55.5 +0.8
comp=Z,4.1nm,0.8s,baz=343,slow=4.2,SNR=14
WRAB Tennant Creek 119.78 210 c i PKIKP PKPdf 01 13 45.0 -0.6
WRAB pmax pmax
comp=Z,80nm,1.7s
WRAB MLR MLR
comp=Z,1µm,18.0s
WRAB Tennant Creek 119.78 210 IAMs_20 IAMs_20 02 02 02.6
comp=Z,4µm,18.0s
NEHR Nehoiu 119.78 53 ⇑P PKPdf 01 13 44.5 -0.2
TURR Turia 119.82 52 ⇓P PKPdf 01 13 44.6 -0.1
BUR08 Bucovina Ar. S 119.84 50 PKPdf 01 13 44.6 -0.2
BURAR Bucovina Array 119.84 51 ⇓PKIKP PKiKP 01 13 45.0 +0.1
BURAR Bucovina Array 119.84 51 PKPdf 01 13 44.8 0.0
BURAR Bucovina Array 119.84 51 ⇓P PKiKP 01 13 45.0 +0.1
ISR Istrita 119.84 54 ⇑P PKiKP 01 13 45.1 +0.2
COVR Voineasa-Covas 119.87 53 ⇓P PKPdf 01 13 43.9 -1.0
D19K Kuna River 119.93 335 IAMs_20 IAMs_20 02 04 24.4
comp=Z,5µm,20.0s
ISP Isparta 119.97 63 c i PKIKP PKiKP 01 13 45.7 +0.2
ISP pmax pmax
comp=Z,12nm,0.7s
EIL Elat 120.09 73 P PKiKP 01 13 46.8 +0.9
EIL AML AML
BISRR Bisoca 120.10 53 ⇑P PKPdf 01 13 45.4 0.0
SAHR Sahastru 120.14 53 ⇓P PKPdf 01 13 44.9 -0.6
ONER Baraj Valea Uz 120.16 52 ⇓P PKPdf 01 13 44.3 -1.1
PLOR Plostina 120.16 53 ⇑P PKPdf 01 13 44.9 -0.6
KZIT Kziot 120.18 71 P PKiKP 01 13 46.9 +0.9
KZIT AML AML
BIZ Bicaz 120.18 51 ⇑P PKiKP 01 13 45.9 +0.4
KLYT Kilyos 120.18 58 ⇓P PKPdf 01 13 43.9 -1.7
VRI Vrincioaia 120.22 53 ⇓PKIKP PKPdf 01 13 44.9 -0.6
VRI Vrincioaia 120.22 53 ⇓P PKPdf 01 13 44.9 -0.6
VRI Vrincioaia 120.22 53 PKP PKPdf 01 13 44.4 -1.1
J14K Nanvaranak Lak 120.31 328 IAMs_20 IAMs_20 02 02 26.4
comp=Z,4µm,20.0s
HRFI Mount Harif 120.32 73 P PKiKP 01 13 47.3 +1.0
HRFI AML AML
TESR Tescani 120.39 52 ⇓P PKPdf 01 13 45.5 -0.4
TESR Tescani 120.39 52 PKP PKPdf 01 13 45.4 -0.4
ODBI Odobesti 120.40 53 ⇓P PKiKP 01 13 45.9 0.0
KEPZ Antalya-Kepez 120.42 64 ⇓P PKPdf 01 13 45.7 -0.5
PRNI Paran 120.42 72 P PKiKP 01 13 47.4 +0.9
PRNI AML AML
F17K Baldwin Pennin 120.45 332 IAMs_20 IAMs_20 02 03 49.8
comp=Z,5µm,20.0s
K13K Kusilvak Mount 120.57 327 IAMs_20 IAMs_20 02 02 57.1
comp=Z,4µm,19.0s
G16K Koyuk River 120.58 331 IAMs_20 IAMs_20 02 03 21.3
comp=Z,4µm,20.0s
HARR Harsova 120.62 54 ⇓PKIKP PKPdf 01 13 46.3 0.0
HARR Harsova 120.62 54 ⇓P PKPdf 01 13 46.3 0.0
TLBR Topalu 120.65 55 ⇓P PKPdf 01 13 46.4 0.0
SUW Suwalki 120.67 43 ePKP PKPdf 01 13 46.0 -0.1
GHRR 120.73 53 ⇓P PKPdf 01 13 46.4 -0.1
GHRR 120.73 53 PKP PKPdf 01 13 46.2 -0.3
AMAZ Amatzia 120.84 71 P PKiKP 01 13 48.8 +1.5
AMAZ AML AML
TIRR Tirgusor 120.86 55 ⇓PKIKP PKPdf 01 13 46.8 0.0
TIRR Tirgusor 120.86 55 IAMs_20 IAMs_20 02 06 44.0
comp=Z,4µm,20.0s
TIRR Tirgusor 120.86 55 ⇓P PKPdf 01 13 46.8 0.0
DRBR Darabani 120.92 50 ⇑P PKPdf 01 13 45.9 -0.9
CFR Carcaliu 120.92 54 ⇑P PKPdf 01 13 46.4 -0.5
DMBR Dumbraveni 120.92 52 ⇓P PKPdf 01 13 46.3 -0.5
KMPD K-Podol'skiy 120.94 50 PKP PKPdf 01 13 45.6 -1.2
BIR Birlad 120.94 53 ⇑PKIKP PKiKP 01 13 47.2 +0.2
BIR Birlad 120.94 53 ⇑P PKiKP 01 13 47.2 +0.2
VARL Varlezi 120.97 53 ⇓P PKiKP 01 13 47.6 +0.6
CSS Mathiatis 120.97 67 PKPdf 01 13 47.4 0.0
CSS IAMs_20 IAMs_20 02 04 40.2
comp=Z,3µm,22.0s
CSS Mathiatis 120.97 67 P PKiKP 01 13 48.3 +0.8
CSS AML AML
SCTR Scanteiesti 120.99 53 ⇓P PKiKP 01 13 47.0 0.0
PDRR Padureni 120.99 52 ⇓P PKPdf 01 13 46.4 -0.5
TATR Tatarca 121.00 53 ⇑P PKPdf 01 13 46.9 -0.1
TPGR Topolog 121.00 54 ⇓P PKPdf 01 13 46.6 -0.4
NGRR Negresti 121.01 52 ⇓P PKiKP 01 13 47.4 +0.3
MNTR Muntenesti 121.04 52 ⇓P PKPdf 01 13 46.7 -0.3
VLDR Vladesti 121.10 53 ⇓P PKiKP 01 13 47.3 0.0
LISJ El Lisan 121.16 72 P PKiKP 01 13 49.1 +1.3
LISJ AML AML
VASR Vaslui 121.17 52 ⇑P PKiKP 01 13 47.5 +0.1
IASR Iasi 121.20 52 ⇓P PKPdf 01 13 47.1 -0.3
GHAJ Ghor Haditha 121.25 72 IAMs_20 IAMs_20 02 06 39.6
comp=Z,5µm,19.0s
SALP Salfit 121.27 71 P PKiKP 01 13 49.2 +1.1
SALP AML AML
JURR Jurilovca 121.28 55 ⇓P PKiKP 01 13 47.6 0.0
SAHE Sakarya_HENDEK 121.32 59 ⇑P PKiKP 01 13 47.9 -0.1
TLCR 121.38 54 ⇓PKIKP PKPdf 01 13 47.7 0.0
TLCR 121.38 54 ⇓P PKPdf 01 13 47.7 0.0
RNPP5 Staryi Chortor 121.41 47 PKP PKPdf 01 13 47.1 -0.5
RNPP8 Varash 121.42 47 PKP PKPdf 01 13 47.2 -0.4
RNPP9 Sopachiv 121.46 46 PKP PKPdf 01 13 47.3 -0.4
RDOG Red Dog Mine 121.52 334 IAMs_20 IAMs_20 02 04 13.7
comp=Z,4µm,20.0s
F15K North Star Dit 121.59 331 IAMs_20 IAMs_20 02 04 19.8
comp=Z,4µm,20.0s
ANM Nome 121.59 330 IAMs_20 IAMs_20 02 01 37.1
comp=Z,4µm,19.0s
QRNJ Al-Qirein 121.67 70 P PKiKP 01 13 50.4 +1.6
QRNJ AML AML
MMAI Mount Meron Ar 121.81 70 PKP PKPdf 01 13 49.1 0.0
comp=Z,10nm,0.7s,baz=23,slow=6.6,SNR=23
PMG Port Moresby 121.93 229 PKP PKPdf 01 13 49.7 -0.1
comp=Z,30nm,1.0s,baz=332,slow=10,SNR=4.1
PMG Port Moresby 121.93 229 c i PKIKP PKiKP 01 13 50.3 +0.3
PMG pmax pmax
comp=Z,46nm,1.7s
PMG Port Moresby 121.93 229 PKPdf PKPdf 01 13 49.1 -0.6
KIS Kishinev 121.95 52 ⇑PKIKP PKPdf 01 13 48.2 -0.6
KIS Kishinev 121.95 52 ⇑P PKPdf 01 13 48.2 -0.6
SORM Soroca 122.00 51 ⇑PKIKP PKPdf 01 13 47.8 -1.0
SORM Soroca 122.00 51 ⇑P PKPdf 01 13 47.8 -1.0
HSUJ Al Zarqa 122.06 71 P PKiKP 01 13 50.9 +1.2
HSUJ AML AML
GEM Giv'at Ha'Em 122.08 69 P PKiKP 01 13 50.7 +1.0
LUBAR Lubar, Ukraine 122.16 49 PKP PKPdf 01 13 48.5 -0.6
PURM Purcari 122.50 53 ⇓P PKPdf 01 13 49.6 -0.2
PURM Purcari 122.50 53 PKP PKPdf 01 13 49.5 -0.3
ASF Jabal al Asfar 122.64 71 P PKiKP 01 13 51.9 +1.0
TNA Tin City 122.88 330 IAMs_20 IAMs_20 02 05 14.9
comp=Z,4µm,20.0s
ATKA Atka Island 122.89 314 PKPdf 01 13 50.0 -0.4
ATKA IAMs_20 IAMs_20 01 55 33.6
comp=Z,4µm,22.0s
BR105 Keskin Array S 122.91 62 PKP PKPdf 01 13 51.0 -0.1
BR106 Keskin Array S 122.92 62 PKP PKPdf 01 13 51.0 -0.1
BR131 Keskin Array S 122.93 62 P PKPdf 01 13 50.7 -0.4
SNR=11
BR131 Keskin Array S 122.93 62 c i PKIKP PKPdf 01 13 50.8 -0.4
BR131 Keskin Array S 122.93 62 PKPdf 01 13 50.5 -0.6
BRTR Keskin Array B 122.93 62 PKhKP PKPpre 01 13 42.6
comp=Z,1.3nm,1.0s,baz=285,slow=6.3,SNR=3.9
BRTR PKP PKPdf 01 13 50.5 -0.6
comp=Z,21nm,0.8s,baz=189,slow=3.3,SNR=78
BRTR Keskin Array B 122.93 62 PKIKP PKPdf 01 13 50.9 -0.2
BRTR Keskin Array B 122.93 62 PKPdf 01 13 50.9 -0.2
KIRS Kirsehir-Merke 122.93 62 ⇑P PKPdf 01 13 51.0 -0.1
MBWA Marble Bar 123.20 194 P PKPdf 01 13 51.8 -0.3
MBWA Marble Bar 123.20 194 PKPdf 01 13 51.0 -1.1
MBWA Marble Bar 123.20 194 IAMs_20 IAMs_20 02 06 19.9
comp=Z,5µm,21.0s
MBWA Marble Bar 123.20 194 PKP PKPdf 01 13 51.9 -0.3
KIEV Kiev 123.27 48 i P PKPdf 01 13 50.5 -0.7
SNR=15
KIEV Kiev 123.27 48 ⇑PKIKP PKPdf 01 13 50.1 -1.1
KIEV Kiev 123.27 48 ⇑P PKPdf 01 13 50.1 -1.1
KIEV Kiev 123.27 48 PKP PKPdf 01 13 50.3 -0.9
AKASG Malin Array Be 123.28 48 PKP PKPdf 01 13 50.1 -1.0
comp=Z,17nm,0.8s,baz=269,slow=2.6,SNR=39
AKASG PP PP 01 15 37.7 +5.4
comp=Z,3.7nm,0.9s,baz=256,slow=6.5,SNR=4.7
AKASG PKKPbc PKKPbc 01 23 41.7 +0.2
comp=Z,0.6nm,0.5s,baz=65,slow=2.8,SNR=5.8
AKBB Malin Array Si 123.28 48 i PKIKP PKPdf 01 13 50.4 -0.8
AKBB Malin Array Si 123.28 48 PKP PKPdf 01 13 50.3 -0.9
AK03 Malin Array Si 123.29 48 PKP PKPdf 01 13 50.2 -1.0
ILGA Ilgaz 123.43 60 PKPdf 01 13 51.9 -0.3
MNK Minsk 123.46 43 i PKIKP PKPdf 01 13 51.1 -0.3
MNK i 01 15 32.0
MNK i PPP PPP 01 18 10.7
MNK i SP SP 01 25 28.6 +0.8
MNK i PS PS 01 26 51.3 +81
MNK i SS SS 01 32 19.2 -0.6
MNK pmax pmax
comp=N,15nm,0.9s
MNK pmax pmax
comp=Z,85nm,0.9s
MNK pmax pmax
comp=E,24nm,0.9s
MNK MLR MLR
comp=E,2µm,19.0s
MNK MLR MLR
comp=Z,3µm,17.0s
MNK MLR MLR
comp=N,2µm,20.0s
MNK Minsk 123.46 43 i PKP PKPdf 01 13 51.1 -0.3
comp=E,24nm,0.9s
MNK i PKP PKPdf 01 13 51.1 -0.3
comp=N,15nm,0.9s
MNK i PKP PKPdf 01 13 51.1 -0.3
comp=Z,85nm,0.9s,baz=256
MNK i PP PP 01 15 32.0 -1.4
MNK i SKP 01 16 59.4
MNK i PKS PKSdf 01 17 30.6 +2.8
MNK i PPP PPP 01 18 10.7
MNK i SKS SKSdf 01 21 12.9 +10
MNK i SP SP 01 25 28.6 +0.8
MNK i PS PS 01 26 51.4 +81
MNK i SS SS 01 32 19.2 -0.6
MNK i SSS SSS 01 36 07.6
MNK i LQ LQ 01 59 51.5
MNK i LRM MLR 02 06 52.8
comp=Z,3µm,17.4s
MNK i LRM MLR 02 06 56.0
comp=N,2µm,19.7s
SPITS Spitsbergen Ar 123.50 14 PKP PKPdf 01 13 50.7 -0.2
comp=N,31nm,0.8s,baz=157,slow=2.4,SNR=21
SPB2 Spitsbergen Ar 123.50 14 PKPdf 01 13 50.8 -0.1
VSU Vasula 123.74 39 c i PKIKP PKPdf 01 13 50.7 -1.1
VSU pmax pmax
comp=Z,52nm,1.0s
VSU MLR MLR
comp=Z,2µm,7.0s
FINES FINESS Array B 124.02 35 PKP PKPdf 01 13 51.4 -0.9
comp=Z,13nm,0.9s,baz=323,slow=4.0,SNR=11
FINES PKKPbc PKKPbc 01 23 37.9 -1.0
comp=Z,7.4nm,1.0s,baz=90,slow=5.7,SNR=6.9
GAMB Gambell 124.14 328 IAMs_20 IAMs_20 02 06 00.4
comp=Z,5µm,20.0s
ADK Adak 124.30 313 PKIKP PKPdf 01 13 52.3 -0.8
ADK Adak 124.30 313 PKPdf PKPdf 01 13 52.3 -0.8
ADK Adak 124.30 313 IAMs_20 IAMs_20 01 56 00.8
comp=Z,5µm,21.0s
FITZ Fitzroy Crossi 124.62 202 P PKiKP 01 14 04.6 +9.4
FITZ Fitzroy Crossi 124.62 202 PKP PKPdf 01 13 54.8 -0.1
comp=Z,32nm,0.8s,baz=196,slow=2.6,SNR=45
FITZ Fitzroy Crossi 124.62 202 PKPdf 01 13 53.9 -1.0
H11S2 WAKE ISLAND Hyl 124.85 269 T T 03 31 49.5
baz=122,slow=74,SNR=17
H11S1 WAKE ISLAND Hyl 124.86 269 T T 03 31 49.5
baz=122,slow=74,SNR=13
H11S3 WAKE ISLAND Hyl 124.87 269 T T 03 31 52.2
baz=122,slow=74,SNR=63
SIM Simferopol' 124.88 56 ePKIKP PKPdf 01 13 54.5 0.0
SIM pmax pmax
comp=Z,61nm,1.0s
ARCES ARCESS Array B 124.96 25 PKP PKPdf 01 13 53.6 -0.3
comp=Z,23nm,1.0s,baz=263,slow=2.6,SNR=24
H11N3 WAKE ISLAND Hyl 125.28 271 T T 03 32 22.6
baz=116,SNR=34
H11N1 WAKE ISLAND Hyl 125.29 271 T T 03 32 22.6
baz=116,slow=74,SNR=61
H11N2 WAKE ISLAND Hyl 125.30 271 T T 03 32 22.6
baz=116,slow=74,SNR=47
PUL Pulkovo 125.80 37 c i PKIKP PKiKP 01 13 56.3 +0.2
PUL pmax pmax
comp=Z,36nm,0.5s
PUL MLR MLR
comp=Z,4µm,10.0s
KNRA Kununurra 125.82 206 P PKPdf 01 13 56.9 -0.3
KNRA Kununurra 125.82 206 PKPdf 01 13 55.8 -1.4
RAYN Ar Rayn 125.97 84 i P PKiKP 01 13 57.6 -0.1
SNR=23
RAYN Ar Rayn 125.97 84 P PKiKP 01 13 57.7 -0.1
RAYN Ar Rayn 125.97 84 ⇓PKIKP PKiKP 01 13 57.8 +0.1
RAYN Ar Rayn 125.97 84 PKiKP 01 13 56.8 -0.5
ARPR Arapgir-MALATY 126.17 64 PKPdf 01 13 56.0 -1.4
ARPR IAMs_20 IAMs_20 02 18 44.9
comp=Z,3µm,20.0s
KDU Kakadu 127.04 212 P PKPdf 01 13 59.5 0.0
ANN Anapa 127.12 57 i PKIKP PKPdf 01 13 58.6 -0.1
ANN pmax pmax
comp=Z,69nm,1.1s
MTN Manton Dam 127.47 210 P PKPdf 01 14 00.5 +0.1
MTN Manton Dam 127.47 210 PKPdf 01 13 59.0 -1.4
APA Apatity 127.76 28 i PKIKP PKPdf 01 13 58.2 -1.1
APA e 01 16 05.4
APA pmax pmax
comp=Z,28nm,1.1s
APA MLR MLR
comp=Z,5µm,23.3s
KTUT Trabzon 127.77 62 ⇓P PKiKP 01 14 00.5 -0.2
LVZ Lovozero 128.23 27 ⇓PKIKP PKiKP 01 14 00.7 -0.2
SOC Sochi 128.41 59 ePKIKP PKPdf 01 14 01.1 -0.2
SOC e 01 16 07.6
SOC ePPP PPP 01 18 51.5
SOC eSS SS 01 33 17.0 -5.5
SOC eSSS SSS 01 38 10.2
SOC pmax pmax
comp=Z,68nm,1.0s
SOC MLR MLR
comp=Z,1µm,24.0s
OBN Obninsk 128.51 44 PKP PKPdf 01 14 00.6 -0.4
comp=Z,19nm,0.4s,baz=250,slow=1.2,SNR=6.1
OBN Obninsk 128.51 44 ⇓i PKIKP PKPdf 01 14 00.9 -0.1
OBN i 01 14 14.8
OBN e 01 16 08.5
OBN ePS PS 01 26 20.0 +5.5
OBN pmax pmax
comp=Z,179nm,1.6s
OBN MLR MLR
comp=Z,2µm,9.0s
OBN Obninsk 128.51 44 PKPdf 01 14 00.5 -0.5
OBN Obninsk 128.51 44 ⇑P PKPdf 01 14 00.4 -0.7
GURO Guroymak-BITLI 128.76 66 PKiKP 01 14 02.8 -0.2
HOMI Horasan 129.08 64 ⇓P PKiKP 01 14 03.9 +0.2
MOS Moscow 129.18 43 i PKIKP PKPdf 01 14 02.6 +0.3
MOS e 01 16 14.1
MOS ePPP PPP 01 19 04.7
MOS ePS PS 01 26 26.5 +6.2
MOS eSSS SSS 01 38 22.8
MOS pmax pmax
comp=Z,80nm,1.2s
MOS MLR MLR
comp=Z,3µm,17.0s
MOS MLR MLR
comp=E,3µm,19.0s
ERBR Yeremizino-Bor 129.43 56 i PKIKP PKPdf 01 14 02.8 -0.3
ERBR pmax pmax
comp=Z,91nm,1.2s
ABTO Aybut 129.46 96 P PKPdf 01 14 03.2 -0.9
VSR Storozhevoye 129.53 49 ePKIKP PKPdf 01 14 03.0 -0.1
VSR pmax pmax
comp=Z,73nm,1.2s
VORD Divnogorie 129.58 49 ePKIKP PKPdf 01 14 01.4 -1.8
VORD pmax pmax
comp=Z,30nm,1.0s
LPSR Galich'ya Gora 129.58 47 ePKIKP PKPdf 01 14 02.9 -0.3
LPSR pmax pmax
comp=Z,105nm,1.0s
VORR Voronezh 129.63 48 ePKIKP PKPdf 01 14 03.5 +0.2
VORR pmax pmax
comp=Z,80nm,1.0s
ADZR Andozero 129.82 32 ePKIKP PKPdf 01 14 02.2 -1.1
ADZR pmax pmax
comp=Z,157nm,1.2s
WHFO Wadi Hawf 130.13 95 P PKPdf 01 14 04.6 -0.7
OZAP Van, Ozalp-Mer 130.26 66 ⇓P PKiKP 01 14 05.7 -0.4
KLMR Klimovskoe 130.44 36 ePKIKP PKPdf 01 14 03.2 -1.4
KLMR pmax pmax
comp=Z,276nm,1.3s
KLMR MLR MLR
comp=Z,4µm,17.0s
NEUR Neytrino 130.45 60 i PKIKP PKiKP 01 14 06.0 -0.3
NEUR MLR MLR
comp=Z,4µm,19.0s
SHA1 Shidzhatmaz 130.52 59 d i PKIKP PKiKP 01 14 06.2 -0.3
KIV Kislovodsk 130.59 59 i P PKPdf 01 14 05.7 +0.1
SNR=23
KIV Kislovodsk 130.59 59 P PKiKP 01 14 06.1 -0.3
KIV Kislovodsk 130.59 59 ⇑PKIKP PKiKP 01 14 06.3 -0.1
KIV Kislovodsk 130.59 59 ⇑P PKiKP 01 14 06.3 -0.1
KIV Kislovodsk 130.59 59 PKP PKiKP 01 14 06.1 -0.3
KBZ Khabaz 130.69 59 PKP PKPdf 01 14 04.9 -0.7
comp=Z,34nm,1.0s,baz=259,slow=3.1,SNR=5.2
KBZ Khabaz 130.69 59 i PKIKP PKPdf 01 14 05.6 0.0
DOK Doka 130.78 95 P PKPdf 01 14 06.3 -0.2
DMTO DMTO 131.00 96 P PKPdf 01 14 07.0 +0.1
VRH Novokhopyorsk 131.13 49 ePKIKP PKPdf 01 14 05.5 -0.7
VRH pmax pmax
comp=Z,80nm,1.1s
NCK Nalchik 131.14 60 i PKIKP PKiKP 01 14 07.0 -0.4
SAKB Bahrain 131.15 84 P PKPdf 01 14 06.8 -0.3
GNI Garni 131.21 64 P PKiKP 01 14 07.6 -0.3
GNI Garni 131.21 64 P PKiKP 01 14 07.9 0.0
GNI Garni 131.21 64 c i PKIKP PKiKP 01 14 07.6 -0.3
GNI pmax pmax
comp=Z,154nm,1.7s
SLWR Sila 131.30 87 P PKPdf 01 14 07.4 +0.1
MZR Muzera 132.30 89 i P PKPdf 01 14 09.3 0.0
SNR=19
MZR Muzera 132.30 89 P PKPdf 01 14 09.6 +0.3
SNR=14
COCO West Island 132.49 167 IAMs_20 IAMs_20 02 07 38.3
comp=Z,3µm,20.0s
BILL Bilibino 132.99 334 ⇑PKIKP PKiKP 01 14 10.4 0.0
BILL Bilibino 132.99 334 IAMs_20 IAMs_20 02 13 18.9
comp=Z,3µm,19.0s
UMZA Um Al Zommool 133.56 91 P PKPdf 01 14 12.2 +0.6
DQM DQM 134.22 95 P PKiKP 01 14 13.8 -0.5
ASUD Al Ashush, Dub 134.53 88 P PKPdf 01 14 13.4 -0.1

MMRI	**Maumere**	**134.59**	**202**		IAMs_20	IAMs_20	02 14 33.2			
	comp=Z,2µm,21.0s									
ALNE	**Al Ain**	**134.64**	**89**	P		**PKPdf**	**01 14 14.2**	**+0.6**		
	SNR=9.5									
FAQ	**Al Faqa, Dubai**	**134.80**	**88**	*i* P		**PKPdf**	**01 14 13.5**	**-0.4**		
	SNR=11									
BELG	**Belogornoye**	**134.86**	**48**	PKP		**PKPdf**	**01 14 12.4**	**-0.7**		
	comp=Z,72nm,0.8s,baz=153,slow=0.9,SNR=17									
BELG	**Belogornoye**	**134.86**	**48**	*i* PKIKP		**PKPdf**	**01 14 13.2**	**+0.1**		
NAZ	**Nazwa, Dubai**	**134.96**	**88**	*i* P		**PKPdf**	**01 14 13.8**	**-0.5**		
	SNR=8.2									
MHTO	**MHTO**	**135.08**	**94**	P		**PKPdf**	**01 14 14.1**	**-0.5**		
ASHO	**Ashiyiah**	**135.16**	**89**	*i* P		**PKPdf**	**01 14 13.9**	**-0.8**		
	SNR=5.9									
HATD	**Hatta, Dubai**	**135.28**	**88**	P		**PKPdf**	**01 14 14.2**	**-0.6**		
SOHO	**SOHO**	**135.32**	**90**	*i* P		**PKPdf**	**01 14 14.4**	**-0.5**		
	SNR=11									
UOSS	**Minazif**	**135.39**	**88**	P		**PKPdf**	**01 14 13.8**	**-1.2**		
UOSS	**Minazif**	**135.39**	**88**	P		**PKPdf**	**01 14 14.8**	**-0.3**		
MSFE	**Esma-Masafi**	**135.52**	**88**	P		**PKPdf**	**01 14 14.6**	**-0.8**		
MASF	**Masafi**	**135.53**	**88**	P		**PKPdf**	**01 14 15.2**	**-0.1**		
KIRV	**Kirov**	**135.58**	**39**	PKP		**PKPdf**	**01 14 12.7**	**-1.5**		
	comp=Z,22nm,0.9s,baz=338,slow=7.1,SNR=8.0									
MDH	**Madha**	**135.61**	**88**	P		**PKPdf**	**01 14 14.7**	**-0.7**		
SHME	**Shamm**	**135.79**	**87**	*i* P		**PKPdf**	**01 14 15.8**	**+0.1**		
	SNR=13									
SHME	**Shamm**	**135.79**	**87**	P		**PKPdf**	**01 14 16.0**	**+0.2**		
	SNR=7.1									
BIDO	**Bidbid**	**136.37**	**91**	P		**PKPdf**	**01 14 17.0**	**+0.1**		
	SNR=5.2									
JAGI	**Jajag, Banyuwa**	**136.60**	**191**		IAMs_20	IAMs_20	02 14 34.7			
	comp=Z,2µm,20.0s									
WBK	**Wadi Bani Khal**	**136.66**	**93**	P		**PKPdf**	**01 14 17.7**	**+0.2**		
WSAR	**Wadi Sarin**	**136.66**	**92**	P		**PKPdf**	**01 14 17.9**	**+0.4**		
JLN	**Jalan Bani Buh**	**136.81**	**94**	P		**PKPdf**	**01 14 17.9**	**+0.1**		
KAPI	**Kappang**	**138.75**	**200**	PKP		**PKPdf**	**01 14 21.5**	**-0.1**		
	comp=Z,32nm,1.0s,baz=213,slow=6.0,SNR=6.8									
KAPI	**Kappang**	**138.75**	**200**	IAMs_20	IAMs_20		02 15 53.5			
	comp=Z,4µm,21.0s									
PET	**Petropavlovsk**	**139.36**	**313**	*e*PKIKP		**PKPdf**	**01 14 21.1**	**-0.3**		
PET				*e*			01 17 12.9			
PET				*e*SS	SS		01 35 31.4	-2.6		
PET				pmax	pmax					
	comp=Z,46nm,1.4s									
PET				pmax	pmax					
	comp=Z,500nm,18.0s									
PET				pmax	pmax					
	comp=Z,900nm,16.4s									
PET	**Petropavlovsk**	**139.36**	**313**	IAMs_20	IAMs_20		02 06 06.2			
	comp=Z,2µm,21.0s									
GUMO	**Guam**	**139.81**	**248**	IAMs_20	IAMs_20		02 10 00.9			
	comp=Z,2µm,19.0s									
PEA0B	**Petropavlovsk-**	**139.92**	**313**	*i* PKIKP		**PKPdf**	**01 14 22.7**	**+0.2**		
PETK	**Petropavlovsk-**	**139.92**	**313**	PKhKP	PKPpre		01 14 14.9			
	comp=Z,9.1nm,0.9s,baz=100,slow=8.0,SNR=6.3									
PETK				PKP		**PKPdf**	**01 14 22.1**	**-0.4**		
	comp=Z,27nm,1.0s,baz=116,slow=6.8,SNR=13									
SEY	**Seymchan**	**140.10**	**329**	PKhKP	PKPpre		01 14 15.6			
	comp=Z,13nm,1.0s,baz=95,slow=7.1,SNR=10									
SEY				PKP		**PKPdf**	**01 14 23.4**	**+0.9**		
	comp=Z,45nm,0.8s,baz=102,slow=2.9,SNR=20									
SEY	**Seymchan**	**140.10**	**329**	*i* PKIKP		**PKPdf**	**01 14 23.7**	**+1.2**		
SEY				pmax	pmax					
	comp=Z,56nm,0.9s									
ARTI	**Arti**	**140.72**	**41**	PKhKP	PKPpre		01 14 16.5			
	comp=Z,20nm,0.8s,baz=257,slow=2.2,SNR=19									
ARTI				PKP		**PKPdf**	**01 14 23.5**	**-0.3**		
	comp=Z,19nm,1.0s,baz=35,slow=0.5,SNR=9.0									
TIXI	**Tiksi**	**141.13**	**349**	PKhKP	PKPpre		01 14 15.4			
	comp=Z,25nm,0.9s,baz=46,slow=4.1,SNR=71									
TIXI				PKP		**PKPdf**	**01 14 24.7**	**+0.5**		
	comp=Z,28nm,0.8s,baz=57,slow=3.2,SNR=16									
TIXI	**Tiksi**	**141.13**	**349**	IAMs_20	IAMs_20		02 17 47.6			
	comp=Z,2µm,20.0s									
SKR	**Severo-Kuril's**	**141.15**	**310**	*i* PKIKP		**PKPdf**	**01 14 24.2**	**-0.5**		
SKR				*e*SS	SS		01 35 56.3	+1.2		
SKR				MLR	MLR					
	comp=Z,1µm,18.0s									
AKTO	**Aktyubinsk**	**141.43**	**51**	PKhKP	PKPpre		01 14 16.9			
	comp=Z,9.8nm,0.8s,baz=285,slow=3.5,SNR=27									
SVE	**Sverdlovsk**	**141.82**	**40**	*i* PKHKP	PKPpre		01 14 20.5			
SVE				pmax	pmax					
	comp=Z,91nm,1.6s									
MA2	**Magadan**	**142.11**	**325**	PKhKP	PKPpre		01 14 22.4			
	comp=Z,21nm,1.0s,baz=348,slow=5.4,SNR=5.5									
MA2	**Magadan**	**142.11**	**325**	IAMs_20	IAMs_20		02 18 45.8			
	comp=Z,3µm,20.0s									
PMBI	**Palembang**	**142.60**	**177**	IAMs_20	IAMs_20		02 15 03.1			
	comp=Z,4µm,19.0s									
BKB	**Balikpapan**	**143.09**	**197**	IAMs_20	IAMs_20		02 23 03.2			
	comp=Z,3µm,18.0s									
NRIK	**Noril'sk**	**143.60**	**11**	PKhKP	PKPpre		01 14 25.1			
	comp=Z,34nm,1.0s,baz=16,slow=1.6,SNR=44									
NRIK	**Noril'sk**	**143.60**	**11**	*i* PKIKP	PKPbc		01 14 26.5	+0.5		
PALK	**Pallekele**	**143.66**	**132**	*i* P	PKPab		01 14 27.2	+0.1		
	SNR=6.9									
PALK	**Pallekele**	**143.66**	**132**	P	PKPbc		01 14 27.9	0.0		
PALK	**Pallekele**	**143.66**	**132**	⇓PKIKP	PKPab		01 14 27.3	+0.2		
PALK	**Pallekele**	**143.66**	**132**	PKP	PKPbc		01 14 27.7	-0.2		
RPSI	**Rantau Prapat**	**147.39**	**165**		**PKPdf**		**01 14 35.2**	**-1.6**		
PSI	**Prapat**	**147.50**	**165**	PKIKP	**PKPdf**		**01 14 35.2**	**-2.0**		
DAV	**Davao City (W)**	**147.61**	**216**	PKPbc	**PKPbc**		**01 14 40.2**	**+0.3**		
	comp=Z,79nm,0.3s,baz=50,slow=1.7,SNR=9.1									
DAV	**Davao City (W)**	**147.61**	**216**	IAMs_20	IAMs_20		02 22 22.1			
	comp=Z,2µm,20.0s									
BORK	**Borovoye**	**148.31**	**43**	PKIKP	**PKPdf**		**01 14 37.7**	**+0.6**		
BORK				MLR	MLR					
	comp=Z,6µm,20.0s									
BORK	**Borovoye**	**148.31**	**43**		**PKPdf**		**01 14 37.6**	**+0.6**		
BVAR	**Borovoye Array**	**148.35**	**43**	PKP	**PKPdf**		**01 14 37.7**	**+0.5**		
	comp=Z,88nm,0.8s,baz=260,slow=0.9,SNR=51									
BVAR				PKPbc	**sPKPdf**		**01 14 41.3**	**-0.9**		
	comp=Z,90nm,0.8s,baz=309,slow=2.3,SNR=76									
YUK	**Yuzh-Kuril'sk**	**148.65**	**299**	*e*PKP2	**PKPbc**		**01 14 41.6**	**-0.1**		
YUK				*e*			01 18 11.0			
YUK				*e*SS	SS		01 37 19.0	-2.4		
YUK				MLR	MLR					
	comp=E,3µm,17.0s									
YUK				MLR	MLR					
	comp=Z,4µm,17.0s									
KBL	**Kabul**	**148.98**	**79**	P	**PKPdf**		**01 14 39.3**	**+0.2**		
	SNR=61									
KBL	**Kabul**	**148.98**	**79**	PKHKP	PKPpre		01 14 38.0			
KBL	**Kabul**	**148.98**	**79**	PKPdf	**PKPdf**		**01 14 38.0**	**-1.1**		
YAK	**Yakutsk**	**148.99**	**339**	PKP	**PKPdf**		**01 14 37.2**	**-0.7**		
	comp=Z,324nm,0.8s,baz=46,slow=0.5,SNR=64									
YAK				PKPbc	**pPKPdf**		**01 14 41.5**	**-0.1**		
	comp=Z,324nm,0.8s,baz=50,slow=1.0,SNR=39									
YAK	**Yakutsk**	**148.99**	**339**	*e*PKIKP	**PKPdf**		**01 14 37.1**	**-0.7**		
YAK				*e*			01 18 13.1			
YAK				*e*SS	SS		01 37 28.8	+5.5		
YAK				pmax	pmax					
	comp=Z,665nm,1.4s									
YAK				pmax	pmax					
	comp=N,62nm,1.5s									
YAK				pmax	pmax					
	comp=E,70nm,1.4s									
YAK				pmax	pmax					
	comp=Z,268nm,2.0s									
YAK				pmax	pmax					
	comp=N,186nm,2.1s									
LHMI	**Lhok Sumawe**	**149.35**	**160**	PKPdf	**PKPdf**		**01 14 39.2**	**-0.8**		
TYV	**Tymovskoe**	**149.47**	**313**	*e*PKP2	**PKPbc**		**01 14 44.0**	**+0.5**		
TYV				pmax	pmax					
	comp=Z,164nm,1.5s									
TYV				pmax	pmax					
	comp=Z,1µm,4.7s									
IPM	**Ipoh**	**149.53**	**168**		**PKPdf**		**01 14 38.9**	**-1.5**		
BRLS	**Boroldaу**	**150.15**	**63**	*e*PKIKP	**PKPdf**		**01 14 39.9**	**-0.5**		
BRLS	**Boroldaу**	**150.15**	**63**	*e*PKP	**PKPdf**		**01 14 40.0**	**-0.5**		
KULM	**Kulim**	**150.26**	**167**		**PKPdf**		**01 14 39.9**	**-1.5**		
KKM	**Kota Kinabalu**	**150.28**	**199**	IAMs_20	IAMs_20		02 20 07.1			
	comp=Z,3µm,22.0s									
IUG	**luzhnay**	**150.34**	**64**	*e*PKIKP	**PKPdf**		**01 14 40.5**	**-0.4**		
IUG	**luzhnay**	**150.34**	**64**	*e*PKP	**PKPdf**		**01 14 40.5**	**-0.4**		
YSS	**Yuzhno-Sakhali**	**150.42**	**306**	*i* PKIKP	**PKPdf**		**01 14 39.8**	**-0.8**		
YSS				*e*			01 18 27.2			
YSS				pmax	pmax					
	comp=Z,120nm,1.3s									
YSS	**Yuzhno-Sakhali**	**150.42**	**306**	IAMs_20	IAMs_20		02 27 27.3			
	comp=Z,3µm,21.0s									
KK31	**Karatay Array**	**150.64**	**62**	PKIKP	**PKPdf**		**01 14 40.4**	**-0.8**		
KK31	**Karatay Array**	**150.64**	**62**		**PKPdf**		**01 14 40.4**	**-0.8**		
ERM	**Erimo**	**150.74**	**295***c*	*i* PKIKP	**PKiKP**		**01 14 48.6**	**+1.1**		
ERM				pmax	pmax					
	comp=Z,471nm,1.7s									
BTK	**Batken**	**150.97**	**69**	PKIKP	**PKPdf**		**01 14 40.2**	**-1.7**		
BTK	**Batken**	**150.97**	**69**		**PKPdf**		**01 14 40.2**	**-1.7**		
JKA	**Kamikawa-asahi**	**150.98**	**300**		**PKPdf**		**01 14 40.4**	**-1.2**		
ASAJ	**Asahikawa**	**150.98**	**300**	PKP	**PKPdf**		**01 14 41.4**	**-0.2**		
	comp=Z,35nm,1.1s,baz=222,slow=6.0,SNR=4.0									
ASAJ				PKPbc	**PKPbc**		**01 14 47.5**	**+0.1**		
	comp=Z,45nm,0.9s,baz=226,slow=11,SNR=5.9									
DZA	**Taraz**	**151.26**	**63**	*e*PKIKP	**PKPdf**		**01 14 41.9**	**-0.3**		
DZA	**Taraz**	**151.26**	**63**	*e*PKP	**PKPdf**		**01 14 41.9**	**-0.3**		
DRK	**Karamyk**	**151.72**	**70**	PKIKP	**PKPdf**		**01 14 42.9**	**-0.5**		
DRK	**Karamyk**	**151.72**	**70**	PKPdf	**PKPdf**		**01 14 42.9**	**-0.5**		
NIL	**Nilore**	**152.24**	**82**	P	**PKPdf**		**01 14 44.5**	**+0.5**		
NIL	**Nilore**	**152.24**	**82**	PKIKP	**PKPdf**		**01 14 42.7**	**-1.2**		
NIL	**Nilore**	**152.24**	**82**		**PKPdf**		**01 14 42.7**	**-1.2**		
NIL	**Nilore**	**152.24**	**82**	IAMs_20	IAMs_20		02 25 05.6			
	comp=Z,3µm,20.0s									
JTM	**Tenmabayashi**	**152.36**	**293**		**PKPdf**		**01 14 42.4**	**-1.4**		
ARSB	**Arslanbob**	**152.59**	**66**	PKIKP	**PKPdf**		**01 14 43.6**	**-0.8**		
ARSB	**Arslanbob**	**152.59**	**66**		**PKPdf**		**01 14 43.6**	**-0.8**		
GRNR	**Gornyy**	**153.17**	**316**	⇑*i* PKIKP	**PKiKP**		**01 14 52.5**	**+0.2**		
GRNR				pmax	pmax					
	comp=Z,40nm,1.2s									
AAK	**Ala-Archa**	**153.60**	**63**	PKP	**PKPdf**		**01 14 45.7**	**-0.1**		
	comp=Z,26nm,1.1s,baz=211,slow=2.5,SNR=29									
AAK				PKPbc	**PKiKP**		**01 14 53.7**	**0.0**		
	comp=Z,94nm,0.9s,baz=213,slow=3.1,SNR=35									
AAK	**Ala-Archa**	**153.60**	**63**	*i* P	**PKPdf**		**01 14 46.6**	**+0.7**		
	SNR=19									
AAK	**Ala-Archa**	**153.60**	**63**	P	**PKPdf**		**01 14 46.9**	**+1.1**		
AAK	**Ala-Archa**	**153.60**	**63**		**PKPdf**		**01 14 44.9**	**-1.0**		
AAK	**Ala-Archa**	**153.60**	**63**	PKP	**PKPdf**		**01 14 46.1**	**+0.3**		
KURBB	**Kurchatov Arra**	**153.94**	**43**	PKP	**PKPdf**		**01 14 45.2**	**-0.5**		
	comp=Z,26nm,1.1s,baz=298,slow=2.1,SNR=67									
KURBB				PKPbc	**PKPbc**		**01 14 53.5**	**-0.2**		
	comp=Z,48nm,0.9s,baz=308,slow=2.9,SNR=17									
KURBB				PKPab	**PKPab**		**01 15 08.6**	**+1.5**		
	comp=Z,38nm,0.8s,baz=303,slow=3.0,SNR=18									
KURBB				PP	**PP**		**01 18 43.4**	**+1.4**		
	comp=Z,5.1nm,0.8s,baz=275,slow=5.7,SNR=4.1									
KURK	**Kurchatov**	**153.95**	**43**	P	**PKPdf**		**01 14 46.5**	**+0.7**		
KURK	**Kurchatov**	**153.95**	**43**	PKIKP	**PKPdf**		**01 14 45.3**	**-0.5**		
KURK							01 14 53.6			
KURK	**Kurchatov**	**153.95**	**43**		**PKPdf**		**01 14 45.0**	**-0.8**		
KURK	**Kurchatov**	**153.95**	**43**	IAMs_20	IAMs_20		02 33 16.0			
	comp=Z,4µm,22.0s									
MJAR	**Matsushiro Arr**	**154.48**	**283**	PKP	**PKPdf**		**01 14 45.8**	**-1.3**		
	comp=Z,28nm,1.2s,baz=247,slow=0.9,SNR=32									
MJAR				PKPbc	**PKiKP**		**01 14 55.5**	**+0.1**		
	comp=Z,8.7nm,1.1s,baz=285,slow=1.7,SNR=6.5									
MJAR				PKPab	**PKPab**		**01 15 10.8**	**+0.8**		
	comp=Z,36nm,1.2s,baz=120,slow=3.5,SNR=13									
MAJO	**Matsushiro**	**154.49**	**283**	⇓PKIKP	**PKPdf**		**01 14 46.5**	**-0.6**		
MAJO	**Matsushiro**	**154.49**	**283**		**PKPdf**		**01 14 45.5**	**-1.5**		
MAJO	**Matsushiro**	**154.49**	**283**	IAMs_20	IAMs_20		02 20 37.7			
	comp=Z,2µm,20.0s									
MAJO	**Matsushiro**	**154.49**	**283**	PKP	**PKPdf**		**01 14 46.9**	**-0.2**		
KSH2	**Kashi**	**154.63**	**71**	PKPbc	**PKPdf**		**01 14 47.6**	**+0.2**		
KSH2				PP	**PP**		**01 18 45.6**	**-1.1**		
KSH2				PPMZ						
	comp=Z,840nm,6.8s									
KSH2				L	L					
	comp=Z,3µm,20.3s									
KSH2				L	L					
	comp=Z,2µm,19.9s									
KSH2				L	L					
	comp=Z,4µm,21.0s									
KUU	**Kurty**	**154.74**	**59**	*e*PKIKP	**PKPdf**		**01 14 47.0**	**-0.2**		
KUU	**Kurty**	**154.74**	**59**	*e*PKP	**PKPdf**		**01 14 47.0**	**-0.2**		
NRN	**Naryn**	**154.85**	**65**	PKIKP	**PKPdf**		**01 14 46.7**	**-1.1**		
NRN							01 14 56.4			
NRN							01 15 11.4			
NRN	**Naryn**	**154.85**	**65**		**PKPdf**		**01 14 46.7**	**-1.1**		
NRN				PKPbc	**PKPbc**		**01 14 56.4**	**-0.1**		
NRN				PKPab	**PKPab**		**01 15 11.4**	**-0.4**		
TEY	**Ternei**	**155.03**	**304**	*e*PKP2	**PKPab**		**01 15 11.5**	**-0.4**		
ZAA0	**Zalesovo Array**	**155.23**	**32**		**PKPdf**		**01 14 46.3**	**-1.2**		
ZALV	**Zalesovo Beam**	**155.23**	**32**	PKP	**PKPdf**		**01 14 46.7**	**-0.7**		
	comp=Z,58nm,1.1s,baz=280,slow=2.6,SNR=136									
ZALV				PKPbc	pPKPbc		01 14 56.3	-3.9		
	comp=Z,97nm,0.8s,baz=296,slow=2.3,SNR=34									
ZALV				PKPab	**PKPab**		**01 15 11.3**	**-1.2**		
	comp=Z,85nm,0.8s,baz=299,slow=3.2,SNR=12									
ZALV	**Zalesovo Beam**	**155.23**	**32**		**PKPdf**		**01 14 45.9**	**-1.6**		
AAA	**Alma-Ata**	**155.27**	**61**	*e*PKIKP	**PKPdf**		**01 14 47.8**	**-0.2**		
AAA	**Alma-Ata**	**155.27**	**61**	*e*PKP	**PKPdf**		**01 14 47.8**	**-0.2**		
INU	**Inuyama**	**155.32**	**280**	IAMs_20	IAMs_20		02 10 29.6			
	comp=Z,3µm,22.0s									
TNSS	**Tian-Shan**	**155.33**	**61**	*e*PKIKP	**PKPdf**		**01 14 47.8**	**-0.7**		
TNSS	**Tian-Shan**	**155.33**	**61**	*e*PKP	**PKPdf**		**01 14 47.8**	**-0.7**		
MDOK	**Medeo**	**155.38**	**61**	*e*PKIKP	**PKPdf**		**01 14 48.0**	**-0.3**		
MDOK	**Medeo**	**155.38**	**61**	*e*PKP	**PKPdf**		**01 14 48.0**	**-0.3**		
KDJ	**Kajisay**	**155.64**	**63**	PKIKP	**PKPdf**		**01 14 47.9**	**-0.8**		
KDJ	**Kajisay**	**155.64**	**63**		**PKPdf**		**01 14 47.9**	**-0.8**		
TDK	**Taldyqorghan**	**155.92**	**56**	*e*PKIKP	**PKPdf**		**01 14 48.6**	**-0.1**		
TDK	**Taldyqorghan**	**155.92**	**56**	*e*PKP	**PKPdf**		**01 14 48.7**	**-0.1**		
ZEA	**Zeya**	**156.08**	**329**	*i* PKIKP	**PKPdf**		**01 14 45.8**	**-2.8**		
ZEA				*e*			01 18 50.0			
ZEA				pmax	pmax					
	comp=E,100nm,4.9s									
ZEA				pmax	pmax					
	comp=N,100nm,6.6s									
ZEA				pmax	pmax					
	comp=Z,400nm,9.6s									
ZEA				pmax	pmax					
	comp=Z,40nm,1.2s									
SATY	**Saty**	**156.37**	**61**	*e*PKIKP	**PKPdf**		**01 14 49.2**	**-0.4**		
SATY	**Saty**	**156.37**	**61**	*e*PKP	**PKPdf**		**01 14 49.2**	**-0.4**		
KPKS	**Kokpek**	**156.49**	**60**	*e*PKIKP	**PKPdf**		**01 14 49.4**	**-0.2**		
KPKS	**Kokpek**	**156.49**	**60**	*e*PKP	**PKPdf**		**01 14 49.4**	**-0.2**		
KLR	**Kul'dur**	**156.56**	**316**	PKP	**PKPdf**		**01 14 48.8**	**-0.6**		
	comp=Z,18nm,1.0s,baz=64,slow=2.6,SNR=24									
UZB	**Uzynbulak**	**156.80**	**60**	*e*PKIKP	**PKPdf**		**01 14 49.7**	**-0.4**		
UZB	**Uzynbulak**	**156.80**	**60**	*e*PKP	**PKPdf**		**01 14 49.8**	**-0.4**		
SHLS	**Shalkode**	**157.11**	**60**	*e*PKIKP	**PKPdf**		**01 14 50.6**	**+0.1**		
SHLS	**Shalkode**	**157.11**	**60**	*e*PKP	**PKPdf**		**01 14 50.6**	**+0.1**		
WUS	**Wushi**	**157.28**	**65**	IAMs_20	IAMs_20		02 29 00.3			
	comp=Z,4µm,21.0s									
MAKZ	**Makanchi**	**157.66**	**49**	⇑PKIKP	**PKPdf**		**01 14 51.4**	**+0.5**		
MK31	**Makanchi Array**	**157.86**	**49**	*i* PKIKP	**PKPdf**		**01 14 50.8**	**-0.4**		
MKAR	**Makanchi Array**	**157.86**	**49**	PKP	**PKPdf**		**01 14 50.3**	**-0.9**		
	comp=Z,18nm,1.0s,baz=0.0,slow=1.2,SNR=30									
MKAR				PKPab	**PKPab**		**01 15 24.4**	**+0.3**		
	comp=Z,50nm,0.8s,baz=272,slow=3.4,SNR=24									
MKAR				PP	**PP**		**01 19 06.0**	**+2.0**		
	comp=Z,6.7nm,0.9s,baz=269,slow=6.6,SNR=3.6									
MKAR	**Makanchi Array**	**157.86**	**49**		**PKPdf**		**01 14 50.5**	**-0.6**		
MKAR					**PKPab**		**01 15 23.8**	**-0.3**		
HEH	**HeiHe**	**158.33**	**322**	PKP	**PKPdf**		**01 14 51.0**	**-0.6**		
HEH				PP	**PP**		**01 19 09.3**	**+3.2**		
HEH				SS	SS		01 39 05.8	-0.2		
HEH				PPMZ						
	comp=Z,940nm,8.2s									
HEH				L	L					
	comp=Z,1µm,20.1s									
HEH				L	L					
	comp=Z,2µm,19.3s									
HEH				L	L					
	comp=Z,4µm,22.4s									
USRK	**Ussuriysk Ar.**	**158.42**	**304**	PKP	**PKPdf**		**01 14 50.7**	**-1.2**		
	comp=Z,3.4nm,0.8s,baz=354,slow=1.9,SNR=5.3									
USRK				PKPab	**PKPab**		**01 15 27.4**	**+0.8**		
	comp=Z,16nm,0.8s,baz=74,slow=3.4,SNR=14									
USRK				PP	**PP**		**01 19 07.9**	**+0.7**		
	comp=Z,4.0nm,0.7s,baz=91,slow=6.2,SNR=7.1									
USRK	**Ussuriysk Ar.**	**158.42**	**304**		**PKPdf**		**01 14 50.3**	**-1.6**		
ZSN	**Zaisan**	**159.12**	**45**	*e*PKIKP	**PKPdf**		**01 14 52.6**	**0.0**		
ZSN	**Zaisan**	**159.12**	**45**	*e*PKP	**PKPdf**		**01 14 52.7**	**0.0**		
MDJ	**Mudanjiang**	**159.90**	**307**	PKP	**PKPdf**		**01 14 52.8**	**-0.8**		
MDJ				sPKP	sPKPdf		01 15 02.3	+3.7		
MDJ				PP	**PP**		**01 19 11.8**	**-3.3**		
MDJ				PPMZ						
	comp=Z,1µm,11.7s									
MDJ				L	L					
	comp=Z,1µm,24.5s									
MDJ				L	L					
	comp=Z,3µm,23.4s									
MDJ				L	L					
	comp=Z,6µm,23.4s									
JNU	**Nakatsue**	**160.00**	**273**	PKP	**PKPdf**		**01 14 55.0**	**+0.8**		
	comp=Z,16nm,1.1s,baz=27,slow=2.9,SNR=3.9									
JNU				PKPab	**PKPab**		**01 15 35.0**	**+1.1**		
	comp=Z,46nm,1.1s,baz=31,slow=3.7,SNR=8.3									
BNX	**BinXian**	**160.82**	**312**	⇓PKP	**PKPdf**		**01 14 51.8**	**-2.8**		
BNX				pPKP	**sPKPdf**		**01 15 02.1**	**+2.5**		
BNX				PP	**PP**		**01 19 18.1**	**-1.8**		
BNX				SS	SS		01 39 32.6	-0.4		
BNX				PPMZ						
	comp=Z,370nm,4.6s									
BNX				L	L					
	comp=Z,2µm,21.4s									
BNX				L	L					
	comp=Z,2µm,20.6s									
BNX				L	L					
	comp=Z,4µm,20.8s									
CIT	**Chita**	**161.95**	**347**	*e*PKIKP	**PKPdf**		**01 14 52.2**	**-3.5**		
CIT				*e*			01 15 42.4			
CIT				pmax	pmax					
	comp=Z,235nm,2.6s									
IRK	**Irkutsk**	**162.28**	**5**	*e*PKIKP	**PKPdf**		**01 14 54.7**	**-1.2**		
IRK				*e*			01 15 42.8			
IRK				*e*			01 19 27.1			
IRK				pmax	pmax					
	comp=Z,279nm,1.6s									
HILR	**Hailar Array B**	**162.31**	**331**	PKP	**PKPdf**		**01 14 54.4**	**-1.7**		
	comp=Z,5.9nm,0.7s,baz=108,slow=4.8,SNR=5.9									
HILR				PKPab	**PKPab**		**01 15 42.8**	**-0.6**		
	comp=Z,19nm,0.9s,baz=92,slow=4.5,SNR=6.9									
HILR				PP	**PP**		**01 19 29.6**	**+2.3**		
	comp=Z,1.2nm,0.4s,baz=135,slow=0.8,SNR=3.7									
CM31	**Chiang Mai Arr**	**162.43**	**154**	P	**PKPdf**		**01 14 56.6**	**-0.5**		
	SNR=18									
CMAR	**Chiang Mai Arr**	**162.43**	**154**	PKP	**PKPdf**		**01 14 56.6**	**-0.5**		
	comp=Z,20nm,1.0s,baz=244,slow=2.4,SNR=82									
CMAR				PKPab	**PKPab**		**01 15 43.6**	**-0.9**		
	comp=Z,28nm,1.1s,baz=223,slow=4.9,SNR=13									
CMAR				SKKPbc			01 24 53.7			
	comp=Z,1.5nm,0.3s,baz=335,slow=4.2,SNR=4.0									
CMAR	**Chiang Mai Arr**	**162.43**	**154**		**PKPdf**		**01 14 55.7**	**-1.4**		
WMQ	**Urumqi**	**162.57**	**52**	PKP	**PKPdf**		**01 14 56.8**	**+0.2**		
WMQ				PKPab	**PKPab**		**01 15 45.5**	**+0.7**		
WMQ				PP	**PP**		**01 19 28.4**	**-1.1**		
WMQ				L	L			

GOMU				L	L			
	comp=Z,2μm,17.0s							
GOMU				L	L			
	comp=Z,2μm,16.5s							
GOMU				L	L			
	comp=Z,2μm,16.3s							
GULI	**GuiLin**	**170.22 199**		PKP	**PKPdf**	**01 15 05.1**	**+2.1**	
GULI				PKPab	**pPKPab**	**01 16 21.0**	**-1.4**	
GULI				PP	**PP**	**01 20 06.4**	**-1.5**	
GULI				SS	SS	01 41 05.1	-2.2	
GULI				L	L			
	comp=Z,2μm,24.3s							
GULI				L	L			
	comp=Z,2μm,22.0s							
GULI				L	L			
	comp=Z,5μm,21.3s							
PZH	**PanZhiHua**	**170.79 150**		PKP	**PKPdf**	**01 15 02.4**	**-1.1**	
PZH				PPMZ				
	comp=Z,1μm,7.7s							
PZH				L	L			
	comp=Z,2μm,23.3s							
PZH				L	L			
	comp=Z,2μm,23.1s							
PZH				L	L			
	comp=Z,2μm,21.6s							
BJI2	**Beijing**	**170.83 309**		PKP	**PKPdf**	**01 15 02.3**	**-0.6**	
BJI2				PPMZ				
	comp=Z,930nm,6.5s							
BJI2				L	L			
	comp=Z,3μm,23.3s							
BJI2				L	L			
	comp=Z,1μm,20.4s							
BJI2				L	L			
	comp=Z,2μm,21.1s							
BJT	**Baijiatuau**	**170.83 309**		PKIKP	**PKPdf**	**01 15 01.6**	**-1.3**	
BJT	**Baijiatuau**	**170.83 309**			**PKPdf**	**01 15 01.6**	**-1.3**	
TIA	**Tai'an**	**171.47 284**		PKP	**PKPdf**	**01 15 03.0**	**-0.3**	
TIA				L	L			
	comp=Z,3μm,20.1s							
TIA				L	L			
	comp=Z,1μm,22.1s							
TIA				L	L			
	comp=Z,4μm,24.0s							
CNSH	**ChangSha**	**171.75 221**		PKP	**PKPdf**	**01 15 04.1**	**+0.4**	
CNSH				PP	**PP**	**01 20 17.1**	**+1.0**	
CNSH				SS	SS	01 41 24.4	+1.0	
GYA	**Guiyang**	**171.87 179**	⇑	PKP	**PKPdf**	**01 15 03.1**	**-0.9**	
GYA				PP	**PP**	**01 20 13.8**	**-2.3**	
GYA				L	L			
	comp=Z,2μm,20.6s							
GYA				L	L			
	comp=Z,2μm,19.0s							
GYA				L	L			
	comp=Z,5μm,23.2s							
WHN	**Wuhan**	**172.49 239**		PKP	**PKPdf**	**01 15 03.9**	**-0.1**	
WHN				SKKS		01 27 05.3		
WHN				L	L			
	comp=Z,3μm,14.8s							
WHN				L	L			
	comp=Z,3μm,15.7s							
WHN				L	L			
	comp=Z,10μm,19.6s							
GTA2	**Gaotai**	**172.53 47**		PKP	**PKPdf**	**01 15 03.8**	**-0.1**	
GTA2				PKPab	**PKPab**	**01 16 29.9**	**+0.9**	
GTA2				PP	**PP**	**01 20 18.1**	**-2.3**	
GTA2				SKKS		01 27 02.1		
GTA2				SS	**SS**	**01 41 30.3**	**-1.5**	
GTA2				PPMZ				
	comp=Z,1μm,10.5s							
GTA2				L	L			
	comp=Z,3μm,20.6s							
GTA2				L	L			
	comp=Z,3μm,20.9s							
GTA2				L	L			
	comp=Z,8μm,20.6s							
HHC	**Hu-ho-hao-te**	**172.75 330**	⇑	*i*PKP	**PKPdf**	**01 15 03.9**	**0.0**	
HHC				PP	**PP**	**01 20 21.0**	**+0.1**	
HHC				PPMZ				
	comp=Z,1μm,10.1s							
HHC				L	L			
	comp=Z,4μm,21.0s							
HHC				L	L			
	comp=Z,2μm,18.5s							
HHC				L	L			
	comp=Z,4μm,19.3s							
HNS	**HongShan**	**173.06 296**	⇑	PKP	**PKPdf**	**01 15 03.8**	**-0.2**	
HNS				PKPab	**PKPab**	**01 16 32.6**	**+1.3**	
HNS				PP	**PP**	**01 20 22.9**	**-0.4**	
HNS				SKKS		01 27 05.3		
HNS				PPMZ				
	comp=Z,1μm,9.6s							
HNS				L	L			
	comp=Z,2μm,22.6s							
HNS				L	L			
	comp=Z,3μm,20.1s							
HNS				L	L			
	comp=Z,4μm,20.7s							
BTO2	**Baotou**	**173.43 340**	*e*	PKP	**PKPdf**	**01 15 03.9**	**-0.3**	
BTO2				PKPab	**PKPab**	**01 16 32.5**	**-0.3**	
BTO2				PP	**PP**	**01 20 21.8**	**-2.3**	
BTO2				SS	SS	01 41 36.4	-2.7	
BTO2				L	L			
	comp=Z,8μm,17.7s							
BTO2				L	L			
	comp=Z,4μm,19.9s							
BTO2				L	L			
	comp=Z,7μm,18.5s							
TIY	**Taiyuan**	**174.53 306**	*e*	PKP	**PKPdf**	**01 15 05.0**	**+0.4**	
TIY				PP	**PP**	**01 20 34.5**	**+4.2**	
TIY				SKKS		01 27 17.1		
TIY				SS	**SS**	**01 41 47.4**	**-4.1**	
TIY				PPMZ				
	comp=Z,480nm,4.3s							
TIY				L	L			
	comp=Z,4μm,19.2s							
TIY				L	L			
	comp=Z,1μm,19.2s							
TIY				L	L			
	comp=Z,3μm,19.2s							
LYN	**LuoYang**	**175.37 271**	⇑	PKP	**PKPdf**	**01 15 04.8**	**-0.1**	
LYN				PKPab	**PKPab**	**01 16 43.3**	**+1.6**	
LYN				PPMZ				
	comp=Z,2μm,6.5s							
LYN				L	L			
	comp=Z,6μm,22.0s							
LYN				L	L			
	comp=Z,4μm,22.0s							
LYN				L	L			
	comp=Z,9μm,24.0s							
CD2	**Chengdu**	**175.47 144**		PKP	**PKPdf**	**01 15 05.0**	**-0.1**	
CD2				PKPab	**PKPab**	**01 16 40.8**	**-1.3**	
CD2				PP	**PP**	**01 20 32.3**	**-2.0**	
CD2				SKKS		01 27 16.0		
CD2				SS	**SS**	**01 41 59.3**	**-0.1**	
CD2				PPMZ				
	comp=Z,3μm,10.8s							
CD2				L	L			
	comp=Z,4μm,18.4s							
CD2				L	L			
	comp=Z,3μm,19.0s							
CD2				L	L			
	comp=Z,6μm,19.0s							
LZDM	**Lanzhou Array**	**177.09 62**		PKP	**PKPdf**	**01 15 05.3**	**-0.3**	
	comp=Z,4.4nm,0.6s,baz=46,slow=4.3,SNR=20							
LZDM				PKPab	PKPab	01 16 50.4	+0.7	
	comp=Z,34nm,0.9s,baz=305,slow=5.2,SNR=12							
LZDM				PP	**PP**	**01 20 43.7**	**+0.6**	
	comp=Z,1.1nm,0.3s,baz=34,slow=16,SNR=1.3							
LZDM				SKKPbc		01 23 45.3		
	comp=Z,1.5nm,0.3s,baz=20,slow=4.7,SNR=6.0							
XAN	**Xi'an**	**178.20 252**		PKP	**PKPdf**	**01 15 05.3**	**-0.2**	
XAN				PKPab	sPKPab	01 16 58.4	-0.9	
XAN				PP	**PP**	**01 20 46.8**	**-1.4**	
XAN				SKKS		01 27 34.5		
XAN				SS	**SS**	**01 42 24.1**	**-3.0**	
XAN				L	L			
	comp=Z,2μm,24.7s							
XAN				L	L			
	comp=Z,4μm,19.9s							
XAN				L	L			
	comp=Z,5μm,22.7s							

*BUT **22** 01:15:46.0±1.4, 44°.29N±0°.02×115°.01W±0°.02, h7km±3km, Error ellipse: s-maj=2.8km s-min=2.4km az=168.0*

NEIC 22 01:15:45.7±1.5, 44°.29N±0°.02×115°.03W±0°.02, h10km±2km, ML2.7/44, ML3.1/21(BUT), Error ellipse: s-maj=3.3km s-min=2.9km az=175.0, Western Idaho

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.85**	**148**		Pg	01 16 01.8	-0.2
HLID				Sg	Sg	01 16 12.5	-0.6
HLID				IAML		01 16 13.5	
	229nm,0.2s						
HLID				IAML		01 16 17.7	
	180nm,0.3s						
MFID	**Camas Ranch**	**1.05**	**214**		Pg	01 16 05.8	-0.1
MFID					Sb	01 16 20.0	+0.2
PLID	**Pearl Lake**	**1.06**	**319**		Pg	01 16 06.0	-0.2
PLID					Sg	01 16 20.0	0.0
PLID				IAML		01 16 24.1	
	153nm,0.4s						
PLID				IAML		01 16 24.3	
	179nm,0.4s						
BCYI	**Bear Canyon**	**1.16**	**88**		Pb	01 16 07.7	-0.4
CNCI	**Crows Nest Can**	**1.19**	**107**		Pb	01 16 08.0	-0.5
MCMT	**McKenzie Canyo**	**1.65**	**70**		Pb	01 16 15.8	-0.6
BMO	**Blue Mountains**	**1.73**	**290**		Pn	01 16 16.1	+0.3
MOMT	**Monida**	**1.91**	**80**		Pb	01 16 21.2	+0.4
DLMT	**Dillon**	**2.04**	**57**		Pb	01 16 23.5	+0.6
DLMT				IAML		01 16 51.8	
	79nm,0.6s						
VCMT	**Victor**	**2.24**	**15**		Pn	01 16 23.5	+0.5
HBMT	**Mount Humbug**	**2.28**	**48**		Pn	01 16 24.4	+0.7
F10A	**Beach Ranch, E**	**2.30**	**318**		Pn	01 16 25.1	+1.4
BGMT	**Barton Gulch**	**2.33**	**65**		Pn	01 16 25.3	+1.0
LRM	**Limekiln Ridge**	**2.38**	**49**		Pn	01 16 25.5	+0.4
MSO	**Missoula**	**2.66**	**16**		Pn	01 16 29.8	+1.1
MSO	**Missoula**	**2.66**	**16**	IAML		01 17 16.7	
	36nm,1.0s						
MSO				IAML		01 17 19.8	
	38nm,1.2s						
J08A	**Circle Bar Ran**	**2.66**	**251**		Pn	01 16 29.5	+0.7
J08A				IAML		01 17 13.2	
	comp=E,41nm,0.5s						
J08A				IAML		01 17 26.5	
	comp=N,31nm,0.6s						
BOZ	**Bozeman (W)**	**2.75**	**60**		Pn	01 16 31.7	+1.7
BOZ				IAML		01 17 15.6	
	comp=N,33nm,0.3s						
YHB	**Horse Butte**	**2.78**	**79**		Pn	01 16 32.8	+2.3
YHB				IAML		01 17 16.1	
	comp=N,19nm,1.2s						
LNOR	**Lincton Mounta**	**2.80**	**306**		Pn	01 16 31.8	+1.2
YHL	**Hebgen Lake**	**2.80**	**77**		Pn	01 16 32.9	+2.0
YHL				IAML		01 17 18.7	
	comp=N,29nm,0.5s						
YHL				IAML		01 17 19.2	
	comp=E,37nm,0.9s						
CHMT	**Chamberlain Mo**	**2.91**	**25**		Pn	01 16 32.7	+0.4
G08A	**Pilot Rock**	**2.98**	**291**		Pn	01 16 32.6	-0.5
E09A	**Wood Farm, Sta**	**3.13**	**316**		Pn	01 16 36.8	+1.7
GBMT	**Granite Butte,**	**3.14**	**34**		Pn	01 16 35.6	+0.1
GBMT				IAML		01 17 26.2	
	comp=E,32nm,0.3s						
GBMT				IAML		01 17 30.4	
	comp=N,27nm,0.9s						
I07A	**Izee**	**3.23**	**268**		Pn	01 16 36.8	+0.2
I07A				IAML		01 17 29.5	
	comp=E,13nm,5.0s						
YNE	**Yellowstone No**	**3.65**	**77**		Pn	01 16 45.3	+2.8
YNE				IAML		01 17 41.8	
	comp=N,11nm,0.4s						
YNE				IAML		01 18 09.6	
	comp=E,14nm,4.2s						
WAH2	**Wahluke Slope**	**4.03**	**309**	Pn	Pn	01 16 47.8	+0.3
WAH2				IAML		01 19 03.3	
	comp=E,16nm,2.8s						
BMN	**Battle Mountai**	**4.18**	**204**	IAML		01 17 56.4	
	comp=E,10nm,0.9s						
BMN				IAML		01 18 02.9	
	comp=N,10nm,4.5s						

*JMA **22** 01:20:20.0±0.3, 34°N±1°×13°.7E±°, h346km±2km, MV3.2/36, SE OFF KII PENINSULA*
*IDC **22** 01:20:21.1±0.7, 33°.99N×137°.42E, h338km±12km, mb3.0/6, mbtmp3.6/11, Error ellipse: s-maj=30.0km s-min=11.9km az=62.0*

ISC 22 01:20:21.4±0.8, 34°.04N±0°.06×137°.39E±0°.06, h341km±6km, n33, σ1s09/45, mb3.1/5, Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TTO4	**TONANKAI O.B.S**	**0.13**	**103**	*e*P	**Pn**	**01 21 04.2**	**+0.3**
TTO3	**TONANKAI O.B.S**	**0.17**	**177**	*e*P	**Pn**	**01 21 04.4**	**+0.3**
TTO3				*e*S	**S**	**01 21 39.1**	**+0.9**
TTO5	**TONANKAI O.B.S**	**0.35**	**52**	*e*S	**S**	**01 21 39.6**	**+1.2**
TTO2	**TONANKAI O.B.S**	**0.42**	**225**	*e*P	**Pn**	**01 21 04.4**	**+0.2**
TTO2				*e*S	**S**	**01 21 40.6**	**+2.1**
TTO1	**TONANKAI O.B.S**	**0.65**	**231**	*e*P	**Pn**	**01 21 04.7**	**0.0**
JIE	**Ise**	**0.67**	**302**	*e*P	**Pn**	**01 21 05.0**	**0.0**
JIE				*e*S	**S**	**01 21 39.0**	**-1.0**
JTNC	**Tanabenakahech**	**1.49**	**262**	*e*P	**Pn**	**01 21 08.2**	**-0.5**
JWY	**Kouya**	**1.50**	**277**	*e*P	**Pn**	**01 21 08.3**	**-0.4**
JYTA	**Yamagatataniai**	**1.64**	**341**	*e*P	**Pn**	**01 21 08.8**	**-0.6**
JYN	**Shimob**	**1.74**	**33**	*e*P	**Pn**	**01 21 11.0**	**+0.8**
JOD2	**Odawara 2**	**1.86**	**48**	*e*P	**Pn**	**01 21 10.7**	**-0.2**
JOD2				*e*S	**S**	**01 21 49.9**	**-0.7**
JWT	**Wachi**	**2.06**	**308**	*e*P	**Pn**	**01 21 12.2**	**0.0**
JWT				*e*S	**S**	**01 21 51.4**	**-1.7**
JHJ	**Hachijo jima 2**	**2.20**	**114**	P	**Pn**	**01 21 12.4**	**-1.0**
	13nm,0.5s,baz=168,slow=23,SNR=5.4						
JHJ				S	**S**	**01 21 55.6**	**+0.6**
	8.5nm,0.4s,baz=68,slow=22,SNR=1.1						
JRY	**Ryogami san**	**2.33**	**32**	*e*P	**Pn**	**01 21 14.7**	**+0.3**
JRY				*e*S	**S**	**01 21 57.1**	**+0.2**
JKG	**Kaga**	**2.40**	**339**	*e*P	**Pn**	**01 21 14.9**	**+0.1**
JAI	**Aioi**	**2.45**	**265**	*e*P	**Pn**	**01 21 14.7**	**-0.7**
JAI				*e*S	**S**	**01 21 56.6**	**-2.1**
MAT	**Matsushiro**	**2.59**	**15**	*e*P	**Pn**	**01 21 16.6**	**+0.2**
MAT				*e*S	**S**	**01 21 59.3**	**-1.3**
MJAR	**Matsushiro Arr**	**2.59**	**15**	P	**Pn**	**01 21 16.5**	**+0.1**
	11nm,0.7s,baz=182,slow=9.3,SNR=53						
MJAR				S	**S**	**01 21 58.9**	**-1.8**
	7.3nm,0.6s,baz=191,slow=8.9,SNR=2.2						
JAG	**Ashikaga**	**2.92**	**35**	*e*P	**Pn**	**01 21 18.0**	**-1.3**
JAG				*e*S	**S**	**01 22 03.7**	**-2.2**
JMN	**Monobe**	**2.94**	**265**	*e*P	**Pn**	**01 21 19.1**	**-0.5**
BSO1	**Boso 1**	**3.03**	**77**	*e*P	**Pn**	**01 21 17.9**	**-1.8**
BSO1				*e*S	**S**	**01 22 04.8**	**-1.9**
JSZ	**Suzu**	**3.40**	**360**	*e*P	**Pn**	**01 21 24.1**	**+0.3**
JHS	**Saijyo**	**3.66**	**286**	*e*P	**Pn**	**01 21 26.2**	**-0.2**
JTO	**Tosashimizu**	**4.01**	**254**	*e*P	**Pn**	**01 21 29.5**	**-0.6**
JNU	**Nakatsue**	**5.51**	**262**	P	**Pn**	**01 21 45.9**	**-0.5**
	6.0nm,0.8s,baz=154,slow=13,SNR=2.1						
KSRS	**Korea Array**	**8.41**	**297**	P	**Pn**	**01 22 21.0**	**+0.7**
	3.3nm,0.8s,baz=114,slow=13,SNR=8.2						
USRK	**Ussuriysk Ar.**	**10.98**	**339**	P	**P**	**01 22 52.2**	**+0.3**
	2.1nm,0.6s,baz=149,slow=12,SNR=4.8						
HILR	**Hailar Array B**	**20.25**	**325**	P	**P**	**01 24 34.4**	**+2.1**
	2.5nm,0.5s,baz=152,slow=9.6,SNR=2.4						
	2.5nm,0.5s						
SONM	**Songino Array**	**26.96**	**310**	P	**P**	**01 25 34.5**	**+1.7**
	0.8nm,0.8s,baz=119,slow=8.4,SNR=1.7						
	0.8nm,0.8s						
MKAR	**Makanchi Array**	**43.01**	**304**	P	**P**	**01 27 48.2**	**-0.1**
	1.0nm,0.8s,baz=94,slow=12,SNR=2.8						
	1.0nm,0.8s						
KURBB	**Kurchatov Arra**	**45.33**	**310**	P	**P**	**01 28 06.0**	**-0.4**
	0.7nm,0.8s,baz=87,slow=6.2,SNR=5.1						
	0.7nm,0.8s						
WRA	**Warramunga Arr**	**53.76**	**184**	P	**P**	**01 29 08.2**	**-1.5**
	0.3nm,0.3s,baz=0.8,slow=7.5,SNR=6.4						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**57.48**	**184**	P	**P**	**01 29 35.6**	**-0.3**
	0.4nm,0.6s,baz=12,slow=11,SNR=1.5						
	0.4nm,0.6s						

*TEH **22** 01:20:36.6, 27°.15N×53°.57E, h20km±31km, ML4.0, Presumed earthquake*
*NEIC **22** 01:20:36.6±1.3, 27°.24N±0°.05×53°.50E±0°.08, h10km±1km, mb4.3/19, Error ellipse: s-maj=12.1km s-min=8.1km az=105.0*
*DSN **22** 01:20:37.6±1.2, 27°.14N×53°.56E, h10km, ML3.5/18, Error ellipse: s-maj=16.5km s-min=7.1km az=7.0*
*OMAN **22** 01:20:40.7±0.8, 27°.06N×53°.68E, h20km, mb3.5/5, ml3.6/18, Error ellipse: s-maj=6.8km s-min=4.7km az=165.0*
*IDC **22** 01:20:45.9±6.2, 27°.21N×53°.50E, h103km±57km, mb3.7/17, mbtmp4.1/21, Error ellipse: s-maj=25.4km s-min=14.0km az=170.0*

ISC 22 01:20:35.9±0.4, 27°.19N±0°.04×53°.57E±0°.04, h10km, n121, σ1s31/141, mb4.1/29, 1D, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LMD1	**Lamerd**	**0.39**	**292**	Pg	**Pg**	**01 20 45.0**	**+1.4**
KHL1	**Khalili_Fars**	**0.51**	**332**	Pg	**Pg**	**01 20 47.2**	**+1.4**
JHRM	**Jahrom**	**1.31**	**0**	Pg	**Pn**	**01 21 01.8**	**+1.4**
BNDS	**Bandar-Abbas**	**2.32**	**84**	Pn	**Pn**	**01 21 15.3**	**+1.0**
JRN	**Qarnain Island**	**2.33**	**196**	P	**Pb**	**01 21 16.8**	**-1.2**
DSBU	**Dashti - Bushe**	**2.36**	**300**	Pn	**Pn**	**01 21 16.1**	**+1.4**
UMQ	**Umm Al-Quwin**	**2.50**	**131**	P	**Pb**	**01 21 20.6**	**-0.3**
SHME	**Shamm**	**2.56**	**116**	*e*P	**Pn**	**01 21 18.0**	**+0.5**
	SNR=16						
SHME	**Shamm**	**2.56**	**116**	P	**Pn**	**01 21 18.5**	**+1.0**
SHI	**Shiraz**	**2.62**	**339**	Pn	**Pn**	**01 21 19.4**	**+1.0**
IBND	**Bandar-abas**	**2.65**	**84**	Pn	**Pn**	**01 21 19.9**	**+1.2**
BANOM	**Banah**	**2.75**	**117**	*e*P	**Pn**	**01 21 20.6**	**+0.6**
	SNR=11						
BANOM	**Banah**	**2.75**	**117**	P	**Pn**	**01 21 21.6**	**+1.6**
BANOM				S	**Sn**	**01 21 55.1**	**+1.8**
NAZ	**Nazwa, Dubai**	**2.89**	**139**	*e*P	**Pn**	**01 21 24.2**	**+2.3**
	SNR=39						
AJN	**Ajban**	**2.91**	**154**	P	**Pb**	**01 21 25.5**	**-2.4**
MASF	**Masafi**	**2.94**	**127**	P	**Pn**	**01 21 24.9**	**+2.1**
MASF				S	**Sn**	**01 21 59.7**	**+1.5**
MSFE	**Esma-Masafi**	**2.95**	**128**	*e*P	**Pn**	**01 21 24.6**	**+1.7**
	SNR=17						
ASUD	**Al Ashush, Dub**	**3.00**	**148**	P	**Pn**	**01 21 25.9**	**+2.3**
FAQ	**Al Faqa, Dubai**	**3.04**	**143**	*i* P	**Pn**	**01 21 26.3**	**+2.3**
	SNR=7.3						
MDH	**Madha**	**3.09**	**127**	*i* P	**Pn**	**01 21 26.3**	**+1.7**
	SNR=13						
MDH	**Madha**	**3.09**	**127**	P	**Pn**	**01 21 26.4**	**+1.7**
MDH				S	**Sn**	**01 22 02.8**	**+1.1**
UOSS	**Minazif**	**3.25**	**133**	*i* P	**Pn**	**01 21 28.5**	**+1.5**
	SNR=56						
UOSS	**Minazif**	**3.25**	**133**	P	**Pn**	**01 21 28.8**	**+1.8**
UOSS				S	**Sn**	**01 22 06.4**	**+0.5**
UOSS	**Minazif**	**3.25**	**133**		**Pn**	**01 21 28.5**	**+1.5**
UOSS	**Minazif**	**3.25**	**133**	Pn	**Pn**	**01 21 28.5**	**+1.5**
GHWR	**Ruwais**	**3.27**	**191**	P	**Pn**	**01 21 28.8**	**+1.6**
GHWR				S	**Sn**	**01 22 07.5**	**+1.3**
HATD	**Hatta, Dubai**	**3.29**	**135**	*i* P	**Pn**	**01 21 29.4**	**+1.8**
	SNR=13						
ASHO	**Ashiyiah**	**3.35**	**138**	*i* P	**Pn**	**01 21 30.3**	**+1.9**
	SNR=82						
ASHO				S	**Sn**	**01 22 08.2**	**-0.1**
ASHO	**Ashiyiah**	**3.35**	**138**	P	**Pn**	**01 21 30.6**	**+2.2**
ASHO				S	**Sn**	**01 22 09.1**	**+0.9**
MZWR	**Madinat Zayed**	**3.43**	**175**	P	**Pn**	**01 21 31.5**	**+2.2**
MZWR				S	**Sn**	**01 22 10.4**	**+0.4**
ALNE	**Al Ain**	**3.69**	**147**	*i* P	**Pn**	**01 21 35.2**	**+2.2**
	SNR=10						
ALNE	**Al Ain**	**3.69**	**147**	P	**Pn**	**01 21 35.8**	**+2.8**
ALNE				S	**Sn**	**01 22 16.9**	**+0.3**
KHNJ	**Kahnooj**	**3.75**	**77**	Pn	**Pn**	**01 21 34.7**	**+1.0**
SOHO	**SOHO**	**4.05**	**138**	*i* P	**Pn**	**01 21 39.2**	**+1.3**
	SNR=37						
SOHO	**SOHO**	**4.05**	**138**	P	**Pn**	**01 21 39.4**	**+1.5**
SOHO				S	**Sn**	**01 22 25.8**	**+0.4**
KHGB	**Koh Gabri**	**4.07**	**38**	Pn	**Pn**	**01 21 40.1**	**+1.7**
MZR	**Muzera**	**4.17**	**181**	*i* P	**Pn**	**01 21 40.5**	**+0.9**
	SNR=16						
MZR	**Muzera**	**4.17**	**181**	P	**Pn**	**01 21 40.8**	**+1.2**
MZR				S	**Sn**	**01 22 30.1**	**+1.7**
IMEH	**Mehriz**	**4.28**	**12**	Pn	**Pn**	**01 21 43.3**	**+1.9**
CHMN	**Cheshme madani**	**4.39**	**52**	Pn	**Pn**	**01 21 44.9**	**+2.0**
TAFT	**Taft - Yazd**	**4.55**	**6**	Pn	**Pn**	**01 21 46.5**	**+1.5**
ZRDN	**Zarand Kerman**	**4.57**	**34**	Pn	**Pn**	**01 21 46.7**	**+1.4**
ARQ	**Araqi**	**4.67**	**145**	P	**Pn**	**01 21 48.8**	**+2.3**
ARQ				S	**Sn**	**01 22 40.4**	**-0.5**
UMZA	**Um Al Zommool**	**4.68**	**162**	P	**Pn**	**01 21 48.5**	**+1.8**
UMZA				S	**Sn**	**01 22 40.6**	**-0.5**
IBAF	**Bafgh**	**4.72**	**21**	Pn	**Pn**	**01 21 48.6**	**+1.4**
KBAM	**BAM**	**4.72**	**65**	Pn	**Pn**	**01 21 49.0**	**+1.7**
HOQ	**Hoqain**	**4.93**	**136**	P	**Pn**	**01 21 52.4**	**+2.3**
HOQ				S	**Sn**	**01 22 46.2**	**-1.0**
ICHK	**Chekchek**	**5.09**	**8**	Pn	**Pn**	**01 21 54.2**	**+1.8**
BIDO	**Bidbid**	**5.51**	**131**	P	**Pn**	**01 21 58.6**	**+0.6**
BIDO				S	**Sn**	**01 23 00.0**	**-1.3**
BSY	**Bisya**	**5.51**	**143**	P	**Pn**	**01 21 59.8**	**+1.7**
BSY				S	**Sn**	**01 23 01.0**	**-0.7**
SMDO	**Samad**	**5.78**	**134**	P	**Pn**	**01 22 03.0**	**+1.3**
SMDO				S	**Sn**	**01 23 08.3**	**+0.2**
WSAR	**Wadi Sarin**	**6.04**	**130**	P	**Pn**	**01 22 06.0**	**+0.8**
WSAR				S	**Sn**	**01 23 12.0**	**-2.5**
JMDO	**Jabal Madar**	**6.32**	**138**	P	**Pn**	**01 22 10.2**	**+1.0**
	SNR=11						
CHBR	**Chabahar**	**6.40**	**103**	Pn	**Pn**	**01 22 10.7**	**+0.5**
WBK	**Wadi Bani Khal**	**6.69**	**132**	P	**Pn**	**01 22 15.1**	**+0.8**
	SNR=25						
WBK				S	**Sn**	**01 23 30.0**	**-0.7**
NGCH	**Negor - Chabah**	**7.03**	**103**	P	**Pn**	**01 22 19.5**	**+0.6**
NGCH				S	**Sn**	**01 23 37.8**	**-1.1**
NGCH	**Negor - Chabah**	**7.03**	**103**	Pn	**Pn**	**01 22 19.9**	**+1.0**
NHDN	**Nehbandan**	**7.04**	**52**	Pn	**Pn**	**01 22 20.6**	**+1.5**
JLN	**Jalan Bani Buh**	**7.30**	**132**	P	**Pn**	**01 22 22.9**	**+0.3**
MHTO	**MHTO**	**7.37**	**146**	P	**Pn**	**01 22 24.8**	**+1.3**
RAYN	**Ar Rayn**	**8.16**	**245**	P	**Pn**	**01 22 34.2**	**-0.2**
RAYN	**Ar Rayn**	**8.16**	**245**		**Pn**	**01 22 34.3**	**-0.2**
SHAO	**Shalim**	**9.32**	**168**	P	**Pn**	**01 22 50.4**	**+0.1**
DMTO	**DMTO**	**9.51**	**172**	P	**Pn**	**01 22 53.0**	**0.0**
	SNR=16						
RBK	**Rabkut**	**9.66**	**176**	P	**Pn**	**01 22 55.3**	**+0.3**
	SNR=6.8						
ABTO	**Aybut**	**9.79**	**182**	P	**Pn**	**01 22 56.0**	**-0.9**
	SNR=64						
GNI	**Garni**	**14.86**	**333**	P	**P**	**01 24 10.9**	**-1.1**
	10nm,0.7s,baz=70,slow=2.3,SNR=9.4						
GNI	**Garni**	**14.86**	**333**	P	**P**	**01 24 11.7**	**-0.3**
GURO	**Guroymak-BITLI**	**14.90**	**322**	P	**P**	**01 24 13.8**	**+1.4**
MMAI	**Mount Meron Ar**	**16.75**	**295**	P	**P**	**01 24 33.9**	**+0.9**
	2.4nm,0.8s,baz=84,slow=15,SNR=4.3						
KBZ	**Khabaz**	**18.62**	**335**	P	**Pn**	**01 24 55.6**	**+1.9**
	5.2nm,1.0s,baz=184,slow=8.3,SNR=5.4						
KVAR	**Kislovods

comp=Z,10nm,1.3s
MKAR Makanchi Array 29.89 41 P **P** 01 26 43.6 -0.1
comp=Z,2.0nm,0.7s,baz=240,slow=9.7,SNR=11
comp=Z,2.0nm,0.7s
AKASG Malin Array Be 29.91 328 P **P** 01 26 42.5 -1.2
comp=Z,1.0nm,0.3s,baz=137,slow=8.2,SNR=10
comp=Z,1.0nm,0.3s
KIEV Kiev 29.91 328 P **P** 01 26 42.6 -1.1
BURAR Bucovina Array 30.11 320 P **P** 01 26 45.9 +0.2
BUR08 Bucovina Ar. S 30.14 320 P **P** 01 26 46.1 +0.2
BUR08 IAmb IAmb 01 26 56.5
comp=Z,8.9nm,1.4s
KURBB Kurchatov Arra 30.14 32 P **P** 01 26 46.4 +0.6
comp=Z,1.0nm,0.9s,baz=231,slow=8.5,SNR=4.2
comp=Z,1.0nm,0.9s
ZALV Zalesovo Beam 35.24 32 P **P** 01 27 29.6 -0.7
comp=Z,2.0nm,0.7s,baz=237,slow=8.6,SNR=5.9
comp=Z,2.0nm,0.7s
ZALV Zalesovo Beam 35.24 32 P **P** 01 27 30.2 -0.1
LESA Schwarzleotal 37.73 313 *i* P **P** 01 27 50.9 -0.9
comp=Z,1.5nm,0.4s
WTTA Wattenberg 38.36 313 *e*P **P** 01 27 56.2 -1.1
comp=Z,1.6nm,0.5s
WATA Walderalm 38.42 313 *i* P **P** 01 27 56.7 -1.1
comp=Z,1.4nm,0.3s
SQTA Sankt Quirin 38.63 313 *i* P **P** 01 27 58.4 -1.1
comp=Z,2.2nm,0.3s
MOTA Moosalm 38.73 313 *i* P **P** 01 27 59.0 -1.4
comp=Z,1.0nm,0.2s
FETA Feichten 38.89 312 *i* P **P** 01 28 00.9 -0.8
comp=Z,1.9nm,0.4s
FIA1 FINESS Array S 38.90 339 P **P** 01 28 00.1 -1.2
FINES FINESS Array B 38.90 339 P **P** 01 28 00.6 -0.8
comp=Z,1.8nm,0.4s,baz=144,slow=9.1,SNR=24
comp=Z,1.8nm,0.4s
FINES FINESS Array B 38.90 339 P **P** 01 28 00.3 -1.0
FUORN Ofenpass-Fuorn 39.10 311 P **P** 01 28 02.8 -0.7
FUORN IAmb IAmb 01 28 46.2
comp=Z,7.8nm,1.2s
DAVA Damuels 39.52 312 *e*P **P** 01 28 05.9 -1.0
comp=Z,3.8nm,0.3s
CM31 Chiang Mai Arr 42.52 92 P **P** 01 28 34.0 +2.1
CMAR Chiang Mai Arr 42.52 92 P **P** 01 28 31.6 -0.2
comp=Z,0.6nm,0.3s,baz=273,slow=9.7,SNR=5.9
comp=Z,0.6nm,0.3s
HFS Hagfors 42.64 332 P **P** 01 28 31.6 -0.7
comp=Z,2.1nm,0.7s,baz=175,slow=8.2,SNR=5.4
comp=Z,2.1nm,0.7s
SONM Songino Array 45.69 49 P **P** 01 28 57.3 +0.2
comp=Z,0.5nm,0.7s,baz=247,slow=9.0,SNR=3.3
comp=Z,0.5nm,0.7s
PAB San Pablo 49.16 300 P **P** 01 29 22.6 -1.5
PAB IAmb IAmb 01 29 58.6
comp=Z,8.6nm,1.2s
EKA Eskdalemuir Ar 49.29 321 P **P** 01 29 23.0 -1.8
comp=Z,0.9nm,0.4s,baz=106,slow=8.2,SNR=11
comp=Z,0.9nm,0.4s
TORD Torodi Ar. Bea 50.33 265 P **P** 01 29 31.4 -1.8
comp=Z,0.6nm,0.5s,baz=64,slow=6.5,SNR=12
comp=Z,0.6nm,0.5s
TORD Torodi Ar. Bea 50.33 265 P **P** 01 29 32.5 -0.7
SPITS Spitsbergen Ar 53.77 351 P **P** 01 29 57.4 -0.6
comp=Z,6.2nm,0.9s,baz=131,slow=8.9,SNR=7.0
comp=Z,6.2nm,0.9s
KDWAN Kaudwane 57.51 212 P **P** 01 30 25.6 0.0
LBTB Lobatse 58.49 210 P **P** 01 30 32.5 0.0
DBIC Dimbokro 58.96 261 P **P** 01 30 35.2 -0.6
comp=Z,2.4nm,0.7s,baz=72,slow=8.9,SNR=4.4
comp=Z,2.4nm,0.7s
SYO Syowa Base 96.46 185‖ *e*P **P** 01 34 08.6 +4.0

REN ***22*** *01:35:02.2±1.9, 38.°18N±0.°02×117.°89W±0.°03, h10km±5km, Error ellipse: s-maj=3.8km s-min=2.2km az=53.0*
NEIC 22 01:35:01.5±1.9, 38.°12N±0.°04×117.°88W±0.°05, h10km±2km, ML3.5/114, ML3.8/16(REN), Error ellipse: s-maj=6.9km s-min=5.5km az=53.0, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COLR	**Columbus**	**0.14**	**279**		Pg	01 35 05.6	+0.8
COLR					Sg	01 35 08.3	+1.1
NV11	**Mina Array Sit**	**0.38**	**325**		Pg	01 35 09.1	0.0
NV11				IAML		01 35 14.3	
	comp=N,4μm,0.6s						
NV11				IAML		01 35 14.3	
	comp=E,3μm,0.8s						
NV06	**Mina Array Sit**	**0.43**	**314**		Pg	01 35 10.3	+0.2
NV07	**Mina Array Sit**	**0.43**	**311**		Pg	01 35 10.4	+0.3
NV08	**Mina Array Sit**	**0.45**	**309**		Pg	01 35 10.5	+0.2
NV03	**Mina Array Sit**	**0.45**	**313**		Pg	01 35 10.5	+0.2
NV04	**Mina Array Sit**	**0.45**	**312**		Pg	01 35 10.7	+0.3
NV01	**Mina Array Sit**	**0.45**	**313**		Pg	01 35 10.7	+0.2
NVAR	**Mina Array Bea**	**0.45**	**313**		Pg	01 35 10.6	+0.2
NV05	**Mina Array Sit**	**0.46**	**315**		Pg	01 35 10.7	+0.1
NV02	**Mina Array Sit**	**0.46**	**313**		Pg	01 35 10.8	+0.2
NV09	**Mina Array Sit**	**0.48**	**311**		Pg	01 35 11.1	+0.2
LHV	**Little Huntoon**	**0.51**	**285**		Sb	01 35 19.4	-0.6
LHV	**Little Huntoon**	**0.51**	**285**		Pb	01 35 12.2	-0.3
LHV	**Little Huntoon**	**0.51**	**285**	IAML		01 35 19.9	
	comp=N,4μm,0.8s						
LHV				IAML		01 35 20.8	
	comp=E,5μm,0.4s						
TPH	**Tonopah**	**0.52**	**95**		Sb	01 35 20.3	-0.3
TPH	**Tonopah**	**0.52**	**95**		Pb	01 35 12.7	-0.2
TPH	**Tonopah**	**0.52**	**95**	IAML		01 35 20.6	
	comp=E,2μm,0.6s						
TPH				IAML		01 35 21.5	
	comp=N,2μm,0.4s						
MZP	**Montezuma Peak**	**0.58**	**137**		Sb	01 35 22.8	+0.6
MZP	**Montezuma Peak**	**0.58**	**137**		Pb	01 35 14.3	+0.4
MZP	**Montezuma Peak**	**0.58**	**137**	IAML		01 35 23.0	
	comp=N,7μm,0.3s						
MZP				IAML		01 35 23.0	
	comp=E,6μm,0.4s						
RYN	**Ryan**	**0.71**	**315**		Sg	01 35 24.7	0.0
RYN	**Ryan**	**0.71**	**315**		Pg	01 35 15.4	0.0
RYN	**Ryan**	**0.71**	**315**	IAML		01 35 24.9	
	comp=N,3μm,0.3s						
RYN				IAML		01 35 25.5	
	comp=E,2μm,0.4s						
Q09A	**Carvers**	**0.90**	**37**		Sg	01 35 30.9	+0.4
Q09A	**Carvers**	**0.90**	**37**		Pg	01 35 18.9	+0.1
Q09A	**Carvers**	**0.90**	**37**	IAML		01 35 36.2	
	comp=N,5μm,0.6s						
Q09A				IAML		01 35 36.3	
	comp=E,5μm,0.5s						
MLAC	**Mammoth, Mammo**	**0.90**	**237**		Pn	01 35 20.2	-0.3
LCH	**Last Change Ra**	**0.91**	**168**		Pn	01 35 20.5	+0.1
LCH					Sn	01 35 33.3	-0.4
MCBM	**Casa Benchmark**	**0.94**	**240**		Pn	01 35 20.8	-0.1
KVN	**Kaiserville**	**0.94**	**350**		Sg	01 35 31.0	-1.0
KVN	**Kaiserville**	**0.94**	**350**		Pg	01 35 18.9	-0.8
KVN	**Kaiserville**	**0.94**	**350**	IAML		01 35 35.4	
	comp=E,1μm,0.9s						
KVN				IAML		01 35 36.0	
	comp=N,1μm,0.6s						
GMN	**Gold Mountain**	**0.96**	**149**		Sn	01 35 35.0	-0.1
GMN	**Gold Mountain**	**0.96**	**149**		Pn	01 35 21.5	+0.3
GMN	**Gold Mountain**	**0.96**	**149**	IAML		01 35 38.3	
	comp=N,3μm,0.4s						
GMN				IAML		01 35 38.7	
	comp=E,2μm,0.6s						
MDYM	**Dry Creek**	**1.01**	**243**		Pn	01 35 22.2	+0.2
MDPB	**Devils Postpil**	**1.07**	**243**		Pn	01 35 22.8	0.0
MDPB				IAML		01 35 37.9	
	comp=N,1μm,0.5s						
MDPB				IAML		01 35 37.9	
	comp=E,989nm,0.7s						
GRAC	**Grapevine Rang**	**1.20**	**160**		Pg	01 35 25.6	+1.2
SGV	**South Grapevin**	**1.32**	**149**		Pg	01 35 27.4	+0.5
YERR	**Yerington**	**1.37**	**309**		Pn	01 35 26.8	-0.1
YERR				IAML		01 35 47.9	
	comp=N,1μm,0.4s						
NTA	**Nevada Test Si**	**1.42**	**126**		Pg	01 35 28.6	-0.2
EHN	**Echo Peak**	**1.53**	**126**		Pn	01 35 30.1	0.0
PNTR	**Pine Nut**	**1.66**	**306**		Pn	01 35 30.7	-0.2
WCT	**Wildcat Mounta**	**1.66**	**143**		Pb	01 35 32.0	-0.3
CWC	**Cottonwood Cre**	**1.69**	**186**		Pb	01 35 32.7	-0.1
TPNV	**Topopah Spring**	**1.75**	**132**		Pb	01 35 33.1	-0.6
TPNV				IAML		01 36 06.7	
	comp=N,694nm,0.6s						
S11A	**Rachel**	**1.75**	**105**		Pn	01 35 32.7	+0.6
S11A				IAML		01 36 09.6	
	comp=N,753nm,0.5s						
VCNR	**Virginia City**	**1.81**	**311**		Pb	01 35 34.4	-0.6
CPY	**CP-1**	**1.88**	**129**		Pn	01 35 34.8	+1.0
SDH	**Striped Hills**	**1.92**	**140**		Pb	01 35 35.9	-0.8
NSP	**Numbskull Pass**	**1.92**	**136**		Pb	01 35 35.8	-0.9
PAHR	**Pah Rah Range**	**1.97**	**324**		Pn	01 35 35.0	-0.1
PAHR				IAML		01 36 04.0	
	comp=N,243nm,0.6s						
PAHR				IAML		01 36 08.0	
	comp=E,363nm,0.8s						
CMB	**Columbia Colle**	**1.98**	**268**		Pn	01 35 35.3	+0.2
MPK	**Martis Peak**	**2.05**	**306**	IAML		01 36 09.7	
	comp=E,555nm,0.4s						
MPK				IAML		01 36 11.0	
	comp=N,532nm,0.6s						
MPMC	**Manual Prospec**	**2.08**	**171**	IAML		01 36 12.0	
	comp=E,262nm,0.8s						
AMDNV	**Amargosa**	**2.10**	**142**		Pb	01 35 38.7	-0.9
GWY	**Greenwater Val**	**2.16**	**153**		Pn	01 35 39.1	+1.4
GWY				IAML		01 36 18.0	
	comp=N,470nm,0.6s						
GWY				IAML		01 36 20.9	
	comp=E,402nm,0.6s						
CLC	**China Lake**	**2.31**	**174**		Pn	01 35 41.3	+1.6
PRN	**Pahroc Range**	**2.35**	**107**		Pn	01 35 41.0	+0.7
PRN				IAML		01 36 24.4	
	comp=N,323nm,0.5s						
PRN				IAML		01 36 31.2	
	comp=E,357nm,0.7s						
BMN	**Battle Mountai**	**2.36**	**12**		Pn	01 35 40.3	-0.2
BMN				IAML		01 36 18.2	
	comp=E,145nm,0.3s						
BMN				IAML		01 36 18.4	
	comp=N,209nm,0.3s						
AFDM	**Forest Hills D**	**2.56**	**290**		Pn	01 35 43.9	+0.8
AFDM				IAML		01 36 23.9	
	comp=E,121nm,0.4s						
SHOC	**Shoshone, Teco**	**2.56**	**149**		Pn	01 35 44.5	+1.4
BEKR	**Beckworth**	**2.60**	**313**		Pn	01 35 44.8	+1.0
CCCA	**Chr Cany lake**	**2.62**	**171**	IAML		01 36 31.5	
	comp=E,306nm,0.7s						
CCCA				IAML		01 36 39.1	
	comp=N,239nm,1.4s						
SHPR	**Sheep Range**	**2.70**	**126**		Pn	01 35 46.6	+1.5
GSC	**Goldstone, Bar**	**2.94**	**163**	IAML		01 36 44.1	
	comp=N,120nm,0.7s						
GSC				IAML		01 36 47.8	
	comp=E,136nm,0.9s						
MHC	**Mount Hamilton**	**3.08**	**257**		Pn	01 35 51.8	+1.4
MHC				IAML		01 36 42.0	
	comp=N,152nm,0.8s						
MHC				IAML		01 36 44.1	
	comp=E,151nm,0.7s						
ORV	**Oroville**	**3.17**	**298**		Pn	01 35 51.7	+0.3
PSUT	**Pine Spring**	**3.19**	**81**		Pn	01 35 51.5	-0.4
TPO	**Tropico Hills**	**3.25**	**185**		Pn	01 35 51.7	-0.9
SUTB	**Sutter Butte**	**3.25**	**291**	IAML		01 36 48.9	
	comp=E,176nm,0.5s						
SUTB				IAML		01 36 51.3	
	comp=N,160nm,0.5s						
ELK	**Elko**	**3.32**	**37**		Pn	01 35 53.9	+0.2
ELK				IAML		01 36 48.4	
	comp=N,70nm,0.3s						
ELK				IAML		01 36 48.8	
	comp=N,96nm,0.5s						
OSI	**Osito Audit: C**	**3.57**	**191**	IAML		01 37 03.4	
	comp=E,67nm,0.9s						
CVS	**Carmenet Viney**	**3.61**	**275**		Pn	01 35 58.1	+0.6
CCUT	**Cedar City**	**3.62**	**98**		Pn	01 35 58.7	+0.9
O03E	**Paynes Creek**	**3.74**	**307**	IAML		01 37 06.8	
	comp=E,78nm,0.7s						
O03E				IAML		01 37 07.2	
	comp=N,59nm,1.4s						
SZCU	**Shurtz Canyon**	**3.83**	**96**		Pn	01 36 00.5	-0.2
LCMT	**Little Creek M**	**3.85**	**105**		Pn	01 36 01.7	+0.8
HATC	**Hat Creek Radi**	**3.86**	**315**	IAML		01 37 16.1	
	comp=N,70nm,2.4s						
HATC				IAML		01 37 27.3	
	comp=E,84nm,1.9s						
KNB	**Kanab**	**4.17**	**104**		Pn	01 36 06.6	+1.3
MOD	**Modoc Plateau**	**4.21**	**335**	IAML		01 37 20.5	
	comp=E,61nm,0.8s						
MOD				IAML		01 37 27.3	
	comp=N,41nm,1.1s						
WVOR	**Wild Horse Val**	**4.34**	**353**	IAML		01 37 21.1	
	comp=N,62nm,0.6s						
WVOR				IAML		01 37 28.0	
	comp=N,37nm,1.0s						
BLYC	**Blythe**	**5.14**	**147**	IAML		01 37 53.1	
	comp=E,32nm,1.8s						
BLYC				IAML		01 37 58.2	
	comp=N,31nm,1.1s						

IDC 22 01:41:13.0±25.0, 20.°53S×178.°58W, h493km±73km, mb2.8/3, mbtmp3.7/4, Error ellipse: s-maj=502.4km s-min=126.4km az=86.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.23**	**311**	P	P	01 42 33.0	-0.1
	7.1nm,0.5s,baz=124,slow=10,SNR=12						
STKA	**Stephens Creek**	**37.29**	**244**	P	P	01 47 42.0	-0.4
	1.2nm,0.5s,baz=52,slow=5.0,SNR=3.2						
	1.2nm,0.5s						
ASAR	**Alice Springs**	**43.98**	**257**	P	P	01 48 36.2	+0.1
	0.4nm,0.4s,baz=95,slow=8.2,SNR=10						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**44.06**	**262**	P	P	01 48 36.4	-0.3
	0.2nm,0.3s,baz=97,slow=7.6,SNR=4.7						
	0.2nm,0.3s						

THE ***22*** *01:49:04.7, 37.°8N±0.°8×27.°0E±0.°7, h6km±2km, M2.5/6, MLh2.5/6*
AFAD ***22*** *01:49:04.4, 37.°83N×26.°97E, h7km±2km, ML2.2*
ISK ***22*** *01:49:04.2, 37.°85N×26.°99E, h7km, ML2.4/23*
ISC 22 01:49:04.8±0.8, 37.°84N±0.°02×27.°00E±0.°02, h11km±7km, n37, σ0°47/56, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**225**	P	**Pg**	**01 49 08.3**	**-0.4**
SMG				S	**Sg**	**01 49 11.2**	**-0.2**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**84**	Pg	**Pg**	**01 49 09.5**	**-0.1**
KUSD				Sg	**Sg**	**01 49 12.9**	**0.0**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**126**	P	**Pg**	**01 49 09.8**	**+0.1**
GCAM				IAML		01 49 13.0	
	comp=E,516nm,0.2s						
GCAM				S	**Sg**	**01 49 13.4**	**+0.6**
GCAM				IAML		01 49 14.0	
	comp=N,1μm,0.4s						
GCAM	**G?zelcaml?**	**0.23**	**126**	Pg	**Pg**	**01 49 09.7**	**+0.1**
GCAM				Sg	**Sg**	**01 49 13.5**	**+0.6**
GCAM				AML	AML		
DGB	**zmir**	**0.23**	**337**	P	**Pg**	**01 49 09.3**	**-0.3**
DGB				S	**Sg**	**01 49 12.6**	**-0.4**
DGB				IAML		01 49 13.0	
	comp=N,353nm,0.1s						
DGB				IAML		01 49 13.0	
	comp=E,422nm,0.2s						
GMLD	**Gumuldur**	**0.25**	**345**	Pg	**Pg**	**01 49 09.7**	**-0.2**
GMLD				Sg	**Sg**	**01 49 13.4**	**0.0**
GMLD				AML	AML		
BEYE	**izmir**	**0.39**	**352**	P	**Pg**	**01 49 12.3**	**-0.3**
BEYE				S	**Sg**	**01 49 18.2**	**+0.3**
BEYE				IAML		01 49 19.0	
	comp=N,99nm,0.3s						
BEYE				IAML		01 49 23.0	
	comp=E,120nm,0.2s						
DDIM	**Aydin, Didim**	**0.43**	**153**	P	**Pg**	**01 49 13.3**	**+0.2**
DDIM				S	**Sb**	**01 49 19.6**	**-1.2**
DDIM				IAML		01 49 20.0	
	comp=N,392nm,0.3s						
DDIM				IAML		01 49 21.0	
	comp=E,269nm,0.3s						
DIDI	**Didim-Aydin**	**0.50**	**157**	Pg	**Pg**	**01 49 14.5**	**0.0**
DIDI				AML	AML		
DUVT	**Torbali**	**0.52**	**43**	P	**Pg**	**01 49 14.7**	**-0.3**
DUVT				S	**Sg**	**01 49 21.9**	**-0.1**
DUVT				IAML		01 49 27.0	
	comp=E,145nm,0.2s						
BLCB	**Balcova**	**0.55**	**4**	P	**Pg**	**01 49 15.1**	**-0.4**
BLCB				S	**Sg**	**01 49 23.4**	**+0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**4**	Pg	**Pg**	**01 49 15.1**	**-0.4**
BLCB				Sg	**Sg**	**01 49 23.4**	**+0.6**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**316**	P	**Pg**	**01 49 15.2**	**-0.5**
ZEYE				IAML		01 49 23.0	
	comp=N,500nm,0.3s						
ZEYE				S	**Sg**	**01 49 23.5**	**+0.4**
ZEYE				IAML		01 49 24.0	
	comp=E,233nm,0.1s						
AYDB	**Zeytinkoy-Aydi**	**0.72**	**81**	Pg	**Pg**	**01 49 18.8**	**+0.1**
AYDB				Sg	**Sb**	**01 49 28.8**	**-0.5**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.75**	**162**	Pg	**Pg**	**01 49 18.8**	**-0.4**
YKAV				AML	AML		
BODT	**Bodrum**	**0.81**	**162**	P	**Pg**	**01 49 20.0**	**-0.5**
BODT				S	**Sb**	**01 49 31.8**	**-0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.81**	**162**	Pg	**Pg**	**01 49 19.7**	**-0.8**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.81**	**68**	P	**Pb**	**01 49 20.9**	**0.0**
IZMR				S	**Sg**	**01 49 30.0**	**-1.1**
IZMR				IAML		01 49 33.0	
	comp=N,28nm,0.5s						
IZMR				IAML		01 49 36.0	
	comp=E,31nm,0.8s						
MLSB	**Milas**	**0.82**	**131**	Pg	**Pb**	**01 49 21.1**	**0.0**
MLSB				AML	AML		
BAGT	**Foa**	**0.82**	**352**	P	**Pb**	**01 49 20.8**	**-0.4**
BAGT				S	**Sb**	**01 49 32.8**	**+0.6**
BAGT				IAML		01 49 37.0	
	comp=E,104nm,0.7s						
BAGT				IAML		01 49 41.0	
	comp=N,89nm,0.8s						
KRBN	**Karaburun**	**0.83**	**335**	Pg	**Pg**	**01 49 20.7**	**-0.2**
KRBN				AML	AML		
FOCM	**Foa**	**0.90**	**347**	Pg	**Pg**	**01 49 21.6**	**-0.6**
FOCM				AML	AML		
CHOS	**Chios island**	**0.92**	**307**	P	**Pb**	**01 49 22.8**	**0.0**
CHOS				S	**Sb**	**01 49 35.3**	**+0.1**
CHOS	**Chios island**	**0.92**	**307**	Pg	**Pb**	**01 49 22.9**	**0.0**
CHOS				AML	AML		
CAMT	**Merkez**	**0.94**	**15**	P	**Pg**	**01 49 22.6**	**-0.4**
CAMT				S	**Sn**	**01 49 37.5**	**0.0**
CAMT				IAML		01 49 38.0	
	comp=E,138nm,0.4s						
CAMT				IAML		01 49 39.0	
	comp=N,149nm,0.3s						
KARB	**zmir-Karabur**	**0.94**	**331**	P	**Pb**	**01 49 23.5**	**+0.3**
KARB				S	**Sb**	**01 49 36.1**	**+0.3**
KARB				IAML		01 49 39.0	
	comp=N,103nm,1.0s						
KARB				IAML		01 49 39.0	
	comp=E,61nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.03**	**83**	Pg	**Pg**	**01 49 24.5**	**-0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.13**	**40**	Pn	**Pg**	**01 49 25.9**	**-0.7**
GOMA				AML	AML		
DAT	**Datca**	**1.20**	**157**	Pn	**Pn**	**01 49 28.2**	**+0.6**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.20**	**154**	Pn	**Pn**	**01 49 28.6**	**+1.1**
DATC				AML	AML		
DKL	**Dikili**	**1.23**	**357**	Pn	**Pb**	**01 49 27.6**	**-0.5**
DKL				AML	AML		
YER	**Yerkesik**	**1.24**	**124**	Pn	**Pb**	**01 49 27.9**	**-0.4**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**18**	Pn	**Pb**	**01 49 30.6**	**-0.1**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.40**	**237**	Pn	**Pn**	**01 49 30.3**	**+0.1**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.42**	**41**	Pn	**Pb**	**01 49 31.1**	**-0.2**
GORD				AML	AML		
KULA	**Kula-Manisa**	**1.48**	**62**	Pn	**Pn**	**01 49 31.3**	**-0.1**
YAYO	**Edremit-Balk**	**1.77**	**2**	Pn	**Pn**	**01 49 36.3**	**+0.9**
YAYO				AML	AML		

GCG ***22*** *02:20:31.9±1.2, 12.°79N×90.°52W, h16km±15km, MD4.2, Presumed earthquake*
SNET ***22*** *02:20:34.9±2.8, 12.°90N×90.°33W, h17km, ML3.2, Presumed earthquake*
CATAC ***22*** *02:20:34.4±0.7, 13.°N±3.°×9.°0W±.°, h28km±8km, M3.3/21, MLv3.3/21, Error ellipse: s-maj=7.3km s-min=5.0km az=28.4, confirmed*
ISC 22 02:20:38.0±2.1, 13.°07N±0.°08×90.°31W±0.°07, h33km±11km, n38, σ1°53/56, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FAME	**Alcaldia de Sa**	**0.81**	**20**	P	**Pb**	**02 20 52.0**	**-1.8**
FAME				S	**Sb**	**02 21 06.5**	**+1.9**
NUBE	**Las Nubes**	**0.97**	**32**	P	**Pb**	**02 20 55.1**	**-1.4**
NUBE				S	**Sb**	**02 21 10.4**	**+1.4**
NUBE	**Las Nubes**	**0.97**	**32**	*e*P	**Pb**	**02 20 54.8**	**-1.7**
NUBE	**Las Nubes**	**0.97**	**32**	*i* P	**Pb**	**02 20 54.8**	**-1.7**
NUBE				*e*S	**Sn**	**02 21 07.8**	**-0.4**
CEVE	**Cerro Verde**	**1.00**	**41**	P	**Pn**	**02 20 55.0**	**-1.1**
CEVE	**Cerro Verde**	**1.00**	**41**	*i* P	**Pn**	**02 20 54.6**	**-1.4**
CEVE				*e*S	**Sb**	**02 21 12.7**	**+2.7**
JAYA	**Jayaque - finc**	**1.01**	**55**	P	**Pn**	**02 20 55.4**	**-0.7**
JAYA				S	**Sb**	**02 21 12.0**	**+1.7**
JAYA	**Jayaque - finc**	**1.01**	**55**	*e*P	**Pn**	**02 20 55.7**	**-0.5**
JAYA	**Jayaque - finc**	**1.01**	**55**	*i* P	**Pn**	**02 20 55.6**	**-0.5**
JAYA				*e*S	**Sn**	**02 21 09.7**	**+0.3**
LOAL	**Lomas de Alarc**	**1.05**	**29**	P	**Pb**	**02 20 56.4**	**-1.4**
LOAL				S	**Sb**	**02 21 13.1**	**+1.8**
SLOZ	**Alcaldia de Sa**	**1.07**	**28**	P	**Pb**	**02 20 57.2**	**-1.0**
PMON	**Piamonte**	**1.15**	**57**	P	**Pb**	**02 20 58.1**	**-1.5**
PMON				S	**Sb**	**02 21 16.8**	**+2.6**
UNIC	**Universidad Ca**	**1.16**	**39**	P	**Pb**	**02 20 57.5**	**-2.2**
UNIC				S	**Sb**	**02 21 15.8**	**+1.3**
UEES	**Universidad Ev**	**1.22**	**58**	P	**Pb**	**02 20 58.9**	**-1.7**
UEES				S	**Sb**	**02 21 17.8**	**+1.7**
LOMA	**Loma Larga**	**1.24**	**63**	P	**Pn**	**02 20 58.5**	**-0.8**
LOMA	**Loma Larga**	**1.24**	**63**	*i* P	**Pn**	**02 20 58.0**	**-1.2**
LOMA				*e*S	**Sb**	**02 21 20.4**	**+3.7**
UDBS	**Universidad Do**	**1.29**	**60**	P	**Pb**	**02 21 01.1**	**-0.6**
LFU	**La Fuente**	**1.34**	**60**	*i* P	**Pb**	**02 21 01.0**	**-1.6**
SJTE	**Alcalda de S**	**1.37**	**67**	*i* P	**Pn**	**02 21 00.5**	**-0.5**
SJTE				*e*S	**Sb**	**02 21 21.8**	**+1.3**
JUAM	**Asuncion Mita**	**1.38**	**25**	*e*P	**Pb**	**02 21 01.4**	**-2.0**
PAVA	**Las Pavas**	**1.48**	**64**	P	**Pb**	**02 21 03.7**	**-1.3**
PAVA	**Las Pavas**	**1.48**	**64**	*i* P	**Pb**	**02 21 03.3**	**-1.7**
COEG	**Centro de Oper**	**1.49**	**68**	P	**Pn**	**02 21 01.9**	**-0.7**
COEG				S	**Sb**	**02 21 24.0**	**+0.2**
COEG	**Centro de Oper**	**1.49**	**68**	*i* P	**Pn**	**02 21 02.1**	**-0.5**
TECO	**Alcaldia de Te**	**1.55**	**73**	P	**Pn**	**02 21 02.2**	**-1.2**
TECO				S	**Sn**	**02 21 23.3**	**+0.8**
TECO	**Alcaldia de Te**	**1.55**	**73**	*i* P	**Pn**	**02 21 02.5**	**-0.9**
TECO				*e*S	**Sn**	**02 21 24.8**	**+2.2**
MTO3	**Montecristo**	**1.60**	**35**	P	**Pb**	**02 21 04.3**	**-3.0**
MTO3	**Montecristo**	**1.60**	**35**	*e*P	**Pb**	**02 21 04.6**	**-2.7**
SCLA	**Alcaldia de Sa**	**1.

ISC 22 02:33:49.5±0.4,0.82S±0.05×127.65E±0.06,h10km,n102,
σ1s20/100,mb4.5/42,Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.60**	**350**		**Pn**	**02 34 17.8**	**-0.1**
TNTI	**Ternate**	**1.60**	**350**	P	**Pn**	**02 34 17.9**	**-0.1**
TNTI				AML	AML		
TNTI	**Ternate**	**1.60**	**350**	P	**Pn**	**02 34 17.8**	**-0.1**
SANI	**Sanana**	**2.06**	**234**	P	**Pn**	**02 34 23.4**	**-0.9**
SANI				S	**Sb**	**02 34 53.2**	**+0.4**
SANI	**Sanana**	**2.06**	**234**	P	**Pn**	**02 34 23.9**	**-0.4**
MNI	**Manado**	**3.59**	**309**	P	**Pn**	**02 34 46.8**	**+1.4**
MNI				AML	AML		
KMSI	**Cibinong**	**3.92**	**291**	P	**Pn**	**02 34 51.0**	**+1.2**
KMSI	**Cibinong**	**3.92**	**291**	P	**Pn**	**02 34 51.4**	**+1.6**
LUWI	**Luwuk**	**4.88**	**267**		**Pn**	**02 35 03.6**	**+0.5**
LUWI	**Luwuk**	**4.88**	**267**	P	**Pn**	**02 35 03.8**	**+0.8**
LUWI				AML	AML		
LUWI	**Luwuk**	**4.88**	**267**	P	**Pn**	**02 35 02.7**	**-0.3**
FAKI	**Fak Fak**	**5.05**	**114**		**Pn**	**02 35 06.4**	**+1.0**
FAKI	**Fak Fak**	**5.05**	**114**	P	**Pn**	**02 35 06.6**	**+1.2**
	0.3nm1μm112nm,0.9s						
FAKI				AML	AML		
FAKI	**Fak Fak**	**5.05**	**114**	P	**Pn**	**02 35 06.5**	**+1.2**
	comp=Z,112nm,1.0s						
APSI	**Ampana**	**6.00**	**269**	P	**Pn**	**02 35 19.2**	**+0.8**
	comp=Z,2μmcomp=Z,114nm,0.8s						
APSI	**Ampana**	**6.00**	**269**	P	**Pn**	**02 35 19.3**	**+0.8**
	comp=Z,112nm,0.8s						
TOLI2	**Tolitoli**	**7.13**	**286**		**Pn**	**02 35 34.3**	**+0.3**
TOLI2	**Tolitoli**	**7.13**	**286**	P	**Pn**	**02 35 34.3**	**+0.3**
	comp=Z,18nm,0.8s						
MPSI	**Mapaga**	**7.83**	**278**	P	Pn	02 35 49.7	+6.1
MPSI	**Mapaga**	**7.83**	**278**	P	**Pn**	**02 35 45.8**	**+2.2**
	comp=Z,20nm,0.8s						
TTSI	**Tana Toraja**	**8.13**	**254**	P	**Pn**	**02 35 51.1**	**+3.4**
	comp=Z,1μmcomp=Z,45nm,0.6s						
TTSI	**Tana Toraja**	**8.13**	**254**	P	**Pn**	**02 35 49.9**	**+2.2**
	comp=Z,21nm,0.7s						
BAKI	**Biak**	**8.46**	**93**	P	Pn	02 36 00.5	+8.2
SPSI	**Sidrap Palu**	**8.47**	**248**	P	**Pn**	**02 35 53.7**	**+1.3**
SPSI	**Sidrap Palu**	**8.47**	**248**	P	**Pn**	**02 35 54.1**	**+1.7**
	comp=Z,153nm,0.5s						
BKSI	**Bulukumba**	**8.75**	**239**	P	Pn	02 36 08.1	+12
BKSI	**Bulukumba**	**8.75**	**239**	P	**Pn**	**02 35 56.0**	**-0.1**
	comp=Z,42nm,0.9s						
KAPI	**Kappang**	**8.92**	**242**	Pn	**Pn**	**02 36 01.4**	**+2.8**
	comp=Z,2.6nm,0.3s,baz=61,slow=4.0,SNR=4.9						
	comp=Z,14nm,0.5s						
KAPI				AML	AML		
MMSI	**Mamuju**	**8.93**	**258**	P	Pn	02 36 04.7	+6.0
EDFI	**Ende, Flores**	**9.87**	**217**	P	**Pn**	**02 36 09.9**	**-1.7**
	comp=Z,13nm,1.2s						
MTN	**Manton Dam**	**12.44**	**164**	Pn	**Pn**	**02 36 46.7**	**-0.1**
GENI	**Genyem**	**12.64**	**98**	P	**Pn**	**02 36 51.8**	**+2.3**
	comp=Z,38nm,0.9s						
RTBI	**Rangdo, Negare**	**14.76**	**239**	P	**Pn**	**02 37 17.3**	**-1.2**
	comp=Z,38nm,1.0s						
ABJI	**Asem Bagus**	**15.06**	**242**	P	**Pn**	**02 37 23.4**	**+0.9**
	comp=Z,28nm,1.1s						
BYJI	**Banyuwangi**	**15.14**	**241**	P	**Pn**	**02 37 25.1**	**+1.4**
	comp=Z,139nm,1.0s						
GMJI	**Gumukmas**	**15.97**	**242**	P	**Pn**	**02 37 33.3**	**-1.2**
	comp=Z,29nm,1.1s						
SJI	**Sawahan**	**17.26**	**246**	P	**P**	**02 37 52.3**	**-0.1**
	comp=Z,19nm,2.0s						
FITZ	**Fitzroy Crossi**	**17.29**	**186**	P	**P**	**02 37 52.5**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=27,slow=8.5,SNR=5.6						
	comp=Z,2.1nm,0.7s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.29**	**186**		**Pn**	**02 37 51.9**	**+0.8**
FITZ	**Fitzroy Crossi**	**17.29**	**186**	P	**Pn**	**02 37 52.0**	**+0.8**
	comp=Z,1.8nm,2.4s						
KPJI	**Karang Pucung**	**19.75**	**250**	P	**Pn**	**02 38 21.9**	**+0.6**
	comp=Z,25nm,1.1s						
WB0	**Warramunga Arr**	**19.96**	**161**		**P**	**02 38 21.5**	**-0.5**
WRAB	**Tennant Creek**	**20.10**	**161**	P	**P**	**02 38 22.3**	**-1.3**
	comp=Z,11nm,1.4s						
WRA	**Warramunga Arr**	**20.11**	**161**	P	**P**	**02 38 22.6**	**-1.1**
	comp=Z,4.2nm,0.9s,baz=340,slow=11,SNR=13						
	comp=Z,4.2nm,0.9s						
WR8	**Warramunga Arr**	**20.17**	**161**		**P**	**02 38 23.3**	**-1.0**
WR8				IAmb	IAmb	02 38 31.1	
	comp=Z,13nm,1.2s						
BBJI	**Bungbulang**	**21.00**	**251**	P	**P**	**02 38 32.3**	**-1.2**
	comp=Z,17nm,1.1s						
CGJI	**Cibinong**	**22.64**	**255**	P	**P**	**02 38 53.2**	**+2.2**
	comp=Z,24nm,1.2s						
QIS	**Mount Isa**	**22.84**	**150**	P	**P**	**02 38 52.6**	**-0.4**
	comp=Z,15nm,1.5s						
AS31	**Alice Springs**	**23.51**	**165**		**P**	**02 38 59.8**	**-0.1**
ASAR	**Alice Springs**	**23.51**	**165**	P	**P**	**02 39 00.1**	**+0.2**
	comp=Z,9.2nm,0.8s,baz=345,slow=9.9,SNR=74						
ASAR				S	**S**	**02 43 12.6**	**-1.3**
	comp=Z,1.6nm,1.0s,baz=347,slow=19,SNR=6.6						
	comp=Z,9.2nm,0.8s						
ASAR	**Alice Springs**	**23.51**	**165**		**P**	**02 38 59.6**	**-0.3**
MTSU	**Mount Surprise**	**23.75**	**137**	P	**P**	**02 39 02.7**	**+0.4**
	comp=Z,5.4nm,1.1s						
TWG	**Pinlang**	**24.35**	**345**	P	**P**	**02 39 08.0**	**+0.1**
	comp=Z,25nm,0.8s						
TPUB	**Ta-pu**	**24.93**	**345**		**P**	**02 39 11.9**	**-1.1**
TPUB				IAmb	IAmb	02 39 17.9	
	comp=Z,65nm,1.2s						
TPUB	**Ta-pu**	**24.93**	**345**	P	**P**	**02 39 12.7**	**-0.4**
	comp=Z,48nm,0.9s						
MASI	**Maura Aman, Be**	**25.50**	**264**	P	**P**	**02 39 18.1**	**-0.3**
	comp=Z,69nm,1.1s						
JOW	**Kunigami**	**27.49**	**1**	P	**P**	**02 39 36.7**	**+0.5**
	comp=Z,25nm,1.3s						
RPSI	**Rantau Prapat**	**28.93**	**277**	P	**P**	**02 39 50.1**	**+0.9**
RPSI				IAmb	IAmb	02 39 54.8	
	comp=Z,16nm,1.1s						
RPSI	**Rantau Prapat**	**28.93**	**277**	P	**P**	**02 39 49.0**	**-0.2**
	comp=Z,16nm,1.2s						
FORT	**Forrest**	**29.80**	**179**	P	**P**	**02 39 57.2**	**+0.5**
FORT				IAmb	IAmb	02 40 02.5	
	comp=Z,8.6nm,0.9s						
KCSI	**Kotacane, Aceh**	**30.17**	**278**	P	**P**	**02 39 59.1**	**-1.1**
	comp=Z,6.6nm,1.1s						
QLP	**Quilpie**	**30.18**	**149**	P	**P**	**02 40 00.7**	**+0.6**
	comp=Z,7.6nm,1.3s						
COCO	**West Island**	**32.58**	**248**	P	**P**	**02 40 21.6**	**+0.1**
	comp=Z,135nm,1.7s						
BBOO	**Buckleboo**	**32.80**	**167**	P	**P**	**02 40 23.3**	**+0.2**
BBOO	**Buckleboo**	**32.80**	**167**	P	**P**	**02 40 23.6**	**+0.5**
	comp=Z,22nm,1.1s						
STKA	**Stephens Creek**	**33.59**	**158**	P	**P**	**02 40 30.4**	**+0.4**
	comp=Z,2.4nm,0.7s,baz=340,slow=5.6,SNR=4.9						
	comp=Z,2.4nm,0.7s						
STKA	**Stephens Creek**	**33.59**	**158**	P	**P**	**02 40 31.4**	**+1.3**
NJ2	**Nanjing**	**33.73**	**346**	*eP*	**P**	**02 40 33.6**	**+2.3**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
CMAR	**Chiang Mai Arr**	**34.11**	**306**	P	**P**	**02 40 35.1**	**+0.4**
	comp=Z,1.2nm,0.3s,baz=138,slow=5.8,SNR=6.2						
	comp=Z,1.2nm,0.3s						
CHTO	**Chiang Mai**	**34.29**	**306**	P	**P**	**02 40 35.9**	**-0.4**
	comp=Z,4.9nm,2.1s						
CMSA	**Cobar Meteorol**	**35.00**	**153**	P	**P**	**02 40 43.5**	**+1.2**
	comp=Z,6.4nm,1.2s						
KMI2	**Kunming**	**35.31**	**319**	P	**P**	**02 40 46.9**	**+1.5**
KMI2				pmax	pmax		
	comp=Z,16nm,0.9s						
INU	**Inuyama**	**37.03**	**13**	P	**P**	**02 40 59.2**	**-0.3**
	comp=Z,16nm,2.0s						
ARMA	**Armidale**	**37.22**	**145**	P	**P**	**02 41 01.8**	**+0.3**
	comp=Z,11nm,2.9s						
KSRS	**Korea Array**	**38.08**	**0**	P	**P**	**02 41 08.0**	**-0.4**
	comp=Z,2.1nm,0.9s,baz=176,slow=9.2,SNR=5.6						
	comp=Z,2.1nm,0.9s						
MJAR	**Matsushiro Arr**	**38.44**	**14**	P	**P**	**02 41 09.8**	**-1.8**
	comp=Z,1.8nm,0.8s,baz=184,slow=9.7,SNR=4.9						
	comp=Z,1.8nm,0.8s						
XAN	**Xi'an**	**38.88**	**335**	P	**P**	**02 41 15.1**	**-0.2**
XAN				pmax	pmax		
	comp=Z,10.0nm,0.8s						
LZDM	**Lanzhou Array**	**42.85**	**331**	P	**P**	**02 41 46.4**	**-2.0**
	comp=Z,0.7nm,0.3s,baz=158,slow=12,SNR=1.4						
	comp=Z,0.7nm,0.3s						
HHC	**Hu-ho-hao-te**	**43.98**	**342**	*eP*	**P**	**02 41 59.3**	**+2.1**
HHC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CN2	**Changchun**	**44.46**	**358**	P	**P**	**02 42 00.8**	**-0.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
XLT	**XiLinHaoTe**	**45.70**	**348**	*eP*	**P**	**02 42 09.6**	**-1.3**
XLT				pmax	pmax		
	comp=Z,9.0nm,0.9s						
GTA2	**Gaotai**	**47.55**	**331**	*eP*	**P**	**02 42 25.8**	**+0.3**
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
EVN	**Everest**	**48.50**	**309**	P	**P**	**02 42 33.6**	**0.0**
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**02 42 56.9**	**-1.4**
	comp=Z,2.0nm,1.0s,baz=157,slow=8.8,SNR=5.4						
	comp=Z,2.0nm,1.0s						
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**02 42 56.9**	**-1.4**
SONM				IAmb	IAmb	02 43 02.4	
	comp=Z,3.9nm,1.3s						
PETK	**Petropavlovsk-**	**59.30**	**21**	P	**P**	**02 43 51.8**	**+0.3**
	comp=Z,3.0nm,0.8s,baz=232,slow=7.0,SNR=2.3						
	comp=Z,3.0nm,0.8s						
PDGK	**Podgornoye**	**61.51**	**322**		**P**	**02 44 05.4**	**-1.4**
MKAR	**Makanchi Array**	**61.81**	**326**	P	**P**	**02 44 07.9**	**-0.8**
	comp=Z,2.2nm,0.8s,baz=116,slow=8.3,SNR=18						
	comp=Z,2.2nm,0.6s						
MKAR	**Makanchi Array**	**61.81**	**326**	P	**P**	**02 44 07.3**	**-1.4**
KSH2	**Kashi**	**62.03**	**316**	P	**P**	**02 44 10.8**	**+0.2**
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ZALV	**Zalesovo Beam**	**65.04**	**334**	P	**P**	**02 44 27.8**	**-2.1**
	comp=Z,0.8nm,0.7s,baz=129,slow=4.0,SNR=6.0						
	comp=Z,0.8nm,0.7s						
ZALV	**Zalesovo Beam**	**65.04**	**334**	P	**P**	**02 44 28.0**	**-1.9**
KURBB	**Kurchatov Arra**	**66.05**	**328**	P	**P**	**02 44 35.1**	**-1.4**
	comp=Z,4.0nm,0.7s,baz=128,slow=6.1,SNR=24						
	comp=Z,4.0nm,0.7s						
KURK	**Kurchatov**	**66.05**	**328**	P	**P**	**02 44 35.3**	**-1.3**
KURK				IAmb	IAmb	02 44 41.3	
	comp=Z,8.5nm,0.8s						
KKAR	**Karatay Array**	**67.19**	**318**	P	**P**	**02 44 43.9**	**-0.1**
BVAR	**Borovoye Array**	**71.62**	**328**	P	**P**	**02 45 09.6**	**-1.6**
	comp=Z,1.6nm,0.8s,baz=124,slow=7.4,SNR=11						
	comp=Z,1.6nm,0.8s						
BORK	**Borovoye**	**71.66**	**328**	P	**P**	**02 45 10.0**	**-1.4**
BORK				IAmb	IAmb	02 45 15.7	
	comp=Z,6.2nm,0.8s						
AB31	**Akbulak array**	**76.24**	**321**	P	**P**	**02 45 36.1**	**-2.2**
AB31				IAmb	IAmb	02 45 42.5	
	comp=Z,4.0nm,1.0s						
ABKAR	**Akbulak array**	**76.24**	**321**	P	**P**	**02 45 36.7**	**-1.7**
QSPA	**South Pole Qui**	**89.12**	**180**	P	**P**	**02 46 44.9**	**-0.2**
	comp=Z,1.4nm,0.8s,baz=336,slow=1.8,SNR=4.1						
	comp=Z,1.4nm,0.8s						
QSPA	**South Pole Qui**	**89.12**	**180**	P	**P**	**02 46 44.5**	**-0.6**
QSPA				IAmb	IAmb	02 46 53.8	
	comp=Z,4.2nm,1.2s						
CPUP	**Villa Florida**	**152.59**	**170**	PKPbc	**PKiKP**	**02 53 48.3**	**+0.9**
	comp=Z,1.0nm,0.8s,baz=94,slow=3.0,SNR=3.8						

NOU 22 03:03:53.8,16.89S×167.79E,h28km,mb3.9/12,Vanuatu Islands,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase		Time	Res
				Op	ISC	h m s	ISC
DVP	**Devils Point**	**0.91**	**156**	P	Pb	03 04 11.1	0.0
DVP	**Devils Point**	**0.91**	**156**	S	Sb	03 04 22.8	-0.1
RTV	**Rentapao**	**1.08**	**146**	P	Pb	03 04 14.3	+0.4
SANVU	**Saraoutou**	**1.54**	**338**	P	Pn	03 04 19.2	-0.2
SANVU	**Saraoutou**	**1.54**	**338**	S	Sn	03 04 39.1	+0.6
YATNC	**Mamie plateau,**	**5.21**	**189**	P	Pn	03 05 10.6	+0.7
YATNC	**Mamie plateau,**	**5.21**	**189**	S	Sn	03 06 08.6	-0.5
OUENC	**Ouen Island, N**	**5.57**	**189**	P	Pn	03 05 16.6	+1.7

SJA 22 03:12:10.2±0.4,25.07S×71.67W,h15km,ML3.5,MW3.6
GUC 22 03:12:17.6±0.7,25.19S×70.81W,h28km±3km,ML3.4,
Presumed earthquake
ISC 22 03:12:13.4±1.9,25.13S±0.03×71.12W±0.08,h7km±16km,
n33,σ1s71/49,3C,Off coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB14	**IPOC Station P**	**0.82**	**52**	*eP*	**Pn**	**03 12 31.3**	**-0.3**
PB14				*eS*	**Sb**	**03 12 41.2**	**-0.3**
PB14				IAML		03 12 41.5	
	comp=Z,2μm,0.3s						
PB14	**IPOC Station P**	**0.82**	**52**	⇑*iP*	**Pn**	**03 12 31.3**	**-0.3**
PB14				*eS*	**Sb**	**03 12 40.9**	**-0.6**
PB14				IAML		03 12 41.7	
	comp=E,3μm,0.3s						
AC01	**Pan de Azucar**	**1.12**	**155**	*eP*	**Pn**	**03 12 35.6**	**+0.1**
AC01				IAML		03 12 50.1	
	comp=Z,320nm,0.1s						
AC01				*eS*	**Sn**	**03 12 50.2**	**-0.9**
AC01	**Pan de Azucar**	**1.12**	**155**	⇑*iP*	**Pn**	**03 12 35.5**	**0.0**
AC01				*eS*	**Sn**	**03 12 48.3**	**-2.8**
AC01				IAML		03 12 50.6	
	comp=E,940nm,0.2s						
AC06	**Mina Casimiro**	**2.32**	**163**	*eP*	**Pn**	**03 12 53.3**	**+1.3**
AC06				*eS*	**Sn**	**03 13 21.3**	**+0.4**
AC06				IAML		03 13 30.1	
	comp=E,250nm,0.2s						
PB05	**IPOC Station P**	**2.42**	**20**	*eP*	**Pb**	**03 12 54.3**	**-3.0**
PB05				*eS*	**Sg**	**03 13 31.6**	**+0.6**
PB05	**IPOC Station P**	**2.42**	**20**	⇑*iP*	**Pb**	**03 12 54.3**	**-3.0**
PB05				IAML		03 13 41.0	
	comp=N,165nm,0.2s						
AC02	**Maricunga**	**2.47**	**134**	*eP*	**Pn**	**03 12 56.5**	**+2.0**
AC02				*eS*	Sn	03 13 21.5	-3.6
AC02				IAML		03 13 31.6	
	comp=Z,386nm,0.7s						
AC02	**Maricunga**	**2.47**	**134**	*eP*	**Pn**	**03 12 56.3**	**+1.8**
AC02				*eS*	**Sn**	**03 13 23.8**	**-1.4**
AC02				IAML		03 13 30.8	
	comp=E,609nm,0.3s						
GO03	**Copiapo**	**2.58**	**162**	*eP*	**Pn**	**03 12 57.5**	**+1.9**
GO03				*eS*	**Sb**	**03 13 34.4**	**+2.4**
GO03				IAML		03 13 36.5	
	comp=Z,127nm,0.3s						
GO03	**Copiapo**	**2.58**	**162**	*eP*	**Pn**	**03 12 57.2**	**+1.6**
GO03				*eS*	**Sn**	**03 13 27.7**	**+0.4**
GO03				IAML		03 13 40.2	
	comp=E,176nm,0.3s						
PB06	**IPOC Station P**	**2.80**	**31**	*eP*	**Pn**	**03 13 00.5**	**+1.8**
PB06				*eS*	**Sb**	**03 13 39.0**	**+0.7**
PB06				IAML		03 13 55.4	
	comp=Z,110nm,0.4s						
PB06	**IPOC Station P**	**2.80**	**31**	*eP*	**Pn**	**03 13 00.0**	**+1.3**
PB06				IAML		03 13 46.5	
	comp=E,185nm,0.3s						
AC04	**Llanos de Chal**	**3.06**	**179**	*eP*	**Pn**	**03 13 02.0**	**-0.2**
AC04				*eS*	**Sg**	**03 13 51.5**	**-0.3**
AC04	**Llanos de Chal**	**3.06**	**179**	*eP*	**Pn**	**03 13 01.9**	**-0.3**
AC04				IAML		03 14 03.0	
	comp=E,58nm,0.4s						
PB03	**IPOC Station P**	**3.31**	**22**	*eP*	**Pn**	**03 13 06.9**	**+1.1**
PB03				*eS*	**Sb**	**03 13 53.9**	**+0.7**
PB03				IAML		03 14 03.0	
	comp=Z,124nm,0.9s						
PB03	**IPOC Station P**	**3.31**	**22**	*eP*	**Pn**	**03 13 06.7**	**+0.9**
PB03				IAML		03 14 02.7	
	comp=E,96nm,0.2s						
AF01	**San Pedro de A**	**3.45**	**52**	*eP*	**Pb**	**03 13 13.4**	**-1.6**
AF01				*eS*	**Sb**	**03 13 59.1**	**+1.8**
AF01	**San Pedro de A**	**3.45**	**52**	*eP*	**Pn**	**03 13 09.2**	**+1.4**
PB07	**IPOC Station P**	**3.57**	**19**	*eP*	**Pn**	**03 13 10.2**	**+0.8**
PB07				*eS*	**Sb**	**03 14 04.2**	**+3.6**
PB07				IAML		03 14 13.1	
	comp=Z,105nm,0.8s						
PB07	**IPOC Station P**	**3.57**	**19**	*eP*	**Pn**	**03 13 10.2**	**+0.8**
PB07				IAML		03 14 12.2	
	comp=E,123nm,0.7s						
PB09	**IPOC Station P**	**3.74**	**28**	*eP*	**Pn**	**03 13 13.6**	**+1.9**
PB09				*eS*	**Sg**	**03 14 15.6**	**+2.1**
PB09				IAML		03 14 17.5	
	comp=Z,101nm,0.5s						
PB09	**IPOC Station P**	**3.74**	**28**	*eP*	**Pn**	**03 13 13.5**	**+1.9**
AC05	**El Transito**	**3.77**	**169**	*eP*	**Pn**	**03 13 14.0**	**+2.0**
AC05				*eS*	**Sb**	**03 14 03.5**	**-2.7**
AC05				IAML		03 14 19.7	
	comp=Z,50nm,0.5s						
AC05	**El Transito**	**3.77**	**169**	*eP*	**Pn**	**03 13 13.8**	**+1.7**
LCO	**Las Campanas**	**3.88**	**175**	*eP*	**Pn**	**03 13 14.7**	**+0.9**
LCO				*eS*	**Sb**	**03 14 14.0**	**+4.2**
LCO				IAML		03 14 22.3	
	comp=Z,67nm,0.2s						
LCO	**Las Campanas**	**3.88**	**175**	*eP*	**Pn**	**03 13 15.0**	**+1.2**
PB02	**IPOC Station P**	**3.96**	**17**	*eP*	**Pn**	**03 13 15.5**	**+0.9**
PB02				IAML		03 14 29.5	
	comp=Z,80nm,0.5s						
PB02	**IPOC Station P**	**3.96**	**17**	*eP*	**Pn**	**03 13 15.0**	**+0.4**
TA01	**Diego Aracena**	**4.62**	**11**	*eP*	**Pn**	**03 13 24.4**	**+0.7**
TA01				IAML		03 14 55.4	
	comp=Z,28nm,0.8s						
GO04	**Tololo Observa**	**5.03**	**177**	*eP*	**Pn**	**03 13 30.6**	**+1.0**
GO04				IAML		03 15 11.2	
	comp=Z,50nm,0.7s						
AROD	**Rodeo**	**5.22**	**164**	*eP*	Pn	03 13 35.9	+3.6
PB08	**IPOC Station P**	**5.29**	**20**	*eP*	**Pn**	**03 13 34.6**	**+1.5**
PB08				IAML		03 15 09.9	
	comp=Z,22nm,1.0s						

NNC 22 03:12:57.6±0.4,42.93N×77.76E,h4km±2km,mb2.6,
mpv2.5,Error ellipse: s-maj=4.5km s-min=1.6km az=0.0
KRNET 22 03:12:58.3±0.1,42.88N×77.66E,h28km,mb2.5
SOME 22 03:12:58.8,42.93N×77.68E,h15km
ISC 22 03:12:57.6±1.0,42.92N±0.03×77.72E±0.02,h14km±10km,
n29,σ0s60/56,7C-15D,Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase		Time	Res
				Op	ISC	h m s	ISC
ANVS	**Anan'yevo**	**0.14**	**194**	⇓*eP*	**Pb**	**03 13 02.6**	**+0.4**
ANVS				⇓*eS*	**Sb**	**03 13 06.3**	**+1.1**
SATY	**Saty**	**0.53**	**75**	P	**Pg**	**03 13 08.3**	**+0.2**
	7.5nm,0.1s						
SATY				S	**Sg**	**03 13 15.1**	**+0.1**
	109nm,0.1s						
SATY	**Saty**	**0.53**	**75**	*eP*	**Pg**	**03 13 08.3**	**+0.2**
	7.5nm,0.1s						
SATY				*eS*	**Sg**	**03 13 15.1**	**+0.1**
	109nm,0.1s						
KOTS	**Kotyrbulak**	**0.54**	**305**	P	**Pb**	**03 13 09.1**	**+0.1**
	5.4nm,0.2s						
KOTS				S	**Sb**	**03 13 16.7**	**+0.1**
	6.3nm,0.2s						
KOTS	**Kotyrbulak**	**0.54**	**305**	*eP*	**Pb**	**03 13 09.1**	**+0.1**
	5.4nm,0.2s						
KOTS				*eS*	**Sb**	**03 13 16.7**	**+0.1**
	6.3nm,0.2s						
MDOK	**Medeo**	**0.55**	**296**	Pg	**Pb**	**03 13 08.9**	**-0.1**
	5.9nm,0.2s						
MDOK				Lg	Lg	03 13 16.5	
	17nm,0.4s						
MDOK	**Medeo**	**0.55**	**296**	*eP*	**Pb**	**03 13 08.9**	**-0.1**
	5.9nm,0.2s						
MDOK				*eS*	**Sb**	**03 13 16.4**	**-0.3**
	17nm,0.4s						
KURS	**Kuram**	**0.66**	**30**	P	**Pg**	**03 13 10.6**	**+0.1**
	0.2nm,0.1s						
KURS				S	**Sg**	**03 13 19.3**	**+0.2**
	7.9nm,0.6s						
KURS	**Kuram**	**0.66**	**30**	*eP*	**Pg**	**03 13 10.6**	**+0.1**
	0.2nm,0.1s						
KURS				*eS*	**Sg**	**03 13 19.3**	**+0.2**
	7.9nm,0.6s						
PRZ	**Przheval'sk**	**0.67**	**131**	⇑*eP*	**Pb**	**03 13 11.2**	**0.0**
PRZ				⇑*eS*	**Sb**	**03 13 20.5**	**+0.1**
KDJ	**Kajisay**	**0.89**	**207**	⇓*eP*	**Pb**	**03 13 13.8**	**-1.0**
KDJ				⇓*eS*	**Sb**	**03 13 25.4**	**-1.2**
KPKS	**Kokpek**	**0.89**	**52**	P	**Pb**	**03 13 14.4**	**-0.5**
	0.2nm,0.1s						
KPKS				S	**Sb**	**03 13 25.9**	**-0.8**
	15nm,0.4s						
KPKS	**Kokpek**	**0.89**	**52**	*eP*	**Pb**	**03 13 14.4**	**-0.5**
	0.2nm,0.1s						
KPKS				*eS*	**Sb**	**03 13 25.9**	**-0.8**
	15nm,0.4s						
UZB	**Uzynbulak**	**0.98**	**76**	P	**Pb**	**03 13 16.1**	**-0.4**
	2.9nm,0.1s						
UZB				S	**Sb**	**03 13 28.8**	**-0.6**
	16nm,0.2s						
UZB	**Uzynbulak**	**0.98**	**76**	*eP*	**Pb**	**03 13 16.1**	**-0.4**
	2.9nm,0.1s						
UZB				*eS*	**Sb**	**03 13 28.8**	**-0.6**
	16nm,0.2s						
TARG	**Taragay, Kyrgy**	**1.20**	**177**	⇓*eP*	**Pb**	**03 13 19.9**	**-0.3**
TARG				⇓*eS*	**Sb**	**03 13 35.1**	**-0.6**
ULHL	**Ulahol**	**1.28**	**239**	⇓*eP*	**Pb**	**03 13 21.7**	**+0.1**
ULHL				⇓*eS*	**Sb**	**03 13 37.2**	**-0.8**
KST	**Kastek**	**1.29**	**276**	P	**Pg**	**03 13 22.6**	**+0.1**
	0.7nm,0.2s						
KST				S	**Sg**	**03 13 39.7**	**+0.4**
	5.0nm,0.2s						
KST	**Kastek**	**1.29**	**276**	*eP*	**Pg**	**03 13 22.6**	**+0.1**
	0.7nm,0.2s						
KST				*eS*	**Sg**	**03 13 39.8**	**+0.4**
	5.0nm,0.2s						
ARXS	**Arharly**	**1.29**	**4**	P	**Pg**	**03 13 22.2**	**-0.3**
	1.2nm,0.1s						
ARXS				S	**Sg**	**03 13 39.4**	**+0.1**
	7.4nm,0.1s						
ARXS	**Arharly**	**1.29**	**4**	*eP*	**Pg**	**03 13 22.2**	**-0.3**
	1.2nm,0.1s						
ARXS				*eS*	**

JORH	**JORHAT**	**0.65**	**314**	*i* P	**Pn**	**03 29 30.5**	**-0.7**
JORH				*i* S	**Sn**	**03 29 40.2**	**0.0**
JORH				IAML		03 29 43.1	
	comp=N,42μm,0.3s						
KOHI	**KOHIMA**	**0.82**	**227**	*i* P	**Pn**	**03 29 32.0**	**-1.7**
KOHI				IAML		03 29 54.0	
	comp=N,11μm,0.5s						
ITAN	**ITANAGAR**	**1.27**	**312**	*i* P	**Pn**	**03 29 41.2**	**+1.5**
ZIRO	**ZIRO**	**1.48**	**326**	*i* P	**Pn**	**03 29 46.8**	**+4.0**
ZIRO				*i* S	**Sn**	**03 30 08.1**	**+7.0**
IMP	**Imphal**	**1.64**	**207**	*i* P	**Pn**	**03 29 47.3**	**+2.5**
IMP				*i* S	**Sn**	**03 30 08.4**	**+3.7**
PASG	**PASIGHAT**	**1.83**	**16**	*i* P	Pn	03 29 57.0	+10
MORE	**Moreh**	**2.09**	**192**		**Pn**	**03 29 54.5**	**+3.4**
SILR	**SILCHAR**	**2.33**	**230**	*i* S	**Sn**	**03 30 24.3**	**+2.6**
SHL	**Shillong**	**2.70**	**255**		**Pn**	**03 30 01.2**	**+1.6**
SHL	**Shillong**	**2.70**	**255**	*i* P	**Pn**	**03 30 01.6**	**+2.1**
AZL	**Aizawl**	**3.17**	**217**	*i* P	**Pn**	**03 30 08.1**	**+2.1**
AZL				*i* S	**Sn**	**03 30 47.8**	**+5.2**
TNCH	**TengChong**	**3.61**	**110**	P	**Pn**	**03 30 15.3**	**+3.2**
TNCH				S	**Sn**	**03 30 57.8**	**+4.2**
TNCH				LR	LR		
	comp=N,2μm,1.9s						
TNCH				LR	LR		
	comp=E,810nm,2.2s						
TNCH				LR	LR		
	comp=Z,220nm,2.9s						
AGT	**Agartala**	**3.99**	**234**	*i* S	**Sn**	**03 31 04.8**	**+2.1**
BRDH	**Bariadhala**	**4.59**	**219**	Pn	**Pn**	**03 30 27.9**	**+2.4**
	comp=Z,16nm,0.3s,baz=260,slow=21,SNR=1.4						
BRDH				Sn	**Sn**	**03 31 19.7**	**+2.2**
	comp=Z,45nm,0.3s,baz=310,slow=21,SNR=9.3						
	comp=Z,75nm,0.3s						
BRDH				AML	AML		
LSA	**Lhasa**	**4.67**	**318**	Pg	**Pn**	**03 30 28.9**	**+2.0**
LSA				Sg	Sn	03 30 47.0	-33
LSA				smax	smax		
	comp=N,180nm,0.7s						
LSA				smax	smax		
	comp=E,97nm,0.5s						
LSA	**Lhasa**	**4.67**	**318**		**Pn**	**03 30 29.8**	**+2.9**
EVN	**Everest**	**7.28**	**285**		**Pn**	**03 31 04.2**	**+1.3**
CHTO	**Chiang Mai**	**8.38**	**152**		**Pn**	**03 31 19.2**	**+1.7**
CM31	**Chiang Mai Arr**	**8.70**	**153**	Pn	**Pn**	**03 31 24.4**	**+2.5**
CMAR	**Chiang Mai Arr**	**8.70**	**153**	Pn	**Pn**	**03 31 21.8**	**-0.1**
	comp=E,1.3nm,0.3s,baz=332,slow=13,SNR=28						
	comp=E,8.9nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**8.70**	**153**		**Pn**	**03 31 24.1**	**+2.2**
SLVN	**Son La**	**9.71**	**119**		**Pn**	**03 31 37.1**	**+1.3**
XAN	**Xi'an**	**14.46**	**54**	*e*P	**Pn**	**03 32 37.6**	**-3.1**
WMQ	**Urumqi**	**18.41**	**344**	*e*P	**Pn**	**03 33 32.3**	**+1.4**
NIL	**Nilore**	**20.01**	**297**	P	**P**	**03 33 47.4**	**-0.9**
NIL				IAmb	IAmb	03 34 01.2	
	comp=Z,11nm,0.7s						
HHC	**Hu-ho-hao-te**	**20.11**	**40**	*e*P	Pn	03 33 52.3	+1.0
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HNS	**HongShan**	**20.19**	**52**	⇓P	Pn	03 33 55.9	+3.7
KSH2	**Kashi**	**20.57**	**313**	P	**P**	**03 33 56.0**	**+1.6**
KSH2				pP	sP	03 34 10.8	+2.4
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
TARG	**Taragay, Kyrgy**	**20.80**	**322**	P	**P**	**03 33 54.5**	**-2.6**
PDGK	**Podgornoye**	**21.07**	**328**		**P**	**03 33 57.7**	**-2.0**
NJ2	**Nanjing**	**21.78**	**69**	*e*P	**P**	**03 34 06.9**	**-0.3**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
MKAR	**Makanchi Array**	**22.73**	**337**	P	**P**	**03 34 17.5**	**+0.1**
	comp=Z,1.5nm,0.5s,baz=142,slow=13,SNR=15						
	comp=Z,1.5nm,0.5s						
SONM	**Songino Array**	**23.37**	**20**	P	**P**	**03 34 24.1**	**+0.2**
	comp=Z,0.5nm,0.6s,baz=208,slow=10,SNR=5.0						
KBL	**Kabul**	**23.62**	**297**		**P**	**03 34 26.7**	**+0.1**
KBL				IAmb	IAmb	03 34 29.8	
	comp=Z,9.8nm,0.8s						
RPSI	**Rantau Prapat**	**23.80**	**170**	P	**P**	**03 34 24.7**	**-3.4**
RPSI				IAmb	IAmb	03 34 28.6	
	comp=Z,11nm,1.0s						
BTK	**Batken**	**24.20**	**311**	P	**P**	**03 34 32.4**	**+0.5**
KKAR	**Karatay Array**	**25.92**	**316**	P	**P**	**03 34 48.0**	**+0.7**
KURBB	**Kurchatov Arra**	**27.30**	**337**	P	**P**	**03 35 00.5**	**+0.9**
	comp=Z,0.5nm,0.6s,baz=148,slow=11,SNR=9.5						
	comp=Z,0.5nm,0.6s						
ZALV	**Zalesovo Beam**	**28.60**	**348**	P	**P**	**03 35 12.3**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=116,slow=9.8,SNR=1.5						
	comp=Z,0.2nm,0.3s						
ZALV	**Zalesovo Beam**	**28.60**	**348**	P	**P**	**03 35 11.4**	**+0.2**
BVAR	**Borovoye Array**	**32.33**	**332**	P	**P**	**03 35 45.6**	**+1.5**
	comp=Z,0.4nm,0.5s,baz=130,slow=10,SNR=5.6						
	comp=Z,0.4nm,0.5s						
BNX	**BinXian**	**32.44**	**45**	⇑P	**P**	**03 35 45.6**	**+0.4**
BNX				pmax	pmax		
	comp=Z,7.0nm,1.3s						
BRTR	**Keskin Array B**	**52.07**	**301**	P	**P**	**03 38 24.3**	**-0.8**
	comp=Z,0.6nm,0.7s,baz=101,slow=6.2,SNR=3.6						
	comp=Z,0.6nm,0.7s						
BRTR	**Keskin Array B**	**52.07**	**301**	P	**P**	**03 38 24.8**	**-0.4**
FITZ	**Fitzroy Crossi**	**53.35**	**143**	P	**P**	**03 38 32.9**	**-1.7**
	comp=Z,2.5nm,0.6s,baz=328,slow=4.6,SNR=12						
	comp=Z,2.5nm,0.6s						
FITZ	**Fitzroy Crossi**	**53.35**	**143**	P	**P**	**03 38 33.0**	**-1.6**
FITZ				IAmb	IAmb	03 38 51.3	
	comp=Z,2.8nm,1.4s						
AKASG	**Malin Array Be**	**54.81**	**315**	P	**P**	**03 38 46.6**	**+1.8**
	comp=Z,0.2nm,0.3s,baz=79,slow=7.2,SNR=5.5						
	comp=Z,0.2nm,0.3s						
FINES	**FINESS Array B**	**57.11**	**328**	P	**P**	**03 39 01.3**	**+0.2**
	comp=Z,13nm,1.1s,baz=56,slow=6.1,SNR=3.0						
	comp=Z,13nm,1.1s						
BURAR	**Bucovina Array**	**57.55**	**311**	P	**P**	**03 39 03.9**	**-0.7**
BURAR				IAmb	IAmb	03 39 31.1	
	comp=Z,2.7nm,1.3s						
WRA	**Warramunga Arr**	**59.89**	**136**	P	**P**	**03 39 19.9**	**-1.2**
	comp=Z,2.7nm,0.6s,baz=315,slow=7.3,SNR=34						
	comp=Z,2.7nm,0.6s						
WRA	**Warramunga Arr**	**59.89**	**136**	P	**P**	**03 39 19.4**	**-1.7**
WR8	**Warramunga Arr**	**60.00**	**136**	P	**P**	**03 39 20.8**	**-1.0**
VYHS	**Vyhne**	**61.70**	**313**	*e*P	**P**	**03 39 30.6**	**-2.5**
ASAR	**Alice Springs**	**62.44**	**139**	P	**P**	**03 39 37.4**	**-0.9**
	comp=Z,2.4nm,0.6s,baz=322,slow=6.6,SNR=28						
	comp=Z,2.4nm,0.6s						
ASAR	**Alice Springs**	**62.44**	**139**	P	**P**	**03 39 36.3**	**-2.0**
NWAO	**Narrogin (SRO)**	**62.65**	**159**	P	**P**	**03 39 37.6**	**-1.9**
GERES	**GERESS Array B**	**64.99**	**314**	P	**P**	**03 39 54.4**	**-0.6**
	comp=Z,0.3nm,0.5s,baz=63,slow=6.1,SNR=3.7						
	comp=Z,0.3nm,0.5s						
BMAR	**Burnt Mountain**	**76.72**	**20**	P	**P**	**03 41 07.3**	**+1.5**
F31M	**Tsiigehtchic**	**79.81**	**17**	P	**P**	**03 41 21.1**	**-1.6**
F31M				IAmb	IAmb	03 41 34.6	
	comp=Z,9.8nm,1.2s						
TORD	**Torodi Ar. Bea**	**86.98**	**283**	P	**P**	**03 42 00.7**	**0.0**
	comp=Z,1.0nm,0.9s,baz=29,slow=3.7,SNR=4.1						
	comp=Z,1.0nm,0.9s						

IDC ***22*** *03:31:54.5±1.4, 18°.07S×178°.22W, h584km±12km, mb3.1/9, mbtmp4.1/11, Error ellipse: s-maj=28.5km s-min=17.6km az=135.0*

NEIC ***22*** *03:31:54.1±2.6, 18°.1S±0°.1×178°.2W±0°.1, h572km±8km, mb4.4/16, Error ellipse: s-maj=24.2km s-min=16.7km az=141.0*

ISC 22 03:31:54.5±0.7, 18°.1S±0°.1×178°.2W±0°.1, h590km, n56, σ1§16/58, mb3.9/17, 1D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TAVE	**Taveuni**	**2.12**	**311**	P	**P**	**03 33 06.4**	**-2.1**
MSVF	**Nonsavu**	**3.55**	**276**	P	**P**	**03 33 14.8**	**-1.5**
	117nm,0.6s,baz=145,slow=5.0,SNR=122						
MSVF				S	**S**	**03 34 23.5**	**+0.5**
	27nm,1.2s,baz=136,slow=23,SNR=7.1						
MSVF	**Nonsavu**	**3.55**	**276**	P	**P**	**03 33 15.3**	**-1.1**
MSVF	**Nonsavu**	**3.55**	**276**	P	**P**	**03 33 15.4**	**-0.9**
FUTU	**Fugatoga**	**3.79**	**2**	P	**P**	**03 33 16.1**	**-1.8**
FUTU	**Fugatoga**	**3.79**	**2**	P	**P**	**03 33 16.1**	**-1.8**
AFI	**Afiamalu**	**7.49**	**57**	P	**P**	**03 33 44.2**	**-4.6**
	12nm,0.5s,baz=85,slow=9.1,SNR=4.1						
MARNC	**Mare, Loyalty**	**13.35**	**253**	P	**P**	**03 34 44.5**	**-2.5**
MARNC	**Mare, Loyalty**	**13.35**	**253**	P	**P**	**03 34 44.7**	**-2.3**
PINNC	**Pines Island,**	**14.15**	**249**	P	**P**	**03 34 53.2**	**-1.8**
SANVU	**Saraoutou**	**14.19**	**279**	P	**P**	**03 34 55.6**	**0.0**
DZM	**Mont Dzumac**	**14.92**	**252**	P	**P**	**03 35 01.2**	**-1.2**
	6.7nm,0.6s,baz=77,slow=17,SNR=2.8						
EIDS	**Eidsvold**	**29.35**	**250**	P	**P**	**03 37 11.7**	**+0.4**
EIDS				IAmb	IAmb	03 37 50.1	
	comp=Z,9.3nm,1.2s						
ARMA	**Armidale**	**29.98**	**240**	P	**P**	**03 37 17.6**	**+0.8**
ARMA				IAmb	IAmb	03 37 51.8	
	comp=Z,21nm,1.5s						
TOO	**Toolangi**	**37.17**	**231**	P	**P**	**03 38 17.3**	**+0.5**
TOO				IAmb	IAmb	03 38 31.4	
	comp=Z,5.0nm,1.2s						
STKA	**Stephens Creek**	**38.67**	**241**	P	**P**	**03 38 29.5**	**+0.4**
	comp=Z,1.5nm,0.4s,baz=92,slow=8.9,SNR=3.6						
	comp=Z,1.5nm,0.4s						
STKA	**Stephens Creek**	**38.67**	**241**	P	**P**	**03 38 29.4**	**+0.4**
AS31	**Alice Springs**	**44.89**	**254**	P	**P**	**03 39 18.6**	**+0.5**
ASAR	**Alice Springs**	**44.89**	**254**	P	**P**	**03 39 18.5**	**+0.5**
	comp=Z,1.7nm,0.4s,baz=90,slow=8.8,SNR=43						
ASAR				PcP	**PcP**	**03 40 47.1**	**+0.4**
	comp=Z,0.5nm,0.5s,baz=96,slow=3.9,SNR=5.2						
	comp=Z,1.7nm,0.4s						
ASAR	**Alice Springs**	**44.89**	**254**	P	**P**	**03 39 17.3**	**-0.7**
JGF	**Kuroka**	**68.00**	**322**	P	**P**	**03 41 55.3**	**-0.8**
MJAR	**Matsushiro Arr**	**68.17**	**323**	P	**P**	**03 41 56.7**	**-0.3**
	comp=Z,1.6nm,0.5s,baz=157,slow=5.9,SNR=8.9						
	comp=Z,1.6nm,0.5s						
MJAR	**Matsushiro Arr**	**68.17**	**323**	P	**P**	**03 41 56.7**	**-0.3**
ADK	**Adak**	**69.71**	**1**	P	**P**	**03 42 05.6**	**-0.2**
QSPA	**South Pole Qui**	**71.94**	**180**	P	**P**	**03 42 19.5**	**+0.5**
	comp=Z,0.4nm,0.7s,baz=278,slow=4.3,SNR=1.3						
	comp=Z,0.4nm,0.7s						
QSPA	**South Pole Qui**	**71.94**	**180**	P	**P**	**03 42 19.5**	**+0.5**
PETK	**Petropavlovsk-**	**73.92**	**345**	P	**P**	**03 42 30.6**	**+0.4**
	comp=Z,2.2nm,0.6s,baz=98,slow=4.9,SNR=5.1						
	comp=Z,2.2nm,0.6s						
PETK	**Petropavlovsk-**	**73.92**	**345**	P	**P**	**03 42 30.8**	**+0.6**
NVAR	**Mina Array Bea**	**79.46**	**44**	P	**P**	**03 43 01.1**	**+0.1**
	comp=Z,0.4nm,0.6s,baz=226,slow=9.2,SNR=5.0						
	comp=Z,0.4nm,0.6s						
M16K	**Timber Creek**	**80.37**	**9**	P	**P**	**03 43 06.1**	**+1.1**
M16K				IAmb	IAmb	03 43 47.2	
	comp=Z,17nm,1.4s						
K15K	**Wolf Creek Mou**	**81.22**	**8**	P	**P**	**03 43 10.6**	**+1.2**
I07A	**Izee**	**81.87**	**38**	P	**P**	**03 43 14.1**	**+0.9**
L18K	**Granite Mounta**	**81.87**	**10**	P	**P**	**03 43 13.6**	**+1.0**
L18K				IAmb	IAmb	03 43 28.0	
	comp=Z,17nm,1.5s						
K17K	**Iditarod**	**82.08**	**9**	P	**P**	**03 43 14.7**	**+1.0**
K17K				IAmb	IAmb	03 43 37.0	
	comp=Z,22nm,1.4s						
SUA	**Susitna One**	**82.30**	**13**	P	**P**	**03 43 14.3**	**-0.6**
SUA				IAmb	IAmb	03 43 28.9	
	comp=Z,19nm,1.4s						
J16K	**Anvik River**	**82.30**	**8**	P	**P**	**03 43 15.9**	**+1.1**
J16K				IAmb	IAmb	03 43 23.1	
	comp=Z,24nm,1.4s						
TXAR	**Lajitas Array**	**85.97**	**58**	P	**P**	**03 43 34.5**	**+0.9**
	comp=Z,0.4nm,0.7s,baz=217,slow=6.0,SNR=6.1						
	comp=Z,0.4nm,0.7s						
TXAR	**Lajitas Array**	**85.97**	**58**	P	**P**	**03 43 35.6**	**+1.9**
ILAR	**Eielson Array**	**86.05**	**13**	P	**P**	**03 43 32.5**	**-0.6**
	comp=Z,0.7nm,0.4s,baz=220,slow=5.0,SNR=26						
	comp=Z,0.7nm,0.4s						
ILAR	**Eielson Array**	**86.05**	**13**	P	**P**	**03 43 33.0**	**-0.1**
PDAR	**Pinedale Array**	**87.39**	**43**	P	**P**	**03 43 40.5**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=214,slow=1.6,SNR=3.8						
	comp=Z,0.4nm,0.6s						
BURAR	**Bucovina Array**	**144.87**	**332**	PKPbc	**PKPab**	**03 50 27.2**	**+0.3**
BRTR	**Keskin Array B**	**145.04**	**315**	PKPbc	**PKPbc**	**03 50 26.9**	**0.0**
	comp=Z,0.6nm,0.4s,baz=122,slow=3.3,SNR=7.1						
BRTR	**Keskin Array B**	**145.04**	**315**		**PKPbc**	**03 50 27.1**	**+0.3**
OSTC	**Ostas**	**145.63**	**344**	*e*PKP	**PKPab**	**03 50 29.5**	**-0.2**
UPC	**Upice**	**145.73**	**344**	*e*PKP	**PKPbc**	**03 50 29.2**	**+0.9**
STEB	**Steborice**	**145.75**	**342**	*e*PKP	**PKPdf**	**03 50 27.6**	**+1.0**
DPC	**Dobruska-Polom**	**145.79**	**343**	*e*PKP	**PKPbc**	**03 50 28.8**	**+0.3**
KRLC	**Kraliky**	**145.91**	**343**	*e*PKP	**PKPdf**	**03 50 26.5**	**-0.4**
ZVC	**Zvikov**	**147.18**	**345**	*e*PKP	**PKPbc**	**03 50 33.0**	**+0.8**
KHC	**Kasperske Hory**	**147.61**	**345**	*e*PKP	**PKPbc**	**03 50 33.9**	**+0.5**
CKRC	**Cesky Krumlov**	**147.72**	**344**	*e*PKP	**PKPbc**	**03 50 34.5**	**+0.8**
BMRD	**Maredsous**	**147.80**	**356**	*d*PKP	**PKPab**	**03 50 38.4**	**0.0**
GERES	**GERESS Array B**	**147.85**	**345**	PKPbc	**PKPbc**	**03 50 34.7**	**+0.6**
	comp=Z,1.6nm,0.7s,baz=21,slow=3.2,SNR=12						
GERES	**GERESS Array B**	**147.85**	**345**		**PKPbc**	**03 50 34.5**	**+0.4**
DAVOX	**Davos/Dischmat**	**150.64**	**349**	PKPbc	**PKPbc**	**03 50 41.4**	**+0.4**
	comp=Z,2.6nm,0.6s,baz=158,slow=11,SNR=4.2						

BGR ***22*** *03:52:19.0±1.9, 32°.57N×6°.90E, h5km, Ms4.4, Error ellipse: s-maj=68.9km s-min=51.1km az=89.0*

MOS ***22*** *03:53:04.9±1.3, 36°.54N×6°.63E, h9km, mb5.3/48, MS4.5/6, Error ellipse: s-maj=6.8km s-min=3.2km az=57.0*

IDC ***22*** *03:53:05.7±0.4, 36°.56N×6°.76E, h0km, mb4.6/34, mbtmp4.6/44, ML4.5/8, MS4.7/82, Error ellipse: s-maj=10.0km s-min=7.9km az=161.0*

CRAAG ***22*** *03:53:05.7, 36°.55N×6°.82E, Ml5.2, Algrie 08km SE Ain-Bouziane*

BJI ***22*** *03:53:07.9, 37°.23N×6°.85E, h12km, mB5.2/9, mb4.8/48, Ms5.2/22, Ms7 4.9/22*

LDG ***22*** *03:53:07.1±0.3, 36°.46N×7°.07E, h10km, Ml4.9/38, Error ellipse: s-maj=5.5km s-min=5.1km az=114.0*

MED_RC ***22*** *03:53:08.0, 36°.61N×6°.75E, h10km, Mw5.2, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.12±.15; $M_{\theta\theta}$-2.24±.14; $M_{\phi\phi}$0.00±.14; $M_{r\theta}$-0.09±.43; $M_{\theta\phi}$-6.23±.10; $M_{\phi r}$-0.85±.42; Fault plane solution: $M_0$6.66000×10^{16} NP1:ϕ_s190.00000°, δ89.00000°, λ7.00000°. Principal axes: T 6.6000, Plg6.0000°, Azm55.0000°; N 0.1000, Plg83.0000°, Azm195.0000°; P -6.7100, Plg5.0000°, Azm324.0000°;*

NAO ***22*** *03:53:08.3, 36°.61N×6°.75E, h10km, MB5.2*

NEIC ***22*** *03:53:08.5±2.5, 36°.64N±0°.06×6°.86E±0°.07, h10km±1km, mb5.3/553, Mww5.1/41, Error ellipse: s-maj=11.3km s-min=8.6km az=214.0*

NEIC ***22*** *03:53:08.6, 36°.67N×6°.88E, h10km*

GCMT ***22*** *03:53:08.5±0.2, 36°.60N±0°.01×6°.73E±0°.01, h14km±1km, MW5.2/134, Moment Tensor Solution. s56,c90; s134,c237; Duration: 1§0 Moment tensor: Scale 10^{16} Nm; M_{rr}0.79±.15; $M_{\theta\theta}$-4.11±.17; $M_{\phi\phi}$3.33±.15; $M_{r\theta}$0.15±.29; $M_{\theta\phi}$-7.25±.15; $M_{\phi r}$-2.24±.33; Best double couple: $M_0$8.47400×10^{16} NP1:ϕ_s103.00000°, δ75.00000°, λ174.00000°. NP2:ϕ_s194.00000°, δ84.00000°, λ15.00000°. Principal axes: T 8.2910, Plg15.0000°, Azm60.0000°; N 0.3730, Plg74.0000°, Azm215.0000°; P -8.6560, Plg6.0000°, Azm328.0000°; nsta1 refers to body waves, cutoff=40s nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***22*** *03:53:08.9, 36°.54N×6°.72E, h14km, Mw5.1/63, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.51; $M_{\theta\theta}$0.10; $M_{\phi\phi}$-1.61; $M_{r\theta}$0.27; $M_{\theta\phi}$-5.53; $M_{\phi r}$-1.28; Fault plane solution: $M_0$5.89123×10^{16} NP1: ϕ_s176.89136°, δ82.83276°, λ15.66031°. NP2:ϕ_s84.88814°, δ74.46515°, λ172.55948°. Principal axes: T 5.1414, Plg16.1172°, Azm41.7610°; N 1.2870, Plg72.8149°, Azm200.8829°; P -6.4283, Plg5.8058°, Azm310.0773°;*

IGIL ***22*** *03:53:08.7, 36°.65N×6°.76E, h10km, ms4.5*

GFZ ***22*** *03:53:09.3±0.2, 37°.N±2°×±°, h10km, M5.1/120, mb5.0/120*

NEIC ***22*** *03:53:13.1, 36°.57N×6°.75E, h12km, Moment Tensor Solution. Duration: 1§9 Moment tensor: Scale 10^{16}Nm; M_{rr}0.29; $M_{\theta\theta}$-2.38; $M_{\phi\phi}$2.09; $M_{r\theta}$-0.17; $M_{\theta\phi}$-5.86; $M_{\phi r}$1.22; Fault plane solution: $M_0$6.40000×10^{16} NP1: ϕ_s280.09000°, δ79.33000°, λ176.01000°. NP2: ϕ_s10.83000°, δ86.08000°, λ10.69000°. Principal axes: T 6.3285, Plg10.0000°, Azm236.0000°; N 0.1391, Plg79.0000°, Azm31.0000°; P -6.4676, Plg5.0000°, Azm145.0000°;*

ISC 22 03:53:07.6±0.6, 36°.58N±0°.03×6°.74E±0°.03, h10km±3km, h10km:pP-P, n1299, σ1§92/1135, mb5.2/326, MS4.7/86, 123C-60D, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CKFL	**Kef-Lekhel**	**0.18**	**184**	P	**Pg**	**03 53 10.5**	**-1.0**
CAEH	**'Ain El Ouahch**	**0.22**	**25**	P	**Pg**	**03 53 11.6**	**-0.5**
CASM	**Ain Smara**	**0.38**	**212**	P	**Pg**	**03 53 14.2**	**-0.9**
CBOS	**Bilal Ibnou Ra**	**0.40**	**302**	P	**Pg**	**03 53 15.9**	**+0.5**
CSGS	**Sigus**	**0.45**	**183**	P	**Pb**	**03 53 17.1**	**-0.6**
COAT	**Oued Athmania**	**0.51**	**227**	P	**Pg**	**03 53 17.4**	**0.0**
CTEI	**Djebel Teioual**	**0.58**	**207**	P	**Pg**	**03 53 18.3**	**-0.6**
DFRA	**Djebel Bou Aff**	**0.69**	**267**	P	**Pb**	**03 53 22.1**	**+0.3**
CJSR	**Ain Djasser**	**0.96**	**222**	P	**Pb**	**03 53 27.1**	**+0.7**
CTGD	**Timgad**	**1.06**	**189**	P	**Pn**	**03 53 28.7**	**+0.1**
CKHR	**Kef el Ahmar**	**1.14**	**241**	P	**Pb**	**03 53 29.4**	**0.0**
SET	**Setif**	**1.14**	**251**	P	Pn	03 53 35.0	+5.3
CBBAR	**Babar**	**1.48**	**165**	P	**Pn**	**03 53 33.9**	**-0.5**
CKTS	**El Kantara**	**1.60**	**212**	P	**Pn**	**03 53 35.3**	**-0.6**
ATKB	**Taksebt**	**2.11**	**273**	P	**Pn**	**03 53 42.9**	**0.0**
ATKJ	**Tikjda**	**2.11**	**267**	P	**Pn**	**03 53 43.2**	**+0.1**
CNGR	**Negrine**	**2.20**	**163**	P	**Pn**	**03 53 44.4**	**+0.3**
I48TN	**KESRA INFRASON**	**2.23**	**110**	I	I	04 03 40.0	
	baz=311,slow=312,SNR=1.5						
KEST	**Kesra**	**2.28**	**111**	Pn	**Pn**	**03 53 43.9**	**-1.4**
	284nm,0.3s,baz=292,slow=4.3,SNR=256						
KEST				Lg	Lg	03 54 15.9	
	168nm,0.3s,baz=292,slow=19,SNR=6.8						
	938nm,0.4s						
KEST				AML	AML		
KEST	**Kesra**	**2.28**	**111**	P	**Pn**	**03 53 45.0**	**-0.3**
	SNR=130						
KEST				S	**Sn**	**03 54 12.8**	**-0.7**
ABSD	**Ouled Sidi Bra**	**2.35**	**242**	P	**Pn**	**03 53 47.2**	**+0.9**
AKET	**Djebel Ketaf**	**2.37**	**258**	P	**Pn**	**03 53 46.5**	**-0.1**
CDCN	**Doucen**	**2.39**	**214**	P	**Pn**	**03 53 47.1**	**+0.3**
AFRS	**Ain Fares**	**2.63**	**226**	P	**Pn**	**03 53 50.9**	**+0.8**
AKED	**El Kharrouba**	**2.67**	**272**	P	**Pn**	**03 53 51.8**	**+1.1**
ABA	**Alger-Bouzarea**	**2.98**	**275**	P	**Pn**	**03 53 55.2**	**+0.2**
ADOR	**Douera**	**3.07**	**273**	P	**Pn**	**03 53 57.7**	**+1.3**
ACHR	**Chrea**	**3.11**	**268**	P	**Pn**	**03 53 56.5**	**-0.4**
ADCK	**Dar Chioukh**	**3.15**	**239**	P	**Pn**	**03 53 58.0**	**+0.6**
ABKD	**Sidi Amar**	**3.56**	**271**	P	**Pn**	**03 54 03.1**	**+0.2**
AFDJ	**Sidi Ladjel**	**3.57**	**252**	P	**Pn**	**03 54 03.3**	**+0.2**
VSL	**Villasalto**	**3.58**	**35**		**Pn**	**03 54 01.6**	**-1.6**
VSL	**Villasalto**	**3.58**	**35**	⇑P	**Pn**	**03 54 01.1**	**-2.1**
VSL	**Villasalto**	**3.58**	**35**	P	**Pn**	**03 54 01.9**	**-1.3**
EDDR	**Deurdeur**	**3.70**	**262**	P	**Pn**	**03 54 04.1**	**-0.7**
EHRZ	**Djelida**	**3.75**	**265**	P	**Pn**	**03 54 05.1**	**-0.5**
EZEK	**Zmalet El Emir**	**3.99**	**246**	P	**Pn**	**03 54 08.8**	**-0.1**
EBGR	**Bougara**	**4.02**	**257**	P	**Pn**	**03 54 09.4**	**+0.1**
EBNH	**Beni Haoua**	**4.17**	**271**	P	**Pn**	**03 54 11.1**	**-0.2**
EOFD	**Oued Fodda**	**4.17**	**264**	P	**Pn**	**03 54 10.6**	**-0.8**
EBNR	**Beni Rached**	**4.21**	**268**	P	**Pn**	**03 54 13.1**	**+1.3**
ECHA	**Ech Chlef**	**4.36**	**266**	P	**Pn**	**03 54 13.0**	**-0.8**
ETOS	**Mallorca**	**4.43**	**317**	P	**Pn**	**03 54 15.3**	**+0.3**
ETOS				S	**Sn**	**03 55 04.2**	**-2.4**
EANR	**'Ain N'Sour**	**4.60**	**264**	P	**Pn**	**03 54 17.1**	**-0.1**
EASA	**Ain Sidi Ali**	**4.89**	**242**	P	**Pn**	**03 54 21.3**	**0.0**
EIBI	**Ibiza**	**4.92**	**301**	P	**Pn**	**03 54 22.2**	**+0.7**
EIBI				S	**Sn**	**03 55 18.6**	**0.0**
ESMB	**Sidi M'hamed B**	**5.09**	**260**	P	**Pn**	**03 54 23.5**	**-0.3**
CLTB	**Caltabellotta**	**5.28**	**77**	P	**Pn**	**03 54 26.0**	**-0.5**
	comp=Z,976nm,0.6s						
ODJA	**Bouhanifia**	**5.72**	**259**	P	**Pn**	**03 54 32.8**	**+0.1**
GIB	**Gibilmanna**	**5.98**	**74**	⇑P	**Pn**	**03 54 36.7**	**+0.5**
RAFF	**Raffo Rosso**	**6.14**	**82**		**Pn**	**03 54 38.2**	**-0.2**
VAE	**Valguarnera**	**6.21**	**79**	Pn	**Pn**	**03 54 39.4**	**+0.1**
	comp=Z,31nm,0.5s,baz=12,slow=5.0,SNR=29						
VAE				LR	LR	03 57 29.1	
	comp=Z,8μm,18.4s,baz=316,slow=43						
PGF	**Pioggiola**	**6.21**	**16**	*e*Pn	**Pn**	**03 54 38.1**	**-1.2**
PGF				*e*Sn	**Sn**	**03 55 45.4**	**-5.0**
	comp=Z,697nm,0.5s						
PGF				AML	AML		
**P

EQTA Presa de Quent 8.18 277 P **Pn** 03 55 07.7 +1.2
ELGU Los Guajares, 8.33 275 P **Pn** 03 55 09.2 +0.8
ACER Acerenza 8.33 57 **Pn** 03 55 09.4 +0.9
TIP Timpagrande 8.34 69 **Pn** 03 55 08.1 -0.4
TIP Timpagrande 8.34 69 ⇑P **Pn** 03 55 11.4 +2.8
ORIF Oris-en-Rattie 8.35 356 *e*Pn **Pn** 03 55 08.8 0.0
ORIF *e*Sn **Sn** 03 56 35.0 -8.2
comp=Z,455nm,0.9s
ORIF AML AML
ORIF Oris-en-Rattie 8.35 356 ⇑P **Pn** 03 55 08.9 +0.1
ORIF Oris-en-Rattie 8.35 356 P **Pn** 03 55 09.7 +0.9
comp=Z,95nm,0.7s
VIVF Saint-Julien-l 8.41 350 *e*Pn **Pn** 03 55 07.1 -2.4
VIVF *e*Sn **Sn** 03 56 37.1 -7.4
comp=Z,152nm,0.4s
VIVF AML AML
BOB Bobbio (Coli) 8.43 13 ⇑P **Pn** 03 55 10.3 +0.5
ETSF Etsaut 8.45 321 *e*Pn **Pn** 03 55 10.8 +0.8
ETSF *e*Sn **Sn** 03 56 43.4 -2.0
comp=Z,92nm,0.6s
ETSF AML AML
BNI Bardonecchia 8.46 360 P **Pn** 03 55 10.2 -0.1
BNI Bardonecchia 8.46 360 **Pn** 03 55 10.2 -0.1
BNI Bardonecchia 8.46 360 ⇑P **Pn** 03 55 10.0 -0.3
BNI Bardonecchia 8.46 360 P **Pn** 03 55 11.5 +1.2
comp=Z,111nm,0.8s
MONC Moncucco Torin 8.53 6 ⇑P **Pn** 03 55 11.4 +0.3
ATE Arette 8.65 321 P **Pn** 03 55 15.2 +2.4
comp=Z,218nm,0.7s
UCM Universidad Co 8.67 298 P **Pn** 03 55 16.1 +3.0
UCM Universidad Co 8.67 298 P **Pn** 03 55 16.1 +3.0
comp=Z,171nm,1.2s
EGOR Sierra Gorda, 8.71 277 P **Pn** 03 55 15.9 +2.2
EGOR Sierra Gorda, 8.71 277 ⇑P **Pn** 03 55 15.8 +2.0
MATE Matera 8.79 59 ⇑P **Pn** 03 55 16.0 +1.3
SSB Saint Sauveur 8.85 350 P **Pn** 03 55 14.0 -1.4
SSB Saint Sauveur 8.85 350 **Pn** 03 55 14.0 -1.4
SSB Saint Sauveur 8.85 350 ⇑P **Pn** 03 55 13.3 -2.2
SSB Saint Sauveur 8.85 350 P **Pn** 03 55 14.1 -1.4
comp=Z,254nm,0.8s
LPG La Plagne 8.91 0 *e*Pn **Pn** 03 55 17.4 +0.9
LPG *e*Sn **Sn** 03 56 50.9 -6.2
comp=Z,628nm,1.0s
LPG AML AML
LPL La Plagne 8.93 360 *e*Pn **Pn** 03 55 16.9 +0.2
LPL *e*Sn **Sn** 03 56 51.8 -5.6
comp=Z,157nm,0.6s
LPL AML AML
SJPF Ste Jean 8.94 319 *e*Pn **Pn** 03 55 19.1 +2.3
SJPF *e*Sn **Sn** 03 56 56.1 -1.5
comp=Z,213nm,0.7s
SJPF AML AML
EMAL Malaga-Limoner 8.97 274 P **Pn** 03 55 19.4 +2.2
EMAL Malaga-Limoner 8.97 274 P **Pn** 03 55 20.1 +2.9
comp=Z,50nm,1.0s
ESDC Sonseca Array 8.98 293 Pn **Pn** 03 55 18.4 +1.0
comp=Z,4.1nm,0.3s,baz=104,slow=13,SNR=107
ESDC LR LR 03 58 43.8
comp=Z,9µm,18.8s,baz=106,slow=38
comp=Z,61nm,0.9s
ESDC AML AML
ESDC Sonseca Array 8.98 293 **Pn** 03 55 19.2 +1.9
CAF Calviac 9.05 338 *e*Pn **Pn** 03 55 16.8 -1.5
CAF *e*Sn **Sn** 03 56 56.3 -4.0
comp=Z,82nm,0.6s
CAF AML AML
EADA Adamuz 9.14 283 P **Pn** 03 55 21.3 +1.7
PAB San Pablo 9.23 292 P **Pn** 03 55 22.4 +1.6
PAB San Pablo 9.23 292 **Pn** 03 55 22.4 +1.6
PAB San Pablo 9.23 292 ⇑P **Pn** 03 55 22.1 +1.3
PAB San Pablo 9.23 292 P **Pn** 03 55 22.7 +1.9
comp=Z,94nm,1.0s
EMIJ Mijas 9.26 273 P **Pn** 03 55 20.0 -1.2
SALO Salr 9.47 16 ⇑P **Pn** 03 55 25.9 +2.0
LFF La Frestale 9.50 333 *e*Pn **Pn** 03 55 23.0 -1.4
LFF *e*Sn **Sn** 03 57 10.3 -1.0
comp=Z,106nm,0.7s
LFF AML AML
RJF Les Rejaudoux 9.56 337 *e*Pn **Pn** 03 55 23.3 -2.0
RJF *e*Sn **Sn** 03 57 08.2 -4.6
comp=Z,40nm,0.4s
RJF AML AML
ECAB El Cabril 9.80 282 P **Pn** 03 55 29.3 +0.8
GIMEL St. Georges / 9.95 358 P **Pn** 03 55 34.9 +4.2
comp=Z,40nm,0.8s
CABF La Chapelle 10.03 357 *e*Pn **Pn** 03 55 31.2 -0.6
CABF *e*Sn **Sn** 03 57 19.6 -4.8
comp=Z,106nm,0.8s
CABF AML AML
CGRP Cima Grappa 10.04 21 P **Pn** 03 55 35.6 +3.6
comp=Z,58nm,1.0s
MDT Midelt 10.07 251 Pn **Pn** 03 55 31.6 -0.7
comp=Z,1.2nm,0.3s,baz=62,slow=16,SNR=34
MDT Lg Lg 03 58 23.2
comp=Z,0.5nm,0.3s,baz=87,slow=9.6,SNR=3.7
MDT LR LR 03 59 49.7
comp=Z,8µm,20.8s,baz=64,slow=40
comp=Z,17nm,0.8s
MDT AML AML
TUE Stuetta 10.07 10 **Pn** 03 55 33.0 +0.6
TUE Stuetta 10.07 10 ⇑P **Pn** 03 55 33.0 +0.6
TUE Stuetta 10.07 10 P **Pn** 03 55 33.7 +1.3
comp=Z,315nm,1.2s
TUE Stuetta 10.07 10 P **Pn** 03 55 34.4 +2.0
comp=Z,79nm,1.2s
ESPR Espera 10.11 275 P **Pn** 03 55 36.4 +3.6
CTI Castel Tesino 10.15 20 P **Pn** 03 55 34.2 +0.8
CTI Castel Tesino 10.15 20 **Pn** 03 55 34.2 +0.8
MD01 Midelt array s 10.16 252 **Pn** 03 55 32.1 -1.5
MD31 MD31 10.16 252 **Pn** 03 55 32.0 -1.5
IFR Ifrane 10.20 256 P **Pn** 03 55 36.9 +2.8
comp=Z,6.8nm,1.1s
ELAN Lanestosa 10.25 313 ⇑P **Pn** 03 55 36.1 +1.4
TCF Toulx Ste Croi 10.27 342 *e*Pn **Pn** 03 55 33.1 -1.9
TCF *e*Sn **Sn** 03 57 23.4 -6.8
comp=Z,41nm,0.5s
TCF AML AML
SMF Signal de Mont 10.28 349 *e*Pn **Pn** 03 55 33.3 -1.9
SMF *e*Sn **Sn** 03 57 24.5 -6.0
comp=Z,147nm,1.0s
SMF AML AML
BNALP Bannalp 10.36 6 P **Pn** 03 55 39.7 +3.4
comp=Z,31nm,0.7s
FUORN Ofenpass-Fuorn 10.37 14 P **Pn** 03 55 38.9 +2.3
comp=Z,81nm,0.9s
BGF Bois d'Agland 10.38 345 *e*Pn **Pn** 03 55 35.0 -1.5
BGF *e*Sn **Sn** 03 57 28.5 -4.4
comp=Z,109nm,0.6s
BGF AML AML
DAVOX Davos/Dischmat 10.46 12 Pn **Pn** 03 55 38.8 +1.1
comp=Z,4.2nm,0.3s,baz=200,slow=9.0,SNR=97
DAVOX Sn **Sn** 03 57 31.7 -3.2
comp=Z,2.1nm,0.3s,baz=290,slow=21,SNR=7.3
DAVOX LR LR 03 59 54.2
comp=Z,3µm,18.7s,baz=203,slow=39
comp=Z,27nm,0.6s
DAVOX AML AML
KIJV Kijevo 10.46 42 P **Pn** 03 55 40.3 +2.7
comp=Z,191nm,1.4s
AVF Avril sur Loir 10.51 347 *e*Pn **Pn** 03 55 38.1 -0.1
AVF *e*Sn **Sn** 03 57 31.9 -4.0
comp=Z,85nm,0.7s
AVF AML AML
SSF Saint Saulge 10.74 348 *e*Pn **Pn** 03 55 41.4 0.0
SSF *e*Sn **Sn** 03 57 34.9 -6.8
comp=Z,181nm,1.2s
SSF AML AML
EMIN Mina Concepcio 10.77 280 P **Pn** 03 55 42.9 +1.1
HCY Herceg Novi 10.80 54 *e*Pn **Pn** 03 55 43.5 +1.3
BOURR Bourrignon 10.81 2 P **Pn** 03 55 43.1 +0.7
comp=Z,51nm,1.0s
TREB Trebinje 10.84 52 *e*Pn **Pn** 03 55 42.5 -0.3
FETA Feichten 10.85 15 *e*Pn **Pn** 03 55 45.3 +2.3
comp=Z,12nm,0.6s,SNR=29
FETA *e*Sn **Sn** 03 57 47.4 +3.0
comp=Z,23nm,0.6s
FUSE Fusea 10.88 24 P **Pn** 03 55 45.9 +2.5
comp=Z,43nm,1.0s
LOR Lormes 10.89 350 *e*Pn **Pn** 03 55 42.4 -1.0
LOR Lormes 10.89 350 *e*Pn **Pn** 03 55 42.8 -0.6
LOR *e*Sn **Sn** 03 57 39.5 -5.8
comp=Z,57nm,0.7s
LOR AML AML
LOR Lormes 10.89 350 ⇑P **Pn** 03 55 42.4 -1.0
LOR Lormes 10.89 350 P **Pn** 03 55 43.4 0.0
comp=Z,87nm,1.0s
DRE Drenchia 10.89 26 P **Pn** 03 55 45.5 +2.0
comp=Z,42nm,0.8s
DAVA Damuels 10.95 11 ⇑P **Pn** 03 55 45.4 +1.1
DAVA Damuels 10.95 11 *e*Pn **Pn** 03 55 45.2 +0.8
comp=Z,5.9nm,0.5s,SNR=16
DAVA *e*Sn **Sn** 03 57 46.7 -0.3
comp=Z,56nm,0.6s
DAVA Damuels 10.95 11 P **Pn** 03 55 46.5 +2.1
comp=Z,87nm,0.9s
ABTA Abfaltersbach 11.03 21 *e*Pn **Pn** 03 55 48.1 +2.7
comp=Z,12nm,0.6s
ABTA Sn **Sn** 03 57 50.8 +1.9
comp=Z,14nm,0.7s
BRY Bratogost 11.06 52 *e*Pn **Pn** 03 55 46.2 +0.3
PBAR Barrancos 11.08 282 P **Pn** 03 55 47.7 +1.7
PBAR Barrancos 11.08 282 *e*P **Pn** 03 55 47.5 +1.4
PBAR IAmb IAmb 03 55 53.6
comp=Z,140nm,1.3s
HYF Humbligny 11.10 345 *e*Pn **Pn** 03 55 49.9 +3.5
HYF *e*Sn **Sn** 03 57 42.8 -7.7
comp=Z,225nm,0.5s
HYF AML AML
EBAD Badajoz 11.11 285 P **Pn** 03 55 49.0 +2.5
DRME Dracevica, Mon 11.14 56 *e*Pn **Pn** 03 55 49.1 +2.3
SQTA Sankt Quirin 11.14 16 *i* Pn **Pn** 03 55 49.5 +2.6
comp=Z,46nm,0.8s,SNR=48
SQTA *e*Sn **Sn** 03 57 51.3 -0.2
comp=Z,57nm,0.7s
ACOM Acomizza, Ital 11.17 25 P **Pn** 03 55 52.1 +4.7
comp=Z,56nm,1.0s
KLINJ Klinje 11.22 51 *e*Pn **Pn** 03 55 47.5 -0.6
HINF Hinteralfeld 11.23 0 *e*Pn **Pn** 03 55 46.2 -1.9
HINF *e*Sn **Sn** 03 57 46.1 -7.5
comp=Z,81nm,1.1s
HINF AML AML
MOTA Moosalm 11.23 15 *e*Pn **Pn** 03 55 50.6 +2.3
comp=Z,54nm,0.7s,SNR=34
MOTA Sn **Sn** 03 57 56.9 +3.0
comp=Z,28nm,0.8s
SLE Schleitheim 11.25 6 P **Pn** 03 55 49.9 +1.5
comp=Z,20nm,1.0s
MFF Saint Martin d 11.25 335 *e*Pn **Pn** 03 55 47.5 -0.9
MFF *e*Sn **Sn** 03 57 49.3 -4.9
comp=Z,69nm,1.0s
MFF AML AML
MFF Saint Martin d 11.25 335 ⇑P **Pn** 03 55 46.8 -1.6
MFF Saint Martin d 11.25 335 P **Pn** 03 55 46.4 -2.0
comp=Z,13nm,1.2s
WTTA Wattenberg 11.28 17 *e*Pn **Pn** 03 55 51.5 +2.6
comp=Z,22nm,0.6s,SNR=17
WTTA *e*Sn **Sn** 03 57 56.3 +1.3
comp=Z,18nm,0.7s
WTTA Wattenberg 11.28 17 P **Pn** 03 55 52.2 +3.3
comp=Z,79nm,0.8s
MYKA Terra Mystica 11.29 25 *e*Pn **Pn** 03 55 51.5 +2.6
comp=Z,6.1nm,0.7s,SNR=9.0
PDG Podgorica 11.29 55 **Pn** 03 55 48.2 -0.7
PDG Podgorica 11.29 55 ⇑P **Pn** 03 55 51.3 +2.4
PDG Podgorica 11.29 55 ⇑P **Pn** 03 55 51.3 +2.4
PDG Podgorica 11.29 55 *e*Pn **Pn** 03 55 50.9 +2.0
PDG Podgorica 11.29 55 P **Pn** 03 55 51.5 +2.6
comp=Z,81nm,2.0s
RETA Reutte 11.30 14 *e*Pn **Pn** 03 55 50.5 +1.5
comp=Z,25nm,0.5s,SNR=12
RETA *e*Sn **Sn** 03 57 54.8 -0.6
comp=Z,17nm,1.0s
WATA Walderalm 11.33 17 *e*Pn **Pn** 03 55 52.3 +2.7
comp=Z,14nm,0.6s,SNR=23
UBR Ueberruh 11.37 12 *e*P **Pn** 03 55 50.8 +0.8
UBR Ueberruh 11.37 12 P **Pn** 03 55 51.3 +1.2
comp=Z,49nm,1.0s
BLY Banja Luka 11.37 41 **Pn** 03 55 50.7 +0.7
BLY Banja Luka 11.37 41 ⇑P **Pn** 03 55 52.5 +2.5
BLY Banja Luka 11.37 41 ⇑P **Pn** 03 55 52.3 +2.2
BLY Banja Luka 11.37 41 ⇑*i* Pn **Pn** 03 55 52.2 +2.2
BLY Banja Luka 11.37 41 P **Pn** 03 55 52.7 +2.7
comp=Z,55nm,1.1s
EGRO El Granado 11.40 279 P **Pn** 03 55 51.4 +0.9
HAU Haudompre 11.42 359 *e*Pn **Pn** 03 55 48.4 -2.3
HAU *e*Sn **Sn** 03 57 50.4 -7.9
comp=Z,97nm,0.5s
HAU AML AML
UPM Unac-Piva 11.44 51 *e*Pn **Pn** 03 55 49.9 -1.3
PMRV Marv??o 11.50 289 *e*P **Pn** 03 55 53.8 +1.9
PMRV IAmb IAmb 03 56 40.5
comp=Z,89nm,1.7s
PMRV *e*LR LR 03 59 03.0
PMRV IAMs_20 IAMs_20 04 00 33.4
comp=Z,7µm,16.0s
OBKA Obir 11.51 28 Pn **Pn** 03 55 55.3 +3.3
comp=Z,5.4nm,0.5s
ZAG Zagreb 11.56 34 P **Pn** 03 55 57.0 +4.4
comp=Z,106nm,1.9s
PESTR Estremoz 11.57 286 P **Pn** 03 55 55.0 +2.1
PESTR Estremoz 11.57 286 **Pn** 03 55 54.1 +1.3
PESTR Estremoz 11.57 286 ⇑P **Pn** 03 55 54.9 +2.0
PESTR Estremoz 11.57 286 *e*P **Pn** 03 55 54.3 +1.5
PESTR IAmb IAmb 03 56 10.2
comp=Z,145nm,1.6s
PESTR Estremoz 11.57 286 P **Pn** 03 55 55.0 +2.1
comp=Z,80nm,1.6s
KBA Koelnbreinsper 11.58 23 *e*Pn **Pn** 03 55 53.3 +0.3
comp=Z,19nm,1.0s,SNR=6.1
KBA *e*Sn **Sn** 03 58 02.5 0.0
comp=Z,6.2nm,0.7s
ECH Echery 11.63 1 P **Pn** 03 55 50.7 -2.9
ECH Echery 11.63 1 **Pn** 03 55 50.7 -2.9
ECH Echery 11.63 1 ⇑P **Pn** 03 55 51.4 -2.2
ECH Echery 11.63 1 P **Pn** 03 55 53.9 +0.3
comp=Z,25nm,2.5s
PCBR Castelo Branco 11.64 291 *e*P **Pn** 03 55 55.4 +1.6
PCBR IAmb IAmb 03 55 59.1
comp=Z,130nm,1.6s
PBRG Braganca 11.68 301 *e*P **Pn** 03 55 55.9 +1.6
PBRG IAmb IAmb 03 56 40.4
comp=Z,106nm,1.5s
SFTF Sexfontaines 11.68 354 *e*Pn **Pn** 03 55 53.1 -1.2
LESA Schwarzleotal 11.70 20 *i* Pn **Pn** 03 55 58.0 +3.5
comp=Z,25nm,0.7s,SNR=9.4
LESA *e*Sn **Sn** 03 58 07.3 +2.1
comp=Z,15nm,0.7s
PBEJ Beja 11.72 281 *e*P **Pn** 03 55 55.9 +1.0
PBEJ IAmb IAmb 03 55 59.4
comp=Z,75nm,1.3s
ECAL Calabor 11.73 301 P **Pn** 03 55 56.8 +1.8
ECAL S **Sn** 03 58 03.9 -2.1
ECAL Calabor 11.73 301 P **Pn** 03 55 57.7 +2.6
comp=Z,159nm,1.0s
PBDV Barranco-do-Ve 11.76 278 P **Pn** 03 55 56.4 +0.9
PBDV Barranco-do-Ve 11.76 278 *e*P **Pn** 03 55 54.0 -1.4
BFO Black Forest 11.80 5 P **Pn** 03 55 53.1 -2.8
BFO Black Forest 11.80 5 **Pn** 03 55 53.1 -2.8
BFO Black Forest 11.80 5 ⇑P **Pn** 03 55 56.0 +0.1
BFO Black Forest 11.80 5 *e*P **Pn** 03 55 56.1 +0.2
MTE Manteigas 11.82 293 **Pn** 03 55 57.6 +1.3
MTE Manteigas 11.82 293 ⇑P **Pn** 03 55 58.4 +2.1
MTE Manteigas 11.82 293 *e*P **Pn** 03 55 58.2 +1.9
MTE IAmb IAmb 03 56 00.8
comp=Z,207nm,1.5s
MTE *e*LR LR 03 59 18.1
MTE IAMs_20 IAMs_20 04 00 53.1
comp=Z,7µm,18.0s
MTE Manteigas 11.82 293 P **Pn** 03 55 58.5 +2.3
comp=Z,116nm,1.2s
CDF Champ du Feu 11.83 2 *e*Pn **Pn** 03 55 53.1 -3.3
CDF *e*Sn **Sn** 03 58 01.1 -7.3
comp=Z,39nm,0.7s
CDF AML AML
SOKA Soboth 11.84 29 *e*Pn **Pn** 03 55 58.7 +2.3
comp=Z,9.5nm,0.9s,SNR=9.4
PCVE Castro Verde 11.85 279 P **Pn** 03 55 57.5 +1.0
PCVE Castro Verde 11.85 279 *e*P **Pn** 03 55 56.5 0.0
PCVE IAmb IAmb 03 56 00.9
comp=Z,139nm,1.7s
OHR Ohrid 11.86 63 *i* P **Pn** 03 55 59.2 +2.5
EVO Evora 11.87 284 P **Pn** 03 55 59.3 +2.5
EVO Evora 11.87 284 *e*P **Pn** 03 55 58.5 +1.6
EVO IAmb IAmb 03 56 14.4
comp=Z,101nm,1.4s
EVO Evora 11.87 284 P **Pn** 03 55 59.6 +2.7
comp=Z,30nm,1.2s
PARRA Arraiolos 11.92 285 *e*P **Pn** 03 55 58.8 +1.2
PARRA IAmb IAmb 03 56 11.8
comp=Z,102nm,1.7s
MEZF Maizieres J'vi 11.98 355 *e*Pn **Pn** 03 55 57.2 -1.1
PAGF Fort de Pagny 11.99 357 *e*Pn **Pn** 03 55 57.0 -1.4
PAGF *e*Sn Sn 03 58 03.3 -8.9
comp=Z,31nm,0.5s
PAGF AML AML
MESJ Messejana 11.99 280 *e*P **Pn** 03 55 59.6 +1.1
MESJ *e*S **Sn** 03 58 15.0 +2.6
MESJ IAMs_20 IAMs_20 04 00 07.3
comp=Z,848nm,18.4s
MESJ Messejana 11.99 280 P **Pn** 03 55 57.7 -0.9
MESJ Messejana 11.99 280 **Pn** 03 55 57.7 -0.9
MESJ Messejana 11.99 280 ⇑P **Pn** 03 55 59.6 +1.1
MESJ Messejana 11.99 280 *e*P **Pn** 03 55 59.9 +1.4
RJOB Jochberg 12.01 20 P **Pn** 03 56 03.5 +4.6
comp=Z,30nm,1.0s
SESA Seetaler Alpe, 12.03 27 *e*Pn **Pn** 03 56 00.1 +1.0
comp=Z,26nm,0.7s,SNR=39
FUR Furstenfeldbru 12.05 15 *e*P **Pn** 03 55 59.4 +0.1
FUR Furstenfeldbru 12.05 15 P **Pn** 03 56 00.7 +1.4
comp=Z,60nm,0.9s
AVE Averroes 12.06 258 **Pn** 03 56 03.0 +3.4
SAVF Savonnieres en 12.08 355 *e*Pn **Pn** 03 55 59.0 -0.7
SAVF Savonnieres en 12.08 355 *e*Pn **Pn** 03 55 59.1 -0.7
baz=174
SAVF *e*Sn **Sn** 03 58 07.9 -6.6
PMTG Montargil 12.09 286 *e*P **Pn** 03 56 01.9 +2.1
PMTG IAmb IAmb 03 56 08.3
comp=Z,92nm,1.2s
BBLS Lazi&#263i 12.10 49 ⇑*i* Pn **Pn** 03 56 01.0 +0.9
PSARD Sardoal 12.12 289 *e*P **Pn** 03 56 03.2 +2.9
PSARD IAmb IAmb 03 56 31.9
comp=Z,85nm,1.9s
MOE Montemor 12.13 284 *e*P **Pn** 03 56 02.0 +1.6
MOE IAmb IAmb 03 56 27.5
comp=Z,102nm,1.7s
SJES Sjenica 12.15 53 ⇑*i* Pn **Pn** 03 56 00.7 -0.1
PLOUS Minas do Lousa 12.16 281 *e*P **Pn** 03 56 02.0 +1.2
PLOUS IAmb IAmb 03 56 05.1
comp=Z,175nm,1.1s
PVIS Viseu 12.16 294 *e*P **Pn** 03 56 02.1 +1.2
ITM Ithomi 12.18 83 **Pn** 03 56 01.9 +0.7
ITM Ithomi 12.18 83 ⇑P **Pn** 03 56 02.0 +0.9
ITM Ithomi 12.18 83 P Pn 03 56 06.2 +5.0
comp=Z,106nm,1.8s
PVRL Vila Real 12.19 297 *e*P **Pn** 03 56 02.8 +1.5
PVRL IAmb IAmb 03 56 05.8
comp=Z,147nm,1.3s
BIOA Bad Ischl, Aus 12.22 23 *e*Pn **Pn** 03 56 04.8 +3.2
comp=Z,7.2nm,0.8s
POLO Lamas de Olo 12.28 297 *e*P **Pn** 03 56 04.5 +2.0
POLO IAmb IAmb 03 56 20.0
comp=Z,57nm,1.2s
STU Stuttgart 12.31 8 *e*P **Pn** 03 56 03.3 +0.4
STU Stuttgart 12.31 8 P **Pn** 03 56 06.0 +3.1
comp=Z,37nm,1.1s
MORF Marmelete 12.34 278 *e*P **Pn** 03 56 04.4 +1.1
MORF IAMs_20 IAMs_20 04 01 18.2
comp=E,6µm,11.2s
MORF Marmelete 12.34 278 *e*P **Pn** 03 56 04.5 +1.2
PTEO Sao Teotonio 12.39 279 *e*P **Pn** 03 56 04.8 +0.8
PTEO IAmb IAmb 03 56 09.9
comp=E,140nm,1.9s
BEHE Becsehely 12.40 34 *e*Pn **Pn** 03 56 05.7 +1.6
BEHE Becsehely 12.40 34 P **Pn** 03 56 07.5 +3.3
comp=Z,14nm,0.8s
COI Coimbra 12.42 292 *e*P 03 59 32.5
COI IAmb IAmb 03 59 35.2
comp=Z,217nm,1.4s
PFVI Vila Bisbo 12.48 277 *e*P **Pn** 03 56 06.6 +1.4
ARSA Arzberg 12.50 29 ⇑P **Pn** 03 56 07.1 +1.7
ARSA Arzberg 12.50 29 *e*Pn **Pn** 03 56 06.4 +0.9
comp=Z,11nm,0.7s,SNR=8.7
ARSA Arzberg 12.50 29 P **Pn** 03 56 07.5 +2.0
comp=Z,56nm,1.3s
PCAB Cabril 12.55 299 *e*P **Pn** 03 56 08.7 +2.5
PCAB IAmb IAmb 03 56 32.4
comp=Z,86nm,1.4s
TEKS Tekeris 12.55 47 *e*Pn **Pn** 03 56 07.2 +1.0
MOA Molln 12.56 24 *e*Pn **Pn** 03 56 07.4 +1.1
comp=Z,0.9nm,0.6s,SNR=5.3
MOA Sn **Sn** 03 58 29.3 +3.2
comp=Z,5.6nm,0.9s
MOA Molln 12.56 24 P Pn 03 56 11.4 +5.1
comp=Z,92nm,1.0s
AGG Agios Georgios 12.57 74 ⇑P **Pn** 03 56 08.7 +2.2
AGG Agios Georgios 12.57 74 P **Pn** 03 56 08.9 +2.3
comp=Z,90nm,1.6s
PSBE So Bento 12.59 288 *e*P **Pn** 03 56 10.8 +4.0
PSBE IAmb IAmb 03 56 18.5
comp=Z,84nm,1.4s
SKO Skopje 12.60 60 *i* P **Pn** 03 56 08.8 +2.0
GRC2 Grafenberg Arr 12.74 14 P **Pn** 03 56 09.7 +1.0
comp=Z,54nm,1.1s
KOVH Kovagotottos 12.76 38 ⇑P **Pn** 03 56 10.3 +1.4
LIS Lisbon 12.77 284 *e*P **Pn** 03 56 10.5 +1.3
LIS IAMs_20 IAMs_20 04 01 14.8
comp=E,7µm,16.4s
LIS Lisbon 12.77 284 ⇑P **Pn** 03 56 13.1 +3.9
PTO Porto 12.79 295 *e*P **Pn** 03 56 12.7 +3.3
PTO IAmb IAmb 03 56 19.6
comp=E,152nm,1.3s
GRC3 Grafenberg Arr 12.80 15 P **Pn** 03 56 10.1 +0.5
comp=Z,47nm,0.8s
PGAV Gavieira, Arco 12.80 299 *e*P **Pn** 03 56 12.1 +2.4
PGAV IAmb IAmb 03 56 33.7
comp=Z,74nm,1.4s
PGAV *e*LR LR 03 59 48.3
PGAV IAMs_20 IAMs_20 04 01 37.4
comp=Z,7µm,16.0s
LIT Litokhoron 12.86 69 ⇑P **Pn** 03 56 12.9 +2.5
GRC1 Grafenberg Arr 12.89 14 P **Pn** 03 56 11.5 +0.8
comp=Z,33nm,0.8s
PMAFR Mafra 12.90 285 P **Pn** 03 56 12.8 +1.9
PMAFR Mafra 12.90 285 *e*P **Pn** 03 56 13.0 +2.1
PMAFR IAmb IAmb 03 57 05.6
comp=Z,182nm,1.5s
TIO Tiouine 12.94 248 P **Pn** 03 56 11.8 +0.1
TIO Tiouine 12.94 248 P **Pn** 03 56 14.8 +3.2
comp=Z,37nm,1.7s
GRC4 Grafenberg Arr 12.98 14 P **Pn** 03 56 12.4 +0.4
comp=Z,53nm,0.7s
GRG Griva 12.98 66 P **Pn** 03 56 11.6 -0.4
comp=Z,76nm,1.3s
LDF La Druitiere 13.02 339 *e*Pn **Pn** 03 56 10.1 -2.4
GRB5 Grafenberg Arr 13.03 15 P **Pn** 03 56 13.0 +0.3
comp=Z,56nm,1.1s
GRR Gorron 13.05 337 *e*Pn **Pn** 03 56 10.9 -2.1
GRR *e*Sn **Sn** 03 58 30.4 -7.8
comp=Z,57nm,0.9s
GRR AML AML
FRGS Fruska Gora 13.07 45 *e*Pn **Pn** 03 56 13.8 +0.5
WLF Walferdange 13.08 358 P **Pn** 03 56 13.0 -0.3
WLF Walferdange 13.08 358 P **Pn** 03 56 13.2 -0.2
WLF Walferdange 13.08 358 **Pn** 03 56 13.2 -0.2
WLF Walferdange 13.08 358 *d*P **Pn** 03 56 13.7 +0.4
comp=Z,39nm,0.9s
WLF *d*S **Sn** 03 58 34.5 -4.4
WLF Walferdange 13.08 358 ⇑P **Pn** 03 56 13.8 +0.4
WLF Walferdange 13.08 358 *e*P **Pn** 03 56 12.3 -1.1
WLF Walferdange 13.08 358 P **Pn** 03 56 14.1 +0.7
comp=Z,69nm,0.9s
MORH Mrgy, Hungar 13.12 39 ⇓P **Pn** 03 56 15.3 +1.4
MORH Mrgy, Hungar 13.12 39 ⇑*i* Pn **Pn** 03 56 11.0 -2.9
MORH Mrgy, Hungar 13.12 39 P **Pn** 03 56 14.2 +0.3
comp=Z,17nm,1.0s
MORH Mrgy, Hungar 13.12 39 P **Pn** 03 56 15.2 +1.4
comp=Z,25nm,1.2s
RONA Rosalia, Austr 13.17 30 *e*Pn **Pn** 03 56 14.5 -0.1
comp=Z,4.5nm,0.6s,SNR=6.4
GRB2 Grafenberg Arr 13.18 14 P **Pn** 03 56 16.1 +1.3
comp=Z,65nm,1.0s
CONA Conrad Observa 13.19 28 *e*Pn **Pn** 03 56 16.2 +1.3
comp=Z,12nm,0.7s,SNR=22
VAY Valandovo 13.20 64 *i* P **Pn** 03 56 15.7 +0.7
SOP Sopron 13.26 30 P **Pn** 03 56 17.1 +1.3
comp=Z,29nm,0.8s
FLN La Foliniere 13.27 339 *e*Pn **Pn** 03 56 14.8 -1.1
FLN *e*Sn **Sn** 03 58 36.5 -7.0
comp=Z,40nm,0.8s
FLN AML AML
GEC2 GERESS Array S 13.27 20 *e*P **Pn** 03 56 13.1 -3.0
GEC2 GERESS Array S 13.27 20 P **P** 03 56 21.6 -4.3
comp=Z,32nm,1.0s
GERES GERESS Array B 13.27 20 Pn **Pn** 03 56 16.7 +0.6

comp=Z,0.2nm,0.3s,baz=203,slow=13,SNR=40
GERES Sn Sn 03 58 41.7 -2.0
comp=Z,0.1nm,0.3s,baz=214,slow=22,SNR=5.5
GERES LR LR 04 01 18.4
comp=Z,2µm,19.6s,baz=198,slow=37
comp=Z,1.8nm,0.3s
GERES AML AML
GERES GERESS Array B 13.27 20 P **Pn 03 56 17.3 +1.2**
GERES GERESS Array B 13.27 20 **Pn 03 56 17.3 +1.2**
MPLH Magyarpolny 13.28 34 P **Pn 03 56 19.9 +3.8**
comp=Z,22nm,1.2s
GRB3 Grafenberg Arr 13.28 15 P **Pn 03 56 16.0 -0.1**
comp=Z,55nm,1.1s
GRB1 Grafenberg Arr 13.29 14 P **Pn 03 56 17.1 +0.8**
comp=Z,55nm,1.0s
THE Thessaloniki 13.32 67 P **Pn 03 56 16.0 -0.6**
comp=Z,38nm,1.5s
WET Wettzell 13.33 18 *e*P **Pn 03 56 15.7 -1.1**
WET Wettzell 13.33 18 P **Pn 03 56 17.5 +0.7**
comp=Z,42nm,0.7s
GRB4 Grafenberg Arr 13.35 14 P **Pn 03 56 17.4 +0.4**
comp=Z,32nm,0.9s
KNT Kendrikon 13.39 65 P **Pn 03 56 20.1 +2.4**
comp=Z,27nm,1.0s
WINA Alland / Wiene 13.41 28 *e*Pn **Pn 03 56 19.1 +1.2**
comp=Z,7.0nm,0.7s,SNR=8.7
CKRC Cesky Krumlov 13.43 22 *e*PN **Pn 03 56 19.7 +1.6**
CKRC *e*SN **Sn 03 58 48.3 +0.9**
CKRC AMS AMS 03 59 10.0
comp=Z,3µm,7.4s
BOVS Bovan 13.44 54 ⇓P **Pn 03 56 20.2 +2.0**
QUIF Quistinic 13.48 330 *e*Pn **Pn 03 56 18.0 -0.8**
QUIF *e*Sn **Sn 03 58 41.6 -7.0**
comp=Z,51nm,0.9s
QUIF AML AML
GRA2 Grafenberg Arr 13.49 13 P **Pn 03 56 20.2 +1.2**
comp=Z,38nm,0.9s
KHC Kasperske Hory 13.50 20 *ce*P **Pn 03 56 19.5 +0.4**
KHC pmax pmax
comp=Z,22nm,1.7s
KHC Kasperske Hory 13.50 20 *e*PN **Pn 03 56 19.5 +0.4**
KHC *e*SN **Sn 03 58 50.2 +1.0**
KHC AMS AMS 04 02 20.0
comp=Z,6µm,16.1s
KHC Kasperske Hory 13.50 20 ⇑P **Pn 03 56 19.8 +0.7**
KHC Kasperske Hory 13.50 20 P **Pn 03 56 19.9 +0.8**
comp=Z,49nm,0.9s
KHC Kasperske Hory 13.50 20 P **Pn 03 56 20.4 +1.2**
comp=Z,49nm,0.9s
GRFO Grafenberg 13.50 13 P **Pn 03 56 20.6 +1.5**
GRFO Grafenberg 13.50 13 **Pn 03 56 20.6 +1.5**
GRA1 Grafenberg Arr 13.50 13 **Pn 03 56 17.7 -1.4**
GRA1 Grafenberg Arr 13.50 13 P **Pn 03 56 22.1 +3.0**
comp=Z,43nm,1.4s
GRF Grafenberg Arr 13.50 13 P **Pn 03 56 17.7 -1.4**
GRF Grafenberg Arr 13.50 13 *e*P **Pn 03 56 19.5 +0.4**
GRF *e*L L 04 01 53.2
comp=Z,3µm,18.6s
SGMF Saint Gilles 13.52 333 *e*Pn **Pn 03 56 17.6 -1.7**
SGMF *e*Sn **Sn 03 58 43.3 -6.3**
comp=Z,71nm,1.0s
SGMF AML AML
GIVF Givet 13.59 355 *e*Pn **Pn 03 56 20.0 -0.2**
GRA3 Grafenberg Arr 13.59 13 P **Pn 03 56 24.2 +3.9**
comp=Z,41nm,1.0s
BAIF Baives 13.60 353 *e*Pn **Pn 03 56 19.1 -1.2**
DOU Dourbes 13.60 354 *d*P **Pn 03 56 18.9 -1.5**
comp=Z,112nm,0.8s
DOU *d*S Sn 03 58 41.7 -10
RCHB Rochefort 13.61 356 *d*P **Pn 03 56 20.7 +0.1**
RCHB *d*S Sn 03 58 42.7 -9.1
RCHB *d*PKP 04 14 34.8
RCHB Rochefort 13.61 356 P **Pn 03 56 21.3 +0.7**
comp=Z,104nm,0.8s
SOH Sokhos 13.65 67 P **Pn 03 56 22.6 +1.5**
comp=Z,46nm,1.5s
ABNA Allensteig Bun 13.66 25 *e*Pn **Pn 03 56 22.2 +0.9**
comp=Z,2.6nm,0.5s
TNS Taunus Mts 13.69 5 *e*P **Pn 03 56 23.0 +1.3**
TNS Taunus Mts 13.69 5 P **Pn 03 56 25.7 +4.0**
comp=Z,38nm,0.8s
KKB Krupnik 13.75 63 P **Pn 03 56 23.5 +1.0**
TAM Tamanrasset 13.78 185 P **Pn 03 56 20.1 -3.1**
TAM Tamanrasset 13.78 185 **Pn 03 56 20.1 -3.1**
TAM Tamanrasset 13.78 185 P **Pn 03 56 21.6 -1.6**
comp=Z,36nm,0.6s
BMRD Maredsous 13.79 355 *d*P **Pn 03 56 23.4 +0.4**
comp=Z,58nm,0.8s
BMRD *d*S **Sn 03 58 49.9 -6.2**
ROSF Rostrenen 13.86 331 *e*Pn **Pn 03 56 23.2 -0.8**
ROSF *e*Sn **Sn 03 58 51.8 -6.1**
comp=Z,45nm,0.8s
ROSF AML AML
ROSF Rostrenen 13.86 331 ⇑P **Pn 03 56 23.4 -0.6**
BCLA Clavier 13.87 356 *d*P **Pn 03 56 24.4 +0.3**
comp=Z,28nm,0.9s
BCLA *d*S **Sn 03 58 50.2 -7.9**
SRS Serrai 13.89 66 P **Pn 03 56 25.2 +0.7**
comp=Z,20nm,0.9s
ZVC Zvikov 13.95 21 *e*PN **Pn 03 56 26.4 +1.2**
ZVC *e*SN **Sn 03 59 01.2 +1.2**
ZVC AMS AMS 04 01 50.0
comp=Z,3µm,15.4s
MDVR Moldovita 13.99 50 ⇓P **Pn 03 56 27.5 +1.6**
BTNL Ternell 14.01 358 *d*P **Pn 03 56 26.3 +0.3**
BTNL *d*S **Sn 03 58 55.2 -6.2**
MEM Membach 14.03 358 *d*P **Pn 03 56 25.3 -1.0**
MEM *d*S Sn 03 58 53.2 -8.8
MEM Membach 14.03 358 P **Pn 03 56 26.7 +0.4**
comp=Z,65nm,1.0s
VTS Vitosha 14.07 60 P **Pn 03 56 28.2 +1.2**
BLKB Belogradchik 14.07 55 ⇓P **Pn 03 56 28.6 +1.7**
MODS Modra-Piesok 14.10 30 *e*P **P 03 56 32.6 -2.5**
SRO Srobarova 14.11 34 P **P 03 56 32.1 -3.0**
comp=Z,50nm,1.0s
MMB Musomishta 14.11 64 P **Pn 03 56 30.4 +2.9**
PLNA Plana 14.15 60 P **Pn 03 56 29.5 +1.3**
HGN Heimansgroeve 14.19 358 P **Pn 03 56 27.0 -1.5**
comp=Z,68nm,1.0s
BSKQ Steenkerk 14.19 353 *d*P **Pn 03 56 28.8 +0.3**
BSKQ *d*S **Sn 03 59 00.5 -5.4**
BUD Budapest 14.19 36 P **Pn 03 56 32.3 +3.8**
comp=Z,28nm,1.4s
TREC Trest 14.21 24 *e*PN **Pn 03 56 30.4 +1.5**
TREC AMS AMS 04 03 00.0
comp=Z,3µm,14.3s
TREC Trest 14.21 24 P **Pn 03 56 31.3 +2.4**
comp=Z,34nm,1.1s
NKC Novy Kostel 14.26 15 *e*PN **Pn 03 56 28.1 -1.3**
NKC *e*SN **Sn 03 59 04.6 -3.0**
NKC AMS AMS 04 02 00.0
comp=Z,4µm,10.1s
NKC Novy Kostel 14.26 15 P **Pn 03 56 29.4 0.0**
comp=Z,40nm,0.9s
UCC Uccle 14.31 354 P **Pn 03 56 30.8 +0.6**
UCC Uccle 14.31 354 **Pn 03 56 30.8 +0.6**
UCC Uccle 14.31 354 *d*P **Pn 03 56 29.6 -0.6**
UCC *d*S **Sn 03 59 07.0 -1.8**
UCC Uccle 14.31 354 P **Pn 03 56 30.1 -0.1**
comp=Z,10.0nm,0.8s
KRUC Moravsky 14.33 26 *e*PN **Pn 03 56 31.4 +1.0**
BZS Buzias 14.38 47 P **Pn 03 56 32.5 +1.4**
BZS Buzias 14.38 47 ⇑P **Pn 03 56 32.8 +1.7**
BZS Buzias 14.38 47 ⇑P **Pn 03 56 32.5 +1.4**
BZS Buzias 14.38 47 P **Pn 03 56 33.4 +2.2**
comp=Z,23nm,1.9s
TANN Tannenbergstha 14.43 15 *e*P **Pn 03 56 30.7 -1.2**
HERR Herculane 14.47 50 ⇑P **Pn 03 56 34.2 +1.7**
MOX Moxa 14.49 12 *e*P **Pn 03 56 32.0 -0.6**
MOX *e*L L 04 02 16.7
comp=Z,2µm,18.5s
MOX Moxa 14.49 12 P **Pn 03 56 36.0 +3.4**
comp=Z,40nm,1.1s
PRA Prague 14.59 20 *e*PN **Pn 03 56 34.7 +0.8**
VALD Valchedram 14.60 56 P **Pn 03 56 36.1 +2.0**
VRAC Vranov 14.61 26 Pn **Pn 03 56 34.5 +0.3**
comp=Z,0.2nm,0.3s,baz=242,slow=14,SNR=6.4
VRAC LR LR 04 02 41.4
comp=Z,2µm,18.2s,baz=213,slow=39
comp=Z,2.9nm,0.8s
VRAC AML AML
VRAC Vranov 14.61 26 P **Pn 03 56 37.2 +3.0**
VRAC Vranov 14.61 26 *e*PN **Pn 03 56 35.7 +1.5**
VRAC Vranov 14.61 26 ⇓P **Pn 03 56 37.2 +3.0**
JAVC Velka Javorina 14.64 30 *e*PN **Pn 03 56 35.2 +0.4**
JAVC Velka Javorina 14.64 30 P **Pn 03 56 36.5 +1.7**
comp=Z,35nm,1.6s
KASTN Kahler Asten 14.66 4 *e*P **Pn 03 56 36.5 +1.5**
BMOL Mol 14.68 356 *d*P **Pn 03 56 36.3 +1.2**
comp=Z,50nm,1.0s
BSZH Besenyszg 14.68 39 P **P 03 56 38.7 -2.7**
comp=Z,46nm,0.5s
MPEP Malo Peshtene 14.68 57 P **P 03 56 39.5 -2.0**
PGB Panagyurishte 14.69 51 P **Pn 03 56 36.8 +1.4**
SURR Surduc 14.75 47 ⇓P **Pn 03 56 37.6 +1.4**
IDI Anoyia 14.77 90 Pn **Pn 03 56 36.8 +0.2**
comp=Z,12nm,0.7s,baz=342,slow=12,SNR=6.5
IDI LR LR 04 03 28.2
comp=Z,1µm,20.2s,baz=276,slow=42
IDI Anoyia 14.77 90 **Pn 03 56 35.4 -1.2**
SIRR Siria 14.77 44 ⇑P **Pn 03 56 37.6 +1.1**
HSKC Hora Svate Kat 14.82 17 *e*PN **Pn 03 56 36.7 -0.5**
HSKC *e*SN **Sn 03 59 18.9 -2.5**
HSKC AMS AMS 04 02 20.0
comp=Z,5µm,18.1s
HSKC Hora Svate Kat 14.82 17 P **Pn 03 56 40.3 +3.1**
comp=Z,22nm,1.0s
VYHS Vyhne 14.85 33 *e*P **P 03 56 42.5 -0.9**
BUG Bochum--Univer 14.86 1 *e*P **Pn 03 56 38.5 +0.9**
BUG Bochum--Univer 14.86 1 P **Pn 03 56 38.5 +0.9**
comp=Z,36nm,1.7s
PSZ Piszkesteto 14.92 37 P **Pn 03 56 40.5 +2.0**
PSZ Piszkesteto 14.92 37 **Pn 03 56 38.0 -0.5**
PSZ Piszkesteto 14.92 37 *e*P **P 03 56 42.6 -1.6**
PSZ Piszkesteto 14.92 37 ⇑P **Pn 03 56 40.9 +2.4**
PSZ Piszkesteto 14.92 37 ⇑P **Pn 03 56 40.6 +2.0**
PSZ Piszkesteto 14.92 37 P **Pn 03 56 40.6 +2.2**
comp=Z,83nm,1.3s
RICC Richard 14.93 18 *e*PN **Pn 03 56 38.4 -0.2**
RICC AMS AMS 04 02 40.0
comp=Z,4µm,14.2s
GZR Gura Zlata 14.95 49 P **Pn 03 56 40.5 +1.6**
GZR Gura Zlata 14.95 49 ⇑P **Pn 03 56 40.6 +1.6**
PVCC Panska Ves 15.04 20 *e*PN **Pn 03 56 40.2 +0.2**
PVCC AMS AMS 04 02 40.0
comp=Z,5µm,9.3s
PVCC Panska Ves 15.04 20 P **P 03 56 45.0 -0.4**
comp=Z,36nm,1.1s
THERA Ancient Thera, 15.08 85 P **Pn 03 56 41.8 +1.1**
MAUC Maruska 15.11 29 *e*PN **Pn 03 56 43.7 +2.6**
MAUC AMS AMS 04 03 30.0
comp=Z,8µm,11.4s
GTTG Gottingen 15.13 8 *e*P **P 03 56 44.5 -2.0**
GTTG Gottingen 15.13 8 P **P 03 56 46.3 -0.2**
comp=Z,103nm,1.2s
BRG Berggiesshubel 15.19 18 *e*P **Pn 03 56 40.2 -1.9**
BRG Berggiesshubel 15.19 18 P **P 03 56 46.7 -0.5**
comp=Z,22nm,1.0s
BRG Berggiesshubel 15.19 18 *e*P **Pn 03 56 42.2 +0.1**
BRG Amp 03 56 44.9
comp=Z,2.6nm,0.7s
BRG Berggiesshubel 15.19 18 P **P 03 56 46.5 -0.6**
BRG Amp 03 56 54.9
comp=Z,19nm,1.0s
DEV Deva 15.28 48 P **Pn 03 56 45.2 +1.9**
DEV Deva 15.28 48 ⇑P **Pn 03 56 45.2 +1.9**
DEV Deva 15.28 48 P **Pn 03 56 45.0 +1.7**
comp=Z,37nm,1.2s
PLVB Pleven 15.29 58 ⇑P **Pn 03 56 44.3 +1.0**
KRLC Kraliky 15.32 25 *e*PN **Pn 03 56 46.6 +2.8**
KRLC AMS AMS 04 03 40.0
comp=Z,3µm,10.2s
KRLC Kraliky 15.32 25 P **P 03 56 46.8 -1.8**
comp=Z,55nm,1.0s
MORC Moravsky Berou 15.34 27 P **Pn 03 56 46.7 +2.6**
MORC Moravsky Berou 15.34 27 *e*PN **Pn 03 56 45.5 +1.4**
MORC Moravsky Berou 15.34 27 ⇑P **Pn 03 56 46.7 +2.6**
MORC Moravsky Berou 15.34 27 P **P 03 56 47.2 -1.6**
comp=Z,65nm,1.1s
CLL Collm 15.39 15 *e*P **Pn 03 56 44.0 -0.6**
CLL Collm 15.39 15 P **Pn 03 56 45.6 +1.0**
comp=Z,27nm,1.0s
CLL Collm 15.39 15 *e*P **Pn 03 56 45.0 +0.4**
CLL *i* PP **pP 03 56 51.9 -0.3**
CLL *e*sPP 03 56 56.0
CLL *i* x x 03 57 08.3
CLL *e*S **Sn 03 59 37.0 +2.0**
CLL L L 04 00 00.0
CLL AMS AMS 04 02 00.0
comp=N,3µm,17.8s
CLL AMS AMS 04 02 00.0
comp=E,5µm,15.0s
CLL AMS AMS 04 02 00.0
comp=Z,3µm,18.7s
CLL AMS AMS 04 03 00.0
comp=Z,0.0nm,6.3s
DPC Dobruska-Polom 15.40 24 *e*PN **Pn 03 56 46.7 +1.8**
DPC AMS AMS 04 02 40.0
comp=Z,3µm,9.8s
DPC Dobruska-Polom 15.40 24 P **P 03 56 49.7 +0.1**
comp=Z,66nm,1.2s
UPC Upice 15.44 23 *e*PN **Pn 03 56 47.0 +1.7**
UPC AMS AMS 04 03 40.0
comp=Z,5µm,13.3s
CHOS Chios island 15.44 77 P **Pn 03 56 47.6 +2.0**
comp=Z,245nm,1.4s
CLZ Clausthal 15.47 8 *e*P **Pn 03 56 48.1 +2.3**
CLZ Clausthal 15.47 8 P **P 03 56 49.3 -1.0**
comp=Z,47nm,1.3s
CHVC Chvalec 15.52 23 *e*PN **Pn 03 56 48.6 +2.1**
CHVC AMS AMS 04 03 50.0
comp=Z,5µm,9.3s
OSTC Ostas 15.55 23 *e*PN **Pn 03 56 48.0 +1.2**
OSTC AMS AMS 04 04 00.0
comp=Z,4µm,10.8s
STEB Steborice 15.55 27 *e*PN **Pn 03 56 48.9 +2.0**
LTVH Ltavrtes, Hu 15.58 41 P **P 03 56 52.1 +0.6**
comp=Z,81nm,1.2s
LOT Lotru 15.59 50 ⇑P **Pn 03 56 49.5 +2.1**
LOT Lotru 15.59 50 P **Pn 03 56 47.6 +0.2**
comp=Z,68nm,1.1s
KECS Kecovo 15.59 36 *e*P **P 03 56 54.1 +2.5**
OKC Ostrava-Krasne 15.62 28 *e*PN **P 03 56 51.6 -0.3**
OKC AMS AMS 04 04 10.0
comp=Z,4µm,10.6s
OKC Ostrava-Krasne 15.62 28 P **P 03 56 50.9 -1.0**
comp=Z,122nm,1.2s
LANS Liptovska Anna 15.62 33 *e*P **P 03 56 53.8 +1.8**
ALN Alexandroupoli 15.67 68 ⇑P **Pn 03 56 48.7 +0.4**
ALN Alexandroupoli 15.67 68 P **Pn 03 56 48.5 +0.2**
comp=Z,58nm,1.4s
DRGR 15.67 44 P **Pn 03 56 50.1 +1.7**
DRGR 15.67 44 ⇑P **Pn 03 56 50.2 +1.7**
DRGR 15.67 44 P **Pn 03 56 50.2 +1.7**
comp=Z,48nm,1.3s
EZN Ezine 15.73 72 P **Pn 03 56 50.5 +1.3**
EZN Ezine 15.73 72 ⇓P **Pn 03 56 50.6 +1.3**
EZN Ezine 15.73 72 P **Pn 03 56 49.9 +0.7**
comp=Z,61nm,1.4s
WOL Wolverton 15.79 341 *e*P **Pn 03 56 49.8 -0.1**
WOL IAmb IAmb 03 57 11.9
comp=Z,69nm,0.9s
ASSE Asse, Remlinge 15.79 9 *e*P **P 03 56 53.7 0.0**
ASSE Asse, Remlinge 15.79 9 P **P 03 56 55.4 +1.6**
comp=Z,68nm,1.3s
KSP Ksiaz 15.82 23 *e*P **P 03 56 54.9 +0.7**
ABAH Abaujker 15.83 38 P **Pn 03 56 52.5 +2.1**
comp=Z,54nm,1.2s
MARR Marisel-Cluj 15.84 45 ⇑P **Pn 03 56 52.1 +1.5**
ZKR Zakros 15.87 90 P **P 03 56 54.9 +0.2**
comp=Z,578nm,1.5s
HUMR Humele 15.95 55 ⇑P **Pn 03 56 54.0 +2.0**
HUMR Humele 15.95 55 P **Pn 03 56 53.9 +1.9**
comp=Z,104nm,1.0s
COPA Copaceanca 15.96 56 ⇓P **Pn 03 56 53.8 +1.7**
MESR Meseseni 16.01 44 ⇑P **P 03 56 55.2 -1.0**
FLTG Flechtingen 16.06 10 *e*P **P 03 56 56.4 -0.4**
FLTG Flechtingen 16.06 10 P **P 03 56 59.1 +2.4**
comp=Z,34nm,1.1s
ARR Arges 16.09 51 ⇓P **P 03 56 56.7 -0.5**
ARR Arges 16.09 51 P **P 03 56 56.3 -1.0**
comp=Z,46nm,1.3s
CJR Cluj-Napoca 16.13 46 P **Pn 03 56 56.2 +1.9**
CJR Cluj-Napoca 16.13 46 ⇑P **Pn 03 56 56.3 +1.9**
NIE Niedzica 16.18 33 *e*P **P 03 56 59.3 +1.1**
MDB Medias 16.30 49 P **Pn 03 56 58.2 +1.8**
MDB Medias 16.30 49 ⇓P **Pn 03 56 58.2 +1.8**
JMB Yambol 16.36 63 P **P 03 57 02.3 +2.2**
TRPA Tarpa 16.38 40 P **Pn 03 56 58.0 +0.6**
comp=Z,55nm,1.6s
VOIR 16.38 52 P **P 03 56 59.7 -0.7**
VOIR 16.38 52 ⇑P **P 03 56 59.8 -0.7**
VOIR 16.38 52 P **P 03 57 00.5 0.0**
comp=Z,52nm,0.9s
STRD Stroud 16.46 340 *e*P **Pn 03 56 58.4 -0.1**
STRD IAmb IAmb 03 57 10.6
comp=Z,73nm,0.8s
OLDB Oldbury-Upon-S 16.46 339 *e*P **Pn 03 56 58.1 -0.4**
OLDB IAmb IAmb 03 57 06.1
comp=Z,45nm,0.9s
SGRR Singureni 16.50 57 ⇑P **P 03 57 01.0 -0.7**
KARP Karpathos 16.55 88 **Pn 03 56 59.1 -0.7**
KARP IAmb IAmb 03 57 06.2
comp=Z,435nm,1.6s
KARP Karpathos 16.55 88 *e*P **P 03 57 01.7 -0.6**
KARP Karpathos 16.55 88 ⇑P **Pn 03 57 01.1 +1.3**
KARP Karpathos 16.55 88 P **Pn 03 57 01.0 +1.3**
comp=Z,182nm,1.2s
KARP Karpathos 16.55 88 P **P 03 57 01.9 -0.5**
comp=Z,182nm,1.2s
KARP Karpathos 16.55 88 P **P 03 57 01.3 -1.0**
comp=Z,182nm,1.2s
OJC Ojcow 16.57 31 *e*P **P 03 57 02.1 -0.4**
OJC Ojcow 16.57 31 ⇑P **P 03 57 03.1 +0.6**
OJC Ojcow 16.57 31 P **P 03 57 02.6 +0.2**
comp=Z,43nm,1.9s
BDRM Kayabasi 16.59 82 ⇓P **Pn 03 57 01.3 +1.0**
BMR Baia Mare 16.62 43 P **P 03 57 02.7 -0.3**
comp=Z,61nm,1.3s
LOZB Loznitsa 16.64 60 ⇓P **P 03 57 03.1 -0.2**
RUE Ruedersdorf 16.66 15 P **P 03 57 06.0 +2.7**
comp=Z,50nm,2.0s
MONM Monmouth 16.69 339 *e*P **Pn 03 57 01.4 0.0**
MONM IAmb IAmb 03 57 08.2
comp=Z,56nm,0.9s
BALY Balya 16.72 73 P **P 03 57 03.6 -0.7**
comp=Z,373nm,1.6s
KOLS Kolonicke sedl 16.77 38 *e*P **P 03 57 05.3 +0.7**
KOLS Kolonicke sedl 16.77 38 P **P 03 57 06.0 +1.3**
comp=Z,25nm,1.0s
ARCR ARCALIA 16.77 46 ⇓P **P 03 57 04.6 -0.1**
DOPR Dopca 16.83 50 ⇑P **P 03 57 05.5 +0.1**
SULR 16.85 55 ⇓P **P 03 57 05.9 +0.4**
SULR 16.85 55 P **P 03 57 05.9 +0.4**
comp=Z,108nm,1.7s
AYDN Tasoluk 16.90 80 P **P 03 57 05.9 -0.3**
comp=Z,597nm,1.3s
BALB Balikesir 16.91 73 IAmb IAmb 03 57 07.5
comp=Z,321nm,1.5s
BALB Balikesir 16.91 73 ⇑P **Pn 03 57 04.9 +0.6**
MLR Muntele Rosu 16.97 52 Pn **Pn 03 57 06.0 +0.8**
comp=Z,1.5nm,0.3s,baz=192,slow=7.7,SNR=38
MLR LR LR 04 04 16.2
comp=Z,4µm,18.9s,baz=255,slow=40
comp=Z,74nm,1.1s
MLR AML AML
MLR Muntele Rosu 16.97 52 P **P 03 57 07.7 +0.6**
MLR Muntele Rosu 16.97 52 IAmb IAmb 03 57 12.2
comp=Z,469nm,1.8s
MLR Muntele Rosu 16.97 52 ⇑P **P 03 57 07.7 +0.6**
MLR Muntele Rosu 16.97 52 P **P 03 57 07.7 +0.6**
comp=Z,205nm,1.2s
CWF Charnwood Fore 17.12 343 *e*P **Pn 03 57 05.9 -0.9**
CWF IAmb IAmb 03 57 12.9
comp=Z,20nm,0.8s
OZUR 17.14 50 ⇓P **P 03 57 09.8 +1.0**
LEHL Lehliu 17.15 56 ⇑P **P 03 57 10.0 +1.1**
NEHR Nehoiu 17.17 53 ⇓P **P 03 57 08.7 -0.4**
ISR Istrita 17.21 54 P **P 03 57 10.5 +0.9**
ISR Istrita 17.21 54 ⇑P **P 03 57 10.6 +0.9**
ARG Arkhangelos 17.23 85 IAmb IAmb 03 57 13.7
comp=Z,270nm,1.4s
ARG Arkhangelos 17.23 85 ⇑P **P 03 57 09.4 -0.3**
ARG Arkhangelos 17.23 85 P **Pn 03 57 08.7 +0.5**
comp=Z,130nm,1.2s
TURR Turia 17.26 51 ⇓P **P 03 57 11.6 +1.4**
COVR Voineasa-Covas 17.29 52 ⇓P **P 03 57 11.5 +1.0**
HLM1 Long Mynd 17.32 340 *e*P **Pn 03 57 09.0 -0.3**
HLM1 IAmb IAmb 03 57 24.6
comp=Z,22nm,0.8s
MANT Manisa 17.41 77 IAmb IAmb 03 57 17.3
comp=Z,301nm,1.9s
PGOR Pogoanele 17.42 55 ⇓P **P 03 57 13.2 +1.3**
KWP Kalwaria Pacla 17.45 37 *e*P **P 03 57 14.1 +1.9**
BISRR Bisoca 17.49 53 ⇑P **P 03 57 13.8 +1.1**
BSEG Bad Segeberg 17.53 7 *e*P **P 03 57 16.0 +3.0**
BSEG Bad Segeberg 17.53 7 P **P 03 57 16.2 +3.2**
comp=Z,88nm,1.5s
SAHR Sahastru 17.54 52 ⇓P **P 03 57 14.8 +1.5**
BURAR Bucovina Array 17.55 45 P **P 03 57 13.9 +0.5**
BURAR Bucovina Array 17.55 45 **P 03 57 14.0 +0.6**
BURAR Bucovina Array 17.55 45 ⇑P **P 03 57 14.0 +0.6**
PLOR Plostina 17.57 52 P **P 03 57 15.2 +1.6**
PLOR Plostina 17.57 52 ⇑P **P 03 57 15.2 +1.6**
ONER Baraj Valea Uz 17.62 50 ⇑P **P 03 57 14.4 +0.2**
VRI Vrincioaia 17.63 52 P **P 03 57 15.6 +1.4**
VRI Vrincioaia 17.63 52 ⇑P **P 03 57 15.7 +1.4**
VRI Vrincioaia 17.63 52 P **P 03 57 15.4 +1.2**
comp=Z,82nm,1.2s
STNC Stoke 17.66 342 P **P 03 57 15.6 +1.1**
BIZ Bicaz 17.73 48 ⇓P **P 03 57 17.2 +1.9**
TAVA DENIZLI_Tavas 17.73 80 ⇑P **P 03 57 16.4 +1.0**
FOEL Foel Wylfa 17.74 340 *e*P **Pn 03 57 14.0 -0.5**
FOEL IAmb IAmb 03 57 21.8
comp=Z,29nm,0.8s
FOEL Foel Wylfa 17.74 340 P **P 03 57 16.4 +1.0**
comp=Z,57nm,1.6s
ODBI Odobesti 17.80 53 ⇑P **P 03 57 18.1 +2.1**
LBWR Ladybower, Pea 17.83 343 *e*P **Pn 03 57 15.5 -0.1**
LBWR IAmb IAmb 03 57 26.7
comp=Z,45nm,0.8s
LBWR Ladybower, Pea 17.83 343 P **P 03 57 16.9 +0.6**
comp=Z,114nm,1.2s
TESR Tescani 17.86 50 ⇑P **P 03 57 18.7 +2.0**
TESR Tescani 17.86 50 P **P 03 57 16.9 +0.2**
TESR Tescani 17.86 50 P **Pn 03 57 15.6 -0.5**
comp=Z,57nm,1.6s
PANC Panciu 17.90 52 ⇓P **P 03 57 19.1 +2.0**
HARR Harsova 17.98 57 P **P 03 57 19.2 +1.2**
HARR Harsova 17.98 57 ⇓P **P 03 57 19.2 +1.2**
TLBR Topalu 18.00 57 ⇑P **P 03 57 20.0 +1.7**
PRAR RASCA 18.01 47 ⇑P **P 03 57 20.8 +2.5**
TUDR 18.12 54 ⇓P **P 03 57 20.9 +1.3**
YLV Yalova 18.13 70 P **P 03 57 20.1 +0.3**
comp=Z,74nm,1.2s
GHRR 18.14 52 ⇓P **P 03 57 21.4 +1.6**
GHRR 18.14 52 P **P 03 57 20.4 +0.6**
GHRR 18.14 52 P **P 03 57 21.6 +1.7**
comp=Z,133nm,1.4s
IZVR Izvoarele 18.17 54 ⇑P **P 03 57 21.3 +1.2**
BEL Belsk 18.22 29 *e*P **P 03 57 23.2 +2.6**
TIRR Tirgusor 18.23 58 P **P 03 57 21.7 +1.0**
TIRR Tirgusor 18.23 58 IAmb IAmb 03 57 25.2
comp=Z,248nm,1.4s
TIRR Tirgusor 18.23 58 ⇑P **P 03 57 22.6 +1.8**
TIRR Tirgusor 18.23 58 ⇑P **P 03 57 21.7 +1.0**
TIRR Tirgusor 18.23 58 P **P 03 57 21.4 +0.6**
comp=Z,128nm,1.2s
TIRR Tirgusor 18.23 58 P **P 03 57 21.4 +0.6**
comp=Z,128nm,1.2s
GKP Gorka Klasztor 18.23 20 *e*P **P 03 57 24.0 +3.3**
CFR Carcaliu 18.28 55 P **P 03 57 22.4 +1.1**
CFR Carcaliu 18.28 55 ⇓P **P 03 57 22.5 +1.1**
HPK Haverah Park 18.32 344 *e*P **Pn 03 57 21.6 -0.1**
HPK IAmb IAmb 03 57 26.2
comp=Z,48nm,0.8s
TPGR Topolog 18.36 57 ⇑P **P 03 57 24.4 +2.1**
VARL Varlezi 18.36 53 ⇓P **P 03 57 23.3 +1.1**
BIR Birlad 18.36 52 P **P 03 57 23.6 +1.3**
BIR Birlad 18.36 52 ⇓P **P 03 57 23.6 +1.3**
SCTR Scanteiesti 18.37 54 ⇓P **P 03 57 23.8 +1.5**
TATR Tatarca 18.37 54 ⇑P **P 03 57 24.2 +1.8**
DMBR Dumbraveni 18.40 50 ⇓P **P 03 57 24.4 +1.8**
AKAS Kas 18.41 84 P **Pn 03 57 22.9 -0.1**
comp=Z,393nm,1.4s
IWEX Carrickbyrne, 18.45 333 P **Pn 03 57 25.9 +2.7**
comp=Z,71nm,1.2s
IWEX Carrickbyrne, 18.45 333 P **Pn 03 57 25.1 +1.9**
PDRR Padureni 18.47 50 ⇓P **P 03 57 25.4 +1.8**
VLDR Vladesti 18.49 53 ⇑P **Pn 03 57 25.3 +1.6**
NGRR Negresti 18.49 50 ⇓P **Pn 03 57 25.9 +2.1**
MNTR Muntenesti 18.51 50 ⇓P **Pn 03 57 25.4 +1.3**
WPS Cemaes, Angles 18.56 338 *e*P **P 03 57 24.0 -0.3**

WPS IAmb IAmb 03 57 29.4
comp=Z,57nm,0.8s
ELL Elmali 18.59 83 P **Pn** **03 57 25.6 +0.5**
ELL pmax pmax
comp=Z,255nm,1.5s
ELL Elmali 18.59 83 **Pn** **03 57 25.6 +0.5**
ELL IAmb IAmb 03 57 29.0
comp=Z,255nm,1.5s
ELL Elmali 18.59 83 ⇑P **Pn** **03 57 25.3 +0.2**
GDLE Glaisdale, N Y 18.59 346 *e*P **P** **03 57 24.8 +0.1**
GDLE IAmb IAmb 03 57 28.8
comp=Z,62nm,0.9s
VASR Vaslui 18.62 51 ⇑P **Pn** **03 57 27.9 +2.5**
JURR Jurilovca 18.64 57 ⇓P **Pn** **03 57 27.8 +2.2**
DRBR Darabani 18.66 45 ⇓P **Pn** **03 57 28.0 +2.2**
R9F13 Warsaw-Wawer 18.66 29 *e*P **Pn** **03 57 28.3 +2.5**
R9F13 *e*S **Sn** **04 00 56.2 +1.9**
TLCR 18.73 56 P **Pn** **03 57 28.1 +1.4**
TLCR 18.73 56 ⇓P **Pn** **03 57 28.1 +1.4**
KMPD K-Podol'skiy 18.76 44 P **Pn** **03 57 27.6 +0.6**
ISP Isparta 18.98 79 *ce*P **Pn** **03 57 30.3 +0.4**
ISP pmax pmax
comp=Z,227nm,2.5s
ISP Isparta 18.98 79 IAmb IAmb 03 57 35.3
comp=Z,230nm,1.6s
ISP Isparta 18.98 79 *e*P **Pn** **03 57 29.8 -0.1**
DSB Dublin 19.02 335 P **Pn** **03 57 31.0 +0.8**
DSB Dublin 19.02 335 P **P** **03 57 26.5 -2.9**
EDMD Edmundbyers 19.21 345 *e*P **P** **03 57 31.1 -0.3**
EDMD IAmb IAmb 03 57 36.6
comp=Z,48nm,0.8s
KESW Keswick, Cumbr 19.25 342 *e*P **P** **03 57 32.0 +0.1**
KESW IAmb IAmb 03 57 42.3
comp=Z,38nm,0.8s
KIS Kishinev 19.41 51 P **Pn** **03 57 35.7 +0.8**
KIS Kishinev 19.41 51 ⇑P **Pn** **03 57 35.8 +0.8**
KIS Kishinev 19.41 51 P **Pn** **03 57 35.1 +0.2**
comp=Z,175nm,0.9s
MDUB Mudurnu 19.51 71 ⇑P **Pn** **03 57 38.3 +2.0**
SORM Soroca 19.63 47 P **P** **03 57 36.5 +0.3**
comp=Z,261nm,0.8s
ILTH Belurgan, Co L 19.66 337 P **Pn** **03 57 38.7 +0.9**
PURM Purcari 19.90 53 ⇓P **Pn** **03 57 40.3 -0.4**
PURM Purcari 19.90 53 P **P** **03 57 39.6 +0.5**
comp=Z,133nm,1.0s
KEPZ Antalya-Kepez 19.92 82 ⇑P **Pn** **03 57 41.2 +0.1**
ESK Eskdalemuir 19.93 343 P **P** **03 57 39.5 +0.1**
ESK pmax pmax
comp=Z,52nm,0.9s
ESK Eskdalemuir 19.93 343 P **P** **03 57 39.5 +0.1**
ESK Eskdalemuir 19.93 343 ⇑P **Pn** **03 57 41.1 0.0**
ESK Eskdalemuir 19.93 343 *e*P **P** **03 57 39.5 +0.1**
ESK IAmb IAmb 03 57 43.3
comp=Z,30nm,0.7s
ESK Eskdalemuir 19.93 343 P **P** **03 57 37.8 -1.6**
comp=Z,65nm,1.3s
EKA Eskdalemuir Ar 19.94 343 P **P** **03 57 40.5 +1.0**
baz=155,slow=11
EKA LR LR 04 05 10.0
comp=Z,2µm,20.5s,baz=162,slow=36
comp=Z,32nm,0.7s
MUD Monsted U'grnd 19.95 4 *i*P **Pn** **03 57 42.5 +1.3**
MUD IAmb IAmb 03 57 45.0
comp=Z,66nm,1.2s
NEWG New Galloway 20.00 341 *e*P **P** **03 57 40.5 +0.4**
NEWG IAmb IAmb 03 57 46.4
comp=Z,25nm,0.7s
PMOZ Porto Moniz, M 20.02 266 *e*LR LR 04 04 20.6
PMOZ IAMs_20 IAMs_20 04 06 01.2
comp=Z,945nm,16.0s
RNPP5 Staryi Chortor 20.03 37 P **P** **03 57 41.0 +0.5**
RNPP8 Varash 20.08 37 P **P** **03 57 42.2 +1.2**
RNPP2 Kostyukhnivka 20.09 37 P **P** **03 57 41.9 +0.7**
RNPP9 Sopachiv 20.15 37 P **P** **03 57 42.0 +0.2**
LUBAR Lubar, Ukraine 20.21 42 P **P** **03 57 42.1 -0.4**
IGLA Glengowla, Co 20.25 331 P **P** **03 57 42.9 +0.1**
DEL Delary 20.47 11 *i*P **P** **03 57 44.0 -1.2**
EDI Edinburgh 20.49 344 *e*P **P** **03 57 45.6 +0.3**
EDI IAmb IAmb 03 57 49.9
comp=Z,104nm,0.7s
GGERF Dalmarnock 20.65 342 *e*P **P** **03 57 47.9 +0.7**
GGERF IAmb IAmb 03 57 51.6
comp=Z,66nm,0.8s
BLEU Blekinge 20.66 14 *i*P **P** **03 57 47.4 +0.2**
KKUL Konya-Kulu 20.80 75 P Pn 03 57 51.9 +0.4
comp=Z,159nm,1.4s
FABU Falkenberg 20.82 9 *i*P **P** **03 57 50.2 +1.3**
SUW Suwalki 20.83 28 *e*P **P** **03 57 49.1 0.0**
SUW Suwalki 20.83 28 P **P** **03 57 48.7 -0.4**
SUW Suwalki 20.83 28 **P** **03 57 48.7 -0.4**
SUW Suwalki 20.83 28 *e*P **P** **03 57 49.6 +0.5**
SUW Suwalki 20.83 28 ⇑P **P** **03 57 49.2 +0.1**
OVD Ostervraa, Den 20.87 5 *i*P Pn 03 57 52.8 +0.8
OVD IAmb IAmb 03 57 54.0
comp=Z,222nm,0.9s
IDGL Inch Island, C 20.91 337 P **P** **03 57 51.3 +1.3**
IDGL Inch Island, C 20.91 337 P Pn 03 57 53.0 +0.5
comp=Z,167nm,1.1s
EAB Aberfoyle 21.00 343 *e*P **P** **03 57 51.8 +0.9**
EAB IAmb IAmb 03 57 56.7
comp=Z,36nm,0.8s
ONAU Onsala 21.11 8 *i*P **P** **03 57 53.6 +1.6**
INVG Invergeldie, C 21.14 343 *e*P **P** **03 57 53.2 +0.7**
INVG IAmb IAmb 03 57 58.4
comp=Z,33nm,1.1s
DRUM Mains of Drumt 21.26 346 *e*P **P** **03 57 53.8 0.0**
DRUM IAmb IAmb 03 57 57.5
comp=Z,103nm,0.8s
AK13 Malin Array Si 21.29 42 P **P** **03 57 53.3 -0.8**
AK19 Malin Array Si 21.32 41 P **P** **03 57 53.2 -1.3**
AK14 Malin Array Si 21.32 42 P **P** **03 57 53.2 -1.3**
AK17 Malin Array Si 21.33 42 P **P** **03 57 53.2 -1.3**
AK20 Malin Array Si 21.33 41 P **P** **03 57 53.3 -1.3**
AK16 Malin Array Si 21.34 42 P **P** **03 57 53.4 -1.3**
AK06 Malin Array Si 21.35 42 P **P** **03 57 53.4 -1.4**
AK18 Malin Array Si 21.35 42 P **P** **03 57 53.5 -1.3**
AK12 Malin Array Si 21.36 42 P **P** **03 57 53.6 -1.2**
BR131 Keskin Array S 21.36 73 P **P** **03 57 54.6 -0.5**
SNR=35
BR131 S **S** **04 01 51.7 -0.6**
BR131 Keskin Array S 21.36 73 P **P** **03 57 56.2 +1.1**
BR131 pmax pmax
comp=Z,135nm,1.3s
BR131 Keskin Array S 21.36 73 **P** **03 57 56.2 +1.1**
BR131 IAmb IAmb 03 58 02.3
comp=Z,135nm,1.3s
BRTR Keskin Array B 21.36 73 P **P** **03 57 56.4 +1.3**
comp=Z,21nm,0.8s,baz=264,slow=8.9,SNR=112
BRTR LR LR 04 07 15.3
comp=Z,741nm,18.1s,baz=250,slow=40
comp=Z,21nm,0.8s
AK15 Malin Array Si 21.37 42 P **P** **03 57 53.8 -1.2**
AK21 Malin Array Si 21.37 41 P **P** **03 57 53.8 -1.2**
AK05 Malin Array Si 21.37 42 P **P** **03 57 53.8 -1.2**
AK22 Malin Array Si 21.38 41 P **P** **03 57 53.8 -1.2**
AK11 Malin Array Si 21.38 42 P **P** **03 57 53.9 -1.2**
AK10 Malin Array Si 21.39 42 P **P** **03 57 53.9 -1.2**
AK10 pP **pP** **03 57 58.6 +0.5**
AK02 Malin Array Si 21.39 42 P **P** **03 57 53.9 -1.3**
AK08 Malin Array Si 21.41 42 P **P** **03 57 54.1 -1.2**
AK04 Malin Array Si 21.41 42 P **P** **03 57 54.1 -1.3**
AK04 pP **sP** **03 57 59.8 +0.2**
AK23 Malin Array Si 21.41 42 P **P** **03 57 54.1 -1.3**
AK23 pP **sP** **03 57 59.3 -0.3**
AK09 Malin Array Si 21.41 42 P **P** **03 57 54.1 -1.3**
KIEV Kiev 21.41 42 *i*P **P** **03 57 53.8 -1.6**
SNR=6.1
KIEV Kiev 21.41 42 P **P** **03 57 53.8 -1.6**
KIEV pmax pmax
comp=Z,209nm,1.1s
KIEV Kiev 21.41 42 **P** **03 57 53.8 -1.6**
KIEV IAmb IAmb 03 57 56.9
comp=Z,209nm,1.1s
KIEV Kiev 21.41 42 ⇑P **P** **03 57 53.3 -2.2**
KIEV Kiev 21.41 42 P **P** **03 57 54.3 -1.1**
comp=Z,820nm,1.2s
KIEV pP **sP** **03 57 59.4 -0.3**
comp=Z,820nm,1.2s
KIEV Kiev 21.41 42 P **P** **03 57 54.4 -1.1**
comp=Z,208nm,1.2s
AK01 Malin Array Si 21.41 42 P **P** **03 57 54.1 -1.3**
AKASG Malin Array Be 21.43 42 P **P** **03 57 53.9 -1.7**
comp=Z,135nm,0.9s,baz=242,slow=11,SNR=72
AKASG PcP **PcP** **04 01 57.9 -0.8**
comp=Z,0.2nm,0.3s,baz=266,slow=2.8,SNR=4.6
AKASG LR LR 04 07 27.5
comp=Z,1µm,18.3s,baz=239,slow=40
comp=Z,135nm,0.9s
AKBB Malin Array Si 21.43 42 *i*P **P** **03 57 54.7 -0.9**
AKBB pmax pmax
comp=Z,225nm,1.0s
AKBB Malin Array Si 21.43 42 P **P** **03 57 54.3 -1.3**
AK03 Malin Array Si 21.44 42 P **P** **03 57 54.4 -1.3**
ILGA Ilgaz 21.45 70 P **P** **03 57 57.3 +1.0**
ILGA IAmb IAmb 03 58 02.8
comp=Z,195nm,1.1s
KIRS Kirsehir-Merke 21.58 75 ⇑P **P** **03 57 59.6 +2.1**
CSS Mathiatis 21.62 86 **P** **03 57 58.6 +0.9**
CSS Mathiatis 21.62 86 ⇑P **P** **03 57 58.8 +0.9**
CSS Mathiatis 21.62 86 P **P** **03 57 59.0 +1.2**
comp=Z,1µmcomp=Z,111nm,1.4s
CSS Mathiatis 21.62 86 **P** **03 57 59.6 +1.8**
comp=Z,1µmcomp=Z,111nm,1.4s
CSS Mathiatis 21.62 86 P **P** **03 57 59.0 +1.2**
comp=Z,111nm,1.4s
HOMB Homborsund 21.73 3 *i*P **P** **03 58 02.1 +3.4**
SNART Snartemo 21.77 1 *i*P **P** **03 58 02.9 +3.8**
PABE Paberze 22.27 26 **P** **03 58 03.7 -0.9**
PABE IAmb IAmb 03 58 07.9
comp=Z,160nm,1.1s
PABE Paberze 22.27 26 *e*P **P** **03 58 04.0 -0.6**
PABE Paberze 22.27 26 P **P** **03 58 04.3 -0.3**
comp=Z,182nm,1.3s
SIM Simferopol' 22.28 59 *e*P **P** **03 58 06.4 +1.6**
SIM pmax pmax
comp=Z,229nm,1.2s
SIM MLR MLR
comp=Z,900nm,8.8s
VSVD Vaisvydziai 22.63 26 *e*P **P** **03 58 08.7 +0.3**
NACGM Naroch 22.91 31 *e*P **P** **03 58 10.9 -0.5**
comp=E,98nm,0.9s
MNK Minsk 23.09 32 *i*P **P** **03 58 11.7 -1.5**
MNK *i*PPP PPP 03 58 44.0
MNK *i*S **S** **04 02 22.3 -1.9**
MNK *i*SSS SSS 04 03 08.0
MNK pmax pmax
comp=N,21nm,0.8s
MNK pmax pmax
comp=E,28nm,0.7s
MNK pmax pmax
comp=Z,34nm,0.7s
MNK MLR MLR
comp=N,789nm,13.0s
MNK MLR MLR
comp=Z,643nm,12.0s
MNK MLR MLR
comp=E,1µm,14.0s
MNK Minsk 23.09 32 *i*P **P** **03 58 11.8 -1.5**
comp=E,28nm,0.7s
MNK *i*P **P** **03 58 11.8 -1.5**
comp=N,21nm,0.8s
MNK *i*P **P** **03 58 11.8 -1.5**
comp=Z,34nm,0.7s,baz=228
MNK *i*PP **PnPn** **03 58 36.1 -2.2**
MNK *i*PPP PPP 03 58 44.0
MNK *i*S **S** **04 02 22.4 -1.9**
MNK *i*SS **SnSn** **04 02 54.6 -2.2**
MNK *i*SSS SSS 04 03 08.0
MNK *i*LQ LQ 04 05 14.4
MNK *i*LR LR 04 06 35.8
MNK *i*LRM MLR 04 08 03.7
comp=N,789nm,13.4s
MNK *i*LRM MLR 04 08 09.2
comp=Z,643nm,12.1s
MNK *i*LRM MLR 04 08 33.2
comp=E,1µm,13.8s
BNN Bunyan 23.10 76 IAmb IAmb 03 58 18.7
comp=Z,195nm,1.3s
BNN Bunyan 23.10 76 ⇑P **P** **03 58 14.3 +0.6**
ISAL Salakas 23.13 29 *e*P **P** **03 58 14.4 +0.8**
ANDN Andirin 23.60 79 P **P** **03 58 19.7 +1.0**
comp=Z,350nm,0.9s
KZIT Kziot 23.64 96 ⇑P **P** **03 58 20.8 +1.8**
KZIT Kziot 23.64 96 P **P** **03 58 23.0 +4.0**
comp=Z,2µmcomp=Z,116nm,1.2s
KZIT Kziot 23.64 96 P **P** **03 58 21.0 +2.0**
comp=Z,116nm,1.2s
BHL Bhannes 23.73 88 *e*P **P** **03 58 22.3 +2.3**
MMAI Mount Meron Ar 23.77 90 P **P** **03 58 20.1 -0.3**
comp=Z,23nm,0.9s,baz=344,slow=12,SNR=18
comp=Z,23nm,0.9s
TORD Torodi Ar. Bea 23.77 192 P **P** **03 58 18.2 -2.2**
comp=Z,9.9nm,0.5s,baz=2.9,slow=9.7,SNR=66
TORD S **S** **04 02 33.6 -2.2**
comp=Z,7.6nm,1.1s,baz=9.8,slow=18,SNR=4.7
TORD LR LR 04 08 12.8
comp=Z,3µm,18.1s,baz=8.0,slow=38
comp=Z,9.9nm,0.5s
TORD Torodi Ar. Bea 23.77 192 P **P** **03 58 17.9 -2.5**
AMAZ Amatzia 23.84 94 ⇑P **P** **03 58 22.6 +1.6**
AMAZ Amatzia 23.84 94 P **P** **03 58 24.2 +3.2**
comp=Z,3µmcomp=Z,296nm,1.3s
HWQ Hawqa 23.87 87 *e*P **P** **03 58 22.2 +0.8**
SALP Salfit 23.89 92 ⇑P **P** **03 58 23.5 +2.1**
SALP Salfit 23.89 92 P **P** **03 58 25.1 +3.7**
comp=Z,2µmcomp=Z,143nm,1.6s
GEM Giv'at Ha'Em 23.92 90 ⇑P **P** **03 58 23.6 +1.9**
GEM Giv'at Ha'Em 23.92 90 P **P** **03 58 24.9 +3.2**
MMLI Mount Malkishu 23.95 91 P **P** **03 58 24.7 +2.6**
comp=Z,205nm,1.4s
HFS Hagfors 23.99 9 P **P** **03 58 21.5 -0.6**
comp=Z,13nm,0.9s,baz=213,slow=12,SNR=12
HFS LR LR 04 08 35.1
comp=Z,2µm,18.4s,baz=194,slow=39
comp=Z,13nm,0.9s
BEIL Beino 24.00 86 *e*P **P** **03 58 23.7 +1.2**
QRNJ Al-Qirein 24.11 92 P **P** **03 58 28.8 +5.4**
comp=Z,54µmcomp=Z,6µm,1.0s
UJAP Al Uja 24.14 93 P **P** **03 58 28.3 +4.6**
comp=Z,2µmcomp=Z,181nm,1.4s
UJAP Al Uja 24.14 93 P **P** **03 58 26.3 +2.6**
comp=Z,181nm,1.4s
MSBI Mazada 24.27 94 ⇑P **P** **03 58 26.9 +2.0**
MSBI Mazada 24.27 94 P **P** **03 58 27.3 +2.4**
comp=Z,101nm,1.6s
PRNI Paran 24.34 97 P **P** **03 58 27.6 +2.0**
comp=Z,5µmcomp=Z,280nm,1.3s
GAZ Gazanlop 24.34 79 ⇑P **P** **03 58 27.6 +2.0**
NC602 NORSAR Array S 24.37 6 IAmb IAmb 03 58 29.3
comp=Z,82nm,1.2s
LISJ El Lisan 24.39 94 P **P** **03 58 29.3 +3.3**
comp=Z,1µmcomp=Z,67nm,2.1s
NAO01 NORSAR Array S 24.43 5 IAmb IAmb 03 58 31.9
comp=Z,57nm,1.1s
GHAJ Ghor Haditha 24.44 94 **P** **03 58 27.6 +1.1**
GHAJ Ghor Haditha 24.44 94 P **P** **03 58 30.1 +3.6**
comp=Z,2µmcomp=Z,108nm,1.4s
GHAJ Ghor Haditha 24.44 94 P **P** **03 58 29.4 +2.9**
comp=Z,108nm,1.4s
HRFI Mount Harif 24.48 97 P **P** **03 58 30.5 +3.6**
comp=Z,1µmcomp=Z,80nm,1.6s
EIL Elat 24.56 98 LR LR 04 10 23.1
comp=Z,2µm,19.2s,baz=282,slow=42
EIL Elat 24.56 98 ⇑P **P** **03 58 29.5 +1.9**
EIL Elat 24.56 98 P **P** **03 58 30.8 +3.2**
comp=Z,861nmcomp=Z,42nm,1.5s
EIL Elat 24.56 98 P **P** **03 58 30.9 +3.2**
comp=Z,42nm,1.5s
ANN Anapa 24.57 61 *e*P **P** **03 58 26.6 -0.9**
ANN *e*S **S** **04 02 46.3 -2.0**
ANN pmax pmax
comp=Z,139nm,0.9s
ANN MLR MLR
comp=N,1µm,14.0s
ANN MLR MLR
comp=Z,711nm,12.0s
NBO00 NORSAR Array S 24.60 5 IAmb IAmb 03 58 30.8
comp=Z,54nm,0.8s
AQBJ Aqaba 24.61 98 P **P** **03 58 32.9 +4.8**
comp=Z,2µmcomp=Z,131nm,1.3s
NB2 NORSAR Subarra 24.64 5 P **P** **03 58 28.6 +0.5**
comp=Z,55nm,1.2s,baz=189,slow=9.3
NB2 NORSAR Subarra 24.64 5 P **P** **03 58 28.0 -0.1**
NOA NORSAR Array B 24.64 5 P **P** **03 58 27.8 -0.3**
comp=Z,20nm,0.9s,baz=194,slow=8.6,SNR=23
NOA LR LR 04 07 48.3
comp=Z,506nm,19.8s,baz=190,slow=36
comp=Z,20nm,0.9s
NB201 NORSAR Array S 24.66 5 IAmb IAmb 03 58 39.3
comp=Z,158nm,1.6s
HSUJ Al Zarqa 24.68 92 P **P** **03 58 34.0 +5.3**
comp=Z,2µmcomp=Z,116nm,1.6s
NC405 NORSAR Array S 24.75 6 IAmb IAmb 03 58 38.4
comp=Z,80nm,1.4s
SWQJ Karak 24.84 93 P **P** **03 58 35.8 +5.4**
comp=Z,223nmcomp=Z,10nm,0.8s
NC303 NORSAR Array S 24.84 5 IAmb IAmb 03 58 44.0
comp=Z,155nm,1.8s
NC204 NORSAR Array S 24.85 5 IAmb IAmb 03 58 39.3
comp=Z,75nm,1.1s
HSNJ Maan 24.92 96 P **P** **03 58 36.3 +5.3**
comp=Z,3µmcomp=Z,187nm,1.1s
KEMA Kemaliye 25.13 74 P **P** **03 58 33.5 +0.8**
comp=Z,387nm,1.3s
ASF Jabal al Asfar 25.23 91 P **P** **03 58 37.8 +4.1**
comp=Z,8µmcomp=Z,607nm,1.6s
VSU Vasula 25.53 25 *i*P **P** **03 58 35.7 -0.3**
VSU pmax pmax
comp=Z,118nm,0.9s
VSU Vasula 25.53 25 *e*P **P** **03 58 36.8 +0.8**
VSU Vasula 25.53 25 ⇑P **P** **03 58 35.4 -0.7**
KTUT Trabzon 26.03 70 ⇑P **P** **03 58 42.8 +2.0**
ARBE Arbavere 26.05 23 *e*P **P** **03 58 43.1 +2.3**
SOC Sochi 26.06 64 *e*P **P** **03 58 41.5 +0.4**
SOC *e*PPP PPP 03 59 25.3
SOC *e*S **S** **04 03 14.1 +2.0**
SOC *e*SSS SSS 04 04 26.1
SOC pmax pmax
comp=Z,119nm,1.0s
RAF Rauma 26.25 17 *e*P **P** **03 58 42.6 0.0**
ERBR Yeremizino-Bor 26.83 60 *e*P **P** **03 58 48.1 +0.1**
ERBR *e*S **S** **04 03 28.6 +4.3**
ERBR pmax pmax
comp=Z,103nm,1.2s
ERBR MLR MLR
comp=Z,1µm,18.0s
ERBR MLR MLR
comp=E,1µm,10.0s
VORD Divnogorie 27.29 48 *e*P **P** **03 58 49.5 -2.6**
VORD pmax pmax
comp=Z,10.0nm,1.0s
VSR Storozhevoye 27.30 47 *e*P **P** **03 58 51.3 -0.8**
VSR pmax pmax
comp=Z,24nm,0.7s
VORR Voronezh 27.48 46 *e*P **P** **03 58 52.8 -1.0**
VORR pmax pmax
comp=Z,32nm,0.5s
OBN Obninsk 27.52 38 LR LR 04 09 53.2
comp=Z,2µm,21.2s,baz=224,slow=37
OBN Obninsk 27.52 38 ⇓*e*P **P** **03 58 52.7 -1.4**
OBN *e* 03 59 38.9
OBN *e*S **S** **04 03 35.1 +0.3**
OBN *e*SS **SnSn** **04 04 49.6 +4.7**
OBN pmax pmax
comp=Z,130nm,2.5s
OBN MLR MLR
comp=Z,2µm,20.0s
OBN Obninsk 27.52 38 P **P** **03 58 55.2 +1.2**
OBN Obninsk 27.52 38 P **P** **03 58 55.1 +1.0**
comp=Z,46nm,1.4s
LPSR Galich'ya Gora 27.66 44 *e*P **P** **03 58 54.4 -1.0**
LPSR pmax pmax
comp=Z,42nm,0.8s
HOMI Horasan 27.70 72 ⇑P **P** **03 58 58.6 +2.5**
FINES FINESS Array B 27.71 20 P **P** **03 58 54.9 -0.8**
comp=Z,18nm,0.8s,baz=174,slow=3.8,SNR=14
FINES PcP **PcP** **04 02 12.6 +0.3**
comp=Z,3.5nm,0.6s,baz=197,slow=4.4,SNR=5.1
FINES LR LR 04 11 27.8
comp=Z,1µm,19.7s,baz=212,slow=40
comp=Z,18nm,0.8s
PUL Pulkovo 27.74 26 *i*P **P** **03 58 56.2 +0.2**
PUL pmax pmax
comp=Z,23nm,0.7s
GURO Guroymak-BITLI 27.94 75 IAmb IAmb 03 59 06.6
comp=Z,84nm,1.4s
GURO Guroymak-BITLI 27.94 75 ⇑P **P** **03 59 00.0 +1.7**
KEF Keuruu 27.99 18 *e*P **P** **03 58 58.5 +0.2**
SHA1 Shidzhatmaz 28.20 64 *i*P **P** **03 59 00.5 -0.1**
NEUR Neytrino 28.22 65 *i*P **P** **03 59 01.6 +0.9**
NEUR pmax pmax
comp=Z,14nm,1.1s
KIV Kislovodsk 28.23 64 *i*P **P** **03 59 00.7 0.0**
SNR=6.7
KIV Kislovodsk 28.23 64 P **P** **03 59 03.9 +3.2**
KIV Kislovodsk 28.23 64 P **P** **03 59 03.2 +2.5**
KIV Kislovodsk 28.23 64 P **P** **03 59 00.1 -0.6**
KIV IAmb IAmb 03 59 20.0
comp=Z,51nm,1.1s
KIV Kislovodsk 28.23 64 ⇓P **P** **03 59 03.2 +2.5**
VAF Ylistaro 28.25 15 *e*P **P** **03 59 01.3 +0.8**
MOS Moscow 28.35 38 *e*P **P** **03 59 00.0 -1.5**
MOS *e* 03 59 51.6
MOS *e* 04 03 47.9
MOS pmax pmax
comp=Z,54nm,0.9s
MOS MLR MLR
comp=Z,1µm,12.0s
KBZ Khabaz 28.38 64 P **P** **03 59 02.4 +0.5**
comp=Z,6.8nm,1.1s,baz=267,slow=10.0,SNR=7.4
comp=Z,6.8nm,1.1s
SUF Sumiainen 28.78 19 *e*P **P** **03 59 05.9 +0.6**
VRH Novokhopyorsk 28.82 48 *e*P **P** **03 59 04.7 -1.0**
VRH pmax pmax
comp=Z,82nm,0.7s
NCK Nalchik 28.88 65 *i*P **P** **03 59 07.2 +0.8**
NCK pmax pmax
comp=Z,16nm,1.0s
OZAP Van, Ozalp-Mer 29.45 75 ⇑P **P** **03 59 13.5 +1.7**
GNI Garni 29.86 71 P **P** **03 59 16.7 +1.4**
GNI Garni 29.86 71 P **P** **03 59 14.4 -0.8**
GNI Garni 29.86 71 P **P** **03 59 15.9 +0.6**
GNI pmax pmax
comp=Z,143nm,1.6s
GNI Garni 29.86 71 P **P** **03 59 15.9 +0.6**
GNI Garni 29.86 71 ⇑P **P** **03 59 16.9 +1.6**
DBIC Dimbokro 31.60 202 P **P** **03 59 30.9 +0.3**
comp=Z,8.8nm,0.9s,baz=34,slow=11,SNR=9.3
DBIC LR LR 04 13 23.3
comp=Z,3µm,18.6s,baz=26,slow=38
comp=Z,8.8nm,0.9s
DBIC Dimbokro 31.60 202 P **P** **03 59 30.9 +0.3**
DBIC pmax pmax
comp=Z,23nm,1.2s
KLMR Klimovskoe 31.93 30 *e*P **P** **03 59 31.7 -1.4**
KLMR *e* 04 00 35.1
KLMR pmax pmax
comp=Z,61nm,1.7s
LANU Lannavaara 32.67 11 *e*P **P** **03 59 40.2 +0.7**
BELG Belogornoye 32.67 48 LR LR 04 14 10.1
comp=Z,526nm,19.3s,baz=268,slow=39
BELG Belogornoye 32.67 48 *i*P **P** **03 59 39.2 -0.4**
BELG pmax pmax
comp=Z,7.0nm,0.9s
BORG Borgarnes 32.78 338 LR LR 04 12 45.2
comp=Z,1µm,18.4s,baz=135,slow=36
APA Apatity 34.51 18 *e*P **P** **03 59 56.0 +0.5**
APA *e* 04 01 06.8
APA *e* 04 02 28.0
APA pmax pmax
comp=Z,9.0nm,1.3s
APA MLR MLR
comp=Z,5µm,8.2s
ARCES ARCESS Array B 34.56 12 PcP **PcP** **04 02 29.6 -0.8**
comp=Z,3.2nm,0.8s,baz=144,slow=2.3,SNR=7.0
ARCES LR LR 04 14 44.0
comp=Z,1µm,18.9s,baz=245,slow=38
KIRV Kirov 35.37 38 LR LR 04 14 27.0
comp=Z,2µm,20.5s,baz=253,slow=36
KIRV Kirov 35.37 38 *i*P **P** **04 00 02.6 -0.4**
JMIC Jan Mayen 35.40 351 LR LR 04 14 27.1
comp=Z,519nm,18.7s,baz=86,slow=36
RAYN Ar Rayn 35.75 100 P **P** **04 00 07.9 +1.1**
RAYN Ar Rayn 35.75 100 P **P** **04 00 07.3 +0.5**
RAYN Ar Rayn 35.75 100 P **P** **04 00 07.1 +0.3**
RAYN pmax pmax
comp=Z,7.0nm,1.0s
RAYN Ar Rayn 35.75 100 P **P** **04 00 07.1 +0.3**
SCO Scoresbysund 37.23 345 *i*P **P** **04 00 22.0 +3.2**
SCO IAmb IAmb 04 00 22.7
comp=Z,10nm,1.0s
AKTO Aktyubinsk 38.91 53 P **P** **04 00 31.9 -1.3**
comp=Z,7.2nm,0.6s,baz=285,slow=6.1,SNR=17
AKTO LR LR 04 19 03.5
comp=Z,649nm,18.2s,baz=238,slow=40

comp=Z,7.2nm,0.6s
ARTI Arti 39.56 43 P **P** **04 00 37.5 -1.1**
comp=Z,18nm,0.8s,baz=255,slow=5.4,SNR=24
ARTI PP **PP** **04 02 08.8 -0.4**
comp=Z,23nm,1.0s,baz=245,slow=11,SNR=3.7
ARTI LR LR 04 17 56.1
comp=Z,793nm,18.2s,baz=266,slow=38
comp=Z,18nm,0.8s
ARTI Arti 39.56 43 P **P** **04 00 37.4 -1.2**
ARTI IAmb IAmb 04 00 49.4
comp=Z,38nm,0.7s
AB31 Akbulak array 40.17 54 P **P** **04 00 42.2 -1.5**
ABKAR Akbulak array 40.17 54 P **P** **04 00 42.2 -1.6**
NRS Narsarsuaq 40.67 324 *i* P **P** **04 00 49.0 +1.3**
NRS IAmb IAmb 04 00 50.6
comp=Z,28nm,0.8s
SVE Sverdlovsk 40.85 43 *eP* **P** **04 00 48.8 -0.5**
SVE pmax pmax
comp=Z,60nm,1.6s
JRN Qarnain Island 40.94 93 P **P** **04 00 50.2 -0.2**
ATD Arta Tunnel 40.96 118 LR LR 04 19 53.0
comp=Z,2µm,18.1s,baz=322,slow=39
DAG Danmarks Havn 41.85 351 *i* P **P** **04 00 58.0 +0.8**
DAG IAmb IAmb 04 01 00.1
comp=Z,4.3nm,1.0s
IVI Ivigtut 41.99 324 *i* P **P** **04 00 59.5 +0.9**
IVI IAmb IAmb 04 01 01.4
comp=Z,87nm,1.6s
LODK Lodwar 42.23 135 P **P** **04 01 00.1 -1.0**
SNR=7.1
LODK Lodwar 42.23 135 P **P** **04 01 00.5 -0.6**
MZR Muzera 42.37 95 P **P** **04 01 02.5 +0.3**
SNR=5.9
SUMG Summit 42.55 342 P **P** **04 01 02.8 -0.6**
SUMG pmax pmax
comp=Z,13nm,0.7s
SUMG Summit 42.55 342 P **P** **04 01 02.8 -0.6**
SUMG Summit 42.55 342 *i* P **P** **04 01 04.0 +0.6**
SUMG IAmb IAmb 04 01 06.5
comp=Z,14nm,0.8s
ASUD Al Ashush, Dub 43.08 92 P **P** **04 01 07.9 0.0**
SHME Shamm 43.09 90 *i* P **P** **04 01 07.6 -0.3**
SNR=6.8
SHME Shamm 43.09 90 P **P** **04 01 07.9 0.0**
NAZ Nazwa, Dubai 43.18 91 *i* P **P** **04 01 08.3 -0.4**
SNR=15
FAQ Al Faqa, Dubai 43.23 92 P **P** **04 01 10.0 +0.8**
BANOM Banah 43.27 90 P **P** **04 01 09.9 +0.5**
BANOM Banah 43.27 90 P **P** **04 01 10.3 +0.8**
MASF Masafi 43.40 91 P **P** **04 01 10.1 -0.5**
MDH Madha 43.55 91 P **P** **04 01 11.8 +0.1**
MDH Madha 43.55 91 P **P** **04 01 10.9 -0.8**
HATD Hatta, Dubai 43.63 91 *i* P **P** **04 01 11.8 -0.6**
SNR=12
UOSS Minazif 43.63 91 *i* P **P** **04 01 11.8 -0.6**
SNR=11
UOSS Minazif 43.63 91 P **P** **04 01 11.4 -0.9**
UOSS Minazif 43.63 91 P **P** **04 01 11.1 -1.3**
UOSS IAmb IAmb 04 01 14.8
comp=Z,32nm,0.8s
ASHO Ashiyiah 43.64 91 *i* P **P** **04 01 12.2 -0.2**
SNR=13
ASHO Ashiyiah 43.64 91 P **P** **04 01 10.8 -1.6**
SNR=7.5
ALNE Al Ain 43.69 92 P **P** **04 01 13.3 +0.5**
SNR=8.5
SFJD Kangerlussuaq 44.25 332 LR LR 04 17 29.6
comp=Z,1µm,21.8s,baz=97,slow=33
SFJD Kangerlussuaq 44.25 332 *i* P **P** **04 01 17.8 +1.0**
SFJD IAmb IAmb 04 01 18.8
comp=Z,36nm,0.9s
SOHO SOHO 44.28 92 *i* P **P** **04 01 16.8 -0.7**
SNR=26
SOHO SOHO 44.28 92 P **P** **04 01 16.6 -0.9**
SNR=14
ARQ Araqi 44.65 93 P **P** **04 01 20.4 -0.2**
SNR=8.4
HRA Herat 44.72 76 IAmb IAmb 04 01 23.9
comp=Z,90nm,1.7s
ILULI Ilulissat 44.99 335 P **P** **04 01 22.3 -0.3**
ILULI pmax pmax
comp=Z,35nm,0.9s
ILULI Ilulissat 44.99 335 P **P** **04 01 22.3 -0.3**
ILULI IAmb IAmb 04 01 25.0
comp=Z,35nm,0.9s
ILULI Ilulissat 44.99 335 *i* P **P** **04 01 23.4 +0.8**
ILULI IAmb IAmb 04 01 24.2
comp=Z,37nm,0.9s
DOK Doka 45.17 100 P **P** **04 01 23.4 -1.3**
HOQ Hoqain 45.17 92 P **P** **04 01 22.7 -2.0**
SNR=7.2
ABTO Aybut 45.21 102 P **P** **04 01 26.5 +1.4**
WHFO Wadi Hawf 45.27 101 P **P** **04 01 25.1 -0.4**
BSY Bisya 45.48 93 P **P** **04 01 26.3 -0.9**
SNR=12
BIDO Bidbid 45.85 92 P **P** **04 01 28.9 -1.1**
SNR=8.1
NOR Nord 45.93 355 *i* P **P** **04 01 31.9 +1.9**
NOR IAmb IAmb 04 01 33.6
comp=Z,30nm,1.8s
SMDO Samad 46.01 92 P **P** **04 01 30.1 -1.4**
SNR=16
JMDO Jabal Madar 46.39 93 P **P** **04 01 32.7 -1.7**
SNR=7.4
WSAR Wadi Sarin 46.39 92 P **P** **04 01 34.3 -0.1**
SNR=5.2
BORK Borovoye 46.43 48 *i* P **P** **04 01 33.8 -0.4**
BORK pmax pmax
comp=Z,34nm,2.0s
BORK Borovoye 46.43 48 P **P** **04 01 32.8 -1.4**
BORK IAmb IAmb 04 01 46.2
comp=Z,22nm,1.0s
BVAR Borovoye Array 46.47 48 P **P** **04 01 33.9 -0.7**
comp=Z,4.5nm,0.7s,baz=268,slow=6.1,SNR=16
BVAR PP **PP** **04 03 25.2 +1.7**
comp=Z,4.7nm,0.7s,baz=284,slow=7.5,SNR=4.7
comp=Z,4.5nm,0.7s
WBK Wadi Bani Khal 46.97 92 P **P** **04 01 38.8 -0.1**
MHTO MHTO 46.98 95 P **P** **04 01 38.4 -0.5**
SNR=14
KMBO Kilima Mbogo 47.02 136 LR LR 04 22 36.1
comp=Z,754nm,18.8s,baz=312,slow=38
KMBO Kilima Mbogo 47.02 136 *i* P **P** **04 01 40.7 +1.1**
SNR=13
KMBO Kilima Mbogo 47.02 136 P **P** **04 01 40.8 +1.1**
KMBO Kilima Mbogo 47.02 136 P **P** **04 01 39.6 0.0**
KMBO pmax pmax
comp=Z,19nm,1.2s
KMBO Kilima Mbogo 47.02 136 P **P** **04 01 39.6 0.0**
KMBO IAmb IAmb 04 01 43.7
comp=Z,19nm,1.1s
JLN Jalan Bani Buh 47.55 92 P **P** **04 01 42.2 -1.2**
NEEM North Greenlan 47.71 346 *i* P **P** **04 01 45.9 +1.6**
NEEM IAmb IAmb 04 01 46.7
comp=Z,25nm,1.0s
CHM Chimkent 47.91 63 *eP* **P** **04 01 45.0 -1.0**
CHM pmax pmax
comp=Z,4.0nm,0.6s
CHM Chimkent 47.91 63 *eP* **P** **04 01 45.1 -1.0**
comp=Z,4.2nm,0.6s
IUG Iuzhnay 48.26 63 *eP* **P** **04 01 47.8 -1.0**
IUG pmax pmax
comp=Z,12nm,0.9s
IUG Iuzhnay 48.26 63 *eP* **P** **04 01 47.8 -1.0**
comp=Z,12nm,0.9s
KK31 Karatay Array 48.35 62 P **P** **04 01 48.5 -0.9**
KK31 pmax pmax
comp=Z,8.0nm,0.8s
KK31 Karatay Array 48.35 62 P **P** **04 01 48.5 -0.9**
KKAR Karatay Array 48.35 62 P **P** **04 01 48.0 -1.4**
KKAR Karatay Array 48.35 62 P **P** **04 01 48.0 -1.4**
KIBK Kibwezi 48.47 136 P **P** **04 01 50.8 +0.2**
KBL Kabul 49.93 73 P **P** **04 02 02.6 +0.7**
SNR=5.7
KBL Kabul 49.93 73 P **P** **04 02 01.7 -0.2**
KBL pmax pmax
comp=Z,47nm,1.8s
KBL Kabul 49.93 73 P **P** **04 02 01.6 -0.2**
KBL IAmb IAmb 04 02 03.8
comp=Z,47nm,1.8s
AAK Ala-Archa 51.30 61 LR LR 04 28 48.9
comp=Z,510nm,18.7s,baz=301,slow=42
AAK Ala-Archa 51.30 61 *ce*P **P** **04 02 11.2 -0.8**
AAK pmax pmax
comp=Z,6.0nm,1.7s
FRB Frobisher Bay 51.51 327 LR LR 04 21 39.4
comp=Z,2µm,20.2s,baz=90,slow=33
KURBB Kurchatov Arra 51.86 50 P **P** **04 02 14.8 -1.0**
comp=Z,7.5nm,0.8s,baz=288,slow=8.4,SNR=34
KURBB LR LR 04 24 46.1
comp=Z,504nm,20.6s,baz=196,slow=37
comp=Z,7.5nm,0.8s
KURK Kurchatov 51.89 50 P **P** **04 02 15.1 -1.0**
KURK Kurchatov 51.89 50 P **P** **04 02 15.3 -0.8**
KURK pmax pmax
comp=Z,22nm,0.9s
KURK Kurchatov 51.89 50 P **P** **04 02 15.3 -0.8**
KURK IAmb IAmb 04 02 21.4
comp=Z,22nm,0.8s
SCHQ Schefferville 52.00 315 P **P** **04 02 16.0 -0.9**
comp=Z,36nm,0.9s,baz=74,slow=5.8,SNR=19
SCHQ LR LR 04 23 16.0
comp=Z,449nm,18.2s,baz=86,slow=35
comp=Z,36nm,0.9s
SCHQ Schefferville 52.00 315 IAmb IAmb 04 02 18.8
comp=Z,54nm,1.1s
AAA Alma-Ata 52.81 60 *eP* **P** **04 02 22.3 -0.9**
AAA pmax pmax
comp=Z,9.0nm,0.4s
AAA Alma-Ata 52.81 60 *eP* **P** **04 02 22.3 -0.9**
comp=Z,8.5nm,0.4s
TNSS Tian-Shan 52.89 60 *eP* **P** **04 02 22.9 -1.2**
TNSS Tian-Shan 52.89 60 *eP* **P** **04 02 23.0 -1.2**
MDOK Medeo 52.92 60 *eP* **P** **04 02 23.1 -1.0**
MDOK Medeo 52.92 60 *eP* **P** **04 02 23.1 -1.0**
SEM Semipalatinsk 52.97 50 *eP* **P** **04 02 23.3 -1.1**
SEM Semipalatinsk 52.97 50 *eP* **P** **04 02 23.4 -1.1**
NRIK Noril'sk 53.10 26 P **P** **04 02 23.7 -1.1**
comp=Z,8.0nm,0.8s,baz=263,slow=3.3,SNR=8.2
NRIK LR LR 04 27 19.2
comp=Z,620nm,19.1s,baz=280,slow=39
comp=Z,8.0nm,0.8s
NRIK Noril'sk 53.10 26 P **P** **04 02 25.0 +0.2**
NRIK pmax pmax
comp=Z,11nm,1.0s
NRIK Noril'sk 53.10 26 P **P** **04 02 25.0 +0.2**
KSH2 Kashi 53.19 65 P **P** **04 02 27.4 +1.3**
KSH2 pmax pmax
comp=Z,7.0nm,1.2s
TDK Taldyqorghan 53.29 57 *eP* **P** **04 02 25.7 -0.9**
TDK Taldyqorghan 53.29 57 *eP* **P** **04 02 25.7 -0.9**
NIL Nilore 53.50 72 P **P** **04 02 28.0 -0.3**
NIL pmax pmax
comp=Z,53nm,1.2s
NIL Nilore 53.50 72 P **P** **04 02 28.0 -0.3**
NIL IAmb IAmb 04 02 30.9
comp=Z,53nm,1.1s
SATY Saty 53.90 59 *eP* **P** **04 02 30.4 -0.8**
SATY Saty 53.90 59 *eP* **P** **04 02 30.4 -0.8**
UZB Uzynbulak 54.30 59 *eP* **P** **04 02 33.2 -0.9**
UZB pmax pmax
comp=Z,6.0nm,0.9s
UZB Uzynbulak 54.30 59 *eP* **P** **04 02 33.3 -0.9**
comp=Z,6.4nm,0.9s
SHLS Shalkode 54.60 59 *eP* **P** **04 02 37.5 +1.2**
SHLS pmax pmax
comp=Z,7.0nm,0.7s
SHLS Shalkode 54.60 59 *eP* **P** **04 02 37.5 +1.2**
comp=Z,7.5nm,0.7s
ZALV Zalesovo Beam 54.77 45 P **P** **04 02 36.3 -0.9**
comp=Z,2.5nm,0.5s,baz=283,slow=7.4,SNR=12
ZALV PP **PP** **04 04 40.2 +0.7**
comp=Z,5.7nm,0.9s,baz=281,slow=10,SNR=4.7
ZALV LR LR 04 27 08.0
comp=Z,452nm,20.6s,baz=292,slow=37
comp=Z,2.5nm,0.5s
ZALV Zalesovo Beam 54.77 45 P **P** **04 02 35.1 -2.0**
G65A Princeton 54.99 304 P **P** **04 02 38.6 -0.3**
G65A IAmb IAmb 04 02 41.5
comp=Z,35nm,0.8s
MK31 Makanchi Array 55.31 54 *i* P **P** **04 02 40.8 -0.5**
MKAR Makanchi Array 55.31 54 P **P** **04 02 40.3 -1.0**
comp=Z,13nm,0.7s,baz=287,slow=5.8,SNR=50
MKAR LR LR 04 27 52.1
comp=Z,614nm,19.9s,baz=294,slow=38
comp=Z,13nm,0.7s
MKAR Makanchi Array 55.31 54 P **P** **04 02 39.9 -1.4**
LMQ La Malbaie 56.04 307 IAmb IAmb 04 02 49.0
comp=Z,43nm,1.1s
PKME Peaks-Kenny Pk 56.13 304 IAmb IAmb 04 02 48.7
comp=Z,35nm,1.1s
TSUM Tsumeb 56.42 168 LR LR 04 28 28.3
comp=Z,2µm,18.1s,baz=340,slow=38
LDAQ Lac Daran 56.49 308 IAmb IAmb 04 02 52.1
comp=Z,36nm,1.1s
ZSN Zaisan 56.76 53 *eP* **P** **04 02 50.9 -0.7**
ZSN pmax pmax
comp=Z,11nm,0.9s
ZSN Zaisan 56.76 53 *eP* **P** **04 02 51.0 -0.7**
comp=Z,11nm,0.9s
I63A Otisfield 57.41 303 IAmb IAmb 04 02 59.1
comp=Z,42nm,1.2s
RCBR Riachuelo 58.05 233 LR LR 04 25 54.4
comp=Z,370nm,19.0s,baz=22,slow=34
RES Resolute Bay 58.07 342 LR LR 04 26 47.6
comp=Z,474nm,19.8s,baz=66,slow=35
LBNH Lisbon 58.24 304 IAmb IAmb 04 03 05.6
comp=Z,33nm,0.9s
MCVT Middlebury Col 59.06 304 IAmb IAmb 04 03 11.2
comp=Z,43nm,1.2s
TRQ Mont Tremblant 59.23 307 IAmb IAmb 04 03 11.4
comp=Z,21nm,0.9s
L61B Northampton 59.44 302 P **P** **04 03 10.4 -0.1**
L61B IAmb IAmb 04 03 13.7
comp=Z,42nm,1.2s
LONY Lake Ozonia 59.86 305 P **P** **04 03 13.2 -0.1**
LONY IAmb IAmb 04 03 15.6
comp=Z,26nm,1.1s
WMQ Urumqi 59.93 56 *eP* **P** **04 03 14.0 +0.1**
WMQ pP sP 04 03 19.5 +1.1
WMQ pmax pmax
comp=Z,15nm,1.3s
WMQ L L
comp=Z,1µm,12.7s
WMQ L L
comp=Z,340nm,22.1s
J59A Piesco 60.26 304 IAmb IAmb 04 03 19.4
comp=Z,23nm,1.1s
VLDQ Val d'Or 60.33 310 P **P** **04 03 16.6 +0.2**
VLDQ IAmb IAmb 04 03 19.2
comp=Z,51nm,1.4s
CFNY Clifton-Fine, 60.35 305 IAmb IAmb 04 03 19.9
comp=Z,29nm,1.1s
KOOLE Kule 60.60 166 P **P** **04 03 19.3 +0.7**
KOOLE IAmb IAmb 04 03 32.9
comp=Z,14nm,0.9s
NPNY Mohonk Preserv 60.72 302 P **P** **04 03 19.9 +0.7**
WCNY West Carthage 60.82 305 IAmb IAmb 04 03 23.0
comp=Z,41nm,1.1s
J57A Williamstown 61.28 304 IAmb IAmb 04 03 26.4
comp=Z,42nm,1.1s
DELO Deloro Mine 61.88 306 IAmb IAmb 04 03 28.6
comp=Z,24nm,1.2s
MDP Montagnes des 62.56 255 LR LR 04 27 45.2
comp=Z,784nm,20.3s,baz=50,slow=33
BUKO Buck Lake 62.64 308 IAmb IAmb 04 03 34.7
comp=Z,17nm,1.1s
SADO Sadowa 62.76 307 LR LR 04 29 48.7
comp=Z,840nm,18.1s,baz=94,slow=35
N58A Sunbury 62.86 302 IAmb IAmb 04 03 36.5
comp=Z,26nm,1.1s
KNGR Kungurtug, Tuv 63.23 46 *i* P **P** **04 03 35.8 -0.4**
KNGR pmax pmax
comp=Z,8.0nm,1.1s
SSPA Standing Stone 63.75 302 P **P** **04 03 39.7 +0.1**
LBTB Lobatse 63.80 161 LR LR 04 34 09.7
comp=Z,2µm,19.8s,baz=338,slow=39
LBTB Lobatse 63.80 161 P **P** **04 03 39.1 -0.9**
LBTB pmax pmax
comp=Z,31nm,1.6s
LBTB Lobatse 63.80 161 P **P** **04 03 39.1 -0.9**
LBTB IAmb IAmb 04 03 47.1
comp=Z,31nm,1.6s
CBN Corbin Frederi 64.50 300 IAmb IAmb 04 03 47.4
comp=Z,32nm,1.0s
FCC Fort Churchill 64.68 326 P **P** **04 03 45.1 -0.2**
FCC pmax pmax
comp=Z,16nm,0.9s
FCC Fort Churchill 64.68 326 P **P** **04 03 45.1 -0.2**
FCC IAmb IAmb 04 03 47.7
comp=Z,16nm,0.9s
TIXI Tiksi 64.71 17 LR LR 04 34 29.8
comp=Z,286nm,19.6s,baz=346,slow=38
TIXI Tiksi 64.71 17 *ce*P **P** **04 03 46.0 +0.7**
TIXI pmax pmax
comp=Z,25nm,2.5s
TIXI Tiksi 64.71 17 P **P** **04 03 44.8 -0.5**
TIXI IAmb IAmb 04 03 49.0
comp=Z,34nm,1.8s
R58B Mineral 64.96 300 IAmb IAmb 04 03 50.6
comp=Z,28nm,1.1s
PAMR Moraine State 65.10 303 IAmb IAmb 04 03 51.5
comp=Z,37nm,1.1s
T59A Double "B" Far 65.20 299 IAmb IAmb 04 03 52.0
comp=Z,57nm,1.9s
Q56A Snyder Ridge, 65.37 301 IAmb IAmb 04 03 53.2
comp=Z,28nm,1.1s
O54A Avella 65.64 303 IAmb IAmb 04 03 54.5
comp=Z,18nm,0.7s
TLY Talaya 66.17 43 P **P** **04 03 55.1 0.0**
comp=Z,5.2nm,0.5s,baz=274,slow=5.3,SNR=5.7
TLY LR LR 04 34 09.1
comp=Z,867nm,20.5s,baz=311,slow=37
comp=Z,5.2nm,0.5s
TLY Talaya 66.17 43 IAmb IAmb 04 04 08.6
comp=Z,22nm,1.2s
IRK Irkutsk 66.23 42 *eP* **P** **04 03 53.6 -1.9**
IRK pmax pmax
comp=Z,46nm,1.7s
R55A Marlinton 66.37 301 IAmb IAmb 04 03 59.8
comp=Z,18nm,0.9s
EVN Everest 66.46 72 IAmb IAmb 04 04 05.2
comp=Z,45nm,1.6s
ZAK Zakamensk 66.60 44 *eP* **P** **04 03 57.9 -0.2**
ZAK pmax pmax
comp=Z,11nm,1.8s
A36M Sachs Harbour 66.64 345 P **P** **04 03 58.1 +0.4**
A36M IAmb IAmb 04 04 01.0
comp=Z,22nm,0.8s
OPO Ambohidratompo 66.85 138 LR LR 04 34 09.7
comp=Z,478nm,19.1s,baz=271,slow=37
BOSA Boshof 67.15 162 P **P** **04 04 00.8 -0.9**
comp=Z,4.3nm,0.9s,baz=326,slow=5.6,SNR=5.2
BOSA LR LR 04 35 19.8
comp=Z,2µm,18.1s,baz=340,slow=38
comp=Z,4.3nm,0.9s
BOSA Boshof 67.15 162 IAmb IAmb 04 04 04.5
comp=Z,24nm,1.4s
S54A Dingess, Beckl 67.42 301 IAmb IAmb 04 04 06.0
comp=Z,24nm,1.0s
U56A King 67.49 299 IAmb IAmb 04 04 06.9
comp=Z,21nm,1.1s
X58A Rowland 67.64 297 IAmb IAmb 04 04 08.1
comp=Z,34nm,1.0s
BOD Bodaibo 68.07 33 *eP* **P** **04 04 05.3 -1.8**
BOD pmax pmax
comp=Z,33nm,1.9s
SMTB Santa Maria do 68.10 240 P **P** **04 04 08.8 +1.0**
SMTB IAmb IAmb 04 04 28.5
comp=Z,31nm,1.2s
V55A Taylorsville 68.32 299 IAmb IAmb 04 04 12.2
comp=Z,20nm,1.0s
KMSC Kings Mountain 68.76 299 IAmb IAmb 04 04 14.9
comp=Z,13nm,0.9s
S51A Beattyville 69.07 302 IAmb IAmb 04 04 16.4
comp=Z,19nm,0.9s
JSC Jenkinsville 69.14 298 IAmb IAmb 04 04 17.4
comp=Z,15nm,1.0s
R50A Paris 69.25 303 IAmb IAmb 04 04 17.1
comp=Z,30nm,1.0s
PAULI Pauline 69.27 298 IAmb IAmb 04 04 18.1
comp=Z,35nm,1.1s
I42A Draeger Farm, 69.35 310 IAmb IAmb 04 04 17.6
comp=Z,14nm,0.8s
P48A Milroy 69.38 304 IAmb IAmb 04 04 17.1
comp=Z,27nm,1.1s
G40A Rib Lake 69.42 312 IAmb IAmb 04 04 17.6
comp=Z,15nm,1.0s
E38A The Farm, Brul 69.53 313 IAmb IAmb 04 04 18.4
comp=Z,41nm,1.2s
V53A Saluda 69.53 300 IAmb IAmb 04 04 19.5
comp=Z,31nm,0.9s
SONM Songino Array 69.66 45 P **P** **04 04 16.4 -0.9**
comp=Z,3.9nm,1.1s,baz=290,slow=6.0,SNR=16
SONM LR LR 04 36 52.9
comp=Z,625nm,18.9s,baz=312,slow=38
comp=Z,3.9nm,1.1s
SONM Songino Array 69.66 45 P **P** **04 04 17.3 -0.1**
SONM pmax pmax
comp=Z,15nm,1.1s
SONM Songino Array 69.66 45 P **P** **04 04 17.3 -0.1**
SONM IAmb IAmb 04 04 30.7
comp=Z,15nm,1.1s
R49A Shelbyville 69.81 303 IAmb IAmb 04 04 20.3
comp=Z,27nm,0.9s
SUR Sutherland 69.86 167 LR LR 04 34 30.7
comp=Z,1µm,18.9s,baz=341,slow=36
HODGE Hodges 69.88 298 IAmb IAmb 04 04 21.8
comp=Z,21nm,1.2s
GTA2 Gaotai 69.94 55 *eP* **P** **04 04 19.0 -0.2**
GTA2 pmax pmax
comp=Z,7.0nm,1.2s
GTA2 L L
comp=Z,560nm,18.1s
GTA2 L L
comp=Z,630nm,17.5s
GTA2 L L
comp=Z,860nm,17.1s
BG3 Lake Jocassee 69.97 299 IAmb IAmb 04 04 22.3
comp=Z,34nm,1.1s
ULM Lac du Bonnet 69.99 318 P **P** **04 04 18.1 -1.0**
comp=Z,26nm,0.7s,baz=68,slow=6.3,SNR=38
ULM LR LR 04 33 51.4
comp=Z,454nm,18.2s,baz=45,slow=35
comp=Z,26nm,0.7s
SFIN Lafayette 70.01 306 IAmb IAmb 04 04 21.1
comp=Z,14nm,0.8s
ULN Ulaanbaatar 70.02 45 P **P** **04 04 18.7 -0.9**
ULN Ulaanbaatar 70.02 45 P **P** **04 04 19.2 -0.4**
comp=Z,38nm,1.1s
TKL Tuckaleechee C 70.21 300 LR LR 04 34 55.3
comp=Z,549nm,18.1s,baz=68,slow=36
TKL Tuckaleechee C 70.21 300 IAmb IAmb 04 04 23.3
comp=Z,18nm,1.1s
T50A Nancy 70.24 302 IAmb IAmb 04 04 23.4
comp=Z,24nm,1.1s
BLO Bloomington 70.26 304 IAmb IAmb 04 04 23.0
comp=Z,32nm,0.9s
BOAV Boa Vista 70.40 258 P **P** **04 04 23.2 +1.1**
BOAV IAmb IAmb 04 04 26.9
comp=Z,40nm,1.4s
I40A Norwalk 70.40 310 IAmb IAmb 04 04 23.9
comp=Z,18nm,0.9s
P46A Rosedale 70.48 305 IAmb IAmb 04 04 23.9
comp=Z,29nm,1.2s
FFC Flin Flon 70.52 324 *ce*P **P** **04 04 24.3 +2.0**
FFC Flin Flon 70.52 324 P **P** **04 04 21.4 -0.9**
WCI Wyandotte Cave 70.60 304 P **P** **04 04 22.4 -0.7**
WCI pmax pmax
comp=Z,37nm,0.9s
WCI Wyandotte Cave 70.60 304 P **P** **04 04 22.4 -0.7**
W52A Murphy 70.61 300 IAmb IAmb 04 04 25.8
comp=Z,16nm,0.9s
YKA Yellowknife Ar 70.66 335 P **P** **04 04 21.5 -1.5**
comp=Z,5.7nm,0.9s,baz=51,slow=5.9,SNR=23
YKA LR LR 04 34 24.3
comp=Z,713nm,19.4s,baz=58,slow=35
comp=Z,5.7nm,0.9s
L42A Oliver, Polo 70.81 308 IAmb IAmb 04 04 26.2
comp=Z,30nm,0.9s
CPCT Cooper Cave 70.84 300 IAmb IAmb 04 04 27.2
comp=Z,19nm,0.9s
SPMN Marine on St. 71.00 313 IAmb IAmb 04 04 27.5
comp=Z,20nm,1.0s
AGMN Agassiz Nation 71.07 316 IAmb IAmb 04 04 27.3
comp=Z,16nm,1.1s
U49A Red Boiling Sp 71.15 302 IAmb IAmb 04 04 28.6
comp=Z,24nm,0.9s
GOGA Godfrey 71.17 298 IAmb IAmb 04 04 29.7
comp=Z,27nm,1.1s
INK Inuvik 71.29 345 LR LR 04 37 28.0
comp=Z,483nm,18.1s,baz=38,slow=37
Y52A Lilburn 71.35 299 IAmb IAmb 04 04 30.6
comp=Z,28nm,0.8s
W50A Signal Mountai 71.52 300 IAmb IAmb 04 04 31.3
comp=Z,23nm,0.8s
SHL Shillong 71.57 72 P **P** **04 04 30.6 +1.2**
SNR=13
CLTN Cedars of Leba 71.75 302 IAmb IAmb 04 04 32.2
comp=Z,14nm,0.9s
L40A Anamosa 71.75 309 IAmb IAmb 04 04 31.6

C26K **Camden Bay** 71.81 350 IAmb IAmb 04 04 34.7
comp=Z,24nm,1.0s
C27K **Jago River** 71.90 350 IAmb IAmb 04 04 35.1
comp=Z,29nm,1.2s
Q44A **Meyer Farm, Va** 72.05 305 IAmb IAmb 04 04 33.4
comp=Z,25nm,0.8s
E29M **Blow River** 72.06 347 IAmb IAmb 04 04 34.8
comp=Z,26nm,1.1s
F31M **Tsiigehtchic** 72.07 345 IAmb IAmb 04 04 34.4
comp=Z,29nm,0.9s
V48A **Smith Brothers** 72.28 302 IAmb IAmb 04 04 35.2
comp=Z,30nm,0.9s
152A **Waverly Hall** 72.45 298 IAmb IAmb 04 04 37.1
comp=Z,23nm,0.9s
C24K **Franklin Bluff** 72.49 351 IAmb IAmb 04 05 33.6
comp=Z,55nm,1.8s
F33A **5 Mile Ranch,** 72.70 314 IAmb IAmb 04 04 37.5
comp=Z,20nm,0.9s
WVT **Waverly** 72.75 302 P **P** **04 04 34.5 -1.6**
WVT pmax pmax
comp=Z,16nm,1.0s
WVT **Waverly** 72.75 302 P **P** **04 04 34.5 -1.6**
WVT IAmb IAmb 04 04 37.3
comp=Z,16nm,1.0s
PALK **Pallekele** 72.83 94 LR LR 04 39 27.0
comp=Z,381nm,19.2s,baz=296,slow=38
S44A **Carbondale** 72.86 304 IAmb IAmb 04 04 38.1
comp=Z,25nm,0.9s
BRDH **Bariadhala** 72.93 74 LR LR 04 42 39.8
comp=Z,310nm,18.6s,baz=330,slow=41
X48A **Hartselle** 73.12 300 IAmb IAmb 04 04 40.4
comp=Z,34nm,0.9s
BDFB **Brasilia** 73.23 235 P **P** **04 04 40.7 +1.5**
comp=Z,5.0nm,0.7s,baz=42,slow=10.0,SNR=9.5
BDFB LR LR 04 37 28.0
comp=Z,688nm,18.3s,baz=50,slow=36
comp=Z,5.0nm,0.7s
BDFB **Brasilia** 73.23 235 P **P** **04 04 40.6 +1.5**
BDFB IAmb IAmb 04 05 24.8
comp=Z,26nm,1.5s
MDND **Maddock** 73.38 318 IAmb IAmb 04 04 42.1
comp=Z,50nm,1.5s
D23K **Nanushuk River** 73.44 352 IAmb IAmb 04 04 44.0
comp=Z,18nm,1.0s
FVM **French Village** 73.48 305 IAmb IAmb 04 04 42.3
comp=Z,36nm,0.9s
EPYK **Eagle Plains** 73.60 346 IAmb IAmb 04 04 43.5
comp=Z,31nm,1.4s
TOLK **Toolik Lake Re** 73.61 351 IAmb IAmb 04 04 44.9
comp=Z,17nm,0.9s
P40A **Paris** 73.67 307 IAmb IAmb 04 04 42.9
comp=Z,17nm,0.9s
N38A **Joes South Tor** 73.72 309 IAmb IAmb 04 04 43.1
comp=Z,22nm,1.0s
LRAL **Lakeview Retre** 73.86 299 IAmb IAmb 04 04 44.8
comp=Z,23nm,0.8s
BMAR **Burnt Mountain** 74.05 349 P **P** **04 04 44.5 +1.3**
H29M **Whitestone** 74.06 346 IAmb IAmb 04 05 09.3
comp=Z,70nm,1.9s
ECSD **EROS Data Cent** 74.09 313 IAmb IAmb 04 04 46.0
comp=Z,30nm,1.0s
E23K **Chandalar** 74.17 351 IAmb IAmb 04 04 59.7
comp=Z,45nm,2.0s
LZDM **Lanzhou Array** 74.47 57 P **P** **04 04 47.0 +0.4**
comp=Z,1.8nm,0.4s,baz=316,slow=6.2,SNR=4.1
comp=Z,1.8nm,0.4s
R40A **Maddies Statio** 74.51 306 IAmb IAmb 04 04 48.4
comp=Z,28nm,0.8s
Z47A **Carrollton** 74.52 300 IAmb IAmb 04 04 48.1
comp=Z,35nm,0.8s
P38A **Dawn** 74.57 308 IAmb IAmb 04 04 48.6
comp=Z,35nm,0.9s
D19K **Kuna River** 74.63 354 IAmb IAmb 04 04 50.7
comp=Z,27nm,1.1s
SDV **Santo Domingo** 74.64 270 P **P** **04 04 48.2 +0.5**
SDV IAmb IAmb 04 04 51.7
comp=Z,40nm,1.2s
LCAR **Lake Charles** 75.03 304 IAmb IAmb 04 04 51.4
comp=Z,33nm,1.0s
F21K **Alatna River** 75.42 352 IAmb IAmb 04 04 55.4
comp=Z,20nm,0.9s
G23K **Bananza Creek** 75.50 351 IAmb IAmb 04 04 56.2
comp=Z,22nm,1.2s
146A **Union** 75.53 300 IAmb IAmb 04 04 54.8
comp=Z,20nm,0.9s
E19K **Redstone River** 75.57 354 IAmb IAmb 04 04 56.1
comp=Z,25nm,0.8s
BTO2 **Baotou** 75.71 50 *e*P **P** **04 04 54.1 +0.6**
BTO2 PP **PP** **04 07 45.8 +3.1**
BTO2 S **S** **04 14 35.3 +0.1**
BTO2 pmax pmax
comp=Z,19nm,0.5s
BTO2 pmax pmax
comp=Z,160nm,4.1s
BTO2 L L
comp=Z,1μm,15.4s
BTO2 L L
comp=Z,1μm,14.8s
BTO2 L L
comp=Z,760nm,9.1s
FCAR **Ozark Folk Cen** 75.78 304 IAmb IAmb 04 04 55.8
comp=Z,26nm,0.8s
HILR **Hailar Array B** 75.80 38 P **P** **04 04 54.9 +1.3**
comp=Z,1.0nm,0.4s,baz=352,slow=4.4,SNR=1.5
HILR LR LR 04 41 17.4
comp=Z,600nm,19.5s,baz=30,slow=38
comp=Z,1.0nm,0.4s
H24K **Noodor Dome** 76.03 350 IAmb IAmb 04 06 48.6
comp=Z,36nm,1.8s
G21K **Allakaket** 76.11 352 IAmb IAmb 04 04 59.2
comp=Z,18nm,1.1s
DAWY **Dawson** 76.17 345 IAmb IAmb 04 05 13.7
comp=Z,28nm,1.4s
EDM **Edmonton** 76.61 328 IAmb IAmb 04 05 00.7
comp=Z,21nm,1.1s
IMAR **Indian Mountai** 76.65 352 P **P** **04 04 58.6 +0.5**
CCAR **Cane Creek** 76.67 302 IAmb IAmb 04 05 01.1
comp=Z,30nm,0.9s
HHC **Hu-ho-hao-te** 76.68 49 *e*P **P** **04 04 58.6 -0.3**
HHC S **S** **04 14 42.6 -3.2**
HHC pmax pmax
comp=Z,15nm,0.7s
HHC pmax pmax
comp=Z,57nm,5.9s
HHC L L
comp=Z,550nm,17.7s
HHC L L
comp=Z,220nm,11.8s
K27K **Chicken** 76.73 346 IAmb IAmb 04 07 37.6
comp=Z,15nm,1.2s
KSU1 **Kansas State U** 76.81 309 IAmb IAmb 04 05 01.6
comp=Z,39nm,1.1s
IL31 **** 76.87 349 IAmb IAmb 04 07 34.5
comp=Z,66nm,1.9s
ILAR **Eielson Array** 76.87 349 P **P** **04 04 59.9 +0.4**
comp=Z,3.2nm,0.9s,baz=4.2,slow=3.9,SNR=27
ILAR LR LR 04 42 05.8
comp=Z,305nm,19.4s,baz=40,slow=38
comp=Z,3.2nm,0.9s
ILAR **Eielson Array** 76.87 349 P **P** **04 05 00.4 +0.9**
ILAR **Eielson Array** 76.87 349 P **P** **04 05 00.4 +0.9**
U38A **Gravette** 76.95 306 IAmb IAmb 04 05 02.5
comp=Z,34nm,1.0s
X40A **Basin Creek Fa** 77.06 303 IAmb IAmb 04 05 03.1
comp=Z,23nm,0.8s
SEY **Seymchan** 77.07 15 LR LR 04 42 56.9
comp=Z,263nm,19.1s,baz=326,slow=39
143A **Socs Landing,** 77.11 301 IAmb IAmb 04 05 03.7
comp=Z,38nm,0.9s
G18K **Tagagawik** 77.22 354 IAmb IAmb 04 05 27.3
comp=Z,29nm,1.4s
CD2 **Chengdu** 77.36 61 P **P** **04 05 02.9 0.0**
CD2 pmax pmax
comp=Z,20nm,1.0s
CD2 pmax pmax
comp=Z,190nm,7.8s
H19K **Roundabout Mou** 77.38 353 IAmb IAmb 04 05 06.4
comp=Z,15nm,0.9s
XLT **XiLinHaoTe** 77.45 44 *e*P **P** **04 05 03.0 -0.2**
XLT pmax pmax
comp=Z,11nm,0.8s
XLT pmax pmax
comp=Z,310nm,8.0s
XLT L L
comp=Z,900nm,17.2s
XLT L L
comp=Z,360nm,20.2s
MIAR **Mount Ida** 77.53 304 IAmb IAmb 04 05 06.2
comp=Z,22nm,0.8s
WLAR **White Oak Lake** 77.71 303 IAmb IAmb 04 05 07.2
comp=Z,20nm,1.2s
Z41A **Richland Creek** 77.75 302 IAmb IAmb 04 05 07.7
comp=Z,21nm,0.9s
L26K **Log Cabin Wild** 77.88 347 IAmb IAmb 04 05 10.0
comp=Z,67nm,1.9s
MCK **McKinley** 78.17 349 IAmb IAmb 04 07 27.7
comp=Z,34nm,1.2s
TUL3 **Leonard** 78.18 306 IAmb IAmb 04 05 09.4
comp=Z,26nm,0.8s
RUSC **La Rusia** 78.34 269 IAmb IAmb 04 05 14.3
comp=Z,29nm,1.3s
J20K **Nowinta River** 78.44 352 IAmb IAmb 04 07 25.4
comp=Z,16nm,0.7s
DHY **Denali Highway** 78.54 348 IAmb IAmb 04 05 12.6
comp=Z,31nm,0.9s
BLOK **Blackwell** 78.59 307 IAmb IAmb 04 05 12.5
comp=Z,32nm,1.1s
DLBC **Dease Lake** 78.68 338 LR LR 04 41 32.5
comp=Z,389nm,18.3s,baz=71,slow=37
DEOK **Depew** 78.69 306 IAmb IAmb 04 05 12.4
comp=Z,26nm,0.9s
CBKS **Cedar Bluff** 78.92 310 IAmb IAmb 04 05 13.9
comp=Z,45nm,1.1s
OGNE **Ogallala** 78.98 313 IAmb IAmb 04 05 14.4
comp=Z,20nm,0.8s
XAN **Xi'an** 79.07 56 P **P** **04 05 13.6 +1.3**
XAN pmax pmax
comp=Z,14nm,1.4s
XAN L L
comp=Z,400nm,16.5s
XAN L L
comp=Z,540nm,17.2s
XAN L L
comp=Z,400nm,20.6s
K20K **Telida** 79.22 351 IAmb IAmb 04 07 21.7
comp=Z,26nm,0.7s
Z38A **Mt. Pleasant** 79.23 303 IAmb IAmb 04 05 16.3
comp=Z,37nm,0.8s
CROK **Carrier** 79.24 308 IAmb IAmb 04 05 16.5
comp=Z,33nm,1.1s
W35A **Tecumseh** 79.34 306 IAmb IAmb 04 05 16.3
comp=Z,67nm,1.5s
MA2 **Magadan** 79.67 18 LR LR 04 44 22.2
comp=Z,218nm,20.0s,baz=320,slow=39
SNAG **San Augustine** 79.72 302 IAmb IAmb 04 05 18.5
comp=Z,21nm,1.0s
OK038 **West end E0370** 79.74 308 IAmb IAmb 04 05 18.9
comp=Z,42nm,1.1s
VILB **Vilhena** 79.91 246 IAmb IAmb 04 05 27.1
comp=Z,25nm,1.1s
ROSC **El Rosal** 79.95 269 IAmb IAmb 04 05 22.1
comp=Z,28nm,1.5s
KMI2 **Kunming** 79.96 66 P **P** **04 05 17.6 +0.1**
KMI2 pmax pmax
comp=Z,9.0nm,1.1s
KMI2 L L
comp=Z,180nm,17.2s
KMI2 L L
comp=Z,310nm,21.0s
KMI2 L L
comp=Z,320nm,24.9s
LOOK **Love County** 80.25 305 IAmb IAmb 04 05 21.2
comp=Z,22nm,1.0s
TREL **Terrell** 80.29 304 IAmb IAmb 04 05 21.4
comp=Z,35nm,1.3s
X34A **Smith Ranch, M** 80.31 306 IAmb IAmb 04 05 22.1
comp=Z,35nm,1.0s
ELIS **Ellis County** 80.42 308 IAmb IAmb 04 05 22.9
comp=Z,61nm,1.3s
KSCO **Kaye Sheldock'** 80.56 312 IAmb IAmb 04 05 23.3
comp=Z,22nm,1.1s
SUA **Susitna One** 80.59 349 IAmb IAmb 04 07 15.8
comp=Z,26nm,0.7s
Z35A **Perchaven, San** 80.70 305 IAmb IAmb 04 05 23.6
comp=Z,46nm,1.0s
HNS **HongShan** 80.73 50 ⇑P **P** **04 05 22.4 +1.3**
HNS L L
comp=Z,430nm,14.7s
HNS L L
comp=Z,530nm,18.1s
CHTO **Chiang Mai** 80.74 74 P **P** **04 05 19.4 -2.1**
CHTO pmax pmax
comp=Z,46nm,1.8s
CHTO **Chiang Mai** 80.74 74 P **P** **04 05 19.4 -2.1**
CHTO IAmb IAmb 04 05 23.9
comp=Z,46nm,1.8s
CHTO **Chiang Mai** 80.74 74 P **P** **04 05 22.6 +1.1**
comp=Z,13nm,1.6s
WMOK **Wichita Mounta** 80.84 307 IAmb IAmb 04 05 24.7
comp=Z,20nm,0.9s
LDM **Libby Dam** 80.89 325 IAmb IAmb 04 07 38.5
comp=Z,12nm,0.7s
CMAR **Chiang Mai Arr** 80.95 74 P **P** **04 05 22.4 -0.3**
comp=Z,1.8nm,0.2s,baz=304,slow=6.7,SNR=17
CMAR LR LR 04 50 23.8
comp=Z,111nm,18.6s,baz=310,slow=42
comp=Z,1.8nm,0.2s
CMAR **Chiang Mai Arr** 80.95 74 P **P** **04 05 19.5 -3.1**
FW06 **Arle** 81.12 304 IAmb IAmb 04 05 25.9
comp=Z,31nm,1.0s
WTFS **Witchita Falls** 81.23 306 IAmb IAmb 04 05 26.6
comp=Z,24nm,1.0s
YHL **Hebgen Lake** 81.43 321 IAmb IAmb 04 07 42.9
comp=Z,13nm,0.8s
YMR **Madison River** 81.44 320 IAmb IAmb 04 07 43.0
comp=Z,5.0nm,0.8s
SMWD **Samnorwood** 81.55 308 IAmb IAmb 04 05 28.9
comp=Z,22nm,1.0s
KLR **Kul'dur** 81.64 33 LR LR 04 43 26.3
comp=Z,371nm,21.7s,baz=327,slow=37
KLR **Kul'dur** 81.64 33 *i*P **P** **04 05 26.7 +0.9**
KLR pmax pmax
comp=Z,4.0nm,1.0s
PLPT **Palo Pinto** 81.72 305 IAmb IAmb 04 05 29.2
comp=Z,31nm,1.0s
NEW **Newport** 81.85 326 LR LR 04 39 58.5
comp=Z,877nm,20.5s,baz=38,slow=34
PDAR **Pinedale Array** 82.02 318 P **P** **04 05 27.6 -0.6**
comp=Z,3.2nm,0.8s,baz=58,slow=5.9,SNR=22
PDAR LR LR 04 39 47.7
comp=Z,542nm,19.9s,baz=44,slow=34
comp=Z,3.2nm,0.8s
SNOW **Snow King Moun** 82.17 319 IAmb IAmb 04 07 40.5
comp=Z,12nm,1.1s
BNX **BinXian** 82.18 37 ⇓P **P** **04 05 28.1 -0.6**
BNX pmax pmax
comp=Z,12nm,0.9s
ABTX **Abilene, Hawle** 82.71 305 IAmb IAmb 04 05 34.6
comp=Z,22nm,1.0s
RDMU **Red Mountain** 83.53 317 IAmb IAmb 04 05 39.1
comp=Z,27nm,1.2s
F10A **Beach Ranch, E** 83.59 324 IAmb IAmb 04 05 38.6
comp=Z,17nm,0.9s
E09A **Wood Farm, Sta** 83.61 325 IAmb IAmb 04 05 38.5
comp=Z,18nm,1.1s
EPH **Ephrata** 83.63 327 IAmb IAmb 04 05 39.2
comp=Z,17nm,1.0s
PLID **Pearl Lake** 83.66 323 IAmb IAmb 04 07 28.1
comp=Z,29nm,1.9s
DL2 **Dalian** 83.87 45 P **P** **04 05 40.0 +2.5**
DL2 S **S** **04 16 04.0 +2.9**
DL2 pmax pmax
comp=Z,74nm,1.7s
DL2 L L
comp=Z,2μm,18.8s
DL2 L L
comp=Z,2μm,21.4s
DL2 L L
comp=Z,1μm,15.1s
HWUT **Hardware Ranch** 83.89 318 IAmb IAmb 04 05 40.8
comp=Z,25nm,1.4s
SGCY **Sterling City** 84.13 306 IAmb IAmb 04 05 42.6
comp=Z,22nm,1.0s
BSUT **Blindstream Ca** 84.21 317 IAmb IAmb 04 05 42.5
comp=Z,15nm,1.2s
YPT **Yellepit** 84.33 325 IAmb IAmb 04 05 42.6
comp=Z,21nm,1.2s
KDAK **Kodiak Island** 84.39 349 LR LR 04 47 20.9
comp=Z,332nm,18.9s,baz=35,slow=39
HNDO **Hondo** 84.41 303 IAmb IAmb 04 05 43.7
comp=Z,39nm,1.8s
BMO **Blue Mountains** 84.46 324 IAmb IAmb 04 05 42.9
comp=Z,24nm,1.1s
MXC **Moxie City** 84.53 326 IAmb IAmb 04 07 19.9
comp=Z,11nm,1.1s
229A **Bryant Ranch,** 84.55 306 IAmb IAmb 04 05 45.3
comp=Z,18nm,1.1s
P18A **Preston Nutter** 84.55 316 IAmb IAmb 04 05 44.4
comp=Z,14nm,1.1s
128A **Castleberry Fa** 84.56 307 IAmb IAmb 04 05 44.7
comp=Z,16nm,1.2s
PV01 **Paradox Valley** 84.63 314 IAmb IAmb 04 05 44.9
comp=Z,38nm,1.4s
PV10 **Paradox Valley** 84.73 315 IAmb IAmb 04 05 45.8
comp=Z,30nm,1.0s
PV18 **Skein Mesa, Pa** 84.75 315 IAmb IAmb 04 05 45.4
comp=Z,32nm,1.1s
PV17 **East Wray Mesa** 84.75 315 IAmb IAmb 04 05 45.5
comp=Z,32nm,1.1s
OZNA **Ozona** 84.77 305 IAmb IAmb 04 05 45.9
comp=Z,21nm,1.1s
MFID **Camas Ranch** 84.80 322 IAmb IAmb 04 05 45.8
comp=Z,16nm,1.0s
WHN **Wuhan** 84.84 56 P **P** **04 05 42.5 -0.1**
GNW **Green Mountain** 84.87 328 IAmb IAmb 04 07 16.0
comp=Z,9.9nm,0.9s
TMB01 **Midkiff** 84.92 306 IAmb IAmb 04 05 46.7
comp=Z,30nm,1.1s
ODSA **Odessa** 84.93 306 IAmb IAmb 04 05 46.3
comp=Z,15nm,0.9s
P17A **Butcher Ranch,** 84.94 316 IAmb IAmb 04 05 47.4
comp=Z,32nm,1.7s
SRU **San Rafael Swe** 85.07 316 IAmb IAmb 04 05 46.6
comp=Z,22nm,1.1s
MVCO **Mesa Verde** 85.22 314 IAmb IAmb 04 05 48.2
comp=Z,18nm,1.0s
JTS **Las Juntas de** 85.30 279 LR LR 04 38 11.3
comp=Z,289nm,21.1s,baz=58,slow=32
USRK **Ussuriysk Ar.** 85.52 36 P **P** **04 05 45.5 -0.3**
comp=Z,4.1nm,0.8s,baz=276,slow=5.6,SNR=8.1
USRK LR LR 04 47 51.7
comp=Z,615nm,18.7s,baz=322,slow=38
comp=Z,4.1nm,0.8s
ANMO **Albuquerque** 85.53 311 P **P** **04 05 46.7 +0.4**
ANMO pmax pmax
comp=Z,6.0nm,1.1s
ANMO **Albuquerque** 85.53 311 P **P** **04 05 46.7 +0.4**
TASM **ASL Pad, Albuq** 85.53 311 IAmb IAmb 04 05 49.9
comp=Z,9.4nm,1.2s
ALQ **Albuquerque** 85.53 311 IAmb IAmb 04 05 49.9
comp=Z,9.6nm,1.2s
Q16A **Castle Valley** 85.56 316 IAmb IAmb 04 05 49.2
comp=Z,16nm,1.2s
MNHN **Monahans** 85.57 306 IAmb IAmb 04 05 49.6
comp=Z,25nm,1.0s
TPB06 **Permian Basin** 85.67 306 IAmb IAmb 04 05 52.1
comp=Z,23nm,1.2s
G06A **Carlson Farm,** 85.72 326 IAmb IAmb 04 07 15.0
comp=Z,11nm,1.1s
OTAV **Otavalo** 85.99 267 P **P** **04 05 50.5 +1.4**
OTAV pmax pmax
comp=Z,43nm,1.5s
OTAV **Otavalo** 85.99 267 P **P** **04 05 50.5 +1.4**
OTAV IAmb IAmb 04 05 53.6
comp=Z,43nm,1.4s
TPB11 **China Draw** 86.00 307 IAmb IAmb 04 05 52.4
comp=Z,20nm,1.1s
HMU **Henry Mountain** 86.01 315 IAmb IAmb 04 05 51.3
comp=Z,15nm,1.0s
TPB05 **Hovey Rd** 86.21 306 IAmb IAmb 04 05 53.2
comp=Z,23nm,1.1s
TPB28 **** 86.48 307 IAmb IAmb 04 05 55.5
comp=Z,6.3nm,1.4s
TCRU **Three Creeks R** 86.49 317 IAmb IAmb 04 05 54.4
comp=Z,14nm,1.1s
TPB01 **Permian Basin** 86.49 306 IAmb IAmb 04 05 54.9
comp=Z,35nm,1.6s
SLOR **San Lorenzo -** 86.60 267 IAmb IAmb 04 05 57.8
comp=Z,15nm,1.1s
ALPN **Alpine** 86.77 306 IAmb IAmb 04 05 56.1
comp=Z,28nm,1.3s
NJ2 **Nanjing** 86.79 52 *e*P **P** **04 05 50.6 -1.6**
NJ2 pmax pmax
comp=Z,8.0nm,0.5s
CPUP **Villa Florida** 86.90 234 P **P** **04 05 52.7 +0.1**
comp=Z,3.4nm,1.1s,baz=89,slow=7.3,SNR=6.8
CPUP LR LR 04 45 33.5
comp=Z,1μm,18.9s,baz=60,slow=36
comp=Z,3.4nm,1.1s
CPUP **Villa Florida** 86.90 234 P **P** **04 05 54.6 +2.0**
CPUP pmax pmax
comp=Z,13nm,1.4s
CPUP **Villa Florida** 86.90 234 P **P** **04 05 54.6 +2.0**
WVOR **Wild Horse Val** 86.91 323 IAmb IAmb 04 07 13.5
comp=Z,15nm,1.0s
PETK **Petropavlovsk-** 87.18 17 LR LR 04 49 19.4
comp=Z,300nm,19.7s,baz=330,slow=39
PSUT **Pine Spring** 87.31 317 IAmb IAmb 04 07 18.6
comp=Z,6.2nm,0.7s
TXAR **Lajitas Array** 87.47 305 P **P** **04 05 56.8 +1.0**
comp=Z,1.5nm,0.7s,baz=70,slow=5.1,SNR=15
TXAR LR LR 04 44 36.6
comp=Z,738nm,18.4s,baz=37,slow=35
comp=Z,1.5nm,0.7s
TXAR **Lajitas Array** 87.47 305 P **P** **04 05 57.4 +1.7**
TXAR **Lajitas Array** 87.47 305 P **P** **04 05 57.4 +1.7**
LPAZ **La Paz** 87.91 248 P **P** **04 05 57.6 -0.9**
comp=Z,1.0nm,0.7s,baz=61,slow=7.4,SNR=4.2
LPAZ LR LR 04 43 32.6
comp=Z,267nm,21.1s,baz=58,slow=34
comp=Z,1.0nm,0.7s
121A **Cookes Peak, D** 87.97 310 IAmb IAmb 04 06 02.1
comp=Z,23nm,1.6s
KSRS **Korea Array** 88.42 43 P **P** **04 05 59.5 -0.5**
comp=Z,1.0nm,0.9s,baz=349,slow=2.9,SNR=4.6
KSRS LR LR 04 50 15.7
comp=Z,257nm,18.2s,baz=300,slow=39
comp=Z,1.0nm,0.9s
X16A **Lo Mia Camp, P** 88.87 313 IAmb IAmb 04 07 17.9
comp=Z,8.2nm,1.0s
KVN **Kaiserville** 89.18 320 IAmb IAmb 04 07 05.4
comp=Z,6.5nm,0.7s
PAHR **Pah Rah Range** 89.34 321 IAmb IAmb 04 07 03.1
comp=Z,14nm,1.3s
YBH **Yreka Blue Hor** 89.39 325 LR LR 04 45 52.8
comp=Z,314nm,18.1s,baz=30,slow=35
319A **Douglas** 89.69 310 IAmb IAmb 04 07 19.3
comp=Z,12nm,0.9s
NVAR **Mina Array Bea** 89.75 320 P **P** **04 06 06.0 -0.5**
comp=Z,0.8nm,0.7s,baz=71,slow=2.9,SNR=8.2
NVAR LR LR 04 45 31.1
comp=Z,388nm,18.7s,baz=13,slow=35
comp=Z,0.8nm,0.7s
LHV **Little Huntoon** 89.99 320 IAmb IAmb 04 07 02.1
comp=Z,12nm,0.9s
GMN **Gold Mountain** 90.05 319 IAmb IAmb 04 07 03.5
comp=Z,4.2nm,0.7s
PB16 **IPOC Station P** 90.22 247 IAmb IAmb 04 06 14.8
comp=Z,8.8nm,0.8s
ASAJ **Asahikawa** 90.25 30 LR LR 04 50 54.0
comp=Z,421nm,18.2s,baz=332,slow=38
SHEM **Shemya Is, Ala** 90.38 8 LR LR 04 49 26.5
comp=Z,118nm,19.5s,baz=332,slow=37
KHBM **Hayfork Bally** 90.46 324 IAmb IAmb 04 06 12.7
comp=Z,14nm,1.2s
BELC **Belle Mtn. Jos** 91.79 316 IAmb IAmb 04 06 59.1
comp=Z,4.5nm,0.6s
ISA **Isabella, Lake** 91.92 318 IAmb IAmb 04 06 54.6
comp=Z,9.4nm,0.9s
NNA **Nana** 91.97 257 LR LR 04 45 49.4
comp=Z,138nm,21.0s,baz=49,slow=34
PFO **Pinyon Flats O** 92.34 316 LR LR 04 47 13.4
comp=Z,281nm,20.0s,baz=47,slow=35
PFO **Pinyon Flats O** 92.34 316 *ce*P **P** **04 06 19.6 +1.1**
PFO pmax pmax
comp=Z,7.0nm,1.1s
JNU **Nakatsue** 93.23 44 LR LR 04 53 50.7
comp=Z,331nm,18.6s,baz=339,slow=39
MJAR **Matsushiro Arr** 94.44 37 LR LR 04 52 58.0
comp=Z,494nm,19.1s,baz=326,slow=38
LPIG **La Paz** 95.36 305 LR LR 04 49 33.8
comp=Z,668nm,18.2s,baz=55,slow=36
CFA **Coronel Fontan** 97.55 236 LR LR 04 50 54.7
comp=Z,360nm,19.7s,baz=126,slow=36
JHJ **Hachijo jima 2** 97.95 38 LR LR 04 53 59.3
comp=Z,34nm,19.8s,baz=344,slow=37
QSPA **South Pole Qui** 126.45 180 PKP **PKPdf** **04 12 10.3 +0.4**
comp=Z,2.1nm,0.6s,baz=89,slow=2.0,SNR=18
WRA **Warramunga Arr** 131.55 85 PKP **PKPdf** **04 12 20.4 -0.6**
comp=Z,1.3nm,0.6s,baz=311,slow=1.5,SNR=17
AS15 **Alice Springs** 133.05 89 P **PKPdf** **04 12 23.6 -0.1**
ASAR **Alice Springs** 133.06 89 PKP **PKPdf** **04 12 22.9 -0.8**
comp=Z,2.5nm,0.9s,baz=312,slow=1.8,SNR=14

AS09	Alice Springs	133.10	89	P		PKPdf	04 12 18.1	-5.7
STKA	Stephens Creek	142.64	96	PKP		PKPdf	04 12 38.9	-2.2
	comp=Z,1.9nm,0.5s,baz=342,slow=7.2,SNR=3.5							
CMSA	Cobar Meteorol	145.81	94	P		PKPbc	04 12 47.2	+0.1
TOO	Toolangi	147.26	104	P		PKPbc	04 12 51.5	+0.4
TOO	Toolangi	147.26	104	PKP2		PKPbc	04 12 51.6	+0.4
TOO	Toolangi	147.26	104	PKPbc		PKPbc	04 12 51.6	+0.4
CAN	Canberra	149.55	99	P		PKPbc	04 12 57.9	+0.6
CAN	Canberra	149.55	99	PKP2		PKPbc	04 12 57.2	-0.1
CAN	Canberra	149.55	99			PKPbc	04 12 57.2	-0.1

ASRS ***22*** *03:54:08.6±0.2,50°.6N±1°.0×8°.7E±°, h8km, MLh3.4/15, Error ellipse: s-maj=3.0km s-min=1.9km az=63.3, confirmed*

NNC ***22*** *03:54:12.5±1.7,50°.64N×87°.33E, h0km, mb3.3, mpv2.9, Error ellipse: s-maj=14.2km s-min=7.2km az=108.0*

ISC 22 03:54:09.4±0.8,50°.60N±0°.02×87°.47E±0°.03,h10km,n30, σ2s40/52,5C-7D,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
CHBI	Chibit, Altay	0.29	176	Pg	Pg		03 54 14.0	-1.2
CHBI				Sg	Sg		03 54 17.1	-2.0
CHBI				AML	AML			
AKAR	Aktash	0.30	161	Pg	Pg		03 54 14.4	-1.0
AKAR				Sg	Sg		03 54 17.8	-1.6
AKAR				AML	AML			
ULGR	Ulagan, Altay	0.31	86	Pg	Pb		03 54 17.6	+0.4
ULGR				Sg	Sb		03 54 22.3	-0.1
ULGR				AML	AML			
CUR	Chagan-Uzun	0.75	131	Pg	Pg		03 54 23.3	-0.6
CUR				Sg	Sb		03 54 34.0	-1.0
CUR				AML	AML			
ELDR	Elanda	1.07	306	Pg	Pn		03 54 30.1	-0.3
ELDR				Sg	Sn		03 54 44.5	-0.9
ELDR				AML	AML			
YALR	Yailyu, Altay	1.17	4	Pg	Pn		03 54 32.6	+0.7
YALR				Sg	Sn		03 54 48.8	+0.8
YALR				AML	AML			
ARTR	Artybash	1.21	354	Pg	Pg		03 54 33.5	+1.0
ARTR				Sg	Sn		03 54 50.5	+1.8
ARTR				AML	AML			
GALT	Gorno-Altaysk,	1.66	325	Pg	Pg		03 54 41.7	+0.4
GALT				Sg	Sg		03 55 04.4	+1.6
GALT				AML	AML			
TEL	Teeli	1.78	75	Pg	Pg		03 54 44.1	+0.6
TEL				Sg	Sg		03 55 08.6	+2.0
TEL				AML	AML			
TASR	Tashtagol	2.18	7	Pg	Pg		03 54 52.2	+1.1
TASR				Sg	Sg		03 55 22.9	+3.6
TASR				AML	AML			
ELT	Eltsovka	2.77	345	Pg	Pg		03 55 00.9	-1.6
ELT				Sg	Sg		03 55 36.3	-2.1
ELT				AML	AML			
KALT2	Kaltan 2	2.81	358	Pg	Pg		03 55 02.5	-0.6
KALT2				Sg	Sg		03 55 41.4	+2.0
KALT2				AML	AML			
TAIL	Tailep, Kuzbas	2.86	357	Sg	Sg		03 55 43.6	+2.5
TAIL				AML	AML			
KIYZ	Kiyzas, Kuzbas	2.97	3	Pg	Pg		03 55 04.6	-1.6
KIYZ				Sg	Sg		03 55 44.3	-0.4
VEH	Verkhnyaya Baz	3.19	32	Pg	Pg		03 55 08.9	-1.5
VEH				Sg	Sg		03 55 50.9	-0.8
VEH				AML	AML			
LUZB	Luzhba, Kemero	3.19	15	Pg	Pg		03 55 08.3	-2.1
LUZB				Sg	Sg		03 55 50.6	-1.2
LUZB				AML	AML			
DJO	Djoy, Khakassi	3.20	45	Pg	Pg		03 55 11.7	+1.2
DJO				Sg	Sg		03 55 52.1	+0.1
DJO				AML	AML			
CERR	Cheremushki	3.33	46	Pg	Pg		03 55 13.4	+0.2
CERR				Sg	Sg		03 55 54.8	-1.5
CERR				AML	AML			
ERU	Erunakovo, Kuz	3.55	359	Sg	Sg		03 56 05.8	+2.7
ERU				AML	AML			
KOTO	Kotino, Kuzbas	3.61	355	Sg	Sg		03 56 10.0	+4.8
ZAA0	Zalesovo Array	3.73	335	⇓Pn	Pb		03 55 10.6	-4.6
	0.7nm,0.4s							
ZAA0				⇓Pg	Pg		03 55 18.6	-2.1
	1.2nm,0.4s							
ZAA0				⇑Sn	Sb		03 55 54.6	-5.8
	2.6nm,0.3s							
ZAA0				⇑Lg	Lg		03 56 08.8	
	6.6nm,0.3s							
POMOR	Pomortsevo, Ku	3.86	352	Sg	Sg		03 56 17.9	+4.8
POMOR				AML	AML			
ARDR	Aradan	4.21	60	Sg	Sg		03 56 24.5	0.0
ARDR				AML	AML			
BSTK	Bystrovka, Nov	4.94	325	Sg	Sg		03 56 49.8	+1.9
NVS	Novosibirsk	4.97	330	Sg	Sg		03 56 49.3	+0.7
NVS				AML	AML			
NVSII	Novosibirsk	4.97	330	Sg	Sg		03 56 50.5	+1.9
BRCR	Berchikul'	5.08	5	Pg	Pg		03 55 42.0	-4.5
BRCR				Sg	Sg		03 56 51.8	-0.4
BRCR				AML	AML			
MK31	Makanchi Array	5.12	224	Pn	Pn		03 55 31.2	+5.0
	0.6nm,0.3s,baz=48,slow=12,SNR=50							
MK31				⇑Sn	Sn		03 56 28.6	+3.2
	0.9nm,0.4s,baz=52,slow=25,SNR=4.4							
MK31				⇓Lg	Lg		03 56 50.6	
	2.9nm,0.5s,baz=39,slow=29,SNR=6.2							
KURK	Kurchatov	5.63	275	⇑Pn	Pn		03 55 35.8	+2.7
	0.3nm,0.3s							
KURK				⇓Sn	Sn		03 56 43.0	+5.3
	1.0nm,0.5s							
KURK				⇓Lg	Lg		03 57 07.6	
	3.4nm,0.6s							
KURBB	Kurchatov Arra	5.69	274	⇓Pn	Pn		03 55 36.8	+3.0
	1.6nm,0.3s							
KURBB				⇓Sn	Sn		03 56 43.2	+4.0
	3.9nm,0.3s							
KURBB				⇑Lg	Lg		03 57 07.9	
	22nm,0.7s							

BGR ***22*** *03:54:50.9, 18°.94S×176°.87W, h33km*

BJI ***22*** *03:55:52.0, 18°.19S×177°.94W, h575km, mB4.7/5, mb4.8/26*

NEIC ***22*** *03:55:53.1±2.4, 18°.2S±0°.1×178°.1W±0°.1, h557km±6km, mb4.6/219, Error ellipse: s-maj=16.1km s-min=14.4km az=159.0*

NOU ***22*** *03:55:53.1, 18°.25S×178°.10W, h575km, mb4.8/51, Fiji Islands Region*

IDC ***22*** *03:55:54.6±0.7, 18°.27S×178°.19W, h585km±8km, mb3.9/21, mbtmp4.9/24, Error ellipse: s-maj=11.1km s-min=8.3km az=163.0*

GFZ ***22*** *03:55:54.2±0.4, 18°.5±4°×17°.8W±°, h574km±4km, M4.6/30, mb4.6/30, Error ellipse: s-maj=9.8km s-min=6.4km az=150.3, confirmed*

ISC 22 03:55:54.5±0.3,18°.21S±0°.06×178°.10W±0°.05,h590km, n458,σ1s10/372,mb4.6/158,49C-47D,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
LKBA	Tubou, Lakemba	0.68	268	P	P		03 57 01.7	-2.4
TAVE	Taveuni	2.28	311	P	P		03 57 06.7	-2.4
DGTI	Dogotuki	2.80	312	P	P		03 57 08.8	-3.0
MSVF	Nonsavu	3.69	277	P	P		03 57 16.1	-1.1
	457nm,0.6s,baz=129,slow=6.6,SNR=447							
MSVF				S	S		03 58 24.7	+0.1
	135nm,1.1s,baz=327,slow=23,SNR=15							
MSVF	Nonsavu	3.69	277	P	P		03 57 15.8	-1.4
MSVF	Nonsavu	3.69	277	P	P		03 57 16.2	-1.1
FUTU	Fugatoga	3.88	360	P	P		03 57 16.6	-1.9
FUTU	Fugatoga	3.88	360		P		03 57 16.7	-1.8
FUTU	Fugatoga	3.88	360	P	P		03 57 16.9	-1.5
AFI	Afiamalu	7.43	56	P	P		03 57 44.1	-4.2
	128nm,0.7s,baz=33,slow=2.8,SNR=19							
AFI				S	S		03 59 13.8	-7.5
	41nm,0.5s,baz=322,slow=20,SNR=4.7							
NIUE	Niue	7.80	98	P	P		03 57 49.7	-1.8
FUNA	Funafuti	9.98	344	P	P		03 58 11.3	-1.6
FUNA	Funafuti	9.98	344	P	P		03 58 10.3	-2.6
	comp=Z,97nm,1.2s							
RTV	Rentapao	12.82	270	P	P		03 58 40.2	-1.4
DVP	Devils Point	13.05	270	P	P		03 58 42.8	-1.2
MARNC	Mare, Loyalty	13.45	254	P	P		03 58 45.0	-2.9
MARNC	Mare, Loyalty	13.45	254	P	P		03 58 45.3	-2.7
SANVU	Saraoutou	14.33	279	P	P		03 58 55.5	-1.3
SANVU	Saraoutou	14.33	279		P		03 58 55.2	-1.6
SANVU	Saraoutou	14.33	279	P	P		03 58 54.9	-1.9
	comp=Z,116nm,0.6s							
YATNC	Mamie plateau,	14.60	252	P	P		03 58 56.9	-2.4
OUENC	Ouen Island, N	14.73	251	P	P		03 58 58.3	-2.1
DZM	Mont Dzumac	15.01	253	P	P		03 59 01.7	-1.5
	comp=Z,33nm,0.6s,baz=238,slow=15,SNR=25							
NOUC	Port Laguerre	15.14	253	P	P		03 59 03.3	-1.0
RAR	Rarotonga	17.52	103	P	P		03 59 25.4	-0.8
	comp=Z,59nm,0.8s,baz=247,slow=7.2,SNR=21							
RAR	Rarotonga	17.52	103		P		03 59 26.0	-0.1
RAR	Rarotonga	17.52	103	P	P		03 59 26.8	+0.6
	comp=Z,89nm,1.3s							
URZ	Urewera	20.41	191	P	P		03 59 49.9	-2.2
	comp=Z,6.0nm,0.3s,baz=268,slow=2.7,SNR=16							
	comp=Z,6.0nm,0.3s							
URZ	Urewera	20.41	191	P	P		03 59 50.0	-2.2
TATA	Tatamba Isabel	23.59	292	P	P		04 00 20.1	-0.8
KHZ	Kahutara	25.16	195	P	P		04 00 32.5	-1.8
PPT	Papeete	27.15	93	P	P		04 00 52.7	+0.5
	comp=Z,25nm,0.5s,baz=61,slow=6.1,SNR=9.2							
	comp=Z,25nm,0.5s							
PPTF	Pamatai, Papee	27.16	93	P	P		04 00 51.4	-0.9
PPTF	Pamatai, Papee	27.16	93		P		04 00 52.0	-0.3
PPTF	Pamatai, Papee	27.16	93	P	P		04 00 52.5	+0.2
	comp=Z,87nm,1.7s							
JCZ	Jackson Bay	28.05	200	P	P		04 00 58.8	-1.0
EIDS	Eidsvold	29.44	251	P	P		04 01 11.3	-0.7
EIDS	Eidsvold	29.44	251		P		04 01 11.5	-0.5
EIDS				IAmb	IAmb		04 01 12.3	
	comp=Z,17nm,0.7s							
EIDS	Eidsvold	29.44	251	P	P		04 01 11.6	-0.5
	comp=Z,28nm,1.3s							
ARMA	Armidale	30.04	240	P	P		04 01 17.6	+0.3
ARMA	Armidale	30.04	240		P		04 01 17.8	+0.6
ARMA				IAmb	IAmb		04 01 18.7	
	comp=Z,17nm,0.9s							
ARMA	Armidale	30.04	240	P	P		04 01 17.9	+0.6
	comp=Z,24nm,0.7s							
CTA	Charters Tower	33.68	261	P	P		04 01 47.0	-1.1
	comp=Z,18nm,0.6s,baz=95,slow=10,SNR=38							
	comp=Z,18nm,0.6s							
CTA	Charters Tower	33.68	261	P	P		04 01 47.7	-0.5
CTAO	Charters Tower	33.68	261	P	P		04 01 47.7	-0.5
CTAO	Charters Tower	33.68	261	P	P		04 01 47.7	-0.5
CTAO	Charters Tower	33.68	261	P	P		04 01 48.0	-0.1
	comp=Z,36nm,0.9s							
CAN	Canberra	33.75	233	P	P		04 01 48.6	0.0
CAN	Canberra	33.75	233		P		04 01 49.3	+0.7
CAN				IAmb	IAmb		04 01 49.9	
	comp=Z,15nm,0.8s							
CAN	Canberra	33.75	233	P	P		04 01 49.0	+0.5
	comp=Z,23nm,0.8s							
PMG	Port Moresby	34.80	280	P	P		04 01 56.8	-0.6
	comp=Z,20nm,0.8s,baz=79,slow=5.4,SNR=5.0							
	comp=Z,20nm,0.8s							
PMG	Port Moresby	34.80	280	P	P		04 01 57.3	-0.2
PMG	Port Moresby	34.80	280	P	P		04 01 58.2	+0.7
	comp=Z,36nm,1.3s							
CMSA	Cobar Meteorol	35.26	241	P	P		04 02 00.9	-0.2
CMSA	Cobar Meteorol	35.26	241	P	P		04 02 01.2	+0.1
	comp=Z,41nm,0.7s							
MTSU	Mount Surprise	35.66	264	P	P		04 02 04.6	-0.1
	comp=Z,16nm,0.8s							
QLP	Quilpie	35.70	250	P	P		04 02 04.4	-0.4
QLP	Quilpie	35.70	250	P	P		04 02 04.8	0.0
	comp=Z,65nm,0.6s							
JOHN	Johnston Islan	35.73	14	P	P		04 02 05.0	-0.1
TOO	Toolangi	37.21	231		P		04 02 17.8	+0.7
TOO				IAmb	IAmb		04 02 18.5	
	comp=Z,9.5nm,0.8s							
STKA	Stephens Creek	38.74	242	P	P		04 02 30.2	+0.7
	comp=Z,18nm,0.5s,baz=89,slow=8.8,SNR=34							
	comp=Z,18nm,0.5s							
STKA	Stephens Creek	38.74	242		P		04 02 30.1	+0.7
STKA	Stephens Creek	38.74	242	P	P		04 02 30.1	+0.7
	comp=Z,146nm,0.8s							
INKA	Innaminka	38.90	248		P		04 02 31.8	+0.9
INKA				IAmb	IAmb		04 02 32.6	
	comp=Z,12nm,0.7s							
QIS	Mount Isa	39.88	260	P	P		04 02 38.3	-0.6
QIS	Mount Isa	39.88	260	P	P		04 02 37.6	-1.3
	comp=Z,5.0nm,0.7s							
WAKE	Wake Island	40.15	337	P	P		04 02 40.6	-0.3
	comp=Z,156nm,1.3s							
HTT	Hallett	41.24	240	P	P		04 02 49.3	-0.2
BBOO	Buckleboo	43.52	241	P	P		04 03 07.3	+0.1
BBOO	Buckleboo	43.52	241	P	P		04 03 07.3	+0.1
BBOO				IAmb	IAmb		04 03 08.1	
	comp=Z,17nm,0.8s							
BBOO	Buckleboo	43.52	241	P	P		04 03 07.3	+0.1
	comp=Z,27nm,0.7s							
WR8	Warramunga Arr	44.71	260		P		04 03 15.8	-0.8
WRAB	Tennant Creek	44.85	260	P	P		04 03 17.0	-0.7
WRAB	Tennant Creek	44.85	260	P	P		04 03 17.0	-0.7
	comp=Z,13nm,1.2s							
WRA	Warramunga Arr	44.86	260	P	P		04 03 17.1	-0.7
	comp=Z,8.2nm,0.7s,baz=97,slow=7.1,SNR=126							
WRA				PcP	PcP		04 04 47.2	+0.7
	comp=Z,1.8nm,0.5s,baz=88,slow=3.3,SNR=7.1							
WRA				S	S		04 09 10.4	-3.2
	comp=Z,1.4nm,0.8s,baz=108,slow=13,SNR=6.2							
	comp=Z,8.2nm,0.7s							
WRA	Warramunga Arr	44.86	260		P		04 03 17.0	-0.8
AS01	Alice Springs	44.95	255	P	P		04 03 18.2	-0.2
AS31	Alice Springs	44.99	255		P		04 03 18.4	-0.3
AS31				IAmb	IAmb		04 03 19.6	
	comp=Z,16nm,0.6s							
ASAR	Alice Springs	44.99	255	P	P		04 03 18.6	-0.1
	comp=Z,45nm,0.6s,baz=88,slow=8.9,SNR=774							
ASAR				PcP	PcP		04 04 47.5	+0.5
	comp=Z,3.7nm,0.7s,baz=98,slow=3.6,SNR=7.7							
ASAR				S	S		04 09 14.5	-0.9
	comp=Z,5.9nm,1.0s,baz=88,slow=15,SNR=23							
	comp=Z,45nm,0.6s							
SANI	Sanana	57.08	280	P	P		04 04 45.8	-0.3
	comp=Z,20nm,0.9s							
KLBR	Kellerberrin	58.96	244	P	P		04 04 58.0	-0.5
	comp=Z,20nm,0.7s							
VNDA	Vanda	60.17	185	P	P		04 05 06.6	+0.9
	comp=Z,0.7nm,0.6s,baz=351,slow=4.8,SNR=1.4							
VNDA	Vanda	60.17	185	IAmb	IAmb		04 05 11.9	
	comp=Z,10nm,1.4s							
PLAI	Plampang	62.78	269	P	P		04 05 23.8	0.0
JGF	Kuroka	68.15	322	P	P		04 05 56.6	-0.3
MJAR	Matsushiro Arr	68.32	323	P	P		04 05 57.6	-0.3
	comp=Z,13nm,0.6s,baz=158,slow=6.2,SNR=38							
	comp=Z,13nm,0.6s							
MJAR	Matsushiro Arr	68.32	323		P		04 05 57.6	-0.3
MJAR				IAmb	IAmb		04 05 58.5	
	comp=Z,9.7nm,0.7s							
MAJO	Matsushiro	68.32	323	P	P		04 05 57.8	-0.1
MAJO	Matsushiro	68.32	323		P		04 05 57.1	-0.8
MAJO				IAmb	IAmb		04 05 58.3	
	comp=Z,16nm,0.6s							
MAJO	Matsushiro	68.32	323	P	P		04 05 58.0	+0.1
	comp=Z,27nm,0.8s							
MJB9	Matsu-Tunnel	68.33	323	P	P		04 05 57.1	-0.8
MJB9				IAmb	IAmb		04 05 58.3	
	comp=Z,16nm,0.6s							
JMN	Monobe	69.01	318		P		04 06 02.7	+0.6
JMN				IAmb	IAmb		04 06 04.7	
	comp=Z,34nm,1.1s							
JMN	Monobe	69.01	318	P	P		04 06 03.3	+1.2
	comp=Z,36nm,1.2s							
KIWB	Kanaga Island	69.77	1		P		04 06 05.5	-0.6
ADK	Adak	69.80	1	P	P		04 06 05.7	-0.6
ADK	Adak	69.80	1	P	P		04 06 05.7	-0.6
ADK	Adak	69.80	1	P	P		04 06 06.0	-0.3
	comp=Z,61nm,0.7s							
UGM	Wanagama	69.93	268	P	P		04 06 08.0	0.0
ATKA	Atka Island	70.19	3	P	P		04 06 08.2	-0.4
QSPA	South Pole Qui	71.85	180	P	P		04 06 19.7	+1.4
	comp=Z,3.7nm,0.6s,baz=334,slow=0.5,SNR=36							
	comp=Z,3.7nm,0.6s							
QSPA	South Pole Qui	71.85	180	P	P		04 06 19.8	+1.4
QSPA	South Pole Qui	71.85	180	P	P		04 06 19.9	+1.5
	comp=Z,8.6nm,0.8s							
YULB	Yu-li	72.17	303	P	P		04 06 20.6	-0.3
UNV	Unalaska Valle	72.45	7	P	P		04 06 20.7	-1.0
TPUB	Ta-pu	72.66	302	P	P		04 06 22.9	-0.8
TPUB	Ta-pu	72.66	302	P	P		04 06 22.9	-0.8
	comp=Z,56nm,1.3s							
PEA0B	Petropavlovsk-	74.04	345	P	P		04 06 30.5	-0.4
PEA0B				IAmb	IAmb		04 06 31.9	
	comp=Z,25nm,0.8s							
PETK	Petropavlovsk-	74.04	345	P	P		04 06 30.9	0.0
	comp=Z,28nm,0.8s,baz=101,slow=5.6,SNR=42							
	comp=Z,28nm,0.8s							
SDPT	Sand Point	74.78	10	P	P		04 06 34.1	-0.8
KSRS	Korea Array	75.12	318	P	P		04 06 38.4	+1.2
	comp=Z,2.8nm,0.7s,baz=128,slow=6.1,SNR=12							
	comp=Z,2.8nm,0.7s							
KSAR	Wonju Array Be	75.13	318	P	P		04 06 36.7	-0.6
CHIR	Chirikof Islan	76.16	13	P	P		04 06 42.4	-0.1
USRK	Ussuriysk Ar.	77.02	326	P	P		04 06 48.8	+1.3
	comp=Z,3.3nm,0.6s,baz=132,slow=3.1,SNR=6.3							
	comp=Z,3.3nm,0.6s							
USRK	Ussuriysk Ar.	77.02	326	P	P		04 06 49.1	+1.6
KMRM	Mail Ridge	77.06	40	IAmb	IAmb		04 06 50.8	
	comp=Z,24nm,0.9s							
SII	Sitkinak Islan	77.15	13	P	P		04 06 48.5	+0.6
VES	Vestal, Richgr	77.50	46	IAmb	IAmb		04 06 52.2	
	comp=Z,15nm,0.9s							
CMB	Columbia Colle	77.86	43		P		04 06 53.2	+1.0
AFDM	Forest Hills D	78.00	42		P		04 06 54.2	+1.2
NJ2	Nanjing	78.35	309	eP	P		04 06 55.9	+0.9
NJ2				pmax	pmax			
	comp=Z,18nm,0.9s							
YBH	Yreka Blue Hor	78.57	39		P		04 06 57.6	+1.5
MDJ	Mudanjiang	78.60	325	P	P		04 06 57.8	+1.8
MDJ				pmax	pmax			
	comp=Z,42nm,0.9s							
M03C	McCloud	78.65	40	IAmb	IAmb		04 06 58.8	
	comp=Z,18nm,0.8s							
TIN	Tinemaha, Big	78.74	45	IAmb	IAmb		04 06 59.6	
	comp=Z,19nm,1.1s							
BEKR	Beckworth	78.92	42	IAmb	IAmb		04 07 00.1	
	comp=Z,21nm,1.5s							
PNTR	Pine Nut	78.96	43	P	P		04 06 59.8	+1.5
PNTR				IAmb	IAmb		04 07 00.8	
	comp=Z,19nm,0.9s							
L04D	Klamath Falls	79.11	39	IAmb	IAmb		04 07 01.1	
	comp=Z,14nm,0.8s							
NVAR	Mina Array Bea	79.44	44	P	P		04 07 02.2	+1.3
	comp=Z,5.4nm,0.7s,baz=224,slow=8.8,SNR=39							
	comp=Z,5.4nm,0.7s							
MOD	Modoc Plateau	80.13	40	IAmb	IAmb		04 07 06.5	
	comp=Z,12nm,0.7s							
K05A	Summer Lake	80.25	39	IAmb	IAmb		04 07 07.6	
	comp=Z,23nm,1.0s							
J05D	Fort Rock, OR	80.38	38	IAmb	IAmb		04 07 08.1	
	comp=Z,24nm,0.8s							
CN2	Changchun	80.43	322	P	P		04 07 06.4	+0.8
CN2				pmax	pmax			
	comp=Z,10.0nm,1.0s							
WIFE	Three Sisters-	80.50	37	IAmb	IAmb		04 07 08.6	
	comp=Z,15nm,1.0s							
BNX	BinXian	80.51	325	⇑P	P		04 07 06.8	+0.8
BNX				pmax	pmax			
	comp=Z,32nm,0.8s							
S11A	Rachel	80.72	45	IAmb	IAmb		04 07 09.8	
	comp=Z,14nm,1.0s							
G04A	Mulino	80.81	36	IAmb	IAmb		04 07 10.8	
	comp=Z,18nm,0.8s							
PINE	Pine Mountain	80.85	38	IAmb	IAmb		04 07 10.7	
	comp=Z,23nm,0.9s							
I05D	Terrebonne, OR	80.94	37	IAmb	IAmb		04 07 10.6	
	comp=Z,11nm,0.8s							
PRN	Pahroc Range	81.08	46	IAmb	IAmb		04 07 12.1	
	comp=Z,12nm,0.9s							
BMN	Battle Mountai	81.23	42	IAmb	IAmb		04 07 12.4	
	comp=Z,10nm,0.9s							
F04A	Amboy	81.28	36	IAmb	IAmb		04 07 12.1	
	comp=Z,31nm,1.5s							
HOOD	Mount Hood Mea	81.34	36	IAmb	IAmb		04 07 12.4	
	comp=Z,16nm,1.0s							
WVOR	Wild Horse Val	81.45	40	P	P		04 07 12.6	+1.6
	comp=Z,15nm,1.2s							
G05A	Wamic	81.49	37	IAmb	IAmb		04 07 18.8	
	comp=Z,12nm,0.9s							
TUC	Tucson	81.65	52	P	P		04 07 14.8	+2.5
	comp=Z,8.9nm,1.1s							
SPU	Mount Spurr	81.83	12	IAmb	IAmb		04 07 12.7	
	comp=Z,21nm,1.2s							
I07A	Izee	81.86	38	IAmb	IAmb		04 07 15.6	
	comp=Z,15nm,0.8s							
L18K	Granite Mounta	81.94	10	IAmb	IAmb		04 07 14.9	
	comp=Z,22nm,0.7s							
J08A	Circle Bar Ran	82.06	39	IAmb	IAmb		04 07 16.5	
	comp=Z,19nm,1.2s							
STLK	Strandline Lak	82.17	12	IAmb	IAmb		04 07 14.2	
	comp=Z,18nm,0.8s							
L19K	White Mountain	82.22	11	IAmb	IAmb		04 07 16.6	
	comp=Z,14nm,1.0s							
D05A	Enumclaw	82.28	35	IAmb	IAmb		04 07 17.8	
	comp=Z,52nm,1.4s							
J16K	Anvik River	82.38	8	IAmb	IAmb		04 07 16.7	
	comp=Z,16nm,0.7s							
U15A	North Rim	82.50	48	IAmb	IAmb		04 07 19.6	
	comp=Z,14nm,0.8s							
L20K	Farewell, AK	82.67	11	IAmb	IAmb		04 07 17.7	
	comp=Z,42nm,1.3s							
J17K	VABM Dome	82.69	9	IAmb	IAmb		04 07 18.0	
	comp=Z,15nm,0.7s							
PMR	Palmer	82.82	14	P	P		04 07 17.3	0.0
G08A	Pilot Rock	82.87	38	IAmb	IAmb		04 07 20.3	
	comp=Z,30nm,1.4s							
PKCU	Pink Cliffs	82.98	47	IAmb	IAmb		04 07 22.6	
	comp=Z,15nm,1.1s							
LTY	Liberty	83.04	35	IAmb	IAmb		04 07 20.7	
	comp=Z,12nm,1.1s							
J18K	Innoko River	83.11	9	IAmb	IAmb		04 07 20.3	
	comp=Z,30nm,0.8s							

TXAR	Lajitas Array	85.91	57	P		P		04 07 35.7	+2.3
	comp=Z,4.7nm,0.7s,baz=218,slow=5.9,SNR=36								
	comp=Z,4.7nm,0.7s								
COLA	College	86.00	12	P		P		04 07 32.1	-0.7
COLA	College	86.00	12	P		P		04 07 31.3	-1.5
COLA	College	86.00	12	P		P		04 07 32.4	-0.4
	comp=Z,32nm,1.4s								
TASM	ASL Pad, Albuq	86.05	51	IAmb		IAmb		04 07 37.2	
	comp=Z,3.6nm,1.0s								
ALQ	Albuquerque	86.06	51	IAmb		IAmb		04 07 36.2	
	comp=Z,3.7nm,0.9s								
ANMO	Albuquerque	86.06	51	P		P		04 07 35.3	+1.3
	comp=Z,5.5nm,1.2s								
SCRK	Sand Creek	86.08	14	IAmb		IAmb		04 07 34.1	
	comp=Z,10nm,1.1s								
IL31		86.11	13	IAmb		IAmb		04 07 33.9	
	comp=Z,9.1nm,0.6s								
ILAR	Eielson Array	86.11	13	P		P		04 07 32.8	-0.6
	comp=Z,5.5nm,0.4s,baz=221,slow=4.8,SNR=182								
ILAR				PP		PP		04 11 07.8	+2.4
	comp=Z,1.4nm,0.9s,baz=223,slow=6.8,SNR=4.9								
	comp=Z,5.5nm,0.4s								
ILAR	Eielson Array	86.11	13	P		P		04 07 32.9	-0.4
F19K	Shaleruckik Mo	86.13	8	IAmb		IAmb		04 07 34.5	
	comp=Z,6.3nm,0.7s								
XLT	XiLinHaoTe	86.16	319	*eP*		P		04 07 33.8	-0.4
XLT				pmax		pmax			
	comp=Z,12nm,1.3s								
H22K	Ishtalitna Cre	86.24	11	IAmb		IAmb		04 07 34.6	
	comp=Z,9.4nm,0.7s								
M29M	Somme Creek	86.25	17	IAmb		IAmb		04 07 36.7	
	comp=Z,11nm,0.9s								
POKR	Poker Plat Res	86.30	12	IAmb		IAmb		04 07 34.5	
	comp=Z,12nm,0.6s								
J25K	Salcha River,	86.31	14	IAmb		IAmb		04 07 34.8	
	comp=Z,8.8nm,0.6s								
G21K	Allakaket	86.46	10	IAmb		IAmb		04 07 36.1	
	comp=Z,11nm,0.8s								
F20K	Avaraart Lake	86.62	9	IAmb		IAmb		04 07 36.4	
	comp=Z,6.0nm,0.8s								
XAN	Xi'an	86.67	307	P		P		04 07 38.3	+1.5
XAN				pmax		pmax			
	comp=Z,30nm,1.2s								
DLMT	Dillon	86.70	40	IAmb		IAmb		04 07 39.1	
	comp=Z,10nm,0.8s								
BILI	Bilibino, Chuk	86.76	354	P		P		04 07 37.3	+1.0
	comp=Z,12nm,1.0s								
E19K	Redstone River	86.80	8	IAmb		IAmb		04 07 37.6	
	comp=Z,12nm,0.6s								
M30M	Minto, Yukon	86.83	18	IAmb		IAmb		04 07 38.3	
	comp=Z,22nm,0.9s								
YHB	Horse Butte	87.27	41	IAmb		IAmb		04 07 42.5	
	comp=Z,7.0nm,0.9s								
DAWY	Dawson	87.29	16	IAmb		IAmb		04 07 40.0	
	comp=Z,6.2nm,0.7s								
BW06	Boulder Array	87.37	43	IAmb		IAmb		04 07 41.8	
	comp=Z,5.0nm,0.8s								
PDAR	Pinedale Array	87.37	43	P		P		04 07 40.9	+0.8
	comp=Z,3.7nm,0.7s,baz=214,slow=2.9,SNR=18								
	comp=Z,3.7nm,0.7s								
PDAR	Pinedale Array	87.37	43	P		P		04 07 40.6	+0.6
H17A	Grant Village	87.48	42	IAmb		IAmb		04 07 44.1	
	comp=Z,8.3nm,0.8s								
K29M	Barlow Dome	87.62	17	IAmb		IAmb		04 07 43.2	
	comp=Z,6.8nm,0.8s								
HHC	Hu-ho-hao-te	87.69	314	*eP*		P		04 07 45.5	+4.1
HHC				pmax		pmax			
	comp=Z,9.0nm,0.6s								
J29N	Klondike Camp	87.91	16	IAmb		IAmb		04 07 44.9	
	comp=Z,17nm,1.1s								
YNE	Yellowstone No	88.13	41	IAmb		IAmb		04 07 46.3	
	comp=Z,9.7nm,1.0s								
E21K	Killik River	88.17	9	IAmb		IAmb		04 07 43.8	
	comp=Z,12nm,1.0s								
I28M	Miner Creek	88.28	15	IAmb		IAmb		04 07 44.7	
	comp=Z,8.2nm,0.8s								
E23K	Chandalar	88.50	10	IAmb		IAmb		04 07 46.0	
	comp=Z,12nm,0.9s								
H27K	Steamboat Moun	88.54	14	IAmb		IAmb		04 07 46.3	
	comp=Z,19nm,1.4s								
I29M	Ogilvie Camp,	88.61	16	IAmb		IAmb		04 07 45.6	
	comp=Z,8.5nm,0.8s								
RLMT	Red Lodge	88.65	41	IAmb		IAmb		04 07 48.6	
	comp=Z,6.3nm,0.9s								
E24K	Your Creek	88.71	11	IAmb		IAmb		04 07 46.8	
	comp=Z,4.2nm,0.6s								
F25K	Christian Rive	88.82	12	IAmb		IAmb		04 07 47.8	
	comp=Z,5.8nm,0.9s								
BMAR	Burnt Mountain	88.89	12	P		P		04 07 47.3	+0.9
ELIB	Princess Elisa	88.90	187	*dP*		P		04 07 47.3	+0.7
	comp=Z,4.4nm,0.7s								
I30M	Mount Dempster	89.01	16	IAmb		IAmb		04 07 48.4	
	comp=Z,16nm,1.1s								
CMAR	Chiang Mai Arr	89.26	290	P		P		04 07 51.1	+2.0
	comp=Z,4.3nm,0.8s,baz=111,slow=2.8,SNR=17								
	comp=Z,4.3nm,0.8s								
CMAR	Chiang Mai Arr	89.26	290	P		P		04 07 50.5	+1.4
CHTO	Chiang Mai	89.37	290	P		P		04 07 51.1	+1.5
	comp=Z,10.0nm,0.9s								
CD2	Chengdu	89.47	303	P		P		04 07 49.0	-0.9
CD2				pmax		pmax			
	comp=Z,30nm,1.0s								
D24K	Happy Valley	89.61	10	IAmb		IAmb		04 07 51.2	
	comp=Z,9.7nm,0.9s								
G29M	Pine Creek	89.92	15	IAmb		IAmb		04 07 52.7	
	comp=Z,14nm,1.1s								
TROLL	Troll, Antarti	90.01	180	⇑P		P		04 07 52.4	+0.7
	comp=Z,95nm,0.4s								
VNA3	Neumayer Olymp	90.42	176	⇑P		P		04 07 54.5	+1.0
	comp=Z,5.0nm,0.6s								
VNA3	Neumayer Olymp	90.42	176	P		P		04 07 54.1	+0.6
	comp=Z,9.1nm,0.7s								
GO06	Currarehue	90.75	132	P		P		04 07 57.9	+2.0
	comp=Z,7.0nm,1.4s								
VNA2	Neumayer--Watz	90.86	177	⇑P		P		04 07 57.1	+1.5
	comp=Z,4.1nm,0.6s,baz=185,slow=4.1								
PLCA	Paso Flores	90.92	134	P		P		04 07 57.5	+1.0
	comp=Z,1.1nm,0.7s,baz=310,slow=2.4,SNR=4.2								
	comp=Z,1.1nm,0.7s								
C27K	Jago River	90.93	11	IAmb		IAmb		04 07 57.9	
	comp=Z,10nm,1.0s								
E28M	Babbage River	90.93	13	IAmb		IAmb		04 07 57.1	
	comp=Z,8.2nm,0.9s								
F30M	Barrier River	91.01	15	IAmb		IAmb		04 08 10.2	
	comp=Z,12nm,1.2s								
LZDM	Lanzhou Array	91.37	307	P		P		04 08 00.7	+1.8
	comp=Z,0.9nm,0.3s,baz=63,slow=6.8,SNR=4.9								
	comp=Z,0.9nm,0.3s								
INK	Inuvik	92.10	15	P		P		04 08 01.1	+0.1
	comp=Z,16nm,0.9s								
ULN	Ulaanbaatar	93.57	319	P		P		04 08 09.4	+0.9
	comp=Z,7.1nm,1.4s								
SONM	Songino Array	93.97	319	P		P		04 08 10.5	+0.2
	comp=Z,0.9nm,0.6s,baz=134,slow=5.7,SNR=4.2								
	comp=Z,0.9nm,0.6s								
SONM	Songino Array	93.97	319	IAmb		IAmb		04 08 11.4	
	comp=Z,3.6nm,1.3s								
SONM				P		P		04 08 12.0	+1.8
YKA	Yellowknife Ar	94.48	25	P		P		04 08 12.1	+0.1
	comp=Z,2.4nm,0.6s,baz=242,slow=4.5,SNR=19								
	comp=Z,2.4nm,0.6s								
YKA	Yellowknife Ar	94.48	25	P		P		04 08 12.0	-0.1
ZALV	Zalesovo Beam	108.65	322	PKiKP		PKiKP		04 13 15.8	-1.0
	comp=Z,0.8nm,0.6s,baz=264,slow=2.8,SNR=4.0								
MKAR	Makanchi Array	109.55	314	PKiKP		PKiKP		04 13 18.2	-0.6
	comp=Z,0.9nm,0.5s,baz=54,slow=0.7,SNR=12								
KURBB	Kurchatov Arra	112.30	318	PKiKP		PKiKP		04 13 23.0	-0.9
	comp=Z,1.3nm,0.6s,baz=94,slow=1.8,SNR=11								
KURBB				PP		PP		04 14 26.2	+5.1
	comp=Z,0.3nm,0.4s,baz=88,slow=5.2,SNR=4.5								
BVAR	Borovoye Array	117.26	321	PKP		PKPdf		04 13 33.3	-0.1
	comp=Z,3.3nm,0.6s,baz=134,slow=0.6,SNR=11								
KK31	Karatay Array	117.73	310			PKPdf		04 13 34.4	-0.3
KKAR	Karatay Array	117.73	310	PKPdf		PKPdf		04 13 34.4	-0.3
ARCES	ARCESS Array B	126.66	350	PKP		PKiKP		04 13 51.3	-0.2
	comp=Z,1.4nm,0.5s,baz=54,slow=1.0,SNR=11								
FINES	FINESS Array B	133.55	344	SKPbc		SKPbc		04 16 38.6	+0.3
	comp=Z,4.0nm,1.0s,baz=50,slow=2.2,SNR=3.4								
HFS	Hagfors	137.27	351	PKhKP		PKPpre		04 14 02.4	
	comp=Z,2.4nm,0.6s,baz=259,slow=1.5,SNR=5.6								
AKASG	Malin Array Be	140.96	332	PKhKP		PKPpre		04 14 11.6	
	comp=Z,1.0nm,0.4s,baz=44,slow=4.1,SNR=12								
AKASG				PKP		PKiKP		04 14 19.6	-1.4
	comp=Z,2.6nm,0.5s,baz=42,slow=2.7,SNR=6.7								
KIEV	Kiev	140.97	332	⇑P		PKPdf		04 14 12.4	-5.7
EKA	Eskdalemuir Ar	142.74	5	PKhKP		PKPpre		04 14 18.6	
	comp=Z,3.6nm,0.7s,baz=322,slow=2.2,SNR=7.5								
SORM	Soroca	143.19	330	⇑P		PKPbc		04 14 20.5	-0.1
BEL	Belsk	143.28	340	*e*PKP		PKPdf		04 14 21.8	-0.4
PURM	Purcari	143.54	327	⇑P		PKPdf		04 14 22.5	-0.3
BSEG	Bad Segeberg	143.75	352	*e*PKPbc		PKPdf		04 14 22.7	-0.2
	baz=15,slow=2.7								
DRBR	Darabani	143.95	332	⇑P		PKPbc		04 14 22.3	-0.7
HPK	Haverah Park	144.22	4	*e*P		PKPbc		04 14 23.7	+0.1
KWP	Kalwaria Pacla	144.46	337	*e*PKP		PKPab		04 14 25.3	+0.2
ILGA	Ilgaz	144.49	317			PKPab		04 14 26.2	+0.4
VASR	Vaslui	144.51	329	⇓P		PKPab		04 14 25.7	+0.3
RUE	Ruedersdorf	144.55	347	*e*PKPbc		PKPab		04 14 25.6	+0.3
	baz=15,slow=2.7								
MNTR	Muntenesti	144.56	329	⇓P		PKPab		04 14 25.5	-0.1
PDRR	Padureni	144.59	329	⇓P		PKPab		04 14 25.6	-0.1
DMBR	Dumbraveni	144.65	329	⇓P		PKPab		04 14 25.8	-0.1
BIR	Birlad	144.86	328	⇓P		PKPab		04 14 27.8	+1.0
VLDR	Vladesti	144.92	328	⇑P		PKPab		04 14 26.8	-0.2
TLCR		144.98	326	⇑P		PKPab		04 14 26.9	-0.3
OJC	Ojcow	144.99	340	*e*PKP		PKPbc		04 14 26.5	+0.4
BUR08	Bucovina Ar. S	145.00	332			PKPab		04 14 27.6	+0.3
VARL	Varlezi	145.00	328	⇑P		PKPab		04 14 27.6	+0.3
BURAR	Bucovina Array	145.01	332			PKPab		04 14 27.6	+0.1
BURAR	Bucovina Array	145.01	332	⇓P		PKPab		04 14 27.2	-0.2
STNC	Stoke	145.04	4	*e*P		PKPab		04 14 26.7	-0.5
SCTR	Scanteiesti	145.08	327	⇓P		PKPab		04 14 27.5	-0.1
TATR	Tatarca	145.10	327	⇑P		PKPab		04 14 27.7	+0.1
GHRR		145.11	328	⇑P		PKPab		04 14 28.2	+0.5
BIZ	Bicaz	145.11	331	⇓P		PKPab		04 14 28.0	+0.3
FOEL	Foel Wylfa	145.16	5	*e*P		PKPbc		04 14 26.5	0.0
TESR	Tesoani	145.16	330	⇓P		PKPab		04 14 27.5	-0.4
FLTG	Flechtingen	145.17	350	*e*PKPbc		PKPbc		04 14 27.1	+0.6
	baz=15,slow=2.7								
KOLS	Kolonicke sedl	145.19	336	*e*PKP		PKPab		04 14 27.9	-0.1
BR131	Keskin Array S	145.20	315			PKPbc		04 14 27.3	+0.1
BRTR	Keskin Array B	145.20	315	PKPbc		PKPbc		04 14 27.5	+0.3
	comp=Z,7.6nm,0.7s,baz=138,slow=5.0,SNR=41								
NEGRR	Negrea	145.23	327	⇓P		PKPab		04 14 27.9	-0.3
IZVR	Izvoarele	145.29	327	⇑P		PKPab		04 14 28.4	0.0
KIRS	Kirsehir-Merke	145.29	314	⇑P		PKPdf		04 14 25.7	-0.5
COSR	Cosmesti PH	145.30	328	⇑P		PKPab		04 14 28.7	+0.2
CFR	Carcaliu	145.34	327	⇑P		PKPab		04 14 28.0	-0.6
PANC	Panciu	145.37	328	⇓P		PKPab		04 14 28.3	-0.4
TPGR	Topolog	145.41	326	⇓P		PKPab		04 14 28.5	-0.4
ONER	Baraj Valea Uz	145.41	330	⇓P		PKPab		04 14 28.9	0.0
CWF	Charnwood Fore	145.45	3	*e*P		PKPdf		04 14 26.5	+0.6
ASSE	Asse, Remlinge	145.45	350	*e*PKPbc		PKPab		04 14 28.1	-0.6
	baz=15,slow=2.7								
KSP	Ksiaz	145.48	344	*e*PKP		PKPab		04 14 28.8	-0.2
ODBI	Odobesti	145.49	328	⇑P		PKPbc		04 14 28.4	+0.7
NIE	Niedzica	145.51	339	*e*PKP		PKPab		04 14 28.9	-0.3
WACR	West Acre	145.54	1	*e*P		PKPbc		04 14 27.6	0.0
HLM1	Long Mynd	145.56	5	*e*P		PKPbc		04 14 27.1	-0.6
ASF	Jabal al Asfar	145.58	301	PKPbc		PKPbc		04 14 28.8	+0.3
	comp=Z,7.5nm,0.8s,baz=120,slow=1.9,SNR=10								
VRI	Vrincioaia	145.59	329	⇑P		PKPbc		04 14 28.7	+0.8
PLOR	Plostina	145.63	329	⇑P		PKPbc		04 14 28.8	+0.7
IBBN	Ibbenbueren	145.66	354	*e*PKPbc		PKPbc		04 14 28.6	+0.7
	baz=15,slow=2.7								
SAHR	Sahastru	145.70	329	⇓P		PKPbc		04 14 29.2	+0.9
BMR	Baia Mare	145.71	334	⇓P		PKPab		04 14 29.2	-0.8
OSTC	Ostas	145.76	344	*e*PKP		PKPbc		04 14 28.2	-0.1
CHVC	Chvalec	145.77	344	*e*PKP		PKPab		04 14 29.6	-0.6
CLZ	Clausthal	145.78	351	*e*PKPbc		PKPbc		04 14 29.0	+0.6
	baz=15,slow=2.7								
HARR	Harsova	145.78	326	⇑P		PKPbc		04 14 29.4	+0.9
TURR	Turia	145.80	330	⇑P		PKPab		04 14 30.0	-0.5
ARCR	ARCALIA	145.80	332	⇑P		PKPab		04 14 30.1	-0.3
TLBR	Topalu	145.82	326	⇓P		PKPab		04 14 29.7	-0.9
CLL	Collm	145.82	348	*e*PKPbc		PKPbc		04 14 29.2	+0.7
	baz=15,slow=2.7								
CLL	Collm	145.82	348	⇓/PKPbc		PKPbc		04 14 29.1	+0.7
	comp=Z,51nm,0.9s								
CLL				*e*(pPKiKP)				04 16 41.0	
BISRR	Bisoca	145.82	328	⇑P		PKPab		04 14 30.2	-0.4
OKC	Ostrava-Krasne	145.85	341	*e*PKP		PKPbc		04 14 29.1	+0.6
COVR	Voineasa-Covas	145.86	329	⇓P		PKPbc		04 14 29.0	+0.3
UPC	Upice	145.86	344	*e*PKP		PKPbc		04 14 29.2	+0.6
OZUR		145.88	330	⇓P		PKPab		04 14 30.1	-0.7
STEB	Steborice	145.88	342	*e*PKP		PKPbc		04 14 28.9	+0.3
STEB				*ex*		x		04 14 31.5	
DPC	Dobruska-Polom	145.92	343	*e*PKP		PKPbc		04 14 28.5	-0.3
BOSR	Bodos	145.95	330	⇓P		PKPab		04 14 30.4	-0.7
LANS	Liptovska Anna	146.02	339	*e*PKP		PKPab		04 14 30.9	-0.4
BRG	Berggiesshubel	146.02	346	*e*PKPbc		PKPbc		04 14 30.1	+1.1
	baz=15,slow=2.7								
KRLC	Kraliky	146.04	343	*e*PKP		PKPbc		04 14 28.5	-0.6
MORC	Moravsky Berou	146.09	342	*e*PKP		PKPbc		04 14 30.0	+0.7
MORC	Moravsky Berou	146.09	342	⇑P		PKPbc		04 14 30.2	+1.0
NEHR	Nehoiu	146.11	329	⇓P		PKPbc		04 14 30.6	+1.1
GTTG	Gottingen	146.13	351	*e*PKPbc		PKPbc		04 14 29.8	+0.5
	baz=15,slow=2.7								
NEUB	Neuenburg	146.15	349	*e*PKPbc		PKPbc		04 14 30.0	+0.7
	baz=15,slow=2.7								
DOPR	Dopca	146.16	330	⇓P		PKPbc		04 14 30.6	+1.0
PVCC	Panska Ves	146.20	345	*e*PKP		PKiKP		04 14 30.7	-1.1
MONM	Monmouth	146.24	5	*e*P		PKPbc		04 14 28.9	-0.6
MLR	Muntele Rosu	146.24	329	⇓P		PKPbc		04 14 30.4	+0.4
MLR	Muntele Rosu	146.24	329	⇑P		PKPbc		04 14 30.5	+0.6
RICC	Richard	146.30	346	*e*PKP		PKPdf		04 14 28.1	+0.7
RICC				*ex*		x		04 14 30.5	
MESR	Meseseni	146.35	334	⇓P		PKiKP		04 14 31.3	-1.0
MAUC	Maruska	146.36	341	*e*PKP		PKPbc		04 14 29.3	-0.7
HSKC	Hora Svate Kat	146.39	347	*e*PKP		PKPbc		04 14 30.7	+0.6
CJR	Cluj-Napoca	146.41	333	⇑P		PKPbc		04 14 31.3	+1.0
SAHE	Sakarya_HENDEK	146.44	318	⇑P		PKPdf		04 14 28.9	+0.9
MDB	Medias	146.50	331	⇑P		PKPbc		04 14 31.6	+1.1
LEHL	Lehliu	146.51	327	⇓P		PKPbc		04 14 31.4	+0.9
MMAI	Mount Meron Ar	146.55	303	PKPbc		PKPbc		04 14 31.9	+0.8
	comp=Z,6.0nm,0.5s,baz=39,slow=6.9,SNR=10								
MARR	Marisel-Cluj	146.65	333	⇓P		PKPbc		04 14 31.6	+0.6
PRA	Prague	146.66	345	*e*PKP		PKiKP		04 14 32.0	-0.7
KASTN	Kahler Asten	146.67	353	*e*PKPbc		PKPbc		04 14 31.4	+0.6
	baz=15,slow=2.7								
VOIR		146.71	330	⇑P		PKPbc		04 14 31.9	+0.8
MOX	Moxa	146.72	349	*e*PKPbc		PKPbc		04 14 31.7	+0.8
	baz=15,slow=2.7								
DRGR		146.74	334	⇑P		PKPbc		04 14 31.4	+0.2
TANN	Tannenbergstha	146.77	348	*e*PKPbc		PKPbc		04 14 31.7	+0.5
	baz=15,slow=2.7								
VRAC	Vranov	146.78	342	*e*PKP		PKPbc		04 14 31.8	+0.6
VRAC	Vranov	146.78	342	⇑P		PKPbc		04 14 31.8	+0.6
VYHS	Vyhne	146.80	339	*e*PKP		PKiKP		04 14 32.4	-0.7
VYHS				*e*				04 14 35.5	
JAVC	Velka Javorina	146.86	341	*e*PKP		PKiKP		04 14 33.3	0.0
PSZ	Piszkesteto	146.92	338	⇑P		PKPbc		04 14 31.6	-0.1
NKC	Novy Kostel	146.95	348	*e*PKP		PKPdf		04 14 28.2	-0.4
NKC				*ex*		x		04 14 32.3	
ARR	Arges	146.96	330	⇑P		PKiKP		04 14 33.5	-0.1
BMOL	Mol	146.97	356	*d*PKP		PKiKP		04 14 32.8	-0.5
KRUC	Moravsky	147.06	342	*e*PKP		PKPbc		04 14 32.6	+0.7
TREC	Trest	147.10	344	*e*PKP		PKPbc		04 14 31.5	-0.5
TREC				*ex*		x		04 14 35.9	
ZVC	Zvikov	147.30	345	*e*PKP		PKPbc		04 14 33.2	+0.7
ZVC				*ex*		x		04 14 36.4	
HUMR	Humele	147.41	329	⇑P		PKPbc		04 14 33.3	+0.4
MODS	Modra-Piesok	147.41	341	*e*PKP		PKiKP		04 14 34.5	+0.1
UCC	Uccle	147.43	357	*d*PKP		PKPbc		04 14 33.2	+0.4
CSS	Mathiatis	147.49	307			PKPbc		04 14 33.5	0.0
MEM	Membach	147.51	355	*d*PKP		PKPbc		04 14 33.5	+0.6
BTNL	Ternell	147.52	355	*d*PKP		PKPbc		04 14 33.6	+0.6
BSKQ	Steenkerk	147.59	357	*d*PKP		PKiKP		04 14 35.6	+1.0
SIRR	Siria	147.59	334	⇓P		PKiKP		04 14 34.3	-0.5
TNS	Taunus Mts	147.63	352	*e*PKPbc		PKPbc		04 14 34.1	+0.7
	baz=15,slow=2.7								
ABNA	Allensteig Bun	147.69	343	*i* PKP		PKiKP		04 14 34.6	-0.4
	comp=Z,7.8nm,0.6s								
GRA1	Grafenberg Arr	147.71	349			PKiKP		04 14 34.5	-0.5
GRF	Grafenberg Arr	147.71	349	*e*PKPbc		PKPbc		04 14 34.1	+0.6
	baz=15,slow=2.7								
GRFO	Grafenberg	147.71	349			PKiKP		04 14 34.9	0.0
KHC	Kasperske Hory	147.74	346	*e*PKP		PKiKP		04 14 34.5	-0.6
KHC				*ex*		x		04 14 38.4	
BCLA	Clavier	147.75	356	*d*PKP		PKPbc		04 14 34.0	+0.4
BCLA				*d*PKPab		PKPab		04 14 38.1	+0.1
GZR	Gura Zlata	147.80	332	⇑P		PKPbc		04 14 34.1	+0.1
SURR	Surduc	147.80	333	⇓P		PKPbc		04 14 34.4	+0.5
EIL	Elat	147.81	297	PKPbc		PKiKP		04 14 35.5	-0.3
	comp=Z,7.7nm,0.9s,baz=185,slow=4.7,SNR=3.9								
CKRC	Cesky Krumlov	147.85	345	*e*PKP		PKPdf		04 14 31.3	+1.2
CKRC				*ex*		x		04 14 34.8	
WET	Wettzell	147.89	346	*e*PKPbc		PKPbc		04 14 34.7	+0.6
	baz=15,slow=2.7								
BMRD	Maredsous	147.90	357	*d*PKP		PKPbc		04 14 34.0	+0.1
KEPZ	Antalya-Kepez	147.94	312	⇓P		PKPbc		04 14 33.8	-0.7
GEC2	GERESS Array S	147.97	345	*e*PKPbc		PKiKP		04 14 35.2	-0.4
	baz=15,slow=2.7								
GERES	GERESS Array B	147.97	345	PKPbc		PKPbc		04 14 35.0	+0.7
	comp=Z,11nm,0.7s,baz=18,slow=2.8,SNR=83								
GERES	GERESS Array B	147.97	345			PKPbc		04 14 34.9	+0.5
WINA	Alland / Wiene	148.01	342	*i* PKP		PKiKP		04 14 35.5	-0.1
	comp=Z,6.4nm,0.7s,SNR=6.1								
DOU	Dourbes	148.11	357	*d*PKP		PKPbc		04 14 35.0	+0.5
BZS	Buzias	148.13	333	⇓P		PKPbc		04 14 35.0	+0.3
CONA	Conrad Observa	148.24	342	*i* PKP		PKiKP		04 14 35.9	-0.3
	comp=Z,22nm,1.1s,SNR=15								
RONA	Rosalia, Austr	148.31	341	*e*PKP		PKiKP		04 14 36.0	-0.4
	comp=Z,9.4nm,0.7s,SNR=7.1								
HERR	Herculane	148.35	332	⇓P		PKPbc		04 14 35.7	+0.5
PLVB	Pleven	148.40	327	⇓P		PKPbc		04 14 36.2	-0.4
WLF	Walferdange	148.43	355			PKiKP		04 14 36.9	+0.5
WLF	Walferdange	148.43	355	*d*PKP		PKiKP		04 14 36.9	+0.5
WLF	Walferdange	148.43	355	*e*PKPbc		PKiKP		04 14 36.6	+0.2
	baz=15,slow=2.7								
BANR	Banloc	148.52	334	⇓P		PKiKP		04 14 37.2	+0.4
MDVR	Moldovita	148.75	332	⇑P		PKPbc		04 14 35.4	-0.9
MOA	Molln	148.75	344	*e*PKP		PKPbc		04 14 36.7	+0.5
	comp=Z,11nm,1.1s,SNR=6.4								
MORH	Mrgy, Hungar	148.82	337	⇑P		PKPbc		04 14 36.6	+0.2
MORH	Mrgy, Hungar	148.82	337	⇑*i*P		PKiKP		04 14 36.9	-0.4
JSA	Saint Aubin	148.92	5	*e*P		PKPbc		04 14 35.9	-0.6
STU	Stuttgart	148.94	351	*e*PKPbc		PKiKP		04 14 37.2	-0.3
	baz=15,slow=2.7								
BI

SHME	Shamm		2.57	116	*e*P		Pn	04 14 39.1	0.0
	SNR=23								
SHME	Shamm		2.57	116	P		Pn	04 14 39.2	0.0
	SNR=76								
SHI	Shiraz		2.61	339		Pn	Pn	04 14 41.1	+1.2
IBND	Bandar-abas		2.65	84		Pn	Pn	04 14 41.4	+1.2
BANOM	Banah		2.75	117	*e*P		Pn	04 14 42.0	+0.3
	SNR=62								
BANOM	Banah		2.75	117	P		Pn	04 14 42.1	+0.3
	SNR=62								
BANOM					S		Sn	04 15 14.3	-0.1
NAZ	Nazwa, Dubai		2.89	139	*e*P		Pn	04 14 45.6	+2.0
	SNR=82								
AJN	Ajban		2.92	154	*e*P		Pn	04 14 45.7	+1.8
	SNR=7.2								
AJN	Ajban		2.92	154	P		Pn	04 14 45.3	+1.4
	SNR=7.3								
AJN					S		Sn	04 15 20.0	+1.7
MASF	Masafi		2.95	128	P		Pn	04 14 45.5	+1.1
	SNR=52								
MASF					S		Sn	04 15 20.4	+1.2
MSFE	Esma-Masafi		2.96	128	*e*P		Pn	04 14 45.5	+1.0
	SNR=23								
SAKB	Bahrain		2.98	247	P		Pn	04 14 47.2	+2.4
SAKB					S		Sn	04 15 22.6	+2.7
ASUD	Al Ashush, Dub		3.01	148	*e*P		Pn	04 14 47.2	+2.0
	SNR=16								
FAQ	Al Faqa, Dubai		3.04	143	*e*P		Pn	04 14 47.4	+1.7
	SNR=8.6								
MDH	Madha		3.09	127	*i* P		Pn	04 14 47.1	+0.7
	SNR=20								
MDH	Madha		3.09	127	P		Pn	04 14 47.3	+0.9
	SNR=61								
MDH					S		Sn	04 15 23.4	+0.7
UOSS	Minazif		3.26	133	*i* P		Pn	04 14 49.3	+0.7
	SNR=53								
UOSS	Minazif		3.26	133	P		Pn	04 14 49.4	+0.7
UOSS	Minazif		3.26	133			Pn	04 14 49.4	+0.7
UOSS	Minazif		3.26	133		Pn	Pn	04 14 49.4	+0.7
GHWR	Ruwais		3.28	191	P		Pn	04 14 49.7	+0.7
HATD	Hatta, Dubai		3.30	135	*i* P		Pn	04 14 50.3	+1.1
	SNR=45								
ASHO	Ashiyiah		3.36	138	*i* P		Pn	04 14 51.2	+1.2
	SNR=406								
ASHO					S		Sn	04 15 29.7	+0.4
ASHO	Ashiyiah		3.36	138	P		Pn	04 14 51.2	+1.2
	SNR=406								
MZWR	Madinat Zayed		3.44	175	P		Pn	04 14 52.5	+1.5
MZWR					S		Sn	04 15 31.2	+0.1
SLWR	Sila		3.55	209	P		Pn	04 14 52.9	+0.2
ALNE	Al Ain		3.69	147	*i* P		Pn	04 14 55.8	+1.2
	SNR=37								
ALNE	Al Ain		3.69	147	P		Pn	04 14 56.2	+1.5
	SNR=37								
KHNJ	Kahnooj		3.74	78		Pn	Pn	04 14 56.2	+0.9
SOHO	SOHO		4.05	138	*i* P		Pn	04 15 00.3	+0.7
	SNR=135								
SOHO	SOHO		4.05	138	P		Pn	04 15 00.3	+0.7
	SNR=135								
SOHO					S		Sn	04 15 46.0	-0.4
KHGB	Koh Gabri		4.06	38		Pn	Pn	04 15 01.7	+1.8
MZR	Muzera		4.18	181	*i* P		Pn	04 15 01.9	+0.5
	SNR=6.6								
MZR	Muzera		4.18	181	P		Pn	04 15 01.8	+0.5
IMEH	Mehriz		4.27	12		Pn	Pn	04 15 05.3	+2.4
CHMN	Cheshme madani		4.38	52		Pn	Pn	04 15 06.5	+2.1
TAFT	Taft - Yazd		4.54	6		Pn	Pn	04 15 08.6	+2.2
ARQ	Araqi		4.68	145	P		Pn	04 15 09.1	+0.9
	SNR=150								
UMZA	Um Al Zommool		4.69	162	P		Pn	04 15 09.6	+1.2
IBAF	Bafgh		4.71	21		Pn	Pn	04 15 10.5	+1.8
KBAM	BAM		4.72	65		Pn	Pn	04 15 10.7	+1.9
DOBD	Dorbid, Yazd		4.84	9		Pn	Pn	04 15 12.8	+2.2
HOQ	Hoqain		4.94	136	P		Pn	04 15 11.1	-0.7
	SNR=66								
YZKH	Yazd		5.25	9	*e*Pn		Pn	04 15 18.4	+2.3
YZKH					IAML			04 16 56.0	
	comp=Z,63nm,1.0s								
SQUM	Sultan Qaboos		5.50	130	P		Pn	04 15 19.2	-0.2
BIDO	Bidbid		5.51	131	P		Pn	04 15 19.1	-0.5
	SNR=44								
BIDO					S		Sn	04 16 18.4	-4.0
BSY	Bisya		5.52	143	P		Pn	04 15 20.6	+0.8
	SNR=204								
BSY					S		Sn	04 16 20.5	-2.1
SMDO	Samad		5.78	135	P		Pn	04 15 23.8	+0.4
	SNR=105								
WSAR	Wadi Sarin		6.04	130	P		Pn	04 15 27.1	+0.2
	SNR=6.4								
WSAR					S		Sn	04 16 32.7	-2.8
JMDO	Jabal Madar		6.33	138	P		Pn	04 15 30.8	0.0
	SNR=9.9								
CHBR	Chabahar		6.40	103	*e*Pn		Pn	04 15 31.7	-0.1
CHBR					IAML			04 16 29.0	
	comp=Z,73nm,1.0s								
CHBR	Chabahar		6.40	103	Pn		Pn	04 15 31.9	+0.2
WBK	Wadi Bani Khal		6.70	132	P		Pn	04 15 36.0	+0.1
	SNR=78								
BSRN	Basiran		6.78	44	*e*Pn		Pn	04 15 38.9	+1.8
BSRN					IAML			04 18 02.1	
	comp=Z,25nm,1.0s								
NGCH	Negor - Chabah		7.03	103	P		Pn	04 15 40.7	+0.3
	SNR=21								
NGCH	Negor - Chabah		7.03	103	Pn		Pn	04 15 41.0	+0.6
TABS	Tabas		7.12	25	*e*Pn		Pn	04 15 43.1	+1.3
TABS					IAML			04 18 08.0	
	comp=Z,33nm,1.0s								
KHMZ	Khomeyn		7.23	335	*e*Pn		Pn	04 15 44.6	+1.2
KHMZ					IAML			04 17 14.8	
	comp=Z,37nm,1.0s								
JLN	Jalan Bani Buh		7.31	132	P		Pn	04 15 43.6	-0.7
	SNR=32								
MHTO	MHTO		7.37	146	P		Pn	04 15 45.4	+0.2
SRVN	Saravan		7.85	87	*i* P		Pn	04 15 52.9	+1.0
SRVN					IAML			04 17 30.5	
	comp=Z,19nm,1.0s								
SRVN	Saravan		7.85	87	Pn		Pn	04 15 52.9	+1.0
ASAO	Ashtian		7.93	338	*e*Pn		Pn	04 15 54.4	+1.3
DQM	DQM		8.10	153	P		Pn	04 15 54.8	-0.4
RAYN	Ar Rayn		8.17	245	*i* P		Pn	04 15 55.5	-0.7
	SNR=8.7								
RAYN	Ar Rayn		8.17	245	P		Pn	04 15 55.2	-0.9
RAYN	Ar Rayn		8.17	245	P		Pn	04 15 55.4	-0.7
RAYN	Ar Rayn		8.17	245			Pn	04 15 55.4	-0.7
RAYN	Ar Rayn		8.17	245		Pn	Pn	04 15 55.8	-0.3
DOK	Doka		8.56	176	P		Pn	04 16 00.6	-0.9
	SNR=29								
SHRT	Shahrakht		8.65	40	*e*Pn		Pn	04 16 05.4	+2.6
WHFO	Wadi Hawf		9.24	179	P		Pn	04 16 09.5	-1.3
	SNR=59								
SHAO	Shalim		9.33	168	P		Pn	04 16 12.1	0.0
DMTO	DMTO		9.52	172	P		Pn	04 16 14.2	-0.5
RBK	Rabkut		9.67	176	P		Pn	04 16 16.0	-0.7
ABTO	Aybut		9.80	182	P		Pn	04 16 17.8	-0.9
	SNR=50								
GNI	Garni		14.85	333	P		P	04 17 32.7	-0.6
	comp=Z,10.0nm,0.7s,baz=193,slow=2.9,SNR=6.6								
GNI	Garni		14.85	333			Pn	04 17 28.5	+0.9
GNI	Garni		14.85	333	P		P	04 17 38.5	+5.2
KBL	Kabul		15.15	57	P		Pn	04 17 30.8	-1.0
KBL					pmax		pmax		
	comp=Z,14nm,1.0s								
KBL	Kabul		15.15	57			Pn	04 17 30.8	-1.0
KBL					IAmb		IAmb	04 17 46.0	
	comp=Z,14nm,1.0s								
EIL	Elat		16.57	283	P		P	04 17 52.8	+0.5
	comp=Z,5.7nm,0.6s,baz=113,slow=4.8,SNR=5.4								
MMAI	Mount Meron Ar		16.75	295	P		P	04 17 54.9	+0.6
	comp=Z,0.6nm,0.3s,baz=85,slow=14,SNR=3.9								
KOPT	Kop Dagi		16.77	323			Pn	04 17 52.8	+0.2
GAZ	Gaziantep		17.03	310	P		Pn	04 17 56.8	+1.1
ARPR	Arapgir-MALATY		17.39	317	P		Pn	04 18 00.3	0.0
ARPR					IAmb		IAmb	04 18 09.8	
	comp=Z,38nm,1.3s								
NIL	Nilore		18.14	64	P		Pn	04 18 09.8	+0.5
NIL					pmax		pmax		
	comp=Z,13nm,0.8s								
NIL	Nilore		18.14	64			Pn	04 18 09.8	+0.5
NCK	Nalchik		18.16	336	*i* P		P	04 18 10.9	+1.1
NEUR	Neytrino		18.30	334	*i* P		P	04 18 10.6	-0.8
KBZ	Khabaz		18.62	335	P		Pn	04 18 16.8	+1.7
	comp=Z,4.2nm,0.9s,baz=160,slow=9.2,SNR=5.3								
SHA1	Shidzhatmaz		18.72	335	*i* P		P	04 18 16.9	+0.8
BNN	Bunyan		18.83	313	P		P	04 18 16.1	-1.2
KVAR	Kislovodsk Arr		18.89	335	P		Pn	04 18 19.7	+1.2
	comp=Z,5.6nm,1.0s,baz=103,slow=20,SNR=3.6								
SOC	Sochi		19.82	329	*e*P		Pn	04 18 30.9	+1.3
SOC					*e*			04 22 15.3	
SOC					MLR		MLR		
	comp=Z,937nm,23.0s								
BR131	Keskin Array S		20.75	312	*i* P		P	04 18 39.0	+0.8
BR131	Keskin Array S		20.75	312	P		P	04 18 38.8	+0.5
BRTR	Keskin Array B		20.75	312	P		P	04 18 38.8	+0.5
	comp=Z,3.9nm,0.7s,baz=133,slow=11,SNR=17								
	comp=Z,3.9nm,0.7s								
BRTR	Keskin Array B		20.75	312	P		P	04 18 38.3	+0.1
KK31	Karatay Array		21.00	37	P		P	04 18 40.9	+0.1
KK31					pmax		pmax		
	comp=Z,11nm,1.0s								
KK31	Karatay Array		21.00	37	P		P	04 18 40.9	+0.1
KKAR	Karatay Array		21.00	37	P		P	04 18 41.3	+0.6
KKAR	Karatay Array		21.00	37	P		P	04 18 41.3	+0.6
KSH2	Kashi		21.86	51	P		P	04 18 48.9	-1.4
KSH2					pmax		pmax		
	comp=Z,10.0nm,0.6s								
ELL	Elmali		22.17	301	P		P	04 18 54.3	+0.8
ELL					pmax		pmax		
	comp=Z,23nm,0.9s								
ELL	Elmali		22.17	301	P		P	04 18 54.3	+0.8
ELL					IAmb		IAmb	04 19 03.4	
	comp=Z,23nm,0.9s								
AKAS	Kas		22.25	300	P		P	04 18 53.0	-1.4
AKAS					IAmb		IAmb	04 19 09.7	
	comp=Z,18nm,0.7s								
AB31	Akbulak array		22.57	11	P		P	04 18 58.4	+0.9
AB31					IAmb		IAmb	04 19 05.3	
	comp=Z,6.2nm,0.7s								
ABKAR	Akbulak array		22.57	11	P		P	04 18 59.0	+1.6
AAK	Ala-Archa		22.96	42	*i* P		P	04 19 03.6	+1.7
AAK					pmax		pmax		
	comp=Z,10.0nm,1.0s								
NRN	Naryn		23.25	47	P		P	04 19 05.7	+0.6
NRN					pmax		pmax		
	comp=Z,10.0nm,0.8s								
NRN	Naryn		23.25	47	P		P	04 19 05.7	+0.6
NRN					IAmb		IAmb	04 19 29.0	
	comp=Z,10nm,0.8s								
KARP	Karpathos		23.99	297	P		P	04 19 12.8	+0.9
KARP					IAmb		IAmb	04 19 53.7	
	comp=Z,20nm,0.8s								
TARG	Taragay, Kyrgy		24.57	48	P		P	04 19 17.7	0.0
TARG					pmax		pmax		
	comp=Z,5.0nm,0.7s								
TARG	Taragay, Kyrgy		24.57	48	P		P	04 19 17.7	0.0
TARG					IAmb		IAmb	04 19 26.9	
	comp=Z,4.5nm,0.7s								
BELG	Belogornoye		25.56	352	*i* P		P	04 19 27.6	+1.7
BELG					pmax		pmax		
	comp=Z,5.0nm,0.9s								
IDI	Anoyia		25.75	295	P		P	04 19 28.8	+0.8
PDGK	Podgornoye		26.43	46	P		P	04 19 34.0	-0.2
PDGK	Podgornoye		26.43	46	P		P	04 19 34.0	-0.2
BVAR	Borovoye Array		28.68	21	P		P	04 19 54.8	+0.8
	comp=Z,0.8nm,0.4s,baz=209,slow=8.5,SNR=4.1								
	comp=Z,0.8nm,0.4s								
EVN	Everest		29.43	81			P	04 20 02.2	+0.5
EVN					IAmb		IAmb	04 20 10.2	
	comp=Z,7.0nm,0.6s								
MAKZ	Makanchi		29.71	41	P		P	04 20 04.2	+0.9
MAKZ					pmax		pmax		
	comp=Z,11nm,1.0s								
MAKZ	Makanchi		29.71	41	P		P	04 20 04.2	+0.9
MAKZ					IAmb		IAmb	04 20 33.8	
	comp=Z,11nm,1.0s								
MK31	Makanchi Array		29.88	41	*i* P		P	04 20 06.0	+1.2
MKAR	Makanchi Array		29.88	41	P		P	04 20 06.0	+1.1
	comp=Z,1.7nm,0.4s,baz=234,slow=10,SNR=18								
	comp=Z,1.7nm,0.4s								
MKAR	Makanchi Array		29.88	41	P		P	04 20 06.0	+1.1
MKAR	Makanchi Array		29.88	41	P		P	04 20 05.5	+0.7
AKASG	Malin Array Be		29.90	328	P		P	04 20 04.0	-0.9
	comp=Z,2.1nm,0.5s,baz=140,slow=8.2,SNR=6.4								
	comp=Z,2.1nm,0.5s								
KIEV	Kiev		29.90	328	P		P	04 20 04.1	-0.8
KIEV					pmax		pmax		
	comp=Z,9.0nm,0.7s								
KIEV	Kiev		29.90	328	P		P	04 20 04.1	-0.8
KIEV					IAmb		IAmb	04 20 09.5	
	comp=Z,8.6nm,0.7s								
BURAR	Bucovina Array		30.11	320	P		P	04 20 07.3	+0.5
BUR08	Bucovina Ar. S		30.13	320	P		P	04 20 07.3	+0.2
BUR08					IAmb		IAmb	04 20 12.9	
	comp=Z,3.5nm,0.8s								
KURBB	Kurchatov Arra		30.13	32	P		P	04 20 07.6	+0.7
	comp=Z,0.5nm,0.7s,baz=234,slow=8.9,SNR=5.9								
	comp=Z,0.5nm,0.7s								
KURK	Kurchatov		30.24	32	P		P	04 20 07.6	-0.2
KURK					pmax		pmax		
	comp=Z,4.0nm,0.3s								
KURK	Kurchatov		30.24	32	P		P	04 20 07.6	-0.2
WMQ	Urumqi		32.07	50	*e*P		P	04 20 27.5	+3.3
WMQ					LR		LR		
	comp=Z,360nm,23.9s								
KOLS	Kolonicke sedl		32.47	320	*e*P		P	04 20 29.1	+1.5
KOLS					*e*			04 20 35.0	
LANS	Liptovska Anna		34.19	319	*e*P		P	04 20 43.2	+0.5
LANS					*e*			04 20 48.5	
VYHS	Vyhne		34.27	318	*e*P		P	04 20 44.4	+1.1
OJC	Ojcow		34.51	321	P		P	04 20 45.6	+0.2
OJC	Ojcow		34.51	321	P		P	04 20 45.6	+0.2
ZAA0	Zalesovo Array		35.23	32	IAmb		IAmb	04 20 52.5	
	comp=Z,2.9nm,0.7s								
ZALV	Zalesovo Beam		35.23	32	P		P	04 20 52.2	+0.8
	comp=Z,3.0nm,0.6s,baz=242,slow=9.1,SNR=16								
	comp=Z,3.0nm,0.6s								
ZALV	Zalesovo Beam		35.23	32	P		P	04 20 51.4	-0.1
STEB	Steborice		35.53	319	*e*P		P	04 20 49.8	-4.4
WINA	Alland / Wiene		35.80	316	*e*P		P	04 20 56.9	+0.4
	comp=Z,0.4nm,0.2s								
CONA	Conrad Observa		35.87	315	*i* P		P	04 20 57.5	+0.3
	comp=Z,0.3nm,0.3s								
KRLC	Kraliky		36.17	319	*e*P		P	04 20 58.0	-1.7
DPC	Dobruska-Polom		36.55	319	*e*P		P	04 21 04.9	+2.0
OSTC	Ostas		36.70	320	*e*P		P	04 21 08.5	+4.3
CHVC	Chvalec		36.81	320	*e*P		P	04 21 04.5	-0.6
MOA	Molln		36.85	315	*e*P		P	04 21 05.8	+0.4
	comp=Z,1.2nm,0.4s								
CKRC	Cesky Krumlov		37.16	316	*e*P		P	04 21 12.3	+4.2
BIOA	Bad Ischl, Aus		37.19	314	*i* P		P	04 21 08.8	+0.4
	comp=Z,1.7nm,0.4s								
ZVC	Zvikov		37.46	317	*e*P		P	04 21 10.1	-0.5
GERES	GERESS Array B		37.54	316	P		P	04 21 10.4	-1.0
	comp=Z,0.4nm,0.9s,baz=118,slow=5.1,SNR=5.7								
	comp=Z,0.4nm,0.9s								
KHC	Kasperske Hory		37.72	316	*e*P		P	04 21 12.6	-0.3
LESA	Schwarzleotal		37.73	313	*i* P		P	04 21 12.3	-0.7
	comp=Z,1.4nm,0.3s								
WTTA	Wattenberg		38.36	313	*e*P		P	04 21 17.7	-0.7
	comp=Z,2.4nm,0.4s								
WATA	Walderalm		38.42	313	*e*P		P	04 21 18.0	-0.9
	comp=Z,1.4nm,0.3s								
SQTA	Sankt Quirin		38.63	313	*i* P		P	04 21 19.7	-0.9
	comp=Z,5.4nm,0.3s								
MOTA	Moosalm		38.73	313	*i* P		P	04 21 20.2	-1.3
	comp=Z,1.6nm,0.2s								
FETA	Feichten		38.89	312	*e*P		P	04 21 22.2	-0.7
	comp=Z,2.1nm,0.3s								
FINES	FINESS Array B		38.89	339	P		P	04 21 21.6	-0.8
	comp=Z,2.5nm,0.7s,baz=139,slow=9.4,SNR=26								
	comp=Z,2.5nm,0.7s								
FINES	FINESS Array B		38.89	339	P		P	04 21 21.5	-1.0
BSD	Bornholm Skovb		39.49	326	*i* P		P	04 21 27.0	-0.5
BSD					IAML			04 21 31.9	
	comp=Z,34nm,0.8s								
DAVA	Damuels		39.52	312	*e*P		P	04 21 27.1	-1.1
	comp=Z,9.1nm,0.3s								
BLEU	Blekinge		39.65	328	*i* P		P	04 21 28.7	-0.1
GTA2	Gaotai		40.08	60	*e*P		P	04 21 33.9	+1.0
GTA2					pmax		pmax		
	comp=Z,8.0nm,0.9s								
LUNU	Lund		40.48	326	*i* P		P	04 21 34.5	-1.3
DEL	Delary		40.67	327	*i* P		P	04 21 37.5	+0.2
FABU	Falkenberg		41.48	327	*i* P		P	04 21 49.1	+5.2
ONAU	Onsala		42.05	328	*i* P		P	04 21 51.3	+2.7
CHTO	Chiang Mai		42.40	91	P		P	04 21 52.1	+0.1
CHTO					pmax		pmax		
	comp=Z,6.0nm,0.9s								
CHTO	Chiang Mai		42.40	91	P		P	04 21 52.1	+0.1
CHTO					IAmb		IAmb	04 21 59.0	
	comp=Z,5.5nm,0.8s								
TJOU	Tjoern		42.49	328	*i* P		P	04 21 58.0	+5.8
CMAR	Chiang Mai Arr		42.52	92	P		P	04 21 53.0	0.0
	comp=Z,1.1nm,0.3s,baz=285,slow=10,SNR=6.2								
	comp=Z,1.1nm,0.3s								
HFS	Hagfors		42.63	332	P		P	04 21 52.3	-1.1
	comp=Z,6.8nm,1.1s,baz=117,slow=8.6,SNR=9.2								
	comp=Z,6.8nm,1.1s								
TAM	Tamanrasset		43.57	275	P		P	04 22 01.8	+0.2
TAM					pmax		pmax		
	comp=Z,6.0nm,0.7s								
TAM	Tamanrasset		43.57	275	P		P	04 22 01.8	+0.2
TAM					IAmb		IAmb	04 22 02.9	
	comp=Z,6.0nm,0.7s								
HOMB	Homborsund		44.08	327	*i* P		P	04 22 09.5	+4.5
ARCES	ARCESS Array B		45.41	347	P		P	04 22 15.4	-0.1
	comp=Z,1.2nm,0.7s,baz=140,slow=9.6,SNR=4.6								
	comp=Z,1.2nm,0.7s								
ARCES	ARCESS Array B		45.41	347	P		P	04 22 16.4	+0.9
ARCES					pmax		pmax		
	comp=Z,17nm,1.4s								
ARCES	ARCESS Array B		45.41	347	P		P	04 22 16.4	+0.9
SONM	Songino Array		45.68	49	P		P	04 22 18.6	+0.4
	comp=Z,0.9nm,0.7s,baz=257,slow=8.0,SNR=7.4								
	comp=Z,0.9nm,0.7s								
SONM	Songino Array		45.68	49	P		P	04 22 19.4	+1.2
SONM					pmax		pmax		
	comp=Z,3.0nm,1.4s								
SONM	Songino Array		45.68	49	P		P	04 22 19.4	+1.2
ULN	Ulaanbaatar		46.13	49	*i* P		P	04 22 23.5	+1.8
ULN					pmax		pmax		
	comp=Z,2.0nm,0.6s								
ESDC	Sonseca Array		48.85	300	P		P	04 22 41.5	-1.4
	comp=Z,0.8nm,0.9s,baz=58,slow=8.3,SNR=7.9								
	comp=Z,0.8nm,0.9s								
HHC	Hu-ho-hao-te		49.13	58	*e*P		P	04 22 45.1	+0.1
HHC					pmax		pmax		
	comp=Z,7.0nm,0.6s								
PAB	San Pablo		49.15	300	P		P	04 22 43.5	-1.7
PAB					pmax		pmax		
	comp=Z,7.0nm,1.2s								
PAB	San Pablo		49.15	300	P		P	04 22 43.5	-1.7
PAB					IAmb		IAmb	04 22 49.8	
	comp=Z,6.5nm,1.1s								
EKA	Eskdalemuir Ar		49.29	321	P		P	04 22 44.8	-1.1
	comp=Z,0.8nm,0.4s,baz=108,slow=7.9,SNR=18								
	comp=Z,0.8nm,0.4s								
MD01	Midelt array s		50.28	291	P		P	04 22 53.8	-0.2
TORD	Torodi Ar. Bea		50.33	265	P		P	04 22 53.3	-1.1
	comp=Z,1.7nm,0.5s,baz=134,slow=8.5,SNR=22								
	comp=Z,1.7nm,0.5s								
SPITS	Spitsbergen Ar		53.76	351	P		P	04 23 19.0	0.0
	comp=Z,6.6nm,1.0s,baz=128,slow=11,SNR=5.2								
	comp=Z,6.6nm,1.0s								
KDWAN	Kaudwane		57.52	212	P		P	04 23 47.1	+0.3
LBTB	Lobatse		58.50	210	P		P	04 23 54.0	+0.3
LBTB					pmax		pmax		
	comp=Z,20nm,1.4s								
LBTB	Lobatse		58.50	210	P		P	04 23 54.0	+0.3
DBIC	Dimbokro		58.96	261	P		P	04 23 56.4	-0.7
	comp=Z,5.8nm,0.5s,baz=56,slow=6.9,SNR=11								
	comp=Z,5.8nm,0.5s								
DBIC	Dimbokro		58.96	261	P		P	04 23 56.4	-0.7
DBIC					pmax		pmax		
	comp=Z,18nm,1.1s								
DBIC	Dimbokro		58.96	261	P		P	04 23 56.4	-0.7
BOSA	Boshof		61.79	208	P		P	04 24 15.1	-1.0
	comp=Z,3.1nm,1.0s,baz=358,slow=3.9,SNR=8.8								
	comp=Z,3.1nm,1.0s								
BOSA	Boshof		61.79	208	P		P	04 24 15.8	-0.4
BOSA					pmax		pmax		
	comp=Z,8.0nm,1.2s								
BOSA	Boshof		61.79	208	P		P	04 24 15.8	-0.4
KSRS	Korea Array		62.19	60	P		P	04 24 18.4	-0.4
	comp=Z,1.4nm,0.7s,baz=278,slow=8.2,SNR=3.3								
	comp=Z,1.4nm,0.7s								
FITZ	Fitzroy Crossi		83.08	114	P		P	04 26 22.4	-0.8
FITZ					IAmb		IAmb	04 26 59.1	
	comp=Z,3.5nm,1.5s								
F20K	Avaraart Lake		83.47	11	P		P	04 26 24.1	-0.3
F20K					IAmb		IAmb	04 26 56.2	
	comp=Z,7.5nm,1.4s								
SCHQ	Schefferville		83.68	330	P		P	04 26 24.9	-1.0
	comp=Z,3.5nm,0.7s,baz=50,slow=10,SNR=3.6								
	comp=Z,3.5nm,0.7s								
SCHQ	Schefferville		83.68	330	P		P	04 26 25.1	-0.7
BMAR	Burnt Mountain		84.68	7	P		P	04 26 31.9	+1.2
ILAR	Eielson Array		86.95	9	P		P	04 26 41.1	-0.8

R17L	**Mt. Peulik Vol**	**3.99**	**27**			**Pn**	**04 21 48.2**	**+1.0**
R17L						Pb	04 21 48.6	-7.7
UNV	**Unalaska Valle**	**3.99**	**268**		Pn	**Pn**	**04 21 46.5**	**-0.7**
UNV	**Unalaska Valle**	**3.99**	**268**			**Sn**	**04 22 29.9**	**-4.1**
SII	**Sitkinak Islan**	**4.00**	**50**		Pn	**Pn**	**04 21 46.9**	**-0.5**
SII					IAML		04 23 22.4	
	comp=E,105nm,1.0s							
MNAT	**Makushin Natee**	**4.09**	**269**			**Pn**	**04 21 48.2**	**-0.4**
MSW	**Makushin Switc**	**4.15**	**270**			**Pn**	**04 21 49.0**	**-0.4**
MGOD	**Makushin Gods**	**4.21**	**268**			**Pn**	**04 21 50.1**	**-0.3**
MGOD						**Sn**	**04 22 36.8**	**-2.9**
CAHL	**Cahill**	**4.64**	**31**			**Pn**	**04 21 56.4**	**+0.1**
Q17K	**Contact Creek**	**4.66**	**26**			**Pn**	**04 21 56.7**	**+0.1**
ANCK	**Angle Creek**	**4.71**	**29**			**Pn**	**04 21 57.6**	**+0.4**
ACHA	**Angle Creek He**	**4.77**	**29**		Pn	**Pn**	**04 21 58.5**	**+0.5**
OKCE	**Okmok Cone E**	**5.04**	**265**			**Pn**	**04 22 01.0**	**-0.6**
O15K	**Ungalikthiuk R**	**5.05**	**360**		Pn	**Pn**	**04 22 01.5**	**-0.2**
O15K					IAML		04 23 37.3	
	comp=N,23nm,0.9s							
O15K					IAML		04 23 46.8	
	comp=E,38nm,1.2s							
KAWH	**Katmai**	**5.07**	**31**			**Pn**	**04 22 02.5**	**+0.4**
O14K	**Tigyukauivet M**	**5.19**	**351**		Pn	**Pn**	**04 22 03.6**	**-0.1**
O14K					IAML		04 23 50.5	
	comp=N,33nm,0.9s							
O14K					IAML		04 23 55.4	
	comp=E,34nm,1.1s							
KDAK	**Kodiak Island**	**5.43**	**45**		Pn	**Pn**	**04 22 05.9**	**-1.2**
	comp=E,1.1nm,0.3s,baz=218,slow=3.4,SNR=29							
KDAK					Sn	**Sn**	**04 23 04.4**	**-5.2**
	comp=E,2.1nm,0.3s,baz=46,slow=12,SNR=6.0							
	comp=E,6.3nm,0.6s							
KDAK					AML	AML		
KDAK	**Kodiak Island**	**5.43**	**45**			**Pn**	**04 22 06.0**	**-1.0**
HIN	**Hinchinbrook I**	**9.52**	**44**		Pn	**Pn**	**04 23 02.0**	**-1.1**
SML	**Sawmill**	**9.78**	**34**		Pn	**Pn**	**04 23 06.1**	**-0.6**
ILAR	**Eielson Array**	**12.47**	**26**		Pn	Pn	04 23 39.9	-3.5
	comp=E,0.1nm,0.3s,baz=214,slow=13,SNR=4.1							
	comp=E,0.4nm,0.5s							
ILAR					AML	AML		
I30M	**Mount Dempster**	**16.08**	**37**			**Pn**	**04 24 32.3**	**+0.2**
INK	**Inuvik**	**18.76**	**31**		P	**P**	**04 25 05.0**	**+0.2**
	comp=E,0.2nm,0.3s,baz=206,slow=11,SNR=5.3							
	comp=E,0.4nm,0.3s							
INK					AML	AML		
INK	**Inuvik**	**18.76**	**31**		P	**P**	**04 25 02.2**	**-2.7**
YKA	**Yellowknife Ar**	**24.66**	**52**		P	**P**	**04 26 07.5**	**+0.9**
	comp=E,0.8nm,0.9s,baz=277,slow=9.2,SNR=3.0							
	comp=E,0.8nm,0.9s							
PETK	**Petropavlovsk-**	**24.98**	**285**		P	**P**	**04 26 09.6**	**+0.1**
	comp=E,2.5nm,0.9s,baz=76,slow=13,SNR=4.2							
	comp=E,2.5nm,0.9s							
NVAR	**Mina Array Bea**	**32.13**	**102**		P	**P**	**04 27 15.4**	**+1.7**
	comp=E,0.5nm,0.7s,baz=325,slow=8.1,SNR=3.6							
	comp=E,0.5nm,0.7s							
H11N2	**WAKE ISLAND Hy**	**42.75**	**230**		T	T	05 14 58.1	
	baz=28,slow=76,SNR=50							
H11N3	**WAKE ISLAND Hy**	**42.75**	**230**		T	T	05 14 57.4	
	baz=28,slow=76,SNR=38							
H11N1	**WAKE ISLAND Hy**	**42.76**	**230**		T	T	05 14 59.4	
	baz=28,slow=76,SNR=29							
H11S1	**WAKE ISLAND Hy**	**43.91**	**229**		T	T	05 16 10.2	
	baz=28,slow=76,SNR=26							
H11S2	**WAKE ISLAND Hy**	**43.92**	**229**		T	T	05 16 22.2	
	baz=28,slow=76,SNR=14							
H11S3	**WAKE ISLAND Hy**	**43.92**	**229**		T	T	05 16 23.9	
	baz=28,slow=76,SNR=14							
TXAR	**Lajitas Array**	**47.10**	**98**		P	**P**	**04 29 19.0**	**+0.8**
	comp=E,0.2nm,0.7s,baz=304,slow=5.1,SNR=2.7							
	comp=E,0.2nm,0.7s							
SONM	**Songino Array**	**55.18**	**305**		P	**P**	**04 30 19.3**	**+0.6**
	comp=E,0.2nm,0.5s,baz=77,slow=6.5,SNR=1.8							
	comp=E,0.2nm,0.5s							

IDC 22 04:48:48.7±15.0**, 0°.04S**×**126°.29E, h0**km**, mb3.6**/3**, mbtmp3.6**/4**, ML3.5**/1**, Error ellipse: s-maj=244.4km s-min=111.7km az=144.0, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**17.95**	**182**	P	Pn	04 52 59.9	0.0
	0.1nm,0.3s,baz=3.6,slow=19,SNR=1.4						
	1.5nm,0.9s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**21.29**	**159**	P	P	04 53 36.8	-0.3
	0.4nm,0.3s,baz=338,slow=11,SNR=7.2						
	0.4nm,0.3s						
ASAR	**Alice Springs**	**24.62**	**163**	P	P	04 54 10.8	-0.2
	0.4nm,0.3s,baz=346,slow=12,SNR=12						
	0.4nm,0.3s						
STKA	**Stephens Creek**	**34.82**	**157**	P	P	04 55 41.9	+0.4
	1.4nm,0.5s,baz=317,slow=8.7,SNR=2.9						
	1.4nm,0.5s						

*TEH **22** 04:54:48.9, 36°.21N×45°.55E, h12**km**±7.03**km**, ML2.9, Presumed earthquake*
*ISN **22** 04:54:51.2±2.4, 36°.23N×45°.54E, h32**km**±21**km**, ML2.8, Presumed earthquake*
ISC 22 04:54:51.9±1.4**, 36°.31N**±0°.05×**45°.58E**±0°.08**, h35km, n5, σ1§43/8, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MAHB	**Mahabad**	**0.47**	**12**	Pg	**Pn**	**04 55 00.4**	**-1.9**
MAHB				Sg	**Sn**	**04 55 09.2**	**-0.3**
IKRK	**Kirkuk**	**1.35**	**229**	*e*Pg	**Pn**	**04 55 13.5**	**-0.8**
	baz=50						
IKRK				*e*Sg	**Sn**	**04 55 32.5**	**+1.4**
IKRK				AML	AML	04 55 33.6	
	comp=E,157nm,0.7s						
IKRK				AML	AML	04 55 37.2	
	comp=N,199nm,0.4s						
IAZR	**Azarshahr**	**1.41**	**13**	Pg	**Pn**	**04 55 17.1**	**+1.8**
SNJK	**Sanadaj _Korde**	**1.50**	**125**	Pg	**Pn**	**04 55 16.4**	**-0.1**
IBDR	**Badra**	**3.20**	**175**	*e*Pn	**Pn**	**04 55 39.0**	**-0.7**
IBDR				*e*Sn	**Sn**	**04 56 17.0**	**+0.4**

*PRU **22** 05:00:11.1, 45°.94N×16°.11E, h2km*
*LJU **22** 05:00:11.3, 45°.88N×16°.01E, h9km, ML1.7, Presumed earthquake*
*KRSZO **22** 05:00:11.4±1.2, 45°.87N×15°.96E, h6km±6km, ML2.5/9, Error ellipse: s-maj=11.4km s-min=7.6km az=65.0*
*RHSSO **22** 05:00:13.2±1.2, 45°.80N×16°.02E, h5km, ML1.9/3*
ISC 22 05:00:11.4±0.8**, 45°.90N**±0°.02×**16°.04E**±0°.02**, h6km**±5**km, n52, σ0§95/84, 2C-1D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PTJ	**Puntijarka**	**0.05**	**278**	*e*Pg	**Pg**	**05 00 12.3**	**-0.7**
PTJ				Sg	**Sg**	**05 00 13.8**	**-0.2**
PTJ	**Puntijarka**	**0.05**	**278**	Pg	**Pg**	**05 00 13.0**	**0.0**
PTJ				Lg	Lg	05 00 14.0	
PTJ				AML	AML		
ZAG	**Zagreb**	**0.08**	**208**	*e*Pg	**Pg**	**05 00 14.0**	**+0.7**
ZAG				Sg	**Sg**	**05 00 15.1**	**+0.5**
ZAG	**Zagreb**	**0.08**	**208**	Pg	**Pg**	**05 00 13.6**	**+0.3**
ZAG				Lg	Lg	05 00 15.1	
ZAG				AML	AML		
LOBO	**Lobor**	**0.26**	**4**	*i* Pg	**Pg**	**05 00 17.4**	**+0.9**
LOBO				Sg	**Sg**	**05 00 20.8**	**+0.9**
GCIS	**Gornji Cirnik**	**0.29**	**264**	⇓*i* Pg	**Pg**	**05 00 17.1**	**0.0**
GCIS				*i* Sg	**Sg**	**05 00 20.9**	**-0.1**
GCIS				IAML		05 00 21.3	
	comp=Z,42nm,0.1s						
GOLS	**Golise**	**0.31**	**291**	*i* Pg	**Pg**	**05 00 17.7**	**+0.1**
GOLS				*e*Sg	**Sg**	**05 00 21.6**	**0.0**
GOLS				IAML		05 00 24.1	
	comp=Z,33nm,0.1s						
KALN	**Kalnik**	**0.37**	**51**	*i* Pg	**Pg**	**05 00 18.9**	**+0.3**
KALN				Sg	**Sg**	**05 00 25.0**	**+1.5**
CRES	**Cresnjevec Ost**	**0.41**	**260**	*i* Pg	**Pg**	**05 00 19.2**	**-0.2**
CRES				*i* Sg	**Sg**	**05 00 25.0**	**+0.1**
CRES				IAML		05 00 27.2	
	comp=Z,37nm,0.1s						
DOBS	**Dobrina**	**0.47**	**302**	*i* Pg	**Pg**	**05 00 20.9**	**+0.4**
DOBS				IAML		05 00 28.6	
	comp=Z,27nm,0.1s						
OZLJ	**Ozalj**	**0.49**	**235**	*i* Pg	**Pg**	**05 00 21.0**	**0.0**
OZLJ				Sg	**Sg**	**05 00 26.7**	**-0.6**
KOGS	**Kog**	**0.57**	**15**	Pg	**Pb**	**05 00 23.6**	**-0.2**
KOGS				Lg	Lg	05 00 31.7	
KOGS				AML	AML		
MOSL	**Moslavina**	**0.57**	**120**	*e*Pg	**Pb**	**05 00 23.3**	**-0.7**
MOSL				Sg	**Sg**	**05 00 30.8**	**+0.8**
BOJS	**Bojanci**	**0.68**	**235**	*i* Pg	**Pg**	**05 00 24.2**	**-0.3**
BOJS				IAML		05 00 36.6	
	comp=Z,4.9nm,0.1s						
BEHE	**Becsehely**	**0.77**	**41**	Pn	**Pn**	**05 00 28.9**	**+0.1**
BEHE				Sn	**Sn**	**05 00 41.2**	**+0.5**
BEHE				AML	AML		
BEHE	**Becsehely**	**0.77**	**41**	⇑*i* Pg	**Pn**	**05 00 28.3**	**-0.5**
BEHE				*e*Sg	**Sn**	**05 00 40.4**	**-0.3**
SOKA	**Soboth**	**1.05**	**318**	*e*Pg	**Pg**	**05 00 31.3**	**-0.2**
	comp=Z,2.7nm,0.3s,SNR=15						
SOKA				*e*Sg	**Sg**	**05 00 45.5**	**+0.3**
	comp=Z,2.6nm,0.2s						
PLIT	**Plitvice**	**1.06**	**196**	*i* Pg	**Pg**	**05 00 30.9**	**-0.9**
PLIT				Sg	**Sb**	**05 00 45.8**	**-0.6**
OBKA	**Obir**	**1.20**	**301**	Pn	**Pg**	**05 00 34.4**	**-0.1**
OBKA				Lg	Lg	05 00 48.6	
OBKA				AML	AML		
OBKA	**Obir**	**1.20**	**301**	*e*Pg	**Pg**	**05 00 34.4**	**-0.1**
	comp=Z,1.4nm,0.2s,SNR=8.7						
OBKA				Sg	**Sb**	**05 00 50.7**	**+0.2**
	comp=Z,6.3nm,0.3s						
RIY	**Rijeka**	**1.24**	**243**	*e*Pg	**Pg**	**05 00 34.8**	**-0.3**
RIY				Sg	**Sg**	**05 00 50.4**	**-0.7**
A273A	**Marcsa**	**1.24**	**89**	Lg	Lg	05 00 54.5	
UDBI	**Udbina**	**1.39**	**188**	*e*Pg	**Pg**	**05 00 37.9**	**-0.1**
UDBI				Sg	**Sb**	**05 00 55.4**	**-0.3**
ARSA	**Arzberg**	**1.40**	**345**	Pg	**Pg**	**05 00 38.8**	**+0.6**
ARSA				AML	AML		
ARSA	**Arzberg**	**1.40**	**345**	*e*Pn	**Pb**	**05 00 37.8**	**-0.2**
	comp=Z,0.4nm,0.2s						
ARSA				Sn	**Sg**	**05 00 57.1**	**+0.7**
	comp=Z,0.7nm,0.2s						
BLY	**Banja Luka**	**1.41**	**145**	Pn	**Pn**	**05 00 36.9**	**-0.7**
BLY				Lg	Lg	05 00 56.9	
BLY				AML	AML		
BLY	**Banja Luka**	**1.41**	**145**	⇑*i* Pg	**Pn**	**05 00 37.3**	**-0.3**
BLY				*e*Sg	**Sb**	**05 00 55.6**	**-0.6**
KOVH	**Kovagototos**	**1.45**	**82**	Pn	**Pn**	**05 00 37.1**	**-1.1**
KOVH				Sn	**Sn**	**05 00 55.8**	**-1.7**
KOVH				Lg	Lg	05 00 59.9	
KOVH				AML	AML		
RABC	**Rab**	**1.45**	**218**	Sn	**Sg**	**05 00 58.9**	**+0.8**
NVLJ	**Novalja**	**1.57**	**212**	*e*Pn	**Pb**	**05 00 40.7**	**-0.2**
NVLJ				Sg	**Sg**	**05 01 01.6**	**-0.3**
SESA	**Seetaler Alpe,**	**1.58**	**321**	*e*Pn	**Pn**	**05 00 40.1**	**-0.2**
	comp=Z,0.5nm,0.3s						
MPLH	**Magyarpolny**	**1.64**	**39**	Sn	**Sb**	**05 01 02.8**	**-0.2**
VIRC	**Vir**	**1.75**	**204**	*e*Pn	**Pb**	**05 00 43.2**	**-0.8**
VIRC				Sn	**Sb**	**05 01 06.3**	**+0.1**
RONA	**Rosalia, Austr**	**1.81**	**5**	*e*Pn	**Pn**	**05 00 43.0**	**-0.2**
	comp=Z,0.3nm,0.1s						
MORH	**Mrgy, Hungar**	**1.84**	**79**	Pn	**Pn**	**05 00 42.3**	**-1.3**
MORH				Sn	**Sn**	**05 01 04.8**	**-2.3**
MORH				Lg	Lg	05 01 11.7	
MORH				AML	AML		
MORH	**Mrgy, Hungar**	**1.84**	**79**	*e*Pn	**Pg**	**05 00 46.4**	**-0.3**
MORH				*e*Sn	**Sg**	**05 01 10.4**	**-0.1**
KIJV	**Kijevo**	**1.91**	**172**	*i* Pn	**Pb**	**05 00 45.8**	**-0.9**
KIJV				Sn	**Sb**	**05 01 11.4**	**+0.5**
DUGI	**Dugi Otok**	**2.03**	**200**	*e*Pn	**Pn**	**05 00 47.0**	**+0.8**
DUGI				Sn	**Sb**	**05 01 13.0**	**-1.3**
CONA	**Conrad Observa**	**2.03**	**357**	*e*Pn	**Pn**	**05 00 45.8**	**-0.5**
	comp=Z,0.1nm,0.1s						
CONA				Sn	**Sn**	**05 01 12.4**	**+0.3**
	comp=Z,0.9nm,0.4s						
MORI	**Morici**	**2.05**	**187**	*e*Pn	**Pn**	**05 00 46.9**	**+0.5**
MORI				Sn	**Sb**	**05 01 13.6**	**-1.1**
WINA	**Alland / Wiene**	**2.21**	**1**	Sn	**Sb**	**05 01 18.5**	**-0.9**
	comp=Z,0.8nm,0.2s						
MOA	**Molln**	**2.30**	**329**	*e*Pn	**Pn**	**05 00 51.0**	**+1.0**
	comp=Z,0.5nm,0.3s						
MOA				Sn	**Sn**	**05 01 18.3**	**-0.3**
	comp=Z,0.3nm,0.1s						
RICI	**Ricice**	**2.53**	**162**	*e*Pn	**Pn**	**05 00 54.7**	**+1.6**
RICI				Sn	**Sb**	**05 01 27.1**	**-1.5**
MAKA	**Makarska**	**2.70**	**165**	*e*Pn	**Pn**	**05 00 56.6**	**+1.1**
MAKA				Sn	**Sb**	**05 01 31.0**	**-2.6**
HVAR	**Hvar**	**2.74**	**174**	*i* Pn	**Pn**	**05 00 57.2**	**+1.3**
HVAR				Sn	**Sn**	**05 01 31.5**	**+2.2**
FRGS	**Fruska Gora**	**2.75**	**104**	*e*Sn	**Sn**	**05 01 30.9**	**+1.2**
TEKS	**Tekeris**	**2.81**	**117**	*e*Pn	**Pn**	**05 00 58.0**	**+1.1**
TEKS				*e*Sn	**Sn**	**05 01 32.2**	**+1.0**
LSTV	**Lastovo**	**3.19**	**169**	Sn	**Sn**	**05 01 42.5**	**+2.0**
STON	**Ston**	**3.25**	**158**	Sn	**Sn**	**05 01 43.7**	**+1.7**
DBRK	**Dubrovnik**	**3.57**	**154**	Sn	**Sn**	**05 01 52.5**	**+2.8**
KHC	**Kasperske Hory**	**3.64**	**334**	*e*PN	**Pn**	**05 01 07.6**	**-0.8**
KHC				*e*SN	**Sn**	**05 01 51.0**	**-0.6**
BRG	**Berggiesshubel**	**5.17**	**345**	Pg	**Pb**	**05 01 43.5**	**+1.2**
BRG				Sg	Sn	05 02 04.0	-25
BRG				Amp		05 02 05.6	
	comp=Z,3.4nm,0.4s						

*SJA **22** 05:16:03.6±0.5, 22°.53S×65°.88W, h301km±7km, ML3.6, MW3.7*
*SCB **22** 05:16:13.2±1.4, 23°.00S×66°.52W, h225km±16km, ML4.1/2, Error ellipse: s-maj=8.2km s-min=5.4km az=0.0*
*GUC **22** 05:16:14.2±0.6, 22°.96S×66°.82W, h263km±9km, ML3.8, Presumed earthquake*
ISC 22 05:16:13.7±1.2**, 22°.93S**±0°.04×**66°.55W**±0°.05**, h222km, n49, σ1§56/67, 6C, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YJA	**Yavi**	**1.22**	**52**	*e*P	**Pn**	**05 16 48.2**	**+0.4**
YJA	**Yavi**	**1.22**	**52**	P	**Pn**	**05 16 48.2**	**+0.4**
SALTA		**1.30**	**171**	*e*P	Pn	05 16 43.5	-5.0
SALTA				*e*P		05 16 49.0	
SALTA				*e*S	**S**	**05 17 11.4**	**-4.2**
AF01	**San Pedro de A**	**1.50**	**269**	*e*P	**Pn**	**05 16 52.8**	**+3.1**
AF01				*e*S	S	05 17 28.2	+11
AF01				IAML		05 17 40.1	
	comp=Z,37nm,0.8s						
AF01	**San Pedro de A**	**1.50**	**269**	*e*P	**Pn**	**05 16 51.7**	**+2.0**
MOCB	**Mochara**	**1.87**	**27**	P	**Pn**	**05 16 54.0**	**+0.7**
SLA	**San Lorenzo**	**2.03**	**152**	*e*P	**Pn**	**05 16 54.3**	**-0.1**
SLA				*e*S	**S**	**05 17 28.7**	**+2.6**
SLA	**San Lorenzo**	**2.03**	**152**	*e*P	**Pn**	**05 16 53.5**	**-0.8**
PB09	**IPOC Station P**	**2.73**	**294**	*e*P	**Pn**	**05 17 03.4**	**+1.6**
PB09				IAML		05 17 51.0	
	comp=Z,31nm,0.4s						
PB09	**IPOC Station P**	**2.73**	**294**	⇑*i*P	**Pn**	**05 17 03.5**	**+1.7**
PB09				*e*S	**S**	**05 17 40.4**	**+1.2**
PB09				IAML		05 17 45.2	
	comp=E,78nm,0.3s						
PB09	**IPOC Station P**	**2.73**	**294**	P	**Pn**	**05 17 02.9**	**+1.1**
PB06	**IPOC Station P**	**2.79**	**274**	*e*P	**Pn**	**05 17 03.6**	**+1.2**
PB06				IAML		05 17 53.4	
	comp=Z,40nm,0.5s						
PB06	**IPOC Station P**	**2.79**	**274**	*e*P	**Pn**	**05 17 03.2**	**+0.8**
PB06				*e*S	**S**	**05 17 40.8**	**+0.4**
PB06				IAML		05 17 48.2	
	comp=E,86nm,0.4s						
PB06	**IPOC Station P**	**2.79**	**274**	P	**Pn**	**05 17 03.4**	**+1.0**
PB03	**IPOC Station P**	**3.09**	**286**	*e*P	**Pn**	**05 17 06.4**	**+0.7**
PB03				IAML		05 18 00.6	
	comp=Z,36nm,0.4s						
PB03	**IPOC Station P**	**3.09**	**286**	⇑*i*P	**Pn**	**05 17 06.5**	**+0.7**
PB03				*e*S	**S**	**05 17 46.1**	**-0.2**
FSA	**Cafayete**	**3.21**	**171**	*e*P	**Pn**	**05 17 06.2**	**-0.9**
PB07	**IPOC Station P**	**3.31**	**291**	*e*P	**Pn**	**05 17 08.1**	**-0.3**
PB07				IAML		05 17 58.9	
	comp=Z,38nm,0.2s						
PB07	**IPOC Station P**	**3.31**	**291**	⇑*i*P	**Pn**	**05 17 09.2**	**+0.8**
PB07				*e*S	**S**	**05 17 50.4**	**-0.6**
PB05	**IPOC Station P**	**3.37**	**271**	*e*P	**Pn**	**05 17 09.6**	**+0.7**
PB05				IAML		05 18 04.6	
	comp=Z,29nm,0.3s						
PB05	**IPOC Station P**	**3.37**	**271**	⇑*i*P	**Pn**	**05 17 09.4**	**+0.5**
PB05				*e*S	**S**	**05 17 51.0**	**-1.1**
PB02	**IPOC Station P**	**3.49**	**297**	*e*P	**Pn**	**05 17 11.1**	**+0.7**
PB02				IAML		05 18 04.7	
	comp=Z,118nm,0.3s						
PB02	**IPOC Station P**	**3.49**	**297**	⇑*e*P	**Pn**	**05 17 10.9**	**+0.6**
PB02				*e*S	**S**	**05 17 53.8**	**-0.8**
PB02	**IPOC Station P**	**3.49**	**297**	P	**Pn**	**05 17 11.0**	**+0.7**
PB02				S	**S**	**05 17 54.2**	**-0.5**
PB02				IAML		05 17 58.0	
	comp=Z,121nm,0.4s						
PB08	**IPOC Station P**	**3.68**	**318**	*e*P	**Pn**	**05 17 09.2**	**-3.7**
PB08				*e*S	**S**	**05 18 01.4**	**+2.1**
PB08				IAML		05 18 02.3	
	comp=Z,62nm,0.4s						
PB08	**IPOC Station P**	**3.68**	**318**	⇑*i*P	**Pn**	**05 17 14.8**	**+1.8**
PB08				*e*S	**S**	**05 18 00.7**	**+1.4**
PB08	**IPOC Station P**	**3.68**	**318**	P	**Pn**	**05 17 14.8**	**+1.8**
PB14	**IPOC Station P**	**3.91**	**244**	*e*P	**Pn**	**05 17 16.1**	**+0.5**
PB14				IAML		05 18 19.9	
	comp=Z,34nm,0.4s						
PB14	**IPOC Station P**	**3.91**	**244**	*e*P	**Pn**	**05 17 15.4**	**-0.2**
PB14				*i* S	**S**	**05 18 02.0**	**-2.0**
PB14	**IPOC Station P**	**3.91**	**244**	P	**Pn**	**05 17 15.4**	**-0.2**
GO01	**Chusmiza**	**4.07**	**322**	*e*P	**Pn**	**05 17 14.2**	**-3.6**
GO01				*e*S	**S**	**05 18 04.7**	**-3.3**
GO01				IAML		05 18 12.3	
	comp=Z,59nm,0.3s						
GO01	**Chusmiza**	**4.07**	**322**	*e*P	**Pn**	**05 17 19.2**	**+1.4**
GO01				*e*S	**S**	**05 18 08.7**	**+0.7**
GO01	**Chusmiza**	**4.07**	**322**	P	**Pn**	**05 17 19.6**	**+1.8**
TA01	**Diego Aracena**	**4.11**	**304**	*e*P	**Pn**	**05 17 18.0**	**+0.2**
TA01				*e*S	**S**	**05 18 06.3**	**-1.7**
PB11	**IPOC Station P**	**4.28**	**317**	*e*P	Pn	05 17 15.2	-4.7
PB11				*e*S	**S**	**05 18 10.8**	**-1.3**
PB11				IAML		05 18 12.2	
	comp=Z,93nm,0.2s						
PB11	**IPOC Station P**	**4.28**	**317**	*e*P	**Pn**	**05 17 20.4**	**+0.4**
PB11				*i* S	**S**	**05 18 10.7**	**-1.3**
PB11	**IPOC Station P**	**4.28**	**317**	P	**Pn**	**05 17 20.5**	**+0.5**
PB11				S	**S**	**05 18 11.1**	**-0.9**
PB11				IAML		05 18 12.2	
	comp=Z,235nm,0.2s						
SOEO	**Opoqueri**	**4.52**	**344**	P	**Pn**	**05 17 25.0**	**+1.7**
AC02	**Maricunga**	**4.54**	**210**	*e*P	**Pn**	**05 17 22.8**	**-0.6**
AC02				*e*S	**S**	**05 18 21.1**	**+2.8**
AC02				IAML		05 18 24.5	
	comp=Z,10.0nm,2.0s						
PSGCX	**Pisagua**	**4.70**	**314**	*e*P	**Pn**	**05 17 25.5**	**+0.4**
PSGCX				*e*S	**S**	**05 18 19.1**	**-2.2**
PSGCX				IAML		05 18 22.4	
	comp=Z,45nm,0.4s						
SOET	**ToroToro**	**4.84**	**8**	P	**Pn**	**05 17 27.9**	**+0.8**
PB16	**IPOC Station P**	**5.34**	**328**	P	**Pn**	**05 17 35.0**	**+1.4**
BBOJ	**La Paz, Jacaqu**	**6.12**	**345**	P	**Pn**	**05 17 45.1**	**+1.6**
SOEJ	**Jacaque**	**6.12**	**345**	P	**Pn**	**05 17 45.0**	**+1.5**
BBOD	**La Paz, Gloria**	**6.55**	**343**	P	**Pn**	**05 17 50.4**	**+1.4**
LPAZ	**La Paz**	**6.77**	**347**	P	**Pn**	**05 17 52.7**	**+0.8**
BBOB	**La Paz, Bander**	**6.92**	**347**	P	**Pn**	**05 17 54.3**	**+0.7**
BBSD	**Serra de San D**	**7.99**	**45**	P	**Pn**	**05 18 05.6**	**-1.3**
SIV	**San Ignacio**	**8.62**	**38**	P	**Pn**	**05 18 14.0**	**-1.1**

*IDC **22** 05:17:51.7±1.1, 36°.45N×6°.95E, h0km, mb3.4/4, mbtmp3.4/8, ML3.1/4, Error ellipse: s-maj=18.6km s-min=13.0km az=12.0*
*CRAAG **22** 05:17:52.8, 36°.58N×6°.87E, Ml3.9, Algrie 11km SE Ain-Bouziane*
ISC 22 05:17:53.6±0.7**, 36°.46N**±0°.05×**7°.02E**±0°.04**, h12km, n24, σ1§86/29, mb3.4/3, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CKFL	**Kef-Lekhel**	**0.25**	**256**	P	**Pb**	**05 17 59.6**	**-0.5**
CAEH	**'Ain El Ouahch**	**0.35**	**337**	P	**Pg**	**05 17 58.8**	**-1.8**
CSGS	**Sigus**	**0.41**	**217**	P	**Pb**	**05 18 02.9**	**0.0**
CASM	**Ain Smara**	**0.47**	**245**	P	**Pg**	**05 18 01.5**	**-1.4**
CTEI	**Djebel Teioual**	**0.64**	**232**	P	**Pn**	**05 18 08.2**	**-0.3**
COAT	**Oued Athmania**	**0.64**	**249**	P	**Pg**	**05 18 05.0**	**-1.0**
CBOS	**Bilal Ibnou Ra**	**0.66**	**301**	P	**Pg**	**05 18 03.5**	**-2.9**
DFRA	**Djebel Bou Aff**	**0.93**	**276**	P	**Pg**	**05 18 09.6**	**-1.9**
SET	**Setif**	**1.33**	**259**	P	**Pg**	**05 18 19.0**	**-0.2**
KEST	**Kesra**	**2.02**	**110**	Pg	**Pg**	**05 18 30.4**	**-1.9**
	28nm,0.3s,baz=295,slow=4.0,SNR=124						
KEST				Lg	Lg	05 18 57.5	
	8.4nm,0.3s,baz=141,slow=15,SNR=5.6						
CART	**Cartagena**	**6.52**	**282**	P	**Pn**	**05 19 28.1**	**-1.1**
CART				S	**Sn**	**05 20 47.7**	**+4.3**
FIGM	**Figuig**	**8.10**	**240**	P	**Pn**	**05 19 49.8**	**-1.3**
FIGM				S	**Sn**	**05 21 21.4**	**-1.2**
JBK	**JBK**	**8.11**	**258**	P	**Pn**	**05 19 50.5**	**-0.8**
JBK				S	**Sn**	**05 21 27.3**	**+4.2**
AKLM	**AKL**	**9.09**	**261**	P	**Pn**	**05 20 05.2**	**+0.5**

cutoff=50s. Triangular moment-rate function
ISC 22 05:18:37.2×0.3,**16°55**′×0′05,×**174°51E**×0′05,**h10**km,**n669,**
σ**1s57**/462,**mb5.2**/213,**MS4.9**/118,**24C-17D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.52**	**107**	Pn	**Pn**	**05 19 34.9**	**+2.8**
	5.5nm,0.3s,baz=278,slow=12,SNR=25						
	79nm,0.7s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**3.52**	**107**	P	**Pn**	**05 19 34.9**	**+2.8**
MSVF	**Nonsavu**	**3.52**	**107**		**Pn**	**05 19 32.9**	**+0.8**
MSVF	**Nonsavu**	**3.52**	**107**	P	**Pn**	**05 19 34.1**	**+2.0**
DGTI	**Dogotuki**	**5.04**	**86**	P	**Pn**	**05 19 55.7**	**+2.9**
TAVE	**Taveuni**	**5.35**	**90**	P	**Pn**	**05 20 00.6**	**+3.4**
LKBA	**Tubou, Lakemba**	**6.54**	**104**	P	**Pn**	**05 20 16.1**	**+2.6**
SANVU	**Saraoutou**	**7.14**	**279**	P	**Pn**	**05 20 22.9**	**+1.2**
SANVU	**Saraoutou**	**7.14**	**279**		**Pn**	**05 20 21.6**	**-0.1**
SANVU	**Saraoutou**	**7.14**	**279**	P	**Pn**	**05 20 24.8**	**+3.1**
	comp=Z,105nm,0.8s						
FUTU	**Fugatoga**	**7.51**	**72**	P	**Pn**	**05 20 30.6**	**+3.8**
FUTU	**Fugatoga**	**7.51**	**72**		**Pn**	**05 20 28.8**	**+2.1**
FUTU	**Fugatoga**	**7.51**	**72**	P	**Pn**	**05 20 31.5**	**+4.7**
	comp=Z,344nm,2.0s						
MARNC	**Mare, Loyalty**	**7.72**	**231**	P	**Pn**	**05 20 29.8**	**+0.1**
MARNC	**Mare, Loyalty**	**7.72**	**231**		**Pn**	**05 20 29.4**	**-0.4**
PINNC	**Pines Island,**	**8.85**	**228**	P	**Pn**	**05 20 46.9**	**+1.7**
PINNC	**Pines Island,**	**8.85**	**228**		**Pn**	**05 20 44.9**	**-0.3**
YATNC	**Mamie plateau,**	**8.92**	**232**	P	**Pn**	**05 20 47.5**	**+1.3**
OUENC	**Ouen Island, N**	**9.17**	**231**		**Pn**	**05 20 49.0**	**-0.6**
DZM	**Mont Dzumac**	**9.27**	**234**	Pn	**Pn**	**05 20 51.8**	**+0.8**
	comp=Z,0.6nm,0.3s,baz=68,slow=16,SNR=18						
DZM				LR	LR	05 23 56.5	
	comp=Z,7μm,20.2s,baz=54,slow=35						
	comp=Z,82nm,1.1s						
DZM				AML	AML		
FUNA	**Funafuti**	**9.36**	**30**		**Pn**	**05 20 50.0**	**-2.2**
FUNA	**Funafuti**	**9.36**	**30**	P	**Pn**	**05 20 51.2**	**-1.0**
	comp=Z,77nm,1.3s						
ONTNC	**Ouen Toro**	**9.39**	**233**	P	**Pn**	**05 20 54.7**	**+2.0**
ONTNC	**Ouen Toro**	**9.39**	**233**		**Pn**	**05 20 51.0**	**-1.6**
NOUC	**Port Laguerre**	**9.40**	**234**	P	**Pn**	**05 20 55.1**	**+2.4**
KOUNC	**Koumac, New Ca**	**10.40**	**247**	P	**Pn**	**05 21 08.0**	**+1.5**
KOUNC	**Koumac, New Ca**	**10.40**	**247**		**Pn**	**05 21 05.2**	**-1.2**
AFI	**Afiamalu**	**13.53**	**80**	Pn	**Pn**	**05 21 52.3**	**+2.9**
	comp=Z,1.1nm,0.3s,baz=196,slow=23,SNR=7.9						
	comp=Z,30nm,0.8s						
AFI				AML	AML		
NFK	**Norfolk Island**	**13.65**	**205**	P	**Pn**	**05 21 55.0**	**+4.1**
	comp=Z,131nm,1.0s						
NFK	**Norfolk Island**	**13.65**	**205**	P	**P**	**05 21 55.7**	**-4.1**
	comp=Z,131nm,1.0s						
NFK	**Norfolk Island**	**13.65**	**205**	P	**Pn**	**05 21 54.8**	**+4.0**
	comp=Z,131nm,1.0s						
RAO	**Raoul Island**	**14.26**	**152**	LR	LR	05 26 20.8	
	comp=Z,9μm,18.8s,baz=319,slow=32						
HNR	**Honiara**	**15.93**	**295**	LR	LR	05 27 34.6	
	comp=Z,2μm,19.0s,baz=214,slow=34						
SAVO	**Savo Central**	**16.18**	**296**	P	**Pn**	**05 22 26.2**	**+1.4**
TATA	**Tatamba Isabel**	**16.57**	**298**	P	**Pn**	**05 22 30.3**	**+0.5**
TARA	**Tarawa**	**18.05**	**355**	P	**P**	**05 22 49.7**	**+1.0**
	comp=Z,183nm,1.9s						
LHI	**Lord Howe Isla**	**20.34**	**221**	P	Pn	05 23 15.6	0.0
	comp=Z,45nm,1.1s						
LHI	**Lord Howe Isla**	**20.34**	**221**	P	**P**	**05 23 12.5**	**-1.1**
	comp=Z,43nm,1.1s						
LHI	**Lord Howe Isla**	**20.34**	**221**	P	Pn	05 23 15.5	-0.2
	comp=Z,46nm,1.1s						
LHI	**Lord Howe Isla**	**20.34**	**221**	P	**P**	**05 23 12.8**	**-0.8**
TOZ	**Tahuroa Road**	**20.92**	**178**		**P**	**05 23 18.2**	**-1.7**
MXZ	**Matakaoa Point**	**21.01**	**172**	IAMs_20	IAMs_20	05 29 24.5	
	comp=Z,5μm,19.0s						
URZ	**Urewera**	**21.55**	**174**	P	**P**	**05 23 28.8**	**+2.1**
	comp=Z,26nm,0.8s,baz=357,slow=5.6,SNR=7.4						
URZ				LR	LR	05 29 48.8	
	comp=Z,4μm,20.2s,baz=352,slow=31						
	comp=Z,26nm,0.8s						
URZ	**Urewera**	**21.55**	**174**	P	**P**	**05 23 31.0**	**+4.3**
	comp=Z,162nm,1.7s						
MWZ	**Matawai**	**21.67**	**174**	P	**P**	**05 23 30.1**	**+2.0**
RTZ	**Ruatahuna**	**21.90**	**175**		**P**	**05 23 31.1**	**+0.6**
RTZ				IAmb	IAmb	05 23 51.1	
	comp=Z,100nm,1.0s						
RAHZ	**Arahi**	**22.20**	**175**	P	**P**	**05 23 35.6**	**+1.9**
AUBSH	**Beerwah State**	**22.37**	**240**	P	**P**	**05 23 37.1**	**+1.5**
BKZ	**Black Stump Fm**	**22.41**	**176**	P	**P**	**05 23 37.4**	**+1.4**
GC1S	**Gold Coast 1 S**	**22.45**	**236**	P	**P**	**05 23 38.4**	**+2.0**
WNVZ	**Wahianoa**	**22.52**	**178**	P	**P**	**05 23 39.8**	**+2.5**
MOVZ	**Moawhango**	**22.61**	**177**	P	**P**	**05 23 40.4**	**+2.3**
KWHZ	**Kaweka Forest**	**22.66**	**176**	P	**P**	**05 23 40.0**	**+1.3**
BHHZ	**Black Hill Sta**	**22.70**	**177**	P	**P**	**05 23 40.2**	**+1.1**
TSZ	**Takapari Road**	**23.26**	**177**	P	**P**	**05 23 44.9**	**0.0**
TW1H	**Toowoomba 1 Ha**	**23.44**	**239**	P	**P**	**05 23 48.0**	**+1.2**
EIDS	**Eidsvold**	**23.46**	**245**	P	**P**	**05 23 46.8**	**-0.2**
	comp=Z,51nm,1.6s						
EIDS	**Eidsvold**	**23.46**	**245**	P	**P**	**05 23 47.4**	**+0.4**
	comp=Z,51nm,1.6s						
EIDS	**Eidsvold**	**23.46**	**245**	P	**P**	**05 23 46.7**	**-0.2**
	comp=Z,51nm,1.6s						
EIDS	**Eidsvold**	**23.46**	**245**	P	**P**	**05 23 47.5**	**+0.5**
EIDS	**Eidsvold**	**23.46**	**245**		**P**	**05 23 46.0**	**-1.0**
EIDS	**Eidsvold**	**23.46**	**245**	P	**P**	**05 23 46.0**	**-1.0**
	comp=Z,51nm,1.6s						
MRZ	**Mangatainoka R**	**23.85**	**178**		**P**	**05 23 49.4**	**-1.1**
MRZ				IAmb	IAmb	05 24 10.8	
	comp=Z,126nm,1.3s						
MRZ	**Mangatainoka R**	**23.85**	**178**	P	**P**	**05 23 49.5**	**-1.1**
BFZ	**Birch Farm**	**23.90**	**177**	P	**P**	**05 23 52.6**	**+1.5**
BFZ	**Birch Farm**	**23.90**	**177**	P	**P**	**05 23 48.9**	**-2.1**
BFZ	**Birch Farm**	**23.90**	**177**	P	**P**	**05 23 49.0**	**-2.1**
	comp=Z,108nm,1.0s						
QRZ	**Quartz Range**	**24.06**	**184**	IAMs_20	IAMs_20	05 31 24.6	
	comp=Z,4μm,19.0s						
QRZ	**Quartz Range**	**24.06**	**184**	P	**P**	**05 23 55.3**	**+2.7**
NNZ	**Nelson**	**24.41**	**182**	IAMs_20	IAMs_20	05 31 24.9	
	comp=Z,4μm,22.0s						
NNZ	**Nelson**	**24.41**	**182**	P	**P**	**05 23 56.8**	**+1.0**
SNZO	**South Karori**	**24.48**	**180**	IAMs_20	IAMs_20	05 31 36.9	
	comp=Z,4μm,20.0s						
RAR	**Rarotonga**	**24.71**	**104**	LR	LR	05 31 40.0	
	comp=Z,568nm,19.9s,baz=278,slow=32						
ARMA	**Armidale**	**24.93**	**233**	P	**P**	**05 24 02.0**	**+1.2**
	comp=Z,36nm,1.4s						
ARMA	**Armidale**	**24.93**	**233**	P	**P**	**05 24 02.0**	**+1.2**
	comp=Z,36nm,1.4s						
ARMA	**Armidale**	**24.93**	**233**	P	**P**	**05 24 01.8**	**+1.0**
	comp=Z,36nm,1.4s						
ARMA	**Armidale**	**24.93**	**233**	P	**P**	**05 24 01.6**	**+0.8**
ARMA	**Armidale**	**24.93**	**233**		**P**	**05 23 59.9**	**-1.0**
ARMA	**Armidale**	**24.93**	**233**	P	**P**	**05 24 02.0**	**+1.2**
	comp=Z,36nm,1.4s						
THZ	**Tophouse**	**24.97**	**183**		**P**	**05 24 01.4**	**+0.4**
THZ				IAMs_20	IAMs_20	05 31 52.8	
	comp=Z,5μm,21.0s						
THZ	**Tophouse**	**24.97**	**183**	P	**P**	**05 24 02.2**	**+1.2**
DSZ	**Denniston Nort**	**25.02**	**185**	IAMs_20	IAMs_20	05 32 01.1	
	comp=Z,5μm,19.0s						
KRVT	**Keravat (AS076**	**25.28**	**297**	P	**P**	**05 24 03.9**	**-0.1**
	comp=Z,320nm,0.4s,baz=198,slow=18,SNR=4.5						
KRVT				LR	LR	05 33 27.0	
	comp=Z,2μm,20.4s,baz=132,slow=36						
KHZ	**Kahutara**	**25.60**	**182**	IAMs_20	IAMs_20	05 33 59.9	
	comp=Z,5μm,18.0s						
RMQ	**Roma**	**25.78**	**244**	P	**P**	**05 24 13.7**	**+5.3**
	comp=Z,25nm,0.9s						
RMQ	**Roma**	**25.78**	**244**	P	**P**	**05 24 11.1**	**+2.6**
	comp=Z,25nm,0.9s						
AUPHS	**Peel High Scho**	**25.81**	**232**	P	**P**	**05 24 10.0**	**+1.3**
AUAYR	**Ayr State High**	**25.89**	**260**	P	**P**	**05 24 10.9**	**+1.4**
LTZ	**Lake Taylor**	**26.02**	**184**	IAMs_20	IAMs_20	05 32 46.1	
	comp=Z,5μm,19.0s						
LTZ	**Lake Taylor**	**26.02**	**184**	P	**P**	**05 24 11.5**	**+1.0**
GVZ	**Greta Valley S**	**26.17**	**182**	IAMs_20	IAMs_20	05 32 40.9	
	comp=Z,4μm,19.0s						
GVZ	**Greta Valley S**	**26.17**	**182**	P	**P**	**05 24 14.0**	**+2.2**
MQZ	**McQueen's Vall**	**26.92**	**183**	IAMs_20	IAMs_20	05 33 24.9	
	comp=Z,4μm,20.0s						
FOZ	**Fox Glacier**	**27.00**	**188**	IAMs_20	IAMs_20	05 33 18.8	
	comp=Z,5μm,19.0s						
CTA	**Charters Tower**	**27.00**	**259**	P	**P**	**05 24 21.8**	**+2.3**
	comp=Z,10nm,1.1s						
CTA	**Charters Tower**	**27.00**	**259**	P	**P**	**05 24 20.6**	**+1.1**
	comp=Z,15nm,1.2s						
CTA	**Charters Tower**	**27.00**	**259**	P	**P**	**05 24 20.4**	**+0.9**
	comp=Z,26nm,1.0s,baz=82,slow=11,SNR=9.9						
CTA				LR	LR	05 33 35.2	
	comp=Z,1μm,19.1s,baz=82,slow=34						
	comp=Z,26nm,1.0s						
CTAO	**Charters Tower**	**27.00**	**259**	P	**P**	**05 24 21.8**	**+2.3**
CTAO	**Charters Tower**	**27.00**	**259**	P	**P**	**05 24 19.2**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,36nm,1.1s						
CTAO				MLR	MLR		
	comp=Z,1μm,18.0s						
CTAO	**Charters Tower**	**27.00**	**259**		**P**	**05 24 19.2**	**-0.3**
CTAO	**Charters Tower**	**27.00**	**259**	P	**P**	**05 24 20.8**	**+1.2**
	comp=Z,38nm,1.2s						
RPZ	**Rata Peaks**	**27.04**	**186**	LR	LR	05 33 46.5	
	comp=Z,2μm,19.6s,baz=20,slow=34						
SYDH	**Sydney Hard Ro**	**27.27**	**227**	P	**P**	**05 24 24.2**	**+2.5**
AULRC	**Lightning Ridg**	**27.40**	**238**	P	**P**	**05 24 22.9**	**-0.1**
WOLH	**Wollongong Har**	**27.52**	**226**	P	**P**	**05 24 25.2**	**+1.1**
PMG	**Port Moresby**	**27.60**	**282**	P	**P**	**05 24 24.9**	**0.0**
	comp=Z,26nm,1.0s,baz=117,slow=7.0,SNR=4.5						
PMG				LR	LR	05 32 22.7	
	comp=Z,3μm,19.0s,baz=350,slow=30						
	comp=Z,26nm,1.0s						
PMG	**Port Moresby**	**27.60**	**282**	P	**P**	**05 24 25.9**	**+1.0**
PMG	**Port Moresby**	**27.60**	**282**	P	**P**	**05 24 26.0**	**+1.0**
PMG	**Port Moresby**	**27.60**	**282**	*de*P	**P**	**05 24 25.2**	**+0.3**
PMG				pmax	pmax		
	comp=Z,22nm,1.0s						
PMG	**Port Moresby**	**27.60**	**282**	P	**P**	**05 24 24.7**	**-0.2**
PMG	**Port Moresby**	**27.60**	**282**	IAMs_20	IAMs_20	05 32 11.4	
	comp=Z,3μm,20.0s						
PMG	**Port Moresby**	**27.60**	**282**	P	**P**	**05 24 25.6**	**+0.7**
	comp=Z,40nm,1.1s						
PMG	**Port Moresby**	**27.60**	**282**	P	**P**	**05 24 26.0**	**+1.1**
	comp=Z,41nm,1.1s						
LBZ	**Lake Benmore**	**27.80**	**187**	IAMs_20	IAMs_20	05 33 55.9	
	comp=Z,4μm,19.0s						
AUDCS	**Dubbo College**	**28.04**	**232**	P	**P**	**05 24 30.3**	**+1.5**
WKZ	**Wanaka**	**28.38**	**188**	IAMs_20	IAMs_20	05 33 51.2	
	comp=Z,4μm,21.0s						
PATS	**Pohnpei**	**28.38**	**324**	P	P	05 24 24.2	-7.7
PATS	**Pohnpei**	**28.38**	**324**	IAMs_20	IAMs_20	05 32 56.7	
	comp=Z,3μm,20.0s						
MTSU	**Mount Surprise**	**28.82**	**263**	P	**P**	**05 24 36.4**	**+0.5**
	comp=Z,16nm,1.0s						
MTSU	**Mount Surprise**	**28.82**	**263**	P	**P**	**05 24 37.3**	**+1.4**
	comp=Z,16nm,1.0s						
MTSU	**Mount Surprise**	**28.82**	**263**	P	**P**	**05 24 36.2**	**+0.4**
	comp=Z,16nm,1.0s						
MTSU	**Mount Surprise**	**28.82**	**263**	P	**P**	**05 24 35.8**	**0.0**
MTSU	**Mount Surprise**	**28.82**	**263**	P	**P**	**05 24 35.9**	**0.0**
	comp=Z,16nm,1.0s						
MLZ	**Mavora Lakes**	**29.03**	**189**	IAMs_20	IAMs_20	05 34 10.6	
	comp=Z,3μm,19.0s						
CNB	**Canberra Magne**	**29.06**	**226**	P	**P**	**05 24 39.1**	**+1.2**
	comp=Z,31nm,0.9s						
CNB	**Canberra Magne**	**29.06**	**226**	P	**P**	**05 24 38.1**	**+0.3**
	comp=Z,31nm,0.9s						
CNB	**Canberra Magne**	**29.06**	**226**	P	**P**	**05 24 38.9**	**+1.0**
	comp=Z,31nm,0.9s						
AUDAR	**Daramalan Coll**	**29.18**	**226**	P	**P**	**05 24 40.7**	**+1.8**
YNG	**Young**	**29.21**	**228**	P	**P**	**05 24 40.1**	**+0.9**
YNG	**Young**	**29.21**	**228**	P	**P**	**05 24 40.2**	**+1.1**
DCZ	**Deep Cove**	**29.29**	**191**	IAMs_20	IAMs_20	05 33 56.3	
	comp=Z,4μm,21.0s						
AUMTS	**Mt Stromlo**	**29.31**	**226**	P	**P**	**05 24 42.4**	**+2.3**
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 42.0**	**+1.9**
	comp=Z,23nm,1.1s						
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 40.6**	**+0.5**
	comp=Z,22nm,1.1s						
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 41.4**	**+1.3**
	comp=Z,23nm,1.1s						
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 42.4**	**+2.3**
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 39.6**	**-0.5**
CAN				pmax	pmax		
	comp=Z,24nm,1.1s						
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 39.6**	**-0.5**
CAN	**Canberra**	**29.31**	**226**	P	**P**	**05 24 42.0**	**+1.9**
	comp=Z,22nm,1.1s						
WHZ	**Wether Hill Ro**	**29.57**	**189**	IAMs_20	IAMs_20	05 34 38.9	
	comp=Z,4μm,21.0s						
QLP	**Quilpie**	**29.72**	**246**	P	**P**	**05 24 43.3**	**-0.4**
	comp=Z,36nm,0.9s						
QLP	**Quilpie**	**29.72**	**246**	P	**P**	**05 24 43.4**	**-0.4**
	comp=Z,36nm,0.9s						
QLP	**Quilpie**	**29.72**	**246**	P	**P**	**05 24 42.7**	**-1.0**
	comp=Z,36nm,0.9s						
QLP	**Quilpie**	**29.72**	**246**	P	**P**	**05 24 44.7**	**+0.9**
QLP	**Quilpie**	**29.72**	**246**	P	**P**	**05 24 44.0**	**+0.2**
	comp=Z,36nm,0.9s						
CMSA	**Cobar Meteorol**	**30.02**	**235**	P	**P**	**05 24 48.3**	**+2.0**
	comp=Z,18nm,0.9s						
CMSA	**Cobar Meteorol**	**30.02**	**235**	P	**P**	**05 24 46.4**	**+0.1**
	comp=Z,18nm,0.9s						
CMSA	**Cobar Meteorol**	**30.02**	**235**	P	**P**	**05 24 48.3**	**+2.0**
	comp=Z,18nm,0.9s						
CMSA	**Cobar Meteorol**	**30.02**	**235**	P	**P**	**05 24 46.1**	**-0.2**
CMSA	**Cobar Meteorol**	**30.02**	**235**	P	**P**	**05 24 46.1**	**-0.2**
	comp=Z,18nm,0.9s						
PYZ	**Puysegur Point**	**30.05**	**191**	IAMs_20	IAMs_20	05 34 27.5	
	comp=Z,3μm,20.0s						
MILA	**Mila**	**30.18**	**223**	P	**P**	**05 24 48.7**	**+1.0**
	comp=Z,7.8nm,1.2s						
MILA	**Mila**	**30.18**	**223**	P	**P**	**05 24 48.3**	**+0.6**
	comp=Z,7.8nm,1.2s						
TOO	**Toolangi**	**32.90**	**225**	P	**P**	**05 25 12.8**	**+1.1**
	comp=Z,18nm,1.0s						
TOO	**Toolangi**	**32.90**	**225**	P	**P**	**05 25 12.1**	**+0.5**
	comp=Z,18nm,1.0s						
TOO	**Toolangi**	**32.90**	**225**	P	**P**	**05 25 12.6**	**+0.9**
	comp=Z,18nm,1.0s						
TOO	**Toolangi**	**32.90**	**225**	P	**P**	**05 25 11.1**	**-0.6**
TOO				pmax	pmax		
	comp=Z,12nm,0.9s						
TOO	**Toolangi**	**32.90**	**225**	P	**P**	**05 25 11.1**	**-0.6**
INKA	**Innaminka**	**33.01**	**245**	P	**P**	**05 25 11.7**	**-1.0**
QIS	**Mount Isa**	**33.25**	**258**	P	**P**	**05 25 15.1**	**+0.2**
	comp=Z,17nm,1.3s						
QIS	**Mount Isa**	**33.25**	**258**	P	**P**	**05 25 15.1**	**+0.2**
	comp=Z,17nm,1.3s						
QIS	**Mount Isa**	**33.25**	**258**	P	**P**	**05 25 14.9**	**0.0**
	comp=Z,17nm,1.3s						
QIS	**Mount Isa**	**33.25**	**258**	P	**P**	**05 25 15.5**	**+0.6**
QIS	**Mount Isa**	**33.25**	**258**	P	**P**	**05 25 15.1**	**+0.2**
	comp=Z,17nm,1.3s						
GLAD	**Gladstone**	**33.26**	**218**	P	**P**	**05 25 15.7**	**+1.0**
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 16.9**	**+0.8**
	comp=Z,104nm,1.1s						
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 16.2**	**+0.1**
	comp=Z,104nm,1.1s						
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 18.1**	**+1.9**
	comp=Z,105nm,1.1s						
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 16.4**	**+0.3**
	comp=Z,12nm,0.8s,baz=68,slow=8.6,SNR=15						
STKA				LR	LR	05 37 22.9	
	comp=Z,2μm,21.8s,baz=72,slow=34						
	comp=Z,12nm,0.8s						
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 18.0**	**+1.9**
STKA	**Stephens Creek**	**33.41**	**237**	*e*P	**P**	**05 25 16.5**	**+0.4**
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 15.5**	**-0.6**
STKA	**Stephens Creek**	**33.41**	**237**	P	**P**	**05 25 18.2**	**+2.1**
	comp=Z,105nm,1.1s						
BRAT	**Ballarat**	**33.96**	**226**	P	**P**	**05 25 22.4**	**+1.5**
AUMTC	**Mt Clear Colle**	**34.03**	**226**	P	**P**	**05 25 23.1**	**+1.7**
PAE	**Paea**	**34.29**	**97**	*e*LR	LR	05 34 23.6	
	comp=Z,1μm,23.6s						
PPT2	**Papeete2**	**34.30**	**97**	*e*P	**P**	**05 25 26.6**	**+2.5**
	comp=Z,133nm,21.5s						
PPT2				*e*S	**S**	**05 30 49.6**	**-2.0**
	comp=Z,392nm,25.8s						
PPT2				*e*LQ	LQ	05 33 10.8	
	comp=Z,7μm,26.5s						
PPT2				*e*LR	LR	05 34 26.5	
	comp=Z,1μm,29.2s						
PPT2				*e*LR	LR	05 34 33.7	
	comp=Z,2μm,26.5s						
PPT	**Papeete**	**34.30**	**97**	LR	LR	05 35 48.5	
	comp=Z,502nm,20.7s,baz=260,slow=30						
TBI	**Tubuai**	**34.41**	**107**	*e*P	**P**	**05 25 28.9**	**+3.9**
	comp=Z,1μm,24.0s						
TBI				*e*S	**S**	**05 30 49.4**	**-3.8**
	comp=Z,1μm,27.5s						
TBI				*e*LQ	LQ	05 33 15.0	
	comp=Z,33μm,30.0s						
TBI				*e*LR	LR	05 34 38.6	
	comp=Z,1μm,28.5s						
TBI				*e*LR	LR	05 34 39.0	
	comp=Z,7μm,29.5s						
TVO	**Taravao**	**34.59**	**97**	*e*LR	LR	05 34 38.2	
	comp=Z,4μm,30.3s						
MOO	**Moorlands**	**34.65**	**217**	P	**P**	**05 25 28.0**	**+1.2**
	comp=Z,64nm,1.1s						
MOO	**Moorlands**	**34.65**	**217**	P	**P**	**05 25 28.0**	**+1.2**
	comp=Z,64nm,1.1s						
MOO	**Moorlands**	**34.65**	**217**	P	**P**	**05 25 27.8**	**+1.0**
	comp=Z,64nm,1.1s						
MOO	**Moorlands**	**34.65**	**217**	P	**P**	**05 25 28.4**	**+1.6**
MOO	**Moorlands**	**34.65**	**217**	P	**P**	**05 25 28.0**	**+1.2**
	comp=Z,64nm,1.1s						
ARPS	**Mount Arapiles**	**35.09**	**229**	P	**P**	**05 25 31.1**	**+0.4**
	comp=Z,15nm,0.9s						
ARPS	**Mount Arapiles**	**35.09**	**229**	P	**P**	**05 25 31.2**	**+0.6**
	comp=Z,15nm,0.9s						
ARPS	**Mount Arapiles**	**35.09**	**229**	P	**P**	**05 25 30.3**	**-0.3**
	comp=Z,15nm,0.9s						
H11S2	**WAKE ISLAND Hy**	**35.85**	**347**	T	T	06 03 23.2	
	baz=167,slow=74,SNR=6.0						
H11S3	**WAKE ISLAND Hy**	**35.85**	**347**	T	T	06 03 27.6	
	baz=167,slow=74,SNR=2.9						
H11S1	**WAKE ISLAND Hy**	**35.87**	**347**	T	T	06 03 23.8	
	baz=167						
HTT	**Hallett**	**36.04**	**236**	P	**P**	**05 25 40.9**	**+2.0**
	comp=Z,7.4nm,1.2s						
HTT	**Hallett**	**36.04**	**236**	P	**P**	**05 25 40.5**	**+1.5**
	comp=Z,7.4nm,1.2s						
HTT	**Hallett**	**36.04**	**236**	P	**P**	**05 25 40.6**	**+1.7**
PMOR	**Pomariorio Ree**	**36.17**	**93**	*e*P	**P**	**05 25 42.4**	**+2.2**
	comp=Z,87nm,1.1s						
AUMBR	**Murray Bridge**	**36.33**	**233**	P	**P**	**05 25 42.1**	**+0.8**
VAH	**Vaihoa**	**36.40**	**93**	*e*P	**P**	**05 25 44.2**	**+2.1**
	comp=Z,58nm,1.0s						
H11N1	**WAKE ISLAND Hy**	**37.00**	**348**	T	T	06 04 50.7	
	baz=169,slow=74,SNR=4.8						
H11N3	**WAKE ISLAND Hy**	**37.00**	**348**	T	T	06 04 57.0	
	baz=169,slow=74,SNR=3.1						
H11N2	**WAKE ISLAND Hy**	**37.01**	**348**	T	T	06 04 53.4	
	baz=169						
WR8	**Warramunga Arr**	**38.05**	**259**		**P**	**05 25 55.0**	**-1.2**
WB0	**Warramunga Arr**	**38.15**	**259**		**P**	**05 25 55.7**	**-1.4**
WB0				IAmb	IAmb	05 25 58.1	
	comp=Z,35nm,0.8s						
BBOO	**Buckleboo**	**38.16**	**238**	P	**P**	**05 25 56.7**	**-0.2**
	comp=Z,23nm,1.4s						
BBOO	**Buckleboo**	**38.16**	**238**	P	**P**	**05 25 57.7**	**+0.8**
	comp=Z,27nm,2.5s						
BBOO	**Buckleboo**	**38.16**	**238**		**P**	**05 25 56.5**	**-0.4**
WRAB	**Tennant Creek**	**38.19**	**259**	P	**P**	**05 25 57.7**	**+0.4**
WRAB	**Tennant Creek**	**38.19**	**259**	P	**P**	**05 25 55.8**	**-1.5**
WRAB				pmax	pmax		
	comp=Z,25nm,0.9s						
WRAB	**Tennant Creek**	**38.19**	**259**	P	**P**	**05 25 55.8**	**-1.5**
WRAB	**Tennant Creek**	**38.19**	**259**	P	**P**	**05 25 55.3**	**-2.1**
	comp=Z,34nm,0.9s						
WRA	**Warramunga Arr**	**38.20**	**259**	P	**P**	**05 25 55.1**	**-2.3**
	comp=Z,25nm,0.8s,baz=91,slow=8.5,SNR=74						
WRA				LR	LR	05 39 32.7	
	comp=Z,883nm,21.8s,baz=90,slow=33						
	comp=Z,25nm,0.8s						
WRA	**Warramunga Arr**	**38.20**	**259**	P	**P**	**05 25 55.9**	**-1.5**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	**Warramunga Arr**	**38.20**	**259**		**P**	**05 25 55.9**	**-1.5**
AS17	**Alice Springs**	**38.54**	**253**	P	**P**	**05 25 59.2**	**-1.1**
	comp=Z,55nm,0.9s						
AS17	**Alice Springs**	**38.54**	**253**	P	**P**	**05 25 58.6**	**-1.7**
	comp=Z,55nm,0.9s						
AS17	**Alice Springs**	**38.54**	**253**	P	**P**	**05 25 58.6**	**-1.7**
	comp=Z,55nm,0.9s						
AS01	**Alice Springs**	**38.58**	**253**	P

MEEK **Meekatharra** **52.52 249** P **P** **05 27 51.9 +1.0**
MEEK **Meekatharra** **52.52 249** P **P** **05 27 52.2 +1.2**
comp=Z,38nm,1.0s
AUKUL **Kulin High Sch** **53.02 242** P **P** **05 27 54.9 +0.3**
LUWI **Luwuk** **53.24 282** P **P** **05 27 56.1 -0.3**
KLBR **Kellerberrin** **53.31 243** P **P** **05 27 57.6 +1.0**
comp=Z,80nm,1.1s
KLBR **Kellerberrin** **53.31 243** P **P** **05 27 56.1 -0.6**
comp=Z,80nm,1.1s
KLBR **Kellerberrin** **53.31 243** P **P** **05 27 56.9 +0.2**
KLBR **Kellerberrin** **53.31 243** P **P** **05 27 55.8 -0.9**
comp=Z,80nm,1.1s
GTOI **Gorontalo** **53.61 284** P **P** **05 28 01.6 +2.5**
comp=Z,19nm,0.9s
JCJ **Chichijima** **53.70 324** LR LR 05 49 55.2
comp=Z,222nm,18.6s,baz=152,slow=35
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 27 60.0 -0.3**
comp=Z,40nm,1.2s
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 27 60.0 -0.3**
comp=Z,65nm,1.2s
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 27 60.0 -0.3**
comp=Z,40nm,1.2s
NWAO **Narrogin (SRO)** **53.80 241** LR LR 05 49 31.3
comp=Z,2µm,21.2s,baz=106,slow=34
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 28 00.7 +0.4**
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 28 00.6 +0.3**
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 27 58.4 -1.9**
NWAO pmax pmax
comp=Z,35nm,1.1s
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 27 58.4 -1.9**
NWAO IAmb IAmb 05 28 03.6
comp=Z,35nm,1.1s
NWAO **Narrogin (SRO)** **53.80 241** P **P** **05 28 00.0 -0.3**
comp=Z,38nm,1.3s
RKGY **Rocky Gully** **54.12 239** P **P** **05 28 03.8 +1.2**
comp=Z,15nm,1.3s
RKGY **Rocky Gully** **54.12 239** P **P** **05 28 04.4 +1.8**
comp=Z,15nm,1.3s
BLDU **Ballidu** **54.18 244** P **P** **05 28 03.7 +0.6**
MORW **Morawa** **54.76 246** P **P** **05 28 06.3 -1.0**
comp=Z,16nm,1.3s
MORW **Morawa** **54.76 246** P **P** **05 28 06.9 -0.4**
KAPI **Kappang** **54.85 276** LR LR 05 50 35.9
comp=Z,231nm,20.8s,baz=96,slow=35
TOLI2 **Tolitoli** **55.86 283** P **P** **05 28 14.8 -0.7**
TOLI2 IAmb IAmb 05 28 38.8
comp=Z,60nm,1.6s
JHJ **Hachijo jima 2** **59.66 326** LR LR 05 50 39.7
comp=Z,50nm,21.2s,baz=134,slow=32
VNDA **Vanda** **61.13 183** P **P** **05 28 51.3 +0.1**
comp=Z,1.8nm,0.8s,baz=24,slow=4.4,SNR=5.1
VNDA LR LR 05 51 21.4
comp=Z,631nm,20.1s,baz=19,slow=32
comp=Z,1.8nm,0.8s
VNDA **Vanda** **61.13 183** P **P** **05 28 50.4 -0.8**
SBA **Scott Base** **61.25 182** P **P** **05 28 51.2 -0.9**
SBA pmax pmax
comp=Z,147nm,1.7s
SBA **Scott Base** **61.25 182** P **P** **05 28 51.2 -0.9**
SNJI **Sawahan-Nganju** **61.76 270** P **P** **05 28 59.0 +2.3**
comp=Z,25nm,1.6s
INU **Inuyama** **62.84 326** IAMs_20 IAMs_20 05 54 11.4
comp=Z,757nm,20.0s
MJAR **Matsushiro Arr** **63.12 328** P **P** **05 29 04.0 -1.2**
comp=Z,7.4nm,0.9s,baz=158,slow=6.7,SNR=15
MJAR LR LR 05 51 59.7
comp=Z,556nm,21.8s,baz=136,slow=32
comp=Z,7.4nm,0.9s
MJAR **Matsushiro Arr** **63.12 328** P **P** **05 29 04.0 -1.2**
MJAR **Matsushiro Arr** **63.12 328** P **P** **05 29 03.5 -1.7**
MAJO **Matsushiro** **63.12 328** P **P** **05 29 06.2 +1.0**
MAJO **Matsushiro** **63.12 328** *e*P **P** **05 29 04.8 -0.4**
MAJO pmax pmax
comp=Z,12nm,0.9s
MAJO **Matsushiro** **63.12 328** P **P** **05 29 03.8 -1.3**
MJB9 **Matsu-Tunnel** **63.13 328** P **P** **05 29 04.0 -1.2**
JNU **Nakatsue** **64.77 320** LR LR 05 53 36.3
comp=Z,272nm,21.3s,baz=106,slow=32
TWG **Pinlang** **65.41 305** IAMs_20 IAMs_20 05 52 19.1
comp=Z,1µm,21.0s
YULB **Yu-li** **65.53 306** IAMs_20 IAMs_20 05 52 21.7
comp=Z,1µm,22.0s
NACB **Ninganchiao** **65.73 307** IAMs_20 IAMs_20 05 52 18.8
comp=Z,1µm,22.0s
TPUB **Ta-pu** **66.00 306** IAMs_20 IAMs_20 05 52 26.2
comp=Z,1µm,21.0s
ASAJ **Asahikawa** **67.22 336** LR LR 05 53 51.7
comp=Z,2µm,21.2s,baz=88,slow=32
KNMB **Chin-men Tao** **68.36 306** IAMs_20 IAMs_20 05 53 47.5
comp=Z,847nm,22.0s
SHEM **Shemya Is, Ala** **69.18 360** LR LR 05 56 56.1
comp=Z,106nm,19.9s,baz=146,slow=33
KSRS **Korea Array** **69.47 322** P **P** **05 29 45.6 -0.2**
comp=Z,2.4nm,0.9s,baz=142,slow=6.2,SNR=4.8
comp=Z,2.4nm,0.9s
KSAR **Wonju Array Be** **69.49 322** P **P** **05 29 45.4 -0.6**
KSAR **Wonju Array Be** **69.49 322** P **P** **05 29 45.4 -0.6**
RPN **Rapa Nui** **70.48 113** LR LR 05 53 42.0
comp=Z,317nm,19.0s,baz=266,slow=30
HKPS **Hong Kong Po S** **70.68 301** IAMs_20 IAMs_20 05 57 00.9
comp=Z,703nm,20.0s
PET **Petropavlovsk** **70.82 350** *e*P P 05 30 00.1 +6.4
PET *e*S **S** **05 39 15.6 +7.1**
PET *e*PS **PnS** **05 39 36.7 +0.3**
PEA0B **Petropavlovsk-** **71.06 349**⇑ *e*P **P** **05 29 58.1 +2.8**
PETK **Petropavlovsk-** **71.06 349** P **P** **05 29 54.6 -0.6**
comp=Z,13nm,0.9s,baz=140,slow=4.4,SNR=11
PETK LR LR 05 56 54.0
comp=Z,428nm,19.8s,baz=161,slow=32
comp=Z,13nm,0.9s
PETK **Petropavlovsk-** **71.06 349** P **P** **05 29 55.1 -0.2**
PETK **Petropavlovsk-** **71.06 349** P **P** **05 29 55.0 -0.2**
BTDF **Bukit Timah Da** **71.98 277** P **P** **05 30 02.8 +1.1**
USA0B **Ussuriysk Arra** **72.00 329**⇑ *e*P **P** **05 30 00.9 -0.2**
USRK **Ussuriysk Ar.** **72.00 329** P **P** **05 30 01.0 -0.1**
comp=Z,2.2nm,0.7s,baz=179,slow=13,SNR=4.5
comp=Z,2.2nm,0.7s
USRK **Ussuriysk Ar.** **72.00 329** P **P** **05 30 01.0 -0.1**
USRK **Ussuriysk Ar.** **72.00 329** P **P** **05 30 00.7 -0.4**
NJ2 **Nanjing** **72.07 313** *e*P **P** **05 30 02.5 +0.7**
NJ2 pmax pmax
comp=Z,7.0nm,0.5s
QIZ **Qiongzhong** **72.84 297** P **P** **05 30 06.0 -0.7**
QIZ S **S** **05 39 34.6 +1.4**
QIZ L L
comp=Z,170nm,11.0s
QIZ L L
comp=Z,330nm,19.2s
QIZ L L
comp=Z,360nm,17.9s
QSPA **South Pole Qui** **73.30 180** P **P** **05 30 07.7 -1.1**
comp=Z,16nm,0.9s,baz=41,slow=0.6,SNR=51
QSPA LR LR 05 58 52.2
comp=Z,454nm,18.9s,baz=34,slow=33
comp=Z,16nm,0.9s
QSPA **South Pole Qui** **73.30 180** P **P** **05 30 08.1 -0.7**
DL2 **Dalian** **74.21 320** P **P** **05 30 16.3 +2.0**
DL2 pmax pmax
comp=Z,44nm,1.0s
DL2 pmax pmax
comp=Z,750nm,6.4s
DL2 L L
comp=Z,2µm,25.6s
DL2 L L
comp=Z,1µm,25.5s
DL2 L L
comp=Z,890nm,25.3s
CN2 **Changchun** **75.10 326** P **P** **05 30 19.8 +0.4**
CN2 pmax pmax
comp=Z,10.0nm,1.1s
BNX **BinXian** **75.38 328** ⇓P **P** **05 30 23.4 +2.5**
BNX pmax pmax
comp=Z,7.0nm,1.1s
IPM **Ipoh** **75.56 279** P **P** **05 30 24.0 +1.3**
IPM **Ipoh** **75.56 279** **P** **05 30 22.1 -0.7**
IPM IAmb IAmb 05 30 25.9
comp=Z,22nm,0.9s
IPM **Ipoh** **75.56 279** P **P** **05 30 24.4 +1.7**
comp=Z,30nm,1.3s
IPM **Ipoh** **75.56 279** P **P** **05 30 23.4 +0.6**
comp=Z,30nm,1.3s
KLR **Kul'dur** **75.82 333** LR LR 05 58 29.4
comp=Z,447nm,20.2s,baz=155,slow=32
KLR **Kul'dur** **75.82 333**⇑ *e*P **P** **05 30 24.1 +0.7**
KLR pmax pmax
comp=Z,20nm,2.2s

RPSI **Rantau Prapat** **77.00 277** P **P** **05 30 26.4 -4.5**
PSI **Prapat** **77.03 277** P **P** **05 30 32.5 +1.3**
PSI **Prapat** **77.03 277** P P 05 30 26.4 -4.8
PSI pmax pmax
comp=Z,12nm,0.9s
PSI **Prapat** **77.03 277** P **P** **05 30 32.5 +1.3**
comp=Z,13nm,1.1s
HNS **HongShan** **77.84 315** ⇓P **P** **05 30 38.6 +3.6**
HNS L L
comp=Z,390nm,20.7s
L L
HNS comp=Z,370nm,22.3s
L L
HNS comp=Z,520nm,20.6s
LYN **LuoYang** **77.93 312** P **P** **05 30 40.1 +4.5**
LYN S **S** **05 40 29.9 +0.8**
LYN pmax pmax
comp=Z,14nm,1.0s
LYN pmax pmax
comp=Z,290nm,11.3s
LYN L L
comp=Z,590nm,21.3s
LYN L L
comp=Z,540nm,15.8s
LYN L L
comp=Z,970nm,21.0s
BJI2 **Beijing** **78.30 318** P **P** **05 30 38.8 +1.3**
BJI2 pmax pmax
comp=Z,8.0nm,1.2s
BJI2 L L
comp=Z,290nm,20.6s
BJI2 L L
comp=Z,220nm,22.0s
BJI2 L L
comp=Z,430nm,23.4s
MA2 **Magadan** **78.47 348** LR LR 06 01 27.6
comp=Z,508nm,19.7s,baz=170,slow=33
MA2 **Magadan** **78.47 348** IAMs_20 IAMs_20 06 01 15.6
comp=Z,634nm,21.0s
HEH **HeiHe** **78.51 331** *e*P **P** **05 30 37.3 -1.2**
HEH pmax pmax
comp=Z,7.0nm,0.7s
KDAK **Kodiak Island** **79.10 17** LR LR 05 58 38.3
comp=Z,384nm,19.4s,baz=202,slow=30
XAN **Xi'an** **80.25 310** P **P** **05 30 46.1 -2.3**
XAN S **S** **05 40 53.3 -0.8**
XAN SS **SS** **05 45 59.6 -6.0**
XAN pmax pmax
comp=Z,8.0nm,1.3s
XAN L L
comp=Z,660nm,20.0s
XAN L L
comp=Z,620nm,23.0s
XAN L L
comp=Z,1µm,24.0s
XLT **XiLinHaoTe** **80.52 321** *e*P **P** **05 30 52.6 +2.9**
XLT S **S** **05 40 53.6 -2.9**
XLT pmax pmax
comp=Z,7.0nm,1.1s
XLT L L
comp=Z,470nm,18.5s
XLT L L
comp=Z,660nm,22.7s
KMRM **Mail Ridge** **80.64 43** IAmb IAmb 05 30 53.4
comp=Z,36nm,0.9s
ZEA **Zeya** **81.03 334** *e*P **P** **05 30 52.9 +0.9**
ZEA pmax pmax
comp=Z,10.0nm,0.9s
SEY **Seymchan** **81.29 350** LR LR 06 01 02.0
comp=Z,686nm,21.6s,baz=150,slow=31
SEY **Seymchan** **81.29 350**⇑ *e*P **P** **05 30 52.7 -0.5**
SEY pmax pmax
comp=Z,13nm,1.0s
HIA **Hailar** **81.62 327** IAMs_20 IAMs_20 06 04 40.7
comp=Z,644nm,19.0s
VES **Vestal, Richgr** **81.68 49** IAmb IAmb 05 30 58.0
comp=Z,24nm,0.8s
VES IAMs_20 IAMs_20 05 58 07.6
comp=Z,486nm,19.0s
MWC **Mount Wilson** **81.70 51** IAmb IAmb 05 30 58.6
comp=Z,19nm,0.9s
HHC **Hu-ho-hao-te** **81.72 317** *e*P **P** **05 30 56.8 +0.6**
HHC pmax pmax
comp=Z,230nm,8.8s
HHC L L
comp=Z,260nm,19.4s
HHC L L
comp=Z,350nm,22.7s
HHC L L
comp=Z,450nm,19.4s
CMB **Columbia Colle** **81.79 46** P **P** **05 30 56.5 0.0**
CMB pmax pmax
comp=Z,12nm,0.8s
CMB **Columbia Colle** **81.79 46** **P** **05 30 56.5 0.0**
HILR **Hailar Array B** **81.79 327** LR LR 06 03 47.1
comp=Z,360nm,20.4s,baz=210,slow=33
M02C **Callahan** **81.80 42** IAmb IAmb 05 30 59.5
comp=Z,18nm,0.8s
AFDM **Forest Hills D** **81.83 45** **P** **05 30 56.8 +0.1**
TPO **Tropo Hills** **81.87 50** IAmb IAmb 05 30 59.8
comp=Z,36nm,1.2s
L18K **Granite Mounta** **81.93 13** IAmb IAmb 05 30 59.0
comp=Z,43nm,1.4s
O03E **Paynes Creek** **81.93 44** IAmb IAmb 05 30 59.5
comp=Z,22nm,1.1s
DPP **Dos Picos Cty** **82.00 52** IAmb IAmb 05 31 00.1
comp=Z,18nm,0.9s
YBH **Yreka Blue Hor** **82.06 42** LR LR 06 01 39.9
comp=Z,191nm,18.5s,baz=250,slow=32
YBH **Yreka Blue Hor** **82.06 42** IAmb IAmb 05 31 00.7
comp=Z,16nm,0.9s
CMAR **Chiang Mai Arr** **82.15 292** P **P** **05 30 59.7 +0.9**
comp=Z,1.2nm,0.3s,baz=120,slow=3.9,SNR=14
comp=Z,1.2nm,0.3s
CMAR **Chiang Mai Arr** **82.15 292** **P** **05 30 56.8 -2.0**
CHTO **Chiang Mai** **82.27 292** P **P** **05 31 00.4 +1.0**
CHTO **Chiang Mai** **82.27 292** P **P** **05 31 01.5 +2.1**
CHTO **Chiang Mai** **82.27 292** P **P** **05 31 01.2 +1.7**
comp=Z,6.2nm,1.4s
DNR **Dunn Ranch,Anz** **82.48 52** IAmb IAmb 05 31 03.0
comp=Z,15nm,0.9s
MDPB **Devils Postpil** **82.51 47** IAmb IAmb 05 31 03.1
comp=Z,17nm,0.9s
L04D **Klamath Falls** **82.57 42** IAmb IAmb 05 31 03.0
comp=Z,25nm,0.9s
MAW **Mawson** **82.58 201** P **P** **05 31 04.0 +3.8**
comp=Z,1.8nm,1.0s
MAW **Mawson** **82.58 201** P **P** **05 31 02.6 +2.4**
comp=Z,1.8nm,1.0s
MAW **Mawson** **82.58 201** P **P** **05 31 01.9 +1.8**
comp=Z,6.9nm,1.1s,baz=110,slow=6.5,SNR=9.6
comp=Z,6.9nm,1.1s
MAW **Mawson** **82.58 201** P **P** **05 31 00.6 +0.5**
MAW **Mawson** **82.58 201** P **P** **05 31 03.9 +3.7**
comp=Z,1.8nm,1.0s
YUH **Yuha Desert** **82.62 53** IAmb IAmb 05 31 03.7
comp=Z,16nm,1.1s
PFO **Pinyon Flats O** **82.63 52** LR LR 05 59 46.0
comp=Z,379nm,21.0s,baz=248,slow=30
PFO **Pinyon Flats O** **82.63 52**⇑ *e*P **P** **05 31 02.5 +1.4**
PFO pmax pmax
comp=Z,11nm,1.1s
PFO **Pinyon Flats O** **82.63 52** **P** **05 31 01.0 -0.1**
PFO **Pinyon Flats O** **82.63 52** P **P** **05 31 02.2 +1.0**
comp=Z,11nm,1.7s
MPK **Martis Peak** **82.64 45** P **P** **05 31 00.7 -0.6**
MPK IAmb IAmb 05 31 03.7
comp=Z,28nm,1.0s
CWC **Cottonwood Cre** **82.68 49** IAMs_20 IAMs_20 05 58 49.9
comp=Z,635nm,20.0s
BEKR **Beckworth** **82.69 45** IAmb IAmb 05 31 03.7
comp=Z,30nm,1.5s
BTO2 **Baotou** **82.78 316** *e*P **P** **05 31 03.1 +1.3**
BTO2 pmax pmax
comp=Z,16nm,0.6s
BTO2 pmax pmax
comp=Z,440nm,6.0s
BTO2 L L
comp=Z,540nm,8.8s
BTO2 L L
comp=Z,430nm,6.5s
BTO2 L L
comp=Z,930nm,18.2s
ELFS **Eagle Lake Fie** **82.80 44** IAMs_20 IAMs_20 06 00 00.1
comp=Z,542nm,21.0s
CD2 **Chengdu** **82.81 305** P **P** **05 31 01.0 -1.1**
CD2 sP PcP 05 31 06.6 -0.3

CD2 S **S** **05 41 22.3 +1.6**
CD2 pmax pmax
comp=Z,10.0nm,0.4s
CD2 pmax pmax
comp=Z,320nm,7.2s
CD2 L L
comp=Z,670nm,17.8s
CD2 L L
comp=Z,840nm,20.3s
CD2 L L
comp=Z,910nm,21.6s
PNTR **Pine Nut** **82.83 46** **P** **05 31 02.4 +0.2**
PNTR IAmb IAmb 05 31 04.8
comp=Z,25nm,0.8s
MPMC **Manual Prospec** **82.94 49** IAmb IAmb 05 31 05.4
comp=Z,13nm,0.9s
MPMC IAMs_20 IAMs_20 05 59 59.7
comp=Z,584nm,19.0s
YERR **Yerington** **83.03 46** IAmb IAmb 05 31 05.6
comp=Z,18nm,0.9s
GSC **Goldstone, Bar** **83.10 50** IAmb IAmb 05 31 06.0
comp=Z,19nm,1.1s
LHV **Little Huntoon** **83.20 47** IAmb IAmb 05 31 06.8
comp=Z,25nm,1.0s
J04A **Umpqua Nationa** **83.21 41** IAmb IAmb 05 31 06.4
comp=Z,25nm,0.9s
PAHR **Pah Rah Range** **83.27 45** IAmb IAmb 05 31 06.9
comp=Z,19nm,1.2s
I04A **Tendick Farm,** **83.30 41** IAmb IAmb 05 31 06.2
comp=Z,16nm,1.0s
BC3 **Big Chuckawall** **83.40 52** IAmb IAmb 05 31 08.1
comp=Z,19nm,1.1s
NVAR **Mina Array Bea** **83.42 47** P **P** **05 31 06.1 +0.8**
comp=Z,7.2nm,0.7s,baz=228,slow=8.8,SNR=58
NVAR LR LR 06 00 02.7
comp=Z,330nm,21.6s,baz=207,slow=30
comp=Z,7.2nm,0.7s
NVAR **Mina Array Bea** **83.42 47** P **P** **05 31 05.2 -0.1**
GHO **Glory Hole Cre** **83.46 17** P **P** **05 31 04.9 +0.1**
H04D **Lebanon** **83.47 40** IAmb IAmb 05 31 07.5
comp=Z,22nm,1.0s
NV11 **Mina Array Sit** **83.53 47** IAmb IAmb 05 31 08.2
comp=Z,23nm,1.2s
FURC **Furnace Creek,** **83.57 49** IAmb IAmb 05 31 08.4
comp=Z,20nm,1.0s
GLA **Glamis** **83.63 53** IAMs_20 IAMs_20 06 01 34.2
comp=Z,522nm,19.0s
MOD **Modoc Plateau** **83.71 43** IAmb IAmb 05 31 08.8
comp=Z,17nm,1.1s
K05A **Summer Lake** **83.73 42** IAmb IAmb 05 31 09.3
comp=Z,27nm,1.0s
MZP **Montezuma Peak** **83.74 48** IAmb IAmb 05 31 09.2
comp=Z,24nm,1.5s
SHOC **Shoshone, Teco** **83.75 50** IAmb IAmb 05 31 09.1
comp=Z,12nm,0.9s
WIFE **Three Sisters-** **83.81 41** IAmb IAmb 05 31 09.4
comp=Z,15nm,0.9s
LPIG **La Paz** **83.82 63** LR LR 05 59 19.6
comp=Z,607nm,21.7s,baz=253,slow=29
KVN **Kaiserville** **83.85 46** IAmb IAmb 05 31 09.7
comp=Z,16nm,1.0s
WCT **Wildcat Mounta** **83.88 49** IAmb IAmb 05 31 10.1
comp=Z,17nm,1.0s
G04A **Mulino** **83.98 39** P **P** **05 31 08.1 +0.5**
TPH **Tonopah** **84.02 47** IAmb IAmb 05 31 10.9
comp=Z,13nm,0.9s
CAST **Castle Rocks** **84.03 14** P **P** **05 31 06.6 -0.9**
CAST IAmb IAmb 05 31 25.8
comp=Z,15nm,0.9s
PIX **Pinacate** **84.08 55** IAmb IAmb 05 31 10.9
comp=Z,20nm,1.1s
BELA **Belgrano 2** **84.09 174** **P** **05 31 06.6 -1.2**
BELA IAmb IAmb 05 31 15.1
comp=Z,40nm,1.7s
MTPC **Mountain Pass** **84.10 50** IAmb IAmb 05 31 11.4
comp=Z,24nm,1.3s
BLYC **Blythe** **84.15 52** IAmb IAmb 05 31 11.7
comp=Z,32nm,1.2s
J20K **Nowinta River** **84.20 13** IAmb IAmb 05 31 25.8
comp=Z,32nm,1.4s
TPNV **Topopah Spring** **84.22 49** IAmb IAmb 05 31 11.9
comp=Z,18nm,0.8s
I05D **Terrebonne, OR** **84.24 40** IAmb IAmb 05 31 11.4
comp=Z,29nm,1.2s
113A **Mohawk Valley,** **84.33 54** IAmb IAmb 05 31 12.6
comp=Z,18nm,1.1s
HOOD **Mount Hood Mea** **84.54 40** IAmb IAmb 05 31 13.2
comp=Z,18nm,0.9s
BBB **Bella Bella** **84.70 31** LR LR 06 03 15.6
comp=Z,237nm,18.7s,baz=262,slow=32
BILL **Bilibino** **84.76 357**⇑ *e*P **P** **05 31 10.1 -1.0**
BILL pmax pmax
comp=Z,5.0nm,0.9s
SHPR **Sheep Range** **84.82 50** IAmb IAmb 05 31 15.2
comp=Z,19nm,1.1s
DHY **Denali Highway** **84.94 16** IAmb IAmb 05 31 23.0
comp=Z,48nm,1.8s
LZDM **Lanzhou Array** **84.95 310** LR LR 06 04 52.6
comp=Z,746nm,22.0s,baz=120,slow=33
WVOR **Wild Horse Val** **85.05 43** P **P** **05 31 13.6 +0.3**
WVOR pmax pmax
comp=Z,18nm,1.1s
WVOR **Wild Horse Val** **85.05 43** P **P** **05 31 13.6 +0.3**
WVOR IAmb IAmb 05 31 15.8
comp=Z,18nm,1.1s
BMN **Battle Mountai** **85.08 45** IAmb IAmb 05 31 16.1
comp=Z,21nm,1.1s
HSIG **85.10 58** **P** **05 31 13.2 -0.5**
HSIG IAmb IAmb 05 31 17.0
comp=Z,19nm,1.2s
G06A **Carlson Farm,** **85.12 40** IAmb IAmb 05 31 15.5
comp=Z,25nm,1.5s
W13A **Hualapai Mount** **85.18 51** IAmb IAmb 05 31 17.1
comp=Z,15nm,1.1s
I07A **Izee** **85.27 41** IAmb IAmb 05 31 16.8
comp=Z,18nm,1.0s
PRN **Pahroc Range** **85.28 49** IAmb IAmb 05 31 17.5
comp=Z,23nm,1.1s
G19K **Purcell Mounta** **85.34 11** IAmb IAmb 05 31 48.2
comp=Z,17nm,1.1s
J08A **Circle Bar Ran** **85.59 42** IAmb IAmb 05 31 18.2
comp=Z,20nm,1.2s
LTY **Liberty** **86.10 38** IAmb IAmb 05 31 32.2
comp=Z,42nm,2.0s
COLA **College** **86.27 15**⇑ *e*P **P** **05 31 18.6 -0.1**
COLA pmax pmax
comp=Z,4.0nm,1.1s
HAWA **Hanford** **86.36 39** IAmb IAmb 05 31 34.9
comp=Z,25nm,1.4s
LCMT **Little Creek M** **86.43 50** IAmb IAmb 05 31 23.0
comp=Z,33nm,1.7s
IL31 **86.44 16** P **P** **05 31 18.2 -1.2**
IL31 IAmb IAmb 05 32 19.3
comp=Z,33nm,1.8s
ILAR **Eielson Array** **86.44 16** P **P** **05 31 17.8 -1.8**
comp=Z,3.3nm,0.7s,baz=232,slow=5.2,SNR=44
ILAR LR LR 06 04 42.1
comp=Z,333nm,18.9s,baz=230,slow=32
comp=Z,3.3nm,0.7s
ILAR **Eielson Array** **86.44 16** P **P** **05 31 18.4 -1.1**
ILAR **Eielson Array** **86.44 16** P **P** **05 31 18.4 -1.1**
TUC **Tucson** **86.46 55** P **P** **05 31 20.2 -0.3**
TUC pmax pmax
comp=Z,13nm,1.1s
TUC **Tucson** **86.46 55** **P** **05 31 20.2 -0.3**
TUC **Tucson** **86.46 55** IAMs_20 IAMs_20 06 05 56.4
comp=Z,529nm,18.0s
ELK **Elko** **86.57 46** LR LR 06 05 30.6
comp=Z,155nm,18.2s,baz=245,slow=32
E08A **Dider Farm, El** **86.69 39** IAmb IAmb 05 31 23.4
comp=Z,28nm,1.4s
KNB **Kanab** **86.75 50** IAmb IAmb 05 31 24.9
comp=Z,42nm,1.8s
X16A **Lo Mia Camp, P** **86.76 53** IAmb IAmb 05 31 25.1
comp=Z,13nm,0.9s
SZCU **Shurtz Canyon** **86.78 49** IAmb IAmb 05 31 25.0
comp=Z,16nm,1.2s
EPH **Ephrata** **86.78 38** IAmb IAmb 05 31 44.4
comp=Z,23nm,1.5s
U15A **North Rim** **86.90 51** IAmb IAmb 05 31 38.0
comp=Z,23nm,1.3s
BMO **Blue Mountains** **87.02 41** IAmb IAmb 05 31 37.2
comp=Z,30nm,1.9s
BMO IAMs_20 IAMs_20 06 02 52.4
comp=Z,475nm,22.0s
LLLB **Lillooet** **87.10 35** **P** **05 31 23.1 0.0**
WUAZ **Wupatki** **87.23 52** IAmb IAmb 05 31 27.2
comp=Z,13nm,0.9s

E09A	**Wood Farm, Sta**	**87.26**	**40**	P	**P**	**05 31 23.6**	**-0.4**
E09A				IAmb	IAmb	05 31 47.7	
	comp=Z,19nm,1.4s						
319A	**Douglas**	**87.31**	**56**	IAmb	IAmb	05 31 27.7	
	comp=Z,20nm,0.9s						
MFID	**Camas Ranch**	**87.33**	**43**	IAmb	IAmb	05 31 26.9	
	comp=Z,18nm,1.2s						
PMSA	**Palmer Station**	**87.45**	**159**	LR	LR	06 03 08.5	
	comp=Z,348nm,20.8s,baz=282,slow=30						
F10A	**Beach Ranch, E**	**87.58**	**40**	IAmb	IAmb	05 31 27.3	
	comp=Z,24nm,1.2s						
X18A	**Snowflake**	**87.94**	**53**	IAmb	IAmb	05 31 30.6	
	comp=Z,11nm,1.0s						
ULN	**Ulaanbaatar**	**87.96**	**322**	⇑*eP*	**P**	**05 31 27.6**	**+0.1**
ULN				pmax	pmax		
	comp=Z,9.0nm,1.3s						
ULN	**Ulaanbaatar**	**87.96**	**322**	P	**P**	**05 31 26.5**	**-1.0**
ULN	**Ulaanbaatar**	**87.96**	**322**	IAMs_20	IAMs_20	06 05 40.4	
	comp=Z,592nm,21.0s						
ULN	**Ulaanbaatar**	**87.96**	**322**	P	**P**	**05 31 28.5**	**+1.0**
	comp=Z,22nm,1.0s						
ULN	**Ulaanbaatar**	**87.96**	**322**	P	**P**	**05 31 27.9**	**+0.4**
	comp=Z,4.7nm,1.3s						
DUG	**Dugway, Tooele**	**88.03**	**47**	IAmb	IAmb	05 31 30.3	
	comp=Z,29nm,1.8s						
DUG				IAMs_20	IAMs_20	06 06 00.4	
	comp=Z,421nm,20.0s						
BGU	**Big Grassy Mou**	**88.17**	**46**	IAmb	IAmb	05 31 51.7	
	comp=Z,18nm,1.6s						
HLID	**Hailey**	**88.33**	**43**	IAmb	IAmb	05 31 32.0	
	comp=Z,12nm,0.9s						
SONM	**Songino Array**	**88.34**	**321**	P	**P**	**05 31 28.9**	**-0.4**
	comp=Z,2.0nm,1.1s,baz=130,slow=4.6,SNR=8.1						
SONM				LR	LR	06 11 25.2	
	comp=Z,276nm,18.0s,baz=122,slow=36						
	comp=Z,2.0nm,1.1s						
SONM	**Songino Array**	**88.34**	**321**	P	**P**	**05 31 28.8**	**-0.5**
SYO	**Syowa Base**	**88.66**	**195**⇓	*eP*	**P**	**05 31 32.0**	**+1.7**
SYO	**Syowa Base**	**88.66**	**195**⇑	*eP*	P	05 31 38.8	+8.5
NEW	**Newport**	**88.69**	**38**	LR	LR	06 05 23.8	
	comp=Z,155nm,18.2s,baz=237,slow=32						
SPUT	**South Promonto**	**88.73**	**46**	IAmb	IAmb	05 31 33.7	
	comp=Z,17nm,1.2s						
TMUT	**Trail Mountain**	**88.81**	**48**	IAmb	IAmb	05 31 34.9	
	comp=Z,15nm,1.0s						
121A	**Cookes Peak, D**	**88.91**	**56**	IAmb	IAmb	05 31 35.4	
	comp=Z,11nm,0.9s						
GTA2	**Gaotai**	**89.22**	**312**	*eP*	**P**	**05 31 34.1**	**+0.5**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.4s						
SRU	**San Rafael Swe**	**89.23**	**49**	IAmb	IAmb	05 31 36.1	
	comp=Z,23nm,1.2s						
BCYI	**Bear Canyon**	**89.30**	**43**	IAmb	IAmb	05 31 36.6	
	comp=Z,21nm,1.5s						
TCUT	**Toone Canyon**	**89.37**	**47**	IAmb	IAmb	05 31 36.9	
	comp=Z,21nm,0.8s						
ELIB	**Princess Elisa**	**89.41**	**189**	*dP*	**P**	**05 31 33.4**	**-0.6**
	comp=Z,5.4nm,1.5s						
BSUT	**Blindstream Ca**	**89.60**	**47**	IAmb	IAmb	05 31 38.2	
	comp=Z,16nm,0.9s						
EPT	**El Paso**	**89.66**	**57**	IAMs_20	IAMs_20	06 04 01.1	
	comp=Z,475nm,18.0s						
LDM	**Libby Dam**	**89.85**	**39**	IAmb	IAmb	05 31 38.3	
	comp=Z,20nm,0.9s						
PV05	**Paradox Valley**	**89.88**	**50**	IAmb	IAmb	05 31 39.8	
	comp=Z,20nm,0.9s						
MVCO	**Mesa Verde**	**90.02**	**51**	P	**P**	**05 31 38.7**	**+1.1**
	comp=Z,8.7nm,1.4s						
Y22A	**Socorro**	**90.04**	**55**	IAmb	IAmb	05 31 40.3	
	comp=Z,14nm,1.0s						
PV17	**East Wray Mesa**	**90.06**	**50**	IAmb	IAmb	05 31 40.0	
	comp=Z,16nm,0.9s						
ZAIG	**Zacatecas**	**90.07**	**66**	P	**P**	**05 31 38.1**	**-0.1**
PV20	**West Nyswonger**	**90.08**	**50**	IAmb	IAmb	05 31 40.1	
	comp=Z,23nm,0.9s						
PV18	**Skein Mesa, Pa**	**90.08**	**50**	IAmb	IAmb	05 31 40.1	
	comp=Z,22nm,1.1s						
PV16	**Nyswonger Mesa**	**90.10**	**50**	IAmb	IAmb	05 32 00.1	
	comp=Z,21nm,1.1s						
PV03	**Paradox Valley**	**90.13**	**50**	IAmb	IAmb	05 31 40.3	
	comp=Z,29nm,1.3s						
RDMU	**Red Mountain**	**90.46**	**48**	IAmb	IAmb	05 31 54.1	
	comp=Z,39nm,1.8s						
MNTX	**Cornudas Mount**	**90.54**	**57**	IAMs_20	IAMs_20	06 03 46.4	
	comp=Z,403nm,20.0s						
TASM	**ASL Pad, Albuq**	**90.78**	**54**	IAmb	IAmb	05 31 44.0	
	comp=Z,15nm,1.0s						
TASM	**ASL Pad, Albuq**	**90.78**	**54**	IAmb	IAmb	05 31 44.0	
	comp=Z,16nm,1.1s						
ALQ	**Albuquerque**	**90.78**	**54**	IAmb	IAmb	05 31 44.0	
	comp=Z,16nm,1.0s						
ALQ	**Albuquerque**	**90.78**	**54**	IAmb	IAmb	05 31 44.0	
	comp=Z,16nm,1.0s						
ANMO	**Albuquerque**	**90.78**	**54**	LR	LR	06 06 38.1	
	comp=Z,226nm,18.6s,baz=254,slow=32						
ANMO	**Albuquerque**	**90.78**	**54**	P	**P**	**05 31 42.1**	**+1.0**
ANMO				pmax	pmax		
	comp=Z,13nm,1.0s						
ANMO	**Albuquerque**	**90.78**	**54**	P	**P**	**05 31 42.1**	**+1.0**
ANMO				IAmb	IAmb	05 31 43.9	
	comp=Z,13nm,0.9s						
GBMT	**Granite Butte,**	**90.94**	**41**	IAmb	IAmb	05 31 44.4	
	comp=Z,26nm,1.6s						
BOZ	**Bozeman (W)**	**90.97**	**42**	IAmb	IAmb	05 31 56.4	
	comp=Z,19nm,1.7s						
TXAR	**Lajitas Array**	**91.18**	**60**	P	**P**	**05 31 44.3**	**+1.3**
	comp=Z,6.3nm,0.8s,baz=225,slow=5.0,SNR=74						
TXAR				PKKPbc	**PKKPdf**	**05 49 04.7**	**+1.0**
	comp=Z,0.3nm,0.8s,baz=83,slow=4.2,SNR=4.1						
TXAR				LR	LR	06 05 49.6	
	comp=Z,481nm,18.8s,baz=214,slow=31						
	comp=Z,6.3nm,0.8s						
TXAR	**Lajitas Array**	**91.18**	**60**		**P**	**05 31 43.3**	**+0.3**
TPB28		**91.24**	**57**	IAmb	IAmb	05 35 14.1	
	comp=Z,17nm,0.4s						
PDAR	**Pinedale Array**	**91.28**	**46**	P	**P**	**05 31 43.8**	**+0.5**
	comp=Z,1.5nm,0.7s,baz=217,slow=2.7,SNR=9.7						
PDAR				LR	LR	06 08 21.2	
	comp=Z,199nm,18.6s,baz=270,slow=33						
	comp=Z,1.5nm,0.7s						
PDAR	**Pinedale Array**	**91.28**	**46**		**P**	**05 31 42.7**	**-0.6**
ZAK	**Zakamensk**	**91.29**	**323**	*eP*	**P**	**05 31 40.9**	**-2.1**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s						
TROLL	**Troll, Antarti**	**91.30**	**182**	⇑P	**P**	**05 31 42.4**	**-0.4**
	comp=Z,917nm,0.7s						
LKWY	**Lake**	**91.38**	**44**	IAMs_20	IAMs_20	06 07 38.3	
	comp=Z,544nm,19.0s						
ALPN	**Alpine**	**91.53**	**59**	IAmb	IAmb	05 31 47.2	
	comp=Z,8.2nm,0.8s						
TPB01	**Permian Basin**	**91.59**	**58**	IAmb	IAmb	05 31 47.2	
	comp=Z,11nm,1.0s						
TLY	**Talaya**	**91.63**	**324**	LR	LR	06 10 18.6	
	comp=Z,283nm,21.0s,baz=112,slow=34						
SNAA	**Sanae**	**91.79**	**181**	P	**P**	**05 31 44.4**	**-0.5**
	comp=Z,4.3nm,0.8s,baz=221,slow=4.2,SNR=7.5						
SNAA				LR	LR	06 09 09.3	
	comp=Z,535nm,21.5s,baz=192,slow=33						
	comp=Z,4.3nm,0.8s						
SNAA	**Sanae**	**91.79**	**181**	P	**P**	**05 31 44.5**	**-0.5**
SNAA				pmax	pmax		
	comp=Z,14nm,1.1s						
SNAA	**Sanae**	**91.79**	**181**		**P**	**05 31 44.5**	**-0.5**
SNAA				IAmb	IAmb	05 31 56.0	
	comp=Z,14nm,1.1s						
SNAA				IAMs_20	IAMs_20	06 08 35.8	
	comp=Z,647nm,21.0s						
SNAA	**Sanae**	**91.79**	**181**	P	**P**	**05 31 44.9**	**-0.1**
	comp=Z,14nm,1.1s						
NVL	**N'lazarevskaya**	**91.89**	**186**	*eP*	**P**	**05 31 42.0**	**-3.4**
NVL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
NVL				MLR	MLR		
	comp=Z,389nm,18.0s						
TPB05	**Hovey Rd**	**91.96**	**58**	IAmb	IAmb	05 31 49.3	
	comp=Z,11nm,1.0s						
VNA3	**Neumayer Olymp**	**92.19**	**179**	⇑P	**P**	**05 31 45.9**	**-0.9**
	comp=Z,13nm,0.8s						
SDCO	**Great Sand Dun**	**92.44**	**51**	IAmb	IAmb	05 31 50.9	
	comp=Z,27nm,2.0s						
VNA2	**Neumayer--Watz**	**92.55**	**179**	⇑P	**P**	**05 31 47.9**	**-0.5**
	comp=Z,14nm,0.6s,baz=176,slow=4.3						
MNHN	**Monahans**	**92.55**	**58**	IAmb	IAmb	05 31 51.2	
	comp=Z,9.8nm,0.9s						
SAND	**Sanderson**	**92.65**	**60**	IAmb	IAmb	05 31 51.9	
	comp=Z,7.3nm,0.8s						
INK	**Inuvik**	**92.66**	**17**	LR	LR	06 07 38.0	
	comp=Z,198nm,19.6s,baz=243,slow=32						

VNA1	**Neumayer--Stat**	**92.81**	**179**	P	**P**	**05 31 48.5**	**-1.1**
	comp=Z,19nm,1.1s						
MSTX	**Muleshoe**	**93.34**	**56**	IAmb	IAmb	05 31 54.8	
	comp=Z,18nm,1.1s						
TIXI	**Tiksi**	**93.41**	**347**	LR	LR	06 08 19.6	
	comp=Z,522nm,21.9s,baz=165,slow=32						
TIXI	**Tiksi**	**93.41**	**347**⇑	*eP*	**P**	**05 31 51.3**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.4s						
TIXI	**Tiksi**	**93.41**	**347**	IAMs_20	IAMs_20	06 09 26.9	
	comp=Z,600nm,20.0s						
129A	**Stewart Farms,**	**93.67**	**57**	IAmb	IAmb	05 31 56.9	
	comp=Z,11nm,1.1s						
OZNA	**Ozona**	**93.76**	**59**	IAmb	IAmb	05 31 56.8	
	comp=Z,11nm,0.8s						
POST	**Post**	**94.09**	**57**	IAmb	IAmb	05 31 58.2	
	comp=Z,12nm,0.9s						
AMTX	**Amarillo**	**94.48**	**55**	IAmb	IAmb	05 31 59.7	
	comp=Z,10nm,1.0s						
JCT	**Junction City**	**94.72**	**60**	IAMs_20	IAMs_20	06 06 14.3	
	comp=Z,468nm,20.0s						
DKNS	**Dickens**	**94.72**	**56**	IAmb	IAmb	05 32 00.7	
	comp=Z,12nm,0.8s						
KNGR	**Kungurtug, Tuv**	**94.78**	**321**⇑	*eP*	**P**	**05 31 57.1**	**-2.0**
KNGR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
HNDO	**Hondo**	**94.89**	**61**	IAmb	IAmb	05 32 02.7	
	comp=Z,10nm,1.1s						
APMT	**Aspermont**	**95.27**	**57**	IAmb	IAmb	05 32 03.3	
	comp=Z,12nm,0.8s						
CMIG	**Matias Romero**	**95.36**	**74**	LR	LR	06 06 01.5	
	comp=Z,545nm,19.6s,baz=216,slow=30						
YKA	**Yellowknife Ar**	**96.20**	**26**	P	**P**	**05 32 04.8**	**-0.3**
	comp=Z,1.9nm,0.9s,baz=251,slow=4.5,SNR=9.3						
YKA				LR	LR	06 11 48.1	
	comp=Z,198nm,18.0s,baz=254,slow=33						
	comp=Z,1.9nm,0.9s						
PLPT	**Palo Pinto**	**96.59**	**58**	IAmb	IAmb	05 32 10.3	
	comp=Z,17nm,1.4s						
PLCA	**Paso Flores**	**96.94**	**136**	LR	LR	06 06 47.8	
	comp=Z,365nm,21.7s,baz=244,slow=30						
Z35A	**Perchaven, San**	**97.58**	**58**	IAMs_20	IAMs_20	06 09 53.9	
	comp=Z,372nm,20.0s						
R32A	**Long Quarter,**	**97.76**	**52**	IAMs_20	IAMs_20	06 17 16.2	
	comp=Z,437nm,18.0s						
BI02	**San Fabin de**	**98.38**	**132**	IAMs_20	IAMs_20	06 06 16.5	
	comp=Z,493nm,22.0s						
OK048	**Pawnee Station**	**98.61**	**55**	IAMs_20	IAMs_20	06 09 45.8	
	comp=Z,426nm,22.0s						
BGNE	**Belgrade**	**98.93**	**50**	IAMs_20	IAMs_20	06 20 25.2	
	comp=Z,417nm,18.0s						
WMQ	**Urumqi**	**99.15**	**313**	*eP*	**Pdif**	**05 32 20.8**	**+1.8**
WMQ				L	L		
	comp=Z,630nm,23.8s						
KSU1	**Kansas State U**	**99.52**	**52**	IAMs_20	IAMs_20	06 18 31.3	
	comp=Z,486nm,18.0s						
MT03	**Universidad Ad**	**100.42**	**130**	IAMs_20	IAMs_20	06 09 29.7	
	comp=Z,372nm,20.0s						
U38A	**Gravette**	**100.62**	**55**	IAMs_20	IAMs_20	06 15 52.1	
	comp=Z,433nm,19.0s						
TGUH	**Tegucigalpa,Un**	**101.66**	**79**	IAMs_20	IAMs_20	06 10 33.7	
	comp=Z,373nm,18.0s						
143A	**Socs Landing,**	**102.21**	**59**	IAMs_20	IAMs_20	06 09 17.6	
	comp=Z,412nm,19.0s						
AC02	**Maricunga**	**104.57**	**124**	IAMs_20	IAMs_20	06 04 53.4	
	comp=Z,391nm,21.0s						
KURBB	**Kurchatov Arra**	**106.52**	**319**	PKKPbc	PKKPbc	05 48 21.4	-2.3
	comp=Z,0.3nm,0.3s,baz=268,slow=4.5,SNR=4.3						
P48A	**Milroy**	**108.11**	**53**	IAMs_20	IAMs_20	06 17 38.4	
	comp=Z,414nm,19.0s						
NIL	**Nilore**	**108.30**	**300**	IAMs_20	IAMs_20	06 19 38.1	
	comp=Z,503nm,22.0s						
BVAR	**Borovoye Array**	**111.68**	**321**	PKiKP	**PKiKP**	**05 37 11.3**	**-0.7**
	comp=Z,0.7nm,0.5s,baz=66,slow=3.5,SNR=4.4						
Y60A	**Bolivia**	**113.31**	**60**	IAMs_20	IAMs_20	06 18 55.6	
	comp=Z,457nm,20.0s						
ARCES	**ARCESS Array B**	**123.84**	**347**	PKP	**PKPdf**	**05 37 33.6**	**-1.2**
	comp=Z,3.7nm,0.7s,baz=123,slow=4.5,SNR=5.6						
ARCES	**ARCESS Array B**	**123.84**	**347**	PKIKP	**PKPdf**	**05 37 34.4**	**-0.5**
ARCES	**ARCESS Array B**	**123.84**	**347**		**PKPdf**	**05 37 34.4**	**-0.5**
BELG	**Belogornoye**	**125.36**	**323**⇑	*e*PKIKP	**PKPdf**	**05 37 35.8**	**-2.4**
BDFB	**Brasilia**	**127.13**	**125**	PKP	**PKPdf**	**05 37 41.8**	**-1.1**
	comp=Z,1.4nm,0.4s,baz=230,slow=3.2,SNR=5.8						
OBN	**Obninsk**	**130.02**	**330**⇓	*e*PKIKP	**PKiKP**	**05 37 48.4**	**+0.6**
OBN				*e*		05 39 59.6	
OBN				*e*		05 44 52.1	
OBN				*e*PS	**PS**	**05 50 11.1**	**+0.7**
OBN				pmax	pmax		
	comp=Z,43nm,1.6s						
KIBK	**Kibwezi**	**133.03**	**250**	IAMs_20	IAMs_20	06 32 48.2	
	comp=Z,210nm,20.0s						
AKASG	**Malin Array Be**	**136.20**	**328**	PKP	**PKPdf**	**05 37 58.4**	**-0.4**
	comp=Z,0.5nm,0.4s,baz=62,slow=1.6,SNR=4.3						
LODK	**Lodwar**	**137.77**	**256**	IAMs_20	IAMs_20	06 34 44.5	
	comp=Z,309nm,20.0s						
BR131	**Keskin Array S**	**139.07**	**312**⇓	*e*PKIKP	**PKPdf**	**05 38 03.7**	**-1.0**
BRTR	**Keskin Array B**	**139.07**	**312**	PKP	**PKPdf**	**05 38 04.1**	**-0.6**
	comp=Z,2.3nm,1.0s,baz=72,slow=4.0,SNR=6.2						
KOLS	**Kolonicke sedl**	**140.75**	**331**	*e*PKP	**PKiKP**	**05 38 09.6**	**-0.3**
STEB	**Steborice**	**141.94**	**336**	*e*PKP	**PKPdf**	**05 38 06.7**	**-2.6**
OSTC	**Ostas**	**142.03**	**337**	*e*PKP	**PKPdf**	**05 38 08.7**	**-0.8**
CHVC	**Chvalec**	**142.06**	**338**	*e*PKP	**PKPdf**	**05 38 07.5**	**-2.1**
UPC	**Upice**	**142.15**	**338**	*e*PKP	**PKPdf**	**05 38 09.8**	**+0.1**
DPC	**Dobruska-Polom**	**142.16**	**337**	*e*PKP	**PKPdf**	**05 38 06.8**	**-3.0**
CLL	**Collm**	**142.49**	**341**	*e*SSS	SSS	06 05 12.0	
CLL				L	L	06 32 00.0	
CLL				AMS	AMS	06 38 00.0	
	comp=N,700nm,18.1s						
CLL				AMS	AMS	06 38 00.0	
	comp=E,300nm,17.2s						
CLL				AMS	AMS	06 38 00.0	
	comp=Z,600nm,24.0s						
BRG	**Berggiesshubel**	**142.56**	**340**⇓	*e*PKPdf	**PKPdf**	**05 38 06.9**	**-3.5**
BRG	**Berggiesshubel**	**142.56**	**340**	Amp		05 38 10.0	
	comp=Z,3.8nm,0.9s						
PVCC	**Panska Ves**	**142.64**	**339**	*e*PKP	**PKPdf**	**05 38 04.7**	**-5.9**
MODS	**Modra-Piesok**	**143.37**	**334**	*e*PKP	**PKiKP**	**05 38 15.1**	**-0.2**
NKC	**Novy Kostel**	**143.60**	**341**	*e*PKP	**PKPdf**	**05 38 13.3**	**+1.0**
ZVC	**Zvikov**	**143.69**	**338**	*e*PKP	PKPbc	05 38 10.9	+1.0
WINA	**Aland / Wiene**	**144.07**	**335**	*i* PKP	PKPbc	05 38 12.0	+0.9
	comp=Z,9.6nm,1.3s						
CKRC	**Cesky Krumlov**	**144.16**	**338**	*e*PKP	**PKPab**	**05 38 10.3**	**-0.7**
KHC	**Kasperske Hory**	**144.16**	**338**	PKIKP	PKPbc	05 38 12.2	+0.8
KHC	**Kasperske Hory**	**144.16**	**338**		PKPbc	05 38 12.2	+0.8
KHC	**Kasperske Hory**	**144.16**	**338**	*e*PKP	**PKPab**	**05 38 10.8**	**-0.2**
CONA	**Conrad Observa**	**144.30**	**335**	*i* PKP	PKPbc	05 38 12.1	+0.2
	comp=Z,7.0nm,0.8s,SNR=9.8						
RONA	**Rosalia, Austr**	**144.30**	**335**	*i* PKP	PKPbc	05 38 12.5	+0.6
	comp=Z,9.9nm,0.8s,SNR=12						
GEC2	**GERESS Array S**	**144.36**	**338**		PKPbc	05 38 12.4	+0.3
GEC2	**GERESS Array S**	**144.36**	**338**	*e*PKPbc	**PKPab**	**05 38 12.1**	**+0.3**
	baz=28,slow=3.4						
GERES	**GERESS Array B**	**144.36**	**338**	PKP	**PKPab**	**05 38 12.1**	**+0.3**
	comp=Z,5.9nm,0.8s,baz=38,slow=2.4,SNR=42						
GERES	**GERESS Array B**	**144.36**	**338**	PKIKP	PKPbc	05 38 12.6	+0.5
GERES	**GERESS Array B**	**144.36**	**338**		PKPbc	05 38 12.6	+0.4
WET	**Wettzell**	**144.40**	**339**	*e*PKPbc	**PKPab**	**05 38 11.2**	**-0.7**
	baz=28,slow=3.4						
MORH	**Mrgy, Hungar**	**144.41**	**331**⇑	*i* P	**PKPab**	**05 38 10.6**	**-1.3**
GRA1	**Grafenberg Arr**	**144.46**	**341**		PKPbc	05 38 13.2	+0.9
GRF	**Grafenberg Arr**	**144.46**	**341**	PKIKP	PKPbc	05 38 13.2	+0.9
GRF	**Grafenberg Arr**	**144.46**	**341**	*e*PKPbc	**PKPab**	**05 38 12.0**	**0.0**
	baz=28,slow=3.4						
FRGS	**Fruska Gora**	**144.61**	**329**⇑	*i* P	**PKPab**	**05 38 12.8**	**+0.1**
TNS	**Taunus Mts**	**144.76**	**344**	*e*PKPbc	**PKPab**	**05 38 13.1**	**-0.1**
	baz=28,slow=3.4						
MEM	**Membach**	**144.98**	**347**	*d*PKP	**PKPab**	**05 38 13.8**	**0.0**
ARSA	**Arzberg**	**144.98**	**335**	*i* PKP	**PKPab**	**05 38 13.7**	**-0.3**
	comp=Z,15nm,1.6s,SNR=6.2						
MOA	**Molln**	**144.99**	**337**	*i* PKP	**PKPab**	**05 38 13.9**	**-0.2**
	comp=Z,9.7nm,0.7s,SNR=31						
UCC	**Uccle**	**145.12**	**349**	*d*PKPdf	**PKPbc**	**05 38 14.4**	**+0.1**
TEKS	**Tekeris**	**145.18**	**328**⇑	*i* P	**PKPbc**	**05 38 13.4**	**-1.4**
BCLA	**Clavier**	**145.30**	**348**	*d*PKP	**PKPbc**	**05 38 14.1**	**-0.8**
BSKQ	**Steenkerk**	**145.31**	**349**	*d*PKP	**PKPbc**	**05 38 14.9**	**-0.1**
BIOA	**Bad Ischl, Aus**	**145.35**	**337**	*i* PKP	**PKPbc**	**05 38 14.7**	**-0.5**
	comp=Z,7.4nm,0.7s,SNR=12						
KARP	**Karpathos**	**145.44**	**309**		**PKPbc**	**05 38 15.8**	**-0.1**
SESA	**Seetaler Alpe,**	**145.47**	**336**	*e*PKP	**PKPbc**	**05 38 15.2**	**-0.7**
	comp=Z,36nm,0.7s,SNR=54						
BMRD	**Maredsous**	**145.52**	**348**	*d*PKP	**PKPdf**	**05 38 15.7**	**+0.1**
RCHB	**Rochefort**	**145.57**	**348**	*d*PKP	**PKPbc**	**05 38 16.0**	**+0.2**
PERS	**Pernice**	**145.64**	**335**	*e*PKPbc	**PKPdf**	**05 38 15.6**	**-0.4**
SOKA	**Soboth**	**145.64**	**335**	*i* PKP	**PKPdf**	**05 38 15.4**	**-0.6**
	comp=Z,13nm,0.6s,SNR=6.2						
BBLS	**Lazi&#263i**	**145.72**	**327**⇑	*i* P	**PKPdf**	**05 38 14.9**	**-1.4**

DOU	**Dourbes**	**145.75**	**348**	*d*PKP	**PKPdf**	**05 38 15.8**	**-0.2**
FUR	**Furstenfeldbru**	**145.78**	**340**	*e*PKPbc	**PKPdf**	**05 38 16.5**	**+0.3**
	baz=28,slow=3.4						
WLF	**Walferdange**	**145.83**	**346**	*d*PKP	**PKPbc**	**05 38 17.1**	**+0.4**
WLF	**Walferdange**	**145.83**	**346**	*e*PKPbc	**PKPbc**	**05 38 17.0**	**+0.4**
	baz=28,slow=3.4						
STU	**Stuttgart**	**145.88**	**343**	*e*PKPbc	**PKPbc**	**05 38 17.1**	**+0.3**
	baz=28,slow=3.4						
GOLS	**Golise**	**145.92**	**333**	*e*PKPbc	**PKPdf**	**05 38 16.8**	**+0.3**
LESA	**Schwarzleotal**	**145.93**	**338**	*i* PKP	**PKPdf**	**05 38 16.1**	**-0.4**
	comp=Z,19nm,0.6s,SNR=21						
OBKA	**Obir**	**145.97**	**335**	*i* PKP	**PKPdf**	**05 38 16.1**	**-0.5**
	comp=Z,19nm,0.9s,SNR=8.1						
KBA	**Koelnbreinsper**	**145.97**	**337**	*i* PKP	**PKPdf**	**05 38 16.3**	**-0.5**
	comp=Z,20nm,0.9s,SNR=9.6						
BLY	**Banja Luka**	**146.19**	**330**⇑	*i* P	**PKPdf**	**05 38 16.2**	**-0.7**
MYKA	**Terra Mystica**	**146.23**	**336**	*i* PKP	**PKPdf**	**05 38 16.7**	**-0.3**
	comp=Z,20nm,0.6s,SNR=21						
WATA	**Walderalm**	**146.40**	**339**	*i* PKP	**PKPdf**	**05 38 17.7**	**+0.3**
	comp=Z,8.7nm,0.6s,SNR=22						
WTTA	**Wattenberg**	**146.44**	**339**	*i* PKP	**PKPdf**	**05 38 18.2**	**+0.7**
	comp=Z,19nm,0.6s,SNR=30						
UPM	**Unac-Piva**	**146.45**	**327**⇑	*i* P	**PKPdf**	**05 38 17.3**	**-0.4**
BFO	**Black Forest**	**146.53**	**343**	PKP2	**PKPbc**	**05 38 19.0**	**+0.2**
BFO	**Black Forest**	**146.53**	**343**		**PKPbc**	**05 38 19.0**	**+0.2**
BFO	**Black Forest**	**146.53**	**343**	*e*PKPbc	**PKPbc**	**05 38 18.4**	**-0.4**
	baz=28,slow=3.4						
RETA	**Reutte**	**146.54**	**340**	*i* PKP	**PKPbc**	**05 38 18.5**	**-0.5**
	comp=Z,9.5nm,0.6s						
MOTA	**Moosalm**	**146.55**	**339**	*i* PKP	**PKPdf**	**05 38 18.3**	**+0.6**
	comp=Z,21nm,0.8s,SNR=10						
ABTA	**Abfaltersbach**	**146.56**	**337**	*i* PKP	**PKPdf**	**05 38 17.7**	**+0.1**
	comp=Z,19nm,0.6s,SNR=7.7						
UBR	**Ueberruh**	**146.58**	**341**	*e*PKPbc	**PKPbc**	**05 38 19.3**	**+0.2**
	baz=28,slow=3.4						
SQTA	**Sankt Quirin**	**146.62**	**339**	*i* PKP	**PKPdf**	**05 38 18.6**	**+0.8**
	comp=Z,28nm,0.7s,SNR=11						
VOJS	**Vojsko**	**146.63**	**335**	*i* PKPbc	**PKPdf**	**05 38 18.4**	**+0.6**
KLINJ	**Klinje**	**146.64**	**327**	*eP*	**PKPdf**	**05 38 13.0**	**-4.9**
PDG	**Podgorica**	**146.79**	**326**		**PKPbc**	**05 38 19.4**	**-0.3**
BRY	**Bratogost**	**146.85**	**327**⇑	*i* P	**PKPdf**	**05 38 18.9**	**+0.6**
FETA	**Feichten**	**146.96**	**339**	*i* PKP	**PKPbc**	**05 38 19.9**	**-0.4**
	comp=Z,9.1nm,0.7s,SNR=7.6						
DAVA	**Damuels**	**147.00**	**341**	*i* PKP	**PKPbc**	**05 38 20.2**	**-0.2**
	comp=Z,15nm,0.7s,SNR=9.8						
TREB	**Trebinje**	**147.08**	**327**⇑	*i* P	**PKPdf**	**05 38 18.9**	**+0.4**
SENIN	**Lac Senin/Sane**	**148.61**	**343**		**PKPbc**	**05 38 25.2**	**+0.4**
BNI	**Bardonecchia**	**149.98**	**343**	PKP2	**PKPbc**	**05 38 28.7**	**+0.5**

WR0	**Warramunga Arr**	**37.63**	**120**	P		**P**	**06 12 32.1**	**-0.1**
WR0				IAmb		IAmb	06 13 00.0	
	comp=Z,5.2nm,1.2s							
AS31	**Alice Springs**	**38.72**	**126**			**P**	**06 12 42.1**	**+0.6**
AS31				IAmb		IAmb	06 12 43.2	
	comp=Z,0.9nm,0.6s							
ASAR	**Alice Springs**	**38.72**	**126**	P		**P**	**06 12 42.2**	**+0.8**
	comp=Z,2.2nm,0.6s,baz=303,slow=8.2,SNR=21							
	comp=Z,2.2nm,0.6s							
ASAR	**Alice Springs**	**38.72**	**126**	P		**P**	**06 12 41.1**	**-0.3**
KSH2	**Kashi**	**47.11**	**333**	P		**P**	**06 13 50.8**	**+1.6**
KSH2				pmax		pmax		
	comp=Z,3.0nm,0.8s							
ARSB	**Arslanbob**	**50.03**	**333**	P		**P**	**06 14 09.9**	**-1.7**
ARSB				IAmb		IAmb	06 14 31.8	
	comp=Z,4.9nm,1.3s							
SONM	**Songino Array**	**50.09**	**5**	P		**P**	**06 14 12.5**	**+0.7**
	comp=Z,0.5nm,0.5s,baz=187,slow=10,SNR=5.6							
	comp=Z,0.5nm,0.5s							
SONM	**Songino Array**	**50.09**	**5**	P		**P**	**06 14 11.7**	**-0.1**
MKAR	**Makanchi Array**	**51.35**	**344**	P		**P**	**06 14 22.4**	**+1.1**
	comp=Z,2.7nm,0.6s,baz=156,slow=8.8,SNR=16							
	comp=Z,2.7nm,0.6s							
MKAR	**Makanchi Array**	**51.35**	**344**	P		**P**	**06 14 22.0**	**+0.7**
MAKZ	**Makanchi**	**51.45**	**344**	P		**P**	**06 14 23.0**	**+0.9**
USRK	**Ussuriysk Ar.**	**54.09**	**28**	P		**P**	**06 14 41.5**	**0.0**
	comp=Z,2.0nm,0.7s,baz=215,slow=9.3,SNR=4.2							
	comp=Z,2.0nm,0.7s							
USRK	**Ussuriysk Ar.**	**54.09**	**28**	P		**P**	**06 14 40.9**	**-0.6**
KURBB	**Kurchatov Arra**	**55.88**	**343**	P		**P**	**06 14 54.1**	**-0.2**
	comp=Z,0.9nm,0.7s,baz=161,slow=6.8,SNR=5.2							
	comp=Z,0.9nm,0.7s							
KURK	**Kurchatov**	**55.94**	**343**	P		**P**	**06 14 54.1**	**-0.6**
ZAA0	**Zalesovo Array**	**57.45**	**349**	P		**P**	**06 15 05.5**	**+0.1**
ZALV	**Zalesovo Beam**	**57.45**	**349**	P		**P**	**06 15 05.8**	**+0.4**
	comp=Z,1.6nm,0.3s,baz=168,slow=5.8,SNR=16							
	comp=Z,1.6nm,0.3s							
ZALV	**Zalesovo Beam**	**57.45**	**349**	P		**P**	**06 15 04.7**	**-0.7**
BVAR	**Borovoye Array**	**60.54**	**340**	P		**P**	**06 15 27.4**	**+0.6**
	comp=Z,0.9nm,0.5s,baz=250,slow=43,SNR=2.2							
	comp=Z,0.9nm,0.5s							
H04N2	**CROZET ISLANDS**	**60.95**	**217**	T		T	07 20 58.2	
	baz=60,slow=74,SNR=34							
H04N1	**CROZET ISLANDS**	**60.96**	**217**	T		T	07 20 53.4	
	baz=60,slow=74,SNR=24							
H04N3	**CROZET ISLANDS**	**60.97**	**217**	T		T	07 20 49.0	
	baz=60,slow=74,SNR=20							
H04S1	**CROZET ISLANDS**	**61.23**	**216**	T		T	07 21 21.6	
	baz=56							
H04S3	**CROZET ISLANDS**	**61.24**	**216**	T		T	07 21 25.9	
	baz=56							
H04S2	**CROZET ISLANDS**	**61.25**	**216**	T		T	07 21 28.4	
	baz=56							
AB31	**Akbulak array**	**62.06**	**331**	P		**P**	**06 15 37.4**	**+0.2**
AB31				IAmb		IAmb	06 15 38.5	
	comp=Z,1.6nm,0.7s							
ABKAR	**Akbulak array**	**62.06**	**331**	P		**P**	**06 15 37.1**	**0.0**
BRTR	**Keskin Array B**	**73.83**	**312**	P		**P**	**06 16 52.5**	**+1.0**
	comp=Z,0.4nm,0.5s,baz=124,slow=7.2,SNR=2.4							
	comp=Z,0.4nm,0.5s							
FINES	**FINESS Array B**	**84.52**	**332**	P		**P**	**06 17 50.1**	**+0.9**
	comp=Z,11nm,1.2s,baz=96,slow=7.6,SNR=2.3							
	comp=Z,11nm,1.2s							
ARCES	**ARCESS Array B**	**86.83**	**340**	P		**P**	**06 18 01.5**	**+1.0**
	comp=Z,2.5nm,0.8s,baz=96,slow=2.4,SNR=5.3							
	comp=Z,2.5nm,0.8s							
TXAR	**Lajitas Array**	**144.54**	**38**	PKP		**PKPdf**	**06 24 53.1**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=312,slow=0.6,SNR=20							
TXAR	**Lajitas Array**	**144.54**	**38**			**PKPdf**	**06 24 53.4**	**-0.1**

*SDD **22** 06:25:00.5±1.9, 18°.66N×71°.78W, h28km±12km, MD2.7, ML2.5, MW2.8, Presumed earthquake*
*OSPL **22** 06:25:00.3±0.9, 18°.68N×71°.78W, h0km±135km, ML2.5, Presumed earthquake*
ISC 22 06:24:59.0±1.4, **18°.72N**±0°.05×**71°.70W**±0°.05, **h13**km±9km, **n15**, σ0**°93**/26, **3C-4D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
LONE3	**El Aguacate, B**	**0.26**	**116**	*i* P		**Pb**	**06 25 05.5**	**-0.1**
LONE3				*e*S		**Sb**	**06 25 10.1**	**+0.1**
JIDR	**Jimani**	**0.27**	**211**	*e*P		**Pb**	**06 25 05.5**	**-0.1**
JIDR				*e*S		**Sb**	**06 25 10.5**	**+0.4**
JIDR				IAML			06 25 10.7	
	comp=N,1μm,0.3s							
NEDR	**Neiba UASD**	**0.36**	**131**	⇓*e*Pg		**Pb**	**06 25 07.2**	**0.0**
NEDR				*e*Sg		**Sb**	**06 25 13.1**	**+0.4**
NEDR				IAML			06 25 17.8	
	comp=N,309nm,0.6s							
LODU1	**El Espartillar**	**0.43**	**149**	*i* P		**Pb**	**06 25 08.1**	**-0.2**
LODU1				*e*S		**Sg**	**06 25 14.0**	**+0.7**
LODU1				IAML			06 25 14.9	
	comp=Z,444nm,0.7s							
SDDR	**Presa de Saban**	**0.47**	**56**	*e*Pg		**Pn**	**06 25 10.2**	**-1.3**
SDDR				*e*Sg		**Sn**	**06 25 17.1**	**-2.6**
REDR	**Restauracion**	**0.53**	**33**	⇓*e*Pg		**Pn**	**06 25 11.6**	**-0.6**
REDR				IAML			06 25 23.2	
	comp=N,202nm,0.1s							
PODR	**Polo**	**0.68**	**144**	*e*Pg		**Pb**	**06 25 12.4**	**-0.5**
PODR				⇑*i*S		**Sg**	**06 25 21.7**	**+0.4**
PODR				IAML			06 25 23.2	
	comp=N,234nm,0.1s							
PODR	**Polo**	**0.68**	**144**	*i* P		**Pb**	**06 25 12.3**	**-0.5**
PODR				*e*S		**Sb**	**06 25 22.3**	**+0.1**
LOBH	**Bahia de las A**	**0.86**	**176**	*i* P		**Pg**	**06 25 15.2**	**-0.4**
LOBH				*e*S		**Sg**	**06 25 26.0**	**-0.8**
LOBH				IAML			06 25 30.2	
	comp=Z,213nm,0.1s							
LOVI	**El Cajuil, Ovi**	**0.97**	**161**	*i* P		**Pb**	**06 25 17.1**	**-0.5**
LOVI				*e*S		**Sg**	**06 25 31.2**	**+0.7**
LOVI				IAML			06 25 38.4	
	comp=Z,65nm,1.1s							
MADR	**Mao Valverde**	**1.01**	**34**	⇑*i*Pg		**Pn**	**06 25 19.7**	**+0.8**
MADR				⇓*e*Sg		**Sn**	**06 25 34.0**	**+1.0**
MADR				IAML			06 25 38.8	
	comp=N,102nm,0.6s							
ABDR	**Alto Bandera**	**1.02**	**85**	⇓*e*Pg		**Pn**	**06 25 19.4**	**+0.1**
ABDR				*e*Sg		**Sn**	**06 25 34.7**	**+1.0**
SC01	**Santiago de lo**	**1.16**	**53**	*e*Sg		**Sn**	**06 25 38.3**	**+1.7**
BANI	**BANI**	**1.32**	**104**	*e*Pg		**Pg**	**06 25 24.1**	**-0.2**
BANI				IAML			06 25 46.0	
	comp=N,57nm,0.6s							
HATOM	**Hato Mayor del**	**2.20**	**88**	⇑*e*Pg		**Pb**	**06 25 37.5**	**-1.1**

*SDD **22** 06:32:16.5±1.1, 18°.65N×71°.79W, h31km±8km, MD2.7, ML2.5, MW2.6, Presumed earthquake*
*OSPL **22** 06:32:17.0±1.2, 18°.69N×71°.74W, h4km±10km, ML2.3, Presumed earthquake*
ISC 22 06:32:15.8±1.4, **18°.66N**±0°.03×**71°.69W**±0°.04, **h14**km±11km, **n15**, σ0**°76**/25, **3C-3D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JIDR	**Jimani**	**0.23**	**222**	⇑*i*P		**Pb**	**06 32 21.8**	**+0.1**
JIDR				*e*S		**Sb**	**06 32 26.8**	**+1.2**
JIDR				IAML			06 32 27.1	
	comp=N,2μm,0.3s							
LONE3	**El Aguacate, B**	**0.23**	**104**	*i* P		**Pb**	**06 32 21.9**	**0.0**
LONE3				*e*S		**Sb**	**06 32 26.2**	**+0.4**
NEDR	**Neiba UASD**	**0.31**	**124**	*e*Pg		**Pb**	**06 32 23.4**	**+0.2**
NEDR				*e*Sg		**Sb**	**06 32 29.5**	**+1.3**
NEDR				IAML			06 32 30.1	
	comp=N,394nm,0.7s							
LODU1	**El Espartillar**	**0.37**	**146**	*i* P		**Pb**	**06 32 24.4**	**+0.2**
LODU1				*e*S		**Sb**	**06 32 30.3**	**+0.6**
LODU1				IAML			06 32 31.2	
	comp=Z,521nm,0.7s							
SDDR	**Presa de Saban**	**0.50**	**50**	*e*Pg		**Pb**	**06 32 27.0**	**+0.5**
SDDR				IAML			06 32 36.2	
	comp=N,50nm,0.5s							
SDDR	**Presa de Saban**	**0.50**	**50**	*i* P		**Pb**	**06 32 26.9**	**+0.4**
SDDR				*e*S		**Sg**	**06 32 32.3**	**-0.1**
REDR	**Restauracion**	**0.58**	**29**	⇓*e*Pg		**Pb**	**06 32 27.9**	**+0.2**
REDR				IAML			06 32 38.5	
	comp=N,224nm,0.1s							
PODR	**Polo**	**0.63**	**141**	⇓*e*Pg		**Pb**	**06 32 28.7**	**0.0**
PODR				⇑*e*Sg		**Sb**	**06 32 38.6**	**+1.3**
PODR				IAML			06 32 40.3	
	comp=N,240nm,0.3s							
PODR	**Polo**	**0.63**	**141**	*i* P		**Pb**	**06 32 28.7**	**0.0**
PODR				*e*S		**Sb**	**06 32 38.6**	**+1.3**
LOBH	**Bahia de las A**	**0.79**	**176**	*i* P		**Pn**	**06 32 31.6**	**-1.0**
LOBH				*e*S		**Sn**	**06 32 43.2**	**-1.0**
LOVI	**El Cajuil, Ovi**	**0.91**	**160**	*i* P		**Pg**	**06 32 33.5**	**0.0**
LOVI				*e*S		**Sn**	**06 32 47.5**	**+0.4**
LOVI				IAML			06 32 51.1	
	comp=Z,61nm,0.5s							
ABDR	**Alto Bandera**	**1.02**	**81**	⇓*e*Pg		**Pn**	**06 32 35.8**	**-0.3**
ABDR				IAML			06 32 53.8	
	comp=N,48nm,0.8s							
MADR	**Mao Valverde**	**1.06**	**32**	⇑*e*Pg		**Pn**	**06 32 36.0**	**-0.3**
MADR				*e*Sg		**Sn**	**06 32 50.4**	**-0.5**
MADR				IAML			06 32 50.7	
	comp=N,183nm,0.8s							
BANI	**BANI**	**1.29**	**102**	*e*Pg		**Pb**	**06 32 40.3**	**+0.3**
BANI				IAML			06 33 02.4	
	comp=N,125nm,0.5s							
HATOM	**Hato Mayor del**	**2.19**	**86**	*e*Pg		**Pb**	**06 32 54.0**	**-1.3**

*IDC **22** 06:36:12.6±3.0, 43°.83N×84°.26E, h0km, mbtmp3.2/5, ML2.6/4, Error ellipse: s-maj=40.4km s-min=20.4km az=41.0*
*NNC **22** 06:36:17.8±4.0, 43°.90N×84°.26E, h18km±21km, mb3.5, mpv3.2, Error ellipse: s-maj=31.2km s-min=17.0km az=126.0*
*SOME **22** 06:36:18.0, 43°.47N×84°.28E, h20km*
ISC 22 06:36:17.6±1.5, **44°.02N**±0°.08×**84°.54E**±0°.08, **h25**km, **n19, σ25**°**24**/28, **4C-2D**, **Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KTMS	**Ketmen**	**3.09**	**261**	*e*P		**Pb**	**06 37 09.9**	**-2.1**
	2.0nm,0.2s							
KTMS				*e*S		**Sb**	**06 37 47.1**	**-2.2**
	54nm,0.4s							
MK31	**Makanchi Array**	**3.20**	**331**	⇑Pn		**Pn**	**06 37 06.5**	**+0.2**
	0.2nm,0.2s,baz=149,slow=13,SNR=111							
MK31				⇑Pg		**Pb**	**06 37 16.2**	**+2.5**
	1.7nm,0.3s,baz=148,slow=16,SNR=7.3							
MK31				⇑Lg		Lg	06 37 58.3	
	4.2nm,0.3s,baz=150,slow=29,SNR=4.9							
MKAR	**Makanchi Array**	**3.20**	**331**	Pn		**Pn**	**06 37 06.2**	**-0.2**
	0.7nm,0.3s,baz=158,slow=15,SNR=21							
MKAR				Pg		**Pb**	**06 37 12.8**	**-0.9**
	3.3nm,0.3s,baz=151,slow=16,SNR=27							
MKAR				Sn		**Sb**	**06 37 47.0**	**-5.3**
	2.6nm,0.3s,baz=172,slow=24,SNR=5.6							
MKAR				Lg		Lg	06 37 55.5	
	5.9nm,0.3s,baz=152,slow=28,SNR=7.0							
	0.8nm,0.3s							
MKAR				AML		AML		
DJR	**Jarkent**	**3.43**	**277**	Pg		**Pb**	**06 37 18.6**	**+0.8**
	5.3nm,0.3s							
DJR				Lg		Lg	06 38 02.9	
	28nm,0.6s							
DJR	**Jarkent**	**3.43**	**277**	*e*P		**Pb**	**06 37 18.6**	**+0.8**
	5.3nm,0.3s							
DJR				*e*S		**Sb**	**06 38 02.9**	**+3.8**
	28nm,0.6s							
PDGK	**Podgornoye**	**3.73**	**261**	⇓Pn		**Pn**	**06 37 12.6**	**-1.2**
	0.7nm,0.6s							
PDGK				⇑Pg		**Pb**	**06 37 23.5**	**+0.7**
	3.4nm,0.4s							
PDGK				⇓Lg		Lg	06 38 09.5	
	26nm,0.5s							
SHLS	**Shalkode**	**3.79**	**259**	Pg		**Pn**	**06 37 16.8**	**+2.2**
	8.7nm,0.4s							
SHLS				Lg		Lg	06 37 59.3	
	113nm,0.4s							
UZB	**Uzynbulak**	**4.10**	**260**	Pg		**Pb**	**06 37 26.3**	**-2.9**
	5.7nm,0.4s							
UZB				Lg		Lg	06 38 15.4	
	14nm,0.8s							
UZB	**Uzynbulak**	**4.10**	**260**	*e*P		**Pb**	**06 37 26.3**	**-2.9**
	5.7nm,0.4s							
UZB				*e*S		**Sb**	**06 38 15.4**	**-3.0**
	14nm,0.8s							
KPKS	**Kokpek**	**4.28**	**265**	*e*P		**Pb**	**06 37 31.7**	**-0.5**
	0.3nm,0.1s							
KPKS				*e*S		**Sb**	**06 38 24.4**	**+0.9**
	27nm,0.4s							
BLB	**Baldybastay**	**4.37**	**273**	Pg		**Pb**	**06 37 35.4**	**+1.6**
	18nm,0.6s							
BLB				Lg		Lg	06 38 31.9	
	25nm,0.5s							
SATY	**Saty**	**4.56**	**260**	*e*P		**Pb**	**06 37 36.0**	**-1.1**
	1.5nm,0.1s							
SATY				*e*S		**Sb**	**06 38 31.8**	**+0.2**
	8.6nm,0.3s							
ARXS	**Arharly**	**4.84**	**275**	Pg		Pb	06 37 45.5	+3.7
	7.4nm,0.6s							
ARXS				Lg		Lg	06 38 48.9	
	24nm,0.3s							
ARXS	**Arharly**	**4.84**	**275**	*e*P		**Pb**	**06 37 44.0**	**+2.3**
	7.4nm,0.6s							
ARXS				*e*S		Sb	06 38 45.9	+6.3
	24nm,0.3s							
KOTS	**Kotyrbulak**	**5.45**	**264**	*e*P		**Pb**	**06 37 52.6**	**+0.5**
	3.5nm,0.5s							
KOTS				*e*S		**Sb**	**06 39 00.3**	**+3.1**
	12nm,0.6s							
KURBB	**Kurchatov Arra**	**7.77**	**330**	Pn		**Pn**	**06 38 07.4**	**-1.6**
	0.1nm,0.3s,baz=142,slow=13,SNR=5.6							
KURBB				Lg		Lg	06 40 17.2	
	0.2nm,0.3s,baz=123,slow=31,SNR=5.6							
	0.3nm,0.3s							
KURBB				AML		AML		
ZALV	**Zalesovo Beam**	**9.94**	**1**	Pn		**Pn**	**06 38 39.3**	**+0.5**
	0.1nm,0.3s,baz=185,slow=12,SNR=2.1							
	0.3nm,0.4s							
ZALV				AML		AML		
BVAR	**Borovoye Array**	**12.99**	**319**	Pn		**Pn**	**06 39 18.2**	**-2.3**
	baz=124,slow=12,SNR=2.6							
	0.6nm,0.5s							
SONM	**Songino Array**	**15.67**	**68**	Pn		**Pn**	**06 39 58.7**	**+2.0**
	0.7nm,0.8s,baz=258,slow=12,SNR=4.3							

*NEIC **22** 06:38:46.9±0.8, 1°.77S±0°.06×151°.84E±0°.06, h10km±1km, mb4.6/35, Error ellipse: s-maj=13.2km s-min=6.1km az=129.0*
*IDC **22** 06:38:55.0±3.0, 1°.92S×151°.86E, h75km±28km, mb3.9/14, mbtmp4.2/15, MS3.2/5, Error ellipse: s-maj=29.4km s-min=17.0km az=104.0*
ISC 22 06:38:50.7±0.6, **1°.81S**±0°.07×**151°.70E**±0°.09, **h35**km, **n72, σ0°81**/56, **mb4.4**/31, **MS3.4**/3, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
RABL	**Rabaul**	**2.41**	**169**			**Pn**	**06 39 26.2**	**-1.5**
KRVT	**Keravat (AS076**	**2.50**	**173**	P		**Pn**	**06 39 32.1**	**+3.2**
	1μm,0.3s,baz=90,slow=21,SNR=3.5							
MANU	**Manus Island**	**4.34**	**267**			**Pn**	**06 39 54.5**	**+0.3**
PMG	**Port Moresby**	**8.80**	**211**	P		Pn	06 41 00.2	+4.8
	5.1nm,0.5s,baz=346,slow=8.7,SNR=4.0							
PMG	**Port Moresby**	**8.80**	**211**			**Pn**	**06 40 55.2**	**-0.2**
PATS	**Pohnpei**	**10.83**	**37**	Pn		Pn	06 41 18.3	-5.0
GUMO	**Guam**	**16.73**	**336**	LR		LR	06 48 32.9	
	comp=Z,41nm,20.0s,baz=47,slow=34							
CTA	**Charters Tower**	**18.93**	**196**	LR		LR	06 49 20.7	
	comp=Z,59nm,20.1s,baz=34,slow=33							
FAKI	**Fak Fak**	**19.47**	**266**	P		**P**	**06 43 15.1**	**+0.4**
FAKI				IAmb		IAmb	06 43 22.1	
	comp=Z,24nm,0.8s							
MTN	**Manton Dam**	**23.13**	**241**	P		**P**	**06 43 54.0**	**0.0**
MTN				IAmb		IAmb	06 43 54.6	
	comp=Z,8.7nm,0.7s							
WB0	**Warramunga Arr**	**24.60**	**222**			**P**	**06 44 07.6**	**-0.2**
WR0	**Warramunga Arr**	**24.64**	**222**	P		**P**	**06 44 08.2**	**0.0**
WR0				IAmb		IAmb	06 44 09.4	
	comp=Z,21nm,0.9s							
WR8	**Warramunga Arr**	**24.66**	**222**			**P**	**06 44 07.8**	**-0.6**
WRAB	**Tennant Creek**	**24.74**	**222**	P		**P**	**06 44 08.7**	**-0.5**
WRAB				IAmb		IAmb	06 44 10.3	
	comp=Z,15nm,0.8s							
WB2	**Warramunga Arr**	**24.75**	**222**	P		**P**	**06 44 09.0**	**-0.2**
WRA	**Warramunga Arr**	**24.76**	**222**	P		**P**	**06 44 09.5**	**+0.2**
	comp=Z,9.9nm,0.5s,baz=46,slow=9.4,SNR=81							
	comp=Z,9.9nm,0.5s							
WRA	**Warramunga Arr**	**24.76**	**222**			**P**	**06 44 08.0**	**-1.3**
H11S3	**WAKE ISLAND Hy**	**24.99**	**36**	T		T	07 10 41.9	
	baz=220,slow=75,SNR=38							
H11S2	**WAKE ISLAND Hy**	**25.00**	**36**	T		T	07 10 31.2	
	baz=220,slow=75,SNR=30							
H11S1	**WAKE ISLAND Hy**	**25.01**	**36**	T		T	07 10 44.9	
	baz=220,slow=75,SNR=29							
H11N1	**WAKE ISLAND Hy**	**26.07**	**34**	T		T	07 11 48.5	
	baz=218,slow=76,SNR=23							
H11N3	**WAKE ISLAND Hy**	**26.09**	**34**	T		T	07 11 48.2	
	baz=218,slow=76,SNR=17							
H11N2	**WAKE ISLAND Hy**	**26.09**	**34**	T		T	07 11 35.7	
	baz=218,slow=76,SNR=27							
KNRA	**Kununurra**	**26.48**	**237**			**P**	**06 44 25.6**	**+0.7**
KNRA				IAmb		IAmb	06 44 28.2	
	comp=Z,12nm,0.8s							
AS31	**Alice Springs**	**27.74**	**217**			**P**	**06 44 36.1**	**-0.1**
ASAR	**Alice Springs**	**27.74**	**217**	P		**P**	**06 44 36.0**	**-0.1**
	comp=Z,4.9nm,0.5s,baz=53,slow=8.1,SNR=112							
ASAR				LR		LR	06 55 43.3	
	comp=Z,92nm,19.1s,baz=60,slow=36							
	comp=Z,4.9nm,0.5s							
ASAR	**Alice Springs**	**27.74**	**217**	P		**P**	**06 44 35.4**	**-0.8**
INKA	**Innaminka**	**27.84**	**201**	P		**P**	**06 44 36.6**	**-0.4**
INKA				IAmb		IAmb	06 44 37.8	
	comp=Z,3.5nm,0.6s							
ARMA	**Armidale**	**28.45**	**180**	P		**P**	**06 44 42.4**	**-0.2**
ARMA				IAmb		IAmb	06 44 59.3	
	comp=Z,8.7nm,1.1s							
FITZ	**Fitzroy Crossi**	**30.27**	**236**	P		**P**	**06 44 58.2**	**-0.4**
STKA	**Stephens Creek**	**31.39**	**197**	P		**P**	**06 45 08.0**	**-0.5**
	comp=Z,2.2nm,0.6s,baz=21,slow=12,SNR=4.8							
	comp=Z,2.2nm,0.6s							
STKA	**Stephens Creek**	**31.39**	**197**	P		**P**	**06 45 07.9**	**-0.5**
BBOO	**Buckleboo**	**34.16**	**204**	P		**P**	**06 45 31.5**	**-1.2**
BBOO				IAmb		IAmb	06 45 56.9	
	comp=Z,14nm,1.1s							
FORT	**Forrest**	**36.49**	**215**	P		**P**	**06 45 52.0**	**-0.7**
FORT				IAmb		IAmb	06 45 52.5	
	comp=Z,6.8nm,0.7s							
MBWA	**Marble Bar**	**36.61**	**236**	P		**P**	**06 45 54.3**	**+0.4**
MGBR	**Mount Gambier**	**37.18**	**195**	P		**P**	**06 45 58.5**	**+0.1**
MGBR				IAmb		IAmb	06 46 00.6	
	comp=Z,11nm,0.9s							
AFI	**Afiamalu**	**38.05**	**110**	LR		LR	06 58 60.0	
	comp=Z,79nm,19.8s,baz=238,slow=32							
BBJI	**Bungbulang**	**44.24**	**261**	P		**P**	**06 46 56.8**	**-0.5**
NWAO	**Narrogin (SRO)**	**44.77**	**223**	P		**P**	**06 47 01.4**	**+0.3**
NWAO				IAmb		IAmb	06 47 05.4	
	comp=Z,12nm,1.1s							
RPZ	**Rata Peaks**	**45.14**	**160**	LR		LR	07 03 07.1	
	comp=Z,9.2nm,19.4s,baz=338,slow=32							
PETK	**Petropavlovsk-**	**54.95**	**4**	P		**P**	**06 48 18.7**	**+0.6**
	comp=Z,2.0nm,0.6s,baz=160,slow=4.3,SNR=6.6							
	comp=Z,2.0nm,0.6s							
PETK	**Petropavlovsk-**	**54.95**	**4**	P		**P**	**06 48 17.5**	**-0.6**
CMAR	**Chiang Mai Arr**	**55.65**	**294**	P		**P**	**06 48 25.8**	**+2.1**
	comp=Z,1.4nm,0.4s,baz=106,slow=4.6,SNR=9.4							
	comp=Z,1.4nm,0.4s							
CMAR	**Chiang Mai Arr**	**55.65**	**294**	P		**P**	**06 48 22.8**	**-1.0**
SONM	**Songino Array**	**63.23**	**328**	P		**P**	**06 49 17.2**	**+1.4**
	comp=Z,0.8nm,0.8s,baz=156,slow=7.7,SNR=6.1							
	comp=Z,0.8nm,0.8s							
SONM	**Songino Array**	**63.23**	**328**	P		**P**	**06 49 15.3**	**-0.4**
MKAR	**Makanchi Array**	**77.37**	**319**	P		**P**	**06 50 42.9**	**+0.8**
	comp=Z,0.8nm,0.7s,baz=108,slow=7.8,SNR=4.0							
	comp=Z,0.8nm,0.7s							
MKAR	**Makanchi Array**	**77.37**	**319**	P		**P**	**06 50 42.2**	**+0.1**
E19K	**Redstone River**	**77.69**	**18**	P		**P**	**06 50 44.3**	**+0.8**
TRF	**Thorofare Moun**	**77.88**	**23**	P		**P**	**06 50 44.2**	**-0.6**
TRF				IAmb		IAmb	06 51 03.2	
	comp=Z,8.2nm,1.2s							
BPAW	**Bear Paw Mtn.**	**77.94**	**22**	P		**P**	**06 50 45.1**	**+0.2**
BPAW				IAmb		IAmb	06 51 01.6	
	comp=Z,4.3nm,1.3s							
ZALV	**Zalesovo Beam**	**78.07**	**326**	P		**P**	**06 50 46.1**	**+0.3**
	comp=Z,0.8nm,0.6s,baz=95,slow=7.4,SNR=3.5							
	comp=Z,0.8nm,0.6s							
ZALV	**Zalesovo Beam**	**78.07**	**326**	P		**P**	**06 50 45.6**	**-0.2**
RND	**Reindeer**	**78.42**	**23**	P		**P**	**06 50 47.0**	**-0.7**
ILAR	**Eielson Array**	**79.82**	**22**	P		**P**	**06 50 54.5**	**-0.7**
	comp=Z,2.0nm,0.7s,baz=245,slow=5.8,SNR=38							
	comp=Z,2.0nm,0.7s							
ILAR	**Eielson Array**	**79.82**	**22**	P		**P**	**06 50 53.7**	**-1.5**
J25K	**Salcha River,**	**80.34**	**23**	IAmb		IAmb	06 50 59.1	
	comp=Z,5.8nm,0.8s							
D23K	**Nanushuk River**	**80.56**	**18**	IAmb		IAmb	06 51 09.8	
	comp=Z,6.3nm,0.8s							
F24K	**Squaw Lake**	**80.74**	**20**	IAmb		IAmb	06 51 10.4	
	comp=Z,4.8nm,0.8s							
KURK	**Kurchatov**	**80.75**	**322**	P		**P**	**06 50 59.5**	**-1.0**
KURBB	**Kurchatov Arra**	**80.78**	**322**	P		**P**	**06 51 00.8**	**+0.1**
	comp=Z,1.2nm,1.0s,baz=105,slow=4.8,SNR=6.5							
	comp=Z,1.2nm,1.0s							
D25K	**Kavik River**	**82.08**	**18**	IAmb		IAmb	06

76nm,0.3s,baz=247,slow=14,SNR=15
URZ Urewera 10.31 196 P P 06 52 15.7 -1.3
TKGZ Te Karaka 10.32 193 P P 06 52 15.1 -2.0
TKGZ S S 06 54 07.5 -5.9
MSVF Nonsavu 10.87 346 P P 06 52 22.3 -1.2
42nm,0.8s,baz=163,slow=15,SNR=28
MSVF Nonsavu 10.87 346 P Pn 06 52 23.0 -1.4
MSVF Nonsavu 10.87 346 P 06 52 22.7 -0.9
HIZ Hauiti 11.23 204 P P 06 52 28.6 +1.4
BKZ Black Stump Fm 11.32 197 P P 06 52 26.4 -1.9
PKVZ Pokaka 11.76 201 P P 06 52 33.3 +0.2
NIUE Niue 12.61 45 P P 06 52 40.5 -2.1
NIUE S S 06 55 01.7 +1.4
BFZ Birch Farm 12.82 195 P P 06 52 43.3 -1.3
MARNC Mare, Loyalty 13.39 298 P P 06 52 51.5 +0.4
YATNC Mamie plateau, 13.39 294 P Pn 06 52 59.2 -1.3
QRZ Quartz Range 14.12 206 P P 06 52 59.3 +0.4
DZM Mont Dzumac 14.35 293 P P 06 53 01.9 +0.2
21nm,0.5s,baz=128,slow=12,SNR=26
NOUC Port Laguerre 14.45 292 P P 06 53 03.3 +0.6
KHZ Kahutara 15.17 201 P P 06 53 09.3 -1.0
AFI Afiamalu 16.00 27 P P 06 53 17.5 -2.1
26nm,0.6s,baz=343,slow=11,SNR=3.7
AFI S S 06 56 02.6 -5.3
40nm,0.8s,baz=215,slow=22,SNR=4.3
RPZ Rata Peaks 17.17 204 S S 06 56 27.8 -2.3
3.1nm,0.8s,baz=116,slow=10,SNR=1.7
JCZ Jackson Bay 18.35 208 P P 06 53 43.8 -0.6
ODZ Otahua Downs 18.47 203 P P 06 53 45.4 0.0
RAR Rarotonga 19.09 72 S S 06 57 07.1 +1.6
3.8nm,0.5s,baz=137,slow=11,SNR=3.5
SYDH Sydney Hard Ro 26.17 251 P P 06 54 56.9 +0.7
EIDS Eidsvold 26.57 270 P P 06 55 00.5 +0.7
EIDS Eidsvold 26.57 270 P 06 55 00.2 +0.4
EIDS IAmb IAmb 06 55 01.8
comp=Z,14nm,1.1s
CAN Canberra 27.73 247 P P 06 55 11.5 +1.5
CMSA Cobar Meteorol 30.43 255 P P 06 55 34.0 +0.4
MOO Moorlands 30.50 234 P P 06 55 34.6 +0.5
TAU Tasmania Unive 30.54 233 P P 06 55 34.4 0.0
TAU Tasmania Unive 30.54 233 P P 06 55 35.5 +1.0
TAU IAmb IAmb 06 56 07.2
comp=Z,28nm,1.4s
TOO Toolangi 30.79 244 P P 06 55 37.5 +0.8
QLP Quilpie 32.33 264 P P 06 55 50.3 +0.1
CTA Charters Tower 32.40 277 P P 06 55 51.5 +0.7
comp=Z,16nm,0.5s,baz=102,slow=9.8,SNR=32
comp=Z,16nm,0.5s
CTA Charters Tower 32.40 277 P P 06 55 51.1 +0.2
CTAO Charters Tower 32.40 277 P P 06 55 51.0 +0.2
CTAO Charters Tower 32.40 277 P P 06 55 51.1 +0.3
CTAO IAmb IAmb 06 55 52.7
comp=Z,17nm,0.7s
STKA Stephens Creek 33.89 254 P P 06 56 04.2 +0.7
comp=Z,3.3nm,0.3s,baz=101,slow=7.9,SNR=15
STKA PcP PcP 06 58 31.9 +0.5
comp=Z,1.1nm,0.5s,baz=228,slow=1.0,SNR=2.9
comp=Z,3.3nm,0.3s
STKA Stephens Creek 33.89 254 P P 06 56 04.1 +0.7
STKA Stephens Creek 33.89 254 P P 06 56 03.9 +0.5
MGBR Mount Gambier 34.69 244 P P 06 56 11.3 +1.2
INKA Innaminka 35.16 261 P 06 56 14.9 +0.7
HTT Hallett 36.03 251 P P 06 56 21.3 -0.3
QIS Mount Isa 38.07 272 P P 06 56 38.5 -0.1
BBOO Buckleboo 38.48 252 P P 06 56 41.4 -0.4
BBOO Buckleboo 38.48 252 P P 06 56 41.3 -0.5
AS01 Alice Springs 42.08 265 P P 06 57 10.9 -0.2
AS31 Alice Springs 42.12 265 P 06 57 10.8 -0.6
ASAR Alice Springs 42.12 265 P P 06 57 10.6 -0.8
comp=Z,11nm,0.5s,baz=96,slow=6.9,SNR=193
ASAR PcP PcP 06 58 57.0 -0.4
comp=Z,0.8nm,0.5s,baz=116,slow=3.9,SNR=2.6
ASAR ScP ScP 07 02 10.6 +1.5
comp=Z,2.4nm,0.9s,baz=114,slow=4.0,SNR=10
ASAR S S 07 03 01.1 +0.3
comp=Z,2.5nm,1.0s,baz=103,slow=16,SNR=12
comp=Z,11nm,0.5s
ASAR Alice Springs 42.12 265 P 06 57 11.0 -0.4
WR8 Warramunga Arr 42.77 271 P 06 57 15.7 -0.9
WR8 IAmb IAmb 06 57 17.4
comp=Z,29nm,0.8s
WRAB Tennant Creek 42.91 271 P P 06 57 16.8 -0.9
WRAB Tennant Creek 42.91 271 P P 06 57 16.7 -1.0
WRA Warramunga Arr 42.92 271 P P 06 57 16.7 -1.1
comp=Z,26nm,0.5s,baz=110,slow=7.9,SNR=199
WRA PcP PcP 06 59 00.0 -0.1
comp=Z,0.5nm,0.4s,baz=115,slow=3.5,SNR=5.2
WRA ScP ScP 07 02 13.4 +1.1
comp=Z,3.4nm,0.9s,baz=113,slow=4.1,SNR=12
WRA S S 07 03 10.7 -1.8
comp=Z,5.7nm,0.9s,baz=108,slow=14,SNR=12
comp=Z,26nm,0.5s
WRA Warramunga Arr 42.92 271 P 06 57 16.7 -1.1
WB0 Warramunga Arr 42.93 271 P 06 57 16.8 -1.1
FORT Forrest 45.51 254 P P 06 57 36.9 -0.9
FORT IAmb IAmb 06 57 37.4
comp=Z,8.8nm,0.5s
MTN Manton Dam 48.57 278 P P 06 58 00.7 -0.7
KNRA Kununurra 49.45 273 P 06 58 07.4 -0.5
KNRA IAmb IAmb 06 58 08.6
comp=Z,9.9nm,0.5s
FITZ Fitzroy Crossi 51.25 269 P P 06 58 21.1 -0.1
comp=Z,14nm,0.4s,baz=103,slow=4.8,SNR=92
comp=Z,14nm,0.4s
FITZ Fitzroy Crossi 51.25 269 P P 06 58 21.3 0.0
FITZ Fitzroy Crossi 51.25 269 P P 06 58 21.2 0.0
MEEK Meekatharra 54.55 256 P P 06 58 44.4 -0.6
MBWA Marble Bar 55.34 263 P 06 58 50.0 -0.6
MBWA IAmb IAmb 06 58 50.6
comp=Z,24nm,0.9s
MORW Morawa 56.04 253 P P 06 58 55.2 -0.2
MORW Morawa 56.04 253 P 06 58 55.0 -0.4
QSPA South Pole Qui 61.73 180 P P 06 59 35.1 +1.5
comp=Z,5.5nm,0.5s,baz=226,slow=0.8,SNR=54
comp=Z,5.5nm,0.5s
QSPA South Pole Qui 61.73 180 P P 06 59 35.2 +1.6
QSPA IAmb IAmb 06 59 36.2
comp=Z,8.0nm,0.7s
PLAI Plampang 62.07 275 P P 06 59 35.5 -0.9
KKM Kota Kinabalu 70.86 288 P P 07 00 31.4 -0.1
BBJI Bungbulang 71.60 271 P P 07 00 36.1 +0.2
BBJI IAmb IAmb 07 01 12.9
comp=Z,18nm,1.2s
BELA Belgrano 2 71.94 173 P P 07 00 37.5 +0.7
BELA IAmb IAmb 07 00 38.1
comp=Z,7.7nm,0.7s
MAW Mawson 73.80 201 P P 07 00 48.6 +1.1
comp=Z,3.7nm,0.5s,baz=132,slow=6.2,SNR=25
comp=Z,3.7nm,0.5s
MAW Mawson 73.80 201 P P 07 00 48.8 +1.1
JSG Sagara 74.48 325 P P 07 00 52.5 +0.5
JGF Kuroka 75.63 325 P P 07 00 58.0 -0.5
MJAR Matsushiro Arr 75.94 326 P P 07 00 59.2 -0.9
comp=Z,8.6nm,0.8s,baz=161,slow=5.7,SNR=19
comp=Z,8.6nm,0.8s
MJAR Matsushiro Arr 75.94 326 P P 07 00 59.7 -0.4
MJAR IAmb IAmb 07 01 00.2
comp=Z,13nm,1.2s
MAJO Matsushiro 75.94 326 P P 07 01 00.3 +0.2
MJB9 Matsu-Tunnel 75.94 326 P P 07 01 00.2 0.0
JSU Suzuyama 76.38 317 P P 07 01 02.4 -0.4
ELIB Princess Elisa 78.72 187 dP P 07 01 15.6 +0.4
comp=Z,11nm,0.7s
TROLL Troll, Antarti 79.89 181 ⇓P P 07 01 21.9 +0.5
comp=Z,690nm,0.4s
TROLL ⇑pP pwP 07 02 54.4 +0.8
comp=Z,134nm,0.8s
KIWB Kanaga Island 79.90 1 P P 07 01 21.8 +0.5
ADK Adak 79.94 2 P P 07 01 20.2 -1.3
ADK Adak 79.94 2 P P 07 01 21.4 -0.2
SNAA Sanae 80.20 179 ⇓P P 07 01 23.3 +0.3
comp=Z,41nm,0.4s
SNAA Sanae 80.20 179 P P 07 01 23.2 +0.3
comp=Z,1.4nm,0.3s,baz=205,slow=8.4,SNR=4.3
comp=Z,1.4nm,0.3s
SNAA Sanae 80.20 179 P P 07 01 23.5 +0.5
VNA3 Neumayer Olymp 80.39 177 ⇓P P 07 01 24.1 +0.2
comp=Z,17nm,0.5s
VNA3 ⇑pP pP 07 02 55.7 +2.5
comp=Z,7.1nm,0.8s
VNA2 Neumayer--Watz 80.82 177 ⇓P P 07 01 26.6 +0.5
comp=Z,12nm,0.6s,baz=185,slow=5.2
VNA2 ⇑pP pwP 07 02 58.4 -0.2
comp=Z,5.6nm,0.8s,baz=168,slow=4.6
VNA1 Neumayer--Stat 81.05 177 P P 07 01 28.1 +0.8
comp=Z,18nm,0.8s
VNA1 ⇑pP pwP 07 03 00.1 +0.2
comp=Z,7.1nm,0.9s
KSRS Korea Array 82.08 320 P P 07 01 33.1 +0.2
comp=Z,4.0nm,0.8s,baz=138,slow=6.9,SNR=9.4
comp=Z,4.0nm,0.8s
KSAR Wonju Array Be 82.09 320 P P 07 01 33.4 +0.4
UNV Unalaska Valle 82.62 8 P P 07 01 35.2 -0.1
PEA0B Petropavlovsk- 83.58 346 P P 07 01 40.4 +0.1
PETK Petropavlovsk- 83.58 346 P P 07 01 40.0 -0.2
comp=Z,16nm,0.8s,baz=108,slow=5.9,SNR=42
comp=Z,16nm,0.8s
PETK Petropavlovsk- 83.58 346 P P 07 01 40.3 0.0
NJ2 Nanjing 84.07 311 eP P 07 01 44.3 +1.1
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
PLCA Paso Flores 84.71 134 P P 07 01 48.2 +1.6
comp=Z,3.1nm,1.0s,baz=199,slow=2.5,SNR=4.9
comp=Z,3.1nm,1.0s
USRK Ussuriysk Ar. 84.85 327 P P 07 01 47.1 +0.3
comp=Z,5.3nm,0.8s,baz=125,slow=5.3,SNR=8.7
comp=Z,5.3nm,0.8s
USRK Ussuriysk Ar. 84.85 327 P P 07 01 47.0 +0.2
BFSC Mount Baldy Ra 85.29 47 P P 07 01 50.3 +0.9
BFSC IAmb IAmb 07 01 51.2
comp=Z,12nm,1.2s
VES Vestal, Richgr 85.40 45 P P 07 01 50.4 +0.7
BORC Borrego Spring 85.50 48 IAmb IAmb 07 01 52.5
comp=Z,9.2nm,1.0s
ISA Isabella, Lake 85.67 45 P P 07 01 52.1 +0.9
ISA IAmb IAmb 07 01 53.3
comp=Z,8.5nm,0.9s
CMB Columbia Colle 86.02 43 IAmb IAmb 07 01 53.9
comp=Z,4.5nm,1.0s
LRMC Laurel Mtn Rad 86.05 46 IAmb IAmb 07 01 55.1
comp=Z,8.6nm,1.0s
BELC Belle Mtn. Jos 86.22 48 IAmb IAmb 07 01 56.2
comp=Z,9.6nm,1.0s
AFDM Forest Hills D 86.28 42 P 07 01 54.0 +0.1
CCCA Chr Cany lake 86.28 46 IAmb IAmb 07 01 56.3
comp=Z,8.9nm,0.9s
CLC China Lake 86.32 46 IAmb IAmb 07 01 56.2
comp=Z,8.2nm,1.0s
MDJ Mudanjiang 86.32 326 P P 07 01 54.4 +0.5
MDJ pmax pmax
comp=Z,17nm,0.9s
BC3 Big Chuckawall 86.37 49 IAmb IAmb 07 01 57.2
comp=Z,8.3nm,1.2s
GSC Goldstone, Bar 86.50 47 IAmb IAmb 07 01 57.2
comp=Z,9.9nm,1.1s
MPMC Manual Prospec 86.54 46 IAmb IAmb 07 01 58.4
comp=Z,6.7nm,1.3s
O03E Paynes Creek 86.69 40 IAmb IAmb 07 02 01.1
comp=Z,6.5nm,1.0s
IRM Iron Mountain 86.88 48 IAmb IAmb 07 01 59.6
comp=Z,10nm,1.1s
113A Mohawk Valley, 86.96 50 IAmb IAmb 07 01 59.8
comp=Z,10nm,1.3s
BLYC Blythe 87.04 49 IAmb IAmb 07 02 00.2
comp=Z,9.6nm,1.2s
PNTR Pine Nut 87.18 42 IAmb IAmb 07 02 00.3
comp=Z,6.7nm,0.9s
SHOC Shoshone, Teco 87.21 46 IAmb IAmb 07 02 01.2
comp=Z,10nm,1.2s
LHV Little Huntoon 87.30 43 IAmb IAmb 07 02 00.8
comp=Z,5.2nm,0.9s
NVAR Mina Airray Bea 87.53 43 P P 07 02 00.8 +0.7
comp=Z,4.0nm,0.8s,baz=222,slow=8.5,SNR=28
comp=Z,4.0nm,0.8s
NVAR Mina Array Bea 87.53 43 P P 07 02 00.3 +0.1
NV11 Mina Array Sit 87.62 44 IAmb IAmb 07 02 02.1
comp=Z,5.4nm,1.0s
PAHR Pah Rah Range 87.70 42 IAmb IAmb 07 02 02.4
comp=Z,5.9nm,1.2s
TPNV Topopah Spring 87.87 46 IAmb IAmb 07 02 03.7
comp=Z,5.9nm,0.9s
TPH Tonopah 87.97 44 IAmb IAmb 07 02 03.9
comp=Z,7.5nm,0.9s
MT01 Popeta 87.99 128 P P 07 02 03.4 +1.1
BNX BinXian 88.20 326 ⇑P P 07 02 02.4 -0.4
BNX pmax pmax
comp=Z,8.0nm,1.1s
MOD Modoc Plateau 88.60 40 P 07 02 05.2 +0.3
MOD IAmb IAmb 07 02 06.6
comp=Z,7.0nm,1.1s
TUC Tucson 88.74 52 P 07 02 08.2 +2.5
TUC IAmb IAmb 07 02 08.8
comp=Z,9.7nm,0.9s
K05A Summer Lake 88.81 39 P 07 02 07.5 +1.5
PRN Pahroc Range 88.91 46 IAmb IAmb 07 02 09.6
comp=Z,8.7nm,1.1s
WIFE Three Sisters- 89.20 37 P P 07 02 09.2 +1.4
319A Douglas 89.27 54 IAmb IAmb 07 02 11.2
comp=Z,11nm,1.0s
X16A Lo Mia Camp, P 89.50 50 IAmb IAmb 07 02 12.1
comp=Z,6.3nm,1.0s
LYN LuoYang 89.84 310 P P 07 02 11.9 +1.2
LYN pmax pmax
comp=Z,19nm,0.9s
WVOR Wild Horse Val 89.89 40 IAmb IAmb 07 02 12.7
comp=Z,7.1nm,1.1s
KNB Kanab 90.10 47 IAmb IAmb 07 02 14.4
comp=Z,6.5nm,1.1s
U15A North Rim 90.10 48 IAmb IAmb 07 02 14.7
comp=Z,6.5nm,0.9s
J08A Circle Bar Ran 90.57 40 P 07 02 14.3 +0.3
J08A IAmb IAmb 07 02 15.9
comp=Z,11nm,1.2s
G08A Pilot Rock 91.54 38 P P 07 02 19.1 +0.5
G08A IAmb IAmb 07 02 20.4
comp=Z,5.6nm,1.1s
CMAR Chiang Mai Arr 91.66 290 P P 07 02 20.8 +1.3
comp=Z,1.1nm,0.3s,baz=151,slow=3.4,SNR=6.8
comp=Z,1.1nm,0.3s
CMAR Chiang Mai Arr 91.66 290 P P 07 02 20.0 +0.5
KMI2 Kunming 91.90 298 P P 07 02 22.4 +1.6
KMI2 pmax pmax
comp=Z,15nm,0.7s
XAN Xi'an 91.99 308 eP P 07 02 21.9 +1.2
XAN pP pP 07 03 40.4 -12
MFID Camas Ranch 92.11 41 IAmb IAmb 07 02 22.7
comp=Z,4.5nm,0.8s
TXAR Lajitas Array 92.25 58 P P 07 02 22.9 +0.7
comp=Z,0.6nm,0.9s,baz=199,slow=5.1,SNR=5.9
comp=Z,0.6nm,0.9s
TXAR Lajitas Array 92.25 58 P P 07 02 22.5 +0.4
TMUT Trail Mountain 92.46 46 IAmb IAmb 07 02 25.1
comp=Z,2.9nm,0.8s
ALPN Alpine 92.81 57 IAmb IAmb 07 02 27.4
comp=Z,4.3nm,1.4s
SPUT South Promonto 92.85 44 IAmb IAmb 07 02 26.5
comp=Z,4.2nm,0.9s
HLID Hailey 93.02 41 IAmb IAmb 07 02 27.4
comp=Z,3.3nm,1.1s
HHC Hu-ho-hao-te 94.02 315 eP P 07 02 33.3 +3.3
HHC pmax pmax
comp=Z,4.0nm,0.5s
PDAR Pinedale Array 95.45 44 P P 07 02 36.5 -0.2
comp=Z,0.6nm,0.7s,baz=222,slow=2.0,SNR=4.8
PDAR PKKP PKKPbc 07 19 25.5 -2.2
comp=Z,0.1nm,0.4s,baz=17,slow=4.4,SNR=3.9
comp=Z,0.6nm,0.7s
PDAR Pinedale Array 95.45 44 P P 07 02 36.1 -0.5
ILAR Eielson Array 96.21 13 P P 07 02 38.4 -0.8
comp=Z,1.0nm,1.0s,baz=243,slow=5.2,SNR=5.5
comp=Z,1.0nm,1.0s
MKAR Makanchi Array 115.60 311 PKP PKPdf 07 07 49.7 -1.6
comp=Z,1.3nm,0.4s,baz=209,slow=1.2,SNR=20
MKAR PKKPbc PKKPbc 07 18 26.4 +0.4
comp=Z,0.4nm,0.6s,baz=283,slow=2.3,SNR=4.4
MKAR Makanchi Array 115.60 311 PKPdf 07 07 50.4 -0.9
ZALV Zalesovo Beam 115.77 319 PKP PKPdf 07 07 50.5 -0.8
comp=Z,0.6nm,0.4s,baz=143,slow=0.7,SNR=2.2
NRIK Noril'sk 117.33 336 PKP PKPdf 07 07 53.4 -0.4
comp=Z,0.8nm,0.4s,baz=29,slow=7.6,SNR=3.6
NRIK Noril'sk 117.33 336 PKPdf PKiKP 07 07 54.4 +0.5
BOSA Boshof 118.66 205 PKP PKPdf 07 07 58.1 +0.1
comp=Z,3.2nm,0.9s,baz=216,slow=3.2,SNR=4.4
BOSA Boshof 118.66 205 PKPdf 07 07 58.6 +0.6
KURK Kurchatov 118.83 315 PKPdf 07 07 56.9 -0.4
KURBB Kurchatov Arra 118.87 315 PKP PKPdf 07 07 56.3 -1.1
comp=Z,2.8nm,0.6s,baz=109,slow=1.9,SNR=24
KK31 Karatay Array 123.00 305 PKPdf 07 08 05.3 -0.3
BVAR Borovoye Array 124.17 317 PKP PKPdf 07 08 06.8 -0.7
comp=Z,6.0nm,0.5s,baz=122,slow=1.3,SNR=21
BORK Borovoye 124.21 317 PKPdf 07 08 07.0 -0.5
SPITS Spitsbergen Ar 129.61 356 PKP PKPdf 07 08 16.9 -0.4
comp=Z,4.5nm,0.6s,baz=61,slow=5.8,SNR=11
HAMF Hammerfest 135.74 349 ePKPdf PKPdf 07 08 29.5 +0.6
ARA0 ARCESS Array S 136.37 348 ePKPdf PKPdf 07 08 29.4 -0.7
ARCES ARCESS Array B 136.37 348 PKhKP PKPpre 07 08 20.5
comp=Z,1.8nm,0.6s,baz=50,slow=1.8,SNR=8.5
ARCES PKP PKPdf 07 08 29.3 -0.9
comp=Z,2.3nm,0.5s,baz=81,slow=2.7,SNR=15
ARCES SKPbc SKPbc 07 11 24.9 +0.9
comp=Z,3.3nm,1.0s,baz=39,slow=1.8,SNR=3.6
KTK1 Kautokeino 137.24 348 ePKPdf PKPdf 07 08 32.7 +1.0
TRO Tromso 137.38 351 ePKPdf PKPdf 07 08 32.5 +0.5
FAUS Fauske 139.98 351 ePKPdf PKPdf 07 08 38.2 +1.4
FINES FINESS Array B 142.86 340 PKhKP PKPpre 07 08 38.2
comp=Z,3.6nm,0.3s,baz=53,slow=3.8,SNR=69
KBZ Khabaz 143.03 306 PKP PKPdf 07 08 41.1 -1.7
comp=Z,4.6nm,0.8s,baz=198,slow=2.2,SNR=10
NSS Namsos 143.12 352 e PKPdf 07 08 39.5 -3.0
MOL Molde 145.50 354 ePKPdf PKPdf 07 08 47.2 +0.6
DOMB Dombas 145.88 353 ePKPdf PKPbc 07 08 48.2 -0.5
AKN Aaknes 145.94 355 ePKPdf PKPbc 07 08 48.3 -0.6
NC303 NORSAR Array S 146.38 351 PKPbc 07 08 49.6 -0.6
NB2 NORSAR Subarra 146.58 351 PKP PKPbc 07 08 49.9 -0.9
comp=Z,12nm,0.9s,baz=17,slow=2.6
NB2 NORSAR Subarra 146.58 351 PKPab PKPdf 07 08 49.0 +0.4
NB2 AMP 07 08 49.0
NOA NORSAR Array B 146.58 351 PKPbc PKPbc 07 08 50.1 -0.7
comp=Z,6.2nm,0.5s,baz=15,slow=4.5,SNR=21
FOO Floro 146.65 356 ePKPdf PKPbc 07 08 50.1 -0.8
NC602 NORSAR Array S 146.82 350 ePKPdf PKPbc 07 08 50.5 -0.9
HFS Hagfors 147.04 348 PKPbc PKPbc 07 08 51.2 -0.9
comp=Z,8.7nm,0.5s,baz=54,slow=2.8,SNR=27
SKAR Skarslia 147.29 353 ePKPdf PKPdf 07 08 51.1 +1.4
OSL Oslo 147.71 351 ePKPdf PKPdf 07 08 51.6 +1.3
ASK Askoy 147.75 356 ePKPdf PKPdf 07 08 51.3 +0.9
BER Bergen 147.84 356 ePKPdf PKPdf 07 08 51.7 +1.1
KONO Kongsberg 148.14 351 ePKPbc PKPbc 07 08 54.6 -0.3
ODD1 Odda 148.21 354 ePKPbc PKPbc 07 08 55.4 +0.2
STRU Stroemstad 148.50 350 iP PKPbc 07 08 55.6 -0.2
ASF Jabal al Asfar 148.61 286 P PKiKP 07 08 58.6 +0.3
ASF Jabal al Asfar 148.61 286 AML AML
BLS5 Blasjo 148.71 354 ePKPbc PKPbc 07 08 56.8 +0.4
AK03 Malin Array Si 148.99 324 PKP PKPbc 07 08 56.7 -0.6
AKASG Malin Array Be 149.01 324 PKPbc PKPbc 07 08 56.6 -0.7
comp=Z,13nm,0.4s,baz=49,slow=3.4,SNR=72
AKBB Malin Array Si 149.01 324 PKP PKPbc 07 08 56.8 -0.5
AK01 Malin Array Si 149.02 324 PKP PKPbc 07 08 56.6 -0.8
KIEV Kiev 149.02 324 PKPbc 07 08 57.2 -0.1
KIEV PKPab PKPab 07 09 02.7 -0.3
AK04 Malin Array Si 149.02 324 PKP PKPbc 07 08 56.8 -0.6
AK05 Malin Array Si 149.06 324 P PKPbc 07 08 56.8 -0.7
TJOU Tjoern 149.38 349 iP PKPbc 07 08 57.3 -0.7
HOMB Homborsund 149.62 352 iP PKPbc 07 08 58.6 0.0
GEM Giv'at Ha'Em 149.68 288 P PKiKP 07 09 02.1 +1.7
GEM Giv'at Ha'Em 149.68 288 AML AML
QRNJ Al-Qirein 149.74 286 P PKiKP 07 09 01.5 +1.1
QRNJ Al-Qirein 149.74 286 AML AML
UJAP Al Uja 149.82 285 P PKPbc 07 08 59.6 -0.3
UJAP Al Uja 149.82 285 AML AML
MMAI Mount Meron Ar 149.89 288 PKPbc PKiKP 07 09 01.0 +0.1
comp=Z,6.6nm,0.5s,baz=45,slow=8.3,SNR=11
ONAU Onsala 149.93 348 iP PKPbc 07 08 58.5 -0.8
HRFI Mount Harif 150.05 282 P PKiKP 07 09 01.9 +0.6
HRFI Mount Harif 150.05 282 AML AML
BLEU Blekinge 150.07 343 iP PKPbc 07 08 58.8 -0.9
EIL Elat 150.09 281 P PKiKP 07 09 01.9 +0.6
EIL Elat 150.09 281 AML AML
PRNI Paran 150.11 282 P PKiKP 07 09 01.7 +0.3
PRNI Paran 150.11 282 AML AML
DEL Delary 150.39 345 iP PKPbc 07 09 00.2 -0.3
BR131 Keskin Array S 150.61 301 PKPbc 07 09 01.5 -0.3
BRTR Keskin Array B 150.61 301 PKPbc PKPbc 07 09 01.1 -0.7
comp=Z,3.0nm,0.4s,baz=146,slow=4.0,SNR=18
BRTR Keskin Array B 150.61 301 PKPbc 07 09 01.5 -0.3
BSD Bornholm Skovb 151.37 343 iP PKPbc 07 09 02.2 -0.5
CSS Mathiatis 151.55 292 PKPbc 07 09 03.8 -0.1
CSS Mathiatis 151.55 292 P PKPbc 07 09 04.2 +0.3
EKA Eskdalemuir Ar 152.91 5 PKPbc PKPbc 07 09 05.5 -0.7
comp=Z,1.4nm,0.5s,baz=314,slow=1.9,SNR=8.5
EKA PKPab PKPab 07 09 18.4 -0.8
comp=Z,0.6nm,0.3s,baz=359,slow=3.3,SNR=7.4
KOLS Kolonicke sedl 153.61 327 ePKP PKiKP 07 09 09.3 +1.3
KOLS e 07 09 22.8
LANS Liptovska Anna 154.74 330 ePKP PKPab 07 09 28.2 +0.9
CHVC Chvalec 154.95 337 ePKPAB PKPab 07 09 29.1 +1.0
UPC Upice 155.03 336 ePKPAB PKPab 07 09 28.1 -0.3
DPC Dobruska-Polom 155.05 336 ePKPAB PKPab 07 09 28.5 -0.1
KRLC Kraliky 155.11 335 ePKPAB PKPab 07 09 27.6 -1.2
CLL Collm 155.29 341 ePKPdf PKPdf 07 09 03.0 +1.0
CLL ePKPdif PKPab 07 09 13.0 -16
CLL ⇓iPKPab PKPab 07 09 29.6 +0.1
BRG Berggiesshubel 155.40 340 ePKPab PKPab 07 09 30.3 +0.3
BRG Amp 07 09 30.6
comp=Z,6.5nm,0.7s
VYHS Vyhne 155.51 330 ePKP PKPab 07 09 30.9 +0.3
RICC Richard 155.64 339 ePKPAB PKPab 07 09 31.8 +0.8
MODS Modra-Piesok 156.27 332 ePKP PKPab 07 09 34.4 +0.5
NKC Novy Kostel 156.41 341 ePKPAB PKPab 07 09 32.8 -1.6
ZVC Zvikov 156.56 338 ePKPAB PKPab 07 09 34.9 -0.1
KHC Kasperske Hory 157.03 338 PKPab 07 09 37.7 +0.6
KHC Kasperske Hory 157.03 338 ePKPAB PKPab 07 09 36.9 -0.2
CKRC Cesky Krumlov 157.05 337 ePKPAB PKPab 07 09 35.8 -1.4
CONA Conrad Observa 157.20 333 iPKP PKPab 07 09 37.9 -0.1
comp=Z,4.8nm,1.2s
RONA Rosalia, Austr 157.21 332 iPKP PKPab 07 09 38.1 +0.2
comp=Z,3.1nm,0.9s
GERES GERESS Array B 157.24 337 PKPab PKPab 07 09 37.6 -0.5
comp=Z,1.2nm,0.6s,baz=44,slow=4.4,SNR=9.3
DBIC Dimbokro 157.78 165 PKPab PKPab 07 09 41.7 +0.6
comp=Z,2.5nm,0.5s,baz=205,slow=3.4,SNR=4.0
DBIC Dimbokro 157.78 165 PKPab 07 09 42.3 +1.2
BMRD Maredsous 157.88 353 dPKP PKPab 07 09 40.7 0.0
DOU Dourbes 158.10 353 dPKP PKPab 07 09 41.3 -0.3
BIOA Bad Ischl, Aus 158.24 336 ePKP PKPab 07 09 42.5 0.0
comp=Z,1.2nm,0.5s
SESA Seetaler Alpe, 158.38 334 ePKP PKPab 07 09 43.2 -0.1
comp=Z,1.1nm,0.9s
LESA Schwarzleotal 158.81 337 ePKP PKPab 07 09 45.0 0.0
comp=Z,2.8nm,0.6s
WATA Walderalm 159.25 339 ePKP PKPab 07 09 46.6 -0.4
comp=Z,3.6nm,0.5s
WTTA Wattenberg 159.30 339 iPKP PKPab 07 09 47.0 -0.2
comp=Z,3.7nm,0.5s
RETA Reutte 159.37 340 iPKP PKPab 07 09 47.1 -0.3
comp=Z,3.5nm,0.5s
MOTA Moosalm 159.39 340 ePKP PKPab 07 09 47.3 -0.3
comp=Z,1.1nm,1.1s
ABTA Abfaltersbach 159.45 336 ePKP PKPab 07 09 47.2 -0.6
comp=Z,3.6nm,0.7s
SQTA Sankt Quirin 159.47 339 ePKP PKPab 07 09 47.7 -0.2
comp=Z,3.7nm,0.7s
FETA Feichten 159.80 340 ePKP PKPab 07 09 49.1 -0.3
comp=Z,7.0nm,1.1s
DAVA Damuels 159.80 342 iPKP PKPab 07 09 49.0 -0.3
comp=Z,3.6nm,0.5s
FUORN Ofenpass-Fuorn 160.30 340 PKPab 07 09 52.1 +0.4
TORD Torodi Ar. Bea 164.82 184 PKP PKPdf 07 09 12.9 -0.7
comp=Z,2.0nm,1.0s,baz=29,slow=3.3,SNR=4.0
TORD PKPab PKPab 07 10 11.8 -0.1
comp=Z,2.5nm,0.5s,baz=189,slow=4.9,SNR=11
TORD Torodi Ar. Bea 164.82 184 PKPab 07 10 12.1 +0.2

NNC 22 06:55:30.7±4.7, 37.64N×69.60E, h0km, mb3.8, mpv3.5, 3C-2D, Error ellipse: s-maj=42.7km s-min=31.3km az=151.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**5.50**	**7**	**P**		Pn	06 56 53.6	-0.3
	3.8nm,0.3s,baz=174,slow=11,SNR=72			⇓S		Sn	06 57 59.0	+1.1
KK31	24nm,0.5s,baz=178,slow=22,SNR=26							
AAK	**Ala-Archa**	**6.24**	**35**	**⇓P**		Pn	06 57 04.3	+0.1
AAK	1.0nm,0.4s			⇑S		Sn	06 58 17.7	+1.3
	3.7nm,0.7s							
AB31	**Akbulak array**	**13.55**	**332**	**⇑P**		Pn	06 58 47.7	+3.6
	0.3nm,0.5s,baz=165,slow=11,SNR=5.9							
AKTO	**Aktyubinsk**	**15.24**	**331**	**⇑P**		Pn	06 59 04.9	-2.2
	1.1nm,0.6s							

IDC 22 07:21:42.2±2.4, 33.64N×139.12E, h274km±41km, mb2.9/4,

mbtmp3.4/5,Error ellipse: s-maj=149.6km s-min=23.2km az=66.0,Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**2.99**	**346**	P	Pn	07 22 35.8	-0.2
	0.4nm,0.3s,baz=163,slow=12,SNR=1.9						
MKAR	**Makanchi Array**	**44.42**	**305**	P	P	07 29 25.4	-0.7
	0.5nm,0.8s,baz=88,slow=9.8,SNR=2.1						
	0.5nm,0.8s						
KURBB	**Kurchatov Arra**	**46.69**	**310**	P	P	07 29 43.8	+0.2
	0.3nm,0.4s,baz=91,slow=7.6,SNR=8.7						
	0.3nm,0.4s						
BVAR	**Borovoye Array**	**51.52**	**314**	P	P	07 30 19.9	-0.1
	0.4nm,0.4s,baz=76,slow=7.4,SNR=2.4						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**53.48**	**186**	P	P	07 30 34.6	-0.1
	0.2nm,0.4s,baz=4.1,slow=7.4,SNR=5.1						
	0.2nm,0.4s						

NEIC ***22*** *07:26:32.9±1.7,34.°61S±0.°04×73.°10W±0.°04,h20km±3km, mb4.6/29,Mwr4.3/71,Mwr4.7(GUC),Error ellipse: s-maj=6.1km s-min=4.0km az=207.0,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.95; $M_{\theta\theta}$0.14; $M_{\phi\phi}$-1.10; $M_{r\theta}$-0.73; $M_{\theta\phi}$1.87; $M_{\phi r}$-2.31; Fault plane solution: M_o3.23000×10^{15} NP1:φs183.78000°, δ78.73000°, λ128.58000°. NP2:φs287.55000°, δ39.94000°, λ17.72000°. Principal axes: T 3.3526, Plg43.0000°, Azm131.0000°; N -0.2558, Plg38.0000°, Azm355.0000°; P -3.0968, Plg24.0000°, Azm245.0000°;*

SJA ***22*** *07:26:32.1±0.7,34.°58S×73.°17W,h39km±7km, ML4.5, MW4.3*

GFZ ***22*** *07:26:33.8±0.4,35.°S±2.°×7.°3W±.°, h25km±3km, M5.0/29, mb4.8/29,Error ellipse: s-maj=6.6km s-min=3.4km az=97.1,confirmed*

NEIC ***22*** *07:26:33.2,34.°61S×73.°09W,h23km*

GUC ***22*** *07:26:34.2±0.6,34.°62S×73.°08W,h39km±2km, ML4.7, Presumed earthquake*

VAO ***22*** *07:26:34.3±0.8,34.°52S×72.°84W,h26km±4km, mb4.6, Presumed earthquake*

IDC ***22*** *07:26:37.6±2.6,34.°65S×72.°88W,h48km±22km, mb4.1/11, mbtmp4.5/14, ML4.9/3, MS3.7/16, Error ellipse: s-maj=24.0km s-min=13.3km az=99.0*

ISC 22 07:26:32.5±1.0,34.°59S±0.°03×73.°11W±0.°04,h20km±5km, n251,σ1♀29/277,mb4.7/30,MS3.8/14,10C-8D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BO03	**Pichilemu**	**0.95**	**85**	*eP*	**Pn**	**07 26 50.9**	**+0.1**
BO03				*eS*	**Sb**	**07 27 02.9**	**+0.4**
BO03	**Pichilemu**	**0.95**	**85**	P	**Pg**	**07 26 51.0**	**-0.1**
GO05	**Hualane**	**1.06**	**114**	*eP*	**Pb**	**07 26 51.9**	**-0.3**
GO05				IAML		07 27 07.6	
	comp=E,8μm,0.2s						
GO05	**Hualane**	**1.06**	**114**		**Pb**	**07 26 52.0**	**-0.3**
GO05				Sg	**Sb**	**07 27 04.4**	**-1.3**
GO05	**Hualane**	**1.06**	**114**	⇑*eP*	**Pb**	**07 26 52.0**	**-0.2**
GO05				*eS*	**Sb**	**07 27 04.3**	**-1.3**
GO05				IAML		07 27 05.2	
	comp=E,56μm,0.3s						
GO05	**Hualane**	**1.06**	**114**	P	**Pb**	**07 26 52.1**	**-0.1**
VA05	**Santo Domingo**	**1.55**	**54**		**Pn**	**07 26 59.4**	**+0.4**
VA05	**Santo Domingo**	**1.55**	**54**	P	**Pn**	**07 26 59.5**	**+0.5**
BO01	**Tunca**	**1.68**	**84**	*eP*	**Pn**	**07 27 01.1**	**+0.3**
BO01				*eS*	**Sn**	**07 27 22.0**	**+0.1**
BO01				IAML		07 27 24.9	
	comp=Z,4μm,0.3s						
BO01	**Tunca**	**1.68**	**84**		**Pn**	**07 27 01.2**	**+0.3**
BO01				Sn	**Sn**	**07 27 21.2**	**-0.7**
BO01	**Tunca**	**1.68**	**84**	*eP*	**Pn**	**07 27 01.1**	**+0.3**
BO01	**Tunca**	**1.68**	**84**	P	**Pn**	**07 27 01.2**	**+0.3**
MT01	**Popeta**	**1.70**	**65**	*eP*	**Pn**	**07 27 00.9**	**-0.2**
MT01				*eS*	**Sn**	**07 27 21.7**	**-0.6**
MT01				IAML		07 27 22.3	
	comp=Z,4μm,0.3s						
MT01	**Popeta**	**1.70**	**65**		**Pn**	**07 27 01.2**	**+0.1**
MT01				Sn	**Sn**	**07 27 21.1**	**-1.2**
MT01	**Popeta**	**1.70**	**65**	*eP*	**Pn**	**07 27 01.2**	**+0.1**
ML02	**Panimavida**	**1.82**	**131**	*eP*	**Pn**	**07 27 03.4**	**+0.7**
ML02				*eS*	**Sn**	**07 27 26.2**	**+1.1**
ML02				IAML		07 27 30.2	
	comp=Z,14μm,0.4s						
ML02	**Panimavida**	**1.82**	**131**		**Pn**	**07 27 03.3**	**+0.7**
ML02	**Panimavida**	**1.82**	**131**	*eP*	**Pn**	**07 27 03.4**	**+0.7**
ML02				*eS*	**Sn**	**07 27 24.9**	**-0.3**
ML02				IAML		07 27 26.9	
	comp=N,18μm,0.3s						
ML02	**Panimavida**	**1.82**	**131**	P	**Pn**	**07 27 03.5**	**+0.8**
BO02	**Sierra Bellavi**	**1.93**	**97**	*eP*	**Pn**	**07 27 04.9**	**+0.6**
BO02				*eS*	**Sn**	**07 27 28.9**	**+0.9**
BO02	**Sierra Bellavi**	**1.93**	**97**		**Pn**	**07 27 05.3**	**+0.9**
BO02				Sn	**Sn**	**07 27 28.1**	**+0.1**
BO02	**Sierra Bellavi**	**1.93**	**97**	*eP*	**Pn**	**07 27 05.2**	**+0.9**
BO02				*eS*	**Sn**	**07 27 28.1**	**+0.1**
BO02	**Sierra Bellavi**	**1.93**	**97**	P	**Pn**	**07 27 05.3**	**+0.9**
MT09	**Talagante**	**1.94**	**66**		**Pn**	**07 27 04.6**	**+0.2**
MT09	**Talagante**	**1.94**	**66**	*eP*	**Pn**	**07 27 04.6**	**+0.2**
MT09				IAML		07 27 29.1	
	comp=E,7μm,0.1s						
VA01	**Torpederas**	**1.98**	**38**	*eP*	**Pn**	**07 27 05.4**	**+0.5**
VA01				*eS*	**Sn**	**07 27 29.8**	**+0.7**
VA01	**Torpederas**	**1.98**	**38**		**Pn**	**07 27 05.3**	**+0.4**
VA01				Sn	**Sn**	**07 27 28.8**	**-0.3**
VA01	**Torpederas**	**1.98**	**38**	*eP*	**Pn**	**07 27 05.4**	**+0.5**
VA01	**Torpederas**	**1.98**	**38**	P	**Pn**	**07 27 05.4**	**+0.5**
MT02	**Curacav**	**2.11**	**52**	*eP*	**Pn**	**07 27 07.1**	**+0.4**
MT02				*eS*	**Sn**	**07 27 32.0**	**-0.3**
MT02				IAML		07 27 35.6	
	comp=Z,1μm,0.9s						
MT02	**Curacav**	**2.11**	**52**		**Pn**	**07 27 07.0**	**+0.4**
MT02	**Curacav**	**2.11**	**52**	*eP*	**Pn**	**07 27 07.0**	**+0.4**
BO04	**La Punta**	**2.15**	**75**		**Pn**	**07 27 08.3**	**+1.0**
BO04	**La Punta**	**2.15**	**75**	*eP*	**Pn**	**07 27 08.4**	**+1.0**
BO04				*eS*	**Sn**	**07 27 33.7**	**+0.1**
BO04				IAML		07 27 36.6	
	comp=N,5μm,0.4s						
BI05	**Punta Hualpn**	**2.16**	**182**	*eP*	**Pn**	**07 27 06.4**	**-0.9**
BI05	**Punta Hualpn**	**2.16**	**182**		**Pn**	**07 27 06.3**	**-1.0**
BI05	**Punta Hualpn**	**2.16**	**182**	*eP*	**Pn**	**07 27 06.4**	**-1.0**
MT12	**Pirque**	**2.29**	**69**	*eP*	**Pn**	**07 27 10.2**	**+1.0**
MT12				IAML		07 27 44.7	
	comp=N,9μm,0.4s						
MT05	**Renca**	**2.30**	**60**	*eP*	**Pn**	**07 27 10.2**	**+0.7**
MT05				*eS*	**Sn**	**07 27 38.3**	**+1.0**
MT05				IAML		07 27 40.0	
	comp=Z,2μm,0.6s						
MT05	**Renca**	**2.30**	**60**		**Pn**	**07 27 10.1**	**+0.7**
MT05	**Renca**	**2.30**	**60**	*eP*	**Pn**	**07 27 10.2**	**+0.7**
MT05				IAML		07 27 39.5	
	comp=E,5μm,0.3s						
MT15	**Las Vizcachas**	**2.37**	**66**	*eP*	**Pn**	**07 27 11.3**	**+0.9**
ROCH	**El Roble**	**2.38**	**48**	⇓*eP*	**Pn**	**07 27 11.4**	**+0.8**
ROCH				⇓*eP*	**Pn**	**07 27 11.4**	**+0.8**
MT03	**Universidad Ad**	**2.42**	**64**		**Pn**	**07 27 11.9**	**+0.8**
MT16	**CCHEN**	**2.44**	**62**		**Pn**	**07 27 12.3**	**+1.0**
MT16	**CCHEN**	**2.44**	**62**	⇓*eP*	**Pn**	**07 27 12.2**	**+1.0**
MT14	**Cerro Cal¡n**	**2.44**	**62**	*eP*	**Pn**	**07 27 12.5**	**+1.1**
MT14				*eS*	**Sn**	**07 27 40.7**	**-0.1**
MT14				IAML		07 27 44.5	
	comp=E,4μm,0.5s						
PEL	**Peldehue**	**2.48**	**55**		**Pn**	**07 27 13.0**	**+1.2**
PEL	**Peldehue**	**2.48**	**55**	*eP*	**Pn**	**07 27 13.1**	**+1.2**
PEL				IAML		07 27 43.1	
	comp=N,2μm,0.4s						
PEL	**Peldehue**	**2.48**	**55**	P	**Pn**	**07 27 12.6**	**+0.7**
MT13	**San Alfonso**	**2.49**	**71**		**Pn**	**07 27 13.2**	**+1.1**
MT13	**San Alfonso**	**2.49**	**71**	*eP*	**Pn**	**07 27 13.1**	**+1.1**
MT13				IAML		07 27 44.8	
	comp=E,5μm,0.2s						
MT10	**Hacienda Santa**	**2.51**	**59**	*eP*	**Pn**	**07 27 13.6**	**+1.2**
LMEL	**Las Melosas**	**2.52**	**74**	*eP*	**Pn**	**07 27 13.6**	**+1.1**
LMEL				*eS*	**Sn**	**07 27 43.6**	**+0.9**
LMEL				IAML		07 27 47.1	
	comp=N,4μm,0.1s						
BI02	**San Fabin de**	**2.56**	**145**	*eP*	**Pn**	**07 27 13.5**	**+0.6**
BI02				IAML		07 27 58.0	
	comp=Z,1μm,0.5s						
BI02	**San Fabin de**	**2.56**	**145**		**Pn**	**07 27 13.4**	**+0.4**
BI02	**San Fabin de**	**2.56**	**145**	⇑*eP*	**Pn**	**07 27 13.3**	**+0.4**
BI02				IAML		07 27 46.9	
	comp=E,2μm,0.3s						
BI02	**San Fabin de**	**2.56**	**145**	P	**Pn**	**07 27 13.3**	**+0.4**
MT04	**Ro Olivares**	**2.74**	**65**	*eP*	**Pn**	**07 27 16.5**	**+0.9**
MT04				*eS*	**Sn**	**07 27 49.2**	**+1.0**
MT04				IAML		07 27 58.4	
	comp=Z,871nm,0.3s						
MT04	**Ro Olivares**	**2.74**	**65**	*eP*	**Pn**	**07 27 16.5**	**+0.9**
MT04				*eS*	**Sn**	**07 27 48.7**	**+0.5**
MT04				IAML		07 27 50.6	
	comp=E,2μm,0.5s						
VA03	**San Esteban**	**2.80**	**50**	*eP*	**Pn**	**07 27 17.6**	**+1.2**
VA03				*eS*	**Sn**	**07 27 50.9**	**+1.3**
VA03				IAML		07 27 52.9	
	comp=Z,2μm,0.4s						
VA03	**San Esteban**	**2.80**	**50**	⇓*eP*	**Pn**	**07 27 17.8**	**+1.4**
VA03				*eS*	**Sn**	**07 27 50.0**	**+0.4**
VA03				IAML		07 27 53.4	
	comp=E,3μm,0.1s						
VA03	**San Esteban**	**2.80**	**50**	P	**Pn**	**07 27 17.8**	**+1.4**
MT08	**Bocatoma Ro**	**2.81**	**67**	*eP*	**Pn**	**07 27 17.9**	**+1.3**
MT08				*eS*	**Sn**	**07 27 52.0**	**+2.0**
MT08				IAML		07 27 53.6	
	comp=Z,871nm,0.3s						
MT08	**Bocatoma Ro**	**2.81**	**67**	*eP*	**Pn**	**07 27 17.9**	**+1.3**
CO04	**Los Peladeros**	**3.10**	**36**		**Pn**	**07 27 21.1**	**+0.5**
CO04	**Los Peladeros**	**3.10**	**36**	P	**Pn**	**07 27 21.2**	**+0.5**
CANA	**Caviahue**	**3.69**	**154**	*eP*	**Pn**	**07 27 31.0**	**+2.5**
CANA				*eS*	**Sb**	**07 28 21.7**	**+0.2**
CO02	**Combarbal**	**3.81**	**28**	*eP*	**Pn**	**07 27 31.1**	**+0.9**
CO02				*eS*	**Sn**	**07 28 15.1**	**+0.5**
CO02				IAML		07 28 16.8	
	comp=Z,1μm,0.4s						
CO02	**Combarbal**	**3.81**	**28**		**Pn**	**07 27 31.1**	**+0.9**
CO02	**Combarbal**	**3.81**	**28**	⇓*eP*	**Pn**	**07 27 31.1**	**+0.9**
CO02	**Combarbal**	**3.81**	**28**	P	**Pn**	**07 27 31.2**	**+1.0**
RFA	**San Rafael**	**3.83**	**94**	*eP*	**Pn**	07 27 16.5	-14
RFA				*eP*	**Pn**	**07 27 27.7**	**-2.8**
RFA				*eP*	Pb	07 27 32.9	-6.6
RFA				*eS*	**Sb**	**07 28 26.7**	**+1.2**
RFA				IAML		07 28 37.8	
	comp=Z,644nm,0.8s						
AAGR	**Agrelo**	**3.87**	**68**	*eP*	**Pn**	**07 27 34.3**	**+3.4**
BI04	**Isla Mocha**	**3.87**	**189**	⇓*eP*	**Pn**	**07 27 29.1**	**-1.8**
ARCO	**CERRO ARCO**	**3.89**	**65**	*eP*	**Pn**	**07 27 35.4**	**+4.0**
CO06	**Fray Jorge**	**4.09**	**18**		**Pn**	**07 27 34.2**	**+0.1**
RTLS	**Leoncito**	**4.24**	**50**	*eP*	**Pn**	**07 27 39.4**	**+3.2**
RTLS				*eS*	**Sn**	**07 28 27.7**	**+2.4**
RTLS				IAML		07 28 33.0	
	comp=Z,698nm,0.8s						
CO03	**El Pedregal**	**4.26**	**29**	*eP*	**Pn**	**07 27 37.4**	**+1.1**
CO03				*eS*	**Sn**	**07 28 27.0**	**+1.5**
CO03				IAML		07 28 29.8	
	comp=Z,656nm,0.4s						
CO03	**El Pedregal**	**4.26**	**29**	⇓*eP*	**Pn**	**07 27 37.4**	**+1.1**
CO03	**El Pedregal**	**4.26**	**29**	P	**Pn**	**07 27 37.5**	**+1.1**
ZON	**Zonda**	**4.80**	**52**	*eP*	**Pn**	**07 27 46.7**	**+2.9**
GO04	**Tololo Observa**	**4.81**	**25**	*eP*	**Pn**	**07 27 44.8**	**+0.7**
GO04				*eS*	**Sn**	**07 28 38.3**	**-1.2**
GO04				*eS*	Sb	07 28 39.5	-14
GO04				IAML		07 28 49.8	
	comp=Z,622nm,0.6s						
GO04	**Tololo Observa**	**4.81**	**25**	P	**Pn**	**07 27 44.8**	**+0.7**
VA04	**Juan Fernndez**	**4.84**	**280**		**Pn**	**07 27 44.8**	**+0.5**
VA04	**Juan Fernndez**	**4.84**	**280**	*eP*	**Pn**	**07 27 44.7**	**+0.5**
VA04	**Juan Fernndez**	**4.84**	**280**	P	**Pn**	**07 27 45.1**	**+0.9**
H03S1	**Juan Fernandez**	**4.86**	**277**	P	**Pn**	**07 27 43.8**	**-0.5**
H03S1				T	T	07 33 52.1	
	baz=98,slow=75,SNR=106						
H03S3	**Juan Fernandez**	**4.87**	**277**	P	**Pn**	**07 27 44.6**	**+0.2**
H03S3				T	T	07 34 05.4	
	baz=98,slow=75,SNR=66						
H03S2	**Juan Fernandez**	**4.88**	**277**	P	**Pn**	**07 27 44.1**	**-0.4**
H03S2				T	T	07 34 01.7	
	baz=98,slow=75,SNR=132						
H03N1	**Juan Fernandez**	**4.95**	**282**	P	**Pn**	**07 27 46.6**	**+1.0**
H03N2	**Juan Fernandez**	**4.97**	**282**	P	**Pn**	**07 27 46.9**	**+1.1**
CFA	**Coronel Fontan**	**5.05**	**55**	P	**Pn**	**07 27 49.3**	**+2.0**
	comp=Z,44nm,0.3s,baz=236,slow=11,SNR=1907						
CFA				S	**Sn**	**07 28 46.5**	**+1.3**
	comp=Z,78nm,0.4s,baz=54,slow=17,SNR=7.6						
	comp=Z,91nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**5.05**	**55**	*eP*	**Pn**	**07 27 49.5**	**+2.2**
RTLL	**Cerro Villicun**	**5.07**	**51**	*eP*	**Pn**	**07 27 50.2**	**+2.7**
RTLL				IAML		07 29 16.1	
	comp=Z,159nm,0.4s						
RTLL	**Cerro Villicun**	**5.07**	**51**	⇓*eP*	**Pn**	**07 27 49.7**	**+2.2**
GO06	**Curarrehue**	**5.16**	**166**	P	**Pn**	**07 27 49.3**	**+0.6**
	comp=Z,100nm,0.5s						
CO01	**Juntas del Tor**	**5.26**	**30**	P	**Pn**	**07 27 51.9**	**+1.7**
	comp=Z,148nm,0.7s						
LR05	**Currie**	**5.70**	**171**		**Pn**	**07 27 56.2**	**+0.1**
LCO	**Las Campanas**	**5.92**	**21**		**Pn**	**07 27 59.6**	**+0.2**
LCO	**Las Campanas**	**5.92**	**21**	P	**Pn**	**07 27 59.5**	**+0.1**
	comp=Z,108nm,0.5s						
AC05	**El Transito**	**6.22**	**24**	P	**Pn**	**07 28 04.4**	**+1.0**
	comp=Z,370nm,0.5s						
PLCA	**Paso Flores**	**6.46**	**162**	P	**Pn**	**07 28 07.5**	**+0.9**
	comp=Z,11nm,0.3s,baz=327,slow=11,SNR=148						
PLCA				LR	LR	07 30 43.3	
	comp=Z,340nm,18.1s,baz=342,slow=39						
	comp=Z,32nm,0.4s						
PLCA				AML	AML		
PLCA	**Paso Flores**	**6.46**	**162**		**Pn**	**07 28 07.3**	**+0.7**
PLCA	**Paso Flores**	**6.46**	**162**	P	**Pn**	**07 28 07.7**	**+1.1**
	comp=Z,52nm,0.5s						
PLCA	**Paso Flores**	**6.46**	**162**	*eP*	**Pn**	**07 28 07.5**	**+0.9**
LL03	**Petrohue**	**6.56**	**175**	P	**Pn**	**07 28 09.4**	**+1.5**
	comp=Z,135nm,0.7s						
AC04	**Llanos de Chal**	**6.59**	**16**	P	**Pn**	**07 28 08.0**	**-0.4**
	comp=Z,97nm,0.7s						
LL05	**Los Muermos**	**6.81**	**182**	P	**Pn**	**07 28 10.7**	**-0.7**
	comp=Z,160nm,1.8s						
GO03	**Copiapo**	**7.39**	**20**	P	**Pn**	**07 28 20.5**	**+1.1**
	comp=Z,96nm,0.6s						
TCA	**Tanti**	**7.85**	**68**	*eP*	**Pn**	**07 28 25.3**	**-0.5**
AC02	**Maricunga**	**8.45**	**25**	P	**Pn**	**07 28 34.5**	**+0.2**
	comp=Z,90nm,0.5s						
GO07	**Milladeo Hill,**	**8.53**	**183**		**Pn**	**07 28 33.6**	**-1.2**
GO07	**Milladeo Hill,**	**8.53**	**183**	P	**Pn**	**07 28 33.2**	**-1.6**
	comp=Z,114nm,0.5s						
LL02	**Futaleuf**	**8.65**	**174**	P	**Pn**	**07 28 35.5**	**-1.0**
	comp=Z,19nm,0.8s						
COYC	**Coyhaique**	**11.00**	**176**	Pn	**Pn**	**07 29 08.3**	**-0.4**
COYC	**Coyhaique**	**11.00**	**176**	P	**Pn**	**07 29 09.5**	**+0.8**
	comp=Z,15nm,0.8s						
SALTA		**11.89**	**31**	P	**Pn**	**07 29 19.6**	**-1.8**
	comp=Z,5.1nm,0.8s						
PB06	**IPOC Station P**	**12.24**	**16**	P	**Pn**	**07 29 25.8**	**-0.1**
	comp=Z,20nm,1.0s						
ANCO	**Parque Anchore**	**12.51**	**93**	*eP*	**Pn**	**07 29 28.1**	**-1.3**
PB07	**IPOC Station P**	**13.12**	**13**	P	**Pn**	**07 29 35.9**	**-2.1**
	comp=Z,17nm,1.4s						
PSAL	**Palomas, Salto**	**13.49**	**79**	*eP*	**Pn**	**07 29 40.5**	**-2.4**
ITQB	**Itaqui**	**14.80**	**75**	*eP*	**Pn**	**07 29 58.4**	**-2.3**
GO01	**Chusmiza**	**15.26**	**14**		**Pn**	**07 30 06.8**	**-0.5**
GO01	**Chusmiza**	**15.26**	**14**	P	**Pn**	**07 30 07.8**	**+0.5**
	comp=Z,11nm,1.7s						
CPUP	**Villa Florida**	**15.89**	**63**	P	**Pn**	**07 30 08.8**	**-6.2**
	comp=Z,1.7nm,0.8s,baz=232,slow=12,SNR=5.2						
CPUP				LR	LR	07 36 53.1	
	comp=Z,235nm,20.5s,baz=262,slow=39						
CPUP	**Villa Florida**	**15.89**	**63**		**Pn**	**07 30 09.2**	**-5.8**
CPUP	**Villa Florida**	**15.89**	**63**	*eP*	**Pn**	**07 30 13.3**	**-1.8**
CPUP				*ep*P	**P**	**07 30 19.6**	**+1.0**
PB12	**IPOC Station P**	**16.10**	**10**	Pn	**Pn**	**07 30 17.3**	**-0.6**
PB16	**IPOC Station P**	**16.50**	**12**		**Pn**	**07 30 21.6**	**-1.8**
PB16	**IPOC Station P**	**16.50**	**12**	P	**Pn**	**07 30 23.4**	**-0.1**
	comp=Z,18nm,0.8s						
CPSB	**Cacapava Do Su**	**17.11**	**81**	P	**Pn**	**07 30 27.4**	**-3.1**
CPSB	**Cacapava Do Su**	**17.11**	**81**	*eP*	**Pn**	**07 30 27.1**	**-3.4**
PB18	**Visviri**	**17.23**	**12**	P	**Pn**	**07 30 32.3**	**-0.4**
PB18				IAmb	IAmb	07 30 40.9	
	comp=Z,59nm,1.4s						
PB18	**Visviri**	**17.23**	**12**	P	**Pn**	**07 30 32.2**	**-0.4**
	comp=Z,40nm,1.9s						
SJPY	**San Joaquin**	**17.56**	**62**	*eP*	**Pn**	**07 30 33.3**	**-2.9**
LPAZ	**La Paz**	**18.76**	**15**	P	**Pn**	**07 30 53.7**	**+2.1**
	comp=Z,0.5nm,0.3s,baz=175,slow=7.9,SNR=42						
	comp=Z,11nm,0.8s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**18.76**	**15**	P	**P**	**07 30 49.4**	**-1.6**
LPAZ	**La Paz**	**18.76**	**15**	P	**Pn**	**07 30 53.0**	**+1.5**
	comp=Z,19nm,1.1s						
LPAZ	**La Paz**	**18.76**	**15**	*eP*	**P**	**07 30 50.1**	**-0.9**
ITAB	**Concordia**	**19.41**	**74**	P	**P**	**07 30 57.8**	**+0.2**
	comp=Z,32nm,0.9s						
ITAB	**Concordia**	**19.41**	**74**	*eP*	**P**	**07 30 56.5**	**-1.0**
CNLB	**Canela**	**19.59**	**81**	*eP*	**P**	**07 30 58.8**	**-0.7**
COIM	**Forte Coimbra**	**19.94**	**47**	*eP*	**P**	**07 31 02.4**	**-0.9**
BDQN	**Bodoquena, MS**	**20.18**	**50**	*eP*	**P**	**07 31 05.3**	**-0.6**
BBSD	**Serra de San D**	**20.62**	**36**	*eP*	**P**	**07 31 07.9**	**-2.9**
PTGB	**Pitanga**	**20.73**	**67**	*eP*	**P**	**07 31 11.2**	**-0.8**
AQDB	**Aquidauana**	**20.83**	**52**	P	**P**	**07 31 12.7**	**-0.3**
AQDB				IAmb	IAmb	07 31 18.9	
	comp=Z,19nm,0.9s						
AQDB	**Aquidauana**	**20.83**	**52**	P	**P**	**07 31 13.3**	**+0.3**
	comp=Z,22nm,1.0s						
AQDB	**Aquidauana**	**20.83**	**52**	*eP*	**P**	**07 31 12.2**	**-0.8**
SIV	**San Ignacio**	**21.44**	**33**	P	**P**	**07 31 20.6**	**+1.0**
	comp=Z,21nm,1.0s,baz=208,slow=9.3,SNR=42						
	comp=Z,21nm,1.0s						
LDASE	**Londrina, Braz**	**22.19**	**66**	*eP*	**P**	**07 31 26.0**	**-1.6**
PTLB	**Pontes e Lacer**	**22.83**	**37**	P	**P**	**07 31 34.3**	**-0.1**
PTLB				IAmb	IAmb	07 31 41.7	
	comp=Z,24nm,1.5s						
PTLB	**Pontes e Lacer**	**22.83**	**37**	*eP*	**P**	**07 31 34.1**	**-0.3**
PCMB	**Pacaembu**	**23.15**	**62**	P	**P**	**07 31 38.1**	**+0.4**
	comp=Z,67nm,0.6s						
PCMB	**Pacaembu**	**23.15**	**62**	*eP*	**P**	**07 31 36.3**	**-1.4**
SALV	**Santo Antonio**	**24.31**	**44**	*eP*	**P**	**07 31 48.5**	**-0.4**
VILB	**Vilhena**	**24.52**	**32**	P	**P**	**07 31 50.2**	**-0.6**
VILB				IAmb	IAmb	07 32 04.9	
	comp=Z,18nm,0.8s						
VILB	**Vilhena**	**24.52**	**32**	*eP*	**P**	**07 31 50.6**	**-0.2**
PET01	**Itanhaem-SP**	**24.66**	**72**	*eP*	**P**	**07 31 51.3**	**-0.8**
VAO	**Valinhos**	**25.58**	**70**	P	**P**	**07 31 59.2**	**-1.3**
VAO				IAmb	IAmb	07 32 03.0	
	comp=Z,11nm,0.9s						
CZSB	**Cruzeiro do Su**	**26.73**	**1**	P	**P**	**07 32 10.4**	**-0.4**
CZSB				IAmb	IAmb	07 32 39.2	
	comp=Z,15nm,1.2s						
CZSB	**Cruzeiro do Su**	**26.73**	**1**	*eP*	**P**	**07 32 10.7**	**-0.1**
PDRB	**Porto dos Gac**	**27.30**	**37**	*eP*	**P**	**07 32 15.7**	**-0.3**
CANS	**Sao Roque de M**	**27.55**	**66**	*eP*	**P**	**07 32 17.4**	**-1.0**
IPMB	**Ipameri, GO**	**27.67**	**60**	*eP*	**P**	**07 32 18.3**	**-1.0**
ATAH	**Atahualpa**	**27.75**	**349**	LR	LR	07 41 24.7	
	comp=Z,96nm,20.2s,baz=141,slow=32						
CLDB	**Colider**	**28.40**	**38**	P	**P**	**07 32 26.7**	**+0.9**
	comp=Z,11nm,0.8s						
CLDB	**Colider**	**28.40**	**38**	*eP*	**P**	**07 32 25.5**	**-0.4**
BDFB	**Brasilia**	**29.40**	**56**	P	**P**	**07 32 34.2**	**-0.2**
	comp=Z,2.1nm,0.4s,baz=240,slow=5.9,SNR=5.5						
BDFB				LR	LR	07 45 57.7	
	comp=Z,195nm,19.4s,baz=227,slow=40						
	comp=Z,2.1nm,0.4s						
BDFB	**Brasilia**	**29.40**	**56**	P	**P**	**07 32 34.3**	**-0.5**
BDFB				IAmb	IAmb	07 32 55.4	
	comp=Z,7.2nm,1.0s						
SNDB	**Serra Nova Dou**	**30.00**	**47**	*eP*	**P**	**07 32 39.1**	**-1.0**
PMSA	**Palmer Station**	**30.72**	**172**	LR	LR	07 44 47.0	
	comp=Z,111nm,19.7s,baz=282,slow=36						
RPN	**Rapa Nui**	**31.85**	**273**	LR	LR	07 42 12.8	
	comp=Z,244nm,19.8s,baz=120,slow=29						
NPGB	**Novo Progresso**	**31.92**	**35**	*eP*	**P**	**07 32 56.5**	**-0.4**
HOPE	**Hope Point**	**32.22**	**139**	P	**P**	**07 32 59.1**	**-0.1**
HOPE	**Hope Point**	**32.22**	**139**	P	**P**	**07 32 57.7**	**-1.4**
	comp=Z,85nm,2.9s						
BSFB	**Barra de Sao F**	**32.64**	**70**	P	**P**	**07 33 02.4**	**-0.9**
BSFB	**Barra de Sao F**	**32.64**	**70**	*eP*	**P**	**07 33 01.9**	**-1.3**
SDBA	**SAO DESIDERIO**	**33.80**	**56**	*eP*	**P**	**07 33 11.2**	**-2.3**
ITTB	**Itaituba**	**34.12

	comp=Z,13nm,0.8s							
BOSA	**Boshof**	**80.58**	**118**	P		**P**	**07 38 43.8**	**-0.2**
ECSD	**EROS Data Cent**	**80.84**	**343**	P		**P**	**07 38 44.9**	**+0.2**
ECSD				IAmb		IAmb	07 38 59.3	
	comp=Z,18nm,1.5s							
ECSD	**EROS Data Cent**	**80.84**	**343**	P		**P**	**07 38 44.6**	**-0.1**
	comp=Z,6.3nm,1.1s							
GRTLG	**Ghanzi**	**81.57**	**110**	P		**P**	**07 38 48.9**	**-0.5**
LBTB	**Lobatse**	**82.86**	**115**	LR		LR	08 09 59.8	
	comp=Z,40nm,20.2s,baz=194,slow=32							
KDWAN	**Kaudwane**	**83.08**	**113**			**P**	**07 38 55.7**	**-1.5**
HWUT	**Hardware Ranch**	**83.64**	**332**	P		**P**	**07 38 58.5**	**-1.2**
	comp=Z,4.6nm,1.5s							
NVAR	**Mina Array Bea**	**83.86**	**326**	P		**P**	**07 39 03.9**	**+3.0**
	comp=Z,0.2nm,0.6s,baz=92,slow=9.4,SNR=2.2							
	comp=Z,0.2nm,0.6s							
NVAR	**Mina Array Bea**	**83.86**	**326**	P		**P**	**07 39 01.0**	**+0.1**
PDAR	**Pinedale Array**	**83.89**	**334**	P		**P**	**07 39 04.3**	**+3.4**
	comp=Z,0.2nm,0.6s,baz=200,slow=4.2,SNR=1.8							
	comp=Z,0.2nm,0.6s							
PDAR	**Pinedale Array**	**83.89**	**334**	P		**P**	**07 39 00.4**	**-0.5**
TORD	**Torodi Ar. Bea**	**85.24**	**71**	P		**P**	**07 39 08.8**	**+0.6**
	comp=Z,4.5nm,0.7s,baz=272,slow=3.3,SNR=23							
	comp=Z,4.5nm,0.7s							
TORD	**Torodi Ar. Bea**	**85.24**	**71**	P		**P**	**07 39 08.0**	**-0.1**
TORD				IAmb		IAmb	07 39 09.9	
	comp=Z,4.0nm,0.8s							
WRA	**Warramunga Arr**	**119.82**	**210**	PKP		**PKPdf**	**07 45 21.8**	**-0.1**
	comp=Z,0.9nm,0.7s,baz=157,slow=1.6,SNR=5.6							
WRA	**Warramunga Arr**	**119.82**	**210**			**PKiKP**	**07 45 22.4**	**+0.4**
BRTR	**Keskin Array B**	**122.89**	**62**	PKhKP		PKPpre	07 45 20.1	
	comp=Z,0.8nm,0.7s,baz=190,slow=2.7,SNR=4.1							
H11N3	**WAKE ISLAND Hyl**	**125.30**	**271**	T		T	10 04 31.1	
	baz=122							
H11N1	**WAKE ISLAND Hyl**	**125.32**	**271**	T		T	10 04 36.4	
	baz=122							
H11N2	**WAKE ISLAND Hyl**	**125.32**	**271**	T		T	10 04 26.2	
	baz=122							
BVAR	**Borovoye Array**	**148.31**	**43**	PKPbc		**PKiKP**	**07 46 18.0**	**-0.5**
	comp=Z,4.3nm,0.6s,baz=314,slow=2.7,SNR=11							
KURBB	**Kurchatov Arra**	**153.90**	**43**	PKPbc		**PKPbc**	**07 46 29.9**	**0.0**
	comp=Z,1.2nm,0.6s,baz=301,slow=2.9,SNR=13							
ZALV	**Zalesovo Beam**	**155.19**	**32**	PKP		**PKPdf**	**07 46 24.1**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=298,slow=3.2,SNR=3.9							
ZALV				PKPab		**PKPab**	**07 46 47.4**	**-1.2**
	comp=Z,2.7nm,0.6s,baz=304,slow=4.7,SNR=7.3							
ZALV	**Zalesovo Beam**	**155.19**	**32**	PKPbc		PKPbc	07 46 33.7	
ZALV						**PKPab**	**07 46 47.6**	**-1.0**
MKAR	**Makanchi Array**	**157.82**	**49**	PKPab		**PKPab**	**07 47 01.3**	**+1.1**
	comp=Z,2.4nm,0.6s,baz=294,slow=3.8,SNR=11							
MKAR	**Makanchi Array**	**157.82**	**49**	PKPdf		**PKPdf**	**07 46 27.1**	**-0.3**
MKAR						**PKPab**	**07 47 01.1**	**+0.9**
SONM	**Songino Array**	**166.76**	**1**	PKPab		**PKPab**	**07 47 40.4**	**+1.1**
	comp=Z,1.1nm,0.8s,baz=335,slow=2.9,SNR=4.0							
NJ2	**Nanjing**	**169.68**	**259**	*e*P		**PKPdf**	**07 46 38.6**	**-0.1**
NJ2				pmax		pmax		
	comp=Z,6.0nm,0.5s							
HHC	**Hu-ho-hao-te**	**172.73**	**331**	*e*P		**PKPdf**	**07 46 38.3**	**-1.9**

*IDC **22** 07:34:00.3±4.0, 2˚.68N×122˚.04E, h553km±55km, mb3.0/12, mbtmp4.0/12, Error ellipse: s-maj=32.9km s-min=15.2km az=77.0*
*NEIC **22** 07:34:00.6±1.2, 2˚.7N±0˚.1×122˚.00E±0˚.07, h558km±13km, mb4.2/11, Error ellipse: s-maj=19.6km s-min=8.6km az=196.0*
*DJA **22** 07:34:01.9±1.5, 3˚N±15˚×12˚.2E±˚, h530km±13km, M4.2/10, mb4.7/4, mb4.4/5, MLv4.1/10, Mw(mB)3.9/4*
ISC 22 07:34:00.2±0.6, 2.65N±0.08×122.0E±0.1, h559km, n35, σ0s75/38, mb3.7/19, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TOLI2	**Tolitoli**	**1.96**	**219**	P	**P**	**07 35 11.4**	**+0.8**
GTOI	**Gorontalo**	**2.23**	**154**	P	**P**	**07 35 10.6**	**-1.2**
APSI	**Ampana**	**3.55**	**186**	P	**P**	**07 35 20.2**	**+0.6**
APSI				AML	AML		
LUWI	**Luwuk**	**3.74**	**168**	P	**P**	**07 35 20.5**	**-0.3**
LUWI	**Luwuk**	**3.74**	**168**	P	**P**	**07 35 19.8**	**-1.1**
LUWI				S	S	**07 36 25.5**	**-1.0**
LUWI				AML	AML		
TNTI	**Ternate**	**5.66**	**109**	P	**P**	**07 35 36.3**	**0.0**
KKM	**Kota Kinabalu**	**6.70**	**300**	P	**P**	**07 35 45.4**	**-0.4**
FAKI	**Fak Fak**	**11.63**	**118**	P	**P**	**07 36 35.6**	**+0.6**
SAUI	**Saumlaki**	**14.04**	**139**	P	**P**	**07 36 59.3**	**-0.6**
WB0	**Warramunga Arr**	**25.37**	**152**	P	**P**	**07 38 44.1**	**+0.3**
WB0				IAmb	IAmb	07 39 07.0	
	comp=Z,3.2nm,0.5s						
WRA	**Warramunga Arr**	**25.50**	**152**	P	**P**	**07 38 44.8**	**-0.2**
	comp=Z,0.2nm,0.4s,baz=335,slow=9.5,SNR=2.1						
	comp=Z,0.2nm,0.4s						
WR8	**Warramunga Arr**	**25.59**	**152**	P	**P**	**07 38 46.1**	**+0.4**
WR8				IAmb	IAmb	07 39 09.9	
	comp=Z,4.7nm,0.5s						
ASAR	**Alice Springs**	**28.60**	**157**	P	**P**	**07 39 13.3**	**+1.1**
	comp=Z,0.2nm,0.4s,baz=333,slow=7.2,SNR=5.1						
	comp=Z,0.2nm,0.4s						
RABL	**Rabaul**	**30.88**	**103**	P	**P**	**07 39 31.8**	**-0.2**
MORW	**Morawa**	**32.05**	**190**	P	**P**	**07 39 42.5**	**+0.9**
MORW				IAmb	IAmb	07 39 50.9	
	comp=Z,6.0nm,1.0s						
JMN	**Monobe**	**32.85**	**18**	P	**P**	**07 39 48.6**	**+0.1**
JMN				IAmb	IAmb	07 40 05.1	
	comp=Z,18nm,1.1s						
KSRS	**Korea Array**	**35.06**	**8**	P	**P**	**07 40 07.2**	**+0.4**
	comp=Z,1.0nm,0.6s,baz=189,slow=8.7,SNR=4.2						
	comp=Z,1.0nm,0.6s						
NWAO	**Narrogin (SRO)**	**35.67**	**187**		**P**	**07 40 12.2**	**+0.3**
NWAO				IAmb	IAmb	07 40 14.3	
	comp=Z,7.3nm,0.8s						
EVN	**Everest**	**41.97**	**310**		**P**	**07 41 01.7**	**-2.1**
USA0B	**Ussuriysk Arra**	**42.31**	**11**	P	**P**	**07 41 05.3**	**0.0**
USA0B				IAmb	IAmb	07 41 06.2	
	comp=Z,3.9nm,0.6s						
USRK	**Ussuriysk Ar.**	**42.31**	**11**	P	**P**	**07 41 05.4**	**+0.1**
	comp=Z,3.4nm,0.5s,baz=194,slow=6.3,SNR=10.0						
	comp=Z,3.4nm,0.5s						
USRK	**Ussuriysk Ar.**	**42.31**	**11**	P	**P**	**07 41 05.2**	**-0.1**
ASAJ	**Asahikawa**	**45.14**	**21**	P	**P**	**07 41 26.8**	**-0.4**
	comp=Z,9.3nm,0.8s,baz=235,slow=14,SNR=5.3						
	comp=Z,9.3nm,0.8s						
JKA	**Kamikawa-asahi**	**45.14**	**21**	P	**P**	**07 41 26.5**	**-0.7**
HILR	**Hailar Array B**	**46.78**	**358**	P	**P**	**07 41 39.6**	**0.0**
	comp=Z,2.9nm,0.4s,baz=177,slow=10,SNR=4.2						
	comp=Z,2.9nm,0.4s						
SONM	**Songino Array**	**47.00**	**346**	P	**P**	**07 41 41.7**	**+0.3**
	comp=Z,1.1nm,0.7s,baz=158,slow=8.1,SNR=6.0						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**47.00**	**346**	P	**P**	**07 41 42.6**	**+1.2**
MKAR	**Makanchi Array**	**55.86**	**328**	P	**P**	**07 42 46.2**	**+1.0**
	comp=Z,0.5nm,0.3s,baz=126,slow=8.4,SNR=6.8						
MKAR				PcP	**PcP**	**07 43 35.4**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=146,slow=2.8,SNR=6.6						
	comp=Z,0.5nm,0.3s						
MKAR	**Makanchi Array**	**55.86**	**328**	P	**P**	**07 42 44.3**	**-1.0**
MKAR				PcP	**PcP**	**07 43 35.4**	**-0.5**
PETK	**Petropavlovsk-**	**58.28**	**24**	P	**P**	**07 43 02.1**	**+0.5**
	comp=Z,2.6nm,0.9s,baz=232,slow=6.8,SNR=1.9						
	comp=Z,2.6nm,0.9s						
ZALV	**Zalesovo Beam**	**59.52**	**336**	P	**P**	**07 43 09.4**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=130,slow=4.5,SNR=3.9						
	comp=Z,0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**60.20**	**330**	P	**P**	**07 43 15.0**	**+0.5**
	comp=Z,1.1nm,0.6s,baz=130,slow=5.9,SNR=15						
	comp=Z,1.1nm,0.6s						
KURK	**Kurchatov**	**60.21**	**330**	P	**P**	**07 43 15.4**	**+0.9**
KURK				IAmb	IAmb	07 43 15.9	
	comp=Z,2.3nm,0.6s						
BVAR	**Borovoye Array**	**65.73**	**329**	P	**P**	**07 43 50.5**	**+0.5**
	comp=Z,0.6nm,0.5s,baz=100,slow=6.0,SNR=2.7						
	comp=Z,0.6nm,0.5s						
TXAR	**Lajitas Array**	**125.95**	**51**	PKP	**PKiKP**	**07 52 01.2**	**+0.9**
	comp=Z,0.1nm,0.7s,baz=173,slow=1.3,SNR=1.5						

*NEIC **22** 07:35:58.7±0.9, 7˚.10S±0˚.09×129˚.67E±0˚.09, h131km±12km, mb4.2/6, Error ellipse: s-maj=12.7km s-min=12.4km az=173.0*
*IDC **22** 07:35:59.8±3.4, 7˚.29S×129˚.68E, h128km±29km, mb3.5/2, mbtmp4.0/5, Error ellipse: s-maj=53.4km s-min=20.2km az=73.0*
ISC 22 07:35:58.7±0.7, 7˚.16S±0˚.06×129˚.74E±0˚.08, h139km, n33, σ2s01/35, mb4.0/5, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.75**	**118**	P	**Pn**	**07 36 34.7**	**+4.5**
SAUI	**Saumlaki**	**1.75**	**118**		**Pn**	**07 36 30.8**	**+0.5**
FAKI	**Fak Fak**	**4.90**	**31**	P	Pn	07 37 07.5	-3.1
FAKI	**Fak Fak**	**4.90**	**31**	S	**Sn**	**07 38 02.6**	**-4.1**
FAKI	**Fak Fak**	**4.90**	**31**		**Pn**	**07 37 10.1**	**-0.6**
DRS	**Darwin Rock St**	**5.36**	**168**	P	**Pn**	**07 37 20.6**	**+3.9**
MTN	**Manton Dam**	**5.81**	**166**	Pn	**Pn**	**07 37 24.4**	**+1.6**
MTN				Sn	**Sn**	**07 38 28.1**	**-0.3**
SOEI	**Soe**	**5.99**	**244**	Pn	**Pn**	**07 37 24.3**	**-1.0**
KNRA	**Kununurra**	**8.52**	**186**		**Pn**	**07 37 59.6**	**+0.6**
GENI	**Genyem**	**11.34**	**67**	P	Pn	07 38 30.0	-6.7
GENI	**Genyem**	**11.34**	**67**	S	Sn	07 40 33.9	-8.0
FITZ	**Fitzroy Crossi**	**11.58**	**200**	P	**Pn**	**07 38 40.8**	**+1.0**
	3.0nm,0.2s,baz=33,slow=14,SNR=29						
FITZ				S	**Sn**	**07 40 45.0**	**-2.7**
	1.8nm,0.3s,baz=126,slow=23,SNR=5.4						
FITZ	**Fitzroy Crossi**	**11.58**	**200**	P	**Pn**	**07 38 41.8**	**+2.0**
PLAI	**Plampang**	**11.96**	**261**	P	**Pn**	**07 38 46.3**	**+1.4**
WB0	**Warramunga Arr**	**13.32**	**161**		**Pn**	**07 39 03.3**	**+0.8**
WRAB	**Tennant Creek**	**13.46**	**161**	P	**Pn**	**07 39 03.5**	**-0.8**
WRA	**Warramunga Arr**	**13.47**	**161**	P	**Pn**	**07 39 04.3**	**0.0**
	1.5nm,0.4s,baz=343,slow=13,SNR=27						
WRA				S	**Sn**	**07 41 30.4**	**-2.9**
	2.8nm,0.5s,baz=335,slow=22,SNR=10.0						
WRA	**Warramunga Arr**	**13.47**	**161**		**Pn**	**07 39 03.5**	**-0.8**
WB2	**Warramunga Arr**	**13.47**	**161**	Pn	**Pn**	**07 39 05.1**	**+0.7**
WR8	**Warramunga Arr**	**13.53**	**160**		**Pn**	**07 39 06.4**	**+1.3**
WR0	**Warramunga Arr**	**13.55**	**160**	Pn	**Pn**	**07 39 06.9**	**+1.5**
JAGI	**Jajag, Banyuwa**	**15.50**	**264**	P	**Pn**	**07 39 29.3**	**-0.6**
ASAR	**Alice Springs**	**16.89**	**167**	P	**Pn**	**07 39 49.1**	**+2.2**
	0.5nm,0.4s,baz=341,slow=12,SNR=19						
ASAR				S	**Sn**	**07 42 52.8**	**-2.8**
	0.9nm,0.6s,baz=348,slow=25,SNR=5.5						
ASAR				ScP	**ScP**	**07 47 50.6**	**+2.7**
	0.2nm,0.5s,baz=356,slow=1.3,SNR=4.7						
AS01	**Alice Springs**	**16.90**	**167**	P	**P**	**07 39 44.7**	**-2.1**
PMG	**Port Moresby**	**17.38**	**99**	P	**P**	**07 39 53.1**	**+1.0**
PMG				IAmb	IAmb	07 39 55.6	
	comp=Z,15nm,1.0s						
INKA	**Innaminka**	**22.97**	**154**	P	**P**	**07 40 51.7**	**+0.5**
EIDS	**Eidsvold**	**27.26**	**134**	P	**P**	**07 41 29.9**	**-0.2**
EIDS				IAmb	IAmb	07 41 55.7	
	comp=Z,7.0nm,1.1s						
MKAR	**Makanchi Array**	**68.22**	**327**	P	**P**	**07 46 46.5**	**+2.2**
	comp=Z,0.9nm,0.4s,baz=116,slow=6.6,SNR=13						
	comp=Z,0.9nm,0.4s						
MKAR	**Makanchi Array**	**68.22**	**327**	P	**P**	**07 46 44.1**	**-0.2**
MAKZ	**Makanchi**	**68.40**	**327**	P	**P**	**07 46 45.6**	**+0.2**
NRN	**Naryn**	**68.92**	**319**	P	**P**	**07 46 48.6**	**-0.5**
NRN				IAmb	IAmb	07 46 49.9	
	comp=Z,6.5nm,0.8s						
KURBB	**Kurchatov Arra**	**72.51**	**329**	P	**P**	**07 47 13.8**	**+3.7**
	comp=Z,0.3nm,0.4s,baz=124,slow=5.0,SNR=5.0						
	comp=Z,0.3nm,0.4s						
KURK	**Kurchatov**	**72.52**	**329**	P	**P**	**07 47 10.3**	**+0.1**
KURK				IAmb	IAmb	07 47 30.6	
	comp=Z,0.9nm,0.8s						

*NNC **22** 07:49:44.4±0.6, 50˚.00N×78˚.83E, h0km, mb3.0, mpv2.4, Error ellipse: s-maj=18.8km s-min=3.1km az=70.0, Suspected Mining explosion.*
*IDC **22** 07:49:45.8±1.6, 50˚.07N×78˚.73E, h0km, mbtmp2.5/2, ML1.9/2, Error ellipse: s-maj=14.6km s-min=11.1km az=53.0*
ISC 22 07:49:44.1±2.4, 50˚.02N±0˚.08×78˚.5E±0˚.3, h0km, n15, σ0s86/25, 18C-5D, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR07	**Kurchatov Arra**	**0.57**	**4**	↑P	**Pb**	**07 49 56.3**	**-0.6**
KUR07				↑S	**Sb**	**07 50 05.1**	**-0.5**
KUR06	**Kurchatov Arra**	**0.59**	**4**	↑P	**Pb**	**07 49 56.7**	**-0.6**
KUR06				↑S	**Sb**	**07 50 05.8**	**-0.3**
KUR14	**Kurchatov Arra**	**0.60**	**8**	↑P	**Pb**	**07 49 56.6**	**-1.0**
KUR14				↑S	**Sb**	**07 50 05.4**	**-1.2**
KUR15	**Kurchatov Arra**	**0.61**	**6**	↓P	**Pb**	**07 49 57.0**	**-0.6**
KUR15				↑S	**Sb**	**07 50 05.6**	**-1.1**
KURBB	**Kurchatov Arra**	**0.61**	**4**	Pg	**Pg**	**07 49 55.4**	**-0.3**
	0.5nm,0.3s,baz=165,slow=17,SNR=49						
KURBB				Lg	Lg	07 50 05.6	
	0.5nm,0.3s,baz=166,slow=32,SNR=5.8						
KURBB	**Kurchatov Arra**	**0.61**	**4**	↑P	**Pb**	**07 49 56.9**	**-0.7**
	9.6nm,0.5s						
KURBB				↑S	**Sb**	**07 50 07.4**	**+0.7**
	49nm,0.7s						
KUR16	**Kurchatov Arra**	**0.61**	**3**	↑P	**Pb**	**07 49 57.1**	**-0.6**
KUR16				↓S	**Sb**	**07 50 06.8**	**0.0**
KUR17	**Kurchatov Arra**	**0.62**	**1**	↓P	**Pb**	**07 49 57.6**	**-0.2**
KUR17				↓S	**Sb**	**07 50 07.8**	**+0.9**
KUR05	**Kurchatov Arra**	**0.63**	**5**	↑P	**Pb**	**07 49 57.3**	**-0.7**
KUR05				↑S	**Sb**	**07 50 06.6**	**-0.7**
KUR04	**Kurchatov Arra**	**0.65**	**5**	↑P	**Pb**	**07 49 57.8**	**-0.5**
KUR04				↑S	**Sb**	**07 50 07.5**	**-0.4**
KURK	**Kurchatov**	**0.71**	**8**	↑P	**Pb**	**07 49 58.8**	**-0.5**
	1.6nm,0.6s						
KURK				↑S	**Sb**	**07 50 08.8**	**-0.8**
	8.0nm,0.8s						
MK31	**Makanchi Array**	**4.11**	**140**	↑Pg	**Pb**	**07 50 56.7**	**-0.7**
	0.7nm,0.5s,baz=326,slow=13,SNR=4.8						
MK31				↓Sn	**Sn**	**07 51 36.2**	**-0.8**
	1.3nm,0.9s,baz=124,slow=26,SNR=4.3						
MK31				↑Lg	Lg	07 51 52.7	
	3.6nm,0.8s,baz=330,slow=26,SNR=7.9						
MKAR	**Makanchi Array**	**4.11**	**140**	Pn	**Pn**	**07 50 49.4**	**+1.2**
	0.1nm,0.3s,baz=323,slow=10,SNR=5.8						
MKAR				Lg	Lg	07 51 52.5	
	0.5nm,0.3s,baz=328,slow=25,SNR=8.6						
	0.3nm,0.5s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**5.56**	**43**	I	I	08 23 34.8	
	0.1nm,0.9s,baz=225,slow=333,SNR=15						
ZALV	**Zalesovo Beam**	**5.56**	**43**	Pn	**Pn**	**07 51 10.1**	**+2.1**
	0.1nm,0.3s,baz=233,slow=14,SNR=4.3						
	0.7nm,0.4s						
ZALV				AML	AML		

*DNK **22** 08:03:01.2±1.0, 81˚.58N×3˚.82W, h36km±11km, ML1.3, Presumed earthquake*
BER 22 08:02:59.3±2.8, 81˚.52N×3˚.81W, h10km, Mw2.9, ML1.3(DNK), Confirmed Earthquake, North of Svalbard

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NOR	**Nord**	**1.90**	**279**	*i* P	Pn	08 03 29.6	-2.1
NOR				*i* S	Sn	08 03 51.7	-3.9
NOR				IAML		08 03 54.3	
	comp=Z,1.6nm,0.4s						
NOR	**Nord**	**1.90**	**279**	*i* P	Pn	08 03 29.6	-2.1
NOR				*i* S	Sn	08 03 51.7	-3.9
NOR				IAML		08 03 54.3	
	comp=Z,1.6nm,0.4s						
KBS	**Kingsbay**	**3.73**	**126**	*i* P	Pn	08 03 55.7	-1.0
KBS				*i* S	Sn	08 04 35.6	-5.0
KBS	**Kingsbay**	**3.73**	**126**	*i* P	Pn	08 03 55.7	-1.0
KBS				*i* S	Sn	08 04 35.6	-5.0
BRBB	**Barentsburg B**	**4.67**	**128**	*e*P	Pn	08 04 10.0	+0.3
SPA0	**Spitsbergen Ar**	**4.86**	**123**	*e*P	Pn	08 04 11.3	-1.0
DAG	**Danmarks Havn**	**5.51**	**218**	*i* P	Pn	08 04 20.4	-0.7
DAG				*i* S	Sn	08 05 17.5	-6.9
DAG				IAML		08 05 26.5	
	comp=Z,2.0nm,0.3s						
DAG	**Danmarks Havn**	**5.51**	**218**	*i* P	Pn	08 04 20.4	-0.7
DAG				*i* S	Sn	08 05 17.5	-6.9
DAG				IAML		08 05 26.5	
	comp=Z,2.0nm,0.3s						
HOPEN	**Hopen**	**7.33**	**118**	*e*S	Sn	08 05 58.0	-11

*IDC **22** 08:11:17.1±1.1, 0˚.65S×127˚.85E, h0km, mb3.7/6, mbtmp3.9/8, ML3.8/2, Error ellipse: s-maj=36.5km s-min=18.4km az=78.0*
*DJA **22** 08:11:21.2±0.3, 1˚.S±2˚×12˚.8E±˚, h10km, M4.3/14, mb4.6/7, mB5.5/3, MLv4.0/14, Mw(mB)5.0/3*
ISC 22 08:11:18.4±1.0, 0˚.69S±0˚.08×127˚.9E±0˚.2, h10km, n14, σ1s82/15, mb4.0/5, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.54**	**340**	P	**Pn**	**08 11 47.1**	**+1.2**
TNTI				AML	AML		
SANI	**Sanana**	**2.33**	**234**	P	**Pn**	**08 11 54.9**	**-1.9**
LUWI	**Luwuk**	**5.13**	**266**	P	**Pn**	**08 12 33.9**	**-1.4**
LUWI				AML	AML		
KDI	**Kendari**	**6.19**	**238**	P	**Pn**	**08 12 50.4**	**+0.5**
KDI				AML	AML		
APSI	**Ampana**	**6.24**	**268**	P	**Pn**	**08 12 48.7**	**-1.9**
	0.3nm37nm,0.7s						
APSI				AML	AML		
SPSI	**Sidrap Palu**	**8.74**	**248**	P	**Pn**	**08 13 25.9**	**+0.9**
KAPI	**Kappang**	**9.19**	**242**	Pn	**Pn**	**08 13 32.8**	**+1.6**
	3.1nm,0.3s,baz=63,slow=6.8,SNR=3.9						
	7.4nm,0.3s						
KAPI				AML	AML		
FITZ	**Fitzroy Crossi**	**17.44**	**187**	P	**Pn**	**08 15 23.8**	**+1.9**
	0.1nm,0.3s,baz=7.0,slow=11,SNR=1.7						
	4.6nm,1.2s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**20.15**	**162**	P	**P**	**08 15 53.6**	**+0.6**
	0.5nm,0.4s,baz=341,slow=11,SNR=10						
WRA				S	S	08 19 31.0	-8.4
	0.3nm,0.9s,baz=345,slow=22,SNR=1.2						
	0.5nm,0.4s						
ASAR	**Alice Springs**	**23.58**	**166**	P	**P**	**08 16 29.8**	**+0.4**
	2.3nm,0.6s,baz=343,slow=11,SNR=33						
ASAR				S	**S**	**08 20 39.3**	**-4.6**
	0.7nm,0.9s,baz=338,slow=22,SNR=6.1						
	2.3nm,0.6s						
SONM	**Songino Array**	**51.83**	**342**	P	**P**	**08 20 26.9**	**+0.1**
	0.6nm,0.8s,baz=147,slow=8.6,SNR=2.5						
	0.5nm,0.8s						
MKAR	**Makanchi Array**	**61.83**	**326**	P	**P**	**08 21 38.0**	**+0.2**
	0.7nm,0.4s,baz=118,slow=8.4,SNR=9.4						
	0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**66.07**	**328**	P	**P**	**08 22 05.2**	**-0.2**
	0.6nm,0.6s,baz=126,slow=6.0,SNR=9.7						
	0.6nm,0.6s						
BVAR	**Borovoye Array**	**71.64**	**328**	P	**P**	**08 22 40.5**	**+0.3**
	1.0nm,0.8s,baz=116,slow=6.6,SNR=3.0						
	1.0nm,0.8s						

*SJA **22** 08:19:47.5±0.7, 34˚.59S×72˚.94W, h27km±2km, ML3.4, MW3.5*
*GUC **22** 08:19:48.9±0.7, 34˚.58S×73˚.03W, h42km±2km, ML3.7, Presumed earthquake*
ISC 22 08:19:44.2±1.8, 34˚.59S±0˚.03×72˚.97W±0˚.07, h4km±11km, n49, σ1s44/76, 1C, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BO03	**Pichilemu**	**0.84**	**84**	*i* P	**Pn**	**08 20 05.0**	**+2.1**
BO03				*e*S	**Sn**	**08 20 16.6**	**+0.9**
BO03				IAML		08 20 17.0	
	comp=N,6μm,0.2s						
GO05	**Hualane**	**0.95**	**116**	*e*P	**Pn**	**08 20 06.1**	**+1.6**
GO05				*e*S	**Sn**	**08 20 18.7**	**+0.1**
GO05				IAML		08 20 19.1	
	comp=Z,2μm,0.1s						
GO05	**Hualane**	**0.95**	**116**	↑*e*P	**Pn**	**08 20 06.0**	**+1.6**
GO05				*e*S	**Sn**	**08 20 18.4**	**-0.2**
GO05				IAML		08 20 18.9	
	comp=N,3μm,0.2s						
VA05	**Santo Domingo**	**1.46**	**51**	*e*P	**Pg**	**08 20 13.3**	**+1.0**
VA05				IAML		08 20 32.6	
	comp=E,1μm,0.3s						
BO01	**Tunca**	**1.57**	**83**	*e*P	**Pg**	**08 20 15.1**	**+0.7**
BO01				*e*S	**Sg**	**08 20 35.4**	**+0.6**
BO01				IAML		08 20 37.4	
	comp=Z,336nm,0.2s						
BO01	**Tunca**	**1.57**	**83**	*e*P	**Pg**	**08 20 15.0**	**+0.6**
BO01				*e*S	**Sg**	**08 20 35.3**	**+0.6**
MT01	**Popeta**	**1.60**	**63**	*e*P	**Pg**	**08 20 15.0**	**+0.1**
MT01				*e*S	**Sb**	**08 20 34.9**	**-0.2**
MT01				IAML		08 20 35.9	
	comp=Z,391nm,0.3s						
MT01	**Popeta**	**1.60**	**63**	*e*P	**Pg**	**08 20 15.0**	**+0.1**
ML02	**Panimavida**	**1.73**	**133**	*e*P	**Pg**	**08 20 17.9**	**+0.6**
ML02				*e*S	**Sb**	**08 20 39.6**	**+1.0**
ML02				IAML		08 20 43.6	
	comp=Z,318nm,0.5s						
ML02	**Panimavida**	**1.73**	**133**	*e*P	**Pg**	**08 20 17.4**	**+0.1**
ML02				IAML		08 20 41.0	
	comp=E,724nm,0.2s						
BO02	**Sierra Bellavi**	**1.82**	**97**	*e*P	**Pg**	**08 20 19.2**	**+0.1**
BO02				*e*S	**Sb**	**08 20 42.4**	**+1.1**
BO02				IAML		08 20 42.8	
	comp=Z,1μm,0.3s						
BO02	**Sierra Bellavi**	**1.82**	**97**	*e*S

RFA	**San Rafael**	**3.72**	**94**	*eP*	**Pb**	**08 20 47.0**	**-3.6**
RFA				*eS*	**Sg**	**08 21 42.5**	**-1.2**
RFA				IAML		08 21 49.0	
	comp=Z,29nm,0.9s						
CO02	**Combarbal**	**3.77**	**27**	*eP*	**Pn**	**08 20 45.1**	**+1.8**
CO02				*eS*	**Sn**	**08 21 28.8**	**+0.7**
CO02				IAML		08 21 30.5	
	comp=Z,76nm,0.1s						
RTLS	**Leoncito**	**4.16**	**49**	*eP*	Pn	08 20 42.7	-6.0
RTLS				*eS*	**Sb**	**08 21 45.3**	**-3.5**
RTLS				IAML		08 21 47.1	
	comp=Z,49nm,0.3s						
CO03	**El Pedregal**	**4.21**	**28**	*eP*	**Pn**	**08 20 51.5**	**+2.1**
CO03				*eS*	**Sn**	**08 21 40.2**	**+1.2**
CO03				IAML		08 21 44.0	
	comp=Z,52nm,0.1s						
GO04	**Tololo Observa**	**4.78**	**23**	*eP*	**Pn**	**08 20 56.7**	**-0.6**
GO04				*eS*	**Sn**	**08 21 52.3**	**-0.9**
GO04				IAML		08 21 56.7	
	comp=Z,52nm,0.2s						
RTLL	**Cerro Villicun**	**4.99**	**51**	*eP*	Pn	08 21 04.3	+4.3
RTLL				*eS*	**Sn**	**08 21 57.4**	**-0.7**
RTLL				IAML		08 22 06.4	
	comp=Z,32nm,0.5s						
LR03	**Panguipulli**	**5.05**	**174**	*eP*	**Pn**	**08 21 02.3**	**+1.5**
LR03				*eS*	**Sn**	**08 21 57.0**	**-2.7**
LR03				IAML		08 21 59.4	
	comp=Z,51nm,0.3s						
GO06	**Curarrehue**	**5.12**	**167**	*eP*	**Pn**	**08 21 05.2**	**+3.3**
GO06				*eS*	**Sn**	**08 22 00.1**	**-1.5**
GO06				IAML		08 22 02.2	
	comp=Z,12nm,1.6s						
CO01	**Juntas del Tor**	**5.21**	**29**	*eP*	**Pn**	**08 21 05.8**	**+2.6**
CO01				*eS*	**Sn**	**08 22 04.3**	**+0.4**
CO01				IAML		08 22 06.8	
	comp=Z,14nm,0.3s						
LR04	**Corral**	**5.29**	**184**	*eP*	**Pn**	**08 21 04.5**	**+0.5**
LR04				IAML		08 22 05.0	
	comp=Z,33nm,0.2s						

IDC 22 08:20:09.5±42.0, 17°43S×179°93E, h562km±160km, mb2.8/3, mbtmp3.8/3, Error ellipse: s-maj=903.4km s-min=117.4km az=80.0, Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**1.82**	**260**	P	P	08 21 19.7	0.0
	6.1nm,0.6s,baz=73,slow=19,SNR=8.9						
STKA	**Stephens Creek**	**37.48**	**240**	P	P	08 26 35.5	-0.5
	0.7nm,0.4s,baz=68,slow=8.8,SNR=1.4						
	0.7nm,0.4s						
WRA	**Warramunga Arr**	**43.16**	**259**	P	P	08 27 21.4	-0.1
	0.2nm,0.4s,baz=91,slow=7.5,SNR=8.0						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**43.40**	**254**	P	P	08 27 23.2	-0.1
	3.2nm,0.5s,baz=89,slow=8.2,SNR=76						
	3.2nm,0.5s						

*GFZ **22** 08:26:40.9±0.2, 32°S±2°×6°8W±°, h105km, M4.5/14, mb4.5/14, Mw4.1/16, confirmed*
*SJA **22** 08:26:41.0±0.7, 31°.61S×68°.24W, h111km±2km, ML4.0, MW4.1*
*IDC **22** 08:26:41.3±0.4, 31°.61S×68°.23W, h109km±2km, mb3.8/10, mbtmp4.1/14, Error ellipse: s-maj=18.8km s-min=11.0km az=98.0*
*NEIC **22** 08:26:41.2±1.7, 31°.63S±0°.06×68°.22W±0°.07, h104km±6km, mb4.2/20, Error ellipse: s-maj=9.2km s-min=8.0km az=71.0*
*VAO **22** 08:26:42.0±0.8, 31°.64S×67°.98W, h107km±3km, mb4.2, Presumed earthquake*

ISC 22 08:26:41.1±0.4, 31°.59S±0°.03×68°.20W±0°.03, h107km±3km, h108km:pP-P, n182, σ1952/234, mb4.2/23, 1C-3D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CFA	**Coronel Fontan**	**0.03**	**248**	P	**Pn**	**08 26 56.7**	**+0.8**
	2μm,0.3s,baz=191,slow=4.5						
CFA				S	**Sn**	**08 27 07.8**	**+0.8**
	3μm,0.3s,baz=209,slow=23,SNR=41						
CFA	**Coronel Fontan**	**0.03**	**248**	*eP*	**Pn**	**08 26 56.9**	**+0.9**
CFA				*eS*	**Sn**	**08 27 08.6**	**+1.5**
CFA				IAML		08 27 09.9	
	comp=Z,5μm,0.2s						
RTLL	**Cerro Villicun**	**0.35**	**318**	*eP*	**Pn**	**08 26 57.7**	**+0.8**
RTLL				IAML		08 27 10.8	
	comp=Z,4μm,0.3s						
ZON	**Zonda**	**0.41**	**276**	*eP*	**Pn**	**08 26 57.6**	**+0.4**
ZON	**Zonda**	**0.41**	**276**	Pn	**Pn**	**08 26 57.5**	**+0.4**
ZON				Sn	**Sn**	**08 27 08.5**	**-0.7**
ZON	**Zonda**	**0.41**	**276**	P	**Pn**	**08 26 57.6**	**+0.4**
RTLS	**Leoncito**	**0.96**	**257**	*eP*	**Pn**	**08 27 02.4**	**+0.4**
RTLS				IAML		08 27 19.5	
	comp=Z,6μm,0.2s						
ACAN	**Cantantal**	**1.10**	**129**	*eP*	**Pn**	**08 27 05.1**	**+2.0**
AVFE	**Valle Fertil**	**1.13**	**35**	*eP*	**Pn**	**08 27 00.0**	**-3.5**
AVFE				IAML		08 27 26.0	
	comp=Z,877nm,0.3s						
ACCO	**Cerro Coronel**	**1.25**	**323**	*eP*	**Pn**	**08 27 06.5**	**+1.4**
ACCO				IAML		08 27 26.9	
	comp=Z,3μm,1.0s						
ARCO	**CERRO ARCO**	**1.39**	**206**	*eP*	**Pn**	**08 27 07.2**	**+0.6**
ARCO				*eS*	**Sn**	**08 27 27.6**	**+1.6**
ARCO				IAML		08 27 29.5	
	comp=Z,2μm,0.7s						
AAGR	**Agrelo**	**1.58**	**199**	*eP*	**Pn**	**08 27 09.5**	**+0.6**
AAGR				IAML		08 27 32.6	
	comp=Z,912nm,0.4s						
ACDV	**Cuesta del Vie**	**1.62**	**331**	*eP*	**Pn**	**08 27 10.8**	**+1.4**
ACDV				*eS*	**Sn**	**08 27 32.6**	**+1.7**
ACDV				IAML		08 27 33.4	
	comp=Z,1μm,0.4s						
AROD	**Rodeo**	**1.79**	**322**	*eP*	**Pn**	**08 27 13.1**	**+1.4**
AROD				*eS*	**Sn**	**08 27 31.0**	**-4.0**
AVIZ	**Vizcacheras**	**1.90**	**188**	*eP*	**Pn**	**08 27 13.5**	**+0.8**
AVIZ				*eS*	**Sn**	**08 27 30.3**	**-6.5**
CO03	**El Pedregal**	**2.26**	**289**	*eP*	**Pn**	**08 27 18.3**	**+0.9**
CO03				*eS*	**Sn**	**08 27 46.0**	**+0.8**
CO03	**El Pedregal**	**2.26**	**289**		**Pn**	**08 27 18.3**	**+0.9**
CO03				Sn	**Sn**	**08 27 45.1**	**-0.1**
CO03	**El Pedregal**	**2.26**	**289**	P	**Pn**	**08 27 18.4**	**+0.9**
CO03				S	**Sn**	**08 27 46.8**	**+1.6**
MRA	**San Martin**	**2.27**	**112**	*eP*	Pn	08 27 06.8	-11
MRA				IAML		08 27 33.4	
	comp=Z,1μm,0.6s						
CO01	**Juntas del Tor**	**2.29**	**314**	*eP*	**Pn**	**08 27 19.8**	**+1.9**
CO01				*eS*	**Sn**	**08 27 48.0**	**+1.9**
CO01				IAML		08 27 51.5	
	comp=Z,616nm,1.4s						
CO01	**Juntas del Tor**	**2.29**	**314**		**Pn**	**08 27 19.8**	**+1.9**
CO01	**Juntas del Tor**	**2.29**	**314**	P	**Pn**	**08 27 19.9**	**+1.9**
CO01				S	**Sn**	**08 27 47.9**	**+1.7**
VA03	**San Esteban**	**2.31**	**239**	*eP*	**Pn**	**08 27 18.4**	**+0.4**
VA03				*eS*	**Sn**	**08 27 48.3**	**+1.9**
VA03				IAML		08 27 50.6	
	comp=Z,807nm,1.0s						
VA03	**San Esteban**	**2.31**	**239**		**Pn**	**08 27 18.6**	**+0.5**
VA03	**San Esteban**	**2.31**	**239**	P	**Pn**	**08 27 18.4**	**+0.4**
VA03				S	**Sn**	**08 27 46.9**	**+0.6**
MT08	**Bocatoma Ro**	**2.40**	**219**	*eP*	**Pn**	**08 27 20.3**	**+1.0**
MT08				*eS*	**Sn**	**08 27 50.0**	**+1.4**
MT08				IAML		08 27 51.1	
	comp=Z,302nm,0.6s						
MT08	**Bocatoma Ro**	**2.40**	**219**		**Pn**	**08 27 20.4**	**+1.0**
MT08				Sn	**Sn**	**08 27 50.0**	**+1.4**
CO04	**Los Peladeros**	**2.41**	**258**		**Pn**	**08 27 18.9**	**-0.5**
CO04	**Los Peladeros**	**2.41**	**258**	P	**Pn**	**08 27 18.9**	**-0.5**
CO04				S	**Sn**	**08 27 47.2**	**-1.5**
ACLC	**CERRO LA CRUZ**	**2.41**	**27**	*eP*	**Pn**	**08 27 21.2**	**+1.7**
ACLC				*eS*	**Sn**	**08 27 50.5**	**+1.6**
ACLC				IAML		08 28 18.9	
	comp=Z,264nm,0.7s						
CO02	**Combarbal**	**2.43**	**278**	*eP*	**Pn**	**08 27 19.9**	**+0.3**
CO02				*eS*	Sn	08 27 34.9	-14
CO02				IAML		08 27 56.0	
	comp=Z,1μm,1.5s						
CO02	**Combarbal**	**2.43**	**278**		**Pn**	**08 27 19.5**	**0.0**
CO02	**Combarbal**	**2.43**	**278**	P	**Pn**	**08 27 19.9**	**+0.3**
CO02				S	**Sn**	**08 27 49.2**	**+0.2**
MT04	**Ro Olivares**	**2.44**	**222**	*eP*	**Pn**	**08 27 20.9**	**+1.1**
MT04				*eS*	**Sn**	**08 27 47.0**	**-2.5**
MT04				IAML		08 27 52.9	
	comp=Z,289nm,1.2s						
PEL	**Peldehue**	**2.61**	**233**	*eP*	**Pn**	**08 27 22.2**	**+0.3**
PEL				*eS*	**Sn**	**08 27 47.1**	**-6.1**
PEL				IAML		08 27 58.1	
	comp=Z,272nm,0.8s						
PEL	**Peldehue**	**2.61**	**233**		**Pn**	**08 27 21.8**	**-0.1**
PEL	**Peldehue**	**2.61**	**233**	P	**Pn**	**08 27 22.2**	**+0.3**
GO04	**Tololo Observa**	**2.65**	**302**	*eP*	**Pn**	**08 27 23.0**	**+0.4**
GO04				*eS*	**Sn**	**08 27 55.4**	**+1.0**
GO04				IAML		08 27 58.2	
	comp=Z,1μm,0.3s						
GO04	**Tololo Observa**	**2.65**	**302**		**Pn**	**08 27 22.8**	**+0.3**
GO04	**Tololo Observa**	**2.65**	**302**	P	**Pn**	**08 27 23.0**	**+0.4**
MT16	**CCHEN**	**2.68**	**226**		**Pn**	**08 27 23.2**	**+0.4**
MT03	**Universidad Ad**	**2.72**	**225**	*eP*	**Pn**	**08 27 23.9**	**+0.5**
MT03				*eS*	Sn	08 27 37.5	-18
MT03				IAML		08 28 07.0	
	comp=Z,307nm,0.8s						
MT03	**Universidad Ad**	**2.72**	**225**		**Pn**	**08 27 23.6**	**+0.2**
MT13	**San Alfonso**	**2.77**	**219**	*eP*	Pn	08 27 11.3	-13
MT13				*eS*	**Sn**	**08 28 01.3**	**+4.1**
MT13				IAML		08 28 06.6	
	comp=Z,212nm,0.6s						
MT13	**San Alfonso**	**2.77**	**219**		**Pn**	**08 27 24.5**	**+0.3**
MT05	**Renca**	**2.80**	**229**	*eP*	**Pn**	**08 27 24.7**	**+0.4**
MT05				*eS*	**Sn**	**08 27 58.4**	**+0.7**
MT05				IAML		08 28 01.1	
	comp=Z,340nm,0.7s						
MT05	**Renca**	**2.80**	**229**		**Pn**	**08 27 24.3**	**-0.1**
VCA	**Vinchina**	**2.85**	**360**	*eP*	**Pn**	**08 27 27.4**	**+2.2**
VCA				*eS*	**Sn**	**08 27 56.5**	**-2.5**
VCA				IAML		08 28 06.2	
	comp=Z,1μm,0.7s						
MT02	**Curacav**	**2.99**	**235**	*eP*	**Pn**	**08 27 25.7**	**-1.1**
MT02				*eS*	**Sn**	**08 28 02.7**	**+0.6**
MT02				IAML		08 28 05.0	
	comp=Z,161nm,0.4s						
MT02	**Curacav**	**2.99**	**235**		**Pn**	**08 27 25.8**	**-1.1**
CO06	**Fray Jorge**	**3.08**	**286**		**Pn**	**08 27 26.5**	**-1.6**
TCA	**Tanti**	**3.09**	**86**	*eP*	**Pn**	**08 27 30.0**	**+1.7**
TCA				*eS*	**Sn**	**08 28 06.7**	**+2.0**
TCA				IAML		08 28 07.7	
	comp=Z,628nm,0.5s						
BO04	**La Punta**	**3.13**	**220**		**Pn**	**08 27 28.8**	**0.0**
RFA	**San Rafael**	**3.18**	**184**	*eP*	**Pn**	**08 27 29.3**	**-0.1**
RFA				*eS*	Sn	08 27 55.0	-12
RFA				IAML		08 28 04.6	
	comp=Z,376nm,0.8s						
MT09	**Talagante**	**3.21**	**226**		**Pn**	**08 27 28.9**	**-0.9**
VA01	**Torpederas**	**3.25**	**243**	*eP*	**Pn**	**08 27 28.9**	**-1.3**
VA01	**Torpederas**	**3.25**	**243**		**Pn**	**08 27 29.0**	**-1.3**
VA01	**Torpederas**	**3.25**	**243**	P	**Pn**	**08 27 28.7**	**-1.6**
AC05	**El Transito**	**3.28**	**326**	*eP*	**Pn**	**08 27 32.6**	**+1.6**
AC05				*eS*	**Sn**	**08 28 11.2**	**+1.9**
AC05				IAML		08 28 17.8	
	comp=Z,344nm,0.8s						
AC05	**El Transito**	**3.28**	**326**		**Pn**	**08 27 32.5**	**+1.6**
AC05	**El Transito**	**3.28**	**326**	P	**Pn**	**08 27 32.7**	**+1.8**
LCO	**Las Campanas**	**3.36**	**319**	*eP*	**Pn**	**08 27 32.6**	**+0.6**
LCO				*eS*	**Sn**	**08 28 12.5**	**+1.1**
LCO				IAML		08 28 15.3	
	comp=Z,733nm,0.4s						
LCO	**Las Campanas**	**3.36**	**319**		**Pn**	**08 27 32.6**	**+0.6**
MT01	**Popeta**	**3.43**	**228**	*eP*	**Pn**	**08 27 30.9**	**-1.8**
MT01				*eS*	Sn	08 27 58.0	-15
MT01				IAML		08 28 09.8	
	comp=Z,148nm,0.3s						
MT01	**Popeta**	**3.43**	**228**		**Pn**	**08 27 30.7**	**-1.9**
VA05	**Santo Domingo**	**3.54**	**234**		**Pn**	**08 27 32.1**	**-2.1**
VA05	**Santo Domingo**	**3.54**	**234**	P	**Pn**	**08 27 32.8**	**-1.4**
TINO	**Tinogasta**	**3.56**	**9**	*eP*	**Pn**	**08 27 37.1**	**+2.5**
TINO				*eS*	**Sn**	**08 28 14.3**	**-1.6**
TINO				IAML		08 28 26.6	
	comp=Z,323nm,0.7s						
BO01	**Tunca**	**3.70**	**220**	*eP*	**Pn**	**08 27 34.9**	**-1.4**
BO01				*eS*	**Sn**	**08 28 20.1**	**+1.0**
BO01	**Tunca**	**3.70**	**220**		**Pn**	**08 27 34.9**	**-1.4**
BO01	**Tunca**	**3.70**	**220**	P	**Pn**	**08 27 35.0**	**-1.4**
CYA	**Choya**	**3.77**	**34**	*eP*	**Pn**	**08 27 38.3**	**+1.0**
CYA				*eS*	**Sn**	**08 28 21.7**	**+0.9**
CYA				IAML		08 28 22.7	
	comp=Z,281nm,0.3s						
BO02	**Sierra Bellavi**	**3.86**	**213**	*eP*	**Pn**	**08 27 38.5**	**0.0**
BO02				*eS*	**Sn**	**08 28 28.5**	**+5.6**
BO02				IAML		08 28 29.9	
	comp=Z,100nm,0.7s						
BO02	**Sierra Bellavi**	**3.86**	**213**		**Pn**	**08 27 38.2**	**-0.3**
BO02	**Sierra Bellavi**	**3.86**	**213**	P	**Pn**	**08 27 38.4**	**0.0**
AC04	**Llanos de Chal**	**4.20**	**323**	*eP*	**Pn**	**08 27 42.9**	**-0.1**
AC04				*eS*	Sn	08 28 14.2	-17
AC04				IAML		08 28 37.1	
	comp=Z,160nm,0.8s						
AC04	**Llanos de Chal**	**4.20**	**323**		**Pn**	**08 27 42.9**	**-0.1**
AC04	**Llanos de Chal**	**4.20**	**323**	P	**Pn**	**08 27 43.1**	**+0.1**
GO03	**Copiapo**	**4.36**	**336**	*eP*	**Pn**	**08 27 46.3**	**+1.0**
GO03				*eS*	**Sn**	**08 28 36.1**	**+1.0**
GO03				IAML		08 28 37.4	
	comp=Z,174nm,0.6s						
GO03	**Copiapo**	**4.36**	**336**		**Pn**	**08 27 45.9**	**+0.6**
GO03	**Copiapo**	**4.36**	**336**	P	**Pn**	**08 27 46.0**	**+0.6**
AC06	**Mina Casimiro**	**4.62**	**335**		**Pn**	**08 27 48.7**	**0.0**
GO05	**Hualane**	**4.62**	**221**		**Pn**	**08 27 45.5**	**-3.2**
AC02	**Maricunga**	**4.81**	**350**	*eP*	**Pn**	**08 27 53.8**	**+2.1**
AC02				*eS*	**Sn**	**08 28 47.7**	**+1.1**
AC02				IAML		08 28 52.5	
	comp=Z,67nm,0.6s						
AC02	**Maricunga**	**4.81**	**350**		**Pn**	**08 27 53.6**	**+1.8**
AC02	**Maricunga**	**4.81**	**350**	P	**Pn**	**08 27 53.9**	**+2.2**
BI02	**San Fabin de**	**5.66**	**206**		**Pn**	**08 28 01.6**	**-1.3**
AC01	**Pan de Azucar**	**5.82**	**338**		**Pn**	**08 28 04.8**	**-0.1**
AC01	**Pan de Azucar**	**5.82**	**338**	P	**Pn**	**08 28 04.6**	**-0.4**
	comp=Z,62nm,0.8s						
PB14	**IPOC Station P**	**7.21**	**344**		**Pn**	**08 28 23.2**	**-0.9**
PB14	**IPOC Station P**	**7.21**	**344**	P	**Pn**	**08 28 24.7**	**+0.6**
	comp=Z,47nm,0.8s						
AF01	**San Pedro de A**	**8.61**	**0**		**Pn**	**08 28 43.5**	**+0.4**
PB05	**IPOC Station P**	**8.88**	**348**		**Pn**	**08 28 43.8**	**-2.9**
PB06	**IPOC Station P**	**8.94**	**352**		**Pn**	**08 28 45.9**	**-1.5**
PB06	**IPOC Station P**	**8.94**	**352**	P	**Pn**	**08 28 47.9**	**+0.5**
	comp=Z,40nm,0.8s						
PSAL	**Palomas, Salto**	**9.07**	**90**	*eP*	**Pn**	**08 28 47.9**	**-1.2**
PSAL				*eS*	**Sn**	**08 30 23.1**	**-6.4**
PLCA	**Paso Flores**	**9.32**	**191**	P	**Pn**	**08 28 50.5**	**-1.9**
	comp=Z,1.6nm,1.0s,baz=14,slow=12,SNR=5.7						
PLCA				S	**Sn**	**08 30 33.9**	**-1.5**
	comp=Z,1.8nm,0.7s,baz=39,slow=23,SNR=1.3						
PLCA	**Paso Flores**	**9.32**	**191**	Pn	**Pn**	**08 28 51.0**	**-1.5**
PB03	**IPOC Station P**	**9.61**	**351**	P	**Pn**	**08 28 54.7**	**-1.9**
	comp=Z,35nm,0.5s						
PB09	**IPOC Station P**	**9.80**	**354**	S	**Pn**	**08 28 57.8**	**-1.3**
	comp=Z,21nm,0.9s						
PB07	**IPOC Station P**	**9.94**	**351**	S	**Pn**	**08 28 57.8**	**-3.3**
ITQB	**Itaqui**	**10.15**	**82**	*eP*	**Pn**	**08 29 03.4**	**-0.3**
ITQB				*eS*	**Sn**	**08 30 54.0**	**-1.7**
PB02	**IPOC Station P**	**10.34**	**351**		**Pn**	**08 29 03.3**	**-3.1**
PB02	**IPOC Station P**	**10.34**	**351**	S	**Pn**	**08 29 02.8**	**-3.6**
	comp=Z,22nm,0.5s						
CPUP	**Villa Florida**	**10.87**	**64**	P	**Pn**	**08 29 12.3**	**-1.1**
	comp=Z,1.0nm,0.4s,baz=238,slow=12,SNR=8.9						
CPUP				S	**Sn**	**08 31 10.4**	**-2.6**
	comp=Z,5.6nm,0.6s,baz=280,slow=20,SNR=3.1						
CPUP	**Villa Florida**	**10.87**	**64**		**Pn**	**08 29 12.7**	**-0.7**
PB11	**IPOC Station P**	**11.85**	**353**	S	**Pn**	**08 29 22.7**	**-4.2**
	comp=Z,10.0nm,1.2s						
PSGCX	**Pisagua**	**12.07**	**351**	Pn	**Pn**	**08 29 24.9**	**-4.7**
CPSB	**Cacapava Do Su**	**12.72**	**88**		**Pn**	**08 29 37.1**	**-0.9**
ITAB	**Concordia**	**14.66**	**77**	Pn	**Pn**	**08 30 03.3**	**+0.2**
LPAZ	**La Paz**	**15.24**	**0**	P	**Pn**	**08 30 11.1**	**+0.1**
	comp=Z,2.3nm,0.7s,baz=160,slow=5.9,SNR=9.9						
LPAZ	**La Paz**	**15.24**	**0**		**Pn**	**08 30 11.9**	**+0.9**
PTGB	**Pitanga**	**15.79**	**68**	*eP*	**Pn**	**08 30 16.8**	**-0.6**
PTGB				*eS*	**Sn**	**08 33 11.8**	**-0.4**
SIV	**San Ignacio**	**16.84**	**24**	P	**P**	**08 30 31.1**	**+0.4**
	comp=Z,4.1nm,0.7s,baz=204,slow=11,SNR=26						
PTLB	**Pontes e Lacer**	**18.08**	**29**	P	**P**	**08 30 44.2**	**-0.1**
PTLB	**Pontes e Lacer**	**18.08**	**29**	*eP*	**P**	**08 30 44.5**	**+0.3**
PCMB	**Pacaembu**	**18.10**	**61**	P	**Pn**	**08 30 45.5**	**0.0**
	comp=Z,14nm,0.9s						
PCMB	**Pacaembu**	**18.10**	**61**	*eP*	**P**	**08 30 44.7**	**+0.1**
SALV	**Santo Antonio**	**19.34**	**39**	*eP*	**P**	**08 30 57.3**	**-0.7**
VILB	**Vilhena**	**19.96**	**23**	P	**P**	**08 31 05.0**	**+0.2**
VILB				IAmb	IAmb	08 31 10.2	
	comp=Z,9.1nm,0.7s						
BB19B	**Bebedouro**	**20.48**	**64**	*eP*	**P**	**08 31 10.5**	**0.0**
VAO	**Valinhos**	**20.69**	**71**	P	**P**	**08 31 12.2**	**-0.6**
VAO	**Valinhos**	**20.69**	**71**	*eP*	**P**	**08 31 12.1**	**-0.6**
PDRB	**Porto dos Gac**	**22.53**	**31**	*eP*	**P**	**08 31 32.0**	**-0.1**
CANS	**Sao Roque de M**	**22.57**	**65**	*eP*	**P**	**08 31 32.4**	**-0.2**
CANS				*epP*	**pP**	**08 31 51.9**	**-1.6**
CLDB	**Colider**	**23.60**	**32**	P	**P**	**08 31 39.1**	**-3.2**
	comp=Z,6.7nm,0.9s						
CLDB	**Colider**	**23.60**	**32**	*eP*	**P**	**08 31 42.2**	**-0.1**
CLDB				*eS*	**S**	**08 35 49.1**	**+0.4**
CZSB	**Cruzeiro do Su**	**24.11**	**349**	P	**P**	**08 31 46.9**	**0.0**
CZSB				IAmb	IAmb	08 31 50.7	
	comp=Z,7.7nm,0.7s						
CZSB	**Cruzeiro do Su**	**24.11**	**349**	*eP*	**P**	**08 31 48.1**	**+1.2**
BDFB	**Brasilia**	**24.31**	**54**	P	**P**	**08 31 49.8**	**+1.0**
	comp=Z,3.7nm,0.5s,baz=228,slow=8.8,SNR=8.1						
	comp=Z,3.7nm,0.5s						
BDFB	**Brasilia**	**24.31**	**54**	P	**P**	**08 31 48.9**	**+0.1**
BDFB				IAmb	IAmb	08 31 50.7	
	comp=Z,5.7nm,0.8s						
SNDB	**Serra Nova Dou**	**24.99**	**42**	*eP*	**P**	**08 31 55.0**	**+0.1**
SNDB				*epP*	**pP**	**08 32 18.5**	**0.0**
NBPN	**Ponto Novo - B**	**33.11**	**58**	*eP*	**P**	**08 33 06.8**	**-0.1**
NBPN				*epP*	**pP**	**08 33 30.0**	**-1.5**
BOAV	**Boa Vista**	**34.58**	**14**	P	**P**	**08 33 20.0**	**+0.4**
BOAV				IAmb	IAmb	08 33 22.8	
	comp=Z,2.4nm,0.9s						
RUSC	**La Rusia**	**37.56**	**352**	P	**P**	**08 33 46.4**	**+0.8**
SJCC	**San Jacinto, C**	**41.79**	**350**	P	**P**	**08 34 20.4**	**+0.2**
BELA	**Belgrano 2**	**48.71**	**171**	P	**P**	**08 35 14.9**	**+0.9**
BELA				IAmb	IAmb	08 35 42.1	
	comp=Z,3.0nm,0.9s						
VNA3	**Neumayer Olymp**	**50.40**	**159**	⇓P	**P**	**08 35 27.4**	**+0.4**
	comp=Z,2.4nm,0.6s						
VNA3	**Neumayer Olymp**	**50.40**	**159**	S	**P**	**08 35 27.7**	**+0.7**
	comp=Z,5.7nm,0.9s						
VNA2	**Neumayer--Watz**	**51.01**	**158**	⇓P	**P**	**08 35 31.9**	**+0.4**
	comp=Z,2.8nm,0.6s,baz=286,slow=7.0						
VNA2	**Neumayer--Watz**	**51.01**	**158**	S	**P**	**08 35 31.9**	**+0.4**
	comp=Z,5.2nm,0.7s						
SNAA	**Sanae**	**52.62**	**159**	⇑P	**P**	**08 35 44.2**	**+0.7**
	comp=Z,72nm,0.7s						
SNAA	**Sanae**	**52.62**	**159**	P	**P**	**08 35 44.0**	**+0.4**
	comp=Z,2.7nm,0.8s,baz=286,slow=14,SNR=5.1						
	comp=Z,2.7nm,0.8s						
SNAA	**Sanae**	**52.62**	**159**	P	**P**	**08 35 44.3**	**+0.7**
SNAA				IAmb	IAmb	08 35 44.9	
	comp=Z,4.5nm,1.0s						
TROLL	**Troll, Antarti**	**54.34**	**159**	⇓P	**P**	**08 35 56.7**	**+0.5**
	comp=Z,109nm,0.7s						
TEIG	**Tepich**	**55.00**	**337**	P	**P**	**08 36 01.9**	**+0.5**
TEIG	**Tepich**	**55.00**	**337**	S	**P**	**08 36 01.3**	**-0.1**
	comp=Z,34nm,1.0s						
QSPA	**South Pole Qui**	**58.64**	**180**	P	**P**	**08 36 27.1**	**+0.3**
	comp=Z,3.1nm,0.6s,baz=169,slow=1.2,SNR=40						
QSPA				pP	**pP**	**08 36 54.5**	**+1.4**
	comp=Z,3.9nm,1.0s,baz=181,slow=2.9,SNR=5.5						
	comp=Z,3.1nm,0.6s						
QSPA	**South Pole Qui**	**58.64**	**180**	P	**P**	**08 36 27.4**	**+0.7**
QSPA	**South Pole Qui**	**58.64**	**180**	P	**P**	**08 36 27.4**	**+0.7**
	comp=Z,9.7nm,2.4s						
MOIG	**Morelia**	**60.00**	**324**	P	**P**	**08 36 35.9**	**-0.8**
TXAR	**Lajitas Array**	**69.34**	**327**	P	**P**	**08 37 37.0**	**-0.2**
	comp=Z,0.3nm,0.7s,baz=154,slow=7.6,SNR=4.2						
TXAR				pP	**pP**	**08 38 05.8**	**+1.5**
	comp=Z,0.3nm,0.8s,baz=134,slow=4.8,SNR=2.6						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**69.34**	**327**	P	**P**	**08 37 37.3**	**+0.2**
WVT	**Waverly**	**69.84**	**343**	P	**P**	**08 37 39.6**	**-0.3**
WVT				IAmb	IAmb	08 37 40.1	
	comp=Z,2.5nm,0.7s						
DBIC	**Dimbokro**	**71.33**	**70**	P	**P**	**08 37 49.9**	**+0.4**
	comp=Z,6.2nm,1.0s,baz=238,slow=9.5,SNR=2.7						
	comp=Z,6.2nm,1.0s						
S39A	**Bolivar**	**72.81**	**339**	P	**P**	**08 37 57.9**	**+0.2**
S39A				IAmb	IAmb	08 37 59.3	
	comp=Z,6.3nm,1.4s						
R40A	**Maddies Statio**	**73.

ILAR Eielson Array 87.76 13 P **P** **08 42 18.6 +1.0**
0.2nm,0.7s,baz=209,slow=5.4,SNR=4.6
0.2nm,0.7s
PDAR Pinedale Array 89.26 44 P **P** **08 42 25.6 +0.2**
0.2nm,0.6s,baz=219,slow=3.9,SNR=2.1
0.2nm,0.6s
AKASG Malin Array Be 141.58 331 PKP **PKPdf** **08 48 53.2 -1.9**
0.8nm,0.4s,baz=42,slow=4.2,SNR=5.6

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*KRSC **22** 08:52:55.0±0.6, 55°.54N×161°.90E, h74$^{km}_{\pm 12}$, Ml4.8*
*MOS **22** 08:52:55.6±1.0, 55°.59N×161°.89E, h78^{km}, mb4.4/17, Error ellipse: s-maj=7.3km s-min=3.7km az=76.4*
*NEIC **22** 08:52:58.5±1.0, 55°.50N±0°.09×161°.8E±0°.1, h88$^{km}_{\pm 6}$, mb4.5/164, Error ellipse: s-maj=13.3km s-min=10.3km az=143.0*
*IDC **22** 08:52:59.6±1.4, 55°.62N×161°.65E, h99$^{km}_{\pm 14}$, mb3.9/30, mbtmp4.2/35, MS3.6/17, Error ellipse: s-maj=11.7km s-min=8.9km az=144.0*

ISC 22 08:52:57.1±0.6, 55°.54N±0°.03×161°.90E±0°.03, h76$^{km}_{\pm 5}$km, n336, σ1°§14/311, mb4.5/124, 10C-2D, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZLN	**Zelenaya**	**0.79**	**308**	PN	**Pn**	**08 53 12.5**	**-1.0**
ZLN	**Zelenaya**	**0.79**	**308**	*eP*	**Pn**	**08 53 12.5**	**-1.0**
BZGR	**Bezymyannyi-Gr**	**0.79**	**301**	PN	**Pn**	**08 53 12.4**	**-1.1**
BZGR				S	**Sn**	**08 53 25.2**	**-0.5**
BZGR	**Bezymyannyi-Gr**	**0.79**	**301**	*eP*	**Pn**	**08 53 12.5**	**-1.1**
BZGR				*eS*	**Sn**	**08 53 25.3**	**-0.5**
KBTR	**Krutoberegovo**	**0.85**	**37**	PN	**Pn**	**08 53 12.8**	**-1.2**
KBTR				S	**Sn**	**08 53 26.7**	**+0.1**
KBTR	**Krutoberegovo**	**0.85**	**37**	*eP*	**Pn**	**08 53 12.9**	**-1.2**
KBTR				*eS*	**Sn**	**08 53 26.7**	**+0.1**
KBG	**Krutoberegovo**	**0.85**	**32**	PN	**Pn**	**08 53 12.8**	**-1.2**
KBG				S	**Sn**	**08 53 26.3**	**-0.3**
KBG	**Krutoberegovo**	**0.85**	**32**	*eP*	**Pn**	**08 53 12.8**	**-1.2**
KBG				*eS*	**Sn**	**08 53 26.3**	**-0.3**
CIRR	**Tsirk**	**0.87**	**312**	PN	**Pn**	**08 53 13.5**	**-0.9**
CIRR	**Tsirk**	**0.87**	**312**	*eP*	**Pn**	**08 53 13.6**	**-0.9**
BZMR	**Bezymyannaya**	**0.89**	**297**	PN	**Pn**	**08 53 14.1**	**-0.6**
BZMR	**Bezymyannaya**	**0.89**	**297**	*eP*	**Pn**	**08 53 14.1**	**-0.6**
BZWR	**Bezymyannyi-We**	**0.90**	**299**	PN	**Pn**	**08 53 13.9**	**-1.0**
BZWR	**Bezymyannyi-We**	**0.90**	**299**	*eP*	**Pn**	**08 53 13.9**	**-1.0**
TUMD	**Tumrok D**	**0.92**	**249**	PN	**Pn**	**08 53 13.4**	**-1.6**
TUMD				S	**Sn**	**08 53 26.5**	**-1.7**
TUMD	**Tumrok D**	**0.92**	**249**	*eP*	**Pn**	**08 53 13.4**	**-1.6**
TUMD				*eS*	**Sn**	**08 53 26.6**	**-1.7**
KMNR	**Kamenistaya**	**0.97**	**284**	PN	**Pn**	**08 53 14.4**	**-1.2**
KMNR	**Kamenistaya**	**0.97**	**284**	*eP*	**Pn**	**08 53 14.5**	**-1.2**
KIRR	**Kirishev**	**0.98**	**296**	PN	**Pn**	**08 53 14.3**	**-1.4**
KIRR				S	**Sn**	**08 53 28.5**	**-1.1**
KIRR	**Kirishev**	**0.98**	**296**	*eP*	**Pn**	**08 53 14.3**	**-1.4**
KIRR				*eS*	**Sn**	**08 53 28.6**	**-1.1**
MKZ	**Mys Kozlova**	**0.99**	**186**	PN	**Pn**	**08 53 13.9**	**-1.8**
MKZ				S	**Sn**	**08 53 27.9**	**-1.6**
MKZ	**Mys Kozlova**	**0.99**	**186**	*eP*	**Pn**	**08 53 14.0**	**-1.8**
MKZ				*eS*	**Sn**	**08 53 28.0**	**-1.6**
KZV	**Kizimen**	**1.01**	**246**	PN	**Pn**	**08 53 14.7**	**-1.4**
KZV				S	**Sn**	**08 53 28.6**	**-1.8**
KZV	**Kizimen**	**1.01**	**246**	*eP*	**Pn**	**08 53 14.8**	**-1.4**
KZV				*eS*	**Sn**	**08 53 28.7**	**-1.8**
KRSR	**Krestovskiy**	**1.02**	**313**	PN	**Pn**	**08 53 14.7**	**-1.5**
KRSR				S	**Sn**	**08 53 29.3**	**-1.1**
KRSR	**Krestovskiy**	**1.02**	**313**	*eP*	**Pn**	**08 53 14.7**	**-1.5**
KRSR				*eS*	**Sn**	**08 53 29.4**	**-1.1**
TUMR	**Tumrok**	**1.03**	**256**	PN	**Pn**	**08 53 15.7**	**-0.7**
TUMR				S	**Sn**	**08 53 30.3**	**-0.5**
TUMR	**Tumrok**	**1.03**	**256**	*eP*	**Pn**	**08 53 15.8**	**-0.7**
TUMR				*eS*	**Sn**	**08 53 30.4**	**-0.5**
KPT	**Kopyto**	**1.04**	**295**	PN	**Pn**	**08 53 15.4**	**-1.1**
KPT				S	**Sn**	**08 53 30.5**	**-0.4**
KPT	**Kopyto**	**1.04**	**295**	*eP*	**Pn**	**08 53 15.4**	**-1.1**
KPT				*eS*	**Sn**	**08 53 30.6**	**-0.4**
KLY	**Klyuchi**	**1.05**	**318**	PN	**Pn**	**08 53 17.7**	**+1.3**
KLY				S	**Sn**	**08 53 28.8**	**-2.1**
KLY	**Klyuchi**	**1.05**	**318**	*eP*	**Pn**	**08 53 17.8**	**+1.3**
KLY				*eS*	**Sn**	**08 53 28.9**	**-2.1**
SMKR	**Semkarok**	**1.07**	**347**	PN	**Pn**	**08 53 16.0**	**-0.9**
SMKR	**Semkarok**	**1.07**	**347**	*eP*	**Pn**	**08 53 16.0**	**-0.9**
BDR	**Baidarnaya**	**1.10**	**340**	PN	**Pn**	**08 53 16.5**	**-0.7**
BDR	**Baidarnaya**	**1.10**	**340**	*eP*	**Pn**	**08 53 16.5**	**-0.7**
SRKR	**Sorokina**	**1.19**	**340**	PN	**Pn**	**08 53 17.5**	**-0.8**
SRKR	**Sorokina**	**1.19**	**340**	*eP*	**Pn**	**08 53 17.5**	**-0.8**
KOZ	**Kozyrevsk**	**1.26**	**295**	PN	**Pn**	**08 53 18.5**	**-0.6**
KOZ	**Kozyrevsk**	**1.26**	**295**	*eP*	**Pn**	**08 53 18.5**	**-0.6**
SRDR	**Sredinnyy**	**1.46**	**303**	PN	**Pn**	**08 53 20.8**	**-0.9**
SRDR	**Sredinnyy**	**1.46**	**303**	*eP*	**Pn**	**08 53 20.8**	**-0.9**
ESO	**Esso**	**1.85**	**283**	PN	**Pn**	**08 53 25.6**	**-1.2**
ESO	**Esso**	**1.85**	**283**	*eP*	**Pn**	**08 53 25.7**	**-1.2**
KII	**Karymskiy**	**2.07**	**224**	PN	**Pn**	**08 53 29.6**	**-0.2**
KII	**Karymskiy**	**2.07**	**224**	*eP*	**Pn**	**08 53 29.7**	**-0.2**
BKI	**Bering**	**2.35**	**97**	PN	**Pn**	**08 53 32.3**	**-1.1**
BKI	**Bering**	**2.35**	**97**	*eP*	**Pn**	**08 53 32.3**	**-1.1**
SPN	**Mys Shipunski**	**2.68**	**205**	PN	**Pn**	**08 53 37.6**	**-0.4**
SPN	**Mys Shipunski**	**2.68**	**205**	*eP*	**Pn**	**08 53 37.6**	**-0.4**
NLC	**Nalytchevo**	**2.81**	**213**	PN	**Pn**	**08 53 39.2**	**-0.4**
NLC	**Nalytchevo**	**2.81**	**213**	*eP*	**Pn**	**08 53 39.2**	**-0.4**
SDLR	**Sedlovina**	**2.87**	**219**	PN	**Pn**	**08 53 40.7**	**0.0**
SDLR	**Sedlovina**	**2.87**	**219**	*eP*	**Pn**	**08 53 40.7**	**0.0**
KRX	**Arik**	**2.90**	**222**	PN	**Pn**	**08 53 41.3**	**+0.3**
KRX	**Arik**	**2.90**	**222**	*eP*	**Pn**	**08 53 41.3**	**+0.3**
KRER	**Koryakskii**	**2.90**	**221**	PN	**Pn**	**08 53 41.7**	**+0.6**
KRER	**Koryakskii**	**2.90**	**221**	*eP*	**Pn**	**08 53 41.7**	**+0.6**
SMAR	**Somma**	**2.91**	**220**	PN	**Pn**	**08 53 41.5**	**+0.2**
SMAR	**Somma**	**2.91**	**220**	*eP*	**Pn**	**08 53 41.5**	**+0.2**
AVH	**Avacha**	**2.94**	**220**	PN	**Pn**	**08 53 42.1**	**+0.6**
AVH	**Avacha**	**2.94**	**220**	*eP*	**Pn**	**08 53 42.1**	**+0.6**
UGLR	**Uglovaya**	**2.95**	**219**	PN	**Pn**	**08 53 42.3**	**+0.6**
UGLR	**Uglovaya**	**2.95**	**219**	*eP*	**Pn**	**08 53 42.3**	**+0.6**
KOK	**Koryaka**	**2.95**	**222**	PN	**Pn**	**08 53 42.4**	**+0.7**
KOK	**Koryaka**	**2.95**	**222**	*eP*	**Pn**	**08 53 42.4**	**+0.7**
GNL	**Ganaly**	**2.95**	**233**	PN	**Pn**	**08 53 42.1**	**+0.4**
GNL	**Ganaly**	**2.95**	**233**	*eP*	**Pn**	**08 53 42.1**	**+0.4**
DALK	**Dalny**	**3.12**	**218**	PN	**Pn**	**08 53 43.8**	**0.0**
DALK	**Dalny**	**3.12**	**218**	*eP*	**Pn**	**08 53 43.8**	**0.0**
INSR	**Institute**	**3.14**	**219**	PN	**Pn**	**08 53 44.6**	**+0.4**
INSR	**Institute**	**3.14**	**219**	*eP*	**Pn**	**08 53 44.6**	**+0.4**
PET	**Petropavlovsk**	**3.16**	**218**	I/P	**Pn**	**08 53 44.4**	**0.0**
PET				*eS*	**Sn**	**08 54 20.5**	**-0.5**
PET				pmax	pmax		
	comp=E,299nm,0.5s						
PET				smax	smax		
	comp=E,2μm,0.6s						
PET				MLR	MLR		
	comp=E,300nm,12.0s						
PET	**Petropavlovsk**	**3.16**	**218**		**Pn**	**08 53 44.4**	**0.0**
PET				Sn	**Sn**	**08 54 21.9**	**+1.0**
PET	**Petropavlovsk**	**3.16**	**218**	*eP*	**Pn**	**08 53 44.7**	**+0.3**
PET	**Petropavlovsk**	**3.16**	**218**	P	**Pn**	**08 53 44.7**	**+0.3**
PEA0B	**Petropavlovsk-**	**3.46**	**227**	PN	**Pn**	**08 53 49.1**	**+0.5**
PEA0B	**Petropavlovsk-**	**3.46**	**227**		**Pn**	**08 53 49.0**	**+0.5**
PETK	**Petropavlovsk-**	**3.46**	**227**	P	**Pn**	**08 53 49.0**	**+0.4**
	comp=E,63nm,0.6s,baz=54,slow=16,SNR=114						
PETK				S	**Sn**	**08 54 31.1**	**+2.6**
	comp=E,88nm,0.7s,baz=58,slow=18,SNR=6.1						
PETK	**Petropavlovsk-**	**3.46**	**227**	PN	**Pn**	**08 53 49.0**	**+0.4**
PETK	**Petropavlovsk-**	**3.46**	**227**		**Pn**	**08 53 49.0**	**+0.4**
KRMR	**Karymshinskiy**	**3.50**	**221**	PN	**Pn**	**08 53 50.9**	**+1.8**
KRMR	**Karymshinskiy**	**3.50**	**221**	*eP*	**Pn**	**08 53 51.0**	**+1.8**
RUS	**Russkaya**	**3.70**	**214**	PN	**Pn**	**08 53 52.1**	**+0.3**
RUS	**Russkaya**	**3.70**	**214**	*eP*	**Pn**	**08 53 52.1**	**+0.3**
PALN	**Palana**	**3.71**	**344**	PN	**Pn**	**08 53 51.4**	**-0.5**
PALN	**Palana**	**3.71**	**344**	*eP*	**Pn**	**08 53 51.5**	**-0.5**
GRL	**Gorelyy**	**3.75**	**219**	PN	**Pn**	**08 53 54.7**	**+2.2**
GRL	**Gorelyy**	**3.75**	**219**	*eP*	**Pn**	**08 53 54.8**	**+2.2**
MTVR	**Mutnovka**	**3.77**	**217**	PN	**Pn**	**08 53 54.1**	**+1.2**
MTVR	**Mutnovka**	**3.77**	**217**	*eP*	**Pn**	**08 53 54.1**	**+1.2**
OSSR	**Ossora**	**3.77**	**9**	PN	**Pn**	**08 53 52.3**	**-0.4**
OSSR	**Ossora**	**3.77**	**9**	*eP*	**Pn**	**08 53 52.3**	**-0.4**
APC	**Apacha**	**3.82**	**229**	PN	**Pn**	**08 53 54.9**	**+1.5**
APC	**Apacha**	**3.82**	**229**	*eP*	**Pn**	**08 53 55.0**	**+1.5**
KDTR	**Khodutka, Kamc**	**4.37**	**213**	PN	**Pn**	**08 54 01.0**	**0.0**
KDTR	**Khodutka, Kamc**	**4.37**	**213**	*eP*	**Pn**	**08 54 01.0**	**0.0**
PAU	**Pauzhetka**	**5.09**	**219**	PN	**Pn**	**08 54 14.4**	**+3.7**
PAU	**Pauzhetka**	**5.09**	**219**	*eP*	**Pn**	**08 54 14.4**	**+3.7**
SKR	**Severo-Kuril's**	**5.98**	**218**	*ePN*	**Pn**	**08 54 24.4**	**+1.5**
SKR				*eS*	**Sn**	**08 55 35.3**	**+5.4**
SKR				pmax	pmax		
	comp=Z,71nm,0.5s						
SKR				pmax	pmax		
	comp=N,134nm,0.6s						
SKR				pmax	pmax		
	comp=E,244nm,0.7s						
MA2	**Magadan**	**7.23**	**309**	P	**Pn**	**08 54 40.8**	**+1.0**
	comp=E,16nm,0.9s,baz=116,slow=10,SNR=7.0						
MA2	**Magadan**	**7.23**	**309**	PN	**Pn**	**08 54 41.5**	**+1.6**
MA2	**Magadan**	**7.23**	**309**	Pn	**Pn**	**08 54 41.5**	**+1.6**
SHEM	**Shemya Is, Ala**	**7.70**	**106**	P	**Pn**	**08 54 46.4**	**+0.1**
	comp=E,21nm,0.5s,baz=93,slow=0.2,SNR=10						
SHEM				S	**Sn**	**08 56 08.7**	**-3.1**
	comp=E,14nm,0.3s,baz=130,slow=13,SNR=1.7						
SHEM				LR	LR	08 57 32.3	
	comp=E,99nm,20.8s,baz=270,slow=35						
SMY	**Shemya**	**7.70**	**106**	PN	**Pn**	**08 54 46.8**	**+0.5**
SMY	**Shemya**	**7.70**	**106**	Pn	**Pn**	**08 54 46.8**	**+0.5**
SEY	**Seymchan**	**8.87**	**331**	P	**Pn**	**08 55 03.0**	**+0.8**
	comp=E,1.1nm,0.5s,baz=142,slow=13,SNR=7.0						
SEY				LR	LR	08 58 53.3	
	comp=E,125nm,19.3s,baz=152,slow=40						
SEY	**Seymchan**	**8.87**	**331**	*ePN*	**Pn**	**08 55 04.5**	**+2.3**
BILL	**Bilibino**	**12.71**	**7**	*ePN*	**Pn**	**08 55 53.0**	**-1.5**
BILL				pmax	pmax		
	comp=Z,12nm,2.0s						
BILL	**Bilibino**	**12.71**	**7**		**Pn**	**08 55 57.3**	**+2.9**
ATKA	**Atka Island**	**14.46**	**93**	Pn	**Pn**	**08 56 17.7**	**+0.1**
ASAJ	**Asahikawa**	**16.84**	**235**	P	**P**	**08 56 49.7**	**+1.1**
	comp=Z,9.9nm,1.0s,baz=40,slow=12,SNR=5.7						
ASAJ				LR	LR	09 03 40.9	
	comp=E,116nm,18.5s,baz=102,slow=38						
ERM	**Erimo**	**18.24**	**230**	P	**P**	**08 57 03.7**	**-0.4**
ERM				pmax	pmax		
	comp=E,63nm,1.1s						
ERM	**Erimo**	**18.24**	**230**	P	**P**	**08 57 03.7**	**-0.4**
UNV	**Unalaska Valle**	**18.26**	**82**	P	**P**	**08 57 04.7**	**+0.5**
UNV				IAmb	IAmb	08 57 16.3	
	comp=E,71nm,1.4s						
AKUT	**Akutan**	**18.58**	**81**		**P**	**08 57 08.0**	**+0.2**
KLR	**Kul'dur**	**19.35**	**264**	P	**P**	**08 57 17.1**	**+0.9**
	comp=Z,1.7nm,0.7s,baz=38,slow=10,SNR=4.1						
KLR				LR	LR	09 04 33.7	
	comp=E,66nm,19.7s,baz=91,slow=36						
KLR	**Kul'dur**	**19.35**	**264**	*eP*	**Pn**	**08 57 18.1**	**+0.1**
I17K	**Unalakleet**	**20.34**	**51**		**P**	**08 57 27.5**	**+0.7**
I17K				IAmb	IAmb	08 57 30.1	
	comp=E,34nm,1.0s						
RDOG	**Red Dog Mine**	**20.44**	**38**		**P**	**08 57 29.0**	**+1.1**
RDOG				IAmb	IAmb	08 57 30.9	
	comp=E,43nm,1.4s						
N15K	**Kwethluk River**	**20.54**	**61**	P	**P**	**08 57 29.7**	**+0.8**
N15K				IAmb	IAmb	08 57 32.5	
	comp=E,28nm,1.0s						
H17K	**Granite Mounta**	**20.82**	**48**	P	**P**	**08 57 33.3**	**+1.3**
M16K	**Timber Creek**	**21.05**	**59**	P	**P**	**08 57 35.4**	**+1.0**
M16K				IAmb	IAmb	08 57 54.7	
	comp=E,29nm,1.4s						
HEH	**HeiHe**	**21.32**	**270**	*eP*	**P**	**08 57 37.0**	**-0.4**
HEH				pmax	pmax		
	comp=E,10.0nm,0.8s						
K17K	**Iditarod**	**21.34**	**54**	P	**P**	**08 57 38.9**	**+1.3**
K17K				IAmb	IAmb	08 57 42.1	
	comp=Z,23nm,0.9s						
TIXI	**Tiksi**	**21.36**	**332**	P	**P**	**08 57 38.7**	**+1.1**
	comp=Z,8.7nm,0.5s,baz=126,slow=9.8,SNR=35						
TIXI				LR	LR	09 07 54.9	
	comp=E,65nm,18.1s,baz=180,slow=42						
	comp=Z,8.7nm,0.5s						
TIXI	**Tiksi**	**21.36**	**332**		**P**	**08 57 38.5**	**+0.9**
TIXI				IAmb	IAmb	08 57 40.4	
	comp=Z,27nm,1.1s						
CNBA	**Chernabura Isl**	**21.82**	**76**	P	**P**	**08 57 43.1**	**+0.5**
F19K	**Shaleruckik Mo**	**22.02**	**43**	IAmb	IAmb	08 57 47.9	
	comp=Z,14nm,0.8s						
G19K	**Purcell Mounta**	**22.17**	**45**		**P**	**08 57 47.6**	**+1.2**
G19K				IAmb	IAmb	08 57 49.4	
	comp=E,18nm,1.0s						
USA0B	**Ussuriysk Arra**	**22.18**	**252**	P	**P**	**08 57 46.9**	**+0.2**
USA0B				pmax	pmax		
	comp=Z,20nm,1.5s						
USA0B	**Ussuriysk Arra**	**22.18**	**252**		**P**	**08 57 46.9**	**+0.2**
USRK	**Ussuriysk Ar.**	**22.18**	**252**	P	**P**	**08 57 47.6**	**+0.9**
	comp=Z,0.8nm,0.5s,baz=49,slow=10,SNR=1.6						
D19K	**Kuna River**	**22.28**	**39**	P	**P**	**08 57 48.9**	**+1.3**
H19K	**Roundabout Mou**	**22.35**	**47**	P	**P**	**08 57 48.5**	**+0.2**
E19K	**Redstone River**	**22.35**	**42**	P	**P**	**08 57 49.8**	**+1.5**
J19K	**Poorman**	**22.59**	**51**	P	**P**	**08 57 51.5**	**+0.6**
F20K	**Avaraart Lake**	**22.85**	**43**	P	**P**	**08 57 54.1**	**+0.5**
D20K	**Etivluk River**	**22.87**	**38**	P	**P**	**08 57 54.1**	**+0.3**
D20K				IAmb	IAmb	08 57 55.7	
	comp=E,22nm,1.1s						
L19K	**White Mountain**	**22.95**	**56**	P	**P**	**08 57 55.5**	**+0.8**
J20K	**Nowinta River**	**23.24**	**50**		**P**	**08 57 58.1**	**+0.7**
J20K				IAmb	IAmb	08 57 59.7	
	comp=E,20nm,0.8s						
K20K	**Telida**	**23.27**	**52**	P	**P**	**08 57 58.8**	**+1.0**
IMAR	**Indian Mountai**	**23.50**	**46**		**P**	**08 58 00.3**	**+0.5**
G21K	**Allakaket**	**23.65**	**45**	P	**P**	**08 58 02.0**	**+0.9**
G21K				IAmb	IAmb	08 58 03.6	
	comp=Z,31nm,1.1s						
F21K	**Alatna River**	**23.74**	**43**		**P**	**08 58 03.1**	**+1.1**
F21K				IAmb	IAmb	08 58 04.1	
	comp=E,15nm,0.9s						
H21K	**Melozitna Rive**	**23.87**	**47**	P	**P**	**08 58 03.5**	**+0.4**
PPLA	**Purkeypile**	**24.14**	**54**	P	**P**	**08 58 07.1**	**+1.3**
CAST	**Castle Rocks**	**24.16**	**52**		**P**	**08 58 06.9**	**+1.1**
CAST				IAmb	IAmb	08 58 08.8	
	comp=E,13nm,0.8s						
D22K	**Ayikyak River**	**24.30**	**39**	P	**P**	**08 58 07.9**	**+1.0**
D22K				IAmb	IAmb	08 58 09.6	
	comp=E,14nm,0.8s						
STLK	**Strandline Lak**	**24.44**	**57**	P	**P**	**08 58 10.2**	**+1.9**
STLK				IAmb	IAmb	08 58 10.7	
	comp=E,13nm,0.7s						
H22K	**Ishtalitna Cre**	**24.47**	**46**	P	**P**	**08 58 09.4**	**+1.0**
H22K				IAmb	IAmb	08 58 12.6	
	comp=E,37nm,1.4s						
BPAW	**Bear Paw Mtn.**	**24.63**	**51**		**P**	**08 58 10.9**	**+0.9**
BPAW				IAmb	IAmb	08 58 15.5	
	comp=Z,21nm,1.4s						
MLY	**Manley**	**24.72**	**48**	P	**P**	**08 58 11.6**	**+0.8**
KDAK	**Kodiak Island**	**24.75**	**66**	P	**P**	**08 58 11.1**	**0.0**
	comp=Z,9.6nm,0.9s,baz=304,slow=4.1,SNR=5.3						
	comp=Z,9.6nm,0.9s						
KDAK	**Kodiak Island**	**24.75**	**66**	P	**P**	**08 58 11.4**	**+0.3**
KDAK				pmax	pmax		
	comp=Z,54nm,1.4s						
KDAK	**Kodiak Island**	**24.75**	**66**	P	**P**	**08 58 11.3**	**+0.3**
MAJO	**Matsushiro**	**24.92**	**230**	*eP*	**P**	**08 58 12.9**	**+0.1**
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.9s						
MAJO	**Matsushiro**	**24.92**	**230**	P	**P**	**08 58 12.6**	**-0.3**
MJAR	**Matsushiro Arr**	**24.92**	**230**	P	**P**	**08 58 12.8**	**-0.1**
	comp=Z,3.5nm,0.6s,baz=41,slow=7.2,SNR=15						
MJAR				LR	LR	09 09 00.4	
	comp=E,78nm,19.8s,baz=220,slow=39						
	comp=Z,3.5nm,0.6s						
MJAR	**Matsushiro Arr**	**24.92**	**230**	P	**P**	**08 58 12.9**	**+0.1**
MJAR				pmax	pmax		
	comp=Z,4.0nm,1.2s						
MJAR	**Matsushiro Arr**	**24.92**	**230**	P	**P**	**08 58 12.9**	**+0.1**
TRF	**Thorofare Moun**	**24.97**	**52**		**P**	**08 58 14.1**	**+0.8**
D23K	**Nanushuk River**	**25.03**	**39**	P	**P**	**08 58 14.6**	**+1.1**
NEA2	**Nenana**	**25.44**	**49**	P	**P**	**08 58 18.0**	**+0.7**
MCK	**McKinley**	**25.55**	**51**	P	**P**	**08 58 18.8**	**+0.4**
MCK				pmax	pmax		
	comp=E,8.0nm,0.9s						
MCK	**McKinley**	**25.55**	**51**	P	**P**	**08 58 18.8**	**+0.4**
O22K	**Cooper Landing**	**25.61**	**59**	P	**P**	**08 58 18.9**	**+0.1**
RND	**Reindeer**	**25.62**	**52**	P	**P**	**08 58 19.1**	**+0.1**
RND				pmax	pmax		
	comp=E,8.0nm,0.8s						
RND	**Reindeer**	**25.62**	**52**	P	**P**	**08 58 19.1**	**+0.1**
D24K	**Happy Valley**	**25.71**	**39**		**P**	**08 58 20.5**	**+0.7**
E24K	**Your Creek**	**25.73**	**41**	P	**P**	**08 58 20.7**	**+0.7**
E24K				IAmb	IAmb	08 58 25.7	
	comp=Z,8.2nm,0.6s						
WRH	**Wood River Hil**	**25.87**	**50**	P	**P**	**08 58 22.1**	**+0.9**
WRH				IAmb	IAmb	08 58 23.2	
	comp=E,18nm,0.9s						
COLA	**College**	**25.95**	**49**	*eP*	**P**	**08 58 22.4**	**+0.5**
COLA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CCB	**Clear Creek Bu**	**25.98**	**49**	P	**P**	**08 58 23.0**	**+0.8**
CCB				IAmb	IAmb	08 58 23.8	
	comp=Z,12nm,1.1s						
PWL	**Port Wells**	**26.21**	**58**		**P**	**08 58 24.7**	**+0.3**
ILAR	**Eielson Array**	**26.37**	**49**	P	**P**	**08 58 25.6**	**-0.1**
	comp=E,4.5nm,0.8s,baz=269,slow=8.5,SNR=44						
ILAR				LR	LR	09 08 37.4	
	comp=E,40nm,18.3s,baz=194,slow=36						
	comp=Z,4.5nm,0.8s						
ILAR	**Eielson Array**	**26.37**	**49**	P	**P**	**08 58 25.8**	**+0.1**
ILAR	**Eielson Array**	**26.37**	**49**	P	**P**	**08 58 25.8**	**+0.1**
HDA	**Harding Lake**	**26.37**	**50**	IAmb	IAmb	08 58 26.6	
	comp=Z,10nm,0.9s						
SCM	**Sheep Creek Mo**	**26.52**	**55**	IAmb	IAmb	08 58 28.6	
	comp=Z,17nm,0.8s						
D25K	**Kavik River**	**26.60**	**39**	IAmb	IAmb	08 58 29.6	
	comp=Z,13nm,0.6s						
PRP	**Porcupine Dome**	**26.89**	**47**	IAmb	IAmb	08 58 32.4	
	comp=Z,12nm,0.9s						
C26K	**Camden Bay**	**27.16**	**37**	IAmb	IAmb	08 58 39.0	
	comp=Z,12nm,0.8s						
BMAR	**Burnt Mountain**	**27.20**	**43**	P	**P**	**08 58 34.1**	**+1.0**
H27K	**Steamboat Moun**	**28.47**	**45**	IAmb	IAmb	08 58 47.0	
	comp=Z,11nm,1.2s						
M27K	**Edge Creek, AK**	**28.93**	**53**	IAmb	IAmb	08 58 51.3	
	comp=Z,10nm,0.8s						
KSRS	**Korea Array**	**29.15**	**246**	P	**P**	**08 58 50.2**	**-0.5**
	comp=E,1.1nm,0.8s,baz=37,slow=11,SNR=3.0						
KSRS				LR	LR	09 09 57.8	
	comp=E,33nm,19.7s,baz=35,slow=35						
	comp=E,1.1nm,0.8s						
G29M	**Pine Creek**	**29.79**	**43**	IAmb	IAmb	08 58 58.9	
	comp=E,19nm,1.4s						
I29M	**Ogilvie Camp,**	**29.91**	**47**	IAmb	IAmb	08 58 59.3	
	comp=Z,9.8nm,1.1s						
L29M	**L29M**	**30.45**	**51**	IAmb	IAmb	08 59 10.1	
	comp=Z,13nm,1.1s						
INK	**Inuvik**	**31.30**	**40**	P	**P**	**08 59 09.8**	**+0.4**
	comp=Z,1.9nm,0.5s,baz=265,slow=5.7,SNR=5.8						
	comp=Z,1.9nm,0.5s						
DL2	**Dalian**	**31.46**	**255**	P	**P**	**08 59 13.6**	**+2.5**
DL2				pmax	pmax		
	comp=Z,100nm,1.6s						
WHY	**Whitehorse**	**32.63**	**55**	P	**P**	**08 59 22.2**	**+0.9**
A36M	**Sachs Harbour**	**33.48**	**33**	P	**P**	**08 59 29.4**	**+1.0**
A36M				IAmb	IAmb	08 59 30.4	
	comp=E,8.1nm,0.8s						
TLY	**Talaya**	**33.90**	**288**	LR	LR	09 14 12.3	
	comp=Z,115nm,21.1s,baz=5.0,slow=38						
TLY	**Talaya**	**33.90**	**288**	*eP*	**P**	**08 59 30.6**	**-1.7**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SONM	**Songino Array**	**34.43**	**281**	P	**P**	**08 59 36.0**	**-1.1**
	comp=Z,0.7nm,0.8s,baz=49,slow=7.1,SNR=4.8						
SONM				PcP	**PcP**	**09 02 10.0**	**-0.8**
	comp=Z,0.8nm,0.6s,baz=81,slow=3.0,SNR=4.3						
	comp=Z,0.7nm,0.8s						
SONM	**Songino Array**	**34.43**	**281**	P	**P**	**08 59 36.0**	**-1.1**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	**Songino Array**	**34.43**	**281**	P	**P**	**08 59 36.0**	**-1.1**
C36M	**Paulatuk**	**34.44**	**37**		**P**	**08 59 37.5**	**+0.8**
NRIK

comp=Z,12nm,1.2s
MFID Camas Ranch 51.74 67 IAmb IAmb 09 01 59.0
comp=Z,8.4nm,1.2s
BEKR Beckworth 51.81 73 IAmb IAmb 09 01 59.8
comp=Z,4.3nm,1.0s
DLMT Dillon 52.05 63 IAmb IAmb 09 02 00.7
comp=Z,11nm,1.5s
HLID Hailey 52.38 66 P **P** **09 02 01.4 +0.1**
ARTI Arti 52.42 317 LR LR 09 28 18.7
comp=Z,158nm,20.8s,baz=332,slow=40
ARTI Arti 52.42 317 P **P** **09 02 00.2 -1.0**
ARTI pmax pmax
comp=Z,8.0nm,0.6s
ARTI Arti 52.42 317 P **P** **09 02 00.2 -1.0**
YHL Hebgen Lake 53.13 63 IAmb IAmb 09 02 09.6
comp=Z,6.3nm,1.2s
YHH Holmes Hill 53.34 62 IAmb IAmb 09 02 11.1
comp=Z,8.5nm,1.2s
YMR Madison River 53.37 63 IAmb IAmb 09 02 11.3
comp=Z,2.9nm,0.7s
YNE Yellowstone No 53.61 62 IAmb IAmb 09 02 12.8
comp=Z,3.8nm,0.7s
KVN Kaiserville 53.62 72 IAmb IAmb 09 02 13.7
comp=Z,7.0nm,0.9s
RYN Ryan 53.70 73 IAmb IAmb 09 02 17.6
comp=Z,6.2nm,0.9s
ELK Elko 53.94 69 IAmb IAmb 09 02 15.9
comp=Z,5.0nm,1.0s
NVAR Mina Array Bea 53.96 73 P **P** **09 02 15.1 +2.0**
comp=Z,5.0nm,0.8s,baz=297,slow=7.5,SNR=30
comp=Z,5.0nm,0.8s
LHV Little Huntoon 53.98 73 IAmb IAmb 09 02 16.7
comp=Z,6.7nm,0.9s
KIRV Kirov 54.06 323⇓ *eP* **P** **09 02 12.6 -0.5**
MDPB Devils Postpil 54.11 74 IAmb IAmb 09 02 17.7
comp=Z,5.2nm,1.0s
LAO LASA Array 54.27 58 IAmb IAmb 09 02 17.6
comp=Z,6.7nm,0.9s
AAK Ala-Archa 54.96 296⇑ *eP* **P** **09 02 20.8 +0.7**
AAK pmax pmax
comp=Z,1.0nm,0.7s
MZP Montezuma Peak 54.99 73 IAmb IAmb 09 02 23.5
comp=Z,3.5nm,0.8s
HWUT Hardware Ranch 55.25 66 IAmb IAmb 09 02 25.3
comp=Z,5.2nm,0.8s
BW06 Boulder Array 55.44 63 IAmb IAmb 09 02 25.8
comp=Z,3.4nm,0.8s
PD31 Pinedale Array 55.44 63 IAmb IAmb 09 02 25.8
comp=Z,3.5nm,0.8s
PDAR Pinedale Array 55.44 63 P **P** **09 02 24.9 +1.2**
comp=Z,2.7nm,0.7s,baz=328,slow=3.2,SNR=16
comp=Z,2.7nm,0.7s
DUG Dugway, Tooele 55.62 68 IAmb IAmb 09 02 28.0
comp=Z,7.2nm,1.0s
NLU North Lily Min 56.18 67 IAmb IAmb 09 02 32.0
comp=Z,6.7nm,1.2s
CLC China Lake 56.25 75 IAmb IAmb 09 02 33.1
comp=Z,5.1nm,1.3s
ULM Lac du Bonnet 56.39 49 P **P** **09 02 30.7 +0.6**
comp=Z,1.7nm,0.4s,baz=316,slow=7.7,SNR=10
comp=Z,1.7nm,0.4s
PRN Pahroc Range 56.46 71 IAmb IAmb 09 02 34.9
comp=Z,2.6nm,0.8s
KK31 Karatay Array 56.63 299 P **P** **09 02 31.4 -0.5**
KK31 pmax pmax
comp=Z,2.0nm,0.7s
KK31 Karatay Array 56.63 299 P **P** **09 02 31.4 -0.5**
KKAR Karatay Array 56.63 299 P **P** **09 02 30.7 -1.2**
KKAR Karatay Array 56.63 299 P **P** **09 02 30.7 -1.2**
AB31 Akbulak array 57.02 310 P **P** **09 02 33.6 -1.0**
TMUT Trail Mountain 57.12 67 IAmb IAmb 09 02 40.9
comp=Z,2.0nm,0.6s
P18A Preston Nutter 57.38 66 IAmb IAmb 09 02 43.2
comp=Z,9.1nm,1.5s
Q16A Castle Valley 57.42 68 IAmb IAmb 09 02 40.8
comp=Z,3.5nm,1.0s
SRU San Rafael Swe 57.61 67 IAmb IAmb 09 02 41.6
comp=Z,5.4nm,0.8s
FINES FINESS Array B 58.29 337 P **P** **09 02 42.7 -0.5**
comp=Z,4.0nm,0.6s,baz=33,slow=6.7,SNR=29
FINES LR LR 09 30 45.9
comp=Z,181nm,18.2s,baz=329,slow=39
comp=Z,4.0nm,0.6s
BTK Batken 58.73 296 IAmb IAmb 09 02 50.0
comp=Z,7.1nm,1.3s
PV21 Cone Mtn., Par 58.83 66 IAmb IAmb 09 02 51.8
comp=Z,4.5nm,0.7s
PV07 Paradox Valley 59.09 66 IAmb IAmb 09 02 51.5
comp=Z,5.5nm,0.8s
PV03 Paradox Valley 59.13 67 IAmb IAmb 09 02 52.4
comp=Z,5.5nm,0.9s
PV05 Paradox Valley 59.13 67 P **P** **09 02 51.8 +2.0**
PV15 Paradox Valley 59.25 66 P **P** **09 02 51.6 +1.0**
BELG Belogornoye 59.54 320⇑ *eP* **P** **09 02 51.1 -0.9**
BELG pmax pmax
comp=Z,2.0nm,1.0s
CMAR Chiang Mai Arr 59.72 258 LR LR 09 30 52.0
comp=Z,24nm,19.3s,baz=320,slow=38
NB2 NORSAR Subarra 61.48 344 P **P** **09 03 04.4 -0.8**
comp=Z,3.9nm,0.6s,baz=18,slow=6.9
NOA NORSAR Array B 61.48 344 P **P** **09 03 04.5 -0.7**
comp=Z,5.4nm,0.7s,baz=19,slow=6.9,SNR=16
comp=Z,5.4nm,0.7s
HFS Hagfors 61.94 343 P **P** **09 03 07.1 -1.1**
comp=Z,4.2nm,0.5s,baz=30,slow=7.2,SNR=13
HFS LR LR 09 35 18.2
comp=Z,256nm,18.0s,baz=348,slow=41
comp=Z,4.2nm,0.5s
ANMO Albuquerque 62.88 67⇓ *eP* **P** **09 03 13.6 -1.6**
ANMO pmax pmax
comp=Z,1.0nm,0.9s
SCHQ Schefferville 62.99 29 P **P** **09 03 14.6 -0.7**
comp=Z,6.8nm,0.7s,baz=355,slow=5.5,SNR=8.2
comp=Z,6.8nm,0.7s
SCHQ Schefferville 62.99 29 P **P** **09 03 14.9 -0.5**
HNR Honiara 64.75 182 LR LR 09 25 51.4
comp=Z,41nm,20.4s,baz=91,slow=30
MNTX Cornudas Mount 65.97 69 **P** **09 03 36.7 +1.6**
TPB28 66.46 68 IAmb IAmb 09 03 52.5
comp=Z,17nm,0.5s
WMOK Wichita Mounta 66.99 62 P **P** **09 03 42.7 +1.1**
WMOK pmax pmax
comp=Z,3.0nm,0.8s
WMOK Wichita Mounta 66.99 62 P **P** **09 03 42.6 +1.1**
AKASG Malin Array Be 67.05 329 P **P** **09 03 40.2 -1.4**
comp=Z,0.5nm,0.4s,baz=29,slow=6.3,SNR=4.1
comp=Z,0.5nm,0.4s
KBZ Khabaz 68.48 317 P **P** **09 03 50.9 +0.2**
comp=Z,2.1nm,0.8s,baz=12,slow=9.3,SNR=4.3
comp=Z,2.1nm,0.8s
TX31 Lajitas Ar. Si 68.73 69 P **P** **09 03 54.4 +1.7**
TXAR Lajitas Array 68.74 69 P **P** **09 03 53.9 +1.2**
comp=Z,2.5nm,0.7s,baz=292,slow=5.1,SNR=61
comp=Z,2.5nm,0.7s
EKA Eskdalemuir Ar 68.82 351 P **P** **09 03 52.3 -0.3**
comp=Z,2.9nm,0.5s,baz=17,slow=5.6,SNR=16
comp=Z,2.9nm,0.5s
E62A Clayton Lake 69.40 35 P **P** **09 03 56.7 +0.2**
P48A Milroy 69.44 50 P **P** **09 03 56.5 -0.3**
P48A IAmb IAmb 09 04 17.1
comp=Z,16nm,1.5s
CLL Collm 70.43 340 *i* P **P** **09 04 02.2 -0.4**
comp=Z,13nm,1.4s
CLL *e*(sP) **sP** **09 04 33.0 +2.0**
OSTC Ostas 70.48 338 *eP* **P** **09 04 01.7 -1.3**
CHVC Chvalec 70.49 338 *eP* **P** **09 04 03.0 0.0**
UPC Upice 70.57 338 *eP* **P** **09 04 03.9 +0.4**
DPC Dobruska-Polom 70.65 337 *eP* **P** **09 04 04.7 +0.6**
STEB Steborice 70.72 336 *eP* **P** **09 04 07.4 +3.0**
HSKC Hora Svate Kat 71.01 339 *eP* **P** **09 04 02.5 -3.7**
VRAC Vranov 71.57 337 LR LR 09 43 38.4
comp=Z,228nm,19.0s,baz=350,slow=42
ZVC Zvikov 71.97 338 *eP* **P** **09 04 11.0 -1.0**
KHC Kasperske Hory 72.39 339 *eP* **P** **09 04 14.6 +0.1**
CKRC Cesky Krumlov 72.53 338 *eP* **P** **09 04 14.6 -0.8**
GERES GERESS Array B 72.63 339 P **P** **09 04 15.6 -0.4**
comp=Z,1.4nm,0.7s,baz=37,slow=5.3,SNR=12
GERES LR LR 09 39 37.1
comp=Z,93nm,18.1s,baz=21,slow=39
comp=Z,1.4nm,0.7s
GERES GERESS Array B 72.63 339 P **P** **09 04 16.3 +0.2**
GERES GERESS Array B 72.63 339 P **P** **09 04 16.3 +0.2**
LRAL Lakeview Retre 74.07 55 **P** **09 04 24.5 -0.1**
LRAL IAmb IAmb 09 04 25.3
comp=Z,4.2nm,0.7s
BRTR Keskin Array B 75.39 321 P **P** **09 04 31.7 -0.7**
comp=Z,0.9nm,0.7s,baz=36,slow=3.4,SNR=4.1
comp=Z,0.9nm,0.7s
BRTR Keskin Array B 75.39 321 *i* P **P** **09 04 32.2 -0.2**
BRTR pmax pmax
comp=Z,1.0nm,0.7s
FUORN Ofenpass-Fuorn 75.45 340 P **P** **09 04 33.0 +0.3**
FUORN IAmb IAmb 09 04 34.0
comp=Z,6.9nm,1.2s
WRA Warramunga Arr 78.75 206 P **P** **09 04 50.3 -0.7**
comp=Z,1.0nm,0.7s,baz=18,slow=5.8,SNR=4.9
comp=Z,1.0nm,0.7s
ASAR Alice Springs 82.43 206 P **P** **09 05 11.1 +0.4**
comp=Z,1.0nm,0.7s,baz=17,slow=5.2,SNR=9.4
comp=Z,1.0nm,0.7s
ASAR Alice Springs 82.43 206 P **P** **09 05 10.7 +0.1**
ESDC Sonseca Array 84.39 349 P **P** **09 05 20.3 -0.5**
comp=Z,2.4nm,0.9s,baz=6.9,slow=3.9,SNR=10
comp=Z,2.4nm,0.9s
ESDC Sonseca Array 84.39 349 P **P** **09 05 20.8 0.0**
BOSA Boshof 139.06 293 PKP **PKPdf** **09 12 14.7 0.0**
comp=Z,1.0nm,0.4s,baz=24,slow=2.3,SNR=4.0
PLCA Paso Flores 142.94 89 PKP **PKPdf** **09 12 18.2 -3.0**
comp=Z,2.7nm,1.1s,baz=311,slow=5.7,SNR=3.4
QSPA South Pole Qui 145.29 180 PKPbc **PKPdf** **09 12 23.4 -1.0**
comp=Z,4.2nm,0.7s,baz=21,slow=3.5,SNR=44
QSPA South Pole Qui 145.29 180 **PKPbc** **09 12 24.3 -0.1**

*UCR **22** 09:00:31.7±0.3, 0.°09S×80.°84W, h20km±999km, MW3.6, Presumed earthquake*
*RSNC **22** 09:00:34.6±0.0, 7.°N±4.°×7.°4W±.°, h73km±8km, ML1.0*
ISC 22 09:00:32.6±1.3, **6.7N**±0.°2×**73.69W**±0.°09, **h100**km, **n9,**
σ1s34/9, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.51**	**98**	P	**Pn**	**09 00 47.5**	**-1.2**
BARC				S	**Sn**	**09 01 02.0**	**+1.2**
PTBC	**PUERTO BERRIO,**	**0.77**	**261**	P	**Pn**	**09 00 50.3**	**-0.4**
PTBC				S	**Sn**	**09 01 02.9**	**-1.3**
RUSC	**La Rusia**	**0.98**	**142**	P	**Pn**	**09 00 53.8**	**+0.5**
RUSC				S	**Sn**	**09 01 08.0**	**-0.8**
BOTLY	**Boquete Panama**	**8.94**	**284**	*eP*	**Pn**	**09 02 41.3**	**+2.3**
BRU2	**Volcan**	**9.16**	**284**	*eP*	**Pn**	**09 02 42.2**	**+0.1**
VERH	**Veragua Rainfo**	**9.94**	**290**	*eP*	Pn	09 02 59.0	+6.4
PIEC	**Cerro El Cedra**	**10.58**	**287**	*eP*	Pn	09 02 57.9	-3.5
ABE2	**San Pablo**	**10.69**	**287**	*eP*	Pn	09 02 59.3	-3.7
VBV1	**V. Barva**	**10.85**	**289**	*eP*	**Pn**	**09 03 05.4**	**+0.2**

*NEIC **22** 09:06:08.7±0.8, 19.°61N±0.°09×64.°8W±0.°1, h35km±2km, ML2.9/32, Md3.7/7(RSPR), Error ellipse: s-maj=19.2km s-min=14.5km az=110.0*
*RSPR **22** 09:06:09.8, 19.°64N×64.°83W, h40km±15km, MD3.6/7*
ISC 22 09:06:07.7±4.0, **19.6N**±0.°1×**64.8W**±0.°2, **h23**km, **n35,**
σ0s36/34, 1C-8D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HUMP	**Col San Antoni**	**1.76**	**215**		**Sn**	**09 06 58.4**	**+0.1**
HUMP	**Col San Antoni**	**1.76**	**215**		**Pn**	**09 06 36.3**	**-0.4**
HUMP	**Col San Antoni**	**1.76**	**215**	IAML		09 07 04.2	
	42nm,0.2s						
HUMP				IAML		09 07 07.8	
	41nm,0.3s						
HUMP	**Col San Antoni**	**1.76**	**215⇓**	*eP*	**Pn**	**09 06 36.8**	**+0.1**
GCPR	**Guaynabo City**	**1.77**	**224**	Pn	**Pn**	**09 06 36.0**	**-0.8**
ECPR	**Experimental S**	**1.95**	**229**		**Sn**	**09 07 03.4**	**+0.2**
ECPR	**Experimental S**	**1.95**	**229**		**Pn**	**09 06 39.0**	**-0.3**
ECPR	**Experimental S**	**1.95**	**229**	IAML		09 07 11.8	
	99nm,0.2s						
ECPR				IAML		09 07 20.3	
	68nm,0.2s						
ECPR	**Experimental S**	**1.95**	**229⇓**	*eP*	**Pn**	**09 06 39.3**	**0.0**
PDPR	**Patillas Dam,**	**1.95**	**217**		**Sn**	**09 07 03.3**	**+0.2**
PDPR	**Patillas Dam,**	**1.95**	**217**		**Pn**	**09 06 38.6**	**-0.7**
PDPR	**Patillas Dam,**	**1.95**	**217**	IAML		09 07 10.3	
	30nm,0.8s						
PDPR				IAML		09 07 10.8	
	32nm,0.3s						
PDPR	**Patillas Dam,**	**1.95**	**217⇓**	*eP*	**Pn**	**09 06 39.7**	**+0.4**
IGPR	**InterUniversit**	**2.04**	**217**		**Pn**	**09 06 40.8**	**+0.2**
IGPR					**Sn**	**09 07 05.7**	**+0.3**
IGPR	**InterUniversit**	**2.04**	**217⇓**	*eP*	**Pn**	**09 06 40.8**	**+0.2**
AOPR	**Arecibo Observ**	**2.23**	**236**		**Pn**	**09 06 43.3**	**+0.1**
AOPR					**Sn**	**09 07 09.7**	**-0.4**
AOPR	**Arecibo Observ**	**2.23**	**236**	IAML		09 07 28.1	
	69nm,0.5s						
AOPR	**Arecibo Observ**	**2.23**	**236⇓**	*eP*	**Pn**	**09 06 43.3**	**+0.1**
CELP	**Cerrillos**	**2.27**	**228**		**Pn**	**09 06 44.0**	**+0.3**
CELP					**Sn**	**09 07 10.3**	**-0.6**
CELP	**Cerrillos**	**2.27**	**228⇓**	*eP*	**Pn**	**09 06 44.0**	**+0.3**
PRSN	**Puerto Rico Se**	**2.61**	**239**	Pn	**Pn**	**09 06 48.8**	**+0.4**
MLPR	**Magueyes Islan**	**2.67**	**233**		**Pn**	**09 06 49.6**	**+0.4**
MLPR	**Magueyes Islan**	**2.67**	**233**	IAML		09 07 50.2	
	50nm,0.1s						
MLPR				IAML		09 07 50.3	
	52nm,0.2s						
MLPR	**Magueyes Islan**	**2.67**	**233⇓**	*eP*	**Pn**	**09 06 49.6**	**+0.4**
CRPR	**Cabo Rojo, PR**	**2.70**	**234**		**Pn**	**09 06 50.2**	**+0.6**
CRPR				IAML		09 07 53.1	
	54nm,2.0s						
CRPR	**Cabo Rojo, PR**	**2.70**	**234**		**Sn**	**09 07 21.4**	**-0.3**
CRPR	**Cabo Rojo, PR**	**2.70**	**234**	IAML		09 07 11.7	
	62nm,3.2s						
CRPR	**Cabo Rojo, PR**	**2.70**	**234⇓**	*eP*	**Pn**	**09 06 50.2**	**+0.6**
PCDR	**Punta Cana, DR**	**3.55**	**253**		**Pn**	**09 07 01.7**	**+0.2**
PCDR					**Sn**	**09 07 42.6**	**-0.1**
PCDR	**Punta Cana, DR**	**3.55**	**253⇑**	*eP*	**Pn**	**09 07 01.7**	**+0.2**
PCDR				*eS*	**Sn**	**09 07 42.6**	**-0.1**
DR12	**Loma Pena Alta**	**4.40**	**260**	Pn	**Pn**	**09 07 12.9**	**-0.3**
BANI	**BANI**	**5.39**	**258**	Pn	**Pn**	**09 07 26.9**	**+0.1**
SDDR	**Presa de Saban**	**6.16**	**265**		**Pn**	**09 07 37.4**	**+0.1**
PODR	**Polo**	**6.30**	**258**	Pn	**Pn**	**09 07 39.5**	**+0.2**
LODA1	**ITESIL, Dajabo**	**6.51**	**271**	Pn	**Pn**	**09 07 42.0**	**-0.1**

*IDC **22** 09:24:50.0±0.9, 31.°56N×141.°60E, h0km, mb3.8/9, mbtmp3.8/11, ML2.6/2, MS2.8/2, Error ellipse: s-maj=30.1km s-min=15.4km az=68.0*
*NIED **22** 09:24:53.8, 31.°84N×141.°84E, h67km, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; M_{rr}8.30; $M_{\theta\theta}$-1.62; $M_{\phi\phi}$-6.68; $M_{r\theta}$0.69; $M_{\theta\phi}$-0.67; $M_{\phi r}$-3.13; Fault plane solution: $M_0$8.17000×10¹⁴ NP1:ϕ_s12.00000°, δ34.00000°, λ99.00000°. NP2:ϕ_s181.00000°, δ56.00000°, λ84.00000°.*
*JMA **22** 09:24:53.8±0.5, 32.°N±2.°×14.°2E±.°, h67km, MV3.6/34, NEAR TORISHIMA IS*
ISC 22 09:24:55.0±0.9, **31.°61N**±0.°07×**141.°8E**±0.°1, **h50**km, **n19,**
σ2s62/19, mb3.8/9, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAOM	**Aogashimamukai**	**1.92**	**297**	P	**Pn**	**09 25 24.4**	**-0.9**
JHJ2	**Mitsune**	**2.24**	**312**	P	**Pn**	**09 25 27.5**	**-2.1**
JHJ	**Hachijo jima 2**	**2.27**	**312**	Pn	**Pn**	**09 25 26.3**	**-3.7**
	2.9nm,0.3s,baz=320,slow=21,SNR=17						
JHJ				Sn	**Sn**	**09 25 54.2**	**-2.5**
	3.6nm,0.3s,baz=70,slow=21,SNR=5.1						
JHJ				AML	AML		
BSO1	**Boso 1**	**3.11**	**348**	*eP*	**Pn**	**09 25 38.1**	**-3.0**
BSO3	**Boso 3**	**3.36**	**342**	*eP*	**Pn**	**09 25 42.2**	**-2.5**
JCJ	**Chichijima**	**4.51**	**175**	Pn	**Pn**	**09 25 57.9**	**-3.0**
	30nm,0.3s,baz=281,slow=22,SNR=6.3						
JCJ				Sn	**Sn**	**09 26 47.7**	**-4.4**
	22nm,0.3s,baz=271,slow=21,SNR=4.8						
JHO	**Hitachi**	**5.09**	**349**	*eP*	**Pn**	**09 26 04.9**	**-3.8**
JAG	**Ashikaga**	**5.18**	**339**	*eP*	**Pn**	**09 26 07.5**	**-2.5**
MJAR	**Matsushiro Arr**	**5.74**	**330**	Pn	**Pn**	**09 26 15.6**	**-2.1**
	0.2nm,0.3s,baz=166,slow=12,SNR=10						
MJAR				LR	LR	09 28 39.9	
	comp=Z,65nm,19.6s,baz=204,slow=40						
	2.6nm,0.6s						
MJAR				AML	AML		
KSRS	**Korea Array**	**12.82**	**301**	LR	LR	09 32 48.3	
	comp=Z,60nm,18.4s,baz=115,slow=38						
SONM	**Songino Array**	**31.34**	**311**	P	**P**	**09 31 12.9**	**+2.1**
	0.7nm,0.7s,baz=115,slow=10,SNR=5.1						
	0.7nm,0.7s						
ZALV	**Zalesovo Beam**	**45.92**	**316**	P	**P**	**09 33 13.5**	**+1.0**
	0.5nm,0.4s,baz=87,slow=8.8,SNR=2.3						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**47.42**	**306**	P	**P**	**09 33 25.6**	**+1.1**
	0.6nm,0.6s,baz=88,slow=9.2,SNR=7.3						
	0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**49.71**	**312**	P	**P**	**09 33 42.3**	**+0.3**
	2.2nm,0.8s,baz=87,slow=7.1,SNR=12						
	2.2nm,0.8s						
WRA	**Warramunga Arr**	**51.75**	**189**	P	**P**	**09 33 58.7**	**+1.1**
	3.0nm,0.9s,baz=5.2,slow=7.5,SNR=28						
	3.0nm,0.9s						
ILAR	**Eielson Array**	**53.96**	**30**	P	P	09 34 16.3	+2.9
	0.5nm,0.9s,baz=281,slow=5.4,SNR=3.9						
	0.5nm,0.9s						
BVAR	**Borovoye Array**	**54.54**	**315**	P	**P**	**09 34 19.2**	**+1.3**
	0.7nm,0.5s,baz=73,slow=6.5,SNR=1.7						
	0.7nm,0.5s						
ASAR	**Alice Springs**	**55.48**	**189**	P	**P**	**09 34 26.2**	**+1.4**
	0.5nm,0.5s,baz=1.6,slow=6.2,SNR=13						
	0.5nm,0.5s						
TXAR	**Lajitas Array**	**93.17**	**53**	P	**P**	**09 38 06.6**	**+2.3**
	0.4nm,0.9s,baz=298,slow=2.7,SNR=4.7						
	0.4nm,0.9s						

*IDC **22** 09:34:43.1±48.0, 21.°65S×173.°28W, h0km, mb4.2/3, mbtmp4.2/3, Error ellipse: s-maj=916.2km s-min=172.1km az=86.0*
*NEIC **22** 09:34:46.7±0.7, 21.°68S±0.°06×173.°43W±0.°08, h10km±1km, mb4.3/11, Error ellipse: s-maj=15.8km s-min=5.3km az=51.0*
ISC 22 09:34:49.9±1.0, **21.°6S**±0.°1×**173.°5W**±0.°1, **h38**km, **n19,**
σ0s78/19, mb4.3/9, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**4.17**	**54**	Pn	**Pn**	**09 35 50.5**	**-0.5**
FUTU	**Fugatoga**	**8.50**	**328**	Pn	**Pn**	**09 36 50.7**	**+0.2**
MSVF	**Nonsavu**	**8.87**	**294**	Pn	**Pn**	**09 36 55.8**	**+0.2**
FUNA	**Funafuti**	**14.80**	**330**	Pn	**Pn**	**09 38 16.7**	**+0.2**
MARNC	**Mare, Loyalty**	**17.21**	**267**	Pn	**Pn**	**09 38 47.1**	**-0.4**
MARNC				IAmb	IAmb	09 39 21.2	
	comp=Z,53nm,1.0s						
KOUNC	**Koumac, New Ca**	**20.78**	**269**	P	**P**	**09 39 28.0**	**+0.2**
EIDS	**Eidsvold**	**32.67**	**256**	P	**P**	**09 41 17.7**	**-0.9**
EIDS				IAmb	IAmb	09 41 32.3	
	comp=Z,7.1nm,1.1s						
CAN	**Canberra**	**35.49**	**239**	P	**P**	**09 41 42.1**	**-1.0**
CAN				IAmb	IAmb	09 41 49.4	
	comp=Z,4.7nm,1.0s						
CTAO	**Charters Tower**	**37.60**	**265**	P	**P**	**09 42 01.5**	**+0.4**
STKA	**Stephens Creek**	**41.16**	**246**	P	**P**	**09 42 30.2**	**-0.6**
	comp=Z,1.5nm,0.4s,baz=92,slow=10,SNR=7.1						
	comp=Z,1.5nm,0.4s						
AS31	**Alice Springs**	**48.39**	**257**	P	**P**	**09 43 28.4**	**-0.2**
AS31				IAmb	IAmb	09 43 29.6	
	comp=Z,1.1nm,0.9s						
ASAR	**Alice Springs**	**48.39**	**257**	P	**P**	**09 43 28.4**	**-0.1**
	comp=Z,1.7nm,0.5s,baz=95,slow=7.3,SNR=35						
	comp=Z,1.7nm,0.5s						
ASAR	**Alice Springs**	**48.39**	**257**	P	**P**	**09 43 28.2**	**-0.3**
WB0	**Warramunga Arr**	**48.62**	**262**	P	**P**	**09 43 30.3**	**-0.1**
WB0				IAmb	IAmb	09 43 31.3	
	comp=Z,4.4nm,0.7s						
WRA	**Warramunga Arr**	**48.64**	**262**	P	**P**	**09 43 30.6**	**+0.2**
	comp=Z,1.8nm,0.5s,baz=100,slow=7.6,SNR=100						
	comp=Z,1.8nm,0.5s						
WRA	**Warramunga Arr**	**48.64**	**262**	P	**P**	**09 43 30.3**	**-0.2**
KNRA	**Kununurra**	**54.80**	**266**	P	**P**	**09 44 17.5**	**+1.1**
KNRA				IAmb	IAmb	09 44 45.2	
	comp=Z,3.9nm,1.1s						
FITZ	**Fitzroy Crossi**	**57.07**	**262**	P	**P**	**09 44 34.8**	**+2.1**
FITZ				IAmb	IAmb	09 45 16.4	
	comp=Z,0.9nm,1.1s						
QSPA	**South Pole Qui**	**68.47**	**180**	P	**P**	**09 45 49.0**	**+1.0**

*IDC **22** 09:35:12.1±0.9, 4.°09N×126.°88E, h0km, mb3.8/9, mbtmp3.9/9, MS3.2/1, Error ellipse: s-maj=46.5km s-min=17.1km az=71.0*
*NEIC **22** 09:35:21.7±1.4, 4.°00N±0.°07×126.°9E±0.°1, h72km±2km, mb4.1/16, Error ellipse: s-maj=19.8km s-min=9.0km az=78.0*
ISC 22 09:35:18.0±0.6, **4.°04N**±0.°06×**127.°0E**±0.°1, **h36**km, **n33,**
σ1s53/31, mb4.0/15, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**3.28**	**173**	Pn	**Pn**	**09 36 10.5**	**+3.7**
DAV	**Davao City (W)**	**3.30**	**336**	Pn	**Pn**	**09 36 10.8**	**+3.7**
BIPH	**Bislig**	**4.16**	**352**	*i* P	Pn	09 36 26.9	+8.0
BIPH				*e*S	Sn	09 36 39.8	-26
LUWI	**Luwuk**	**6.55**	**220**	Pn	**Pn**	**09 36 54.0**	**+2.1**
TOLI2	**Tolitoli**	**6.81**	**245**	Pn	**Pn**	**09 36 58.1**	**+2.7**
MTN	**Manton Dam**	**17.29**	**166**	Pn	**Pn**	**09 39 14.5**	**-2.1**
KNRA	**Kununurra**	**19.68**	**175**	P	P	**09 39 42.9**	**-1.2**
KNRA				IAmb	IAmb	09 40 25.6	
	comp=Z,12nm,1.4s						
TPUB	**Ta-pu**	**20.09**	**343**	P	P	**09 39 47.4**	**-1.3**
TPUB				IAmb	IAmb	09 39 50.8	
	comp=Z,19nm,1.0s						
FITZ	**Fitzroy Crossi**	**22.04**	**183**	P	**P**	**09 40 09.3**	**-0.2**
	comp=Z,0.8nm,0.4s,baz=7.0,slow=11,SNR=1.6						
	comp=Z,0.8nm,0.4s						
FITZ	**Fitzroy Crossi**	**22.04**	**183**	P	**P**	**09 40 10.4**	**+0.9**
WB0	**Warramunga Arr**	**24.77**	**163**	P	**P**	**09 40 35.7**	**-0.9**
WB0				IAmb	IAmb	09 40 46.3	
	comp=Z,8.8nm,1.1s						
WRA	**Warramunga Arr**	**24.92**	**163**	P	**P**	**09 40 37.4**	**-0.5**
	comp=Z,1.3nm,0.8s,baz=340,slow=11,SNR=14						
	comp=Z,1.3nm,0.8s						
WRA	**Warramunga Arr**	**24.92**	**163**	P	**P**	**09 40 36.8**	**-1.1**
AS31	**Alice Springs**	**28.36**	**166**	P	**P**	**09 41 08.6**	**-0.3**
ASAR	**Alice Springs**	**28.36**	**166**	P	**P**	**09 41 08.7**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=342,slow=7.1,SNR=5.6						
	comp=Z,0.1nm,0.3s						
JTU	**Tsushima**	**30.41**	**4**	P	**P**	**09 41 27.8**	**+0.9**
CMAR	**Chiang Mai Arr**	**30.90**	**300**	P	**P**	**09 41 30.7**	**-0.8**
	comp=Z,1.2nm,0.3s,baz=120,slow=8.7,SNR=4.3						
	comp=Z,1.2nm,0.3s						
HNR	**Honiara**	**35.51**	**112**	LR	LR	09 56 48.7	
	comp=Z,31nm,18.1s,baz=96,slow=36						
EVN	**Everest**	**44.98**	**306**	P	**P**	**09 43 29.7**	**-1.0**
EVN				IAmb	IAmb	09 43 33.2	
	comp=Z,2.0nm,0.7s						
PETK	**Petropavlovsk-**	**55.06**	**22**	P	**P**	**09 44 45.9**	**-0.2**
	comp=Z,1.5nm,0.6s,baz=230,slow=5.8,SNR=4.3						
	comp=Z,1.5nm,0.6s						
PET	**Petropavlovsk**	**55.36**	**23**	P	**P**	**09 44 47.4**	**-0.8**
MKAR	**Makanchi Array**	**57.42**	**325**	P	**P**	**09 45 02.3**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=118,slow=7.7,SNR=6.4						
	comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	**57.42**	**325**	P	**P**	**09 45 02.5**	**-0.6**
ZALV	**Zalesovo Beam**	**60.41**	**333**	P	**P**	**09 45 23.5**	**-0.2**
	comp=Z,0.4nm,0.4s,baz=120,slow=8.5,SNR=2.0				

CNBA	**Chernabura Isl**	**0.22**	**6**			**Pb**	**09 35 39.4**	**0.0**
CNBA						**Sb**	**09 35 43.8**	**-0.1**
CNBA					IAML		09 35 45.0	
	comp=N,7μm,0.2s							
CHNA	**Chernabura Isl**	**0.23**	**6**	P		**Pb**	**09 35 39.3**	**-0.3**
CHNA	**Chernabura Isl**	**0.23**	**6**	S		**Sb**	**09 35 43.9**	**-0.2**
SDPT	**Sand Point**	**0.89**	**327**	P		**Pn**	**09 35 48.5**	**-0.7**
SDPT	**Sand Point**	**0.89**	**327**	P		**Sn**	**09 36 00.3**	**-0.8**
SDPT	**Sand Point**	**0.89**	**327**			**Pn**	**09 35 48.4**	**-0.8**
SDPT					IAML		09 36 01.4	
	comp=N,3μm,0.6s							
SDPT	**Sand Point**	**0.89**	**327**			**Sn**	**09 36 00.4**	**-0.6**
DOL	**Dolgoi Island**	**1.40**	**294**			**Pn**	**09 35 56.0**	**-0.2**
DOL						**Sn**	**09 36 13.5**	**-0.2**
VNKR	**Veniaminof 5**	**1.44**	**6**			**Pn**	**09 35 57.9**	**+1.1**
PVV	**Pavlof Volcano**	**1.47**	**303**			**Pn**	**09 35 57.2**	**+0.1**
PS1A	**Pavlof South-1**	**1.47**	**305**			**Pn**	**09 35 57.5**	**+0.4**
PS1A						**Sn**	**09 36 16.5**	**+1.3**
PS4A	**Pavlof South-4**	**1.48**	**301**			**Pn**	**09 35 57.6**	**+0.2**
PS4A						**Sn**	**09 36 16.6**	**+0.9**
VNWF	**Veniaminof 8**	**1.55**	**1**			**Pn**	**09 35 59.7**	**+1.4**
PN7A	**Pavlof North-7**	**1.60**	**302**			**Pn**	**09 35 59.8**	**+0.8**
DTNA	**Dutton South F**	**1.61**	**291**			**Pn**	**09 35 59.3**	**+0.2**
DT1	**Dutton Round H**	**1.61**	**289**			**Pn**	**09 35 59.0**	**-0.1**
DT1						**Sn**	**09 36 18.8**	**-0.1**
VNSS	**Veniaminof 8**	**1.63**	**3**			**Pn**	**09 36 00.8**	**+1.2**
VNFG	**Fog Glacier, M**	**1.69**	**1**			**Pb**	**09 36 02.4**	**-0.9**
VNFG	**Fog Glacier, M**	**1.69**	**1**			**Pn**	**09 36 01.9**	**-1.3**
S12K	**Black Hills**	**1.78**	**309**			**Pn**	**09 36 01.7**	**+0.2**
S12K					IAML		09 36 35.2	
	comp=N,905nm,0.4s							
S12K	**Black Hills**	**1.78**	**309**			**Sn**	**09 36 24.2**	**+1.2**
CHGN	**Chignik**	**1.84**	**22**			**Pn**	**09 36 03.0**	**+0.8**
CHGN					IAML		09 36 28.8	
	comp=N,602nm,0.6s							
CHGN					IAML		09 36 29.4	
	comp=E,808nm,0.5s							
ISLZ	**Isanotski Laza**	**2.38**	**275**			**Pn**	**09 36 09.9**	**+0.2**
SSLS	**Shishaldin Sou**	**2.54**	**274**			**Pn**	**09 36 13.0**	**+1.1**
SSLN	**Shishaldin Nor**	**2.54**	**276**			**Pn**	**09 36 13.3**	**+1.3**
SSLN						**Sn**	**09 36 43.2**	**+1.4**
CHIR	**Chirikof Islan**	**2.60**	**60**	P		**Pn**	**09 36 13.3**	**+0.6**
CHIR	**Chirikof Islan**	**2.60**	**60**	S		**Sn**	**09 36 43.4**	**+0.3**
CHIR	**Chirikof Islan**	**2.60**	**60**			**Pn**	**09 36 13.3**	**+0.6**
CHIR	**Chirikof Islan**	**2.60**	**60**		IAML		09 37 03.3	
	comp=E,176nm,0.9s							
WTUG	**Tugumak**	**2.77**	**277**			**Pn**	**09 36 16.1**	**+1.0**
WECS	**Westdahl Cape**	**3.00**	**271**			**Pn**	**09 36 19.1**	**+0.9**
WECS					IAML		09 36 55.8	
	comp=E,181nm,1.4s							
WECS					IAML		09 37 20.6	
	comp=N,343nm,1.3s							
R16K	**Pilot Point**	**3.19**	**20**	Pn		**Pn**	**09 36 20.6**	**-0.1**
R16K					IAML		09 38 14.7	
	comp=N,239nm,1.5s							
PLBL	**Peulik Blue Cr**	**3.48**	**26**			**Pn**	**09 36 25.8**	**+1.0**
R17L	**Mt. Peulik Vol**	**3.54**	**30**			**Pn**	**09 36 27.1**	**+1.5**
PLK3	**Peulik 3**	**3.62**	**30**			**Pn**	**09 36 28.1**	**+1.4**
AKUT	**Akutan**	**3.62**	**265**	P		**Pn**	**09 36 28.1**	**+1.4**
AKUT	**Akutan**	**3.62**	**265**	S		**Sn**	**09 37 09.3**	**+0.9**
AHB	**Akutan Harbor**	**3.65**	**265**			**Pn**	**09 36 28.5**	**+1.3**
AHB						**Sn**	**09 37 09.2**	**0.0**
SII	**Sitkinak Islan**	**3.66**	**55**	P		**Pn**	**09 36 27.7**	**+0.5**
SII	**Sitkinak Islan**	**3.66**	**55**	S		**Sn**	**09 37 08.4**	**-0.9**
SII	**Sitkinak Islan**	**3.66**	**55**			**Pn**	**09 36 27.9**	**+0.6**
SII	**Sitkinak Islan**	**3.66**	**55**		IAML		09 37 29.8	
	comp=E,113nm,1.5s							
SII					IAML		09 37 40.4	
	comp=N,100nm,0.7s							
PLK5	**Peulik 5**	**3.73**	**23**			**Pn**	**09 36 29.1**	**+1.0**
ZRO	**Akutan Zero**	**3.75**	**265**			**Pn**	**09 36 29.5**	**+1.0**
ZRO						**Sn**	**09 37 11.7**	**+0.1**
UNV	**Unalaska Valle**	**4.11**	**262**	P		**Pn**	**09 36 34.3**	**+0.9**
UNV	**Unalaska Valle**	**4.11**	**262**	S		**Sn**	**09 37 19.8**	**-0.5**
UNV	**Unalaska Valle**	**4.11**	**262**			**Pn**	**09 36 33.4**	**0.0**
UNV	**Unalaska Valle**	**4.11**	**262**			**Sn**	**09 37 19.0**	**-1.3**
Q17K	**Contact Creek**	**4.21**	**28**			**Pn**	**09 36 35.6**	**+0.6**
MSW	**Makushin Switc**	**4.25**	**264**			**Pn**	**09 36 35.6**	**+0.2**
MSW						**Sn**	**09 37 22.9**	**-1.1**
ANCK	**Angle Creek**	**4.27**	**31**			**Pn**	**09 36 37.0**	**+1.3**
ACHA	**Angle Creek He**	**4.33**	**32**			**Pn**	**09 36 36.9**	**+0.3**
P16K	**Nushagak River**	**4.53**	**11**			**Pn**	**09 36 40.5**	**+1.3**
P16K	**Nushagak River**	**4.53**	**11**		IAML		09 38 20.1	
	comp=N,83nm,0.9s							
O15K	**Ungalikthiuk R**	**4.59**	**359**			**Pn**	**09 36 40.2**	**+0.3**
O15K	**Ungalikthiuk R**	**4.59**	**359**		IAML		09 38 03.8	
	comp=E,48nm,1.2s							
KAWH	**Katmai**	**4.64**	**33**			**Pn**	**09 36 40.9**	**+0.2**
O14K	**Tigyukauivet M**	**4.75**	**350**	Pn		**Pn**	**09 36 42.7**	**+0.5**
O14K					IAML		09 38 05.1	
	comp=E,50nm,1.1s							
O14K					IAML		09 38 07.1	
	comp=N,42nm,0.8s							
KARR	**Katmai Rainbow**	**4.76**	**33**			**Pn**	**09 36 42.8**	**+0.4**
Q18K	**Katmai Hardscr**	**4.79**	**30**			**Pn**	**09 36 43.6**	**+0.8**
KAHG	**Katmai Hook Gl**	**4.81**	**34**			**Pn**	**09 36 43.6**	**+0.6**
KDAK	**Kodiak Island**	**5.06**	**48**	Pn		**Pn**	**09 36 45.8**	**-0.7**
KDAK					IAML		09 38 15.7	
	comp=N,32nm,1.5s							
OKNC	**Okmok New Cone**	**5.14**	**261**	Pn		**Pn**	**09 36 48.2**	**+0.6**
O17K	**Koliganek Bris**	**5.36**	**14**			**Pn**	**09 36 50.9**	**+0.3**
Q19K	**Cape Douglas,**	**5.44**	**35**			**Pn**	**09 36 51.7**	**0.0**
N17K	**Nushagak Hills**	**6.08**	**11**	Pn		**Pn**	**09 37 02.3**	**+1.8**
M13K	**Dall Lake**	**6.16**	**343**			**Pn**	**09 37 02.4**	**+0.9**
M14K	**Bethel**	**6.29**	**349**			**Pn**	**09 37 03.6**	**+0.3**
N18K	**Kilae Creek**	**6.41**	**17**	Pn		**Pn**	**09 37 07.3**	**+2.2**
ILSW	**Iliamna Southw**	**6.43**	**30**	Pn		**Pn**	**09 37 05.8**	**+0.4**
M16K	**Timber Creek**	**6.45**	**3**	Pn		**Pn**	**09 37 06.3**	**+0.8**
N19K	**Bonanza Creek**	**6.81**	**22**	Pn		**Pn**	**09 37 11.7**	**+1.1**
M17K	**Holitna River**	**6.91**	**9**			**Pn**	**09 37 12.8**	**+0.9**
L14K	**Kuka Creek**	**6.95**	**348**	Pn		**Pn**	**09 37 12.6**	**+0.2**
BRLK	**Bradley Lake**	**7.02**	**39**	Pn		**Pn**	**09 37 12.2**	**-1.2**
L15K	**Ungalak Mounta**	**7.16**	**353**			**Pn**	**09 37 15.1**	**-0.2**
L17K	**Donlin**	**7.58**	**5**			**Pn**	**09 37 21.4**	**+0.4**
L18K	**Granite Mounta**	**7.79**	**10**	Pn		**Pn**	**09 37 23.4**	**-0.5**
L19K	**White Mountain**	**8.00**	**16**	Pn		**Pn**	**09 37 27.9**	**+1.1**
SUA	**Susitna One**	**8.33**	**31**	Pn		**Pn**	**09 37 31.6**	**+0.2**
PMR	**Palmer**	**8.93**	**34**	P		**Pn**	**09 37 37.8**	**-1.7**
ADK	**Adak**	**10.58**	**262**	P		**Pn**	**09 38 02.9**	**+0.8**
ADK	**Adak**	**10.58**	**262**	S		**Sn**	**09 39 59.8**	**+0.5**
COLA	**College**	**11.86**	**25**	P		**Pn**	**09 38 18.5**	**-1.1**

*SDD **22** 09:42:02.9±2.3, 18°.05N×71°.47W, h15km±34km, MD2.8, ML2.4, MW2.7, Presumed earthquake*
*OSPL **22** 09:42:03.9±0.9, 18°.22N×71°.32W, h12km±5km, ML2.6, Presumed earthquake*
ISC 22 09:42:03.6±1.0, **18°.15N**±0°.04×**71°.37W**±0°.03, **h8**km±7km, **n12**, σ0**81**/19, **1C**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.09**	**81**	*eP*	**Pg**	**09 42 05.8**	**-0.1**
PODR				IAML		09 42 10.6	
	comp=N,5μm,0.4s						
PODR	**Polo**	**0.09**	**81**	*i* P	**Pg**	**09 42 05.8**	**-0.1**
PODR				*eS*	**Sg**	**09 42 08.3**	**+0.8**
LODU1	**El Espartillar**	**0.22**	**334**	*i* P	**Pg**	**09 42 08.0**	**-0.1**
LODU1				*eS*	**Sg**	**09 42 11.0**	**0.0**
LODU1				IAML		09 42 14.1	
	comp=Z,2μm,0.6s						
NEDR	**Neiba UASD**	**0.33**	**353**	*e*Pg	**Pg**	**09 42 10.8**	**+0.6**
NEDR				IAML		09 42 19.6	
	comp=N,412nm,0.2s						
LOVI	**El Cajuil, Ovi**	**0.35**	**179**	*i* P	**Pb**	**09 42 11.7**	**-0.4**
LOVI				*eS*	**Sb**	**09 42 18.2**	**+0.4**
LOVI				IAML		09 42 27.7	
	comp=Z,440nm,0.4s						
LOBH	**Bahia de las A**	**0.38**	**221**	*i* P	**Pb**	**09 42 12.4**	**-0.3**
LOBH				*eS*	**Sb**	**09 42 18.5**	**-0.3**
LOBH				IAML		09 42 23.1	
	comp=Z,338nm,0.6s						
JIDR	**Jimani**	**0.57**	**307**	*e*Pg	**Pb**	**09 42 14.8**	**-0.9**
JIDR				IAML		09 42 30.2	
	comp=N,210nm,1.1s						
SDDR	**Presa de Saban**	**0.83**	**6**	*e*Pg	**Pg**	**09 42 18.6**	**-0.9**
SDDR				IAML		09 42 37.4	
	comp=N,47nm,0.6s						
ABDR	**Alto Bandera**	**0.96**	**47**	*e*Pg	**Pg**	**09 42 22.2**	**0.0**
ABDR				IAML		09 42 40.8	
	comp=N,52nm,1.0s						
BANI	**BANI**	**0.99**	**76**	*e*Pg	**Pb**	**09 42 22.4**	**-0.7**
BANI				*e*Sg	**Sn**	**09 42 38.1**	**-0.2**
BANI				IAML		09 42 39.5	
	comp=N,60nm,0.6s						
REDR	**Restauracion**	**1.01**	**359**	*e*Pg	**Pn**	**09 42 24.1**	**0.0**
REDR				*e*Sg	**Sn**	**09 42 40.5**	**+2.0**
REDR				IAML		09 42 45.1	
	comp=N,85nm,0.2s						
HATOM	**Hato Mayor del**	**1.99**	**71**	*e*Pg	**Pb**	**09 42 39.0**	**-1.1**
HATOM				*e*Sg	**Sb**	**09 43 06.1**	**+0.9**

*IDC **22** 09:48:00.1±3.7, 20°.45N×145°.07E, h92km±32km, mb3.4/10, mbtmp3.7/11, Error ellipse: s-maj=29.7km s-min=16.9km az=89.0*
*NEIC **22** 09:48:00.1±1.1, 20°.38N±0°.09×145°.2E±0°.2, h84km±10km, mb4.1/12, Error ellipse: s-maj=22.9km s-min=10.9km az=111.0*
ISC 22 09:48:00.9±0.7, **20°.41N**±0°.07×**145°.1E**±0°.2, **h100**km, **n29**, σ1**9**06/29, **mb3.8**/17, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**6.79**	**182**	Pn	**Pn**	**09 49 36.5**	**-1.4**
JCJ	**Chichijima**	**7.17**	**339**	P	**Pn**	**09 49 42.3**	**-0.8**
	43nm,0.8s,baz=157,slow=14,SNR=6.3						
JCJ				S	**Sn**	**09 51 00.3**	**-2.6**
	68nm,0.8s,baz=270,slow=20,SNR=4.0						
JHJ2	**Mitsune**	**13.49**	**341**	Pn	**Pn**	**09 51 08.3**	**0.0**
JSG	**Sagara**	**15.46**	**338**	Pn	**Pn**	**09 51 34.0**	**+0.6**
KSAR	**Wonju Array Be**	**22.63**	**322**	P	**P**	**09 52 54.6**	**+1.1**
KNRA	**Kununurra**	**39.29**	**205**	P	**P**	**09 55 20.7**	**+0.6**
KNRA				IAmb	IAmb	09 55 32.3	
	comp=Z,3.0nm,1.0s						
WB0	**Warramunga Arr**	**41.28**	**195**	P	**P**	**09 55 36.6**	**0.0**
WB0				IAmb	IAmb	09 56 10.0	
	comp=Z,2.4nm,1.0s						
SONM	**Songino Array**	**41.46**	**320**	P	**P**	**09 55 38.8**	**+0.8**
	comp=Z,0.4nm,0.7s,baz=135,slow=7.4,SNR=2.3 comp=Z,0.4nm,0.7s						
SONM	**Songino Array**	**41.46**	**320**	P	**P**	**09 55 40.5**	**+2.5**
WRA	**Warramunga Arr**	**41.46**	**195**	P	**P**	**09 55 38.7**	**+0.6**
	comp=Z,0.3nm,0.4s,baz=15,slow=8.4,SNR=8.4 comp=Z,0.3nm,0.4s						
WRA	**Warramunga Arr**	**41.46**	**195**	IAmb	IAmb	09 55 40.3	
	comp=Z,0.1nm,1.1s						
FITZ	**Fitzroy Crossi**	**42.76**	**208**	P	**P**	**09 55 48.8**	**+0.2**
AS31	**Alice Springs**	**45.15**	**195**	P	**P**	**09 56 07.7**	**0.0**
AS31				IAmb	IAmb	09 56 18.0	
	comp=Z,0.9nm,1.1s						
ASAR	**Alice Springs**	**45.15**	**195**	P	**P**	**09 56 07.0**	**-0.7**
	comp=Z,0.1nm,0.3s,baz=10,slow=7.4,SNR=4.8 comp=Z,0.1nm,0.3s						
ASAR	**Alice Springs**	**45.15**	**195**	P	**P**	**09 56 07.4**	**-0.4**
KULM	**Kulim**	**45.68**	**257**	P	**P**	**09 56 12.6**	**+0.4**
ZALV	**Zalesovo Beam**	**56.32**	**322**	P	**P**	**09 57 31.2**	**0.0**
	comp=Z,0.3nm,0.3s,baz=96,slow=7.2,SNR=2.0 comp=Z,0.3nm,0.3s						
MKAR	**Makanchi Array**	**56.87**	**313**	P	**P**	**09 57 36.0**	**+0.6**
	comp=Z,0.7nm,0.7s,baz=92,slow=8.0,SNR=3.7 comp=Z,0.7nm,0.7s						
KURBB	**Kurchatov Arra**	**59.67**	**317**	P	**P**	**09 57 54.6**	**-0.1**
	comp=Z,1.1nm,0.3s,baz=91,slow=7.4,SNR=1.4 comp=Z,1.1nm,0.3s						
D20K	**Etivluk River**	**59.82**	**21**	P	**P**	**09 57 56.3**	**+0.8**
D20K				IAmb	IAmb	09 58 17.9	
	comp=Z,3.0nm,1.2s						
SUA	**Susitna One**	**59.97**	**30**	P	**P**	**09 57 55.6**	**-1.2**
BPAW	**Bear Paw Mtn.**	**60.49**	**27**	P	**P**	**09 58 00.6**	**+0.5**
BPAW				IAmb	IAmb	09 58 07.5	
	comp=Z,3.2nm,1.2s						
D22K	**Ayikyak River**	**61.22**	**21**	P	**P**	**09 58 06.0**	**+1.1**
D22K				IAmb	IAmb	09 58 50.3	
	comp=Z,1.9nm,1.0s						
D23K	**Nanushuk River**	**61.93**	**22**	P	**P**	**09 58 11.4**	**+1.7**
ILAR	**Eielson Array**	**62.38**	**27**	P	**P**	**09 58 12.6**	**-0.1**
	comp=Z,0.3nm,0.7s,baz=239,slow=5.1,SNR=3.5 comp=Z,0.3nm,0.7s						
BVAR	**Borovoye Array**	**64.80**	**320**	P	**P**	**09 58 28.1**	**-0.8**
	comp=Z,0.6nm,0.3s,baz=92,slow=6.4,SNR=4.2 comp=Z,0.6nm,0.3s						
YKA	**Yellowknife Ar**	**76.75**	**28**	P	**P**	**09 59 41.1**	**0.0**
	comp=Z,0.5nm,0.6s,baz=294,slow=5.5,SNR=5.7 comp=Z,0.5nm,0.6s						
NVAR	**Mina Array Bea**	**82.54**	**52**	P	**P**	**10 00 13.9**	**+0.7**
	comp=Z,0.7nm,0.7s,baz=266,slow=5.7,SNR=5.4 comp=Z,0.7nm,0.7s						
FINES	**FINESS Array B**	**85.10**	**335**	P	**P**	**10 00 23.9**	**-1.5**
	comp=Z,8.8nm,1.1s,baz=74,slow=5.1,SNR=9.9						

*HLW **22** 09:52:10.6, 30°.93N×31°.25E, h21km±1km, Ml3.5*
*GII **22** 09:52:14.3±0.0, 31°.351N±0°.002×31°.560E±0°.001, h0km, Mws3.4, confirmed*
*NIC **22** 09:52:15.0, 31°.16N×31°.54E, h20km±31km, Ml3.2/12*
ISC 22 09:52:08.3±1.0, **30°.93N**±0°.03×**31°.25E**±0°.04, **h10**km, **n59**, σ1**86**/96, **Egypt**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KOT	**Kottamia**	**1.12**	**153**	P	**Pb**	**09 52 30.8**	**+1.1**
HMYD	**Mayadein**	**1.19**	**199**	P	**Pb**	**09 52 32.0**	**+1.0**
HNAT	**Natroun**	**1.40**	**203**	P	**Pn**	**09 52 34.6**	**+0.7**
SUZ	**Suez**	**1.75**	**128**	P	**Pn**	**09 52 39.9**	**+1.2**
ZAF	**Zafarana**	**1.99**	**145**	P	**Pn**	**09 52 42.9**	**+0.9**
RYAN	**Fayoum**	**2.02**	**205**	P	**Pn**	**09 52 42.5**	**0.0**
RYAN				S	**Sn**	**09 53 06.1**	**-1.7**
ZNM	**Zenema**	**2.09**	**137**	P	**Pn**	**09 52 44.1**	**+0.7**
NBNS	**Bani Suef**	**2.30**	**179**	P	**Pn**	**09 52 46.9**	**+0.6**
OSC2	**CSNet OBS 4**	**2.31**	**22**	P	**Pn**	**09 52 48.9**	**+2.6**
OSC2				S	**Sn**	**09 53 14.0**	**-0.8**
OSC2				AML	AML	09 53 20.1	
	0.2nm,0.3s						
OSC2				AML	AML	09 53 21.3	
	0.1nm,0.2s						
OSC1	**CSNet OBS 1**	**2.56**	**1**	S	**Sn**	**09 53 21.1**	**0.0**
OSC1				AML	AML	09 53 21.9	
	0.3nm,0.4s						
OSC1				AML	AML	09 53 25.2	
	0.1nm,0.3s						
KZIT	**Kziot**	**2.71**	**90**	S	**Sn**	**09 53 24.4**	**-0.3**
KZIT				AML	AML	09 53 36.1	
	0.4nm,0.3s						
KZIT				AML	AML	09 53 41.4	
	0.6nm,0.4s						
KZIT	**Kziot**	**2.71**	**90**	P	**Pb**	**09 52 55.7**	**-1.1**
KZIT				S	**Sn**	**09 53 27.0**	**+2.4**
RMNI	**Mount Ramon**	**3.04**	**95**	P	**Pb**	**09 53 01.2**	**-1.4**
RMNI				S	**Sn**	**09 53 36.9**	**+3.8**
AMAZ	**Amatzia**	**3.20**	**78**	S	**Sn**	**09 53 35.6**	**-1.2**
AMAZ				AML	AML	09 53 37.3	
	1.0nm,0.2s						
AMAZ				AML	AML	09 53 37.6	
	1.1nm,0.3s						
AMAZ	**Amatzia**	**3.20**	**78**	P	**Pn**	**09 53 01.2**	**+2.6**
AMAZ				S	**Sn**	**09 53 37.1**	**+0.3**
TAMRE	**El Minia**	**3.25**	**185**	P	**Pn**	**09 52 59.9**	**+0.6**
TR2	**Tor 2**	**3.33**	**139**	P	**Pn**	**09 53 00.9**	**+0.5**
HKAT	**Jabal Katrina**	**3.38**	**134**	P	**Pn**	**09 53 01.9**	**+0.5**
HRFI	**Mount Harif**	**3.39**	**104**	P	**Pg**	**09 53 14.3**	**+1.1**
HRFI				AML	AML		
HRFI	**Mount Harif**	**3.39**	**104**	P	**Pb**	**09 53 07.3**	**-1.2**
HRFI				S	**Sb**	**09 53 47.2**	**-2.5**
EIL	**Elat**	**3.44**	**110**	P	**Pb**	**09 53 07.8**	**-1.5**
EIL				S	**Sb**	**09 53 49.0**	**-2.2**
IDAN	**Idan**	**3.46**	**91**	P	**Pn**	**09 53 05.9**	**+3.7**
IDAN				S	**Sn**	**09 53 45.5**	**+2.2**
JER	**Jerusalem**	**3.48**	**75**	P	**Pn**	**09 53 05.0**	**+2.5**
JER				S	**Sn**	**09 53 43.7**	**-0.2**
SLTI	**Sal'it**	**3.49**	**67**	P	**Pn**	**09 53 04.4**	**+1.8**
SLTI				S	**Sn**	**09 53 42.7**	**-1.3**
MSBI	**Mazada**	**3.54**	**83**	P	**Pn**	**09 53 04.8**	**+1.5**
MSBI				AML	AML		
MSBI	**Mazada**	**3.54**	**83**	P	**Pn**	**09 53 06.3**	**+3.0**
MSBI				S	**Sn**	**09 53 45.2**	**0.0**
SALP	**Salfit**	**3.55**	**70**	P	**Pn**	**09 53 05.9**	**+2.4**
SALP				S	**Sn**	**09 53 45.2**	**-0.4**
SALP				AML	AML		
ARIL	**Ariel Universi**	**3.58**	**70**	P	**Pn**	**09 53 05.9**	**+2.0**
ARIL				S	**Sn**	**09 53 45.2**	**-1.1**
OFRI	**`Ofer**	**3.60**	**61**	P	**Pn**	**09 53 05.3**	**+1.1**
OFRI				S	**Sn**	**09 53 44.2**	**-2.6**
MZS	**Mizpe Shalem**	**3.61**	**79**	P	**Pn**	**09 53 07.4**	**+3.2**
MZS				S	**Sn**	**09 53 47.0**	**0.0**
LISJ	**El Lisan**	**3.64**	**84**	P	**Pn**	**09 53 03.9**	**-0.8**
LISJ				AML	AML		
ALMO	**Almog**	**3.70**	**76**	P	**Pn**	**09 53 07.2**	**+1.6**
ALMO				S	**Sn**	**09 53 49.0**	**-0.2**
YITV	**Yitav**	**3.71**	**73**	P	**Pn**	**09 53 08.0**	**+2.4**
YITV				S	**Sn**	**09 53 49.0**	**-0.3**
GHAJ	**Ghor Haditha**	**3.72**	**83**	P	**Pn**	**09 53 09.6**	**+3.8**
GHAJ				S	**Sn**	**09 53 50.8**	**+1.1**
UJAP	**Al Uja**	**3.74**	**73**	P	**Pn**	**09 53 08.3**	**+2.2**
UJAP				S	**Sn**	**09 53 49.5**	**-0.7**
TR1	**Tor 1**	**3.75**	**140**	P	**Pn**	**09 53 06.7**	**+0.5**
BLGI	**Bet Lehem HaGe**	**3.81**	**61**	P	**Pn**	**09 53 08.3**	**+1.3**
BLGI				S	**Sn**	**09 53 49.3**	**-2.5**
ROII	**Roi**	**3.85**	**69**	P	**Pn**	**09 53 09.1**	**+1.5**
ROII				S	**Sn**	**09 53 51.0**	**-1.8**
RGMN	**Argaman**	**3.85**	**70**	P	**Pn**	**09 53 09.5**	**+2.0**
RGMN				S	**Sn**	**09 53 51.0**	**-1.8**
MMLI	**Mount Malkishu**	**3.86**	**66**	P	**Pn**	**09 53 08.6**	**+0.9**
MMLI				S	**Sn**	**09 53 50.8**	**-2.4**
MMLI				AML	AML	09 53 56.2	
	0.4nm,0.4s						
MMLI				AML	AML	09 53 56.5	
	0.3nm,0.7s						
MMLI	**Mount Malkishu**	**3.86**	**66**	P	**Pn**	**09 53 08.8**	**+1.1**
MMLI				S	**Sn**	**09 53 51.4**	**-1.8**
HNTI	**Hanita**	**3.97**	**56**	P	**Pn**	**09 53 10.3**	**+1.1**
HNTI				S	**Sn**	**09 53 53.0**	**-2.7**
ZRT	**Zar'it**	**4.06**	**57**	P	**Pn**	**09 53 11.8**	**+1.3**
ZRT				S	**Sn**	**09 53 55.6**	**-2.5**
MMA0B	**Mount Meron ar**	**4.10**	**58**	P	**Pn**	**09 53 12.3**	**+1.3**
MMA0B				S	**Sn**	**09 53 56.9**	**-2.2**
KNHM	**Kefar Nahum**	**4.17**	**61**	P	**Pn**	**09 53 13.2**	**+1.3**
KNHM				S	**Sn**	**09 53 58.2**	**-2.5**
AKMS	**Akamas**	**4.18**	**12**	P	**Pn**	**09 53 13.2**	**+1.1**
AKMS				S	**Sn**	**09 54 00.3**	**-0.7**
AKMS				AML	AML	09 54 03.0	
	0.2nm,0.3s						
AKMS				AML	AML	09 54 06.6	
	0.1nm,0.4s						
ASGA	**Asgata**	**4.20**	**23**	P	**Pn**	**09 53 14.3**	**+1.9**
ASGA				S	**Sn**	**09 54 01.0**	**-0.5**
ASGA				AML	AML	09 54 07.0	
	0.2nm,0.4s						
ASGA				AML	AML	09 54 09.9	
	0.3nm,0.4s						
RMOT	**Ramot**	**4.22**	**62**	P	**Pn**	**09 53 13.9**	**+1.3**
RMOT				S	**Sn**	**09 53 59.9**	**-2.0**
TROD	**Troodos**	**4.23**	**18**	P	**Pn**	**09 53 15.5**	**+2.5**
TROD				S	**Sn**	**09 54 02.0**	**-0.6**
TROD				AML	AML	09 54 11.0	
	0.2nm,0.5s						
TROD				AML	AML	09 54 11.0	
	0.1nm,0.5s						
XYLS	**Xyliatos**	**4.35**	**20**	P	**Pn**	**09 53 16.5**	**+2.1**
XYLS				S	**Sn**	**09 54 03.8**	**-1.4**
XYLS				AML	AML	09 54 08.7	
	0.2nm,0.2s						
XYLS				AML	AML	09 54 10.1	
	0.2nm,0.4s						
ALFC	**Alefka**	**4.37**	**15**	P	**Pn**	**09 53 16.3**	**+1.6**
ALFC				S	**Sn**	**09 54 05.1**	**-0.6**
ALFC				AML	AML	09 54 09.4	
	0.2nm,0.6s						
ALFC				AML	AML	09 54 10.4	
	0.2nm,0.3s						
GEM	**Giv'at Ha'Em**	**4.38**	**58**	P	**Pn**	**09 53 17.6**	**+2.7**
GEM				AML	AML		
GEM	**Giv'at Ha'Em**	**4.38**	**58**	P	**Pn**	**09 53 16.4**	**+1.5**
GEM				S	**Sn**	**09 54 03.7**	**-2.3**
CSS	**Mathiatis**	**4.39**	**23**	S	**Sn**	**09 54 05.8**	**-0.3**
CSS				AML	AML	09 54 12.3	
	0.1nm,0.6s						
CSS				AML	AML	09 54 14.6	
	0.1nm,0.4s						
CSS	**Mathiatis**	**4.39**	**23**	P	**Pn**	**09 53 19.1**	**+4.1**
CSS				AML	AML		
CSS	**Mathiatis**	**4.39**	**23**	P	**Pn**	**09 53 15.6**	**+0.7**
CSS				S	**Sn**	**09 54 02.4**	**-3.7**
NATI	**Neve Ativ**	**4.46**	**57**	P	**Pn**	**09 53 17.3**	**+1.4**
NATI				S	**Sn

δ73.12011°,λ88.51599°. Principal axes: T 1.9455, Plg61.8523°, Azm289.2444°; N 0.1628, Plg1.4201°, Azm21.9001°; P -2.1083, Plg28.1054°, Azm112.6587°; GFZ **22** 10:05:55.2±0.2,37°N×2°×14°E, h45km±1km, M5.7/190, mB6.2/77, mb5.8/190, Mw(mB)5.8/77 Error ellipse: s-maj=4.6km s-min=2.9km az=114.4, confirmed

GCMT **22** 10:05:56.8±0.1,36°54N±0.01×141°12E±0.01, h44km, MW5.6/163, Moment Tensor Solution. s129,c241; s163,c332; Duration: 1s5 Moment tensor: Scale 10^17 Nm; Mrr2.01±.03; Mθθ-0.24±.02; Mφφ-1.77±.02; Mrθ0.58±.03; Mθφ-0.84±.02; Mφr1.65±.03; Best double couple: Mo2.71500×10^17 NP1:φs207.00000°,δ25.00000°, λ96.00000°. NP2:φs21.00000°,δ65.00000°,λ87.00000°. Principal axes: T 2.6520, Plg70.0000°, Azm286.0000°; N 0.1300, Plg2.0000°, Azm22.0000°; P -2.7780, Plg20.0000°, Azm113.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 22 10:05:54.0±0.2,36°60N±0°02×141°10E±0°03,h41km±1km, h41km:pP-P,n1669,σ1s51/1684,mb5.8/484,MS5.1/120, 119C-83D,Near east coast of eastern Honshu

Code	Station Name	Δ° AZ°	Phase	ID	Time	Res
			Op	ISC	h m s	ISC
JHO	**Hitachi**	**0.42 272**	⇓*iP*	**Pn**	**10 06 04.0**	**+0.1**
JHO			A	A	10 06 04.0	
	comp=N,619nm,0.3s,comp=E,3μm,0.9s					
JHO			⇓S	**Sn**	**10 06 11.0**	**+0.2**
JHYU	**Hitachinakayam**	**0.48 238**	⇓*iP*	**Pn**	**10 06 04.8**	**+0.1**
JHYU			A	A	10 06 04.8	
	comp=N,801nm,0.7s,comp=E,2μm,0.7s					
JHYU			⇓S	**Sn**	**10 06 12.2**	**+0.1**
ONAJ	**Iwakimizuishiy**	**0.56 335**	⇓*iP*	**Pn**	**10 06 05.5**	**-0.2**
ONAJ			A	A	10 06 05.5	
	comp=N,351nm,0.4s,comp=E,1μm,3.1s					
ONAJ			⇓S	**Sn**	**10 06 13.6**	**-0.3**
JFFD	**Fukushimafurud**	**0.65 319**	A	A	10 06 07.0	
	comp=N,305nm,1.3s,comp=E,921nm,0.8s					
JIHU	**Itakohorinouch**	**0.78 216**	A	A	10 06 08.7	
	comp=N,902nm,0.9s,comp=E,1μm,1.2s					
JFK	**Kawauchi**	**0.79 347**	⇓*iP*	**Pn**	**10 06 08.5**	**-0.2**
JFK			A	A	10 06 08.5	
	comp=N,98nm,2.3s,comp=E,545nm,1.8s					
JFK			⇓S	**Sn**	**10 06 18.8**	**-0.6**
JYT	**Yasato**	**0.82 243**	Pn	**Pn**	**10 06 08.0**	**-1.1**
JYT			Sn	**Sn**	**10 06 19.7**	**-0.3**
JYT	**Yasato**	**0.82 243**	⇓*iP*	**Pn**	**10 06 09.0**	**-0.1**
JYT			A	A	10 06 09.0	
	comp=N,659nm,0.7s,comp=E,599nm,0.5s					
JYT			⇓S	**Sn**	**10 06 19.4**	**-0.6**
JSB	**Shiboa**	**1.01 292**	A	A	10 06 12.3	
	comp=N,662nm,3.8s,comp=E,668nm,2.7s					
JSMT	**Sammumatsuo**	**1.09 209**	A	A	10 06 13.1	
	comp=N,472nm,2.2s,comp=E,491nm,4.4s					
JMST	**Minamisoumatsc**	**1.14 352**	A	A	10 06 13.9	
	comp=N,158nm,0.5s,comp=E,328nm,1.6s					
JOTO	**OTAMA OYAMA**	**1.14 328**	*iP*	**Pn**	**10 06 14.6**	**+1.1**
JOTO			A	A	10 06 14.6	
	comp=N,2μm,0.7s,comp=E,2μm,1.0s					
JOTO			S	**Sn**	**10 06 29.3**	**+1.3**
JMM	**Marumori**	**1.29 349**	⇓*iP*	**Pn**	**10 06 15.7**	**+0.1**
JMM			A	A	10 06 15.7	
	comp=N,171nm,1.2s,comp=E,191nm,1.5s					
JMM			⇓S	**Sn**	**10 06 32.0**	**+0.4**
JAG	**Ashikaga**	**1.34 263**	⇓*iP*	**Pn**	**10 06 16.4**	**+0.2**
JAG			A	A	10 06 16.4	
	comp=N,163nm,1.0s,comp=E,122nm,2.7s					
JAG			⇓S	**Sn**	**10 06 32.3**	**-0.5**
JFY	**Yanaizu**	**1.38 306**	⇓*iP*	**Pn**	**10 06 17.6**	**+0.8**
JFY			A	A	10 06 17.6	
	comp=N,198nm,4.2s,comp=E,158nm,3.9s					
JCCN	**Chibachonan**	**1.40 210**	A	A	10 06 17.6	
	comp=N,333nm,3.2s,comp=E,393nm,3.6s					
TOK	**Tokyo**	**1.42 230**	A	A	10 06 17.8	
	comp=N,376nm,1.0s,comp=E,489nm,1.0s					
I30JP	**ISUMI INFRASON**	**1.44 206**	P	**Pn**	**10 06 18.7**	**+1.1**
	baz=40,slow=20,SNR=1.5					
I30JP			S	**Sn**	**10 06 37.9**	**+2.6**
	baz=41,slow=22					
JYAR	**Yonezawaarcadi**	**1.52 330**	A	A	10 06 19.5	
	comp=N,392nm,0.7s,comp=E,423nm,1.3s					
JKUC	**kamogawauchiur**	**1.61 207**	A	A	10 06 20.6	
	comp=N,200nm,2.0s,comp=E,233nm,6.1s					
JHU2	**Hanno**	**1.65 243**	A	A	10 06 21.3	
	comp=N,132nm,2.7s,comp=E,144nm,1.4s					
JIKH	**Ishinomakikobu**	**1.73 10**	A	A	10 06 22.5	
	comp=N,67nm,1.8s,comp=E,87nm,0.7s					
JUON	**Uonuma**	**1.75 291**	A	A	10 06 22.7	
	comp=N,89nm,4.2s,comp=E,60nm,4.9s					
JUON			⇓*iP*	**Pn**	**10 06 23.0**	**+1.2**
JOU	**Okura**	**1.80 349**	⇓*iP*	**Pn**	**10 06 23.3**	**+0.7**
JOU			A	A	10 06 23.6	
	comp=N,272nm,1.1s,comp=E,241nm,2.3s					
JYO	**Yokosk**	**1.80 221**	A	A	10 06 23.3	
	comp=N,251nm,1.3s,comp=E,318nm,2.1s					
JYS	**Shirataka**	**1.82 333**	A	A	10 06 23.8	
	comp=N,243nm,1.7s,comp=E,381nm,1.5s					
JYS			⇓*iP*	**Pn**	**10 06 24.2**	**+1.4**
JSGW	**Sagamiharawaka**	**1.82 238**	A	A	10 06 23.8	
	comp=N,222nm,2.8s,comp=E,176nm,1.0s					
TATJ	**Tateyama 2**	**1.85 212**	A	A	10 06 24.0	
	comp=N,490nm,2.9s,comp=E,382nm,2.8s					
JIO	**Ouri**	**1.86 6**	⇓*iP*	**Pn**	**10 06 23.5**	**0.0**
JIO			A	A	10 06 24.4	
	comp=N,59nm,2.8s,comp=E,98nm,1.6s					
JRY	**Ryogami san**	**1.87 253**	*iP*	**Pn**	**10 06 24.1**	**+0.5**
JRY			A	A	10 06 24.4	
	comp=N,230nm,1.9s,comp=E,142nm,0.8s					
JNS	**Sasagawa**	**1.87 311**	⇓*iP*	**Pn**	**10 06 24.2**	**+0.7**
JNS			A	A	10 06 24.6	
	comp=N,71nm,1.5s,comp=E,73nm,1.5s					
JGK	**Kuni**	**1.98 270**	A	A	10 06 26.1	
	comp=N,188nm,2.7s,comp=E,169nm,1.4s					
JOFO	**Osakifurukawao**	**2.00 356**	A	A	10 06 26.4	
	comp=N,530nm,1.9s,comp=E,532nm,3.6s					
JOD2	**Odawara 2**	**2.11 231**	P	**Pn**	**10 06 27.8**	**+0.9**
JOD2			A	A	10 06 27.8	
	comp=N,332nm,1.9s,comp=E,239nm,2.0s					
JIZZ	**Izumozaki**	**2.12 297**	A	A	10 06 28.2	
	comp=N,192nm,3.8s,comp=E,191nm,4.0s					
JIZZ			⇓*iP*	**Pn**	**10 06 29.0**	**+2.0**
JKMT	**Kesennumamotoy**	**2.23 8**	A	A	10 06 29.6	
	comp=N,46nm,0.6s,comp=E,68nm,4.0s					
JYA	**Atsumi**	**2.27 332**	A	A	10 06 30.4	
	comp=N,144nm,1.0s,comp=E,275nm,0.9s					
JIM2	**Oshima 3**	**2.32 216**	A	A	10 06 30.8	
	comp=N,189nm,1.8s,comp=E,160nm,2.5s					
MJAR	**Matsushiro Arr**	**2.33 269**	P	**Pn**	**10 06 31.1**	**+1.3**
	comp=E,346nm,0.3s,baz=111,slow=10					
MJAR			S	**Sn**	**10 06 57.4**	**+0.2**
	comp=E,7μm,0.8s,baz=101,slow=18,SNR=9.5					
MJAR			LR	LR	10 07 46.7	
	comp=E,47μm,21.8s,baz=87,slow=49 comp=E,9μm,0.6s					
MJAR			AML	AML		
MAJO	**Matsushiro**	**2.33 269**	P	**Pn**	**10 06 31.7**	**+1.8**
MAJO	**Matsushiro**	**2.33 269**	P	**Pn**	**10 06 31.9**	**+2.0**
MAJO	**Matsushiro**	**2.33 269**		**Pn**	**10 06 31.4**	**+1.6**
MAJO	**Matsushiro**	**2.33 269**	P	**Pn**	**10 06 31.2**	**+1.4**
MAT	**Matsushiro**	**2.33 269**	*iP*	**Pn**	**10 06 31.0**	**+1.2**
MJB9	**Matsu-Tunnel**	**2.33 270**	Pn	**Pn**	**10 06 31.9**	**+2.0**
JYN	**Shimob**	**2.34 243**	*iP*	**Pn**	**10 06 31.4**	**+1.3**
JYN			A	A	10 06 31.3	
	comp=N,320nm,1.8s,comp=E,250nm,2.3s					
JMK	**Ichinoseki**	**2.35 2**	*iP*	**Pn**	**10 06 30.4**	**+0.3**
JMK			A	A	10 06 31.4	
	comp=N,33nm,0.8s,comp=E,57nm,1.5s					
JHTM	**Izuhatsuma**	**2.36 227**	A	A	10 06 31.4	
	comp=N,360nm,1.0s,comp=E,310nm,1.2s					
JAW	**Awa shima**	**2.37 322**	*iP*	**Pn**	**10 06 31.4**	**+1.0**
JAW			A	A	10 06 31.7	
	comp=N,145nm,4.8s,comp=E,112nm,3.3s					
JYK	**Kaneyama**	**2.39 346**	⇓*iP*	**Pn**	**10 06 31.9**	**+1.2**
JYK			A	A	10 06 32.0	
	comp=N,83nm,1.2s,comp=E,117nm,2.3s					
JJN	**Nakama**	**2.41 283**	A	A	10 06 32.2	
	comp=N,82nm,2.3s,comp=E,96nm,1.6s					
JFNN	**Fujinakano**	**2.41 235**	A	A	10 06 32.1	
	comp=N,204nm,2.4s,comp=E,211nm,3.5s					
JNG	**Nsakai**	**2.42 266**	A	A	10 06 32.5	
	comp=N,92nm,4.2s,comp=E,52nm,0.9s					
JNT	**Takato**	**2.50 254**	A	A	10 06 33.7	
	comp=N,162nm,1.7s,comp=E,90nm,1.8s					
OFUJ	**Ofunato**	**2.52 10**	A	A	10 06 33.8	
	comp=N,48nm,1.2s,comp=E,49nm,1.9s					
JTHY	**Toshimahigashi**	**2.54 216**	A	A	10 06 34.0	
	comp=N,122nm,1.7s,comp=E,104nm,1.6s					
JYYZ	**Yamagatayuza**	**2.58 339**	A	A	10 06 34.7	
	comp=N,294nm,3.3s,comp=E,204nm,2.7s					
JIZS	**Izushimoda**	**2.60 225**	*iP*	**Pn**	**10 06 34.8**	**+1.2**
JIZS			A	A	10 06 34.9	
	comp=N,80nm,4.4s,comp=E,71nm,1.8s					
JSD	**Sado**	**2.68 303**	A	A	10 06 36.1	
	comp=N,39nm,3.8s,comp=E,40nm,1.6s					
JNIO	**Niijimaoohara**	**2.69 214**	A	A	10 06 36.0	
	comp=N,89nm,1.9s,comp=E,108nm,4.6s					
JSKK	**Shikinejimakit**	**2.73 215**	A	A	10 06 36.7	
	comp=N,60nm,4.8s,comp=E,74nm,2.0s					
SHZ3	**Shizuoka 3**	**2.80 238**	A	A	10 06 37.8	
	comp=N,277nm,0.8s,comp=E,231nm,0.9s					
SHZ3			*iP*	**Pn**	**10 06 38.3**	**+1.9**
JRG	**Rokugo**	**2.82 353**	⇓*iP*	**Pn**	**10 06 38.1**	**+1.6**
JRG			A	A	10 06 38.1	
	comp=N,89nm,1.4s,comp=E,75nm,3.0s					
JMYK	**Miyake Tsubota**	**2.83 207**	A	A	10 06 38.0	
	comp=N,61nm,6.1s,comp=E,84nm,5.9s					
JTB	**Tobi-shima**	**2.86 335**	A	A	10 06 38.7	
	comp=N,117nm,2.3s,comp=E,127nm,2.8s					
JOM	**Ohasama**	**2.87 3**	*iP*	**Pn**	**10 06 38.1**	**+0.8**
JOM			A	A	10 06 38.9	
	comp=N,32nm,0.5s,comp=E,85nm,2.7s					
JKO	**Kozu shima**	**2.89 214**	A	A	10 06 38.9	
	comp=N,96nm,4.0s,comp=E,120nm,2.6s					
JNY	**Yasuok**	**2.90 246**	A	A	10 06 39.2	
	comp=N,283nm,1.6s,comp=E,207nm,2.6s					
JMKN	**Mikurajimanish**	**2.97 205**	A	A	10 06 40.0	
	comp=N,28nm,2.8s,comp=E,38nm,5.4s					
JYW	**Yuwa**	**3.02 347**	A	A	10 06 40.9	
	comp=N,216nm,2.0s,comp=E,188nm,2.7s					
MIYJ	**Miyakonagasawa**	**3.03 11**	A	A	10 06 41.0	
	comp=N,32nm,0.9s,comp=E,50nm,2.2s					
JTT	**Ttatey**	**3.03 271**	A	A	10 06 41.0	
	comp=N,56nm,4.5s,comp=E,89nm,3.0s					
JTT			*iP*	**Pn**	**10 06 42.1**	**+2.7**
JSG	**Sagara**	**3.05 232**	P	**Pn**	**10 06 43.5**	**+3.7**
JSG	**Sagara**	**3.05 232**		**Pn**	**10 06 41.4**	**+1.6**
JSG	**Sagara**	**3.05 232**	P	**Pn**	**10 06 42.6**	**+2.8**
JSG	**Sagara**	**3.05 232**	A	A	10 06 41.2	
	comp=N,160nm,1.9s,comp=E,120nm,1.7s					
JGN	**Niukaw**	**3.07 264**	A	A	10 06 41.7	
	comp=N,44nm,4.0s,comp=E,33nm,3.8s					
JSZ	**Suzu**	**3.11 287**	⇓*iP*	**Pn**	**10 06 41.6**	**+1.1**
JSZ			A	A	10 06 42.1	
	comp=N,60nm,2.5s,comp=E,44nm,3.7s					
JKKS	**Kakegawashinom**	**3.13 235**	A	A	10 06 42.4	
	comp=N,109nm,2.4s,comp=E,129nm,2.0s					
JSZI	**Iwateshizukuis**	**3.14 358**	A	A	10 06 42.6	
	comp=N,95nm,1.0s,comp=E,118nm,2.3s					
JGF	**Kuroka**	**3.19 253**	P	**Pn**	**10 06 44.0**	**+2.3**
JGF	**Kuroka**	**3.19 253**		**Pn**	**10 06 43.5**	**+1.8**
JGF	**Kuroka**	**3.19 253**	P	**Pn**	**10 06 44.2**	**+2.5**
JGF	**Kuroka**	**3.19 253**	A	A	10 06 43.3	
	comp=N,95nm,2.0s,comp=E,108nm,1.5s					
HMMJ	**Hamamatsu 2**	**3.25 239**	A	A	10 06 44.0	
	comp=N,42nm,1.6s,comp=E,30nm,2.4s					
JSSY	**Shinshiroyabe**	**3.37 241**	A	A	10 06 45.7	
	comp=N,36nm,2.9s,comp=E,30nm,1.9s					
JKZ	**Kuzumaki**	**3.38 3**	A	A	10 06 46.2	
	comp=N,33nm,3.4s,comp=E,49nm,2.9s					
JAO	**Obara**	**3.39 248**	A	A	10 06 46.1	
	comp=N,92nm,1.6s,comp=E,91nm,2.0s					
JTH	**Tanata**	**3.39 10**	A	A	10 06 46.1	
	comp=N,43nm,1.6s,comp=E,39nm,3.3s					
JJH	**Hakui**	**3.48 277**	A	A	10 06 47.4	
	comp=N,40nm,3.7s,comp=E,30nm,3.4s					
INU	**Inuyama**	**3.54 251**	P	**Pn**	**10 06 48.5**	**+2.1**
INU	**Inuyama**	**3.54 251**		**Pn**	**10 06 47.8**	**+1.4**
INU	**Inuyama**	**3.54 251**	P	**Pn**	**10 06 48.7**	**+2.3**
JHG	**Hegura jima**	**3.56 292**	A	A	10 06 48.5	
	comp=N,27nm,2.8s,comp=E,24nm,7.9s					
JAH	**Hinai**	**3.60 354**	⇓*iP*	**Pn**	**10 06 49.4**	**+2.1**
JAH			A	A	10 06 49.2	
	comp=N,44nm,1.6s,comp=E,95nm,2.3s					
TTO5	**TONANKAI O.B.S**	**3.62 231**	A	A	10 06 49.0	
	comp=N,151nm,2.2s,comp=E,178nm,3.1s					
JKEN	**Kujiedanarisaw**	**3.63 7**	A	A	10 06 49.5	
	comp=N,135nm,1.1s,comp=E,123nm,1.9s					
JHJ2	**Mitsune**	**3.63 197**	P	**Pn**	**10 06 50.1**	**+2.3**
JHJ2	**Mitsune**	**3.63 197**		**Pn**	**10 06 48.8**	**+1.0**
JHJ2	**Mitsune**	**3.63 197**	P	**Pn**	**10 06 50.0**	**+2.3**
JHJ2	**Mitsune**	**3.63 197**	A	A	10 06 49.3	
	comp=N,27nm,2.7s,comp=E,41nm,3.3s					
JHJ	**Hachijo jima 2**	**3.64 198**	P	**Pn**	**10 06 48.3**	**+0.5**
	comp=E,65nm,0.3s,baz=298,slow=16,SNR=130					
JHJ			S	**Sn**	**10 07 29.4**	**0.0**
	comp=E,410nm,0.3s,baz=241,slow=19,SNR=4.8 comp=E,215nm,0.3s					
JHJ			AML	AML		
JYTA	**Yamagatataniai**	**3.67 255**	P	**Pn**	**10 06 50.5**	**+2.2**
JYTA			A	A	10 06 50.0	
	comp=N,60nm,3.9s,comp=E,40nm,2.1s					
JOG3	**Oga3**	**3.68 335**	A	A	10 06 47.2	
	comp=N,88nm,3.8s,comp=E,55nm,3.0s					
JHCJ	**Hachijojimakas**	**3.68 197**	A	A	10 06 50.0	
	comp=N,22nm,3.8s,comp=E,21nm,3.4s					
JICN	**Ichinomiyachia**	**3.69 251**	A	A	10 06 50.2	
	comp=N,181nm,2.3s,comp=E,112nm,2.3s					
JNTW	**Noshirotokiwa**	**3.74 349**	A	A	10 06 51.1	
	comp=N,157nm,2.6s,comp=E,127nm,4.5s					
JAA	**Atsumi**	**3.77 240**	A	A	10 06 51.4	
	comp=N,43nm,3.4s,comp=E,39nm,2.6s					
JANG	**Nango**	**3.78 5**	A	A	10 06 51.7	
	comp=N,36nm,1.2s,comp=E,39nm,1.7s					
JKG	**Kaga**	**3.86 267**	A	A	10 06 52.6	
	comp=N,25nm,2.8s,comp=E,26nm,7.4s					
JKG			P	**Pn**	**10 06 53.4**	**+2.6**
TTO4	**TONANKAI O.B.S**	**3.89 229**	A	A	10 06 52.8	
	comp=N,75nm,5.7s,comp=E,99nm,6.5s					
TTO3	**TONANKAI O.B.S**	**4.08 229**	A	A	10 06 55.7	
	comp=N,93nm,2.7s,comp=E,99nm,4.5s					
JIW	**Iwasaki**	**4.08 348**	A	A	10 06 55.9	
	comp=N,23nm,3.3s,comp=E,25nm,1.0s					
JHHS	**Hirosakihyakuz**	**4.09 352**	A	A	10 06 56.0	
	comp=N,94nm,4.0s,comp=E,106nm,4.4s					
JEG	**Eigenji**	**4.09 250**	A	A	10 06 56.0	
	comp=N,39nm,4.2s,comp=E,26nm,1.8s					
JTM	**Tenmabayashi**	**4.18 360**	P	**Pn**	**10 06 57.7**	**+2.4**
JTM	**Tenmabayashi**	**4.18 360**	Pn	**Pn**	**10 06 56.9**	**+1.6**
JTM	**Tenmabayashi**	**4.18 360**	P	**Pn**	**10 06 57.5**	**+2.2**
JTM	**Tenmabayashi**	**4.18 360**	*iP*	**Pn**	**10 06 57.2**	**+1.9**
JTM			A	A	10 06 57.3	
	comp=N,33nm,2.8s,comp=E,55nm,4.3s					
JIE	**Ise**	**4.20 40**	A	A	10 06 57.5	
	comp=N,33nm,3.8s,comp=E,29nm,2.1s					
TSUJ	**Tsu 2**	**4.25 245**	P	**Pn**	**10 06 58.1**	**+1.9**
TSUJ			A	A	10 06 58.1	
	comp=N,27nm,6.0s,comp=E,38nm,2.1s					
JAOM	**Aogashimamukai**	**4.27 195**	A	A	10 06 58.4	
	comp=N,32nm,2.5s,comp=E,40nm,2.8s					
JFM	**Mihama**	**4.28 257**	A	A	10 06 58.6	
	comp=N,35nm,2.0s,comp=E,41nm,2.2s					
TTO2	**TONANKAI O.B.S**	**4.39 231**	A	A	10 07 00.3	
	comp=N,90nm,3.9s,comp=E,88nm,6.8s					
JARK	**Aomorirokkasho**	**4.41 3**	A	A	10 07 00.4	
	comp=N,37nm,2.7s,comp=E,52nm,1.1s					
JSI2	**Shiura 2**	**4.48 353**	A	A	10 07 01.6	
	comp=N,32nm,2.0s,comp=E,34nm,3.3s					
JKN2	**Miekihoku**	**4.59 241**	A	A	10 07 02.9	
	comp=N,22nm,3.0s,comp=E,22nm,4.5s					
TTO1	**TONANKAI O.B.S**	**4.62 231**	A	A	10 07 03.4	
	comp=N,90nm,2.7s,comp=E,99nm,3.0s					
JAHD	**Aomorihigashid**	**4.66 2**	A	A	10 07 04.0	
	comp=N,88nm,1.3s,comp=E,105nm,1.1s					
JOT	**Ohata**	**4.78 360**	*iP*	**Pn**	**10 07 05.4**	**+2.0**
JOT			A	A	10 07 05.7	
	comp=N,27nm,2.8s,comp=E,34nm,4.1s					
JWT	**Wachi**	**4.80 256**	P	**Pn**	**10 07 05.9**	**+2.0**
JWT			A	A	10 07 06.0	
	comp=N,30nm,1.8s,comp=E,13nm,2.8s					
JHE	**Heguri**	**4.82 248**	*iP*	**Pn**	**10 07 05.5**	**+1.4**
JHE			A	A	10 07 06.1	
	comp=N,34nm,3.5s,comp=E,27nm,4.3s					
JNTK	**Nanenkawa**	**4.85 243**	A	A	10 07 06.6	
	comp=N,17nm,9.4s,comp=E,14nm,3.6s					
JKY	**Yasaka**	**4.95 260**	A	A	10 07 08.0	
	comp=N,37nm,5.5s,comp=E,37nm,2.2s					
JKY			*iP*	**Pn**	**10 07 08.2**	**+2.4**
JSR	**Shiriuchi**	**4.95 354**	P	**Pn**	**10 07 08.5**	**+2.6**
JSR			A	A	10 07 08.1	
	comp=N,22nm,3.4s,comp=E,29nm,2.4s					
JOMM	**Oshimamatsumae**	**4.99 351**	A	A	10 07 08.6	
	comp=N,14nm,3.5s,comp=E,13nm,2.7s					
JMMH	**Miemihama**	**4.99 238**	A	A	10 07 08.5	
	comp=N,15nm,5.5s,comp=E,14nm,7.9s					
JWY	**Kouya**	**5.08 244**	A	A	10 07 09.9	
	comp=N,22nm,5.1s,comp=E,16nm,5.2s					
JMIK	**Miki**	**5.23 252**	A	A	10 07 11.9	
	comp=N,29nm,1.1s,comp=E,25nm,3.8s					
JTNC	**Tanabenakahech**	**5.28 240**	A	A	10 07 12.6	
	comp=N,23nm,3.8s,comp=E,18nm,1.7s					
JKB	**Kayabe**	**5.28 359**	A	A	10 07 12.7	
	comp=N,39nm,2.4s,comp=E,58nm,1.9s					
JKSM	**Kasumi**	**5.31 261**	P	**P**	**10 07 13.0**	**+2.2**
JKSM			A	A	10 07 13.0	
	comp=N,18nm,4.1s,comp=E,11nm,2.8s					
JKS	**Kasai**	**5.33 254**	P	**Pn**	**10 07 12.7**	**+1.6**
JKS			A	A	10 07 13.3	
	comp=N,21nm,2.2s,comp=E,11nm,8.8s					
JWKM	**Wakayamakushim**	**5.39 236**	A	A	10 07 14.1	
	comp=N,14nm,3.4s,comp=E,23nm,4.9s					
JWM	**Minabe**	**5.44 241**	A	A	10 07 14.8	
	comp=N,19nm,3.3s,comp=E,18nm,2.1s					
JAWN	**Awajishima-nag**	**5.47 249**	A	A	10 07 15.3	
	comp=N,43nm,2.7s,comp=E,17nm,7.5s					
JYM2	**Yakumo 2**	**5.54 354**	A	A	10 07 16.4	
	comp=N,23nm,1.6s,comp=E,23nm,4.5s					
ERM	**Erimo**	**5.64 16**	P	**Pn**	**10 07 16.5**	**+1.2**
ERM	**Erimo**	**5.64 16**	S	**Sn**	**10 08 21.7**	**+3.0**
ERM	**Erimo**	**5.64 16**	P	**Pn**	**10 07 15.8**	**+0.5**
ERM	**Erimo**	**5.64 16**		**Pn**	**10 07 15.8**	**+0.5**
ERM	**Erimo**	**5.64 16**	P	**Pn**	**10 07 17.0**	**+1.7**
	comp=Z,12μmcomp=Z,622nm,0.7s					
JEM	**Erimo**	**5.64 16**	P	**Pn**	**10 07 16.2**	**+0.9**
JEM	**Erimo**	**5.64 16**	S	**Sn**	**10 08 21.7**	**+2.9**
JEM	**Erimo**	**5.64 16**	A	A	10 07 17.7	
	comp=N,19nm,2.9s,comp=E,17nm,6.1s					
JNBK	**Urakawa-nobuka**	**5.82 12**	A	A	10 07 20.2	
	comp=N,46nm,1.2s,comp=E,38nm,0.9s					
JNB	**Noboribetsu**	**5.86 360**	*iP*	**Pn**	**10 07 19.1**	**+0.8**
JNB			A	A	10 07 20.9	
	comp=N,14nm,5.7s,comp=E,13nm,3.7s					
JAD	**Aida**	**5.87 256**	P	**Pn**	**10 07 20.3**	**+1.7**
JHST	**Hiyamasetana**	**5.89 351**	A	A	10 07 21.2	
	comp=N,16nm,3.7s,comp=E,18nm,1.9s					
JSHD	**Hidakashinhida**	**5.90 10**	A	A	10 07 21.3	
	comp=N,48nm,1.0s,comp=E,39nm,1.1s					
JTHR	**Tokachihiroo**	**5.94 16**	A	A	10 07 21.8	
	comp=N,25nm,1.9s,comp=E,19nm,2.7s					
JKR	**Kurayoshi**	**6.03 260**	A	A	10 07 23.0	
	comp=N,20nm,2.4s,comp=E,13nm,5.1s					
JIAM	**Iburiatsuma**	**6.05 6**	P	**Pn**	**10 07 21.7**	**+0.8**
JIAM			A	A	10 07 23.4	
	comp=N,55nm,1.3s,comp=E,52nm,1.0s					
JSH	**Shimam**	**6.09 353**	A	A	10 07 24.0	
	comp=N,8.0nm,6.7s,comp=E,13nm,6.4s					
JAI	**Aioi**	**6.12 245**	A	A	10 07 24.3	
	comp=N,17nm,3.0s,comp=E,17nm,4.7s					
JMAF	**Mimaanabuki**	**6.22 248**	A	A	10 07 25.8	
	comp=N,16nm,4.8s,comp=E,10.0nm,3.4s					
JEW	**Eniwo**	**6.24 2**	A	A	10 07 26.1	
	comp=N,29nm,2.4s,comp=E,25nm,2.1s					
JBT2	**Biratori 2**	**6.25 9**	A	A	10 07 26.2	
	comp=N,18nm,1.5s,comp=E,15nm,2.8s					
JJS	**Sakaide**	**6.25 251**	A	A	10 07 26.2	
	comp=N,11nm,3.4s,comp=E,9.0nm,2.9s					
JCH	**Churui**	**6.26 16**	A	A	10 07 26.3	
	comp=N,21nm,1.3s,comp=E,21nm,2.4s					
JMN	**Monobe**	**6.57 246**	P	**Pn**	**10 07 29.8**	**+1.6**
JMN	**Monobe**	**6.57 246**	S	**Sn**	**10 08 41.7**	**-0.1**
JMN	**Monobe**	**6.57 246**		**Pn**	**10 07 29.2**	**+1.0**
JMN	**Monobe**	**6.57 246**	P	**Pn**	**10 07 29.7**	**+1.6**
	comp=Z,8μmcomp=Z,912nm,0.8s					
JMN	**Monobe**	**6.57 246**	A	A	10 07 30.6	
	comp=N,15nm,4.2s,comp=E,18nm,4.5s					
JNM	**Ikuma**	**6.63 263**	A	A	10 07 31.4	
	comp=N,13nm,2.2s,comp=E,10.0nm,4.1s					
JOB	**Onbets**	**6.64 18**	A	A	10 07 31.7	
	comp=N,41nm,1.3s,comp=E,26nm,1.5s					
JFR	**Furan**	**6.66 9**	P	**Pn**	**10 07 28.9**	**-0.3**
JFR			A	A	10 07 32.0	
	comp=N,18nm,1.2s,comp=E,15nm,1.8s					
JISS	**Ishikarishitsu**	**6.67 2**	A	A	10 07 32.1	
	comp=N,31nm,2.9s,comp=E,22nm,4.3s					
JHS	**Saijyo**	**6.68 259**	P	**Pn**	**10 07 32

TEY comp=E,30nm,0.9s pmax pmax
TEY comp=N,70nm,0.8s pmax pmax
TEY comp=Z,80nm,0.8s pmax pmax
TEY comp=E,300nm,0.9s pmax pmax
TEY comp=N,680nm,0.8s pmax pmax
TEY comp=Z,580nm,0.8s MLR MLR
TEY comp=E,200nm,14.0s MLR MLR
TEY comp=N,200nm,15.0s MLR MLR
TEY comp=Z,200nm,14.0s MLR MLR
JTA Tamana 9.41 250 A A 10 08 10.0
comp=N,6.0nm,5.4s,comp=E,5.0nm,6.3s
JCJ Chichijima 9.52 174 P Pn 10 08 02.8 -5.8
comp=E,355nm,0.3s,baz=77,slow=12,SNR=48
JCJ S Sn 10 09 43.0 -11
comp=E,628nm,0.5s,baz=106,slow=23,SNR=6.7
JCJ Chichijima 9.52 174 **Pn** **10 08 06.6 -2.0**
JCJ Chichijima 9.52 174 P **Pn** **10 08 07.0 -1.6**
comp=Z,933nm,0.7s
VLA Vladivostok 9.62 315*d i* P **Pn** **10 08 13.3 +3.5**
JZO Okuchi 9.75 246 A A 10 08 14.6
comp=N,7.0nm,3.9s,comp=E,10.0nm,4.9s
JTU Tsushima 9.75 261 P **Pn** **10 08 14.5 +2.8**
JTU Tsushima 9.75 261 S **Sn** **10 09 59.0 -0.9**
JTU Tsushima 9.75 261 **Pn** **10 08 13.4 +1.6**
JTU Tsushima 9.75 261 A A 10 08 14.6
comp=N,3.0nm,9.2s,comp=E,2.0nm,8.2s
JHD Hondo 9.94 249 A A 10 08 17.1
comp=N,9.0nm,5.1s,comp=E,5.0nm,8.7s
KUR Kuril'sk 10.03 29 *e*P **Pn** **10 08 14.9 -0.5**
KUR *i* S **Sn** **10 09 59.1 -7.4**
KUR pmax pmax
comp=Z,309nm,0.8s
KUR pmax pmax
comp=N,127nm,0.4s
KUR pmax pmax
comp=E,126nm,0.7s
KUR smax smax
comp=N,757nm,0.6s
KUR smax smax
comp=E,338nm,0.5s
KUR smax smax
comp=N,3μm,2.9s
KUR smax smax
comp=E,3μm,3.1s
KUR MLR MLR
comp=Z,5μm,20.0s
JSU Suzuyama 10.18 243 P **Pn** **10 08 19.9 +2.2**
JSU Suzuyama 10.18 243 **Pn** **10 08 18.6 +0.9**
JSU Suzuyama 10.18 243 P **Pn** **10 08 20.1 +2.4**
comp=Z,3μmcomp=Z,331nm,0.9s
USRK Ussuriysk Ar. 10.28 320 P **Pn** **10 08 22.3 +3.3**
comp=Z,750nm,0.7s,baz=133,slow=11,SNR=99
USRK LR LR 10 12 02.9
comp=Z,15μm,19.8s,baz=135,slow=36
USRK Ussuriysk Ar. 10.28 320 P **Pn** **10 08 21.5 +2.5**
USRK Ussuriysk Ar. 10.28 320 **Pn** **10 08 21.5 +2.5**
USA0B Ussuriysk Arra 10.29 320 P **Pn** **10 08 21.6 +2.6**
USA0B Ussuriysk Arra 10.29 320 **Pn** **10 08 21.6 +2.6**
YSS Yuzhno-Sakhali 10.42 6 P **Pn** **10 08 20.4 -0.4**
YSS Yuzhno-Sakhali 10.42 6 S **Sn** **10 10 18.0 +1.9**
YSS Yuzhno-Sakhali 10.42 6 *e*P **Pn** **10 08 19.9 -0.9**
YSS *e*S **Sn** **10 10 14.6 -1.5**
YSS pmax pmax
comp=Z,340nm,0.9s
YSS pmax pmax
comp=Z,500nm,3.1s
YSS smax smax
comp=N,540nm,1.2s
YSS smax smax
comp=E,180nm,1.2s
YSS smax smax
comp=E,2μm,5.7s
YSS MLR MLR
comp=Z,7μm,16.0s
YSS MLR MLR
comp=N,6μm,15.0s
YSS MLR MLR
comp=E,2μm,16.0s
YSS Yuzhno-Sakhali 10.42 6 P **Pn** **10 08 20.8 0.0**
comp=Z,398nm,0.9s
KSRS Korea Array 10.57 279 P **Pn** **10 08 26.4 +3.5**
comp=Z,136nm,0.7s,baz=95,slow=14,SNR=156
KSRS LR LR 10 12 15.7
comp=Z,16μm,19.6s,baz=90,slow=36
KSRS PcP **PcP** **10 14 25.4 +0.9**
comp=Z,3.7nm,0.7s,baz=264,slow=0.9,SNR=4.4
KSRS ScP **ScP** **10 17 53.0 -0.5**
comp=Z,1.5nm,0.8s,baz=19,slow=0.3,SNR=5.7
KSAR Wonju Array Be 10.60 279 P **Pn** **10 08 25.6 +2.3**
KSAR Wonju Array Be 10.60 279 **Pn** **10 08 25.6 +2.3**
KS19 Wonju Array Si 10.61 279 **Pn** **10 08 25.7 +2.2**
JFU Fukue jima 2 10.91 252 A A 10 08 30.2
comp=N,4.0nm,8.2s,comp=E,4.0nm,4.5s
TJN Taejon 11.06 273 P **Pn** **10 08 31.9 +2.3**
TJN Taejon 11.06 273 P **Pn** **10 08 32.8 +3.2**
TJN Taejon 11.06 273 **Pn** **10 08 32.8 +3.2**
INCN Inchon 11.60 279 P **Pn** **10 08 38.4 +1.4**
INCN Inchon 11.60 279 P **Pn** **10 08 37.5 +0.5**
INCN S **Sn** **10 10 51.5 +6.5**
MDJ Mudanjiang 11.85 316 P **Pn** **10 08 42.9 +2.6**
MDJ PP **PnPn** **10 08 50.4 +2.3**
MDJ sP 10 08 54.3
MDJ S **Sn** **10 10 50.6 -0.5**
MDJ pmax pmax
comp=E,330nm,1.9s
MDJ L L
comp=E,9μm,19.2s
MDJ L L
comp=E,7μm,22.7s
MDJ L L
comp=E,16μm,19.9s
JMZ Minamidaito 2 13.66 221 P **Pn** **10 09 07.6 +2.5**
JMZ Minamidaito 2 13.66 221 **Pn** **10 09 04.5 -0.7**
JMZ Minamidaito 2 13.66 221 P **Pn** **10 09 06.4 +1.3**
comp=Z,272nm,1.0s
BNX BinXian 13.76 316 ⇑P **Pn** **10 09 05.5 -0.9**
BNX pP **P** **10 09 13.4 -0.7**
BNX sP 10 09 19.5
BNX S **Sn** **10 11 39.3 +1.6**
BNX pmax pmax
comp=Z,150nm,1.1s
BNX pmax pmax
comp=Z,970nm,4.3s
BNX L L
comp=Z,5μm,18.7s
BNX L L
comp=Z,6μm,17.7s
BNX L L
comp=Z,10μm,18.8s
CN2 Changchun 13.95 306 P **Pn** **10 09 09.3 +0.3**
CN2 pP P 10 09 16.4 +0.2
CN2 S **Sn** **10 11 43.3 +1.0**
CN2 PcP **PcP** **10 14 28.0 -0.3**
CN2 pmax pmax
comp=Z,40nm,1.5s
CN2 pmax pmax
comp=Z,700nm,7.0s
CN2 L L
comp=Z,2μm,17.0s
CN2 L L
comp=Z,3μm,17.0s
CN2 L L
comp=Z,3μm,19.0s
TYV Tymovskoe 14.30 4 *e*P **Pn** **10 09 12.0 -1.7**
TYV *e*S **Sn** **10 11 50.4 -0.5**
TYV pmax pmax
comp=Z,283nm,0.9s
TYV pmax pmax
comp=Z,2μm,3.6s
TYV smax smax
comp=N,34nm,1.9s
TYV smax smax
comp=E,41nm,1.9s
TYV smax smax
comp=N,1μm,4.5s
TYV smax smax
comp=E,1μm,4.5s
TYV MLR MLR
comp=Z,6μm,17.0s
KLR Kul'dur 14.35 335 P **Pn** **10 09 13.2 -1.1**
comp=Z,4.0nm,0.3s,baz=146,slow=12,SNR=81
KLR LR LR 10 14 50.5
comp=Z,8μm,18.1s,baz=152,slow=38
comp=Z,24nm,0.5s
KLR AML AML
KLR Kul'dur 14.35 335*c e*P **Pn** **10 09 13.5 -0.8**
KLR pmax pmax
comp=Z,35nm,0.9s
SNY Shenyang 14.54 296 P **Pn** **10 09 17.9 +0.9**
SNY pmax pmax
comp=Z,250nm,1.2s
SNY L L
comp=Z,5μm,15.1s
SNY L L
comp=Z,7μm,18.0s
SNY L L
comp=Z,10μm,20.6s
GRNR Gornyy 14.56 348⇑*i* P **Pn** **10 09 15.4 -1.8**
GRNR pmax pmax
comp=N,50nm,1.0s
GRNR pmax pmax
comp=E,20nm,1.0s
GRNR pmax pmax
comp=Z,60nm,1.0s
GRNR MLR MLR
comp=E,2μm,18.0s
GRNR MLR MLR
comp=N,3μm,21.0s
GRNR MLR MLR
comp=Z,4μm,21.0s
JOW Kunigami 14.61 232 P **Pn** **10 09 18.8 +0.8**
JOW Kunigami 14.61 232 **Pn** **10 09 16.5 -1.5**
JOW Kunigami 14.61 232 P **Pn** **10 09 17.2 -0.8**
comp=Z,3μmcomp=Z,265nm,1.4s
DL2 Dalian 15.57 284 P **Pn** **10 09 32.3 +1.7**
DL2 pP **pP** **10 09 41.1 -3.3**
DL2 sP **sP** **10 09 48.3 -1.3**
DL2 S **Sn** **10 12 24.8 +2.9**
DL2 PcP **PcP** **10 14 33.3 +2.7**
DL2 pmax pmax
comp=Z,420nm,1.0s
DL2 pmax pmax
comp=Z,2μm,8.1s
DL2 L L
comp=Z,3μm,13.8s
DL2 L L
comp=Z,11μm,16.5s
DL2 L L
comp=Z,17μm,18.2s
HEH HeiHe 16.84 328 *e*P **Pn** **10 09 42.6 -4.0**
HEH S **Sn** **10 12 50.4 -2.2**
HEH SS **SnSn** **10 13 07.8 +1.7**
HEH pmax pmax
comp=Z,130nm,0.7s
HEH L L
comp=Z,3μm,21.8s
HEH L L
comp=Z,6μm,19.3s
HEH L L
comp=Z,9μm,19.3s
OKH Okha 17.00 4*d e*P **Pn** **10 09 49.1 +0.6**
OKH *e*S **Sn** **10 12 52.7 -3.6**
OKH pmax pmax
comp=Z,300nm,20.5s
OKH MLR MLR
comp=Z,1μm,12.0s
OKH MLR MLR
comp=N,3μm,14.0s
SSE Sheshan 17.42 257 P **Pn** **10 09 53.1 -0.8**
SSE S **Sn** **10 13 06.1 -0.7**
SSE pmax pmax
comp=N,40nm,0.7s
SSE pmax pmax
comp=N,610nm,3.6s
SSE L L
comp=N,2μm,14.8s
SSE L L
comp=N,2μm,14.1s
SKR Severo-Kuril's 17.74 33⇓*e*P **Pn** **10 09 54.9 -2.8**
JMJ Miyako jima 2 17.93 233 P **P** **10 10 01.2 +0.7**
NJ2 Nanjing 18.91 263 ⇓P **P** **10 10 10.3 -0.9**
NJ2 pP **Pn** **10 10 16.5 +4.4**
NJ2 sP **sP** **10 10 25.0 -1.5**
NJ2 S **Sn** **10 13 42.0 -0.9**
NJ2 PcP **PcP** **10 14 37.0 +0.9**
NJ2 pmax pmax
comp=N,110nm,0.8s
NJ2 L L
comp=N,5μm,19.0s
NJ2 L L
comp=N,4μm,23.2s
NJ2 L L
comp=N,7μm,16.6s
TIA Tai'an 19.29 276 P **P** **10 10 14.3 -1.1**
TIA pP **pP** **10 10 21.3 -4.2**
TIA S **S** **10 13 41.8 -10**
TIA pmax pmax
comp=N,520nm,4.5s
TIA L L
comp=N,4μm,14.7s
TIA L L
comp=N,5μm,19.4s
TIA L L
comp=N,9μm,18.6s
ZEA Zeya 19.66 335 *e*P **P** **10 10 16.5 -2.7**
ZEA pmax pmax
comp=N,400nm,1.0s
ZEA pmax pmax
comp=E,100nm,1.0s
ZEA pmax pmax
comp=Z,800nm,1.0s
ZEA pmax pmax
comp=E,110nm,1.1s
ZEA pmax pmax
comp=N,420nm,0.8s
ZEA pmax pmax
comp=Z,850nm,0.7s
ZEA MLR MLR
comp=E,800nm,16.0s
ZEA MLR MLR
comp=N,2μm,18.0s
ZEA MLR MLR
comp=Z,3μm,19.0s
YOJ Yonaguni jima 19.68 237 P **P** **10 10 17.7 -2.0**
YOJ Yonaguni jima 19.68 237 P **P** **10 10 16.5 -3.2**
comp=Z,201nm,0.8s
BJI2 Beijing 19.84 287 P **P** **10 10 18.8 -2.5**
BJI2 S **S** **10 13 57.8 -4.6**
BJI2 pmax pmax
comp=Z,120nm,0.7s
BJI2 pmax pmax
comp=Z,380nm,3.5s
BJI2 L L
comp=Z,2μm,17.2s
BJI2 L L
comp=Z,3μm,18.5s
BJI2 L L
comp=Z,3μm,22.0s
BJT Baijiatuau 19.84 287 P **P** **10 10 20.6 -0.7**
BJT Baijiatuau 19.84 287 P **P** **10 10 19.8 -1.5**
BJT pmax pmax
comp=Z,144nm,0.7s
BJT Baijiatuau 19.84 287 P **P** **10 10 19.8 -1.5**
HIA Hailar 20.03 316 P **P** **10 10 21.0 -2.4**
HIA Hailar 20.03 316 P **P** **10 10 21.3 -2.1**
HIA pmax pmax
comp=Z,111nm,0.6s
HIA Hailar 20.03 316 P **P** **10 10 21.3 -2.1**
HILR Hailar Array B 20.18 317 P **P** **10 10 22.4 -2.6**
comp=Z,133nm,0.5s,baz=111,slow=12,SNR=85
HILR LR LR 10 18 22.5
comp=Z,6μm,19.3s,baz=90,slow=37
PEA0B Petropavlovsk- 20.19 30*c e*P **P** **10 10 25.7 +0.7**
PEA0B Petropavlovsk- 20.19 30 P **P** **10 10 24.5 -0.5**
PETK Petropavlovsk- 20.19 30 P **P** **10 10 25.4 +0.4**
comp=Z,35nm,0.9s,baz=226,slow=6.5,SNR=18
PETK LR LR 10 17 49.0
comp=Z,2μm,21.7s,baz=223,slow=35
comp=Z,35nm,0.9s
PETK Petropavlovsk- 20.19 30 **P** **10 10 25.3 +0.3**
XLT XiLinHaoTe 20.39 299 *e*P **P** **10 10 25.4 -2.0**
XLT pP pP 10 10 34.1 -3.4
XLT sP sP 10 10 41.1 -1.7
XLT PP **PnPn** **10 10 45.9 +0.6**
XLT S **S** **10 14 07.4 -6.1**
XLT sS Sn 10 14 22.4 +3.9
XLT SS **SnSn** **10 14 38.0 +4.7**
XLT PcS **PcS** **10 18 10.3 -6.0**
XLT pmax pmax
comp=Z,360nm,1.1s
XLT L L
comp=Z,8μm,18.2s
XLT L L
comp=Z,10μm,17.7s
TATO Taipei 20.40 241 P **P** **10 10 26.9 -0.7**
PET Petropavlovsk 20.52 31 P Pn 10 10 30.4 -0.6
PET Petropavlovsk 20.52 31 *e*P Pn 10 10 29.8 -1.2
PET *e*S **S** **10 14 16.9 +1.2**
PET pmax pmax
comp=Z,300nm,11.6s
PET pmax pmax
comp=Z,148nm,1.3s
PET MLR MLR
comp=Z,2μm,18.0s
PET MLR MLR
comp=Z,2μm,19.0s
PET Petropavlovsk 20.52 31 P **P** **10 10 28.8 +0.2**
PET Petropavlovsk 20.52 31 P Pn 10 10 29.8 -1.2
comp=Z,2μmcomp=Z,162nm,1.3s
PET Petropavlovsk 20.52 31 P Pn 10 10 30.2 -0.8
comp=Z,2μmcomp=Z,172nm,1.3s
YHNB Yeheng 20.68 240 P **P** **10 10 29.2 -1.4**
YHNB Yeheng 20.68 240 **P** **10 10 29.5 -1.0**
YHNB Yeheng 20.68 240 P **P** **10 10 29.7 -0.9**
comp=Z,132nm,0.8s
NACB Ninganchiao 20.84 239 P **P** **10 10 30.5 -1.8**
NACB Ninganchiao 20.84 239 P **P** **10 10 30.4 -1.8**
NACB Ninganchiao 20.84 239 P **P** **10 10 29.5 -2.8**
comp=Z,81nm,0.9s
HNS HongShan 21.07 280 ⇑P **P** **10 10 31.6 -3.1**
HNS S **S** **10 14 20.9 -6.0**
HNS SS **SnSn** **10 14 56.3 +6.4**
HNS pmax pmax
comp=Z,450nm,1.0s
HNS L L
comp=Z,3μm,16.7s
HNS L L
comp=Z,8μm,19.1s
HNS L L
comp=Z,8μm,17.5s
YULB Yu-li 21.56 238 P **P** **10 10 37.6 -2.4**
YULB Yu-li 21.56 238 P **P** **10 10 38.4 -1.7**
comp=Z,128nm,0.8s
TPUB Ta-pu 22.08 239 P **P** **10 10 43.0 -2.6**
TPUB Ta-pu 22.08 239 P **P** **10 10 42.6 -3.0**
comp=Z,3μmcomp=Z,349nm,1.1s,comp=Z,3μm
TWGBT Beinan 22.10 237 P **P** **10 10 43.2 -2.6**
TWG Pinlang 22.10 237 P **P** **10 10 43.9 -1.9**
TWG IAmb IAmb 10 10 47.4
comp=Z,171nm,0.8s
TWG Pinlang 22.10 237 P **P** **10 10 43.4 -2.4**
comp=Z,3μmcomp=Z,245nm,1.0s
QZH2 Quanzhou 22.49 245⇓*i* P **P** **10 10 47.0 -3.0**
QZH2 S S 10 14 43.3 -11
QZH2 SS Sn 10 15 30.0 +21
QZH2 pmax pmax
comp=Z,160nm,1.1s
QZH2 L L
comp=Z,4μm,17.5s
QZH2 L L
comp=Z,2μm,15.1s
QZH2 L L
comp=Z,4μm,22.7s
TIY Taiyuan 22.84 281 *e*P **P** **10 10 51.1 -2.6**
TIY S **S** **10 14 53.0 -7.2**
TIY pmax pmax
comp=Z,83nm,0.8s
TIY pmax pmax
comp=Z,510nm,5.5s
TIY L L
comp=Z,4μm,17.2s
TIY L L
comp=Z,7μm,17.2s
TIY L L
comp=Z,9μm,17.9s
KNMB Chin-men Tao 22.93 245 **P** **10 10 52.3 -2.4**
KNMB Chin-men Tao 22.93 245 P **P** **10 10 52.2 -2.4**
comp=Z,164nm,1.2s
WHN Wuhan 23.05 263 P **P** **10 10 54.1 -1.7**
WHN pP **pP** **10 11 06.3 +0.2**
WHN sP **sP** **10 11 11.8 +0.5**
WHN S **S** **10 14 57.3 -6.3**
WHN pmax pmax
comp=Z,1μm,0.8s
WHN L L
comp=Z,5μm,11.6s
WHN L L
comp=Z,16μm,15.1s
WHN L L
comp=Z,22μm,15.8s
GUMO Guam 23.16 171 LR LR 10 18 37.0
comp=Z,2μm,21.8s,baz=18,slow=33
LYN LuoYang 23.34 274 P **P** **10 10 55.0 -3.6**
LYN PcP **PcP** **10 14 46.3 +1.7**
LYN S **S** **10 14 59.9 -8.5**
LYN pmax pmax
comp=Z,210nm,0.8s
LYN pmax pmax
comp=Z,960nm,7.9s
LYN L L
comp=Z,4μm,18.2s
LYN L L
comp=Z,9μm,17.9s
LYN L L
comp=Z,13μm,17.2s
HHC Hu-ho-hao-te 23.37 290⇑*i* P **P** **10 10 56.8 -2.2**
HHC sP pP 10 11 10.4 +0.8
HHC S **S** **10 15 06.9 -2.2**
HHC pmax pmax
comp=Z,54nm,1.4s
HHC pmax pmax
comp=Z,370nm,6.6s
HHC L L
comp=Z,1μm,13.0s
HHC L L
comp=Z,3μm,18.3s
HHC L L
comp=Z,4μm,17.9s
MA2 Magadan 23.83 12 P **P** **10 11 03.3 +0.2**
MA2 Magadan 23.83 12 P **P** **10 11 03.2 +0.2**
MA2 pmax pmax
comp=Z,168nm,0.9s
MA2 Magadan 23.83 12 **P** **10 11 03.1 +0.1**
MA2 IAmb IAmb 10 11 18.8
comp=Z,168nm,0.9s
MA2 Magadan 23.83 12 P **P** **10 11 04.1 +1.1**
comp=Z,3μmcomp=Z,243nm,0.9s
BTO2 Baotou 24.65 289 *e*P **P** **10 11 09.6 -1.3**
BTO2 sP **sP** **10 11 27.3 +0.2**
BTO2 S **S** **10 15 27.3 -2.4**
BTO2 pmax pmax
comp=Z,88nm,0.8s
BTO2 pmax pmax
comp=Z,830nm,5.4s
BTO2 L L
comp=Z,4μm,12.3s
BTO2 L L
comp=Z,7μm,14.4s
BTO2 L L
comp=Z,9μm,15.1s
CIT Chita 24.82 317 *e*P **P** **10 11 09.6 -2.6**
CIT *e* 10 11 24.6
CIT *e* 10 11 44.8
CIT *e* 10 12 01.8
CIT *e* 10 15 32.8
CIT *e* 10 15 45.6
CIT *e* 10 16 24.8
CIT pmax pmax
comp=Z,599nm,2.0s
CNSH ChangSha 25.15 259 P **P** **10 11 14.9 -0.5**
CNSH S **S** **10 15 34.1 -3.5**
CNSH L L
comp=Z,4μm,15.9s
CNSH L L
comp=Z,2μm,20.5s
CNSH L L
comp=Z,4μm,23.7s
PIP Pasuquin 25.62 230 *e*P **P** **10 11 18.2 -1.5**
SZP Santa 26.31 229 P **P** **10 11 26.9 +1.0**

SZP Santa 26.31 229 P **P** **10 11 25.6 -0.3**
SZP IAmb IAmb 10 11 50.0
comp=Z,229nm,1.1s
XAN Xi'an 26.31 274 ⇑P **P** **10 11 24.6 -1.3**
XAN pP pP 10 11 34.8 -2.3
XAN sP sP 10 11 41.0 -1.1
XAN S **S** **10 15 55.3 -0.7**
XAN pmax pmax
comp=Z,150nm,1.0s
XAN pmax pmax
comp=Z,1μm,4.3s
XAN L L
comp=Z,3μm,15.6s
XAN L L
comp=Z,4μm,17.8s
XAN L L
comp=Z,5μm,17.5s
GZH2 Guangzhou 26.91 249 P **P** **10 11 31.3 0.0**
GZH2 pP **pP** **10 11 43.5 +1.0**
GZH2 S **S** **10 16 05.3 -0.1**
GZH2 pmax pmax
comp=Z,130nm,1.1s
GZH2 L L
comp=Z,2μm,13.6s
GZH2 L L
comp=Z,2μm,16.2s
GZH2 L L
comp=Z,5μm,16.5s
ENH Enshi 27.05 266 P **P** **10 11 31.5 -1.0**
ENH Enshi 27.05 266 P **P** **10 11 31.8 -0.7**
SEY Seymchan 27.27 11⇑*eP* **P** **10 11 35.5 +1.4**
SEY pmax pmax
comp=Z,151nm,1.1s
HKPS Hong Kong Po S 27.36 246 P **P** **10 11 32.9 -2.5**
HKPS Hong Kong Po S 27.36 246 **P** **10 11 35.2 -0.2**
ULN Ulaanbaatar 27.39 305 P **P** **10 11 35.6 -0.1**
ULN S **S** **10 16 13.1 +0.1**
ULN Ulaanbaatar 27.39 305 P **P** **10 11 35.2 -0.5**
ULN Ulaanbaatar 27.39 305 **P** **10 11 35.1 -0.5**
ULN IAmb IAmb 10 11 40.5
comp=Z,167nm,0.8s
ULN Ulaanbaatar 27.39 305 P **P** **10 11 34.4 -1.2**
ULN Ulaanbaatar 27.39 305 P **P** **10 11 34.9 -0.7**
comp=Z,2μmcomp=Z,225nm,0.8s
BOD Bodaibo 27.76 328 *eP* **P** **10 11 38.1 -0.5**
BOD pmax pmax
comp=Z,501nm,1.1s
SONM Songino Array 27.82 305 P **P** **10 11 39.6 +0.1**
comp=Z,188nm,0.7s,baz=106,slow=9.0,SNR=210
SONM PcP **PcP** **10 14 55.1 +0.4**
comp=Z,11nm,0.9s,baz=116,slow=2.8,SNR=3.7
SONM ScP **ScP** **10 18 32.1 0.0**
comp=Z,4.2nm,1.0s,baz=116,slow=6.9,SNR=5.0
SONM LR LR 10 23 01.9
comp=Z,3μm,19.1s,baz=108,slow=37
comp=Z,188nm,0.7s
SONM Songino Array 27.82 305 **P** **10 11 39.3 -0.1**
SONM IAmb IAmb 10 11 44.1
comp=Z,221nm,0.8s
H11N2 WAKE ISLAND Hy 28.15 120 T T 10 41 48.9
baz=313,slow=75,SNR=504
SHEM Shemya Is, Ala 28.16 45 LR LR 10 20 21.7
comp=Z,1μm,21.1s,baz=252,slow=31
H11N1 WAKE ISLAND Hy 28.16 120 T T 10 41 50.4
baz=313,slow=75,SNR=451
H11N3 WAKE ISLAND Hy 28.17 120 T T 10 41 50.5
baz=313,slow=75,SNR=514
LQP Lukban 28.41 223 *eP* **P** **10 11 42.0 -3.0**
GULI GuiLin 28.55 255⇑*iP* **P** **10 11 47.0 +1.0**
GULI PP **PnPn** **10 12 43.0 +6.1**
GULI S **S** **10 16 31.3 0.0**
GULI L L
comp=Z,2μm,17.4s
GULI L L
comp=Z,2μm,16.3s
GULI L L
comp=Z,4μm,16.0s
H11S1 WAKE ISLAND Hy 28.84 122 T T 10 42 40.7
baz=314,slow=76,SNR=1631
H11S3 WAKE ISLAND Hy 28.84 122 T T 10 42 40.1
baz=314,slow=76,SNR=1222
H11S2 WAKE ISLAND Hy 28.86 122 T T 10 42 35.2
baz=314,slow=76,SNR=1112
PLP Palo 29.21 214 *eP* **P** **10 11 49.3 -2.5**
LZDM Lanzhou Array 30.04 280 P **P** **10 11 58.8 -0.6**
comp=Z,20nm,0.4s,baz=83,slow=4.6,SNR=35
LZDM PcP **PcP** **10 15 01.8 +1.1**
comp=Z,25nm,0.7s,baz=68,slow=3.1,SNR=6.7
comp=Z,20nm,0.4s
IRK Irkutsk 30.20 313 *eP* **P** **10 11 59.1 -1.3**
IRK *eS* **S** **10 17 02.9 +6.1**
IRK pmax pmax
comp=Z,104nm,2.2s
ZAK Zakamensk 30.34 309 *eP* **P** **10 12 00.8 -1.0**
ZAK pmax pmax
comp=Z,113nm,1.0s
TLY Talaya 30.43 312 LR LR 10 24 51.7
comp=Z,4μm,18.8s,baz=107,slow=37
TLY Talaya 30.43 312 P **P** **10 12 01.8 -0.6**
TLY S **S** **10 16 59.6 -0.7**
TLY Talaya 30.43 312*c iP* **P** **10 12 01.5 -0.9**
TLY pmax pmax
comp=Z,86nm,0.9s
TLY Talaya 30.43 312 **P** **10 12 03.3 +0.9**
TLY IAmb IAmb 10 12 04.0
comp=Z,77nm,0.7s
TLY Talaya 30.43 312 P **P** **10 12 02.4 0.0**
comp=Z,1μmcomp=Z,135nm,1.1s
TLY Talaya 30.43 312 P **P** **10 12 03.0 +0.6**
TLY pP **pP** **10 12 13.7 0.0**
GYA Guiyang 30.90 261 ⇑P **P** **10 12 05.8 -1.1**
GYA S **S** **10 17 03.1 -5.3**
GYA pmax pmax
comp=Z,300nm,1.6s
GYA L L
comp=Z,3μm,20.1s
GYA L L
comp=Z,3μm,20.8s
GYA L L
comp=Z,5μm,21.6s
CD2 Chengdu 31.42 271 P **P** **10 12 09.8 -1.6**
CD2 pP pP 10 12 20.8 -1.9
CD2 sP sP 10 12 24.4 -3.2
CD2 S **S** **10 17 10.3 -6.1**
CD2 pmax pmax
comp=Z,300nm,0.8s
CD2 pmax pmax
comp=Z,450nm,6.4s
CD2 L L
comp=Z,5μm,13.8s
CD2 L L
comp=Z,7μm,18.2s
CD2 L L
comp=Z,7μm,19.6s
MOY Mondy 32.03 311 *eP* **P** **10 12 16.1 -0.5**
MOY pmax pmax
comp=Z,83nm,2.2s
GTA2 Gaotai 32.48 288 P **P** **10 12 19.8 -0.9**
GTA2 PcP **PcP** **10 15 08.1 +1.1**
GTA2 S **S** **10 17 27.1 -5.8**
GTA2 ScP **ScP** **10 18 47.8 +0.4**
GTA2 ScS **ScS** **10 22 44.3 -2.6**
GTA2 pmax pmax
comp=Z,34nm,0.7s
GTA2 pmax pmax
comp=Z,620nm,8.6s
GTA2 L L
comp=Z,1μm,20.0s
GTA2 L L
comp=Z,3μm,20.0s
GTA2 L L
comp=Z,3μm,19.4s
QIZ Qiongzhong 32.52 246 P **P** **10 12 21.9 +0.8**
QIZ Qiongzhong 32.52 246 P **P** **10 12 22.3 +1.2**
QIZ S **S** **10 17 34.3 +0.8**
QIZ pmax pmax
comp=Z,39nm,0.8s
QIZ L L
comp=Z,1μm,15.8s
QIZ L L
comp=Z,1μm,17.9s
QIZ L L
comp=Z,2μm,14.6s
QIZ Qiongzhong 32.52 246 P **P** **10 12 22.2 +1.2**
DAV Davao City (W) 32.63 210 LR LR 10 25 30.1
comp=Z,2μm,20.4s,baz=55,slow=36

PATS Pohnpei 33.54 148 P **P** **10 12 30.8 +0.8**
KNGR Kungurtug, Tuv 34.01 308*ceP* **P** **10 12 35.1 +1.2**
KNGR pmax pmax
comp=Z,156nm,1.0s
BILL Bilibino 34.52 16 P **P** **10 12 38.3 +0.4**
BILL Bilibino 34.52 16 **P** **10 12 37.3 -0.6**
BILL Bilibino 34.52 16 P **P** **10 12 38.0 +0.1**
BILI Bilibino, Chuk 34.57 16 P **P** **10 12 38.2 -0.2**
comp=Z,52nm,1.0s
KMI2 Kunming 34.63 262 ⇑P **P** **10 12 38.8 -0.9**
KMI2 pP pP 10 12 51.8 +0.8
KMI2 sP sP 10 12 57.3 +1.4
KMI2 PP **PP** **10 14 00.3 +1.7**
KMI2 PcP **PcP** **10 15 14.0 +0.6**
KMI2 S **S** **10 18 02.8 -3.8**
KMI2 pmax pmax
comp=Z,250nm,1.0s
KMI2 L L
comp=Z,2μm,19.8s
KMI2 L L
comp=Z,4μm,16.8s
KMI2 L L
comp=Z,4μm,23.4s
KMI Kunming 34.65 262 P **P** **10 12 39.3 -0.5**
KMI PcP **PcP** **10 15 14.0 +0.6**
PZH PanZhiHua 34.81 265 P **P** **10 12 40.3 -0.8**
PZH pP **sP** **10 12 56.6 -0.7**
PZH PP **PP** **10 14 00.3 -0.1**
PZH S **S** **10 18 03.6 -5.5**
PZH pmax pmax
comp=Z,240nm,0.8s
PZH pmax pmax
comp=Z,260nm,4.2s
PZH L L
comp=Z,2μm,15.3s
PZH L L
comp=Z,5μm,16.2s
PZH L L
comp=Z,5μm,16.8s
ATKA Atka Island 34.93 49 P **P** **10 12 43.2 +1.6**
SLVN Son La 35.67 255 P **P** **10 12 48.6 +0.1**
SLVN Son La 35.67 255 **P** **10 12 48.6 +0.1**
SLVN IAmb IAmb 10 12 51.5
comp=Z,87nm,0.9s
SLVN Son La 35.67 255 P **P** **10 12 48.6 +0.1**
comp=Z,1μmcomp=Z,108nm,1.1s,comp=Z,1μm
TIXI Tiksi 35.69 353 LR LR 10 28 31.5
comp=Z,2μm,18.8s,baz=173,slow=38
TIXI Tiksi 35.69 353 P **P** **10 12 48.0 0.0**
TIXI pmax pmax
comp=Z,158nm,0.9s
TIXI Tiksi 35.69 353 **P** **10 12 48.0 0.0**
TIXI IAmb IAmb 10 12 49.2
comp=Z,158nm,0.8s
TIXI Tiksi 35.69 353 P **P** **10 12 48.0 0.0**
comp=Z,2μmcomp=Z,276nm,1.0s,comp=Z,2μm
GOMU GeErMu 36.97 284 P **P** **10 12 59.0 -0.8**
GOMU PP **PP** **10 14 20.6 -3.8**
GOMU S **S** **10 18 42.3 -0.3**
GOMU pmax pmax
comp=Z,260nm,0.8s
GOMU L L
comp=Z,2μm,16.4s
GOMU L L
comp=Z,3μm,16.3s
GOMU L L
comp=Z,4μm,16.1s
TNTI Ternate 37.85 203 P **P** **10 13 07.0 +0.1**
TNTI Ternate 37.85 203 **P** **10 13 07.0 +0.1**
TNTI IAmb IAmb 10 13 09.2
comp=Z,241nm,1.3s
TNTI Ternate 37.85 203 P **P** **10 13 07.2 +0.3**
comp=Z,2μmcomp=Z,144nm,1.7s,comp=Z,2μm
TNCH TengChong 38.06 265⇑*iP* **P** **10 13 08.9 0.0**
TNCH pP pP 10 13 16.5 -3.8
TNCH sP sP 10 13 25.8 +0.6
TNCH PP **PnPn** **10 14 42.3 +4.3**
TNCH S **S** **10 18 57.8 -1.1**
TNCH sS sS 10 19 14.6 -3.2
TNCH pmax pmax
comp=Z,410nm,1.1s
TNCH L L
comp=Z,1μm,18.3s
TNCH L L
comp=Z,2μm,15.5s
TNCH L L
comp=Z,4μm,22.6s
MNI Manado 38.08 207 P **P** **10 13 09.1 +0.2**
comp=Z,5μmcomp=Z,191nm,0.9s
DLV Lat 38.24 238 P **P** **10 13 11.1 +0.7**
DLV Lat 38.24 238 **P** **10 13 11.8 +1.3**
DLV Lat 38.24 238 P **P** **10 13 11.7 +1.2**
comp=Z,4μmcomp=Z,225nm,1.1s
GENI Genyem 39.00 181 P **P** **10 13 17.8 +1.2**
GENI Genyem 39.00 181 P **P** **10 13 17.7 +1.2**
comp=Z,177nm,0.9s
GENI Genyem 39.00 181 P **P** **10 13 18.5 +2.0**
comp=Z,178nm,0.9s
KMSI Cibinong 39.20 208 P **P** **10 13 19.3 +1.1**
GTOI Gorontalo 39.51 209 P **P** **10 13 19.5 -1.4**
comp=Z,2μmcomp=Z,113nm,0.8s
TOLI2 Tolitoli 40.01 213 P **P** **10 13 24.3 -0.7**
TOLI2 Tolitoli 40.01 213 **P** **10 13 24.3 -0.7**
TOLI2 Tolitoli 40.01 213 P **P** **10 13 24.5 -0.5**
comp=Z,869nmcomp=Z,59nm,1.0s,comp=Z,869nm
FAKI Fak Fak 40.17 194 P **P** **10 13 26.8 +0.5**
FAKI Fak Fak 40.17 194 **P** **10 13 26.9 +0.6**
FAKI IAmb IAmb 10 13 41.4
comp=Z,162nm,1.0s
FAKI Fak Fak 40.17 194 P **P** **10 13 26.1 -0.2**
comp=Z,2μmcomp=Z,196nm,1.2s
WMQ Urumqi 40.81 297 ⇑P **P** **10 13 32.8 +1.3**
WMQ S **S** **10 19 42.1 +2.5**
WMQ pmax pmax
comp=Z,620nm,1.1s
WMQ pmax pmax
comp=Z,2μm,3.7s
WMQ L L
comp=Z,1μm,9.9s
WMQ L L
comp=Z,3μm,24.5s
WMQ L L
comp=Z,3μm,19.7s
WMQ Urumqi 40.81 297 P **P** **10 13 32.7 +1.2**
CHTO Chiang Mai 40.94 256 P **P** **10 13 32.1 -0.7**
CHTO Chiang Mai 40.94 256 P **P** **10 13 32.3 -0.4**
CHTO S **S** **10 19 41.0 -0.8**
CHTO Chiang Mai 40.94 256 P **P** **10 13 32.6 -0.1**
CHTO pmax pmax
comp=Z,70nm,0.9s
CHTO Chiang Mai 40.94 256 **P** **10 13 32.6 -0.1**
CHTO Chiang Mai 40.94 256 P **P** **10 13 32.0 -0.7**
comp=Z,2μmcomp=Z,118nm,0.9s
CHTO Chiang Mai 40.94 256 P **P** **10 13 32.8 0.0**
comp=Z,2μmcomp=Z,117nm,0.9s
CHTO Chiang Mai 40.94 256 P **P** **10 13 32.5 -0.1**
CHTO PcP **PcP** **10 15 33.5 +0.9**
SANI Sanana 40.95 203 P **P** **10 13 30.4 -2.3**
SANI Sanana 40.95 203 P **P** **10 13 31.6 -1.1**
SANI Sanana 40.95 203 P **P** **10 13 31.1 -1.6**
comp=Z,3μmcomp=Z,245nm,0.8s
SANI Sanana 40.95 203 P **P** **10 13 31.9 -0.8**
comp=Z,3μmcomp=Z,249nm,0.7s,comp=Z,3μm
CM31 Chiang Mai Arr 41.14 256 P **P** **10 13 34.4 0.0**
SNR=42
CM31 Chiang Mai Arr 41.14 256 P **P** **10 13 34.1 -0.3**
CM31 IAmb IAmb 10 13 37.1
comp=Z,210nm,1.6s
CMAR Chiang Mai Arr 41.14 256 P **P** **10 13 34.5 +0.1**
comp=Z,31nm,0.9s,baz=48,slow=5.8,SNR=177
CMAR PcP **PcP** **10 15 34.1 +0.9**
comp=Z,14nm,1.0s,baz=19,slow=2.2,SNR=5.3
CMAR ScP **ScP** **10 19 19.6 -0.1**
comp=Z,0.5nm,0.2s,baz=26,slow=3.5,SNR=4.6
CMAR LR LR 10 32 50.9
comp=Z,3μm,18.2s,baz=50,slow=39
comp=Z,31nm,0.9s
CMAR Chiang Mai Arr 41.14 256 P **P** **10 13 34.3 -0.1**
LUWI Luwuk 41.14 209 P **P** **10 13 32.1 -2.2**
LUWI Luwuk 41.14 209 P **P** **10 13 32.8 -1.5**
LUWI Luwuk 41.14 209 P **P** **10 13 31.9 -2.5**
comp=Z,2μmcomp=Z,152nm,0.8s
LUWI Luwuk 41.14 209 P **P** **10 13 31.9 -2.5**
comp=Z,2μmcomp=Z,151nm,0.8s
APSI Ampana 41.47 210 P **P** **10 13 36.2 -0.8**
comp=Z,3μmcomp=Z,276nm,1.0s
KRVT Keravat (AS076 41.96 164 LR LR 10 30 19.9
comp=Z,452nm,21.6s,baz=343,slow=35
LSA Lhasa 42.00 276 P **P** **10 13 43.0 +1.1**
LSA Lhasa 42.00 276 P **P** **10 13 41.3 -0.6**
LSA S **S** **10 19 52.3 -6.0**
LSA pmax pmax
comp=Z,150nm,1.1s
LSA L L
comp=Z,710nm,16.4s
LSA L L
comp=Z,1μm,17.4s
LSA Lhasa 42.00 276 P **P** **10 13 42.7 +0.9**
LSA pmax pmax
comp=Z,153nm,1.0s
LSA Lhasa 42.00 276 P **P** **10 13 42.7 +0.9**
LSA IAmb IAmb 10 13 44.3
comp=Z,153nm,1.0s
ZAA0 Zalesovo Array 42.02 313 **P** **10 13 41.5 +0.4**
ZALV Zalesovo Beam 42.02 313 P **P** **10 13 41.1 -0.1**
comp=Z,514nm,0.7s,baz=91,slow=6.8,SNR=1245
ZALV PcP **PcP** **10 15 35.1 -0.4**
comp=Z,31nm,0.7s,baz=107,slow=2.5,SNR=3.8
ZALV ScP **ScP** **10 19 23.7 +1.1**
comp=Z,4.6nm,1.0s,baz=103,slow=3.1,SNR=2.3
ZALV LR LR 10 31 51.0
comp=Z,3μm,18.6s,baz=90,slow=37
comp=Z,514nm,0.7s
PCI Palu 42.22 213 P **P** **10 13 43.7 +0.5**
comp=Z,142nm,1.0s
BNDI Bandanaira 42.23 197 P **P** **10 13 44.5 +1.3**
BNDI Bandanaira 42.23 197 P **P** **10 13 44.1 +0.9**
BNDI Bandanaira 42.23 197 P **P** **10 13 42.9 -0.3**
comp=Z,8μmcomp=Z,583nm,0.9s
ZSN Zaisan 42.31 303*c iP* **P** **10 13 44.3 +0.7**
ZSN pmax pmax
comp=Z,318nm,1.3s
ZSN Zaisan 42.31 303⇑*iP* **P** **10 13 44.4 +0.7**
comp=Z,318nm,1.3s
NPW Nayoyitaw 42.61 259 P **P** **10 13 46.8 +0.4**
comp=Z,452nm,1.0s
F15K North Star Dit 42.70 30 P **P** **10 13 48.8 +2.3**
F15K IAmb IAmb 10 14 05.1
comp=Z,297nm,1.9s
K15K Wolf Creek Mou 43.31 35 P **P** **10 13 53.5 +1.9**
NRIK Noril'sk 43.56 336 P **P** **10 13 53.3 -0.1**
comp=Z,175nm,0.9s,baz=106,slow=8.9,SNR=106
NRIK PcP **PcP** **10 15 39.9 -0.5**
comp=Z,60nm,0.9s,baz=110,slow=3.8,SNR=3.8
NRIK LR LR 10 33 05.8
comp=Z,3μm,18.7s,baz=112,slow=38
comp=Z,175nm,0.9s
NRIK Noril'sk 43.56 336 **P** **10 13 53.9 +0.5**
N15K Kwethluk River 43.74 38 P **P** **10 13 57.1 +2.1**
N15K IAmb IAmb 10 14 10.7
comp=Z,95nm,1.0s
O15K Ungalikthiuk R 43.80 40 P **P** **10 13 57.1 +1.7**
O15K IAmb IAmb 10 14 11.5
comp=Z,101nm,0.9s
CHNA Chernabura Isl 43.80 46 P **P** **10 13 57.4 +1.9**
CNBA Chernabura Isl 43.80 46 P **P** **10 13 56.0 +0.5**
BKB Balikpapan 43.87 216 P **P** **10 13 56.3 -0.2**
BKB Balikpapan 43.87 216 P **P** **10 13 57.2 +0.6**
comp=Z,4μmcomp=Z,311nm,1.5s
KDI Kendari 43.88 207 P **P** **10 13 56.8 +0.2**
comp=Z,9μmcomp=Z,107nm,1.3s
J16K Anvik River 43.89 34 P **P** **10 13 58.1 +1.9**
RDOG Red Dog Mine 44.01 27 **P** **10 13 58.5 +1.5**
RDOG IAmb IAmb 10 14 00.2
comp=Z,99nm,1.0s
MK31 Makanchi Array 44.14 302 *i* P **P** **10 13 58.8 +0.4**
MK31 pmax pmax
comp=Z,153nm,0.9s
MKAR Makanchi Array 44.14 302 P **P** **10 13 58.7 +0.3**
comp=Z,149nm,0.8s,baz=89,slow=9.9,SNR=386
MKAR LR LR 10 32 59.1
comp=Z,3μm,20.8s,baz=78,slow=37
comp=Z,149nm,0.8s
MKAR Makanchi Array 44.14 302 P **P** **10 13 59.0 +0.6**
MKAR Makanchi Array 44.14 302 P **P** **10 13 59.0 +0.6**
TTSI Tana Toraja 44.15 211 P **P** **10 13 57.8 -0.9**
MMSI Mamuju 44.22 213 P **P** **10 13 58.5 -0.8**
F17K Baldwin Pennin 44.22 29 P **P** **10 14 00.4 +1.6**
MAKZ Makanchi 44.35 303 P **P** **10 14 00.6 +0.5**
MAKZ Makanchi 44.35 303 P **P** **10 14 00.5 +0.5**
MAKZ IAmb IAmb 10 14 01.8
comp=Z,206nm,0.9s
MAKZ Makanchi 44.35 303 P **P** **10 14 00.7 +0.5**
comp=Z,3μmcomp=Z,288nm,1.1s
MAKZ Makanchi 44.35 303 P **P** **10 14 00.6 +0.5**
MAKZ sP **sP** **10 14 16.3 -0.3**
M16K Timber Creek 44.38 37 P **P** **10 14 01.9 +1.8**
KKSI Kolaka, Sulawe 44.44 208 P **P** **10 14 01.9 +0.8**
comp=Z,131nm,1.4s
H17K Granite Mounta 44.47 31 P **P** **10 14 01.5 +0.8**
J17K VABM Dome 44.59 34 P **P** **10 14 03.9 +2.2**
J17K IAmb IAmb 10 14 24.0
comp=Z,210nm,1.7s
O16K Kokwok River B 44.70 39 P **P** **10 14 04.4 +1.7**
BRDH Bariadhala 44.71 266 P **P** **10 14 03.2 0.0**
comp=Z,149nm,0.3s,baz=73,slow=10,SNR=8.9
BRDH LR LR 10 35 45.6
comp=Z,4μm,18.7s,baz=58,slow=40
comp=Z,149nm,0.3s
P16K Nushagak River 44.73 40 P **P** **10 14 05.4 +2.5**
C18K Utukok River 44.78 26 P **P** **10 14 04.7 +1.4**
C18K IAmb IAmb 10 14 06.2
comp=Z,154nm,1.0s
PMSI Majene 44.94 212 P **P** **10 14 03.8 -1.3**
comp=Z,3μmcomp=Z,254nm,1.7s
M17K Holitna River 45.14 37 P **P** **10 14 08.0 +1.8**
M17K IAmb IAmb 10 14 22.8
comp=Z,68nm,0.8s
H18K Honhosa River 45.15 31 P **P** **10 14 07.7 +1.5**
H18K IAmb IAmb 10 14 27.9
comp=Z,234nm,1.9s
G18K Tagagawik 45.15 30 P **P** **10 14 07.5 +1.3**
N17K Nushagak Hills 45.21 38 P **P** **10 14 08.4 +1.7**
BBSI Bau Bau 45.32 206 P **P** **10 14 09.0 +1.0**
comp=Z,3μmcomp=Z,166nm,1.3s
KAPI Kappang 45.96 210 LR LR 10 33 20.4
comp=Z,532nm,21.0s,baz=21,slow=36
KAPI Kappang 45.96 210 P **P** **10 14 13.8 +0.7**
KAPI Kappang 45.96 210 P **P** **10 14 14.0 +0.9**
KAPI S **S** **10 20 53.6 -1.6**
KAPI Kappang 45.96 210 P **P** **10 14 13.4 +0.3**
comp=Z,2μmcomp=Z,199nm,1.4s
KAPI Kappang 45.96 210 P **P** **10 14 13.9 +0.7**
comp=Z,5μmcomp=Z,381nm,1.4s
KAPI Kappang 45.96 210 P **P** **10 14 13.8 +0.7**
KAPI pP **pP** **10 14 25.3 +0.6**
KURK Kurchatov 46.00 308 P **P** **10 14 13.3 +0.1**
KURK Kurchatov 46.00 308 P **P** **10 14 13.7 +0.6**
KURK 10 15 48.2
KURK Kurchatov 46.00 308 P **P** **10 14 13.3 +0.1**
comp=Z,7μmcomp=Z,735nm,0.8s
KURK Kurchatov 46.00 308 P **P** **10 14 13.2 +0.1**
KURK sP **sP** **10 14 29.7 +0.1**
KURBB Kurchatov Arra 46.07 308 P **P** **10 14 13.7 +0.1**
comp=Z,335nm,0.6s,baz=84,slow=7.9,SNR=1179
KURBB PcP **PcP** **10 15 48.2 -1.2**
comp=Z,17nm,0.7s,baz=95,slow=4.0,SNR=2.5
KURBB LR LR 10 34 29.6
comp=Z,3μm,18.5s,baz=97,slow=37
comp=Z,335nm,0.6s
KURBB Kurchatov Arra 46.07 308 P **P** **10 14 13.1 -0.6**
KURBB pmax pmax
comp=Z,314nm,0.7s
BKSI Bulukumba 46.09 210 P **P** **10 14 13.8 -0.3**
comp=Z,2μmcomp=Z,137nm,1.0s
PMG Port Moresby 46.11 172 LR LR 10 32 14.5
comp=Z,359nm,21.7s,baz=348,slow=34
PMG Port Moresby 46.11 172 P **P** **10 14 15.5 +1.2**
PMG Port Moresby 46.11 172 P **P** **10 14 15.8 +1.5**
PMG Port Moresby 46.11 172 P **P** **10 14 15.2 +0.9**
comp=Z,1μmcomp=Z,72nm,1.0s
PMG pP **sP** **10 14 28.5 -2.0**
EVN Everest 46.18 275 P **P** **10 14 16.5 +0.9**
EVN Everest 46.18 275 P **P** **10 14 16.6 +0.9**
comp=Z,4μmcomp=Z,429nm,1.1s,comp=Z,4μm
BSSI Bau Bau, Buton 46.70 209 P **P** **10 14 18.5 -0.4**
comp=Z,2μmcomp=Z,97nm,1.1s
PDGK Podgornoye 46.75 298 P **P** **10 14 18.9 -0.4**
PDGK pmax pmax
comp=Z,337nm,0.9s
SHLS Shalkode 46.81 298*c iP* **P** **10 14 17.9 -1.9**

SHLS pmax pmax
comp=Z,122nm,1.0s
SHLS Shalkode 46.81 298⇑ *i*P **P 10 14 17.9 -1.9**
comp=Z,122nm,1.0s
UZB Uzynbulak 47.13 298*c i*P **P 10 14 22.7 +0.4**
UZB pmax pmax
comp=Z,126nm,1.3s
UZB Uzynbulak 47.13 298⇑ *i*P **P 10 14 22.8 +0.4**
comp=Z,126nm,1.3s
TDK Taldyqorghan 47.13 301*c i*P **P 10 14 22.8 +0.7**
TDK pmax pmax
comp=Z,61nm,0.7s
TDK Taldyqorghan 47.13 301⇑ *i*P **P 10 14 22.8 +0.7**
comp=Z,61nm,0.7s
KPKS Kokpek 47.29 299 *e*P **P 10 14 24.2 +0.7**
KPKS Kokpek 47.29 299 *e*P **P 10 14 24.2 +0.7**
WUS Wushi 47.49 295 P **P 10 14 26.3 +1.2**
WUS sP **sP 10 14 42.3 +0.7**
SATY Saty 47.59 298*c i*P **P 10 14 26.3 +0.5**
SATY pmax pmax
comp=Z,91nm,1.4s
SATY Saty 47.59 298⇑ *i*P **P 10 14 26.4 +0.5**
comp=Z,91nm,1.4s
KDAK Kodiak Island 47.59 42 LR LR 10 34 09.5
comp=Z,1µm,21.9s,baz=242,slow=36
KDAK Kodiak Island 47.59 42⇑ *e*P **P 10 14 26.3 +0.9**
KDAK pmax pmax
comp=Z,63nm,0.7s
KDAK Kodiak Island 47.59 42 P **P 10 14 26.6 +1.2**
comp=Z,75nm,0.7s
KDAK Kodiak Island 47.59 42 P **P 10 14 26.4 +0.9**
KDAK pP **pP 10 14 37.9 +1.0**
PRZ Przheval'sk 47.74 297 P **P 10 14 28.7 +1.6**
comp=Z,5µmcomp=Z,376nm,0.9s
MMRI Maumere 48.36 205 P **P 10 14 31.8 0.0**
comp=Z,1µmcomp=Z,4µmcomp=Z,196nm,1.8s
MMRI Maumere 48.36 205 P **P 10 14 31.2 -0.6**
comp=Z,3µmcomp=Z,198nm,1.9s
TARG Taragay, Kyrgy 48.37 297 P **P 10 14 33.5 +1.3**
comp=Z,3µmcomp=Z,453nm,0.9s
KULM Kulim 48.38 240 P **P 10 14 32.2 +0.2**
KULM Kulim 48.38 240 P **P 10 14 31.5 -0.5**
comp=Z,2µmcomp=Z,180nm,1.2s
KULM Kulim 48.38 240 P **P 10 14 32.6 +0.5**
comp=Z,2µmcomp=Z,180nm,1.2s,comp=Z,2µm
MDOK Medeo 48.52 299 *e*P **P 10 14 33.7 +0.6**
MDOK Medeo 48.52 299 *e*P **P 10 14 33.7 +0.6**
AAA Alma-Ata 48.61 299 *e*P **P 10 14 34.2 +0.6**
AAA pmax pmax
comp=Z,95nm,0.7s
AAA Alma-Ata 48.61 299 *e*P **P 10 14 34.2 +0.6**
comp=Z,95nm,0.7s
TNSS Tian-Shan 48.63 298 *e*P **P 10 14 34.4 +0.2**
TNSS Tian-Shan 48.63 298 *e*P **P 10 14 34.4 +0.2**
EDFI Ende, Flores 48.66 206 P **P 10 14 33.3 -0.9**
comp=Z,2µmcomp=Z,96nm,1.3s
IPM Ipoh 48.70 239 P **P 10 14 33.3 -1.2**
IPM Ipoh 48.70 239 P **P 10 14 34.4 -0.1**
IPM Ipoh 48.70 239 P **P 10 14 33.9 -0.6**
comp=Z,3µmcomp=Z,397nm,1.1s
IPM Ipoh 48.70 239 P **P 10 14 34.5 -0.1**
comp=Z,3µmcomp=Z,397nm,1.1s,comp=Z,3µm
KDJ Kajisay 48.70 297 P **P 10 14 35.3 +0.8**
KDJ pmax pmax
comp=Z,120nm,0.8s
KDJ Kajisay 48.70 297 P **P 10 14 35.3 +0.8**
KDJ lAmb lAmb 10 14 36.0
comp=Z,120nm,0.8s
SOEI Soe 48.75 202 P **P 10 14 34.4 -0.5**
SOEI Soe 48.75 202 P **P 10 14 35.1 +0.2**
SOEI Soe 48.75 202 P **P 10 14 35.4 +0.4**
SOEI Soe 48.75 202 P **P 10 14 34.5 -0.5**
comp=Z,4µmcomp=Z,299nm,1.1s
SOEI Soe 48.75 202 P **P 10 14 34.9 -0.1**
comp=Z,4µmcomp=Z,300nm,1.1s
SOEI pP **pP 10 14 46.1 -0.5**
SAVO Savo Central 48.79 155 P **P 10 14 36.7 +1.6**
TPRI Tanjung Pinang 49.03 232 P **P 10 14 37.1 +0.1**
comp=Z,4µmcomp=Z,407nm,1.1s
LBFI Labuhan Bajo, 49.07 208 P **P 10 14 35.7 -1.5**
HNR Honiara 49.10 155 LR LR 10 33 27.0
comp=Z,1µm,21.9s,baz=45,slow=34
PMR Palmer 49.12 36 P **P 10 14 37.8 +0.6**
BTDF Bukit Timah Da 49.17 233 P **P 10 14 38.8 +0.7**
BTDF Bukit Timah Da 49.17 233 P **P 10 14 38.3 +0.2**
comp=Z,163nm,1.1s
ASAI AK-SAY(Kyrgyzs 49.52 296 P **P 10 14 42.1 +1.1**
comp=Z,3µmcomp=Z,231nm,1.1s
COLA College 49.58 32 P **P 10 14 42.3 +1.7**
COLA College 49.58 32 P **P 10 14 42.3 +1.7**
COLA College 49.58 32 P **P 10 14 42.5 +1.9**
comp=Z,49nm,0.9s
KDU Kakadu 49.69 191 P **P 10 14 42.0 0.0**
comp=Z,72nm,1.1s
DRS Darwin Rock St 49.70 193 P **P 10 14 42.9 +0.9**
DBNI Kabupaten Domp 49.71 210 P **P 10 14 41.2 -0.9**
PBA Port Blair 49.98 253 P **P 10 14 44.8 +0.6**
PBA Port Blair 49.98 253 P **P 10 14 45.2 +0.9**
ILAR Eielson Array 50.00 32 P **P 10 14 44.6 +0.8**
comp=Z,31nm,0.8s,baz=270,slow=6.3,SNR=273
ILAR LR LR 10 35 02.3
comp=Z,335nm,21.5s,baz=261,slow=35
comp=Z,31nm,0.8s
TPI Tanjungpandan 50.03 226 P **P 10 14 44.4 -0.2**
comp=Z,4µmcomp=Z,402nm,1.1s
MTN Manton Dam 50.07 193 P **P 10 14 44.7 -0.1**
comp=Z,51nm,1.1s
MTN Manton Dam 50.07 193 P **P 10 14 44.3 -0.5**
PLAI Plampang 50.22 211 P **P 10 14 44.3 -1.7**
PLAI Plampang 50.22 211 P **P 10 14 43.9 -2.1**
comp=Z,2µmcomp=Z,140nm,1.6s
PLAI Plampang 50.22 211 P **P 10 14 45.0 -1.0**
comp=Z,2µmcomp=Z,139nm,1.6s
COEN Coen 50.32 177 P **P 10 14 47.4 +0.6**
comp=Z,91nm,0.7s
KMMI Kalianget 50.32 216 P **P 10 14 46.9 +0.1**
comp=Z,1µmcomp=Z,4µmcomp=Z,376nm,1.2s
FRU1 Bishkek 50.33 299 P **P 10 14 47.5 +0.8**
FRU1 pmax pmax
comp=Z,218nm,0.7s
FRU1 Bishkek 50.33 299 P **P 10 14 47.5 +0.8**
F25K Christian Rive 50.42 28 P **P 10 14 48.8 +1.7**
AAK Ala-Archa 50.47 299 LR LR 10 37 28.1
comp=Z,7µm,19.4s,baz=74,slow=38
AAK Ala-Archa 50.47 299 *i*P **P 10 14 48.5 +0.6**
SNR=65
AAK Ala-Archa 50.47 299 P **P 10 14 48.7 +0.7**
AAK Ala-Archa 50.47 299 P **P 10 14 48.8 +0.9**
AAK pmax pmax
comp=Z,113nm,0.9s
AAK Ala-Archa 50.47 299 P **P 10 14 48.8 +0.9**
AAK lAmb lAmb 10 14 51.2
comp=Z,113nm,0.9s
AAK Ala-Archa 50.47 299 P **P 10 14 48.7 +0.7**
comp=Z,2µmcomp=Z,128nm,0.7s,comp=Z,2µm
AAK Ala-Archa 50.47 299 P **P 10 14 48.5 +0.6**
AAK sP **sP 10 15 04.8 +0.2**
SRBI Singaraja 50.66 214 P **P 10 14 49.4 +0.1**
comp=Z,3µmcomp=Z,258nm,1.2s
C26K Camden Bay 50.67 25 P **P 10 14 50.5 +1.6**
C26K lAmb lAmb 10 15 07.6
comp=Z,137nm,1.2s
BVAR Borovoye Array 50.68 313 P **P 10 14 49.3 +0.2**
comp=Z,188nm,0.7s,baz=75,slow=7.0,SNR=853
BVAR PcP **PcP 10 16 06.2 +0.2**
comp=Z,62nm,0.8s,baz=49,slow=2.7,SNR=4.1
comp=Z,188nm,0.7s
BORK Borovoye 50.72 313 P **P 10 14 50.1 +0.7**
BORK pmax pmax
comp=Z,292nm,1.0s
BORK Borovoye 50.72 313 P **P 10 14 50.1 +0.7**
KHKI Kahang-Kahang 50.73 213 P **P 10 14 50.7 +0.9**
comp=Z,9µmcomp=Z,737nm,1.5s
KSH2 Kashi 50.77 294 P **P 10 14 51.4 +1.2**
KSH2 S **S 10 22 03.3 +0.2**
KSH2 pmax pmax
comp=Z,280nm,0.8s
KSH2 L L
comp=Z,3µm,17.2s
KSH2 L L
comp=Z,2µm,16.5s
KSH2 L L
comp=Z,4µm,17.9s
ABJI Asem Bagus 50.85 215 P **P 10 14 51.1 +0.3**
comp=Z,2µmcomp=Z,4µmcomp=Z,276nm,1.4s
LHMI Lhok Sumawe 51.04 243 P **P 10 14 53.1 +0.8**
LHMI Lhok Sumawe 51.04 243 P **P 10 14 53.4 +1.1**
comp=Z,2µmcomp=Z,6µmcomp=Z,622nm,1.1s
LHMI Lhok Sumawe 51.04 243 P **P 10 14 54.1 +1.8**
comp=Z,6µmcomp=Z,620nm,1.1s
TSI Tuntungan 51.10 240 P **P 10 14 51.2 -1.6**
comp=Z,2µmcomp=Z,4µmcomp=Z,145nm,0.7s
BLJI Banyuglugur 51.10 216 P **P 10 14 51.7 -1.0**
comp=Z,78nm,1.0s
RTBI Rangdo, Negare 51.11 214 P **P 10 14 52.6 -0.2**
comp=Z,4µmcomp=Z,291nm,1.2s
TBJI Tambak Boyo 51.15 219 P **P 10 14 54.0 +0.9**
comp=Z,6µmcomp=Z,449nm,1.3s
IGBI Denpasar 51.34 214 P **P 10 14 54.0 -0.4**
comp=Z,2µmcomp=Z,169nm,1.0s
PSI Prapat 51.35 239 P **P 10 14 54.2 -0.6**
RPSI Rantau Prapat 51.43 239 P **P 10 14 54.9 -0.3**
comp=Z,2µmcomp=Z,225nm,0.9s
JAGI Jajag, Banyuwa 51.48 215 P **P 10 14 55.3 -0.2**
JAGI Jajag, Banyuwa 51.48 215 P **P 10 14 55.0 -0.5**
comp=Z,2µmcomp=Z,151nm,1.1s
JAGI Jajag, Banyuwa 51.48 215 P **P 10 14 54.3 -1.2**
comp=Z,2µmcomp=Z,152nm,1.4s
JAGI pP **pP 10 15 05.7 -1.6**
MENT Mentasta 51.54 34 P **P 10 14 57.3 +1.8**
JMBI JAMBI 51.55 231 P **P 10 14 58.9 +2.8**
comp=Z,8µmcomp=Z,640nm,1.2s
KCSI Kotacane, Aceh 51.64 241 P **P 10 14 55.3 -1.5**
comp=Z,111nm,0.9s
BKNI Bangkinang 51.73 235 P **P 10 14 57.9 +0.4**
BKNI Bangkinang 51.73 235 P **P 10 14 58.4 +0.9**
BKNI Bangkinang 51.73 235 P **P 10 14 58.2 +0.7**
BKNI Bangkinang 51.73 235 P **P 10 14 58.5 +1.0**
comp=Z,10µmcomp=Z,1µm,1.1s
PMBI Palembang 51.87 229 P **P 10 14 59.8 +1.3**
PMBI Palembang 51.87 229 P **P 10 15 01.0 +2.5**
SJI Sawahan 51.98 218 P **P 10 14 59.0 -0.4**
comp=Z,593nm,1.5s
SNJI Sawahan-Nganju 52.02 218 P **P 10 15 00.2 +0.4**
comp=Z,3µmcomp=Z,224nm,1.6s
BSI Banda Aceh 52.05 245 P **P 10 14 59.7 -0.2**
comp=Z,92nm,1.2s
SMRI Semarang 52.07 220 P **P 10 15 00.8 +0.9**
SMRI Semarang 52.07 220 P **P 10 15 00.8 +0.9**
comp=Z,5µmcomp=Z,353nm,1.3s
SMRI Semarang 52.07 220 P **P 10 15 00.7 +0.8**
comp=Z,5µmcomp=Z,351nm,1.1s
MLSI Meulaboh, Aceh 52.09 243 P **P 10 14 59.3 -0.9**
PWJI Pagerwojo 52.21 218 P **P 10 14 59.8 -1.1**
TPTI 52.24 241 P **P 10 14 59.7 -1.6**
comp=Z,95nm,1.2s
MNSI Mandailing Nat 52.36 237 P **P 10 15 02.3 +0.2**
comp=Z,145nm,0.7s
CTJI Waduk Cacaban 52.69 221 P **P 10 15 04.9 +0.4**
comp=Z,5µmcomp=Z,364nm,1.5s
PPI Padang Panjang 52.74 235 P **P 10 15 05.3 +0.3**
comp=Z,2µmcomp=Z,83nm,1.1s
UGM Wanagama 52.76 219 P **P 10 15 04.7 -0.4**
UGM Wanagama 52.76 219 P **P 10 15 04.6 -0.5**
UGM Wanagama 52.76 219 P **P 10 15 04.6 -0.5**
comp=Z,11µmcomp=Z,968nm,1.3s
YOGI Yogyakarta 52.79 220 P **P 10 15 05.3 0.0**
KK31 Karatay Array 53.12 300 *i*P **P 10 15 07.7 +0.2**
KK31 pmax pmax
comp=Z,387nm,1.0s
SCJI Gunung Srandil 53.26 221 P **P 10 15 07.9 -0.8**
KNRA Kununurra 53.28 195 P **P 10 15 09.4 +0.6**
comp=Z,56nm,1.0s
SNSI Sinabang, Aceh 53.45 241 P **P 10 15 10.9 +0.8**
MASI Maura Aman, Be 53.60 231 P **P 10 15 11.4 +0.1**
BRLS Borolday 53.62 300*c i*P **P 10 15 13.0 +1.9**
BRLS pmax pmax
comp=Z,83nm,0.8s
BRLS Borolday 53.62 300⇑ *i*P **P 10 15 13.1 +1.9**
comp=Z,83nm,0.8s
SBJI Serang 53.64 225 P **P 10 15 11.8 +0.3**
comp=Z,6µmcomp=Z,187nm,0.9s
IUG Iuzhnay 53.77 299*c i*P **P 10 15 13.0 +0.6**
IUG Iuzhnay 53.77 299⇑ *i*P **P 10 15 13.0 +0.6**
KSI Kapahiang 53.78 230 P **P 10 15 13.3 +0.7**
comp=Z,201nm,0.8s
PBSI Pulau Batu 53.86 237 P **P 10 15 13.3 +0.1**
comp=Z,577nm,1.5s
BBJI Bungbulang 53.90 223 P **P 10 15 11.4 -2.0**
BBJI Bungbulang 53.90 223 P **P 10 15 11.4 -2.0**
BBJI Bungbulang 53.90 223 P **P 10 15 11.5 -2.0**
comp=Z,588nmcomp=Z,46nm,0.8s,comp=Z,588nm
CHM Chimkent 54.01 300 *e*P **P 10 15 14.6 +0.6**
CHM pmax pmax
comp=Z,86nm,0.7s
CHM Chimkent 54.01 300 *e*P **P 10 15 14.6 +0.6**
comp=Z,86nm,0.7s
SKJI Sukabumi 54.12 224 P **P 10 15 13.6 -1.4**
comp=Z,255nm,0.8s
CGJI Cibinong 54.29 225 P **P 10 15 14.4 -1.8**
NIL Nilore 54.51 288 P **P 10 15 18.7 +0.9**
NIL Nilore 54.51 288 P **P 10 15 18.8 +1.0**
MTSU Mount Surprise 54.52 176 P **P 10 15 19.0 +1.1**
comp=Z,14nm,0.9s
MTSU Mount Surprise 54.52 176 P **P 10 15 19.1 +1.3**
MTSU Mount Surprise 54.52 176 P **P 10 15 19.2 +1.3**
comp=Z,14nm,0.9s
KIP Kipapa 54.52 88 P **P 10 15 19.4 +1.4**
INK Inuvik 54.89 27 P **P 10 15 21.6 +1.7**
comp=Z,83nm,0.9s
SVE Sverdlovsk 55.31 319*d i*P **P 10 15 23.9 +0.8**
SVE pmax pmax
comp=Z,739nm,0.9s
SVE MLR MLR
comp=Z,3µm,16.0s
SKAG Skagway 56.19 38 P **P 10 15 31.2 +1.8**
FITZ Fitzroy Crossi 56.33 198 P **P 10 15 31.4 +0.7**
FITZ Fitzroy Crossi 56.33 198 LR LR 10 39 15.3
comp=Z,156nm,19.2s,baz=25,slow=36
FITZ Fitzroy Crossi 56.33 198 P **P 10 15 31.4 +0.7**
FITZ Fitzroy Crossi 56.33 198 P **P 10 15 31.7 +0.9**
comp=Z,276nmcomp=Z,59nm,1.1s
FARO Faro, Yukon 56.38 34 P **P 10 15 32.7 +1.9**
FARO lAmb lAmb 10 15 48.6
comp=Z,134nm,1.2s
WB0 Warramunga Arr 56.42 188 P **P 10 15 30.9 -0.5**
WB0 lAmb lAmb 10 15 46.9
comp=Z,69nm,0.8s
WRAB Tennant Creek 56.59 188 P **P 10 15 32.2 -0.4**
WRAB Tennant Creek 56.59 188*c i*P **P 10 15 32.3 -0.4**
WRAB pmax pmax
comp=Z,58nm,0.9s
WRAB Tennant Creek 56.59 188 P **P 10 15 32.6 -0.1**
comp=Z,996nmcomp=Z,105nm,1.3s
CTA Charters Tower 56.59 174 P **P 10 15 33.2 +0.5**
CTA Charters Tower 56.59 174 LR LR 10 39 40.7
comp=Z,408nm,21.2s,baz=344,slow=36
CTA Charters Tower 56.59 174 P **P 10 15 33.1 +0.5**
WR8 Warramunga Arr 56.59 187 P **P 10 15 32.3 -0.4**
WRA Warramunga Arr 56.60 188 P **P 10 15 32.1 -0.6**
comp=Z,42nm,0.7s,baz=5.2,slow=7.4,SNR=174
WRA ScP **ScP 10 20 24.9 +0.1**
comp=Z,9.3nm,1.2s,baz=6.0,slow=4.9,SNR=6.1
WRA LR LR 10 38 50.0
comp=Z,554nm,21.7s,baz=90,slow=35
WRA PKPPKP P'P'df 10 45 32.4 +12
comp=Z,2.4nm,1.1s,baz=184,slow=2.1,SNR=8.3
comp=Z,42nm,0.7s
WRA Warramunga Arr 56.60 188 P **P 10 15 31.8 -0.9**
ARTI Arti 56.62 319 LR LR 10 42 03.2
comp=Z,2µm,18.1s,baz=76,slow=38
ARTI Arti 56.62 319 P **P 10 15 33.1 +0.5**
ARTI pmax pmax
comp=Z,1µm,0.6s
ARTI Arti 56.62 319 P **P 10 15 33.1 +0.5**
ARTI Arti 56.62 319 P **P 10 15 32.7 +0.1**
ARTI PcP **PcP 10 16 28.5 0.0**
A36M Sachs Harbour 56.76 22 P **P 10 15 34.7 +1.4**
N32M Quiet Lake 56.80 35 P **P 10 15 34.5 +0.7**
QIS Mount Isa 56.86 182 P **P 10 15 34.6 0.0**
comp=Z,31nm,1.0s
QIS Mount Isa 56.86 182 P **P 10 15 34.1 -0.5**
QIS Mount Isa 56.86 182 P **P 10 15 34.7 +0.1**
comp=Z,902nmcomp=Z,31nm,1.0s
JIS Juneau Island 57.00 39 P **P 10 15 34.8 -0.4**
KBL Kabul 57.33 291 P **P 10 15 37.8 -0.4**
SNR=146
KBL Kabul 57.33 291 P **P 10 15 37.8 -0.4**
KBL pmax pmax
comp=Z,326nm,1.1s
KBL Kabul 57.33 291 P **P 10 15 37.8 -0.4**
KBL Kabul 57.33 291 P **P 10 15 38.2 -0.1**
comp=Z,3µmcomp=Z,308nm,1.0s
SANVU Saraoutou 57.33 150 P **P 10 15 39.5 +1.5**
SANVU Saraoutou 57.33 150 P **P 10 15 37.9 -0.1**
C36M Paulatuk 57.93 25 P **P 10 15 42.0 +0.5**
C36M lAmb lAmb 10 15 45.5
comp=Z,76nm,0.8s
HYB Hyderabad 57.94 269 *e*P **P 10 15 42.6 +0.2**
HYB lVmB_BB 10 15 42.9
comp=Z,2µm,1.1s
HYB *e*PP **PP 10 17 51.3 +0.2**
HYB *e*ScP **ScP 10 20 32.0 +0.9**
HYB *e*S **S 10 23 39.4 -0.4**
HYB *e*ScS **ScS 10 25 29.1 +0.1**
HYB *e*SS **SS 10 27 35.3 +4.1**
HYB lVMs_BB lVMs_BB 10 41 39.0
comp=Z,486nm,24.6s
AB31 Akbulak array 58.03 310 *i*P **P 10 15 42.3 -0.3**
AB31 pmax pmax
comp=Z,129nm,0.6s
AB31 Akbulak array 58.03 310 P **P 10 15 42.2 -0.4**
ABKAR Akbulak array 58.03 310 P **P 10 15 42.4 -0.2**
AKTO Aktyubinsk 58.78 312 LR LR 10 42 17.7
comp=Z,2µm,19.2s,baz=71,slow=37
AKTO Aktyubinsk 58.78 312 P **P 10 15 47.5 -0.3**
AKTO pmax pmax
comp=Z,101nm,0.8s
DLBC Dease Lake 59.12 38 LR LR 10 41 50.5
comp=Z,170nm,21.9s,baz=255,slow=36
T35M Bob Quinn 59.53 39 P **P 10 15 55.1 +2.2**
AUNRC North Rockhamp 60.29 170 P **P 10 15 59.2 +0.9**
AS15 Alice Springs 60.29 188 P **P 10 15 59.0 +0.6**
AS17 Alice Springs 60.31 188 P **P 10 15 59.0 +0.3**
AS01 Alice Springs 60.32 188 P **P 10 15 58.9 +0.3**
AS31 Alice Springs 60.32 188 P **P 10 15 58.7 +0.1**
comp=Z,12nm,0.6s
AS31 Alice Springs 60.32 188 P **P 10 15 58.7 +0.1**
ASAR Alice Springs 60.32 188 P **P 10 15 58.6 0.0**
comp=Z,29nm,0.8s,baz=11,slow=7.1,SNR=254
ASAR LR LR 10 40 55.6
comp=Z,761nm,22.0s,baz=356,slow=35
ASAR PKPPKP P'P'df 10 45 23.8 +8.5
comp=Z,1.2nm,0.8s,baz=165,slow=3.8,SNR=5.6
comp=Z,29nm,0.8s
AUALC St Philip's Co 60.35 188 P **P 10 15 59.0 +0.2**
AS09 Alice Springs 60.35 188 P **P 10 15 59.0 +0.2**
HOPEN Hopen 60.40 346 *e*P **P 10 15 59.6 +1.1**
KIRV Kirov 60.44 323 LR LR 10 44 20.2
comp=Z,2µm,18.6s,baz=63,slow=38
KIRV Kirov 60.44 323*c i*P **P 10 15 59.3 +0.2**
ALE Alert 60.56 3 P **P 10 16 00.1 +0.5**
ALE pP **pP 10 16 12.2 +0.6**
MBWA Marble Bar 60.89 203 P **P 10 16 02.9 +0.3**
comp=Z,114nm,1.4s
MBWA Marble Bar 60.89 203 P **P 10 16 02.6 +0.1**
MBWA Marble Bar 60.89 203 P **P 10 16 02.4 -0.1**
MBWA Marble Bar 60.89 203 P **P 10 16 02.3 -0.3**
MBWA lAmb lAmb 10 16 03.8
comp=Z,86nm,1.0s
MBWA Marble Bar 60.89 203 P **P 10 16 02.8 +0.3**
comp=Z,1µmcomp=Z,114nm,1.4s
MBWA Marble Bar 60.89 203 P **P 10 16 02.4 -0.1**
MBWA pP **pP 10 16 14.6 +0.2**
SPA0 Spitsbergen Ar 60.90 349 *e*P **P 10 16 02.6 +0.6**
SPA0 lAmb lAmb 10 16 18.3
comp=Z,112nm,1.1s
SPB2 Spitsbergen Ar 60.90 349 P **P 10 16 02.4 +0.4**
SPB2 lAmb lAmb 10 16 28.4
comp=Z,71nm,1.0s
SPITS Spitsbergen Ar 60.90 349 P **P 10 16 02.3 +0.3**
comp=Z,35nm,0.9s,baz=82,slow=8.8,SNR=22
SPITS LR LR 10 43 36.5
comp=Z,887nm,21.9s,baz=44,slow=37
comp=Z,35nm,0.9s
KBS Kingsbay 61.04 350 P **P 10 16 04.2 +1.3**
comp=Z,144nm,1.2s
KBS Kingsbay 61.04 350 *i*P **P 10 16 04.1 +1.2**
NOR Nord 61.47 356 P **P 10 16 06.3 +0.5**
comp=Z,1µmcomp=Z,71nm,1.8s
NOR Nord 61.47 356 *i*P **P 10 16 06.2 +0.4**
NOR lAmb lAmb 10 16 06.7
comp=Z,43nm,0.8s
MALK Mahakanadarawa 61.48 259 P **P 10 16 07.3 +0.5**
MALK Mahakanadarawa 61.48 259 P **P 10 16 07.5 +0.7**
comp=Z,2µmcomp=Z,215nm,1.1s
PALK Pallekele 62.03 258 P **P 10 16 11.2 +0.6**
comp=Z,139nm,0.9s,baz=49,slow=6.5,SNR=40
PALK LR LR 10 45 45.6
comp=Z,1µm,20.0s,baz=45,slow=39
comp=Z,139nm,0.9s
PALK Pallekele 62.03 258 *i*P **P 10 16 11.2 +0.6**
SNR=21
PALK Pallekele 62.03 258 P **P 10 16 09.9 -0.6**
PALK P **P 10 16 10.7 +0.2**
PALK Pallekele 62.03 258 P **P 10 16 11.4 +0.9**
PALK Pallekele 62.03 258 P **P 10 16 10.5 0.0**
PALK Pallekele 62.03 258 P **P 10 16 11.4 +0.9**
comp=Z,2µmcomp=Z,222nm,1.3s
PALK Pallekele 62.03 258 P **P 10 16 10.8 +0.2**
EIDS Eidsvold 62.35 170 P **P 10 16 13.8 +1.5**
comp=Z,51nm,1.0s
EIDS Eidsvold 62.35 170 P **P 10 16 13.5 +1.2**
EIDS Eidsvold 62.35 170 P **P 10 16 13.1 +0.8**
EIDS lAmb lAmb 10 16 27.8
comp=Z,52nm,1.1s
EIDS Eidsvold 62.35 170 P **P 10 16 13.8 +1.5**
comp=Z,727nmcomp=Z,51nm,1.0s
EIDS pP **pP 10 16 26.0 +1.9**
LVZ Lovozero 62.40 336*de*P **P 10 16 12.8 +0.5**
LVZ pmax pmax
comp=Z,56nm,0.9s
LVZ Lovozero 62.40 336 P **P 10 16 12.2 -0.1**
LVZ lAmb lAmb 10 16 15.9
comp=Z,52nm,0.7s
LVZ Lovozero 62.40 336 P **P 10 16 12.5 +0.2**
comp=Z,85nm,1.1s
LVZ Lovozero 62.40 336 P **P 10 16 12.8 +0.5**
comp=Z,79nm,1.1s
HRA Herat 62.46 294 P **P 10 16 14.3 +0.9**
WRKA Warakurna 62.48 193 P **P 10 16 13.8 +0.5**
comp=Z,42nm,0.9s
VADS Vadso 62.88 339 *e*P **P 10 16 15.9 +0.5**
VADS lAmb lAmb 10 16 16.7
comp=Z,227nm,1.1s
QLP Quilpie 62.91 177 P **P 10 16 16.4 +0.4**
comp=Z,84nm,0.9s
QLP Quilpie 62.91 177 P **P 10 16 15.9 -0.1**
QLP Quilpie 62.91 177 P **P 10 16 16.4 +0.4**
comp=Z,1µmcomp=Z,84nm,0.9s
APA Apatity 62.98 336 *e*P **P 10 16 13.9 -2.1**
APA *e* 10 16 50.3
APA *e* 10 18 31.0
APA *e*S **S 10 24 37.3 -5.6**
APA *e* 10 26 06.6
APA *e*SS **SS 10 28 47.7 -0.3**
APA pmax pmax
comp=Z,76nm,1.0s
APA MLR MLR
comp=Z,5µm,17.4s
ADZR Andozero 63.02 331 *e*P **P 10 16 14.9 -1.4**
ADZR *e*PP **pP 10 16 27.8 -0.6**
ADZR *e* 10 18 33.5
ADZR pmax pmax
comp=Z,414nm,1.4s
NOUC Port Laguerre 63.05 154 P **P 10 16 18.9 +1.9**
RES Resolute Bay 63.08 14 LR LR 10 45 28.6
comp=Z,391nm,20.8s,baz=329,slow=38
RES Resolute Bay 63.08 14 P **P 10 16 16.9 +0.3**
RES pmax pmax
comp=Z,82nm,1.0s
RES Resolute Bay 63.08 14 P **P 10 16 16.9 +0.3**
RES lAmb lAmb 10 16 18.3
comp=Z,82nm,0.9s
RES Resolute Bay 63.08 14 P **P 10 16 17.3 +0.7**
comp=Z,97nm,0.9s
KEV Kevo 63.76 339 P **P 10 16 21.2 0.0**
KEV pmax pmax
comp=Z,99nm,1.0s
KEV Kevo 63.76 339 P **P 10 16 21.2 0.0**
KEV lAmb lAmb 10 16 22.8
comp=Z,98nm,1.0s
KEV Kevo 63.76 339 P **P 10 16 21.8 +0.7**
comp=Z,5µmcomp=Z,129nm,1.1s
KEV Kevo 63.76 339 P **P 10 16 21.6 +0.4**
KEV sP **sP 10 16 38.1 +0.1**

BELG Belogornoye 63.95 317 LR LR 10 46 36.3
comp=Z,3µm,18.0s,baz=65,slow=38
BELG Belogornoye 63.95 317*c* iP **P** **10 16 22.5 -0.1**
BELG pmax pmax
comp=Z,116nm,1.0s
COCO West Island 63.96 229 P **P** **10 16 23.9 +0.7**
COCO West Island 63.96 229 P **P** **10 16 24.7 +1.5**
COCO West Island 63.96 229 *i* P **P** **10 16 25.1 +1.9**
COCO West Island 63.96 229 P **P** **10 16 23.0 -0.2**
COCO West Island 63.96 229 P **P** **10 16 24.2 +1.1**
comp=Z,293nm,1.0s
KLMR Klimovskoe 63.99 328 *e*P **P** **10 16 21.5 -1.3**
KLMR *e* 10 18 41.3
KLMR S **S** **10 24 55.9 +0.3**
KLMR SS **SS** **10 29 10.2 +6.2**
KLMR pmax pmax
comp=Z,311nm,1.2s
INKA Innaminka 64.00 180 P **P** **10 16 23.5 +0.4**
AUBSH Beerwah State 64.10 168 P **P** **10 16 25.3 +1.5**
HAMF Hammerfest 64.14 341 *e*P **P** **10 16 23.6 0.0**
HAMF IAmb IAmb 10 16 24.5
comp=Z,101nm,1.0s
YKA Yellowknife Ar 64.31 30 P **P** **10 16 25.7 +0.8**
comp=Z,16nm,0.8s,baz=303,slow=6.6,SNR=111
YKA LR LR 10 43 56.0
comp=Z,281nm,21.8s,baz=282,slow=36
YKA PKPPKP **P'P'df** **10 45 14.8 -5.0**
comp=Z,3.0nm,1.1s,baz=112,slow=2.7,SNR=11
comp=Z,16nm,0.8s
ARA0 ARCESS Array S 64.31 339 *e*P **P** **10 16 25.3 +0.5**
ARA0 IAmb IAmb 10 16 26.2
comp=Z,103nm,1.0s
ARCES ARCESS Array B 64.31 339 P **P** **10 16 24.9 +0.1**
comp=Z,62nm,0.9s,baz=57,slow=8.2,SNR=74
ARCES PP **PP** **10 18 45.9 -0.2**
comp=Z,26nm,0.9s,baz=57,slow=8.8,SNR=4.3
ARCES LR LR 10 48 59.7
comp=Z,1µm,18.4s,baz=60,slow=40
comp=Z,62nm,0.9s
ARCES ARCESS Array B 64.31 339 P **P** **10 16 25.5 +0.7**
ARCES pmax pmax
comp=Z,102nm,1.1s
ARCES ARCESS Array B 64.31 339 P **P** **10 16 25.5 +0.7**
ARCES IAmb IAmb 10 16 26.5
comp=Z,102nm,1.1s
MSVF Nonsavu 64.33 141 LR LR 10 38 46.9
comp=Z,922nm,22.0s,baz=333,slow=31
MSVF Nonsavu 64.33 141 P **P** **10 16 27.4 +1.8**
MSVF Nonsavu 64.33 141 P **P** **10 16 25.9 +0.3**
MSVF pmax pmax
comp=Z,91nm,1.4s
MSVF Nonsavu 64.33 141 P **P** **10 16 25.9 +0.3**
MSVF IAmb IAmb 10 16 43.1
comp=Z,91nm,1.4s
SGF Sodankyl 65.26 337 P **P** **10 16 31.6 +0.7**
comp=Z,170nm,1.4s
KTK1 Kautokeino 65.28 339 *e*P **P** **10 16 31.4 +0.3**
KTK1 IAmb IAmb 10 16 32.4
comp=Z,100nm,0.9s
MSF Maaselka 65.34 335 P **P** **10 16 32.2 +0.7**
comp=Z,133nm,1.2s
GC1S Gold Coast 1 S 65.47 168 P **P** **10 16 33.2 +0.5**
JETT Jettan, Norway 65.70 341 *e*P **P** **10 16 34.4 +0.5**
JETT IAmb IAmb 10 16 38.8
comp=Z,106nm,1.2s
NEEM North Greenlan 65.97 3 *i* P **P** **10 16 35.7 -0.2**
NEEM IAmb IAmb 10 16 37.4
comp=Z,84nm,1.1s
AULRC Lightning Ridg 66.00 173 P **P** **10 16 36.9 +0.8**
TRO Tromso 66.04 341 *e*P **P** **10 16 36.0 0.0**
TRO IAmb IAmb 10 16 37.1
comp=Z,78nm,0.9s
DAG Danmarks Havn 66.19 355 P **P** **10 16 37.0 +0.2**
comp=Z,134nm,1.2s
DAG Danmarks Havn 66.19 355 *i* P **P** **10 16 37.1 +0.2**
DAG IAmb IAmb 10 16 38.1
comp=Z,121nm,1.1s
MEEK Meekatharra 66.37 202 P **P** **10 16 38.5 -0.2**
comp=Z,37nm,0.8s
MEEK Meekatharra 66.37 202 P **P** **10 16 38.4 -0.2**
MEEK Meekatharra 66.37 202 P **P** **10 16 38.5 -0.2**
comp=Z,37nm,0.8s
OUL Oulu 66.88 335 P **P** **10 16 41.9 +0.5**
comp=Z,205nm,1.1s
ARMA Armidale 67.39 170 P **P** **10 16 47.1 +2.0**
comp=Z,45nm,0.9s
ARMA Armidale 67.39 170 P **P** **10 16 46.5 +1.3**
ARMA Armidale 67.39 170 P **P** **10 16 45.6 +0.5**
ARMA Armidale 67.39 170 P **P** **10 16 47.1 +2.0**
comp=Z,45nm,0.9s
MOS Moscow 67.45 323 *e*P **P** **10 16 45.4 +0.2**
MOS *e* 10 17 03.1
MOS *e* 10 17 12.9
MOS *e* 10 19 14.0
MOS *e*PPP PPP 10 20 50.6
MOS *e*S **S** **10 25 37.9 -0.1**
MOS *e* 10 26 17.9
MOS *e* 10 26 42.2
MOS *e*SS **SS** **10 29 58.1 +0.3**
MOS pmax pmax
comp=Z,277nm,1.1s
MOS pmax pmax
comp=N,135nm,0.9s
MOS pmax pmax
comp=E,159nm,1.2s
MOS pmax pmax
comp=Z,500nm,1.3s
MOS pmax pmax
comp=E,100nm,0.9s
NGCH Negor - Chabah 67.68 286 P **P** **10 16 48.0 +0.9**
SNR=8.2
POIN Pond Inlet 67.70 12 P **P** **10 16 46.9 +0.5**
POIN IAmb IAmb 10 16 47.9
comp=Z,44nm,0.9s
VRH Novokhopyorsk 67.73 318*c* iP **P** **10 16 46.5 -0.5**
VRH pmax pmax
comp=Z,165nm,0.6s
CMSA Cobar Meteorol 67.92 176 P **P** **10 16 49.6 +1.3**
comp=Z,38nm,1.2s
CMSA Cobar Meteorol 67.92 176 P **P** **10 16 49.0 +0.7**
CMSA Cobar Meteorol 67.92 176 P **P** **10 16 49.5 +1.3**
comp=Z,38nm,1.2s
AUPHS Peel High Scho 67.97 171 P **P** **10 16 50.0 +1.4**
STKA Stephens Creek 68.12 180 P **P** **10 16 50.2 +0.6**
comp=Z,148nm,0.8s
STKA Stephens Creek 68.12 180 P **P** **10 16 50.1 +0.5**
comp=Z,21nm,0.7s,baz=346,slow=7.3,SNR=48
STKA LR LR 10 45 23.9
comp=Z,388nm,21.8s,baz=358,slow=35
comp=Z,21nm,0.7s
STKA Stephens Creek 68.12 180 P **P** **10 16 50.0 +0.5**
STKA Stephens Creek 68.12 180 P **P** **10 16 50.0 +0.4**
STKA IAmb IAmb 10 17 06.7
comp=Z,109nm,0.8s
STKA Stephens Creek 68.12 180 P **P** **10 16 50.2 +0.6**
comp=Z,148nm,0.8s
FORT Forrest 68.13 192 P **P** **10 16 50.4 +0.8**
comp=Z,102nm,0.8s
FORT Forrest 68.13 192 P **P** **10 16 50.5 +0.8**
FORT IAmb IAmb 10 17 04.7
comp=Z,68nm,0.7s
STEI Steigen 68.19 341 *e*P **P** **10 16 49.8 +0.1**
STEI IAmb IAmb 10 16 50.3
comp=Z,110nm,0.9s
OBN Obninsk 68.29 323 LR LR 10 48 56.4
comp=Z,1µm,18.9s,baz=49,slow=38
OBN Obninsk 68.29 323*c* iP **P** **10 16 50.4 -0.1**
OBN *i* 10 17 08.1
OBN *i* 10 17 15.9
OBN *e* 10 19 25.2
OBN pmax pmax
comp=Z,192nm,1.1s
OBN MLR MLR
comp=Z,1µm,16.0s
OBN Obninsk 68.29 323 P **P** **10 16 50.8 +0.3**
OBN Obninsk 68.29 323 ⇓P **P** **10 16 50.6 +0.2**
OBN Obninsk 68.29 323 P **P** **10 16 50.3 -0.2**
comp=Z,287nm,1.2s
OBN Obninsk 68.29 323 P **P** **10 16 50.7 +0.2**
comp=Z,290nm,1.2s
OBN Obninsk 68.29 323 P **P** **10 16 50.6 +0.2**
OBN sP **sP** **10 17 07.3 -0.1**
PUL Pulkovo 68.43 329*d* iP **P** **10 16 52.1 +0.8**
PUL pmax pmax
comp=Z,315nm,1.1s

KULLO Kullorsuaq 68.43 5 P **P** **10 16 51.5 +0.4**
comp=Z,2µmcomp=Z,55nm,1.4s,comp=Z,2µm
KULLO Kullorsuaq 68.43 5 *i* P **P** **10 16 50.9 -0.1**
KULLO IAmb IAmb 10 16 52.4
comp=Z,66nm,1.3s
LPSR Galich'ya Gora 68.47 320*c* iP **P** **10 16 51.4 -0.3**
LPSR pmax pmax
comp=Z,280nm,0.8s
LOF Lofoten 68.49 341 *e*P **P** **10 16 52.1 +0.6**
LOF IAmb IAmb 10 16 54.4
comp=Z,79nm,1.1s
FAUS Fauske 68.57 340 *e*P **P** **10 16 52.5 +0.5**
FAUS IAmb IAmb 10 16 53.3
comp=Z,127nm,0.9s
DBG Daneborg 68.67 355 *i* P **P** **10 16 52.8 +0.2**
DBG IAmb IAmb 10 16 53.8
comp=Z,45nm,1.2s
VORR Voronezh 68.82 319 *e*P **P** **10 16 53.8 -0.1**
VORR pmax pmax
comp=Z,151nm,0.6s
AUDCS Dubbo College 68.83 173 P **P** **10 16 55.5 +1.5**
FIA1 FINESS Array S 69.08 332 P **P** **10 16 55.8 +0.6**
FINES FINESS Array B 69.08 332 P **P** **10 16 55.4 +0.1**
comp=Z,165nm,0.8s,baz=58,slow=7.6,SNR=207
FINES PP **PP** **10 19 24.1 -3.6**
comp=Z,60nm,1.1s,baz=51,slow=10.0,SNR=6.8
FINES LR LR 10 49 35.1
comp=Z,2µm,18.5s,baz=48,slow=38
comp=Z,165nm,0.8s
FINES FINESS Array B 69.08 332 P **P** **10 16 55.6 +0.3**
FINES FINESS Array B 69.08 332 P **P** **10 16 55.6 +0.3**
VSR Storozhevoye 69.09 319*c* iP **P** **10 16 55.5 -0.1**
VSR pmax pmax
comp=Z,181nm,0.8s
VORD Divnogorie 69.16 319 *e*P **P** **10 16 53.3 -2.7**
VORD pmax pmax
comp=Z,120nm,1.0s
BBOO Buckleboo 69.21 185 P **P** **10 16 57.0 +0.6**
comp=Z,78nm,0.9s
BBOO Buckleboo 69.21 185 P **P** **10 16 56.9 +0.6**
BBOO Buckleboo 69.21 185 P **P** **10 16 56.8 +0.5**
BBOO IAmb IAmb 10 17 11.0
comp=Z,49nm,0.8s
BBOO Buckleboo 69.21 185 P **P** **10 16 57.0 +0.6**
comp=Z,78nm,0.9s
J01E Myrtle Point 69.29 51 P **P** **10 16 57.5 +0.5**
J01E IAmb IAmb 10 17 16.3
comp=Z,57nm,0.9s
MORW Morawa 69.44 203 P **P** **10 16 58.5 +0.6**
comp=Z,70nm,1.2s
MORW Morawa 69.44 203 P **P** **10 16 57.8 0.0**
MORW Morawa 69.44 203 P **P** **10 16 58.0 +0.2**
MORW IAmb IAmb 10 16 59.1
comp=Z,51nm,0.9s
MORW Morawa 69.44 203 P **P** **10 16 57.5 -0.3**
comp=Z,70nm,1.2s
VAGH Vaagaholmen 69.59 340 *e*P **P** **10 16 58.4 +0.1**
VAGH IAmb IAmb 10 16 58.8
comp=Z,130nm,1.0s
RAUS Rausandaksla 69.60 340 *e*P **P** **10 16 58.7 +0.3**
RAUS IAmb IAmb 10 16 58.9
comp=Z,106nm,1.0s
MOR8 Moi Rana 69.68 340 *e*P **P** **10 16 58.3 -0.7**
MOR8 IAmb IAmb 10 16 58.9
comp=Z,242nm,1.0s
HTT Hallett 69.70 182 P **P** **10 17 00.6 +1.1**
comp=Z,16nm,1.5s
HTT Hallett 69.70 182 P **P** **10 17 00.2 +0.8**
ILON Igloolik, Nuna 69.74 15 P **P** **10 16 59.1 -0.2**
ILON IAmb IAmb 10 17 00.7
comp=Z,89nm,1.0s
KONS Konsvik 69.81 340 IAmb IAmb 10 17 00.7
comp=Z,126nm,1.2s
KONS *e*P **P** **10 17 01.0 +1.3**
NTLH Newcastle Hard 69.84 171 P **P** **10 17 02.3 +2.1**
BLKN Baker Lake 69.89 23 P **P** **10 17 00.5 +0.3**
BLKN IAmb IAmb 10 17 02.0
comp=Z,91nm,0.8s
STOK Stokkvaagen 69.96 340 *e*P **P** **10 17 00.9 +0.3**
STOK IAmb IAmb 10 17 07.8
comp=Z,479nm,1.7s
KMBL Kambalda 69.97 197 P **P** **10 17 01.0 0.0**
comp=Z,16nm,0.9s
LEIR Leirfjorden 70.09 340 *e*P **P** **10 17 01.7 +0.3**
UPNV Upernavik 70.26 5 *i* P **P** **10 17 02.1 -0.3**
UPNV IAmb IAmb 10 17 03.8
comp=Z,68nm,1.4s
ARBE Arbavere 70.38 331 P **P** **10 17 04.1 +0.8**
comp=Z,920nm,1.0s
SYDH Sydney Hard Ro 70.58 171 P **P** **10 17 06.9 +2.2**
NEW Newport 70.62 44 LR LR 10 44 37.4
comp=Z,249nm,20.9s,baz=307,slow=33
NEW Newport 70.62 44 P **P** **10 17 06.7 +1.6**
comp=Z,48nm,1.6s
NEW pP **sP** **10 17 19.6 -2.4**
BLDU Ballidu 70.67 202 P **P** **10 17 05.5 +0.2**
comp=Z,51nm,1.3s
BLDU Ballidu 70.67 202 P **P** **10 17 05.3 0.0**
BLDU Ballidu 70.67 202 P **P** **10 17 03.8 -1.5**
comp=Z,51nm,1.3s
NCK Nalchik 70.69 310⇑ *i*P **P** **10 17 05.8 +0.2**
NCK pmax pmax
comp=Z,100nm,1.1s
VSU Vasula 70.70 330*c* iP **P** **10 17 04.5 -0.8**
VSU pmax pmax
comp=Z,376nm,1.0s
VSU Vasula 70.70 330 P **P** **10 17 04.9 -0.4**
comp=Z,385nm,0.9s
JLN Jalan Bani Buh 70.71 284 P **P** **10 17 05.8 -0.2**
SNR=12
WSAR Wadi Sarin 70.73 285 P **P** **10 17 07.0 +0.8**
SNR=16
YPT Yellepit 70.78 47 P **P** **10 17 07.3 +1.2**
WBK Wadi Bani Khal 70.81 284 P **P** **10 17 07.0 +0.4**
SNR=24
YBH Yreka Blue Hor 70.81 52 LR LR 10 43 21.9
comp=Z,358nm,21.4s,baz=298,slow=32
YBH Yreka Blue Hor 70.81 52 P **P** **10 17 07.9 +1.5**
YBH pmax pmax
comp=Z,44nm,0.9s
YBH Yreka Blue Hor 70.81 52 P **P** **10 17 07.9 +1.5**
BIDO Bidbid 70.98 286 P **P** **10 17 08.3 +0.7**
SNR=30
KBZ Khabaz 70.99 311 P **P** **10 17 07.8 +0.4**
comp=Z,131nm,0.9s,baz=70,slow=5.0,SNR=138
KBZ LR LR 10 52 51.5
comp=Z,1µm,18.7s,baz=52,slow=40
comp=Z,131nm,0.9s
KVAR Kislovodsk Arr 70.99 311 LR LR 10 50 48.6
comp=Z,873nm,20.5s,baz=248,slow=38
KIV Kislovodsk 71.00 311 *i* P **P** **10 17 08.0 +0.5**
SNR=31
KIV Kislovodsk 71.00 311 P **P** **10 17 08.3 +0.8**
KIV Kislovodsk 71.00 311 P **P** **10 17 08.3 +0.8**
KIV Kislovodsk 71.00 311 P **P** **10 17 08.1 +0.5**
KIV Kislovodsk 71.00 311 ⇑P **P** **10 17 08.4 +0.8**
KIV Kislovodsk 71.00 311 P **P** **10 17 08.0 +0.5**
comp=Z,4µmcomp=Z,413nm,1.1s
KIV Kislovodsk 71.00 311 P **P** **10 17 08.3 +0.8**
comp=Z,5µmcomp=Z,529nm,1.1s,comp=Z,5µm
KIV Kislovodsk 71.00 311 P **P** **10 17 08.0 +0.5**
KIV pP **pP** **10 17 19.2 -0.5**
KIV sP **sP** **10 17 23.9 -0.6**
BANOM Banah 71.11 289 *i* P **P** **10 17 08.9 +0.5**
SNR=12
BANOM Banah 71.11 289 P **P** **10 17 09.2 +0.8**
SNR=10
SUMG Summit 71.12 360 P **P** **10 17 09.9 +1.7**
SUMG Summit 71.12 360 P **P** **10 17 08.8 +0.7**
SUMG pmax pmax
comp=Z,125nm,1.0s
SUMG Summit 71.12 360 P **P** **10 17 08.8 +0.7**
SUMG IAmb IAmb 10 17 13.7
comp=Z,125nm,1.0s
SUMG Summit 71.12 360 P **P** **10 17 10.3 +2.2**
comp=Z,145nm,1.0s
SUMG Summit 71.12 360 *i* P **P** **10 17 09.6 +1.5**
SUMG IAmb IAmb 10 17 13.5
comp=Z,122nm,1.0s
SHA1 Shidzhatmaz 71.13 311*c* iP **P** **10 17 08.6 +0.1**
SHME Shamm 71.16 289 *i* P **P** **10 17 09.1 +0.5**
SNR=61
SHME Shamm 71.16 289 P **P** **10 17 09.4 +0.7**
SNR=40
AUMAR Marden Senior 71.16 182 P **P** **10 17 09.3 +1.1**
WOLH Wollongong Har 71.23 171 P **P** **10 17 10.1 +1.5**

KLBR Kellerberrin 71.27 201 P **P** **10 17 09.3 +0.4**
comp=Z,82nm,1.0s
KLBR Kellerberrin 71.27 201 P **P** **10 17 09.0 0.0**
KLBR Kellerberrin 71.27 201 P **P** **10 17 09.0 0.0**
comp=Z,672nmcomp=Z,82nm,1.0s,comp=Z,672nm
SMDO Samad 71.28 285 P **P** **10 17 09.8 +0.2**
SNR=30
KHAM Kharkiv 71.31 319 P **P** **10 17 09.4 +0.1**
ERBR Yeremizino-Bor 71.35 313 *e*P **P** **10 17 09.2 -0.3**
ERBR *e*S **S** **10 26 19.9 -4.5**
ERBR pmax pmax
comp=Z,318nm,0.9s
ERBR MLR MLR
comp=Z,2µm,19.0s
NEUR Neytrino 71.36 310*c* iP **P** **10 17 09.7 -0.2**
NEUR pmax pmax
comp=Z,46nm,1.4s
AUMBR Murray Bridge 71.39 182 P **P** **10 17 09.0 -0.6**
MDH Madha 71.44 288 *i* P **P** **10 17 10.1 -0.3**
SNR=7.1
MDH Madha 71.44 288 P **P** **10 17 09.4 -1.0**
SNR=6.0
MASF Masafi 71.51 288 P **P** **10 17 11.0 +0.1**
SNR=17
MSFE Esma-Masafi 71.51 288 *i* P **P** **10 17 11.5 +0.6**
SNR=22
HOQ Hoqain 71.58 286 P **P** **10 17 11.5 +0.2**
SNR=37
NSS Namsos 71.60 339 *e*P **P** **10 17 10.6 -0.1**
JMDO Jabal Madar 71.61 284 P **P** **10 17 11.8 +0.3**
SNR=19
UOSS Minazif 71.70 288 *i* P **P** **10 17 12.0 0.0**
SNR=28
UOSS Minazif 71.70 288 P **P** **10 17 12.0 0.0**
UOSS Minazif 71.70 288 P **P** **10 17 11.9 0.0**
UOSS IAmb IAmb 10 17 13.1
comp=Z,98nm,0.9s
UOSS Minazif 71.70 288 P **P** **10 17 11.9 -0.1**
comp=Z,2µmcomp=Z,165nm,1.3s,comp=Z,2µm
UOSS Minazif 71.70 288 P **P** **10 17 11.9 -0.1**
UOSS PcP **PcP** **10 17 30.2 -0.7**
MTSE Matsula 71.71 331 P **P** **10 17 12.0 +0.6**
comp=Z,1µm,0.9s
GNI Garni 71.76 307 LR LR 10 53 11.8
comp=Z,547nm,18.9s,baz=56,slow=40
GNI Garni 71.76 307 P **P** **10 17 13.4 +1.1**
GNI Garni 71.76 307 P **P** **10 17 13.1 +0.8**
GNI Garni 71.76 307*c* iP **P** **10 17 13.2 +0.9**
GNI pmax pmax
comp=Z,148nm,1.2s
GNI Garni 71.76 307 P **P** **10 17 13.6 +1.3**
comp=Z,2µmcomp=Z,99nm,1.3s,comp=Z,2µm
UMQ Umm Al-Quwin 71.80 289 *i* P **P** **10 17 13.9 +1.4**
SNR=7.1
UMQ Umm Al-Quwin 71.80 289 P **P** **10 17 13.4 +0.9**
SNR=6.2
HATD Hatta, Dubai 71.82 288 *i* P **P** **10 17 13.2 +0.6**
SNR=50
AUDAR Daramalan Coll 71.88 173 P **P** **10 17 13.7 +1.1**
SOHO SOHO 71.88 287 *i* P **P** **10 17 13.1 0.0**
SNR=39
SOHO SOHO 71.88 287 P **P** **10 17 13.0 0.0**
SNR=31
AUMTS Mt Stromlo 71.93 173 P **P** **10 17 14.2 +1.3**
CAN Canberra 71.93 173 P **P** **10 17 14.8 +1.9**
comp=Z,39nm,1.1s
CAN Canberra 71.93 173 P **P** **10 17 14.3 +1.4**
CAN Canberra 71.93 173 P **P** **10 17 14.9 +1.9**
CAN pmax pmax
comp=Z,34nm,1.0s
CAN Canberra 71.93 173 P **P** **10 17 14.9 +1.9**
CAN Canberra 71.93 173 P **P** **10 17 14.8 +1.9**
comp=Z,39nm,1.1s
CAN Canberra 71.93 173 P **P** **10 17 14.1 +1.2**
ASHO Ashiyiah 71.95 288 *i* P **P** **10 17 13.9 +0.4**
SNR=60
ASHO Ashiyiah 71.95 288 P **P** **10 17 13.7 +0.2**
SNR=38
NAZ Nazwa, Dubai 72.09 288 *i* P **P** **10 17 14.6 +0.3**
SNR=10
BSY Bisya 72.11 285 P **P** **10 17 15.3 +0.8**
SNR=30
AUKUL Kulin High Sch 72.17 200 P **P** **10 17 14.3 -0.1**
KAAM Kaadhehdhoo 72.23 257 P **P** **10 17 16.0 +0.8**
KAAM Kaadhehdhoo 72.23 257 P **P** **10 17 16.2 +1.0**
KAAM Kaadhehdhoo 72.23 257 P **P** **10 17 13.1 -2.2**
comp=Z,480nm,1.0s
FAQ Al Faqa, Dubai 72.28 288 *i* P **P** **10 17 15.6 +0.2**
SNR=8.0
EPOS Posof 72.31 309 P **P** **10 17 16.8 +1.3**
comp=Z,3µmcomp=Z,234nm,1.3s,comp=Z,3µm
ARQ Araqi 72.32 286 P **P** **10 17 15.9 +0.2**
SNR=24
MHTO MHTO 72.46 283 P **P** **10 17 17.1 +0.6**
SNR=40
DIGO Kars 72.50 308 P **P** **10 17 17.7 +0.9**
comp=Z,5µmcomp=Z,353nm,1.6s,comp=Z,5µm
SAATT Saattut 72.50 4 *i* P **P** **10 17 14.4 -1.6**
SAATT IAmb IAmb 10 17 17.8
comp=Z,194nm,1.6s
SCO Scoresbysund 72.52 354 P **P** **10 17 17.1 +1.1**
SCO pmax pmax
comp=Z,71nm,1.1s
SCO Scoresbysund 72.52 354 P **P** **10 17 17.1 +1.1**
SCO IAmb IAmb 10 17 18.7
comp=Z,71nm,1.1s
SCO Scoresbysund 72.52 354 P **P** **10 17 15.7 -0.3**
comp=Z,74nm,1.6s
SCO Scoresbysund 72.52 354 *i* P **P** **10 17 17.1 +1.1**
SCO IAmb IAmb 10 17 19.0
comp=Z,81nm,1.2s
ALNE Al Ain 72.52 287 *i* P **P** **10 17 17.3 +0.4**
SNR=23
ALNE Al Ain 72.52 287 P **P** **10 17 17.1 +0.2**
SNR=34
ASUD Al Ashush, Dub 72.54 288 *i* P **P** **10 17 17.6 +0.7**
SNR=11
J08A Circle Bar Ran 72.55 49 P **P** **10 17 17.8 +0.9**
J08A IAmb IAmb 10 17 33.4
comp=Z,62nm,1.0s
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.9 +0.5**
comp=Z,100nm,1.7s
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.9 +0.5**
NWAO Narrogin (SRO) 72.67 201 LR LR 10 51 33.9
comp=Z,131nm,18.8s,baz=48,slow=38
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.7 +0.4**
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.5 +0.1**
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.4 +0.1**
NWAO pmax pmax
comp=Z,37nm,0.9s
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.4 0.0**
NWAO Narrogin (SRO) 72.67 201 P **P** **10 17 17.7 +0.4**
comp=Z,59nm,1.7s
MNK Minsk 72.71 326 *i* P **P** **10 17 18.0 +0.6**
MNK *i* 10 17 36.4
MNK *i* 10 20 00.0
MNK *i* PPP PPP 10 21 44.5
MNK *i* S **S** **10 26 41.6 +2.0**
MNK *i* PS **PnS** **10 27 25.8 +11**
MNK pmax pmax
comp=Z,330nm,0.9s
MNK pmax pmax
comp=N,94nm,0.8s
MNK pmax pmax
comp=E,135nm,0.9s
MNK MLR MLR
comp=Z,1µm,15.0s
MNK MLR MLR
comp=N,950nm,19.0s
MNK MLR MLR
comp=E,757nm,17.0s
MNK Minsk 72.71 326 *i* P **P** **10 17 18.1 +0.6**
comp=E,135nm,0.9s
MNK *i* P **P** **10 17 18.1 +0.6**
comp=N,94nm,0.8s
MNK *i* P **P** **10 17 18.1 +0.6**
comp=Z,330nm,0.9s,baz=51
MNK *i* PcP **PcP** **10 17 36.5 +1.8**
MNK *i* PP **PP** **10 20 00.1 +1.1**
MNK *i* PPP PPP 10 21 44.6
MNK *i* S **S** **10 26 41.6 +2.0**
MNK *i* PS **PnS** **10 27 25.9 +11**
MNK *i* SS SS 10 31 46.2 +28
MNK *i* SSS SSS 10 34 03.1
MNK *i* LQ LQ 10 44 41.3
MNK *i* LR LR 10 49 16.2

MNK *i* LRM MLR 10 52 32.9
comp=Z,1µm,14.8s
MNK *i* LRM MLR 10 52 44.2
comp=N,950nm,18.9s
MNK *i* LRM MLR 10 52 46.1
comp=E,757nm,17.0s
AJN Ajban 72.84 288 *i* P **P 10 17 18.7 0.0**
SNR=9.4
AJN Ajban 72.84 288 P **P 10 17 18.4 -0.3**
SNR=10
NACGM Naroch 72.95 327 *e*P **P 10 17 19.3 +0.5**
comp=E,113nm,1.1s
WVOR Wild Horse Val 72.97 50 P **P 10 17 21.3 +1.9**
comp=Z,38nm,2.4s
SOC Sochi 73.00 312 *e*P **P 10 17 18.2 -1.2**
SOC *e*PPP PPP 10 21 42.5
SOC *e*S **S 10 26 43.9 +0.6**
SOC *e*SS **SS 10 31 24.0 +0.3**
SOC pmax pmax
comp=Z,103nm,1.0s
SOC MLR MLR
comp=Z,3µm,23.0s
ARPS Mount Arapiles 73.00 179 P **P 10 17 20.0 +0.8**
comp=Z,13nm,1.2s
OZAP Van, Ozalp-Mer 73.06 306 ⇑P **P 10 17 21.7 +1.6**
SAQQ Saqqaq 73.27 5 *i* P **P 10 17 21.6 +1.1**
SAQQ IAmb IAmb 10 17 22.3
comp=Z,114nm,1.2s
BEKR Beckworth 73.32 53 P **P 10 17 22.7 +1.1**
BEKR IAmb IAmb 10 17 37.6
comp=Z,66nm,0.9s
DQM DQM 73.38 283 P **P 10 17 21.8 -0.1**
SNR=6.0
HOMI Horasan 73.64 308 ⇓P **P 10 17 24.9 +1.4**
ANN Anapa 73.65 314 *e*P **P 10 17 22.8 -0.4**
ANN *e**PP **pP 10 17 33.4 -2.0**
ANN *e*S **SKiKP 10 26 49.6 +0.2**
ANN pmax pmax
comp=Z,159nm,1.0s
ANN MLR MLR
comp=Z,2µm,21.0s
MILA Mila 73.66 173 P **P 10 17 25.1 +1.9**
comp=Z,22nm,0.9s
UMZA Um Al Zommool 73.71 286 P **P 10 17 23.6 -0.3**
PABE Paberze 73.77 328 P **P 10 17 24.0 +0.3**
PABE Paberze 73.77 328 P **P 10 17 24.4 +0.7**
comp=Z,45µmcomp=Z,543nm,1.0s
BRAT Ballarat 73.83 178 P **P 10 17 25.9 +1.9**
MPK Martis Peak 73.85 53 P **P 10 17 25.4 +0.5**
MPK IAmb IAmb 10 17 41.2
comp=Z,102nm,1.1s
HAKT HAKKARI 73.86 305 P **P 10 17 25.2 +0.3**
comp=Z,4µmcomp=Z,343nm,1.3s
GEVA Gevas 73.86 306 P **P 10 17 25.2 +0.4**
GEVA IAmb IAmb 10 17 26.9
comp=Z,88nm,1.1s
AUMTC Mt Clear Colle 73.88 178 P **P 10 17 25.9 +1.6**
GDH Godhavn 73.91 5 *i* P **P 10 17 25.3 +1.0**
GDH IAmb IAmb 10 17 26.0
comp=Z,117nm,1.2s
ILULI Ilulissat 74.11 4 P **P 10 17 26.4 +1.0**
ILULI pmax pmax
comp=Z,266nm,1.8s
ILULI Ilulissat 74.11 4 P **P 10 17 26.4 +1.0**
ILULI IAmb IAmb 10 17 27.5
comp=Z,266nm,1.8s
ILULI Ilulissat 74.11 4 P **P 10 17 26.5 +1.0**
comp=Z,85nm,1.6s
ILULI Ilulissat 74.11 4 *i* P **P 10 17 26.4 +1.0**
ILULI IAmb IAmb 10 17 27.2
comp=Z,69nm,1.1s
MZWR Madinat Zayed 74.12 288 P **P 10 17 26.0 -0.3**
FFC Flin Flon 74.21 33 *i* P **P 10 17 27.4 +1.1**
FFC Flin Flon 74.21 33 P **P 10 17 27.4 +1.1**
comp=Z,109nm,1.1s
FFC Flin Flon 74.21 33 P **P 10 17 26.9 +0.6**
FFC PcP **PcP 10 17 41.1 0.0**
JRN Qarnain Island 74.26 289 P **P 10 17 26.6 -0.4**
PBUR Paburge 74.27 329 P **P 10 17 27.7 +1.1**
comp=Z,379nm,1.0s
NC405 NORSAR Array S 74.28 337 P **P 10 17 27.2 +0.6**
NC303 NORSAR Array S 74.30 337 P **P 10 17 26.7 0.0**
DOMB Dombas 74.36 339 *e*P **P 10 17 27.7 +0.6**
DOMB IAmb IAmb 10 17 28.4
comp=Z,380nm,1.4s
MOL Molde 74.37 340 *e*P **P 10 17 28.2 +1.1**
MOL IAmb IAmb 10 17 28.8
comp=Z,142nm,1.1s
HFS Hagfors 74.38 336 P **P 10 17 27.3 +0.1**
comp=Z,58nm,0.9s,baz=53,slow=7.6,SNR=28
HFS LR LR 10 52 47.3
comp=Z,2µm,19.4s,baz=46,slow=38
comp=Z,58nm,0.9s
GURO Guroymak-BITLI 74.39 306 P **P 10 17 28.6 +0.7**
NC204 NORSAR Array S 74.45 338 P **P 10 17 28.1 +0.5**
NB201 NORSAR Array S 74.46 337 P **P 10 17 27.9 +0.2**
AK03 Malin Array Si 74.47 322 P **P 10 17 27.6 -0.3**
AKASG Malin Array Be 74.48 322 P **P 10 17 27.8 -0.2**
comp=Z,97nm,0.7s,baz=47,slow=6.0,SNR=305
AKASG PP **PP 10 20 09.3 -4.8**
comp=Z,12nm,0.9s,baz=44,slow=8.3,SNR=5.8
AKASG LR LR 10 53 03.7
comp=Z,3µm,19.2s,baz=54,slow=38
comp=Z,97nm,0.7s
AKASG Malin Array Be 74.48 322 *i* P **P 10 17 27.7 -0.2**
AKASG pmax pmax
comp=Z,100nm,0.7s
AKBB Malin Array Si 74.48 322 P **P 10 17 27.6 -0.3**
NB2 NORSAR Subarra 74.49 337 P **P 10 17 27.9 0.0**
comp=Z,194nm,1.0s,baz=40,slow=6.2
NB2 NORSAR Subarra 74.49 337 P **P 10 17 27.0 -0.9**
NB2 AMP 10 17 27.0
NOA NORSAR Array B 74.49 337 P **P 10 17 28.1 +0.3**
comp=Z,106nm,0.9s,baz=39,slow=5.8,SNR=150
NOA PP **PP 10 20 11.1 -2.9**
comp=Z,7.7nm,0.9s,baz=39,slow=7.7,SNR=4.0
NOA LR LR 10 53 23.8
comp=Z,2µm,19.5s,baz=40,slow=38
comp=Z,106nm,0.9s
AK23 Malin Array Si 74.50 322 P **P 10 17 27.6 -0.4**
AK01 Malin Array Si 74.50 322 P **P 10 17 27.6 -0.4**
KIEV Kiev 74.50 322 *i* P **P 10 17 27.8 -0.2**
SNR=11
KIEV Kiev 74.50 322 P **P 10 17 27.9 -0.1**
KIEV Kiev 74.50 322 P **P 10 17 27.8 -0.2**
KIEV Kiev 74.50 322 ⇑P **P 10 17 28.0 -0.1**
KIEV Kiev 74.50 322 P **P 10 17 28.0 0.0**
comp=Z,262nm,1.3s
KIEV Kiev 74.50 322 P **P 10 17 27.7 -0.2**
KIEV PcP **PcP 10 17 42.6 +0.2**
FCC Fort Churchill 74.50 26 P **P 10 17 28.3 +0.4**
FCC pmax pmax
comp=Z,96nm,1.1s
FCC Fort Churchill 74.50 26 P **P 10 17 28.3 +0.4**
FCC IAmb IAmb 10 17 29.8
comp=Z,96nm,1.1s
AK10 Malin Array Si 74.54 322 P **P 10 17 28.0 -0.2**
KOPT Kop Dagi 74.54 308 P **P 10 17 29.4 +0.5**
KOPT IAmb IAmb 10 17 31.5
comp=Z,104nm,1.3s
AK05 Malin Array Si 74.55 322 P **P 10 17 27.9 -0.4**
AK16 Malin Array Si 74.56 322 P **P 10 17 28.1 -0.3**
NC602 NORSAR Array S 74.62 337 P **P 10 17 28.6 0.0**
NC602 IAmb IAmb 10 17 29.9
comp=Z,110nm,1.2s
NC602 NORSAR Array S 74.62 337 *e*P **P 10 17 28.5 0.0**
NC602 IAmb IAmb 10 17 29.4
comp=Z,101nm,1.1s
NBO00 NORSAR Array S 74.63 337 P **P 10 17 28.9 +0.2**
NBO00 IAmb IAmb 10 17 30.2
comp=Z,152nm,0.9s
NAO01 NORSAR Array S 74.74 337 P **P 10 17 29.4 +0.1**
NAO01 IAmb IAmb 10 17 30.7
comp=Z,109nm,0.9s
NAO01 NORSAR Array S 74.74 337 P **P 10 17 29.6 +0.3**
comp=Z,64nm,0.9s
GHWR Ruwais 74.78 289 P **P 10 17 29.7 -0.4**
AKN Aaknes 74.84 340 *e*P **P 10 17 31.0 +1.1**
AKN IAmb IAmb 10 17 34.6
comp=Z,191nm,1.2s
MZR Muzera 74.84 287 *i* P **P 10 17 30.5 0.0**
SNR=14
MZR Muzera 74.84 287 P **P 10 17 30.6 0.0**
SNR=17
HLID Hailey 74.85 47 P **P 10 17 32.5 +2.0**
comp=Z,23nm,1.1s
SUW Suwalki 75.12 327 *e*P **P 10 17 31.7 +0.1**
SUW Suwalki 75.12 327 P **P 10 17 32.2 +0.7**
SUW Suwalki 75.12 327 P **P 10 17 32.2 +0.7**
KELT Kelkit 75.25 309 P **P 10 17 34.0 +1.2**
comp=Z,6µmcomp=Z,408nm,1.4s,comp=Z,6µm
SAKB Bahrain 75.43 292 P **P 10 17 33.6 -0.2**
NVAR Mina Array Bea 75.45 53 P **P 10 17 35.8 +1.8**
comp=Z,23nm,0.8s,baz=287,slow=5.6,SNR=144
NVAR LR LR 10 45 14.4
comp=Z,252nm,21.5s,baz=292,slow=31
comp=Z,23nm,0.8s
SIM Simferopol' 75.46 315 *e*P **P 10 17 33.7 0.0**
SIM *e* 10 17 47.5
SIM pmax pmax
comp=Z,232nm,0.9s
SIM MLR MLR
comp=Z,1µm,17.6s
OSL Oslo 75.50 337 *e*P **P 10 17 34.0 +0.4**
OSL IAmb IAmb 10 17 35.0
comp=Z,186nm,1.1s
SLWR Sila 75.62 289 P **P 10 17 35.0 +0.1**
RNPP9 Sopachiv 75.63 324 P **P 10 17 34.7 +0.2**
SKAR Skarslia 75.66 338 *e*P **P 10 17 35.3 +0.7**
SKAR IAmb IAmb 10 17 36.9
comp=Z,52nm,0.9s
RNPP2 Kostyukhnivka 75.69 324 P **P 10 17 35.3 +0.4**
RNPP8 Varash 75.70 324 P **P 10 17 35.0 +0.1**
KBD Kabd 75.75 296 P **P 10 17 35.6 0.0**
RNPP5 Staryi Chortor 75.75 324 P **P 10 17 35.2 -0.1**
FOO Floro 75.86 340 *e*P **P 10 17 36.3 +0.7**
HYA Hoyanger 75.89 339 *e*P **P 10 17 36.4 +0.6**
HYA IAmb IAmb 10 17 37.4
comp=Z,238nm,1.1s
YHL Hebgen Lake 75.94 44 P **P 10 17 38.2 +1.4**
YHL IAmb IAmb 10 17 53.1
comp=Z,49nm,0.8s
SHAO Shalim 75.94 282 *i* P **P 10 17 37.3 +0.5**
SNR=8.9
SHAO Shalim 75.94 282 P **P 10 17 36.7 -0.2**
RAO Raoul Island 75.98 144 LR LR 10 46 53.1
comp=Z,525nm,18.6s,baz=341,slow=32
STRU Stroemstad 76.05 336 *i* P **P 10 17 37.2 +0.5**
KONO Kongsberg 76.08 337 *i*I *e*P **P 10 17 37.5 +0.6**
KONO pmax pmax
comp=Z,153nm,2.5s
KONO Kongsberg 76.08 337 P **P 10 17 37.1 +0.1**
KONO IAmb IAmb 10 17 38.5
comp=Z,129nm,1.2s
KONO Kongsberg 76.08 337 *e*P **P 10 17 37.0 +0.1**
KONO IAmb IAmb 10 17 38.2
comp=Z,138nm,1.2s
KONO Kongsberg 76.08 337 P **P 10 17 37.9 +1.0**
comp=Z,122nm,1.1s
YHH Holmes Hill 76.16 44 P **P 10 17 38.9 +0.8**
SFJD Kangerlussuaq 76.34 5 LR LR 10 55 25.8
comp=Z,435nm,18.3s,baz=352,slow=39
SFJD Kangerlussuaq 76.34 5 P **P 10 17 39.2 +0.9**
SFJD pmax pmax
comp=Z,77nm,1.2s
SFJD Kangerlussuaq 76.34 5 P **P 10 17 39.2 +0.9**
SFJD IAmb IAmb 10 17 40.4
comp=Z,77nm,1.2s
SFJD Kangerlussuaq 76.34 5 P **P 10 17 39.2 +0.9**
comp=Z,66nm,1.3s
SFJD Kangerlussuaq 76.34 5 *i* P **P 10 17 39.4 +1.1**
SFJD IAmb IAmb 10 17 40.1
comp=Z,56nm,1.0s
BLEU Blekinge 76.48 332 *i* P **P 10 17 38.4 -0.9**
YNE Yellowstone No 76.50 44 P **P 10 17 40.9 +1.0**
SORM Soroca 76.57 321 P **P 10 17 39.7 -0.2**
SORM Soroca 76.57 321 ⇑P **P 10 17 39.8 -0.2**
SORM Soroca 76.57 321 P **P 10 17 39.4 -0.5**
comp=Z,213nm,1.0s
DMTO DMTO 76.64 282 P **P 10 17 40.6 -0.3**
TJOU Tjoern 76.67 335 *i* P **P 10 17 40.4 +0.1**
ASK Askoy 76.73 339 *e*P **P 10 17 41.5 +0.9**
BER Bergen 76.77 339 *e*P **P 10 17 41.7 +0.9**
DOK Doka 76.78 283 P **P 10 17 41.3 -0.3**
SNR=7.8
ODD1 Odda 76.78 338 *e*P **P 10 17 41.7 +0.7**
ONAU Onsala 77.06 334 *i* P **P 10 17 42.5 0.0**
DEL Delary 77.08 333 *i* P **P 10 17 42.6 -0.1**
FABU Falkenberg 77.09 334 *i* P **P 10 17 42.6 -0.1**
BLS5 Blasjo 77.23 338 *e*P **P 10 17 44.4 +0.9**
KMPD K-Podol'skiy 77.24 322 P **P 10 17 43.2 -0.5**
R9F13 Warsaw-Wawer 77.24 327 *e*P **P 10 17 44.6 +1.0**
R9F13 *e* 10 18 33.6
FRB Frobisher Bay 77.25 13 LR LR 10 55 02.8
comp=Z,362nm,19.8s,baz=338,slow=38
FRB Frobisher Bay 77.25 13 P **P 10 17 44.5 +1.0**
comp=Z,186nm,1.4s
AHID Auburn Hatcher 77.27 46 P **P 10 17 46.0 +1.8**
comp=Z,47nm,1.1s
RBK Rabkut 77.34 282 P **P 10 17 44.3 -0.5**
MPMC Manual Prospec 77.36 54 P **P 10 17 45.3 +0.4**
WHFO Wadi Hawf 77.45 283 P **P 10 17 44.8 -0.6**
GLAD Gladstone 77.47 175 P **P 10 17 46.3 +1.5**
LAO LASA Array 77.47 41 P **P 10 17 46.5 +1.4**
LAO IAmb IAmb 10 17 48.0
comp=Z,76nm,1.0s
HOMB Homborsund 77.52 337 *e*P **P 10 17 46.1 +1.1**
HOMB Homborsund 77.52 337 *i* P **P 10 17 45.8 +0.8**
DGAR Diego Garcia 77.61 251 P **P 10 17 46.7 +0.5**
DGAR Diego Garcia 77.61 251 P **P 10 17 46.7 +0.5**
DGAR Diego Garcia 77.61 251 P **P 10 17 46.7 +0.5**
DGAR IAmb IAmb 10 17 48.0
comp=Z,104nm,0.8s
DGAR Diego Garcia 77.61 251 P **P 10 17 47.1 +0.9**
comp=Z,195nm,1.1s
BEL Belsk 77.67 327 *e*P **P 10 17 47.0 +1.0**
BSD Bornholm Skovb 77.71 332 *i* P **P 10 17 46.2 +0.1**
BSD IAmb IAmb 10 17 47.1
comp=Z,205nm,1.1s
HWUT Hardware Ranch 77.71 47 P **P 10 17 48.7 +2.0**
comp=Z,766nmcomp=Z,52nm,1.0s,comp=Z,766nm
VASR Vaslui 77.83 320 ⇑P **P 10 17 47.7 +0.7**
DUG Dugway, Tooele 77.83 49 P **P 10 17 49.5 +2.1**
comp=Z,921nmcomp=Z,75nm,1.3s,comp=Z,921nm
LUNU Lund 77.87 333 *i* P **P 10 17 47.4 +0.3**
SNART Snartemo 77.87 337 *e*P **P 10 17 47.7 +0.7**
SNART Snartemo 77.87 337 *i* P **P 10 17 47.9 +0.9**
MNTR Muntenesti 77.89 320 ⇑P **P 10 17 47.9 +0.5**
PDRR Padureni 77.92 320 ⇓P **P 10 17 48.0 +0.5**
DMBR Dumbraveni 77.98 320 ⇓P **P 10 17 48.4 +0.5**
BORG Borgarnes 78.05 352 LR LR 10 53 34.3
comp=Z,342nm,19.5s,baz=24,slow=37
ANGG Ammassalik, Gr 78.11 359 *i* P **P 10 17 48.2 0.0**
ANGG IAmb IAmb 10 17 50.1
comp=Z,58nm,0.9s
BNN Bunyan 78.14 310 P **P 10 17 49.8 +0.7**
BNN IAmb IAmb 10 17 51.2
comp=Z,125nm,1.0s
ABTO Aybut 78.14 283 P **P 10 17 49.0 -0.3**
GKP Gorka Klasztor 78.15 329 *e*P **P 10 17 49.5 +0.8**
PDAR Pinedale Array 78.15 45 P **P 10 17 50.2 +1.0**
comp=Z,10nm,0.8s,baz=314,slow=5.6,SNR=77
PDAR PKKPbc **PKKPbc 10 36 46.7 -0.3**
comp=Z,0.3nm,0.6s,baz=122,slow=5.4,SNR=3.8
comp=Z,10nm,0.8s
ISOG Isortoq, Green 78.18 0 *i* P **P 10 17 48.9 +0.3**
ISOG IAmb IAmb 10 17 50.2
comp=Z,198nm,1.3s
VLDR Vladesti 78.20 319 ⇑P **P 10 17 50.1 +1.0**
COP Copenhagen 78.20 333 *i* P **P 10 17 49.6 +0.7**
COP IAmb IAmb 10 17 49.9
comp=Z,301nm,0.9s
TLCR 78.23 318 P **P 10 17 49.4 +0.2**
TLCR 78.23 318 ⇓P **P 10 17 49.5 +0.2**
GOET G??ttrup 78.26 335 *i* P **P 10 17 50.7 +1.5**
GOET IAmb IAmb 10 17 51.0
comp=Z,389nm,1.2s
VARL Varlezi 78.28 319 ⇑P **P 10 17 50.3 +0.7**
GIRR Girov 78.29 320 ⇓P **P 10 17 50.2 +0.6**
GAZ Gaziantep 78.30 308 P **P 10 17 50.5 +0.6**
GAZ IAmb IAmb 10 17 52.3
comp=Z,141nm,1.0s
KWP Kalwaria Pacla 78.33 324 *e*P **P 10 17 50.6 +0.8**
TATR Tatarca 78.37 319 ⇓P **P 10 17 50.8 +0.8**
GHRR 78.41 319 ⇑P **P 10 17 51.0 +0.8**
GHRR 78.41 319 P **P 10 17 51.5 +1.3**
comp=Z,266nm,1.0s
JURR Jurilovca 78.47 318 ⇑P **P 10 17 51.1 +0.5**
BUR08 Bucovina Ar. S 78.48 322 P **P 10 17 51.1 +0.3**
BUR08 IAmb IAmb 10 17 52.6
comp=Z,85nm,0.9s
BURAR Bucovina Array 78.49 322 P **P 10 17 51.2 +0.4**
BURAR Bucovina Array 78.49 322 P **P 10 17 51.4 +0.6**
BURAR IAmb IAmb 10 17 52.9
comp=Z,112nm,1.1s
BURAR Bucovina Array 78.49 322 ⇓P **P 10 17 51.3 +0.4**
BIZ Bicaz 78.50 321 ⇑P **P 10 17 51.3 +0.5**
NEGRR Negrea 78.50 319 ⇓P **P 10 17 51.6 +0.8**
TESR Tescani 78.50 320 ⇑P **P 10 17 51.2 +0.4**
TESR Tescani 78.50 320 P **P 10 17 50.9 +0.1**
comp=Z,210nm,1.5s
TESR Tescani 78.50 320 P **P 10 17 51.2 +0.4**
comp=Z,210nm,1.5s
IZVR Izvoarele 78.56 319 ⇓P **P 10 17 51.8 +0.8**
TUDR 78.58 319 ⇑P **P 10 17 52.0 +0.8**
TPGR Topolog 78.66 318 ⇑P **P 10 17 52.2 +0.4**
PANC Panciu 78.67 319 ⇓P **P 10 17 53.1 +1.4**
MUD Monsted U'grnd 78.74 335 *i* P **P 10 17 52.6 +0.8**
MUD IAmb IAmb 10 17 53.4
comp=Z,141nm,1.1s
ONER Baraj Valea Uz 78.75 320 ⇑P **P 10 17 53.1 +0.9**
ODBI Odobesti 78.79 319 ⇓P **P 10 17 54.0 +1.6**
VRI Vrincioaia 78.89 320 P **P 10 17 53.7 +0.8**
VRI Vrincioaia 78.89 320 ⇑P **P 10 17 53.8 +0.8**
VRI Vrincioaia 78.89 320 P **P 10 17 53.5 +0.5**
comp=Z,106nm,1.4s
VRI Vrincioaia 78.89 320 P **P 10 17 53.8 +0.8**
comp=Z,106nm,1.4s
TIRR Tirgusor 78.92 318 P **P 10 17 53.5 +0.4**
TIRR pmax pmax
comp=Z,69nm,1.0s
TIRR Tirgusor 78.92 318 P **P 10 17 53.5 +0.4**
TIRR IAmb IAmb 10 17 54.6
comp=Z,69nm,1.0s
TIRR Tirgusor 78.92 318 ⇑P **P 10 17 53.2 +0.1**
TIRR Tirgusor 78.92 318 P **P 10 17 53.5 +0.4**
comp=Z,82nm,1.4s
PLOR Plostina 78.94 320 P **P 10 17 53.8 +0.6**
PLOR Plostina 78.94 320 ⇓P **P 10 17 53.8 +0.6**
PLOR Plostina 78.94 320 ⇑P **P 10 17 53.9 +0.6**
BR131 Keskin Array S 78.95 311 P **P 10 17 53.4 -0.1**
BR131 pmax pmax
comp=Z,80nm,1.0s
BR131 Keskin Array S 78.95 311 P **P 10 17 53.4 -0.1**
BR131 IAmb IAmb 10 17 55.3
comp=Z,80nm,1.0s
BRTR Keskin Array B 78.95 311 P **P 10 17 53.8 +0.2**
comp=Z,52nm,1.0s,baz=106,slow=3.6,SNR=103
BRTR PP **PP 10 20 51.5 -0.7**
comp=Z,14nm,1.0s,baz=61,slow=5.8,SNR=5.9
BRTR LR LR 10 57 29.6
comp=Z,685nm,18.6s,baz=54,slow=39
comp=Z,52nm,1.0s
BRTR Keskin Array B 78.95 311 P **P 10 17 53.5 0.0**
BR106 Keskin Array S 78.96 311 P **P 10 17 53.5 -0.1**
KOLS Kolonicke sedl 79.02 324 *e*P **P 10 17 54.3 +0.7**
KOLS Kolonicke sedl 79.02 324 P **P 10 17 54.5 +0.8**
comp=Z,500nmcomp=Z,49nm,0.8s,comp=Z,500nm
TLBR Topalu 79.07 318 ⇑P **P 10 17 54.5 +0.7**
TURR Turia 79.14 320 ⇑P **P 10 17 55.7 +1.4**
KIRS Kirsehir-Merke 79.15 311 ⇑P **P 10 17 55.0 +0.5**
COVR Voineasa-Covas 79.18 320 ⇑P **P 10 17 55.3 +0.7**
LNIZ Loecknitz 79.20 331 P **P 10 17 55.5 +1.1**
comp=Z,345nm,1.0s
OZUR 79.23 320 ⇓P **P 10 17 56.2 +1.4**
OJC Ojcow 79.26 326 *e*P **P 10 17 55.6 +0.7**
OJC Ojcow 79.26 326 P **P 10 17 55.4 +0.5**
OJC Ojcow 79.26 326 P **P 10 17 55.4 +0.5**
OJC Ojcow 79.26 326 P **P 10 17 55.7 +0.8**
comp=Z,229nm,1.1s
ARCR ARCALIA 79.28 322 ⇑P **P 10 17 56.6 +1.6**
BMR Baia Mare 79.31 322 P **P 10 17 56.3 +1.2**
BMR Baia Mare 79.31 322 ⇑P **P 10 17 56.3 +1.2**
BMR Baia Mare 79.31 322 P **P 10 17 56.4 +1.2**
comp=Z,2µmcomp=Z,164nm,1.2s
BOSR Bodos 79.31 320 ⇑P **P 10 17 56.7 +1.5**
PGOR Pogoanele 79.39 319 ⇑P **P 10 17 57.2 +1.5**
TRPA Tarpa 79.45 323 P **P 10 17 57.1 +1.1**
comp=Z,3µmcomp=Z,269nm,1.5s,comp=Z,3µm
ICOR Ion Corvin 79.48 318 ⇓P **P 10 17 57.4 +1.3**
ISR Istrita 79.49 319 P **P 10 17 57.6 +1.3**
ISR Istrita 79.49 319 ⇓P **P 10 17 57.6 +1.3**
PFO Pinyon Flats O 79.49 56 LR LR 10 46 04.8
comp=Z,988nm,22.0s,baz=284,slow=30
PFO Pinyon Flats O 79.49 56 *i* P **P 10 17 58.0 +1.4**
PFO Pinyon Flats O 79.49 56 P **P 10 17 57.8 +1.2**
comp=Z,44nm,1.1s
DOPR Dopca 79.52 320 ⇓P **P 10 17 57.7 +1.3**
MLR Muntele Rosu 79.55 320 LR LR 10 56 23.2
comp=Z,3µm,18.1s,baz=48,slow=38
MLR Muntele Rosu 79.55 320 P **P 10 17 57.3 +0.6**
MLR Muntele Rosu 79.55 320 P **P 10 17 57.1 +0.4**
MLR IAmb IAmb 10 17 58.6
comp=Z,96nm,1.3s
MLR Muntele Rosu 79.55 320 ⇑P **P 10 17 57.3 +0.6**
MLR Muntele Rosu 79.55 320 P **P 10 17 57.3 +0.6**
comp=Z,56nm,1.4s
NIE Niedzica 79.60 325 *e*P **P 10 17 57.9 +1.1**
PSN Preselentsi 79.61 317 P **P 10 17 56.3 -0.6**
MDB Medias 79.92 321 P **P 10 18 00.1 +1.6**
MDB Medias 79.92 321 ⇓P **P 10 18 00.2 +1.6**
CJR Cluj-Napoca 79.92 322 P **P 10 17 59.9 +1.4**
CJR Cluj-Napoca 79.92 322 ⇓P **P 10 17 60.0 +1.4**
MDUB Mudurnu 79.93 313 P **P 10 17 59.1 +0.3**
SULR 79.93 319 P **P 10 17 59.7 +1.1**
comp=Z,195nm,1.1s
MESR Meseseni 79.94 322 ⇑P **P 10 18 00.1 +1.5**
ABAH Abaujker 79.96 324 P **P 10 17 59.6 +0.9**
comp=Z,117nm,1.3s
ULM Lac du Bonnet 80.00 33 P **P 10 17 59.3 +0.4**
comp=Z,34nm,0.8s,baz=315,slow=6.1,SNR=39
ULM LR LR 10 54 25.5
comp=Z,160nm,21.1s,baz=329,slow=36
comp=Z,34nm,0.8s
ULM Lac du Bonnet 80.00 33 P **P 10 17 59.0 +0.1**
VOIR 80.05 320 P **P 10 18 00.0 +0.6**
VOIR 80.05 320 ⇓P **P 10 18 00.0 +0.6**
VOIR 80.05 320 P **P 10 17 59.9 +0.6**
comp=Z,38nm,1.4s
RUE Ruedersdorf 80.14 330 *e*P **P 10 18 00.4 +0.9**
comp=Z,254nm,1.3s,baz=39,slow=5.2
RUE Ruedersdorf 80.14 330 P **P 10 18 00.4 +0.9**
comp=Z,156nm,1.2s
LANS Liptovska Anna 80.17 325 *e*P **P 10 18 01.4 +1.5**
MARR Marisel-Cluj 80.18 322 ⇑P **P 10 18 00.8 +0.8**
KECS Kecovo 80.18 324 *e*P **P 10 18 00.9 +1.0**
KECS Kecovo 80.18 324 P **P 10 18 00.6 +0.7**
comp=Z,26nm,0.9s
OKC Ostrava-Krasne 80.27 327 *e*P **P 10 17 58.8 -1.5**
W13A Hualapai Mount 80.28 53 P **P 10 18 01.9 +0.9**
DRGR 80.30 322 P **P 10 18 01.2 +0.6**
DRGR 80.30 322 ⇓P **P 10 18 01.3 +0.6**
DRGR 80.30 322 P **P 10 18 01.3 +0.6**
comp=Z,49nm,1.6s
TNR Turnu Rosu 80.31 321 P **P 10 18 02.2 +1.6**
TNR Turnu Rosu 80.31 321 ⇓P **P 10 18 02.3 +1.6**
ARR Arges 80.31 320 ⇓P **P 10 18 02.5 +1.7**
ARR Arges 80.31 320 P **P 10 18 02.2 +1.4**
comp=Z,183nm,1.5s
NEF NEVSHA 80.33 317 P **P 10 18 01.6 +0.8**
BSEG Bad Segeberg 80.33 333 *e*P **P 10 18 01.3 +0.8**
comp=Z,112nm,1.1s,baz=39,slow=5.2
BSEG Bad Segeberg 80.33 333 P **P 10 18 01.4 +0.9**
comp=Z,130nm,1.1s
KSP Ksiaz 80.34 328 *e*P **P 10 18 01.5 +0.8**
STEB Steborice 80.37 327 *e*P **P 10 18 00.2 -0.7**
STEB *e*PP PP 10 20 51.8 -12
MORC Moravsky Berou 80.58 327 P **P 10 18 02.9 +0.8**
MORC Moravsky Berou 80.58 327 P **P 10 18 02.8 +0.7**
MORC IAmb IAmb 10 18 04.2
comp=Z,194nm,1.3s
MORC Moravsky Berou 80.58 327 *e*P **P 10 18 02.8 +0.7**
MORC Moravsky Berou 80.58 327 ⇑P **P 10 18 02.9 +0.8**
MORC Moravsky Berou 80.58 327 P **P 10 18 03.0 +0.8**
comp=Z,119nm,1.2s
OSTC Ostas 80.58 328 *e*P **P 10 18 02.4 +0.4**
OSTC AMS AMS 10 56 40.0
comp=Z,2µm,8.9s
RAYN Ar Rayn 80.58 292 *i* P **P 10 18 03.0 +0.4**
SNR=6.2
RAYN Ar Rayn 80.58 292 P **P 10 18 02.7 +0.1**
RAYN Ar Rayn 80.58 292 P **P 10 18 02.4 -0.2**
RAYN pmax pmax

comp=Z,93nm,0.8s
RAYN Ar Rayn 80.58 292 P **P** **10 18 02.4 -0.2**
RAYN IAmb IAmb 10 18 03.9
comp=Z,92nm,0.8s
RAYN Ar Rayn 80.58 292 P **P** **10 18 03.0 +0.4**
comp=Z,3μmcomp=Z,209nm,1.4s,comp=Z,3μm
RAYN Ar Rayn 80.58 292 P **P** **10 18 02.6 +0.1**
RAYN sP **sP** **10 18 18.6 -1.0**
CHVC Chvalec 80.63 328 *eP* **P** **10 18 02.6 +0.3**
CHVC *ePP* PP 10 20 54.2 -11
CHVC AMS AMS 10 56 40.0
comp=Z,3μm,21.2s
LOZB Loznitsa 80.63 318 ⇓P **P** **10 18 03.1 +0.7**
DPC Dobruska-Polom 80.69 328 *eP* **P** **10 18 03.3 +0.6**
DPC *ex* x 10 20 58.2
DPC AMS AMS 10 56 40.0
comp=Z,2μm,21.3s
DPC Dobruska-Polom 80.69 328 P **P** **10 18 03.8 +1.1**
comp=Z,2μmcomp=Z,94nm,1.5s
KRLC Kraliky 80.70 327 *eP* **P** **10 18 02.7 0.0**
KRLC *ePP* **PP** **10 21 05.4 -0.8**
KRLC AMS AMS 10 58 40.0
comp=Z,1μm,20.0s
LOT Lotru 80.70 321 ⇑P **P** **10 18 03.3 +0.5**
LOT Lotru 80.70 321 P **P** **10 18 03.4 +0.5**
comp=Z,44nm,0.9s
GORT1 Trebel 80.70 332 P **P** **10 18 03.4 +0.9**
comp=Z,171nm,1.3s
UPC Upice 80.71 328 *eP* **P** **10 18 03.3 +0.6**
UPC *ePP* **PP** **10 21 02.0 -4.2**
UPC AMS AMS 10 56 50.0
comp=Z,2μm,22.7s
DEV Deva 80.84 321 P **P** **10 18 04.5 +1.0**
DEV Deva 80.84 321 ⇓P **P** **10 18 04.5 +1.0**
DEV Deva 80.84 321 P **P** **10 18 04.3 +0.8**
comp=Z,77nm,1.1s
PSZ Piszkesteto 80.86 324 P **P** **10 18 04.6 +1.0**
PSZ Piszkesteto 80.86 324 P **P** **10 18 04.0 +0.4**
PSZ Piszkesteto 80.86 324 ⇓P **P** **10 18 04.6 +1.0**
PSZ Piszkesteto 80.86 324 P **P** **10 18 04.6 +1.0**
comp=Z,174nm,1.2s
VYHS Vyhne 80.94 325 *eP* **P** **10 18 04.9 +0.9**
VYHS Vyhne 80.94 325 P **P** **10 18 05.1 +1.1**
comp=Z,31nm,1.6s
SZH Strazhitsa 81.03 318 P **P** **10 18 05.0 +0.4**
ZIMR 81.10 319 P **P** **10 18 05.2 +0.4**
ZIMR 81.10 319 ⇓P **P** **10 18 05.3 +0.4**
BSZH Besenyszg 81.13 324 P **P** **10 18 06.5 +1.5**
comp=Z,233nm,1.1s
SIRR Siria 81.19 322 ⇓P **P** **10 18 06.1 +0.7**
JAVC Velka Javorina 81.20 326 *eP* **P** **10 18 07.2 +1.8**
JAVC Velka Javorina 81.20 326 P **P** **10 18 07.3 +1.9**
comp=Z,131nm,1.2s
GZR Gura Zlata 81.24 321 P **P** **10 18 06.2 +0.5**
GZR Gura Zlata 81.24 321 ⇑P **P** **10 18 06.2 +0.5**
FLTG Flechtingen 81.25 332 *eP* **P** **10 18 05.5 0.0**
comp=Z,50nm,0.8s,baz=39,slow=5.2
FLTG Flechtingen 81.25 332 P **P** **10 18 05.7 +0.2**
comp=Z,141nm,1.2s
BRG Berggiesshubel 81.30 329 *eP* **P** **10 18 06.4 +0.6**
comp=Z,70nm,1.1s,baz=39,slow=5.2
BRG Berggiesshubel 81.30 329 P **P** **10 18 06.4 +0.6**
comp=Z,99nm,1.2s
BRG Berggiesshubel 81.30 329 ⇑ *iP* **P** **10 18 06.3 +0.5**
BRG Amp 10 18 07.6
comp=Z,69nm,1.0s
BRG pP **pP** **10 18 18.6 +0.4**
BRG Amp 10 18 19.9
comp=Z,46nm,1.0s
PVCC Panska Ves 81.30 329 *eP* **P** **10 18 06.6 +0.8**
PVCC AMS AMS 10 57 00.0
comp=Z,2μm,21.8s
SURR Surduc 81.32 322 ⇓P **P** **10 18 06.7 +0.7**
CLL Collm 81.35 330 P **P** **10 18 05.9 -0.2**
CLL pmax pmax
comp=Z,174nm,1.1s
CLL Collm 81.35 330 P **P** **10 18 05.9 -0.2**
CLL IAmb IAmb 10 18 07.5
comp=Z,174nm,1.1s
CLL Collm 81.35 330 *eP* **P** **10 18 06.3 +0.3**
comp=Z,93nm,0.9s,baz=39,slow=5.2
CLL Collm 81.35 330 P **P** **10 18 06.3 +0.3**
comp=Z,159nm,1.2s
CLL Collm 81.35 330 ⇑ *iP* **P** **10 18 06.2 +0.2**
comp=Z,237nm,1.3s
CLL *i* pP **pP** **10 18 18.7 +0.3**
CLL *e*sP **sP** **10 18 24.0 +0.9**
CLL *ex* x 10 20 54.0
CLL *e*PP **PP** **10 21 08.0 -3.4**
CLL *e*S **S** **10 28 18.0 +4.3**
CLL *e*PS **PnS** **10 29 18.0 +13**
CLL *ex* x 10 30 00.0
CLL *e*(SS) SS 10 34 18.0 +49
CLL L L 10 43 00.0
CLL AMS AMS 10 56 00.0
comp=N,1μm,21.1s
CLL AMS AMS 10 56 00.0
comp=E,800nm,19.6s
CLL AMS AMS 10 57 00.0
comp=N,1μm,18.0s
CLL AMS AMS 10 57 00.0
comp=E,600nm,18.4s
CLL AMS AMS 10 57 00.0
comp=Z,1μm,16.3s
VRAC Vranov 81.35 327 LR LR 10 58 00.9
comp=Z,1μm,18.5s,baz=40,slow=38
VRAC Vranov 81.35 327 P **P** **10 18 07.1 +1.0**
VRAC Vranov 81.35 327 *eP* **P** **10 18 06.9 +0.8**
VRAC Vranov 81.35 327 ⇓P **P** **10 18 07.2 +1.0**
VLAD Vladila 81.37 319 ⇑P **P** **10 18 06.9 +0.6**
AGMN Agassiz Nation 81.44 34 P **P** **10 18 07.0 +0.4**
comp=Z,54nm,1.3s
RICC Richard 81.48 329 *eP* **P** **10 18 07.4 +0.6**
RICC AMS AMS 10 57 10.0
comp=Z,2μm,20.7s
ASF Jabal al Asfar 81.54 304 LR LR 10 58 13.5
comp=Z,619nm,18.4s,baz=61,slow=38
ASF Jabal al Asfar 81.54 304 P **P** **10 18 08.5 +0.9**
ASF AML AML
BUD Budapest 81.58 324 P **P** **10 18 07.8 +0.5**
comp=Z,74nm,1.2s
URZ Urewera 81.58 152 LR LR 10 50 33.5
comp=Z,682nm,20.8s,baz=340,slow=33
KRUC Moravsky 81.62 327 *eP* **P** **10 18 08.1 +0.6**
KRUC Moravsky 81.62 327 P **P** **10 18 08.4 +0.8**
comp=Z,115nm,1.1s
ASSE Asse, Remlinge 81.62 332 *eP* **P** **10 18 07.9 +0.5**
comp=Z,53nm,1.2s,baz=39,slow=5.2
ASSE *ep*P **pP** **10 18 21.1 +1.3**
ASSE Asse, Remlinge 81.62 332 P **P** **10 18 07.9 +0.5**
comp=Z,70nm,1.4s
RETH Rethem/Aller, 81.63 333 P **P** **10 18 07.4 -0.1**
comp=Z,686μmcomp=Z,7μm,1.3s,comp=Z,686μm
BZS Buzias 81.67 322 P **P** **10 18 08.0 +0.1**
BZS Buzias 81.67 322 ⇑P **P** **10 18 08.1 +0.1**
BZS Buzias 81.67 322 P **P** **10 18 08.0 +0.1**
comp=Z,61nm,1.3s
SRO Srobarova 81.67 325 P **P** **10 18 09.6 +1.8**
comp=Z,1μmcomp=Z,127nm,1.1s,comp=Z,1μm
PLVB Pleven 81.68 319 ⇑P **P** **10 18 08.3 +0.4**
HSKC Hora Svate Kat 81.71 329 *eP* **P** **10 18 08.2 +0.2**
HSKC AMS AMS 10 57 30.0
comp=Z,2μm,19.9s
GEM Giv'at Ha'Em 81.72 305 P **P** **10 18 09.6 +1.2**
MODS Modra-Piesok 81.73 326 *eP* **P** **10 18 09.3 +1.1**
MODS Modra-Piesok 81.73 326 P **P** **10 18 09.5 +1.3**
comp=Z,158nm,1.2s
WIMM Wimmelburg 81.78 331 P **P** **10 18 08.6 +0.3**
comp=Z,217nm,1.5s
HERR Herculane 81.78 321 ⇓P **P** **10 18 08.8 +0.3**
BAND Balkesir-Ban 81.80 315 ⇓P **P** **10 18 09.3 +0.6**
TREC Trest 81.84 327 *eP* **P** **10 18 08.9 +0.2**
TREC *ePP* PP 10 20 51.6 -24
TREC AMS AMS 10 58 30.0
comp=Z,2μm,15.6s
NEUB Neuenburg 81.91 331 *eP* **P** **10 18 09.4 +0.4**
comp=Z,72nm,0.9s,baz=39,slow=5.2
NEUB Neuenburg 81.91 331 P **P** **10 18 09.5 +0.5**
comp=Z,154nm,1.2s
CLZ Clausthal 81.96 332 *eP* **P** **10 18 10.0 +0.7**
comp=Z,183nm,1.3s,baz=39,slow=5.2
CLZ Clausthal 81.96 332 P **P** **10 18 10.2 +0.8**
comp=Z,121nm,1.2s
KEPZ Antalya-Kepez 81.97 310 ⇑P **P** **10 18 09.9 +0.2**
MMAI Mount Meron Ar 82.01 305 P **P** **10 18 10.8 +0.8**
comp=Z,32nm,0.8s,baz=30,slow=14,SNR=27
MMAI LR LR 10 58 00.2
comp=Z,925nm,21.0s,baz=37,slow=38
comp=Z,32nm,0.8s
ISP Isparta 82.04 312 *c iP* **P** **10 18 09.7 -0.5**
ISP pmax pmax
comp=Z,69nm,1.1s
ISP Isparta 82.04 312 P **P** **10 18 09.6 -0.5**
ISP IAmb IAmb 10 18 11.0
comp=Z,60nm,0.9s
CSS Mathiatis 82.13 308 P **P** **10 18 10.4 -0.1**
CSS IAmb IAmb 10 18 13.3
comp=Z,69nm,0.8s
CSS Mathiatis 82.13 308 P **P** **10 18 10.8 +0.3**
comp=Z,2μmcomp=Z,111nm,0.9s,comp=Z,2μm
MPEP Malo Peshtene 82.16 319 P **P** **10 18 11.4 +0.9**
MDVR Moldovita 82.21 321 ⇑P **P** **10 18 11.0 +0.2**
IVI Ivigtut 82.25 5 P **P** **10 18 11.6 +1.0**
comp=Z,94nm,1.0s
IVI Ivigtut 82.25 5 *i* P **P** **10 18 11.2 +0.6**
IVI IAmb IAmb 10 18 12.3
comp=Z,74nm,0.9s
IVI Ivigtut 82.25 5 P **P** **10 18 11.0 +0.4**
IVI PcP **PcP** **10 18 16.4 +0.6**
IVI pP **pP** **10 18 22.6 -0.4**
IVI sP **sP** **10 18 27.1 -0.5**
TANN Tannenbergstha 82.25 330 *eP* **P** **10 18 10.9 0.0**
comp=Z,15nm,0.9s,baz=39,slow=5.2
TANN Tannenbergstha 82.25 330 P **P** **10 18 11.4 +0.5**
comp=Z,75nm,1.6s
ZVC Zvikov 82.28 328 *eP* **P** **10 18 11.5 +0.5**
ZVC *ePP* PP 10 21 10.1 -9.1
ZVC AMS AMS 10 58 10.0
comp=Z,2μm,8.8s
KPL Plockton 82.31 343 *eP* **P** **10 18 11.9 +0.9**
KPL IAmb IAmb 10 18 14.0
comp=Z,78nm,0.9s
QRNJ Al-Qirein 82.32 305 P **P** **10 18 12.8 +1.3**
MVCO Mesa Verde 82.33 49 P **P** **10 18 13.5 +1.6**
comp=Z,731nmcomp=Z,58nm,1.3s
ABNA Allensteig Bun 82.33 327 *i* P **P** **10 18 11.9 +0.5**
comp=Z,60nm,1.2s
ABNA *ePP* **PP** **10 21 19.9 +0.2**
comp=Z,29nm,1.2s
ISCO Idaho Springs 82.34 46 P **P** **10 18 13.7 +1.8**
comp=Z,42nm,1.1s
GTTG Gottingen 82.35 332 *eP* **P** **10 18 11.8 +0.5**
comp=Z,45nm,0.9s,baz=39,slow=5.2
GTTG Gottingen 82.35 332 P **P** **10 18 12.0 +0.6**
comp=Z,142nm,1.4s
NKC Novy Kostel 82.40 330 *eP* **P** **10 18 10.5 -1.2**
NKC *ePP* **PP** **10 21 16.9 -3.3**
BALB Balikesir 82.40 314 P **P** **10 18 12.2 +0.4**
BALB IAmb IAmb 10 18 14.7
comp=Z,117nm,1.2s
MOX Moxa 82.42 330 *eP* **P** **10 18 11.8 +0.1**
comp=Z,22nm,0.8s,baz=39,slow=5.2
MOX *ep*P **pP** **10 18 25.1 +0.9**
MOX Moxa 82.42 330 P **P** **10 18 12.2 +0.5**
comp=Z,60nm,1.5s
NRS Narsarsuaq 82.44 3 *i* P **P** **10 18 11.7 +0.1**
NRS IAmb IAmb 10 18 13.3
comp=Z,25nm,0.8s
WINA Alland / Wiene 82.47 326 *i* P **P** **10 18 12.9 +0.8**
comp=Z,39nm,0.9s,SNR=28
WINA *ePP* **PP** **10 21 21.2 +0.3**
comp=Z,19nm,1.1s
MPLH Magyarpolny 82.50 325 P **P** **10 18 12.8 +0.6**
comp=Z,79nm,1.2s
BLKB Belogradchik 82.53 320 ⇑P **P** **10 18 12.8 +0.3**
IBBN Ibbenburen 82.56 333 *eP* **P** **10 18 12.8 +0.4**
comp=Z,54nm,0.8s,baz=39,slow=5.2
IBBN Ibbenburen 82.56 333 P **P** **10 18 12.8 +0.4**
comp=Z,131nm,1.4s
SOP Sopron 82.57 326 P **P** **10 18 13.7 +1.1**
comp=Z,2μmcomp=Z,117nm,1.3s,comp=Z,2μm
ALN Alexandroupoli 82.60 316 P **P** **10 18 13.2 +0.4**
ALN pmax pmax
comp=Z,74nm,1.2s
ALN Alexandroupoli 82.60 316 P **P** **10 18 13.2 +0.4**
ALN IAmb IAmb 10 18 13.8
comp=Z,74nm,1.2s
UJAP Al Uja 82.63 304 P **P** **10 18 12.8 -0.3**
comp=Z,2μmcomp=Z,62nm,1.8s
RONA Rosalia, Austr 82.68 326 *i* P **P** **10 18 14.0 +0.8**
comp=Z,107nm,1.2s,SNR=51
RONA *ePP* **PP** **10 21 18.5 -4.0**
comp=Z,23nm,1.2s
MORH Mrgy, Hungar 82.69 324 ⇑P **P** **10 18 13.2 +0.1**
MORH Mrgy, Hungar 82.69 324 ⇑ *iP* **P** **10 18 13.0 -0.2**
MORH Mrgy, Hungar 82.69 324 P **P** **10 18 13.2 +0.1**
comp=Z,54nm,1.1s
CONA Conrad Observa 82.70 326 *i* P **P** **10 18 14.2 +0.9**
comp=Z,91nm,1.2s,SNR=40
CONA *ePP* **PP** **10 21 19.2 -3.6**
comp=Z,17nm,1.2s
CKRC Cesky Krumlov 82.71 328 *eP* **P** **10 18 13.5 +0.2**
CKRC *ePP* PP 10 21 11.5 -11
CKRC AMS AMS 10 59 20.0
comp=Z,2μm,19.1s
INVG Invergeldie, C 82.72 341 *eP* **P** **10 18 13.3 +0.2**
INVG IAmb IAmb 10 18 15.5
comp=Z,22nm,0.7s
SALP Salfit 82.74 305 P **P** **10 18 15.0 +1.2**
BLSH Balsha 82.75 319 P **P** **10 18 14.6 +0.9**
MANT Manisa 82.77 313 P **P** **10 18 13.9 -0.2**
MANT IAmb IAmb 10 18 15.4
comp=Z,61nm,1.0s
RZN Rozhen 82.77 317 P **P** **10 18 15.1 +1.1**
KHC Kasperske Hory 82.78 328 P **P** **10 18 14.2 +0.5**
KHC pmax pmax
comp=Z,113nm,1.1s
KHC Kasperske Hory 82.78 328 P **P** **10 18 14.2 +0.5**
KHC IAmb IAmb 10 18 15.6
comp=Z,112nm,1.1s
KHC Kasperske Hory 82.78 328 *eP* **P** **10 18 13.8 +0.1**
KHC *ex* x 10 21 18.1
KHC AMS AMS 10 58 10.0
comp=Z,2μm,14.2s
FRGS Fruska Gora 82.89 322 ⇑ *iP* **P** **10 18 14.6 +0.3**
VTS Vitosha 82.94 319 P **P** **10 18 15.9 +1.1**
GEC2 GERESS Array S 82.95 328 P **P** **10 18 14.5 -0.1**
GEC2 IAmb IAmb 10 18 16.0
comp=Z,82nm,1.3s
GEC2 GERESS Array S 82.95 328 *eP* **P** **10 18 14.9 +0.3**
comp=Z,49nm,1.1s,baz=39,slow=5.2
GEC2 GERESS Array S 82.95 328 P **P** **10 18 14.9 +0.3**
comp=Z,67nm,1.7s
GERES GERESS Array B 82.95 328 P **P** **10 18 14.8 +0.1**
comp=Z,22nm,0.8s,baz=35,slow=4.9,SNR=128
GERES PP **PP** **10 21 20.9 -3.9**
comp=Z,11nm,0.9s,baz=32,slow=6.3,SNR=5.1
GERES PKKPbc **PKKPbc** **10 36 36.4 0.0**
comp=Z,0.3nm,0.2s,baz=177,slow=14,SNR=9.8
GERES LR LR 10 58 34.8
comp=Z,1μm,18.2s,baz=44,slow=38
comp=Z,22nm,0.8s
GERES GERESS Array B 82.95 328 P **P** **10 18 14.6 0.0**
GHAJ Ghor Haditha 82.97 304 P **P** **10 18 15.3 +0.5**
GHAJ Ghor Haditha 82.97 304 P **P** **10 18 15.8 +1.0**
comp=Z,3μmcomp=Z,142nm,0.9s,comp=Z,3μm
EAB Aberfoyle 83.01 341 *eP* **P** **10 18 15.2 +0.6**
EAB IAmb IAmb 10 18 17.9
comp=Z,35nm,0.8s
BOVS Bovan 83.03 320 ⇓P **P** **10 18 15.1 +0.1**
LISJ El Lisan 83.06 304 P **P** **10 18 17.0 +1.7**
WET Wettzell 83.06 329 *eP* **P** **10 18 15.6 +0.4**
comp=Z,50nm,1.1s,baz=39,slow=5.2
WET Wettzell 83.06 329 P **P** **10 18 15.8 +0.7**
comp=Z,74nm,1.3s
MSBI Mazada 83.10 304 P **P** **10 18 16.4 +0.8**
comp=Z,2μmcomp=Z,74nm,1.8s,comp=Z,2μm
EZN Ezine 83.17 315 P **P** **10 18 16.1 +0.4**
EZN Ezine 83.17 315 ⇓P **P** **10 18 16.2 +0.4**
KASTN Kahler Asten 83.21 332 *eP* **P** **10 18 16.5 +0.6**
comp=Z,18nm,0.9s,baz=39,slow=5.2
GRA3 Grafenberg Arr 83.22 330 P **P** **10 18 16.9 +1.0**
comp=Z,195nm,1.4s
AMAZ Amatzia 83.26 304 P **P** **10 18 18.4 +1.9**
GRA2 Grafenberg Arr 83.29 330 P **P** **10 18 17.2 +0.9**
comp=Z,184nm,1.2s
GRA1 Grafenberg Arr 83.32 330 P **P** **10 18 16.7 +0.3**
GRA1 Grafenberg Arr 83.32 330 P **P** **10 18 17.4 +0.9**
comp=Z,206nm,1.2s
GRF Grafenberg Arr 83.32 330 P **P** **10 18 16.7 +0.3**
GRF pmax pmax
comp=Z,249nm,1.2s
GRF Grafenberg Arr 83.32 330 *eP* **P** **10 18 17.1 +0.6**
comp=Z,103nm,0.9s,baz=39,slow=5.2
GRFO Grafenberg 83.32 330 P **P** **10 18 17.0 +0.6**
GRFO pmax pmax
comp=Z,150nm,1.0s
GRFO Grafenberg 83.32 330 P **P** **10 18 17.0 +0.6**
GRFO Grafenberg 83.32 330 P **P** **10 18 17.1 +0.7**
GRFO PcP **PcP** **10 18 21.0 +0.2**
GRFO pP **pP** **10 18 28.9 +0.1**
GRB3 Grafenberg Arr 83.35 329 P **P** **10 18 17.4 +0.8**
comp=Z,152nm,1.3s
GRB4 Grafenberg Arr 83.36 330 P **P** **10 18 17.4 +0.8**
comp=Z,151nm,1.5s
ARSA Arzberg 83.36 326 P **P** **10 18 17.0 +0.3**
ARSA IAmb IAmb 10 18 18.7
comp=Z,115nm,1.5s
ARSA Arzberg 83.36 326 *i* P **P** **10 18 17.1 +0.4**
comp=Z,47nm,1.1s,SNR=23
ARSA Arzberg 83.36 326 P **P** **10 18 17.3 +0.6**
comp=Z,74nm,1.5s
BEHE Becsehely 83.37 325 P **P** **10 18 17.2 +0.4**
BEHE Becsehely 83.37 325 P **P** **10 18 17.3 +0.5**
GRB1 Grafenberg Arr 83.38 329 P **P** **10 18 17.5 +0.8**
comp=Z,165nm,1.4s
PGBU Glenifferbraes 83.38 341 *eP* **P** **10 18 17.4 +0.9**
PGBU IAmb IAmb 10 18 20.2
comp=Z,117nm,0.9s
MMB Musomishta 83.41 318 P **P** **10 18 17.8 +0.7**
BUG Bochum--Univer 83.44 333 *eP* **P** **10 18 17.4 +0.4**
comp=Z,19nm,0.8s,baz=39,slow=5.2
BUG Bochum--Univer 83.44 333 P **P** **10 18 16.8 -0.2**
comp=Z,59nm,1.8s
EKA Eskdalemuir Ar 83.46 340 P **P** **10 18 17.5 +0.5**
comp=Z,14nm,0.8s,baz=33,slow=5.4,SNR=25
EKA PP **PP** **10 21 24.9 -3.7**
comp=Z,15nm,0.9s,baz=29,slow=7.0,SNR=7.1
EKA LR LR 10 58 55.5
comp=Z,1μm,18.7s,baz=28,slow=38
comp=Z,14nm,0.8s
MOA Molln 83.46 327 *i* P **P** **10 18 17.6 +0.3**
comp=Z,59nm,1.4s,SNR=30
MOA Molln 83.46 327 P **P** **10 18 17.9 +0.7**
comp=Z,72nm,1.6s
GRB2 Grafenberg Arr 83.47 329 P **P** **10 18 17.8 +0.6**
comp=Z,2μmcomp=Z,127nm,1.0s
TEKS Tekeris 83.47 322 ⇑ *iP* **P** **10 18 17.2 -0.1**
ESK Eskdalemuir 83.48 340 *i* P **P** **10 18 18.6 +1.5**
ESK Eskdalemuir 83.48 340 *eP* **P** **10 18 16.7 -0.5**
ESK IAmb IAmb 10 18 18.6
comp=Z,15nm,0.8s
HSNJ Maan 83.54 303 P **P** **10 18 19.6 +1.6**
KKB Krupnik 83.54 318 P **P** **10 18 18.8 +1.1**
GRB5 Grafenberg Arr 83.59 329 P **P** **10 18 18.2 +0.4**
comp=Z,136nm,1.1s
AKAS Kas 83.63 311 P **P** **10 18 17.6 -0.9**
EYMN Ely 83.64 33 P **P** **10 18 18.8 +0.7**
comp=Z,1μmcomp=Z,83nm,1.0s
GRC4 Grafenberg Arr 83.67 329 P **P** **10 18 18.7 +0.5**
comp=Z,125nm,1.2s
GRC1 Grafenberg Arr 83.74 329 P **P** **10 18 19.1 +0.5**
comp=Z,140nm,1.4s
SDCO Great Sand Dun 83.77 47 P **P** **10 18 20.0 +0.7**
GRC3 Grafenberg Arr 83.80 329 P **P** **10 18 19.3 +0.4**
comp=Z,128nm,1.2s
BIOA Bad Ischl, Aus 83.86 327 *i* P **P** **10 18 19.6 +0.3**
comp=Z,80nm,1.1s,SNR=28
SESA Seetaler Alpe, 83.89 326 *i* P **P** **10 18 19.9 +0.2**
comp=Z,46nm,0.9s,SNR=70
SESA *ePP* **PP** **10 21 33.0 +0.3**
comp=Z,12nm,1.1s
GRC2 Grafenberg Arr 83.90 329 P **P** **10 18 19.7 +0.3**
comp=Z,2μmcomp=Z,114nm,1.3s
PRNI Paran 83.94 303 P **P** **10 18 20.8 +0.8**
GROS Grobnik 83.96 326 *eP* **P** **10 18 19.8 -0.1**
TNS Taunus Mts 83.99 332 *eP* **P** **10 18 20.2 +0.3**
comp=Z,16nm,0.9s,baz=39,slow=5.2
TNS *ep*P **pP** **10 18 33.2 +0.9**
TNS Taunus Mts 83.99 332 P **P** **10 18 20.2 +0.3**
comp=Z,36nm,1.8s
KZIT Kziot 83.99 304 P **P** **10 18 21.2 +1.0**
PERS Pernice 84.01 326 *i* P **P** **10 18 20.3 +0.2**
SOKA Soboth 84.01 326 *i* P **P** **10 18 20.2 +0.1**
comp=Z,103nm,1.1s,SNR=52
SOKA *ePP* **PP** **10 21 33.5 -0.1**
comp=Z,7.9nm,1.2s
BBLS Lazi&#263i 84.02 322 ⇑ *iP* **P** **10 18 20.8 +0.6**
TUC Tucson 84.04 54 P **P** **10 18 22.0 +1.4**
comp=Z,37nm,1.1s
TUC Tucson 84.04 54 P **P** **10 18 21.9 +1.4**
TUC pP **pP** **10 18 34.6 +1.7**
HRFI Mount Harif 84.11 303 P **P** **10 18 21.8 +0.9**
SJES Sjenica 84.17 321 ⇑ *iP* **P** **10 18 21.5 +0.4**
RJOB Jochberg 84.19 328 P **P** **10 18 21.6 +0.7**
comp=Z,43nm,1.3s
VAY Valandovo 84.20 318 *i* P **P** **10 18 21.6 +0.5**
HPK Haverah Park 84.23 339 *eP* **P** **10 18 21.6 +0.6**
HPK IAmb IAmb 10 18 23.0
comp=Z,28nm,0.8s
GAL1 Galloway 84.28 341 *eP* **P** **10 18 20.9 -0.3**
GAL1 IAmb IAmb 10 18 25.5
comp=Z,30nm,0.7s
AQBJ Aqaba 84.30 303 P **P** **10 18 22.9 +1.1**
BQPT Opiter 84.30 334 *dP* **P** **10 18 22.3 +0.9**
SKO Skopje 84.34 319 *i* P **P** **10 18 23.1 +1.3**
OBKA Obir 84.36 326 *i* P **P** **10 18 21.7 -0.2**
comp=Z,20nm,0.9s
OBKA *ePP* **PP** **10 21 34.0 -2.3**
comp=Z,16nm,1.1s
OBKA Obir 84.36 326 P **P** **10 18 21.9 0.0**
comp=Z,31nm,1.2s
EIL Elat 84.40 303 LR LR 10 59 57.3
comp=Z,592nm,20.5s,baz=60,slow=38
EIL Elat 84.40 303 P **P** **10 18 22.8 +0.5**
EIL Elat 84.40 303 P **P** **10 18 22.8 +0.5**
comp=Z,2μmcomp=Z,156nm,1.3s
BMOL Mol 84.41 334 *dP* **P** **10 18 22.3 +0.4**
comp=Z,70nm,1.2s
ECSD EROS Data Cent 84.42 38 P **P** **10 18 22.8 +0.6**
comp=Z,54nm,1.0s
PLE Pljevlja 84.42 321 ⇑ *iP* **P** **10 18 22.7 +0.4**
RPZ Rata Peaks 84.45 159 LR LR 10 50 32.0
comp=Z,233nm,21.8s,baz=349,slow=32
CLGH Cloghs, Cushen 84.45 342 *eP* **P** **10 18 22.5 +0.4**
CLGH IAmb IAmb 10 18 25.0
comp=Z,50nm,0.9s
KBA Koelnbreinsper 84.46 327 *i* P **P** **10 18 22.3 -0.2**
comp=Z,48nm,1.0s,SNR=19
KBA *ePP* **PP** **10 21 35.4 -1.8**
comp=Z,19nm,1.1s
KBA Koelnbreinsper 84.46 327 P **P** **10 18 22.6 +0.1**
comp=Z,77nm,1.0s
BLY Banja Luka 84.46 324 P **P** **10 18 22.0 -0.3**
BLY IAmb IAmb 10 18 23.9
comp=Z,199nm,1.8s
BLY Banja Luka 84.46 324 ⇑ *iP* **P** **10 18 22.3 0.0**
BLY Banja Luka 84.46 324 P **P** **10 18 22.8 +0.5**
comp=Z,68nm,1.8s
LESA Schwarzleotal 84.48 328 *i* P **P** **10 18 22.5 0.0**
comp=Z,27nm,0.9s,SNR=30
FUR Furstenfeldbru 84.49 329 *eP* **P** **10 18 22.9 +0.5**
comp=Z,79nm,0.8s,baz=39,slow=5.2
FUR *ep*P **pP** **10 18 35.7 +0.8**
FUR Furstenfeldbru 84.49 329 P **P** **10 18 23.1 +0.7**
comp=Z,2μmcomp=Z,143nm,0.9s
IVA Berane 84.50 321 ⇑ *iP* **P** **10 18 22.6 -0.1**
ARG Arkhangelos 84.54 312 P **P** **10 18 22.9 0.0**
ARG pmax pmax
comp=Z,358nm,1.1s
ARG Arkhangelos 84.54 312 P **P** **10 18 22.9 0.0**
MEM Membach 84.58 333 *dP* **P** **10 18 22.7 -0.1**
comp=Z,33nm,1.2s
PVY Plav 84.66 321 ⇑ *iP* **P** **10 18 23.9 +0.3**
PPT Papeete 84.67 116 LR LR 10 49 48.7
comp=Z,1μm,19.9s,baz=284,slow=31
MYKA Terra Mystica 84.67 327 *i* P **P** **10 18 22.9 -0.6**
comp=Z,26nm,0.9s,SNR=11
MYKA *ePP* **PP** **10 21 36.6 -2.3**
comp=Z,4.7nm,0.6s
PPT2 Papeete2 84.68 116 *eP* **P** **10 18 19.4 -4.4**
comp=Z,85nm,26.2s
PPT2 *eS* **S** **10 28 47.6 -0.9**
comp=Z,278nm,24.8s
PPT2 *e*SS **SS** **10 34 16.9 -4.3**
comp=Z,304nm,25.5s
PPT2 *e*LR LR 10 44 48.6

comp=Z,4µm,28.0s
PPT2 eLR LR 10 44 57.9
comp=Z,2µm,30.8s
KOME Kolasin 84.70 321 ⇑*i*P **P** **10 18 24.1 +0.4**
LJU Ljubljana 84.72 326 *i* P **P** **10 18 23.2 -0.4**
LBWR Ladybower, Pea 84.75 339 *e*P **P** **10 18 24.2 +0.6**
LBWR IAmb IAmb 10 18 32.6
comp=Z,51nm,0.7s
LBWR Ladybower, Pea 84.75 339 P **P** **10 18 24.5 +0.9**
comp=Z,264nm,1.6s
UPM Unac-Piva 84.75 322 ⇑*i*P **P** **10 18 23.5 -0.6**
UPM Unac-Piva 84.75 322 ⇑*i*P **P** **10 18 23.7 -0.4**
IOMK Kirk Michael 84.79 341 *e*P **P** **10 18 23.7 0.0**
IOMK IAmb IAmb 10 18 26.5
comp=Z,14nm,0.9s
ACOM Acomizza, Ital 84.79 327 P **P** **10 18 23.8 -0.5**
comp=Z,98nm,0.7s
IDGL Inch Island, C 84.80 342 P **P** **10 18 23.5 -0.3**
comp=Z,147nm,1.5s
IDGL Inch Island, C 84.80 342 P **P** **10 18 24.9 +1.1**
PRED Cave del Predi 84.85 327 P **P** **10 18 23.4 -0.9**
PRED IAmb IAmb 10 21 39.8
comp=Z,40nm,1.0s
STU Stuttgart 84.86 330 P **P** **10 18 24.0 -0.3**
STU pmax pmax
comp=Z,140nm,1.1s
STU Stuttgart 84.86 330 P **P** **10 18 24.0 -0.3**
STU Stuttgart 84.86 330 *e*P **P** **10 18 24.6 +0.3**
comp=Z,182nm,0.9s,baz=39,slow=5.2
STU Stuttgart 84.86 330 P **P** **10 18 24.8 +0.5**
comp=Z,140nm,1.4s
KLINJ Klinje 84.94 322 *e*P **P** **10 18 24.6 -0.3**
BCLA Clavier 85.00 333 *d*P **P** **10 18 24.8 -0.1**
comp=Z,26nm,1.3s
BCLA *d*PP **PP** **10 21 41.6 +0.3**
UCC Uccle 85.02 334 *d*P **P** **10 18 24.9 0.0**
comp=Z,19nm,1.3s
WATA Walderalm 85.02 328 *i* P **P** **10 18 24.9 -0.4**
comp=Z,16nm,0.8s,SNR=15
NKME Niksic 85.05 321 ⇑*i*P **P** **10 18 25.3 -0.1**
WTTA Wattenberg 85.05 328 *e*P **P** **10 18 25.2 -0.2**
comp=Z,16nm,1.0s,SNR=11
WTTA Wattenberg 85.05 328 P **P** **10 18 25.5 0.0**
comp=Z,47nm,1.6s
ELMS Elmsett, Ipswi 85.05 337 *e*P **P** **10 18 25.2 +0.1**
ELMS IAmb IAmb 10 18 26.3
comp=Z,56nm,0.7s
ANMO Albuquerque 85.06 50 LR LR 10 52 20.1
comp=Z,176nm,20.9s,baz=320,slow=33
ANMO Albuquerque 85.06 50‖*e*P **P** **10 18 22.2 -3.6**
ANMO pmax pmax
comp=Z,23nm,1.0s
ANMO Albuquerque 85.06 50 P **P** **10 18 27.5 +1.7**
comp=Z,38nm,1.2s
ANMO Albuquerque 85.06 50 P **P** **10 18 27.4 +1.7**
ANMO pP **pP** **10 18 39.2 +1.0**
ABTA Abfaltersbach 85.07 327 *e*P **P** **10 18 24.7 -0.8**
comp=Z,36nm,1.1s,SNR=9.1
ABTA *e*PP **PP** **10 21 41.3 -0.8**
comp=Z,14nm,1.0s
STBN Sutton Boningt 85.10 338 *e*P **P** **10 18 25.6 +0.3**
FUSE Fusea 85.12 327 P **P** **10 18 24.6 -1.0**
comp=Z,68nm,1.1s
BOST Ostende 85.14 335 *d*P **P** **10 18 25.2 -0.3**
comp=Z,32nm,1.2s
PDG Podgorica 85.14 321 ⇑*i*P **P** **10 18 25.9 +0.1**
PDG Podgorica 85.14 321 P **P** **10 18 26.2 +0.4**
comp=Z,3µmcomp=Z,229nm,1.1s
PDG Podgorica 85.14 321 ⇑*i*P **P** **10 18 26.0 +0.2**
BRY Bratogost 85.16 322 ⇑*i*P **P** **10 18 25.1 -1.0**
BRY Bratogost 85.16 322 ⇑*i*P **P** **10 18 25.6 -0.5**
CWF Charnwood Fore 85.20 338 *e*P **P** **10 18 26.0 +0.1**
CWF IAmb IAmb 10 18 27.1
comp=Z,21nm,0.8s
MOTA Moosalm 85.21 328 *i* P **P** **10 18 25.9 -0.3**
comp=Z,43nm,1.1s,SNR=19
MOTA *e*PP **PP** **10 21 42.0 -1.3**
comp=Z,17nm,1.0s
CEME Cevo 85.23 321 ⇑*i*P **P** **10 18 26.1 -0.2**
BSKQ Steenkerk 85.24 334 *d*P **P** **10 18 26.0 0.0**
BSKQ *d*PP **PP** **10 21 42.5 -0.7**
RCHB Rochefort 85.24 333 *d*P **P** **10 18 26.1 0.0**
comp=Z,38nm,1.2s
RETA Reutte 85.24 329 *i* P **P** **10 18 26.2 -0.1**
comp=Z,78nm,1.0s,SNR=38
SQTA Sankt Quirin 85.26 328 *i* P **P** **10 18 26.1 -0.3**
comp=Z,25nm,0.9s,SNR=12
BMRD Maredsous 85.28 334 *d*P **P** **10 18 26.3 0.0**
comp=Z,48nm,1.2s
OHR Ohrid 85.29 319 *i* P **P** **10 18 27.1 +0.4**
WLF Walferdange 85.31 333 P **P** **10 18 26.5 +0.1**
WLF Walferdange 85.31 333 *d*P **P** **10 18 26.9 +0.4**
comp=Z,30nm,1.6s
WLF Walferdange 85.31 333 *e*P **P** **10 18 27.2 +0.7**
comp=Z,49nm,1.1s,baz=39,slow=5.2
WLF Walferdange 85.31 333 P **P** **10 18 27.1 +0.6**
comp=Z,72nm,1.7s
DRME Dracevica, Mon 85.35 321 ⇑*i*P **P** **10 18 26.8 -0.1**
DRME Dracevica, Mon 85.35 321 ⇑*i*P **P** **10 18 27.2 +0.3**
UBR Ueberruh 85.36 329 *e*P **P** **10 18 26.9 0.0**
baz=39,slow=5.2
UBR Ueberruh 85.36 329 P **P** **10 18 26.9 0.0**
comp=Z,2µmcomp=Z,28nm,1.2s
TREB Trebinje 85.39 322 *e*P **P** **10 18 25.7 -1.3**
BUM Brajici-Budva 85.42 321 ⇑*i*P **P** **10 18 27.0 -0.3**
ILTH Belurgan, Co L 85.46 341 P **P** **10 18 28.0 +0.9**
ULC Ulcinj 85.48 321 ⇑*i*P **P** **10 18 27.5 -0.1**
HCY Herceg Novi 85.51 321 ⇑*i*P **P** **10 18 26.9 -0.8**
HCY Herceg Novi 85.51 321 ⇑*i*P **P** **10 18 27.3 -0.4**
DOU Dourbes 85.52 334 *d*P **P** **10 18 27.3 -0.2**
comp=Z,21nm,1.4s
DOU *d*PP **PP** **10 21 43.1 -2.4**
BFO Black Forest 85.56 331 *i* P **P** **10 18 27.8 0.0**
BFO Black Forest 85.56 331 *e*P **P** **10 18 27.9 0.0**
baz=39,slow=5.2
BFO Black Forest 85.56 331 P **P** **10 18 27.8 0.0**
BFO pP **pP** **10 18 39.9 -0.4**
KARP Karpathos 85.56 312 P **P** **10 18 28.3 +0.2**
comp=Z,3µmcomp=Z,284nm,1.1s
FETA Feichten 85.62 328 *e*P **P** **10 18 28.2 -0.2**
comp=Z,37nm,1.0s,SNR=16
FOEL Foel Wylfa 85.63 339 *e*P **P** **10 18 28.5 +0.5**
FOEL IAmb IAmb 10 18 29.8
comp=Z,55nm,0.8s
FOEL Foel Wylfa 85.63 339 P **P** **10 18 29.0 +1.0**
comp=Z,94nm,1.2s
KBN Korca 85.65 319 P **P** **10 18 29.1 +0.7**
comp=Z,3µmcomp=Z,234nm,1.4s
DAVA Damuels 85.77 329 *i* P **P** **10 18 28.8 -0.2**
comp=Z,82nm,1.0s,SNR=24
DAVA PP **PP** **10 21 46.4 -1.4**
comp=Z,21nm,1.3s
DAVA Damuels 85.77 329 P **P** **10 18 29.1 0.0**
comp=Z,3µmcomp=Z,130nm,1.2s
LLW Llanuwychllyn 85.79 339 *e*P **P** **10 18 29.2 +0.4**
LLW IAmb IAmb 10 18 30.5
comp=Z,13nm,0.8s
SCHQ Schefferville 85.82 16 P **P** **10 18 29.1 +0.1**
comp=Z,45nm,0.8s,baz=354,slow=5.5,SNR=26
SCHQ LR LR 10 58 38.0
comp=Z,611nm,21.2s,baz=334,slow=37
comp=Z,45nm,0.8s
HLM1 Long Mynd 85.86 339 *e*P **P** **10 18 29.0 -0.2**
HLM1 IAmb IAmb 10 18 30.6
comp=Z,12nm,0.8s
ECH Echery 86.11 331 P **P** **10 18 30.6 0.0**
comp=Z,81nm,1.9s
FUORN Ofenpass-Fuorn 86.14 328 P **P** **10 18 30.9 -0.1**
FUORN IAmb IAmb 10 18 32.6
comp=Z,91nm,1.1s
DAVOX Davos/Dischmat 86.17 329 LR LR 11 00 28.6
comp=Z,2µm,19.2s,baz=14,slow=38
DSB Dublin 86.17 341 P **P** **10 18 31.1 +0.4**
DSB Dublin 86.17 341 P **P** **10 18 30.8 +0.1**
DSB Dublin 86.17 341 P **P** **10 18 30.9 +0.2**
DSB IAmb IAmb 10 18 51.3
comp=Z,86nm,1.3s
DSB Dublin 86.17 341 P **P** **10 18 31.2 +0.5**
comp=Z,59nm,1.9s
STRD Stroud 86.30 338 *e*P **P** **10 18 31.9 +0.6**
STRD IAmb IAmb 10 18 32.9
comp=Z,105nm,0.7s
TAOE Nuku Hiva Isla 86.31 104 eLR LR 10 45 38.8
comp=Z,3µm,23.4s
HMNX Herstmonceux 86.31 336 *e*P **P** **10 18 32.2 +0.8**
HMNX IAmb IAmb 10 18 33.2
comp=Z,120nm,0.7s
WOL Wolverton 86.42 337 *e*P **P** **10 18 31.7 -0.2**
WOL IAmb IAmb 10 18 33.0
comp=Z,47nm,0.9s
ZKR Zakros 86.42 312 P **P** **10 18 33.2 +0.9**
comp=Z,2µmcomp=Z,222nm,1.0s
MONM Monmouth 86.44 339 *e*P **P** **10 18 32.1 +0.1**
MONM IAmb IAmb 10 18 33.4
comp=Z,58nm,0.7s
LPW Lampeter 86.56 339 *e*P **P** **10 18 33.1 +0.5**
LPW IAmb IAmb 10 18 34.0
comp=Z,19nm,0.7s
TUE Stuetta 86.64 329 P **P** **10 18 32.3 -1.1**
comp=Z,34nm,1.4s
IGLA Glengowla, Co 86.76 343 P **P** **10 18 33.8 +0.2**
IWEX Carrickbyrne, 87.07 341 P **P** **10 18 36.2 +1.1**
IDI Anoyia 87.10 313 LR LR 11 02 20.3
comp=Z,350nm,20.9s,baz=69,slow=39
IDI Anoyia 87.10 313 P **P** **10 18 34.5 -1.2**
NRCA Norcia 87.83 325 P **P** **10 18 39.0 -0.1**
MNTX Cornudas Mount 87.90 51 P **P** **10 18 40.6 +1.1**
comp=Z,19nm,1.4s
DYA Yadsworthy 88.01 338 *e*P **P** **10 18 39.2 -0.5**
DYA IAmb IAmb 10 18 40.6
comp=Z,14nm,1.0s
AQU L'Aquila 88.07 324 P **P** **10 18 39.7 -0.4**
AQU L'Aquila 88.07 324 ⇑*i*P **P** **10 18 40.0 -0.2**
AQU L'Aquila 88.07 324 P **P** **10 18 41.1 +0.9**
comp=Z,122nm,1.5s
LOR Lormes 88.15 332 P **P** **10 18 40.2 -0.2**
comp=Z,40nm,1.2s
VAL Valentia 88.34 343 P **P** **10 18 40.9 -0.2**
TBI Tubuai 88.52 121 *e*S **S** **10 29 21.6 -3.8**
comp=Z,2µm,32.5s
TBI eLQ LQ 10 42 35.6
comp=Z,2µm,29.2s
TBI eLR LR 10 46 41.7
comp=Z,12µm,26.5s
TBI eLR LR 10 46 44.9
comp=Z,3µm,26.2s
VHRN Van Horn 88.76 52 P **P** **10 18 44.2 +0.4**
TIP Timpagrande 88.81 320 P **P** **10 18 44.2 +0.4**
TIP IAmb IAmb 10 18 50.2
comp=Z,75nm,1.2s
BNI Bardonecchia 88.88 330 P **P** **10 18 43.6 -0.5**
comp=Z,22nm,1.7s
MSEY Mahe Island 89.24 264 *i* P **P** **10 18 47.1 +1.0**
SNR=12
MSEY Mahe Island 89.24 264 P **P** **10 18 46.6 +0.5**
MSEY Mahe Island 89.24 264 *i* P **P** **10 18 47.0 +1.0**
MSEY Mahe Island 89.24 264 P **P** **10 18 46.5 +0.4**
MSEY IAmb IAmb 10 18 47.9
comp=Z,87nm,1.2s
MSEY Mahe Island 89.24 264 P **P** **10 18 46.5 +0.4**
comp=Z,66nm,1.3s
LPIG La Paz 89.62 60 P **P** **10 18 48.8 +1.1**
comp=Z,12nm,0.8s,baz=0.0,slow=3.0,SNR=1.9
LPIG LR LR 10 52 47.0
comp=Z,306nm,21.9s,baz=310,slow=31
comp=Z,12nm,0.8s
ATD Arta Tunnel 89.73 284 LR LR 11 02 31.0
comp=Z,232nm,20.9s,baz=28,slow=38
ATD Arta Tunnel 89.73 284 P **P** **10 18 49.2 +0.8**
comp=Z,29nm,1.5s
WMOK Wichita Mounta 89.76 45 P **P** **10 18 49.2 +0.9**
comp=Z,23nm,1.3s
CEL Celeste 89.95 320 P **P** **10 18 48.9 -0.2**
CEL Celeste 89.95 320 P **P** **10 18 48.2 -0.9**
comp=Z,124nm,1.0s
TXAR Lajitas Array 90.59 52 P **P** **10 18 53.4 +1.1**
comp=Z,15nm,0.8s,baz=294,slow=3.2,SNR=196
TXAR PKKPbc **PKKPbc** **10 36 19.5 +1.8**
comp=Z,0.7nm,0.6s,baz=146,slow=5.8,SNR=16
TXAR LR LR 10 53 44.4
comp=Z,525nm,21.8s,baz=326,slow=32
comp=Z,15nm,0.8s
HPIG 90.92 55 P **P** **10 18 55.4 +1.4**
comp=Z,34nm,1.7s
SADO Sadowa 91.20 27 LR LR 11 03 26.7
comp=Z,328nm,20.6s,baz=1.5,slow=38
VAE Valguarnera 91.31 320 LR LR 11 04 05.7
comp=Z,1µm,18.4s,baz=54,slow=38
MTLF Montolieu 92.08 331 P **P** **10 18 59.4 +0.5**
comp=Z,50nm,1.4s
EJON La Jonquera 92.57 330 P **P** **10 18 59.3 -1.8**
MIAR Mount Ida 92.81 42 P **P** **10 19 03.4 +1.0**
comp=Z,45nm,1.0s
WCI Wyandotte Cave 93.63 36 P **P** **10 19 07.2 +1.1**
comp=Z,25nm,1.1s
WVT Waverly 94.56 38 P **P** **10 19 10.8 +0.4**
comp=Z,14nm,1.8s
HKT Hockley 94.95 47⇑*e*P **P** **10 19 09.1 -3.1**
HKT pmax pmax
comp=Z,2.0nm,0.9s
HKT Hockley 94.95 47 P **P** **10 19 13.8 +1.7**
comp=Z,11nm,2.0s
KEST Kesra 95.21 322 P **P** **10 19 13.7 +0.2**
comp=Z,14nm,0.9s,baz=47,slow=4.3,SNR=4.9
KEST PP **PP** **10 23 03.5 +0.6**
comp=Z,15nm,0.9s,baz=46,slow=2.4,SNR=6.1
KEST LR LR 11 07 53.8
comp=Z,841nm,18.2s,baz=44,slow=39
comp=Z,14nm,0.9s
ECAL Calabor 96.48 336 P **P** **10 19 19.3 +0.2**
PBRG Braganca 96.61 336 *e*P **P** **10 19 19.7 0.0**
PBRG *e*pP **pP** **10 19 31.2 -1.0**
TKL Tuckaleechee C 96.89 35 LR LR 11 05 43.4
comp=Z,224nm,20.4s,baz=334,slow=37
PGAV Gavieira, Arco 96.95 337 eLR LR 10 55 47.5
PGAV IAMs_20 IAMs_20 11 08 36.8
comp=Z,682nm,20.0s
POLO Lamas de Olo 97.33 337 *e*P **P** **10 19 22.8 -0.2**
ESDC Sonseca Array 97.57 334 P **P** **10 19 23.4 -0.6**
comp=Z,4.1nm,0.8s,baz=20,slow=4.3,SNR=23
ESDC PP **PP** **10 23 16.2 -4.5**
comp=Z,5.7nm,0.9s,baz=21,slow=7.2,SNR=4.3
ESDC LR LR 11 07 28.3
comp=Z,1µm,21.3s,baz=22,slow=38
comp=Z,4.1nm,0.8s
PVIS Viseu 97.96 337 *e*P Pdif 10 19 26.3 +0.5
MTE Manteigas 98.14 336 *e*P Pdif 10 19 27.2 +0.6
MTE eLR LR 10 59 08.0
MTE IAMs_20 IAMs_20 11 08 58.1
comp=Z,964nm,20.0s
RKT Rikitea 98.83 112 eLR LR 10 51 35.0
comp=Z,6µm,26.0s
PMRV Marv??o 98.97 336 *e*Pdif Pdif 10 19 30.7 +0.5
PMRV eLR LR 10 56 24.3
PMRV IAMs_20 IAMs_20 11 09 26.8
comp=Z,1µm,20.0s
EADA Adamuz 99.12 333 P **Pdif** **10 19 30.6 -0.5**
ENIJ Nijar 99.28 331 P **Pdif** **10 19 29.3 -2.5**
EBAD Badajoz 99.45 335 P **Pdif** **10 19 31.3 -1.1**
ECAB El Cabril 99.50 334 P **Pdif** **10 19 32.1 -0.6**
EQTA Presa de Quent 99.55 332 P **Pdif** **10 19 32.3 -0.8**
PARRA Arraiolos 99.73 336 *e*Pdif **Pdif** **10 19 33.1 -0.6**
EGOR Sierra Gorda, 99.89 332 P **Pdif** **10 19 35.8 +1.2**
MOE Montemor 100.10 336 *e*Pdif **Pdif** **10 19 38.0 +2.7**
LODK Lodwar 100.53 282 P **Pdif** **10 19 36.2 -1.5**
comp=Z,5.6nm,1.3s
ESPR Espera 100.74 334 P **Pdif** **10 19 36.8 -1.4**
KMBO Kilima Mbogo 101.78 277 P **Pdif** **10 19 43.3 -0.2**
comp=Z,6.4nm,1.2s
VNDA Vanda 114.56 175 PKP **PKiKP** **10 24 28.5 +0.2**
comp=Z,2.0nm,0.7s,baz=344,slow=3.3,SNR=5.9
TORD Torodi Ar. Bea 117.45 314 PKP **PKPdf** **10 24 35.2 -0.6**
comp=Z,6.6nm,1.0s,baz=14,slow=2.3,SNR=17
TORD PP **PP** **10 25 43.6 -3.4**
comp=Z,25nm,1.0s,baz=29,slow=6.5,SNR=15
TORD PKKPbc **PKKPbc** **10 34 55.1 -2.2**
comp=Z,1.6nm,1.0s,baz=233,slow=4.6,SNR=5.0
MAW Mawson 119.04 205 P **PKiKP** **10 24 38.0 +0.8**
MAW Mawson 119.04 205 PKP **PKiKP** **10 24 37.2 +0.1**
comp=Z,10.0nm,0.8s,baz=69,slow=3.3,SNR=24
BOSA Boshof 126.24 259 PKP **PKPdf** **10 24 52.1 -0.3**
comp=Z,24nm,0.9s,baz=58,slow=1.7,SNR=24
BOSA PP **PP** **10 26 45.4 -2.5**
comp=Z,6.4nm,0.9s,baz=83,slow=7.4,SNR=3.3
QSPA South Pole Qui 126.34 180 PKP **PKPdf** **10 24 50.9 -0.4**
comp=Z,22nm,1.0s,baz=332,slow=1.3,SNR=32
DBIC Dimbokro 126.43 316 PKP **PKPdf** **10 24 52.7 -0.3**
comp=Z,19nm,0.8s,baz=32,slow=1.8,SNR=14
DBIC PP **PP** **10 26 44.8 -3.1**
comp=Z,33nm,1.1s,baz=23,slow=9.9,SNR=7.2
ROSC El Rosal 127.14 46 PKP **PKPdf** **10 24 55.2 +0.3**
comp=Z,3.6nm,0.3s,baz=47,slow=12,SNR=4.6
SYO Syowa Base 127.70 207‖*e*P **PKiKP** **10 25 00.8 +6.5**
OTAV Otavalo 128.18 54 *e*P **PKiKP** **10 24 58.1 +0.5**
NVL N'lazarevskaya 136.79 202 *e*PKIKP **PKiKP** **10 25 12.4 -0.2**
NVL pmax pmax
comp=Z,14nm,0.9s
CZSB Cruzeiro do Su 137.91 55 *e*P **PKPdf** **10 25 12.6 -2.0**
TROLL Troll, Antarti 138.74 198 ⇑PKPdf PKPdf 10 25 05.5 -9.2
comp=Z,686nm,0.8s
SNAA Sanae 140.26 197 PKhKP PKPpre 10 25 11.5
comp=Z,12nm,0.8s,baz=260,slow=17,SNR=5.6
VNA2 Neumayer--Watz 141.83 196 ⇑PKPdf **PKPdf** **10 25 14.5 -5.6**
comp=Z,22nm,0.6s,baz=124,slow=3.6
VNA2 ⇑pPKPdf **pPKPdf** **10 25 31.8 -1.0**
comp=Z,24nm,0.7s,baz=121,slow=3.9
VNA3 Neumayer Olymp 142.08 195 ⇑PKPdf **PKPdf** **10 25 15.2 -5.4**
comp=Z,17nm,0.7s
VNA3 ⇑pPKPdf **pPKPdf** **10 25 32.2 -1.1**
comp=Z,18nm,0.8s
VNA1 Neumayer--Stat 142.23 196 ⇑PKPdf **PKPdf** **10 25 15.6 -5.1**
comp=Z,44nm,0.9s
ITTB Itaituba 144.39 30 *e*P **PKPab** **10 25 23.9 -0.5**
NBMO Morrinhos-CE 146.86 2 *e*P **PKPdf** **10 25 28.4 -2.2**
NPGB Novo Progresso 146.97 31 *e*P **PKPdf** **10 25 29.8 -1.0**
LPAZ La Paz 147.13 60 PKPbc **PKPbc** **10 25 34.2 +0.3**
comp=Z,28nm,0.8s,baz=343,slow=3.3,SNR=100
LPAZ La Paz 147.13 60 *e*P **PKPdf** **10 25 31.8 +0.2**
NBPS Pedro II - PI 147.87 5 *e*P **PKPdf** **10 25 31.8 -0.5**
RCBR Riachuelo 149.25 354 *e*P **PKPdf** **10 25 34.9 +0.3**
NBPA Parau_RN 149.25 357 *e*P **PKPdf** **10 25 33.8 -0.7**
VILB Vilhena 149.67 45 *e*P **PKPdf** **10 25 35.2 +0.1**
NBPV Pedro Velho 149.78 353 *e*P **PKPdf** **10 25 36.1 +0.8**
CLDB Colider 150.18 35 *e*P **PKPdf** **10 25 36.7 +0.8**
PDRB Porto dos Gac 150.38 37 *e*P **PKPdf** **10 25 37.6 +1.3**
NBMA Murití-CE 150.90 360 *e*P **PKPdf** **10 25 38.7 +1.6**
SMTB Santa Maria do 151.28 18 *e*P **PKPdf** **10 25 38.3 +0.7**
PTLB Pontes e Lacer 152.29 46 *e*P **PKPdf** **10 25 38.7 -0.3**
NBTA Tacaratu-PE 152.64 358 *e*P **PKPdf** **10 25 40.0 +0.3**
BBSD Serra de San D 152.75 51 *e*P **PKPdf** **10 25 39.8 +0.1**
SNDB Serra Nova Dou 153.06 28 *e*P **PKPdf** **10 25 39.8 -0.4**
NBPN Ponto Novo - B 154.33 3 *e*P **PKPdf** **10 25 42.9 +0.7**
SALV Santo Antonio 154.55 40 *e*P **PKPdf** **10 25 43.3 +1.0**
PLCA Paso Flores 155.02 109 *e*P **PKPdf** **10 25 42.7 +0.3**
SDBA SAO DESIDERIO 155.32 14 *e*P **PKPdf** **10 25 44.1 +0.6**
ARAG Araguaiana, MT 156.23 32 *e*P **PKPdf** **10 25 45.1 +0.5**
COIM Forte Coimbra 156.55 50 *e*P **PKPdf** **10 25 45.9 +1.0**
BDQN Bodoquena, MS 157.59 49 *e*P **PKPdf** **10 25 46.7 +0.5**
BDFB Brasilia 157.61 24 PKP **PKPdf** **10 25 46.2 -0.3**
comp=Z,5.5nm,1.0s,baz=274,slow=3.6,SNR=6.3
BDFB PKPab **PKPab** **10 26 19.2 +0.7**
comp=Z,21nm,0.8s,baz=326,slow=4.3,SNR=22
AQDB Aquidauana 158.24 47 *e*P **PKPdf** **10 25 47.5 +0.5**
IPMB Ipameri, GO 159.72 26 *e*P **PKPdf** **10 25 47.3 -1.6**
SJPY San Joaquin 161.27 57 *e*P **PKPdf** **10 25 49.9 -0.4**
CPUP Villa Florida 161.27 62 PKP **PKPdf** **10 25 50.1 -0.1**
comp=Z,1.5nm,0.7s,baz=260,slow=3.6,SNR=5.4
CPUP PKPab **PKPab** **10 26 34.6 +0.4**
comp=Z,2.1nm,0.9s,baz=349,slow=5.2,SNR=3.2
CPUP Villa Florida 161.27 62 *e*P **PKPdf** **10 25 50.9 +0.7**
DIAM Diamantina, MG 161.29 14 *e*P **PKPdf** **10 25 49.9 -0.8**
PCMB Pacaembu 161.59 39 *e*P **PKPdf** **10 25 51.3 +0.6**
SJMB Sao Joao De Ma 162.06 7 *e*P **PKPdf** **10 25 50.5 -0.8**
BSFB Barra do Sao F 162.22 6 *e*P **PKPdf** **10 25 52.4 +0.9**
BB19B Bebedouro 162.39 31 *e*P **PKPdf** **10 25 51.5 -0.1**
CANS Sao Roque de M 162.48 24 *e*P **PKPdf** **10 25 52.8 +0.9**
RIB01 Linhares ES 162.73 5 *e*P **PKPdf** **10 25 53.1 +1.1**
LDASE Londrina, Braz 163.14 42 *e*P **PKPdf** **10 25 51.4 -1.0**
PSAL Palomas, Salto 163.52 76 *e*P **PKPdf** **10 25 54.0 +1.6**
PTGB Pitanga 163.63 47 *e*P **PKPdf** **10 25 53.3 +0.5**
ITQB Itaqui 163.64 70 *e*P **PKPdf** **10 25 53.6 +1.0**
SPB Sao Paulo 165.09 32 *e*P **PKPdf** **10 25 53.0 -1.0**
PET01 Itanhaem-SP 165.77 33 *e*P **PKPdf** **10 25 56.8 +2.2**
CPSB Cacapava Do Su 166.39 67 *e*P **PKPdf** **10 25 55.2 +0.3**
CNLB Canela 167.62 57 *e*P **PKPdf** **10 25 55.2 -0.7**

JMA 22 10:05:56.2±0.1,**39.1N**±0.4×**144.6E**±0.7,**h16**km±1km,
MV1.9/17,**FAR E OFF NORTH HONSHU,Off east coast of Honshu**

*OSPL **22** 10:07:00.9±0.9, 18.2°20N×71.3°33W, h9km±5km, ML2.5, Presumed earthquake*
*SDD **22** 10:07:01.2±1.9, 18.1°16N×71.3°35W, h5km±11km, MD2.8, ML2.4, MW2.6, Presumed earthquake*
ISC 22 10:07:01.1±1.0,**18.19N**±0.03×**71.34W**±0.03,**h6**km±7km,
n12,σ0s**78**/22,**11C-1D,Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.06**	**116**	⇑*i*P	**Pg**	**10 07 02.4**	**-0.5**
PODR				⇑*i*S	**Sg**	**10 07 03.8**	**-0.3**
PODR				IAML		10 07 06.4	
comp=N,5µm,0.7s							
PODR	**Polo**	**0.06**	**116**	*i* P	**Pg**	**10 07 02.4**	**-0.5**
PODR				*e*S	**Sg**	**10 07 04.9**	**+0.8**
LODU1	**El Espartillar**	**0.21**	**321**	*i* P	**Pg**	**10 07 04.4**	**-0.9**
LODU1				*e*S	**Sg**	**10 07 07.7**	**-0.3**
LODU1				IAML		10 07 11.0	
comp=Z,2µm,0.3s							
NEDR	**Neiba UASD**	**0.30**	**345**	⇑*i*P	**Pg**	**10 07 06.8**	**-0.3**
NEDR				⇑*i*S	**Sg**	**10 07 12.4**	**+1.4**
NEDR				IAML		10 07 15.5	
comp=N,525nm,0.2s							
LOVI	**El Cajuil, Ovi**	**0.39**	**184**	*i* P	**Pg**	**10 07 08.3**	**-0.5**
LOVI				*e*S	**Sg**	**10 07 13.8**	**-0.1**
LOBH	**Bahia de las A**	**0.44**	**221**	*i* P	**Pg**	**10 07 09.0**	**-0.6**
LOBH				*e*S	**Sg**	**10 07 15.1**	**-0.2**
LOBH				IAML		10 07 21.9	
comp=Z,297nm,0.5s							
JIDR	**Jimani**	**0.57**	**301**	⇑*i*P	**Pg**	**10 07 11.2**	**-1.0**
JIDR				⇑*i*S	**Sg**	**10 07 20.6**	**+1.0**
JIDR				IAML		10 07 26.8	
comp=N,225nm,1.1s							
SDDR	**Presa de Saban**	**0.79**	**3**	⇑*i*P	**Pg**	**10 07 15.7**	**-0.6**
SDDR				⇑*i*S	**Sg**	**10 07 25.2**	**-1.3**
ABDR	**Alto Bandera**	**0.91**	**47**	*i* P	**Pg**	**10 07 18.1**	**-0.6**
ABDR				⇑*i*S	**Sb**	**10 07 31.9**	**-0.2**
ABDR				IAML		10 07 37.4	
comp=N,62nm,0.6s							
BANI	**BANI**	**0.95**	**78**	⇑*i*P	**Pg**	**10 07 18.2**	**-1.1**
BANI				IAML		10 07 36.1	
comp=N,69nm,0.7s							
REDR	**Restauracion**	**0.97**	**357**	⇓*i*P	**Pb**	**10 07 20.7**	**+0.4**
REDR				*i* S	**Sn**	**10 07 35.4**	**0.0**
REDR				IAML		10 07 39.6	
comp=N,92nm,0.1s							
HATOM	**Hato Mayor del**	**1.95**	**72**	⇑*i*P	**Pn**	**10 07 35.5**	**+0.7**
HATOM				IAML		10 08 13.7	
comp=N,33nm,3.0s							

IDC 22 10:35:25.7±1.5,**4.30S**×**151.45E**,**h0**km,**mb3.6**/3,
mbtmp3.7/3,**Error ellipse: s-maj=42.8km s-min=18.4km az=160.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**0.57**	**91**	Pn	Pn	10 35 40.3	-0.9
128nm,0.3s,baz=225,slow=2.9,SNR=28							
KRVT				Sn	Sn	10 35 49.6	-1.7
298nm,0.3s,baz=287,slow=19,SNR=37							
WRA	**Warramunga Arr**	**22.80**	**226**	P	P	10 40 30.1	-0.2
1.8nm,1.1s,baz=50,slow=11,SNR=5.4							
1.8nm,1.1s							
ASAR	**Alice Springs**	**25.64**	**220**	P	P	10 40 57.6	+0.3
1.8nm,0.8s,baz=55,slow=8.6,SNR=16							
1.8nm,0.8s							
ILAR	**Eielson Array**	**82.21**	**22**	P	P	10 47 48.3	-0.2
0.4nm,0.7s,baz=248,slow=6.1,SNR=4.8							
0.4nm,0.7s							

*PRU **22** 10:35:24.2, 44.1°14N×11.4°40E, h33km*
*SARA **22** 10:35:29.5±0.2, 44.2°2N±0.9×1.3°3E±°, h0km±99km, ML4.5/3, Mwp4.0/3*
*ROM **22** 10:35:30.9±0.1, 44.2°168N±0.005×12.6°62E±0.01, h35km, ML2.6/104, Error ellipse: s-maj=0.9km s-min=0.5km az=254.0*
ISC 22 10:35:31.3±1.0,**44.17N**±0.02×**12.61E**±0.02,**h33**km±2km,
n107,σ1s**15**/158,**1C-2D,Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BLLA	**Bellaria**	**0.10**	**256**	**P**	**Pb**	**10 35 37.1**	**+0.1**
BLLA				S	Sb	10 35 42.5	+1.5
RSM	**Repubblica di**	**0.26**	**206**	**P**	**Pb**	**10 35 38.3**	**-0.4**
RSM				S	Sn	10 35 44.0	+1.5
PESA	**Pesaro**	**0.28**	**143**	**P**	**Pb**	**10 35 38.5**	**-0.3**
PESA				S	Sn	10 35 44.9	+1.7
PESA				AML	AML		
	comp=N,1575μm,0.4s						
PESA				AML	AML		
	comp=E,2520μm,0.4s						
MCIF	**Montecalvo in**	**0.36**	**177**	**P**	**Pb**	**10 35 39.4**	**-0.4**
MCIF				S	Sn	10 35 46.2	+0.5
BRSN	**Barisano**	**0.40**	**287**	**P**	**Pn**	**10 35 41.4**	**+0.6**
BRSN				AML	AML		
	comp=N,1047μm,0.4s						
BRSN				AML	AML		
	comp=E,714μm,1.1s						
BRSN				AML	AML		
	comp=N,1045μm,0.4s						
BRSN				AML	AML		
	comp=E,714μm,1.1s						
BRSN				AML	AML		
	comp=N,1048μm,0.4s						
BRSN				AML	AML		
	comp=N,1060μm,0.4s						
BRSN				AML	AML		
	comp=E,1110μm,1.1s						
CPGN	**Carpegna, Ital**	**0.42**	**210**	⇑P	**Pb**	**10 35 40.7**	**-0.1**
CPGN				S	Sn	10 35 48.5	+0.8
CPGN				AML	AML		
	comp=N,467μm,1.2s						
CPGN				AML	AML		
	comp=E,354μm,0.9s						
FCOR	**Fonte Corniale**	**0.42**	**159**	**P**	**Pb**	**10 35 40.5**	**-0.3**
FCOR				S	Sn	10 35 48.6	+0.9
CRTC	**Cartoceto**	**0.45**	**153**	⇓P	**Pb**	**10 35 40.8**	**-0.3**
CRTC				S	Sn	10 35 48.8	+0.6
CRTC				AML	AML		
	comp=E,1215μm,0.5s						
CRTC				AML	AML		
	comp=N,1008μm,1.6s						
PE3	**Peglio**	**0.48**	**190**	**P**	**Pb**	**10 35 41.2**	**-0.4**
PE3				S	Sn	10 35 49.2	+0.2
PE3				AML	AML		
	comp=E,1430μm,0.6s						
PE3				AML	AML		
	comp=E,1430μm,1.4s						
PE3				AML	AML		
	comp=N,1390μm,0.3s						
FAEN	**Faenza**	**0.54**	**283**	**P**	**Pn**	**10 35 43.5**	**+1.0**
FAEN				S	Sn	10 35 53.2	+2.8
MPAG	**Monte Paganucc**	**0.55**	**168**	⇓P	**Pb**	**10 35 42.0**	**-0.7**
MPAG				S	Sb	10 35 50.9	+0.3
MPAG				AML	AML		
	comp=N,895μm,1.1s						
MPAG				AML	AML		
	comp=E,840μm,0.3s						
NARO	**Abbazia di Nar**	**0.56**	**182**	**P**	**Pb**	**10 35 42.1**	**-0.7**
NARO				S	Sb	10 35 50.9	+0.2
NARO				AML	AML		
	comp=E,544μm,0.4s						
NARO				AML	AML		
	comp=N,322μm,1.2s						
NARO				AML	AML		
	comp=N,322μm,0.8s						
PARC	**Parchiule**	**0.58**	**207**	**P**	**Pb**	**10 35 42.5**	**-0.8**
PARC				S	Sb	10 35 51.5	+0.1
PARC				AML	AML		
	comp=E,238μm,0.2s						
PARC				AML	AML		
	comp=N,207μm,1.6s						
PARC				AML	AML		
	comp=N,207μm,0.4s						
COR1	**Corinaldo**	**0.61**	**152**	**P**	**Pb**	**10 35 43.7**	**+0.1**
COR1				S	Sn	10 35 54.3	+2.2
COR1				AML	AML		
	comp=N,888μm,0.5s						
COR1				AML	AML		
	comp=E,683μm,0.5s						
COR1				AML	AML		
	comp=E,683μm,1.5s						
COR1				AML	AML		
	comp=N,888μm,0.5s						
APEC	**Apecchio**	**0.62**	**193**	**P**	**Pb**	**10 35 43.2**	**-0.7**
APEC				S	Sb	10 35 52.9	+0.4
APEC				AML	AML		
	comp=E,837μm,0.6s						
APEC				AML	AML		
	comp=E,837μm,1.4s						
APEC				AML	AML		
	comp=N,924μm,0.3s						
SENI	**Senigallia**	**0.65**	**135**	**P**	**Pn**	**10 35 44.8**	**+0.8**
IMOL	**Imola, Italy**	**0.65**	**287**	**P**	**Pn**	**10 35 45.1**	**+1.0**
FRON	**Frontone**	**0.66**	**172**	**P**	**Pb**	**10 35 43.6**	**-0.8**
FRON				S	Sn	10 35 54.2	+0.8
FRON				AML	AML		
	comp=N,730μm,0.5s						
FRON				AML	AML		
	comp=E,328μm,0.4s						
SSP9	**Sansepolcro**	**0.69**	**210**	**P**	**Pn**	**10 35 44.2**	**-0.4**
ASQU	**Asqua**	**0.70**	**238**	**P**	**Pn**	**10 35 44.2**	**-0.6**
ASQU				AML	AML		
	comp=N,380μm,0.5s						
ASQU				AML	AML		
	comp=N,380μm,1.5s						
ASQU				AML	AML		
	comp=E,337μm,0.4s						
BADI	**Badiali**	**0.71**	**202**	**P**	**Pn**	**10 35 44.4**	**-0.5**
BADI				S	Sn	10 35 55.4	+0.7
BADI				AML	AML		
	comp=E,472μm,1.3s						
BADI				AML	AML		
	comp=N,402μm,0.1s						
BADI				AML	AML		
	comp=E,472μm,1.3s						
CMPO	**Campotto Po**	**0.71**	**306**	**P**	**Pb**	**10 35 46.3**	**+1.0**
CRE	**Caprese Michel**	**0.72**	**221**	**P**	**Pn**	**10 35 45.7**	**+0.4**
CRE				S	Sn	10 35 57.0	+1.7
CRE				AML	AML		
	comp=E,170μm,0.3s						
CRE				AML	AML		
	comp=N,393μm,0.6s						
CRE				AML	AML		
	comp=N,393μm,1.4s						
CRE				AML	AML		
	comp=E,170μm,1.7s						
ATPI	**Pietralunga -**	**0.73**	**192**	**P**	**Pn**	**10 35 44.9**	**-0.4**
ATPI				S	Sn	10 35 55.8	+0.5
ATPI				AML	AML		
	comp=E,264μm,1.1s						
ATPI				AML	AML		
	comp=N,338μm,0.5s						
ATPI				AML	AML		
	comp=N,338μm,1.5s						
SSFR	**Montelago di S**	**0.74**	**170**	**P**	**Pn**	**10 35 45.0**	**-0.5**
SSFR				S	Sn	10 35 56.5	+0.9
SSFR				AML	AML		
	comp=E,1880μm,0.9s						
SSFR				AML	AML		
	comp=N,1360μm,0.2s						
SSFR				AML	AML		
	comp=N,1485μm,0.2s						
SSFR				AML	AML		
	comp=E,1755μm,0.2s						
BRIS	**BRISIGHELLA**	**0.79**	**269**	**P**	**Pn**	**10 35 43.8**	**-2.3**
BRIS				S	Sn	10 35 53.7	-3.0
BRIS				AML	AML		
	comp=E,708μm,0.5s						
BRIS				AML	AML		
	comp=N,601μm,0.5s						
ATVO	**AVT- Monte Val**	**0.80**	**191**	**P**	**Pn**	**10 35 46.0**	**-0.3**
ATVO				S	Sb	10 35 57.9	+0.5
ATVO				AML	AML		
	comp=N,613μm,0.4s						
ATVO				AML	AML		
	comp=E,382μm,0.4s						
VISG	**Visignano**	**0.84**	**272**	**P**	**Pn**	**10 35 47.2**	**+0.3**
VISG				AML	AML		
	comp=E,161μm,0.7s						
VISG				AML	AML		
	comp=N,160μm,1.3s						
VISG				AML	AML		
	comp=N,160μm,0.7s						
VISG				AML	AML		
	comp=E,161μm,1.3s						
MTRZ	**Monterenzio**	**0.85**	**285**	**P**	**Pb**	**10 35 48.5**	**+0.8**
RUFI	**Rufina**	**0.86**	**248**	**P**	**Pn**	**10 35 47.4**	**+0.4**
FOSV	**Fossato di Vic**	**0.88**	**173**	**P**	**Pn**	**10 35 47.2**	**-0.1**
FOSV				S	Sb	10 36 00.4	+0.8
FOSV				AML	AML		
	comp=N,325μm,0.4s						
FOSV				AML	AML		
	comp=E,345μm,0.3s						
EL6	**Elcito**	**0.91**	**157**	**P**	**Pn**	**10 35 48.0**	**+0.2**
EL6				S	Sb	10 36 02.0	+1.4
EL6				AML	AML		
	comp=E,404μm,0.3s						
EL6				AML	AML		
	comp=N,414μm,0.6s						
EL6				AML	AML		
	comp=E,404μm,1.7s						
EL6				AML	AML		
	comp=N,414μm,1.4s						
CAFI	**Castiglion Fio**	**0.96**	**209**	**P**	**Pn**	**10 35 48.5**	**0.0**
CAFI				AML	AML		
	comp=E,83μm,1.1s						
CAFI				AML	AML		
	comp=N,116μm,0.5s						
CAFI				AML	AML		
	comp=E,83μm,0.9s						
ASSB	**Assisi San Ben**	**1.12**	**178**	**P**	**Pn**	**10 35 51.6**	**+0.9**
ASSB				AML	AML		
	comp=E,240μm,1.4s						
ASSB				AML	AML		
	comp=E,240μm,0.6s						
ASSB				AML	AML		
	comp=N,201μm,0.8s						
CSP1	**Cessapalombo**	**1.16**	**158**	**P**	**Pn**	**10 35 51.4**	**+0.1**
CSP1				AML	AML		
	comp=E,702μm,1.5s						
CSP1				AML	AML		
	comp=N,607μm,1.5s						
CSP1				AML	AML		
	comp=N,607μm,0.5s						
CSP1				AML	AML		
	comp=E,702μm,1.5s						
BETT	**Bettona**	**1.18**	**185**	**Pg**	**Pb**	**10 35 53.0**	**-0.1**
BETT				Sg	Sb	10 36 09.6	+1.5
CESI	**CESI - Serrava**	**1.18**	**169**	**P**	**Pn**	**10 35 52.1**	**+0.6**
CESI				AML	AML		
	comp=E,179μm,0.6s						
CESI				AML	AML		
	comp=N,194μm,0.6s						
FDMO	**Fiordimonte**	**1.18**	**163**	**P**	**Pn**	**10 35 52.4**	**+0.8**
FDMO				AML	AML		
	comp=N,161μm,0.5s						
FDMO				AML	AML		
	comp=E,188μm,1.3s						
FDMO				AML	AML		
	comp=E,188μm,0.7s						
SERM	**Sermide**	**1.26**	**312**	**P**	**Pn**	**10 35 53.1**	**+0.6**
MGAB	**Montegabbione**	**1.30**	**196**	**P**	**Pn**	**10 35 53.1**	**-0.1**
MGAB				AML	AML		
	comp=N,198μm,0.3s						
MGAB				AML	AML		
	comp=E,154μm,0.5s						
MC2	**Monte Cornacci**	**1.32**	**161**	**P**	**Pn**	**10 35 54.8**	**+1.2**
MOMA	**Monte Martano**	**1.36**	**181**	**P**	**Pn**	**10 35 54.2**	**+0.2**
MOMA				AML	AML		
	comp=E,162μm,1.3s						
MOMA				AML	AML		
	comp=N,106μm,0.6s						
MOMA	**Monte Martano**	**1.36**	**181**	**Pg**	**Pn**	**10 35 54.4**	**+0.3**
MOMA				Sg	Sb	10 36 14.9	+1.5
NRCA	**Norcia**	**1.38**	**164**	**P**	**Pn**	**10 35 55.9**	**+1.6**
PII	**Pisa**	**1.57**	**254**	**P**	**Pn**	**10 35 56.1**	**-0.6**
PII				AML	AML		
	comp=N,117μm,1.6s						
PII				AML	AML		
	comp=E,97μm,1.3s						
PII				AML	AML		
	comp=N,117μm,0.4s						
RABC	**Rab**	**1.66**	**69**	*i* Pg	**Pn**	**10 36 00.3**	**+2.3**
RABC				Sg	Sn	10 36 20.3	+2.1
NVLJ	**Novalja**	**1.67**	**76**	*e*Pg	**Pn**	**10 35 58.9**	**+0.7**
NVLJ				Sg	Sn	10 36 18.6	+0.2
TRI	**Trieste**	**1.75**	**28**	P	**Pn**	**10 36 00.4**	**+1.2**
VIRC	**Vir**	**1.76**	**85**	*e*Pg	**Pn**	**10 36 00.1**	**+0.6**
VIRC				Sg	Sn	10 36 21.1	+0.4
RIY	**Rijeka**	**1.77**	**48**	*e*Pn	**Pb**	**10 36 02.5**	**-0.6**
RIY				Sn	Sb	10 36 27.2	+2.3
DUGI	**Dugi Otok**	**1.77**	**95**	*e*Pg	**Pn**	**10 35 59.1**	**-0.6**
DUGI				Sg	Sn	10 36 18.9	-2.1
VARN	**Col Varnada, M**	**1.86**	**349**	P	**Pn**	**10 36 00.0**	**-0.9**
VARN				AML	AML		
	comp=N,117μm,1.3s						
VARN				AML	AML		
	comp=N,109μm,1.2s						
VARN				AML	AML		
	comp=E,179μm,0.2s						
VARN				AML	AML		
	comp=N,109μm,0.8s						
VARN				AML	AML		
	comp=E,182μm,0.2s						
DOSS	**Dosso del Somm**	**1.99**	**330**	P	**Pn**	**10 36 01.9**	**-0.8**
DOSS				AML	AML		
	comp=E,77μm,1.2s						
DOSS				AML	AML		
	comp=E,77μm,0.8s						
DOSS				AML	AML		
	comp=N,96μm,0.5s						
CTI	**Castel Tesino**	**2.00**	**341**	P	**Pn**	**10 36 02.2**	**-0.6**
CTI				AML	AML		
	comp=E,153μm,1.3s						
CTI				AML	AML		
	comp=N,235μm,0.3s						
VARA	**Varagna**	**2.06**	**324**	P	**Pn**	**10 36 02.9**	**-0.8**
VARA				AML	AML		
	comp=N,130μm,0.3s						
VARA				AML	AML		
	comp=E,217μm,1.0s						
SALO	**Salr**	**2.07**	**315**	P	**Pn**	**10 36 03.5**	**-0.3**
PANI	**Panarotta**	**2.09**	**335**	P	**Pn**	**10 36 03.8**	**-0.4**
DST2	**Trieste**	**2.09**	**6**	P	**Pn**	**10 36 04.0**	**+0.1**
DST2				AML	AML		
	comp=N,180μm,0.4s						
DST2				AML	AML		
	comp=E,136μm,1.0s						
STAL	**STALIGIAL**	**2.09**	**2**	P	**Pn**	**10 36 03.6**	**-0.5**
STAL				AML	AML		
	comp=E,135μm,0.2s						
STAL				AML	AML		
	comp=N,110μm,0.3s						
MAGA	**Magasa**	**2.13**	**320**	P	**Pn**	**10 36 04.1**	**-0.6**
MAGA				AML	AML		
	comp=E,209μm,1.3s						
MAGA				AML	AML		
	comp=E,209μm,0.7s						
MAGA				AML	AML		
	comp=N,149μm,0.4s						
DRE	**Drenchia**	**2.14**	**20**	P	**Pn**	**10 36 04.4**	**-0.3**
VINO	**Villanova**	**2.14**	**13**	P	**Pn**	**10 36 04.3**	**-0.4**
VINO				AML	AML		
	comp=E,102μm,1.2s						
VINO				AML	AML		
	comp=N,104μm,0.2s						
LUSI	**Trento, Gardas**	**2.15**	**327**	P	**Pn**	**10 36 04.5**	**-0.3**
LUSI				AML	AML		
	comp=E,60μm,0.9s						
LUSI				AML	AML		
	comp=N,107μm,1.1s						
LUSI				AML	AML		
	comp=N,107μm,0.9s						
LUSI				AML	AML		
	comp=E,60μm,1.1s						
CIMO	**Cimolais**	**2.15**	**357**	P	**Pn**	**10 36 04.2**	**-0.5**
CIMO				AML	AML		
	comp=E,44μm,1.3s						
CIMO				AML	AML		
	comp=N,46μm,1.1s						
CIMO				AML	AML		
	comp=E,29μm,1.3s						
CIMO				AML	AML		
	comp=N,27μm,1.5s						
CIMO				AML	AML		
	comp=E,44μm,0.7s						
CIMO				AML	AML		
	comp=N,27μm,0.5s						
CIMO				AML	AML		
	comp=E,29μm,0.7s						
ZIAN	**Ziano**	**2.23**	**341**	P	**Pn**	**10 36 06.0**	**-0.1**
ZIAN				AML	AML		
	comp=E,87μm,0.4s						
ZIAN				AML	AML		
	comp=N,105μm,0.4s						
GAGG	**Gaggia**	**2.24**	**329**	P	**Pn**	**10 36 05.8**	**-0.4**
GAGG				AML	AML		
	comp=E,89μm,0.8s						
GAGG				AML	AML		
	comp=N,63μm,0.7s						
GAGG				AML	AML		
	comp=E,89μm,1.2s						
MORI	**Morici**	**2.26**	**97**	*e*Pn	**Pn**	**10 36 06.3**	**+0.1**
MORI				Sn	Sn	10 36 33.1	+0.2
PLIT	**Plitvice**	**2.27**	**71**	*e*Pn	**Pn**	**10 36 08.0**	**+1.5**
PLIT				Sn	Sn	10 36 37.1	+3.8
UDBI	**Udbina**	**2.29**	**80**	*e*Pn	**Pn**	**10 36 08.1**	**+1.3**
UDBI				Sn	Sn	10 36 36.6	+2.7
RONC	**Roncone**	**2.29**	**323**	P	**Pn**	**10 36 06.6**	**-0.3**
MABI	**Malga Bissina**	**2.40**	**323**	P	**Pn**	**10 36 08.5**	**+0.1**
MABI				AML	AML		
	comp=N,22μm,0.2s						
MABI				AML	AML		
	comp=E,19μm,0.4s						
FVI	**Forni Avoltri**	**2.43**	**3**	P	**Pn**	**10 36 09.0**	**+0.2**
FVI				AML	AML		
	comp=E,48μm,1.6s						
FVI				AML	AML		
	comp=E,48μm,0.4s						
FVI				AML	AML		
	comp=N,45μm,0.4s						
KOSI	**Kohlern**	**2.45**	**340**	P	**Pn**	**10 36 09.7**	**+0.6**
OZOL	**Ozolo**	**2.49**	**334**	P	**Pn**	**10 36 09.7**	**+0.1**
OZLJ	**Ozalj**	**2.50**	**54**	*i* Pn	**Pn**	**10 36 13.2**	**+3.7**
OZLJ				Sn	Sb	10 36 44.0	-1.7
APPI	**Appiano**	**2.51**	**338**	P	**Pn**	**10 36 09.8**	**0.0**
APPI				AML	AML		
	comp=E,80μm,0.4s						
APPI				AML	AML		
	comp=E,80μm,1.6s						
APPI				AML	AML		
	comp=N,68μm,0.4s						
MYKA	**Terra Mystica**	**2.57**	**16**	*e*Pn	**Pn**	**10 36 10.7**	**+0.1**
	comp=N,0.1nm,0.1s						
MYKA				*e*Sn	**Sn**	**10 36 40.3**	**-0.4**
	comp=N,2.3nm,0.3s						
ABTA	**Abfaltersbach**	**2.58**	**359**	Pn	**Pn**	**10 36 11.5**	**+0.7**
	comp=N,0.4nm,0.2s						
ABTA				Sn	**Sn**	**10 36 41.6**	**+0.6**
	comp=N,3.7nm,0.4s						
MDI	**Monti di Nese**	**2.61**	**309**	P	**Pn**	**10 36 10.7**	**-0.5**
OBKA	**Obir**	**2.71**	**30**	Pn	**Pn**	**10 36 12.8**	**+0.2**
	comp=N,0.1nm,0.1s						
KIJV	**Kijevo**	**2.74**	**92**	*e*Pn	**Pn**	**10 36 13.6**	**+0.7**
KIJV				Sn	Sn	10 36 46.0	+1.1
ROSI	**Rosskopf**	**2.89**	**344**	P	**Pn**	**10 36 15.6**	**+0.5**
ROSI				AML	AML		
	comp=E,45μm,0.8s						
ROSI				AML	AML		
	comp=N,56μm,1.4s						
ROSI				AML	AML		
	comp=E,45μm,1.2s						
HVAR	**Hvar**	**2.96**	**108**	*i* Pn	**Pn**	**10 36 15.9**	**0.0**
HVAR				Sn	Sn	10 36 48.2	-2.0
KBA	**Koelnbreinsper**	**2.96**	**10**	*e*Pn	**Pn**	**10 36 16.4**	**+0.4**
	comp=E,0.1nm,0.1s						
KBA				Sn	**Sn**	**10 36 49.4**	**-1.0**
	comp=E,1.1nm,0.2s						
MUGIO	**Muggio**	**3.08**	**306**	P	**Pn**	**10 36 16.8**	**-0.8**
FETA	**Feichten**	**3.14**	**336**	*i* Pn	**Pn**	**10 36 19.0**	**+0.4**
	comp=E,0.8nm,0.3s						
FETA				*e*Sn	**Sn**	**10 36 56.5**	**+1.5**
	comp=E,1.0nm,0.4s						
WTTA	**Wattenberg**	**3.17**	**348**	*e*Pn	**Pn**	**10 36 19.3**	**+0.3**
	comp=E,0.8nm,0.1s						
WTTA				*e*Sn	**Sn**	**10 36 56.3**	**+0.6**
	comp=E,1.4nm,0.2s						
SQTA	**Sankt Quirin**	**3.21**	**343**	*e*Sn	**Sn**	**10 36 58.3**	**+1.7**
	comp=E,5.3nm,0.3s						
VARE	**Varese**	**3.21**	**303**	P	**Pn**	**10 36 18.8**	**-0.7**
WATA	**Walderalm**	**3.25**	**348**	*i* Pn	**Pn**	**10 36 20.9**	**+0.8**
	comp=E,2.4nm,0.2s						
WATA				*e*Sn	**Sn**	**10 36 58.8**	**+1.2**
	comp=E,4.5nm,0.2s						
TUE	**Stuetta**	**3.26**	**316**	P	**Pn**	**10 36 20.8**	**+0.6**
TUE				AML	AML		
	comp=E,22μm,1.6s						
TUE				AML	AML		
	comp=N,21μm,1.6s						
TUE				AML	AML		
	comp=E,22μm,0.4s						
TUE				AML	AML		
	comp=N,21μm,0.4s						
LESA	**Schwarzleotal**	**3.26**	**1**	*i* Pn	**Pn**	**10 36 20.6**	**+0.5**
	comp=N,0.3nm,0.1s						
LESA				*e*Sn	**Sn**	**10 36 58.0**	**+0.3**
	comp=N,1.7nm,0.2s						
MAKA	**Makarska**	**3.32**	**104**	*e*Pn	**Pn**	**10 36 21.3**	**+0.5**
MAKA				Sn	Sn	10 36 57.5	-1.6
RICI	**Ricice**	**3.34**	**100**	*i* Pn	**Pn**	**10 36 20.6**	**-0.6**
RICI				Sn	Sn	10 36 59.1	-0.6
MOTA	**Moosalm**	**3.35**	**342**	*i* Pn	**Pn**	**10 36 21.6**	**+0.2**
	comp=N,0.5nm,0.1s						
MOTA				*e*Sn	**Sn**	**10 37 01.5**	**+1.4**
	comp=N,0.6nm,0.2s						
LSTV	**Lastovo**	**3.42**	**113**	*i* Pn	**Pn**	**10 36 21.2**	**-1.0**
LSTV				Sn	Sn	10 37 00.1	-1.4
RETA	**Reutte**	**3.56**	**339**	*e*Pn	**Pn**	**10 36 24.9**	**+0.6**
	comp=N,1.1nm,0.2s						
RETA				*e*Sn	**Sn**	**10 37 05.8**	**+0.6**
	comp=N,0.9nm,0.3s						
BIOA	**Bad Ischl, Aus**	**3.60**	**11**	*i* Pn	**Pn**	**10 36 24.8**	**+0.1**
	comp=N,0.7nm,0.2s						
BIOA				*e*Sn	**Sn**	**10 37 06.6**	**+0.6**
	comp=N,2.8nm,0.3s						
DAVA	**Damuels**	**3.66**	**329**	*e*Pn	**Pn**	**10 36 25.6**	**0.0**
	comp=N,0.9nm,0.2s						
DAVA				*e*Sn	**Sn**	**10 37 09.1**	**+1.4**
	comp=N,2.3nm,0.3s						
MOA	**Molln**	**3.86**	**17**	*e*Pn	**Pn**	**10 36 28.4**	**+0.1**
	comp=N,0.4nm,0.2s						
MOA				*e*Sn	**Sn**	**10 37 12.6**	**+0.1**
	comp=N,0.7nm,0.3s						
STON	**Ston**	**3.92**	**108**	*e*Pn	**Pn**	**10 36 28.5**	**-0.7**
STON				Sn	Sn	10 37 13.2	-0.8
CONA	**Conrad Observa**	**4.39**	**30**	*e*Sn	**Sn**	**10 37 24.0**	**-1.6**
	comp=N,0.4nm,0.2s						
WINA	**Alland / Wiene**	**4.62**	**30**	*i* Sn	**Sn**	**10 37 29.8**	**-1.3**
	comp=N,0.3nm,0.1s						
CKRC	**Cesky Krumlov**	**4.80**	**14**	*e*SN	**Sn**	**10 37 32.9**	**-2.7**
ABNA	**Allensteig Bun**	**4.91**	**22**	*i* Pn	Pb	10 36 50.9	-5.6
	comp=N,0.3nm,0.1s						
KHC	**Kasperske Hory**	**5.01**	**7**	*e*PN	Pn	10 36 40.2	-3.9
KHC				*e*SN	**Sn**	**10 37 36.7**	**-4.1**
ZVC	**Zvikov**	**5.38**	**11**	*e*SN	**Sn**	**10 37 46.8**	**-3.2**

GFZ ***22*** *10:42:21.6±0.2,28°S±1°×7°2W±°, h10km, M4.6/20, mb4.7/20*

IDC ***22*** *10:42:21.2±0.7,27°.67S×71°.68W, h0km, mb4.2/7, mbtmp4.1/12, ML3.9/5, MS3.6/1, Error ellipse: s-maj=19.7km s-min=14.0km az=97.0*

VAO ***22*** *10:42:23.7±1.4,27°.79S×71°.63W, h27km±11km, mb4.3, Presumed earthquake*

NEIC ***22*** *10:42:24.1,27°.74S×71°.50W, h22km*

SJA ***22*** *10:42:24.6±0.9,27°.81S×71°.37W, h18km±4km, ML4.4, MW4.3*

NEIC ***22*** *10:42:24±1.9,27°.74S±0°.03×71°.50W±0°.07, h21km±6km, mb4.8/13, Mwr4.2/24, Mwr4.4(GUC), Error ellipse: s-maj=8.5km s-min=4.0km az=96.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr1.98; Mθθ0.29; Mϕϕ-2.26; Mrθ-0.93; Mθϕ-1.33; Mϕr-0.03; Fault plane solution: M₀2.68000×10¹⁵ NP1:φ₀227.65000°, δ55.68000°, λ124.13000°. NP2:φ₀357.39000°, δ46.87000°, λ50.58000°. Principal axes: T 2.4523, Plg62.0000°, Azm195.0000°; N 0.4089, Plg28.0000°, Azm27.0000°; P -2.8612, Plg5.0000°, Azm294.0000°;*

GUC ***22*** *10:42:26.0±0.7,27°.82S×71°.38W, h33km±2km, ML4.0, Presumed earthquake*

ISC 22 10:42:21.2±1.4, 27°.74S±0°.03×71°.63W±0°.05, h7km±8km, n178, σ1♀43/201, mb4.6/12, 8C-3D, Near coast of

northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.68**	**134**	*i* P	**Pg**	**10 42 35.1**	**+0.9**
AC04				*e*S	**Sg**	**10 42 42.0**	**-1.0**
AC04				IAML		10 42 42.9	
	comp=Z,8μm,0.9s						
AC04	**Llanos de Chal**	**0.68**	**134**		**Pg**	**10 42 35.4**	**+1.2**
AC04					**Sg**	**10 42 42.2**	**-0.8**
AC04	**Llanos de Chal**	**0.68**	**134** ⇓	*i* P	**Pg**	**10 42 35.3**	**+1.2**
AC04				*i* S	**Sg**	**10 42 41.8**	**-1.2**
AC04				IAML		10 42 44.0	
	comp=E,25μm,0.4s						
AC04	**Llanos de Chal**	**0.68**	**134**	P	**Pg**	**10 42 35.4**	**+1.2**
AC06	**Mina Casimiro**	**1.19**	**72**		**Pn**	**10 42 44.1**	**-0.2**
AC06				Sn	**Sb**	**10 42 57.5**	**-2.2**
AC06	**Mina Casimiro**	**1.19**	**72** ⇓	*i* P	**Pn**	**10 42 43.8**	**-0.5**
AC06				*i* S	**Sb**	**10 42 57.2**	**-2.5**
AC06				IAML		10 42 58.8	
	comp=N,6μm,0.6s						
GO03	**Copiapo**	**1.24**	**84**	*i* P	**Pn**	**10 42 44.4**	**-0.6**
GO03				*i* S	**Sb**	**10 42 59.1**	**-2.1**
GO03				IAML		10 43 01.3	
	comp=Z,3μm,0.3s						
GO03	**Copiapo**	**1.24**	**84**		**Pn**	**10 42 44.6**	**-0.4**
GO03				Sn	**Sb**	**10 42 58.0**	**-3.3**
GO03	**Copiapo**	**1.24**	**84** ⇓	*i* P	**Pn**	**10 42 44.4**	**-0.6**
GO03				*i* S	**Sb**	**10 42 58.5**	**-2.8**
GO03				IAML		10 43 06.2	
	comp=N,6μm,0.8s						
GO03	**Copiapo**	**1.24**	**84**	P	**Pn**	**10 42 44.5**	**-0.6**
LCO	**Las Campanas**	**1.51**	**148**	*i* P	**Pn**	**10 42 49.6**	**+0.7**
LCO				*e*S	**Sn**	**10 43 07.1**	**-1.8**
LCO				IAML		10 43 08.6	
	comp=Z,11μm,0.4s						
LCO	**Las Campanas**	**1.51**	**148**		**Pn**	**10 42 49.4**	**+0.5**
LCO				Sn	**Sn**	**10 43 07.1**	**-1.8**
LCO	**Las Campanas**	**1.51**	**148** ⇑	*i* P	**Pn**	**10 42 49.2**	**+0.3**
LCO				*i* S	**Sn**	**10 43 06.5**	**-2.4**
LCO	**Las Campanas**	**1.51**	**148**	P	**Pn**	**10 42 49.9**	**+1.0**
AC05	**El Transito**	**1.62**	**133**	*i* P	**Pn**	**10 42 51.0**	**+0.8**
AC05				*e*S	**Sn**	**10 43 09.4**	**-2.1**
AC05				IAML		10 43 16.8	
	comp=Z,3μm,0.7s						
AC05	**El Transito**	**1.62**	**133**		**Pn**	**10 42 51.1**	**+0.8**
AC05				Sn	**Sn**	**10 43 08.9**	**-2.6**
AC05	**El Transito**	**1.62**	**133**	*i* P	**Pn**	**10 42 50.8**	**+0.5**
AC05				*i* S	**Sn**	**10 43 08.4**	**-3.0**
AC05				IAML		10 43 14.3	
	comp=N,5μm,0.6s						
AC05	**El Transito**	**1.62**	**133**	P	**Pn**	**10 42 51.0**	**+0.8**
AC01	**Pan de Azucar**	**1.83**	**30**	*i* P	**Pn**	**10 42 53.9**	**+0.9**
AC01				*i* S	**Sg**	**10 43 22.7**	**+2.7**
AC01				IAML		10 43 24.9	
	comp=Z,2μm,0.4s						
AC01	**Pan de Azucar**	**1.83**	**30**		**Pn**	**10 42 53.6**	**+0.6**
AC01	**Pan de Azucar**	**1.83**	**30**	*i* P	**Pn**	**10 42 53.8**	**+0.8**
AC01				*i* S	**Sn**	**10 43 14.0**	**-2.5**
AC01				IAML		10 43 28.9	
	comp=E,2μm,0.4s						
AC01	**Pan de Azucar**	**1.83**	**30**	P	**Pn**	**10 42 54.2**	**+1.1**
AC02	**Maricunga**	**2.40**	**69**	*i* P	**Pn**	**10 43 03.7**	**+2.4**
AC02				IAML		10 43 38.9	
	comp=Z,2μm,0.4s						
AC02	**Maricunga**	**2.40**	**69**		**Pn**	**10 43 03.0**	**+1.7**
AC02	**Maricunga**	**2.40**	**69**	*i* P	**Pn**	**10 43 03.4**	**+2.1**
AC02				*i* S	**Sn**	**10 43 31.4**	**+2.2**
AC02	**Maricunga**	**2.40**	**69**	P	**Pn**	**10 43 03.7**	**+2.4**
GO04	**Tololo Observa**	**2.53**	**164**		**Pn**	**10 43 03.8**	**+0.8**
GO04	**Tololo Observa**	**2.53**	**164**	*i* P	**Pn**	**10 43 04.0**	**+1.0**
GO04				*i* S	**Sn**	**10 43 34.8**	**+0.6**
GO04	**Tololo Observa**	**2.53**	**164**	P	**Pn**	**10 43 04.2**	**+1.3**
CO01	**Juntas del Tor**	**2.60**	**149**	*i* P	**Pn**	**10 43 06.3**	**+2.4**
CO01				*i* S	**Sn**	**10 43 37.2**	**+1.2**
CO01				IAML		10 43 43.3	
	comp=Z,2μm,0.9s						
CO01	**Juntas del Tor**	**2.60**	**149**		**Pn**	**10 43 05.2**	**+1.2**
CO01	**Juntas del Tor**	**2.60**	**149** ⇑	*i* P	**Pn**	**10 43 05.8**	**+1.9**
CO01				*i* S	**Sn**	**10 43 35.0**	**-1.0**
CO01				IAML		10 43 41.6	
	comp=E,2μm,0.4s						
CO01	**Juntas del Tor**	**2.60**	**149**	P	**Pn**	**10 43 06.0**	**+2.0**
CO06	**Fray Jorge**	**2.93**	**180**		**Pn**	**10 43 08.6**	**+0.5**
CO06	**Fray Jorge**	**2.93**	**180** ⇑	*i* P	**Pn**	**10 43 08.4**	**+0.2**
CO06				IAML		10 44 06.0	
	comp=E,683nm,0.2s						
VCA	**Vinchina**	**3.18**	**109**	*i* P	**Pb**	**10 43 16.9**	**-1.2**
VCA				IAML		10 44 01.9	
	comp=Z,2μm,0.8s						
VCA	**Vinchina**	**3.18**	**109** ⇑	*e*P	**Pn**	**10 43 15.8**	**+4.1**
CO03	**El Pedregal**	**3.20**	**165**	*i* P	**Pn**	**10 43 13.2**	**+1.3**
CO03				IAML		10 44 07.3	
	comp=Z,1μm,0.9s						
CO03	**El Pedregal**	**3.20**	**165**		**Pn**	**10 43 13.5**	**+1.5**
CO03	**El Pedregal**	**3.20**	**165** ⇑	*i* P	**Pn**	**10 43 13.1**	**+1.2**
CO03				*i* S	**Sn**	**10 43 50.8**	**+0.4**
CO03	**El Pedregal**	**3.20**	**165**	P	**Pn**	**10 43 13.3**	**+1.3**
ACDV	**Cuesta del Vie**	**3.27**	**138**	*e*P	**Pn**	**10 43 16.9**	**+3.9**
ACDV				IAML		10 44 13.4	
	comp=Z,598nm,1.1s						
PB14	**IPOC Station P**	**3.29**	**20**	*i* P	**Pn**	**10 43 14.3**	**+0.9**
PB14				IAML		10 44 13.0	
	comp=Z,514nm,0.7s						
PB14	**IPOC Station P**	**3.29**	**20**		**Pn**	**10 43 13.5**	**+0.1**
PB14	**IPOC Station P**	**3.29**	**20**	*i* P	**Pn**	**10 43 13.8**	**+0.4**
PB14	**IPOC Station P**	**3.29**	**20**	P	**Pn**	**10 43 14.2**	**+0.9**
CO02	**Combarbal**	**3.50**	**171**	*i* P	**Pn**	**10 43 16.9**	**+0.8**
CO02				IAML		10 44 14.0	
	comp=Z,2μm,0.5s						
CO02	**Combarbal**	**3.50**	**171**		**Pn**	**10 43 17.4**	**+1.3**
CO02	**Combarbal**	**3.50**	**171**	*i* P	**Pn**	**10 43 16.7**	**+0.6**
CO02	**Combarbal**	**3.50**	**171**	P	**Pn**	**10 43 17.1**	**+1.0**
TINO	**Tinogasta**	**3.60**	**96**	*i* P	**Pn**	**10 43 20.1**	**+2.5**
TINO				IAML		10 44 16.4	
	comp=Z,516nm,1.9s						
ACCO	**Cerro Coronel**	**3.62**	**142**	*i* P	**Pn**	**10 43 21.7**	**+3.8**
ACCO				IAML		10 44 20.6	
	comp=Z,853nm,1.3s						
CO04	**Los Peladeros**	**4.33**	**173**		**Pn**	**10 43 28.7**	**+1.1**
CO04	**Los Peladeros**	**4.33**	**173**	P	**Pn**	**10 43 29.1**	**+1.4**
ACLC	**CERRO LA CRUZ**	**4.44**	**113**	*i* P	**Pn**	**10 43 31.6**	**+2.5**
ACLC				IAML		10 44 46.5	
	comp=Z,261nm,0.9s						
RTLL	**Cerro Villicun**	**4.51**	**143**	*i* P	**Pn**	**10 43 33.8**	**+3.8**
RTLL				IAML		10 44 53.3	
	comp=Z,680nm,0.5s						
RTLL	**Cerro Villicun**	**4.51**	**143**	*e*P	**Pn**	**10 43 33.0**	**+3.0**
RTLS	**Leoncito**	**4.53**	**154**	*i* P	**Pn**	**10 43 34.7**	**+4.3**
RTLS				IAML		10 44 49.0	
	comp=Z,2μm,0.7s						
ZON	**Zonda**	**4.58**	**147**		**Pn**	**10 43 33.6**	**+2.6**
ZON	**Zonda**	**4.58**	**147**	P	**Pn**	**10 43 31.9**	**+1.0**
CFA	**Coronel Fontan**	**4.85**	**143**	Pn	**Pn**	**10 43 37.0**	**+2.4**
	comp=Z,11nm,0.3s,baz=324,slow=13,SNR=288						
CFA				Sn	**Sn**	**10 44 30.6**	**-0.5**
	comp=Z,9.2nm,0.3s,baz=86,slow=14,SNR=4.3						
CFA				Lg	Lg	10 44 50.1	
	comp=Z,19nm,0.3s,baz=94,slow=23,SNR=6.0						
	comp=Z,22nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.85**	**143**	*i* P	**Pn**	**10 43 37.7**	**+3.0**
CFA				IAML		10 45 00.8	
	comp=Z,237nm,0.7s						
PB05	**IPOC Station P**	**5.03**	**15**	*i* P	**Pn**	**10 43 37.7**	**+0.5**
PB05				IAML		10 45 20.9	
	comp=Z,164nm,0.9s						
PB05	**IPOC Station P**	**5.03**	**15**		**Pn**	**10 43 36.8**	**-0.4**
PB05	**IPOC Station P**	**5.03**	**15**	P	**Pn**	**10 43 37.5**	**+0.3**
	comp=Z,63nm,0.6s						
VA03	**San Esteban**	**5.10**	**170**	*i* P	**Pn**	**10 43 39.9**	**+1.8**
VA03				IAML		10 45 05.8	
	comp=Z,431nm,0.6s						
VA03	**San Esteban**	**5.10**	**170**		**Pn**	**10 43 40.2**	**+2.2**
VA03	**San Esteban**	**5.10**	**170**	P	**Pn**	**10 43 40.1**	**+2.0**
	comp=Z,194nm,0.7s						
CYA	**Choya**	**5.19**	**99**	*e*P	**Pn**	**10 43 41.8**	**+2.5**
CYA				IAML		10 45 02.2	
	comp=Z,187nm,0.6s						
CYA	**Choya**	**5.19**	**99**	*e*P	**Pn**	**10 43 41.3**	**+2.0**
VA01	**Torpederas**	**5.27**	**180**		**Pn**	**10 43 39.9**	**-0.5**
VA01	**Torpederas**	**5.27**	**180**	P	**Pn**	**10 43 39.8**	**-0.5**
	comp=Z,106nm,0.8s						
PB06	**IPOC Station P**	**5.34**	**21**	*i* P	**Pn**	**10 43 42.5**	**+0.9**
PB06				IAML		10 45 22.8	
	comp=Z,237nm,0.8s						
PB06	**IPOC Station P**	**5.34**	**21**		**Pn**	**10 43 41.4**	**-0.1**
PB06	**IPOC Station P**	**5.34**	**21**	P	**Pn**	**10 43 40.5**	**-1.1**
	comp=Z,52nm,0.6s						
PEL	**Peldehue**	**5.45**	**172**		**Pn**	**10 43 43.6**	**+0.7**
PEL	**Peldehue**	**5.45**	**172**	P	**Pn**	**10 43 43.8**	**+0.9**
	comp=Z,124nm,0.9s						
MT02	**Curacav**	**5.52**	**176**		**Pn**	**10 43 43.8**	**0.0**
AHML	**Horco Molle**	**5.68**	**82**	*e*P	**Pn**	**10 43 44.5**	**-1.5**
MT05	**Renca**	**5.69**	**172**		**Pn**	**10 43 47.5**	**+1.4**
MT16	**CCHEN**	**5.75**	**171**		**Pn**	**10 43 48.1**	**+1.0**
VA05	**Santo Domingo**	**5.90**	**180**		**Pn**	**10 43 48.0**	**-1.0**
VA05	**Santo Domingo**	**5.90**	**180**	P	**Pn**	**10 43 48.7**	**-0.3**
PB03	**IPOC Station P**	**5.91**	**17**		**Pn**	**10 43 48.7**	**-0.6**
PB03	**IPOC Station P**	**5.91**	**17**	P	**Pn**	**10 43 48.8**	**-0.5**
	comp=Z,53nm,0.6s						
MT09	**Talagante**	**6.04**	**175**		**Pn**	**10 43 51.3**	**+0.1**
MT13	**San Alfonso**	**6.10**	**169**		**Pn**	**10 43 53.6**	**+1.8**
MT01	**Popeta**	**6.12**	**177**		**Pn**	**10 43 52.0**	**0.0**
PB07	**IPOC Station P**	**6.19**	**15**		**Pn**	**10 43 52.6**	**-0.6**
PB07	**IPOC Station P**	**6.19**	**15**	P	**Pn**	**10 43 53.5**	**+0.3**
	comp=Z,41nm,0.5s						
BO04	**La Punta**	**6.29**	**172**		**Pn**	**10 43 55.1**	**+0.7**
PB09	**IPOC Station P**	**6.30**	**21**		**Pn**	**10 43 55.4**	**+0.8**
PB09	**IPOC Station P**	**6.30**	**21**	P	**Pn**	**10 43 55.3**	**+0.6**
	comp=Z,42nm,0.7s						
PB02	**IPOC Station P**	**6.58**	**14**		**Pn**	**10 43 57.9**	**-0.6**
PB02	**IPOC Station P**	**6.58**	**14**	P	**Pn**	**10 43 58.6**	**+0.1**
	comp=Z,63nm,0.6s						
BO01	**Tunca**	**6.65**	**176**		**Pn**	**10 43 58.9**	**-0.4**
BO01	**Tunca**	**6.65**	**176**	P	**Pn**	**10 43 59.1**	**-0.2**
	comp=Z,60nm,0.7s						
BO02	**Sierra Bellavi**	**7.07**	**174**		**Pn**	**10 44 05.1**	**0.0**
BO02	**Sierra Bellavi**	**7.07**	**174**	P	**Pn**	**10 44 05.5**	**+0.3**
	comp=Z,43nm,0.7s						
TCA	**Tanti**	**7.10**	**122**	*e*P	**Pn**	**10 44 05.5**	**0.0**
GO05	**Hualane**	**7.25**	**182**		**Pn**	**10 44 06.4**	**-1.2**
GO05	**Hualane**	**7.25**	**182**	P	**Pn**	**10 44 06.2**	**-1.5**
	comp=Z,47nm,0.7s						
TA01	**Diego Aracena**	**7.26**	**11**	P	**Pn**	**10 44 07.6**	**-0.1**
	comp=Z,18nm,0.7s						
PB08	**IPOC Station P**	**7.89**	**17**		**Pn**	**10 44 16.6**	**-0.2**
ML02	**Panimavida**	**8.00**	**179**		**Pn**	**10 44 18.6**	**+0.6**
ML02	**Panimavida**	**8.00**	**179**	P	**Pn**	**10 44 18.5**	**+0.6**
	comp=Z,37nm,0.4s						
PB11	**IPOC Station P**	**8.14**	**13**		**Pn**	**10 44 18.6**	**-1.4**
PB11	**IPOC Station P**	**8.14**	**13**	P	**Pn**	**10 44 18.4**	**-1.6**
	comp=Z,10nm,0.5s						
PSGCX	**Pisagua**	**8.22**	**10**		**Pn**	**10 44 19.4**	**-1.6**
PSGCX	**Pisagua**	**8.22**	**10**	P	**Pn**	**10 44 19.6**	**-1.4**
	comp=Z,20nm,0.9s						
GO01	**Chusmiza**	**8.33**	**16**		**Pn**	**10 44 22.1**	**-0.9**
GO01	**Chusmiza**	**8.33**	**16**	P	**Pn**	**10 44 22.2**	**-0.7**
	comp=Z,17nm,0.6s						
VA04	**Juan Fernndez**	**8.55**	**225**		**Pn**	**10 44 24.6**	**-0.7**
VA04	**Juan Fernndez**	**8.55**	**225**	P	**Pn**	**10 44 23.9**	**-1.4**
	comp=Z,74nm,0.7s						
BI02	**San Fabin de**	**8.91**	**178**		**Pn**	**10 44 29.7**	**-0.7**
BI02	**San Fabin de**	**8.91**	**178**	P	**Pn**	**10 44 29.6**	**-0.8**
	comp=Z,26nm,0.8s						
BI05	**Punta Hualpn**	**9.08**	**188**	Pn	**Pn**	**10 44 31.4**	**-1.2**
PB16	**IPOC Station P**	**9.56**	**12**		**Pn**	**10 44 39.3**	**-0.5**
PB16	**IPOC Station P**	**9.56**	**12**	P	**Pn**	**10 44 39.9**	**+0.1**
	comp=Z,8.6nm,0.5s						
PB18	**Visviri**	**10.29**	**12**	P	**Pn**	**10 44 49.0**	**-0.8**
	comp=Z,21nm,0.6s						
LPAZ	**La Paz**	**11.84**	**17**	Pn	**Pn**	**10 45 12.1**	**+0.9**
	comp=Z,0.3nm,0.3s,baz=203,slow=7.4,SNR=8.8						
LPAZ				LR	LR	10 50 10.6	
	comp=Z,268nm,19.4s,baz=205,slow=40						
	comp=Z,1.2nm,0.3s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.84**	**17**		**Pn**	**10 45 11.6**	**+0.5**
LPAZ	**La Paz**	**11.84**	**17**	P	**Pn**	**10 45 11.8**	**+0.6**
	comp=Z,6.9nm,0.9s						
LPAZ	**La Paz**	**11.84**	**17**	*e*P	**Pn**	**10 45 10.9**	**-0.2**
PSAL	**Palomas, Salto**	**12.67**	**109**	*e*P	**Pn**	**10 45 21.5**	**-0.3**
CPUP	**Villa Florida**	**12.82**	**87**	Pn	**Pn**	**10 45 24.4**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=247,slow=12,SNR=3.6						
CPUP				Lg	Lg	10 49 05.8	
	comp=Z,0.1nm,0.3s,baz=180,slow=20,SNR=1.8						
	comp=Z,0.5nm,0.5s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**12.82**	**87**	*e*P	**Pn**	**10 45 23.9**	**0.0**
CPUP				*e*S	**Sn**	**10 47 47.4**	**+0.5**
PLCA	**Paso Flores**	**12.99**	**176**	Pn	**Pn**	**10 45 26.4**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=324,slow=11,SNR=3.6						
PLCA				Lg	Lg	10 49 16.9	
	baz=270,slow=20,SNR=1.6						
	comp=Z,1.7nm,0.8s						
PLCA				AML	AML		
PLCA	**Paso Flores**	**12.99**	**176**	Pn	**Pn**	**10 45 25.2**	**-1.1**
PLCA	**Paso Flores**	**12.99**	**176**	P	**Pn**	**10 45 26.7**	**+0.4**
	comp=Z,11nm,1.9s						
PLCA	**Paso Flores**	**12.99**	**176**	*e*P	**Pn**	**10 45 26.5**	**+0.2**
ITQB	**Itaqui**	**13.31**	**102**	*e*P	**Pn**	**10 45 31.0**	**+0.4**
SJPY	**San Joaquin**	**14.18**	**82**	*e*P	**Pn**	**10 45 43.0**	**+0.5**
BBSD	**Serra de San D**	**14.61**	**46**	*e*P	**Pn**	**10 45 49.9**	**+1.4**
COIM	**Forte Coimbra**	**14.86**	**61**	*e*P	**Pn**	**10 45 52.9**	**+1.1**
SIV	**San Ignacio**	**15.24**	**42**	Pn	**Pn**	**10 45 56.3**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=229,slow=7.7,SNR=7.0						
	comp=Z,0.7nm,0.4s						
SIV				AML	AML		
COYC	**Coyhaique**	**17.80**	**181**		**Pn**	**10 46 30.1**	**+0.7**
CNLB	**Canela**	**18.32**	**100**	*e*P	**Pn**	**10 46 35.5**	**-0.5**
AY02	**Valle Explorad**	**18.75**	**183**	P	**P**	**10 46 39.4**	**-1.2**
AY02				IAmb	IAmb	10 46 39.6	
	comp=Z,90nm,0.9s						
CZSB	**Cruzeiro do Su**	**19.93**	**357**	*e*P	**P**	**10 46 54.4**	**+0.8**
PDRB	**Porto dos Gac**	**21.27**	**44**	*e*P	**P**	**10 47 08.8**	**+0.5**
SPB	**Sao Paulo**	**22.18**	**85**	P	**P**	**10 47 17.9**	**-0.1**
SPB	**Sao Paulo**	**22.18**	**85**	*e*P	**P**	**10 47 18.0**	**0.0**
CLDB	**Colider**	**22.42**	**45**	*e*P	**P**	**10 47 20.4**	**-0.2**
VAO	**Valinhos**	**22.76**	**84**	P	**P**	**10 47 23.1**	**-1.2**
VAO				IAmb	IAmb	10 47 36.7	
	comp=Z,15nm,0.9s						
VAO	**Valinhos**	**22.76**	**84**	*e*P	**P**	**10 47 23.4**	**-0.9**
IPMB	**Ipameri, GO**	**23.62**	**71**	*e*P	**P**	**10 47 32.1**	**-1.0**
CANS	**Sao Roque de M**	**24.18**	**78**	*e*P	**P**	**10 47 38.9**	**+0.4**
SNDB	**Serra Nova Dou**	**24.67**	**55**	*e*P	**P**	**10 47 43.1**	**+0.3**
BDFB	**Brasilia**	**24.97**	**66**	P	**P**	**10 47 48.2**	**+2.5**
	comp=Z,0.7nm,0.3s,baz=220,slow=2.2,SNR=5.7						
	comp=Z,0.7nm,0.3s						
NPGB	**Novo Progresso**	**25.71**	**40**	*e*P	**P**	**10 47 53.0**	**+0.7**
SLOR	**San Lorenzo -**	**27.65**	**345**	P	**P**	**10 48 08.7**	**-1.6**
RUSC	**La Rusia**	**33.46**	**357**	P	**P**	**10 48 59.0**	**-2.6**
HOPE	**Hope Point**	**36.87**	**146**	P	**P**	**10 49 29.7**	**-0.3**
ORCD	**Orcadas**	**37.66**	**159**	P	**P**	**10 49 36.4**	**-0.2**
LCR2	**La Lucha 2**	**39.14**	**340**	P	**P**	**10 49 47.7**	**-2.1**
LCR2				IAmb	IAmb	10 50 20.4	
	comp=Z,24nm,1.4s						
VNA3	**Neumayer Olymp**	**55.05**	**160** ⇑	P	**P**	**10 51 54.4**	**+1.2**
	comp=Z,4.0nm,0.8s						
VNA2	**Neumayer--Watz**	**55.67**	**159** ⇑	P	**P**	**10 51 58.9**	**+1.2**
	comp=Z,6.9nm,0.6s,baz=285,slow=7.8						
VNA2	**Neumayer--Watz**	**55.67**	**159**	P	**P**	**10 51 58.6**	**+0.9**
	comp=Z,14nm,0.8s						
SNAA	**Sanae**	**57.27**	**159**	P	**P**	**10 52 09.9**	**+0.9**
	comp=Z,7.2nm,0.6s,baz=260,slow=11,SNR=4.0						
	comp=Z,7.2nm,0.6s						
TROLL	**Troll, Antarti**	**58.99**	**160** ⇑	P	**P**	**10 52 22.5**	**+1.3**
	comp=Z,173nm,0.5s						
QSPA	**South Pole Qui**	**62.48**	**180**	P	**P**	**10 52 46.7**	**+1.6**
	comp=Z,7.7nm,1.0s,baz=151,slow=2.1,SNR=31						
	comp=Z,7.7nm,1.0s						
QSPA	**South Pole Qui**	**62.48**	**180**	P	**P**	**10 52 46.6**	**+1.5**
QSPA				IAmb	IAmb	10 52 48.3	
	comp=Z,7.2nm,0.8s						
QSPA	**South Pole Qui**	**62.48**	**180**	P	**P**	**10 52 46.7**	**+1.6**
	comp=Z,10nm,1.1s						
SNAG	**San Augustine**	**62.73**	**338**	P	**P**	**10 52 47.7**	**+0.9**
SNAG				IAmb	IAmb	10 52 56.9	
	comp=Z,15nm,1.4s						
HNDO	**Hondo**	**62.79**	**333**	P	**P**	**10 52 47.9**	**+0.5**
HNDO				IAmb	IAmb	10 53 08.8	
	comp=Z,3.3nm,0.8s						
TXAR	**Lajitas Array**	**64.51**	**329**	P	**P**	**10 52 59.8**	**+1.0**
	comp=Z,0.3nm,0.8s,baz=142,slow=6.3,SNR=3.6						
	comp=Z,0.3nm,0.8s						
DBIC	**Dimbokro**	**72.91**	**73**	P	**P**	**10 53 51.9**	**+0.4**
	comp=Z,3.3nm,0.7s,baz=243,slow=4.5,SNR=2.8						
	comp=Z,3.3nm,0.7s						
DBIC	**Dimbokro**	**72.91**	**73**	P	**P**	**10 53 52.1**	**+0.6**
DBIC				IAmb	IAmb	10 54 17.1	
	comp=Z,14nm,1.2s						
MAW	**Mawson**	**79.07**	**164**	P	**P**	**10 54 27.4**	**+1.7**
	comp=Z,1.5nm,0.7s,baz=200,slow=5.3,SNR=6.7						
	comp=Z,1.5nm,0.7s						
TORD	**Torodi Ar. Bea**	**81.77**	**71**	P	**P**	**10 54 41.5**	**+0.4**
	comp=Z,2.2nm,0.9s,baz=251,slow=4.4,SNR=7.5						
	comp=Z,2.2nm,0.9s						
ASAR	**Alice Springs**	**123.27**	**208**	PKP	**PKiKP**	**11 01 20.9**	**+1.2**
	comp=Z,0.3nm,0.5s,baz=135,slow=1.6,SNR=8.4						
WRA	**Warramunga Arr**	**126.35**	**211**	PKP	**PKiKP**	**11 01 26.9**	**+1.0**
	comp=Z,0.3nm,0.4s,baz=159,slow=1.8,SNR=12						
KURBB	**Kurchatov Arra**	**147.84**	**37**	PKPbc	**PKPbc**	**11 02 06.3**	**-0.3**
	comp=Z,1.1nm,0.7s,baz=303,slow=3.3,SNR=8.4						
ZALV	**Zalesovo Beam**	**148.62**	**27**	PKPbc	**PKPbc**	**11 02 08.4**	**-0.2**
	comp=Z,4.7nm,0.7s,baz=301,slow=3.9,SNR=16						
MKAR	**Makanchi Array**	**152.05**	**40**	PKPbc	**PKiKP**	**11 02 18.9**	**+1.5**
	comp=Z,1.2nm,0.8s,baz=310,slow=2.7,SNR=4.9						
WMQ	**Urumqi**	**156.88**	**41**	*e*PKP	**PKPdf**	**11 02 17.3**	**-0.1**
WMQ				pPKP	sPKPdf	11 02 27.3	+8.3
WMQ				LR	LR		
	comp=Z,680nm,24.1s						
HHC	**Hu-ho-hao-te**	**166.66**	**349**	*e*P	**PKPdf**	**11 02 25.8**	**-1.8**

*IDC **22** 11:04:13.9±0.9, 42°.51N×111°.45W, h0km, mb2.8/1, mbtmp3.1/7, ML2.7/6, Error ellipse: s-maj=10.8km s-min=9.0km az=164.0*

*NEIC **22** 11:04:15.2±1.2, 42°.58N±0°.02×111°.46W±0°.03, h7km±5km, ML3.5/70, ML3.7/17(UUSS), Error ellipse: s-maj=3.1km s-min=1.9km az=117.0*

*UUSS **22** 11:04:15.1±1.2, 42°.57N±0°.02×111°.45W±0°.03, h-1km±2km, Error ellipse: s-maj=3.1km s-min=1.8km az=121.0*

ISC 22 11:04:15.6±0.8, 42°.56N±0°.03×111°.40W±0°.04, h9km, n69, σ1.918/72, Eastern Idaho

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AHID	**Auburn Hatcher**	**0.30**	**47**		**Pg**	**11 04 22.1**	**+0.4**
AHID				Sg	**Sg**	**11 04 26.8**	**+1.1**
BEI	**Bear River Ran**	**0.53**	**213**		**Pg**	**11 04 25.6**	**-0.3**
L17A	**Cokeville**	**0.60**	**140**		**Pg**	**11 04 27.4**	**+0.1**
BMUT	**Black Mountain**	**0.61**	**169**		**Pg**	**11 04 27.1**	**-0.5**
MLI	**Malad Range**	**0.76**	**226**		**Pg**	**11 04 29.7**	**-0.6**
HDU	**Hyde Park**	**0.81**	**200**		**Pg**	**11 04 30.5**	**-0.6**
RSUT	**Red Spur Mount**	**0.92**	**181**		**Pg**	**11 04 33.5**	**+0.1**
NPI	**North Pocatell**	**0.93**	**244**		**Pg**	**11 04 32.5**	**-1.0**
PTU	**Portage**	**0.94**	**228**		**Pg**	**11 04 33.0**	**-0.6**
HWUT	**Hardware Ranch**	**0.96**	**188**		**Pg**	**11 04 33.5**	**-0.6**
HWUT				Sg	**Sg**	**11 04 46.9**	**+0.3**
HWUT				IAML		11 04 53.4	
	913nm,0.9s						
HWUT				IAML		11 04 54.5	
	853nm,0.7s						
SNOW	**Snow King Moun**	**1.02**	**27**		**Pg**	**11 04 34.4**	**-0.7**
SNOW				Sg	**Sg**	**11 04 48.8**	**+0.4**
SNOW				IAML		11 04 50.9	
	2μm,0.4s						
SNOW				IAML		11 04 53.3	
	2μm,0.6s						
WVUT	**Wellsville**	**1.04**	**204**		**Pg**	**11 04 35.0**	**-0.6**
MCU	**Monte Cristo P**	**1.10**	**184**		**Pg**	**11 04 36.2**	**-0.6**
**BW

PLID				IAML			11 06 31.1		
	comp=E,73nm,1.0s								
GBMT	**Granite Butte,**	**4.36**	**350**		**Pn**		**11 05 23.3**	**+1.0**	
PSUT	**Pine Spring**	**4.44**	**206**		**Pn**		**11 05 24.8**	**+1.4**	
PV22	**Blue Mesa, Par**	**4.49**	**153**		**Pn**		**11 05 25.1**	**+1.2**	
ISCO	**Idaho Springs**	**5.16**	**120**		**Pn**		**11 05 35.0**	**+1.6**	
ISCO				IAML			11 07 05.5		
	comp=E,37nm,0.9s								
ISCO				IAML			11 07 15.9		
	comp=E,35nm,1.9s								
LAO	**LASA Array**	**5.54**	**40**		**Pn**		**11 05 40.1**	**+1.9**	
JTMT	**Jette**	**5.57**	**340**		**Pn**		**11 05 40.7**	**+1.9**	
EGMT	**Eagleton**	**5.58**	**11**	Pn	**Pn**		**11 05 40.3**	**+1.4**	
MVCO	**Mesa Verde**	**5.79**	**156**		**Pn**		**11 05 43.5**	**+1.5**	
PRN	**Pahroc Range**	**5.86**	**210**	Pn	**Pn**		**11 05 44.7**	**+1.9**	
NVAR	**Mina Array Bea**	**6.69**	**234**	Pg	**Pb**		**11 06 16.3**	**+4.1**	
	comp=E,0.6nm,0.3s,baz=49,slow=17,SNR=6.2								
NVAR				Lg	Lg		11 07 38.8		
	comp=E,3.6nm,0.3s,baz=151,slow=8.5,SNR=7.5								
NEW	**Newport**	**6.98**	**327**	Pn	**Pn**		**11 05 59.0**	**+1.0**	
	comp=E,0.2nm,0.3s,baz=141,slow=18,SNR=6.0								
NEW				Lg	Lg		11 07 51.3		
	comp=E,1.6nm,0.3s,baz=76,slow=20,SNR=11								
	comp=E,1.5nm,0.6s								
NEW				AML	AML				
YBH	**Yreka Blue Hor**	**8.45**	**268**	Pn	**Pn**		**11 06 19.5**	**+1.3**	
	baz=159,slow=8.9,SNR=3.9								
YBH				Lg	Lg		11 08 40.5		
	baz=218,slow=9.8,SNR=1.3								
	comp=E,0.2nm,0.3s								
ANMO	**Albuquerque**	**8.53**	**152**	Pn	**Pn**		**11 06 18.8**	**-0.6**	
	comp=E,0.1nm,0.3s,baz=329,slow=12,SNR=1.9								
ANMO				Pg	Pg		11 06 50.7	-8.1	
	comp=E,0.1nm,0.3s,baz=339,slow=17,SNR=1.8								
ANMO				Lg	Lg		11 08 37.1		
	comp=E,0.2nm,0.3s,baz=68,slow=21,SNR=5.0								
	comp=E,0.4nm,0.6s								
ANMO				AML	AML				
ULM	**Lac du Bonnet**	**13.17**	**49**	Pn	**Pn**		**11 07 18.7**	**-4.0**	
	comp=E,0.3nm,0.3s,baz=313,slow=6.5,SNR=2.3								
ULM				Lg	Lg		11 11 00.8		
	comp=E,0.3nm,0.3s,baz=136,slow=15,SNR=4.6								
	comp=E,1.2nm,0.7s								
ULM				AML	AML				
TXAR	**Lajitas Array**	**14.60**	**152**	Pn	**Pn**		**11 07 41.6**	**-0.8**	
	baz=340,slow=14,SNR=3.2								
	comp=E,0.1nm,0.7s								
YKA	**Yellowknife Ar**	**20.05**	**356**	P	Pn		11 08 49.8	-0.8	
	comp=E,0.4nm,0.8s,baz=172,slow=9.7,SNR=3.6								
	comp=E,0.4nm,0.8s								

IDC ***22*** *11:09:58.4±0.7,53.°54N×159.°58W,h0km,mb4.0/23, mbtmp4.0/27,ML3.8/4,MS3.5/3,Error ellipse: s-maj=16.9km s-min=11.0km az=148.0*
NEIC ***22*** *11:10:00.0±1.4,53.°65N±0.°07×159.°45W±0.°03,h9km±6km, mb4.5/18,ML4.1/26,ML3.8(AEIC),Error ellipse: s-maj=10.0km s-min=1.7km az=165.0*
AEIC ***22*** *11:10:03.3±1.6,53.°65N±0.°07×159.°51W±0.°10,h25km±6km, Error ellipse: s-maj=10.6km s-min=7.0km az=147.0*

ISC 22 11:10:00.2±2.2,53.°66N±0.°06×159.°40W±0.°05,
h11km±13km**,n178,**σ1**902/**178**,mb4.2/**34**,South of Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
				Op				
CNBA	**Chernabura Isl**	**1.17**	**355**			**Pb**	**11 10 21.9**	**-0.5**
CNBA	**Chernabura Isl**	**1.17**	**355**			**Sg**	**11 10 38.1**	**+0.4**
CNBA	**Chernabura Isl**	**1.17**	**355**	IAML			11 10 39.1	
	comp=N,474nm,1.4s							
CNBA				IAML			11 10 42.1	
	comp=E,387nm,0.7s							
CHNA	**Chernabura Isl**	**1.18**	**355**	P		**Pb**	**11 10 21.8**	**-0.7**
SDPT	**Sand Point**	**1.80**	**340**	P		**Pn**	**11 10 30.8**	**-0.4**
SDPT	**Sand Point**	**1.80**	**340**	S		**Sn**	**11 10 54.2**	**+0.1**
SDPT	**Sand Point**	**1.80**	**340**			**Pn**	**11 10 30.9**	**-0.3**
SDPT	**Sand Point**	**1.80**	**340**			**Sn**	**11 10 54.0**	**-0.1**
SDPT	**Sand Point**	**1.80**	**340**	IAML			11 11 00.7	
	comp=N,568nm,1.1s							
SDPT				IAML			11 11 03.8	
	comp=E,451nm,0.7s							
DOL	**Dolgoi Island**	**2.07**	**317**			**Pn**	**11 10 34.3**	**-0.6**
DOL						**Sn**	**11 10 59.0**	**-1.7**
PVV	**Pavlof Volcano**	**2.21**	**322**			**Pn**	**11 10 37.0**	**+0.2**
PS4A	**Pavlof South-4**	**2.21**	**321**			**Pn**	**11 10 37.0**	**+0.2**
DT1	**Dutton Round H**	**2.22**	**312**			**Pn**	**11 10 36.3**	**-0.6**
DT1						**Sn**	**11 11 02.9**	**-1.5**
PS1A	**Pavlof South-1**	**2.23**	**323**			**Pn**	**11 10 37.4**	**+0.3**
PS1A						**Sn**	**11 11 04.3**	**-0.3**
DTNA	**Dutton South F**	**2.23**	**313**			**Pn**	**11 10 37.1**	**-0.1**
DTNA						**Sn**	**11 11 03.6**	**-1.1**
PN7A	**Pavlof North-7**	**2.33**	**321**			**Pn**	**11 10 39.3**	**+0.7**
VNKR	**Veniaminof 5**	**2.38**	**0**			**Pn**	**11 10 40.3**	**+1.2**
VNSW	**Veniaminof 7**	**2.42**	**358**			**Pn**	**11 10 40.9**	**+1.2**
VNWF	**Veniaminof 8**	**2.50**	**358**			**Pn**	**11 10 42.0**	**+1.2**
S12K	**Black Hills**	**2.56**	**324**			**Pn**	**11 10 42.1**	**+0.5**
S12K	**Black Hills**	**2.56**	**324**			**Sn**	**11 11 13.8**	**+1.0**
S12K	**Black Hills**	**2.56**	**324**	IAML			11 11 15.2	
	comp=N,1μm,0.6s							
S12K				IAML			11 11 15.6	
	comp=E,1μm,0.5s							
VNFG	**Fog Glacier, M**	**2.63**	**358**			**Pn**	**11 10 44.2**	**+1.5**
VNFG	**Fog Glacier, M**	**2.63**	**358**	IAML			11 11 29.8	
	comp=E,763nm,0.9s							
VNFG				IAML			11 11 31.5	
	comp=N,841nm,0.8s							
CHGN	**Chignik**	**2.71**	**12**	Pn		**Pn**	**11 10 43.7**	**+0.1**
CHGN				IAML			11 11 21.8	
	comp=E,367nm,0.1s							
ISLZ	**Isanotski Laza**	**2.75**	**295**			**Pn**	**11 10 43.9**	**-0.3**
SSLS	**Shishaldin Sou**	**2.90**	**293**			**Pn**	**11 10 46.2**	**-0.1**
SSLS						**Sn**	**11 11 19.9**	**-1.3**
SSLN	**Shishaldin Nor**	**2.93**	**295**			**Pn**	**11 10 47.2**	**+0.5**
SSLN						**Sn**	**11 11 21.9**	**-0.1**
SSBA	**Shishaldin**	**2.99**	**294**			**Pn**	**11 10 47.5**	**0.0**
CHIR	**Chirikof Islan**	**3.08**	**44**	P		**Pn**	**11 10 47.7**	**-1.1**
CHIR	**Chirikof Islan**	**3.08**	**44**	Pn		**Pn**	**11 10 48.0**	**-0.8**
CHIR				IAML			11 11 51.2	
	comp=N,170nm,2.3s							
WTUG	**Tugumak**	**3.15**	**294**			**Pn**	**11 10 50.1**	**+0.4**
WTUG						**Sn**	**11 11 26.6**	**-0.8**
WESP	**Westdahl Peak**	**3.24**	**287**			**Pn**	**11 10 50.5**	**-0.5**
WECS	**Westdahl Cape**	**3.28**	**288**			**Pn**	**11 10 51.8**	**+0.2**
WECS				IAML			11 11 30.4	
	comp=E,613nm,0.6s							
AKUT	**Akutan**	**3.80**	**280**	P		**Pn**	**11 10 58.1**	**-0.5**
AKUT	**Akutan**	**3.80**	**280**			**Pn**	**11 10 58.2**	**-0.3**
AKUT				IAML			11 11 43.3	
	comp=N,387nm,0.8s							
AHB	**Akutan Harbor**	**3.82**	**279**			**Pn**	**11 10 58.6**	**-0.3**
AHB						**Sn**	**11 11 41.5**	**-2.4**
AKBBA	**Akutan Broad B**	**3.89**	**279**			**Pn**	**11 10 59.5**	**-0.4**
AKLV	**Akutan Long Va**	**3.91**	**280**			**Pn**	**11 10 59.8**	**-0.4**
AKV	**Akutan Volcano**	**3.91**	**279**			**Pn**	**11 11 00.0**	**-0.2**
ZRO	**Akutan Zero**	**3.92**	**279**			**Pn**	**11 11 00.0**	**-0.2**
AKGG	**Akutan Green G**	**3.93**	**281**			**Pn**	**11 11 00.6**	**+0.2**
LVA	**Lava Point**	**3.95**	**280**			**Pn**	**11 11 00.1**	**-0.7**
AKRB	**Akutan Reef Bi**	**3.97**	**279**			**Pn**	**11 11 01.1**	**+0.1**
R16K	**Pilot Point**	**4.05**	**14**	Pn		**Pn**	**11 10 60.0**	**-2.1**
R16K				IAML			11 13 02.3	
	comp=E,314nm,4.6s							
R16K				IAML			11 13 44.3	
	comp=N,285nm,1.9s							
SII	**Sitkinak Islan**	**4.17**	**44**	P		**Pn**	**11 11 02.9**	**-0.9**
SII	**Sitkinak Islan**	**4.17**	**44**			**Pn**	**11 11 03.2**	**-0.6**
SII				IAML			11 12 02.3	
	comp=E,212nm,0.7s							
SII				IAML			11 13 13.5	
	comp=N,190nm,4.6s							
UNV	**Unalaska Valle**	**4.22**	**275**	P		**Pn**	**11 11 03.0**	**-1.4**
UNV	**Unalaska Valle**	**4.22**	**275**			**Pn**	**11 11 03.0**	**-1.4**
UNV				IAML			11 11 52.0	
	comp=N,203nm,0.4s							
UNV				IAML			11 11 52.2	
	comp=E,274nm,0.6s							
MNAT	**Makushin Natee**	**4.33**	**276**			**Pn**	**11 11 05.1**	**-0.8**
R17L	**Mt. Peulik Vol**	**4.34**	**22**			**Pn**	**11 11 07.4**	**+1.4**
MSW	**Makushin Switc**	**4.38**	**276**			**Pn**	**11 11 05.9**	**-0.7**
MGOD	**Makushin Gods**	**4.44**	**275**			**Pn**	**11 11 06.8**	**-0.6**
KJL	**Kejulik**	**4.90**	**25**			**Pn**	**11 11 14.3**	**+0.5**
ANCK	**Angle Creek**	**5.05**	**24**			**Pn**	**11 11 16.3**	**+0.5**
OKFG	**Magazine Ridge**	**5.08**	**271**			**Pn**	**11 11 15.6**	**-0.6**
OKTU	**Okmok Mt. Tuli**	**5.16**	**270**			**Pn**	**11 11 17.0**	**-0.4**
OKNC	**Okmok New Cone**	**5.20**	**271**	Pn		**Pn**	**11 11 17.3**	**-0.6**
OKNC				IAML			11 14 32.2	
	comp=N,155nm,1.9s							
OKCE	**Okmok Cone E**	**5.23**	**271**			**Pn**	**11 11 18.3**	**0.0**
OKSP	**Okmok Steeple**	**5.33**	**269**			**Pn**	**11 11 18.7**	**-1.0**
KAWH	**Katmai**	**5.39**	**27**			**Pn**	**11 11 20.5**	**0.0**
P16K	**Nushagak River**	**5.44**	**8**	Pn		**Pn**	**11 11 22.1**	**+1.0**
KARR	**Katmai Rainbow**	**5.52**	**27**			**Pn**	**11 11 22.4**	**+0.2**
Q18K	**Katmai Hardscr**	**5.57**	**24**			**Pn**	**11 11 23.2**	**+0.2**
KDAK	**Kodiak Island**	**5.65**	**40**	Pn		**Pn**	**11 11 22.8**	**-1.1**
	comp=N,3.0nm,0.3s,baz=121,slow=1.1,SNR=88							
KDAK				Sn		**Sn**	**11 12 23.4**	**-5.4**
	comp=N,1.4nm,0.3s,baz=72,slow=13,SNR=6.9							
	comp=N,9.0nm,0.4s							
KDAK				AML	AML			
KDAK	**Kodiak Island**	**5.65**	**40**			**Pn**	**11 11 22.9**	**-1.0**
P17K	**Kvichak River**	**5.79**	**15**			**Pn**	**11 11 26.3**	**+0.4**
O16K	**Kokwok River B**	**5.99**	**6**			**Pn**	**11 11 29.1**	**+0.4**
Q19K	**Cape Douglas,**	**6.18**	**29**	Pn		**Pn**	**11 11 31.4**	**+0.1**
O17K	**Koliganek Bris**	**6.26**	**11**			**Pn**	**11 11 32.9**	**+0.5**
CLCO	**Concord Point,**	**6.26**	**266**			**Pn**	**11 11 31.7**	**-0.7**
CLES	**Cleveland East**	**6.36**	**267**	Pn		**Pn**	**11 11 32.8**	**-0.9**
N15K	**Kwethluk River**	**6.54**	**357**			**Pn**	**11 11 35.4**	**-0.8**
N17K	**Nushagak Hills**	**6.99**	**9**			**Pn**	**11 11 42.9**	**+0.5**
O19K	**Port Alsworth**	**7.12**	**21**			**Pn**	**11 11 45.4**	**+1.4**
ILSW	**Iliamna Southw**	**7.21**	**26**	Pn		**Pn**	**11 11 46.4**	**+0.9**
CNPM	**China Poot**	**7.41**	**34**			**Pn**	**11 11 47.9**	**-0.2**
BRLK	**Bradley Lake**	**7.70**	**34**			**Pn**	**11 11 51.3**	**-0.9**
BRSE	**Bradley Lake S**	**7.73**	**35**			**Pn**	**11 11 51.9**	**-0.7**
SLKM	**Skilak Lake**	**8.48**	**32**			**Pn**	**11 12 02.4**	**-0.5**
O22K	**Cooper Landing**	**8.63**	**34**			**Pn**	**11 12 06.1**	**+1.3**
ATKA	**Atka Island**	**9.05**	**267**	P		**Pn**	**11 12 10.2**	**-0.5**
RC01	**Rabbit Creek A**	**9.09**	**31**			**Pn**	**11 12 11.8**	**+0.7**
PWL	**Port Wells**	**9.37**	**35**			**Pn**	**11 12 14.1**	**-0.9**
PMR	**Palmer**	**9.66**	**31**	P		**Pn**	**11 12 19.9**	**+0.9**
KNK	**Knik Glacier**	**9.73**	**33**			**Pn**	**11 12 19.5**	**-0.5**
KAIM	**Kayak Island**	**10.33**	**47**			**Pn**	**11 12 29.1**	**+1.0**
SCM	**Sheep Creek Mo**	**10.41**	**33**			**Pn**	**11 12 29.0**	**-0.4**
ADK	**Adak**	**10.62**	**267**	P		**Pn**	**11 12 31.0**	**-1.1**
KLU	**Klutina**	**10.66**	**37**			**Pn**	**11 12 32.1**	**-0.6**
BMRM	**Bremner River**	**10.83**	**42**			**Pn**	**11 12 34.5**	**-0.5**
GLB	**Gilahina Butte**	**11.42**	**41**			**Pn**	**11 12 42.4**	**-0.7**
TGL	**Tana Glacier**	**11.43**	**45**			**Pn**	**11 12 43.5**	**+0.1**
VRDI	**Verde Repeater**	**11.43**	**42**			**Pn**	**11 12 42.8**	**-0.6**
HARP	**HAARP**	**11.54**	**35**			**Pn**	**11 12 45.4**	**+0.7**
PAX	**Paxson**	**11.83**	**32**			**Pn**	**11 12 48.6**	**-0.1**
GRNC	**Granite Creek**	**11.88**	**46**			**Pn**	**11 12 50.4**	**+0.9**
BARN	**Barnard Glacie**	**12.08**	**45**			**Pn**	**11 12 52.5**	**+0.3**
LOGN	**Logan Glacier**	**12.25**	**47**			**Pn**	**11 12 55.5**	**+0.9**
PCA	**Pinnacle**	**12.27**	**51**			**Pn**	**11 12 55.9**	**+1.2**
K24K	**Donnelly Dome**	**12.36**	**29**			**Pn**	**11 12 57.2**	**+1.3**
HDA	**Harding Lake**	**12.51**	**26**			**Pn**	**11 12 56.9**	**-1.1**
PNL	**Peninsula**	**12.51**	**53**	P		**Pn**	**11 12 58.7**	**+0.7**
L26K	**Log Cabin Wild**	**12.58**	**35**			**Pn**	**11 12 59.6**	**+0.7**
O28M	**Mount Upton**	**12.58**	**48**			**Pn**	**11 12 59.5**	**+0.3**
IL31		**12.82**	**25**			**Pn**	**11 13 00.4**	**-1.7**
ILAR	**Eielson Array**	**12.82**	**25**	Pn		**Pn**	**11 13 00.4**	**-1.8**
	comp=N,0.4nm,0.3s,baz=214,slow=13,SNR=13							
ILAR				Sn		**Sn**	**11 15 19.1**	**-5.6**
	baz=211,slow=10,SNR=2.8							
	comp=N,0.9nm,0.4s							
ILAR				AML	AML			
SCRK	**Sand Creek**	**13.02**	**31**			**Pn**	**11 13 03.9**	**-1.1**
P29M	**Windy Craggy**	**13.30**	**55**			**Pn**	**11 13 08.9**	**+0.2**
HYT	**Haines Junctio**	**13.81**	**50**			**Pn**	**11 13 17.5**	**+1.8**
O30N	**Mendenhall**	**14.44**	**51**	Pn		**Pn**	**11 13 25.1**	**+0.8**
SKAG	**Skagway**	**14.44**	**57**	P		**Pn**	**11 13 25.2**	**+0.9**
SKAG	**Skagway**	**14.44**	**57**			**Pn**	**11 13 25.6**	**+1.3**
DAWY	**Dawson**	**14.61**	**37**	Pn		**Pn**	**11 13 27.3**	**+0.6**
JIS	**Juneau Island**	**14.71**	**62**	P		**Pn**	**11 13 28.7**	**+0.8**
WHY	**Whitehorse**	**14.97**	**52**	Pn		**Pn**	**11 13 32.4**	**+0.8**
G26K	**Porcupine Rive**	**15.34**	**24**	Pn		**Pn**	**11 13 35.9**	**-0.4**
BMAR	**Burnt Mountain**	**15.54**	**22**	Pn		**Pn**	**11 13 37.9**	**-1.1**
I29M	**Ogilvie Camp,**	**15.77**	**34**	Pn		**Pn**	**11 13 43.6**	**+1.6**
P33M	**Teslin, Yukon**	**15.84**	**55**	Pn		**Pn**	**11 13 44.7**	**+1.6**
F28M	**Old Crow**	**16.83**	**26**			**Pn**	**11 13 56.7**	**+1.2**
DLBC	**Dease Lake**	**17.01**	**62**	P		**Pn**	**11 13 58.3**	**+0.4**
	comp=N,0.2nm,0.3s,baz=225,slow=5.9,SNR=8.9							
	comp=N,3.1nm,1.0s							
DLBC				AML	AML			
G31M	**Satah River**	**18.02**	**33**			**P**	**11 14 11.2**	**+0.4**
G31M				IAmb	IAmb		11 14 27.1	
	comp=E,19nm,0.9s							
BBB	**Bella Bella**	**18.85**	**82**	LR	LR		11 20 08.6	
	comp=E,79nm,19.4s,baz=355,slow=32							
INK	**Inuvik**	**19.07**	**30**	P		**Pn**	**11 14 24.1**	**+1.0**
	comp=E,0.4nm,0.3s,baz=229,slow=11,SNR=13							
INK				S		**S**	**11 18 00.1**	**+1.8**
	comp=E,1.3nm,1.0s,baz=198,slow=19,SNR=1.4							
	comp=E,5.3nm,0.7s							
INK				AML	AML			
INK	**Inuvik**	**19.07**	**30**	P		**P**	**11 14 21.9**	**-0.4**
INK				IAmb	IAmb		11 14 35.9	
	comp=E,19nm,0.9s							
C36M	**Paulatuk**	**22.54**	**32**	P		**P**	**11 14 59.7**	**0.0**
C36M				IAmb	IAmb		11 15 10.5	
	comp=E,8.7nm,0.6s							
A36M	**Sachs Harbour**	**23.52**	**26**	P		**P**	**11 15 09.8**	**+0.1**
A36M				IAmb	IAmb		11 15 22.3	
	comp=E,15nm,0.8s							
PET	**Petropavlovsk**	**24.79**	**286**	P		**P**	**11 15 20.8**	**-1.0**
PET				IAmb	IAmb		11 15 49.7	
	comp=E,57nm,1.5s							
YKA	**Yellowknife Ar**	**24.79**	**51**	P		**P**	**11 15 22.7**	**+0.9**
	comp=E,0.3nm,0.5s,baz=272,slow=8.9,SNR=5.3							
	comp=E,0.3nm,0.5s							
LON	**Longmire**	**24.80**	**91**	P		**P**	**11 15 20.1**	**-2.0**
LON				IAmb	IAmb		11 15 24.8	
	comp=E,3.7nm,0.8s							
PEA0B	**Petropavlovsk-**	**25.31**	**286**	P		**P**	**11 15 26.2**	**-0.3**
PETK	**Petropavlovsk-**	**25.31**	**286**	P		**P**	**11 15 25.4**	**-1.2**
	comp=E,6.7nm,0.5s,baz=76,slow=12,SNR=29							
	comp=E,6.7nm,0.5s							
PETK	**Petropavlovsk-**	**25.31**	**286**	P		**P**	**11 15 26.2**	**-0.3**
YBH	**Yreka Blue Hor**	**27.11**	**101**	LR	LR		11 23 15.5	
	comp=E,110nm,20.1s,baz=1.5,slow=29							
NVAR	**Mina Array Bea**	**31.82**	**102**	P		**P**	**11 16 25.9**	**+0.9**
	comp=E,0.6nm,0.7s,baz=309,slow=8.9,SNR=5.7							
	comp=E,0.6nm,0.7s							
PDAR	**Pinedale Array**	**34.28**	**88**	P		**P**	**11 16 47.1**	**+0.7**
	comp=E,2.0nm,0.5s,baz=319,slow=9.5,SNR=3.3							
	comp=E,2.0nm,0.5s							
PFO	**Pinyon Flats O**	**36.26**	**106**	LR	LR		11 28 51.5	
	comp=E,104nm,19.9s,baz=1.0,slow=31							
H11N2	**WAKE ISLAND Hy**	**42.60**	**231**	T		T	12 04 49.6	
	baz=28,slow=76,SNR=6.7							
H11N3	**WAKE ISLAND Hy**	**42.60**	**231**	T		T	12 04 48.2	
	baz=28,slow=76,SNR=8.1							
H11N1	**WAKE ISLAND Hy**	**42.62**	**231**	T		T	12 04 49.0	
	baz=28,slow=76,SNR=9.0							
H11S1	**WAKE ISLAND Hy**	**43.75**	**230**	T		T	12 06 18.7	
	baz=27,slow=76,SNR=4.9							
H11S2	**WAKE ISLAND Hy**	**43.77**	**230**	T		T	12 06 10.7	
	baz=27,slow=76,SNR=3.8							
H11S3	**WAKE ISLAND Hy**	**43.77**	**230**	T		T	12 06 11.9	
	baz=27,slow=76,SNR=4.8							
MAJO	**Matsushiro**	**45.69**	**274**	P		**P**	**11 18 21.1**	**+0.1**
MJAR	**Matsushiro Arr**	**45.69**	**274**	P		**P**	**11 18 20.4**	**-0.5**
	comp=E,1.4nm,0.7s,baz=36,slow=8.8,SNR=4.8							
	comp=E,1.4nm,0.7s							
MJAR	**Matsushiro Arr**	**45.69**	**274**	P		**P**	**11 18 20.8**	**-0.1**
MJAR				IAmb	IAmb		11 18 21.5	
	comp=E,6.0nm,1.4s							
MJB9	**Matsu-Tunnel**	**45.69**	**274**	P		**P**	**11 18 21.1**	**+0.1**
MJB9				IAmb	IAmb		11 18 25.9	
	comp=E,14nm,1.3s							
TXAR	**Lajitas Array**	**46.82**	**98**	P		**P**	**11 18 30.5**	**+0.5**
	comp=E,1.0nm,0.7s,baz=307,slow=5.0,SNR=12							
TXAR				PcP		**PcP**	**11 20 02.6**	**-0.3**
	comp=E,0.3nm,0.6s,baz=328,slow=3.8,SNR=3.4							
	comp=E,1.0nm,0.7s							
SONM	**Songino Array**	**55.63**	**306**	P		**P**	**11 19 36.4**	**+0.4**
	comp=E,1.0nm,0.7s,baz=61,slow=6.3,SNR=6.0							
SONM				PcP		**PcP**	**11 20 35.3**	**-0.1**
	comp=E,0.9nm,0.7s,baz=62,slow=3.4,SNR=2.1							
	comp=E,1.0nm,0.7s							
ARCES	**ARCESS Array B**	**57.06**	**358**	P		**P**	**11 19 45.3**	**-0.3**
	comp=E,2.2nm,0.8s,baz=358,slow=7.2,SNR=1.4							
	comp=E,2.2nm,0.8s							
HHC	**Hu-ho-hao-te**	**57.91**	**296**	*e*P		**P**	**11 19 53.0**	**+0.8**
HHC				pmax	pmax			
	comp=E,16nm,0.7s							
NJ2	**Nanjing**	**60.20**	**284**	*e*P		**P**	**11 20 08.5**	**+0.5**
NJ2				pmax	pmax			
	comp=E,6.0nm,0.5s							
ZALV	**Zalesovo Beam**	**60.32**	**322**	P		**P**	**11 20 08.0**	**-0.5**
	comp=Z,0.4nm,0.3s,baz=26,slow=3.7,SNR=1.9							
ZALV				PcP		**PcP**	**11 20 53.6**	**+0.1**
	comp=Z,0.4nm,0.3s,baz=42,slow=4.6,SNR=2.0							
	comp=Z,0.4nm,0.3s							
XAN	**Xi'an**	**64.32**	**293**	*e*P		**P**	**11 20 36.0**	**+0.3**
GTA2	**Gaotai**	**65.02**	**303**	*e*P		**P**	**11 20 40.4**	**+0.2**
GTA2				pmax	pmax			
	comp=Z,4.0nm,1.2s							
FINES	**FINESS Array B**	**65.16**	**357**	P		**P**	**11 20 41.0**	**+0.4**
	comp=Z,4.4nm,1.0s,baz=150,slow=12,SNR=5.2							
	comp=Z,4.4nm,1.0s							
KURBB	**Kurchatov Arra**	**65.28**	**324**	P		**P**	**11 20 41.7**	**+0.2**
	comp=Z,0.6nm,0.7s,baz=25,slow=6.4,SNR=5.4							
	comp=Z,0.6nm,0.7s							
NOA	**NORSAR Array B**	**65.40**	**5**	P		**P**	**11 20 42.9**	**+0.7**
	comp=Z,1.2nm,0.9s,baz=359,slow=6.8,SNR=1.7							
	comp=Z,1.2nm,0.9s							
BVAR	**Borovoye Array**	**65.90**	**330**	P		**P**	**11 20 46.0**	**+0.5**
	comp=Z,6.7nm,0.6s,baz=36,slow=7.1,SNR=23							
	comp=Z,6.7nm,0.6s							
BORK	**Borovoye**	**65.90**	**330**	P		**P**	**11 20 45.5**	**-0.1**
BORK				IAmb	IAmb		11 20 47.2	
	comp=Z,3.8nm,0.6s							
ARTI	**Arti**	**66.03**	**338**	P		**P**	**11 20 46.6**	**+0.2**
HFS	**Hagfors**	**66.42**	**4**	P		**P**	**11 20 49.4**	**+0.7**
	comp=Z,7.8nm,1.1s,baz=5.7,slow=3.0,SNR=2.3							
	comp=Z,7.8nm,1.1s							
MKAR	**Makanchi Array**	**67.05**	**319**	P		**P**	**11 20 52.8**	**-0.2**
	comp=Z,1.1nm,0.7s,baz=40,slow=6.9,SNR=4.2							
	comp=Z,1.1nm,0.7s							
MKAR	**Makanchi Array**	**67.05**	**319**	P		**P**	**11 20 53.2**	**+0.1**
MAKZ	**Makanchi**	**67.16**	**319**	P		**P**	**11 20 53.8**	**0.0**
EKA	**Eskdalemuir Ar**	**69.62**	**14**	P		**P**	**11 21 10.3**	**+1.4**
	comp=Z,0.4nm,0.5s,baz=348,slow=6.5,SNR=1.3							
	comp=Z,0.4nm,0.5s							
AB31	**Akbulak array**	**72.21**	**334**	P		**P**	**11 21 25.6**	**+0.8**
AB31				IAmb	IAmb		11 21 26.2	
	comp=Z,3.0nm,0.7s							
ABKAR	**Akbulak array**	**72.21**	**334**	P		**P**	**11 21 25.4**	**+0.6**
AKASG	**Malin Array Be**	**75.76**	**354**	P		**P**	**11 21 45.9**	**+0.4**
	comp=Z,1.3nm,0.5s,baz=7.6,slow=5.5,SNR=5.1							
	comp=Z,1.3nm,0.5s							
KSH2	**Kashi**	**76.14**	**319**	P		**P**	**11 21 49.3**	**+1.2**
KSH2				pmax	pmax			
	comp=Z,4.0nm,0.9s							
GERES	**GERESS Array B**	**77.70**	**5**	P		**P**	**11 21 57.1**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=9.3,slow=7.2,SNR=1.9

ESDC Sonseca Array 9.00 293 Pn **Pn** 11 12 42.3 +0.6
0.5nm,0.3s,baz=98,slow=14,SNR=15
ESDC Sonseca Array 9.00 293 **Pn** 11 12 40.6 -1.2
CAF Calviac 9.06 338 *e*Pn **Pn** 11 12 43.2 +0.8
PAB San Pablo 9.25 292 **Pn** 11 12 43.8 -1.4
LFF La Frestale 9.51 333 *e*Pn **Pn** 11 12 49.4 +0.8
RJF Les Rejaudoux 9.57 337 *e*Pn **Pn** 11 12 49.2 -0.2
SENIN Lac Senin/Sane 9.77 2 **Pn** 11 12 53.7 +1.3
CABF La Chapelle 10.02 357 *e*Pn **Pn** 11 12 56.2 +0.5
TUE Stuetta 10.06 10 Pn **Pn** 11 12 56.8 +0.5
MDT Midelt 10.10 251 Pn **Pn** 11 12 56.5 -0.3
0.1nm,0.3s,baz=75,slow=19,SNR=2.1
MDT Sn Sn 11 14 40.1 -9.4
0.2nm,0.3s,baz=37,slow=9.5,SNR=2.7
MD01 Midelt array s 10.19 252 Pn **Pn** 11 12 57.9 -0.2
MD31 MD31 10.19 252 **Pn** 11 12 58.1 +0.1
MD31 MD31 10.19 252 P **Pn** 11 12 59.1 +1.0
TCF Toulx Ste Croi 10.27 342 *e*Pn **Pn** 11 12 59.4 +0.3
SMF Signal de Mont 10.28 349 *e*Pn **Pn** 11 13 00.0 +0.8
FUORN Ofenpass-Fuorn 10.35 14 **Pn** 11 13 01.6 +1.2
BGF Bois d'Agland 10.38 345 *e*Pn **Pn** 11 13 01.1 +0.6
DAVOX Davos/Dischmat 10.44 12 Pn **Pn** 11 13 03.5 +2.0
0.5nm,0.3s,baz=189,slow=14,SNR=8.9
DAVOX Sn **Sn** 11 14 56.4 -1.6
0.1nm,0.3s,baz=153,slow=20,SNR=1.6
1.7nm,0.4s
DAVOX AML AML
AVF Avril sur Loir 10.51 347 *e*Pn **Pn** 11 13 04.4 +2.2
SABO M.te Sabotino 10.69 27 Pn **Pn** 11 13 06.1 +1.3
SSF Saint Saulge 10.74 348 *e*Pn **Pn** 11 13 06.9 +1.5
FETA Feichten 10.83 15 *e*Pn **Pn** 11 13 11.5 +4.7
7.3nm,1.4s
LOR Lormes 10.88 349 *e*Pn **Pn** 11 13 08.6 +1.1
DAVA Damuels 10.93 11 *e*Pn Pn 11 13 13.2 +4.9
6.3nm,1.4s
ABTA Abfaltersbach 11.01 21 *e*Pn **Pn** 11 13 13.8 +4.6
4.4nm,0.9s
PBAR Barrancos 11.11 282 *e*P **Pn** 11 13 12.5 +2.0
PBAR IAmb IAmb 11 13 18.8
41nm,1.8s
SQTA Sankt Quirin 11.12 16 *e*Pn **Pn** 11 13 15.4 +4.6
2.6nm,0.6s
MOTA Moosalm 11.21 15 *e*Pn **Pn** 11 13 16.5 +4.4
3.4nm,0.5s
HINF Hinteralfeld 11.22 0 *e*Pn **Pn** 11 13 11.7 -0.3
WTTA Wattenberg 11.26 17 *e*Pn **Pn** 11 13 17.0 +4.3
9.5nm,1.7s
RETA Reutte 11.28 14 *e*Pn **Pn** 11 13 16.2 +3.3
6.8nm,1.5s
WATA Walderalm 11.31 17 *e*Pn **Pn** 11 13 18.0 +4.6
3.8nm,0.7s
HAU Haudompre 11.41 359 *e*Pn **Pn** 11 13 14.7 +0.1
LESA Schwarzleotal 11.68 20 *e*Pn Pn 11 13 23.5 +5.2
3.3nm,0.6s
SFTF Sexfontaines 11.68 354 *e*Pn **Pn** 11 13 18.9 +0.7
PBRG Braganca 11.70 301 *e*P **Pn** 11 13 22.7 +4.1
PBEJ Beja 11.75 281 *e*P **Pn** 11 13 21.9 +2.6
BFO Black Forest 11.79 5 Pn **Pn** 11 13 21.6 +1.8
CDF Champ du Feu 11.82 2 *e*Pn **Pn** 11 13 19.2 -1.1
PCVE Castro Verde 11.87 279 *e*P **Pn** 11 13 22.9 +1.9
EVO Evora 11.89 284 *e*P **Pn** 11 13 24.6 +3.3
MEZF Maizieres J'vi 11.97 354 *e*Pn **Pn** 11 13 23.2 +1.0
PAGF Fort de Pagny 11.98 357 *e*Pn **Pn** 11 13 22.8 +0.4
SESA Seetaler Alpe, 12.00 26 *e*Pn Pn 11 13 28.1 +5.2
2.8nm,0.7s
MESJ Messejana 12.02 280 Pn **Pn** 11 13 23.5 +0.4
MESJ Messejana 12.02 280 *e*P **Pn** 11 13 25.4 +2.4
SAVF Savonnieres en 12.08 355 *e*Pn **Pn** 11 13 24.6 +0.9
PVIS Viseu 12.18 294 *e*P **Pn** 11 13 28.3 +3.0
PLOUS Minas do Lousa 12.19 281 *e*P **Pn** 11 13 28.3 +3.1
LDF La Druitiere 13.02 339 *e*Pn **Pn** 11 13 36.8 +0.2
CONA Conrad Observa 13.16 28 *e*Pn **P** 11 13 44.3 -4.4
4.5nm,1.3s
GERES GERESS Array B 13.25 20 Pn **Pn** 11 13 41.2 +1.3
baz=202,slow=13,SNR=5.8
0.3nm,0.4s
GERES GERESS Array B 13.25 20 **Pn** 11 13 39.9 0.0
FLN La Foliniere 13.27 339 *e*Pn **Pn** 11 13 41.0 +1.0
KHC Kasperske Hory 13.48 20 Pn **Pn** 11 13 43.9 +1.0
KHC Kasperske Hory 13.48 20 *e*PN **Pn** 11 13 44.5 +1.6
ZVC Zvikov 13.93 20 *e*PN **Pn** 11 13 53.1 +4.1
VRAC Vranov 14.58 26 Pn **Pn** 11 13 58.1 +0.1
0.2nm,0.3s,baz=217,slow=12,SNR=4.2
1.6nm,0.5s
VRAC AML AML
CLL Collm 15.37 15 *e*(sP) **P** 11 14 13.0 0.0
STEB Steborice 15.53 27 *e*PN **Pn** 11 14 12.2 +1.6
MLR Muntele Rosu 16.94 52 P **Pn** 11 14 29.5 +0.8
0.2nm,0.3s,baz=246,slow=12,SNR=2.6
MLR LR LR 11 21 09.8
comp=Z,160nm,19.9s,baz=30,slow=37
1.2nm,0.7s
MLR AML AML
MLR Muntele Rosu 16.94 52 P **P** 11 14 30.4 -0.3
BURAR Bucovina Array 17.52 45 **P** 11 14 36.8 -0.1
PMOZ Porto Moniz, M 20.05 266 P **P** 11 15 03.6 -1.2
BR131 Keskin Array S 21.33 73 **P** 11 15 19.4 +0.8
BR131 IAmb IAmb 11 15 25.5
comp=Z,4.2nm,0.8s
BRTR Keskin Array B 21.33 73 P **P** 11 15 21.3 +2.6
comp=Z,2.8nm,0.8s,baz=271,slow=6.9,SNR=11
comp=Z,2.8nm,0.8s
BRTR Keskin Array B 21.33 73 P **P** 11 15 19.0 +0.3
KIEV Kiev 21.39 42 P **P** 11 15 19.6 +0.6
KIEV IAmb IAmb 11 15 23.0
comp=Z,18nm,1.4s
AKASG Malin Array Be 21.40 42 P **P** 11 15 19.5 +0.3
comp=Z,4.0nm,0.7s,baz=241,slow=10,SNR=6.3
comp=Z,4.0nm,0.7s
TORD Torodi Ar. Bea 23.79 192 P **P** 11 15 43.1 -1.2
comp=Z,0.9nm,0.4s,baz=6.2,slow=9.4,SNR=4.2
comp=Z,0.9nm,0.4s
TORD Torodi Ar. Bea 23.79 192 P **P** 11 15 44.1 -0.2
GAZ Gaziantep 24.31 79 P **P** 11 15 51.2 +2.0
GAZ IAmb IAmb 11 15 54.8
comp=Z,10nm,0.8s
NOA NORSAR Array B 24.63 5 LR LR 11 24 59.0
comp=Z,129nm,19.0s,baz=30,slow=35
SPITS Spitsbergen Ar 41.89 3 P **P** 11 18 20.0 -1.3
comp=Z,8.3nm,1.0s,baz=184,slow=17,SNR=6.2
comp=Z,8.3nm,1.0s
BVAR Borovoye Array 46.44 48 P **P** 11 18 59.0 +0.9
comp=Z,0.5nm,0.4s,baz=286,slow=7.3,SNR=3.0
comp=Z,0.5nm,0.4s
KURBB Kurchatov Arra 51.83 50 P **P** 11 19 39.7 +0.4
comp=Z,1.0nm,0.8s,baz=288,slow=8.4,SNR=5.4
comp=Z,1.0nm,0.8s
SCHQ Schefferville 52.01 315 P **P** 11 19 38.8 -1.9
comp=Z,6.1nm,1.0s,baz=60,slow=10,SNR=6.7
comp=Z,6.1nm,1.0s
SCHQ Schefferville 52.01 315 P **P** 11 19 40.6 0.0
BATG Bathurst New B 53.39 306 P **P** 11 19 50.6 -0.3
BATG IAmb IAmb 11 20 19.2
comp=Z,11nm,1.1s
MKAR Makanchi Array 55.28 54 P **P** 11 20 05.5 +0.7
comp=Z,2.7nm,0.8s,baz=281,slow=6.8,SNR=7.4
comp=Z,2.7nm,0.8s
MKAR Makanchi Array 55.28 54 P **P** 11 20 05.9 +1.1
ULM Lac du Bonnet 70.00 318 P **P** 11 21 41.6 -1.3
comp=Z,2.8nm,0.7s,baz=46,slow=8.2,SNR=6.4
comp=Z,2.8nm,0.7s
ULM Lac du Bonnet 70.00 318 P **P** 11 21 44.0 +1.1
YKA Yellowknife Ar 70.66 335 P **P** 11 21 45.5 -1.2
comp=Z,0.1nm,0.3s,baz=42,slow=6.5,SNR=4.1
comp=Z,0.1nm,0.3s
YKA Yellowknife Ar 70.66 335 P **P** 11 21 46.1 -0.6
WRA Warramunga Arr 131.52 85 PKP **PKiKP** 11 29 46.1 +0.7
comp=Z,0.3nm,0.5s,baz=319,slow=2.1,SNR=4.6
ASAR Alice Springs 133.03 89 PKP **PKiKP** 11 29 48.3 -0.1
comp=Z,0.4nm,0.9s,baz=309,slow=1.5,SNR=5.6

*NEIC **22** 11:13:43.0±1.3,20.1S±0.1×177.5W±0.2,h546km±11km, mb4.3/18,Error ellipse: s-maj=20.6km s-min=18.4km az=101.0*
*IDC **22** 11:13:45.0±1.7,20.02S×177.72W,h562km±18km,mb3.4/7, mbtmp4.2/8,Error ellipse: s-maj=22.0km s-min=15.7km az=155.0*
ISC 22 11:13:43.4±0.6,20.1S±0.1×177.57W±0.09,h550km,n41, σ1§14/43,**mb4.3**/16,**2C,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.74**	**298**	P	**P**	**P**	**11 15 11.8**	**+0.6**
	2.7nm,0.4s,baz=117,slow=23,SNR=7.5							
MSVF	**Nonsavu**	**4.74**	**298**	P	**P**	**P**	**11 15 11.5**	**+0.2**
FUTU	**Fugatoga**	**5.73**	**355**	P	**P**	**P**	**11 15 18.9**	**-0.9**
NIUE	**Niue**	**7.27**	**84**	P	**P**	**P**	**11 15 31.5**	**-2.5**
FUNA	**Funafuti**	**11.87**	**344**	P	**P**	**P**	**11 16 22.3**	**+1.5**
MARNC	**Mare, Loyalty**	**13.54**	**261**	P	**P**	**P**	**11 16 38.6**	**+0.7**
PINNC	**Pines Island,**	**14.19**	**257**	P	**P**	**P**	**11 16 44.2**	**-0.4**
TOZ	**Tahuroa Road**	**18.62**	**197**	P	**P**	**P**	**11 17 27.6**	**+0.8**
THZ	**Tophouse**	**23.11**	**198**	P	**P**	**P**	**11 18 06.2**	**-1.1**
EIDS	**Eidsvold**	**29.36**	**254**	P	**P**	**P**	**11 19 02.3**	**-0.1**
EIDS				IAmb	IAmb	IAmb	11 19 35.8	
	comp=Z,12nm,1.4s							
CTAO	**Charters Tower**	**33.94**	**264**	P	**P**	**P**	**11 19 41.5**	**0.0**
CTAO				IAmb	IAmb	IAmb	11 19 42.8	
	comp=Z,10nm,0.7s							
STKA	**Stephens Creek**	**38.35**	**244**	P	**P**	**P**	**11 20 16.9**	**-0.9**
	comp=Z,1.4nm,0.5s,baz=67,slow=7.7,SNR=2.1							
	comp=Z,1.4nm,0.5s							
INKA	**Innaminka**	**38.73**	**250**	P	**P**	**P**	**11 20 21.9**	**+1.1**
BBOO	**Buckleboo**	**43.11**	**243**	P	**P**	**P**	**11 20 55.5**	**-0.1**
BBOO				IAmb	IAmb	IAmb	11 20 57.1	
	comp=Z,23nm,1.2s							
WR8	**Warramunga Arr**	**44.91**	**262**		**P**	**P**	**11 21 09.3**	**-0.4**
WR8				IAmb	IAmb	IAmb	11 21 10.7	
	comp=Z,8.0nm,1.1s							
AS31	**Alice Springs**	**45.01**	**256**		**P**	**P**	**11 21 10.2**	**-0.3**
ASAR	**Alice Springs**	**45.01**	**256**	P	**P**	**P**	**11 21 10.6**	**+0.1**
	comp=Z,7.7nm,0.7s,baz=91,slow=7.6,SNR=163							
ASAR				PcP	**PcP**	**PcP**	**11 22 40.2**	**+0.4**
	comp=Z,0.4nm,0.5s,baz=87,slow=2.7,SNR=3.3							
ASAR				S	**S**	**S**	**11 27 08.3**	**-1.2**
	comp=Z,1.6nm,0.9s,baz=89,slow=16,SNR=9.9							
	comp=Z,7.7nm,0.7s							
ASAR	**Alice Springs**	**45.01**	**256**	P	**P**	**P**	**11 21 10.2**	**-0.3**
WRA	**Warramunga Arr**	**45.06**	**262**	P	**P**	**P**	**11 21 10.8**	**-0.1**
	comp=Z,5.6nm,0.4s,baz=98,slow=6.9,SNR=392							
WRA				S	**S**	**S**	**11 27 06.9**	**-3.3**
	comp=Z,0.3nm,0.7s,baz=106,slow=11,SNR=2.0							
	comp=Z,5.6nm,0.4s							
WRA	**Warramunga Arr**	**45.06**	**262**			**P**	**11 21 10.7**	**-0.1**
QSPA	**South Pole Qui**	**70.02**	**180**	P		**P**	**11 24 00.7**	**+0.8**
	comp=Z,2.2nm,0.9s,baz=92,slow=0.8,SNR=12							
	comp=Z,2.2nm,0.9s							
QSPA	**South Pole Qui**	**70.02**	**180**	P		**P**	**11 24 01.0**	**+1.1**
MJAR	**Matsushiro Arr**	**70.09**	**323**	P		**P**	**11 24 00.8**	**+0.2**
	comp=Z,1.6nm,0.7s,baz=135,slow=5.3,SNR=6.5							
	comp=Z,1.6nm,0.7s							
MJAR	**Matsushiro Arr**	**70.09**	**323**	P		**P**	**11 24 00.3**	**-0.3**
MJAR				IAmb	IAmb	IAmb	11 24 02.5	
	comp=Z,5.9nm,1.4s							
MAJO	**Matsushiro**	**70.09**	**323**	P		**P**	**11 24 01.4**	**+0.8**
MAJO				IAmb	IAmb	IAmb	11 24 26.9	
	comp=Z,3.6nm,0.8s							
JOW	**Kunigami**	**70.19**	**310**	P		**P**	**11 24 01.1**	**-0.3**
TPUB	**Ta-pu**	**74.07**	**303**	P		**P**	**11 24 23.3**	**-0.6**
ILAR	**Eielson Array**	**87.79**	**13**	P		**P**	**11 25 33.1**	**-0.5**
	comp=Z,0.3nm,0.5s,baz=214,slow=5.5,SNR=12							
	comp=Z,0.3nm,0.5s							
ILAR	**Eielson Array**	**87.79**	**13**	P		**P**	**11 25 33.4**	**-0.3**
J25K	**Salcha River,**	**87.97**	**13**	P		**P**	**11 25 34.3**	**-0.3**
J25K				IAmb	IAmb	IAmb	11 25 55.6	
	comp=Z,8.2nm,1.5s							
G21K	**Allakaket**	**88.18**	**9**	P		**P**	**11 25 35.5**	**+0.1**
G21K				IAmb	IAmb	IAmb	11 25 51.0	
	comp=Z,2.8nm,1.4s							
TROLL	**Troll, Antarti**	**88.18**	**180**	⇑PKPab		**PKiKP**	**11 30 36.2**	**+3.1**
	comp=Z,99nm,1.0s							
M30M	**Minto, Yukon**	**88.42**	**18**	P		**P**	**11 25 37.4**	**+0.6**
M30M				IAmb	IAmb	IAmb	11 25 46.0	
	comp=Z,9.5nm,1.4s							
L29M	**L29M**	**88.47**	**17**	P		**P**	**11 25 37.9**	**+0.9**
L29M				IAmb	IAmb	IAmb	11 25 50.9	
	comp=Z,14nm,1.5s							
VNA3	**Neumayer Olymp**	**88.56**	**176**	⇑PKPab		**PKiKP**	**11 30 36.1**	**+2.4**
	comp=Z,2.1nm,0.8s							
CMAR	**Chiang Mai Arr**	**90.34**	**289**	P		**P**	**11 25 48.3**	**+1.7**
	comp=Z,0.5nm,0.4s,baz=127,slow=2.5,SNR=4.1							
	comp=Z,0.5nm,0.4s							
AKASG	**Malin Array Be**	**142.81**	**332**	PKhKP		PKPpre	11 32 11.1	
	comp=Z,1.5nm,0.4s,baz=44,slow=4.1,SNR=6.6							
EKA	**Eskdalemuir Ar**	**144.52**	**5**	PKP		**PKPdf**	**11 32 15.7**	**-1.4**
	comp=Z,1.8nm,1.0s,baz=346,slow=5.6,SNR=1.2							
BRTR	**Keskin Array B**	**146.83**	**313**	PKPbc		**PKPbc**	**11 32 24.4**	**-0.1**
	comp=Z,0.9nm,0.5s,baz=61,slow=3.6,SNR=3.7							
CLL	**Collm**	**147.71**	**348**	*i* PKPbc		**PKiKP**	**11 32 27.3**	**-0.4**
GERES	**GERESS Array B**	**149.87**	**345**	PKPbc		**PKPbc**	**11 32 31.9**	**+0.1**
	comp=Z,0.7nm,0.6s,baz=32,slow=2.3,SNR=6.1							

*BJI **22** 11:27:21.6,3.30S×127.94E,h28km,mB5.7/51,mb5.1/65, Ms4.9/60,Ms7 4.7/64*
*MOS **22** 11:27:23.7±0.8,2.68S×127.49E,h8km,mb5.4/49, MS4.7/5,Error ellipse: s-maj=10.0km s-min=4.9km az=116.7*
*IDC **22** 11:27:26.5±2.5,2.72S×127.54E,h18km±14km,mb4.8/27, mbtmp4.9/29,ML5.2/3,MS4.5/50,Error ellipse: s-maj=14.3km s-min=7.5km az=75.0*
*NEIC **22** 11:27:26.4±1.1,2.66S±0.06×127.50E±0.06,h10km±1km, mb5.5/99,Mww5.3/18,Error ellipse: s-maj=11.2km s-min=8.9km az=220.0*
*NEIC **22** 11:27:27.4,2.59S×127.49E,h16km,Moment Tensor Solution. Duration: 2s2 Moment tensor: Scale 10^17^Nm; Mrr-1.08; Mθθ0.52; Mφφ0.56; Mrθ0.49; Mθφ0.60; Mφr0.41; Fault plane solution: Mo1.28000×10^17^ NP1:φs40.95000°, δ30.22000°,λ-95.37000°. NP2:φs227.15000°,δ59.93000°, λ-86.88000°. Principal axes: T 1.3097, Plg15.0000°, Azm315.0000°; N -0.0594, Plg3.0000°, Azm46.0000°; P -1.2502, Plg75.0000°, Azm146.0000°;*
*NEIC **22** 11:27:27.1,2.59S×127.49E,h12km*
*DJA **22** 11:27:28.8±0.1,2.5S±2×12.8E±1,h10km,M5.2/37, mB5.7/35,mb5.6/36,MLv5.7/37,Mw5.3/53,Mw(mB)5.3/35, MwMwp4.9/27,Mwp5.2/27*
*GCMT **22** 11:27:29.5±0.1,2.54S±0.01×127.42E±0.01,h12km, MW5.4/145,Moment Tensor Solution. s111,c185; s145,c274; Duration: 1s2 Moment tensor: Scale 10^17^ Nm; Mrr-0.97±.02; Mθθ0.96±.01; Mφφ0.00±.02; Mrθ-0.65±.04; Mθφ0.88±.01; Mφr0.74±.05; Best double couple: Mo1.62300×10^17^ NP1:φs208.00000°,δ52.00000°, λ-141.00000°. NP2:φs92.00000°,δ61.00000°, λ-45.00000°. Principal axes: T 1.5000, Plg5.0000°, Azm152.0000°; N 0.2470, Plg38.0000°, Azm246.0000°; P -1.7470, Plg52.0000°, Azm55.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*GFZ **22** 11:27:29.1±0.3,3.3S±2×12.8E±1,h27km±2km,M5.3/75, mb5.5/75,Mw5.3/40 Error ellipse: s-maj=4.9km s-min=3.6km az=46.7,confirmed*
ISC 22 11:27:27.4±0.6,2.70S±0.03×127.49E±0.03,h19km±2km, n806,σ1§65/829,mb5.3/198,MS4.5/77,18C-26D,Ceram Sea

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SANI	**Sanana**	**1.63**	**293**	P	**Pn**	**Pn**	**11 27 52.7**	**-2.5**
SANI	**Sanana**	**1.63**	**293**	P	**Pn**	**Pn**	**11 27 54.4**	**-0.8**
SANI				S	**Sn**	**Sn**	**11 28 10.8**	**-4.8**
BNDI	**Bandanaira**	**3.02**	**127**	P	**Pn**	**Pn**	**11 28 16.3**	**+2.0**
BNDI	**Bandanaira**	**3.02**	**127**	P	**Pb**	**Pb**	**11 28 17.1**	**-3.5**
BNDI				AML	AML	AML		
BNDI	**Bandanaira**	**3.02**	**127**	P	**Pb**	**Pb**	**11 28 17.1**	**-3.5**
TNTI	**Ternate**	**3.45**	**358**	P	**Pn**	**Pn**	**11 28 21.4**	**+1.2**
TNTI	**Ternate**	**3.45**	**358**		**Pn**	**Pn**	**11 28 20.9**	**+0.7**
TNTI				Sn	**Sn**	**Sn**	**11 28 58.6**	**-1.9**
TNTI	**Ternate**	**3.45**	**358**	P	**Pn**	**Pn**	**11 28 20.5**	**+0.3**
TNTI				AML	AML	AML		
TNTI	**Ternate**	**3.45**	**358**	P	**Pn**	**Pn**	**11 28 20.9**	**+0.7**
FAKI	**Fak Fak**	**4.76**	**93**	P	**Pn**	**Pn**	**11 28 39.4**	**+1.2**
FAKI	**Fak Fak**	**4.76**	**93**		**Pn**	**Pn**	**11 28 37.7**	**-0.5**
FAKI				Sn	**Sn**	**Sn**	**11 29 32.2**	**-0.8**
FAKI	**Fak Fak**	**4.76**	**93**	P	**Pn**	**Pn**	**11 28 38.6**	**+0.4**
FAKI				AML	AML	AML		
FAKI	**Fak Fak**	**4.76**	**93**	P	**Pn**	**Pn**	**11 28 38.1**	**-0.2**
KMSI	**Cibinong**	**4.78**	**313**	P	**Pn**	**Pn**	**11 28 40.3**	**+1.8**
MNI	**Manado**	**4.89**	**327**	P	**Pn**	**Pn**	**11 28 41.5**	**+1.5**
MNI				AML	AML	AML		
LUWI	**Luwuk**	**4.99**	**289**	P	**Pn**	**Pn**	**11 28 40.7**	**-0.7**
LUWI	**Luwuk**	**4.99**	**289**	S	**Sn**	**Sn**	**11 29 36.4**	**-2.2**
LUWI	**Luwuk**	**4.99**	**289**		**Pn**	**Pn**	**11 28 41.4**	**0.0**
LUWI				Sn	**Sn**	**Sn**	**11 29 36.5**	**-2.2**
LUWI	**Luwuk**	**4.99**	**289**	P	**Pn**	**Pn**	**11 28 41.0**	**-0.4**
LUWI				AML	AML	AML		
LUWI	**Luwuk**	**4.99**	**289**	P	**Pn**	**Pn**	**11 28 41.2**	**-0.2**
	comp=Z,2μm,0.7s							
KDI	**Kendari**	**5.02**	**255**	P	**Pn**	**Pn**	**11 28 44.8**	**+3.0**
	comp=Z,10μmcomp=Z,141nm,0.6s							
BBSI	**Bau Bau**	**5.63**	**240**	P	Pn		11 28 55.2	+4.9
	comp=Z,1.4nmcomp=Z,11μmcomp=Z,5μmcomp=Z,391nm,1.0s							
BBSI				AML	AML			
APSI	**Ampana**	**6.10**	**287**	P	**Pn**	**Pn**	**11 28 57.1**	**+0.4**
SAUI	**Saumlaki**	**6.48**	**144**	P	**Pn**	**Pn**	**11 29 03.9**	**+2.0**
SAUI	**Saumlaki**	**6.48**	**144**		**Pn**	**Pn**	**11 29 03.6**	**+1.7**
SAUI	**Saumlaki**	**6.48**	**144**	P	Pn		11 29 07.5	+5.6
SAUI				AML	AML			
MWPI	**Manokwari, Pap**	**6.78**	**75**	P	**Pn**	**Pn**	**11 29 07.8**	**+1.8**
	comp=Z,6.7nmcomp=Z,1μm,0.7s							
MWPI				AML	AML			
TTSI	**Tana Toraja**	**7.67**	**267**	P	**Pn**	**Pn**	**11 29 22.7**	**+4.5**
	comp=Z,0.8nmcomp=Z,5μmcomp=Z,3μmcomp=Z,167nm,0.8s							
TTSI				AML	AML			
TOLI2	**Tolitoli**	**7.70**	**299**	P	**Pn**	**Pn**	**11 29 18.2**	**-0.4**
TOLI2	**Tolitoli**	**7.70**	**299**	S	**Sn**	**Sn**	**11 30 43.3**	**-2.1**
TOLI2	**Tolitoli**	**7.70**	**299**		**Pn**	**Pn**	**11 29 17.8**	**-0.9**
TOLI2	**Tolitoli**	**7.70**	**299**	P	**Pn**	**Pn**	**11 29 19.4**	**+0.8**
	comp=Z,341nm,0.7s							
SOEI	**Soe**	**7.71**	**204**			Pn	11 29 24.5	+5.6
SOEI	**Soe**	**7.71**	**204**	P		Pn	11 29 25.7	+6.8
	comp=Z,1.9nmcomp=Z,8μmcomp=Z,9μmcomp=Z,383nm,1.5s							
SOEI				AML	AML			
BSSI	**Bau Bau, Buton**	**7.77**	**244**	P		Pn	11 29 25.0	+5.4
	comp=Z,1.1nmcomp=Z,5μmcomp=Z,3μmcomp=Z,297nm,0.7s							
BSSI				AML	AML			
BKSI	**Bulukumba**	**7.80**	**250**	P	Pn		11 29 24.6	+4.6
	comp=Z,0.8nmcomp=Z,3μmcomp=Z,2μmcomp=Z,233nm,0.9s							
BKSI				AML	AML			
PCI	**Palu**	**7.85**	**283**	P	**Pn**	**Pn**	**11 29 22.7**	**+2.0**
MMRI	**Maumere**	**7.88**	**221**	Pn	**Pn**	**Pn**	**11 29 21.5**	**+0.4**
MMRI	**Maumere**	**7.88**	**221**	P	Pb		11 29 32.0	-12
KAPI	**Kappang**	**8.05**	**253**	Pn	**Pn**	**Pn**	**11 29 27.6**	**+4.1**
	comp=Z,9.0nm,0.3s,baz=90,slow=5.3,SNR=35							
KAPI				Sn	**Sn**	**Sn**	**11 30 53.4**	**-0.8**
	baz=68,slow=17							
KAPI				LR	LR		11 33 04.2	
	comp=Z,4μm,19.6s,baz=56,slow=42							
	comp=Z,55nm,0.6s							
KAPI				AML	AML			
KAPI	**Kappang**	**8.05**	**253**		**Pn**	**Pn**	**11 29 26.8**	**+3.3**
KAPI	**Kappang**	**8.05**	**253**	P	Pn		11 29 28.2	+4.7
	comp=Z,99nm,0.7s							
EDFI	**Ende, Flores**	**8.33**	**224**	P	Pn		11 29 32.3	+4.9
	comp=Z,5μmcomp=Z,2μmcomp=Z,171nm,0.7s							
MMSI	**Mamuju**	**8.57**	**270**	P	**Pn**	**Pn**	**11 29 33.3**	**+2.7**
PMSI	**Majene**	**8.60**	**264**	P	Pn		11 29 36.4	+5.4
	comp=Z,4μmcomp=Z,2μmcomp=Z,200nm,1.3s							
BAKI	**Biak**	**8.74**	**80**	P	**Pn**	**Pn**	**11 29 34.6**	**+1.6**
	comp=Z,5μmcomp=Z,4μmcomp=Z,464nm,1.0s							
GSPH	**General Santos**	**9.09**	**344**	*i* P	**Pn**	**Pn**	**11 29 36.8**	**-1.0**
LBFI	**Labuhan Bajo,**	**9.50**	**232**	P	Pn		11 29 55.8	+12
DAV	**Davao City (W)**	**9.89**	**349**	Pn	**Pn**	**Pn**	**11 29 49.8**	**+1.1**
	comp=Z,68nm,0.3s,baz=166,slow=12,SNR=4.7							
DAV				Sn	**Sn**	**Sn**	**11 31 37.6**	**-1.6**
	baz=245,slow=20							
	comp=Z,237nm,0.4s							
DAV				AML	AML			
DAV	**Davao City (W)**	**9.89**	**349**	P	**Pn**	**Pn**	**11 29 51.2**	**+2.5**
DAV	**Davao City (W)**	**9.89**	**349**	P	**Pn**	**Pn**	**11 29 47.0**	**-1.7**
KCP	**Kidapawan**	**9.93**	**346**	*e*P	**Pn**	**Pn**	**11 29 50.6**	**+1.2**
KCP				*e*S	**Sn**	**Sn**	**11 31 35.0**	**-5.5**
WSI	**Waingapu**	**9.95**	**226**	P	Pn		11 30 09.1	+20
DRS	**Darwin Rock St**	**10.25**	**161**	P	**Pn**	**Pn**	**11 29 53.8**	**+0.2**
BKB	**Balikpapan**	**10.68**	**277**	P	**Pn**	**Pn**	**11 29 57.9**	**-1.7**
BKB	**Balikpapan**	**10.68**	**277**		**Pn**	**Pn**	**11 29 59.6**	**+0.1**
BKB	**Balikpapan**	**10.68**	**277**	P	**Pn**	**Pn**	**11 30 02.5**	**+2.9**
	comp=Z,4μmcomp=Z,3μmcomp=Z,340nm,0.7s							
BKB	**Balikpapan**	**10.68**	**277**	P	**Pn**	**Pn**	**11 29 59.7**	**+0.1**
	comp=Z,335nm,0.7s							
MTN	**Manton Dam**	**10.71**	**161**	P	**Pn**	**Pn**	**11 30 03.0**	**+3.1**
	comp=Z,89nm,0.8s,comp=Z,0.0nm							
MTN	**Manton Dam**	**10.71**	**161**	P	**Pn**	**Pn**	**11 30 03.6**	**+3.6**
	comp=Z,89nm,0.8s,comp=Z,0.0nm							
MTN	**Manton Dam**	**10.71**	**161**		**Pn**	**Pn**	**11 30 03.5**	**+3.6**
DBNI	**Kabupaten Domp**	**10.80**	**237**	P	**Pn**	**Pn**	**11 30 05.3**	**+4.1**
	comp=Z,79nm,0.8s							
KDU	**Kakadu**	**11.09**	**154**	P	**Pn**	**Pn**	**11 30 07.2**	**+2.1**
	comp=Z,115nm,0.9s							
KDU	**Kakadu**	**11.09**	**154**	P	**Pn**	**Pn**	**11 30 07.7**	**+2.6**
	comp=Z,115nm,0.9s							
KDU	**Kakadu**	**11.09**	**154**	P	**Pn**	**Pn**	**11 30 07.3**	**+2.3**
	comp=Z,115nm,0.9s							
PLAI	**Plampang**	**11.42**	**237**	P	**Pn**	**Pn**	**11 30 08.5**	**-1.2**
PLAI	**Plampang**	**11.42**	**237**	P	Pn		11 30 19.5	+10
PLAI	**Plampang**	**11.42**	**237**	P	**Pn**	**Pn**	**11 30 10.6**	**+0.9**
	comp=Z,117nm,0.8s							
GENI	**Genyem**	**

MBWA Marble Bar 19.85 202 S **S** **11 35 38.4 -1.9**
MBWA Marble Bar 19.85 202 P **P** **11 31 57.9 +0.4**
MBWA S **S** **11 35 39.2 -1.1**
MBWA Marble Bar 19.85 202 P **P** **11 31 56.8 -0.6**
MBWA Marble Bar 19.85 202 P **P** **11 31 57.8 +0.3**
comp=Z,65nm,0.8s
MANU Manus Island 19.87 89 P **P** **11 31 57.1 -0.7**
BBJI Bungbulang 20.32 256 P **P** **11 32 01.3 -1.4**
BBJI Bungbulang 20.32 256 S **S** **11 35 48.4 -1.5**
BBJI Bungbulang 20.32 256 P **P** **11 32 02.3 -0.3**
BBJI IAmb IAmb 11 32 12.4
comp=Z,102nm,0.7s
BBJI Bungbulang 20.32 256 P Pn 11 32 04.4 -0.3
comp=Z,140nm,0.8s
PMG Port Moresby 20.66 110 P **P** **11 32 06.1 -0.2**
comp=Z,25nm,0.8s,baz=328,slow=12,SNR=20
PMG LR LR 11 42 39.7
comp=Z,3μm,21.0s,baz=296,slow=44
comp=Z,25nm,0.8s
PMG Port Moresby 20.66 110 P Pn 11 32 09.1 +0.5
PMG Port Moresby 20.66 110 S Sn 11 36 00.3 -1.1
PMG Port Moresby 20.66 110 P Pn 11 32 09.0 +0.4
PMG Port Moresby 20.66 110 S Sn 11 36 00.4 -1.0
PMG Port Moresby 20.66 110 P **P** **11 32 06.8 +0.5**
PMG pmax pmax
comp=Z,164nm,0.8s
PMG Port Moresby 20.66 110 P **P** **11 32 06.8 +0.5**
PMG IAmb IAmb 11 32 21.8
comp=Z,164nm,0.8s
PMG Port Moresby 20.66 110 P **P** **11 32 06.0 -0.3**
comp=Z,230nm,0.7s
QIS Mount Isa 21.33 147 P **P** **11 32 13.5 0.0**
comp=Z,241nm,0.7s,comp=Z,0.0nm
QIS Mount Isa 21.33 147 P **P** **11 32 14.6 +1.0**
comp=Z,241nm,0.7s,comp=Z,0.0nm
QIS Mount Isa 21.33 147 P **P** **11 32 13.4 -0.1**
comp=Z,241nm,0.7s,comp=Z,0.0nm
QIS Mount Isa 21.33 147 P **P** **11 32 13.4 -0.1**
QIS Mount Isa 21.33 147 S **S** **11 36 10.0 +0.2**
QIS Mount Isa 21.33 147 P **P** **11 32 13.5 -0.1**
comp=Z,241nm,0.7s
AS15 Alice Springs 21.73 164 P **P** **11 32 18.1 +0.3**
comp=Z,299nm,0.7s
AS15 Alice Springs 21.73 164 P **P** **11 32 17.9 +0.1**
comp=Z,293nm,0.7s
AS05 Alice Springs 21.75 164 P **P** **11 32 19.2 +1.2**
comp=Z,233nm,0.7s
AS05 Alice Springs 21.75 164 P **P** **11 32 18.1 +0.1**
comp=Z,233nm,0.7s
AS31 Alice Springs 21.75 164 P **P** **11 32 18.0 -0.1**
comp=Z,72nm,0.7s,comp=Z,0.0nm
AS31 Alice Springs 21.75 164 P **P** **11 32 18.2 +0.2**
comp=Z,72nm,0.7s,comp=Z,0.0nm
AS31 Alice Springs 21.75 164 P **P** **11 32 18.4 +0.3**
ASAR Alice Springs 21.75 164 P **P** **11 32 17.7 -0.4**
comp=Z,43nm,0.4s,baz=345,slow=11,SNR=302
ASAR S **S** **11 36 16.1 -2.0**
comp=Z,109nm,0.9s,baz=348,slow=21,SNR=16
ASAR ScP **ScP** **11 39 54.6 -0.4**
comp=Z,3.5nm,0.8s,baz=340,slow=2.6,SNR=5.3
ASAR ScS **ScS** **11 43 37.2 -2.4**
comp=Z,1.6nm,0.9s,baz=359,slow=2.0,SNR=6.4
comp=Z,43nm,0.4s
ASAR Alice Springs 21.75 164 P **P** **11 32 18.2 +0.2**
AS01 Alice Springs 21.76 164 P **P** **11 32 17.8 -0.4**
comp=Z,308nm,0.7s
AS01 Alice Springs 21.76 164 P **P** **11 32 18.3 +0.1**
comp=Z,308nm,0.7s
AS01 Alice Springs 21.76 164 P **P** **11 32 18.5 +0.3**
AS17 Alice Springs 21.77 164 P **P** **11 32 18.6 +0.3**
comp=Z,220nm,1.0s
AS17 Alice Springs 21.77 164 P **P** **11 32 19.3 +1.0**
comp=Z,220nm,1.0s
AS17 Alice Springs 21.77 164 P **P** **11 32 18.4 +0.1**
comp=Z,220nm,1.0s
AS09 Alice Springs 21.79 164 P **P** **11 32 18.9 +0.4**
comp=Z,318nm,0.8s
AS09 Alice Springs 21.79 164 P **P** **11 32 18.7 +0.2**
comp=Z,318nm,0.8s
WRKA Warakurna 22.23 178 P **P** **11 32 23.6 +0.4**
comp=Z,67nm,0.7s,comp=Z,0.0nm
WRKA Warakurna 22.23 178 P **P** **11 32 23.7 +0.6**
comp=Z,67nm,0.7s,comp=Z,0.0nm
MTSU Mount Surprise 22.53 134 P **P** **11 32 27.1 +0.6**
comp=Z,55nm,0.8s
MTSU Mount Surprise 22.53 134 P **P** **11 32 28.1 +1.6**
comp=Z,55nm,0.8s
MTSU Mount Surprise 22.53 134 P **P** **11 32 27.7 +1.2**
comp=Z,55nm,0.8s
MTSU Mount Surprise 22.53 134 P **P** **11 32 27.8 +1.3**
MTSU Mount Surprise 22.53 134 P **P** **11 32 28.8 +2.4**
comp=Z,55nm,0.8s
PMBI Palembang 22.69 269 P **P** **11 32 29.0 +0.8**
GIRL Giralia 23.63 212 P **P** **11 32 37.2 -0.5**
GIRL Giralia 23.63 212 P **P** **11 32 38.7 +1.1**
comp=Z,91nm,0.9s
GIRL Giralia 23.63 212 P **P** **11 32 38.0 +0.3**
GIRL IAmb IAmb 11 32 50.1
comp=Z,99nm,1.1s
DLV Lat 23.84 308 P **P** **11 32 40.9 +1.0**
DLV Lat 23.84 308 P **P** **11 32 39.9 0.0**
comp=Z,72nm,1.6s
BTDF Bukit Timah Da 24.05 279 P **P** **11 32 40.9 -0.8**
MNAI Manna 24.54 265 P **P** **11 32 45.5 -0.8**
KRVT Keravat (AS076 24.54 94 LR LR 11 43 01.4
comp=Z,1μm,18.6s,baz=276,slow=38
RABL Rabaul 24.68 94 P **P** **11 32 47.4 -0.1**
CTA Charters Tower 25.19 135 P **P** **11 32 55.0 +3.0**
comp=Z,30nm,0.8s,comp=Z,0.0nm
CTA Charters Tower 25.19 135 P **P** **11 32 54.4 +2.4**
comp=Z,30nm,0.8s,comp=Z,0.0nm
CTA Charters Tower 25.19 135 P **P** **11 32 53.7 +1.6**
comp=Z,30nm,0.8s,comp=Z,0.0nm
CTA Charters Tower 25.19 135 P **P** **11 32 53.6 +1.6**
CTAO Charters Tower 25.19 135 P **P** **11 32 52.6 +0.6**
CTAO pmax pmax
comp=Z,62nm,0.9s
CTAO Charters Tower 25.19 135 P **P** **11 32 52.6 +0.6**
CTAO IAmb IAmb 11 33 07.5
comp=Z,62nm,0.9s
CTAO Charters Tower 25.19 135 P **P** **11 32 54.0 +2.0**
comp=Z,75nm,0.8s
MEEK Meekatharra 25.28 199 P **P** **11 32 52.0 -0.8**
comp=Z,141nm,0.8s
MEEK Meekatharra 25.28 199 P **P** **11 32 52.1 -0.7**
comp=Z,141nm,0.8s
MEEK Meekatharra 25.28 199 P **P** **11 32 50.8 -2.0**
MEEK Meekatharra 25.28 199 P **P** **11 32 52.3 -0.6**
comp=Z,141nm,0.8s
TWGBT Beinan 26.12 346 P **P** **11 33 01.6 +1.2**
TWG Pinlang 26.12 346 P **P** **11 32 58.9 -1.5**
TWG Pinlang 26.12 346 P **P** **11 32 59.5 -0.9**
comp=Z,173nm,0.7s
BKNI Bangkinang 26.61 276 P **P** **11 33 07.5 +2.5**
comp=Z,645nm,1.2s
YULB Yu-li 26.62 347 P **P** **11 33 04.9 -0.1**
YULB Yu-li 26.62 347 P **P** **11 33 03.7 -1.3**
YULB IAmb IAmb 11 33 20.1
comp=Z,76nm,0.9s
YULB Yu-li 26.62 347 P **P** **11 33 03.5 -1.5**
comp=Z,96nm,0.8s
TPUB Ta-pu 26.69 346 P **P** **11 33 05.3 -0.3**
TPUB Ta-pu 26.69 346 P **P** **11 33 05.9 +0.3**
TPUB Ta-pu 26.69 346 P **P** **11 33 05.3 -0.3**
comp=Z,393nm,1.0s
NACB Ninganchiao 27.32 348 P **P** **11 33 11.9 +0.7**
NACB Ninganchiao 27.32 348 P **P** **11 33 10.7 -0.5**
NACB IAmb IAmb 11 33 32.2
comp=Z,91nm,1.3s
NACB Ninganchiao 27.32 348 P **P** **11 33 11.7 +0.5**
comp=Z,46nm,0.8s
YOJ Yonaguni jima 27.34 351 P **P** **11 33 12.5 +1.1**
YOJ Yonaguni jima 27.34 351 P **P** **11 33 14.2 +2.8**
comp=Z,232nm,0.8s
IPM Ipoh 27.39 285 P **P** **11 33 11.5 -0.5**
IPM Ipoh 27.39 285 P **P** **11 33 12.8 +0.7**
IPM Ipoh 27.39 285 P **P** **11 33 14.7 +2.6**
comp=Z,221nm,1.1s
JMJ Miyako jima 2 27.43 356 P **P** **11 33 13.2 +1.0**
QIZ Qiongzhong 27.70 322 P **P** **11 33 16.9 +2.2**
QIZ S **S** **11 37 56.8 +0.5**
QIZ pmax pmax
comp=Z,37nm,1.4s
QIZ pmax pmax
comp=Z,1μm,5.9s
QIZ L L
comp=Z,480nm,8.9s
QIZ L L
comp=Z,760nm,11.0s
QIZ L L
comp=Z,1μm,15.8s
YHNB Yeheng 27.84 348 P **P** **11 33 17.1 +1.1**
YHNB Yeheng 27.84 348 P **P** **11 33 16.5 +0.5**
comp=Z,194nm,1.1s
FORT Forrest 27.94 179 P **P** **11 33 17.0 +0.3**
comp=Z,56nm,0.7s
FORT Forrest 27.94 179 P **P** **11 33 17.5 +0.8**
comp=Z,56nm,0.7s
FORT Forrest 27.94 179 P **P** **11 33 16.8 +0.1**
comp=Z,56nm,0.7s
FORT Forrest 27.94 179 P **P** **11 33 15.2 -1.5**
FORT IAmb IAmb 11 33 36.4
comp=Z,36nm,0.7s
INKA Innaminka 27.94 154 P **P** **11 33 16.7 -0.1**
KULM Kulim 27.96 286 P **P** **11 33 16.4 -0.7**
KULM Kulim 27.96 286 P **P** **11 33 19.2 +2.0**
comp=Z,94nm,1.2s
MORW Morawa 28.40 201 P **P** **11 33 20.4 -0.5**
comp=Z,16nm,0.7s
MORW Morawa 28.40 201 P **P** **11 33 19.7 -1.1**
QLP Quilpie 28.67 147 P **P** **11 33 24.0 +0.7**
comp=Z,32nm,0.7s
QLP Quilpie 28.67 147 P **P** **11 33 24.4 +1.1**
comp=Z,32nm,0.7s
QLP Quilpie 28.67 147 P **P** **11 33 24.0 +0.7**
comp=Z,32nm,0.7s
QLP Quilpie 28.67 147 P **P** **11 33 24.4 +1.1**
QLP Quilpie 28.67 147 P **P** **11 33 22.8 -0.5**
comp=Z,32nm,0.7s
QZH2 Quanzhou 28.80 343 P **P** **11 33 25.5 +1.1**
QZH2 S **S** **11 38 10.0 -3.4**
QZH2 pmax pmax
comp=Z,950nm,7.1s
QZH2 L L
comp=Z,2μm,22.0s
KMBL Kambalda 29.00 190 P **P** **11 33 25.1 -1.1**
comp=Z,24nm,0.7s
KMBL Kambalda 29.00 190 P **P** **11 33 25.5 -0.8**
comp=Z,24nm,0.7s
KMBL Kambalda 29.00 190 P **P** **11 33 24.5 -1.7**
comp=Z,24nm,0.7s
RPSI Rantau Prapat 29.05 280 P **P** **11 33 29.3 +2.4**
comp=Z,137nm,1.1s
JOW Kunigami 29.36 1 P **P** **11 33 32.9 +3.5**
comp=Z,90nm,0.8s
GZH2 Guangzhou 29.45 334 P **P** **11 33 33.8 +3.6**
GZH2 S **S** **11 38 25.3 +1.6**
GZH2 L L
comp=Z,1μm,13.9s
GZH2 L L
comp=Z,2μm,12.2s
GZH2 L L
comp=Z,2μm,25.4s
BLDU Ballidu 29.58 199 P **P** **11 33 30.2 -1.2**
comp=Z,24nm,1.8s
BLDU Ballidu 29.58 199 P **P** **11 33 30.9 -0.4**
comp=Z,24nm,1.9s
BLDU Ballidu 29.58 199 P **P** **11 33 28.6 -2.8**
comp=Z,24nm,1.8s
BLDU Ballidu 29.58 199 P **P** **11 33 29.6 -1.8**
KLBR Kellerberrin 30.17 197 P **P** **11 33 36.5 -0.1**
comp=Z,79nm,0.7s
KLBR Kellerberrin 30.17 197 P **P** **11 33 36.7 +0.1**
comp=Z,79nm,0.7s
KLBR Kellerberrin 30.17 197 P **P** **11 33 36.3 -0.3**
comp=Z,79nm,0.7s
KLBR Kellerberrin 30.17 197 P **P** **11 33 36.3 -0.3**
KLBR Kellerberrin 30.17 197 P **P** **11 33 36.4 -0.3**
comp=Z,79nm,0.7s
BBOO Buckleboo 31.02 166 P **P** **11 33 43.2 -0.8**
comp=Z,35nm,1.1s
BBOO Buckleboo 31.02 166 P **P** **11 33 44.1 0.0**
comp=Z,35nm,1.1s
BBOO Buckleboo 31.02 166 P **P** **11 33 43.0 -1.0**
comp=Z,35nm,1.1s
BBOO Buckleboo 31.02 166 P **P** **11 33 42.6 -1.4**
BBOO Buckleboo 31.02 166 P **P** **11 33 42.8 -1.2**
BBOO IAmb IAmb 11 33 59.4
comp=Z,87nm,1.6s
BBOO Buckleboo 31.02 166 P **P** **11 33 43.7 -0.3**
comp=Z,35nm,1.1s
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 50.0 +1.1**
comp=Z,31nm,0.7s
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 49.5 +0.6**
comp=Z,31nm,0.7s
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 50.0 +1.1**
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 49.3 +0.4**
comp=Z,31nm,0.7s
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 49.4 +0.4**
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 47.8 -1.1**
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 48.7 -0.2**
NWAO pmax pmax
comp=Z,21nm,0.7s
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 48.7 -0.2**
NWAO Narrogin (SRO) 31.57 197 P **P** **11 33 50.0 +1.1**
comp=Z,29nm,0.7s
STKA Stephens Creek 31.92 157 P **P** **11 33 52.6 +0.6**
STKA Stephens Creek 31.92 157 P **P** **11 33 51.7 -0.3**
comp=Z,8.2nm,0.4s,baz=338,slow=8.5,SNR=32
STKA ScP **ScP** **11 40 25.2 +0.2**
comp=Z,9.1nm,0.7s,baz=327,slow=5.3,SNR=5.2
STKA LR LR 11 48 15.8
comp=Z,4μm,18.9s,baz=325,slow=39
comp=Z,8.2nm,0.4s
STKA Stephens Creek 31.92 157 P **P** **11 33 52.2 +0.2**
STKA Stephens Creek 31.92 157 P **P** **11 33 51.2 -0.8**
comp=Z,102nm,0.8s
EIDS Eidsvold 32.00 137 P P 11 34 04.5 +12
EIDS Eidsvold 32.00 137 P **P** **11 33 52.7 -0.1**
EIDS Eidsvold 32.00 137 P **P** **11 33 52.7 -0.1**
comp=Z,13nm,1.0s
PATS Pohnpei 32.19 73 P **P** **11 33 56.0 +1.4**
comp=Z,195nm,1.9s
HTT Hallett 32.40 162 P **P** **11 33 56.9 +0.7**
comp=Z,9.8nm,0.8s
HTT Hallett 32.40 162 P **P** **11 33 57.3 +1.1**
comp=Z,8.1nm,0.9s
HTT Hallett 32.40 162 P **P** **11 33 56.3 +0.1**
comp=Z,24nm,0.8s
HTT Hallett 32.40 162 P **P** **11 33 56.9 +0.7**
comp=Z,9.8nm,0.8s
HTT Hallett 32.40 162 P **P** **11 33 56.1 -0.1**
GULI GuiLin 32.40 330 P **P** **11 34 00.0 +3.8**
GULI S **S** **11 39 16.3 +6.4**
GULI pmax pmax
comp=Z,41nm,0.9s
GULI L L
comp=Z,870nm,24.9s
GULI L L
comp=Z,980nm,20.6s
GULI L L
comp=Z,890nm,17.3s
TATA Tatamba Isabel 32.64 101 P **P** **11 33 59.7 +1.1**
JCJ Chichijima 32.84 25 LR LR 11 46 59.5
comp=Z,702nm,20.3s,baz=196,slow=36
HNR Honiara 32.94 103 LR LR 11 48 46.3
comp=Z,602nm,20.5s,baz=353,slow=39
HNR Honiara 32.94 103 P **P** **11 34 03.4 +2.2**
HNR Honiara 32.94 103 P **P** **11 34 00.6 -0.6**
HNR pmax pmax
comp=Z,286nm,0.9s
HNR Honiara 32.94 103 P **P** **11 34 00.6 -0.6**
HNR Honiara 32.94 103 P **P** **11 33 59.2 -1.9**
comp=Z,362nm,0.9s
SLVN Son La 33.22 317 P **P** **11 34 04.0 +0.4**
comp=Z,22nm,0.9s
RKGY Rocky Gully 33.23 196 P **P** **11 34 06.1 +2.7**
comp=Z,18nm,0.9s
RKGY Rocky Gully 33.23 196 P **P** **11 34 05.3 +1.9**
comp=Z,18nm,0.9s
RKGY Rocky Gully 33.23 196 P **P** **11 34 05.5 +2.2**
comp=Z,18nm,0.9s
CMSA Cobar Meteorol 33.43 151 P **P** **11 34 05.7 +0.5**
comp=Z,43nm,1.1s
CMSA Cobar Meteorol 33.43 151 P **P** **11 34 05.2 0.0**
comp=Z,43nm,1.1s
CMSA Cobar Meteorol 33.43 151 P **P** **11 34 04.9 -0.3**
CMSA Cobar Meteorol 33.43 151 P **P** **11 34 03.7 -1.5**
comp=Z,43nm,1.1s
CM31 Chiang Mai Arr 35.09 308 P **P** **11 34 19.9 +0.1**
SNR=21
CMAR Chiang Mai Arr 35.09 308 P **P** **11 34 20.1 +0.3**
comp=Z,2.9nm,0.7s,baz=140,slow=8.0,SNR=23
CMAR PcP **PcP** **11 36 51.4 0.0**
comp=Z,1.8nm,0.8s,baz=105,slow=3.9,SNR=4.7
CMAR LR LR 11 50 59.1
comp=Z,524nm,20.2s,baz=115,slow=40
comp=Z,2.9nm,0.7s
CMAR Chiang Mai Arr 35.09 308 P **P** **11 34 19.7 -0.1**
GYA Guiyang 35.29 327 ⇓P **P** **11 34 23.0 +1.5**
GYA S **S** **11 39 54.5 -0.3**
GYA pmax pmax
comp=Z,97nm,0.9s
GYA pmax pmax
comp=Z,1μm,6.3s
GYA L L
comp=Z,830nm,13.3s
GYA L L
comp=Z,1μm,20.0s
GYA L L
comp=Z,1μm,21.6s
CHTO Chiang Mai 35.29 308 P **P** **11 34 21.5 0.0**
CHTO Chiang Mai 35.29 308 P **P** **11 34 22.4 +0.8**
CHTO S **S** **11 39 58.6 +3.7**
CHTO Chiang Mai 35.29 308 P **P** **11 34 21.6 0.0**
CHTO pmax pmax
comp=Z,164nm,1.7s
CHTO Chiang Mai 35.29 308 P **P** **11 34 21.6 +0.1**
CHTO IAmb IAmb 11 34 34.4
comp=Z,164nm,1.6s
CHTO Chiang Mai 35.29 308 P **P** **11 34 22.8 +1.3**
comp=Z,51nm,1.3s
WHN Wuhan 35.35 340 P **P** **11 34 24.8 +3.0**
WHN S **S** **11 39 58.3 +2.9**
WHN SS **SS** **11 42 26.8 -2.8**
WHN pmax pmax
comp=Z,220nm,1.2s
WHN L L
comp=Z,1μm,10.7s
WHN L L
comp=Z,2μm,10.1s
WHN L L
comp=Z,7μm,39.2s
NJ2 Nanjing 35.52 347 *e*P **P** **11 34 24.1 +0.9**
NJ2 pmax pmax
comp=Z,11nm,0.7s
JNU Nakatsue 35.77 5 LR LR 11 47 48.6
comp=Z,492nm,19.8s,baz=180,slow=34
ARMA Armidale 35.81 143 P **P** **11 34 26.7 +0.7**
comp=Z,32nm,0.7s
ARMA Armidale 35.81 143 P **P** **11 34 25.3 -0.7**
comp=Z,32nm,0.7s
ARMA Armidale 35.81 143 P **P** **11 34 26.5 +0.5**
comp=Z,32nm,0.7s
ARMA Armidale 35.81 143 P **P** **11 34 26.1 +0.1**
ARMA Armidale 35.81 143 P **P** **11 34 25.9 -0.1**
ARMA Armidale 35.81 143 P **P** **11 34 27.8 +1.9**
comp=Z,32nm,0.7s
ARPS Mount Arapiles 36.40 160 P **P** **11 34 31.1 +0.4**
comp=Z,29nm,0.9s
ARPS Mount Arapiles 36.40 160 P **P** **11 34 31.6 +0.8**
comp=Z,29nm,0.9s
ARPS Mount Arapiles 36.40 160 P **P** **11 34 30.9 +0.2**
comp=Z,29nm,0.9s
KMI2 Kunming 36.63 321 ⇓P **P** **11 34 35.1 +1.9**
KMI2 S **S** **11 40 17.9 +2.2**
KMI2 pmax pmax
comp=Z,74nm,1.2s
KMI2 pmax pmax
comp=Z,910nm,6.2s
KMI2 L L
comp=Z,600nm,15.4s
KMI2 L L
comp=Z,550nm,12.5s
KMI2 L L
comp=Z,720nm,27.3s
JMN Monobe 36.73 9 P **P** **11 34 33.1 -0.5**
JMN Monobe 36.73 9 P **P** **11 34 32.5 -1.1**
JMN IAmb IAmb 11 35 07.6
comp=Z,41nm,0.7s
JMN Monobe 36.73 9 P **P** **11 34 34.0 +0.4**
comp=Z,70nm,1.1s
MGBR Mount Gambier 36.87 163 P **P** **11 34 33.5 -1.3**
JHJ Hachijo jima 2 37.47 17 LR LR 11 50 17.3
comp=Z,173nm,18.5s,baz=149,slow=37
NPW Naypyitaw 38.03 307 P **P** **11 34 46.7 +1.8**
comp=Z,51nm,1.0s
CAN Canberra 38.11 151 P **P** **11 34 47.5 +2.2**
comp=Z,62nm,0.8s
CAN Canberra 38.11 151 P **P** **11 34 45.2 -0.2**
comp=Z,62nm,0.8s
CAN Canberra 38.11 151 P **P** **11 34 45.7 +0.4**
comp=Z,62nm,0.8s
CAN Canberra 38.11 151 P **P** **11 34 45.2 -0.2**
CAN Canberra 38.11 151 P **P** **11 34 44.7 -0.7**
CAN pmax pmax
comp=Z,49nm,0.5s
CAN Canberra 38.11 151 P **P** **11 34 44.7 -0.7**
CAN IAmb IAmb 11 34 48.7
comp=Z,48nm,0.5s
CAN Canberra 38.11 151 P **P** **11 34 45.5 +0.1**
comp=Z,62nm,0.8s
PZH PanZhiHua 38.23 321 P **P** **11 34 49.0 +2.4**
PZH S **S** **11 40 40.6 +0.9**
PZH SS **SS** **11 43 27.0 -1.3**
PZH pmax pmax
comp=Z,710nm,6.7s
PZH L L
comp=Z,590nm,17.5s
PZH L L
comp=Z,550nm,20.1s
PZH L L
comp=Z,660nm,20.8s
CNB Canberra Magne 38.28 151 P **P** **11 34 50.0 +3.1**
comp=Z,20nm,0.9s
CNB Canberra Magne 38.28 151 P **P** **11 34 49.2 +2.3**
comp=Z,20nm,0.9s
INU Inuyama 38.88 12 P **P** **11 34 51.8 0.0**
INU Inuyama 38.88 12 P **P** **11 34 50.7 -1.1**
INU IAmb IAmb 11 35 02.6
comp=Z,110nm,0.8s
INU Inuyama 38.88 12 P **P** **11 34 51.0 -0.7**
comp=Z,146nm,0.9s
JGF Kuroka 39.20 13 P **P** **11 34 54.2 -0.3**
JGF Kuroka 39.20 13 P **P** **11 34 53.8 -0.7**
JGF IAmb IAmb 11 35 05.6
comp=Z,70nm,1.0s
JGF Kuroka 39.20 13 P **P** **11 34 54.2 -0.3**
comp=Z,85nm,1.1s
TNCH TengChong 39.36 316 P **P** **11 34 57.5 +1.3**
TNCH S **S** **11 40 59.1 +2.1**
TNCH pmax pmax
comp=Z,44nm,1.4s
TNCH L L
comp=Z,2μm,32.2s
MILA Mila 39.58 152 P **P** **11 34 58.5 +0.8**
comp=Z,11nm,1.5s
LYN LuoYang 39.65 340 P **P** **11 34 56.8 -1.4**
LYN PP **PnPn** **11 36 35.8 +3.2**
LYN S **S** **11 40 57.6 -3.1**
LYN pmax pmax
comp=Z,26nm,0.9s
LYN pmax pmax
comp=Z,1μm,6.9s
LYN L L
comp=Z,840nm,23.7s
LYN L L
comp=Z,850nm,23.4s
LYN L L
comp=Z,2μm,25.4s
KSRS Korea Array 39.95 1 P **P** **11 34 59.5 -1.2**
comp=Z,3.9nm,0.6s,baz=179,slow=8.7,SNR=15
KSRS PcP **PcP** **11 37 06.0 +0.1**
comp=Z,3.7nm,0.8s,baz=179,slow=4.2,SNR=4.8
comp=Z,3.9nm,0.6s
MAJO Matsushiro 40.30 13 P **P** **11 35 04.8 +1.2**
MAJO Matsushiro 40.30 13 P **P** **11 35 02.1 -1.5**
MAJO pmax pmax
comp=Z,63nm,0.9s
MAJO Matsushiro 40.30 13 P **P** **11 35 02.0 -1.5**
MAJO IAmb IAmb 11 35 14.7
comp=Z,63nm,0.9s
MAJO Matsushiro 40.30 13 P **P** **11 35 02.8 -0.8**
comp=Z,77nm,0.9s
MJAR Matsushiro Arr 40.30 13 P **P** **11 35 01.8 -1.8**
comp=Z,18nm,0.6s,baz=189,slow=9.0,SNR=48
MJAR PcP **PcP** **11 37 06.8 -0.3**
comp=Z,8.7nm,0.8s,baz=183,slow=3.4,SNR=6.0

MJAR LR LR 11 49 54.7
comp=Z,2µm,20.2s,baz=189,slow=34
comp=Z,18nm,0.6s
MJAR Matsushiro Arr 40.30 13 P P 11 35 02.3 -1.3
MJB9 Matsu-Tunnel 40.30 13 P P 11 35 02.0 -1.6
MJB9 IAmb IAmb 11 35 15.6
comp=Z,72nm,1.0s
CD2 Chengdu 40.35 328 P P 11 35 03.3 -0.9
CD2 PP **PnPn 11 36 41.3 +0.2**
CD2 S **S 11 41 07.8 -3.6**
CD2 SS **SS 11 44 12.4 +1.8**
CD2 pmax pmax
comp=Z,40nm,0.9s
CD2 pmax pmax
comp=Z,1µm,7.2s
CD2 L L
comp=Z,730nm,16.6s
CD2 L L
comp=Z,720nm,14.0s
CD2 L L
comp=Z,910nm,16.0s
XAN Xi'an 40.51 336 P P 11 35 04.8 -0.6
XAN S **S 11 41 12.6 -1.1**
XAN pmax pmax
comp=Z,64nm,0.8s
XAN pmax pmax
comp=Z,760nm,7.2s
XAN L L
comp=Z,1µm,19.9s
XAN L L
comp=Z,680nm,20.6s
XAN L L
comp=Z,1µm,20.6s
SANVU Saraoutou 41.12 110 P P 11 35 12.3 +1.6
SANVU Saraoutou 41.12 110 P P 11 35 10.2 -0.5
SANVU Saraoutou 41.12 110 P P 11 35 11.2 +0.6
comp=Z,393nm,0.8s
HNS HongShan 41.62 345 ⇓P **P 11 35 15.9 +1.5**
HNS S **S 11 41 26.4 -3.5**
HNS pmax pmax
comp=Z,510nm,8.4s
HNS L L
comp=Z,420nm,17.9s
HNS L L
comp=Z,510nm,19.1s
HNS L L
comp=Z,810nm,19.1s
DL2 Dalian 41.75 353 P P 11 35 16.8 +1.4
DL2 S **S 11 41 34.1 +2.4**
DL2 pmax pmax
comp=Z,64nm,1.2s
DL2 pmax pmax
comp=Z,700nm,11.6s
DL2 L L
comp=Z,890nm,15.2s
DL2 L L
comp=Z,2µm,17.0s
DL2 L L
comp=Z,910nm,12.7s
MORE Moreh 41.92 312 P P 11 35 16.7 -0.5
MORE IAmb IAmb 11 35 31.3
comp=Z,41nm,0.5s
NOUC Port Laguerre 42.33 120 P P 11 35 22.0 +1.5
GLAD Gladstone 42.37 157 P P 11 35 21.3 +0.7
IMP Imphal 42.52 312 *i*P **P 11 35 21.5 -0.6**
ONTNC Ouen Toro 42.53 121 P P 11 35 20.9 -1.2
TIY Taiyuan 42.56 342 *e*P **P 11 35 23.4 +1.2**
TIY S **S 11 41 44.0 0.0**
TIY pmax pmax
comp=Z,540nm,5.7s
TIY L L
comp=Z,410nm,20.6s
TIY L L
comp=Z,390nm,17.9s
TIY L L
comp=Z,840nm,39.2s
RTV Rentapao 42.85 113 P P 11 35 26.6 +1.8
AZL Aizawl 42.86 310 *i*P **P 11 35 26.7 +1.7**
KOHI KOHIMA 42.92 313 *i*P **P 11 35 26.1 +0.6**
MOKO MOKOCHONG 42.99 314 *i*P **P 11 35 25.9 -0.1**
BRDH Bariadhala 43.12 308 LR LR 11 55 14.2
comp=Z,407nm,19.9s,baz=138,slow=39
MOO Moorlands 43.32 159 P P 11 35 29.0 +0.8
MARNC Mare, Loyalty 43.61 119 P P 11 35 32.8 +1.9
BJI2 Beijing 43.76 347 P P 11 35 42.0 +10
BJI2 S **S 11 41 59.6 -1.7**
BJI2 SS **SS 11 45 22.3 +4.8**
BJI2 pmax pmax
comp=Z,15nm,1.0s
BJI2 LR LR
comp=N,290nm,11.9s
BJI2 LR LR
comp=E,190nm,10.7s
BJI2 LR LR
comp=Z,360nm,15.1s
TEZP TEZPUR 44.40 313 *i*P **P 11 35 36.9 -0.2**
TEZP *i*P **pP 11 35 39.9 -2.0**
TEZP IAmb IAmb 11 35 49.5
comp=Z,105nm,1.0s
LZDM Lanzhou Array 44.42 332 P P 11 35 37.9 +0.3
comp=Z,8.0nm,0.7s,baz=163,slow=7.7,SNR=9.1
comp=Z,8.0nm,0.7s
SHL Shillong 44.48 311 P P 11 35 37.8 -0.3
SHL Shillong 44.48 311 P P 11 35 37.8 -0.3
JTM Tenmabayashi 45.02 15 P P 11 35 42.8 +1.0
JTM Tenmabayashi 45.02 15 P P 11 35 41.2 -0.6
JTM Tenmabayashi 45.02 15 P P 11 35 43.5 +1.7
comp=Z,244nm,1.0s
HHC Hu-ho-hao-te 45.71 343⇑*i*P **P 11 35 48.4 +0.9**
HHC S **S 11 42 29.9 0.0**
HHC SS **ScS 11 45 47.5 +4.5**
HHC pmax pmax
comp=Z,15nm,1.0s
HHC pmax pmax
comp=Z,280nm,9.3s
HHC L L
comp=Z,470nm,19.3s
HHC L L
comp=Z,360nm,17.7s
HHC L L
comp=Z,570nm,22.7s
BTO2 Baotou 46.13 341 *e*P **P 11 35 54.0 +3.2**
BTO2 PP **PP 11 37 43.4 +4.1**
BTO2 S **S 11 42 42.3 +6.3**
BTO2 pmax pmax
comp=Z,9.0nm,0.5s
BTO2 pmax pmax
comp=Z,460nm,5.0s
BTO2 L L
comp=Z,1µm,14.1s
BTO2 L L
comp=Z,670nm,8.6s
BTO2 L L
comp=Z,1µm,16.7s
CN2 Changchun 46.32 358 P P 11 35 54.3 +2.2
CN2 PcP **PcP 11 37 29.4 +2.2**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
CN2 pmax pmax
comp=Z,200nm,5.0s
USA0B Ussuriysk Arra 46.86 4*de*P **P 11 35 56.2 -0.1**
USRK Ussuriysk Ar. 46.86 4 P **P 11 35 57.3 +1.0**
comp=Z,9.8nm,0.5s,baz=184,slow=6.8,SNR=30
USRK LR LR 11 56 44.4
comp=Z,464nm,18.6s,baz=176,slow=38
comp=Z,9.8nm,0.5s
USRK Ussuriysk Ar. 46.86 4 P 11 35 56.5 +0.2
MDJ Mudanjiang 47.14 2 P P 11 35 58.8 +0.3
MDJ S **S 11 42 51.1 +1.1**
MDJ pmax pmax
comp=Z,31nm,2.3s
MDJ L L
comp=Z,620nm,16.5s
MDJ L L
comp=Z,420nm,16.5s
MDJ L L
comp=Z,1µm,18.5s
LSA Lhasa 47.38 316 P P 11 36 02.7 +1.5
LSA Lhasa 47.38 316 P P 11 36 01.1 -0.2
XLT XiLinHaoTe 47.50 349 *e*P **P 11 36 02.5 +1.0**
XLT S **S 11 42 54.3 -1.1**
XLT pmax pmax
comp=Z,13nm,1.3s
XLT L L
comp=Z,710nm,17.2s
XLT L L
comp=Z,560nm,22.6s
PALK Pallekele 47.73 282 P P 11 36 02.5 -1.2
PALK Pallekele 47.73 282 P P 11 36 02.9 -0.8
PALK S **S 11 42 59.9 +0.5**
PALK Pallekele 47.73 282 P P 11 36 03.0 -0.6
PALK pmax pmax
comp=Z,307nm,1.9s
PALK Pallekele 47.73 282 P P 11 36 03.0 -0.6
PALK Pallekele 47.73 282 P P 11 36 05.3 +1.6
comp=Z,74nm,1.5s
MALK Mahakanadarawa 48.09 284 P P 11 36 06.9 +0.4
comp=Z,129nm,1.3s
BNX BinXian 48.23 360⇑P **P 11 36 06.3 -0.6**
BNX S **S 11 43 04.0 -1.4**
BNX pmax pmax
comp=Z,540nm,5.4s
BNX L L
comp=Z,440nm,15.7s
BNX L L
comp=Z,980nm,16.8s
BNX L L
comp=Z,650nm,17.7s
ASAJ Asahikawa 48.53 15 LR LR 11 55 25.9
comp=Z,1µm,20.5s,baz=207,slow=35
ASAJ Asahikawa 48.53 15 P P 11 36 09.1 -0.2
ASAJ pmax pmax
comp=Z,79nm,0.8s
JKA Kamikawa-asahi 48.53 15 P P 11 36 09.1 -0.2
JKA Kamikawa-asahi 48.53 15 P P 11 36 09.5 +0.2
comp=Z,137nm,1.5s
GTA2 Gaotai 49.11 332 P P 11 36 13.8 -0.2
GTA2 S **S 11 43 20.1 +1.7**
GTA2 pmax pmax
comp=Z,680nm,6.7s
GTA2 L L
comp=Z,470nm,18.4s
GTA2 L L
comp=Z,390nm,19.0s
GTA2 L L
comp=Z,760nm,17.8s
GOMU GeErMu 49.26 325 P P 11 36 15.8 +0.3
GOMU S **S 11 43 24.8 +3.7**
GOMU pmax pmax
comp=Z,6.0nm,0.4s
GOMU L L
comp=Z,290nm,17.6s
GOMU L L
comp=Z,280nm,17.5s
GOMU L L
comp=Z,450nm,17.2s
EVN Everest 49.58 311 P P 11 36 19.4 +1.0
comp=Z,437nm,0.8s
YSS Yuzhno-Sakhali 51.24 13 *e*P **P 11 36 30.8 +1.0**
YSS *e* 11 38 29.9
YSS *e*S **S 11 43 44.3 -3.2**
YSS pmax pmax
comp=Z,800nm,3.2s
YSS pmax pmax
comp=Z,30nm,1.1s
YSS MLR MLR
comp=Z,700nm,16.0s
YSS MLR MLR
comp=N,600nm,18.0s
YSS MLR MLR
comp=E,500nm,18.0s
YSS Yuzhno-Sakhali 51.24 13 P P 11 36 29.5 -0.3
YSS IAmb IAmb 11 37 05.4
comp=Z,40nm,1.0s
MSVF Nonsavu 51.76 110 LR LR 11 59 16.9
comp=Z,725nm,20.4s,baz=277,slow=37
MSVF Nonsavu 51.76 110 P P 11 36 36.0 +1.6
MSVF Nonsavu 51.76 110⇓*e*P **P 11 36 34.6 +0.2**
MSVF pmax pmax
comp=Z,15nm,1.3s
MSVF Nonsavu 51.76 110 P P 11 36 34.3 -0.1
MSVF Nonsavu 51.76 110 P P 11 36 34.9 +0.5
comp=Z,44nm,1.0s
KLR Kul'dur 51.85 4⇑*e*P **P 11 36 33.6 -0.8**
KLR pmax pmax
comp=Z,10.0nm,0.9s
HYB Hyderabad 52.22 294 *e*P **P 11 36 35.4 -2.4**
HYB IVmB_BB 11 36 48.6
comp=Z,2µm,0.9s
HYB *e*ScP **ScP 11 41 47.3 +1.7**
HYB *e*S **S 11 43 59.2 -2.9**
HYB *e*ScS **ScS 11 46 29.6 +2.0**
HYB *e*SS **SS 11 47 42.8 +2.9**
HYB IVMs_BB IVMs_BB 11 53 40.6
comp=Z,180nm,6.5s
HILR Hailar Array B 52.47 354 PcP **PcP 11 37 49.2 -0.3**
comp=Z,4.5nm,0.5s,baz=165,slow=6.0,SNR=2.1
HEH HeiHe 52.74 360 *e*P **P 11 36 39.3 -1.7**
HEH S **S 11 44 04.9 -3.1**
HEH pmax pmax
comp=Z,32nm,1.2s
HEH pmax pmax
comp=Z,510nm,6.7s
HEH L L
comp=Z,280nm,23.6s
HEH L L
comp=Z,740nm,23.3s
HEH L L
comp=Z,580nm,24.2s
NGP Nagpur 53.00 299 *i*P **P 11 36 42.6 -0.9**
DGTI Dogotuki 53.11 108 P P 11 36 46.3 +2.0
ULN Ulaanbaatar 53.43 343*de*P **P 11 36 45.8 -0.5**
ULN pmax pmax
comp=Z,15nm,1.8s
ULN Ulaanbaatar 53.43 343 P P 11 36 46.0 -0.3
comp=Z,38nm,1.1s
ULN pP **pwP 11 36 55.0 -0.8**
OUZ Omahuta 53.57 133 P P 11 36 49.2 +1.8
OUZ Omahuta 53.57 133 P P 11 36 49.3 +1.9
SONM Songino Array 53.60 342 P P 11 36 47.0 -0.5
comp=Z,3.1nm,0.7s,baz=155,slow=8.5,SNR=24
SONM PcP **PcP 11 37 53.7 -0.3**
comp=Z,8.4nm,0.8s,baz=159,slow=4.8,SNR=5.7
comp=Z,3.1nm,0.7s
SONM Songino Array 53.60 342 P P 11 36 47.2 -0.4
GRNR Gornyy 53.81 7⇓*i*P **P 11 36 48.9 +0.1**
GRNR pmax pmax
comp=Z,10.0nm,0.8s
LATR Latur 54.35 295 *i*P **P 11 36 53.0 -0.5**
WCZ Waipu Caves 54.44 133 P P 11 36 54.4 +0.7
MSZ Milford Sound 54.89 146 P P 11 36 57.9 +1.1
DGAR Diego Garcia 54.99 263 P P 11 36 58.9 +0.8
DGAR Diego Garcia 54.99 263 P P 11 36 58.7 +0.6
DGAR pmax pmax
comp=Z,103nm,1.0s
DGAR Diego Garcia 54.99 263 P P 11 36 58.6 +0.6
DGAR Diego Garcia 54.99 263 P P 11 36 57.9 -0.2
comp=Z,152nm,1.5s
JCZ Jackson Bay 55.02 145 P P 11 36 59.3 +1.4
JCZ Jackson Bay 55.02 145 P P 11 36 58.4 +0.5
FOZ Fox Glacier 55.31 143 P P 11 37 00.5 +0.7
GRZ Great Barrier 55.38 133 P P 11 37 00.8 +0.2
MLZ Mavora Lakes 55.42 146 P P 11 37 01.4 +0.7
LGTI Lohaghat 55.45 309 *i*P **P 11 36 58.0 -3.4**
QRZ Quartz Range 55.52 139 P P 11 37 02.9 +1.4
QRZ Quartz Range 55.52 139 P P 11 37 02.5 +1.0
DSZ Denniston Nort 55.54 141 P P 11 37 02.6 +0.9
MKAZ Moumakai 55.54 134 P P 11 37 04.6 +3.0
WKZ Wanaka 55.60 145 P P 11 37 02.2 +0.2
WVZ Waitaha Valley 55.60 143 P P 11 37 03.2 +1.2
HIZ Hauiti 55.96 136 P P 11 37 05.6 +0.9
HIZ Hauiti 55.96 136 P P 11 37 06.9 +2.2
EAZ Earnscleugh 56.01 145 P P 11 37 05.4 +0.4
LBZ Lake Benmore 56.02 144 P P 11 37 04.6 -0.4
TOZ Tahuroa Road 56.06 135 P P 11 37 04.8 -0.6
TOZ IAmb IAmb 11 37 18.2
comp=Z,33nm,0.8s
TOZ Tahuroa Road 56.06 135 P P 11 37 07.3 +1.9
RPZ Rata Peaks 56.15 143 LR LR 12 02 11.3
comp=Z,412nm,20.1s,baz=303,slow=37
RPZ Rata Peaks 56.15 143 P P 11 37 07.3 +1.3
RPZ Rata Peaks 56.15 143 P P 11 37 07.0 +1.0
ZEA Zeya 56.23 360 *e*P **P 11 37 07.4 +1.1**
ZEA pmax pmax
comp=E,10.0nm,0.8s
ZEA pmax pmax
comp=N,20nm,0.9s
ZEA pmax pmax
comp=Z,60nm,0.9s
ZEA MLR MLR
comp=Z,300nm,21.0s
THZ Tophouse 56.25 140 P P 11 37 07.0 +0.2
APZ The Paps 56.26 148 P P 11 37 07.1 +0.4
NNZ Nelson 56.28 139 P P 11 37 07.2 +0.3
JOSI Joshimath 56.38 310 *i*P **P 11 37 04.3 -3.7**
JOSI IAmb IAmb 11 37 21.1
comp=Z,269nm,0.8s
LTZ Lake Taylor 56.39 141 P P 11 37 08.2 +0.5
UGON Onchagaon 56.70 307 *i*P **P 11 37 06.8 -3.3**
TUWZ Tuamarina 56.75 139 P P 11 37 09.5 -0.7
ZAK Zakamensk 56.81 342 *e*P **P 11 37 11.1 +0.5**
ZAK pmax pmax
comp=Z,15nm,1.0s
WNVZ Wahianoa 56.85 136 P P 11 37 11.7 +0.5
KHZ Kahutara 56.99 141 P P 11 37 12.5 +0.6
KHZ Kahutara 56.99 141 P P 11 37 11.1 -0.8
MOVZ Moawhango 56.99 136 P P 11 37 12.4 +0.2
SNZO South Karori 57.19 139 P P 11 37 13.1 -0.2
LDR Lodi Road 57.37 307 *i*P **P 11 37 11.6 -3.3**
BKZ Black Stump Fm 57.40 136 P P 11 37 14.6 -0.4
BKZ Black Stump Fm 57.40 136 P P 11 37 14.9 -0.1
NDI New Delhi 57.41 307 *i*P **P 11 37 11.6 -3.6**
NPLP NPLP New Delhi 57.43 307 *i*P **P 11 37 11.6 -3.6**
URZ Urewera 57.44 135 LR LR 12 03 18.7
comp=Z,1µm,19.6s,baz=313,slow=38
URZ Urewera 57.44 135 P P 11 37 15.4 +0.3
URZ Urewera 57.44 135 P P 11 37 15.5 +0.3
URZ Urewera 57.44 135 P P 11 37 15.6 +0.4
comp=Z,60nm,1.0s
TSZ Takapari Road 57.44 137 P P 11 37 14.9 -0.3
MRZ Mangatainoka R 57.46 138 P P 11 37 14.9 -0.4
KWHZ Kaweka Forest 57.47 136 P P 11 37 15.9 +0.4
RTZ Ruatahuna 57.50 135 P P 11 37 15.7 0.0
KRHZ Kereru 57.53 136 P P 11 37 15.8 -0.1
NMHZ Naumai 57.59 136 P P 11 37 17.2 +0.9
MCHZ McNeill Hill 57.66 136 P P 11 37 17.9 +1.1
HAZ Te Kaha 57.70 134 P P 11 37 17.2 +0.1
RUGZ Raukumara Rang 57.72 134 P P 11 37 17.7 +0.4
MWZ Matawai 57.77 135 P P 11 37 18.2 +0.7
KLP Kalpa 57.82 310 *i*P **P 11 37 13.7 -4.6**
KLP IAmb IAmb 11 37 32.3
comp=Z,182nm,1.0s
TLY Talaya 57.84 343 LR LR 12 03 57.7
comp=Z,300nm,18.1s,baz=142,slow=38
TLY Talaya 57.84 343 P P 11 37 19.8 +2.1
TLY S **S 11 45 20.7 +4.4**
TLY Talaya 57.84 343⇑*e*P **P 11 37 18.2 +0.4**
TLY pmax pmax
comp=Z,9.0nm,1.5s
BFZ Birch Farm 57.92 138 P P 11 37 18.6 +0.1
BFZ Birch Farm 57.92 138 P P 11 37 18.2 -0.3
MXZ Matakaoa Point 58.00 133 P P 11 37 19.6 +0.4
MXZ Matakaoa Point 58.00 133 P P 11 37 19.7 +0.6
TKGZ Te Karaka 58.04 135 P P 11 37 20.4 +1.0
RAO Raoul Island 58.10 123 LR LR 12 01 01.4
comp=Z,433nm,21.2s,baz=294,slow=35
IRK Irkutsk 58.15 343 *e*P **P 11 37 17.1 -2.8**
IRK pmax pmax
comp=Z,41nm,2.5s
PUZ Puketiti 58.18 134 P P 11 37 20.4 -0.1
WMQ Urumqi 58.45 327 *e*P **P 11 37 24.8 +2.6**
WMQ pmax pmax
comp=Z,29nm,1.3s
WMQ L L
comp=Z,1µm,18.3s
WMQ L L
comp=Z,820nm,19.9s
WMQ L L
comp=Z,750nm,24.1s
SMLA Simla 58.47 309 *i*P **P 11 37 18.8 -3.8**
DHRM DHARAMSHALA 59.62 310 *i*P P 11 37 25.6 -5.2
ALCI Alchi Leh 59.83 312 *i*P P 11 37 27.0 -5.3
ALCI IAmb IAmb 11 37 44.2
comp=Z,92nm,0.6s
PEA0B Petropavlovsk- 61.11 20⇑*e*P **P 11 37 41.2 +0.9**
PEA0B Petropavlovsk- 61.11 20 P P 11 37 39.8 -0.5
PETK Petropavlovsk- 61.11 20 P P 11 37 40.0 -0.3
comp=Z,14nm,0.8s,baz=187,slow=3.7,SNR=13
comp=Z,14nm,0.8s
PETK Petropavlovsk- 61.11 20 P P 11 37 40.4 +0.1
PETK Petropavlovsk- 61.11 20 P P 11 37 40.4 +0.1
PET Petropavlovsk 61.37 21 *e*P **P 11 37 43.1 +1.1**
PET *e*S **S 11 46 02.4 +0.6**
PET pmax pmax
comp=Z,500nm,9.8s
PET pmax pmax
comp=Z,95nm,1.0s
PET MLR MLR
comp=Z,700nm,18.0s
PET MLR MLR
comp=Z,500nm,17.0s
PET Petropavlovsk 61.37 21 P P 11 37 43.3 +1.3
comp=Z,101nm,1.1s
PET Petropavlovsk 61.37 21 P P 11 37 42.0 0.0
comp=Z,108nm,1.1s
ZSN Zaisan 62.32 329 *e*P **P 11 37 49.7 +1.2**
ZSN pmax pmax
comp=Z,8.0nm,1.0s
ZSN Zaisan 62.32 329 *e*P **P 11 37 49.8 +1.2**
comp=Z,8.1nm,1.0s
NIL Nilore 62.53 310 P P 11 37 51.0 +0.6
NIL Nilore 62.53 310 P P 11 37 49.7 -0.7
comp=Z,79nm,0.8s
SHLS Shalkode 62.80 322 *e*P **P 11 37 51.4 -0.6**
SHLS pmax pmax
comp=Z,13nm,1.1s
SHLS Shalkode 62.80 322 *e*P **P 11 37 51.5 -0.6**
comp=Z,13nm,1.1s
UZB Uzynbulak 63.07 322 *e*P **P 11 37 55.0 +1.2**
UZB pmax pmax
comp=Z,8.0nm,1.2s
UZB Uzynbulak 63.07 322 *e*P **P 11 37 55.1 +1.2**
comp=Z,7.8nm,1.2s
TARG Taragay, Kyrgy 63.08 320 P P 11 37 54.0 -0.2
TARG pmax pmax
comp=Z,32nm,0.7s
TARG Taragay, Kyrgy 63.08 320 P P 11 37 54.0 -0.2
TARG IAmb IAmb 11 38 14.7
comp=Z,32nm,0.7s
TARG Taragay, Kyrgy 63.08 320 P P 11 37 54.1 -0.2
comp=Z,45nm,1.2s
PRZ Przheval'sk 63.10 321 P P 11 37 55.1 +1.0
comp=Z,67nm,1.0s
KSH2 Kashi 63.28 317 P P 11 37 55.8 +0.5
KSH2 pmax pmax
comp=Z,35nm,0.8s
MK31 Makanchi Array 63.28 327*ce*P **P 11 37 54.6 -0.4**
MKAR Makanchi Array 63.28 327 P P 11 37 54.6 -0.4
comp=Z,9.7nm,0.7s,baz=118,slow=6.8,SNR=36
MKAR LR LR 12 07 55.8
comp=Z,264nm,19.3s,baz=114,slow=38
comp=Z,9.7nm,0.7s
MKAR Makanchi Array 63.28 327 P P 11 37 54.2 -0.8
SATY Saty 63.40 322 *e*P **P 11 37 56.6 +0.6**
SATY pmax pmax
comp=Z,11nm,0.8s
SATY Saty 63.40 322 *e*P **P 11 37 56.6 +0.6**
comp=Z,11nm,0.8s
KPKS Kokpek 63.45 322 *e*P **P 11 37 56.9 +0.6**
KPKS Kokpek 63.45 322 *e*P **P 11 37 57.0 +0.6**
MAKZ Makanchi 63.46 327 P P 11 37 55.6 -0.6
MAKZ pmax pmax
comp=Z,86nm,1.3s
MAKZ Makanchi 63.46 327 P P 11 37 55.6 -0.6
MAKZ Makanchi 63.46 327 P P 11 37 57.4 +1.2
comp=Z,62nm,1.0s
ASAI AK-SAY(Kyrgyzs 63.50 319 P P 11 37 57.1 +0.1
comp=Z,23nm,1.0s
KDJ Kajisay 63.68 320 P P 11 37 57.7 -0.3
KDJ pmax pmax
comp=Z,31nm,0.8s
KDJ Kajisay 63.68 320 P P 11 37 57.7 -0.3
KDJ IAmb IAmb 11 38 10.9
comp=Z,31nm,0.8s
KDJ Kajisay 63.68 320 P P 11 37 58.6 +0.6
comp=Z,45nm,0.8s
NRN Naryn 64.09 319 P P 11 38 00.3 -0.6
NRN pmax pmax
comp=Z,25nm,0.8s
NRN Naryn 64.09 319 P 11 38 00.3 -0.6
NRN IAmb IAmb 11 38 13.0
comp=Z,25nm,0.8s
TNSS Tian-Shan 64.30 321 *e*P **P 11 38 03.1 +0.8**
TNSS Tian-Shan 64.30 321 *e*P **P 11 38 03.1 +0.8**
MDOK Medeo 64.30 321 *e*P **P 11 38 03.2 +1.2**

MDOK **Medeo** 64.30 321 *e*P **P** **11 38 03.2 +1.2**
AAA **Alma-Ata** 64.41 321 *e*P **P** **11 38 03.3 +0.7**
AAA **Alma-Ata** 64.41 321 *e*P **P** **11 38 03.3 +0.7**
TDK **Taldyqorghan** 64.45 324 *e*P **P** **11 38 03.6 +0.8**
TDK pmax pmax
comp=Z,13nm,1.1s
TDK **Taldyqorghan** 64.45 324 *e*P **P** **11 38 03.6 +0.8**
comp=Z,13nm,1.1s
MA2 **Magadan** 64.74 13 LR LR 12 03 47.9
comp=Z,357nm,21.6s,baz=203,slow=34
AAK **Ala-Archa** 65.66 320 LR LR 12 09 53.4
comp=Z,149nm,21.0s,baz=104,slow=39
AAK **Ala-Archa** 65.66 320 *i* P **P** **11 38 11.2 +0.4**
SNR=7.6
AAK **Ala-Archa** 65.66 320‖ *e*P **P** **11 38 11.0 +0.1**
AAK pmax pmax
comp=Z,37nm,2.2s
AAK **Ala-Archa** 65.66 320 P **P** **11 38 11.4 +0.5**
comp=Z,35nm,1.3s
OHH **Osh** 65.81 317 P **P** **11 38 12.9 +1.2**
OHH comp=Z,48nm,1.1s
pP **pwP** **11 38 20.1 -1.6**
DRK **Karamyk** 66.03 316 P **P** **11 38 12.9 -0.6**
DRK pmax pmax
comp=Z,46nm,0.6s
DRK **Karamyk** 66.03 316 **P** **11 38 12.9 -0.6**
DRK **Karamyk** 66.03 316 P **P** **11 38 13.9 +0.4**
comp=Z,66nm,0.7s
KBL **Kabul** 66.10 310 P **P** **11 38 14.0 +0.1**
SNR=24
KBL S **S** **11 47 01.8 0.0**
KBL **Kabul** 66.10 310 P **P** **11 38 13.5 -0.4**
KBL pmax pmax
comp=Z,37nm,0.8s
KBL **Kabul** 66.10 310 P **P** **11 38 13.5 -0.4**
KBL IAmb IAmb 11 38 26.0
comp=Z,37nm,0.8s
KBL **Kabul** 66.10 310 P **P** **11 38 13.9 +0.1**
comp=Z,53nm,1.1s
SEM **Semipalatinsk** 66.54 329 *e*P **P** **11 38 17.2 +0.8**
SEM **Semipalatinsk** 66.54 329 *e*P **P** **11 38 17.2 +0.8**
ZALV **Zalesovo Beam** 66.64 334 P **P** **11 38 15.0 -1.6**
comp=Z,5.0nm,0.8s,baz=116,slow=5.2,SNR=12
ZALV LR LR 12 06 53.1
comp=Z,183nm,21.9s,baz=138,slow=36
comp=Z,5.0nm,0.8s
ZALV **Zalesovo Beam** 66.64 334 *i* P **P** **11 38 16.6 -0.1**
ZALV pmax pmax
comp=Z,5.0nm,0.8s
ZALV **Zalesovo Beam** 66.64 334 P **P** **11 38 16.3 -0.4**
ARK **Arkit** 66.94 318 P **P** **11 38 19.5 +0.5**
comp=Z,86nm,0.8s
BTK **Batken** 66.96 316 P **P** **11 38 19.1 -0.1**
BTK pmax pmax
comp=Z,50nm,1.2s
BTK **Batken** 66.96 316 **P** **11 38 19.1 -0.1**
BTK IAmb IAmb 11 38 30.3
comp=Z,50nm,1.2s
BTK **Batken** 66.96 316 P **P** **11 38 20.3 +1.1**
comp=Z,35nm,1.5s
KURBB **Kurchatov Arra** 67.56 329 P **P** **11 38 21.2 -1.4**
comp=Z,9.5nm,0.6s,baz=127,slow=5.9,SNR=67
comp=Z,9.5nm,0.6s
KURK **Kurchatov** 67.56 329 P **P** **11 38 24.1 +1.5**
KURK S **S** **11 47 16.9 -1.5**
KURK **Kurchatov** 67.56 329 P **P** **11 38 22.2 -0.4**
KURK pmax pmax
comp=Z,85nm,0.9s
KURK **Kurchatov** 67.56 329 P **P** **11 38 22.2 -0.4**
KURK **Kurchatov** 67.56 329 P **P** **11 38 22.1 -0.4**
comp=Z,111nm,0.9s
KURK pP **pwP** **11 38 32.0 -0.5**
DZA **Taraz** 67.84 319 *e*P **P** **11 38 25.6 +1.0**
DZA pmax pmax
comp=Z,7.0nm,0.8s
DZA **Taraz** 67.84 319 *e*P **P** **11 38 25.7 +1.0**
comp=Z,6.5nm,0.8s
SEY **Seymchan** 68.10 12 LR LR 12 04 34.5
comp=Z,230nm,20.8s,baz=178,slow=33
SEY **Seymchan** 68.10 12 *e*P **P** **11 38 27.2 +1.5**
SEY pmax pmax
comp=Z,37nm,1.2s
IUG **Iuzhnay** 68.39 318 *e*P **P** **11 38 28.9 +0.8**
IUG pmax pmax
comp=Z,8.0nm,0.9s
IUG **Iuzhnay** 68.39 318 *e*P **P** **11 38 28.1 0.0**
comp=Z,8.1nm,0.9s
KK31 **Karatay Array** 68.47 319 P **P** **11 38 27.9 -0.7**
KK31 pmax pmax
comp=Z,52nm,1.2s
KK31 **Karatay Array** 68.47 319 P **P** **11 38 27.9 -0.7**
KK31 IAmb IAmb 11 38 39.1
comp=Z,52nm,1.1s
KKAR **Karatay Array** 68.47 319 P **P** **11 38 28.9 +0.3**
KKAR **Karatay Array** 68.47 319 P **P** **11 38 28.9 +0.3**
CHM **Chimkent** 68.75 318 *e*P **P** **11 38 31.2 +1.0**
CHM pmax pmax
comp=Z,8.0nm,0.6s
CHM **Chimkent** 68.75 318 *e*P **P** **11 38 31.3 +1.0**
comp=Z,7.7nm,0.6s
BRLS **Borolday** 68.89 318 *e*P **P** **11 38 31.0 -0.1**
BRLS **Borolday** 68.89 318 *e*P **P** **11 38 31.1 -0.1**
NGCH **Negor - Chabah** 69.96 298 P **P** **11 38 39.1 +1.0**
NGCH S **S** **11 47 48.8 +1.0**
JLN **Jalan Bani Buh** 70.84 294 P **P** **11 38 43.7 +0.1**
WBK **Wadi Bani Khal** 71.33 295 P **P** **11 38 46.8 +0.3**
SNR=12
WSAR **Wadi Sarin** 71.75 295 P **P** **11 38 49.4 +0.3**
SNR=14
MSEY **Mahe Island** 71.86 266 P **P** **11 38 50.1 +0.2**
ADK **Adak** 71.87 33 P **P** **11 38 50.7 +1.6**
MHTO **MHTO** 71.94 293 P **P** **11 38 50.1 -0.1**
MHTO S **S** **11 48 10.5 -0.5**
JMDO **Jabal Madar** 72.07 294 P **P** **11 38 51.4 +0.5**
SNR=14
SMDO **Samad** 72.25 295 P **P** **11 38 52.1 0.0**
SNR=12
BIDO **Bidbid** 72.26 296 P **P** **11 38 52.2 +0.1**
SNR=28
RAR **Rarotonga** 72.94 111 LR LR 12 09 09.7
comp=Z,217nm,21.8s,baz=290,slow=34
BSY **Bisya** 72.96 295 P **P** **11 38 56.5 +0.2**
HOQ **Hoqain** 73.01 296 P **P** **11 38 57.1 +0.5**
SNR=16
BVAR **Borovoye Array** 73.11 328 P **P** **11 38 55.4 -1.1**
comp=Z,9.0nm,0.7s,baz=134,slow=8.4,SNR=23
comp=Z,9.0nm,0.7s
BORK **Borovoye** 73.16 328 *de*P **P** **11 38 56.0 -0.8**
BORK pmax pmax
comp=Z,19nm,1.0s
BORK **Borovoye** 73.16 328 **P** **11 38 55.9 -0.8**
BORK IAmb IAmb 11 39 07.5
comp=Z,44nm,0.9s
ATKA **Atka Island** 73.38 33 P **P** **11 38 59.0 +0.9**
ATKA **Atka Island** 73.38 33 P **P** **11 38 58.1 0.0**
ARQ **Araqi** 73.68 295 P **P** **11 39 00.8 +0.3**
SOHO **SOHO** 73.81 296 *i* P **P** **11 39 01.3 0.0**
SNR=11
SOHO **SOHO** 73.81 296 P **P** **11 39 01.6 +0.4**
SNR=18
TIXI **Tiksi** 74.22 0 LR LR 12 12 54.2
comp=Z,215nm,20.9s,baz=193,slow=37
TIXI **Tiksi** 74.22 0 P **P** **11 39 01.7 -1.0**
TIXI pmax pmax
comp=Z,45nm,1.0s
TIXI **Tiksi** 74.22 0 P **P** **11 39 01.7 -1.0**
TIXI IAmb IAmb 11 39 13.3
comp=Z,45nm,0.9s
TIXI **Tiksi** 74.22 0 P **P** **11 39 01.6 -1.0**
comp=Z,58nm,0.8s
UOSS **Minazif** 74.25 297 P **P** **11 39 03.8 0.0**
UOSS **Minazif** 74.25 297 P **P** **11 39 03.7 -0.2**
UOSS **Minazif** 74.25 297 P **P** **11 39 03.4 -0.5**
UOSS **Minazif** 74.25 297 P **P** **11 39 05.8 +1.9**
comp=Z,40nm,0.9s
HATD **Hatta, Dubai** 74.30 297 *i* P **P** **11 39 04.6 +0.5**
SNR=11
ASHO **Ashiyiah** 74.34 296 *i* P **P** **11 39 05.7 +1.3**
SNR=6.3
ASHO **Ashiyiah** 74.34 296 P **P** **11 39 04.8 +0.5**
SNR=16
ASHO S **S** **11 48 40.0 +1.8**
MASF **Masafi** 74.37 297 P **P** **11 39 04.8 +0.3**
ALNE **Al Ain** 74.50 296 *i* P **P** **11 39 07.3 +2.0**
SNR=14
ALNE **Al Ain** 74.50 296 P **P** **11 39 05.9 +0.6**
SNR=26
ALNE S **S** **11 48 39.1 -0.9**
SHME **Shamm** 74.51 298 P **P** **11 39 05.7 +0.4**
SNR=8.8
ASUD **Al Ashush, Dub** 74.98 296 *i* P **P** **11 39 09.1 +1.0**
SNR=5.2
AJN **Ajban** 75.28 296 P **P** **11 39 10.2 +0.5**
BILL **Bilibino** 75.55 14⇑ *e*P **P** **11 39 11.3 +0.9**
BILL pmax pmax
comp=Z,4.0nm,1.2s
MZWR **Madinat Zayed** 76.14 295 P **P** **11 39 14.0 -0.7**
MZR **Muzera** 76.38 294 P **P** **11 39 16.4 +0.3**
NRIK **Noril'sk** 76.81 346 P **P** **11 39 16.6 -0.9**
comp=Z,8.6nm,0.7s,baz=132,slow=7.0,SNR=9.7
NRIK LR LR 12 15 33.8
comp=Z,360nm,20.9s,baz=142,slow=38
comp=Z,8.6nm,0.7s
NRIK **Noril'sk** 76.81 346 *de*P **P** **11 39 16.8 -0.8**
NRIK pmax pmax
comp=Z,9.0nm,1.3s
VNDA **Vanda** 77.00 173 P **P** **11 39 16.9 -1.6**
comp=Z,9.8nm,0.7s,baz=315,slow=6.5,SNR=17
VNDA LR LR 12 13 33.6
comp=Z,710nm,18.4s,baz=336,slow=36
comp=Z,9.8nm,0.7s
VNDA **Vanda** 77.00 173 P **P** **11 39 17.9 -0.7**
VNDA pmax pmax
comp=Z,12nm,0.8s
VNDA **Vanda** 77.00 173 P **P** **11 39 17.9 -0.7**
VNDA **Vanda** 77.00 173 P **P** **11 39 18.6 0.0**
comp=Z,18nm,0.8s
OKNC **Okmok New Cone** 77.25 34 P **P** **11 39 19.7 -0.6**
JRN **Qarnain Island** 77.25 296 P **P** **11 39 20.7 -0.3**
AB31 **Akbulak array** 77.60 322 P **P** **11 39 21.7 -0.8**
AB31 IAmb IAmb 11 39 32.6
comp=Z,68nm,1.4s
ABKAR **Akbulak array** 77.60 322 P **P** **11 39 21.6 -0.9**
MAW **Mawson** 78.04 201 P **P** **11 39 24.4 -0.1**
comp=Z,1.9nm,1.0s
MAW **Mawson** 78.04 201 P **P** **11 39 23.4 -1.1**
comp=Z,4.0nm,0.9s,baz=125,slow=9.1,SNR=6.8
comp=Z,4.0nm,0.9s
MAW **Mawson** 78.04 201 P **P** **11 39 24.0 -0.5**
MAW pmax pmax
comp=Z,2.0nm,1.0s
MAW **Mawson** 78.04 201 P **P** **11 39 24.0 -0.5**
MAW **Mawson** 78.04 201 P **P** **11 39 24.4 -0.1**
comp=Z,1.9nm,1.0s
SLWR **Sila** 78.17 295 P **P** **11 39 26.4 +0.3**
UNV **Unalaska Valle** 78.28 34 P **P** **11 39 28.0 +1.9**
AKUT **Akutan** 78.79 33 P **P** **11 39 27.9 -1.0**
AKTO **Aktyubinsk** 79.16 322 LR LR 12 17 48.3
comp=Z,238nm,20.5s,baz=126,slow=38
SAKB **Bahrain** 79.48 297 P **P** **11 39 33.5 +0.2**
SVE **Sverdlovsk** 79.81 329 *e*P P 11 39 43.7 +9.3
SVE pmax pmax
comp=Z,40nm,1.2s
VOI **Vohitsoka** 80.37 248 P **P** **11 39 38.2 -0.1**
VOI IAmb IAmb 11 39 59.7
comp=Z,122nm,2.0s
ARTI **Arti** 80.83 328 P **P** **11 39 39.3 -0.6**
ARTI pmax pmax
comp=Z,18nm,0.6s
ARTI **Arti** 80.83 328 P **P** **11 39 39.3 -0.6**
ARTI IAmb IAmb 11 39 52.9
comp=Z,18nm,0.6s
SDPT **Sand Point** 82.09 33 P **P** **11 39 46.8 +0.2**
SDPT **Sand Point** 82.09 33 P **P** **11 39 46.8 +0.2**
PPT2 **Papeete2** 82.46 107 *e*P **P** **11 39 45.7 -3.7**
comp=Z,110nm,26.0s
PPT2 *e*S **S** **11 50 01.2 -4.5**
comp=Z,314nm,23.0s
PPT2 *e*S **SKSac** **11 50 03.0 -7.3**
comp=Z,97nm,26.5s
PPT2 *e*SS **SS** **11 55 29.9 +2.8**
comp=Z,270nm,29.2s
PPT2 *e*LQ LQ 12 02 13.7
comp=Z,1μm,37.0s
PPT2 *e*LR LR 12 05 40.2
comp=Z,330nm,45.5s
PPT2 *e*LR LR 12 05 45.2
comp=Z,531nm,30.8s
PPT **Papeete** 82.46 107 LR LR 12 14 17.3
comp=Z,153nm,21.4s,baz=267,slow=34
TBI **Tubuai** 82.56 113 *e*S **S** **11 50 05.3 -1.1**
TBI *e*SS **SS** **11 55 29.5 +1.3**
comp=Z,907nm,28.0s
TBI *e*LQ LQ 12 02 14.1
comp=Z,2μm,35.0s
TBI *e*LR LR 12 05 34.2
comp=Z,1μm,34.2s
TBI *e*LR LR 12 05 40.6
comp=Z,2μm,25.5s
CHGN **Chignik** 83.47 33 P **P** **11 39 53.5 -0.2**
CHGN IAmb IAmb 11 40 13.6
comp=Z,32nm,0.9s
K15K **Wolf Creek Mou** 83.64 26 P **P** **11 39 55.5 +1.1**
K15K IAmb IAmb 11 40 06.9
comp=Z,45nm,1.0s
RAYN **Ar Rayn** 83.72 294 P **P** **11 39 56.2 +0.3**
RAYN **Ar Rayn** 83.72 294 P **P** **11 39 54.5 -1.4**
comp=Z,37nm,1.1s
M16K **Timber Creek** 84.44 28 P **P** **11 39 59.0 +0.4**
M16K IAmb IAmb 11 40 10.7
comp=Z,45nm,0.9s
I17K **Unalakleet** 84.49 25 P **P** **11 39 59.2 +0.5**
I17K IAmb IAmb 11 40 11.3
comp=Z,38nm,0.9s
CHIR **Chirikof Islan** 84.88 33 P **P** **11 40 02.7 +1.8**
ATD **Arta Tunnel** 85.29 282 LR LR 12 16 21.0
comp=Z,72nm,20.2s,baz=96,slow=34
ATD **Arta Tunnel** 85.29 282 P **P** **11 40 05.3 +1.3**
comp=Z,36nm,1.5s
L18K **Granite Mounta** 85.79 27 **P** **11 40 05.9 +0.5**
L18K IAmb IAmb 11 40 17.4
comp=Z,28nm,1.0s
SII **Sitkinak Islan** 85.81 33 P **P** **11 40 06.9 +1.3**
BELG **Belogornoye** 85.94 323 LR LR 12 21 32.6
comp=Z,228nm,20.9s,baz=125,slow=38
BELG **Belogornoye** 85.94 323 *ce*P **P** **11 40 07.2 +0.9**
BELG pmax pmax
comp=Z,12nm,1.3s
KIRV **Kirov** 86.08 329‖ *e*P **P** **11 40 05.8 -1.0**
GNI **Garni** 86.18 310 LR LR 12 24 12.7
comp=Z,79nm,21.8s,baz=95,slow=40
G19K **Purcell Mounta** 86.58 23 **P** **11 40 09.4 +0.2**
G19K IAmb IAmb 11 40 20.4
comp=Z,23nm,0.8s
HAKT **HAKKARI** 86.70 308 P **P** **11 40 09.9 -0.8**
comp=Z,117nm,0.8s
SYO **Syowa Base** 86.75 201‖ *e*P **P** **11 40 09.3 -0.6**
SYO **Syowa Base** 86.75 201⇑ *e*P **P** **11 40 14.0 +4.1**
KDAK **Kodiak Island** 86.90 32 P **P** **11 40 09.8 -1.1**
comp=Z,28nm,1.0s,baz=331,slow=2.6,SNR=6.6
KDAK LR LR 12 13 38.1
comp=Z,306nm,21.2s,baz=246,slow=32
comp=Z,28nm,1.0s
DIGO **Kars** 87.25 311 P **P** **11 40 13.4 +0.1**
comp=Z,54nm,1.9s
QSPA **South Pole Qui** 87.25 180 P **P** **11 40 11.3 -1.3**
comp=Z,14nm,0.6s,baz=301,slow=1.0,SNR=73
comp=Z,14nm,0.6s
EPOS **Posof** 87.84 312 P **P** **11 40 17.1 +1.0**
comp=Z,19nm,1.4s
STLK **Strandline Lak** 87.90 28 P **P** **11 40 16.0 +0.2**
KBZ **Khabaz** 87.93 314 P **P** **11 40 16.5 +0.3**
comp=Z,2.4nm,0.9s,baz=123,slow=3.9,SNR=2.4
KBZ LR LR 12 26 18.3
comp=Z,112nm,19.4s,baz=84,slow=40
comp=Z,2.4nm,0.9s
KIV **Kislovodsk** 88.11 314 P **P** **11 40 16.6 -0.6**
SKT **Skwentna** 88.12 28 P **P** **11 40 16.8 +0.1**
SKT IAmb IAmb 11 40 29.1
comp=Z,20nm,1.0s
SLKM **Skilak Lake** 88.53 29 P **P** **11 40 18.5 -0.2**
SLKM IAmb IAmb 11 40 29.8
comp=Z,39nm,0.9s
KIBK **Kibwezi** 89.33 268 P **P** **11 40 22.5 -1.1**
SNR=5.4
KIBK **Kibwezi** 89.33 268 P **P** **11 40 24.2 +0.5**
comp=Z,21nm,2.0s
VRH **Novokhopyorsk** 89.42 321 *e*P **P** **11 40 21.6 -1.4**
VRH pmax pmax
comp=Z,20nm,1.0s
I23K **Minto, Yukon-K** 89.54 25 P **P** **11 40 23.5 +0.2**
I23K IAmb IAmb 11 40 34.6
comp=Z,27nm,1.0s
RND **Reindeer** 89.55 27 P **P** **11 40 23.2 -0.3**
RND pmax pmax
comp=Z,22nm,0.9s
RND **Reindeer** 89.55 27 P **P** **11 40 23.1 -0.3**
RND IAmb IAmb 11 40 33.2
comp=Z,22nm,0.9s
MCK **McKinley** 89.55 26 P **P** **11 40 23.4 0.0**
MCK pmax pmax
comp=Z,19nm,1.0s
MCK **McKinley** 89.55 26 P **P** **11 40 23.4 0.0**
MCK IAmb IAmb 11 40 33.4
comp=Z,19nm,1.0s
D23K **Nanushuk River** 89.56 21 P **P** **11 40 23.5 +0.2**
D23K IAmb IAmb 11 40 35.3
comp=Z,18nm,0.9s
LABN **Labinsk** 89.57 315 *e*P **P** **11 40 24.0 +0.1**
LABN pmax pmax
comp=Z,24nm,0.6s
SML **Sawmill** 89.60 28 P **P** **11 40 23.5 -0.2**
SML IAmb IAmb 11 40 36.7
comp=Z,35nm,0.9s
ERBR **Yeremizino-Bor** 89.81 316 *e*P **P** **11 40 25.3 +0.3**
ERBR pmax pmax
comp=Z,12nm,1.0s
CCB **Clear Creek Bu** 90.14 25 P **P** **11 40 25.9 -0.2**
CCB IAmb IAmb 11 40 36.6
comp=Z,18nm,0.9s
COLA **College** 90.15 25⇑ *e*P **P** **11 40 25.7 -0.4**
COLA pmax pmax
comp=Z,4.0nm,0.9s
KMBO **Kilima Mbogo** 90.18 269 P **P** **11 40 26.1 -1.7**
baz=112,slow=5.4
KMBO **Kilima Mbogo** 90.18 269 *i* P P 11 40 33.8 +6.0
SNR=7.1
KMBO **Kilima Mbogo** 90.18 269 P **P** **11 40 27.5 -0.3**
KMBO **Kilima Mbogo** 90.18 269 P **P** **11 40 28.2 +0.5**
comp=Z,20nm,1.7s
H24K **Noodor Dome** 90.24 24 **P** **11 40 26.8 +0.1**
H24K IAmb IAmb 11 40 37.7
comp=Z,15nm,0.9s
G24K **Hadweenzic Riv** 90.49 23 P **P** **11 40 28.1 +0.3**
HDA **Harding Lake** 90.49 26 P **P** **11 40 27.8 0.0**
HDA IAmb IAmb 11 40 37.5
comp=Z,19nm,0.8s
ILAR **Eielson Array** 90.55 25 P **P** **11 40 26.6 -1.4**
comp=Z,2.6nm,0.8s,baz=271,slow=5.0,SNR=29
ILAR PKKPbc **PKKPbc** **11 57 56.9 -1.3**
comp=Z,0.6nm,0.7s,baz=53,slow=1.6,SNR=5.4
ILAR LR LR 12 22 46.2
comp=Z,130nm,18.1s,baz=260,slow=37
comp=Z,2.6nm,0.8s
KEMA **Kemaliye** 90.91 309 P **P** **11 40 30.3 -0.1**
comp=Z,40nm,0.9s
VORD **Divnogorie** 90.93 321 *e*P **P** **11 40 29.4 -0.7**
VORD pmax pmax
comp=Z,10.0nm,1.1s
VORR **Voronezh** 91.03 321 *e*P **P** **11 40 29.1 -1.4**
VORR pmax pmax
comp=Z,10.0nm,1.0s
VSR **Storozhevoye** 91.03 321 *e*P **P** **11 40 29.9 -0.6**
VSR pmax pmax
comp=Z,10.0nm,1.0s
J25K **Salcha River,** 91.19 26 P **P** **11 40 30.9 -0.2**
LPSR **Galich'ya Gora** 91.24 322 *e*P **P** **11 40 34.0 +2.5**
LPSR pmax pmax
comp=Z,10.0nm,1.0s
KLMR **Klimovskoe** 91.34 331 *e*P **P** **11 40 31.5 -0.3**
KLMR pmax pmax
comp=Z,22nm,1.3s
BMAR **Burnt Mountain** 91.67 23 **P** **11 40 33.1 -0.2**
ELIB **Princess Elisa** 91.82 198 *d*P **P** **11 40 34.1 +0.1**
comp=Z,9.4nm,0.8s
ANN **Anapa** 91.92 315 *e*P **P** **11 40 33.5 -1.3**
ANN pmax pmax
comp=Z,43nm,0.9s
ASF **Jabal al Asfar** 91.92 302 LR LR 12 27 37.4
comp=Z,166nm,20.4s,baz=106,slow=39
TAOE **Nuku Hiva Isla** 91.92 99 *e*P **P** **11 40 34.1 -1.6**
comp=Z,80nm,23.5s
TAOE *e*SS SS 11 57 41.5 -4.3
comp=Z,200nm,29.7s
TAOE *e*LR LR 12 10 01.5
comp=Z,444nm,22.5s
LODK **Lodwar** 92.28 273 P **P** **11 40 37.3 +0.1**
LODK **Lodwar** 92.28 273 P **P** **11 40 37.4 +0.1**
comp=Z,7.0nm,1.2s
ANDN **Andirin** 92.53 307 P **P** **11 40 38.5 +0.5**
comp=Z,52nm,1.2s
GRNC **Granite Creek** 92.70 29 P **P** **11 40 37.8 -0.7**
OBN **Obninsk** 92.72 325 LR LR 12 25 06.7
comp=Z,196nm,20.6s,baz=154,slow=37
OBN **Obninsk** 92.72 325⇑ *e*P **P** **11 40 36.9 -1.4**
OBN *e* 11 40 38.4
OBN *e* 11 44 18.0
OBN *e*S **SKSac** **11 51 08.6 -2.4**
OBN *e*SS **SS** **11 57 55.4 +0.4**
OBN pmax pmax
comp=Z,5.0nm,0.6s
OBN MLR MLR
comp=Z,247nm,11.0s
MMAI **Mount Meron Ar** 93.20 303 LR LR 12 28 16.3
comp=Z,167nm,20.5s,baz=92,slow=39
EIL **Elat** 93.53 299 LR LR 12 30 04.8
comp=Z,278nm,19.0s,baz=102,slow=40
BRTR **Keskin Array B** 94.67 309 P **P** **11 40 46.5 -1.4**
comp=Z,1.3nm,0.9s,baz=70,slow=8.0,SNR=3.6
BRTR LR LR 12 32 01.4
comp=Z,85nm,19.0s,baz=76,slow=41
comp=Z,1.3nm,0.9s
HYT **Haines Junctio** 94.79 29 P **P** **11 40 47.8 -0.1**
HYT IAmb IAmb 11 40 59.3
comp=Z,24nm,0.8s
G31M **Satah River** 95.70 23 P **P** **11 40 51.3 -0.5**
G31M IAmb IAmb 11 41 02.7
comp=Z,16nm,0.9s
INK **Inuvik** 95.82 22 P **P** **11 40 50.4 -1.8**
comp=Z,3.4nm,0.8s,baz=275,slow=3.6,SNR=6.2
INK LR LR 12 22 27.3
comp=Z,161nm,20.4s,baz=329,slow=34
comp=Z,3.4nm,0.8s
RKT **Rikitea** 95.88 113 *e*LR LR 12 11 46.4
comp=Z,9μm,33.5s
KEPZ **Antalya-Kepez** 96.32 307 ⇑P P 11 41 01.7 +6.4
ARCES **ARCESS Array B** 96.70 340 P **P** **11 40 54.8 -1.5**
comp=Z,3.6nm,0.5s,baz=85,slow=4.2,SNR=24
ARCES PKKPbc **PKKPbc** **11 57 40.0 -2.1**
comp=Z,5.2nm,1.1s,baz=349,slow=1.2,SNR=4.2
ARCES LR LR 12 31 16.3
comp=Z,179nm,18.7s,baz=92,slow=40
comp=Z,3.6nm,0.5s
ARCES **ARCESS Array B** 96.70 340 P **P** **11 40 54.7 -1.6**
MBAR **Mbarara** 96.71 269 LR LR 12 23 23.2
comp=Z,307nm,18.6s,baz=123,slow=35
MBAR **Mbarara** 96.71 269 P **P** **11 40 56.2 -1.5**
SPITS **Spitsbergen Ar** 96.89 349 P **P** **11 40 55.8 -1.2**
comp=Z,13nm,1.1s,baz=69,slow=4.9,SNR=1.9
comp=Z,13nm,1.1s
AKASG **Malin Array Be** 97.32 321 P **P** **11 40 58.5 -0.9**
comp=Z,0.3nm,0.3s,baz=80,slow=4.3,SNR=5.5
AKASG LR LR 12 28 46.7
comp=Z,133nm,20.9s,baz=75,slow=38
comp=Z,0.3nm,0.3s
MNK **Minsk** 97.77 325 *i* P **P** **11 41 00.5 -0.8**
MNK *i* 11 45 00.0
MNK *i* S **SKSac** **11 51 38.1 +0.1**
MNK *i* SS **SS** **11 59 07.2 +0.5**
MNK pmax pmax
comp=Z,12nm,0.7s
MNK pmax pmax
comp=N,9.0nm,0.8s
MNK pmax pmax
comp=E,16nm,0.9s
MNK MLR MLR
comp=E,271nm,17.0s
MNK MLR MLR
comp=Z,229nm,17.0s
MNK MLR MLR
comp=N,258nm,15.0s
MNK **Minsk** 97.77 325 *i* P **P** **11 41 00.6 -0.8**
comp=E,16nm,0.9s
MNK *i* P **P** **11 41 00.6 -0.8**
comp=N,9.0nm,0.8s
MNK *i* P **P** **11 41 00.6 -0.8**
comp=Z,12nm,0.7s,baz=84
MNK *i* PP **PP** **11 45 00.0 +0.6**

MNK				*i* PPP	PPP	11 47 16.3		
MNK				*i* SKS		11 50 36.7		
MNK				*i* S	**SKSac**	**11 51 38.1**	**+0.1**	
MNK				*i* PS	**PS**	**11 54 02.5**	**+11**	
MNK				*i* SS	**SS**	**11 59 07.2**	**+0.5**	
MNK				*i* SSS	SSS	12 03 19.8		
MNK				*i* LQ	LQ	12 19 51.0		
MNK				*i* LRM	MLR	12 25 35.7		
	comp=E,271nm,16.9s							
MNK				*i* LRM	MLR	12 25 58.7		
	comp=Z,229nm,17.1s							
MNK				*i* LRM	MLR	12 26 17.8		
	comp=N,258nm,15.1s							
FINES	**FINES Array B**	**97.81**	**332**	P	**P**	**11 40 60.0**	**-1.4**	
	comp=N,2.7nm,0.8s,baz=57,slow=7.0,SNR=5.2							
	comp=N,2.7nm,0.8s							
FINES	**FINES Array B**	**97.81**	**332**	*i* P	**P**	**11 41 01.0**	**-0.4**	
FINES				pmax	pmax			
	comp=Z,3.0nm,0.8s							
TLCR		**98.02**	**315**	⇓P	Pdif	11 41 11.2	+8.4	
TLCR		**98.02**	**315**	⇓P	Pdif	11 41 11.2	+8.4	
DLBC	**Dease Lake**	**98.82**	**31**	LR	LR	12 20 54.4		
	comp=Z,180nm,21.8s,baz=250,slow=32							
BELA	**Belgrano 2**	**98.93**	**184**		Pdif	11 41 06.7	+0.5	
BELA				IAmb	IAmb	11 41 16.4		
	comp=Z,5.5nm,0.6s							
C36M	**Paulatuk**	**98.96**	**20**	P	**P**	**11 41 06.3**	**-0.1**	
C36M				IAmb	IAmb	11 41 16.7		
	comp=Z,14nm,0.8s							
SNAA	**Sanae**	**99.22**	**194**	LR	LR	12 26 56.6		
	comp=Z,362nm,18.4s,baz=133,slow=36							
TESR	**Tescani**	**99.41**	**317**	⇑P	**Pdif**	**11 41 08.4**	**-0.6**	
TESR	**Tescani**	**99.41**	**317**	P	**Pdif**	**11 41 10.6**	**+1.6**	
TESR	**Tescani**	**99.41**	**317**	P	**Pdif**	**11 41 07.1**	**-1.8**	
	comp=Z,40nm,1.4s							
VRI	**Vrincioaia**	**99.42**	**316**	⇓P	**Pdif**	**11 41 08.5**	**-0.5**	
VRI	**Vrincioaia**	**99.42**	**316**	⇓P	**Pdif**	**11 41 08.5**	**-0.5**	
VRI	**Vrincioaia**	**99.42**	**316**	P	**Pdif**	**11 41 08.0**	**-1.0**	
	comp=Z,18nm,1.5s							
BOSA	**Boshof**	**99.43**	**241**	LR	LR	12 22 56.4		
	comp=Z,167nm,18.9s,baz=100,slow=34							
SAHR	**Sahastru**	**99.47**	**316**	⇓P	**Pdif**	**11 41 19.3**	**+10**	
LBTB	**Lobatse**	**99.62**	**244**	LR	LR	12 20 49.9		
	comp=Z,188nm,21.5s,baz=110,slow=32							
ISR	**Istrita**	**99.63**	**315**	⇓P	**Pdif**	**11 41 19.5**	**+9.4**	
BIZ	**Bicaz**	**99.74**	**317**	⇓P	**Pdif**	**11 41 19.3**	**+8.9**	
MLR	**Muntele Rosu**	**100.01**	**316**	⇓P	**Pdif**	**11 41 13.7**	**+1.9**	
MLR	**Muntele Rosu**	**100.01**	**316**	⇓P	**Pdif**	**11 41 13.7**	**+1.9**	
MLR	**Muntele Rosu**	**100.01**	**316**	P	**Pdif**	**11 41 13.8**	**+1.9**	
	comp=Z,13nm,1.4s							
BURAR	**Bucovina Array**	**100.26**	**318**	⇓P	**Pdif**	**11 41 13.8**	**+1.0**	
BURAR	**Bucovina Array**	**100.26**	**318**	⇓P	**Pdif**	**11 41 13.8**	**+1.0**	
DOPR	**Dopca**	**100.34**	**316**	⇓P	**Pdif**	**11 41 18.7**	**+5.5**	
VOIR		**100.64**	**316**	⇑P	**Pdif**	**11 41 19.5**	**+4.9**	
VOIR		**100.64**	**316**	⇑P	**Pdif**	**11 41 19.5**	**+4.9**	
ARR	**Arges**	**100.94**	**316**	P	**Pdif**	**11 41 15.0**	**-0.9**	
	comp=Z,8.9nm,1.5s							
BMR	**Baia Mare**	**101.40**	**318**	P	**Pdif**	**11 41 18.2**	**+0.4**	
	comp=Z,24nm,1.5s							
MARR	**Marisel-Cluj**	**101.80**	**317**	⇓P	**Pdif**	**11 41 21.2**	**+1.4**	
DRGR		**102.06**	**317**	P	**Pdif**	**11 41 21.6**	**+0.8**	
	comp=Z,6.4nm,1.1s							
MDVR	**Moldovita**	**103.07**	**315**	⇑P	**Pdif**	**11 41 26.2**	**+0.8**	
PSZ	**Piszkesteto**	**103.75**	**319**	⇑P	**Pdif**	**11 41 30.7**	**+2.4**	
PSZ	**Piszkesteto**	**103.75**	**319**	⇑P	**Pdif**	**11 41 30.7**	**+2.4**	
NB2	**NORSAR Subarra**	**104.83**	**333**	P	**Pdif**	**11 41 40.1**	**+7.3**	
	comp=Z,2.9nm,0.8s,baz=70,slow=4.6							
NB2	**NORSAR Subarra**	**104.83**	**333**	P	**Pdif**	**11 41 40.0**	**+7.3**	
NOA	**NORSAR Array B**	**104.83**	**333**	Pdiff	**Pdif**	**11 41 32.3**	**-0.5**	
	comp=Z,2.4nm,0.8s,baz=69,slow=4.5,SNR=5.6							
YKA	**Yellowknife Ar**	**104.98**	**25**	Pdiff	**Pdif**	**11 41 35.0**	**+1.7**	
	comp=Z,0.9nm,0.8s,baz=289,slow=4.5,SNR=5.8							
YKA				PKiKP	**PKiKP**	**11 45 47.7**	**-0.4**	
	comp=Z,0.4nm,0.7s,baz=264,slow=2.2,SNR=2.2							
YKA				PKKPbc	**PKKPbc**	**11 57 15.8**	**-2.2**	
	comp=Z,0.7nm,0.7s,baz=118,slow=3.2,SNR=6.6							
RONA	**Rosalia, Austr**	**106.16**	**319**	*e*PKiKP	**PKiKP**	**11 45 52.0**	**+1.2**	
	comp=Z,2.8nm,1.1s							
WINA	**Alland / Wiene**	**106.21**	**319**	*e*PKiKP	**PKiKP**	**11 45 51.6**	**+0.8**	
	comp=Z,5.4nm,1.1s							
ABNA	**Allensteig Bun**	**106.48**	**320**	*e*PKiKP	**PKiKP**	**11 45 52.4**	**+1.1**	
	comp=Z,6.1nm,1.2s							
ARSA	**Arzberg**	**106.78**	**319**	*e*PKiKP	**PKiKP**	**11 45 53.4**	**+1.5**	
	comp=Z,3.4nm,1.0s							
CLL	**Collm**	**107.23**	**323**	L	L	12 22 00.0		
CLL				AMS	AMS	12 31 00.0		
	comp=N,300nm,19.9s							
CLL				AMS	AMS	12 31 00.0		
	comp=E,400nm,19.6s							
CLL				AMS	AMS	12 31 00.0		
	comp=Z,400nm,17.4s							
SOKA	**Soboth**	**107.25**	**318**	*e*PKiKP	**PKiKP**	**11 45 52.6**	**-0.2**	
	comp=Z,3.0nm,1.0s							
MOA	**Molln**	**107.45**	**320**	*e*PKiKP	**PKiKP**	**11 45 52.4**	**-0.8**	
	comp=Z,6.4nm,1.2s							
SESA	**Seetaler Alpe,**	**107.45**	**319**	*e*PKiKP	**PKiKP**	**11 45 52.6**	**-0.8**	
	comp=Z,5.1nm,1.5s							
GERES	**GERESS Array B**	**107.53**	**321**	PKiKP	**PKiKP**	**11 45 53.2**	**-0.2**	
	comp=Z,0.5nm,0.5s,baz=15,slow=1.5,SNR=5.5							
KBA	**Koelnbreinsper**	**108.26**	**319**	*e*PKiKP	**PKiKP**	**11 45 53.3**	**-1.6**	
	comp=Z,7.9nm,1.7s							
LESA	**Schwarzleotal**	**108.60**	**319**	*e*PKiKP	**PKiKP**	**11 45 53.9**	**-1.4**	
	comp=Z,8.9nm,2.0s							
NVAR	**Mina Array Bea**	**110.53**	**50**	PKiKP	**PKiKP**	**11 45 58.7**	**-0.8**	
	comp=Z,0.1nm,0.3s,baz=316,slow=3.8,SNR=2.3							
PDAR	**Pinedale Array**	**115.58**	**43**	PKP	**PKiKP**	**11 46 07.6**	**-1.4**	
	comp=Z,0.1nm,0.3s,baz=304,slow=2.1,SNR=2.3							
ULM	**Lac du Bonnet**	**120.14**	**31**	PKP	**PKPdf**	**11 46 16.0**	**-1.2**	
	comp=Z,1.8nm,0.6s,baz=306,slow=4.7,SNR=4.6							
ULM	**Lac du Bonnet**	**120.14**	**31**	PKiKP	**PKPdf**	**11 46 16.0**	**-1.2**	
ANMO	**Albuquerque**	**120.64**	**51**	*i* PKiKP	**PKiKP**	**11 46 19.2**	**+0.2**	
ESDC	**Sonseca Array**	**122.69**	**317**	PKP	**PKPdf**	**11 46 21.9**	**-0.7**	
	comp=Z,0.4nm,0.6s,baz=51,slow=2.4,SNR=4.1							
TXAR	**Lajitas Array**	**124.74**	**56**	PKP	**PKPdf**	**11 46 25.2**	**-1.6**	
	comp=Z,0.4nm,0.6s,baz=212,slow=2.1,SNR=12							
TORD	**Torodi Ar. Bea**	**125.43**	**284**	PKP	**PKPdf**	**11 46 27.5**	**-0.9**	
	comp=Z,1.7nm,0.7s,baz=74,slow=1.9,SNR=7.8							
SCHQ	**Schefferville**	**126.73**	**10**	PKP	**PKPdf**	**11 46 29.1**	**-0.6**	
	comp=Z,6.6nm,1.0s,baz=356,slow=2.0,SNR=6.4							
DBIC	**Dimbokro**	**132.36**	**277**	PKP	**PKiKP**	**11 46 42.1**	**-0.5**	
	comp=Z,2.1nm,0.4s,baz=111,slow=1.7,SNR=3.3							
PLCA	**Paso Flores**	**133.74**	**161**	PKP	**PKPdf**	**11 46 43.5**	**-0.1**	
	comp=Z,1.5nm,0.6s,baz=227,slow=2.4,SNR=6.5							
PSAL	**Palomas, Salto**	**146.06**	**172**	*e*P	**PKPbc**	**11 47 06.4**	**-0.4**	
CPSB	**Cacapava Do Su**	**147.07**	**179**	*e*P	**PKPdf**	**11 47 07.4**	**-0.4**	
ITQB	**Itaqui**	**147.58**	**173**	*e*P	**PKPdf**	**11 47 09.2**	**+0.6**	
CNLB	**Canela**	**148.13**	**183**	*e*P	**PKPdf**	**11 47 10.5**	**+0.8**	
ITAB	**Concordia**	**150.24**	**181**	*e*P	**PKPdf**	**11 47 12.5**	**-0.5**	
CPUP	**Villa Florida**	**150.77**	**171**	PKPbc	**PKPbc**	**11 47 18.1**	**-1.3**	
	comp=Z,16nm,0.8s,baz=194,slow=3.0,SNR=20							
SJPY	**San Joaquin**	**152.25**	**173**	*e*P	**PKPdf**	**11 47 16.7**	**+0.5**	
PET01	**Itanhaem-SP**	**152.70**	**190**	*e*P	**PKPdf**	**11 47 15.8**	**-1.0**	
PTGB	**Pitanga**	**152.75**	**181**	*e*P	**PKPdf**	**11 47 15.9**	**-1.1**	
VAO	**Valinhos**	**153.89**	**192**	*e*P	**PKPdf**	**11 47 19.1**	**+0.4**	
OTAV	**Otavalo**	**153.96**	**95**	*e*P	**PKPdf**	**11 47 18.0**	**-1.5**	
LDASE	**Londrina, Braz**	**154.03**	**183**	*e*P	**PKPdf**	**11 47 19.6**	**+0.7**	
LPAZ	**La Paz**	**155.63**	**141**	PKP	**PKPdf**	**11 47 21.6**	**-0.3**	
	comp=Z,3.9nm,0.9s,baz=315,slow=4.3,SNR=5.3							
PCMB	**Pacaembu**	**156.82**	**183**	*e*P	**PKPdf**	**11 47 22.8**	**+1.5**	
BDQN	**Bodoquena, MS**	**156.63**	**170**	*e*P	**PKPdf**	**11 47 20.0**	**-2.3**	
AQDB	**Aquidauana**	**156.76**	**172**	*e*P	**PKPdf**	**11 47 23.6**	**+1.1**	
COIM	**Forte Coimbra**	**156.95**	**167**	*e*P	**PKPdf**	**11 47 20.9**	**-1.8**	
CZSB	**Cruzeiro do Su**	**157.35**	**117**	*e*P	**PKPdf**	**11 47 24.4**	**+1.0**	
PTLB	**Pontes e Lacer**	**160.82**	**160**	*e*P	**PKPdf**	**11 47 28.3**	**+0.9**	
SALV	**Santo Antonio**	**161.26**	**170**	*e*P	**PKPdf**	**11 47 27.4**	**-0.5**	
NBTA	**Tacaratu-PE**	**161.42**	**231**	*e*P	**PKPdf**	**11 47 27.2**	**-1.0**	
VILB	**Vilhena**	**162.68**	**154**	*e*P	**PKPdf**	**11 47 27.0**	**-2.4**	
SMTB	**Santa Maria do**	**167.51**	**203**	*e*P	**PKPdf**	**11 47 32.9**	**-0.6**	
NPGB	**Novo Progresso**	**169.91**	**164**	*e*P	**PKPdf**	**11 47 37.2**	**+2.0**	
BOAV	**Boa Vista**	**171.99**	**92**	*e*P	**PKPdf**	**11 47 37.4**	**+1.2**	

RSPR ***22*** *11:28:12.9, 17.°93N×66.°85W, h16km, MD3.4/17*
NEIC ***22*** *11:28:12.1±1.9, 17.°87N±0.°02×66.°85W±0.°01, h10km±1km, mb4.3/13, ML4.0/49, Mwr4.0/13, ML3.9/17(RSPR), Error ellipse: s-maj=4.4km s-min=2.9km az=344.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}=1.18; $M_{\theta\theta}$=0.94; $M_{\phi\phi}$=0.24; $M_{r\theta}$=-0.09; $M_{r\phi}$=-0.29; $M_{\theta\phi}$=0.08; Fault plane solution: M_0=1.13000×10^{15} NP1: ϕ_s=105.24000°, δ=46.56000°, λ=-96.31000°. NP2: ϕ_s=294.37000°, δ=43.80000°, λ=-83.38000°. Principal axes: T 1.0505, Plg1.0000°, Azm200.0000°; N 0.1398, Plg5.0000°, Azm110.0000°; P -1.1903, Plg85.0000°,*

Azm306.0000°;
NEIC ***22*** *11:28:12.1, 17.°87N×66.°85W, h10km*
SDD ***22*** *11:28:13.2±1.5, 17.°96N×66.°87W, h22km±7km, MD3.4, ML3.8, MW3.9, Presumed earthquake*
IDC ***22*** *11:28:18.1±6.1, 17.°76N×66.°89W, h75km±61km, mb3.4/10, mbtmp3.7/11, ML2.9/1, MS3.6/1, Error ellipse: s-maj=34.3km s-min=17.6km az=36.0*

ISC 22 11:28:11.8±0.8, 17.°89N±0.°04×66.°84W±0.°02, h18km±2km, n89, σ1°27/108, mb4.0/13, 12C-14D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h m s		ISC
GBPR	**Guanica, Bosqu**	**0.10**	**335**		**Pg**	**11 28 16.0**	**+0.5**	
GBPR	**Guanica, Bosqu**	**0.10**	**335**	⇑*i*P	**Pg**	**11 28 16.0**	**+0.5**	
MLPR	**Magueyes Islan**	**0.21**	**292**		**Pb**	**11 28 17.3**	**+0.4**	
MLPR				IAML		11 28 21.2		
	35μm,0.7s							
MLPR	**Magueyes Islan**	**0.21**	**292**	⇓*e*Pg	**Pb**	**11 28 17.5**	**+0.6**	
MLPR				⇑*e*Sg	**Sb**	**11 28 20.5**	**+0.2**	
MLPR				IAML		11 28 21.1		
	comp=N,18μm,0.4s							
MLPR	**Magueyes Islan**	**0.21**	**292**	⇓*i*P	**Pb**	**11 28 17.5**	**+0.6**	
OBIP	**Obispado Ponce**	**0.27**	**55**		**Pb**	**11 28 18.1**	**+0.1**	
OBIP	**Obispado Ponce**	**0.27**	**55**	⇓*e*P	**Pb**	**11 28 18.4**	**+0.3**	
OBIP				*e*S	**Sg**	**11 28 22.6**	**+0.7**	
CRPR	**Cabo Rojo, PR**	**0.29**	**294**		**Pb**	**11 28 18.4**	**0.0**	
CRPR				IAML		11 28 22.8		
	comp=N,35μm,0.4s							
CRPR				IAML		11 28 22.9		
	comp=N,36μm,0.6s							
CRPR	**Cabo Rojo, PR**	**0.29**	**294**	⇓*e*Pg	**Pb**	**11 28 18.6**	**+0.1**	
CRPR				⇑*e*Sg	**Sb**	**11 28 22.5**	**-0.3**	
CRPR				IAML		11 28 22.9		
	comp=N,40μm,0.2s							
CRPR	**Cabo Rojo, PR**	**0.29**	**294**	⇓*i*P	**Pb**	**11 28 18.5**	**+0.1**	
CELP	**Cerrillos**	**0.31**	**53**		**Pb**	**11 28 18.8**	**0.0**	
CELP				Sg	**Sg**	**11 28 23.6**	**+0.5**	
CELP				IAML		11 28 24.1		
	comp=N,15μm,0.2s							
CELP	**Cerrillos**	**0.31**	**53**	⇓*e*Pg	**Pb**	**11 28 19.0**	**+0.2**	
CELP				⇑*e*Sg	**Sg**	**11 28 23.7**	**+0.6**	
CELP				IAML		11 28 24.1		
	comp=N,6μm,0.3s							
CELP	**Cerrillos**	**0.31**	**53**	⇓*i*P	**Pb**	**11 28 18.9**	**0.0**	
PRSN	**Puerto Rico Se**	**0.44**	**318**		**Pg**	**11 28 20.7**	**-0.1**	
PRSN				Sg	**Sg**	**11 28 26.7**	**-0.2**	
PRSN	**Puerto Rico Se**	**0.44**	**318**	⇑*e*Pg	**Pg**	**11 28 20.8**	**-0.1**	
PRSN				⇓*e*Sg	**Sg**	**11 28 26.5**	**-0.4**	
PRSN				IAML		11 28 27.3		
	comp=N,24μm,0.2s							
PRSN	**Puerto Rico Se**	**0.44**	**318**	⇑*i*P	**Pg**	**11 28 20.9**	**0.0**	
AOPR	**Arecibo Observ**	**0.46**	**10**		**Pg**	**11 28 20.8**	**-0.5**	
AOPR	**Arecibo Observ**	**0.46**	**10**		**Sg**	**11 28 26.7**	**-0.9**	
AOPR	**Arecibo Observ**	**0.46**	**10**	IAML		11 28 27.1		
	comp=N,20μm,0.2s							
AOPR				IAML		11 28 31.2		
	comp=N,18μm,0.5s							
AOPR	**Arecibo Observ**	**0.46**	**10**	⇑*e*Pg	**Pg**	**11 28 20.9**	**-0.3**	
AOPR				*e*Sg	**Sg**	**11 28 26.6**	**-1.0**	
AOPR				IAML		11 28 27.1		
	comp=N,18μm,0.2s							
AOPR	**Arecibo Observ**	**0.46**	**10**	⇑*i*P	**Pg**	**11 28 21.0**	**-0.3**	
ECPR	**Experimental S**	**0.62**	**46**		**Pb**	**11 28 23.8**	**-0.3**	
ECPR	**Experimental S**	**0.62**	**46**		**Sb**	**11 28 32.1**	**-0.4**	
ECPR	**Experimental S**	**0.62**	**46**	IAML		11 28 36.0		
	comp=N,6μm,0.2s							
ECPR				IAML		11 28 39.6		
	comp=N,5μm,0.2s							
ECPR	**Experimental S**	**0.62**	**46**	⇓*i*P	**Pb**	**11 28 23.7**	**-0.4**	
AGPR	**Aguadilla, PR**	**0.63**	**336**	⇓*e*Pg	**Pb**	**11 28 23.9**	**-0.4**	
AGPR				⇑*e*Sg	**Sb**	**11 28 30.6**	**-2.3**	
AGPR				IAML		11 28 36.2		
	comp=N,4μm,0.7s							
EMPR	**Esperanza - Ma**	**0.66**	**26**		**Pb**	**11 28 24.7**	**0.0**	
EMPR					**Sg**	**11 28 33.5**	**0.0**	
EMPR	**Esperanza - Ma**	**0.66**	**26**	⇑*i*P	**Pb**	**11 28 24.7**	**0.0**	
EMPR				*e*S	**Sg**	**11 28 33.5**	**0.0**	
IGPR	**InterUniversit**	**0.70**	**84**		**Pb**	**11 28 25.9**	**+0.5**	
IGPR					**Sg**	**11 28 36.4**	**+1.5**	
IGPR	**InterUniversit**	**0.70**	**84**	⇑*e*P	**Pb**	**11 28 25.9**	**+0.5**	
IDE	**Isla Desecheo**	**0.78**	**309**		**Pb**	**11 28 26.5**	**-0.5**	
IDE					**Sb**	**11 28 36.6**	**-0.6**	
IDE	**Isla Desecheo**	**0.78**	**309**	⇓*i*P	**Pb**	**11 28 26.5**	**-0.5**	
IDE				*e*S	**Sb**	**11 28 36.6**	**-0.6**	
PDPR	**Patillas Dam,**	**0.79**	**80**		**Pb**	**11 28 27.2**	**+0.3**	
PDPR	**Patillas Dam,**	**0.79**	**80**		**Sb**	**11 28 38.1**	**+0.9**	
PDPR	**Patillas Dam,**	**0.79**	**80**	IAML		11 28 41.4		
	comp=N,1μm,0.6s							
PDPR				IAML		11 28 41.5		
	comp=N,2μm,0.4s							
PDPR	**Patillas Dam,**	**0.79**	**80**	⇓*i*P	**Pb**	**11 28 27.3**	**+0.3**	
GCPR	**Guaynabo City**	**0.83**	**60**		**Pb**	**11 28 27.2**	**-0.5**	
HUMP	**Col San Antoni**	**0.97**	**75**		**Pb**	**11 28 30.1**	**-0.1**	
HUMP				IAML		11 28 46.4		
	comp=N,5μm,0.6s							
HUMP	**Col San Antoni**	**0.97**	**75**		**Sb**	**11 28 43.1**	**+0.5**	
HUMP	**Col San Antoni**	**0.97**	**75**	⇓*i*P	**Pb**	**11 28 30.0**	**-0.1**	
PCDR	**Punta Cana, DR**	**1.60**	**293**		**Pn**	**11 28 40.3**	**+1.1**	
PCDR	**Punta Cana, DR**	**1.60**	**293**	⇑*e*Pg	**Pn**	**11 28 40.4**	**+1.1**	
PCDR				IAML		11 29 18.0		
	comp=N,589nm,1.1s							
PCDR	**Punta Cana, DR**	**1.60**	**293**	⇓*e*P	**Pn**	**11 28 40.2**	**+1.1**	
HIDR	**Higuey Centro**	**1.92**	**292**	⇓*e*Pg	**Pn**	**11 28 45.0**	**+1.4**	
HIDR	PKP			⇑*e*Sg	**Sn**	**11 29 06.9**	**-0.5**	
HIDR				IAML		11 29 31.8		
	comp=N,481nm,0.8s							
DR12	**Loma Pena Alta**	**2.58**	**291**		**Pn**	**11 28 54.4**	**+1.6**	
HATOM	**Hato Mayor del**	**2.58**	**291**	⇑*e*Pg	**Pn**	**11 28 55.2**	**+2.5**	
HATOM				⇑*e*Sg	**Sn**	**11 29 25.4**	**+1.7**	
HATOM				IAML		11 29 35.3		
	comp=N,270nm,1.1s							
SDD	**Santo Domingo**	**2.98**	**281**	Pn	**Pn**	**11 28 58.5**	**+0.3**	
SDD				IAML		11 29 48.8		
	comp=E,376nm,1.1s							
SDD				IAML		11 30 02.0		
	comp=N,475nm,1.7s							
BANI	**BANI**	**3.39**	**279**		**Pn**	**11 29 07.1**	**+3.1**	
SABA	**Saba**	**3.44**	**94**		**Pn**	**11 29 05.4**	**+0.9**	
SABA				IAML		11 29 50.8		
	comp=N,267nm,0.9s							
SABA				IAML		11 30 02.3		
	comp=E,440nm,0.8s							
SABA	**Saba**	**3.44**	**94**	*e*P	**Pn**	**11 29 06.0**	**+1.6**	
SABA				*e*S	**Sn**	**11 29 47.6**	**+2.8**	
SMRT	**St. Maarten**	**3.58**	**87**		**Pn**	**11 29 07.0**	**+0.5**	
SMRT				IAML		11 30 19.2		
	comp=N,194nm,0.3s							
SMRT				IAML		11 30 45.0		
	comp=E,446nm,0.1s							
SMRT	**St. Maarten**	**3.58**	**87**	*e*P	**Pn**	**11 29 07.5**	**+0.9**	
SMRT				*e*S	**Sn**	**11 29 49.2**	**+0.8**	
SBLM	**St Barthlm**	**3.79**	**89**	*e*P	**Pn**	**11 29 09.9**	**+0.5**	
SBLM				*e*S	**Sn**	**11 29 54.8**	**+1.2**	
SKI	**Saint Kitts**	**3.95**	**97**	*e*P	**Pn**	**11 29 12.5**	**+1.0**	
SC01	**Santiago de lo**	**4.00**	**293**		**Pn**	**11 29 15.7**	**+3.5**	
PODR	**Polo**	**4.24**	**274**		**Pn**	**11 29 15.8**	**+0.1**	
SDDR	**Presa de Saban**	**4.36**	**285**		**Pn**	**11 29 21.3**	**+4.0**	
SDDR				IAML		11 30 27.8		
	comp=E,155nm,1.4s							
SDDR				IAML		11 30 37.5		
	comp=E,135nm,0.7s							
LODA1	**ITESIL, Dajabo**	**4.90**	**290**	Pn	**Pn**	**11 29 27.0**	**+2.4**	
DHSZ	**Broadband at M**	**5.11**	**108**	*e*P	**Pn**	**11 29 28.1**	**+0.6**	
DHSZ				*e*S	**Sn**	**11 30 23.4**	**-2.6**	
GDHS	**Morne Mazeau,**	**5.11**	**108**	Pn	**Pn**	**11 29 28.2**	**+0.6**	
CBE	**Ff, Capester**	**5.32**	**109**	Pn	**Pn**	**11 29 30.7**	**+0.2**	
MAGL	**Barre de l'ile**	**5.66**	**109**	*e*P	**Pn**	**11 29 34.5**	**-0.5**	
MAGL				*e*S	**Sn**	**11 30 36.1**	**-3.4**	
DSLB	**Salisbury**	**5.73**	**114**	*e*P	**Pn**	**11 29 36.8**	**+0.6**	
DSLB				*e*S	**Sn**	**11 30 38.5**	**-3.0**	
BIM	**Bigot**	**6.47**	**120**	Pn	**Pn**	**11 29 47.0**	**+0.7**	
BIM	**Bigot**	**6.47**	**120**	*e*P	**Pn**	**11 29 47.0**	**+0.7**	
BIM				*e*S	**Sn**	**11 30 55.9**	**-3.9**	
URIC	**Uribia, Colomb**	**7.92**	**220**	Pn	**Pn**	**11 30 06.3**	**+0.2**	
SDV	**Santo Domingo**	**9.68**	**203**	P	**Pn**	**11 30 32.8**	**+2.4**	
	comp=E,1.1nm,0.3s,baz=341,slow=16,SNR=1.9							
SDV				S	Sn	11 32 12.7	-6.2	
	comp=E,3.0nm,0.3s,baz=0.5,slow=21,SNR=1.7							
	comp=E,3.9nm,0.4s							
SDV				AML	AML			
RUSC	**La Rusia**	**13.39**	**208**	Pn	**Pn**	**11 31 19.9**	**-1.7**	
656A	**Willston**	**18.35**	**311**	P	**P**	**11 32 26.5**	**+1.1**	
656A				IAmb	IAmb	11 32 53.9		
	comp=Z,38nm,1.1s							
Y58A	**Scranton**	**19.66**	**327**	P	**P**	**11 32 40.4**	**+0.6**	
V61A	**Roper**	**19.82**	**336**	P	**P**	**11 32 42.4**	**+1.0**	
X58A	**Rowland**	**20.00**	**329**	P	**P**	**11 32 43.9**	**+0.4**	
HODGE	**Hodges**	**21.33**	**323**	P	**P**	**11 32 58.7**	**+0.8**	
GOGA	**Godfrey**	**21.49**	**319**	P	**P**	**11 33 00.9**	**+1.3**	
GOGA				IAmb	IAmb	11 33 06.3		
	comp=Z,17nm,1.1s							
MTO3	**Montecristo**	**21.91**	**264**	P	**P**	**11 33 03.8**	**-0.7**	
S54A	**Dingess, Beckl**	**23.55**	**330**	P	**P**	**11 33 22.8**	**+1.5**	
S54A				IAmb	IAmb	11 33 46.2		
	comp=Z,6.2nm,0.7s							
T50A	**Nancy**	**24.79**	**324**	P	**P**	**11 33 35.2**	**+2.4**	
T50A				IAmb	IAmb	11 33 36.1		
	comp=Z,4.8nm,0.8s							
N53A	**Lisbon**	**25.83**	**335**	P	**P**	**11 33 43.2**	**+1.1**	
N53A				IAmb	IAmb	11 33 47.8		
	comp=Z,12nm,1.0s							
CMIG	**Matias Romero**	**26.75**	**273**	LR	LR	11 46 15.8		
	comp=Z,121nm,18.5s,baz=18,slow=40							
TXAR	**Lajitas Array**	**35.48**	**296**	P	**P**	**11 35 07.9**	**+0.3**	
	comp=Z,0.3nm,0.7s,baz=113,slow=10.0,SNR=7.2							
	comp=Z,0.3nm,0.7s							
PDAR	**Pinedale Array**	**43.80**	**314**	P	**P**	**11 36 16.6**	**-0.3**	
	comp=Z,0.1nm,0.3s,baz=121,slow=3.6,SNR=2.4							
	comp=Z,0.1nm,0.3s							
CPUP	**Villa Florida**	**44.91**	**168**	P	**P**	**11 36 24.4**	**-1.2**	
	comp=Z,1.7nm,0.8s,baz=345,slow=6.3,SNR=7.6							
	comp=Z,1.7nm,0.8s							
NVAR	**Mina Array Bea**	**49.09**	**306**	P	**P**	**11 36 58.9**	**+0.3**	
	comp=Z,0.1nm,0.3s,baz=150,slow=3.3,SNR=4.8							
	comp=Z,0.1nm,0.3s							
YKA	**Yellowknife Ar**	**55.42**	**335**	P	**P**	**11 37 45.3**	**+0.5**	
	comp=Z,0.7nm,0.6s,baz=113,slow=7.3,SNR=6.3							
	comp=Z,0.7nm,0.6s							
ESDC	**Sonseca Array**	**58.05**	**54**	P	**P**	**11 38 04.9**	**+0.9**	
	comp=Z,1.2nm,0.9s,baz=280,slow=7.4,SNR=7.2

MARNC	Mare, Loyalty	12.11	289	P		P	12 51 29.6 +1.8
RUGZ	Raukumara Rang	12.21	190	P		P	12 51 30.0 +1.2
RUGZ				S		S	12 53 42.3 +0.5
PINNC	Pines Island,	12.21	283	P		P	12 51 31.5 +2.6
PUZ	Puketiti	12.23	188	P		P	12 51 30.5 +1.6
PUZ				S		S	12 53 39.6 -2.5
TGRZ	Tauranga	12.26	195	P		P	12 51 31.6 +2.4
TWGZ	Tauwhareparae	12.37	189	P		P	12 51 31.3 +0.8
TWGZ				S		S	12 53 45.5 +0.6
KMRZ	Kaimai	12.45	196	P		P	12 51 33.7 +2.4
TOZ	Tahuroa Road	12.46	198	P		P	12 51 33.3 +2.0
TOZ	Tahuroa Road	12.46	198	P		P	12 51 33.3 +2.0
URZ	Urewera	12.59	192	P		P	12 51 31.7 -1.0
	37nm,0.4s,baz=273,slow=3.5,SNR=44						
URZ				S		S	12 53 48.0 -1.1
	76nm,0.7s,baz=13,slow=21,SNR=11						
URZ	Urewera	12.59	192	P		P	12 51 31.5 -1.2
URZ				S		S	12 53 48.0 -1.1
MWZ	Matawai	12.59	190	P		P	12 51 32.8 0.0
MWZ				S		S	12 53 51.9 +2.6
CNGZ	Carnagh Statio	12.65	188	P		P	12 51 33.9 +0.5
CNGZ				S		S	12 53 49.7 -0.5
TKGZ	Te Karaka	12.65	189	P		P	12 51 33.3 -0.1
TKGZ				S		S	12 53 48.8 -1.5
OUENC	Ouen Island, N	12.81	283	P		P	12 51 37.1 +1.7
MUGZ	Murupara	12.87	193	P		P	12 51 36.3 +0.5
MUGZ				S		S	12 53 55.1 +0.4
YATNC	Mamie plateau,	12.88	285	P		P	12 51 38.9 +2.8
DZM	Mont Dzumac	13.27	284	P		P	12 51 42.8 +2.3
	58nm,0.7s,baz=138,slow=20,SNR=20						
DZM				S		S	12 54 02.4 -0.8
	9.4nm,0.4s,baz=144,slow=16,SNR=51						
HIZ	Hauiti	13.37	199	P		P	12 51 42.1 +0.9
HIZ	Hauiti	13.37	199	P		P	12 51 42.7 +1.5
NOUC	Port Laguerre	13.38	284	P		P	12 51 44.2 +2.7
BKZ	Black Stump Fm	13.59	193	P		P	12 51 41.2 -2.4
BKZ				S		S	12 54 07.4 -1.6
PXZ	Pawanui	14.36	191	P		P	12 51 48.9 -2.9
PXZ				S		S	12 54 23.2 -0.9
TSZ	Takapari Road	14.56	193	P		P	12 51 53.1 -0.9
TSZ				S		S	12 54 25.8 -2.3
BFZ	Birch Farm	15.10	192	P		P	12 51 59.1 -0.7
BFZ				S		S	12 54 40.1 +1.5
MRZ	Mangatainoka R	15.22	194	P		P	12 51 59.2 -1.7
MRZ				S		S	12 54 36.4 -4.4
QRZ	Quartz Range	16.21	202	P		P	12 52 11.9 +0.3
QRZ	Quartz Range	16.21	202	P		P	12 52 11.1 -0.5
NNZ	Nelson	16.30	199	P		P	12 52 11.2 -1.3
NNZ				S		S	12 54 59.7 -2.2
THZ	Tophouse	16.94	199	P		P	12 52 18.2 -1.2
THZ				S		S	12 55 09.9 -4.4
DSZ	Denniston Nort	17.28	202	P		P	12 52 22.8 -0.1
DSZ				S		S	12 55 18.1 -2.5
KHZ	Kahutara	17.37	197	P		P	12 52 23.0 -0.7
KHZ	Kahutara	17.37	197	P		P	12 52 21.3 -2.5
GVZ	Greta Valley S	18.02	198	P		P	12 52 28.7 -1.9
WVZ	Waitaha Valley	18.82	202	P		P	12 52 36.6 -1.6
RPZ	Rata Peaks	19.29	201	P		P	12 52 42.9 +0.2
	3.6nm,0.5s,baz=11,slow=5.2,SNR=12						
RPZ	Rata Peaks	19.29	201	P		P	12 52 42.7 0.0
LHI	Lord Howe Isla	19.46	248	P		P	12 52 46.4 +2.1
EIDS	Eidsvold	26.36	265	P		P	12 53 46.4 -0.1
CAN	Canberra	28.45	243	P		P	12 54 06.0 +1.1
CAN				IAmb		IAmb	12 54 39.8
	comp=Z,21nm,1.4s						
TAU	Tasmania Unive	31.82	229	P		P	12 54 34.6 +0.7
TAU				IAmb		IAmb	12 54 44.5
	comp=Z,23nm,1.2s						
CTAO	Charters Tower	31.85	273	P		P	12 54 34.6 0.0
CTAO				IAmb		IAmb	12 54 36.0
	comp=Z,20nm,0.7s						
STKA	Stephens Creek	34.30	251	P		P	12 54 54.5 -0.8
	comp=Z,3.1nm,0.5s,baz=94,slow=11,SNR=8.3						
	comp=Z,3.1nm,0.5s						
INKA	Innaminka	35.27	258	P		P	12 55 03.8 +0.3
INKA				IAmb		IAmb	12 55 05.8
	comp=Z,8.4nm,0.9s						
AS31	Alice Springs	42.05	263			P	12 55 58.5 -0.5
AS31				IAmb		IAmb	12 56 00.2
	comp=Z,11nm,0.5s						
ASAR	Alice Springs	42.05	263	P		P	12 55 58.1 -0.9
	comp=Z,18nm,0.4s,baz=91,slow=7.4,SNR=417						
ASAR				PcP		PcP	12 57 43.0 -1.1
	comp=Z,0.4nm,0.5s,baz=90,slow=3.7,SNR=2.0						
ASAR				ScP		ScP	13 00 51.6 -0.1
	comp=Z,0.9nm,0.8s,baz=104,slow=4.4,SNR=4.8						
ASAR				S		S	13 01 44.4 -0.7
	comp=Z,2.9nm,0.9s,baz=102,slow=17,SNR=14						
	comp=Z,18nm,0.4s						
ASAR	Alice Springs	42.05	263			P	12 55 58.5 -0.5
WRAB	Tennant Creek	42.61	268	P		P	12 56 01.8 -1.6
WRAB				IAmb		IAmb	12 56 03.7
	comp=Z,15nm,0.9s						
WRA	Warramunga Arr	42.62	268	P		P	12 56 02.1 -1.3
	comp=Z,19nm,0.7s,baz=105,slow=7.8,SNR=246						
WRA				PcP		PcP	12 57 45.3 -0.7
	comp=Z,0.6nm,0.6s,baz=104,slow=4.1,SNR=2.1						
WRA				ScP		ScP	13 00 54.8 +0.8
	comp=Z,1.3nm,1.0s,baz=100,slow=3.8,SNR=5.1						
WRA				S		S	13 01 52.4 -0.9
	comp=Z,0.9nm,0.8s,baz=123,slow=17,SNR=4.8						
	comp=Z,19nm,0.7s						
WRA	Warramunga Arr	42.62	268			P	12 56 02.3 -1.2
FORT	Forrest	45.93	251	P		P	12 56 27.6 -1.5
FORT				IAmb		IAmb	12 56 29.7
	comp=Z,15nm,0.7s						
KNRA	Kununurra	49.02	271	P		P	12 56 51.9 -0.7
KNRA				IAmb		IAmb	12 56 54.5
	comp=Z,20nm,0.8s						
FITZ	Fitzroy Crossi	51.01	267	P		P	12 57 06.5 -0.8
	comp=Z,16nm,0.5s,baz=105,slow=7.4,SNR=80						
	comp=Z,16nm,0.5s						
VNDA	Vanda	52.39	185	P		P	12 57 17.0 +0.5
	comp=Z,1.6nm,0.9s,baz=45,slow=4.2,SNR=2.4						
	comp=Z,1.6nm,0.9s						
VNDA	Vanda	52.39	185	P		P	12 57 16.8 +0.4
MBWA	Marble Bar	55.35	261	P		P	12 57 36.8 -1.7
MBWA				IAmb		IAmb	12 58 14.4
	comp=Z,21nm,1.4s						
MORW	Morawa	56.49	251	P		P	12 57 44.8 -1.5
MORW				IAmb		IAmb	12 58 19.0
	comp=Z,14nm,1.1s						
CASY	Casey	58.43	206	P		P	12 57 57.7 -1.3
CASY				IAmb		IAmb	12 58 06.6
	comp=Z,12nm,0.9s						
QSPA	South Pole Qui	64.16	180	P		P	12 58 37.6 +0.7
	comp=Z,1.2nm,0.6s,baz=48,slow=1.4,SNR=8.4						
	comp=Z,1.2nm,0.6s						
QSPA	South Pole Qui	64.16	180	P		P	12 58 37.2 +0.3
KKM	Kota Kinabalu	69.80	288	P		P	12 59 13.7 +1.1
MAW	Mawson	75.96	201	P		P	12 59 47.2 0.0
	comp=Z,3.5nm,0.3s,baz=135,slow=5.7,SNR=53						
	comp=Z,3.5nm,0.3s						
MAW	Mawson	75.96	201	P		P	12 59 47.3 0.0
TROLL	Troll, Antarti	82.31	181	⇑P		P	13 00 21.0 -0.3
	comp=Z,82nm,0.4s						
VNA3	Neumayer Olymp	82.84	177	⇑P		P	13 00 23.1 -0.7
	comp=Z,3.8nm,0.6s						
NVAR	Mina Airway Bea	86.00	44	P		P	13 00 39.9 -0.2
	comp=Z,0.8nm,0.7s,baz=226,slow=8.2,SNR=8.5						
	comp=Z,0.8nm,0.7s						
PLCA	Paso Flores	86.64	134	P		P	13 00 43.4 +0.3
	comp=Z,1.2nm,0.6s,baz=233,slow=4.7,SNR=6.2						
	comp=Z,1.2nm,0.6s						
CMAR	Chiang Mai Arr	90.52	290	P		P	13 01 02.0 +0.6
	comp=Z,0.3nm,0.3s,baz=110,slow=4.3,SNR=4.1						
	comp=Z,0.3nm,0.3s						
TXAR	Lajitas Array	91.24	58	P		P	13 01 05.0 +0.3
	comp=Z,0.4nm,0.8s,baz=220,slow=6.2,SNR=6.4						
	comp=Z,0.4nm,0.8s						
TXAR	Lajitas Array	91.24	58	P		P	13 01 05.3 +0.7
ILAR	Eielson Array	93.92	13	P		P	13 01 14.6 -1.4
	comp=Z,0.3nm,0.6s,baz=205,slow=4.3,SNR=7.4						
	comp=Z,0.3nm,0.6s						
FINES	FINESS Array B	140.46	341	PKhKP		PKPpre	13 07 16.8
	comp=Z,2.1nm,0.8s,baz=45,slow=3.6,SNR=5.2						
HFS	Hagfors	144.59	348	PKP		PKPbc	13 07 30.4 -1.5
	comp=Z,1.0nm,0.3s,baz=47,slow=3.3,SNR=12						
MMAI	Mount Meron Ar	148.77	291	PKPbc		PKPbc	13 07 44.1 -0.3
	comp=Z,1.8nm,0.3s,baz=86,slow=4.3,SNR=4.1						
BRTR	Keskin Array B	149.01	305	PKPbc		PKPbc	13 07 43.7 -1.1
	comp=Z,0.3nm,0.3s,baz=108,slow=4.7,SNR=4.0						
EKA	Eskdalemuir Ar	150.51	4	PKPbc		PKPbc	13 07 46.1 -1.5
	comp=Z,0.8nm,0.5s,baz=343,slow=2.6,SNR=4.5						

*IDC **22** 13:11:37.3±1.2,27°.39N×141°.53E, h0km, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=23.4km s-min=18.9km az=34.0*
*JMA **22** 13:11:46.5±0.1,27°.4N±0°.7×14°.2E±°, h72km, MD3.8/25, MV4.1/25, NEAR CHICHIJIMA ISLAND*
ISC 22 13:11:45.5±1.0, 27°.41N±0°.10×141°.7E±0°.2, h64km, n13, σ1§28/15, mb3.5/4, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
CBIJ	Chichi jima	0.51	127	P	P	Pn	13 11 58.2	+0.3
CBIJ				A	A		13 11 58.2	
	comp=N,12nm,0.9s,comp=E,11nm,2.4s							
CBIJ				S		Sn	13 12 07.0	+0.1
JCJ	Chichijima	0.51	127	Pn		Pn	13 11 54.5	-3.5
	comp=E,553nm,0.3s,baz=25,slow=12,SNR=467							
JCJ				Sn		Sn	13 12 03.7	-3.2
	comp=E,974nm,0.3s,baz=315,slow=20,SNR=66							
JHH2	Haha-jima-NKT2	0.87	152	P		Pn	13 12 02.6	+0.6
JHH2				A		A	13 12 02.6	
	comp=N,18nm,0.4s,comp=E,18nm,0.4s							
JHH2				S		Sn	13 12 14.8	+0.6
JHJ2	Mitsune	5.92	344	eP		Pn	13 13 09.8	-0.8
BSO1	Boso 1	7.25	355	eP		Pn	13 13 28.8	+0.5
BSO3	Boso 3	7.45	352	P		Pn	13 13 30.4	-0.8
JOD2	Odawara 2	8.15	345	eP		Pn	13 13 42.4	+1.3
JHU2	Hanno	8.66	347	eP		Pn	13 13 47.6	-0.5
JHO	Hitachi	9.23	354	eP		Pn	13 13 54.2	-1.6
WRA	Warramunga Arr	47.61	189	P		P	13 20 15.0	-0.2
	comp=E,1.3nm,0.5s,baz=10.0,slow=8.3,SNR=35							
	comp=E,1.3nm,0.5s							
ASAR	Alice Springs	51.33	189	P		P	13 20 42.8	-0.8
	comp=E,0.2nm,0.5s,baz=12,slow=6.2,SNR=11							
	comp=E,0.2nm,0.5s							
ILAR	Eielson Array	57.64	29	P		P	13 21 30.0	+1.3
	comp=E,0.3nm,0.6s,baz=278,slow=8.2,SNR=3.1							
	comp=E,0.3nm,0.6s							
YKA	Yellowknife Ar	72.06	28	P		P	13 23 02.9	+0.4
	comp=E,0.4nm,0.8s,baz=299,slow=6.5,SNR=2.2							
	comp=E,0.4nm,0.8s							

*SKHL **22** 13:13:21.6±0.6, 44°.50N×147°.60E, h144km±3km, mb4.5/3, msha4.6/3*
*JMA **22** 13:13:23.2±0.4, 44°N±2°×14°7E±°, h157km, MV3.5/23, NEAR ETOROFU ISLAND*
ISC 22 13:13:20.5±3.2, 44°.5N±0°.2×147°.6E±0°.2, h153km±20km, n14, σ1§09/22, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
KUR	Kuril'sk	0.74	16	eP		Pn	13 13 44.0	+0.4
KUR				eS		Sn	13 14 00.3	-1.0
SHO	Shikotan	0.84	219	eP		Pn	13 14 06.3	+22
SHO				AMB		AMB	13 14 07.3	
	210nm,0.3s							
SHO				eS		Sn	13 14 23.8	+21
SHO				A		A	13 14 24.3	
	220nm,0.5s							
SHO				A		A	13 14 24.3	
	250nm,0.5s							
YUK	Yuzh-Kuril'sk	1.32	249	i P		Pn	13 13 49.5	+1.1
YUK				AMB		AMB	13 13 49.8	
	200nm,0.4s							
YUK				i S		Sn	13 14 09.0	-0.8
YUK				A		A	13 14 12.5	
	180nm,0.5s							
YUK				A		A	13 14 12.5	
	210nm,0.5s							
NEM2	Nemuro 2	1.75	229	P		Pn	13 13 54.0	+1.0
NEM2				S		Sn	13 14 17.6	-0.3
NMR	Nemuro--Hokkai	1.76	230	i P		Pn	13 13 54.0	+0.9
NMR				i S		Sn	13 14 17.1	-0.9
JRA	Rausu	1.85	252	eP		Pn	13 13 54.7	+0.6
JNSB	Nemuroshibetsu	1.99	249	eP		Pn	13 13 56.8	+1.1
JNK	Nakash	2.26	247	P		Pn	13 13 59.8	+1.0
JKHN	Kushirohamanak	2.26	231	i P		Pn	13 13 59.9	+1.0
JKHN				eS		Sn	13 14 27.9	-0.4
AKK	Akkeshi	2.48	234	eP		Pn	13 14 02.1	+0.6
AKK				eS		Sn	13 14 32.0	-1.2
JAK	Akkeshi	2.58	235	P		Pn	13 14 03.5	+0.8
JAK				eS		Sn	13 14 34.7	-0.6
JAR	Ashorobuto	3.01	247	P		Pn	13 14 09.3	+1.3
JAR				S		Sn	13 14 45.3	+0.5
JCH	Churui	3.60	240	P		Pn	13 14 16.2	+0.5
JCH				S		Sn	13 14 55.8	-2.6
JNBK	Urakawa-nobuka	4.16	239	P		Pn	13 14 22.6	-0.3

*IDC **22** 13:51:13.7±2.3, 6°.48S×129°.90E, h0km, mb3.8/1, mbtmp4.0/4, ML4.1/3, Error ellipse: s-maj=86.2km s-min=29.6km az=77.0*
*DJA **22** 13:51:23.2±0.5, 6°.S±3°×12°.9E±°, h260km±10km, M4.0/12, mB4.5/3, mb3.8/6, MLv4.1/12, Mw(mB)3.7/3*
*NEIC **22** 13:51:24.4±0.9, 6°.86S±0°.07×129°.60E±0°.10, h103km±8km, mb4.4/3, Error ellipse: s-maj=14.1km s-min=9.4km az=104.0*
ISC 22 13:51:23.4±0.9, 6°.68S±0°.06×129°.38E±0°.07, h165km, n28, σ2§02/30, mb4.5/3, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
BNDI	Bandanaira	2.20	14	P		Pn	13 52 05.9	+4.1
FAKI	Fak Fak	4.70	38	P		Pn	13 52 33.5	+0.3
FAKI	Fak Fak	4.70	38			Pn	13 52 33.3	+0.1
FAKI				Sn		Sn	13 53 25.9	-1.9
FAKI	Fak Fak	4.70	38	P		Pn	13 52 33.3	+0.1
FAKI				AML		AML		
SANI	Sanana	5.71	324	P		Pn	13 52 46.3	-0.2
	0.0nm7.8nm,0.7s							
SANI				AML		AML		
DRS	Darwin Rock St	5.91	165	P		Pn	13 52 54.6	+5.5
SOEI	Soe	5.91	239	P		Pn	13 52 51.6	+2.3
SOEI	Soe	5.91	239	Pn		Pn	13 52 51.4	+2.1
SOEI				Sn		Sn	13 53 56.6	0.0
SOEI	Soe	5.91	239	P		Pn	13 52 50.8	+1.5
	0.2nm9.7nm,0.5s							
SOEI				AML		AML		
MTN	Manton Dam	6.37	164	Pn		Pn	13 52 52.3	-2.9
KNRA	Kununurra	8.96	184			Pn	13 53 32.6	+3.0
PLAI	Plampang	11.70	259	P		Pn	13 54 04.3	-1.1
FITZ	Fitzroy Crossi	11.92	197	Pn		Pn	13 54 09.9	+1.6
	1.4nm,0.3s,baz=22,slow=14,SNR=52							
FITZ				Sn		Sn	13 56 17.8	-2.7
	0.7nm,0.3s,baz=68,slow=20,SNR=3.1							
	6.1nm,0.5s							
FITZ				AML		AML		
FITZ	Fitzroy Crossi	11.92	197	P		Pn	13 54 09.7	+1.4
FITZ	Fitzroy Crossi	11.92	197			Pn	13 54 08.9	+0.6
WB0	Warramunga Arr	13.89	160	Pn		Pn	13 54 33.7	+0.2
WRAB	Tennant Creek	14.03	160	P		P	13 54 37.3	-0.6
WRAB	Tennant Creek	14.03	160	Pn		Pn	13 54 35.2	0.0
WRA	Warramunga Arr	14.04	160	Pn		Pn	13 54 36.0	+0.8
	0.4nm,0.3s,baz=342,slow=11,SNR=22							
WRA				Sn		Sn	13 57 05.6	-5.7
	0.7nm,0.3s,baz=341,slow=24,SNR=5.7							
	0.4nm,0.5s							
WRA				AML		AML		
WRA	Warramunga Arr	14.04	160			Pn	13 54 35.5	+0.2
WR8	Warramunga Arr	14.10	160	Pn		Pn	13 54 36.2	+0.1
QIS	Mount Isa	16.99	145	P		Pn	13 55 13.5	+2.0
AS31	Alice Springs	17.44	166	P		Pn	13 55 17.9	+1.1
AS31				IAmb		IAmb	13 55 21.6	
	comp=Z,4.0nm,0.6s							
ASAR	Alice Springs	17.44	166	Pn		Pn	13 55 17.9	+1.1
	comp=Z,1.7nm,0.3s,baz=349,slow=13,SNR=100							
ASAR				Sn		S	13 58 28.2	-0.6
	comp=Z,0.1nm,0.3s,baz=345,slow=20,SNR=6.0							
	comp=Z,8.1nm,0.6s							
ASAR				AML		AML		
ASAR	Alice Springs	17.44	166	P		Pn	13 55 18.4	+1.6
CTAO	Charters Tower	21.11	131	P		P	13 55 57.5	+2.2
CTAO				IAmb		IAmb	13 56 08.2	
	comp=Z,30nm,1.4s							
HIA	Hailar	56.34	352	P		P	14 00 55.7	+8.6
HIA				IAmb		IAmb	14 01 36.9	
	comp=Z,5.8nm,0.8s							
MKAR	Makanchi Array	67.62	327	P		P	14 02 13.2	+11
	comp=Z,1.1nm,0.9s,baz=123,slow=7.2,SNR=4.1							
	comp=Z,1.1nm,0.9s							

*IDC **22** 13:56:48.2±1.3, 4°.12N×126°.96E, h0km, mb3.6/5, mbtmp3.6/5, MS2.3/1, Error ellipse: s-maj=130.7km s-min=20.3km az=68.0*
*MAN **22** 13:56:49.0, 3°.37N×126°.27E, h32km, MS3.8*
ISC 22 13:56:51.5±1.6, 3°.6N±0°.2×127°.0E±0°.3, h35km, n9, σ2§51/8, mb3.6/5, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
KCP	Kidapawan	3.87	331	eP		Pn	13 57 48.4	-0.3
KCP				i S		Sn	13 58 36.4	+3.4
BIPH	Bislig	4.59	352	eP		Pn	13 57 59.0	+0.5
BIPH				eS		Sn	13 58 40.0	-11
CGP	Cagayan de Oro	5.33	335	eP		Pn	13 58 11.6	+3.0
CGP				eS		Sn	13 59 08.3	-0.5
KAPI	Kappang	11.19	220	LR		LR	14 03 32.3	
	comp=Z,16nm,19.6s,baz=40,slow=35							
WRA	Warramunga Arr	24.49	163	P		P	14 02 13.3	+5.6
	1.1nm,1.0s,baz=344,slow=10,SNR=6.0							
	1.1nm,1.0s							
ASAR	Alice Springs	27.93	166	P		P	14 02 45.5	+6.8
	0.1nm,0.4s,baz=346,slow=7.5,SNR=4.4							
ASAR				PcP		PcP	14 05 57.2	+3.4
	0.2nm,0.7s,baz=336,slow=3.4,SNR=4.1							
	0.1nm,0.4s							
SONM	Songino Array	47.50	341	P		P	14 05 21.2	-2.1
	0.3nm,0.4s,baz=157,slow=7.8,SNR=3.5							
	0.3nm,0.4s							
MKAR	Makanchi Array	57.80	325	P		P	14 06 37.8	-1.6
	0.3nm,0.4s,baz=123,slow=8.1,SNR=7.7							
	0.3nm,0.4s							
KURBB	Kurchatov Arra	61.98	327	P		P	14 07 07.4	-0.5
	1.2nm,0.7s,baz=125,slow=6.0,SNR=9.1							
	1.2nm,0.7s							

*AFAD **22** 13:59:54.3, 34°.87N×26°.57E, h6km±7km, MW3.8*
*ATH **22** 13:59:57.7, 35°.00N×26°.68E, h5km±1km, ML3.6/29, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*ISK **22** 13:59:58.5, 35°.07N×26°.59E, h8km, ML3.4/19*
*THE **22** 13:59:59.9, 35°.N±4°×2°7E±°, h7km±2km, M3.5/8, MLh3.5/8*
*IDC **22** 14:00:01.4±3.6, 35°.07N×26°.47E, h40km±35km, mb3.5/6, mbtmp3.6/8, ML3.3/2, MS2.8/2, Error ellipse: s-maj=29.8km s-min=18.4km az=158.0*
ISC 22 13:59:58.7±1.1, 35°.05N±0°.04×26°.59E±0°.02, h12km±7km, n113, σ1§20/162, mb3.6/5, Crete

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
ZKR	Zakros	0.31	283	P		Pg	14 00 05.0	-0.1
ZKR				S		Sg	14 00 09.7	+0.3
ZKR	Zakros	0.31	283	Pg		Pg	14 00 04.9	-0.1
ZKR				Sg		Sg	14 00 09.9	+0.6
ZKR				AML		AML		
ZKR	Zakros	0.31	283	P		Pg	14 00 05.6	+0.5
ZKR				S		Sb	14 00 10.5	-0.8
ZKR				AML		AML		
SIT2	Siteia	0.43	292	P		Pb	14 00 08.0	-0.1
SIT2				S		Sb	14 00 14.6	+0.1
KARP	Karpathos	0.69	43	P		Pg	14 00 12.5	+0.5
KARP				S		Sb	14 00 23.4	+1.4
KARP				AML		AML		
KARP	Karpathos	0.69	43	Pg		Pg	14 00 11.9	-0.1
KARP				Sg		Sg	14 00 21.8	+0.8
KARP	Karpathos	0.69	43	P		Pg	14 00 11.2	-0.8
KARP				S		Sg	14 00 19.7	-1.3
KARP				AML		AML		
AGNA	Agios Nikolaos	0.73	282	P		Pg	14 00 12.9	+0.1
AGNA				S		Sb	14 00 24.3	+1.1
AGNA				AML		AML		
NPS	Neapolis	0.83	285	P		Pg	14 00 14.4	-0.4
NPS				S		Sg	14 00 25.3	-0.3
NPS				AML		AML		
NPS	Neapolis	0.83	285	P		Pb	14 00 15.1	+0.1
NPS				S		Sn	14 00 27.8	-0.6
NPS				AML		AML		
IACM	Heraklion	1.27	282	P		Pn	14 00 23.0	+0.8
IACM				S		Sb	14 00 39.1	+0.3
IACM				AML		AML		
IACM	Heraklion	1.27	282	P		Pn	14 00 23.0	+0.8
IACM				S		Sn	14 00 40.8	+1.5
IDI	Anoyia	1.41	280	P		Pb	14 00 25.5	+0.4
IDI				S		Sb	14 00 43.4	+0.3
IDI				AML		AML		
IDI	Anoyia	1.41	280	Pn		Pb	14 00 25.4	+0.4
IDI				Sn		Sg	14 00 44.9	+0.7
IDI				AML		AML		
IDI	Anoyia	1.41	280	P		Pb	14 00 25.4	+0.4
IDI				S		Sg	14 00 44.9	+0.7
IDI				AML		AML		
SIVA	Sivas	1.46	269	P		Pn	14 00 25.3	+0.4
SIVA				S		Sb	14 00 44.7	+0.4
SIVA				AML		AML		
SIVA	Sivas	1.46	269	P		Pn	14 00 25.2	+0.4
SIVA				S		Sg	14 00 45.8	+0.1
SIVA				AML		AML		
ASTA	Astypalaia	1.51	353	P		Pn	14 00 25.8	+0.2
ASTA				S		Sg	14 00 46.2	-1.1
ASTA				AML		AML		
THERA	Ancient Thera,	1.60	326	S		Sn	14 00 47.6	+0.2
THERA	Ancient Thera,	1.60	326	P		Pn	14 00 27.4	+0.6
THERA				S		Sg	14 00 49.5	-0.7
THR6	Thira Island,	1.63	324	P		Pn	14 00 27.7	+0.5
THR6				S		Sg	14 00 51.4	+0.3
THR8	Santorini-Mono	1.63	327	P		Pn	14 00 27.8	+0.6
THR9	Santorini-Faro	1.65	323	P		Pn	14 00 28.4	+0.9
THRA	Thira	1.66	326	P		Pn	14 00 28.7	+1.1
THRA				S		Sg	14 00 51.2	-0.9
THRA				AML		AML		
SNT5	Nea Kammeni, S	1.67	325	P		Pn	14 00 27.8	+0.1
SNT5	Nea Kammeni, S	1.67	325	P		Pn	14 00 28.0	+0.3
SNT5				S		Sg	14

	comp=N,141nm,0.4s								
APE	**Apeiranthos**	**2.19**	**337**	Pn	**Pn**	**14 00 35.3**	**+0.3**
APE				Sn	**Sn**	**14 01 03.3**	**+1.2**
APE				AML	AML		
APE	**Apeiranthos**	**2.19**	**337**	P	**Pn**	**14 00 35.4**	**+0.4**
APE				S	**Sb**	**14 01 04.9**	**-0.6**
APE				AML	AML		
NAX1	**Naxos Island**	**2.28**	**335**	P	**Pn**	**14 00 37.2**	**+1.1**
NAX1				S	**Sb**	**14 01 07.0**	**-0.8**
NAX1				AML	AML		
RODP	**Rodopos**	**2.37**	**283**	P	**Pn**	**14 00 39.0**	**+1.6**
RODP				S	**Sn**	**14 01 09.0**	**+2.5**
RODP				AML	AML		
MHLO	**Agia Marina, M**	**2.42**	**313**	P	**Pn**	**14 00 39.6**	**+1.6**
DALY	**Dalyan (Mula)**	**2.44**	**43**	P	**Pn**	**14 00 39.7**	**+1.5**
DALY				S	**Sg**	**14 01 15.5**	**-1.5**
DALY				IAML		14 01 25.0	
	comp=N,103nm,0.4s						
DALY				IAML		14 01 33.0	
	comp=E,74nm,0.6s						
DALY	**Dalyan (Mula)**	**2.44**	**43**	Pn	**Pn**	**14 00 39.3**	**+1.1**
DALY				AML	AML		
KNDR	**Palaiochora Ch**	**2.44**	**275**	P	**Pn**	**14 00 38.7**	**+0.4**
KNDR				S	**Sn**	**14 01 10.7**	**+2.7**
KNDR				AML	AML		
MLSB	**Milas**	**2.44**	**23**	Pn	**Pn**	**14 00 39.6**	**+1.2**
MLSB				AML	AML		
YER	**Yerkesik**	**2.50**	**33**	Pn	**Pn**	**14 00 40.1**	**+0.9**
YER				AML	AML		
IZZE	**Mula-Seydike**	**2.55**	**56**	P	**Pn**	**14 00 40.2**	**+0.3**
IZZE				S	**Sn**	**14 01 14.1**	**+3.1**
IZZE				IAML		14 01 15.0	
	comp=E,113nm,0.4s						
IZZE				IAML		14 01 34.0	
	comp=N,199nm,0.5s						
FETY	**Fethiye**	**2.57**	**51**	Pn	**Pn**	**14 00 41.2**	**+1.0**
FETY				AML	AML		
MULA	**Mugla, Merkez-**	**2.61**	**32**	P	**Pn**	**14 00 43.7**	**+2.9**
MULA				S	**Sb**	**14 01 16.1**	**-1.5**
MULA				IAML		14 01 25.0	
	comp=E,79nm,0.5s						
SABU	**Mula-Dalaman**	**2.62**	**47**	P	**Pn**	**14 00 41.9**	**+1.1**
SABU				S	**Sb**	**14 01 20.3**	**+2.5**
SABU				IAML		14 01 26.0	
	comp=N,72nm,0.8s						
SABU				IAML		14 01 28.0	
	comp=E,93nm,1.0s						
SMG	**Samos**	**2.67**	**4**	P	**Pn**	**14 00 41.9**	**+0.4**
SAM2	**Drakei, Karlov**	**2.71**	**0**	P	**Pn**	**14 00 42.9**	**+0.9**
AKAS	**Kas**	**2.73**	**63**	Pn	**Pn**	**14 00 44.0**	**+1.6**
AKAS				AML	AML		
ANKY	**Antikythira Is**	**2.81**	**288**	P	**Pn**	**14 00 44.1**	**+0.7**
ANKY				S	**Sn**	**14 01 20.0**	**+2.9**
ANKY				AML	AML		
AYDN	**Tasoluk**	**2.81**	**21**	P	**Pn**	**14 00 45.3**	**+1.8**
AYDN				S	**Sb**	**14 01 24.4**	**+1.2**
AYDN				IAML		14 01 37.0	
	comp=E,51nm,0.4s						
CAME	**Cameli-Denizli**	**2.90**	**48**	Pn	**Pn**	**14 00 45.5**	**+0.7**
CAEL	**Denizli, Camel**	**3.03**	**46**	P	**Pn**	**14 00 48.1**	**+1.5**
CAEL				S	**Sg**	**14 01 35.1**	**-1.0**
CAEL				IAML		14 01 46.0	
	comp=E,178nm,0.7s						
CAEL				IAML		14 01 52.0	
	comp=N,157nm,0.9s						
TAVA	**DENIZLI_Tavas**	**3.06**	**37**	P	**Pn**	**14 00 48.9**	**+1.9**
TAVA				S	**Sb**	**14 01 29.3**	**-1.2**
TAVA				IAML		14 01 39.0	
	comp=E,55nm,0.7s						
TAVA				IAML		14 01 40.0	
	comp=N,52nm,0.6s						
ESEN	**Aydn-Nazilli**	**3.09**	**27**	P	**Pn**	**14 00 48.5**	**+1.3**
ESEN				S	**Sn**	**14 01 28.0**	**+3.8**
ESEN				IAML		14 01 33.0	
	comp=E,41nm,0.6s						
KTHA	**Kythira Island**	**3.12**	**294**	Pn	**Pn**	**14 00 49.3**	**+1.6**
KTHA				AML	AML		
ELL	**Elmali**	**3.19**	**57**	Pn	**Pn**	**14 00 49.8**	**+1.1**
ELL				AML	AML		
APMY	**Acipayam-Deniz**	**3.27**	**41**	Pn	**Pn**	**14 00 50.9**	**+1.1**
APMY				AML	AML		
CHOS	**Chios island**	**3.36**	**353**	Pn	**Pn**	**14 00 52.3**	**+1.2**
CHOS				AML	AML		
VLI	**Veliai**	**3.40**	**300**	P	**Pn**	**14 00 51.8**	**+0.2**
KARY	**Karystos**	**3.45**	**330**	P	**Pn**	**14 00 53.5**	**+1.3**
KORT	**Korkueli**	**3.62**	**56**	Pn	**Pn**	**14 00 56.8**	**+2.1**
KORT				AML	AML		
ATHU	**Athens Univers**	**3.69**	**323**	P	**Pn**	**14 00 56.7**	**+1.2**
DION	**Dionisos Attik**	**3.71**	**326**	P	**Pn**	**14 00 57.6**	**+1.8**
ATH	**Athens Observa**	**3.73**	**322**	P	**Pn**	**14 00 57.0**	**+1.0**
EPID	**Epidavros**	**3.80**	**313**	P	**Pn**	**14 00 58.0**	**+1.0**
STFN	**Stefani**	**3.97**	**323**	P	**Pn**	**14 01 01.3**	**+1.9**
KYMI	**Kymi, Euboea I**	**4.10**	**332**	P	**Pn**	**14 01 02.3**	**+1.1**
ACOR	**Acrocorinthos**	**4.13**	**315**	P	**Pn**	**14 01 04.0**	**+2.5**
VIL2	**Platees**	**4.14**	**321**	P	**Pn**	**14 01 03.0**	**+1.3**
LTK	**Loutraki**	**4.16**	**317**	P	**Pn**	**14 01 03.0**	**+0.9**
ITM	**Ithomi**	**4.33**	**301**	Pn	**Pn**	**14 01 06.7**	**+2.3**
GUR	**Goura**	**4.48**	**311**	P	**Pn**	**14 01 08.3**	**+1.9**
LKR	**Lokris**	**4.61**	**322**	P	**Pn**	**14 01 09.3**	**+1.2**
ATAL	**Atalanti**	**4.63**	**323**	P	**Pn**	**14 01 10.3**	**+1.9**
KLV	**Kalavryta, Ach**	**4.66**	**311**	P	**Pn**	**14 01 10.1**	**+1.2**
AKMS	**Akamas**	**4.71**	**89**	P	**Pn**	**14 01 08.4**	**-1.2**
DRO	**Drossia**	**4.88**	**308**	P	**Pn**	**14 01 14.1**	**+2.1**
LAKA	**Lakka**	**4.89**	**312**	P	**Pn**	**14 01 14.2**	**+2.1**
ALFC	**Alefka**	**4.93**	**87**	P	**Pn**	**14 01 11.8**	**-0.8**
ALFC				AML	AML		
EFP	**Efpalio**	**5.05**	**313**	P	**Pn**	**14 01 15.1**	**+0.8**
ANX	**Ano Chora**	**5.15**	**315**	P	**Pn**	**14 01 16.6**	**+0.9**
ASGA	**Asgata**	**5.48**	**91**	P	**Pn**	**14 01 18.9**	**-1.2**
ASGA				AML	AML		
CSS	**Mathiatis**	**5.53**	**89**	P	**Pn**	**14 01 19.6**	**-1.3**
MVOU	**Mavrovouni**	**5.78**	**88**	P	**Pn**	**14 01 23.2**	**-1.0**
MVOU				AML	AML		
THL	**Klokotos Trika**	**5.80**	**322**	P	**Pn**	**14 01 25.2**	**+0.8**
PRMD	**Pramanda**	**6.26**	**317**	P	**Pn**	**14 01 31.6**	**+0.7**
BRTR	**Keskin Array B**	**7.30**	**48**	P	**Pn**	**14 01 47.1**	**+1.8**
	0.1nm,0.3s,baz=225,slow=14,SNR=2.0						
BRTR				S	**Sn**	**14 03 08.8**	**+0.7**
	0.3nm,0.6s,baz=221,slow=24,SNR=1.6						
	0.4nm,0.5s						
BRTR				AML	AML		
MMAI	**Mount Meron Ar**	**7.59**	**103**	P	**Pn**	**14 01 51.1**	**+1.9**
	2.2nm,0.3s,baz=270,slow=17,SNR=1.9						
MMAI				S	**Sn**	**14 03 17.1**	**+1.9**
	0.7nm,0.3s,baz=215,slow=49,SNR=1.9						
	0.7nm,0.3s						
MMAI				AML	AML		
EIL	**Elat**	**8.87**	**125**	LR	LR	14 07 01.6	
	comp=Z,29nm,18.7s,baz=260,slow=47						
GNI	**Garni**	**15.26**	**65**	LR	LR	14 11 01.8	
	comp=Z,60nm,20.0s,baz=334,slow=43						
ESDC	**Sonseca Array**	**24.66**	**290**	P	**P**	**14 05 17.3**	**-2.0**
	0.4nm,0.5s,baz=86,slow=9.3,SNR=4.9						
	0.4nm,0.5s						
TORD	**Torodi Ar. Bea**	**31.33**	**232**	P	**P**	**14 06 17.5**	**-1.6**
	1.1nm,0.6s,baz=35,slow=7.9,SNR=5.4						
	1.1nm,0.6s						
KURBB	**Kurchatov Arra**	**40.28**	**51**	P	**P**	**14 07 35.0**	**-0.5**
	0.5nm,0.5s,baz=265,slow=8.8,SNR=2.3						
	0.5nm,0.5s						
MKAR	**Makanchi Array**	**42.86**	**57**	P	**P**	**14 07 56.2**	**-0.5**
	0.9nm,0.7s,baz=271,slow=8.6,SNR=4.4						
	0.9nm,0.7s						
ZALV	**Zalesovo Beam**	**44.24**	**46**	P	**P**	**14 08 06.7**	**-0.9**
	0.7nm,0.4s,baz=268,slow=8.5,SNR=4.4						
	0.7nm,0.4s						
CMAR	**Chiang Mai Arr**	**65.42**	**84**	P	**P**	**14 10 41.1**	**-0.5**
	0.4nm,0.3s,baz=308,slow=6.5,SNR=1.4						
	0.4nm,0.3s						

IDC 22 14:04:43.2±2.2, 5°28S×129°14E, h0km, mb4.1/1, mbtmp3.2/3, ML2.8/2, Error ellipse: s-maj=135.6km s-min=25.4km az=68.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**15.43**	**161**	Pn	Pn	14 08 17.2	-5.3
	baz=342,slow=14,SNR=5.6						
WRA				Sn	Sn	14 10 56.5	-18
	baz=343,slow=26,SNR=1.3						
	0.3nm,1.0s						
ASAR	**Alice Springs**	**18.85**	**166**	P	P	14 09 03.2	-1.9
	baz=347,slow=9.4,SNR=4.6						
	0.2nm,0.8s						
MKAR	**Makanchi Array**	**66.32**	**327**	P	P	14 15 33.8	+0.1
	2.8nm,1.2s,baz=131,slow=7.9,SNR=2.2						
	2.8nm,1.2s						

*AEIC **22** 14:09:27.5±1.2, 55°.41N±0°.04×158°.53W±0°.06, h16km±6km, Error ellipse: s-maj=6.6km s-min=4.5km az=145.0*

NEIC 22 14:09:27.5±1.4, 55°.37N±0°.04×158°.54W±0°.05, h35km±2km, mb3.9/2, ML3.4/34, ML3.2(AEIC), Error ellipse: s-maj=6.9km s-min=4.5km az=329.0, Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNKR	**Veniaminof 5**	**0.81**	**325**		Pn	14 09 41.4	-1.0
CNBA	**Chernabura Isl**	**0.82**	**228**		Pn	14 09 41.8	-0.7
CNBA	**Chernabura Isl**	**0.82**	**228**		Sn	14 09 52.1	-1.3
CHGN	**Chignik**	**0.94**	**4**		Pn	14 09 42.5	-1.6
CHGN	**Chignik**	**0.94**	**4**		Sn	14 09 54.7	-1.5
VNWF	**Veniaminof 8**	**0.97**	**324**		Pn	14 09 44.1	-0.6
VNWF					Sn	14 09 56.3	-1.0
VNSS	**Veniaminof 8**	**1.00**	**329**		Pn	14 09 44.5	-0.7
VNFG	**Fog Glacier, M**	**1.08**	**328**		Pn	14 09 46.0	-0.2
VNFG					Sn	14 10 00.2	+0.2
VNFG	**Fog Glacier, M**	**1.08**	**328**		Pn	14 09 46.0	-0.1
SDPT	**Sand Point**	**1.11**	**270**		Pn	14 09 45.6	-0.8
SDPT				IAML		14 10 06.0	
	comp=E,705nm,0.3s						
SDPT	**Sand Point**	**1.11**	**270**		Sn	14 10 00.3	-0.2
ANPB	**Aniakchak Plen**	**1.44**	**6**		Pn	14 09 50.6	-0.5
CHIR	**Chirikof Islan**	**1.71**	**74**	Pn	Pn	14 09 55.0	+0.2
CHIR				IAML		14 10 25.1	
	comp=E,392nm,1.1s						
CHIR				IAML		14 10 28.7	
	comp=N,346nm,1.0s						
CHIR	**Chirikof Islan**	**1.71**	**74**		Sn	14 10 14.6	-0.9
PS1A	**Pavlof South-1**	**1.83**	**273**		Pn	14 09 56.3	0.0
PS4A	**Pavlof South-4**	**1.90**	**271**		Pn	14 09 57.2	-0.1
PS4A					Sn	14 10 21.6	+1.7
DOL	**Dolgoi Island**	**1.92**	**265**		Pn	14 09 58.0	+0.5
DOL					Sn	14 10 23.4	+2.9
PN7A	**Pavlof North-7**	**1.98**	**273**		Pn	14 09 58.9	+0.5
PN7A					Sn	14 10 25.2	+3.3
S12K	**Black Hills**	**2.03**	**281**		Pn	14 09 59.4	+0.3
S12K	**Black Hills**	**2.03**	**281**		Sn	14 10 26.0	+2.8
DTNA	**Dutton South F**	**2.14**	**266**		Pn	14 10 00.7	+0.1
DT1	**Dutton Round H**	**2.16**	**265**		Pn	14 10 00.9	0.0
DT1					Sn	14 10 29.2	+2.7
R16K	**Pilot Point**	**2.27**	**13**	Pn	Pn	14 10 03.0	+0.6
R16K				IAML		14 10 25.8	
	comp=N,179nm,1.2s						
R16K				IAML		14 10 44.0	
	comp=E,187nm,1.2s						
PLBL	**Peulik Blue Cr**	**2.52**	**21**		Pn	14 10 06.1	+0.2
R17L	**Mt. Peulik Vol**	**2.57**	**27**		Pn	14 10 07.1	+0.5
R17L					Sn	14 10 37.3	+0.8
PLK3	**Peulik 3**	**2.64**	**27**		Pn	14 10 08.1	+0.5
SII	**Sitkinak Islan**	**2.72**	**62**	Pn	Pn	14 10 08.6	-0.1
SII				IAML		14 11 00.4	
	comp=N,157nm,0.7s						
SII				IAML		14 11 22.2	
	comp=E,149nm,1.1s						
PLK5	**Peulik 5**	**2.79**	**18**		Pn	14 10 09.3	-0.2
PLK5					Sn	14 10 42.4	+0.6
ISLZ	**Isanotski Laza**	**3.05**	**260**		Pn	14 10 13.8	+0.6
Q17K	**Contact Creek**	**3.25**	**26**		Pn	14 10 16.2	+0.3
Q17K					Sn	14 10 52.4	-0.9
ANCK	**Angle Creek**	**3.29**	**29**		Pn	14 10 17.1	+0.5
KAWH	**Katmai**	**3.65**	**33**		Pn	14 10 21.3	-0.2
P16K	**Nushagak River**	**3.68**	**4**	Pn	Pn	14 10 21.6	-0.2
P16K				IAML		14 11 21.7	
	comp=N,88nm,0.8s						
P16K				IAML		14 11 49.3	
	comp=E,83nm,1.1s						
KARR	**Katmai Rainbow**	**3.77**	**32**		Pn	14 10 23.4	+0.3
Q18K	**Katmai Hardscr**	**3.81**	**29**		Pn	14 10 23.8	+0.1
O15K	**Ungalikthiuk R**	**3.88**	**350**		Pn	14 10 23.6	-0.9
O15K				IAML		14 11 08.8	
	comp=N,61nm,0.4s						
O15K				IAML		14 11 09.3	
	comp=E,53nm,0.5s						
P17K	**Kvichak River**	**4.00**	**16**	Pn	Pn	14 10 26.9	+0.7
P17K				IAML		14 11 46.7	
	comp=E,64nm,1.0s						
O14K	**Tigyukauivet M**	**4.16**	**340**		Pn	14 10 28.4	0.0
O16K	**Kokwok River B**	**4.24**	**3**	Pn	Pn	14 10 29.4	-0.1
P18K	**Big Mountain,**	**4.41**	**23**		Pn	14 10 32.1	+0.2
Q19K	**Cape Douglas,**	**4.45**	**35**	Pn	Pn	14 10 33.8	+1.4
O17K	**Koliganek Bris**	**4.48**	**9**		Pn	14 10 32.9	0.0
N14K	**Kuskokwak Cree**	**4.87**	**341**		Pn	14 10 37.9	-0.1
N14K				IAML		14 11 35.7	
	comp=N,25nm,0.9s						
N14K				IAML		14 12 37.6	
	comp=E,30nm,1.1s						
UNV	**Unalaska Valle**	**4.88**	**255**	Pn	Pn	14 10 38.8	+0.5
UNV				IAML		14 11 55.9	
	comp=E,20nm,1.2s						
UNV				IAML		14 12 05.0	
	comp=N,22nm,0.8s						
N15K	**Kwethluk River**	**4.88**	**351**		Pn	14 10 38.5	+0.2
N15K				IAML		14 12 08.0	
	comp=E,30nm,1.1s						
N15K				IAML		14 12 08.8	
	comp=N,21nm,0.8s						
N16K	**Nishlik Lake**	**5.12**	**359**		Pn	14 10 41.2	-0.3
N17K	**Nushagak Hills**	**5.22**	**7**		Pn	14 10 42.6	-0.3
ILSW	**Iliamna Southw**	**5.45**	**30**	Pn	Pn	14 10 46.1	-0.2
M15K	**Kasigluk River**	**5.46**	**349**		Pn	14 10 45.8	-0.4
M13K	**Dall Lake**	**5.67**	**335**		Pn	14 10 48.9	-0.1
M16K	**Timber Creek**	**5.67**	**358**		Pn	14 10 49.3	+0.1
M14K	**Bethel**	**5.69**	**343**		Pn	14 10 48.9	-0.5
N19K	**Bonanza Creek**	**5.86**	**20**	Pn	Pn	14 10 52.8	+0.9
M17K	**Holitna River**	**6.08**	**5**	Pn	Pn	14 10 54.6	-0.1
M18K	**Stony River**	**6.30**	**12**		Pn	14 10 57.8	+0.1
L14K	**Kuka Creek**	**6.37**	**342**		Pn	14 10 57.7	-1.0
L16K	**Owhat River**	**6.38**	**356**		Pn	14 10 58.6	-0.2
M11K	**Mekoryuk**	**6.48**	**324**		Pn	14 10 59.8	-0.3
L15K	**Ungalak Mounta**	**6.51**	**347**		Pn	14 10 59.0	-1.6
L17K	**Donlin**	**6.79**	**1**		Pn	14 11 03.8	-0.6
M19K	**Big River Lodg**	**6.90**	**17**		Pn	14 11 06.3	+0.4
L18K	**Granite Mounta**	**6.94**	**7**		Pn	14 11 06.4	-0.1
L19K	**White Mountain**	**7.09**	**14**		Pn	14 11 09.1	+0.4
K15K	**Wolf Creek Mou**	**7.11**	**349**		Pn	14 11 08.7	-0.2
K13K	**Kusilvak Mount**	**7.31**	**337**		Pn	14 11 11.3	-0.3
K17K	**Iditarod**	**7.37**	**1**		Pn	14 11 11.9	-0.4
L20K	**Farewell, AK**	**7.52**	**17**		Pn	14 11 15.3	+0.7
J16K	**Anvik River**	**8.01**	**353**	Pn	Pn	14 11 20.5	-0.6
J17K	**VABM Dome**	**8.06**	**358**		Pn	14 11 21.1	-0.7
J18K	**Innoko River**	**8.17**	**6**		Pn	14 11 22.7	-0.7
K20K	**Telida**	**8.33**	**14**	Pn	Pn	14 11 25.6	+0.1
I17K	**Unalakleet**	**8.61**	**354**		Pn	14 11 29.7	+0.3
J19K	**Poorman**	**8.77**	**8**		Pn	14 11 31.6	0.0
GCSA	**Galena City Sc**	**9.44**	**4**		Pn	14 11 40.9	+0.1
H16K	**Elim**	**9.48**	**350**		Pn	14 11 41.1	-0.2
G16K	**Koyuk River**	**10.23**	**351**	Pn	Pn	14 11 51.8	+0.3
H21K	**Melozitna Rive**	**10.69**	**13**	Pn	Pn	14 11 58.3	+0.4
F19K	**Shaleruckik Mo**	**11.51**	**2**	Pn	Pn	14 12 09.7	+0.7
F20K	**Avaraart Lake**	**11.79**	**5**	Pn	Pn	14 12 13.5	+0.6
I29M	**Ogilvie Camp,**	**14.08**	**37**	P	P	14 12 52.6	+1.3
H29M	**Whitestone**	**14.58**	**34**	P	P	14 12 57.3	+0.4
EPYK	**Eagle Plains**	**15.20**	**35**	P	P	14 13 03.9	+0.1
EPYK				IAmb	IAmb	14 13 04.3	
	comp=Z,5.8nm,0.6s						
G30M	**tAoh Zraii Nji**	**15.72**	**33**	P		14 13 08.8	-0.8
G30M				IAmb	IAmb	14 13 13.8	
	comp=Z,9.3nm,1.4s						

*NEIC **22** 14:11:37.6±1.1, 16°.98N±0°.06×147°.15E±0°.10, h35km±2km, mb4.4/28, Error ellipse: s-maj=18.3km s-min=3.2km az=122.0*

*IDC **22** 14:11:38.3±3.7, 16°.94N×147°.08E, h48km±33km, mb3.6/13, mbtmp3.9/14, ML3.8/1, Error ellipse: s-maj=39.4km s-min=14.8km az=89.0*

ISC 22 14:11:38.4±0.6, 16°.95N±0°.06×147°.1E±0°.1, h48km, n51, σ0s67/52, mb4.3/23, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DPSS	**Saipan**	**2.13**	**217**	Pn	**Pn**	**14 12 11.5**	**-0.1**
DPSS				Sn	**Sn**	**14 12 37.2**	**+0.5**
GUMO	**Guam**	**3.99**	**213**	P	**Pn**	**14 12 37.6**	**+0.5**
GUMO				S	**Sn**	**14 13 22.1**	**-0.5**
	6.2nm,0.3s,baz=159,slow=22,SNR=6.1						
	38nm,0.3s,baz=346,slow=23,SNR=2.0						
	29nm,0.4s						
GUMO				AML	AML		
GUMO	**Guam**	**3.99**	**213**		**Pn**	**14 12 37.4**	**+0.3**
JCJ	**Chichijima**	**11.08**	**336**	Pn	**Pn**	**14 14 14.4**	**+0.2**
WAKE	**Wake Island**	**18.71**	**80**	P	**P**	**14 15 52.6**	**-0.5**
JOW	**Kunigami**	**20.04**	**303**	P	**P**	**14 16 07.8**	**+0.3**
JOW				IAmb	IAmb	14 16 44.4	
	comp=Z,22nm,1.0s						
INU	**Inuyama**	**20.42**	**336**	P	**P**	**14 16 12.1**	**+0.5**
INU				IAmb	IAmb	14 16 22.2	
	comp=Z,26nm,1.4s						
JGF	**Kuroka**	**20.51**	**337**	P	**P**	**14 16 13.1**	**+0.5**
JGF				IAmb	IAmb	14 16 38.4	
	comp=Z,21nm,1.2s						
MJAR	**Matsushiro Arr**	**21.05**	**340**	P	**P**	**14 16 17.9**	**-0.5**
	comp=Z,1.1nm,0.5s,baz=165,slow=11,SNR=15						
	comp=Z,1.1nm,0.5s						
MJAR	**Matsushiro Arr**	**21.05**	**340**	IAmb	IAmb	14 16 21.3	
	comp=Z,3.9nm,1.3s						
MAJO	**Matsushiro**	**21.05**	**340**	P	**P**	**14 16 17.9**	**-0.5**
MAJO				IAmb	IAmb	14 16 33.2	
	comp=Z,25nm,1.5s						
MJB9	**Matsu-Tunnel**	**21.05**	**340**	P	**P**	**14 16 18.6**	**+0.1**
MJB9				IAmb	IAmb	14 16 34.1	
	comp=Z,25nm,1.5s						
TJN	**Taejon**	**26.09**	**322**	P	**P**	**14 17 08.2**	**+0.5**
KSRS	**Korea Array**	**26.52**	**324**	P	**P**	**14 17 09.7**	**-1.8**
	comp=Z,0.6nm,0.5s,baz=141,slow=9.1,SNR=2.3						
	comp=Z,0.6nm,0.5s						
WB0	**Warramunga Arr**	**38.57**	**199**	P	**P**	**14 18 56.2**	**-0.6**
WB0				IAmb	IAmb	14 19 35.8	
	comp=Z,10nm,1.5s						
WR8	**Warramunga Arr**	**38.72**	**199**	P	**P**	**14 18 57.6**	**-0.5**
WR8				IAmb	IAmb	14 19 04.9	
	comp=Z,8.2nm,1.4s						
WRAB	**Tennant Creek**	**38.74**	**199**	P	**P**	**14 18 57.7**	**-0.6**
WRAB				IAmb	IAmb	14 18 58.4	
	comp=Z,3.9nm,1.1s						
WRA	**Warramunga Arr**	**38.75**	**199**	P	**P**	**14 18 57.4**	**-1.0**
	comp=Z,0.9nm,0.8s,baz=34,slow=8.9,SNR=19						
WRA				PcP	**PcP**	**14 21 08.8**	**-0.5**
	comp=Z,0.3nm,0.8s,baz=20,slow=3.3,SNR=2.3						
	comp=Z,0.9nm,0.8s						
WRA	**Warramunga Arr**	**38.75**	**199**	P	**P**	**14 18 56.3**	**-2.0**
HIA	**Hailar**	**39.13**	**331**	P	**P**	**14 19 01.3**	**0.0**
HIA				IAmb	IAmb	14 19 18.3	
	comp=Z,6.8nm,0.7s						
AS31	**Alice Springs**	**42.38**	**198**	P	**P**	**14 19 28.3**	**0.0**
ASAR	**Alice Springs**	**42.38**	**198**	P	**P**	**14 19 27.8**	**-0.6**
	comp=Z,0.2nm,0.5s,baz=16,slow=9.0,SNR=13						
ASAR				PcP	**PcP**	**14 21 21.0**	**-0.1**
	comp=Z,0.2nm,0.8s,baz=28,slow=2.8,SNR=1.8						
	comp=Z,0.2nm,0.5s						
SONM	**Songino Array**	**45.34**	**322**	P	**P**	**14 19 51.9**	**-0.1**
	comp=Z,0.3nm,0.4s,baz=125,slow=5.4,SNR=4.1						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**45.34**	**322**	P	**P**	**14 19 51.9**	**-0.1**
ARMA	**Armidale**	**47.30**	**175**	P	**P**	**14 20 07.1**	**-0.3**
ARMA				IAmb	IAmb	14 20 36.6	
	comp=Z,6.8nm,1.1s						
LHI	**Lord Howe Isla**	**49.54**	**167**	P	**P**	**14 20 25.8**	**+1.3**
J14K	**Nanvaranak Lak**	**57.02**	**25**	P	**P**	**14 21 19.2**	**+0.1**
MKAR	**Makanchi Array**	**60.64**	**314**	P	**P**	**14 21 44.8**	**+0.1**
	comp=Z,0.4nm,0.5s,baz=94,slow=7.2,SNR=6.0						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**60.64**	**314**	P	**P**	**14 21 44.6**	**0.0**
MAKZ	**Makanchi**	**60.86**	**314**	P	**P**	**14 21 45.9**	**-0.2**
RND	**Reindeer**	**63.42**	**27**	P	**P**	**14 22 03.2**	**+0.2**
RND				IAmb	IAmb	14 22 20.4	
	comp=Z,1.9nm,1.1s						
KURK	**Kurchatov**	**63.47**	**319**	P	**P**	**14 22 03.4**	**0.0**
KURK	**Kurchatov**	**63.47**	**319**	IAmb	IAmb	14 22 05.2	
	comp=Z,2.9nm,1.0s						
KURBB	**Kurchatov Arra**	**63.51**	**319**	P	**P**	**14 22 03.4**	**-0.3**
	comp=Z,1.5nm,0.3s,baz=92,slow=7.1,SNR=4.8						
	comp=Z,1.5nm,0.3s						
NRIK	**Noril'sk**	**63.70**	**340**	P	**P**	**14 22 05.7**	**+1.0**
	comp=Z,1.4nm,0.3s,baz=85,slow=11,SNR=2.0						
	comp=Z,1.4nm,0.3s						
NRIK	**Noril'sk**	**63.70**	**340**	IAmb	IAmb	14 22 20.8	
	comp=Z,3.4nm,0.8s						
IL31		**64.62**	**26**	P	**P**	**14 22 10.6**	**0.0**
IL31				IAmb	IAmb	14 22 26.7	
	comp=Z,6.8nm,1.4s						
ILAR	**Eielson Array**	**64.62**	**26**	P	**P**	**14 22 10.2**	**-0.5**
	comp=Z,0.1nm,0.4s,baz=270,slow=7.4,SNR=1.2						
	comp=Z,0.1nm,0.4s						
E27K	**Coleen River**	**67.45**	**23**	P	**P**	**14 22 29.1**	**+0.2**
BVAR	**Borovoye Array**

σ1$61/36, **mb4.2**/10, **Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANI	**Sanana**	**1.63**	**291**	P	**Pn**	**14 21 22.6**	**-1.7**
SANI				S	**Sn**	**14 21 39.7**	**-4.6**
BNDI	**Bandanaira**	**3.03**	**128**	P	**Pb**	**14 21 48.4**	**-2.5**
BNDI				AML	AML		
TNTI	**Ternate**	**3.39**	**358**	Pn	**Pn**	**14 21 47.1**	**-1.4**
FAKI	**Fak Fak**	**4.74**	**93**	Pn	**Pn**	**14 22 08.3**	**+1.2**
FAKI	**Fak Fak**	**4.74**	**93**	P	**Pn**	**14 22 09.0**	**+1.9**
FAKI				AML	AML		
KMSI	**Cibinong**	**4.76**	**312**	P	**Pn**	**14 22 06.3**	**-1.0**
LUWI	**Luwuk**	**5.00**	**288**	Pn	**Pn**	**14 22 10.8**	**+0.2**
APSI	**Ampana**	**6.11**	**286**	P	**Pn**	**14 22 27.6**	**+1.7**
TOLI2	**Tolitoli**	**7.69**	**299**	Pn	**Pn**	**14 22 47.5**	**-0.1**
KNRA	**Kununurra**	**13.02**	**175**	Pn	**Pn**	**14 24 02.3**	**+1.7**
FITZ	**Fitzroy Crossi**	**15.47**	**187**	Pn	**P**	**14 24 39.9**	**+1.9**
	0.2nm,0.3s,baz=8.9,slow=13,SNR=5.8 0.8nm,0.4s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.47**	**187**	P	**P**	**14 24 39.7**	**+1.6**
WB0	**Warramunga Arr**	**18.30**	**159**	P	**Pn**	**14 25 09.8**	**+0.4**
WB0				IAmb	IAmb	14 25 23.1	
	comp=Z,6.8nm,0.9s						
WRAB	**Tennant Creek**	**18.44**	**159**	P	**Pn**	**14 25 11.5**	**+0.3**
WRAB				IAmb	IAmb	14 25 23.6	
	comp=Z,4.8nm,0.9s						
WRA	**Warramunga Arr**	**18.45**	**159**	P	**Pn**	**14 25 11.8**	**+0.5**
	comp=Z,0.6nm,0.3s,baz=341,slow=11,SNR=59						
WRA				S	**Sn**	**14 28 34.4**	**-2.3**
	comp=Z,1.0nm,0.8s,baz=334,slow=20,SNR=5.5 comp=Z,1.5nm,0.3s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**18.45**	**159**	P	**P**	**14 25 09.4**	**-1.5**
WR8	**Warramunga Arr**	**18.52**	**159**	P	**Pn**	**14 25 12.1**	**+0.1**
WR8				IAmb	IAmb	14 25 32.8	
	comp=Z,5.4nm,0.9s						
AS31	**Alice Springs**	**21.80**	**164**		**P**	**14 25 48.3**	**+0.9**
ASAR	**Alice Springs**	**21.80**	**164**	P	**P**	**14 25 48.5**	**+1.0**
	comp=Z,1.4nm,0.5s,baz=345,slow=11,SNR=57						
ASAR				S	**S**	**14 29 45.1**	**-2.1**
	comp=Z,1.9nm,0.9s,baz=346,slow=18,SNR=9.3 comp=Z,1.4nm,0.5s						
FORT	**Forrest**	**28.00**	**179**	P	**P**	**14 26 46.9**	**+1.0**
FORT				IAmb	IAmb	14 27 27.2	
	comp=Z,10nm,1.0s						
JOW	**Kunigami**	**29.31**	**1**	P	**P**	**14 26 57.3**	**-0.4**
KOUNC	**Koumac, New Ca**	**40.02**	**119**	P	**P**	**14 28 30.6**	**+0.4**
MKAR	**Makanchi Array**	**63.24**	**327**	P	**P**	**14 31 22.5**	**-0.9**
	comp=Z,1.3nm,0.9s,baz=132,slow=8.4,SNR=2.2 comp=Z,1.3nm,0.9s						
KSH2	**Kashi**	**63.25**	**317**	P	**P**	**14 31 27.8**	**+4.0**
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.4s						
KURBB	**Kurchatov Arra**	**67.52**	**329**	P	**P**	**14 31 51.4**	**+0.4**
	comp=Z,0.6nm,0.3s,baz=129,slow=5.9,SNR=5.2 comp=Z,0.6nm,0.3s						
KURK	**Kurchatov**	**67.53**	**329**	P	**P**	**14 31 51.4**	**+0.4**
KURK	**Kurchatov**	**67.53**	**329**	IAmb	IAmb	14 32 02.7	
	comp=Z,3.1nm,0.9s						
BVAR	**Borovoye Array**	**73.08**	**328**	P	**P**	**14 32 25.2**	**+0.3**
	comp=Z,1.0nm,0.7s,baz=120,slow=8.5,SNR=5.1 comp=Z,1.0nm,0.7s						
AB31	**Akbulak array**	**77.57**	**322**	P	**P**	**14 32 51.2**	**+0.4**
AB31				IAmb	IAmb	14 33 33.1	
	comp=Z,3.0nm,1.4s						
ABKAR	**Akbulak array**	**77.57**	**322**	P	**P**	**14 32 51.0**	**+0.1**
RDOG	**Red Dog Mine**	**84.91**	**21**	P	**P**	**14 33 28.8**	**-0.6**
L20K	**Farewell, AK**	**87.07**	**27**	P	**P**	**14 33 39.0**	**-1.2**
L20K				IAmb	IAmb	14 33 50.3	
	comp=Z,8.1nm,1.3s						
QSPA	**South Pole Qui**	**87.31**	**180**	P	**P**	**14 33 41.5**	**0.0**
	comp=Z,0.5nm,0.8s,baz=292,slow=4.8,SNR=7.2 comp=Z,0.5nm,0.8s						
QSPA	**South Pole Qui**	**87.31**	**180**	IAmb	IAmb	14 33 53.3	
	comp=Z,1.8nm,0.9s						
IMAR	**Indian Mountai**	**87.81**	**24**	P	**P**	**14 33 44.0**	**+0.2**

*TIF **22** 14:40:24.2, 40.31N×40.19E, h17km*
*ISK **22** 14:40:24.9, 40.31N×40.24E, h4km, ML3.5/30*
*AFAD **22** 14:40:24.5, 40.31N×40.18E, h13km±1km, MW3.8*
*MCSM **22** 14:40:26.7±0.9, 41.1°N±5.4°×4.1°E±°, h7km±3km, mb3.9, mB3.8, MLv3.9, Mw(mB)2.8*
*CFUSG **22** 14:40:27.6, 40.44N×39.94E, h5km, Mb3.2/4, MD3.4/6, MSH3.3/6*
*NEIC **22** 14:40:27.1±1.1, 40.24N±0.04×40.23E±0.02, h10km±1km, mb4.6/22, Error ellipse: s-maj=7.1km s-min=2.9km az=192.0*
*IDC **22** 14:40:29.2±1.2, 40.70N×40.09E, h0km, mb3.9/1, mbtmp3.6/8, ML3.6/7, MS3.1/1, Error ellipse: s-maj=19.1km s-min=14.2km az=156.0*

ISC 22 14:40:26.0±0.8, 40.33N±0.02×40.22E±0.02, h5km±5km, n135, σ1$38/165, mb4.6/10, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAYB	**BAYBURT**	**0.07**	**154**	P	**Pg**	**14 40 27.9**	**0.0**
BAYB				S	**Sg**	**14 40 29.5**	**+0.4**
BAYT	**Aydıntepe-Bayb**	**0.09**	**320**	Pg	**Pg**	**14 40 28.3**	**+0.3**
BAYT				Sg	**Sg**	**14 40 30.6**	**+1.1**
BAYT				AML	AML		
KOPT	**Kop Dagi**	**0.38**	**145**	P	**Pg**	**14 40 32.7**	**-0.6**
KOPT				S	**Sg**	**14 40 38.1**	**-0.2**
KOPT	**Kop Dagi**	**0.38**	**145**	Pg	**Pg**	**14 40 32.4**	**-0.9**
KOPT				Sg	**Sg**	**14 40 37.6**	**-0.7**
IZDR	**Rize**	**0.53**	**30**	P	**Pg**	**14 40 35.3**	**-0.9**
IZDR				S	**Sg**	**14 40 42.3**	**-0.8**
KRIK	**Erzurum-spir**	**0.55**	**89**	P	**Pg**	**14 40 35.6**	**-0.9**
KRIK				S	**Sg**	**14 40 43.1**	**-0.5**
EMRE	**Erzurum,Aziziy**	**0.65**	**117**	P	**Pg**	**14 40 38.4**	**-0.2**
MACK	**Trabzon**	**0.70**	**331**	P	**Pg**	**14 40 39.0**	**-0.6**
MACK				S	**Sg**	**14 40 48.9**	**+0.3**
EUZM	**Uzumlu**	**0.73**	**213**	P	**Pg**	**14 40 38.3**	**-1.8**
KTUT	**Trabzon**	**0.74**	**333**	Pg	**Pg**	**14 40 39.7**	**-0.6**
KTUT				AML	AML		
KELT	**Kelkit**	**0.76**	**257**	P	**Pg**	**14 40 38.9**	**-1.6**
KELT				S	**Sg**	**14 40 48.5**	**-1.8**
ERZN	**Erzincan**	**0.83**	**207**	Pg	**Pg**	**14 40 40.0**	**-1.9**
ERZN				AML	AML		
CHOM	**Cayeli-Rize**	**0.88**	**28**	Pg	**Pg**	**14 40 41.7**	**-1.1**
CHOM				AML	AML		
ATA5	**Erzurum, Merke**	**0.90**	**118**	P	**Pg**	**14 40 42.8**	**-0.4**
AKDA	**Akdag**	**0.91**	**104**	P	**Pg**	**14 40 42.7**	**-0.7**
AKDA				S	**Sg**	**14 40 56.3**	**-0.5**
YEDI	**Yedisu-Bingol**	**0.92**	**164**	Pg	**Pg**	**14 40 41.9**	**-1.8**
YEDI				Sg	**Sb**	**14 40 56.0**	**-1.1**
YEDI				AML	AML		
ECAT	**Cat-ERZURUM**	**0.93**	**141**	P	**Pg**	**14 40 42.3**	**-1.4**
ERZM	**Erzurum**	**0.98**	**115**	P	**Pg**	**14 40 44.3**	**-0.4**
ERZM				S	**Sb**	**14 40 57.7**	**-1.1**
ALUC	**Giresun/Alucra**	**1.10**	**271**	P	**Pg**	**14 40 45.4**	**-1.8**
ALUC				S	**Sg**	**14 40 59.8**	**-1.7**
KARO	**Karliova-Bingo**	**1.20**	**147**	Pn	**Pg**	**14 40 47.9**	**-1.1**
KARO				Sn	**Sb**	**14 41 04.9**	**-0.3**
KARO				AML	AML		
DDEM	**Demirkent**	**1.30**	**64**	P	**Pg**	**14 40 48.8**	**-2.1**
DDEM				S	**Sg**	**14 41 06.0**	**-1.8**
KOPR	**Koprukoy-ERZUR**	**1.30**	**104**	Pn	**Pg**	**14 40 49.7**	**-1.2**
KOPR				Sn	**Sn**	**14 41 08.4**	**-0.3**
KOPR				AML	AML		
TNCL	**Tunceli-Merkez**	**1.32**	**203**	P	**Pg**	**14 40 49.0**	**-2.2**
TNCL				S	**Sg**	**14 41 07.2**	**-1.1**
DBAD	**Bademkaya**	**1.32**	**58**	P	**Pg**	**14 40 48.9**	**-2.4**
DBAD				S	**Sg**	**14 41 05.9**	**-2.6**
HOMI	**Horasan**	**1.32**	**102**	P	**Pg**	**14 40 50.1**	**-1.3**
EOLT	**Oltu**	**1.36**	**80**	P	**Pg**	**14 40 50.9**	**-1.1**
BNGB	**Bingl**	**1.38**	**165**	Pn	**Pg**	**14 40 49.9**	**-2.5**
BNGB				Sn	**Sn**	**14 41 10.6**	**0.0**
BNGB				AML	AML		
DAGI	**Agillar**	**1.50**	**59**	P	**Pn**	**14 40 52.6**	**-1.0**
DAGI				S	**Sb**	**14 41 12.1**	**-1.4**
DBOC	**Borcka**	**1.50**	**47**	P	**Pn**	**14 40 52.6**	**-1.0**
DBOC				S	**Sn**	**14 41 11.8**	**-1.7**
SLHN	**Bingol, Solhan**	**1.50**	**155**	P	**Pn**	**14 40 53.0**	**-0.6**
VRTB	**Varto-Mus**	**1.51**	**140**	Pn	**Pn**	**14 40 53.4**	**-0.3**
VRTB				AML	AML		
ILIC	**ilic-Erzincan**	**1.54**	**236**	Pn	**Pn**	**14 40 53.7**	**-0.4**
ILIC				Sn	**Sg**	**14 41 15.2**	**-0.2**
ILIC				AML	AML		
SUSE	**Susehri**	**1.54**	**266**	P	**Pn**	**14 40 52.4**	**-1.8**
SUSE				S	**Sn**	**14 41 12.5**	**-2.3**
KOVA	**Elazig, Kovanc**	**1.65**	**191**	P	**Pn**	**14 40 54.4**	**-1.2**
KOVA				S	**Sb**	**14 41 17.2**	**-0.8**
SENK	**Senkaya-Erzuru**	**1.65**	**81**	Pn	**Pn**	**14 40 55.2**	**-0.5**
SENK				Sn	**Sn**	**14 41 17.4**	**0.0**
SENK				AML	AML		
KEMA	**Kemaliye**	**1.69**	**232**	P	**Pn**	**14 40 55.2**	**-1.1**
KEMA				S	**Sn**	**14 41 18.4**	**0.0**
EKAR	**Karacoban**	**1.78**	**126**	P	**Pg**	**14 40 59.2**	**-0.9**
EATA	**Eleskirt**	**1.81**	**104**	P	**Pb**	**14 40 59.0**	**-0.7**
EATA				S	**Sg**	**14 41 24.0**	**0.0**
ELZ	**Elazig**	**1.81**	**206**	P	**Pn**	**14 40 58.0**	**+0.1**
ELZ				S	**Sg**	**14 41 23.1**	**-1.0**
ARPR	**Arapgir-MALATY**	**1.90**	**230**	Pn	**Pn**	**14 40 58.7**	**-0.4**
ARPR	**Arapgir-MALATY**	**1.90**	**230**	Pn	**Pn**	**14 40 59.2**	**0.0**
ARPR				AML	AML		
ORDU	**Ordu-Boztepe**	**1.91**	**291**	P	**Pn**	**14 40 59.8**	**+0.5**
ORDU				S	**Sn**	**14 41 24.2**	**+0.5**
AHAN	**Ardahan-Merkez**	**2.01**	**65**	P	**Pn**	14 40 55.1	-5.6
AHAN				S	**Sn**	**14 41 21.9**	**-4.5**
SVRC	**Sivrice-ELAZID**	**2.07**	**200**	Pn	**Pn**	**14 41 01.3**	**-0.2**
SVRC				Sn	**Sn**	**14 41 27.7**	**0.0**
SVRC				AML	AML		
TUNC	**Hafik-SIVAS**	**2.15**	**254**	Pn	**Pn**	**14 41 03.8**	**+1.2**
MLAZ	**Malazgirt-MUS**	**2.15**	**123**	Pn	**Pn**	**14 41 02.7**	**+0.1**
MLAZ				AML	AML		
KARS	**Kars**	**2.21**	**81**	Pn	**Pn**	**14 41 03.8**	**+0.5**
KARS				AML	AML		
RSDY	**Resadiye-TOKAT**	**2.21**	**273**	Pn	**Pn**	**14 41 03.8**	**+0.5**
RSDY				AML	AML		
AGRB	**Hanur-Agry**	**2.26**	**108**	Pn	**Pn**	**14 41 04.6**	**+0.4**
AGRB				AML	AML		
GURO	**Guroymak-BITLI**	**2.26**	**141**	Pn	**Pn**	**14 41 03.8**	**-0.4**
GURO	**Guroymak-BITLI**	**2.26**	**141**	Pn	**Pn**	**14 41 04.6**	**+0.5**
GURO				AML	AML		
SVAN	**Silvan-Diyarba**	**2.30**	**160**	Pn	**Pn**	**14 41 04.5**	**-0.1**
SVAN				AML	AML		
DYBB	**Diyarbakir**	**2.37**	**181**	Pn	**Pn**	**14 41 06.1**	**+0.6**
DYBB				AML	AML		
SVSK	**Karacayir**	**2.50**	**262**	Pn	**Pn**	**14 41 08.5**	**+1.3**
SVSK				AML	AML		
AKH	**Akhalkalaki**	**2.71**	**65**	P	**Pb**	**14 41 14.4**	**-0.7**
BGD	**Bogdanovka**	**2.73**	**69**	P	**Pb**	**14 41 16.2**	**+0.7**
DARE	**Darende-Malaty**	**2.75**	**231**	Pn	**Pn**	**14 41 11.9**	**+1.2**
DARE				AML	AML		
TOKT	**Tokat**	**2.81**	**271**	Pn	**Pn**	**14 41 11.5**	**0.0**
TOKT				AML	AML		
TOKA	**Tokat**	**2.86**	**271**	Pn	**Pn**	**14 41 12.5**	**+0.3**
TKB	**Tkibuli**	**2.91**	**45**	P	**Pb**	**14 41 16.5**	**-1.9**
AKDM	**Akdamar-Van**	**2.93**	**132**	Pn	**Pn**	**14 41 13.9**	**+0.6**
AKDM				AML	AML		
GEVA	**Gevas**	**2.98**	**131**	Pn	**Pn**	**14 41 14.1**	**+0.1**
MARD	**Mardin**	**3.04**	**171**	Pn	**Pn**	**14 41 14.1**	**-0.7**
URFA	**Urfa**	**3.08**	**201**	Pn	**Pn**	**14 41 16.2**	**+0.9**
URFA				AML	AML		
TASB	**TASBURUN-IGDIR**	**3.10**	**95**	Pn	**Pn**	**14 41 16.2**	**+0.6**
TASB				AML	AML		
TRLG	**Trialeti**	**3.18**	**66**	P	**Pb**	**14 41 22.6**	**-0.5**
KIZO	**Buyukkizoglu-L**	**3.31**	**281**	Pn	**Pn**	**14 41 19.6**	**+1.1**
KIZO				AML	AML		
YARM	**Yarimca-Ladik(**	**3.39**	**282**	Pn	**Pn**	**14 41 20.4**	**+0.8**
YARM				AML	AML		
GNI	**Garni**	**3.47**	**91**	Pn	**Pb**	**14 41 28.3**	**+0.4**
	1.7nm,0.3s,baz=279,slow=12,SNR=5.1						
GNI				Lg	Lg	14 42 18.6	
	1.2nm,0.3s,baz=234,slow=2.8,SNR=3.7 9.6nm,0.7s						
GNI				AML	AML		
GNI	**Garni**	**3.47**	**91**		**Pn**	**14 41 21.5**	**+0.7**
GNI	**Garni**	**3.47**	**91**	Pn	**Pn**	**14 41 21.2**	**+0.5**
GNI				AML	AML		
SARI	**SarD1z-Kayseri**	**3.51**	**238**	Pn	**Pn**	**14 41 21.9**	**+0.6**
SARI				AML	AML		
BNN	**Bunyan**	**3.68**	**248**		**Pn**	**14 41 25.6**	**+1.9**
KBZ	**Khabaz**	**3.94**	**30**	Pn	**Pn**	**14 41 27.9**	**+0.8**
	0.6nm,0.3s,baz=209,slow=10,SNR=9.5						
KBZ				Lg	Lg	14 42 14.5	
	0.3nm,0.3s,baz=333,slow=4.9,SNR=1.9 3.3nm,0.5s						
KBZ				AML	AML		
KIV	**Kislovodsk**	**4.07**	**26**	Pn	**Pn**	**14 41 29.2**	**+0.4**
KVAR	**Kislovodsk Arr**	**4.07**	**26**	Pn	**Pn**	**14 41 29.7**	**+0.8**
	baz=211,slow=16						
KVAR				Lg	Lg	14 42 18.5	
	baz=268,slow=23 3.3nm,0.4s						
CHRG	**Chargali**	**4.07**	**59**	P	**Pb**	**14 41 37.4**	**-0.8**
SNOP	**Sinop**	**4.14**	**296**	Pn	**Pn**	**14 41 29.9**	**+0.1**
LGD	**Lagodekhi**	**4.80**	**70**	P	**Pb**	**14 41 51.3**	**+0.8**
BR131	**Keskin Array S**	**5.08**	**265**		**Pn**	**14 41 43.0**	**0.0**
BRTR	**Keskin Array B**	**5.08**	**265**	Pn	**Pn**	**14 41 47.0**	**+4.1**
	0.4nm,0.3s,baz=83,slow=12,SNR=10						
BRTR				Lg	Lg	14 43 02.9	
	0.3nm,0.3s,baz=94,slow=31,SNR=1.4 0.9nm,0.3s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**5.08**	**265**		**Pn**	**14 41 42.9**	**0.0**
BR106	**Keskin Array S**	**5.10**	**265**	P	Pn	14 41 48.6	+5.5
	0.0nm95nm8.1nm,0.6s						
BR106				AML	AML		
BR105	**Keskin Array S**	**5.10**	**265**	P	**Pn**	**14 41 47.8**	**+4.7**
	0.0nm82nm9.3nm,0.9s						
BR105				AML	AML		
SUDU	**Sudak**	**5.97**	**322**	*eP*	**Pn**	**14 41 53.6**	**-1.3**
SUDU				pmax	pmax	14 41 58.1	
	comp=Z,11nm,0.3s						
SUDU				*eS*	**Sn**	**14 43 02.6**	**-0.9**
SUDU				smax	smax	14 43 10.5	
	comp=N,31nm,0.5s						
SUDU				smax	smax	14 43 10.5	
	comp=E,7.0nm,0.3s						
ALU	**Alushta**	**6.12**	**317**	*eP*	**Pn**	**14 41 57.2**	**+0.3**
ALU				pmax	pmax	14 41 57.8	
	comp=Z,15nm,0.3s						
ALU				*ex*	x	14 43 06.4	
ALU				smax	smax	14 43 09.6	
	comp=E,64nm,0.4s						
YAL	**Yalta**	**6.12**	**315**	*eP*	**Pn**	**14 41 56.4**	**-0.5**
YAL				pmax	pmax	14 41 56.7	
	comp=Z,17nm,0.3s						
YAL				*eS*	**Sn**	**14 43 04.8**	**-2.4**
YAL				smax	smax	14 43 06.8	
	comp=N,15nm,0.3s						
YAL				smax	smax	14 43 06.8	
	comp=E,17nm,0.4s						
SEV	**Sevastopol'**	**6.42**	**313**	*eP*	**Pn**	**14 42 00.4**	**-0.7**
SEV				pmax	pmax	14 42 00.9	
	comp=Z,3.0nm,0.3s						
SEV				*eS*	**Sn**	**14 43 12.4**	**-2.3**
SEV				smax	smax	14 43 14.8	
	comp=N,5.0nm,0.3s						
SEV				smax	smax	14 43 14.8	
	comp=E,3.0nm,0.3s						
DNZ2	**Donuzlav2**	**7.20**	**317**	*ex*	x	14 42 12.2	
DNZ2				*eS*	**Sn**	**14 43 32.3**	**-1.7**
DNZ2				smax	smax	14 43 35.4	
	comp=N,12nm,0.5s						
DNZ2				smax	smax	14 43 35.4	
	comp=E,12nm,0.3s						
TARU	**Tarkhankut**	**7.57**	**314**	pmax	pmax	14 41 19.3	
	comp=Z,7.0nm,0.3s						
TARU				*eP*	**Pn**	**14 42 16.4**	**-0.5**
TARU				*eS*	**Sn**	**14 43 40.8**	**-2.2**
TARU				smax	smax	14 43 46.7	
	comp=N,9.0nm,0.5s						
TARU				smax	smax	14 43 46.7	
	comp=E,6.0nm,0.5s						
MMAI	**Mount Meron Ar**	**8.26**	**209**	Pn	Pn	14 42 35.5	+9.1
	comp=E,3.1nm,0.3s,baz=21,slow=12,SNR=2.7 comp=E,0.6nm,0.3s						
MMAI				AML	AML		
TIRR	**Tirgusor**	**9.66**	**299**	Pn	**Pn**	**14 42 43.2**	**-2.2**
MLR	**Muntele Rosu**	**11.66**	**301**	Pn	**Pn**	**14 43 14.2**	**+1.1**
	comp=E,0.4nm,0.3s,baz=127,slow=15,SNR=3.8 comp=E,2.9nm,0.7s						
MLR				AML	AML		
AK07	**Malin Array Si**	**12.80**	**327**	P	**Pn**	**14 43 27.4**	**-1.1**
KMPD	**K-Podol'skiy**	**12.81**	**315**	P	**Pn**	**14 43 26.8**	**-1.8**
AK08	**Malin Array Si**	**12.85**	**327**	P	**Pn**	**14 43 26.9**	**-2.2**
AK05	**Malin Array Si**	**12.86**	**327**	P	**Pn**	**14 43 27.0**	**-2.2**
AK05				pP		14 43 28.9	
AK02	**Malin Array Si**	**12.88**	**327**	P	**Pn**	**14 43 27.7**	**-1.9**
AK02				pP		14 43 29.0	
AKASG	**Malin Array Be**	**12.91**	**327**	Pn	**Pn**	**14 43 26.8**	**-3.2**
	comp=E,1.7nm,0.3s,baz=134,slow=14,SNR=7.9						
AKASG				Sn	Sn	14 45 41.1	-13
	comp=E,1.2nm,0.3s,baz=133,slow=25,SNR=4.3 comp=E,0.9nm,0.4s						
AKASG				AML	AML		
AK11	**Malin Array Si**	**12.91**	**327**	P	**Pn**	**14 43 27.7**	**-2.3**
AK04	**Malin Array Si**	**12.95**	**327**	P	**Pn**	**14 43 27.7**	**-2.8**
AK17	**Malin Array Si**	**12.97**	**327**	P	**Pn**	**14 43 28.6**	**-2.1**
LUBAR	**Lubar, Ukraine**	**13.00**	**322**	P	**Pn**	**14 43 29.6**	**-1.6**
AK19	**Malin Array Si**	**13.01**	**327**	P	**Pn**	**14 43 29.6**	**-1.8**
AK22	**Malin Array Si**	**13.02**	**327**	P	**Pn**	**14 43 29.2**	**-2.2**
BURAR	**Bucovina Array**	**13.02**	**309**	Pn	**Pn**	**14 43 28.9**	**-2.6**
AK21	**Malin Array Si**	**13.04**	**327**	P	**Pn**	**14 43 29.4**	**-2.3**
BUR08	**Bucovina Ar. S**	**13.04**	**309**	Pn	**Pn**	**14 43 29.1**	**-2.8**
AB31	**Akbulak array**	**16.57**	**51**		**P**	**14 44 21.8**	**+0.3**
ABKAR	**Akbulak array**	**16.57**	**51**		**P**	**14 44 22.1**	**+0.6**
BEHE	**Becsehely**	**18.07**	**298**	P	**P**	**14 44 39.1**	**+1.0**
PABE	**Paberze**	**18.61**	**330**	P	**P**	**14 44 44.1**	**+0.1**
PABE				IAmb	IAmb	14 45 20.5	
	comp=Z,64nm,1.5s						
SALO	**Salr**	**22.29**	**294**	P	**P**	**14 45 23.8**	**-0.1**
SALO				IAmb	IAmb	14 45 46.6	
	comp=Z,15nm,1.1s						
FIA1	**FINESS Array S**	**22.85**	**342**	P	**P**	**14 45 30.4**	**+0.7**
FINES	**FINESS Array B**	**22.85**	**342**	P	**P**	**14 45 30.8**	**+1.1**
	comp=Z,5.4nm,0.9s,baz=146,slow=13,SNR=7.7 comp=Z,5.4nm,0.9s						
FINES	**FINESS Array B**	**22.85**	**342**	P	**P**	**14 45 30.1**	**+0.4**
KEST	**Kesra**	**24.68**	**269**	P	**P**	**14 45 49.3**	**+1.6**
KEST				IAmb	IAmb	14 46 28.2	
	comp=Z,24nm,1.2s						
UCC	**Uccle**	**26.95**	**305**	P	**P**	**14 46 08.0**	**-0.1**
UCC				IAmb	IAmb	14 46 15.5	
	comp=Z,18nm,1.4s						
NB201	**NORSAR Array S**	**27.28**	**329**	P	**P**	**14 46 11.7**	**+0.7**
NC303	**NORSAR Array S**	**27.36**	**329**	P	**P**	**14 46 12.5**	**+0.8**
NC303				IAmb	IAmb	14 46 29.4	
	comp=Z,19nm,1.4s						
LVZ	**Lovozero**	**27.80**	**355**	P	**P**	**14 46 16.1**	**+0.6**
SFS	**San Fernando**	**36.27**	**279**	P	**P**	**14 47 30.8**	**+0.7**
EVN	**Everest**	**40.07**	**93**	P	**P**	**14 48 02.8**	**-0.2**
PALK	**Pallekele**	**48.86**	**121**	LR	LR	15 10 49.3	
	comp=Z,18nm,19.0s,baz=324,slow=37						
INCN	**Inchon**	**64.62**	**61**	P	**P**	**14 51 06.0**	**+1.5**
D20K	**Etivluk River**	**70.56**	**6**	P	**P**	**14 51 43.0**	**+1.5**
D20K				IAmb	IAmb	14 52 18.5	
	comp=Z,5.8nm,1.2s						
D19K	**Kuna River**	**70.64**	**7**	P	**P**	**14 51 43.1**	**+1.1**
D19K				IAmb	IAmb	14 52 00.1	
	comp=Z,13nm,1.5s						
E29M	**Blow River**	**71.60**	**359**	P	**P**	**14 51 48.6**	**+0.9**
F21K	**Alatna River**	**72.27**	**6**	P	**P**	**14 51 53.1**	**+1.3**
F21K				IAmb	IAmb	14 52 08.9	
	comp=Z,5.1nm,1.4s						
ILAR	**Eielson Array**	**75.09**	**3**	P	**P**	**14 52 09.8**	**+1.4**
L20K	**Farewell, AK**	**76.92**	**7**	P	**P**	**14 52 20.7**	**+1.8**
L20K				IAmb	IAmb	14 52 47.4	
	comp=Z,11nm,1.4s						
BBJI	**Bungbulang**	**78.01**	**111**	P	**P**	**14 52 27.3**	**+1.6**
ACHA	**Angle Creek He**	**80.97**	**8**	P	**P**	**14 52 42.2**	**+1.0**
ACHA				IAmb	IAmb	14 53 14.9	
	comp=Z,11nm,1.4s						
O54A	**Avella**	**83.33**	**318**	P	**P**	**14 52 53.9**	**0.0**
CBB	**Campbell River**	**89.13**	**351**	P	**P**	**14 53 22.9**	**+0.7**

IDC 22 15:01:39.8±8.4, 19.22S×178.06W, h0km, mb3.4/3, mbtmp3.4/3, Error ellipse: s-maj=363.3km s-min=42.7km az=144.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**44.73**	**261**	P	P	15 09 55.3	0.0
	0.2nm,0.7s,baz=95,slow=8.3,SNR=8.0 0.2nm,0.7s						
ASAR	**Alice Springs**	**44.77**	**255**	P	P	15 09 55.3	-0.3
	0.2nm,0.8s,baz=96,slow=7.7,SNR=4.1 0.2nm,0.8s						
ILAR	**Eielson Array**	**87.09**	**13**	P	P	15 14 27.0	0.0
	1.1nm,1.2s,baz=202,slow=5.6,SNR=2.7 1.1nm,1.2s						

*JMA **22** 15:17:02.7±0.4, 46.7°N±2.7°×14.3°E±°, h338km±3km, MV3.6/36, NE OFF HOKKAIDO*
*IDC **22** 15:17:03.0±1.1, 46.03N×143.04E, h332km±12km, mb3.1/11, mbtmp3.9/15, Error ellipse: s-maj=18.6km s-min=13.6km az=111.0*
*SKHL **22** 15:17:03.7±0.1, 45.80N×143.40E, h325km±1km, mb4.2/3, msha4.8/3*

ISC 22 15:17:02.4±0.7, 45.81N±0.06×143.28E±0.07, h332km±6km, n39, σ1$28/50, mb3.3/11, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRS4	**Mayak Korsakov**	**0.87**	**338**	*eP*	**Pn**	**15 17 46.5**	**+1.0**
KRS4

HFS	**Hagfors**	**66.70**	**335**	P		**P**	**15 27 15.5**	**-2.4**
	12nm,1.2s,baz=45,slow=6.9,SNR=2.1								
	12nm,1.2s								
NVAR	**Mina Array Bea**	**68.78**	**56**	P		**P**	**15 27 33.1**	**+1.6**
	0.3nm,0.5s,baz=293,slow=4.0,SNR=2.8								
	0.3nm,0.5s								
ASAR	**Alice Springs**	**69.66**	**189**	P		**P**	**15 27 39.0**	**+2.4**
	0.2nm,0.5s,baz=7.2,slow=5.4,SNR=7.4								
	0.2nm,0.5s								
PDAR	**Pinedale Array**	**70.64**	**48**	P		**P**	**15 27 43.2**	**+0.6**
	0.4nm,0.5s,baz=301,slow=2.4,SNR=5.2								
	0.4nm,0.5s								
ULM	**Lac du Bonnet**	**71.48**	**36**	P		**P**	**15 27 47.1**	**-0.1**
	1.3nm,0.8s,baz=333,slow=9.0,SNR=1.4								
	1.3nm,0.8s								
BRTR	**Keskin Array B**	**74.12**	**311**	P		**P**	**15 28 02.5**	**-0.5**
	0.5nm,0.7s,baz=56,slow=5.7,SNR=1.5								
	0.5nm,0.7s								
TXAR	**Lajitas Array**	**83.73**	**54**	P		**P**	**15 28 56.1**	**+1.2**
	0.2nm,0.5s,baz=282,slow=4.7,SNR=5.8								
	0.2nm,0.5s								

*SJA **22** 15:47:38.9±0.7, 21°.72S×68°.48W, h140km, ML3.3, MW3.6*
*GUC **22** 15:47:40.3±0.7, 21°.72S×68°.48W, h138km±7km, ML3.4, Presumed earthquake*

ISC 22 15:47:38.7±1.8**, 21°.69S**±0°.04×**68°.7W**±0°.1**, h163**km±13km**, n22**, σ1°s24/41**, 2C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.55**	**259**	⇑*i*	P		**Pn**	**15 48 01.3**	**-0.8**
PB03	**IPOC Station P**	**1.08**	**250**	*e*	P		**Pn**	**15 48 05.8**	**+0.2**
PB03					*e*S		**Sn**	**15 48 25.8**	**-0.4**
PB03					IAML			15 48 26.7	
	comp=Z,497nm,0.2s								
PB03	**IPOC Station P**	**1.08**	**250**	⇑*i*	P		**Pn**	**15 48 05.7**	**+0.1**
PB03					*e*S		**Sn**	**15 48 25.1**	**-1.1**
PB03					IAML			15 48 25.9	
	comp=N,488nm,0.2s								
PB07	**IPOC Station P**	**1.14**	**268**	*e*	P		**Pn**	**15 48 06.9**	**+0.7**
PB07					*e*S		**Sn**	**15 48 27.2**	**+0.1**
PB07					IAML			15 48 28.6	
	comp=Z,429nm,0.1s								
PB07	**IPOC Station P**	**1.14**	**268**	*e*	P		**Pn**	**15 48 06.7**	**+0.6**
PB07					*e*S		**Sn**	**15 48 26.8**	**-0.3**
PB07					IAML			15 48 28.3	
	comp=E,576nm,0.3s								
PB02	**IPOC Station P**	**1.21**	**288**	*e*	P		**Pn**	**15 48 07.3**	**+0.6**
PB02					*e*S		**Sn**	**15 48 28.3**	**+0.2**
PB02					IAML			15 48 29.3	
	comp=Z,747nm,0.3s								
PB02	**IPOC Station P**	**1.21**	**288**	*e*	P		**Pn**	**15 48 07.2**	**+0.5**
PB02					*e*S		**Sn**	**15 48 27.9**	**-0.2**
PB02					IAML			15 48 30.1	
	comp=E,980nm,0.2s								
PB06	**IPOC Station P**	**1.32**	**220**	*e*	P		**Pn**	**15 48 07.8**	**+0.1**
PB06					*e*S		**Sn**	**15 48 29.2**	**-0.9**
PB06					IAML			15 48 31.4	
	comp=Z,212nm,0.2s								
PB06	**IPOC Station P**	**1.32**	**220**	*e*	P		**Pn**	**15 48 07.8**	**+0.1**
PB06					*e*S		**Sn**	**15 48 28.9**	**-1.2**
PB06					IAML			15 48 30.0	
	comp=E,500nm,0.4s								
AF01	**San Pedro de A**	**1.33**	**161**	*e*	P		**Pn**	**15 48 09.8**	**+1.8**
AF01					IAML			15 48 44.0	
	comp=Z,127nm,1.1s								
TA01	**Diego Aracena**	**1.81**	**308**	*e*	P		**Pn**	**15 48 13.4**	**+0.8**
TA01					*e*S		**Sn**	**15 48 39.5**	**+0.9**
TA01					IAML			15 48 44.1	
	comp=Z,380nm,0.8s								
TA01	**Diego Aracena**	**1.81**	**308**	*e*	P		**Pn**	**15 48 13.2**	**+0.7**
TA01					*e*S		**Sn**	**15 48 38.6**	**0.0**
TA01					IAML			15 48 40.6	
	comp=E,348nm,0.2s								
PB05	**IPOC Station P**	**1.84**	**231**	*e*	P		**Pn**	**15 48 13.9**	**+0.9**
PB05					*e*S		**Sn**	**15 48 39.2**	**-0.2**
PB05					IAML			15 48 40.4	
	comp=Z,81nm,0.2s								
PB05	**IPOC Station P**	**1.84**	**231**	*e*	P		**Pn**	**15 48 13.9**	**+0.9**
PB05					*e*S		**Sn**	**15 48 38.8**	**-0.7**
PB05					IAML			15 48 40.7	
	comp=N,132nm,0.4s								
GO01	**Chusmiza**	**2.07**	**346**	*e*	P		**Pn**	**15 48 16.4**	**+0.3**
GO01					*e*S		**Sn**	**15 48 44.7**	**-0.1**
GO01					IAML			15 48 46.9	
	comp=N,285nm,0.2s								
PB11	**IPOC Station P**	**2.13**	**334**	*e*	P		**Pn**	**15 48 16.9**	**+0.5**
PB11					*e*S		**Sn**	**15 48 46.4**	**+0.9**
PB11					IAML			15 48 47.8	
	comp=Z,96nm,0.3s								
PB11	**IPOC Station P**	**2.13**	**334**	*e*	P		**Pn**	**15 48 16.9**	**+0.5**
PB11					*e*S		**Sn**	**15 48 45.3**	**-0.2**
PB11					IAML			15 48 47.1	
	comp=N,346nm,0.1s								
PSGCX	**Pisagua**	**2.49**	**326**	*e*	P		**Pn**	**15 48 20.7**	**+0.1**
PSGCX					*e*S		**Sn**	**15 48 52.4**	**-0.6**
PB14	**IPOC Station P**	**3.33**	**208**	*e*	P		**Pn**	**15 48 31.7**	**+0.6**
PB14					*i* S		**Sn**	**15 49 10.0**	**-1.9**
PB14					IAML			15 49 13.9	
	comp=E,23nm,0.4s								
PB16	**IPOC Station P**	**3.43**	**346**	*e*	P		**Pn**	**15 48 34.4**	**+1.8**
PB16					*i* S		**Sn**	**15 49 08.6**	**-5.9**
PB16					IAML			15 49 18.1	
	comp=E,18nm,0.5s								
PB12	**IPOC Station P**	**3.44**	**333**	*e*	P		**Pn**	**15 48 32.5**	**+0.3**
PB12					*e*S		**Sn**	**15 49 14.6**	**+0.7**
PB12					IAML			15 49 34.4	
	comp=Z,30nm,0.5s								
PB12	**IPOC Station P**	**3.44**	**333**	*e*	P		**Pn**	**15 48 32.6**	**+0.4**

*NEIC **22** 15:58:20.5±1.0, 16°.96N±0°.10×147°.1E±0°.2, h50km±8km, mb4.0/9, Error ellipse: s-maj=24.0km s-min=12.5km az=107.0*
*IDC **22** 15:58:20.5±4.1, 16°.95N×147°.01E, h56km±35km, mb3.2/6, mbtmp3.6/7, ML3.9/1, Error ellipse: s-maj=39.6km s-min=17.4km az=94.0*

ISC 22 15:58:19.5±0.9**, 16°.97N**±0°.09×**147°.1E**±0°.2**, h48**km**, n18, σ0s76/21, mb3.7**/10**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DPSS	**Saipan**	**2.15**	**217**	Pn		Pn	**Pn**	**15 58 53.3**	**+0.2**
DPSS				Sn		Sn	**Sn**	**15 59 19.8**	**+1.3**
GUMO	**Guam**	**4.01**	**213**	P		P	**Pn**	**15 59 19.4**	**+0.8**
	9.0nm,0.3s,baz=30,slow=23,SNR=2.3								
GUMO				S			**Sn**	**16 00 02.9**	**-1.4**
	21nm,0.3s,baz=331,slow=18,SNR=1.4								
	26nm,0.3s								
GUMO				AML		AML			
PATS	**Pohnpei**	**14.85**	**131**	Pn		Pn		16 01 42.4	-4.3
JYT	**Yasato**	**20.15**	**344**	P		**P**		**16 02 50.3**	**+0.6**
MJAR	**Matsushiro Arr**	**21.04**	**340**	P		**P**		**16 02 60.0**	**+0.5**
	1.1nm,0.9s,baz=161,slow=11,SNR=6.1								
	1.1nm,0.9s								
MJAR	**Matsushiro Arr**	**21.04**	**340**	P		**P**	**16 03 00.1**		**+0.7**
MJAR					IAmb	IAmb		16 03 39.7	
	comp=Z,5.1nm,1.3s								
MAJO	**Matsushiro**	**21.04**	**340**	P		**P**	**16 03 00.2**		**+0.8**
MAJO					IAmb	IAmb		16 03 30.6	
	comp=Z,11nm,1.2s								
WB0	**Warramunga Arr**	**38.60**	**199**	P		**P**	**16 05 38.0**		**-0.1**
WR8	**Warramunga Arr**	**38.74**	**199**	P		**P**	**16 05 39.2**		**-0.2**
WR8					IAmb	IAmb		16 05 43.2	
	comp=Z,9.8nm,1.4s								
WRA	**Warramunga Arr**	**38.78**	**199**	P		**P**	**16 05 39.2**		**-0.4**
	comp=Z,0.5nm,0.5s,baz=34,slow=8.5,SNR=15								
WRA					PcP	**PcP**	**16 07 49.9**		**-0.6**
	comp=Z,0.5nm,0.9s,baz=22,slow=3.4,SNR=3.1								
	comp=Z,0.5nm,0.5s								
ASAR	**Alice Springs**	**42.41**	**198**	P		**P**	**16 06 09.0**		**-0.6**
	comp=Z,0.1nm,0.4s,baz=22,slow=7.2,SNR=9.3								
ASAR					PcP	**PcP**	**16 08 02.6**		**+0.4**
	comp=Z,0.2nm,0.8s,baz=25,slow=5.1,SNR=1.8								
	comp=Z,0.1nm,0.4s								
CMAR	**Chiang Mai Arr**	**45.83**	**279**	P		**P**	**16 06 37.3**		**0.0**
	comp=Z,0.3nm,0.3s,baz=83,slow=7.9,SNR=5.5								
	comp=Z,0.3nm,0.3s								
LHI	**Lord Howe Isla**	**49.55**	**167**	P		**P**	**16 07 05.9**		**+0.2**
KURK	**Kurchatov**	**63.47**	**319**	P		**P**	**16 08 44.3**		**-0.3**
KURK					IAmb	IAmb		16 08 55.1	
	comp=Z,2.1nm,1.1s								
KURBB	**Kurchatov Arra**	**63.52**	**318**	P		**P**	**16 08 43.2**		**-1.7**
	comp=Z,0.5nm,0.6s,baz=96,slow=7.2,SNR=6.0								
	comp=Z,0.5nm,0.6s								
ILAR	**Eielson Array**	**64.59**	**26**	P		**P**	**16 08 52.0**		**+0.3**
	comp=Z,0.4nm,0.9s,baz=253,slow=6.1,SNR=5.2								
	comp=Z,0.4nm,0.9s								
AB31	**Akbulak array**	**75.53**	**317**	P		**P**	**16 09 59.0**		**0.0**
AB31					IAmb	IAmb		16 10 34.4	
	comp=Z,1.6nm,1.2s								
ABKAR	**Akbulak array**	**75.53**	**317**	P		**P**	**16 09 58.7**		**-0.3**

*TRN **22** 16:01:53.4, 18°.71N×63°.88W, h3km, MD0.0, East of Anegada, V.I.*
*NEIC **22** 16:01:57.3±0.7, 18°.8N±0°.2×63°.76W±0°.09, h40km±6km, ML3.6/17, Md3.9/13(RSPR), Error ellipse: s-maj=23.9km s-min=7.9km az=203.0*
*RSPR **22** 16:01:59.3, 18°.96N×63°.86W, h45km±30km, MD3.9/13*

ISC 22 16:01:58.7±6.3**, 18°.8N**±0°.2×**63°.84W**±0°.06**, h38**km±10km**, n45, σ1°s14/62, 2C-11D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
SMRT	**St. Maarten**	**1.07**	**137**				**Pn**	**16 02 14.9**	**-2.3**
SMRT						Sn	**Sn**	**16 02 28.6**	**-2.3**
SMRT						IAML		16 02 29.3	
	comp=N,2μm,0.6s								
SMRT	**St. Maarten**	**1.07**	**137**	*e*	P		**Pn**	**16 02 15.9**	**-1.2**
SMRT					*e*S		**Sn**	**16 02 29.4**	**-1.4**
SABA	**Saba**	**1.34**	**155**				**Pn**	**16 02 19.1**	**-1.8**
SEUS	**St. Eustatius**	**1.57**	**149**	Pn			**Pn**	**16 02 22.1**	**-1.9**
SEUS					IAML			16 02 48.8	
	comp=E,680nm,0.3s								
SEUS					IAML			16 03 05.8	
	comp=N,1μm,0.5s								
SKI	**Saint Kitts**	**1.83**	**145**	*e*	P		**Pn**	**16 02 27.9**	**+0.3**
SKI					*e*S		**Sn**	**16 02 51.4**	**+1.9**
HUMP	**Col San Antoni**	**2.03**	**250**				**Pn**	**16 02 29.1**	**-1.2**
HUMP							**Sn**	**16 02 54.1**	**-0.3**
HUMP					IAML			16 03 03.0	
	comp=N,310nm,0.4s								
HUMP	**Col San Antoni**	**2.03**	**250**	⇓*i*	P		**Pn**	**16 02 29.9**	**-0.4**
GCPR	**Guaynabo City**	**2.19**	**256**				**Pn**	**16 02 31.1**	**-1.5**
PDPR	**Patillas Dam,**	**2.23**	**249**				**Pn**	**16 02 32.0**	**-1.0**
PDPR					IAML			16 03 07.4	
	comp=N,222nm,0.5s								
PDPR	**Patillas Dam,**	**2.23**	**249**				**Sn**	**16 02 59.6**	**+0.3**
PDPR	**Patillas Dam,**	**2.23**	**249**	⇓*e*	P		**Pn**	**16 02 33.1**	**+0.1**
ANWB	**Willy Bob**	**2.28**	**121**	*e*	P		**Pn**	**16 02 33.2**	**-0.5**
ANWB					*e*S		**Sn**	**16 03 04.0**	**+3.5**
SJG	**San Juan**	**2.31**	**252**				**Pn**	**16 02 33.0**	**-1.2**
SJG					IAML			16 03 13.6	
	comp=N,206nm,0.7s								
SJG					IAML			16 03 15.1	
	comp=N,271nm,0.7s								
IGPR	**InterUniversit**	**2.32**	**248**				**Pn**	**16 02 35.2**	**+0.9**
IGPR							**Sn**	**16 03 02.3**	**+0.7**
IGPR	**InterUniversit**	**2.32**	**248**	⇓*e*	P		**Pn**	**16 02 35.2**	**+0.9**
ECPR	**Experimental S**	**2.45**	**258**				**Pn**	**16 02 35.1**	**-1.0**
ECPR					IAML			16 03 10.2	
	comp=N,333nm,0.4s								
ECPR	**Experimental S**	**2.45**	**258**				**Sn**	**16 03 05.2**	**+0.5**
ECPR	**Experimental S**	**2.45**	**258**	⇓*e*	P		**Pn**	**16 02 35.9**	**-0.2**
EMPR	**Esperanza - Ma**	**2.57**	**262**				**Pn**	**16 02 37.4**	**-0.4**
EMPR							**Sn**	**16 03 07.8**	**-0.1**
EMPR	**Esperanza - Ma**	**2.57**	**262**	⇓*e*	P		**Pn**	**16 02 37.4**	**-0.4**
EMPR					*e*S		**Sn**	**16 03 07.8**	**+0.1**
CELP	**Cerrillos**	**2.71**	**254**				**Pn**	**16 02 39.1**	**-0.5**
CELP	**Cerrillos**	**2.71**	**254**				**Sn**	**16 03 10.9**	**-0.3**
CELP	**Cerrillos**	**2.71**	**254**	⇓*e*	P		**Pn**	**16 02 39.5**	**-0.2**
OBIP	**Obispado Ponce**	**2.74**	**254**				**Pn**	**16 02 39.7**	**-0.4**
OBIP					IAML			16 03 26.5	
	comp=N,185nm,0.8s								
OBIP	**Obispado Ponce**	**2.74**	**254**				**Sn**	**16 03 12.2**	**+0.2**
OBIP	**Obispado Ponce**	**2.74**	**254**	⇓*e*	P		**Pn**	**16 02 40.5**	**+0.3**
OBIP					*e*S		**Sn**	**16 03 12.2**	**+0.2**
AOPR	**Arecibo Observ**	**2.81**	**260**				**Pn**	**16 02 40.5**	**-0.6**
AOPR	**Arecibo Observ**	**2.81**	**260**				**Sn**	**16 03 13.8**	**+0.1**
AOPR	**Arecibo Observ**	**2.81**	**260**	⇓*e*	P		**Pn**	**16 02 41.3**	**+0.3**
GBPR	**Guanica, Bosqu**	**3.01**	**254**				**Pn**	**16 02 45.4**	**+1.6**
GBPR							**Sn**	**16 03 19.8**	**+1.2**
GBPR	**Guanica, Bosqu**	**3.01**	**254**	⇓*e*	P		**Pn**	**16 02 45.4**	**+1.6**
GBPR					*e*S		**Sn**	**16 03 19.8**	**+1.2**
AGPR	**Aguadilla, PR**	**3.12**	**264**				**Pn**	**16 02 45.2**	**-0.1**
AGPR							**Sn**	**16 03 20.6**	**-0.9**
AGPR	**Aguadilla, PR**	**3.12**	**264**	⇓*e*	P		**Pn**	**16 02 45.2**	**-0.1**
PRSN	**Puerto Rico Se**	**3.19**	**259**				**Pn**	**16 02 45.6**	**-0.7**
PRSN	**Puerto Rico Se**	**3.19**	**259**				**Sn**	**16 03 23.1**	**0.0**
PRSN	**Puerto Rico Se**	**3.19**	**259**	⇑*e*	P		**Pn**	**16 02 46.9**	**+0.6**
CRPR	**Cabo Rojo, PR**	**3.21**	**256**				**Pn**	**16 02 45.9**	**-0.7**
CRPR	**Cabo Rojo, PR**	**3.21**	**256**				**Sn**	**16 03 24.8**	**+1.2**
CRPR	**Cabo Rojo, PR**	**3.21**	**256**	⇓*e*	P		**Pn**	**16 02 47.6**	**+1.0**
IDE	**Isla Desecheo**	**3.48**	**263**				**Pn**	**16 02 49.8**	**-0.4**
IDE							**Sn**	**16 03 30.5**	**+0.4**
IDE	**Isla Desecheo**	**3.48**	**263**	⇑*e*	P		**Pn**	**16 02 49.8**	**-0.4**
IDE					*e*S		**Sn**	**16 03 30.5**	**+0.4**
DSDZ	**La Diserade, G**	**3.65**	**133**	*e*	P		**Pn**	**16 02 53.7**	**+1.1**
DSDZ					*e*S		**Sn**	**16 03 37.2**	**+2.8**
MAGL	**Barre de l'ile**	**3.77**	**139**	*e*	P		**Pn**	**16 02 53.9**	**-0.4**
MAGL					*e*S		**Sn**	**16 03 39.2**	**+1.6**
DSLB	**Salisbury**	**4.10**	**145**	*e*	P		**Pn**	**16 02 59.3**	**+0.5**
DSLB					*e*S		**Sn**	**16 03 45.7**	**+0.1**
PODR	**Polo**	**7.09**	**266**	Pn			**Pn**	**16 03 38.8**	**-1.3**

*NEIC **22** 16:23:39.8±1.1, 36°.08N±0°.03×70°.2E±0°.1, h142km±14km, mb4.2/7, Error ellipse: s-maj=12.9km s-min=2.1km az=106.0*
*NNC **22** 16:23:43.3±3.1, 36°.24N×70°.39E, h120km±48km, mb3.3, mpv3.6, Error ellipse: s-maj=29.3km s-min=24.9km az=110.0*
*IDC **22** 16:23:44.4±9.0, 36°.29N×70°.34E, h117km±59km, mb3.6/4, mbtmp3.9/9, Error ellipse: s-maj=77.5km s-min=42.5km az=174.0*

ISC 22 16:23:40.2±0.7**, 36°.05N**±0°.06×**70°.40E**±0°.07**, h110**km**, n37, σ1°s72/36, mb4.5/6, 2C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KBL	**Kabul**	**1.87**	**217**				**Pn**	**16 24 12.9**	**+1.1**
KBL						Sn	**Sn**	**16 24 36.9**	**+1.0**
DZET	**Dzherino**	**3.02**	**336**	Pn		Pn	**Pn**	**16 24 25.2**	**-1.3**
NIL	**Nilore**	**3.35**	**135**				**Pn**	**16 24 33.1**	**+2.2**
KSH2	**Kashi**	**5.13**	**51**	Pn		Pn		16 25 00.0	+5.1
KSH2						Sn	**Sn**	**16 25 55.8**	**+2.8**
KSH2						smax	smax		
	comp=N,58nm,0.6s								
KSH2						smax	smax		
	comp=E,51nm,0.8s								
ARSB	**Arslanbob**	**5.64**	**20**	Pn			**Pn**	**16 25 02.4**	**+0.7**
NRN	**Naryn**	**6.93**	**37**	Pn			**Pn**	**16 25 19.5**	**+0.2**
KK31	**Karatay Array**	**7.04**	**1**	P			**Pn**	**16 25 21.0**	**+0.4**
	comp=E,2.0nm,0.3s,baz=178,slow=12,SNR=95								
KK31				⇑S			**Sn**	**16 26 38.7**	**-0.4**
	comp=E,13nm,0.6s,baz=187,slow=21,SNR=12								
KK31	**Karatay Array**	**7.04**	**1**				**Pn**	**16 25 20.0**	**-0.6**
KKAR	**Karatay Array**	**7.04**	**1**				**Pn**	**16 25 19.8**	**-0.8**
AAK	**Ala-Archa**	**7.30**	**24**	P			**Pn**	**16 25 25.6**	**+1.4**
	comp=E,6.2nm,0.3s,baz=209,slow=10,SNR=18								
AAK				S			**Sn**	**16 26 45.0**	**-0.5**
	comp=E,11nm,0.6s,baz=285,slow=12,SNR=8.5								
AAK	**Ala-Archa**	**7.30**	**24**	⇓P			**Pn**	**16 25 25.5**	**+1.3**
	comp=E,0.7nm,0.3s								
AAK				⇑S			**Sn**	**16 26 45.1**	**-0.5**
	comp=E,3.3nm,0.5s								
AAK	**Ala-Archa**	**7.30**	**24**				**Pn**	**16 25 24.2**	**0.0**
TARG	**Taragay, Kyrgy**	**8.09**	**43**	Pn			**Pn**	**16 25 36.5**	**+1.4**
MAKZ	**Makanchi**	**13.80**	**35**	Pn			**Pn**	**16 26 50.9**	**-0.1**
MKAR	**Makanchi Array**	**13.94**	**36**	P			**Pn**	**16 26 54.5**	**+1.8**
	comp=E,1.9nm,0.9s,baz=222,slow=14,SNR=9.7								
MKAR	**Makanchi Array**	**13.94**	**36**	Pn			**Pn**	**16 26 52.5**	**-0.3**
AB31	**Akbulak array**	**15.25**	**333**	P			**Pn**	**16 27 09.0**	**-0.5**
	comp=E,4.5nm,0.5s,baz=148,slow=11,SNR=88								
AB31	**Akbulak array**	**15.25**	**333**				**Pn**	**16 27 05.7**	**-3.8**
AB31						IAmb	IAmb	16 27 10.1	
	comp=Z,9.1nm,0.7s								
ABKAR	**Akbulak array**	**15.25**	**333**	Pn			**Pn**	**16 27 05.6**	**-3.8**
WMQ	**Urumqi**	**15.35**	**54**	*e*	P		**Pn**	**16 27 12.0**	**+1.2**
KURBB	**Kurchatov Arra**	**15.70**	**19**	P			**P**	**16 27 17.1**	**+0.3**
	comp=Z,0.7nm,0.5s,baz=210,slow=10,SNR=5.7								
KURK	**Kurchatov**	**15.81**	**19**	P			**Pn**	**16 27 17.1**	**+0.7**
KURK	**Kurchatov**	**15.81**	**19**	IAmb		IAmb		16 27 20.9	
	comp=Z,5.2nm,1.4s								

EVN	**Everest**	**16.08**	**116**				**Pn**	**16 27 19.4**	**-1.1**
EVN					IAmb		IAmb	16 27 58.9	
	comp=Z,6.0nm,1.5s								
AKTO	**Aktyubinsk**	**16.94**	**332**	P			**Pn**	**16 27 31.3**	**+1.1**
	comp=Z,2.0nm,0.5s,baz=151,slow=11,SNR=8.3								
AKTO	**Aktyubinsk**	**16.94**	**332**	⇓P			**P**	**16 27 31.4**	**+1.0**
	comp=Z,3.7nm,0.9s								
BVAR	**Borovoye Array**	**16.97**	**360**	P			**P**	**16 27 32.9**	**+2.1**
	comp=Z,1.0nm,0.4s,baz=176,slow=13,SNR=3.2								
ZALV	**Zalesovo Beam**	**20.52**	**25**	P			**P**	**16 28 11.5**	**+2.1**
	comp=Z,4.4nm,0.4s,baz=219,slow=11,SNR=28								
	comp=Z,4.4nm,0.4s								
HHC	**Hu-ho-hao-te**	**32.37**	**69**	*e*	P		**P**	**16 29 57.4**	**-1.9**
HHC					pmax		pmax		
	comp=Z,9.0nm,0.7s								
IDI	**Anoyia**	**36.72**	**283**	P			**P**	16 30 30.6	-6.2
IDI					IAmb		IAmb	16 30 34.7	
	comp=Z,19nm,1.1s								
FINES	**FINESS Array B**	**37.59**	**327**	P			**P**	**16 30 45.0**	**+1.4**
	comp=Z,4.7nm,0.9s,baz=110,slow=12,SNR=2.2								
	comp=Z,4.7nm,0.9s								
KEK	**Kerkira**	**39.68**	**291**	P			P	16 30 56.3	-5.2
NJ2	**Nanjing**	**40.02**	**81**	*e*	P		**P**	**16 31 00.3**	**-4.0**
NJ2					pmax		pmax		
	comp=Z,7.0nm,0.5s								
ARCES	**ARCESS Array B**	**41.38**	**338**	P			**P**	**16 31 16.4**	**+1.4**
	comp=Z,1.9nm,0.9s,baz=108,slow=8.8,SNR=1.4								
	comp=Z,1.9nm,0.9s								
ARCES	**ARCESS Array B**	**41.38**	**338**	IAmb			IAmb	16 31 23.0	
	comp=Z,6.6nm,1.1s								
NC405	**NORSAR Array S**	**44.22**	**323**	P			P	16 31 33.4	-4.7
YKA	**Yellowknife Ar**	**81.71**	**2**	P			**P**	**16 35 47.8**	**+1.8**
	comp=Z,0.2nm,0.6s,baz=354,slow=5.3,SNR=1.7								
	comp=Z,0.2nm,0.6s								

*MOS **22** 16:43:26.0±1.1, 44°.73N×149°.64E, h42km, mb5.0/23, Error ellipse: s-maj=7.3km s-min=5.4km az=105.6*
*SKHL **22** 16:43:26.5±0.9, 44°.60N×149°.80E, h52km±3km, mb5.0/7, mbv5.6/2, msh5.4/2*
*BJI **22** 16:43:26.4, 44°.80N×149°.89E, h65km, mB5.1/13, mb4.8/56, Ms4.4/25, Ms7 4.2/30*
*NEIC **22** 16:43:27.7±1.2, 44°.79N±0°.08×149°.5E±0°.1, h35km±1km, mb4.8/166, Error ellipse: s-maj=16.6km s-min=11.0km az=136.0*
*JMA **22** 16:43:27.7±0.6, 45°N±2°×15°0E±°, h30km, MV4.7/21, SE OFF ETOROFU*
*NIED **22** 16:43:27.7, 44°.53N×149°.54E, h30km, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^16Nm; Mrr0.41; Mθθ-0.39; Mφφ-0.02; Mrθ0.58; Mθφ-0.35; Mφr0.72; Fault plane solution: M0 1.06000×10^16 NP1: φs266.00000°, δ19.00000°, λ135.00000°. NP2: φs40.00000°, δ77.00000°, λ77.00000°.*
*GFZ **22** 16:43:27.5±0.3, 45°N±5°×15°0E±°, h37km, M4.9/60, mb4.9/60*
*IDC **22** 16:43:28.8±0.5, 44°.84N×149°.63E, h47km±4km, mb4.0/26, mbtmp4.3/32, MS3.9/63, Error ellipse: s-maj=11.4km s-min=9.3km az=155.0*
*GCMT **22** 16:43:29.7±0.5, 44°.77N±0°.03×149°.91E±0°.04, h36km±1km, MW4.8/59, Moment Tensor Solution. s30,c35; s59,c74; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr1.90±.16; Mθθ-0.79±.10; Mφφ-1.11±.11; Mrθ0.88±.11; Mθφ-1.44±.06; Mφr0.63±.10; Best double couple: M0 2.41100×10^16 NP1: φs213.00000°, δ32.00000°, λ76.00000°. NP2: φs49.00000°, δ59.00000°, λ98.00000°. Principal axes: T 2.1760, Plg75.0000°, Azm343.0000°; N 0.4700, Plg7.0000°, Azm225.0000°; P -2.6460, Plg13.0000°, Azm133.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*BGR **22** 16:43:31.1, 46°.83N×154°.01E, h33km, mb4.8*

ISC 22 16:43:27.1±0.3**, 44°.67N**±0°.05×**149°.69E**±0°.04**, h39**km±2km**, h40**km**; pP-P, n598,** σ1°s14/583**, mb4.8**/231**, MS4.1**/63**, 31C-48D, Kuril Islands**

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

YSS	**Yuzhno-Sakhali**	**5.36**	**298**	*e*PN		**Pn**		**16 44 46.4**	**+1.9**
YSS				*e*S		**Sn**		**16 45 46.4**	**+1.5**
YSS					pmax	pmax			
	comp=Z,30nm,0.7s								
YSS					smax	smax			
	comp=N,50nm,0.8s								
YSS					smax	smax			
	comp=E,70μm,0.7s								
YSS					MLR	MLR			
	comp=Z,3μm,17.0s								
YSS					MLR	MLR			
	comp=N,2μm,18.0s								
YSS					MLR	MLR			
	comp=E,500nm,17.0s								
YSS	**Yuzhno-Sakhali**	**5.36**	**298**			**Pn**		**16 44 43.2**	**-1.3**
YSS	**Yuzhno-Sakhali**	**5.36**	**298**	*e*P		**Pn**		**16 44 46.4**	**+1.9**
YSS				*e*S		**Sn**		**16 45 46.4**	**+1.5**
YSS	**Yuzhno-Sakhali**	**5.36**	**298**	P		**Pn**		**16 44 46.0**	**+1.5**
	comp=Z,63nm,0.9s								
ERM	**Erimo**	**5.45**	**243**	*de*PN		**Pn**		**16 44 47.3**	**+1.6**
ERM	**Erimo**	**5.45**	**243**			**Pn**		**16 44 45.7**	**0.0**
ERM	**Erimo**	**5.45**	**243**	P		**Pn**		**16 44 46.3**	**+0.6**
	comp=Z,216nm,0.7s								
JAB	**Ashibetsu**	**5.50**	**260**	*e*P		**Pn**		**16 44 49.6**	**+3.1**
JWK2	**Keihoku**	**5.56**	**279**	*e*P		**Pn**		**16 44 50.9**	**+3.7**
UGL	**Uglegorsk**	**6.83**	**313**	*e*P		**Pn**		**16 45 07.0**	**+2.3**
UGL					AMB	AMB		16 45 10.6	
	comp=Z,50nm,0.6s								
SKR	**Severo-Kuril's**	**7.42**	**33**⇓	*e*PN		**Pn**		**16 45 12.9**	**+0.2**
SKR	**Severo-Kuril's**	**7.42**	**33**	*e*P		**Pn**		**16 45 13.5**	**+0.8**
SKR					AMB	AMB		16 45 13.9	
	comp=Z,70nm,0.8s								
SKR					AMB	AMB		16 45 14.1	
	comp=Z,700nm,6.5s								
SKR				*e*S		**Sn**		**16 46 32.8**	**-2.7**
SKR				A		A		16 46 46.2	
	comp=Z,80nm,0.5s								
SKR				A		A		16 46 46.2	
	comp=Z,90nm,0.5s								
JTM	**Tenmabayashi**	**7.43**	**242**			**Pn**		**16 45 12.5**	**-0.5**
TYV	**Tymovskoe**	**7.80**	**325**	*e*PN		**Pn**		**16 45 20.2**	**+2.3**
TYV					pmax	pmax			
	comp=Z,1μm,3.4s								
TYV					pmax	pmax			
	comp=Z,38nm,1.2s								
TYV	**Tymovskoe**	**7.80**	**325**	*e*P		**Pn**		**16 45 20.2**	**+2.3**
TYV					AMB	AMB		16 45 24.2	
	comp=Z,1μm,3.4s								
TYV					AMB	AMB		16 45 26.4	
	comp=Z,40nm,0.6s								
TYV				*e*S		**Sn**		**16 46 45.5**	**+0.6**
TYV				A		A		16 46 47.5	
	comp=Z,20nm,0.7s								
TYV				A		A		16 46 47.5	
	comp=Z,40nm,0.7s								
TYV				A		A		16 46 53.5	
	comp=Z,1μm,3.9s								
TYV				A		A		16 46 53.5	
	comp=Z,2μm,3.9s								
PAU	**Pauzhetka**	**8.31**	**32**	*e*P		**Pn**		**16 45 26.1**	**+1.2**
PAU					AMB	AMB		16 45 30.6	
	comp=Z,30nm,0.4s								
PAU				*e*S		**Sn**		**16 46 56.1**	**-1.2**
TEY	**Ternei**	**9.30**	**277**	*e*PN		**Pn**		**16 45 42.9**	**+4.3**
TEY	**Ternei**	**9.30**	**277**	*e*P		**Pn**		**16 45 42.9**	**+4.3**
PEA0B	**Petropavlovsk-**	**9.95**	**29**⇑	*e*PN		**Pn**		**16 45 47.5**	**0.0**
PETK	**Petropavlovsk-**	**9.95**	**29**	P		**Pn**		**16 45 48.1**	**+0.7**
	comp=Z,6.0nm,0.8s,baz=175,slow=8.3,SNR=16								
PETK					LR	LR		16 49 37.8	
	comp=Z,519nm,19.3s,baz=218,slow=38								
MAJO	**Matsushiro**	**11.90**	**231**	*de*PN		**Pn**		**16 46 12.0**	**-2.3**
MAJO					pmax	pmax			
	comp=Z,7.0nm,0.8s								
MAJO	**Matsushiro**	**11.90**	**231**			Pn		16 46 10.5	-3.7
MJAR	**Matsushiro Arr**	**11.90**	**231**	P		**Pn**		**16 46 12.4**	**-1.9**
	comp=Z,3.6nm,0.6s,baz=27,slow=12,SNR=19								
MJB9	**Matsu-Tunnel**	**11.90**	**231**			**Pn**		**16 46 10.9**	**-3.4**
USA0B	**Ussuriysk Arra**	**12.66**	**274**	*de*PN		**Pn**		**16 46 25.4**	**+0.9**
USA0B	**Ussuriysk Arra**	**12.66**	**274**			**Pn**		**16 46 23.0**	**-1.6**
USRK	**Ussuriysk Ar.**	**12.66**	**274**	P		**Pn**		**16 46 25.6**	**+1.1**
	comp=Z,16nm,0.8s,baz=85,slow=13,SNR=28								
USRK					LR	LR		16 51 23.9	
	comp=Z,645nm,18.7s,baz=84,slow=38								
USRK	**Ussuriysk Ar.**	**12.66**	**274**			**Pn**		**16 46 23.3**	**-1.2**
JGF	**Kuroka**	**13.06**	**230**	Pn		**Pn**		**16 46 29.2**	**-0.9**
KLR	**Kul'dur**	**13.07**	**297**	P		**Pn**		**16 46 31.8**	**+1.7**
	comp=Z,7.5nm,1.1s,baz=108,slow=14,SNR=9.6								
KLR					LR	LR		16 51 52.3	
	comp=Z,899nm,18.4s,baz=114,slow=39								
KLR	**Kul'dur**	**13.07**	**297**	*e*PN		P		16 46 34.7	-5.0
KLR					pmax	pmax			
	comp=Z,5.0nm,1.1s								
MA2	**Magadan**	**14.95**	**2**	LR		LR		16 52 44.6	
	comp=Z,397nm,18.6s,baz=186,slow=38								
MA2	**Magadan**	**14.95**	**2**	P		**Pn**		**16 46 55.0**	**-0.4**
MA2	**Magadan**	**14.95**	**2**	Pn		**Pn**		**16 46 55.0**	**-0.4**
MA2	**Magadan**	**14.95**	**2**	*e*P		**Pn**		**16 46 55.0**	**-0.4**
BNX	**BinXian**	**15.74**	**282**	⇓P		**P**		**16 47 08.0**	**-1.3**
BNX					pmax	pmax			
	comp=Z,15nm,0.9s								
HEH	**HeiHe**	**16.04**	**298**	*e*P		**P**		**16 47 11.8**	**-0.8**
HEH					L	L			
	comp=Z,870nm,17.2s								
HEH					L	L			
	comp=Z,1μm,17.1s								
ZEA	**Zeya**	**17.18**	**310**	*e*P		**P**		**16 47 25.6**	**+0.4**
ZEA					pmax	pmax			
	comp=Z,10.0nm,1.0s								
ZEA					MLR	MLR			
	comp=Z,400nm,16.0s								
ZEA	**Zeya**	**17.18**	**310**	*e*P		**Pn**		**16 47 22.6**	**-1.4**
CN2	**Changchun**	**17.38**	**276**	P		**P**		**16 47 27.3**	**-0.2**
CN2				L		L			
	comp=Z,300nm,14.0s								
CN2				L		L			
	comp=Z,300nm,14.0s								
CN2				L		L			
	comp=Z,400nm,15.0s								
KSRS	**Korea Array**	**17.89**	**254**	P		**Pn**		**16 47 30.9**	**-2.0**
	comp=Z,3.1nm,0.8s,baz=59,slow=11,SNR=6.8								
KSRS					LR	LR		16 54 41.3	
	comp=Z,468nm,18.2s,baz=60,slow=38								
SHEM	**Shemya Is, Ala**	**17.95**	**55**	LR		LR		16 53 21.1	
	comp=Z,167nm,21.4s,baz=300,slow=33								
SMY	**Shemya**	**17.95**	**55**	P		**P**		**16 47 34.7**	**+0.9**
SMY					pmax	pmax			
	comp=Z,106nm,1.0s								
SMY	**Shemya**	**17.95**	**55**	P		**P**		**16 47 34.6**	**+0.9**
SMY					IAmb	IAmb		16 47 44.5	
	comp=Z,106nm,1.0s								
SEY	**Seymchan**	**18.37**	**4**	P		**P**		**16 47 36.9**	**-1.3**
	comp=Z,3.9nm,0.7s,baz=185,slow=11,SNR=8.5								
SEY					LR	LR		16 55 21.4	
	comp=Z,593nm,18.5s,baz=162,slow=39								
SEY	**Seymchan**	**18.37**	**4**	*e*P		**P**		**16 47 37.2**	**-1.0**
SEY					pmax	pmax			
	comp=Z,11nm,1.3s								
JCJ	**Chichijima**	**18.54**	**201**	LR		LR		16 55 32.2	
	comp=Z,66nm,18.5s,baz=352,slow=39								
JTU	**Tsushima**	**18.58**	**244**	P		**P**		**16 47 41.2**	**+0.4**
JNU	**Nakatsue**	**18.59**	**238**	P		**Pn**		**16 47 43.2**	**+1.8**
	comp=Z,12nm,1.0s,baz=4.1,slow=14,SNR=2.7								
JNU					LR	LR		16 55 25.4	
	comp=Z,318nm,19.3s,baz=45,slow=38								
JNU	**Nakatsue**	**18.59**	**238**	IAmb		IAmb		16 47 51.6	
	comp=Z,4.7nm,0.5s								
HILR	**Hailar Array B**	**20.87**	**294**	P		**P**		**16 48 05.8**	**+0.1**
	comp=Z,5.8nm,0.6s,baz=104,slow=11,SNR=6.1								
HILR					LR	LR		16 56 55.3	
	comp=Z,513nm,18.8s,baz=85,slow=39								
	comp=Z,5.8nm,0.6s								
DL2	**Dalian**	**21.64**	**264**	P		**P**		**16 48 12.9**	**-1.0**
DL2				pP		**pP**		**16 48 24.4**	**+1.2**
DL2				*e*S		**S**		**16 52 08.1**	**-3.3**
DL2					pmax	pmax			
	comp=Z,69nm,1.3s								
DL2					pmax	pmax			
	comp=Z,430nm,4.9s								
DL2				L		L			
	comp=Z,550nm,17.7s								
DL2				L		L			
	comp=Z,440nm,19.6s								
DL2				L		L			
	comp=Z,410nm,14.0s								
KIWB	**Kanaga Island**	**23.07**	**60**	P		**P**		**16 48 29.9**	**+0.9**
XLT	**XiLinHaoTe**	**23.98**	**280**	*e*P		**P**		**16 48 37.0**	**-0.9**
XLT					PP	**PnPn**		**16 49 10.3**	**+2.9**
XLT					S	**S**		**16 52 49.5**	**-2.6**
XLT					pmax	pmax			
	comp=Z,23nm,0.9s								
XLT					L	L			
	comp=Z,36nm,16.2s								
XLT					L	L			
	comp=Z,330nm,14.0s								
XLT					L	L			
	comp=Z,350nm,17.0s								
JOW	**Kunigami**	**24.75**	**231**			**P**		**16 48 44.7**	**-0.3**
JOW	**Kunigami**	**24.75**	**231**	P		**P**		**16 48 46.5**	**+1.5**
	comp=Z,72nm,1.1s								
BILL	**Bilibino**	**24.99**	**15**⇑	*e*P		**P**		**16 48 45.5**	**-1.3**
BILL					pmax	pmax			
	comp=Z,6.0nm,1.2s								
BILL	**Bilibino**	**24.99**	**15**	P		**P**		**16 48 46.4**	**-0.4**
BILL	**Bilibino**	**24.99**	**15**	*e*P		**P**		**16 48 45.5**	**-1.3**
BJI2	**Beijing**	**25.09**	**271**	P		**P**		**16 48 48.0**	**0.0**
BJI2					L	L			
	comp=Z,170nm,13.7s								
BJI2					L	L			
	comp=Z,230nm,15.1s								
BJI2					L	L			
	comp=Z,410nm,13.7s								
NJ2	**Nanjing**	**27.09**	**253**	*e*P		**P**		**16 49 06.8**	**+0.7**
NJ2					pmax	pmax			
	comp=Z,13nm,0.7s								
HNS	**HongShan**	**27.21**	**267**	⇓P		**P**		**16 49 09.8**	**+2.7**
HNS					pmax	pmax			
	comp=Z,33nm,1.2s								
HNS					L	L			
	comp=Z,260nm,15.9s								
HNS					L	L			
	comp=Z,210nm,12.0s								
HHC	**Hu-ho-hao-te**	**28.08**	**276**⇓	*i*P		**P**		**16 49 15.8**	**+0.8**
HHC					S	**S**		**16 53 56.6**	**-0.5**
HHC					pmax	pmax			
	comp=Z,19nm,1.0s								
HHC					L	L			
	comp=Z,200nm,12.6s								
HHC					L	L			
	comp=Z,450nm,18.0s								
HHC					L	L			
	comp=Z,490nm,16.0s								
H11N2	**WAKE ISLAND Hy**	**28.69**	**145**		T	T		17 20 02.5	
	baz=334,slow=75,SNR=843								
H11N1	**WAKE ISLAND Hy**	**28.71**	**145**		T	T		17 20 06.5	
	baz=334,slow=75,SNR=558								
H11N3	**WAKE ISLAND Hy**	**28.71**	**145**		T	T		17 20 04.8	
	baz=334,slow=75,SNR=804								
TIXI	**Tiksi**	**28.86**	**347**	LR		LR		17 01 17.4	
	comp=Z,166nm,20.1s,baz=188,slow=37								
TIXI	**Tiksi**	**28.86**	**347**	P		**P**		**16 49 18.5**	**-3.0**
TIXI					pmax	pmax			
	comp=Z,3.0nm,0.8s								
TIXI	**Tiksi**	**28.86**	**347**			**P**		**16 49 18.5**	**-3.0**
BTO2	**Baotou**	**29.31**	**276**	*e*P		**P**		**16 49 27.3**	**+1.3**
BTO2					S	**S**		**16 54 19.3**	**+2.7**
BTO2					pmax	pmax			
	comp=Z,14nm,0.5s								
BTO2					pmax	pmax			
	comp=Z,230nm,3.7s								
BTO2					L	L			
	comp=Z,420nm,10.5s								
BTO2					L	L			
	comp=Z,920nm,10.2s								
BTO2					L	L			
	comp=Z,1μm,16.8s								
ULN	**Ulaanbaatar**	**29.37**	**292**⇓	*e*P		**P**		**16 49 26.2**	**-0.3**
ULN					pmax	pmax			
	comp=Z,3.0nm,0.8s								
ULN	**Ulaanbaatar**	**29.37**	**292**	*e*P		**P**		**16 49 26.2**	**-0.3**
H11S1	**WAKE ISLAND Hy**	**29.71**	**146**	T		T		17 21 23.7	
	baz=336,slow=76,SNR=1146								
H11S3	**WAKE ISLAND Hy**	**29.72**	**146**	T		T		17 21 23.6	
	baz=336,slow=76,SNR=588								
H11S2	**WAKE ISLAND Hy**	**29.73**	**146**	T		T		17 21 23.3	
	baz=336,slow=76,SNR=828								
SONM	**Songino Array**	**29.81**	**292**	P		**P**		**16 49 30.0**	**-0.3**
	comp=Z,1.8nm,0.6s,baz=86,slow=8.5,SNR=10.0								
SONM					PcP	**PcP**		**16 52 33.1**	**+0.1**
	comp=Z,0.7nm,0.8s,baz=174,slow=5.4,SNR=3.5								
SONM					LR	LR		17 02 35.2	
	comp=Z,456nm,18.4s,baz=78,slow=39								
	comp=Z,1.8nm,0.6s								
SONM	**Songino Array**	**29.81**	**292**	P		**P**		**16 49 28.9**	**-1.4**
WECS	**Westdahl Cape**	**30.61**	**55**	P		**P**		**16 49 39.1**	**+1.8**
TLY	**Talaya**	**31.06**	**300**	LR		LR		17 03 07.0	
	comp=Z,459nm,18.7s,baz=77,slow=38								
GUMO	**Guam**	**31.25**	**189**	LR		LR		17 04 13.0	
	comp=Z,87nm,18.3s,baz=22,slow=40								
TPUB	**Ta-pu**	**31.89**	**238**	P		**P**		**16 49 49.5**	**+0.7**
QZH2	**Quanzhou**	**31.94**	**242**⇑	*i*P		P		16 49 54.9	+5.8
XAN	**Xi'an**	**32.95**	**265**	P		**P**		**16 49 58.0**	**0.0**
XAN					pmax	pmax			
	comp=Z,14nm,0.9s								
XAN					L	L			
	comp=Z,230nm,17.2s								
XAN					L	L			
	comp=Z,340nm,17.9s								
XAN					L	L			
	comp=Z,420nm,20.6s								
M16K	**Timber Creek**	**34.01**	**43**	P		**P**		**16 50 08.1**	**+1.2**
M16K					IAmb	IAmb		16 50 30.7	
	comp=Z,18nm,1.3s								
C18K	**Utukok River**	**34.62**	**29**	P		**P**		**16 50 12.5**	**+0.3**
ENH	**Enshi**	**34.62**	**259**			**P**		**16 50 12.3**	**-0.2**
ENH					IAmb	IAmb		16 50 25.2	
	comp=Z,9.3nm,1.0s								
ENH	**Enshi**	**34.62**	**259**	P		**P**		**16 50 12.3**	**-0.2**
	comp=Z,7.3nm,1.0s								
H18K	**Honhosa River**	**34.83**	**36**	P		**P**		**16 50 15.1**	**+1.2**
G18K	**Tagagawik**	**34.86**	**34**	IAmb		IAmb		16 50 16.1	
	comp=Z,13nm,1.1s								
D19K	**Kuna River**	**35.66**	**30**	P		**P**		**16 50 21.6**	**+0.5**
D19K					IAmb	IAmb		16 50 33.6	
	comp=Z,19nm,0.9s								
LZDM	**Lanzhou Array**	**35.73**	**272**	P		**P**		**16 50 23.1**	**+0.8**
	comp=Z,15nm,0.8s,baz=54,slow=7.7,SNR=16								
	comp=Z,15nm,0.8s								
E19K	**Redstone River**	**35.74**	**32**	P		**P**		**16 50 22.5**	**+0.8**
E19K					IAmb	IAmb		16 50 34.5	
	comp=Z,18nm,1.3s								
J19K	**Poorman**	**35.84**	**38**			**P**		**16 50 23.4**	**+0.8**
J19K					IAmb	IAmb		16 50 25.7	
	comp=Z,10nm,1.1s								
D20K	**Etivluk River**	**36.25**	**30**			**P**		**16 50 26.7**	**+0.6**
D20K					IAmb	IAmb		16 50 38.7	
	comp=Z,21nm,1.0s								
J20K	**Nowinta River**	**36.50**	**38**			**P**		**16 50 29.2**	**+0.9**
J20K					IAmb	IAmb		16 50 42.4	
	comp=Z,37nm,1.7s								
IMAR	**Indian Mountai**	**36.86**	**35**			**P**		**16 50 31.9**	**+0.7**
GTA2	**Gaotai**	**36.95**	**280**	P		**P**		**16 50 32.9**	**+0.4**
GTA2					pmax	pmax			
	comp=Z,50nm,0.8s								
GTA2					L	L			
	comp=Z,250nm,15.5s								
GTA2					L	L			
	comp=Z,280nm,13.3s								
GTA2					L	L			
	comp=Z,280nm,14.0s								
G21K	**Allakaket**	**37.02**	**34**	IAmb		IAmb		16 50 45.8	
	comp=Z,30nm,1.4s								
H21K	**Melozitna Rive**	**37.21**	**35**	IAmb		IAmb		16 50 36.3	
	comp=Z,12nm,1.1s								
KDAK	**Kodiak Island**	**37.28**	**48**	LR		LR		17 07 18.2	
	comp=Z,104nm,20.4s,baz=242,slow=38								
KDAK	**Kodiak Island**	**37.28**	**48**	P		**P**		**16 50 35.6**	**+0.7**
KDAK				pP		**pwP**		**16 50 46.6**	**-3.1**
PPLA	**Purkeypile**	**37.31**	**40**	P		**P**		**16 50 36.4**	**+1.1**
PPLA					IAmb	IAmb		16 50 53.9	
	comp=Z,25nm,1.1s								
CAST	**Castle Rocks**	**37.37**	**39**	IAmb		IAmb		16 50 53.7	
	comp=Z,12nm,1.0s								
STLK	**Strandline Lak**	**37.47**	**42**	P		**P**		**16 50 37.7**	**+1.1**
STLK					IAmb	IAmb		16 50 55.0	
	comp=Z,13nm,1.1s								
D22K	**Ayikyak River**	**37.68**	**30**	IAmb		IAmb		16 51 01.4	
	comp=Z,19nm,1.3s								
CD2	**Chengdu**	**38.31**	**265**	P		**P**		**16 50 42.5**	**-1.5**
CD2					pmax	pmax			
	comp=Z,50nm,0.5s								
CD2					pmax	pmax			
	comp=Z,160nm,5.1s								
I23K	**Minto, Yukon-K**	**38.61**	**36**	P		**P**		**16 50 47.2**	**+1.2**
I23K					IAmb	IAmb		16 50 58.6	
	comp=Z,16nm,1.4s								
E23K	**Chandalar**	**38.70**	**32**	IAmb		IAmb		16 50 49.1	
	comp=Z,19nm,1.2s								
NEA2	**Nenana**	**38.73**	**37**	IAmb		IAmb		16 50 49.8	
	comp=Z,8.2nm,0.5s								
TOLK	**Toolik Lake Re**	**38.77**	**31**	P		**P**		**16 50 48.4**	**+0.9**
E24K	**Your Creek**	**39.12**	**32**			**P**		**16 50 51.3**	**+0.9**
E24K					IAmb	IAmb		16 50 53.2	
	comp=Z,29nm,1.4s								
SML	**Sawmill**	**39.13**	**42**			**P**		**16 50 51.6**	**+1.1**
WRH	**Wood River Hil**	**39.15**	**37**	IAmb		IAmb		16 50 53.8	
	comp=Z,22nm,1.4s								
C24K	**Franklin Bluff**	**39.20**	**29**	IAmb		IAmb		16 51 08.5	
	comp=Z,17nm,0.9s								
H24K	**Noodor Dome**	**39.25**	**35**	P		**P**		**16 50 52.7**	**+1.3**
COLA	**College**	**39.25**	**37**	P		**P**		**16 50 52.8**	**+1.4**
COLA	**College**	**39.25**	**37**	P		**P**		**16 50 52.6**	**+1.2**
	comp=Z,18nm,1.0s								
COLA	**College**	**39.25**	**37**	P		**P**		**16 50 52.4**	**+1.1**
COLA				sP		**sP**		**16 51 07.8**	**+1.8**
F24K	**Squaw Lake**	**39.31**	**33**	IAmb		IAmb		16 51 13.1	
	comp=Z,33nm,1.9s								
NRIK	**Noril'sk**	**39.34**	**330**	PcP		**PcP**		**16 52 59.8**	**-0.1**
	comp=Z,1.9nm,0.5s,baz=71,slow=5.8,SNR=4.0								
NRIK					LR	LR		17 07 41.7	
	comp=Z,219nm,19.6s,baz=96,slow=37								
POKR	**Poker Plat Res**	**39.43**	**36**	IAmb		IAmb		16 51 10.8	
	comp=Z,16nm,0.9s								
G24K	**Hadweenzic Riv**	**39.43**	**34**	P		**P**		**16 50 54.0**	**+1.1**
G24K					IAmb	IAmb		16 51 12.0	
	comp=Z,16nm,1.0s								
DHY	**Denali Highway**	**39.51**	**40**	IAmb		IAmb		16 51 12.1	
	comp=Z,27nm,1.5s								
IL31		**39.66**	**37**	IAmb		IAmb		16 51 06.5	
	comp=Z,32nm,1.8s								
ILAR	**Eielson Array**	**39.66**	**37**	P		**P**		**16 50 55.2**	**+0.4**
	comp=Z,3.9nm,0.8s,baz=266,slow=8.1,SNR=63								
	comp=Z,3.9nm,0.8s								
C26K	**Camden Bay**	**40.53**	**29**	IAmb		IAmb		16 51 05.2	
	comp=Z,23nm,1.3s								
BMAR	**Burnt Mountain**	**40.58**	**33**	P		**P**		**16 51 04.0**	**+1.5**
G26K	**Porcupine Rive**	**40.90**	**33**	IAmb		IAmb		16 51 19.1	
	comp=Z,15nm,1.1s								
SCRK	**Sand Creek**	**40.96**	**38**	P		**P**		**16 51 06.1**	**+0.3**
MENT	**Mentasta**	**41.18**	**40**	IAmb		IAmb		16 52 05.8	
	comp=Z,25nm,1.7s								
M26K	**Nabesna, AK**	**41.57**	**40**	P		**P**		**16 51 11.5**	**+0.8**
M26K					IAmb	IAmb		16 51 24.7	
	comp=Z,21nm,1.2s								
K27K	**Chicken**	**41.80**	**38**	IAmb		IAmb		16 51 30.8	
	comp=Z,20nm,1.0s								
ZALV	**Zalesovo Beam**	**41.91**	**307**	P		**P**		**16 51 13.6**	**+0.2**
	comp=Z,0.4nm,0.3s,baz=80,slow=8.9,SNR=2.4								
ZALV					PcP	**PcP**		**16 53 08.3**	**-0.1**
	comp=Z,3.9nm,0.7s,baz=64,slow=3.4,SNR=14								
ZALV					pPcP			16 53 20.8	
	comp=Z,4.3nm,0.8s,baz=64,slow=3.4,SNR=8.5								
ZALV					ScP	**ScP**		**16 56 53.6**	**-1.9**
	comp=Z,0.7nm,0.6s,baz=72,slow=4.5,SNR=2.0								
ZALV					LR	LR		17 09 49.1	
	comp=Z,241nm,18.7s,baz=68,slow=38								
	comp=Z,0.4nm,0.3s								
GOMU	**GeErMu**	**41.92**	**278**	P		**P**		**16 51 13.3**	**-1.0**
GOMU					pmax	pmax			
	comp=Z,13nm,0.9s								
BCAR	**Beaver Creek A**	**42.04**	**39**	P		**P**		**16 51 15.9**	**+1.4**
KMI2	**Kunming**	**42.47**	**259**	⇓P		**P**		**16 51 19.3**	**+0.6**
KMI2					pP	pP		16 51 30.6	+1.7
KMI2					pmax	pmax			
	comp=Z,11nm,0.9s								
G29M	**Pine Creek**	**43.16**	**33**	IAmb		IAmb		16 51 37.7	
	comp=Z,19nm,1.1s								
I29M	**Ogilvie Camp,**	**43.24**	**36**	IAmb		IAmb		16 51 37.7	
	comp=Z,15nm,1.0s								
WMQ	**Urumqi**	**43.45**	**292**	*e*P		**P**		**16 51 28.1**	**+1.9**
WMQ					L	L			
	comp=Z,260nm,22.5s								
EPYK	**Eagle Plains**	**43.75**	**34**	IAmb		IAmb		16 51 30.7	
	comp=Z,19nm,1.1s								
G30M	**tAoh Zraii Nji**	**43.86**	**33**	IAmb		IAmb		16 51 43.5	
	comp=Z,27nm,1.5s								
F30M	**Barrier River**	**43.94**	**32**	IAmb		IAmb		16 51 44.5	
	comp=Z,22nm,1.0s								
I30M	**Mount Dempster**	**44.06**	**36**	IAmb		IAmb		16 51 44.5	
	comp=Z,21nm,0.9s								
G31M	**Satah River**	**44.63**	**33**	P		**P**		**16 51 36.2**	**+1.0**
INK	**Inuvik**	**44.68**	**31**	P		**P**		**16 51 35.7**	**+0.1**
	comp=Z,11nm,1.1s								
F31M	**Tsiigehtchic**	**44.74**	**32**	IAmb		IAmb		16 51 50.0	
	comp=Z,26nm,1.5s								
H31M	**Peel River**	**44.80**	**35**	IAmb		IAmb		16 51 49.7	
	comp=Z,14nm,1.1s								
TNCH	**TengChong**	**45.52**	**262**	*e*P		**P**		**16 51 43.8**	**+0.7**
TNCH					pmax	pmax			
	comp=Z,16nm,0.9s								
MK31	**Makanchi Array**	**45.77**	**298**	*d i*P		**P**		**16 51 44.0**	**-0.7**
MKAR	**Makanchi Array**	**45.77**	**298**	P		**P**		**16 51 44.2**	**-0.4**
	comp=Z,6.8nm,0.7s,baz=75,slow=7.4,SNR=27								
MKAR					PcP	**PcP**		**16 53 21.3**	**-0.4**
	comp=Z,3.0nm,0.9s,baz=58,sl

WUS sP **sP** **16 52 34.4 -0.6**
BVAR Borovoye Array 50.33 310 P **P** **16 52 18.7 -1.0**
comp=Z,0.8nm,0.5s,baz=64,slow=10,SNR=5.9
BVAR PcP **PcP** **16 53 38.2 +0.3**
comp=Z,2.7nm,0.7s,baz=72,slow=4.8,SNR=7.7
BVAR pPcP 16 53 50.1
comp=Z,3.5nm,0.9s,baz=67,slow=3.9,SNR=6.1
comp=Z,0.8nm,0.5s
BORK Borovoye 50.36 310⇓*e*P **P** **16 52 18.7 -1.2**
BORK pmax pmax
comp=Z,3.0nm,1.0s
NPW Naypyitaw 50.59 259 P **P** **16 52 23.2 +1.1**
comp=Z,9.8nm,1.1s
SANI Sanana 51.09 211 P **P** **16 52 25.8 0.0**
comp=Z,27nm,1.1s
SANI pP **sP** **16 52 38.9 -0.8**
EVN Everest 52.08 274 **P** **16 52 33.7 -0.2**
EVN Everest 52.08 274 P **P** **16 52 34.5 +0.6**
comp=Z,30nm,1.0s
ASAI AK-SAY(Kyrgyzs 52.14 293 P **P** **16 52 34.4 +0.5**
comp=Z,12nm,1.2s
BBB Bella Bella 52.29 50 LR LR 17 15 09.8
comp=Z,27nm,19.2s,baz=250,slow=36
AAK Ala-Archa 52.60 296 LR LR 17 16 23.7
comp=Z,185nm,18.8s,baz=52,slow=38
AAK Ala-Archa 52.60 296⇓*e*P **P** **16 52 37.4 +0.4**
AAK pmax pmax
comp=Z,5.0nm,1.0s
AAK Ala-Archa 52.60 296 *e*P **P** **16 52 37.4 +0.4**
RES Resolute Bay 53.56 17 LR LR 17 18 41.4
comp=Z,131nm,18.5s,baz=350,slow=40
RES Resolute Bay 53.56 17 P **P** **16 52 43.4 0.0**
RES pmax pmax
comp=Z,16nm,0.9s
RES Resolute Bay 53.56 17 **P** **16 52 43.4 0.0**
RES IAmb IAmb 16 52 45.2
comp=Z,16nm,0.8s
RES Resolute Bay 53.56 17 P **P** **16 52 43.3 -0.1**
comp=Z,23nm,0.9s
KSH2 Kashi 53.68 292 P **P** **16 52 45.3 +0.3**
KSH2 pmax pmax
comp=Z,8.0nm,1.0s
PMG Port Moresby 53.87 183 LR LR 17 13 47.1
comp=Z,28nm,21.1s,baz=342,slow=34
YKA Yellowknife Ar 54.02 35 P **P** **16 52 47.6 +0.7**
comp=Z,1.8nm,0.7s,baz=302,slow=7.2,SNR=11
YKA pP **pP** **16 52 58.9 +1.6**
comp=Z,4.8nm,0.9s,baz=301,slow=6.8,SNR=14
comp=Z,1.8nm,0.7s
ARSB Arslanbob 54.23 295 IAmb IAmb 16 52 50.6
comp=Z,21nm,1.1s
HNR Honiara 54.64 168 LR LR 17 12 44.9
comp=Z,117nm,22.0s,baz=55,slow=32
KK31 Karatay Array 54.89 298 P **P** **16 52 52.7 -0.9**
KK31 pmax pmax
comp=Z,8.0nm,1.1s
KK31 Karatay Array 54.89 298 **P** **16 52 52.7 -0.9**
KKAR Karatay Array 54.89 298 P **P** **16 52 52.7 -0.9**
KKAR Karatay Array 54.89 298 **P** **16 52 52.7 -0.9**
ARTI Arti 55.02 317 LR LR 17 18 34.3
comp=Z,301nm,19.0s,baz=44,slow=38
ARTI Arti 55.02 317 P **P** **16 52 53.8 -0.5**
ARTI pmax pmax
comp=Z,6.0nm,0.6s
ARTI Arti 55.02 317 P **P** **16 52 53.8 -0.5**
ARTI IAmb IAmb 16 52 57.3
comp=Z,6.0nm,0.6s
BTK Batken 56.30 295 IAmb IAmb 16 53 04.6
comp=Z,8.2nm,0.9s
BTK Batken 56.30 295 P **P** **16 53 03.6 -0.3**
comp=Z,10nm,1.2s
NEEM North Greenlan 57.48 5 *i* P **P** **16 53 10.8 -1.1**
NEEM IAmb IAmb 16 53 11.4
comp=Z,19nm,1.0s
AB31 Akbulak array 57.90 309 **P** **16 53 13.9 -1.0**
AB31 IAmb IAmb 16 53 15.3
comp=Z,5.0nm,0.5s
ABKAR Akbulak array 57.90 309 **P** **16 53 14.2 -0.8**
NIL Nilore 58.26 288 P **P** **16 53 17.3 -0.4**
NIL pmax pmax
comp=Z,26nm,0.9s
NIL Nilore 58.26 288 **P** **16 53 17.3 -0.4**
NIL Nilore 58.26 288 P **P** **16 53 18.4 +0.7**
comp=Z,35nm,1.0s
AKTO Aktyubinsk 58.31 311 LR LR 17 20 18.5
comp=Z,266nm,20.6s,baz=55,slow=38
POIN Pond Inlet 58.35 15 P **P** **16 53 17.1 -0.6**
POIN IAmb IAmb 16 53 26.2
comp=Z,30nm,1.9s
DAG Danmarks Havn 58.61 357 *i* P **P** **16 53 17.7 -1.8**
DAG IAmb IAmb 16 53 18.5
comp=Z,5.5nm,1.2s
ARCES ARCESS Array B 59.01 340 P **P** **16 53 21.5 -0.9**
comp=Z,3.4nm,1.0s,baz=46,slow=7.3,SNR=5.4
ARCES pP **sP** **16 53 35.9 -2.3**
comp=Z,3.3nm,1.0s,baz=51,slow=9.6,SNR=1.8
ARCES LR LR 17 21 10.1
comp=Z,108nm,18.8s,baz=10.0,slow=38
comp=Z,3.4nm,1.0s
KULLO Kullorsuaq 59.68 8 *i* P **P** **16 53 26.1 -0.7**
KULLO IAmb IAmb 16 53 26.3
comp=Z,14nm,0.8s
BLKN Baker Lake 59.83 27 P **P** **16 53 28.2 +0.2**
ILON Igloolik, Nuna 60.15 19 P **P** **16 53 29.9 -0.3**
NEW Newport 60.35 50 LR LR 17 17 36.9
comp=Z,34nm,21.9s,baz=313,slow=34
KBL Kabul 60.58 291 P **P** **16 53 32.3 -1.6**
KBL pmax pmax
comp=Z,15nm,0.9s
KBL Kabul 60.58 291 **P** **16 53 32.3 -1.6**
KBL Kabul 60.58 291 P **P** **16 53 32.8 -1.1**
comp=Z,20nm,1.0s
YBH Yreka Blue Hor 60.86 59 LR LR 17 15 50.9
comp=Z,52nm,21.9s,baz=355,slow=32
DBG Daneborg 61.12 357 *i* P **P** **16 53 35.4 -1.3**
DBG IAmb IAmb 16 53 36.7
comp=Z,8.9nm,1.5s
UPNV Upernavik 61.48 8 *i* P **P** **16 53 38.5 -0.7**
UPNV IAmb IAmb 16 53 40.2
comp=Z,13nm,0.7s
JTMT Jette 62.20 49 P **P** **16 53 45.6 +1.0**
BELG Belogornoye 62.47 317⇑*e*P **P** **16 53 44.2 -1.9**
BELG pmax pmax
comp=Z,3.0nm,0.9s
SUMG Summit 62.92 3 P **P** **16 53 49.2 -0.1**
SUMG pmax pmax
comp=Z,15nm,1.0s
SUMG Summit 62.92 3 P **P** **16 53 49.2 -0.1**
SUMG IAmb IAmb 16 53 50.1
comp=Z,15nm,1.0s
SUMG Summit 62.92 3 P **P** **16 53 47.5 -1.8**
comp=Z,18nm,1.4s
SUMG Summit 62.92 3 *i* P **P** **16 53 49.5 +0.2**
SUMG IAmb IAmb 16 53 50.3
comp=Z,12nm,0.8s
SAATT Saattut 63.81 8 *i* P **P** **16 53 54.8 +0.1**
SAATT IAmb IAmb 16 53 55.7
comp=Z,41nm,1.0s
FFC Flin Flon 63.87 38 P **P** **16 53 56.4 +1.1**
FFC pmax pmax
comp=Z,17nm,1.4s
FFC Flin Flon 63.87 38 P **P** **16 53 56.4 +1.1**
FFC IAmb IAmb 16 54 49.0
comp=Z,17nm,1.4s
FFC Flin Flon 63.87 38 P **P** **16 53 55.9 +0.6**
FFC pP **pP** **16 54 07.3 +1.2**
CTA Charters Tower 64.52 184 LR LR 17 19 14.5
comp=Z,15nm,21.5s,baz=30,slow=33
FINES FINESS Array B 64.87 334 P **P** **16 54 00.3 -1.5**
comp=Z,2.1nm,0.7s,baz=156,slow=20,SNR=14
FINES LR LR 17 24 03.8
comp=Z,179nm,18.6s,baz=20,slow=38
comp=Z,1.1nm,0.7s
FINES FINESS Array B 64.87 334 P **P** **16 54 00.1 -1.7**
BOZ Bozeman (W) 64.96 50 IAmb IAmb 16 54 17.5
comp=Z,32nm,2.0s
HRA Herat 65.15 294 P **P** **16 54 04.2 -0.2**
HRA IAmb IAmb 16 54 05.0
comp=Z,8.8nm,1.1s
KVN Kaiserville 65.28 59 P **P** **16 54 05.9 +0.8**
KVN pmax pmax
comp=Z,7.0nm,1.1s
KVN Kaiserville 65.28 59 P **P** **16 54 05.9 +0.8**
KVN IAmb IAmb 16 54 24.3
comp=Z,7.3nm,1.1s
NVAR Mina Array Bea 65.54 60 P **P** **16 54 08.1 +1.2**
comp=Z,0.3nm,0.4s,baz=280,slow=5.8,SNR=4.1
comp=Z,0.3nm,0.4s
WB0 Warramunga Arr 65.62 196 P **P** **16 54 07.8 +0.7**
WB0 IAmb IAmb 16 54 23.7
comp=Z,8.7nm,0.9s
OBN Obninsk 65.64 325 LR LR 17 25 27.4
comp=Z,197nm,18.1s,baz=358,slow=38
OBN Obninsk 65.64 325⇑*e*P **P** **16 54 05.2 -1.6**
OBN pmax pmax
comp=Z,7.0nm,0.9s
OBN Obninsk 65.64 325 *e*P **P** **16 54 05.2 -1.6**
WR8 Warramunga Arr 65.79 196 P **P** **16 54 08.7 +0.5**
WR8 IAmb IAmb 16 54 24.9
comp=Z,6.1nm,0.9s
WRAB Tennant Creek 65.80 196 P **P** **16 54 08.7 +0.5**
WRAB pmax pmax
comp=Z,8.0nm,1.0s
WRAB Tennant Creek 65.80 196 P **P** **16 54 08.7 +0.5**
WRAB IAmb IAmb 16 54 24.9
comp=Z,8.3nm,0.9s
WRAB Tennant Creek 65.80 196 P **P** **16 54 08.7 +0.5**
WRAB sP **pwP** **16 54 23.9 -0.1**
WRA Warramunga Arr 65.81 196 P **P** **16 54 09.1 +0.8**
comp=Z,2.6nm,0.8s,baz=11,slow=6.5,SNR=18
WRA pP **sP** **16 54 23.5 +1.1**
comp=Z,5.3nm,0.8s,baz=16,slow=6.8,SNR=14
comp=Z,2.6nm,0.8s
WRA Warramunga Arr 65.81 196 P **P** **16 54 08.6 +0.3**
YHH Holmes Hill 65.90 50 P **P** **16 54 10.0 +0.9**
VRH Novokhopyorsk 66.04 319 *e*P **P** **16 54 07.2 -2.3**
VRH pmax pmax
comp=Z,10.0nm,0.9s
FITZ Fitzroy Crossi 66.20 205 P **P** **16 54 11.9 +1.1**
LPSR Galich'ya Gora 66.36 321 *e*P **P** **16 54 08.9 -2.7**
LPSR pmax pmax
comp=Z,10.0nm,0.8s
RLMT Red Lodge 66.55 49 P **P** **16 54 14.3 +1.1**
RLMT IAmb IAmb 16 54 27.9
comp=Z,9.4nm,1.4s
VORR Voronezh 66.88 321 *e*P **P** **16 54 13.0 -1.8**
VORR pmax pmax
comp=Z,8.0nm,0.9s
VSR Storozhevoye 67.21 320 *e*P **P** **16 54 14.6 -2.4**
VSR pmax pmax
comp=Z,7.0nm,0.8s
DUG Dugway, Tooele 67.73 55 P **P** **16 54 21.4 +0.8**
comp=Z,7.6nm,1.3s
BW06 Boulder Array 67.92 51 P **P** **16 54 22.6 +0.7**
BW06 IAmb IAmb 16 54 40.4
comp=Z,10nm,1.4s
PD31 Pinedale Array 67.92 51 P **P** **16 54 22.2 +0.3**
PD31 IAmb IAmb 16 54 40.4
comp=Z,8.2nm,1.3s
PDAR Pinedale Array 67.92 51 P **P** **16 54 22.8 +0.8**
comp=Z,1.0nm,0.7s,baz=315,slow=3.4,SNR=9.2
comp=Z,1.0nm,0.7s
NC303 NORSAR Array S 69.19 340 P **P** **16 54 28.2 -1.1**
NC405 NORSAR Array S 69.20 340 P **P** **16 54 28.2 -1.1**
NB2 NORSAR Subarra 69.39 340 P **P** **16 54 29.6 -1.0**
comp=Z,0.6nm,0.5s,baz=30,slow=6.2
NOA NORSAR Array B 69.39 340 P **P** **16 54 29.5 -1.0**
comp=Z,1.1nm,0.6s,baz=41,slow=8.5,SNR=14
NOA LR LR 17 29 06.5
comp=Z,64nm,18.0s,baz=25,slow=40
comp=Z,1.1nm,0.6s
AS31 Alice Springs 69.51 195 P **P** **16 54 32.9 +1.3**
ASAR Alice Springs 69.52 195 P **P** **16 54 33.0 +1.4**
comp=Z,2.7nm,0.7s,baz=10,slow=5.5,SNR=37
ASAR pP **pwP** **16 54 47.4 -0.2**
comp=Z,2.6nm,0.7s,baz=12,slow=5.7,SNR=9.3
ASAR LR LR 17 23 27.9
comp=Z,22nm,21.2s,baz=36,slow=34
comp=Z,2.7nm,0.7s
ASAR Alice Springs 69.52 195 P **P** **16 54 32.8 +1.2**
MNK Minsk 69.53 328 *i* P **P** **16 54 32.6 +1.2**
MNK *i* 16 54 56.2
MNK *i* 16 57 06.8
MNK *i* PPP PPP 16 58 48.5
MNK *i* S **S** **17 03 39.0 +3.0**
MNK *i* SS **SS** **17 08 08.7 +5.7**
MNK pmax pmax
comp=Z,24nm,0.8s
MNK pmax pmax
comp=E,43nm,0.8s
MNK pmax pmax
comp=N,30nm,0.8s
MNK MLR MLR
comp=N,206nm,14.0s
MNK MLR MLR
comp=E,257nm,17.0s
MNK MLR MLR
comp=Z,278nm,18.0s
MNK Minsk 69.53 328 *i* P **P** **16 54 32.6 +1.2**
comp=E,43nm,0.8s
MNK *i* P **P** **16 54 32.6 +1.2**
comp=N,30nm,0.8s
MNK *i* P **P** **16 54 32.6 +1.2**
comp=Z,24nm,0.8s,baz=40
MNK *i* PcP **PcP** **16 54 56.2 +1.9**
MNK *i* PP **PP** **16 57 06.8 +2.1**
MNK *i* PPP PPP 16 58 48.6
MNK *i* S **S** **17 03 39.0 +3.0**
MNK *i* PS PnS 17 04 58.2 +53
MNK *i* SS **SS** **17 08 08.7 +5.7**
MNK *i* SSS SSS 17 12 12.6
MNK *i* LQ LQ 17 20 45.7
MNK *i* LRM MLR 17 26 22.4
comp=N,206nm,13.8s
MNK *i* LRM MLR 17 27 16.8
comp=E,257nm,17.3s
MNK *i* LRM MLR 17 27 39.7
comp=Z,278nm,18.1s
HFS Hagfors 69.53 338 P **P** **16 54 30.4 -1.0**
comp=Z,2.1nm,0.3s,baz=49,slow=6.7,SNR=16
HFS LR LR 17 29 08.0
comp=Z,149nm,18.3s,baz=10,slow=40
comp=Z,2.1nm,0.3s
PFO Pinyon Flats O 69.76 63 LR LR 17 19 10.5
comp=Z,43nm,21.8s,baz=320,slow=31
SRU San Rafael Swe 69.77 55 IAmb IAmb 16 54 51.5
comp=Z,6.8nm,1.0s
PALK Pallekele 70.00 260 LR LR 17 28 38.9
comp=Z,74nm,18.4s,baz=40,slow=39
HMU Henry Mountain 70.42 56 IAmb IAmb 16 54 54.1
comp=Z,19nm,1.8s
KVAR Kislovodsk Arr 70.49 313 LR LR 17 29 18.8
comp=Z,335nm,20.5s,slow=39
KIV Kislovodsk 70.49 313 P **P** **16 54 39.0 +1.3**
KIV Kislovodsk 70.49 313 P **P** **16 54 38.3 +0.7**
KIV Kislovodsk 70.49 313 ⇑P **P** **16 54 39.0 +1.3**
KIV Kislovodsk 70.49 313 P **P** **16 54 37.8 +0.1**
comp=Z,51nm,1.1s
KIV Kislovodsk 70.49 313 P **P** **16 54 39.3 +1.6**
KBZ Khabaz 70.54 313 P **P** **16 54 38.9 +1.1**
comp=Z,20nm,0.9s,baz=30,slow=2.2,SNR=22
KBZ LR LR 17 30 17.1
comp=Z,364nm,18.2s,baz=43,slow=40
SHA1 Shidzhatmaz 70.66 313 *de*P **P** **16 54 39.5 +0.6**
BORG Borgarnes 70.70 356 P **P** **16 54 40.0 +1.6**
BORG pmax pmax
comp=Z,155nm,1.6s
BORG Borgarnes 70.70 356 P **P** **16 54 40.0 +1.6**
NEUR Neytrino 70.96 312⇓*e*P **P** **16 54 41.2 +0.5**
NEUR pmax pmax
comp=Z,11nm,1.4s
PV10 Paradox Valley 71.13 55 IAmb IAmb 16 55 00.8
comp=Z,16nm,1.0s
PV17 East Wray Mesa 71.24 55 P **P** **16 54 43.0 +0.6**
PV17 IAmb IAmb 16 55 01.1
comp=Z,15nm,0.9s
PV18 Skein Mesa, Pa 71.29 55 **P** **16 54 43.6 +0.8**
PV18 IAmb IAmb 16 55 00.8
comp=Z,9.9nm,1.0s
PV05 Paradox Valley 71.29 55 IAmb IAmb 16 55 01.2
comp=Z,16nm,1.1s
AK03 Malin Array Si 71.88 325 P **P** **16 54 45.2 -0.6**
AKASG Malin Array Be 71.90 325 P **P** **16 54 45.4 -0.5**
comp=Z,26nm,1.1s,baz=37,slow=6.0,SNR=28
AKASG LR LR 17 27 37.9
comp=Z,183nm,18.7s,baz=44,slow=37
comp=Z,26nm,1.1s
AKASG Malin Array Be 71.90 325 *ce*P **P** **16 54 45.5 -0.4**
AKASG pmax pmax
comp=Z,12nm,0.8s
AKBB Malin Array Si 71.90 325 *de*P **P** **16 54 45.3 -0.6**
AKBB Malin Array Si 71.90 325 P **P** **16 54 45.5 -0.4**
AK04 Malin Array Si 71.91 325 P **P** **16 54 45.5 -0.5**
KIEV Kiev 71.91 325 P **P** **16 54 45.9 -0.1**
KIEV Kiev 71.91 325 **P** **16 54 45.2 -0.8**
KIEV IAmb IAmb 16 54 46.2
comp=Z,18nm,0.9s
KIEV Kiev 71.91 325 ⇓P **P** **16 54 45.9 -0.1**
KIEV Kiev 71.91 325 P **P** **16 54 45.5 -0.5**
comp=Z,86nm,2.5s
KIEV Kiev 71.91 325 P **P** **16 54 45.8 -0.2**
comp=Z,22nm,2.5s
AK01 Malin Array Si 71.91 325 P **P** **16 54 45.6 -0.4**
AK21 Malin Array Si 71.92 325 P **P** **16 54 45.4 -0.6**
AK22 Malin Array Si 71.92 325 P **P** **16 54 45.5 -0.5**
AK09 Malin Array Si 71.94 325 P **P** **16 54 45.5 -0.7**
AK02 Malin Array Si 71.94 325 P **P** **16 54 45.6 -0.6**
AK10 Malin Array Si 71.97 325 P **P** **16 54 45.7 -0.6**
AK05 Malin Array Si 71.97 325 P **P** **16 54 45.4 -0.9**
AK19 Malin Array Si 71.97 325 P **P** **16 54 45.6 -0.7**
GNI Garni 72.01 309 LR LR 17 31 09.1
comp=Z,116nm,18.1s,baz=32,slow=40
AK13 Malin Array Si 72.04 325 P **P** **16 54 46.0 -0.7**
ISCO Idaho Springs 72.11 52 P **P** **16 54 47.9 +0.1**
comp=Z,4.5nm,1.2s
EPOS Posof 72.17 311 P **P** **16 54 49.1 +1.2**
comp=Z,23nm,1.6s
LUBAR Lubar, Ukraine 73.10 325 P **P** **16 54 51.8 -1.3**
EYMN Ely 73.30 38 P **P** **16 54 54.5 +0.1**
EYMN IAmb IAmb 16 55 07.0
comp=Z,18nm,1.1s
SORM Soroca 74.24 324 P **P** **16 54 59.6 -0.1**
SORM Soroca 74.24 324 ⇑P **P** **16 54 59.7 -0.1**
SORM Soroca 74.24 324 P **P** **16 54 59.2 -0.6**
comp=Z,5μmcomp=Z,24nm,1.0s
HAKT HAKKARI 74.39 308 P **P** **16 55 01.6 +0.4**
comp=Z,29nm,1.0s
KMPD K-Podol'skiy 74.70 325 P **P** **16 55 01.7 -0.7**
KWP Kalwaria Pacla 75.33 328 *e*P **P** **16 55 06.5 +0.4**
KWP Kalwaria Pacla 75.33 328 P **P** **16 55 06.6 +0.5**
comp=Z,60nm,1.2s
MNTR Muntenesti 75.66 323 ⇓P **P** **16 55 08.4 +0.3**
OJC Ojcow 75.94 329 *e*P **P** **16 55 09.8 +0.3**
OJC Ojcow 75.94 329 P **P** **16 55 09.6 0.0**
OJC Ojcow 75.94 329 P **P** **16 55 09.6 0.0**
OJC Ojcow 75.94 329 P **P** **16 55 09.8 +0.3**
comp=Z,24nm,1.0s
OJC Ojcow 75.94 329 P **P** **16 55 09.3 -0.3**
comp=Z,24nm,1.0s
BUR08 Bucovina Ar. S 75.94 325 P **P** **16 55 09.3 -0.4**
BUR08 IAmb IAmb 16 55 10.8
comp=Z,14nm,0.9s
BURAR Bucovina Array 75.96 325 P **P** **16 55 10.1 +0.3**
BURAR Bucovina Array 75.96 325 P **P** **16 55 09.7 -0.2**
BURAR Bucovina Array 75.96 325 ⇓P **P** **16 55 10.1 +0.3**
KOLS Kolonicke sedl 76.07 327 *e*P **P** **16 55 10.7 +0.4**
KOLS Kolonicke sedl 76.07 327 P **P** **16 55 11.0 +0.7**
comp=Z,12nm,0.9s
BIZ Bicaz 76.12 324 ⇓P **P** **16 55 11.3 +0.7**
SCHQ Schefferville 76.13 21 P **P** **16 55 10.4 -0.2**
comp=Z,4.9nm,0.9s,baz=56,slow=11,SNR=2.0
SCHQ LR LR 17 31 41.6
comp=Z,109nm,20.1s,baz=312,slow=38
comp=Z,4.9nm,0.9s
VLDR Vladesti 76.14 322 ⇑P **P** **16 55 11.3 +0.6**
TESR Tescani 76.23 323 ⇑P **P** **16 55 11.8 +0.5**
TESR Tescani 76.23 323 P **P** **16 55 11.4 +0.1**
comp=Z,28nm,1.0s
TESR Tescani 76.23 323 P **P** **16 55 11.7 +0.4**
comp=Z,28nm,1.0s
GHRR 76.26 323 ⇑P **P** **16 55 12.9 +1.5**
GHRR 76.26 323 P **P** **16 55 12.3 +0.9**
TLCR 76.33 321 P **P** **16 55 12.1 +0.3**
TLCR 76.33 321 ⇓P **P** **16 55 12.1 +0.3**
NIE Niedzica 76.42 329 *e*P **P** **16 55 13.1 +0.8**
NIE Niedzica 76.42 329 P **P** **16 55 13.2 +0.8**
comp=Z,10nm,1.4s
NIE pP **pP** **16 55 19.1 -4.4**
comp=Z,10nm,1.4s
STKA Stephens Creek 76.53 187 P **P** **16 55 14.5 +1.6**
comp=Z,4.2nm,0.8s,baz=100,slow=1.4,SNR=6.2
STKA LR LR 17 33 58.9
comp=Z,30nm,18.0s,baz=26,slow=40
comp=Z,4.2nm,0.8s
TRPA Tarpa 76.62 327 P **P** **16 55 14.0 +0.6**
comp=Z,34nm,1.0s
CFR Carcaliu 76.63 322 P **P** **16 55 13.8 +0.3**
CFR Carcaliu 76.63 322 ⇓P **P** **16 55 13.9 +0.3**
KSP Ksiaz 76.64 332 *e*P **P** **16 55 12.4 -1.2**
KSP Ksiaz 76.64 332 P **P** **16 55 14.0 +0.5**
ODBI Odobesti 76.65 323 ⇑P **P** **16 55 14.0 +0.4**
VRI Vrincioaia 76.71 323 P **P** **16 55 15.4 +1.4**
VRI Vrincioaia 76.71 323 ⇓P **P** **16 55 15.4 +1.4**
ARCR ARCALIA 76.73 325 ⇓P **P** **16 55 15.3 +1.2**
PLOR Plostina 76.75 323 P **P** **16 55 15.0 +0.7**
PLOR Plostina 76.75 323 ⇑P **P** **16 55 15.1 +0.7**
TPGR Topolog 76.76 321 ⇓P **P** **16 55 14.8 +0.5**
SAHR Sahastru 76.83 323 ⇓P **P** **16 55 15.9 +1.1**
OKC Ostrava-Krasne 76.85 330 *e*P **P** **16 55 16.9 +2.2**
TURR Turia 76.86 323 ⇑P **P** **16 55 15.7 +0.8**
STEB Steborice 76.90 330 *e*P **P** **16 55 15.0 0.0**
OSTC Ostas 76.91 332 *e*P **P** **16 55 15.2 +0.1**
OZUR 76.93 324 ⇓P **P** **16 55 16.2 +0.9**
CHVC Chvalec 76.94 332 *e*P **P** **16 55 15.4 +0.1**
LANS Liptovska Anna 76.94 329 *e*P **P** **16 55 16.5 +1.2**
COVR Voineasa-Covas 76.95 323 ⇑P **P** **16 55 16.4 +1.0**
FLTG Flechtingen 76.97 335 *e*P **P** **16 55 14.9 -0.4**
comp=Z,7.6nm,0.9s,baz=25,slow=5.5
ABAH Abaujker 76.98 328 P **P** **16 55 16.4 +0.9**
comp=Z,15nm,1.3s
UPC Upice 77.02 332 *e*P **P** **16 55 16.2 +0.5**
DPC Dobruska-Polom 77.05 331 *e*P **P** **16 55 16.2 +0.3**
DPC Dobruska-Polom 77.05 331 P **P** **16 55 17.1 +1.2**
comp=Z,13nm,1.8s
DPC Dobruska-Polom 77.05 331 P **P** **16 55 17.0 +1.0**
comp=Z,13nm,1.8s
MORC Moravsky Berou 77.11 330 P **P** **16 55 17.3 +1.0**
MORC Moravsky Berou 77.11 330 IAmb IAmb 16 55 17.6
comp=Z,16nm,1.0s
MORC Moravsky Berou 77.11 330 *e*P **P** **16 55 16.4 +0.1**
MORC Moravsky Berou 77.11 330 ⇓P **P** **16 55 16.9 +0.6**
MORC Moravsky Berou 77.11 330 P **P** **16 55 15.4 -0.9**
comp=Z,21nm,1.0s
KECS Kecovo 77.12 328 *e*P **P** **16 55 17.5 +1.2**
KRLC Kraliky 77.13 331 *e*P **P** **16 55 15.3 -1.0**
KRLC Kraliky 77.13 331 P **P** **16 55 17.1 +0.7**
comp=Z,14nm,1.1s
MESR Meseseni 77.25 326 ⇓P **P** **16 55 18.1 +1.1**
CLL Collm 77.32 334 P **P** **16 55 17.1 -0.2**
CLL pmax pmax
comp=Z,14nm,0.6s
CLL Collm 77.32 334 P **P** **16 55 17.1 -0.2**
CLL Collm 77.32 334 *e*P **P** **16 55 17.2 -0.1**
comp=Z,17nm,1.0s,baz=25,slow=5.5
CLL Collm 77.32 334 P **P** **16 55 16.8 -0.5**
comp=Z,22nm,0.9s
CLL Collm 77.32 334 P **P** **16 55 16.9 -0.5**
comp=Z,22nm,0.9s
CLL Collm 77.32 334 *i* P **P** **16 55 16.4 -0.9**
comp=Z,25nm,1.1s
CLL *i* pP **PcP** **16 55 28.1 +0.3**
CLL *i* sP **sP** **16 55 33.1 -0.2**
MLR Muntele Rosu 77.34 323 LR LR 17 32 47.4
comp=Z,112nm,19.5s,baz=5.0,slow=38
MLR Muntele Rosu 77.34 323 P **P** **16 55 18.5 +0.8**
MLR Muntele Rosu 77.34 323 IAmb IAmb 16 55 19.8
comp=Z,8.0nm,1.0s
MLR Muntele Rosu 77.34 323 ⇑P **P** **16 55 18.5 +0.8**
MLR Muntele Rosu 77.34 323 P **P** **16 55 18.5 +0.8**
comp=Z,12nm,1.2s
ISR Istrita 77.38 323 P **P** **16 55 18.9 +1.1**
ISR Istrita 77.38 323 ⇓P **P** **16 55 18.9 +1.1**
PVCC Panska Ves 77.49 333 *e*P **P** **16 55 18.2 -0.1**
MARR Marisel-Cluj 77.56 326 ⇓P **P** **16 55 19.4 +0.5**
ICOR Ion Corvin 77.61 321 ⇑P **P** **16 55 20.0 +0.9**
RICC Richard 77.63 333 *e*P **P** **16 55 19.3 +0.2**
DRGR 77.64 326 P **P** **16 55 20.0 +0.7**
DRGR 77.64 326 ⇑P **P** **16 55 20.0 +0.7**
DRGR 77.64 326 P **P** **16 55 19.4 +0.1**
comp=Z,10nm,1.8s
CLZ Clausthal 77.66 336 *e*P **P** **16 55 18.4 -0.9**
comp=Z,7.9nm,1.0s,baz=25,slow=5.5
VYHS Vyhne 77.72 329 *e*P **P** **16 55 19.8 +0.1**
VYHS Vyhne 77.72 329 P **P** **16 55 20.1 +0.5**
comp=Z,3.4nm,1.1s
BNN Bunyan 77.73 313 IAmb IAmb 16 55 21.9

comp=Z,12nm,1.0s
EKA **Eskdalemuir Ar** **77.75 345** P **P** **16 55 19.6 -0.1**
comp=Z,1.0nm,0.3s,baz=20,slow=5.0,SNR=11
EKA LR LR 17 33 53.6
comp=Z,66nm,21.3s,baz=16,slow=39
comp=Z,1.0nm,0.3s
VOIR **77.76 324** P **P** **16 55 20.7 +0.7**
VOIR **77.76 324** P **P** **16 55 20.7 +0.7**
comp=Z,13nm,1.1s
VOIR pP **PcP** **16 55 28.0 -1.9**
comp=Z,13nm,1.1s
VOIR **77.76 324** P **P** **16 55 21.0 +1.0**
comp=Z,13nm,1.1s
HSKC Hora Svate Kat **77.79 333** *eP* **P** **16 55 20.0 -0.1**
HSKC Hora Svate Kat **77.79 333** P **P** **16 55 19.9 -0.1**
comp=Z,11nm,1.0s
PSZ Piszkesteto **77.81 328** P **P** **16 55 20.4 +0.2**
PSZ Piszkesteto **77.81 328** IAmb IAmb 16 55 21.8
comp=Z,15nm,1.0s
PSZ Piszkesteto **77.81 328** ⇓P **P** **16 55 20.5 +0.2**
PSZ Piszkesteto **77.81 328** P **P** **16 55 21.2 +1.0**
comp=Z,16nm,1.0s
JAVC Velka Javorina **77.84 330** *eP* **P** **16 55 21.4 +1.0**
JAVC Velka Javorina **77.84 330** P **P** **16 55 22.2 +1.8**
comp=Z,19nm,1.4s
VRAC Vranov **77.84 331** LR LR 17 32 31.7
comp=Z,112nm,18.9s,baz=7.0,slow=38
VRAC Vranov **77.84 331** P **P** **16 55 20.7 +0.4**
VRAC Vranov **77.84 331** *eP* **P** **16 55 20.6 +0.3**
VRAC Vranov **77.84 331** ⇓P **P** **16 55 20.7 +0.4**
VRAC Vranov **77.84 331** P **P** **16 55 20.5 +0.3**
comp=Z,5.7nm,1.4s
MNTX Cornudas Mount **77.90 57** P **P** **16 55 22.2 +1.3**
comp=Z,4.8nm,1.6s
IBBN Ibbenburen **77.99 337** *eP* **P** **16 55 20.1 -1.0**
comp=Z,9.8nm,0.8s,baz=25,slow=5.5
ARR Arges **77.99 324** ⇑P **P** **16 55 22.0 +0.7**
ARR Arges **77.99 324** P **P** **16 55 22.4 +1.1**
comp=Z,23nm,1.9s
GTTG Gottingen **78.04 336** *eP* **P** **16 55 20.6 -0.7**
comp=Z,21nm,1.2s,baz=25,slow=5.5
KRUC Moravsky **78.12 331** *eP* **P** **16 55 21.9 +0.1**
KRUC Moravsky **78.12 331** P **P** **16 55 22.4 +0.5**
comp=Z,20nm,1.1s
BR131 Keskin Array S **78.21 315** *ceP* **P** **16 55 22.5 -0.2**
BR131 Keskin Array S **78.21 315** IAmb IAmb 16 55 23.7
comp=Z,14nm,1.2s
BRTR Keskin Array B **78.21 315** P **P** **16 55 22.7 0.0**
comp=Z,4.4nm,0.9s,baz=56,slow=3.1,SNR=14
BRTR LR LR 17 36 44.3
comp=Z,80nm,18.0s,baz=12,slow=41
comp=Z,4.4nm,0.9s
BRTR Keskin Array B **78.21 315** *ceP* **P** **16 55 23.2 +0.5**
BRTR pmax pmax
comp=Z,4.0nm,0.9s
BRTR Keskin Array B **78.21 315** P **P** **16 55 22.2 -0.5**
BR106 Keskin Array S **78.21 315** P **P** **16 55 23.3 +0.6**
comp=Z,61nmcomp=Z,7.3nm,1.1s
BR104 Keskin Array S **78.22 315** P **P** **16 55 23.4 +0.7**
comp=Z,5.6nm,1.1s
BR105 Keskin Array S **78.23 315** P **P** **16 55 23.4 +0.6**
comp=Z,8.0nm,1.0s
TREC Trest **78.23 331** *eP* **P** **16 55 22.3 -0.2**
TREC Trest **78.23 331** P **P** **16 55 22.9 +0.4**
comp=Z,10nm,1.2s
TANN Tannenbergstha **78.27 334** *eP* **P** **16 55 22.3 -0.4**
comp=Z,2.6nm,0.8s,baz=25,slow=5.5
MOX Moxa **78.33 334** *eP* **P** **16 55 22.6 -0.4**
comp=Z,6.8nm,1.1s,baz=25,slow=5.5
MODS Modra-Piesok **78.39 330** *eP* **P** **16 55 24.3 +0.9**
MODS Modra-Piesok **78.39 330** P **P** **16 55 24.5 +1.1**
comp=Z,22nm,1.2s
ANDN Andirin **78.41 312** P **P** **16 55 24.0 +0.2**
comp=Z,58nm,1.2s
SIRR Siria **78.48 326** ⇓P **P** **16 55 24.4 +0.5**
ZVC Zvikov **78.55 332** *eP* **P** **16 55 24.1 -0.1**
SURR Surduc **78.72 326** ⇓P **P** **16 55 25.5 +0.3**
LOZB Loznitsa **78.74 321** ⇓P **P** **16 55 25.8 +0.4**
ABNA Allensteig Bun **78.79 331** *iP* **P** **16 55 25.6 0.0**
comp=Z,10.0nm,1.2s
VHRN Van Horn **78.79 58** P **P** **16 55 27.0 +1.0**
VHRN IAmb IAmb 16 55 33.4
comp=Z,14nm,1.6s
KASTN Kahler Asten **78.79 336** *eP* **P** **16 55 24.3 -1.3**
comp=Z,6.1nm,1.0s,baz=25,slow=5.5
KKUL Konya-Kulu **78.99 315** P **P** **16 55 28.0 +1.1**
comp=Z,35nm,1.6s
KHC Kasperske Hory **79.02 332** ⇓*eP* **P** **16 55 27.5 +0.7**
KHC pmax pmax
comp=Z,28nm,1.7s
KHC Kasperske Hory **79.02 332** P **P** **16 55 27.0 +0.2**
KHC IAmb IAmb 16 55 28.2
comp=Z,15nm,1.0s
KHC Kasperske Hory **79.02 332** *eP* **P** **16 55 27.0 +0.2**
KHC Kasperske Hory **79.02 332** P **P** **16 55 27.5 +0.7**
KHC Kasperske Hory **79.02 332** P **P** **16 55 27.6 +0.7**
BZS Buzias **79.03 326** P **P** **16 55 27.0 +0.1**
BZS Buzias **79.03 326** ⇓P **P** **16 55 27.1 +0.1**
BZS Buzias **79.03 326** P **P** **16 55 27.1 +0.2**
comp=Z,15nm,1.3s
CKRC Cesky Krumlov **79.04 332** *eP* **P** **16 55 26.8 -0.1**
WINA Alland / Wiene **79.04 330** *eP* **P** **16 55 27.7 +0.8**
comp=Z,10.0nm,1.1s,SNR=5.7
GRA3 Grafenberg Arr **79.20 334** P **P** **16 55 27.6 -0.1**
comp=Z,18nm,1.1s
GEC2 GERESS Array S **79.22 332** *eP* **P** **16 55 28.2 +0.1**
comp=Z,4.5nm,0.9s,baz=25,slow=5.5
GEC2 GERESS Array S **79.22 332** P **P** **16 55 27.8 -0.3**
comp=Z,7.1nm,1.1s
GERES GERESS Array B **79.22 332** P **P** **16 55 27.6 -0.4**
comp=Z,1.6nm,0.4s,baz=37,slow=4.9,SNR=24
comp=Z,1.6nm,0.4s
GERES GERESS Array B **79.22 332** P **P** **16 55 27.8 -0.3**
GERES GERESS Array B **79.22 332** P **P** **16 55 27.8 -0.3**
SOP Sopron **79.23 330** P **P** **16 55 28.9 +0.9**
comp=Z,19nm,1.0s
WET Wettzell **79.24 333** *eP* **P** **16 55 28.1 +0.1**
comp=Z,9.8nm,0.9s,baz=25,slow=5.5
WET Wettzell **79.24 333** P **P** **16 55 28.9 +0.8**
comp=Z,16nm,1.0s
CONA Conrad Observa **79.27 330** *eP* **P** **16 55 28.8 +0.5**
comp=Z,12nm,1.1s
GRA2 Grafenberg Arr **79.28 334** P **P** **16 55 29.0 +0.8**
comp=Z,19nm,2.3s
RAO Raoul Island **79.28 152** LR LR 17 25 51.3
comp=Z,74nm,18.7s,baz=147,slow=32
GRA1 Grafenberg Arr **79.29 334** P **P** **16 55 28.2 0.0**
GRA1 IAmb IAmb 16 55 29.6
comp=Z,12nm,0.8s
GRF Grafenberg Arr **79.29 334** P **P** **16 55 28.3 0.0**
GRF pmax pmax
comp=Z,12nm,0.8s
GRF Grafenberg Arr **79.29 334** *eP* **P** **16 55 28.0 -0.2**
comp=Z,9.0nm,0.8s,baz=25,slow=5.5
GRFO Grafenberg **79.29 334** P **P** **16 55 28.8 +0.5**
GRFO PcP **PcP** **16 55 37.0 +0.6**
MPLH Magyarpolny **79.31 329** P **P** **16 55 29.1 +0.7**
comp=Z,38nm,1.1s
MPLH Magyarpolny **79.31 329** P **P** **16 55 29.0 +0.7**
comp=Z,15nm,1.1s
HERR Herculane **79.31 325** ⇓P **P** **16 55 28.0 -0.4**
RONA Rosalia, Austr **79.31 330** *eP* **P** **16 55 29.2 +0.7**
comp=Z,7.6nm,0.9s,SNR=5.6
GRB4 Grafenberg Arr **79.38 334** P **P** **16 55 29.6 +0.8**
comp=Z,15nm,2.7s
PLVB Pleven **79.59 323** ⇓P **P** **16 55 30.2 +0.2**
GRB5 Grafenberg Arr **79.65 333** P **P** **16 55 30.7 +0.5**
comp=Z,12nm,1.6s
TNS Taunus Mts **79.66 336** *eP* **P** **16 55 29.5 -0.8**
comp=Z,4.7nm,0.8s,baz=25,slow=5.5
MORH Mrgy, Hungar **79.70 328** ⇓P **P** **16 55 30.1 -0.3**
MORH Mrgy, Hungar **79.70 328** P **P** **16 55 30.2 -0.3**
comp=Z,5.6nm,2.2s
MORH Mrgy, Hungar **79.70 328** P **P** **16 55 29.6 -0.9**
comp=Z,6.2nm,2.2s
GRC1 Grafenberg Arr **79.80 333** P **P** **16 55 29.8 -1.3**
comp=Z,11nm,1.2s
GRC3 Grafenberg Arr **79.88 333** P **P** **16 55 31.2 -0.3**
comp=Z,16nm,1.0s
MOA Molln **79.89 331** *iP* **P** **16 55 31.6 +0.1**
comp=Z,5.3nm,1.2s
GRC2 Grafenberg Arr **79.96 334** P **P** **16 55 31.8 -0.1**
comp=Z,21nm,1.0s
ARSA Arzberg **79.97 330** *iP* **P** **16 55 32.2 +0.2**
comp=Z,4.7nm,1.1s
MEM Membach **80.00 337** *dP* **P** **16 55 31.9 -0.1**

LPIG La Paz **80.14 66** LR LR 17 27 02.3
comp=Z,26nm,18.4s,baz=239,slow=33
BLKB Belogradchik **80.23 324** ⇓P **P** **16 55 33.1 -0.4**
BIOA Bad Ischl, Aus **80.24 332** *eP* **P** **16 55 33.8 +0.3**
comp=Z,10.0nm,1.3s,SNR=5.4
BCLA Clavier **80.36 338** *dP* **P** **16 55 33.2 -0.8**
comp=Z,6.2nm,1.1s
SESA Seetaler Alpe, **80.42 331** *eP* **P** **16 55 34.8 +0.1**
comp=Z,12nm,1.2s,SNR=6.6
RJOB Jochberg **80.49 332** P **P** **16 55 35.3 +0.4**
comp=Z,6.1nm,0.9s
FUR Furstenfeldbru **80.61 333** *eP* **P** **16 55 35.6 +0.1**
comp=Z,9.4nm,0.9s,baz=25,slow=5.5
BMRD Maredsous **80.61 338** *dP* **P** **16 55 35.5 +0.1**
comp=Z,8.1nm,1.0s
TX31 Lajitas Ar. Si **80.62 58** P **P** **16 55 36.3 +0.4**
TX31 IAmb IAmb 16 55 54.8
comp=Z,12nm,1.2s
TXAR Lajitas Array **80.62 58** P **P** **16 55 36.6 +0.7**
comp=Z,1.5nm,0.5s,baz=302,slow=4.1,SNR=30
TXAR pP **sP** **16 55 49.5 -1.0**
comp=Z,4.3nm,0.8s,baz=295,slow=3.4,SNR=11
comp=Z,1.5nm,0.5s
TXAR Lajitas Array **80.62 58** P **P** **16 55 36.2 +0.2**
BOVS Bovan **80.62 325** ⇓P **P** **16 55 35.4 -0.1**
SOKA Soboth **80.63 330** *iP* **P** **16 55 36.0 +0.3**
comp=Z,15nm,1.4s
PERS Pernice **80.64 330** *iP* **P** **16 55 36.0 +0.3**
STU Stuttgart **80.73 335** *eP* **P** **16 55 35.4 -0.7**
comp=Z,21nm,1.0s,baz=25,slow=5.5
LESA Schwarzleotal **80.80 332** *eP* **P** **16 55 36.8 +0.2**
comp=Z,13nm,1.2s,SNR=6.9
WLF Walferdange **80.81 337** *dP* **P** **16 55 33.8 -2.6**
KBA Koelnbreinsper **80.87 331** *eP* **P** **16 55 37.3 +0.2**
comp=Z,16nm,1.1s,SNR=5.5
KBA Koelnbreinsper **80.87 331** P **P** **16 55 37.9 +0.8**
comp=Z,18nm,1.1s
OBKA Obir **80.95 330** *iP* **P** **16 55 37.6 +0.3**
comp=Z,3.1nm,1.1s
SADO Sadowa **80.96 33** LR LR 17 33 58.7
comp=Z,45nm,18.4s,baz=336,slow=38
MYKA Terra Mystica **81.16 331** *eP* **P** **16 55 38.4 -0.1**
comp=Z,2.6nm,0.6s
CRES Cresnjevec Ost **81.21 330** *eP* **P** **16 55 38.6 -0.1**
WATA Walderalm **81.24 333** *iP* **P** **16 55 39.1 +0.1**
comp=Z,20nm,1.2s,SNR=5.1
WTTA Wattenberg **81.28 333** *iP* **P** **16 55 39.5 +0.3**
comp=Z,9.8nm,0.8s
WTTA Wattenberg **81.28 333** P **P** **16 55 39.7 +0.4**
comp=Z,16nm,1.2s
RETA Reutte **81.37 333** *iP* **P** **16 55 40.1 +0.5**
comp=Z,9.3nm,1.3s
BFO Black Forest **81.38 335** *eP* **P** **16 55 39.4 -0.2**
comp=Z,4.0nm,1.1s,baz=25,slow=5.5
MOTA Moosalm **81.39 333** *eP* **P** **16 55 39.8 0.0**
comp=Z,7.1nm,0.8s,SNR=5.8
TRQ Mont Tremblant **81.41 29** P **P** **16 55 39.7 -0.1**
VISS Visnje **81.45 330** *iP* **P** **16 55 39.9 0.0**
SQTA Sankt Quirin **81.46 333** *iP* **P** **16 55 40.5 +0.4**
comp=Z,11nm,1.2s
P46A Rosedale **81.73 41** IAmb IAmb 16 55 42.7
comp=Z,12nm,0.9s
FETA Feichten **81.79 333** *iP* **P** **16 55 42.0 +0.1**
comp=Z,5.6nm,1.1s
DAVA Damuels **81.83 334** *iP* **P** **16 55 42.3 +0.2**
comp=Z,11nm,1.1s
ECH Echery **81.83 336** P **P** **16 55 41.4 -0.5**
ECH pmax pmax
comp=Z,6.0nm,1.0s
ECH Echery **81.83 336** P **P** **16 55 41.4 -0.5**
ECH Echery **81.83 336** P **P** **16 55 42.1 +0.2**
ECH pP **pP** **16 55 53.6 +0.4**
ECH sP **sP** **16 55 58.5 +0.9**
ASF Jabal al Asfar **82.13 308** LR LR 17 38 50.6
comp=Z,102nm,18.0s,baz=14,slow=40
FCAR Ozark Folk Cen **82.23 46** P **P** **16 55 44.1 -0.1**
FUORN Ofenpass-Fuorn **82.30 333** P **P** **16 55 44.5 -0.2**
FUORN IAmb IAmb 16 55 46.3
comp=Z,11nm,1.1s
FUORN Ofenpass-Fuorn **82.30 333** P **P** **16 55 45.7 +1.0**
comp=Z,9.2nm,1.1s
MMAI Mount Meron Ar **82.34 309** P **P** **16 55 45.7 +0.8**
comp=Z,3.2nm,0.8s,baz=24,slow=10,SNR=5.0
MMAI LR LR 17 36 28.6
comp=Z,114nm,20.6s,baz=17,slow=39
comp=Z,3.2nm,0.8s
CTI Castel Tesino **82.34 332** P **P** **16 55 44.1 -0.7**
CTI pmax pmax
comp=Z,8.0nm,1.2s
CTI Castel Tesino **82.34 332** P **P** **16 55 44.1 -0.7**
TAOE Nuku Hiva Isla **82.41 110** *e*LR LR 17 21 38.3
comp=Z,280nm,27.0s
KIJV Kijevo **82.41 328** P **P** **16 55 45.7 +0.7**
comp=Z,42nm,0.8s
PDG Podgorica **82.63 325** P **P** **16 55 46.2 +0.1**
PDG Podgorica **82.63 325** ⇑P **P** **16 55 46.2 +0.1**
TUE Stuetta **82.72 334** IAmb IAmb 16 55 48.1
comp=Z,8.1nm,1.1s
TUE Stuetta **82.72 334** P **P** **16 55 47.3 +0.5**
comp=Z,6.6nm,1.0s
PPT Papeete **82.96 123** LR LR 17 32 10.4
comp=Z,104nm,18.3s,baz=318,slow=35
PPT2 Papeete2 **82.98 123** *e*LR LR 17 21 41.8
comp=Z,154nm,25.8s
PPT2 *e*LR LR 17 21 51.5
comp=Z,141nm,25.8s
BATG Bathurst New B **83.18 24** P **P** **16 55 49.5 +0.6**
PAOC Oil Creek Stat **83.47 35** P **P** **16 55 51.1 +0.5**
F64A Sherman **83.78 26** P **P** **16 55 52.2 +0.2**
FDMO Fiordimonte **84.47 330** P **P** **16 55 55.5 -0.1**
KZIT Kziot **84.49 309** P **P** **16 55 57.1 +1.1**
comp=Z,34nm,1.0s
NRCA Norcia **84.64 329** P **P** **16 55 57.0 +0.5**
M57A Sunshine Farm, **84.65 33** P **P** **16 55 56.9 +0.4**
KARP Karpathos **84.69 316** P **P** **16 55 56.8 -0.1**
L59A Walton **84.72 32** P **P** **16 55 57.3 +0.4**
HRFI Mount Harif **84.79 308** P **P** **16 55 58.4 +0.9**
comp=Z,26nm,1.2s
HRFI pP **pP** **16 56 08.6 0.0**
EIL Elat **85.11 308** LR LR 17 38 31.0
comp=Z,105nm,20.0s,baz=55,slow=39
EIL Elat **85.11 308** P **P** **16 55 60.0 +0.9**
comp=Z,20nm,1.2s
URZ Urewera **86.18 159** LR LR 17 29 44.4
comp=Z,41nm,21.0s,baz=6.5,slow=32
TBI Tubuai **87.52 127** *e*LR LR 17 23 54.1
comp=Z,984nm,31.2s
KEST Kesra **92.27 329** LR LR 17 42 31.3
comp=Z,118nm,18.1s,baz=22,slow=38
ESDC Sonseca Array **92.75 340** LR LR 17 43 04.2
comp=Z,94nm,19.8s,baz=18,slow=39
ATD Arta Tunnel **93.64 290** LR LR 17 44 19.2
comp=Z,30nm,19.4s,baz=60,slow=39
CMIG Matias Romero **95.07 60** LR LR 17 38 10.8
comp=Z,21nm,19.2s,baz=2.5,slow=34
MDT Midelt **99.41 338** LR LR 17 48 00.3
comp=Z,26nm,20.3s,baz=38,slow=39
CRIN San Cristobal **103.23 57** P **Pdif** **16 57 22.3 -0.6**
comp=Z,252nm,0.8s
QSPA South Pole Qui **134.40 180** PKP **PKPdf** **17 02 40.8 +1.1**
comp=Z,16nm,0.9s,baz=218,slow=0.5,SNR=12
BDFB Brasilia **147.42 33** PKPbc **PKPbc** **17 03 07.8 +0.7**
comp=Z,1.1nm,0.4s,baz=220,slow=5.1,SNR=3.9
BDFB pPKPbc **sPKPdf** **17 03 20.8 +0.9**
comp=Z,5.8nm,0.8s,baz=231,slow=1.1,SNR=6.3
TROLL Troll, Antarti **148.45 199** ⇑PKPbc **PKPbc** **17 03 09.1 +0.8**
comp=Z,292nm,0.7s
TROLL ⇑pPKPbc **sPKPbc** **17 03 22.4 -0.6**
comp=Z,313nm,0.8s
SNAA Sanae **149.87 197** PKPbc **PKPbc** **17 03 12.9 +1.2**
comp=Z,4.4nm,0.5s,baz=220,slow=7.5,SNR=1.9
PLCA Paso Flores **150.38 97** PKPbc **PKPbc** **17 03 14.9 +0.9**
comp=Z,3.4nm,0.7s,baz=268,slow=5.6,SNR=5.9
VNA2 Neumayer--Watz **151.37 195** ⇑PKPbc **PKPbc** **17 03 15.9 +0.7**
comp=Z,18nm,0.7s,baz=134,slow=1.5
VNA2 ⇑pPKPbc **sPKPbc** **17 03 29.9 0.0**
comp=Z,13nm,0.6s,baz=145,slow=2.0
VNA3 Neumayer Olymp **151.51 194** ⇑PKPbc **PKPbc** **17 03 16.0 +0.4**
comp=Z,8.3nm,0.7s
VNA3 ⇑pPKPbc **sPKPbc** **17 03 30.0 -0.3**
comp=Z,8.0nm,0.7s
CPUP Villa Florida **151.59 59** PKPbc **PKPbc** **17 03 17.2 +0.1**
comp=Z,0.8nm,0.7s,baz=346,slow=2.2,SNR=5.2
CPUP PKPab **sPKPdf** **17 03 26.0 +0.1**
comp=Z,2.3nm,1.0s,baz=245,slow=1.6,SNR=5.1
VNA1 Neumayer--Stat **151.76 195** ⇑PKPbc **PKPbc** **17 03 16.9 +0.8**
comp=Z,8.2nm,0.9s
VNA1 ⇑pPKPbc **sPKPbc** **17 03 30.6 -0.1**
comp=Z,9.0nm,0.8s

IDC 22 16:49:07.7±4.9, 13°25N×143°94E, h0km, mb3.7/4, mbtmp3.7/4, Error ellipse: s-maj=193.2km s-min=32.6km az=77.0, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**34.31**	**196**	P	P	16 55 55.9	-0.1
	0.8nm,0.8s,baz=18,slow=9.0,SNR=2.4						
	0.8nm,0.8s						
ASAR	**Alice Springs**	**37.98**	**195**	P	P	16 56 27.9	+0.4
	0.3nm,0.6s,baz=18,slow=13,SNR=4.9						
	0.3nm,0.6s						
STKA	**Stephens Creek**	**44.92**	**183**	P	P	16 57 23.5	-0.8
	1.4nm,0.8s,baz=348,slow=7.8,SNR=1.9						
	1.4nm,0.8s						
MKAR	**Makanchi Array**	**61.11**	**316**	P	P	16 59 23.8	0.0
	2.2nm,1.1s,baz=98,slow=8.3,SNR=2.6						
	2.2nm,1.1s						

IDC 22 16:53:52.5±4.1, 35°57N×140°92E, h41km±31km, mb3.6/8, mbtmp3.9/11, ML3.0/2, Error ellipse: s-maj=40.7km s-min=9.6km az=67.0
NEIC 22 16:53:53.3±0.6, 35°56N±0°05×140°8E±0°1, h41km±6km, mb4.4/12, Error ellipse: s-maj=14.0km s-min=7.1km az=76.0
JMA 22 16:53:56.1±0.2, 35°5N±0°4×140°5E±0°7, h68km±1km, MV3.1/40, KUJUKURI COAST BOSO PEN
ISC 22 16:53:56.2±0.7, 35°51N±0°05×140°52E±0°06, h70km±5km, n51, σ1s03/54, mb4.1/14, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JSMT	**Sammumatsuo**	**0.15**	**338**	*i*P	**Pn**	**16 54 06.2**	**-0.3**
JSMT				S	**Sn**	**16 54 14.5**	**+0.4**
JCCN	**Chibachonan**	**0.26**	**242**	*i*P	**Pn**	**16 54 07.0**	**0.0**
JCCN				S	**Sn**	**16 54 15.6**	**+0.7**
KTR	**Katsuura**	**0.39**	**205**	P	**Pn**	**16 54 07.6**	**-0.4**
KTR				S	**Sn**	**16 54 16.2**	**-0.4**
JKUC	**kamogawauchiur**	**0.43**	**217**	*i*P	**Pn**	**16 54 07.7**	**-0.6**
JKUC				S	**Sn**	**16 54 16.7**	**-0.5**
BSO4	**Boso 4**	**0.54**	**196**	*i*P	**Pn**	**16 54 09.4**	**+0.2**
BSO4				S	**Sn**	**16 54 18.8**	**+0.1**
BSO3	**Boso 3**	**0.70**	**180**	*e*P	**Pn**	**16 54 10.9**	**0.0**
BSO3				S	**Sn**	**16 54 23.1**	**+1.5**
BSO1	**Boso 1**	**0.93**	**156**	P	**Pn**	**16 54 13.9**	**+0.7**
JIM2	**Oshima 3**	**1.19**	**229**	P	**Pn**	**16 54 16.3**	**-0.7**
JOD2	**Odawara 2**	**1.19**	**259**	*i*P	**Pn**	**16 54 16.1**	**-0.9**
JOD2				S	**Sn**	**16 54 31.1**	**-1.6**
JAG	**Ashikaga**	**1.26**	**317**	*i*P	**Pn**	**16 54 17.4**	**-0.5**
JAG				S	**Sn**	**16 54 33.2**	**-1.0**
JRY	**Ryogami san**	**1.41**	**292**	*i*P	**Pn**	**16 54 19.6**	**-0.3**
JIZS	**Izushimoda**	**1.56**	**240**	P	**Pn**	**16 54 21.3**	**-0.6**
JIZS				S	**Sn**	**16 54 40.1**	**-1.1**
JYN	**Shimob**	**1.61**	**270**	*i*P	**Pn**	**16 54 21.9**	**-0.7**
JSG	**Sagara**	**2.08**	**247**	Pn	**Pn**	**16 54 28.7**	**-0.2**
MJAR	**Matsushiro Arr**	**2.13**	**300**	P	**Pn**	**16 54 29.3**	**-0.3**
	2.9nm,0.3s,baz=122,slow=12,SNR=64						
MJAR				S	**Sn**	**16 54 57.1**	**+2.0**
	11nm,0.4s,baz=299,slow=18,SNR=2.9						
	18nm,0.4s						
MJAR				AML	AML		
MAJO	**Matsushiro**	**2.14**	**300**		**Pn**	**16 54 29.6**	**-0.1**
JHJ	**Hachijo jima 2**	**2.46**	**194**	P	**Pn**	**16 54 33.6**	**-0.4**
	9.1nm,0.3s,baz=76,slow=8.3,SNR=26						
JHJ				S	**Sn**	**16 55 03.0**	**0.0**
	25nm,0.2s,baz=284,slow=23,SNR=6.9						
	22nm,0.3s						
JHJ				AML	AML		
JGF	**Kuroka**	**2.58**	**273**		**Pn**	**16 54 36.0**	**+0.4**
INU	**Inuyama**	**2.86**	**268**		**Pn**	**16 54 39.5**	**0.0**
JCJ	**Chichijima**	**8.51**	**170**	P	Pn	16 55 51.1	-5.5
	63nm,0.3s,baz=315,slow=20,SNR=17						
JCJ				S	Sn	16 57 21.1	-10
	36nm,0.7s,baz=280,slow=21,SNR=1.4						
JCJ	**Chichijima**	**8.51**	**170**		**Pn**	**16 55 52.9**	**-3.8**
TPUB	**Ta-pu**	**21.12**	**240**	P	**P**	**16 58 36.7**	**+1.4**
TPUB				IAmb	IAmb	16 58 59.0	
	comp=Z,28nm,1.2s						
H11N2	**WAKE ISLAND Hy**	**28.05**	**117**	T	T	17 28 56.7	
	baz=309						
H11N1	**WAKE ISLAND Hy**	**28.05**	**117**	T	T	17 28 57.9	
	baz=309						
H11N3	**WAKE ISLAND Hy**	**28.06**	**117**	T	T	17 28 58.4	
	baz=309						
SONM	**Songino Array**	**28.07**	**307**	P	**P**	**16 59 41.1**	**-0.1**
	comp=Z,0.4nm,0.4s,baz=111,slow=8.6,SNR=3.9						
	comp=Z,0.4nm,0.4s						
SONM	**Songino Array**	**28.07**	**307**	P	**P**	**16 59 40.7**	**-0.4**
H11S3	**WAKE ISLAND Hy**	**28.69**	**119**	T	T	17 29 47.1	
	baz=312						
H11S1	**WAKE ISLAND Hy**	**28.70**	**119**	T	T	17 29 45.9	
	baz=312						
H11S2	**WAKE ISLAND Hy**	**28.71**	**119**	T	T	17 29 45.6	
	baz=312						
UNV	**Unalaska Valle**	**40.81**	**46**	P	**P**	**17 01 28.1**	**-2.4**
ZAA0	**Zalesovo Array**	**42.42**	**314**	P	**P**	**17 01 45.0**	**+1.3**
ZAA0				IAmb	IAmb	17 02 01.8	
	comp=Z,1.7nm,0.8s						
ZALV	**Zalesovo Beam**	**42.42**	**314**	P	**P**	**17 01 44.6**	**+0.9**
	comp=Z,0.7nm,0.5s,baz=95,slow=9.1,SNR=3.7						
	comp=Z,0.7nm,0.5s						
MKAR	**Makanchi Array**	**44.33**	**303**	P	**P**	**17 01 60.0**	**+0.7**
	comp=Z,1.2nm,0.6s,baz=87,slow=9.4,SNR=12						
	comp=Z,1.2nm,0.6s						
MKAR	**Makanchi Array**	**44.33**	**303**	P	**P**	**17 02 00.2**	**+1.0**
MAKZ	**Makanchi**	**44.54**	**303**	P	**P**	**17 02 01.7**	**+0.8**
MAKZ				IAmb	IAmb	17 02 02.4	
	comp=Z,37nm,1.5s						
KURK	**Kurchatov**	**46.32**	**309**	P	**P**	**17 02 15.0**	**+0.2**
KURK				IAmb	IAmb	17 02 17.2	
	comp=Z,2.5nm,0.6s						
KURBB	**Kurchatov Arra**	**46.38**	**309**	P	**P**	**17 02 15.9**	**+0.6**
	comp=Z,1.5nm,0.4s,baz=84,slow=7.8,SNR=11						
	comp=Z,1.5nm,0.4s						
PDGK	**Podgornoye**	**46.86**	**299**	P	**P**	**17 02 20.6**	**+1.2**
BVAR	**Borovoye Array**	**51.07**	**313**	P	**P**	**17 02 52.0**	**+0.8**
	comp=Z,0.7nm,0.5s,baz=102,slow=8.8,SNR=4.3						
	comp=Z,0.7nm,0.5s						
GLI	**Glacier Island**	**51.31**	**37**	P	**P**	**17 02 51.2**	**-1.8**
KKAR	**Karatay Array**	**53.27**	**301**	P	**P**	**17 03 08.8**	**+1.0**
WR8	**Warramunga Arr**	**55.45**	**187**	P	**P**	**17 03 23.9**	**+0.2**
WR8				IAmb	IAmb	17 04 04.1	
	comp=Z,9.0nm,1.5s						
WRA	**Warramunga Arr**	**55.45**	**187**	P	**P**	**17 03 23.8**	**+0.1**
	comp=Z,0.2nm,0.5s,baz=5.1,slow=7.5,SNR=5.9						
	comp=Z,0.2nm,0.5s						
WRA	**Warramunga Arr**	**55.45**	**187**	IAmb	IAmb	17 03 32.9	
	comp=Z,0.1nm,1.1s						
ARTI	**Arti**	**57.13**	**319**	P	**P**	**17 03 36.0**	**+0.7**
	comp=Z,2.7nm,0.5s,baz=76,slow=2.0,SNR=7.2						
	comp=Z,2.7nm,0.5s						
ARTI	**Arti**	**57.13**	**319**	P	**P**	**17 03 35.9**	**+0.5**
AB31	**Akbulak array**	**58.37**	**311**	P	**P**	**17 03 44.7**	**+0.6**
AB31				IAmb	IAmb	17 04 23.7	
	comp=Z,2.9nm,1.4s						
ABKAR	**Akbulak array**	**58.37**	**311**	P	**P**	**17 03 44.7**	**+0.6**
ASAR	**Alice Springs**	**59.18**	**187**	P	**P**	**17 03 50.4**	**+0.4**
	comp=Z,0.3nm,0.9s,baz=3.6,slow=6.0,SNR=4.8						
	comp=Z,0.3nm,0.9s						
FIA1	**FINESS Array S**	**69.82**	**332**	P	**P**	**17 05 00.0**	**+1.1**

TRN 22 16:55:38.8, 10°58N×62°32W, h78km, MD3.5, Paria peninsula.
FUNV 22 16:55:38.3, 10°41N×62°55W, h35km, MW2.8, Presumed earthquake
ISC 22 16:55:33.4±1.3, 10°28N±0°08×62°67W±0°05, h75km, n11, σ2s45/21, 1D, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DMDM	**Guralp CMG5TDE**	**1.18**	**69**	*e*P	**Pn**	**16 55 56.5**	**+2.0**
DMDM				*e*S	**Sn**	**16 56 09.4**	**-0.7**
PSMG	**Mucurapo Girls**	**1.19**	**70**	*e*P	**Pn**	**16 55 55.7**	**+1.2**
PSMG

PSDM					*e*S		**Sn**	**16 56 10.4**	**-0.4**
TRN	**Trinidad (W)**	**1.30**	**73**	*e*P			**Pn**	**16 55 57.7**	**+1.7**
TRN				*e*S			**Sn**	**16 56 11.6**	**-1.4**
TRN	**Trinidad (W)**	**1.30**	**73**	*e*P			**Pn**	**16 55 57.9**	**+1.9**
TRN				*e*S			**Sn**	**16 56 11.9**	**-1.0**
PCRV	**Puerto La Cruz**	**1.94**	**267**	*e*P			Pn	16 56 09.7	+5.2
PCRV				*e*S			**Sn**	**16 56 31.9**	**+3.9**
GRGR	**Grenville**	**2.10**	**28**	*e*P			**Pn**	**16 56 08.5**	**+2.0**
GRGR				*e*S			**Sn**	**16 56 29.0**	**-2.8**
GRW	**Mount Saint Ca**	**2.12**	**28**	*e*P			**Pn**	**16 56 08.0**	**+1.1**
GRW				*e*S			**Sn**	**16 56 29.2**	**-3.2**
GRSS	**Sisters**	**2.26**	**27⇓**	*e*P			**Pn**	**16 56 10.7**	**+1.9**
GRSS				*e*S			**Sn**	**16 56 32.4**	**-3.4**
CACV	**CAICARA DEL OR**	**4.68**	**235**	*e*P			**Pn**	**16 56 42.3**	**+0.7**
CACV				*e*S			**Sn**	**16 57 29.0**	**-5.7**

IDC 22 17:04:53.6±3.3, 21°.62S×175°.73W, **h0**km, **mb3.8**/3, **mbtmp3.8**/3, **Error ellipse: s-maj=167.4km s-min=36.7km az=147.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**46.34**	**257**	P	P	17 13 22.8	+0.9
	1.1nm,0.5s,baz=89,slow=8.8,SNR=50						
ASAR				PcP	PcP	17 14 55.8	-1.3
	0.7nm,0.9s,baz=105,slow=4.2,SNR=5.3						
	1.1nm,0.5s						
WRA	**Warramunga Arr**	**46.56**	**263**	P	P	17 13 23.2	-0.4
	0.7nm,0.6s,baz=98,slow=8.6,SNR=10						
	0.7nm,0.6s						
ILAR	**Eielson Array**	**88.94**	**12**	P	P	17 17 51.5	+1.9
	0.7nm,1.2s,baz=202,slow=5.1,SNR=1.6						
	0.7nm,1.2s						
BVAR	**Borovoye Array**	**121.30**	**320**	PKP	PKPdf	17 23 47.5	-1.0
	0.4nm,0.4s,baz=84,slow=4.5,SNR=3.9						
AKASG	**Malin Array Be**	**145.00**	**332**	PKPbc	PKPbc	17 24 30.0	-2.0
	1.1nm,0.5s,baz=42,slow=4.2,SNR=6.0						

IDC 22 17:09:30.0±3.0, 17°.04N×146°.04E, **h0**km, **mb3.3**/5, **mbtmp3.4**/5, **MS3.2**/2, **Error ellipse: s-maj=96.8km s-min=25.6km az=82.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**20.63**	**342**	P	P	17 14 11.6	+0.5
	1.1nm,0.7s,baz=177,slow=9.6,SNR=4.9						
	1.1nm,0.7s						
WRA	**Warramunga Arr**	**38.50**	**198**	P	P	17 16 52.6	-1.7
	0.2nm,0.6s,baz=23,slow=7.7,SNR=1.6						
	0.2nm,0.6s						
ASAR	**Alice Springs**	**42.16**	**197**	P	P	17 17 25.7	+1.2
	0.4nm,1.0s,baz=16,slow=8.6,SNR=4.7						
	0.4nm,1.0s						
CMAR	**Chiang Mai Arr**	**44.78**	**279**	P	P	17 17 46.2	+0.4
	0.2nm,0.3s,baz=88,slow=8.1,SNR=1.3						
CMAR				LR	LR	17 37 40.8	
	comp=Z,12nm,18.1s,baz=355,slow=38						
	0.2nm,0.3s						
MSVF	**Nonsavu**	**46.77**	**136**	LR	LR	17 35 08.8	
	comp=Z,57nm,18.2s,baz=127,slow=33						
KURBB	**Kurchatov Arra**	**62.77**	**319**	P	P	17 19 56.3	-0.8
	0.3nm,0.5s,baz=98,slow=6.7,SNR=4.3						
	0.3nm,0.5s						

IDC ***22*** *17:16:26.6±0.9, 5°.94N×125°.25E, h0km, mb3.8/6, mbtmp3.8/6, Error ellipse: s-maj=36.7km s-min=13.1km az=89.0*
MAN ***22*** *17:16:31.0, 6°.28N×126°.06E, h33km, MS4.0*
ISC 22 17:16:31.7±0.8, 6°.10N±0°.07×125°.96E±0°.08, **h35**km, **n12,** σ1**9**64/**18**, **mb3.7/6, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSPH	**General Santos**	**1.00**	**269**	*i* P	**Pn**	**17 16 49.8**	**+0.4**
GSPH				*i* S	**Sn**	**17 17 03.3**	**+0.9**
DAV	**Davao City (W)**	**1.03**	**339**	Pg	**Pn**	**17 16 49.5**	**-0.3**
	236nm,0.3s,baz=259,slow=10,SNR=45						
DAV				Lg	Lg	17 17 04.0	
	426nm,0.3s,baz=198,slow=19,SNR=8.7						
DMPH	**Davao City--Mi**	**1.07**	**335**	*i* P	**Pn**	**17 16 49.7**	**-0.6**
DMPH				*i* S	**Sn**	**17 17 08.4**	**+4.4**
KCP	**Kidapawan**	**1.25**	**316**	*i* P	**Pn**	**17 16 52.4**	**-0.3**
KCP				*i* S	**Sn**	**17 17 07.8**	**-0.6**
BIPH	**Bislig**	**2.11**	**11**	*e*P	**Pn**	**17 17 04.4**	**-0.2**
BIPH				*e*S	Sn	17 17 09.3	-20
CGP	**Cagayan de Oro**	**2.65**	**332**	*e*P	**Pn**	**17 17 11.4**	**-0.6**
CGP				*e*S	**Sn**	**17 17 45.3**	**+2.3**
WRA	**Warramunga Arr**	**27.16**	**163**	P	**P**	**17 22 12.4**	**+0.4**
	1.0nm,0.7s,baz=339,slow=10.0,SNR=5.6						
WRA				PcP	**PcP**	**17 25 30.6**	**-1.6**
	0.5nm,0.8s,baz=348,slow=3.5,SNR=3.2						
	1.0nm,0.7s						
ASAR	**Alice Springs**	**30.59**	**166**	P	**P**	**17 22 43.0**	**+0.5**
	0.5nm,0.5s,baz=340,slow=6.8,SNR=36						
ASAR				PcP	**PcP**	**17 25 39.7**	**-1.0**
	0.6nm,0.6s,baz=348,slow=3.1,SNR=8.3						
	0.5nm,0.5s						
STKA	**Stephens Creek**	**40.61**	**159**	P	**P**	**17 24 10.2**	**+1.9**
	3.0nm,0.7s,baz=327,slow=10,SNR=6.3						
	3.0nm,0.7s						
SONM	**Songino Array**	**44.82**	**341**	P	**P**	**17 24 42.2**	**-0.2**
	0.2nm,0.3s,baz=147,slow=8.6,SNR=2.0						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**55.18**	**325**	P	**P**	**17 25 58.7**	**-2.3**
	1.2nm,1.0s,baz=106,slow=6.3,SNR=2.3						
	1.2nm,1.0s						
BVAR	**Borovoye Array**	**64.93**	**327**	P	**P**	**17 27 07.4**	**-0.3**
	0.4nm,0.5s,baz=102,slow=4.7,SNR=2.6						
	0.4nm,0.5s						

TRN 22 17:19:13.5, 14°.21N×60°.71W, **h30**km, **MD3.5, North-east of Saint Lucia., Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SLBI	**Saint Lucia, B**	**0.31**	**235**	*e*P	Pn	17 19 23.1	+1.0
SLBI				*e*S	Sn	17 19 28.8	+1.2
SLCP	**Castries, St.**	**0.33**	**234**	*e*P	Pn	17 19 23.3	+1.0
SLCP				*e*S	Sn	17 19 29.7	+1.5
SLAC	**Saint Lucia, A**	**0.35**	**211**	*e*P	Pn	17 19 23.9	+1.2
SLAC				*e*S	Sn	17 19 30.2	+1.5
BIM	**Bigot**	**0.47**	**312**	*e*P	Pn	17 19 24.9	+0.7
BIM				*e*S	Sn	17 19 32.0	+0.5
MCLT	**Moule a Chique**	**0.54**	**205**	*e*P	Pn	17 19 25.8	+0.6
MCLT				*e*S	Sn	17 19 34.5	+1.2
ILAM	**Ilet Lapin Mar**	**0.59**	**344**	*e*P	Pn	17 19 25.8	0.0
ILAM				*e*S	Sb	17 19 33.9	+0.3
SVN	**Savane Anatole**	**0.77**	**325**	*e*P	Pb	17 19 30.1	+1.5
SVN				*e*S	Sn	17 19 40.0	+0.9
SVB	**Belmont**	**1.07**	**210**	*e*P	Pn	17 19 32.8	+0.4
SVB				*e*S	Sb	17 19 48.1	+1.0
DLPL	**La Plaine**	**1.24**	**335**	*e*P	Pb	17 19 35.8	-0.6
DLPL				*e*S	Sb	17 19 53.2	+1.3
DSLB	**Salisbury**	**1.41**	**331**	*e*P	Pb	17 19 38.4	-0.8
DSLB				*e*S	Sb	17 19 57.4	+0.6
DWS	**Wesley**	**1.48**	**337**	*e*P	Pb	17 19 40.3	-0.1
DWS				*e*S	Sb	17 19 59.0	+0.3
MAGL	**Barre de l'ile**	**1.82**	**342**	*e*P	Pn	17 19 44.1	+1.3
MAGL				*e*S	Sn	17 20 06.5	+1.6
DSDZ	**La Diserade, G**	**2.12**	**351**	*e*P	Pn	17 19 47.5	+0.6
DSDZ				*e*S	Sn	17 20 13.2	+0.8

IDC ***22*** *17:24:01.8±2.2, 34°.94S×179°.12W, h0km, mb4.2/2, mbtmp4.0/4, ML3.5/2, Error ellipse: s-maj=61.5km s-min=36.1km az=127.0*
WEL ***22*** *17:24:06.3±0.8, 35°.5±6°×17°.9W±1°.0, h143km±17km, M4.3/13, ML4.4/8, MLv4.3/13, Error ellipse: s-maj=14.6km s-min=4.8km az=116.3*
NOU ***22*** *17:24:25.2, 36°.00S×179°.63E, h98km, mb4.4/8, Off E. Coast of N. Island, N.Z.*
ISC 22 17:24:12.9±1.5, 35°.59S±0°.08×179°.1W±0°.1, **h100**km, **n41,** σ1**9**71/62, **East of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.87**	**226**	P	**Pn**	**17 24 56.1**	**-0.8**
MXZ	**Matakaoa Point**	**2.87**	**226**	P	**Pn**	**17 24 55.5**	**-1.4**
MXZ				S	**Sn**	**17 25 31.7**	**+0.9**
PUZ	**Puketiti**	**3.26**	**220**	P	**Pn**	**17 25 01.2**	**-1.0**
PUZ				S	**Sn**	**17 25 42.3**	**+2.1**
PUZ				AML	AML		
PUZ				AML	AML		
HAZ	**Te Kaha**	**3.31**	**228**	P	**Pn**	**17 25 03.0**	**+0.2**
HAZ				S	**Sn**	**17 25 44.5**	**+3.2**
HAZ				AML	AML		
TWGZ	**Tauwhareparae**	**3.48**	**221**	P	**Pn**	**17 25 04.8**	**-0.4**
TWGZ				S	**Sn**	**17 25 48.1**	**+2.6**
TWGZ				AML	AML		
TWGZ				AML	AML		
RUGZ	**Raukumara Rang**	**3.51**	**227**	P	**Pn**	**17 25 04.5**	**-1.1**
RUGZ				S	**Sn**	**17 25 49.2**	**+2.9**
RUGZ				AML	AML		
CNGZ	**Carnagh Statio**	**3.60**	**216**	P	**Pn**	**17 25 06.1**	**-0.6**
CNGZ				S	**Sn**	**17 25 53.4**	**+5.1**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**3.75**	**220**	P	**Pn**	**17 25 08.0**	**-0.7**
TKGZ				S	**Sn**	**17 25 53.2**	**+1.4**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**3.85**	**224**	P	**Pn**	**17 25 09.1**	**-0.9**
MWZ				S	**Sn**	**17 25 55.8**	**+1.5**
MWZ				AML	AML		
MWZ				AML	AML		
RIGZ	**Rimuhau**	**3.99**	**218**	P	**Pn**	**17 25 11.2**	**-0.8**
RIGZ				S	**Sn**	**17 25 59.8**	**+2.0**
RIGZ				AML	AML		
RIGZ				AML	AML		
RAGZ	**Rawiri**	**4.02**	**223**	P	**Pn**	**17 25 11.6**	**-0.8**
RAGZ				S	**Sn**	**17 26 00.2**	**+1.6**
RAGZ				AML	AML		
RAGZ				AML	AML		
URZ	**Urewera**	**4.04**	**228**	Pn	**Pn**	**17 25 11.8**	**-0.8**
	4.2nm,0.3s,baz=315,slow=4.3,SNR=69						
URZ				Sn	**Sn**	**17 25 59.5**	**+0.7**
	18nm,0.3s,baz=336,slow=20,SNR=17						
	10nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**4.04**	**228**	P	**Pn**	**17 25 11.5**	**-1.1**
URZ	**Urewera**	**4.04**	**228**	P	**Pn**	**17 25 11.7**	**-0.8**
URZ				S	**Sn**	**17 25 59.2**	**+0.4**
URZ				AML	AML		
URZ				AML	AML		
OPRZ	**Ohinepanea**	**4.15**	**236**	P	**Pn**	**17 25 13.2**	**-0.9**
OPRZ				S	**Sn**	**17 26 03.1**	**+1.5**
OPRZ				AML	AML		
KNZ	**Kokohu**	**4.28**	**216**	P	**Pn**	**17 25 14.0**	**-1.8**
KNZ				S	**Sn**	**17 26 06.9**	**+2.2**
TGRZ	**Tauranga**	**4.30**	**239**	P	**Pn**	**17 25 15.4**	**-0.7**
TGRZ				AML	AML		
TGRZ				AML	AML		
RTZ	**Ruatahuna**	**4.35**	**225**	P	**Pn**	**17 25 16.2**	**-0.7**
RTZ				S	**Sn**	**17 26 08.2**	**+1.7**
RTZ				AML	AML		
MUGZ	**Murupara**	**4.38**	**228**	P	**Pn**	**17 25 16.1**	**-1.1**
MUGZ				S	**Sn**	**17 26 07.8**	**+0.6**
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**4.59**	**224**	P	**Pn**	**17 25 19.0**	**-1.1**
MTHZ				S	**Sn**	**17 26 13.6**	**+1.3**
NMHZ	**Naumai**	**4.78**	**222**	P	**Pn**	**17 25 21.6**	**-1.2**
NMHZ				S	**Sn**	**17 26 18.8**	**+1.8**
WIAZ	**Waiheke Island**	**4.82**	**254**	P	**Pn**	**17 25 22.8**	**-0.3**
WIAZ				AML	AML		
TOZ	**Tahuroa Road**	**4.84**	**242**	P	**Pn**	**17 25 23.1**	**-0.3**
TOZ				AML	AML		
MBAZ	**Motutapu North**	**5.00**	**255**	P	**Pn**	**17 25 25.5**	**0.0**
BKZ	**Black Stump Fm**	**5.00**	**223**	P	**Pn**	**17 25 24.4**	**-1.3**
BKZ	**Black Stump Fm**	**5.00**	**223**	P	**Pn**	**17 25 24.1**	**-1.6**
BKZ				S	**Sn**	**17 26 23.1**	**+0.7**
WCZ	**Waipu Caves**	**5.34**	**264**	P	**Pn**	**17 25 29.7**	**-0.5**
OUZ	**Omahuta**	**5.98**	**271**	P	**Pn**	**17 25 37.5**	**-1.4**
OUZ	**Omahuta**	**5.98**	**271**	P	**Pn**	**17 25 37.5**	**-1.4**
GLKZ	**Green Lake**	**6.39**	**9**	S	Sn	17 26 38.6	-17
MRZ	**Mangatainoka R**	**6.57**	**218**	P	**Pn**	**17 25 43.2**	**-3.7**
MRZ				S	**Sn**	**17 26 57.7**	**-2.6**
MRZ				AML	AML		
NNZ	**Nelson**	**8.15**	**224**	P	Pn	17 26 01.3	-7.0
NNZ				S	**Sn**	**17 27 34.8**	**-3.8**
QRZ	**Quartz Range**	**8.41**	**229**	P	**Pn**	**17 26 09.8**	**-2.1**
QRZ	**Quartz Range**	**8.41**	**229**	P	Pn	17 26 07.1	-4.8
QRZ				S	**Sn**	**17 27 41.1**	**-3.9**
KHZ	**Kahutara**	**8.90**	**218**	P	**Pn**	**17 26 18.5**	**0.0**
RPZ	**Rata Peaks**	**11.10**	**220**	Pn	**Pn**	**17 26 47.9**	**-0.6**
	0.2nm,0.3s,baz=14,slow=8.3,SNR=1.5						
RPZ				Sn	Sn	17 28 42.6	-7.9
	0.4nm,0.3s,baz=128,slow=22,SNR=8.7						
	1.5nm,0.8s						
RPZ				AML	AML		
ODZ	**Otahua Downs**	**12.25**	**216**	P	**Pn**	**17 27 03.6**	**-0.2**
JCZ	**Jackson Bay**	**12.58**	**224**	P	**Pn**	**17 27 07.0**	**-1.2**
ASAR	**Alice Springs**	**42.19**	**273**	P	**P**	**17 31 56.0**	**0.0**
	3.0nm,0.6s,baz=116,slow=7.4,SNR=84						
ASAR				PcP	**PcP**	**17 33 49.9**	**+1.4**
	0.2nm,0.6s,baz=132,slow=3.7,SNR=1.9						
	3.0nm,0.6s						
WRA	**Warramunga Arr**	**43.64**	**278**	P	**P**	**17 32 07.3**	**-0.4**
	1.4nm,0.6s,baz=119,slow=7.6,SNR=14						
WRA				PcP	**PcP**	**17 33 54.3**	**+0.9**
	0.4nm,0.6s,baz=113,slow=3.3,SNR=1.5						
	1.4nm,0.6s						
FINES	**FINESS Array B**	**149.61**	**336**	PKPbc	**PKiKP**	**17 43 50.8**	**0.0**
	1.7nm,0.5s,baz=46,slow=4.0,SNR=17						

DNK ***22*** *17:40:40.6±2.1, 80°.98N×2°.31W, h36km±23km, ML0.7, Presumed earthquake*
BER 22 17:40:39.3±2.5, 80°.93N×2°.75W, **h10**km, **Mw2.0, ML0.7**(DNK), **Confirmed Earthquake, North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NOR	**Nord**	**2.23**	**294**	*e*P	Pn	17 41 14.3	-1.8
NOR				*i* S	Sn	17 41 39.5	-4.2
NOR				IAML		17 41 50.5	
	comp=Z,0.6nm,0.2s						
NOR	**Nord**	**2.23**	**294**	*e*P	Pn	17 41 14.3	-1.8
NOR				*i* S	Sn	17 41 39.5	-4.2
NOR				IAML		17 41 50.5	
	comp=Z,0.6nm,0.2s						
KBS	**Kingsbay**	**3.27**	**121**	*i* P	Pn	17 41 29.2	-1.3
KBS	**Kingsbay**	**3.27**	**121**	*i* P	Pn	17 41 29.2	-1.3
KBS				*i* S	Sn	17 42 01.2	-8.0
BRBB	**Barentsburg B**	**4.19**	**124**	*e*P	Pn	17 41 42.9	-0.3
BRBB				*e*S	Sn	17 42 25.6	-6.4
SPA0	**Spitsbergen Ar**	**4.42**	**119**	*e*P	Pn	17 41 46.2	-0.1
SPA0				*e*S	Sn	17 42 31.5	-6.3
DAG	**Danmarks Havn**	**5.17**	**224**	*i* P	Pn	17 41 55.5	-1.0
DAG				*i* S	Sn	17 42 49.8	-6.3
DAG				IAML		17 42 52.9	
	comp=Z,0.3nm,0.2s						
DAG	**Danmarks Havn**	**5.17**	**224**	*i* P	Pn	17 41 55.5	-1.0
DAG				*i* S	Sn	17 42 49.8	-6.3
DAG				IAML		17 42 52.9	
	comp=Z,0.3nm,0.2s						

NNC ***22*** *17:40:40.7±5.4, 39°.22N×75°.91E, h5km±28km, mb3.7, mpv3.2, Error ellipse: s-maj=36.0km s-min=33.2km az=19.0*
SOME ***22*** *17:40:42.6, 39°.33N×76°.05E, h5km*
ISC 22 17:40:41.9±2.7, 39°.3N±0°.1×76°.13E±0°.07, **h10**km, **n14,** σ2**9**21/21, **4C, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AAK	**Ala-Archa**	**3.53**	**340**	⇑Pn	**Pn**	**17 41 35.7**	**-1.2**
	1.8nm,0.4s						
AAK				⇑Lg	Lg	17 42 32.3	
	6.5nm,0.7s						
KST	**Kastek**	**3.71**	**358**	Pg	**Pg**	**17 41 52.1**	**-0.9**
	3.1nm,0.4s						
KST				Lg	Lg	17 42 42.3	
KST	**Kastek**	**3.71**	**358**	*e*P	**Pg**	**17 41 52.1**	**-0.9**
	3.1nm,0.4s						
KST				*e*S	**Sg**	**17 42 42.3**	**+1.2**
MDOK	**Medeo**	**3.89**	**10**	Pg	**Pb**	**17 41 54.0**	**+3.3**
	9.3nm,0.6s						
MDOK				Lg	Lg	17 42 45.4	
	49nm,0.7s						
MDOK	**Medeo**	**3.89**	**10**	*e*P	**Pb**	**17 41 54.0**	**+3.3**
	9.3nm,0.6s						
MDOK				*e*S	**Sg**	**17 42 45.5**	**-1.4**
	49nm,0.7s						
KOTS	**Kotyrbulak**	**3.97**	**10**	Pg	**Pg**	**17 41 57.0**	**-1.0**
	5.7nm,0.5s						
KOTS				Lg	Lg	17 42 50.7	
	47nm,0.8s						
KOTS	**Kotyrbulak**	**3.97**	**10**	*e*P	**Pg**	**17 41 57.0**	**-1.0**
	5.7nm,0.5s						
KOTS				*e*S	**Sg**	**17 42 50.8**	**+1.4**
	47nm,0.8s						
MRKS	**Merke**	**4.06**	**328**	Pg	**Pb**	**17 41 56.6**	**+3.1**
	5.6nm,0.5s						
MRKS				Lg	Lg	17 42 49.7	
	4.5nm,0.5s						
MRKS	**Merke**	**4.06**	**328**	*e*P	**Pb**	**17 41 56.6**	**+3.1**
	5.6nm,0.5s						
MRKS				*e*S	**Sg**	**17 42 49.7**	**-2.4**
	4.5nm,0.5s						
KRBS	**Karabastau**	**4.38**	**356**	Pg	**Pg**	**17 42 03.1**	**-2.6**
	2.6nm,0.6s						
KRBS				Lg	Lg	17 43 01.3	
	6.0nm,0.8s						
KRBS	**Karabastau**	**4.38**	**356**	*e*P	**Pg**	**17 42 03.1**	**-2.6**
	2.6nm,0.6s						
KRBS				*e*S	**Sg**	**17 43 01.4**	**-1.0**
	6.0nm,0.8s						
KPKS	**Kokpek**	**4.56**	**24**	Pg	**Pg**	**17 42 06.7**	**-2.4**
	0.2nm,0.2s						
KPKS				Lg	Lg	17 43 07.3	
KPKS	**Kokpek**	**4.56**	**24**	*e*P	**Pg**	**17 42 06.7**	**-2.4**
	0.2nm,0.2s						
KPKS				*e*S	**Sg**	**17 43 07.3**	**-0.9**
KK31	**Karatay Array**	**5.67**	**313**	⇑Pn	**Pn**	**17 42 04.8**	**-1.4**
	0.2nm,0.2s,baz=141,slow=15,SNR=11						
KK31				⇑Sn	**Sn**	**17 43 12.6**	**+1.3**
	0.5nm,0.3s,baz=142,slow=21						

IDC 22 17:46:19.6±2.1, 49°.82S×126°.18E, **h0**km, **mb3.6**/3, **mbtmp3.6**/3, **MS3.4**/2, **Error ellipse: s-maj=118.9km s-min=41.4km az=118.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W1	**Cape Leeuwin H**	**17.33**	**325**	T	T	18 08 41.5	
	baz=151,slow=76,SNR=10						
H01W2	**Cape Leeuwin H**	**17.33**	**325**	T	T	18 08 41.3	
	baz=151,slow=76,SNR=12						
H01W3	**Cape Leeuwin H**	**17.34**	**325**	T	T	18 08 42.5	
	baz=151,slow=76,SNR=8.1						
NWAO	**Narrogin (SRO)**	**18.14**	**335**	LR	LR	17 55 54.9	
	comp=Z,22nm,21.7s,baz=357,slow=32						
STKA	**Stephens Creek**	**21.31**	**38**	P	P	17 51 06.1	-1.8
	2.2nm,0.8s,baz=198,slow=9.6,SNR=3.0						
	2.2nm,0.8s						
ASAR	**Alice Springs**	**26.80**	**16**	P	P	17 52 02.1	+0.7
	1.4nm,0.8s,baz=195,slow=9.4,SNR=16						
	1.4nm,0.8s						
WRA	**Warramunga Arr**	**30.52**	**15**	P	P	17 52 34.1	-0.4
	0.1nm,0.3s,baz=194,slow=8.4,SNR=2.1						
	0.1nm,0.3s						
MJAR	**Matsushiro Arr**	**86.65**	**10**	LR	LR	18 33 04.4	
	comp=Z,109nm,21.4s,baz=54,slow=32						
TORD	**Torodi Ar. Bea**	**121.97**	**251**	PKP	PKPdf	18 05 14.7	-1.3
	0.3nm,0.3s,baz=127,slow=0.7,SNR=2.2						
YKA	**Yellowknife Ar**	**145.24**	**45**	PKPbc	PKPdf	18 05 58.2	+0.4
	0.7nm,0.9s,baz=261,slow=3.7,SNR=4.4						

CATAC ***22*** *17:50:21.2±0.3, 1°.5±2°×7°.9W±°, h13km±2km, M4.0/9, mb4.2/3, MLv4.0/9, Error ellipse: s-maj=5.8km s-min=5.2km az=123.7, confirmed*
IGQ ***22*** *17:50:22.4±0.1, 1°.3S±0°.9×7°.9W±°, h5km±1km, M3.8/25, Mjma3.6/23, ML3.8/5, MLv3.6/25, Ms(BB)3.9/4*
RSNC ***22*** *17:50:39.0±0.0, 1°.N±4°×7°.8W±°, h0km±8km, M3.1, ML2.6*
ISC 22 17:50:22.0±0.8, 1°.27S±0°.02×78°.53W±0°.02, **h14**km±6km, **n73,** σ0**8**83/82, **31C-7D, Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AAM2	**Ambato 2 (Merc**	**0.08**	**273**	⇑P	**Pg**	**17 50 25.4**	**+0.1**
AAM2				S	**Sg**	**17 50 27.3**	**-0.2**
JUI6	**Juive**	**0.16**	**157**	⇑P	**Pg**	**17 50 26.1**	**-0.1**
BBIL	**Ulba Tungurahu**	**0.18**	**166**	⇑P	**Pg**	**17 50 26.5**	**-0.1**
BBIL				S	**Sg**	**17 50 29.9**	**+0.3**
BIL2	**Estacion Bilba**	**0.18**	**171**	⇑P	**Pg**	**17 50 26.3**	**-0.2**
ASLC	**Ecuador-Salced**	**0.24**	**346**	⇑P	**Pg**	**17 50 27.9**	**+0.4**
IGUA	**Igualata**	**0.24**	**206**	⇑P	**Pg**	**17 50 27.4**	**-0.2**
ARRY	**Arrayan**	**0.24**	**162**	⇑P	**Pg**	**17 50 27.2**	**-0.4**
ARRY				S	**Sg**	**17 50 31.1**	**-0.1**
BPAT	**Tungurahua Vol**	**0.25**	**157**	⇑P	**Pg**	**17 50 27.6**	**0.0**
BPAT				S	**Sg**	**17 50 32.1**	**+0.6**
PIS1	**Pisayambo**	**0.26**	**35**	⇓P	**Pb**	**17 50 28.5**	**-0.4**
PIS1				S	**Sb**	**17 50 33.6**	**+0.2**
ALAT	**Latacunga**	**0.35**	**346**	P	**Pb**	**17 50 30.0**	**-0.4**
TAMH	**Tambohuasha Ch**	**0.36**	**223**	⇓P	**Pg**	**17 50 29.7**	**+0.1**
PIAT	**Ana Tenorio**	**0.39**	**45**	⇓P	**Pg**	**17 50 30.2**	**+0.2**
CHSH	**Refugio Sur-Vo**	**0.40**	**237**	P	**Pg**	**17 50 30.0**	**-0.4**
CHSH				S	**Sg**	**17 50 36.1**	**+0.2**
CHSH	**Refugio Sur-Vo**	**0.40**	**237**	⇓P	**Pg**	**17 50 30.0**	**-0.4**
VCES	**Cotopaxi**	**0.49**	**16**	⇑P	**Pg**	**17 50 32.2**	**+0.3**
SRAM	**San Ramn-Vol**	**0.52**	**356**	⇑P	**Pb**	**17 50 32.9**	**-0.4**
SLOR	**San Lorenzo -**	**0.54**	**4**	P	**Pg**	**17 50 33.1**	**+0.2**
SLOR				S	**Sg**	**17 50 40.5**	**+0.4**
SLOR	**San Lorenzo -**	**0.54**	**4**	⇑P	**Pg**	**17 50 33.0**	**+0.1**
BMOR	**Cotopaxi Volca**	**0.54**	**8**	⇑P	**Pg**	**17 50 33.1**	**+0.2**
PUYO	**Puyo, Santa Ro**	**0.55**	**113**	P	**Pg**	**17 50 33.0**	**0.0**
PUYO				S	**Sg**	**17 50 40.8**	**+0.4**
PUYO	**Puyo, Santa Ro**	**0.55**	**113**	⇓P	**

YOTC	Yotoco, Valle	5.66	23	P		Pn	17 51 43.1	-2.9
PRAC	Prado	6.15	36	P		Pn	17 51 55.8	+3.2

GFZ ***22*** *17:57:36.6±0.2,37˚N±3˚×13˚9E±˚, h174km, M4.7/32, mb4.6/32*
MOS ***22*** *17:57:37.8±1.0,37˚.51N×139˚.01E, h172km, mb4.6/17, Error ellipse: s-maj=8.4km s-min=5.6km az=98.6*
BJI ***22*** *17:57:38.0,37˚.39N×139.00E, h189km, mB4.8/5, mb4.7/46*
IDC ***22*** *17:57:39.1±0.6,37˚.46N×138˚.94E, h168km±5km, mb3.9/32, mbtmp4.3/39, MS2.7/1, Error ellipse: s-maj=10.6km s-min=8.5km az=85.0*
NEIC ***22*** *17:57:39.2±1.8,37˚.50N±0˚.06×139˚.0E±0˚.1, h169km±5km, mb4.4/78, Error ellipse: s-maj=13.7km s-min=8.2km az=111.0*
NIED ***22*** *17:57:39.1,37˚.38N×139˚.04E, h171km, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.79; $M_{\theta\theta}$-0.15; $M_{\phi\phi}$1.95; $M_{r\theta}$-0.13; $M_{\theta\phi}$0.54; $M_{\phi r}$-1.34; Fault plane solution: $M_0$2.36000×10^{15} NP1: ϕ_s200.00000°, δ28.00000°, λ-80.00000°. NP2:ϕ_s8.00000°, δ63.00000°, λ-95.00000°.*
JMA ***22*** *17:57:39.1±0.2,37˚.4N±0˚.6×139˚.0E±0˚.8, h171km±1km, MD4.4/40, MV4.3/40, MID NIIGATA PREF*
ISC 22 17:57:38.2±0.5, 37˚.42N±0˚.04×139˚.04E±0˚.04, h168km±4km, n291, σ1$30/315, mb4.4/118, 7C-25D, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op		ISC	h m s	ISC
JUON	**Uonuma**	**0.21**	**176**	⇓P		**Pn**	**17 58 01.9**	**+1.3**
JUON				⇓*e*S		**Sn**	**17 58 18.9**	**+1.1**
JIZZ	**Izumozaki**	**0.29**	**294**	⇓P		**Pn**	**17 58 02.7**	**+2.0**
JIZZ				A		A	17 58 02.7	
	comp=N,23nm,2.0s,comp=E,35nm,0.7s							
JIZZ				⇓S		**Sn**	**17 58 20.6**	**+2.5**
JNS	**Sasagawa**	**0.46**	**29**	⇓P		**Pn**	**17 58 02.6**	**+1.3**
JNS				⇓*e*S		**Sn**	**17 58 20.3**	**+1.1**
JFY	**Yanaizu**	**0.53**	**91**	⇓P		**Pn**	**17 58 03.4**	**+1.7**
JJN	**Nakama**	**0.77**	**246**	A		A	17 58 04.3	
	comp=N,14nm,0.7s,comp=E,14nm,3.0s							
JGK	**Kuni**	**0.91**	**201**	A		A	17 58 05.2	
	comp=N,3.0nm,2.0s,comp=E,4.0nm,2.8s							
JOTO	**OTAMA OYAMA**	**1.04**	**82**	P		**Pn**	**17 58 06.9**	**+2.0**
JOTO				*e*S		**Sn**	**17 58 28.1**	**+2.6**
JAG	**Ashikaga**	**1.04**	**161**	⇓P		**Pn**	**17 58 06.3**	**+1.3**
JAG				⇓*e*S		**Sn**	**17 58 27.1**	**+1.5**
JAW	**Awa shima**	**1.05**	**9**	⇓P		**Pn**	**17 58 06.6**	**+1.7**
JAW				⇓S		**Sn**	**17 58 27.7**	**+1.9**
MJB9	**Matsu-Tunnel**	**1.10**	**218**			**Pn**	**17 58 07.5**	**+2.0**
MJB9				Sn		**Sn**	**17 58 28.9**	**+2.5**
MAJO	**Matsushiro**	**1.10**	**218**	*d* iP		**Pn**	**17 58 06.7**	**+1.2**
MAJO	**Matsushiro**	**1.10**	**218**			**Pn**	**17 58 06.5**	**+1.0**
MAJO	**Matsushiro**	**1.10**	**218**	P		**Pn**	**17 58 06.9**	**+1.4**
MAT	**Matsushiro**	**1.10**	**218**	P		**Pn**	**17 58 06.7**	**+1.2**
MAT				*e*S		**Sn**	**17 58 27.6**	**+1.2**
MJAR	**Matsushiro Arr**	**1.10**	**218**	P		**Pn**	**17 58 06.4**	**+0.9**
	comp=E,408nm,0.3s,baz=29,slow=6.9,SNR=5220							
MJAR				S		**Sn**	**17 58 28.0**	**+1.5**
	comp=E,100nm,0.6s,baz=40,slow=22,SNR=3.6							
MJAR				LR		LR	17 58 44.2	
	comp=E,176nm,18.6s,baz=19,slow=60							
MJAR	**Matsushiro Arr**	**1.10**	**218**			**Pn**	**17 58 06.7**	**+1.2**
JSZ	**Suzu**	**1.33**	**272**	P		**Pn**	**17 58 08.4**	**+1.0**
JSZ				*e*S		**Sn**	**17 58 30.8**	**+0.7**
JRY	**Ryogami san**	**1.40**	**185**	⇓P		**Pn**	**17 58 09.4**	**+1.2**
JRY				⇓*e*S		**Sn**	**17 58 31.9**	**+0.6**
ONAJ	**Iwakimizuishiy**	**1.44**	**102**	A		A	17 58 10.0	
	comp=N,11nm,0.4s,comp=E,12nm,1.8s							
JYT	**Yasato**	**1.50**	**142**	A		A	17 58 10.3	
	comp=N,11nm,0.3s,comp=E,22nm,0.4s							
JHYU	**Hitachinakayam**	**1.64**	**130**	A		A	17 58 11.7	
	comp=N,8.0nm,0.3s,comp=E,8.0nm,0.4s							
JHG	**Hegura jima**	**1.74**	**285**	P		**Pn**	**17 58 12.3**	**+0.9**
JHG				*e*S		**Sn**	**17 58 37.7**	**+0.4**
JYK	**Kaneyama**	**1.82**	**34**	⇓P		**Pn**	**17 58 14.3**	**+1.9**
JYK				⇓*e*S		**Sn**	**17 58 41.0**	**+2.0**
JYN	**Shimob**	**1.96**	**192**	P		**Pn**	**17 58 14.8**	**+0.8**
JYN				S		**Sn**	**17 58 42.7**	**+1.0**
JOD2	**Odawara 2**	**2.15**	**179**	P		**Pn**	**17 58 16.3**	**+0.2**
JOD2				S		**Sn**	**17 58 45.2**	**-0.3**
JGF	**Kuroka**	**2.26**	**217**			**Pn**	**17 58 18.7**	**+1.3**
JGF	**Kuroka**	**2.26**	**217**	P		**Pn**	**17 58 19.1**	**+1.6**
JMK	**Ichinoseki**	**2.30**	**48**	P		**Pn**	**17 58 19.3**	**+1.5**
JMK				*e*S		**Sn**	**17 58 50.9**	**+2.4**
JKG	**Kaga**	**2.45**	**243**	P		**Pn**	**17 58 20.8**	**+1.2**
INU	**Inuyama**	**2.63**	**219**			**Pn**	**17 58 22.8**	**+1.1**
INU	**Inuyama**	**2.63**	**219**	P		**Pn**	**17 58 22.6**	**+0.8**
JSG	**Sagara**	**2.82**	**194**			**Pn**	**17 58 26.3**	**+2.3**
JSG	**Sagara**	**2.82**	**194**	P		Pn	17 58 19.3	-4.7
JTM	**Tenmabayashi**	**3.72**	**24**	P		**Pn**	**17 58 34.2**	**-1.0**
JHJ	**Hachijo jima 2**	**4.33**	**172**	P		**Pn**	**17 58 43.0**	**-0.2**
	comp=E,23nm,0.3s,baz=257,slow=6.6,SNR=17							
JHJ				S		**Sn**	**17 59 31.8**	**-2.2**
	comp=E,35nm,0.3s,baz=12,slow=19,SNR=8.5							
JHJ2	**Mitsune**	**4.34**	**171**			**Pn**	**17 58 42.4**	**-0.9**
JHJ2	**Mitsune**	**4.34**	**171**	P		Pn	17 58 36.1	-7.3
ERM	**Erimo**	**5.58**	**33**	*ce*P		**Pn**	**17 58 59.4**	**0.0**
ERM	**Erimo**	**5.58**	**33**			**Pn**	**17 58 59.2**	**-0.2**
ERM	**Erimo**	**5.58**	**33**	P		**Pn**	**17 58 58.9**	**-0.5**
	comp=Z,109nm,1.4s							
JMN	**Monobe**	**5.59**	**230**	P		**Pn**	**17 58 59.5**	**-0.2**
	comp=Z,26nm,1.9s							
ASAJ	**Asahikawa**	**7.22**	**21**	P		**Pn**	**17 59 19.9**	**-1.1**
	comp=Z,11nm,0.4s,baz=237,slow=12,SNR=36							
ASAJ				S		**Sn**	**18 00 39.8**	**-2.2**
	comp=Z,6.7nm,0.6s,baz=197,slow=20,SNR=1.5							
ASAJ	**Asahikawa**	**7.22**	**21**	P		**Pn**	**17 59 20.0**	**-1.0**
JKA	**Kamikawa-asahi**	**7.22**	**21**			**Pn**	**17 59 20.0**	**-1.0**
JKA	**Kamikawa-asahi**	**7.22**	**21**	P		**Pn**	**17 59 20.4**	**-0.6**
	comp=Z,35nm,1.3s							
NMR	**Nemuro--Hokkai**	**7.83**	**39**	⇓*i*P		**Pn**	**17 59 27.3**	**-1.9**
NMR				*i* S		Sn	18 00 47.5	-9.3
JNU	**Nakatsue**	**7.93**	**240**	P		**Pn**	**17 59 30.8**	**+0.2**
	comp=Z,12nm,0.8s,baz=34,slow=5.0,SNR=14							
RUSJ	**Misakicho**	**8.17**	**33**	*e*P		**Pn**	**17 59 32.5**	**-1.1**
RUSJ				*e*S		**Sn**	**18 00 59.8**	**-5.1**
YUK	**Yuzh-Kuril'sk**	**8.39**	**36**	*e*P		**Pn**	**17 59 35.0**	**-1.6**
YUK				*i* S		**Sn**	**18 01 03.4**	**-6.8**
YUK				pmax		pmax		
	comp=Z,130nm,0.3s							
YUK				pmax		pmax		
	comp=E,30nm,0.2s							
USA0B	**Ussuriysk Arra**	**8.63**	**324**	⇑*e*P		**Pn**	**17 59 39.2**	**-0.5**
USRK	**Ussuriysk Ar.**	**8.63**	**324**	P		**Pn**	**17 59 40.5**	**+0.8**
	comp=E,3.9nm,0.6s,baz=147,slow=12,SNR=7.3							
KSRS	**Korea Array**	**8.84**	**274**	P		**Pn**	**17 59 44.6**	**+2.1**
	comp=E,8.9nm,0.8s,baz=83,slow=14,SNR=14							
KSRS				LR		LR	18 02 52.8	
	comp=E,41nm,18.2s,baz=350,slow=36							
YSS	**Yuzhno-Sakhali**	**9.92**	**15**	*e*P		**Pn**	**17 59 56.0**	**-0.7**
YSS				*e*S		**Sn**	**18 01 42.0**	**-4.7**
YSS				pmax		pmax		
	comp=Z,20nm,0.9s							
YSS				smax		smax		
	comp=N,20nm,0.8s							
YSS				smax		smax		
	comp=E,20nm,0.7s							
YSS	**Yuzhno-Sakhali**	**9.92**	**15**	Pn		**Pn**	**17 59 55.9**	**-0.8**
YSS	**Yuzhno-Sakhali**	**9.92**	**15**	P		**Pn**	**17 59 56.4**	**-0.2**
	comp=Z,29nm,1.4s							
KUR	**Kuril'sk**	**10.24**	**38**	P		**Pn**	**18 00 02.4**	**+1.5**
KUR				S		**Sn**	**18 01 50.3**	**-4.2**
JCJ	**Chichijima**	**10.63**	**165**	P		Pn	17 59 59.9	-6.3
	comp=Z,29nm,0.4s,baz=288,slow=20,SNR=5.3							
JCJ				S		Sn	18 01 47.8	-16
	comp=Z,64nm,0.3s,baz=265,slow=23,SNR=8.4							
BNX	**BinXian**	**12.03**	**317**	⇑P		**Pn**	**18 00 24.6**	**+0.4**
BNX				pmax		pmax		
	comp=Z,7.0nm,0.8s							
CN2	**Changchun**	**12.13**	**306**	P		**Pn**	**18 00 25.8**	**+0.3**
CN2				pmax		pmax		
	comp=Z,10.0nm,0.5s							
KLR	**Kul'dur**	**12.94**	**338**	P		**Pn**	**18 00 35.1**	**-0.7**
	comp=Z,2.2nm,0.4s,baz=185,slow=14,SNR=6.7							
DL2	**Dalian**	**13.79**	**282**	P		**P**	**18 00 50.6**	**+1.0**
DL2				pmax		pmax		
	comp=Z,46nm,0.7s							
JOW	**Kunigami**	**13.94**	**224**	Pn		**Pn**	**18 00 46.6**	**-2.0**
HEH	**HeiHe**	**15.30**	**331**	*e*P		**Pn**	**18 01 04.1**	**-1.2**
NJ2	**Nanjing**	**17.43**	**258**	*e*P		**P**	**18 01 30.8**	**+1.0**
NJ2				pmax		pmax		
	comp=Z,19nm,0.7s							
BJI2	**Beijing**	**18.03**	**285**	P		**P**	**18 01 37.0**	**+0.6**
BJI2				pmax		pmax		
	comp=Z,13nm,0.8s							
BJT	**Baijiatuan**	**18.03**	**285**	P		**P**	**18 01 36.9**	**+0.5**
	comp=Z,22nm,0.8s							
ZEA	**Zeya**	**18.25**	**337**	*e*P		**P**	**18 01 36.9**	**-1.7**
ZEA				pmax		pmax		
	comp=Z,20nm,0.7s							
HILR	**Hailar Array B**	**18.46**	**317**	P		**P**	**18 01 39.5**	**-1.5**
	comp=Z,5.2nm,0.5s,baz=114,slow=9.9,SNR=7.8							
XLT	**XiLinHaoTe**	**18.55**	**298**	*e*P		**P**	**18 01 41.1**	**-1.1**
XLT				pmax		pmax		
	comp=Z,21nm,1.2s							
HNS	**HongShan**	**19.32**	**277**	⇑P		**P**	**18 01 49.1**	**-1.3**
HNS				pmax		pmax		
	comp=Z,71nm,0.8s							
NACB	**Ninganchiao**	**19.93**	**233**	P		**P**	**18 01 54.2**	**-2.9**
PETK	**Petropavlovsk-**	**20.36**	**34**	P		**P**	**18 02 01.1**	**-0.4**
	comp=Z,3.6nm,0.8s,baz=234,slow=5.8,SNR=4.5							
	comp=Z,3.6nm,0.8s							
YULB	**Yu-li**	**20.68**	**232**	P		**P**	**18 02 02.8**	**-2.3**
YULB				IAmb		IAmb	18 02 15.6	
	comp=Z,19nm,1.1s							
TPUB	**Ta-pu**	**21.17**	**234**	P		**P**	**18 02 07.4**	**-2.9**
TPUB	**Ta-pu**	**21.17**	**234**	P		**P**	**18 02 09.1**	**-1.3**
	comp=Z,36nm,2.1s							
HHC	**Hu-ho-hao-te**	**21.55**	**288**	*e*P		**P**	**18 02 13.6**	**-0.8**
HHC				pmax		pmax		
	comp=Z,8.0nm,0.7s							
WHN	**Wuhan**	**21.56**	**259**	P		**P**	**18 02 13.8**	**-0.6**
LYN	**LuoYang**	**21.67**	**270**	P		**P**	**18 02 15.3**	**-0.2**
LYN				pmax		pmax		
	comp=Z,15nm,0.9s							
MA2	**Magadan**	**23.43**	**15**	P		**P**	**18 02 31.4**	**-0.4**
	comp=Z,35nm,1.5s							
GUMO	**Guam**	**24.29**	**166**	P		**P**	**18 02 34.5**	**-5.6**
	comp=Z,118nm,1.5s							
XAN	**Xi'an**	**24.63**	**271**	P		**P**	**18 02 42.9**	**-0.3**
XAN				pmax		pmax		
	comp=Z,17nm,0.5s							
ENH	**Enshi**	**25.49**	**263**	P		**P**	**18 02 49.8**	**-1.2**
ENH	**Enshi**	**25.49**	**263**	P		**P**	**18 02 50.1**	**-0.8**
	comp=Z,31nm,0.7s							
ULN	**Ulaanbaatar**	**25.57**	**304**	*de*P		**P**	**18 02 51.0**	**-0.7**
ULN				pmax		pmax		
	comp=Z,8.0nm,0.8s							
ULN	**Ulaanbaatar**	**25.57**	**304**			**P**	**18 02 50.5**	**-1.2**
ULN				IAmb		IAmb	18 02 53.9	
	comp=Z,7.5nm,0.8s							
ULN	**Ulaanbaatar**	**25.57**	**304**	P		**P**	**18 02 51.2**	**-0.5**
	comp=Z,11nm,0.8s							
SONM	**Songino Array**	**26.00**	**304**	P		**P**	**18 02 55.1**	**-0.3**
	comp=Z,8.4nm,0.7s,baz=112,slow=9.9,SNR=56							
SONM				PcP		**PcP**	**18 06 19.7**	**+0.7**
	comp=Z,0.6nm,0.5s,baz=128,slow=3.9,SNR=3.8							
SONM				ScP		**ScP**	**18 09 43.3**	**+0.5**
	comp=Z,0.3nm,0.6s,baz=90,slow=2.9,SNR=2.7							
	comp=Z,8.4nm,0.7s							
SONM	**Songino Array**	**26.00**	**304**			**P**	**18 02 54.8**	**-0.7**
SONM				IAmb		IAmb	18 02 57.0	
	comp=Z,8.0nm,0.6s							
LZDM	**Lanzhou Array**	**28.28**	**278**	P		**P**	**18 03 16.2**	**0.0**
	comp=Z,3.9nm,0.4s,baz=61,slow=7.0,SNR=5.8							
	comp=Z,3.9nm,0.4s							
CD2	**Chengdu**	**29.79**	**268**	P		**P**	**18 03 28.9**	**-0.3**
CD2				pmax		pmax		
	comp=Z,20nm,0.5s							
GTA2	**Gaotai**	**30.67**	**286**	*e*P		**P**	**18 03 35.8**	**-1.2**
GTA2				pmax		pmax		
	comp=Z,5.0nm,0.5s							
KMI2	**Kunming**	**33.14**	**259**	P		**P**	**18 04 00.0**	**+1.1**
KMI2				pmax		pmax		
	comp=Z,16nm,0.8s							
PZH	**PanZhiHua**	**33.27**	**262**	P		**P**	**18 03 59.3**	**-0.5**
PZH				pmax		pmax		
	comp=Z,10.0nm,0.9s							
BILL	**Bilibino**	**34.22**	**18**	⇓*e*P		**P**	**18 04 09.7**	**+2.3**
BILL				pmax		pmax		
	comp=Z,3.0nm,1.2s							
SLVN	**Son La**	**34.32**	**252**	P		**P**	**18 04 09.3**	**+0.5**
TIXI	**Tiksi**	**34.70**	**354**	P		**P**	**18 04 11.2**	**-0.2**
TIXI				pmax		pmax		
	comp=Z,5.0nm,0.5s							
TIXI	**Tiksi**	**34.70**	**354**			**P**	**18 04 11.2**	**-0.2**
TIXI				IAmb		IAmb	18 04 11.7	
	comp=Z,4.9nm,0.5s							
TIXI	**Tiksi**	**34.70**	**354**	P		**P**	**18 04 11.5**	**0.0**
	comp=Z,7.4nm,0.8s							
WMQ	**Urumqi**	**38.97**	**296**	*e*P		**P**	**18 04 49.4**	**+1.4**
CHTO	**Chiang Mai**	**39.57**	**253**	P		**P**	**18 04 52.4**	**-0.7**
CHTO				pmax		pmax		
	comp=Z,6.0nm,0.6s							
CHTO	**Chiang Mai**	**39.57**	**253**			**P**	**18 04 52.4**	**-0.7**
CHTO				IAmb		IAmb	18 04 53.9	
	comp=Z,5.7nm,0.6s							
CHTO	**Chiang Mai**	**39.57**	**253**	P		**P**	**18 04 52.8**	**-0.3**
	comp=Z,9.1nm,0.7s							
CM31	**Chiang Mai Arr**	**39.78**	**253**	P		**P**	**18 04 53.6**	**-1.2**
CM31				IAmb		IAmb	18 04 55.9	
	comp=Z,3.5nm,0.6s							
CMAR	**Chiang Mai Arr**	**39.78**	**253**	P		**P**	**18 04 55.0**	**+0.2**
	comp=Z,2.1nm,0.6s,baz=45,slow=8.6,SNR=29							
CMAR				PcP		**PcP**	**18 06 58.1**	**+0.4**
	comp=Z,0.6nm,0.7s,baz=359,slow=2.0,SNR=5.5							
	comp=Z,2.1nm,0.6s							
MORE	**Moreh**	**40.25**	**264**	P		**P**	**18 04 57.1**	**-1.6**
MORE				IAmb		IAmb	18 05 36.1	
	comp=Z,4.8nm,0.8s							
ZAA0	**Zalesovo Array**	**40.26**	**312**	P		**P**	**18 04 58.3**	**-0.1**
ZAA0				IAmb		IAmb	18 04 59.6	
	comp=Z,9.9nm,0.8s							
ZALV	**Zalesovo Beam**	**40.26**	**312**	P		**P**	**18 04 58.3**	**-0.1**
	comp=Z,11nm,0.7s,baz=91,slow=6.7,SNR=41							
ZALV				PcP		**PcP**	**18 06 58.8**	**+0.1**
	comp=Z,5.1nm,0.5s,baz=107,slow=2.9,SNR=18							
	comp=Z,11nm,0.7s							
ZALV	**Zalesovo Beam**	**40.26**	**312**	P		**P**	**18 04 57.7**	**-0.6**
ZALV							18 06 58.7	
ZALV	**Zalesovo Beam**	**40.26**	**312**			**P**	**18 04 57.7**	**-0.6**
ZALV						**PcP**	**18 06 58.7**	**+0.1**
FAKI	**Fak Fak**	**40.62**	**190**	P		**P**	**18 05 02.4**	**+0.6**
FAKI				IAmb		IAmb	18 05 14.3	
	comp=Z,9.0nm,0.9s							
NPW	**Naypyitaw**	**41.17**	**257**	P		**P**	**18 05 05.9**	**-0.3**
	comp=Z,20nm,0.7s							
NRIK	**Noril'sk**	**42.13**	**336**	P		**P**	**18 05 13.9**	**+0.5**
	comp=Z,4.6nm,0.5s,baz=125,slow=4.9,SNR=8.8							
	comp=Z,4.6nm,0.5s							
NRIK	**Noril'sk**	**42.13**	**336**			**P**	**18 05 11.8**	**-1.6**
NRIK				IAmb		IAmb	18 05 15.2	
	comp=Z,13nm,1.4s							
MK31	**Makanchi Array**	**42.31**	**301**	*de*P		**P**	**18 05 15.1**	**-0.1**
MKAR	**Makanchi Array**	**42.31**	**301**	P		**P**	**18 05 15.2**	**0.0**
	comp=Z,3.7nm,0.5s,baz=83,slow=10.0,SNR=44							
MKAR				PcP		**PcP**	**18 07 05.8**	**+0.1**
	comp=Z,0.9nm,0.4s,baz=73,slow=4.9,SNR=9.6							
	comp=Z,3.7nm,0.5s							
MKAR	**Makanchi Array**	**42.31**	**301**	P		**P**	**18 05 14.8**	**-0.4**
MAKZ	**Makanchi**	**42.52**	**301**	P		**P**	**18 05 16.2**	**-0.7**
MAKZ				pmax		pmax		
	comp=Z,29nm,1.5s							
MAKZ	**Makanchi**	**42.52**	**301**	P		**P**	**18 05 16.2**	**-0.7**
MAKZ				IAmb		IAmb	18 05 37.3	
	comp=Z,29nm,1.4s							
MAKZ	**Makanchi**	**42.52**	**301**	P		**P**	**18 05 17.2**	**+0.3**
	comp=Z,15nm,1.5s							
KURK	**Kurchatov**	**44.20**	**308**	P		**P**	**18 05 30.9**	**+0.6**
KURK							18 07 12.0	
KURK	**Kurchatov**	**44.20**	**308**			**P**	**18 05 29.7**	**-0.6**
KURK	**Kurchatov**	**44.20**	**308**	P		**P**	**18 05 30.4**	**+0.2**
	comp=Z,40nm,1.0s							
KURBB	**Kurchatov Arra**	**44.27**	**307**	P		**P**	**18 05 30.9**	**+0.1**
	comp=Z,19nm,0.6s,baz=84,slow=8.3,SNR=112							
KURBB				PcP		**PcP**	**18 07 12.0**	**-0.1**
	comp=Z,1.2nm,0.5s,baz=93,slow=3.2,SNR=3.6							
	comp=Z,19nm,0.6s							
EVN	**Everest**	**44.47**	**274**			**P**	**18 05 33.5**	**0.0**
EVN				IAmb		IAmb	18 05 35.4	
	comp=Z,15nm,0.7s							
EVN	**Everest**	**44.47**	**274**	P		**P**	**18 05 34.5**	**+1.0**
	comp=Z,23nm,0.7s							
C18K	**Utukok River**	**44.78**	**27**	P		**P**	**18 05 36.4**	**+1.7**
PDGK	**Podgornoye**	**44.92**	**297**	P		**P**	**18 05 36.4**	**+0.2**
PDGK	**Podgornoye**	**44.92**	**297**			**P**	**18 05 36.4**	**+0.2**
WUS	**Wushi**	**45.65**	**294**	P		**P**	**18 05 42.9**	**+0.8**
WUS	**Wushi**	**45.65**	**294**	P		**P**	**18 05 43.4**	**+1.3**
	comp=Z,35nm,1.2s							
D19K	**Kuna River**	**45.86**	**27**	P		**P**	**18 05 44.5**	**+1.4**
D19K				IAmb		IAmb	18 05 46.1	
	comp=Z,7.6nm,0.8s							
G19K	**Purcell Mounta**	**45.95**	**31**	P		**P**	**18 05 44.8**	**+1.0**
BKSI	**Bulukumba**	**46.03**	**207**	P		**P**	**18 05 42.6**	**-2.4**
	comp=Z,4.3nm,1.2s							
J19K	**Poorman**	**46.41**	**34**	P		**P**	**18 05 49.1**	**+1.6**
TARG	**Taragay, Kyrgy**	**46.53**	**295**	P		**P**	**18 05 50.8**	**+1.6**
	comp=Z,44nm,0.8s							
K20K	**Telida**	**47.08**	**34**	P		**P**	**18 05 54.0**	**+1.3**
KULM	**Kulim**	**47.40**	**237**	P		**P**	**18 05 55.0**	**-0.7**
KULM				IAmb		IAmb	18 06 26.6	
	comp=Z,20nm,1.4s							
ASAI	**AK-SAY(Kyrgyzs**	**47.69**	**295**	P		**P**	**18 05 59.4**	**+1.3**
	comp=Z,14nm,0.9s							
D22K	**Ayikyak River**	**47.88**	**27**	P		**P**	**18 06 01.1**	**+2.3**
D22K				IAmb		IAmb	18 06 02.0	
	comp=Z,6.5nm,0.6s							
CAST	**Castle Rocks**	**47.98**	**34**	P		**P**	**18 06 01.8**	**+2.2**
FRU1	**Bishkek**	**48.49**	**298**	P		**P**	**18 06 04.3**	**+0.4**
MLY	**Manley**	**48.53**	**32**	P		**P**	**18 06 06.1**	**+2.3**
AAK	**Ala-Archa**	**48.64**	**297**	*de*P		**P**	**18 06 05.9**	**+0.7**
AAK				pmax		pmax		
	comp=Z,12nm,0.8s							
AAK	**Ala-Archa**	**48.64**	**297**	P		**P**	**18 06 05.8**	**+0.7**
AAK				IAmb		IAmb	18 06 06.7	
	comp=Z,9.8nm,0.6s							
AAK	**Ala-Archa**	**48.64**	**297**	P		**P**	**18 06 06.2**	**+1.0**
	comp=Z,16nm,0.8s							
G23K	**Bananza Creek**	**48.81**	**30**	P		**P**	**18 06 06.9**	**+1.0**
BVAR	**Borovoye Array**	**48.91**	**312**	P		**P**	**18 06 07.1**	**+0.3**
	comp=Z,5.6nm,0.6s,baz=81,slow=7.8,SNR=24							
BVAR				PcP		**PcP**	**18 07 28.9**	**+0.4**
	comp=Z,4.2nm,0.4s,baz=104,slow=3.7,SNR=10							
	comp=Z,5.6nm,0.6s							
KSH2	**Kashi**	**48.94**	**293**	P		**P**	**18 06 08.5**	**+1.0**
KSH2				pmax		pmax		
	comp=Z,5.0nm,0.8s							
BORK	**Borovoye**	**48.95**	**312**	P		**P**	**18 06 07.8**	**+0.6**
BORK				pmax		pmax		
	comp=Z,4.0nm,0.5s							
BORK	**Borovoye**	**48.95**	**312**			**P**	**18 06 07.8**	**+0.6**
BORK				IAmb		IAmb	18 06 11.2	
	comp=Z,4.2nm,0.5s							
TOLK	**Toolik Lake Re**	**49.00**	**27**	P		**P**	**18 06 08.8**	**+1.4**
C24K	**Franklin Bluff**	**49.33**	**26**	IAmb		IAmb	18 06 12.6	
	comp=Z,8.3nm,0.8s							
GHO	**Glory Hole Cre**	**49.53**	**36**	P		**P**	**18 06 12.1**	**+0.5**
COLA	**College**	**49.77**	**32**	P		**P**	**18 06 12.9**	**-0.2**
	comp=Z,7.1nm,2.8s							
CCB	**Clear Creek Bu**	**49.80**	**33**	P		**P**	**18 06 15.1**	**+1.7**
ILAR	**Eielson Array**	**50.19**	**32**	P		**P**	**18 06 17.4**	**+1.0**
	comp=Z,1.7nm,0.7s,baz=271,slow=4.7,SNR=20							
	comp=Z,1.7nm,0.7s							
ILAR	**Eielson Array**	**50.19**	**32**	P		**P**	**18 06 16.5**	**+0.2**
OHH	**Osh**	**50.51**	**295**	P		**P**	**18 06 18.2**	**-1.0**
	comp=Z,12nm,1.0s							
C26K	**Camden Bay**	**50.65**	**26**	P		**P**	**18 06 22.3**	**+2.7**
C26K				IAmb		IAmb	18 06 26.3	
	comp=Z,9.0nm,1.3s							
BMAR	**Burnt Mountain**	**50.91**	**29**	P		**P**	**18 06 24.6**	**+2.8**
F26K	**Sheenjek River**	**51.06**	**29**	IAmb		IAmb	18 06 26.6	
	comp=Z,4.2nm,0.6s							
KK31	**Karatay Array**	**51.29**	**299**	IAmb		IAmb	18 06 26.5	
	comp=Z,9.8nm,1.0s							
KKAR	**Karatay Array**	**51.29**	**299**	P		**P**	**18 06 25.2**	**+0.3**
KKAR	**Karatay Array**	**51.29**	**299**			**P**

	comp=Z,39nm,2.7s						
HEF	**Hetta**	**64.17**	**338**	P	**P**	**18 07 53.9**	**-0.4**
YKA	**Yellowknife Ar**	**64.42**	**30**	P	**P**	**18 07 57.2**	**+1.2**
	comp=Z,1.2nm,0.6s,baz=306,slow=6.5,SNR=22						
	comp=Z,1.2nm,0.6s						
YKA	**Yellowknife Ar**	**64.42**	**30**	*i* P	**P**	**18 07 57.4**	**+1.4**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**64.42**	**30**	P	**P**	**18 07 56.5**	**+0.5**
INKA	**Innaminka**	**64.83**	**178**	P	**P**	**18 08 00.5**	**+1.6**
OBN	**Obninsk**	**66.65**	**322**⇑	*e*P	**P**	**18 08 10.8**	**+0.5**
OBN				*e*		18 10 39.0	
OBN				*e*S	**S**	**18 16 47.5**	**-0.5**
OBN				pmax	pmax		
	comp=Z,8.0nm,1.5s						
FIA1	**FINESS Array S**	**67.58**	**331**	P	**P**	**18 08 15.4**	**-0.7**
FINES	**FINESS Array B**	**67.58**	**331**	P	**P**	**18 08 16.4**	**+0.2**
	comp=Z,1.7nm,0.3s,baz=44,slow=7.3,SNR=37						
	comp=Z,1.7nm,0.3s						
FINES	**FINESS Array B**	**67.58**	**331**	P	**P**	**18 08 15.8**	**-0.4**
FORT	**Forrest**	**68.61**	**190**	P	**P**	**18 08 24.0**	**+1.2**
FORT				IAmb	IAmb	18 08 52.4	
	comp=Z,9.6nm,0.9s						
KBZ	**Khabaz**	**69.21**	**310**	P	**P**	**18 08 27.2**	**+0.7**
	comp=Z,4.1nm,0.9s,baz=263,slow=3.1,SNR=4.5						
	comp=Z,4.1nm,0.9s						
ILON	**Igloolik, Nuna**	**69.37**	**14**	P	**P**	**18 08 27.5**	**+0.4**
ILON				IAmb	IAmb	18 08 55.5	
	comp=Z,20nm,1.5s						
ERBR	**Yeremizino-Bor**	**69.59**	**312**	*e*P	**P**	**18 08 27.6**	**-1.3**
ERBR				*e**PP	**pP**	**18 09 09.9**	**+0.9**
ERBR				*e*S	**S**	**18 17 23.0**	**-0.3**
ERBR				pmax	pmax		
	comp=Z,13nm,0.8s						
BLKN	**Baker Lake**	**69.77**	**22**	P	**P**	**18 08 30.6**	**+1.0**
BLKN				IAmb	IAmb	18 08 31.8	
	comp=Z,3.6nm,0.8s						
LABN	**Labinsk**	**70.03**	**311**	*e*P	**P**	**18 08 30.7**	**-0.9**
LABN				*e**PP	**pP**	**18 09 11.6**	**-0.2**
LABN				pmax	pmax		
	comp=Z,18nm,0.6s						
SUMG	**Summit**	**70.29**	**359**	P	**P**	**18 08 33.6**	**+0.4**
SUMG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SUMG	**Summit**	**70.29**	**359**	P	**P**	**18 08 33.5**	**+0.4**
SUMG				IAmb	IAmb	18 08 35.5	
	comp=Z,5.2nm,0.6s						
ANN	**Anapa**	**71.89**	**313**	*e*P	**P**	**18 08 42.0**	**-0.8**
ANN				*e**PP	**pP**	**18 09 21.1**	**-2.0**
ANN				*e*		18 11 24.3	
ANN				*e*S	**S**	**18 17 49.2**	**-0.6**
ANN				pmax	pmax		
	comp=Z,40nm,0.8s						
AKASG	**Malin Array Be**	**72.83**	**321**	P	**P**	**18 08 48.3**	**+0.1**
	comp=Z,2.3nm,0.6s,baz=50,slow=5.7,SNR=10						
	comp=Z,2.3nm,0.6s						
AKBB	**Malin Array Si**	**72.83**	**321**⇑	*e*P	**P**	**18 08 48.2**	**0.0**
HFS	**Hagfors**	**72.95**	**335**	P	**P**	**18 08 48.8**	**0.0**
	comp=Z,1.5nm,0.6s,baz=53,slow=5.7,SNR=8.1						
	comp=Z,1.5nm,0.6s						
NB2	**NORSAR Subarra**	**73.09**	**336**	P	**P**	**18 08 49.8**	**+0.1**
	comp=Z,1.7nm,0.5s,baz=42,slow=5.9						
NOA	**NORSAR Array B**	**73.09**	**336**	P	**P**	**18 08 50.0**	**+0.3**
	comp=Z,5.0nm,0.8s,baz=41,slow=5.9,SNR=12						
	comp=Z,5.0nm,0.8s						
NOA	**NORSAR Array B**	**73.09**	**336**	P	**P**	**18 08 50.0**	**+0.3**
NVAR	**Mina Array Bea**	**76.26**	**52**	P	**P**	**18 09 10.5**	**+1.9**
	comp=Z,0.4nm,0.5s,baz=319,slow=5.3,SNR=3.7						
	comp=Z,0.4nm,0.5s						
BUR08	**Bucovina Ar. S**	**76.81**	**321**		**P**	**18 09 11.8**	**+0.5**
BR131	**Keskin Array S**	**77.17**	**310**⇓	*e*P	**P**	**18 09 14.8**	**+1.3**
BRTR	**Keskin Array B**	**77.17**	**310**	P	**P**	**18 09 14.2**	**+0.7**
	comp=Z,1.4nm,0.6s,baz=113,slow=2.7,SNR=8.9						
	comp=Z,1.4nm,0.6s						
BRTR	**Keskin Array B**	**77.17**	**310**	P	**P**	**18 09 13.3**	**-0.2**
GRAC	**Grapevine Rang**	**77.72**	**53**	P	**P**	**18 09 18.0**	**+1.4**
TRPA	**Tarpa**	**77.81**	**322**	P	**P**	**18 09 15.5**	**-1.2**
	comp=Z,8.7nm,1.0s						
ARR	**Arges**	**78.63**	**319**	P	**P**	**18 09 22.5**	**+1.1**
	comp=Z,8.1nm,0.7s						
PDAR	**Pinedale Array**	**78.73**	**44**	P	**P**	**18 09 23.4**	**+1.1**
	comp=Z,0.5nm,0.6s,baz=267,slow=0.6,SNR=6.5						
	comp=Z,0.5nm,0.6s						
PDAR	**Pinedale Array**	**78.73**	**44**	P	**P**	**18 09 22.4**	**+0.1**
RAYN	**Ar Rayn**	**78.75**	**291**	P	**P**	**18 09 22.7**	**+0.3**
RAYN				pmax	pmax		
	comp=Z,4.0nm,0.7s						
RAYN	**Ar Rayn**	**78.75**	**291**		**P**	**18 09 22.7**	**+0.3**
RAYN				IAmb	IAmb	18 09 23.6	
	comp=Z,3.9nm,0.7s						
STEB	**Steborice**	**78.77**	**326**	*e*P	**P**	**18 09 20.2**	**-1.8**
DPC	**Dobruska-Polom**	**79.11**	**327**	*e*P	**P**	**18 09 24.0**	**+0.1**
ASF	**Jabal al Asfar**	**79.71**	**303**	P	**P**	**18 09 28.6**	**+1.1**
	comp=Z,3.9nm,0.7s,baz=20,slow=5.0,SNR=6.4						
	comp=Z,3.9nm,0.7s						
CLL	**Collm**	**79.81**	**329**	*i* P	**P**	**18 09 27.3**	**-0.2**
	comp=Z,4.0nm,0.9s						
CLL				*e*pP	**pP**	**18 10 08.0**	**-0.5**
MODS	**Modra-Piesok**	**80.13**	**325**	*e*P	**P**	**18 09 30.4**	**+1.0**
PRA	**Prague**	**80.14**	**327**	*e*P	**P**	**18 09 29.7**	**+0.4**
HSKC	**Hora Svate Kat**	**80.16**	**328**	*e*P	**P**	**18 09 31.2**	**+1.7**
RDMU	**Red Mountain**	**80.17**	**46**	P	**P**	**18 09 31.2**	**+1.2**
RDMU				IAmb	IAmb	18 10 07.4	
	comp=Z,4.7nm,0.5s						
TREC	**Trest**	**80.26**	**326**	*e*P	**P**	**18 09 30.6**	**+0.6**
ZVC	**Zvikov**	**80.71**	**327**	*e*P	P	18 09 24.2	-8.2
NKC	**Novy Kostel**	**80.85**	**329**	*e*P	**P**	**18 09 33.9**	**+0.7**
WINA	**Alland / Wiene**	**80.87**	**325**	*i* P	**P**	**18 09 34.7**	**+1.3**
	comp=Z,4.1nm,0.6s						
RONA	**Rosalia, Austr**	**81.07**	**325**	*e*P	**P**	**18 09 35.5**	**+1.1**
	comp=Z,3.5nm,0.6s						
CONA	**Conrad Observa**	**81.10**	**325**	*e*P	**P**	**18 09 35.7**	**+1.1**
	comp=Z,0.9nm,0.5s						
CKRC	**Cesky Krumlov**	**81.13**	**327**	*e*P	**P**	**18 09 35.2**	**+0.5**
KHC	**Kasperske Hory**	**81.21**	**327**	*e*P	**P**	**18 09 35.7**	**+0.6**
GERES	**GERESS Array B**	**81.37**	**327**	P	**P**	**18 09 36.4**	**+0.3**
	comp=Z,1.3nm,0.5s,baz=36,slow=5.5,SNR=17						
	comp=Z,1.3nm,0.5s						
GERES	**GERESS Array B**	**81.37**	**327**	P	**P**	**18 09 35.7**	**-0.3**
ARSA	**Arzberg**	**81.75**	**325**	*e*P	**P**	**18 09 38.4**	**+0.4**
	comp=Z,0.5nm,0.3s						
MOA	**Molln**	**81.88**	**326**	*e*P	**P**	**18 09 39.3**	**+0.7**
	comp=Z,0.6nm,0.4s						
EKA	**Eskdalemuir Ar**	**82.12**	**339**	P	**P**	**18 09 39.8**	**0.0**
	comp=Z,0.6nm,0.5s,baz=35,slow=6.1,SNR=4.5						
	comp=Z,0.6nm,0.5s						
BIOA	**Bad Ischl, Aus**	**82.27**	**326**	*e*P	**P**	**18 09 41.1**	**+0.4**
	comp=Z,1.6nm,0.6s						
SESA	**Seetaler Alpe,**	**82.29**	**325**	*e*P	**P**	**18 09 41.8**	**+0.8**
	comp=Z,2.1nm,0.5s						
SOKA	**Soboth**	**82.41**	**325**	*e*P	**P**	**18 09 42.4**	**+0.9**
	comp=Z,2.2nm,0.4s						
EIL	**Elat**	**82.57**	**302**	P	**P**	**18 09 43.2**	**+0.6**
	comp=Z,3.5nm,0.7s,baz=37,slow=10,SNR=2.8						
	comp=Z,3.5nm,0.7s						
OBKA	**Obir**	**82.75**	**325**	*e*P	**P**	**18 09 44.0**	**+0.7**
	comp=Z,2.3nm,1.0s						
LESA	**Schwarzleotal**	**82.90**	**327**	*e*P	**P**	**18 09 44.2**	**+0.2**
	comp=Z,3.9nm,0.9s						
MYKA	**Terra Mystica**	**83.07**	**326**	*e*P	**P**	**18 09 45.0**	**+0.1**
	comp=Z,1.2nm,0.5s						
ABTA	**Abfaltersbach**	**83.49**	**326**	*i* P	**P**	**18 09 46.8**	**-0.2**
	comp=Z,0.8nm,0.5s						
RETA	**Reutte**	**83.68**	**328**	*i* P	**P**	**18 09 47.9**	**-0.1**
	comp=Z,2.0nm,0.6s						
BMRD	**Maredsous**	**83.81**	**332**	*d*P	**P**	**18 09 48.6**	**+0.1**
	comp=Z,4.3nm,1.0s						
FETA	**Feichten**	**84.06**	**327**	*e*P	**P**	**18 09 50.3**	**+0.2**
	comp=Z,3.1nm,0.9s						
DAVA	**Damuels**	**84.21**	**328**	*e*P	**P**	**18 09 51.4**	**+0.6**
	comp=Z,8.4nm,1.1s						
FUORN	**Ofenpass-Fuorn**	**84.57**	**327**		**P**	**18 09 53.3**	**+0.6**
FUORN				IAmb	IAmb	18 09 54.0	
	comp=Z,5.5nm,0.8s						
DAVOX	**Davos/Dischmat**	**84.61**	**328**	P	**P**	**18 09 53.0**	**+0.2**
	comp=Z,1.7nm,0.7s,baz=58,slow=9.5,SNR=4.5						
	comp=Z,1.7nm,0.7s						
SCHQ	**Schefferville**	**85.47**	**15**	P	**P**	**18 09 57.9**	**+1.1**
	comp=Z,5.2nm,0.8s,baz=324,slow=3.0,SNR=4.1						
	comp=Z,5.2nm,0.8s						
MSEY	**Mahe Island**	**87.71**	**262**	*i* P	**P**	**18 10 10.5**	**+2.2**
TXAR	**Lajitas Array**	**91.37**	**51**	P	**P**	**18 10 26.9**	**+1.6**
	comp=Z,0.6nm,0.7s,baz=296,slow=3.4,SNR=8.7						
	comp=Z,0.6nm,0.7s						
MAW	**Mawson**	**119.07**	**205**	PKP	**PKiKP**	**18 16 06.9**	**+1.0**
	comp=Z,1.4nm,0.5s,baz=339,slow=6.8,SNR=3.1						
MAW	**Mawson**	**119.07**	**205**	PKIKP	**PKiKP**	**18 16 07.2**	**+1.4**
MAW	**Mawson**	**119.07**	**205**	PKPdf	**PKiKP**	**18 16 07.2**	**+1.4**
VNA2	**Neumayer--Watz**	**142.14**	**197**	⇓PKPdf	**PKPdf**	**18 16 45.4**	**-3.8**
	comp=Z,2.7nm,0.6s,baz=118,slow=1.6						
VNA3	**Neumayer Olymp**	**142.43**	**196**	PKPdf	**PKPdf**	**18 16 46.6**	**-3.1**
	comp=Z,2.1nm,0.8s						
LPAZ	**La Paz**	**148.09**	**56**	PKPbc	**PKiKP**	**18 17 06.4**	**-0.4**
	comp=Z,1.7nm,0.8s,baz=6.5,slow=9.6,SNR=6.0						
SIV	**San Ignacio**	**152.22**	**45**	PKP	**PKPdf**	**18 17 08.6**	**+1.1**
	comp=Z,0.5nm,0.6s,baz=252,slow=3.2,SNR=3.7						
SIV				PKPbc	**PKiKP**	**18 17 15.2**	**+0.6**
	comp=Z,1.5nm,0.5s,baz=302,slow=2.8,SNR=10.0						

*JMA **22** 18:00:53.5±0.5, 44˚N±2˚×14˚3E±˚, h228km±4km, MV2.9/19, KAMIKAWA-SORACHI REGION*
*SKHL **22** 18:00:55.5±0.7, 44.70N×141.90E, h208km±11km, mb4.4/4, msha4.7/3*
ISC 22 18:00:58.1±1.8, **44.64N**±0.09×**141.8E**±0.1, **h200km, n12,**
σ1s34/14, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSS	**Shosan**	**0.25**	**163**	*e*P	**Pn**	**18 01 24.7**	**+0.2**
JSE	**Soyaes**	**0.68**	**61**	*e*P	**Pn**	**18 01 24.3**	**-1.5**
JSE				*e*S	**Sn**	**18 01 47.7**	**+0.2**
JWK2	**Keihoku**	**0.69**	**9**	*e*P	**Pn**	**18 01 27.3**	**+1.4**
ASAJ	**Asahikawa**	**0.80**	**130**	*e*P	**Pn**	**18 01 23.8**	**-2.9**
JRBN	**Rebuntou**	**0.92**	**329**	*e*P	Pn	18 01 29.7	+2.4
JTKR	**Abashiri--Toko**	**1.69**	**113**	*e*P	Pn	18 01 26.2	-7.2
JCH	**Churui**	**2.34**	**149**	*e*P	Pn	18 01 31.3	-8.9
JCH				*e*S	Sn	18 01 59.4	-14
YSS	**Yuzhno-Sakhali**	**2.42**	**17**	*e*P	**Pn**	**18 01 40.2**	**-0.8**
YSS				*e*S	**Sn**	**18 02 15.5**	**+0.9**
YSS				A	A	18 02 18.5	
	20nm,0.7s						
YSS				A	A	18 02 18.5	
	30nm,0.7s						
AKK	**Akkeshi**	**2.76**	**125**	*e*P	**Pn**	**18 01 45.7**	**+0.7**
AKK				*e*S	**Sn**	**18 02 22.2**	**+0.7**
YUK	**Yuzh-Kuril'sk**	**3.01**	**100**	*e*P	**Pn**	**18 01 48.2**	**+0.4**
YUK				AMB	AMB	18 01 50.6	
	90nm,0.5s						
NMR	**Nemuro--Hokkai**	**3.14**	**112**	*e*P	**Pn**	**18 01 50.2**	**+0.9**
NMR				*e*S	**Sn**	**18 02 30.6**	**+1.2**
SHO	**Shikotan**	**3.73**	**100**	*e*P	**Pn**	**18 01 55.2**	**-1.3**
SHO				AMB	AMB	18 01 58.7	
	30nm,0.3s						
SHO				*e*S	**Sn**	**18 02 41.4**	**-0.8**
SHO				A	A	18 02 43.7	
	70nm,0.3s						
SHO				A	A	18 02 43.7	
	110nm,0.3s						

*NOU **22** 18:06:32.6, 22˚42S×170˚70E, h0km, MLv4.2/9, Southeast of Loyalty Islands*
*IDC **22** 18:06:35.5±1.9, 22˚47S×170˚49E, h0km, mb3.7/5, mbtmp3.7/6, ML3.7/1, MS3.0/5, Error ellipse: s-maj=69.8km s-min=21.4km az=169.0*
ISC 22 18:06:40.5±1.4, **22˚4S**±0˚2×**170˚4E**±0˚1, **h33km, n18,**
σ0s67/15, mb3.7/5, MS2.8/3, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**2.34**	**292**	P	**Pn**	**18 07 15.7**	**-1.0**
PINNC	**Pines Island,**	**2.71**	**264**	P	**Pn**	**18 07 20.9**	**-0.9**
YATNC	**Mamie plateau,**	**3.24**	**275**	P	**Pn**	**18 07 28.0**	**-1.0**
ONTNC	**Ouen Toro**	**3.62**	**270**	P	**Pn**	**18 07 35.3**	**+1.0**
DZM	**Mont Dzumac**	**3.65**	**274**	Pn	**Pn**	**18 07 34.6**	**-0.2**
	5.7nm,0.3s,baz=128,slow=14,SNR=274						
DZM				Sn	**Sn**	**18 08 16.7**	**0.0**
	3.6nm,0.3s,baz=129,slow=21,SNR=6.6						
DZM				LR	LR	18 08 51.9	
	comp=Z,200nm,18.1s,baz=320,slow=36						
	19nm,0.4s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**3.78**	**273**	P	**Pn**	**18 07 35.9**	**-0.5**
KOUNC	**Koumac, New Ca**	**5.95**	**287**	P	**Pn**	**18 08 07.0**	**+0.8**
URZ	**Urewera**	**16.87**	**161**	LR	LR	18 15 27.0	
	comp=Z,55nm,19.9s,baz=30,slow=32						
CTA	**Charters Tower**	**22.59**	**271**	LR	LR	18 18 54.4	
	comp=Z,38nm,21.5s,baz=64,slow=32						
PMG	**Port Moresby**	**25.72**	**296**	LR	LR	18 20 32.4	
	comp=Z,55nm,21.4s,baz=156,slow=32						
STKA	**Stephens Creek**	**27.24**	**243**	LR	LR	18 21 53.9	
	comp=Z,16nm,18.8s,baz=21,slow=34						
ASAR	**Alice Springs**	**33.53**	**261**	P	**P**	**18 13 17.9**	**+0.5**
	0.4nm,0.8s,baz=85,slow=8.8,SNR=8.8						
	0.4nm,0.8s						
WRA	**Warramunga Arr**	**33.64**	**267**	P	**P**	**18 13 18.2**	**-0.2**
	0.3nm,0.4s,baz=95,slow=8.3,SNR=7.0						
	0.3nm,0.4s						
MJAR	**Matsushiro Arr**	**65.99**	**332**	P	**P**	**18 17 24.2**	**+0.5**
	0.9nm,0.7s,baz=159,slow=6.5,SNR=1.9						
	0.9nm,0.7s						
CMAR	**Chiang Mai Arr**	**80.74**	**294**	P	**P**	**18 18 51.3**	**+0.3**
	0.7nm,0.7s,baz=115,slow=3.5,SNR=5.9						
	0.7nm,0.7s						
ILAR	**Eielson Array**	**92.89**	**17**	P	**P**	**18 19 49.3**	**-0.2**
	0.2nm,0.7s,baz=208,slow=5.1,SNR=1.3						
	0.2nm,0.7s						
EKA	**Eskdalemuir Ar**	**146.72**	**353**	PKPbc	**PKPab**	**18 26 19.6**	**-0.3**
	1.9nm,0.7s,baz=12,slow=3.3,SNR=4.5						
GERES	**GERESS Array B**	**147.72**	**331**	PKPbc	**PKiKP**	**18 26 23.5**	**-0.3**
	0.3nm,0.6s,baz=44,slow=3.0,SNR=2.5						

*IDC **22** 18:09:45.8±2.7, 4˚33S×101˚82E, h0km, mb3.4/6, mbtmp3.5/6, Error ellipse: s-maj=120.2km s-min=20.2km az=58.0*
*DJA **22** 18:10:21.8±0.7, 3˚S±7˚×10˚4E±˚, h378km±10km, M4.0/20, mB4.8/2, mb4.2/2, MLv3.8/20, Mw(mB)4.1/2*
ISC 22 18:10:27.1±0.9, **3˚2S**±0˚1×**103˚8E**±0˚1, **h350km, n16,**
σ2s26/14, mb2.9/6, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSI	**Kapahiang**	**1.24**	**250**	P	**Pn**	**18 11 12.1**	**-1.9**
MNAI	**Manna**	**1.38**	**215**	P	**Pn**	**18 11 13.1**	**-1.6**
MNAI				AML	AML		
MASI	**Maura Aman, Be**	**1.52**	**273**	P	**Pn**	**18 11 13.7**	**-1.7**
MASI				AML	AML		
UBSI	**University, Be**	**1.58**	**250**	P	**Pn**	**18 11 13.4**	**-2.3**
UBSI				AML	AML		
KRJI	**Kerinci**	**2.56**	**296**	P	**Pn**	**18 11 20.2**	**-2.6**
KRJI				AML	AML		
CGJI	**Cibinong**	**3.88**	**150**	P	**Pn**	**18 11 31.9**	**-3.0**
CGJI				AML	AML		
TPI	**Tanjungpandan**	**3.92**	**83**	P	**Pn**	**18 11 32.5**	**-2.8**
TPI				AML	AML		
CMAR	**Chiang Mai Arr**	**22.06**	**348**	P	**P**	**18 14 52.0**	**-2.0**
	0.3nm,0.4s,baz=184,slow=8.9,SNR=7.5						
	0.3nm,0.4s						
H08S2	**Diego Garcia H**	**31.42**	**261**	T	T	18 46 41.0	
	baz=82						
H08S3	**Diego Garcia H**	**31.43**	**261**	T	T	18 46 54.3	
	baz=82						
H08S1	**Diego Garcia H**	**31.44**	**261**	T	T	18 46 52.5	
	baz=82						
WRA	**Warramunga Arr**	**34.15**	**121**	P	**P**	**18 16 41.8**	**+1.1**
	0.2nm,0.5s,baz=303,slow=9.2,SNR=2.1						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**35.52**	**128**	P	**P**	**18 16 53.7**	**+1.4**
	0.3nm,0.4s,baz=301,slow=7.8,SNR=20						
ASAR				PcP	**PcP**	**18 19 15.6**	**+2.6**
	0.2nm,0.5s,baz=306,slow=2.6,SNR=5.5						
	0.3nm,0.4s						
SONM	**Songino Array**	**50.90**	**2**	P	**P**	**18 18 55.8**	**+2.0**
	0.2nm,0.4s,baz=189,slow=9.1,SNR=3.0						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**53.29**	**342**	P	**P**	**18 19 10.9**	**-0.1**
	0.2nm,0.4s,baz=153,slow=8.8,SNR=7.0						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**59.13**	**347**	P	**P**	**18 19 52.0**	**+0.3**
	0.5nm,0.4s,baz=170,slow=6.1,SNR=2.7						
	0.5nm,0.4s						

*SOME **22** 18:19:39.1, 39˚02N×70˚75E, h5km*
*NNC **22** 18:19:44.4±4.8, 38˚66N×70˚26E, h0km, mb3.8, mpv3.3, Error ellipse: s-maj=38.0km s-min=30.0km az=173.0*
ISC 22 18:19:42.4±2.3, **38˚8N**±0˚1×**70˚61E**±0˚08, **h17km, n8,**
σ2s66/15, 4C-4D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**3.37**	**353**	*e*P	**Pb**	**18 20 39.1**	**-2.7**
	36nm,0.4s						
IUG				*e*S	**Sb**	**18 21 22.0**	**-0.5**
	78nm,0.3s						
CHM	**Chimkent**	**3.60**	**348**	*e*P	**Pb**	**18 20 43.0**	**-2.6**
	26nm,0.1s						
CHM				*e*S	**Sb**	**18 21 28.3**	**-0.7**
	126nm,0.2s						
BRLS	**Borolday**	**4.26**	**352**	*e*P	**Pn**	**18 20 50.3**	**+3.7**
	2.3nm,0.2s						
BRLS				*e*S	**Sn**	**18 21 40.9**	**+4.9**
	11nm,0.5s						
KK31	**Karatay Array**	**4.30**	**359**	⇑Pn	Pb	18 20 52.8	-4.7
	2.5nm,0.4s,baz=157,slow=9.9,SNR=56						
KK31				⇓Pg	**Pg**	**18 21 03.3**	**-1.4**
	1.8nm,0.3s,baz=183,slow=14,SNR=5.0						
KK31				⇑Sn	**Sb**	**18 21 48.2**	**-0.9**
	3.1nm,0.3s						
KK31				⇓Lg	Lg	18 22 01.6	
	10nm,0.5s,baz=195,slow=28,SNR=6.1						
MRKS	**Merke**	**4.41**	**26**	*e*P	**Pb**	**18 20 56.6**	**-2.9**
	9.9nm,0.3s						
MRKS				*e*S	**Sb**	**18 21 52.0**	**-0.5**
	12nm,0.5s						
AAK	**Ala-Archa**	**4.84**	**36**	⇓Pn	**Pb**	**18 21 04.2**	**-2.6**
	4.9nm,0.7s						
AAK				⇑Pg	**Pg**	**18 21 17.4**	**+2.3**
	1.8nm,0.5s						
AAK				⇑Sn	**Sb**	**18 22 01.9**	**-2.9**
	2.7nm,0.6s						
AB31	**Akbulak array**	**12.95**	**327**	P	**Pn**	**18 22 45.2**	**-0.4**
	0.5nm,0.3s,baz=137,slow=12,SNR=30						
AKTO	**Aktyubinsk**	**14.66**	**327**	⇓P	**P**	**18 23 14.1**	**-1.0**
	1.9nm,0.6s						

*IDC **22** 18:24:36.2±0.6, 44˚90N×149˚62E, h0km, mb4.1/25, mbtmp4.1/34, ML3.4/8, MS3.7/31, Error ellipse: s-maj=14.4km s-min=9.8km az=153.0*
*JMA **22** 18:24:40.5±1.0, 45˚N±3˚×15˚0E±˚, h30km, MV4.4/17, SE OFF ETOROFU*
*NIED **22** 18:24:40.5, 44˚54N×149˚60E, h30km, MW4.4, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr0.99; Mθθ-0.54; Mϕϕ-0.45; Mrθ2.01; Mθϕ-1.28; Mϕr2.98; Fault plane solution: M₀3.86000×10¹⁵ NP1: ϕs252.00000°, δ13.00000°, λ128.00000°. NP2: ϕs33.00000°, δ80.00000°, λ82.00000°.*
*MOS **22** 18:24:41.2±1.1, 44˚76N×149˚56E, h51km, mb4.8/12 Error ellipse: s-maj=8.1km s-min=6.4km az=121.0*
*SKHL **22** 18:24:41.7±0.7, 44˚70N×149˚70E, h62km±8km, mb4.9/4*
*NEIC **22** 18:24:43.8±1.3, 44˚92N±0˚08×149˚4E±0˚1, h56km±6km, mb4.6/54, Error ellipse: s-maj=15.1km s-min=9.8km az=128.0*
*BJI **22** 18:24:44.5, 44˚86N×149˚53E, h86km, mB4.9/12, mb4.6/38, Ms4.1/8, Ms7 4.0/10*
*BGR **22** 18:24:53.3, 45˚96N×146˚92E, h33km, mb4.9*
ISC 22 18:24:43.7±0.6, **44.78N**±0˚05×**149˚58E**±0˚05, **h60km**±3km, **h60km:pP-P, n308,** σ**1s24/301, mb4.5/100, 34C-36D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**1.30**	**291**	*e*PN	**Pn**	**18 25 03.1**	**-2.5**
KUR				*i* S	**Sn**	**18 25 19.4**	**-2.6**
KUR				pmax	pmax		
	comp=Z,645nm,0.4s						
KUR				pmax	pmax		
	comp=N,387nm,0.3s						
KUR				pmax	pmax		
	comp=E,345nm,0.3s						
KUR				smax	smax		
	comp=N,2µm,0.7s						
KUR				smax	smax		
	comp=E,2µm,0.7s						
KUR	**Kuril'sk**	**1.30**	**291**	*i* P	**Pn**	**18 25 03.3**	**-2.3**
KUR				AMB	AMB	18 25 07.2	
	comp=E,680nm,0.3s						
KUR				*i* S	**Sn**	**18 25 19.0**	**-3.0**
KUR				A	A	18 25 23.1	
	comp=E,4µm,0.6s						
KUR				A	A	18 25 23.1	
	comp=E,5µm,0.6s						
SHO	**Shikotan**	**2.17**	**246**	*e*P	Pn	18 25 34.0	+17
SHO				AMB	AMB	18 25 38.5	
	comp=E,120nm,0.3s						
SHO				*e*S	Sn	18 26 00.5	+17
SHO				A	A	18 26 08.5	
	comp=E,2µm,0.5s						
SHO				A	A	18 26 08.5	
	comp=E,1µm,0.5s						
YUK	**Yuzh-Kuril'sk**	**2.77**	**256**	*d* iPN	**Pn**	**18 25 24.7**	**-0.8**
YUK				*i* S	**Sn**	**18 25 58.2**	**+0.5**
YUK				pmax	pmax		
	comp=E,90nm,0.2s						
YUK				pmax	pmax		
	comp=Z,245nm,0.2s						
YUK				smax	smax		
	comp=E,2µm,1.3s						
YUK				smax	smax		
	comp=N,2µm,1.2s						
YUK				smax	smax		
	comp=E,2µm,0.4s						
YUK	**Yuzh

comp=Z,700nm,3.2s
TYV Tymovskoe 7.66 325 *e*P **Pn 18 26 34.5 +2.0**
TEY Ternei 9.21 276 *e*PN **Pn 18 26 56.7 +3.0**
TEY Ternei 9.21 276 *e*P **Pn 18 26 56.7 +3.0**
PETK Petropavlovsk- 9.89 30 Pn **Pn 18 27 00.7 -2.3**
comp=Z,1.2nm,0.3s,baz=221,slow=11,SNR=16
comp=Z,5.1nm,0.9s
PETK AML AML
MJAR Matsushiro Arr 11.91 230 Pn Pn 18 27 27.3 -3.4
comp=Z,0.1nm,0.3s,baz=27,slow=15,SNR=5.7
comp=Z,1.7nm,0.7s
MJAR AML AML
MAJO Matsushiro 11.92 230⇑ *e*PN **Pn 18 27 29.4 -1.3**
MAJO pmax pmax
comp=Z,9.0nm,1.1s
USA0B Ussuriysk Arra 12.58 274⇓ *e*PN **Pn 18 27 39.3 -0.3**
USRK Ussuriysk Ar. 12.58 274 Pn **Pn 18 27 38.9 -0.7**
comp=Z,0.3nm,0.3s,baz=92,slow=13,SNR=7.8
USRK LR LR 18 32 39.7
comp=Z,300nm,18.3s,baz=71,slow=38
comp=Z,6.3nm,0.9s
USRK AML AML
KLR Kul'dur 12.95 296 Pn **Pn 18 27 44.1 -0.6**
comp=Z,0.1nm,0.3s,baz=117,slow=15,SNR=7.4
KLR LR LR 18 33 07.1
comp=Z,461nm,18.0s,baz=118,slow=40
comp=Z,2.1nm,0.9s
KLR AML AML
KLR Kul'dur 12.95 296 *e*PN **Pn 18 27 48.1 +3.4**
KLR pmax pmax
comp=Z,3.0nm,1.2s
MA2 Magadan 14.84 2 Pn **Pn 18 28 08.6 -1.1**
comp=Z,5.1nm,0.6s,baz=185,slow=17,SNR=1.4
MA2 LR LR 18 34 08.5
comp=Z,149nm,18.0s,baz=184,slow=39
BNX BinXian 15.64 281 ⇓P **P 18 28 22.6 -0.6**
BNX pmax pmax
comp=Z,8.0nm,0.8s
HEH HeiHe 15.92 298 *e*P **P 18 28 26.3 +0.1**
HEH pmax pmax
comp=Z,10.0nm,1.0s
HEH L L
comp=Z,520nm,15.7s
HEH L L
comp=Z,630nm,14.9s
ZEA Zeya 17.05 310 *e*P **P 18 28 39.1 +0.4**
ZEA pmax pmax
comp=Z,10.0nm,1.0s
ZEA MLR MLR
comp=Z,200nm,12.0s
ZEA Zeya 17.05 310 *e*P **P 18 28 39.1 +0.4**
CN2 Changchun 17.29 275 P **Pn 18 28 40.6 -0.2**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
CN2 L L
comp=Z,200nm,10.0s
CN2 L L
comp=Z,200nm,10.0s
CN2 L L
comp=Z,200nm,10.0s
KSRS Korea Array 17.85 253 P **P 18 28 47.7 0.0**
comp=Z,0.1nm,0.3s,baz=57,slow=12,SNR=3.3
KSRS LR LR 18 35 56.4
comp=Z,183nm,18.0s,baz=60,slow=38
comp=Z,2.2nm,0.9s
KSRS AML AML
SEY Seymchan 18.26 4 P **P 18 28 51.0 -1.0**
comp=Z,0.3nm,0.3s,baz=182,slow=9.9,SNR=8.3
SEY LR LR 18 36 28.0
comp=Z,266nm,18.9s,baz=151,slow=39
comp=Z,5.7nm,0.9s
SEY AML AML
SEY Seymchan 18.26 4⇑ *e*P **Pn 18 28 51.5 -1.0**
SEY pmax pmax
comp=Z,25nm,2.5s
SEY Seymchan 18.26 4 *e*P **Pn 18 28 51.5 -1.0**
JNU Nakatsue 18.58 238 P **P 18 28 57.4 +1.6**
comp=Z,0.1nm,0.3s,baz=35,slow=12,SNR=1.8
comp=Z,6.8nm,0.9s
JNU AML AML
HILR Hailar Array B 20.76 294 P **P 18 29 19.5 +0.1**
comp=Z,1.9nm,0.4s,baz=93,slow=12,SNR=2.6
comp=Z,1.9nm,0.4s
DL2 Dalian 21.57 264 P P 18 29 19.4 -8.7
DL2 pmax pmax
comp=Z,82nm,1.6s
XLT XiLinHaoTe 23.88 280 *e*P **P 18 29 51.3 -0.3**
XLT PP **PnPn 18 30 28.6 +6.2**
XLT pmax pmax
comp=Z,10.0nm,0.8s
XLT pmax pmax
comp=Z,140nm,4.4s
NJ2 Nanjing 27.05 253 *e*P **P 18 30 20.1 -0.1**
NJ2 pmax pmax
comp=Z,9.0nm,0.7s
HNS HongShan 27.14 266 ⇓P **P 18 30 23.4 +2.4**
HNS pmax pmax
comp=Z,14nm,1.0s
HHC Hu-ho-hao-te 27.99 275 ⇓ *i*P **P 18 30 29.3 +0.6**
HHC S **S 18 35 04.1 -4.5**
HHC pmax pmax
comp=Z,12nm,0.9s
HHC pmax pmax
comp=Z,81nm,6.7s
HHC L L
comp=Z,130nm,10.1s
HHC L L
comp=Z,140nm,15.1s
HHC L L
comp=Z,230nm,17.7s
TIXI Tiksi 28.74 347 LR LR 18 41 50.8
comp=Z,85nm,19.1s,baz=194,slow=36
TIXI Tiksi 28.74 347⇓ *e*P **P 18 30 32.4 -2.5**
TIXI pmax pmax
comp=Z,7.0nm,1.7s
TIXI Tiksi 28.74 347 P **P 18 30 32.1 -2.7**
H11N2 WAKE ISLAND Hy 28.83 144 T T 19 01 16.4
baz=335,slow=76,SNR=732
H11N1 WAKE ISLAND Hy 28.84 144 T T 19 01 18.4
baz=335,slow=76,SNR=335
H11N3 WAKE ISLAND Hy 28.84 144 T T 19 01 30.3
baz=335,slow=76,SNR=517
SONM Songino Array 29.70 291 P **P 18 30 43.1 -0.8**
comp=Z,1.5nm,0.7s,baz=85,slow=7.8,SNR=8.3
comp=Z,1.5nm,0.7s
H11S1 WAKE ISLAND Hy 29.85 146 T T 19 02 33.4
baz=336,slow=76,SNR=512
H11S3 WAKE ISLAND Hy 29.85 146 T T 19 02 36.1
baz=336,slow=76,SNR=496
H11S2 WAKE ISLAND Hy 29.86 146 T T 19 02 34.6
baz=336,slow=76,SNR=327
GUMO Guam 31.34 189 LR LR 18 45 34.9
comp=Z,33nm,18.3s,baz=6.5,slow=40
XAN Xi'an 32.88 265 *e*P **P 18 31 14.3 +2.4**
XAN pP pP 18 31 28.3 +1.8
G18K Tagagawik 34.81 34 P **P 18 31 28.8 +0.6**
D19K Kuna River 35.60 30 P **P 18 31 33.7 -1.3**
D19K IAmb IAmb 18 31 36.4
comp=Z,13nm,1.1s
H19K Roundabout Mou 35.64 35 P **P 18 31 35.3 0.0**
H19K IAmb IAmb 18 31 36.7
comp=Z,9.9nm,0.8s
LZDM Lanzhou Array 35.65 272 P **P 18 31 36.2 +0.1**
comp=Z,0.9nm,0.3s,baz=64,slow=9.8,SNR=7.7
LZDM LR LR 18 47 33.8
comp=Z,71nm,18.3s,baz=60,slow=39
comp=Z,0.9nm,0.3s
E19K Redstone River 35.69 32 P **P 18 31 35.9 +0.2**
E19K IAmb IAmb 18 31 50.8
comp=Z,14nm,1.2s
J20K Nowinta River 36.46 38 **P 18 31 43.1 +0.8**
J20K IAmb IAmb 18 31 44.2
comp=Z,8.2nm,1.2s
GTA2 Gaotai 36.85 280 *e*P **P 18 31 46.3 +0.2**
GTA2 pmax pmax
comp=Z,24nm,0.9s
G21K Allakaket 36.97 34 P **P 18 31 46.6 -0.1**
G21K IAmb IAmb 18 31 54.8
comp=Z,14nm,1.2s
H21K Melozitna Rive 37.16 35 P **P 18 31 47.9 -0.4**
H21K IAmb IAmb 18 31 50.4
comp=Z,5.8nm,1.0s
KDAK Kodiak Island 37.27 48 LR LR 18 48 50.8
comp=Z,31nm,19.2s,baz=221,slow=39
CAST Castle Rocks 37.34 39 **P 18 31 50.0 +0.2**
CAST IAmb IAmb 18 32 09.0
comp=Z,5.5nm,0.9s

D22K Ayikyak River 37.62 30 P **P 18 31 51.3 -0.8**
D22K IAmb IAmb 18 31 53.6
comp=Z,5.0nm,0.7s
CD2 Chengdu 38.24 265 P **P 18 31 57.8 0.0**
CD2 pmax pmax
comp=Z,20nm,0.5s
CD2 pmax pmax
comp=Z,220nm,7.5s
G23K Bananza Creek 38.37 34 P **P 18 31 59.0 +0.5**
E23K Chandalar 38.64 32 P **P 18 32 01.1 +0.3**
E23K IAmb IAmb 18 32 03.5
comp=Z,13nm,1.2s
TOLK Toolik Lake Re 38.72 31 P **P 18 32 00.9 -0.5**
D24K Happy Valley 39.04 30 P **P 18 32 04.2 +0.2**
D24K IAmb IAmb 18 32 06.3
comp=Z,9.8nm,1.1s
COLA College 39.21 37⇓ *e*P **P 18 32 05.3 -0.1**
COLA pmax pmax
comp=Z,6.0nm,0.8s
NRIK Noril'sk 39.21 330 P **P 18 32 04.6 -0.8**
comp=Z,1.6nm,0.5s,baz=90,slow=4.0,SNR=1.8
NRIK LR LR 18 48 46.7
comp=Z,101nm,20.3s,baz=55,slow=37
comp=Z,1.6nm,0.5s
NRIK Noril'sk 39.21 330 P **P 18 32 04.4 -1.0**
F24K Squaw Lake 39.26 33 P **P 18 32 05.9 -0.1**
G24K Hadweenzic Riv 39.39 34 IAmb IAmb 18 32 19.5
comp=Z,7.7nm,0.8s
HDA Harding Lake 39.61 38 P **P 18 32 07.8 -1.0**
HDA IAmb IAmb 18 32 09.7
comp=Z,13nm,1.4s
IL31 39.62 37 P **P 18 32 09.2 +0.3**
ILAR Eielson Array 39.62 37 P **P 18 32 08.8 -0.1**
comp=Z,2.7nm,0.7s,baz=269,slow=8.2,SNR=26
comp=Z,2.7nm,0.7s
D25K Kavik River 39.92 30 P **P 18 32 11.7 +0.3**
D25K IAmb IAmb 18 32 16.5
comp=Z,7.2nm,0.7s
FYU Fort Yukon 40.28 34 IAmb IAmb 18 32 22.5
comp=Z,8.7nm,0.8s
C26K Camden Bay 40.47 29 P **P 18 32 16.7 +0.9**
G26K Porcupine Rive 40.85 34 IAmb IAmb 18 32 31.9
comp=Z,12nm,1.2s
SCRK Sand Creek 40.92 38 **P 18 32 19.4 -0.4**
SCRK IAmb IAmb 18 32 31.3
comp=Z,13nm,1.5s
K27K Chicken 41.76 38 IAmb IAmb 18 32 29.0
comp=Z,8.5nm,1.0s
ZALV Zalesovo Beam 41.78 307 P **P 18 32 26.5 -0.3**
comp=Z,0.4nm,0.5s,baz=69,slow=10,SNR=1.8
ZALV PcP **PcP 18 34 22.4 +0.5**
comp=Z,2.2nm,0.8s,baz=65,slow=3.9,SNR=7.8
comp=Z,0.4nm,0.5s
ZALV Zalesovo Beam 41.78 307 **PcP 18 34 22.8 +0.8**
H27K Steamboat Moun 41.78 35 IAmb IAmb 18 32 39.8
comp=Z,8.9nm,1.1s
L27K Beaver Creek, 41.98 39 IAmb IAmb 18 32 41.4
comp=Z,18nm,1.4s
G29M Pine Creek 43.11 33 IAmb IAmb 18 32 40.2
comp=Z,17nm,1.2s
WMQ Urumqi 43.34 292 *e*P **P 18 32 40.3 +0.6**
WMQ L L
comp=Z,130nm,22.7s
G30M tAoh Zraii Nji 43.81 33 IAmb IAmb 18 32 59.5
comp=Z,9.4nm,1.1s
F30M Barrier River 43.89 32 IAmb IAmb 18 32 57.9
comp=Z,8.7nm,0.9s
MK31 Makanchi Array 45.66 298 *de*P **P 18 32 56.7 -1.4**
MKAR Makanchi Array 45.66 298 P **P 18 32 57.8 -0.2**
comp=Z,3.4nm,0.6s,baz=75,slow=6.2,SNR=30
MKAR LR LR 18 53 25.1
comp=Z,329nm,18.4s,baz=56,slow=38
comp=Z,3.4nm,0.6s
MKAR Makanchi Array 45.66 298 *i* P **P 18 32 58.0 -0.1**
MKAR pmax pmax
comp=Z,4.0nm,0.6s
MKAR Makanchi Array 45.66 298 P **P 18 32 56.5 -1.6**
MKAR Makanchi Array 45.66 298 *e*P **P 18 32 58.0 -0.1**
KURK Kurchatov 46.40 304 P **P 18 33 04.1 +0.3**
KURK 18 34 38.5
KURK Kurchatov 46.40 304 *e*P **P 18 33 04.1 +0.3**
KURBB Kurchatov Arra 46.49 304 P **P 18 33 04.1 -0.4**
comp=Z,2.8nm,1.0s,baz=69,slow=8.3,SNR=11
KURBB PcP **PcP 18 34 38.5 +0.4**
comp=Z,1.3nm,0.7s,baz=76,slow=3.6,SNR=8.1
KURBB LR LR 18 55 59.8
comp=Z,39nm,19.7s,baz=182,slow=41
comp=Z,2.8nm,1.0s
C36M Paulatuk 47.75 29 P **P 18 33 13.8 -0.2**
C36M IAmb IAmb 18 33 15.6
comp=Z,5.8nm,0.6s
KRVT Keravat (AS076 48.91 177 LR LR 18 50 06.7
comp=Z,31nm,21.6s,baz=32,slow=31
CMAR Chiang Mai Arr 49.48 255 P **P 18 33 28.2 +0.2**
comp=Z,0.8nm,0.4s,baz=39,slow=7.3,SNR=1.4
comp=Z,0.8nm,0.4s
BVAR Borovoye Array 50.20 309 P **P 18 33 32.0 -1.0**
comp=Z,0.6nm,0.5s,baz=64,slow=6.9,SNR=1.9
BVAR PcP **PcP 18 34 51.9 +0.5**
comp=Z,1.1nm,0.5s,baz=62,slow=3.5,SNR=4.6
comp=Z,0.6nm,0.5s
AAK Ala-Archa 52.48 296 LR LR 18 57 38.2
comp=Z,103nm,18.3s,baz=52,slow=38
AAK Ala-Archa 52.48 296⇑ *e*P **P 18 33 50.7 +0.2**
AAK pmax pmax
comp=Z,3.0nm,0.7s
AAK Ala-Archa 52.48 296 *e*P **P 18 33 50.7 +0.2**
RES Resolute Bay 53.48 17 P **P 18 33 57.0 -0.1**
RES pmax pmax
comp=Z,15nm,0.9s
RES Resolute Bay 53.48 17 P **P 18 33 57.0 -0.1**
KSH2 Kashi 53.57 292 P **P 18 33 59.0 +0.5**
KSH2 pmax pmax
comp=Z,6.0nm,0.7s
YKA Yellowknife Ar 53.97 35 P **P 18 34 00.8 0.0**
comp=Z,1.6nm,0.9s,baz=301,slow=6.9,SNR=7.2
comp=Z,1.6nm,0.9s
YKA Yellowknife Ar 53.97 35 *ce*P **P 18 34 01.6 +0.7**
YKA pmax pmax
comp=Z,2.0nm,0.9s
ARSB Arslanbob 54.12 295 IAmb IAmb 18 34 04.5
comp=Z,9.6nm,0.9s
HNR Honiara 54.76 167 LR LR 18 54 49.7
comp=Z,56nm,20.6s,baz=65,slow=33
KKAR Karatay Array 54.77 298 P **P 18 34 05.6 -1.4**
KKAR Karatay Array 54.77 298 P **P 18 34 05.6 -1.4**
AB31 Akbulak array 57.77 309 P **P 18 34 26.7 -1.5**
AB31 IAmb IAmb 18 34 30.1
comp=Z,3.3nm,0.6s
ABKAR Akbulak array 57.77 309 P **P 18 34 26.4 -1.8**
AKTO Aktyubinsk 58.18 311 LR LR 19 01 32.3
comp=Z,168nm,18.6s,baz=59,slow=38
ARCES ARCESS Array B 58.88 340 LR LR 19 02 22.1
comp=Z,72nm,18.4s,baz=313,slow=39
KBL Kabul 60.47 291 P **P 18 34 45.8 -1.6**
KBL pmax pmax
comp=Z,12nm,1.1s
KBL Kabul 60.47 291 P **P 18 34 45.8 -1.6**
BELG Belogornoye 62.33 317⇑ *e*P **P 18 34 58.8 -0.6**
SUMG Summit 62.81 3 P **P 18 35 02.8 0.0**
SUMG pmax pmax
comp=Z,11nm,1.0s
SUMG Summit 62.81 3 P **P 18 35 02.8 0.0**
CTA Charters Tower 64.62 183 LR LR 19 05 44.0
comp=Z,15nm,18.4s,baz=41,slow=38
FINES FINESS Array B 64.74 334 P **P 18 35 13.5 -1.6**
comp=Z,3.6nm,0.8s,baz=33,slow=4.5,SNR=8.4
FINES LR LR 19 05 18.2
comp=Z,86nm,18.3s,baz=16,slow=38
comp=Z,3.6nm,0.8s
FINES FINESS Array B 64.74 334 *i* P **P 18 35 16.7 +1.6**
FINES pmax pmax
comp=Z,4.0nm,0.8s
HRA Herat 65.04 294 P **P 18 35 17.6 -0.1**
NVAR Mina Array Bea 65.55 60 P **P 18 35 22.9 +1.8**
comp=Z,0.5nm,0.8s,baz=309,slow=7.1,SNR=2.2
comp=Z,0.5nm,0.8s
WRA Warramunga Arr 65.89 196 P **P 18 35 25.3 +2.3**
comp=Z,1.1nm,0.7s,baz=12,slow=6.6,SNR=5.0
comp=Z,1.1nm,0.7s
SFJD Kangerlussuaq 67.49 8 LR LR 19 06 52.1
comp=Z,55nm,18.0s,baz=18,slow=38
FRB Frobisher Bay 67.69 17 LR LR 19 07 30.8
comp=Z,44nm,18.2s,baz=58,slow=38
PDAR Pinedale Array 67.91 51 P **P 18 35 36.3 +0.3**
comp=Z,0.6nm,0.8s,baz=279,slow=2.2,SNR=6.1
comp=Z,0.6nm,0.8s

PDAR Pinedale Array 67.91 51 P **P 18 35 35.9 -0.1**
NB2 NORSAR Subarra 69.26 340 P **P 18 35 43.1 -0.8**
comp=Z,0.1nm,0.2s,baz=30,slow=6.2
NOA NORSAR Array B 69.26 340 P **P 18 35 43.3 -0.6**
comp=Z,1.3nm,0.6s,baz=28,slow=6.4,SNR=7.5
comp=Z,1.3nm,0.6s
MNK Minsk 69.39 328 *i* P **P 18 35 45.6 +0.9**
MNK *i* *PP **pP 18 36 01.5 +0.5**
MNK *i* *SP **sP 18 36 07.0 -0.7**
MNK *i* 18 36 07.4
MNK *i* 18 38 17.5
MNK *i* S **S 18 44 48.1 +1.3**
MNK *i* *SS **sS 18 45 15.3 +1.2**
MNK *i* PS **PnS 18 45 19.7 +0.4**
MNK pmax pmax
comp=N,7.0nm,0.7s
MNK pmax pmax
comp=E,7.0nm,0.7s
MNK pmax pmax
comp=Z,10.0nm,0.8s
MNK MLR MLR
comp=E,529nm,17.0s
MNK MLR MLR
comp=N,483nm,16.0s
MNK MLR MLR
comp=Z,144nm,17.0s
MNK Minsk 69.39 328 *i* P **P 18 35 45.6 +0.9**
comp=E,7.0nm,0.7s
MNK *i* P **P 18 35 45.6 +0.9**
comp=N,7.0nm,0.7s
MNK *i* P **P 18 35 45.6 +0.9**
comp=Z,10.0nm,0.8s,baz=40
MNK *i* pP **pP 18 36 01.5 +0.5**
MNK *i* sP **sP 18 36 07.0 -0.7**
MNK *i* PP **PP 18 38 17.6 -0.5**
MNK *i* PPP PPP 18 40 19.6
MNK *i* S **S 18 44 48.2 +1.3**
MNK *i* sS **sS 18 45 15.3 +1.2**
MNK *i* PS **PnS 18 45 19.7 +0.4**
MNK *i* SS SS 18 48 59.5 -14
MNK *i* SSS SSS 18 53 10.2
MNK *i* LRM MLR 19 10 14.3
comp=E,529nm,16.7s
MNK *i* LRM MLR 19 10 24.0
comp=N,483nm,16.4s
HFS Hagfors 69.40 338 P **P 18 35 43.6 -1.1**
comp=N,1.3nm,0.4s,baz=54,slow=7.5,SNR=11
HFS LR LR 19 09 10.6
comp=N,68nm,20.3s,baz=5.0,slow=39
comp=N,1.3nm,0.4s
ASAR Alice Springs 69.60 195 P **P 18 35 47.4 +1.0**
comp=N,1.0nm,0.7s,baz=20,slow=5.3,SNR=6.3
comp=N,1.0nm,0.7s
NCK Nalchik 70.20 312⇑ *e*P **P 18 35 50.2 +0.3**
NCK pmax pmax
comp=Z,14nm,1.0s
ERBR Yeremizino-Bor 70.27 315 *e*P **P 18 35 51.1 +0.8**
ERBR *e**PP **pP 18 36 06.0 -0.6**
ERBR *e*S **S 18 45 00.2 +2.8**
ERBR pmax pmax
comp=Z,29nm,1.0s
KIV Kislovodsk 70.36 313 P **P 18 35 50.3 -0.7**
KIV Kislovodsk 70.36 313 P **P 18 35 52.2 +1.2**
comp=Z,22nm,0.9s
KBZ Khabaz 70.41 313 P **P 18 35 52.2 +1.1**
comp=Z,15nm,0.9s,baz=43,slow=3.3,SNR=17
KBZ LR LR 19 11 13.1
comp=Z,217nm,18.2s,baz=36,slow=40
AK03 Malin Array Si 71.75 325 P **P 18 35 59.0 -0.1**
AK03 Malin Array Si 71.75 325 P **P 18 35 58.7 -0.4**
AKASG Malin Array Be 71.77 325 P **P 18 35 59.0 -0.2**
comp=Z,9.0nm,0.8s,baz=38,slow=6.0,SNR=20
AKASG LR LR 19 08 43.5
comp=Z,123nm,18.5s,baz=42,slow=37
comp=Z,9.0nm,0.8s
AKBB Malin Array Si 71.77 325⇑ *e*P **P 18 35 58.3 -0.9**
AKBB Malin Array Si 71.77 325 P **P 18 35 59.1 -0.1**
AK04 Malin Array Si 71.78 325 P **P 18 35 58.9 -0.4**
KIEV Kiev 71.78 325⇑ P **P 18 35 59.0 -0.3**
KIEV Kiev 71.78 325 P **P 18 35 58.8 -0.5**
KIEV Kiev 71.78 325⇑ P **P 18 35 59.0 -0.3**
KIEV Kiev 71.78 325 P **P 18 35 59.1 -0.3**
comp=Z,70nm,1.0s
AK21 Malin Array Si 71.78 325 P **P 18 35 58.8 -0.5**
AK22 Malin Array Si 71.78 325 P **P 18 35 58.9 -0.4**
AK02 Malin Array Si 71.81 325 P **P 18 35 59.1 -0.4**
AK09 Malin Array Si 71.81 325 P **P 18 35 59.1 -0.4**
AK11 Malin Array Si 71.81 325 P **P 18 35 59.1 -0.4**
AK20 Malin Array Si 71.82 325 P **P 18 35 59.4 -0.2**
AK10 Malin Array Si 71.83 325 P **P 18 35 59.3 -0.3**
AK05 Malin Array Si 71.84 325 P **P 18 35 59.4 -0.3**
AK19 Malin Array Si 71.84 325 P **P 18 35 59.4 -0.3**
AK16 Malin Array Si 71.84 325 P **P 18 35 59.4 -0.3**
AK17 Malin Array Si 71.85 325 P **P 18 35 59.4 -0.3**
AK14 Malin Array Si 71.87 325 P **P 18 35 59.6 -0.2**
GNI Garni 71.88 309 LR LR 19 11 50.5
comp=Z,62nm,18.7s,baz=360,slow=40
AK07 Malin Array Si 71.89 325 P **P 18 35 59.8 -0.2**
RNPP9 Sopachiv 72.55 327 P **P 18 36 03.7 -0.2**
LUBAR Lubar, Ukraine 72.97 325 P **P 18 36 06.2 -0.2**
SORM Soroca 74.11 323⇑ P **P 18 36 12.0 -1.1**
SORM Soroca 74.11 323⇑ P **P 18 36 12.0 -1.1**
SORM Soroca 74.11 323 P **P 18 36 12.7 -0.4**
comp=Z,12nm,0.8s
KMPD K-Podol'skiy 74.56 325 P **P 18 36 15.0 -0.7**
KWP Kalwaria Pacla 75.20 327 P **P 18 36 19.8 +0.3**
comp=Z,44nm,1.0s
MNTR Muntenesti 75.53 323⇓ P **P 18 36 21.7 +0.3**
DMBR Dumbraveni 75.60 323⇓ P **P 18 36 22.4 +0.6**
OJC Ojcow 75.80 329 P **P 18 36 23.0 +0.1**
comp=Z,18nm,0.9s
BUR08 Bucovina Ar. S 75.81 325 IAmb IAmb 18 36 25.6
comp=Z,9.3nm,0.7s
BURAR Bucovina Array 75.82 325⇑ P **P 18 36 23.8 +0.7**
BURAR Bucovina Array 75.82 325 P **P 18 36 23.4 +0.3**
BURAR Bucovina Array 75.82 325⇑ P **P 18 36 23.8 +0.7**
KOLS Kolonicke sedl 75.93 327 *e*P **P 18 36 24.5 +0.8**
BIZ Bicaz 75.99 324⇑ P **P 18 36 25.2 +1.2**
VLDR Vladesti 76.00 322⇑ P **P 18 36 25.3 +1.3**
TESR Tescani 76.10 323 P **P 18 36 24.8 +0.2**
comp=Z,20nm,1.2s
GHRR 76.13 323⇑ P **P 18 36 26.3 +1.5**
TLCR 76.19 321⇓ P **P 18 36 25.9 +0.8**
TLCR 76.19 321⇓ P **P 18 36 25.9 +0.8**
NIE Niedzica 76.28 329 P **P 18 36 26.7 +1.0**
comp=Z,7.9nm,1.9s
CFR Carcaliu 76.50 322⇑ P **P 18 36 26.6 -0.3**
CFR Carcaliu 76.50 322⇑ P **P 18 36 26.6 -0.3**
KSP Ksiaz 76.51 332 P **P 18 36 27.0 +0.1**
comp=Z,14nm,1.2s
VRI Vrincioaia 76.57 323⇓ P **P 18 36 29.7 +2.3**
VRI Vrincioaia 76.57 323⇓ P **P 18 36 29.7 +2.3**
TPGR Topolog 76.62 321⇓ P **P 18 36 28.6 +0.9**
STKA Stephens Creek 76.64 187 P **P 18 36 29.2 +1.6**
comp=Z,1.4nm,0.7s,baz=50,slow=7.9,SNR=1.8
STKA LR LR 19 09 47.3
comp=Z,15nm,20.1s,baz=24,slow=35
comp=Z,1.4nm,0.7s
STKA Stephens Creek 76.64 187 P **P 18 36 27.5 -0.1**
SAHR Sahastru 76.70 323⇓ P **P 18 36 29.1 +1.0**
TURR Turia 76.73 323⇓ P **P 18 36 29.4 +1.2**
STEB Steborice 76.77 330 *e*P **P 18 36 28.7 +0.4**
OSTC Ostas 76.78 332 *e*P **P 18 36 28.5 +0.1**
CHVC Chvalec 76.81 332 *e*P **P 18 36 27.8 -0.8**
LANS Liptovska Anna 76.81 329 *e*P **P 18 36 30.3 +1.6**
COVR Voineasa-Covas 76.81 323⇑ P **P 18 36 29.6 +0.8**
UPC Upice 76.89 332 *e*P **P 18 36 29.7 +0.7**
DPC Dobruska-Polom 76.92 331 *e*P **P 18 36 29.8 +0.5**
HARR Harsova 76.97 321⇑ P **P 18 36 26.2 -3.4**
HARR Harsova 76.97 321⇑ P **P 18 36 26.2 -3.4**
MORC Moravsky Berou 76.98 330⇑ P **P 18 36 30.2 +0.6**
MORC Moravsky Berou 76.98 330 *e*P **P 18 36 29.9 +0.3**
MORC Moravsky Berou 76.98 330⇑ P **P 18 36 30.2 +0.6**
KRLC Kraliky 76.99 331 *e*P **P 18 36 28.5 -1.2**
DOPR Dopca 77.06 324⇓ P **P 18 36 32.7 +2.6**
CLL Collm 77.19 334 P **P 18 36 30.3 -0.4**
comp=Z,17nm,1.6s
CLL Collm 77.19 334⇓ *i*P **P 18 36 30.7 0.0**
comp=Z,14nm,1.1s
MLR Muntele Rosu 77.20 323⇑ P **P 18 36 32.4 +1.3**
MLR Muntele Rosu 77.20 323⇑ P **P 18 36 32.4 +1.3**
MAUC Maruska 77.22 330 *e*P **P 18 36 30.9 -0.1**
PVCC Panska Ves 77.35 332 *e*P **P 18 36 31.7 +0.1**
MARR Marisel-Cluj 77.43 325⇑ P **P 18 36 33.4 +1.1**

ICOR	**Ion Corvin**	**77.48**	**321**	⇓P		**P**		**18 36 34.6**	**+2.2**
DRGR		**77.50**	**326**	⇓P		**P**		**18 36 33.2**	**+0.6**
DRGR		**77.50**	**326**	⇓P		**P**		**18 36 33.2**	**+0.6**
VYHS	**Vyhne**	**77.59**	**329**	*e*P		**P**		**18 36 33.8**	**+0.8**
EKA	**Eskdalemuir Ar**	**77.62**	**344**	P		**P**		**18 36 33.2**	**+0.2**
	comp=Z,6.2nm,0.9s,baz=20,slow=4.5,SNR=8.0								
	comp=Z,6.2nm,0.9s								
VOIR		**77.63**	**324**	P		**P**		**18 36 33.4**	**0.0**
HSKC	**Hora Svate Kat**	**77.66**	**333**	*e*P		**P**		**18 36 33.6**	**+0.2**
PSZ	**Piszkesteto**	**77.67**	**328**	⇑P		**P**		**18 36 35.1**	**+1.6**
PSZ	**Piszkesteto**	**77.67**	**328**	⇑P		**P**		**18 36 35.1**	**+1.6**
JAVC	**Velka Javorina**	**77.70**	**330**	*e*P		**P**		**18 36 34.9**	**+1.2**
VRAC	**Vranov**	**77.71**	**331**	⇓P		**P**		**18 36 34.3**	**+0.7**
VRAC	**Vranov**	**77.71**	**331**	*e*P		**P**		**18 36 34.1**	**+0.5**
VRAC	**Vranov**	**77.71**	**331**	⇓P		**P**		**18 36 34.3**	**+0.7**
ARR	**Arges**	**77.86**	**324**	⇑P		**P**		**18 36 37.3**	**+2.7**
KRUC	**Moravsky**	**77.98**	**331**	*e*P		**P**		**18 36 35.5**	**+0.3**
BR131	**Keskin Array S**	**78.08**	**315**	⇓*e*P		**P**		**18 36 36.3**	**+0.3**
BRTR	**Keskin Array B**	**78.08**	**315**	P		**P**		**18 36 36.6**	**+0.6**
	comp=Z,2.4nm,0.9s,baz=64,slow=5.1,SNR=8.2								
	comp=Z,2.4nm,0.9s								
BRTR	**Keskin Array B**	**78.08**	**315**	*ce*P		**P**		**18 36 37.2**	**+1.2**
BRTR					pmax	pmax			
	comp=Z,2.0nm,0.9s								
BRTR	**Keskin Array B**	**78.08**	**315**	P		**P**		**18 36 35.2**	**-0.8**
TREC	**Trest**	**78.10**	**331**	*e*P		**P**		**18 36 36.7**	**+0.9**
MODS	**Modra-Piesok**	**78.25**	**330**	*e*P		**P**		**18 36 38.0**	**+1.3**
SIRR	**Siria**	**78.35**	**326**	⇑P		**P**		**18 36 37.7**	**+0.4**
ZVC	**Zvikov**	**78.42**	**332**	*e*P		**P**		**18 36 38.0**	**+0.5**
SURR	**Surduc**	**78.58**	**325**	⇓P		**P**		**18 36 39.9**	**+1.4**
ABNA	**Allensteig Bun**	**78.65**	**331**	*e*P		**P**		**18 36 39.3**	**+0.4**
	comp=Z,5.5nm,1.0s								
KHC	**Kasperske Hory**	**78.88**	**332**	⇓*e*P		**P**		**18 36 41.1**	**+0.9**
KHC					pmax	pmax			
	comp=Z,11nm,1.0s								
KHC	**Kasperske Hory**	**78.88**	**332**		IAmb	IAmb		18 36 42.1	
	comp=Z,8.8nm,0.9s								
KHC	**Kasperske Hory**	**78.88**	**332**	*e*P		**P**		**18 36 40.3**	**+0.1**
BZS	**Buzias**	**78.90**	**326**	⇓P		**P**		**18 36 40.4**	**+0.2**
BZS	**Buzias**	**78.90**	**326**	⇓P		**P**		**18 36 40.4**	**+0.2**
CKRC	**Cesky Krumlov**	**78.91**	**332**	*e*P		**P**		**18 36 40.4**	**+0.1**
WINA	**Alland / Wiene**	**78.91**	**330**	*e*P		**P**		**18 36 41.1**	**+0.8**
	comp=Z,8.6nm,1.1s								
GERES	**GERESS Array B**	**79.09**	**332**	P		**P**		**18 36 41.4**	**0.0**
	comp=Z,2.0nm,0.7s,baz=30,slow=4.5,SNR=20								
	comp=Z,2.0nm,0.7s								
GERES	**GERESS Array B**	**79.09**	**332**	P		**P**		**18 36 40.4**	**-1.0**
CONA	**Conrad Observa**	**79.14**	**330**	*e*P		**P**		**18 36 42.5**	**+0.8**
	comp=Z,7.0nm,1.0s								
GRF	**Grafenberg Arr**	**79.16**	**334**	*e*P		**P**		**18 36 42.8**	**+1.1**
	comp=Z,8.6nm,0.9s,baz=26,slow=4.7								
RONA	**Rosalia, Austr**	**79.18**	**330**	*e*P		**P**		**18 36 42.5**	**+0.7**
	comp=Z,5.0nm,0.9s								
MDVR	**Moldovita**	**79.55**	**325**	⇑P		**P**		**18 36 43.7**	**-0.2**
MORH	**Mrgy, Hungar**	**79.56**	**328**	⇑P		**P**		**18 36 43.4**	**-0.4**
MOA	**Molln**	**79.76**	**331**	*e*P		**P**		**18 36 45.3**	**+0.4**
	comp=Z,3.0nm,0.9s								
ARSA	**Arzberg**	**79.83**	**330**	*e*P		**P**		**18 36 46.3**	**+0.9**
	comp=Z,1.8nm,0.6s								
MEM	**Membach**	**79.87**	**337**	*d*P		**P**		**18 36 46.5**	**+1.1**
	comp=Z,5.8nm,0.9s								
BIOA	**Bad Ischl, Aus**	**80.11**	**332**	*e*P		**P**		**18 36 47.3**	**+0.5**
	comp=Z,7.2nm,0.9s								
SESA	**Seetaler Alpe,**	**80.29**	**331**	*e*P		**P**		**18 36 49.0**	**+1.0**
	comp=Z,6.0nm,0.7s,SNR=13								
BMRD	**Maredsous**	**80.48**	**338**	*d*P		**P**		**18 36 49.1**	**+0.4**
	comp=Z,6.5nm,1.0s								
SOKA	**Soboth**	**80.50**	**330**	*e*P		**P**		**18 36 49.4**	**+0.4**
	comp=Z,8.8nm,0.8s								
TXAR	**Lajitas Array**	**80.63**	**58**	P		**P**		**18 36 50.0**	**0.0**
	comp=Z,1.0nm,0.6s,baz=297,slow=4.1,SNR=11								
	comp=Z,1.0nm,0.6s								
TXAR	**Lajitas Array**	**80.63**	**58**	P		**P**		**18 36 50.1**	**+0.1**
LESA	**Schwarzleotal**	**80.67**	**332**	*e*P		**P**		**18 36 50.5**	**+0.6**
	comp=Z,6.2nm,0.9s,SNR=6.7								
KBA	**Koelnbreinsper**	**80.74**	**331**	*i* P		**P**		**18 36 51.0**	**+0.5**
	comp=Z,6.2nm,0.8s								
OBKA	**Obir**	**80.81**	**330**	*i* P		**P**		**18 36 51.2**	**+0.5**
	comp=Z,4.6nm,1.1s								
WATA	**Walderalm**	**81.11**	**333**	*e*P		**P**		**18 36 52.7**	**+0.3**
	comp=Z,10nm,1.2s								
WTTA	**Wattenberg**	**81.15**	**332**	*e*P		**P**		**18 36 53.0**	**+0.4**
	comp=Z,8.6nm,0.9s,SNR=6.5								
RETA	**Reutte**	**81.24**	**333**	*e*P		**P**		**18 36 53.0**	**+0.1**
	comp=Z,5.7nm,1.1s								
BFO	**Black Forest**	**81.25**	**335**	*i* P		**P**		**18 36 54.0**	**+1.1**
MOTA	**Moosalm**	**81.25**	**333**	*e*P		**P**		**18 36 53.2**	**+0.1**
	comp=Z,8.0nm,1.1s								
SQTA	**Sankt Quirin**	**81.33**	**333**	*e*P		**P**		**18 36 54.5**	**+1.0**
	comp=Z,5.5nm,0.9s								
FETA	**Feichten**	**81.66**	**333**	*e*P		**P**		**18 36 56.1**	**+0.8**
	comp=Z,3.9nm,1.1s								
DAVA	**Damuels**	**81.70**	**334**	*e*P		**P**		**18 36 56.0**	**+0.6**
	comp=Z,6.6nm,1.0s								
FUORN	**Ofenpass-Fuorn**	**82.16**	**333**	P		**P**		**18 36 58.7**	**+0.6**
FUORN					IAmb	IAmb		18 37 01.2	
	comp=Z,9.0nm,1.1s								
MMAI	**Mount Meron Ar**	**82.21**	**309**	P		**P**		**18 36 59.3**	**+1.0**
	comp=Z,1.2nm,0.5s,baz=42,slow=4.7,SNR=4.1								
MMAI					LR	LR		19 19 31.7	
	comp=Z,63nm,18.2s,baz=8.5,slow=40								
	comp=Z,1.2nm,0.5s								
PPT	**Papeete**	**83.09**	**123**		LR	LR		19 04 33.8	
	comp=Z,37nm,21.4s,baz=294,slow=29								
PPT2	**Papeete2**	**83.10**	**123**	*e*LR		LR		19 02 53.6	
	comp=Z,69nm,24.5s								
PPT2				*e*LR		LR		19 03 00.1	
	comp=Z,104nm,27.0s								
EIL	**Elat**	**84.98**	**307**		LR	LR		19 20 41.7	
	comp=Z,63nm,18.3s,baz=61,slow=40								
ATD	**Arta Tunnel**	**93.53**	**290**		LR	LR		19 25 23.8	
	comp=Z,19nm,18.6s,baz=350,slow=39								
H03N2	**Juan Fernandez**	**141.22**	**90**		T	T		21 21 42.3	
	baz=310,slow=76,SNR=9.2								
H03N3	**Juan Fernandez**	**141.23**	**90**		T	T		21 21 37.8	
	baz=310,slow=76,SNR=3.8								
H03N1	**Juan Fernandez**	**141.23**	**90**		T	T		21 21 50.0	
	baz=310,slow=76,SNR=11								
CFA	**Coronel Fontan**	**147.79**	**79**		PKPbc	**PKPbc**		**18 44 21.2**	**-0.4**
	comp=Z,0.8nm,0.5s,baz=27,slow=6.8,SNR=4.7								
TROLL	**Troll, Antarti**	**148.53**	**199**		PKPbc	**PKPbc**		**18 44 23.1**	**+0.7**
	comp=Z,247nm,0.6s								
TROLL					⇓pPKPdf	**pPKPdf**		**18 44 36.5**	**+1.0**
	comp=Z,247nm,0.6s								
PLCA	**Paso Flores**	**150.47**	**96**		PKPbc	**PKPbc**		**18 44 27.9**	**-0.2**
	comp=Z,0.8nm,0.5s,baz=281,slow=5.2,SNR=3.6								
VNA2	**Neumayer--Watz**	**151.45**	**196**		⇓PKPbc	**PKPbc**		**18 44 29.5**	**+0.2**
	comp=Z,12nm,0.6s,baz=127,slow=2.0								
VNA2					⇓pPKPdf	**pPKPdf**		**18 44 43.2**	**+3.3**
	comp=Z,12nm,0.6s,baz=116,slow=1.8								
VNA3	**Neumayer Olymp**	**151.60**	**194**		⇓PKPbc	**PKPbc**		**18 44 28.6**	**-1.1**
	comp=Z,4.8nm,0.7s								
VNA3					⇓pPKPdf	**pPKPdf**		**18 44 43.2**	**+3.0**
	comp=Z,4.8nm,0.7s								

*NEIC **22** 18:28:05.1±1.8,24˚.2S±0˚.1×179˚.7E±0˚.1, h495km±9km, mb4.2/23, Error ellipse: s-maj=21.0km s-min=19.3km az=147.0*

*IDC **22** 18:28:06.2±0.9,24˚.24S×179˚.75E, h509km±9km, mb3.6/10, mbtmp4.5/14, Error ellipse: s-maj=14.5km s-min=11.2km az=137.0*

*GFZ **22** 18:28:06.5±0.6,24˚S±5˚×18˚0E±˚, h510km±7km, M4.5/20, mb4.5/20, Error ellipse: s-maj=16.7km s-min=10.8km az=82.4, confirmed*

*NOU **22** 18:28:08.0,24˚.32S×179˚.84E, h539km, mb4.4/28, South of Fiji Islands*

ISC 22 18:28:07.7±0.4, 24˚30S±0˚.05×179˚74E±0˚.06, h531km, n165, σ1§41/175, mb4.2/39, 17C, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
RAO	**Raoul Island**	**5.36**	**157**	P		**P**	**18 29 38.7**	**-0.8**
	132nm,0.3s,baz=285,slow=20,SNR=2.6							
RAO				S		**S**	**18 30 50.5**	**-4.1**
	116nm,0.3s,baz=323,slow=20,SNR=1.5							
RAO	**Raoul Island**	**5.36**	**157**	P		**P**	**18 29 36.3**	**-3.2**
GLKZ	**Green Lake**	**5.37**	**158**	P		**P**	**18 29 39.1**	**-0.4**
GLKZ				S		**S**	**18 30 53.5**	**-1.2**
GLKZ				AML		AML		
MSVF	**Nonsavu**	**6.72**	**346**	P		**P**	**18 29 50.3**	**-2.2**
	24nm,0.5s,baz=144,slow=13,SNR=19							
MSVF				S		**S**	**18 31 13.9**	**-4.2**
	6.0nm,0.7s,baz=18,slow=20,SNR=0.9							
MSVF	**Nonsavu**	**6.72**	**346**	P		P	18 29 47.5	-5.0
MSVF	**Nonsavu**	**6.72**	**346**	P		**P**	**18 29 50.6**	**-1.9**
	comp=Z,45nm,0.7s							
NIUE	**Niue**	**10.92**	**64**	S		**S**	**18 32 38.4**	**+2.1**
MARNC	**Mare, Loyalty**	**11.15**	**282**	P		**P**	**18 30 37.9**	**+0.5**
MARNC	**Mare, Loyalty**	**11.15**	**282**	P		**P**	**18 30 36.4**	**-1.0**
PINNC	**Pines Island,**	**11.41**	**276**	P		**P**	**18 30 41.9**	**+1.9**
PINNC	**Pines Island,**	**11.41**	**276**	P		**P**	**18 30 42.1**	**+2.1**
OUENC	**Ouen Island, N**	**11.99**	**276**	P		**P**	**18 30 47.5**	**+1.3**
YATNC	**Mamie plateau,**	**12.02**	**278**	P		**P**	**18 30 48.1**	**+1.6**
OUZ	**Omahuta**	**12.11**	**205**	P		**P**	**18 30 49.9**	**+2.6**
DZM	**Mont Dzumac**	**12.43**	**278**	P		**P**	**18 30 51.2**	**+0.4**
	comp=Z,24nm,0.8s,baz=91,slow=18,SNR=14							
NOUC	**Port Laguerre**	**12.55**	**277**	P		**P**	**18 30 53.3**	**+1.3**
MXZ	**Matakaoa Point**	**13.28**	**185**	P		**P**	**18 31 00.1**	**+0.8**
MXZ	**Matakaoa Point**	**13.28**	**185**	P		**P**	**18 31 00.1**	**+0.8**
MKAZ	**Moumakai**	**13.35**	**196**	P		**P**	**18 31 01.5**	**+1.3**
HAZ	**Te Kaha**	**13.52**	**187**	P		**P**	**18 31 02.2**	**+0.4**
HAZ				S		**S**	**18 33 22.7**	**-2.6**
RUGZ	**Raukumara Rang**	**13.73**	**187**	P		**P**	**18 31 03.0**	**-1.2**
PUZ	**Puketiti**	**13.79**	**185**	P		**P**	**18 31 05.4**	**+0.8**
TOZ	**Tahuroa Road**	**13.87**	**194**	P		**P**	**18 31 04.1**	**-1.3**
TOZ	**Tahuroa Road**	**13.87**	**194**	P		**P**	**18 31 07.2**	**+1.7**
TWGZ	**Tauwhareparae**	**13.91**	**186**	P		**P**	**18 31 06.7**	**+0.7**
TWGZ				S		**S**	**18 33 33.5**	**+0.5**
URZ	**Urewera**	**14.09**	**189**	P		**P**	**18 31 06.4**	**-1.5**
	comp=Z,19nm,0.5s,baz=306,slow=2.0,SNR=24							
URZ				S		**S**	**18 33 32.3**	**-4.0**
	comp=Z,24nm,1.0s,baz=49,slow=19,SNR=7.8							
URZ	**Urewera**	**14.09**	**189**	P		**P**	**18 31 07.0**	**-0.8**
URZ	**Urewera**	**14.09**	**189**	P		**P**	**18 31 06.6**	**-1.2**
URZ	**Urewera**	**14.09**	**189**	P		**P**	**18 31 06.3**	**-1.5**
	comp=Z,27nm,0.6s							
MWZ	**Matawai**	**14.12**	**187**	P		**P**	**18 31 08.6**	**+0.4**
MWZ				S		**S**	**18 33 35.6**	**-1.2**
SANVU	**Saraoutou**	**14.71**	**304**	P		**P**	**18 31 15.8**	**+1.3**
SANVU	**Saraoutou**	**14.71**	**304**	P		**P**	**18 31 12.2**	**-2.4**
SANVU	**Saraoutou**	**14.71**	**304**	P		**P**	**18 31 12.4**	**-2.1**
	comp=Z,48nm,0.9s							
MTHZ	**Maungataniwha**	**14.71**	**189**	P		**P**	**18 31 13.4**	**-0.9**
BKZ	**Black Stump Fm**	**15.07**	**190**	P		**P**	**18 31 18.3**	**+0.2**
BKZ	**Black Stump Fm**	**15.07**	**190**	P		**P**	**18 31 16.4**	**-1.7**
SNVZ	**South Ngauruho**	**15.24**	**192**	P		**P**	**18 31 19.9**	**-0.1**
PXZ	**Pawanui**	**15.87**	**188**	P		**P**	**18 31 25.3**	**-0.9**
TSZ	**Takapari Road**	**16.03**	**191**	P		**P**	**18 31 25.8**	**-2.1**
BFZ	**Birch Farm**	**16.59**	**189**	P		**P**	**18 31 33.3**	**0.0**
BFZ	**Birch Farm**	**16.59**	**189**	P		**P**	**18 31 31.0**	**-2.4**
BFZ	**Birch Farm**	**16.59**	**189**	P		**P**	**18 31 32.4**	**-0.9**
	comp=Z,54nm,1.8s							
MRZ	**Mangatainoka R**	**16.68**	**191**	P		**P**	**18 31 32.2**	**-1.9**
QRZ	**Quartz Range**	**17.55**	**198**	P		**P**	**18 31 42.4**	**+0.2**
QRZ	**Quartz Range**	**17.55**	**198**	P		**P**	**18 31 42.3**	**+0.1**
QRZ	**Quartz Range**	**17.55**	**198**	P		**P**	**18 31 42.5**	**+0.2**
DSZ	**Denniston Nort**	**18.61**	**199**	P		**P**	**18 31 52.2**	**+0.3**
KHZ	**Kahutara**	**18.78**	**194**	P		**P**	**18 31 51.9**	**-1.5**
KHZ	**Kahutara**	**18.78**	**194**	P		**P**	**18 31 51.5**	**-1.9**
GVZ	**Greta Valley S**	**19.42**	**195**	P		**P**	**18 31 59.0**	**-0.2**
LTZ	**Lake Taylor**	**19.44**	**197**	P		**P**	**18 31 59.9**	**+0.4**
OXZ	**Oxford**	**20.01**	**197**	P		**P**	**18 32 03.2**	**-1.4**
RPZ	**Rata Peaks**	**20.64**	**198**	P		**P**	**18 32 10.9**	**+0.6**
	comp=Z,2.0nm,0.7s,baz=36,slow=5.3,SNR=6.0							
	comp=Z,2.0nm,0.7s							
JCZ	**Jackson Bay**	**21.67**	**202**	P		**P**	**18 32 19.9**	**+0.2**
JCZ	**Jackson Bay**	**21.67**	**202**	P		**P**	**18 32 20.2**	**+0.5**
NGOA	**Tingoa Renbel**	**22.57**	**301**	P		**P**	**18 32 28.7**	**+0.7**
TATA	**Tatamba Isabel**	**24.77**	**306**	P		**P**	**18 32 46.2**	**-1.4**
EIDS	**Eidsvold**	**26.01**	**262**	P		**P**	**18 32 59.2**	**+0.7**
EIDS	**Eidsvold**	**26.01**	**262**			**P**	**18 32 56.8**	**-1.7**
EIDS					IAmb	IAmb	18 33 00.3	
	comp=Z,8.2nm,0.6s							
EIDS	**Eidsvold**	**26.01**	**262**	P		**P**	**18 32 59.4**	**+0.9**
	comp=Z,13nm,0.6s							
CMSA	**Cobar Meteorol**	**30.84**	**249**	P		**P**	**18 33 41.9**	**+1.4**
	comp=Z,15nm,1.0s							
CTAO	**Charters Tower**	**31.24**	**271**	P		**P**	**18 33 45.0**	**+0.9**
CTAO	**Charters Tower**	**31.24**	**271**			**P**	**18 33 42.1**	**-2.0**
CTAO	**Charters Tower**	**31.24**	**271**	P		**P**	**18 33 45.3**	**+1.3**
	comp=Z,64nm,0.7s							
QLP	**Quilpie**	**32.08**	**258**	P		**P**	**18 33 51.4**	**+0.3**
	comp=Z,30nm,1.0s							
MTSU	**Mount Surprise**	**33.52**	**274**	P		**P**	**18 34 04.9**	**+1.4**
	comp=Z,28nm,0.8s							
STKA	**Stephens Creek**	**34.35**	**249**	P		**P**	**18 34 11.3**	**+1.1**
	comp=Z,3.6nm,0.5s,baz=99,slow=9.7,SNR=17							
	comp=Z,3.6nm,0.5s							
STKA	**Stephens Creek**	**34.35**	**249**	P		**P**	**18 34 08.8**	**-1.5**
STKA	**Stephens Creek**	**34.35**	**249**	P		**P**	**18 34 11.2**	**+0.9**
	comp=Z,52nm,1.7s							
PMG	**Port Moresby**	**34.40**	**290**	P		**P**	**18 34 09.1**	**-1.8**
PMG	**Port Moresby**	**34.40**	**290**	P		**P**	**18 34 11.5**	**+0.6**
	comp=Z,28nm,1.1s							
INKA	**Innaminka**	**35.11**	**256**			**P**	**18 34 15.7**	**-1.0**
INKA					IAmb	IAmb	18 34 19.3	
	comp=Z,4.6nm,1.0s							
COEN	**Coen**	**35.94**	**280**	P		**P**	**18 34 20.5**	**-3.3**
BBOO	**Buckleboo**	**39.07**	**247**	P		**P**	**18 34 48.1**	**-0.9**
BBOO					IAmb	IAmb	18 35 08.0	
	comp=Z,3.4nm,0.8s							
BBOO	**Buckleboo**	**39.07**	**247**	P		**P**	**18 34 49.0**	**0.0**
	comp=Z,23nm,2.0s							
AS31	**Alice Springs**	**41.73**	**261**			**P**	**18 35 10.6**	**0.0**
ASAR	**Alice Springs**	**41.73**	**261**	P		**P**	**18 35 10.9**	**+0.4**
	comp=Z,4.7nm,0.7s,baz=91,slow=7.9,SNR=126							
ASAR					ScP	**ScP**	**18 39 58.5**	**+4.2**
	comp=Z,0.8nm,0.8s,baz=110,slow=3.9,SNR=4.7							
ASAR					S	**S**	**18 40 49.6**	**+0.2**
	comp=Z,0.7nm,0.8s,baz=93,slow=14,SNR=5.9							
	comp=Z,4.7nm,0.7s							
ASAR	**Alice Springs**	**41.73**	**261**	P		**P**	**18 35 09.0**	**-1.6**
WR8	**Warramunga Arr**	**41.99**	**267**			**P**	**18 35 11.8**	**-0.8**
WR8					IAmb	IAmb	18 35 13.1	
	comp=Z,6.8nm,0.8s							
WRAB	**Tennant Creek**	**42.13**	**267**	P		**P**	**18 35 13.3**	**-0.4**
WRAB	**Tennant Creek**	**42.13**	**267**	P		**P**	**18 35 12.2**	**-1.5**
WRAB					IAmb	IAmb	18 35 13.8	
	comp=Z,9.7nm,0.5s							
WRAB	**Tennant Creek**	**42.13**	**267**	P		**P**	**18 35 13.4**	**-0.3**
	comp=Z,18nm,0.8s							
WB0	**Warramunga Arr**	**42.13**	**267**			**P**	**18 35 12.7**	**-1.1**
WRA	**Warramunga Arr**	**42.14**	**267**	P		**P**	**18 35 13.6**	**-0.2**
	comp=Z,10nm,0.5s,baz=104,slow=8.2,SNR=106							
WRA					ScP	**ScP**	**18 40 00.9**	**+4.9**
	comp=Z,2.6nm,0.9s,baz=97,slow=3.9,SNR=13							
WRA					S	**S**	**18 40 52.8**	**-2.6**
	comp=Z,1.3nm,1.0s,baz=108,slow=14,SNR=7.0							
	comp=Z,10nm,0.5s							
WRA	**Warramunga Arr**	**42.14**	**267**			**P**	**18 35 11.7**	**-2.1**
WRA					ScP	**ScP**	**18 40 00.8**	**+4.8**
FORT	**Forrest**	**45.95**	**250**	P		**P**	**18 35 41.3**	**-1.7**
FORT					IAmb	IAmb	18 35 43.9	
	comp=Z,12nm,0.7s							
MTN	**Manton Dam**	**47.25**	**275**	P		**P**	**18 35 51.0**	**-2.0**
KNRA	**Kununurra**	**48.45**	**270**	P		**P**	**18 36 00.4**	**-1.6**
KNRA					IAmb	IAmb	18 36 03.2	
	comp=Z,5.8nm,0.8s							
FAKI	**Fak Fak**	**50.47**	**287**	P		**P**	**18 36 17.5**	**+0.5**
FITZ	**Fitzroy Crossi**	**50.56**	**266**	P		**P**	**18 36 18.0**	**+0.5**
	comp=Z,3.5nm,0.8s							
KLBR	**Kellerberrin**	**54.61**	**248**	P		**P**	**18 36 46.5**	**0.0**
	comp=Z,18nm,1.1s							
SOEI	**Soe**	**54.64**	**275**	P		**P**	**18 36 47.2**	**+0.2**
SANI	**Sanana**	**56.37**	**285**	P		**P**	**18 36 58.4**	**-0.5**
	comp=Z,8.0nm,0.8s							
MORW	**Morawa**	**56.51**	**250**	P		**P**	**18 36 59.6**	**0.0**
	comp=Z,10nm,1.8s							
MMRI	**Maumere**	**56.92**	**276**	P		**P**	**18 37 04.0**	**+1.4**
	comp=Z,29nm,1.1s							
EDFI	**Ende, Flores**	**57.37**	**275**	P		**P**	**18 37 05.8**	**-0.1**
	comp=Z,20nm,0.8s							
BKSI	**Bulukumba**	**60.18**	**278**	P		**P**	**18 37 24.7**	**+0.1**
	comp=Z,11nm,0.7s							
DBNI	**Kabupaten Domp**	**60.54**	**274**	P		**P**	**18 37 26.9**	**-0.2**
	comp=Z,13nm,0.8s							
PLAI	**Plampang**	**60.90**	**273**	P		**P**	**18 37 29.6**	**+0.2**
PLAI	**Plampang**	**60.90**	**273**	P		**P**	**18 37 29.5**	**0.0**
	comp=Z,27nm,1.0s							
TOLI2	**Tolitoli**	**62.45**	**285**	P		**P**	**18 37 39.7**	**+0.2**
KKM	**Kota Kinabalu**	**68.79**	**287**	P		**P**	**18 38 19.6**	**+0.3**
PETK	**Petropavlovsk-**	**79.43**	**347**	P		**P**	**18 39 18.9**	**+0.5**
	comp=Z,8.1nm,0.9s,baz=225,slow=7.8,SNR=5.2							
	comp=Z,8.1nm,0.9s							
KULM	**Kulim**	**82.27**	**279**	P		**P**	**18 39 34.4**	**+0.3**
TROLL	**Troll, Antarti**	**83.93**	**181**	⇑P		**P**	**18 39 42.3**	**+0.8**
	comp=Z,152nm,0.6s							
O03E	**Paynes Creek**	**84.18**	**41**	P		**P**	**18 39 43.2**	**+0.1**
O03E					IAmb	IAmb	18 39 45.5	
	comp=Z,5.9nm,0.9s							
VNA3	**Neumayer Olymp**	**84.49**	**177**	⇑P		**P**	**18 39 44.6**	**+0.5**
	comp=Z,1.1nm,0.5s							
IRM	**Iron Mountain**	**84.86**	**49**			**P**	**18 39 47.9**	**+1.4**
IRM					IAmb	IAmb	18 39 48.5	
	comp=Z,3.5nm,0.8s							
VNA2	**Neumayer--Watz**	**84.90**	**178**	⇑P		**P**	**18 39 46.9**	**+0.8**
	comp=Z,1.9nm,0.8s,baz=183,slow=5.2							
HSIG		**85.14**	**55**		IAmb	IAmb	18 39 50.1	
	comp=Z,7.3nm,0.8s							
NVAR	**Mina Array Bea**	**85.21**	**44**	P		**P**	**18 39 49.1**	**+0.7**
	comp=Z,1.5nm,0.7s,baz=225,slow=7.8,SNR=9.4							
	comp=Z,1.5nm,0.7s							
NVAR	**Mina Array Bea**	**85.21**	**44**	P		**P**	**18 39 48.4**	**+0.1**
LHMI	**Lhok Sumawe**	**85.58**	**278**	P		**P**	**18 39 50.4**	**0.0**
TPNV	**Topopah Spring**	**85.68**	**46**		IAmb	IAmb	18 39 52.5	
	comp=Z,3.4nm,0.8s							
KVN	**Kaiserville**	**85.70**	**44**		IAmb	IAmb	18 39 52.2	
	comp=Z,3.2nm,0.7s							
WVOR	**Wild Horse Val**	**87.37**	**41**	P		**P**	**18 39 59.8**	**+1.4**
	comp=Z,5.5nm,1.4s							
SEY	**Seymchan**	**89.61**	**348**	P		**P**	**18 40 08.5**	**+0.4**
	comp=Z,1.7nm,0.6s,baz=162,slow=7.8,SNR=8.0							
	comp=Z,1.7nm,0.6s							
HHC	**Hu-ho-hao-te**	**90.53**	**315**	*e*P		**P**	**18 40 16.3**	**+3.2**
HHC					pmax	pmax		
	comp=Z,6.0nm,0.5s							
TXAR	**Lajitas Array**	**90.85**	**58**	P		**P**	**18 40 16.4**	**+1.6**
	comp=Z,2.6nm,0.7s,baz=212,slow=6.4,SNR=30							
	comp=Z,2.6nm,0.7s							
TXAR	**Lajitas Array**	**90.85**	**58**	P		**P**	**18 40 16.0**	**+1.2**
ILAR	**Eielson Array**	**92.48**	**14**	P		**P**	**18 40 20.6**	**-0.8**
	comp=Z,0.4nm,0.6s,baz=219,slow=5.3,SNR=7.6							
	comp=Z,0.4nm,0.6s							
PDAR	**Pinedale Array**	**93.14**	**44**	P		**P**	**18 40 25.6**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=214,slow=3.3,SNR=6.5							
	comp=Z,0.8nm,0.8s							
ZALV	**Zalesovo Beam**	**112.11**	**321**	PKiKP		**PKiKP**	**18 45 42.2**	**-0.2**
	comp=Z,0.5nm,0.4s,baz=97,slow=2.7,SNR=3.8							
MKAR	**Makanchi Array**	**112.25**	**313**	PKiKP		**PKiKP**	**18 45 41.7**	**-1.3**
	comp=Z,0.4nm,0.5s,baz=117,slow=2.2,SNR=5.2							
KURBB	**Kurchatov Arra**	**115.37**	**316**	PKP		**PKPdf**	**18 45 48.1**	**-0.7**
	comp=Z,0.5nm,0.5s,baz=106,slow=1.7,SNR=6.8							
BVAR	**Borovoye

	comp=Z,13nm,0.7s							
EVN	**Everest**	**8.80**	**313**	P		**Pn**	**18 30 26.2**	**-3.2**
	comp=Z,25nm,0.6s							
SLVN	**Son La**	**9.12**	**93**	P		**Pn**	**18 30 35.0**	**+1.7**
	comp=Z,6.5nm,1.4s							
PALK	**Pallekele**	**19.65**	**223**	LR		LR	18 40 51.0	
	comp=Z,20nm,21.1s,baz=324,slow=39							
MKAR	**Makanchi Array**	**26.40**	**342**	P		**P**	**18 33 56.0**	**+1.3**
	comp=Z,0.6nm,0.5s,baz=154,slow=9.6,SNR=5.0							
MKAR				pP		**sP**	**18 34 17.7**	**-0.3**
	comp=Z,1.4nm,0.6s,baz=150,slow=9.6,SNR=4.7							
	comp=Z,0.6nm,0.5s							
ZALV	**Zalesovo Beam**	**32.53**	**350**	P		**P**	**18 34 53.2**	**+4.3**
	comp=Z,0.7nm,0.3s,baz=168,slow=8.2,SNR=4.3							
ZALV				pP		**sP**	**18 35 12.6**	**+0.3**
	comp=Z,0.5nm,0.4s,baz=174,slow=10,SNR=3.7							
	comp=Z,0.7nm,0.3s							
AKASG	**Malin Array Be**	**57.37**	**317**	P		**P**	**18 38 06.0**	**+0.2**
	comp=Z,0.2nm,0.3s,baz=85,slow=7.2,SNR=2.2							
	comp=Z,0.2nm,0.3s							
WRA	**Warramunga Arr**	**57.38**	**134**	P		**P**	**18 38 04.7**	**-1.7**
	comp=Z,0.4nm,0.3s,baz=321,slow=7.4,SNR=11							
WRA				PcP		**PcP**	**18 38 57.3**	**-2.5**
	comp=Z,0.3nm,0.5s,baz=297,slow=4.1,SNR=2.9							
	comp=Z,0.4nm,0.3s							
ASAR	**Alice Springs**	**59.75**	**137**	P		**P**	**18 38 21.4**	**-1.4**
	comp=Z,0.5nm,0.5s,baz=322,slow=7.3,SNR=5.0							
ASAR				PcP		**PcP**	**18 39 06.9**	**-2.2**
	comp=Z,0.4nm,0.6s,baz=320,slow=4.0,SNR=2.3							
	comp=Z,0.5nm,0.5s							
FINES	**FINESS Array B**	**60.32**	**329**	P		**P**	**18 38 27.4**	**+1.3**
	comp=Z,7.7nm,1.1s,baz=68,slow=5.9,SNR=2.5							
	comp=Z,7.7nm,1.1s							
ARCES	**ARCESS Array B**	**61.99**	**338**	P		**P**	**18 38 37.8**	**+0.5**
	comp=Z,1.6nm,0.7s,baz=96,slow=8.3,SNR=5.0							
	comp=Z,1.6nm,0.7s							
GERES	**GERESS Array B**	**67.47**	**315**	P		**P**	**18 39 11.4**	**-2.1**
	comp=Z,0.3nm,0.6s,baz=77,slow=7.9,SNR=4.3							
	comp=Z,0.3nm,0.6s							

*SNET **22** 18:41:13.9±3.4, 15°.80N×90°.42W, h35km, ML3.3, Presumed earthquake*
*GCG **22** 18:41:15.4±2.2, 15°.47N×90°.27W, h4km±22km, MD4.1, Presumed earthquake*

ISC 22 18:41:12.7±1.4, 15°.66N±0°.09×90°.21W±0°.07, h4km, n8, σ0§81/12, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
AVCB	**Coban**	**0.26**	**224**	*i*	S	**Sg**	**18 41 21.3**	**-0.1**
JUAM	**Asuncion Mita**	**1.41**	**160**	*i*	P	**Pb**	**18 41 40.0**	**+0.5**
MTO3	**Montecristo**	**1.50**	**147**	*i*	P	**Pn**	**18 41 40.5**	**-0.2**
MTO3				*i*	S	**Sn**	**18 41 58.8**	**-2.0**
MTO3	**Montecristo**	**1.50**	**147**	*e*	P	**Pn**	**18 41 40.7**	**+0.1**
MTO3				*e*	S	**Sb**	**18 42 01.5**	**+0.8**
SARH	**Santa Rosa de**	**1.66**	**122**	*i*	P	**Pb**	**18 41 43.9**	**+0.1**
SARH				*i*	S	**Sn**	**18 42 04.3**	**-0.1**
NUBE	**Las Nubes**	**1.80**	**166**	*i*	P	**Pn**	**18 41 45.6**	**+0.9**
NUBE	**Las Nubes**	**1.80**	**166**	*e*	P	**Pb**	**18 41 46.0**	**-0.4**
NUBE				*e*	S	**Sg**	**18 42 10.7**	**+0.1**
CCIG	**Comitan**	**1.95**	**289**	*i*	P	**Pg**	**18 41 50.1**	**-0.1**

*IDC **22** 18:44:23.6±7.5, 36°.80N×71°.35E, h124km±67km, mb3.0/2, mbtmp3.5/8, Error ellipse: s-maj=57.7km s-min=45.1km az=44.0*
*NNC **22** 18:44:23.7±4.8, 36°.94N×70°.86E, h90km±83km, mb3.1, mpv3.6, Error ellipse: s-maj=43.0km s-min=30.3km az=157.0*

ISC 22 18:44:20.1±1.4, 36°.7N±0°.1×71°.0E±0°.1, h100km, n12, σ1§34/15, 4C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.38**	**357**	⇑P		**Pn**	**18 45 52.5**	**+0.9**
	2.4nm,0.3s,baz=176,slow=12,SNR=108							
KK31				⇑S		**Sn**	**18 47 01.6**	**-1.3**
	8.3nm,0.5s,baz=178,slow=22,SNR=7.9							
AAK	**Ala-Archa**	**6.49**	**23**	P		**Pn**	**18 45 54.4**	**+1.3**
	9.9nm,0.4s,baz=205,slow=9.3,SNR=50							
AAK				S		**Sn**	**18 47 05.7**	**+0.1**
	5.8nm,0.6s,baz=123,slow=19,SNR=5.9							
AAK	**Ala-Archa**	**6.49**	**23**	⇓P		**Pn**	**18 45 54.4**	**+1.3**
	1.9nm,0.4s							
AAK				⇑S		**Sn**	**18 47 06.3**	**+0.6**
	2.3nm,0.6s							
MKAR	**Makanchi Array**	**13.10**	**36**	P		**Pn**	**18 47 22.3**	**0.0**
	0.7nm,0.6s,baz=224,slow=14,SNR=3.6							
AB31	**Akbulak array**	**14.89**	**331**	⇓P		**Pn**	**18 47 44.1**	**-1.1**
	0.3nm,0.3s,baz=258,slow=36,SNR=25							
KURBB	**Kurchatov Arra**	**14.90**	**19**	P		**P**	**18 47 46.7**	**-1.8**
	0.2nm,0.3s,baz=208,slow=10,SNR=4.3							
BVAR	**Borovoye Array**	**16.30**	**359**	P		**P**	**18 48 04.1**	**0.0**
	0.7nm,0.5s,baz=184,slow=13,SNR=4.9							
AKTO	**Aktyubinsk**	**16.59**	**330**	P		**P**	**18 48 09.6**	**+2.4**
	0.9nm,0.4s,baz=168,slow=9.3,SNR=3.1							
AKTO	**Aktyubinsk**	**16.59**	**330**	⇑P		**P**	**18 48 09.4**	**+2.2**
	0.5nm,0.6s							
ZALV	**Zalesovo Beam**	**19.70**	**25**	P		**P**	**18 48 41.0**	**-0.3**
	0.6nm,0.3s,baz=212,slow=10,SNR=5.9							
WRA	**Warramunga Arr**	**82.10**	**122**	P		**P**	**18 56 29.4**	**-0.3**
	0.2nm,0.7s,baz=320,slow=5.3,SNR=1.5							
	0.2nm,0.7s							
ASAR	**Alice Springs**	**84.38**	**125**	P		**P**	**18 56 41.3**	**-0.1**
	0.2nm,0.6s,baz=304,slow=5.2,SNR=2.3							
	0.2nm,0.6s							

*ISK **22** 18:46:39.6, 41°.54N×43°.49E, h5km, ML2.0/5*
*AFAD **22** 18:46:40.9, 41°.48N×43°.43E, h6km±3km, ML2.0*
*NORS **22** 18:46:41.2, 41°.53N×43°.57E, h2km, MPVA3.2*

ISC 22 18:46:40.7±1.1, 41°.51N±0°.02×43°.46E±0°.03, h7km±10km, n21, σ0§91/41, Turkey-Georgia-Armenia border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
EPOS	**Posof**	**0.55**	**269**	P		**Pg**	**18 46 51.8**	**+0.4**
EPOS				S		**Sg**	**18 46 59.2**	**+0.7**
EAK	**Akyaka**	**0.83**	**172**	P		**Pg**	**18 46 56.0**	**-0.7**
EAK				S		**Sg**	**18 47 06.8**	**-0.7**
KARS	**Kars**	**0.93**	**198**	Pg		**Pg**	**18 46 58.8**	**+0.3**
KARS				Sg		**Sb**	**18 47 12.5**	**+0.6**
GOLE	**Ardahan-G¶le**	**0.94**	**224**	P		**Pg**	**18 46 59.0**	**+0.3**
GOLE				IAML			18 47 12.0	
	comp=N,90nm,0.2s							
GOLE				IAML			18 47 12.0	
	comp=E,40nm,0.1s							
GOLE				S		**Sg**	**18 47 12.2**	**+1.3**
TBLG	**Delisi**	**0.98**	**77**	Pg		**Pg**	**18 46 58.4**	**-1.1**
TBLG				Sg		**Sg**	**18 47 11.9**	**-0.4**
TBLG				AML		AML		
BOZK	**Kars-Merkez-Bo**	**0.99**	**202**	P		**Pg**	**18 46 59.5**	**-0.2**
BOZK				S		**Sg**	**18 47 12.9**	**+0.3**
DIGO	**Kars**	**1.10**	**183**	P		**Pg**	**18 47 01.0**	**-0.7**
DIGO				S		**Sg**	**18 47 14.4**	**-1.6**
DIGO				IAML			18 47 20.0	
	comp=N,41nm,0.4s							
DIGO				IAML			18 47 20.0	
	comp=E,66nm,0.4s							
DAGI	**Agillar**	**1.24**	**250**	P		**Pg**	**18 47 04.3**	**-0.2**
DAGI				S		**Sg**	**18 47 20.1**	**-0.5**
SENK	**Senkaya-Erzuru**	**1.27**	**222**	Pn		**Pg**	**18 47 04.9**	**-0.1**
SENK				Sn		**Sn**	**18 47 23.5**	**+1.0**
DBOC	**Borcka**	**1.36**	**264**	P		**Pn**	**18 47 05.4**	**-0.8**
DBOC				S		**Sb**	**18 47 22.6**	**-1.5**
DBOC				IAML			18 47 47.0	
	comp=E,23nm,1.4s							
DIGR	**Digorskoe uzhe**	**1.39**	**4**	*e*Pg		**Pn**	**18 47 06.4**	**-0.4**
DIGR				*e*Sg		**Sn**	**18 47 25.7**	**+0.2**
DBAD	**Bademkaya**	**1.42**	**250**	P		**Pn**	**18 47 07.3**	**+0.2**
DBAD				S		**Sb**	**18 47 23.2**	**-2.7**
DBAD				IAML			18 47 29.0	
	comp=N,20nm,0.5s							
DDEM	**Demirkent**	**1.43**	**245**	P		**Pn**	**18 47 08.0**	**+0.8**
DDEM				S		**Sb**	**18 47 26.0**	**-0.2**
DDEM				IAML			18 47 29.0	
	comp=N,52nm,0.5s							
DDEM				IAML			18 47 30.0	
	comp=E,34nm,0.3s							
LACR	**Lac**	**1.45**	**25**	*e*Pg		**Pn**	**18 47 07.1**	**-0.5**
LACR				*e*Sg		**Sg**	**18 47 27.0**	**-0.4**
KORR	**Kora**	**1.64**	**16**	*e*Pg		**Pg**	**18 47 12.2**	**+0.1**
KORR				*e*Sg		**Sg**	**18 47 34.0**	**+0.7**
GNI	**Garni**	**1.67**	**144**	*e*Pg		**Pg**	**18 47 14.0**	**+1.3**
GNI				*e*Sg		**Sg**	**18 47 35.1**	**+0.7**
GNI	**Garni**	**1.67**	**144**	Pn		**Pn**	**18 47 10.4**	**-0.2**
GNI				Sn		**Sb**	**18 47 34.0**	**+0.7**
GNI				AML		AML		
VLKR	**Vladikavkaz**	**1.78**	**30**	*e*Pg		**Pg**	**18 47 14.5**	**-0.3**
VLKR				*e*Sg		**Sg**	**18 47 40.2**	**+2.3**
LSNR	**Lesken**	**1.79**	**9**	*e*Pg		**Pg**	**18 47 14.7**	**-0.2**
LSNR				*e*Sg		**Sg**	**18 47 38.7**	**+0.7**
NEUR	**Neytrino**	**1.84**	**342**	*e*Pg		**Pb**	**18 47 14.7**	**-0.1**
NEUR				*e*Sg		**Sb**	**18 47 38.2**	**+0.2**
AGRB	**Hanur-Agry**	**1.97**	**191**	Pn		**Pn**	**18 47 14.9**	**+0.2**

*ISK **22** 18:49:30.7, 37°.81N×27°.00E, h8km, ML2.5/12*
*AFAD **22** 18:49:31.0, 37°.81N×26°.98E, h7km±2km, ML2.2*
*THE **22** 18:49:32.1, 38°.N±1°×27°.0E±0°.7, h4km±1km, M2.3/7, MLh2.3/7*

ISC 22 18:49:31.5±0.9, 37°.81N±0°.02×27°.01E±0°.03, h12km±7km, n27, σ0§41/43, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.17**	**233**	P		**Pg**	**18 49 35.2**	**0.0**
SMG				S		**Sg**	**18 49 37.4**	**-0.5**
SMG				AML		AML		
GCAM	**G?zelcaml?**	**0.21**	**121**	P		**Pg**	**18 49 36.2**	**+0.1**
GCAM				S		**Sg**	**18 49 39.1**	**0.0**
GCAM				IAML			18 49 40.0	
	comp=N,664nm,0.3s							
GCAM				IAML			18 49 40.0	
	comp=E,488nm,0.3s							
GCAM	**G?zelcaml?**	**0.21**	**121**	Pg		**Pg**	**18 49 36.1**	**+0.1**
GCAM				Sg		**Sg**	**18 49 39.5**	**+0.4**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**77**	Pg		**Pg**	**18 49 35.9**	**-0.4**
KUSD				Sg		**Sg**	**18 49 39.1**	**-0.5**
KUSD				AML		AML		
DGB	**zmir**	**0.26**	**338**	P		**Pg**	**18 49 36.6**	**-0.3**
DGB				S		**Sg**	**18 49 40.2**	**-0.4**
GMLD	**Gumuldur**	**0.28**	**345**	Pg		**Pg**	**18 49 36.9**	**-0.3**
GMLD				Sg		**Sg**	**18 49 41.2**	**+0.2**
GMLD				AML		AML		
BEYE	**izmir**	**0.42**	**352**	P		**Pg**	**18 49 39.6**	**-0.2**
BEYE				S		**Sg**	**18 49 45.5**	**0.0**
DUVT	**Torbali**	**0.54**	**40**	P		**Pg**	**18 49 42.0**	**-0.1**
DUVT				S		**Sg**	**18 49 48.6**	**-0.5**
DUVT				IAML			18 49 52.0	
	comp=E,146nm,0.5s							
BLCB	**Balcova**	**0.57**	**3**	P		**Pg**	**18 49 42.3**	**-0.4**
BLCB				S		**Sb**	**18 49 51.6**	**-0.1**
BLCB				AML		AML		
BLCB	**Balcova**	**0.57**	**3**	Pg		**Pg**	**18 49 42.3**	**-0.4**
BLCB				Sg		**Sg**	**18 49 50.7**	**+0.4**
BLCB				AML		AML		
ZEYE	**Izmir, Urla-Ze**	**0.58**	**317**	P		**Pg**	**18 49 42.0**	**-0.8**
ZEYE				S		**Sg**	**18 49 50.8**	**+0.2**
ZEYE				IAML			18 49 53.0	
	comp=E,129nm,0.2s							
AYDB	**Zeytinkoy-Aydi**	**0.71**	**79**	Pg		**Pg**	**18 49 44.9**	**-0.4**
AYDB				AML		AML		
BODT	**Bodrum**	**0.79**	**162**	P		**Pg**	**18 49 46.3**	**-0.3**
BODT				AML		AML		
BODT	**Bodrum**	**0.79**	**162**	Pg		**Pg**	**18 49 45.8**	**-0.8**
BODT				AML		AML		
MLSB	**Milas**	**0.80**	**130**	Pg		**Pg**	**18 49 46.4**	**-0.5**
MLSB				AML		AML		
BODA	**Bodrum-Mula**	**0.84**	**156**	Pg		**Pg**	**18 49 47.6**	**-0.2**
BAGT	**Foa**	**0.85**	**352**	P		**Pb**	**18 49 48.3**	**+0.1**
BAGT				S		**Sb**	**18 49 59.2**	**-0.4**
BAGT				IAML			18 50 02.0	
	comp=N,168nm,1.5s							
BAGT				IAML			18 50 05.0	
	comp=E,109nm,0.6s							
CHOS	**Chios island**	**0.95**	**308**	P		**Pb**	**18 49 50.2**	**+0.3**
CHOS				S		**Sb**	**18 50 02.9**	**+0.6**
CHOS	**Chios island**	**0.95**	**308**	Pg		**Pg**	**18 49 49.3**	**-0.4**
CHOS				AML		AML		
CAMT	**Merkez**	**0.97**	**14**	P		**Pg**	**18 49 49.9**	**-0.3**
CAMT				S		**Sb**	**18 50 03.4**	**+0.5**
CAMT				IAML			18 50 07.0	
	comp=N,97nm,0.6s							
CAMT				IAML			18 50 08.0	
	comp=E,118nm,0.7s							
KARB	**zmir-Karabur**	**0.97**	**331**	P		**Pg**	**18 49 49.8**	**-0.4**
KARB				S		**Sb**	**18 50 03.3**	**+0.2**
KARB				IAML			18 50 06.0	
	comp=E,71nm,0.6s							
NAZL	**Nazilli-Aydin**	**1.03**	**81**	Pg		**Pg**	**18 49 51.1**	**-0.2**
NAZL				AML		AML		
ZEDA	**zmir-Bergama**	**1.16**	**3**	P		**Pg**	**18 49 53.1**	**-0.6**
ZEDA				S		**Sn**	**18 50 09.3**	**0.0**
ZEDA				IAML			18 50 11.0	
	comp=E,57nm,0.5s							
ZEDA				IAML			18 50 12.0	
	comp=N,42nm,0.3s							
DAT	**Datca**	**1.17**	**157**	Pn		**Pb**	**18 49 53.6**	**-0.1**
DAT				AML		AML		
YER	**Yerkesik**	**1.22**	**123**	P		**Pn**	**18 49 54.7**	**+0.3**
YER	**Yerkesik**	**1.22**	**123**	Pn		**Pg**	**18 49 54.1**	**-0.8**
YER				AML		AML		
TURN	**Turunc**	**1.43**	**136**	Pn		**Pn**	**18 49 57.6**	**+0.4**
TURN				AML		AML		

*IDC **22** 18:52:59.1±1.8, 31°.43N×90°.56E, h0km, mb3.1/4, mbtmp3.2/6, ML3.5/2, MS3.3/1, Error ellipse: s-maj=75.8km s-min=19.0km az=68.0*

ISC 22 18:53:03.9±2.1, 31°.6N±0°.5×9°1E±°, h35km, n8, σ2§46/6, mb3.4/4, Xizang

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.93**	**149**	Pn		**Pn**	**18 56 30.4**	**-2.0**
	0.2nm,0.3s,baz=325,slow=12,SNR=4.2							
	0.2nm,0.4s							
CMAR				AML		AML		
MKAR	**Makanchi Array**	**16.59**	**339**	Pn		**Pn**	**18 56 52.2**	**-1.5**
	baz=154,slow=12,SNR=2.5							
	1.1nm,0.9s							
SONM	**Songino Array**	**20.04**	**32**	P		Pn	18 57 37.6	+1.7
	0.2nm,0.6s,baz=204,slow=13,SNR=3.0							
	0.2nm,0.6s							
KURBB	**Kurchatov Arra**	**21.15**	**338**	P		**P**	**18 57 46.7**	**+1.0**
	1.1nm,0.2s,baz=149,slow=9.8,SNR=2.4							
ZALV	**Zalesovo Beam**	**22.79**	**351**	P		**P**	**18 58 02.8**	**-0.4**
	0.6nm,0.5s,baz=163,slow=10,SNR=3.6							
	0.6nm,0.5s							
ASAJ	**Asahikawa**	**42.00**	**58**	LR		LR	19 20 03.7	
	comp=Z,32nm,19.1s,baz=201,slow=38							
WRA	**Warramunga Arr**	**65.99**	**135**	P		**P**	**19 03 47.8**	**+0.9**
	0.1nm,0.5s,baz=318,slow=5.9,SNR=1.5							
	0.1nm,0.5s							
ASAR	**Alice Springs**	**68.60**	**138**	P		**P**	**19 04 06.6**	**+3.2**
	0.2nm,0.5s,baz=311,slow=5.9,SNR=4.2							
	0.2nm,0.5s							

*IDC **22** 19:25:28.8±1.2, 38°.77S×178°.04E, h0km, mb4.2/4, mbtmp4.1/6, ML3.5/2, MS3.5/5, Error ellipse: s-maj=21.1km s-min=18.1km az=64.0*
*NEIC **22** 19:25:29.8±2.3, 38°.76S±0°.03×178°.01E±0°.06, h10km±5km, mb4.4/16, Error ellipse: s-maj=6.9km s-min=3.9km az=103.0*
*NOU **22** 19:25:30.9, 38°.81S×178°.10E, h9km, MLv4.2/17, Off E. Coast of N. Island, N.Z.*
*WEL **22** 19:25:34.4, 38°.58S×177°.86E, ML4.2, Mw4.2, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}=1.83; $M_{\theta\theta}$=1.35; $M_{\phi\phi}$=1.27; $M_{r\theta}$=0.19; $M_{\theta\phi}$=0.56; $M_{\phi r}$=1.59; Fault plane solution: M_o2.50000×10^{15} NP1: ϕ_s=174.00000°, δ=68.00000°, λ=-84.00000°. NP2: ϕ_s=338.00000°, δ=23.00000°, λ=-105.00000°. Principal axes: T 2.6759, Plg22.0000°, Azm259.0000°; N -0.8150, Plg6.0000°, Azm352.0000°; P -1.8610, Plg67.0000°, Azm95.0000°; Stations used: BFZ BKZ GRZ HAZ HIZ KHEZ KNZ MKAZ MRZ MWZ MXZ OPRZ NORMAL FAULTING*
*WEL **22** 19:25:35.2±0.3, 39°S±2°×17°8E±°, h12km, M4.4/12, ML4.4/12, MLv4.4/12 Error ellipse: s-maj=3.4km s-min=3.0km az=69.5*

ISC 22 19:25:33.3±0.7, 38°.66S±0°.03×177°.93E±0°.03, h32km±4km, n154, σ1§62/153, mb4.3/14, MS3.5/5, 2C, North Island

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GWTS	**Gisborne Waipa**	**0.03**	**351**	P		**Pb**	**19 25 39.0**	**+0.4**
GWTS				S		**Sb**	**19 25 44.2**	**+2.0**
GHHS	**Gisborne Hospi**	**0.07**	**77**	P		**Pb**	**19 25 39.5**	**+0.8**
GISS	**Gisborne 2ZG**	**0.07**	**97**	P		**Pb**	**19 25 39.6**	**+0.9**
GISS				S		**Sb**	**19 25 45.3**	**+2.9**
GKBS	**Kaiti Beach**	**0.09**	**107**	P		**Pb**	**19 25 39.9**	**+1.2**
GKBS				S		**Sb**	**19 25 44.9**	**+2.4**
RIGZ	**Rimuhau**	**0.14**	**250**	P		**Pb**	**19 25 39.6**	**+0.4**
RIGZ				S		**Sb**	**19 25 44.2**	**+1.0**
RIGZ				AML		AML		
RIGZ				AML		AML		
TKGZ	**Te Karaka**	**0.23**	**344**	P		**Pb**	**19 25 39.6**	**-0.4**
TKGZ				S		**Sb**	**19 25 44.1**	**-0.5**
TKGZ				AML		AML		
TKGZ				AML		AML		
PRGZ	**Paritu Road**	**0.27**	**187**	P		**Pn**	**19 25 42.7**	**+1.6**
PRGZ				S		**Sn**	**19 25 50.3**	**+4.1**
PRGZ				AML		AML		
PRGZ				AML		AML		
CNGZ	**Carnagh Statio**	**0.28**	**52**	P		**Pn**	**19 25 42.5**	**+1.3**
CNGZ				AML		AML		
CNGZ				AML		AML		
TBAS	**Tolaga Bay Are**	**0.41**	**46**	P		**Pn**	**19 25 44.4**	**+1.5**
KNZ	**Kokohu**	**0.41**	**209**	P		**Pn**	**19 25 44.5**	**+1.4**
KNZ				AML		AML		
KNZ				AML		AML		
RAGZ	**Rawiri**	**0.43**	**292**	P		**Pb**	**19 25 43.0**	**+0.1**
RAGZ				S		**Sb**	**19 25 50.0**	**+0.6**
RAGZ				AML		AML		
RAGZ				AML		AML		
MWZ	**Matawai**	**0.45**	**316**	P		**Pb**	**19 25 42.9**	**-0.2**
MWZ				AML		AML		
MWZ				AML		AML		
TWGZ	**Tauwhareparae**	**0.48**	**5**	P		**Pn**	**19 25 44.5**	**+0.4**
TWGZ				AML		AML		
TWGZ				AML		AML		
MHGZ	**Mahia Peninsul**	**0.49**	**182**	P		**Pn**	**19 25 46.3**	**+2.1**
MHGZ				AML		AML		
MHGZ				AML		AML		
WFSS	**Wairoa Fire St**	**0.54**	**226**	P		**Pn**	**19 25 46.9**	**+2.1**
PUZ	**Puketiti**	**0.64**	**24**	P		**Pb**	**19 25 47.0**	**+0.9**
PUZ				AML		AML		
PUZ				AML		AML		
WHHZ	**Waihua**	**0.68**	**232**	P		**Pb**	**19 25 48.5**	**+1.7**
WHHZ				AML		AML		
WHHZ				AML		AML		
RAHZ	**Arahi**	**0.71**	**248**	P		**Pb**	**19 25 48.7**	**+1.4**
RAHZ				AML		AML		
RAHZ				AML		AML		
RUGZ	**Raukumara Rang**	**0.72**	**344**	P		**Pn**	**19 25 47.5**	**+0.1**
RUGZ				AML		AML		
RUGZ				AML		AML		
RTZ	**Ruatahuna**	**0.74**	**273**	Pn		**Pn**	**19 25 48.5**	**+0.9**
RTZ				Sn		**Sb**	**19 25 59.8**	**+2.1**
RTZ	**Ruatahuna**	**0.74**	**273**	P		**Pn**	**19 25 48.6**	**+0.9**
RTZ				AML		AML		
RTZ				AML		AML		
URZ	**Urewera**	**0.76**	**302**	Pg		**Pn**	**19 25 48.2**	**+0.5**
	763nm,0.3s,baz=134,slow=6.9,SNR=226							
URZ				Lg		Lg	19 25 58.2	
	799nm,0.3s,baz=180,slow=20,SNR=11							
URZ	**Urewera**	**0.76**	**302**	P		**Pn**	**19 25 47.9**	**+0.2**
URZ	**Urewera**	**0.76**	**302**	P		**Pn**	**19 25 48.2**	**+0.5**
URZ				AML		AML		
URZ				AML		AML		
MTHZ	**Maungataniwha**	**0.87**	**257**	P		**Pb**	**19 25 50.7**	**+0.7**
HAZ	**Te Kaha**	**0.91**	**353**	P		**Pn**	**19 25 50.4**	**+0.6**
MUGZ	**Murupara**	**0.93**	**281**	P		**Pn**	**19 25 51.4**	**+1.3**
ARHZ	**Aropaoanui**	**0.94**	**230**	P		**Pb**	**19 25 52.4**	**+1.2**
NMHZ	**Naumai**	**0.98**	**243**	P		**Pb**	**19 25 52.6**	**+0.8**
EDRZ	**Edgecumbe**	**1.08**	**300**	P		**Pn**	**19 25 53.9**	**+1.5**
WHRZ	**Whale Island**	**1.10**	**317**	P		**Pn**	**19 25 54.1**	**+1.6**
MXZ	**Matakaoa Point**	**1.13**	**15**	P		**Pb**	**19 25 54.3**	**-0.1**
MXZ	**Matakaoa Point**	**1.13**	**15**	S		**Sb**	**19 26 11.0**	**+2.3**
MXZ	**Matakaoa Point**	**1.13**	**15**			**Pb**	**19 25 54.0**	**-0.3**
MXZ				Sn		**Sb**	**19 26 09.3**	**+0.6**
MXZ	**Matakaoa Point**	**1.13**	**15**	P		**Pb**	**19 25 54.2**	**-0.1**
MXZ				AML		AML		
MXZ				AML		AML		
RRRZ	**Republican Roa**	**1.15**	**286**	P		**Pn**	**19 25 54.7**	**+1.5**
MARZ	**Manawahe**	**1.19**	**304**	P		**Pn**	**19 25 55.2**	**+1.4**
MRHZ	**Matea Rd**	**1.19**	**261**	P		**Pn**	**19 25 55.4**	**+1.6**
TARZ	**Mount Tarawera**	**1.19**	**290**	P		**Pn**	**19 25 55.6**	**+1.7**
CKHZ	**Cape Kidnapper**	**1.20**	**213**	P		**Pb**	**19 25 55.1**	**-0.4**
PRRZ	**Plateau Road**	**1.21**	**277**	P		**Pn**	**19 25 55.5**	**+1.4**
BKZ	**Black Stump Fm**	**1.23**	**245**	P		**Pn**	**19 25 55.2**	**+0.9**
BKZ	**Black Stump Fm**	**1.23**	**245**	S		**Sb**	**19 26 13.2**	**+1.7**
BKZ	**Black Stump Fm**	**1.23**	**245**	P		**Pn**	**19 25 55.9**	**+1.5**
MCHZ	**McNeill Hill**	**1.24**	**230**	P		**Pb**	**19 25 56.2**	**0.0**
ALRZ	**Allen Road**	**1.25**	**274**	P		**Pn**	**19 25 56.0**	**+1.4**
MKRZ	**Makatiti**	**1.26**	**294**	P		**Pn**	**19 25 56.9**	**+2.1**
WIZ	**White Island**	**1.27**	**332**	P		**Pn**	**19 25 56.1**	**+1.3**
HLRZ	**Highlands Stat**	**1.30**	**288**	P		**Pn**	**19 25 57.4**	**+2.1**
HRRZ	**Handcock Road**	**1.32**	**281**	P		**Pn**	**19 25 56.9**	**+1.4**
OPRZ	**Ohinepanea**	**1.35**	**307**	P		**Pn**	**19 25 56.7**	**+0.7**
LIRZ	**Lichensteins R**	**1.38**	**298**	P		**P

RPZ	**Rata Peaks**	**7.24**	**224**	Pn	**Pn**	**19 27 14.0**	**-2.8**	
	0.4nm,0.3s,baz=21,slow=13,SNR=5.6							
RPZ				Sn	**Sn**	**19 28 30.2**	**-7.7**	
	1.7nm,0.3s,baz=115,slow=21,SNR=15							
	1.6nm,0.6s							
RPZ				AML	AML			
RPZ	**Rata Peaks**	**7.24**	**224**	Pn	**Pn**	**19 27 14.8**	**-2.0**	
LBZ	**Lake Benmore**	**8.15**	**223**	Pn	**Pn**	**19 27 26.3**	**-3.1**	
ODZ	**Otahua Downs**	**8.38**	**218**	P	**Pn**	**19 27 31.5**	**-1.0**	
ODZ	**Otahua Downs**	**8.38**	**218**	Pn	Pn	**19 27 29.4**	**-3.0**	
JCZ	**Jackson Bay**	**8.74**	**229**	P	**Pn**	**19 27 37.4**	**-0.2**	
DZM	**Mont Dzumac**	**19.25**	**326**	P	**Pn**	**19 29 57.4**	**+1.1**	
	0.4nm,0.3s,baz=107,slow=17,SNR=2.2							
	7.6nm,1.0s							
DZM				AML	AML			
RAR	**Rarotonga**	**25.89**	**54**	LR	LR	19 39 48.7		
	comp=Z,71nm,18.4s,baz=280,slow=33							
STKA	**Stephens Creek**	**30.28**	**272**	P	**P**	**19 31 42.9**	**+1.4**	
	2.7nm,0.8s,baz=108,slow=16,SNR=3.9							
	2.7nm,0.8s							
STKA	**Stephens Creek**	**30.28**	**272**	P	**P**	**19 31 39.3**	**-2.3**	
INKA	**Innaminka**	**32.76**	**278**	P	**P**	**19 32 04.8**	**+1.4**	
INKA				IAmb	IAmb	19 32 06.2		
	comp=Z,4.0nm,0.6s							
BBOO	**Buckleboo**	**34.26**	**267**	P	**P**	**19 32 15.2**	**-1.3**	
AS31	**Alice Springs**	**40.14**	**279**	P	**P**	**19 33 04.8**	**-1.6**	
ASAR	**Alice Springs**	**40.14**	**279**	P	**P**	**19 33 06.9**	**+0.5**	
	comp=Z,6.4nm,0.7s,baz=122,slow=8.6,SNR=66							
ASAR				PcP	**PcP**	**19 35 09.6**	**-0.9**	
	comp=Z,0.2nm,0.4s,baz=103,slow=3.7,SNR=1.8							
ASAR				LR	LR	19 50 18.3		
	comp=Z,61nm,18.4s,baz=106,slow=37							
	comp=Z,6.4nm,0.7s							
ASAR	**Alice Springs**	**40.14**	**279**	P	**P**	**19 33 04.8**	**-1.6**	
ASAR				PcP	**PcP**	**19 35 11.0**	**+0.5**	
FORT	**Forrest**	**41.32**	**265**	P	**P**	**19 33 15.8**	**-0.2**	
FORT				IAmb	IAmb	19 33 25.6		
	comp=Z,8.4nm,0.9s							
WR8	**Warramunga Arr**	**41.76**	**284**	P	**P**	**19 33 19.3**	**-0.4**	
WRAB	**Tennant Creek**	**41.89**	**284**	P	**P**	**19 33 20.0**	**-0.8**	
WRAB				IAmb	IAmb	19 33 21.7		
	comp=Z,9.8nm,1.5s							
WRA	**Warramunga Arr**	**41.89**	**284**	P	**P**	**19 33 20.7**	**-0.1**	
	comp=Z,0.8nm,0.5s,baz=126,slow=7.1,SNR=15							
	comp=Z,0.8nm,0.5s							
WRA	**Warramunga Arr**	**41.89**	**284**	P	**P**	**19 33 20.2**	**-0.6**	
WB0	**Warramunga Arr**	**41.95**	**284**	P	**P**	**19 33 20.6**	**-0.8**	
WB0				IAmb	IAmb	19 33 34.9		
	comp=Z,6.8nm,1.4s							
KNRA	**Kununurra**	**48.69**	**284**	P	**P**	**19 34 12.4**	**-2.3**	
KNRA				IAmb	IAmb	19 34 16.3		
	comp=Z,12nm,1.4s							
MTN	**Manton Dam**	**48.69**	**289**	P	**P**	**19 34 13.6**	**-1.2**	
MTN				IAmb	IAmb	19 34 29.4		
	comp=Z,6.8nm,1.1s							
NWAO	**Narrogin (SRO)**	**48.79**	**257**	P	**P**	**19 34 13.8**	**-1.6**	
FITZ	**Fitzroy Crossi**	**49.64**	**279**	LR	LR	19 57 12.9		
	comp=Z,71nm,18.2s,baz=88,slow=38							
FITZ	**Fitzroy Crossi**	**49.64**	**279**	P	**P**	**19 34 20.8**	**-1.2**	
FITZ				IAmb	IAmb	19 34 33.3		
	comp=Z,3.0nm,1.5s							
MORW	**Morawa**	**51.42**	**261**	P	**P**	**19 34 33.8**	**-1.6**	
BELA	**Belgrano 2**	**62.06**	**173**	P	P	19 35 51.8	+1.6	
BELA				IAmb	IAmb	19 36 03.3		
	comp=Z,1.6nm,0.9s							
KAPI	**Kappang**	**62.27**	**287**	LR	LR	20 03 38.9		
	comp=Z,32nm,19.7s,baz=118,slow=37							
MAW	**Mawson**	**63.41**	**203**	LR	LR	20 00 55.9		
	comp=Z,22nm,21.1s,baz=129,slow=34							
VNA3	**Neumayer Olymp**	**70.27**	**177**	⇑P	P	19 36 45.5	+2.6	
	comp=Z,1.4nm,0.8s							
VNA2	**Neumayer--Watz**	**70.66**	**178**	⇑P	P	19 36 48.2	+2.9	
	comp=Z,1.8nm,0.6s,baz=173,slow=5.4							
H03S2	**Juan Fernandez**	**78.66**	**124**	T	T	21 03 43.6		
	baz=229,slow=74,SNR=14							
H03S1	**Juan Fernandez**	**78.67**	**124**	T	T	21 03 45.7		
	baz=229,slow=74,SNR=14							
H03S3	**Juan Fernandez**	**78.68**	**124**	T	T	21 03 47.3		
	baz=229,slow=74,SNR=11							
H03N2	**Juan Fernandez**	**78.91**	**124**	T	T	21 04 00.1		
	baz=29,slow=74,SNR=11							
H03N1	**Juan Fernandez**	**78.92**	**124**	T	T	21 03 54.2		
	baz=233,slow=74,SNR=6.9							
HOPE	**Hope Point**	**82.81**	**160**	P	**P**	**19 37 55.0**	**+1.0**	
KSRS	**Korea Array**	**88.64**	**322**	P	**P**	**19 38 25.7**	**+2.7**	
	comp=Z,1.8nm,0.9s,baz=144,slow=5.2,SNR=2.7							
	comp=Z,1.8nm,0.9s							
MKAR	**Makanchi Array**	**120.32**	**308**	PKP	**PKiKP**	**19 44 21.1**	**+0.2**	
	comp=Z,0.2nm,0.5s,baz=70,slow=1.7,SNR=1.6							
ARCES	**ARCESS Array B**	**145.74**	**343**	PKPbc	**PKPab**	**19 45 08.3**	**0.0**	
	comp=Z,1.5nm,0.8s,baz=34,slow=2.6,SNR=4.7							
ARCES	**ARCESS Array B**	**145.74**	**343**	PKPdf	**PKPab**	**19 45 09.0**	**+0.7**	
FINES	**FINESS Array B**	**151.32**	**332**	PKPbc	**PKiKP**	**19 45 23.2**	**0.0**	
	comp=Z,11nm,1.1s,baz=64,slow=3.2,SNR=5.2							

*IDC **22** 19:37:56.1±6.3, 31.03°×179.06°E, h473^{km}±40^{km}, mb3.0/3, mbtmp3.9/4, Error ellipse: s-maj=104.0km s-min=36.5km az=141.0*
*WEL **22** 19:37:56.6±1.3, 32.5±6.1°×18.0°E±1.8, h357^{km}±20^{km}, M4.9/6, mB5.1/4, ML4.7/6, MLv5.0/6, Mw(mB)4.5/4, Error ellipse: s-maj=24.2km s-min=5.4km az=105.6*

ISC 22 19:37:49.3±0.9, 31.58S±0.07°×180.0E±0.1, h450^{km}, n30, σ2.37/42, mb3.6/3, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**2.92**	**39**	P	**P**	**19 38 57.8**	**+1.9**
GLKZ				S	**S**	**19 39 47.5**	**-2.3**
MXZ	**Matakaoa Point**	**6.13**	**193**	P	**P**	**19 39 26.7**	**+1.9**
MXZ				S	**S**	**19 40 42.1**	**-0.8**
MXZ				AML	AML		
MXZ				AML	AML		
WCZ	**Waipu Caves**	**6.41**	**226**	P	**P**	**19 39 30.1**	**+2.4**
HAZ	**Te Kaha**	**6.43**	**196**	P	**P**	**19 39 29.2**	**+1.3**
HAZ				S	**S**	**19 40 46.9**	**-1.7**
HAZ				AML	AML		
HAZ				AML	AML		
OUZ	**Omahuta**	**6.47**	**234**	P	**P**	**19 39 30.5**	**+2.1**
PUZ	**Puketiti**	**6.64**	**192**	P	**P**	**19 39 31.9**	**+1.8**
PUZ				S	**S**	**19 40 49.6**	**-3.0**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.65**	**196**	P	**P**	**19 39 31.3**	**+1.0**
RUGZ				S	**S**	**19 40 50.9**	**-2.2**
RUGZ				AML	AML		
RUGZ				AML	AML		
WHRZ	**Whale Island**	**6.74**	**201**	P	**P**	**19 39 34.7**	**+3.6**
WHRZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.79**	**194**	P	**P**	**19 39 34.4**	**+2.7**
TWGZ				S	**S**	**19 40 55.4**	**-0.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
MKAZ	**Moumakai**	**6.81**	**215**	P	**P**	**19 39 34.9**	**+3.0**
OPRZ	**Ohinepanea**	**6.87**	**203**	P	**P**	**19 39 35.8**	**+3.4**
OPRZ				AML	AML		
MARZ	**Manawahe**	**6.95**	**202**	P	**P**	**19 39 36.5**	**+3.1**
MWZ	**Matawai**	**7.04**	**196**	P	**P**	**19 39 36.2**	**+1.9**
MWZ				S	**S**	**19 40 57.8**	**-2.6**
EDRZ	**Edgecumbe**	**7.04**	**201**	P	**P**	**19 39 37.5**	**+3.1**
CNGZ	**Carnagh Statio**	**7.05**	**192**	P	**P**	**19 39 36.8**	**+2.4**
CNGZ				S	**S**	**19 41 00.1**	**-0.3**
TKGZ	**Te Karaka**	**7.07**	**194**	P	**P**	**19 39 37.3**	**+2.7**
TKGZ				S	**S**	**19 40 58.4**	**-2.5**
URZ	**Urewera**	**7.08**	**199**	P	**P**	**19 39 35.8**	**+1.2**
URZ				S	**S**	**19 40 57.3**	**-3.7**
TOZ	**Tahuroa Road**	**7.17**	**210**	P	**P**	**19 39 39.3**	**+3.7**
RAGZ	**Rawiri**	**7.22**	**196**	P	**P**	**19 39 38.4**	**+2.1**
RAGZ				S	**S**	**19 41 03.8**	**-0.2**
TARZ	**Mount Tarawera**	**7.24**	**202**	P	**P**	**19 39 39.7**	**+3.2**
RIGZ	**Rimuhau**	**7.34**	**194**	P	**P**	**19 39 40.3**	**+2.7**
MUGZ	**Murupara**	**7.38**	**200**	P	**P**	**19 39 39.1**	**+1.2**
PRGZ	**Paritu Road**	**7.53**	**193**	P	**P**	**19 39 42.6**	**+3.0**
TLZ	**Tolley Road**	**7.67**	**207**	P	**P**	**19 39 44.4**	**+3.4**
KNZ	**Kokohu**	**7.67**	**194**	P	**P**	**19 39 42.9**	**+2.0**
MSVF	**Nonsavu**	**13.89**	**352**	P	**P**	**19 40 49.2**	**+0.4**
	2.4nm,0.4s,baz=204,slow=17,SNR=4.2						
STKA	**Stephens Creek**	**32.55**	**259**	P	**P**	**19 43 41.5**	**-0.3**
	1.0nm,0.4s,baz=85,slow=11,SNR=1.7						
	1.0nm,0.4s						
ASAR	**Alice Springs**	**41.35**	**269**	P	**P**	**19 44 53.2**	**-1.5**
	0.5nm,0.7s,baz=109,slow=8.4,SNR=9.2						
ASAR				ScP	**ScP**	**19 49 48.7**	**-0.6**
	0.2nm,0.7s,baz=99,slow=3.4,SNR=4.8						
	0.5nm,0.7s						
WRA	**Warramunga Arr**	**42.45**	**275**	P	**P**	**19 45 01.6**	**-1.7**
	1.1nm,0.4s,baz=114,slow=8.1,SNR=19						
	1.1nm,0.4s						
FINES	**FINESS Array B**	**145.62**	**338**	PKP	**PKPbc**	**19 56 36.6**	**+0.7**
	4.4nm,0.9s,baz=48,slow=2.1,SNR=13						

*KRNET **22** 19:48:28.3±0.1, 40.71N×78.44E, h18^{km}, mb2.9*
*NNC **22** 19:48:31.5±2.7, 40.79N×78.31E, h0^{km}, mb3.5, mpv3.1, Error ellipse: s-maj=17.9km s-min=16.1km az=171.0*
*SOME **22** 19:48:31.2, 40.78N×78.18E, h5^{km}*

ISC 22 19:48:31.6±2.6, 40.82N±0.10×78.27E±0.06, h3^{km}±15^{km}, n19, σ1.915/31, 10C-6D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**0.98**	**339**	⇓*i*P	**Pg**	**19 48 49.7**	**-0.7**
TARG				⇓*i*S	**Sb**	**19 49 05.4**	**+0.5**
KDJ	**Kajisay**	**1.55**	**328**	⇑*i*P	**Pn**	**19 48 59.9**	**-0.3**
KDJ				⇑*i*S	**Sg**	**19 49 22.8**	**+1.4**
PRZ	**Przheval'sk**	**1.67**	**3**	⇑*e*P	**Pn**	**19 49 01.6**	**-0.3**
PRZ				⇑*e*S	**Sg**	**19 49 25.7**	**+0.5**
NRN	**Naryn**	**1.82**	**290**	⇑*i*P	**Pb**	**19 49 05.1**	**-0.7**
NRN				⇑*i*S	**Sg**	**19 49 32.0**	**+1.7**
ANVS	**Anan'yevo**	**2.02**	**347**	⇑*i*P	**Pb**	**19 49 07.2**	**-1.8**
ANVS				⇑*i*S	**Sb**	**19 49 35.6**	**+1.1**
ULHL	**Ulahol**	**2.09**	**314**	⇓*i*P	**Pb**	**19 49 08.6**	**-1.7**
ULHL				⇓*i*S	**Sb**	**19 49 38.2**	**+1.5**
SATY	**Saty**	**2.24**	**2**	Pg	**Pg**	**19 49 14.1**	**-0.5**
	3.6nm,0.2s						
SATY				Lg	Lg	19 49 45.0	
	23nm,0.4s						
SATY	**Saty**	**2.24**	**2**	*e*P	**Pg**	**19 49 14.1**	**-0.5**
	3.6nm,0.2s						
SATY				*e*S	**Sg**	**19 49 45.0**	**+1.3**
	23nm,0.4s						
UZB	**Uzynbulak**	**2.39**	**13**	Pg	**Pb**	**19 49 15.9**	**+0.5**
	5.2nm,0.2s						
UZB				Lg	Lg	19 49 48.0	
	13nm,0.5s						
UZB	**Uzynbulak**	**2.39**	**13**	*e*P	**Pb**	**19 49 15.9**	**+0.5**
	5.2nm,0.2s						
UZB				*e*S	**Sg**	**19 49 48.0**	**-0.5**
	13nm,0.5s						
SHLS	**Shalkode**	**2.50**	**20**	Pg	**Pg**	**19 49 20.6**	**+1.1**
	5.2nm,0.3s						
SHLS				Lg	Lg	19 49 56.1	
	25nm,0.2s						
MDOK	**Medeo**	**2.52**	**339**	Pg	**Pb**	**19 49 17.8**	**+0.3**
	6.7nm,0.4s						
MDOK				Lg	Lg	19 49 51.4	
	22nm,0.4s						
MDOK	**Medeo**	**2.52**	**339**	*e*P	**Pb**	**19 49 17.8**	**+0.3**
	6.7nm,0.4s						
MDOK				*e*S	**Sg**	**19 49 51.4**	**-1.1**
	22nm,0.4s						
KOTS	**Kotyrbulak**	**2.56**	**341**	Pg	**Pb**	**19 49 19.2**	**+0.8**
	3.9nm,0.2s						
KOTS				Lg	Lg	19 49 53.9	
	19nm,0.2s						
KOTS	**Kotyrbulak**	**2.56**	**341**	*e*P	**Pb**	**19 49 19.2**	**+0.8**
	3.9nm,0.2s						
KOTS				*e*S	**Sg**	**19 49 53.9**	**-0.2**
	19nm,0.2s						
KPKS	**Kokpek**	**2.66**	**6**	Pg	**Pb**	**19 49 20.4**	**+0.4**
	0.1nm,0.1s						
KPKS				Lg	Lg	19 49 55.9	
	21nm,0.2s						
KPKS	**Kokpek**	**2.66**	**6**	*e*P	**Pb**	**19 49 20.4**	**+0.4**
	0.1nm,0.1s						
KPKS				*e*S	**Sg**	**19 49 55.9**	**-1.3**
	21nm,0.2s						
PDGK	**Podgornoye**	**2.67**	**19**	⇑Pg	**Pb**	**19 49 18.1**	**-1.9**
	2.3nm,0.6s						
PDGK				⇑Lg	Lg	19 49 56.0	
	8.2nm,0.6s						
TKM2	**Tokmak 2**	**2.90**	**317**	⇓*i*P	**Pn**	**19 49 19.9**	**+1.0**
TKM2				⇓*i*S	**Sb**	**19 49 57.6**	**-2.4**

*SNET **22** 19:58:20.5±2.9, 15.60N×90.21W, h10^{km}, ML3.3, Presumed earthquake*
*GCG **22** 19:58:20.3±2.0, 15.52N×90.22W, h6^{km}±17^{km}, MD3.9, Presumed earthquake*

ISC 22 19:58:19.5±1.2, 15.57N±0.05×90.20W±0.05, h4^{km}, n11, σ0.964/14, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AVCB	**Coban**	**0.23**	**244**	*i* S	**Sg**	**19 58 26.2**	**-0.7**
ZAFR2	**Estanzuela, Za**	**1.28**	**140**	*i* P	Pg	19 58 35.7	-8.3
ESQI	**Esquipulas**	**1.30**	**140**	*e*P	**Pg**	**19 58 43.8**	**-0.6**
ESQI				*e*S	**Sg**	**19 59 01.5**	**+0.2**
PETF	**Flores**	**1.38**	**13**	*i* P	**Pn**	**19 58 45.5**	**0.0**
PETF	**Flores**	**1.38**	**13**	*e*P	**Pn**	**19 58 46.3**	**+0.9**
MTO3	**Montecristo**	**1.42**	**145**	*e*P	**Pn**	**19 58 45.5**	**-0.7**
MTO3				*e*S	**Sg**	**19 59 05.5**	**+0.4**
SARH	**Santa Rosa de**	**1.59**	**119**	*i* P	**Pn**	**19 58 48.5**	**0.0**
SARH				*i* S	**Sn**	**19 59 09.4**	**-0.2**
NUBE	**Las Nubes**	**1.71**	**166**	*e*P	**Pn**	**19 58 50.8**	**+0.7**
NUBE	**Las Nubes**	**1.71**	**166**	*e*P	**Pn**	**19 58 51.0**	**+0.8**
NUBE				*e*S	**Sb**	**19 59 13.7**	**+0.3**
CCIG	**Comitan**	**2.00**	**291**	*e*P	**Pn**	**19 58 54.6**	**+0.4**
JAYA	**Jayaque - finc**	**2.04**	**159**	*e*P	**Pn**	**19 58 55.6**	**+0.9**

*NOU **22** 20:14:59.3, 40.51S×174.46E, h73^{km}, MLv3.8/22, Cook Strait, New Zealand*
*WEL **22** 20:15:01.2±0.5, 41.5°S±3.7°×17.4E±1.4°, h42^{km}±9^{km}, M3.8/16, ML3.7/16, MLv3.8/16, Error ellipse: s-maj=4.7km s-min=4.2km az=126.6*

ISC 22 20:14:59.1±1.3, 40.51S±0.03×174.42E±0.03, h84^{km}±7^{km}, n168, σ1.905/174, Cook Strait

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DUWZ	**D'Urville Isla**	**0.48**	**232**	P	**Pn**	**20 15 12.6**	**-0.5**
DUWZ				S	**Sn**	**20 15 22.1**	**-1.4**
DUWZ				AML	AML		
DUWZ				AML	AML		
KIW	**Kapiti Island**	**0.51**	**134**	P	**Pn**	**20 15 13.1**	**-0.2**
KIW				S	**Sn**	**20 15 22.5**	**-1.4**
KIW				AML	AML		
KIW				AML	AML		
OTKS	**Otaki School**	**0.60**	**115**	S	**Sn**	**20 15 24.7**	**-0.6**
OGWZ	**Otaki Gorge**	**0.65**	**119**	P	**Pn**	**20 15 14.7**	**+0.1**
OGWZ				S	**Sn**	**20 15 25.3**	**-0.8**
OGWZ				AML	AML		
OGWZ				AML	AML		
HOCS	**Levin Horowhen**	**0.66**	**100**	P	**Pn**	**20 15 15.1**	**+0.5**
HOCS				S	**Sn**	**20 15 25.9**	**-0.4**
POKS	**Katoa Kinderga**	**0.69**	**153**	P	**Pn**	**20 15 16.0**	**+1.1**
POKS				S	**Sn**	**20 15 26.6**	**-0.2**
PWES	**Porirua West**	**0.69**	**154**	P	**Pn**	**20 15 15.7**	**+0.7**
PWES				S	**Sn**	**20 15 26.4**	**-0.4**
POLS	**Porirua Librar**	**0.70**	**153**	S	**Sn**	**20 15 26.5**	**-0.4**
PFAS	**Porirua Free A**	**0.71**	**153**	P	**Pn**	**20 15 16.1**	**+1.0**
TCW	**Tory Channel**	**0.71**	**189**	P	**Pn**	**20 15 15.6**	**+0.4**
TCW				S	**Sn**	**20 15 26.4**	**-0.8**
TCW				AML	AML		
TCW				AML	AML		
OHWZ	**Ohakea**	**0.74**	**67**	P	**Pn**	**20 15 16.4**	**+0.9**
OHWZ				S	**Sn**	**20 15 28.3**	**+0.6**
OHWZ				AML	AML		
OHWZ				AML	AML		
WCDS	**Wanganui Civil**	**0.75**	**40**	P	**Pn**	**20 15 16.1**	**+0.6**
WCDS				S	**Sn**	**20 15 27.9**	**+0.2**
MKBS	**Makara Bunker**	**0.75**	**164**	P	**Pn**	**20 15 16.6**	**+1.0**
HSSS	**Lower Hutt Hay**	**0.77**	**147**	P	**Pn**	**20 15 16.9**	**+1.1**
CAW	**Cannon Point**	**0.78**	**141**	P	**Pn**	**20 15 16.5**	**+0.6**
LHBS	**Lower Hutt Nor**	**0.78**	**153**	P	**Pn**	**20 15 17.0**	**+1.2**
UHCS	**Upper Hutt Col**	**0.78**	**143**	P	**Pn**	**20 15 17.2**	**+1.3**
BMTS	**Belmont**	**0.79**	**151**	P	**Pn**	**20 15 17.2**	**+1.2**
LHRS	**Lower Hutt Nor**	**0.79**	**153**	P	**Pn**	**20 15 17.2**	**+1.3**
TAIT	**Taita Central**	**0.79**	**149**	P	**Pn**	**20 15 17.3**	**+1.4**
HIBS	**Hutt Internati**	**0.79**	**144**	P	**Pn**	**20 15 17.2**	**+1.3**
NEWS	**Newlands**	**0.79**	**157**	P	**Pn**	**20 15 17.2**	**+1.3**
MKVS	**Makara Village**	**0.79**	**164**	P	**Pn**	**20 15 17.1**	**+1.1**
UHSS	**Upper Hutt Pri**	**0.79**	**142**	P	**Pn**	**20 15 17.2**	**+1.3**
PTOS	**Petone Overbri**	**0.79**	**155**	P	**Pn**	**20 15 17.2**	**+1.2**
LHES	**Hutt Central**	**0.79**	**153**	P	**Pn**	**20 15 17.4**	**+1.4**

PVCS	**Petone Victori**	**0.80**	**155**	P	**Pn**	**20 15 17.5**	**+1.5**
PGMS	**Petone Municip**	**0.80**	**154**	P	**Pn**	**20 15 17.5**	**+1.4**
TMDS	**Te Marua Water**	**0.80**	**136**	P	**Pn**	**20 15 17.6**	**+1.5**
FAIS	**Fairfield**	**0.80**	**151**	P	**Pn**	**20 15 17.5**	**+1.4**
DAVS	**Collett Street**	**0.81**	**150**	P	**Pn**	**20 15 17.5**	**+1.3**
POTA	**Wellington Pot**	**0.81**	**161**	P	**Pn**	**20 15 17.5**	**+1.3**
WEMS	**Wellington Eme**	**0.81**	**161**	P	**Pn**	**20 15 17.6**	**+1.3**
WEL	**Wellington**	**0.82**	**161**	P	**Pn**	**20 15 17.1**	**+0.8**
SNZO	**South Karori**	**0.83**	**165**	P	**Pn**	**20 15 17.0**	**+0.6**
SNZO	**South Karori**	**0.83**	**165**	P	**Sn**	**20 15 29.6**	**+0.2**
WAZ	**Wanganui**	**0.87**	**30**	P	**Pn**	**20 15 17.5**	**+0.7**
WAZ				AML	AML		
WAZ				AML	AML		
MRZ	**Mangatainoka R**	**0.90**	**100**	P	**Pn**	**20 15 17.6**	**+0.5**
HOWZ	**Holdsworth Sta**	**0.92**	**116**	P	**Pn**	**20 15 18.3**	**+0.8**
BHW	**Baring Head**	**0.96**	**159**	P	**Pn**	**20 15 19.7**	**+1.7**
TUWZ	**Tuamarina**	**0.99**	**201**	P	**Pn**	**20 15 19.0**	**+0.7**
POWZ	**Post Office Ro**	**1.03**	**84**	P	**Pn**	**20 15 19.0**	**+0.3**
POWZ				AML	AML		
POWZ				AML	AML		
LREZ	**Lake Rotokare**	**1.04**	**359**	P	**Pn**	**20 15 19.3**	**+0.4**
LREZ				AML	AML		
LREZ				AML	AML		
MTW	**Mount Morrison**	**1.05**	**129**	P	**Pn**	**20 15 19.0**	**+0.1**
NNZ	**Nelson**	**1.06**	**228**	P	**Pn**	**20 15 19.6**	**+0.6**
NNZ				S	**Sn**	**20 15 35.0**	**+0.9**
NNZ				AML	AML		
NNZ				AML	AML		
MSWZ	**Moikau Station**	**1.10**	**146**	P	**Pn**	**20 15 21.3**	**+1.7**
TIWZ	**Tintock**	**1.15**	**104**	P	**Pn**	**20 15 21.3**	**+1.1**
PAWZ	**Paruwai Farm**	**1.16**	**139**	P	**Pn**	**20 15 21.5**	**+1.1**
PAWZ				AML	AML		
PAWZ				AML	AML		
NMEZ	**Namu Road**	**1.17**	**339**	P	**Pn**	**20 15 21.1**	**+0.7**
NMEZ				AML	AML		
NMEZ				AML	AML		
PREZ	**Palmer Road**	**1.18**	**350**	P	**Pn**	**20 15 21.2**	**+0.7**
PREZ				AML	AML		
PREZ				AML	AML		
PRWZ	**Pori Road**	**1.18**	**93**	P	**Pn**	**20 15 21.6**	**+1.0**
PRWZ				AML	AML		
PRWZ				AML	AML		
TKNZ	**Takaka Hill**	**1.23**	**244**	P	**Pn**	**20 15 21.8**	**+0.7**
TKNZ				AML	AML		
TKNZ				AML	AML		
PLWZ	**Palliser**	**1.23**	**150**	P	**Pn**	**20 15 22.3**	**+1.0**
PLWZ				AML	AML		
PLWZ				AML	AML		
KHEZ	**Kahui Hut**	**1.25**	**345**	P	**Pn**	**20 15 22.0**	**+0.5**
KHEZ	**Kahui Hut**	**1.25**	**345**	P	**Sn**	**20 15 38.5**	**+0.2**
KHEZ	**Kahui Hut**	**1.25**	**345**	P	**Pn**	**20 15 21.8**	**+0.4**
KHEZ				AML	AML		
KHEZ				AML	AML		
CMWZ	**Cape Campbell**	**1.25**	**187**	P	**Pn**	**20 15 24.5**	**+3.1**
NEZ	**North Egmont**	**1.26**	**348**	P	**Pn**	**20 15 22.7**	**+1.1**
NEZ				AML	AML		
NEZ				AML	AML		
TSZ	**Takapari Road**	**1.26**	**70**	P	**Pn**	**20 15 22.1**	**+0.6**
TMWZ	**Te Maipa**	**1.27**	**119**	P	**Pn**	**20 15 25.0**	**+3.4**
BSWZ	**Blackbirch Sta**	**1.28**	**199**	P	**Pn**	**20 15 23.3**	**+1.5**
NBEZ	**Newall Road No**	**1.31**	**341**	P	**Pn**	**20 15 22.5**	**+0.4**
NBEZ				AML	AML		
NBEZ				AML	AML		
TRWZ	**Traveller**	**1.31**	**133**	P	**Pn**	**20 15 24.7**	**+2.6**
DREZ	**Durham Road**	**1.33**	**353**	P	**Pn**	**20 15 23.0**	**+0.7**
DVHZ	**Dannevirke**	**1.35**	**82**	P	**Pn**	**20 15 22.6**	**-0.1**
PKE	**Pukeiti**	**1.35**	**346**	P	**Pn**	**20 15 23.0**	**+0.3**
PKE				AML	AML		
PKE				AML	AML		
MTVZ	**Mangateitei**	**1.38**	**36**	P	**Pn**	**20 15 24.2**	**+1.1**
BFZ	**Birch Farm**	**1.40**	**98**	P	**Pn**	**20 15 23.5**	**+0.2**
BFZ	**Birch Farm**	**1.40**	**98**	S	**Sn**	**20 15 40.7**	**-0.8**
BFZ	**Birch Farm**	**1.40**	**98**	P	**Pn**	**20 15 23.4**	**+0.1**
VRZ	**Vera Road**	**1.40**	**11**	P	**Pn**	**20 15 24.0**	**+0.7**
PKVZ	**Pokaka**	**1.41**	**31**	P	**Pn**	**20 15 24.1**	**+0.7**
MHEZ	**Mangahewa**	**1.43**	**357**	P	**Pn**	**20 15 24.8**	**+1.2**
QRZ	**Quartz Range**	**1.48**	**257**	P	**Pn**	**20 15 24.2**	**0.0**
QRZ	**Quartz Range**	**1.48**	**257**	P	**Sn**	**20 15 43.0**	**-0.2**
QRZ	**Quartz Range**	**1.48**	**257**	P	**Pn**	**20 15 24.4**	**+0.2**
QRZ				AML	AML		
QRZ				AML	AML		
TRVZ	**Turoa**	**1.48**	**36**	P	**Pn**	**20 15 25.8**	**+1.2**
WNVZ	**Wahianoa**	**1.48**	**38**	P	**Pn**	**20 15 25.4**	**+

RPZ	Rata Peaks	4.07 217	P	Pn	20 15 59.7	+0.8
RPZ	Rata Peaks	4.07 217	P	Pn	20 15 58.3	-0.7
ARCZ	Arundel	4.20 214	P	Pn	20 16 00.3	-0.4
MXZ	Matakaoa Point	4.22 47	P	Pn	20 16 00.9	-0.1
MXZ	Matakaoa Point	4.22 47	S	Sn	20 16 48.8	-0.2
MXZ	Matakaoa Point	4.22 47	P	Pn	20 15 59.6	-1.4
FOZ	Fox Glacier	4.57 227	P	Pn	20 16 05.6	-0.1
TMZ	Timaru	4.63 212	P	Pn	20 16 06.0	-0.6
OUZ	Omahuta	5.32 353	P	Pn	20 16 16.6	+0.6
OUZ	Omahuta	5.32 353	P	Pn	20 16 16.5	+0.6
ODZ	Otahua Downs	5.32 210	P	Pn	20 16 16.1	+0.2
ODZ	Otahua Downs	5.32 210	P	Pn	20 16 15.4	-0.6
JCZ	Jackson Bay	5.49 228	P	Pn	20 16 19.2	+0.8
JCZ	Jackson Bay	5.49 228	P	Pn	20 16 18.4	0.0

*IDC **22** 20:27:03.2±4.1,50°.04S×141°.01E, h0km, mb3.4/3, mbtmp3.4/3, MS3.4/11, Error ellipse: s-maj=216.0km s-min=45.6km az=91.0*

ISC 22 20:27:01.6±3.5, 50°.1S±0°.3×14°.3E±°, h10km, n18, σ0s.34/6, mb3.2/3, MS3.4/11, South of Tasmania

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	**20.45**	**83**	LR	LR	20 39 07.4	
	comp=Z,18nm,18.1s,baz=358,slow=34						
H01W1	**Cape Leeuwin H**	**25.65**	**296**	T	T	20 58 02.8	
	baz=138,slow=74,SNR=19						
H01W2	**Cape Leeuwin H**	**25.66**	**296**	T	T	20 57 59.8	
	baz=138,slow=74,SNR=13						
H01W3	**Cape Leeuwin H**	**25.66**	**296**	T	T	20 58 03.9	
	baz=138,slow=74,SNR=18						
ASAR	**Alice Springs**	**27.24**	**343**	P	**P**	**20 32 45.5**	**-0.3**
	0.5nm,1.0s,baz=168,slow=11,SNR=2.0						
ASAR				LR	LR	20 42 59.3	
	comp=Z,111nm,18.8s,baz=122,slow=36 0.5nm,1.0s						
VNDA	**Vanda**	**28.48**	**171**	LR	LR	20 42 11.7	
	comp=Z,75nm,19.5s,baz=353,slow=32						
CTA	**Charters Tower**	**30.11**	**7**	LR	LR	20 45 52.5	
	comp=Z,97nm,18.7s,baz=218,slow=37						
WRA	**Warramunga Arr**	**30.80**	**345**	P	**P**	**20 33 17.5**	**+0.1**
	0.3nm,0.8s,baz=177,slow=8.7,SNR=2.6 0.3nm,0.8s						
FITZ	**Fitzroy Crossi**	**34.69**	**331**	LR	LR	20 47 12.5	
	comp=Z,72nm,21.8s,baz=174,slow=35						
QSPA	**South Pole Qui**	**40.00**	**180**	LR	LR	20 49 38.7	
	comp=Z,126nm,18.8s,baz=35,slow=34						
PMG	**Port Moresby**	**40.77**	**7**	LR	LR	20 51 51.8	
	comp=Z,68nm,19.9s,baz=134,slow=36						
MAW	**Mawson**	**41.31**	**215**	LR	LR	20 48 18.0	
	comp=Z,74nm,21.9s,baz=84,slow=31						
KRVT	**Keravat (AS076**	**46.35**	**13**	LR	LR	20 53 43.7	
	comp=Z,35nm,21.0s,baz=250,slow=34						
KAPI	**Kappang**	**48.86**	**329**	LR	LR	20 56 08.1	
	comp=Z,29nm,19.4s,baz=122,slow=36						
CMAR	**Chiang Mai Arr**	**78.35**	**318**	P	**P**	**20 39 02.0**	**+0.1**
	0.2nm,0.4s,baz=152,slow=6.0,SNR=1.1						
CMAR				LR	LR	21 13 09.4	
	comp=Z,9.5nm,19.6s,baz=315,slow=36 0.2nm,0.4s						
ARCES	**ARCESS Array B**	**145.00**	**327**	PKP	**PKiKP**	**20 46 41.5**	**+0.1**
	5.0nm,1.0s,baz=87,slow=3.1,SNR=4.9						
GERES	**GERESS Array B**	**147.25**	**288**	PKPbc	**PKPbc**	**20 46 44.7**	**+0.3**
	1.0nm,0.8s,baz=117,slow=1.8,SNR=9.5						
ESDC	**Sonseca Array**	**154.26**	**259**	PKPbc	**PKiKP**	**20 47 01.0**	**-0.4**
	0.6nm,1.0s,baz=94,slow=1.5,SNR=4.2						

*NIED **22** 20:33:10.0, 33°.16N×132°.26E, h40km, MW3.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-1.45; $M_{\theta\theta}$0.38; $M_{\phi\phi}$ 1.07; $M_{r\theta}$0.99; $M_{\theta\phi}$0.08; $M_{\phi r}$1.13; Fault plane solution: $M_0$1.93000×10^{14} NP1:ϕs4.00000°, δ22.00000°, λ-116.00000°. NP2:ϕs212.00000°, δ70.00000°, λ-80.00000°.*

*JMA **22** 20:33:10.0±0.0, 33°.2N±0°.1×132°.3E±0°.1, h40km, MV3.4/40, BUNGO CHANNEL*

JMA Felt II J1 at BUNGO CHANNEL .

*IDC **22** 20:33:11.4±1.9, 33°.22N×132°.19E, h66km±25km, mb2.9/1, mbtmp3.3/3, MS3.2/1, Error ellipse: s-maj=24.6km s-min=19.2km az=113.0*

ISC 22 20:33:10.1±1.6, 33°.14N±0°.05×132°.27E±0°.04, h35km±3km, n12, σ0s76/19, 3D, Shikoku

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UWA2	**Uwa jima 2**	**0.31**	**76**	*i* P	**Pn**	**20 33 18.2**	**0.0**
UWA2				S	**Sn**	**20 33 24.1**	**-0.3**
JUS	**Usuki**	**0.44**	**260**	⇓*i* P	**Pn**	**20 33 19.7**	**-0.1**
JUS				⇓S	**Sn**	**20 33 26.8**	**+0.2**
JNA	**Nagahama**	**0.45**	**23**	⇓*i* P	**Pn**	**20 33 19.7**	**-0.3**
JSKE	**Saikikamae**	**0.46**	**222**	*i* P	**Pn**	**20 33 20.2**	**+0.1**
JSKE				S	**Sn**	**20 33 27.8**	**+0.7**
JTO	**Tosashimizu**	**0.53**	**122**	*i* P	**Pn**	**20 33 21.3**	**+0.1**
JTO				S	**Sn**	**20 33 29.5**	**+0.6**
JKU	**Kubokawa**	**0.69**	**76**	*i* P	**Pn**	**20 33 23.2**	**-0.2**
JKU				S	**Sn**	**20 33 33.3**	**+0.5**
JET	**Tanbara**	**0.91**	**46**	*i* P	**Pn**	**20 33 26.4**	**0.0**
JET				S	**Sn**	**20 33 38.3**	**0.0**
JNU	**Nakatsue**	**1.17**	**269**	P	**Pn**	**20 33 30.4**	**+0.4**
	81nm,0.3s,baz=98,slow=7.1,SNR=633						
JNU				S	**Sn**	**20 33 46.0**	**+1.3**
	241nm,0.6s,baz=204,slow=13,SNR=11						
KSRS	**Korea Array**	**5.58**	**322**	P	**Pn**	**20 34 31.0**	**+0.5**
	1.5nm,0.5s,baz=141,slow=14,SNR=5.2						
KSRS				S	**Sn**	**20 35 32.8**	**-0.6**
	1.2nm,0.5s,baz=143,slow=25,SNR=4.3						
MJAR	**Matsushiro Arr**	**5.95**	**54**	P	**Pn**	**20 34 37.3**	**+1.7**
	1.9nm,0.4s,baz=244,slow=14,SNR=13						
TLY	**Talaya**	**27.83**	**320**	LR	LR	20 50 53.1	
	comp=Z,15nm,18.3s,baz=327,slow=38						
WRA	**Warramunga Arr**	**52.82**	**178**	P	**P**	**20 42 20.7**	**-1.3**
	0.3nm,0.8s,baz=358,slow=7.4,SNR=1.9 0.3nm,0.8s						

*GCG **22** 20:49:15.9±1.7, 15°.65N×89°.94W, h9km±14km, MD4.3, ML4.2, Presumed earthquake*

*CATAC **22** 20:49:16.3±0.3, 16°.N±2°.×9°.0W±°, h1km, M3.6/8, MLv3.6/8, Error ellipse: s-maj=4.5km s-min=3.6km az=59.1, confirmed*

*SNET **22** 20:49:23.8±5.7, 15°.48N×90°.15W, h34km, ML3.6, Presumed earthquake*

ISC 22 20:49:15.2±1.7, 15°.68N±0°.03×89°.95W±0°.03, h4km±14km, n25, σ1s03/38, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AVCB	**Coban**	**0.48**	**244**	*i* S	**Sg**	**20 49 28.7**	**-2.0**
PETF	**Flores**	**1.23**	**4**	P	**Pn**	**20 49 38.9**	**-0.3**
PETF				S	**Sb**	**20 49 56.4**	**+1.1**
PETF	**Flores**	**1.23**	**4**	*i* P	**Pn**	**20 49 38.7**	**-0.5**
PETF				*i* S	**Sb**	**20 49 55.3**	**0.0**
PETF				IAML		20 49 58.5	
	comp=E,3μm,0.3s						
ESQI	**Esquipulas**	**1.26**	**152**	P	**Pb**	**20 49 39.2**	**-0.4**
ESQI				S	**Sn**	**20 49 56.9**	**-0.3**
ESQI	**Esquipulas**	**1.26**	**152**	*eS*	**Sn**	**20 49 58.9**	**+1.7**
IZABA	**Izabal, Puerto**	**1.32**	**88**	P	**Pn**	**20 49 40.3**	**-0.1**
JUAM	**Asuncion Mita**	**1.36**	**170**	*i* S	**Sb**	**20 49 56.7**	**-2.2**
MTO3	**Montecristo**	**1.40**	**156**	P	**Pn**	**20 49 41.0**	**-0.7**
MTO3				S	**Sg**	**20 50 00.9**	**+0.8**
MTO3	**Montecristo**	**1.40**	**156**	*i* P	**Pn**	**20 49 40.8**	**-0.9**
SARH	**Santa Rosa de**	**1.46**	**128**	P	**Pn**	**20 49 42.2**	**-0.2**
SARH				S	**Sg**	**20 50 03.0**	**+0.8**
SARH	**Santa Rosa de**	**1.46**	**128**	*i* P	**Pn**	**20 49 42.2**	**-0.2**
SARH				*i* S	**Sn**	**20 50 01.4**	**-0.7**
HUEH	**Huehuetenango**	**1.54**	**257**	P	**Pn**	**20 49 44.2**	**+0.6**
HUEH				S	**Sg**	**20 50 05.7**	**+1.2**
HUEH	**Huehuetenango**	**1.54**	**257**	*i* P	**Pn**	**20 49 43.4**	**-0.2**
HUEH				IAML		20 50 13.6	
	comp=N,4μm,0.9s						
HUEH	**Huehuetenango**	**1.54**	**257**	*eP*	**Pn**	**20 49 43.7**	**+0.1**
HUEH				*eS*	**Sg**	**20 50 06.4**	**+1.8**
QUEO	**Labor Ovalle**	**1.71**	**242**	*i* P	**Pn**	**20 49 46.1**	**+0.1**
NUBE	**Las Nubes**	**1.78**	**175**	P	**Pn**	**20 49 47.5**	**+0.7**
NUBE				S	**Sg**	**20 50 11.7**	**-0.5**
NUBE	**Las Nubes**	**1.78**	**175**	*i* P	**Pn**	**20 49 46.6**	**-0.2**
STG8	**El Palmar, Qui**	**1.82**	**228**	*i* P	**Pn**	**20 49 47.6**	**+0.1**
FAME	**Alcaldia de Sa**	**1.83**	**182**	P	**Pb**	**20 49 48.8**	**-0.4**
FAME				S	**Sg**	**20 50 13.2**	**-0.7**
CEVE	**Cerro Verde**	**1.87**	**170**	*eP*	**Pb**	**20 49 49.5**	**-0.6**
CEVE				*eS*	**Sg**	**20 50 18.0**	**+2.7**
PMON	**Piamonte**	**2.05**	**162**	P	**Pn**	**20 49 51.8**	**+1.2**
PMON				S	**Sb**	**20 50 18.9**	**-0.1**
JAYA	**Jayaque - finc**	**2.07**	**166**	*eS*	**Sb**	**20 50 20.4**	**+0.7**
CCIG	**Comitan**	**2.18**	**286**	*i* P	**Pn**	**20 49 52.0**	**-0.5**
LFRS	**El Faro**	**2.22**	**157**	*eP*	**Pb**	**20 49 55.7**	**-0.3**
COEG	**Centro de Oper**	**2.30**	**153**	*eP*	**Pb**	**20 49 56.0**	**-1.3**
COEG				*eS*	**Sb**	**20 50 27.2**	**+1.1**

*JMA **22** 20:51:05.3±0.1, 24°.5N±0°.3×121°.9E±0°.4, h19km, MV3.1/12, TAIWAN REGION*

*TAP **22** 20:51:05.7, 24°.50N×121°.89E, h10km, ML3.7, B*

ISC 22 20:51:04.9±0.8, 24°.49N±0°.01×121°.95E±0°.01, h11km±5km, n155, σ0s86/236, 8C-9D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESAO	**Su ao**	**0.13**	**313**	⇑*i* P	**Pg**	**20 51 08.2**	**+0.2**
ESAO				S	**Sg**	**20 51 10.0**	**-0.3**
TWC	**Suao**	**0.15**	**323**	⇑*i* P	**Pg**	**20 51 08.5**	**+0.1**
TWC				*i* S	**Sg**	**20 51 10.3**	**-0.5**
EWUT	**Wuta**	**0.16**	**255**	⇓*i* P	**Pg**	**20 51 08.7**	**+0.2**
EWUT				*i* S	**Sg**	**20 51 10.8**	**-0.2**
ENA	**Nanau**	**0.20**	**253**	⇓*i* P	**Pg**	**20 51 09.4**	**+0.2**
ENA				*i* S	**Sg**	**20 51 11.6**	**-0.5**
EAHA	**Aohua**	**0.25**	**230**	*i* P	**Pg**	**20 51 10.3**	**+0.3**
EAHA				S	**Sg**	**20 51 14.2**	**+0.8**
NDS	**Dongshan**	**0.26**	**304**	⇑*i* P	**Pg**	**20 51 10.5**	**+0.3**
NDS				*i* S	**Sg**	**20 51 13.7**	**-0.1**
EHP	**Heping Village**	**0.26**	**227**	*i* P	**Pg**	**20 51 10.7**	**+0.5**
EHP				S	**Sg**	**20 51 14.7**	**+0.8**
EOS2	**EOS2**	**0.27**	**105**	⇓*i* P	**Pg**	**20 51 11.7**	**+1.3**
TWE	**Neicheng**	**0.35**	**312**	⇑*i* P	**Pg**	**20 51 12.1**	**+0.3**
TWE				*i* S	**Sg**	**20 51 16.6**	**+0.1**
EGS		**0.36**	**358**	P	**Pb**	**20 51 13.4**	**+0.1**
EGS				S	**Sg**	**20 51 17.0**	**+0.2**
NTC	**Toucheng**	**0.38**	**344**	P	**Pg**	**20 51 12.9**	**+0.4**
NTC				*eS*	**Sg**	**20 51 18.9**	**+1.3**
LATG	**Datong**	**0.39**	**277**	⇑*i* P	**Pg**	**20 51 12.8**	**+0.2**
LATG				S	**Sg**	**20 51 17.6**	**-0.2**
EOS3	**EOS3**	**0.39**	**121**	*i* P	**Pg**	**20 51 13.9**	**+1.3**
EOS3				S	**Sg**	**20 51 19.8**	**+2.1**
NDT	**Datong Townshi**	**0.41**	**286**	*i* P	**Pg**	**20 51 13.5**	**+0.5**
NDT				S	**Sg**	**20 51 18.7**	**+0.1**
FUSB	**Fushanzhiwuyua**	**0.43**	**310**	⇑*i* P	**Pg**	**20 51 13.8**	**+0.4**
FUSB				S	**Sg**	**20 51 19.3**	**+0.3**
ETL	**Fush Village**	**0.44**	**222**	⇓*i* P	**Pg**	**20 51 13.8**	**+0.2**
ETL				*i* S	**Sb**	**20 51 20.1**	**-1.2**
NACB	**Ninganchiao**	**0.45**	**226**	P	**Pg**	**20 51 13.6**	**-0.1**
NACB	**Ninganchiao**	**0.45**	**226**	S	**Sg**	**20 51 20.1**	**+0.4**
NACB	**Ninganchiao**	**0.45**	**226**	⇓*i* P	**Pg**	**20 51 13.8**	**+0.1**
NACB				S	**Sg**	**20 51 20.1**	**+0.4**
TIPB	**Shuangxi**	**0.49**	**347**	*eP*	**Pg**	**20 51 14.9**	**+0.4**
TIPB				S	**Sg**	**20 51 21.7**	**+0.5**
EOS4	**EOS4**	**0.50**	**137**	*eP*	**Pg**	**20 51 15.2**	**+0.7**
EOS4				S	**Sb**	**20 51 23.4**	**+0.8**
NWLT	**Wulai**	**0.50**	**305**	*i* P	**Pg**	**20 51 15.0**	**+0.1**
NWLT				S	**Sg**	**20 51 21.2**	**-0.1**
ETLH	**Xiulin Townshi**	**0.51**	**237**	*i* P	**Pg**	**20 51 15.0**	**+0.1**
ETLH				*eS*	**Sg**	**20 51 21.9**	**+0.3**
TWD	**Chiawan**	**0.52**	**218**	⇓*i* P	**Pg**	**20 51 15.2**	**+0.2**
TWD				S	**Sg**	**20 51 22.2**	**+0.4**
NNSB	**Datong**	**0.52**	**264**	⇓*i* P	**Pg**	**20 51 15.2**	**+0.2**
NNSB				S	**Sg**	**20 51 20.8**	**-1.1**
NNSH	**Datong**	**0.52**	**264**	P	**Pg**	**20 51 15.2**	**+0.1**
NNSH				S	**Sg**	**20 51 21.8**	**-0.1**
TWB1	**Santiao Chiao**	**0.52**	**4**	*eP*	**Pg**	**20 51 15.5**	**+0.4**
TWB1				S	**Sg**	**20 51 21.6**	**-0.3**
NNS	**Nan Shan**	**0.53**	**265**	*i* P	**Pg**	**20 51 15.3**	**+0.1**
NNS				*eS*	**Sg**	**20 51 22.0**	**-0.2**
YHNB	**Yeheng**	**0.55**	**289**	P	**Pg**	**20 51 15.9**	**+0.2**
YHNB	**Yeheng**	**0.55**	**289**	S	**Sg**	**20 51 22.5**	**-0.5**
YHNB	**Yeheng**	**0.55**	**289**	*i* P	**Pg**	**20 51 16.1**	**+0.4**
YHNB				*i* S	**Sg**	**20 51 22.7**	**-0.3**
NSK	**Sanguang**	**0.57**	**289**	*i* P	**Pg**	**20 51 16.4**	**+0.4**
NSK				*i* S	**Sg**	**20 51 22.9**	**-0.6**
TWA	**Mucha**	**0.59**	**326**	⇑*i* P	**Pg**	**20 51 17.1**	**+0.6**
TWA				S	**Sg**	**20 51 24.7**	**+0.5**
HWA	**Hwalien**	**0.60**	**212**	*eP*	**Pb**	**20 51 17.8**	**+0.4**
NWF	**Wu-fen Shan**	**0.60**	**345**	P	**Pg**	**20 51 17.4**	**+0.2**
NWF				S	**Sg**	**20 51 24.7**	**+0.2**
WFSB	**Wu-fen Shan**	**0.60**	**345**	P	**Pg**	**20 51 17.3**	**+0.7**
WFSB				S	**Sg**	**20 51 25.1**	**+0.6**
SXI1	**Grass Mountain**	**0.61**	**354**	P	**Pg**	**20 51 17.2**	**+0.5**
SXI1				S	**Sg**	**20 51 25.3**	**+0.5**
NHDH	**Xindian Distri**	**0.61**	**321**	*eP*	**Pb**	**20 51 17.6**	**0.0**
NHDH				S	**Sb**	**20 51 25.5**	**-0.7**
TATO	**Taipei**	**0.64**	**319**	P	**Pb**	**20 51 17.9**	**-0.2**
TATO	**Taipei**	**0.64**	**319**	S	**Sg**	**20 51 26.2**	**+0.4**
TATO	**Taipei**	**0.64**	**319**	*i* P	**Pb**	**20 51 18.1**	**0.0**
TATO				S	**Sg**	**20 51 26.1**	**+0.3**
NHY	**Taipei**	**0.65**	**328**	P	**Pb**	**20 51 18.7**	**+0.5**
NHY				S	**Sb**	**20 51 27.1**	**-0.2**
ETM	**Tongmen**	**0.67**	**219**	*eP*	**Pg**	**20 51 17.8**	**0.0**
LXIB	**Xiulin Townshi**	**0.67**	**227**	⇓*i* P	**Pg**	**20 51 17.9**	**-0.1**
LXIB				S	**Sb**	**20 51 27.5**	**-0.7**
TNOU	**National Taiwa**	**0.68**	**346**	*eP*	**Pg**	**20 51 18.7**	**+0.6**
TNOU				*eS*	**Sg**	**20 51 27.3**	**+0.3**
TAP	**Taipei**	**0.68**	**324**	*eP*	**Pb**	**20 51 19.1**	**+0.4**
TAP				S	**Sb**	**20 51 27.8**	**-0.4**
FUSS	**Fushou**	**0.69**	**250**	*i* P	**Pg**	**20 51 18.4**	**+0.2**
FUSS				S	**Sb**	**20 51 27.5**	**-1.1**
TEYL	**Yanliau Villag**	**0.69**	**207**	*eP*	**Pb**	**20 51 19.4**	**+0.4**
WHF	**Hehuan Shan**	**0.71**	**241**	⇓*i* P	**Pg**	**20 51 18.9**	**+0.1**
WHF				*i* S	**Sb**	**20 51 29.3**	**-0.2**
YM01	**YM01**	**0.74**	**332**	⇑*i* P	**Pb**	**20 51 20.3**	**+0.4**
TWT	**Tachien**	**0.74**	**252**	*i* P	**Pb**	**20 51 19.9**	**-0.1**
TWT				*eS*	**Sb**	**20 51 29.3**	**-0.8**
TDCB	**Techi**	**0.76**	**252**	*eP*	**Pb**	**20 51 19.8**	**-0.4**
TDCB				S	**Sg**	**20 51 29.0**	**-0.5**
NWRT	**Kuosheng**	**0.76**	**340**	P	**Pb**	**20 51 20.4**	**+0.3**
NWRT				S	**Sb**	**20 51 30.7**	**+0.3**
KSHI	**Guanxi Townshi**	**0.76**	**292**	P	**Pn**	**20 51 20.7**	**-0.9**
KSHI				*eS*	**Sb**	**20 51 30.7**	**+0.2**
ZUZH	**Zhuzihu**	**0.77**	**331**	P	**Pb**	**20 51 20.7**	**+0.4**
NFF	**Wufeng Townshi**	**0.77**	**281**	P	**Pb**	**20 51 20.5**	**+0.1**
NFF				*eS*	**Sb**	**20 51 30.0**	**-0.9**
YM08	**YM08**	**0.77**	**335**	*eP*	**Pb**	**20 51 20.6**	**+0.3**
TWS1	**Kuangyinshan**	**0.78**	**322**	P	**Pn**	**20 51 21.4**	**-0.4**
NTY	**Taoyuan**	**0.78**	**311**	P	**Pn**	**20 51 21.6**	**-0.2**
SHUL	**Shoufeng**	**0.78**	**207**	P	**Pn**	**20 51 21.5**	**-0.3**
SHUL				S	**Sn**	**20 51 32.7**	**-0.8**
ANP	**Anpu**	**0.80**	**331**	*eP*	**Pb**	**20 51 21.2**	**+0.4**
ANP				*eS*	**Sn**	**20 51 33.1**	**-1.0**
NTST	**Danshui**	**0.81**	**326**	P	**Pn**	**20 51 22.0**	**-0.3**
NTST				*eS*	**Sn**	**20 51 34.0**	**-0.3**
ESL	**Shilin**	**0.82**	**215**	*eP*	**Pg**	**20 51 20.5**	**-0.2**
NJD	**Zhudong**	**0.82**	**288**	*eP*	**Pn**	**20 51 23.2**	**+0.8**
NCU	**National Centr**	**0.84**	**305**	*eP*	**Pn**	**20 51 23.0**	**+0.3**
TWY	**Chenhua**	**0.85**	**338**	*eP*	**Pn**	**20 51 22.4**	**-0.4**
TWY				*eS*	**Sn**	**20 51 34.3**	**-0.8**
TEGC	**Jichi Village**	**0.86**	**206**	*eP*	**Pn**	**20 51 22.7**	**-0.2**
TEGC				*eS*	**Sn**	**20 51 37.5**	**+2.0**
LIOB	**Emei**	**0.86**	**281**	*i* P	**Pn**	**20 51 22.7**	**-0.3**
LIOB				*eS*	**Sb**	**20 51 33.4**	**-0.1**
NSTT	**Nanjuang**	**0.87**	**280**	*eP*	**Pn**	**20 51 22.7**	**-0.5**
NSTT				S	**Sb**	**20 51 33.4**	**-0.4**
OWD	**Renai**	**0.88**	**233**	*i* P	**Pg**	**20 51 21.9**	**0.0**
OWD				*eS*	**Sb**	**20 51 33.4**	**-0.8**
HSN1	**Hsinchu**	**0.90**	**289**	*eP*	**Pn**	**20 51 24.0**	**+0.6**
WUSB	**Renai**	**0.91**	**237**	*i* P	**Pb**	**20 51 22.7**	**0.0**
WUSB				*eS*	**Sn**	**20 51 35.3**	**-1.5**
JYNG	**Yonagunijimaku**	**0.91**	**92**	*eP*	**Pb**	**20 51 22.9**	**+0.2**
JYNG				*eS*	**Sb**	**20 51 34.4**	**-0.4**
WARBT	**Fenglin Townsh**	**0.92**	**214**	*eP*	**Pb**	**20 51 22.5**	**-0.4**
SBCB	**Hsinchu**	**0.93**	**289**	*eP*	**Pn**	**20 51 24.4**	**+0.5**
SBCB				*eS*	**Sn**	**20 51 38.7**	**+1.6**
WHP	**Taichung City**	**0.94**	**257**	*eP*	**Pn**	**20 51 23.6**	**-0.5**
WHP				*eS*	**Sg**	**20 51 35.4**	**+0.1**
HSN	**Hsinchu**	**0.94**	**290**	*i* P	**Pn**	**20 51 24.5**	**+0.4**
HSN				S	**Sn**	**20 51 36.8**	**-0.7**
YOJ	**Yonaguni jima**	**0.97**	**91**	*eP*	**Pb**	**20 51 23.5**	**-0.2**
YOJ				*eS*	**Sb**	**20 51 36.2**	**-0.3**
YOJ	**Yonaguni jima**	**0.97**	**91**	*eP*	**Pb**	**20 51 23.9**	**+0.2**
YOJ				*eS*	**Sb**	**20 51 36.0**	**-0.5**
VWDT	**VWDT**	**1.04**	**225**	*eP*	**Pg**	**20 51 24.9**	**+0.1**
VWDT				*eS*	**Sn**	**20 51 38.9**	**-1.0**
WCS	**Beigang Elemen**	**1.04**	**246**	*eP*	**Pn**	**20 51 25.4**	**0.0**
NMLH	**Miaoli**	**1.06**	**273**	*eP*	**Pn**	**20 51 27.4**	**+1.8**
TWQ1	**Liyutan**	**1.08**	**263**	*eP*	**Pg**	**20 51 26.6**	**+1.0**
TWQ1				*eS*	**Sn**	**20 51 41.1**	**+0.1**
HGSD	**Ruisui**	**1.10**	**206**	*eP*	**Pg**	**20 51 26.6**	**+0.6**
SMLT	**Sun Moon Lake**	**1.13**	**238**	*eP*	**Pg**	**20 51 26.9**	**+0.2**
EHY	**Hungye**	**1.13**	**211**	*eP*	**Pn**	**20 51 26.7**	**0.0**
EHYH	**Wanrong**	**1.13**	**209**	*eP*	**Pg**	**20 51 27.1**	**+0.4**
TYC	**Yuchr**	**1.15**	**240**	*eP*	**Pg**	**20 51 27.2**	**+0.1**
TCU	**Taichung**	**1.21**	**254**	P	**Pg**	**20 51 29.7**	**+1.5**
TCU				*eS*	**Sg**	**20 51 46.3**	**+2.4**
YULB	**Yu-li**	**1.24**	**209**	P	**Pb**	**20 51 28.3**	**-0.1**
YULB	**Yu-li**	**1.24**	**209**	S	**Sg**	**20 51 45.8**	**+0.9**
YULB	**Yu-li**	**1.24**	**209**	*eP*	**Pb**	**20 51 28.6**	**+0.3**
ECBN	**Changbin**	**1.25**	**201**	*eP*	**Pg**	**20 51 29.1**	**+0.1**
EYUL	**Yuli**	**1.27**	**207**	*eP*	**Pn**	**20 51 28.3**	**-0.3**
WHYT	**Xinyi Township**	**1.27**	**232**	*eP*	**Pg**	**20 51 29.4**	**0.0**
TWF1	**Yuli**	**1.28**	**208**	*eP*	**Pb**	**20 51 29.1**	**+0.1**
WNT	**Mingjian**	**1.30**	**243**	*eP*	**Pg**	**20 51 31.5**	**+1.6**
WNT				*eS*	**Sg**	**20 51 51.1**	**+4.2**
WCHH	**Zhanghua**	**1.33**	**253**	*eP*	**Pg**	**20 51 31.6**	**+1.1**
WCH1	**Changhua City**	**1.34**	**252**	*eP*	**Pg**	**20 51 31.4**	**+0.6**
WCH1				*eS*	**Sg**	**20 51 51.0**	**+2.8**
CHKH	**Chenggong**	**1.39**	**202**	*eP*	**Pb**	**20 51 31.1**	**+0.3**
FULB	**Fuli**	**1.42**	**205**	*eP*	**Pb**	**20 51 31.4**	**0.0**
ALS	**Alishan**	**1.43**	**227**	*eP*	**Pg**	**20 51 32.5**	**+0.1**
CHN5	**Tsauling**	**1.46**	**233**	*eP*	**Pg**	**20 51 34.0**	**+1.0**
CHN5				*eS*	**Sg**	**20 51 54.1**	**+2.2**
CHKT	**Chengkung**	**1.48**	**201**	*eP*	**Pn**	**20 51 31.0**	**-0.5**
EHD	**Haiduan**	**1.50**	**207**	*eP*	**Pb**	**20 51 33.0**	**+0.3**
WGK	**Gukeng**	**1.50**	**238**	*eP*	**Pg**	**20 51 34.8**	**+1.2**
WGK				*eS*	**Sg**	**20 51 57.0**	**+3.9**
WDLH	**Douliu**	**1.52**	**239**	P	**Pg**	**20 51 34.9**	**+0.9**
WDLH				*eS*	**Sg**	**20 51 57.1**	**+3.4**
ECS	**Chishang**	**1.54**	**206**	*eP*	**Pg**	**20 51 35.2**	**+0.8**
ELDTW	**Lidau**	**1.55**	**214**	*eP*	**Pb**	**20 51 33.8**	**+0.1**
WRL	**Guolierlin Hig**	**1.55**	**248**	*eP*	**Pg**	**20 51 34.8**	**+0.1**
WRL				*eS*	**Sg**	**20 51 55.3**	**+0.6**
RLNB	**Erlin**	**1.57**	**248**	*eP*	**Pg**	**20 51 34.6**	**-0.4**
WCKO	**Fanlu**	**1.61**	**230**	*eP*	**Pg**	**20 51 36.0**	**+0.2**
EDH	**Donghe**	**1.62**	**202**	*eP*	**Pn**	**20 51 32.8**	**-0.6**
IRIF	**Iriomote-Funau**	**1.63**	**95**	*eP*	**Pn**	**20 51 32.8**	**-0.7**
CHN2	**Minshiung**	**1.65**	**235**	*eP*	**Pg**	**20 51 37.4**	**+0.8**
CHN2				*eS*	**Sg**	**20 51 59.6**	**+1.6**
CHN4	**Tsaushan**	**1.68**	**228**	*eP*	**Pg**	**20 51 37.6**	**+0.5**
CHN4				*eS*	**Sg**	**20 52 01.2**	**+2.3**
TPUB	**Ta-pu**	**1.69**	**226**	P	**Pg**	**20 51 37.0**	**-0.3**
TPUB	**Ta-pu**	**1.69**	**226**	S	**Sg**	**20 51 58.5**	**-0.8**
TPUB	**Ta-pu**	**1.69**	**226**	*eP*	**Pg**	**20 51 37.1**	**-0.2**
TPUB				*eS*	**Sg**	**20 52 00.2**	**+0.9**
STYH	**Taoyuan**	**1.69**	**220**	*eP*	**Pb**	**20 51 36.5**	**+0.5**
CHY	**Chiayi**	**1.71**	**235**	*eP*	**Pg**	**20 51 37.7**	**+0.1**
WTP	**Ta-pu**	**1.74**	**225**	*eP*	**Pg**	**20 51 37.6**	**-0.6**
LONT	**Longtian**	**1.74**	**206**	*eP*	**Pn**	**20 51 35.5**	**+0.3**
WSF	**Szhu**	**1.79**	**242**	*eP*	**Pb**	**20 51 38.2**	**+0.5**
WSF				*eS*	**

	0.3nm71nm,0.6s						
BAKI				AML	AML		
SANI	**Sanana**	**6.78**	**306**	P	**Pn**	**20 59 17.4**	**+3.4**
SANI	**Sanana**	**6.78**	**306**	P	**Pn**	**20 59 16.5**	**+2.5**
SANI				AML	AML		
SOEI	**Soe**	**7.99**	**243**	P	**Pn**	**20 59 33.5**	**+2.7**
SOEI	**Soe**	**7.99**	**243**	S	**Sn**	**21 01 02.7**	**+1.3**
SOEI	**Soe**	**7.99**	**243**		**Pn**	**20 59 30.0**	**-0.8**
SOEI	**Soe**	**7.99**	**243**	P	**Pn**	**20 59 33.1**	**+2.3**
	88nm,0.7s						
KNRA	**Kununurra**	**9.88**	**195**		**Pn**	**20 59 58.3**	**+1.8**
PCI	**Palu**	**12.69**	**294**	P	Pn	21 00 44.1	+9.0
TOLI2	**Tolitoli**	**12.84**	**304**	P	**Pn**	**21 00 40.1**	**+3.0**
FITZ	**Fitzroy Crossi**	**13.21**	**205**	Pn	**Pn**	**21 00 39.8**	**-2.3**
	4.3nm,0.3s,baz=28,slow=11,SNR=56						
FITZ				Sn	Sn	21 02 59.4	-10
	3.7nm,0.3s,baz=187,slow=19,SNR=9.6						
FITZ				LR	LR	21 07 01.8	
	comp=Z,56nm,19.9s,baz=10.0,slow=43						
	10.0nm,0.3s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**13.21**	**205**		**Pn**	**21 00 39.1**	**-3.0**
PLAI	**Plampang**	**13.83**	**258**	P	**Pn**	**21 00 52.2**	**+1.5**
WB0	**Warramunga Arr**	**13.88**	**168**		**Pn**	**21 00 50.5**	**-0.9**
WRAB	**Tennant Creek**	**14.04**	**169**	P	**Pn**	**21 00 51.8**	**-1.7**
WRAB	**Tennant Creek**	**14.04**	**169**		**Pn**	**21 00 52.1**	**-1.3**
WRA	**Warramunga Arr**	**14.04**	**169**	Pn	**Pn**	**21 00 51.8**	**-1.8**
	1.3nm,0.3s,baz=358,slow=13,SNR=34						
WRA				Sn	Sn	21 03 16.3	-13
	4.7nm,0.3s,baz=351,slow=22,SNR=12						
	2.0nm,0.5s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**14.04**	**169**		**Pn**	**21 00 52.1**	**-1.5**
WR8	**Warramunga Arr**	**14.09**	**168**		**Pn**	**21 00 53.2**	**-1.0**
QIS	**Mount Isa**	**16.41**	**152**	P	**Pn**	**21 01 25.2**	**+0.3**
JAGI	**Jajag, Banyuwa**	**17.32**	**261**	P	**P**	**21 01 38.7**	**+0.8**
JAGI	**Jajag, Banyuwa**	**17.32**	**261**	Pn	**Pn**	**21 01 32.8**	**-3.8**
JAGI				IAmb	IAmb	21 01 48.2	
	comp=Z,26nm,1.3s						
AS31	**Alice Springs**	**17.62**	**173**		**Pn**	**21 01 39.1**	**-1.2**
ASAR	**Alice Springs**	**17.62**	**173**	Pn	**Pn**	**21 01 39.1**	**-1.2**
	comp=Z,0.8nm,0.3s,baz=228,slow=3.9,SNR=45						
ASAR				Sn	Sn	21 04 43.6	-13
	comp=Z,1.7nm,0.3s,baz=358,slow=28,SNR=10						
ASAR				LR	LR	21 08 40.2	
	comp=Z,46nm,21.0s,baz=277,slow=38						
	comp=Z,2.4nm,0.6s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**17.62**	**173**		**P**	**21 01 40.1**	**-1.1**
AS01	**Alice Springs**	**17.63**	**172**	P	**P**	**21 01 40.8**	**-0.5**
MBWA	**Marble Bar**	**18.79**	**216**	P	**Pn**	**21 01 55.4**	**+0.8**
MBWA	**Marble Bar**	**18.79**	**216**	P	**Pn**	**21 01 54.0**	**-0.6**
MBWA				IAmb	IAmb	21 01 56.2	
	comp=Z,18nm,0.6s						
KKM	**Kota Kinabalu**	**19.41**	**308**	P	**Pn**	**21 02 03.1**	**+0.9**
KKM	**Kota Kinabalu**	**19.41**	**308**	P	**P**	**21 02 00.7**	**-0.3**
KKM				IAmb	IAmb	21 02 03.0	
	comp=Z,16nm,0.8s						
CTA	**Charters Tower**	**20.00**	**135**	P	**Pn**	**21 02 10.0**	**+0.9**
	comp=Z,4.6nm,0.6s,baz=326,slow=10.0,SNR=6.0						
	comp=Z,4.6nm,0.6s						
GIRL	**Giralia**	**23.38**	**224**	P	**P**	**21 02 38.1**	**-5.3**
MEEK	**Meekatharra**	**23.81**	**210**	P	**P**	**21 02 47.9**	**+0.2**
FORT	**Forrest**	**24.76**	**187**	P	**P**	**21 02 53.4**	**-2.9**
FORT				IAmb	IAmb	21 03 09.8	
	comp=Z,7.0nm,0.8s						
BBOO	**Buckleboo**	**26.92**	**171**	P	**P**	**21 03 17.2**	**+1.3**
BBOO	**Buckleboo**	**26.92**	**171**	P	**P**	**21 03 14.3**	**-1.5**
MORW	**Morawa**	**27.10**	**211**	P	**P**	**21 03 18.8**	**+1.3**
MORW	**Morawa**	**27.10**	**211**	P	**P**	**21 03 16.0**	**-1.5**
MORW				IAmb	IAmb	21 03 50.4	
	comp=Z,26nm,1.4s						
STKA	**Stephens Creek**	**27.34**	**161**	P	**P**	**21 03 20.9**	**+1.2**
	comp=Z,0.9nm,0.3s,baz=329,slow=10,SNR=4.0						
	comp=Z,0.9nm,0.3s						
STKA	**Stephens Creek**	**27.34**	**161**	P	**P**	**21 03 18.3**	**-1.4**
STKA				IAmb	IAmb	21 04 02.1	
	comp=Z,20nm,1.0s						
BLDU	**Balliduu**	**28.05**	**208**	P	**P**	**21 03 26.9**	**+0.9**
KLBR	**Kellerberrin**	**28.42**	**205**	P	**P**	**21 03 30.2**	**+0.9**
NWAO	**Narrogin (SRO)**	**29.80**	**205**	P	**P**	**21 03 42.5**	**+1.0**
CMAR	**Chiang Mai Arr**	**40.29**	**308**	P	**P**	**21 05 11.4**	**-0.7**
	comp=Z,1.2nm,0.3s,baz=121,slow=8.1,SNR=6.8						
	comp=Z,1.2nm,0.3s						
CHTO	**Chiang Mai**	**40.49**	**308**	P	**P**	**21 05 13.1**	**-0.7**
MJAR	**Matsushiro Arr**	**42.89**	**8**	P	**P**	**21 05 32.2**	**-1.0**
	comp=Z,2.0nm,0.8s,baz=194,slow=9.1,SNR=4.5						
	comp=Z,2.0nm,0.8s						
XAN	**Xi'an**	**45.26**	**333**	P	**P**	**21 05 52.6**	**+0.3**
XAN				pmax	pmax		
	comp=Z,13nm,0.9s						
USRK	**Ussuriysk Ar.**	**50.07**	**1**	P	**P**	**21 06 29.9**	**+0.6**
	comp=Z,1.7nm,0.6s,baz=185,slow=8.9,SNR=6.0						
	comp=Z,1.7nm,0.6s						
USRK	**Ussuriysk Ar.**	**50.07**	**1**	P	**P**	**21 06 28.8**	**-0.6**
HHC	**Hu-ho-hao-te**	**50.16**	**340**	*eP*	**P**	**21 06 32.8**	**+2.5**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
EVN	**Everest**	**54.78**	**310**	P	**P**	**21 07 04.1**	**-1.4**
ULN	**Ulaanbaatar**	**57.88**	**341**	P	**P**	**21 07 25.8**	**-0.8**
ULN				IAmb	IAmb	21 07 28.0	
	comp=Z,2.9nm,0.7s						
SONM	**Songino Array**	**58.07**	**340**	P	**P**	**21 07 28.2**	**+0.3**
	comp=Z,1.3nm,0.6s,baz=163,slow=7.8,SNR=16						
	comp=Z,1.3nm,0.6s						
SONM	**Songino Array**	**58.07**	**340**	P	**P**	**21 07 27.2**	**-0.7**
MKAR	**Makanchi Array**	**68.28**	**326**	P	**P**	**21 08 35.4**	**-0.3**
	comp=Z,1.6nm,0.4s,baz=112,slow=7.8,SNR=34						
	comp=Z,1.6nm,0.4s						
ZALV	**Zalesovo Beam**	**71.43**	**333**	P	**P**	**21 08 54.0**	**-0.8**
	comp=Z,1.4nm,0.6s,baz=110,slow=5.7,SNR=6.2						
	comp=Z,1.4nm,0.6s						
ZALV	**Zalesovo Beam**	**71.43**	**333**	P	**P**	**21 08 53.8**	**-1.0**
KURBB	**Kurchatov Arra**	**72.51**	**328**	P	**P**	**21 09 00.4**	**-1.0**
	comp=Z,1.2nm,0.6s,baz=127,slow=5.0,SNR=19						
	comp=Z,1.2nm,0.6s						
KURK	**Kurchatov**	**72.52**	**328**	P	**P**	**21 09 00.1**	**-1.3**
KURK				IAmb	IAmb	21 09 01.4	
	comp=Z,1.6nm,0.7s						
BVAR	**Borovoye Array**	**78.08**	**327**	P	**P**	**21 09 33.0**	**-0.4**
	comp=Z,1.0nm,0.5s,baz=138,slow=10.0,SNR=3.7						
	comp=Z,1.0nm,0.5s						
QSPA	**South Pole Qui**	**83.87**	**180**	P	**P**	**21 10 04.6**	**+0.3**
	comp=Z,1.2nm,0.5s,baz=278,slow=2.0,SNR=5.9						
	comp=Z,1.2nm,0.5s						
QSPA	**South Pole Qui**	**83.87**	**180**	P	**P**	**21 10 02.2**	**-2.1**
QSPA				IAmb	IAmb	21 10 31.6	
	comp=Z,2.1nm,1.1s						

*CATAC **22** 20:58:37.9±0.6, 7°N±3′×7°W±′, h153km±5km, M3.7/8, MLv3.7/8, Error ellipse: s-maj=10.1km s-min=5.3km az=97.3, confirmed*
*IDC **22** 20:58:37.6±0.8, 6.75N×72.98W, h159km±10km, mb3.1/4, mbtmp3.7/6, Error ellipse: s-maj=35.8km s-min=7.8km az=131.0*
*RSNC **22** 20:58:38.2±0.0, 7°N±3′×7°W±′, h142km±6km, M3.5, mB4.7, mb3.7, ML3.0, Mw(mB)4.0*
*FUNV **22** 20:58:41.0, 7.14N×73.21W, h5km, MW3.1, Presumed earthquake*

ISC 22 20:58:37.6±0.8, 6.86N±0.03×73.10W±0.04, h151km±6km, n53, σ1°31/95, mb3.3/4, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.28**	**197**	P	**Pn**	**20 58 59.1**	**+0.6**
BARC				S	**Sn**	**20 59 14.2**	**-0.3**
BRJC	**Barrancabermej**	**0.65**	**280**	P	**Pn**	**20 59 00.8**	**+0.9**
BRJC				S	**Sn**	**20 59 17.6**	**+0.7**
RUSC	**La Rusia**	**0.96**	**179**	P	**Pn**	**20 59 03.2**	**+0.5**
RUSC				S	**Sn**	**20 59 21.9**	**0.0**
RUSC	**La Rusia**	**0.96**	**179**	P	**Pn**	**20 59 03.0**	**+0.3**
RUSC				S	**Sn**	**20 59 21.1**	**-0.8**
RUSC	**La Rusia**	**0.96**	**179**	*eP*	**Pn**	**20 59 03.1**	**+0.5**
RUSC				*eS*	**Sn**	**20 59 21.4**	**-0.5**
TAMC	**Tame, Arauca**	**1.37**	**108**	P	**Pn**	**20 59 07.4**	**+1.5**
TAMC				S	**Sn**	**20 59 28.8**	**+1.2**
PTBC	**PUERTO BERRIO,**	**1.38**	**257**	P	**Pn**	**20 59 05.6**	**-0.4**
PTBC				S	**Sn**	**20 59 26.0**	**-1.8**
OCAC	**Ocana**	**1.39**	**351**	P	**Pn**	**20 59 07.3**	**+1.0**
OCAC				S	**Sn**	**20 59 28.9**	**+0.6**
SPBC	**San Pablo de B**	**1.54**	**219**	P	**Pn**	**20 59 08.1**	**+0.4**
SPBC				S	**Sn**	**20 59 29.7**	**-1.2**
NORC	**Norcasia**	**2.18**	**234**	P	**Pn**	**20 59 15.1**	**+0.2**
NORC				S	**Sn**	**20 59 42.4**	**-1.3**
CHIC	**Chingaza**	**2.30**	**196**	P	**Pn**	**20 59 17.4**	**+0.6**
CHIC				S	**Sn**	**20 59 46.2**	**-0.7**
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**20 59 19.0**	**+1.7**
	74nm,0.3s,baz=83,slow=12,SNR=30						
ROSC				S	**Sn**	**20 59 48.0**	**+0.2**
	252nm,0.6s,baz=202,slow=22,SNR=7.1						
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**20 59 18.8**	**+1.6**
ROSC				S	**Sn**	**20 59 48.7**	**+0.9**
HELC	**Santa Helena**	**2.50**	**255**	P	**Pn**	**20 59 20.5**	**+1.4**
HELC				S	**Sn**	**20 59 52.6**	**+1.5**
HELC	**Santa Helena**	**2.50**	**255**	P	**Pn**	**20 59 19.3**	**+0.2**
HELC				S	**Sn**	**20 59 53.7**	**+2.6**
HELC	**Santa Helena**	**2.50**	**255**	*eP*	**Pn**	**20 59 21.6**	**+2.5**
HELC				*eS*	**Sn**	**20 59 51.7**	**+0.5**
CVER	**Cruz Verde, Cu**	**2.51**	**203**	P	**Pn**	**20 59 20.5**	**+1.1**
CVER				S	**Sn**	**20 59 50.6**	**-1.0**
UREC	**San Jos de Ur**	**2.57**	**290**	P	**Pn**	**20 59 19.3**	**-0.4**
UREC				S	**Sn**	**20 59 50.8**	**-1.3**
GUY2C	**Guyana, Caldas**	**2.78**	**234**	P	**Pn**	**20 59 23.5**	**+0.9**
GUY2C				S	**Sn**	**20 59 56.6**	**-0.8**
PTGC	**Puerto Gaitan,**	**2.81**	**160**	P	**Pn**	**20 59 22.0**	**-0.6**
PTGC				S	**Sn**	**20 59 54.5**	**-3.0**
NIZA	**Niza - Manizal**	**2.96**	**233**	P	**Pn**	**20 59 27.0**	**+2.2**
NIZA				S	**Sn**	**21 00 03.1**	**+1.9**
CBOC	**Ciudad Bolivar**	**3.06**	**251**	P	**Pn**	**20 59 27.0**	**+1.1**
CBOC				S	**Sn**	**21 00 02.9**	**-0.3**
SDV	**Santo Domingo**	**3.17**	**50**	P	**Pn**	**20 59 28.9**	**+1.6**
	24nm,0.3s,baz=176,slow=1.1,SNR=28						
SDV				S	**Sn**	**21 00 05.9**	**+0.1**
	69nm,0.4s,baz=255,slow=21,SNR=44						
SDV	**Santo Domingo**	**3.17**	**50**	P	**Pn**	**20 59 28.7**	**+1.4**
SDV				S	**Sn**	**21 00 05.4**	**-0.4**
SDV	**Santo Domingo**	**3.17**	**50**	*eP*	**Pn**	**20 59 29.1**	**+1.8**
SDV				*eS*	**Sn**	**21 00 05.5**	**-0.3**
ARGC	**Ariguani, Magd**	**3.19**	**339**	P	**Pn**	**20 59 30.3**	**+2.9**
ARGC				S	**Sn**	**21 00 07.5**	**+1.4**
PRAC	**Prado**	**3.59**	**210**	P	**Pn**	**20 59 33.7**	**+1.1**
PRAC				S	**Sn**	**21 00 16.4**	**+1.0**
PRAC	**Prado**	**3.59**	**210**	P	**Pn**	**20 59 32.8**	**+0.1**
PRAC				S	**Sn**	**21 00 14.5**	**-0.9**
APAC	**Apartado, Choc**	**3.60**	**287**	P	**Pn**	**20 59 33.3**	**+0.6**
APAC				S	**Sn**	**21 00 15.2**	**-0.3**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**20 59 33.8**	**+0.7**
ORTC				S	**Sn**	**21 00 16.0**	**-0.1**
SJCC	**San Jacinto, C**	**3.66**	**326**	P	**Pn**	**20 59 33.9**	**+0.4**
SJCC				S	**Sn**	**21 00 17.3**	**+0.5**
SJCC	**San Jacinto, C**	**3.66**	**326**	P	**Pn**	**20 59 33.2**	**-0.2**
SJCC				S	**Sn**	**21 00 15.0**	**-1.8**
SJCC	**San Jacinto, C**	**3.66**	**326**	*eP*	**Pn**	**20 59 33.4**	**-0.1**
SJCC				*eS*	**Sn**	**21 00 12.5**	**-4.3**
PLMC	**San Jos del P**	**3.71**	**239**	P	**Pn**	**20 59 35.0**	**+0.8**
PLMC				S	**Sn**	**21 00 18.1**	**-0.1**
LCBC	**Los crdobas,**	**3.80**	**302**	P	**Pn**	**20 59 36.8**	**+1.6**
LCBC				S	**Sn**	**21 00 21.3**	**+1.2**
URMC	**La Uribe, Meta**	**3.81**	**200**	P	**Pn**	**20 59 36.3**	**+0.9**
URMC				S	**Sn**	**21 00 19.9**	**-0.5**
CRJC	**Cerrejon, Guaj**	**4.14**	**3**	P	**Pn**	**20 59 38.1**	**-1.7**
CRJC				S	**Sn**	**21 00 25.3**	**-3.0**
YOTC	**Yotoco, Valle**	**4.31**	**229**	P	**Pn**	**20 59 41.9**	**-0.2**
SMRC	**Santa Marta, M**	**4.42**	**346**	P	**Pn**	**20 59 44.6**	**+1.2**
SMRC				S	**Sn**	**21 00 32.9**	**-1.8**
PIZC	**Pizarro, Choco**	**4.63**	**246**	P	**Pn**	**20 59 48.1**	**+1.9**
PIZC				S	**Sn**	**21 00 40.7**	**+1.0**
MACC	**Macarena, Meta**	**4.74**	**189**	P	**Pn**	**20 59 47.1**	**-0.5**
URI	**Uribia**	**4.94**	**13**	P	**Pn**	**20 59 49.9**	**-0.3**
URIC	**Uribia, Colomb**	**4.94**	**13**	P	**Pn**	**20 59 49.8**	**-0.4**
	5.3nm,0.4s						
URIC				AML	AML		
GARC	**Garzon, Huila**	**5.22**	**207**	P	**Pn**	**20 59 54.5**	**+0.4**
GARC				S	**Sn**	**21 00 51.6**	**-2.3**
GARC				AML	AML		
BBAC	**Balboa, Cauca**	**6.34**	**221**	P	**Pn**	**21 00 10.4**	**+1.4**
BBAC				S	**Sn**	**21 01 18.0**	**-2.6**
BCIP	**Isla Barro Col**	**7.05**	**289**	P	**Pn**	**21 00 17.5**	**-0.9**
	6.5nm,1.1s						
BCIP				S	**Sn**	**21 01 36.8**	**-0.7**
	6.5nm,1.1s						
OTAV	**Otavalo**	**8.47**	**219**	P	**Pn**	**21 00 37.6**	**-0.1**
TXAR	**Lajitas Array**	**36.45**	**312**	P	**P**	**21 05 29.2**	**+1.1**
	0.2nm,0.6s,baz=121,slow=8.9,SNR=3.5						
	0.2nm,0.6s						
PDAR	**Pinedale Array**	**48.06**	**324**	P	**P**	**21 07 02.0**	**-0.1**
	0.2nm,0.5s,baz=117,slow=9.0,SNR=2.5						
	0.2nm,0.5s						
SCHQ	**Schefferville**	**48.10**	**5**	P	**P**	**21 07 01.5**	**-0.4**
	6.6nm,1.0s,baz=321,slow=14,SNR=7.3						
	6.6nm,1.0s						
YKA	**Yellowknife Ar**	**63.24**	**340**	P	**P**	**21 08 49.6**	**+0.1**
	0.3nm,0.5s,baz=135,slow=6.4,SNR=4.9						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**149.15**	**234**	PKPbc	**PKPbc**	**21 18 07.6**	**-1.3**
	0.4nm,0.5s,baz=125,slow=3.2,SNR=8.4						
WRA	**Warramunga Arr**	**150.37**	**241**	PKPbc	**PKPbc**	**21 18 10.9**	**-1.1**
	0.4nm,0.4s,baz=108,slow=2.6,SNR=7.8						

*IDC **22** 21:14:39.6±1.1, 62.32S×58.43W, h0km, mb3.9/7, mbtmp3.8/7, Error ellipse: s-maj=44.8km s-min=21.9km az=74.0*
*NEIC **22** 21:14:41.8±1.9, 62.36S±0.08×58.2W±0.2, h10km±2km, mb4.2/12, Error ellipse: s-maj=18.5km s-min=10.5km az=52.0*

ISC 22 21:14:41.6±0.7, 62.33S±0.08×58.3W±0.1, h10km, n33, σ1°37/27, mb4.0/11, 3C, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.22**	**152**	Pn	**Pn**	**21 15 04.1**	**-0.6**
ESPZ				Sn	**Sn**	**21 15 21.0**	**-0.2**
PMSA	**Palmer Station**	**3.57**	**224**	Pn	**Pn**	**21 15 37.1**	**+0.2**
SMAI	**San Martin Ant**	**6.90**	**209**	Pn	**Pn**	**21 16 22.5**	**-0.1**
BELA	**Belgrano 2**	**17.30**	**163**	Pn	**Pn**	**21 18 42.0**	**-0.8**
VNA3	**Neumayer Olymp**	**20.50**	**136**	⇑P	Pn	21 19 22.4	+0.9
	comp=Z,3.8nm,0.7s						
VNA1	**Neumayer--Stat**	**20.96**	**134**	⇑P	Pn	21 19 28.6	+1.8
	comp=Z,6.0nm,0.9s						
VNA2	**Neumayer--Watz**	**21.24**	**135**	⇑P	**P**	**21 19 31.2**	**+3.8**
	comp=Z,2.5nm,0.7s,baz=269,slow=11						
SNAA	**Sanae**	**22.67**	**137**	P	**P**	**21 19 43.4**	**+0.8**
	comp=Z,0.8nm,0.3s,baz=279,slow=8.6,SNR=4.4						
	comp=Z,0.8nm,0.3s						
SNAA	**Sanae**	**22.67**	**137**	P	**P**	**21 19 42.8**	**+0.1**
SNAA				IAmb	IAmb	21 19 58.9	
	comp=Z,6.5nm,1.1s						
LL03	**Petrohue**	**22.86**	**332**	P	**P**	**21 19 43.9**	**-0.8**
PLCA	**Paso Flores**	**22.86**	**335**	P	**P**	**21 19 45.2**	**+0.3**
	comp=Z,5.2nm,1.1s,baz=165,slow=10,SNR=5.5						
	comp=Z,5.2nm,1.1s						
PLCA	**Paso Flores**	**22.86**	**335**		**P**	**21 19 45.6**	**+0.7**
PLCA				IAmb	IAmb	21 19 47.3	
	comp=Z,4.2nm,0.9s						
GO06	**Curarrehue**	**24.15**	**334**	P	**P**	**21 19 58.7**	**+1.0**
GO06				IAmb	IAmb	21 20 00.0	
	comp=Z,12nm,1.1s						
TROLL	**Troll, Antarti**	**24.31**	**139**	P	**P**	**21 20 02.8**	**+3.8**
	comp=Z,101nm,1.0s						
QSPA	**South Pole Qui**	**27.89**	**180**	P	**P**	**21 20 32.2**	**+0.8**
	comp=Z,0.5nm,0.3s,baz=150,slow=3.0,SNR=4.6						
	comp=Z,0.5nm,0.3s						
QSPA	**South Pole Qui**	**27.89**	**180**	P	**P**	**21 20 31.3**	**-0.1**
QSPA				IAmb	IAmb	21 20 46.2	
	comp=Z,2.8nm,0.9s						
GO05	**Hualane**	**28.67**	**336**	P	**P**	**21 20 39.3**	**+1.0**
BO04	**La Punta**	**29.43**	**339**	P	**P**	**21 20 46.1**	**+1.0**
BO04				IAmb	IAmb	21 20 46.6	
	comp=Z,6.7nm,0.9s						
CO01	**Juntas del Tor**	**33.27**	**341**	P	**P**	**21 21 19.8**	**+0.6**
CO01				IAmb	IAmb	21 21 22.9	
	comp=Z,4.4nm,0.7s						
CPUP	**Villa Florida**	**36.00**	**1**	P	**P**	**21 21 41.7**	**-0.8**
	comp=Z,0.5nm,0.6s,baz=135,slow=7.1,SNR=3.2						
	comp=Z,0.5nm,0.6s						
CPUP	**Villa Florida**	**36.00**	**1**	P	**P**	**21 21 41.8**	**-0.7**
H10S3	**ASCENSION HYDR**	**61.92**	**51**	T	T	22 32 11.5	
	baz=202,slow=74,SNR=4.5						
H10S2	**ASCENSION HYDR**	**61.92**	**51**	T	T	22 32 12.0	
	baz=18,slow=74,SNR=4.7						
BOSA	**Boshof**	**62.12**	**99**	P	**P**	**21 25 03.0**	**+0.3**
	comp=Z,1.6nm,0.8s,baz=229,slow=9.3,SNR=1.7						
	comp=Z,1.6nm,0.8s						
BOSA	**Boshof**	**62.12**	**99**	P	**P**	**21 25 02.0**	**-0.7**
H10N3	**ASCENSION HYDR**	**63.01**	**50**	T	T	22 33 32.9	
	baz=202,slow=76,SNR=7.4						
H10N1	**ASCENSION HYDR**	**63.01**	**50**	T	T	22 33 37.2	
	baz=202,slow=76,SNR=6.1						
H10N2	**ASCENSION HYDR**	**63.02**	**50**	T	T	22 33 33.6	
	baz=202,slow=76,SNR=6.9						
ASAR	**Alice Springs**	**93.75**	**191**	P	**P**	**21 27 57.2**	**-1.4**
	comp=Z,0.5nm,0.8s,baz=178,slow=4.8,SNR=4.2						
	comp=Z,0.5nm,0.8s						
ASAR	**Alice Springs**	**93.75**	**191**	P	**P**	**21 27 57.4**	**-1.2**
WRA	**Warramunga Arr**	**97.40**	**192**	P	**P**	**21 28 13.8**	**-1.4**
	comp=Z,0.3nm,0.7s,baz=184,slow=4.3,SNR=2.4						
	comp=Z,0.3nm,0.7s						
WRA	**Warramunga Arr**	**97.40**	**192**	P	**P**	**21 28 14.1**	**-1.1**
ARCES	**ARCESS Array B**	**144.10**	**37**	PKP	**PKPab**	**21 34 12.5**	**-0.8**
	comp=Z,4.3nm,0.9s,baz=273,slow=1.7,SNR=6.3						

*SNET **22** 21:19:04.7±3.3, 14.06N×91.29W, h15km, ML3.5, Presumed earthquake*
*CATAC **22** 21:19:05.5±0.5, 14°N±10′×9°1W±′, h1km, M3.5/10, MLv3.5/10, Error ellipse: s-maj=23.6km s-min=3.7km az=22.0, confirmed*
*GCG **22** 21:19:07.1±1.2, 14.13N×91.27W, h60km±14km, MD3.8, ML4.0, Presumed earthquake*

ISC 22 21:19:10.3±1.6, 14.03N±0.09×90.97W±0.05, h13km±10km, n21, σ1°18/34, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FG8	**Yepocapa, Chim**	**0.46**	**61**	*i* P	**Pg**	**21 19 19.3**	**-0.1**
FG8				*i* S	**Sb**	**21 19 28.5**	**+1.4**
FG8				IAML		21 19 29.5	
	comp=N,4μm,0.4s						
FG16	**Alotenango, Sa**	**0.51**	**62**	*i* P	**Pg**	**21 19 20.1**	**-0.2**
FG16				*i* S	**Sb**	**21 19 30.2**	**+1.6**
STG8	**El Palmar, Qui**	**0.55**	**318**	*i* P	**Pg**	**21 19 22.0**	**+0.8**
STG8				*i* S	**Sn**	**21 19 33.0**	**-0.4**
STG8				IAML		21 19 36.2	
	comp=N,8μm,0.1s						
PCG5	**San Vicente Pa**	**0.61**	**73**	*i* P	**Pg**	**21 19 21.2**	**-1.0**
PCG5				*i* S	**Sb**	**21 19 31.8**	**+0.4**
PCG5				IAML		21 19 33.6	
	comp=N,7μm,0.3s						
FAME	**Alcaldia de Sa**	**0.95**	**101**	P	**Pb**	**21 19 27.2**	**-1.4**
LOAL	**Lomas de Alarc**	**1.16**	**92**	P	**Pb**	**21 19 31.7**	**-0.5**
LOAL				S	**Sn**	**21 19 50.1**	**+2.0**
NUBE	**Las Nubes**	**1.17**	**96**	P	**Pb**	**21 19 31.5**	**-1.0**
NUBE				S	**Sn**	**21 19 49.4**	**+1.0**
CEVE	**Cerro Verde**	**1.32**	**99**	P	**Pn**	**21 19 34.1**	**-0.7**
CEVE	**Cerro Verde**	**1.32**	**99**	*eP*	**Pn**	**21 19 33.9**	**-0.8**
CEVE				*eS*	**Sg**	**21 19 54.4**	**+1.3**
UNIC	**Universidad Ca**	**1.38**	**92**	P	**Pn**	**21 19 34.1**	**-1.3**
UNIC				S	**Sg**	**21 19 55.7**	**+0.8**
JAYA	**Jayaque - finc**	**1.53**	**104**	P	**Pn**	**21 19 36.0**	**-1.4**
JAYA				S	**Sg**	**21 19 60.0**	**+0.4**
JAYA	**Jayaque - finc**	**1.53**	**104**	*i* P	**Pn**	**21 19 36.1**	**-1.4**
JAYA	**Jayaque - finc**	**1.53**	**104**	*eP*	**Pn**	**21 19 36.1**	**-1.4**
JAYA				*eS*	**Sn**	**21 19 56.9**	**-0.4**
MTO3	**Montecristo**	**1.60**	**77**	P	**Pn**	**21 19 36.6**	**-2.0**
MTO3	**Montecristo**	**1.60**	**77**	*i* P	**Pn**	**21 19 36.6**	**-2.0**
PMON	**Piamonte**	**1.64**	**101**	P	**Pn**	**21 19 38.9**	**-0.1**
BOQS	**Boqueron**	**1.67**	**100**	*eP*	**Pn**	**21 19 40.1**	**+0.6**
LOMA	**Loma Larga**	**1.79**	**102**	P	**Pn**	**21 19 41.1**	**0.0**
LOMA				S	**Sb**	**21 20 07.4**	**+1.8**
COEG	**Centro de Oper**	**2.07**	**101**	P	**Pn**	**21 19 45.3**	**+0.4**
COEG				S	**Sb**	**21 20 15.4**	**+1.8**
COEG	**Centro de Oper**	**2.07**	**101**	*eP*	**Pn**	**21 19 45.0**	**0.0**
COEG				*eS*	**Sb**	**21 20 12.8**	**-0.8**
SARH	**Santa Rosa de**	**2.27**	**71**	P	**Pn**	**21 19 47.0**	**-0.5**

**SJA 22 21:20:53.8±0.7, 33.54S×67.65W, h203km±4km,

*IDC **22** 21:21:08.7±0.5,62.01S×57.55W,h0km,mb4.3/12, mbtmp4.2/13,ML4.1/1,MS3.7/16,Error ellipse: s-maj=20.7km s-min=12.6km az=93.0*
*NEIC **22** 21:21:11.1±2.0,62.24S±0.04×57.4W±0.2,h10km±1km, mb4.7/25,Error ellipse: s-maj=12.4km s-min=6.5km az=100.0*
ISC 22 21:21:10.5±0.4,**62.13S**±0.05×**57.56W**±0.08,**h10**km,**n81**, σ1**36**/67,**mb4.5**/21,**MS3.6**/15,**5C,South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.30**	**169**		Pn		**Pn**	**21 21 32.8**	**-1.8**
ESPZ					Sn		**Sb**	**21 21 48.9**	**-2.7**
PMSA	**Palmer Station**	**3.94**	**225**		Pn		**Pn**	**21 22 10.5**	**-0.4**
	11nm,0.3s,baz=36,slow=9.7,SNR=7.1								
PMSA					Sn		**Sn**	**21 22 56.2**	**-0.9**
	13nm,0.3s,baz=147,slow=19,SNR=7.8								
PMSA					LR		LR	21 23 52.8	
	comp=Z,806nm,19.5s,baz=97,slow=41 30nm,0.7s								
PMSA					AML		AML		
PMSA	**Palmer Station**	**3.94**	**225**				**Pn**	**21 22 11.4**	**+0.6**
PMSA							**Sn**	**21 22 57.3**	**+0.2**
GO08	**Villa O'Higgin**	**16.08**	**322**	Pn			**Pn**	**21 24 57.0**	**+0.6**
BELA	**Belgrano 2**	**17.39**	**164**				**Pn**	**21 25 12.7**	**-0.2**
VNA3	**Neumayer Olymp**	**20.41**	**137**	⇑P			Pn	21 25 51.4	+2.0
	comp=Z,12nm,0.7s								
VNA1	**Neumayer--Stat**	**20.87**	**135**	⇑P			Pn	21 25 56.8	+2.1
	comp=Z,10nm,0.9s								
VNA2	**Neumayer--Watz**	**21.15**	**136**	⇑P			**P**	**21 25 59.3**	**+4.1**
	comp=Z,4.1nm,0.6s,baz=263,slow=10								
LL06	**Loncomilla**	**22.13**	**327**	P			**P**	**21 26 06.8**	**+0.9**
SNAA	**Sanae**	**22.59**	**138**	⇑P			**P**	**21 26 14.7**	**+4.0**
	comp=Z,200nm,1.0s								
SNAA	**Sanae**	**22.59**	**138**	P			**P**	**21 26 10.8**	**0.0**
	comp=Z,2.1nm,0.6s,baz=256,slow=7.4,SNR=10								
SNAA					LR		LR	21 33 48.3	
	comp=Z,271nm,21.3s,baz=236,slow=34 comp=Z,2.1nm,0.6s								
SNAA	**Sanae**	**22.59**	**138**	P			**P**	**21 26 10.3**	**-0.5**
SNAA					IAmb		IAmb	21 26 17.2	
	comp=Z,17nm,1.1s								
PLCA	**Paso Flores**	**22.82**	**334**	P			**P**	**21 26 12.0**	**-1.4**
	comp=Z,8.8nm,1.0s,baz=167,slow=10,SNR=8.8								
PLCA					LR		LR	21 35 30.3	
	comp=Z,206nm,18.2s,baz=178,slow=38 comp=Z,8.8nm,1.0s								
PLCA	**Paso Flores**	**22.82**	**334**	P			**P**	**21 26 12.7**	**-0.7**
PLCA					IAmb		IAmb	21 26 16.3	
	comp=Z,20nm,1.3s								
LR05	**Currie**	**23.62**	**332**				**P**	**21 26 21.4**	**0.0**
GO06	**Curarrehue**	**24.12**	**333**				**P**	**21 26 25.3**	**-1.0**
GO06					IAmb		IAmb	21 26 28.4	
	comp=Z,22nm,1.0s								
TROLL	**Troll, Antarti**	**24.24**	**139**	⇑P			**P**	**21 26 30.5**	**+3.3**
	comp=Z,219nm,0.8s								
BI02	**San Fabin de**	**26.89**	**335**	P			**P**	**21 26 53.1**	**+1.7**
BI02					IAmb		IAmb	21 26 54.9	
	comp=Z,9.1nm,0.8s								
QSPA	**South Pole Qui**	**28.09**	**180**	P			**P**	**21 27 02.7**	**+0.7**
	comp=Z,4.2nm,0.7s,baz=165,slow=3.5,SNR=14								
QSPA					S		**S**	**21 31 50.7**	**+4.1**
	comp=Z,0.6nm,0.3s,baz=268,slow=15,SNR=6.4								
QSPA					LR		LR	21 39 34.3	
	comp=Z,135nm,19.3s,baz=171,slow=39 comp=Z,4.2nm,0.7s								
QSPA	**South Pole Qui**	**28.09**	**180**	P			**P**	**21 27 02.3**	**+0.2**
QSPA					IAmb		IAmb	21 27 37.5	
	comp=Z,12nm,1.1s								
BO02	**Sierra Bellavi**	**28.61**	**337**	P			**P**	**21 27 07.5**	**+0.7**
BO02					IAmb		IAmb	21 27 12.3	
	comp=Z,9.3nm,0.8s								
BO04	**La Punta**	**29.36**	**338**	P			**P**	**21 27 14.2**	**+0.7**
BO04					IAmb		IAmb	21 27 14.9	
	comp=Z,18nm,0.9s								
MT09	**Talagante**	**29.64**	**337**	P			**P**	**21 27 16.3**	**+0.3**
MT08	**Bocatoma Ro**	**29.79**	**339**	P			**P**	**21 27 17.5**	**0.0**
MT08					IAmb		IAmb	21 27 23.1	
	comp=Z,15nm,0.9s								
ZON	**Zonda**	**31.44**	**342**	P			**P**	**21 27 31.7**	**-0.1**
ZON					IAmb		IAmb	21 27 41.5	
	comp=Z,5.7nm,1.1s								
CO02	**Combarbal**	**32.15**	**338**	P			**P**	**21 27 38.4**	**+0.3**
CO03	**El Pedregal**	**32.45**	**339**	P			**P**	**21 27 41.0**	**+0.3**
CO01	**Juntas del Tor**	**33.19**	**340**	P			**P**	**21 27 48.7**	**+1.2**
CPUP	**Villa Florida**	**35.80**	**0**	P			**P**	**21 28 08.0**	**-1.6**
	comp=Z,0.7nm,0.7s,baz=163,slow=12,SNR=3.2								
CPUP					LR		LR	21 41 51.9	
	comp=Z,61nm,21.9s,baz=236,slow=35 comp=Z,0.7nm,0.7s								
CPUP	**Villa Florida**	**35.80**	**0**	P			**P**	**21 28 10.8**	**+1.1**
VNDA	**Vanda**	**38.50**	**193**	LR			LR	21 43 13.2	
	comp=Z,64nm,19.5s,baz=159,slow=34								
MAW	**Mawson**	**43.60**	**151**	P			**P**	**21 29 14.4**	**+0.2**
	comp=Z,3.0nm,0.8s,baz=243,slow=8.0,SNR=5.4								
MAW					LR		LR	21 47 25.8	
	comp=Z,303nm,20.8s,baz=219,slow=36 comp=Z,3.0nm,0.8s								
MAW	**Mawson**	**43.60**	**151**	P			**P**	**21 29 14.3**	**+0.2**
LPAZ	**La Paz**	**46.40**	**346**	P			**P**	**21 29 35.5**	**-2.2**
	comp=Z,0.5nm,0.4s,baz=133,slow=15,SNR=1.6								
LPAZ					LR		LR	21 51 20.8	
	comp=Z,75nm,18.4s,baz=185,slow=39 comp=Z,0.5nm,0.4s								
BDFB	**Brasilia**	**46.93**	**13**	P			**P**	**21 29 40.7**	**-0.5**
	comp=Z,3.6nm,0.8s,baz=237,slow=3.3,SNR=6.4								
BDFB					LR		LR	21 48 29.4	
	comp=Z,57nm,19.3s,baz=183,slow=35 comp=Z,3.6nm,0.8s								
RPN	**Rapa Nui**	**48.74**	**291**	LR			LR	21 44 55.8	
	comp=Z,76nm,21.6s,baz=131,slow=29								
NNA	**Nana**	**51.97**	**336**	LR			LR	21 50 13.2	
	comp=Z,51nm,19.9s,baz=154,slow=34								
SMTB	**Santa Maria do**	**53.67**	**12**	P			**P**	**21 30 33.2**	**+1.1**
SMTB					IAmb		IAmb	21 30 34.3	
	comp=Z,12nm,1.1s								
SUR	**Sutherland**	**56.59**	**97**	LR			LR	21 49 47.4	
	comp=Z,72nm,21.5s,baz=209,slow=30								
SUR	**Sutherland**	**56.59**	**97**	P			**P**	**21 30 54.5**	**+1.1**
H10S3	**ASCENSION HYDR**	**61.54**	**50**	T			T	22 39 05.2	
	baz=17,slow=74,SNR=21								
H10S2	**ASCENSION HYDR**	**61.54**	**50**	T			T	22 39 05.1	
	baz=203,slow=74,SNR=19								
BOSA	**Boshof**	**61.82**	**98**	P			**P**	**21 31 30.6**	**+1.1**
	comp=Z,1.5nm,0.6s,baz=209,slow=7.6,SNR=5.2 comp=Z,1.5nm,0.6s								
BOSA	**Boshof**	**61.82**	**98**	P			**P**	**21 31 30.3**	**+0.7**
BOSA					IAmb		IAmb	21 31 46.4	
	comp=Z,12nm,1.4s								
H10N3	**ASCENSION HYDR**	**62.63**	**50**	T			T	22 39 59.8	
	baz=202,slow=76,SNR=29								
H10N1	**ASCENSION HYDR**	**62.63**	**50**	T			T	22 40 00.0	
	baz=202,slow=76,SNR=27								
H10N2	**ASCENSION HYDR**	**62.64**	**50**	T			T	22 40 01.1	
	baz=202,slow=76,SNR=34								
OTAV	**Otavalo**	**64.19**	**337**	P			**P**	**21 31 46.4**	**+0.7**
OTAV					IAmb		IAmb	21 31 47.7	
	comp=Z,7.0nm,1.2s								
LBTB	**Lobatse**	**65.04**	**96**	LR			LR	21 54 58.8	
	comp=Z,73nm,21.4s,baz=192,slow=31								
MDP	**Montagnes des**	**67.15**	**5**	LR			LR	22 03 42.0	
	comp=Z,31nm,18.5s,baz=209,slow=38								
ROSC	**El Rosal**	**68.02**	**342**	LR			LR	22 05 17.2	
	comp=Z,126nm,18.6s,baz=188,slow=39								
TBI	**Tubuai**	**70.52**	**257**	eLR			LR	21 53 46.9	
	comp=Z,2μm,36.8s								
SDV	**Santo Domingo**	**71.53**	**346**	LR			LR	22 06 43.1	
	comp=Z,72nm,19.4s,baz=137,slow=38								
PPT2	**Papeete2**	**75.56**	**260**	eLR			LR	21 56 11.6	
	comp=Z,62nm,26.2s								
PPT	**Papeete**	**75.58**	**260**	P			**P**	**21 32 56.2**	**+0.9**
	comp=Z,13nm,0.9s,baz=269,slow=22,SNR=1.8 comp=Z,13nm,0.9s								
DBIC	**Dimbokro**	**79.57**	**53**	P			**P**	**21 33 17.4**	**-0.1**
	comp=Z,2.7nm,0.6s,baz=240,slow=6.6,SNR=2.4 comp=Z,2.7nm,0.6s								
DBIC	**Dimbokro**	**79.57**	**53**	P			**P**	**21 33 17.7**	**+0.2**
DBIC					IAmb		IAmb	21 34 00.7	
	comp=Z,16nm,1.4s								
ASAR	**Alice Springs**	**94.01**	**191**	P			**P**	**21 34 27.1**	**-1.6**
	comp=Z,1.7nm,0.9s,baz=168,slow=4.4,SNR=11 comp=Z,1.7nm,0.9s								
ASAR	**Alice Springs**	**94.01**	**191**	P			**P**	**21 34 29.3**	**+0.6**
WRA	**Warramunga Arr**	**97.66**	**191**	P			**P**	**21 34 43.6**	**-1.7**
	comp=Z,0.8nm,0.8s,baz=174,slow=3.9,SNR=7.3 comp=Z,0.8nm,0.8s								
WRA	**Warramunga Arr**	**97.66**	**191**	P			**P**	**21 34 44.0**	**-1.3**
GERES	**GERESS Array B**	**124.26**	**49**	PKP			**PKPdf**	**21 40 07.1**	**-1.2**
	comp=Z,0.8nm,0.6s,baz=202,slow=2.2,SNR=8.1								
GERES	**GERESS Array B**	**124.26**	**49**				**PKPdf**	**21 40 07.2**	**-1.1**
BRTR	**Keskin Array B**	**124.71**	**70**	PKP			**PKPdf**	**21 40 08.5**	**-1.0**
	comp=Z,0.5nm,0.7s,baz=318,slow=4.1,SNR=1.8								
YKA	**Yellowknife Ar**	**131.54**	**329**	PKP			**PKPdf**	**21 40 19.9**	**-1.7**
	comp=Z,0.4nm,0.8s,baz=166,slow=1.9,SNR=4.0								
YKA	**Yellowknife Ar**	**131.54**	**329**				**PKiKP**	**21 40 22.2**	**-0.3**
CMAR	**Chiang Mai Arr**	**133.38**	**149**	PKP			**PKiKP**	**21 40 27.2**	**-0.5**
	comp=Z,0.3nm,0.3s,baz=221,slow=3.9,SNR=4.6								
CMAR	**Chiang Mai Arr**	**133.38**	**149**				**PKPdf**	**21 40 26.1**	**-0.3**
FINES	**FINESS Array B**	**138.51**	**46**	PKP			**PKPdf**	**21 40 34.5**	**-0.1**
	comp=Z,5.2nm,1.2s,baz=134,slow=12,SNR=3.4								
FINES	**FINESS Array B**	**138.51**	**46**				**PKPdf**	**21 40 34.2**	**-0.4**
ARCES	**ARCESS Array B**	**143.74**	**36**	PKP			PKPbc	21 40 41.0	-0.5
	comp=Z,4.7nm,0.7s,baz=244,slow=2.4,SNR=15								
AAK	**Ala-Archa**	**145.89**	**102**	PKPbc			**PKPab**	**21 40 49.6**	**-0.2**
	comp=Z,3.7nm,0.8s,baz=219,slow=4.4,SNR=9.0								
LZDM	**Lanzhou Array**	**151.29**	**147**	PKPbc			**PKiKP**	**21 41 04.2**	**-0.1**
	comp=Z,2.1nm,0.5s,baz=196,slow=2.6,SNR=7.6								
BVAR	**Borovoye Array**	**151.41**	**84**	PKPbc			**PKiKP**	**21 41 03.4**	**-0.2**
	comp=Z,4.7nm,0.6s,baz=211,slow=2.4,SNR=27								
MJAR	**Matsushiro Arr**	**152.56**	**208**	PKPbc			**PKPbc**	**21 41 04.5**	**-1.8**
	comp=Z,1.2nm,0.8s,baz=173,slow=5.1,SNR=2.5								
MKAR	**Makanchi Array**	**152.64**	**105**	PKPbc			**PKPbc**	**21 41 06.0**	**-0.1**
	comp=Z,1.4nm,0.6s,baz=238,slow=3.6,SNR=13								
MKAR	**Makanchi Array**	**152.64**	**105**	PKPdf			**PKPdf**	**21 41 00.1**	**+1.0**
KURBB	**Kurchatov Arra**	**153.65**	**96**	PKPbc			**PKPbc**	**21 41 07.6**	**-0.6**
	comp=Z,0.7nm,0.7s,baz=232,slow=2.7,SNR=7.4								
ZALV	**Zalesovo Beam**	**158.75**	**95**	PKPab			**PKPab**	**21 41 43.5**	**+0.6**
	comp=Z,0.5nm,0.6s,baz=235,slow=6.5,SNR=2.2								
SONM	**Songino Array**	**163.05**	**140**	PKPab			**PKPab**	**21 42 01.9**	**0.0**
	comp=Z,1.3nm,0.9s,baz=193,slow=6.1,SNR=7.5								
SONM	**Songino Array**	**163.05**	**140**				**PKPab**	**21 42 02.6**	**+0.7**

*IDC **22** 21:28:32.8±1.3,27.25N×56.22E,h0km,mb3.6/11, mbtmp3.6/12,ML3.6/1,MS3.6/1,Error ellipse: s-maj=30.8km s-min=20.4km az=169.0*
*TEH **22** 21:28:34.8,27.29N×56.07E,h8km±7km,ML3.4, Presumed earthquake*
*DSN **22** 21:28:35.3±1.4,27.54N×56.08E,h10km,ML3.5/14,Error ellipse: s-maj=26.6km s-min=10.4km az=74.0*
*OMAN **22** 21:28:37.1±0.1,27.38N×55.93E,h7km,ml3.2/17,Error ellipse: s-maj=1.6km s-min=1.1km az=30.0*
ISC 22 21:28:35.1±1.3,**27.50N**±0.03×**56.05E**±0.05,**h6**km±9km, **n69**,σ1**07**/79,**mb3.3**/10,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
BNDS	**Bandar-Abbas**	**0.15**	**133**		Pg		**Pg**	**21 28 38.7**	**+0.4**
IBND	**Bandar-abas**	**0.44**	**96**		Pg		**Pb**	**21 28 44.6**	**-0.6**
IBND					Sg		**Sb**	**21 28 51.9**	**-0.2**
SHME	**Shamm**	**1.45**	**177**		P		**Pn**	**21 29 01.3**	**-0.5**
SHME					S		**Sb**	**21 29 20.7**	**-0.3**
SHME	**Shamm**	**1.45**	**177**		P		**Pn**	**21 29 01.9**	**+0.1**
	SNR=17								
SHME					S		**Sn**	**21 29 21.1**	**0.0**
KHNJ	**Kahnooj**	**1.53**	**73**		Pg		**Pg**	**21 29 04.8**	**+0.2**
BANOM	**Banah**	**1.59**	**172**		P		**Pb**	**21 29 04.4**	**-0.4**
BANOM					S		**Sg**	**21 29 24.6**	**-1.4**
BANOM	**Banah**	**1.59**	**172**		P		**Pb**	**21 29 04.4**	**-0.4**
	SNR=21								
BANOM					S		**Sg**	**21 29 24.7**	**-1.4**
UMQ	**Umm Al-Quwin**	**2.00**	**190**		P		**Pn**	**21 29 09.5**	**+0.1**
UMQ					S		**Sn**	**21 29 34.4**	**-0.2**
MASF	**Masafi**	**2.12**	**177**		P		**Pn**	**21 29 12.0**	**+0.8**
MASF					S		**Sn**	**21 29 38.4**	**+0.6**
MSFE	**Esma-Masafi**	**2.13**	**177**		P		**Pn**	**21 29 11.7**	**+0.5**
MSFE					S		**Sb**	**21 29 41.3**	**+0.4**
MDH	**Madha**	**2.20**	**174**		P		**Pn**	**21 29 12.9**	**+0.7**
MDH					S		**Sb**	**21 29 43.0**	**+0.1**
MDH	**Madha**	**2.20**	**174**		P		**Pn**	**21 29 12.6**	**+0.4**
MDH					S		**Sn**	**21 29 39.2**	**-0.5**
NAZ	**Nazwa, Dubai**	**2.52**	**188**		P		**Pn**	**21 29 17.8**	**+1.1**
UOSS	**Minazif**	**2.55**	**177**		P		**Pn**	**21 29 16.9**	**0.0**
UOSS	**Minazif**	**2.55**	**177**		P		**Pn**	**21 29 17.7**	**+0.8**
HATD	**Hatta, Dubai**	**2.66**	**178**		P		**Pn**	**21 29 19.6**	**+1.0**
KBAM	**BAM**	**2.67**	**52**		Pn		**Pb**	**21 29 23.1**	**-0.3**
CHMN	**Chashme madani**	**2.69**	**29**		Pn		**Pb**	**21 29 24.6**	**+0.7**
FAQ	**Al Faqa, Dubai**	**2.77**	**189**		P		**Pn**	**21 29 20.3**	**+0.3**
ASHO	**Ashiyiah**	**2.80**	**180**		P		**Pn**	**21 29 20.9**	**+0.4**
ASHO	**Ashiyiah**	**2.80**	**180**		P		**Pn**	**21 29 22.0**	**+1.5**
	SNR=16								
ASHO					S		**Sn**	**21 29 54.8**	**+0.1**
KHGB	**Koh Gabri**	**2.89**	**7**		Pn		**Pb**	**21 29 27.3**	**+0.1**
ASUD	**Al Ashush, Dub**	**2.93**	**193**		P		**Pn**	**21 29 22.2**	**-0.1**
KRM1	**Kerman Provinc**	**3.18**	**19**		Pn		**Pb**	**21 29 30.9**	**-1.2**
SOHO	**SOHO**	**3.38**	**172**		P		**Pn**	**21 29 28.3**	**-0.1**
SOHO	**SOHO**	**3.38**	**172**		P		**Pn**	**21 29 29.7**	**+1.4**
ALNE	**Al Ain**	**3.44**	**185**		P		**Pn**	**21 29 29.9**	**+0.6**
ALNE	**Al Ain**	**3.44**	**185**		P		**Pn**	**21 29 29.6**	**+0.4**
ALNE					S		**Sn**	**21 30 10.8**	**+0.5**
ZRDN	**Zarand Kerman**	**3.48**	**7**		Pn		**Pb**	**21 29 35.5**	**-1.7**
HOQ	**Hoqain**	**4.06**	**163**		P		**Pn**	**21 29 37.9**	**+0.1**
HOQ					S		**Sn**	**21 30 25.6**	**-0.1**
IMEH	**Mehriz**	**4.08**	**342**		Pn		Pn	21 29 43.5	+5.4
IBAF	**Bafgh**	**4.10**	**354**		Pn		Pn	21 29 43.7	+5.3
TAFT	**Taft - Yazd**	**4.51**	**339**		Pn		Pn	21 29 49.4	+5.2
GHWR	**Ruwais**	**4.54**	**220**		S		**Sn**	**21 30 36.2**	**-1.2**
SMDO	**Samad**	**4.78**	**157**		P		**Pn**	**21 29 48.6**	**+0.9**
UMZA	**Um Al Zommool**	**4.83**	**190**		P		**Pn**	**21 29 48.8**	**+0.4**
UMZA					S		**Sn**	**21 30 42.8**	**-1.9**
WSAR	**Wadi Sarin**	**4.84**	**151**		P		**Pn**	**21 29 50.0**	**+1.5**
	SNR=9.3								
WSAR					S		**Sn**	**21 30 45.1**	**+0.1**
BSY	**Bisya**	**4.85**	**167**		P		**Pn**	**21 29 50.4**	**+1.8**
NGCH	**Negor - Chabah**	**5.03**	**114**		P		**Pn**	**21 29 52.5**	**+1.4**
MZR	**Muzera**	**5.05**	**208**		P		**Pn**	**21 29 52.1**	**+0.7**
MZR	**Muzera**	**5.05**	**208**		P		**Pn**	**21 29 50.1**	**-1.2**
SLWR	**Sila**	**5.21**	**230**		S		**Sn**	**21 30 52.5**	**-1.3**
KLNJ	**Kolanjah**	**5.23**	**313**		Pn		**Pn**	**21 29 58.4**	**+4.2**
IRAM	**Ramesheh**	**5.35**	**324**		Pn		Pn	21 30 00.7	+5.0
JMDO	**Jabal Madar**	**5.44**	**160**		P		**Pn**	**21 29 57.7**	**+1.0**
WBK	**Wadi Bani Khal**	**5.54**	**151**		P		**Pn**	**21 29 58.1**	**0.0**
	SNR=12								
SRVN	**Saravan**	**5.64**	**90**		Pn		**Pn**	**21 30 02.2**	**+2.6**
JLN	**Jalan Bani Buh**	**6.14**	**149**		P		**Pn**	**21 30 05.7**	**-0.6**
MHTO	**MHTO**	**6.72**	**164**		P		**Pn**	**21 30 15.1**	**+0.8**
	SNR=7.3								
DOK	**Doka**	**9.02**	**192**		P		**Pn**	**21 30 47.7**	**+1.8**
SHAO	**Shalim**	**9.44**	**182**		P		**Pn**	**21 30 52.3**	**+0.7**
	SNR=5.8								
WHFO	**Wadi Hawf**	**9.76**	**193**		P		**Pn**	**21 30 57.0**	**+0.8**
	SNR=16								
DMTO	**DMTO**	**9.79**	**186**		P		**Pn**	**21 30 57.0**	**+0.5**
RAYN	**Ar Rayn**	**10.31**	**250**		P		**Pn**	**21 31 03.4**	**-0.3**
ABTO	**Aybut**	**10.41**	**195**		P		**Pn**	**21 31 05.0**	**-0.1**
	SNR=9.1								
GNI	**Garni**	**15.71**	**326**		Pn		**P**	**21 32 21.4**	**+0.1**
	0.2nm,0.3s,baz=185,slow=12,SNR=1.1 1.3nm,0.5s								
GNI					AML		AML		
BRTR	**Keskin Array B**	**22.23**	**309**		P		**P**	**21 33 33.6**	**+1.0**
	0.8nm,0.8s,baz=116,slow=16,SNR=4.2 0.8nm,0.8s								
BVAR	**Borovoye Array**	**27.64**	**19**		P		**P**	**21 34 24.1**	**+0.8**
	0.5nm,0.6s,baz=243,slow=6.3,SNR=4.4 0.5nm,0.6s								
MKAR	**Makanchi Array**	**28.22**	**40**		P		**P**	**21 34 26.3**	**-2.3**
	0.3nm,0.7s,baz=261,slow=7.1,SNR=1.7 0.3nm,0.7s								
KURBB	**Kurchatov Arra**	**28.73**	**30**		P		**P**	**21 34 33.1**	**0.0**
	0.1nm,0.3s,baz=236,slow=3.0,SNR=4.4 0.1nm,0.3s								
ARTI	**Arti**	**28.92**	**3**		LR		LR	21 46 48.9	
	comp=Z,110nm,19.7s,baz=335,slow=38								
ZALV	**Zalesovo Beam**	**33.83**	**31**		P		**P**	**21 35 18.5**	**+0.6**
	0.5nm,0.4s,baz=230,slow=8.9,SNR=2.5 0.5nm,0.4s								
GERES	**GERESS Array B**	**38.88**	**315**		P		**P**	**21 36 02.5**	**+1.2**
	0.2nm,0.5s,baz=132,slow=5.4,SNR=1.9 0.2nm,0.5s								
FINES	**FINESS Array B**	**39.42**	**338**		P		**P**	**21 36 06.8**	**+1.3**
	8.1nm,1.0s,baz=142,slow=9.6,SNR=4.8 8.1nm,1.0s								
SONM	**Songino Array**	**43.84**	**48**		P		**P**	**21 36 41.3**	**-0.7**
	0.2nm,0.5s,baz=262,slow=9.9,SNR=4.4 0.2nm,0.5s								
ESDC	**Sonseca Array**	**50.60**	**300**		P		**P**	**21 37 35.5**	**+0.6**
	0.2nm,0.4s,baz=74,slow=6.8,SNR=12 0.2nm,0.4s								
TORD	**Torodi Ar. Bea**	**52.55**	**266**		P		**P**	**21 37 49.6**	**-0.1**
	1.7nm,0.5s,baz=60,slow=10,SNR=2.1 1.7nm,0.5s								
WRA	**Warramunga Arr**	**89.20**	**113**		P		**P**	**21 41 30.5**	**-1.6**
	0.3nm,0.7s,baz=308,slow=4.4,SNR=2.1 0.3nm,0.7s								
LPAZ	**La Paz**	**127.39**	**270**	PKP			**PKPdf**	**21 47 40.3**	**-1.9**
	25nm,0.4s,baz=63,slow=2.3,SNR=67								

*DJA **22** 21:37:52.0±2.0,3°S±3°×12°7.E±°,h22km±20km,M3.5/6, MLv3.5/6*
*IDC **22** 21:37:57.0±4.3,2.74S×127.87E,h75km±39km,mb3.2/2, mbtmp3.6/4,ML3.5/2,Error ellipse: s-maj=102.2km s-min=15.5km az=69.0*
ISC 22 21:37:53.8±1.1,**3.0S**±0.1×**127.1E**±0.2,**h35**km,**n6**,σ1**01**/9, **Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SANI	**Sanana**	**1.43**	**310**		P		**Pn**	**21 38 16.9**	**-0.3**
SANI					S		**Sn**	**21 38 35.0**	**+0.2**
SANI					AML		AML		
BNDI	**Bandanaira**	**3.21**	**119**		P		**Pn**	**21 38 41.8**	**-0.1**
FITZ	**Fitzroy Crossi**	**15.09**	**185**		P		**P**	**21 41 30.0**	**+0.6**
	baz=303,slow=20,SNR=2.4 1.9nm,1.0s								
WRA	**Warramunga Arr**	**18.29**	**158**		P		**Pn**	**21 42 05.2**	**+0.2**
	0.3nm,0.3s,baz=342,slow=12,SNR=9.7								
WRA					S		**Sn**	**21 45 26.6**	**-1.7**
	0.2nm,0.4s,baz=337,slow=22,SNR=1.9 0.6nm,0.3s								
WRA					AML		AML		
ASAR	**Alice Springs**	**21.60**	**163**		P		**P**	**21 42 42.3**	**+1.4**
	1.0nm,0.5s,baz=346,slow=12,SNR=21								
ASAR					S		**S**	**21 46 37.9**	**-0.6**
	1.4nm,0.9s,baz=347,slow=20,SNR=8.5 1.0nm,0.5s								
MKAR	**Makanchi Array**	**63.29**	**327**		P		**P**	**21 48 18.8**	**-0.4**
	0.4nm,0.7s,baz=126,slow=7.3,SNR=2.6 0.4nm,0.7s								

*NEIC **22** 21:46:20.5±1.8,22.4S±0.1×172.0E±0.1,h10km±1km, mb4.4/23,Error ellipse: s-maj=21.6km s-min=18.4km az=31.0*
*IDC **22** 21:46:31.4±2.4,22.37S×171.56E,h92km±22km,mb4.0/12, mbtmp4.4/15,MS3.1/7,Error ellipse: s-maj=19.3km s-min=17.7km az=149.0*
*NOU **22** 21:46:36.3,22.10S×170.80E,h0km,MLv4.6/11, Southeast of Loyalty Islands*
ISC 22 21:46:32.0±0.5,**22.47S**±0.08×**171.43E**±0.06,**h98**km,**n74**, σ2**12**/66,**mb4.3**/20,**2C-2D,Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**3.30**	**287**		P		**Pn**	**21 47 20.2**	**-1.5**
MARNC	**Mare, Loyalty**	**3.30**	**287**		S		**Sn**	**21 47 53.5**	**-6.6**
PINNC	**Pines Island,**	**3.68**	**267**		P		**Pn**	**21 47 26.9**	**+0.1**
PINNC	**Pines Island,**	**3.68**	**267**		S		**Sn**	**21 48 05.9**	**-3.4**
PINNC	**Pines Island,**	**3.68**	**267**				**Pn**	**21 47 25.2**	**-1.6**
YATNC	**Mamie plateau,**	**4.22**	**275**		P		**Pn**	**21 47 33.1**	**-1.0**
YATNC	**Mamie plateau,**	**4.22**	**275**		S		**Sn**	**21 48 17.8**	**-4.6**
OUENC	**Ouen Island, N**	**4.24**	**270**		P		**Pn**	**21 47 34.3**	**-0.1**
**OUEN

QSPA	**South Pole Qui**	**67.60**	**180**		**P**		**21 57 18.8 +0.8**
QSPA				IAmb	IAmb		21 57 19.4
	comp=Z,5.5nm,0.8s						
MAW	**Mawson**	**76.22**	**202**	P	**P**		**21 58 10.2 +1.0**
	comp=Z,2.0nm,0.7s,baz=89,slow=7.3,SNR=4.1						
	comp=Z,2.0nm,0.7s						
MAW	**Mawson**	**76.22**	**202**	P	**P**		**21 58 10.9 +1.7**
CMAR	**Chiang Mai Arr**	**81.68**	**294**	P	**P**		**21 58 41.5 +1.6**
	comp=Z,2.6nm,0.3s,baz=136,slow=4.3,SNR=9.7						
	comp=Z,2.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**81.68**	**294**	P	**P**		**21 58 42.3 +2.3**
ELIB	**Princess Elisa**	**83.32**	**190**	*dP*	**P**		**21 58 46.7 -1.0**
	comp=Z,3.3nm,1.0s						
ELIB				*dp*	**PcP**		**21 58 50.9 -1.1**
TROLL	**Troll, Antarti**	**85.46**	**183**	P	**P**		**21 58 58.7 +0.1**
	comp=Z,280nm,0.6s						
SNAA	**Sanae**	**86.03**	**182**	P	**P**		**21 59 00.4 -0.8**
	comp=Z,1.0nm,0.4s,baz=153,slow=6.8,SNR=2.7						
	comp=Z,1.0nm,0.4s						
SNAA	**Sanae**	**86.03**	**182**	P	**P**		**21 59 01.1 -0.1**
SNAA				IAmb	IAmb		21 59 05.5
	comp=Z,2.4nm,0.9s						
VNA3	**Neumayer Olymp**	**86.54**	**180**	⇑P	**P**		**21 59 03.0 -0.8**
	comp=Z,2.9nm,0.7s						
VNA2	**Neumayer--Watz**	**86.86**	**180**	⇑P	**P**		**21 59 04.9 -0.3**
	comp=Z,2.3nm,0.8s,baz=172,slow=5.5						
NVAR	**Mina Array Bea**	**89.43**	**48**	P	**P**		**21 59 18.4 +0.2**
	comp=Z,1.3nm,1.0s,baz=239,slow=5.1,SNR=5.0						
	comp=Z,1.3nm,1.0s						
SONM	**Songino Array**	**91.02**	**322**	P	**P**		**21 59 25.5 +0.3**
	comp=Z,2.3nm,1.1s,baz=146,slow=6.3,SNR=8.8						
	comp=Z,2.3nm,1.1s						
SONM	**Songino Array**	**91.02**	**322**	P	**P**		**21 59 26.1 +0.8**
SONM				IAmb	IAmb		21 59 26.8
	comp=Z,2.1nm,1.0s						
ILAR	**Eielson Array**	**92.71**	**17**	P	**P**		**21 59 30.9 -1.7**
	comp=Z,0.7nm,0.9s,baz=268,slow=7.3,SNR=4.7						
	comp=Z,0.7nm,0.9s						
ILAR	**Eielson Array**	**92.71**	**17**	P	**P**		**21 59 31.5 -1.0**
GERES	**GERESS Array B**	**148.29**	**332**	PKPbc	**PKPbc**		**22 06 06.0 -0.8**
	comp=Z,0.7nm,0.7s,baz=11,slow=1.4,SNR=7.8						
GERES	**GERESS Array B**	**148.29**	**332**		**PKPbc**		**22 06 05.8 -1.0**

*SJA **22** 21:56:22.3±0.7, 30.°69S×72.°06W, h9km±4km, ML3.8, MW3.5*
*IDC **22** 21:56:24.1±1.5, 30.°56S×72.°07W, h0km, mb4.1/1, mbtmp3.7/6, ML3.6/5, MS3.0/1, Error ellipse: s-maj=26.1km s-min=17.8km az=54.0*
*GUC **22** 21:56:26.3±0.8, 30.°76S×71.°90W, h31km±2km, ML4.1, Presumed earthquake*
*NEIC **22** 21:56:27.1±1.3, 30.°68S±0.°03×71.°80W±0.°04, h21km±5km, mb4.4/3, ML4.1(GUC), Error ellipse: s-maj=5.8km s-min=4.3km az=127.0*

ISC 22 21:56:26.0±0.7, 30.°70S±0.°02×71.°94W±0.°04, h22km±2km, n113, σ1$56/145, mb4.3/4, 5C-6D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CO06	**Fray Jorge**	**0.26**	**84**	Pg	**Pb**	**21 56 32.4**	**+0.2**
CO06				Sg	**Sb**	**21 56 35.6**	**-0.9**
CO06	**Fray Jorge**	**0.26**	**84**	⇓*eP*	**Pb**	**21 56 32.6**	**+0.4**
CO06				*eS*	**Sb**	**21 56 36.6**	**+0.1**
CO06				IAML		21 56 37.2	
	comp=E,14μm,0.3s						
CO02	**Combarbal**	**0.95**	**122**	*eP*	**Pb**	**21 56 42.8**	**-1.0**
CO02				*eS*	**Sb**	**21 56 54.4**	**-1.5**
CO02				IAML		21 56 55.3	
	comp=Z,2μm,0.2s						
CO02	**Combarbal**	**0.95**	**122**		**Pb**	**21 56 42.6**	**-1.1**
CO02				Sg	**Sb**	**21 56 54.0**	**-1.9**
CO02	**Combarbal**	**0.95**	**122**	⇓*eP*	**Pb**	**21 56 42.7**	**-1.0**
CO02				*eS*	**Sb**	**21 56 54.2**	**-1.7**
CO02				IAML		21 56 56.8	
	comp=N,11μm,0.3s						
CO05	**La Serena**	**0.99**	**38**		**Pn**	**21 56 44.5**	**0.0**
CO05				Sg	**Sb**	**21 56 55.8**	**-1.1**
CO05	**La Serena**	**0.99**	**38**	⇓*eP*	**Pn**	**21 56 44.5**	**0.0**
CO05				*eS*	**Sn**	**21 56 57.9**	**+0.1**
CO05				IAML		21 57 02.1	
	comp=E,5μm,0.5s						
CO03	**El Pedregal**	**1.08**	**98**	*eP*	**Pb**	**21 56 44.9**	**-1.2**
CO03				*eS*	**Sn**	**21 57 01.6**	**+1.4**
CO03				IAML		21 57 01.8	
	comp=Z,2μm,0.3s						
CO03	**El Pedregal**	**1.08**	**98**		**Pb**	**21 56 44.8**	**-1.2**
CO03				Sg	**Sb**	**21 56 57.6**	**-2.1**
CO03	**El Pedregal**	**1.08**	**98**	⇓*eP*	**Pb**	**21 56 44.8**	**-1.2**
CO03				*eS*	**Sb**	**21 56 58.1**	**-1.6**
GO04	**Tololo Observa**	**1.11**	**62**	*eP*	**Pn**	**21 56 46.2**	**-0.3**
GO04				*eS*	**Sn**	**21 57 01.7**	**+0.4**
GO04				IAML		21 57 05.2	
	comp=Z,4μm,0.3s						
GO04	**Tololo Observa**	**1.11**	**62**		**Pb**	**21 56 45.8**	**-0.8**
GO04	**Tololo Observa**	**1.11**	**62**	⇓*eP*	**Pn**	**21 56 46.1**	**-0.3**
GO04				*eS*	**Sn**	**21 57 01.5**	**+0.3**
CO04	**Los Peladeros**	**1.57**	**149**		**Pn**	**21 56 52.3**	**-0.5**
CO04	**Los Peladeros**	**1.57**	**149**	*eP*	**Pn**	**21 56 52.4**	**-0.3**
CO04				*eS*	**Sn**	**21 57 12.2**	**-0.4**
CO04				IAML		21 57 18.2	
	comp=N,2μm,0.3s						
CO01	**Juntas del Tor**	**1.75**	**66**	*eP*	**Pb**	**21 56 56.4**	**-1.1**
CO01				*eS*	**Sb**	**21 57 19.9**	**+0.8**
CO01				IAML		21 57 22.5	
	comp=Z,433nm,0.3s						
CO01	**Juntas del Tor**	**1.75**	**66**		**Pn**	**21 56 55.0**	**-0.2**
CO01	**Juntas del Tor**	**1.75**	**66**	*eP*	**Pb**	**21 56 56.4**	**-1.1**
CO01				*eS*	**Sb**	**21 57 18.1**	**-0.9**
LCO	**Las Campanas**	**2.00**	**33**	*eP*	**Pn**	**21 56 59.3**	**+0.6**
LCO				*eS*	**Sb**	**21 57 24.5**	**-1.8**
LCO				IAML		21 57 37.7	
	comp=Z,775nm,0.7s						
LCO	**Las Campanas**	**2.00**	**33**		**Pn**	**21 56 58.9**	**+0.2**
LCO	**Las Campanas**	**2.00**	**33**	⇑*eP*	**Pn**	**21 56 59.2**	**+0.5**
LCO				*eS*	**Sb**	**21 57 27.6**	**+1.3**
LCO				IAML		21 57 32.5	
	comp=Z,3μm,0.1s						
AROD	**Rodeo**	**2.19**	**77**	*eP*	**Pb**	**21 57 04.4**	**-0.7**
AROD				*eS*	**Sb**	**21 57 32.3**	**+0.4**
VA01	**Torpederas**	**2.33**	**174**	*eP*	**Pn**	**21 57 02.6**	**-0.4**
VA01	**Torpederas**	**2.33**	**174**	Pn	**Pb**	**21 57 05.2**	**-2.0**
AC05	**El Transito**	**2.35**	**38**	*eP*	**Pn**	**21 57 05.0**	**+1.5**
AC05				*eS*	**Sn**	**21 57 32.8**	**+1.1**
AC05				IAML		21 57 46.9	
	comp=Z,268nm,0.6s						
AC05	**El Transito**	**2.35**	**38**		**Pn**	**21 57 04.4**	**+1.0**
AC05	**El Transito**	**2.35**	**38**	⇑*eP*	**Pn**	**21 57 04.9**	**+1.4**
AC05				*eS*	**Sb**	**21 57 34.7**	**-1.8**
AC05				IAML		21 57 40.1	
	comp=N,896nm,0.5s						
VA03	**San Esteban**	**2.37**	**151**	*eP*	**Pn**	**21 57 04.5**	**+0.8**
VA03				*eS*	**Sb**	**21 57 38.2**	**+1.4**
VA03				IAML		21 57 41.3	
	comp=Z,827nm,0.3s						
VA03	**San Esteban**	**2.37**	**151**		**Pn**	**21 57 04.2**	**+0.6**
VA03	**San Esteban**	**2.37**	**151**	*eP*	**Pn**	**21 57 04.2**	**+0.6**
VA03				*eS*	**Sn**	**21 57 33.2**	**+1.1**
VA03				IAML		21 57 41.5	
	comp=N,2μm,0.6s						
ROCH	**El Roble**	**2.40**	**161**	*eP*	**Pn**	**21 57 04.1**	**0.0**
ROCH				*eP*	**Pb**	**21 57 04.3**	**-4.2**
ROCH				IAML		21 57 47.5	
	comp=N,1μm,0.4s						
ACCO	**Cerro Coronel**	**2.48**	**88**	*eP*	**Pb**	**21 57 08.7**	**-1.2**
ACCO				*eS*	**Sb**	**21 57 42.0**	**+1.9**
ACCO				IAML		21 57 45.6	
	comp=Z,188nm,0.7s						
ACDV	**Cuesta del Vie**	**2.49**	**78**	*eP*	**Pb**	**21 57 08.7**	**-1.3**
ACDV				IAML		21 57 44.4	
	comp=Z,236nm,0.4s						
RTLS	**Leoncito**	**2.51**	**117**	*eP*	**Pb**	**21 57 09.3**	**-1.2**
RTLS				*eS*	**Sb**	**21 57 43.1**	**+2.0**
RTLS				IAML		21 57 49.5	
	comp=Z,857nm,0.8s						
AC04	**Llanos de Chal**	**2.60**	**17**	*eP*	**Pn**	**21 57 07.2**	**+0.4**
AC04				*eS*	**Sb**	**21 57 43.9**	**+0.6**
AC04				IAML		21 58 02.0	
	comp=Z,170nm,0.5s						
AC04	**Llanos de Chal**	**2.60**	**17**		**Pn**	**21 57 07.1**	**+0.4**
AC04	**Llanos de Chal**	**2.60**	**17**	*eP*	**Pn**	**21 57 06.9**	**+0.2**
AC04				IAML		21 57 57.5	
	comp=N,374nm,0.8s						

MT02	**Curacav**	**2.64**	**165**	*eP*	**Pn**	**21 57 07.5**	**+0.3**
MT02				*eS*	**Sb**	**21 57 43.6**	**-0.9**
MT02				IAML		21 57 50.8	
	comp=Z,308nm,0.5s						
MT02	**Curacav**	**2.64**	**165**		**Pn**	**21 57 09.2**	**+2.0**
MT02	**Curacav**	**2.64**	**165**	⇑*eP*	**Pn**	**21 57 08.1**	**+0.9**
PEL	**Peldehue**	**2.66**	**157**	*eP*	**Pn**	**21 57 08.4**	**+0.9**
PEL				*eS*	**Sn**	**21 57 40.1**	**+1.1**
PEL				IAML		21 57 53.2	
	comp=Z,415nm,1.1s						
PEL	**Peldehue**	**2.66**	**157**		**Pn**	**21 57 08.3**	**+0.7**
PEL	**Peldehue**	**2.66**	**157**	*eP*	**Pn**	**21 57 08.2**	**+0.7**
PEL				*eS*	**Sn**	**21 57 40.0**	**+0.9**
PEL				IAML		21 57 49.0	
	comp=E,525nm,0.4s						
MT10	**Hacienda Santa**	**2.83**	**156**	*eP*	**Pn**	**21 57 10.9**	**+0.9**
MT10				IAML		21 57 54.8	
	comp=N,2μm,0.6s						
MT05	**Renca**	**2.87**	**160**	*eP*	**Pn**	**21 57 11.6**	**+1.1**
MT05				*eS*	**Sn**	**21 57 46.5**	**+2.1**
MT05				IAML		21 57 57.6	
	comp=Z,256nm,0.7s						
MT05	**Renca**	**2.87**	**160**		**Pn**	**21 57 11.1**	**+0.7**
MT05	**Renca**	**2.87**	**160**	⇑*eP*	**Pn**	**21 57 09.7**	**-0.8**
MT05				IAML		21 57 55.0	
	comp=E,1μm,0.5s						
ZON	**Zonda**	**2.92**	**108**	*eP*	Pn	21 56 53.0	-18
ZON				*eS*	**Sb**	**21 57 49.0**	**-3.6**
ZON				IAML		21 58 00.5	
	comp=Z,213nm,0.5s						
ZON	**Zonda**	**2.92**	**108**		**Pn**	**21 57 12.4**	**+1.3**
VA05	**Santo Domingo**	**2.96**	**175**		**Pn**	**21 57 14.4**	**+2.8**
VA05	**Santo Domingo**	**2.96**	**175**	*eP*	**Pn**	**21 57 12.7**	**+1.1**
VA05				IAML		21 58 04.8	
	comp=E,569nm,0.7s						
FCH	**Farellones**	**2.97**	**152**	*eP*	**Pn**	**21 57 13.0**	**+0.9**
FCH				IAML		21 58 00.3	
	comp=E,332nm,0.7s						
MT16	**CCHEN**	**2.97**	**157**		**Pn**	**21 57 13.4**	**+1.6**
MT16	**CCHEN**	**2.97**	**157**	*eP*	**Pn**	**21 57 14.7**	**+2.8**
MT16				IAML		21 58 03.0	
	comp=N,227nm,0.5s						
MT03	**Universidad Ad**	**3.04**	**157**	*eP*	**Pn**	**21 57 14.0**	**+1.2**
MT03				*eS*	**Sb**	**21 57 53.1**	**-2.9**
MT03				IAML		21 58 02.2	
	comp=Z,355nm,0.7s						
MT03	**Universidad Ad**	**3.04**	**157**		**Pn**	**21 57 13.7**	**+0.9**
MT03	**Universidad Ad**	**3.04**	**157**	*eP*	**Pn**	**21 57 13.4**	**+0.7**
MT03				IAML		21 58 01.0	
	comp=E,727nm,0.3s						
RTLL	**Cerro Villicun**	**3.04**	**103**	*eP*	**Pn**	**21 57 15.5**	**+2.7**
RTLL				*eS*	**Sb**	**21 57 53.8**	**-2.2**
RTLL				IAML		21 58 04.7	
	comp=Z,588nm,0.4s						
RTLL	**Cerro Villicun**	**3.04**	**103**	*eP*	**Pb**	**21 57 15.7**	**-3.7**
MT04	**Ro Olivares**	**3.10**	**151**	*eP*	**Pn**	**21 57 15.5**	**+1.7**
MT04				*eS*	**Sb**	**21 57 54.9**	**-3.0**
MT04				IAML		21 58 03.3	
	comp=Z,261nm,0.7s						
MT04	**Ro Olivares**	**3.10**	**151**	*eP*	**Pn**	**21 57 16.3**	**+2.5**
MT04				IAML		21 58 04.2	
	comp=E,335nm,0.5s						
MT15	**Las Vizcachas**	**3.13**	**158**	*eP*	**Pn**	**21 57 14.7**	**+0.6**
MT15				IAML		21 58 07.7	
	comp=N,679nm,0.3s						
MT09	**Talagante**	**3.17**	**166**		**Pn**	**21 57 14.7**	**+0.1**
MT09	**Talagante**	**3.17**	**166**	⇑*eP*	**Pn**	**21 57 15.2**	**+0.5**
MT09				IAML		21 58 09.2	
	comp=N,630nm,0.5s						
MT08	**Bocatoma Ro**	**3.18**	**150**	*eP*	**Pn**	**21 57 17.7**	**+2.8**
MT08				IAML		21 58 08.1	
	comp=Z,157nm,0.7s						
MT08	**Bocatoma Ro**	**3.18**	**150**		**Pn**	**21 57 14.1**	**-0.8**
MT08	**Bocatoma Ro**	**3.18**	**150**	*eP*	**Pn**	**21 57 17.4**	**+2.4**
MT08				IAML		21 58 08.4	
	comp=E,224nm,0.4s						
MT01	**Popeta**	**3.21**	**170**	*eP*	**Pn**	**21 57 15.8**	**+0.8**
MT01				*eS*	**Sn**	**21 57 56.3**	**+3.7**
MT01				IAML		21 58 06.8	
	comp=Z,176nm,0.5s						
MT01	**Popeta**	**3.21**	**170**		**Pn**	**21 57 15.7**	**+0.6**
MT01	**Popeta**	**3.21**	**170**	*eP*	**Pn**	**21 57 15.6**	**+0.6**
MT01				IAML		21 58 06.7	
	comp=E,546nm,0.6s						
MT12	**Pirque**	**3.24**	**159**	⇓*eP*		**21 57 16.2**	**+0.7**
MT12				IAML		21 58 12.1	
	comp=E,703nm,0.6s						
CFA	**Coronel Fontan**	**3.29**	**107**	Pn	**Pn**	**21 57 19.3**	**+3.0**
	comp=E,6.2nm,0.3s,baz=280,slow=11,SNR=124						
CFA				Sn	**Sb**	**21 57 59.5**	**-3.9**
	comp=E,21nm,0.3s,baz=223,slow=20,SNR=7.3						
	comp=E,16nm,0.4s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**3.29**	**107**	*eS*	**Sb**	**21 57 59.9**	**-3.5**
CFA				IAML		21 58 10.7	
	comp=Z,160nm,0.6s						
MT13	**San Alfonso**	**3.34**	**156**		**Pn**	**21 57 17.6**	**+0.6**
MT13	**San Alfonso**	**3.34**	**156**	*eP*	**Pn**	**21 57 17.9**	**+0.9**
MT13				IAML		21 58 11.8	
	comp=E,839nm,0.3s						
GO03	**Copiapo**	**3.44**	**26**		**Pn**	**21 57 18.1**	**-0.1**
GO03	**Copiapo**	**3.44**	**26**	*eP*	**Pn**	**21 57 18.9**	**+0.6**
LMEL	**Las Melosas**	**3.46**	**155**	*eP*	**Pn**	**21 57 16.8**	**-1.9**
LMEL				IAML		21 58 15.4	
	comp=N,297nm,0.5s						
BO04	**La Punta**	**3.46**	**161**		**Pn**	**21 57 19.0**	**+0.3**
BO04	**La Punta**	**3.46**	**161**	*eP*	**Pn**	**21 57 19.0**	**+0.3**
BO04				IAML		21 58 12.0	
	comp=E,259nm,0.4s						
AAGR	**Agrelo**	**3.55**	**133**	*eS*	**Sb**	**21 58 16.2**	**+5.3**
AAGR				IAML		21 58 29.5	
	comp=Z,124nm,0.9s						
AC06	**Mina Casimiro**	**3.61**	**23**		**Pn**	**21 57 20.7**	**+0.1**
AC06	**Mina Casimiro**	**3.61**	**23**	*eP*	**Pn**	**21 57 20.9**	**+0.3**
BO01	**Tunca**	**3.75**	**169**	*eS*	**Sb**	**21 58 14.7**	**-1.7**
BO01	**Tunca**	**3.75**	**169**		**Pn**	**21 57 24.2**	**+1.7**
BO01	**Tunca**	**3.75**	**169**	*eP*	**Pn**	**21 57 22.4**	**-0.1**
BO02	**Sierra Bellavi**	**4.19**	**167**	*eP*	**Pn**	**21 57 30.3**	**+1.7**
BO02	**Sierra Bellavi**	**4.19**	**167**		**Pn**	**21 57 29.3**	**+0.6**
BO02	**Sierra Bellavi**	**4.19**	**167**	*eP*	**Pn**	**21 57 29.9**	**+1.2**
GO05	**Hualane**	**4.30**	**180**	*eP*	**Pn**	**21 57 28.2**	**-1.8**
AC02	**Maricunga**	**4.57**	**33**		**Pn**	**21 57 34.7**	**+0.4**
AC02	**Maricunga**	**4.57**	**33**	*eP*	**Pn**	**21 57 35.5**	**+1.2**
AC01	**Pan de Azucar**	**4.69**	**15**	*eP*	**Pn**	**21 57 33.9**	**-1.5**
CYA	**Choya**	**5.80**	**69**	*eP*	**Pn**	**21 57 52.7**	**+2.0**
BI02	**San Fabin de**	**5.97**	**175**		**Pn**	**21 57 54.3**	**+1.2**
TCA	**Tanti**	**6.33**	**98**	*eP*	**Pn**	**21 57 58.8**	**+0.7**
H03N1	**Juan Fernandez**	**6.52**	**243**	T	T	22 04 55.3	
	baz=72,slow=74,SNR=5721						
H03N2	**Juan Fernandez**	**6.54**	**244**	T	T	22 04 54.9	
	baz=190,slow=74,SNR=3559						
PLCA	**Paso Flores**	**10.07**	**174**	Pn	**Pn**	**21 58 52.3**	**+2.9**
	comp=Z,0.1nm,0.3s,baz=336,slow=12,SNR=1.8						
PLCA				LR	LR	22 02 34.1	
	comp=Z,74nm,19.2s,baz=344,slow=36						
	comp=Z,1.2nm,0.8s						
PLCA				AML	AML		
PLCA	**Paso Flores**	**10.07**	**174**	Pn	**Pn**	**21 58 51.1**	**+1.8**
CPUP	**Villa Florida**	**13.56**	**75**	Pn	**Pn**	**21 59 39.6**	**+2.6**
	comp=Z,0.1nm,0.3s,baz=226,slow=18,SNR=2.6						
	comp=Z,0.9nm,0.9s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**13.56**	**75**		**Pn**	**21 59 36.2**	**-0.8**
LPAZ	**La Paz**	**14.76**	**14**	Pn	**Pn**	**21 59 53.9**	**-0.2**
	comp=Z,0.2nm,0.3s,baz=189,slow=7.4,SNR=3.6						
	comp=Z,0.8nm,0.5s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**14.76**	**14**		**Pn**	**21 59 53.6**	**-0.5**
SIV	**San Ignacio**	**17.70**	**37**	P	**P**	**22 00 31.9**	**0.0**
	baz=234,slow=13,SNR=5.0						
	comp=Z,0.5nm,0.3s						
EFI	**East Falkland**	**23.33**	**158**	P	**P**	**22 01 33.3**	**+0.9**
EFI				IAmb	IAmb	22 01 48.4	
	comp=Z,29nm,1.1s						
ATAH	**Atahualpa**	**24.21**	**344**	P	**P**	**22 01 41.2**	**-0.5**
	comp=Z,3.4nm,0.6s,baz=220,slow=4.0,SNR=3.6						
	comp=Z,3.4nm,0.6s						
BOAV	**Boa Vista**	**34.67**	**20**	P	**P**	**22 03 14.4**	**+0.3**
BOAV				IAmb	IAmb	22 03 19.8	
	comp=Z,2.5nm,0.9s						
APG	**El Apazote**	**48.81**	**336**	LR	LR	22 20 18.8	
	comp=Z,5μm,21.0s,baz=268,slow=30						
QSPA	**South Pole Qui**	**59.52**	**180**	P	**P**	**22 06 28.8**	**+1.4**
DBIC	**Dimbokro**	**74.06**	**72**	P	**P**	**22 08 00.6**	**0.0**

DBIC				IAmb	IAmb	22 08 18.4	
	comp=Z,4.7nm,1.1s						
ZALV	**Zalesovo Beam**	**151.35**	**29**	PKPbc	**PKiKP**	**22 16 18.1**	**+0.2**
	comp=Z,1.0nm,0.6s,baz=297,slow=2.6,SNR=6.4						
ZALV	**Zalesovo Beam**	**151.35**	**29**		**PKiKP**	**22 16 17.9**	**0.0**

*IDC **22** 22:07:02.4±1.7, 31.°22S×178.°17W, h0km, mb3.9/4, mbtmp3.9/4, MS3.3/5, Error ellipse: s-maj=41.0km s-min=27.6km az=111.0*
*NEIC **22** 22:07:06.3±1.7, 31.°02S±0.°03×177.°9W±0.°2, h35km±2km, mb4.1/6, Error ellipse: s-maj=33.6km s-min=5.0km az=90.0*

ISC 22 22:07:07.5±1.3, 31.°0S±0.°1×178.°1W±0.°2, h46km, n21, σ0$79/18, mb4.0/7, MS3.4/4, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.71**	**4**	Pn	**Pn**	**22 07 35.3**	**+0.5**
	65nm,0.3s,baz=64,slow=22,SNR=2.5						
RAO				Sn	**Sn**	**22 07 55.3**	**0.0**
	153nm,0.3s,baz=178,slow=19,SNR=4.6						
RAO	**Raoul Island**	**1.71**	**4**		**Pn**	**22 07 34.0**	**-0.7**
RAO					**Sn**	**22 07 55.3**	**0.0**
RAR	**Rarotonga**	**19.06**	**64**	LR	LR	22 18 11.5	
	comp=Z,49nm,19.2s,baz=121,slow=35						
CTA	**Charters Tower**	**33.84**	**280**	LR	LR	22 27 07.2	
	comp=Z,40nm,18.2s,baz=202,slow=36						
STKA	**Stephens Creek**	**34.30**	**258**	P	**P**	**22 13 49.3**	**-0.2**
	1.1nm,0.6s,baz=105,slow=12,SNR=1.4						
	1.1nm,0.6s						
STKA	**Stephens Creek**	**34.30**	**258**	P	**P**	**22 13 48.7**	**-0.8**
ASAR	**Alice Springs**	**43.03**	**268**	P	**P**	**22 15 04.1**	**+1.3**
	0.6nm,0.7s,baz=106,slow=7.5,SNR=7.3						
	0.6nm,0.7s						
ASAR	**Alice Springs**	**43.03**	**268**	P	**P**	**22 15 01.8**	**-1.0**
WR8	**Warramunga Arr**	**43.92**	**273**	P	**P**	**22 15 10.6**	**+0.6**
WR8				IAmb	IAmb	22 15 24.5	
	comp=Z,2.8nm,1.1s						
WB2	**Warramunga Arr**	**44.05**	**273**	P	**P**	**22 15 11.9**	**+0.8**
WB2				IAmb	IAmb	22 15 14.6	
	comp=Z,2.9nm,0.9s						
WRA	**Warramunga Arr**	**44.07**	**273**	P	**P**	**22 15 11.0**	**-0.1**
	comp=Z,0.7nm,0.4s,baz=113,slow=7.5,SNR=8.6						
	comp=Z,0.7nm,0.4s						
WRA	**Warramunga Arr**	**44.07**	**273**	P	**P**	**22 15 13.1**	**+1.9**
WB0	**Warramunga Arr**	**44.09**	**273**	P	**P**	**22 15 11.4**	**0.0**
WB0				IAmb	IAmb	22 15 26.1	
	comp=Z,4.7nm,1.1s						
FITZ	**Fitzroy Crossi**	**52.30**	**270**	LR	LR	22 37 43.5	
	comp=Z,39nm,18.1s,baz=52,slow=35						
FITZ	**Fitzroy Crossi**	**52.30**	**270**	P	**P**	**22 16 14.5**	**-0.2**
QSPA	**South Pole Qui**	**59.15**	**180**	P	**P**	**22 17 03.7**	**+0.3**
	comp=Z,0.7nm,0.2s,baz=71,slow=5.3,SNR=1.7						
	comp=Z,0.7nm,0.2s						
QSPA	**South Pole Qui**	**59.15**	**180**	P	**P**	**22 17 02.9**	**-0.4**
QSPA				IAmb	IAmb	22 17 20.4	
	comp=Z,2.2nm,0.8s						
JHJ	**Hachijo jima 2**	**75.16**	**324**	LR	LR	22 46 36.7	
	comp=Z,17nm,21.8s,baz=130,slow=32						
KLR	**Kul'dur**	**91.49**	**330**	LR	LR	22 57 45.6	
	comp=Z,26nm,18.3s,baz=342,slow=33						
FINES	**FINESS Array B**	**145.65**	**340**	PKPbc	**PKPdf**	**22 26 40.0**	**0.0**
	comp=Z,2.8nm,0.9s,baz=59,slow=4.9,SNR=4.8						
FINES	**FINESS Array B**	**145.65**	**340**		**PKPab**	**22 26 41.0**	**+0.3**

*IDC **22** 22:07:29.0±1.7, 1.°95N×120.°91E, h0km, mb3.5/4, mbtmp3.6/4, MS2.3/1, Error ellipse: s-maj=150.6km s-min=26.1km az=64.0*
*DJA **22** 22:07:30.2±0.6, 2.°7N±6.°6×12.°1E±.°, h10km, M4.0/14, mb3.8/1, MLv4.0/14*

ISC 22 22:07:30.2±1.3, 2.°3N±0.°1×121.°5E±0.°1, h10km, n10, σ0$56/9, mb3.5/3, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KMSI	**Cibinong**	**2.98**	**124**	P	**Pn**	**22 08 17.7**	**+0.1**
KMSI				AML	AML		
APSI	**Ampana**	**3.14**	**177**	P	**Pn**	**22 08 19.6**	**-0.1**
APSI				AML	AML		
MNI	**Manado**	**3.43**	**103**	P	**Pn**	**22 08 23.7**	**0.0**
MNI				AML	AML		
LUWI	**Luwuk**	**3.50**	**159**	P	**Pn**	**22 08 25.2**	**+0.5**
PCI	**Palu**	**3.55**	**208**	P	**Pn**	**22 08 25.6**	**+0.2**
PCI				AML	AML		
KAPI	**Kappang**	**7.42**	**194**	LR	LR	22 11 30.7	
	comp=Z,26nm,20.7s,baz=5.5,slow=34						
FITZ	**Fitzroy Crossi**	**20.62**	**169**	P	**P**	**22 12 08.8**	**-1.1**

VA03 **San Esteban** 1.18 103 ⇓*i*P Pn 22 08 51.6 -1.3
VA03 eS Sb 22 09 05.5 -2.8
VA03 San Esteban 1.18 103 P Pn 22 08 51.7 -1.3
VA05 Santo Domingo 1.18 168 Pn 22 08 52.9 -0.1
VA05 Santo Domingo 1.18 168 *e*P Pb 22 08 53.2 -0.2
VA05 eS Sb 22 09 07.5 -0.7
VA05 IAML 22 09 12.0
comp=E,11μm,0.3s
VA05 Santo Domingo 1.18 168 P Pb 22 08 53.8 +0.4
PEL Peldehue 1.22 122 Pn 22 08 52.4 -1.1
PEL Peldehue 1.22 122 ⇓*i*P Pn 22 08 52.6 -0.9
PEL eS Sb 22 09 07.4 -1.9
PEL IAML 22 09 09.2
comp=E,13μm,0.4s
PEL Peldehue 1.22 122 P Pn 22 08 52.9 -0.6
comp=Z,6μm,0.6s
MT05 Renca 1.33 132 *e*P Pn 22 08 49.3 -5.8
MT05 *e*P Pb 22 08 54.9 -1.1
MT05 IAML 22 09 12.3
comp=Z,6μm,0.2s
MT05 Renca 1.33 132 Pn 22 08 54.8 -0.3
MT05 Renca 1.33 132 *e*P Pn 22 08 54.7 -0.3
MT05 eS Sn 22 09 11.0 -1.2
MT05 IAML 22 09 12.6
comp=E,15μm,0.2s
MT10 Hacienda Santa 1.39 124 *e*P Pn 22 08 55.6 -0.3
MT10 eS Sn 22 09 12.2 -1.6
MT10 IAML 22 09 14.6
comp=E,17μm,0.2s
MT14 Cerro Cal¡n 1.47 128 ⇓*i*P Pn 22 08 56.5 -0.4
MT14 eS Sn 22 09 14.0 -1.4
MT14 IAML 22 09 20.4
comp=N,6μm,0.4s
MT01 Popeta 1.47 158 *e*P Pn 22 08 57.5 +0.6
MT01 eS Sn 22 09 15.8 +0.2
MT01 IAML 22 09 20.7
comp=Z,3μm,0.6s
MT01 Popeta 1.47 158 Pn 22 08 57.3 +0.4
MT01 Popeta 1.47 158 *e*P Pn 22 08 57.3 +0.4
MT01 eS Sn 22 09 15.1 -0.5
MT01 IAML 22 09 25.5
comp=N,4μm,0.3s
MT09 Talagante 1.49 149 Pn 22 08 57.4 +0.1
MT09 Talagante 1.49 149 *e*P Pn 22 08 57.8 +0.4
MT09 eS Sn 22 09 15.4 -0.9
MT09 IAML 22 09 21.6
comp=N,6μm,0.2s
MT16 CCHEN 1.49 129 Pn 22 08 57.0 -0.2
MT16 CCHEN 1.49 129 ⇓*i*P Pn 22 08 57.0 -0.2
MT16 eS Sn 22 09 14.9 -1.2
CO02 Combarbal 1.51 31 *e*P Pn 22 08 58.0 +0.5
CO02 IAML 22 09 21.7
comp=Z,6μm,0.2s
CO02 Combarbal 1.51 31 Pn 22 08 57.9 +0.4
CO02 Combarbal 1.51 31 ⇓*i*P Pn 22 08 58.0 +0.5
CO02 eS Sb 22 09 17.2 -0.4
CO02 Combarbal 1.51 31 P Pn 22 08 58.2 +0.7
comp=Z,5μm,0.4s
MT03 Universidad Ad 1.54 130 *e*P Pn 22 08 58.0 +0.1
MT03 IAML 22 09 22.5
comp=Z,7μm,0.2s
MT03 Universidad Ad 1.54 130 Pn 22 08 57.5 -0.5
MT03 Universidad Ad 1.54 130 *e*P Pn 22 08 57.7 -0.3
MT03 eS Sn 22 09 16.9 -0.6
FCH Farellones 1.60 122 ⇓*i*P Pn 22 08 58.5 -0.5
FCH eS Sn 22 09 17.9 -1.2
FCH IAML 22 09 20.0
comp=N,4μm,0.2s
MT15 Las Vizcachas 1.61 133 *e*P Pn 22 08 59.1 +0.1
MT15 eS Sn 22 09 18.7 -0.4
MT15 IAML 22 09 23.8
comp=N,8μm,0.2s
MT12 Pirque 1.68 137 *e*P Pn 22 09 00.3 +0.5
MT12 eS Sn 22 09 20.8 0.0
MT12 IAML 22 09 26.1
comp=E,8μm,0.7s
MT04 Ro Olivares 1.75 122 *e*P Pn 22 09 00.9 0.0
MT04 Ro Olivares 1.75 122 *e*P Pn 22 09 00.7 -0.2
MT04 eS Sn 22 09 22.0 -0.7
MT04 IAML 22 09 25.8
comp=E,2μm,0.3s
CO06 Fray Jorge 1.83 8 Pn 22 09 02.3 +0.4
CO06 Fray Jorge 1.83 8 *e*P Pn 22 09 02.2 +0.3
CO06 eS Sb 22 09 27.4 +0.5
CO06 IAML 22 09 32.2
comp=N,3μm,0.5s
BO04 La Punta 1.85 144 Pn 22 09 01.8 -0.3
BO04 La Punta 1.85 144 ⇑*i*P Pn 22 09 02.9 +0.8
BO04 eS Sn 22 09 25.6 +0.7
BO04 IAML 22 09 31.5
comp=N,3μm,0.3s
MT13 San Alfonso 1.85 133 *e*P Pn 22 09 03.1 +0.9
MT13 eS Sb 22 09 26.4 -1.1
MT13 IAML 22 09 31.1
comp=Z,2μm,0.5s
MT13 San Alfonso 1.85 133 Pn 22 09 01.9 -0.3
MT13 San Alfonso 1.85 133 *e*P Pn 22 09 02.6 +0.4
MT13 eS Sn 22 09 25.5 +0.5
MT13 IAML 22 09 29.9
comp=E,5μm,0.2s
MT08 Bocatoma Ro 1.85 121 *e*P Pn 22 09 02.9 +0.5
MT08 eS Sb 22 09 29.6 +1.8
MT08 Bocatoma Ro 1.85 121 Pn Pn 22 09 00.3 -2.1
MT08 Bocatoma Ro 1.85 121 *e*P Pn 22 09 02.6 +0.3
MT08 eS Sn 22 09 24.9 -0.4
MT08 IAML 22 09 38.0
comp=N,1μm,0.7s
CO03 El Pedregal 1.96 33 *e*P Pn 22 09 04.9 +1.2
CO03 eS Sb 22 09 31.8 +1.2
CO03 IAML 22 09 38.1
comp=Z,2μm,0.6s
CO03 El Pedregal 1.96 33 Pn 22 09 04.4 +0.7
CO03 El Pedregal 1.96 33 ⇑*i*P Pn 22 09 04.6 +1.0
CO03 eS Sn 22 09 29.0 +1.4
CO03 IAML 22 09 34.2
comp=N,4μm,0.6s
CO03 El Pedregal 1.96 33 P Pn 22 09 04.8 +1.2
LMEL Las Melosas 1.97 134 ⇑*i*P Pn 22 09 04.7 +0.8
LMEL eS Sn 22 09 28.7 +0.7
LMEL IAML 22 09 35.3
comp=N,4μm,0.3s
BO03 Pichilemu 1.99 181 *e*P Pn 22 09 04.2 +0.2
BO03 Pichilemu 1.99 181 P Pn 22 09 04.5 +0.4
BO01 Tunca 2.01 160 *e*P Pn 22 09 05.0 +0.7
BO01 eS Sn 22 09 29.5 +0.7
BO01 eS Sb 22 09 33.3 +1.2
BO01 Tunca 2.01 160 Pn Pn 22 09 04.6 +0.2
BO01 Tunca 2.01 160 *e*P Pn 22 09 04.9 +0.5
BO01 IAML 22 09 35.7
comp=N,902nm,0.2s
BO01 Tunca 2.01 160 P Pb 22 09 07.1 -0.4
RTLS Leoncito 2.33 73 *e*P Pb 22 09 11.9 -1.2
RTLS eS Sn 22 09 36.8 -0.3
RTLS IAML 22 09 42.3
comp=Z,3μm,0.5s
BO02 Sierra Bellavi 2.48 158 *e*P Pn 22 09 12.0 +1.2
BO02 IAML 22 09 50.3
comp=Z,2μm,0.2s
BO02 Sierra Bellavi 2.48 158 Pn Pn 22 09 11.0 +0.2
BO02 Sierra Bellavi 2.48 158 *e*P Pn 22 09 11.6 +0.8
BO02 IAML 22 09 47.9
comp=N,3μm,0.3s
BO02 Sierra Bellavi 2.48 158 P Pn 22 09 13.0 +2.2
GO04 Tololo Observa 2.51 23 *e*P Pn 22 09 12.4 +1.0
GO04 eS Sb 22 09 48.0 +1.5
GO04 IAML 22 09 51.0
comp=Z,3μm,0.5s
GO04 Tololo Observa 2.51 23 Pn 22 09 11.8 +0.5
GO04 Tololo Observa 2.51 23 *e*P Pn 22 09 11.9 +0.5
GO04 Tololo Observa 2.51 23 P Pn 22 09 12.3 +1.0
GO05 Hualane 2.51 180 *e*P Pn 22 09 07.8 -3.4
GO05 *e*P Pb 22 09 11.6 -4.4
GO05 eS Sb 22 09 46.3 -0.1
GO05 IAML 22 09 54.9
comp=Z,953nm,0.7s
GO05 Hualane 2.51 180 Pn 22 09 11.1 0.0
GO05 Hualane 2.51 180 *e*P Pn 22 09 11.2 0.0
GO05 Hualane 2.51 180 P Pn 22 09 11.6 +0.4
ARCO CERRO ARCO 2.54 99 *e*P Pb 22 09 16.1 -0.5
ARCO eS Sn 22 09 42.8 +0.7
ARCO IAML 22 09 58.3
comp=Z,837nm,0.6s
CO05 La Serena 2.63 13 Pn 22 09 13.6 +0.7
CO05 La Serena 2.63 13 *e*P Pn 22 09 14.4 +1.5
CO05 IAML 22 09 55.5
comp=N,2μm,0.6s
AAGR Agrelo 2.67 104 *e*P Pb 22 09 17.3 -1.4
AAGR IAML 22 10 00.5
comp=Z,1μm,1.5s
ZON Zonda 2.91 72 *e*P Pb 22 09 20.0 -2.8
ZON eS Sb 22 09 55.8 -2.2
ZON Zonda 2.91 72 P Pn 22 09 19.0 +2.3
CO01 Juntas del Tor 2.96 32 *e*P Pn 22 09 19.8 +2.2
CO01 IAML 22 10 10.9
comp=Z,741nm,0.8s
CO01 Juntas del Tor 2.96 32 Pn 22 09 18.5 +0.9
CO01 Juntas del Tor 2.96 32 *e*P Pn 22 09 19.5 +1.9
CO01 IAML 22 10 02.0
comp=E,1μm,0.6s
CO01 Juntas del Tor 2.96 32 P Pn 22 09 19.6 +2.1
AVIZ Vizcacheras 3.02 110 *e*P Pb 22 09 21.8 -2.9
ACCO Cerro Coronel 3.09 53 IAML 22 10 13.6
comp=Z,925nm,0.6s
RTLL Cerro Villicun 3.15 69 IAML 22 10 14.3
comp=Z,2μm,0.4s
RTLL Cerro Villicun 3.15 69 *e*P Pn 22 09 22.6 +2.5
CFA Coronel Fontan 3.25 75 Pn Pn 22 09 22.8 +1.4
comp=Z,25nm,0.3s,baz=240,slow=8.0,SNR=150
CFA Sn Sn 22 10 02.6 +3.2
comp=Z,21nm,0.3s,baz=273,slow=17,SNR=11
CFA LR LR 22 10 58.6
comp=Z,534nm,20.1s,baz=202,slow=46
comp=Z,59nm,0.3s
CFA AML AML
ML02 Panimavida 3.28 173 Pn 22 09 21.9 +0.1
ML02 Panimavida 3.28 173 *e*P Pn 22 09 22.8 +1.0
ML02 Panimavida 3.28 173 P Pn 22 09 23.0 +1.2
LCO Las Campanas 3.63 17 Pn 22 09 27.1 +0.3
LCO Las Campanas 3.63 17 *e*P Pn 22 09 27.4 +0.6
LCO Las Campanas 3.63 17 P Pn 22 09 27.4 +0.6
AC05 El Transito 3.91 22 IAML 22 10 47.2
comp=Z,490nm,0.8s
AC05 El Transito 3.91 22 Pn 22 09 31.5 +0.9
AC05 El Transito 3.91 22 ⇑*e*P Pn 22 09 31.9 +1.3
AC05 El Transito 3.91 22 P Pn 22 09 32.0 +1.3
ACAN Cantantal 4.00 88 IAML 22 10 44.4
comp=Z,1μm,0.6s
BI02 San Fabin de 4.19 173 Pn 22 09 34.9 +0.5
BI02 San Fabin de 4.19 173 ⇑*e*P Pn 22 09 35.6 +1.3
BI02 San Fabin de 4.19 173 P Pn 22 09 36.1 +1.7
AC04 Llanos de Chal 4.34 10 IAML 22 10 40.7
comp=Z,1μm,0.1s
AC04 Llanos de Chal 4.34 10 Pn 22 09 35.6 -0.7
AC04 Llanos de Chal 4.34 10 *e*P Pn 22 09 36.5 +0.1
AC04 Llanos de Chal 4.34 10 P Pn 22 09 37.0 +0.6
BI05 Punta Hualpn 4.37 194 Pn Pn 22 09 36.4 -0.3
BI05 Punta Hualpn 4.37 194 *e*P Pn 22 09 36.7 -0.1
VCA Vinchina 4.93 41 IAML 22 11 00.8
comp=Z,1μm,0.5s
GO03 Copiapo 5.10 17 Pn 22 09 46.9 0.0
GO03 Copiapo 5.10 17 *e*P Pn 22 09 47.0 0.0
GO03 Copiapo 5.10 17 P Pn 22 09 46.9 0.0
comp=Z,105nm,0.8s
AC06 Mina Casimiro 5.30 15 Pn 22 09 49.1 -0.4
VA04 Juan Fernndez 5.92 257 Pn 22 10 00.2 +2.2
H03N1 Juan Fernandez 5.96 259 Pn Pn 22 10 01.0 +2.7
H03N1 T T 22 16 36.7
baz=88,slow=74
H03N2 Juan Fernandez 5.97 259 Pn Pn 22 10 01.1 +2.6
H03N2 T T 22 16 31.8
baz=174,slow=74
H03S1 Juan Fernandez 6.01 255 Pn Pn 22 09 59.9 +0.8
baz=354,slow=74
H03S1 Sn Sn 22 11 00.6 -6.6
baz=331,slow=74
H03S1 T T 22 16 29.6
baz=82,slow=74,SNR=135
H03S3 Juan Fernandez 6.01 255 Pn Pn 22 10 01.0 +1.9
baz=354,slow=74
H03S3 Sn Sn 22 11 00.8 -6.3
H03S3 T T 22 16 30.9
baz=82,slow=74,SNR=147
H03S2 Juan Fernandez 6.03 255 Pn Pn 22 10 00.0 +0.7
baz=354,slow=74
H03S2 Sn Sn 22 11 00.7 -6.8
baz=89,slow=74
H03S2 T T 22 16 28.7
baz=82,slow=74,SNR=369
AC02 Maricunga 6.14 24 Pn 22 10 01.8 +0.2
AC02 Maricunga 6.14 24 P Pn 22 10 01.6 0.0
comp=Z,51nm,0.4s
TCA Tanti 6.33 81 *e*P Pn 22 10 03.8 0.0
AC01 Pan de Azucar 6.43 11 Pn Pn 22 10 03.1 -2.0
AC01 Pan de Azucar 6.43 11 P Pn 22 10 05.5 +0.4
comp=Z,40nm,0.8s
GO06 Curarrehue 7.08 177 Pn 22 10 14.8 +0.6
GO06 Curarrehue 7.08 177 P Pn 22 10 14.4 +0.3
comp=Z,21nm,2.5s
PB14 IPOC Station P 7.95 10 P Pn 22 10 27.6 +1.3
comp=Z,39nm,0.6s
PLCA Paso Flores 8.29 173 Pn Pn 22 10 32.2 +1.5
comp=Z,0.6nm,0.3s,baz=329,slow=11,SNR=20
PLCA Lg Lg 22 12 45.4
comp=Z,0.1nm,0.3s,baz=262,slow=17,SNR=2.9
PLCA LR LR 22 13 48.5
comp=Z,248nm,19.4s,baz=345,slow=38
comp=Z,1.8nm,0.4s
PLCA AML AML
PLCA Paso Flores 8.29 173 Pn 22 10 31.4 +0.7
PLCA Paso Flores 8.29 173 P Pn 22 10 30.1 -0.5
comp=Z,12nm,1.0s
PB06 IPOC Station P 9.97 13 P Pn 22 10 54.8 +0.9
comp=Z,35nm,0.6s
PB03 IPOC Station P 10.58 11 P Pn 22 11 04.0 +1.8
comp=Z,36nm,0.6s
PSAL Palomas, Salto 12.26 87 *e*P Pn 22 11 27.9 +3.0
ITQB Itaqui 13.40 82 *e*P Pn 22 11 43.0 +2.4
CPUP Villa Florida 14.11 68 Pn Pn 22 11 49.3 -1.0
comp=Z,0.2nm,0.3s,baz=240,slow=13,SNR=5.2
CPUP Sn Sn 22 14 25.4 -0.9
comp=Z,0.3nm,0.3s,baz=174,slow=16,SNR=3.0
CPUP Lg Lg 22 15 37.8
comp=Z,0.3nm,0.3s,baz=342,slow=20,SNR=2.0
comp=Z,0.8nm,0.4s
CPUP AML AML
CPUP Villa Florida 14.11 68 Pn Pn 22 11 49.2 -1.2
CPUP Villa Florida 14.11 68 *e*P Pn 22 11 51.0 +0.7
SJPY San Joaquin 15.74 66 *e*P Pn 22 12 12.4 +0.3
CPSB Cacapava Do Su 15.91 87 *e*P Pn 22 12 15.5 +1.3
LPAZ La Paz 16.50 13 Pn Pn 22 12 19.9 -2.5
comp=Z,0.4nm,0.3s,baz=180,slow=9.4,SNR=8.4
comp=Z,2.4nm,0.7s
LPAZ AML AML
LPAZ La Paz 16.50 13 Pn Pn 22 12 22.1 -0.4
LPAZ La Paz 16.50 13 P Pn 22 12 23.5 +1.1
comp=Z,7.4nm,0.8s
LPAZ La Paz 16.50 13 *e*P Pn 22 12 23.2 +0.8
MURT Porto Murtinho 16.68 53 *e*P Pn 22 12 23.8 -0.3
COIM Forte Coimbra 17.80 49 *e*P P 22 12 38.9 +0.1
ITAB Concordia 17.93 78 *e*P P 22 12 40.1 -0.1
BDQN Bodoquena, MS 18.09 52 *e*P Pn 22 12 41.2 -0.5
BBSD Serra de San D 18.35 37 *e*P P 22 12 43.1 -1.8
AQDB Aquidauana 18.79 54 P P 22 12 48.8 -0.8
AQDB IAmb IAmb 22 12 52.6
comp=Z,17nm,1.2s
AQDB Aquidauana 18.79 54 P Pn 22 12 51.5 +1.3
comp=Z,11nm,1.1s
AQDB Aquidauana 18.79 54 *e*P P 22 12 49.3 -0.3
SIV San Ignacio 19.15 33 P P 22 12 51.7 -2.0
baz=207,slow=11,SNR=10
comp=Z,3.5nm,0.9s
LDASE Londrina, Braz 20.46 69 *e*P P 22 13 07.9 -0.1
PTLB Pontes e Lacer 20.57 37 P P 22 13 08.4 -0.7
PTLB Pontes e Lacer 20.57 37 *e*P P 22 13 08.3 -0.7
PCMB Pacaembu 21.32 65 P P 22 13 18.4 +1.3
comp=Z,21nm,0.9s
PCMB Pacaembu 21.32 65 *e*P P 22 13 16.9 -0.2
PP1B Ponte de Pedra 21.36 50 *e*P P 22 13 16.1 -1.5
SALV Santo Antonio 22.13 46 *e*P P 22 13 24.4 -1.5
VILB Vilhena 22.22 32 P P 22 13 26.3 -0.6
VILB IAmb IAmb 22 13 29.6
comp=Z,21nm,1.0s
VILB Vilhena 22.22 32 *e*P P 22 13 27.2 +0.3
CZSB Cruzeiro do Su 24.66 358 *e*P P 22 13 53.7 +2.7
PDRB Porto dos Gac 25.04 37 *e*P P 22 13 54.3 -0.2
CLDB Colider 26.15 38 P P 22 14 03.7 -0.8
comp=Z,5.6nm,1.1s
CLDB Colider 26.15 38 *e*P P 22 14 04.6 +0.1

BDFB Brasilia 27.43 58 P P 22 14 14.0 -2.1
comp=Z,6.7nm,0.9s,baz=238,slow=5.8,SNR=7.5
BDFB LR LR 22 26 39.5
comp=Z,233nm,21.5s,baz=255,slow=40
comp=Z,6.7nm,0.9s
BDFB Brasilia 27.43 58 P P 22 14 15.3 -0.8
BDFB IAmb IAmb 22 14 16.4
comp=Z,11nm,1.1s
SNDB Serra Nova Dou 27.85 48 *e*P P 22 14 20.6 +0.7
ITTB Itaituba 31.82 32 *e*P P 22 14 55.9 +1.0
ESPZ Base Esperanza 32.32 167 P P 22 14 59.6 +0.8
NBPN Ponto Novo - B 36.28 61 *e*P P 22 15 32.6 -1.2
MDP Montagnes des 41.64 30 LR LR 22 35 22.8
comp=Z,131nm,20.6s,baz=196,slow=39
RCBR Riachuelo 42.78 59 LR LR 22 35 48.7
comp=Z,78nm,18.2s,baz=200,slow=38
VNA3 Neumayer Olymp 50.71 158 ⇑P P 22 17 29.8 +0.5
comp=Z,1.8nm,0.8s
VNA2 Neumayer--Watz 51.36 158 ⇑P P 22 17 34.7 +0.6
comp=Z,1.2nm,0.6s,baz=285,slow=7.5
SNAA Sanae 52.94 158 LR LR 22 38 56.3
comp=Z,45nm,20.1s,baz=210,slow=34
SNAA Sanae 52.94 158 P P 22 17 44.4 -1.5
SNAA IAmb IAmb 22 18 11.0
comp=Z,9.9nm,1.5s
TEIG Tepich 54.71 341 P P 22 17 58.1 -1.2
QSPA South Pole Qui 57.73 180 P P 22 18 21.8 +1.1
comp=Z,4.1nm,0.9s,baz=113,slow=3.6,SNR=6.0
comp=Z,4.1nm,0.9s
QSPA South Pole Qui 57.73 180 P P 22 18 22.4 +1.7
QSPA IAmb IAmb 22 18 24.9
comp=Z,4.9nm,1.1s
TXAR Lajitas Array 68.48 330 P P 22 19 32.2 -0.1
comp=Z,0.5nm,0.8s,baz=153,slow=8.4,SNR=4.8
TXAR LR LR 22 44 40.3
comp=Z,40nm,20.2s,baz=176,slow=32
comp=Z,0.5nm,0.8s
WVT Waverly 69.88 346 P P 22 19 41.8 +1.1
comp=Z,12nm,0.9s
MAW Mawson 74.59 164 P P 22 20 07.4 -1.1
comp=Z,3.3nm,0.9s,baz=221,slow=9.6,SNR=4.9
MAW LR LR 22 55 20.4
comp=Z,69nm,18.7s,baz=254,slow=38
comp=Z,3.3nm,0.9s
MAW Mawson 74.59 164 P P 22 20 08.1 -0.5
DBIC Dimbokro 74.60 72 P P 22 20 08.0 -1.5
comp=Z,3.9nm,0.7s,baz=246,slow=4.9,SNR=6.3
DBIC LR LR 22 50 58.6
comp=Z,15nm,20.9s,baz=196,slow=34
comp=Z,3.9nm,0.7s
DBIC Dimbokro 74.60 72 P P 22 20 08.2 -1.3
SUR Sutherland 75.47 119 LR LR 22 49 38.6
comp=Z,35nm,21.9s,baz=248,slow=33
TSUM Tsumeb 79.53 106 LR LR 22 49 45.5
comp=Z,50nm,21.1s,baz=238,slow=31
BOSA Boshof 80.68 118 P P 22 20 42.6 -0.9
comp=Z,0.9nm,0.4s,baz=285,slow=2.9,SNR=9.1
BOSA LR LR 22 52 34.5
comp=Z,54nm,19.8s,baz=210,slow=33
comp=Z,0.9nm,0.4s
BOSA Boshof 80.68 118 P P 22 20 42.6 -0.9
BOSA IAmb IAmb 22 21 23.3
comp=Z,8.9nm,1.3s
NVAR Mina Array Bea 82.71 325 P P 22 20 53.7 -0.2
comp=Z,0.7nm,0.8s,baz=136,slow=6.2,SNR=3.7
comp=Z,0.7nm,0.8s
NVAR Mina Array Bea 82.71 325 P P 22 20 54.3 +0.4
LBTB Lobatse 82.84 115 LR LR 22 52 59.8
comp=Z,22nm,21.7s,baz=242,slow=32
LBTB Lobatse 82.84 115 P P 22 20 53.8 -1.1
LBTB IAmb IAmb 22 21 21.4
comp=Z,3.6nm,1.1s
TORD Torodi Ar. Bea 83.60 70 P P 22 20 57.5 -1.2
comp=Z,2.9nm,0.9s,baz=251,slow=4.5,SNR=3.8
comp=Z,2.9nm,0.9s
TORD Torodi Ar. Bea 83.60 70 P P 22 20 57.9 -0.9
TORD IAmb IAmb 22 20 59.1
comp=Z,2.9nm,1.1s
BBB Bella Bella 97.58 329 LR LR 23 02 36.5
comp=Z,29nm,18.2s,baz=192,slow=33
WRA Warramunga Arr 122.12 209 PKP PKPdf 22 27 25.2 -0.1
comp=Z,0.4nm,0.7s,baz=114,slow=2.2,SNR=2.4
H11S2 WAKE ISLAND Hyd 25.88 270 T T 00 46 30.7
baz=118,slow=75,SNR=421
H11S1 WAKE ISLAND Hyd 25.90 270 T T 00 46 31.0
baz=118,slow=75,SNR=262
H11S3 WAKE ISLAND Hyd 25.90 270 T T 00 46 31.9
baz=118,slow=75,SNR=383
H11N3 WAKE ISLAND Hyd 26.26 272 T T 00 46 59.8
baz=117,slow=74,SNR=21
H11N1 WAKE ISLAND Hyd 26.27 272 T T 00 47 00.2
baz=117,slow=74,SNR=20
H11N2 WAKE ISLAND Hyd 26.28 272 T T 00 47 04.0
baz=117,slow=74,SNR=50
BVAR Borovoye Array 146.10 41 PKPbc PKPab 22 28 10.4 +0.1
comp=Z,2.2nm,0.4s,baz=300,slow=2.4,SNR=12
KURBB Kurchatov Arra 151.69 41 PKPbc PKPbc 22 28 24.0 0.0
comp=Z,1.7nm,0.4s,baz=305,slow=2.8,SNR=21
KURK Kurchatov 151.70 41 PKPbc PKiKP 22 28 23.9 -0.2
ZALV Zalesovo Beam 152.90 31 PKPbc PKiKP 22 28 26.8 0.0
comp=Z,2.0nm,0.6s,baz=308,slow=5.3,SNR=12
ZALV PKPab sPKPbc 22 28 35.3 -0.1
comp=Z,1.1nm,0.5s,baz=294,slow=3.3,SNR=5.7
MKAR Makanchi Array 155.68 47 PKPab PKPab 22 28 49.6 -0.3
comp=Z,0.3nm,0.4s,baz=320,slow=2.8,SNR=8.7

ISK ***22*** *22:24:43.6,37.˚84N×26.˚83E,h11km,ML3.3/23*
AFAD ***22*** *22:24:43.8,37.˚85N×26.˚82E,h7km±2km,ML3.2*
THE ***22*** *22:24:43.9,37.˚8N±0.˚7×26.˚8E±0.˚5,h12km,M3.2/11,*
MLh3.2/11
ATH ***22*** *22:24:43.3,37.˚80N×26.˚80E,h16km,ML3.1/7,Latitude*
uncertainty: 0 km; Longitude uncertainty: 1 km

ISC 22 22:24:43.7±0.8,37.83N±0.02×26.82E±0.02,h14km±5km,
n57,σ0.945/84, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.12**	**173**	P	**Pg**	**22 24 47.3**	**0.0**
SMG				S	**Sg**	**22 24 49.8**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**173**	P	**Pg**	**22 24 47.1**	**-0.1**
SMG				S	**Sg**	**22 24 49.6**	**+0.1**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.18**	**246**	P	**Pg**	**22 24 47.9**	**-0.1**
SAM2				S	**Sg**	**22 24 50.2**	**-0.7**
SAM2				AML	AML		
DGB	**zmir**	**0.23**	**13**	P	**Pg**	**22 24 48.6**	**-0.2**
DGB				S	**Sg**	**22 24 51.5**	**-0.7**
GMLD	**Gumuldur**	**0.26**	**17**	Pg	**Pg**	**22 24 49.0**	**-0.3**
GMLD				Sg	**Sg**	**22 24 52.9**	**-0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**112**	P	**Pg**	**22 24 50.9**	**0.0**
GCAM				S	**Sb**	**22 24 57.0**	**-0.2**
GCAM				IAML		22 24 57.0	
	comp=N,3μm,0.5s						
GCAM	**G?zelcaml?**	**0.35**	**112**	Pg	**Pg**	**22 24 51.1**	**+0.2**
GCAM				Sg	**Sb**	**22 24 56.8**	**-0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.37**	**85**	Pg	**Pg**	**22 24 51.2**	**-0.1**
KUSD				Sg	**Sg**	**22 24 56.9**	**+0.5**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**12**	P	**Pg**	**22 24 51.7**	**-0.2**
BEYE				S	**Sg**	**22 24 57.2**	**-0.2**
BEYE				IAML		22 24 58.0	
	comp=E,2μm,0.3s						
ZEYE	**Izmir, Urla-Ze**	**0.48**	**329**	P	**Pg**	**22 24 53.1**	**-0.1**
ZEYE				IAML		22 25 00.0	
	comp=E,1μm,0.2s						
ZEYE				S	**Sg**	**22 25 00.0**	**+0.4**
DDIM	**Aydin, Didim**	**0.50**	**138**	P	**Pg**	**22 24 53.8**	**+0.1**
DDIM				S	**Sb**	**22 25 01.8**	**+0.3**
DIDI	**Didim-Aydin**	**0.56**	**143**	Pg	**Pg**	**22 24 54.8**	**0.0**
DIDI				AML	AML		
BLCB	**Balcova**	**0.58**	**18**	P	**Pg**	**22 24 55.0**	**-0.2**
BLCB				S	**Sb**	**22 25 03.2**	**-0.6**
BLCB	**Balcova**	**0.58**	**18**	Pg	**Pg**	**22 24 55.0**	**-0.2**
BLCB				Sg	**Sg**	**22 25 03.0**	**+0.1**
BLCB				AML	AML		
DUVT	**Torbali**	**0.63**	**52**	P	**Pg**	**22 24 55.7**	**-0.4**
DUVT				S	**Sg**	**22 25 03.6**	**-0.9**
DUVT				IAML		22 25 08.0	
	comp=E,2μm,0.5s						
CESE	**eme**	**0.65**	**321**	Pg	**Pb**	**22 24 57.1**	**+0.3**
CESE				Sg	**Sb**	**22 25 05.7**	**+0.1**

CESE				AML	AML			
KRBN	**Karaburun**	**0.79**	**345**	Pg	**Pg**	**22 24 58.9**	**-0.2**
YKAV	**Yalikavak-Bodr**	**0.80**	**152**	Pg	**Pg**	**22 24 59.1**	**-0.1**
YKAV				AML	AML			
CHOS	**Chios island**	**0.82**	**313**	P	**Pg**	**22 24 59.2**	**-0.4**
CHOS				S	**Sb**	**22 25 11.6**	**+0.9**
CHOS				AML	AML			
CHOS	**Chios island**	**0.82**	**313**	Pg	**Pb**	**22 25 00.2**	**+0.4**
CHOS				Sg	**Sb**	**22 25 11.6**	**+0.9**
CHOS				AML	AML			
CHOS	**Chios island**	**0.82**	**313**	P	**Pb**	**22 25 00.1**	**+0.3**
CHOS				S	**Sb**	**22 25 11.2**	**+0.5**
CHOS				AML	AML			
BAGT	**Foa**	**0.82**	**2**	P	**Pg**	**22 24 59.4**	**-0.3**
BAGT				S	**Sn**	**22 25 12.4**	**-0.5**
BAGT				IAML		22 25 15.0		
	comp=E,1μm,0.7s							
AYDB	**Zeytinkoy-Aydi**	**0.86**	**82**	Pg	**Pb**	**22 25 00.5**	**0.0**
AYDB				AML	AML			
BODT	**Bodrum**	**0.86**	**153**	P	**Pg**	**22 25 00.2**	**-0.2**
BODT				S	**Sn**	**22 25 13.7**	**-0.2**
BODT				AML	AML			
BODT	**Bodrum**	**0.86**	**153**	Pg	**Pb**	**22 25 00.9**	**+0.4**
BODT				AML	AML			
KLNA	**Kalymnos**	**0.88**	**172**	P	**Pg**	**22 25 00.3**	**-0.5**
KLNA				S	**Sg**	**22 25 11.2**	**-1.2**
FOCM	**Foa**	**0.88**	**356**	Pg	**Pb**	**22 25 01.3**	**+0.5**
FOCM				AML	AML			
KARB	**zmir-Karabur**	**0.89**	**339**	P	**Pg**	**22 25 00.4**	**-0.6**
KARB				S	**Sb**	**22 25 13.3**	**+0.6**
KARB				IAML		22 25 15.0		
	comp=N,1μm,0.8s							
KARB				IAML		22 25 15.0		
	comp=E,693nm,0.3s							
EAG2	**Marmaro, Chios**	**0.91**	**322**	P	**Pg**	**22 25 00.9**	**-0.4**
EAG2				S	**Sb**	**22 25 13.3**	**+0.2**
MLSB	**Milas**	**0.93**	**125**	Pg	**Pb**	**22 25 01.9**	**+0.2**
MLSB				AML	AML			
BODA	**Bodrum-Mula**	**0.93**	**148**	Pg	**Pg**	**22 25 01.9**	**+0.1**
CAMT	**Merkez**	**0.99**	**23**	P	**Pb**	**22 25 03.1**	**+0.3**
CAMT				S	**Sn**	**22 25 17.5**	**+0.4**
ZEDA	**zmir-Bergama**	**1.15**	**10**	P	**Pb**	**22 25 05.2**	**-0.2**
NAZL	**Nazilli-Aydin**	**1.17**	**83**	Pn	**Pb**	**22 25 05.7**	**-0.1**
NAZL				AML	AML			
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn	**Pg**	**22 25 07.3**	**-0.1**
GOMA				AML	AML			
DKL	**Dikili**	**1.24**	**3**	Pn	**Pg**	**22 25 07.9**	**+0.3**
DKL				AML	AML			
DKL	**Dikili**	**1.24**	**3**	P	**Pn**	**22 25 05.4**	**-1.2**
DKL				S	**Sg**	**22 25 23.7**	**-0.1**
DAT	**Datca**	**1.26**	**151**	P	**Pn**	**22 25 07.0**	**+0.1**
DAT				AML	AML			
DAT	**Datca**	**1.26**	**151**	Pn	**Pb**	**22 25 07.6**	**+0.3**
DAT				AML	AML			
APE	**Apeiranthos**	**1.28**	**234**	P	**Pn**	**22 25 06.7**	**-0.5**
APE				S	**Sn**	**22 25 24.9**	**+0.8**
APE				AML	AML			
APE	**Apeiranthos**	**1.28**	**234**	Pn	**Pn**	**22 25 06.9**	**-0.3**
APE				AML	AML			
APE	**Apeiranthos**	**1.28**	**234**	P	**Pn**	**22 25 06.4**	**-0.8**
APE				AML	AML			
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pn**	**22 25 07.3**	**-0.3**
AKS				AML	AML			
TNSA	**Tinos**	**1.34**	**258**	P	**Pn**	**22 25 07.4**	**-0.7**
TNSA				AML	AML			
YER	**Yerkesik**	**1.36**	**120**	Pn	**Pn**	**22 25 08.5**	**+0.2**
YER				AML	AML			
SOMA	**Soma-Manisa**	**1.44**	**23**	Pn	**Pb**	**22 25 10.6**	**+0.3**
SOMA				AML	AML			
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**22 25 09.8**	**0.0**
PRK				S	**Sb**	**22 25 29.5**	**0.0**
PRK				AML	AML			
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**22 25 09.8**	**0.0**
AYVA	**Ayvalik**	**1.48**	**356**	P	**Pg**	**22 25 11.7**	**-0.5**
AYVA				IAML		22 25 34.0		
	comp=N,395nm,0.3s							
AYVA				IAML		22 25 34.0		
	comp=E,209nm,0.5s							
GORD	**Gordes-Manisa**	**1.52**	**44**	Pn	**Pb**	**22 25 11.6**	**-0.1**
GORD				AML	AML			
KULA	**Kula-Manisa**	**1.60**	**64**	Pn	**Pn**	**22 25 11.8**	**+0.1**
KULA				AML	AML			
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn	**Pn**	**22 25 15.2**	**+1.0**
YAYO				AML	AML			
THERA	**Ancient Thera,**	**1.81**	**217**	P	**Pn**	**22 25 13.6**	**-1.0**
THERA				AML	AML			
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**22 25 16.4**	**+0.4**
ARG	**Arkhangelos**	**1.92**	**147**	P	**Pn**	**22 25 15.8**	**-0.2**
ARG				AML	AML			
EZN	**Ezine**	**2.03**	**349**	S	**Sn**	**22 25 43.1**	**+0.5**
DION	**Dionisos Attik**	**2.29**	**277**	P	**Pn**	**22 25 21.4**	**+0.3**

*SNET **22** 22:25:40.7±5.4, 15°.53N×90°.34W, h3km, ML3.5, Presumed earthquake*
*CATAC **22** 22:25:40.0±0.5, 16°.N±2°.×9°.0W±°, h4km±5km, M3.5/13, MLv3.5/13, Error ellipse: s-maj=5.9km s-min=3.9km az=87.5, confirmed*
*GCG **22** 22:25:40.1±1.0, 15°.53N×90°.19W, h20km±7km, MD4.2, Presumed earthquake*

ISC 22 22:25:38.8±1.1**, 15°.58N**±0°.03×**90°.21W**±0°.03**, h5**km±11km**, n27**, σ1§48/39**, Guatemala**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AVCB	**Coban**	**0.22**	**240**	*i* S	**Sg**	**22 25 42.4**	**-3.6**
HUEH	**Huehuetenango**	**1.27**	**258**	*e*P	**Pg**	**22 26 06.1**	**+2.9**
HUEH				*e*S	**Sn**	**22 26 24.6**	**+3.7**
ESQI	**Esquipulas**	**1.32**	**140**	P	**Pb**	**22 26 03.8**	**-0.2**
ESQI				S	**Sg**	**22 26 22.5**	**+1.3**
ESQI	**Esquipulas**	**1.32**	**140**	*e*P	**Pn**	**22 26 03.6**	**-0.3**
ESQI				*e*S	**Sg**	**22 26 23.1**	**+2.0**
JUAM	**Asuncion Mita**	**1.33**	**158**	*i* S	**Sb**	**22 26 20.5**	**-1.0**
PETF	**Flores**	**1.37**	**14**	P	**Pg**	**22 26 05.3**	**+0.2**
PETF				S	**Sg**	**22 26 23.9**	**+1.0**
PETF	**Flores**	**1.37**	**14**	*i* P	**Pg**	**22 26 04.9**	**-0.2**
PETF				*i* S	**Sg**	**22 26 22.9**	**0.0**
MTO3	**Montecristo**	**1.43**	**145**	S	**Sg**	**22 26 26.6**	**+1.7**
MTO3	**Montecristo**	**1.43**	**145**	*i* P	**Pn**	**22 26 04.6**	**-1.0**
STG8	**El Palmar, Qui**	**1.57**	**225**	*i* P	**Pn**	**22 26 06.9**	**-0.6**
IZABA	**Izabal, Puerto**	**1.57**	**84**	P	**Pb**	**22 26 08.6**	**+0.2**
IZABA				S	**Sg**	**22 26 31.8**	**+2.3**
SLOZ	**Alcaldia de Sa**	**1.60**	**165**	P	**Pb**	**22 26 08.0**	**-0.8**
SARH	**Santa Rosa de**	**1.61**	**119**	*i* P	**Pn**	**22 26 06.6**	**-1.3**
SARH				*i* S	**Sn**	**22 26 28.2**	**-1.0**
LOAL	**Lomas de Alarc**	**1.62**	**165**	P	**Pb**	**22 26 08.6**	**-0.7**
LOAL				S	**Sg**	**22 26 32.3**	**+1.3**
UNIC	**Universidad Ca**	**1.71**	**158**	P	**Pb**	**22 26 09.8**	**-0.9**
UNIC				S	**Sg**	**22 26 33.3**	**-0.6**
NUBE	**Las Nubes**	**1.72**	**166**	P	**Pb**	**22 26 10.2**	**-0.8**
NUBE				S	**Sg**	**22 26 33.6**	**-0.5**
FAME	**Alcaldia de Sa**	**1.74**	**174**	P	**Pb**	**22 26 10.4**	**-0.7**
FAME				S	**Sg**	**22 26 35.2**	**+0.6**
RTAL	**Retalhuleu**	**1.77**	**234**	P	**Pb**	**22 26 11.6**	**-0.2**
CCIG	**Comitan**	**1.98**	**291**	*i* P	**Pb**	**22 26 13.7**	**-1.7**
BOQS	**Boqueron**	**2.04**	**154**	*e*P	**Pb**	**22 26 15.2**	**-1.3**
PMON	**Piamonte**	**2.05**	**155**	P	**Pb**	**22 26 15.5**	**-1.0**
JAYA	**Jayaque - finc**	**2.05**	**159**	P	**Pb**	**22 26 15.6**	**-1.0**
UEES	**Universidad Ev**	**2.08**	**153**	P	**Pb**	**22 26 15.9**	**-1.1**
LOMA	**Loma Larga**	**2.17**	**152**	P	**Pb**	**22 26 17.5**	**-1.1**
PAVA	**Las Pavas**	**2.23**	**146**	P	**Pb**	**22 26 18.3**	**-1.3**
COEG	**Centro de Oper**	**2.33**	**146**	P	**Pb**	**22 26 20.2**	**-1.2**
COEG				S	**Sg**	**22 26 53.0**	**-0.9**
COEG	**Centro de Oper**	**2.33**	**146**	*e*P	**Pb**	**22 26 19.8**	**-1.6**

KRSC 22 22:29:57.2±2.3**, 48°.48N**×**157°.13E, h23**km±56km**, Ml4.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**2.31**	**344**	*e*S	Sn	22 31 02.8	+1.4
PAU	**Pauzhetka**	**3.00**	**356**	*e*P	Pn	22 30 45.7	+2.3
PAU				*e*S	Sn	22 31 20.9	+2.3
KDTR	**Khodutka, Kamc**	**3.39**	**10**	*e*P	Pb	22 30 53.2	-3.4
KDTR				*e*S	Sb	22 31 34.2	-3.1
GRL	**Gorelyy**	**4.13**	**8**	*e*P	Pn	22 31 03.3	+4.4
GRL				*e*S	Sn	22 31 51.7	+5.2
KOK	**Koryaka**	**4.92**	**11**	*e*P	Pn	22 31 14.3	+4.5
KRX	**Arik**	**4.99**	**11**	*e*P	Pn	22 31 15.6	+4.9
KZV	**Kizimen**	**6.93**	**15**	*e*P	Pn	22 31 42.6	+5.2
KBTR	**Krutoberegovo**	**8.49**	**22**	*e*P	Pn	22 32 02.6	+3.9

*SOME **23** 00:03:57.5, 46°.87N×83°.00E, h15km*
*NNC **23** 00:03:58.9±0.5, 46°.75N×83°.02E, h13km±5km, mb3.5, mpv3.1, Error ellipse: s-maj=6.7km s-min=4.1km az=166.0*
*ASRS **23** 00:04:00.2±0.4, 47°.N±3°.×8°.3E±°, h5km, MLh3.4/8, Error ellipse: s-maj=7.0km s-min=3.1km az=146.2, confirmed*

ISC 23 00:03:57.0±0.8**, 46°.89N**±0°.03×**83°.03E**±0°.03**, h10km**, **n37**, σ2§62/68**, 15C-12D, Kazakhstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MK06	**Makanchi Array**	**0.51**	**257**	⇓P	**Pn**	**00 04 09.4**	**-0.9**
MK06				⇑S	**Sb**	**00 04 17.6**	**+2.2**
MK07	**Makanchi Array**	**0.51**	**254**	⇓P	**Pn**	**00 04 09.5**	**-0.9**
MK07				⇓S	**Sb**	**00 04 17.8**	**+2.2**
MK02	**Makanchi Array**	**0.51**	**256**	⇑P	**Pn**	**00 04 09.5**	**-0.9**
MK02				⇑S	**Sb**	**00 04 17.6**	**+2.1**
MK01	**Makanchi Array**	**0.52**	**256**	⇑P	**Pn**	**00 04 09.5**	**-0.9**
MK01				⇑S	**Sb**	**00 04 17.7**	**+2.0**
MK03	**Makanchi Array**	**0.52**	**256**	⇓P	**Pn**	**00 04 09.6**	**-0.9**
MK03				⇓S	**Sb**	**00 04 17.8**	**+2.1**
MK05	**Makanchi Array**	**0.52**	**259**	⇓P	**Pn**	**00 04 09.6**	**-0.8**
MK05				⇑S	**Sb**	**00 04 17.9**	**+2.2**
MK31	**Makanchi Array**	**0.52**	**259**	⇓P	**Pn**	**00 04 09.6**	**-0.9**
	3.0nm,0.2s,baz=48,slow=3.5,SNR=5424						
MK31				⇓S	**Sb**	**00 04 17.8**	**+2.1**
	17nm,0.3s,baz=135,slow=24,SNR=5.7						
MK04	**Makanchi Array**	**0.52**	**257**	⇑P	**Pn**	**00 04 09.6**	**-0.8**
MK04				⇑S	**Sb**	**00 04 17.9**	**+2.1**
MK08	**Makanchi Array**	**0.53**	**255**	⇑P	**Pn**	**00 04 09.9**	**-0.7**
MK09	**Makanchi Array**	**0.53**	**257**	⇑P	**Pn**	**00 04 09.9**	**-0.7**
MAKZ	**Makanchi**	**0.73**	**264**	⇑P	**Pn**	**00 04 13.2**	**-0.2**
	2.8nm,0.2s						
MAKZ				⇑S	**Sn**	**00 04 24.2**	**-0.3**
	40nm,0.2s						
MAKZ	**Makanchi**	**0.73**	**264**	Pg	**Pn**	**00 04 13.1**	**-0.2**
MAKZ				Sg	**Sn**	**00 04 24.1**	**-0.4**
MAKZ				AML	AML		
ZSN	**Zaisan**	**1.37**	**65**	P	**Pg**	**00 04 21.6**	**-1.7**
	5.6nm,0.1s						
ZSN				S	**Sg**	**00 04 38.6**	**-2.5**
	76nm,0.2s						
ZSN	**Zaisan**	**1.37**	**65**	*e*P	**Pg**	**00 04 21.5**	**-1.8**
	5.6nm,0.1s						
ZSN				*e*S	**Sg**	**00 04 38.6**	**-2.5**
	76nm,0.2s						
KAPS	**Kapalarasan**	**3.02**	**239**	Pg	**Pb**	**00 04 52.1**	**+1.2**
	1.6nm,0.1s						
KAPS				Lg	Lg	00 05 31.8	
	52nm,0.2s						
KAPS	**Kapalarasan**	**3.02**	**239**	*e*P	**Pb**	**00 04 52.5**	**+1.7**
	1.6nm,0.1s						
KAPS				*e*S	**Sg**	**00 05 31.8**	**-2.1**
	52nm,0.2s						
DJR	**Jarkent**	**3.42**	**223**	Pg	**Pb**	**00 04 59.5**	**+1.8**
	2.6nm,0.4s						
DJR				Lg	Lg	00 05 43.0	
	8.1nm,0.5s						
DJR	**Jarkent**	**3.42**	**223**	*e*P	**Pb**	**00 04 59.0**	**+1.3**
	2.6nm,0.4s						
DJR				*e*S	**Sb**	**00 05 43.0**	**+3.5**
	8.1nm,0.5s						
SEM	**Semipalatinsk**	**3.97**	**333**	Pg	**Pb**	**00 05 09.5**	**+2.3**
	3.3nm,0.1s						
SEM				Lg	Lg	00 06 03.8	
	16nm,0.4s						
SEM	**Semipalatinsk**	**3.97**	**333**	*e*P	**Pg**	**00 05 11.2**	**-1.9**
	5.1nm,0.2s						
SEM				*e*S	**Sg**	**00 06 03.8**	**-0.7**
	16nm,0.4s						
PDGK	**Podgornoye**	**4.36**	**216**	⇓Pn	**Pn**	**00 05 05.7**	**+2.4**
	5.3nm,0.5s						
SHLS	**Shalkode**	**4.51**	**215**	Pg	**Pb**	**00 05 15.9**	**-0.4**
	2.6nm,0.4s						
SHLS				Lg	Lg	00 06 12.3	
	29nm,0.6s						
CHBI	**Chibit, Altay**	**4.53**	**39**	Pn	**Pn**	**00 05 08.5**	**+2.8**
CHBI				Pg	**Pg**	**00 05 22.3**	**-1.4**
CHBI				Sg	**Sg**	**00 06 19.3**	**-3.0**
CHBI				AML	AML		
ARXS	**Arharly**	**4.53**	**236**	Pg	**Pg**	**00 05 21.0**	**-2.7**
	1.2nm,0.3s						
ARXS				Lg	Lg	00 06 20.7	
	15nm,0.4s						
ARXS	**Arharly**	**4.53**	**236**	*e*P	**Pg**	**00 05 21.0**	**-2.7**
	1.2nm,0.3s						
ARXS				*e*S	**Sg**	**00 06 20.7**	**-1.7**
	15nm,0.4s						
AKAR	**Aktash**	**4.58**	**40**	Pn	**Pn**	**00 05 09.2**	**+2.8**
AKAR				Sg	**Sg**	**00 06 18.5**	**-5.6**
AKAR				AML	AML		
KPKS	**Kokpek**	**4.60**	**223**	Pg	**Pb**	**00 05 21.5**	**+3.6**
	0.4nm,0.2s						
KPKS				Lg	Lg	00 06 20.1	
	12nm,0.5s						
KPKS	**Kokpek**	**4.60**	**223**	*e*P	**Pb**	**00 05 20.7**	**+2.9**
	0.4nm,0.2s						
KPKS				*e*S	**Sg**	**00 06 20.1**	**-4.6**
	12nm,0.5s						
UZB	**Uzynbulak**	**4.70**	**219**	Pg	**Pb**	**00 05 21.2**	**+1.6**
	2.1nm,0.2s						
UZB				Lg	Lg	00 06 22.4	
	5.6nm,0.4s						
UZB	**Uzynbulak**	**4.70**	**219**	*e*P	**Pb**	**00 05 22.0**	**+2.4**
	2.1nm,0.2s						
UZB				*e*S	**Sb**	**00 06 22.4**	**+6.1**
	5.6nm,0.4s						
ELDR	**Elanda**	**4.77**	**24**	Pn	**Pn**	**00 05 12.2**	**+3.3**
ELDR				Pg	**Pg**	**00 05 23.9**	**-4.4**
ELDR				Sg	**Sg**	**00 06 26.9**	**-3.2**
ELDR				AML	AML		
KURBB	**Kurchatov Arra**	**4.77**	**323**	⇑Pn	**Pn**	**00 05 11.1**	**+2.3**
	0.3nm,0.2s						
KURBB				⇓Pg	**Pg**	**00 05 25.0**	**-3.3**
	4.2nm,0.6s						
KURBB				⇓Lg	Lg	00 06 31.4	
	31nm,0.6s						
CUR	**Chagan-Uzun**	**4.78**	**46**	Pn	**Pn**	**00 05 11.7**	**+2.7**
CUR				Pg	**Pg**	**00 05 26.0**	**-2.4**
CUR				Sg	**Sg**	**00 06 26.5**	**-3.7**
CUR				AML	AML		
KURK	**Kurchatov**	**4.81**	**324**	⇓Pn	**Pn**	**00 05 11.7**	**+2.4**
	0.4nm,0.7s						
KURK				⇑Pg	**Pb**	**00 05 24.6**	**+3.4**
	0.6nm,0.5s						
KURK				⇑Lg	Lg	00 06 33.0	
	10nm,0.8s						
KURK	**Kurchatov**	**4.81**	**324**	Pn	**Pn**	**00 05 11.7**	**+2.4**
KURK				Pg	**Pg**	**00 05 25.8**	**-3.2**
KURK				Sg	**Sg**	**00 06 30.5**	**-0.8**
KURK				AML	AML		
ULGR	**Ulagan, Altay**	**4.96**	**39**	Pn	Pn	00 05 15.2	+3.7
ULGR				Pg	**Pg**	**00 05 30.5**	**-1.4**
ULGR				Sg	**Sg**	**00 06 32.1**	**-3.9**
ULGR				AML	AML		
ARTR	**Artybash**	**5.64**	**28**	Pn	**Pn**	**00 05 23.7**	**+2.9**
ARTR				Sg	**Sg**	**00 06 51.8**	**-6.1**
ARTR				AML	AML		

*IDC **23** 00:06:40.8±7.8, 16°.38S×173°.26W, h63km±56km, mb3.6/5, mbtmp3.9/6, ML4.7/1, MS3.2/8, Error ellipse: s-maj=133.4km s-min=27.8km az=143.0*

ISC 23 00:06:36.0±1.6**, 16°.7S**±0°.5×**172°.9W**±0°.3**, h32km**, **n13**, σ1§24/8**, mb3.8/5**, MS3.4/6**, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**8.74**	**262**	P	**Pn**	**00 08 41.2**	**+1.0**
	0.3nm,0.3s,baz=112,slow=11,SNR=7.9						
MSVF				LR	LR	00 11 37.1	
	comp=Z,247nm,20.9s,baz=118,slow=35						
	2.6nm,0.8s						
MSVF				AML	AML		
RAR	**Rarotonga**	**13.17**	**112**	LR	LR	00 14 05.6	
	comp=Z,47nm,21.7s,baz=300,slow=33						
PPT	**Papeete**	**22.28**	**96**	LR	LR	00 18 23.2	
	comp=Z,28nm,19.3s,baz=60,slow=31						
HNR	**Honiara**	**27.43**	**282**	LR	LR	00 21 26.8	
	comp=Z,131nm,21.8s,baz=191,slow=33						
CTA	**Charters Tower**	**38.87**	**259**	LR	LR	00 27 33.8	
	comp=Z,39nm,19.4s,baz=30,slow=32						

STKA	**Stephens Creek**	**43.84**	**241**	P	**P**	**00 14 39.4**	**0.0**
	1.3nm,0.4s,baz=69,slow=6.2,SNR=3.0							
	1.3nm,0.4s							
WRA	**Warramunga Arr**	**50.05**	**258**	P	**P**	**00 15 26.3**	**-1.8**
	0.4nm,0.4s,baz=95,slow=7.3,SNR=8.8							
WRA				PcP	**PcP**	**00 16 48.4**	**+0.7**
	0.3nm,0.7s,baz=96,slow=3.4,SNR=1.6							
	0.4nm,0.4s							
ASAR	**Alice Springs**	**50.20**	**253**	P	**P**	**00 15 28.4**	**-0.9**
	3.6nm,0.5s,baz=90,slow=7.8,SNR=24							
ASAR				LR	LR	00 35 55.3		
	comp=Z,35nm,18.3s,baz=112,slow=35							
	3.6nm,0.5s							
FITZ	**Fitzroy Crossi**	**58.45**	**259**	LR	LR	00 40 15.1		
	comp=Z,27nm,18.4s,baz=14,slow=35							
USRK	**Ussuriysk Ar.**	**78.73**	**323**	LR	LR	00 47 34.6		
	comp=Z,16nm,21.3s,baz=57,slow=31							
PDAR	**Pinedale Array**	**82.90**	**42**	P	**P**	**00 18 58.9**	**+1.0**
	0.7nm,0.8s,baz=177,slow=0.3,SNR=6.6							
	0.7nm,0.8s							
ILAR	**Eielson Array**	**83.62**	**11**	P	**P**	**00 18 59.7**	**-1.0**
	0.4nm,0.8s,baz=204,slow=5.9,SNR=2.1							
	0.4nm,0.8s							
BRTR	**Keskin Array B**	**147.49**	**320**	PKPbc	**PKPbc**	**00 26 17.9**	**+0.6**
	0.7nm,0.6s,baz=68,slow=4.6,SNR=4.3							

*CNRM **23** 00:17:11.2, 33°.50N×4°.65W, h5km, ML2.4*
*MDD **23** 00:17:11.4±0.7, 33°.47N×4°.67W, h0km, Mb3.7/12, M_mb2.9/13, Error ellipse: s-maj=6.6km s-min=3.4km az=132.0*
*SFS **23** 00:17:13.3, 33°.56N×4°.78W, h10km, ML2.6/14, ML3.3/14, MLv3.5/12*

ISC 23 00:17:11.4±0.9**, 33°.53N**±0°.02×**4°.70W**±0°.03**, h15km**±7km**, n57**, σ1§28/91**, 10C, Morocco**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LCRM	**LCR**	**0.21**	**321**	P	**Pg**	**00 17 16.2**	**-0.1**
LCRM				S	**Sg**	**00 17 20.4**	**+0.9**
IFR	**Ifrane**	**0.35**	**269**	Pg	**Pg**	**00 17 18.7**	**0.0**
IFR				Sg	**Sg**	**00 17 23.7**	**-0.1**
MD31	**MD31**	**0.66**	**184**	P	**Pg**	**00 17 22.8**	**-1.5**
MD31				S	**Sb**	**00 17 32.8**	**-0.9**
MDT	**Midelt**	**0.71**	**174**	P	**Pg**	**00 17 23.8**	**-1.6**
MDT				S	**Sg**	**00 17 33.4**	**-1.4**
SICH	**Sidi Chahed**	**0.77**	**319**	P	**Pb**	**00 17 27.5**	**+0.8**
SICH				S	**Sn**	**00 17 39.9**	**+0.6**
AKLM	**AKL**	**1.20**	**35**	P	**Pn**	**00 17 33.8**	**0.0**
AKLM				S	**Sn**	**00 17 52.2**	**+2.1**
ZHG	**ZHG**	**1.62**	**268**	P	**Pb**	**00 17 40.6**	**-0.6**
ZHG				S	**Sg**	**00 18 05.2**	**+1.4**
RSA	**Sarsar**	**1.64**	**326**	P	**Pb**	**00 17 41.9**	**+0.4**
RSA				S	**Sg**	**00 18 04.0**	**-0.4**
PALE	**Palemas**	**1.80**	**20**	P	**Pn**	**00 17 43.3**	**+1.3**
PALE				S	**Sb**	**00 18 07.0**	**+0.3**
GOLM	**Goulmima**	**1.83**	**187**	P	**Pb**	**00 17 45.0**	**+0.3**
GOLM				S	**Sg**	**00 18 10.4**	**+0.1**
JBK	**JBK**	**1.95**	**65**	P	**Pn**	**00 17 43.8**	**-0.5**
JBK				S	**Sn**	**00 18 07.8**	**-0.8**
ARF	**Arif**	**2.13**	**169**	P	**Pn**	**00 17 47.7**	**+1.1**
ARF				S	**Sb**	**00 18 15.8**	**-0.2**
AVE	**Averroes**	**2.28**	**265**	Pn	**Pn**	**00 17 49.1**	**+0.5**
AVE				Sn	**Sn**	**00 18 14.5**	**-1.9**
TISM	**Timmit**	**2.32**	**220**	P	**Pn**	**00 17 49.5**	**+0.4**
TISM				S	**Sb**	**00 18 21.0**	**-0.5**
TZRR	**Tazzarine**	**2.83**	**195**	P	**Pn**	**00 17 57.1**	**+0.9**
TZRR				S	**Sb**	**00 18 33.7**	**-2.6**
SRHM	**Skhour des Reh**	**2.88**	**249**	P	**Pb**	**00 18 01.9**	**-0.8**
SRHM				S	**Sb**	**00 18 38.9**	**+1.1**
EMIJ	**Mijas**	**3.03**	**359**	Pn	**Pn**	**00 18 00.5**	**+1.6**
EMIJ				⇑IVmb_VC		00 18 03.6		
	106nm,SNR=1.1							
OUZM	**OUZ**	**3.14**	**214**	P	**Pn**	**00 18 02.2**	**+1.6**
OUZM				S	**Sb**	**00 18 45.7**	**+0.5**
FIGM	**Figuig**	**3.21**	**115**	P	**Pn**	**00 18 02.2**	**+0.7**
FIGM				S	**Sn**	**00 18 41.1**	**+1.4**
TIO	**Tiouine**	**3.38**	**221**	Pn	**Pn**	**00 18 05.3**	**+1.4**
TIO				Sn	**Sn**	**00 18 43.1**	**-0.7**
TIO	**Tiouine**	**3.38**	**221**	P	**Pn**	**00 18 05.5**	**+1.6**
TIO				S	**Sn**	**00 18 47.3**	**+3.5**
ELGU	**Los Guajares,**	**3.45**	**14**	Pn	**Pn**	**00 18 04.8**	**+0.1**
ELGU	**Los Guajares,**	**3.45**	**14**	Pn	**Pn**	**00 18 04.8**	**+0.1**
ELGU				⇑IVmb_VC		00 18 07.0		
	71nm,SNR=0.8							
ZGR	**Zagora**	**3.48**	**193**	P	**Pn**	**00 18 06.5**	**+1.2**
ZGR				S	**Sn**	**00 18 49.1**	**+2.7**
OUK	**Oukaimeden**	**3.54**	**230**	P	**Pn**	**00 18 06.3**	**+0.1**
OUK				S	**Sn**	**00 18 50.2**	**+2.2**
ESOR	**Sierra Gorda,**	**3.61**	**8**	Pn	**Pn**	**00 18 08.6**	**+1.6**
TTIG	**Tnine Tigouga,**	**4.35**	**228**	P	**Pn**	**00 18 17.7**	**+0.6**
TTIG				S	**Sn**	**00 19 10.8**	**+3.1**
EQES	**Quesada**	**4.47**	**17**	Pn	**Pn**	**00 18 21.7**	**+2.9**
EQES				⇑IVmb_VC		00 18 25.1		
	71nm,SNR=1.1							
EMIN	**Mina Concepcio**	**4.53**	**340**	Pn	**Pn**	**00 18 20.0**	**+0.5**
EMIN	**Mina Concepcio**	**4.53**	**340**	Pn	**Pn**	**00 18 20.5**	**+1.1**
EMIN				⇑I

CMARA	Lajas Hojancha	0.57	59	*e*P		Pb	00 29 23.8	-0.5
NICO	Nicoya	0.62	49	*e*P		Pb	00 29 24.6	-0.4
SACU	Santa Cruz	0.63	32	*e*P		Pg	00 29 24.0	-0.6
DELF	Filadelfia	0.81	27	*e*P		Pb	00 29 28.1	-0.1
ALIBA	Liberia Airpor	0.94	23	*e*P		Pn	00 29 31.2	0.0
BAGA	Bagaces	1.03	39	*e*P		Pb	00 29 31.6	-0.4
JTS	Las Juntas de	1.11	59	P		Pb	00 29 32.1	-1.3
JTS				S		Sn	00 29 50.6	+1.8
JTS	Las Juntas de	1.11	59	*e*P		Pb	00 29 31.6	-1.8
LAPC	Finca la Perla	1.14	25	*e*P		Pb	00 29 33.2	-0.8
GPS3	Bodega del ICE	1.16	28	*e*P		Pb	00 29 34.1	-0.3
GPS2	Hotel Rincn d	1.17	29	*e*P		Pb	00 29 33.7	-0.7
CUI	Cuipilapa	1.19	39	*e*P		Pb	00 29 33.8	-1.0
VRLE	La Escondida,	1.19	27	*e*P		Pb	00 29 34.1	-0.8
HORNC	Hornillas	1.23	37	*e*P		Pb	00 29 34.2	-1.2
VORI	VORI	1.23	27	*e*P		Pb	00 29 34.5	-1.0
CHIK	Chiripa	1.23	54	*e*P		Pb	00 29 34.1	-1.4
TIMP	Tierras Morena	1.23	46	*e*P		Pb	00 29 34.0	-1.6
MESS	Mesas	1.24	35	*e*P		Pb	00 29 34.3	-1.4
BUAI	Buenos Aires	1.28	27	*e*P		Pb	00 29 35.7	-0.7
CLARA	Aguas Claras	1.28	35	*e*P		Pb	00 29 35.4	-1.1
COTE	Lago Cote	1.30	49	*e*P		Pb	00 29 35.5	-1.3
VMAR	Armenia, Volca	1.34	36	*e*P		Pn	00 29 36.1	-0.7
TENO	El Achiote	1.35	43	*e*P		Pn	00 29 34.9	-2.0
QUEB	Quebradon, Cot	1.35	48	*e*P		Pn	00 29 35.6	-1.3
TABAC	Tabacon	1.37	56	*e*P		Pn	00 29 36.7	-0.6
LCRUZ	La Cruz	1.38	12	*e*P		Pn	00 29 37.0	-0.3
VARE2	V. Arenal	1.39	58	*e*P		Pn	00 29 36.8	-0.7
CANAL	Canalete	1.39	38	*e*P		Pn	00 29 36.6	-0.9
CEDE	Laguna Cedeo	1.42	58	*e*P		Pn	00 29 37.1	-0.8
VACR	Volcan Arenal	1.43	59	*e*P		Pn	00 29 37.3	-0.8
REZ	Monterrey de S	1.44	56	*e*P		Pn	00 29 38.4	+0.2
UPAL	Upala	1.47	37	P		Pn	00 29 39.0	+0.5
UPAL	Upala	1.47	37	*e*P		Pn	00 29 38.6	+0.1
CARN	Rivas	1.51	15	P		Pb	00 29 40.2	0.0
CARN				S		Sg	00 30 06.4	+5.4
TCS1	Tacares	1.63	79	P		Pg	00 29 43.7	+0.1
COVE	Coope Vega, Sa	1.79	56	P		Pb	00 29 45.1	0.0
HDC	Heredia	1.80	81	P		Pb	00 29 45.6	+0.3
MORN	Al O del Volca	1.83	8	P		Pn	00 29 45.1	+1.6
MORN				S		Sg	00 30 09.2	-2.2
VBV1	V. Barva	1.83	78	*e*P		Pn	00 29 43.7	-0.1
ABE2	San Pablo	1.84	90	*e*P		Pn	00 29 43.7	-0.2
CONN	Concepcion	1.85	9	P		Pn	00 29 43.9	+0.1
LCR2	La Lucha 2	1.89	89	P		Pn	00 29 44.4	-0.1
LCR2	La Lucha 2	1.89	89	*e*P		Pn	00 29 43.8	-0.6
CVTG	V. Turrialba,	2.15	79	*e*P		Pn	00 29 48.4	+0.4
TRT2	Tortugero	2.31	69	P		Pb	00 29 54.1	+0.3
ACON	Acoyapa	2.35	18	P		Pg	00 29 56.1	-1.3
ACON				S		Sg	00 30 28.9	+1.0

IDC ***23*** *00:36:27.4±0.5,41˚.85S×83˚.81W,h0km,mb4.4/13, mbtmp4.3/15,ML3.1/2,MS4.0/28,Error ellipse: s-maj=17.0km s-min=14.3km az=118.0*

GCMT ***23*** *00:36:28.9±0.3,42˚.04S±0˚.02×84˚.01W±0˚.03,h12km, MW4.8/80,Moment Tensor Solution. s18,c21; s80,c111; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-1.60±.09; Mθθ0.79±.08; Mϕϕ0.80±.08; Mrθ-0.47±.31; Mθϕ-1.75±.06; Mϕr0.08±.29; Best double couple: M◎2.16000×10^16 NP1:ϕs118.00000°,δ53.00000°,λ-114.00000°. Principal axes: T 2.5860, Plg5.0000°, Azm225.0000°; N -0.8550, Plg19.0000°, Azm133.0000°; P -1.7340, Plg70.0000°, Azm330.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***23*** *00:36:29.9±1.5,41˚.79S±0˚.08×84˚.0W±0˚.1,h10km±1km, mb4.9/167 Error ellipse: s-maj=16.4km s-min=13.0km az=251.0*

GFZ ***23*** *00:36:30.2±0.3,42˚S±3˚×8˚4W±˚,h10km,M4.8/28, mb4.6/28*

GFZ ***23*** *00:36:30.4,41˚.85S×84˚.01W,h11km,Mw4.8/31,Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr-2.00; Mθθ1.16; Mϕϕ0.84; Mrθ0.00; Mθϕ-0.86; Mϕr-0.19; Fault plane solution: M◎1.95056×10^16 NP1: ϕs125.95722°,δ43.33929°,λ-95.52415°. NP2: ϕs313.53180°,δ46.91130°,λ-84.80947°. Principal axes: T 1.8801, Plg1.7899°, Azm39.8623°; N 0.1339, Plg3.7882°, Azm129.9808°; P -2.0141, Plg85.8091°, Azm284.6185°;*

ISC 23 00:36:30.4±0.4, 41˚.76S±0˚.06×84˚.04W±0˚.08, h19km, n309, σ1§39/283, mb4.8/99, MS4.1/26, 6D, West Chile Rise

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	h m s	ISC
H03S2	**Juan Fernandez**	**8.88**	**29**	Pn	**Pn**	**Pn**	**00 38 35.2**	**-2.3**
H03S2				T	T	T	00 47 49.4	
	baz=203,slow=73,SNR=5083							
H03S1	**Juan Fernandez**	**8.88**	**29**	Pn	**Pn**	**Pn**	**00 38 35.4**	**-2.1**
H03S1				T	T	T	00 47 52.3	
	baz=203,slow=73,SNR=6068							
HUEM	**Huemules**	**8.90**	**121**	*i* P		**Pn**	**00 38 38.6**	**+0.6**
H03S3	**Juan Fernandez**	**8.90**	**29**	Pn	**Pn**	**Pn**	**00 38 35.3**	**-2.4**
H03S3				T	T	T	00 47 54.0	
	baz=203,slow=73,SNR=3927							
CHAC	**Puerto Chacabu**	**8.96**	**118**	*i* P		**Pn**	**00 38 40.7**	**+2.0**
HUDS	**Hudson**	**9.08**	**121**	*i* P		**Pn**	**00 38 42.0**	**+1.5**
HUDS				*e*S		Sn	00 40 05.0	-17
AY02	**Valle Explorad**	**9.11**	**125**	Pn		**Pn**	**00 38 42.3**	**+1.5**
AY02	**Valle Explorad**	**9.11**	**125**	*i* P		**Pn**	**00 38 42.2**	**+1.5**
LL02	**Futaleuf**	**9.12**	**103**			**Pn**	**00 38 42.2**	**+1.3**
LL02	**Futaleuf**	**9.12**	**103**	P		**Pn**	**00 38 44.8**	**+3.9**
	comp=Z,15nm,1.3s							
LR03	**Panguipulli**	**9.13**	**80**			**Pn**	**00 38 41.5**	**+0.3**
H03N2	**Juan Fernandez**	**9.24**	**28**	Pn		**Pn**	**00 38 39.4**	**-2.9**
	baz=206,slow=74							
H03N1	**Juan Fernandez**	**9.24**	**28**	Pn		**Pn**	**00 38 39.3**	**-3.1**
	baz=56,slow=74							
COYC	**Coyhaique**	**9.46**	**118**			**Pn**	**00 38 46.8**	**+1.1**
COYC	**Coyhaique**	**9.46**	**118**	P		**Pn**	**00 38 46.0**	**+0.4**
	comp=Z,53nm,1.2s							
GO06	**Curarrehue**	**9.79**	**81**			**Pn**	**00 38 47.6**	**-2.7**
GO06	**Curarrehue**	**9.79**	**81**	*e*P		**Pn**	**00 38 46.8**	**-3.5**
GO06	**Curarrehue**	**9.79**	**81**	P		**Pn**	**00 38 49.5**	**-0.7**
	comp=Z,21nm,1.3s							
AY03	**Cochrane**	**9.84**	**128**	Pn		**Pn**	**00 38 49.1**	**-1.8**
PLCA	**Paso Flores**	**10.21**	**89**	Pn		Pn	00 38 50.4	-5.5
	baz=306,slow=3.0,SNR=3.1							
PLCA				Sn		Sn	00 40 36.7	-13
	comp=Z,0.1nm,0.3s,baz=47,slow=12,SNR=1.4							
PLCA				LR		LR	00 42 09.6	
	comp=Z,1μm,18.1s,baz=255,slow=34							
	comp=Z,1.5nm,0.9s							
PLCA	**Paso Flores**	**10.21**	**89**	Pn		**Pn**	**00 38 57.4**	**+1.5**
PLCA	**Paso Flores**	**10.21**	**89**	*i* P		**Pn**	**00 38 56.8**	**+0.8**
PLCA	**Paso Flores**	**10.21**	**89**	P		**Pn**	**00 38 59.8**	**+3.8**
	comp=Z,37nm,1.2s							
PLCA	**Paso Flores**	**10.21**	**89**	*e*P		**Pn**	**00 38 59.5**	**+3.6**
GO08	**Villa O'Higgin**	**10.52**	**133**	P		**Pn**	**00 39 01.6**	**+1.5**
	comp=Z,36nm,1.2s							
BI02	**San Fabin de**	**11.13**	**67**			**Pn**	**00 39 07.2**	**-1.3**
BI02	**San Fabin de**	**11.13**	**67**	P		**Pn**	**00 39 07.3**	**-1.3**
	comp=Z,16nm,1.4s							
ML02	**Panimavida**	**11.52**	**63**			**Pn**	**00 39 12.9**	**-1.0**
ML02	**Panimavida**	**11.52**	**63**	P		**Pn**	**00 39 11.7**	**-2.2**
	comp=Z,45nm,1.4s							
BO02	**Sierra Bellavi**	**12.52**	**61**			**Pn**	**00 39 25.2**	**-2.3**
BO01	**Tunca**	**12.57**	**58**			**Pn**	**00 39 26.9**	**-1.3**
MT09	**Talagante**	**13.03**	**57**	Pn		**Pn**	**00 39 33.9**	**-0.7**
BO04	**La Punta**	**13.13**	**58**			**Pn**	**00 39 33.1**	**-2.8**
MT13	**San Alfonso**	**13.49**	**58**	Pn		**Pn**	**00 39 42.4**	**+1.5**
MT08	**Bocatoma Ro**	**13.86**	**58**			**Pn**	**00 39 43.8**	**-2.2**
VA03	**San Esteban**	**13.98**	**54**			**Pn**	**00 39 44.6**	**-3.0**
VA03	**San Esteban**	**13.98**	**54**	P		**Pn**	**00 39 46.0**	**-1.6**
	comp=Z,32nm,1.2s							
CO04	**Los Peladeros**	**14.24**	**51**			**Pn**	**00 39 50.8**	**-0.6**
CO03	**El Pedregal**	**15.30**	**49**	P		**Pn**	**00 40 05.6**	**+0.2**
	comp=Z,43nm,1.4s							
GO04	**Tololo Observa**	**15.74**	**47**	Pn		**Pn**	**00 40 12.9**	**+1.6**
GO04				IAmb		IAmb	00 40 18.8	
	comp=Z,149nm,1.9s							
ZON	**Zonda**	**15.97**	**55**	P		**Pn**	**00 40 14.6**	**+0.5**
ZON	**Zonda**	**15.97**	**55**	P		**P**	**00 40 18.1**	**+0.6**
	comp=E,28nm,1.4s							
CFA	**Coronel Fontan**	**16.20**	**56**	Pn		**Pn**	**00 40 14.1**	**-3.0**
	comp=E,0.2nm,0.3s,baz=238,slow=12,SNR=7.4							
CFA				LR		LR	00 45 28.3	
	comp=E,585nm,19.3s,baz=196,slow=34							
	comp=E,1.2nm,0.4s							
CFA					AML	AML		
CO01	**Juntas del Tor**	**16.28**	**48**			**Pn**	**00 40 18.0**	**-0.2**
CO01	**Juntas del Tor**	**16.28**	**48**	P		**P**	**00 40 20.4**	**-0.8**
	comp=Z,26nm,2.1s							
LCO	**Las Campanas**	**16.71**	**45**			**Pn**	**00 40 23.0**	**-0.7**
AC05	**El Transito**	**17.07**	**45**			**Pn**	**00 40 26.9**	**-1.3**
AC05					IAmb	IAmb	00 40 35.1	
	comp=Z,149nm,1.6s							
AC05	**El Transito**	**17.07**	**45**	P		**P**	**00 40 30.9**	**+1.1**
	comp=Z,59nm,1.4s							
AC06	**Mina Casimiro**	**18.23**	**42**	P		**Pn**	**00 40 42.0**	**-0.4**
AC06					IAmb	IAmb	00 40 47.0	
	comp=Z,132nm,1.8s							
AC02	**Maricunga**	**19.28**	**44**	P		**P**	**00 40 53.5**	**-1.0**
PB14	**IPOC Station P**	**20.50**	**38**	P		**P**	**00 41 07.8**	**+0.2**
PB14	**IPOC Station P**	**20.50**	**38**	P		Pn	00 41 09.9	+0.1
	comp=Z,27nm,1.4s							
ANCO	**Parque Anchore**	**21.80**	**78**	*e*P		**P**	**00 41 21.0**	**-0.3**
PB06	**IPOC Station P**	**22.54**	**37**	P		**P**	**00 41 31.2**	**+1.8**
SALTA		**22.86**	**46**	P		**P**	**00 41 35.8**	**+2.6**
	comp=Z,51nm,1.7s							
AF01	**San Pedro de A**	**22.98**	**40**	P		**P**	**00 41 33.5**	**-0.7**
PB03	**IPOC Station P**	**23.03**	**36**	P		**P**	**00 41 34.6**	**0.0**
PB03	**IPOC Station P**	**23.03**	**36**	P		**P**	**00 41 36.1**	**+1.4**
	comp=Z,22nm,1.6s							
PB07	**IPOC Station P**	**23.26**	**35**	P		**P**	**00 41 37.6**	**+0.7**
PB09	**IPOC Station P**	**23.48**	**37**	P		**P**	**00 41 40.0**	**+0.9**
PB09	**IPOC Station P**	**23.48**	**37**	P		**P**	**00 41 42.5**	**+3.4**
	comp=Z,40nm,2.7s							
PB02	**IPOC Station P**	**23.61**	**35**	P		**P**	**00 41 40.7**	**+0.3**
PB02					IAmb	IAmb	00 41 51.3	
	comp=Z,72nm,1.7s							
PSAL	**Palomas, Salto**	**23.70**	**72**	*e*P		**P**	**00 41 40.8**	**-0.2**
TA01	**Diego Aracena**	**24.17**	**33**	P		**P**	**00 41 46.6**	**+1.2**
PB08	**IPOC Station P**	**24.97**	**35**	P		**P**	**00 41 54.1**	**+0.9**
PB08	**IPOC Station P**	**24.97**	**35**	P		**P**	**00 41 54.5**	**+1.3**
	comp=Z,15nm,2.1s							
PSGCX	**Pisagua**	**25.06**	**32**	P		**P**	**00 41 54.9**	**+1.2**
PSGCX					IAmb	IAmb	00 41 59.1	
	comp=Z,32nm,1.3s							
PB11	**IPOC Station P**	**25.10**	**33**	P		**P**	**00 41 56.3**	**+2.2**
PB11					IAmb	IAmb	00 41 59.6	
	comp=Z,42nm,1.3s							
PB11	**IPOC Station P**	**25.10**	**33**	P		**P**	**00 41 56.8**	**+2.6**
	comp=Z,23nm,1.2s							
ITQB	**Itaqui**	**25.20**	**70**	*e*P		**P**	**00 41 54.5**	**-0.3**
RPN	**Rapa Nui**	**25.34**	**297**	LR		LR	00 49 08.4	
	comp=Z,186nm,20.8s,baz=116,slow=30							
GO01	**Chusmiza**	**25.38**	**34**	P		**P**	**00 41 57.8**	**+0.8**
GO01					IAmb	IAmb	00 42 27.7	
	comp=Z,26nm,1.4s							
GO01	**Chusmiza**	**25.38**	**34**	P		**P**	**00 41 59.1**	**+2.1**
	comp=Z,12nm,1.8s							
PMSA	**Palmer Station**	**25.73**	**160**	LR		LR	00 49 18.7	
	comp=Z,168nm,19.2s,baz=279,slow=30							
PB16	**IPOC Station P**	**26.44**	**32**	P		**P**	**00 42 07.3**	**+0.5**
PB16	**IPOC Station P**	**26.44**	**32**	P		**P**	**00 42 08.7**	**+1.9**
	comp=Z,16nm,1.4s							
CPUP	**Villa Florida**	**26.81**	**63**	P		**P**	**00 42 08.6**	**-0.8**
	comp=Z,7.2nm,1.0s,baz=237,slow=9.0,SNR=18							
CPUP					LR	LR	00 52 23.3	
	comp=Z,789nm,18.6s,baz=243,slow=36							
	comp=Z,7.2nm,1.0s							
CPUP	**Villa Florida**	**26.81**	**63**			**P**	**00 42 08.3**	**-1.1**
CPUP	**Villa Florida**	**26.81**	**63**	*e*P		**P**	**00 42 08.6**	**-0.8**
CPSB	**Cacapava Do Su**	**27.06**	**75**	P		**P**	**00 42 12.4**	**+0.7**
CPSB	**Cacapava Do Su**	**27.06**	**75**	P		**P**	**00 42 12.6**	**+1.0**
	comp=Z,15nm,1.7s							
CPSB	**Cacapava Do Su**	**27.06**	**75**	*e*P		**P**	**00 42 12.5**	**+0.8**
PB18	**Visviri**	**27.13**	**32**	P		**P**	**00 42 12.1**	**-0.8**
PB18	**Visviri**	**27.13**	**32**	P		**P**	**00 42 16.1**	**+3.2**
	comp=Z,39nm,1.4s							
SJPY	**San Joaquin**	**28.52**	**63**	*e*P		**P**	**00 42 20.5**	**-4.3**
LPAZ	**La Paz**	**28.84**	**33**	P		**P**	**00 42 28.1**	**-0.2**
	comp=Z,5.0nm,0.8s,baz=210,slow=7.1,SNR=15							
	comp=Z,5.0nm,0.8s							
LPAZ	**La Paz**	**28.84**	**33**	P		**P**	**00 42 28.7**	**+0.3**
LPAZ					IAmb	IAmb	00 42 33.6	
	comp=Z,46nm,1.9s							
LPAZ	**La Paz**	**28.84**	**33**	P		**P**	**00 42 30.3**	**+1.9**
	comp=Z,13nm,1.8s							
LPAZ	**La Paz**	**28.84**	**33**	*e*P		**P**	**00 42 30.5**	**+2.2**
ITAB	**Concordia**	**29.82**	**71**	P		**P**	**00 42 35.8**	**-0.5**
ITAB	**Concordia**	**29.82**	**71**	P		**P**	**00 42 36.6**	**+0.3**
	comp=Z,20nm,0.4s							
ITAB	**Concordia**	**29.82**	**71**	*e*P		**P**	**00 42 34.7**	**-1.6**
MURT	**Porto Murtinho**	**29.92**	**56**	*e*P		**P**	**00 42 35.7**	**-1.5**
NNA	**Nana**	**30.32**	**14**	LR		LR	00 51 30.6	
	comp=Z,460nm,20.2s,baz=189,slow=30							
ORCD	**Orcadas**	**30.41**	**142**	P		**P**	**00 42 41.6**	**+0.4**
COIM	**Forte Coimbra**	**31.13**	**54**	*e*P		**P**	**00 42 46.2**	**-1.6**
BDQN	**Bodoquena, MS**	**31.36**	**56**	*e*P		**P**	**00 42 48.9**	**-0.9**
PTGB	**Pitanga**	**31.45**	**67**	*e*P		**P**	**00 42 50.3**	**-0.5**
BBSD	**Serra de San D**	**31.67**	**46**	*e*P		**P**	**00 42 52.6**	**0.0**
AQDB	**Aquidauana**	**31.99**	**57**			**P**	**00 42 54.4**	**-1.0**
AQDB	**Aquidauana**	**31.99**	**57**	P		**P**	**00 42 55.5**	**0.0**
	comp=Z,32nm,1.0s							
AQDB	**Aquidauana**	**31.99**	**57**	*e*P		**P**	**00 42 55.3**	**-0.1**
PTLB	**Pontes e Lacer**	**33.90**	**47**			**P**	**00 43 12.0**	**-0.1**
PTLB					IAmb	IAmb	00 43 15.8	
	comp=Z,18nm,1.3s							
PTLB	**Pontes e Lacer**	**33.90**	**47**	*e*P		**P**	**00 43 11.7**	**-0.4**
PCMB	**Pacaembu**	**34.08**	**64**	P		**P**	**00 43 13.6**	**-0.1**
	comp=Z,18nm,1.3s							
PCMB	**Pacaembu**	**34.08**	**64**	*e*P		**P**	**00 43 13.1**	**-0.6**
PP1B	**Ponte de Pedra**	**34.66**	**55**	*e*P		**P**	**00 43 19.0**	**+0.3**
CZSB	**Cruzeiro do Su**	**35.35**	**20**	P		**P**	**00 43 24.6**	**-0.1**
CZSB					IAmb	IAmb	00 43 34.4	
	comp=Z,13nm,1.0s							
CZSB	**Cruzeiro do Su**	**35.35**	**20**	*e*P		**P**	**00 43 25.6**	**+0.9**
VILB	**Vilhena**	**35.42**	**43**	P		**P**	**00 43 25.3**	**0.0**
VILB					IAmb	IAmb	00 43 27.2	
	comp=Z,22nm,1.0s							
VILB	**Vilhena**	**35.42**	**43**	*e*P		**P**	**00 43 25.4**	**0.0**
SALV	**Santo Antonio**	**35.49**	**52**	*e*P		**P**	**00 43 27.7**	**+1.8**
BB19B	**Bebedouro**	**36.30**	**66**	*e*P		**P**	**00 43 32.8**	**-0.1**
ARAG	**Araguaiana, MT**	**37.99**	**57**	*e*P		**P**	**00 43 46.1**	**-1.2**
PDRB	**Porto dos Gac**	**38.37**	**46**	*e*P		**P**	**00 43 50.9**	**+0.5**
CLDB	**Colider**	**39.49**	**47**	P		**P**	**00 43 59.7**	**-0.1**
	comp=Z,5.5nm,1.1s							
CLDB	**Colider**	**39.49**	**47**	*e*P		**P**	**00 43 59.6**	**-0.1**
BDFB	**Brasilia**	**40.47**	**61**	P		**P**	**00 44 07.2**	**-0.8**
	comp=Z,5.0nm,1.0s,baz=277,slow=3.6,SNR=5.0							
BDFB					LR	LR	01 01 02.9	
	comp=Z,728nm,18.3s,baz=221,slow=37							
	comp=Z,5.0nm,1.0s							
SLOR	**San Lorenzo -**	**41.15**	**8**	P		**P**	**00 44 14.3**	**+0.3**
BELA	**Belgrano 2**	**41.28**	**166**			**P**	**00 44 14.1**	**+0.1**
DIAM	**Diamantina, MG**	**41.53**	**68**	*e*P		**P**	**00 44 15.8**	**-1.0**
OTAV	**Otavalo**	**42.11**	**8**	P		**P**	**00 44 23.0**	**+1.1**
OTAV	**Otavalo**	**42.11**	**8**	*e*P		**P**	**00 44 18.7**	**-3.2**
NPGB	**Novo Progresso**	**42.92**	**44**	*e*P		**P**	**00 44 27.7**	**-0.3**
BSFB	**Barra de Sao F**	**43.15**	**71**	*e*P		**P**	**00 44 30.6**	**+0.7**
MACA	**Manacapuru-AM**	**43.77**	**35**	P		**P**	**00 44 36.1**	**+1.3**
SDBA	**SAO DESIDERIO**	**44.88**	**61**	*e*P		**P**	**00 44 43.8**	**0.0**
ITTB	**Itaituba**	**45.01**	**42**	*e*P		**P**	**00 44 42.9**	**-1.8**
GUA01	**Guaratinga, BA**	**45.39**	**70**	*e*P		**P**	**00 44 48.5**	**+0.7**
SMTB	**Santa Maria do**	**45.87**	**55**	P		**P**	**00 44 52.4**	**+0.7**
SMTB					IAmb	IAmb	00 45 01.2	
	comp=Z,11nm,1.0s							
SMTB	**Santa Maria do**	**45.87**	**55**	*e*P		**P**	**00 44 52.4**	**+0.7**
VNA3	**Neumayer Olymp**	**46.12**	**154**	||P		**P**	**00 44 52.2**	**-0.8**
	comp=Z,8.1nm,0.8s							
VNA3	**Neumayer Olymp**	**46.12**	**154**	P		**P**	**00 44 52.9**	**-0.1**
	comp=Z,18nm,1.5s							
CMC01	**Camacan, BA**	**46.42**	**69**	*e*P		**P**	**00 44 56.3**	**+0.4**
VNA1	**Neumayer--Stat**	**46.62**	**154**	P		**P**	**00 44 56.7**	**-0.1**
	comp=Z,12nm,1.1s							
VNA2	**Neumayer--Watz**	**46.88**	**154**	||P		**P**	**00 44 58.2**	**-0.7**
	comp=Z,8.2nm,0.7s,baz=266,slow=8.0							
VNA2	**Neumayer--Watz**	**46.88**	**154**	P		**P**	**00 44 58.5**	**-0.4**
	comp=Z,18nm,1.2s							
ROSC	**El Rosal**	**47.22**	**13**	LR		LR	01 03 19.2	
	comp=Z,512nm,18.4s,baz=192,slow=34							
SNAA	**Sanae**	**48.27**	**155**	||P		**P**	**00 45 07.7**	**-2.1**
	comp=Z,76nm,0.7s							
SNAA	**Sanae**	**48.27**	**155**	P		**P**	**00 45 08.6**	**-1.1**
	comp=Z,3.9nm,0.8s,baz=269,slow=7.4,SNR=7.6							
	comp=Z,3.9nm,0.8s							
SNAA	**Sanae**	**48.27**	**155**			**P**	**00 45 08.8**	**-0.9**
SNAA	**Sanae**	**48.27**	**155**	P		**P**	**00 45 09.5**	**-0.2**
	comp=Z,10nm,1.4s							
RUSC	**La Rusia**	**48.47**	**15**			**P**	**00 45 12.4**	**+0.1**
RUSC					IAmb	IAmb	00 45 27.3	
	comp=Z,12nm,0.9s							
QSPA	**South Pole Qui**	**48.48**	**180**	P		**P**	**00 45 10.4**	**-1.2**
	comp=Z,3.0nm,0.9s,baz=132,slow=2.6,SNR=9.9							
QSPA				LR		LR	01 03 54.7	
	comp=Z,248nm,18.1s,baz=140,slow=34							
	comp=Z,3.0nm,0.9s							
QSPA	**South Pole Qui**	**48.48**	**180**	P		**P**	**00 45 10.9**	**-0.7**
QSPA					IAmb	IAmb	00 46 39.4	
	comp=Z,23nm,1.7s							
NBPN	**Ponto Novo - B**	**49.14**	**64**	*e*P		**P**	**00 45 16.6**	**-0.5**
TROLL	**Troll, Antarti**	**49.86**	**156**	||P		**P**	**00 45 21.4**	**-0.6**
	comp=Z,247nm,0.8s							
BRU2	**Volcan**	**50.32**	**2**	P		**P**	**00 45 27.4**	**+1.3**
JTS	**Las Juntas de**	**51.80**	**359**	LR		LR	01 01 53.3	
	comp=Z,184nm,21.7s,baz=175,slow=29							
SDV	**Santo Domingo**	**51.88**	**17**	LR		LR	01 05 59.4	
	comp=Z,220nm,18.2s,baz=144,slow=34							
SDV	**Santo Domingo**	**51.88**	**17**	P		**P**	**00 45 37.1**	**-0.8**
SDV	**Santo Domingo**	**51.88**	**17**	P		**P**	**00 45 37.9**	**0.0**
	comp=Z,35nm,1.5s							
NBMA	**Muriti-CE**	**52.65**	**62**	*e*P		**P**	**00 45 44.1**	**+0.6**
VNDA	**Vanda**	**54.47**	**194**	P		**P**	**00 45 56.4**	**+0.4**
	comp=Z,3.1nm,0.9s,baz=121,slow=5.2,SNR=6.1							
VNDA				LR		LR	01 05 05.1	
	comp=Z,325nm,19.9s,baz=142,slow=32							
	comp=Z,3.1nm,0.9s							
VNDA	**Vanda**	**54.47**	**194**	P		**P**	**00 45 56.6**	**+0.6**
MDP	**Montagnes des**	**54.72**	**39**	LR		LR	01 08 59.3	
	comp=Z,202nm,19.8s,baz=168,slow=36							
NBPA	**Parau_RN**	**54.94**	**63**	*e*P		**P**	**00 46 00.5**	**+0.3**
RCBR	**Riachuelo**	**55.69**	**64**	LR		LR	01 10 30.8	
	comp=Z,154nm,18.2s,baz=216,slow=37							
ELIB	**Princess Elisa**	**55.89**	**159**	*d*P		**P**	**00 46 04.8**	**-1.7**
	comp=Z,3.0nm,1.2s							
ELIB				*d*PcP		**PcP**	**00 47 04.6**	**-0.5**
ESQI	**Esquipulas**	**56.25**	**354**	P		**P**	**00 46 12.6**	**+2.9**
RTAL	**Retalhuleu**	**56.45**	**351**	P		**P**	**00 46 11.4**	**+0.5**
PPT2	**Papeete2**	**60.35**	**272**	*e*LR		LR	01 04 20.9	
	comp=Z,113nm,27.0s							
PPT2				*e*LR		LR	01 04 21.5	
	comp=Z,162nm,27.8s							
PPT	**Papeete**	**60.36**	**272**	LR		LR	01 06 53.4	
	comp=Z,67nm,20.7s,baz=136,slow=30							
RAR	**Rarotonga**	**65.75**	**263**	LR		LR	01 07 39.4	
	comp=Z,138nm,19.5s,baz=302,slow=28							
MAW	**Mawson**	**68.12**	**167**	P		**P**	**00 47 27.6**	**-0.9**
	comp=Z,2.2nm,1.0s,baz=210,slow=7.1,SNR=5.3							
MAW				LR		LR	01 15 35.5	
	comp=Z,73nm,19.6s,baz=212,slow=34							
	comp=Z,2.2nm,1.0s							
MAW	**Mawson**	**68.12**	**167**	IAmb	

ALQ	**Albuquerque**	**79.06 341**		**P**	**P**	**00 48 34.9 +1.6**
ALQ			IAmb	IAmb		00 48 43.7
	comp=Z,14nm,1.1s					
ALQ	**Albuquerque**	**79.06 341**		**P**	**P**	**00 48 34.5 +1.2**
ALQ			IAmb	IAmb		00 48 43.8
	comp=Z,14nm,1.1s					
ANMO	**Albuquerque**	**79.06 341**	P	**P**	**P**	**00 48 34.5 +1.2**
ANMO			IAmb	IAmb		00 48 43.7
	comp=Z,12nm,1.1s					
T35A	**Sooner Cattle**	**79.13 350**	P	**P**	**P**	**00 48 35.6 +2.2**
T35A			IAmb	IAmb		00 48 37.1
	comp=Z,13nm,1.1s					
S44A	**Carbondale**	**79.22 356**	P	**P**		**00 48 34.6 +0.8**
USIN	**University of**	**79.42 357**	P	**P**		**00 48 35.6 +0.7**
USIN			IAmb	IAmb		00 48 37.3
	comp=Z,18nm,0.9s					
S39A	**Bolivar**	**79.53 353**	P	**P**		**00 48 36.3 +0.7**
X16A	**Lo Mia Camp, P**	**79.88 337**	P	**P**		**00 48 39.2 +1.4**
BLYC	**Blythe**	**80.20 335**		**P**		**00 48 41.3 +2.1**
BLYC			IAmb	IAmb		00 48 50.5
	comp=Z,15nm,1.2s					
Q44A	**Meyer Farm, Va**	**80.41 356**	P	**P**		**00 48 41.0 +0.8**
Q44A			IAmb	IAmb		00 48 42.5
	comp=Z,18nm,0.9s					
BLO	**Bloomington**	**80.59 358**	P	**P**		**00 48 41.8 +0.6**
BLO			IAmb	IAmb		00 48 42.9
	comp=Z,14nm,1.1s					
IRM	**Iron Mountain**	**80.78 334**		**P**		**00 48 43.7 +1.3**
R32A	**Long Quarter,**	**80.92 348**	P	**P**		**00 48 42.6 -0.5**
R32A			IAmb	IAmb		00 48 52.0
	comp=Z,10.0nm,1.0s					
P43A	**Skaggs, Pawnee**	**81.18 356**	P	**P**		**00 48 45.1 +0.8**
P43A			IAmb	IAmb		00 48 46.7
	comp=Z,13nm,1.0s					
P40A	**Paris**	**81.24 354**		**P**		**00 48 45.9 +1.2**
P40A			IAmb	IAmb		00 48 53.1
	comp=Z,22nm,1.4s					
W13A	**Hualapai Mount**	**81.24 336**	P	**P**		**00 48 46.0 +0.9**
CBKS	**Cedar Bluff**	**81.46 348**	P	**P**		**00 48 47.3 +1.3**
CBKS			IAmb	IAmb		00 48 55.8
	comp=Z,16nm,1.1s					
P38A	**Dawn**	**81.47 353**		**P**		**00 48 45.6 -0.3**
P38A			IAmb	IAmb		00 48 48.4
	comp=Z,7.0nm,0.9s					
MVCO	**Mesa Verde**	**81.72 340**		**P**		**00 48 49.5 +1.9**
MVCO			IAmb	IAmb		00 48 58.3
	comp=Z,15nm,1.6s					
GSC	**Goldstone, Bar**	**82.37 333**	P	**P**		**00 48 52.3 +1.5**
GSC			IAmb	IAmb		00 49 08.7
	comp=Z,24nm,1.9s					
CCCA	**Chr Cany lake**	**82.76 333**	P	**P**		**00 48 54.2 +1.3**
CCCA			IAmb	IAmb		00 49 10.9
	comp=Z,15nm,1.3s					
PV15	**Paradox Valley**	**82.78 341**	P	**P**		**00 48 54.2 +1.1**
PV15			IAmb	IAmb		00 49 03.6
	comp=Z,14nm,1.2s					
PV03	**Paradox Valley**	**82.79 341**	P	**P**		**00 48 54.1 +1.0**
PV18	**Skein Mesa, Pa**	**82.80 340**		**P**		**00 48 54.9 +1.7**
SHPR	**Sheep Range**	**82.94 335**	P	**P**		**00 48 55.7 +1.8**
SHPR			IAmb	IAmb		00 48 59.6
	comp=Z,9.2nm,1.4s					
PV14	**Lion Creek, Pa**	**82.95 340**	P	**P**		**00 48 55.0 +0.9**
PV14			IAmb	IAmb		00 49 03.7
	comp=Z,14nm,1.1s					
PV22	**Blue Mesa, Par**	**83.04 341**		**P**		**00 48 54.8 +0.3**
PV22			IAmb	IAmb		00 49 13.2
	comp=Z,7.5nm,1.1s					
CLC	**China Lake**	**83.10 333**		**P**		**00 48 56.4 +1.7**
CLC			IAmb	IAmb		00 49 06.3
	comp=Z,12nm,1.5s					
GWY	**Greenwater Val**	**83.13 334**		**P**		**00 48 56.3 +1.4**
GWY			IAmb	IAmb		00 49 05.7
	comp=Z,13nm,1.4s					
CCUT	**Cedar City**	**83.36 337**		**P**		**00 48 58.0 +1.8**
WCT	**Wildcat Mounta**	**83.67 334**	P	**P**		**00 48 59.1 +1.5**
WCT			IAmb	IAmb		00 49 05.1
	comp=Z,8.7nm,1.1s					
TPNV	**Topopah Spring**	**83.69 335**		**P**		**00 48 58.2 +0.4**
TPNV			IAmb	IAmb		00 49 09.1
	comp=Z,7.2nm,1.1s					
PRN	**Pahroc Range**	**83.73 336**		**P**		**00 49 00.6 +2.6**
Q16A	**Castle Valley**	**84.02 339**		**P**		**00 49 01.5 +2.0**
Q16A			IAmb	IAmb		00 49 10.2
	comp=Z,9.2nm,1.2s					
SRU	**San Rafael Swe**	**84.03 340**	P	**P**		**00 49 00.3 +0.9**
GRAC	**Grapevine Rang**	**84.10 334**	P	**P**		**00 49 01.9 +2.2**
GRAC			IAmb	IAmb		00 49 11.0
	comp=Z,13nm,1.1s					
MSVF	**Nonsavu**	**84.11 252**	LR	LR		01 16 34.8
	comp=Z,73nm,21.6s,baz=170,slow=29					
BOSA	**Boshof**	**84.33 123**	P	**P**		**00 49 00.2 -1.2**
	comp=Z,7.7nm,0.9s,baz=226,slow=4.8,SNR=11					
BOSA			LR	LR		01 19 31.7
	comp=Z,30nm,19.9s,baz=222,slow=31					
	comp=Z,7.7nm,0.9s					
BOSA	**Boshof**	**84.33 123**		**P**		**00 49 00.8 -0.7**
GMN	**Gold Mountain**	**84.34 334**	P	**P**		**00 49 02.8 +1.6**
GMN			IAmb	IAmb		00 49 12.3
	comp=Z,8.0nm,1.1s					
TMUT	**Trail Mountain**	**84.38 339**	P	**P**		**00 49 02.3 +0.9**
TMUT			IAmb	IAmb		00 49 12.0
	comp=Z,8.6nm,1.3s					
PSUT	**Pine Spring**	**84.41 337**	P	**P**		**00 49 02.9 +1.5**
P17A	**Butcher Ranch,**	**84.42 340**	P	**P**		**00 49 02.7 +1.2**
P17A			IAmb	IAmb		00 49 11.5
	comp=Z,5.8nm,1.0s					
TIN	**Tinemaha, Big**	**84.44 333**	P	**P**		**00 49 03.3 +1.8**
P18A	**Preston Nutter**	**84.44 340**	P	**P**		**00 49 02.3 +0.5**
MZP	**Montezuma Peak**	**84.74 334**	P	**P**		**00 49 03.8 +0.5**
MZP			IAmb	IAmb		00 49 13.7
	comp=Z,7.5nm,0.8s					
KOOLE	**Kule**	**84.94 116**		**P**		**00 49 03.2 -1.4**
TPH	**Tonopah**	**85.03 334**	P	**P**		**00 49 06.1 +1.5**
NLU	**North Lily Min**	**85.23 339**	P	**P**		**00 49 07.3 +1.7**
NLU			IAmb	IAmb		00 49 16.4
	comp=Z,8.2nm,1.2s					
BSUT	**Blindstream Ca**	**85.43 340**		**P**		**00 49 08.1 +1.4**
BSUT			IAmb	IAmb		00 49 12.7
	comp=Z,8.4nm,1.2s					
LHV	**Little Huntoon**	**85.61 333**	P	**P**		**00 49 08.9 +1.7**
DUG	**Dugway, Tooele**	**85.66 338**	P	**P**		**00 49 07.7 +0.1**
NV11	**Mina Array Sit**	**85.66 334**	P	**P**		**00 49 09.2 +1.5**
NVAR	**Mina Array Bea**	**85.71 334**	P	**P**		**00 49 09.6 +1.6**
	comp=Z,1.9nm,0.9s,baz=160,slow=5.3,SNR=7.6					
	comp=Z,1.9nm,0.9s					
NVAR	**Mina Array Bea**	**85.71 334**	P	**P**		**00 49 09.4 +1.4**
ECSD	**EROS Data Cent**	**85.86 351**	IAmb	IAmb		00 49 15.6
	comp=Z,14nm,1.5s					
KVN	**Kaiserville**	**86.20 334**	IAmb	IAmb		00 49 26.9
	comp=Z,12nm,1.5s					
DBIC	**Dimbokro**	**86.39 78**	P	**P**		**00 49 11.2 -0.5**
	comp=Z,3.0nm,0.8s,baz=306,slow=21,SNR=4.5					
DBIC			LR	LR		01 22 50.5
	comp=Z,67nm,18.9s,baz=217,slow=32					
	comp=Z,3.0nm,0.8s					
LBTB	**Lobatse**	**87.08 121**	LR	LR		01 21 12.5
	comp=Z,28nm,19.0s,baz=258,slow=31					
PDAR	**Pinedale Array**	**87.23 341**	P	**P**		**00 49 16.5 +1.1**
	comp=Z,1.5nm,1.0s,baz=163,slow=5.7,SNR=8.8					
	comp=Z,1.5nm,1.0s					
HLID	**Hailey**	**89.23 338**	IAmb	IAmb		00 49 35.5
	comp=Z,4.9nm,1.1s					
TORD	**Torodi Ar. Bea**	**95.49 77**	P	**P**		**00 49 53.8 -0.4**
	comp=Z,1.2nm,0.3s,baz=227,slow=3.4,SNR=1.7					
	comp=Z,1.2nm,0.3s					
TORD	**Torodi Ar. Bea**	**95.49 77**	IAmb	IAmb		00 49 55.5
	comp=Z,5.7nm,1.2s					
STKA	**Stephens Creek**	**95.53 218**	LR	LR		01 26 52.7
	comp=Z,93nm,18.2s,baz=201,slow=32					
SCHQ	**Schefferville**	**97.34 10**	LR	LR		01 28 55.9
	comp=Z,58nm,22.0s,baz=166,slow=32					
H11S2	**WAKE ISLAND Hyl**	**16.32 272**	T	T		03 02 06.9
	baz=131					
H11S1	**WAKE ISLAND Hyl**	**16.33 272**	T	T		03 02 07.6
	baz=131					
H11S3	**WAKE ISLAND Hyl**	**16.33 272**	T	T		03 02 07.5
	baz=131					
GERES	**GERESS Array B**	**124.38 52**	PKP		**PKPdf**	**00 55 27.3 -0.3**
	comp=Z,0.8nm,0.9s,baz=242,slow=2.9,SNR=4.9					
HFS	**Hagfors**	**128.67 39**	PKP		**PKiKP**	**00 55 35.8 -0.1**
	comp=Z,7.6nm,1.1s,baz=347,slow=6.1,SNR=3.5					
BRTR	**Keskin Array B**	**133.66 71**	PKP		**PKPdf**	**00 55 45.7 +0.1**
	comp=Z,0.2nm,0.3s,baz=252,slow=2.7,SNR=2.2					
AKASG	**Malin Array Be**	**134.42 55**	PKP		**PKPdf**	**00 55 46.3 -0.1**
	comp=Z,0.2nm,0.3s,baz=278,slow=2.2,SNR=1.5					
TIXI	**Tiksi**	**145.93 342**			**PKPdf**	**00 56 05.7 -0.9**

MJAR	**Matsushiro Arr**	**147.08 275**	PKPbc		**PKPdf**	**00 56 10.7 +1.0**
	comp=Z,3.8nm,1.0s,baz=131,slow=3.1,SNR=5.0					
MJAR	**Matsushiro Arr**	**147.08 275**			**PKPab**	**00 56 13.2 -0.2**
ARTI	**Arti**	**151.79 46**			**PKPbc**	**00 56 22.6 -0.3**
NRIK	**Noril'sk**	**152.01 6**	PKPbc		**PKiKP**	**00 56 23.4 +0.1**
	comp=Z,1.0nm,0.6s,baz=211,slow=23,SNR=1.8					
NRIK			PKPab		**PKPab**	**00 56 32.8 +0.3**
	comp=Z,4.3nm,1.0s,baz=346,slow=4.2,SNR=2.7					
HRA	**Herat**	**152.58 94**			**PKiKP**	**00 56 26.7 +0.8**
AB31	**Akbulak array**	**153.86 61**			**PKiKP**	**00 56 29.0 +1.2**
ABKAR	**Akbulak array**	**153.86 61**			**PKiKP**	**00 56 28.5 +0.7**
CMAR	**Chiang Mai Arr**	**156.63 187**	PKPab		**PKPab**	**00 56 52.4 -1.1**
	comp=Z,0.9nm,0.3s,baz=198,slow=5.5,SNR=4.2					
NJ2	**Nanjing**	**159.34 249**	*e*P		**PKPdf**	**00 56 28.3 +0.9**
NJ2			pmax		pmax	
	comp=Z,3.0nm,0.5s					
KURBB	**Kurchatov Arra**	**165.05 48**	PKP		**PKPdf**	**00 56 31.6 -0.9**
	comp=Z,3.2nm,1.3s,baz=292,slow=2.0,SNR=6.0					
KURBB			PKPab		**PKPab**	**00 57 28.5 -1.0**
	comp=Z,1.0nm,0.9s,baz=298,slow=4.6,SNR=4.1					
ZALV	**Zalesovo Beam**	**165.72 28**	PKP		**PKPdf**	**00 56 32.1 -0.9**
	comp=Z,0.2nm,0.3s,baz=316,slow=6.2,SNR=4.4					
ZALV			PKPab		**PKPab**	**00 57 31.8 -0.5**
	comp=Z,0.3nm,0.3s,baz=343,slow=4.6,SNR=4.0					
ZALV	**Zalesovo Beam**	**165.72 28**			**PKPdf**	**00 56 33.3 +0.3**
XAN	**Xi'an**	**167.20 237**	*e*PKP		**PKPdf**	**00 56 32.5 -2.4**
HHC	**Hu-ho-hao-te**	**168.23 271**	*e*P		**PKPdf**	**00 56 32.1 -3.4**
MKAR	**Makanchi Array**	**168.99 58**	PKPab		**PKPab**	**00 57 45.9 -1.2**
	comp=Z,0.5nm,0.8s,baz=329,slow=4.5,SNR=3.7					
SONM	**Songino Array**	**170.42 313**	PKPab		**PKPab**	**00 57 53.5 0.0**
	comp=Z,1.0nm,0.9s,baz=46,slow=4.3,SNR=4.7					

BER ***23*** *01:02:42.7*±*3.2, 80°.77N*×*3°.26W, h10km, Mw3.4, ML1.7(DNK), Confirmed Earthquake*
DNK ***23*** *01:02:44.7*±*2.1, 80°.79N*×*2°.97W, h36km*±*19km, ML1.7, Presumed earthquake*
FCIAR ***23*** *01:02:46.0, 80°.67N*×*3°.10W, h10km*

ISC 23 01:02:30.4±0.8**, 81°.29N**±0°.07×**0°.65E**±0°.04**, h10**km**, n18,** σ1°**49/28, North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
NOR	**Nord**	**2.60**	**285**	*e*P		**Pg**		**01 03 19.2**	**-1.0**
NOR				*e*S		**Sn**		**01 03 43.9**	**-0.1**
NOR	**Nord**	**2.60**	**285**	*e*P		**Pb**		**01 03 16.8**	**-0.2**
NOR				*i* S		**Sn**		**01 03 44.4**	**+0.4**
NOR				IAML				01 03 49.1	
	comp=Z,4.9nm,0.4s								
NOR	**Nord**	**2.60**	**285**	*e*P		**Pb**		**01 03 16.8**	**-0.2**
NOR				*i* S		**Sn**		**01 03 44.4**	**+0.4**
NOR				IAML				01 03 49.1	
	comp=Z,4.9nm,0.4s								
KBS	**Kingsbay**	**3.06**	**135**	*i* P		**Pg**		**01 03 32.2**	**+3.2**
KBS				*i* S		**Sg**		**01 04 06.0**	**-2.6**
KBS	**Kingsbay**	**3.06**	**135**	*i* P		**Pg**		**01 03 32.2**	**+3.2**
KBS				*i* S		**Sg**		**01 04 06.0**	**-2.6**
BRBB	**Barentsburg B**	**4.02**	**136**	*e*P		**Pg**		**01 03 46.1**	**-1.1**
BRBB				*e*S		**Sb**		**01 04 29.4**	**-0.2**
BRBA	**Barentsburg A**	**4.05**	**136**	*e*P		**Pg**		**01 03 46.7**	**-1.1**
BRBA				*e*S		**Sb**		**01 04 31.6**	**+1.1**
SPA0	**Spitsbergen Ar**	**4.19**	**130**	*e*P		**Pg**		**01 03 48.7**	**-1.7**
SPA0				*e*S		**Sb**		**01 04 34.3**	**-0.2**
SPA0	**Spitsbergen Ar**	**4.19**	**130**	*e*P		**Pg**		**01 03 48.7**	**-1.7**
SPA0				*e*S		**Sb**		**01 04 35.2**	**+0.7**
SPA0				IAML				01 04 53.1	
	comp=Z,3.5nm,0.7s								
DAG	**Danmarks Havn**	**5.80**	**229**	*i* P		**Pn**		**01 03 56.9**	**+0.6**
DAG				*i* S		Sn		01 04 48.9	-14
DAG				IAML				01 04 52.8	
	comp=Z,4.3nm,0.3s								
DAG	**Danmarks Havn**	**5.80**	**229**	*i* P		**Pn**		**01 03 56.9**	**+0.6**
DAG				*i* S		Sn		01 04 48.9	-14
DAG				IAML				01 04 52.8	
	comp=Z,4.3nm,0.3s								
OMEGA	**Omega**	**7.20**	**70**	*e*P		**Pb**		**01 04 36.7**	**+1.5**
OMEGA				*e*S		**Sb**		**01 05 59.2**	**-1.8**
DBG	**Daneborg**	**8.20**	**223**	*i* P		**Pn**		**01 04 29.1**	**-0.1**
DBG				*i* S		Sn		01 05 44.3	-17
DBG				IAML				01 05 53.1	
	comp=Z,3.1nm,0.5s								
DBG	**Daneborg**	**8.20**	**223**	*i* P		**Pn**		**01 04 29.1**	**-0.1**
DBG				*i* S		Sn		01 05 44.3	-17
DBG				IAML				01 05 53.1	
	comp=Z,3.1nm,0.5s								
NEEM	**North Greenlan**	**9.93**	**275**	*e*P		**Pn**		**01 04 54.4**	**+1.3**
NEEM				*i* S		Sn		01 06 34.5	-10
NEEM				IAML				01 06 38.2	
	comp=Z,1.7nm,0.1s								
NEEM	**North Greenlan**	**9.93**	**275**	*e*P		**Pn**		**01 04 54.4**	**+1.3**
NEEM				*i* S		Sn		01 06 34.5	-10
NEEM				IAML				01 06 38.2	
	comp=Z,1.7nm,0.1s								
SUMG	**Summit**	**12.03**	**246**	*i* P		**Pn**		**01 05 22.2**	**+0.3**
SUMG				*i* S		Sn		01 07 19.4	-17
SUMG	**Summit**	**12.03**	**246**	*i* P		**Pn**		**01 05 22.2**	**+0.3**
SUMG				*i* S		Sn		01 07 19.4	-17

AFAD ***23*** *01:05:16.2, 39°.45N*×*44°.56E, h7km*±*3km, ML2.5*
ISK ***23*** *01:05:16.6, 39°.47N*×*44°.50E, h5km, ML2.6/11*
AZER ***23*** *01:05:17.4, 39°.42N*×*44°.65E, h2km, ml2.8*

ISC 23 01:05:16.9±1.1**, 39°.44N**±0°.02×**44°.56E**±0°.02**, h7**km±10km**, n33,** σ0°**97/61, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
HYR	**Heyderabad**	**0.36**	**39**	P		**Pb**		**01 05 25.0**	**-0.7**
HYR				S		**Sb**		**01 05 31.3**	**-0.4**
IGDI	**IGDIR**	**0.57**	**320**	P		**Pg**		**01 05 27.6**	**-0.3**
IGDI				S		**Sg**		**01 05 35.2**	**-0.2**
IGDI				IAML				01 05 37.0	
	comp=E,535nm,0.3s								
IGDI				IAML				01 05 38.0	
	comp=N,387nm,0.3s								
CLDR	**Caldiran**	**0.58**	**240**	P		**Pg**		**01 05 27.9**	**-0.2**
CLDR				S		**Sg**		**01 05 36.7**	**+1.0**
CLDR				IAML				01 05 38.0	
	comp=N,618nm,0.3s								
CLDR				IAML				01 05 40.0	
	comp=E,623nm,0.3s								
CLDR	**Caldiran**	**0.58**	**240**	Pg		**Pg**		**01 05 28.3**	**+0.2**
CLDR				Sg		**Sb**		**01 05 37.1**	**-0.9**
CLDR				AML		AML			
TASB	**TASBURUN-IGDIR**	**0.60**	**336**	Pg		**Pg**		**01 05 28.6**	**+0.1**
TASB				Sg		**Sb**		**01 05 37.2**	**-1.3**
TASB				AML		AML			
DYDN	**Diyadin**	**0.68**	**279**	P		**Pg**		**01 05 29.7**	**-0.4**
DYDN				S		**Sb**		**01 05 39.9**	**-1.0**
DYDN				IAML				01 05 49.0	
	comp=E,258nm,0.7s								
DYDN				IAML				01 05 50.0	
	comp=N,318nm,0.6s								
GNI	**Garni**	**0.73**	**11**	Pg		**Pb**		**01 05 31.4**	**-0.6**
GNI				Sg		**Sb**		**01 05 42.3**	**+0.1**
GNI				AML		AML			
NAX	**Nakhchivan**	**0.77**	**109**	P		**Pb**		**01 05 32.7**	**0.0**
NAX				S		**Sb**		**01 05 44.6**	**+1.2**
SBZ	**Shahbuz**	**0.77**	**93**	P		**Pb**		**01 05 32.7**	**0.0**
SBZ				S		Sn		**01 05 45.2**	**-1.0**
VMUR	**Van-Muradiye**	**0.89**	**240**	P		**Pg**		**01 05 33.1**	**-0.9**
VMUR				IAML		**Sg**		**01 05 46.0**	**+0.5**
	comp=N,86nm,0.9s								
VMUR				S		**Sg**		**01 05 46.0**	**+0.5**
VMUR				IAML				01 05 55.0	
	comp=E,123nm,0.5s								
ERCV	**ERCIS-VAN**	**1.03**	**247**	Pg		**Pb**		**01 05 37.4**	**+0.2**
ERCV				Sg		**Sn**		**01 05 52.3**	**-0.5**
ERCV				AML		AML			
KOTA	**Agri, Merkez-K**	**1.11**	**290**	P		**Pb**		**01 05 38.3**	**-0.1**
KOTA				S		**Sn**		**01 05 54.9**	**+0.3**
AGRB	**Hanur-Agry**	**1.22**	**277**	Pn		**Pg**		**01 05 39.7**	**-0.6**
AGRB				Sn		**Sn**		**01 05 58.2**	**+0.8**
AGRB				AML		AML			
ORD	**Ordubad**	**1.23**	**114**	P		**Pg**		**01 05 40.2**	**-0.2**
ORD				S		**Sn**		**01 05 58.1**	**+0.7**
GDB	**GEDABAY**	**1.58**	**35**	Pg		**Pb**		**01 05 46.3**	**-0.3**
GDB				Sg		**Sg**		**01 06 08.2**	**+0.5**
MLAZ	**Malazgirt-MUS**	**1.59**	**260**	Pn		**Pb**		**01 05 46.6**	**0.0**
MLAZ				AML		AML			
KARS	**Kars**	**1.65**	**317**	Pn		**Pb**		**01 05 47.0**	**-0.7**
KARS				AML		AML			

EATA	**Eleskirt**	**1.65 286**	P	**Pg**		**01 05 48.1 -0.5**
EATA			S	**Sg**		**01 06 10.2 +0.2**
AKDM	**Akdamar-Van**	**1.66 229**	Pn	**Pb**		**01 05 48.0 +0.2**
AKDM			AML	AML		
QZX	**Qazax, Azerbai**	**1.74 21**	Pg	**Pg**		**01 05 49.6 -0.6**
QZX			Sg	**Sg**		**01 06 14.2 +1.5**
GANJ	**Ganja**	**1.81 48**	Pg	**Pb**		**01 05 49.5 -1.0**
GANJ			Sg	**Sg**		**01 06 15.3 +0.1**
SENK	**Senkaya-Erzuru**	**2.04 304**	Pn	**Pn**		**01 05 52.6 +0.8**
SENK			AML	AML		
AGDM	**Agdam**	**2.08 70**	Pg	**Pg**		**01 05 57.8 +1.1**
AGDM			Sg	**Sg**		**01 06 26.9 +3.3**
QRD	**Qoradiz**	**2.14 88**	Pn	**Pg**		**01 05 56.7 -1.2**
QRD			Sn	**Sg**		**01 06 26.8 +1.2**
GURO	**Guroymak-BITLI**	**2.16 247**	Pn	**Pb**		**01 05 55.0 -1.4**
GURO			AML	AML		
VRTB	**Varto-Mus**	**2.42 264**	Pn	**Pn**		**01 05 58.3 +1.2**
VRTB			AML	AML		
SEKA	**Sheki**	**2.69 48**	Pg	**Pb**		**01 06 05.9 +0.6**
SEKA			Sg	**Sg**		**01 06 44.2 +1.0**
ZKTA	**Zakatala**	**2.70 35**	Pn	**Pb**		**01 06 06.2 +0.5**
ZKTA			Sn	**Sg**		**01 06 42.1 -1.7**
YRD	**Yardimli**	**2.91 99**	Pg	**Pb**		**01 06 08.9 -0.3**
YRD			Sg	**Sg**		**01 06 49.7 -0.6**
QBL	**Gabala**	**2.93 58**	Pg	**Pg**		**01 06 11.8 -1.2**
QBL			Sg	**Sg**		**01 06 52.5 +1.5**
GLBA	**Clilabad**	**2.98 93**	Pg	**Pg**		**01 06 12.2 -1.8**
GLBA			Sg	**Sg**		**01 06 52.2 -0.4**
LRK	**Lerik**	**3.05 104**	Pg	**Pb**		**01 06 11.6 0.0**
LRK			Sg	**Sg**		**01 06 53.4 -1.4**
LKRN	**Lenkeran, Azer**	**3.36 101**	Pg	**Pb**		**01 06 16.9 +0.1**
LKRN			Sg	**Sg**		**01 07 03.0 -1.9**

ISK ***23*** *01:22:18.9, 36°.17N*×*31°.16E, h8km, ML2.5/20*
AFAD ***23*** *01:22:20.4, 36°.08N*×*31°.19E, h27km*±*2km, ML2.2*
NIC ***23*** *01:22:25.4, 36°.28N*×*31°.90E, h27km*±*68km, Ml2.1/4*

ISC 23 01:22:17.5±1.2**, 36°.03N**±0°.03×**31°.17E**±0°.02**, h9**km±10km**, n42,** σ1°**40/61, Turkey**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ALAN	**Alanya-ANTALYA**	**0.87**	**53**	Pg		**Pb**		**01 22 34.9**	**+0.2**
ALAN				Sg		**Sg**		**01 22 46.2**	**+0.7**
ALAN				AML		AML			
KEPZ	**Antalya-Kepez**	**0.93**	**22**	P		**Pb**		**01 22 35.9**	**+0.1**
KEPZ				S		**Sg**		**01 22 47.1**	**-0.5**
KEPZ				IAML				01 22 48.0	
	comp=N,115nm,0.8s								
KEPZ				IAML				01 22 48.0	
	comp=E,80nm,0.7s								
GAZI	**Gazipasa**	**0.95**	**77**	P		**Pn**		**01 22 37.2**	**+0.2**
GAZI				S		**Sb**		**01 22 49.1**	**+0.5**
GAZI				IAML				01 22 50.0	
	comp=N,60nm,0.5s								
GAZI				IAML				01 22 50.0	
	comp=E,75nm,0.6s								
GAZI	**Gazipasa**	**0.95**	**77**	Pg		**Pn**		**01 22 37.4**	**+0.5**
GAZI				AML		AML			
ANTB	**Antalya**	**0.96**	**334**	Pg		**Pg**		**01 22 35.4**	**-0.6**
ANTB				Sg		**Sg**		**01 22 47.7**	**-0.8**
ANTB				AML		AML			
KORT	**Korkueli**	**1.17**	**326**	P		**Pn**		**01 22 40.5**	**+0.4**
KORT				S		**Sn**		**01 22 58.6**	**+2.3**
KORT				IAML				01 23 01.0	
	comp=N,48nm,0.4s								
KORT				IAML				01 23 02.0	
	comp=E,76nm,1.0s								
KORT	**Korkueli**	**1.17**	**326**	Pg		**Pg**		**01 22 39.4**	**-0.6**
KORT				AML		AML			
ELL	**Elmali**	**1.25**	**305**	Pn		**Pn**		**01 22 41.6**	**+0.4**
ELL				AML		AML			
AKAS	**Kas**	**1.29**	**279**	P		**Pn**		**01 22 42.4**	**+0.7**
AKAS				S		**Sn**		**01 22 58.9**	**-0.2**
AKAS				IAML				01 23 00.0	
	comp=N,65nm,0.4s								
AKAS				IAML				01 23 00.0	
	comp=E,50nm,0.7s								
AKAS	**Kas**	**1.29**	**279**	Pn		**Pn**		**01 22 42.7**	**+1.0**
AKAS				AML		AML			
BUCA	**Burdur, Bucak-**	**1.39**	**339**	P		**Pg**		**01 22 44.8**	**+0.7**
BUCA				S		**Sb**		**01 23 02.4**	**+1.0**
BUCA				IAML				01 23 06.0	
	comp=N,28nm,0.6s								
BUCA				IAML				01 23 08.0	
	comp=E,32nm,0.6s								
AKMS	**Akamas**	**1.39**	**137**	P		Pb		01 22 49.2	+5.7
AKMS				S		**Sn**		**01 23 05.1**	**+3.7**
AKMS				AML		AML		01 23 12.0	
	0.1nm,0.5s								
AKMS				AML		AML		01 23 16.7	
	0.2nm,0.4s								
**HDM

INCE					IAML			01 23 29.0	
	comp=E,13nm,0.9s								
DNZT	**Denizli-Tavas-**	**2.13**	**306**		P		**Pn**	**01 22 54.3**	**+1.0**
DNZT					S		**Sn**	**01 23 20.0**	**+0.1**
KONT	**Konya--Tatoy**	**2.13**	**26**		Pn		**Pn**	**01 22 53.6**	**+0.3**
MVOU	**Mavrovouni**	**2.25**	**116**		P		**Pb**	**01 22 55.4**	**-2.8**
MVOU					S		**Sn**	**01 23 21.1**	**-1.5**
TAVA	**DENIZLI_Tavas**	**2.31**	**309**		P		**Pb**	**01 22 58.5**	**-0.8**
TAVA					S		**Sb**	**01 23 27.4**	**-0.7**
TAVA					IAML			01 23 36.0	
	comp=N,12nm,0.5s								
TAVA					IAML			01 23 37.0	
	comp=E,29nm,0.9s								
LADK	**Ladik-KONYA**	**2.36**	**23**		Pn		**Pn**	**01 22 57.4**	**+0.9**
PASA	**Karahalli, USA**	**2.67**	**330**		P		**Pn**	**01 23 02.0**	**+1.2**
PASA					S		**Sn**	**01 23 31.9**	**-1.5**
PASA					IAML			01 23 36.0	
	comp=E,10.0nm,0.6s								
YESY	**Yesilyurt**	**2.70**	**49**		Pn		**Pn**	**01 23 03.2**	**+2.0**
SULTU	**Buldan**	**2.79**	**317**		P		**Pn**	**01 23 03.5**	**+1.1**
SULTU					S		**Sn**	**01 23 31.9**	**-4.3**
SULTU					IAML			01 24 27.0	
	comp=E,15nm,2.7s								
SULTU					IAML			01 24 30.0	
	comp=N,14nm,2.8s								

IDC ***23*** *01:24:07.3±1.4, 14°.25N×93°.90W, h0km, mb3.7/8, mbtmp3.7/11, ML3.9/3, MS3.3/13, Error ellipse: s-maj=55.9km s-min=13.5km az=50.0*

CATAC ***23*** *01:24:16.7±0.6, 15°N.3°×9°4W±°, h17km±4km, M5.0/19, mb5.0/3, mB5.4/2, MLv5.0/19, Mw(mB)4.9/2, Error ellipse: s-maj=7.4km s-min=3.0km az=38.6, confirmed*

MEX ***23*** *01:24:17.1±0.8, 14°.81N×93°.76W, h15km, MD4.7, Presumed earthquake*

GCG ***23*** *01:24:18.9±2.1, 14°.76N×93°.55W, h36km±61km, MD4.7, ML4.9, Presumed earthquake*

NEIC ***23*** *01:24:19.8±2.6, 14°.89N±0°.06×93°.64W±0°.03, h35km±2km, mb4.2/49, Md4.7/100(MEX), Error ellipse: s-maj=10.6km s-min=3.0km az=206.0*

ISC 23 01:24:16.9±1.9, 14°.81N±0°.05×93°.74W±0°.04, h28km±14km, n199, σ1s99/252, mb4.1/16, MS3.3/11, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCIG		**1.03**	**29**		**Pn**	**01 24 33.8**	**-1.6**
PCIG					**Sb**	**01 24 46.6**	**-2.5**
PCIG		**1.03**	**29**	*eP*	**Pn**	**01 24 33.8**	**-1.6**
PCIG				*eS*	**Sb**	**01 24 46.6**	**-2.5**
THIG		**1.43**	**86**		**Sn**	**01 24 56.2**	**-2.7**
THIG		**1.43**	**86**	*i* P	**Pn**	**01 24 39.5**	**-1.5**
THIG		**1.43**	**86**	*eP*	**Pn**	**01 24 39.5**	**-1.5**
THIG				*eS*	**Sn**	**01 24 56.2**	**-2.7**
PATR	**El Naranjo**	**1.49**	**78**		**Pn**	**01 24 40.1**	**-1.9**
PATR					**Sn**	**01 24 57.9**	**-2.7**
PATR	**El Naranjo**	**1.49**	**78**	*eP*	**Pn**	**01 24 40.1**	**-1.9**
PATR				*eS*	**Sn**	**01 24 57.9**	**-2.7**
PAVE	**Pavencul**	**1.56**	**75**		**Pn**	**01 24 41.4**	**-1.6**
PAVE					**Sn**	**01 24 59.4**	**-3.0**
PAVE	**Pavencul**	**1.56**	**75**	*eP*	**Pn**	**01 24 41.4**	**-1.6**
PAVE				*i* S	**Sn**	**01 24 59.4**	**-3.0**
CHUJ	**Union Juarez**	**1.60**	**80**	*eP*	**Pn**	**01 24 41.9**	**-1.7**
CHUJ				*eS*	**Sn**	**01 25 01.4**	**-2.1**
RTAL	**Retalhuleu**	**2.00**	**98**	S	**Sn**	**01 25 13.6**	**+0.6**
RTAL	**Retalhuleu**	**2.00**	**98**	Pn	**Pn**	**01 24 47.6**	**-1.2**
RTAL	**Retalhuleu**	**2.00**	**98**	*eP*	**Pn**	**01 24 47.5**	**-1.4**
RTAL				*eS*	**Sn**	**01 25 10.4**	**-2.6**
TGIG		**2.05**	**17**	*i* P	**Pn**	**01 24 49.9**	**+0.3**
CCIG	**Comitan**	**2.13**	**46**		**Pn**	**01 24 51.9**	**+1.1**
CCIG	**Comitan**	**2.13**	**46**	*i* P	**Pn**	**01 24 52.1**	**+1.2**
CCIG				*i* S	**Sn**	**01 25 15.3**	**-1.1**
CCIG				IAML		01 25 24.5	
	comp=N,3μm,0.4s						
CCIG	**Comitan**	**2.13**	**46**	*eP*	**Pn**	**01 24 52.0**	**+1.2**
CCIG				*eS*	**Sn**	**01 25 15.1**	**-1.3**
QUEO	**Labor Ovalle**	**2.15**	**88**	*i* P	**Pn**	**01 24 50.9**	**-0.3**
QUEO				*i* S	**Sn**	**01 25 16.5**	**-0.7**
QUEO				IAML		01 25 19.6	
	comp=E,16μm,0.4s						
HUEH	**Huehuetenango**	**2.22**	**76**	P	**Pn**	**01 24 53.2**	**+1.1**
HUEH	**Huehuetenango**	**2.22**	**76**		**Pn**	**01 24 52.8**	**+0.7**
HUEH	**Huehuetenango**	**2.22**	**76**	*i* P	**Pn**	**01 24 52.8**	**+0.7**
HUEH				*i* S	**Sn**	**01 25 19.9**	**+1.1**
HUEH				IAML		01 25 28.5	
	comp=E,15μm,0.4s						
HUEH	**Huehuetenango**	**2.22**	**76**	*eP*	**Pn**	**01 24 52.7**	**+0.6**
HUEH				*eS*	**Sn**	**01 25 17.6**	**-1.1**
STG8	**El Palmar, Qui**	**2.34**	**98**	*i* P	Pn	01 24 48.8	-5.0
STG8				*i* S	**Sn**	**01 25 12.9**	**-8.8**
STG8				IAML		01 25 16.0	
	comp=E,12μm,0.2s						
HUIG	**Huatulco**	**2.48**	**293**	*eP*	**Pn**	**01 24 53.0**	**-2.4**
CMIG	**Matias Romero**	**2.52**	**334**	Pn	**Pn**	**01 24 54.5**	**-1.6**
	comp=E,43nm,0.3s,baz=185,slow=10,SNR=294						
CMIG				Sn	**Sn**	**01 25 23.7**	**-2.2**
	comp=E,84nm,0.3s,baz=349,slow=9.7,SNR=4.4						
CMIG				LR	LR	01 26 12.9	
	comp=E,287nm,18.6s,baz=153,slow=42						
	comp=E,72nm,0.3s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**2.52**	**334**	*eP*	**Pn**	**01 24 54.4**	**-1.6**
CMIG				*eS*	**Sn**	**01 25 19.4**	**-6.6**
UXUV	**UXUV**	**2.53**	**351**		**Pn**	**01 24 56.2**	**+0.1**
UXUV	**UXUV**	**2.53**	**351**	*eP*	**Pn**	**01 24 56.2**	**+0.1**
UXUV				*eS*	**Sn**	**01 25 20.6**	**-5.4**
FG8	**Yepocapa, Chim**	**3.13**	**100**	*i* P	Pn	01 24 58.1	-6.4
FG8				*i* S	Sn	01 25 30.2	-11
FG16	**Alotenango, Sa**	**3.17**	**99**	*i* P	Pn	01 24 59.3	-5.8
TUIG	**Tuzandepetl**	**3.28**	**349**		**Pn**	**01 25 05.4**	**-1.0**
TUIG					**Sn**	**01 25 41.9**	**-2.6**
TUIG	**Tuzandepetl**	**3.28**	**349**	*eP*	**Pn**	**01 25 05.4**	**-1.0**
TUIG				*eS*	**Sn**	**01 25 41.9**	**-2.6**
PCG5	**San Vicente Pa**	**3.31**	**100**	*i* S	Sn	01 25 36.5	-9.1
PCG5				IAML		01 25 51.1	
	comp=N,4μm,0.4s						
PEIG	**Puerto Escondi**	**3.49**	**290**	*eP*	**Pn**	**01 25 07.5**	**-1.9**
PEIG				*eS*	**Sn**	**01 25 43.3**	**-6.5**
VHO	**Vista Hermosa**	**3.66**	**308**	*eP*	**Pn**	**01 25 11.3**	**-0.5**
VHO				*eS*	**Sn**	**01 25 52.6**	**-1.5**
FAME	**Alcaldia de Sa**	**3.74**	**104**	P	**Pn**	**01 25 12.4**	**-0.4**
FAME				S	**Sn**	**01 25 56.3**	**+0.5**
LOAL	**Lomas de Alarc**	**3.92**	**101**	P	**Pn**	**01 25 16.4**	**+1.0**
LOAL				S	**Sn**	**01 26 01.9**	**+1.4**
NUBE	**Las Nubes**	**3.94**	**103**	P	**Pn**	**01 25 15.4**	**-0.2**
NUBE				S	**Sn**	**01 26 02.0**	**+0.9**
NUBE	**Las Nubes**	**3.94**	**103**	*i* P	**Pn**	**01 25 15.5**	**-0.2**
NUBE				*i* S	**Sn**	**01 25 57.5**	**-3.7**
CEVE	**Cerro Verde**	**4.11**	**103**	P	**Pn**	**01 25 17.7**	**-0.4**
CEVE				S	**Sn**	**01 26 05.9**	**+0.6**
UNIC	**Universidad Ca**	**4.14**	**101**	P	**Pn**	**01 25 18.7**	**+0.3**
UNIC				S	**Sn**	**01 26 07.3**	**+1.3**
YOIG	**Yosondua**	**4.19**	**300**	*eP*	**Pn**	**01 25 18.9**	**-0.3**
YOIG				*eS*	**Sn**	**01 26 05.0**	**-2.5**
MTO3	**Montecristo**	**4.26**	**95**	P	**Pn**	**01 25 21.6**	**+1.5**
MTO3	**Montecristo**	**4.26**	**95**		**Pn**	**01 25 21.0**	**+0.9**
ESQI	**Esquipulas**	**4.26**	**93**		**Pn**	**01 25 21.2**	**+1.1**
PETF	**Flores**	**4.28**	**60**	P	**Pn**	**01 25 21.7**	**+1.6**
PETF				S	**Sn**	**01 26 11.5**	**+2.3**
PETF	**Flores**	**4.28**	**60**		**Pn**	**01 25 21.3**	**+1.2**
PETF	**Flores**	**4.28**	**60**	*i* P	**Pn**	**01 25 21.3**	**+1.2**
PETF	**Flores**	**4.28**	**60**	*eP*	**Pn**	**01 25 21.4**	**+1.2**
PETF				*eS*	**Sn**	**01 26 06.3**	**-2.9**
JAYA	**Jayaque - finc**	**4.32**	**105**	P	**Pn**	**01 25 21.6**	**+0.8**
JAYA				S	**Sn**	**01 26 10.1**	**-0.2**
JAYA	**Jayaque - finc**	**4.32**	**105**	*i* P	**Pn**	**01 25 21.0**	**+0.2**
PMON	**Piamonte**	**4.43**	**104**	P	**Pn**	**01 25 22.2**	**-0.1**
PMON				S	**Sn**	**01 26 14.3**	**+1.3**
UEES	**Universidad Ev**	**4.50**	**103**	P	**Pn**	**01 25 23.3**	**0.0**
UEES				S	**Sn**	**01 26 16.4**	**+1.7**
PNIG	**Pinotepa**	**4.51**	**291**	*eP*	**Pn**	**01 25 22.2**	**-1.2**
PNIG				*eS*	**Sn**	**01 26 12.1**	**-2.9**
TOIG	**Toxpalan**	**4.57**	**316**		**Pn**	**01 25 23.8**	**-0.5**
TOIG	**Toxpalan**	**4.57**	**316**	*eP*	**Pn**	**01 25 23.8**	**-0.5**
TOIG				*eS*	**Sn**	**01 26 14.7**	**-1.9**
TXIG	**Tlaxiaco**	**4.57**	**303**		**Pn**	**01 25 24.1**	**-0.4**
TXIG	**Tlaxiaco**	**4.57**	**303**	*eP*	**Pn**	**01 25 24.1**	**-0.4**
TXIG				*eS*	**Sn**	**01 26 15.3**	**-1.6**
LOMA	**Loma Larga**	**4.58**	**104**	P	**Pn**	**01 25 25.6**	**+1.2**
LOMA				S	**Sn**	**01 26 19.6**	**+2.8**
PAVA	**Las Pavas**	**4.78**	**103**	P	**Pn**	**01 25 27.7**	**+0.5**
SCIG	**Sabancuy**	**4.81**	**30**	P	**Pn**	**01 25 27.9**	**+0.4**
SCIG				S	**Sn**	**01 26 24.4**	**+2.1**
SCIG	**Sabancuy**	**4.81**	**30**		**Pn**	**01 25 27.3**	**-0.2**
SCIG					**Sn**	**01 26 20.9**	**-1.3**
SCIG	**Sabancuy**	**4.81**	**30**	*eP*	**Pn**	**01 25 27.3**	**-0.2**
SCIG				*eS*	**Sn**	**01 26 20.9**	**-1.3**
SARH	**Santa Rosa de**	**4.82**	**90**	P	**Pn**	**01 25 29.5**	**+1.8**
COEG	**Centro de Oper**	**4.86**	**103**	P	**Pn**	**01 25 29.8**	**+1.5**
COEG				S	**Sn**	**01 26 25.3**	**+1.7**
HLIG	**Huajuapan de L**	**4.92**	**308**		**Pn**	**01 25 30.6**	**+1.3**
HLIG					**Sn**	**01 26 25.8**	**+0.3**
HLIG	**Huajuapan de L**	**4.92**	**308**	*eP*	**Pn**	**01 25 30.6**	**+1.3**
HLIG				*eS*	**Sn**	**01 26 25.8**	**+0.3**
TECO	**Alcaldia de Te**	**4.97**	**104**	P	**Pn**	**01 25 29.8**	**0.0**
TECO				S	**Sn**	**01 26 29.6**	**+3.2**
SCLA	**Alcaldia de Sa**	**4.98**	**102**	S	**Sn**	**01 26 29.7**	**+3.1**
TPIG	**Tehuac#an**	**5.00**	**316**		**Pn**	**01 25 29.9**	**-0.3**
TPIG	**Tehuac#an**	**5.00**	**316**	*eP*	**Pn**	**01 25 29.9**	**-0.3**
TPIG				*eS*	**Sn**	**01 26 25.3**	**-1.8**
FTIG	**Fresnillo de T**	**5.22**	**307**		**Pn**	**01 25 33.6**	**+0.3**
FTIG	**Fresnillo de T**	**5.22**	**307**	*eP*	**Pn**	**01 25 33.6**	**+0.3**
FTIG				*eS*	**Sn**	**01 26 31.4**	**-1.3**
ALJI	**Alcalda de J**	**5.23**	**106**	S	**Sn**	**01 26 33.2**	**+0.6**
MGIG	**Malinaltepec**	**5.29**	**298**		**Pn**	**01 25 34.7**	**+0.4**
MGIG	**Malinaltepec**	**5.29**	**298**	*eP*	**Pn**	**01 25 34.7**	**+0.4**
MGIG				*eS*	**Sn**	**01 26 32.1**	**-2.3**
TLIG	**Tlapa**	**5.39**	**301**	P	**Pn**	**01 25 35.9**	**+0.4**
TLIG				S	**Sn**	**01 26 40.0**	**+3.3**
TLIG	**Tlapa**	**5.39**	**301**		**Pn**	**01 25 36.1**	**+0.6**
TLIG	**Tlapa**	**5.39**	**301**	*eP*	**Pn**	**01 25 35.6**	**+0.1**
TLIG				*eS*	**Sn**	**01 26 32.7**	**-4.0**
JAUV	**Jalcomulco**	**5.40**	**328**		**Pn**	**01 26 35.0**	**-2.0**
JAUV	**Jalcomulco**	**5.40**	**328**	*eP*	**Pn**	**01 25 32.8**	**-2.8**
JAUV				*eS*	**Sn**	**01 26 35.0**	**-2.0**
PACA	**Pacayal**	**5.42**	**104**	P	**Pn**	**01 25 37.8**	**+1.8**
CRIG	**Cruz Grande**	**5.53**	**291**	*eP*	**Pn**	**01 25 36.3**	**-1.1**
CRIG				*eS*	**Sn**	**01 26 37.2**	**-2.9**
CNCH	**Conchagua**	**5.93**	**104**	P	**Pn**	**01 25 43.0**	**0.0**
CNCH				S	**Sn**	**01 26 51.4**	**+1.3**
DAIG	**Los Arroyos**	**6.10**	**292**	*eP*	**Pn**	**01 25 44.2**	**-1.0**
DAIG				*eS*	**Sn**	**01 26 51.3**	**-2.8**
PPCL	**Tochimilco**	**6.20**	**312**		**Pn**	**01 25 46.8**	**-0.1**
PPCL	**Tochimilco**	**6.20**	**312**	*eP*	**Pn**	**01 25 46.8**	**-0.1**
PPCL				*eS*	**Sn**	**01 26 54.8**	**-2.3**
PPPT	**Popocatepetl**	**6.25**	**312**		**Pn**	**01 25 49.0**	**+1.3**
PPPT					**Sn**	**01 26 57.4**	**-1.1**
PPPT	**Popocatepetl**	**6.25**	**312**	*eP*	**Pn**	**01 25 49.0**	**+1.3**
PPPT				*eS*	**Sn**	**01 26 57.4**	**-1.1**
PBXN	**Popocatepetl**	**6.29**	**312**	*eP*	**Pn**	**01 25 49.5**	**+1.1**
PBXN				*eS*	**Sn**	**01 26 56.1**	**-3.5**
PBPN	**Popocatepetl**	**6.29**	**313**	*eP*	**Pn**	**01 25 49.2**	**+0.8**
PBPN				*eS*	**Sn**	**01 26 58.7**	**-0.9**
TGUH	**Tegucigalpa,Un**	**6.31**	**96**	Pn	**Pn**	**01 25 48.9**	**+0.6**
MEIG	**Mezcala**	**6.44**	**300**		**Pn**	**01 25 50.4**	**+0.5**
MEIG	**Mezcala**	**6.44**	**300**	*eP*	**Pn**	**01 25 50.4**	**+0.5**
MEIG				*eS*	**Sn**	**01 27 00.8**	**-1.8**
CXUV	**Coxquihui**	**6.48**	**326**		**Pn**	**01 25 50.5**	**0.0**
CXUV					**Sn**	**01 27 01.4**	**-2.1**
CXUV	**Coxquihui**	**6.48**	**326**	*eP*	**Pn**	**01 25 50.5**	**0.0**
CXUV				*eS*	**Sn**	**01 27 01.4**	**-2.1**
YAIG	**Yautepec**	**6.50**	**309**		**Pn**	**01 25 51.8**	**+0.9**
YAIG	**Yautepec**	**6.50**	**309**	*eP*	**Pn**	**01 25 51.8**	**+0.9**
YAIG				*eS*	**Sn**	**01 27 02.8**	**-1.4**
PLIG	**Platanillo**	**6.58**	**304**		**Pn**	**01 25 52.6**	**+0.7**
PLIG	**Platanillo**	**6.58**	**304**	*eP*	**Pn**	**01 25 52.6**	**+0.7**
PLIG				*eS*	**Sn**	**01 27 04.5**	**-1.4**
CAIG	**El Cayaco**	**6.66**	**290**	*eP*	**Pn**	**01 25 52.9**	**-0.1**
CAIG				*eS*	**Sn**	**01 27 06.5**	**-1.5**
TLVM	**San Miguel Top**	**6.78**	**311**		**Sn**	**01 27 12.7**	**+1.3**
TLVM	**San Miguel Top**	**6.78**	**311**	*eS*	**Sn**	**01 27 12.7**	**+1.3**
CRIN	**San Cristobal**	**6.83**	**107**	Pn	**Pn**	**01 25 55.8**	**+0.4**
MAVM	**Malinalco, Edo**	**6.88**	**308**		**Pn**	**01 25 56.3**	**+0.1**
MAVM	**Malinalco, Edo**	**6.88**	**308**	*eP*	**Pn**	**01 25 56.3**	**+0.1**
MAVM				*eS*	**Sn**	**01 27 06.7**	**-7.0**
VTVM	**Tizayuca**	**6.89**	**316**		**Pn**	**01 25 56.3**	**-0.1**
VTVM					**Sn**	**01 27 12.2**	**-1.9**
VTVM	**Tizayuca**	**6.89**	**316**	*eP*	**Pn**	**01 25 56.3**	**-0.1**
VTVM				*eS*	**Sn**	**01 27 12.2**	**-1.9**
INVM	**La Marquesa**	**7.00**	**310**		**Pn**	**01 25 57.5**	**-0.4**
INVM	**La Marquesa**	**7.00**	**310**	*eP*	**Pn**	**01 25 57.5**	**-0.4**
INVM				*eS*	**Sn**	**01 27 15.0**	**-1.9**
ARIG	**Puente Sto Nin**	**7.22**	**300**		**Pn**	**01 26 02.5**	**+1.9**
ARIG	**Puente Sto Nin**	**7.22**	**300**	*eP*	**Pn**	**01 26 02.5**	**+1.9**
ARIG				*eS*	**Sn**	**01 27 19.7**	**-2.0**
DEIG	**Demacu**	**7.44**	**318**	*eP*	**Pn**	**01 26 05.8**	**+1.9**
DEIG				*eS*	**Sn**	**01 27 26.2**	**-1.3**
DHIG	**Demacu**	**7.44**	**318**		**Pn**	**01 26 05.8**	**+2.0**
DHIG					**Sn**	**01 27 26.2**	**-1.3**
TEIG	**Tepich**	**7.50**	**43**		**Pn**	**01 26 03.7**	**-0.7**
ZIIG	**Zihuatanejo**	**7.92**	**292**		**Pn**	**01 26 10.5**	**+0.2**
ZIIG					**Sn**	**01 27 39.2**	**+0.1**
ZIIG	**Zihuatanejo**	**7.92**	**292**	*eP*	**Pn**	**01 26 10.5**	**+0.2**
ZIIG				*eS*	**Sn**	**01 27 39.2**	**+0.1**
CTUV	**Llano Grande**	**7.95**	**327**		**Pn**	**01 26 10.9**	**+0.3**
CTUV					**Sn**	**01 27 37.6**	**-2.1**
CTUV	**Llano Grande**	**7.95**	**327**	*eP*	**Pn**	**01 26 10.9**	**+0.3**
CTUV				*eS*	**Sn**	**01 27 37.6**	**-2.1**
BOAB	**BOACO BROADBAN**	**8.19**	**106**	Pn	**Pn**	**01 26 15.3**	**+1.4**
MOIG	**Morelia**	**8.61**	**305**	Pn	Pn	01 26 24.4	+4.5
JTS	**Las Juntas de**	**9.68**	**117**	Pn	Pn	01 26 29.0	-5.5
	comp=N,0.7nm,0.3s,baz=290,slow=23,SNR=9.0						
	comp=N,1.6nm,0.5s						
JTS				AML	AML		
GTIG	**Gomez Farias**	**9.69**	**329**		**Sn**	**01 28 24.7**	**+2.3**
GTIG	**Gomez Farias**	**9.69**	**329**	*eP*	**Pn**	**01 26 30.7**	**-3.8**
GTIG				*eS*	**Sn**	**01 28 24.7**	**+2.3**
INCO	**Volcan de Coli**	**10.53**	**298**	*eP*	**Pn**	**01 26 49.6**	**+3.2**
CEGR	**Campo Tres**	**10.69**	**297**		**Pn**	**01 26 49.8**	**+1.4**
CEGR	**Campo Tres**	**10.69**	**297**	*eP*	**Pn**	**01 26 49.8**	**+1.4**
LCR2	**La Lucha 2**	**10.76**	**117**		**Pn**	**01 26 51.4**	**+1.9**
SOR	**Soroa**	**12.89**	**50**	Pn	**Pn**	**01 27 16.0**	**-2.4**
SOR	**Soroa**	**12.89**	**50**	*eP*	**Pn**	**01 27 16.2**	**-2.1**
LCCY	**Blossom Villag**	**13.91**	**68**	*eP*	**Pn**	**01 27 30.2**	**-2.1**
CAMR	**Camarioca**	**14.29**	**53**	Pn	**Pn**	**01 27 40.1**	**+2.7**
CAMR	**Camarioca**	**14.29**	**53**	*eP*	**Pn**	**01 27 40.1**	**+2.7**
HNDO	**Hondo**	**15.52**	**342**		**Pn**	**01 27 53.9**	**0.0**
HNDO				IAmb	IAmb	01 28 24.0	
	comp=E,8.6nm,0.6s						
CAIB	**Caibarien**	**15.52**	**58**	Pn	**Pn**	**01 27 54.4**	**+0.5**
CAIB				IAmb	IAmb	01 28 37.1	
	comp=E,27nm,1.1s						
CAIB	**Caibarien**	**15.52**	**58**	*eP*	**Pn**	**01 27 53.2**	**-0.7**
SAND	**Sanderson**	**16.94**	**334**		**P**	**01 28 14.0**	**+0.2**
BRDY	**Brady**	**17.10**	**345**		**P**	**01 28 16.1**	**+0.7**
TXAR	**Lajitas Array**	**17.12**	**329**	P	**Pn**	**01 28 14.1**	**-0.2**
	comp=E,0.1nm,0.3s,baz=134,slow=8.9,SNR=6.7						
	comp=E,0.4nm,0.7s						
TXAR				AML	AML		
OZNA	**Ozona**	**17.41**	**338**	Pn	**P**	**01 28 18.7**	**-0.3**
553A	**Crawfordville**	**17.55**	**28**		**P**	**01 28 20.3**	**-0.1**
ALPN	**Alpine**	**17.97**	**331**		**P**	**01 28 26.2**	**+0.9**
LPIG	**La Paz**	**18.14**	**303**	LR	LR	01 34 14.7	
	comp=E,54nm,18.3s,baz=119,slow=33						
SGCY	**Sterling City**	**18.32**	**340**		**Pn**	**01 28 31.9**	**+2.8**
SGCY				IAmb	IAmb	01 28 37.2	
	comp=E,8.3nm,0.7s						
MNHN	**Monahans**	**18.42**	**335**	P	**Pn**	**01 28 33.2**	**+2.9**
ABTX	**Abilene, Hawle**	**18.54**	**344**	P	**Pn**	**01 28 34.1**	**+2.4**
VHRN	**Van Horn**	**18.96**	**329**	P	**Pn**	**01 28 40.3**	**+3.3**
ODSA	**Odessa**	**19.02**	**337**		**Pn**	**01 28 37.2**	**-0.4**
ODSA				IAmb	IAmb	01 28 42.8	
	comp=E,15nm,1.1s						
LRAL	**Lakeview Retre**	**19.16**	**17**	P	**Pn**	**01 28 40.8**	**+1.7**
LRAL				IAmb	IAmb	01 28 43.0	
	comp=E,12nm,1.1s						
APMT	**Aspermont**	**19.33**	**344**	P	**Pn**	**01 28 42.1**	**+0.9**
APMT				IAmb	IAmb	01 29 08.2	
	comp=E,9.0nm,1.0s						
128A	**Castleberry Fa**	**19.44**	**337**	P	**Pn**	**01 28 45.8**	**+3.2**
MIAR	**Mount Ida**	**19.66**	**0**	P	**Pn**	**01 28 46.4**	**+1.3**
MIAR				IAmb	IAmb	01 28 49.6	
	comp=E,17nm,1.2s						
OXF	**Oxford**	**20.01**	**11**	P	**Pn**	**01 28 48.6**	**-0.6**
WHAR	**Wooly Hollow**	**20.44**	**3**	P	Pn	01 28 55.2	+0.9
WHAR				IAmb	IAmb	01 29 00.2	
	comp=E,13nm,1.0s						
W35A	**Tecumseh**	**20.46**	**353**	P	Pn	01 28 55.4	+0.9
W35A				IAmb	IAmb	01 29 21.5	
	comp=E,8.9nm,0.7s						
X48A	**Hartselle**	**20.47**	**16**	P	Pn	01 28 54.7	0.0
MSTX	**Muleshoe**	**20.76**	**338**	P	Pn	01 28 58.1	0.0
MSTX				IAmb	IAmb	01 29 04.1	
	comp=E,15nm,1.1s						
FCAR	**Ozark Folk Cen**	**21.05**	**4**	P	**P**	**01 28 60.0**	**+1.3**
TUL3	**Leonard**	**21.10**	**355**	P	**P**	**01 29 01.8**	**+2.5**
LCAR	**Lake Charles**	**21.30**	**6**	P	**P**	**01 29 02.7**	**+1.3**
LCAR				IAmb	IAmb	01 29 05.3	
	comp=E,6.0nm,0.8s						
121A	**Cookes Peak, D**	**21.80**	**326**	P	**P**	**01 29 08.8**	**+1.9**
121A				IAmb	IAmb	01 29 19.3	
	comp=E,10nm,1.0s						
WVT	**Waverly**	**21.89**	**13**	P	**P**	**01 29 09.5**	**+1.9**
WVT				IAmb	IAmb	01 29 28.8	
	comp=E,8.8nm,1.0s						
CRNM	**Carthage**	**22.40**	**331**	P	**P**	**01 29 16.8**	**+3.4**
Y22A	**Socorro**	**22.49**	**330**	P	**P**	**01 29 17.6**	**+3.1**
TKL	**Tuckaleechee C**	**22.61**	**22**	LR	LR	01 39 36.1	
	comp=E,66nm,19.2s,baz=167,slow=40						
LENM	**Lemitar**	**22.68**	**331**	P	**P**	**01 29 17.8**	**+1.4**
V53A	**Saluda**	**22.97**	**23**	P	**P**	**01 29 21.2**	**+1.9**
V53A				IAmb	IAmb	01 30 03.6	
	comp=E,5.0nm,0.9s						
RTBA	**Rita Blanca**	**22.99**	**341**	P	**P**	**01 29 20.1**	**+0.5**
RTBA				IAmb	IAmb	01 29 25.6	
	comp=E,15nm,1.5s						
SDV	**Santo Domingo**	**23.36**	**102**	P	**P**	**01 29 17.6**	**-5.9**
	comp=E,1.4nm,0.4s,baz=352,slow=14,SNR=1.4						
SDV				LR	LR	01 40 20.9	
	comp=E,51nm,18.0s,baz=304,slow=42						
	comp=E,1.4nm,0.4s						
ATAH	**Atahualpa**	**26.59**	**144**	LR	LR	01 38 46.8	
	comp=E,54nm,18.7s,baz=340,slow=34						
PV18	**Skein Mesa, Pa**	**26.93**	**333**	P	**P**	**01 29 59.9**	**+3.8**
PV23	**Carpenter Ridg**	**27.14**	**333**	P	**P**	**01 30 01.0**	**+2.9**
PV23				IAmb	IAmb	01 30 06.8	
	comp=E,4.8nm,0.8s						
ECSD	**EROS Data Cent**	**28.93**	**356**	P	**P**	**01 30 11.9**	**-1.8**
ECSD				IAmb	IAmb	01 30 12.7	
	comp=E,2.9nm,0.7s						
PDAR	**Pinedale Array**	**31.01**	**337**	P	**P**	**01 30 31.5**	**-0.8**
	comp=E,0.3nm,0.8s,baz=154,slow=7.4,SNR=2.2						
	comp=E,2.3nm,0.8s						
NVAR	**Mina Array Bea**	**32.00**	**322**	P	**P**	**01 30 38.8**	**-2.3**
	comp=E,0.6nm,0.7s,baz=147,slow=8.7,SNR=5.0						
	comp=E,0.6nm,0.7s						
SADO	**Sadowa**	**32.33**	**20**	LR	LR	01 45 27.1	
	comp=E,67nm,18.6s,baz=187,slow=39						
EPLO	**Experimental L**	**34.77**	**0**	P	**P**	**01 31 01.9**	**-3.0**
EPLO				IAmb	IAmb	01 31 45.4	
	comp=E,4.0nm,1.0s						
ULM	**Lac du Bonnet**	**35.39**	**358**	LR	LR	01 48 57.1	
	comp=E,40nm,18.6s,baz=174,slow=41						
**Y

DJR				S		Sb	01 46 21.6	-0.7
	17nm,0.5s							
DJR	**Jarkent**	**1.18**	**143**	*eP*		**Pb**	**01 46 06.3**	**-0.4**
	13nm,0.2s							
DJR				*eS*		**Sb**	**01 46 21.6**	**-0.7**
	17nm,0.5s							
ARXS	**Arharly**	**1.27**	**214**	P		**Pb**	**01 46 07.7**	**-0.5**
	6.4nm,0.1s							
ARXS				S		**Sb**	**01 46 23.9**	**-1.2**
	55nm,0.4s							
ARXS	**Arharly**	**1.27**	**214**	*eP*		**Pb**	**01 46 07.7**	**-0.5**
	6.4nm,0.1s							
ARXS				*eS*		**Sb**	**01 46 23.9**	**-1.2**
	55nm,0.4s							
KPKS	**Kokpek**	**1.81**	**183**	P		**Pb**	**01 46 17.8**	**+0.2**
	0.4nm,0.3s							
KPKS				S		**Sg**	**01 46 42.0**	**+0.2**
	54nm,0.5s							
KPKS	**Kokpek**	**1.81**	**183**	*eP*		**Pb**	**01 46 17.8**	**+0.2**
	0.4nm,0.3s							
KPKS				*eS*		**Sg**	**01 46 42.0**	**+0.2**
	54nm,0.5s							
KURS	**Kuram**	**1.84**	**194**	P		**Pg**	**01 46 18.4**	**-0.6**
	22nm,0.2s							
KURS				S		**Sg**	**01 46 42.9**	**0.0**
	30nm,0.3s							
KURS	**Kuram**	**1.84**	**194**	*eP*		**Pg**	**01 46 18.4**	**-0.6**
	22nm,0.2s							
KURS				*eS*		**Sg**	**01 46 42.9**	**0.0**
	30nm,0.3s							
PDGK	**Podgornoye**	**2.01**	**166**	⇑Pn		**Pb**	**01 46 20.1**	**-0.8**
	9.8nm,0.3s							
PDGK				⇑Sn		**Sg**	**01 46 47.8**	**-0.3**
	42nm,0.4s							
UZB	**Uzynbulak**	**2.13**	**176**	Pg		**Pb**	**01 46 23.2**	**+0.1**
	32nm,0.3s							
UZB				Lg		Lg	01 46 51.3	
	33nm,0.2s							
UZB	**Uzynbulak**	**2.13**	**176**	*eP*		**Pb**	**01 46 23.1**	**+0.1**
	32nm,0.3s							
UZB				*eS*		**Sg**	**01 46 51.3**	**-0.9**
	33nm,0.2s							
SHLS	**Shalkode**	**2.17**	**167**	Pg		**Pg**	**01 46 25.5**	**+0.2**
	64nm,0.4s							
SHLS				Lg		Lg	01 46 55.9	
	59nm,0.5s							
SATY	**Saty**	**2.23**	**187**	Pg		**Pb**	**01 46 25.2**	**+0.4**
	12nm,0.1s							
SATY				Lg		Lg	01 46 54.7	
	117nm,0.2s							
SATY	**Saty**	**2.23**	**187**	*eP*		**Pb**	**01 46 25.2**	**+0.4**
	12nm,0.1s							
SATY				*eS*		**Sg**	**01 46 54.7**	**-0.7**
	117nm,0.2s							
KOTS	**Kotyrbulak**	**2.38**	**211**	Pg		**Pb**	**01 46 27.1**	**-0.1**
	5.6nm,0.4s							
KOTS				Lg		Lg	01 46 57.9	
	13nm,0.2s							
KOTS	**Kotyrbulak**	**2.38**	**211**	*eP*		**Pb**	**01 46 27.1**	**-0.1**
	5.6nm,0.4s							
KOTS				*eS*		**Sg**	**01 46 57.9**	**-2.0**
	13nm,0.2s							
MDOK	**Medeo**	**2.46**	**211**	Pg		**Pb**	**01 46 28.4**	**-0.2**
	9.6nm,0.4s							
MDOK				Lg		Lg	01 47 00.9	
	31nm,0.6s							
MDOK	**Medeo**	**2.46**	**211**	*eP*		**Pb**	**01 46 28.4**	**-0.2**
	9.6nm,0.4s							
MDOK				*eS*		**Sg**	**01 47 00.9**	**-1.8**
	31nm,0.6s							
TNSS	**Tian-Shan**	**2.61**	**211**	Pg		**Pb**	**01 46 30.9**	**-0.4**
	3.3nm,0.5s							
TNSS				Lg		Lg	01 47 05.5	
	4.8nm,0.3s							
TNSS	**Tian-Shan**	**2.61**	**211**	*eP*		**Pb**	**01 46 30.9**	**-0.4**
	3.3nm,0.5s							
TNSS				*eS*		**Sg**	**01 47 05.5**	**-1.9**
	4.8nm,0.3s							
MAKZ	**Makanchi**	**2.69**	**54**	⇓Pn		**Pn**	**01 46 29.6**	**+1.7**
	1.8nm,0.4s							
MAKZ				⇑Sn		**Sb**	**01 47 04.5**	**-1.3**
	3.2nm,0.3s							
KRBS	**Karabastau**	**2.74**	**236**	Pg		**Pb**	**01 46 31.9**	**-1.4**
	2.1nm,0.2s							
KRBS				Lg		Lg	01 47 07.0	
	22nm,0.4s							
KRBS	**Karabastau**	**2.74**	**236**	*eP*		**Pb**	**01 46 31.9**	**-1.4**
	2.1nm,0.2s							
KRBS				*eS*		**Sb**	**01 47 07.0**	**-0.3**
	22nm,0.4s							
MTBS	**Maitube**	**2.74**	**219**	Pg		**Pb**	**01 46 33.4**	**0.0**
	3.4nm,0.1s							
MTBS				Lg		Lg	01 47 08.8	
	42nm,0.2s							
MTBS	**Maitube**	**2.74**	**219**	*eP*		**Pb**	**01 46 33.4**	**0.0**
	3.4nm,0.1s							
MTBS				*eS*		**Sb**	**01 47 08.8**	**+1.4**
	42nm,0.2s							
MK31	**Makanchi Array**	**2.86**	**57**	⇑Pn		**Pn**	**01 46 31.8**	**+1.5**
	1.2nm,0.3s,baz=231,slow=13,SNR=172							
MK31				⇓Sn		**Sb**	**01 47 07.6**	**-3.3**
	1.4nm,0.3s,baz=234,slow=27,SNR=8.2							
KST	**Kastek**	**3.03**	**223**	Pg		**Pb**	**01 46 38.1**	**-0.1**
	2.2nm,0.5s							
KST				Lg		Lg	01 47 16.9	
	22nm,0.5s							
KST	**Kastek**	**3.03**	**223**	*eP*		**Pb**	**01 46 38.1**	**-0.1**
	2.2nm,0.5s							
KST				*eS*		**Sb**	**01 47 16.9**	**+1.3**
	22nm,0.5s							
AAK	**Ala-Archa**	**4.08**	**231**	⇓Pg		**Pb**	**01 46 57.2**	**+1.0**
	19nm,1.5s							
AAK				⇑Lg		Lg	01 47 55.2	
	3.4nm,0.6s							
KURBB	**Kurchatov Arra**	**5.35**	**358**	⇓Lg		Lg	01 48 35.2	
	22nm,0.6s							
KURK	**Kurchatov**	**5.44**	**359**	⇑Lg		Lg	01 48 36.1	
	2.9nm,0.8s							
KK31	**Karatay Array**	**6.34**	**253**	⇑Lg		Lg	01 49 06.0	
	2.0nm,0.5s,baz=60,slow=28,SNR=6.1							

*CNRM **23** 01:52:60.0, 35˚.60N×3˚.63W, h13km, ML2.0*
*SFS **23** 01:53:01.0, 35˚.50N×3˚.65W, h0km, ML2.8/12, ML2.8/12, MLv2.7/12*
*MDD **23** 01:53:01.9±0.5, 35˚.55N×3˚.59W, h0km, mb_Lg2.2/17, Error ellipse: s-maj=4.5km s-min=2.8km az=38.0*
*INMG **23** 01:53:02.2±1.6, 35˚.59N×3˚.53W, h13km, ML1.7, Error ellipse: s-maj=5.5km s-min=3.4km az=54.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Alboran*

ISC 23 01:53:00.0±1.1, 35˚.53N±0˚.02×3˚.65W±0˚.02, h6km±10km, n50, σt¶36/92, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PALE	**Palemas**	**0.39**	**218**	P	**Pb**	**01 53 09.3**	**-0.1**
PALE				S	**Sb**	**01 53 15.7**	**0.0**
WMELI	**Melilla**	**0.60**	**110**	P	**Pg**	**01 53 11.2**	**-0.5**
WMELI				S	**Sg**	**01 53 19.4**	**-0.1**
EMEL	**Melilla**	**0.61**	**112**	Pg	**Pb**	**01 53 12.4**	**-0.6**
EMEL				Sg	**Sg**	**01 53 19.9**	**+0.3**
EMLI	**Melilla**	**0.61**	**112**	P	**Pg**	**01 53 12.0**	**+0.2**
EMLI				S	**Sg**	**01 53 19.7**	**-0.1**
AKLM	**AKL**	**1.03**	**190**	P	**Pn**	**01 53 20.5**	**-0.5**
AKLM				S	**Sb**	**01 53 33.3**	**-0.8**
ELGU	**Los Guajares,**	**1.34**	**1**	P	**Pb**	**01 53 25.0**	**-0.6**
ELGU				S	**Sb**	**01 53 42.2**	**-0.8**
ELGU	**Los Guajares,**	**1.34**	**1**	Pg	**Pn**	**01 53 24.7**	**-0.6**
ELGU				Sg	**Sb**	**01 53 41.9**	**-1.1**
ELGU				lVmb_Lg		01 53 46.1	
EMIJ	**Mijas**	**1.38**	**319**	P	**Pb**	**01 53 25.4**	**-0.9**
EMIJ				S	**Sb**	**01 53 42.9**	**-1.2**
EMIJ	**Mijas**	**1.38**	**319**	Pn	**Pg**	**01 53 28.2**	**+1.7**
EMIJ				Sn	**Sn**	**01 53 43.4**	**-1.1**
EMIJ				lVmb_Lg		01 53 44.7	
EMAL	**Malaga-Limoner**	**1.39**	**333**	P	**Pb**	**01 53 25.4**	**-0.9**
EMAL				S	**Sb**	**01 53 43.3**	**-1.0**
SMIR	**Smir Dam**	**1.42**	**277**	P	**Pn**	**01 53 25.0**	**-1.4**
SMIR				S	**Sg**	**01 53 46.2**	**+0.5**
ECEU	**Ceuta**	**1.46**	**285**	P	**Pg**	**01 53 28.9**	**+0.9**
ECEU				S	**Sn**	**01 53 43.9**	**-2.4**
JBK	**JBK**	**1.48**	**143**	P	**Pn**	**01 53 25.3**	**-2.1**
JBK				S	**Sg**	**01 53 48.7**	**+1.0**
EBER	**Berja**	**1.50**	**24**	P	**Pb**	**01 53 27.7**	**-0.7**
EBER				S	**Sg**	**01 53 48.5**	**+0.3**
EBER	**Berja**	**1.50**	**24**	Pg	**Pb**	**01 53 27.7**	**-0.7**
EBER				Sg	**Sg**	**01 53 48.8**	**+0.6**
EBER				lVmb_Lg		01 53 49.9	
EGOR	**Sierra Gorda,**	**1.62**	**347**	P	**Pg**	**01 53 30.4**	**-0.8**
EGOR				S	**Sg**	**01 53 53.0**	**+0.7**
EGOR	**Sierra Gorda,**	**1.62**	**347**	Pg	**Pg**	**01 53 31.0**	**-0.2**
EGOR				Sg	**Sg**	**01 53 52.8**	**+0.6**
EGOR				lVmb_Lg		01 53 55.6	
EQUE	**Quentar**	**1.68**	**6**	Pn	**Pb**	**01 53 31.4**	**-0.1**
EQUE				Sn	**Sb**	**01 53 52.2**	**-0.8**
EQUE				lVmb_Lg		01 53 55.3	
EQTA	**Presa de Quent**	**1.69**	**6**	P	**Pb**	**01 53 31.0**	**-0.5**
EQTA				S	**Sn**	**01 53 51.5**	**-0.5**
ESPR	**Espera**	**2.23**	**307**	S	**Sb**	**01 54 07.3**	**-1.4**
EQES	**Quesada**	**2.32**	**11**	Pg	**Pb**	**01 53 41.8**	**-0.5**
EQES				Sg	**Sb**	**01 54 11.3**	**+0.1**
EQES				lVmb_Lg		01 54 13.1	
E0802	**Ubeda,Jaen**	**2.50**	**5**	Sg	**Sb**	**01 54 16.8**	**+0.3**
EADA	**Adamuz**	**2.74**	**344**	P	**Pb**	**01 53 46.8**	**-2.6**
EADA				S	**Sn**	**01 54 18.4**	**+0.4**
EADA	**Adamuz**	**2.74**	**344**	Pn	**Pb**	**01 53 46.9**	**-2.6**
EADA				Sn	**Sn**	**01 54 19.4**	**+1.4**
EADA				Sg	**Sg**	**01 54 25.4**	**-2.7**
EADA				lVmb_Lg		01 54 27.0	
MD31	**MD31**	**2.81**	**199**	P	**Pn**	**01 53 47.3**	**+1.8**
MD31				S	**Sn**	**01 54 21.2**	**+1.4**
MDT	**Midelt**	**2.82**	**197**	P	**Pn**	**01 53 46.6**	**+0.8**
MDT				S	**Sn**	**01 54 21.3**	**+1.2**
ECAB	**El Cabril**	**2.91**	**331**	P	**Pn**	**01 53 48.6**	**+1.6**
ECAB				S	**Sn**	**01 54 23.7**	**+1.4**
ECAB	**El Cabril**	**2.91**	**331**	Pg	**Pb**	**01 53 52.6**	**+0.1**
ECAB				Sn	**Sn**	**01 54 23.0**	**+0.7**
ECAB				Sg	**Sb**	**01 54 30.2**	**+1.9**
ECAB				lVmb_Lg		01 54 34.4	
EMUR	**La Murta**	**3.01**	**39**	P	**Pb**	**01 53 51.2**	**-2.9**
EMUR				S	**Sn**	**01 54 24.2**	**-0.5**
ZHG	**ZHG**	**3.23**	**231**	P	**Pn**	**01 53 53.3**	**+1.9**
PSIM	**Granatula de C**	**3.29**	**358**	Pg	**Pb**	**01 53 56.7**	**-2.1**
PSIM				Sn	**Sn**	**01 54 31.3**	**-0.3**
ETOB	**Tobarra**	**3.54**	**28**	P	**Pn**	**01 53 57.7**	**+2.1**
ETOB				S	**Sn**	**01 54 38.8**	**+1.1**
ETOB	**Tobarra**	**3.54**	**28**	Pn	**Pn**	**01 53 58.1**	**+2.6**
ETOB				Sn	**Sn**	**01 54 40.6**	**+2.9**
ETOB				lVmb_Lg		01 54 43.2	
EGRO	**El Granado**	**3.68**	**304**	Pn	**Pn**	**01 53 58.5**	**+1.0**
EGRO				Sn	**Sn**	**01 54 40.0**	**-1.2**
EGRO				lVmb_Lg		01 54 41.9	
PBAR	**Barrancos**	**3.79**	**315**	P	**Pn**	**01 53 59.3**	**+0.3**
PBAR				S	**Sn**	**01 54 43.1**	**-0.9**
PBAR	**Barrancos**	**3.79**	**315**	*eS*	**Sn**	**01 54 43.0**	**-0.9**
PBAR				IAML		01 54 46.1	
PBAR				IAML		01 54 47.2	
PBAR				IAML		01 54 48.1	
PBDV	**Barranco-do-Ve**	**3.86**	**298**	P	**Pn**	**01 54 00.0**	**+0.1**
PBDV				S	**Sn**	**01 54 44.9**	**-0.7**
PBDV	**Barranco-do-Ve**	**3.86**	**298**	*eP*	**Pn**	**01 54 00.7**	**+0.8**
PBDV				*eS*	**Sn**	**01 54 45.6**	**+0.1**
PAB	**San Pablo**	**4.05**	**352**	Pn	**Pn**	**01 54 05.4**	**+2.8**
PAB				lVmb_Lg		01 54 52.5	
PCVE	**Castro Verde**	**4.11**	**302**	S	**Sn**	**01 54 51.2**	**-0.6**
EBAD	**Badajoz**	**4.20**	**321**	Pn	**Pn**	**01 54 05.9**	**+1.4**
EBAD				Sn	**Sn**	**01 54 52.6**	**-1.3**
EBAD				lVmb_Lg		01 54 54.3	
CIBOR	**Castaar de Ib**	**4.34**	**342**	Pn	**Pn**	**01 54 08.9**	**+2.4**
CIBOR				Sn	**Sn**	**01 54 57.5**	**+0.1**
PFVI	**Vila Bisbo**	**4.48**	**292**	S	**Sn**	**01 54 59.9**	**-0.9**
PESTR	**Estremoz**	**4.59**	**318**	P	**Pn**	**01 54 12.3**	**+2.3**
PESTR				S	**Sn**	**01 55 02.7**	**-0.8**
PESTR	**Estremoz**	**4.59**	**318**	*eS*	**Sn**	**01 55 03.4**	**-0.1**
PESTR				IAML		01 55 04.8	
PESTR				IAML		01 55 06.4	
PESTR				IAML		01 55 06.7	
EVO	**Evora**	**4.61**	**312**	*eP*	**Pn**	**01 54 11.9**	**+1.7**
EVO				*eS*	**Sn**	**01 55 02.2**	**-1.7**
PARRA	**Arraiolos**	**4.80**	**314**	*eP*	**Pn**	**01 54 15.2**	**+2.3**
PARRA				*eS*	**Sn**	**01 55 07.7**	**-1.2**
PMRV	**Marv??o**	**4.90**	**324**	*eP*	**Pn**	**01 54 17.4**	**+3.2**
PMRV				*eS*	**Sn**	**01 55 10.3**	**-1.0**
PMTG	**Montargil**	**5.08**	**315**	Sn	**Sn**	**01 55 15.7**	**+0.1**
PSARD	**Sardoal**	**5.42**	**320**	*eS*	**Sn**	**01 55 23.7**	**-0.4**
PSARD				IAML		01 55 24.6	
PSARD				IAML		01 55 24.8	
PSARD				IAML		01 55 24.9	

DJA 23 02:30:10.5±0.5, 10˚S±5˚×11˚4E±˚, h10km, M3.7/20, MLv3.7/20, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAGI	**Jajag, Banyuwa**	**1.42**	**19**	P	Pn	02 30 34.9	-1.5
IGBI	**Denpasar**	**1.76**	**56**	P	Pn	02 30 41.3	+0.3
IGBI				AML	AML		
RTBI	**Rangdo, Negare**	**1.84**	**43**	P	Pn	02 30 41.7	-0.5
RTBI				AML	AML		
BLJI	**Banyuglugur**	**2.06**	**358**	P	Pn	02 30 46.2	+1.0
BLJI				AML	AML		
ABJI	**Asem Bagus**	**2.08**	**15**	P	Pn	02 30 46.0	+0.5
ABJI				AML	AML		
SRBI	**Singaraja**	**2.29**	**41**	P	Pn	02 30 48.7	+0.3
SRBI				AML	AML		
KHKI	**Kahang-Kahang**	**2.39**	**53**	P	Pn	02 30 49.6	-0.2
PWJI	**Pagerwojo**	**2.57**	**314**	P	Pn	02 30 51.7	-0.6
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**2.78**	**317**	P	Pn	02 30 54.5	-0.7
SNJI				AML	AML		
SJI	**Sawahan**	**2.81**	**317**	P	Pn	02 30 55.6	+0.1
SJI				AML	AML		
PCJI	**Pacitan**	**2.95**	**303**	P	Pn	02 30 57.2	-0.3
PCJI				AML	AML		
NGJI	**Ngawi**	**3.28**	**318**	P	Pn	02 31 01.9	-0.1
WOJI	**Wonogiri, Jawa**	**3.36**	**306**	P	Pn	02 31 03.4	+0.3
WOJI				AML	AML		
UGM	**Wanagama**	**3.65**	**301**	P	Pn	02 31 07.7	+0.6
PLAI	**Plampang**	**4.16**	**77**	P	Pn	02 31 14.3	+0.2
PLAI				AML	AML		

*JMA **23** 02:32:53.7±0.7, 44˚N±2˚×14˚8E±˚, h0km, MV3.7/27, SE OFF ETOROFU*
*SKHL **23** 02:32:54.3±0.1, 43˚.90N×148˚.60E, h52km±7km, mb4.6/3*

ISC 23 02:32:52.3±3.2, 44˚.01N±0˚.09×148˚.3E±0˚.1, h1km±21km, n15, σt¶45/22, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**1.25**	**347**	*i* P	**Pn**	**02 33 16.8**	**-0.1**
KUR				AMB	AMB	02 33 19.0	
	130nm,0.3s						
KUR				*i* S	**Sg**	**02 33 33.6**	**+1.1**
KUR				A	A	02 33 37.9	
	180nm,0.3s						
KUR				A	A	02 33 37.9	
	220nm,0.3s						
YUK	**Yuzh-Kuril'sk**	**1.73**	**272**	*eP*	**Pb**	**02 33 23.8**	**-1.0**
YUK				AMB	AMB	02 33 25.5	
	170nm,0.3s						
YUK				*i* S	**Sb**	**02 33 45.9**	**-1.0**
YUK				A	A	02 33 48.0	
	370nm,0.3s						
YUK				A	A	02 33 48.0	
	500nm,0.3s						
NEM2	**Nemuro 2**	**1.94**	**251**	*eP*	**Pn**	**02 33 26.6**	**+0.4**
NEM2				*eS*	**Sb**	**02 33 51.2**	**-1.7**
NMR	**Nemuro--Hokkai**	**1.94**	**252**	*i* P	**Pb**	**02 33 27.2**	**-1.3**
NMR				*i* S	**Sn**	**02 33 51.0**	**-0.4**
JRA	**Rausu**	**2.26**	**269**	*eP*	**Pb**	**02 33 32.4**	**-1.5**
JNSB	**Nemuroshibetsu**	**2.36**	**265**	*eP*	**Pn**	**02 33 33.1**	**+1.0**
JNSB				*eS*	**Sn**	**02 34 02.2**	**+0.5**
JNK	**Nakash**	**2.60**	**262**	*eP*	**Pn**	**02 33 36.8**	**+1.4**
JNK				*eS*	**Sn**	**02 34 08.4**	**+0.9**
AKK	**Akkeshi**	**2.68**	**249**	*eP*	**Pn**	**02 33 37.7**	**+1.3**
AKK				*eS*	**Sn**	**02 34 08.9**	**-0.5**
JTKR	**Abashiri--Toko**	**3.14**	**271**	*eP*	**Pn**	**02 33 43.8**	**+1.0**
JAR	**Ashorobuto**	**3.33**	**259**	*eP*	**Pn**	**02 33 47.6**	**+2.0**
JOB	**Onbets**	**3.41**	**253**	*eP*	**Pn**	**02 33 48.0**	**+1.5**
JMP	**Maruseppu**	**3.53**	**272**	*eP*	**Pn**	**02 33 51.2**	**+2.9**
JCH	**Churui**	**3.83**	**250**	P	**Pn**	**02 33 54.3**	**+1.9**
JSE	**Soyaes**	**4.17**	**285**	S	**Sn**	**02 34 46.3**	**+0.1**
JNBK	**Urakawa-nobuka**	**4.38**	**249**	P	**Pn**	**02 34 01.4**	**+1.5**

*IDC **23** 02:33:50.1±5.3, 21˚.36S×179˚.16W, h591km, 36km, mb3.3/3, mbtmp4.3/4, Error ellipse: s-maj=120.4km s-min=33.3km az=140.0*

ISC 23 02:33:50.2±2.6, 21˚.3S±0˚.3×179˚.2W±0˚.4, h600km, n6, σ0¶79/7, mb4.0/3, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.39**	**323**	P	**P**	**02 35 18.4**	**-0.2**
	14nm,0.7s,baz=153,slow=6.7,SNR=12						
STKA	**Stephens Creek**	**36.49**	**245**	P	**P**	**02 40 06.0**	**-0.4**
	2.1nm,0.5s,baz=92,slow=9.9,SNR=4.8						
	2.1nm,0.5s						
ASAR	**Alice Springs**	**43.30**	**258**	P	**P**	**02 41 01.3**	**+0.5**
	4.1nm,0.5s,baz=95,slow=7.9,SNR=52						
ASAR				PcP	**PcP**	**02 42 36.0**	**+0.1**
	0.4nm,0.6s,baz=98,slow=4.0,SNR=2.5						
	4.1nm,0.5s						
WRA	**Warramunga Arr**	**43.43**	**263**	P	**P**	**02 41 01.9**	**0.0**
	2.5nm,0.6s,baz=97,slow=7.7,SNR=45						
	2.5nm,0.6s						
AKASG	**Malin Array Be**	**143.13**	**330**	PKP	**PKPdf**	**02 52 15.8**	**-0.9**
	0.3nm,0.4s,baz=40,slow=2.4,SNR=4.4						
BRTR	**Keskin Array B**	**146.53**	**311**	PKPbc	**PKPbc**	**02 52 26.8**	**+1.1**
	0.7nm,0.9s,baz=58,slow=4.3,SNR=2.8						

*CATAC **23** 02:34:10.9±0.5, 9˚N±3˚×8˚4W±˚, h26km±2km, M3.3/9, MLv3.3/9, Error ellipse: s-maj=7.8km s-min=3.6km az=35.3, confirmed*
*UCR **23** 02:34:11.3±0.7, 9˚.25N×83˚.98W, h50km±3km, MW3.5, Presumed earthquake*
*UPA **23** 02:34:12.0±1.5, 9˚.27N×83˚.97W, h27km±11km, MW3.6, Presumed earthquake*

ISC 23 02:34:12.1±1.8, 9˚24N±0˚.03×84˚.00W±0˚.03, h36km±2km, n92, σ0¶86/124, 3C-3D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QUEP	**Quepos**	**0.25**	**320**	S	**Sn**	**02 34 25.2**	**-1.3**
ZEDO	**Perez Zeledon**	**0.33**	**69**	*eP*	**Pn**	**02 34 20.9**	**+0.4**
PIEC	**Cerro El Cedra**	**0.39**	**6**	*eP*	**Pn**	**02 34 21.1**	**-0.2**
BUS1	**Rivas**	**0.40**	**38**	*eS*	**Sn**	**02 34 28.6**	**0.0**
PITB	**Pirrs, San**	**0.42**	**357**	*eP*	**Pn**	**02 34 21.0**	**-0.7**
EDPE	**Pejibaye, P**	**0.43**	**100**	*eP*	**Pn**	**02 34 21.3**	**-0.4**
SAJE	**San Jernim**	**0.50**	**77**	*eP*	**Pn**	**02 34 22.0**	**-0.8**
LCR2	**La Lucha 2**	**0.50**	**359**	P	**Pn**	**02 34 22.3**	**-0.7**
LCR2	**La Lucha 2**	**0.50**	**359**	*eP*	**Pn**	**02 34 22.2**	**-0.7**
LCR2				*eS*	**Sn**	**02 34 30.3**	**-0.2**
LCR2	**La Lucha 2**	**0.50**	**359**	⇑*iP*	**Pn**	**02 34 22.3**	**-0.7**
LCR2				*i* S	**Sn**	**02 34 30.1**	**-0.4**
ACOS	**Acosta**	**0.58**	**344**	*eP*	**Pn**	**02 34 23.2**	**-0.9**
ACOS				*eS*	**Sn**	**02 34 32.1**	**-0.3**
PANP	**Palmar Norte**	**0.60**	**117**	*eP*	**Pn**	**02 34 23.4**	**-0.8**
REPA	**Paraso**	**0.60**	**12**	*eP*	**Pn**	**02 34 23.5**	**-0.9**
BURE	**Buenos Aires**	**0.66**	**95**	*eS*	**Sn**	**02 34 33.9**	**-0.1**
FIMO	**Fila Mora**	**0.68**	**111**	*eP*	**Pn**	**02 34 25.2**	**-0.3**
LUJA	**Lujan**	**0.69**	**354**	*eP*	**Pn**	**02 34 24.5**	**-1.1**
ECI	**Escuela Centro**	**0.70**	**356**	*eP*	**Pn**	**02 34 25.1**	**-0.6**
SJS3	**Mercedes San J**	**0.70**	**356**	*eP*	**Pn**	**02 34 24.9**	**-0.7**
SJS	**Escuela Geolog**	**0.70**	**356**	*eP*	**Pn**	**02 34 24.9**	**-0.8**
VINA	**Juan Vinas**	**0.70**	**21**	*eP*	**Pn**	**02 34 24.6**	**-1.1**
PCAYA	**Pacayas**	**0.70**	**15**	*eS*	**Sn**	**02 34 35.3**	**-0.2**
SANTA	**Santa Ana**	**0.72**	**345**	*eP*	**Pn**	**02 34 24.7**	**-1.2**
CORON	**Coronado**	**0.73**	**360**	*eP*	**Pn**	**02 34 25.7**	**-0.4**
CORON				*eS*	**Sn**	**02 34 36.9**	**+0.8**
TURIB	**Turrialba**	**0.73**	**25**	*eP*	**Pn**	**02 34 25.0**	**-1.1**
RAFA	**San Farael, Vo**	**0.74**	**14**	*eP*	**Pn**	**02 34 25.7**	**-0.7**
RAFA				*eS*	**Sn**	**02 34 36.5**	**-0.1**
DOMI	**Santo Domingo**	**0.75**	**353**	*eP*	**Pn**	**02 34 26.0**	**-0.3**
DOMI				*eS*	**Sn**	**02 34 37.0**	**+0.6**
BELE	**Belen**	**0.76**	**346**	*eP*	**Pn**	**02 34 25.7**	**-0.7**
BELE				*eS*	**Sn**	**02 34 36.7**	**0.0**
VICA	**Volcano Irazu**	**0.76**	**12**	*eP*	**Pn**	**02 34 25.9**	**-0.8**
HEME	**Heredia, Merce**	**0.77**	**350**	*eP*	**Pn**	**02 34 26.1**	**-0.5**
HDC	**Heredia**	**0.77**	**352**	P	**Pn**	**02 34 26.2**	**-0.4**
HDC				S	**Sn**	**02 34 37.3**	**+0.3**
HDC	**Heredia**	**0.77**	**352**	*eP*	**Pn**	**02 34 25.8**	**-0.8**
VTCV	**VTCV, Calle Va**	**0.79**	**20**	*eP*	**Pn**	**02 34 26.1**	**-0.8**
CVTV	**Tajo**	**0.80**	**18**	*eP*	**Pn**	**02 34 26.6**	**-0.6**
CVTV				*eS*	**Sn**	**02 34 38.1**	**-0.1**
TRB2	**Turrubares**	**0.81**	**327**	*eP*	**Pn**	**02 34 26.4**	**-0.6**
VTR0	**Volcan Turrial**	**0.81**	**17**	*eP*	**Pn**	**02 34 26.7**	**-0.7**
VTR0				*eS*	**Sn**	**02 34 38.4**	**-0.1**
ABRB	**Las Abras (San**	**0.81**	**20**	*eP*	**Pn**	**02 34 26.7**	**-0.6**
ABRB				*eS*	**Sn**	**02 34 38.5**	**+0.2**
CVTR	**Volcan Turrial**	**0.81**	**17**	*eP*	**Pn**	**02 34 26.7**	**-0.8**
ATEO	**Atenas**	**0.83**	**333**	*eP*	**Pn**	**02 34 26.4**	**-0.9**
TCS1	**Tacares**	**0.85**	**340**	P	**Pn**	**02 34 27.3**	**-0.4**
RESJ	**San Isidro (Tu**	**0.86**	**24**	*eP*	**Pn**	**02 34 27.0**	**-0.8**
VBV1	**V. Barva**	**0.88**	**354**	*eP

GMAL	**Guarumal, Vera**	**3.10**	**118**	*i* P		**Pn**		**02 34 59.0**	**+0.5**
BOAB	**BOACO BROADBAN**	**3.59**	**333**	P		**Pn**		**02 35 06.0**	**+0.8**
BCIP	**Isla Barro Col**	**4.11**	**91⇑**	*e*P		**Pn**		**02 35 12.6**	**+0.2**
FRIJ	**El Hiral**	**4.22**	**90**	*e*P		**Pn**		**02 35 13.9**	**+0.1**
GAMB1	**Gamboa**	**4.24**	**91**	*e*P		**Pn**		**02 35 14.2**	**+0.1**

IDC 23 02:51:11.8±2.1,7°37S×120°29E,h0km,mb3.3/2, mbtmp3.2/4,ML3.2/2,MS2.1/1,Error ellipse: s-maj=103.5km s-min=17.6km az=66.0,Flores Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KAPI	**Kappang**	**2.40**	**347**	Pn		Pn	02 51 52.8	+0.4
	2.1nm,0.3s,baz=166,slow=8.3,SNR=8.4							
KAPI				Sn		Sn	02 52 23.4	+0.8
	2.6nm,0.3s,baz=205,slow=3.5,SNR=5.7							
KAPI				LR		LR	02 53 09.6	
	comp=Z,38nm,21.4s,baz=280,slow=49 6.3nm,0.2s							
KAPI				AML		AML		
WRA	**Warramunga Arr**	**18.48**	**134**	P		Pn	02 55 29.6	0.0
	0.1nm,0.3s,baz=304,slow=13,SNR=5.4 0.1nm,0.5s							
WRA				AML		AML		
ASAR	**Alice Springs**	**20.81**	**143**	P		P	02 55 54.7	-0.4
	0.5nm,0.4s,baz=315,slow=8.6,SNR=16 0.5nm,0.4s							
MKAR	**Makanchi Array**	**63.62**	**332**	P		P	03 01 45.2	+0.5
	0.3nm,0.7s,baz=153,slow=7.9,SNR=2.8 0.3nm,0.7s							

IDC 23 03:25:19.4±1.6,54.°62N×162.°51E,h0km,mb3.7/4, mbtmp3.7/5,ML3.3/1,MS2.7/2,Error ellipse: s-maj=43.0km s-min=23.7km az=139.0

KRSC 23 03:25:23.9±1.1,54.°27N×162.°26E,h41km±12km,Ml3.9

ISC 23 03:25:22.0±1.7,54°40N±0.°06×162°40E±0.°04,h15km±12km, n42,σ1ª33/55,mb3.6/4,Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MKZ	**Mys Kozlova**	**0.42**	**292**	*e*P		**Pn**	**03 25 33.9**	**+0.4**
MKZ				*e*S		**Sn**	**03 25 39.9**	**-1.0**
TUMD	**Tumrok D**	**1.41**	**306**	*e*P		**Pb**	**03 25 48.4**	**+0.4**
TUMD				*e*S		**Sb**	**03 26 05.5**	**-0.3**
KZV	**Kizimen**	**1.41**	**301**	*e*P		**Pb**	**03 25 48.7**	**+0.5**
KZV				*e*S		**Sb**	**03 26 06.2**	**+0.2**
TUMR	**Tumrok**	**1.57**	**305**	*e*P		**Pb**	**03 25 51.3**	**+0.4**
TUMR				*e*S		**Sb**	**03 26 10.5**	**-0.1**
KII	**Karymskiy**	**1.77**	**259**	*e*P		**Pn**	**03 25 52.7**	**+0.5**
KII				*e*S		**Sn**	**03 26 12.4**	**-2.1**
KBTR	**Krutoberegovo**	**1.82**	**7**	*e*P		**Pg**	**03 25 57.5**	**+0.5**
KMNR	**Kamenistaya**	**1.84**	**318**	*e*P		**Pg**	**03 25 57.6**	**+0.3**
KMNR				*e*S		**Sg**	**03 26 19.9**	**-1.2**
KBG	**Krutoberegovo**	**1.86**	**5**	*e*P		**Pg**	**03 25 57.8**	**0.0**
KBG				*e*S		**Sg**	**03 26 21.5**	**-0.4**
SPN	**Mys Shipunski**	**1.92**	**228**	*e*P		**Pn**	**03 25 54.7**	**+0.5**
SPN				*e*S		**Sn**	**03 26 15.6**	**-2.5**
KLY	**Klyuchi**	**2.16**	**333**	*e*P		**Pb**	**03 26 01.3**	**+0.6**
NLC	**Nalytchevo**	**2.19**	**237**	*e*P		**Pn**	**03 25 57.4**	**-0.5**
BKI	**Bering**	**2.22**	**67**	*e*P		**Pb**	**03 26 02.1**	**+0.3**
BKI				*e*S		**Sb**	**03 26 28.5**	**-0.6**
BDR	**Baidarnaya**	**2.27**	**343**	*e*P		**Pg**	**03 26 04.0**	**-1.6**
SDLR	**Sedlovina**	**2.37**	**243**	*e*P		**Pn**	**03 26 01.5**	**+1.1**
SDLR				*e*S		**Sn**	**03 26 28.5**	**-0.7**
KRER	**Koryakskii**	**2.42**	**244**	*e*P		**Pn**	**03 26 02.9**	**+1.6**
KRER				*e*S		**Sn**	**03 26 30.4**	**-0.4**
UGLR	**Uglovaya**	**2.43**	**242**	*e*P		**Pn**	**03 26 02.6**	**+1.3**
UGLR				*e*S		**Sn**	**03 26 29.5**	**-1.4**
AVH	**Avacha**	**2.45**	**244**	*e*P		**Pn**	**03 26 03.4**	**+1.9**
AVH				*e*S		**Sn**	**03 26 31.2**	**-0.1**
KRX	**Arik**	**2.45**	**246**	*e*P		**Pn**	**03 26 03.0**	**+1.4**
KRX				*e*S		**Sn**	**03 26 30.4**	**-1.0**
SRDR	**Sredinnyy**	**2.45**	**323**	*e*P		**Pb**	**03 26 05.5**	**-0.4**
KOK	**Koryaka**	**2.49**	**245**	*e*P		**Pn**	**03 26 03.6**	**+1.5**
DALK	**Dalny**	**2.56**	**239**	*e*P		**Pn**	**03 26 04.2**	**+1.2**
DALK				*e*S		**Sn**	**03 26 32.5**	**-1.5**
ESO	**Esso**	**2.61**	**307**	*e*P		**Pn**	**03 26 05.7**	**+2.0**
PET	**Petropavlovsk**	**2.62**	**240**	*e*P		**Pn**	**03 26 05.0**	**+1.3**
PET				*e*S		**Sn**	**03 26 33.1**	**-2.1**
INSR	**Institute**	**2.62**	**241**	*e*P		**Pn**	**03 26 05.0**	**+1.2**
GNL	**Ganaly**	**2.72**	**257**	*e*P		**Pn**	**03 26 07.5**	**+2.2**
KRMR	**Karymshinskiy**	**2.99**	**240**	*e*P		**Pn**	**03 26 10.3**	**+1.4**
KRMR				*e*S		**Sn**	**03 26 43.9**	**-0.6**
PETK	**Petropavlovsk-**	**3.08**	**247**	Pn		**Pn**	**03 26 11.8**	**+1.8**
	17nm,0.3s,baz=63,slow=15,SNR=138							
PETK				Sn		**Sn**	**03 26 47.8**	**+1.2**
	7.4nm,0.3s,baz=80,slow=29,SNR=7.0							
PETK				LR		LR	03 27 30.9	
	comp=Z,57nm,18.5s,baz=44,slow=41 28nm,0.4s							
PETK				AML		AML		
MTVR	**Mutnovka**	**3.17**	**234**	*e*P		**Pn**	**03 26 12.8**	**+1.3**
MTVR				*e*S		**Sn**	**03 26 48.0**	**-1.1**
GRL	**Gorelyy**	**3.18**	**236**	*e*P		**Pn**	**03 26 13.1**	**+1.5**
APC	**Apacha**	**3.45**	**247**	*e*P		**Pn**	**03 26 17.6**	**+2.4**
KDTR	**Khodutka, Kamc**	**3.68**	**227**	*e*P		**Pn**	**03 26 19.1**	**+0.8**
KDTR				*e*S		**Sn**	**03 26 58.2**	**-3.2**
MJAR	**Matsushiro Arr**	**24.43**	**233**	P		**P**	**03 30 41.0**	**+1.0**
	0.6nm,0.6s,baz=38,slow=7.9,SNR=1.6 0.6nm,0.6s							
JNU	**Nakatsue**	**30.74**	**239**	LR		LR	03 44 42.8	
	comp=Z,24nm,19.6s,baz=82,slow=38							
H11N2	**WAKE ISLAND Hy**	**34.78**	**173**	T		T	04 09 26.7	
	baz=355,slow=76,SNR=79							
H11N3	**WAKE ISLAND Hy**	**34.80**	**173**	T		T	04 09 28.1	
	baz=355,slow=76,SNR=65							
H11N1	**WAKE ISLAND Hy**	**34.80**	**173**	T		T	04 09 28.3	
	baz=355,slow=76,SNR=101							
H11S1	**WAKE ISLAND Hy**	**35.98**	**173**	T		T	04 10 55.2	
	baz=352,slow=76,SNR=5.1							
H11S3	**WAKE ISLAND Hy**	**35.99**	**173**	T		T	04 10 56.5	
	baz=352,slow=76,SNR=5.2							
H11S2	**WAKE ISLAND Hy**	**36.00**	**173**	T		T	04 10 59.7	
	baz=352,slow=76,SNR=3.9							
FINES	**FINESS Array B**	**59.45**	**337**	P		**P**	**03 35 21.9**	**-1.7**
	2.1nm,0.8s,baz=34,slow=7.1,SNR=4.7 2.1nm,0.8s							
WRA	**Warramunga Arr**	**77.86**	**207**	P		**P**	**03 37 19.4**	**+0.6**
	0.3nm,0.6s,baz=15,slow=5.7,SNR=2.0 0.3nm,0.6s							
ASAR	**Alice Springs**	**81.53**	**206**	P		**P**	**03 37 40.1**	**+1.5**
	0.5nm,0.8s,baz=25,slow=5.1,SNR=4.4 0.5nm,0.8s							

SJA 23 03:30:29.4±0.5,28.°59S×63.°03W,h579km±4km,ML4.7, MW4.5

VAO 23 03:30:34.1±0.3,28.°48S×63.°37W,h569km±3km,mb4.7, Presumed earthquake

IDC 23 03:30:35.2±0.4,28.°44S×63.°24W,h568km±4km,mb3.8/20, mbtmp4.7/26,Error ellipse: s-maj=10.7km s-min=8.3km az=86.0

NEIC 23 03:30:35.2±2.0,28.°52S±0.°09×63.°3W±0.°1,h567km±5km, mb4.6/81,Mww4.9/12,Error ellipse: s-maj=15.8km s-min=12.6km az=89.0

GFZ 23 03:30:35.0±0.2,29.°S±2.°×6.°3W±.°,h582km±6km,M4.4/38, mb4.7/38

ISC 23 03:30:34.9±0.3,28°44S±0.°04×63°29W±0.°05,h569km±3km, h569km:pP-P,n336,σ0§99/373,mb4.5/74,3C-12D, Santiago del Estero Province

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
CYA	**Choya**	**2.21**	**269**	*i* P		**P**	**03 31 46.0**	**-1.3**
CYA				*i* S		**S**	**03 32 42.7**	**-3.6**
CYA				IAML			03 32 43.5	
	comp=Z,82nm,0.7s							
AHML	**Horco Molle**	**2.45**	**312**	*i* P		P	03 31 42.0	-6.6
AHML				IAML			03 32 41.0	
	comp=Z,98nm,1.0s							
TCA	**Tanti**	**3.10**	**201**	*i* P		**P**	**03 31 49.7**	**-2.4**
TCA				IAML			03 32 54.1	
	comp=Z,51nm,0.6s							
FSA	**Cafayete**	**3.33**	**313**	*i* P		**P**	**03 31 54.1**	**+0.2**
FSA				*i* S		**S**	**03 32 56.2**	**-1.8**
ACLC	**CERRO LA CRUZ**	**3.36**	**252**	*i* P		**P**	**03 31 53.5**	**-0.4**
ACLC				*i* S		**S**	**03 32 55.5**	**-2.7**
ACLC				IAML			03 32 58.1	
	comp=Z,356nm,0.5s							
TINO	**Tinogasta**	**3.79**	**275**	*i* P		**P**	**03 31 57.3**	**+0.5**
TINO				*i* S		**S**	**03 33 02.2**	**-1.3**
TINO				IAML			03 33 10.4	
	comp=Z,627nm,0.9s							
SLA	**San Lorenzo**	**4.20**	**331**	*i* P		**P**	**03 32 00.9**	**+1.0**
SLA				*i* S		**S**	**03 33 08.2**	**-0.8**
SLA				IAML			03 33 13.5	
	comp=Z,18nm,1.1s							
VCA	**Vinchina**	**4.33**	**265**	*i* P		**P**	**03 32 01.1**	**+0.4**
VCA				*i* S		**S**	**03 33 09.3**	**-1.5**
VCA				IAML			03 33 13.7	
	comp=Z,1μm,0.7s							
SALTA		**5.01**	**326**	*i* P		**P**	**03 32 07.3**	**+0.6**
SALTA				IAML			03 33 34.8	
	comp=Z,25nm,1.0s							
SALTA		**5.01**	**326**	P		**P**	**03 32 07.1**	**+0.4**
	comp=Z,20nm,1.2s							
CFA	**Coronel Fontan**	**5.32**	**232**	P		**P**	**03 32 08.9**	**+0.4**
	comp=Z,328nm,0.4s,baz=178,slow=8.9,SNR=3534							
CFA				S		**S**	**03 33 24.0**	**-1.1**
	comp=Z,246nm,0.7s,baz=295,slow=19,SNR=35							
CFA	**Coronel Fontan**	**5.32**	**232**	*i* P		**P**	**03 32 08.9**	**+0.4**
CFA				*i* S		**S**	**03 33 23.1**	**-2.0**
CFA				IAML			03 33 24.6	
	comp=Z,360nm,0.9s							
RTLL	**Cerro Villicun**	**5.34**	**236**	*i* P		**P**	**03 32 09.3**	**+0.6**
RTLL				*i* S		**S**	**03 33 23.4**	**-2.0**
RTLL				IAML			03 33 26.1	
	comp=Z,743nm,0.8s							
AC02	**Maricunga**	**5.42**	**286**	P		**P**	**03 32 11.4**	**+1.4**
AC02	**Maricunga**	**5.42**	**286**	P		**P**	**03 32 11.7**	**+1.7**
	comp=Z,163nm,2.9s							
PSAL	**Palomas, Salto**	**5.60**	**119**	*e*P		**P**	**03 32 11.4**	**+0.7**
PSAL				*e*S		**S**	**03 33 29.2**	**-0.1**
ZON	**Zonda**	**5.61**	**235**	P		**P**	**03 32 11.2**	**+0.2**
ZON	**Zonda**	**5.61**	**235**	P		**P**	**03 32 11.6**	**+0.6**
	comp=E,418nm,1.0s							
CPUP	**Villa Florida**	**5.70**	**70**	P		**P**	**03 32 12.7**	**+0.9**
	comp=E,77nm,0.4s,baz=253,slow=10,SNR=832							
CPUP				S		**S**	**03 33 29.3**	**-1.7**
	comp=E,11nm,0.5s,baz=160,slow=19,SNR=0.8							
CPUP	**Villa Florida**	**5.70**	**70**	P		**P**	**03 32 12.2**	**+0.4**
ITQB	**Itaqui**	**5.96**	**103**	*e*P		**P**	**03 32 14.1**	**0.0**
CO01	**Juntas del Tor**	**6.14**	**254**	P		**P**	**03 32 17.7**	**+1.7**
CO01	**Juntas del Tor**	**6.14**	**254**	P		**P**	**03 32 17.9**	**+2.0**
	comp=Z,535nm,0.7s							
AC05	**El Transito**	**6.15**	**265**	P		**P**	**03 32 16.8**	**+0.9**
AC05	**El Transito**	**6.15**	**265**	P		**P**	**03 32 17.2**	**+1.3**
	comp=Z,335nm,0.7s							
GO03	**Copiapo**	**6.20**	**276**	P		**P**	**03 32 16.6**	**+0.3**
GO03	**Copiapo**	**6.20**	**276**	P		**P**	**03 32 17.0**	**+0.7**
	comp=Z,160nm,1.0s							
AC06	**Mina Casimiro**	**6.34**	**278**			**P**	**03 32 17.8**	**+0.2**
LCO	**Las Campanas**	**6.53**	**263**			**P**	**03 32 20.0**	**+0.5**
GO04	**Tololo Observa**	**6.78**	**253**	P		**P**	**03 32 22.1**	**+0.3**
GO04	**Tololo Observa**	**6.78**	**253**	P		**P**	**03 32 22.3**	**+0.5**
	comp=Z,455nm,0.9s							
AC04	**Llanos de Chal**	**6.87**	**270**	P		**P**	**03 32 21.8**	**-0.6**
CO03	**El Pedregal**	**6.87**	**248**	P		**P**	**03 32 22.3**	**-0.1**
CO03	**El Pedregal**	**6.87**	**248**	P		**P**	**03 32 22.9**	**+0.5**
	comp=Z,316nm,0.8s							
AC01	**Pan de Azucar**	**6.89**	**288**	P		**P**	**03 32 22.9**	**+0.2**
AC01	**Pan de Azucar**	**6.89**	**288**	P		**P**	**03 32 23.6**	**+0.9**
	comp=Z,83nm,0.9s							
AF01	**San Pedro de A**	**7.02**	**320**			**P**	**03 32 25.2**	**+0.9**
CO05	**La Serena**	**7.10**	**256**	P		**P**	**03 32 24.1**	**-0.4**
CO02	**Combarbal**	**7.24**	**246**	P		**P**	**03 32 26.0**	**0.0**
CO02	**Combarbal**	**7.24**	**246**	P		**P**	**03 32 26.3**	**+0.3**
	comp=Z,371nm,1.0s							
SJPY	**San Joaquin**	**7.28**	**64**	*e*P		**P**	**03 32 25.7**	**-0.7**
ANCO	**Parque Anchore**	**7.38**	**143**	*e*P		**P**	**03 32 26.6**	**-0.4**
PB14	**IPOC Station P**	**7.42**	**299**	P		**P**	**03 32 28.9**	**+0.9**
	comp=Z,124nm,0.9s							
CO04	**Los Peladeros**	**7.55**	**240**	P		**P**	**03 32 29.2**	**+0.1**
	comp=Z,230nm,0.7s							
VA03	**San Esteban**	**7.60**	**234**	P		**P**	**03 32 30.1**	**+0.7**
	comp=Z,397nm,0.7s							
CO06	**Fray Jorge**	**7.60**	**251**			**P**	**03 32 28.9**	**-0.4**
MT08	**Botoma Ro**	**7.63**	**228**	P		**P**	**03 32 30.1**	**+0.3**
PEL	**Peldehue**	**7.90**	**232**	P		**P**	**03 32 31.6**	**-0.6**
PEL	**Peldehue**	**7.90**	**232**	P		**P**	**03 32 32.4**	**+0.2**
	comp=Z,151nm,1.0s							
MT16	**CCHEN**	**7.96**	**230**	P		**P**	**03 32 32.9**	**+0.2**
MT13	**San Alfonso**	**7.99**	**227**	P		**P**	**03 32 33.6**	**+0.5**
PB06	**IPOC Station P**	**8.05**	**314**	P		**P**	**03 32 34.6**	**+0.6**
PB06	**IPOC Station P**	**8.05**	**314**	P		**P**	**03 32 35.4**	**+1.4**
	comp=Z,156nm,0.9s							
MT05	**Renca**	**8.08**	**231**	P		**P**	**03 32 33.9**	**0.0**
PB10	**IPOC Station P**	**8.17**	**305**	P		**P**	**03 32 35.8**	**+0.8**
	comp=Z,166nm,0.8s							
BO04	**La Junta**	**8.36**	**227**	P		**P**	**03 32 36.6**	**0.0**
PB05	**IPOC Station P**	**8.36**	**310**	P		**P**	**03 32 37.5**	**+0.5**
	comp=Z,150nm,0.8s							
MT09	**Talagante**	**8.47**	**229**	P		**P**	**03 32 37.2**	**-0.7**
PB09	**IPOC Station P**	**8.54**	**320**	P		**P**	**03 32 39.8**	**+1.0**
PB09	**IPOC Station P**	**8.54**	**320**	P		**P**	**03 32 40.6**	**+1.9**
	comp=Z,91nm,0.8s							
PB03	**IPOC Station P**	**8.64**	**316**	P		**P**	**03 32 40.4**	**+0.6**
	comp=Z,95nm,0.7s							
CPSB	**Cacapava Do Su**	**8.81**	**105**	P		**P**	**03 32 40.9**	**-0.3**
CPSB	**Cacapava Do Su**	**8.81**	**105**	P		**P**	**03 32 41.2**	**+0.1**
	comp=Z,561nm,1.1s							
CPSB	**Cacapava Do Su**	**8.81**	**105**	*e*P		**P**	**03 32 41.2**	**+0.1**
VA05	**Santo Domingo**	**8.83**	**232**	P		**P**	**03 32 41.6**	**+0.4**
	comp=Z,78nm,0.9s							
BO01	**Tunca**	**8.92**	**226**	P		**P**	**03 32 41.9**	**-0.2**
	comp=Z,113nm,1.1s							
PB07	**IPOC Station P**	**8.97**	**317**	P		**P**	**03 32 43.6**	**+0.6**
	comp=Z,106nm,0.8s							
BO02	**Sierra Bellavi**	**8.99**	**223**	P		**P**	**03 32 42.9**	**0.0**
	comp=Z,198nm,0.8s							
PB02	**IPOC Station P**	**9.29**	**318**	P		**P**	**03 32 46.7**	**+0.6**
	comp=Z,65nm,0.5s							
PB08	**IPOC Station P**	**9.84**	**326**	P		**P**	**03 32 52.4**	**+0.4**
PB08	**IPOC Station P**	**9.84**	**326**	P		**P**	**03 32 53.7**	**+1.6**
	comp=Z,118nm,0.6s							
COIM	**Forte Coimbra**	**9.87**	**32**	*e*P		**P**	**03 32 52.9**	**+1.1**
BDQN	**Bodoquena, MS**	**9.94**	**38**	*e*P		**P**	**03 32 53.3**	**+0.7**
ITAB	**Concordia**	**9.95**	**86**			**P**	**03 32 52.5**	**-0.2**
ITAB	**Concordia**	**9.95**	**86**	P		**P**	**03 32 52.7**	**0.0**
	comp=Z,368nm,1.2s							
ITAB	**Concordia**	**9.95**	**86**	*e*P		**P**	**03 32 52.6**	**0.0**
ML02	**Paniavida**	**10.04**	**221**	P		**P**	**03 32 52.9**	**-0.5**
	comp=Z,105nm,0.7s							
TA01	**Diego Aracena**	**10.04**	**320**			**P**	**03 32 54.0**	**+0.4**
GO01	**Chusmiza**	**10.26**	**327**	P		**P**	**03 32 57.6**	**+1.2**
	comp=Z,112nm,0.8s							
PB11	**IPOC Station P**	**10.41**	**325**	P		**P**	**03 32 58.5**	**+0.9**
	comp=Z,113nm,0.9s							
AQDB	**Aquidauana**	**10.52**	**43**			**P**	**03 32 59.0**	**+0.5**
AQDB	**Aquidauana**	**10.52**	**43**	P		**P**	**03 32 59.1**	**+0.7**
	comp=Z,101nm,1.1s							
AQDB	**Aquidauana**	**10.52**	**43**	*e*P		**P**	**03 32 58.6**	**+0.2**
BI02	**San Fabin de**	**10.61**	**217**	P		**P**	**03 32 58.8**	**-0.4**
	comp=Z,400nm,0.7s							
PTGB	**Pitanga**	**10.71**	**72**	*e*P		**P**	**03 33 00.5**	**+0.1**
PSGCX	**Pisagua**	**10.79**	**323**	P		**P**	**03 33 01.6**	**+0.3**
	comp=Z,44nm,1.2s							
CNLB	**Canela**	**10.94**	**98**	P		**P**	**03 33 02.4**	**-0.3**
	comp=Z,208nm,0.8s							
CNLB	**Canela**	**10.94**	**98**	*e*P		**P**	**03 33 02.1**	**-0.6**
BBSD	**Serra de San D**	**11.47**	**13**	*e*P		**P**	**03 33 07.5**	**-0.8**
PB16	**IPOC Station P**	**11.56**	**329**	P		**P**	**03 33 11.3**	**+1.5**
	comp=Z,14nm,0.5s							
PB12	**IPOC Station P**	**11.72**	**325**			**P**	**03 33 11.0**	**+0.1**
LDASE	**Londrina, Braz**	**12.05**	**68**	*e*P		**P**	**03 33 13.2**	**-0.9**
PB18	**Visviri**	**12.21**	**331**	P		**P**	**03 33 18.8**	**+2.4**
	comp=Z,26nm,0.6s							
SIV	**San Ignacio**	**12.56**	**10**	P		**P**	**03 33 19.6**	**+0.1**
	comp=Z,26nm,0.9s,baz=195,slow=8.7,SNR=79							
SIV				S		**S**	**03 35 34.6**	**-0.2**
	comp=Z,0.8nm,0.3s,baz=281,slow=9.5,SNR=3.2							
PCMB	**Pacaembu**	**12.85**	**61**	P		**P**	**03 33 22.1**	**-0.2**
	comp=Z,52nm,0.4s							
PCMB	**Pacaembu**	**12.85**	**61**	*e*P		**P**	**03 33 21.3**	**-1.0**
LPAZ	**La Paz**	**12.89**	**339**	P		**P**	**03 33 23.3**	**-0.2**
	comp=Z,8.0nm,0.3s,baz=137,slow=4.7,SNR=37							
LPAZ				S		**S**	**03 35 40.3**	**-1.8**
	comp=Z,5.2nm,0.7s,baz=276,slow=25,SNR=8.6							
LPAZ				ScP		**ScP**	**03 40 49.2**	**+0.2**
	comp=Z,2.0nm,0.9s,baz=143,slow=6.9,SNR=4.3							
LPAZ	**La Paz**		**12.89**	**339**	P	**P**	**03 33 24.1**	**+0.6**
	comp=Z,13nm,0.7s							
LPAZ	**La Paz**		**12.89**	**339**	*e*P	**P**	**03 33 23.4**	**-0.1**
GO06	**Curarrehue**		**13.01**	**209**		**P**	**03 33 22.2**	**-1.7**
	comp=Z,53nm,0.8s							
PP1B	**Ponte de Pedra**		**13.27**	**37**	*e*P	**P**	**03 33 26.6**	**-0.2**
PTLB	**Pontes e Lacer**		**13.49**	**17**		**P**	**03 33 28.5**	**-0.5**
PTLB	**Pontes e Lacer**		**13.49**	**17**	*e*P	**P**	**03 33 28.4**	**-0.6**
PLCA	**Paso Flores**		**13.63**	**204**	P	**P**	**03 33 29.9**	**-0.3**
	comp=Z,24nm,0.6s,baz=22,slow=10,SNR=80							
PLCA				S		**S**	**03 35 52.6**	**-1.7**
	comp=Z,8.9nm,1.0s,baz=267,slow=23,SNR=3.5							
PLCA				ScP		**ScP**	**03 40 49.0**	**-0.2**
	comp=Z,5.0nm,1.0s,baz=87,slow=2.2,SNR=4.4							
PLCA	**Paso Flores**		**13.63**	**204**		**P**	**03 33 28.6**	**-1.7**
PLCA	**Paso Flores**		**13.63**	**204**	P	**P**	**03 33 30.1**	**-0.2**
	comp=Z,43nm,0.8s							
PLCA	**Paso Flores**		**13.63**	**204**	*e*P	**P**	**03 33 28.5**	**-1.7**
VA04	**Juan Fernndez**		**14.29**	**245**		**P**	**03 33 36.2**	**-0.7**
VA04	**Juan Fernndez**		**14.29**	**245**	P	**P**	**03 33 36.4**	**-0.5**
	comp=Z,280nm,0.9s							
SALV	**Santo Antonio**		**14.32**	**31**	*e*P	**P**	**03 33 36.2**	**-1.2**
LL03	**Petrohue**		**14.70**	**208**	P	**P**	**03 33 37.8**	**-3.0**
	comp=Z,68nm,0.7s							
PET01	**Itanhaem-SP**		**14.94**	**78**	*e*P	**P**	**03 33 42.0**	**-1.4**
SPB	**Sao Paulo**		**15.05**	**75**	P	**P**	**03 33 43.0**	**-1.5**
	comp=Z,50nm,0.9s							
SPB	**Sao Paulo**		**15.05**	**75**	*e*P	**P**	**03 33 43.1**	**-1.4**
BB19B	**Bebedouro**		**15.28**	**65**	*e*P	**P**	**03 33 45.9**	**-1.0**
VAO	**Valinhos**		**15.67**	**73**		**P**	**03 33 50.4**	**-0.3**
VAO	**Valinhos**		**15.67**	**73**	*e*P	**P**	**03 33 50.2**	**-0.5**
VILB	**Vilhena**		**15.68**	**11**		**P**	**03 33 49.6**	**-1.3**
VILB					IAmb	IAmb	03 33 52.3	
	comp=Z,41nm,1.4s							
VILB	**Vilhena**		**15.68**	**11**	*e*P	**P**	**03 33 49.5**	**-1.4**
LL02	**Futaleuf**		**16.26**	**203**		**P**	**03 33 54.4**	**-1.5**
LL02	**Futaleuf**		**16.26**	**203**	P	**P**	**03 33 54.6**	**-1.2**
	comp=Z,43nm,1.1s							
ARAG	**Araguaiana, MT**		**16.53**	**42**	*e*P	**P**	**03 33 57.8**	**-0.9**
PARB	**Paraibuna**		**16.69**	**76**	P	**P**	**03 34 00.1**	**0.0**
	comp=Z,186nm,1.1s							
PARB	**Paraibuna**		**16.69**	**76**	*e*P	**P**	**03 33 60.0**	**-0.2**
GO07	**Milladeo Hill,**		**16.87**	**207**	P	**P**	**03 33 59.1**	**-2.2**
GO07	**Milladeo Hill,**		**16.87**	**207**	P	**P**	**03 33 59.6**	**-1.8**
	comp=Z,300nm,0.5s							
IPMB	**Ipameri, GO**		**17.31**	**56**	*e*P	**P**	**03 34 05.0**	**-0.9**
CANS	**Sao Roque de M**		**17.39**	**66**	*e*P	**P**	**03 34 07.1**	**+0.5**
PDRB	**Porto dos Gac**		**17.83**	**21**	*e*P	**P**	**03 34 10.4**	**-0.2**
COYC	**Coyhaique**		**18.46**	**200**		**P**	**03 34 15.2**	**-0.7**
COYC	**Coyhaique**		**18.46**	**200**	P	**P**	**03 34 16.1**	**+0.3**
	comp=Z,58nm,1.0s							
CLDB	**Colider**		**18.84**	**23**	P	**P**	**03 34 19.8**	**+0.1**
	comp=Z,57nm,1.2s							
CLDB	**Colider**		**18.84**	**23**	*e*P	**P**	**03 34 19.5**	**-0.2**
BDFB	**Brasilia**		**19.02**	**51**	P	**P**	**03 34 21.4**	**-0.1**
	comp=Z,20nm,0.3s,baz=217,slow=6.7,SNR=58							
BDFB					S	**S**	**03 37 21.6**	**-3.7**
	comp=Z,1.1nm,0.3s,baz=6.3,slow=20,SNR=1.9							
BDFB	**Brasilia**		**19.02**	**51**		**P**	**03 34 21.9**	**+0.4**
DIAM	**Diamantina, MG**		**20.62**	**65**	*e*P	**P**	**03 34 36.4**	**+0.4**
GO08	**Villa O'Higgin**		**21.24**	**197**	P	**P**	**03 34 40.8**	**-0.2**
GO08					IAmb	IAmb	03 35 00.9	
	comp=Z,18nm,1.1s							
SJMB	**Sao Joao De Ma**		**22.43**	**69**	*e*P	**P**	**03 34 52.1**	**+0.1**
CZSB	**Cruzeiro do Su**		**22.44**	**335**		**P**	**03 34 52.4**	**+0.2**
CZSB					IAmb	IAmb	03 34 52.7	
	comp

comp=Z,2.5nm,0.9s
VNA1 Neumayer--Stat 52.05 160 ⇓P **P** 03 38 52.6 +0.7
comp=Z,12nm,0.8s
VNA1 PcP **PcP** 03 39 54.9 +0.6
comp=Z,9.6nm,1.1s
VNA1 pP **pP** 03 40 39.0 +0.5
comp=Z,12nm,1.0s
VNA2 Neumayer--Watz 52.43 160 ⇓P **P** 03 38 54.7 0.0
comp=Z,13nm,0.6s,baz=291,slow=8.3
VNA2 ⇓PcP **PcP** 03 39 55.7 -0.1
comp=Z,1.6nm,0.5s,baz=302,slow=2.4
VNA2 pP **pP** 03 40 41.8 +0.3
comp=Z,9.3nm,0.7s,baz=297,slow=9.8
CAIB Caibarien 52.99 341 P **P** 03 38 59.9 +0.6
CAIB IAmb IAmb 03 40 27.0
comp=Z,33nm,1.3s
SNAA Sanae 54.06 160 ⇓P **P** 03 39 06.3 0.0
comp=Z,105nm,0.6s
SNAA ⇓pP **pP** 03 40 54.7 +0.6
comp=Z,130nm,0.9s
SNAA Sanae 54.06 160 P **P** 03 39 06.0 -0.4
comp=Z,4.3nm,0.7s,baz=291,slow=6.7,SNR=10
SNAA PcP **PcP** 03 40 02.0 -0.1
comp=Z,2.4nm,0.7s,baz=269,slow=4.4,SNR=5.0
SNAA pP **pP** 03 40 54.4 +0.3
comp=Z,11nm,1.1s,baz=289,slow=7.3,SNR=6.8
comp=Z,4.3nm,0.7s
SNAA Sanae 54.06 160 P 03 39 06.2 -0.2
TEIG Tepich 54.07 331 P **P** 03 39 07.0 0.0
TEIG IAmb IAmb 03 39 37.6
comp=Z,43nm,1.2s
TROLL Troll, Antarti 55.78 160 ⇓P **P** 03 39 18.6 +0.2
comp=Z,288nm,0.4s
TROLL ⇓PcP **PcP** 03 40 09.2 +0.2
comp=Z,338nm,0.8s
TROLL ⇑pP **pP** 03 41 07.2 +0.1
comp=Z,282nm,1.1s
TROLL ⇑ScP **ScP** 03 43 13.3 -0.4
comp=Z,154nm,0.8s
QSPA South Pole Qui 61.78 180 P **P** 03 39 59.5 +0.8
comp=Z,6.1nm,0.6s,baz=204,slow=0.5,SNR=22
QSPA pP **pP** 03 41 51.5 +0.7
comp=Z,2.0nm,0.7s,baz=51,slow=2.0,SNR=3.8
comp=Z,6.1nm,0.6s
QSPA South Pole Qui 61.78 180 P P 03 39 58.7 0.0
ELIB Princess Elisa 62.21 159 *dP* **P** 03 40 01.5 +0.1
comp=Z,10nm,0.7s
ELIB *d*pP **pP** 03 41 53.0 -0.6
PAULI Pauline 65.31 343 IAmb IAmb 03 40 23.1
comp=Z,17nm,1.0s
V55A Taylorsville 66.14 344 P P 03 40 27.4 +0.8
833A Chaparral WMA, 66.19 325 P P 03 40 27.4 +0.4
833A IAmb IAmb 03 40 28.9
comp=Z,9.6nm,0.8s
DBIC Dimbokro 66.22 68 P **P** 03 40 27.2 -0.3
comp=Z,17nm,0.3s,baz=227,slow=4.3,SNR=155
DBIC pP **pP** 03 42 22.5 +0.7
comp=Z,4.4nm,0.9s,baz=208,slow=6.8,SNR=2.8
comp=Z,17nm,0.3s
DBIC Dimbokro 66.22 68 P P 03 40 26.6 -0.8
DBIC Dimbokro 66.22 68 P **P** 03 40 27.2 -0.3
DBIC pP **pP** 03 42 22.9 +1.0
V53A Saluda 66.37 343 P **P** 03 40 27.8 -0.2
V53A IAmb IAmb 03 40 29.8
comp=Z,65nm,1.9s
TKL Tuckaleechee C 66.62 342 P **P** 03 40 29.0 -0.5
comp=Z,6.5nm,0.8s,baz=157,slow=7.1,SNR=7.9
comp=Z,6.5nm,0.8s
TKL Tuckaleechee C 66.62 342 IAmb IAmb 03 40 30.2
comp=Z,12nm,1.0s
CPCT Cooper Cave 66.63 341 P **P** 03 40 28.8 -0.8
CPCT IAmb IAmb 03 40 30.5
comp=Z,13nm,1.0s
HNDO Hondo 67.13 326 IAmb IAmb 03 40 34.6
comp=Z,11nm,1.0s
WLAR White Oak Lake 67.95 333 IAmb IAmb 03 40 39.9
comp=Z,31nm,0.9s
WVT Waverly 68.26 339 P **P** 03 40 38.8 -0.7
WVT IAmb IAmb 03 40 39.8
comp=Z,11nm,0.8s
WVT Waverly 68.26 339 P **P** 03 40 38.8 -0.7
WVT pP **pP** 03 42 37.7 +2.7
BRDY Brady 68.45 328 P **P** 03 40 40.8 0.0
OZNA Ozona 69.18 326 IAmb IAmb 03 40 54.1
comp=Z,17nm,1.6s
TXAR Lajitas Array 69.22 323 P **P** 03 40 45.7 +0.1
comp=Z,0.7nm,0.5s,baz=152,slow=7.4,SNR=29
comp=Z,0.7nm,0.5s
TXAR Lajitas Array 69.22 323 P P 03 40 45.3 -0.2
SSPA Standing Stone 70.05 348 P P 03 40 51.1 +1.0
SUR Sutherland 70.79 117 P P 03 40 55.7 +0.7
VNDA Vanda 70.89 189 P **P** 03 40 56.0 +1.4
comp=Z,1.7nm,0.9s,baz=114,slow=4.8,SNR=4.3
comp=Z,1.7nm,0.9s
VNDA Vanda 70.89 189 P P 03 40 56.1 +1.5
MSTX Muleshoe 72.46 326 IAmb IAmb 03 41 06.5
comp=Z,15nm,1.1s
P40A Paris 72.74 337 IAmb IAmb 03 41 06.6
comp=Z,13nm,1.0s
TSUM Tsumeb 73.33 103 P P 03 41 09.5 -0.4
TSUM IAmb IAmb 03 41 11.1
comp=Z,11nm,0.9s
TSUM Tsumeb 73.33 103 P **P** 03 41 09.8 -0.1
TSUM PcP **PcP** 03 41 22.0 -0.7
TSUM pP **pP** 03 43 08.8 +1.3
KOOLE Kule 73.97 108 P P 03 41 13.3 -0.2
SADO Sadowa 74.28 348 P **P** 03 41 14.5 +0.1
comp=Z,4.2nm,0.3s,baz=184,slow=6.0,SNR=8.1
comp=Z,4.2nm,0.3s
SADO Sadowa 74.28 348 P P 03 41 14.6 +0.1
SADO IAmb IAmb 03 41 15.2
comp=Z,17nm,1.0s
LKGWB Lokgwabe 74.36 109 P 03 41 18.2 +2.5
ALQ Albuquerque 75.08 324 IAmb IAmb 03 41 21.6
comp=Z,2.5nm,0.8s
ANMO Albuquerque 75.08 324 P **P** 03 41 20.1 +0.7
comp=Z,2.0nm,0.8s,baz=154,slow=6.4,SNR=8.7
comp=Z,2.0nm,0.8s
ANMO Albuquerque 75.08 324 P P 03 41 20.4 +0.9
PMAR Madeira 75.09 39 *eP* **P** 03 41 21.7 +2.2
TORD Torodi Ar. Bea 75.19 66 P **P** 03 41 19.8 -0.4
comp=Z,23nm,0.7s,baz=259,slow=4.6,SNR=125
TORD pP **pP** 03 43 19.4 +0.8
comp=Z,2.7nm,1.0s,baz=235,slow=5.2,SNR=4.9
comp=Z,23nm,0.7s
TORD Torodi Ar. Bea 75.19 66 P P 03 41 19.6 -0.6
BOSA Boshof 75.80 115 P **P** 03 41 23.3 -0.3
comp=Z,18nm,0.8s,baz=263,slow=4.2,SNR=35
BOSA pP **pP** 03 43 22.6 +0.4
comp=Z,3.0nm,0.9s,baz=108,slow=2.7,SNR=3.6
comp=Z,18nm,0.8s
BOSA Boshof 75.80 115 IAmb IAmb 03 41 24.1
comp=Z,20nm,0.8s
BOSA Boshof 75.80 115 P P 03 41 23.1 -0.5
BOSA PcP **PcP** 03 41 33.2 0.0
BOSA pP **pP** 03 43 22.8 +0.5
MAW Mawson 76.20 161 P **P** 03 41 25.1 +0.3
comp=Z,8.3nm,0.9s,baz=216,slow=5.8,SNR=12
MAW pP **pP** 03 43 23.4 -0.3
comp=Z,2.7nm,0.8s,baz=279,slow=13,SNR=3.8
comp=Z,8.3nm,0.9s
MAW Mawson 76.20 161 P P 03 41 25.2 +0.3
BGNE Belgrade 76.62 334 IAmb IAmb 03 41 28.8
comp=Z,28nm,0.9s
LBTB Lobatse 77.60 112 IAmb IAmb 03 41 34.1
comp=Z,21nm,0.8s
LBTB Lobatse 77.60 112 P P 03 41 33.1 -0.4
LBTB pP **pP** 03 43 33.8 +1.0
ECSD EROS Data Cent 78.05 336 P P 03 41 35.0 -0.3
PV07 Paradox Valley 78.89 325 P P 03 41 41.6 +1.5
PDAR Pinedale Array 82.66 328 P **P** 03 41 59.9 +0.4
comp=Z,1.3nm,0.5s,baz=127,slow=8.2,SNR=20
comp=Z,1.3nm,0.5s
PDAR Pinedale Array 82.66 328 P P 03 41 59.5 +0.1
HWUT Hardware Ranch 82.75 326 IAmb IAmb 03 42 01.8
comp=Z,21nm,1.6s
SCHQ Schefferville 82.99 358 P **P** 03 42 00.8 +0.3
comp=Z,8.2nm,0.8s,baz=264,slow=9.4,SNR=7.0
comp=Z,8.2nm,0.8s
SCHQ Schefferville 82.99 358 IAmb IAmb 03 42 56.8
comp=Z,39nm,1.4s
PTEO Sao Teotonio 83.20 41 *eP* **P** 03 42 03.9 +1.9
PBDV Barranco-do-Ve 83.46 41 *eP* **P** 03 42 04.5 +1.2
PBDV IAmb IAmb 03 42 28.1
comp=Z,112nm,1.6s
ULM Lac du Bonnet 83.51 340 P **P** 03 42 03.4 +0.2
comp=Z,6.6nm,1.0s,baz=229,slow=1.3,SNR=6.2
comp=Z,6.6nm,1.0s
PCVE Castro Verde 83.66 41 *eP* **P** 03 42 05.0 +0.8
MESJ Messejana 83.70 41 *eP* **P** 03 42 05.1 +0.7
MESJ IAmb IAmb 03 42 05.9
comp=Z,4.6nm,0.9s
MESJ Messejana 83.70 41 *eP* **P** 03 42 05.3 +0.9
PLOUS Minas do Lousa 83.71 41 *eP* **P** 03 42 04.8 +0.4
ELK Elko 84.01 323 P **P** 03 42 07.3 +1.1
comp=Z,3.9nm,0.8s,baz=160,slow=2.2,SNR=20
comp=Z,3.9nm,0.8s
PBEJ Beja 84.03 41 *eP* **P** 03 42 06.6 +0.5
NVAR Mina Array Bea 84.07 320 P **P** 03 42 07.1 +0.5
comp=Z,1.2nm,0.8s,baz=153,slow=5.6,SNR=5.6
comp=Z,1.2nm,0.8s
MOE Montemor 84.09 40 *eP* **P** 03 42 07.0 +0.7
MOE IAmb IAmb 03 42 08.1
comp=Z,35nm,1.5s
EVO Evora 84.29 40 *eP* **P** 03 42 07.7 +0.4
PARRA Arraiolos 84.47 40 *eP* **P** 03 42 08.4 +0.2
PARRA IAmb IAmb 03 42 10.5
comp=Z,22nm,1.7s
PSBE So Bento 84.53 39 *eP* **P** 03 42 09.2 +0.7
PSBE IAmb IAmb 03 42 13.6
comp=Z,35nm,2.5s
PMTG Montargil 84.54 40 *eP* **P** 03 42 09.1 +0.6
PMTG IAmb IAmb 03 42 10.1
comp=Z,39nm,1.2s
PBAR Barrancos 84.61 41 *eP* **P** 03 42 09.3 +0.4
PESTR Estremoz 84.76 40 *eP* **P** 03 42 10.6 +1.0
YHH Holmes Hill 84.81 328 IAmb IAmb 03 42 12.3
comp=Z,9.1nm,0.9s
PSARD Sardoal 84.94 40 *eP* **P** 03 42 10.5 0.0
PSARD IAmb IAmb 03 42 38.1
comp=Z,17nm,1.7s
PMRV Marv??o 85.26 40 *eP* **P** 03 42 12.0 -0.1
PCBR Castelo Branco 85.49 40 *eP* **P** 03 42 13.1 0.0
PCBR IAmb IAmb 03 42 14.1
comp=Z,25nm,1.4s
HLID Hailey 85.62 325 IAmb IAmb 03 42 16.3
comp=Z,7.4nm,0.8s
MTE Manteigas 85.83 39 P **P** 03 42 15.0 +0.1
MTE IAmb IAmb 03 42 16.0
comp=Z,14nm,1.0s
MTE Manteigas 85.83 39 *eP* **P** 03 42 14.9 +0.1
PVIS Viseu 85.85 39 *eP* **P** 03 42 14.9 0.0
DLMT Dillon 86.06 328 IAmb IAmb 03 42 18.0
comp=Z,11nm,0.9s
PVRL Vila Real 86.34 39 *eP* **P** 03 42 17.2 0.0
PVRL IAmb IAmb 03 42 19.1
comp=Z,22nm,1.5s
POLO Lamas de Olo 86.36 38 *eP* **P** 03 42 17.6 +0.2
POLO IAmb IAmb 03 42 19.5
comp=Z,10nm,1.6s
PAB San Pablo 87.08 42 P **P** 03 42 20.7 -0.1
PBRG Braganca 87.23 39 *eP* **P** 03 42 21.8 +0.4
ESDC Sonseca Array 87.39 42 P **P** 03 42 22.2 0.0
comp=Z,4.1nm,1.0s,baz=248,slow=4.0,SNR=24
comp=Z,4.1nm,1.0s
ESDC Sonseca Array 87.39 42 P **P** 03 42 21.7 -0.5
ESDC IAmb IAmb 03 42 23.4
comp=Z,9.3nm,1.0s
PLID Pearl Lake 87.50 326 IAmb IAmb 03 42 24.7
comp=Z,7.2nm,1.0s
YBH Yreka Blue Hor 88.79 320 P **P** 03 42 28.2 -0.5
comp=Z,2.0nm,0.8s,baz=115,slow=4.8,SNR=4.8
comp=Z,2.0nm,0.8s
YKA Yellowknife Ar 99.44 338 P **Pdif** 03 43 18.1 +1.6
comp=Z,0.5nm,0.7s,baz=139,slow=4.5,SNR=5.2
comp=Z,0.5nm,0.7s
BRTR Keskin Array B 112.55 56 PKiKP **PKiKP** 03 48 07.1 -0.2
comp=Z,0.9nm,0.9s,baz=183,slow=2.5,SNR=4.6
ARCES ARCESS Array B 115.91 23 PKP **PKPdf** 03 48 12.2 -0.5
comp=Z,2.4nm,0.9s,baz=256,slow=3.2,SNR=5.7
F19K Shaleruckik Mo 117.54 334 PKiKP 03 48 17.6 +1.7
ASAR Alice Springs 125.61 199 PKP **PKPdf** 03 48 32.2 -0.6
comp=Z,3.5nm,0.7s,baz=154,slow=2.0,SNR=31
ASAR pPKP **pPKPdf** 03 50 43.6 -1.5
comp=Z,0.4nm,0.6s,baz=146,slow=3.3,SNR=2.3
ASAR SKPbc SKPbc 03 50 53.7
comp=Z,0.4nm,0.7s,baz=175,slow=3.5,SNR=4.5
ASAR SKP **SKPdf** 03 51 14.2 -0.5
comp=Z,0.8nm,0.8s,baz=173,slow=2.2,SNR=5.5
ASAR PKKPbc **PKKPbc** 03 58 09.9 -2.0
comp=Z,0.2nm,0.4s,baz=348,slow=3.3,SNR=4.5
ASAR Alice Springs 125.61 199 PKPdf 03 48 32.0 -0.8
WRA Warramunga Arr 128.97 201 PKP **PKPdf** 03 48 39.1 -0.2
comp=Z,2.0nm,0.4s,baz=171,slow=1.6,SNR=27
WRA pPKP **pPKPdf** 03 50 50.5 -1.1
comp=Z,1.9nm,1.0s,baz=160,slow=1.7,SNR=9.3
WRA SKPbc SKPbc 03 51 05.7
comp=Z,3.9nm,0.9s,baz=161,slow=3.7,SNR=18
WRA Warramunga Arr 128.97 201 PKPdf **PKPdf** 03 48 38.2 -1.0
ARTI Arti 130.61 39 PKPdf **PKPdf** 03 48 41.0 -0.1
AB31 Akbulak array 132.39 48 PKPdf **PKPdf** 03 48 44.8 +0.1
ABKAR Akbulak array 132.39 48 PKPdf **PKiKP** 03 48 45.4 -0.5
FITZ Fitzroy Crossi 132.94 192 PKP **PKPdf** 03 48 46.9 +0.1
comp=Z,1.5nm,0.4s,baz=178,slow=7.0,SNR=7.5
FITZ Fitzroy Crossi 132.94 192 PKPdf **PKPdf** 03 48 46.1 -0.7
BVAR Borovoye Array 138.16 41 PKP **PKPdf** 03 48 55.1 -0.2
comp=Z,4.1nm,0.7s,baz=258,slow=4.1,SNR=11
BBJI Bungbulang 143.25 165 PKPdf PKPbc 03 49 04.4 +0.2
KURBB Kurchatov Arra 143.72 42 PKP **PKPdf** 03 49 05.0 -0.3
comp=Z,48nm,0.8s,baz=296,slow=3.9,SNR=225
KURK Kurchatov 143.74 42 PKPdf 03 49 05.0 -0.4
KSH2 Kashi 144.45 62 PKP **PKPab** 03 49 07.8 -0.1
ZAA0 Zalesovo Array 145.50 33 PKPdf **PKPbc** 03 49 09.0 -0.7
ZALV Zalesovo Beam 145.50 33 PKPbc **PKPbc** 03 49 09.2 -0.6
comp=Z,21nm,0.7s,baz=296,slow=4.3,SNR=72
ZALV pPKPbc pPKPbc 03 51 19.5 -0.4
comp=Z,3.2nm,0.8s,baz=297,slow=2.5,SNR=6.1
ZALV Zalesovo Beam 145.50 33 PKPdf **PKPdf** 03 49 08.6 +0.4
KAPI Kappang 146.61 186 PKPbc **PKPbc** 03 49 14.7 +0.7
comp=Z,10nm,0.8s,baz=162,slow=9.5,SNR=6.8
KAPI pPKPbc pPKPab 03 51 23.9 0.0
comp=Z,15nm,1.0s,baz=238,slow=3.1,SNR=6.2
PDGK Podgornoye 146.69 53 PKPbc **PKPbc** 03 49 13.7 +0.2
MAKZ Makanchi 147.29 46 PKPbc **PKPbc** 03 49 14.7 -0.2
MK31 Makanchi Array 147.50 46 PKPdf **PKPdf** 03 49 12.7 +0.7
MKAR Makanchi Array 147.50 46 PKP **PKPbc** 03 49 13.8 -1.6
comp=Z,17nm,0.8s,baz=302,slow=1.8,SNR=61
MKAR PKPbc **PKiKP** 03 49 15.7 -1.3
comp=Z,17nm,0.8s,baz=300,slow=2.8,SNR=62
MKAR pPKPbc **pPKPdf** 03 51 25.2 +0.5
comp=Z,2.0nm,0.8s,baz=298,slow=2.6,SNR=5.6
MKAR Makanchi Array 147.50 46 PKPdf **PKPbc** 03 49 11.7 -0.2
RPSI Rantau Prapat 149.29 143 PKPbc 03 49 20.6 -0.1
IPM Ipoh 151.89 145 PKPbc **PKPbc** 03 49 26.8 0.0
EVN Everest 153.68 84 PKPdf **PKPdf** 03 49 20.7 -2.0
HEH HeiHe 156.75 342 *eP* **PKPab** 03 49 58.4 -0.1
HILR Hailar Array B 158.79 355 PKPab **PKPab** 03 50 09.4 +2.0
comp=Z,0.9nm,0.4s,baz=249,slow=4.1,SNR=3.6
SONM Songino Array 159.04 20 PKP **PKPdf** 03 49 29.2 +0.9
comp=Z,2.9nm,0.9s,baz=171,slow=1.7,SNR=14
SONM PKPab **PKPab** 03 50 09.3 +0.6
comp=Z,2.1nm,0.9s,baz=320,slow=2.4,SNR=8.4
SONM pPKP **pPKPdf** 03 51 42.3 +0.6
comp=Z,1.3nm,1.0s,baz=0.0,slow=0.3,SNR=5.4
SONM Songino Array 159.04 20 PKPdf **PKPdf** 03 49 28.5 +0.2
CMAR Chiang Mai Arr 160.93 118 PKP **PKPdf** 03 49 31.1 0.0
comp=Z,1.0nm,0.3s,baz=243,slow=2.0,SNR=6.3
CMAR PKPab **PKPab** 03 50 16.6 -1.1
comp=Z,0.9nm,0.3s,baz=248,slow=5.2,SNR=5.1
GTA2 Gaotai 162.17 47 *e*PKP **PKPdf** 03 49 32.9 +1.0
GTA2 PKPab **PKPab** 03 50 23.6 +0.8
LZDM Lanzhou Array 166.68 52 PKPab **PKPab** 03 50 42.9 -0.2
comp=Z,1.8nm,0.3s,baz=329,slow=5.0,SNR=3.8
HHC Hu-ho-hao-te 166.92 18 *eP* **PKPdf** 03 49 38.1 +2.2
DL2 Dalian 168.79 340 *e*PKP **PKPdf** 03 49 40.3 +3.2
LYN LuoYang 172.91 30 PKP **PKPdf** 03 49 40.3 +0.9
NJ2 Nanjing 175.95 333 *eP* **PKPdf** 03 49 41.5 +1.1
NJ2 pmax pmax
comp=Z,4.0nm,0.5s

*IDC **23** 03:36:59.0±4.4, 8°.38N×82°.35W, h0km, mb3.8/3, mbtmp3.9/4, ML2.5/1, Error ellipse: s-maj=140.4km s-min=26.7km az=37.0*
*CATAC **23** 03:37:00.7±0.6, 8°N±3°×8°3W±°, h7km±2km, M4.6/16, mb5.2/3, mBS5.2/1, MLv4.3/16, Mw(mB)4.6/1, Error ellipse: s-maj=7.5km s-min=3.1km az=15.7, confirmed*
*UCR **23** 03:37:00.9±1.3, 7°.84N×82°.47W, h16km±7km, MW4.3, Presumed earthquake*
*UPA **23** 03:37:02.0±1.9, 7°.89N×82°.44W, h19km±15km, MW3.7, Presumed earthquake*

ISC 23 03:36:58.4±1.6, 7°.77N±0°.06×82°.51W±0°.03, h12km±9km, n86, σ1°36/108, mb3.8/3, 10C-1D, South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC	h m s	ISC
ISECA	**Islas Secas**	**0.52**	**66**	⇑*iP*		**Pb**	**03 37 10.9**	**+1.4**
ISECA				*eS*		**Sb**	**03 37 17.6**	**+0.6**
PTPA	**Petro Terminal**	**0.56**	**320**	*eP*		**Pn**	**03 37 12.9**	**+0.8**
PTPM	**Petroterminale**	**0.57**	**320**	⇑*iP*		**Pn**	**03 37 13.1**	**+0.8**
ARIEL	**Armuelles**	**0.61**	**327**	⇑*iP*		Pn	03 37 17.9	+4.9
CHIR3	**Chiriqui UPA,**	**0.65**	**16**	⇑*iP*		**Pb**	**03 37 12.3**	**+0.7**
DVD	**David**	**0.67**	**5**	⇑*iP*		**Pb**	**03 37 12.8**	**+0.9**
BGUAL	**Bijagual, Pana**	**0.76**	**13**	*eP*		**Pb**	**03 37 13.9**	**+0.4**
BGUAL	**Bijagual, Pana**	**0.76**	**13**	⇑*iP*		**Pb**	**03 37 14.0**	**+0.4**
BGUAL				*eS*		**Sb**	**03 37 23.8**	**0.0**
LPPC	**Paso Canoas**	**0.83**	**337**	*eP*		**Pb**	**03 37 15.6**	**+0.9**
LPPC				*eS*		**Sb**	**03 37 26.3**	**+0.5**
CDITO	**Canoas**	**0.88**	**336**	P		**Pb**	**03 37 16.1**	**+0.6**
CDITO				S		**Sb**	**03 37 27.4**	**+0.2**
PDCAN	**Manzana , Fuen**	**0.96**	**57**	⇑*iP*		**Pg**	**03 37 17.0**	**+0.1**
PDCAN				*eS*		**Sg**	**03 37 28.8**	**-0.7**
CLLRA	**Cordillera,**	**0.97**	**354**	*eP*		**Pg**	**03 37 17.4**	**+0.2**
CLLRA	**Cordillera,**	**0.97**	**354**	*i P*		**Pg**	**03 37 17.6**	**+0.3**
CLLRA				*eS*		**Sg**	**03 37 29.8**	**-0.2**
NELY	**Ciudad Neily**	**0.98**	**334**	*eP*		**Pg**	**03 37 17.7**	**+0.4**
NELY	**Ciudad Neily**	**0.98**	**334**	*eP*		**Pg**	**03 37 17.3**	**+0.1**
NELY				*eS*		**Sb**	**03 37 30.4**	**+0.3**
BQTLY	**Boquete Panama**	**0.98**	**3**	*eP*		**Pg**	**03 37 17.3**	**-0.1**
BQTLY	**Boquete Panama**	**0.98**	**3**	⇑*iP*		**Pg**	**03 37 17.5**	**0.0**
BQTLY				*eS*		**Sg**	**03 37 29.8**	**-0.6**
BRU2	**Volcan**	**1.03**	**350**	P		**Pb**	**03 37 19.0**	**+0.7**
BRU2				S		**Sb**	**03 37 32.4**	**+0.4**
BRU2	**Volcan**	**1.03**	**350**	P		**Pg**	**03 37 18.3**	**-0.1**
BRU2				S		**Sb**	**03 37 32.2**	**+0.3**
BRU2	**Volcan**	**1.03**	**350**	*eP*		**Pg**	**03 37 18.3**	**-0.1**
BRU2	**Volcan**	**1.03**	**350**	⇑*iP*		**Pg**	**03 37 18.4**	**0.0**
BRU2				*eS*		**Sg**	**03 37 31.7**	**-0.2**
FITO	**Golfito**	**1.06**	**323**	*eP*		**Pb**	**03 37 18.6**	**-0.1**
FITO	**Golfito**	**1.06**	**323**	*eP*		**Pb**	**03 37 19.0**	**+0.2**
FITO				*eS*		**Sb**	**03 37 32.5**	**-0.1**
SCLRA	**Santa Clara, W**	**1.09**	**346**	*eP*		**Pb**	**03 37 19.2**	**-0.1**
SCLRA	**Santa Clara, W**	**1.09**	**346**	*i P*		**Pb**	**03 37 19.5**	**+0.2**
SCLRA				*eS*		**Sn**	**03 37 34.2**	**-0.5**
JIME	**Puerto Jimenez**	**1.11**	**314**	*eP*		**Pb**	**03 37 19.0**	**-0.6**
VITO	**San Vito**	**1.14**	**337**	*eP*		**Pb**	**03 37 20.6**	**+0.5**
VITO	**San Vito**	**1.14**	**337**	*eP*		**Pb**	**03 37 20.7**	**+0.6**
VITO				*eS*		**Sn**	**03 37 36.1**	**+0.2**
RBALA	**Bur**	**1.16**	**18**	*eP*		**Pb**	**03 37 19.7**	**-0.7**
RBALA	**Bur**	**1.16**	**18**	⇓*iP*		**Pb**	**03 37 19.7**	**-0.7**
RBALA				*eS*		**Sb**	**03 37 33.5**	**-1.9**
GMAL	**Guarumal, Vera**	**1.27**	**90**	*eP*		**Pn**	**03 37 21.9**	**0.0**
EDP2	**Potrero Grande**	**1.40**	**332**	*eP*		**Pn**	**03 37 24.4**	**+0.5**
FIMO	**Fila Mora**	**1.47**	**326**	*eP*		**Pn**	**03 37 25.8**	**+0.9**
PANP	**Palmar Norte**	**1.51**	**322**	*eP*		**Pn**	**03 37 26.3**	**+1.0**
CACAO	**El Cacao, Vera**	**1.69**	**104**	⇑*eP*		**Pn**	**03 37 28.8**	**+1.0**
EDPE	**Pejibaye, P**	**1.73**	**323**	*eP*		**Pn**	**03 37 29.5**	**+1.1**
RGM0	**Gandoca**	**1.81**	**357**	P		**Pb**	**03 37 31.3**	**-0.2**
RGM0				S		**Sg**	**03 37 56.1**	**-0.7**
RGM0	**Gandoca**	**1.81**	**357**	P		**Pb**	**03 37 31.3**	**-0.2**
RGM0				S		**Sg**	**03 37 56.0**	**-0.8**
SAJE	**San Jernim**	**1.85**	**328**	*eP*		**Pn**	**03 37 30.7**	**+0.6**
CEUA	**Cerro Uatsi, L**	**1.89**	**347**	*eP*		**Pb**	**03 37 33.2**	**+0.3**
LAES	**El Progreso Va**	**2.05**	**345**	*eP*		**Pn**	**03 37 34.3**	**+1.6**
VERH	**Veragua Rainfo**	**2.25**	**343**	*eP*		**Pn**	**03 37 36.7**	**+1.2**
PNME	**Penonome**	**2.28**	**72**	*eP*		**Pn**	**03 37 38.3**	**+2.4**
LCR2	**La Lucha 2**	**2.45**	**323**	P		**Pn**	**03 37 40.0**	**+1.5**
LCR2				S		**Sn**	**03 38 09.0**	**+0.5**
LCR2	**La Lucha 2**	**2.45**	**323**	P		**Pn**	**03 37 39.5**	**+1.0**
LCR2				S		**Sn**	**03 38 09.3**	**+0.7**
LCR2	**La Lucha 2**	**2.45**	**323**	*eP*		**Pn**	**03 37 39.7**	**+1.2**
ABE2	**San Pablo**	**2.46**	**322**	*eP*		**Pn**	**03 37 39.9**	**+1.4**
PCATA	**Pacayas**	**2.49**	**329**	*eP*		**Pn**	**03 37 40.3**	**+1.3**
TAGO	**Cartago**	**2.51**	**326**	*eP*		**Pn**	**03 37 41.2**	**+2.0**
ABRB	**Las Abras (San**	**2.52**	**332**	*eP*		**Pn**	**03 37 41.4**	**+2.0**
LCOCO	**El Coco**	**2.52**	**336**	*eP*		**Pn**	**03 37 41.4**	**+2.2**
CVTV	**Tajo**	**2.54**	**331**	*eP*		**Pn**	**03 37 41.4**	**+1.7**
VTR0	**Volcan Turrial**	**2.55**	**331**	*eP*		**Pn**	**03 37 41.6**	**+1.6**
CVTR	**Volcan Turrial**	**2.55**	**331**	*eP*		**Pn**	**03 37 40.9**	**+0.9**
ECI	**Escuela Centro**	**2.64**	**325**	*eP*		**Pn**	**03 37 42.3**	**+1.3**
LUJA	**Lujan**	**2.64**	**324**	*eP*		**Pn**	**03 37 42.8**	**+1.8**
CVTG	**V. Turrialba,**	**2.67**	**332**	*eP*		**Pn**	**03 37 43.4**	**+2.1**
DOMI	**Santo Domingo**	**2.70**	**325**	*eP*		**Pn**	**03 37 43.7**	**+2.0**
HDC	**Heredia**	**2.73**	**325**	P		**Pn**	**03 37 43.9**	**+1.8**
HDC				S		**Sb**	**03 38 18.8**	**-1.9**
HDC	**Heredia**	**2.73**	**325**	P		**Pn**	**03 37 44.3**	**+2.1**
HDC				S		**Sn**	**03 38 16.0**	**+0.9**
HDC	**Heredia**	**2.73**	**325**	*eP*		**Pn**	**03 37 43.7**	**+1.5**
HDC	**Heredia**	**2.73**	**325**	*eP*		**Pn**	**03 37 44.3**	**+2.1**
HDC	**Heredia**	**2.73**	**325**	P		**Pn**	**03 37 44.1**	**+2.0**
BELE	**Belen**	**2.75**	**323**	*eP*		**Pn**	**03 37 44.1**	**+1.6**
CARI	**Cariari**	**2.85**	**335**	*eP*		**Pn**	**03 37 45.3**	**+1.6**
TRB2	**Turrubares**	**2.87**	**318**	P		**Pn**	**03 37 46.3**	**+2.3**
TRB2				S		**Sn**	**03 38 20.1**	**+1.7**
TCS1	**Tacares**	**2.87**	**322**	P		**Pn**	**03 37 46.3**	**+2.2**
TCS1	**Tacares**	**2.87**	**322**	*eP*		**Pn**	**03 37 46.5**	**+2.5**
VPS8	**V Poas**	**2.94**	**325**	*eP*		**Pn**	**03 37 47.1**	**+1.8**
BCIP	**Isla Barro Col**	**2.99**	**62**	P		**Pn**	**03 37 48.8**	**+3.2**
BCIP				S		**Sb**	**03 38 26.3**	**-1.7**
COVE	**Coope Vega, Sa**	**3.48**	**328**	P		**Pn**	**03 37 54.0**	**+1.7**
COVE	**Coope Vega, Sa**	**3.48**	**328**	P		**Pn**	**03 37 54.3**	**+2.0**
COVE				S		**Sn**	**03 38 36.0**	**+2.5**
JTS	**Las Juntas de**	**3.48**	**316**	P		**Pn**	**03 37 54.2**	**+1.8**
JTS				S		**Sn**	**03 38 34.5**	**+1.0**
CMARA	**Lajas Hojancha**	**3.64**	**308**	P		**Pn**	**03 37 55.7**	**+1.0**
BLUN	**Bluefields**	**4.39**	**344**	P		**Pn**	**03 38 05.7**	**+0.8**
CARN	**Rivas**	**4.51**	**319**	P		**Pn**	**03 38 09.1**	**+2.5**
CARN	**Rivas**	**4.51**	**319**	P		**Pn**	**03 38 08.6**	**+2.0**
BOAB	**BOACO BROADBAN**	**4.59**	**327**	P		**Pn**	**03 38 22.8**	**+1.4**
RCVN	**Varillal2**	**6.82**	**328**	P		**Pn**	**03 38 40.9**	**+2.5**
PACA	**Pacayal**	**8.04**	**315**	P		**Pn**	**03 38 54.8**	**-0.4**
PRAC	**Prado**	**8.59**	**118**	P		**Pn**	**03 39 04.5**	**+1.8**
ROSC	**El Rosal**	**8.65**	**109**	Pn		Pn	03 39 09.6	+5.8
	1.2nm,0.3s,baz=112,slow=23,SNR=2.4 4.3nm,0.4s							
ROSC				AML		AML		
TKL	**Tuckaleechee C**	**27.78**	**358**	LR		LR	03 53 02.3	
	comp=Z,21nm,18.8s,baz=354,slow=35							
ULM	**Lac du Bonnet**	**43.79**	**348**	P		**P**	**03 45 00.1**	**-3.8**
	1

RES	**Resolute Bay**	**1.66**	**10**	Pn	**Pn**	**03 50 46.3**	**-1.7**		
	618nm,0.3s,baz=187,slow=14,SNR=4704								
RES				Sn	**Sn**	**03 51 06.9**	**-2.0**		
	3µm,0.3s,baz=279,slow=19,SNR=20								
RES	**Resolute Bay**	**1.66**	**10**		**Pn**	**03 50 46.7**	**-1.2**		
RES					**Sn**	**03 51 07.7**	**-1.2**		
RES	**Resolute Bay**	**1.66**	**10**	PN	**Pn**	**03 50 46.6**	**-1.3**		
RES				SN	**Sn**	**03 51 06.5**	**-2.3**		
RES				Trac		03 51 12.9			
	comp=Z,14µm,0.3s								
RES	**Resolute Bay**	**1.66**	**10**	P	**Pn**	**03 50 46.5**	**-1.5**		
RES	**Resolute Bay**	**1.66**	**10**	*i* P	**Pn**	**03 50 46.1**	**-1.9**		
RES				*i* S	**Sn**	**03 51 04.9**	**-3.9**		
POIN	**Pond Inlet**	**5.34**	**85**	Pn	**Pn**	**03 51 36.9**	**-1.7**		
POIN	**Pond Inlet**	**5.34**	**85**	PN	**Pn**	**03 51 36.5**	**-2.0**		
POIN				SN	**Sn**	**03 52 34.0**	**-5.5**		
POIN				LG	Lg	03 53 03.7			
POIN				Trac		03 53 14.2			
	comp=Z,4µm,0.5s								
ILON	**Igloolik, Nuna**	**5.89**	**122**	Pn	**Pn**	**03 51 45.8**	**-0.3**		
ILON	**Igloolik, Nuna**	**5.89**	**122**	PN	**Pn**	**03 51 45.6**	**-0.4**		
ILON				SN	**Sn**	**03 52 49.2**	**-3.8**		
ILON				LG	Lg	03 53 21.5			
ILON				Trac		03 53 22.7			
	comp=Z,8µm,0.6s								
TULEG	**Thule**	**7.88**	**51**	Pn	**Pn**	**03 52 12.4**	**-1.0**		
TULEG	**Thule**	**7.88**	**51**	*i* P	**Pn**	**03 52 11.1**	**-2.3**		
TULEG				*i* S	Sn	03 53 29.4	-13		
TULEG				IAML		03 54 35.1			
	comp=Z,318nm,0.6s								
KUKN	**Kugluktuk,NWT**	**8.24**	**240**	PN	**Pn**	**03 52 19.0**	**+0.8**		
KUKN				SN	**Sn**	**03 53 47.9**	**-2.9**		
KUKN				LG	Lg	03 54 41.1			
KUKN				Trac		03 54 43.6			
	comp=Z,4µm,0.8s								
BLKN	**Baker Lake**	**8.79**	**180**		**Pn**	**03 52 25.8**	**0.0**		
BLKN	**Baker Lake**	**8.79**	**180**	PN	**Pn**	**03 52 25.5**	**-0.3**		
BLKN				SN	**Sn**	**03 54 00.9**	**-3.4**		
BLKN				LG	Lg	03 54 54.6			
BLKN				Trac		03 54 59.6			
	comp=Z,3µm,0.6s								
A36M	**Sachs Harbour**	**8.80**	**277**		**Pn**	**03 52 26.7**	**+0.8**		
A36M	**Sachs Harbour**	**8.80**	**277**	PN	**Pn**	**03 52 27.0**	**+1.1**		
A36M				SN	**Sn**	**03 54 01.1**	**-3.4**		
A36M				LG	Lg	03 54 53.9			
A36M				Trac		03 55 09.2			
	comp=Z,4µm,0.9s								
CLRN	**Clyde River**	**8.93**	**93**	PN	**Pn**	**03 52 25.4**	**-2.3**		
CLRN				SN	Sn	03 53 58.8	-8.9		
CLRN				LG	Lg	03 54 51.8			
CLRN				Trac		03 55 02.3			
	comp=Z,3µm,0.7s								
C36M	**Paulatuk**	**9.71**	**261**		**Pn**	**03 52 37.7**	**-0.6**		
C36M	**Paulatuk**	**9.71**	**261**	PN	**Pn**	**03 52 38.4**	**0.0**		
C36M				SN	**Sn**	**03 54 22.0**	**-4.8**		
C36M				LG	Lg	03 55 24.1			
C36M				Trac		03 55 31.9			
	comp=Z,2µm,0.8s								
KULLO	**Kullorsuaq**	**10.79**	**64**	PN	**Pn**	**03 52 50.8**	**-2.3**		
KULLO				SN	Sn	03 54 42.3	-11		
KULLO				Trac		03 55 15.9			
	comp=Z,154nm,0.5s								
KULLO	**Kullorsuaq**	**10.79**	**64**	P	**Pn**	**03 52 53.1**	**+0.1**		
	comp=Z,168nm,0.8s								
UPNV	**Upernavik**	**11.57**	**72**	*i* P	Pn	03 53 00.0	-3.8		
UPNV				IAML		03 55 39.5			
	comp=Z,107nm,0.6s								
NEEM	**North Greenlan**	**11.96**	**48**	*e*P	Pn	03 53 04.8	-4.5		
NEEM				IAML		03 56 42.7			
	comp=Z,180nm,0.8s								
YKAW3	**Yellowknife Wh**	**12.58**	**223**		**Pn**	**03 53 15.6**	**-1.9**		
YKAW3	**Yellowknife Wh**	**12.58**	**223**	PN	**Pn**	**03 53 16.7**	**-0.9**		
YKAW3				SN	**Sn**	**03 55 31.8**	**-5.1**		
YKAW3				LG	Lg	03 56 49.8			
YKAW1	**Yellowknife Wh**	**12.62**	**222**		**Pn**	**03 53 16.1**	**-2.1**		
YKAW1	**Yellowknife Wh**	**12.62**	**222**	PN	**Pn**	**03 53 16.6**	**-1.5**		
YKAW1				SN	**Sn**	**03 55 31.9**	**-6.2**		
YKAW1				LG	Lg	03 56 59.5			
YKA	**Yellowknife Ar**	**12.64**	**223**	Pn	**Pn**	**03 53 15.2**	**-3.2**		
	comp=Z,19nm,0.3s,baz=20,slow=12,SNR=446								
YKA				Sn	Sn	03 55 27.6	-11		
	comp=Z,28nm,0.3s,baz=21,slow=21,SNR=6.7								
YKA				LR	LR	03 58 16.0			
	comp=Z,958nm,19.1s,baz=73,slow=38								
	comp=Z,39nm,0.5s								
YKA				AML	AML				
YKA	**Yellowknife Ar**	**12.64**	**223**		**Pn**	**03 53 16.8**	**-1.6**		
INK	**Inuvik**	**13.09**	**267**	Pn	**Pn**	**03 53 22.9**	**-1.6**		
	comp=Z,16nm,0.3s,baz=42,slow=15,SNR=168								
INK				Sn	Sn	03 55 41.1	-8.3		
	comp=Z,30nm,0.3s,baz=341,slow=17,SNR=6.5								
INK				LR	LR	03 58 54.9			
	comp=Z,705nm,20.6s,baz=54,slow=39								
	comp=Z,44nm,0.4s								
INK				AML	AML				
INK	**Inuvik**	**13.09**	**267**		**Pn**	**03 53 22.5**	**-2.0**		
INK	**Inuvik**	**13.09**	**267**	PN	**Pn**	**03 53 23.7**	**-0.8**		
INK				SN	Sn	03 55 41.6	-7.8		
INK				Trac		03 57 22.5			
	comp=Z,1µm,2.1s								
INK	**Inuvik**	**13.09**	**267**	P	**Pn**	**03 53 23.1**	**-1.4**		
	comp=Z,71nm,0.6s								
FRB	**Frobisher Bay**	**13.60**	**119**	Pn	Pn	03 53 26.5	-5.0		
	comp=Z,2.1nm,0.3s,baz=18,slow=8.4,SNR=3.1								
FRB				Sn	Sn	03 55 49.2	-13		
	comp=Z,38nm,0.3s,baz=55,slow=16,SNR=4.9								
FRB				LR	LR	03 58 41.4			
	comp=Z,2µm,18.2s,baz=316,slow=37								
	comp=Z,64nm,0.3s								
FRB				AML	AML				
FRB	**Frobisher Bay**	**13.60**	**119**	PN	**Pn**	**03 53 29.0**	**-2.4**		
FRB				SN	Sn	03 55 50.9	-11		
FRB				LG	Lg	03 57 20.1			
FRB				Trac		03 57 25.2			
	comp=Z,3µm,1.1s								
SAATT	**Saattut**	**13.70**	**78**	*i* P	Pn	03 53 29.2	-3.6		
SAATT				IAML		03 56 40.1			
	comp=Z,65nm,0.8s								
F31M	**Tsiigehtchic**	**13.71**	**265**		**Pn**	**03 53 30.7**	**-2.2**		
WRGLY	**Wrigley**	**14.01**	**239**		**Pn**	**03 53 36.1**	**-1.0**		
SAQQ	**Saqqaq**	**14.03**	**81**	*i* P	Pn	03 53 33.5	-3.8		
F30M	**Barrier River**	**14.19**	**267**		**Pn**	**03 53 37.7**	**-1.9**		
G31M	**Satah River**	**14.21**	**264**		**Pn**	**03 53 37.5**	**-2.2**		
E29M	**Blow River**	**14.32**	**272**	Pn	**Pn**	**03 53 40.3**	**-1.0**		
FCC	**Fort Churchill**	**14.39**	**176**	Pn	**Pn**	**03 53 39.5**	**-2.7**		
FCC	**Fort Churchill**	**14.39**	**176**	PN	**Pn**	**03 53 40.1**	**-2.2**		
FCC				SN	Sn	03 56 12.8	-8.3		
FCC				LG	Lg	03 57 49.4			
FCC				Trac		03 58 11.8			
	comp=Z,1µm,1.1s								
E28M	**Babbage River**	**14.67**	**274**	Pn	**Pn**	**03 53 45.1**	**-1.0**		
D27M	**Malcolm River**	**14.71**	**277**	Pn	**Pn**	**03 53 45.5**	**-1.1**		
ILULI	**Ilulissat**	**14.72**	**83**		Pn	03 53 43.4	-3.4		
ILULI	**Ilulissat**	**14.72**	**83**	P	**Pn**	**03 53 48.0**	**+1.2**		
	comp=Z,120nm,1.2s								
EPYK	**Eagle Plains**	**15.30**	**265**		**Pn**	**03 53 52.0**	**-2.5**		
EPYK	**Eagle Plains**	**15.30**	**265**	PN	**Pn**	**03 53 54.2**	**-0.3**		
EPYK				SN	Sn	03 56 34.9	-8.4		
EPYK				LG	Lg	03 58 22.1			
F28M	**Old Crow**	**15.39**	**271**		**Pn**	**03 53 53.0**	**-2.7**		
F28M				IAmb	IAmb	03 54 09.3			
	comp=Z,61nm,0.8s								
C26K	**Camden Bay**	**15.46**	**283**	Pn	**Pn**	**03 53 56.8**	**+0.3**		
D25K	**Kavik River**	**16.22**	**282**	IAmb	IAmb	03 54 20.3			
	comp=Z,81nm,0.8s								
SFJD	**Kangerlussuaq**	**16.26**	**89**	Pn	**Pn**	**03 54 02.9**	**-3.9**		
	comp=Z,3.5nm,0.3s,baz=305,slow=12,SNR=16								
SFJD				LR	LR	04 00 16.3			
	comp=Z,330nm,21.1s,baz=316,slow=37								
	comp=Z,10nm,0.4s								
SFJD				AML	AML				
SFJD	**Kangerlussuaq**	**16.26**	**89**	P	**P**	**03 54 10.3**	**+0.5**		
	comp=Z,97nm,1.8s								
SFJD	**Kangerlussuaq**	**16.26**	**89**	*i* P	**Pn**	**03 54 05.0**	**-1.8**		
SUMG	**Summit**	**16.46**	**64**	P	**Pn**	**03 54 06.1**	**-3.7**		
SUMG				IAmb	IAmb	03 54 21.3			
	comp=Z,58nm,0.8s								
SUMG	**Summit**	**16.46**	**64**	P	**Pn**	**03 54 09.8**	**0.0**		
	comp=Z,89nm,1.0s								
SUMG	**Summit**	**16.46**	**64**	*i* P	**Pn**	**03 54 06.6**	**-3.3**		
I29M	**Ogilvie Camp,**	**16.48**	**264**	Pn	**Pn**	**03 54 07.1**	**-2.6**		
F26K	**Sheenjek River**	**16.59**	**275**	IAmb	IAmb	03 54 17.4			
	comp=Z,64nm,0.8s								
C24K	**Franklin Bluff**	**16.65**	**285**	P	**Pn**	**03 54 11.3**	**-0.5**		
C24K				IAmb	IAmb	03 54 21.9			
	comp=Z,84nm,0.9s								
H27K	**Steamboat Moun**	**16.80**	**269**	P	**Pn**	**03 54 11.8**	**-2.1**		
H27K				IAmb	IAmb	03 54 29.7			
	comp=Z,75nm,0.7s								
G26K	**Porcupine Rive**	**16.97**	**273**		**Pn**	**03 54 14.5**	**-1.4**		
G26K				IAmb	IAmb	03 54 30.7			
	comp=Z,66nm,0.6s								
D24K	**Happy Valley**	**17.02**	**283**	IAmb	IAmb	03 54 26.4			
	comp=Z,57nm,0.6s								
F25K	**Christian Rive**	**17.09**	**276**	IAmb	IAmb	03 54 23.8			
	comp=Z,78nm,0.8s								
J29N	**Klondike Camp**	**17.12**	**262**	IAmb	IAmb	03 54 34.5			
	comp=Z,81nm,0.6s								
NBC1	**NorthernBC 1**	**17.19**	**233**	PN	**Pn**	**03 54 19.4**	**+0.8**		
NBC1				SN	**Sn**	**03 57 21.1**	**-8.1**		
I27K	**Kandik River**	**17.27**	**268**	IAmb	IAmb	03 54 31.2			
	comp=Z,107nm,0.7s								
K29M	**Barlow Dome**	**17.38**	**259**	IAmb	IAmb	03 54 26.9			
	comp=Z,66nm,0.8s								
NOR	**Nord**	**17.51**	**29**	P	**Pn**	**03 54 18.6**	**-3.9**		
	comp=Z,147nm,0.9s								
NOR	**Nord**	**17.51**	**29**	*i* P	**Pn**	**03 54 17.8**	**-4.7**		
TOLK	**Toolik Lake Re**	**17.55**	**282**	P	**Pn**	**03 54 22.8**	**-0.4**		
FYU	**Fort Yukon**	**17.66**	**274**	IAmb	IAmb	03 54 36.4			
	comp=Z,117nm,0.7s								
FNSB	**Fort Nelson**	**17.70**	**230**	PN	**Pn**	**03 54 24.9**	**-0.1**		
FNSB				SN	Sn	03 57 32.1	-9.5		
DAWY	**Dawson**	**17.75**	**262**	Pn	**Pn**	**03 54 23.1**	**-2.5**		
DAWY				IAmb	IAmb	03 54 35.9			
	comp=Z,102nm,1.0s								
DAWY	**Dawson**	**17.75**	**262**	PN	**Pn**	**03 54 25.8**	**+0.2**		
DAWY				SN	Sn	03 57 32.6	-10		
I26K	**Coal Creek Min**	**17.93**	**269**	IAmb	IAmb	03 54 28.0			
	comp=Z,85nm,0.7s								
SAKN	**Sanikiluaq**	**17.94**	**149**	PN	**Pn**	**03 54 27.4**	**-0.5**		
SAKN				SN	Sn	03 57 34.8	-12		
SAKN				LG	Lg	03 59 44.3			
SAKN				Trac		04 00 02.1			
	comp=Z,354nm,0.6s								
L29M	**L29M**	**18.12**	**259**	IAmb	IAmb	03 54 36.1			
	comp=Z,92nm,0.8s								
M30M	**Minto, Yukon**	**18.16**	**256**	IAmb	IAmb	03 54 32.5			
	comp=Z,62nm,0.8s								
G24K	**Hadweenzic Riv**	**18.22**	**276**	IAmb	IAmb	03 54 41.4			
	comp=Z,50nm,0.7s								
N32M	**Quiet Lake**	**18.27**	**249**	IAmb	IAmb	03 54 37.5			
	comp=Z,75nm,0.8s								
D22K	**Ayikyak River**	**18.29**	**285**	IAmb	IAmb	03 54 41.2			
	comp=Z,78nm,0.9s								
PRP	**Porcupine Dome**	**18.48**	**271**	IAmb	IAmb	03 54 44.5			
	comp=Z,147nm,1.0s								
FFC	**Flin Flon**	**18.58**	**191**	P	**P**	**03 54 34.0**	**-1.5**		
FFC				IAmb	IAmb	03 54 42.6			
	comp=Z,50nm,0.8s								
FFC	**Flin Flon**	**18.58**	**191**	P	**P**	**03 54 33.9**	**-1.6**		
	comp=Z,58nm,0.5s								
M29M	**Somme Creek**	**18.74**	**258**	IAmb	IAmb	03 54 41.9			
	comp=Z,46nm,0.8s								
N31M	**Braeburn, Yuko**	**18.75**	**253**	IAmb	IAmb	03 54 40.7			
	comp=Z,71nm,1.0s								
H24K	**Noodor Dome**	**18.94**	**274**	IAmb	IAmb	03 54 50.1			
	comp=Z,57nm,0.8s								
G23K	**Bananza Creek**	**18.95**	**278**	IAmb	IAmb	03 54 49.3			
	comp=Z,60nm,0.9s								
DAG	**Danmarks Havn**	**19.07**	**43**	P	**P**	**03 54 36.4**	**-4.3**		
	comp=Z,114nm,0.7s								
DAG	**Danmarks Havn**	**19.07**	**43**	*i* P	P	03 54 35.0	-5.7		
J25K	**Salcha River,**	**19.09**	**269**	IAmb	IAmb	03 54 50.8			
	comp=Z,70nm,0.8s								
N30M	**Aishikik Lake**	**19.14**	**254**	IAmb	IAmb	03 54 45.8			
	comp=Z,35nm,0.7s								
SCRK	**Sand Creek**	**19.16**	**267**	IAmb	IAmb	03 54 54.3			
	comp=Z,34nm,0.6s								
WHY	**Whitehorse**	**19.18**	**250**	IAmb	IAmb	03 55 01.5			
	comp=Z,36nm,0.7s								
WHY	**Whitehorse**	**19.18**	**250**	PN	**Pn**	**03 54 44.6**	**+1.5**		
WHY				SN	**Sn**	**03 58 09.3**	**-8.0**		
R33M	**Jennings River**	**19.20**	**243**	IAmb	IAmb	03 55 01.0			
	comp=Z,56nm,0.7s								
POKR	**Poker Plat Res**	**19.32**	**272**	P	**P**	**03 54 44.8**	**+1.1**		
POKR				IAmb	IAmb	03 54 55.5			
	comp=Z,91nm,0.8s								
ILAR	**Eielson Array**	**19.42**	**271**	P	**P**	**03 54 46.5**	**+1.9**		
	comp=Z,2.2nm,0.3s,baz=39,slow=12,SNR=86								
ILAR				LR	LR	04 02 48.0			
	comp=Z,655nm,18.4s,baz=48,slow=38								
	comp=Z,22nm,0.7s								
ILAR				AML	AML				
O30N	**Mendenhall**	**19.42**	**252**	P	**P**	**03 54 46.6**	**+1.8**		
O30N				IAmb	IAmb	03 54 59.3			
	comp=Z,45nm,0.8s								
RIDG	**Independent Ri**	**19.59**	**267**	P	**P**	**03 54 48.7**	**+2.1**		
F21K	**Alatna River**	**19.60**	**282**	IAmb	IAmb	03 54 54.5			
	comp=Z,54nm,0.6s								
COLA	**College**	**19.62**	**272**	IAmb	IAmb	03 54 59.6			
	comp=Z,79nm,0.8s								
COLA	**College**	**19.62**	**272**	P	**Pn**	**03 54 49.5**	**+1.2**		
	comp=Z,109nm,0.9s								
L26K	**Log Cabin Wild**	**19.69**	**264**	IAmb	IAmb	03 54 57.0			
	comp=Z,66nm,0.6s								
HDA	**Harding Lake**	**19.70**	**270**	IAmb	IAmb	03 54 57.0			
	comp=Z,41nm,0.6s								
HYT	**Haines Junctio**	**19.77**	**254**	IAmb	IAmb	03 54 55.3			
	comp=Z,43nm,0.8s								
CCB	**Clear Creek Bu**	**19.78**	**272**	IAmb	IAmb	03 55 00.6			
	comp=Z,43nm,0.8s								
DLBC	**Dease Lake**	**19.79**	**240**	P	**P**	**03 54 50.2**	**+1.5**		
	comp=Z,2.6nm,0.3s,baz=16,slow=13,SNR=56								
DLBC				S	**S**	**03 58 28.1**	**-2.7**		
	comp=Z,11nm,0.7s,baz=26,slow=20,SNR=1.9								
DLBC				LR	LR	04 03 04.7			
	comp=Z,487nm,20.6s,baz=64,slow=39								
	comp=Z,30nm,0.7s								
DLBC				AML	AML				
M27K	**Edge Creek, AK**	**19.79**	**261**	IAmb	IAmb	03 54 59.3			
	comp=Z,38nm,0.7s								
I23K	**Minto, Yukon-K**	**19.86**	**274**	IAmb	IAmb	03 54 59.4			
	comp=Z,49nm,0.6s								
H22K	**Ishtalitna Cre**	**19.92**	**277**	IAmb	IAmb	03 55 02.4			
	comp=Z,67nm,0.8s								
WRH	**Wood River Hil**	**19.99**	**272**	IAmb	IAmb	03 55 03.4			
	comp=Z,59nm,0.8s								
DBG	**Daneborg**	**20.02**	**50**	P	**P**	**03 54 52.0**	**+0.8**		
	comp=Z,56nm,1.1s								
DBG	**Daneborg**	**20.02**	**50**	*i* P	**P**	**03 54 47.7**	**-3.4**		
M26K	**Nabesna, AK**	**20.08**	**263**	IAmb	IAmb	03 55 03.5			
	comp=Z,94nm,0.9s								
NEA2	**Nenana**	**20.19**	**273**	P	**P**	**03 54 55.4**	**+2.3**		
MLY	**Manley**	**20.35**	**275**	IAmb	IAmb	03 55 13.3			
	comp=Z,35nm,0.7s								
H21K	**Melozitna Rive**	**20.50**	**278**	IAmb	IAmb	03 55 08.9			
	comp=Z,58nm,0.8s								
O29M	**Mount Kennedy**	**20.50**	**254**	IAmb	IAmb	03 55 09.8			
	comp=Z,32nm,0.8s								
S34M	**Telegraph Cree**	**20.53**	**241**	P	Pn	03 54 59.9	+0.9		
O28M	**Mount Upton**	**20.57**	**257**	IAmb	IAmb	03 55 14.2			
	comp=Z,28nm,0.6s								
BARN	**Barnard Glacie**	**20.76**	**259**	P	Pn	03 55 03.0	+1.2		
BARN				IAmb	IAmb	03 55 09.4			
	comp=Z,35nm,0.6s								
LOGN	**Logan Glacier**	**20.76**	**258**	IAmb	IAmb	03 55 13.6			
	comp=Z,66nm,1.0s								
MCK	**McKinley**	**20.79**	**271**	IAmb	IAmb	03 55 04.8			
	comp=Z,36nm,0.9s								
C18K	**Utukok River**	**20.81**	**291**	IAmb	IAmb	03 55 11.6			
	comp=Z,47nm,0.7s								
P29M	**Windy Craggy**	**20.83**	**252**	IAmb	IAmb	03 55 17.3			
	comp=Z,35nm,0.8s								
MCARA	**McCarthy VSAT**	**20.89**	**261**	IAmb	IAmb	03 55 16.2			
	comp=Z,86nm,1.0s								
BESE	**Bessie Mountai**	**20.93**	**247**	P	**P**	**03 55 03.7**	**+2.6**		
BESE				IAmb	IAmb	03 55 14.5			
	comp=Z,62nm,0.8s								
GRNC	**Granite Creek**	**21.05**	**258**	P	**P**	**03 55 05.6**	**+2.9**		
GRNC				IAmb	IAmb	03 55 21.6			
	comp=Z,34nm,0.8s								
GLB	**Gilahina Butte**	**21.07**	**262**	IAmb	IAmb	03 55 12.9			
	comp=Z,34nm,0.6s								
F19K	**Shaleruckit Mo**	**21.09**	**284**	P	**P**	**03 55 04.0**	**+1.2**		
F19K				IAmb	IAmb	03 55 10.1			
	comp=Z,52nm,1.1s								
BPAW	**Bear Paw Mtn.**	**21.11**	**274**	IAmb	IAmb	03 55 14.7			
	comp=Z,47nm,0.8s								
T35M	**Bob Quinn**	**21.13**	**239**	P	**P**	**03 55 05.7**	**+2.4**		
T35M				IAmb	IAmb	03 55 22.8			
	comp=Z,49nm,0.8s								
VRDI	**Verde Repeater**	**21.14**	**261**	IAmb	IAmb	03 55 16.9			
	comp=Z,51nm,0.9s								
PCA	**Pinnacle**	**21.15**	**256**	P	**P**	**03 55 05.8**	**+2.3**		
PCA				IAmb	IAmb	03 55 19.8			
	comp=Z,77nm,0.8s								
TGL	**Tana Glacier**	**21.34**	**260**	P	**P**	**03 55 07.7**	**+2.1**		
TGL				IAmb	IAmb	03 55 23.9			
	comp=Z,40nm,1.0s								
G19K	**Purcell Mounta**	**21.39**	**283**	IAmb	IAmb	03 55 17.6			
	comp=Z,38nm,0.8s								
TRF	**Thorofare Moun**	**21.40**	**272**	IAmb	IAmb	03 55 23.2			
	comp=Z,79nm,0.9s								
CRQM	**Cirque**	**21.43**	**260**	P	**P**	**03 55 08.3**	**+1.6**		
CRQM				IAmb	IAmb	03 55 19.5			
	comp=Z,85nm,1.2s								
I20K	**Naaghedeneel**	**21.61**	**278**	P	**P**	**03 55 09.4**	**+1.1**		
I20K				IAmb	IAmb	03 55 30.6			
	comp=Z,80nm,0.9s								
H19K	**Roundabout Mou**	**21.65**	**281**	IAmb	IAmb	03 55 19.6			
	comp=Z,30nm,0.7s								
RDOG	**Red Dog Mine**	**21.68**	**291**	P	**P**	**03 55 09.2**	**+0.1**		
RDOG				IAmb	IAmb	03 55 19.6			
	comp=Z,68nm,0.9s								
BMRM	**Bremner River**	**21.69**	**262**	P	**P**	**03 55 10.8**	**+1.6**		
SCM	**Sheep Creek Mo**	**21.79**	**266**	P	**P**	**03 55 12.1**	**+1.7**		
S31K	**Pelican**	**21.84**	**248**	P	**P**	**03 55 12.9**	**+2.1**		
S31K				IAmb	IAmb	03 55 25.0			
	comp=Z,53nm,0.8s								
BERG	**Berg Lake**	**21.89**	**260**	IAmb	IAmb	03 55 23.9			
	comp=Z,48nm,1.0s								
DIV	**Divide**	**21.89**	**263**	P	**P**	**03 55 13.3**	**+1.8**		
DIV				IAmb	IAmb	03 55 20.1			
	comp=Z,42nm,0.7s								
SCHQ	**Schefferville**	**21.90**	**131**	P	**P**	**03 55 10.4**	**-1.2**		
	comp=Z,34nm,0.6s,baz=312,slow=7.4,SNR=29								
SCHQ				S	**S**	**03 59 08.0**	**-4.5**		
	comp=Z,48nm,0.8s,baz=143,slow=12,SNR=3.7								
SCHQ				LR	LR	04 03 43.9			
	comp=Z,650nm,19.5s,baz=334,slow=37								
	comp=Z,34nm,0.6s								
SCHQ	**Schefferville**	**21.90**	**131**	P	**P**	**03 55 11.2**	**-0.4**		
CAST	**Castle Rocks**	**21.95**	**273**	IAmb	IAmb	03 55 32.3			
	comp=Z,46nm,0.8s								
SCO	**Scoresbysund**	**21.95**	**60**	IAmb	IAmb	03 55 20.3			
	comp=Z,58nm,1.1s								
J20K	**Nowinta River**	**21.98**	**276**	P	**P**	**03 55 13.9**	**+1.6**		
J20K				IAmb	IAmb	03 55 22.6			
	comp=Z,47nm,0.6s								
G18K	**Tagagawik**	**22.01**	**283**	IAmb	IAmb	03 55 21.4			
	comp=Z,61nm,0.7s								
NRS	**Narsarsuaq**	**22.13**	**96**	IAmb	IAmb	03 55 16.8			
	comp=Z,70nm,0.8s								
NRS	**Narsarsuaq**	**22.13**	**96**	P	**P**	**03 55 13.1**	**-0.8**		
	comp=Z,108nm,0.8s								
CUT	**Chulitna**	**22.20**	**270**	P	**P**	**03 55 15.5**	**+0.8**		
PPLA	**Purkeypile**	**22.38**	**272**	IAmb	IAmb	03 55 28.2			
	comp=Z,63nm,1.1s								
KNK	**Knik Glacier**	**22.45**	**266**	P	**P**	**03 55 20.0**	**+2.6**		
PMR	**Palmer**	**22.51**	**267**	IAmb	IAmb	03 55 31.9			
	comp=Z,31nm,0.7s								
J19K	**Poorman**	**22.55**	**277**	IAmb	IAmb	03 55 36.3			
	comp=Z,38nm,0.9s								
PWL	**Port Wells**	**22.86**	**265**	P	**P**	**03 55 24.2**	**+2.5**		
ULM	**Lac du Bonnet**	**22.90**	**180**	P	**P**	**03 55 22.9**	**+0.7**		
	comp=Z,14nm,0.5s,baz=3.7,slow=9.0,SNR=29								
ULM				S	**S**	**03 59 27.1**	**-3.8**		
	comp=Z,26nm,0.7s,baz=125,slow=18,SNR=4.2								
	comp=Z,14nm,0.5s								
ULM	**Lac du Bonnet**	**22.90**	**180**	IAmb	IAmb	03 55 25.4			
	comp=Z,34nm,0.9s								
SKT	**Skwentna**	**22.90**	**270**	IAmb	IAmb	03 55 32.0			
	comp=Z,33nm,0.6s								
RC01	**Rabbit Creek A**	**23.09**	**267**	IA

L34A Svendsen Farm, 31.18 180 P **P** **03 56 39.0 +1.6**
L34A IAmb IAmb 03 56 57.3
comp=Z,17nm,0.7s
AHID Auburn Hatcher 31.21 202 IAmb IAmb 03 56 49.2
comp=Z,13nm,0.9s
AHID Auburn Hatcher 31.21 202 P **P** **03 56 41.0 +3.0**
comp=Z,15nm,0.9s
M44A Midewin, Midew 31.99 169 P **P** **03 56 45.8 +1.2**
M44A IAmb IAmb 03 56 47.1
comp=Z,18nm,0.7s
J05D Fort Rock, OR 32.13 216 P **P** **03 56 47.4 +1.4**
J05D IAmb IAmb 03 57 01.5
comp=Z,11nm,0.9s
HWUT Hardware Ranch 32.41 202 IAmb IAmb 03 57 01.5
comp=Z,9.1nm,0.8s
HWUT Hardware Ranch 32.41 202 P **P** **03 56 50.4 +1.9**
comp=Z,13nm,0.8s
WVOR Wild Horse Val 32.54 212 P **P** **03 56 51.2 +1.7**
K05A Summer Lake 32.62 215 P **P** **03 56 53.2 +2.9**
K05A IAmb IAmb 03 57 06.0
comp=Z,16nm,0.9s
N47A Urbana 32.65 165 P **P** **03 56 51.6 +1.3**
N47A IAmb IAmb 03 56 58.3
comp=Z,12nm,0.6s
TIXI Tiksi 32.74 336 LR LR 04 11 58.6
comp=Z,206nm,18.1s,baz=16,slow=40
TIXI Tiksi 32.74 336 P **P** **03 56 52.3 +1.5**
ARCES ARCESS Array B 32.74 34 P **P** **03 56 50.2 -0.7**
comp=Z,3.8nm,0.6s,baz=344,slow=8.2,SNR=15
ARCES LR LR 04 10 43.2
comp=Z,244nm,18.4s,baz=308,slow=38
comp=Z,3.8nm,0.6s
ARCES ARCESS Array B 32.74 34 P **P** **03 56 50.6 -0.3**
TCUT Toone Canyon 32.88 202 IAmb IAmb 03 57 03.8
comp=Z,11nm,0.7s
HAYD Hayden 33.08 196 IAmb IAmb 03 57 07.3
comp=Z,8.8nm,0.7s
MOD Modoc Plateau 33.32 214 IAmb IAmb 03 57 11.8
comp=Z,13nm,0.8s
BSUT Blindstream Ca 33.38 201 IAmb IAmb 03 57 09.1
comp=Z,24nm,1.2s
O49A Covington 33.45 164 P **P** **03 56 59.4 +2.1**
O20A White River Ci 33.54 197 P **P** **03 57 00.8 +2.5**
P43A Skaggs, Pawnee 33.66 171 P **P** **03 57 01.3 +2.2**
P43A IAmb IAmb 03 57 02.0
comp=Z,26nm,1.0s
P40A Paris 33.67 174 P **P** **03 57 00.2 +0.9**
P40A IAmb IAmb 03 57 01.7
comp=Z,16nm,1.0s
ISCO Idaho Springs 33.67 193 P **P** **03 57 02.1 +2.4**
ISCO IAmb IAmb 03 57 11.3
comp=Z,13nm,0.9s
ISCO Idaho Springs 33.67 193 P **P** **03 57 02.5 +2.9**
comp=Z,15nm,0.9s
ELK Elko 33.71 207 LR LR 04 11 10.7
comp=Z,614nm,18.4s,baz=15,slow=37
ELK Elko 33.71 207 P **P** **03 57 02.7 +2.9**
ELK IAmb IAmb 03 57 12.4
comp=Z,12nm,1.1s
P46A Rosedale 33.81 168 P **P** **03 57 01.9 +1.5**
P46A IAmb IAmb 03 57 03.3
comp=Z,20nm,0.9s
YBH Yreka Blue Hor 33.90 217 LR LR 04 11 36.3
comp=Z,270nm,18.0s,baz=4.5,slow=38
DUG Dugway, Tooele 33.95 203 IAmb IAmb 03 57 13.2
comp=Z,12nm,0.7s
DUG Dugway, Tooele 33.95 203 P **P** **03 57 04.9 +3.0**
comp=Z,18nm,0.8s
P48A Milroy 34.09 165 P **P** **03 57 04.4 +1.5**
NLU North Lily Min 34.10 202 IAmb IAmb 03 57 15.9
comp=Z,18nm,1.1s
P18A Preston Nutter 34.23 200 IAmb IAmb 03 57 17.9
comp=Z,14nm,1.0s
BLO Bloomington 34.30 167 IAmb IAmb 03 57 12.7
comp=Z,15nm,0.6s
P53A Whipple 34.41 160 P **P** **03 57 08.6 +2.9**
P53A IAmb IAmb 03 57 26.1
comp=Z,9.7nm,0.8s
Q44A Meyer Farm, Va 34.42 170 IAmb IAmb 03 57 08.3
comp=Z,24nm,0.9s
P17A Butcher Ranch, 34.44 200 IAmb IAmb 03 57 17.7
comp=Z,20nm,1.0s
Q24A Divide 34.48 193 P **P** **03 57 08.7 +2.1**
Q24A IAmb IAmb 03 57 20.4
comp=Z,26nm,1.0s
MVL Millersville 34.50 153 P **P** **03 57 08.5 +2.1**
MVL IAmb IAmb 03 57 17.2
comp=Z,13nm,0.7s
TMUT Trail Mountain 34.66 201 IAmb IAmb 03 57 20.9
comp=Z,20nm,0.9s
Q51A Peebles 34.69 163 IAmb IAmb 03 57 18.2
comp=Z,9.3nm,0.7s
Q52A Bidwell 34.85 161 IAmb IAmb 03 57 20.5
comp=Z,30nm,1.0s
Q56A Snyder Ridge, 35.09 157 IAmb IAmb 03 57 23.6
comp=Z,18nm,0.9s
O03E Paynes Creek 35.14 215 IAmb IAmb 03 57 24.7
comp=Z,17nm,0.7s
WCI Wyandotte Cave 35.25 167 P **P** **03 57 14.3 +1.4**
WCI IAmb IAmb 03 57 23.5
comp=Z,9.8nm,0.7s
WCI Wyandotte Cave 35.25 167 P **P** **03 57 14.5 +1.6**
comp=Z,14nm,0.7s
R49A Shelbyville 35.27 165 IAmb IAmb 03 57 23.5
comp=Z,15nm,0.7s
FVM French Village 35.27 172 IAmb IAmb 03 57 15.1
comp=Z,19nm,0.9s
R50A Paris 35.34 164 IAmb IAmb 03 57 24.3
comp=Z,12nm,1.0s
PV20 West Nyswonger 35.39 198 P **P** **03 57 16.5 +2.1**
S39A Bolivar 35.48 176 IAmb IAmb 03 57 16.8
comp=Z,14nm,0.7s
S44A Carbondale 35.61 171 IAmb IAmb 03 57 17.9
comp=Z,15nm,0.8s
PSUT Pine Spring 35.71 204 P **P** **03 57 19.9 +2.8**
PSUT IAmb IAmb 03 57 34.0
comp=Z,12nm,0.9s
SDCO Great Sand Dun 35.71 193 P **P** **03 57 18.4 +1.2**
SDCO IAmb IAmb 03 57 28.5
comp=Z,13nm,0.7s
KVN Kaiserville 35.77 210 P **P** **03 57 21.3 +3.7**
HMU Henry Mountain 35.95 200 IAmb IAmb 03 57 30.4
comp=Z,13nm,0.9s
PNTR Pine Nut 35.96 212 P **P** **03 57 23.4 +4.1**
PNTR IAmb IAmb 03 57 33.2
comp=Z,19nm,0.7s
YERR Yerington 36.00 211 P P 03 57 24.1 +4.5
YERR IAmb IAmb 03 57 24.7
comp=Z,8.2nm,0.6s
S51A Beattyville 36.04 163 IAmb IAmb 03 57 22.1
comp=Z,12nm,0.8s
SUTB Sutter Butte 36.17 215 IAmb IAmb 03 57 32.4
comp=Z,9.9nm,0.5s
T35A Sooner Cattle 36.23 181 IAmb IAmb 03 57 23.3
comp=Z,31nm,1.0s
BLOK Blackwell 36.39 182 IAmb IAmb 03 57 24.9
comp=Z,19nm,1.0s
NVAR Mina Array Bea 36.41 210 P **P** **03 57 25.9 +2.8**
comp=Z,2.3nm,0.6s,baz=12,slow=7.1,SNR=17
NVAR PcP **PcP** **03 59 48.2 +1.2**
comp=Z,2.1nm,0.5s,baz=18,slow=5.0,SNR=6.6
NVAR LR LR 04 12 37.1
comp=Z,202nm,21.1s,baz=1.5,slow=37
comp=Z,2.3nm,0.6s
NVAR Mina Array Bea 36.41 210 P **P** **03 57 26.4 +3.3**
T47A Sharon Grove 36.43 168 IAmb IAmb 03 57 25.1
comp=Z,36nm,1.1s
MVCO Mesa Verde 36.47 197 P **P** **03 57 27.6 +4.0**
comp=Z,40nm,1.0s
NOKA Waynoka 36.54 184 IAmb IAmb 03 57 26.3
comp=Z,35nm,1.0s
T50A Nancy 36.55 165 IAmb IAmb 03 57 34.7
comp=Z,15nm,0.7s
PKCU Pink Cliffs 36.61 202 P **P** **03 57 28.3 +3.3**
PKCU IAmb IAmb 03 57 38.9
comp=Z,27nm,1.0s
LHV Little Huntoon 36.61 210 P **P** **03 57 27.1 +2.6**
OK051 E0360 and S346 36.64 181 IAmb IAmb 03 57 27.0
comp=Z,20nm,0.9s
S11A Rachel 36.82 207 IAmb IAmb 03 57 40.5
comp=Z,14nm,0.9s
HHAR Hobbs 36.88 177 P **P** **03 57 26.7 -0.1**
PRN Pahroc Range 36.97 206 IAmb IAmb 03 57 39.6
comp=Z,13nm,0.8s
U49A Red Boiling Sp 36.99 166 IAmb IAmb 03 57 30.4
comp=Z,12nm,0.8s
LCAR Lake Charles 37.15 173 IAmb IAmb 03 57 30.8
comp=Z,19nm,0.7s
TUL3 Leonard 37.23 180 IAmb IAmb 03 57 31.8
comp=Z,26nm,1.1s
WVT Waverly 37.24 169 P **P** **03 57 30.8 +0.9**
WVT Waverly 37.24 169 P P 03 57 27.2 -2.7
comp=Z,7.3nm,1.1s
DEOK Depew 37.30 181 IAmb IAmb 03 57 32.6
comp=Z,29nm,0.9s
U54A Nelsons Funny 37.31 161 IAmb IAmb 03 57 41.0
comp=Z,20nm,0.9s
CLTN Cedars of Leba 37.37 167 IAmb IAmb 03 57 34.2
comp=Z,22nm,1.2s
NB2 NORSAR Subarra 37.54 50 P **P** **03 57 32.5 +0.2**
comp=Z,2.9nm,0.9s,baz=333,slow=8.6
NOA NORSAR Array B 37.54 50 P **P** **03 57 32.2 -0.1**
comp=Z,2.7nm,1.0s,baz=325,slow=7.7,SNR=6.3
NOA LR LR 04 12 43.9
comp=Z,193nm,18.4s,baz=330,slow=36
comp=Z,2.7nm,1.0s
NRIK Noril'sk 37.81 358 LR LR 04 14 01.4
comp=Z,269nm,18.1s,baz=5.5,slow=38
PH02 Texas Public H 37.87 188 IAmb IAmb 03 57 38.0
comp=Z,23nm,0.9s
W35A Tecumseh 37.99 181 IAmb IAmb 03 57 38.4
comp=Z,31nm,0.9s
TKL Tuckaleeches C 37.99 164 LR LR 04 13 50.6
comp=Z,219nm,20.7s,baz=360,slow=37
SMWD Samnorwood 38.09 186 IAmb IAmb 03 57 49.0
comp=Z,27nm,0.7s
CPCT Cooper Cave 38.14 165 IAmb IAmb 03 57 40.0
comp=Z,17nm,1.0s
IDGL Inch Island, C 38.14 69 P **P** **03 57 36.3 -1.0**
SWET Sewanee 38.27 167 IAmb IAmb 03 57 40.5
comp=Z,30nm,0.7s
W50A Signal Mountai 38.33 166 IAmb IAmb 03 57 50.6
comp=Z,17nm,0.9s
UALR University of 38.41 175 IAmb IAmb 03 57 41.3
comp=Z,26nm,0.7s
WUAZ Wupatki 38.42 200 IAmb IAmb 03 57 54.1
comp=Z,20nm,1.1s
WMOK Wichita Mounta 38.43 184 IAmb IAmb 03 57 42.4
comp=Z,26nm,0.8s
WMOK Wichita Mounta 38.43 184 P **P** **03 57 41.5 +1.5**
comp=Z,38nm,0.9s
ANMO Albuquerque 38.56 194 LR LR 04 12 02.6
comp=Z,175nm,21.4s,baz=15,slow=34
ANMO Albuquerque 38.56 194 P **P** **03 57 44.1 +2.8**
ANMO Albuquerque 38.56 194 P **P** **03 57 44.5 +3.2**
comp=Z,7.2nm,1.4s
ALQ Albuquerque 38.56 194 IAmb IAmb 03 57 54.7
comp=Z,6.5nm,0.8s
MIAR Mount Ida 38.61 177 P **P** **03 57 42.5 +0.9**
HFS Hagfors 38.90 49 P **P** **03 57 43.0 -0.7**
comp=Z,11nm,0.9s,baz=42,slow=6.8,SNR=7.8
HFS PcP **PcP** **03 59 53.7 -0.2**
comp=Z,2.1nm,0.7s,baz=318,slow=4.1,SNR=1.7
HFS LR LR 04 13 08.0
comp=Z,254nm,19.2s,baz=314,slow=35
comp=Z,11nm,0.9s
X48A Hartselle 38.96 168 IAmb IAmb 03 57 46.2
comp=Z,20nm,0.8s
X51A Calhoun 38.99 165 IAmb IAmb 03 57 47.1
comp=Z,26nm,1.1s
EKA Eskilstuna Ar 39.08 65 P **P** **03 57 45.0 -0.3**
comp=Z,11nm,0.7s,baz=324,slow=8.2,SNR=28
EKA LR LR 04 13 45.5
comp=Z,361nm,18.6s,baz=342,slow=36
comp=Z,11nm,0.7s
IGLA Glengowla, Co 39.09 71 P **P** **03 57 44.6 -0.7**
LOOK Love County 39.15 182 IAmb IAmb 03 57 48.9
comp=Z,44nm,0.9s
ILTH Belurgan, Co L 39.39 68 P **P** **03 57 47.0 -0.8**
WTFS Witchita Falls 39.39 183 IAmb IAmb 03 57 51.0
comp=Z,28nm,0.8s
WLAR White Oak Lake 39.48 176 IAmb IAmb 03 57 51.7
comp=Z,30nm,0.8s
Y22A Socorro 39.60 194 IAmb IAmb 03 57 54.1
comp=Z,27nm,1.1s
TPO Tropico Hills 39.88 209 P P 03 57 56.8 +4.6
DSB Dublin 40.07 69 P **P** **03 57 53.0 -0.5**
Z47A Carrollton 40.15 170 IAmb IAmb 03 57 55.7
comp=Z,18nm,0.7s
MA2 Magadan 40.16 314 LR LR 04 17 02.3
comp=Z,138nm,19.4s,baz=36,slow=40
VAL Valentia 40.17 73 P **P** **03 57 54.2 -0.1**
POST Post 40.17 187 IAmb IAmb 03 57 56.8
comp=Z,32nm,0.8s
FW06 Azle 40.17 182 IAmb IAmb 03 57 56.9
comp=Z,21nm,0.9s
FINES FINESS Array B 40.22 39 P **P** **03 57 54.0 -0.6**
comp=Z,10nm,0.9s,baz=347,slow=9.9,SNR=20
FINES PcP **PcP** **03 59 58.0 -0.1**
comp=Z,1.3nm,0.6s,baz=349,slow=2.9,SNR=3.5
FINES LR LR 04 14 13.6
comp=Z,461nm,18.0s,baz=16,slow=36
comp=Z,10nm,0.9s
BFSC Mount Baldy Ra 40.43 208 IAmb IAmb 03 58 09.2
comp=Z,27nm,1.2s
SHEM Shemya Is, Ala 40.59 291 LR LR 04 18 41.9
comp=Z,109nm,18.3s,baz=314,slow=42
BC3 Big Chuckawall 40.72 205 P **P** **03 58 02.5 +3.3**
IWEX Carrickbyrne, 40.74 70 P **P** **03 57 58.3 -0.8**
FW13 Cleburne 40.79 182 IAmb IAmb 03 58 03.0
comp=Z,15nm,0.8s
152A Waverly Hall 40.89 165 IAmb IAmb 03 58 02.6
comp=Z,15nm,0.6s
PFO Pinyon Flats O 40.89 206 LR LR 04 16 06.7
comp=Z,223nm,18.2s,baz=7.5,slow=38
ELS Elsinore Mount 40.98 208 P **P** **03 58 04.6 +3.3**
121A Cookes Peak, D 41.05 195 IAmb IAmb 03 58 13.8
comp=Z,15nm,0.8s
ODSA Odessa 41.15 188 IAmb IAmb 03 58 05.0
comp=Z,25nm,0.7s
SGCY Sterling City 41.30 187 IAmb IAmb 03 58 06.1
comp=Z,24nm,0.8s
250A Grady 41.47 167 IAmb IAmb 03 58 14.7
comp=Z,20nm,0.9s
TUC Tucson 41.53 199 P **P** **03 58 08.9 +3.1**
TUC Tucson 41.53 199 P **P** **03 58 09.0 +3.1**
comp=Z,17nm,0.8s
TMB01 Midkiff 41.58 188 IAmb IAmb 03 58 08.6
comp=Z,19nm,0.7s
YAK Yakutsk 41.69 330 LR LR 04 15 51.8
comp=Z,121nm,21.6s,baz=14,slow=37
TPB28 41.70 191 IAmb IAmb 03 58 09.9
comp=Z,5.7nm,0.6s
MNTX Cornudas Mount 41.72 192 P **P** **03 58 09.4 +2.0**
comp=Z,12nm,0.8s
TPB07 Mentone 41.74 190 IAmb IAmb 03 58 10.7
comp=Z,23nm,0.7s
BRDY Brady 41.87 184 IAmb IAmb 03 58 10.9
comp=Z,15nm,0.8s
346A Big Creek Wild 41.88 172 IAmb IAmb 03 58 11.8
comp=Z,43nm,1.1s
OZNA Ozona 42.29 187 IAmb IAmb 03 58 14.8
comp=Z,12nm,0.7s
TPB01 Permian Basin 42.38 190 IAmb IAmb 03 58 15.8
comp=Z,18nm,0.7s
PIX Pinacate 42.55 202 P **P** **03 58 18.3 +4.2**
JCT Junction City 42.69 185 IAmb IAmb 03 58 17.8
comp=Z,26nm,0.7s
ALPN Alpine 42.94 190 IAmb IAmb 03 58 20.6
comp=Z,21nm,0.9s
HKT Hockley 43.17 180 P **P** **03 58 21.5 +2.4**
HNDO Hondo 43.63 184 IAmb IAmb 03 58 25.6
comp=Z,29nm,0.8s
BSEG Bad Segeberg 43.76 55 *eP* **P** **03 58 24.0 +0.4**
comp=Z,36nm,0.8s,baz=339,slow=7.8
TXAR Lajitas Array 43.98 190 P **P** **03 58 27.5 +1.8**
comp=Z,4.6nm,0.7s,baz=7.0,slow=6.5,SNR=56
TXAR LR LR 04 16 47.4
comp=Z,106nm,18.3s,baz=2.5,slow=36
comp=Z,4.6nm,0.7s
PETK Petropavlovsk- 44.49 304 P **P** **03 58 30.8 +1.2**
comp=Z,3.3nm,0.8s,baz=37,slow=7.1,SNR=5.8
PETK PcP **PcP** **04 00 12.6 +0.1**
comp=Z,1.9nm,0.7s,baz=32,slow=4.3,SNR=1.1
PETK LR LR 04 19 47.6
comp=Z,64nm,19.7s,baz=49,slow=40
comp=Z,3.3nm,0.8s
IBBN Ibbenburen 44.62 58 *eP* **P** **03 58 31.4 +0.8**
comp=Z,13nm,0.8s,baz=339,slow=7.8
833A Chaparral WMA, 44.83 184 IAmb IAmb 03 58 36.8
comp=Z,14nm,0.7s
BMOL Mol 44.95 61 *dP* **P** **03 58 33.8 +0.7**
UCC Uccle 45.14 62 *dP* **P** **03 58 33.7 -0.9**
comp=Z,6.9nm,1.0s
BOPT Opiter 45.18 60 *dP* **P** **03 58 36.4 +1.4**
comp=Z,19nm,1.2s
FLTG Flechtingen 45.45 55 *eP* **P** **03 58 37.1 0.0**
comp=Z,9.2nm,0.8s,baz=339,slow=7.8
ASSE Asse, Remlinge 45.50 56 *eP* **P** **03 58 37.6 +0.1**
comp=Z,7.9nm,0.8s,baz=339,slow=7.8
CLZ Clausthal 45.69 56 *eP* **P** **03 58 39.2 +0.1**
comp=Z,21nm,0.8s,baz=339,slow=7.8
BMRD Maredsous 45.70 62 *dP* **P** **03 58 39.1 0.0**
comp=Z,14nm,0.8s
BMRD *d*PcP **PcP** **04 00 14.5 -2.2**
BCLA Clavier 45.73 61 *dP* **P** **03 58 39.1 -0.3**
MEM Membach 45.74 60 *dP* **P** **03 58 39.4 0.0**
comp=Z,13nm,0.9s
MEM Membach 45.74 60 P **P** **03 58 39.4 0.0**
comp=Z,20nm,1.1s
KASTN Kahler Asten 45.80 58 *eP* **P** **03 58 40.1 +0.2**
comp=Z,13nm,0.9s,baz=339,slow=7.8
DOU Dourbes 45.85 62 *dP* **P** **03 58 39.4 -0.9**
comp=Z,10nm,1.0s
GTTG Gottingen 45.87 57 *eP* **P** **03 58 40.6 +0.2**
comp=Z,56nm,0.9s,baz=339,slow=7.8
RCHB Rochefort 45.95 61 *dP* **P** **03 58 40.5 -0.6**
comp=Z,7.7nm,0.7s
NACGM Naroch 46.47 42 *eP* **P** **03 58 44.8 -0.3**
comp=Z,35nm,0.9s,baz=340
KIRV Kirov 46.53 24 LR LR 04 19 51.6
comp=Z,193nm,18.0s,baz=344,slow=38
NEUB Neuenburg 46.62 55 *eP* **P** **03 58 46.2 -0.1**
comp=Z,12nm,0.9s,baz=339,slow=7.8
WLF Walferdange 46.64 61 *dP* **P** **03 58 46.3 -0.2**
comp=Z,8.5nm,0.9s
WLF Walferdange 46.64 61 *eP* **P** **03 58 47.1 +0.5**
comp=Z,8.4nm,0.9s,baz=339,slow=7.8
TNS Taunus Mts 46.71 59 *eP* **P** **03 58 47.5 +0.4**
comp=Z,11nm,0.8s,baz=339,slow=7.8
CLL Collm 46.82 54 IAmb IAmb 03 58 48.8
comp=Z,13nm,0.9s
CLL Collm 46.82 54 *eP* **P** **03 58 47.5 -0.4**
comp=Z,8.7nm,0.7s,baz=339,slow=7.8
CLL Collm 46.82 54 ⇑ *iP* **P** **03 58 47.9 0.0**
comp=Z,13nm,0.6s
CLL L L 04 16 00.0
CLL AMS AMS 04 17 00.0
comp=Z,200nm,17.7s
MNK Minsk 47.06 41 *i* P **P** **03 58 49.6 -0.2**
comp=E,19nm,0.9s
MNK *i* P **P** **03 58 49.6 -0.2**
comp=N,9.0nm,0.9s
MNK *i* P **P** **03 58 49.6 -0.2**
comp=Z,19nm,0.8s,baz=341
MNK *i* PP **PP** **04 00 40.2 +0.2**
MNK *i* PPP PPP 04 01 23.4
MNK *i* S **S** **04 05 41.9 +1.6**
MNK *i* SS **SS** **04 09 09.7 +3.2**
MNK *i* SSS SSS 04 10 09.4
MNK *i* LQ LQ 04 15 00.5
MNK *i* LR LR 04 17 13.8
MNK *i* LRM MLR 04 19 26.4
comp=N,220nm,20.6s
MNK *i* LRM MLR 04 19 55.0
comp=Z,141nm,14.7s
MOX Moxa 47.10 56 *eP* **P** **03 58 49.8 -0.4**
comp=Z,9.1nm,0.6s,baz=339,slow=7.8
BRG Berggiesshubel 47.45 54 *eP* **P** **03 58 52.6 -0.2**
comp=Z,7.1nm,0.8s,baz=339,slow=7.8
BRG *ep*P pP 03 59 01.4 +3.3
BRG Berggiesshubel 47.45 54 *eP* **P** **03 58 52.8 0.0**
BRG Amp 03 58 53.9
comp=Z,8.6nm,0.9s
BRG Berggiesshubel 47.45 54 P P 03 59 01.4 +8.6
BRG Amp 03 59 02.5
comp=Z,11nm,1.0s
TANN Tannenbergstha 47.52 55 *eP* **P** **03 58 53.4 0.0**
comp=Z,11nm,0.9s,baz=339,slow=7.8
HSKC Hora Svate Kat 47.57 54 *eP* **P** **03 58 54.0 +0.2**
NKC Novy Kostel 47.68 55 *eP* **P** **03 58 54.9 +0.2**
GRF Grafenberg Arr 47.89 57 *eP* **P** **03 58 56.3 0.0**
comp=Z,24nm,0.8s,baz=339,slow=7.8
GRF *ep*P pP 03 59 05.4 +3.9
GRFO Grafenberg 47.89 57 P **P** **03 58 57.4 +1.2**
KSP Ksiaz 48.03 52 *eP* **P** **03 58 57.9 +0.6**
KSP Ksiaz 48.03 52 P **P** **03 58 57.9 +0.6**
comp=Z,74nm,0.9s
KSP sP sP 03 59 03.6 -1.0
comp=Z,74nm,0.9s
CHVC Chvalec 48.21 52 *eP* **P** **03 58 59.1 +0.3**
ECH Echery 48.24 61 IAmb IAmb 03 58 59.8
comp=Z,9.2nm,0.7s
STU Stuttgart 48.24 59 *eP* **P** **03 58 59.2 +0.2**
comp=Z,33nm,0.9s,baz=339,slow=7.8
OSTC Ostas 48.27 52 *eP* **P** **03 58 59.4 +0.1**
BFO Black Forest 48.43 60 P **P** **03 59 00.7 +0.2**
BFO Black Forest 48.43 60 *eP* **P** **03 59 00.7 +0.2**
comp=Z,13nm,0.9s,baz=339,slow=7.8
DPC Dobruska-Polom 48.49 52 *eP* **P** **03 59 01.4 +0.4**
WET Wettzell 48.80 56 *eP* **P** **03 59 03.8 +0.4**
comp=Z,4.9nm,0.8s,baz=339,slow=7.8
ZVC Zvikov 48.84 54 *eP* **P** **03 59 04.1 +0.5**
KRLC Kraliky 48.86 52 *eP* **P** **03 59 04.1 +0.3**
KHC Kasperske Hory 48.98 55 IAmb IAmb 03 59 14.7
comp=Z,8.1nm,1.0s
KHC Kasperske Hory 48.98 55 *eP* **P** **03 59 05.1 +0.4**
STEB Steborice 49.22 51 *eP* **P** **03 59 06.1 -0.4**
GEC2 GERESS Array S 49.28 55 IAmb IAmb 03 59 16.7
comp=Z,15nm,1.1s
GEC2 GERESS Array S 49.28 55 *eP* **P** **03 59 07.2 +0.2**
comp=Z,5.6nm,0.8s,baz=339,slow=7.8
GEC2 *ep*P pP 03 59 16.1 +3.8
GERES GERESS Array B 49.28 55 P **P** **03 59 07.6 +0.5**
comp=Z,4.7nm,0.6s,baz=337,slow=6.6,SNR=35
comp=Z,4.7nm,0.6s
TREC Trest 49.28 53 *eP* **P** **03 59 07.6 +0.6**
MORC Moravsky Berou 49.31 52 IAmb IAmb 03 59 08.5
comp=Z,18nm,0.8s
MORC Moravsky Berou 49.31 52 *eP* **P** **03 59 07.5 +0.3**
MORC *e* 03 59 15.6
MORC Moravsky Berou 49.31 52 ⇑P **P** **03 59 07.8 +0.5**
FUR Furstenfeldbru 49.32 57 *eP* **P** **03 59 07.7 +0.4**
comp=Z,28nm,0.8s,baz=339,slow=7.8
FUR *ep*P pP 03 59 16.7 +4.1
OJC Ojcow 49.41 50 *eP* **P** **03 59 08.4 +0.5**
OJC Ojcow 49.41 50 P **P** **03 59 08.1 +0.2**
comp=Z,25nm,0.9s
UBR Ueberruh 49.48 59 *eP* **P** **03 59 09.0 +0.4**
comp=Z,18nm,0.8s,baz=339,slow=7.8
VRAC Vranov 49.53 53 LR LR 04 19 27.8
comp=Z,84nm,18.4s,baz=338,slow=35
VRAC Vranov 49.53 53 *eP* **P** **03 59 09.3 +0.4**
VRAC *e* 03 59 17.5
RNPP9 Sopachiv 49.59 44 P **P** **03 59 09.2 0.0**
LPIG La Paz 49.62 197 LR LR 04 18 20.3
comp=Z,53nm,21.2s,baz=22,slow=34
ARTI Arti 49.64 18 LR LR 04 22 09.2
comp=Z,136nm,18.1s,baz=344,slow=39
ARTI Arti 49.64 18 P **P** **03 59 09.6 0.0**
ARTI IAmb IAmb 03 59 19.0
comp=Z,16nm,1.1s
KRUC Moravsky 49.71 53 *eP* **P** **03 59 10.7 +0.4**
KRUC *e* 03 59 18.6
DAVA Damuels 49.79 59 *i* P **P** **03 59 11.6 +0.6**
comp=Z,14nm,0.8s,SNR=11
PGAV Gavieira, Arco 49.80 77 *eP* **P** **03 59 11.2 +0.1**
RETA Reutte 49.82 58 *i* P **P** **03 59 11.8 +0.6**
comp=Z,8.8nm,0.8s,SNR=9.3
ABNA Allensteig Bun 49.85 54 *i* P **P** **03 59 11.8 +0.4**
comp=Z,19nm,0.6s
SENIN Lac Senin/Sane 49.99 62 IAmb IAmb 03 59 14.0
comp=Z,13nm,0.8s
MOTA Moosalm 50.04 58 *i* P **P** **03 59 13.5 +0.5**
comp=Z,20nm,1.1s,SNR=12
PCAB Cabril 50.10 77 *eP* **P** **03 59 13.6 +0.3**
PCAB IAmb IAmb 03 59 14.1
comp=Z,31nm,0.9s
WATA Walderalm 50.17 58 *eP* **P** **03 59 14.6 +0.7**
comp=Z,10.0nm,0.6s,SNR=6.3
SQTA Sankt Quirin 50.18 58 *i* P **P** **03 59 14.7 +0.7**
comp=Z,14nm,1.2s
JAVC Velka Javorina 50.20 52 *eP* **P** **03 59 15.3 +1.3**
JAVC *e* 03 59 23.6
FETA Feichten 50.25 58 *i* P **P** **03 59 15.2 +0.7**
comp=Z,8.7nm,0.8s,SNR=6.3
WTTA Wattenberg 50.25 58 *i* pP **P** **03 59 15.5 +0.9**
comp=Z,12nm,0.8s,SNR=8.4
LANS Liptovska Anna 50.34 50 *eP* **P** **03 59 16.3 +1.3**
LANS *e* 03 59 24.1
BIOA Bad Ischl, Aus 50.34 56 *i* P **P** **03 59 15.1 0.0**

comp=Z,5.5nm,1.0s
MOA Molln 50.34 55 *i* P **P** **03 59 15.0 0.0**
comp=Z,4.6nm,0.8s
LESA Schwarzleotal 50.35 57 *i* P **P** **03 59 15.3 +0.1**
comp=Z,7.7nm,0.8s
PBRG Braganca 50.38 76 *eP* **P**
PBRG IAmb IAmb 03 59 25.0
comp=Z,17nm,1.6s
TUE Stuetta 50.41 60 IAmb IAmb 03 59 17.6
comp=Z,12nn,0.7s
TUE Stuetta 50.41 60 P **P** **03 59 16.9 +1.1**
comp=Z,83nm,0.9s
ZAIG Zacatecas 50.46 188 IAmb IAmb 03 59 20.2
comp=Z,12nn,0.8s
PTO Porto 50.47 78 *eP* **P** **03 59 16.2 +0.1**
POLO Lamas de Olo 50.48 77 *eP* **P** **03 59 16.5 +0.2**
FUORN Ofenpass-Fuorn 50.51 59 IAmb IAmb 03 59 18.8
comp=Z,15nn,0.8s
WINA Alland / Wiene 50.53 54 *i* P **P** **03 59 17.0 +0.5**
comp=Z,18nn,0.5s,SNR=8.0
MODS Modra-Piesok 50.56 52 *eP* **P** **03 59 17.6 +0.9**
MODS *e* 03 59 25.7
PVRL Vila Real 50.59 77 *eP* **P** **03 59 16.9 -0.2**
PVRL IAmb IAmb 03 59 22.2
comp=Z,17nn,1.6s
CONA Conrad Observa 50.65 54 *i* P **P** **03 59 18.0 +0.5**
comp=Z,8.3nn,0.6s,SNR=5.2
VYHS Vyhne 50.81 51 *eP* **P** **03 59 18.9 +0.3**
VYHS *e* 03 59 27.1
KBA Koelnbreinsper 50.84 56 *i* P **P** **03 59 19.1 +0.1**
comp=Z,3.8nn,0.6s
AK22 Malin Array Si 50.84 42 P **P** **03 59 18.1 -0.6**
AK20 Malin Array Si 50.85 42 P **P** **03 59 18.3 -0.5**
AK19 Malin Array Si 50.87 42 P **P** **03 59 18.4 -0.5**
AK18 Malin Array Si 50.88 42 P **P** **03 59 18.6 -0.4**
AK04 Malin Array Si 50.90 42 P **P** **03 59 18.7 -0.5**
AKASG Malin Array Be 50.93 42 P **P** **03 59 19.1 -0.3**
comp=Z,2.4nn,0.6s,baz=339,slow=7.8,SNR=18
AKASG LR LR 04 20 25.9
comp=Z,302nn,18.8s,baz=12,slow=36
comp=Z,2.4nn,0.6s
AKBB Malin Array Si 50.93 42 P **P** **03 59 19.7 +0.3**
KIEV Kiev 50.93 42 P **P** **03 59 19.1 -0.3**
KIEV IAmb IAmb 03 59 27.7
comp=Z,12nn,0.8s
KIEV Kiev 50.93 42 ⇑P **P** **03 59 19.5 +0.1**
AK16 Malin Array Si 50.94 42 P **P** **03 59 19.0 -0.4**
AK11 Malin Array Si 50.94 42 P **P** **03 59 19.0 -0.5**
ABTA Abfaltersbach 50.95 57 *i* P **P** **03 59 20.1 +0.4**
comp=Z,8.9nn,0.9s
RONA Rosalia, Austr 50.97 54 *i* P **P** **03 59 20.6 +0.8**
comp=Z,17nn,0.7s,SNR=13
AK09 Malin Array Si 51.02 42 P **P** **03 59 19.5 -0.6**
BNI Bardonecchia 51.05 63 IAmb IAmb 03 59 22.5
comp=Z,13nn,1.1s
PVIS Viseu 51.06 78 *eP* **P** **03 59 20.1 -0.5**
AK07 Malin Array Si 51.07 42 P **P** **03 59 20.0 -0.4**
SESA Seetaler Alpe, 51.10 55 *i* P **P** **03 59 21.7 +0.6**
comp=Z,25nn,1.1s,SNR=9.6
KOLS Kolonicke sedl 51.16 48 *eP* **P** **03 59 22.4 +1.2**
KECS Kecovo 51.19 50 *eP* **P** **03 59 22.1 +0.7**
ARSA Arzberg 51.20 54 IAmb IAmb 03 59 23.4
comp=Z,8.8nn,0.8s
ARSA Arzberg 51.20 54 *i* P **P** **03 59 22.2 +0.7**
comp=Z,8.2nn,0.7s
MYKA Terra Mystica 51.33 56 *i* P **P** **03 59 22.9 +0.3**
comp=Z,8.5nn,1.1s
LUBAR Lubar, Ukraine 51.38 43 P **P** **03 59 22.8 0.0**
CTI Castel Tesino 51.38 58 IAmb IAmb 03 59 24.4
comp=Z,25nn,1.0s
MTE Manteigas 51.45 77 IAmb IAmb 03 59 24.5
comp=Z,17nn,0.8s
MTE Manteigas 51.45 77 *eP* **P** **03 59 23.7 +0.1**
MTE IAmb IAmb 03 59 39.6
comp=Z,23nn,1.8s
PRED Cave del Predi 51.49 56 IAmb IAmb 03 59 24.6
comp=Z,11nn,0.8s
PSZ Piszkesteto 51.59 51 ⇓P **P** **03 59 25.8 +1.3**
SOKA Soboth 51.62 55 *i* P **P** **03 59 25.0 +0.2**
comp=Z,6.8nn,0.6s,SNR=7.0
OBKA Obir 51.66 56 *i* P **P** **03 59 25.1 0.0**
comp=Z,25nn,1.0s,SNR=12
PERS Pernice 51.68 55 *i* P **P** **03 59 25.5 +0.3**
PERS *i* pP pP 03 59 33.8 +3.3
MPLH Magyarpolny 51.76 53 P **P** **03 59 26.3 +0.6**
comp=Z,30nn,0.9s
PSBE So Bento 51.92 79 *eP* **P** **03 59 26.9 -0.1**
PSBE IAmb IAmb 03 59 35.1
comp=Z,23nn,1.5s
PCBR Castelo Branco 51.99 78 *eP* **P** **03 59 27.5 0.0**
PCBR IAmb IAmb 03 59 28.5
comp=Z,26nn,1.5s
PSARD Sardoal 52.02 78 *eP* **P** **03 59 27.6 -0.2**
LJU Ljubljana 52.10 56 *i* P **P** **03 59 28.1 -0.1**
PMAFR Mafra 52.29 80 *eP* **P** **03 59 30.1 +0.3**
BELG Belogornoye 52.35 27 LR LR 04 21 57.7
comp=Z,163nn,19.2s,baz=279,slow=36
CEY Cerknica 52.36 56 *i* P **P** **03 59 29.7 -0.5**
CEY *i* pP pP 03 59 38.3 +2.7
PMTG Montargil 52.49 79 *eP* **P** **03 59 30.9 -0.4**
PMTG IAmb IAmb 03 59 40.6
comp=Z,17nn,1.6s
BMR Baia Mare 52.62 48 ⇓P **P** **03 59 33.1 +1.0**
PARRA Arraiolos 52.78 79 *eP* **P** **03 59 33.0 -0.4**
PARRA IAmb IAmb 03 59 46.7
comp=Z,15nn,1.9s
PESTR Estremoz 52.86 78 *eP* **P** **03 59 35.3 +1.3**
MORH Mrgy, Hungar 52.91 52 ⇑P **P** **03 59 34.9 +0.7**
MORH Mrgy, Hungar 52.91 52 P **P** **03 59 34.2 0.0**
comp=Z,12nn,0.9s
MOE Montemor 52.96 79 *eP* **P** **03 59 34.6 -0.1**
MESR Meseseni 53.00 48 ⇑P **P** **03 59 35.9 +1.0**
BUR08 Bucovina Ar. S 53.02 46 IAmb IAmb 03 59 45.5
comp=Z,9.2nn,0.7s
BURAR Bucovina Array 53.05 46 P **P** **03 59 35.9 +0.5**
BURAR IAmb IAmb 03 59 45.6
comp=Z,12nn,0.7s
BURAR Bucovina Array 53.05 46 ⇓P **P** **03 59 35.8 +0.4**
EVO Evora 53.05 79 *eP* **P** **03 59 35.2 -0.2**
ESBB Sonseca Array 53.15 75 IAmb IAmb 03 59 37.3
comp=Z,15nn,0.7s
ESDC Sonseca Array 53.15 75 P **P** **03 59 36.3 +0.2**
comp=Z,15nn,0.7s,baz=336,slow=7.3,SNR=134
ESDC LR LR 04 21 31.5
comp=Z,51nn,18.7s,baz=324,slow=35
comp=Z,15nn,0.7s
ESDC Sonseca Array 53.15 75 P **P** **03 59 36.2 0.0**
ESDC IAmb IAmb 03 59 37.1
comp=Z,22nn,0.9s
PAB San Pablo 53.16 75 P **P** **03 59 36.4 +0.2**
PAB IAmb IAmb 03 59 37.4
comp=Z,18nn,0.8s
SORM Soroca 53.20 44 ⇑P **P** **03 59 36.6 +0.3**
ZALV Zalesovo Beam 53.27 359 P **P** **03 59 36.3 -0.5**
comp=Z,1.8nn,0.4s,baz=350,slow=7.5,SNR=10
ZALV PcP **PcP** **04 00 43.7 -0.5**
comp=Z,3.5nn,0.7s,baz=356,slow=4.9,SNR=6.0
ZALV LR LR 04 23 53.6
comp=Z,155nn,18.1s,baz=10.0,slow=38
comp=Z,1.8nn,0.4s
ZALV Zalesovo Beam 53.27 359 P **P** **03 59 36.2 -0.6**
DRGR 53.29 49 ⇓P **P** **03 59 37.8 +0.7**
ARCR ARCALIA 53.37 47 ⇓P **P** **03 59 38.7 +1.1**
HEH HeiHe 53.38 327 *eP* **P** **03 59 37.3 -0.3**
HEH pmax pmax
comp=Z,31nn,0.8s
PLOUS Minas do Lousa 53.40 79 *eP* **P** **03 59 37.8 -0.1**
MARR Marisel-Cluj 53.48 48 ⇓P **P** **03 59 39.3 +0.7**
SIRR Siria 53.55 50 ⇓P **P** **03 59 40.3 +1.4**
PBEJ Beja 53.56 79 *eP* **P** **03 59 39.4 +0.3**
KLR Kul'dur 53.63 323 LR LR 04 24 12.4
comp=Z,124nn,20.4s,baz=22,slow=38
MESJ Messejana 53.64 79 *eP* **P** **03 59 39.6 -0.1**
MESJ IAmb IAmb 03 59 39.9
comp=Z,3.3nn,0.8s
MESJ Messejana 53.64 79 *eP* **P** **03 59 39.7 0.0**
PBAR Barrancos 53.66 78 *eP* **P** **03 59 40.1 +0.2**
PBAR IAmb IAmb 03 59 49.6
comp=Z,28nn,1.8s
PTEO Sao Teotonio 53.77 80 *eP* **P** **03 59 41.2 +0.6**
BVAR Borovoye Array 53.85 10 P **P** **03 59 41.8 +0.8**
comp=Z,3.0nn,0.4s,baz=335,slow=6.6,SNR=20
BVAR PcP **PcP** **04 00 46.3 -0.2**
comp=Z,3.6nn,0.7s,baz=342,slow=6.3,SNR=3.6
comp=Z,3.0nn,0.4s

BIZ Bicaz 53.88 46 ⇓P **P** **03 59 42.3 +1.0**
BLY Banja Luka 53.95 54 IAmb IAmb 03 59 42.8
comp=Z,6.8nn,0.6s
BLY Banja Luka 53.95 54 ⇓P **P** **03 59 42.3 +0.4**
PFVI Vila Bisbo 54.12 80 *eP* **P** **03 59 43.6 +0.4**
SURR Surduc 54.14 50 ⇓P **P** **03 59 44.5 +1.3**
BZS Buzias 54.16 50 ⇑P **P** **03 59 44.0 +0.6**
PBDV Barranco-do-Ve 54.27 79 *eP* **P** **03 59 45.1 +0.7**
DMBR Dumbraveni 54.30 45 ⇑P **P** **03 59 45.0 +0.5**
MNTR Muntenesti 54.35 45 ⇓P **P** **03 59 45.6 +0.8**
TESR Tescani 54.40 46 ⇓P **P** **03 59 46.8 +1.6**
FDMO Fiordimonte 54.57 58 IAmb IAmb 03 59 57.5
comp=Z,13nn,0.8s
GZR Gura Zlata 54.63 49 ⇓P **P** **03 59 47.8 +0.9**
DOPR Dopca 54.65 47 ⇓P **P** **03 59 47.9 +0.9**
TURR Turia 54.70 46 ⇑P **P** **03 59 48.5 +1.1**
NRCA Norcia 54.76 58 IAmb IAmb 04 00 00.1
comp=Z,16nn,0.9s
TLY Talaya 54.80 345 LR LR 04 22 56.1
comp=Z,90nn,21.0s,baz=7.0,slow=36
TLY Talaya 54.80 345 P **P** **03 59 48.5 +0.5**
TLY IAmb IAmb 03 59 49.4
comp=Z,8.5nn,0.7s
CESX Cesi 54.84 59 IAmb IAmb 03 59 58.6
comp=Z,7.8nn,0.8s
COVR Voineasa-Covas 54.94 46 ⇑P **P** **03 59 49.6 +0.5**
MDVR Moldovita 54.97 50 ⇓P **P** **03 59 49.9 +0.6**
PLOR Plostina 55.03 46 ⇓P **P** **03 59 50.4 +0.6**
VRI Vrincioaia 55.03 46 ⇑P **P** **03 59 51.2 +1.4**
HERR Herculane 55.03 50 ⇑P **P** **03 59 50.5 +0.8**
ARR Arges 55.06 48 ⇓P **P** **03 59 50.9 +0.9**
VOIR 55.08 47 ⇑P **P** **03 59 51.2 +1.0**
SAHR Sahastru 55.15 46 ⇑P **P** **03 59 50.7 0.0**
HILR Hailar Array B 55.20 332 P **P** **03 59 51.2 +0.3**
comp=Z,12nn,0.6s,baz=18,slow=6.6,SNR=16
comp=Z,12nn,0.6s
MLR Muntele Rosu 55.22 47 IAmb IAmb 04 00 01.5
comp=Z,13nn,1.0s
MLR Muntele Rosu 55.22 47 ⇑P **P** **03 59 51.7 +0.4**
AKTO Aktyubinsk 55.49 20 LR LR 04 26 26.4
comp=Z,409nn,18.6s,baz=344,slow=39
PMAR Madeira 55.87 90 *eP* P 04 00 01.1 +5.0
SDDR Presa de Saban 55.88 151 P **P** **03 59 57.2 +1.1**
CMIG Matias Romero 55.98 179 LR LR 04 26 46.6
comp=Z,80nn,18.5s,baz=2.5,slow=39
CFR Carcaliu 55.98 45 ⇑P **P** **03 59 57.3 +0.7**
BOVS Bovan 56.05 51 ⇓P **P** **03 59 57.5 +0.4**
TLCR 56.11 44 ⇑P **P** **03 59 58.1 +0.6**
PETF Flores 56.26 173 P **P** **04 00 00.7 +1.8**
BLKB Belogradchik 56.29 50 ⇓P **P** **03 59 59.0 +0.2**
TPGR Topolog 56.35 45 ⇓P **P** **04 00 00.1 +0.8**
COPA Copaceanca 56.36 48 ⇑P **P** **03 59 59.7 +0.4**
ASAJ Asahikawa 56.40 312 LR LR 04 28 12.1
comp=Z,85nn,18.3s,baz=82,slow=40
KURK Kurchatov 56.46 4 P **P** **03 59 59.6 -0.2**
KURBB Kurchatov Arra 56.55 4 P **P** **04 00 00.4 -0.1**
comp=Z,4.7nn,0.7s,baz=356,slow=7.4,SNR=30
KURBB PcP **PcP** **04 00 57.3 +0.4**
comp=Z,0.7nn,0.3s,baz=355,slow=6.0,SNR=6.2
KURBB LR LR 04 25 41.1
comp=Z,100nn,22.0s,baz=186,slow=38
comp=Z,4.7nn,0.7s
PDG Podgorica 56.63 53 P **P** **04 00 00.4 -0.9**
PDG Podgorica 56.63 53 ⇓P **P** **04 00 01.3 +0.1**
PODR Polo 56.68 152 P **P** **04 00 03.8 +1.8**
CCIG Comitan 56.83 176 P **P** **04 00 05.0 +1.9**
AB31 Akbulak array 56.84 19 P **P** **04 00 03.0 +0.3**
LOZB Loznitsa 57.38 47 ⇑P **P** **04 00 06.4 -0.2**
BNX BinXian 57.76 325 ⇓P **P** **04 00 08.8 -0.4**
BNX pmax pmax
comp=Z,20nn,0.6s
AVE Averroes 58.11 80 P **P** **04 00 10.9 -0.8**
ULN Ulaanbaatar 58.31 342 P **P** **04 00 13.8 +0.6**
ULN IAmb IAmb 04 00 22.8
comp=Z,12nn,0.8s
SONM Songino Array 58.40 342 P **P** **04 00 14.9 +1.1**
comp=Z,8.9nn,0.5s,baz=1.2,slow=6.5,SNR=70
SONM LR LR 04 26 32.6
comp=Z,95nn,20.2s,baz=3.5,slow=37
comp=Z,8.9nn,0.5s
SONM Songino Array 58.40 342 P **P** **04 00 14.6 +0.8**
SONM IAmb IAmb 04 00 16.3
comp=Z,11nn,0.8s
USA0B Ussuriysk Ar. 58.45 321 IAmb IAmb 04 00 14.8
comp=Z,15nn,1.0s
USRK Ussuriysk Ar. 58.45 321 P **P** **04 00 13.8 -0.2**
comp=Z,9.1nn,0.8s,baz=12,slow=7.8,SNR=18
USRK LR LR 04 26 46.8
comp=Z,94nn,21.3s,baz=17,slow=38
comp=Z,9.1nn,0.8s
MTO3 Mecrisio 58.78 172 P **P** **04 00 18.5 +1.7**
MD01 Midelt array s 59.27 78 P **P** **04 00 20.4 +0.4**
MD31 MD31 59.27 78 IAmb IAmb 04 00 22.3
comp=Z,6.3nn,0.9s
MDT Midelt 59.37 78 LR LR 04 22 20.7
comp=Z,70nn,21.2s,baz=350,slow=32
KBZ Khabaz 60.11 33 P **P** **04 00 25.4 0.0**
comp=Z,4.4nn,0.8s,baz=353,slow=4.7,SNR=5.9
KBZ LR LR 04 27 15.8
comp=Z,232nn,18.1s,baz=348,slow=37
comp=Z,4.4nn,0.8s
MAKZ Makanchi 60.42 2 P **P** **04 00 27.2 -0.4**
MKAR Makanchi Array 60.43 1 P **P** **04 00 27.3 -0.4**
comp=Z,5.6nn,1.0s,baz=19,slow=5.1,SNR=24
MKAR PcP **PcP** **04 01 12.6 +0.2**
comp=Z,4.8nn,0.8s,baz=302,slow=1.0,SNR=6.6
MKAR LR LR 04 28 54.0
comp=Z,169nn,19.0s,baz=348,slow=38
comp=Z,5.6nn,1.0s
MKAR Makanchi Array 60.43 1 P **P** **04 00 27.0 -0.7**
KEST Kesra 60.49 64 P **P** **04 00 28.1 -0.2**
comp=Z,6.8nn,0.6s,baz=347,slow=1.6,SNR=15
comp=Z,6.8nn,0.6s
BOAB BOACO BROADBAND 60.90 168 P **P** **04 00 32.8 +1.7**
BRTR Keskin Array B 62.33 42 P **P** **04 00 41.2 +0.4**
comp=Z,0.8nn,0.6s,baz=318,slow=4.7,SNR=6.2
BRTR LR LR 04 28 04.5
comp=Z,78nn,18.1s,baz=359,slow=36
comp=Z,0.8nn,0.6s
WMQ Urumqi 63.38 357 *eP* **P** **04 00 51.4 +3.8**
WMQ L L
comp=Z,110nn,23.8s
TAVA DENIZLI_Tavas 63.54 47 ⇓P **P** **04 00 49.7 +0.9**
LCR2 La Lucha 2 63.69 167 P **P** **04 00 50.0 -0.1**
LCR2 IAmb IAmb 04 00 50.5
comp=Z,12nn,0.8s
KK31 Karatay Array 63.75 11 IAmb IAmb 04 00 59.4
comp=Z,7.8nn,1.0s
KKAR Karatay Array 63.75 11 P **P** **04 00 50.1 +0.1**
GNI Garni 63.89 33 LR LR 04 30 02.4
comp=Z,121nn,18.2s,baz=350,slow=37
SJCC San Jacinto, C 64.34 157 P **P** **04 00 55.8 +1.7**
SJCC IAmb IAmb 04 00 56.3
comp=Z,6.5nn,0.6s
AAK Ala-Archa 64.41 8 LR LR 04 31 08.2
comp=Z,109nn,19.2s,baz=357,slow=38
AAK Ala-Archa 64.41 8 P **P** **04 00 55.7 +1.2**
AAK IAmb IAmb 04 00 56.2
comp=Z,8.3nn,0.8s
MJAR Matsushiro Arr 64.60 314 P **P** **04 00 55.6 -0.1**
comp=Z,3.5nn,0.9s,baz=4.8,slow=7.3,SNR=7.3
MJAR LR LR 04 34 10.7
comp=Z,59nn,18.2s,baz=34,slow=41
comp=Z,3.5nn,0.9s
BJI2 Beijing 65.04 333 P **P** **04 00 58.8 +0.3**
BJI2 pmax pmax
comp=Z,8.0nn,0.9s
BTO2 Baotou 65.08 339 *eP* **P** **04 00 57.0 -1.9**
BTO2 pmax pmax
comp=Z,15nn,0.7s
BTO2 pmax pmax
comp=Z,160nn,5.2s
ARSB Arslanbob 65.65 9 P **P** **04 01 03.6 +1.0**
ARSB IAmb IAmb 04 01 12.9
comp=Z,6.0nn,0.7s
KSRS Korea Array 65.73 323 P **P** **04 01 03.1 +0.3**
comp=Z,7.2nn,1.0s,baz=358,slow=6.2,SNR=12
KSRS LR LR 04 31 18.5
comp=Z,105nn,20.3s,baz=20,slow=38
comp=Z,7.2nn,1.0s
SDV Santo Domingo 65.90 152 LR LR 04 28 44.3
comp=Z,122nn,22.0s,baz=332,slow=35
GTA2 Gaotai 67.21 347 *eP* **P** **04 01 12.9 +0.3**
GTA2 pP PcP 04 01 19.0 -21
GTA2 pmax pmax
comp=Z,9.0nn,0.9s

KSH2 Kashi 67.93 7 P **P** **04 01 18.0 +0.8**
KSH2 sP PcP 04 01 26.4 -17
KSH2 pmax pmax
comp=Z,11nn,0.8s
RUSC La Rusia 68.53 155 IAmb IAmb 04 01 30.8
comp=Z,9.7nn,0.9s
MMAI Mount Meron Ar 69.17 42 P **P** **04 01 24.9 0.0**
comp=Z,1.0nn,0.5s,baz=359,slow=12,SNR=1.7
comp=Z,1.0nn,0.5s
JNU Nakatsue 69.39 319 LR LR 04 32 39.4
comp=Z,79nn,21.1s,baz=13,slow=37
ROSC El Rosal 69.42 157 P **P** **04 01 28.9 +2.0**
comp=Z,16nn,0.7s,baz=13,slow=6.2,SNR=14
comp=Z,16nn,0.7s
ROSC El Rosal 69.42 157 P **P** **04 01 29.0 +2.0**
ASF Jabal al Asfar 70.28 41 LR LR 04 33 29.5
comp=Z,85nn,20.0s,baz=342,slow=37
LZDM Lanzhou Array 70.42 343 P **P** **04 01 33.5 +0.7**
comp=Z,1.6nn,0.3s,baz=46,slow=4.3,SNR=4.0
comp=Z,1.6nn,0.3s
LYN LuoYang 70.90 335 P **P** **04 01 35.8 +0.4**
LYN pP PcP 04 01 41.8 -14
LYN pmax pmax
comp=Z,25nn,0.8s
TAM Tamanrasset 71.69 72 P **P** **04 01 40.5 +0.1**
XAN Xi'an 71.81 338 P P 04 01 46.1 +5.1
XAN pmax pmax
comp=Z,7.0nn,0.7s
KBL Kabul 72.19 13 P **P** **04 01 43.6 +0.2**
EIL Elat 72.33 44 LR LR 04 36 58.8
comp=Z,53nn,18.4s,baz=2.0,slow=39
NJ2 Nanjing 72.49 329 *eP* **P** **04 01 45.3 +0.4**
NJ2 pmax pmax
comp=Z,9.0nn,0.6s
MDP Montagnes des 72.75 134 LR LR 04 33 15.1
comp=Z,74nn,19.4s,baz=12,slow=35
OTAV Otavalo 73.54 162 P **P** **04 01 52.9 +1.0**
OTAV IAmb IAmb 04 01 56.7
comp=Z,12nn,0.9s
BOAV Boa Vista 73.86 143 P **P** **04 01 53.7 +0.5**
BOAV IAmb IAmb 04 01 54.5
comp=Z,17nn,0.8s
WHN Wuhan 74.61 333 P **P** **04 01 57.1 -0.3**
WHN sP PcP 04 02 03.0 -8.7
EVN Everest 79.22 357 P **P** **04 02 24.6 +0.3**
EVN IAmb IAmb 04 02 25.6
comp=Z,7.3nn,0.8s
GYA Guiyang 79.55 339 P **P** **04 02 23.6 -1.8**
GYA pmax pmax
comp=Z,6.0nn,0.5s
TORD Torodi Ar. Bea 79.77 79 P **P** **04 02 26.3 -0.2**
comp=Z,2.8nn,0.5s,baz=338,slow=6.2,SNR=15
ATAH Atahualpa 80.84 162 LR LR 04 39 25.3
comp=Z,49nn,19.9s,baz=5.1,slow=36
SLVN Son La 84.90 341 P **P** **04 02 53.8 +0.4**
SLVN IAmb IAmb 04 03 01.0
comp=Z,13nn,1.1s
NNA Nana 85.78 161 LR LR 04 44 20.0
comp=Z,29nn,19.2s,baz=344,slow=38
CMAR Chiang Mai Arr 88.16 346 LR LR 04 45 14.7
comp=Z,46nn,19.1s,baz=10.0,slow=37
VILB Vilhena 88.93 145 P **P** **04 03 14.0 +1.2**
VILB IAmb IAmb 04 03 14.9
comp=Z,9.9nn,0.8s
LPAZ La Paz 91.02 153 P **P** **04 03 23.0 -0.2**
comp=Z,3.1nn,1.0s,baz=12,slow=11,SNR=8.4
LPAZ LR LR 04 46 38.4
comp=Z,58nn,20.1s,baz=2.5,slow=37
comp=Z,3.1nn,1.0s
LPAZ La Paz 91.02 153 IAmb IAmb 04 03 26.9
comp=Z,6.0nn,1.1s
ATD Arta Tunnel 91.52 40 LR LR 04 44 45.6
comp=Z,14nn,21.8s,baz=250,slow=36
PTLB Pontes e Lacer 91.55 145 P **P** **04 03 26.0 +1.0**
PB16 IPOC Station P 92.86 155 P **P** **04 03 32.7 +1.1**
PB16 IAmb IAmb 04 03 35.2
comp=Z,3.8nn,0.9s
DAV Davao City (W) 95.77 319 LR LR 04 50 13.5
comp=Z,26nn,19.7s,baz=323,slow=38
PPT Papeete 96.93 231 LR LR 04 43 29.0
comp=Z,26nn,19.5s,baz=122,slow=33
AFI Afiamalu 99.11 252 LR LR 04 44 14.9
comp=Z,103nn,19.2s,baz=14,slow=33
PALK Pallekele 99.79 3 LR LR 04 53 56.6
comp=Z,65nn,19.2s,baz=356,slow=38
PLCA Paso Flores 114.86 159 PKKPbc PKKPbc 04 19 34.8 +1.6
comp=Z,1.3nn,0.8s,baz=214,slow=3.8,SNR=3.2
WRA Warramunga Arr 120.00 303 PKP **PKPdf** **04 09 07.8 -0.9**
comp=Z,1.5nn,0.6s,baz=352,slow=2.0,SNR=24
WRA PKKPbc **PKKPbc** **04 19 16.4 +1.9**
comp=Z,0.4nn,0.7s,baz=202,slow=3.6,SNR=5.2
FITZ Fitzroy Crossi 120.23 313 PKP **PKPdf** **04 09 08.2 -1.0**
comp=Z,1.1nn,0.6s,baz=323,slow=4.1,SNR=8.2
AS15 Alice Springs 123.65 303 P **PKPdf** **04 09 15.2 -0.4**
AS17 Alice Springs 123.66 302 P **PKPdf** **04 09 15.5 -0.2**
ASAR Alice Springs 123.68 303 PKP **PKPdf** **04 09 15.0 -0.7**
comp=Z,3.7nn,0.7s,baz=356,slow=2.4,SNR=40
ASAR PKKPbc **PKKPbc** **04 19 02.6 +2.1**
comp=Z,0.5nn,0.5s,baz=195,slow=4.0,SNR=6.8
AS09 Alice Springs 123.70 302 P **PKPdf** **04 09 15.3 -0.4**
BOSA Boshof 126.11 68 PKP **PKPdf** **04 09 20.5 +0.2**
comp=Z,1.6nn,0.9s,baz=320,slow=1.4,SNR=3.6
STKA Stephens Creek 129.49 291 PKP **PKPdf** **04 09 26.3 -0.2**
comp=Z,2.7nn,0.6s,baz=312,slow=13,SNR=4.2
VNA1 Neumayer--Stat 153.85 131 PKPdf **PKPbc** **04 10 15.8 +0.1**
comp=Z,12nn,0.9s
VNA1 ⇑PKPab **PKPab** **04 10 30.2 +1.1**
comp=Z,12nn,0.9s
VNA3 Neumayer Olymp 153.99 133 ⇑PKPdf **PKPbc** **04 10 15.6 -0.5**
comp=Z,14nn,0.8s
VNA3 ⇓PKPab **PKPab** **04 10 30.6 +0.9**
comp=Z,14nn,0.8s
VNA2 Neumayer--Watz 154.25 131 ⇑PKPdf **PKPbc** **04 10 16.4 -0.2**
comp=Z,8.3nn,0.6s,baz=326,slow=4.5
VNA2 ⇓PKPab **PKPab** **04 10 31.6 +0.8**
comp=Z,8.3nn,0.6s,baz=316,slow=5.9
SNAA Sanae 155.80 130 ⇑PKPab **PKPab** **04 10 37.8 +0.3**
comp=Z,106nn,0.6s
SNAA Sanae 155.80 130 PKPab **PKPab** **04 10 37.4 -0.2**
comp=Z,4.7nn,0.6s,baz=331,slow=4.6,SNR=8.7
TROLL Troll, Antarti 157.27 127 PKPab **PKPab** **04 10 44.6 +0.6**
comp=Z,208nm,0.7s
VNDA Vanda 161.19 221 PKPab **PKPab** **04 11 03.1 +2.4**
comp=Z,1.6nn,0.8s,baz=93,slow=6.0,SNR=5.0
QSPA South Pole Qui 162.99 180 PKPab **PKPab** **04 11 09.9 +0.9**
comp=Z,9.1nn,0.7s,baz=124,slow=1.3,SNR=22

WEL ***23*** *03:54:00.1±0.8,38°S±4°×17°7E±°, h62km±7km, M2.8/24, ML2.7/24, MLv2.8/24, Error ellipse: s-maj=5.8km s-min=4.9km az=48.3*
NOU ***23*** *03:54:01.6,38°.36S×176°.66E, h25km, MLv3.5/11, North Island, New Zealand*
ISC 23 03:54:01.9±1.4, 38°.37S±0°.03×176°.70E±0°.03, h63km±7km, n80, σ0°91/91, North Island

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
MUGZ	**Murupara**	**0.12**	**154**	P	**Pn**	**Pn**	**03 54 10.7**	**-0.7**
MUGZ				S	**Sn**	**Sn**	**03 54 18.5**	**+0.2**
MUGZ				AML	AML			
MUGZ				AML	AML			
RRRZ	**Republican Roa**	**0.15**	**281**	P	**Pn**	**Pn**	**03 54 11.1**	**-0.4**
RRRZ				AML	AML			
RRRZ				AML	AML			
TARZ	**Mount Tarawera**	**0.20**	**310**	P	**Pn**	**Pn**	**03 54 11.6**	**-0.3**
TARZ				AML	AML			
TARZ				AML	AML			
EDRZ	**Edgecumbe**	**0.26**	**6**	P	**Pn**	**Pn**	**03 54 11.4**	**-0.7**
EDRZ				S	**Sn**	**Sn**	**03 54 21.0**	**+1.3**
EDRZ				AML	AML			
EDRZ				AML	AML			
PRRZ	**Plateau Road**	**0.28**	**242**	P	**Pn**	**Pn**	**03 54 11.7**	**-0.5**
PRRZ				S	**Sn**	**Sn**	**03 54 20.3**	**+0.6**
PRRZ				AML	AML			
PRRZ				AML	AML			
MKRZ	**Makatiti**	**0.29**	**321**	P	**Pn**	**Pn**	**03 54 12.7**	**+0.2**
MKRZ				AML	AML			
MKRZ				AML	AML			
HLRZ	**Highlands Stat**	**0.30**	**293**	P	**Pn**	**Pn**	**03 54 12.3**	**-0.1**
HLRZ				AML	AML			
HLRZ				AML	AML			
HRRZ	**Handcock Road**	**0.33**	**266**	P	**Pn**	**Pn**	**03 54 12.1**	**-0.5**
HRRZ				AML	AML			
HRRZ				AML	AML			

RTZ	**Ruatahuna**	**0.33**	**139**	P	**Pn**	**03 54 11.9**	**-0.7**
RTZ				S	**Sn**	**03 54 21.1**	**+0.5**
RTZ				AML	AML		
RTZ				AML	AML		
URZ	**Urewera**	**0.34**	**72**	P	**Pn**	**03 54 11.4**	**-1.2**
URZ	**Urewera**	**0.34**	**72**	P	**Pn**	**03 54 11.6**	**-1.0**
URZ				S	**Sn**	**03 54 20.1**	**-0.3**
URZ				AML	AML		
URZ				AML	AML		
ALRZ	**Allen Road**	**0.34**	**235**	P	**Pn**	**03 54 12.1**	**-0.6**
ALRZ				AML	AML		
ALRZ				AML	AML		
MARZ	**Manawahe**	**0.38**	**357**	P	**Pn**	**03 54 12.5**	**-0.6**
MARZ				AML	AML		
MARZ				AML	AML		
UTU	**Utuhina**	**0.44**	**295**	P	**Pn**	**03 54 13.4**	**-0.2**
UTU				AML	AML		
UTU				AML	AML		
WPRZ	**Whakapapatarin**	**0.45**	**250**	P	**Pn**	**03 54 13.2**	**-0.5**
WPRZ				AML	AML		
WPRZ				AML	AML		
GRRZ	**Galatos Road**	**0.47**	**272**	P	**Pn**	**03 54 13.5**	**-0.3**
GRRZ				AML	AML		
GRRZ				AML	AML		
NGRZ	**Ngongotaha**	**0.48**	**303**	P	**Pn**	**03 54 13.8**	**-0.2**
NGRZ				AML	AML		
NGRZ				AML	AML		
MTHZ	**Maungataniwha**	**0.50**	**167**	P	**Pn**	**03 54 13.4**	**-0.7**
MTHZ				S	**Sn**	**03 54 23.3**	**+0.2**
MTHZ				AML	AML		
MTHZ				AML	AML		
KARZ	**Kaharoa**	**0.50**	**314**	P	**Pn**	**03 54 13.4**	**-0.7**
KARZ				AML	AML		
KARZ				AML	AML		
MRHZ	**Matea Rd**	**0.52**	**206**	P	**Pn**	**03 54 13.5**	**-0.8**
MRHZ				S	**Sn**	**03 54 23.2**	**-0.3**
MRHZ				AML	AML		
MRHZ				AML	AML		
OPRZ	**Ohinepanea**	**0.54**	**347**	P	**Pn**	**03 54 13.4**	**-1.0**
OPRZ				AML	AML		
OPRZ				AML	AML		
WHRZ	**Whale Island**	**0.55**	**23**	P	**Pn**	**03 54 14.1**	**-0.6**
WHRZ				AML	AML		
WHRZ				AML	AML		
RAGZ	**Rawiri**	**0.57**	**103**	P	**Pn**	**03 54 14.2**	**-0.8**
RAGZ				S	**Sn**	**03 54 25.6**	**+1.0**
RAGZ				AML	AML		
RAGZ				AML	AML		
RAHZ	**Arahi**	**0.62**	**151**	P	**Pn**	**03 54 15.9**	**+0.4**
RAHZ				S	**Sn**	**03 54 28.0**	**+2.6**
RAHZ				AML	AML		
RAHZ				AML	AML		
MWZ	**Matawai**	**0.65**	**87**	P	**Pn**	**03 54 14.6**	**-1.2**
MWZ				S	**Sn**	**03 54 25.6**	**-0.3**
MWZ				AML	AML		
MWZ				AML	AML		
KUTZ	**Kaahu Road**	**0.70**	**260**	P	**Pn**	**03 54 15.7**	**-0.6**
KUTZ				AML	AML		
KUTZ				AML	AML		
TGRZ	**Tauranga**	**0.73**	**331**	P	**Pn**	**03 54 15.8**	**-0.9**
TGRZ				AML	AML		
TGRZ				AML	AML		
NMHZ	**Naumai**	**0.73**	**174**	P	**Pn**	**03 54 16.5**	**-0.3**
NMHZ				AML	AML		
NMHZ				AML	AML		
KMRZ	**Kaimai**	**0.80**	**311**	P	**Pn**	**03 54 16.7**	**-0.8**
KMRZ				AML	AML		
KMRZ				AML	AML		
BKZ	**Black Stump Fm**	**0.81**	**192**	P	**Pn**	**03 54 16.6**	**-1.2**
BKZ	**Black Stump Fm**	**0.81**	**192**	S	**Sn**	**03 54 28.8**	**-0.6**
BKZ	**Black Stump Fm**	**0.81**	**192**	P	**Pn**	**03 54 16.7**	**-1.1**
BKZ				S	**Sn**	**03 54 28.8**	**-0.6**
BKZ				AML	AML		
BKZ				AML	AML		
WHHZ	**Waihua**	**0.82**	**150**	P	**Pn**	**03 54 17.6**	**-0.2**
WHHZ				AML	AML		
WHHZ				AML	AML		
WATZ	**Wairara**	**0.83**	**246**	P	**Pn**	**03 54 17.2**	**-0.8**
RUGZ	**Raukumara Rang**	**0.87**	**63**	P	**Pn**	**03 54 16.6**	**-1.9**
RATZ	**Rangitukua**	**0.88**	**235**	P	**Pn**	**03 54 18.1**	**-0.5**
RIGZ	**Rimuhau**	**0.90**	**112**	P	**Pn**	**03 54 18.2**	**-0.6**
RITZ	**Rihia Road**	**0.90**	**227**	P	**Pn**	**03 54 18.3**	**-0.5**
TKGZ	**Te Karaka**	**0.90**	**95**	P	**Pn**	**03 54 19.1**	**+0.3**
TLZ	**Tolley Road**	**0.92**	**272**	P	**Pn**	**03 54 17.8**	**-1.2**
ARHZ	**Aropaoanui**	**0.92**	**166**	P	**Pn**	**03 54 18.9**	**-0.2**
KATZ	**Kakaramea**	**0.99**	**232**	P	**Pn**	**03 54 19.9**	**-0.2**
TWGZ	**Tauwhareparae**	**1.02**	**80**	P	**Pn**	**03 54 20.9**	**+0.5**
HAZ	**Te Kaha**	**1.05**	**55**	P	**Pn**	**03 54 18.7**	**-1.9**
MCHZ	**McNeill Hill**	**1.07**	**180**	P	**Pn**	**03 54 18.2**	**-2.8**
KWHZ	**Kaweka Forest**	**1.08**	**192**	P	**Pn**	**03 54 20.4**	**-0.7**
PRGZ	**Paritu Road**	**1.08**	**121**	P	**Pn**	**03 54 20.0**	**-1.1**
TMVZ	**Te Maari**	**1.08**	**226**	P	**Pn**	**03 54 20.4**	**-0.8**
NTVZ	**North Tongarir**	**1.08**	**227**	P	**Pn**	**03 54 20.6**	**-0.6**
KRVZ	**Karewarewa**	**1.10**	**229**	P	**Pn**	**03 54 21.1**	**-0.4**
OTVZ	**Oturere**	**1.14**	**225**	P	**Pn**	**03 54 21.2**	**-0.7**
TOZ	**Tahuroa Road**	**1.14**	**303**	P	**Pn**	**03 54 21.0**	**-0.8**
MYRZ	**Mayor Island**	**1.15**	**341**	P	**Pn**	**03 54 21.0**	**-0.9**
WTVZ	**West Tongariro**	**1.15**	**229**	P	**Pn**	**03 54 21.4**	**-0.7**
SNVZ	**South Ngauruho**	**1.17**	**225**	P	**Pn**	**03 54 21.6**	**-0.7**
NGZ	**Ngauruhoe**	**1.18**	**227**	P	**Pn**	**03 54 22.0**	**-0.6**
CNGZ	**Carnagh Statio**	**1.19**	**96**	P	**Pn**	**03 54 22.3**	**-0.2**
TWVZ	**Taurewa**	**1.21**	**234**	P	**Pn**	**03 54 22.2**	**-0.8**
TUVZ	**Tukino**	**1.22**	**222**	P	**Pn**	**03 54 22.1**	**-0.9**
MHGZ	**Mahia Peninsul**	**1.23**	**130**	P	**Pn**	**03 54 21.9**	**-1.1**
COVZ	**Chateau Observ**	**1.23**	**227**	P	**Pn**	**03 54 22.6**	**-0.6**
FWVZ	**Far West T-bar**	**1.26**	**225**	P	**Pn**	**03 54 22.8**	**-0.9**
WHVZ	**Whangaehu Hut**	**1.26**	**223**	P	**Pn**	**03 54 22.8**	**-0.8**
MAVZ	**Matarangi**	**1.27**	**224**	P	**Pn**	**03 54 23.4**	**-0.4**
MOVZ	**Moawhango**	**1.28**	**215**	P	**Pn**	**03 54 22.4**	**-1.3**
WNVZ	**Wahianoa**	**1.29**	**222**	P	**Pn**	**03 54 23.0**	**-1.0**
TRVZ	**Turoa**	**1.30**	**224**	P	**Pn**	**03 54 23.3**	**-0.9**
KRHZ	**Kereru**	**1.30**	**191**	P	**Pn**	**03 54 22.8**	**-1.2**
CKHZ	**Cape Kidnapper**	**1.32**	**167**	P	**Pn**	**03 54 23.0**	**-1.2**
MTVZ	**Mangateitei**	**1.40**	**223**	P	**Pn**	**03 54 25.1**	**-0.2**
PKVZ	**Pokaka**	**1.40**	**229**	P	**Pn**	**03 54 24.7**	**-0.7**
KAHZ	**Kahuranaki**	**1.43**	**175**	P	**Pn**	**03 54 24.4**	**-1.4**
HIZ	**Hauiti**	**1.46**	**264**	P	**Pn**	**03 54 25.5**	**-0.6**
HIZ	**Hauiti**	**1.46**	**264**	S	**Sn**	**03 54 44.3**	**0.0**
MXZ	**Matakaoa Point**	**1.50**	**58**	P	**Pn**	**03 54 26.9**	**+0.3**
MXZ	**Matakaoa Point**	**1.50**	**58**	S	**Sn**	**03 54 46.8**	**+1.5**
KHEZ	**Kahui Hut**	**2.29**	**245**	P	**Pn**	**03 54 38.2**	**+0.8**
SNZO	**South Karori**	**3.32**	**207**	P	**Pn**	**03 54 52.9**	**+1.6**
QRZ	**Quartz Range**	**4.05**	**231**	P	**Pn**	**03 55 00.8**	**-0.6**
KHZ	**Kahutara**	**4.71**	**210**	P	**Pn**	**03 55 11.3**	**+1.0**

IDC 23 04:25:50.3±6.5,6°.09S×128°.97E,h262km±63km,mb3.1/2,
mbtmp4.1/5,Error ellipse: s-maj=83.8km s-min=32.3km
az=64.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.38**	**195**	P	Pn	04 28 36.4	-2.0
	5.6nm,0.4s,baz=22,slow=12,SNR=48						
FITZ				S	S	04 30 45.5	-11
	2.8nm,0.6s,baz=118,slow=20,SNR=4.3						
WRA	**Warramunga Arr**	**14.73**	**160**	P	P	04 29 05.6	-0.9
	2.5nm,0.4s,baz=341,slow=11,SNR=56						
WRA				S	S	04 31 41.3	-8.0
	2.2nm,0.6s,baz=346,slow=20,SNR=8.9						
ASAR	**Alice Springs**	**18.11**	**165**	P	P	04 29 44.9	+1.3
	10nm,0.5s,baz=342,slow=9.0,SNR=104						
ASAR				S	S	04 32 55.0	-2.3
	1.4nm,0.9s,baz=348,slow=21,SNR=8.1						
MKAR	**Makanchi Array**	**66.91**	**327**	P	P	04 36 15.1	+0.5
	0.2nm,0.5s,baz=123,slow=7.6,SNR=1.9						
	0.2nm,0.5s						
QSPA	**South Pole Qui**	**83.89**	**180**	P	P	04 37 49.9	-0.7
	0.5nm,0.4s,baz=8.2,slow=4.1,SNR=5.0						
	0.5nm,0.4s						

IDC 23 04:41:23.1±2.3,1°.97N×127°.45E,h0km,mb3.5/3,
mbtmp3.5/3,Error ellipse: s-maj=157.1km
s-min=28.1km az=67.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**22.80**	**163**	P	P	04 46 27.9	+0.2
	0.9nm,0.4s,baz=343,slow=11,SNR=16						
	0.9nm,0.4s						

ASAR	**Alice Springs**	**26.24**	**167**	P	P	04 46 59.6	-0.5
	0.4nm,0.5s,baz=350,slow=7.6,SNR=5.2						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**59.41**	**326**	P	P	04 51 27.7	+0.2
	0.2nm,0.4s,baz=121,slow=6.6,SNR=2.5						
	0.2nm,0.4s						

IDC 23 05:03:49.5±2.2,2°.15S×128°.62E,h0km,mb3.3/2,
mbtmp3.4/4,ML3.4/2,MS3.1/1,Error ellipse: s-maj=98.7km
s-min=26.9km az=73.0
DJA 23 05:03:55.1±1.4,3°.5±3°×12°.7E±°,h18km±13km,M3.1/5,
MLv3.1/5

ISC 23 05:03:55.3±1.8,2°.7S±0°.2×127°.3E±0°.2,h29km,n6,σ0°89/6,
Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANI	**Sanana**	**1.47**	**298**	P	**Pn**	**05 04 19.4**	**-0.5**
SANI				S	**Sn**	**05 04 38.1**	**-0.1**
SANI				AML	AML		
FITZ	**Fitzroy Crossi**	**15.35**	**186**	Pn	**P**	**05 07 35.4**	**+0.8**
	0.1nm,0.3s,baz=15,slow=12,SNR=1.2						
	0.7nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**18.44**	**159**	P	**P**	**05 08 07.8**	**-0.9**
	0.2nm,0.3s,baz=341,slow=11,SNR=11						
	0.4nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.77**	**163**	P	**P**	**05 08 44.4**	**-0.5**
	0.3nm,0.3s,baz=344,slow=12,SNR=5.5						
	0.3nm,0.3s						
NWAO	**Narrogin (SRO)**	**31.48**	**196**	LR	LR	05 23 30.5	
	comp=Z,29nm,18.4s,baz=294,slow=36						
MKAR	**Makanchi Array**	**63.20**	**327**	P	**P**	**05 14 21.6**	**+0.6**
	0.3nm,0.7s,baz=126,slow=7.3,SNR=2.6						
	0.3nm,0.7s						

ASRS 23 05:15:06.0±1.3,54°.29N×86°.13E,h0km,M2.7(MOS),The
earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

IDC 23 05:15:07.7±4.0,54°.29N×86°.18E,h0km,mbtmp2.8/2,
ML2.7/2,Error ellipse: s-maj=33.4km s-min=14.1km
az=61.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.87**	**247**	I	I	05 20 00.0	
	baz=66,slow=336,SNR=12						
ZALV	**Zalesovo Beam**	**0.87**	**247**	Pg	Pg	05 15 23.6	-0.8
	1.0nm,0.3s,baz=66,slow=17,SNR=14						
ZALV				Lg	Lg	05 15 36.4	
	3.0nm,0.3s,baz=67,slow=33,SNR=8.1						
KURBB	**Kurchatov Arra**	**5.95**	**235**	Pn	Pn	05 16 38.0	+1.1
	0.2nm,0.3s,baz=51,slow=13,SNR=4.4						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.90**	**200**	Pn	Pn	05 17 04.7	+0.9
	0.2nm,0.3s,baz=22,slow=12,SNR=8.2						
	0.2nm,0.3s						
MKAR				AML	AML		

CATAC 23 05:18:57.2±0.4,15°.N±2°.×8°.7W±°,h1km,M4.5/25,
MLv4.5/25,Error ellipse: s-maj=5.4km s-min=2.9km
az=22.1,confirmed
SNET 23 05:19:07.0±7.0,15°.02N×86°.92W,h36km,ML4.2,
Presumed earthquake

ISC 23 05:18:59.6±2.8,15°.6N±0°.1×86°.88W±0°.07,h35km,n38,
σ1°14/65,Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OCON	**Estacion meteo**	**1.94**	**168**	P	**Pn**	**05 19 29.5**	**-0.7**
OCON				S	**Sn**	**05 19 53.5**	**+0.1**
SARH	**Santa Rosa de**	**1.97**	**247**	P	Pn	05 19 27.4	-3.2
SARH				S	**Sn**	**05 19 53.6**	**-0.5**
RCVN	**Varillal2**	**2.06**	**161**	P	**Pn**	**05 19 30.6**	**-1.3**
RCVN				S	**Sn**	**05 19 57.9**	**+1.5**
RCPN	**Sur Rio San Ju**	**2.15**	**159**	P	**Pn**	**05 19 31.8**	**-1.2**
RCPN				S	**Sn**	**05 20 00.5**	**+2.0**
LCND	**La Caada**	**2.43**	**204**	P	**Pn**	**05 19 35.7**	**-1.1**
CNCH	**Conchagua**	**2.44**	**202**	P	**Pn**	**05 19 36.1**	**-1.0**
CNCH				S	**Sn**	**05 20 05.2**	**-0.5**
CNCH	**Conchagua**	**2.44**	**202**	*e*P	**Pn**	**05 19 36.8**	**-0.2**
CNCH				*e*S	**Sn**	**05 20 06.7**	**+1.0**
PACA	**Pacayal**	**2.49**	**214**	P	**Pn**	**05 19 34.5**	**-3.3**
PACA				S	**Sn**	**05 20 06.3**	**-0.8**
RANC	**El Ranchito**	**2.50**	**213**	S	**Sn**	**05 20 06.8**	**-0.6**
CSGN	**Cosiguina Volc**	**2.64**	**195**	P	**Pn**	**05 19 40.4**	**+0.7**
CSGN				S	**Sn**	**05 20 10.9**	**+0.3**
MTO3	**Montecristo**	**2.66**	**245**	P	**Pn**	**05 19 40.1**	**+0.1**
MTO3				S	**Sn**	**05 20 12.3**	**+1.1**
PAVA	**Las Pavas**	**2.70**	**228**	P	**Pn**	**05 19 40.4**	**-0.2**
PAVA				S	**Sn**	**05 20 12.4**	**+0.3**
TECO	**Alcaldia de Te**	**2.72**	**223**	P	**Pn**	**05 19 40.6**	**-0.1**
TECO				S	**Sn**	**05 20 12.2**	**-0.2**
COEG	**Centro de Oper**	**2.72**	**226**	P	**Pn**	**05 19 40.5**	**-0.4**
COEG				S	**Sn**	**05 20 12.0**	**-0.6**
COEG	**Centro de Oper**	**2.72**	**226**	*e*P	**Pn**	**05 19 40.7**	**-0.2**
ALJI	**Alcalda de J**	**2.75**	**217**	P	**Pn**	**05 19 41.0**	**-0.2**
ALJI				S	**Sn**	**05 20 13.6**	**+0.5**
ALJI	**Alcalda de J**	**2.75**	**217**	*e*P	**Pn**	**05 19 40.9**	**-0.2**
ALJI				*e*S	**Sn**	**05 20 15.2**	**+2.0**
CRIN	**San Cristobal**	**2.83**	**183**	P	**Pn**	**05 19 44.0**	**+1.6**
CRIN				S	**Sn**	**05 20 16.7**	**+1.2**
UDBS	**Universidad Do**	**2.86**	**231**	P	**Pn**	**05 19 42.9**	**+0.1**
UDBS				S	**Sn**	**05 20 15.7**	**-0.3**
PKGN	**Cerro Pekin**	**2.86**	**182**	P	**Pn**	**05 19 41.9**	**-0.9**
PKGN				S	**Sn**	**05 20 17.3**	**+1.3**
IGN	**Direccin Gen**	**2.87**	**231**	S	**Sn**	**05 20 15.8**	**-0.4**
UTEC	**Universidad Te**	**2.90**	**231**	P	**Pn**	**05 19 43.2**	**-0.2**
UTEC				S	**Sn**	**05 20 18.2**	**+1.1**
LOMA	**Loma Larga**	**2.91**	**230**	P	**Pn**	**05 19 43.7**	**+0.1**
LOMA				S	**Sn**	**05 20 17.2**	**-0.3**
SEMO	**Seminario San**	**2.92**	**231**	S	**Sn**	**05 20 17.0**	**-0.4**
UEES	**Universidad Ev**	**2.92**	**232**	P	**Pn**	**05 19 44.4**	**+0.7**
UEES				S	**Sn**	**05 20 17.0**	**-0.6**
QUEN	**Al S del Volca**	**2.94**	**179**	P	**Pn**	**05 19 41.5**	**-2.3**
QUEN				S	**Sn**	**05 20 18.9**	**+1.0**
BOQS	**Boqueron**	**2.94**	**233**	*e*P	**Pn**	**05 19 45.1**	**+1.1**
PANCS	**Alcalda de**	**2.94**	**229**	S	**Sn**	**05 20 17.6**	**-0.5**
PLRN	**Geotermica Pol**	**2.95**	**178**	P	**Pn**	**05 19 41.9**	**-2.1**
PLRN				S	**Sn**	**05 20 19.6**	**+1.5**
ILCN	**San Idelfonso**	**2.96**	**177**	P	**Pn**	**05 19 42.0**	**-2.1**
ILCN				S	**Sn**	**05 20 19.6**	**+1.3**
PMON	**Piamonte**	**2.98**	**233**	P	**Pn**	**05 19 45.4**	**+0.9**
PMON				S	**Sn**	**05 20 19.2**	**+0.2**
CEDA	**San Andres**	**2.99**	**235**	P	**Pn**	**05 19 45.0**	**+0.5**
CEDA				S	**Sn**	**05 20 19.4**	**+0.2**
UNIC	**Universidad Ca**	**3.01**	**239**	P	**Pn**	**05 19 46.0**	**+1.1**
UNIC				S	**Sn**	**05 20 20.2**	**+0.3**
CNGN	**Cerro Negro**	**3.03**	**177**	P	**Pn**	**05 19 43.5**	**-1.7**
CNGN				S	**Sn**	**05 20 22.2**	**+1.9**
CNGA	**Al SSO del Vol**	**3.04**	**177**	S	**Sn**	**05 20 21.9**	**+1.5**
JAYA	**Jayaque - finc**	**3.12**	**233**	P	**Pn**	**05 19 47.2**	**+0.7**
JAYA				S	**Sn**	**05 20 22.2**	**-0.3**
NUBE	**Las Nubes**	**3.25**	**240**	P	Pn	05 19 44.9	-3.3
APQ2	**Apoyeque**	**3.37**	**171**	P	**Pn**	**05 19 47.9**	**-1.9**
APQ2				S	**Sn**	**05 20 30.3**	**+1.7**

ASRS 23 05:20:58.0±1.3,54°.35N×86°.75E,h0km,M2.7(MOS),The
earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

IDC 23 05:20:59.9±4.6,54°.37N×86°.79E,h0km,mbtmp2.7/2,
ML2.4/2,Error ellipse: s-maj=41.6km s-min=17.4km
az=64.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.23**	**251**	I	I	05 27 49.9	
	baz=70,slow=337,SNR=8.8						
ZALV	**Zalesovo Beam**	**1.23**	**251**	Pg	Pg	05 21 22.3	-1.2
	1.1nm,0.3s,baz=68,slow=17,SNR=14						
ZALV				Lg	Lg	05 21 41.8	
	1.0nm,0.3s,baz=70,slow=30,SNR=8.0						
KURBB	**Kurchatov Arra**	**6.29**	**237**	Pn	Pn	05 22 34.9	+1.1
	0.1nm,0.3s,baz=54,slow=13,SNR=2.1						
	0.3nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.11**	**202**	Pn	Pn	05 23 00.2	+1.4
	0.1nm,0.3s,baz=25,slow=13,SNR=5.2						
	0.2nm,0.4s						

MKAR				AML	AML		

BJI 23 05:29:10.0,6°.70S×130°.60E,h80km,mB5.3/4,mb4.8/19
IDC 23 05:29:11.5±3.2,6°.56S×130°.68E,h63km±28km,mb4.2/13,
mbtmp4.6/16,ML3.9/3,MS3.2/8,Error ellipse:
s-maj=27.5km s-min=11.9km az=64.0
DJA 23 05:29:12.1±0.3,7°.5±3°×13°.1E±°,h146km±7km,M4.7/13,
mB5.0/6,mb4.8/8,MLv4.9/13,Mw(mB)4.3/6
NEIC 23 05:29:13.8±0.9,6°.60S±0°.06×130°.6E±0°.1,h85km±3km,
mb4.6/30,Error ellipse: s-maj=16.1km s-min=8.3km
az=84.0
GFZ 23 05:29:14.6±0.2,7°.5±2°×13°.1E±°,h99km,M4.4/33,
mb4.7/33

ISC 23 05:29:13.9±0.3,6°.64S±0°.05×130°.67E±0°.06,h90km,n163,
σ1°34/142,mb4.5/43,6D,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.48**	**155**	P	Pn	05 29 35.5	-3.9
SAUI	**Saumlaki**	**1.48**	**155**	Pn	**Pn**	**05 29 39.6**	**+0.1**
SAUI	**Saumlaki**	**1.48**	**155**	P	**Pn**	**05 29 40.8**	**+1.4**
SAUI				S	**Sn**	**05 30 02.3**	**+3.6**
SAUI				AML	AML		
SAUI	**Saumlaki**	**1.48**	**155**	P	**Pn**	**05 29 41.6**	**+2.2**
BNDI	**Bandanaira**	**2.23**	**340**	P	**Pn**	**05 29 49.4**	**+0.2**
BNDI				AML	AML		
BNDI	**Bandanaira**	**2.23**	**340**	P	**Pn**	**05 29 50.7**	**+1.5**
AAI	**Ambon**	**3.83**	**320**	P	**Pn**	**05 30 11.6**	**+0.9**
FAKI	**Fak Fak**	**4.01**	**23**		**Pn**	**05 30 12.3**	**-1.0**
FAKI	**Fak Fak**	**4.01**	**23**	P	**Pn**	**05 30 11.8**	**-1.4**
FAKI				AML	AML		
FAKI	**Fak Fak**	**4.01**	**23**	P	**Pn**	**05 30 12.5**	**-0.8**
DRS	**Darwin Rock St**	**5.76**	**178**	P	**Pn**	**05 30 36.7**	**-0.3**
MTN	**Manton Dam**	**6.19**	**176**		**Pn**	**05 30 42.2**	**-0.5**
SANI	**Sanana**	**6.52**	**314**	P	**Pn**	**05 30 47.4**	**+0.1**
	0.2nm582nm70nm,1.0s						
SANI				AML	AML		
SANI	**Sanana**	**6.52**	**314**	P	**Pn**	**05 30 50.4**	**+3.0**
	comp=Z,70nm,0.8s						
SOEI	**Soe**	**7.05**	**244**	P	**Pn**	**05 30 54.1**	**-0.6**
SOEI	**Soe**	**7.05**	**244**	Pn	**Pn**	**05 30 54.6**	**-0.1**
SOEI	**Soe**	**7.05**	**244**	P	**Pn**	**05 30 53.7**	**-1.0**
	comp=Z,2µmcomp=Z,156nm,0.9s						
SOEI	**Soe**	**7.05**	**244**	P	**Pn**	**05 30 54.7**	**-0.1**
	comp=Z,131nm,0.7s						
KDI	**Kendari**	**8.44**	**288**	P	Pn	05 31 19.0	+5.4
MMRI	**Maumere**	**8.59**	**256**	P	Pn	05 31 33.5	+18
EDFI	**Ende, Flores**	**9.14**	**256**	P	Pn	05 31 29.2	+6.0
EDFI	**Ende, Flores**	**9.14**	**256**	P	**Pn**	**05 31 24.0**	**+0.8**
	comp=Z,25nm,0.9s						
KNRA	**Kununurra**	**9.18**	**192**	Pn	**Pn**	**05 31 21.5**	**-2.0**
BSSI	**Bau Bau, Buton**	**10.13**	**272**	P	**Pn**	**05 31 40.2**	**+3.7**
BSSI	**Bau Bau, Buton**	**10.13**	**272**	P	**Pn**	**05 31 38.0**	**+1.5**
	comp=Z,184nm,1.2s						
GENI	**Genyem**	**10.28**	**67**	P	**Pn**	**05 31 40.9**	**+2.2**
GENI	**Genyem**	**10.28**	**67**	P	**Pn**	**05 31 39.3**	**+0.7**
	comp=Z,92nm,0.7s						
GTOI	**Gorontalo**	**10.52**	**313**	P	Pn	05 31 56.4	+15
BKSI	**Bulukumba**	**10.57**	**277**	P	**Pn**	**05 31 46.5**	**+4.0**
BKSI	**Bulukumba**	**10.57**	**277**	P	**Pn**	**05 31 45.4**	**+2.8**
	comp=Z,53nm,0.9s						
KAPI	**Kappang**	**10.98**	**278**	P	**Pn**	**05 31 47.2**	**-0.9**
	comp=Z,1.10nm,0.3s,baz=106,slow=11,SNR=18						
	comp=Z,2.4nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**10.98**	**278**	P	Pn	05 31 53.6	+5.5
KAPI	**Kappang**	**10.98**	**278**	P	**Pn**	**05 31 51.1**	**+3.0**
	comp=Z,34nm,1.2s						
SPSI	**Sidrap Palu**	**11.17**	**283**	P	Pn	05 31 56.4	+5.7
SPSI	**Sidrap Palu**	**11.17**	**283**	P	**Pn**	**05 31 51.9**	**+1.1**
	comp=Z,18nm,0.6s						
MMSI	**Mamuju**	**12.36**	**288**	P	P	05 32 22.5	+7.4
DBNI	**Kabupaten Domp**	**12.39**	**261**	P	P	05 32 23.9	+8.4
DBNI	**Kabupaten Domp**	**12.39**	**261**	P	**Pn**	**05 32 08.2**	**+1.1**
	comp=Z,13nm,0.8s						
FITZ	**Fitzroy Crossi**	**12.40**	**203**	P	Pn	05 32 01.7	-5.6
	comp=Z,7.2nm,0.3s,baz=24,slow=8.8,SNR=120						
FITZ				S	Sn	05 34 09.6	-14
	comp=Z,133nm,0.7s,baz=169,slow=15,SNR=14						
FITZ				LR	LR	05 37 51.6	
	comp=Z,149nm,18.6s,baz=14,slow=42						
FITZ	**Fitzroy Crossi**	**12.40**	**203**	Pn	Pn	05 32 02.3	-5.0
FITZ	**Fitzroy Crossi**	**12.40**	**203**	P	Pn	05 32 03.5	-3.8
	comp=Z,4.4nm,0.7s						
TOLI2	**Tolitoli**	**12.51**	**308**	P	**Pn**	**05 32 11.5**	**+2.7**
PLAI	**Plampang**	**12.96**	**260**	P	Pn	05 32 10.9	-3.8
PLAI	**Plampang**	**12.96**	**260**	P	**Pn**	**05 32 14.1**	**-0.6**
	comp=Z,27nm,0.8s						
WB0	**Warramunga Arr**	**13.55**	**165**		Pn	05 32 17.6	-4.8
WRAB	**Tennant Creek**	**13.69**	**165**	P	Pn	05 32 19.1	-5.3
WRAB	**Tennant Creek**	**13.69**	**165**		Pn	05 32 19.8	-4.6
WRAB	**Tennant Creek**	**13.69**	**165**	P	Pn	05 32 19.9	-4.5
	comp=Z,22nm,0.7s						
WRA	**

STKA	**Stephens Creek**	**27.11 159**	P	**P**	**05 34 49.0**	**+0.6**
	comp=Z,4.9nm,0.5s,baz=324,slow=8.0,SNR=8.7					
STKA			LR	LR	05 48 10.4	
	comp=Z,65nm,18.1s,baz=9.2,slow=42					
	comp=Z,4.9nm,0.5s					
STKA	**Stephens Creek**	**27.11 159**	P	**P**	**05 34 48.3**	**-0.2**
STKA			IAmb	IAmb	05 34 50.1	
	comp=Z,31nm,0.8s					
STKA	**Stephens Creek**	**27.11 159**	P	**P**	**05 34 48.6**	**+0.2**
	comp=Z,47nm,0.9s					
BLDU	**Ballidu**	**27.22 207**	P	**P**	**05 34 48.8**	**-0.7**
KLBR	**Kellerberrin**	**27.61 204**	P	**P**	**05 34 52.5**	**-0.5**
KLBR	**Kellerberrin**	**27.61 204**	P	**P**	**05 34 53.4**	**+0.4**
	comp=Z,42nm,0.8s					
HTT	**Hallett**	**27.74 165**	P	**P**	**05 34 50.2**	**-4.0**
CMSA	**Cobar Meteorol**	**28.48 152**	P	P	05 34 55.5	-5.2
CMSA	**Cobar Meteorol**	**28.48 152**	P	**P**	**05 34 60.0**	**-0.8**
	comp=Z,18nm,1.2s					
NWAO	**Narrogin (SRO)**	**28.99 204**	P	**P**	**05 35 05.6**	**+0.4**
NWAO	**Narrogin (SRO)**	**28.99 204**	P	**P**	**05 35 04.5**	**-0.7**
	comp=Z,10nm,0.7s					
HNR	**Honiara**	**29.12 97**	LR	LR	05 47 53.7	
	comp=Z,62nm,19.2s,baz=334,slow=38					
MGBR	**Mount Gambier**	**32.23 165**	P	**P**	**05 35 33.6**	**-0.1**
RPSI	**Rantau Prapat**	**33.02 285**	P	**P**	**05 35 41.0**	**+0.1**
	comp=Z,8.5nm,1.7s					
CAN	**Canberra**	**33.16 152**	P	**P**	**05 35 42.3**	**+0.4**
	comp=Z,13nm,1.7s					
CM31	**Chiang Mai Arr**	**40.01 309**	P	**P**	**05 36 38.9**	**-1.4**
CM31			IAmb	IAmb	05 36 41.7	
	comp=Z,5.4nm,0.8s					
CMAR	**Chiang Mai Arr**	**40.01 309**	P	**P**	**05 36 40.0**	**-0.3**
	comp=Z,3.5nm,0.7s,baz=134,slow=7.2,SNR=12					
CMAR			PcP	**PcP**	**05 38 44.9**	**+1.0**
	comp=Z,0.8nm,0.3s,baz=166,slow=2.4,SNR=4.2					
CMAR			LR	LR	05 56 39.5	
	comp=Z,11nm,18.2s,baz=125,slow=41					
	comp=Z,3.5nm,0.7s					
CMAR	**Chiang Mai Arr**	**40.01 309**	P	**P**	**05 36 39.4**	**-0.9**
NJ2	**Nanjing**	**40.09 344**	*e*P	**P**	**05 36 42.4**	**+1.7**
NJ2			pmax	pmax		
	comp=Z,9.0nm,0.6s					
JHJ2	**Mitsune**	**40.47 12**	P	**P**	**05 36 42.4**	**-1.4**
	comp=Z,443nm,2.5s					
ENH	**Enshi**	**41.95 332**	P	**P**	**05 36 56.0**	**-0.1**
	comp=Z,13nm,2.1s					
XAN	**Xi'an**	**45.39 334**	P	**P**	**05 37 23.6**	**-0.1**
XAN			pP	pP	05 37 45.1	+1.8
HNS	**HongShan**	**46.27 342**	⇓P	**P**	**05 37 30.6**	**+0.1**
HNS			pmax	pmax		
	comp=Z,10.0nm,0.8s					
BJI2	**Beijing**	**48.31 345**	P	**P**	**05 37 46.3**	**0.0**
BJI2			pmax	pmax		
	comp=Z,9.0nm,0.8s					
SHL	**Shillong**	**49.45 312**	P	**P**	**05 37 53.7**	**-1.7**
HHC	**Hu-ho-hao-te**	**50.41 341**	*e*P	**P**	**05 38 06.3**	**+3.9**
HHC			pmax	pmax		
	comp=Z,13nm,0.6s					
HHC			pmax	pmax		
	comp=Z,110nm,5.0s					
CN2	**Changchun**	**50.42 355**	*e*P	**P**	**05 37 58.8**	**-3.4**
CN2			pmax	pmax		
	comp=Z,10.0nm,0.6s					
LBZ	**Lake Benmore**	**50.99 144**	P	**P**	**05 38 06.8**	**+0.2**
ASAJ	**Asahikawa**	**51.65 11**	LR	LR	05 58 25.2	
	comp=Z,17nm,20.7s,baz=74,slow=34					
GTA2	**Gaotai**	**54.06 331**	*e*P	**P**	**05 38 30.6**	**+1.1**
GTA2			pmax	pmax		
	comp=Z,5.0nm,1.1s					
EVN	**Everest**	**54.54 311**		**P**	**05 38 33.3**	**-0.4**
EVN	**Everest**	**54.54 311**	P	**P**	**05 38 33.5**	**-0.2**
	comp=Z,20nm,0.9s					
ULN	**Ulaanbaatar**	**58.13 341**		**P**	**05 38 57.8**	**-0.5**
ULN			IAmb	IAmb	05 39 00.0	
	comp=Z,8.1nm,0.7s					
ULN	**Ulaanbaatar**	**58.13 341**	P	**P**	**05 38 59.4**	**+1.0**
	comp=Z,12nm,0.8s					
SONM	**Songino Array**	**58.31 341**	P	**P**	**05 39 00.3**	**+0.7**
	comp=Z,2.5nm,0.6s,baz=159,slow=7.4,SNR=20					
	comp=Z,2.5nm,0.6s					
SONM	**Songino Array**	**58.31 341**	P	**P**	**05 38 59.3**	**-0.3**
MK31	**Makanchi Array**	**68.29 326**	P	**P**	**05 40 05.5**	**+0.2**
MK31			IAmb	IAmb	05 40 06.6	
	comp=Z,8.0nm,0.8s					
MKAR	**Makanchi Array**	**68.29 326**	P	**P**	**05 40 05.7**	**+0.4**
	comp=Z,8.5nm,0.7s,baz=127,slow=7.7,SNR=76					
	comp=Z,8.5nm,0.7s					
MKAR	**Makanchi Array**	**68.29 326**		**P**	**05 40 05.5**	**+0.2**
YAK	**Yakutsk**	**68.47 360**	P	**P**	**05 40 06.2**	**+0.1**
MAKZ	**Makanchi**	**68.47 326**		**P**	**05 40 06.7**	**+0.3**
MAKZ			IAmb	IAmb	05 40 07.6	
	comp=Z,8.1nm,0.8s					
MAKZ	**Makanchi**	**68.47 326**	P	**P**	**05 40 06.9**	**+0.4**
	comp=Z,12nm,0.9s					
KBL	**Kabul**	**71.04 310**	P	**P**	**05 40 21.9**	**-0.9**
KBL			IAmb	IAmb	05 40 23.7	
	comp=Z,9.9nm,1.4s					
ZAA0	**Zalesovo Array**	**71.55 333**	IAmb	IAmb	05 40 25.4	
	comp=Z,6.9nm,1.0s					
ZALV	**Zalesovo Beam**	**71.55 333**	P	**P**	**05 40 24.8**	**-0.4**
	comp=Z,4.0nm,0.6s,baz=108,slow=4.8,SNR=22					
	comp=Z,4.0nm,0.6s					
ZALV	**Zalesovo Beam**	**71.55 333**		**P**	**05 40 24.4**	**-0.7**
KURBB	**Kurchatov Arra**	**72.55 328**	P	**P**	**05 40 31.3**	**+0.1**
	comp=Z,4.7nm,0.6s,baz=126,slow=4.8,SNR=24					
	comp=Z,4.7nm,0.6s					
KURK	**Kurchatov**	**72.56 328**		**P**	**05 40 31.4**	**+0.2**
KURK			IAmb	IAmb	05 40 32.0	
	comp=Z,5.4nm,0.8s					
KURK	**Kurchatov**	**72.56 328**	P	**P**	**05 40 31.4**	**+0.2**
	comp=Z,8.7nm,0.9s					
VNDA	**Vanda**	**72.73 173**	P	**P**	**05 40 33.0**	**+1.2**
	comp=Z,4.2nm,0.8s,baz=328,slow=5.9,SNR=16					
	comp=Z,4.2nm,0.8s					
VNDA	**Vanda**	**72.73 173**		**P**	**05 40 32.7**	**+0.8**
VNDA	**Vanda**	**72.73 173**	P	**P**	**05 40 31.1**	**-0.7**
	comp=Z,6.9nm,0.9s					
MAW	**Mawson**	**75.53 201**	P	**P**	**05 40 49.0**	**+0.8**
	comp=Z,2.7nm,0.6s,baz=76,slow=6.4,SNR=8.9					
MAW			LR	LR	06 12 19.5	
	comp=Z,31nm,19.9s,baz=266,slow=34					
	comp=Z,2.7nm,0.6s					
BVAR	**Borovoye Array**	**78.11 328**	P	**P**	**05 41 02.7**	**-0.3**
	comp=Z,3.2nm,0.6s,baz=133,slow=6.3,SNR=9.8					
	comp=Z,3.2nm,0.6s					
NRIK	**Noril'sk**	**81.37 346**	P	**P**	**05 41 20.7**	**+0.4**
	comp=Z,5.0nm,0.8s,baz=164,slow=7.0,SNR=6.3					
	comp=Z,5.0nm,0.8s					
NRIK	**Noril'sk**	**81.37 346**	IAmb	IAmb	05 41 23.7	
	comp=Z,6.0nm,0.9s					
ABKAR	**Akbulak array**	**82.64 321**	P	**P**	**05 41 26.6**	**-0.8**
QSPA	**South Pole Qui**	**83.34 180**	P	**P**	**05 41 31.4**	**+0.5**
	comp=Z,8.7nm,0.8s,baz=306,slow=1.3,SNR=46					
	comp=Z,8.7nm,0.8s					
QSPA	**South Pole Qui**	**83.34 180**	P	**P**	**05 41 31.3**	**+0.4**
QSPA			IAmb	IAmb	05 41 32.3	
	comp=Z,9.8nm,0.8s					
QSPA	**South Pole Qui**	**83.34 180**	P	**P**	**05 41 31.7**	**+0.8**
	comp=Z,16nm,0.8s					
M16K	**Timber Creek**	**86.43 27**	P	**P**	**05 41 47.6**	**+1.4**
RAYN	**Ar Rayn**	**88.21 294**		**P**	**05 41 55.4**	**-0.3**
RAYN			IAmb	IAmb	05 41 56.4	
	comp=Z,5.8nm,0.8s					
RAYN	**Ar Rayn**	**88.21 294**	P	**P**	**05 41 54.4**	**-1.3**
	comp=Z,10nm,0.8s					
J18K	**Innoko River**	**88.24 25**	P	**P**	**05 41 55.2**	**+0.3**
G18K	**Tagagawik**	**88.26 23**	P	**P**	**05 41 55.2**	**+0.3**
ELIB	**Princess Elisa**	**89.03 197**	*d*P	**P**	**05 41 59.9**	**+1.2**
	comp=Z,2.7nm,0.9s					
ELIB			*d*pP	**pP**	**05 42 18.1**	**-3.5**
ELIB			*d*sP	**pwP**	**05 42 29.1**	**+2.9**
G23K	**Bananza Creek**	**91.84 23**	P	**P**	**05 42 12.4**	**+0.8**
G23K			IAmb	IAmb	05 42 13.2	
	comp=Z,2.4nm,0.8s					
ILAR	**Eielson Array**	**92.74 25**	P	**P**	**05 42 14.6**	**-1.2**
	comp=Z,0.7nm,0.7s,baz=262,slow=4.5,SNR=9.6					
	comp=Z,0.7nm,0.7s					
TROLL	**Troll, Antarti**	**94.68 194**	P	**P**	**05 42 26.0**	**+1.1**
	comp=Z,98nm,0.8s					
ARCES	**ARCESS Array B**	**101.47 340**	P	**Pdif**	**05 42 55.7**	**+0.6**
	comp=Z,3.9nm,1.1s,baz=76,slow=5.8,SNR=3.8					
GERES	**GERESS Array B**	**112.57 320**	PKiKP	**PKiKP**	**05 47 40.2**	**+0.2**
	comp=Z,0.9nm,0.6s,baz=77,slow=1.8,SNR=9.5					
PDAR	**Pinedale Array**	**116.16 45**	PKP	**PKPdf**	**05 47 47.9**	**+0.6**
	comp=Z,0.3nm,0.7s,baz=271,slow=2.1,SNR=2.2					
BCLA	**Clavier**	**117.13 324**	*d*PKPdf	**PKPdf**	**05 47 48.5**	**-0.1**
BMRD	**Maredsous**	**117.49 324**	*d*PKPdf	**PKPdf**	**05 47 47.9**	**-1.4**
EKA	**Eskdalemuir Ar**	**119.16 332**	PKP	**PKPdf**	**05 47 52.6**	**+0.2**
	comp=Z,0.5nm,0.5s,baz=27,slow=2.4,SNR=4.3					
TXAR	**Lajitas Array**	**124.17 59**	PKP	**PKiKP**	**05 48 04.1**	**+0.8**
	comp=Z,0.4nm,0.9s,baz=254,slow=2.3,SNR=4.4					
ESDC	**Sonseca Array**	**127.71 316**	PKP	**PKPdf**	**05 48 10.2**	**+0.9**
	comp=Z,0.6nm,0.9s,baz=56,slow=1.8,SNR=2.7					
PLCA	**Paso Flores**	**128.98 159**	PKP	**PKiKP**	**05 48 13.2**	**+0.7**
	comp=Z,2.7nm,1.1s,baz=146,slow=1.0,SNR=2.9					
TORD	**Torodi Ar. Bea**	**129.39 282**	PKP	**PKPdf**	**05 48 13.5**	**+0.4**
	comp=Z,1.7nm,0.7s,baz=69,slow=2.3,SNR=8.4					
DBIC	**Dimbokro**	**135.84 273**	PKP	**PKPdf**	**05 48 25.5**	**+0.2**
	comp=Z,2.8nm,0.7s,baz=90,slow=2.0,SNR=2.5					
CPUP	**Villa Florida**	**146.32 167**	PKPbc	**PKPbc**	**05 48 46.0**	**+0.9**
	comp=Z,4.5nm,0.9s,baz=193,slow=3.3,SNR=15					
LPAZ	**La Paz**	**150.59 141**	PKPbc	**PKiKP**	**05 48 59.1**	**+1.2**
	comp=Z,3.8nm,0.5s,baz=131,slow=2.5,SNR=27					

*ASRS **23** 06:29:36.0±1.6, 54.°16N×86.°41E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 06:29:37.4±3.8, 54.°13N×86.°52E, h0km, mbtmp3.2/2, ML3.0/2, Error ellipse: s-maj=32.2km s-min=14.5km az=70.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.02**	**260**	I	I	06 35 17.0	
	baz=80,slow=336,SNR=10.0						
ZALV	**Zalesovo Beam**	**1.02**	**260**	Pg	Pg	06 29 55.6	-1.3
	0.7nm,0.3s,baz=81,slow=17,SNR=12						
ZALV				Lg	Lg	06 30 12.3	
	2.4nm,0.3s,baz=78,slow=29,SNR=11						
KURBB	**Kurchatov Arra**	**6.02**	**238**	Pn	Pn	06 31 08.8	+1.2
	0.3nm,0.3s,baz=55,slow=14,SNR=4.4						
	1.0nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.82**	**202**	Pn	Pn	06 31 33.7	+1.2
	0.2nm,0.3s,baz=25,slow=14,SNR=8.8						
	0.5nm,0.3s						
MKAR				AML	AML		

*KRNET **23** 06:41:08.3±0.1, 43.°07N×76.°93E, h21km, mb2.7*
*SOME **23** 06:41:08.5, 43.°10N×76.°93E, h15km*
*NNC **23** 06:41:09.2±0.5, 43.°11N×76.°86E, h0km, mpv3.0, Error ellipse: s-maj=4.3km s-min=2.8km az=179.0*

ISC 23 06:41:08.1±0.8, 43.°08N±0.°03×76.°93E±0.°02, h14km±5km, n20, σ0°31/39, 12C, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNSS	**Tian-Shan**	**0.04**	**157**	P	**Pg**	**06 41 11.2**	**0.0**
	30nm,0.1s						
TNSS				S	**Sg**	**06 41 13.2**	**-0.1**
	13nm,0.1s						
TNSS	**Tian-Shan**	**0.04**	**157**	*e*P	**Pg**	**06 41 11.2**	**0.0**
	30nm,0.1s						
TNSS				*e*S	**Sg**	**06 41 13.2**	**-0.1**
	13nm,0.1s						
MDOK	**Medeo**	**0.12**	**46**	Pg	**Pg**	**06 41 11.6**	**-0.1**
	8.5nm,0.1s						
MDOK				Lg	Lg	06 41 13.7	
	76nm,0.1s						
MDOK	**Medeo**	**0.12**	**46**	*e*P	**Pg**	**06 41 11.6**	**-0.1**
	8.5nm,0.1s						
MDOK				*e*S	**Sg**	**06 41 13.7**	**-0.4**
	76nm,0.1s						
AAA	**Alma-Ata**	**0.13**	**357**	P	**Pg**	**06 41 12.0**	**+0.3**
	73nm,0.1s						
AAA				S	**Sg**	**06 41 14.5**	**+0.3**
	9.2nm,0.0s						
AAA	**Alma-Ata**	**0.13**	**357**	*e*P	**Pg**	**06 41 12.0**	**+0.3**
	73nm,0.1s						
AAA				*e*S	**Sg**	**06 41 14.5**	**+0.3**
	9.2nm,0.0s						
KOTS	**Kotyrbulak**	**0.21**	**41**	P	**Pg**	**06 41 13.1**	**+0.2**
	8.3nm,0.1s						
KOTS				S	**Sg**	**06 41 16.5**	**+0.3**
	44nm,0.2s						
KOTS	**Kotyrbulak**	**0.21**	**41**	*e*P	**Pg**	**06 41 13.1**	**+0.2**
	8.3nm,0.1s						
KOTS				*e*S	**Sg**	**06 41 16.5**	**+0.3**
	44nm,0.2s						
MTBS	**Maitube**	**0.37**	**279**	P	**Pg**	**06 41 15.7**	**+0.1**
	4.4nm,0.1s						
MTBS				S	**Sg**	**06 41 20.8**	**+0.2**
	4.7nm,0.1s						
MTBS	**Maitube**	**0.37**	**279**	*e*P	**Pg**	**06 41 15.7**	**+0.1**
	4.4nm,0.1s						
MTBS				*e*S	**Sg**	**06 41 20.8**	**+0.2**
	4.7nm,0.1s						
ANVS	**Anan'yevo**	**0.62**	**118**	⇑*e*P	**Pg**	**06 41 20.1**	**-0.1**
ANVS				⇑*e*S	**Sg**	**06 41 28.5**	**0.0**
DGS	**Degeres**	**0.86**	**282**	P	**Pb**	**06 41 24.6**	**-0.3**
	1.0nm,0.1s						
DGS				S	**Sg**	**06 41 36.0**	**0.0**
	3.3nm,0.2s						
DGS	**Degeres**	**0.86**	**282**	*e*P	**Pb**	**06 41 24.6**	**-0.3**
	1.0nm,0.1s						
DGS				*e*S	**Sg**	**06 41 36.0**	**0.0**
	3.3nm,0.2s						
ULHL	**Ulahol**	**0.97**	**211**	⇑*i*P	**Pb**	**06 41 26.7**	**-0.1**
ULHL				⇑*i*S	**Sb**	**06 41 39.4**	**-0.2**
TKM2	**Tokmak 2**	**0.99**	**261**	⇑*i*P	**Pb**	**06 41 27.1**	**0.0**
TKM2				⇑*i*S	**Sb**	**06 41 40.3**	**+0.2**
KRBS	**Karabastau**	**1.10**	**305**	P	**Pb**	**06 41 28.6**	**-0.3**
	0.4nm,0.1s						
KRBS				S	**Sb**	**06 41 43.1**	**-0.1**
	7.3nm,0.1s						
KRBS	**Karabastau**	**1.10**	**305**	*e*P	**Pb**	**06 41 28.6**	**-0.3**
	0.4nm,0.1s						
KRBS				*e*S	**Sb**	**06 41 43.1**	**-0.1**
	7.3nm,0.1s						
PRZ	**Przheval'sk**	**1.24**	**118**	⇑*e*P	**Pn**	**06 41 30.8**	**-0.4**
PRZ				⇑*e*S	**Sb**	**06 41 47.2**	**0.0**
TARG	**Taragay, Kyrgy**	**1.50**	**154**	⇑*i*P	**Pb**	**06 41 36.2**	**+0.3**
TARG				⇑*i*S	**Sb**	**06 41 55.9**	**+1.0**
USP	**Ospenovka**	**1.78**	**277**	⇑*i*P	**Pb**	**06 41 40.6**	**0.0**
USP				⇑*i*S	**Sb**	**06 42 03.6**	**+0.7**

*IDC **23** 06:44:52.0±3.7, 53.°50N×87.°39E, h0km, mbtmp2.8/2, ML2.2/2, Error ellipse: s-maj=34.3km s-min=19.6km az=71.0*

ASRS 23 06:44:49.0±1.0, 53.°46N×87.°48E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.66**	**288**	I	I	06 53 59.5	
	baz=105,slow=340,SNR=1.5						
ZALV	**Zalesovo Beam**	**1.66**	**288**	Pg	Pg	06 45 20.9	+0.2
	0.8nm,0.3s,baz=104,slow=16,SNR=8.8						
ZALV				Lg	Lg	06 45 44.1	
	0.8nm,0.3s,baz=108,slow=33,SNR=5.0						
KURBB	**Kurchatov Arra**	**6.21**	**246**	Pn	Pn	06 46 25.5	+3.7
	baz=64,slow=14,SNR=1.6						
	0.2nm,0.2s						
MKAR	**Makanchi Array**	**7.45**	**209**	Pn	Pn	06 46 43.3	+4.3
	0.1nm,0.3s,baz=26,slow=14,SNR=4.6						
	0.2nm,0.2s						
MKAR				AML	AML		

*GUC **23** 06:47:49.8±0.8, 22.°49S×67.°80W, h179km±9km, ML3.6, Presumed earthquake*
*SCB **23** 06:47:51.9±1.1, 22.°34S×67.°68W, h91km±53km, ML3.4/3, Error ellipse: s-maj=7.3km s-min=4.2km az=0.0*

ISC 23 06:47:48.2±1.8, 22.°49S±0.°06×67.°67W±0.°05, h168km±15km, n26, σ1°32/37, 6C-2D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AF01	**San Pedro de A**	**0.66**	**225**	⇑*i*P	**Pn**	**06 48 14.1**	**+1.4**
PB09	**IPOC Station P**	**1.61**	**295**	⇑*i*P	**Pn**	**06 48 22.1**	**+1.7**
PB09				IAML		06 48 48.3	
	comp=N,198nm,0.4s						
PB09	**IPOC Station P**	**1.61**	**295**	P	**Pn**	**06 48 20.7**	**+0.3**
PB06	**IPOC Station P**	**1.77**	**263**	*e*P	**Pn**	**06 48 23.1**	**+1.0**
PB06				*i* S	**Sn**	**06 48 47.9**	**-0.3**
PB06				IAML		06 48 52.0	
	comp=E,504nm,0.1s						
PB06	**IPOC Station P**	**1.77**	**263**	P	**Pn**	**06 48 22.8**	**+0.8**
PB03	**IPOC Station P**	**1.98**	**282**	⇑*i*P	**Pn**	**06 48 25.3**	**+1.0**
PB03				IAML		06 48 53.5	
	comp=N,526nm,0.1s						
YJA	**Yavi**	**2.02**	**82**	P	**Pn**	**06 48 26.4**	**+1.3**
PB07	**IPOC Station P**	**2.19**	**290**	⇑*i*P	**Pn**	**06 48 27.9**	**+1.2**
PB07				*i* S	**Sn**	**06 48 56.5**	**0.0**
PB07				IAML		06 48 57.8	
	comp=N,520nm,0.1s						
MOCB	**Mochara**	**2.25**	**57**	P	**Pn**	**06 48 28.3**	**+0.5**
MOCB				S	**Sn**	**06 48 55.6**	**-2.7**
MOCB				IAML		06 48 59.6	
	comp=N,77nm,0.4s						
PB05	**IPOC Station P**	**2.37**	**261**	⇑*i*P	**Pn**	**06 48 29.5**	**+0.8**
PB05				*i* S	**Sn**	**06 48 59.5**	**-0.5**
PB05				*i* S		06 48 59.6	
PB05				IAML		06 49 01.2	
	comp=E,176nm,0.4s						
PB02	**IPOC Station P**	**2.37**	**299**	⇓*i*P	**Pn**	**06 48 29.6**	**+0.9**
PB02				*i* S	**Sn**	**06 48 58.9**	**-1.3**
PB02				IAML		06 49 00.3	
	comp=E,440nm,0.4s						
PB02	**IPOC Station P**	**2.37**	**299**	P	**Pn**	**06 48 29.7**	**+0.9**
PB02				S	**Sn**	**06 48 57.8**	**-2.4**
PB02				IAML		06 49 00.3	
	comp=E,328nm,0.4s						
PB08	**IPOC Station P**	**2.71**	**329**	⇓*i*P	**Pn**	**06 48 34.8**	**+1.6**
PB08				*i* S	**Sn**	**06 49 09.2**	**+1.2**
PB08				IAML		06 49 12.5	
	comp=N,91nm,0.3s						
PB08	**IPOC Station P**	**2.71**	**329**	P	**Pn**	**06 48 34.5**	**+1.4**
PB10	**IPOC Station P**	**2.85**	**248**	⇑*i*P	**Pn**	**06 48 34.9**	**+0.6**
PB10				*i* S	**Sn**	**06 49 09.1**	**-1.1**
PB10				IAML		06 49 13.9	
	comp=E,103nm,0.1s						
TA01	**Diego Aracena**	**3.02**	**309**	*e*P	**Pn**	**06 48 36.4**	**-0.1**
TA01				*i* S	**Sn**	**06 49 12.4**	**-1.6**
TA01				IAML		06 49 14.4	
	comp=E,173nm,0.3s						
GO01	**Chusmiza**	**3.14**	**333**	P	**Pn**	**06 48 39.5**	**+1.0**
PB11	**IPOC Station P**	**3.28**	**325**	P	**Pn**	**06 48 40.1**	**+0.1**
PB11				S	**Sn**	**06 49 17.6**	**-2.7**
PB11				IAML		06 49 20.3	
	comp=E,162nm,0.2s						
PB14	**IPOC Station P**	**3.29**	**229**	*e*P	**Pn**	**06 48 40.7**	**+0.5**
PB14				*e*S	**Sn**	**06 49 19.5**	**-1.1**
PB14				IAML		06 49 21.4	
	comp=E,34nm,0.2s						
SOEO	**Opoqueri**	**3.91**	**357**	P	**Pn**	**06 48 49.7**	**+1.5**
PB16	**IPOC Station P**	**4.47**	**337**	P	**Pn**	**06 48 56.5**	**+0.9**
SOET	**ToroToro**	**4.69**	**22**	P	**Pn**	**06 48 59.0**	**+0.8**
BBOJ	**La Paz, Jacaqu**	**5.50**	**355**	P	**Pn**	**06 49 10.2**	**+1.1**
BBOD	**La Paz, Gloria**	**5.88**	**351**	P	**Pn**	**06 49 15.0**	**+0.9**
LPAZ	**La Paz**	**6.18**	**356**	P	**Pn**	**06 49 19.4**	**+1.3**
BBOB	**La Paz, Bander**	**6.33**	**356**	P	**Pn**	**06 49 21.2**	**+1.3**

OTT 23 07:05:19.3±0.2, 73.°17N×95.°73W, h18km, MN3.5/6, 173km south from Resolute, Nu. Aftershock 140km northeast from Fort Ross, Nu Boothia Ungava Seismic Zone., Northwest Territories

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RES	**Resolute Bay**	**1.54**	**8**	PN	Pn	07 05 45.2	-0.6
RES				SN	Sb	07 06 06.1	-0.4
RES				Trac		07 06 11.5	
	comp=Z,297nm,0.3s						
POIN	**Pond Inlet**	**5.25**	**87**	PN	Pn	07 06 35.9	-0.7
POIN				SN	Sn	07 07 33.0	-3.6
POIN				LG	Lg	07 08 03.5	
POIN				Trac		07 08 04.2	
	comp=Z,19nm,0.2s						
ILON	**Igloolik, Nuna**	**5.87**	**124**	PN	Pn	07 06 44.6	-0.6
ILON				SN	Sn	07 07 49.1	-2.8
ILON				LG	Lg	07 08 19.9	
ILON				Trac		07 08 22.3	
	comp=Z,23nm,0.2s						
KUKN	**Kugluktuk,NWT**	**8.37**	**240**	PN	Pn	07 07 18.4	-1.1
KUKN				SN	Sn	07 08 46.7	-6.7
KUKN				LG	Lg	07 09 41.4	
KUKN				Trac		07 09 44.9	
	comp=Z,10nm,0.4s						
A36M	**Sachs Harbour**	**8.88**	**277**	PN	Pn	07 07 26.2	-0.2
A36M				SN	Sn	07 08 59.7	-6.1
A36M				LG	Lg	07 09 56.5	
A36M				Trac		07 10 07.0	
	comp=Z,27nm,0.9s						
BLKN	**Baker Lake**	**8.89**	**181**	PN	Pn	07 07 25.0	-1.7
BLKN				SN	Sn	07 08 59.6	-6.6
BLKN				Trac		07 09 54.5	
	comp=Z,21nm,0.3s						
C36M	**Paulatuk**	**9.81**	**261**	PN	Pn	07 07 38.6	-0.6
C36M				SN	Sn	07 09 22.1	-6.6
C36M				Trac		07 10 36.1	
	comp=Z,18nm,0.8s						
YKAW3	**Yellowknife Wh**	**12.71**	**223**	PN	Pn	07 08 15.8	-3.0
YKAW3				SN	Sn	07 10 28.2	-11
YKAW1	**Yellowknife Wh**	**12.76**	**223**	PN	Pn	07 08 17.1	-2.4
YKAW1				SN	Sn	07 10 31.2	-10

*IDC **23** 07:12:09.8±2.3, 16.°94N×101.°77W, h0km, mb3.7/4, mbtmp3.5/7, ML3.1/3, MS3.2/6, Error ellipse: s-maj=40.2km s-min=13.2km az=20.0*
*MEX **23** 07:12:16.5±0.6, 17.°44N×101.°70W, h2km±7km, MD4.2, Presumed earthquake*

ISC 23 07:12:13.0±2.0, 17.°36N±0.°06×101.°71W±0.°03, h10km±13km, n36, σ2°22/56, mb3.7/3, MS3.2/3, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZIIG	**

CMIG	**Matias Romero**	**6.53**	**91**	Pn	**Pn**	**07 13 50.7**	**+1.6**
	0.5nm,0.3s,baz=267,slow=12,SNR=8.7						
CMIG				Sn	**Sn**	**07 15 05.1**	**+1.5**
	0.7nm,0.3s,baz=263,slow=15,SNR=5.1						
CMIG				Lg	Lg	07 15 36.5	
	1.8nm,0.3s,baz=333,slow=18,SNR=6.9						
CMIG				LR	LR	07 16 03.4	
	comp=Z,72nm,18.6s,baz=218,slow=35						
	0.8nm,0.3s						
CMIG				AML	AML		
H06S1	**SOCORRO T**	**8.90**	**280**	T	T	07 23 29.5	
	SNR=32						
LPIG	**La Paz**	**10.47**	**311**	LR	LR	07 18 24.7	
	comp=Z,93nm,21.0s,baz=28,slow=35						
TXAR	**Lajitas Array**	**12.05**	**352**	Pn	Pn	07 15 13.0	+8.1
	baz=166,slow=13,SNR=5.4						
TXAR				Lg	Lg	07 18 42.1	
	baz=177,slow=30,SNR=7.3						
	0.5nm,0.9s						
ANMO	**Albuquerque**	**18.02**	**347**	P	**P**	**07 16 25.9**	**+1.7**
	0.1nm,0.3s,baz=160,slow=8.2,SNR=3.4						
ANMO				LR	LR	07 23 21.0	
	comp=Z,67nm,18.9s,baz=157,slow=36						
	0.4nm,0.6s						
ANMO				AML	AML		
PFO	**Pinyon Flats O**	**20.92**	**323**	P	**P**	**07 16 55.5**	**-0.4**
	2.1nm,0.9s,baz=120,slow=20,SNR=4.0						
	2.1nm,0.9s						
NVAR	**Mina Array Bea**	**25.53**	**329**	P	**P**	**07 17 44.5**	**+2.5**
	3.3nm,1.0s,baz=138,slow=8.3,SNR=16						
	3.3nm,1.0s						
ELK	**Elko**	**26.07**	**336**	LR	LR	07 28 54.7	
	comp=Z,105nm,18.5s,baz=170,slow=38						
PDAR	**Pinedale Array**	**26.19**	**347**	P	**P**	**07 17 48.2**	**+0.2**
	1.0nm,0.9s,baz=154,slow=5.3,SNR=6.6						
PDAR				LR	LR	07 29 52.0	
	comp=Z,68nm,18.5s,baz=172,slow=40						
	1.0nm,0.9s						
YBH	**Yreka Blue Hor**	**30.23**	**328**	LR	LR	07 32 11.1	
	comp=Z,48nm,19.3s,baz=319,slow=39						
ILAR	**Eielson Array**	**56.19**	**339**	P	**P**	**07 21 53.9**	**+1.1**
	0.7nm,1.0s,baz=117,slow=5.6,SNR=5.1						
	0.7nm,1.0s						

*IDC **23** 07:24:20.9±3.3,53.66N×87.04E,h0km,mbtmp2.8/2, ML2.5/2,Error ellipse: s-maj=34.2km s-min=16.9km az=85.0*

ASRS 23 07:24:19.0±1.8,53.60N×87.14E,h0km,M2.5(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
ZALV	**Zalesovo Beam**	**1.42**	**285**	Pg		Pn		07 24 45.2	-0.9
	0.6nm,0.3s,baz=103,slow=16,SNR=9.4								
ZALV				Lg		Lg		07 25 06.0	
	0.7nm,0.3s,baz=104,slow=25,SNR=7.2								
I46RU	**ZALESOVO INFRA**	**1.42**	**285**	I		I		07 31 50.0	
	baz=102,slow=337,SNR=8.3								
KURBB	**Kurchatov Arra**	**6.08**	**244**	Pn		Pn		07 25 52.6	+2.6
	0.1nm,0.3s,baz=60,slow=13,SNR=1.9								
	0.6nm,0.2s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**7.49**	**206**	Pn		Pn		07 26 12.9	+3.5
	0.1nm,0.3s,baz=25,slow=12,SNR=5.5								
MKAR				Sn		Sn		07 27 37.4	+2.4
	0.1nm,0.3s,baz=21,slow=24,SNR=2.0								
	0.1nm,0.4s								
MKAR				AML		AML			

*IDC **23** 07:29:22.0±3.9,54.24N×87.15E,h0km,mbtmp3.1/2, ML2.7/2,Error ellipse: s-maj=37.2km s-min=19.1km az=74.0*

ASRS 23 07:29:22.0±1.6,54.18N×87.07E,h0km,M2.7(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.35**	**261**	I		I		07 36 40.0	
	baz=77,slow=335,SNR=4.2								
ZALV	**Zalesovo Beam**	**1.35**	**261**	Pg		Pg		07 29 47.4	-0.5
	1.4nm,0.3s,baz=79,slow=16,SNR=13								
ZALV				Lg		Lg		07 30 08.2	
	1.3nm,0.3s,baz=76,slow=29,SNR=5.3								
KURBB	**Kurchatov Arra**	**6.33**	**239**	Pn		Pn		07 30 58.6	+2.2
	0.1nm,0.3s,baz=56,slow=13,SNR=1.6								
	0.8nm,0.2s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**8.00**	**204**	Pn		Pn		07 31 21.6	+2.2
	0.2nm,0.3s,baz=25,slow=12,SNR=5.5								
MKAR				Lg		Lg		07 33 34.2	
	baz=26,slow=30,SNR=1.1								
	0.2nm,0.3s								
MKAR				AML		AML			

*ASRS **23** 07:30:52.0±1.0,54.22N×87.09E,h0km,M2.6(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 07:30:54.6±4.0,54.16N×87.02E,h0km,mbtmp3.0/2, ML2.6/2,Error ellipse: s-maj=38.1km s-min=17.7km az=76.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.32**	**262**	I		I		07 38 38.1	
	baz=77,slow=337								
ZALV	**Zalesovo Beam**	**1.32**	**262**	Pg		Pg		07 31 19.9	+0.1
	0.9nm,0.3s,baz=80,slow=13,SNR=3.2								
ZALV				Lg		Lg		07 31 37.4	
	1.4nm,0.3s,baz=81,slow=27,SNR=5.4								
KURBB	**Kurchatov Arra**	**6.29**	**239**	Pn		Pn		07 32 30.2	+1.6
	0.1nm,0.3s,baz=55,slow=14,SNR=1.7								
	0.5nm,0.2s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**7.97**	**204**	Pn		Pn		07 32 52.0	+0.4
	0.1nm,0.3s,baz=25,slow=14,SNR=3.6								
MKAR				Lg		Lg		07 35 02.1	
	baz=20,slow=36,SNR=1.8								
	0.3nm,0.4s								
MKAR				AML		AML			

*ASRS **23** 07:35:15.0±1.2,53.92N×86.63E,h0km,M2.4(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 07:35:17.5±3.9,53.96N×86.66E,h0km,mbtmp2.8/2, ML2.6/2,Error ellipse: s-maj=33.2km s-min=17.6km az=71.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.09**	**270**	I		I		07 41 20.0	
	baz=88,slow=337,SNR=4.6								
ZALV	**Zalesovo Beam**	**1.09**	**270**	Pg		Pg		07 35 37.9	-0.5
	0.7nm,0.3s,baz=89,slow=17,SNR=7.6								
ZALV				Lg		Lg		07 35 52.6	
	1.5nm,0.3s,baz=89,slow=28,SNR=12								
KURBB	**Kurchatov Arra**	**6.00**	**239**	Pn		Pn		07 36 49.0	+1.5
	0.1nm,0.3s,baz=56,slow=13,SNR=1.6								
	0.4nm,0.3s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**7.70**	**203**	Pn		Pn		07 37 11.5	+0.7
	0.1nm,0.3s,baz=26,slow=14,SNR=4.1								
	0.2nm,0.3s								
MKAR				AML		AML			

*IDC **23** 07:39:23.3±3.4,53.41N×87.23E,h0km,mbtmp3.1/2, ML2.3/2,Error ellipse: s-maj=31.8km s-min=16.0km az=86.0*

ASRS 23 07:39:22.0±1.2,53.43N×87.24E,h0km,M2.4(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
ZALV	**Zalesovo Beam**	**1.53**	**291**	Pg		Pg		07 39 52.2	+0.9
	0.4nm,0.3s,baz=106,slow=18,SNR=5.4								
ZALV				Lg		Lg		07 40 11.8	
	0.7nm,0.3s,baz=108,slow=29,SNR=7.8								
I46RU	**ZALESOVO INFRA**	**1.53**	**291**	I		I		07 48 00.0	
	0.1nm,0.7s,baz=108,slow=338,SNR=12								
KURBB	**Kurchatov Arra**	**6.06**	**246**	Pn		Pn		07 40 55.6	+2.8
	0.1nm,0.3s,baz=62,slow=14,SNR=1.9								
	2.3nm,0.2s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**7.36**	**208**	Pn		Pn		07 41 12.4	+1.8
	baz=23,slow=12,SNR=1.5								
MKAR				Lg		Lg		07 43 11.5	
	0.1nm,0.3s,baz=22,slow=35,SNR=1.9								
	0.2nm,0.6s								

MAN 23 07:41:31.0,13.47N×120.61E,h101km,MS2.6,Mindoro

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
TGY	**Tagaytay City**	**0.70**	**27**	*e*P		Pn		07 41 50.2	+1.6
TGY				*e*S		Sn		07 42 04.6	+2.8
WRA	**Warramunga Arr**	**35.85**	**158**	P		P		07 48 16.2	-5.0
	0.1nm,0.4s,baz=334,slow=9.2,SNR=5.5								
	0.1nm,0.4s								
ASAR	**Alice Springs**	**39.13**	**160**	P		P		07 48 45.1	-3.8
	0.2nm,0.7s,baz=342,slow=8.3,SNR=2.4								
	0.2nm,0.7s								

*ASRS **23** 07:50:15.0±1.0,53.72N×88.11E,h0km,M2.3(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 07:50:20.8±4.3,53.77N×87.94E,h0km,mbtmp2.5/2, ML2.2/2,Error ellipse: s-maj=39.2km s-min=22.7km az=53.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.86**	**277**	I		I		08 01 30.4	
	baz=94,slow=339,SNR=4.5								
ZALV	**Zalesovo Beam**	**1.86**	**277**	Pg		Pb		07 50 55.2	-0.3
	0.4nm,0.3s,baz=96,slow=15,SNR=5.6								
ZALV				Lg		Lg		07 51 20.1	
	1.2nm,0.3s,baz=93,slow=32,SNR=10								
KURBB	**Kurchatov Arra**	**6.59**	**245**	Pn		Pn		07 52 00.2	+1.4
	baz=59,slow=14,SNR=2.2								
	0.2nm,0.4s								
MKAR	**Makanchi Array**	**7.87**	**210**	P		Pb		07 52 36.8	-1.1
	0.1nm,0.4s,baz=131,slow=5.9,SNR=1.7								
MKAR	**Makanchi Array**	**7.87**	**210**	Pn		Pn		07 52 17.1	+0.6
	0.1nm,0.3s,baz=31,slow=13,SNR=1.4								
	0.1nm,0.4s								
MKAR				AML		AML			
MKAR	**Makanchi Array**	**7.87**	**210**						
	0.1nm,0.4s								

*ASRS **23** 07:55:07.0±1.5,54.37N×86.86E,h0km,M2.7(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 07:55:08.8±4.4,54.39N×86.89E,h0km,mbtmp2.9/2, ML2.8/2,Error ellipse: s-maj=42.6km s-min=19.1km az=63.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.29**	**251**	I		I		08 02 16.5	
	baz=70,slow=335,SNR=6.0								
ZALV	**Zalesovo Beam**	**1.29**	**251**	Pg		Pg		07 55 32.2	-1.2
	2.6nm,0.3s,baz=70,slow=16,SNR=15								
ZALV				Lg		Lg		07 55 52.0	
	1.4nm,0.3s,baz=71,slow=27,SNR=5.8								
KURBB	**Kurchatov Arra**	**6.34**	**237**	Pn		Pn		07 56 44.6	+1.3
	0.1nm,0.3s,baz=55,slow=14,SNR=6.4								
	0.8nm,0.4s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**8.14**	**203**	Pn		Pn		07 57 09.5	+1.3
	0.1nm,0.3s,baz=18,slow=15,SNR=6.7								
	0.2nm,0.4s								
MKAR				AML		AML			

*ASRS **23** 07:58:26.0±0.6,54.30N×86.87E,h0km,M2.6(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 07:58:28.1±4.5,54.31N×86.79E,h0km,mbtmp2.9/2, ML2.6/2,Error ellipse: s-maj=40.5km s-min=19.1km az=62.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.22**	**254**	I		I		08 05 27.7	
	baz=74,slow=335,SNR=6.8								
ZALV	**Zalesovo Beam**	**1.22**	**254**	Pg		Pg		07 58 50.5	-0.8
	2.6nm,0.3s,baz=71,slow=17,SNR=16								
ZALV				Lg		Lg		07 59 08.7	
	2.1nm,0.3s,baz=70,slow=31,SNR=6.7								
KURBB	**Kurchatov Arra**	**6.25**	**237**	Pn		Pn		08 00 02.7	+1.2
	0.1nm,0.3s,baz=52,slow=13,SNR=4.3								
	0.6nm,0.4s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**8.05**	**203**	Pn		Pn		08 00 27.3	+1.1
	0.1nm,0.3s,baz=26,slow=13,SNR=7.4								
	0.2nm,0.3s								
MKAR				AML		AML			

*SNET **23** 08:02:39.8±2.4,14.06N×91.45W,h38km,ML3.3, Presumed earthquake*
*GCG **23** 08:02:39.7±1.5,14.08N×91.41W,h69km±30km,MD3.9, MW3.6,Presumed earthquake*
*CATAC **23** 08:02:40.6±0.7,14°N±4°×9°1W±°,h7km±4km,M3.4/14, MLv3.4/14,Error ellipse: s-maj=9.4km s-min=6.7km az=21.9,confirmed*

ISC 23 08:02:33.4±2.9,13°4N±0°1×91°5W±0°1,h16km±13km,n24, σ1§19/33,Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
STG8	**El Palmar, Qui**	**1.02**	**5**	*i* P		**Pg**		**08 02 54.8**	**+1.5**
STG8				*i* S		**Sb**		**08 03 05.7**	**-0.5**
FG8	**Yepocapa, Chim**	**1.20**	**46**	*i* P		**Pn**		**08 02 54.0**	**-1.6**
FG16	**Alotenango, Sa**	**1.24**	**47**	*i* P		**Pn**		**08 02 54.9**	**-1.3**
QUEO	**Labor Ovalle**	**1.44**	**357**	*i* P		**Pn**		**08 02 57.4**	**-1.6**
NUBE	**Las Nubes**	**1.69**	**73**	P		**Pg**		**08 03 06.5**	**+0.6**
NUBE	**Las Nubes**	**1.69**	**73**	*i* P		**Pg**		**08 03 06.3**	**+0.5**
NUBE				*i* S		**Sb**		**08 03 25.8**	**+0.5**
LOAL	**Lomas de Alarc**	**1.72**	**70**	P		**Pg**		**08 03 06.6**	**+0.3**
SLOZ	**Alcaldia de Sa**	**1.72**	**69**	P		**Pg**		**08 03 07.0**	**+0.5**
CEVE	**Cerro Verde**	**1.82**	**77**	S		**Sg**		**08 03 31.0**	**-1.0**
UNIC	**Universidad Ca**	**1.93**	**73**	P		**Pg**		**08 03 10.1**	**-0.2**
JAYA	**Jayaque - finc**	**1.96**	**83**	P		**Pg**		**08 03 11.5**	**+0.5**
JAYA				S		**Sg**		**08 03 35.4**	**-1.0**
JAYA	**Jayaque - finc**	**1.96**	**83**	*e*S		**Sg**		**08 03 35.2**	**-1.2**
PMON	**Piamonte**	**2.09**	**82**	P		**Pg**		**08 03 13.5**	**-0.1**
PMON				S		**Sg**		**08 03 38.9**	**-1.8**
UEES	**Universidad Ev**	**2.17**	**82**	S		**Sb**		**08 03 40.4**	**+1.5**
SEMO	**Seminario San**	**2.18**	**82**	P		**Pg**		**08 03 15.3**	**+0.1**
SEMO				S		**Sb**		**08 03 41.0**	**+1.7**
PANCS	**Alcalda de**	**2.21**	**85**	P		**Pg**		**08 03 16.1**	**+0.3**
LOMA	**Loma Larga**	**2.22**	**84**	P		**Pg**		**08 03 16.2**	**+0.1**
LOMA				S		**Sb**		**08 03 42.6**	**+2.0**
COEG	**Centro de Oper**	**2.50**	**85**	P		**Pb**		**08 03 19.4**	**+1.4**
COEG	**Centro de Oper**	**2.50**	**85**	*e*P		**Pg**		**08 03 20.6**	**-0.8**
COEG				*e*S		**Sb**		**08 03 50.6**	**+1.9**
TECO	**Alcaldia de Te**	**2.59**	**87**	P		**Pb**		**08 03 21.0**	**+1.4**
TECO				S		**Sb**		**08 03 52.6**	**+1.3**
ALJI	**Alcalda de J**	**2.80**	**92**	S		**Sb**		**08 03 57.9**	**+0.8**
ALJI	**Alcalda de J**	**2.80**	**92**	*e*S		**Sb**		**08 03 57.6**	**+0.5**
PACA	**Pacayal**	**3.04**	**89**	P		**Pb**		**08 03 28.2**	**+1.0**
PACA				S		**Sb**		**08 04 03.1**	**-1.0**
RANC	**El Ranchito**	**3.07**	**89**	P		**Pb**		**08 03 28.6**	**+0.9**

*IDC **23** 08:09:39.9±3.6,53.41N×87.20E,h0km,mbtmp2.6/2, ML2.2/2,Error ellipse: s-maj=34.8km s-min=20.4km az=78.0*

ASRS 23 08:09:39.0±0.7,53.45N×87.25E,h0km,M2.3(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.53**	**290**	I		I		08 18 17.0	
	0.1nm,0.7s,baz=108,slow=339,SNR=37								
ZALV	**Zalesovo Beam**	**1.53**	**290**	Pg		Pg		08 10 09.1	+0.8
	0.2nm,0.3s,baz=107,slow=17,SNR=3.9								
ZALV				Lg		Lg		08 10 27.1	
	0.7nm,0.3s,baz=112,slow=32,SNR=5.2								
KURBB	**Kurchatov Arra**	**6.08**	**246**	Pn		Pn		08 11 11.9	+1.9
	baz=62,slow=13,SNR=2.6								
	0.3nm,0.5s								
MKAR	**Makanchi Array**	**7.38**	**208**	Pn		Pn		08 11 28.3	+0.3
	0.1nm,0.3s,baz=24,slow=16,SNR=3.0								
	0.4nm,0.6s								
MKAR				AML		AML			

IDC 23 08:19:45.7±4.3,54.26N×87.03E,h0km,mbtmp2.4/2, ML2.1/2,Error ellipse: s-maj=42.2km s-min=20.4km az=69.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.34**	**257**	I		I		08 27 20.0	
	baz=78,slow=336,SNR=7.3								
ZALV	**Zalesovo Beam**	**1.34**	**257**	Pg		Pg		08 20 10.4	-0.8
	0.3nm,0.3s,baz=74,slow=17,SNR=7.1								
ZALV				Lg		Lg		08 20 30.0	
	0.3nm,0.3s,baz=74,slow=26,SNR=2.4								
KURBB	**Kurchatov Arra**	**6.34**	**238**	Pn		Pn		08 21 21.1	+0.8
	baz=45,slow=14,SNR=1.6								
	0.1nm,0.3s								
MKAR	**Makanchi Array**	**8.06**	**204**	Pn		Pn		08 21 45.3	+1.4
	0.1nm,0.3s,baz=26,slow=14,SNR=1.6								
	0.1nm,0.4s								
MKAR				AML		AML			

*TEH **23** 08:31:01.3,38.88N×49.05E,h24km±31km,ML2.9, Presumed earthquake*
*AZER **23** 08:31:06.1,38.76N×48.73E,h33km,ml2.9*

ISC 23 08:31:07.2±1.2,38.71N±0°03×48.84E±0°04,h35km,n37, σ1§01/51,Iran-Armenia-Azerbaijan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
LKRN	**Lenkeran, Azer**	**0.05**	**268**	P		**Pn**		**08 31 13.2**	**+0.2**
LKRN				S		**Sn**		**08 31 18.4**	**+1.4**
ASTR	**Astara**	**0.16**	**195**	P		**Pn**		**08 31 13.7**	**+0.1**
ASTR				S		**Sn**		**08 31 19.3**	**+1.3**
GAS1	**Astara - Iran**	**0.33**	**180**	Sg		**Sn**		**08 31 21.7**	**+0.7**
LRK	**Lerik**	**0.40**	**260**	P		**Pn**		**08 31 15.8**	**-0.8**
LRK				S		**Sn**		**08 31 22.7**	**-0.3**
YRD	**Yardimli**	**0.51**	**294**	P		**Pn**		**08 31 16.9**	**-1.3**
YRD				S		**Sn**		**08 31 24.8**	**-1.1**
GLBA	**Clilabad**	**0.63**	**327**	P		**Pn**		**08 31 18.8**	**-0.9**
GLBA				S		**Sn**		**08 31 28.8**	**+0.2**
GRMI	**Germi**	**0.75**	**278**	Pg		**Pn**		**08 31 19.9**	**-1.5**
CSN1	**Caspian**	**1.16**	**170**	Pg		**Pn**		**08 31 26.4**	**-0.6**
SAAT	**Saatly**	**1.19**	**344**	P		**Pn**		**08 31 27.7**	**+0.4**
SAAT				S		**Sn**		**08 31 44.6**	**+2.2**
ALIB	**&Aumlli-Bayram**	**1.25**	**6**	P		Pn		08 31 29.1	+0.9
QRD	**Qoradiz**	**1.40**	**303**	Pn		**Pn**		**08 31 29.2**	**-1.0**
QRD				Sn		**Sn**		**08 31 47.4**	**-0.1**
BLQ	**Beylaqan**	**1.42**	**316**	Pn		**Pn**		**08 31 30.0**	**-0.5**
BLQ				Sn		**Sn**		**08 31 48.0**	**0.0**
KDMR	**Kurdemir**	**1.74**	**343**	Sn		**Sn**		**08 31 56.8**	**+1.0**
AGDM	**Agdam**	**1.94**	**317**	Pn		**Pn**		**08 31 37.4**	**-0.2**
AGDM				Sn		**Sn**		**08 32 01.4**	**+0.6**
GIDE	**GILAN DEYLAMAN**	**1.98**	**154**	Pn		**Pn**		**08 31 36.7**	**-1.7**
BRDA	**Brd**	**2.01**	**321**	Pn		**Pn**		**08 31 39.0**	**+0.3**
BRDA				Sn		**Sn**		**08 32 04.8**	**+2.2**
ZNJK	**Zanjan**	**2.04**	**184**	Pn		**Pn**		**08 31 38.9**	**-0.4**
PQL	**Pirkuli**	**2.08**	**355**	Pn		**Pn**		**08 31 40.0**	**+0.2**
PQL				Sn		**Sn**		**08 32 05.7**	**+1.2**
IML	**Ismayilli**	**2.14**	**346**	Sn		**Sn**		**08 32 06.7**	**+0.8**
ORD	**Ordubad**	**2.23**	**276**	Pn		**Pn**		**08 31 41.2**	**-0.6**
ORD				Sn		**Sn**		**08 32 09.3**	**+1.0**
QBL	**Gabala**	**2.36**	**341**	Sn		**Sn**		**08 32 11.4**	**+0.1**
IMRD	**Marand**	**2.46**	**271**	Pn		**Pn**		**08 31 45.5**	**+0.5**
IAZR	**Azarshahr**	**2.48**	**246**	Pn		**Pn**		**08 31 46.2**	**+0.9**
XNQ	**Khinaliq**	**2.52**	**348**	Pn		Pn		08 31 47.1	+1.4
XNQ				Sn		**Sn**		**08 32 15.3**	**-0.1**
IGZV	**Ghazvin**	**2.57**	**154**	Pn		**Pn**		**08 31 45.9**	**-0.6**
GANJ	**Ganja**	**2.74**	**316**	Sn		**Sn**		**08 32 19.1**	**-1.5**
SEKA	**Sheki**	**2.80**	**334**	Pn		**Pn**		**08 31 50.1**	**+0.6**
SEKA				Sn		**Sn**		**08 32 21.1**	**-0.9**
QSAR	**Qusar**	**2.83**	**351**	Pg		Pn		08 31 54.6	+4.6
QABG	**Abgarm-Qazvin**	**3.06**	**169**	Pn		**Pn**		**08 31 53.3**	**0.0**
GDB	**GEDABAY**	**3.11**	**311**	Pn		**Pn**		**08 31 53.9**	**-0.1**
GDB				Sn		**Sn**		**08 32 30.7**	**+0.7**
MZPU	**Pul - Mazandar**	**3.14**	**135**	Pn		**Pn**		**08 31 53.2**	**-1.2**
VSHL	**Vashlovani**	**3.14**	**324**	P		**Pn**		**08 31 54.9**	**+0.8**
VSHL				S		**Sn**		**08 32 30.1**	**-0.3**
ZKTA	**Zakatala**	**3.38**	**331**	Sn		**Sn**		**08 32 36.3**	**-0.1**
SNJK	**Sanadaj _Korde**	**3.56**	**204**	Pn		**Pn**		**08 32 01.1**	**+0.8**
IPRN	**Peran**	**3.72**	**130**	Pn		**Pn**		**08 32 00.3**	**-1.9**
SNQR	**Sonqor, Kerman**	**3.97**	**195**	Pn		**Pn**		**08 32 06.9**	**+1.1**
CHRG	**Chargali**	**4.69**	**322**	P		**Pn**		**08 32 15.3**	**-0.2**
CHRG				S		**Sn**		**08 33 06.2**	**-2.5**

*ASRS **23** 08:35:18.0±0.6,53.93N×86.56E,h0km,M2.3(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 23 08:35:21.3±3.6,53.95N×86.60E,h0km,mbtmp2.7/2, ML2.6/2,Error ellipse: s-maj=30.9km s-min=15.0km az=77.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
I46RU	**ZALESOVO INFRA**	**1.05**	**271**	I		I		08 41 16.6	
	baz=87,slow=336,SNR=5.4								
ZALV	**Zalesovo Beam**	**1.05**	**270**	Pg		Pg		08 35 40.8	-0.6
	0.6nm,0.3s,baz=91,slow=19,SNR=8.1								
ZALV				Lg		Lg		08 35 55.8	
	1.0nm,0.3s,baz=91,slow=26,SNR=5.2								
KURBB	**Kurchatov Arra**	**5.97**	**239**	Pn		Pn		08 36 51.9	+1.1
	0.2nm,0.3s,baz=58,slow=14,SNR=4.4								
	0.7nm,0.3s								
KURBB				AML		AML			
MKAR	**Makanchi Array**	**7.68**	**203**	Pn		Pn		08 37 15.3	+1.0
	0.1nm,0.3s,baz=24,slow=13,SNR=5.7								
	0.1nm,0.4s								
MKAR				AML		AML			

*IDC **23** 08:38:23.0±1.6,51.41N×75.92E,h0km,mbtmp2.4/3, ML1.7/2,Error ellipse: s-maj=19.0km s-min=13.0km az=31.0*
*NNC **23** 08:38:23.8±3.1,51.60N×75.78E,h0km,mb3.4,mpv2.9, Error ellipse: s-maj=121.1km s-min=21.5km az=27.0, Suspected Mining explosion.*

ISC 23 08:38:13.5±1.4,52.64N±0°08×76.43E±0°06,h0km,n8, σ0§85/8,4C-1D,Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time	Res ISC
KURK	**Kurchatov**

σ0°90/25, **Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HSUJ	**Al Zarqa**	**0.16**	**47**	P	**Pg**	**08 44 03.5**	**-0.6**
HSUJ				AML	AML		
RGMN	**Argaman**	**0.48**	**291**	P	**Pg**	**08 44 09.2**	**-1.0**
RGMN				S	**Sg**	**08 44 17.3**	**+0.9**
UJAP	**Al Uja**	**0.50**	**266**	P	**Pg**	**08 44 09.4**	**-1.1**
UJAP				S	**Sg**	**08 44 17.9**	**+0.8**
QRNJ	**Al-Qirein**	**0.53**	**310**	P	**Pg**	**08 44 10.6**	**-0.5**
QRNJ				AML	AML		
ROII	**Roi**	**0.54**	**298**	P	**Pg**	**08 44 10.2**	**-1.1**
ROII				S	**Sg**	**08 44 19.1**	**+0.8**
SWQJ	**Karak**	**0.59**	**176**	P	**Pn**	**08 44 20.1**	**+1.3**
SWQJ				AML	AML		
MMLI	**Mount Malkishu**	**0.69**	**310**	P	**Pg**	**08 44 13.0**	**-1.2**
MMLI				S	**Sb**	**08 44 25.2**	**-0.9**
MZS	**Mizpe Shalem**	**0.70**	**233**	P	**Pg**	**08 44 13.3**	**-1.0**
MZS				S	**Sg**	**08 44 23.4**	**+0.1**
ASF	**Jabal al Asfar**	**0.70**	**75**	P	**Pg**	**08 44 13.8**	**-1.3**
ASF				AML	AML		
GHAJ	**Ghor Haditha**	**0.80**	**211**	P	**Pg**	**08 44 15.3**	**-1.0**
LISJ	**El Lisan**	**0.89**	**213**	P	**Pb**	**08 44 19.2**	**-0.1**
LISJ				AML	AML		
MSBI	**Mazada**	**0.90**	**221**	P	**Pg**	**08 44 18.4**	**+0.2**
MSBI				AML	AML		
MSBI	**Mazada**	**0.90**	**221**	P	**Pg**	**08 44 16.6**	**-1.6**
MSBI				S	**Sg**	**08 44 30.0**	**+0.1**
KNHM	**Kefar Nahum**	**0.97**	**336**	P	**Pg**	**08 44 19.1**	**-0.5**
KNHM				S	**Sb**	**08 44 34.3**	**+0.2**
MMA0B	**Mount Meron ar**	**1.16**	**332**	P	**Pg**	**08 44 22.1**	**-1.0**
MMA0B				S	**Sb**	**08 44 39.5**	**0.0**
GEM	**Giv'at Ha'Em**	**1.26**	**345**	P	**Pb**	**08 44 25.4**	**-0.1**
GEM				S	**Sb**	**08 44 42.1**	**-0.2**

*IDC **23** 08:44:14.0±3.1, 5°.59S×153°.21E, h0km, mb3.6/3, mbtmp3.7/3, Error ellipse: s-maj=59.0km s-min=22.0km az=74.0*

ISC 23 08:44:24.2±2.1, 5°.60S±0°.09×152°.6E±0°.2, h40km, n6, σ1°22/7, **mb3.3/3, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.41**	**336**	Pn	**Pn**	**08 44 46.4**	**-0.9**
	58nm,0.3s,baz=146,slow=3.6,SNR=12						
KRVT				Sn	**Sn**	**08 45 05.6**	**+0.9**
	100nm,0.3s,baz=37,slow=22,SNR=7.0						
KRVT				LR	LR	08 45 42.9	
	comp=Z,161nm,18.4s,baz=135,slow=51						
PMG	**Port Moresby**	**6.60**	**235**	Sn	**Sn**	**08 47 13.4**	**+0.7**
	2.1nm,0.3s,baz=53,slow=20,SNR=3.7						
WRA	**Warramunga Arr**	**22.78**	**230**	P	**P**	**08 49 23.3**	**-0.2**
	0.7nm,0.7s,baz=54,slow=9.8,SNR=5.0						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**25.44**	**223**	P	**P**	**08 49 47.8**	**-0.7**
	0.8nm,0.9s,baz=50,slow=9.4,SNR=9.3						
	0.8nm,0.9s						
FITZ	**Fitzroy Crossi**	**29.12**	**242**	P	**P**	**08 50 21.1**	**-0.3**
	1.6nm,0.6s,baz=69,slow=9.2,SNR=9.4						
	1.6nm,0.6s						
TORD	**Torodi Ar. Bea**	**150.36**	**287**	PKPbc	**PKPdf**	**09 04 08.8**	**+1.7**
	0.2nm,0.3s,baz=101,slow=2.2,SNR=1.6						

*STR **23** 09:17:36.0±0.0, 42°.91N±0°.09×0°.19E±0°.05, h1km, MLv2.5/18, LOCSAT earthModelID pyrenees_taup-2.11 preliminary*
*MRB **23** 09:17:36.0±0.3, 42°.92N×0°.20E, h6km±1km, ML2.5/37, Error ellipse: s-maj=0.9km s-min=0.5km az=25.0*
*LDG **23** 09:17:36.3±0.1, 42°.94N×0°.19E, h2km, Md3.1/2, Ml3.3/14, Error ellipse: s-maj=1.4km s-min=1.2km az=6.0*
*INMG **23** 09:17:37.0±1.4, 42°.93N×0°.20E, h0km, ML2.5, Error ellipse: s-maj=2.7km s-min=2.1km az=14.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*
*MDD **23** 09:17:37.1±0.2, 42°.93N×0°.20E, h0km, mb_Lg3.0/31, Error ellipse: s-maj=2.0km s-min=1.1km az=10.0*

ISC 23 09:17:35.5±0.8, 42°.95N±0°.01×0°.19E±0°.01, h14km±4km, **n114,** σ1°10/221, **Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LABF	**Labassere**	**0.13**	**317**	Pg	**Pg**	**09 17 39.1**	**+0.1**
LABF				Sg	**Sg**	**09 17 41.4**	**-0.1**
EPF	**Esparros**	**0.13**	**53**	*e*Pg	**Pg**	**09 17 39.1**	**0.0**
EPF				*e*Sg	**Sg**	**09 17 41.2**	**-0.4**
	3µm,0.2s						
VIEF	**Viey**	**0.14**	**242**	P	**Pg**	**09 17 38.8**	**-0.4**
VIEF				S	**Sg**	**09 17 41.0**	**-0.8**
	1µm,0.2s						
VIEF				AML	AML		
VIEF	**Viey**	**0.14**	**242**	Pg	**Pg**	**09 17 38.8**	**-0.4**
VIEF				Sg	**Sg**	**09 17 40.8**	**-1.0**
RESF	**Ens**	**0.18**	**144**	P	**Pg**	**09 17 39.2**	**-0.5**
RESF				S	**Sg**	**09 17 41.7**	**-1.0**
RESF	**Ens**	**0.18**	**144**	Pg	**Pg**	**09 17 39.3**	**-0.5**
RESF				Sg	**Sg**	**09 17 41.8**	**-1.0**
PYLO	**Lourdes**	**0.23**	**310**	P	**Pg**	**09 17 41.0**	**+0.4**
PYLO				S	**Sg**	**09 17 44.7**	**+0.7**
	452nm,0.3s						
PYLO				AML	AML		
PYLO	**Lourdes**	**0.23**	**310**	Pg	**Pg**	**09 17 40.8**	**+0.2**
PYLO				Sg	**Sg**	**09 17 44.2**	**+0.2**
ECHI	**Chisagues Biel**	**0.29**	**180**	P	**Pb**	**09 17 41.2**	**-1.3**
ECHI				S	**Sg**	**09 17 44.8**	**-0.9**
	1µm,0.1s						
ECHI				AML	AML		
ECHI	**Chisagues Biel**	**0.29**	**180**	Pg	**Pb**	**09 17 41.2**	**-1.3**
ECHI				Sg	**Sg**	**09 17 44.6**	**-1.0**
ECHI				IVmb_Lg		09 17 44.9	
MELF	**Melles**	**0.42**	**101**	Pg	**Pg**	**09 17 43.5**	**-0.4**
MELF				Sg	**Sg**	**09 17 49.5**	**-0.2**
REYF	**Montagne du Re**	**0.45**	**286**	Pg	**Pb**	**09 17 44.5**	**-0.6**
REYF				Sg	**Sb**	**09 17 51.1**	**-0.7**
VIER	**Vielha - Casau**	**0.50**	**119**	P	**Pg**	**09 17 45.1**	**-0.2**
VIER				S	**Sg**	**09 17 51.8**	**-0.2**
	282nm,0.2s						
VIER				AML	AML		
VIER	**Vielha - Casau**	**0.50**	**119**	Pg	**Pg**	**09 17 45.2**	**-0.2**
VIER				Sg	**Sb**	**09 17 52.5**	**-0.8**
VIES	**Vielha - Hospi**	**0.51**	**119**	P	**Pg**	**09 17 45.3**	**-0.3**
VIES				S	**Sg**	**09 17 52.3**	**-0.1**
	431nm,0.2s						
VIES				AML	AML		
VIES	**Vielha - Hospi**	**0.51**	**119**	Pg	**Pb**	**09 17 45.5**	**-0.7**
VIES				Sg	**Sb**	**09 17 52.8**	**-0.7**
CARA	**Val d'Aran**	**0.52**	**118**	P	**Pg**	**09 17 45.6**	**-0.1**
CARA				S	**Sb**	**09 17 53.1**	**-0.9**
	233nm,0.3s						
CARA				AML	AML		
ETSF	**Etsaut**	**0.56**	**265**	*e*Pg	**Pb**	**09 17 46.3**	**-0.8**
	baz=95						
ETSF				*e*Sg	**Sg**	**09 17 53.5**	**-0.3**
	415nm,0.2s						
MLS	**Moulis**	**0.66**	**89**	P	**Pg**	**09 17 48.2**	**-0.2**
MLS				S	**Sg**	**09 17 57.4**	**+0.3**
	29nm,0.3s						
MLS				AML	AML		
MLS	**Moulis**	**0.66**	**89**	Pg	**Pg**	**09 17 47.4**	**-1.0**
MLS				Sg	**Sg**	**09 17 56.3**	**-0.8**
ATE	**Arette**	**0.67**	**282**	P	**Pb**	**09 17 49.0**	**+0.1**
ATE				S	**Sb**	**09 17 58.5**	**+0.4**
	148nm,0.2s						
ATE				AML	AML		
ATE	**Arette**	**0.67**	**282**	Pg	**Pb**	**09 17 48.5**	**-0.5**
ATE				Sg	**Sb**	**09 17 58.3**	**+0.1**
SALF	**Salau**	**0.76**	**104**	P	**Pg**	**09 17 49.9**	**-0.3**
SALF				S	**Sg**	**09 18 00.2**	**+0.1**
	86nm,0.1s						
SALF				AML	AML		
SALF	**Salau**	**0.76**	**104**	Pg	**Pg**	**09 17 49.8**	**-0.4**
SALF				Sg	**Sg**	**09 18 00.1**	**-0.1**
CTRE	**Tremp**	**0.76**	**146**	P	**Pg**	**09 17 49.4**	**-0.8**
CTRE				S	**Sb**	**09 18 00.1**	**-0.7**
	38nm,0.3s						
CTRE				AML	AML		
CEST	**Esterri de Car**	**0.86**	**114**	P	**Pg**	**09 17 51.6**	**-0.5**
CEST				S	**Sb**	**09 18 03.7**	**+0.1**
	77nm,0.3s						
CEST				AML	AML		
CRAS	**Crastes**	**0.86**	**27**	Pg	**Pn**	**09 17 53.5**	**+0.3**
CRAS				Sg	**Sn**	**09 18 07.1**	**+1.5**
LATF	**Latrape**	**0.86**	**71**	Pg	**Pb**	**09 17 52.2**	**-0.1**
ORDF	**Ordiarp**	**0.87**	**288**	Pg	**Pb**	**09 17 52.7**	**+0.3**
ORDF				Sg	**Sn**	**09 18 05.7**	**-0.1**
CSOR	**Sort**	**0.90**	**129**	P	**Pg**	**09 17 52.3**	**-0.7**
CSOR				S	**Sb**	**09 18 04.5**	**-0.3**
	50nm,0.3s						
CSOR				AML	AML		
IRAF	**Chalets d'Irat**	**0.91**	**276**	Pg	**Pb**	**09 17 53.1**	**0.0**
IRAF				Sg	**Sb**	**09 18 05.6**	**+0.5**
MLZA	**Monlezun-d-Arm**	**0.91**	**345**	Pg	**Pn**	**09 17 54.4**	**+0.6**
MLZA				Sg	**Sn**	**09 18 08.0**	**+1.3**
CTRM	**Tremp**	**0.94**	**147**	Pg	**Pb**	**09 17 54.0**	**+0.4**
CTRM				Sg	**Sb**	**09 18 06.3**	**+0.3**
GENF	**Genat**	**1.02**	**97**	P	**Pg**	**09 17 54.6**	**-0.6**
GENF				S	**Sg**	**09 18 08.2**	**-0.3**
GENF	**Genat**	**1.02**	**97**	Pg	**Pg**	**09 17 54.3**	**-0.9**
GENF				Sg	**Sb**	**09 18 08.9**	**+0.7**
SJPF	**Ste Jean**	**1.05**	**279**	*e*Pg	**Pb**	**09 17 55.4**	**-0.1**
SJPF				*e*Sg	**Sb**	**09 18 09.6**	**+0.4**
	107nm,0.3s						
SJPF				AML	AML		
PAND	**Andorre**	**1.08**	**113**	P	**Pg**	**09 17 55.6**	**-0.8**
PAND				S	**Sb**	**09 18 10.6**	**+0.3**
	78nm,0.3s						
PAND				AML	AML		
PAND	**Andorre**	**1.08**	**113**	Pg	**Pb**	**09 17 56.1**	**0.0**
CORG	**Organya**	**1.10**	**131**	P	**Pg**	**09 17 55.8**	**-0.8**
CORG				S	**Sb**	**09 18 10.8**	**+0.3**
	56nm,0.2s						
CORG				AML	AML		
EORO	**Oroz-Betelu**	**1.11**	**267**	Pg	**Pb**	**09 17 56.4**	**0.0**
EORO				Sg	**Sn**	**09 18 12.3**	**+0.6**
EORO				IVmb_Lg		09 18 14.2	
OSSF	**Osses**	**1.11**	**286**	P	**Pb**	**09 17 56.5**	**0.0**
OSSF				S	**Sb**	**09 18 11.5**	**+0.8**
	56nm,0.2s						
OSSF				AML	AML		
OSSF	**Osses**	**1.11**	**286**	Pg	**Pb**	**09 17 56.6**	**+0.2**
OSSF				Sg	**Sn**	**09 18 12.0**	**+0.3**
ARBS	**La Rabassa**	**1.12**	**116**	P	**Pg**	**09 17 56.1**	**-1.0**
ARBS				S	**Sb**	**09 18 11.7**	**+0.5**
	89nm,0.3s						
ARBS				AML	AML		
CAVN	**Les Avellanes**	**1.15**	**159**	P	**Pg**	**09 17 56.3**	**-1.2**
CAVN				S	**Sb**	**09 18 12.0**	**+0.2**
	246nm,0.2s						
CAVN				AML	AML		
DUNF	**Dun**	**1.19**	**86**	Pn	**Pg**	**09 17 57.7**	**-0.7**
TERF	**Tercis-les-Bai**	**1.20**	**308**	Pg	**Pn**	**09 17 59.9**	**+2.1**
EALK	**Alkurruntz**	**1.27**	**283**	Pg	**Pn**	**09 17 59.8**	**+0.8**
EALK				Sg	**Sn**	**09 18 17.6**	**+1.7**
EALK				IVmb_Lg		09 18 24.1	
EARA	**Aranguren**	**1.32**	**263**	Pg	**Pb**	**09 18 01.2**	**+1.2**
EARA				Sg	**Sn**	**09 18 18.9**	**+2.1**
EARA				IVmb_Lg		09 18 24.0	
ESAC	**San Caprasio**	**1.32**	**202**	P	**Pg**	**09 17 59.4**	**-1.6**
ESAC				S	**Sb**	**09 18 17.2**	**+0.2**
ESAC	**San Caprasio**	**1.32**	**202**	Pg	**Pb**	**09 18 01.7**	**+1.6**
ESAC				Sg	**Sn**	**09 18 18.8**	**+1.7**
ESAC				IVmb_Lg		09 18 24.8	
CLLI	**Llivia**	**1.39**	**109**	P	**Pn**	**09 18 00.8**	**+0.1**
CLLI				S	**Sn**	**09 18 20.0**	**+1.1**
	26nm,0.3s						
CLLI				AML	AML		
FNEB	**Nbias**	**1.41**	**91**	P	**Pn**	**09 18 01.2**	**+0.5**
FNEB				S	**Sn**	**09 18 20.7**	**+1.6**
	33nm,0.2s						
FNEB				AML	AML		
FNEB	**Nbias**	**1.41**	**91**	Pn	**Pb**	**09 18 01.7**	**+0.2**
FNEB				Sn	**Sn**	**09 18 21.3**	**+2.3**
CARF	**Carcanieres**	**1.43**	**99**	P	**Pn**	**09 18 01.7**	**+0.6**
CARF				S	**Sb**	**09 18 20.5**	**+0.6**
	50nm,0.3s						
CARF				AML	AML		
CARF	**Carcanieres**	**1.43**	**99**	Pn	**Pg**	**09 18 02.3**	**-0.6**
CARF				Sn	**Sn**	**09 18 21.5**	**+1.9**
EMIR	**Miracle**	**1.43**	**136**	S	**Sb**	**09 18 20.4**	**+0.4**
	58nm,0.2s						
EMIR				AML	AML		
RUFF	**Ruffiac, Nouve**	**1.44**	**355**	Pn	**Pg**	**09 18 03.2**	**+0.2**
RUFF				Sn	**Sg**	**09 18 23.5**	**+1.7**
VALC	**Valcebollere**	**1.48**	**112**	P	**Pn**	**09 18 02.3**	**+0.5**
VALC				S	**Sb**	**09 18 21.9**	**+0.4**
	149nm,0.3s						
VALC				AML	AML		
VALC	**Valcebollere**	**1.48**	**112**	Pn	**Pg**	**09 18 03.6**	**-0.3**
VALC				Sg	**Sg**	**09 18 25.6**	**+2.5**
MTLF	**Montolieu**	**1.53**	**75**	*e*Pg	**Pb**	**09 18 04.1**	**+0.5**
MTLF				*e*Sg	**Sg**	**09 18 25.1**	**+0.3**
	56nm,0.2s						
MTLF				AML	AML		
EXQUE	**Queralbs**	**1.57**	**112**	Pg	**Pg**	**09 18 05.4**	**-0.3**
EXQUE				Sg	**Sg**	**09 18 26.2**	**+0.1**
CBRU	**Bruguera**	**1.61**	**114**	P	**Pn**	**09 18 04.2**	**+0.6**
CBRU				S	**Sn**	**09 18 25.6**	**+1.4**
	108nm,0.5s						
CBRU				AML	AML		
CORI	**Orista**	**1.69**	**125**	P	**Pn**	**09 18 05.5**	**+1.0**
CORI				S	**Sb**	**09 18 27.4**	**+0.1**
	79nm,0.4s						
CORI				AML	AML		
EPOB	**Poblet**	**1.73**	**157**	P	**Pn**	**09 18 05.9**	**+0.7**
EPOB				S	**Sn**	**09 18 27.8**	**+0.7**
	56nm,0.3s						
EPOB				AML	AML		
EPOB	**Poblet**	**1.73**	**157**	Pn	**Pg**	**09 18 07.6**	**-1.0**
EPOB				Sn	**Sg**	**09 18 30.0**	**-1.1**
EPOB				IVmb_Lg		09 18 31.4	
FILF	**Fillols**	**1.79**	**102**	P	**Pn**	**09 18 05.6**	**-0.4**
FILF				S	**Sn**	**09 18 27.9**	**-0.6**
	39nm,0.4s						
FILF				AML	AML		
FILF	**Fillols**	**1.79**	**102**	Pn	**Pb**	**09 18 07.4**	**-0.6**
CBEU	**Beuda**	**1.96**	**110**	P	**Pn**	**09 18 09.2**	**+0.8**
CBEU				S	**Sn**	**09 18 34.3**	**+1.5**
	95nm,0.3s						
CBEU				AML	AML		
ERTA	**Horta de San J**	**2.00**	**177**	P	**Pn**	**09 18 09.5**	**+0.7**
ERTA				S	**Sn**	**09 18 34.4**	**+0.8**
	47nm,0.3s						
ERTA				AML	AML		
ERTA	**Horta de San J**	**2.00**	**177**	Pn	**Pn**	**09 18 10.1**	**+1.2**
ERTA				Pg	**Pg**	**09 18 12.7**	**-1.1**
ERTA				Sn	**Sb**	**09 18 35.6**	**-0.7**
ERTA				Sg	**Sg**	**09 18 38.5**	**-1.2**
ERTA				IVmb_Lg		09 18 40.0	
LFF	**La Frestale**	**2.03**	**11**	*e*Pg	**Pg**	**09 18 14.2**	**-0.1**
LFF				*e*Sg	**Sg**	**09 18 40.8**	**+0.2**
	84nm,0.4s						
LFF				AML	AML		
SJAF	**Saint Jean de**	**2.04**	**102**	P	**Pn**	**09 18 10.2**	**+0.8**
SJAF				S	**Sn**	**09 18 36.3**	**+1.7**
	42nm,0.4s						
SJAF				AML	AML		
SJAF	**Saint Jean de**	**2.04**	**102**	Pg	**Pg**	**09 18 14.2**	**-0.3**
SJAF				Sg	**Sg**	**09 18 41.4**	**+0.5**
CFON	**Fontmartina**	**2.04**	**125**	P	**Pn**	**09 18 10.5**	**+1.0**
CFON				S	**Sn**	**09 18 36.0**	**+1.2**
EJON	**La Jonquera**	**2.05**	**103**	Pn	**Pn**	**09 18 11.1**	**+1.6**
EJON				Pg	**Pg**	**09 18 13.6**	**-1.1**
EJON				Sn	**Sb**	**09 18 37.6**	**-0.3**
EJON				Sg	**Sg**	**09 18 42.3**	**+0.9**
EJON				IVmb_Lg		09 18 44.1	
VAN2	**Vandellos 2**	**2.05**	**167**	P	**Pn**	**09 18 10.0**	**+0.4**
VAN2				S	**Sn**	**09 18 35.9**	**+1.0**
	41nm,0.3s						
VAN2				AML	AML		
CGAR	**Garraf**	**2.09**	**142**	P	**Pn**	**09 18 10.9**	**+0.7**
CGAR				S	**Sn**	**09 18 37.2**	**+1.2**
	24nm,0.4s						
CGAR				AML	AML		
CLAF	**Gruissan**	**2.13**	**84**	*e*Pg	**Pb**	**09 18 14.4**	**+0.6**
CLAF	**Gruissan**	**2.13**	**84**	P	**Pn**	**09 18 11.5**	**+0.9**
CLAF				S	**Sn**	**09 18 38.6**	**+1.7**
CLAF	**Gruissan**	**2.13**	**84**	Pg	**Pb**	**09 18 14.4**	**+0.6**
EBR	**Ebro Roquetas**	**2.14**	**174**	S	**Sn**	**09 18 38.0**	**+0.9**
	62nm,0.3s						
EBR				AML	AML		
CMAS	**Mas de Barbera**	**2.23**	**178**	P	**Pn**	**09 18 12.6**	**+0.7**
CMAS				S	**Sn**	**09 18 40.0**	**+0.8**
	32nm,0.2s						
CMAS				AML	AML		
CCAS	**Cassa de la Se**	**2.27**	**117**	P	**Pn**	**09 18 13.3**	**+0.7**
CCAS				S	**Sn**	**09 18 41.8**	**+1.5**
	35nm,0.5s						
CCAS				AML	AML		
CPAL	**Palau Saverder**	**2.28**	**105**	P	**Pn**	**09 18 13.7**	**+1.0**
CPAL				S	**Sn**	**09 18 41.8**	**+1.2**
	19nm,0.3s						
CPAL				AML	AML		
CAF	**Calviac**	**2.39**	**34**	*e*Pn	**Pn**	**09 18 14.1**	**-0.2**
CAF				*e*Pg	**Pg**	**09 18 20.6**	**-0.7**
CAF				*e*Sg	**Sg**	**09 18 50.8**	**-1.5**
	32nm,0.2s						
CAF				AML	AML		
ALCN	**Alcanar**	**2.41**	**175**	P	**Pn**	**09 18 14.7**	**+0.3**
ALCN				S	**Sn**	**09 18 43.7**	**0.0**
	25nm,0.2s						
ALCN				AML	AML		
LEUC	**Leucamp**	**2.49**	**43**	Pn	**Pn**	**09 18 15.9**	**+0.3**
LEUC				Sg	**Sg**	**09 18 54.9**	**-0.5**
RJF	**Les Rejaudoux**	**2.54**	**22**	*e*Pg	**Pg**	**09 18 23.3**	**-0.8**
RJF				*e*Sg	**Sg**	**09 18 55.9**	**-1.1**
	41nm,0.3s						
RJF				AML	AML		
EMOS	**Mosqueruela**	**2.63**	**191**	P	**Pn**	**09 18 18.4**	**+0.7**
EMOS				S	**Sn**	**09 18 50.1**	**+0.5**
	15nm,0.4s						
EMOS				AML	AML		
ABJF	**Abjat-sur-Band**	**2.65**	**9**	Pn	**Pn**	**09 18 19.9**	**+2.1**
E0901	**Celadas (Terue**	**2.66**	**202**	Pn	**Pn**	**09 18 20.1**	**+2.1**
E0901				Sn	**Sn**	**09 18 52.4**	**+2.3**
E0901				IVmb_Lg		09 19 05.3	
ELAN	**Lanestosa**	**2.67**	**277**	Pn	**Pb**	**09 18 21.0**	**-2.1**
ELAN				Sn	**Sb**	**09 18 53.8**	**-2.0**
ELAN				IVmb_Lg		09 19 08.0	
ALCX	**Castello**	**2.69**	**179**	P	**Pn**	**09 18 19.0**	**+0.7**
ALCX				S	**Sn**	**09 18 51.5**	**+0.8**
ETOR	**Torete**	**2.71**	**219**	Pn	**Pn**	**09 18 20.6**	**+1.8**
ETOR				Sn	**Sn**	**09 18 53.2**	**+1.8**
ETOR				Sg	**Sg**	**09 19 03.0**	**+0.3**
ETOR				IVmb_Lg		09 19 06.2	
LASF	**Ste Croix**	**2.89**	**66**	*e*Pg	**Pg**	**09 18 29.4**	**-1.5**
LASF				*e*Sg	**Sg**	**09 19 07.7**	**-0.7**
	18nm,0.4s						
LASF				AML	AML		
FRNF	**Fournols**	**2.97**	**34**	Pn	**Pn**	**09 18 21.9**	**-0.3**
VERF	**Verneugheol**	**3.24**	**30**	Pn	**Pn**	**09 18 24.7**	**-1.3**
TCF	**Toulx Ste Croi**	**3.63**	**23**	*e*Pg	**Pg**	**09 18 43.0**	**-2.1**
TCF				*e*Sg	**Sg**	**09 19 31.0**	**-1.1**
	16nm,0.3s						
TCF				AML	AML		
MFF	**Saint Martin d**	**3.66**	**356**	*e*Pg	**Pg**	**09 18 43.3**	**-2.2**
MFF				*e*Sg	**Sg**	**09 19 31.1**	**-1.8**
	17nm,0.3s						
MFF				AML	AML		
VIVF	**Saint-Julien-l**	**3.75**	**58**	*e*Pg	**Pg**	**09 18 45.6**	**-1.8**
VIVF				*e*Sg	**Sg**	**09 19 34.3**	**-1.7**
	7.7nm,0.3s						
VIVF				AML	AML		
BGF	**Bois d'Agland**	**4.07**	**27**	*e*Pn	**Pn**	**09 18 39.2**	**+1.9**
BGF				*e*Pg	**Pg**	**09 18 51.9**	**-1.5**
BGF				*e*Sg	**Sg**	**09 19 43.9**	**-2.2**
	54nm,0.4s						
BGF				AML	AML		
AVF	**Avril sur Loir**	**4.45**	**29**	*e*Pn	**Pn**	**09 18 43.9**	**+1.5**
AVF				*e*Pg	**Pg**	**09 18 59.6**	**-1.0**
AVF				*e*Sg	**Sg**	**09 19 56.3**	**-1.9**
	9.2nm,0.4s						
AVF				AML	AML		
SMF	**Signal de Mont**	**4.51**	**34**	*e*Pg	**Pg**	**09 19 00.4**	**-1.5**
SMF				*e*Sg	**Sg**	**09 19 58.6**	**-1.7**
	8.5nm,0.4s						
SMF				AML	AML		
SSF	**Saint Saulge**	**4.73**	**29**	*e*Pg	**Pg**	**09 19 04.8**	**-1.3**
SSF				*e*Sg	**Sg**	**09 20 05.4**	**-1.9**
	14nm,0.5s						
SSF				AML	AML		
PAB	**San Pablo**	**4.83**	**227**	Pn	**Pn**	**09 18 49.3**	**+1.5**
PAB				Sn	**Sn**	**09 19 43.2**	**-0.3**
PAB				IVmb_Lg		09 19 43.9	
PAB				Sg	**Sg**	**09 20 09.9**	**-0.5**
LOR	**Lormes**	**5.04**	**30**	*e*Pg	**Pg**	**09 19 09.5**	**-2.4**
LOR				*e*Sg	**Sg**	**09 20 13.0**	**-4.0**
	7.2nm,0.4s						
LOR				AML	AML		
ECAL	**Calabor**	**5.23**	**261**	Pn	**Pn**	**09 18 55.3**	**+2.0**
ECAL				Sn	**Sn**	**09 19 52.9**	**-0.5**
ECAL				IVmb_Lg		09 19 56.5	
ECAL				Sg	**Sg**	**09 20 22.0**	**-1.2**
PBRG	**Braganca**	**5.26**	**260**	*e*Sn	**Sn**	**09 19 54.8**	**+0.6**
PBRG				IAML		09 20 00.8	
PBRG				IAML		09 20 23.9	
PBRG				IAML		09 20 26.3	
POLO	**Lamas de Olo**	**6.14**	**258**	*e*Pn	**Pn**	**09 19 07.4**	**+1.5**
POLO				*e*Sn	**Sn**	**09 20 17.3**	**+1.3**
ECAB	**El Cabril**	**6.48**	**223**	Pn	**Pn**	**09 19 12.2**	**+1.8**
ECAB				IVmb_Lg		09 20 33.9	
PMRV	**Marv??o**	**6.72**	**241**	*e*Pn	**Pn**	**09 19 15.0**	**+1.3**
PMRV				*e*Sn	**Sn**	**09 20 28.6**	**-1.4**
PMRV				IAML		09 20 30.1	
PMRV				IAML		09 20 30.7	
PMRV				IAML		09 20 30.7	
PBAR	**Barrancos**	**7.28**	**232**	*e*Sn	**Sn**	**09 20 40.8**	**-3.1**
PBAR				IAML		09 20 49.8	
PARRA	**Arraiolos**	**7.48**	**239**	*e*Pn	**Pn**	**09 19 25.2**	**+1.1**
MOE	**Montemor**	**7.85**	**239**	*e*Pn	**Pn**	**09 19 30.1**	**+0.8**

*IDC **23** 09:39:08.7±1.3, 32°.87N×138°.61E, h0km, mb3.4/2, mbtmp3.3/3, ML2.2/1, MS3.4/1, Error ellipse: s-maj=23.8km s-min=16.9km az=100.0*
*JMA **23** 09:39:09.2±0.1, 33°.5N±0°.6×141°.0E±0°.5, h42km±1km, MV2.8/28, E OFF HACHIJOJIMA ISLAND*

ISC 23 09:39:09.2±1.5, 33°.44N±0°.07×141°.1E±0°.1, h48km, **n13,** σ0°65/16, **Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**1.13**	**253**	P	**Pn**	**09 39 28.5**	**-0.2**
JHJ2				*e*S	**Sn**	**09 39 43.2**	**+0.2**
JHJ	**Hachijo jima 2**	**1.16**	**254**	Pn	**P

BIPH	**Bislig**	**1.95**	**338**	*e*P		**Pn**	**09 40 34.6**	**+0.8**
BIPH				*e*S		**Sn**	**09 41 00.6**	**-2.9**
KCP	**Kidapawan**	**2.09**	**288**	*e*P		**Pn**	**09 40 34.3**	**-1.0**
KCP				*i* S		**Sn**	**09 41 05.4**	**-0.5**
FITZ	**Fitzroy Crossi**	**24.34**	**183**	P		**P**	**09 44 56.1**	**+0.7**
	0.8nm,0.5s,baz=349,slow=9.4,SNR=1.6							
	0.8nm,0.5s							
WRA	**Warramunga Arr**	**27.09**	**165**	P		**P**	**09 45 18.4**	**-1.7**
	0.1nm,0.5s,baz=344,slow=9.4,SNR=1.3							
	0.1nm,0.5s							
ASAR	**Alice Springs**	**30.57**	**168**	P		**P**	**09 45 50.0**	**-0.9**
	0.1nm,0.4s,baz=336,slow=7.3,SNR=6.2							
ASAR				PcP		**PcP**	**09 48 45.0**	**+0.3**
	0.2nm,0.6s,baz=354,slow=2.5,SNR=2.7							
	0.1nm,0.4s							
MKAR	**Makanchi Array**	**55.63**	**324**	P		**P**	**09 49 11.8**	**+0.8**
	0.6nm,0.5s,baz=130,slow=7.4,SNR=6.0							
	0.6nm,0.5s							
KURBB	**Kurchatov Arra**	**59.75**	**326**	P		**P**	**09 49 39.9**	**+0.5**
	1.0nm,0.6s,baz=124,slow=7.1,SNR=9.6							
	1.0nm,0.6s							
BVAR	**Borovoye Array**	**65.34**	**326**	P		**P**	**09 50 16.9**	**+0.4**
	1.0nm,0.5s,baz=124,slow=7.8,SNR=4.8							
	1.0nm,0.5s							

*IDC **23** 09:48:59.2±4.1,6˚.35N×123˚.63E, h0km, mb3.8/4, mbtmp3.8/5, ML4.1/1, MS2.9/1, Error ellipse: s-maj=87.6km s-min=30.6km az=127.0*
*MAN **23** 09:49:16.0, 6˚.31N×125˚.30E, h109km, MS3.4*
ISC 23 09:49:16.5±0.9, 6˚29N±0˚.08×125˚4E±0˚.1, h115km±8km, n11, σ1°913/17, mb3.5/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSPH	**General Santos**	**0.45**	**244**	*i* P	**Pn**	**09 49 34.4**	**+0.6**
GSPH				*i* S	**Sn**	**09 49 46.6**	**-0.2**
KCP	**Kidapawan**	**0.76**	**340**	*i* P	**Pn**	**09 49 36.0**	**0.0**
KCP				*e*S	**Sn**	**09 49 49.8**	**-0.9**
DMPH	**Davao City--Mi**	**0.80**	**11**	*i* P	**Pn**	**09 49 37.3**	**+1.0**
DMPH				*i* S	**Sn**	**09 49 52.4**	**+1.3**
DAV	**Davao City (W)**	**0.81**	**16**	Pn	**Pn**	**09 49 33.8**	**-2.5**
	62nm,0.3s,baz=241,slow=13,SNR=2.5						
DAV				Sn	**Sn**	**09 49 51.7**	**+0.4**
	147nm,0.3s,baz=294,slow=20,SNR=29						
	149nm,0.3s						
DAV				AML	AML		
BIPH	**Bislig**	**2.13**	**28**	*e*P	**Pn**	**09 49 51.9**	**+0.5**
BIPH				*e*S	**Sn**	**09 50 18.1**	**0.0**
CGP	**Cagayan de Oro**	**2.25**	**343**	*e*P	**Pn**	**09 49 53.4**	**+0.5**
CGP				*e*S	**Sn**	**09 50 20.8**	**0.0**
FITZ	**Fitzroy Crossi**	**24.23**	**179**	P	**P**	**09 54 21.0**	**-1.8**
	0.6nm,0.3s,baz=359,slow=7.9,SNR=2.7						
	0.6nm,0.3s						
JNU	**Nakatsue**	**27.19**	**10**	LR	LR	10 06 22.5	
	comp=Z,27nm,21.5s,baz=264,slow=38						
WRA	**Warramunga Arr**	**27.52**	**161**	P	**P**	**09 54 52.4**	**-0.2**
	0.6nm,0.7s,baz=330,slow=11,SNR=6.6						
	0.6nm,0.7s						
ASAR	**Alice Springs**	**30.92**	**165**	P	**P**	**09 55 22.9**	**+0.2**
	0.6nm,0.5s,baz=343,slow=6.9,SNR=18						
ASAR				PcP	**PcP**	**09 58 15.7**	**-0.9**
	0.4nm,1.1s,baz=315,slow=1.9,SNR=1.8						
	0.6nm,0.5s						
STKA	**Stephens Creek**	**40.99**	**159**	P	**P**	**09 56 49.6**	**+1.3**
	1.0nm,0.4s,baz=328,slow=11,SNR=4.0						
	1.0nm,0.4s						

*IDC **23** 09:54:21.0±0.8, 56˚.98S×67˚.53W, h0km, mb4.0/8, mbtmp4.0/11, ML4.0/3, MS3.8/29, Error ellipse: s-maj=38.6km s-min=12.6km az=82.0*
*NEIC **23** 09:54:22.4±2.5, 57˚.04S±0˚.06×67˚.5W±0˚.2, h10km±1km, mb4.6/16, Error ellipse: s-maj=19.0km s-min=9.3km az=250.0*
*GFZ **23** 09:54:24.0±0.2, 57˚S±3˚×67˚7W±˚, h10km, M4.5/19, mb4.5/19, confirmed*
*GUC **23** 09:54:25.0±0.3, 56˚.83S×67˚.92W, h10km, ML4.4, Presumed earthquake*
ISC 23 09:54:22.6±0.5, 56˚96S±0˚.06×67˚5W±0˚.1, h10km, n102, σ1°946/69, mb4.5/26, MS3.8/27, 4C, Drake Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
USHA	**Ushuaia**	**2.20**	**345**	Pn	**Pn**	**09 54 57.8**	**-1.3**
	22nm,0.3s,baz=52,slow=0.2,SNR=180						
USHA				Sn	**Sn**	**09 55 21.3**	**-5.0**
	159nm,0.3s,baz=21,slow=18,SNR=7.5						
	90nm,0.3s						
USHA				AML	AML		
USHA	**Ushuaia**	**2.20**	**345**	*e*P	**Pn**	**09 54 60.0**	**+0.9**
USHA				IAML		09 55 37.2	
	comp=N,1μm,0.4s						
USHA	**Ushuaia**	**2.20**	**345**	*e*P	**Pn**	**09 54 59.4**	**+0.3**
USHA				*e*S	**Sn**	**09 55 25.8**	**-0.5**
MG03	**Isla Dawson**	**3.55**	**330**	*e*P	**Pn**	**09 55 16.6**	**-1.1**
MG03				IAML		09 56 15.7	
	comp=E,611nm,0.8s						
MG03	**Isla Dawson**	**3.55**	**330**	*e*P	**Pn**	**09 55 16.6**	**-1.1**
MG03				*e*S	**Sn**	**09 55 58.7**	**-1.0**
MG03				IAML		09 56 17.3	
	comp=N,717nm,0.8s						
MG02	**Cerro Sombrero**	**4.31**	**346**	*e*P	**Pn**	**09 55 28.7**	**+0.6**
MG02				*e*S	**Sn**	**09 56 18.4**	**+0.2**
GO10	**Punta Arenas**	**4.33**	**330**	*e*P	**Pn**	**09 55 30.3**	**+1.9**
GO10	**Punta Arenas**	**4.33**	**330**	*e*P	**Pn**	**09 55 28.4**	**0.0**
GO10				*e*S	**Sn**	**09 56 17.3**	**-1.6**
MG05	**Puerto Natales**	**6.05**	**329**	*e*P	**Pn**	**09 55 48.9**	**-3.1**
EFI	**East Falkland**	**7.63**	**50**		**Pn**	**09 56 13.9**	**+0.2**
EFI	**East Falkland**	**7.63**	**50**	P	**Pn**	**09 56 13.3**	**-0.4**
	comp=Z,81nm,0.8s						
PMSA	**Palmer Station**	**8.02**	**169**	Pn	**Pn**	**09 56 16.3**	**-2.6**
	comp=Z,2.8nm,0.3s,baz=0.6,slow=9.6,SNR=8.9						
PMSA				LR	LR	09 58 37.2	
	comp=Z,2μm,19.7s,baz=316,slow=32						
	comp=Z,16nm,0.5s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**8.02**	**169**	P	**Pn**	**09 56 20.1**	**+1.1**
	comp=Z,52nm,1.6s						
GO08	**Villa O'Higgin**	**9.04**	**338**		**Pn**	**09 56 35.2**	**+2.1**
GO08	**Villa O'Higgin**	**9.04**	**338**	P	**Pn**	**09 56 36.7**	**+3.6**
	comp=Z,32nm,0.9s						
PLCA	**Paso Flores**	**16.36**	**352**	Pn	**Pn**	**09 58 10.8**	**-1.4**
	comp=Z,0.2nm,0.3s,baz=170,slow=8.2,SNR=9.0						
PLCA				LR	LR	10 05 19.7	
	comp=Z,697nm,18.1s,baz=180,slow=40						
	comp=Z,0.8nm,0.8s						
PLCA				AML	AML		
PLCA	**Paso Flores**	**16.36**	**352**	P	**P**	**09 58 15.7**	**+0.5**
PLCA	**Paso Flores**	**16.36**	**352**	P	**P**	**09 58 16.6**	**+1.4**
	comp=Z,14nm,1.5s						
BI02	**San Fabin de**	**20.46**	**351**	P	Pn	09 59 01.7	-0.6
	comp=Z,8.8nm,1.3s						
ML02	**Panimavida**	**21.37**	**351**	P	**P**	**09 59 11.7**	**+1.8**
	comp=Z,33nm,1.2s						
BO02	**Sierra Bellavi**	**22.28**	**353**	P	**P**	**09 59 20.9**	**+1.1**
BO02				IAmb	IAmb	09 59 26.6	
	comp=Z,30nm,1.2s						
BO02	**Sierra Bellavi**	**22.28**	**353**	P	**P**	**09 59 20.6**	**+0.8**
	comp=Z,16nm,0.7s						
BO01	**Tunca**	**22.70**	**352**	P	**P**	**09 59 23.9**	**-0.4**
	comp=Z,18nm,1.6s						
BO04	**La Punta**	**23.07**	**353**	P	**P**	**09 59 28.3**	**+0.2**
BO04				IAmb	IAmb	09 59 40.4	
	comp=Z,22nm,0.8s						
MT13	**San Alfonso**	**23.29**	**354**	P	**P**	**09 59 32.0**	**+1.5**
MT09	**Talagante**	**23.31**	**353**	P	**P**	**09 59 31.5**	**+0.8**
MT09				IAmb	IAmb	09 59 57.7	
	comp=Z,34nm,1.2s						
BELA	**Belgrano 2**	**23.80**	**163**	P	**P**	**09 59 35.6**	**+0.6**
BELA				IAmb	IAmb	10 00 14.2	
	comp=Z,34nm,1.4s						
VA03	**San Esteban**	**24.29**	**354**	P	**P**	**09 59 39.4**	**-0.6**
VA03	**San Esteban**	**24.29**	**354**	P	**P**	**09 59 40.9**	**+0.9**
	comp=Z,36nm,1.4s						
CO04	**Los Peladeros**	**25.03**	**353**	P	**P**	**09 59 46.6**	**-0.3**
	comp=Z,24nm,1.2s						
CO03	**El Pedregal**	**26.21**	**354**	P	**P**	**09 59 55.6**	**-1.8**
CO03				IAmb	IAmb	10 00 38.4	
	comp=Z,13nm,0.9s						
CO03	**El Pedregal**	**26.21**	**354**	P	**P**	**09 59 58.4**	**+1.0**
	comp=Z,16nm,1.6s						
CO01	**Juntas del Tor**	**27.03**	**355**	P	**P**	**10 00 05.8**	**+0.8**
CO01				IAmb	IAmb	10 00 50.3	
	comp=Z,11nm,1.0s						
CO01	**Juntas del Tor**	**27.03**	**355**	P	**P**	**10 00 07.2**	**+2.1**
	comp=Z,9.9nm,0.9s						
VNA3	**Neumayer Olymp**	**27.62**	**144**	⇑P	**P**	**10 00 10.3**	**+0.6**
	comp=Z,12nm,0.7s						
VNA3	**Neumayer Olymp**	**27.62**	**144**	P	**P**	**10 00 10.9**	**+1.2**
	comp=Z,23nm,0.9s						
LCO	**Las Campanas**	**28.03**	**354**	P	**P**	**10 00 15.9**	**+2.0**
VNA1	**Neumayer--Stat**	**28.09**	**143**	⇑P	**P**	**10 00 15.4**	**+1.5**
	comp=Z,7.8nm,0.9s						
CPSB	**Cacapava Do Su**	**28.30**	**26**	P	**P**	**10 00 15.8**	**-0.3**
	comp=Z,5.1nm,1.2s						
VNA2	**Neumayer--Watz**	**28.37**	**143**	⇑P	**P**	**10 00 17.4**	**+1.0**
	comp=Z,5.8nm,0.7s,baz=263,slow=10						
VNA2	**Neumayer--Watz**	**28.37**	**143**	P	**P**	**10 00 17.6**	**+1.3**
	comp=Z,11nm,1.0s						
AC02	**Maricunga**	**30.12**	**357**	P	**P**	**10 00 33.9**	**+1.0**
AC02				IAmb	IAmb	10 01 08.0	
	comp=Z,9.1nm,1.2s						
TROLL	**Troll, Antarti**	**31.42**	**146**	⇑P	**P**	**10 00 44.1**	**+0.6**
	comp=Z,181nm,0.6s						
CPUP	**Villa Florida**	**31.46**	**18**	P	**P**	**10 00 44.1**	**0.0**
	comp=Z,0.3nm,0.4s,baz=196,slow=7.4,SNR=1.4						
CPUP				LR	LR	10 13 58.7	
	comp=Z,149nm,18.3s,baz=220,slow=37						
	comp=Z,0.3nm,0.4s						
SALTA		**32.71**	**2**	P	**P**	**10 00 57.6**	**+2.0**
	comp=Z,4.8nm,1.1s						
QSPA	**South Pole Qui**	**33.28**	**180**	P	**P**	**10 00 59.2**	**-0.8**
	comp=Z,4.8nm,0.9s,baz=148,slow=5.1,SNR=16						
QSPA				LR	LR	10 14 11.2	
	comp=Z,77nm,18.7s,baz=160,slow=36						
	comp=Z,4.8nm,0.9s						
QSPA	**South Pole Qui**	**33.28**	**180**	P	**P**	**10 00 59.4**	**-0.5**
QSPA				IAmb	IAmb	10 01 00.1	
	comp=Z,7.7nm,1.0s						
QSPA	**South Pole Qui**	**33.28**	**180**	P	**P**	**10 00 59.4**	**-0.5**
	comp=Z,11nm,1.9s						
PB07	**IPOC Station P**	**35.23**	**356**	P	**P**	**10 01 19.5**	**+2.3**
	comp=Z,11nm,1.2s						
GO01	**Chusmiza**	**37.26**	**357**	P	**P**	**10 01 36.4**	**+1.5**
	comp=Z,9.6nm,1.2s						
PB16	**IPOC Station P**	**38.59**	**357**	P	**P**	**10 01 48.0**	**+1.7**
LPAZ	**La Paz**	**40.60**	**359**	P	**P**	**10 02 01.4**	**-1.7**
	comp=Z,1.2nm,0.5s,baz=127,slow=7.4,SNR=12						
LPAZ				LR	LR	10 19 57.3	
	comp=Z,201nm,18.8s,baz=151,slow=38						
	comp=Z,1.2nm,0.5s						
LPAZ	**La Paz**	**40.60**	**359**	P	**P**	**10 02 01.6**	**-1.4**
LPAZ	**La Paz**	**40.60**	**359**	P	**P**	**10 02 04.9**	**+1.8**
	comp=Z,8.3nm,1.2s						
SBA	**Scott Base**	**41.43**	**195**	P	**P**	**10 02 09.4**	**+0.8**
	comp=Z,4.9nm,1.7s						
RPN	**Rapa Nui**	**42.01**	**297**	LR	LR	10 15 44.8	
	comp=Z,92nm,19.8s,baz=166,slow=31						
VNDA	**Vanda**	**42.36**	**194**	LR	LR	10 20 04.0	
	comp=Z,56nm,18.5s,baz=145,slow=36						
BDFB	**Brasilia**	**43.80**	**28**	P	**P**	**10 02 29.2**	**+0.7**
	comp=Z,1.0nm,0.3s,baz=166,slow=8.3,SNR=1.6						
	comp=Z,1.0nm,0.3s						
ATAH	**Atahualpa**	**50.43**	**346**	LR	LR	10 22 03.5	
	comp=Z,72nm,18.9s,baz=187,slow=33						
MAW	**Mawson**	**50.45**	**158**	LR	LR	10 23 58.8	
	comp=Z,141nm,19.2s,baz=224,slow=35						
RCBR	**Rio Grande**	**56.72**	**39**	LR	LR	10 26 44.9	
	comp=Z,57nm,20.3s,baz=220,slow=34						
ROSC	**El Rosal**	**61.84**	**352**	LR	LR	10 32 10.1	
	comp=Z,145nm,19.4s,baz=218,slow=37						
SUR	**Sutherland**	**62.63**	**108**	LR	LR	10 26 08.2	
	comp=Z,71nm,20.4s,baz=176,slow=30						
H10S3	**ASCENSION HYDR**	**62.84**	**62**	T	T	11 14 50.2	
	baz=204,slow=74,SNR=7.4						
H10S2	**ASCENSION HYDR**	**62.84**	**62**	T	T	11 14 53.5	
	baz=16,slow=74,SNR=11						
MDP	**Motagnes des**	**63.02**	**17**	LR	LR	10 33 10.0	
	comp=Z,100nm,18.2s,baz=190,slow=37						
H10N3	**ASCENSION HYDR**	**63.88**	**62**	T	T	11 16 13.0	
	baz=202,slow=75,SNR=9.1						
H10N1	**ASCENSION HYDR**	**63.89**	**62**	T	T	11 16 13.4	
	baz=202,slow=75,SNR=6.7						
H10N2	**ASCENSION HYDR**	**63.90**	**62**	T	T	11 16 14.4	
	baz=202,slow=75,SNR=10						
SDV	**Santo Domingo**	**65.66**	**357**	LR	LR	10 35 37.1	
	comp=Z,100nm,18.5s,baz=338,slow=38						
BOSA	**Boshof**	**67.94**	**109**	P	**P**	**10 05 21.2**	**-0.3**
	comp=Z,1.5nm,0.7s,baz=228,slow=8.3,SNR=3.8						
BOSA				LR	LR	10 29 11.8	
	comp=Z,61nm,19.5s,baz=210,slow=31						
	comp=Z,1.5nm,0.7s						
BOSA	**Boshof**	**67.94**	**109**	IAmb	IAmb	10 05 30.6	
	comp=Z,9.1nm,1.4s						
BOSA	**Boshof**	**67.94**	**109**	P	**P**	**10 05 21.8**	**+0.3**
RPZ	**Rata Peaks**	**68.36**	**222**	LR	LR	10 26 25.4	
	comp=Z,14nm,21.6s,baz=226,slow=28						
JTS	**Las Juntas de**	**68.55**	**341**	LR	LR	10 29 11.9	
	comp=Z,53nm,21.8s,baz=153,slow=30						
URZ	**Urewera**	**70.68**	**229**	LR	LR	10 31 11.5	
	comp=Z,98nm,18.8s,baz=120,slow=31						
LBTB	**Lobatse**	**71.03**	**107**	LR	LR	10 31 27.6	
	comp=Z,64nm,19.1s,baz=206,slow=31						
LBTB	**Lobatse**	**71.03**	**107**	P	**P**	**10 05 41.1**	**+0.5**
PPT2	**Pape2**	**71.15**	**267**	*e*LR	LR	10 27 10.8	
	comp=Z,129nm,24.5s						
PPT	**Papeete**	**71.17**	**267**	LR	LR	10 28 25.0	
	comp=Z,100nm,19.7s,baz=197,slow=29						
TAOE	**Nuku Hiva Isla**	**73.19**	**280**	*e*LR	LR	10 28 09.4	
	comp=Z,94nm,23.6s						
RAR	**Rarotonga**	**73.71**	**256**	LR	LR	10 30 29.0	
	comp=Z,117nm,18.4s,baz=124,slow=29						
CMIG	**Matias Romero**	**77.25**	**333**	LR	LR	10 34 29.6	
	comp=Z,30nm,19.9s,baz=180,slow=31						
LSZ	**Lusaka**	**80.39**	**103**	LR	LR	10 38 28.7	
	comp=Z,31nm,19.4s,baz=254,slow=33						
DBIC	**Dimbokro**	**81.16**	**63**	LR	LR	10 40 04.1	
	comp=Z,30nm,18.1s,baz=184,slow=34						
MSVF	**Nonsavu**	**87.88**	**240**	LR	LR	10 38 21.4	
	comp=Z,36nm,19.8s,baz=142,slow=30						
STKA	**Stephens Creek**	**88.15**	**204**	LR	LR	10 40 51.4	
	comp=Z,34nm,18.3s,baz=202,slow=32						
DZM	**Mont Dzumac**	**89.22**	**229**	LR	LR	10 40 43.8	
	comp=Z,50nm,18.3s,baz=187,slow=31						
TORD	**Torodi Ar. Bea**	**89.96**	**66**	P	**P**	**10 07 22.2**	**+0.2**
	comp=Z,0.2nm,0.5s,baz=205,slow=6.4,SNR=2.2						
	comp=Z,0.2nm,0.5s						
TXAR	**Lajitas Array**	**91.24**	**329**	P	**P**	**10 07 27.6**	**-0.1**
	comp=Z,0.9nm,1.0s,baz=155,slow=6.9,SNR=6.3						
	comp=Z,0.9nm,1.0s						
ANMO	**Albuquerque**	**97.31**	**329**	LR	LR	10 46 59.5	
	comp=Z,38nm,18.3s,baz=164,slow=32						
ASAR	**Alice Springs**	**97.69**	**200**	P	**P**	**10 07 55.9**	**-1.7**
	comp=Z,0.3nm,0.9s,baz=177,slow=4.5,SNR=3.3						
	comp=Z,0.3nm,0.9s						
CTA	**Charters Tower**	**98.20**	**212**	LR	LR	10 46 41.6	
	comp=Z,38nm,18.4s,baz=51,slow=32						
WRA	**Warramunga Arr**	**101.23**	**201**	P	**Pdif**	**10 08 11.7**	**-1.7**
	comp=Z,0.5nm,0.9s,baz=180,slow=4.1,SNR=4.6						
YKA	**Yellowknife Ar**	**124.60**	**336**	PKP	**PKPdf**	**10 13 20.8**	**+0.2**
	comp=Z,0.9nm,0.8s,baz=163,slow=2.2,SNR=1.9						
H11S2	**WAKE ISLAND Hyd**	**24.61**	**249**	T	T	12 30 06.0	
	baz=148,slow=76,SNR=42						
H11S3	**WAKE ISLAND Hyd**	**24.62**	**249**	T	T	12 30 07.6	
	baz=148,slow=76,SNR=44						
H11S1	**WAKE ISLAND Hyd**	**24.63**	**249**	T	T	12 30 07.8	
	baz=148,slow=76,SNR=30						
H11N3	**WAKE ISLAND Hyd**	**25.53**	**250**	T	T	12 31 13.7	
	baz=146,slow=76,SNR=12						
H11N1	**WAKE ISLAND Hyd**	**25.53**	**250**	T	T	12 31 17.9	
	baz=146,slow=76,SNR=8.5						
H11N2	**WAKE ISLAND Hyd**	**25.55**	**250**	T	T	12 31 16.8	
	baz=146,slow=76,SNR=9.2						
ILAR	**Eielson Array**	**135.46**	**323**	PKP	**PKiKP**	**10 13 42.4**	**-0.3**
	comp=Z,0.6nm,0.8s,baz=132,slow=1.3,SNR=6.0						

*MOS **23** 10:14:11.8, 43˚.32N×45˚.33E, h130km±2km, MPVA3.6*
*NORS **23** 10:14:11.7, 43˚.30N×45˚.33E, h120km±3km, MPVA3.5*
*TIF **23** 10:14:12.1, 43˚.50N×45˚.51E, h109km±3km*
*DRS **23** 10:14:16.3, 43˚.39N×45˚.12E, h30km*
ISC 23 10:14:13.4±1.7, 43˚36N±0˚.06×45˚36E±0˚.04, h122km±11km, n29, σ0°93/58, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KMGR	**Komgaron**	**0.47**	**230**	*e*Pg	**Pn**	**10 14 31.8**	**+0.3**
KMGR				*e*Sg	**Sn**	**10 14 46.8**	**+1.6**
TRKR	**Terskaya**	**0.58**	**309**	*e*Pg	**Pn**	**10 14 32.4**	**+0.3**
TRKR				*e*Sg	**Sn**	**10 14 47.4**	**+1.1**
VLKR	**Vladikavkaz**	**0.59**	**238**	*e*Pg	**Pn**	**10 14 31.3**	**-0.9**
VLKR				*e*Sg	**Sn**	**10 14 44.4**	**-2.1**
BTKR	**Batakoyurt**	**0.59**	**271**	*e*Pg	**Pn**	**10 14 32.7**	**+0.4**
BTKR				*e*Sg	**Sn**	**10 14 48.1**	**+1.6**
SHTL	**Shatili**	**0.72**	**192**	P	**Pn**	**10 14 32.6**	**-0.8**
SHTL				S	**Sn**	**10 14 46.9**	**-1.5**
ARNR	**Ardon**	**0.80**	**257**	*e*Pg	**Pn**	**10 14 34.4**	**+0.5**
ARNR				*e*Sg	**Sn**	**10 14 50.7**	**+1.4**
PRTR	**Priterechnaya**	**0.87**	**297**	*e*Pg	**Pn**	**10 14 34.8**	**+0.4**
PRTR				*e*Sg	**Sn**	**10 14 51.7**	**+1.4**
LACR	**Lac**	**0.94**	**236**	*e*Pg	**Pn**	**10 14 34.6**	**-0.7**
LACR				*e*Sg	**Sn**	**10 14 50.5**	**-1.2**
STDR	**Stavd-Durt**	**0.94**	**271**	*e*Pg	**Pn**	**10 14 35.8**	**+0.7**
STDR				*e*Sg	**Sn**	**10 14 51.3**	**-0.2**
BTLR	**Botlikh**	**0.94**	**137**	*e*Pg	**Pn**	**10 14 35.3**	**+0.1**
BTLR				*e*Sg	**Sn**	**10 14 51.0**	**-0.7**
KORR	**Kora**	**0.98**	**254**	*e*Pg	**Pn**	**10 14 35.7**	**+0.2**
KORR				*e*Sg	**Sn**	**10 14 53.2**	**+0.9**
CHRG	**Chargali**	**1.08**	**197**	P	**Pn**	**10 14 36.9**	**+0.3**
CHRG				S	**Sn**	**10 14 55.3**	**+1.1**
LSNR	**Lesken**	**1.12**	**266**	*e*Pg	**Pn**	**10 14 37.2**	**+0.3**
LSNR				*e*Sg	**Sn**	**10 14 54.8**	**+0.1**
DBC	**Dubki**	**1.13**	**107**	*e*Pg	**Pn**	**10 14 35.9**	**-1.1**
DBC				*e*Sg	**Sn**	**10 14 53.2**	**-1.8**
UNCR	**Uncukul**	**1.24**	**121**	*e*Pg	**Pn**	**10 14 38.1**	**-0.1**
UNCR				*e*Sg	**Sn**	**10 14 56.1**	**-0.8**
KRNR	**Karanay**	**1.26**	**115**	*e*Pg	**Pn**	**10 14 37.9**	**-0.5**
KRNR				*e*Sg	**Sn**	**10 14 56.1**	**-1.2**
XNZR	**Khunzakh**	**1.29**	**129**	*e*Pg	**Pn**	**10 14 38.8**	**0.0**
XNZR				*e*Sg	**Sn**	**10 14 58.0**	**-0.1**
DIGR	**Digorskoe uzhe**	**1.38**	**251**	*e*Pg	**Pn**	**10 14 39.4**	**-0.5**
DIGR				*e*Sg	**Sn**	**10 14 58.5**	**-1.4**
BUJR	**Buynaksk**	**1.39**	**112**	*e*Pg	**Pn**	**10 14 39.6**	**-0.2**
BUJR				*e*Sg	**Sn**	**10 14 59.9**	**+0.1**
ARKR	**Arakani**	**1.42**	**122**	*i* Pg	**Pn**	**10 14 40.2**	**+0.0**
ARKR				*e*Sg	**Sn**	**10 14 60.0**	**-0.5**
TLTR	**Tlyarata**	**1.46**	**149**	*e*Pg	**Pn**	**10 14 40.8**	**+0.1**
TLTR				*e*Sg	**Sn**	**10 15 01.6**	**+0.2**
KBTC	**Kuba-Taba**	**1.48**	**288**	*e*Pg	**Pn**	**10 14 40.8**	**-0.1**
KBTC				*e*Sg	**Sn**	**10 15 00.7**	**-1.1**
GNBR	**Gunib**	**1.53**	**129**	*e*Pg	**Pn**	**10 14 43.2**	**+1.7**
GNBR				*e*Sg	**Sn**	**10 15 03.9**	**+1.2**
LGD	**Lagodekhi**	**1.66**	**156**	P	**Pn**	**10 14 42.8**	**-0.1**
LGD				S	**Sn**	**10 15 04.9**	**-0.5**
KMKR	**Kumukh**	**1.78**	**133**	*i* Pg	**Pn**	**10 14 44.5**	**-0.1**
KMKR				*e*Sg	**Sn**	**10 15 08.5**	**+0.3**
NEUR	**Neytrino**	**1.94**	**268**	*e*Pg	**Pn**	**10 14 47.0**	**+0.6**
NEUR				*e*Sg	**Sn**	**10 15 11.0**	**-0.6**
SHA1	**Shidzhatmaz**	**2.00**	**282**	*e*Pg	**Pn**	**10 14 46.7**	**-0.5**
SHA1				*e*Sg	**Sn**	**10 15 11.6**	**-1.4**
URKR	**Urkarakh**	**2.06**	**125**	*e*Pg	**Pn**	**10 14 48.5**	**+0.6**
URKR				*e*Sg	**Sn**	**10 15 15.4**	**+1.2**
VSHL	**Vashlovani**	**2.27**	**160**	P	**Pn**	**10 14 50.8**	**+0.3**
VSHL				S	**Sn**	**10 15 20.0**	**+1.3**

IDC 23 10:19:54.2±7.0, 0˚.54N×97˚.83W, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=572.5km s-min=47.9km az=89.0, West of Galapagos Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	**29.17**	**350**	P	P	10 25 57.4	0.0
	0.3nm,0.8s,baz=164,slow=14,SNR=4.0						
	0.3nm,0.8s						
PDAR	**Pinedale Array**	**43.34**	**347**	P	P	10 27 58.6	+0.2
	0.7nm,0.7s,baz=168,slow=6.6,SNR=7.8						
	0.7nm,0.7s						
ILAR	**Eielson Array**	**73.18**	**340**	P	P	10 31 26.6	0.0
	0.8nm,0.6s,baz=145,slow=5.5,SNR=13						
	0.8nm,0.6s						
WRA	**Warramunga Arr**	**125.46**	**246**	PKP	PKiKP	10 38 58.6	-0.2
	0.2nm,0.9s,baz=89,slow=2.7,SNR=1.6						
CMAR	**Chiang Mai Arr**	**154.93**	**320**	PKPbc	PKPbc	10 39 57.9	-1.0
	0.5nm,0.3s,baz=73,slow=4.3,SNR=1.2						

*IDC **23** 10:23:05.7±3.6, 0˚.96N×100˚.33W, h0km, mb3.6/4, mbtmp3.6/4, MS3.8/2, Error

*THE **23** 10:34:42.2, 40°.1N±0°.9×2°.0E±°, h3km±2km, M2.6/10, MLh2.6/10*
*TIR **23** 10:34:42.1, 40°.07N×19°.93E, h4km±1km, ML2.8, ML2.8, Presumed earthquake*
ISC 23 10:34:41.4±0.9, 40°.10N±0°.02×19°.84E±0°.02, h14km±6km, n66, σ1§39/107, 2C-3D, Albania

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRN	**Sarande**	**0.25**	**150**	P	**Pg**	**10 34 46.6**	**-0.2**
SRN				S	**Sg**	**10 34 49.7**	**-0.7**
SRN				AML	AML		
SRN	**Sarande**	**0.25**	**150**	⇓*e*P	**Pg**	**10 34 46.8**	**0.0**
SRN				*e*S	**Sg**	**10 34 51.4**	**+0.9**
SRN				IAML		10 34 53.5	
	comp=Z,400nm,0.4s						
SRN	**Sarande**	**0.25**	**150**	Pg	**Pg**	**10 34 46.5**	**-0.3**
SRN				Sg	**Sg**	**10 34 50.5**	**+0.1**
SRN				IAML		10 34 53.0	
	comp=Z,3μm,0.3s						
KEK	**Kerkira**	**0.39**	**185**	⇑*e*P	**Pg**	**10 34 47.2**	**-2.0**
KEK				*e*S	**Sg**	**10 34 54.4**	**-0.1**
KEK	**Kerkira**	**0.39**	**185**	Pg	**Pg**	**10 34 47.4**	**-1.9**
KEK				Sg	**Sg**	**10 34 54.1**	**-0.4**
VLO	**Vlora**	**0.45**	**325**	P	**Pg**	**10 34 51.3**	**+0.9**
VLO				S	**Sg**	**10 34 58.5**	**+1.9**
VLO				AML	AML		
VLO	**Vlora**	**0.45**	**325**	⇓*e*P	**Pg**	**10 34 51.4**	**+1.0**
VLO				*e*S	**Sb**	**10 35 00.1**	**+2.3**
VLO				IAML		10 35 02.0	
	comp=Z,212nm,0.3s						
VLO	**Vlora**	**0.45**	**325**	Pg	**Pg**	**10 34 49.1**	**-1.4**
VLO				Sg	**Sb**	**10 34 59.0**	**+1.2**
VLO				IAML		10 35 03.6	
	comp=Z,3μm,0.4s						
LSK	**Leskovik**	**0.58**	**85**	*e*P	**Pg**	**10 34 52.1**	**-0.9**
LSK				*e*S	**Sb**	**10 35 01.2**	**-0.4**
LSK				IAML		10 35 04.2	
	comp=Z,192nm,0.8s						
LSK	**Leskovik**	**0.58**	**85**	Pg	**Pg**	**10 34 52.0**	**-0.9**
LSK				Sg	**Sg**	**10 35 00.2**	**-0.5**
BERA	**Berati**	**0.61**	**8**	Pg	**Pg**	**10 34 52.7**	**-0.7**
BERA				Sg	**Sb**	**10 35 03.2**	**+0.9**
BERA				IAML		10 35 05.1	
	comp=Z,1μm,0.5s						
BERA				IAML		10 35 05.3	
	comp=Z,750nm,0.5s						
LFKM	**Lefkimmi**	**0.67**	**165**	P	**Pg**	**10 34 54.7**	**+0.2**
LFKM				S	**Sg**	**10 35 03.4**	**0.0**
LFKM				AML	AML		
IGT	**Igoumenitsa**	**0.68**	**146**	P	**Pg**	**10 34 54.5**	**-0.2**
IGT				S	**Sb**	**10 35 04.6**	**+0.4**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.68**	**146**	⇑*e*P	**Pg**	**10 34 55.0**	**+0.3**
IGT				*e*S	**Sb**	**10 35 05.1**	**+0.8**
IGT	**Igoumenitsa**	**0.68**	**146**	Pg	**Pg**	**10 34 54.8**	**+0.1**
IGT				Sg	**Sb**	**10 35 04.0**	**-0.3**
IGT				IAML		10 35 12.2	
	comp=Z,393nm,0.2s						
IGT	**Igoumenitsa**	**0.68**	**146**	P	**Pg**	**10 34 55.0**	**+0.3**
IGT				S	**Sb**	**10 35 04.9**	**+0.6**
JAN	**Janina**	**0.89**	**119**	P	**Pg**	**10 34 58.4**	**-0.3**
JAN				S	**Sb**	**10 35 10.6**	**+0.1**
JAN				AML	AML		
JAN	**Janina**	**0.89**	**119**	P	**Pb**	**10 34 59.1**	**+0.4**
JAN				S	**Sb**	**10 35 10.8**	**+0.3**
JAN				AML	AML		
KBN	**Korca**	**0.90**	**54**	P	**Pg**	**10 34 58.2**	**-0.5**
KBN	**Korca**	**0.90**	**54**	Pg	**Pg**	**10 34 58.9**	**+0.1**
KBN				Sg	**Sb**	**10 35 11.4**	**+0.8**
NEST	**Nestorio**	**0.98**	**71**	P	**Pg**	**10 34 59.9**	**-0.5**
NEST				S	**Sg**	**10 35 12.9**	**-0.2**
NEST				AML	AML		
NEST	**Nestorio**	**0.98**	**71**	⇓*e*P	**Pg**	**10 34 59.9**	**-0.5**
NEST				*e*S	**Sn**	**10 35 14.9**	**+0.4**
NEST	**Nestorio**	**0.98**	**71**	Pg	**Pg**	**10 34 59.6**	**-0.7**
NEST				Sg	**Sn**	**10 35 14.1**	**-0.4**
NEST				IAML		10 35 18.0	
	comp=Z,179nm,0.4s						
NEST	**Nestorio**	**0.98**	**71**	P	**Pg**	**10 34 59.3**	**-1.1**
NEST				S	**Sg**	**10 35 12.5**	**-0.7**
PENT	**Pentalofos**	**1.00**	**84**	P	**Pg**	**10 34 59.7**	**-1.0**
PENT				AML	AML		
PENT	**Pentalofos**	**1.00**	**84**	P	**Pg**	**10 34 59.8**	**-1.0**
PENT				S	**Sg**	**10 35 13.4**	**-0.4**
SCTE	**Santa Cesarea**	**1.05**	**269**	P	**Pn**	**10 35 03.4**	**+1.6**
SCTE				S	**Sn**	**10 35 18.5**	**+2.3**
PRMD	**Pramanda**	**1.12**	**120**	P	**Pn**	**10 35 03.4**	**+0.7**
PRMD				S	**Sn**	**10 35 18.0**	**0.0**
PRMD				AML	AML		
PRMD	**Pramanda**	**1.12**	**120**	P	**Pn**	**10 35 03.6**	**+0.9**
PRMD				S	**Sn**	**10 35 18.2**	**+0.3**
PRMD				AML	AML		
KPRO	**Kipourio**	**1.18**	**96**	P	**Pb**	**10 35 03.2**	**-0.4**
KPRO				AML	AML		
KPRO	**Kipourio**	**1.18**	**96**	P	**Pb**	**10 35 03.0**	**-0.5**
KPRO				S	**Sn**	**10 35 19.6**	**+0.3**
KPRO				AML	AML		
OHR	**Ohrid**	**1.25**	**35**	*i* Pn	**Pg**	**10 35 06.5**	**+1.0**
TIR	**Tirane**	**1.25**	**1**	Pg	**Pg**	**10 35 07.3**	**+1.9**
TIR				Sg	**Sg**	**10 35 26.4**	**+4.6**
TIR				IAML		10 35 28.6	
	comp=Z,107nm,0.3s						
ART2	**Arta**	**1.30**	**136**	P	**Pg**	**10 35 06.9**	**+0.4**
ART2				S	**Sg**	**10 35 23.8**	**+0.3**
TETR	**Tetrakomo, Epi**	**1.34**	**124**	P	**Pg**	**10 35 07.4**	**+0.2**
TETR	**Tetrakomo, Epi**	**1.34**	**124**	P	**Pg**	**10 35 07.6**	**+0.4**
TETR				S	**Sg**	**10 35 24.8**	**+0.1**
TSLK	**Tsoukalades, L**	**1.42**	**153**	P	**Pg**	**10 35 09.0**	**+0.3**
TSLK				S	**Sg**	**10 35 28.2**	**+1.0**
LKD2	**Lefkada island**	**1.45**	**154**	Pg	**Pg**	**10 35 09.2**	**-0.1**
LKD2				Sg	**Sg**	**10 35 29.5**	**+1.2**
LKD2				IAML		10 35 32.5	
	comp=Z,286nm,0.4s						
LKD2	**Lefkada island**	**1.45**	**154**	P	**Pg**	**10 35 09.3**	**0.0**
LKD2				AML	AML		
KZN	**Kozani**	**1.49**	**81**	P	**Pb**	**10 35 09.3**	**+0.3**
KZN				S	**Sg**	**10 35 29.1**	**-0.4**
KZN				AML	AML		
DRAG	**Dragano-Lefkad**	**1.52**	**158**	P	**Pg**	**10 35 10.9**	**+0.3**
NYDR	**Nydri-Lefkada**	**1.53**	**154**	P	**Pb**	**10 35 09.8**	**+0.2**
AMPL	**Ampelaki**	**1.58**	**137**	P	**Pb**	**10 35 10.9**	**+0.5**
MESG	**Mesagne**	**1.60**	**289**	P	**Pb**	**10 35 11.9**	**+1.3**
PHP	**Peshkopia**	**1.65**	**16**	Pg	**Pb**	**10 35 12.5**	**+0.9**
PHP				IAML		10 35 41.6	
	comp=Z,107nm,0.4s						
THL	**Klokotos Trika**	**1.76**	**107**	Pn	**Pb**	**10 35 14.1**	**+0.7**
THL	**Klokotos Trika**	**1.76**	**107**	P	**Pb**	**10 35 13.7**	**+0.3**
TYRN	**Tyrnavos**	**1.88**	**101**	P	**Pb**	**10 35 14.6**	**-0.9**
TYRN				AML	AML		
LIT	**Litokhoron**	**2.03**	**89**	P	**Pn**	**10 35 16.1**	**+0.9**
LIT				AML	AML		
PLEV	**Plevrona-Mesol**	**2.08**	**144**	P	**Pn**	**10 35 17.6**	**+1.8**
GRG	**Griva**	**2.13**	**65**	P	**Pn**	**10 35 18.4**	**+1.8**
AGG	**Agios Georgios**	**2.21**	**118**	P	**Pb**	**10 35 20.2**	**-0.8**
AGG				AML	AML		
ANX	**Ano Chora**	**2.21**	**132**	P	**Pn**	**10 35 19.6**	**+1.9**
ANX				AML	AML		
AXS	**Araxos**	**2.24**	**147**	P	**Pn**	**10 35 19.9**	**+1.9**
EFP	**Efpalio**	**2.31**	**135**	P	**Pb**	**10 35 21.5**	**-1.4**
SERG	**Sergoula**	**2.41**	**134**	P	**Pn**	**10 35 22.5**	**+2.1**
VAY	**Valandovo**	**2.41**	**59**	*i* Pn	**Pb**	**10 35 23.2**	**-1.3**
KNT	**Kendrikon**	**2.56**	**64**	P	**Pn**	**10 35 24.2**	**+1.8**
STON	**Ston**	**3.20**	**331**	Sn	**Sn**	**10 36 08.2**	**-1.0**
LSTV	**Lastovo**	**3.47**	**321**	*e*Pn	**Pn**	**10 35 33.3**	**-1.6**
LSTV				Sn	**Sn**	**10 36 12.6**	**-3.1**
MAKA	**Makarska**	**3.82**	**327**	*e*Pn	**Pn**	**10 35 38.1**	**-1.6**
MAKA				Sn	**Sn**	**10 36 22.3**	**-2.2**
RICI	**Ricice**	**3.95**	**330**	*i* Pn	**Pn**	**10 35 40.2**	**-1.4**
RICI				Sn	**Sn**	**10 36 25.1**	**-2.6**
HVAR	**Hvar**	**3.99**	**322**	*e*Pn	**Pn**	**10 35 40.5**	**-1.5**
HVAR				Sn	**Sn**	**10 36 25.4**	**-3.2**
KIJV	**Kijevo**	**4.67**	**328**	*e*Pn	**Pn**	**10 35 51.1**	**-0.3**
KIJV				Sn	**Sn**	**10 36 42.6**	**-2.7**
MORI	**Morici**	**4.86**	**322**	*i* Pn	**Pn**	**10 35 53.3**	**-0.8**
MORI				Sn	**Sn**	**10 36 45.4**	**-4.7**
DUGI	**Dugi Otok**	**5.27**	**319**	*i* Pn	**Pn**	**10 35 58.5**	**-1.2**
DUGI				Sn	**Sn**	**10 36 55.7**	**-4.5**

*ISK **23** 10:42:01.8, 37°.79N×26°.93E, h5km, ML3.0/37*
*ATH **23** 10:42:01.8, 37°.76N×26°.95E, h14km, ML3.1/9, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*THE **23** 10:42:02.2, 37°.8N±0°.8×26°.9E±0°.6, h10km±1km, M3.2/10, MLh3.2/10*
*AFAD **23** 10:42:02.2, 37°.81N×26°.94E, h7km±3km, ML3.1*
ISC 23 10:42:02.2±0.8, 37°.79N±0°.02×26°.93E±0°.02, h11km±6km, n74, σ0§59/104, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.11**	**222**	P	**Pg**	**10 42 05.0**	**-0.1**
SMG				S	**Sg**	**10 42 07.3**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.11**	**222**	P	**Pg**	**10 42 05.1**	**+0.1**
SMG				S	**Sg**	**10 42 07.2**	**+0.1**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**111**	P	**Pg**	**10 42 08.0**	**+0.5**
GCAM				S	**Sb**	**10 42 12.8**	**-0.5**
GCAM	**G?zelcaml?**	**0.26**	**111**	Pg	**Pb**	**10 42 08.1**	**-0.8**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.26**	**263**	P	**Pg**	**10 42 07.5**	**0.0**
SAM2				S	**Sg**	**10 42 11.5**	**+0.5**
SAM2				AML	AML		
DGB	**zmir**	**0.26**	**351**	P	**Pg**	**10 42 07.3**	**-0.3**
DGB				S	**Sg**	**10 42 11.3**	**+0.1**
GMLD	**Gumuldur**	**0.28**	**357**	Pg	**Pg**	**10 42 08.1**	**+0.1**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.29**	**76**	Pg	**Pb**	**10 42 08.8**	**-0.6**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.41**	**144**	P	**Pg**	**10 42 10.1**	**-0.3**
DDIM				S	**Sb**	**10 42 17.8**	**0.0**
DDIM				IAML		10 42 19.0	
	comp=N,1μm,0.7s						
DDIM				IAML		10 42 19.0	
	comp=E,2μm,0.7s						
BEYE	**izmir**	**0.43**	**359**	P	**Pg**	**10 42 10.7**	**-0.1**
BEYE				S	**Sg**	**10 42 16.9**	**+0.4**
DIDI	**Didim-Aydin**	**0.48**	**149**	Pg	**Pb**	**10 42 12.4**	**-0.3**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**323**	P	**Pg**	**10 42 12.8**	**-0.3**
ZEYE				S	**Sg**	**10 42 21.3**	**+0.8**
ZEYE				IAML		10 42 25.0	
	comp=N,4μm,0.5s						
ZEYE				IAML		10 42 27.0	
	comp=E,1μm,0.4s						
DUVT	**Torbali**	**0.59**	**44**	P	**Pg**	**10 42 13.6**	**-0.1**
DUVT				S	**Sg**	**10 42 21.3**	**-0.2**
DUVT				IAML		10 42 22.0	
	comp=N,6μm,0.7s						
DUVT				IAML		10 42 27.0	
	comp=E,929nm,0.3s						
BLCB	**Balcova**	**0.60**	**8**	P	**Pg**	**10 42 13.8**	**-0.1**
BLCB				S	**Sb**	**10 42 22.8**	**-0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.60**	**8**	Pg	**Pg**	**10 42 13.9**	**+0.1**
BLCB				AML	AML		
DAGE	**izmir**	**0.68**	**72**	P	**Pb**	**10 42 16.5**	**+0.3**
DAGE				S	**Sb**	**10 42 25.0**	**-0.7**
DAGE				IAML		10 42 29.0	
	comp=E,443nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.72**	**157**	Pg	**Pb**	**10 42 16.9**	**+0.1**
YKAV				AML	AML		
CESE	**eme**	**0.73**	**317**	Pg	**Pb**	**10 42 17.2**	**+0.2**
CESE				AML	AML		
AYDN	**Tasoluk**	**0.76**	**100**	P	**Pg**	**10 42 14.9**	**-2.1**
AYDN				S	**Sb**	**10 42 28.4**	**+0.4**
AYDB	**Zeytinkoy-Aydi**	**0.77**	**78**	Pg	**Pb**	**10 42 18.0**	**+0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.79**	**157**	P	**Pg**	**10 42 17.5**	**+0.1**
BODT				S	**Sb**	**10 42 29.5**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.79**	**157**	Pg	**Pn**	**10 42 18.8**	**-0.5**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.83**	**151**	P	**Pb**	**10 42 18.8**	**+0.1**
BDRM				S	**Sb**	**10 42 30.7**	**+0.7**
BDRM				IAML		10 42 34.0	
	comp=E,486nm,0.9s						
BDRM				IAML		10 42 36.0	
	comp=N,484nm,0.4s						
MLSB	**Milas**	**0.83**	**126**	Pg	**Pb**	**10 42 18.9**	**+0.1**
MLSB				AML	AML		
KLNA	**Kalymnos**	**0.83**	**178**	P	**Pg**	**10 42 17.4**	**-0.9**
KLNA				S	**Sg**	**10 42 29.1**	**-0.1**
KLNA				AML	AML		
BODA	**Bodrum-Mula**	**0.85**	**152**	Pg	**Pb**	**10 42 19.3**	**+0.2**
KRBN	**Karaburun**	**0.85**	**340**	Pg	**Pg**	**10 42 18.6**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.86**	**356**	P	**Pg**	**10 42 18.8**	**0.0**
BAGT				S	**Sn**	**10 42 32.1**	**-0.8**
BAGT				IAML		10 42 40.0	
	comp=E,664nm,1.1s						
BAGT				IAML		10 42 50.0	
	comp=N,474nm,0.7s						
IZMR	**zmir-demi**	**0.88**	**67**	P	**Pg**	**10 42 18.6**	**-0.5**
IZMR				S	**Sg**	**10 42 30.4**	**-0.2**
CHOS	**Chios island**	**0.91**	**311**	P	**Pg**	**10 42 19.6**	**-0.2**
CHOS				S	**Sb**	**10 42 32.8**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**311**	Pg	**Pn**	**10 42 20.7**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.91**	**311**	P	**Pg**	**10 42 19.3**	**-0.5**
CHOS				S	**Sb**	**10 42 32.3**	**0.0**
FOCM	**Foa**	**0.93**	**350**	Pg	**Pn**	**10 42 21.0**	**-0.3**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.96**	**335**	P	**Pg**	**10 42 20.1**	**-0.7**
KARB				S	**Sb**	**10 42 34.2**	**+0.5**
KARB				IAML		10 42 37.0	
	comp=N,556nm,0.5s						
KARB				IAML		10 42 37.0	
	comp=E,586nm,0.7s						
EAG2	**Marmaro, Chios**	**0.99**	**319**	P	**Pg**	**10 42 21.3**	**0.0**
EAG2				S	**Sb**	**10 42 35.2**	**+0.7**
CAMT	**Merkez**	**1.00**	**17**	P	**Pg**	**10 42 21.4**	**-0.1**
CAMT				S	**Sn**	**10 42 36.4**	**0.0**
CAMT				IAML		10 42 40.0	
	comp=N,959nm,0.7s						
CAMT				IAML		10 42 42.0	
	comp=E,1μm,0.7s						
NAZL	**Nazilli-Aydin**	**1.09**	**81**	Pn	**Pn**	**10 42 23.8**	**+0.3**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.12**	**89**	P	**Pb**	**10 42 22.5**	**-1.1**
ESEN				S	**Sn**	**10 42 40.8**	**+1.5**
ZEDA	**zmir-Bergama**	**1.18**	**5**	P	**Pb**	**10 42 24.1**	**-0.5**
ZEDA				S	**Sn**	**10 42 41.3**	**+0.6**
ZEDA				IAML		10 42 43.0	
	comp=N,248nm,0.7s						
ZEDA				IAML		10 42 46.0	
	comp=E,305nm,0.5s						
DAT	**Datca**	**1.18**	**154**	Pn	**Pg**	**10 42 25.9**	**+1.0**
DAT				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**40**	Pn	**Pg**	**10 42 25.9**	**+0.7**
GOMA				AML	AML		
MULA	**Mugla, Merkez-**	**1.23**	**115**	P	**Pg**	**10 42 26.0**	**+0.2**
MULA				S	**Sn**	**10 42 43.5**	**+1.5**
YER	**Yerkesik**	**1.26**	**121**	Pn	**Pg**	**10 42 26.8**	**+0.4**
YER				AML	AML		
DKL	**Dikili**	**1.28**	**359**	Pn	**Pg**	**10 42 27.5**	**+0.8**
DKL				AML	AML		
DKL	**Dikili**	**1.28**	**359**	P	**Pg**	**10 42 26.9**	**+0.1**
KTTT	**Salihli**	**1.28**	**45**	P	**Pb**	**10 42 26.4**	**0.0**
KTTT				S	**Sn**	**10 42 43.4**	**+0.1**
KTTT				IAML		10 42 46.0	
	comp=N,212nm,0.5s						
AKS	**Akhisar**	**1.29**	**32**	Pn	**Pg**	**10 42 27.6**	**+0.7**
AKS				AML	AML		
APE	**Apeiranthos**	**1.33**	**238**	P	**Pn**	**10 42 25.8**	**-1.0**
APE				S	**Sg**	**10 42 45.2**	**+0.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.33**	**238**	Pn	**Pg**	**10 42 28.3**	**+0.6**
APE				AML	AML		
APE	**Apeiranthos**	**1.33**	**238**	P	**Pn**	**10 42 25.9**	**-1.0**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.44**	**19**	Pn	**Pg**	**10 42 30.4**	**+0.5**
SOMA				AML	AML		
TURN	**Turunc**	**1.46**	**134**	P	**Pn**	**10 42 28.9**	**+0.4**
TURN				S	**Sg**	**10 42 48.9**	**-0.2**
TURN	**Turunc**	**1.46**	**134**	Pn	**Pg**	**10 42 29.8**	**-0.4**
TURN				AML	AML		
GORD	**Gordes-Manisa**	**1.48**	**41**	Pn	**Pg**	**10 42 30.9**	**+0.2**
GORD				AML	AML		
KULA	**Kula-Manisa**	**1.54**	**62**	Pn	**Pg**	**10 42 31.6**	**-0.2**
KULA				AML	AML		
PRK	**Paraskevi**	**1.54**	**341**	P	**Pn**	**10 42 30.3**	**+0.6**
PRK				S	**Sn**	**10 42 49.7**	**0.0**
PRK	**Paraskevi**	**1.54**	**341**	P	**Pn**	**10 42 30.1**	**+0.5**
PRK				AML	AML		
DALY	**Dalyan (Mula)**	**1.68**	**125**	P	**Pg**	**10 42 34.5**	**0.0**
DALY				S	**Sg**	**10 42 57.0**	**+0.7**
DALY				IAML		10 43 06.0	
	comp=N,103nm,0.8s						
DALY	**Dalyan (Mula)**	**1.68**	**125**	Pn	**Pb**	**10 42 33.4**	**+0.2**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.82**	**3**	Pn	**Pb**	**10 42 36.1**	**+0.6**
YAYO				AML	AML		
THERA	**Ancient Thera,**	**1.84**	**220**	P	**Pn**	**10 42 32.8**	**-1.0**
THERA				AML	AML		
ARG	**Arkhangelos**	**1.84**	**148**	Pn	**Pg**	**10 42 36.7**	**-0.8**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.91**	**99**	Pn	**Pb**	**10 42 36.6**	**-0.5**
APMY				AML	AML		
BALB	**Balikesir**	**1.99**	**22**	Pn	**Pb**	**10 42 38.2**	**-0.2**
BALB				AML	AML		
KARY	**Karystos**	**1.99**	**278**	P	**Pn**	**10 42 35.3**	**-0.5**
KARY				AML	AML		
SIMA	**Simav-Kutahya**	**2.06**	**51**	Pn	**Pb**	**10 42 39.3**	**-0.4**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.07**	**113**	Pn	**Pb**	**10 42 39.1**	**-0.8**
CAME				AML	AML		
FETY	**Fethiye**	**2.07**	**123**	Pn	**Pb**	**10 42 39.4**	**-0.4**
FETY				AML	AML		
EZN	**Ezine**	**2.08**	**347**	Pn	**Pb**	**10 42 39.6**	**-0.5**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.16**	**342**	Pn	**Pb**	**10 42 40.6**	**-0.7**
BOZC				AML	AML		
CANM	**Can-anakkale**	**2.22**	**2**	Pn	**Pb**	**10 42 41.5**	**-0.8**
CANM				AML	AML		
GONE	**Gonen-Balikesi**	**2.33**	**14**	Pn	**Pb**	**10 42 43.2**	**-1.0**
SUSR	**Susurluk-Balik**	**2.35**	**22**	Pn	**Pb**	**10 42 43.2**	**-1.3**
SUSR				AML	AML		
DION	**Dionisos Attik**	**2.39**	**278**	P	**Pn**	**10 42 40.9**	**-0.4**
DION				AML	AML		

*KRNET **23** 10:49:40.2±0.1, 40°.43N×72°.65E, h13km, mb2.8*
*ISU **23** 10:49:56, 40°.65N×72°.65E, h9km*
ISC 23 10:49:39.9±1.3, 40°.44N±0°.05×72°.66E±0°.03, h7km±9km, n13, σ1§10/25, 14C-8D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OHH	**Osh**	**0.13**	**49**	⇓*i*P	**Pg**	**10 49 42.9**	**+0.2**
OHH				⇓*i*S	**Sg**	**10 49 45.1**	**+0.5**
TSTA	**Tashata**	**0.20**	**315**	P	**Pg**	**10 49 43.2**	**-0.6**
TSTA				S	**Sg**	**10 49 46.0**	**-0.5**
ARSB	**Arslanbob**	**0.92**	**15**	⇓*i*P	**Pg**	**10 49 57.9**	**+0.4**
ARSB				⇓*i*S	**Sb**	**10 50 10.9**	**+0.2**
SALK	**Salom-Alik**	**0.99**	**63**	⇑*i*P	**Pb**	**10 49 59.3**	**-0.2**
SALK				⇑*i*S	**Sb**	**10 50 13.4**	**+0.6**
ARK	**Arkit**	**1.46**	**339**	⇑*i*P	**Pb**	**10 50 07.7**	**+0.3**
ARK				⇑*i*S	**Sg**	**10 50 27.8**	**+1.1**
BTK	**Batken**	**1.46**	**255**	⇓*i*P	**Pg**	**10 50 07.6**	**-0.3**
BTK				⇓*i*S	**Sg**	**10 50 27.6**	**+0.8**
TRKS	**Terek-Say**	**1.58**	**314**	⇑*i*P	**Pn**	**10 50 08.7**	**+0.2**
TRKS				⇑*i*S	**Sb**	**10 50 29.7**	**-0.2**
MNAS	**Manas**	**2.05**	**357**	⇑*i*P	**Pb**	**10 50 18.1**	**+0.6**
MNAS				⇑*i*S	**Sg**	**10 50 45.8**	**+0.1**
UCH	**Uchtor**	**2.27**	**37**	⇑*e*P	**Pb**	**10 50 21.4**	**0.0**
UCH				⇑*i*S	**Sb**	**10 50 51.4**	**+1.5**
PSK	**Pskem**	**2.28**	**311**	S	**Sg**	**10 50 54.3**	**+1.3**
EKS2	**Erkin-Say**	**2.37**	**20**	⇑*i*P	**Pb**	**10 50 22.6**	**-0.4**
EKS2				⇑*i*S	**Sb**	**10 50 53.5**	**+0.9**
AAK	**Ala-Archa**	**2.59**	**32**	⇑*i*P	**Pb**	**10 50 25.7**	**-1.1**
AAK				⇑*i*S	**Sb**	**10 50 58.9**	**0.0**
USP	**Ospenovka**	**3.14**	**25**	⇓*i*P	**Pb**	**10 50 33.3**	**-2.8**
USP				⇓*i*S	**Sb**	**10 51 11.9**	**-2.7**

*SNET **23** 11:05:17.6±1.5, 12°.02N×87°.20W, h67km, ML4.5, Presumed earthquake*
*IDC **23** 11:05:17.9±1.5, 12°.35N×86°.79W, h69km±18km, mb3.8/11, mbtmp4.2/13, MS2.9/2, Error ellipse: s-maj=35.0km s-min=12.8km az=50.0*
*UCR **23** 11:05:18.6±0.3, 11°.96N×87°.13W, h30km±352km, MB4.5(NEIC), Presumed earthquake*
*CATAC **23** 11:05:18.5±0.1, 12°.N±2°×8°.7W±°, h46km±3km, M4.9/57, mB5.3/1, mb5.3/1, MLv4.7/57, Mw(mB)4.7/1, Error ellipse: s-maj=3.9km s-min=1.2km az=33.5, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}4.25; $M_{\theta\theta}$5.52; $M_{\phi\phi}$-9.77; $M_{r\theta}$4.11; $M_{\theta\phi}$1.86; $M_{\phi r}$0.74; Fault plane solution: $M_0$9.64261×10^{14} NP1:ϕ$_0$135.61785°, δ62.17763°, λ29.88698°. NP2:ϕ$_0$30.60222°, δ63.85223°, λ148.67159°. Principal axes: T 9.2395, Plg39.9144°, Azm352.5542°; N 0.7611, Plg50.0658°, Azm174.6979°; P -10.0006, Plg1.0552°, Azm83.4371°; confirmed*
*GFZ **23** 11:05:19.1±0.4, 12°.N±6°×8°.7W±°, h77km, M4.5/13, mb4.5/13, confirmed*
*NEIC **23** 11:05:19.1±1.1, 12°.07N±0°.06×87°.13W±0°.03, h81km±6km, mb4.5/165, Error ellipse: s-maj=9.1km s-min=2.7km az=196.0*
*RSNC **23** 11:05:19.9±1.1, 12°.N±8°×8°.7W±1°.2, h36km±14km, M4.7, mB5.1, mb4.7, ML3.9, Mw(mB)4.4*
ISC 23 11:05:17.7±0.7, 12°.02N±0°.04×87°.20W±0°.03, h76km±5km, n328, σ0§94/368, mb4.5/76, 1C-11D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	**Copaltepe**	**0.61**	**75**	*e*P	Pn	11 05 25.3	-6.8
QUEN	**Al S del Volca**	**0.66**	**31**	P	**Pn**	**11 05 32.9**	**+0.2**
QUEN				S	**Sn**	**11 05 43.9**

MASN				S	Sn	11 05 50.9 -0.3	LCR2	La Lucha 2	3.87	126	P	Pn	11 06 16.0 +1.0	U49A	Red Boiling Sp	24.42	3	IAmb	IAmb	11 10 31.5				
NANN	Nandasmo	1.05	94	P	Pn	11 05 38.2 +1.0	LCR2				S	Sn	11 07 00.6 +1.1		comp=Z,10nm,0.8s								
NANN				S	Sn	11 05 52.5 +0.7	LCR2	La Lucha 2	3.87	126		Pn	11 06 16.3 +1.3	X34A	Smith Ranch, M	24.47	338		P	11 10 29.1 -0.6				
NADN	Granada	1.17	103	P	Pn	11 05 38.3 -0.4	LCR2				Sn	Sn	11 07 00.1 +0.7	X34A				IAmb	IAmb	11 10 33.1				
NADN				S	Sn	11 05 53.9 -0.5	LCR2	La Lucha 2	3.87	126	eP	Pn	11 06 15.9 +0.8		comp=Z,25nm,0.9s								
NADN	Granada	1.17	103	ǁ *i* P	Pn	11 05 39.0 +0.4	RAFA	San Farael, Vo	3.91	121		Pn	11 06 16.7 +1.0	ODSA	Odessa	24.49	327	IAmb	IAmb	11 10 32.1				
NADN				eS	Sn	11 05 54.2 -0.2	CVTR	Volcan Turrial	3.92	120	eP	Pn	11 06 17.1 +1.2		comp=Z,9.1nm,0.7s								
CNCH	Conchagua	1.39	334	P	Pn	11 05 41.8 +0.2	CVTV	Tajo	3.93	120	eP	Pn	11 06 17.2 +1.1	TPB06	Permian Basin	24.49	325	P	P	11 10 28.7 -1.2				
CNCH	Conchagua	1.39	334	*i* P	Pn	11 05 41.8 +0.2	ABRB	Las Abras (San	3.96	120	eP	Pn	11 06 17.2 +0.8	TPB06				IAmb	IAmb	11 10 32.7				
CNCH				eS	Sn	11 05 59.4 -0.2	VTCV	VTCV, Calle Va	3.96	120	eP	Pn	11 06 17.8 +1.4		comp=Z,9.7nm,0.7s								
INTP	Intipuca	1.44	324	eP	Pn	11 05 42.4 +0.3	PIEC	Cerro El Cedra	3.98	127	eP	Pn	11 06 18.2 +1.7	TZTN	Tazewell	24.64	7	P	P	11 10 31.4 +0.2				
INTP				eS	Sn	11 05 59.8 -0.7	RESJ	San Isidro (Tu	4.01	119	eP	Pn	11 06 18.3 +1.5	W35A	Tecumseh	24.64	341	IAmb	IAmb	11 10 33.6				
LCND	La Caada	1.45	332	P	Pn	11 05 42.5 +0.3	LCOCO	El Coco	4.06	118	eP	Pn	11 06 18.3 +0.9		comp=Z,8.9nm,0.6s								
ARIN	Rivas	1.45	113	ǁ *i* P	Pn	11 05 37.1 -5.0	BILN	Bilwi Airport	4.23	61	P	Pn	11 06 21.1 +1.3	TPB07	Mentone	24.69	325	P	P	11 10 31.7 -0.1				
BOAB	BOACO BROADBAN	.56	74	P	Pn	11 05 43.6 0.0	BILN	Bilwi Airport	4.23	61	Pn	Pn	11 06 20.1 +0.3	POST	Post	24.71	330	IAmb	IAmb	11 10 34.2				
BOAB				S	Sn	11 06 03.5 +0.3	BILN	Bilwi Airport	4.23	61	eP	Pn	11 06 20.8 +1.0		comp=Z,7.6nm,0.6s								
BOAB	BOACO BROADBAN	.56	74		Pn	11 06 03.6 0.0	PANP	Palmar Norte	4.77	129	eP	Pn	11 06 29.4 +2.2	V58A	Windy Hill, Pi	24.77	16	P	P	11 10 33.0 +0.6				
BOAB				Sn	Sn	11 06 03.0 -0.2	RTAL	Retalhuleu	5.04	300		Pn	11 06 32.5 +1.7	V58A				IAmb	IAmb	11 10 33.1				
BOAB	BOACO BROADBAN	.56	74	P	Pn	11 05 43.7 0.0	RTAL				Sn	Sn	11 07 27.9 +0.2		comp=Z,12nm,0.6s								
MORN	Al O del Volca	1.59	107	P	Pn	11 05 44.3 +0.2	HUEH	Huehuetenango	5.31	309		Pn	11 06 37.2 +2.5	PBMO	Poplar Bluff	24.82	354	IAmb	IAmb	11 10 34.4				
MORN				S	Sn	11 06 04.7 +0.6	HUEH				Sn	Sn	11 07 36.1 +1.3		comp=Z,8.2nm,0.5s								
CONN	Concepcion	1.60	106	P	Pn	11 05 44.3 0.0	BRU2	Volcan	5.47	125	P	Pn	11 06 39.4 +2.5	128A	Castleberry Fa	24.85	328	P	P	11 10 33.6 +0.4				
CONN				S	Sn	11 06 05.2 +0.8	BRU2				S	Sn	11 07 39.1 +0.5	HHAR	Hobbs	24.91	347	P	P	11 10 33.4 -0.2				
OCON	Estacion meteo	1.75	24	P	Pn	11 05 47.0 +0.8	BRU2	Volcan	5.47	125		Pn	11 06 39.2 +2.3	FNO	Franklin	24.91	340	P	P	11 10 33.8 +0.1				
OCON				S	Sn	11 06 08.8 +1.0	BRU2				Sn	Sn	11 07 37.5 -1.0	DKNS	Dickens	24.93	332	P	P	11 10 34.3 +0.4				
RANC	El Ranchito	1.76	323	P	Pn	11 05 47.2 +0.7	BRU2	Volcan	5.47	125	eP	Pn	11 06 38.8 +1.9	WMOK	Wichita Mounta	24.95	337	P	P	11 10 34.4 +0.3				
RANC				S	Sn	11 06 08.4 +0.1	BRU2	Volcan	5.47	125	P	Pn	11 06 39.4 +2.5	WMOK				IAmb	IAmb	11 10 36.8				
LCRUZ	La Cruz	1.80	121	ǁ *i* P	Pn	11 05 47.0 +0.2		comp=Z,134nm,0.6s							comp=Z,17nm,0.9s								
PACA	Pacayal	1.81	323	P	Pn	11 05 47.7 +0.6	CLLRA	Cordillera,	5.56	125	eP	Pn	11 06 39.8 +1.7	WMOK	Wichita Mounta	24.95	337	P	P	11 10 34.2 +0.2				
PACA				S	Sn	11 06 09.7 +0.3	BQTLY	Boquete Panama	5.68	124	eP	Pn	11 06 41.8 +2.1		comp=Z,22nm,1.3s								
RCVN	Varillal2	1.83	32	P	Pn	11 05 48.4 +1.0	CCIG	Comitan	6.39	312	Pn	Pn	11 06 50.4 +0.9	TUL3	Leonard	25.02	343	IAmb	IAmb	11 10 36.7				
RCVN				S	Sn	11 06 10.9 +0.8	BCIP	Isla Barro Col	7.77	111	P	Pn	11 07 08.9 +0.7		comp=Z,8.8nm,0.7s								
CARN	Rivas	1.84	117	P	Pn	11 05 47.7 +0.4		comp=Z,264nmcomp=Z,27nm,0.6s						DEOK	Depew	25.16	342	IAmb	IAmb	11 10 35.7				
CARN				S	Sn	11 06 09.8 -0.1	BCIP	Isla Barro Col	7.77	111	P	Pn	11 07 09.2 +1.0		comp=Z,11nm,0.6s								
CARN	Rivas	1.84	117		Pn	11 05 47.7 +0.4		comp=Z,27nm,0.6s						OK052	Battle Ridge R	25.39	342	P	P	11 10 37.3 -0.7				
CARN				Sn	Sn	11 06 09.4 -0.5	TEIG	Tepich	8.22	353	Pn	Pn	11 07 15.4 +1.1	QUOK	Quay	25.53	342	P	P	11 10 38.7 -0.6				
CARN	Rivas	1.84	117	ǁ *i* P	Pn	11 05 47.6 +0.2	TEIG	Tepich	8.22	353	P	Pn	11 07 16.9 +2.6	OK048	Pawnee Station	25.83	342	IAmb	IAmb	11 10 44.9				
RCPN	Sur Rio San Ju	1.84	36	P	Pn	11 05 48.6 +1.1		comp=Z,21nm,1.8s							comp=Z,20nm,0.8s								
RCPN				S	Sn	11 06 11.4 +1.2	CMIG	Matias Romero	8.99	305	P	Pn	11 07 26.8 +2.1	MSTX	Muleshoe	26.06	329	IAmb	IAmb	11 10 45.6				
ALJI	Alcalda de J	1.86	314	P	Pn	11 05 48.0 +0.3		comp=Z,14nm,0.3s,baz=153,slow=10,SNR=116							comp=Z,12nm,0.6s								
ALJI	Alcalda de J	1.86	314	eP	Pn	11 05 48.0 +0.3	CMIG				S	Sn	11 09 03.9 -0.4	S39A	Bolivar	26.14	349	IAmb	IAmb	11 10 45.3				
ALJI				eS	Sn	11 06 09.7 -0.8		comp=Z,3.0nm,0.4s,baz=260,slow=22,SNR=2.0							comp=Z,11nm,0.6s								
ACON	Acoyapa	1.98	91	P	Pn	11 05 49.2 0.0	SOR	Soroa	11.43	20	Pn	Pn	11 07 57.9 -0.2	AMTX	Amarillo	26.29	332	IAmb	IAmb	11 10 51.4				
ACON				S	Sn	11 06 14.1 +0.8	SJCC	San Jacinto, C	11.99	99		Pn	11 08 06.1 +0.3		comp=Z,9.8nm,0.7s								
TGUH	Tegucigalpa,Un	2.02	358	P	Pn	11 05 51.0 +1.1	TLIG	Tlapa	12.29	298		Pn	11 08 12.1 +2.1	KAN01	Argonia South	26.76	341	IAmb	IAmb	11 10 53.3				
TGUH				S	Sn	11 06 15.1 +0.6	POPC	Popayan, Colom	14.05	131	P	Pn	11 08 35.2 +1.7		comp=Z,9.7nm,0.6s								
TGUH	Tegucigalpa,Un	2.02	358		Pn	11 05 51.0 +1.1	URIC	Uribia, Colomb	14.88	90	Pn	Pn	11 08 43.0 -1.2	Q51A	Peebles	27.11	7	IAmb	IAmb	11 10 54.7				
TGUH	Tegucigalpa,Un	2.02	358	P	Pn	11 05 51.0 +1.1	RUSC	La Rusia	15.21	112		Pn	11 08 48.2 -0.5		comp=Z,17nm,0.7s								
TGUH	Tegucigalpa,Un	2.02	358	P	Pn	11 05 51.2 +1.2	MOIG	Morelia	15.46	301	Pn	Pn	11 08 52.8 +1.1	RTBA	Rita Blanca	28.05	333	IAmb	IAmb	11 11 07.2				
LAPC	Finca la Perla	2.13	126	eP	Pn	11 05 52.2 -0.1	MOIG				IAmb	IAmb	11 09 10.0		comp=Z,4.8nm,0.7s								
ALIBA	Liberia Airpor	2.15	131	eP	Pn	11 05 52.7 +1.1		comp=Z,25nm,0.6s						KSU1	Kansas State U	28.23	344	P	P	11 11 03.2 -0.3				
TECO	Alcaldia de Te	2.16	314	P	Pn	11 05 51.8 +0.2	553A	Crawfordville	18.26	8	P	P	11 09 25.0 -0.2	KSU1				IAmb	IAmb	11 11 04.2				
TECO				S	Sn	11 06 16.9 -0.7	451A	Vernon	18.55	4	P	P	11 09 28.3 -0.1		comp=Z,8.0nm,0.8s								
PEJA	Penjamo Buenos	2.16	121	eP	Pn	11 05 51.9 +0.2	PCDR	Punta Cana, DR	19.25	68	P	P	11 09 35.9 -0.3	ANMO	Albuquerque	28.75	326	P	P	11 11 08.9 +0.5				
VORI	VORI	2.17	123	eP	Pn	11 05 52.5 +0.5	HKT	Hokley	19.56	337	P	P	11 09 39.7 +0.4		comp=Z,1.2nm,0.8s,baz=134,slow=7.1,SNR=4.8								
VRLE	La Escondida,	2.17	124	eP	Pn	11 05 52.0 0.0	HKT	Hockley	19.56	337	P	Pn	11 09 41.1 -0.2		comp=Z,1.2nm,0.8s								
GPS3	Bodega del ICE	2.19	125	eP	Pn	11 05 55.9 +3.7		comp=Z,14nm,1.0s						ANMO	Albuquerque	28.75	326	P	P	11 11 08.7 +0.3				
GPS2	Hotel Rincn d	2.21	125	eP	Pn	11 05 53.5 +1.1	833A	Chaparral WMA,	19.82	327		P	11 09 42.7 +0.4	ANMO	Albuquerque	28.75	326	P	P	11 11 10.3 +1.9				
SCLA	Alcaldia de Sa	2.24	318	S	Sn	11 06 20.2 +0.6	833A				IAmb	IAmb	11 09 44.0		comp=Z,2.0nm,1.6s								
DELF	Filadelfia	2.25	134	eP	Pn	11 05 54.3 +1.4		comp=Z,12nm,0.8s						TASM	ASL Pad, Albuq	28.75	326	P	P	11 11 08.6 +0.2				
DELF				eS	Sn	11 06 19.5 -0.2	MLDN	Muldoon	19.91	334	P	P	11 09 43.8 +0.5	SSPA	Standing Stone	29.66	14	P	P	11 11 16.4 +0.3				
COEG	Centro de Oper	2.28	314	P	Pn	11 05 54.0 +0.6	MLDN				IAmb	IAmb	11 09 45.9		comp=Z,14nm,2.4s								
COEG				S	Sn	11 06 20.3 -0.4		comp=Z,17nm,0.8s						X16A	Lo Mia Camp, P	31.36	319	P	P	11 11 33.0 +1.5				
COEG	Centro de Oper	2.28	314	eP	Pn	11 05 54.3 +0.9	152A	Waverly Hall	20.68	6	P	P	11 09 51.4 -0.1	BINY	Binghamton	31.61	16	P	P	11 11 34.9 +1.5				
CLARA	Aguas Claras	2.33	122	eP	Pn	11 05 54.6 +0.6	152A				IAmb	IAmb	11 09 56.2		comp=Z,23nm,2.6s								
MESS	Mesas	2.34	123	ǁ *i* P	Pn	11 05 54.3 +0.1		comp=Z,20nm,0.8s						PV05	Paradox Valley	32.49	327	IAmb	IAmb	11 11 43.1				
HORNC	Hornillas	2.37	123	ǁ *i* P	Pn	11 05 54.9 +0.3	HNDO	Hondo	20.73	329		P	11 09 51.8 -0.4		comp=Z,8.7nm,0.7s								
VMAR	Armenia, Volca	2.37	120	ǁ *i* P	Pn	11 05 54.3 -0.3	NATX	Nacogdoches	20.81	342	P	P	11 09 52.8 -0.2	PV07	Paradox Valley	32.52	328	IAmb	IAmb	11 11 44.2				
COLC	Colonia	2.38	124	ǁ *i* P	Pn	11 05 55.9 +1.3	NATX				IAmb	IAmb	11 09 57.5		comp=Z,9.8nm,1.3s								
PAVA	Las Pavas	2.39	315	P	Pn	11 05 55.6 +0.8		comp=Z,21nm,0.6s						PV17	East Wray Mesa	32.56	327	P	P	11 11 43.1 +1.1				
PAVA				S	Sn	11 06 23.6 +0.4	LRAL	Lakeview Retre	20.91	0		P	11 09 54.5 +0.4	ECSD	EROS Data Cent	32.63	347	IAmb	IAmb	11 11 42.2				
CANAL	Canalete	2.41	119	eP	Pn	11 05 54.7 -0.3	LRAL				IAmb	IAmb	11 09 58.5		comp=Z,5.5nm,0.6s								
BAGA	Bagaces	2.41	128	eP	Pn	11 05 55.9 +0.9		comp=Z,17nm,1.2s						ECSD	EROS Data Cent	32.63	347	P	P	11 11 40.9 -1.4				
CUI	Cuipilapa	2.41	124	eP	Pn	11 05 55.7 +0.6	435B	Jarrell	21.00	334	P	P	11 09 55.9 +0.9		comp=Z,8.1nm,1.0s								
UPAL	Upala	2.42	117	eP	Pn	11 05 55.5 +0.3	GOGA	Godfrey	21.56	9		P	11 10 03.5 +2.5	PV23	Carpenter Ridg	32.72	327	IAmb	IAmb	11 11 45.8				
PANCS	Alcalda de	2.50	309	P	Pn	11 05 56.6 +0.3	GOGA				IAmb	IAmb	11 10 04.3		comp=Z,11nm,1.0s								
PANCS				S	Sn	11 06 25.8 0.0		comp=Z,15nm,0.7s						HMU	Henry Mountain	33.29	325	IAmb	IAmb	11 11 51.5				
LOMA	Loma Larga	2.51	310	P	Pn	11 05 57.1 +0.6	Y49A	Blount Mountai	21.75	2		P	11 10 04.1 +1.1		comp=Z,3.6nm,0.6s								
LOMA				S	Sn	11 06 26.0 -0.2	Y49A				IAmb	IAmb	11 10 05.1	SADO	Sadowa	33.35	10	LR	LR	11 25 57.9				
TENO	El Achiote	2.54	121	eP	Pn	11 05 57.3 +0.5		comp=Z,13nm,0.6s							comp=Z,28nm,18.8s,baz=346,slow=38								
NICO	Nicoya	2.54	137	eP	Pn	11 05 58.0 +1.2	Z41A	Richland Creek	21.75	347	P	P	11 10 03.8 +0.8	O20A	White River Ci	33.60	330	IAmb	IAmb	11 11 53.7				
UDBS	Universidad Do	2.54	312	S	Sn	11 06 26.9 -0.1	Z41A				IAmb	IAmb	11 10 05.8		comp=Z,4.4nm,0.7s								
IGN	Direccin Gen	2.56	311	P	Pn	11 05 57.4 +0.3		comp=Z,15nm,0.7s						SRU	San Rafael Swe	34.01	327	IAmb	IAmb	11 11 56.4				
IGN				S	Sn	11 06 27.6 +0.3	JCT	Junction City	21.77	329	P	P	11 10 03.9 +0.6		comp=Z,6.4nm,0.6s								
UTEC	Universidad Te	2.57	311	P	Pn	11 05 58.0 +0.7	Y52A	Lilburn	21.93	7		P	11 10 05.5 +0.6	P17A	Butcher Ranch,	34.38	327	IAmb	IAmb	11 11 59.7				
UTEC				S	Sn	11 06 27.8 +0.2	Y52A				IAmb	IAmb	11 10 08.3		comp=Z,6.4nm,0.8s								
TIMP	Tierras Morena	2.57	124	eP	Pn	11 05 58.0 +0.7		comp=Z,22nm,0.9s						BSUT	Blindstream Ca	35.17	328		P	11 12 05.7 +0.9				
SEMO	Seminario San	2.59	310	P	Pn	11 05 57.8 +0.3	WHTX	Lake Whitney,	22.00	336		P	11 10 06.2 +0.5	BSUT				IAmb	IAmb	11 12 06.6				
SEMO				S	Sn	11 06 28.0 0.0	WHTX				IAmb	IAmb	11 10 08.4		comp=Z,3.6nm,0.8s								
CNAS	Canas	2.60	127	eP	Pn	11 05 59.7 +2.1		comp=Z,30nm,1.2s						EYMN	Ely	35.99	355	P	P	11 12 09.3 -2.0				
UEES	Universidad Ev	2.61	310	S	Sn	11 06 28.9 +0.4	BRDY	Brady	22.05	332		P	11 10 06.9 +0.6	PD31	Pinedale Array	36.26	332		P	11 12 14.3 +0.3				
CMARA	Lajas Hojancha	2.65	139	P	Pn	11 05 59.4 +1.1	BRDY				IAmb	IAmb	11 10 09.1	PDAR	Pinedale Array	36.26	332	P	P	11 12 14.2 +0.3				
CMARA				S	Sn	11 06 29.3 -0.1		comp=Z,13nm,0.8s							comp=Z,1.9nm,0.6s,baz=126,slow=11,SNR=22								
CMARA	Lajas Hojancha	2.65	139	eP	Pn	11 05 59.3 +1.1	TREL	Terrell	22.17	340	P	P	11 10 08.7 +1.2		comp=Z,1.9nm,0.6s								
BOQS	Boqueron	2.65	310	eP	Pn	11 05 59.4 +0.9	TREL				IAmb	IAmb	11 10 11.5	PDAR	Pinedale Array	36.26	332	P	P	11 12 13.9 -0.1				
QUEB	Quebradon, Cot	2.65	121	ǁ *i* P	Pn	11 05 59.0 +0.6		comp=Z,22nm,0.8s						HWUT	Hardware Ranch	36.37	329		P	11 12 15.4 +0.6				
COTE	Lago Cote	2.66	123	eP	Pn	11 05 59.4 +1.0	CCAR	Cane Creek	22.19	350	P	P	11 10 08.4 +0.7	HWUT				IAmb	IAmb	11 12 16.7				
PMON	Piamonte	2.66	309	P	Pn	11 05 59.4 +0.9	WLAR	White Oak Lake	22.23	347	P	P	11 10 08.6 +0.4		comp=Z,7.8nm,0.8s								
PMON				S	Sn	11 06 30.2 +0.3	WLAR				IAmb	IAmb	11 10 11.5	HWUT	Hardware Ranch	36.37	329	P	P	11 12 15.7 +0.9				
TILA	Tilaran	2.67	125	eP	Pn	11 05 59.6 +0.9		comp=Z,14nm,1.0s							comp=Z,12nm,0.8s								
JAYA	Jayaque - finc	2.73	307	P	Pn	11 06 00.1 +0.6	Z38A	Mt. Pleasant	22.31	343		P	11 10 09.8 +0.8	SPUT	South Promonto	36.61	327	IAmb	IAmb	11 12 18.7				
JAYA				S	Sn	11 06 31.8 +0.1	Z38A				IAmb	IAmb	11 10 12.0		comp=Z,2.8nm,0.8s								
CHIK	Chiripa	2.74	125	eP	Pn	11 06 00.8 +0.8		comp=Z,28nm,0.9s						AGMN	Agassiz Nation	36.88	350	P	P	11 12 17.2 -1.6				
CEDA	San Andres	2.78	310	S	Sn	11 06 33.0 +0.4	FW13	Cleburne	22.31	337	P	P	11 10 09.4 +0.3		comp=Z,9.3nm,0.4s								
JTS	Las Juntas de	2.79	128	P	Pn	11 06 01.0 +0.8	FW13				IAmb	IAmb	11 10 11.3	AHID	Auburn Hatcher	36.99	330	IAmb	IAmb	11 12 22.4				
	84nm,0.4s,baz=305,slow=16,SNR=49							comp=Z,30nm,1.2s							comp=Z,3.8nm,0.7s								
JTS				S	Sn	11 06 31.7 -1.3	X48A	Hartselle	22.33	0	P	P	11 10 09.2 0.0	AHID	Auburn Hatcher	36.99	330	P	P	11 12 20.8 +0.7				
	140nm,0.4s,baz=335,slow=11,SNR=6.1						FPAL	Fort Paine	22.46	3	P	P	11 10 11.1 +0.4		comp=Z,5.6nm,0.7s								
JTS	Las Juntas de	2.79	128	P	Pn	11 06 00.9 +0.6	OXF	Oxford	22.48	355	P	P	11 10 11.0 0.0	ELK	Elko	37.76	324	P	P	11 12 27.9 +1.3				
JTS				S	Sn	11 06 33.9 +0.8	OXF				IAmb	IAmb	11 10 11.8		comp=Z,1.6nm,0.9s,baz=114,slow=7.1,SNR=7.2								
JTS	Las Juntas de	2.79	128		Pn	11 06 01.0 +0.8		comp=Z,28nm,1.1s							comp=Z,1.6nm,0.9s								
JTS				Sn	Sn	11 06 32.6 -0.4	SAND	Sanderson	22.59	324	P	P	11 10 13.2 +1.0	ELK	Elko	37.76	324	P	P	11 12 26.8 +0.1				
JTS	Las Juntas de	2.79	128	P	Pn	11 06 01.1 +0.8	OZNA	Ozona	22.80	328		P	11 10 15.4 +1.1	NVAR	Mina Array Bea	38.19	319	P	P	11 12 31.5 +1.3				
JTS	Las Juntas de	2.79	128	eP	Pn	11 06 00.6 +0.3	HPIG		22.83	313	P	P	11 10 16.7 +1.9		comp=Z,0.9nm,0.8s,baz=136,slow=7.9,SNR=5.9								
JTS	Las Juntas de	2.79	128	P	Pn	11 06 01.1 +0.8	HPIG		22.83	313	P	P	11 10 17.4 +2.6	NVAR				PcP	PcP	11 14 44.4 +0.8				
TABAC	Tabacon	2.82	122	eP	Pn	11 06 01.8 +1.1		comp=Z,8.0nm,1.0s							comp=Z,0.2nm,0.4s,baz=114,slow=3.0,SNR=4.8								
REZ	Monterrey de S	2.87	121	eP	Pn	11 06 02.4 +1.1	FW06	Azle	22.91	337	P	P	11 10 16.1 +0.7		comp=Z,0.9nm,0.8s								
MTEVE	Monteverde	2.88	126	*i* P	Pn	11 06 02.4 +0.9	FW06				IAmb	IAmb	11 10 16.6	NVAR	Mina Array Bea	38.19	319	P	P	11 12 31.2 +0.9				
CEDE	Laguna Cedeo	2.88	122	ǁ *i* P	Pn	11 06 02.7 +1.2		comp=Z,15nm,0.6s						NVAR					PcP	11 14 43.6 0.0				
VARE2	V. Arenal	2.88	122	eP	Pn	11 06 02.7 +1.2	TXAR	Lajitas Array	23.06	321	P	P	11 10 17.6 +0.6	YNE	Yellowstone No	38.22	334	P	P	11 12 31.0 +0.5				
CASO	Castillo	2.89	123	eP	Pn	11 06 02.6 +1.1		comp=Z,7.3nm,0.8s,baz=141,slow=9.6,SNR=84						KVN	Kaiserville	38.42	320	P	P	11 12 32.2 0.0				
VACR	Volcan Arenal	2.91	122	eP	Pn	11 06 02.4 +0.5	TXAR				PcP	PcP	11 14 03.5 -0.4	ULM	Lac du Bonnet	38.78	351	P	P	11 12 32.7 -2.0				
FORC	Fortuna	2.92	122	eP	Pn	11 06 03.1 +1.1		comp=Z,0.2nm,0.8s,baz=32,slow=4.6,SNR=2.1							comp=Z,9.0nm,0.6s,baz=162,slow=9.3,SNR=25								
CEVE	Cerro Verde	2.97	307	S	Sn	11 06 37.9 +0.3	TXAR				ScP	ScP	11 17 37.8 +2.5		comp=Z,9.0nm,0.6s								
UNIC	Universidad Ca	3.01	311	P	Pn	11 06 04.8 +1.6		comp=Z,0.3nm,0.7s,baz=126,slow=4.1,SNR=4.9						HLID	Hailey	39.23	328	P	P	11 12 39.6 +0.7				
UNIC				S	Sn	11 06 38.7 +0.5		comp=Z,7.3nm,0.8s						BOZ	Bozeman (W)	39.40	333	IAmb	IAmb	11 12 41.6				
COVE	Coope Vega, Sa	3.03	115	P	Pn	11 06 03.9 +0.4	TXAR	Lajitas Array	23.06	321		P	11 10 17.6 +0.6		comp=Z,2.4nm,0.6s								
COVE				S	Sn	11 06 40.0 +1.3	TXAR					PcP	11 14 02.9 -1.0	WVOR	Wild Horse Val	40.79	324	P	P	11 12 52.7 +0.9				
SARH	Santa Rosa de	3.13	331	P	Pn	11 06 06.7 +1.8	TX31	Lajitas Ar. Si	23.06	321		P	11 10 17.6 +0.6	PLID	Pearl Lake	41.12	329		P	11 12 54.6 +0.1				
SARH				S	Sn	11 06 41.9 +0.6	PLPT	Palo Pinto	23.07	336	P	P	11 10 17.4 +0.5	F10A	Beach Ranch, E	42.35	329	P	P	11 13 04.7 +0.3				
NUBE	Las Nubes	3.13	307	P	Pn	11 06 06.1 +1.1	W50A	Signal Mountai	23.14	4	P	P	11 10 17.8 +0.3	F10A				IAmb	IAmb	11 13 05.4				
NUBE				S	Sn	11 06 40.6 -0.8	MIAR	Mount Ida	23.16	347		P	11 10 18.0 +0.3		comp=Z,3.2nm,0.7s								
MTO3	Montecristo	3.17	318		Pn	11 06 06.9 +1.4	MIAR	Mount Ida	23.16	347	P	P	11 10 18.2 +0.5	NEW	Newport	43.90	331	P	P	11 13 16.0 -0.8				
QUEU	Ciudad Quesada	3.19	122	eP	Pn	11 06 06.1 +0.4		comp=Z,13nm,0.7s							comp=Z,0.9nm,0.4s,baz=119,slow=11,SNR=2.5								
VPL2	V. Platanar	3.25	121	eP	Pn	11 06 07.3 +0.8	BG3	Lake Jocassee	23.19	9	IAmb	IAmb	11 10 19.7		comp=Z,0.9nm,0.4s								
ITAL	Pital	3.27	118	eP	Pn	11 06 07.1 +0.4		comp=Z,12nm,0.6s						NEW	Newport	43.90	331	P	P	11 13 16.1 -0.7				
ESQI	Esquipulas	3.27	321	P	Pn	11 06 08.5 +1.6	CPCT	Cooper Cave	23.45	5		P	11 10 21.1 +0.7	NEW	Newport	43.90	331	P	P	11 13 16.2 -0.7				
ESQI	Esquipulas	3.27	321	Pn	Pn	11 06 08.4 +1.6	CPCT				IAmb	IAmb	11 10 23.0	D08A	Wollman Farm,	43.95	329	P	P	11 13 17.7 +0.6				
ESQI				Sn	Sn	11 06 46.5 +1.7		comp=Z,11nm,0.6s						D08A				IAmb	IAmb	11 13 18.0				
VPL1	V. Platanar	3.29

C26K					IAmb	IAmb	11 16 45.8	
	comp=Z,5.2nm,1.3s							
D25K	**Kavik River**	**68.19**	**341**		P	**P**	**11 16 09.5**	**-0.2**
TOLK	**Toolik Lake Re**	**68.98**	**340**		P	**P**	**11 16 14.4**	**-0.2**
TOLK					IAmb	IAmb	11 16 45.6	
	comp=Z,5.8nm,1.4s							
G19K	**Purcell Mounta**	**70.98**	**336**		P	**P**	**11 16 27.7**	**+0.8**
G19K					IAmb	IAmb	11 17 00.6	
	comp=Z,10nm,1.5s							
BMRD	**Maredsous**	**82.11**	**40**	*dP*		**P**	**11 17 30.0**	**0.0**
HHC	**Hu-ho-hao-te**	**124.60**	**343**	*eP*		**PKPdf**	**11 24 06.1**	**-2.9**
ASAR	**Alice Springs**	**139.34**	**248**	PKP		**PKPdf**	**11 24 37.1**	**+0.1**
	comp=Z,0.3nm,0.6s,baz=88,slow=2.0,SNR=7.2							
WRA	**Warramunga Arr**	**139.39**	**253**	PKP		**PKiKP**	**11 24 40.2**	**+0.7**
	comp=Z,0.7nm,0.5s,baz=91,slow=2.2,SNR=27							
KNRA	**Kununurra**	**144.93**	**260**	PKPbc		**PKPbc**	**11 24 44.4**	**-2.0**

VIE 23 11:06:21.3±1.3, 48°.76N×10°.24E, *h*0km, mb1.9/1, ml2.0/4, Error ellipse: s-maj=8.8km s-min=2.9km az=26.0 21 km WSW of Noerdlingen Suspected Mining explosion., Germany

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DAVA	**Damuels**	**1.49**	**189**	*e*Sg	Sn	11 07 11.2	+1.4
	2.9nm,0.3s						
MOTA	**Moosalm**	**1.53**	**157**	*e*Sg	Sn	11 07 12.6	+1.9
	1.1nm,0.2s						
WATA	**Walderalm**	**1.69**	**147**	*e*Sg	Sg	11 07 16.8	+1.4
	2.4nm,0.2s						
WTTA	**Wattenberg**	**1.77**	**147**	*e*Sg	Sg	11 07 19.5	+1.4
	2.6nm,0.3s						

ROM 23 11:07:10.7±0.1, 46°.195N±0°.008×11°.20E±0°.02, *h*0km, ML0.8/5, 4C, Error ellipse: s-maj=1.3km s-min=0.7km az=295.0, Northern Italy

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PANI	**Panarotta**	**0.17**	**147**↑	*e*Pg	Pg	11 07 14.8	+0.8
PANI	**Panarotta**	**0.17**	**147**	P	Pg	11 07 14.8	+0.8
PANI				AML	AML		
	comp=E,34μm,3.6s						
PANI				AML	AML		
	comp=E,34μm,0.4s						
GAGG	**Gaggia**	**0.20**	**236**↑	*e*Pg	Pg	11 07 15.4	+0.9
GAGG	**Gaggia**	**0.20**	**236**	P	Pg	11 07 15.3	+0.8
GAGG				AML	AML		
	comp=E,74μm,3.6s						
GAGG				AML	AML		
	comp=E,43μm,3.6s						
GAGG				AML	AML		
	comp=N,37μm,3.1s						
GAGG				AML	AML		
	comp=E,43μm,0.4s						
GAGG				AML	AML		
	comp=N,37μm,1.1s						
GAGG				AML	AML		
	comp=E,74μm,0.4s						
ZIAN	**Ziano**	**0.27**	**72**↑	*e*Pg	Pg	11 07 16.7	+0.9
ZIAN	**Ziano**	**0.27**	**72**	P	Pg	11 07 16.7	+0.9
ZIAN				AML	AML		
	comp=E,45μm,3.2s						
ZIAN				AML	AML		
	comp=E,45μm,0.8s						
APPI	**Appiano**	**0.28**	**4**	P	Pg	11 07 17.1	+1.0
KOSI	**Kohlern**	**0.29**	**25**	P	Pg	11 07 17.4	+1.0
LUSI	**Trento, Gardas**	**0.29**	**217**	P	Pg	11 07 17.1	+0.8
DOSS	**Dosso del Somm**	**0.32**	**181**↑	*e*Pg	Pg	11 07 17.4	+0.7
DOSS	**Dosso del Somm**	**0.32**	**181**	P	Pg	11 07 17.4	+0.7
CARE	**Lago del Cares**	**0.42**	**304**	AML	AML		
	comp=E,469μm,0.1s						
CARE				AML	AML		
	comp=E,469μm,10.1s						
BRES	**Bressanone**	**0.62**	**36**	P	Pg	11 07 23.5	+0.8

*IDC **23** 11:10:28.5±2.5, 10°.62N×126°.58E, h0km, mb3.7/5, mbtmp3.7/5, MS3.0/1, Error ellipse: s-maj=250.0km s-min=20.5km az=67.0*
*MAN **23** 11:10:33.0, 10°.49N×126°.16E, h3km, MS3.8*
ISC 23 11:10:31.5±2.2, 10°.54N±0°.06×126°.34E±0°.09, h16km±13km, n20, σ1°70/22, mb3.6/5, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PLP	**Palo**	**1.47**	**295**	*e*P	**Pn**	**11 10 58.3**	**+0.9**
PLP				*e*S	**Sn**	**11 11 17.4**	**+1.1**
LLP	**Lapu-Lapu**	**2.34**	**265**	*e*P	**Pn**	**11 11 10.8**	**+1.4**
LLP				*i* S	**Sn**	**11 11 38.4**	**+0.6**
BIPH	**Bislig**	**2.34**	**179**	*e*P	**Pg**	**11 11 18.0**	**+1.4**
BIPH				*e*S	**Sn**	**11 11 37.9**	**+0.1**
TBP	**Tagbilaran**	**2.58**	**251**	*e*P	**Pn**	**11 11 14.6**	**+2.0**
TBP				*i* S	**Sn**	**11 11 42.9**	**-0.8**
CGP	**Cagayan de Oro**	**2.63**	**218**	*e*P	**Pn**	**11 11 14.9**	**+1.6**
CGP				*i* S	**Sn**	**11 11 44.0**	**-0.9**
DCPH	**Dipolog City**	**3.53**	**237**	*e*P	**Pn**	**11 11 27.5**	**+1.8**
DCPH				*i* S	**Sn**	**11 12 07.7**	**+0.6**
DMPH	**Davao City--Mi**	**3.53**	**193**	*e*P	**Pb**	**11 11 29.8**	**-4.0**
DMPH				*i* S	**Sb**	**11 12 15.5**	**-0.9**
KCP	**Kidapawan**	**3.72**	**199**	*i* P	**Pn**	**11 11 31.5**	**+3.1**
KCP				*e*S	**Sn**	**11 12 14.3**	**+2.4**
WRA	**Warramunga Arr**	**31.30**	**165**	P	**P**	**11 16 50.2**	**-0.9**
	0.4nm,0.7s,baz=343,slow=8.0,SNR=5.0						
	0.4nm,0.7s						
ASAR	**Alice Springs**	**34.80**	**168**	P	**P**	**11 17 21.4**	**-0.2**
	0.2nm,0.3s,baz=350,slow=7.2,SNR=17						
ASAR				PcP	**PcP**	**11 19 55.2**	**+0.2**
	0.2nm,0.5s,baz=341,slow=2.2,SNR=4.3						
	0.2nm,0.3s						
CTA	**Charters Tower**	**36.21**	**147**	LR	LR	11 33 34.0	
	comp=Z,23nm,18.5s,baz=270,slow=38						
H11S3	**WAKE ISLAND Hy**	**39.78**	**74**	T	T	12 00 58.3	
	baz=260						
H11S1	**WAKE ISLAND Hy**	**39.80**	**74**	T	T	12 01 08.5	
	baz=260						
H11S2	**WAKE ISLAND Hy**	**39.80**	**74**	T	T	12 01 07.6	
	baz=260						
H11N1	**WAKE ISLAND Hy**	**40.11**	**72**	T	T	12 01 29.5	
	baz=265,slow=74,SNR=15						
H11N2	**WAKE ISLAND Hy**	**40.12**	**72**	T	T	12 01 32.3	
	baz=265,slow=74,SNR=15						
H11N3	**WAKE ISLAND Hy**	**40.13**	**72**	T	T	12 01 30.9	
	baz=265,slow=74,SNR=16						
MKAR	**Makanchi Array**	**51.85**	**323**	P	**P**	**11 19 39.4**	**+0.3**
	0.6nm,0.6s,baz=125,slow=8.4,SNR=6.3						
	0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**54.42**	**331**	P	**P**	**11 19 56.8**	**-1.0**
	0.3nm,0.5s,baz=107,slow=7.7,SNR=1.8						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**55.89**	**325**	P	**P**	**11 20 08.9**	**+0.5**
	1.2nm,0.2s,baz=124,slow=6.7,SNR=1.3						
	1.2nm,0.2s						

*IDC **23** 11:18:41.3±3.1, 23°.60S×179°.89E, h556km±35km, mb3.1/4, mbtmp4.1/4, Error ellipse: s-maj=31.5km s-min=16.4km az=24.0*
ISC 23 11:18:38.6±0.9, 23°.66S±0°.09×179°.93E±0°.10, h535km, n29, σ1°80/43, mb3.7/6, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**5.91**	**161**	P	**P**	**11 20 16.9**	**+1.4**
GLKZ				S	**S**	**11 21 34.7**	**-0.1**
NIUE	**Niue**	**10.49**	**66**	P	P	11 21 07.5	+6.1
NIUE				S	**S**	**11 22 58.4**	**-0.5**
MKAZ	**Moumakai**	**14.02**	**196**	P	P	11 21 43.0	+5.1
HAZ	**Te Kaha**	**14.18**	**187**	P	**P**	**11 21 41.8**	**+2.2**
HAZ				S	**S**	**11 24 08.2**	**-0.5**
RUGZ	**Raukumara Rang**	**14.39**	**187**	P	**P**	**11 21 44.2**	**+2.3**
TOZ	**Tahuroa Road**	**14.53**	**194**	P	**P**	**11 21 47.4**	**+4.1**
TWGZ	**Tauwhareparae**	**14.57**	**186**	S	**S**	**11 24 14.0**	**-2.5**
URZ	**Urewera**	**14.76**	**189**	P	**P**	**11 21 44.5**	**-1.1**
URZ				S	**S**	**11 24 17.1**	**-2.7**
MWZ	**Matawai**	**14.78**	**187**	P	**P**	**11 21 46.2**	**+0.3**
MWZ				S	**S**	**11 24 18.4**	**-1.9**
RIGZ	**Rimuhau**	**15.12**	**187**	P	**P**	**11 21 50.7**	**+1.2**
RIGZ				S	**S**	**11 24 26.1**	**-0.5**
MTHZ	**Maungataniwha**	**15.38**	**189**	P	**P**	**11 21 53.1**	**+1.0**
MTHZ				S	**S**	**11 24 30.0**	**-1.3**
BKZ	**Black Stump Fm**	**15.74**	**190**	P	**P**	**11 21 54.4**	**-1.4**
BKZ				S	**S**	**11 24 35.2**	**-2.3**
OTVZ	**Oturere**	**15.88**	**192**	P	**P**	**11 21 56.5**	**-0.8**
OTVZ				S	**S**	**11 24 37.7**	**-2.5**
KWHZ	**Kaweka Forest**	**16.00**	**190**	P	**P**	**11 21 56.5**	**-2.0**
KWHZ				S	**S**	**11 24 40.1**	**-2.0**
WNVZ	**Wahianoa**	**16.05**	**192**	P	**P**	**11 21 59.1**	**0.0**
PKVZ	**Pokaka**	**16.06**	**193**	P	**P**	**11 22 00.4**	**+1.3**
BHHZ	**Black Hill Sta**	**16.12**	**191**	P	**P**	**11 21 58.1**	**-1.6**
BHHZ				S	**S**	**11 24 42.5**	**-1.7**
BFZ	**Birch Farm**	**17.26**	**189**	P	**P**	**11 22 08.4**	**-1.8**
BFZ				S	**S**	**11 25 04.7**	**+1.8**
QRZ	**Quartz Range**	**18.21**	**198**	P	**P**	**11 22 20.3**	**+1.3**
NNZ	**Nelson**	**18.35**	**196**	P	**P**	**11 22 20.6**	**+0.4**
NNZ				S	**S**	**11 25 16.5**	**-4.1**
ASAR	**Alice Springs**	**42.01**	**260**	P	**P**	**11 25 44.6**	**+1.2**
	1.1nm,0.5s,baz=94,slow=6.9,SNR=33						
ASAR				PcP	**PcP**	**11 27 25.6**	**-0.5**
	0.3nm,0.6s,baz=87,slow=3.5,SNR=2.2						
ASAR				S	**S**	**11 31 25.3**	**+1.4**
	0.6nm,0.7s,baz=98,slow=14,SNR=12						
	1.1nm,0.5s						
WRA	**Warramunga Arr**	**42.36**	**266**	P	**P**	**11 25 46.8**	**+0.6**
	1.5nm,0.6s,baz=92,slow=8.5,SNR=30						
WRA				S	**S**	**11 31 26.5**	**-2.5**
	0.7nm,0.9s,baz=113,slow=15,SNR=3.1						
	1.5nm,0.6s						
VNDA	**Vanda**	**54.62**	**185**	P	**P**	**11 27 18.1**	**+1.8**
	1.2nm,0.8s,baz=358,slow=6.6,SNR=12						
	1.2nm,0.8s						
QSPA	**South Pole Qui**	**66.42**	**180**	P	**P**	**11 28 35.3**	**+0.8**
	3.0nm,0.7s,baz=64,slow=2.8,SNR=27						
	3.0nm,0.7s						
TROLL	**Troll, Antarti**	**84.57**	**181**	P	**P**	**11 30 14.0**	**-1.2**
	comp=Z,142nm,0.5s						
VNA3	**Neumayer Olymp**	**85.12**	**177**	P	**P**	**11 30 16.3**	**-1.4**
	comp=Z,0.3nm,0.2s						
VNA2	**Neumayer--Watz**	**85.54**	**178**	P	**P**	**11 30 18.8**	**-0.9**
	comp=Z,1.4nm,0.6s,baz=185,slow=5.4						
AKASG	**Malin Array Be**	**144.73**	**327**	PKP	**PKPdf**	**11 37 12.3**	**-2.0**
	comp=Z,0.5nm,0.4s,baz=48,slow=4.1,SNR=5.5						
BRTR	**Keskin Array B**	**147.38**	**307**	PKPbc	**PKiKP**	**11 37 24.7**	**+0.4**
	comp=Z,0.9nm,0.7s,baz=80,slow=4.8,SNR=4.3						

*IDC **23** 11:31:43.6±1.6, 35°.16N×25°.08E, h0km, mb3.7/4, mbtmp3.5/5, ML2.6/1, Error ellipse: s-maj=64.6km s-min=24.1km az=140.0*
*THE **23** 11:31:49.8, 35°.N±4°×2°.5E±°, h44km±4km, M3.5/11, MLh3.5/11*
*ATH **23** 11:31:51.0, 34°.95N×25°.33E, h33km±1km, ML3.4/14, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
ISC 23 11:31:50.3±1.0, 34°.93N±0°.07×25°.40E±0°.04, h48km±8km, n34, σ1°32/40, mb3.6/3, Crete

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGNA	**Agios Nikolaos**	**0.37**	**45**	P	**Pn**	**11 32 00.2**	**+0.4**
AGNA				S	**Sn**	**11 32 07.4**	**+0.7**
AGNA				AML	AML		
NPS	**Neapolis**	**0.38**	**27**	P	**Pn**	**11 32 00.4**	**+0.4**
NPS				AML	AML		
NPS	**Neapolis**	**0.38**	**27**	P	**Pn**	**11 32 00.0**	**0.0**
IACM	**Heraklion**	**0.47**	**325**	P	**Pn**	**11 32 01.4**	**+0.4**
IACM				S	**Sn**	**11 32 11.5**	**+2.9**
IACM				AML	AML		
IACM	**Heraklion**	**0.47**	**325**	P	**Pn**	**11 32 01.4**	**+0.4**
SIVA	**Sivas**	**0.49**	**281**	P	**Pn**	**11 32 01.5**	**+0.2**
SIVA				S	**Sn**	**11 32 10.5**	**+1.3**
SIVA				AML	AML		
SIVA	**Sivas**	**0.49**	**281**	P	**Pn**	**11 32 01.3**	**0.0**
SIVA				S	**Sn**	**11 32 07.8**	**-1.4**
IDI	**Anoyia**	**0.55**	**311**	P	**Pn**	**11 32 02.1**	**-0.1**
IDI				AML	AML		
IDI	**Anoyia**	**0.55**	**311**	P	**Pn**	**11 32 01.7**	**-0.4**
IDI				AML	AML		
ZKR	**Zakros**	**0.70**	**74**	P	**Pn**	**11 32 05.3**	**+1.5**
ZKR				AML	AML		
GVD	**Gavdhos**	**1.08**	**266**	P	**Pn**	**11 32 10.3**	**+1.2**
GVD				S	**Sn**	**11 32 25.3**	**+2.3**
GVD				AML	AML		
GVD	**Gavdhos**	**1.08**	**266**	P	**Pn**	**11 32 09.8**	**+0.7**
VAM	**Vamos**	**1.09**	**296**	P	**Pn**	**11 32 10.6**	**+1.4**
VAM				AML	AML		
VAM	**Vamos**	**1.09**	**296**	P	**Pn**	**11 32 10.9**	**+1.7**
GVDS	**Gavdos**	**1.11**	**266**	P	**Pn**	**11 32 09.6**	**+0.2**
GVDS				AML	AML		
IMMV	**Iera Moni Meta**	**1.28**	**295**	P	**Pn**	**11 32 13.6**	**+1.8**
IMMV				S	**Sn**	**11 32 30.2**	**+2.5**
IMMV	**Iera Moni Meta**	**1.28**	**295**	P	**Pn**	**11 32 12.7**	**+0.9**
IMMV				AML	AML		
THR6	**Thira Island,**	**1.43**	**360**	P	**Pn**	**11 32 14.8**	**+1.1**
THERA	**Ancient Thera,**	**1.44**	**2**	P	**Pn**	**11 32 14.8**	**+0.8**
SNT5	**Nea Kammeni, S**	**1.47**	**360**	P	**Pn**	**11 32 15.2**	**+0.8**
THR8	**Santorini-Mono**	**1.48**	**2**	P	**Pn**	**11 32 16.1**	**+1.7**
THR5	**Thira Island,**	**1.48**	**360**	P	**Pn**	**11 32 15.4**	**+0.9**
RODP	**Rodopos**	**1.49**	**296**	P	**Pn**	**11 32 16.6**	**+2.0**
RODP				AML	AML		
THR5	**Thira Island,**	**1.49**	**358**	P	**Pn**	**11 32 15.7**	**+1.1**
SAP3	**Santorini-Thir**	**1.51**	**358**	P	**Pn**	**11 32 15.4**	**+0.6**
KARP	**Karpathos**	**1.57**	**66**	P	**Pn**	**11 32 18.0**	**+2.3**
KARP				AML	AML		
MHLO	**Agia Marina, M**	**1.94**	**336**	P	**Pn**	**11 32 21.0**	**+0.3**
MHLO				AML	AML		
ANKY	**Antikythira Is**	**1.96**	**299**	P	**Pn**	**11 32 22.1**	**+1.1**
ANKY				AML	AML		
APE	**Apeiranthos**	**2.14**	**3**	P	**Pn**	**11 32 24.4**	**+0.8**
APE				AML	AML		
BRTR	**Keskin Array B**	**8.12**	**51**	Pn	**Pn**	**11 33 45.9**	**+0.2**
	0.1nm,0.3s,baz=233,slow=14,SNR=1.6						
	0.3nm,0.4s						
BRTR				AML	AML		
TORD	**Torodi Ar. Bea**	**30.49**	**231**	P	**P**	**11 37 58.2**	**-0.7**
	0.4nm,0.4s,baz=34,slow=8.5,SNR=4.4						
	0.4nm,0.4s						
ARCES	**ARCESS Array B**	**34.66**	**0**	P	**P**	**11 38 32.4**	**-2.4**
	3.3nm,0.9s,baz=182,slow=8.8,SNR=2.0						
	3.3nm,0.9s						
MKAR	**Makanchi Array**	**43.74**	**56**	P	**P**	**11 39 51.1**	**+0.2**
	0.1nm,0.3s,baz=272,slow=10.0,SNR=1.9						
	0.1nm,0.3s						
ZALV	**Zalesovo Beam**	**45.02**	**46**	P	**P**	**11 39 60.0**	**-0.9**
	0.4nm,0.4s,baz=292,slow=7.6,SNR=2.6						
	0.4nm,0.4s						

*IDC **23** 12:23:00.7±3.5, 11°.01N×126°.82E, h0km, mb3.3/4, mbtmp3.3/4, MS2.3/1, Error ellipse: s-maj=283.4km s-min=23.7km az=67.0*
ISC 23 12:23:06.3±1.5, 10°.9N±0°.2×126°.7E±0°.2, h37km, n6, σ0°86/6, mb3.3/4, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PLP	**Palo**	**1.67**	**279**	*e*P	**Pn**	**12 23 32.8**	**-0.1**
PLP				*e*S	**Sn**	**12 23 53.1**	**0.0**
KAPI	**Kappang**	**17.25**	**204**	LR	LR	12 34 32.6	
	comp=Z,11nm,20.8s,baz=229,slow=40						
WRA	**Warramunga Arr**	**31.58**	**166**	P	**P**	**12 29 25.0**	**-0.6**
	0.3nm,0.9s,baz=346,slow=8.6,SNR=1.9						
	0.3nm,0.9s						
ASAR	**Alice Springs**	**35.09**	**168**	P	**P**	**12 29 56.8**	**+0.7**
	0.1nm,0.5s,baz=350,slow=7.5,SNR=9.5						
	0.1nm,0.5s						
MKAR	**Makanchi Array**	**51.75**	**322**	P	**P**	**12 32 11.1**	**+0.9**
	0.3nm,0.5s,baz=124,slow=7.1,SNR=2.9						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**55.77**	**325**	P	**P**	**12 32 38.6**	**-0.8**
	0.5nm,0.6s,baz=129,slow=7.1,SNR=4.9						
	0.5nm,0.6s						

*IDC **23** 13:18:32.1±0.6, 28°.92N×139°.53E, h408km±8km, mb3.0/12, mbtmp3.8/18, Error ellipse: s-maj=18.9km s-min=8.8km az=72.0*
*JMA **23** 13:18:33.4±0.3, 29°.1N±0°.9×14°.0E±°, h451km±3km, MV3.7/39, NEAR TORISHIMA IS*
ISC 23 13:18:33.4±0.7, 28°.98N±0°.07×139°.5E±0°.1, h423km, n34, σ1°69/44, mb3.3/12, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**2.99**	**128**	P	**P**	**13 19 38.5**	**+0.3**
CBIJ				S	**S**	**13 20 29.9**	**-1.0**
JCJ	**Chichijima**	**2.99**	**128**	P	**P**	**13 19 35.4**	**-2.9**
	83nm,0.3s,baz=284,slow=22,SNR=41						
JCJ				S	**S**	**13 20 27.2**	**-3.8**
	269nm,0.3s,baz=281,slow=22,SNR=18						
JHH2	**Haha-jima-NKT2**	**3.30**	**134**	*e*P	**P**	**13 19 41.2**	**+0.5**
JHH2				*e*S	**S**	**13 20 35.1**	**-0.3**
JHJ2	**Mitsune**	**4.13**	**3**	*e*P	**S**	**13 19 49.7**	**+1.9**
JHJ2				*e*S	**S**	**13 20 48.7**	**+0.1**
JHJ	**Hachijo jima 2**	**4.13**	**3**	P	**P**	**13 19 45.7**	**-2.1**
	24nm,1.0s,baz=28,slow=14,SNR=2.4						
JHJ				S	**S**	**13 20 48.2**	**-0.4**
	19nm,0.8s,baz=234,slow=20,SNR=5.1						
BSO1	**Boso 1**	**5.79**	**12**	*e*S	**S**	**13 21 17.9**	**+0.1**
BSO3	**Boso 3**	**5.86**	**8**	*e*P	**P**	**13 20 06.1**	**+1.4**
JIE	**Ise**	**5.91**	**337**	*e*P	**P**	**13 20 09.3**	**+3.8**
JKN2	**Miekihoku**	**5.94**	**333**	*e*P	**P**	**13 20 09.7**	**+3.9**
JOD2	**Odawara 2**	**6.28**	**357**	*e*P	**P**	**13 20 10.9**	**+1.4**
JOD2				*e*S	**S**	**13 21 29.3**	**+1.1**
JNY	**Yasuok**	**6.52**	**348**	*e*P	**P**	**13 20 14.5**	**+2.0**
JHU2	**Hanno**	**6.84**	**358**	*e*P	**P**	**13 20 15.7**	**-0.2**
JHU2				*e*S	**S**	**13 21 36.3**	**-3.1**
JRY	**Ryogami san**	**7.04**	**356**	*e*P	**P**	**13 20 18.8**	**+0.8**
JRY				*e*S	**S**	**13 21 43.4**	**0.0**
JYT	**Yasato**	**7.25**	**4**	*e*P	**P**	**13 20 20.6**	**+0.3**
JYT				*e*S	**S**	**13 21 45.2**	**-2.2**
JAG	**Ashikaga**	**7.43**	**359**	P	**P**	**13 20 21.8**	**-0.5**
JAG				*e*S	**S**	**13 21 47.3**	**-3.8**
MJAR	**Matsushiro Arr**	**7.63**	**352**	P	**P**	**13 20 23.6**	**-0.8**
	2.0nm,0.4s,baz=181,slow=12,SNR=8.1						
JHO	**Hitachi**	**7.66**	**6**	P	**P**	**13 20 25.5**	**+0.7**
JFK	**Kawauchi**	**8.44**	**7**	P	**P**	**13 20 34.3**	**+1.0**
JNU	**Nakatsue**	**8.50**	**301**	P	**P**	**13 20 32.4**	**-1.6**
	3.8nm,0.8s,baz=129,slow=11,SNR=1.9						
JMK	**Ichinoseki**	**10.04**	**8**	*e*P	**P**	**13 20 53.2**	**+2.3**
KSRS	**Korea Array**	**12.88**	**314**	P	**P**	**13 21 21.3**	**-0.7**
	1.0nm,0.8s,baz=127,slow=9.5,SNR=3.5						
USRK	**Ussuriysk Ar.**	**16.35**	**340**	P	**P**	**13 21 59.2**	**-0.1**
	1.7nm,0.6s,baz=176,slow=9.5,SNR=2.0						
SONM	**Songino Array**	**31.74**	**316**	P	**P**	**13 24 22.1**	**+1.5**
	0.2nm,0.4s,baz=111,slow=7.9,SNR=2.1						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**47.48**	**308**	P	**P**	**13 26 28.2**	**+0.1**
	0.8nm,0.7s,baz=92,slow=9.3,SNR=7.1						
	0.8nm,0.7s						
FITZ	**Fitzroy Crossi**	**48.69**	**198**	P	**P**	**13 26 37.6**	**+0.2**
	0.8nm,0.6s,baz=42,slow=5.2,SNR=6.0						
	0.8nm,0.6s						
WRA	**Warramunga Arr**	**48.89**	**187**	P	**P**	**13 26 38.6**	**-0.4**
	0.6nm,0.5s,baz=2.7,slow=7.7,SNR=19						
	0.6nm,0.5s						
KURBB	**Kurchatov Arra**	**50.06**	**313**	P	**P**	**13 26 47.2**	**0.0**
	1.2nm,0.4s,baz=91,slow=8.3,SNR=13						
	1.2nm,0.4s						
ASAR	**Alice Springs**	**52.62**	**187**	P	**P**	**13 27 05.5**	**-0.8**
	0.2nm,0.4s,baz=16,slow=12,SNR=12						
	0.2nm,0.4s						
BVAR	**Borovoye Array**	**55.08**	**316**	P	**P**	**13 27 22.9**	**-0.6**
	1.2nm,0.6s,baz=112,slow=10.0,SNR=6.9						
	1.2nm,0.6s						
ILAR	**Eielson Array**	**57.20**	**29**	P	**P**	**13 27 38.0**	**-0.1**
	0.5nm,0.8s,baz=256,slow=5.3,SNR=4.5						
	0.5nm,0.8s						
ARCES	**ARCESS Array B**	**70.99**	**340**	P	**P**	**13 29 06.6**	**+0.2**
	2.3nm,0.8s,baz=61,slow=6.9,SNR=4.7						
	2.3nm,0.8s						
FINES	**FINESS Array B**	**75.22**	**333**	P	**P**	**13 29 30.7**	**-0.2**
	3.2nm,1.0s,baz=62,slow=5.5,SNR=6.8						
	3.2nm,1.0s						
NVAR	**Mina Array Bea**	**81.17**	**51**	P	**P**	**13 30 04.8**	**+0.9**
	0.3nm,0.5s,baz=274,slow=4.2,SNR=3.5						
	0.3nm,0.5s						
PDAR	**Pinedale Array**	**84.49**	**44**	P	**P**	**13 30 21.8**	**+1.2**
	0.1nm,0.3s,baz=300,slow=6.6,SNR=5.7						
	0.1nm,0.3s						

*DJA **23** 13:26:32.5±0.7, 6°.S±4°×12°.9E±°, h287km±13km, M4.3/12, mB4.3/3, mb4.0/5, MLv4.5/12, Mw(mB)3.4/3*
*NEIC **23** 13:26:33.3±1.1, 5°.71S±0°.07×129°.1E±0°.1, h255km±8km, mb4.2/30, Error ellipse: s-maj=15.2km s-min=10.6km az=92.0*
*IDC **23** 13:26:34.5±2.2, 5°.82S×128°.91E, h274km±22km, mb3.4/13, mbtmp4.1/15, Error ellipse: s-maj=28.3km s-min=8.1km az=75.0*
ISC 23 13:26:33.6±0.5, 5°.79S±0°.05×129°.05E±0°.08, h264km, n81, σ1°21/81, mb4.0/25, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**1.52**	**34**	P	**Pn**	**13 27 12.7**	**-0.7**
SAUI	**Saumlaki**	**3.12**	**134**	P	**Pn**	**13 27 28.9**	**+0.6**
SAUI	**Saumlaki**	**3.12**	**134**	Pn	**Pn**	**13 27 27.4**	**-0.9**
SAUI	**Saumlaki**	**3.12**	**134**	P	**Pn**	**13 27 29.4**	**+1.1**
SAUI				AML	AML		
FAKI	**Fak Fak**	**4.28**	**48**	P	**Pn**	**13 27 39.6**	**-1.7**
FAKI	**Fak Fak**	**4.28**	**48**		**Pn**	**13 27 39.3**	**-2.0**
FAKI	**Fak Fak**	**4.28**	**48**	P	**Pn**	**13 27 39.0**	**-2.3**
SANI	**Sanana**	**4.80**	**320**	P	**Pn**	**13 27 46.8**	**-0.7**
SANI	**Sanana**	**4.80**	**320**	P	**Pn**	**13 27 46.1**	**-1.4**
SANI				AML	AML		
SOEI	**Soe**	**6.16**	**230**		**Pn**	**13 28 05.4**	**+1.2**
TNTI	**Ternate**	**6.73**	**346**		**Pn**	**13 28 09.3**	**-1.7**
DRS	**Darwin Rock St**	**6.85**	**165**	P	**Pn**	**13

CAN	**Canberra**	**34.67**	**151**	P	**P**	**13 32 59.7**	**+1.1**
JMN	**Monobe**	**39.56**	**6**	P	**P**	**13 33 39.5**	**0.0**
MJAR	**Matsushiro Arr**	**42.97**	**11**	P	**P**	**13 34 05.5**	**-1.6**
	comp=Z,2.8nm,0.9s,baz=185,slow=10,SNR=4.9						
	comp=Z,2.8nm,0.9s						
KSRS	**Korea Array**	**43.03**	**359**	P	**P**	**13 34 06.2**	**-1.2**
	comp=Z,1.0nm,0.5s,baz=178,slow=9.1,SNR=6.2						
	comp=Z,1.0nm,0.5s						
KS19	**Wonju Array Si**	**43.08**	**359**	P	**P**	**13 34 07.0**	**-0.9**
KS19				IAmb	IAmb	13 34 29.0	
	comp=Z,29nm,1.4s						
USA0B	**Ussuriysk Arra**	**49.83**	**3**	P	**P**	**13 35 00.1**	**+0.1**
USA0B				IAmb	IAmb	13 35 39.8	
	comp=Z,6.2nm,1.0s						
USRK	**Ussuriysk Ar.**	**49.83**	**3**	P	**P**	**13 34 59.7**	**-0.3**
	comp=Z,2.9nm,0.6s,baz=200,slow=9.2,SNR=5.8						
	comp=Z,2.9nm,0.6s						
WHZ	**Wether Hill Ro**	**52.23**	**146**	P	**P**	**13 35 18.6**	**+0.7**
WHZ				IAmb	IAmb	13 35 32.8	
	comp=Z,14nm,1.3s						
RPZ	**Rata Peaks**	**52.77**	**142**	P	**P**	**13 35 23.4**	**+1.5**
	comp=Z,0.9nm,0.6s,baz=348,slow=20,SNR=2.4						
	comp=Z,0.9nm,0.6s						
GVZ	**Greta Valley S**	**53.60**	**141**	P	**P**	**13 35 28.5**	**+0.6**
ULN	**Ulaanbaatar**	**56.83**	**342**	P	**P**	**13 35 51.5**	**+0.6**
SONM	**Songino Array**	**57.00**	**342**	P	**P**	**13 35 52.7**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=162,slow=9.8,SNR=4.6						
	comp=Z,0.5nm,0.5s						
SONM	**Songino Array**	**57.00**	**342**	IAmb	IAmb	13 35 57.2	
	comp=Z,2.6nm,1.2s						
CASY	**Casey**	**61.75**	**188**	P	**P**	**13 36 24.5**	**+0.5**
CASY				IAmb	IAmb	13 36 55.4	
	comp=Z,4.6nm,1.3s						
MKAR	**Makanchi Array**	**66.70**	**327**	P	**P**	**13 36 56.3**	**-0.1**
	comp=Z,0.6nm,0.4s,baz=118,slow=7.9,SNR=14						
	comp=Z,0.6nm,0.4s						
MAKZ	**Makanchi**	**66.88**	**327**	P	**P**	**13 36 57.5**	**0.0**
ZALV	**Zalesovo Beam**	**70.08**	**334**	P	**P**	**13 37 16.1**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=111,slow=7.9,SNR=2.4						
	comp=Z,0.6nm,0.5s						
ZALV	**Zalesovo Beam**	**70.08**	**334**	P	**P**	**13 37 16.4**	**-0.7**
KURBB	**Kurchatov Arra**	**70.99**	**329**	P	**P**	**13 37 22.4**	**-0.2**
	comp=Z,0.4nm,0.4s,baz=129,slow=5.0,SNR=6.7						
	comp=Z,0.4nm,0.4s						
KURK	**Kurchatov**	**70.99**	**329**	P	**P**	**13 37 22.4**	**-0.2**
KURK	**Kurchatov**	**70.99**	**329**	IAmb	IAmb	13 37 28.2	
	comp=Z,1.4nm,0.9s						
VNDA	**Vanda**	**73.76**	**173**	P	**P**	**13 37 38.4**	**-0.1**
	comp=Z,0.6nm,0.6s,baz=316,slow=11,SNR=6.5						
	comp=Z,0.6nm,0.6s						
VNDA	**Vanda**	**73.76**	**173**	IAmb	IAmb	13 38 05.5	
	comp=Z,3.7nm,1.4s						
SBA	**Scott Base**	**74.66**	**172**	P	**P**	**13 37 45.0**	**+1.4**
SBA				IAmb	IAmb	13 38 24.0	
	comp=Z,7.5nm,1.4s						
TIXI	**Tiksi**	**77.28**	**360**	P	**P**	**13 37 58.2**	**-0.2**
TIXI				IAmb	IAmb	13 37 58.4	
	comp=Z,2.1nm,0.8s						
QSPA	**South Pole Qui**	**84.18**	**180**	P	**P**	**13 38 35.0**	**-0.2**
	comp=Z,1.2nm,0.7s,baz=312,slow=7.0,SNR=10						
	comp=Z,1.2nm,0.7s						
QSPA	**South Pole Qui**	**84.18**	**180**	IAmb	IAmb	13 39 09.5	
	comp=Z,2.6nm,1.3s						
J16K	**Anvik River**	**86.45**	**25**	P	**P**	**13 38 46.9**	**+0.6**
J16K				IAmb	IAmb	13 39 08.6	
	comp=Z,6.5nm,1.1s						
L18K	**Granite Mounta**	**87.83**	**27**	P	**P**	**13 38 53.5**	**+0.7**
L18K				IAmb	IAmb	13 39 36.6	
	comp=Z,4.4nm,1.2s						
G19K	**Purcell Mounta**	**88.80**	**23**	P	**P**	**13 38 57.4**	**+0.1**
G19K				IAmb	IAmb	13 39 06.7	
	comp=Z,4.0nm,1.3s						
ILAR	**Eielson Array**	**92.66**	**25**	P	**P**	**13 39 15.5**	**+0.2**
	comp=Z,0.2nm,0.5s,baz=269,slow=6.1,SNR=1.2						
	comp=Z,0.2nm,0.5s						
CPUP	**Villa Florida**	**147.48**	**169**	PKPbc	**PKPbc**	**13 45 47.3**	**0.0**
	comp=Z,1.8nm,0.9s,baz=184,slow=4.9,SNR=4.8						

*IDC **23** 13:36:00.3±6.1,27°.43N×87°.03E,h0km,mb3.3/4, mbtmp3.3/5,ML3.8/1,MS3.5/1,Error ellipse: s-maj=336.9km s-min=23.4km az=66.0*
*DMN **23** 13:36:00.8±0.1,27°.26N×86°.55E,h25km,Ml4.2/7,Error ellipse: s-maj=5.9km s-min=1.9km az=34.0*
*NEIC **23** 13:36:04.6±1.9,27°.55N±0°.09×87°.0E±0°.2,h28km±8km, mb4.5/9,Error ellipse: s-maj=33.7km s-min=3.5km az=67.0*

ISC 23 13:35:59.7±1.3,**27°.29N**±0°.04×**86°.60E**±0°.04,**h8**km±9km, **n24**,σ0s**72**/31,**mb3.7**/9,**Nepal**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAMN	**Ramite**	**0.34**	**180**	Pg	**Pb**	**13 36 08.4**	**+0.2**
	baz=171,slow=0.0						
RAMN				Sg	**Sb**	**13 36 13.9**	**+0.1**
	5µm,0.3s,baz=171,slow=0.0						
EVN	**Everest**	**0.69**	**16**	Pg	**Pg**	**13 36 13.7**	**+0.5**
EVN				Sg	**Sg**	**13 36 21.4**	**-0.9**
ODAN	**Odare**	**0.83**	**121**	Pg	**Pn**	**13 36 17.8**	**-0.1**
	baz=117,slow=0.0						
ODAN				Sg	**Sn**	**13 36 29.9**	**-0.5**
	354nm,0.3s,baz=117,slow=0.0						
ODAN				AML	AML		
GUN	**Gumba**	**0.89**	**314**	Pg	**Pb**	**13 36 17.9**	**+0.3**
	baz=318,slow=0.0						
GUN				Sg	**Sb**	**13 36 30.3**	**+0.5**
	2µm,0.5s,baz=318,slow=0.0						
GUN				AML	AML		
PKI	**Pulchoki**	**1.09**	**285**	Pg	**Pn**	**13 36 21.4**	**-0.3**
	baz=287,slow=0.0						
PKI				Sg	**Sn**	**13 36 36.1**	**-1.0**
	239nm,0.2s,baz=287,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**1.10**	**285**	Pg	**Pn**	**13 36 21.7**	**-0.1**
	baz=287,slow=0.0						
PKIN				Sg	**Sn**	**13 36 36.3**	**-1.0**
	474nm,0.2s,baz=287,slow=0.0						
PKIN				AML	AML		
KKN	**Kakani**	**1.27**	**293**	Pg	**Pg**	**13 36 24.6**	**+0.4**
	baz=296,slow=0.0						
KKN				Sg	**Sn**	**13 36 42.1**	**+0.7**
	498nm,0.2s,baz=296,slow=0.0						
KKN				AML	AML		
DMN	**Daman**	**1.36**	**284**	Pg	**Pg**	**13 36 26.2**	**+0.3**
	baz=286,slow=0.0						
DMN				Sg	**Sg**	**13 36 43.8**	**+0.2**
	576nm,0.3s,baz=286,slow=0.0						
DMN				AML	AML		
GKN	**Gorkha**	**1.88**	**293**	Pg	**Pg**	**13 36 34.9**	**-0.9**
	baz=294,slow=0.0						
GKN				Sg	**Sb**	**13 36 58.6**	**+0.5**
	621nm,0.3s,baz=294,slow=0.0						
GKN				AML	AML		
MKAR	**Makanchi Array**	**19.76**	**351**	P	**Pn**	**13 40 31.4**	**-0.2**
	0.3nm,0.3s,baz=159,slow=12,SNR=14						
	0.4nm,0.3s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**19.76**	**351**	P	**P**	**13 40 29.1**	**-1.0**
KURBB	**Kurchatov Arra**	**24.10**	**347**	P	**P**	**13 41 16.8**	**+1.1**
	0.3nm,0.3s,baz=163,slow=8.9,SNR=4.4						
	0.3nm,0.3s						
KURK	**Kurchatov**	**24.17**	**348**	P	**P**	**13 41 17.4**	**+1.0**
KURK				IAmb	IAmb	13 41 18.6	
	comp=Z,1.6nm,0.8s						
ZALV	**Zalesovo Beam**	**26.66**	**358**	P	**P**	**13 41 39.7**	**+0.8**
	comp=Z,0.3nm,0.3s,baz=177,slow=8.7,SNR=2.0						
	comp=Z,0.3nm,0.3s						
KAAM	**Kaadhehdhoo**	**29.67**	**208**	P	P	13 42 10.9	+4.8
NRIK	**Noril'sk**	**42.08**	**1**	LR	LR	14 02 14.6	
	comp=Z,56nm,18.2s,baz=342,slow=38						
SOEI	**Soe**	**51.86**	**130**	P	**P**	**13 45 08.3**	**-0.7**
SOEI				IAmb	IAmb	13 45 20.0	
	comp=Z,11nm,0.9s						
WB0	**Warramunga Arr**	**65.81**	**130**	P	**P**	**13 46 46.9**	**+1.0**
WB0				IAmb	IAmb	13 47 19.9	
	comp=Z,6.5nm,1.4s						
WRA	**Warramunga Arr**	**65.90**	**130**	P	**P**	**13 46 46.9**	**+0.5**
	comp=Z,0.3nm,1.1s,baz=316,slow=6.3,SNR=2.0						
	comp=Z,0.3nm,1.1s						
WRAB	**Tennant Creek**	**65.90**	**130**	P	**P**	**13 46 47.1**	**+0.8**
WRAB				IAmb	IAmb	13 47 07.2	
	comp=Z,5.8nm,1.4s						
ASAR	**Alice Springs**	**68.21**	**133**	P	**P**	**13 47 01.9**	**+0.9**
	comp=Z,0.2nm,0.8s,baz=316,slow=6.3,SNR=4.0						
	comp=Z,0.2nm,0.8s						
J18K	**Innoko River**	**76.82**	**24**	P	**P**	**13 47 51.0**	**-0.8**
J18K				IAmb	IAmb	13 47 54.8	
	comp=Z,7.2nm,1.2s						
YKAW1	**Yellowknife Wh**	**88.96**	**10**	P	**P**	**13 48 54.8**	**+0.2**
SCHQ	**Schefferville**	**95.08**	**345**	P	**P**	**13 49 23.0**	**-0.2**

*IDC **23** 13:41:42.8±0.7,28°.57N×87°.35E,h0km,mb4.0/17, mbtmp4.0/21,ML3.5/3,MS3.2/5,Error ellipse: s-maj=26.5km s-min=12.3km az=51.0*
*DMN **23** 13:41:42.3±0.5,28°.71N×87°.40E,h10km,Ml4.9/8,Error ellipse: s-maj=8.4km s-min=4.2km az=26.0*
*GFZ **23** 13:41:45.9±0.3,29°.N±4°×8°.7E±°,h10km,M4.2/11, mb4.2/11,Error ellipse: s-maj=10.2km s-min=5.4km az=41.1,confirmed*
*NEIC **23** 13:41:45.2±0.9,28°.58N±0°.06×87°.23E±0°.09,h10km±1km, mb4.4/31,Error ellipse: s-maj=13.7km s-min=8.6km az=296.0*

ISC 23 13:41:43.9±1.6,**28°.63N**±0°.04×**87°.33E**±0°.04,**h4**km±11km, **n94**,σ1s**67**/100,**mb4.3**/34,**MS3.3**/4,**1D**,**Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EVN	**Everest**	**0.81**	**214**		**Pg**	**13 41 59.1**	**-0.3**
EVN					**Sg**	**13 42 10.1**	**+0.1**
EVN	**Everest**	**0.81**	**214**	P	**Pg**	**13 41 59.2**	**-0.2**
GUN	**Gumba**	**1.47**	**241**	Pg	**Pn**	**13 42 11.7**	**+0.2**
	baz=240,slow=0.0						
GUN				Sg	**Sb**	**13 42 31.4**	**+0.2**
	3µm,0.3s,baz=240,slow=0.0						
GUN				AML	AML		
ODAN	**Odare**	**1.76**	**178**	Pg	**Pb**	**13 42 17.3**	**+0.3**
	baz=180,slow=0.0						
ODAN				Sg	**Sg**	**13 42 41.2**	**+0.7**
	4µm,0.5s,baz=180,slow=0.0						
ODAN				AML	AML		
RAMN	**Ramite**	**1.79**	**201**	Pg	**Pb**	**13 42 16.9**	**-0.6**
	baz=202,slow=0.0						
RAMN				Sg	**Sg**	**13 42 41.3**	**-0.2**
	3µm,0.4s,baz=202,slow=0.0						
RAMN				AML	AML		
KKN	**Kakani**	**1.99**	**246**	Pg	**Pb**	**13 42 20.7**	**-0.2**
	baz=245,slow=0.0						
KKN				Sg	**Sg**	**13 42 48.3**	**+0.3**
	baz=245,slow=0.0						
PKI	**Pulchoki**	**2.00**	**239**	Pg	**Pb**	**13 42 21.7**	**+0.6**
	baz=238,slow=0.0						
PKI				Sg	**Sg**	**13 42 49.1**	**+0.9**
	883nm,0.3s,baz=238,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**2.00**	**239**	Pg	**Pb**	**13 42 21.7**	**+0.6**
	baz=238,slow=0.0						
PKIN				Sg	**Sg**	**13 42 49.5**	**+1.1**
	4µm,0.7s,baz=238,slow=0.0						
PKIN				AML	AML		
DMN	**Daman**	**2.21**	**243**	Pg	**Pb**	**13 42 25.5**	**+0.8**
	baz=242,slow=0.0						
DMN				Sg	**Sb**	**13 42 54.4**	**+1.8**
	2µm,0.6s,baz=242,slow=0.0						
DMN				AML	AML		
GKN	**Gorkha**	**2.46**	**256**	Pg	**Pb**	**13 42 27.6**	**-1.2**
	baz=254,slow=0.0						
GKN				Sg	**Sg**	**13 43 02.7**	**-0.2**
	3µm,0.5s,baz=254,slow=0.0						
GKN				AML	AML		
DANN	**Dangsing**	**3.16**	**266**	Sg	**Sg**	**13 43 24.1**	**-1.3**
	658nm,0.4s,baz=264,slow=0.0						
DANN				AML	AML		
LSA	**Lhasa**	**3.50**	**71**	Pn	**Pn**	**13 42 43.5**	**+3.8**
LSA				Sn	**Sn**	**13 43 24.9**	**+3.0**
LSA				smax	smax		
	comp=N,60nm,1.0s						
LSA				smax	smax		
	comp=E,35nm,0.7s						
DHUB	**DHUBRI**	**3.51**	**137**	*i* P	**Pn**	**13 42 38.1**	**-1.2**
SHL	**Shillong**	**5.07**	**126**	*i* P	Pn	13 42 56.2	-4.8
SHL				⇓ *i* S	**Sn**	**13 44 02.8**	**+2.7**
TEZP	**TEZPUR**	**5.25**	**111**	*i* P	Pn	13 42 53.9	-9.2
TEZP				*i* S	**Sn**	**13 43 58.4**	**-5.7**
ITAN	**ITANAGAR**	**5.84**	**103**	*i* S	Sn	13 44 09.0	-10
ITAN				IAML		13 44 22.8	
	comp=N,178nm,0.6s						
ZIRO	**ZIRO**	**5.86**	**99**	*i* P	Pn	13 43 00.7	-11
ZIRO				*i* S	Sn	13 44 07.6	-12
ZIRO				IAML		13 44 17.8	
	comp=N,255nm,0.8s						
KOHI	**KOHIMA**	**6.69**	**114**	*i* S	**Sn**	**13 44 36.8**	**-3.2**
MOKO	**MOKOCHONG**	**6.78**	**108**	*i* P	Pn	13 43 15.7	-8.7
MOKO				*i* S	**Sn**	**13 44 35.4**	**-6.8**
MOKO				IAML		13 44 45.0	
	comp=N,123nm,1.0s						
AZL	**Aizawl**	**6.84**	**134**	*i* P	**Pn**	**13 43 26.2**	**+0.9**
AZL				*i* S	**Sn**	**13 44 51.1**	**+7.4**
IMP	**Imphal**	**7.02**	**121**	*i* P	**Pn**	**13 43 23.9**	**-3.7**
IMP				*i* S	**Sn**	**13 44 49.9**	**+2.0**
NPW	**Naypyitaw**	**11.92**	**136**	P	**Pn**	**13 44 36.7**	**+2.0**
	comp=Z,14nm,1.4s						
NIL	**Nilore**	**13.06**	**296**		**Pn**	**13 44 48.3**	**-2.0**
NIL	**Nilore**	**13.06**	**296**	P	**Pn**	**13 44 50.2**	**-0.1**
	comp=Z,17nm,1.3s						
KSH2	**Kashi**	**14.32**	**320**	P	**Pn**	**13 45 07.3**	**-0.4**
KSH2				pP	P	13 45 11.9	-3.1
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**14.68**	**131**	Pn	**Pn**	**13 45 09.9**	**-2.6**
	comp=Z,0.2nm,0.3s,baz=305,slow=12,SNR=5.7						
CMAR				LR	LR	13 51 24.0	
	comp=Z,40nm,20.0s,baz=315,slow=40						
	comp=Z,0.6nm,0.6s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**14.68**	**131**	P	**P**	**13 45 19.7**	**+0.8**
GTA2	**Gaotai**	**14.93**	**40**	*e*P	**P**	**13 45 21.8**	**+0.1**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**15.12**	**327**	P	**Pn**	**13 45 20.4**	**+1.6**
	comp=Z,4.1nm,0.7s						
WMQ	**Urumqi**	**15.17**	**1**	*e*P	**Pn**	**13 45 21.5**	**+2.5**
WMQ				pmax	pmax		
	comp=Z,13nm,0.7s						
LZDM	**Lanzhou Array**	**15.64**	**58**	Pn	**Pn**	**13 45 24.6**	**-0.9**
	comp=Z,1.0nm,0.3s,baz=263,slow=10,SNR=4.1						
KBL	**Kabul**	**16.66**	**295**		**Pn**	**13 45 39.1**	**+0.6**
KBL	**Kabul**	**16.66**	**295**	P	**Pn**	**13 45 39.6**	**+1.1**
	comp=Z,12nm,0.8s						
AAK	**Ala-Archa**	**17.42**	**327**	P	**Pn**	**13 45 48.2**	**+0.3**
	baz=163,slow=14,SNR=1.4						
	comp=Z,0.8nm,0.4s						
ARK	**Arkit**	**18.14**	**320**	P	**Pn**	**13 45 56.6**	**-0.3**
	comp=Z,5.5nm,0.7s						
MKAR	**Makanchi Array**	**18.56**	**349**	P	**P**	**13 46 02.6**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=176,slow=9.8,SNR=7.7						
	comp=Z,0.8nm,0.7s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**18.56**	**349**	P	**P**	**13 46 02.2**	**+0.4**
MAKZ	**Makanchi**	**18.63**	**348**	P	**Pn**	**13 46 04.1**	**+1.3**
	comp=Z,2.4nm,1.0s						
XAN	**Xi'an**	**19.20**	**68**	P	**P**	**13 46 06.3**	**-2.7**
XAN				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KURBB	**Kurchatov Arra**	**22.96**	**346**	P	**P**	**13 46 49.6**	**+0.3**
	comp=Z,4.2nm,0.9s,baz=167,slow=9.2,SNR=21						
	comp=Z,4.2nm,0.9s						
KURK	**Kurchatov**	**23.03**	**346**		**P**	**13 46 50.4**	**+0.5**
KURK				IAmb	IAmb	13 46 52.7	
	comp=Z,8.3nm,0.9s						
KURK	**Kurchatov**	**23.03**	**346**	P	**P**	**13 46 51.7**	**+1.8**
	comp=Z,10nm,1.6s						
HHC	**Hu-ho-hao-te**	**23.27**	**52**	*e*P	**P**	**13 46 54.0**	**+1.3**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,71nm,4.2s						
SONM	**Songino Array**	**24.21**	**32**	P	**P**	**13 47 02.4**	**+0.6**
	comp=Z,1.1nm,0.6s,baz=222,slow=11,SNR=8.1						
	comp=Z,1.1nm,0.6s						
SONM	**Songino Array**	**24.21**	**32**	P	**P**	**13 47 03.3**	**+1.5**
ULN	**Ulaanbaatar**	**24.55**	**33**		**P**	**13 47 06.0**	**+1.1**
ULN	**Ulaanbaatar**	**24.55**	**33**	P	**P**	**13 47 05.6**	**+0.7**
	comp=Z,4.9nm,0.7s						
ZALV	**Zalesovo Beam**	**25.37**	**357**	P	**P**	**13 47 12.0**	**0.0**
	comp=Z,1.6nm,0.8s,baz=184,slow=10,SNR=7.7						
	comp=Z,1.6nm,0.8s						
BVAR	**Borovoye Array**	**27.40**	**338**	P	**P**	**13 47 30.0**	**-0.4**
	comp=Z,0.2nm,0.3s,baz=151,slow=9.2,SNR=3.1						
	comp=Z,0.2nm,0.3s						
AB31	**Akbulak array**	**29.37**	**322**		**P**	**13 47 48.5**	**+0.5**
AB31				IAmb	IAmb	13 47 49.5	
	comp=Z,4.8nm,1.4s						
ABKAR	**Akbulak array**	**29.37**	**322**	P	**P**	**13 47 48.5**	**+0.5**
AKTO	**Aktyubinsk**	**31.06**	**323**	LR	LR	14 00 40.7	
	comp=Z,39nm,19.6s,baz=60,slow=37						
KSRS	**Korea Array**	**34.93**	**65**	P	**P**	**13 48 35.1**	**-1.8**
	comp=Z,0.6nm,0.7s,baz=265,slow=7.8,SNR=2.3						
	comp=Z,0.6nm,0.7s						
JNU	**Nakatsue**	**37.45**	**72**	LR	LR	14 05 48.9	
	comp=Z,76nm,19.4s,baz=222,slow=39						
KBZ	**Khabaz**	**38.43**	**305**	P	**P**	**13 49 07.2**	**+0.6**
	comp=Z,2.2nm,0.7s,baz=126,slow=8.3,SNR=5.1						
	comp=Z,2.2nm,0.7s						
NRIK	**Noril'sk**	**40.75**	**0**	P	**P**	**13 49 26.1**	**+0.4**
	comp=Z,3.4nm,0.6s,baz=145,slow=11,SNR=4.8						
	comp=Z,3.4nm,0.6s						
NRIK	**Noril'sk**	**40.75**	**0**	IAmb	IAmb	13 49 30.1	
	comp=Z,7.0nm,1.1s						
MJAR	**Matsushiro Arr**	**43.17**	**66**	LR	LR	14 07 00.7	
	comp=Z,32nm,20.4s,baz=218,slow=35						
AKASG	**Malin Array Be**	**48.46**	**314**	P	**P**	**13 50 26.6**	**-0.8**
	comp=Z,0.5nm,0.4s,baz=85,slow=6.5,SNR=5.2						
	comp=Z,0.5nm,0.4s						
TIXI	**Tiksi**	**48.66**	**16**	P	**P**	**13 50 29.0**	**+0.3**
TIXI				IAmb	IAmb	13 50 32.2	
	comp=Z,2.9nm,0.8s						
FIA1	**FINESS Array S**	**51.60**	**327**	P	**P**	**13 50 51.2**	**0.0**
FINES	**FINESS Array B**	**51.60**	**327**	P	**P**	**13 50 50.9**	**-0.2**
	comp=Z,4.1nm,0.8s,baz=108,slow=8.0,SNR=12						
	comp=Z,4.1nm,0.8s						
FINES	**FINESS Array B**	**51.60**	**327**	P	**P**	**13 50 51.0**	**-0.2**
PABE	**Paberze**	**51.96**	**320**	P	**P**	**13 50 54.0**	**+0.1**
ARCES	**ARCESS Array B**	**53.69**	**337**	P	**P**	**13 51 06.6**	**0.0**
	comp=Z,3.3nm,0.7s,baz=113,slow=7.8,SNR=3.0						
	comp=Z,3.3nm,0.7s						
ARCES	**ARCESS Array B**	**53.69**	**337**	P	**P**	**13 51 06.8**	**+0.3**
ARCES				IAmb	IAmb	13 51 11.1	
	comp=Z,10nm,1.2s						
HFS	**Hagfors**	**57.55**	**325**	P	**P**	**13 51 33.9**	**-0.6**
	comp=Z,3.4nm,0.7s,baz=107,slow=8.5,SNR=5.0						
	comp=Z,3.4nm,0.7s						
GERES	**GERESS Array B**	**58.57**	**312**	P	**P**	**13 51 41.6**	**-0.3**
	comp=Z,0.7nm,0.5s,baz=88,slow=6.8,SNR=5.6						
	comp=Z,0.7nm,0.5s						
NOA	**NORSAR Array B**	**58.73**	**326**	P	**P**	**13 51 41.1**	**-1.7**
	comp=Z,1.4nm,0.8s,baz=90,slow=6.8,SNR=3.3						
NOA				LR	LR	14 17 56.1	
	comp=Z,28nm,19.7s,baz=335,slow=37						
	comp=Z,1.4nm,0.8s						
NC204	**NORSAR Array S**	**58.94**	**327**	P	**P**	**13 51 44.1**	**-0.1**
FITZ	**Fitzroy Crossi**	**59.41**	**137**	P	**P**	**13 51 47.5**	**-0.3**
KONO	**Kongsberg**	**59.64**	**325**	P	**P**	**13 51 48.6**	**-0.4**
WRA	**Warramunga Arr**	**66.27**	**131**	P	**P**	**13 52 33.0**	**-0.6**
	comp=Z,1.2nm,0.5s,baz=324,slow=6.5,SNR=18						
	comp=Z,1.2nm,0.5s						
WRA	**Warramunga Arr**	**66.27**	**131**	P	**P**	**13 52 33.6**	**0.0**
WRAB	**Tennant Creek**	**66.27**	**131**	P	**P**	**13 52 33.6**	**0.0**
WRAB				IAmb	IAmb	13 53 09.9	
	comp=Z,3.2nm,1.0s						
WR8	**Warramunga Arr**	**66.39**	**131**	P	**P**	**13 52 34.1**	**-0.3**
WR8				IAmb	IAmb	13 53 01.0	
	comp=Z,4.3nm,1.2s						
AS31	**Alice Springs**	**68.66**	**134**	P	**P**	**13 52 48.5**	**-0.3**
ASAR	**Alice Springs**	**68.66**	**134**	P	**P**	**13 52 48.6**	**-0.1**
	comp=Z,2.2nm,0.6s,baz=315,slow=6.2,SNR=30						
	comp=Z,2.2nm,0.6s						
D22K	**Ayikyak River**	**73.44**	**19**	P	**P**	**13 53 17.5**	**+0.3**
D22K				IAmb	IAmb	13 53 44.1	
	comp=Z,6.0nm,1.4s						
C26K	**Camden Bay**	**74.85**	**16**	P	**P**	**13 53 25.9**	**+0.7**
C26K				IAmb	IAmb	13 53 55.7	
	comp=Z,4.2nm,1.3s						
C27K	**Jago River**	**75.35**	**16**	P	**P**	**13 53 28.8**	**+0.6**
C27K				IAmb	IAmb	13 53 32.3	
	comp=Z,3.0nm,1.0s						
J20K	**Nowinta River**	**75.84**	**23**	P	**P**	**13 53 32.3**	**+1.2**
J20K				IAmb	IAmb	13 53 43.9	
	comp=Z,13nm,1.5s						
F25K	**Christian Rive**	**76.28**	**18**	P	**P**	**13 53 34.6**	**+1.0**
F25K				IAmb	IAmb	13 53 58.8	
	comp=Z,4.6nm,1.4s						
BMAR	**Burnt Mountain**	**76.68**	**18**	P	**P**	**13 53 36.8**	**+0.8**
A36M	**Sachs Harbour**	**77.14**	**10**	P	**P**	**13 53 38.7**	**+0.4**
A36M				IAmb	IAmb	13 53 59.1	
	comp=Z,5.0nm,1.1s						
E29M	**Blow River**	**77.68**	**16**	P	**P**	**13 53 41.7**	**+0.3**
E29M				IAmb	IAmb	13 53 42.5	
	comp=Z,3.7nm,1.1s						
ILAR	**Eielson Array**	**77.86**	**21**	P	**P**	**13 53 41.9**	**-0.6**
	comp=Z,0.6nm,0.6s,baz=306,slow=4.9,SNR=6.3						
	comp=Z,0.6nm,0.6s						
SKT	**Skwentna**	**78.14**	**24**	P	**P**	**13 53 44.2**	**0.0**
H29M	**Whitestone**	**79.24**	**17**	P	**P**	**13 53 49.9**	**-0.2**
H29M				IAmb	IAmb	13 53 58.5	
	comp=Z,7.8nm,1.4s						
STKA	**Stephens Creek**	**79.26**	**135**	P	**P**	**13 53 50.1**	**-0.5**
	comp=Z,2.5nm,0.8s,baz=314,slow=4.9,SNR=3.7						
	comp=Z,2.5nm,0.8s					

H08S1	**Diego Carcia H**	**37.43**	**269**	T	T	14 59 53.4	
	baz=94,slow=75,SNR=3.9						
HNR	**Honiara**	**49.00**	**95**	LR	LR	14 43 55.1	
	comp=Z,23nm,18.9s,baz=160,slow=38						
MKAR	**Makanchi Array**	**60.78**	**338**	P	**P**	**14 22 47.8**	**-1.3**
	0.4nm,0.4s,baz=150,slow=7.7,SNR=13						
	0.4nm,0.4s						
H04N2	**CROZET ISLANDS**	**62.02**	**222**	T	T	15 32 17.6	
	baz=74,slow=75,SNR=119						
H04N1	**CROZET ISLANDS**	**62.03**	**222**	T	T	15 32 17.4	
	baz=74,slow=75,SNR=99						
H04N3	**CROZET ISLANDS**	**62.03**	**222**	T	T	15 32 37.7	
	baz=74,slow=75,SNR=103						
KURBB	**Kurchatov Arra**	**65.35**	**338**	P	**P**	**14 23 18.0**	**-1.2**
	0.2nm,0.3s,baz=151,slow=6.2,SNR=2.7						
	0.2nm,0.3s						
ZALV	**Zalesovo Beam**	**66.19**	**344**	P	**P**	**14 23 23.3**	**-1.3**
	0.3nm,0.3s,baz=142,slow=4.9,SNR=1.8						
	0.3nm,0.3s						

*SKHL **23** 14:14:07.4±0.5, 43°.30N×145°.20E, h114km±4km, mb3.7/2, msha4.5/3*
*JMA **23** 14:14:07.3±0.2, 43°.3N±0°.6×145°.1E±0°.9, h114km±1km, MV2.5/31, NEMURO REGION*
ISC 23 14:14:07.3±2.7, 43°.33N±0°.08×145°.16E±0°.07, h114km±16km, n15, σ0°36/26, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JKHN	**Kushirohamanak**	**0.24**	**180**	P	**Pn**	**14 14 23.5**	**+0.3**
JKHN				S	**Sn**	**14 14 36.0**	**+0.8**
AKK	**Akkeshi**	**0.39**	**217**	*e*P	**Pn**	**14 14 23.4**	**-0.5**
AKK				*e*S	**Sn**	**14 14 35.8**	**-0.5**
JNK	**Nakash**	**0.41**	**309**	P	**Pn**	**14 14 23.9**	**-0.1**
JNK				S	**Sn**	**14 14 36.4**	**-0.2**
NMR	**Nemuro--Hokkai**	**0.42**	**84**	*i* P	**Pn**	**14 14 24.0**	**0.0**
NMR				*i* S	**Sn**	**14 14 36.1**	**-0.5**
NEM2	**Nemuro 2**	**0.43**	**85**	P	**Pn**	**14 14 24.0**	**-0.1**
NEM2				S	**Sn**	**14 14 36.3**	**-0.4**
JNSB	**Nemuroshibetsu**	**0.46**	**346**	P	**Pn**	**14 14 24.4**	**+0.1**
JNSB				S	**Sn**	**14 14 37.6**	**+0.5**
JAK	**Akkeshi**	**0.47**	**226**	P	**Pn**	**14 14 24.5**	**+0.2**
JAK				S	**Sn**	**14 14 37.5**	**+0.4**
JRA	**Rausu**	**0.61**	**358**	P	**Pn**	**14 14 25.1**	**-0.1**
JRA				S	**Sn**	**14 14 38.6**	**-0.3**
YUK	**Yuzh-Kuril'sk**	**0.87**	**36**	*e*P	**Pn**	**14 14 27.8**	**+0.4**
YUK				AMB	AMB	14 14 29.8	
	40nm,0.3s						
YUK				*i* S	**Sn**	**14 14 42.6**	**-0.1**
YUK				A	A	14 14 44.5	
	40nm,0.2s						
YUK				A	A	14 14 44.5	
	120nm,0.2s						
JAR	**Ashorobuto**	**1.01**	**269**	P	**Pn**	**14 14 29.0**	**+0.1**
JAR				S	**Sn**	**14 14 45.2**	**0.0**
JOB	**Onbets**	**1.06**	**247**	P	**Pn**	**14 14 29.7**	**+0.4**
JOB				*e*S	**Sn**	**14 14 45.9**	**-0.1**
JTKR	**Abashiri--Toko**	**1.11**	**306**	P	**Pn**	**14 14 29.8**	**-0.1**
SHO	**Shikotan**	**1.33**	**65**	*e*S	Sn	14 15 10.3	+19
SHO				A	A	14 15 11.3	
	30nm,0.3s						
SHO				A	A	14 15 11.3	
	40nm,0.3s						
JCH	**Churui**	**1.50**	**242**	P	**Pn**	**14 14 34.4**	**+0.1**
JCH				S	**Sn**	**14 14 54.1**	**-0.7**
JFR	**Furan**	**1.88**	**266**	P	**Pn**	**14 14 39.0**	**+0.1**

*AFAD **23** 14:19:09.2, 37°.91N×26°.68E, h7km±3km, ML2.3*
*THE **23** 14:19:09.7, 38°.N±1°.×26°.7E±1°.0, h10km±3km, M2.6/8, MLh2.6/8*
ISC 23 14:19:09.4±1.0, 37°.90N±0°.03×26°.67E±0°.03, h14km±7km, n18, σ0°54/33, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.23**	**49**	P	**Pg**	**14 19 14.2**	**-0.2**
DGB				IAML		14 19 17.0	
	comp=E,1μm,0.2s						
DGB				IAML		14 19 17.0	
	comp=N,940nm,0.2s						
DGB				S	**Sg**	**14 19 17.5**	**-0.3**
SMG	**Samos**	**0.24**	**145**	P	**Pg**	**14 19 14.7**	**+0.2**
SMG				S	**Sg**	**14 19 18.4**	**+0.3**
SMG				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.36**	**339**	P	**Pg**	**14 19 16.4**	**-0.4**
ZEYE				S	**Sg**	**14 19 22.4**	**+0.7**
ZEYE				IAML		14 19 23.0	
	comp=E,524nm,0.2s						
ZEYE				IAML		14 19 24.0	
	comp=N,538nm,0.3s						
BEYE	**izmir**	**0.38**	**32**	P	**Pg**	**14 19 17.0**	**-0.2**
BEYE				S	**Sg**	**14 19 21.8**	**-0.6**
BEYE				IAML		14 19 23.0	
	comp=E,301nm,0.2s						
BEYE				IAML		14 19 24.0	
	comp=N,378nm,0.5s						
GCAM	**G?zelcaml?**	**0.49**	**114**	P	**Pg**	**14 19 18.4**	**-0.8**
GCAM				S	**Sg**	**14 19 26.4**	**+0.7**
GCAM				IAML		14 19 30.0	
	comp=E,279nm,0.5s						
GCAM				IAML		14 19 30.0	
	comp=N,473nm,0.2s						
BLCB	**Balcova**	**0.57**	**31**	P	**Pg**	**14 19 20.4**	**-0.2**
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.64**	**134**	P	**Pg**	**14 19 21.1**	**-0.7**
DDIM				S	**Sb**	**14 19 31.3**	**+0.2**
DDIM				IAML		14 19 34.0	
	comp=E,481nm,0.7s						
DDIM				IAML		14 19 34.0	
	comp=N,436nm,0.4s						
CHOS	**Chios island**	**0.68**	**315**	P	**Pg**	**14 19 22.7**	**-0.1**
CHOS				S	**Sb**	**14 19 32.5**	**0.0**
CHOS				AML	AML		
DUVT	**Torbali**	**0.69**	**63**	P	**Pg**	**14 19 22.7**	**-0.2**
DUVT				S	**Sg**	**14 19 31.9**	**-0.2**
DUVT				IAML		14 19 34.0	
	comp=E,270nm,0.3s						
KARB	**zmir-Karabur**	**0.79**	**345**	P	**Pg**	**14 19 23.9**	**-0.8**
KARB				S	**Sb**	**14 19 35.5**	**+0.1**
KARB				IAML		14 19 40.0	
	comp=E,71nm,0.6s						
KARB				IAML		14 19 44.0	
	comp=N,72nm,0.3s						
BODT	**Bodrum**	**0.98**	**148**	P	**Pb**	**14 19 28.7**	**+0.4**
BODT				AML	AML		
CAMT	**Merkez**	**0.99**	**31**	P	**Pn**	**14 19 29.4**	**+0.5**
CAMT				S	**Sn**	**14 19 42.8**	**+0.1**
CAMT				IAML		14 19 44.0	
	comp=N,457nm,0.4s						
CAMT				IAML		14 19 46.0	
	comp=E,339nm,0.6s						
AYDN	**Tasoluk**	**0.99**	**104**	P	**Pg**	**14 19 27.9**	**-0.7**
AYDN				S	**Sg**	**14 19 41.0**	**-0.5**
AYDN				IAML		14 19 44.0	
	comp=E,118nm,0.5s						
AYDN				IAML		14 19 45.0	
	comp=N,91nm,0.4s						
BDRM	**Kayabasi**	**1.04**	**143**	P	**Pg**	**14 19 29.2**	**-0.3**
BDRM				S	**Sn**	**14 19 44.8**	**+0.8**
BDRM				IAML		14 19 46.0	
	comp=E,84nm,0.7s						
BDRM				IAML		14 19 48.0	
	comp=N,77nm,0.9s						
IZMR	**zmir-demi**	**1.04**	**77**	P	**Pg**	**14 19 28.6**	**-0.9**
IZMR				S	**Sg**	**14 19 42.7**	**-0.4**
IZMR				IAML		14 19 47.0	
	comp=E,80nm,0.4s						
IZMR				IAML		14 19 47.0	
	comp=N,42nm,0.4s						
ZEDA	**zmir-Bergama**	**1.11**	**17**	P	**Pg**	**14 19 30.2**	**-0.7**
ZEDA				S	**Sb**	**14 19 45.4**	**+0.6**
ZEDA				IAML		14 19 48.0	
	comp=E,97nm,0.4s						
ZEDA				IAML		14 19 49.0	
	comp=N,72nm,0.4s						
APE	**Apeiranthos**	**1.23**	**228**	P	**Pn**	**14 19 31.3**	**-0.9**
KIRA	**zmir-Kiraz**	**1.40**	**77**	P	**Pg**	**14 19 36.1**	**-0.2**
KIRA				S	**Sg**	**14 19 54.5**	**-0.1**
KIRA				IAML		14 19 59.0	
	comp=E,26nm,0.5s						
KIRA				IAML		14 19 59.0	
	comp=N,27nm,0.2s						

*IDC **23** 14:26:23.2±1.6, 32°.18N×49°.06E, h0km, mb3.8/7, mbtmp3.7/9, ML3.0/2, MS3.1/2, Error ellipse: s-maj=32.7km s-min=21.3km az=7.0*
*NEIC **23** 14:26:24.7±1.3, 32°.08N±0°.08×49°.18E±0°.04, h10km±1km, mb4.2/17, Error ellipse: s-maj=13.4km s-min=4.7km az=160.0*
*TEH **23** 14:26:25.2, 31°.95N×49°.02E, h9km±26km, ML3.6, Presumed earthquake*
ISC 23 14:26:25.0±0.6, 32°.06N±0°.04×49°.03E±0°.04, h20km, n54, σ1°80/49, mb4.0/13, Western Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AMIS	**Naft Sefid**	**0.45**	**151**	Pg	**Pb**	**14 26 32.8**	**-1.6**
AHWZ	**Ahwaz**	**0.80**	**204**	Pg	**Pb**	**14 26 38.7**	**-1.6**
JHBN	**Jahan bin**	**1.40**	**83**	Pg	**Pb**	**14 26 52.3**	**+1.7**
ZNGN	**Zangian**	**1.55**	**88**	Pg	**Pb**	**14 26 54.8**	**+1.6**
IKFM	**Kafar-mosalman**	**1.77**	**326**	Pn	**Pb**	**14 26 59.4**	**+2.7**
IBRJ	**Brojen**	**1.90**	**94**	Pn	**Pb**	**14 27 00.2**	**+1.0**
KLNJ	**Kolanjah**	**2.43**	**115**	Pn	**Pb**	**14 27 07.0**	**-1.2**
IBZA	**Bozab**	**2.59**	**338**	Pn	**Pb**	**14 27 11.2**	**+0.2**
HAGD	**Aghdareh**	**2.75**	**2**	Pn	**Pb**	**14 27 13.7**	**0.0**
KCHF	**Cheshme Sefid,**	**2.77**	**323**	Pn	**Pb**	**14 27 13.4**	**-0.5**
ILBA	**Ilam Banvizeh**	**2.84**	**304**	Pn	**Pb**	**14 27 13.1**	**-2.0**
IRAM	**Ramesheh**	**2.86**	**94**	Pn	**Pb**	**14 27 12.9**	**-2.6**
IALM	**Almabolaq**	**2.88**	**346**	Pn	**Pb**	**14 27 15.0**	**-0.9**
IGHG	**Ghaleghazi**	**3.06**	**318**	Pn	**Pb**	**14 27 16.9**	**-2.0**
KRSH	**Karshahi**	**3.23**	**53**	Pn	**Pb**	**14 27 19.9**	**-1.9**
IQOM	**Qom**	**3.25**	**31**	Pn	**Pb**	**14 27 20.0**	**-2.2**
ISFB	**Sefidab**	**3.53**	**49**	Pn	**Pb**	**14 27 23.3**	**-3.5**
QABG	**Abgarm-Qazvin**	**3.66**	**7**	Pn	**Pb**	**14 27 26.1**	**-3.2**
IVRN	**Varamin**	**3.69**	**37**	Pn	**Pb**	**14 27 25.7**	**-3.9**
TAFT	**Taft - Yazd**	**4.38**	**93**	Pn	Pb	14 27 34.2	-7.3
IGZV	**Ghazvin**	**4.42**	**13**	Pn	Pb	14 27 36.0	-6.1
RAYN	**Ar Rayn**	**9.06**	**201**	Pn	**Pn**	**14 28 33.3**	**-1.5**
UOSS	**Minazif**	**9.49**	**137**	Pn	**Pn**	**14 28 39.6**	**-0.9**
EIL	**Elat**	**12.33**	**263**	LR	LR	14 34 44.7	
	comp=Z,33nm,18.2s,baz=270,slow=40						
KBZ	**Khabaz**	**12.61**	**339**	Pn	**Pn**	**14 29 23.2**	**0.0**
	0.1nm,0.3s,baz=245,slow=15,SNR=2.1						
	1.4nm,0.8s						
KBZ				AML	AML		
BR131	**Keskin Array S**	**14.62**	**306**	Pn	**P**	**14 29 53.6**	**-3.5**
BRTR	**Keskin Array B**	**14.62**	**306**	Pn	**P**	**14 29 53.5**	**-3.5**
	0.1nm,0.3s,baz=132,slow=12,SNR=1.5						
	0.2nm,0.3s						
BRTR				AML	AML		
BZK	**Bozkurt**	**15.52**	**314**	Pn	**P**	**14 30 04.2**	**-2.7**
BZK				IAmb	IAmb	14 30 15.6	
	comp=Z,28nm,1.0s						
ARG	**Arkhangelos**	**17.79**	**289**		**P**	**14 30 33.7**	**+1.6**
ARG				IAmb	IAmb	14 30 51.8	
	comp=Z,69nm,1.5s						
AB31	**Akbulak array**	**19.03**	**22**	P	**Pn**	**14 30 45.8**	**-0.6**
ABKAR	**Akbulak array**	**19.03**	**22**	P	**Pn**	**14 30 45.9**	**-0.6**
TARG	**Taragay, Kyrgy**	**24.85**	**59**	P	**P**	**14 31 46.6**	**0.0**
TARG				IAmb	IAmb	14 31 57.8	
	comp=Z,19nm,1.5s						
SCTE	**Santa Cesarea**	**25.87**	**297**	P	**P**	**14 31 56.3**	**+0.9**
BVAR	**Borovoye Array**	**26.01**	**30**	P	**P**	**14 31 58.4**	**+1.8**
	comp=Z,1.2nm,0.6s,baz=228,slow=8.1,SNR=7.8						
	comp=Z,1.2nm,0.6s						
KURBB	**Kurchatov Arra**	**28.60**	**41**	P	**P**	**14 32 18.7**	**-1.1**
	comp=Z,0.2nm,0.5s,baz=244,slow=9.3,SNR=2.1						
	comp=Z,0.2nm,0.5s						
KURK	**Kurchatov**	**28.70**	**41**	P	**P**	**14 32 18.7**	**-1.9**
MAKZ	**Makanchi**	**29.15**	**50**	P	**P**	**14 32 25.5**	**+0.8**
MAKZ				IAmb	IAmb	14 32 59.7	
	comp=Z,4.1nm,1.5s						
PABE	**Paberze**	**29.30**	**330**	P	**P**	**14 32 27.0**	**+1.1**
MKAR	**Makanchi Array**	**29.35**	**50**	P	**P**	**14 32 27.9**	**+1.4**
	comp=Z,0.3nm,0.6s,baz=250,slow=12,SNR=3.9						
	comp=Z,0.3nm,0.6s						
MKAR	**Makanchi Array**	**29.35**	**50**	P	**P**	**14 32 27.4**	**+0.9**
FINES	**FINESS Array B**	**32.97**	**340**	P	**P**	**14 32 58.5**	**+0.4**
	comp=Z,4.2nm,0.9s,baz=136,slow=7.7,SNR=3.7						
	comp=Z,4.2nm,0.9s						
ZAA0	**Zalesovo Array**	**33.56**	**39**	P	**P**	**14 33 03.3**	**-0.1**
ZALV	**Zalesovo Beam**	**33.56**	**39**	P	**P**	**14 33 02.9**	**-0.5**
	comp=Z,0.6nm,0.3s,baz=239,slow=8.3,SNR=4.4						
	comp=Z,0.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**46.74**	**94**	P	**P**	**14 34 53.7**	**+0.6**
	comp=Z,0.5nm,0.3s,baz=286,slow=5.7,SNR=4.2						
	comp=Z,0.5nm,0.3s						
TORD	**Torodi Ar. Bea**	**47.16**	**258**	P	**P**	**14 34 57.8**	**+1.4**
	comp=Z,0.4nm,0.5s,baz=67,slow=7.8,SNR=2.1						
	comp=Z,0.4nm,0.5s						
TORD	**Torodi Ar. Bea**	**47.16**	**258**	IAmb	IAmb	14 35 19.3	
	comp=Z,2.5nm,1.4s						
TIXI	**Tiksi**	**56.73**	**22**	LR	LR	15 05 47.2	
	comp=Z,33nm,19.8s,baz=200,slow=42						
BOSA	**Boshof**	**64.44**	**203**	P	**P**	**14 37 02.5**	**+2.4**
F24K	**Squaw Lake**	**79.91**	**7**	P	**P**	**14 38 33.2**	**+1.1**
F24K				IAmb	IAmb	14 38 47.7	
	comp=Z,5.0nm,1.5s						
G19K	**Purcell Mounta**	**80.06**	**10**	P	**P**	**14 38 34.5**	**+1.6**
G19K				IAmb	IAmb	14 38 58.6	
	comp=Z,1.4nm,0.8s						
F30M	**Barrier River**	**80.57**	**2**	P	**P**	**14 38 36.4**	**+0.9**
F30M				IAmb	IAmb	14 39 14.5	
	comp=Z,5.1nm,1.4s						
H29M	**Whitestone**	**81.87**	**3**	P	**P**	**14 38 43.6**	**+1.1**
I30M	**Mount Dempster**	**82.94**	**2**	P	**P**	**14 38 49.2**	**+0.9**
I30M				IAmb	IAmb	14 39 23.0	
	comp=Z,1.2nm,1.1s						
SKT	**Skwentna**	**84.82**	**10**	P	**P**	**14 38 58.2**	**+0.4**

NOU 23 14:39:03.0, 17°.09S×167°.34E, h31km, ML4.0/13, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**1.64**	**355**	P	Pn	14 39 29.3	-0.4
SANVU	**Saraoutou**	**1.64**	**355**	S	Sn	14 39 50.3	+0.6
YATNC	**Mamie plateau,**	**4.96**	**185**	P	Pn	14 40 14.3	-1.1
NOUC	**Port Laguerre**	**5.08**	**191**	P	Pn	14 40 17.5	+0.5
ONTNC	**Ouen Toro**	**5.26**	**189**	P	Pn	14 40 20.3	+0.8
PINNC	**Pines Island,**	**5.50**	**179**	P	Pn	14 40 23.4	+0.7

*KRNET **23** 14:43:44.6±0.1, 41°.42N×69°.43E, h20km, mb2.6*
*ISU **23** 14:43:46, 41°.53N×69°.55E, h11km*
*SOME **23** 14:43:47.2, 41°.43N×69°.67E*
*NNC **23** 14:43:48.7±2.4, 41°.52N×69°.66E, h0km, mb2.3, mpv2.5, Error ellipse: s-maj=14.5km s-min=11.6km az=32.0*
ISC 23 14:43:43.6±1.7, 41°.47N±0°.04×69°.32E±0°.08, h0km, n19, σ1°22/36, 19C-5D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TVKS	**Tavaksay**	**0.28**	**67**	P	**Pg**	**14 43 49.2**	**+0.4**
TVKS				S	**Sg**	**14 43 51.2**	**-1.2**
CHRV	**Charvak**	**0.51**	**70**	P	**Pg**	**14 43 52.7**	**-0.6**
CHRV				S	**Sg**	**14 43 57.7**	**-2.2**
CHMG	**Chimgan**	**0.53**	**81**	P	**Pg**	**14 43 52.7**	**-1.0**
CHMG				S	**Sg**	**14 43 57.9**	**-2.6**
IUG	**luzhnay**	**0.86**	**38**	P	**Pg**	**14 44 01.2**	**+1.1**
IUG				S	**Sg**	**14 44 11.8**	**+0.4**
PSK	**Pskem**	**0.92**	**60**	P	**Pg**	**14 44 00.5**	**-0.6**
TRKS	**Terek-Say**	**1.37**	**87**	⇑*i*P	**Pg**	**14 44 09.3**	**-0.6**
TRKS				⇑*i*S	**Sg**	**14 44 27.1**	**-0.5**
BRLS	**Borolday**	**1.61**	**14**	P	**Pn**	**14 44 12.5**	**-0.8**
	1.2nm,0.1s						
BRLS				S	**Sn**	**14 44 31.2**	**-3.5**
	40nm,0.4s						
BTK	**Batken**	**1.81**	**141**	⇑*i*P	**Pn**	**14 44 16.3**	**+0.2**
BTK				⇑*i*S	**Sn**	**14 44 39.6**	**-0.3**
KK31	**Karatay Array**	**1.86**	**28**	⇑P	**Pg**	**14 44 20.1**	**+0.9**
	0.5nm,0.2s,baz=202,slow=16,SNR=9.7						
KK31				⇓S	**Sb**	**14 44 42.4**	**+0.1**
	4.1nm,0.3s,baz=204,slow=30,SNR=3.8						
ARK	**Arkit**	**2.01**	**80**	⇑*i*P	**Pn**	**14 44 20.2**	**+1.3**
ARK				⇑*i*S	**Sb**	**14 44 46.1**	**-0.6**
MNAS	**Manas**	**2.59**	**66**	⇑*i*P	**Pn**	**14 44 28.4**	**+1.6**
MNAS				⇑*i*S	**Sn**	**14 45 00.4**	**+1.4**
DRK	**Karamyk**	**2.75**	**136**	⇑*i*P	**Pn**	**14 44 30.1**	**+0.9**
DRK				⇑*i*S	**Sn**	**14 45 03.2**	**0.0**
ARSB	**Arslanbob**	**2.76**	**92**	⇑*i*P	**Pn**	**14 44 30.4**	**+1.1**
ARSB				⇑*i*S	**Sn**	**14 45 03.8**	**+0.4**
OHH	**Osh**	**2.79**	**109**	⇓*e*P	**Pn**	**14 44 30.8**	**+1.2**
OHH				⇓*e*S	**Sn**	**14 45 04.2**	**+0.2**

MRKS	**Merke**	**3.18**	**65**	Pg	**Pb**	**14 44 41.4**	**+0.4**
	0.3nm,0.1s						
MRKS				Lg	Lg	14 45 20.6	
	3.0nm,0.2s						
SALK	**Salom-Alik**	**3.45**	**98**	⇓*i*P	**Pn**	**14 44 40.0**	**+1.3**
SALK				⇓*i*S	**Sn**	**14 45 20.3**	**-0.1**
SFK	**Sufi-Kurgan**	**3.50**	**113**	⇑*e*P	**Pn**	**14 44 40.2**	**+0.8**
SFK				⇑*e*S	**Sn**	**14 45 21.4**	**-0.3**
EKS2	**Erkin-Say**	**3.53**	**69**	⇑*i*P	**Pn**	**14 44 41.4**	**+1.6**
EKS2				⇑*i*S	**Sn**	**14 45 22.8**	**+0.5**
UCH	**Uchtor**	**3.96**	**77**	⇑*e*P	**Pn**	**14 44 47.4**	**+1.5**
UCH				⇑*i*S	**Sn**	**14 45 33.2**	**-0.1**

*IDC **23** 14:46:12.8±2.0, 1°.04S×97°.25E, h0km, mb3.8/9, mbtmp3.8/10, ML4.5/1, Error ellipse: s-maj=70.8km s-min=19.6km az=57.0*
*NEIC **23** 14:46:14.4±1.0, 1°.11S±0°.09×97°.2E±0°.1, h10km±2km, mb4.3/11, Error ellipse: s-maj=19.3km s-min=14.3km az=243.0*
*DJA **23** 14:46:34.2±0.8, 1°.S±7°.×9°.9E±°, h148km±6km, M4.3/7, mb5.2/3, mB5.8/3, MLv3.8/7, Mw(mB)5.3/3*
ISC 23 14:46:17.2±0.9, 1°.13S±0°.10×97°.2E±0°.1, h35km, n41, σ0°59/30, mb3.8/11, Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**1.53**	**46**	P	Pn	14 46 59.4	+17
PBSI				AML	AML		
BKNI	**Bangkinang**	**4.12**	**69**	Pn	**Pn**	**14 47 17.0**	**-0.6**
RPSI	**Rantau Prapat**	**4.18**	**25**	Pn	**Pn**	**14 47 18.1**	**-0.3**
KRJI	**Kerinci**	**4.38**	**103**	P	**Pn**	**14 47 21.2**	**-0.1**
MNAI	**Manna**	**6.60**	**119**	Pn	**Pn**	**14 47 50.5**	**-1.3**
IPM	**Ipoh**	**6.76**	**35**	Pn	**Pn**	**14 47 53.6**	**-0.4**
PALK	**Pallekele**	**18.44**	**297**	P		**14 50 28.8**	**-1.1**
PALK				IAmb	IAmb	14 50 32.8	
	comp=Z,32nm,1.3s						
CMAR	**Chiang Mai Arr**	**19.54**	**5**	Pn	**Pn**	**14 50 42.7**	**-0.6**
	comp=Z,0.5nm,0.3s,baz=191,slow=11,SNR=5.1						
	comp=Z,0.6nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**19.54**	**5**	P	**P**	**14 50 41.0**	**-0.9**
KKM	**Kota Kinabalu**	**20.29**	**69**	P	**P**	**14 50 49.7**	**-0.6**
KKM				IAmb	IAmb	14 50 50.2	
	comp=Z,20nm,0.9s						
H08S2	**Diego Garcia H**	**25.44**	**255**	T	T	15 19 22.0	
	baz=75,slow=74						
H08S3	**Diego Garcia H**	**25.45**	**255**	T	T	15 19 28.9	
	baz=75,slow=74						
H08S1	**Diego Carcia H**	**25.46**	**255**	T	T	15 19 53.1	
	baz=75						
H01W3	**Cape Leeuwin H**	**37.12**	**157**	T	T	15 33 12.0	
	baz=333						
H01W2	**Cape Leeuwin H**	**37.13**	**157**	T	T	15 33 30.1	
	baz=333						
H01W1	**Cape Leeuwin H**	**37.14**	**157**	T	T	15 33 19.2	
	baz=333						
WRA	**Warramunga Arr**	**40.86**	**120**	P	**P**	**14 53 56.2**	**+0.2**
	comp=Z,0.9nm,1.0s,baz=302,slow=9.0,SNR=8.6						
	comp=Z,0.9nm,1.0s						
WRAB	**Tennant Creek**	**40.87**	**120**	P	**P**	**14 53 56.4**	**+0.2**
WR8	**Warramunga Arr**	**41.01**	**120**	P	**P**	**14 53 57.9**	**+0.6**
ASAR	**Alice Springs**	**42.05**	**125**	P	**P**	**14 54 06.7**	**+0.9**
	comp=Z,0.3nm,0.6s,baz=297,slow=7.4,SNR=11						
	comp=Z,0.3nm,0.6s						
AS31	**Alice Springs**	**42.05**	**125**	P	**P**	**14 54 06.4**	**+0.7**
BJT	**Baijiatuau**	**44.48**	**21**	P	**P**	**14 54 25.5**	**+0.4**
SONM	**Songino Array**	**49.42**	**8**	P	**P**	**14 55 04.3**	**+0.5**
	comp=Z,0.5nm,0.7s,baz=158,slow=4.2,SNR=1.7						
	comp=Z,0.5nm,0.7s						
SONM	**Songino Array**	**49.42**	**8**	P	**P**	**14 55 03.9**	**+0.2**
SONM				IAmb	IAmb	14 55 34.1	
	comp=Z,1.1nm,1.2s						
MKAR	**Makanchi Array**	**49.48**	**347**	P	**P**	**14 55 04.1**	**0.0**
	comp=Z,0.6nm,0.6s,baz=143,slow=8.4,SNR=5.8						
	comp=Z,0.6nm,0.6s						
MKAR	**Makanchi Array**	**49.48**	**347**	P	**P**	**14 55 04.5**	**+0.4**
PMG	**Port Moresby**	**50.38**	**101**	P	**P**	**14 55 12.0**	**+0.5**
KURBB	**Kurchatov Arra**	**53.96**	**345**	P	**P**	**14 55 38.0**	**+0.6**
	comp=Z,0.3nm,0.3s,baz=129,slow=7.3,SNR=4.1						
	comp=Z,0.3nm,0.3s						
KURK	**Kurchatov**	**54.02**	**346**	P	**P**	**14 55 38.0**	**+0.2**
KURK	**Kurchatov**	**54.02**	**346**	IAmb	IAmb	14 56 17.2	
	comp=Z,1.5nm,0.9s						
USRK	**Ussuriysk Ar.**	**54.77**	**30**	P	**P**	**14 55 43.4**	**0.0**
	comp=Z,3.7nm,0.8s,baz=186,slow=5.7,SNR=5.6						
	comp=Z,3.7nm,0.8s						
ZALV	**Zalesovo Beam**	**55.84**	**351**	P	**P**	**14 55 51.6**	**+0.7**
	comp=Z,1.3nm,0.5s,baz=174,slow=5.3,SNR=6.7						
	comp=Z,1.3nm,0.5s						
KLR	**Kul'dur**	**58.33**	**26**	P	**P**	**14 56 08.7**	**+0.1**
	comp=Z,1.4nm,0.8s,baz=225,slow=4.3,SNR=3.9						
	comp=Z,1.4nm,0.8s						
BVAR	**Borovoye Array**	**58.43**	**341**	P	**P**	**14 56 09.1**	**-0.3**
	comp=Z,0.5nm,0.6s,baz=152,slow=6.5,SNR=3.0						
	comp=Z,0.5nm,0.6s						
AB31	**Akbulak array**	**59.55**	**333**	P	**P**	**14 56 17.6**	**+0.5**
AB31				IAmb	IAmb	14 56 51.1	
	comp=Z,4.5nm,1.4s						
ABKAR	**Akbulak array**	**59.55**	**333**	P	**P**	**14 56 17.4**	**+0.2**

FITZ					IAmb	IAmb	15 00 14.8	
	comp=Z,0.5nm,0.9s							
WRAB	**Tennant Creek**	**59.01**	**148**	P	**P**	**P**	**15 00 44.9**	**-0.2**
WRAB					IAmb	IAmb	15 01 08.8	
	comp=Z,6.1nm,1.4s							
WRA	**Warramunga Arr**	**59.01**	**148**	P	**P**	**P**	**15 00 44.9**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=340,slow=7.1,SNR=4.9							
	comp=Z,0.8nm,0.8s							
WRA	**Warramunga Arr**	**59.01**	**148**	P	**P**	**P**	**15 00 44.7**	**-0.4**
WR8	**Warramunga Arr**	**59.09**	**147**	P	**P**	**P**	**15 00 45.5**	**-0.1**
WR8					IAmb	IAmb	15 00 51.2	
	comp=Z,7.0nm,1.4s							
ASAR	**Alice Springs**	**62.09**	**150**	P	**P**	**P**	**15 01 05.8**	**-0.3**
	comp=Z,0.4nm,0.6s,baz=339,slow=7.2,SNR=4.2							
	comp=Z,0.4nm,0.6s							
TOLK	**Toolik Lake Re**	**65.64**	**23**	P	**P**	**P**	**15 01 28.8**	**-0.1**
TOLK					IAmb	IAmb	15 01 35.9	
	comp=Z,2.7nm,1.2s							

*IDC **23** 14:51:08.5±4.0,8˚.37S×123˚.74E, h178km±39km, mb3.0/1, mbtmp3.8/4, Error ellipse: s-maj=103.7km s-min=15.2km az=59.0*
*NEIC **23** 14:51:08.2±1.1,8˚.24S±0˚.08×123˚.89E±0˚.09, h172km±8km, mb4.0/8, Error ellipse: s-maj=13.2km s-min=10.9km az=63.0*
*DJA **23** 14:51:08.1±0.5,8˚S±7˚×12˚4E±˚, h152km±6km, M3.8/8, mB4.2/1, mb4.3/2, MLv3.6/8, Mw(mB)3.3/1*
ISC 23 14:51:09.1±0.7, 8˚43S±0˚06×123˚84E±0˚06, h200km, n40, σ2§35/44, Flores region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SOEI	**Soe**	**1.39**	**162**	P	**Pn**	**14 51 40.9**	**-1.1**
SOEI	**Soe**	**1.39**	**162**	S	**Sn**	**14 52 06.7**	**-0.9**
SOEI	**Soe**	**1.39**	**162**		**Pn**	**14 51 40.1**	**-1.8**
SOEI				Sn	**Sn**	**14 52 05.6**	**-2.1**
SOEI	**Soe**	**1.39**	**162**	P	**Pn**	**14 51 40.7**	**-1.3**
SOEI				S	**Sn**	**14 52 04.2**	**-3.4**
SOEI				AML	AML		
MMRI	**Maumere**	**1.60**	**262**	P	**Pn**	**14 51 41.0**	**-2.7**
MMRI	**Maumere**	**1.60**	**262**	Pn	**Pn**	**14 51 41.2**	**-2.4**
MMRI	**Maumere**	**1.60**	**262**	P	**Pn**	**14 51 41.4**	**-2.3**
MMRI				AML	AML		
MMRI	**Maumere**	**1.60**	**262**	P	**Pn**	**14 51 41.4**	**-2.3**
	4µm296nm,0.9s						
EDFI	**Ende, Flores**	**2.15**	**261**	P	**Pn**	**14 51 47.7**	**-1.6**
EDFI				AML	AML		
EDFI	**Ende, Flores**	**2.15**	**261**	P	**Pn**	**14 51 47.6**	**-1.7**
WSI	**Waingapu**	**3.71**	**250**	P	**Pn**	**14 52 06.1**	**-1.2**
BSSI	**Bau Bau, Buton**	**4.02**	**304**	P	**Pn**	**14 52 09.6**	**-1.6**
BSSI				AML	AML		
PLAI	**Plampang**	**6.01**	**266**	P	**Pn**	**14 52 35.9**	**-0.6**
PLAI	**Plampang**	**6.01**	**266**	S	**Sn**	**14 53 42.7**	**-2.9**
DRS	**Darwin Rock St**	**8.01**	**120**	P	**Pn**	**14 53 02.0**	**-0.4**
MTN	**Manton Dam**	**8.41**	**122**	Pn	**Pn**	**14 53 06.5**	**-1.2**
KNRA	**Kununurra**	**8.67**	**147**		**Pn**	**14 53 10.3**	**-0.7**
FITZ	**Fitzroy Crossi**	**9.77**	**170**	P	**Pn**	**14 53 25.0**	**-0.4**
	0.9nm,0.3s,baz=353,slow=14,SNR=33						
FITZ				S	**Sn**	**14 55 11.0**	**-3.8**
	6.4nm,0.3s,baz=356,slow=16,SNR=12						
FITZ	**Fitzroy Crossi**	**9.77**	**170**		**Pn**	**14 53 25.3**	**-0.1**
FAKI	**Fak Fak**	**10.00**	**57**	P	**Pn**	**14 53 26.2**	**-2.2**
FAKI	**Fak Fak**	**10.00**	**57**	Pn	**Pn**	**14 53 26.1**	**-2.3**
WB0	**Warramunga Arr**	**15.22**	**139**	P	**P**	**14 54 36.9**	**+2.4**
WB0				IAmb	IAmb	14 54 40.1	
	comp=Z,3.9nm,0.9s						
WRA	**Warramunga Arr**	**15.31**	**140**	P	**P**	**14 54 36.9**	**+1.4**
	comp=Z,3.0nm,0.5s,baz=318,slow=13,SNR=40						
WRA				S	**S**	**14 57 18.5**	**-6.8**
	comp=Z,0.9nm,0.6s,baz=316,slow=24,SNR=6.2						
WRA	**Warramunga Arr**	**15.31**	**140**		**P**	**14 54 37.0**	**+1.4**
WRAB	**Tennant Creek**	**15.31**	**139**	P	**P**	**14 54 38.4**	**+2.9**
WRAB	**Tennant Creek**	**15.31**	**139**		**P**	**14 54 36.8**	**+1.3**
WRAB				IAmb	IAmb	14 54 40.5	
	comp=Z,6.7nm,1.4s						
WR8	**Warramunga Arr**	**15.42**	**139**		**P**	**14 54 38.2**	**+1.4**
WR8				IAmb	IAmb	14 54 40.9	
	comp=Z,5.2nm,0.5s						
AS31	**Alice Springs**	**17.96**	**149**		**Pn**	**14 55 08.5**	**+1.7**
ASAR	**Alice Springs**	**17.96**	**149**	P	**Pn**	**14 55 08.2**	**+1.4**
	comp=Z,1.6nm,0.5s,baz=328,slow=11,SNR=42						
ASAR				S	**S**	**14 58 24.7**	**+4.3**
	comp=Z,0.8nm,0.7s,baz=318,slow=20,SNR=8.4						
ASAR	**Alice Springs**	**17.96**	**149**	Pn	**Pn**	**14 55 08.6**	**+1.8**
AS01	**Alice Springs**	**17.99**	**149**	P	**Pn**	**14 55 08.2**	**+1.1**
MEEK	**Meekatharra**	**18.78**	**195**	P	**Pn**	**14 55 16.5**	**+0.2**
QIS	**Mount Isa**	**19.43**	**130**	P	**Pn**	**14 55 22.9**	**-1.2**
BBOO	**Buckleboo**	**26.78**	**157**	P	**P**	**14 56 33.9**	**+3.3**
BBOO	**Buckleboo**	**26.78**	**157**	P	**P**	**14 56 34.3**	**+3.8**
HTT	**Hallett**	**28.52**	**153**	P	**P**	**14 56 49.1**	**+3.0**
CMSA	**Cobar Meteorol**	**30.70**	**142**	P	**P**	14 57 09.7	+4.4
TLY	**Talaya**	**62.34**	**346**	P	**P**	**15 01 11.3**	**+1.1**
MKAR	**Makanchi Array**	**66.24**	**330**	P	**P**	**15 01 36.6**	**+1.0**
	comp=Z,0.3nm,0.5s,baz=130,slow=7.1,SNR=5.2						
	comp=Z,0.3nm,0.5s						
TIXI	**Tiksi**	**79.97**	**2**	P	**P**	**15 02 56.1**	**+0.6**
TIXI					IAmb	IAmb	15 03 28.7	
	comp=Z,5.6nm,1.4s							

*IDC **23** 14:52:41.4±1.0,35˚.47N×141˚.24E, h0km, mb3.3/4, mbtmp3.5/8, ML2.9/3, MS2.5/2, Error ellipse: s-maj=24.4km s-min=11.5km az=88.0*
*JMA **23** 14:52:46.6±0.1,35˚.5N±0˚.4×141˚.0E±0˚.5, h26km±2km, MV3.1/39, NEAR CHOSHI CITY*
ISC 23 14:52:44.4±0.8, 35˚48N±0˚.04×141˚16E±0˚.07, h33km, n24, σ1§71/20, mb3.4/4, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSMT	**Sammumatsuo**	**0.60**	**286**	*eP*	**Pb**	**14 52 56.4**	**-0.2**
JIHU	**Itakohorinouch**	**0.71**	**314**	P	**Pb**	**14 52 58.6**	**+0.3**
BSO4	**Boso 4**	**0.83**	**234**	P	**Pb**	**14 53 00.2**	**-0.1**
BSO1	**Boso 1**	**0.83**	**190**	P	**Pb**	**14 53 00.6**	**+0.5**
BSO3	**Boso 3**	**0.86**	**218**	P	**Pb**	**14 53 00.6**	**-0.1**
BSO3				S	**Sb**	**14 53 11.7**	**-0.1**
JYT	**Yasato**	**1.08**	**314**	P	**Pn**	**14 53 03.4**	**+0.2**
JHO	**Hitachi**	**1.23**	**337**	P	**Pn**	**14 53 05.7**	**+0.4**
JHJ	**Hachijo jima 2**	**2.61**	**206**	Pn	**Pn**	**14 53 25.4**	**+1.1**
	1.7nm,0.3s,baz=25,slow=19,SNR=2.4						
JHJ				Sn	**Sn**	**14 53 52.0**	**-2.8**
	4.3nm,0.3s,baz=31,slow=13,SNR=1.8						
	30nm,1.0s						
JHJ				AML	AML		
MJAR	**Matsushiro Arr**	**2.62**	**295**	Pn	**Pn**	**14 53 25.7**	**+1.4**
	0.5nm,0.3s,baz=123,slow=16,SNR=19						
MJAR				Sn	**Sb**	**14 54 01.1**	**-1.3**
	0.3nm,0.3s,baz=122,slow=41,SNR=5.2						
	2.3nm,0.3s						
MJAR				AML	AML		
JCJ	**Chichijima**	**8.40**	**174**	Pn	**Pn**	**14 54 40.5**	**-3.3**
	40nm,0.6s,baz=277,slow=18,SNR=6.2						
JCJ				Sn	Sn	14 56 05.0	-12
	baz=301,slow=19						
ASAJ	**Asahikawa**	**8.70**	**7**	Pn	**Pn**	**14 54 48.0**	**+0.2**
	0.5nm,0.3s,baz=162,slow=20,SNR=9.2						
ASAJ				Sn	**Sn**	**14 56 21.8**	**-2.9**
	baz=306,slow=16						
	6.9nm,0.9s						
ASAJ				AML	AML		
JNU	**Nakatsue**	**8.82**	**257**	LR	LR	14 58 38.9	
	comp=Z,49nm,19.4s,baz=60,slow=40						
KSRS	**Korea Array**	**10.84**	**284**	LR	LR	14 59 30.6	
	comp=Z,17nm,21.6s,baz=5.0,slow=37						
H11N2	**WAKE ISLAND Hy**	**27.57**	**118**	T	T	15 27 41.9	
	baz=310,slow=75,SNR=21						
H11N1	**WAKE ISLAND Hy**	**27.57**	**118**	T	T	15 27 36.2	
	baz=310,slow=75,SNR=18						
H11N3	**WAKE ISLAND Hy**	**27.58**	**118**	T	T	15 27 36.3	
	baz=310,slow=75,SNR=18						
H11S1	**WAKE ISLAND Hy**	**28.22**	**120**	T	T	15 28 17.5	
	baz=312,slow=75,SNR=99						
H11S3	**WAKE ISLAND Hy**	**28.22**	**120**	T	T	15 28 17.9	
	baz=312,slow=75,SNR=94						
H11S2	**WAKE ISLAND Hy**	**28.24**	**120**	T	T	15 28 16.4	
	baz=312,slow=75,SNR=60						
MKAR	**Makanchi Array**	**44.79**	**303**	P	**P**	**15 00 56.9**	**+2.0**
	0.1nm,0.4s,baz=76,slow=6.1,SNR=2.4						
	0.1nm,0.4s						
KURBB	**Kurchatov Arra**	**46.81**	**309**	P	**P**	**15 01 12.1**	**+1.4**
	0.2nm,0.3s,baz=84,slow=7.9,SNR=4.4						
	0.2nm,0.3s						
WRA	**Warramunga Arr**	**55.49**	**188**	P	**P**	**15 02 17.5**	**+1.4**
	0.5nm,0.9s,baz=2.7,slow=7.3,SNR=5.6						
	0.5nm,0.9s						
ASAR	**Alice Springs**	**59.22**	**188**	P	**P**	**15 02 45.4**	**+3.0**
	0.2nm,0.8s,baz=9.4,slow=7.1,SNR=2.6						
	0.2nm,0.8s						
LPAZ	**La Paz**	**147.64**	**61**	PKPbc	**PKPbc**	**15 12 27.1**	**+0.4**
	0.9nm,0.6s,baz=256,slow=8.3,SNR=4.5						

*IDC **23** 15:11:19.6±1.9,36˚.94N×141˚.24E, h0km, mb3.3/4, mbtmp3.3/6, ML2.7/2, Error ellipse: s-maj=37.4km s-min=23.1km az=24.0*
*NIED **23** 15:11:24.0,36˚.68N×140˚.97E, h17km, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr0.51; Mθθ-1.34; Mφφ0.83; Mrθ2.14; Mθφ0.22; Mφr1.34; Fault plane solution: M₀2.79000×10¹⁴ NP1: φs315.00000°, δ23.00000°, λ164.00000°. NP2: φs59.00000°, δ84.00000°, λ68.00000°.*
*JMA **23** 15:11:24.0±0.0,36˚.7N±0˚.1×141˚.0E±0˚.2, h17km±1km, MV3.5/40, E OFF IBARAKI PREF*
JMA Felt I J1 at E OFF IBARAKI PREF .
ISC 23 15:11:22.1±2.2, 36˚66N±0˚.05×141˚10E±0˚.10, h8km±11km, n20, σ1§23/21, mb3.2/4, 2D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHO	**Hitachi**	**0.43**	**264**	*i* P	**Pg**	**15 11 30.8**	**+0.3**
ONAJ	**Iwakimizuishiy**	**0.51**	**332**	*i* P	**Pb**	**15 11 32.9**	**-0.4**
ONAJ				*eS*	**Sg**	**15 11 39.2**	**+0.6**
JHYU	**Hitachinakayam**	**0.52**	**233**	*i* P	**Pb**	**15 11 33.2**	**-0.3**
JHYU				*eS*	**Sb**	**15 11 39.8**	**-1.3**
JFFD	**Fukushimafurud**	**0.61**	**315**	*i* P	**Pg**	**15 11 34.1**	**+0.1**
JFFD				*eS*	**Sg**	**15 11 41.5**	**-0.5**
JFK	**Kawauchi**	**0.73**	**346**	⇓*i* P	**Pb**	**15 11 36.9**	**-0.3**
JFK				⇓*eS*	**Sg**	**15 11 46.4**	**+0.6**
JYT	**Yasato**	**0.85**	**240**	*i* P	**Pb**	**15 11 38.7**	**-0.4**
JYT				*eS*	**Sg**	**15 11 49.1**	**-0.3**
JSB	**Shiboa**	**1.00**	**289**	*i* P	**Pb**	**15 11 41.5**	**-0.2**
JOTO	**OTAMA OYAMA**	**1.09**	**326**	*i* P	**Pg**	**15 11 43.0**	**-0.1**
JOTO				*eS*	**Sg**	**15 11 56.3**	**-1.0**
MJAR	**Matsushiro Arr**	**2.33**	**268**	Pn	**Pn**	**15 12 01.0**	**+0.3**
	1.3nm,0.3s,baz=75,slow=12,SNR=17						
MJAR				Sn	**Sn**	**15 12 31.0**	**+1.4**
	2.3nm,0.3s,baz=104,slow=19,SNR=12						
	22nm,0.4s						
MJAR				AML	AML		
KSRS	**Korea Array**	**10.56**	**278**	Pn	**Pn**	**15 13 56.1**	**+2.4**
	0.1nm,0.3s,baz=99,slow=16,SNR=1.4						
	1.1nm,0.9s						
KSRS				AML	AML		
SONM	**Songino Array**	**27.79**	**305**	P	**P**	**15 17 08.2**	**-3.4**
	0.2nm,0.4s,baz=94,slow=8.4,SNR=1.7						
	0.2nm,0.4s						
H11N2	**WAKE ISLAND Hy**	**28.18**	**120**	T	T	15 46 50.1	
	baz=313,slow=75,SNR=146						
H11N1	**WAKE ISLAND Hy**	**28.18**	**120**	T	T	15 46 50.7	
	baz=313,slow=75,SNR=137						
H11N3	**WAKE ISLAND Hy**	**28.19**	**120**	T	T	15 46 51.5	
	baz=313,slow=75,SNR=137						
H11S1	**WAKE ISLAND Hy**	**28.87**	**122**	T	T	15 47 38.5	
	baz=314,slow=76,SNR=344						
H11S3	**WAKE ISLAND Hy**	**28.87**	**122**	T	T	15 47 39.3	
	baz=314,slow=76,SNR=230						
H11S2	**WAKE ISLAND Hy**	**28.89**	**122**	T	T	15 47 43.8	
	baz=314,slow=76,SNR=179						
MKAR	**Makanchi Array**	**44.11**	**302**	P	**P**	**15 19 30.8**	**+0.1**
	0.3nm,0.7s,baz=81,slow=8.9,SNR=1.9						
	0.3nm,0.7s						
WRA	**Warramunga Arr**	**56.65**	**188**	P	**P**	**15 21 05.9**	**0.0**
	0.2nm,0.8s,baz=0.2,slow=7.6,SNR=1.3						
	0.2nm,0.8s						
ASAR	**Alice Springs**	**60.38**	**188**	P	**P**	**15 21 33.1**	**+1.3**
	0.3nm,0.9s,baz=1.9,slow=7.2,SNR=3.0						
	0.3nm,0.9s						

*CNRM **23** 15:19:27.8, 36˚.30N×7˚.93W, h30km, ML3.2*
*MDD **23** 15:19:33.0±0.9, 36˚.48N×7˚.61W, h40km, mb_Lg2.6/7, Error ellipse: s-maj=7.8km s-min=4.0km az=0.0*
*INMG **23** 15:19:33.9±1.7, 36˚.50N×7˚.62W, h31km±13km, ML1.8, Error ellipse: s-maj=6.1km s-min=4.2km az=4.0, #DIST_RANGE: LOCAL #IPMA_REGION: Golfo de Cadiz*
*IGIL **23** 15:19:34.1, 36˚.48N×7˚.63W, h31km*
*SFS **23** 15:19:34.1, 36˚.57N×7˚.62W, h45km, ML2.4/14, ML2.5/14, MLv2.5/10*
ISC 23 15:19:31.3±1.3, 36˚46N±0˚.04×7˚61W±0˚.04, h58km±18km, n51, σ1§38/85, 2D, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PBDV	**Barranco-do-Ve**	**0.82**	**342**	Pn	**Pn**	**15 19 47.4**	**+0.4**
PBDV				Sn	**Sn**	**15 19 57.2**	**-1.3**
PBDV	**Barranco-do-Ve**	**0.82**	**342**	⇓*eP*	**Pn**	**15 19 47.4**	**+0.4**
PBDV				*eS*	**Sn**	**15 19 57.6**	**-1.0**
PBDV				IAML		15 19 57.8	
PBDV				IAML		15 20 00.9	
PBDV				IAML		15 20 04.4	
EGRO	**El Granado**	**1.08**	**5**	Pn	**Pn**	**15 19 51.1**	**+0.8**
EGRO				Sn	**Sn**	**15 20 03.4**	**-1.0**
EGRO	**El Granado**	**1.08**	**5**	Pg	**Pn**	**15 19 51.0**	**+0.7**
EGRO				Sg	**Sn**	**15 20 03.6**	**-0.8**
EGRO				IVmb_Lg		15 20 05.4	
PFVI	**Vila Bisbo**	**1.19**	**305**	Pn	**Pn**	**15 19 52.1**	**+0.5**
PFVI				Sn	**Sn**	**15 20 06.1**	**-0.8**
PFVI	**Vila Bisbo**	**1.19**	**305**	*eP*	**Pn**	**15 19 52.2**	**+0.5**
PFVI				*eS*	**Sn**	**15 20 06.2**	**-0.7**
PFVI				IAML		15 20 10.8	
PFVI				IAML		15 20 18.8	
PFVI				IAML		15 20 22.7	
MORF	**Marmelete**	**1.19**	**316**	*eP*	**Pn**	**15 19 52.2**	**+0.4**
MORF	**Marmelete**	**1.19**	**316**	*eP*	**Pn**	**15 19 52.2**	**+0.4**
MORF				*eS*	**Sn**	**15 20 06.2**	**-0.8**
MORF				IAML		15 20 06.5	
MORF				IAML		15 20 07.4	
MORF				IAML		15 20 13.5	
PCVE	**Castro Verde**	**1.22**	**344**	Pn	**Pn**	**15 19 53.1**	**+1.0**
PCVE				Sn	**Sn**	**15 20 07.0**	**-0.7**
PCVE	**Castro Verde**	**1.22**	**344**	*eP*	**Pn**	**15 19 53.1**	**+1.0**
PCVE				*eS*	**Sn**	**15 20 07.7**	**-0.1**
PCVE				IAML		15 20 08.4	
PCVE				IAML		15 20 08.5	
PCVE				IAML		15 20 08.5	
PTEO	**Sao Teotonio**	**1.41**	**321**	*eP*	**Pn**	**15 19 55.4**	**+0.8**
PTEO				*eS*	**Sn**	**15 20 11.8**	**-0.3**
PTEO				IAML		15 20 12.8	
PTEO				IAML		15 20 14.4	
PTEO				IAML		15 20 22.6	
PTEO	**Sao Teotonio**	**1.41**	**321**	Pg	**Pn**	**15 19 55.4**	**+0.8**
PTEO				Sg	**Sn**	**15 20 11.4**	**-0.7**
MESJ	**Messejana**	**1.46**	**341**	*eP*	**Pn**	**15 19 56.0**	**+0.6**
MESJ	**Messejana**	**1.46**	**341**	*eP*	**Pn**	**15 19 56.3**	**+0.9**
ESPR	**Espera**	**1.47**	**73**	Pn	**Pn**	**15 19 56.8**	**+1.4**
ESPR				Sn	**Sn**	**15 20 14.2**	**+0.5**
EMIN	**Mina Concepcio**	**1.51**	**30**	Pn	**Pn**	**15 20 00.5**	**+4.5**
EMIN				Sn	**Sn**	**15 20 13.2**	**-1.4**
EMIN				IVmb_Lg		15 20 14.9	
PBEJ	**Beja**	**1.58**	**353**	*eP*	**Pn**	**15 19 57.9**	**+0.9**
PBEJ				S	**Sn**	**15 20 15.8**	**-0.6**
PLOUS	**Minas do Lousa**	**1.70**	**338**	*eP*	**Pn**	**15 19 59.4**	**+0.9**
PLOUS				S	**Sn**	**15 20 19.2**	**0.0**
PLOUS				IAML		15 20 28.8	
PLOUS				IAML		15 20 32.9	
PLOUS				IAML		15 20 37.3	
PBAR	**Barrancos**	**1.77**	**15**	Pn	**Pn**	**15 20 00.5**	**+1.0**
PBAR				Sn	**Sn**	**15 20 19.9**	**-1.2**
PBAR	**Barrancos**	**1.77**	**15**	*eP*	**Pn**	**15 20 00.6**	**+1.0**
PBAR				S	**Sn**	**15 20 20.1**	**-1.0**
PBAR				IAML		15 20 25.1	
PBAR				IAML		15 20 27.7	
PBAR				IAML		15 20 33.3	
EVO	**Evora**	**2.10**	**351**	*eP*	**Pn**	**15 20 05.1**	**+1.1**
MOE	**Montemor**	**2.14**	**344**	*eP*	**Pn**	**15 20 05.9**	**+1.2**
MOE				S	**Sn**	**15 20 29.4**	**-0.7**
MOE				IAML		15 20 32.4	
MOE				IAML		15 20 33.5	
MOE				IAML		15 20 43.6	
EBAD	**Badajoz**	**2.34**	**12**	Pn	**Pn**	**15 20 08.1**	**+0.7**
EBAD				Sn	**Sn**	**15 20 32.4**	**-2.6**
EBAD	**Badajoz**	**2.34**	**12**	Pn	**Pn**	**15 20 08.0**	**+0.7**
EBAD				Sn	**Sn**	**15 20 33.3**	**-1.7**
EBAD				IVmb_Lg		15 20 35.1	
PARRA	**Arraiolos**	**2.38**	**352**	⇓*eP*	**Pn**	**15 20 08.9**	**+1.0**
PARRA				S	**Sn**	**15 20 34.6**	**-1.2**
PARRA				IAML		15 20 36.0	
PARRA				IAML		15 20 36.0	
PARRA				IAML		15 20 50.3	
ECAB	**El Cabril**	**2.38**	**47**	Pn	**Pn**	**15 20 09.2**	**+1.3**
ECAB				Sn	**Sn**	**15 20 33.8**	**-2.2**
ECAB	**El Cabril**	**2.38**	**47**	Pn	**Pn**	**15 20 09.4**	**+1.5**
ECAB				Sn	**Sn**	**15 20 33.9**	**-2.1**
ECAB				IVmb_Lg		15 20 36.1	
PESTR	**Estremoz**	**2.41**	**0**	Pn	**Pn**	**15 20 09.2**	**+0.9**
PESTR				Sn	**Sn**	**15 20 33.8**	**-2.7**
PESTR	**Estremoz**	**2.41**	**0**	P	**Pn**	**15 20 07.7**	**-0.6**
PESTR				S	**Sn**	**15 20 38.6**	**+2.0**
PESTR	**Estremoz**	**2.41**	**0**	*eP*	**Pn**	**15 20 09.2**	**+0.9**
PESTR				S	**Sn**	**15 20 36.0**	**-0.5**
PESTR				IAML		15 20 36.7	
PESTR				IAML		15 20 36.7	
PESTR				IAML		15 20 37.2	
PMTG	**Montargil**	**2.65**	**350**	*eP*	**Pn**	**15 20 12.6**	**+1.0**
PMTG				S	**Sn**	**15 20 42.2**	**-0.3**
PMTG	**Montargil**	**2.65**	**350**	Pn	**Pn**	**15 20 12.4**	**+0.9**
PMTG				Sn	**Sn**	**15 20 41.6**	**-0.9**
PMAFR	**Mafra**	**2.82**	**333**	Pn	**Pn**	**15 20 15.1**	**+1.2**
PMAFR	**Mafra**	**2.82**	**333**	*eP*	**Pn**	**15 20 15.3**	**+1.4**
EGOR	**Sierra Gorda,**	**2.89**	**76**	Pn	**Pn**	**15 20 17.2**	**+2.3**
EADA	**Adamuz**	**2.96**	**54**	Pn	**Pn**	**15 20 17.0**	**+1.2**
EADA				Sn	**Sn**	**15 20 49.6**	**-0.5**
EADA	**Adamuz**	**2.96**	**54**	Pn	**Pn**	**15 20 17.0**	**+1.2**
EADA				Sn	**Sn**	**15 20 48.8**	**-1.3**
EADA				IVmb_Lg		15 20 52.2	
PMRV	**Marv??o**	**2.97**	**3**	*eP*	**Pn**	**15 20 16.9**	**+1.0**
PMRV				S	**Sn**	**15 20 49.6**	**-0.8**
PMRV				IAML		15 20 50.1	
PMRV				IAML		15 20 50.5	
PMRV				IAML		15 20 50.5	
ZHG	**ZHG**	**3.11**	**165**	P	Pn	15 20 16.6	-1.3
ZHG				S	**Sn**	**15 20 52.4**	**-1.5**
PSARD	**Sardoal**	**3.17**	**352**	*eP*	**Pn**	**15 20 19.9**	**+1.3**
PSARD				S	**Sn**	**15 20 54.9**	**-0.3**
PSARD				IAML		15 20 55.3	
PSARD				IAML		15 20 55.5	
PSARD				IAML		15 20 55.7	
PSBE	**So Bento**	**3.19**	**343**	*eP*	**Pn**	**15 20 20.6**	**+1.6**
PCBR	**Castelo Branco**	**3.38**	**2**	*eP*	**Pn**	**15 20 22.7**	**+1.2**
PCBR				S	**Sn**	**15 20 59.5**	**-0.8**
PCBR				IAML		15 21 00.8	
PCBR				IAML		15 21 00.8	
CIBOR	**Castaar de Ib**	**3.61**	**28**	Pn	**Pn**	**15 20 26.4**	**+1.6**
CIBOR				Sn	**Sn**	**15 21 04.4**	**-1.7**
EPLA	**Plasencia**	**3.80**	**18**	Pn	**Pn**	**15 20 27.6**	**+0.4**
EPLA				Sn	**Sn**	**15 21 08.2**	**-2.5**
EPLA				IVmb_Lg		15 21 09.5	
PSIM	**Granatula de C**	**3.86**	**51**	Sn	**Sn**	**15 21 10.4**	**-1.9**
PAB	**San Pablo**	**4.02**	**39**	Pn	**Pn**	**15 20 30.3**	**0.0**
PAB				Sn	**Sn**	**15 21 12.4**	**-3.8**
PAB				IVmb_Lg		15 21 13.9	
MDT	**Midelt**	**4.40**	**145**	P	Pn	15 20 32.4	-3.2
MDT				Sn	**Sn**	**15 21 24.4**	**-1.2**
OUK	**Oukaimeden**	**5.24**	**182**	P	Pn	15 20 42.4	-5.0
OUK				S	Sn	15 21 41.2	-5.4
PGAV	**Gavieira, Arco**	**5.52**	**355**	*eP*	**Pn**	**15 20 52.8**	**+1.8**
TIO	**Tiouine**	**5.52**	**177**	P	Pn	15 20 47.0	-4.0
TIO				Sn	Sn	15 21 47.8	-5.5
OUZM	**OUZ**	**5.58**	**172**	P	Pn	15 20 47.2	-4.6
OUZM				Sn	**Sn**	**15 21 52.5**	**-2.2**

*SOME **23** 15:22:32.5, 42˚.10N×72˚.17E, h0km*
*KRNET **23** 15:22:32.2±0.1, 42˚.06N×72˚.06E, h30km, mb2.5*
*NNC **23** 15:22:34.9±1.0, 42˚.21N×72˚.04E, h0km, mb2.5, mpv2.9, Error ellipse: s-maj=16.0km s-min=4.2km az=177.0*
ISC 23 15:22:33.5±0.9, 42˚03N±0˚.02×72˚10E±0˚.02, h17km±7km, n26, σ0§66/50, 23C-13D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ARK	**Arkit**	**0.25**	**204**	⇑*iP*	**Pg**	**15 22 39.4**	**+0.2**
ARK				⇑*iS*	**Sg**	**15 22 44.2**	**+1.1**
MNAS	**Manas**	**0.55**	**33**	⇓*iP*	**Pg**	**15 22 43.4**	**-1.1**
MNAS				⇓*iS*	**Sg**	**15 22 51.2**	**-0.7**
TRKS	**Terek-Say**	**0.87**	**236**	⇑*iP*	**Pb**	**15 22 49.2**	**-1.1**
TRKS				⇑*iS*	**Sb**	**15 23 01.4**	**-0.3**
ARSB	**Arslanbob**	**0.96**	**136**	⇓*iP*	**Pb**	**15 22 51.1**	**-0.7**
ARSB				⇓*iS*	**Sb**	**15 23 04.8**	**+0.5**
MRKS	**Merke**	**1.10**	**49**	P	**Pb**	**15 22 53.9**	**-0.2**
	8.0nm,0.1s						
MRKS	

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUSD	**Kusadasi-Aydin**	**0.15**	**124**	Pg	**Pg**	**15 31 58.4**	**-0.3**
KUSD				Sg	**Sg**	**15 32 01.2**	**+0.1**
KUSD				AML	AML		
GMLD	**Gumuldur**	**0.21**	**308**	Pg	**Pg**	**15 31 59.5**	**-0.2**
GMLD				Sg	**Sg**	**15 32 03.3**	**+0.6**
GMLD				AML	AML		
DGB	**zmir**	**0.22**	**299**	P	**Pg**	**15 31 59.8**	**0.0**
DGB				S	**Sg**	**15 32 02.3**	**-0.6**
GCAM	**G?zelcaml?**	**0.26**	**161**	P	**Pg**	**15 32 00.4**	**-0.1**
GCAM				S	**Sg**	**15 32 03.5**	**-0.5**
GCAM				IAML		15 32 04.0	
	comp=E,1μm,0.2s						
GCAM				IAML		15 32 05.0	
	comp=N,2μm,0.3s						
GCAM	**G?zelcaml?**	**0.26**	**161**	Pg	**Pg**	**15 32 00.3**	**-0.2**
GCAM				Sg	**Sg**	**15 32 04.4**	**+0.3**
GCAM				AML	AML		
BEYE	**izmir**	**0.32**	**331**	P	**Pg**	**15 32 01.7**	**0.0**
BEYE				S	**Sg**	**15 32 04.8**	**-1.2**
SMG	**Samos**	**0.33**	**224**	P	**Pg**	**15 32 01.4**	**-0.4**
SMG				S	**Sg**	**15 32 06.7**	**+0.5**
SMG				AML	AML		
SMG	**Samos**	**0.33**	**224**	P	**Pg**	**15 32 01.5**	**-0.4**
SMG				S	**Sg**	**15 32 06.5**	**+0.3**
KRL1	**Karlovasi Samo**	**0.36**	**246**	P	**Pg**	**15 32 01.8**	**-0.6**
KRL1				S	**Sg**	**15 32 07.6**	**+0.3**
KRL1				AML	AML		
DUVT	**Torbali**	**0.37**	**43**	P	**Pg**	**15 32 02.6**	**-0.1**
DUVT				S	**Sg**	**15 32 06.4**	**-1.3**
DUVT				IAML		15 32 07.0	
	comp=E,636nm,0.1s						
BLCB	**Balcova**	**0.44**	**351**	P	**Pg**	**15 32 03.8**	**-0.2**
BLCB				S	**Sg**	**15 32 09.7**	**-0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.44**	**351**	Pg	**Pg**	**15 32 03.6**	**-0.3**
BLCB				AML	AML		
SAM2	**Drakei, Karlov**	**0.45**	**246**	P	**Pg**	**15 32 03.5**	**-0.5**
SAM2				S	**Sg**	**15 32 09.1**	**-0.9**
SAM2				AML	AML		
DDIM	**Aydin, Didim**	**0.50**	**169**	P	**Pg**	**15 32 04.9**	**0.0**
ZEYE	**Izmir, Urla-Ze**	**0.57**	**301**	P	**Pg**	**15 32 06.2**	**-0.1**
ZEYE				S	**Sg**	**15 32 13.9**	**0.0**
ZEYE				IAML		15 32 14.0	
	comp=N,296nm,0.2s						
AYDN	**Tasoluk**	**0.66**	**115**	P	**Pg**	**15 32 08.2**	**+0.2**
IZMR	**zmir-demi**	**0.68**	**73**	P	**Pg**	**15 32 08.0**	**-0.4**
BAGT	**Foa**	**0.74**	**343**	P	**Pg**	**15 32 09.7**	**+0.1**
KRBN	**Karaburun**	**0.79**	**325**	Pg	**Pg**	**15 32 09.9**	**-0.5**
KRBN				AML	AML		
CAMT	**Merkez**	**0.81**	**10**	P	**Pg**	**15 32 11.0**	**0.0**
FOCM	**Foa**	**0.83**	**338**	Pg	**Pg**	**15 32 10.6**	**-0.6**
FOCM				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.83**	**171**	Pg	**Pg**	**15 32 10.9**	**-0.3**
YKAV				AML	AML		
MLSB	**Milas**	**0.83**	**141**	Pg	**Pg**	**15 32 10.8**	**-0.4**
MLSB				AML	AML		
BODT	**Bodrum**	**0.89**	**170**	P	**Pg**	**15 32 12.1**	**-0.3**
BODT				S	**Sb**	**15 32 24.7**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**170**	Pg	**Pg**	**15 32 12.1**	**-0.3**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**322**	P	**Pg**	**15 32 12.3**	**-0.4**
KARB				S	**Sg**	**15 32 23.7**	**-1.0**
KARB				IAML		15 32 30.0	
	comp=N,91nm,0.4s						
BDRM	**Kayabasi**	**0.92**	**164**	P	**Pg**	**15 32 12.2**	**-0.6**
NAZL	**Nazilli-Aydin**	**0.92**	**89**	Pg	**Pg**	**15 32 12.6**	**-0.4**
NAZL				AML	AML		
CHOS	**Chios island**	**0.95**	**298**	P	**Pb**	**15 32 13.6**	**-0.2**
CHOS				S	**Sb**	**15 32 27.3**	**+0.8**
CHOS				AML	AML		
CHOS	**Chios island**	**0.95**	**298**	Pg	**Pg**	**15 32 13.5**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.95**	**298**	P	**Pb**	**15 32 13.6**	**-0.2**
CHOS				S	**Sb**	**15 32 27.3**	**+0.8**
CHOS				AML	AML		
ESEN	**Aydn-Nazilli**	**0.98**	**98**	P	**Pg**	**15 32 13.7**	**-0.4**
GOMA	**Golmarmara-Man**	**0.98**	**39**	Pg	**Pg**	**15 32 14.1**	**0.0**
GOMA				AML	AML		
KLNA	**Kalymnos**	**0.99**	**187**	P	**Pg**	**15 32 14.0**	**-0.3**
KLNA				S	**Sg**	**15 32 26.6**	**-0.7**
KLNA				AML	AML		
ZEDA	**zmir-Bergama**	**1.02**	**358**	P	**Pg**	**15 32 14.6**	**-0.3**
KIRA	**zmir-Kiraz**	**1.04**	**76**	P	**Pg**	**15 32 14.9**	**-0.3**
KTTT	**Salihli**	**1.06**	**45**	P	**Pg**	**15 32 15.3**	**-0.4**
AKHS	**Akhisar**	**1.08**	**30**	P	**Pg**	**15 32 15.1**	**-0.8**
AKHS				S	**Sg**	**15 32 28.8**	**-1.1**
AKHS				IAML		15 32 34.0	
	comp=N,176nm,0.3s						
AKS	**Akhisar**	**1.08**	**30**	Pn	**Pg**	**15 32 15.1**	**-0.8**
AKS				AML	AML		
DKL	**Dikili**	**1.14**	**351**	Pn	**Pg**	**15 32 16.5**	**-0.6**
DKL				AML	AML		
MULA	**Mugla, Merkez-**	**1.17**	**126**	P	**Pn**	**15 32 18.4**	**+0.7**
YER	**Yerkesik**	**1.23**	**131**	P	**Pb**	**15 32 18.8**	**+0.3**
SOMA	**Soma-Manisa**	**1.25**	**15**	Pn	**Pn**	**15 32 18.6**	**-0.1**
SOMA				AML	AML		
MANT	**Manisa**	**1.25**	**64**	P	**Pg**	**15 32 19.2**	**-0.1**
GORD	**Gordes-Manisa**	**1.27**	**40**	Pn	**Pn**	**15 32 19.1**	**+0.1**
GORD				AML	AML		
YAZI	**Mula-Dat§a-**	**1.29**	**168**	P	**Pn**	**15 32 19.2**	**0.0**
SULTU	**Buldan**	**1.30**	**85**	P	**Pg**	**15 32 20.4**	**+0.1**
HARTU	**Esme**	**1.38**	**73**	P	**Pb**	**15 32 21.3**	**+0.2**
AYVA	**Ayvalik**	**1.40**	**346**	P	**Pb**	**15 32 21.7**	**+0.2**
PRK	**Paraskevi**	**1.46**	**333**	P	**Pb**	**15 32 22.8**	**+0.4**
PRK				AML	AML		
PRK	**Paraskevi**	**1.46**	**333**	P	**Pg**	**15 32 23.1**	**-0.2**
PRK				S	**Sg**	**15 32 42.5**	**+0.3**
TURN	**Turunc**	**1.47**	**142**	P	**Pn**	**15 32 20.6**	**-1.0**
TAVA	**DENIZLI_Tavas**	**1.50**	**108**	P	**Pg**	**15 32 24.1**	**+0.2**
STEP	**BALIKESIR_Sava**	**1.50**	**18**	P	**Pb**	**15 32 23.2**	**+0.1**
APE	**Apeiranthos**	**1.54**	**236**	P	**Pb**	**15 32 23.6**	**-0.3**
APE	**Apeiranthos**	**1.54**	**236**	P	**Pn**	**15 32 22.2**	**-0.5**
APE				S	**Sn**	**15 32 43.0**	**+0.2**
BUHA	**Balikesir, Bur**	**1.55**	**359**	P	**Pb**	**15 32 24.3**	**+0.3**
KOCA	**Canakkale, Ayv**	**1.74**	**334**	P	**Pn**	**15 32 26.4**	**+1.0**
THERA	**Ancient Thera,**	**2.06**	**220**	P	**Pb**	**15 32 33.2**	**+0.7**
THR3	**Thira Island,**	**2.06**	**222**	P	**Pg**	**15 32 33.6**	**-1.1**
SNT5	**Nea Kammeni, S**	**2.07**	**222**	P	**Pb**	**15 32 33.6**	**+0.8**

*SARA **23** 15:32:18.8±0.2, 42°.809N±0°.005×12°.732E±0°.007, h0km, ML2.5/4, Mwp2.4/4*
*ROM **23** 15:32:19.2±0.1, 42°.842N±0°.004×12°.744E±0°.005, h8km, ML1.5/20, Error ellipse: s-maj=0.4km s-min=0.3km az=144.0*

ISC 23 15:32:19.7±1.1, 42°.85N±0°.03×12°.75E±0°.03, h6km±7km, n17, σ0§96/34, 1C-1D, Central Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TREV	**Trevi**	**0.03**	**351**	Pg	**Pg**	**15 32 20.6**	**-0.3**
TREV				Sg	**Sg**	**15 32 21.7**	**-0.2**
MOMA	**Monte Martano**	**0.14**	**252**	P	**Pg**	**15 32 22.6**	**0.0**
MOMA				S	**Sg**	**15 32 25.2**	**+0.7**
MOMA				AML	AML		
	comp=N,236μm,0.2s						
MOMA				AML	AML		
	comp=E,417μm,0.5s						
CESI	**CESI - Serrava**	**0.20**	**35**	P	**Pg**	**15 32 24.0**	**+0.3**
CESI				S	**Sg**	**15 32 27.6**	**+1.4**
CESI				AML	AML		
	comp=N,315μm,1.4s						
CESI				AML	AML		
	comp=E,226μm,0.3s						
CESI				AML	AML		
	comp=N,315μm,0.6s						
ASSB	**Assisi San Ben**	**0.21**	**341**	⇑P	**Pg**	**15 32 24.1**	**+0.2**
ASSB				S	**Sg**	**15 32 27.9**	**+1.3**
ASSB				AML	AML		
	comp=E,194μm,0.4s						
ASSB				AML	AML		
	comp=N,276μm,1.1s						
ASSB	**Assisi San Ben**	**0.21**	**341**	Pg	**Pg**	**15 32 24.1**	**+0.2**
ASSB				Sg	**Sg**	**15 32 27.9**	**+1.3**
BETT	**Bettona**	**0.25**	**306**	Pg	**Pg**	**15 32 24.7**	**+0.1**
BETT				Sg	**Sg**	**15 32 29.0**	**+1.1**
NOCU	**Nocera Umbra**	**0.26**	**9**	Pg	**Pg**	**15 32 25.1**	**+0.2**
NOCU				Sg	**Sb**	**15 32 30.5**	**-1.1**
CESX	**Cesi**	**0.27**	**208**	P	**Pg**	**15 32 25.7**	**+0.7**
CESX				S	**Sg**	**15 32 29.4**	**+0.9**
CESX				AML	AML		
	comp=E,143μm,0.8s						
CESX				AML	AML		
	comp=N,147μm,0.3s						
NRCA	**Norcia**	**0.27**	**93**	P	**Pg**	**15 32 25.2**	**+0.2**
NRCA				S	**Sb**	**15 32 30.1**	**-1.8**
NRCA				AML	AML		
	comp=E,193μm,0.4s						
NRCA				AML	AML		
	comp=N,134μm,1.0s						
FDMO	**Fiordimonte**	**0.31**	**52**	P	**Pg**	**15 32 26.2**	**+0.4**
FDMO				S	**Sg**	**15 32 31.5**	**+1.5**
FDMO				AML	AML		
	comp=E,95μm,0.7s						
FDMO				AML	AML		
	comp=N,115μm,0.1s						
MML1	**Montelago di S**	**0.31**	**31**	P	**Pg**	**15 32 25.9**	**0.0**
MML1				S	**Sg**	**15 32 31.6**	**+1.5**
MC2	**Monte Cornacci**	**0.33**	**78**	P	**Pg**	**15 32 26.6**	**+0.3**
MC2				S	**Sb**	**15 32 32.6**	**-1.3**
ATCC	**AVT- Casa Cast**	**0.35**	**347**	P	**Pg**	**15 32 26.9**	**+0.3**
ATCC				S	**Sb**	**15 32 32.8**	**-1.4**
ATCC				AML	AML		
	comp=N,107μm,1.6s						
ATCC				AML	AML		
	comp=E,109μm,0.4s						
ATCC				AML	AML		
	comp=N,107μm,0.4s						
CSP1	**Cessapalombo**	**0.41**	**53**	P	**Pg**	**15 32 28.2**	**+0.4**
CSP1				S	**Sb**	**15 32 35.1**	**-1.1**
CSP1				AML	AML		
	comp=E,192μm,0.5s						
CSP1				AML	AML		
	comp=N,272μm,0.7s						
CSP1				AML	AML		
	comp=N,273μm,0.7s						
CSP1				AML	AML		
	comp=N,273μm,1.3s						
CSP1				AML	AML		
	comp=E,192μm,0.5s						
MMO1	**Montemonaco**	**0.43**	**83**	⇓P	**Pg**	**15 32 28.2**	**+0.1**
MMO1				S	**Sb**	**15 32 35.1**	**-1.4**
SNTG	**Esanatoglia**	**0.43**	**19**	P	**Pg**	**15 32 28.1**	**0.0**
SNTG				S	**Sb**	**15 32 35.2**	**-1.4**
SNTG				AML	AML		
	comp=E,37μm,0.4s						
SNTG				AML	AML		
	comp=N,41μm,0.5s						
EL6	**Elcito**	**0.55**	**28**	P	**Pg**	**15 32 30.3**	**0.0**
EL6				S	**Sb**	**15 32 39.0**	**-1.0**
EL6				AML	AML		
	comp=E,114μm,0.2s						
EL6				AML	AML		
	comp=N,129μm,0.2s						

*IDC **23** 15:40:19.2±0.6, 56°.14N×164°.57E, h0km, mb4.0/26, mbtmp4.1/32, ML4.6/4, MS3.6/61, Error ellipse: s-maj=14.3km s-min=10.1km az=151.0*
*KRSC **23** 15:40:19.6±1.8, 56°.06N×164°.83E, h49km±24km, Ml5.0*
*NEIC **23** 15:40:21.3±1.4, 56°.10N±0°.07×164°.5E±0°.1, h10km±1km, mb4.5/61, Error ellipse: s-maj=12.7km s-min=11.0km az=165.0*
*BJI **23** 15:40:21.4, 56°.13N×163°.78E, h10km, mB4.8/6, mb4.5/24, Ms4.5/19, Ms7 4.1/15*
*MOS **23** 15:40:22.6±0.9, 56°.12N×164°.67E, h41km, mb4.8/14, Error ellipse: s-maj=6.6km s-min=4.6km az=63.4*
*GFZ **23** 15:40:23.8±0.5, 56°.N±3°×16°.5E±°, h33km±3km, M4.8/33, mb4.8/33, Error ellipse: s-maj=8.0km s-min=5.6km az=139.0, confirmed*
*GCMT **23** 15:40:24.3±0.3, 56°.13N±0°.02×164°.85E±0°.03, h20km±1km, MW4.8/97, Moment Tensor Solution. s26,c30; s97,c127; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr 0.11±.08; Mθθ -1.75±.07; Mφφ 1.64±.07; Mrθ -0.19±.12; Mθφ -0.50±.06; Mφr -0.16±.11; Best double couple: M0 1.78300×10^16 NP1: φs 37.00000°, δ89.00000°, λ -8.00000°. Principal axes: T 1.7220, Plg5.0000°, Azm82.0000°; N 0.1190, Plg82.0000°, Azm208.0000°; P -1.8450, Plg6.0000°, Azm352.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 23 15:40:20.3±1.8, 56°.06N±0°.03×164°.73E±0°.03, h9km±11km, n318, σ1§41/298, mb4.5/87, MS3.7/67, 1C-1D, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBTR	**Krutoberegovo**	**1.08**	**279**	PN	**Pb**	**15 40 39.7**	**-1.5**
KBTR				S	**Sb**	**15 40 53.4**	**-1.9**
KBTR	**Krutoberegovo**	**1.08**	**279**	*eP*	**Pb**	**15 40 39.7**	**-1.5**
KBTR				*eS*	**Sb**	**15 40 53.4**	**-1.9**
BKI	**Bering**	**1.10**	**140**	PN	**Pn**	**15 40 39.6**	**-2.2**
BKI				S	**Sb**	**15 40 54.6**	**-1.4**
BKI	**Bering**	**1.10**	**140**	*eP*	**Pn**	**15 40 39.7**	**-2.2**
BKI				*eS*	**Sb**	**15 40 54.7**	**-1.4**
KBG	**Krutoberegovo**	**1.15**	**281**	PN	**Pb**	**15 40 41.0**	**-1.3**
KBG				S	**Sb**	**15 40 56.1**	**-1.2**
KBG	**Krutoberegovo**	**1.15**	**281**	*eP*	**Pb**	**15 40 41.1**	**-1.3**
KBG				*eS*	**Sb**	**15 40 56.2**	**-1.2**
SMKR	**Semkarok**	**1.89**	**288**	PN	**Pn**	**15 40 52.7**	**-0.1**
SMKR				S	**Sn**	**15 41 16.6**	**-0.2**
SMKR	**Semkarok**	**1.89**	**288**	*eP*	**Pn**	**15 40 52.7**	**-0.1**
SMKR				*eS*	**Sn**	**15 41 16.6**	**-0.2**
BDR	**Baidarnaya**	**2.03**	**286**	PN	**Pn**	**15 40 55.3**	**+0.6**
BDR				S	**Sn**	**15 41 21.2**	**+1.1**
BDR	**Baidarnaya**	**2.03**	**286**	*eP*	**Pn**	**15 40 55.4**	**+0.6**
BDR				*eS*	**Sn**	**15 41 21.3**	**+1.1**
SRKR	**Sorokina**	**2.07**	**288**	PN	**Pn**	**15 40 55.2**	**0.0**
SRKR				S	**Sn**	**15 41 20.9**	**-0.3**
SRKR	**Sorokina**	**2.07**	**288**	*eP*	**Pn**	**15 40 55.3**	**0.0**
SRKR				*eS*	**Sn**	**15 41 21.0**	**-0.3**
MKZ	**Mys Kozlova**	**2.28**	**230**	PN	**Pn**	**15 40 57.5**	**-0.5**
MKZ				S	**Sn**	**15 41 23.6**	**-2.5**
MKZ	**Mys Kozlova**	**2.28**	**230**	*eP*	**Pn**	**15 40 57.6**	**-0.5**
MKZ				*eS*	**Sn**	**15 41 23.7**	**-2.5**
KLY	**Klyuchi**	**2.30**	**278**	PN	**Pn**	**15 40 57.4**	**-0.8**
KLY				S	**Sn**	**15 41 25.2**	**-1.3**
KLY	**Klyuchi**	**2.30**	**278**	*eP*	**Pn**	**15 40 57.5**	**-0.8**
KLY				*eS*	**Sn**	**15 41 25.3**	**-1.3**
BZP	**Bezymyannyi-Pe**	**2.36**	**268**	PN	Pn	15 40 54.9	-4.4
BZP	**Bezymyannyi-Pe**	**2.36**	**268**	*eP*	Pn	15 40 54.9	-4.4
KIRR	**Kirishev**	**2.47**	**269**	PN	**Pn**	**15 41 02.1**	**+1.3**
KIRR				S	**Sn**	**15 41 32.4**	**+1.3**
KIRR	**Kirishev**	**2.47**	**269**	*eP*	**Pn**	**15 41 02.1**	**+1.3**
KIRR				*eS*	**Sn**	**15 41 32.4**	**+1.3**
KPT	**Kopyto**	**2.53**	**270**	PN	**Pn**	**15 41 03.2**	**+1.6**
KPT	**Kopyto**	**2.53**	**270**	*eP*	**Pn**	**15 41 03.3**	**+1.6**
KMNR	**Kamenistaya**	**2.55**	**265**	PN	**Pn**	**15 41 03.2**	**+1.4**
KMNR	**Kamenistaya**	**2.55**	**265**	*eP*	**Pn**	**15 41 03.3**	**+1.4**
TUMD	**Tumrok D**	**2.60**	**253**	PN	**Pn**	**15 41 03.3**	**+0.8**
TUMD				S	**Sn**	**15 41 34.7**	**+0.6**
TUMD	**Tumrok D**	**2.60**	**253**	*eP*	**Pn**	**15 41 03.4**	**+0.8**
TUMD				*eS*	**Sn**	**15 41 34.8**	**+0.6**
KZV	**Kizimen**	**2.69**	**251**	PN	**Pn**	**15 41 05.0**	**+1.2**
KZV				S	**Sn**	**15 41 36.8**	**+0.2**
KZV	**Kizimen**	**2.69**	**251**	*eP*	**Pn**	**15 41 05.0**	**+1.2**
KZV				*eS*	**Sn**	**15 41 36.8**	**+0.2**
TUMR	**Tumrok**	**2.71**	**255**	PN	**Pn**	**15 41 05.9**	**+1.8**
TUMR				S	**Sn**	**15 41 40.4**	**+3.4**
TUMR	**Tumrok**	**2.71**	**255**	*eP*	**Pn**	**15 41 05.9**	**+1.8**
TUMR				*eS*	**Sn**	**15 41 40.4**	**+3.4**
KOZ	**Kozyrevsk**	**2.73**	**272**	PN	**Pn**	**15 41 06.0**	**+1.8**
KOZ				S	**Sb**	**15 41 40.8**	**-1.8**
KOZ	**Kozyrevsk**	**2.73**	**272**	*eP*	**Pn**	**15 41 06.0**	**+1.8**
KOZ				*eS*	**Sb**	**15 41 40.8**	**-1.8**
OSSR	**Ossora**	**3.33**	**345**	PN	**Pn**	**15 41 11.1**	**-1.3**
OSSR	**Ossora**	**3.33**	**345**	*eP*	**Pn**	**15 41 11.1**	**-1.3**
ESO	**Esso**	**3.39**	**270**	PN	**Pn**	**15 41 14.3**	**+1.0**
ESO	**Esso**	**3.39**	**270**	*eP*	**Pn**	**15 41 14.3**	**+1.0**
KII	**Karymskiy**	**3.65**	**239**	PN	**Pn**	**15 41 17.7**	**+0.8**
KII				S	**Sn**	**15 42 00.8**	**+0.7**
KII	**Karymskiy**	**3.65**	**239**	*eP*	**Pn**	**15 41 17.8**	**+0.8**
KII				*eS*	**Sn**	**15 42 00.9**	**+0.7**
TIGL	**Tigil**	**3.74**	**300**	PN	**Pn**	**15 41 20.1**	**+2.0**
TIGL	**Tigil**	**3.74**	**300**	*eP*	**Pn**	**15 41 20.1**	**+2.0**
PALN	**Palana**	**3.98**	**322**	PN	**Pn**	**15 41 21.1**	**-0.2**
PALN	**Palana**	**3.98**	**322**	*eP*	**Pn**	**15 41 21.2**	**-0.2**
SPN	**Mys Shipunski**	**4.04**	**225**	PN	**Pn**	**15 41 22.2**	**0.0**
SPN	**Mys Shipunski**	**4.04**	**225**	*eP*	**Pn**	**15 41 22.2**	**0.0**
SPN				*eS*	**Sn**	**15 42 04.9**	**-4.5**
NLC	**Nalytchevo**	**4.26**	**230**	PN	**Pn**	**15 41 28.0**	**+2.8**
NLC	**Nalytchevo**	**4.26**	**230**	*eP*	**Pn**	**15 41 28.0**	**+2.8**
NLC				*eS*	**Sn**	**15 42 12.5**	**-2.5**
SDLR	**Sedlovina**	**4.39**	**233**	PN	**Pn**	**15 41 28.3**	**+1.2**
SDLR	**Sedlovina**	**4.39**	**233**	*eP*	**Pn**	**15 41 28.4**	**+1.2**
SDLR				*eS*	**Sn**	**15 42 17.7**	**-0.7**
KRER	**Koryakskii**	**4.43**	**234**	PN	**Pn**	**15 41 29.1**	**+1.3**
KRER	**Koryakskii**	**4.43**	**234**	*eP*	**Pn**	**15 41 29.2**	**+1.3**
KRX	**Arik**	**4.44**	**235**	PN	**Pn**	**15 41 29.5**	**+1.6**
KRX	**Arik**	**4.44**	**235**	*eP*	**Pn**	**15 41 29.5**	**+1.6**
UGLR	**Uglovaya**	**4.46**	**233**	PN	**Pn**	**15 41 29.5**	**+1.4**
UGLR	**Uglovaya**	**4.46**	**233**	*eP*	**Pn**	**15 41 29.6**	**+1.4**
AVH	**Avacha**	**4.46**	**234**	PN	**Pn**	**15 41 29.9**	**+1.8**
AVH				S	**Sn**	**15 42 20.5**	**+0.4**
AVH	**Avacha**	**4.46**	**234**	*eP*	**Pn**	**15 41 29.9**	**+1.8**
AVH				*eS*	**Sn**	**15 42 20.5**	**+0.4**
TILK	**Tilichiki**	**4.47**	**9**	PN	**Pn**	**15 41 28.3**	**+0.3**
TILK	**Tilichiki**	**4.47**	**9**	*eP*	**Pn**	**15 41 28.4**	**+0.3**
KOK	**Koryaka**	**4.49**	**234**	PN	**Pn**	**15 41 30.8**	**+2.3**
KOK	**Koryaka**	**4.49**	**234**	*eP*	**Pn**	**15 41 30.8**	**+2.3**
KOK				*eS*	**Sn**	**15 42 19.4**	**-1.4**
DALK	**Dalny**	**4.61**	**231**	PN	**Pn**	**15 41 31.4**	**+1.3**
DALK	**Dalny**	**4.61**	**231**	*eP*	**Pn**	**15 41 31.4**	**+1.3**
DALK				*eS*	**Sn**	**15 42 22.0**	**-1.7**
PET	**Petropavlovsk**	**4.66**	**232**	PN	**Pn**	**15 41 33.3**	**+2.5**
PET	**Petropavlovsk**	**4.66**	**232**	Pn	**Pn**	**15 41 31.1**	**+0.3**
PET				Sn	**Sn**	**15 42 23.5**	**-1.4**
PET	**Petropavlovsk**	**4.66**	**232**	*eP*	**Pn**	**15 41 33.3**	**+2.5**
PET	**Petropavlovsk**	**4.66**	**232**	P	**Pn**	**15 41 31.9**	**+1.1**
KRMR	**Karymshinskiy**	**5.03**	**233**	PN	**Pn**	**15 41 37.5**	**+1.7**
KRMR	**Karymshinskiy**	**5.03**	**233**	*eP*	**Pn**	**15 41 37.5**	**+1.7**
PEA0B	**Petropavlovsk-**	**5.04**	**237**	PN	**Pn**	**15 41 37.4**	**+1.4**
PEA0B	**Petropavlovsk-**	**5.04**	**237**		**Pn**	**15 41 35.5**	**-0.6**
PETK	**Petropavlovsk-**	**5.04**	**237**	Pn	**Pn**	**15 41 37.0**	**+1.0**
	12nm,0.5s,baz=70,slow=16,SNR=81						
PETK				Sn	**Sn**	**15 42 33.6**	**-0.8**
	8.3nm,0.3s,baz=85,slow=19,SNR=8.0						
PETK	**Petropavlovsk-**	**5.04**	**237**		**Pn**	**15 41 36.1**	**+0.1**
RUS	**Russkaya**	**5.14**	**228**	PN	**Pn**	**15 41 39.1**	**+1.8**
RUS	**Russkaya**	**5.14**	**228**	*eP*	**Pn**	**15 41 39.2**	**+1.8**
GRL	**Gorelyy**	**5.25**	**231**	PN	**Pn**	**15 41 40.9**	**+2.0**
GRL	**Gorelyy**	**5.25**	**231**	*eP*	**Pn**	**15 41 41.0**	**+2.0**
MTVR	**Mutnovka**	**5.25**	**230**	PN	**Pn**	**15 41 40.1**	**+1.2**
MTVR	**Mutnovka**	**5.25**	**230**	*eP*	**Pn**	**15 41 40.1**	**+1.2**
APC	**Apacha**	**5.41**	**238**	PN	Pn	15 41 46.2	+5.1
APC	**Apacha**	**5.41**	**238**	*eP*	Pn	15 41 46.3	+5.1
KDTR	**Khodutka, Kamc**	**5.79**	**225**	PN	**Pn**	**15 41 46.7**	**+0.5**
KDTR	**Khodutka, Kamc**	**5.79**	**225**	*eP*	**Pn**	**15 41 46.8**	**+0.5**
SHEM	**Shemya Is, Ala**	**6.40**	**117**	Pn	**Pn**	**15 41 57.0**	**+2.4**
	7.2nm,0.3s,baz=144,slow=13,SNR=5.1						
SHEM				Sn	**Sn**	**15 43 05.2**	**-2.5**
	3.1nm,0.3s,baz=322,slow=22,SNR=2.8						
SHEM				LR	LR	15 44 14.2	
	comp=Z,338nm,21.9s,baz=288,slow=36						
	42nm,0.4s						
SHEM				AML	AML		
SKR	**Severo-Kuril's**	**7.45**	**227**	PN	**Pn**	**15 42 11.5**	**+2.5**
SKR	**Severo-Kuril's**	**7.45**	**227**	*eP*	**Pn**	**15 42 11.6**	**+2.5**
MA2	**Magadan**	**8.24**	**301**	Pn	**Pn**	**15 42 19.2**	**-0.7**
	1.0nm,0.3s,baz=117,slow=17,SNR=4.9						
MA2				LR	LR	15 45 36.8	
	comp=Z,300nm,20.3s,baz=106,slow=39						
	6.9nm,0.7s						
MA2				AML	AML		
MA2	**Magadan**	**8.24**	**301**	P	**Pn**	**15 42 21.5**	**+1.6**
	comp=Z,24nm,2.1s						
SEY	**Seymchan**	**9.31**	**323**	Pn	**Pn**	**15 42 33.9**	**-0.7**
	comp=Z,0.7nm,0.4s,baz=147,slow=16,SNR=4.7						
ADK	**Adak**	**11.70**	**103**	P	**Pn**	**15 43 07.8**	**+0.6**
	comp=Z,91nm,2.0s						
BILL	**Bilibino**	**12.05**	**3**	*i* PN	**Pn**	**15 43 12.0**	**+0.1**
BILL	**Bilibino**	**12.05**	**3**		**Pn**	**15 43 13.3**	**+1.3**
BILI	**Bilibino, Chuk**	**12.07**	**3**	P	**Pn**	**15 43 13.8**	**+1.5**
	comp=Z,19nm,0.6s						
KUR	**Kuril'sk**	**15.18**	**232**	*i* P	**Pn**	**15 43 50.7**	**-3.9**
YSS	**Yuzhno-Sakhali**	**16.37**	**245**	*eP*	**P**	**15 44 14.2**	**+1.2**
YSS				*eS*	**Sn**	**15 47 17.4**	**+5.7**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS				MLR	MLR		
	comp=Z,700nm,16.0s						
YSS				MLR	MLR		
	comp=N,500nm,15.0s						
YSS				MLR	MLR		
	comp=E,500nm,17.0s						
YSS	**Yuzhno-Sakhali**	**16.37**	**245**	Pn	**Pn**	**15 44 08.9**	**-1.2**
YSS				IAmb	IAmb	15 44 16.5	
	comp=Z,35nm,1.0s						
YSS	**Y

TIXI pmax pmax
comp=Z,24nm,0.8s
TIXI Tiksi 21.69 330 P P 15 45 10.8 -0.1
TIXI IAmb IAmb 15 45 24.8
comp=Z,24nm,0.8s
TIXI Tiksi 21.69 330 P **P 15 45 12.3 +1.4**
comp=Z,38nm,0.8s
IMAR Indian Mountai 21.99 46 P **P 15 45 16.4 +2.1**
STLK Strandline Lak 22.81 58 P **P 15 45 25.7 +2.5**
STLK IAmb IAmb 15 45 37.1
comp=Z,18nm,1.5s
HEH HeiHe 22.91 271 *e*P **P 15 45 20.5 -3.6**
HEH L L
comp=Z,720nm,14.4s
HEH L L
comp=Z,380nm,14.8s
SUA Susitna One 23.34 58 P **P 15 45 27.9 -0.7**
SUA IAmb IAmb 15 45 28.8
comp=Z,21nm,1.0s
TRF Thorofare Moun 23.39 53 P **P 15 45 30.2 +1.1**
TRF IAmb IAmb 15 46 14.5
comp=Z,21nm,1.3s
USA0B Ussuriysk Arra 23.86 254 P **P 15 45 33.6 -0.1**
USA0B pmax pmax
comp=Z,7.0nm,1.0s
USA0B Ussuriysk Arra 23.86 254 P **P 15 45 33.6 -0.1**
USRK Ussuriysk Ar. 23.86 254 P **P 15 45 32.5 -1.2**
comp=Z,4.0nm,0.6s,baz=49,slow=13,SNR=7.3
USRK LR LR 15 55 27.3
comp=Z,325nm,19.3s,baz=58,slow=38
comp=Z,4.0nm,0.6s
USRK Ussuriysk Ar. 23.86 254 P **P 15 45 31.9 -1.8**
TOLK Toolik Lake Re 23.96 40 P **P 15 45 35.1 +0.6**
E24K Your Creek 24.29 42 **P 15 45 39.3 +1.7**
COLA College 24.40 50 *i*P P 15 45 31.2 -7.3
COLA pmax pmax
comp=Z,29nm,2.8s
COLA College 24.40 50 P **P 15 45 39.0 +0.5**
comp=Z,16nm,2.5s
CCB Clear Creek Bu 24.43 50 IAmb IAmb 15 45 50.3
comp=Z,13nm,0.8s
F24K Squaw Lake 24.46 43 P **P 15 45 41.5 +2.4**
IL31 24.82 50 P **P 15 45 40.0 -2.2**
IL31 IAmb IAmb 15 46 20.8
comp=Z,9.9nm,1.1s
ILAR Eielson Array 24.82 50 P **P 15 45 44.1 +1.8**
comp=Z,0.5nm,0.7s,baz=252,slow=9.4,SNR=8.2
ILAR LR LR 15 56 16.1
comp=Z,104nm,18.7s,baz=254,slow=38
comp=Z,0.5nm,0.7s
D25K Kavik River 25.20 39 P **P 15 45 45.6 -0.1**
D25K IAmb IAmb 15 45 57.5
comp=Z,6.7nm,0.7s
BNX BinXian 25.40 262 ||P **P 15 45 46.1 -1.6**
BNX pmax pmax
comp=Z,10.0nm,0.8s
C26K Camden Bay 25.78 38 P **P 15 45 52.2 +1.3**
C26K IAmb IAmb 15 46 03.0
comp=Z,13nm,1.0s
C27K Jago River 26.16 38 P **P 15 45 55.0 +0.5**
C27K IAmb IAmb 15 46 06.7
comp=Z,6.2nm,0.9s
MJB9 Matsu-Tunnel 26.49 234 P **P 15 45 57.6 -0.1**
MAJO Matsushiro 26.49 234 P **P 15 45 58.2 +0.5**
comp=Z,28nm,0.8s
MJAR Matsushiro Arr 26.49 234 P **P 15 45 58.3 +0.5**
comp=Z,9.5nm,0.8s,baz=22,slow=8.9,SNR=16
MJAR LR LR 15 57 23.3
comp=Z,125nm,20.5s,baz=30,slow=39
comp=Z,9.5nm,0.8s
MJAR Matsushiro Arr 26.49 234 P **P 15 45 57.8 +0.1**
D27M Malcolm River 27.11 39 P **P 15 46 03.8 +0.8**
L27K Beaver Creek, 27.23 53 P **P 15 46 05.9 +1.8**
L27K IAmb IAmb 15 46 26.7
comp=Z,12nm,1.2s
BCAR Beaver Creek A 27.25 53 P **P 15 46 05.8 +1.4**
M27K Edge Creek, AK 27.34 55 P **P 15 46 07.0 +1.7**
M27K IAmb IAmb 15 46 20.9
comp=Z,9.3nm,1.1s
CN2 Changchun 27.70 260 *e*P **P 15 46 05.4 -3.1**
CN2 *e*S S 15 50 36.8 -14
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,100nm,3.0s
CN2 L L
comp=Z,200nm,13.0s
CN2 L L
comp=Z,100nm,13.0s
JHJ Hachijo jima 2 28.71 227 LR LR 15 58 16.6
comp=Z,6.4nm,20.5s,baz=78,slow=38
INK Inuvik 29.86 41 P **P 15 46 27.7 +0.2**
KSRS Korea Array 30.83 249 P **P 15 46 35.5 -0.7**
comp=Z,1.5nm,0.4s,baz=39,slow=8.5,SNR=10
comp=Z,1.5nm,0.4s
WHY Whitehorse 31.02 56 P **P 15 46 38.3 +0.4**
comp=Z,18nm,2.4s
TJN Taejon 31.93 248 P **P 15 46 45.4 -0.6**
comp=Z,125nm,2.3s
JNU Nakatsue 32.74 240 LR LR 15 59 24.9
comp=Z,122nm,20.8s,baz=52,slow=35
DL2 Dalian 33.14 257 P **P 15 46 58.8 +2.3**
DL2 S **S 15 52 18.5 +2.8**
DL2 pmax pmax
comp=Z,22nm,1.0s
DL2 pmax pmax
comp=Z,160nm,4.5s
DL2 L L
comp=Z,600nm,17.5s
DL2 L L
comp=Z,320nm,15.2s
DL2 L L
comp=Z,370nm,14.3s
DLBC Dease Lake 34.14 58 LR LR 16 01 25.2
comp=Z,126nm,18.0s,baz=256,slow=37
JSU Suzuyama 34.27 239 P **P 15 47 06.7 +0.3**
comp=Z,32nm,1.7s
NRIK Noril'sk 35.10 323 LR LR 16 01 10.7
comp=Z,63nm,19.2s,baz=72,slow=36
ULN Ulaanbaatar 35.51 282 P **P 15 47 15.9 -1.4**
ULN pmax pmax
comp=Z,8.0nm,1.5s
ULN Ulaanbaatar 35.51 282 P **P 15 47 15.9 -1.4**
ULN IAmb IAmb 15 47 17.9
comp=Z,7.5nm,1.5s
ULN Ulaanbaatar 35.51 282 P **P 15 47 17.1 -0.1**
comp=Z,3.3nm,1.2s
SONM Songino Array 35.89 282 P **P 15 47 20.2 -0.3**
comp=Z,3.6nm,0.7s,baz=64,slow=8.6,SNR=31
SONM LR LR 16 01 05.6
comp=Z,144nm,20.6s,baz=38,slow=35
comp=Z,3.6nm,0.7s
SONM Songino Array 35.89 282 P **P 15 47 19.4 -1.1**
H11N2 WAKE ISLAND Hy 36.30 177 T T 16 26 25.4
baz=359,slow=76
H11N3 WAKE ISLAND Hy 36.32 177 T T 16 26 32.0
baz=359,slow=76
H11N1 WAKE ISLAND Hy 36.32 177 T T 16 26 28.9
baz=359,slow=76
HHC Hu-ho-hao-te 37.39 269 *e*P **P 15 47 33.4 +0.1**
HHC pmax pmax
comp=Z,7.0nm,0.5s
HHC pmax pmax
comp=Z,85nm,4.8s
HHC L L
comp=Z,350nm,16.8s
HHC L L
comp=Z,380nm,16.8s
H11S1 WAKE ISLAND Hy 37.51 177 T T 16 27 54.9
baz=352
H11S3 WAKE ISLAND Hy 37.53 177 T T 16 28 06.7
baz=352
H11S2 WAKE ISLAND Hy 37.53 177 T T 16 28 19.1
baz=352
YKA Yellowknife Ar 39.15 47 P **P 15 47 47.3 -0.5**
comp=Z,1.0nm,0.8s,baz=298,slow=8.1,SNR=2.9
comp=Z,1.0nm,0.8s
RES Resolute Bay 39.54 24 LR LR 16 05 02.2
comp=Z,54nm,20.8s,baz=331,slow=38
RES Resolute Bay 39.54 24 P **P 15 47 51.7 +0.9**
comp=Z,6.2nm,3.0s
NJ2 Nanjing 39.75 252 *e*P **P 15 47 51.4 -1.6**
NJ2 pmax pmax
comp=Z,4.0nm,0.5s
KEKH Kekaha 42.97 128 P **P 15 48 19.3 -0.3**
comp=Z,184nm,2.1s
ZALV Zalesovo Beam 43.47 302 LR LR 16 07 17.8
comp=Z,88nm,18.1s,baz=35,slow=37
XAN Xi'an 43.70 264 *e*P **P 15 48 25.9 +0.5**
XAN pmax pmax
comp=Z,7.0nm,1.1s
XAN L L
comp=Z,500nm,16.5s
XAN L L
comp=Z,360nm,15.1s
SPITS Spitsbergen Ar 44.64 351 P **P 15 48 32.0 -0.4**
comp=Z,10nm,0.8s,baz=70,slow=7.2,SNR=5.3
comp=Z,10nm,0.8s
SPITS Spitsbergen Ar 44.64 351 P **P 15 48 32.9 +0.5**
SPB2 Spitsbergen Ar 44.64 351 P **P 15 48 33.0 +0.6**
GTA2 Gaotai 44.93 277 *e*P **P 15 48 35.4 +0.1**
GTA2 pmax pmax
comp=Z,10.0nm,0.8s
GTA2 L L
comp=Z,320nm,19.4s
GTA2 L L
comp=Z,360nm,20.3s
GTA2 L L
comp=Z,210nm,18.7s
GUMO Guam 45.06 208 LR LR 16 04 07.7
comp=Z,29nm,21.8s,baz=102,slow=32
BLKN Baker Lake 45.11 37 P **P 15 48 37.1 +0.9**
BLKN IAmb IAmb 15 49 06.6
comp=Z,8.1nm,1.1s
LZDM Lanzhou Array 45.22 270 P **P 15 48 38.5 +0.6**
comp=Z,1.0nm,0.3s,baz=46,slow=6.2,SNR=1.5
comp=Z,1.0nm,0.3s
NEW Newport 46.14 65 LR LR 16 08 11.5
comp=Z,47nm,20.0s,baz=304,slow=36
DAG Danmarks Havn 47.42 1 P **P 15 48 54.0 -0.3**
comp=Z,8.2nm,2.9s
JTMT Jette 47.92 64 P **P 15 49 00.0 +1.3**
KURK Kurchatov 48.46 302 P **P 15 49 03.0 +0.4**
KURK Kurchatov 48.46 302 **P 15 49 02.1 -0.5**
KURK IAmb IAmb 15 49 03.6
comp=Z,7.4nm,1.2s
KURK Kurchatov 48.46 302 P **P 15 49 01.6 -1.0**
comp=Z,5.7nm,0.6s
WMQ Urumqi 48.53 290 *e*P **P 15 49 04.1 +0.7**
WMQ pmax pmax
comp=Z,10.0nm,0.7s
WMQ L L
comp=Z,420nm,16.1s
KURBB Kurchatov Arra 48.56 302 P **P 15 49 03.0 -0.4**
comp=Z,1.5nm,0.2s,baz=52,slow=7.7,SNR=4.5
comp=Z,1.5nm,0.2s
MK31 Makanchi Array 49.29 296 P **P 15 49 08.1 -1.0**
MK31 pmax pmax
comp=Z,1.0nm,1.0s
MK31 Makanchi Array 49.29 296 P **P 15 49 08.1 -1.0**
MKAR Makanchi Array 49.29 296 P **P 15 49 08.3 -0.8**
comp=Z,1.4nm,0.4s,baz=52,slow=6.6,SNR=34
MKAR LR LR 16 09 19.3
comp=Z,72nm,18.4s,baz=48,slow=35
comp=Z,1.4nm,0.4s
MKAR Makanchi Array 49.29 296 P **P 15 49 08.1 -1.1**
PATS Pohnpei 49.35 188 P **P 15 49 08.9 -0.8**
comp=Z,137nm,1.8s
MAKZ Makanchi 49.44 296 P **P 15 49 09.2 -1.1**
MAKZ pmax pmax
comp=Z,3.0nm,1.0s
MAKZ Makanchi 49.44 296 P **P 15 49 09.2 -1.1**
MAKZ Makanchi 49.44 296 P **P 15 49 09.5 -0.8**
comp=Z,3.1nm,1.9s
DBG Daegu 49.88 2 P **P 15 49 12.4 -0.7**
comp=Z,8.6nm,2.1s
DLMT Dillon 50.39 65 P **P 15 49 19.9 +2.3**
BVAR Borovoye Array 50.65 309 P **P 15 49 18.7 -0.6**
comp=Z,2.4nm,0.4s,baz=54,slow=8.4,SNR=16
comp=Z,2.4nm,0.4s
SUMG Summit 50.65 9 P **P 15 49 19.4 -0.2**
SUMG pmax pmax
comp=Z,7.0nm,1.3s
SUMG Summit 50.65 9 P **P 15 49 19.4 -0.2**
SUMG IAmb IAmb 15 49 52.7
comp=Z,7.3nm,1.3s
SUMG Summit 50.65 9 P **P 15 49 19.6 0.0**
BORK Borovoye 50.66 309 P **P 15 49 19.2 -0.2**
BORK pmax pmax
comp=Z,4.0nm,0.7s
BORK Borovoye 50.66 309 **P 15 49 19.2 -0.2**
BORK IAmb IAmb 15 49 31.4
comp=Z,3.8nm,0.7s
ARCES ARCESS Array B 51.28 343 LR LR 16 13 31.5
comp=Z,59nm,19.1s,baz=7.0,slow=39
YNE Yellowstone No 51.95 64 P **P 15 49 30.7 +1.2**
YNE IAmb IAmb 15 49 41.3
comp=Z,3.2nm,0.9s
RYN Ryan 52.02 75 P **P 15 49 31.6 +1.7**
RYN IAmb IAmb 15 49 43.1
comp=Z,9.8nm,0.8s
ELK Elko 52.26 71 LR LR 16 12 38.8
comp=Z,58nm,18.1s,baz=326,slow=37
NVAR Mina Array Bea 52.28 75 P **P 15 49 33.4 +1.4**
comp=Z,0.5nm,0.7s,baz=348,slow=8.9,SNR=2.3
NVAR LR LR 16 10 03.6
comp=Z,54nm,20.5s,baz=231,slow=34
comp=Z,0.5nm,0.7s
NVAR Mina Array Bea 52.28 75 P **P 15 49 34.1 +2.1**
ARTI Arti 53.12 318 LR LR 16 14 49.5
comp=Z,112nm,18.0s,baz=45,slow=39
ARTI Arti 53.12 318 P **P 15 49 36.7 -0.9**
ARTI pmax pmax
comp=Z,6.0nm,0.7s
ARTI Arti 53.12 318 P **P 15 49 36.7 -0.9**
ARTI IAmb IAmb 15 49 49.4
comp=Z,5.5nm,0.7s
FRB Frobisher Bay 53.68 26 LR LR 16 15 41.8
comp=Z,82nm,19.4s,baz=326,slow=40
PDAR Pinedale Array 53.77 66 P **P 15 49 43.7 +0.7**
comp=Z,0.4nm,0.7s,baz=7.6,slow=2.2,SNR=5.1
PDAR LR LR 16 13 25.5
comp=Z,66nm,18.1s,baz=332,slow=37
comp=Z,0.4nm,0.7s
PDAR Pinedale Array 53.77 66 P **P 15 49 44.1 +1.1**
MSF Maaselka 53.84 339 P **P 15 49 42.8 0.0**
SFJD Kangerlussuaq 54.45 16 LR LR 16 15 05.8
comp=Z,66nm,18.9s,baz=344,slow=38
KIRV Kirov 54.58 324 LR LR 16 14 37.8
comp=Z,114nm,18.0s,baz=30,slow=38
WUS Wushi 54.81 293 P **P 15 49 50.7 +0.3**
comp=Z,6.6nm,1.2s
ULM Lac du Bonnet 54.84 51 P **P 15 49 51.2 +1.0**
comp=Z,0.7nm,0.4s,baz=82,slow=6.9,SNR=2.0
ULM LR LR 16 15 22.6
comp=Z,43nm,19.0s,baz=9.0,slow=38
comp=Z,0.7nm,0.4s
ULM Lac du Bonnet 54.84 51 P **P 15 49 51.3 +1.0**
ULM pmax pmax
comp=Z,10.0nm,1.3s
ULM Lac du Bonnet 54.84 51 IAmb IAmb 15 50 03.4
comp=Z,10nm,1.3s
TARG Taragay, Kyrgy 55.15 294 P **P 15 49 53.0 -0.2**
TARG pmax pmax
comp=Z,20nm,1.5s
TARG Taragay, Kyrgy 55.15 294 P **P 15 49 53.0 -0.2**
BOOM Boomskoye usch 55.54 296 P **P 15 49 55.7 0.0**
BOOM pmax pmax
comp=Z,15nm,1.2s
BOOM Boomskoye usch 55.54 296 P **P 15 49 55.7 0.0**
BOOM Boomskoye usch 55.54 296 P **P 15 49 55.8 0.0**
comp=Z,12nm,1.7s
AAK Ala-Archa 56.15 297 LR LR 16 13 51.9
comp=Z,106nm,18.2s,baz=40,slow=36
AAK Ala-Archa 56.15 297 P **P 15 50 00.1 0.0**
comp=Z,7.1nm,1.0s
SLVN Son La 56.33 258 P **P 15 50 01.6 +0.2**
comp=Z,7.0nm,1.6s
O20A White River Ci 56.37 67 P **P 15 50 03.6 +1.9**
O20A IAmb IAmb 15 50 13.7
comp=Z,4.5nm,0.9s
ASAI AK-SAY(Kyrgyzs 56.40 295 P **P 15 50 01.9 -0.3**
comp=Z,7.1nm,0.9s
LSA Lhasa 56.91 275 P **P 15 50 06.2 +0.2**
comp=Z,14nm,0.9s
KK31 Karatay Array 57.77 300 IAmb IAmb 15 50 12.3
comp=Z,6.2nm,0.8s
KKAR Karatay Array 57.77 300 P **P 15 50 10.9 -0.4**
KKAR Karatay Array 57.77 300 **P 15 50 10.9 -0.4**
AKTO Aktyubinsk 57.77 314 LR LR 16 14 49.3
comp=Z,86nm,18.2s,baz=52,slow=36
DAV Davao City (W) 57.79 228 LR LR 16 16 37.8
comp=Z,23nm,18.8s,baz=338,slow=38
AB31 Akbulak array 57.89 312 **P 15 50 11.9 -0.2**
AB31 IAmb IAmb 15 50 13.8
comp=Z,4.0nm,1.3s
ABKAR Akbulak array 57.89 312 P **P 15 50 11.9 -0.1**
KSH2 Kashi 58.21 294 P **P 15 50 15.0 +0.3**
KSH2 pmax pmax
comp=Z,3.0nm,1.6s
FIA1 FINESS Array S 58.42 338 P **P 15 50 15.8 +0.2**
FINES FINESS Array B 58.42 338 P **P 15 50 15.2 -0.4**
comp=Z,3.6nm,0.9s,baz=45,slow=5.3,SNR=4.2
FINES LR LR 16 18 51.7
comp=Z,50nm,18.3s,baz=33,slow=40
comp=Z,3.6nm,0.9s
FINES FINESS Array B 58.42 338 P **P 15 50 15.7 +0.1**
FINES FINESS Array B 58.42 338 P **P 15 50 15.7 +0.1**
EYMN Ely 58.46 50 P **P 15 50 17.4 +1.2**
BORG Borgarnes 59.44 3 LR LR 16 15 22.9
comp=Z,22nm,21.3s,baz=343,slow=35
SDCO Great Sand Dun 59.57 67 P **P 15 50 25.1 +0.8**
SDCO IAmb IAmb 15 50 36.9
comp=Z,3.6nm,1.2s
BTK Batken 59.92 298 P **P 15 50 26.1 -0.3**
BTK pmax pmax
comp=Z,6.0nm,0.8s
BTK Batken 59.92 298 **P 15 50 26.1 -0.3**
BTK IAmb IAmb 15 50 27.4
comp=Z,5.5nm,0.8s
BTK Batken 59.92 298 P **P 15 50 27.1 +0.7**
comp=Z,7.6nm,1.1s
EVN Everest 60.66 277 **P 15 50 31.4 -1.0**
EVN Everest 60.66 277 P **P 15 50 31.0 -1.3**
comp=Z,13nm,0.7s
KRVT Keravat (AS076 61.05 195 LR LR 16 14 05.0
comp=Z,29nm,18.8s,baz=258,slow=33
CHTO Chiang Mai 61.10 261 P **P 15 50 34.6 0.0**
CHTO pmax pmax
comp=Z,10.0nm,0.8s
CHTO Chiang Mai 61.10 261 **P 15 50 34.5 0.0**
CHTO Chiang Mai 61.10 261 P **P 15 50 34.9 +0.2**
comp=Z,14nm,0.8s
CM31 Chiang Mai Arr 61.39 260 P **P 15 50 36.0 -0.6**
CMAR Chiang Mai Arr 61.39 260 P **P 15 50 37.5 +0.9**
comp=Z,7.2nm,0.7s,baz=21,slow=6.9,SNR=60
CMAR LR LR 16 18 43.8
comp=Z,94nm,19.2s,baz=60,slow=38
comp=Z,7.2nm,0.7s
CMAR Chiang Mai Arr 61.39 260 **P 15 50 36.0 -0.6**
NOA NORSAR Array B 61.39 346 P **P 15 50 35.9 -0.2**
comp=Z,0.6nm,0.7s,baz=40,slow=5.8,SNR=1.8
NOA LR LR 16 19 14.4
comp=Z,16nm,18.6s,baz=355,slow=38
comp=Z,0.6nm,0.7s
NAO01 NORSAR Array S 61.63 346 P **P 15 50 38.3 +0.6**
SCHQ Schefferville 61.74 31 LR LR 16 21 30.5
comp=Z,58nm,18.2s,baz=355,slow=40
NPW Naypyitaw 61.88 264 P **P 15 50 40.0 +0.2**
comp=Z,27nm,0.8s
HFS Hagfors 61.90 344 P **P 15 50 38.8 -0.6**
comp=Z,2.0nm,0.8s,baz=46,slow=10,SNR=2.2
comp=Z,2.0nm,0.8s
KKM Kota Kinabalu 62.86 237 P **P 15 50 45.6 -1.0**
comp=Z,23nm,1.0s
KONO Kongsberg 62.96 346 P **P 15 50 46.7 +0.2**
comp=Z,42nm,2.9s
NIL Nilore 63.61 291 P **P 15 50 51.0 -0.3**
NIL pmax pmax
comp=Z,9.0nm,0.8s
NIL Nilore 63.61 291 **P 15 50 51.0 -0.3**
NIL Nilore 63.61 291 P **P 15 50 51.7 +0.4**
comp=Z,14nm,1.1s
PBUR Paburge 64.27 338 P **P 15 50 56.0 +0.8**
comp=Z,143nm,1.4s
KBL Kabul 65.08 295 P **P 15 51 00.1 -1.1**
comp=Z,7.0nm,0.9s
HNR Honiara 65.37 185 LR LR 16 13 25.2
comp=Z,46nm,21.8s,baz=89,slow=30
FUNA Funafuti 65.46 164 P **P 15 51 05.0 +1.7**
TXAR Lajitas Array 67.06 71 P **P 15 51 14.2 +0.4**
comp=Z,0.4nm,0.6s,baz=298,slow=3.6,SNR=5.5
comp=Z,0.4nm,0.6s
TXAR Lajitas Array 67.06 71 P **P 15 51 14.9 +1.1**
TXAR Lajitas Array 67.06 71 P **P 15 51 14.9 +1.1**
AKASG Malin Array Be 67.39 331 P **P 15 51 13.9 -1.5**
comp=Z,0.2nm,0.3s,baz=28,slow=6.5,SNR=1.6
AKASG LR LR 16 22 15.4
comp=Z,57nm,19.9s,baz=49,slow=37
comp=Z,0.2nm,0.3s
KBZ Khabaz 69.16 319 P **P 15 51 26.0 -0.6**
comp=Z,0.6nm,0.5s,baz=159,slow=9.4,SNR=1.6
KBZ LR LR 16 25 49.6
comp=Z,80nm,19.4s,baz=40,slow=40
comp=Z,0.6nm,0.5s
KBZ Khabaz 69.16 319 P **P 15 51 26.0 -0.6**
SOC Sochi 70.44 321 *e*P **P 15 51 30.3 -4.2**
SOC *e*PPP PPP 15 55 54.3
SOC *e*S **S 16 00 41.4 -5.7**
SOC *e*SS **SS 16 05 20.0 +3.1**
SOC *e*SSS SSS 16 08 13.9
SOC MLR MLR
comp=Z,1μm,21.0s
KAPI Kappang 71.13 228 LR LR 16 23 27.1
comp=Z,6.1nm,20.0s,baz=30,slow=36
GNI Garni 71.53 316 LR LR 16 27 32.4
comp=Z,95nm,19.2s,baz=17,slow=40
VRAC Vranov 71.70 339 LR LR 16 27 36.6
comp=Z,46nm,18.7s,baz=16,slow=40
AFI Afiamalu 72.43 156 LR LR 16 19 09.1
comp=Z,66nm,21.8s,baz=288,slow=32
GERES GERESS Array B 72.71 340 P **P 15 51 48.0 -0.2**
comp=Z,0.4nm,0.6s,baz=328,slow=7.2,SNR=2.6
GERES LR LR 16 26 59.7
comp=Z,53nm,19.3s,baz=17,slow=39
comp=Z,0.4nm,0.6s
MLR Muntele Rosu 73.05 331 LR LR 16 26 52.5
comp=Z,90nm,20.7s,baz=60,slow=38
MSVF Nonsavu 74.36 167 LR LR 16 19 06.7
comp=Z,43nm,22.0s,baz=111,slow=31
DAVOX Davos/Dischmat 75.38 342 LR LR 16 28 25.7
comp=Z,51nm,19.2s,baz=37,slow=38
BRTR Keskin Array B 75.96 323 LR LR 16 29 04.2
comp=Z,42nm,18.5s,baz=32,slow=39
DZM Mont Dzumac 77.83 178 LR LR 16 21 52.0
comp=Z,24nm,19.8s,baz=107,slow=32
WRA Warramunga Arr 79.95 209 P **P 15 52 29.2 -0.2**
comp=Z,0.5nm,0.8s,baz=31,slow=6.5,SNR=4.4
comp=Z,0.5nm,0.8s
PALK Pallekele 80.68 269 LR LR 16 30 55.6
comp=Z,26nm,22.0s,baz=44,slow=38
FITZ Fitzroy Crossi 80.88 217 LR LR 16 23 40.8
comp=Z,27nm,21.2s,baz=356,slow=32
MMAI Mount Meron Ar 81.36 319 LR LR 16 31 21.9
comp=Z,39nm,18.9s,baz=15,slow=38
ASF Jabal al Asfar 81.56 317 LR LR 16 32 25.5
comp=Z,59nm,19.6s,baz=42,slow=38
CMIG Matias Romero 81.66 72 LR LR 16 27 03.2
comp=Z,26nm,21.9s,baz=0.0,slow=34
RAR Rarotonga 82.62 147 LR LR 16 25 35.7
comp=Z,73nm,18.9s,baz=106,slow=33
PPT Papeete 82.79 137 LR LR 16 20 26.6
comp=Z,51nm,21.8s,baz=296,slow=29
PPT2 Papeete2 82.81 137 *e*LR LR 16 18 40.5
comp=Z,154nm,28.2s
PPT2 *e*LR LR 16 18 51.4
comp=Z,118nm,26.5s
ASAR Alice Springs 83.61 208 P **P 15 52 49.2 +0.5**
comp=Z,0.6nm,1.0s,baz=19,slow=5.3,SNR=5.1
comp=Z,0.6nm,1.0s
ASAR Alice Springs 83.61 208 P **P 15 52 49.1 +0.4**
EIL Elat 84.53 318 LR LR 16 36 19.6
comp=Z,59nm,18.4s,baz=116,slow=40
RAO Raoul Island 86.25 165 LR LR 16 25 18.5
comp=Z,56nm,21.8s,baz=86,slow=31
TBI Tubuai 88.10 139 *e*LR LR 16 21 22.2
comp=Z,2μm,34.8s
STKA Stephens Creek 89.78 200 LR LR 16 33 58.9
comp=Z,18nm,18.8s,baz=25,slow=36
JTS Las Juntas de 92.56 67 LR LR 16 38 14.9
comp=Z,10.0nm,18.3s,baz=354,slow=38
SJG San Juan 94.64 48 LR LR 16 40 11.0
comp=Z,21nm,18.9s,baz=98,slow=38
QSPA South Pole Qui 145.81 180 PKPbc **PKPdf 15 59 57.2 -0.4**
comp=Z,1.6nm,0.9s,baz=291,slow=1.2,SNR=7.8
NVL N'lazarevskaya 161.18 208 *e*PKIKP PKPdf 16 00 07.3 -12
NVL pmax pmax
comp=Z,8.0nm,0.9s

*NEIC **23** 15:50:55.8±1.1, 11°54N±0°03×141°E±0°1, h10km±1km,*

mb4.6/35, Error ellipse: s-maj=19.6km s-min=3.5km az=284.0
*IDC **23** 15:51:01.4±3.0, 11°.47N×141°.18E, h60km±29km, mb3.7/16, mbtmp4.1/18, ML3.6/2, MS3.4/7, Error ellipse: s-maj=21.1km s-min=12.5km az=93.0*

ISC 23 15:50:59.9±0.5, 11°.49N±0°.06×141°.12E±0°.08, h45km, n63, σ0s90/58, mb4.3/33, MS3.5/6, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**4.21**	**60**	P	**Pn**	**15 52 03.4**	**+1.8**
	3.1nm,0.3s,baz=315,slow=16,SNR=1.2						
GUMO				S	**Sn**	**15 52 51.0**	**+1.4**
	86nm,0.8s,baz=242,slow=14,SNR=1.9						
GUMO				LR	LR	15 53 40.2	
	comp=Z,163nm,18.1s,baz=183,slow=38						
	50nm,0.7s						
GUMO				AML	AML		
GUMO	**Guam**	**4.21**	**60**		**Pn**	**15 51 59.4**	**-2.3**
MANU	**Manus Island**	**14.81**	**155**	Pn	**Pn**	**15 54 25.9**	**-0.7**
JCJ	**Chichijima**	**15.56**	**4**	P	**P**	**15 54 38.4**	**-1.5**
	0.3nm,0.3s,baz=285,slow=12,SNR=2.6						
	59nm,0.8s						
JCJ				AML	AML		
JCJ	**Chichijima**	**15.56**	**4**	P	**P**	**15 54 38.6**	**-1.3**
PMG	**Port Moresby**	**21.61**	**164**	P	**P**	**15 55 45.7**	**-0.5**
	8.8nm,0.9s,baz=92,slow=7.1,SNR=3.3						
	8.8nm,0.9s						
PMG	**Port Moresby**	**21.61**	**164**	IAmb	IAmb	15 55 46.4	
	comp=Z,12nm,1.0s						
JSU	**Suzuyama**	**22.23**	**335**	P	**P**	**15 55 51.9**	**-0.9**
SSLB	**Suanglung**	**22.75**	**305**	P	**P**	**15 55 56.7**	**-1.8**
MJAR	**Matsushiro Arr**	**25.08**	**354**	P	**P**	**15 56 18.8**	**-1.5**
	comp=Z,0.7nm,0.7s,baz=172,slow=8.2,SNR=1.8						
	comp=Z,0.7nm,0.7s						
KNRA	**Kununurra**	**29.64**	**205**	P	**P**	**15 57 01.2**	**-0.1**
WB0	**Warramunga Arr**	**31.76**	**192**	P	**P**	**15 57 19.5**	**-0.5**
WB0				IAmb	IAmb	15 57 20.0	
	comp=Z,7.2nm,1.4s						
CTA	**Charters Tower**	**31.78**	**171**	LR	LR	16 08 56.6	
	comp=Z,32nm,21.8s,baz=41,slow=34						
WR8	**Warramunga Arr**	**31.92**	**192**	P	**P**	**15 57 21.0**	**-0.4**
WR8				IAmb	IAmb	15 57 31.2	
	comp=Z,6.0nm,1.2s						
WRAB	**Tennant Creek**	**31.93**	**192**	P	**P**	**15 57 20.8**	**-0.7**
WRAB				IAmb	IAmb	15 57 21.2	
	comp=Z,2.7nm,0.7s						
WRA	**Warramunga Arr**	**31.94**	**192**	P	**P**	**15 57 20.6**	**-1.0**
	comp=Z,2.2nm,0.7s,baz=6.8,slow=8.7,SNR=29						
	comp=Z,2.2nm,0.7s						
WRA	**Warramunga Arr**	**31.94**	**192**	IAmb	IAmb	15 57 21.2	
	comp=Z,0.3nm,1.2s						
FITZ	**Fitzroy Crossi**	**33.13**	**208**	P	**P**	**15 57 31.3**	**-0.8**
JAGI	**Jajag, Banyuwa**	**33.36**	**235**	P	**P**	**15 57 35.0**	**+0.8**
USRK	**Ussuriysk Ar.**	**33.53**	**348**	P	**P**	**15 57 35.9**	**+0.7**
AS31	**Alice Springs**	**35.64**	**191**	P	**P**	**15 57 54.3**	**+0.5**
ASAR	**Alice Springs**	**35.65**	**191**	P	**P**	**15 57 53.9**	**+0.1**
	comp=Z,0.7nm,0.6s,baz=16,slow=12,SNR=40						
ASAR				PcP	**PcP**	**16 00 23.5**	**+1.7**
	comp=Z,0.2nm,0.8s,baz=29,slow=2.7,SNR=2.8						
	comp=Z,0.7nm,0.6s						
ASAR	**Alice Springs**	**35.65**	**191**	P	**P**	**15 57 54.2**	**+0.4**
KLR	**Kul'dur**	**38.42**	**350**	LR	LR	16 12 04.3	
	comp=Z,53nm,20.7s,baz=316,slow=33						
HEH	**HeiHe**	**40.27**	**346**	*eP*	**P**	**15 58 33.1**	**+0.7**
HEH				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CMAR	**Chiang Mai Arr**	**41.26**	**285**	P	**P**	**15 58 42.9**	**+1.8**
	comp=Z,0.4nm,0.3s,baz=83,slow=6.0,SNR=4.3						
	comp=Z,0.4nm,0.3s						
HILR	**Hailar Array B**	**41.87**	**339**	P	**P**	**15 58 46.4**	**+0.7**
	comp=Z,0.9nm,0.4s,baz=141,slow=7.4,SNR=2.5						
	comp=Z,0.9nm,0.4s						
STKA	**Stephens Creek**	**43.12**	**179**	P	**P**	**15 58 54.6**	**-1.4**
	comp=Z,1.5nm,0.7s,baz=2.5,slow=6.3,SNR=3.0						
	comp=Z,1.5nm,0.7s						
STKA	**Stephens Creek**	**43.12**	**179**	P	**P**	**15 58 55.9**	**-0.1**
STKA				IAmb	IAmb	15 59 01.1	
	comp=Z,21nm,1.1s						
SONM	**Songino Array**	**46.45**	**328**	P	**P**	**15 59 22.5**	**0.0**
	comp=Z,0.3nm,0.5s,baz=119,slow=5.1,SNR=2.6						
SONM				LR	LR	16 19 57.6	
	comp=Z,54nm,18.2s,baz=5.5,slow=37						
	comp=Z,0.3nm,0.5s						
NWAO	**Narrogin (SRO)**	**49.71**	**207**	P	**P**	**15 59 48.5**	**+0.8**
TLY	**Talaya**	**50.27**	**330**	LR	LR	16 21 53.3	
	comp=Z,45nm,18.2s,baz=2.0,slow=37						
YAK	**Yakutsk**	**51.14**	**353**	P	**P**	**15 59 58.0**	**0.0**
YAK				IAmb	IAmb	15 59 59.6	
	comp=Z,9.3nm,0.9s						
MKAR	**Makanchi Array**	**60.51**	**318**	P	**P**	**16 01 06.4**	**+0.9**
	comp=Z,0.3nm,0.5s,baz=97,slow=7.7,SNR=6.8						
	comp=Z,0.3nm,0.5s						
MKAR	**Makanchi Array**	**60.51**	**318**	P	**P**	**16 01 05.9**	**+0.4**
MAKZ	**Makanchi**	**60.72**	**317**	P	**P**	**16 01 07.5**	**+0.6**
MAKZ				IAmb	IAmb	16 01 14.7	
	comp=Z,4.5nm,1.4s						
ZALV	**Zalesovo Beam**	**61.24**	**326**	P	**P**	**16 01 09.8**	**-0.5**
	comp=Z,0.8nm,0.6s,baz=111,slow=8.1,SNR=3.8						
	comp=Z,0.8nm,0.6s						
ZALV	**Zalesovo Beam**	**61.24**	**326**	P	**P**	**16 01 10.6**	**+0.3**
KURK	**Kurchatov**	**63.87**	**321**	P	**P**	**16 01 27.6**	**-0.2**
KURK				IAmb	IAmb	16 01 40.2	
	comp=Z,3.0nm,0.6s						
KURBB	**Kurchatov Arra**	**63.90**	**321**	P	**P**	**16 01 27.9**	**-0.2**
	comp=Z,0.9nm,0.3s,baz=105,slow=6.9,SNR=8.1						
	comp=Z,0.9nm,0.3s						
K17K	**Iditarod**	**66.58**	**26**	P	**P**	**16 01 45.3**	**+0.1**
H18K	**Honhosa River**	**67.47**	**23**	P	**P**	**16 01 51.4**	**+0.5**
H18K				IAmb	IAmb	16 02 27.5	
	comp=Z,10nm,1.5s						
G19K	**Purcell Mounta**	**68.33**	**23**	P	**P**	**16 01 57.0**	**+0.8**
G19K				IAmb	IAmb	16 02 29.1	
	comp=Z,8.2nm,1.4s						
J20K	**Nowinta River**	**68.83**	**25**	P	**P**	**16 01 59.6**	**+0.2**
J20K				IAmb	IAmb	16 02 44.1	
	comp=Z,8.0nm,1.4s						
BVAR	**Borovoye Array**	**69.33**	**322**	P	**P**	**16 02 02.6**	**-0.1**
	comp=Z,1.7nm,0.5s,baz=104,slow=8.3,SNR=11						
	comp=Z,1.7nm,0.5s						
RND	**Reindeer**	**70.89**	**27**	P	**P**	**16 02 12.0**	**-0.1**
IL31		**72.02**	**25**	P	**P**	**16 02 17.8**	**-1.0**
IL31				IAmb	IAmb	16 02 47.7	
	comp=Z,6.7nm,1.5s						
ILAR	**Eielson Array**	**72.02**	**25**	P	**P**	**16 02 17.8**	**-1.1**
	comp=Z,1.0nm,0.7s,baz=248,slow=5.9,SNR=18						
	comp=Z,1.0nm,0.7s						
ILAR	**Eielson Array**	**72.02**	**25**	P	**P**	**16 02 18.5**	**-0.3**
K24K	**Donnelly Dome**	**72.31**	**26**	P	**P**	**16 02 21.1**	**+0.4**
C27K	**Jago River**	**74.14**	**21**	P	**P**	**16 02 31.5**	**+0.2**
C27K				IAmb	IAmb	16 03 14.3	
	comp=Z,4.5nm,1.3s						
L29M	**L29M**	**75.65**	**28**	P	**P**	**16 02 41.0**	**+0.8**
L29M				IAmb	IAmb	16 03 02.8	
	comp=Z,11nm,1.4s						
ARTI	**Arti**	**76.50**	**325**	LR	LR	16 38 48.6	
	comp=Z,36nm,18.3s,baz=90,slow=38						
INK	**Inuvik**	**77.69**	**22**	P	**P**	**16 02 51.9**	**+0.4**
INK				IAmb	IAmb	16 03 11.4	
	comp=Z,8.0nm,1.4s						
R33M	**Jennings River**	**79.14**	**31**	P	**P**	**16 03 00.3**	**+0.4**
R33M				IAmb	IAmb	16 03 20.6	
	comp=Z,16nm,1.4s						
A36M	**Sachs Harbour**	**80.28**	**18**	P	**P**	**16 03 06.2**	**+0.5**
A36M				IAmb	IAmb	16 03 07.4	
	comp=Z,6.0nm,0.8s						
C36M	**Paulatuk**	**81.03**	**21**	P	**P**	**16 03 09.8**	**+0.1**
YKAW3	**Yellowknife Wh**	**86.36**	**27**	P	**P**	**16 03 37.3**	**+0.2**
YKAW3				IAmb	IAmb	16 03 38.5	
	comp=Z,4.2nm,0.9s						
YKA	**Yellowknife Ar**	**86.38**	**27**	P	**P**	**16 03 37.2**	**-0.1**
	comp=Z,1.0nm,0.6s,baz=294,slow=5.2,SNR=4.3						
	comp=Z,1.0nm,0.6s						
ARCES	**ARCESS Array B**	**87.93**	**341**	P	**P**	**16 03 45.2**	**+0.6**
	comp=Z,4.2nm,0.9s,baz=61,slow=6.0,SNR=2.2						
	comp=Z,4.2nm,0.9s						
FINES	**FINESS Array B**	**91.48**	**334**	P	**P**	**16 03 59.8**	**-1.5**
	comp=Z,5.5nm,1.0s,baz=64,slow=6.0,SNR=9.7						
	comp=Z,5.5nm,1.0s						
NOA	**NORSAR Array B**	**97.65**	**338**	LR	LR	16 51 13.9	
	comp=Z,29nm,18.4s,baz=320,slow=37						
LPAZ	**La Paz**	**151.22**	**103**	PKPbc	**PKiKP**	**16 10 50.9**	**+0.2**
	comp=Z,0.8nm,0.4s,baz=45,slow=1.4,SNR=3.5						

IDC 23 16:21:14.2±3.2, 32°.18S×177°.87W, h0km, mb3.7/2,
mbtmp3.7/3, ML3.0/1, Error ellipse: s-maj=73.5km s-min=37.6km az=116.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**7.32**	**213**	Pn	Pn	16 23 02.2	-0.2
	0.2nm,0.3s,baz=53,slow=16,SNR=1.4						
URZ				Sn	Sn	16 24 26.5	+0.3
	2.1nm,0.3s,baz=72,slow=20,SNR=9.1						
	3.4nm,0.5s						
URZ				AML	AML		
ASAR	**Alice Springs**	**43.15**	**269**	P	P	16 29 17.1	+0.2
	0.4nm,0.5s,baz=110,slow=7.7,SNR=14						
	0.4nm,0.5s						
WRA	**Warramunga Arr**	**44.30**	**274**	P	P	16 29 25.9	-0.2
	0.7nm,0.4s,baz=115,slow=8.3,SNR=25						
	0.7nm,0.4s						
FINES	**FINESS Array B**	**146.85**	**339**	PKPbc	PKPdf	16 40 56.6	+0.8
	1.1nm,0.5s,baz=46,slow=4.0,SNR=4.5						

*TAP **23** 16:42:47.3, 24°.81N×121°.99E, h16km, ML3.6, C*
*JMA **23** 16:42:48.2±0.1, 24°.8N±0°.5×121°.9E±0°.5, h46km, MV2.8/11, TAIWAN REGION*

ISC 23 16:42:47.9±0.8, 24°.80N±0°.01×121°.98E±0°.02, h9km±5km, n148, σ0s93/272, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EGS		**0.06**	**316**	*i* P	**Pg**	**16 42 48.9**	**-0.9**
EGS				S	**Sg**	**16 42 50.7**	**-0.6**
NTC	**Toucheng**	**0.14**	**291**	*i* P	**Pg**	**16 42 51.7**	**+0.7**
NTC				*i* S	**Sg**	**16 42 55.1**	**+1.9**
TWB1	**Santiao Chiao**	**0.20**	**3**	*i* P	**Pg**	**16 42 52.0**	**-0.1**
TWB1				S	**Sg**	**16 42 55.9**	**+0.9**
TIPB	**Shuangxi**	**0.21**	**321**	*i* P	**Pg**	**16 42 52.6**	**+0.2**
TIPB				S	**Sg**	**16 42 56.2**	**+0.8**
TWC	**Suao**	**0.23**	**211**	*i* P	**Pg**	**16 42 52.5**	**0.0**
TWC				*i* S	**Sg**	**16 42 56.2**	**+0.6**
ESAO	**Su ao**	**0.26**	**208**	P	**Pg**	**16 42 53.2**	**+0.2**
ESAO				*i* S	**Sg**	**16 42 57.3**	**+0.8**
NDS	**Dongshan**	**0.29**	**234**	P	**Pg**	**16 42 53.9**	**+0.2**
NDS				S	**Sb**	**16 42 58.6**	**-1.6**
TWE	**Neicheng**	**0.29**	**254**	*i* P	**Pg**	**16 42 53.9**	**+0.2**
TWE				S	**Sb**	**16 42 59.6**	**-0.6**
SXI1	**Grass Mountain**	**0.30**	**343**	*i* P	**Pg**	**16 42 54.3**	**+0.3**
SXI1				S	**Sb**	**16 42 59.9**	**-0.8**
NWF	**Wu-fen Shan**	**0.32**	**327**	P	**Pg**	**16 42 55.0**	**+0.7**
NWF				*i* S	**Sb**	**16 43 00.2**	**-0.8**
WFSB	**Wu-fen Shan**	**0.32**	**327**	P	**Pg**	**16 42 54.9**	**+0.7**
WFSB				S	**Sb**	**16 43 00.3**	**-0.6**
FUSB	**Fushanzhiwuyua**	**0.35**	**263**	*i* P	**Pg**	**16 42 55.1**	**+0.2**
FUSB				S	**Sb**	**16 43 00.0**	**-1.2**
TNOU	**National Taiwa**	**0.39**	**332**	P	**Pg**	**16 42 55.9**	**+0.3**
TNOU				*i* S	**Sb**	**16 43 01.9**	**-1.2**
TWA	**Mucha**	**0.40**	**296**	P	**Pb**	**16 42 56.5**	**-0.6**
TWA				S	**Sb**	**16 43 02.0**	**-1.3**
EWUT	**Wuta**	**0.40**	**207**	*eP*	**Pg**	**16 42 55.7**	**0.0**
EWUT				S	**Sg**	**16 43 02.0**	**+1.0**
NWLT	**Wulai**	**0.43**	**267**	P	**Pb**	**16 42 56.7**	**-1.0**
NWLT				S	**Sb**	**16 43 02.5**	**-1.7**
ENA	**Nanau**	**0.43**	**210**	P	**Pg**	**16 42 56.6**	**+0.3**
ENA				*i* S	**Sg**	**16 43 02.6**	**+0.6**
NHY	**Taipei**	**0.44**	**303**	P	**Pb**	**16 42 58.2**	**+0.5**
NHY				*i* S	**Sb**	**16 43 04.0**	**-0.3**
NHDH	**Xindian Distri**	**0.44**	**291**	P	**Pb**	**16 42 57.6**	**-0.2**
NHDH				S	**Sb**	**16 43 04.0**	**-0.4**
EOS2	**EOS2**	**0.45**	**149**	P	**Pg**	**16 42 57.2**	**+0.6**
EOS2				S	**Sg**	**16 43 02.7**	**+0.2**
NDT	**Datong Townshi**	**0.47**	**245**	P	**Pb**	**16 42 57.4**	**-0.8**
NDT				S	**Sb**	**16 43 03.9**	**-1.3**
TATO	**Taipei**	**0.47**	**291**	*i* P	**Pb**	**16 42 58.0**	**-0.3**
TATO				*i* S	**Sb**	**16 43 04.9**	**-0.5**
TAP	**Taipei**	**0.49**	**299**	P	**Pb**	**16 42 58.7**	**+0.1**
TAP				S	**Sb**	**16 43 05.5**	**-0.3**
NWRT	**Kuosheng**	**0.49**	**324**	P	**Pg**	**16 42 57.8**	**+0.4**
NWRT				S	**Sb**	**16 43 05.4**	**-0.5**
YM01	**YM01**	**0.50**	**313**	P	**Pb**	**16 42 58.7**	**-0.1**
YM01				S	**Sb**	**16 43 05.0**	**-1.2**
YM08	**YM08**	**0.52**	**318**	*i* P	**Pb**	**16 42 58.7**	**-0.5**
YM08				S	**Sb**	**16 43 06.2**	**-0.5**
EAHA	**Aohua**	**0.52**	**204**	P	**Pb**	**16 42 59.1**	**0.0**
EAHA				*i* S	**Sb**	**16 43 05.8**	**-0.9**
BACT	**New Taipei Cit**	**0.52**	**292**	P	**Pb**	**16 42 58.5**	**-0.7**
BACT				S	**Sb**	**16 43 06.2**	**-0.6**
ZUZH	**Zhuzihu**	**0.53**	**312**	P	**Pb**	**16 42 59.0**	**-0.3**
ZUZH				S	**Sb**	**16 43 06.5**	**-0.6**
ANP	**Anpu**	**0.56**	**313**	*eP*	**Pg**	**16 42 59.7**	**-0.2**
YHNB	**Yeheng**	**0.56**	**256**	*i* P	**Pb**	**16 43 06.9**	**-1.1**
YHNB				S	**Sb**	**16 43 06.9**	**-1.1**
NSK	**Sanguang**	**0.57**	**257**	P	**Pg**	**16 42 59.1**	**+0.1**
NSK				S	**Sb**	**16 43 06.9**	**-1.5**
TWY	**Chenhua**	**0.58**	**324**	P	**Pb**	**16 43 00.3**	**+0.2**
TWS1	**Kuangyinshan**	**0.59**	**300**	P	**Pb**	**16 43 00.9**	**+0.6**
TWS1				*eS*	**Sb**	**16 43 09.4**	**+0.7**
NTST	**Danshui**	**0.60**	**307**	P	**Pb**	**16 43 01.0**	**+0.5**
NTST				*eS*	**Sb**	**16 43 09.3**	**+0.3**
EOS3	**EOS3**	**0.60**	**149**	*eP*	**Pg**	**16 42 59.7**	**+0.2**
EOS3				*eS*	**Sg**	**16 43 07.6**	**+0.2**
NTY	**Taoyuan**	**0.65**	**288**	P	**Pb**	**16 43 00.7**	**-0.6**
NTY				S	**Sb**	**16 43 09.7**	**-0.7**
NNSB	**Datong**	**0.66**	**235**	P	**Pg**	**16 43 00.8**	**+0.2**
NNSB				S	**Sb**	**16 43 10.1**	**-0.7**
NNSH	**Datong**	**0.66**	**235**	P	**Pb**	**16 43 00.9**	**-0.6**
NNSH				*i* S	**Sb**	**16 43 10.6**	**-0.2**
NNS	**Nan Shan**	**0.66**	**237**	P	**Pb**	**16 43 00.9**	**-0.6**
NNS				S	**Sb**	**16 43 10.4**	**-0.4**
NACB	**Ninganchiao**	**0.72**	**209**	P	**Pg**	**16 43 01.9**	**+0.2**
NACB				*eS*	**Sg**	**16 43 11.3**	**+0.2**
ETL	**Fush Village**	**0.72**	**207**	P	**Pg**	**16 43 02.2**	**+0.4**
ETL				*i* S	**Sb**	**16 43 12.0**	**-0.5**
KSHI	**Guanxi Townshi**	**0.73**	**268**	*eP*	**Pb**	**16 43 02.8**	**+0.1**
KSHI				*eS*	**Sn**	**16 43 13.8**	**-1.7**
NCU	**National Centr**	**0.73**	**283**	P	**Pn**	**16 43 04.1**	**-0.3**
NCU				S	**Sn**	**16 43 15.8**	**+0.1**
ETLH	**Xiulin Townshi**	**0.74**	**217**	*eP*	**Pb**	**16 43 02.8**	**-0.2**
ETLH				*eS*	**Sg**	**16 43 12.3**	**+0.3**
EOS4	**EOS4**	**0.75**	**155**	*eP*	**Pg**	**16 43 02.1**	**-0.1**
EOS4				*eS*	**Sb**	**16 43 14.1**	**+1.1**
NFF	**Wufeng Townshi**	**0.80**	**258**	*eP*	**Pb**	**16 43 04.2**	**+0.3**
NFF				*eS*	**Sb**	**16 43 15.0**	**+0.2**
TWD	**Chiawan**	**0.80**	**206**	*eP*	**Pg**	**16 43 03.6**	**+0.3**
TWD				*eS*	**Sb**	**16 43 14.2**	**-0.6**
NJD	**Zhudong**	**0.81**	**265**	*eP*	**Pb**	**16 43 04.3**	**+0.2**
PCYT	**Pengchaiyu**	**0.83**	**6**	*eP*	**Pb**	**16 43 04.7**	**+0.3**
FUSS	**Fushou**	**0.87**	**230**	*eP*	**Pg**	**16 43 04.3**	**-0.3**
FUSS				S	**Sb**	**16 43 16.7**	**-0.2**
NHW	**Xinwu Township**	**0.87**	**284**	*eP*	**Pg**	**16 43 04.3**	**-0.3**
HSN1	**Hsinchu**	**0.87**	**268**	*eP*	**Pn**	**16 43 06.0**	**-0.3**
HSN1				S	**Sb**	**16 43 17.2**	**+0.4**
LIOB	**Emei**	**0.89**	**260**	*eP*	**Pn**	**16 43 06.6**	**+0.1**
LIOB				*eS*	**Sn**	**16 43 20.6**	**+1.1**
HWA	**Hwalien**	**0.89**	**202**	*eP*	**Pg**	**16 43 04.5**	**-0.5**
SBCB	**Hsinchu**	**0.90**	**269**	P	**Pn**	**16 43 06.0**	**-0.7**
SBCB				*i* S	**Sn**	**16 43 18.3**	**-1.4**
NSTT	**Nanjuang**	**0.90**	**259**	*eP*	**Pn**	**16 43 06.8**	**+0.1**
NSTT				*eS*	**Sn**	**16 43 18.8**	**-1.0**
TWT	**Tachien**	**0.91**	**233**	*eP*	**Pn**	**16 43 06.4**	**-0.5**
TWT				S	**Sn**	**16 43 18.9**	**-1.4**
HSN	**Hsinchu**	**0.91**	**270**	*eP*	**Pg**	**16 43 04.8**	**-0.7**
HSN				*eS*	**Sb**	**16 43 17.7**	**-0.4**
WHF	**Hehuan Shan**	**0.92**	**225**	P	**Sb**	**16 43 05.7**	**0.0**
WHF				S	**Sb**	**16 43 18.4**	**-0.4**
TDCB	**Techi**	**0.92**	**234**	P	**Pb**	**16 43 06.3**	**+0.1**
TDCB				S	**Sb**	**16 43 18.0**	**-0.6**
LXIB	**Xiulin Townshi**	**0.93**	**213**	P	**Pb**	**16 43 06.2**	**-0.1**
LXIB				S	**Sb**	**16 43 18.7**	**-0.1**
ETM	**Tongmen**	**0.94**	**208**	P	**Pg**	**16 43 06.3**	**+0.2**
ETM				S	**Sg**	**16 43 18.4**	**+0.1**
JYNG	**Yonagunijimaku**	**0.95**	**112**	P	**Pg**	**16 43 06.3**	**+0.2**
YOJ	**Yonaguni jima**	**1.00**	**110**	*eP*	**Pg**	**16 43 07.7**	**+0.5**
YOJ				S	**Sg**	**16 43 21.0**	**+0.8**
YOJ	**Yonaguni jima**	**1.00**	**110**	P	**Pg**	**16 43 07.5**	**+0.5**
YOJ				S	**Sg**	**16 43 21.2**	**+1.0**
WHP	**Taichung City**	**1.07**	**241**	P	**Pn**	**16 43 09.6**	**+0.5**
WHP				*eS*	**Sn**	**16 43 23.5**	**-0.7**
SHUL	**Shoufeng**	**1.08**	**200**	*eP*	**Pn**	**16 43 09.6**	**+0.4**
SHUL				*eS*	**Sb**	**16 43 23.4**	**+0.5**
ESL	**Shilin**	**1.10**	**207**	*eP*	**Pg**	**16 43 08.6**	**-0.5**
ESL				*eS*	**Sg**	**16 43 23.1**	**-0.3**
NMLH	**Miaoli**	**1.11**	**256**	*eP*	**Pn**	**16 43 10.7**	**+1.2**
NMLH				*eS*	**Sn**	**16 43 25.3**	**+0.4**
OWD	**Renai**	**1.12**	**221**	P	**Pg**	**16 43 09.0**	**-0.3**
OWD				S	**Sb**	**16 43 24.2**	**+0.2**
WUSB	**Renai**	**1.12**	**224**	P	**Pg**	**16 43 09.3**	**-0.2**
WUSB				S	**Sb**	**16 43 24.6**	**+0.3**
TEGC	**Jichi Village**	**1.16**	**200**	P	**Pn**	**16 43 12.8**	**+2.6**
TEGC				*eS*	**Sn**	**16 43 29.5**	**+3.4**
NSY	**Sanyi**	**1.17**	**251**	P	**Pn**	**16 43 12.2**	**+1.7**
TWQ1	**Liyutan**	**1.19**	**248**	P	**Pn**	**16 43 11.9**	**+1.3**
TWQ1				*eS*	**Sn**	**16 43 26.6**	**-0.2**
WARBT	**Fenglin Townsh**	**1.21**	**207**	P	**Pb**	**16 43 10.5**	**-0.4**
WARBT				S	**Sb**	**16 43 25.9**	**-0.7**
WPL	**Puli Township**	**1.22**	**230**	*eP*	**Pb**	**16 43 10.4**	**-0.6**
WPL				*eS*	**Sb**	**16 43 26.5**	**-0.4**
WCS	**Beigang Elemen**	**1.22**	**233**	*eP*	**Pg**	**16 43 11.8**	**+0.4**
WCS				*eS*	**Sn**	**16 43 29.4**	**+1.7**
DPDB	**Guoxing**	**1.23**	**231**	*eP*	**Pn**	**16 43 11.5**	**+0.3**
EGFH	**Guangfu**	**1.24**	**204**	*eP*	**Pn**	**16 43 10.2**	**-1.0**
EGFH				*eS*	**Sb**	**16 43 26.7**	**-0.7**
VWDT	**VWDT**	**1.29**	**216**	P	**Pb**	**16 43 12.5**	**+0.1**
VWDT				S	**Sg**	**16 43 29.1**	**-0.4**
WDJ	**Dajia District**	**1.30**	**250**	*eP*	**Pn**	**16 43 11.2**	**-0.9**
WDJ				*eS*	**Sn**	**16 43 29.6**	**+0.1**
SMLT	**Sun Moon Lake**	**1.34**	**227**	P	**Pg**	**16 43 13.5**	**-0.1**
SMLT				*eS*	**Sn**	**16 43 31.0**	**+0.1**
TCU	**Taichung**	**1.35**	**241**	*eP*	**Pn**	**16 43 12.9**	**0.0**
TCU				*eS*	**Sg**	**16 43 30.8**	**-0.6**
TYC	**Yuchr**	**1.36**	**229**	*eP*	**Pg**	**16 43 13.9**	**0.0**
TYC				*eS*	**Sg**	**16 43 31.1**	**-0.5**
SSLB	**Suanglung**	**1.38**	**223**	P	**Pn**	**16 43 13.4**	**+0.1**
SSLB				S	**Sn**	**16 43 31.3**	**-0.3**
WWF	**Wufeng**	**1.39**	**237**	*eP*	**Pg**	**16 43 15.5**	**+1.0**
WWF				*eS*	**Sg**	**16 43 34.1**	**+1.5**
HGSD	**Ruisui**	**1.40**	**201**	*eP*	**Pb**	**16 43 14.2**	**0.0**
HGSD				*eS*	**Sg**	**16 43 32.8**	**-0.1**
EHY	**Hungye**	**1.42**	**205**	*eP*	**Pn**	**16 43 13.0**	**-0.9**
EHY				*eS*	**Sb**	**16 43 32.3**	**-0.5**
EHYH	**Wanrong**	**1.43**	**204**	*eP*	**Pb**	**16 43 14.5**	**-0.1**
EHYH				*eS*	**Sn**	**16 43 32.5**	**-0.2**
WWCA	**Taichung City**	**1.43**	**248**	P	**Pn**	**16 43 13.0**	**-1.0**
WCHH	**Zhanghua**	**1.48**	**241**	*eS*	**Sg**	**16 43 38.8**	**+3.4**
WNT1	**Nantou City**	**1.48**	**233**	*eP*	**Pg**	**16 43 17.1**	**+0.8**
WNT1				*eS*	**Sg**	**16 43 36.4**	**+0.8**
WCH1	**Changhua City**	**1.49**	**241**	*eS*	**Sg**	**16 43 38.9**	**+3.0**
WNT	**Mingjian**	**1.50**	**232**	*eP*	**Pg**	**16 43 17.2**	**+0.6**
WNT				*eS*	**Sg**	**16 43 39.4**	**+3.4**
WJS	**Zhushan**	**1.50**	**230**	P	**Pg**	**16 43 17.7**	**+1.0**
WJS				S	**Sg**	**16 43 41.5**	**+5.3**
WHYT	**Xinyi Township**	**1.50**	**223**	*eP*	**Pg**	**16 43 16.6**	**-0.1**
WHYT				*eS*	**Sb**	**16 43 35.9**	**+0.1**
YULB	**Yu-li**	**1.54**	**204**	*eP*	**Pb**	**16 43 16.5**	**0.0**
YULB				S	**Sn**	**16 43 34.7**	**-0.8**
EYUL	**Yuli**	**1.57**	**203**	S	**Sn**	**16 43 34.3**	**-2.0**
TWF1	**Yuli**	**1.57**	**203**	*eP*	**Pn**	**16 43 16.0**	**+0.1**
TWF1				*eS*	**Sg**	**16 43 38.8**	**+0.3**
IRIF	**Iriomote-Funau**	**1.67**	**106**	*eP*	**Pn**	**16 43 16.6**	**-0.6**
IRIF				*eS*	**Sn**	**16 43 38.1**	**-0.6**
ALS	**Alishan**	**1.67**	**220**	*eP*	**Pb**	**16 43 19.3**	**+0.3**
ALS		

MWZ	**Matawai**	**6.88**	**193**	P	Pn	16 57 56.1 -0.6
MWZ				AML	AML	
URZ	**Urewera**	**6.89**	**196**	P	Pn	16 57 56.9 +0.1
URZ				S	S	16 59 20.1 +0.6
URZ				AML	AML	
URZ				AML	AML	
CNGZ	**Carnagh Statio**	**6.92**	**188**	P	Pn	16 57 57.3 +0.1
CNGZ				AML	AML	
RTZ	**Ruatahuna**	**7.26**	**195**	P	Pn	16 58 01.1 -0.1
RTZ				S	S	16 59 26.0 -1.5
RTZ				AML	AML	
MTHZ	**Maungataniwha**	**7.52**	**196**	P	Pn	16 58 04.5 +0.3
MTHZ				S	S	16 59 33.6 +0.8
MTHZ				AML	AML	
MTHZ				AML	AML	
RAHZ	**Arahi**	**7.53**	**194**	P	Pn	16 58 04.6 +0.4
RAHZ				S	S	16 59 33.0 0.0
RAHZ				AML	AML	
NMHZ	**Naumai**	**7.76**	**195**	P	P	16 58 07.8 -0.2
NMHZ				AML	AML	
NMHZ				AML	AML	
ARHZ	**Aropaoanui**	**7.88**	**194**	P	Pn	16 58 08.6 +0.3
ARHZ				AML	AML	
BKZ	**Black Stump Fm**	**7.90**	**197**	P	Pn	16 58 08.6 0.0
BKZ				S	S	16 59 42.1 +1.0
BKZ				AML	AML	

*CNRM **23** 16:58:05.0, 36.88N×0.31W, h10km*
*SFS **23** 16:58:05.6, 37.31N×2.05W, h11km, ML2.7/17, ML2.9/17, MLv3.0/13*
*INMG **23** 16:58:05.8±1.7, 37.31N×2.04W, h11km±3km, ML2.3, Error ellipse: s-maj=2.7km s-min=2.4km az=143.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SE Almeria (ESP)*
*MDD **23** 16:58:05.2±0.3, 37.33N×2.08W, h5km±2km, mb_Lg2.5/23, Error ellipse: s-maj=2.7km s-min=1.7km az=151.0*

ISC 23 16:58:04.0±1.0, 37.31N±0.02×2.05W±0.02, h14km±8km, n53, σ1°03/92, Spain

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ENIJ	**Nijar**	**0.36**	**201**	Pg	**Pb**	**16 58 12.7**	**+0.5**
ENIJ				Sg	**Sb**	**16 58 17.6**	**-0.2**
ENIJ	**Nijar**	**0.36**	**201**	Pg	**Pb**	**16 58 12.8**	**+0.6**
ENIJ				Sg	**Sb**	**16 58 17.9**	**+0.1**
ENIJ				IVmb_Lg		16 58 19.2	
ELOR	**Lorca, Murcia**	**0.40**	**36**	Pg	**Pg**	**16 58 12.2**	**0.0**
ELOR				Sg	**Sb**	**16 58 18.0**	**-1.0**
ELOR				IVmb_Lg		16 58 20.4	
TLOR	**Lorca, Murcia**	**0.45**	**40**	Pg	**Pb**	**16 58 13.4**	**-0.3**
TLOR				Sg	**Sb**	**16 58 19.6**	**-0.6**
EZAR	**Zarzadilla de**	**0.63**	**26**	Pg	**Pg**	**16 58 16.3**	**0.0**
EZAR				Sg	**Sb**	**16 58 25.6**	**+0.1**
EZAR				IVmb_Lg		16 58 28.2	
EBER	**Berja**	**0.79**	**239**	Pg	**Pg**	**16 58 19.5**	**+0.1**
EBER				Sg	**Sg**	**16 58 29.1**	**-0.7**
EBER	**Berja**	**0.79**	**239**	Pg	**Pg**	**16 58 19.5**	**+0.1**
EBER				Sg	**Sg**	**16 58 29.0**	**-0.8**
EBER				IVmb_Lg		16 58 35.0	
EMUR	**La Murta**	**0.83**	**50**	Pg	**Pb**	**16 58 20.3**	**+0.1**
EMUR				Sg	**Sb**	**16 58 31.7**	**+0.5**
EMUR	**La Murta**	**0.83**	**50**	Pg	**Pb**	**16 58 20.3**	**+0.1**
EMUR				Sg	**Sb**	**16 58 31.9**	**+0.6**
EMUR				IVmb_Lg		16 58 34.7	
CART	**Cartagena**	**0.88**	**71**	Pg	**Pn**	**16 58 21.8**	**0.0**
CART				Sg	**Sn**	**16 58 33.9**	**-0.5**
CART	**Cartagena**	**0.88**	**71**	P	**Pn**	**16 58 22.2**	**+0.4**
CART				S	**Sn**	**16 58 34.7**	**+0.4**
EQES	**Quesada**	**0.95**	**301**	Pg	**Pn**	**16 58 24.1**	**+1.1**
EQES				Sg	**Sb**	**16 58 36.1**	**+1.3**
EQES				IVmb_Lg		16 58 41.0	
EQUE	**Quentar**	**1.12**	**265**	Pg	**Pb**	**16 58 24.5**	**-0.6**
EQUE				Sg	**Sb**	**16 58 39.1**	**-0.4**
EQUE				IVmb_Lg		16 58 44.3	
EQTA	**Presa de Quent**	**1.12**	**265**	Pg	**Pb**	**16 58 24.6**	**-0.6**
E0802	**Ubeda,Jaen**	**1.27**	**304**	Sg	**Sb**	**16 58 45.1**	**+1.1**
ELGU	**Los Guajares,**	**1.34**	**251**	Pn	**Pn**	**16 58 28.8**	**+0.5**
ELGU	**Los Guajares,**	**1.34**	**251**	Pg	**Pn**	**16 58 28.8**	**+0.5**
ELGU				Sg	**Sb**	**16 58 47.4**	**+1.4**
ELGU				IVmb_Lg		16 58 52.2	
ETOB	**Tobarra**	**1.39**	**16**	Pn	**Pg**	**16 58 30.3**	**-0.4**
ETOB				Sg	**Sg**	**16 58 49.9**	**+1.1**
ETOB	**Tobarra**	**1.39**	**16**	Pg	**Pg**	**16 58 30.9**	**+0.2**
ETOB				Sg	**Sg**	**16 58 49.7**	**+0.9**
ETOB				IVmb_Lg		16 58 52.5	
EGOR	**Sierra Gorda,**	**1.66**	**264**	Pn	**Pb**	**16 58 34.6**	**+0.2**
EGOR	**Sierra Gorda,**	**1.66**	**264**	Pg	**Pb**	**16 58 34.9**	**+0.5**
EGOR				Sg	**Sg**	**16 58 58.9**	**+1.4**
EGOR				IVmb_Lg		16 59 04.1	
PSIM	**Granatula de C**	**2.02**	**319**	Pn	**Pn**	**16 58 38.7**	**+1.0**
PSIM				Sn	**Sn**	**16 59 01.4**	**-1.4**
EADA	**Adamuz**	**2.18**	**294**	Pn	**Pn**	**16 58 40.6**	**+0.7**
EADA				Sn	**Sn**	**16 59 05.8**	**-0.8**
EADA	**Adamuz**	**2.18**	**294**	Pn	**Pn**	**16 58 40.5**	**+0.6**
EADA				Sn	**Sn**	**16 59 07.0**	**+0.3**
EADA				Sg	**Sg**	**16 59 14.4**	**+0.3**
EADA				IVmb_Lg		16 59 15.1	
TAF	**Taforalt**	**2.51**	**187**	P	**Pb**	**16 58 48.4**	**-0.5**
ECAB	**El Cabril**	**2.78**	**287**	Pn	**Pn**	**16 58 48.7**	**+0.6**
ECAB				Sn	**Sn**	**16 59 21.5**	**0.0**
ECAB	**El Cabril**	**2.78**	**287**	Pn	**Pn**	**16 58 48.6**	**+0.5**
ECAB				Sn	**Sn**	**16 59 22.2**	**+0.8**
ECAB				IVmb_Lg		16 59 24.3	
ECAB				Sg	**Sg**	**16 59 32.5**	**-0.9**
PAB	**San Pablo**	**2.87**	**322**	Pn	**Pn**	**16 58 51.0**	**+1.6**
PAB				Pg	**Pg**	**16 58 58.5**	**-0.5**
PAB				Sn	**Sn**	**16 59 22.1**	**-1.7**
PAB				Sg	**Sg**	**16 59 35.0**	**-1.2**
PAB				IVmb_Lg		16 59 37.1	
JBK	**JBK**	**3.00**	**188**	P	**Pb**	**16 58 55.8**	**-1.5**
EIBI	**Ibiza**	**3.17**	**56**	Pn	**Pn**	**16 58 54.8**	**+1.3**
EIBI				Sn	**Sn**	**16 59 30.7**	**-0.4**
EIBI				IVmb_Lg		17 01 08.4	
ETOR	**Torete**	**3.50**	**360**	Pg	**Pg**	**16 59 10.0**	**-1.1**
ETOR				Sn	**Sn**	**16 59 39.3**	**0.0**
ETOR				Sg	**Sg**	**16 59 55.6**	**-0.9**
ETOR				IVmb_Lg		17 00 18.3	
EMIN	**Mina Concepcio**	**3.71**	**278**	Pn	**Pn**	**16 59 02.3**	**+1.5**
PBAR	**Barrancos**	**4.05**	**284**	Pn	**Pn**	**16 59 06.5**	**+0.9**
PBAR	**Barrancos**	**4.05**	**284**	*e*Pn	**Pn**	**16 59 07.0**	**+1.5**
PBAR				*e*Sn	**Sn**	**16 59 52.6**	**-0.2**
PBAR				IAML		16 59 54.5	
PBAR				IAML		17 00 18.5	
PBAR				IAML		17 00 25.6	
EBAD	**Badajoz**	**4.18**	**292**	Pn	**Pn**	**16 59 07.7**	**+0.4**
EBAD				Sn	**Sn**	**16 59 55.5**	**-0.4**
EBAD				IVmb_Lg		16 59 57.5	
EGRO	**El Granado**	**4.33**	**275**	Pn	**Pn**	**16 59 10.7**	**+1.3**
EGRO	**El Granado**	**4.33**	**275**	Pn	**Pn**	**16 59 09.3**	**-0.1**
EGRO				Sn	**Sn**	**16 59 56.6**	**-3.1**
EGRO				IVmb_Lg		17 00 23.7	
ETOS	**Mallorca**	**4.53**	**56**	Pn	**Pn**	**16 59 13.2**	**+1.0**
PESTR	**Estremoz**	**4.64**	**291**	*e*Sn	**Sn**	**17 00 07.1**	**-0.2**
PESTR				IAML		17 00 32.9	
PESTR				IAML		17 00 37.3	
PESTR				IAML		17 00 40.8	
PBDV	**Barranco-do-Ve**	**4.69**	**271**	Pn	**Pn**	**16 59 14.8**	**+0.4**
PBDV	**Barranco-do-Ve**	**4.69**	**271**	*e*Sn	**Sn**	**17 00 08.8**	**+0.2**
PMRV	**Marv??o**	**4.70**	**298**	*e*Sn	**Sn**	**17 00 08.2**	**-0.6**
PMRV				*e*Sg	**Sg**	**17 00 31.6**	**-3.3**
PMRV				IAML		17 00 37.4	
PMRV				IAML		17 00 38.1	
PMRV				IAML		17 00 42.4	
PCVE	**Castro Verde**	**4.78**	**276**	Pn	**Pn**	**16 59 16.7**	**+1.1**
PCVE	**Castro Verde**	**4.78**	**276**	*e*Pn	**Pn**	**16 59 17.3**	**+1.8**
EVO	**Evora**	**4.87**	**286**	*e*Sn	**Sn**	**17 00 13.1**	**+0.1**
MESJ	**Messejana**	**4.93**	**278**	*e*Pn	**Pn**	**16 59 19.2**	**+1.5**
PCBR	**Castelo Branco**	**4.95**	**302**	*e*Pn	**Pn**	**16 59 19.8**	**+1.9**
PCBR				*e*Sn	**Sn**	**17 00 14.1**	**-0.7**
PCBR				IAML		17 00 47.0	
PCBR				IAML		17 00 50.1	
PCBR				IAML		17 00 53.3	
PARRA	**Arraiolos**	**4.96**	**289**	*e*Pn	**Pn**	**16 59 20.2**	**+2.1**
PARRA				*e*Sn	**Sn**	**17 00 14.6**	**-0.7**
PARRA				IAML		17 00 48.3	
PARRA				IAML		17 00 53.7	
PARRA				IAML		17 00 57.0	
PLOUS	**Minas do Lousa**	**5.11**	**280**	*e*Pn	**Pn**	**16 59 21.4**	**+1.4**
PLOUS				*e*Sn	**Sn**	**17 00 18.4**	**-0.4**
PLOUS				IAML		17 00 19.8	
PLOUS				IAML		17 00 20.2	
PLOUS				IAML		17 00 21.7	
MOE	**Montemor**	**5.13**	**286**	*e*Sn	**Sn**	**17 00 18.9**	**-0.4**
MOE				IAML		17 00 50.9	
MOE				IAML		17 00 54.5	
MOE				IAML		17 00 56.4	
PMTG	**Montargil**	**5.17**	**292**	*e*Sn	**Sn**	**17 00 18.9**	**-1.5**
PMTG				IAML		17 00 53.5	
PMTG				IAML		17 00 55.6	
PMTG				IAML		17 00 55.9	
MORF	**Marmelete**	**5.27**	**272**	*e*Pn	**Pn**	**16 59 24.1**	**+1.8**
MORF				*e*Sn	**Sn**	**17 00 23.1**	**+0.3**
MORF				IAML		17 00 24.8	
MORF				IAML		17 00 24.9	
MORF				IAML		17 00 33.3	
PSARD	**Sardoal**	**5.32**	**297**	*e*Pn	**Pn**	**16 59 24.4**	**+1.5**
PSARD				*e*Sn	**Sn**	**17 00 22.9**	**-1.1**
PSARD				IAML		17 00 56.0	
PSARD				IAML		17 01 01.0	
PSARD				IAML		17 01 01.3	

ISK 23 16:59:34.2, 38.43N×39.23E, h2km, ML1.5/3, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SVRC	**Sivrice-ELAZID**	**0.08**	**131**	Pg	Pg	16 59 36.1	+0.3
SVRC				Sg	Sg	16 59 37.7	+0.8
SVRC				AML	AML		
URFA	**Urfa**	**1.04**	**198**	Pg	Pb	16 59 55.1	+0.1
URFA				Sg	Sn	17 00 10.2	-0.8
SVAN	**Silvan-Diyarba**	**1.57**	**100**	Pn	Pb	17 00 04.0	0.0
SVAN				Sn	Sg	17 00 25.8	+1.1

AFAD 23 17:00:18.3, 38.51N×39.19E, h22km±2km, ML1.2, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.16**	**265**	P	Pb	17 00 24.0	+0.2
ELZG				S	Sb	17 00 26.5	-1.1
ELZG				IAML		17 00 27.0	
	comp=N,48nm,0.1s						

*DNK **23** 17:00:24.5±1.1, 51.83N×17.78E, h15km±47km, ML2.9, Presumed earthquake*
*IPEC **23** 17:00:24.6±0.2, 51.47N×16.30E, h1km, ML1.9/7, Error ellipse: s-maj=1.4km s-min=0.9km az=36.0*
*VIE **23** 17:00:26.9±0.8, 51.32N×16.57E, h0km, mb2.5/1, ml2.4/4, ml2.4/4, Error ellipse: s-maj=9.1km s-min=4.8km az=104.0 40 km NW of Wroclaw Suspected Mining induced.*
*PRU **23** 17:00:27.6, 51.36N×16.20E, h0km*

ISC 23 17:00:22.9±0.8, 51.55N±0.03×16.27E±0.03, h0km, n30, σ1°39/58, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.71**	**179**	*e*Pg	**Pg**	**17 00 37.0**	**+0.5**
KSP				*e*Sg	**Sg**	**17 00 44.8**	**-0.9**
CHVC	**Chvalec**	**0.97**	**188**	*e*PG	**Pg**	**17 00 41.9**	**+0.4**
CHVC				*e*SG	**Sg**	**17 00 53.8**	**-0.3**
OSTC	**Ostas**	**1.00**	**182**	*e*PG	**Pg**	**17 00 42.5**	**+0.5**
OSTC				*e*SG	**Sg**	**17 00 54.3**	**-0.6**
	comp=Z,12nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**1.06**	**189**	*e*PG	**Pg**	**17 00 43.4**	**+0.3**
UPC				*e*SG	**Sg**	**17 00 55.6**	**-1.2**
	comp=Z,32nm,0.3s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.20**	**178**	*e*PG	**Pg**	**17 00 45.8**	**-0.1**
DPC				*e*SG	**Sg**	**17 01 00.4**	**-1.1**
	comp=Z,13nm,0.4s						
DPC				AML	AML		
PIVO	**Bartosovice**	**1.38**	**172**	*e*Pg	**Pg**	**17 00 49.3**	**0.0**
	baz=353						
PIVO				*e*Sg	**Sg**	**17 01 05.2**	**-1.9**
	16nm,0.3s,baz=353						
PIVO				AML	AML		
PVCC	**Panska Ves**	**1.48**	**227**	*e*PG	**Pb**	**17 00 51.7**	**+0.4**
PVCC				*e*SG	**Sg**	**17 01 10.3**	**-0.2**
	comp=Z,53nm,0.2s						
PVCC				AML	AML		
KRLC	**Kraliky**	**1.51**	**167**	*e*PG	**Pn**	**17 00 51.4**	**+0.1**
KRLC				*e*SG	**Sg**	**17 01 10.4**	**-1.1**
	comp=Z,11nm,0.3s						
KRLC				AML	AML		
BRG	**Berggiesshubel**	**1.61**	**246**	Pg	**Pg**	**17 00 54.6**	**+0.9**
BRG				Sg	**Sb**	**17 01 14.6**	**+0.2**
BRG				Amp		17 01 16.8	
	comp=Z,18nm,0.3s						
ANAC	**Anensky vrch**	**1.64**	**154**	*e*Pn	**Pn**	**17 00 53.5**	**+0.5**
	baz=334						
ANAC				*e*Sg	**Sn**	**17 01 13.4**	**-1.4**
	comp=Z,8.1nm,0.3s,baz=334						
ANAC				AML	AML		
RYBC	**Ceska Rybna**	**1.75**	**184**	*e*Pn	**Pn**	**17 00 54.9**	**+0.4**
	baz=5.0						
RYBC				*e*Sg	**Sn**	**17 01 16.8**	**-0.7**
	comp=Z,13nm,0.2s,baz=5.0						
RYBC				AML	AML		
STEB	**Steborice**	**1.88**	**149**	*e*PG	**Pb**	**17 00 58.6**	**+0.5**
STEB				*e*SG	**Sb**	**17 01 22.6**	**+0.5**
	comp=Z,15nm,0.4s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**1.95**	**155**	*e*Pn	**Pn**	**17 00 57.5**	**+0.2**
	baz=335						
MORC				*e*Sg	**Sn**	**17 01 23.1**	**+0.5**
	comp=Z,5.8nm,0.3s,baz=335						
MORC				AML	AML		
HSKC	**Hora Svate Kat**	**2.02**	**243**	*e*SG	**Sb**	**17 01 26.4**	**+0.2**
	comp=Z,11nm,0.2s						
HSKC				AML	AML		
CLL	**Collm**	**2.06**	**264**	*e*Pg	**Pg**	**17 01 03.0**	**+0.7**
CLL				*e*Sg	**Sg**	**17 01 29.0**	**0.0**
VRAC	**Vranov**	**2.26**	**175**	*e*Pn	**Pn**	**17 01 01.5**	**0.0**
	baz=355						
VRAC				*e*Sg	**Sb**	**17 01 32.6**	**-0.3**
	comp=Z,4.2nm,0.3s,baz=355						
VRAC				AML	AML		
TREC	**Trest**	**2.31**	**193**	*e*SG	**Sb**	**17 01 35.2**	**+0.6**
KRUC	**Moravsky**	**2.50**	**178**	*e*Pn	**Pn**	**17 01 05.1**	**+0.4**
	baz=358						
KRUC				*e*Pg	**Pb**	**17 01 08.8**	**+0.3**
	baz=358						
KRUC				*e*Sg	**Sb**	**17 01 40.1**	**+0.3**
	comp=Z,4.9nm,0.5s,baz=358						
KRUC				AML	AML		
OJC	**Ojcow**	**2.60**	**119**	*e*Pg	**Pg**	**17 01 13.9**	**+1.1**
OJC				*e*Sg	**Sg**	**17 01 48.6**	**+2.1**
NKC	**Novy Kostel**	**2.75**	**243**	*e*PN	**Pn**	**17 01 09.7**	**+1.4**
NKC				*e*PG	**Pg**	**17 01 15.8**	**+0.1**
NKC				*e*SG	**Sg**	**17 01 50.4**	**-1.0**
	comp=Z,16nm,0.4s						
NKC				AML	AML		
ABNA	**Allensteig Bun**	**2.93**	**191**	*e*Pn	**Pn**	**17 01 11.7**	**+0.9**
	comp=Z,0.8nm,0.1s						
ABNA				*e*Sg	**Sb**	**17 01 53.6**	**+1.1**
	comp=Z,3.8nm,0.1s						
KHC	**Kasperske Hory**	**2.97**	**216**	*e*PG	**Pb**	**17 01 16.7**	**0.0**
KHC				*e*SG	**Sb**	**17 01 54.8**	**+1.2**
CKRC	**Cesky Krumlov**	**3.01**	**205**	*e*SG	**Sb**	**17 01 56.0**	**+1.3**
LANS	**Liptovska Anna**	**3.16**	**138**	*e*PG	**Pg**	**17 01 23.9**	**+0.5**
LANS				*e*SG	**Sg**	**17 02 03.7**	**-0.5**
LANS				eLG	Lg	17 02 06.4	
CONA	**Conrad Observa**	**3.64**	**184**	*e*Sg	**Sg**	**17 02 17.6**	**-2.1**
	comp=Z,3.0nm,0.3s						
BSD	**Bornholm Skovb**	**3.66**	**348**	*i* P	**Pn**	**17 01 22.0**	**+1.3**
BSD				*i* S	**Sn**	**17 02 03.3**	**-1.2**
BSD				IAML		17 02 08.2	
	comp=Z,13nm,1.1s						
MOA	**Molln**	**3.93**	**200**	*i* Pn	**Pn**	**17 01 25.4**	**+1.0**
	comp=Z,0.3nm,0.1s						
MOA				*e*Sg	**Sg**	**17 02 26.1**	**-2.9**
	comp=Z,1.4nm,0.2s						
LUNU	**Lund**	**4.42**	**339**	*i* P	**Pn**	**17 01 33.0**	**+1.9**
LUNU				*i* S	**Sn**	**17 02 24.9**	**+1.7**
BLEU	**Blekinge**	**4.77**	**357**	*i* P	**Pn**	**17 01 34.6**	**-1.3**
BLEU				*i* S	**Sn**	**17 02 25.2**	**-6.7**
DEL	**Delary**	**5.13**	**345**	*i* P	**Pn**	**17 01 42.2**	**+1.3**
DEL				*i* S	**Sn**	**17 02 38.4**	**-2.2**

*IDC **23** 17:06:35.9±1.3, 8.32S×110.60E, h0km, mb3.7/8, mbtmp3.7/9, ML3.4/1, Error ellipse: s-maj=62.7km s-min=17.7km az=49.0*
*DJA **23** 17:06:46.1±0.8, 9.5S±5.1×11.1E±., h28km±6km, M4.3/24, MLv4.3/24*

ISC 23 17:06:44.9±0.8, 8.60S±0.09×110.57E±0.05, h77km, n27, σ0°95/23, mb3.6/8, Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
UGM	**Wanagama**	**0.69**	**356**	P	**Pn**	**17 06 59.9**	**-0.4**
UGM				S	**Sn**	**17 07 11.2**	**-0.4**
UGM				AML	AML		
PCJI	**Pacitan**	**0.73**	**56**	P	**Pn**	**17 06 59.2**	**-1.5**
PCJI				AML	AML		
YOGI	**Yogyakarta**	**0.82**	**341**	P	**Pn**	**17 07 01.1**	**-0.7**
YOGI				S	**Sn**	**17 07 13.9**	**-0.4**
YOGI				AML	AML		
PWJI	**Pagerwojo**	**1.35**	**65**	P	**Pn**	**17 07 07.8**	**-0.4**
PWJI				S	**Sn**	**17 07 25.0**	**-0.8**
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**1.44**	**55**	P	**Pn**	**17 07 10.0**	**+0.5**
SNJI				AML	AML		
SJI	**Sawahan**	**1.47**	**54**	P	**Pn**	**17 07 09.6**	**-0.2**
SMRI	**Semarang**	**1.55**	**355**	P	**Pn**	**17 07 12.7**	**+1.9**
SMRI				AML	AML		
KPJI	**Karang Pucung**	**2.05**	**308**	P	**Pn**	**17 07 18.2**	**+0.7**
KPJI				AML	AML		
TBJI	**Tambak Boyo**	**2.18**	**36**	P	**Pn**	**17 07 20.6**	**+1.4**
TBJI				AML	AML		
CMJI	**Cimerak**	**2.25**	**291**	P	**Pn**	**17 07 19.5**	**-0.6**
CMJI				AML	AML		
BBJI	**Bungbulang**	**3.10**	**291**	P	**Pn**	**17 07 31.8**	**+0.1**
JAGI	**Jajag, Banyuwa**	**3.55**	**88**	P	Pn	17 07 43.8	+6.1
FITZ	**Fitzroy Crossi**	**17.43**	**124**	P	**Pn**	**17 10 42.9**	**-0.2**
	0.1nm,0.3s,baz=300,slow=8.2,SNR=7.4						
FITZ				S	Sn	17 13 43.6	-13
	0.5nm,0.3s,baz=200,slow=18,SNR=1.7 2.7nm,1.2s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**25.61**	**119**	P	**P**	**17 12 08.1**	**+0.7**
	0.4nm,0.6s,baz=288,slow=11,SNR=4.5 0.4nm,0.6s						
ASAR	**Alice Springs**	**26.89**	**127**	P	**P**	**17 12 20.2**	**+1.2**
	0.4nm,0.6s,baz=304,slow=8.8,SNR=12 0.4nm,0.6s						
STKA	**Stephens Creek**	**36.96**	**133**	P	**P**	**17 13 48.6**	**+1.7**
	0.5nm,0.4s,baz=314,slow=15,SNR=1.8 0.5nm,0.4s						
H08S2	**Diego Garcia H**	**37.69**	**269**	T	T	17 53 41.9	
	baz=94						
H08S3	**Diego Garcia H**	**37.70**	**269**	T	T	17 53 41.4	
	baz=94						
H08S1	**Diego Garcia H**	**37.71**	**269**	T	T	17 53 41.9	
	baz=94						
SONM	**Songino Array**	**56.31**	**357**	P	**P**	**17 16 17.0**	**-0.8**
	0.2nm,0.5s,baz=185,slow=10,SNR=1.8 0.2nm,0.5s						
MKAR	**Makanchi Array**	**60.63**	**338**	P	**P**	**17 16 47.0**	**-0.8**
	0.5nm,0.4s,baz=154,slow=7.5,SNR=11 0.5nm,0.4s						
H04N2	**CROZET ISLANDS**	**62.40**	**222**	T	T	18 24 46.7	
	baz=71						
H04N1	**CROZET ISLANDS**	**62.42**	**222**	T	T	18 24 47.0	
	baz=71,slow=74						
H04N3	**CROZET ISLANDS**	**62.42**	**222**	T	T	18 24 45.7	
	baz=71,slow=74						
KURBB	**Kurchatov Arra**	**65.20**	**338**	P	**P**	**17 17 17.1**	**-0.9**
	0.3nm,0.5s,baz=138,slow=7.0,SNR=2.2 0.3nm,0.5s						
PETK	**Petropavlovsk-**	**73.32**	**27**	P	**P**	**17 18 07.5**	**-0.7**
	1.6nm,0.6s,baz=232,slow=6.5,SNR=6.3 1.6nm,0.6s						
BRTR	**Keskin Array B**	**85.53**	**311**	P	**P**	**17 19 15.4**	**+0.5**
	1.6nm,0.8s,baz=130,slow=6.9,SNR=12 1.6nm,0.8s						

*IDC **23** 17:08:14.4±1.6, 8.79S×114.22E, h0km, mb3.8/4, mbtmp3.9/6, ML4.0/2, Error ellipse: s-maj=25.8km s-min=18.9km az=65.0*
*DJA **23** 17:08:28.5±1.0, 9.3S±10.1×11.4E±., h36km±15km, M4.3/13, mB4.6/2, mb4.5/2, MLv4.2/13, Mw(mB)3.8/2*

ISC 23 17:08:27.4±1.1, 8.38S±0.1×114.49E±0.08, h101km, n15, σ1°52/16, mb3.7/4, Bali region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RTBI	**Rangdo, Negare**	**0.55**	**55**	P	**Pn**	**17 08 43.4**	**-0.3**
IGBI	**Denpasar**	**0.65**	**94**	P	**Pn**	**17 08 43.3**	**-1.2**
IGBI				AML	AML		
SRBI	**Singaraja**	**0.99**	**46**	P	**Pn**	**17 08 48.0**	**+0.2**
SRBI				S	**Sn**	**17 09 03.9**	**+0.7**
SRBI				AML	AML		
KHKI	**Kahang-Kahang**	**1.18**	**70**	P	**Pn**	**17 08 50.4**	**+0.5**
BLJI	**Banyuglugur**	**1.35**	**319**	P	**Sn**	**17 09 12.7**	**+2.2**
PLAI	**Plampang**	**3.25**	**91**	P	**Pn**	**17 09 17.0**	**+0.4**
PLAI				S	**Sn**	**17 09 55.5**	**+1.0**
PLAI				AML	AML		
DBNI	**Kabupaten Domp**	**3.79**	**86**	P	**Pn**	**17 09 23.8**	**0.0**
DBNI				AML	AML		
WSI	**Waingapu**	**5.80**	**99**	P	Pn	17 09 59.3	+8.2
KAPI	**Kappang**	**6.42**	**55**	Pn	Pn	17 09 55.9	-3.6
	3.6nm,0.3s,baz=235,slow=16,SNR=4.1						
KAPI				Sn	**Sn**	**17 11 09.7**	**-1.8**
	2.4nm,0.3s,baz=161,slow=20,SNR=2.1 6.4nm,0.3s						
KAPI				AML	AML		
EDFI	**Ende, Flores**	**7.12**	**90**	P	**Pn**	**17 10 11.6**	**+2.5**
EDFI				AML	AML		
FITZ	**Fitzroy Crossi**	**14.26**	**132**	Pn	Pn	17 11 38.6	-6.1
	0.4nm,0.3s,baz=313,slow=9.3,SNR=7.6						
FITZ				Sn	Sn	17 14 06.5	-15
	0.5nm,0.3s,baz=237,slow=22,SNR=7.1 2.8nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.18**	**122**	P	**P**	**17 13 13.8**	**-1.7**
	1.0nm,0.5s,baz=297,slow=12,SNR=14						
WRA				S	**S**	**17 17 16.3**	**+2.8**
	0.3nm,0.7s,baz=293,slow=18,SNR=2.3 1.0nm,0.5s						
ASAR	**Alice Springs**	**23.76**	**131**	P	**P**	**17 13 30.5**	**-0.3**
	1.5nm,0.4s,baz=303,slow=9.4,SNR=17 1.5nm,0.4s						
STKA	**Stephens Creek**	**34.09**	**136

0.3nm,0.3s
ZALV AML AML
BVAR Borovoye Array 22.83 326 P **P** **17 14 04.7 0.0**
0.3nm,0.6s,baz=134,slow=11,SNR=5.4
0.3nm,0.6s
WRA Warramunga Arr 68.65 137 P **P** **17 20 06.0 +1.3**
0.4nm,1.0s,baz=328,slow=6.5,SNR=3.0
0.4nm,1.0s
INK Inuvik 71.09 16 P **P** **17 20 20.6 +1.5**
0.5nm,0.5s,baz=260,slow=4.2,SNR=5.7
0.5nm,0.5s
ASAR Alice Springs 71.41 139 P **P** **17 20 21.6 -0.1**
0.6nm,0.8s,baz=336,slow=5.5,SNR=5.9
ASAR LR LR 17 55 10.9
comp=Z,35nm,18.6s,baz=44,slow=39
0.6nm,0.8s

*IDC **23** 17:36:53.5±0.8,0.°73S×127.°69E,h0km,mb3.9/10, mbtmp4.0/12,ML4.0/2,MS2.9/5,Error ellipse: s-maj=23.1km s-min=15.0km az=79.0*
*DJA **23** 17:36:57.2±0.3,1.°5S×12.°8E±.°,h10km,M4.4/13,mB4.7/3, mb4.7/4,MLv4.3/13,Mw(mB)3.9/3*
*NEIC **23** 17:36:58.9±1.5,0.°75S±0.°05×127.°69E±0.°07,h33km±5km, mb4.5/29,Error ellipse: s-maj=10.7km s-min=7.3km az=91.0*

ISC 23 17:36:58.0±0.4,0.°79S±0.°05×127.°72E±0.°07,h31km,n62, σ1$25/61,mb4.4/23,MS3.1/3,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.59**	**347**		**Pn**	**17 37 24.1**	**0.0**
TNTI	**Ternate**	**1.59**	**347**	P	**Pn**	**17 37 24.3**	**+0.2**
TNTI				S	**Sb**	**17 37 45.6**	**-1.1**
TNTI				AML	AML		
SANI	**Sanana**	**2.13**	**234**	P	**Pn**	**17 37 30.3**	**-1.3**
MNI	**Manado**	**3.64**	**308**	P	**Pn**	**17 37 52.5**	**+0.2**
MNI				AML	AML		
KMSI	**Cibinong**	**3.98**	**290**	P	**Pn**	**17 37 57.5**	**+0.6**
GTOI	**Gorontalo**	**4.92**	**287**	P	**Pn**	**17 38 12.6**	**+2.7**
	0.6nm995nm70nm,0.7s						
GTOI				AML	AML		
FAKI	**Fak Fak**	**5.00**	**115**		**Pn**	**17 38 12.3**	**+1.3**
FAKI	**Fak Fak**	**5.00**	**115**	P	**Pn**	**17 38 12.8**	**+1.8**
	0.2nm525nm72nm,0.9s						
FAKI				AML	AML		
KDI	**Kendari**	**5.99**	**238**	P	Pb	17 38 34.2	-7.5
DAV	**Davao City (W)**	**8.10**	**345**	LR	LR	17 41 25.4	
	comp=Z,24nm,20.2s,baz=344,slow=34						
KAPI	**Kappang**	**8.99**	**242**	Pn	**Pn**	**17 39 07.2**	**+1.3**
	5.7nm,0.3s,baz=72,slow=6.0,SNR=10.0						
KAPI				Sn	**Sn**	**17 40 44.8**	**-1.3**
	1.1nm,0.3s,baz=105,slow=16,SNR=1.8						
KAPI				LR	LR	17 42 40.6	
	comp=Z,54nm,18.5s,baz=73,slow=39 15nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**8.99**	**242**		**Pn**	**17 39 06.5**	**+0.6**
SOEI	**Soe**	**9.54**	**201**	Pn	**Pn**	**17 39 12.8**	**-0.7**
MTN	**Manton Dam**	**12.44**	**164**		**Pn**	**17 39 54.3**	**+1.1**
KNRA	**Kununurra**	**14.82**	**176**	Pn	**Pn**	**17 40 26.0**	**+0.4**
FITZ	**Fitzroy Crossi**	**17.32**	**187**	P	**Pn**	**17 40 58.0**	**+0.4**
	0.1nm,0.3s,baz=21,slow=11,SNR=6.0 1.3nm,0.7s						
FITZ				AML	AML		
WB0	**Warramunga Arr**	**19.96**	**161**	P	**P**	**17 41 28.2**	**+0.4**
WRAB	**Tennant Creek**	**20.10**	**162**	P	Pn	17 41 35.8	+4.4
WRAB				IAmb	IAmb	17 41 39.0	
	comp=Z,8.3nm,0.6s						
WRA	**Warramunga Arr**	**20.11**	**162**	P	**P**	**17 41 29.4**	**-0.1**
	comp=Z,1.5nm,0.5s,baz=341,slow=11,SNR=15						
WRA				S	**S**	**17 45 08.5**	**-5.4**
	comp=Z,0.3nm,0.6s,baz=347,slow=24,SNR=1.6 comp=Z,1.5nm,0.5s						
WRA	**Warramunga Arr**	**20.11**	**162**	P	**P**	**17 41 29.0**	**-0.4**
WR8	**Warramunga Arr**	**20.17**	**161**	P	**P**	**17 41 30.3**	**+0.2**
BBJI	**Bungbulang**	**21.07**	**251**	P	**P**	**17 41 39.8**	**-0.3**
BBJI				IAmb	IAmb	17 42 02.1	
	comp=Z,26nm,1.3s						
PMG	**Port Moresby**	**21.15**	**114**	LR	LR	17 51 16.2	
	comp=Z,68nm,18.5s,baz=268,slow=41						
AS31	**Alice Springs**	**23.52**	**166**		**P**	**17 42 06.0**	**+0.4**
ASAR	**Alice Springs**	**23.52**	**166**	P	**P**	**17 42 06.5**	**+0.9**
	comp=Z,5.9nm,0.8s,baz=345,slow=9.9,SNR=60						
ASAR				S	**S**	**17 46 17.1**	**-0.5**
	comp=Z,2.2nm,1.0s,baz=348,slow=21,SNR=14 comp=Z,5.9nm,0.8s						
ASAR	**Alice Springs**	**23.52**	**166**		**P**	**17 42 06.1**	**+0.5**
RABL	**Rabaul**	**24.65**	**98**	P	**P**	**17 42 16.4**	**+0.1**
TPUB	**Ta-pu**	**24.92**	**344**	P	**P**	**17 42 16.6**	**-2.0**
GIRL	**Giralia**	**25.37**	**210**	P	**P**	**17 42 24.8**	**+2.2**
GIRL				IAmb	IAmb	17 42 35.4	
	comp=Z,65nm,1.4s						
CTAO	**Charters Tower**	**26.39**	**138**	P	**P**	**17 42 30.6**	**-1.3**
CTAO				IAmb	IAmb	17 42 38.0	
	comp=Z,14nm,1.4s						
FORT	**Forrest**	**29.82**	**179**	P	**P**	**17 43 03.5**	**+1.0**
FORT				IAmb	IAmb	17 43 35.5	
	comp=Z,5.5nm,1.0s						
BBOO	**Buckleboo**	**32.80**	**167**	P	**P**	**17 43 30.0**	**+1.3**
BBOO				IAmb	IAmb	17 44 08.9	
	comp=Z,23nm,1.4s						
STKA	**Stephens Creek**	**33.58**	**158**	LR	LR	17 58 21.0	
	comp=Z,51nm,18.4s,baz=25,slow=38						
CMAR	**Chiang Mai Arr**	**34.15**	**306**	P	**P**	**17 43 40.9**	**+0.2**
	comp=Z,0.2nm,0.4s,baz=126,slow=6.7,SNR=4.4						
CMAR				LR	LR	17 58 18.5	
	comp=Z,9.8nm,21.4s,baz=140,slow=38 comp=Z,0.2nm,0.4s						
JTU	**Tsushima**	**35.17**	**2**	P	**P**	**17 43 50.2**	**+1.0**
KOUNC	**Koumac, New Ca**	**40.77**	**121**	P	**P**	**17 44 36.4**	**-0.2**
GTA2	**Gaotai**	**47.56**	**331**	eP	**P**	**17 45 32.1**	**+1.1**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
EVN	**Everest**	**48.54**	**309**	P	**P**	**17 45 40.1**	**+0.7**
ULN	**Ulaanbaatar**	**51.70**	**342**	P	**P**	**17 46 02.7**	**+0.3**
ULN				IAmb	IAmb	17 46 03.3	
	comp=Z,4.1nm,1.2s						
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**17 46 03.7**	**0.0**
	comp=Z,0.6nm,0.6s,baz=148,slow=8.6,SNR=4.3 comp=Z,0.6nm,0.6s						
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**17 46 03.4**	**-0.3**
PEA0B	**Petropavlovsk-**	**59.26**	**21**	P	**P**	**17 46 55.4**	**-1.1**
PDGK	**Podgornoye**	**61.53**	**322**	P	**P**	**17 47 12.2**	**-0.2**
MKAR	**Makanchi Array**	**61.83**	**326**	P	**P**	**17 47 14.2**	**0.0**
	comp=Z,1.7nm,0.5s,baz=118,slow=8.1,SNR=39 comp=Z,1.7nm,0.5s						
MAKZ	**Makanchi**	**62.01**	**326**	P	**P**	**17 47 15.2**	**-0.2**
MAKZ				IAmb	IAmb	17 47 16.1	
	comp=Z,3.5nm,1.2s						
YAK	**Yakutsk**	**62.68**	**1**	P	**P**	**17 47 19.4**	**-0.1**
YAK				IAmb	IAmb	17 47 21.1	
	comp=Z,13nm,0.9s						
ZALV	**Zalesovo Beam**	**65.05**	**334**	P	**P**	**17 47 34.3**	**-1.0**
	comp=Z,0.3nm,0.3s,baz=124,slow=7.9,SNR=2.5 comp=Z,0.3nm,0.3s						
ROCAM	**Rodrigues Isla**	**65.65**	**249**	P	**P**	**17 47 38.2**	**-1.7**
KURBB	**Kurchatov Arra**	**66.07**	**328**	P	**P**	**17 47 41.7**	**-0.3**
	comp=Z,1.4nm,0.2s,baz=128,slow=6.0,SNR=5.4 comp=Z,1.4nm,0.2s						
KURK	**Kurchatov**	**66.07**	**328**	P	**P**	**17 47 41.2**	**-0.8**
KURK				IAmb	IAmb	17 47 48.3	
	comp=Z,2.8nm,0.8s						
KKAR	**Karatay Array**	**67.22**	**318**	P	**P**	**17 47 48.7**	**-0.8**
BVAR	**Borovoye Array**	**71.64**	**328**	P	**P**	**17 48 16.2**	**-0.4**
	comp=Z,0.7nm,0.6s,baz=120,slow=7.3,SNR=6.0 comp=Z,0.7nm,0.6s						
BORK	**Borovoye**	**71.68**	**328**	P	**P**	**17 48 16.4**	**-0.4**
BORK				IAmb	IAmb	17 48 30.9	
	comp=Z,2.2nm,1.1s						
AB31	**Akbulak array**	**76.27**	**321**	P	**P**	**17 48 42.6**	**-1.2**
AB31				IAmb	IAmb	17 49 25.4	
	comp=Z,2.3nm,1.2s						
ABKAR	**Akbulak array**	**76.27**	**321**	P	**P**	**17 48 42.4**	**-1.3**
VNDA	**Vanda**	**78.84**	**173**	P	**P**	**17 48 58.6**	**+0.9**
	comp=Z,0.3nm,0.3s,baz=45,slow=4.3,SNR=11 comp=Z,0.3nm,0.3s						
VNDA	**Vanda**	**78.84**	**173**	P	**P**	**17 48 58.6**	**+0.9**
L18K	**Granite Mounta**	**84.01**	**27**		**P**	**17 49 27.8**	**+2.6**
L18K				IAmb	IAmb	17 49 57.7	
	comp=Z,15nm,1.5s						
D19K	**Kuna River**	**84.96**	**21**	P	**P**	**17 49 29.6**	**-0.4**
D19K				IAmb	IAmb	17 50 05.3	
	comp=Z,7.0nm,1.3s						
QSPA	**South Pole Qui**	**89.14**	**180**	P	**P**	**17 49 50.8**	**+0.4**
	comp=Z,1.2nm,0.8s,baz=343,slow=0.9,SNR=5.2 comp=Z,1.2nm,0.8s						
QSPA	**South Pole Qui**	**89.14**	**180**	P	**P**	**17 49 51.4**	**+1.0**
QSPA				IAmb	IAmb	17 49 52.4	
	comp=Z,2.9nm,1.1s						
BOAB	**BOACO BROADBAND**	**89.93**	**69**	PKPbc	**PKPab**	**17 56 30.9**	**-1.6**

*IDC **23** 17:41:29.7±1.3,54.°31N×160.°03W,h0km,mb3.6/5, mbtmp3.5/6,ML3.0/1,MS3.3/1,Error ellipse: s-maj=36.9km s-min=22.0km az=9.0*
*AEIC **23** 17:41:33.8±1.8,54.°45N±0.°02×159.°76W±0.°08,h9km±4km, Error ellipse: s-maj=7.4km s-min=1.9km az=69.0*
*NEIC **23** 17:41:34.8±1.6,54.°43N±0.°04×159.°84W±0.°05,h22km±6km, mb3.9/7,ML3.5/20,ML3.5(AEIC),Error ellipse: s-maj=6.5km s-min=4.2km az=204.0*

ISC 23 17:41:32.8±2.6,54.°40N±0.°09×159.°81W±0.°05, h16km±15km,n77,σ1$32/73,mb3.8/6,South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.44**	**16**		**Pb**	**17 41 42.4**	**+0.1**
CNBA				Sg	**Sg**	**17 41 47.2**	**-0.6**
CNBA				IAML		17 41 48.7	
	comp=N,7μm,0.4s						
CNBA				IAML		17 41 49.0	
	comp=E,5μm,0.3s						
SDPT	**Sand Point**	**1.03**	**338**		**Pb**	**17 41 52.0**	**-0.3**
SDPT	**Sand Point**	**1.03**	**338**		**Sb**	**17 42 05.6**	**+0.1**
DOL	**Dolgoi Island**	**1.41**	**303**		**Pn**	**17 41 58.3**	**+0.5**
DOL					**Sb**	**17 42 16.5**	**0.0**
PS1A	**Pavlof South-1**	**1.52**	**313**		**Pb**	**17 42 00.3**	**-0.3**
PS1A					**Sb**	**17 42 20.0**	**+0.4**
PS4A	**Pavlof South-4**	**1.52**	**310**		**Pb**	**17 42 00.5**	**-0.1**
PS4A					**Sb**	**17 42 20.2**	**+0.6**
DT1	**Dutton Round H**	**1.60**	**297**		**Pn**	**17 42 01.0**	**+0.6**
DT1					**Sn**	**17 42 21.2**	**+0.4**
DTNA	**Dutton South F**	**1.61**	**299**		**Pn**	**17 42 01.3**	**+0.8**
PN7A	**Pavlof North-7**	**1.64**	**310**		**Pb**	**17 42 02.7**	**0.0**
VNWF	**Veniaminof 8**	**1.77**	**4**		**Pn**	**17 42 02.6**	**-0.1**
S12K	**Black Hills**	**1.84**	**316**		**Pb**	**17 42 05.8**	**-0.3**
VNSS	**Veniaminof 8**	**1.85**	**6**		**Pn**	**17 42 04.8**	**+0.8**
CHGN	**Chignik**	**2.07**	**22**	Pn	**Pn**	**17 42 08.2**	**+1.4**
CHGN				IAML		17 42 40.4	
	comp=N,401nm,0.7s						
CHGN				IAML		17 42 43.2	
	comp=E,428nm,0.5s						
ISLZ	**Isanotski Laza**	**2.30**	**280**		**Pn**	**17 42 11.8**	**+1.7**
SSLS	**Shishaldin Sou**	**2.46**	**279**		**Pn**	**17 42 14.4**	**+2.1**
WTUG	**Tugumak**	**2.70**	**282**		**Pn**	**17 42 17.8**	**+2.2**
WESP	**Westdahl Peak**	**2.87**	**274**		**Pn**	**17 42 20.2**	**+2.2**
WECS	**Westdahl Cape**	**2.91**	**275**	Pn	**Pn**	**17 42 15.4**	**-3.0**
WECS				IAML		17 43 36.9	
	comp=E,256nm,1.1s						
UNV	**Unalaska Valle**	**3.98**	**265**		**Pn**	**17 42 34.6**	**+1.5**
MNAT	**Makushin Natee**	**4.08**	**266**		**Pn**	**17 42 36.4**	**+1.9**
OHAK	**Old Harbor**	**4.64**	**50**		**Pn**	**17 42 41.1**	**-1.1**
OHAK	**Old Harbor**	**4.64**	**50**	IAML		17 44 17.9	
	comp=N,20nm,1.2s						
O15K	**Ungalikthiuk R**	**4.79**	**360**	Pn	**Pn**	**17 42 45.9**	**+1.7**
O15K				IAML		17 44 02.4	
	comp=E,20nm,1.2s						
O14K	**Tigyukauivet M**	**4.94**	**351**	Pn	**Pn**	**17 42 47.3**	**+1.1**
O14K				IAML		17 44 20.0	
	comp=E,22nm,1.1s						
O14K				IAML		17 44 29.7	
	comp=N,27nm,0.9s						
Q18K	**Katmai Hardscr**	**5.02**	**30**		**Pn**	**17 42 47.4**	**-0.1**
KDAK	**Kodiak Island**	**5.28**	**47**	Pn	**Pn**	**17 42 51.5**	**+0.6**
KDAK				IAML		17 44 32.7	
	comp=N,16nm,1.1s						
O16K	**Kokwok River B**	**5.30**	**9**	Pn	**Pn**	**17 42 51.6**	**+0.5**
O17K	**Koliganek Bris**	**5.59**	**14**		**Pn**	**17 42 55.2**	**0.0**
N14K	**Kuskokwak Cree**	**5.64**	**350**	Pn	**Pn**	**17 42 56.0**	**+0.2**
N15K	**Kwethluk River**	**5.79**	**359**		**Pn**	**17 42 58.5**	**+0.5**
P08K	**Saint George I**	**5.96**	**296**		**Pn**	**17 42 57.0**	**-3.3**
N17K	**Nushagak Hills**	**6.31**	**12**	Pn	**Pn**	**17 43 07.0**	**+1.9**
M13K	**Dall Lake**	**6.33**	**344**	Pn	**Pn**	**17 43 06.0**	**+0.6**
M15K	**Kasigluk River**	**6.34**	**356**		**Pn**	**17 43 05.4**	**0.0**
M16K	**Timber Creek**	**6.66**	**4**	Pn	**Pn**	**17 43 10.1**	**+0.2**
N19K	**Bonanza Creek**	**7.04**	**22**	Pn	**Pn**	**17 43 18.0**	**+2.8**
L14K	**Kuka Creek**	**7.13**	**349**	Pn	**Pn**	**17 43 18.3**	**+2.0**
M17K	**Holitna River**	**7.14**	**9**	Pn	**Pn**	**17 43 18.8**	**+2.4**
K15K	**Wolf Creek Mou**	**7.97**	**354**	Pn	**Pn**	**17 43 29.1**	**+1.3**
K13K	**Kusilvak Mount**	**7.98**	**343**	Pn	**Pn**	**17 43 28.9**	**+1.0**
L18K	**Granite Mounta**	**8.02**	**11**	Pn	**Pn**	**17 43 29.0**	**+0.5**
M19K	**Big River Lodg**	**8.05**	**19**	Pn	**Pn**	**17 43 30.1**	**+1.1**
L19K	**White Mountain**	**8.23**	**16**	Pn	**Pn**	**17 43 33.5**	**+2.1**
M20K	**Styx River**	**8.29**	**22**	Pn	**Pn**	**17 43 33.9**	**+1.5**
K17K	**Iditarod**	**8.38**	**5**	Pn	**Pn**	**17 43 33.6**	**+0.1**
J14K	**Nanvaranak Lak**	**8.60**	**348**	Pn	**Pn**	**17 43 38.7**	**+2.3**
L20K	**Farewell, AK**	**8.68**	**19**	Pn	**Pn**	**17 43 38.6**	**+1.1**
HIN	**Hinchinbrook I**	**9.36**	**45**	Pn	**Pn**	**17 43 46.5**	**-0.3**
SCM	**Sheep Creek Mo**	**9.94**	**36**	Pn	**Pn**	**17 43 53.8**	**-1.1**
ILAR	**Eielson Array**	**12.26**	**27**	Pn	**Pn**	**17 44 25.6**	**-0.9**
	comp=N,0.1nm,0.3s,baz=221,slow=13,SNR=4.9 comp=N,0.4nm,0.7s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**12.26**	**27**		**Pn**	**17 44 25.0**	**-1.5**
O28M	**Mount Upton**	**12.28**	**51**	Pn	**Pn**	**17 44 28.1**	**+1.0**
I29M	**Ogilvie Camp,**	**15.30**	**36**	P	**P**	**17 45 13.4**	**+0.9**
I29M				IAmb	IAmb	17 45 15.1	
	comp=Z,7.2nm,0.9s						
J30M	**Hart River**	**15.58**	**40**	P	**P**	**17 45 16.5**	**+0.7**
J30M				IAmb	IAmb	17 45 53.2	
	comp=Z,8.0nm,1.3s						
I30M	**Mount Dempster**	**15.89**	**38**	P	**P**	**17 45 20.8**	**+1.5**
EPYK	**Eagle Plains**	**16.42**	**34**	P	**P**	**17 45 26.1**	**+1.1**
EPYK				IAmb	IAmb	17 45 26.9	
	comp=Z,10nm,0.9s						
G30M	**tAoh Zraii Nji**	**16.94**	**33**	P	**P**	**17 45 31.5**	**+0.7**
G30M				IAmb	IAmb	17 45 56.2	
	comp=Z,13nm,1.4s						
PETK	**Petropavlovsk-**	**24.89**	**285**	P	**P**	**17 46 54.6**	**+0.1**
	comp=Z,1.8nm,0.5s,baz=74,slow=11,SNR=12 comp=Z,1.8nm,0.5s						
PETK	**Petropavlovsk-**	**24.89**	**285**	P	**P**	**17 46 54.6**	**+0.1**
PDAR	**Pinedale Array**	**34.49**	**89**	P	**P**	**17 48 21.2**	**+1.1**
	comp=Z,0.2nm,0.6s,baz=298,slow=4.7,SNR=3.6 comp=Z,0.2nm,0.6s						
PDAR	**Pinedale Array**	**34.49**	**89**	P	**P**	**17 48 21.4**	**+1.4**
H11N2	**WAKE ISLAND Hy**	**42.89**	**229**	T	T	18 35 24.8	
	baz=28,slow=76,SNR=22						
H11N3	**WAKE ISLAND Hy**	**42.90**	**229**	T	T	18 35 25.7	
	baz=28,slow=76,SNR=20						
H11N1	**WAKE ISLAND Hy**	**42.91**	**229**	T	T	18 35 27.9	
	baz=28,slow=76,SNR=17						
H11S1	**WAKE ISLAND Hy**	**44.05**	**229**	T	T	18 36 58.3	
	baz=28,slow=76,SNR=12						
H11S2	**WAKE ISLAND Hy**	**44.06**	**229**	T	T	18 36 56.4	
	baz=28,slow=76,SNR=15						
H11S3	**WAKE ISLAND Hy**	**44.07**	**229**	T	T	18 36 54.7	
	baz=28,slow=76,SNR=7.5						
TXAR	**Lajitas Array**	**47.16**	**99**	P	**P**	**17 50 04.2**	**-0.3**
	comp=Z,0.5nm,0.7s,baz=307,slow=4.6,SNR=4.5 comp=Z,0.5nm,0.7s						
TXAR	**Lajitas Array**	**47.16**	**99**	P	**P**	**17 50 04.4**	**-0.1**
ZALV	**Zalesovo Beam**	**59.59**	**322**	LR	LR	18 18 59.4	
	comp=Z,27nm,19.1s,baz=64,slow=38						
BVAR	**Borovoye Array**	**65.14**	**329**	P	**P**	**17 52 10.3**	**-2.1**
	comp=Z,0.6nm,0.7s,baz=29,slow=6.8,SNR=4.4 comp=Z,0.6nm,0.7s						
ARTI	**Arti**	**65.26**	**338**	P	**P**	**17 52 12.5**	**-0.6**
MKAR	**Makanchi Array**	**66.34**	**318**	P	**P**	**17 52 19.4**	**-0.9**
	comp=Z,0.2nm,0.4s,baz=53,slow=5.9,SNR=5.8 comp=Z,0.2nm,0.4s						
MKAR	**Makanchi Array**	**66.34**	**318**	P	**P**	**17 52 17.6**	**-2.7**
MAKZ	**Makanchi**	**66.45**	**319**	P	**P**	**17 52 20.4**	**-0.6**
MAKZ				IAmb	IAmb	17 53 04.9	
	comp=Z,1.8nm,1.2s						
QSPA	**South Pole Qui**	**144.17**	**180**	PKP	PKPbc	18 01 04.7	+0.2
	comp=Z,0.7nm,0.8s,baz=112,slow=15,SNR=7.8						
QSPA	**South Pole Qui**	**144.17**	**180**		**PKPab**	**18 01 04.0**	**0.0**

IDC 23 18:07:55.2±2.0,11.°15S×162.°29E,h0km,mb3.5/4, mbtmp3.6/5,ML3.7/1,MS2.9/6,Error ellipse: s-maj=34.7km s-min=23.4km az=63.0, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**2.86**	**306**	Pn	Pn	18 08 43.0	+0.9
	10nm,0.3s,baz=31,slow=3.0,SNR=11						
HNR				Sn	Sn	18 09 17.6	+0.3
	44nm,0.3s,baz=230,slow=22,SNR=8.0						
HNR				LR	LR	18 09 58.9	
	comp=Z,87nm,18.9s,baz=232,slow=43 44nm,0.4s						
HNR				AML	AML		
PMG	**Port Moresby**	**14.98**	**275**	LR	LR	18 16 18.1	
	comp=Z,75nm,18.8s,baz=92,slow=34						
CTA	**Charters Tower**	**17.80**	**238**	LR	LR	18 18 24.8	
	comp=Z,37nm,19.8s,baz=44,slow=35						
STKA	**Stephens Creek**	**28.11**	**220**	P	P	18 13 50.7	+1.8
	0.7nm,0.6s,baz=45,slow=7.1,SNR=1.1						
STKA				LR	LR	18 24 40.1	
	comp=Z,48nm,18.9s,baz=24,slow=36 0.7nm,0.6s						
WRA	**Warramunga Arr**	**28.27**	**249**	P	P	18 13 50.1	-0.5
	0.4nm,0.5s,baz=78,slow=8.7,SNR=5.0 0.4nm,0.5s						
ASAR	**Alice Springs**	**29.74**	**241**	P	P	18 14 02.2	-1.3
	0.2nm,0.8s,baz=66,slow=10.0,SNR=9.6 0.2nm,0.8s						
KAPI	**Kappang**	**42.52**	**275**	LR	LR	18 34 05.1	
	comp=Z,14nm,20.8s,baz=272,slow=37						
KSRS	**Korea Array**	**58.10**	**328**	LR	LR	18 42 27.9	
	comp=Z,7.5nm,18.0s,baz=15,slow=36						
ILAR	**Eielson Array**	**84.71**	**19**	P	P	18 20 30.6	-0.2
	0.3nm,0.7s,baz=213,slow=4.5,SNR=1.8 0.3nm,0.7s						

*IDC **23** 18:16:43.5±1.3,17.°76S×178.°73W,h559km±15km,mb3.3/7, mbtmp4.2/10,Error ellipse: s-maj=37.7km s-min=14.4km az=150.0*
*NEIC **23** 18:16:44.0±1.5,17.°8S±0.°2×178.°73W±0.°07,h561km±9km, mb4.2/17,Error ellipse: s-maj=25.7km s-min=7.1km az=162.0*

ISC 23 18:16:42.7±0.6,17.°8S±0.°1×178.°7W±0.°1,h550km,n36, σ1$07/36,mb4.2/16,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.12**	**270**	P	**P**	**18 18 01.3**	**+2.7**
	34nm,0.6s,baz=117,slow=1.8,SNR=38						
MSVF	**Nonsavu**	**3.12**	**270**	P	**P**	**18 18 02.5**	**+3.8**
AFI	**Afiamalu**	**7.66**	**61**	P	**P**	**18 18 36.8**	**-0.5**
	24nm,0.6s,baz=201,slow=0.3,SNR=5.8						
MARNC	**Mare, Loyalty**	**13.06**	**251**	P	**P**	**18 19 31.3**	**-0.9**
SANVU	**Saraoutou**	**13.74**	**278**	P	**P**	**18 19 38.1**	**-1.1**
PINNC	**Pines Island,**	**13.89**	**247**	P	**P**	**18 19 39.8**	**-1.0**
OUENC	**Ouen Island, N**	**14.37**	**249**	P	**P**	**18 19 46.0**	**+0.2**
DZM	**Mont Dzumac**	**14.64**	**251**	P	**P**	**18 19 47.8**	**-0.8**
	2.2nm,0.4s,baz=116,slow=20,SNR=7.8						
MLZ	**Mavora Lakes**	**29.65**	**199**	P	**P**	**18 22 03.6**	**-0.3**
ARMA	**Armidale**	**29.80**	**239**	P	**P**	**18 22 06.3**	**+0.7**
CTAO	**Charters Tower**	**33.22**	**260**	P	**P**	**18 22 34.6**	**-0.3**
CTAO				IAmb	IAmb	18 23 08.3	
	comp=Z,11nm,1.2s						
STKA	**Stephens Creek**	**38.48**	**241**	P	**P**	**18 23 17.6**	**-0.5**
	comp=Z,4.3nm,0.5s,baz=96,slow=9.0,SNR=16 comp=Z,4.3nm,0.5s						
STKA	**Stephens Creek**	**38.48**	**241**	P	**P**	**18 23 18.8**	**+0.6**
INKA	**Innaminka**	**38.57**	**248**	P	**P**	**18 23 19.7**	**+0.8**
INKA				IAmb	IAmb	18 23 20.1	
	comp=Z,2.4nm,0.4s						
BBOO	**Buckleboo**	**43.26**	**241**	P	**P**	**18 23 56.0**	**-0.1**
BBOO				IAmb	IAmb	18 23 56.8	
	comp=Z,12nm,0.9s						
WR8	**Warramunga Arr**	**44.26**	**259**	P	**P**	**18 24 02.9**	**-1.1**
WR8				IAmb	IAmb	18 24 03.8	
	comp=Z,8.9nm,1.4s						
WB0	**Warramunga Arr**	**44.38**	**260**	P	**P**	**18 24 03.8**	**-1.2**
WRA	**Warramunga Arr**	**44.41**	**259**	P	**P**	**18 24 04.5**	**-0.8**
	comp=Z,1.6nm,0.6s,baz=93,slow=6.9,SNR=43 comp=Z,1.6nm,0.6s						
WRA	**Warramunga Arr**	**44.41**	**259**	P	**P**	**18 24 04.0**	**-1.2**
AS31	**Alice Springs**	**44.59**	**254**	P	**P**	**18 24 06.2**	**-0.3**
AS31				IAmb	IAmb	18 24 06.9	
	comp=Z,5.7nm,0.7s						
ASAR	**Alice Springs**	**44.59**	**254**	P	**P**	**18 24 06.3**	**-0.3**
	comp=Z,20nm,0.5s,baz=89,slow=7.8,SNR=787 comp=Z,20nm,0.5s						
FORT	**Forrest**	**49.84**	**244**	P	**P**	**18 24 45.5**	**-0.4**
FORT				IAmb	IAmb	18 25 02.8	
	comp=Z,8.2nm,1.2s						
MBWA	**Marble Bar**	**57.87**	**256**	P	**P**	**18 25 42.1**	**-0.5**
MBWA				IAmb	IAmb	18 26 00.4	
	comp=Z,22nm,1.3s						
MORW	**Morawa**	**60.31**	**246**	P	**P**	**18 25 58.2**	**-0.7**
MORW				IAmb	IAmb	18 26 24.9	
	comp=Z,14nm,1.3s						
GIRL	**Giralia**	**62.70**	**253**	P	**P**	**18 26 15.3**	**+0.8**
QSPA	**South Pole Qui**	**72.29**	**180**	P	**P**	**18 27 12.6**	**0.0**
	comp=Z,0.7nm,0.8s,baz=220,slow=6.1,SNR=1.9 comp=Z,0.7nm,0.8s						
QSPA	**South Pole Qui**	**72.29**	**180**	P	**P**	**18 27 12.7**	**+0.

*ISK **23** 18:24:28.7, 37.84N×26.81E, h17km, ML1.6/6*
AFAD 23 18:24:29.2, 37.89N±26.83E, h7km±3km, ML1.2, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGB	**zmir**	**0.17**	**16**	P	Pg	18 24 33.4	+0.8
DGB				S	Sg	18 24 35.4	+0.5
DGB				IAML		18 24 36.0	
	comp=N,67nm,0.2s						
DGB				IAML		18 24 36.0	
	comp=E,86nm,0.4s						
BEYE	**izmir**	**0.34**	**14**	P	Pg	18 24 36.6	+0.7
BEYE				S	Sg	18 24 40.9	+0.4
GCAM	**G?zelcaml?**	**0.38**	**120**	P	Pg	18 24 37.1	+0.6
GCAM				S	Sg	18 24 42.1	+0.7
GCAM				IAML		18 24 43.0	
	comp=N,27nm,0.3s						
GCAM				IAML		18 24 43.0	
	comp=E,32nm,0.7s						
GCAM	**G?zelcaml?**	**0.38**	**120**	Pg	Pg	18 24 36.6	+0.1
GCAM				Sg	Sg	18 24 42.6	+1.1
GCAM				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.43**	**324**	P	Pg	18 24 37.5	0.0
ZEYE				S	Sg	18 24 44.2	+1.0
ZEYE				IAML		18 24 45.0	
	comp=N,23nm,0.6s						
BLCB	**Balcova**	**0.52**	**19**	Pg	Pb	18 24 40.5	-0.2
BLCB				AML	AML		
DDIM	**Aydin, Didim**	**0.55**	**143**	P	Pb	18 24 41.6	+0.5
DUVT	**Torbali**	**0.59**	**56**	P	Pg	18 24 41.1	+0.5
DUVT				S	Sg	18 24 47.3	-1.0
DUVT				IAML		18 24 52.0	
	comp=E,22nm,0.3s						
DAGE	**izmir**	**0.74**	**81**	P	Pg	18 24 43.5	+0.1
CHOS	**Chios island**	**0.78**	**309**	Pg	Pb	18 24 44.9	-0.3
CHOS				Sg	Sb	18 24 56.6	+0.5
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**86**	Pg	Pb	18 24 45.9	-0.4
BODT	**Bodrum**	**0.91**	**155**	Pg	Pg	18 24 45.9	-0.8
NAZL	**Nazilli-Aydin**	**1.16**	**86**	Pn	Pg	18 24 51.1	-0.4
NAZL				Sn	Sb	18 25 07.2	+0.3

*IDC **23** 18:52:03.6±6.0, 34.08S×179.30E, h147km±46km, mb3.5/3, mbtmp3.9/4, Error ellipse: s-maj=53.7km s-min=25.2km az=47.0*
*WEL **23** 18:52:13.7±1.7, 35.3S×13.7W×179.9E±1.5, h204km±23km, M3.9/6, ML3.7/5, MLv3.9/6, Error ellipse: s-maj=21.1km s-min=15.1km az=58.9*
ISC 23 18:52:08.6±1.4, 34.60S±0.08×179.3E±0.1, h200km, n25, σ1.9s 86/30, mb3.6/3, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**3.06**	**195**	P	**Pn**	**18 53 01.0**	**+2.1**
MXZ				S	**Sn**	**18 53 39.3**	**+0.9**
HAZ	**Te Kaha**	**3.37**	**201**	P	**Pn**	**18 53 05.3**	**+2.7**
HAZ				AML	AML		
PUZ	**Puketiti**	**3.56**	**193**	P	**Pn**	**18 53 08.5**	**+3.6**
PUZ				AML	AML		
MWZ	**Matawai**	**3.98**	**200**	P	**Pn**	**18 53 12.5**	**+2.4**
URZ	**Urewera**	**4.04**	**205**	P	**Pn**	**18 53 12.4**	**+1.6**
	3.3nm,0.3s,baz=250,slow=2.8,SNR=9.1						
URZ				S	**Sn**	**18 54 02.1**	**+2.2**
	35nm,0.5s,baz=200,slow=23,SNR=19						
URZ	**Urewera**	**4.04**	**205**	P	**Pn**	**18 53 13.8**	**+3.0**
URZ				AML	AML		
WCZ	**Waipu Caves**	**4.25**	**250**	P	**Pn**	**18 53 15.6**	**+2.1**
OUZ	**Omahuta**	**4.71**	**261**	P	**Pn**	**18 53 20.7**	**+1.5**
BKZ	**Black Stump Fm**	**5.07**	**205**	P	**Pn**	**18 53 25.5**	**+1.6**
BKZ				AML	AML		
TMVZ	**Te Maari**	**5.34**	**211**	P	**Pn**	**18 53 29.2**	**+1.8**
TMVZ				AML	AML		
TMVZ				AML	AML		
OTVZ	**Oturere**	**5.39**	**211**	P	**Pn**	**18 53 29.7**	**+1.5**
OTVZ				S	**Sn**	**18 54 32.7**	**+1.7**
OTVZ				AML	AML		
SNVZ	**South Ngauruho**	**5.42**	**211**	P	**Pn**	**18 53 30.1**	**+1.6**
SNVZ				S	**Sn**	**18 54 31.0**	**-0.7**
SNVZ				AML	AML		
SNVZ				AML	AML		
KAHZ	**Kahuranaki**	**5.52**	**200**	P	**Pn**	**18 53 30.8**	**+1.1**
KAHZ				AML	AML		
KAHZ				AML	AML		
BFZ	**Birch Farm**	**6.53**	**201**	P	**Pn**	**18 53 42.8**	**+0.2**
BFZ				S	**Sn**	**18 54 54.8**	**-2.3**
MRZ	**Mangatainoka R**	**6.72**	**205**	P	**Pn**	**18 53 44.5**	**-0.7**
MRZ				S	**Sn**	**18 54 58.4**	**-3.3**
HOWZ	**Holdsworth Sta**	**6.95**	**204**	P	**Pn**	**18 53 47.8**	**-0.4**
OGWZ	**Otaki Gorge**	**7.00**	**206**	P	**Pn**	**18 53 48.1**	**-0.7**
KIW	**Kapiti Island**	**7.14**	**208**	P	**Pn**	**18 53 50.3**	**-0.3**
TCW	**Tory Channel**	**7.69**	**209**	P	**Pn**	**18 53 55.8**	**-1.9**
ASAR	**Alice Springs**	**40.80**	**273**	P	**P**	**18 59 30.9**	**+0.2**
	1.3nm,0.7s,baz=114,slow=7.6,SNR=17 1.3nm,0.7s						
WRA	**Warramunga Arr**	**42.18**	**278**	P	**P**	**18 59 41.6**	**-0.3**
	0.4nm,0.4s,baz=117,slow=7.8,SNR=9.9 0.4nm,0.4s						
QSPA	**South Pole Qui**	**55.52**	**180**	P	P	19 01 27.5	+4.7
	2.8nm,0.6s,baz=10,slow=1.4,SNR=8.1 2.8nm,0.6s						
MKAR	**Makanchi Array**	**118.66**	**309**	PKP	**PKPdf**	**19 10 31.2**	**-1.2**
	0.1nm,0.4s,baz=82,slow=3.1,SNR=1.1						
BVAR	**Borovoye Array**	**127.72**	**314**	PKP	**PKiKP**	**19 10 49.1**	**-1.0**
	0.3nm,0.5s,baz=146,slow=2.8,SNR=2.2						
FINES	**FINESS Array B**	**148.16**	**336**	PKPbc	**PKPbc**	**19 11 29.4**	**-0.5**
	18nm,1.3s,baz=47,slow=2.7,SNR=8.0						

*IDC **23** 18:56:56.4±1.3, 4.17S×102.59E, h0km, mb3.8/10, mbtmp3.8/10, MS2.7/2, Error ellipse: s-maj=64.7km s-min=15.4km az=58.0*
*NEIC **23** 18:57:07.0±1.4, 4.2S±0.1×102.7E±0.1, h82km±5km, mb4.2/14, Error ellipse: s-maj=27.1km s-min=12.0km az=225.0*
*DJA **23** 18:57:09.7±0.5, 4.5S×103E±, h55km±7km, M3.9/15, MLv3.9/15*
ISC 23 18:57:07.7±0.8, 4.2S±0.1×102.7E±0.2, h100km, n46, σ1.3s 9/39, mb4.1/16, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNAI	**Manna**	**0.32**	**114**		**Pn**	**18 57 19.9**	**-2.5**
MNAI	**Manna**	**0.32**	**114**	P	**Pn**	**18 57 20.1**	**-2.3**
MNAI				S	**Sn**	**18 57 29.8**	**-3.6**
MNAI				AML	AML		
KSI	**Kapahiang**	**0.58**	**353**	P	**Pn**	**18 57 22.3**	**-1.9**
KSI				AML	AML		
UBSI	**University, Be**	**0.61**	**320**	P	**Pn**	**18 57 22.6**	**-1.8**
UBSI				AML	AML		
MASI	**Maura Aman, Be**	**1.16**	**339**	P	**Pn**	**18 57 30.7**	**+0.7**
MASI				AML	AML		
KRJI	**Kerinci**	**2.44**	**330**	P	**Pn**	**18 57 44.9**	**-1.3**
KRJI				AML	AML		
BBJI	**Bungbulang**	**5.91**	**123**	Pn	**Pn**	**18 58 31.8**	**-1.1**
GSI	**Gunungsitoli**	**7.49**	**317**	Pn	**Pn**	**18 58 52.6**	**-1.7**
UGM	**Wanagama**	**8.63**	**115**	Pn	**Pn**	**18 59 08.7**	**-1.1**
JAGI	**Jajag, Banyuwa**	**12.17**	**111**	Pn	**Pn**	**18 59 56.2**	**-1.6**
CMAR	**Chiang Mai Arr**	**22.84**	**351**	P	**P**	**19 02 01.6**	**-1.0**
	0.7nm,0.6s,baz=183,slow=8.9,SNR=8.5						
CMAR				LR	LR	19 11 06.0	
	comp=Z,8.9nm,18.7s,baz=210,slow=37 0.7nm,0.6s						
CMAR	**Chiang Mai Arr**	**22.84**	**351**	P	**P**	**19 02 01.9**	**-0.7**
FITZ	**Fitzroy Crossi**	**26.37**	**123**	LR	LR	19 14 26.4	
	comp=Z,26nm,18.5s,baz=277,slow=40						
FITZ	**Fitzroy Crossi**	**26.37**	**123**	P	**P**	**19 02 35.6**	**+0.7**
KNRA	**Kununurra**	**28.07**	**116**	P	**P**	**19 02 51.8**	**+1.7**
KNRA				IAmb	IAmb	19 03 21.3	
	comp=Z,10nm,1.5s						
H08S2	**Diego Garcia H**	**30.19**	**262**	T	T	19 33 38.7	
	baz=86,slow=74,SNR=2.5						
H08S3	**Diego Garcia H**	**30.20**	**262**	T	T	19 33 36.0	
	baz=86,slow=74,SNR=3.0						
H08S1	**Diego Carcia H**	**30.21**	**262**	T	T	19 33 23.9	
	baz=86						
WB0	**Warramunga Arr**	**34.56**	**119**	P	**P**	**19 03 47.6**	**+0.5**
WB0				IAmb	IAmb	19 03 48.4	
	comp=Z,5.5nm,1.2s						
WRA	**Warramunga Arr**	**34.58**	**120**	P	**P**	**19 03 47.4**	**+0.1**
	comp=Z,2.2nm,0.6s,baz=297,slow=9.0,SNR=41 comp=Z,2.2nm,0.6s						
WRA	**Warramunga Arr**	**34.58**	**120**	P	**P**	**19 03 46.7**	**-0.6**
WR8	**Warramunga Arr**	**34.73**	**119**	P	**P**	**19 03 49.1**	**+0.6**
WR8				IAmb	IAmb	19 03 49.7	
	comp=Z,4.3nm,0.6s						
ENH	**Enshi**	**34.92**	**10**	P	**P**	**19 03 52.0**	**+2.0**
AS31	**Alice Springs**	**35.80**	**126**	P	**P**	**19 03 58.8**	**+1.1**
ASAR	**Alice Springs**	**35.80**	**126**	P	**P**	**19 03 58.8**	**+1.0**
	comp=Z,0.9nm,0.4s,baz=294,slow=7.5,SNR=36 comp=Z,0.9nm,0.4s						
ASAR	**Alice Springs**	**35.80**	**126**	P	**P**	**19 03 58.3**	**+0.6**
STKA	**Stephens Creek**	**45.69**	**132**	P	**P**	**19 05 20.2**	**+1.4**
	comp=Z,1.1nm,0.7s,baz=308,slow=3.9,SNR=2.9 comp=Z,1.1nm,0.7s						
STKA	**Stephens Creek**	**45.69**	**132**	P	**P**	**19 05 20.1**	**+1.2**
SONM	**Songino Array**	**51.95**	**3**	P	**P**	**19 06 06.9**	**+0.4**
	comp=Z,0.3nm,0.6s,baz=194,slow=12,SNR=3.4 comp=Z,0.3nm,0.6s						
SONM	**Songino Array**	**51.95**	**3**	IAmb	IAmb	19 06 30.1	
	comp=Z,0.9nm,1.0s						
ARSB	**Arslanbob**	**52.81**	**332**	P	**P**	**19 06 13.2**	**+0.1**
MKAR	**Makanchi Array**	**53.91**	**343**	P	**P**	**19 06 21.2**	**+0.4**
	comp=Z,0.8nm,0.6s,baz=152,slow=8.7,SNR=9.1 comp=Z,0.8nm,0.6s						
MKAR	**Makanchi Array**	**53.91**	**343**	P	**P**	**19 06 20.3**	**-0.6**
KURBB	**Kurchatov Arra**	**58.45**	**342**	P	**P**	**19 06 53.2**	**+0.2**
	comp=Z,0.7nm,0.6s,baz=157,slow=6.6,SNR=6.8 comp=Z,0.7nm,0.6s						
KURK	**Kurchatov**	**58.50**	**342**	P	**P**	**19 06 53.4**	**0.0**
KURK				IAmb	IAmb	19 06 54.6	
	comp=Z,1.4nm,0.7s						
ZAA0	**Zalesovo Array**	**59.86**	**348**	P	**P**	**19 07 01.8**	**-1.0**
ZAA0				IAmb	IAmb	19 07 03.3	
	comp=Z,2.9nm,1.1s						
ZALV	**Zalesovo Beam**	**59.86**	**348**	P	**P**	**19 07 02.7**	**0.0**
	comp=Z,1.5nm,0.4s,baz=176,slow=6.0,SNR=10 comp=Z,1.5nm,0.4s						
ZALV	**Zalesovo Beam**	**59.86**	**348**	P	**P**	**19 07 01.9**	**-0.8**
H04N2	**CROZET ISLANDS**	**60.65**	**218**	T	T	20 12 08.2	
	baz=60,slow=74,SNR=22						
H04N1	**CROZET ISLANDS**	**60.66**	**218**	T	T	20 12 10.9	
	baz=60,slow=74,SNR=24						
H04N3	**CROZET ISLANDS**	**60.67**	**218**	T	T	20 12 07.7	
	baz=60,SNR=20						
BVAR	**Borovoye Array**	**63.20**	**339**	P	**P**	**19 07 25.0**	**-0.2**
	comp=Z,1.2nm,0.6s,baz=137,slow=9.3,SNR=10 comp=Z,1.2nm,0.6s						
AB31	**Akbulak array**	**64.87**	**331**	P	**P**	**19 07 35.6**	**-0.6**
AB31				IAmb	IAmb	19 07 36.9	
	comp=Z,1.6nm,0.6s						
ABKAR	**Akbulak array**	**64.87**	**331**	P	**P**	**19 07 35.7**	**-0.5**
VNDA	**Vanda**	**79.48**	**169**	P	**P**	**19 09 05.2**	**+2.4**
	comp=Z,0.3nm,0.6s,baz=260,slow=6.1,SNR=2.2 comp=Z,0.3nm,0.6s						
VNDA	**Vanda**	**79.48**	**169**	P	**P**	**19 09 04.5**	**+1.7**
VNDA				IAmb	IAmb	19 09 47.6	
	comp=Z,2.4nm,1.5s						

*GCG **23** 18:58:02.1±1.8, 15.43N×90.74W, h9km±13km, MD4.2, MW3.3, Presumed earthquake*
*SNET **23** 18:58:14.1±16.0, 14.61N×89.95W, h83km, ML2.7, Presumed earthquake*
ISC 23 18:58:04.9±1.3, 15.35N±0.05×90.81W±0.05, h35km, n16, σ2.3s 38/16, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUEH	**Huehuetenango**	**0.67**	**267**	*i* S	**Sn**	**18 58 26.9**	**-0.5**
STG8	**El Palmar, Qui**	**1.04**	**210**	*i* P	**Pn**	**18 58 21.3**	**-1.9**
FG16	**Alotenango, Sa**	**1.11**	**165**	*i* P	**Pn**	**18 58 20.2**	**-4.0**
FG8	**Yepocapa, Chim**	**1.11**	**167**	*i* P	**Pn**	**18 58 20.8**	**-3.3**
CCIG	**Comitan**	**1.57**	**306**	*i* P	**Pn**	**18 58 31.2**	**+0.7**
CCIG				*i* S	**Sn**	**18 58 53.7**	**+3.9**
ZAFR2	**Estanzuela, Za**	**1.61**	**118**	*i* P	Pn	18 58 23.7	-7.2
ZAFR2				*i* S	Sn	18 58 39.9	-11
RBDL	**Robledal**	**1.65**	**138**	*i* P	**Pn**	**18 58 31.9**	**+0.4**
SLOZ	**Alcaldia de Sa**	**1.65**	**143**	*eP*	**Pn**	**18 58 31.2**	**-0.3**
MTO3	**Montecristo**	**1.69**	**124**	*eP*	**Pn**	**18 58 32.0**	**-0.2**
NUBE	**Las Nubes**	**1.75**	**145**	*i* P	**Pn**	**18 58 34.2**	**+1.1**
NUBE	**Las Nubes**	**1.75**	**145**	*i* P	**Pn**	**18 58 34.1**	**+1.1**
PETF	**Flores**	**1.80**	**30**	*i* P	**Pn**	**18 58 30.0**	**-3.5**
PETF	**Flores**	**1.80**	**30**	*eP*	**Pn**	**18 58 31.1**	**-2.4**
SNJE	**San Jose**	**1.88**	**141**	*eP*	**Pn**	**18 58 36.0**	**+1.2**
SBLS	**San Blas**	**1.90**	**142**	*eP*	**Pn**	**18 58 36.3**	**+1.3**
SARH	**Santa Rosa de**	**2.06**	**106**	*i* S	**Sn**	**18 59 03.3**	**+1.5**

*TAP **23** 19:15:17.7, 24.81N×121.83E, h82km, ML3.7, A*
*JMA **23** 19:15:18.1±0.2, 24.7N±0.5×121.9E±0.5, h75km±2km, MV2.5/13, TAIWAN REGION*
ISC 23 19:15:17.7±1.2, 24.82N±0.03×121.84E±0.02, h84km±4km, n143, σ0.6s 64/273, 14C, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EGS		**0.09**	**75**	*eP*	**Pn**	**19 15 29.9**	**+0.3**
TIPB	**Shuangxi**	**0.15**	**355**	⇑*iP*	**Pn**	**19 15 29.8**	**0.0**
TIPB				S	**Sn**	**19 15 38.7**	**-0.7**
TWE	**Neicheng**	**0.19**	**237**	⇑*iP*	**Pn**	**19 15 30.0**	**+0.1**
TWE				*i* S	**Sn**	**19 15 38.7**	**-0.2**
TWC	**Suao**	**0.21**	**178**	⇑*iP*	**Pn**	**19 15 30.0**	**0.0**
TWC				*i* S	**Sn**	**19 15 39.1**	**+0.1**
NDS	**Dongshan**	**0.22**	**211**	⇑*iP*	**Pn**	**19 15 30.3**	**+0.3**
NDS				*eS*	**Sn**	**19 15 39.2**	**+0.1**
TWB1	**Santiao Chiao**	**0.23**	**36**	⇑*iP*	**Pn**	**19 15 30.0**	**0.0**
TWB1				*i* S	**Sn**	**19 15 38.5**	**-0.7**
FUSB	**Fushanzhiwuyua**	**0.24**	**255**	⇑*iP*	**Pn**	**19 15 30.2**	**0.0**
FUSB				S	**Sn**	**19 15 38.5**	**-0.9**
ESAO	**Su ao**	**0.25**	**179**	P	**Pn**	**19 15 30.3**	**+0.2**
ESAO				S	**Sn**	**19 15 39.0**	**-0.3**
NWF	**Wu-fen Shan**	**0.25**	**348**	⇑*iP*	**Pn**	**19 15 30.3**	**0.0**
NWF				S	**Sn**	**19 15 39.0**	**-0.5**
WFSB	**Wu-fen Shan**	**0.25**	**348**	⇑*iP*	**Pn**	**19 15 30.3**	**+0.1**
WFSB				*eS*	**Sn**	**19 15 39.2**	**-0.2**
SXI1	**Grass Mountain**	**0.27**	**7**	P	**Pn**	**19 15 30.2**	**-0.2**
SXI1				S	**Sn**	**19 15 39.6**	**-0.2**
TWA	**Mucha**	**0.28**	**304**	⇑*iP*	**Pn**	**19 15 30.4**	**+0.1**
TWA				*i* S	**Sn**	**19 15 39.6**	**-0.1**
NWLT	**Wulai**	**0.31**	**262**	⇑*iP*	**Pn**	**19 15 30.3**	**-0.2**
NWLT				*eS*	**Sn**	**19 15 39.2**	**-0.8**
NHDH	**Xindian Distri**	**0.32**	**296**	⇑*iP*	**Pn**	**19 15 30.7**	**+0.3**
NHDH				*i* S	**Sn**	**19 15 40.1**	**+0.1**
NHY	**Taipei**	**0.33**	**311**	*i* P	**Pn**	**19 15 30.8**	**+0.2**
NHY				*i* S	**Sn**	**19 15 40.3**	**+0.2**
TNOU	**National Taiwa**	**0.33**	**350**	*i* P	**Pn**	**19 15 30.5**	**-0.1**
TNOU				*i* S	**Sn**	**19 15 39.9**	**-0.3**
TATO	**Taipei**	**0.35**	**296**	*i* P	**Pn**	**19 15 30.7**	**0.0**
TATO				S	**Sn**	**19 15 39.9**	**-0.5**
NDT	**Datong Townshi**	**0.37**	**234**	⇑*iP*	**Pn**	**19 15 31.0**	**+0.2**
NDT				*i* S	**Sn**	**19 15 40.5**	**-0.1**
TAP	**Taipei**	**0.37**	**306**	*i* P	**Pn**	**19 15 31.0**	**+0.2**
TAP				*i* S	**Sn**	**19 15 40.6**	**+0.1**
EWUT	**Wuta**	**0.38**	**188**	*i* P	**Pn**	**19 15 30.9**	**0.1**
EWUT				*i* S	**Sn**	**19 15 41.0**	**+0.4**
BACT	**New Taipei Cit**	**0.40**	**296**	*eP*	**Pn**	**19 15 31.2**	**+0.2**
BACT				*eS*	**Sn**	**19 15 41.0**	**+0.1**
YM01	**YM01**	**0.40**	**323**	*i* P	**Pn**	**19 15 31.5**	**+0.4**
YM01				*i* S	**Sn**	**19 15 41.2**	**+0.1**
YM08	**YM08**	**0.43**	**328**	*i* P	**Pn**	**19 15 31.4**	**+0.1**
YM08				*i* S	**Sn**	**19 15 40.9**	**-0.4**
ZUZH	**Zhuzihu**	**0.43**	**322**	*i* P	**Pn**	**19 15 31.5**	**+0.2**
ZUZH				*i* S	**Sn**	**19 15 41.4**	**-0.1**
YHNB	**Yeheng**	**0.45**	**250**	⇑*iP*	**Pn**	**19 15 31.3**	**-0.2**
YHNB				*eS*	**Sn**	**19 15 40.6**	**-1.1**
NSK	**Sanguang**	**0.46**	**252**	⇑*iP*	**Pn**	**19 15 31.3**	**-0.3**
NSK				*eS*	**Sn**	**19 15 40.7**	**-1.2**
ANP	**Anpu**	**0.46**	**321**	*i* P	**Pn**	**19 15 31.8**	**+0.1**
ANP				*i* S	**Sn**	**19 15 42.1**	**+0.2**
NTST	**Danshui**	**0.49**	**314**	*i* P	**Pn**	**19 15 32.3**	**+0.6**
NTST				*i* S	**Sn**	**19 15 43.4**	**+1.2**
EAHA	**Aohua**	**0.50**	**191**	*i* P	**Pn**	**19 15 31.5**	**-0.3**
EAHA				*i* S	**Sn**	**19 15 42.8**	**+0.5**
TWY	**Chenhua**	**0.50**	**334**	*i* P	**Pn**	**19 15 32.4**	**+0.6**
TWY				*i* S	**Sn**	**19 15 42.7**	**+0.4**
NTY	**Taoyuan**	**0.52**	**290**	*eP*	**Pn**	**19 15 32.3**	**+0.4**
NTY				*eS*	**Sn**	**19 15 43.2**	**+0.6**
EOS2	**EOS2**	**0.54**	**138**	*i* P	**Pn**	**19 15 32.5**	**+0.5**
EOS2				*i* S	**Sn**	**19 15 43.5**	**+1.0**
NNS	**Nan Shan**	**0.57**	**228**	*i* P	**Pn**	**19 15 32.6**	**0.0**
NNS				*i* S	**Sn**	**19 15 43.1**	**-0.5**
NNSH	**Datong**	**0.57**	**227**	*eP*	**Pn**	**19 15 32.5**	**-0.1**
NNSH				*eS*	**Sn**	**19 15 42.7**	**-0.9**
NNSB	**Datong**	**0.57**	**227**	*i* P	**Pn**	**19 15 32.6**	**+0.1**
NNSB				*i* S	**Sn**	**19 15 43.0**	**-0.6**
KSHI	**Guanxi Townshi**	**0.60**	**266**	*i* P	**Pn**	**19 15 33.2**	**+0.4**
KSHI				*i* S	**Sn**	**19 15 44.5**	**+0.6**
NCU	**National Centr**	**0.61**	**284**	*i* P	**Pn**	**19 15 33.3**	**+0.5**
NCU				*i* S	**Sn**	**19 15 44.3**	**+0.3**
NACB	**Ninganchiao**	**0.68**	**199**	*eP*	**Pn**	**19 15 32.8**	**-0.7**
NACB				*eS*	**Sn**	**19 15 44.6**	**-0.6**
NFF	**Wufeng Townshi**	**0.68**	**254**	*i* P	**Pn**	**19 15 33.5**	**-0.1**
NFF				*i* S	**Sn**	**19 15 44.5**	**-0.9**
NJD	**Zhudong**	**0.69**	**263**	*eP*	**Pn**	**19 15 33.7**	**+0.2**
NJD				*eS*	**Sn**	**19 15 46.3**	**+1.0**
EOS3	**EOS3**	**0.69**	**141**	*i* P	**Pn**	**19 15 33.7**	**+0.3**
EOS3				*i* S	**Sn**	**19 15 46.2**	**+1.2**
ETL	**Fush Village**	**0.69**	**197**	*eP*	**Pn**	**19 15 32.8**	**-0.9**
ETL				*i* S	**Sn**	**19 15 45.2**	**-0.2**
ETLH	**Xiulin Townshi**	**0.69**	**208**	*i* P	**Pn**	**19 15 33.4**	**-0.3**
ETLH				*i* S	**Sn**	**19 15 45.6**	**0.0**
NHW	**Xinwu Township**	**0.74**	**284**	*eP*	**Pn**	**19 15 34.8**	**+0.8**
NHW				*eS*	**Sn**	**19 15 47.1**	**+0.8**
HSN1	**Hsinchu**	**0.75**	**267**	P	**Pn**	**19 15 34.5**	**+0.4**
HSN1				S	**Sn**	**19 15 46.6**	**+0.2**
LIOB	**Emei**	**0.77**	**257**	*i* P	**Pn**	**19 15 34.6**	**+0.2**
LIOB				*i* S	**Sn**	**19 15 46.5**	**-0.3**
TWD	**Chiawan**	**0.77**	**197**	*i* P	**Pn**	**19 15 33.6**	**-0.8**
TWD				*i* S	**Sn**	**19 15 45.9**	**-0.9**
SBCB	**Hsinchu**	**0.78**	**268**	*i* P	**Pn**	**19 15 34.8**	**+0.4**
SBCB				*i* S	**Sn**	**19 15 47.1**	**+0.2**
NSTT	**Nanjuang**	**0.79**	**256**	*i* P	**Pn**	**19 15 34.5**	**0.0**
NSTT				*i* S	**Sn**	**19 15 46.8**	**-0.3**
FUSS	**Fushou**	**0.79**	**224**	*i* P	**Pn**	**19 15 35.6**	**+0.7**
FUSS				*i* S	**Sn**	**19 15 47.9**	**+0.3**
HSN	**Hsinchu**	**0.79**	**269**	*i* P	**Pn**	**19 15 34.5**	**-0.1**
HSN				*i* S	**Sn**	**19 15 47.1**	**-0.1**
EOS4	**EOS4**	**0.82**	**148**	*i* P	**Pn**	**19 15 34.7**	**+0.2**
EOS4				*i* S	**Sn**	**19 15 48.1**	**+0.9**
PCYT	**Pengchaiyu**	**0.83**	**15**	*eP*	**Pn**	**19 15 35.7**	**+0.6**
PCYT				*eS*	**Sn**	**19 15 49.3**	**+1.3**
TDCB	**Techi**	**0.84**	**228**	*i* P	**Pn**	**19 15 35.9**	**+0.6**
TDCB				*i* S	**Sn**	**19 15 48.4**	**-0.1**
WHF	**Hehuan Shan**	**0.85**	**218**	*i* P	**Pn**	**19 15 35.6**	**-0.1**
WHF				*i* S	**Sn**	**19 15 48.7**	**-0.5**
LXIB	**Xiulin Townshi**	**0.89**	**206**	*i* P	**Pn**	**19 15 35.0**	**-0.9**
LXIB				*i* S	**Sn**	**19 15 49.4**	**0.0**
NJN	**Zhunan**	**0.89**	**261**	*eP*	**Pn**	**19 15 36.0**	**+0.3**
NJN				*eS*	**Sn**	**19 15 49.1**	**0.0**
ETM	**Tongmen**	**0.91**	**200**	*eP*	**Pn**	**19 15 35.0**	**-0.9**
TEYL	**Yanliau Villag**	**0.98**	**193**	*eP*	**Pn**	**19 15 35.1**	**-1.6**
WHP	**Taichung City**	**0.98**	**236**	*i* P	**Pn**	**19 15 37.4**	**+0.6**
WHP				*i* S	**Sn**	**19 15 50.5**	**-0.6**
NMLH	**Miaoli**	**0.99**	**254**	*i* P	**Pn**	**19 15 37.2**	**+0.3**
NMLH				*i* S	**Sn**	**19 15 51.9**	**+0.6**
OWD	**Renai**	**1.05**	**215**	*eP*	**Pn**	**19 15 38.1**	**+0.4**
OWD				*eS*	**Sn**	**19 15 52.9**	**+0.1**
WUSB	**Renai**	**1.06**	**219**	*i* P	**Pn**	**19 15 38.2**	**+0.4**
WUSB				*i* S	**Sn**	**19 15 52.7**	**-0.1**
SHUL	**Shoufeng**	**1.06**	**194**	*i* P	**Pn**	**19 15 37.1**	**-0.6**
SHUL				*i* S	**Sn**	**19 15 53.1**	**+0.5**
NSY	**Sanyi**	**1.06**	**248**	*eP*	**Pn**	**19 15 38.1**	**+0.4**
NSY				S	**Sn**	**19 15 52.9**	**+0.2**
ESL	**Shilin**	**1.07**	**200**	*eP*	**Pn**	**19 15 36.7**	**-1.1**
JYNG	**Yonagunijimaku**	**1.07**	**110**	P	**Pn**	**19 15 37.5**	**-0.3**
JYNG				*eS*	**Sn**	**19 15 51.8**	**-1.1**
TWQ1	**Liyutan**	**1.08**	**244**	*i* P	**Pn**	**19 15 38.0**	**+0.1**
TWQ1				*i* S	**Sn**	**19 15 52.7**	**-0.4**
YOJ	**Yonaguni jima**	**1.12**	**108**	*i* P	**Pn**	**19 15 38.1**	**-0.3**
YOJ				S	**Sn**	**19 15 53.5**	**-0.6**
YOJ	**Yonaguni jima**	**1.12**	**108**	*eP*	**Pn**	**19 15 38.1**	**-0.3**
YOJ				*eS*	**Sn**	**19 15 52.7**	**-1.3**
WCS	**Beigang Elemen**	**1.14**	**228**	*i* P	**Pn**	**19 15 39.1**	**+0.5**
WCS				*i* S	**Sn**	**19 15 54.4**	**+0.1**
WPL	**Puli Township**	**1.14**	**225**	*eP*	**Pn**	**19 15 39.6**	**+0.9**
DPDB	**Guoxing**	**1.14**	**227**

WSL			*i* S		**Sn**	**19 16 13.4**	**+0.3**
TWK	**Hsinying**	**1.98 219**	*e*P		**Pn**	**19 15 49.9**	**+0.4**
TWK			*e*S		**Sn**	**19 16 14.2**	**+0.5**
LONT	**Longtian**	**2.02 199**	*e*P		**Pn**	**19 15 50.3**	**+0.4**
LONT			*e*S		**Sn**	**19 16 14.7**	**+0.2**
CHN1	**Nanshi**	**2.02 217**	*i* P		**Pn**	**19 15 50.5**	**+0.5**
CHN1			*e*S		**Sn**	**19 16 15.1**	**+0.4**
JKRS	**Kuro-shima**	**2.06 106**	*e*P		**Pn**	**19 15 50.7**	**+0.2**
JKRS			*e*S		**Sn**	**19 16 15.4**	**0.0**
SGST	**Jiashian**	**2.08 214**	*e*P		**Pn**	**19 15 51.3**	**+0.5**
SGST			*e*S		**Sn**	**19 16 16.5**	**+0.5**
CHN8	**Yiju**	**2.09 226**	*e*P		**Pn**	**19 15 51.1**	**+0.2**
CHN8			*e*S		**Sn**	**19 16 16.2**	**0.0**
TWG	**Pinlang**	**2.11 200**	*i* P		**Pn**	**19 15 51.8**	**+0.6**
TWG			*i* S		**Sn**	**19 16 16.3**	**-0.5**
TWGBT	**Beinan**	**2.11 199**	*i* P		**Pn**	**19 15 51.6**	**+0.4**
TWGBT			*e*S		**Sn**	**19 16 15.6**	**-1.2**
JIJ	**Ishigaki jima**	**2.15 102**	P		**Pn**	**19 15 51.8**	**+0.2**
JIJ			*e*S		**Sn**	**19 16 17.4**	**-0.2**
MATB	**Ma-tsu**	**2.16 308**	*i* P		**Pn**	**19 15 51.8**	**0.0**
MATB			*e*S		**Sn**	**19 16 18.6**	**+0.7**
VWUC	**VWUC**	**2.18 275**	*e*P		**Pn**	**19 15 51.7**	**-0.3**
VWUC			*e*S		**Sn**	**19 16 16.4**	**-1.8**
JISG	**Ishigakijimahi**	**2.26 95**	P		**Pn**	**19 15 53.7**	**+0.6**
JISG			*e*S		**Sn**	**19 16 20.2**	**0.0**
SCST	**Cishan**	**2.29 213**	*i* P		**Pn**	**19 15 55.1**	**+1.6**
SCST			*e*S		**Sn**	**19 16 21.1**	**+0.2**
TSCK	**Chigu Township**	**2.31 224**	*i* P		**Pn**	**19 15 54.4**	**+0.5**
TSCK			S		**Sn**	**19 16 21.4**	**-0.2**
SSD	**Sandimen**	**2.34 208**	*i* P		**Pn**	**19 15 55.1**	**+0.8**
ECL	**Taimali**	**2.36 200**	*e*P		**Pn**	**19 15 54.5**	**0.0**
ECL			*e*S		**Sn**	**19 16 21.7**	**-0.9**
TSMG	**Majia**	**2.38 208**	*i* P		**Pn**	**19 15 55.8**	**+1.1**
TSMG			*e*S		**Sn**	**19 16 24.1**	**+1.1**
PHUB	**P'eng-hu**	**2.45 238**	*e*P		**Pn**	**19 15 54.6**	**-1.0**
PHUB			*e*S		**Sn**	**19 16 23.2**	**-1.5**
MASBT	**Mashibuluo**	**2.46 207**	*i* P		**Pn**	**19 15 56.9**	**+1.0**
PTMZ	**Houxiangcun**	**2.48 276**	*e*P		**Pn**	**19 15 56.0**	**0.0**
PTMZ			*e*S		**Sn**	**19 16 23.3**	**-2.2**
LYJJ	**Jianjiangzhen**	**2.54 313**	*e*P		**Pn**	**19 15 57.1**	**+0.2**
LYJJ			*e*S		**Sn**	**19 16 26.2**	**-0.8**
XPSS	**Dashiqiu**	**2.57 325**	*e*P		**Pn**	**19 15 57.5**	**+0.2**
EAST	**Anshuo**	**2.59 201**	*e*P		**Pn**	**19 15 58.9**	**+1.2**
EAST			*e*S		**Sn**	**19 16 28.0**	**-0.3**
SCZT	**Fangliau**	**2.68 205**	*e*P		**Pn**	**19 15 58.6**	**-0.2**
SCZT			*e*S		**Sn**	**19 16 30.8**	**+0.4**
SLIU	**Shizi**	**2.77 200**	*e*P		**Pn**	**19 16 00.4**	**+0.5**
AXDP	**Jialang**	**3.52 272**	*e*P		**Pn**	**19 16 10.0**	**0.0**
AXDP			*e*S		**Sn**	**19 16 48.0**	**-2.5**

IDC 23 19:34:42.2±9.7, 15°.86S×175°.95W, h0km, mb3.7/3, mbtmp3.7/3, Error ellipse: s-maj=435.0km s-min=38.2km az=140.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**47.35**	**257**	P	P	19 43 18.0	-0.4
	0.4nm,0.8s,baz=91,slow=7.4,SNR=4.9 0.4nm,0.8s						
ASAR	**Alice Springs**	**47.63**	**252**	P	P	19 43 20.6	+0.1
	0.9nm,0.5s,baz=89,slow=7.9,SNR=22 0.9nm,0.5s						
ILAR	**Eielson Array**	**83.38**	**12**	P	P	19 47 10.9	0.0
	0.5nm,0.8s,baz=223,slow=6.1,SNR=4.4 0.5nm,0.8s						

*IDC **23** 19:36:45.6±4.1, 26°.34S×176°.76W, h0km, mb4.1/4, mbtmp4.1/4, Error ellipse: s-maj=202.1km s-min=43.1km az=157.0*

ISC 23 19:36:56.7±3.6, 27°S±2°×176°.8W±0°.5, h90km, n6, σ0s86/6, mb4.1/4, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**34.50**	**273**	P	**P**	**19 43 37.2**	**+0.8**
	1.7nm,0.4s,baz=96,slow=9.2,SNR=2.8 1.7nm,0.4s						
ASAR	**Alice Springs**	**44.51**	**263**	P	**P**	**19 44 59.8**	**+0.2**
	0.6nm,0.4s,baz=101,slow=7.8,SNR=18 0.6nm,0.4s						
WRA	**Warramunga Arr**	**45.18**	**268**	P	**P**	**19 45 03.7**	**-1.3**
	1.1nm,0.5s,baz=105,slow=8.1,SNR=13 1.1nm,0.5s						
FITZ	**Fitzroy Crossi**	**53.55**	**267**	P	**P**	**19 46 08.5**	**-0.1**
	5.0nm,1.2s,baz=99,slow=7.6,SNR=11 5.0nm,1.2s						
HFS	**Hagfors**	**146.00**	**351**	PKPbc	**PKPdf**	**19 56 24.6**	**0.0**
	1.1nm,0.4s,baz=31,slow=3.4,SNR=4.5						
BRTR	**Keskin Array B**	**151.70**	**305**	PKPbc	**PKPbc**	**19 56 41.1**	**+0.1**
	0.6nm,0.6s,baz=96,slow=2.3,SNR=4.1						

*IDC **23** 19:46:38.1±2.5, 6°.51S×76°.12W, h221km±37km, mb3.5/3, mbtmp3.9/6, Error ellipse: s-maj=72.3km s-min=17.7km az=33.0*

ISC 23 19:46:36.4±0.8, 6°.3S±0°.1×75°.90W±0°.10, h200km, n11, σ1s15/12, mb3.6/3, Northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**2.60**	**252**	P	**Pn**	**19 47 23.3**	**+1.5**
	195nm,0.5s,baz=21,slow=8.7,SNR=158						
ATAH				S	**Sn**	**19 47 56.7**	**-0.5**
	88nm,0.7s,baz=71,slow=8.7,SNR=6.8						
LPAZ	**La Paz**	**12.49**	**143**	P	**Pn**	**19 49 27.3**	**-0.8**
	1.0nm,0.5s,baz=320,slow=7.9,SNR=2.5						
SIV	**San Ignacio**	**17.42**	**125**	P	**P**	**19 50 26.6**	**+0.6**
	1.6nm,0.8s,baz=302,slow=9.2,SNR=6.5						
TXAR	**Lajitas Array**	**44.38**	**324**	P	**P**	**19 54 27.1**	**-0.3**
	0.5nm,0.6s,baz=147,slow=8.5,SNR=3.5 0.5nm,0.6s						
DBIC	**Dimbokro**	**72.06**	**81**	P	**P**	**19 57 40.8**	**+1.4**
	1.4nm,0.3s,baz=285,slow=4.0,SNR=12 1.4nm,0.3s						
YKA	**Yellowknife Ar**	**74.74**	**342**	P	**P**	**19 57 53.2**	**-0.8**
	0.5nm,0.4s,baz=143,slow=6.3,SNR=5.9 0.5nm,0.4s						
ZALV	**Zalesovo Beam**	**130.01**	**15**	PKP	**PKPdf**	**20 05 22.5**	**+0.3**
	0.6nm,0.4s,baz=242,slow=3.1,SNR=4.0						
KURBB	**Kurchatov Arra**	**130.96**	**21**	PKP	**PKPdf**	**20 05 24.1**	**0.0**
	0.4nm,0.7s,baz=318,slow=3.1,SNR=3.9						
MKAR	**Makanchi Array**	**135.53**	**21**	PKP	**PKPdf**	**20 05 33.6**	**+0.7**
	0.2nm,0.5s,baz=327,slow=2.4,SNR=2.1						
ASAR	**Alice Springs**	**138.34**	**223**	PKP	**PKPdf**	**20 05 37.0**	**-1.9**
	0.2nm,0.6s,baz=132,slow=2.4,SNR=4.1						
WRA	**Warramunga Arr**	**140.42**	**228**	PKP	**PKPdf**	**20 05 41.4**	**-1.3**
	0.1nm,0.3s,baz=122,slow=2.1,SNR=4.6						

*IDC **23** 19:54:34.0±1.2, 38°.99N×144°.89E, h0km, mb3.5/6, mbtmp3.8/10, ML3.4/4, Error ellipse: s-maj=24.4km s-min=17.1km az=103.0*

*NEIC **23** 19:54:35.3±2.1, 39°.00N±0°.02×144°.8E±0°.2, h10km±1km, mb4.4/11, Error ellipse: s-maj=19.9km s-min=3.2km az=89.0*

*NIED **23** 19:54:36.6, 39°.07N×144°.76E, h16km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr=4.05; Mθθ 1.21; Mφφ2.84; Mrθ 1.78; Mθφ 1.29; Mrφ2.58; Fault plane solution: Mo4.92000×10¹⁴ NP1:φs26.00000°, δ25.00000°, λ-95.00000°. NP2:φs212.00000°, δ65.00000°, λ-87.00000°.*

*JMA **23** 19:54:36.6±0.1, 39°.1N±0°.3×144°.8E±0°.7, h16km±1km, MV3.9/23, FAR E OFF NORTH HONSHU*

ISC 23 19:54:35.8±0.8, 38°.96N±0°.07×144°.7E±0°.1, h19km, n34, σ1s94/34, mb4.1/13, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ERM	**Erimo**	**3.27**	**340**	Pn	**Pn**	**19 55 25.6**	**-0.4**
ERM				Sn	**Sn**	**19 55 59.9**	**-4.4**
JTM	**Tenmabayashi**	**3.33**	**304**	Pn	**Pn**	**19 55 26.8**	**-0.1**
JTM				Sn	**Sn**	**19 56 03.4**	**-2.5**
MJAR	**Matsushiro Arr**	**5.67**	**247**	Pn	**Pn**	**19 56 00.7**	**+1.6**
	0.5nm,0.3s,baz=55,slow=11,SNR=25 4.7nm,0.4s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.67**	**247**		**Pn**	**19 56 01.5**	**+2.4**
MAJO	**Matsushiro**	**5.67**	**247**	Pn	**Pn**	**19 56 01.5**	**+2.4**
MJB9	**Matsu-Tunnel**	**5.67**	**247**	Pn	**Pn**	**19 56 03.1**	**+3.9**
JGF	**Kuroka**	**6.74**	**242**	Pn	**Pn**	**19 56 15.2**	**+1.5**
JHJ	**Hachijo jima 2**	**7.05**	**216**	Pn	**Pn**	**19 56 18.2**	**+0.2**
	0.7nm,0.3s,baz=14,slow=16,SNR=1.9 23nm,0.8s						
JHJ				AML	AML		
USA0B	**Ussuriysk Arra**	**10.85**	**303**	Pn	**Pn**	**19 57 10.9**	**+0.8**
USRK	**Ussuriysk Ar.**	**10.85**	**303**	Pn	**Pn**	**19 57 12.1**	**+2.0**
	0.3nm,0.3s,baz=102,slow=16,SNR=5.6 3.4nm,0.7s						
USRK				AML	AML		
USRK	**Ussuriysk Ar.**	**10.85**	**303**		**Pn**	**19 57 11.6**	**+1.5**
JCJ	**Chichijima**	**12.02**	**191**	Pn	Pn	19 57 20.9	-5.2
	1.3nm,0.3s,baz=277,slow=17,SNR=1.9 41nm,0.7s						
JCJ				AML	AML		
JCJ	**Chichijima**	**12.02**	**191**		**Pn**	**19 57 22.5**	**-3.5**
KSAR	**Wonju Array Be**	**13.31**	**269**	Pn	**Pn**	**19 57 41.9**	**-1.8**
TWG	**Pinlang**	**25.76**	**238**	P	**P**	**20 00 02.0**	**-3.4**
ULN	**Ulaanbaatar**	**28.51**	**301**	P	**P**	**20 00 30.3**	**+0.2**
GSTR	**Great Sitkin T**	**30.08**	**51**	P	P	20 00 38.8	-5.0
ZALV	**Zalesovo Beam**	**42.57**	**311**	P	**P**	**20 02 32.2**	**+2.0**
	0.5nm,0.6s,baz=100,slow=7.8,SNR=4.6 0.5nm,0.6s						
D20K	**Etivluk River**	**43.04**	**27**	P	**P**	**20 02 33.1**	**-0.8**
D20K				IAmb	IAmb	20 02 42.6	
	comp=Z,11nm,1.4s						
FAKI	**Fak Fak**	**43.22**	**198**	IAmb	IAmb	20 02 35.8	
	comp=Z,9.7nm,0.9s						
FAKI				P	**P**	**20 02 36.8**	**+1.0**
CAST	**Castle Rocks**	**44.17**	**35**	P	**P**	**20 02 44.7**	**+1.6**
CAST				IAmb	IAmb	20 03 17.4	
	comp=Z,4.1nm,1.2s						
D22K	**Ayikyak River**	**44.48**	**27**	P	**P**	**20 02 47.1**	**+1.7**
D22K				IAmb	IAmb	20 03 12.3	
	comp=Z,5.7nm,1.4s						
MKAR	**Makanchi Array**	**45.32**	**301**	P	**P**	**20 02 54.1**	**+1.7**
	comp=Z,0.4nm,0.8s,baz=84,slow=9.4,SNR=4.7 comp=Z,0.4nm,0.8s						
MKAR	**Makanchi Array**	**45.32**	**301**	P	**P**	**20 02 53.4**	**+1.0**
IL31		**46.48**	**33**	P	**P**	**20 02 59.9**	**-1.4**
IL31				IAmb	IAmb	20 03 02.5	
	comp=Z,3.5nm,0.9s						
ILAR	**Eielson Array**	**46.48**	**33**	P	**P**	**20 03 01.9**	**+0.7**
	comp=Z,1.4nm,0.8s,baz=257,slow=6.9,SNR=12 comp=Z,1.4nm,0.8s						
ILAR	**Eielson Array**	**46.48**	**33**	P	**P**	**20 03 01.5**	**+0.2**
KURK	**Kurchatov**	**46.81**	**307**	P	**P**	**20 03 04.8**	**+0.7**
KURK				IAmb	IAmb	20 03 16.2	
	comp=Z,3.3nm,0.7s						
KURBB	**Kurchatov Arra**	**46.88**	**307**	P	**P**	**20 03 05.7**	**+1.0**
	comp=Z,0.5nm,0.6s,baz=79,slow=8.2,SNR=5.2 comp=Z,0.5nm,0.6s						
BVAR	**Borovoye Array**	**51.21**	**312**	P	**P**	**20 03 39.1**	**+1.4**
	comp=Z,0.2nm,0.4s,baz=52,slow=9.5,SNR=2.2 comp=Z,0.2nm,0.4s						
ABKAR	**Akbulak array**	**58.68**	**310**	P	**P**	**20 04 33.2**	**+1.4**
WR8	**Warramunga Arr**	**59.38**	**191**	P	**P**	**20 04 36.5**	**-0.4**
WR8				IAmb	IAmb	20 04 44.1	
	comp=Z,2.5nm,1.1s						
WRA	**Warramunga Arr**	**59.39**	**191**	P	**P**	**20 04 37.9**	**+1.0**
	comp=Z,0.4nm,0.8s,baz=7.2,slow=7.0,SNR=2.4 comp=Z,0.4nm,0.8s						
WRA	**Warramunga Arr**	**59.39**	**191**	P	**P**	**20 04 37.6**	**+0.6**

*NNC **23** 20:23:46.2±8.1, 37°.70N×70°.26E, h0km, mb4.1, mpv3.8, Error ellipse: s-maj=63.9km s-min=50.1km az=172.0*

*SOME **23** 20:23:53.7, 38°.90N×71°.67E, h10km*

ISC 23 20:23:58.0±4.3, 38°.2N±0°.2×70°.58E±0°.0, h10km, n16, σ2s34/23, 2C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**3.93**	**354**	*e*P	**Pn**	**20 24 58.9**	**+0.4**
	79nm,0.4s 137nm,0.5s						
IUG				*e*S	**Sn**	**20 25 46.0**	**+1.3**
CHM	**Chimkent**	**4.14**	**350**	*e*P	**Pn**	**20 25 03.0**	**+1.6**
	19nm,0.2s 151nm,0.5s						
CHM				*e*S	**Sn**	**20 25 53.4**	**+3.5**
BRLS	**Borolday**	**4.82**	**354**	*e*P	**Pn**	**20 25 10.2**	**-0.5**
	3.0nm,0.1s 47nm,0.4s						
BRLS				*e*S	**Sn**	**20 26 05.0**	**-1.6**
KK31	**Karatay Array**	**4.86**	**359**	⇓P	Pn	20 25 07.1	-4.1
	5.4nm,0.3s,baz=187,slow=14,SNR=59 48nm,0.6s,baz=179,slow=25,SNR=23						
KK31				S	**Sn**	**20 26 14.0**	**+6.4**
MRKS	**Merke**	**4.93**	**23**	*e*P	**Pn**	**20 25 10.7**	**-1.6**
	8.6nm,0.3s 20nm,0.4s						
MRKS				*e*S	**Sn**	**20 26 06.5**	**-3.0**
UCH	**Uchtor**	**5.00**	**36**	P	**Pn**	**20 25 14.2**	**+0.8**
	SNR=12						
EKS2	**Erkin-Say**	**5.05**	**28**	P	**Pn**	**20 25 12.4**	**-1.5**
	SNR=12						
AAK	**Ala-Archa**	**5.31**	**33**	P	**Pn**	**20 25 17.9**	**+0.3**
	SNR=8.5						
AAK	**Ala-Archa**	**5.31**	**33**	⇓P	**Pn**	**20 25 17.5**	**-0.1**
	2.5nm,0.4s 1.6nm,0.5s						
AAK				⇑S	**Sn**	**20 26 22.5**	**+3.6**
KBK	**Karagaybulak**	**5.53**	**36**	P	**Pn**	**20 25 22.0**	**+1.4**
	SNR=18						
CHMS	**Chumysh**	**5.72**	**32**	P	**Pn**	**20 25 23.0**	**0.0**
	SNR=16						
USP	**Ospenovka**	**5.84**	**29**	P	**Pn**	**20 25 23.8**	**-0.9**
	SNR=15						
TKM2	**Tokmak 2**	**6.04**	**38**	P	**Pn**	**20 25 28.4**	**+0.8**
	SNR=16						
KST	**Kastek**	**6.31**	**39**	*e*P	**Pn**	**20 25 32.4**	**+1.2**
	2.9nm,0.4s 6.2nm,0.3s						
KST				*e*S	**Sn**	**20 26 43.3**	**-0.1**
DGS	**Degeres**	**6.37**	**37**	*e*P	**Pn**	**20 25 33.0**	**+1.0**
	2.6nm,0.2s 3.5nm,0.6s						
DGS				*e*S	**Sn**	**20 26 44.0**	**-0.8**
AB31	**Akbulak array**	**13.42**	**329**	P	Pn	20 27 00.7	-7.6
	0.9nm,0.5s,baz=153,slow=10,SNR=40						
AB31				⇑S	**Sn**	**20 29 33.5**	**-3.9**
	1.4nm,0.6s,baz=154,slow=22,SNR=7.0						

IDC 23 20:27:03.2±999.0, 17°.29N×118°.01E, h0km, Error ellipse: s-maj=470.2km s-min=257.6km az=70.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I39PW	**PALAU INFRASON**	**18.82**	**119**	I	I	22 20 58.5	
	baz=305,slow=304,SNR=1.3						
I30JP	**ISUMI INFRASON**	**26.77**	**44**	I	I	23 12 30.0	
	baz=236,slow=310,SNR=1.0						
I45RU	**USSURIYSK INFR**	**29.31**	**21**	I	I	23 25 25.0	
	0.2nm,1.6s,baz=207,slow=324,SNR=2.5						

*JMA **23** 20:39:36.7±0.1, 24°.N±3°.×123°.0E±0°.6, h47km±2km, MV2.0/11, NW OFF ISHIGAKIJIMA IS*

*TAP **23** 20:39:37.2, 24°.28N×122°.87E, h33km, ML2.8, D*

ISC 23 20:39:37.1±1.2, 24°.27N±0°.05×122°.98E±0°.02, h42km±8km, n63, σ1s19/124, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.18**	**351**	P	**Pn**	**20 39 44.1**	**-0.3**
JYNG				S	**Sn**	**20 39 49.5**	**0.0**
YOJ	**Yonaguni jima**	**0.19**	**9**	*i* P	**Pn**	**20 39 44.3**	**-0.2**
YOJ				S	**Sn**	**20 39 49.5**	**-0.1**
YOJ	**Yonaguni jima**	**0.19**	**9**	P	**Pn**	**20 39 44.3**	**-0.2**
YOJ				S	**Sn**	**20 39 49.6**	**-0.1**
EOS3	**EOS3**	**0.60**	**271**	*i* P	**Pn**	**20 39 48.5**	**-0.6**
EOS3				S	**Sn**	**20 39 58.2**	**+0.5**
EOS4	**EOS4**	**0.62**	**256**	*e*P	**Pn**	**20 39 48.9**	**-0.3**
EOS4				*e*S	**Sn**	**20 39 59.8**	**+1.9**
IRIF	**Iriomote-Funau**	**0.69**	**85**	*e*S	**Sn**	**20 39 59.9**	**-0.1**
EOS2	**EOS2**	**0.69**	**282**	*i* P	**Pn**	**20 39 49.7**	**-0.7**
EOS2				*i* S	**Sn**	**20 40 00.3**	**+0.3**
JKRS	**Kuro-shima**	**0.94**	**92**	*e*P	**Pn**	**20 39 54.2**	**+0.3**
JKRS				*e*S	**Sn**	**20 40 06.9**	**+0.7**
JIJ	**Ishigaki jima**	**1.07**	**85**	*e*P	**Pn**	**20 39 55.1**	**-0.5**
JIJ				*e*S	**Sn**	**20 40 08.5**	**-0.8**
TWC	**Suao**	**1.08**	**288**	P	**Pn**	**20 39 55.2**	**-0.6**
TWC				*i* S	**Sn**	**20 40 07.7**	**-1.8**
EWUT	**Wuta**	**1.11**	**279**	*i* P	**Pn**	**20 39 56.0**	**-0.2**
EWUT				*i* S	**Sn**	**20 40 09.3**	**-0.9**
ENA	**Nanau**	**1.14**	**278**	*e*P	**Pn**	**20 39 55.8**	**-0.8**
ENA				S	**Sn**	**20 40 10.5**	**-0.5**
NDS	**Dongshan**	**1.20**	**288**	*i* P	**Pn**	**20 39 56.6**	**-0.9**
NDS				*i* S	**Sn**	**20 40 11.2**	**-1.4**
JISG	**Ishigakijimahi**	**1.25**	**75**	*e*P	**Pn**	**20 39 57.8**	**-0.4**
JISG				S	**Sn**	**20 40 13.5**	**-0.3**
TIPB	**Shuangxi**	**1.26**	**304**	*i* P	**Pn**	**20 39 56.9**	**-1.3**
TIPB				S	**Sn**	**20 40 11.9**	**-2.1**
NACB	**Ninganchiao**	**1.27**	**266**	*i* P	**Pn**	**20 39 57.7**	**-0.6**
NACB				*e*S	**Sn**	**20 40 12.8**	**-1.4**
TWE	**Neicheng**	**1.27**	**291**	*i* P	**Pn**	**20 39 57.7**	**-0.7**
TWE				S	**Sn**	**20 40 13.5**	**-0.9**
FUSB	**Fushanzhiwuyua**	**1.35**	**291**	*i* P	**Pn**	**20 39 59.6**	**-0.1**
FUSB				S	**Sn**	**20 40 14.8**	**-1.6**
ETLH	**Xiulin Townshi**	**1.37**	**267**	*i* P	**Pn**	**20 39 59.3**	**-0.5**
ETLH				*i* S	**Sn**	**20 40 16.3**	**-0.5**
SHUL	**Shoufeng**	**1.38**	**250**	*e*P	**Pn**	**20 39 59.4**	**-0.5**
SHUL				S	**Sn**	**20 40 15.1**	**-1.9**
ETM	**Tongmen**	**1.39**	**258**	P	**Pn**	**20 39 59.6**	**-0.4**
ETM				*e*S	**Sn**	**20 40 15.6**	**-1.6**
NWLT	**Wulai**	**1.43**	**291**	P	**Pn**	**20 40 01.8**	**+1.1**
NWLT				*e*S	**Sn**	**20 40 17.2**	**-1.1**
LXIB	**Xiulin Townshi**	**1.45**	**260**	*e*P	**Pn**	**20 39 59.6**	**-1.4**
LXIB				*i* S	**Sn**	**20 40 17.7**	**-1.2**
NNSB	**Datong**	**1.46**	**276**	P	**Pn**	**20 40 02.0**	**+0.9**
NNSB				*i* S	**Sn**	**20 40 20.4**	**+1.2**
NNS	**Nan Shan**	**1.47**	**277**	*e*P	**Pn**	**20 40 02.1**	**+0.8**
NNS				S	**Sn**	**20 40 20.6**	**+1.2**
ESL	**Shilin**	**1.48**	**252**	P	**Pn**	**20 40 00.8**	**-0.6**
ESL				*e*S	**Sn**	**20 40 16.7**	**-2.8**
NSK	**Sanguang**	**1.53**	**285**	P	**Pn**	**20 40 03.3**	**+1.3**
NSK				*e*S	**Sn**	**20 40 20.8**	**0.0**
WARBT	**Fenglin Townsh**	**1.56**	**249**	*i* P	**Pn**	**20 40 01.3**	**-1.0**
WARBT				*e*S	**Sn**	**20 40 19.4**	**-1.9**
WHF	**Hehuan Shan**	**1.57**	**266**	*i* P	**Pn**	**20 40 02.5**	**-0.3**
WHF				S	**Sn**	**20 40 21.8**	**-0.4**
JTJ	**Tarama**	**1.61**	**77**	*e*S	**Sn**	**20 40 22.7**	**0.0**
HGSD	**Ruisui**	**1.62**	**242**	*i* P	**Pn**	**20 40 02.1**	**-1.1**
HGSD				S	**Sn**	**20 40 20.4**	**-2.5**
TWT	**Tachien**	**1.65**	**270**	*i* P	**Pn**	**20 40 04.5**	**+0.8**
TWT				S	**Sn**	**20 40 23.9**	**+0.2**
TDCB	**Techi**	**1.66**	**270**	*i* P	**Pn**	**20 40 04.1**	**+0.2**
TDCB				S	**Sn**	**20 40 24.2**	**+0.2**
OWD	**Renai**	**1.68**	**259**	*i* P	**Pn**	**20 40 03.8**	**-0.4**
OWD				*i* S	**Sn**	**20 40 23.5**	**-0.9**
EHYH	**Wanrong**	**1.68**	**243**	*i* P	**Pn**	**20 40 03.2**	**-0.9**
EHYH				*i* S	**Sn**	**20 40 23.1**	**-1.3**
EHY	**Hungye**	**1.70**	**244**	*e*P	**Pn**	**20 40 03.5**	**-0.7**
EHY				*i* S	**Sn**	**20 40 23.0**	**-1.8**
WUSB	**Renai**	**1.72**	**261**	*i* P	**Pn**	**20 40 04.8**	**0.0**
WUSB				S	**Sn**	**20 40 24.5**	**-1.1**
NFF	**Wufeng Townshi**	**1.73**	**282**	P	**Pn**	**20 40 05.5**	**+0.7**
NFF				*e*S	**Sn**	**20 40 26.2**	**+0.5**
VWDT	**VWDT**	**1.76**	**253**	*i* P	**Pn**	**20 40 05.3**	**+0.2**
VWDT				S	**Sn**	**20 40 25.5**	**-0.7**
YULB	**Yu-li**	**1.77**	**241**	*i* P	**Pn**	**20 40 04.3**	**-1.0**
YULB				*i* S	**Sn**	**20 40 24.6**	**-2.0**
TWF1	**Yuli**	**1.79**	**240**	*i* P	**Pn**	**20 40 04.8**	**-0.8**
TWF1				*i* S	**Sn**	**20 40 25.7**	**-1.4**
LIOB	**Emei**	**1.83**	**282**	P	**Pn**	**20 40 07.4**	**+1.3**
LIOB				*e*S	**Sn**	**20 40 28.2**	**+0.2**
FULB	**Fuli**	**1.88**	**236**	*i* P	**Pn**	**20 40 05.4**	**-1.4**
FULB				*i* S	**Sn**	**20 40 27.5**	**-1.8**
WCS	**Beigang Elemen**	**1.90**	**264**	*i* P	**Pn**	**20 40 07.3**	**+0.3**
WCS				S	**Sn**	**20 40 30.6**	**+0.9**
SSLB	**Suanglung**	**1.91**	**256**	*i* P	**Pn**	**20 40 07.2**	**-0.1**
SSLB				S	**Sn**	**20 40 30.3**	**+0.1**
SMLT	**Sun Moon Lake**	**1.94**	**259**	P	**Pn**	**20 40 08.7**	**+1.0**
SMLT				*i* S	**Sn**	**20 40 30.9**	**0.0**
EHD	**Haiduan**	**1.97**	**236**	P	**Pn**	**20 40 07.0**	**-1.1**
EHD				*e*S	**Sn**	**20 40 29.4**	**-2.2**
TYC	**Yuchr**	**1.97**	**260**	*i* P	**Pn**	**20 40 09.8**	**+1.8**
TYC				S	**Sn**	**20 40 31.6**	**+0.1**
WHYT	**Xinyi Township**	**2.03**	**254**	*i* P	**Pn**	**20 40 10.1**	**+1.3**
WHYT				*i* S	**Sn**	**20 40 34.5**	**+1.5**
ELDTW	**Lidau**	**2.10**	**239**	*i* P	**Pn**	**20 40 08.5**	**-1.3**
ELDTW				S	**Sn**	**20 40 32.0**	**-2.8**
ALS	**Alishan**	**2.13**	**250**	*i* P	**Pn**	**20 40 11.1**	**+0.6**
ALS				S	**Sn**	**20 40 35.5**	**-0.3**
WNT	**Mingjian**	**2.13**	**260**	*e*P	**Pn**	**20 40 12.4**	**+2.2**
WNT				S	**Sn**	**20 40 37.8**	**+2.3**
CHN5	**Tsauling**	**2.21**	**253**	*i* P	**Pn**	**20 40 12.1**	**+0.7**
CHN5				*i* S	**Sn**	**20 40 39.3**	**+1.8**
STYH	**Taoyuan**	**2.30**	**242**	P	**Pn**	**20 40 12.1**	**-0.4**
STYH				*i* S	**Sn**	**20 40 39.1**	**-0.5**
WCKO	**Fanlu**	**2.33**	**250**	*i* P	**Pn**	**20 40 13.3**	**+0.3**

YMR				IAML		21 07 26.6	
	comp=N,40nm,1.0s						
YMR				IAML		21 07 33.1	
	comp=E,49nm,1.2s						
OGNE	**Ogallala**	**4.05**	**139**	Pn	**Pn**	**21 05 26.9**	**-1.9**
YHL	**Hebgen Lake**	**4.11**	**283**	Pn	**Pn**	**21 05 30.0**	**+0.2**
YHL				IAML		21 07 25.7	
	comp=N,30nm,1.2s						
YHL				IAML		21 07 27.4	
	comp=E,32nm,1.2s						
AHID	**Auburn Hatcher**	**4.24**	**254**	Pn	**Pn**	**21 05 31.6**	**+0.2**
AHID				IAML		21 07 26.7	
	comp=E,44nm,0.8s						
ISCO	**Idaho Springs**	**4.24**	**181**	Pn	**Pn**	**21 05 32.3**	**+0.6**
ISCO				IAML		21 06 58.7	
	comp=E,42nm,0.8s						
ISCO				IAML		21 07 58.7	
	comp=E,37nm,3.9s						
O20A	**White River Ci**	**4.39**	**208**	Pn	**Pn**	**21 05 35.0**	**+1.4**
O20A				IAML		21 06 59.7	
	comp=E,37nm,1.1s						
O20A				IAML		21 07 05.2	
	comp=E,35nm,1.2s						
DGMT	**Dagmar**	**4.53**	**12**	Pn	**Pn**	**21 05 35.7**	**+0.4**
RDMU	**Red Mountain**	**4.57**	**222**	Pn	**Pn**	**21 05 35.8**	**-0.3**
RDMU				IAML		21 07 19.6	
	comp=N,34nm,1.4s						
BOZ	**Bozeman (W)**	**4.59**	**292**	Pn	**Pn**	**21 05 36.3**	**+0.1**
HWUT	**Hardware Ranch**	**5.04**	**243**	Pn	**Pn**	**21 05 43.0**	**+0.5**
HWUT				IAML		21 07 49.4	
	comp=N,31nm,1.7s						
Q24A	**Divide**	**5.09**	**176**	Pn	**Pn**	**21 05 44.6**	**+1.3**
Q24A				IAML		21 08 08.1	
	comp=N,20nm,3.6s						
BSUT	**Blindstream Ca**	**5.21**	**230**	Pn	**Pn**	**21 05 45.9**	**+0.8**
BSUT				IAML		21 07 45.2	
	comp=E,17nm,1.3s						
BSUT				IAML		21 07 46.4	
	comp=N,19nm,0.9s						
TCUT	**Toone Canyon**	**5.21**	**238**	Pn	**Pn**	**21 05 45.1**	**+0.1**
GBMT	**Granite Butte,**	**5.61**	**303**	Pn	**Pn**	**21 05 50.5**	**+0.1**
P18A	**Preston Nutter**	**5.63**	**220**	Pn	**Pn**	**21 05 50.4**	**-0.4**
PV07	**Paradox Valley**	**6.07**	**204**	Pn	**Pn**	**21 05 57.5**	**+0.8**
PV03	**Paradox Valley**	**6.29**	**204**	Pn	**Pn**	**21 05 59.8**	**0.0**
PV05	**Paradox Valley**	**6.53**	**205**	Pn	**Pn**	**21 06 02.6**	**-0.4**
T25A	**Trinidad**	**6.96**	**172**	Pn	**Pn**	**21 06 08.9**	**+0.1**
I10CA	**LAC DU BONNET**	**8.95**	**43**	I	I	21 56 00.0	
	comp=N,0.1nm,1.1s,baz=224,slow=280,SNR=0.6						
ULM	**Lac du Bonnet**	**9.05**	**43**	Pn	Pn	21 06 58.5	+21
	comp=N,0.8nm,0.3s,baz=238,slow=11,SNR=5.8						
ULM				Pg		21 07 35.4	
	comp=N,0.8nm,0.3s,baz=224,slow=17,SNR=4.3						
ULM				Lg	Lg	21 09 35.0	
	comp=N,0.4nm,0.3s,baz=310,slow=19,SNR=5.0						
	comp=N,2.0nm,0.3s						
ULM				AML	AML		

*IDC **23** 21:36:45.5±1.9,0.˚80S×127.˚42E, h0km, mb3.5/4, mbtmp3.6/4, Error ellipse: s-maj=164.8km s-min=23.9km az=66.0*

*DJA **23** 21:36:47.9±0.3,1.˚5S±3.˚3×12.˚8E±.˚, h10km, M3.3/6, MLv3.3/6*

ISC 23 21:36:49.8±1.1, 0.˚8S±0.˚1×127.˚3E±0.˚2, h31km, n6, σ1§37/6, mb3.6/3, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.59**	**3**	P	**Pn**	**21 37 15.3**	**-0.6**
TNTI				AML	AML		
SANI	**Sanana**	**1.77**	**227**	P	**Pb**	**21 37 21.4**	**-0.3**
WRA	**Warramunga Arr**	**20.21**	**160**	P	**P**	**21 41 20.5**	**-1.9**
	0.4nm,0.5s,baz=340,slow=11,SNR=5.6						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**23.59**	**165**	P	**P**	**21 41 58.0**	**-0.1**
	1.3nm,0.6s,baz=343,slow=11,SNR=20						
	1.3nm,0.6s						
STKA	**Stephens Creek**	**33.71**	**158**	P	**P**	**21 43 29.6**	**+1.2**
	1.9nm,0.8s,baz=324,slow=14,SNR=2.8						
	1.9nm,0.8s						
MKAR	**Makanchi Array**	**61.61**	**326**	P	**P**	**21 47 05.2**	**+0.7**
	0.2nm,0.4s,baz=120,slow=7.3,SNR=7.3						
	0.2nm,0.4s						

IDC 23 21:40:39.8±1.8, 5.˚36S×122.˚34E, h0km, mb3.2/2, mbtmp3.1/4, ML3.0/2, Error ellipse: s-maj=47.3km s-min=19.5km az=28.0, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KAPI	**Kappang**	**2.60**	**277**	Pn	Pn	21 41 23.7	+0.6
	1.2nm,0.3s,baz=141,slow=11,SNR=2.4						
KAPI				Sn	Sn	21 41 56.8	+1.4
	8.5nm,0.3s,baz=181,slow=21,SNR=6.7						
	7.0nm,0.3s						
KAPI				AML	AML		
WRA	**Warramunga Arr**	**18.61**	**142**	P	Pn	21 44 59.8	+0.6
	0.1nm,0.3s,baz=325,slow=13,SNR=2.2						
	0.1nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.34**	**150**	P	P	21 45 28.4	-0.4
	0.3nm,0.4s,baz=315,slow=8.9,SNR=6.8						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**62.85**	**330**	P	P	21 51 07.4	-0.2
	0.3nm,0.6s,baz=130,slow=7.1,SNR=2.9						
	0.3nm,0.6s						

*SJA **23** 22:07:49.7±0.8, 22.˚52S×66.˚10W, h281km±7km, ML4.7, MW4.4*

*NEIC **23** 22:07:50.8±1.8, 22.˚61S±0.˚06×66.˚08W±0.˚08, h248km±6km, mb4.5/94, Mwr4.6(GUC), Error ellipse: s-maj=10.5km s-min=9.3km az=79.0*

*IDC **23** 22:07:50.6±1.0, 22.˚55S×66.˚02W, h248km±8km, mb4.0/12, mbtmp4.6/19, Error ellipse: s-maj=14.2km s-min=9.5km az=61.0*

*VAO **23** 22:07:51.3±0.3, 22.˚55S×66.˚13W, h265km, mb4.7, Presumed earthquake*

*GFZ **23** 22:07:51.5±0.2, 23.˚5S±2.˚×66.˚6W±.˚, h264km±5km, M4.5/24, mb4.7/24*

*GUC **23** 22:07:52.6±0.6, 22.˚63S×66.˚35W, h242km±5km, ML5.1, Presumed earthquake*

ISC 23 22:07:50.2±0.3, 22.˚60S±0.˚04×66.˚19W±0.˚04, h251km, n339, σ1§47/367, mb4.5/59, 20C-1D, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
YJA	**Yavi**	**0.75**	**56**	*eP*	**Pn**	**22 08 28.0**	**+3.2**
YJA				*eS*	**S**	**22 08 54.8**	**+3.1**
YJA				IAML		22 08 55.2	
	comp=Z,634nm,0.6s						
YJA	**Yavi**	**0.75**	**56**	*iP*	**Pn**	**22 08 27.9**	**+3.2**
YJA				*eS*	**S**	**22 08 54.6**	**+2.9**
SALTA		**1.63**	**185**	*eP*	**Pn**	**22 08 33.3**	**+3.1**
SALTA				*eP*		22 08 33.4	
SALTA				*eP*		22 08 33.6	
SALTA				IAML		22 09 07.1	
	comp=Z,301nm,0.8s						
SALTA		**1.63**	**185**	P	**Pn**	**22 08 33.4**	**+3.2**
AF01	**San Pedro de A**	**1.87**	**259**	*eP*	**Pn**	**22 08 35.1**	**+3.1**
AF01	**San Pedro de A**	**1.87**	**259**		**Pn**	**22 08 35.3**	**+3.3**
AF01	**San Pedro de A**	**1.87**	**259**	*iP*	**Pn**	**22 08 35.3**	**+3.3**
SLA	**San Lorenzo**	**2.21**	**164**	*eP*	**Pn**	**22 08 37.6**	**+2.8**
SLA	**San Lorenzo**	**2.21**	**164**	*iP*	**Pn**	**22 08 37.7**	**+2.8**
PB09	**IPOC Station P**	**2.94**	**285**	*eP*	**Pn**	**22 08 45.0**	**+2.6**
PB09				*eS*	**S**	**22 09 26.2**	**+2.7**
PB09				IAML		22 09 28.2	
	comp=Z,688nm,0.4s						
PB09	**IPOC Station P**	**2.94**	**285**		**Pn**	**22 08 45.0**	**+2.6**
PB09				Sn	**S**	**22 09 25.5**	**+2.0**
PB09	**IPOC Station P**	**2.94**	**285**	*iP*	**Pn**	**22 08 45.0**	**+2.6**
PB09				IAML		22 09 30.6	
	comp=N,919nm,0.2s						
PB09	**IPOC Station P**	**2.94**	**285**	P	**Pn**	**22 08 45.1**	**+2.8**
PB06	**IPOC Station P**	**3.13**	**267**	*eP*	**Pn**	**22 08 46.1**	**+1.8**
PB06				*eS*	**S**	**22 09 29.4**	**+2.2**
PB06				IAML		22 09 31.6	
	comp=Z,2µm,0.8s						
PB06	**IPOC Station P**	**3.13**	**267**		**Pn**	**22 08 46.1**	**+1.8**
PB06	**IPOC Station P**	**3.13**	**267**	*iP*	**Pn**	**22 08 46.2**	**+1.8**
PB06				*eS*	**S**	**22 09 27.3**	**+0.2**
PB06				IAML		22 09 30.8	
	comp=E,2µm,0.6s						
PB06	**IPOC Station P**	**3.13**	**267**	P	**Pn**	**22 08 46.4**	**+2.0**
PB03	**IPOC Station P**	**3.35**	**279**	*eP*	**Pn**	**22 08 48.4**	**+1.6**
PB03				*eS*	**S**	**22 09 31.8**	**+0.3**
PB03				IAML		22 09 34.8	
	comp=Z,2µm,0.3s						
PB03	**IPOC Station P**	**3.35**	**279**		**Pn**	**22 08 48.4**	**+1.6**
PB03				Sn	**S**	**22 09 31.4**	**-0.1**
PB03	**IPOC Station P**	**3.35**	**279**	*iP*	**Pn**	**22 08 48.5**	**+1.7**
PB03				*iS*	**S**	**22 09 31.0**	**-0.6**
PB03				IAML		22 09 32.3	
	comp=N,3µm,0.4s						
PB03	**IPOC Station P**	**3.35**	**279**	P	**Pn**	**22 08 48.6**	**+1.8**
FSA	**Cafayete**	**3.50**	**177**	*eP*	**Pn**	**22 08 50.2**	**+1.7**
PB07	**IPOC Station P**	**3.54**	**283**	*eP*	**Pn**	**22 08 50.6**	**+1.6**
PB07				*eP*		22 08 50.6	
PB07				*eS*	**S**	**22 09 35.8**	**+0.3**
PB07				IAML		22 09 40.0	
	comp=Z,975nm,0.5s						
PB07	**IPOC Station P**	**3.54**	**283**		**Pn**	**22 08 50.4**	**+1.4**
PB07	**IPOC Station P**	**3.54**	**283**	*iP*	**Pn**	**22 08 50.7**	**+1.8**
PB07				*iS*	**S**	**22 09 34.4**	**-1.1**
PB07	**IPOC Station P**	**3.54**	**283**	P	**Pn**	**22 08 50.8**	**+1.9**
PB02	**IPOC Station P**	**3.67**	**290**	*eP*	**Pn**	**22 08 51.8**	**+1.4**
PB02				*eP*		22 08 51.9	
PB02				*eS*	**S**	**22 09 37.6**	**-0.5**
PB02	**IPOC Station P**	**3.67**	**290**	Pn	**Pn**	**22 08 51.4**	**+1.0**
PB02	**IPOC Station P**	**3.67**	**290**	*iP*	**Pn**	**22 08 51.8**	**+1.4**
PB02	**IPOC Station P**	**3.67**	**290**	P	**Pn**	**22 08 52.0**	**+1.6**
PB08	**IPOC Station P**	**3.69**	**311**		**Pn**	**22 08 53.3**	**+2.4**
PB08	**IPOC Station P**	**3.69**	**311**	*iP*	**Pn**	**22 08 53.5**	**+2.5**
PB08	**IPOC Station P**	**3.69**	**311**	P	**Pn**	**22 08 53.6**	**+2.7**
PB05	**IPOC Station P**	**3.72**	**265**	*eP*	**Pn**	**22 08 52.4**	**+1.5**
PB05				*eS*	**S**	**22 09 39.2**	**+0.1**
PB05				IAML		22 09 40.2	
	comp=Z,1µm,0.7s						
PB05	**IPOC Station P**	**3.72**	**265**		**Pn**	**22 08 52.0**	**+1.1**
PB05	**IPOC Station P**	**3.72**	**265**	*iP*	**Pn**	**22 08 52.2**	**+1.3**
PB05				*iS*	**S**	**22 09 37.5**	**-1.6**
PB05				IAML		22 09 43.2	
	comp=E,2µm,0.6s						
PB05	**IPOC Station P**	**3.72**	**265**	P	**Pn**	**22 08 52.4**	**+1.5**
GO01	**Chusmiza**	**4.05**	**315**		**Pn**	**22 08 57.1**	**+2.0**
GO01	**Chusmiza**	**4.05**	**315**	*eP*	**Pn**	**22 08 57.1**	**+2.0**
GO01	**Chusmiza**	**4.05**	**315**	P	**Pn**	**22 08 57.2**	**+2.0**
PB10	**IPOC Station P**	**4.13**	**256**	*eP*	**Pn**	**22 08 56.6**	**+1.1**
PB10				*eS*	**S**	**22 09 46.5**	**-0.9**
PB10				IAML		22 09 49.9	
	comp=Z,1µm,0.6s						
PB10	**IPOC Station P**	**4.13**	**256**		**Pn**	**22 08 56.2**	**+0.7**
PB10	**IPOC Station P**	**4.13**	**256**	*eP*	**Pn**	**22 08 56.5**	**+0.9**
PB10	**IPOC Station P**	**4.13**	**256**	P	**Pn**	**22 08 56.7**	**+1.1**
TA01	**Diego Aracena**	**4.23**	**298**	*eP*	**Pn**	**22 08 57.6**	**+0.8**
TA01				*eS*	**S**	**22 09 48.5**	**-1.3**
TA01				IAML		22 09 52.2	
	comp=Z,868nm,0.5s						
TA01	**Diego Aracena**	**4.23**	**298**	Pn	**Pn**	**22 08 57.1**	**+0.3**
TA01	**Diego Aracena**	**4.23**	**298**	*eP*	**Pn**	**22 08 57.6**	**+0.8**
TA01	**Diego Aracena**	**4.23**	**298**	P	**Pn**	**22 08 57.7**	**+0.8**
PB11	**IPOC Station P**	**4.29**	**310**	*eP*	**Pn**	**22 08 58.8**	**+1.0**
PB11				*eS*	**S**	**22 09 50.6**	**-0.8**
PB11				IAML		22 09 53.8	
	comp=Z,1µm,0.3s						
PB11	**IPOC Station P**	**4.29**	**310**		**Pn**	**22 08 58.7**	**+1.0**
PB11	**IPOC Station P**	**4.29**	**310**	*eP*	**Pn**	**22 08 58.7**	**+1.0**
PB11	**IPOC Station P**	**4.29**	**310**	P	**Pn**	**22 08 58.8**	**+1.0**
PB14	**IPOC Station P**	**4.37**	**242**	*eP*	**Pn**	**22 08 59.8**	**+1.2**
PB14				*eS*	**S**	**22 09 51.9**	**-1.2**
PB14				IAML		22 09 56.7	
	comp=Z,1µm,0.5s						
PB14	**IPOC Station P**	**4.37**	**242**		**Pn**	**22 08 59.4**	**+0.7**
PB14	**IPOC Station P**	**4.37**	**242**	*eP*	**Pn**	**22 08 59.7**	**+1.0**
PB14	**IPOC Station P**	**4.37**	**242**	P	**Pn**	**22 08 59.8**	**+1.2**
PSGCX	**Pisagua**	**4.74**	**308**		**Pn**	**22 09 02.9**	**-0.1**
PSGCX	**Pisagua**	**4.74**	**308**	*eP*	**Pn**	**22 09 02.8**	**-0.2**
PSGCX				*iS*	**S**	**22 09 57.9**	**-3.0**
PSGCX	**Pisagua**	**4.74**	**308**	P	**Pn**	**22 09 03.0**	**+0.1**
AC02	**Maricunga**	**5.00**	**212**	*eP*	**Pn**	**22 09 07.9**	**+1.5**
AC02				*eS*	S	22 10 18.0	+11
AC02				IAML		22 10 21.0	
	comp=Z,118nm,0.8s						
AC02	**Maricunga**	**5.00**	**212**		**Pn**	**22 09 07.9**	**+1.5**
AC02	**Maricunga**	**5.00**	**212**	*eP*	**Pn**	**22 09 08.0**	**+1.5**
AC02	**Maricunga**	**5.00**	**212**	P	**Pn**	**22 09 08.2**	**+1.8**
	comp=Z,96nm,0.9s						
PB16	**IPOC Station P**	**5.26**	**323**	Pn	**Pn**	**22 09 11.4**	**+1.6**
PB16	**IPOC Station P**	**5.26**	**323**	*eP*	**Pn**	**22 09 11.9**	**+2.0**
PB16	**IPOC Station P**	**5.26**	**323**	P	**Pn**	**22 09 12.0**	**+2.1**
	comp=Z,1µm,0.6s						
AC01	**Pan de Azucar**	**5.36**	**228**	Pn	**Pn**	**22 09 10.2**	**-0.2**
AC01	**Pan de Azucar**	**5.36**	**228**	*eP*	**Pn**	**22 09 10.4**	**0.0**
AC01	**Pan de Azucar**	**5.36**	**228**	P	**Pn**	**22 09 10.2**	**-0.2**
	comp=Z,112nm,1.0s						
PB12	**IPOC Station P**	**5.55**	**315**		**Pn**	**22 09 12.2**	**-0.6**
PB12	**IPOC Station P**	**5.55**	**315**	*eP*	**Pn**	**22 09 12.2**	**-0.6**
PB12	**IPOC Station P**	**5.55**	**315**	P	**Pn**	**22 09 12.4**	**-0.4**
	comp=Z,270nm,0.4s						
AP01	**Chacalluta**	**5.73**	**316**		**Pn**	**22 09 14.8**	**-0.2**
AP01	**Chacalluta**	**5.73**	**316**	*eP*	**Pn**	**22 09 14.9**	**-0.2**
AP01	**Chacalluta**	**5.73**	**316**	P	**Pn**	**22 09 15.2**	**+0.1**
	comp=Z,390nm,0.4s						
PB18	**Visviri**	**5.87**	**328**		**Pn**	**22 09 19.4**	**+2.2**
PB18	**Visviri**	**5.87**	**328**	P	**Pn**	**22 09 20.2**	**+3.0**
	comp=Z,623nm,0.8s						
AC06	**Mina Casimiro**	**6.07**	**218**	Pn	**Pn**	**22 09 18.6**	**-0.6**
AC06	**Mina Casimiro**	**6.07**	**218**	*eP*	**Pn**	**22 09 19.0**	**-0.1**
GO03	**Copiapo**	**6.18**	**216**	Pn	**Pn**	**22 09 20.2**	**-0.5**
GO03	**Copiapo**	**6.18**	**216**	*eP*	**Pn**	**22 09 20.8**	**+0.1**
GO03	**Copiapo**	**6.18**	**216**	P	**Pn**	**22 09 21.1**	**+0.4**
	comp=Z,60nm,0.5s						
LPAZ	**La Paz**	**6.54**	**343**	P	**Pn**	**22 09 27.4**	**+1.6**
	comp=Z,33nm,0.4s,baz=152,slow=7.4,SNR=91						
LPAZ				S	**S**	**22 10 41.9**	**-0.4**
	comp=Z,137nm,1.1s,baz=336,slow=15,SNR=13						
LPAZ	**La Paz**	**6.54**	**343**		**Pn**	**22 09 26.9**	**+1.2**
LPAZ	**La Paz**	**6.54**	**343**	P	**Pn**	**22 09 27.5**	**+1.7**
	comp=Z,63nm,0.6s						
LPAZ	**La Paz**	**6.54**	**343**	*eP*	**Pn**	**22 09 27.2**	**+1.4**
LPAZ				*eS*	**S**	**22 10 42.0**	**-0.2**
AC04	**Llanos de Chal**	**7.12**	**217**	Pn	**Pn**	**22 09 31.9**	**-0.5**
AC05	**El Transito**	**7.22**	**210**	Pn	**Pn**	**22 09 33.9**	**+0.1**
AC05	**El Transito**	**7.22**	**210**	P	**Pn**	**22 09 34.4**	**+0.6**
	comp=Z,45nm,0.9s						
BBSD	**Serra de San D**	**7.51**	**45**	*eP*	**Pn**	**22 09 37.7**	**+0.2**
LCO	**Las Campanas**	**7.57**	**212**	Pn	**Pn**	**22 09 37.4**	**-0.9**
MURT	**Porto Murtinho**	**8.00**	**85**	*eP*	**Pn**	**22 09 43.6**	**+0.1**
CO01	**Juntas del Tor**	**8.14**	**205**	Pn	**Pn**	**22 09 46.1**	**+0.6**
CO01	**Juntas del Tor**	**8.14**	**205**	P	**Pn**	**22 09 47.3**	**+1.8**
	comp=Z,17nm,0.7s						
SIV	**San Ignacio**	**8.15**	**37**	P	**Pn**	**22 09 45.4**	**-0.1**
	comp=Z,125nm,0.9s,baz=234,slow=9.6,SNR=217						
COIM	**Forte Coimbra**	**8.27**	**73**	*eP*	**Pn**	**22 09 45.8**	**-1.2**
GO04	**Tololo Observa**	**8.60**	**208**		**Pn**	**22 09 50.7**	**-0.7**
GO04	**Tololo Observa**	**8.60**	**208**	P	**Pn**	**22 09 51.7**	**+0.4**
	comp=Z,72nm,0.8s						
CPUP	**Villa Florida**	**8.88**	**117**	P	**Pn**	**22 09 53.7**	**-1.0**
	comp=Z,2.8nm,0.6s,baz=291,slow=12,SNR=8.8						
CPUP	**Villa Florida**	**8.88**	**117**		**Pn**	**22 09 55.5**	**+0.8**
CPUP	**Villa Florida**	**8.88**	**117**	P	**Pn**	**22 09 56.4**	**+1.8**
	comp=Z,17nm,0.8s						
CPUP	**Villa Florida**	**8.88**	**117**	*eP*	**Pn**	**22 09 55.0**	**+0.4**
BDQN	**Bodoquena, MS**	**9.04**	**78**	*eP*	**Pn**	**22 09 56.3**	**-0.4**
CO03	**El Pedregal**	**9.14**	**205**		**Pn**	**22 09 58.0**	**0.0**
CO03	**El Pedregal**	**9.14**	**205**	P	**Pn**	**22 09 58.6**	**+0.6**
	comp=Z,41nm,0.6s						
CFA	**Coronel Fontan**	**9.16**	**191**	P	**Pn**	**22 09 56.8**	**-1.3**
	comp=Z,4.6nm,0.3s,baz=56,slow=15,SNR=76						
CFA				S	**S**	**22 11 33.0**	**-8.6**
	comp=Z,14nm,0.4s,baz=123,slow=23,SNR=13						
ZON	**Zonda**	**9.19**	**193**		**Pn**	**22 09 57.9**	**-0.6**
ZON	**Zonda**	**9.19**	**193**	P	**Pn**	**22 09 55.3**	**-3.2**
	comp=E,14nm,0.5s						
CO06	**Fray Jorge**	**9.40**	**210**	Pn	**Pn**	**22 10 00.7**	**-0.5**
SJPY	**San Joaquin**	**9.54**	**107**	*eP*	**Pn**	**22 10 03.5**	**+0.5**
CO02	**Combarbal**	**9.59**	**206**		**Pn**	**22 10 04.3**	**+0.7**
CO02	**Combarbal**	**9.59**	**206**	P	**Pn**	**22 10 04.7**	**+1.0**
PTLB	**Pontes e Lacer**	**9.74**	**44**		**Pn**	**22 10 05.3**	**-0.2**
PTLB	**Pontes e Lacer**	**9.74**	**44**	*eP*	**Pn**	**22 10 05.4**	**-0.2**
AQDB	**Aquidauana**	**9.98**	**80**		**Pn**	**22 10 08.6**	**0.0**
AQDB	**Aquidauana**	**9.98**	**80**	P	**Pn**	**22 10 09.6**	**+1.0**
	comp=Z,29nm,1.2s						
AQDB	**Aquidauana**	**9.98**	**80**	*eP*	**Pn**	**22 10 09.1**	**+0.5**
CO04	**Los Peladeros**	**10.33**	**203**	Pn	**Pn**	**22 10 12.9**	**-0.2**
CO04	**Los Peladeros**	**10.33**	**203**	P	**Pn**	**22 10 14.1**	**+1.0**
	comp=Z,35nm,0.8s						
VA03	**San Esteban**	**10.84**	**200**	Pn	**Pn**	**22 10 20.4**	**+1.0**
VA03	**San Esteban**	**10.84**	**200**	P	**P**	**22 10 21.0**	**-2.9**
	comp=Z,113nm,0.8s						
ITQB	**Itaqui**	**11.11**	**131**	*eP*	**Pn**	**22 10 22.5**	**-0.1**
VILB	**Vilhena**	**11.15**	**32**		**P**	**22 10 24.5**	**-3.0**
VILB	**Vilhena**	**11.15**	**32**	*eP*	**Pn**	**22 10 23.8**	**+0.4**
PEL	**Peldehue**	**11.23**	**200**		**Pn**	**22 10 24.7**	**+0.4**
PEL	**Peldehue**	**11.23**	**200**	P	**Pn**	**22 10 25.4**	**+1.2**
	comp=Z,39nm,1.0s						
MT08	**Bocatoma Ro**	**11.32**	**197**	P	**P**	**22 10 29.5**	**+0.1**
PSAL	**Palomas, Salto**	**11.40**	**140**	*eP*	**Pn**	**22 10 26.8**	**+0.5**
MT16	**CCHEN**	**11.45**	**199**		**Pn**	**22 10 27.8**	**+0.9**
MT05	**Renca**	**11.48**	**199**	Pn	**Pn**	**22 10 27.2**	**-0.1**
MT02	**Curacav**	**11.49**	**201**	Pn	**Pn**	**22 10 27.7**	**+0.3**
MT03	**Universidad Ad**	**11.51**	**198**		**P**	**22 10 28.9**	**-2.3**
MT13	**San Alfonso**	**11.68**	**197**		**P**	**22 10 31.6**	**-1.6**
PP1B	**Ponte de Pedra**	**11.72**	**67**	*eP*	**Pn**	**22 10 30.4**	**-0.1**
MT09	**Talagante**	**11.91**	**200**		**Pn**	**22 10 33.3**	**+0.5**
SALV	**Santo Antonio**	**11.93**	**58**	*eP*	**P**	**22 10 33.4**	**-2.7**
BO04	**La Punta**	**12.00**	**198**		**Pn**	**22 10 34.2**	**+0.5**
MT01	**Popeta**	**12.08**	**201**		**Pn**	**22 10 34.9**	**+0.2**
BO01	**Tunca**	**12.51**	**199**		**P**	**22 10 40.7**	**-1.7**
BO01	**Tunca**	**12.51**	**199**	P	**P**	**22 10 42.1**	**-0.3**
	comp=Z,145nm,0.8s						
BO02	**Sierra Bellavi**	**12.80**	**197**		**P**	**22 10 44.3**	**-1.4**
BO02	**Sierra Bellavi**	**12.80**	**197**	P	**P**	**22 10 44.9**	**-0.8**
	comp=Z,110nm,1.0s						
PTGB	**Pitanga**	**13.11**	**102**	*eP*	**P**	**22 10 48.6**	**-0.6**
GO05	**Hualane**	**13.35**	**201**		**Pn**	**22 10 50.0**	**-0.4**
ITAB	**Concordia**	**13.56**	**113**		**P**	**22 10 52.6**	**-1.4**
ITAB	**Concordia**	**13.56**	**113**	P	**P**	**22 10 53.9**	**-0.2**
	comp=Z,137nm,0.6s						
ITAB	**Concordia**	**13.56**	**113**	*eP*	**P**	**22 10 53.7**	**-0.4**
ANCO	**Parque Anchore**	**13.69**	**150**	*eP*	**P**	**22 10 54.5**	**-0.9**
CPSB	**Cacapava Do Su**	**13.80**	**127**		**P**	**22 10 55.5**	**-1.2**
CPSB	**Cacapava Do Su**	**13.80**	**127**	P	**P**	**22 10 56.2**	**-0.6**
	comp=Z,212nm,0.9s						
CPSB	**Cacapava Do Su**	**13.80**	**127**	*eP*	**P**	**22 10 56.1**	**-0.6**
PCMB	**Pacaembu**	**13.87**	**89**	P	**P**	**22 10 57.0**	**-0.6**
	comp=Z,191nm,1.0s						
PCMB	**Pacaembu**	**13.87**	**89**	*eP*	**P**	**22 10 56.8**	**-0.8**
ML02	**Panimavida**	**13.89**	**198**		**P**	**22 10 57.8**	**+0.2**
ML02	**Panimavida**	**13.89**	**198**	P	**P**	**22 10 57.8**	**+0.2**
	comp=Z,120nm,1.1s						
LDASE	**Londrina, Braz**	**13.90**	**96**	*eP*	**P**	**22 10 56.3**	**-1.7**
PDRB	**Porto dos Gac**	**14.17**	**41**	*eP*	**P**	**22 11 00.9**	**0.0**
NNA	**Nana**	**14.65**	**314**	P	**Pn**	**22 11 08.0**	**+1.6**
	comp=Z,25nm,0.8s,baz=152,slow=9.7,SNR=8.1						
BI02	**San Fabin de**	**14.70**	**196**		**Pn**	**22 11 06.9**	**+0.1**
BI02	**San Fabin de**	**14.70**	**196**	P	**Pn**	**22 11 07.8**	**+1.1**
	comp=Z,17nm,1.1s						
ARAG	**Araguaiana, MT**	**15.20**	**66**	*eP*	**Pn**	**22 11 12.1**	**-0.8**
CLDB	**Colider**	**15.31**	**42**	P	**Pn**	**22 11 13.7**	**-0.6**
	comp=Z,28nm,0.7s						
CLDB	**Colider**	**15.31**	**42**	*eP*	**Pn**	**22 11 13.3**	**-0.9**
CNLB	**Canela**	**15.32**	**119**	*eP*	**Pn**	**22 11 13.8**	**-0.5**
BI05	**Punta Hualpn**	**15.35**	**202**	P	**Pn**	**22 11 14.3**	**-0.2**
CZSB	**Cruzeiro do Su**	**16.06**	**336**	*eP*	**Pn**	**22 11 22.2**	**-0.9**
BB19B	**Bebedouro**	**16.47**	**88**	*eP*	**Pn**	**22 11 27.0**	**-0.9**
SPB	**Sao Paulo**	**17.28**	**97**	P	**Pn**	**22 11 34.8**	**-2.6**
SPB	**Sao Paulo**	**17.28**	**97**	P	**Pn**	**22 11 35.8**	**-1.6**
	comp=Z,90nm,0.8s						
SPB	**Sao Paulo**	**17.28

V48A	Smith Brothers	61.22	341	P	P	22 17 38.9	+0.2	
V48A				IAmb	IAmb	22 17 39.5		
	comp=Z,10nm,0.8s							
S54A	Dingess, Beckl	61.74	346	P	P	22 17 42.5	+0.3	
S54A				IAmb	IAmb	22 18 03.5		
	comp=Z,26nm,1.4s							
TROLL	Troll, Antarti	62.14	161	⇑P	P	22 17 46.1	+1.6	
	comp=Z,892nm,0.7s							
TXAR	Lajitas Array	62.99	323	P	P	22 17 50.9	+0.2	
	comp=Z,1.0nm,0.6s,baz=145,slow=7.8,SNR=11							
	comp=Z,1.0nm,0.6s							
TXAR	Lajitas Array	62.99	323	P	P	22 17 51.5	+0.7	
FCAR	Ozark Folk Cen	63.14	337	P	P	22 17 50.9	-0.5	
WTFS	Witchita Falls	63.93	330	P	P	22 17 57.4	+0.7	
VHRN	Van Horn	64.83	323		P	22 18 03.5	+0.8	
VHRN				IAmb	IAmb	22 18 04.1		
	comp=Z,6.0nm,0.6s							
TPB28		65.25	324	P	P	22 18 07.2	+1.9	
TPB28				IAmb	IAmb	22 18 07.8		
	comp=Z,7.2nm,0.6s							
N49A	Columbus Grove	65.37	345	P	P	22 18 05.8	0.0	
N49A				IAmb	IAmb	22 18 06.9		
	comp=Z,7.4nm,0.7s							
MSTX	Muleshoe	66.16	327		P	22 18 11.8	+0.7	
MSTX				IAmb	IAmb	22 18 12.6		
	comp=Z,13nm,0.9s							
J59A	Piesco	66.18	353	P	P	22 18 11.3	+0.4	
J59A				IAmb	IAmb	22 18 28.5		
	comp=Z,12nm,1.2s							
DBIC	Dimbokro	66.65	72	P	P	22 18 13.5	-1.0	
	comp=Z,9.4nm,0.7s,baz=259,slow=3.4,SNR=13							
	comp=Z,9.4nm,0.7s							
DBIC	Dimbokro	66.65	72	P	P	22 18 13.3	-1.2	
DBIC				IAmb	IAmb	22 18 15.6		
	comp=Z,9.5nm,0.8s							
P38A	Dawn	66.96	337		P	22 18 16.2	+0.3	
QSPA	South Pole Qui	67.60	180	P	P	22 18 21.5	+1.7	
	comp=Z,3.0nm,0.4s,baz=154,slow=0.1,SNR=22							
	comp=Z,3.0nm,0.4s							
QSPA	South Pole Qui	67.60	180	P	P	22 18 21.6	+1.8	
RTBA	Rita Blanca	68.12	329	P	P	22 18 24.2	+0.9	
RTBA				IAmb	IAmb	22 18 25.8		
	comp=Z,5.0nm,0.7s							
F64A	Sherman	68.16	358	P	P	22 18 23.4	+0.2	
ALQ	Albuquerque	68.81	325		P	22 18 29.3	+1.6	
E46A	Sault Ste Mari	70.58	347	P	P	22 18 38.2	+0.2	
Q24A	Divide	71.28	329	P	P	22 18 44.3	+1.5	
Q24A				IAmb	IAmb	22 18 45.4		
	comp=Z,5.8nm,0.8s							
PV02	Paradox Valley	72.48	326	P	P	22 18 51.8	+2.0	
PV02				IAmb	IAmb	22 18 54.7		
	comp=Z,15nm,1.3s							
PV03	Paradox Valley	72.58	326	P	P	22 18 52.6	+2.3	
PV07	Paradox Valley	72.61	326	P	P	22 18 52.4	+1.9	
PV07				IAmb	IAmb	22 18 53.4		
	comp=Z,7.4nm,0.9s							
PV17	East Wray Mesa	72.65	326	P	P	22 18 52.4	+1.6	
U15A	North Rim	73.09	323	P	P	22 18 55.9	+2.4	
HMU	Henry Mountain	73.34	325	P	P	22 18 56.6	+1.7	
O20A	White River Ci	73.69	328		P	22 18 58.6	+1.7	
O20A				IAmb	IAmb	22 18 59.6		
	comp=Z,7.7nm,0.8s							
P18A	Preston Nutter	74.33	326	P	P	22 19 02.8	+2.2	
P18A				IAmb	IAmb	22 19 03.5		
	comp=Z,8.0nm,0.6s							
P17A	Butcher Ranch,	74.47	326	P	P	22 19 02.7	+1.4	
P17A				IAmb	IAmb	22 19 04.0		
	comp=Z,6.8nm,0.9s							
CCUT	Cedar City	74.49	323		P	22 19 03.9	+2.3	
TMUT	Trail Mountain	74.58	325	P	P	22 19 03.9	+1.7	
SHPR	Sheep Range	74.78	321	P	P	22 19 04.6	+1.4	
TORD	Torodi Ar. Bea	75.37	69	P	P	22 19 05.8	-0.9	
	comp=Z,10.0nm,0.5s,baz=253,slow=5.5,SNR=37							
TORD				pP	pP	22 20 09.0	+2.2	
	comp=Z,5.5nm,0.8s,baz=247,slow=6.8,SNR=7.5							
	comp=Z,10.0nm,0.5s							
TORD	Torodi Ar. Bea	75.37	69	P	P	22 19 05.8	-0.9	
TORD				IAmb	IAmb	22 19 06.5		
	comp=Z,8.3nm,0.6s							
GWY	Greenwater Val	75.45	320		P	22 19 08.3	+1.3	
GWY				IAmb	IAmb	22 19 09.7		
	comp=Z,5.3nm,0.6s							
SUR	Sutherland	75.84	119	P	P	22 19 09.6	+0.1	
MPMC	Manual Prospec	75.86	319	P	P	22 19 11.2	+1.9	
EPLO	Experimental L	76.00	342	P	P	22 19 10.1	+0.5	
EPLO				IAmb	IAmb	22 19 10.6		
	comp=Z,6.8nm,0.6s							
PDAR	Pinedale Array	76.34	329	P	P	22 19 13.2	+1.3	
	comp=Z,1.5nm,0.6s,baz=131,slow=8.4,SNR=11							
	comp=Z,1.5nm,0.6s							
HWUT	Hardware Ranch	76.46	327		P	22 19 13.6	+1.0	
HWUT				IAmb	IAmb	22 19 14.5		
	comp=Z,4.8nm,0.6s							
SPUT	South Promonto	76.70	326	P	P	22 19 15.6	+1.7	
SPUT				IAmb	IAmb	22 19 16.4		
	comp=Z,6.2nm,0.7s							
SCHQ	Schefferville	77.11	360	P	P	22 19 16.2	+0.6	
SCHQ				IAmb	IAmb	22 19 24.5		
	comp=Z,8.1nm,1.0s							
ULM	Lac du Bonnet	77.15	341	P	P	22 19 16.4	+0.5	
	comp=Z,5.0nm,0.6s,baz=152,slow=7.1,SNR=21							
	comp=Z,5.0nm,0.6s							
TSUM	Tsumeb	77.31	106		P	22 19 17.7	-0.1	
TSUM				IAmb	IAmb	22 19 18.6		
	comp=Z,17nm,1.1s							
NVAR	Mina Array Bea	77.92	321	P	P	22 19 21.9	+1.1	
	comp=Z,1.0nm,0.5s,baz=155,slow=4.9,SNR=5.4							
	comp=Z,1.0nm,0.5s							
RLMT	Red Lodge	77.99	330		P	22 19 23.0	+2.0	
RLMT				IAmb	IAmb	22 19 23.6		
	comp=Z,4.9nm,0.7s							
KOOLE	Kule	78.34	110	P	P	22 19 23.6	+0.2	
KOOLE				IAmb	IAmb	22 19 23.9		
	comp=Z,12nm,0.6s							
YHL	Hebgen Lake	78.68	329	P	P	22 19 27.2	+2.4	
YHL				IAmb	IAmb	22 19 28.0		
	comp=Z,5.0nm,0.5s							
HLID	Hailey	79.33	327		P	22 19 30.6	+2.4	
HLID				IAmb	IAmb	22 19 31.5		
	comp=Z,6.8nm,0.8s							
MCMT	McKenzie Canyo	79.46	328	P	P	22 19 31.1	+2.1	
GRTLG	Ghanzi	79.78	109		P	22 19 30.3	-0.9	
GRTLG				IAmb	IAmb	22 19 31.1		
	comp=Z,7.5nm,0.7s							
GRHM	Grahamstown, E	79.98	122	P	P	22 19 31.9	-0.1	
MD31	MD31	80.47	49	P	P	22 19 35.0	+0.5	
BOSA	Boshof	80.70	117	P	P	22 19 35.5	-0.5	
	comp=Z,2.5nm,0.4s,baz=257,slow=3.0,SNR=17							
	comp=Z,2.5nm,0.4s							
PCVE	Castro Verde	81.09	43	eP	P	22 19 37.2	-0.4	
MESJ	Messejana	81.10	43	eP	P	22 19 38.4	+0.8	
MESJ	Messejana	81.10	43	eP	P	22 19 38.5	+0.8	
PMAFR	Mafra	81.13	41	eP	P	22 19 35.5	-2.2	
PLID	Pearl Lake	81.21	327		P	22 19 39.8	+1.5	
J08A	Circle Bar Ran	81.32	324		P	22 19 40.4	+1.7	
J08A				IAmb	IAmb	22 19 41.5		
	comp=Z,5.0nm,0.6s							
MOE	Montemor	81.43	42	eP	P	22 19 40.1	+0.8	
PBEJ	Beja	81.43	43	eP	P	22 19 40.6	+1.3	
PSBE	So Bento	81.77	41	eP	P	22 19 42.4	+1.3	
PARRA	Arraiolos	81.81	42	eP	P	22 19 42.0	+0.7	
PMTG	Montargil	81.84	42	eP	P	22 19 42.1	+0.6	
PMTG				IAmb	IAmb	22 19 42.1		
	comp=Z,13nm,2.1s							
PBAR	Barrancos	82.05	43	eP	P	22 19 43.0	+0.5	
KDWAN	Kaudwane	82.06	112	P	P	22 19 41.9	-1.2	
KDWAN				IAmb	IAmb	22 19 43.9		
	comp=Z,8.8nm,1.0s							
PSARD	Sardoal	82.21	41	eP	P	22 19 43.9	+0.5	
LBTB	Lobatse	82.27	114	P	P	22 19 43.8	-0.4	
MAW	Mawson	82.55	163	P	P	22 19 45.3	+0.6	
	comp=Z,2.3nm,0.6s,baz=182,slow=6.0,SNR=7.0							
	comp=Z,2.3nm,0.6s							
MAW	Mawson	82.55	163	P	P	22 19 46.0	+1.4	
PMRV	Marv??o	82.58	42	eP	P	22 19 45.5	+0.2	
PCBR	Castelo Branco	82.77	42	eP	P	22 19 46.8	+0.6	
PVIS	Viseu	83.05	41	eP	P	22 19 47.0	-0.7	
MTE	Manteigas	83.07	41	P	P	22 19 48.1	+0.3	
MTE				IAmb	IAmb	22 19 48.6		
	comp=Z,6.8nm,0.9s							
MTE	Manteigas	83.07	41	eP	P	22 19 48.3	+0.4	
KRMB	Red Mountain	83.21	320	P	P	22 19 50.0	+1.5	
PVRL	Vila Real	83.50	40	eP	P	22 19 50.6	+0.7	
PVRL				IAmb	IAmb	22 19 51.6		
	comp=Z,20nm,1.3s							
POLO	Lamas de Olo	83.51	40	eP	P	22 19 50.6	+0.5	
PCAB	Cabril	83.58	40	eP	P	22 19 50.7	+0.4	
PGAV	Gavieira, Arco	83.59	39	eP	P	22 19 51.1	+0.7	
K02D	Willamette Mer	83.79	321	P	P	22 19 52.5	+1.0	
K02D				IAmb	IAmb	22 19 56.0		
	comp=Z,12nm,1.1s							
PBRG	Braganca	84.40	40	eP	P	22 19 55.2	+0.8	
PBRG				IAmb	IAmb	22 19 57.7		
	comp=Z,22nm,1.7s							
PAB	San Pablo	84.55	43	P	P	22 19 55.2	-0.1	
PAB				IAmb	IAmb	22 19 56.9		
	comp=Z,12nm,1.0s							
ESDC	Sonseca Array	84.87	43	P	P	22 19 56.7	-0.2	
	comp=Z,7.3nm,1.0s,baz=243,slow=4.6,SNR=25							
	comp=Z,7.3nm,1.0s							
ESDC	Sonseca Array	84.87	43	P	P	22 19 57.2	+0.4	
CEST	Esterri de Car	89.76	43	P	P	22 20 20.2	-0.1	
CEST				IAmb	IAmb	22 20 24.1		
	comp=Z,14nm,1.4s							
YKA	Yellowknife Ar	93.07	340	P	P	22 20 36.0	+1.0	
	comp=Z,2.2nm,0.5s,baz=134,slow=4.7,SNR=16							
	comp=Z,2.2nm,0.5s							
YKAW3	Yellowknife Wh	93.12	340	P	P	22 20 36.0	+0.8	
YKAW3				IAmb	IAmb	22 21 18.5		
	comp=Z,6.8nm,1.0s							
GERES	GERESS Array B	100.35	41	P	Pdif	22 21 08.0	-0.3	
	comp=Z,0.2nm,0.6s,baz=262,slow=6.6,SNR=3.5							
ASAR	Alice Springs	130.04	204	PKP	PKiKP	22 26 31.4	-0.2	
	comp=Z,0.5nm,0.7s,baz=203,slow=3.9,SNR=5.6							
ASAR				SKPbc	SKPab	22 29 29.4	-0.3	
	comp=Z,2.2nm,0.8s,baz=151,slow=4.6,SNR=18							
ASAR	Alice Springs	130.04	204		PKiKP	22 26 30.5	-1.2	
WRA	Warramunga Arr	133.21	207	PKP	PKiKP	22 26 37.4	-0.8	
	comp=Z,0.4nm,0.3s,baz=167,slow=1.7,SNR=9.2							
WRA				SKPbc	SKPab	22 29 41.5	-1.8	
	comp=Z,2.8nm,0.8s,baz=151,slow=3.2,SNR=17							
KURBB	Kurchatov Arra	140.81	36	PKP	PKPdf	22 26 48.5	-1.4	
	comp=Z,0.3nm,0.5s,baz=295,slow=2.9,SNR=4.4							
KURBB				SKPbc	SKiKP	22 30 03.5	-1.1	
	comp=Z,0.8nm,0.8s,baz=310,slow=3.0,SNR=6.4							
ZALV	Zalesovo Beam	141.81	28	PKhKP	PKPpre	22 26 48.1		
	comp=Z,1.2nm,0.5s,baz=296,slow=2.8,SNR=6.0							
ZALV				PKP	PKiKP	22 26 52.3	-2.3	
	comp=Z,1.6nm,0.6s,baz=306,slow=3.2,SNR=5.5							
ZALV				SKPbc	SKiKP	22 30 06.3	-0.2	
	comp=Z,1.1nm,0.4s,baz=308,slow=3.7,SNR=6.7							
MKAR	Makanchi Array	144.97	39	PKP	PKPab	22 26 58.2	+0.7	
	comp=Z,9.3nm,0.7s,baz=307,slow=3.4,SNR=64							
MKAR				SKPbc	SKiKP	22 30 13.7	+0.3	
	comp=Z,1.2nm,0.7s,baz=313,slow=2.7,SNR=5.1							
MKAR	Makanchi Array	144.97	39		PKPab	22 26 58.0	+0.5	
HEH	HeiHe	150.41	342	PKPbc	PKiKP	22 27 12.1	-0.2	
HHC	Hu-ho-hao-te	161.70	5	eP	PKPdf	22 27 25.0	+3.6	
CMAR	Chiang Mai Arr	165.47	104	PKPab	PKPab	22 28 24.9	-0.3	
	comp=Z,1.1nm,0.5s,baz=254,slow=5.6,SNR=6.4							
NJ2	Nanjing	169.57	336	eP	PKPdf	22 27 28.4	+0.5	
NJ2				pmax	pmax			
	comp=Z,10.0nm,0.5s							

*AEIC **23** 22:14:29.5±1.9, 53.˚43N±0.˚05×165.˚81W±0.˚07, h39km±7km, Error ellipse: s-maj=8.3km s-min=5.5km az=154.0*

*NEIC **23** 22:14:29.9±1.6, 53.˚45N±0.˚05×165.˚80W±0.˚06, h35km±2km, mb4.0/38, ML4.3/22, ML4.1(AEIC), Error ellipse: s-maj=9.2km s-min=5.8km az=154.0*

*IDC **23** 22:14:30.5±3.6, 53.˚83N×165.˚88W, h47km±34km, mb3.7/18, mbtmp3.9/20, ML3.9/2, MS3.6/3, Error ellipse: s-maj=30.2km s-min=13.8km az=8.0*

ISC 23 22:14:29.8±1.1, 53.˚43N±0.˚08×165.˚81W±0.˚04, h50km±10km, n186, σ1s33/190, mb4.0/19, MS3.7/3, Fox Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op ISC	h m s	ISC
UNV	Unalaska Valle	0.58	315		Pn	22 14 41.7	-0.4
UNV					Sn	22 14 50.6	-0.3
UNV				IAML		22 14 51.5	
	comp=E,31μm,0.2s						
ZRO	Akutan Zero	0.67	352		Pn	22 14 42.8	-0.4
ZRO					Sn	22 14 53.0	+0.2
AKBBA	Akutan Broad B	0.67	354		Pn	22 14 42.7	-0.5
AKBBA					Sn	22 14 53.4	+0.4
AHB	Akutan Harbor	0.68	360		Pn	22 14 43.0	-0.4
AHB					Sn	22 14 54.0	+0.8
MNAT	Makushin Natee	0.69	311		Pn	22 14 43.3	-0.1
MNAT					Sn	22 14 53.8	+0.5
AKUT	Akutan	0.70	2		Pn	22 14 42.6	-1.0
AKUT				Sn	Sn	22 14 54.0	+0.4
AKUT				IAML		22 14 55.6	
	comp=E,12μm,0.3s						
AKRB	Akutan Reef Bi	0.71	348		Pn	22 14 43.6	-0.2
MGOD	Makushin Gods	0.73	300		Pn	22 14 43.7	-0.3
MGOD					Sn	22 14 54.5	+0.3
AKLV	Akutan Long Va	0.74	353		Pn	22 14 43.5	-0.5
AKLV					Sn	22 14 54.1	-0.3
LVA	Lava Point	0.74	350		Pn	22 14 43.7	-0.4
LVA				Sn	Sn	22 14 55.0	+0.5
LVA				IAML		22 14 56.0	
	comp=E,9μm,0.2s						
LVA				IAML		22 14 56.4	
	comp=N,10μm,0.3s						
MTBL	Makushin Table	0.74	317		Pn	22 14 44.4	+0.1
MTBL					Sn	22 14 55.7	+1.0
MSW	Makushin Switc	0.75	310		Pn	22 14 44.2	-0.1
MSW					Sn	22 14 55.5	+0.7
MAPS	Pakushin South	0.77	300		Pn	22 14 44.3	-0.2
AKGG	Akutan Green G	0.78	352		Pn	22 14 44.3	-0.3
WESP	Westdahl Peak	1.24	31		Pn	22 14 51.2	+0.3
WESP					Sn	22 15 08.1	+1.5
OKFG	Magazine Ridge	1.26	270		Pn	22 14 50.9	-0.1
WECS	Westdahl Cape	1.26	29		Pn	22 14 51.3	+0.2
WECS				Sn	Sn	22 15 08.1	+1.2
WEBT	Westdahl Beart	1.32	28		Pn	22 14 52.4	+0.5
WEBT					Sn	22 15 10.2	+1.9
OKTU	Okmok Mt. Tuli	1.33	269		Pn	22 14 52.3	+0.2
WESN	West Dahl Nort	1.35	32		Pn	22 14 52.9	+0.6
OKNC	Okmok New Cone	1.38	272		Pn	22 14 53.0	+0.3
OKNC				Sn	Sn	22 15 11.1	+1.2
OKCE	Okmok Cone E	1.41	271		Pn	22 14 53.2	+0.2
OKSP	Okmok Steeple	1.50	264		Pn	22 14 54.2	-0.1
WTUG	Tugumak	1.65	30		Sn	22 15 17.5	+1.2
SSBA	Shishaldin	1.67	36		Pn	22 14 57.4	+0.7
SSLN	Shishaldin Nor	1.75	37		Pn	22 14 58.3	+0.5
ISLZ	Isanotski Laca	1.79	43		Pn	22 14 58.4	+0.1
ISLZ					Sn	22 15 21.5	+1.6
CLCO	Concord Point,	2.44	256		Pn	22 15 07.8	+0.6
CLCO					Sn	22 15 38.0	+2.1
CLES	Cleveland East	2.53	258	Pn	Pn	22 15 09.4	+1.0
DT1	Dutton Round H	2.67	50		Pn	22 15 10.7	+0.5
DTNA	Dutton South F	2.70	49		Pn	22 15 11.3	+0.5
DOL	Dolgoi Island	2.88	52		Pn	22 15 13.8	+0.5
DOL					Sn	22 15 48.9	+2.3
PN7A	Pavlof North-7	3.00	46		Pn	22 15 15.6	+0.8
PS4A	Pavlof South-4	3.00	49		Pn	22 15 15.8	+0.9
PS1A	Pavlof South-1	3.10	48		Pn	22 15 16.8	+0.6
S12K	Black Hills	3.15	42		Pn	22 15 17.6	+0.7
S12K	Black Hills	3.15	42	IAML		22 16 05.2	
	comp=N,671nm,0.3s						
S12K				IAML		22 16 07.6	
	comp=E,676nm,0.6s						
SDPT	Sand Point	3.66	56	Pn	Pn	22 15 23.9	0.0
SDPT				IAML		22 16 14.4	
	comp=N,581nm,0.5s						
SDPT				IAML		22 16 26.0	
	comp=E,494nm,0.7s						
CNBA	Chernabura Isl	3.92	67	Pn	Pn	22 15 26.7	-0.7
SPIA	Saint Paul Isl	4.53	328	Pn	Pn	22 15 36.4	+0.7
SPIA				IAML		22 16 37.7	
	comp=E,241nm,1.2s						
SPIA				IAML		22 17 59.8	
	comp=N,268nm,1.1s						
ATKA	Atka Island	5.23	260	Pn	Pn	22 15 45.5	+0.1
ATKA				IAML		22 17 06.7	
	comp=E,167nm,0.8s						
ATKA				IAML		22 17 13.5	
	comp=N,118nm,0.8s						
O14K	Tigyukauivet M	6.36	22	Pn	Pn	22 16 02.1	+1.3
GSCK	Great Sitkin C	6.45	261		Pn	22 16 03.6	+1.5
O15K	Ungalikthiuk R	6.65	28		Pn	22 16 05.7	+0.9
ADK	Adak	6.79	261	Pn	Pn	22 16 07.1	+0.3
N14K	Kuskokwak Cree	6.89	18		Pn	22 16 10.0	+1.9
M11K	Mekoryuk	6.97	358		Pn	22 16 10.8	+1.6
P16K	Nushagak River	7.10	35		Pn	22 16 12.4	+1.4
M13K	Dall Lake	7.13	10		Pn	22 16 12.8	+1.5
N15K	Kwethluk River	7.45	23	Pn	Pn	22 16 17.6	+1.9
O16K	Kokwok River B	7.50	32		Pn	22 16 17.7	+1.2
M14K	Bethel	7.63	14		Pn	22 16 19.4	+1.2
P17K	Kvichak River	7.77	38		Pn	22 16 20.9	+0.7
M15K	Kasigluk River	7.80	19		Pn	22 16 21.2	+0.8
O17K	Koliganek Bris	7.96	34		Pn	22 16 23.9	+1.1
Q18K	Katmai Hardscr	7.99	45		Pn	22 16 24.1	+0.9
N16K	Nishlik Lake	8.04	26		Pn	22 16 25.2	+1.4
OHAK	Old Harbor	8.09	57	Pn	Pn	22 16 22.5	-2.0
L14K	Kuka Creek	8.11	11		Pn	22 16 25.9	+1.2
M16K	Timber Creek	8.46	23		Pn	22 16 30.2	+0.6
N17K	Nushagak Hills	8.52	30		Pn	22 16 31.5	+1.1
K19K	Kusilvak Mount	8.55	4		Pn	22 16 31.6	+0.9
L15K	Unglak Mounta	8.59	14		Pn	22 16 32.3	+1.0
KDAK	Kodiak Island	8.66	55	P	Pn	22 16 30.7	-1.6
	comp=N,3.2nm,0.3s,baz=206,slow=6.2,SNR=40						
	comp=N,7.2nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	8.66	55	Pn	Pn	22 16 31.2	-1.1
Q19K	Cape Douglas,	8.73	46		Pn	22 16 33.5	+0.2
L16K	Owhat River	8.97	20		Pn	22 16 37.7	+1.2
N18K	Kilae Creek	9.05	33	Pn	Pn	22 16 39.0	+1.3
M17K	Holitna River	9.17	26	Pn	Pn	22 16 39.6	+0.3
K15K	Wolf Creek Mou	9.17	13		Pn	22 16 40.6	+1.4
J14K	Nanvaranak Lak	9.42	6		Pn	22 16 43.6	+1.0
ILSW	Iliamna Southw	9.56	42	Pn	Pn	22 16 44.9	+0.1
ILS	Iliamna Low So	9.57	42		Pn	22 16 46.1	+1.2
L17K	China Poot	9.60	22		Pn	22 16 45.8	+0.7
N19K	Bonanza Creek	9.61	35		Pn	22 16 47.4	+1.9
M18K	Stony River	9.69	30		Pn	22 16 47.6	+1.1
RED	Redoubt Volcan	9.98	40	Pn	Pn	22 16 52.0	+1.6
RDWB	Redoubt West	9.99	40		Pn	22 16 51.5	+0.9
L18K	Granite Mounta	10.05	25	Pn	Pn	22 16 51.9	+0.6
CNPM	China Poot	10.10	47	Pn	Pn	22 16 50.3	-1.7
J16K	Anvik River	10.25	13	Pn	Pn	22 16 55.9	+1.9
BRLK	Bradley Lake	10.38	46	Pn	Pn	22 16 53.5	-2.3
L19K	White Mountain	10.52	29		Pn	22 16 57.7	-0.1
J17K	VABM Dome	10.59	17	Pn	Pn	22 16 59.6	+0.9
SPBG	Spurr Blockage	10.67	37		Pn	22 17 01.0	+1.1
GAMB	Gambell	10.81	346	Pn	Pn	22 17 03.6	+1.9
SPCG	Spurr Capps Gl	10.82	38		Pn	22 17 03.2	+1.3
STLK	Strandline Lak	11.02	37		Pn	22 17 06.0	+1.3
SEW	Seward	11.17	47		Pn	22 17 04.8	-1.7
SUA	Susitna One	11.40	39		Pn	22 17 09.2	-0.7
K20K	Telida	11.68	27		Pn	22 17 14.1	+0.6
J19K	Poorman	11.82	22		Pn	22 17 16.3	+0.8
PPLA	Purkeypile	11.88	32	Pn	Pn	22 17 17.5	+1.1
KNK	Knik Glacier	12.27	42		Pn	22 17 18.9	-2.7
J20K	Nowinta River	12.33	25		Pn	22 17 23.2	+0.8
SML	Sawmill	12.54	41	Pn	Pn	22 17 22.7	-2.6
HIN	Hinchinbrook I	12.61	49		Pn	22 17 24.0	-2.3
FID	Port Fidalgo	12.78	47		Pn	22 17 24.7	-3.8
TRF	Thorofare Moun	12.88	33	Pn	Pn	22 17 30.9	+0.9
SCM	Sheep Creek Mo	12.95	42	Pn	Pn	22 17 27.7	-3.3
DIV	Divide	13.26	46		Pn	22 17 32.3	-2.8
KLU	Klutina	13.36	45	Pn	Pn	22 17 32.9	-3.6
GOAT	Goat Mountain	13.49	50		Pn	22 17 35.8	-2.6
N25K	Chitina, Valde	13.97	46		Pn	22 17 42.1	-2.8
WACK	Wrangell Chich	14.26	45		Pn	22 17 46.4	-2.4
PAX	Paxson	14.29	40	Pn	Pn	22 17 47.1	-2.0
H22K	Ishtalitna Cre	14.41	24	Pn	Pn	22 17 51.5	+0.8
ILAR	Eielson Array	14.87	33	P	Pn	22 17 54.2	-2.5
	comp=N,0.2nm,0.3s,baz=229,slow=9.6,SNR=7.7						
	comp=N,0.5nm,0.5s						
ILAR				AML	AML		
ILAR	Eielson Array	14.87	33	Pn	Pn	22 17 54.8	-1.9
GRNC	Granite Creek	14.91	51		Pn	22 17 55.4	-2.1
L26K	Log Cabin Wild	15.15	42	Pn	Pn	22 17 57.9	-2.5
L26K				IAmb	IAmb	22 18 25.3	
	comp=Z,14nm,1.3s						
DOT	Dot Lake	15.20	39	Pn	Pn	22 18 00.1	-0.8
DOT				IAmb	IAmb	22 18 21.7	
	comp=Z,13nm,1.4s						
G23K	Bananza Creek	15.40	24	Pn	Pn	22 18 01.5	-2.0
G23K				IAmb	IAmb	22 18 08.8	
	comp=Z,7.1nm,0.9s						
SCRK	Sand Creek	15.40	38	Pn	Pn	22 18 01.2	-2.4
SCRK				IAmb	IAmb	22 18 10.6	
	comp=Z,9.1nm,1.2s						
M27

EGMT	**Eagleton**	**35.10**	**76**	P		**P**	**22 21 19.2**	**+1.1**
NVAR	**Mina Array Bea**	**35.57**	**95**	P		**P**	**22 21 24.4**	**+2.1**
	comp=Z,1.2nm,0.8s,baz=300,slow=9.1,SNR=5.0							
	comp=Z,1.2nm,0.8s							
NVAR	**Mina Array Bea**	**35.57**	**95**	P		**P**	**22 21 23.7**	**+1.4**
YHH	**Holmes Hill**	**36.18**	**81**	P		**P**	**22 21 28.9**	**+1.3**
PDAR	**Pinedale Array**	**38.11**	**83**	P		**P**	**22 21 44.7**	**+0.8**
	comp=Z,0.3nm,0.3s,baz=318,slow=4.3,SNR=2.2							
	comp=Z,0.3nm,0.3s							
PDAR	**Pinedale Array**	**38.11**	**83**	P		**P**	**22 21 44.9**	**+1.0**
H11N2	**WAKE ISLAND Hy**	**39.66**	**223**	T		T	23 04 46.7	
	baz=25,slow=76,SNR=609							
H11N3	**WAKE ISLAND Hy**	**39.67**	**223**	T		T	23 04 47.5	
	baz=25,slow=76,SNR=344							
H11N1	**WAKE ISLAND Hy**	**39.68**	**223**	T		T	23 04 39.6	
	baz=25,slow=76,SNR=348							
H11S1	**WAKE ISLAND Hy**	**40.84**	**222**	T		T	23 06 05.8	
	baz=25,slow=76,SNR=583							
H11S2	**WAKE ISLAND Hy**	**40.86**	**222**	T		T	23 06 10.5	
	baz=25,slow=76,SNR=507							
H11S3	**WAKE ISLAND Hy**	**40.86**	**222**	T		T	23 06 09.7	
	baz=25,slow=76,SNR=584							
KSRS	**Korea Array**	**47.40**	**278**	P		**P**	**22 22 58.8**	**-0.1**
	comp=Z,2.0nm,0.6s,baz=52,slow=8.0,SNR=6.9							
	comp=Z,2.0nm,0.6s							
LPIG	**La Paz**	**50.58**	**103**	LR		LR	22 42 46.9	
	comp=Z,36nm,18.4s,baz=282,slow=34							
TXAR	**Lajitas Array**	**50.61**	**93**	P		**P**	**22 23 24.9**	**+1.2**
	comp=Z,0.9nm,0.6s,baz=308,slow=5.4,SNR=9.2							
	comp=Z,0.9nm,0.6s							
TXAR	**Lajitas Array**	**50.61**	**93**	P		**P**	**22 23 24.1**	**+0.5**
SONM	**Songino Array**	**52.58**	**302**	P		**P**	**22 23 37.6**	**-0.6**
	comp=Z,0.4nm,0.5s,baz=40,slow=8.5,SNR=3.0							
	comp=Z,0.4nm,0.5s							
HHC	**Hu-ho-hao-te**	**54.53**	**293**	*e*P		**P**	**22 23 55.6**	**+3.1**
HHC				pmax	pmax			
	comp=Z,6.0nm,0.5s							
HHC				pmax	pmax			
	comp=Z,60nm,4.5s							
ZALV	**Zalesovo Beam**	**58.06**	**319**	P		**P**	**22 24 16.2**	**-1.0**
	comp=Z,1.7nm,0.4s,baz=43,slow=6.3,SNR=13							
	comp=Z,1.7nm,0.4s							
KURK	**Kurchatov**	**62.98**	**320**	P		**P**	**22 24 50.3**	**-0.6**
KURBB	**Kurchatov Arra**	**63.09**	**320**	P		**P**	**22 24 51.0**	**-0.6**
	comp=Z,0.5nm,0.3s,baz=44,slow=7.7,SNR=6.4							
	comp=Z,0.5nm,0.3s							
BVAR	**Borovoye Array**	**64.06**	**326**	P		**P**	**22 24 57.1**	**-0.8**
	comp=Z,0.4nm,0.3s,baz=41,slow=5.8,SNR=6.0							
	comp=Z,0.4nm,0.3s							
MKAR	**Makanchi Array**	**64.61**	**315**	P		**P**	**22 25 00.6**	**-1.1**
	comp=Z,0.6nm,0.3s,baz=49,slow=5.9,SNR=23							
	comp=Z,0.6nm,0.3s							
FINES	**FINESS Array B**	**65.08**	**354**	P		**P**	**22 25 02.8**	**-1.6**
	comp=Z,1.8nm,0.8s,baz=18,slow=7.2,SNR=8.0							
	comp=Z,1.8nm,0.8s							
FINES	**FINESS Array B**	**65.08**	**354**	P		**P**	**22 25 02.5**	**-1.9**
HFS	**Hagfors**	**66.78**	**0**	P		**P**	**22 25 13.7**	**-1.7**
	comp=Z,0.7nm,0.3s,baz=303,slow=3.0,SNR=7.3							
	comp=Z,0.7nm,0.3s							
KSH2	**Kashi**	**73.69**	**315**	P		**P**	**22 25 58.6**	**+0.4**
KSH2				pmax	pmax			
	comp=Z,6.0nm,0.5s							
AKASG	**Malin Array Be**	**75.47**	**350**	P		**P**	**22 26 06.7**	**-1.3**
	comp=Z,0.4nm,0.4s,baz=16,slow=6.3,SNR=2.2							
	comp=Z,0.4nm,0.4s							
CMAR	**Chiang Mai Arr**	**78.45**	**285**	P		**P**	**22 26 25.9**	**+0.6**
	comp=Z,1.4nm,0.5s,baz=20,slow=6.2,SNR=12							
	comp=Z,1.4nm,0.5s							
MDT	**Midelt**	**92.57**	**16**	LR		LR	23 13 04.7	
	comp=Z,27nm,18.1s,baz=320,slow=38							
H03N2	**Juan Fernandez**	**114.35**	**114**	T		T	00 37 49.3	
	baz=313,slow=76,SNR=322							
H03N1	**Juan Fernandez**	**114.36**	**114**	T		T	00 37 50.6	
	baz=309,slow=76,SNR=255							

*IDC **23** 22:19:54.4±0.7,56˚.62N×136˚.13W,h0km,mb3.8/10, mbtmp3.9/18,ML3.6/7,MS3.5/28,Error ellipse: s-maj=11.8km s-min=8.3km az=35.0*

*AEIC **23** 22:19:55.8±2.7,56˚.70N±0˚.03×136˚.0W±0˚.1,h18km±5km, Error ellipse: s-maj=8.5km s-min=4.6km az=75.0*

*PGC **23** 22:19:55.3±0.3,56˚.64N×135˚.92W,h10km,ML4.5/23, ML4.3(AEIC),59km southwest of Sitka, Ak Southeastern Alaska*

*NEIC **23** 22:19:56.3,56˚.71N×135˚.87W,h20km*

*NEIC **23** 22:19:56.1±2.2,56˚.73N±0˚.03×135˚.72W±0˚.09,h16km±5km, mb4.2/51,ML4.3/74,Mwr4.3/37,ML4.2(AEIC),Error ellipse: s-maj=7.4km s-min=4.5km az=76.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr=0.01; Mθθ=2.23; Mφφ2.24; Mrθ0.28; Mθφ2.28; Mφr0.25; Fault plane solution: M₀3.21000×10¹⁵ NP1:φ₀67.88000˚, δ87.88000˚,λ6.25000˚. NP2:φ₀337.65000˚,δ83.75000˚, λ177.87000˚. Principal axes: T 3.2319, Plg6.0000˚, Azm293.0000˚; N -0.0349, Plg83.0000˚, Azm87.0000˚; P -3.1970, Plg3.0000˚, Azm203.0000˚;*

ISC 23 22:19:54.7±1.5,56˚.69N±0˚.04×136˚.00W±0˚.04,h10km±9km, n338,σ1š31/339,mb4.1/23,MS3.5/25,Southeastern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIT	**Sitka**	**0.52**	**45**	P	**Pg**	**22 20 05.1**	**+0.3**
SIT	**Sitka**	**0.52**	**45**		**Pg**	**22 20 05.0**	**+0.3**
SIT					**Sg**	**22 20 10.8**	**-0.8**
S32K	**Killisnoo**	**1.10**	**44**		**Pb**	**22 20 14.2**	**-1.4**
S32K					**Sb**	**22 20 28.1**	**-1.9**
S32K				IAML		22 20 29.5	
	comp=N,8μm,0.7s						
S31K	**Pelican**	**1.28**	**354**		**Pn**	**22 20 16.6**	**-1.9**
S31K					**Sb**	**22 20 31.8**	**-3.4**
S31K				IAML		22 20 36.8	
	comp=E,7μm,0.9s						
T33K	**Petersburg**	**1.68**	**85**	Pn	**Pn**	**22 20 23.0**	**-1.0**
T33K				Sn	**Sn**	**22 20 42.0**	**-3.5**
T33K	**Petersburg**	**1.68**	**85**	Pn	**Pn**	**22 20 24.2**	**+0.2**
T33K				Sn	**Sn**	**22 20 45.0**	**-0.6**
U33K	**Whale Pass**	**1.70**	**109**	Pn	**Pn**	**22 20 21.8**	**-2.5**
U33K				Sn	**Sn**	**22 20 42.0**	**-4.1**
U33K				IAML		22 20 53.6	
	comp=E,3μm,0.6s						
U33K				IAML		22 20 58.0	
	comp=N,3μm,1.0s						
R31K	**City Hall, Gus**	**1.73**	**5**		**Pn**	**22 20 23.1**	**-1.6**
R31K	**City Hall, Gus**	**1.73**	**5**	Pn	**Pn**	**22 20 24.2**	**-0.5**
R32K	**Eaglecrest**	**1.77**	**26**	Pn	**Pn**	**22 20 23.9**	**-1.4**
R32K				Sn	**Sn**	**22 20 45.0**	**-3.0**
R32K				IAML		22 20 57.5	
	comp=N,2μm,0.5s						
JIS	**Juneau Island**	**1.81**	**28**	P	**Pn**	**22 20 24.4**	**-1.4**
JIS	**Juneau Island**	**1.81**	**28**		**Pn**	**22 20 24.9**	**-0.9**
JIS					**Sn**	**22 20 47.9**	**-0.8**
BESE	**Bessie Mountai**	**1.99**	**18**	Pn	**Pn**	**22 20 27.3**	**-1.0**
BESE				IAML		22 21 04.9	
	comp=E,3μm,1.0s						
BESE				IAML		22 21 06.8	
	comp=N,3μm,1.1s						
BESE	**Bessie Mountai**	**1.99**	**18**	Pn	**Pn**	**22 20 27.8**	**-0.5**
BESE				Pg	**Pb**	**22 20 31.9**	**+1.0**
CRAG	**Craig**	**2.03**	**126**	Pn	**Pn**	**22 20 27.1**	**-1.6**
CRAG				Sn	**Sn**	**22 20 49.5**	**-4.5**
CRAG				IAML		22 21 05.2	
	comp=N,2μm,0.9s						
CRAG				IAML		22 21 07.7	
	comp=E,2μm,0.7s						
WRAK	**Wrangell Islan**	**2.04**	**96**	Pn	**Pn**	**22 20 27.2**	**-1.8**
WRAK	**Wrangell Islan**	**2.04**	**96**	Pn	**Pn**	**22 20 27.8**	**-1.2**
PLBC	**Pleasant Camp**	**2.78**	**356**		**Pn**	**22 20 38.6**	**-0.5**
PLBC	**Pleasant Camp**	**2.78**	**356**	Pn	**Pn**	**22 20 38.8**	**-0.3**
PLBC				Sn	**Sn**	**22 21 11.6**	**-1.0**
SKAG	**Skagway**	**2.80**	**7**	P	**Pn**	**22 20 39.1**	**-0.2**
SKAG	**Skagway**	**2.80**	**7**	Pn	**Pn**	**22 20 38.6**	**-0.8**
SKAG				IAML		22 21 25.8	
	comp=E,859nm,0.6s						
V35K	**Ketchikan**	**2.82**	**117**	Pn	**Pn**	**22 20 37.6**	**-2.0**
V35K	**Ketchikan**	**2.82**	**117**		**Sn**	**22 21 12.5**	**-1.0**
V35K	**Ketchikan**	**2.82**	**117**	IAML		22 21 31.4	
	comp=E,1μm,0.8s						
S34M	**Telegraph Cree**	**2.91**	**63**		**Pn**	**22 20 40.3**	**-0.6**
S34M	**Telegraph Cree**	**2.91**	**63**	Pn	**Pn**	**22 20 40.9**	**0.0**
S34M				Pg	**Pb**	**22 20 47.2**	**+0.7**
Q32M	**Nakina River**	**3.02**	**40**		**Pn**	**22 20 43.2**	**+0.5**
Q32M				IAML		22 21 35.7	
	comp=E,1μm,0.9s						
Q32M				IAML		22 21 38.4	
	comp=N,2μm,1.1s						
Q32M	**Nakina River**	**3.02**	**40**	Pn	**Pn**	**22 20 42.6**	**-0.1**
P29M	**Windy Craggy**	**3.09**	**343**	Pn	**Pn**	**22 20 42.7**	**-0.7**
P29M				IAML		22 21 34.5	
	comp=E,852nm,0.7s						
P29M				IAML		22 21 41.7	
	comp=N,750nm,0.7s						
P29M	**Windy Craggy**	**3.09**	**343**	Pn	**Pn**	**22 20 43.7**	**+0.3**
P32M	**Atlin**	**3.15**	**22**	Pn	**Pn**	**22 20 43.8**	**-0.4**
P32M				IAML		22 21 40.3	
	comp=E,820nm,1.1s						
P32M	**Atlin**	**3.15**	**22**	Pn	**Pn**	**22 20 44.3**	**0.0**
T35M	**Bob Quinn**	**3.17**	**82**		**Pn**	**22 20 44.9**	**+0.4**
T35M	**Bob Quinn**	**3.17**	**82**	Pn	**Pn**	**22 20 43.7**	**-0.8**
T35M				Pg	**Pb**	**22 20 51.1**	**+0.1**
T35M				Sg	**Sb**	**22 21 31.5**	**+1.8**
NDB	**Naden**	**3.25**	**146**	Pn	**Pn**	**22 20 44.5**	**-1.2**
U35K	**Hyder**	**3.42**	**101**	Pn	**Pn**	**22 20 46.1**	**-1.7**
P30M	**Million Dollar**	**3.48**	**352**		**Pn**	**22 20 48.4**	**-0.4**
P30M	**Million Dollar**	**3.48**	**352**	IAML		22 21 54.9	
	comp=N,492nm,0.9s						
PNL	**Peninsula**	**3.48**	**330**		**Pn**	**22 20 48.0**	**-0.8**
DLBC	**Dease Lake**	**3.66**	**59**	Pn	**Pn**	**22 20 51.8**	**+0.4**
	comp=N,1.0nm,0.3s,baz=191,slow=8.8,SNR=25						
DLBC				Pg	**Pb**	**22 21 01.9**	**+2.5**
	comp=N,30nm,0.3s,baz=214,slow=16,SNR=34						
DLBC				Lg	Lg	22 21 52.5	
	comp=N,38nm,0.3s,baz=320,slow=20,SNR=4.0						
	comp=N,5.9nm,0.3s						
DLBC				AML	AML		
DLBC	**Dease Lake**	**3.66**	**59**		**Pn**	**22 20 50.8**	**-0.5**
DLBC	**Dease Lake**	**3.66**	**59**	Pn	**Pn**	**22 20 51.7**	**+0.4**
BCPM	**Bancas Point**	**3.79**	**331**		**Pn**	**22 20 53.3**	**+0.3**
R33M	**Jennings River**	**3.81**	**43**	Pn	**Pn**	**22 20 52.6**	**-0.7**
R33M				IAML		22 21 57.7	
	comp=N,708nm,0.7s						
R33M				IAML		22 22 10.4	
	comp=E,663nm,0.9s						
R33M	**Jennings River**	**3.81**	**43**	Pn	**Pn**	**22 20 53.8**	**+0.5**
O29M	**Mount Kennedy**	**3.86**	**341**	Pn	**Pn**	**22 20 53.6**	**-0.5**
O29M				IAML		22 21 57.9	
	comp=N,364nm,0.6s						
O29M				IAML		22 22 08.0	
	comp=E,545nm,1.0s						
O29M	**Mount Kennedy**	**3.86**	**341**	Pn	**Pn**	**22 20 55.2**	**+1.1**
O29M				Sn	**Sn**	**22 21 39.8**	**+0.3**
P33M	**Teslin, Yukon**	**3.90**	**24**		**Pn**	**22 20 54.4**	**-0.3**
P33M				IAML		22 22 02.0	
	comp=E,367nm,1.1s						
P33M				IAML		22 22 04.4	
	comp=N,380nm,0.8s						
P33M	**Teslin, Yukon**	**3.90**	**24**	Pn	**Pn**	**22 20 55.0**	**+0.3**
YUK7	**Dusty Glacier**	**4.01**	**345**		**Pn**	**22 20 56.0**	**-0.2**
YUK7	**Dusty Glacier**	**4.01**	**345**	Pn	**Pn**	**22 20 56.8**	**+0.6**
WHY	**Whitehorse**	**4.02**	**8**		**Pn**	**22 20 55.8**	**-0.5**
WHY				IAML		22 22 09.2	
	comp=N,748nm,1.0s						
WHY	**Whitehorse**	**4.02**	**8**	Pn	**Pn**	**22 20 56.4**	**+0.1**
WHY				Sg	**Sg**	**22 22 00.4**	**-3.3**
RUBB	**Prince Rupert**	**4.04**	**124**		**Pn**	**22 20 55.0**	**-1.3**
RUBB				IAML		22 22 06.1	
	comp=N,538nm,1.0s						
RUBB				IAML		22 22 11.2	
	comp=E,735nm,0.9s						
RUBB	**Prince Rupert**	**4.04**	**124**	Pn	**Pn**	**22 20 55.2**	**-1.2**
DIB	**Dawson Inlet,**	**4.04**	**148**	Pn	**Pn**	**22 20 54.9**	**-1.5**
DIB				IAML		22 21 45.9	
	comp=E,403nm,0.7s						
DIB	**Dawson Inlet,**	**4.04**	**148**	Pn	**Pn**	**22 20 55.0**	**-1.5**
DIB				Sn	**Sn**	**22 21 41.2**	**-2.7**
H02S1	**DAWSON INLET T**	**4.04**	**148**	Pn	**Pn**	**22 20 55.6**	**-0.9**
H02S1				Sn	**Sn**	**22 21 40.9**	**-2.9**
H02S2	**DAWSON INLET T**	**4.04**	**148**	Pn	**Pn**	**22 20 55.9**	**-0.6**
H02S2				Sn	**Sn**	**22 21 40.3**	**-3.5**
PCA	**Pinnacle**	**4.08**	**328**		**Pn**	**22 20 56.9**	**-0.2**
PCA	**Pinnacle**	**4.08**	**328**	IAML		22 22 05.9	
	comp=E,648nm,0.6s						
PCA				IAML		22 22 23.0	
	comp=N,618nm,0.9s						
O30N	**Mendenhall**	**4.09**	**359**	Pn	**Pn**	**22 20 57.2**	**0.0**
O30N				IAML		22 22 11.4	
	comp=E,666nm,1.2s						
O30N				IAML		22 22 13.2	
	comp=N,554nm,1.1s						
O30N	**Mendenhall**	**4.09**	**359**	Pn	**Pn**	**22 20 57.6**	**+0.4**
O30N				Sn	**Sn**	**22 21 43.7**	**-1.3**
HYT	**Haines Junctio**	**4.22**	**350**	Pn	**Pn**	**22 20 58.9**	**-0.1**
HYT	**Haines Junctio**	**4.22**	**350**	Pn	**Pn**	**22 21 00.1**	**+1.1**
MOBC	**Moresby Island**	**4.25**	**145**	Pn	**Pn**	**22 20 59.2**	**-0.2**
MOBC				IAML		22 22 17.4	
	comp=N,304nm,0.8s						
MOBC				IAML		22 22 22.6	
	comp=E,356nm,0.9s						
MOBC	**Moresby Island**	**4.25**	**145**	Pn	**Pn**	**22 20 58.2**	**-1.1**
YUK6	**Outpost Mounta**	**4.44**	**345**		**Pn**	**22 21 01.9**	**-0.2**
YUK6	**Outpost Mounta**	**4.44**	**345**	Pn	**Pn**	**22 21 02.3**	**+0.2**
BNAB	**Bonilla**	**4.45**	**134**		**Pn**	**22 21 01.0**	**-1.0**
BNAB	**Bonilla**	**4.45**	**134**	Pn	**Pn**	**22 21 00.6**	**-1.4**
BNAB				Sn	**Sn**	**22 21 50.7**	**-3.0**
YUK5	**Granite Creek**	**4.55**	**349**		**Pn**	**22 21 04.1**	**+0.4**
YUK5	**Granite Creek**	**4.55**	**349**	Pn	**Pn**	**22 21 04.2**	**+0.6**
YUK5				Sn	**Sn**	**22 21 57.8**	**+1.2**
O28M	**Mount Upton**	**4.64**	**334**	Pn	**Pn**	**22 21 05.1**	**+0.2**
O28M				IAML		22 22 32.4	
	comp=N,177nm,0.8s						
O28M	**Mount Upton**	**4.64**	**334**	Pn	**Pn**	**22 21 05.8**	**+0.9**
N32M	**Quiet Lake**	**4.72**	**17**		**Pn**	**22 21 06.5**	**+0.7**
YAH	**Yahtse**	**4.75**	**323**		**Pn**	**22 21 06.6**	**+0.1**
YAH	**Yahtse**	**4.75**	**323**	IAML		22 22 49.8	
	comp=N,203nm,1.2s						
N31M	**Braeburn, Yuko**	**4.81**	**1**		**Pn**	**22 21 07.6**	**+0.6**
N31M	**Braeburn, Yuko**	**4.81**	**1**	Pn	**Pn**	**22 21 07.5**	**+0.5**
N30M	**Aishikik Lake**	**4.81**	**354**		**Pn**	**22 21 08.1**	**+1.0**
N30M				IAML		22 22 29.3	
	comp=E,245nm,1.0s						
N30M				IAML		22 22 31.8	
	comp=N,184nm,1.1s						
N30M	**Aishikik Lake**	**4.81**	**354**	Pn	**Pn**	**22 21 07.4**	**+0.3**
YUK4	**Talbot Arm**	**4.86**	**345**	Pn	**Pn**	**22 21 09.8**	**+1.9**
LOGN	**Logan Glacier**	**4.89**	**330**		**Pn**	**22 21 09.3**	**+1.1**
LOGN	**Logan Glacier**	**4.89**	**330**	Pn	**Pn**	**22 21 09.4**	**+1.1**
LOGN				Sn	**Sn**	**22 22 03.4**	**-1.6**
BRWY	**Burwash Landin**	**4.95**	**343**	Pn	**Pn**	**22 21 10.2**	**+1.3**
YUK8	**Steele Glacier**	**5.00**	**339**	Pn	**Pn**	**22 21 11.0**	**+1.2**
GRNC	**Granite Creek**	**5.04**	**326**		**Pn**	**22 21 11.2**	**+0.8**
GRNC				IAML		22 23 02.7	
	comp=N,135nm,1.2s						
GRNC	**Granite Creek**	**5.04**	**326**	Pn	**Pn**	**22 21 11.4**	**+1.0**
WTLY	**Watson Lake, Y**	**5.11**	**45**	Pn	**Pn**	**22 21 11.8**	**+0.7**
GRIB	**Gribbell Islan**	**5.18**	**128**	Pn	**Pn**	**22 21 11.2**	**-1.0**
BARN	**Barnard Glacie**	**5.27**	**329**		**Pn**	**22 21 14.1**	**+0.6**
KIAG	**Kiagna River**	**5.38**	**325**		**Pn**	**22 21 14.7**	**-0.2**
KIAG	**Kiagna River**	**5.38**	**325**	Pn	**Pn**	**22 21 16.1**	**+1.2**
TGL	**Tana Glacier**	**5.41**	**322**		**Pn**	**22 21 15.4**	**+0.1**
BALM	**Baldy**	**5.46**	**326**		**Pn**	**22 21 16.9**	**+0.8**
BALM	**Baldy**	**5.46**	**326**	Pn	**Pn**	**22 21 17.1**	**+1.1**
CRQM	**Cirque**	**5.52**	**321**		**Pn**	**22 21 16.8**	**-0.1**
YUK3	**Moose Creek**	**5.59**	**338**		**Pn**	**22 21 18.8**	**+0.9**
YUK3	**Moose Creek**	**5.59**	**338**	Pn	**Pn**	**22 21 19.1**	**+1.2**
PTPK	**Patty Peak**	**5.61**	**326**	Pn	**Pn**	**22 21 19.6**	**+1.4**
PTPK				Sn	**Sn**	**22 22 23.0**	**+0.3**
BUTB	**Butedale**	**5.67**	**127**	Pn	**Pn**	**22 21 18.2**	**-0.7**
YUK2	**White River**	**5.68**	**336**		**Pn**	**22 21 19.9**	**+0.9**
YUK2	**White River**	**5.68**	**336**	Pn	**Pn**	**22 21 19.9**	**+0.9**
M29M	**Somme Creek**	**5.90**	**349**		**Pn**	**22 21 22.5**	**+0.4**
M29M	**Somme Creek**	**5.90**	**349**	Pn	**Pn**	**22 21 22.6**	**+0.5**
M30M	**Minto, Yukon**	**5.92**	**356**		**Pn**	**22 21 22.1**	**-0.1**
M30M	**Minto, Yukon**	**5.92**	**356**	Pn	**Pn**	**22 21 22.8**	**+0.6**
MCARA	**McCarthy VSAT**	**5.94**	**325**		**Pn**	**22 21 23.5**	**+1.1**
MCARA	**McCarthy VSAT**	**5.94**	**325**	Pn	**Pn**	**22 21 23.9**	**+1.4**
VRDI	**Verde Repeater**	**5.96**	**323**		**Pn**	**22 21 23.1**	**+0.2**
GOAT	**Goat Mountain**	**6.00**	**314**		**Pn**	**22 21 22.4**	**-1.0**
BMRM	**Bremner River**	**6.19**	**317**		**Pn**	**22 21 25.8**	**-0.2**
GLB	**Gilahina Butte**	**6.23**	**323**		**Pn**	**22 21 27.3**	**+0.7**
BVCY	**Beaver Creek**	**6.25**	**339**		**Pn**	**22 21 26.9**	**+0.1**
BVCY	**Beaver Creek**	**6.25**	**339**	Pn	**Pn**	**22 21 27.7**	**+1.0**
M27K	**Edge Creek, AK**	**6.42**	**335**		**Pn**	**22 21 30.5**	**+1.3**
BBB	**Bella Bella**	**6.45**	**131**	Pn	**Pn**	**22 21 29.1**	**-0.4**
	comp=N,4.0nm,0.3s,baz=290,slow=8.0,SNR=15						
BBB				Sn	**Sn**	**22 22 40.5**	**-2.4**
	comp=N,8.5nm,0.3s,baz=132,slow=21,SNR=20						
BBB				Lg	Lg	22 23 17.9	
	comp=N,2.9nm,0.3s,baz=61,slow=16,SNR=4.1						
	comp=N,13nm,0.4s						
BBB				AML	AML		
BBB	**Bella Bella**	**6.45**	**131**	Pn	**Pn**	**22 21 29.2**	**-0.2**
BBB	**Bella Bella**	**6.45**	**131**	Pn	**Pn**	**22 21 28.9**	**-0.5**
BBB				Sn	**Sn**	**22 22 37.3**	**-5.6**
L29M	**L29M**	**6.53**	**351**		**Pn**	**22 21 31.0**	**+0.4**
L29M	**L29M**	**6.53**	**351**	Pn	**Pn**	**22 21 31.6**	**+1.0**
N25K	**Chitina, Valde**	**6.62**	**322**		**Pn**	**22 21 33.0**	**+1.1**
HIN	**Hinchinbrook I**	**6.63**	**308**	Pn	**Pn**	**22 21 31.8**	**-0.3**
DIV	**Divide**	**6.74**	**315**		**Pn**	**22 21 34.7**	**+1.2**
DIV	**Divide**	**6.74**	**315**	Pn	**Pn**	**22 21 34.9**	**+1.4**
M26K	**Nabesna, AK**	**6.74**	**331**		**Pn**	**22 21 34.2**	**+0.8**
WACK	**Wrangell Chich**	**6.80**	**325**		**Pn**	**22 21 36.9**	**+2.3**
FID	**Port Fidalgo**	**6.80**	**311**		**Pn**	**22 21 34.1**	**-0.3**
KLU	**Klutina**	**7.02**	**317**		**Pn**	**22 21 38.5**	**+1.2**
BC01	**Beaver Creek A**	**7.03**	**338**		**Pn**	**22 21 37.8**	**+0.4**
L27K	**Beaver Creek,**	**7.03**	**338**		**Pn**	**22 21 37.8**	**+0.4**
L27K	**Beaver Creek,**	**7.03**	**338**	Pn	**Pn**	**22 21 38.2**	**+0.8**
GLI	**Glacier Island**	**7.13**	**311**	Pn	**Pn**	**22 21 38.3**	**-0.6**
K29M	**Barlow Dome**	**7.21**	**355**		**Pn**	**22 21 40.3**	**+0.2**
K29M	**Barlow Dome**	**7.21**	**355**	Pn	**Pn**	**22 21 41.1**	**+1.1**
K29M				Sn	**Sn**	**22 23 00.6**	**-1.4**
L26K	**Log Cabin Wild**	**7.35**	**333**		**Pn**	**22 21 42.6**	**+0.8**
MENT	**Mentasta**	**7.37**	**331**		**Pn**	**22 21 43.8**	**+1.6**
HARP	**HAARP**	**7.37**	**325**		**Pn**	**22 21 44.1**	**+2.0**
DAWY	**Dawson**	**7.58**	**349**		**Pn**	**22 21 45.2**	**+0.1**
DAWY	**Dawson**	**7.58**	**349**	Pn	**Pn**	**22 21 45.8**	**+0.7**
HOLB	**Holberg**	**7.65**	**139**	Pn	**Pn**	**22 21 45.2**	**-0.8**
HOLB				Sn	**Sn**	**22 23 08.7**	**-4.0**
SCM	**Sheep Creek Mo**	**7.76**	**316**		**Pn**	**22 21 47.7**	**+0.2**
SEW	**Seward**	**7.85**	**301**	Pn	**Pn**	**22 21 48.9**	**+0.2**
PHC	**Port Hardy**	**7.86**	**136**	Pn	**Pn**	**22 21 48.2**	**-0.6**
PHC				Sn	**Sn**	**22 23 14.8**	**-2.8**
J29N	**Klondike Camp**	**7.86**	**353**		**Pn**	**22 21 50.5**	**+1.6**
PAX	**Paxson**	**7.89**	**327**		**Pn**	**22 21 51.3**	**+1.9**
PAX	**Paxson**	**7.89**	**327**	Pn	**Pn**	**22 21 51.5**	**+2.2**
J30M	**Hart River**	**7.91**	**359**	Pn	**Pn**	**22 21 51.1**	**+1.4**
KNK	**Knik Glacier**	**7.97**	**312**		**Pn**	**22 21 49.9**	**-0.4**
DOT	**Dot Lake**	**8.04**	**333**		**Pn**	**22 21 52.0**	**+0.6**
DOT	**Dot Lake**	**8.04**	**333**	Pn	**Pn**	**22 21 52.6**	**+1.2**
PACB	**Port Alice, BC**	**8.05**	**138**	Pn	**Pn**	**22 21 51.1**	**-0.4**
PACB				Sn	**Sn**	**22 23 21.7**	**-0.8**
O22K	**Cooper Landing**	**8.11**	**304**	Pn	**Pn**	**22 21 53.2**	**+0.9**
SML	**Sawmill**	**8.13**	**314**		**Pn**	**22 21 53.4**	**+0.8**
SCRK	**Sand Creek**	**8.30**	**335**		**Pn**	**22 21 55.7**	**+0.6**
RIDG	**Independent Ri**	**8.32**	**332**	Pn	**Pn**	**22 21 56.2**	**+1.5**
PMR	**Palmer**	**8.34**	**311**	P	**Pn**	**22 21 56.8**	**+1.4**
	comp=N,20nm,0.7s						
PMR	**Palmer**	**8.34**	**311**		**Pn**	**22 21 55.9**	**+0.5**
GHO	**Glory Hole Cre**	**8.35**	**313**		**Pn**	**22 21 55.7**	**+0.1**
RC01	**Rabbit Creek A**	**8.36**	**307**		**Pn**	**22 21 55.3**	**-0.4**
WAT6	**Susitna Watana**	**8.37**	**320**		**Pn**	**22 21 56.2**	**+0.3**
FHBB	**Fair Harbour**	**8.50**	**138**	Sn	**Sn**	**22 23 33.1**	**-0.3**
I30M	**Mount Dempster**	**8.56**	**359**	Pn	**Pn**	**22 21 59.9**	**+1.4**
DHY	**Denali Highway**	**8.57**	**323**		**Pn**	**22 22 00.1**	**+1.3**
**

F19K	**Shaleruckik Mo**	**14.38**	**324**			**Pn**	**22 23 18.7**	**+0.9**
L14K	**Kuka Creek**	**14.45**	**300**			**Pn**	**22 23 19.7**	**+0.8**
E19K	**Redstone River**	**14.57**	**326**			**Pn**	**22 23 21.8**	**+1.2**
J14K	**Nanvaranak Lak**	**15.08**	**305**			**Pn**	**22 23 28.7**	**+1.3**
J14K					IAmb	IAmb	22 23 38.3	
	comp=Z,20nm,1.1s							
G16K	**Koyuk River**	**15.33**	**315**			**Pn**	**22 23 32.2**	**+1.5**
F17K	**Baldwin Pennin**	**15.36**	**320**			**Pn**	**22 23 29.6**	**-1.5**
F17K					IAmb	IAmb	22 23 40.1	
	comp=Z,15nm,0.9s							
K13K	**Kusilvak Mount**	**15.46**	**302**			**Pn**	**22 23 33.6**	**+1.2**
D19K	**Kuna River**	**15.48**	**329**			**Pn**	**22 23 31.2**	**-1.4**
G08A	**Pilot Rock**	**15.61**	**130**			**Pn**	**22 23 34.1**	**-0.5**
F10A	**Beach Ranch, E**	**15.84**	**125**			**Pn**	**22 23 36.4**	**-1.2**
JTMT	**Jette**	**15.98**	**115**			**Pn**	**22 23 37.5**	**-1.9**
A36M	**Sachs Harbour**	**16.00**	**12**			**Pn**	**22 23 38.6**	**-0.7**
A36M					IAmb	IAmb	22 23 51.7	
	comp=Z,23nm,0.8s							
PINE	**Pine Mountain**	**16.06**	**137**			**Pn**	**22 23 40.3**	**-0.2**
PINE					IAmb	IAmb	22 23 53.1	
	comp=Z,19nm,1.2s							
ANM	**Nome**	**16.28**	**311**			**Pn**	**22 23 44.7**	**+1.6**
C18K	**Utukok River**	**16.48**	**327**			**Pn**	**22 23 42.1**	**-3.5**
BMO	**Blue Mountains**	**16.67**	**127**			**Pn**	**22 23 47.3**	**-0.9**
RDOG	**Red Dog Mine**	**16.70**	**324**	Pn		**Pn**	**22 23 48.8**	**+0.4**
RDOG					IAmb	IAmb	22 24 02.4	
	comp=Z,20nm,1.1s							
MSO	**Missoula**	**16.77**	**117**			**Pn**	**22 23 49.8**	**+0.3**
PLID	**Pearl Lake**	**17.07**	**124**			**Pn**	**22 23 52.7**	**-0.7**
YBH	**Yreka Blue Hor**	**17.26**	**145**	P		**P**	**22 23 58.0**	**+0.9**
	comp=Z,0.1nm,0.3s,baz=341,slow=7.7,SNR=6.9							
	comp=Z,2.9nm,0.8s							
YBH					AML	AML		
J08A	**Circle Bar Ran**	**17.39**	**133**			**Pn**	**22 23 57.4**	**+0.1**
GBMT	**Granite Butte,**	**17.49**	**114**			**Pn**	**22 23 58.3**	**-0.4**
GBMT					IAmb	IAmb	22 24 04.5	
	comp=Z,16nm,1.1s							
EGMT	**Eagleton**	**18.13**	**107**			**Pn**	**22 24 05.7**	**-0.7**
MFID	**Camas Ranch**	**18.46**	**127**			**P**	**22 24 08.1**	**-2.3**
DLMT	**Dillon**	**18.48**	**118**	P		**P**	**22 24 09.6**	**-0.9**
DLMT					IAmb	IAmb	22 24 25.5	
	comp=Z,16nm,1.4s							
MCMT	**McKenzie Canyo**	**18.74**	**119**	P		**Pn**	**22 24 13.9**	**-0.1**
BOZ	**Bozeman (W)**	**18.78**	**116**	P		**P**	**22 24 13.1**	**-0.8**
BCYI	**Bear Canyon**	**18.86**	**121**	P		**P**	**22 24 14.3**	**-0.7**
YHL	**Hebgen Lake**	**19.54**	**117**	P		**P**	**22 24 22.0**	**-0.4**
YHL					IAmb	IAmb	22 24 31.1	
	comp=Z,23nm,1.1s							
YHH	**Holmes Hill**	**19.75**	**116**			**Pn**	**22 24 25.6**	**-0.5**
YNE	**Yellowstone No**	**20.01**	**115**	P		**P**	**22 24 27.7**	**+0.2**
YNE					IAmb	IAmb	22 24 34.7	
	comp=Z,7.5nm,0.9s							
RLMT	**Red Lodge**	**20.30**	**113**	P		**P**	**22 24 31.1**	**+0.5**
RLMT					IAmb	IAmb	22 24 41.1	
	comp=Z,11nm,1.1s							
LAO	**LASA Array**	**20.84**	**106**			Pn	22 24 38.1	-0.5
DGMT	**Dagmar**	**20.84**	**100**	P		**P**	**22 24 34.4**	**-1.8**
DGMT					IAmb	IAmb	22 24 45.3	
	comp=Z,13nm,1.1s							
ELK	**Elko**	**20.90**	**131**	P		Pn	22 24 38.9	-0.7
	comp=Z,2.2nm,1.0s,baz=314,slow=9.6,SNR=5.8							
	comp=Z,2.2nm,1.0s							
ELK	**Elko**	**20.90**	**131**	P		**P**	**22 24 37.6**	**+0.5**
ELK					IAmb	IAmb	22 24 49.1	
	comp=Z,8.9nm,1.2s							
KVN	**Kaiserville**	**21.23**	**139**			**P**	**22 24 40.1**	**-0.5**
KVN					IAmb	IAmb	22 24 52.2	
	comp=Z,12nm,1.4s							
SPUT	**South Promonto**	**21.64**	**125**	P		**P**	**22 24 46.2**	**+1.1**
SPUT					IAmb	IAmb	22 24 55.8	
	comp=Z,8.4nm,1.2s							
BGU	**Big Grassy Mou**	**21.70**	**127**	P		**P**	**22 24 43.1**	**-2.5**
BGU					IAmb	IAmb	22 24 55.7	
	comp=Z,9.1nm,1.4s							
NVAR	**Mina Array Bea**	**21.71**	**140**	P		**P**	**22 24 47.9**	**+2.1**
	comp=Z,1.2nm,0.8s,baz=320,slow=11,SNR=5.9							
	comp=Z,1.2nm,0.8s							
NV11	**Mina Array Sit**	**21.76**	**140**	P		**P**	**22 24 46.6**	**+0.3**
NV11					IAmb	IAmb	22 24 56.3	
	comp=Z,9.8nm,1.1s							
LHV	**Little Huntoon**	**21.80**	**140**	P		**P**	**22 24 47.3**	**+0.8**
LHV					IAmb	IAmb	22 25 04.8	
	comp=Z,7.3nm,1.0s							
HWUT	**Hardware Ranch**	**21.81**	**123**			**P**	**22 24 47.0**	**+0.1**
HWUT					IAmb	IAmb	22 24 51.0	
	comp=Z,9.7nm,0.9s							
BW06	**Boulder Array**	**21.87**	**118**	P		**P**	**22 24 47.5**	**0.0**
BW06					IAmb	IAmb	22 25 11.9	
	comp=Z,11nm,1.3s							
PD31	**Pinedale Array**	**21.87**	**118**			**P**	**22 24 48.2**	**+0.7**
PD31					IAmb	IAmb	22 25 11.8	
	comp=Z,11nm,1.3s							
PDAR	**Pinedale Array**	**21.87**	**118**	P		**P**	**22 24 50.2**	**+2.7**
	comp=Z,3.0nm,1.0s,baz=316,slow=6.2,SNR=8.1							
PDAR					LR	LR	22 32 11.9	
	comp=Z,82nm,21.6s,baz=308,slow=34							
	comp=Z,3.0nm,1.0s							
PDAR	**Pinedale Array**	**21.87**	**118**			**P**	**22 24 47.3**	**-0.3**
TCUT	**Toone Canyon**	**22.27**	**124**	P		**P**	**22 24 51.6**	**-0.2**
TCUT					IAmb	IAmb	22 25 00.5	
	comp=Z,11nm,1.0s							
DUG	**Dugway, Tooele**	**22.39**	**128**	P		**P**	**22 24 53.1**	**+0.1**
DUG					IAmb	IAmb	22 25 26.6	
	comp=Z,12nm,1.5s							
RES	**Resolute Bay**	**23.86**	**26**	LR		LR	22 34 49.0	
	comp=Z,145nm,18.6s,baz=154,slow=37							
SRU	**San Rafael Swe**	**24.29**	**126**	P		**P**	**22 25 12.6**	**+0.5**
SRU					IAmb	IAmb	22 25 20.9	
	comp=Z,13nm,1.1s							
ULM	**Lac du Bonnet**	**24.45**	**88**	P		**P**	**22 25 16.7**	**+3.4**
	comp=Z,2.6nm,0.7s,baz=313,slow=6.8,SNR=4.7							
ULM					LR	LR	22 34 33.2	
	comp=Z,92nm,19.2s,baz=184,slow=36							
	comp=Z,2.6nm,0.7s							
PV22	**Blue Mesa, Par**	**25.54**	**124**			**P**	**22 25 22.8**	**-0.7**
PV04	**Paradox Valley**	**25.61**	**124**	P		**P**	**22 25 24.1**	**+0.1**
PV13	**Radium Mtn., P**	**25.83**	**124**	P		**P**	**22 25 24.7**	**-1.5**
121A	**Cookes Peak, D**	**31.01**	**129**			**P**	**22 26 12.9**	**+0.6**
121A					IAmb	IAmb	22 26 21.1	
	comp=Z,6.8nm,1.1s							
U38A	**Gravette**	**34.32**	**108**	P		**P**	**22 26 41.4**	**+0.3**
TXAR	**Lajitas Array**	**35.55**	**127**	P		**P**	**22 26 55.0**	**+3.1**
	comp=Z,0.9nm,0.9s,baz=2.9,slow=5.0,SNR=4.4							
	comp=Z,0.9nm,0.9s							
TXAR	**Lajitas Array**	**35.55**	**127**	P		**P**	**22 26 53.6**	**+1.7**
PETK	**Petropavlovsk-**	**36.96**	**293**	LR		LR	22 41 15.0	
	comp=Z,37nm,19.7s,baz=77,slow=35							
MA2	**Magadan**	**36.97**	**306**	LR		LR	22 43 22.0	
	comp=Z,58nm,18.1s,baz=82,slow=38							
SFJD	**Kangerlussuaq**	**38.33**	**39**	LR		LR	22 41 48.0	
	comp=Z,93nm,20.1s,baz=314,slow=34							
TIXI	**Tiksi**	**39.15**	**330**	LR		LR	22 45 41.7	
	comp=Z,78nm,18.9s,baz=32,slow=40							
TKL	**Tuckaleechee C**	**40.60**	**98**	LR		LR	22 45 38.9	
	comp=Z,93nm,20.9s,baz=316,slow=38							
YAK	**Yakutsk**	**44.28**	**318**	LR		LR	22 47 54.7	
	comp=Z,64nm,19.4s,baz=50,slow=38							
NRIK	**Noril'sk**	**50.37**	**341**	P		**P**	**22 28 52.9**	**+1.8**
	comp=Z,2.0nm,0.4s,baz=41,slow=6.5,SNR=4.0							
NRIK					LR	LR	22 54 28.3	
	comp=Z,60nm,18.1s,baz=54,slow=41							
	comp=Z,2.0nm,0.4s							
NRIK	**Noril'sk**	**50.37**	**341**	P		**P**	**22 28 51.7**	**+0.6**
KLR	**Kul'dur**	**52.00**	**304**	LR		LR	22 51 06.1	
	comp=Z,38nm,21.9s,baz=36,slow=36							
USRK	**Ussuriysk Ar.**	**55.56**	**299**	LR		LR	22 55 19.6	
	comp=Z,31nm,19.2s,baz=9.3,slow=38							
H11N2	**WAKE ISLAND Hy**	**55.80**	**253**	T		T	23 30 16.3	
	baz=34,slow=76,SNR=435							
H11N3	**WAKE ISLAND Hy**	**55.80**	**253**	T		T	23 30 23.1	
	baz=34,slow=76,SNR=510							
H11N1	**WAKE ISLAND Hy**	**55.81**	**253**	T		T	23 30 11.7	
	baz=34,slow=76,SNR=419							
H11S1	**WAKE ISLAND Hy**	**56.91**	**252**	T		T	23 31 29.2	
	baz=33,slow=76,SNR=470							
H11S2	**WAKE ISLAND Hy**	**56.92**	**252**	T		T	23 31 37.1	
	baz=33,slow=76,SNR=421							
H11S3	**WAKE ISLAND Hy**	**56.93**	**252**	T		T	23 31 40.8	
	baz=33,slow=76,SNR=386							
NOA	**NORSAR Array B**	**59.81**	**18**	LR		LR	22 55 10.0	
	comp=Z,28nm,20.4s,baz=35,slow=35							
TLY	**Talaya**	**61.38**	**322**	LR		LR	22 59 02.0	
	comp=Z,48nm,19.7s,baz=20,slow=38							
KSRS	**Korea Array**	**62.70**	**297**	LR		LR	22 59 55.8	
	comp=Z,20nm,18.3s,baz=125,slow=38							
SONM	**Songino Array**	**63.63**	**318**	P		**P**	**22 30 28.1**	**+2.5**
	comp=Z,1.0nm,0.9s,baz=49,slow=6.8,SNR=5.5							
SONM					LR	LR	22 59 13.7	
	comp=Z,54nm,19.7s,baz=11,slow=37							
	comp=Z,1.0nm,0.9s							
SONM	**Songino Array**	**63.63**	**318**	P		**P**	**22 30 26.8**	**+1.2**
SONM					IAmb	IAmb	22 30 29.1	
	comp=Z,2.2nm,1.1s							
SJG	**San Juan**	**63.99**	**97**	LR		LR	22 59 07.7	
	comp=Z,30nm,20.4s,baz=258,slow=37							
ZALV	**Zalesovo Beam**	**64.79**	**335**	LR		LR	23 03 15.6	
	comp=Z,38nm,18.0s,baz=24,slow=40							
HHC	**Hu-ho-hao-te**	**67.44**	**311**	*eP*		**P**	**22 30 49.0**	**-1.2**
HHC					pmax	pmax		
	comp=Z,7.0nm,0.6s							
HHC					pmax	pmax		
	comp=Z,70nm,3.7s							
BVAR	**Borovoye Array**	**68.52**	**343**	P		**P**	**22 30 57.9**	**+1.2**
	comp=Z,1.1nm,0.7s,baz=0.0,slow=7.9,SNR=4.5							
	comp=Z,1.1nm,0.7s							
SDV	**Santo Domingo**	**69.19**	**106**	LR		LR	23 03 01.0	
	comp=Z,30nm,19.9s,baz=306,slow=37							
KURBB	**Kurchatov Arra**	**69.30**	**337**	P		**P**	**22 31 02.3**	**+0.7**
	comp=Z,1.4nm,1.0s,baz=23,slow=5.8,SNR=5.3							
	comp=Z,1.4nm,1.0s							
ROSC	**El Rosal**	**70.69**	**112**	LR		LR	23 10 54.7	
	comp=Z,26nm,18.3s,baz=113,slow=43							
VRAC	**Vranov**	**71.94**	**18**	LR		LR	23 03 37.5	
	comp=Z,25nm,18.9s,baz=349,slow=36							
MKAR	**Makanchi Array**	**72.03**	**333**	P		**P**	**22 31 18.1**	**-0.1**
	comp=Z,0.9nm,0.9s,baz=46,slow=5.2,SNR=4.5							
	comp=Z,0.9nm,0.9s							
MKAR	**Makanchi Array**	**72.03**	**333**	P		**P**	**22 31 17.5**	**-0.8**
GTA2	**Gaotai**	**73.26**	**318**	*eP*		**P**	**22 31 27.9**	**+2.0**
GTA2					pmax	pmax		
	comp=Z,2.0nm,0.8s							
WMQ	**Urumqi**	**73.34**	**329**	*eP*		**P**	**22 31 27.3**	**+1.1**
WMQ					sP	PcP	22 31 40.0	-2.5
WMQ					pmax	pmax		
	comp=Z,10.0nm,0.7s							
AAK	**Ala-Archa**	**77.75**	**337**	LR		LR	23 09 46.7	
	comp=Z,32nm,18.4s,baz=17,slow=38							
MDP	**Montagnes des**	**82.11**	**93**	LR		LR	23 14 22.8	
	comp=Z,21nm,18.1s,baz=295,slow=40							
LPAZ	**La Paz**	**91.88**	**117**	LR		LR	23 18 47.8	
	comp=Z,36nm,19.0s,baz=13,slow=38							
CMAR	**Changi Mai Arr**	**92.20**	**309**	LR		LR	23 19 12.7	
	comp=Z,14nm,21.3s,baz=15,slow=39							

*RSNC **23** 22:21:40.8±0.0, 7˚N±1˚×7˚3W±˚, h152km±2km, M2.6, mb4.1, ML2.3*
*FUNV **23** 22:21:40.0, 6˚.84N×73˚.07W, h170km, MW3.6, Presumed earthquake*

ISC 23 22:21:39.4±1.3, 6˚.87N±0˚.03×73˚.07W±0˚.04, h158km±8km, n33, σ1°34/62, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.29**	**202**	P	P	**Pn**	**22 22 01.5**	**+0.3**
BARC				S	S	**Sn**	**22 22 16.8**	**-1.0**
BRJC	**Barrancabermej**	**0.68**	**279**	P	P	**Pn**	**22 22 03.2**	**+0.6**
BRJC				S	S	**Sn**	**22 22 20.6**	**+0.3**
RUSC	**La Rusia**	**0.97**	**181**	P	P	**Pn**	**22 22 05.6**	**+0.3**
RUSC				S	S	**Sn**	**22 22 24.3**	**-0.7**
RUSC	**La Rusia**	**0.97**	**181**	*eP*	P	**Pn**	**22 22 05.5**	**+0.3**
RUSC				*eS*	S	**Sn**	**22 22 24.6**	**-0.4**
CAPV	**Capacho**	**1.24**	**37**	*eP*	P	**Pn**	**22 22 09.3**	**+2.0**
CAPV				*eS*	S	**Sn**	**22 22 29.6**	**+0.9**
OCAC	**Ocana**	**1.39**	**350**	P	P	**Pn**	**22 22 09.2**	**+0.6**
OCAC				S	S	**Sn**	**22 22 31.8**	**+0.7**
PTBC	**PUERTO BERRIO,**	**1.42**	**257**	P	P	**Pn**	**22 22 08.0**	**-0.7**
PTBC				S	S	**Sn**	**22 22 29.3**	**-1.9**
SPBC	**San Pablo de B**	**1.56**	**220**	P	P	**Pn**	**22 22 10.6**	**+0.3**
SPBC				S	S	**Sn**	**22 22 32.3**	**-1.8**
NORC	**Norcasia**	**2.21**	**234**	P	P	**Pn**	**22 22 17.6**	**+0.1**
NORC				S	S	**Sn**	**22 22 45.3**	**-1.5**
CHIC	**Chingaza**	**2.32**	**197**	P	P	**Pn**	**22 22 19.8**	**+0.7**
CHIC				S	S	**Sn**	**22 22 49.3**	**-0.5**
ROSC	**El Rosal**	**2.37**	**212**	P	P	**Pn**	**22 22 21.4**	**+1.7**
ROSC				S	S	**Sn**	**22 22 53.0**	**+2.2**
HELC	**Santa Helena**	**2.53**	**255**	P	P	**Pn**	**22 22 22.6**	**+0.9**
HELC				S	S	**Sn**	**22 22 56.9**	**+2.6**
HELC	**Santa Helena**	**2.53**	**255**	*eP*	P	**Pn**	**22 22 22.6**	**+0.9**
HELC				*eS*	S	**Sn**	**22 22 53.3**	**-0.9**
CVER	**Cruz Verde, Cu**	**2.54**	**203**	P	P	**Pn**	**22 22 22.6**	**+0.8**
CVER				S	S	**Sn**	**22 22 55.1**	**+0.5**
UREC	**San Jos de Ur**	**2.60**	**290**	P	P	**Pn**	**22 22 21.9**	**-0.2**
UREC				S	S	**Sn**	**22 22 52.6**	**-2.5**
GUY2C	**Guyana, Caldas**	**2.81**	**235**	P	P	**Pn**	**22 22 26.5**	**+1.4**
GUY2C				S	S	**Sn**	**22 22 59.1**	**-1.3**
PTGC	**Puerto Gaitan,**	**2.81**	**161**	P	P	**Pn**	**22 22 24.4**	**-0.3**
PTGC				S	S	**Sn**	**22 22 58.0**	**-1.9**
CBOC	**Ciudad Bolivar**	**3.09**	**251**	P	P	**Pn**	**22 22 27.1**	**+1.7**
CBOC				S	S	**Sn**	**22 23 07.7**	**+1.4**
SDV	**Santo Domingo**	**3.14**	**50**	P	P	**Pn**	**22 22 31.0**	**+2.0**
SDV				S	S	**Sn**	**22 23 09.0**	**+1.5**
SDV	**Santo Domingo**	**3.14**	**50**	*eP*	P	**Pn**	**22 22 28.7**	**-0.3**
SDV				*eS*	S	**Sn**	**22 23 05.9**	**-1.6**
PRAC	**Prado**	**3.62**	**210**	P	P	**Pn**	**22 22 35.0**	**0.0**
PRAC				S	S	**Sn**	**22 23 16.8**	**-1.4**
APAC	**Apartado, Choc**	**3.63**	**287**	P	P	**Pn**	**22 22 36.4**	**+1.3**
ORTC	**Ortega, Tolima**	**3.65**	**217**	P	P	**Pn**	**22 22 35.7**	**+0.3**
ORTC				S	S	**Sn**	**22 23 19.1**	**+0.1**
SJCC	**San Jacinto, C**	**3.66**	**325**	P	P	**Pn**	**22 22 35.2**	**-0.4**
SJCC				S	S	**Sn**	**22 23 16.8**	**-2.5**
SJCC	**San Jacinto, C**	**3.66**	**325**	*eP*	P	**Pn**	**22 22 35.2**	**-0.4**
SJCC				*eS*	S	**Sn**	**22 23 16.4**	**-2.8**
PLMC	**San Jos del P**	**3.74**	**239**	P	P	**Pn**	**22 22 37.5**	**+0.9**
PLMC				S	S	**Sn**	**22 23 23.7**	**+2.6**
URMC	**La Uribe, Meta**	**3.83**	**200**	P	P	**Pn**	**22 22 38.7**	**+1.0**
URMC				S	S	**Sn**	**22 22 22.7**	**-0.4**
CRJC	**Cerrejon, Guaj**	**4.13**	**3**	P	P	**Pn**	**22 22 41.4**	**-0.3**
CRJC				S	S	**Sn**	**22 23 29.9**	**-0.3**
GUVC	**San Jose del G**	**4.32**	**174**	P	P	**Pn**	**22 22 42.5**	**-1.5**
SOLC	**Bahia Solano**	**4.36**	**262**	P	P	**Pn**	**22 22 46.3**	**+1.8**
SOLC				S	S	**Sn**	**22 23 34.8**	**-0.5**
MACC	**Macarena, Meta**	**4.75**	**189**	P	P	**Pn**	**22 22 48.6**	**-1.2**
MACC				S	S	**Sn**	**22 23 42.3**	**-2.4**
URIC	**Uribia, Colomb**	**4.92**	**12**	P	P	**Pn**	**22 22 52.1**	**+0.2**
URIC				S	S	**Sn**	**22 23 48.7**	**+0.1**
CACAO	**El Cacao, Vera**	**7.75**	**274**	P	P	Pn	22 23 25.3	-4.1
CACAO				S	S	Sn	22 24 44.9	-11

FUNV 23 22:29:34.5, 12˚.41N×72˚.40W, h9km, MW3.8, Presumed earthquake, Near north coast of Colombia

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
URIC	**Uribia, Colomb**	**0.80**	**150**	*eP*	P	Pg	22 29 49.5	-0.5
URIC				*eS*	S	Sb	22 30 02.7	+1.1
SJCC	**San Jacinto, C**	**3.70**	**228**	*eP*	P	Pn	22 30 29.5	-2.4
SJCC				*eS*	S	Sn	22 31 10.1	-5.6
SDV	**Santo Domingo**	**3.90**	**153**	*eP*	P	Pn	22 30 32.0	-2.9
SDV				*eS*	S	Sn	22 31 15.2	-5.8
TEPV	**Terepaima**	**3.97**	**127**	*eP*	P	Pn	22 30 33.1	-2.6
CAPV	**Capacho**	**4.51**	**179**	*eP*	P	Pn	22 30 40.2	-3.1
CAPV				*eS*	S	Sn	22 31 28.2	-7.8
TURV	**Turiamo**	**4.87**	**113**	*eP*	P	Pn	22 30 44.8	-3.2
BENV	**Beln**	**5.30**	**117**	*eP*	P	Pn	22 30 51.0	-3.0

*RSNC **23** 22:29:57.3±0.0, 12˚N±4˚×7˚3W±˚, h21km±4km, M4.0, mB5.0, mb4.2, ML3.2, Mw(mB)4.3*
*FUNV **23** 22:30:03.8, 12˚.24N×72˚.23W, h26km, MW4.2, Presumed earthquake*

ISC 23 22:29:59.7±2.4, 12˚.4N±0˚.1×72˚.35W±0˚.05, h35km, n27, σ2°46/44, Near north coast of Colombia

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
URIC	**Uribia, Colomb**	**0.81**	**154**	P	P	**Pn**	**22 30 14.8**	**+0.1**
URIC				S	S	**Sn**	**22 30 28.5**	**+3.0**
URIC	**Uribia, Colomb**	**0.81**	**154**	*eP*	P	**Pn**	**22 30 15.2**	**+0.5**
CRJC	**Cerrejon, Guaj**	**1.50**	**200**	P	P	**Pn**	**22 30 22.0**	**-2.3**
CRJC				S	S	**Sn**	**22 30 42.0**	**-0.7**
SMRC	**Santa Marta, M**	**2.23**	**236**	P	P	Pn	22 30 24.1	-10
SMRC				S	S	Sn	22 30 49.0	-11
ARGC	**Ariguani, Magd**	**3.17**	**216**	P	P	**Pn**	**22 30 47.4**	**+0.3**
SJCC	**San Jacinto, C**	**3.75**	**228**	P	P	**Pn**	**22 30 52.7**	**-2.5**
SJCC				S	S	Sn	22 31 28.3	-10
SJCC	**San Jacinto, C**	**3.75**	**228**	*eP*	P	**Pn**	**22 30 58.5**	**+3.3**
SJCC				*eS*	S	**Sn**	**22 31 39.0**	**+0.9**
SDV	**Santo Domingo**	**3.92**	**154**	P	P	**Pn**	**22 30 59.0**	**+1.5**
SDV				S	S	**Sn**	**22 31 46.1**	**+3.7**
SDV	**Santo Domingo**	**3.92**	**154**	*eP*	P	**Pn**	**22 30 57.9**	**+0.4**
SDV				*eS*	S	**Sn**	**22 31 38.8**	**-3.7**
TEPV	**Terepaima**	**3.96**	**128**	*eP*	P	**Pn**	**22 30 59.7**	**+1.6**
TEPV				*eS*	S	**Sn**	**22 31 39.6**	**-3.7**
OCAC	**Ocana**	**4.28**	**193**	P	P	**Pn**	**22 30 59.7**	**-2.8**
OCAC				S	S	**Sn**	**22 31 45.3**	**-6.1**
CAPV	**Capacho**	**4.55**	**180**	*eP*	P	**Pn**	**22 31 06.8**	**+0.5**
CAPV				*eS*	S	**Sn**	**22 31 53.8**	**-4.2**
TURV	**Turiamo**	**4.85**	**114**	*eP*	P	**Pn**	**22 31 10.3**	**+0.2**
TURV				*eS*	S	**Sn**	**22 31 59.9**	**-5.2**
BENV	**Beln**	**5.28**	**117**	*eP*	P	**Pn**	**22 31 17.5**	**+1.3**
BRJC	**Barrancabermej**	**5.60**	**194**	P	P	**Pn**	**22 31 19.6**	**-1.0**
BRJC				S	S	**Sn**	**22 32 20.7**	**-3.1**
BRJC				AML	AML			
BARC	**Barichara**	**5.87**	**188**	P	P	**Pn**	**22 31 26.4**	**+2.0**
BARC				S	S	**Sn**	**22 32 32.0**	**+1.4**
BARC				AML	AML			
PTBC	**PUERTO BERRIO,** 15nm,1.1s	**6.22**	**200**	P	P	**Pn**	**22 31 29.5**	**+0.4**
PTBC				S	S	**Sn**	**22 32 38.2**	**-0.8**
	15nm,1.1s							
PTBC				AML	AML			
RUSC	**La Rusia** 533nm9.9nm,0.4s	**6.54**	**186**	P	P	**Pn**	**22 31 34.9**	**+0.9**
RUSC				S	S	**Sn**	**22 32 52.1**	**+4.4**
	533nm9.9nm,0.4s							
RUSC	**La Rusia**	**6.54**	**186**	*eP*	P	**Pn**	**22 31 33.5**	**-0.5**
HELC	**Santa Helena** 8.6nm,0.5s	**6.96**	**207**	P	P	**Pn**	**22 31 40.0**	**+0.5**
HELC				S	S	**Sn**	**22 32 55.4**	**-2.2**
	8.6nm,0.5s							
SPBC	**San Pablo de B**	**6.96**	**194**	P	P	**Pn**	**22 31 39.8**	**+0.6**
GUY2C	**Guyana, Caldas** 11nm,0.6s	**7.76**	**203**	P	P	**Pn**	**22 31 52.1**	**+1.4**
GUY2C				S	S	**Sn**	**22 33 20.1**	**+2.5**
	11nm,0.6s							
ROSC	**El Rosal**	**7.80**	**195**	P	P	**Pn**	**22 31 54.3**	**+3.2**
CHIC	**Chingaza** 14nm,0.5s	**7.88**	**190**	P	P	**Pn**	**22 31 52.1**	**-0.1**
CHIC				S	S	**Sn**	**22 33 23.4**	**+3.0**
	14nm,0.5s							
ORTC	**Ortega, Tolima** 10nm,1.1s	**8.95**	**199**	P	P	**Pn**	**22 32 07.5**	**+1.0**
PRAC	**Prado**	**9.03**	**196**	P	P	**Pn**	**22 32 07.8**	**+0.2**
PRAC				S	S	**Sn**	**22 33 50.3**	**+2.2**
URMC	**La Uribe, Meta**	**9.35**	**193**	P	P	**Pn**	**22 32 10.7**	**-1.4**
URMC				S	S	**Sn**	**22 33 56.7**	**+0.5**

*WEL **23** 22:30:30.0±0.6, 34˚S±5˚×17˚9W±1˚0, h12km, M4.7/18, mB5.3/11, ML4.6/18, MLv4.8/18, Mw(mB)4.7/11, Error ellipse: s-maj=13.4km s-min=4.4km az=110.6*
*IDC **23** 22:30:38.7±7.7, 34˚.19S×179˚.23W, h100km±67km, mb3.8/3, mbtmp4.2/4, ML4.4/1, MS3.4/17, Error ellipse: s-maj=61.7km s-min=37.8km az=20.0*
*NEIC **23** 22:30:39.7±1.6, 34˚.18S±0˚.10×179˚.4W±0˚.1, h93km±9km, mb4.3/7, Error ellipse: s-maj=21.9km s-min=3.1km az=128.0*
*NOU **23** 22:30:42.6, 34˚.32S×179˚.79W, h191km, MLv4.6/7, South of Kermadec Islands*

ISC 23 22:30:39.7±0.7, 34˚.14S±0˚.07×179˚.18W±0˚.09, h100km, n115, σ2°27/102, mb4.3/10, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID	Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**3.98**	**210**			**Pn**	**22 31 36.3**	**-2.2**
MXZ	**Matakaoa Point**	**3.98**	**210**	P	P	**Pn**	**22 31 36.4**	**-2.2**
MXZ				S	S	**Sn**	**22 32 26.0**	**+1.8**
MXZ				AML	AML	

TOZ					AML	AML		
TOZ					AML	AML		
RAHZ	**Arahi**	**5.64**	**211**	P	**Pn**	**22 32 00.7**	**-0.3**
MTHZ	**Maungataniwha**	**5.69**	**213**	P	**Pn**	**22 32 00.7**	**-1.1**
ALRZ	**Allen Road**	**5.71**	**218**	P	**Pn**	**22 32 00.1**	**-1.8**
WHHZ	**Waihua**	**5.71**	**209**	P	**Pn**	**22 32 01.5**	**-0.5**
MRHZ	**Matea Rd**	**5.88**	**216**	P	**Pn**	**22 32 03.5**	**-0.9**
NMHZ	**Naumai**	**5.91**	**212**	P	**Pn**	**22 32 03.5**	**-1.2**
ARHZ	**Aropaoanui**	**5.97**	**210**	P	**Pn**	**22 32 03.4**	**-2.0**
OUZ	**Omahuta**	**6.05**	**258**	P	**Pn**	**22 32 03.3**	**-3.3**
OUZ	**Omahuta**	**6.05**	**258**	P	**Pn**	**22 32 03.5**	**-3.0**
OUZ					AML	AML		
OUZ					AML	AML		
BKZ	**Black Stump Fm**	**6.11**	**213**	P	**Pn**	**22 32 05.3**	**-2.1**
BKZ	**Black Stump Fm**	**6.11**	**213**	P	**Pn**	**22 32 04.2**	**-3.2**
CKHZ	**Cape Kidnapper**	**6.27**	**207**	P	**Pn**	**22 32 06.4**	**-3.3**
KWHZ	**Kaweka Forest**	**6.35**	**212**	P	**Pn**	**22 32 09.7**	**-1.0**
TMVZ	**Te Maari**	**6.45**	**218**	P	**Pn**	**22 32 10.3**	**-1.8**
NTVZ	**North Tongarir**	**6.45**	**218**	P	**Pn**	**22 32 09.9**	**-2.3**
KAHZ	**Kahuranaki**	**6.47**	**208**	P	**Pn**	**22 32 08.1**	**-4.3**
HIZ	**Hauiti**	**6.50**	**226**	P	**Pn**	**22 32 10.9**	**-1.8**
HIZ	**Hauiti**	**6.50**	**226**	Pn	**Pn**	**22 32 11.1**	**-1.6**
HIZ	**Hauiti**	**6.50**	**226**	P	**Pn**	**22 32 13.2**	**+0.5**
OTVZ	**Oturere**	**6.51**	**218**	P	**Pn**	**22 32 11.4**	**-1.6**
WTVZ	**West Tongariro**	**6.51**	**219**	P	**Pn**	**22 32 11.0**	**-2.0**
SNVZ	**South Ngauruho**	**6.54**	**218**	P	**Pn**	**22 32 10.9**	**-2.5**
NGZ	**Ngauruhoe**	**6.55**	**218**	P	**Pn**	**22 32 12.3**	**-1.2**
KRHZ	**Kereru**	**6.55**	**212**	P	**Pn**	**22 32 10.6**	**-2.9**
TWVZ	**Taurewa**	**6.56**	**220**	P	**Pn**	**22 32 12.3**	**-1.3**
BHHZ	**Black Hill Sta**	**6.56**	**214**	P	**Pn**	**22 32 11.4**	**-2.3**
TUVZ	**Tukino**	**6.59**	**218**	P	**Pn**	**22 32 12.9**	**-1.2**
FWVZ	**Far West T-bar**	**6.63**	**218**	P	**Pn**	**22 32 12.8**	**-2.0**
MOVZ	**Moawhango**	**6.65**	**216**	P	**Pn**	**22 32 12.2**	**-2.6**
WNVZ	**Wahianoa**	**6.66**	**217**	P	**Pn**	**22 32 13.5**	**-1.6**
TRVZ	**Turoa**	**6.67**	**218**	P	**Pn**	**22 32 15.3**	**+0.1**
PXZ	**Pawanui**	**6.68**	**207**	P	**Pn**	**22 32 11.5**	**-3.6**
PKVZ	**Pokaka**	**6.76**	**219**	P	**Pn**	**22 32 14.7**	**-1.7**
PNHZ	**Pukenui**	**6.85**	**211**	P	**Pn**	**22 32 13.5**	**-4.0**
PRHZ	**Porangahau**	**6.97**	**207**	P	**Pn**	**22 32 15.7**	**-3.4**
DVHZ	**Dannevirke**	**7.18**	**210**	P	**Pn**	**22 32 17.6**	**-4.4**
BFZ	**Birch Farm**	**7.48**	**208**	P	Pn	22 32 20.9	-5.1
QRZ	**Quartz Range**	**9.38**	**222**	P	Pn	22 32 46.6	-5.2
CTZ	**Chatham Island**	**9.79**	**169**	P	**Pn**	**22 32 55.2**	**-2.2**
KHZ	**Kahutara**	**10.05**	**213**	P	**Pn**	**22 32 56.4**	**-4.5**
ODZ	**Otahua Downs**	**13.41**	**213**	P	Pn	22 33 40.8	-5.0
WKZ	**Wanaka**	**14.02**	**217**	Pn	**Pn**	**22 33 52.2**	**-1.6**
MSVF	**Nonsavu**	**16.52**	**351**	LR	LR	22 38 13.8	
	comp=Z,71nm,21.6s,baz=162,slow=28						
AFI	**Afiamalu**	**21.23**	**20**	LR	LR	22 42 02.7	
	comp=Z,66nm,19.7s,baz=339,slow=32						
RAR	**Rarotonga**	**21.43**	**58**	LR	LR	22 43 34.7	
	comp=Z,104nm,18.1s,baz=286,slow=36						
HNR	**Honiara**	**31.17**	**317**	LR	LR	22 48 12.1	
	comp=Z,52nm,18.1s,baz=211,slow=34						
PPT	**Papeete**	**31.18**	**66**	LR	LR	22 46 50.0	
	comp=Z,48nm,21.7s,baz=112,slow=31						
STKA	**Stephens Creek**	**32.84**	**263**	LR	LR	22 49 01.6	
	comp=Z,119nm,20.8s,baz=27,slow=34						
CTA	**Charters Tower**	**33.62**	**286**	P	**P**	**22 37 11.4**	**+0.6**
	2.6nm,0.6s,baz=93,slow=12,SNR=5.0						
CTA				LR	LR	22 49 29.2	
	comp=Z,54nm,18.3s,baz=34,slow=34						
	2.6nm,0.6s						
CTAO	**Charters Tower**	**33.62**	**286**	P	**P**	**22 37 11.5**	**+0.8**
CTAO				IAmb	IAmb	22 37 28.4	
	comp=Z,6.7nm,1.1s						
PMG	**Port Moresby**	**39.47**	**301**	LR	LR	22 51 35.0	
	comp=Z,122nm,20.9s,baz=178,slow=32						
ASAR	**Alice Springs**	**42.06**	**272**	P	**P**	**22 38 19.7**	**-2.0**
	comp=Z,1.7nm,0.8s,baz=112,slow=7.4,SNR=14						
ASAR				LR	LR	22 54 36.9	
	comp=Z,79nm,19.1s,baz=108,slow=34						
	comp=Z,1.7nm,0.8s						
WR8	**Warramunga Arr**	**43.25**	**277**	P	**P**	**22 38 30.1**	**-1.3**
WR8				IAmb	IAmb	22 38 53.8	
	comp=Z,6.4nm,1.1s						
PTCN	**Pitcairn Islan**	**43.28**	**91**	P	**P**	**22 38 33.5**	**+1.9**
WRA	**Warramunga Arr**	**43.39**	**277**	P	**P**	**22 38 30.2**	**-2.2**
	comp=Z,2.9nm,0.9s,baz=117,slow=7.7,SNR=16						
	comp=Z,2.9nm,0.9s						
WRA	**Warramunga Arr**	**43.39**	**277**	P	**P**	**22 38 30.7**	**-1.7**
WB0	**Warramunga Arr**	**43.43**	**277**	P	**P**	**22 38 30.8**	**-2.0**
WB0				IAmb	IAmb	22 38 33.3	
	comp=Z,4.1nm,0.8s						
FORT	**Forrest**	**44.24**	**259**	P	**P**	**22 38 38.6**	**-0.6**
FORT				IAmb	IAmb	22 38 50.2	
	comp=Z,5.2nm,1.0s						
VNDA	**Vanda**	**44.29**	**186**	LR	LR	22 54 07.0	
	comp=Z,36nm,18.2s,baz=302,slow=32						
FITZ	**Fitzroy Crossi**	**51.47**	**273**	LR	LR	23 00 35.5	
	comp=Z,66nm,20.2s,baz=164,slow=35						
FITZ	**Fitzroy Crossi**	**51.47**	**273**	P	**P**	**22 39 34.3**	**-0.7**
FITZ				IAmb	IAmb	22 39 47.0	
	comp=Z,0.8nm,1.1s						
QSPA	**South Pole Qui**	**55.98**	**180**	LR	LR	23 01 30.5	
	comp=Z,41nm,18.2s,baz=58,slow=33						
GUMO	**Guam**	**56.50**	**316**	LR	LR	23 04 33.3	
	comp=Z,15nm,18.3s,baz=140,slow=35						
TROLL	**Troll, Antarti**	**74.14**	**181**	P	**P**	**22 42 09.0**	**+4.1**
	comp=Z,272nm,1.1s						
SNAA	**Sanae**	**74.46**	**179**	P	**P**	**22 42 11.2**	**+4.6**
	comp=Z,42nm,0.6s						
VNA3	**Neumayer Olymp**	**74.65**	**176**	P	**P**	**22 42 11.5**	**+3.8**
	comp=Z,6.9nm,0.8s						
VNA2	**Neumayer--Watz**	**75.07**	**177**	P	**P**	**22 42 14.4**	**+4.3**
	comp=Z,6.2nm,0.7s,baz=182,slow=5.0						
VNA1	**Neumayer--Stat**	**75.31**	**177**	P	**P**	**22 42 15.1**	**+3.7**
	comp=Z,8.6nm,0.9s						
LPIG	**La Paz**	**87.34**	**59**	LR	LR	23 12 31.0	
	comp=Z,21nm,20.6s,baz=13,slow=29						
YBH	**Yreka Blue Hor**	**91.58**	**39**	LR	LR	23 21 04.8	
	comp=Z,35nm,18.5s,baz=287,slow=33						
CMIG	**Matias Romero**	**94.84**	**73**	LR	LR	23 15 21.5	
	comp=Z,14nm,20.0s,baz=82,slow=28						
ANMO	**Albuquerque**	**96.67**	**52**	LR	LR	23 17 56.0	
	comp=Z,25nm,21.3s,baz=236,slow=29						
KURBB	**Kurchatov Arra**	**122.89**	**312**	PKP	**PKPdf**	**22 49 22.0**	**-1.6**
	comp=Z,0.5nm,0.9s,baz=123,slow=1.7,SNR=5.4						
FINES	**FINESS Array B**	**148.25**	**337**	PKPbc	**PKPbc**	**22 50 12.7**	**-0.6**
	comp=Z,7.3nm,1.0s,baz=40,slow=3.2,SNR=12						
FINES	**FINESS Array B**	**148.25**	**337**		**PKPbc**	**22 50 12.2**	**-1.1**
NB2	**NORSAR Subarra**	**152.25**	**349**	PKP	**PKiKP**	**22 50 23.0**	**-0.2**
	comp=Z,2.1nm,1.2s,baz=17,slow=2.6						
NOA	**NORSAR Array B**	**152.25**	**349**	PKPbc	**PKPbc**	**22 50 22.1**	**-0.9**
	comp=Z,4.6nm,1.1s,baz=31,slow=2.0,SNR=4.6						
BRTR	**Keskin Array B**	**153.27**	**292**	PKPbc	**PKPbc**	**22 50 24.1**	**-1.9**
	comp=Z,0.3nm,0.5s,baz=106,slow=2.7,SNR=4.0						
BRTR	**Keskin Array B**	**153.27**	**292**	PKPdf	**PKPdf**	**22 50 17.0**	**-1.5**

*SDD **23** 22:36:50.9±1.8, 18°.02N×71°.45W, h12km±17km, MD3.3, ML3.4, MW3.5, Presumed earthquake*
*OSPL **23** 22:36:53.2±1.3, 18°.20N×71°.36W, h4km±3km, ML3.3, Presumed earthquake*
ISC 23 22:36:52.0±0.9, 18°.15N±0°.03×71°.40W±0°.03, h9km±6km, n23, σ0°.84/32, 5C-6D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.11**	**80**	*eP*	**Pg**	**22 36 54.7**	**-0.1**
PODR				⇓*eS*	**Sg**	**22 36 57.4**	**+0.6**
PODR				IAML		22 36 58.4	
	comp=N,25μm,0.3s						
PODR				IAML		22 37 00.2	
	comp=E,24μm,0.4s						
PODR	**Polo**	**0.11**	**80**	*i* P	**Pg**	**22 36 54.7**	**-0.1**
PODR				*eS*	**Sg**	**22 36 56.6**	**-0.1**
PODR				IAML		22 36 58.4	
	comp=Z,243μm,0.3s						
LODU1	**El Espartillar**	**0.22**	**340**	*i* P	**Pg**	**22 36 56.1**	**-0.4**
LODU1				*eS*	**Sg**	**22 36 59.2**	**-0.2**
LODU1				IAML		22 37 00.4	
	comp=Z,17μm,0.7s						
NEDR	**Neiba UASD**	**0.33**	**356**	⇑*eP*	**Pg**	**22 36 58.9**	**+0.3**
NEDR				⇑*eSg*	**Sb**	**22 37 05.8**	**+0.1**
NEDR				IAML		22 37 05.9	
	comp=E,4μm,0.7s						
NEDR				IAML		22 37 07.2	
	comp=N,8μm,0.3s						
LOVI	**El Cajuil, Ovi**	**0.35**	**176**	*i* P	**Pb**	**22 36 59.9**	**-0.5**
LOVI				IAML		22 37 12.5	
	comp=Z,3μm,0.7s						
LOBH	**Bahia de las A**	**0.37**	**219**	*i* P	**Pb**	**22 37 00.4**	**-0.3**
LOBH				*eS*	**Sb**	**22 37 06.8**	**+0.2**
LOBH				IAML		22 37 12.2	
	comp=Z,3μm,0.7s						
LONE3	**El Aguacate, B**	**0.46**	**353**	*i* P	**Pg**	**22 37 01.0**	**0.0**
LONE3				IAML		22 37 10.9	
	comp=Z,5μm,0.6s						
JIDR	**Jimani**	**0.55**	**308**	⇓*eP*	**Pg**	**22 37 02.8**	**+0.1**
JIDR				IAML		22 37 15.3	
	comp=E,3μm,0.9s						
JIDR				IAML		22 37 17.8	
	comp=N,2μm,0.5s						
SDDR	**Presa de Saban**	**0.84**	**7**	⇓*eP*	**Pg**	**22 37 07.0**	**-1.2**
SDDR				IAML		22 37 23.7	
	comp=N,460nm,0.3s						
SDDR				IAML		22 37 24.0	
	comp=E,402nm,0.5s						
SDDR	**Presa de Saban**	**0.84**	**7**	*i* P	**Pg**	**22 37 07.0**	**-1.2**
SDDR				*eS*	**Sg**	**22 37 17.8**	**-1.3**
SDDR				IAML		22 37 20.4	
	comp=Z,317nm,0.6s						
ABDR	**Alto Bandera**	**0.98**	**48**	*eP*	**Pg**	**22 37 10.2**	**-0.8**
ABDR				IAML		22 37 29.2	
	comp=N,529nm,0.3s						
REDR	**Restauracion**	**1.01**	**0**	*eP*	**Pb**	**22 37 12.5**	**+0.8**
REDR				IAML		22 37 29.3	
	comp=E,420nm,0.3s						
REDR				IAML		22 37 29.8	
	comp=N,671nm,0.2s						
BANI	**BANI**	**1.01**	**76**	⇓*eP*	**Pg**	**22 37 10.8**	**-0.8**
BANI				IAML		22 37 27.1	
	comp=E,510nm,0.6s						
BANI				IAML		22 37 30.6	
	comp=N,986nm,0.7s						
LGNH	**Logne**	**1.21**	**288**	*i* P	**Pb**	**22 37 14.5**	**-0.5**
LGNH				*eS*	**Sn**	**22 37 32.0**	**+0.5**
SC01	**Santiago de lo**	**1.42**	**26**	⇓*eSg*	**Sb**	**22 37 38.2**	**+1.2**
SC01				IAML		22 37 41.6	
	comp=E,346nm,0.8s						
SC01				IAML		22 37 46.3	
	comp=N,247nm,1.1s						
SC01	**Santiago de lo**	**1.42**	**26**	*i* P	**Pn**	**22 37 16.5**	**-1.6**
MADR	**Mao Valverde**	**1.44**	**11**	*ePg*	**Pn**	**22 37 16.6**	**+0.4**
MADR				⇑*eSg*	**Sn**	**22 37 37.7**	**+0.4**
MADR				IAML		22 37 41.1	
	comp=N,838nm,0.6s						
MADR				IAML		22 37 45.8	
	comp=E,651nm,0.3s						
SDD	**Santo Domingo**	**1.44**	**77**	*i* P	**Pn**	**22 37 17.7**	**-0.6**
SDD				IAML		22 37 49.5	
	comp=Z,142nm,0.8s						
SFDR	**San Fco. de Ma**	**1.57**	**44**	⇓*eSg*	**Sb**	**22 37 42.9**	**+1.6**
SFDR				IAML		22 37 44.4	
	comp=N,815nm,0.5s						
SFDR				IAML		22 37 47.9	
	comp=E,753nm,0.5s						
LOPP1	**Punta Rusia, P**	**1.71**	**6**	*i* P	**Pn**	**22 37 22.4**	**+0.4**
LOPP1				IAML		22 37 49.4	
	comp=Z,262nm,0.7s						
HATOM	**Hato Mayor del**	**2.02**	**71**	⇓*ePg*	**Pn**	**22 37 26.8**	**+0.5**
HATOM				⇑*eSg*	**Sb**	**22 37 54.6**	**+0.5**
HATOM				IAML		22 37 55.6	
	comp=N,107nm,0.9s						
HATOM				IAML		22 37 56.0	
	comp=E,98nm,0.4s						
SMDR	**Samana, DR**	**2.38**	**61**	*ePg*	**Pb**	**22 37 34.2**	**-0.9**
SMDR				IAML		22 38 14.1	
	comp=E,142nm,0.7s						
SMDR				IAML		22 38 19.5	
	comp=N,132nm,0.7s						
HIDR	**Higuey Centro**	**2.58**	**80**	*ePg*	**Pn**	**22 37 35.9**	**+1.8**
HIDR				IAML		22 38 17.0	
	comp=N,86nm,0.6s						

*IDC **23** 22:53:19.5±1.3, 55°.18N×158°.44W, h0km, mb3.6/6, mbtmp3.5/9, ML3.4/3, Error ellipse: s-maj=30.8km s-min=16.8km az=163.0*
*NEIC **23** 22:53:20.6±1.2, 54°.89N±0°.04×158°.21W±0°.05, h17km±5km, mb3.9/6, ML3.7/36, ML3.7(AEIC), Error ellipse: s-maj=5.8km s-min=3.1km az=154.0*
*AEIC **23** 22:53:22.6±1.1, 54°.83N±0°.07×158°.24W±0°.09, h38km±7km, Error ellipse: s-maj=11.4km s-min=6.4km az=155.0*
ISC 23 22:53:20.6±1.5, 54°.92N±0°.06×158°.24W±0°.04, h15km±10km, n104, σ1°.14/116, mb3.6/6, South of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.79**	**264**		**Pg**	**22 53 36.1**	**+0.3**
CNBA					**Sg**	**22 53 46.5**	**+0.3**
CNBA				IAML		22 53 50.2	
	comp=N,2μm,0.4s						
VNSG	**Veniaminof 6**	**1.31**	**339**		**Pn**	**22 53 44.4**	**+0.1**
SDPT	**Sand Point**	**1.36**	**290**		**Pn**	**22 53 44.5**	**-0.4**
SDPT					**Sn**	**22 54 01.2**	**-1.5**
SDPT				IAML		22 54 09.0	
	comp=N,1μm,1.0s						
SDPT				IAML		22 54 10.6	
	comp=E,734nm,0.9s						
CHGN	**Chignik**	**1.39**	**356**	Pn	**Pn**	**22 53 44.6**	**-0.8**
CHGN				IAML		22 54 11.9	
	comp=N,2μm,0.6s						
CHGN	**Chignik**	**1.39**	**356**		**Sb**	**22 54 04.1**	**+0.3**
VNWF	**Veniaminof 8**	**1.45**	**329**		**Pb**	**22 53 47.0**	**-0.3**
VNWF					**Sb**	**22 54 06.0**	**+0.4**
VNSS	**Veniaminof 8**	**1.48**	**333**		**Pb**	**22 53 47.8**	**-0.1**
VNFG	**Fog Glacier, M**	**1.56**	**332**		**Pb**	**22 53 48.9**	**-0.3**
VNFG					**Sn**	**22 54 08.6**	**+0.7**
CHIR	**Chirikof Islan**	**1.75**	**58**	Pn	**Pn**	**22 53 49.9**	**-0.4**
CHIR				IAML		22 54 26.6	
	comp=E,600nm,0.8s						
CHIR				IAML		22 54 29.6	
	comp=N,549nm,0.9s						
PS1A	**Pavlof South-1**	**2.08**	**286**		**Pn**	**22 53 54.5**	**-0.3**
PS1A					**Sn**	**22 54 21.4**	**+1.1**
PVV	**Pavlof Volcano**	**2.09**	**284**		**Pn**	**22 53 55.0**	**-0.1**
DOL	**Dolgoi Island**	**2.10**	**278**		**Pn**	**22 53 54.7**	**-0.5**
DOL					**Sn**	**22 54 20.9**	**-0.2**
PS4A	**Pavlof South-4**	**2.12**	**283**		**Pn**	**22 53 55.1**	**-0.4**
PS4A					**Sn**	**22 54 21.2**	**-0.4**
PN7A	**Pavlof North-7**	**2.22**	**285**		**Pn**	**22 53 56.3**	**-0.6**
PN7A					**Pb**	**22 53 56.6**	**-3.7**
PN7A					**Sn**	**22 54 25.4**	**+1.4**
DTNA	**Dutton South F**	**2.32**	**277**		**Pn**	**22 53 58.3**	**+0.1**
DTNA					**Sn**	**22 54 25.6**	**-0.9**
S12K	**Black Hills**	**2.33**	**291**	Pn	**Pn**	**22 53 58.3**	**0.0**
S12K				IAML		22 54 37.5	
	comp=N,747nm,0.6s						
DT1	**Dutton Round H**	**2.34**	**276**		**Pn**	**22 53 58.1**	**-0.3**
DT1					**Sn**	**22 54 26.4**	**-0.4**
SII	**Sitkinak Islan**	**2.82**	**53**	Pn	**Pn**	**22 54 05.1**	**0.0**
SII				IAML		22 54 58.6	
	comp=E,337nm,1.2s						
SII				IAML		22 55 02.9	
	comp=N,443nm,0.9s						
ISLZ	**Isanotski Laza**	**3.17**	**269**		**Pn**	**22 54 10.2**	**+0.3**
ISNN	**Isanotski Nort**	**3.20**	**271**		**Pn**	**22 54 11.1**	**+0.7**
OHAK	**Old Harbor**	**3.61**	**48**		**Pn**	**22 54 15.8**	**-0.1**
WESP	**Westdahl Peak**	**3.79**	**266**		**Pn**	**22 54 19.1**	**+0.7**
WECS	**Westdahl Cape**	**3.81**	**267**	Pn	**Pn**	**22 54 18.6**	**-0.1**
P16K	**Nushagak River**	**4.13**	**2**	Pn	**Pn**	**22 54 25.2**	**+2.2**
KDAK	**Kodiak Island**	**4.26**	**45**	Pn	**Pn**	**22 54 24.4**	**-0.4**
	comp=N,1.5nm,0.3s,baz=214,slow=3.0,SNR=8.2						
KDAK				Sn	**Sn**	**22 55 09.2**	**-4.9**
	comp=N,2.2nm,0.3s,baz=262,slow=15,SNR=3.8						
	comp=N,11nm,0.8s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**4.26**	**45**	Pn	**Pn**	**22 54 24.6**	**-0.2**
O15K	**Ungalikthiuk R**	**4.36**	**349**	Pn	**Pn**	**22 54 26.6**	**+0.4**
O15K				IAML		22 55 53.0	
	comp=N,55nm,0.9s						
O15K				IAML		22 55 53.0	
	comp=E,65nm,1.1s						
AKUT	**Akutan**	**4.46**	**263**	Pn	**Pn**	**22 54 26.1**	**-1.5**
AKUT				IAML		22 55 34.0	
	comp=E,64nm,0.9s						
AKUT				IAML		22 56 53.9	
	comp=N,70nm,1.2s						
AHB	**Akutan Harbor**	**4.49**	**263**		**Pn**	**22 54 28.5**	**+0.5**
ZRO	**Akutan Zero**	**4.59**	**263**		**Pn**	**22 54 29.9**	**+0.6**
O14K	**Tigyukauivet M**	**4.65**	**340**		**Pn**	**22 54 30.6**	**+0.4**
O14K				IAML		22 55 59.8	
	comp=E,40nm,0.7s						
O14K				IAML		22 56 05.6	
	comp=N,36nm,0.9s						
O16K	**Kokwok River B**	**4.69**	**1**	Pn	**Pn**	**22 54 30.2**	**-0.5**
Q19K	**Cape Douglas,**	**4.74**	**30**	Pn	**Pn**	**22 54 32.5**	**+1.0**
UNV	**Unalaska Valle**	**4.95**	**261**	Pn	**Pn**	**22 54 33.1**	**-1.2**
MNAT	**Makushin Natee**	**5.04**	**262**		**Pn**	**22 54 35.1**	**-0.5**
N14K	**Kuskokwak Cree**	**5.36**	**341**	Pn	**Pn**	**22 54 40.4**	**+0.5**
N14K				IAML		22 57 20.7	
	comp=N,48nm,1.2s						
N15K	**Kwethluk River**	**5.36**	**350**	Pn	**Pn**	**22 54 40.7**	**+0.8**
N15K				IAML		22 56 15.1	
	comp=N,32nm,0.8s						
N15K				IAML		22 56 17.2	
	comp=E,44nm,0.9s						
N16K	**Nishlik Lake**	**5.58**	**357**		**Pn**	**22 54 44.0**	**+1.1**
N17K	**Nushagak Hills**	**5.66**	**5**	Pn	**Pn**	**22 54 45.9**	**+1.9**
ILSW	**Iliamna Southw**	**5.78**	**26**	Pn	**Pn**	**22 54 46.5**	**+0.7**
N18K	**Kilae Creek**	**5.92**	**11**	Pn	**Pn**	**22 54 48.0**	**+0.5**
M15K	**Kasigluk River**	**5.94**	**348**			**22 54 48.0**	**+0.2**
CNPM	**China Poot**	**5.98**	**37**	Pn	**Pn**	**22 54 48.5**	**+0.1**
M16K	**Timber Creek**	**6.14**	**357**			**22 54 51.9**	**+1.3**
M13K	**Dall Lake**	**6.16**	**336**	Pn	**Pn**	**22 54 49.9**	**-0.9**
M14K	**Bethel**	**6.18**	**343**		**Pn**	**22 54 51.5**	**+0.4**
N19K	**Bonanza Creek**	**6.24**	**17**	Pn	**Pn**	**22 54 51.9**	**-0.2**
RED	**Redoubt Volcan**	**6.25**	**26**	Pn	**Pn**	**22 54 53.5**	**+1.4**
BRLK	**Bradley Lake**	**6.28**	**36**	Pn	**Pn**	**22 54 51.6**	**-1.0**
M17K	**Holitna River**	**6.52**	**3**	Pn	**Pn**	**22 54 56.2**	**+0.4**
L16K	**Owhat River**	**6.85**	**355**		**Pn**	**22 55 00.9**	**+0.6**
L14K	**Kuka Creek**	**6.86**	**342**		**Pn**	**22 55 00.0**	**-0.4**
L15K	**Ungalak Mounta**	**6.99**	**347**		**Pn**	**22 55 02.1**	**-0.2**
SEW	**Seward**	**7.03**	**39**	Pn	**Pn**	**22 55 03.4**	**+0.7**
L17K	**Donlin**	**7.24**	**360**		**Pn**	**22 55 06.0**	**+0.2**
L18K	**Granite Mounta**	**7.37**	**6**	Pn	**Pn**	**22 55 09.5**	**+2.0**
STLK	**Strandline Lak**	**7.41**	**24**	Pn	**Pn**	**22 55 08.8**	**+0.7**
M20K	**Styx River**	**7.48**	**19**	Pn	**Pn**	**22 55 08.7**	**-0.4**
L19K	**White Mountain**	**7.50**	**12**	Pn	**Pn**	**22 55 08.8**	**-0.5**
K15K	**Wolf Creek Mou**	**7.60**	**348**	Pn	**Pn**	**22 55 11.4**	**+0.8**
RC01	**Rabbit Creek A**	**7.66**	**33**	Pn	**Pn**	**22 55 12.3**	**+0.9**
SUA	**Susitna One**	**7.66**	**28**	Pn	**Pn**	**22 55 13.4**	**+1.9**
K13K	**Kusilvak Mount**	**7.80**	**337**		**Pn**	**22 55 13.6**	**+0.2**
K17K	**Iditarod**	**7.83**	**360**	Pn	**Pn**	**22 55 13.9**	**+0.2**
SKT	**Skwentna**	**7.90**	**24**	Pn	**Pn**	**22 55 15.2**	**+0.3**
L20K	**Farewell, AK**	**7.92**	**15**	Pn	**Pn**	**22 55 15.8**	**+0.9**
PWL	**Port Wells**	**7.95**	**37**	Pn	**Pn**	**22 55 15.9**	**+0.4**
J14K	**Nanvaranak Lak**	**8.32**	**343**	Pn	**Pn**	**22 55 20.5**	**0.0**
J16K	**Anvik River**	**8.48**	**353**		**Pn**	**22 55 22.9**	**+0.2**
J17K	**VABM Dome**	**8.52**	**357**	Pn	**Pn**	**22 55 23.9**	**+0.7**
PPLA	**Purkeypile**	**8.59**	**19**	Pn	**Pn**	**22 55 24.9**	**+0.6**
I17K	**Unalakleet**	**9.09**	**353**		**Pn**	**22 55 32.1**	**+1.1**
CAST	**Castle Rocks**	**9.09**	**18**	Pn	**Pn**	**22 55 30.8**	**-0.3**
KLU	**Klutina**	**9.24**	**40**	Pn	**Pn**	**22 55 34.4**	**+1.1**
GLB	**Gilahina Butte**	**10.02**	**43**	Pn	**Pn**	**22 55 42.7**	**-1.2**
H17K	**Granite Mounta**	**10.09**	**356**	Pn	**Pn**	**22 55 46.1**	**+1.4**
G16K	**Koyuk River**	**10.71**	**351**	Pn	**Pn**	**22 55 54.1**	**+1.0**
K24K	**Donnelly Dome**	**10.92**	**30**	Pn	**Pn**	**22 55 57.2**	**+1.1**
F15K	**North Star Dit**	**11.28**	**346**	Pn	**Pn**	**22 56 00.8**	**-0.1**
ILAR	**Eielson Array**	**11.39**	**25**	Pn	**Pn**	**22 55 59.2**	**-3.3**
	comp=E,0.1nm,0.3s,baz=219,slow=13,SNR=7.7						
	comp=E,0.3nm,0.5s						
ILAR				AML	AML		
J25K	**Salcha River,**	**11.66**	**28**	Pn	**Pn**	**22 56 06.0**	**-0.2**
F19K	**Shaleruckit Mo**	**11.96**	**1**	Pn	**Pn**	**22 56 12.7**	**+2.4**
D19K	**Kuna River**	**13.63**	**0**	Pn	**Pn**	**22 56 35.7**	**+2.6**
E24K	**Your Creek**	**13.97**	**15**	Pn	**Pn**	**22 56 39.1**	**+1.4**
D22K	**Ayikyak River**	**14.25**	**8**	Pn	**Pn**	**22 56 40.9**	**-0.6**
TOLK	**Tolik Lake Re**	**14.35**	**13**		**P**	**22 56 48.3**	**-1.6**
D23K	**Nanushuk River**	**14.52**	**11**	P	**P**	**22 56 51.1**	**-0.7**
N32M	**Quiet Lake**	**14.65**	**55**	P	**P**	**22 56 54.4**	**+1.0**
H29M	**Whitestone**	**14.86**	**32**	P	**P**	**22 56 56.7**	**+1.0**
I30M	**Mount Dempster**	**14.93**

STKA	**Stephens Creek**	**39.12**	**160**	P	**P**	**23 03 28.1**	**+0.4**
EVN	**Everest**	**44.63**	**305**	P	**P**	**23 04 11.4**	**-2.2**
EVN				IAmb	IAmb	23 04 27.4	
	comp=Z,2.4nm,0.6s						
ULN	**Ulaanbaatar**	**46.10**	**341**	P	P	23 04 22.1	-2.3
ULN				IAmb	IAmb	23 04 29.1	
	comp=Z,2.2nm,0.8s						
SONM	**Songino Array**	**46.29**	**341**	P	**P**	**23 04 25.0**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=158,slow=7.0,SNR=5.3						
SONM				PcP	**PcP**	**23 05 59.1**	**-1.7**
	comp=Z,0.9nm,0.7s,baz=155,slow=5.5,SNR=6.5						
	comp=Z,0.6nm,0.5s						
PETK	**Petropavlovsk-**	**54.14**	**22**	P	P	23 05 21.6	-3.4
	comp=Z,7.3nm,0.9s,baz=270,slow=8.6,SNR=3.7						
	comp=Z,7.3nm,0.9s						
PDGK	**Podgornoye**	**56.76**	**320**	P	**P**	**23 05 42.6**	**-1.7**
MKAR	**Makanchi Array**	**56.81**	**325**	P	P	23 05 41.5	-3.0
	comp=Z,0.7nm,0.4s,baz=118,slow=7.3,SNR=22						
	comp=Z,0.7nm,0.4s						
MKAR	**Makanchi Array**	**56.81**	**325**	P	P	23 05 41.0	-3.4
MAKZ	**Makanchi**	**57.00**	**324**	P	P	23 05 43.2	-2.6
MAKZ				IAmb	IAmb	23 06 06.6	
	comp=Z,2.0nm,1.1s						
ZALV	**Zalesovo Beam**	**59.70**	**333**	P	P	23 06 02.2	-2.2
KURBB	**Kurchatov Array**	**60.95**	**327**	P	P	23 06 10.4	-2.6
	comp=Z,1.0nm,0.5s,baz=128,slow=6.5,SNR=19						
	comp=Z,1.0nm,0.5s						
KURK	**Kurchatov**	**60.95**	**327**	P	**P**	**23 06 11.2**	**-1.9**
KURK				IAmb	IAmb	23 06 17.9	
	comp=Z,2.5nm,0.6s						
BVAR	**Borovoye Array**	**66.54**	**327**	P	**P**	**23 06 47.8**	**-2.1**
	comp=Z,1.6nm,0.6s,baz=137,slow=8.1,SNR=7.3						
	comp=Z,1.6nm,0.6s						
AB31	**Akbulak array**	**71.49**	**320**	P	P	23 07 18.2	-2.5
AB31				IAmb	IAmb	23 07 22.0	
	comp=Z,1.6nm,0.8s						
D19K	**Kuna River**	**79.83**	**21**	P	**P**	**23 08 07.0**	**-1.1**
D19K				IAmb	IAmb	23 08 08.6	
	comp=Z,4.6nm,1.1s						
D22K	**Ayikyak River**	**81.85**	**21**	P	**P**	**23 08 18.1**	**-0.8**
VNDA	**Vanda**	**84.58**	**173**	P	**P**	**23 08 32.3**	**-0.4**
	comp=Z,1.0nm,0.9s,baz=312,slow=5.4,SNR=6.8						
	comp=Z,1.0nm,0.9s						
VNDA	**Vanda**	**84.58**	**173**	P	**P**	**23 08 31.8**	**-0.9**
VNDA				IAmb	IAmb	23 08 33.9	
	comp=Z,1.6nm,1.0s						
ARCES	**ARCESS Array B**	**89.46**	**340**	P	P	23 08 54.0	-2.5
	comp=Z,4.5nm,0.9s,baz=80,slow=6.2,SNR=8.5						
	comp=Z,4.5nm,0.9s						
ARCES	**ARCESS Array B**	**89.46**	**340**	P	P	23 08 53.3	-3.2
FINES	**FINESS Array B**	**90.97**	**332**	P	P	23 09 00.6	-3.2
	comp=Z,1.4nm,0.6s,baz=80,slow=2.3,SNR=8.9						
FINES				LR	LR	23 56 58.7	
	comp=Z,35nm,18.5s,baz=169,slow=40						
	comp=Z,1.4nm,0.6s						

*GCG **23** 23:13:16.7±2.0, 15.64N×90.00W, h6km±10km, MD4.6, ML4.6, Presumed earthquake*
*CATAC **23** 23:13:17.4±0.3, 16.2°×9.0W±., h1km, M3.9/14, MLv3.9/14, Error ellipse: s-maj=3.3km s-min=3.0km az=25.5, confirmed*
ISC 23 23:13:16.3±1.3, 15.68N±0.03×89.96W±0.03, h0km±11km, n28, σ0 95/47, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
AVCB	**Coban**	**0.48**	**244**	*i* P		**Pg**	**23 13 24.5**	**-0.9**
PETF	**Flores**	**1.23**	**4**	P		**Pg**	**23 13 39.8**	**-0.1**
PETF				S		**Sb**	**23 13 57.9**	**+1.0**
PETF	**Flores**	**1.23**	**4**	*i* P		**Pg**	**23 13 39.6**	**-0.3**
PETF				*i* S		**Sg**	**23 13 56.9**	**+0.9**
PETF				IAML			23 13 59.2	
	comp=E,12μm,0.5s							
ESQI	**Esquipulas**	**1.26**	**152**	P		**Pg**	**23 13 39.9**	**-0.6**
ESQI				S		**Sg**	**23 13 57.3**	**+0.4**
IZABA	**Izabal, Puerto**	**1.33**	**88**	P		**Pn**	**23 13 39.9**	**-2.1**
IZABA				S		**Sg**	**23 14 00.1**	**+1.2**
JUAM	**Asuncion Mita**	**1.36**	**170**	*i* P		**Pn**	**23 13 41.4**	**-1.1**
MTO3	**Montecristo**	**1.40**	**155**	P		**Pn**	**23 13 42.1**	**-1.1**
MTO3				S		**Sg**	**23 14 01.5**	**+0.2**
MTO3	**Montecristo**	**1.40**	**155**	*i* P		**Pn**	**23 13 41.9**	**-1.3**
SARH	**Santa Rosa de**	**1.47**	**128**	P		**Pn**	**23 13 43.1**	**-0.9**
SARH				S		**Sg**	**23 14 04.5**	**+1.1**
SARH	**Santa Rosa de**	**1.47**	**128**	*i* P		**Pn**	**23 13 42.8**	**-1.2**
SARH				*i* S		**Sb**	**23 14 03.4**	**-0.2**
HUEH	**Huehuetenango**	**1.53**	**257**	S		**Sg**	**23 14 07.3**	**+1.9**
HUEH	**Huehuetenango**	**1.53**	**257**	*i* P		**Pn**	**23 13 44.2**	**-0.9**
HUEH				*i* S		**Sn**	**23 14 05.3**	**-0.5**
HUEH				IAML			23 14 14.6	
	comp=N,8μm,0.9s							
SLOZ	**Alcaldia de Sa**	**1.65**	**174**	P		**Pn**	**23 13 46.4**	**-0.1**
LOAL	**Lomas de Alarc**	**1.68**	**174**	P		**Pn**	**23 13 46.9**	**-0.1**
LOAL				S		**Sb**	**23 14 10.1**	**+0.3**
QUEO	**Labor Ovalle**	**1.70**	**242**	*i* P		**Pn**	**23 13 46.7**	**-0.7**
QUEO				IAML			23 14 21.3	
	comp=E,5μm,0.5s							
UNIC	**Universidad Ca**	**1.73**	**167**	P		**Pn**	**23 13 47.6**	**-0.1**
UNIC				S		**Sb**	**23 14 11.3**	**-0.1**
NUBE	**Las Nubes**	**1.77**	**174**	P		**Pn**	**23 13 49.0**	**+0.7**
NUBE	**Las Nubes**	**1.77**	**174**	*i* P		**Pn**	**23 13 47.8**	**-0.6**
NUBE				*i* S		**Sb**	**23 14 12.1**	**-0.5**
STG8	**El Palmar, Qui**	**1.82**	**228**	*i* P		**Pn**	**23 13 48.8**	**-0.2**
FAME	**Alcaldia de Sa**	**1.83**	**182**	P		**Pn**	**23 13 49.5**	**+0.6**
FAME				S		**Sg**	**23 14 14.8**	**-0.2**
CEVE	**Cerro Verde**	**1.87**	**170**	P		**Pn**	**23 13 50.6**	**+0.9**
CEVE				S		**Sb**	**23 14 15.3**	**-0.1**
CEDA	**San Andres**	**1.94**	**164**	S		**Sn**	**23 14 16.4**	**+0.7**
RTAL	**Retalhuleu**	**2.03**	**236**	P		**Pn**	**23 13 53.0**	**+1.3**
RTAL				S		**Sg**	**23 14 21.1**	**-0.5**
PMON	**Piamonte**	**2.05**	**162**	P		**Pn**	**23 13 53.4**	**+1.3**
PMON				S		**Sb**	**23 14 20.6**	**0.0**
CCIG	**Comitan**	**2.18**	**286**	*i* P		**Pn**	**23 13 52.7**	**-1.2**
CCIG				*i* S		**Sn**	**23 14 22.1**	**+0.4**
PAVA	**Las Pavas**	**2.19**	**153**	P		**Pn**	**23 13 55.0**	**+1.0**
PAVA				S		**Sb**	**23 14 25.9**	**+1.3**
COEG	**Centro de Oper**	**2.30**	**153**	P		**Pn**	**23 13 57.2**	**+1.7**
COEG				S		**Sb**	**23 14 27.1**	**-0.6**
TECO	**Alcaldia de Te**	**2.42**	**152**	P		**Pn**	**23 13 58.6**	**+1.5**
TECO				S		**Sb**	**23 14 30.0**	**-0.9**

*GCG **23** 23:27:05.4±2.4, 15.54N×90.22W, h6km±12km, MD4.3, ML4.2, MW3.4, Presumed earthquake*
*CATAC **23** 23:27:06.7±0.3, 16.2°×9.0W±., h2km±2km, M3.9/15, MLv3.9/15, Error ellipse: s-maj=3.7km s-min=3.2km az=178.4, confirmed*
ISC 23 23:27:05.0±1.4, 15.56N±0.03×90.24W±0.03, h0km±12km, n28, σ0 98/39, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
AVCB	**Coban**	**0.18**	**241**	*i* P		**Pg**	**23 27 08.2**	**-0.3**
HUEH	**Huehuetenango**	**1.24**	**259**	S		**Sb**	**23 27 47.3**	**+1.3**
HUEH	**Huehuetenango**	**1.24**	**259**	*i* P		**Pg**	**23 27 27.6**	**-1.2**
HUEH				IAML			23 27 52.6	
	comp=N,4μm,0.4s							
ESQI	**Esquipulas**	**1.32**	**139**	P		**Pg**	**23 27 29.9**	**-0.4**
ESQI				S		**Sn**	**23 27 48.7**	**-0.3**
JUAM	**Asuncion Mita**	**1.32**	**157**	*i* P		**Pg**	**23 27 29.3**	**-1.0**
FG8	**Yepocapa, Chim**	**1.33**	**194**	*i* P		**Pg**	**23 27 29.7**	**-0.7**
FG8				*i* S		**Sg**	**23 27 46.9**	**-0.8**
PETF	**Flores**	**1.40**	**15**	P		**Pn**	**23 27 32.1**	**+0.3**
PETF				S		**Sb**	**23 27 50.9**	**+0.5**
PETF	**Flores**	**1.40**	**15**	*i* P		**Pn**	**23 27 31.6**	**-0.2**
PETF				*i* S		**Sb**	**23 27 49.2**	**-1.1**
PETF				IAML			23 27 55.2	
	comp=E,4μm,0.4s							
QUEO	**Labor Ovalle**	**1.41**	**241**	IAML			23 28 01.8	
	comp=E,3μm,0.5s							
MTO3	**Montecristo**	**1.43**	**143**	P		**Pn**	**23 27 31.5**	**-0.9**
MTO3				S		**Sn**	**23 27 52.4**	**+0.3**
MTO3	**Montecristo**	**1.43**	**143**	*i* P		**Pn**	**23 27 31.1**	**-1.3**
STG8	**El Palmar, Qui**	**1.54**	**224**	*i* P		**Pn**	**23 27 33.0**	**-0.8**
SLOZ	**Alcaldia de Sa**	**1.58**	**164**	P		**Pn**	**23 27 34.5**	**+0.2**
IZABA	**Izabal, Puerto**	**1.60**	**84**	P		**Pg**	**23 27 36.5**	**+0.7**
IZABA				S		**Sg**	**23 27 57.5**	**+0.9**
LOAL	**Lomas de Alarc**	**1.61**	**164**	P		**Pn**	**23 27 35.2**	**+0.5**
SARH	**Santa Rosa de**	**1.63**	**118**	P		**Pn**	**23 27 34.4**	**-0.6**
SARH				S		**Sg**	**23 27 58.6**	**+1.2**
SARH	**Santa Rosa de**	**1.63**	**118**	*i* P		**Pn**	**23 27 34.2**	**-0.8**
SARH				*i* S		**Sn**	**23 27 54.2**	**-2.5**
UNIC	**Universidad Ca**	**1.70**	**157**	P		**Pn**	**23 27 36.3**	**+0.3**
UNIC				S		**Sb**	**23 27 59.7**	**+0.5**
NUBE	**Las Nubes**	**1.70**	**165**	P		**Pn**	**23 27 36.4**	**+0.3**
NUBE				S		**Sg**	**23 27 59.9**	**+0.1**
NUBE	**Las Nubes**	**1.70**	**165**	*i* P		**Pn**	**23 27 35.7**	**-0.4**
FAME	**Alcaldia de Sa**	**1.72**	**173**	P		**Pn**	**23 27 36.8**	**+0.7**
FAME				S		**Sb**	**23 28 00.2**	**+0.6**
RTAL	**Retalhuleu**	**1.74**	**234**	P		**Pn**	**23 27 37.7**	**+1.3**
RTAL				S		**Sb**	**23 28 01.5**	**+1.3**
CEVE	**Cerro Verde**	**1.82**	**161**	P		**Pn**	**23 27 38.7**	**+0.9**
CCIG	**Comitan**	**1.96**	**292**	*i* P		**Pn**	**23 27 40.4**	**+0.7**
JAYA	**Jayaque - finc**	**2.04**	**158**	P		**Pn**	**23 27 42.1**	**+1.4**
PMON	**Piamonte**	**2.04**	**154**	P		**Pn**	**23 27 41.9**	**+1.2**
UEES	**Universidad Ev**	**2.07**	**152**	P		**Pn**	**23 27 42.3**	**+1.2**
LOMA	**Loma Larga**	**2.17**	**151**	P		**Pn**	**23 27 43.8**	**+1.3**

*BJI **24** 00:00:17.9, 13.46N×146.08E, h45km, mB5.1/29, mb5.0/78, Ms4.6/59, Ms7 4.4/60*
*DJA **24** 00:00:17.9±0.3, 14.3°×14.6E±., h10km, M5.7/126, mB6.1/89, mb5.8/126, Mw(mB)5.8/89, MwMwp5.2/6, Mwp5.4/6*
*GFZ **24** 00:00:26.6, 13.72N×145.68E, h81km, Mw5.1/50, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr0.86; Mθθ-0.59; Mφφ-0.27; Mrθ1.01; Mθφ-1.76; Mφr4.98; Fault plane solution: M₀5.42861×10¹⁶ NP1:φs12.24588°, δ84.86663°, λ72.13947°. NP2:φs266.72739°, δ18.56046°, λ163.67435°. Principal axes: T 5.3363, Plg47.1888°, Azm263.6360°; N 0.1802, Plg17.7865°, Azm13.8973°; P -5.5165, Plg37.3773°, Azm118.0835°;*
*PTWC **24** 00:00:26, 13.70N×145.90E, h73km, Mwp5.4/6*
*GFZ **24** 00:00:26.8±0.2, 14.2°×14.6E±., h81km, 2km, M5.3/72, mb5.4/72, Error ellipse: s-maj=5.7km s-min=4.3km az=88.1, confirmed*
*IDC **24** 00:00:26.2±1.0, 13.76N×145.65E, h79km, 8km, mb4.6/40, mbtmp4.9/40, MS4.0/69, Error ellipse: s-maj=12.1km s-min=7.6km az=74.0*
*GCMT **24** 00:00:27.5±0.1, 13.62N±0.01×145.75E±0.01, h69km±1km, MW5.3/147, Moment Tension Solution. s110,c173; s147,c258; Duration: 1s0 Moment tensor: Scale 10¹⁷ Nm; Mrr0.14±.01; Mθθ-0.29±.01; Mφφ0.14±.01; Mrθ0.09±.01; Mθφ-0.62±.01; Mφr0.72±.01; Best double couple: M₀0.98300×10¹⁷ NP1:φs276.00000°, δ42.00000°, λ172.00000°. NP2:φs13.00000°, δ84.00000°, λ48.00000°. Principal axes: T 0.9880, Plg36.0000°, Azm247.0000°; N -0.0110, Plg42.0000°, Azm18.0000°; P -0.9770, Plg27.0000°, Azm135.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **24** 00:00:27.5±1.6, 13.77N±0.05×145.65E±0.06, h85km±4km, mb5.3/327, Mww5.2/17 Error ellipse: s-maj=8.8km s-min=7.8km az=100.0*
ISC 24 00:00:24.7±0.3, 13.75N±0.03×145.80E±0.03, h71km±2km, h71km:pP-P, n855, σ1s67/782, mb5.3/337, 36C-10D, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
GUMO	**Guam**	**0.92**	**260**	P		**Pn**	**00 00 43.8**	**+1.6**
	7μm,0.4s,baz=15,slow=17,SNR=431							
GUMO	**Guam**	**0.92**	**260**	P		**Pn**	**00 00 44.3**	**+2.1**
GUMO	**Guam**	**0.92**	**260**	S		**Sn**	**00 00 57.0**	**+1.7**
GUMO	**Guam**	**0.92**	**260**			**Pn**	**00 00 44.1**	**+1.9**
GUMO				Sn		**Sn**	**00 00 56.9**	**+1.6**
GUMO	**Guam**	**0.92**	**260**	P		**Pn**	**00 00 44.4**	**+2.1**
GUMO	**Guam**	**0.92**	**260**	⇓P		**Pn**	**00 00 44.3**	**+2.1**
GUMO				S		**Sn**	**00 00 57.0**	**+1.6**
GOLF	**Saipan**	**1.47**	**359**	P		**Pn**	**00 00 53.0**	**+3.7**
DPSS	**Saipan**	**1.48**	**360**			**Pn**	**00 00 52.9**	**+3.4**
DPSS				Sn		**Sn**	**00 01 11.4**	**+3.2**
DPSS	**Saipan**	**1.48**	**360**	P		**Pn**	**00 00 53.0**	**+3.5**
PATS	**Pohnpei**	**14.09**	**118**	P		**Pn**	**00 03 39.8**	**-1.2**
PATS	**Pohnpei**	**14.09**	**118**	P		**Pn**	**00 03 40.2**	**-0.8**
PATS	**Pohnpei**	**14.09**	**118**	P		**Pn**	**00 03 40.2**	**-0.8**
PATS				S		Sn	00 06 06.0	-10
PATS	**Pohnpei**	**14.09**	**118**	Pn		**Pn**	**00 03 41.0**	**0.0**
PATS	**Pohnpei**	**14.09**	**118**	P		**Pn**	**00 03 40.1**	**-0.8**
PATS	**Pohnpei**	**14.09**	**118**	P		**Pn**	**00 03 40.2**	**-0.8**
	comp=Z,772nm,1.2s							
MANU	**Manus Island**	**15.77**	**174**	Pn		**Pn**	**00 04 02.8**	**+0.3**
JAY	**Jayapura**	**16.93**	**198**	P		**P**	**00 04 19.8**	**+1.7**
GENI	**Genyem**	**17.17**	**199**	P		**Pn**	**00 04 20.2**	**+0.1**
	comp=Z,460nm,1.5s							
GENI	**Genyem**	**17.17**	**199**	P		**P**	**00 04 22.8**	**+2.1**
	comp=Z,6μmcomp=Z,460nm,1.5s							
GENI	**Genyem**	**17.17**	**199**	⇑P		**P**	**00 04 21.1**	**+0.4**
	comp=Z,461nm,1.5s							
BAKI	**Biak**	**17.68**	**214**	P		P	00 04 34.7	+8.4
MWPI	**Manokwari, Pap**	**18.67**	**220**	P		**Pn**	**00 04 40.6**	**+2.3**
	comp=Z,6μmcomp=Z,291nm,0.9s							
RABL	**Rabaul**	**18.91**	**160**	P		**Pn**	**00 04 42.3**	**+1.2**
RABL						**P**	**00 04 42.7**	**+2.9**
KRVT	**Keravat (AS076**	**18.97**	**161**	P		**Pn**	**00 04 42.9**	**+1.0**
	comp=Z,301nm,0.3s,baz=172,slow=10,SNR=15							
KRVT						LR	00 11 30.2	
	comp=Z,653nm,20.9s,baz=314,slow=35							
JHJ2	**Mitsune**	**20.03**	**345**	P		**P**	**00 04 51.9**	**0.0**
JHJ	**Hachijo jima 2**	**20.05**	**345**	LR		LR	00 11 52.8	
	comp=Z,80nm,18.3s,baz=144,slow=34							
H11S3	**WAKE ISLAND Hy**	**20.61**	**74**	T		T	00 27 13.1	
	baz=261,slow=75,SNR=18							
H11S1	**WAKE ISLAND Hy**	**20.62**	**74**	T		T	00 27 13.7	
	baz=261,slow=75,SNR=14							
H11S2	**WAKE ISLAND Hy**	**20.62**	**74**	T		T	00 27 09.7	
	baz=261,slow=75,SNR=7.0							
JOW	**Kunigami**	**20.93**	**311**	P		Pn	00 05 03.8	-1.2
	comp=Z,172nm,1.1s							
JOW	**Kunigami**	**20.93**	**311**	P		**P**	**00 05 00.9**	**-0.8**
JOW				IAmb		IAmb	00 05 04.9	
	comp=Z,181nm,1.1s							
JOW	**Kunigami**	**20.93**	**311**	P		Pn	00 05 04.1	-0.9
JOW	**Kunigami**	**20.93**	**311**	⇑P		**P**	**00 05 02.3**	**+0.6**
	comp=Z,171nm,1.1s							
DAV	**Davao City (W)**	**20.96**	**254**	P		**P**	**00 05 02.2**	**+0.1**
	comp=Z,123nm,0.3s,baz=52,slow=5.1,SNR=8.5							
DAV				LR		LR	00 11 44.2	
	comp=Z,380nm,21.3s,baz=71,slow=33							
	comp=Z,123nm,0.3s							
DAV	**Davao City (W)**	**20.96**	**254**	P		**P**	**00 05 02.4**	**+0.3**
	comp=Z,331nm,0.8s							
DAV	**Davao City (W)**	**20.96**	**254**	P		**P**	**00 05 03.2**	**+1.1**
DAV				S		**S**	**00 08 56.2**	**+4.4**
DAV	**Davao City (W)**	**20.96**	**254**	P		**P**	**00 05 02.4**	**+0.3**
DAV	**Davao City (W)**	**20.96**	**254**	P		Pn	00 05 10.4	+5.1
DAV	**Davao City (W)**	**20.96**	**254**	⇑P		**P**	**00 05 01.9**	**-0.2**
	comp=Z,330nm,0.8s							
H11N1	**WAKE ISLAND Hy**	**21.04**	**71**	T		T	00 28 20.0	
	baz=257,slow=75,SNR=25							
H11N2	**WAKE ISLAND Hy**	**21.05**	**71**	T		T	00 28 25.9	
	baz=257,slow=75,SNR=13							
H11N3	**WAKE ISLAND Hy**	**21.06**	**71**	T		T	00 28 21.7	
	baz=257,slow=75,SNR=33							
FAKI	**Fak Fak**	**21.33**	**220**	P		**P**	**00 05 07.2**	**+1.2**
	comp=Z,1μm,1.2s							
FAKI	**Fak Fak**	**21.33**	**220**	S		**S**	**00 08 57.5**	**-1.7**
	comp=Z,1μm,1.2s							
FAKI	**Fak Fak**	**21.33**	**220**	P		**P**	**00 05 07.2**	**+1.2**
FAKI	**Fak Fak**	**21.33**	**220**	P		**P**	**00 05 07.9**	**+1.9**
FAKI	**Fak Fak**	**21.33**	**220**	P		**P**	**00 05 07.4**	**+1.4**
	comp=Z,3μmcomp=Z,13μmcomp=Z,1μm,1.2s							
FAKI	**Fak Fak**	**21.33**	**220**	⇑P		**P**	**00 05 07.8**	**+1.7**
	comp=Z,1μm,1.2s							
TNTI	**Ternate**	**22.34**	**236**	P		**P**	**00 05 17.1**	**+0.2**
	comp=Z,178nm,1.1s							
TNTI	**Ternate**	**22.34**	**236**	S		**S**	**00 09 17.1**	**-1.1**
	comp=Z,178nm,1.1s							
TNTI	**Ternate**	**22.34**	**236**			**P**	**00 05 15.4**	**-1.5**
TNTI				IAmb		IAmb	00 05 18.5	
	comp=Z,172nm,1.0s							
TNTI	**Ternate**	**22.34**	**236**	P		**P**	**00 05 16.6**	**-0.3**
	comp=Z,177nm,1.1s							
TNTI	**Ternate**	**22.34**	**236**	⇑P		**P**	**00 05 15.1**	**-1.9**
	comp=Z,178nm,1.1s							
JSU	**Suzuyama**	**22.60**	**324**	P		**P**	**00 05 21.3**	**+1.7**
	comp=Z,77nm,0.9s							
JSU	**Suzuyama**	**22.60**	**324**	P		**P**	**00 05 18.8**	**-0.7**
JMN	**Monobe**	**22.65**	**333**	P		**P**	**00 05 21.8**	**+1.7**
	comp=Z,120nm,1.0s							
JMN	**Monobe**	**22.65**	**333**			**P**	**00 05 19.6**	**-0.5**
JMN				IAmb		IAmb	00 05 23.7	
	comp=Z,339nm,1.6s							
JMN	**Monobe**	**22.65**	**333**	P		**P**	**00 05 22.4**	**+2.3**
	comp=Z,120nm,1.0s							
INU	**Inuyama**	**22.92**	**341**	P		**P**	**00 05 23.6**	**+0.8**
	comp=Z,65nm,0.8s							
INU	**Inuyama**	**22.92**	**341**	P		**P**	**00 05 22.6**	**-0.2**
INU				IAmb		IAmb	00 05 48.4	
	comp=Z,114nm,1.2s							
INU	**Inuyama**	**22.92**	**341**	P		**P**	**00 05 20.7**	**-2.1**
	comp=Z,65nm,0.8s							
PMG	**Port Moresby**	**23.04**	**177**	P		**P**	**00 05 24.6**	**+0.4**
	comp=Z,32nm,0.8s,baz=7.7,slow=9.8,SNR=5.4							
	comp=Z,32nm,0.8s							
PMG	**Port Moresby**	**23.04**	**177**	P		**P**	**00 05 25.1**	**+0.9**
	comp=Z,54nm,0.9s							
PMG	**Port Moresby**	**23.04**	**177**	P		**P**	**00 05 23.7**	**-0.4**
PMG						**P**	**00 05 24.5**	**+0.4**
PMG	**Port Moresby**	**23.04**	**177**	P		**P**	**00 05 28.8**	**+4.6**
PMG	**Port Moresby**	**23.04**	**177**	P		**P**	**00 05 24.7**	**+0.6**
	comp=Z,55nm,0.9s							
JGF	**Kuroka**	**23.05**	**342**	P		**P**	**00 05 24.1**	**0.0**
	comp=Z,89nm,1.2s							
JGF	**Kuroka**	**23.05**	**342**	P		**P**	**00 05 23.1**	**-1.0**
JGF	**Kuroka**	**23.05**	**342**	⇓P		**P**	**00 05 24.5**	**+0.4**
	comp=Z,90nm,1.2s							
JNU	**Nakatsue**	**23.60**	**327**	LR		LR	00 13 25.1	
	comp=Z,190nm,21.6s,baz=123,slow=33							
MJAR	**Matsushiro Arr**	**23.70**	**345**	P		**P**	**00 05 29.1**	**-1.0**
	comp=Z,6.4nm,0.7s,baz=177,slow=9.0,SNR=11							
MJAR				ScP		**ScP**	**00 12 44.2**	**-0.5**
	comp=Z,1.0nm,0.3s,baz=191,slow=2.1,SNR=2.0							
MJAR				LR		LR	00 14 00.1	
	comp=Z,558nm,21.1s,baz=152,slow=34							
	comp=Z,6.4nm,0.7s							
MJAR	**Matsushiro Arr**	**23.70**	**345**	P		**P**	**00 05 30.0**	**-0.1**
MAJO	**Matsushiro**	**23.70**	**345**	P		**P**	**00 05 30.5**	**+0.4**
	comp=Z,41nm,0.9s							
MAJO	**Matsushiro**	**23.70**	**345**	P		**P**	**00 05 29.9**	**-0.2**
MAJO	**Matsushiro**	**23.70**	**345**	P		**P**	**00 05 30.7**	**+0.6**
	comp=Z,41nm,0.9s							
MJB9	**Matsu-Tunnel**	**23.70**	**345**			**P**	**00 05 30.7**	**+0.6**
BNDI	**Bandanaira**	**24.05**	**222**	P		**P**	**00 05 33.7**	**+0.2**
	comp=Z,382nm,1.1s							
BNDI	**Bandanaira**	**24.05**	**222**	P		**P**	**00 05 34.0**	**+0.6**
	comp=Z,15μmcomp=Z,384nm,1.0s							
BNDI	**Bandanaira**	**24.05**	**222**	P		**P**	**00 05 33.7**	**+0.2**
	comp=Z,382nm,1.1s							
MNI	**Manado**	**24.07**	**241**	P		**P**	**00 05 34.0**	**+0.3**
	comp=Z,9μmcomp=Z,488nm,1.0s							
NACB	**Ninganchiao**	**25.09**	**298**	P		**P**	**00 05 42.9**	**0.0**
YULB	**Yu-li**	**25.09**	**296**	P		**P**	**00 05 43.6**	**+0.7**
	comp=Z,246nm,1.1s							
YULB	**Yu-li**	**25.09**	**296**	P		**P**	**00 05 42.6**	**-0.3**
YULB	**Yu-li**	**25.09**	**296**	P		**P**	**00 05 43.9**	**+1.0**
	comp=Z,246nm,1.1s							
TWGBT	**Beinan**	**25.11**	**295**	P		**P**	**00 05 42.9**	**-0.2**
	comp=Z,148nm,1.2s							
TWG	**Pinlang**	**25.12**	**295**	P		**P**	**00 05 42.5**	**-0.6**
TWG				IAmb		IAmb	00 05 45.2	
	comp=Z,132nm,1.0s							
TWG	**Pinlang**	**25.12**	**295**	⇑P		**P**	**00 05 41.7**	**-1.5**
	comp=Z,148nm,1.2s							
SANI	**Sanana**	**25.15**	**233**	P		**P**	**00 05 42.0**	**-1.4**
	comp=Z,163nm,0.9s							
SANI	**Sanana**	**25.15**	**233**	P		**P**	**00 05 41.6**	**-1.9**
	comp=Z,2μmcomp=Z,163nm,0.9s							
SANI	**Sanana**	**25.15**	**233**	⇑P		**P**	**00 05 41.6**	**-1.9**
	comp=Z,163nm,0.9s							
KMSI	**Cibinong**	**25.26**	**241**	P		**P**	**00 05 44.9**	**+0.5**
SSLB	**Suanglung**	**25.52**	**297**	P		**P**	**00 05 46.9**	**+0.1**
	comp=Z,394nm,1.2s							
SSLB	**Suanglung**	**25.52**	**297**	P		**P**	**00 05 45.7**	**-1.1**
SSLB	**Suanglung**	**25.52**	**297**	⇑P		**P**	**00 05 46.3**	**-0.5**
	comp=Z,393nm,1.2s							
TPUB	**Ta-pu**	**25.65**	**295**	P		**P**	**00 05 47.3**	**-0.7**
	comp=Z,94nm,1.4s							
TPUB	**Ta-pu

comp=Z,354nm,1.0s
MTSU Mount Surprise 31.71 183 P **P** **00 06 43.9 +2.0**
comp=Z,20nm,0.8s
MTSU Mount Surprise 31.71 183 P **P** **00 06 43.8 +1.8**
comp=Z,20nm,0.8s
MTSU Mount Surprise 31.71 183 P **P** **00 06 43.3 +1.4**
comp=Z,20nm,0.8s
MTSU Mount Surprise 31.71 183 P **P** **00 06 43.5 +1.6**
comp=Z,20nm,0.8s
BKSI Bulukumba 31.76 235 P **P** **00 06 42.2 -0.2**
KAPI Kappang 31.88 236 LR LR 00 19 43.0
comp=Z,67nm,20.8s,baz=34,slow=36
KAPI Kappang 31.88 236 P **P** **00 06 43.4 0.0**
comp=Z,58nm,1.3s
KAPI Kappang 31.88 236 P **P** **00 06 44.2 +0.8**
KAPI Kappang 31.88 236 P **P** **00 06 43.2 -0.2**
KAPI Kappang 31.88 236 P **P** **00 06 43.4 0.0**
KAPI Kappang 31.88 236 ⇑P **P** **00 06 43.2 -0.2**
comp=Z,112nm,1.3s
KAPI Kappang 31.88 236 P **P** **00 06 43.0 -0.4**
KAPI pP **pwP** **00 07 03.6 0.0**
BSSI Bau Bau, Buton 31.97 233 P **P** **00 06 44.7 +0.5**
comp=Z,2µmcomp=Z,155nm,1.3s
MMRI Maumere 32.27 228 P **P** **00 06 46.5 -0.4**
comp=Z,407nm,1.1s
MMRI Maumere 32.27 228 P **P** **00 06 45.5 -1.4**
MMRI Maumere 32.27 228 P **P** **00 06 46.7 -0.2**
MMRI Maumere 32.27 228 ⇑P **P** **00 06 45.7 -1.2**
comp=Z,407nm,1.1s
USA0B Ussuriysk Arra 32.57 341 P **P** **00 06 48.6 -0.5**
USRK Ussuriysk Ar. 32.57 341 P **P** **00 06 49.2 +0.1**
comp=Z,9.9nm,0.8s,baz=141,slow=9.3,SNR=15
USRK ScP **ScP** **00 13 10.9 -1.0**
comp=Z,2.8nm,0.9s,baz=94,slow=7.5,SNR=4.5
USRK LR LR 00 20 08.4
comp=Z,170nm,18.9s,baz=148,slow=36
comp=Z,9.9nm,0.8s
USRK Ussuriysk Ar. 32.57 341 P **P** **00 06 49.9 +0.8**
USRK **ScP** **00 13 12.7 +0.7**
EDFI Ende, Flores 32.75 228 P **P** **00 06 49.3 -1.9**
comp=Z,2µmcomp=Z,170nm,0.9s
DL2 Dalian 32.92 324 P **P** **00 06 53.8 +1.5**
DL2 PcP **PcP** **00 09 36.8 +1.6**
DL2 S **S** **00 12 04.8 -0.4**
DL2 sS **sS** **00 12 29.5 -2.8**
DL2 pmax pmax
comp=Z,43nm,0.8s
DL2 pmax pmax
comp=Z,340nm,7.3s
DL2 L L
comp=Z,420nm,17.4s
DL2 L L
comp=Z,430nm,15.7s
DL2 L L
comp=Z,570nm,18.4s
WHN Wuhan 33.43 305 P **P** **00 06 57.5 +0.7**
WHN sP **sP** **00 07 19.3 -1.8**
WHN pmax pmax
comp=Z,200nm,1.2s
CTA Charters Tower 33.63 179 P **P** **00 07 00.4 +1.8**
comp=Z,5.2nm,1.5s
CTA Charters Tower 33.63 179 P **P** **00 07 00.2 +1.6**
comp=Z,5.2nm,1.5s
CTA Charters Tower 33.63 179 P **P** **00 06 58.8 +0.2**
comp=Z,7.4nm,0.8s,baz=1.9,slow=8.4,SNR=12
CTA LR LR 00 19 47.6
comp=Z,118nm,21.8s,baz=17,slow=34
comp=Z,7.4nm,0.8s
CTA Charters Tower 33.63 179 P **P** **00 06 59.8 +1.2**
comp=Z,0.4nm,1.5s
CTAO Charters Tower 33.63 179 P **P** **00 07 00.0 +1.4**
comp=Z,4.7nm,1.5s
CTAO Charters Tower 33.63 179 P **P** **00 06 58.7 +0.1**
CTAO Charters Tower 33.63 179 P **P** **00 06 59.8 +1.2**
comp=Z,13nm,1.5s
CTAO Charters Tower 33.63 179 P **P** **00 06 59.8 +1.2**
KNRA Kununurra 33.74 211 P **P** **00 07 00.3 +0.6**
comp=Z,93nm,1.3s
KNRA Kununurra 33.74 211 P **P** **00 07 00.3 +0.6**
comp=Z,93nm,1.3s
KNRA Kununurra 33.74 211 P **P** **00 07 00.1 +0.5**
comp=Z,93nm,1.3s
KNRA Kununurra 33.74 211 P **P** **00 06 59.3 -0.4**
CNSH ChangSha 33.76 300 P **P** **00 07 00.9 +1.2**
CNSH S **S** **00 12 20.4 +2.1**
CNSH pmax pmax
comp=Z,24nm,1.0s
CNSH L L
comp=Z,540nm,16.5s
CNSH L L
comp=Z,350nm,18.2s
CNSH L L
comp=Z,560nm,25.4s
LBFI Labuhan Bajo, 33.90 231 P **P** **00 06 59.3 -1.8**
WSI Waingapu 34.38 229 P **P** **00 07 02.3 -2.9**
QIS Mount Isa 34.63 190 P **P** **00 07 08.5 +1.1**
comp=Z,30nm,0.9s
QIS Mount Isa 34.63 190 P **P** **00 07 08.0 +0.6**
comp=Z,30nm,0.9s
QIS Mount Isa 34.63 190 P **P** **00 07 07.9 +0.6**
comp=Z,30nm,0.9s
QIS Mount Isa 34.63 190 P **P** **00 07 07.5 +0.2**
comp=Z,30nm,0.9s
QIS Mount Isa 34.63 190 ⇑P **P** **00 07 07.7 +0.4**
comp=Z,30nm,0.9s
CN2 Changchun 34.66 334 *e*P **P** **00 07 08.8 +1.5**
CN2 *ep*P pP 00 07 21.8 -1.6
CN2 *e*S **S** **00 12 33.9 +2.0**
CN2 pmax pmax
comp=Z,10.0nm,0.7s
CN2 pmax pmax
comp=Z,40nm,5.0s
CN2 L L
comp=Z,100nm,12.0s
CN2 L L
comp=Z,100nm,12.0s
CN2 L L
comp=Z,200nm,13.0s
QIZ Qiongzhong 34.85 284 P **P** **00 07 08.8 -0.5**
QIZ S **S** **00 12 39.4 +3.9**
QIZ L L
comp=Z,240nm,9.3s
QIZ L L
comp=Z,570nm,11.7s
QIZ L L
comp=Z,730nm,25.3s
DBNI Kabupaten Domp 35.12 233 P **P** **00 07 10.2 -1.4**
comp=Z,873nmcomp=Z,103nm,0.8s
WB0 Warramunga Arr 35.15 199 P **P** **00 07 11.8 0.0**
WB0 IAmb IAmb 00 07 13.1
comp=Z,59nm,0.9s
WR8 Warramunga Arr 35.29 199 P **P** **00 07 12.6 -0.4**
WRAB Tennant Creek 35.32 199 P **P** **00 07 13.0 -0.2**
comp=Z,54nm,0.9s
WRAB Tennant Creek 35.32 199 P **P** **00 07 13.4 +0.2**
WRAB Tennant Creek 35.32 199 ⇑P **P** **00 07 13.4 +0.2**
comp=Z,93nm,0.9s
WRAB Tennant Creek 35.32 199 P **P** **00 07 13.4 +0.2**
WRAB pP **pwP** **00 07 34.1 +0.2**
WRA Warramunga Arr 35.33 199 P **P** **00 07 12.9 -0.4**
comp=Z,57nm,0.8s,baz=19,slow=9.4,SNR=130
WRA PcP **PcP** **00 09 42.8 +0.4**
comp=Z,7.7nm,0.8s,baz=4.5,slow=2.9,SNR=5.6
WRA ScP **ScP** **00 13 21.8 -0.4**
comp=Z,1.4nm,0.8s,baz=16,slow=4.1,SNR=4.5
comp=Z,57nm,0.8s
WRA Warramunga Arr 35.33 199 P **P** **00 07 11.6 -1.7**
BNX BinXian 35.48 338 ⇓P **P** **00 07 15.3 +1.0**
BNX pmax pmax
comp=Z,36nm,1.1s
PLAI Plampang 35.73 233 P **P** **00 07 15.0 -1.9**
comp=Z,134nm,0.9s
PLAI Plampang 35.73 233 P **P** **00 07 14.7 -2.2**
comp=Z,1µmcomp=Z,133nm,0.9s
PLAI Plampang 35.73 233 P **P** **00 07 14.5 -2.4**
comp=Z,134nm,0.9s
SANVU Saraoutou 35.91 143 P **P** **00 07 18.6 +0.3**
HNS HongShan 36.34 316 ⇑P **P** **00 07 22.4 +0.6**
HNS sP **pwP** **00 07 43.0 +1.6**
HNS S **S** **00 12 58.3 +0.5**
HNS pmax pmax
comp=Z,38nm,1.3s
HNS L L
comp=Z,580nm,17.7s
HNS L L
comp=Z,500nm,21.0s
HNS L L
comp=Z,520nm,18.6s
DLV Lat 36.40 272 P **P** **00 07 22.8 -0.1**
comp=Z,35nm,1.1s
DLV Lat 36.40 272 IAmb IAmb 00 07 24.2
comp=Z,37nm,1.1s
LYN LuoYang 36.54 310 P **P** **00 07 23.5 -0.1**
LYN sP pP 00 07 40.3 +0.2
LYN PP **PnPn** **00 08 52.3 +3.8**
LYN S **S** **00 12 59.0 -2.0**
LYN SS **SnSn** **00 15 32.8 -3.9**
LYN pmax pmax
comp=Z,55nm,1.0s
LYN pmax pmax
comp=Z,210nm,4.2s
LYN L L
comp=Z,460nm,18.1s
LYN L L
comp=Z,750nm,17.9s
LYN L L
comp=Z,1µm,18.9s
BJI2 Beijing 36.88 321 P **P** **00 07 26.8 +0.4**
BJI2 sP **pwP** **00 07 45.6 -0.9**
BJI2 S **S** **00 13 11.3 +5.3**
BJI2 pmax pmax
comp=Z,14nm,0.8s
BJI2 pmax pmax
comp=Z,110nm,3.5s
BJI2 L L
comp=Z,280nm,17.2s
BJI2 L L
comp=Z,200nm,22.7s
BJI2 L L
comp=Z,460nm,24.2s
BJT Baijiatuao 36.88 321 P **P** **00 07 27.4 +1.0**
comp=Z,32nm,1.2s
BJT Baijiatuao 36.88 321 P **P** **00 07 26.1 -0.3**
BJT Baijiatuao 36.88 321 ⇑P **P** **00 07 26.4 0.0**
comp=Z,32nm,1.2s
KHKI Kahang-Kahang 37.16 235 P **P** **00 07 29.4 +0.4**
comp=Z,5µmcomp=Z,450nm,1.3s
KLR Kul'dur 37.22 345 LR LR 00 22 12.5
comp=Z,265nm,18.9s,baz=222,slow=35
ENH Enshi 37.27 302 P **P** **00 07 30.7 +0.8**
comp=Z,81nm,1.3s
ENH Enshi 37.27 302 P **P** **00 07 29.8 0.0**
ENH Enshi 37.27 302 P **P** **00 07 30.5 +0.6**
comp=Z,81nm,1.3s
ENH pP **sP** **00 07 51.8 -2.5**
ENH Enshi 37.27 302 P **P** **00 07 30.2 +0.3**
ENH pP **pwP** **00 07 50.5 +0.7**
ENH PcP **PcP** **00 09 49.4 +1.2**
SRBI Singaraja 37.32 236 P **P** **00 07 30.6 +0.2**
comp=Z,3µmcomp=Z,207nm,1.5s
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 30.9 +0.1**
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 31.5 +0.7**
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 31.2 +0.5**
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 30.5 -0.2**
comp=Z,74nm,0.8s,baz=31,slow=9.9,SNR=110
FITZ LR LR 00 24 05.9
comp=Z,184nm,19.6s,baz=26,slow=38
comp=Z,74nm,0.8s
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 30.9 +0.1**
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 30.7 -0.1**
FITZ Fitzroy Crossi 37.38 213 P **P** **00 07 31.4 +0.7**
comp=Z,26nm,1.0s
RTBI Rangdo, Negare 37.75 236 P **P** **00 07 33.7 -0.4**
IGBI Denpasar 37.80 235 P **P** **00 07 33.3 -1.1**
comp=Z,4µmcomp=Z,361nm,1.1s
ABJI Asem Bagus 37.95 238 P **P** **00 07 37.6 +1.9**
comp=Z,6µmcomp=Z,382nm,1.5s
TIY Taiyuan 38.05 315 *e*P **P** **00 07 37.3 +0.9**
TIY S **S** **00 13 23.6 -0.4**
TIY pmax pmax
comp=Z,210nm,4.8s
TIY L L
comp=Z,390nm,14.1s
TIY L L
comp=Z,280nm,15.8s
TIY L L
comp=Z,490nm,16.5s
JAGI Jajag, Banyuwa 38.40 237 P **P** **00 07 37.9 -1.6**
comp=Z,118nm,1.4s
JAGI Jajag, Banyuwa 38.40 237 P **P** **00 07 38.7 -0.8**
comp=Z,118nm,1.3s
JAGI Jajag, Banyuwa 38.40 237 P **P** **00 07 38.3 -1.2**
comp=Z,118nm,1.4s
BLJI Banyuglugur 38.45 238 P **P** **00 07 40.5 +0.6**
comp=Z,5µmcomp=Z,284nm,1.0s
KOUNC Koumac, New Ca 38.63 152 P **P** **00 07 42.7 +1.5**
GYA Guiyang 38.71 295 ⇑P **P** **00 07 43.6 +1.4**
GYA S **S** **00 13 36.1 +1.7**
GYA pmax pmax
comp=Z,73nm,1.2s
AS15 Alice Springs 38.93 197 P **P** **00 07 44.5 +0.6**
comp=Z,32nm,0.7s
AS15 Alice Springs 38.93 197 P **P** **00 07 44.3 +0.4**
comp=Z,32nm,0.7s
AS17 Alice Springs 38.94 197 P **P** **00 07 44.6 +0.7**
comp=Z,47nm,1.0s
AS17 Alice Springs 38.94 197 P **P** **00 07 44.4 +0.5**
comp=Z,47nm,1.0s
AS01 Alice Springs 38.95 197 P **P** **00 07 44.4 +0.5**
comp=Z,35nm,1.1s
AS01 Alice Springs 38.95 197 P **P** **00 07 44.5 +0.5**
comp=Z,35nm,1.1s
AS01 Alice Springs 38.95 197 P **P** **00 07 44.3 +0.3**
comp=Z,35nm,1.1s
AS31 Alice Springs 38.96 197 P **P** **00 07 45.0 +0.9**
comp=Z,13nm,0.7s
AS31 Alice Springs 38.96 197 P **P** **00 07 45.2 +1.1**
comp=Z,13nm,0.7s
AS31 Alice Springs 38.96 197 P **P** **00 07 44.4 +0.3**
ASAR Alice Springs 38.96 197 P **P** **00 07 44.5 +0.4**
comp=Z,18nm,0.8s,baz=18,slow=12,SNR=154
ASAR PP **PP** **00 09 14.3 -0.5**
comp=Z,19nm,1.1s,baz=15,slow=12,SNR=5.9
ASAR LR LR 00 23 36.9
comp=Z,272nm,20.9s,baz=12,slow=36
comp=Z,18nm,0.8s
ASAR Alice Springs 38.96 197 P **P** **00 07 44.3 +0.2**
AS09 Alice Springs 38.98 197 P **P** **00 07 44.9 +0.6**
XAN Xi'an 39.01 308 P **P** **00 07 44.6 +0.1**
XAN S **S** **00 13 36.3 -2.2**
XAN SS **SS** **00 16 29.3 -3.8**
XAN pmax pmax
comp=Z,49nm,1.0s
XAN L L
comp=Z,320nm,16.5s
XAN L L
comp=Z,360nm,18.6s
XAN L L
comp=Z,420nm,18.5s
XAN Xi'an 39.01 308 P **P** **00 07 44.4 -0.1**
XAN pP **pwP** **00 08 05.7 +1.4**
XAN PcP **PcP** **00 09 54.2 +0.6**
EIDS Eidsvold 39.22 172 P **P** **00 07 44.9 -1.3**
EIDS Eidsvold 39.22 172 P **P** **00 07 45.7 -0.5**
comp=Z,20nm,0.8s
EIDS Eidsvold 39.22 172 P **P** **00 07 47.4 +1.3**
comp=Z,16nm,1.0s
EIDS Eidsvold 39.22 172 P **P** **00 07 47.7 +1.5**
comp=Z,20nm,0.8s
EIDS Eidsvold 39.22 172 P **P** **00 07 47.4 +1.3**
XLT XiLinHaoTe 39.36 326 *e*P **P** **00 07 48.9 +1.6**
XLT sP sP 00 08 10.8 -1.0
XLT S **S** **00 13 46.3 +2.8**
XLT sS sS 00 14 05.3 -5.8
XLT SS **SnSn** **00 16 43.4 -1.1**
XLT pmax pmax
comp=Z,22nm,1.5s
XLT pmax pmax
comp=Z,130nm,5.0s
XLT L L
comp=Z,260nm,19.1s
XLT L L
comp=Z,340nm,21.6s
HEH HeiHe 39.38 341 *e*P **P** **00 07 48.0 +0.8**
HEH PcP **PcP** **00 09 54.5 +0.2**
HEH pmax pmax
comp=Z,22nm,1.3s
HEH L L
comp=Z,390nm,13.6s
HEH L L
comp=Z,260nm,15.7s
HEH L L
comp=Z,410nm,16.8s
SJI Sawahan 39.96 240 P **P** **00 07 52.5 -0.2**
SNJI Sawahan-Nganju 39.99 240 P **P** **00 07 53.5 +0.5**
comp=Z,168nm,1.5s
PWJI Pagerwojo 40.09 239 P **P** **00 07 52.7 -0.9**
QLP Quilpie 40.12 182 P **P** **00 07 54.2 +0.6**
comp=Z,49nm,0.7s
QLP Quilpie 40.12 182 P **P** **00 07 54.3 +0.7**
comp=Z,49nm,0.7s
QLP Quilpie 40.12 182 P **P** **00 07 54.0 +0.4**
comp=Z,49nm,0.7s
QLP Quilpie 40.12 182 P **P** **00 07 53.4 -0.2**
comp=Z,50nm,0.7s
QLP Quilpie 40.12 182 P **P** **00 07 54.1 +0.6**
comp=Z,49nm,0.7s
HHC Hu-ho-hao-te 40.25 319 *e*P **P** **00 07 55.8 +1.1**
HHC S **S** **00 13 57.8 +0.8**
HHC sS sS 00 14 19.6 -5.0
HHC ScS **ScS** **00 17 56.8 +2.3**
HHC pmax pmax
comp=Z,13nm,0.8s
HHC pmax pmax
comp=Z,110nm,5.8s
HHC L L
comp=Z,230nm,15.0s
HHC L L
comp=Z,270nm,15.0s
HHC L L
comp=Z,160nm,15.5s
PETK Petropavlovsk- 40.39 11 P **P** **00 07 57.7 +2.1**
comp=Z,7.8nm,1.0s,baz=196,slow=8.3,SNR=5.7
PETK PcP **PcP** **00 09 57.8 +0.3**
comp=Z,13nm,0.8s,baz=194,slow=4.5,SNR=4.4
PETK LR LR 00 23 13.6
comp=Z,94nm,20.1s,baz=197,slow=34
comp=Z,7.8nm,1.0s
SLVN Son La 40.56 287 P **P** **00 07 58.2 +0.7**
comp=Z,26nm,1.4s
SLVN Son La 40.56 287 P **P** **00 07 58.2 +0.7**
SLVN IAmb IAmb 00 07 59.7
comp=Z,113nm,1.9s
SLVN Son La 40.56 287 P **P** **00 07 58.6 +1.0**
comp=Z,26nm,1.4s
PCJI Pacitan 40.70 240 P **P** **00 07 58.0 -0.6**
WOJI Wonogiri, Jawa 40.73 240 P **P** **00 07 59.5 +0.6**
comp=Z,120nm,1.1s
NOUC Port Laguerre 40.91 150 P **P** **00 08 02.1 +1.9**
comp=Z,29nm,1.1s
DZM Mont Dzumac 40.95 150 P **P** **00 08 02.8 +2.1**
comp=Z,21nm,1.0s,baz=59,slow=11,SNR=7.8
DZM LR LR 00 25 37.9
comp=Z,122nm,18.4s,baz=353,slow=37
comp=Z,21nm,1.0s
UGM Wanagama 41.10 240 P **P** **00 08 01.3 -0.7**
comp=Z,323nm,1.1s
UGM Wanagama 41.10 240 P **P** **00 08 03.0 +1.0**
comp=Z,321nm,1.1s
UGM Wanagama 41.10 240 P **P** **00 08 01.7 -0.4**
comp=Z,321nm,1.1s
TPI Tanjungpandan 41.23 249 P **P** **00 08 02.6 -0.5**
comp=Z,2µmcomp=Z,145nm,0.8s
YOGI Yogyakarta 41.25 241 P **P** **00 08 03.9 +0.7**
BTO2 Baotou 41.29 317 *e*P **P** **00 08 03.6 +0.3**
BTO2 sP **pP** **00 08 21.3 +1.4**
BTO2 PP **PP** **00 09 41.5 +1.7**
BTO2 S **S** **00 14 15.0 +2.5**
BTO2 pmax pmax
comp=Z,44nm,0.9s
BTO2 pmax pmax
comp=Z,170nm,4.0s
BTO2 L L
comp=Z,560nm,11.2s
BTO2 L L
comp=Z,340nm,16.9s
BTO2 L L
comp=Z,520nm,13.0s
HIA Hailar 41.39 334 P **P** **00 08 05.6 +1.7**
comp=Z,43nm,1.0s
HIA Hailar 41.39 334 P **P** **00 08 05.0 +1.1**
HIA IAmb IAmb 00 08 27.2
comp=Z,37nm,0.9s
HIA Hailar 41.39 334 P **P** **00 08 05.0 +1.1**
comp=Z,43nm,1.0s
HILR Hailar Array B 41.60 334 P **P** **00 08 06.3 +0.6**
comp=Z,2.6nm,0.5s,baz=140,slow=9.4,SNR=12
HILR PcP **PcP** **00 10 01.8 +0.2**
comp=Z,9.2nm,0.7s,baz=155,slow=4.9,SNR=4.0
HILR LR LR 00 24 48.5
comp=Z,214nm,20.1s,baz=75,slow=35
comp=Z,2.6nm,0.5s
KMI2 Kunming 41.98 292 ⇑P **P** **00 08 10.6 +1.2**
KMI2 pP pP 00 08 23.0 -3.2
KMI2 sP sP 00 08 31.3 -2.6
KMI2 PcP **PcP** **00 10 05.3 +1.7**
KMI2 S **S** **00 14 22.4 -1.0**
KMI2 SS **SS** **00 17 34.6 +1.8**
KMI2 pmax pmax
comp=Z,33nm,1.1s
KMI2 pmax pmax
comp=Z,250nm,3.8s
KMI2 L L
comp=Z,250nm,18.4s
KMI2 L L
comp=Z,310nm,20.7s
KMI2 L L
comp=Z,400nm,18.5s
WRKA Warakurna 42.16 204 P **P** **00 08 11.1 +0.6**
comp=Z,57nm,1.2s
WRKA Warakurna 42.16 204 P **P** **00 08 10.8 +0.3**
comp=Z,57nm,1.2s
KPJI Karang Pucung 42.17 242 P **P** **00 08 10.1 -0.6**
comp=Z,2µmcomp=Z,126nm,0.9s
CD2 Chengdu 42.19 301 P **P** **00 08 10.8 +0.1**
CD2 sP pP 00 08 28.3 +0.8
CD2 SS SS 00 17 33.5 -2.8
CD2 pmax pmax
comp=Z,50nm,0.8s
CD2 pmax pmax
comp=Z,140nm,4.8s
CD2 L L
comp=Z,640nm,15.3s
CD2 L L
comp=Z,780nm,12.6s
CD2 L L
comp=Z,560nm,15.3s
AULRC Lightning Ridg 42.98 177 P **P** **00 08 17.8 +0.8**
comp=Z,126nm,0.8s
PZH PanZhiHua 43.07 294 P **P** **00 08 18.9 +0.9**
PZH S **S** **00 14 36.1 -3.0**
PZH SS **SS** **00 17 51.4 -2.4**
PZH pmax pmax
comp=Z,40nm,0.9s
PZH L L
comp=Z,300nm,19.4s
PZH L L
comp=Z,200nm,15.3s
PZH L L
comp=Z,290nm,15.5s
MBWA Marble Bar 43.12 217 P **P** **00 08 18.7 +0.4**
comp=Z,132nm,0.8s
MBWA Marble Bar 43.12 217 P **P** **00 08 18.4 +0.2**
comp=Z,132nm,0.8s
MBWA Marble Bar 43.12 217 P **P** **00 08 18.1 -0.2**
comp=Z,76nm,0.8s
MBWA Marble Bar 43.12 217 P **P** **00 08 19.0 +0.8**
MBWA Marble Bar 43.12 217 P **P** **00 08 18.0 -0.2**
MBWA Marble Bar 43.12 217 P **P** **00 08 18.7 +0.4**
comp=Z,132nm,0.8s
MBWA Marble Bar 43.12 217 P **P** **00 08 18.5 +0.3**
MBWA pP **pwP** **00 08 39.9 +1.0**
BBJI Bungbulang 43.34 243 P **P** **00 08 18.1 -2.2**
comp=Z,70nm,1.0s
BBJI Bungbulang 43.34 243 IAmb IAmb 00 08 19.4
comp=Z,60nm,0.9s
BBJI Bungbulang 43.34 243 P **P** **00 08 18.0 -2.2**
comp=Z,642nmcomp=Z,71nm,1.1s
BBJI Bungbulang 43.34 243 P **P** **00 08 18.2 -2.0**
comp=Z,70nm,1.0s
BTDF Bukit Timah Da 43.35 257 P **P** **00 08 20.4 +0.1**
comp=Z,104nm,1.3s
BTDF Bukit Timah Da 43.35 257 P **P** **00 08 20.1 -0.2**
comp=Z,1µmcomp=Z,105nm,1.3s
CBJI Citeko 43.55 245 P **P** **00 08 22.6 +0.7**
comp=Z,68nm,0.6s
UTTA Uttaradit 43.65 281 P **P** **00 08 23.2 +0.5**
comp=Z,310nmcomp=Z,29nm,0.9s
LZDM Lanzhou Array 43.70 308 P **P** **00 08 23.7 +0.4**

comp=Z,3.2nm,0.3s,baz=111,slow=8.1,SNR=19
LZDM LR LR 00 27 24.3
comp=Z,170nm,19.7s,baz=90,slow=37
comp=Z,3.2nm,0.3s
CRAI Chiangrai 43.81 285 P **P** **00 08 22.9 -1.1**
ARMA Armidale 44.27 173 P **P** **00 08 29.7 +2.2**
comp=Z,33nm,1.0s
ARMA Armidale 44.27 173 P **P** **00 08 28.3 +0.8**
comp=Z,26nm,0.8s
ARMA Armidale 44.27 173 P **P** **00 08 29.0 +1.5**
comp=Z,33nm,1.0s
ARMA Armidale 44.27 173 P **P** **00 08 29.2 +1.7**
LAMP Lampang 44.51 282 P **P** **00 08 30.0 +0.4**
comp=Z,13nm,0.9s
MSVF Nonsavu 44.62 134 P **P** **00 08 32.5 +2.1**
comp=Z,47nm,0.9s,baz=314,slow=8.2,SNR=19
MSVF LR LR 00 25 04.4
comp=Z,254nm,21.0s,baz=304,slow=33
comp=Z,47nm,0.9s
MSVF Nonsavu 44.62 134 P **P** **00 08 33.2 +2.7**
comp=Z,80nm,1.1s
MSVF Nonsavu 44.62 134 P **P** **00 08 31.8 +1.4**
MSVF Nonsavu 44.62 134 P **P** **00 08 33.6 +3.2**
comp=Z,80nm,1.1s
MSVF Nonsavu 44.62 134 P **P** **00 08 33.1 +2.7**
MSVF pP **pwP** **00 08 54.6 -1.1**
MSVF PcP **PP** **00 10 14.7 -1.2**
CGJI Cibinong 44.66 246 P **P** **00 08 28.3 -2.4**
PHET Kaeng Krachan 44.88 275 P **P** **00 08 34.0 +1.5**
comp=Z,23nm,0.9s
DGTI Dogotuki 44.90 131 P **P** **00 08 35.2 +2.6**
comp=Z,42nm,1.5s
SHEM Shemya Is, Ala 44.94 24 LR LR 00 24 49.9
comp=Z,97nm,19.7s,baz=246,slow=32
CMSA Cobar Meteorol 45.03 180 P **P** **00 08 34.4 +1.1**
comp=Z,19nm,0.9s
CMSA Cobar Meteorol 45.03 180 P **P** **00 08 34.3 +1.0**
comp=Z,19nm,0.9s
CMSA Cobar Meteorol 45.03 180 P **P** **00 08 34.2 +0.9**
comp=Z,19nm,0.9s
CMSA Cobar Meteorol 45.03 180 P **P** **00 08 34.4 +1.0**
comp=Z,19nm,0.9s
IPM Ipoh 45.09 263 P **P** **00 08 34.2 0.0**
comp=Z,64nm,1.2s
IPM Ipoh 45.09 263 P **P** **00 08 34.0 -0.2**
IPM IAmb IAmb 00 08 35.2
comp=Z,47nm,0.9s
IPM Ipoh 45.09 263 P **P** **00 08 34.5 +0.3**
comp=Z,63nm,1.2s
IPM Ipoh 45.09 263 P **P** **00 08 34.3 0.0**
comp=Z,64nm,1.2s
CHTO Chiang Mai 45.16 283 P **P** **00 08 34.9 +0.2**
CHTO Chiang Mai 45.16 283 P **P** **00 08 34.9 +0.2**
comp=Z,6.3nm,1.4s
CHTO Chiang Mai 45.16 283 P **P** **00 08 34.9 +0.2**
CHTO Chiang Mai 45.16 283 P **P** **00 08 33.9 -0.9**
CHTO Chiang Mai 45.16 283 P **P** **00 08 34.8 +0.1**
CHTO Chiang Mai 45.16 283 P **P** **00 08 34.8 +0.1**
comp=Z,10nm,1.4s
CM31 Chiang Mai Arr 45.17 282 P **P** **00 08 35.7 +0.9**
SNR=13
CM31 Chiang Mai Arr 45.17 282 P **P** **00 08 34.6 -0.2**
CMAR Chiang Mai Arr 45.17 282 P **P** **00 08 35.0 +0.2**
comp=Z,13nm,0.9s,baz=84,slow=6.0,SNR=78
CMAR PcP **PcP** **00 10 15.1 +0.9**
comp=Z,3.8nm,0.6s,baz=85,slow=3.3,SNR=4.1
CMAR LR LR 00 27 56.8
comp=Z,113nm,19.9s,baz=85,slow=37
comp=Z,13nm,0.9s
CMAR Chiang Mai Arr 45.17 282 P **P** **00 08 34.7 -0.1**
KULM Kulim 45.25 264 P **P** **00 08 36.0 +0.5**
comp=Z,121nm,1.1s
KULM Kulim 45.25 264 P **P** **00 08 35.3 -0.2**
KULM Kulim 45.25 264 P **P** **00 08 35.9 +0.5**
comp=Z,1μmcomp=Z,121nm,1.1s
KULM Kulim 45.25 264 P **P** **00 08 36.0 +0.5**
comp=Z,121nm,1.1s
STKA Stephens Creek 45.54 185 P **P** **00 08 38.2 +0.8**
STKA Stephens Creek 45.54 185 P **P** **00 08 37.6 +0.2**
STKA Stephens Creek 45.54 185 P **P** **00 08 37.5 +0.2**
comp=Z,5.4nm,0.6s,baz=1.2,slow=9.0,SNR=8.3
STKA LR LR 00 28 11.1
comp=Z,205nm,18.5s,baz=5.7,slow=37
comp=Z,5.4nm,0.6s
STKA Stephens Creek 45.54 185 P **P** **00 08 37.6 +0.2**
STKA Stephens Creek 45.54 185 P **P** **00 08 38.2 +0.8**
KHLT Khaolaem Dam 45.70 277 P **P** **00 08 40.2 +1.2**
comp=Z,761nmcomp=Z,51nm,1.4s
TNCH TengChong 45.78 292 P **P** **00 08 40.5 +0.7**
TNCH S **S** **00 15 21.1 +2.4**
TNCH pmax pmax
comp=Z,150nm,1.0s
TNCH L L
comp=Z,380nm,20.4s
MNAI Manna 46.17 250 P **P** **00 08 41.4 -1.3**
comp=Z,538nm,1.2s
MNAI Manna 46.17 250 P **P** **00 08 40.6 -2.1**
MNAI Manna 46.17 250 P **P** **00 08 41.8 -0.9**
MNAI Manna 46.17 250 P **P** **00 08 41.1 -1.6**
comp=Z,536nm,1.2s
KSI Kapahiang 46.22 251 P **P** **00 08 41.8 -1.4**
comp=Z,268nm,1.1s
BKNI Bangkinang 46.27 257 P **P** **00 08 43.9 +0.4**
comp=Z,66nm,0.6s
BKNI Bangkinang 46.27 257 P **P** **00 08 42.2 -1.3**
MASI Maura Aman, Be 46.35 252 P **P** **00 08 43.7 -0.5**
comp=Z,4μmcomp=Z,408nm,1.2s
RNTT Ranong 46.51 270 P **P** **00 08 46.0 +0.6**
comp=Z,51nm,1.2s
KRJI Kerinci 46.69 254 P **P** **00 08 46.8 -0.1**
ULN Ulaanbaatar 46.77 325 P **P** **00 08 47.4 +0.3**
ULN S **S** **00 15 31.5 -0.7**
ULN Ulaanbaatar 46.77 325 P **P** **00 08 47.3 +0.1**
ULN Ulaanbaatar 46.77 325 P **P** **00 08 48.0 +0.8**
comp=Z,91nm,1.4s
ULN Ulaanbaatar 46.77 325 P **P** **00 08 48.0 +0.8**
comp=Z,23nm,1.4s
SONM Songino Array 47.13 324 P **P** **00 08 50.1 +0.1**
comp=Z,6.1nm,0.7s,baz=142,slow=9.9,SNR=24
SONM PcP **PcP** **00 10 21.2 +0.5**
comp=Z,6.8nm,1.0s,baz=132,slow=6.4,SNR=3.9
SONM ScP **ScP** **00 14 08.1 -0.4**
comp=Z,3.7nm,1.2s,baz=110,slow=4.2,SNR=5.0
SONM LR LR 00 28 24.8
comp=Z,296nm,21.8s,baz=127,slow=36
comp=Z,6.1nm,0.7s
SONM Songino Array 47.13 324 P **P** **00 08 50.0 +0.1**
SONM IAmb IAmb 00 09 14.7
comp=Z,47nm,1.4s
SONM Songino Array 47.13 324 **ScP** **00 14 07.8 -0.7**
PPI Padang Panjang 47.13 256 P **P** **00 08 48.8 -1.4**
comp=Z,1μmcomp=Z,85nm,0.6s
BBOO Buckleboo 47.22 191 P **P** **00 08 51.3 +0.7**
comp=Z,84nm,0.9s
BBOO Buckleboo 47.22 191 P **P** **00 08 50.7 +0.1**
comp=Z,84nm,0.9s
BBOO Buckleboo 47.22 191 P **P** **00 08 51.4 +0.7**
comp=Z,84nm,0.9s
BBOO Buckleboo 47.22 191 P **P** **00 08 50.5 -0.1**
BBOO Buckleboo 47.22 191 P **P** **00 08 51.3 +0.7**
comp=Z,84nm,0.9s
HTT Hallett 47.37 188 P **P** **00 08 51.5 -0.2**
comp=Z,6.1nm,0.9s
HTT Hallett 47.37 188 P **P** **00 08 51.3 -0.5**
comp=Z,6.1nm,0.9s
HTT Hallett 47.37 188 P **P** **00 08 52.9 +1.1**
comp=Z,24nm,1.4s
FORT Forrest 47.45 201 P **P** **00 08 53.4 +1.1**
comp=Z,81nm,0.9s
FORT Forrest 47.45 201 P **P** **00 08 52.9 +0.5**
comp=Z,81nm,0.9s
FORT Forrest 47.45 201 P **P** **00 08 53.1 +0.7**
PSI Prapat 47.55 261 P **P** **00 08 53.4 -0.3**
comp=Z,85nm,1.0s
PSI Prapat 47.55 261 P **P** **00 08 53.1 -0.6**
comp=Z,818nmcomp=Z,79nm,1.0s
RPSI Rantau Prapat 47.58 261 P **P** **00 08 53.0 -0.8**
comp=Z,79nm,1.0s
GIRL Giralia 47.59 221 P **P** **00 08 55.6 +2.0**
GIRL Giralia 47.59 221 P **P** **00 08 53.3 -0.3**
NPW Naypyitaw 47.80 284 P **P** **00 08 56.2 +0.8**
comp=Z,42nm,1.2s
GTA2 Gaotai 47.81 311 P **P** **00 08 55.8 +0.4**
GTA2 sP sP 00 09 17.6 -2.4
GTA2 ScP **ScP** **00 14 12.8 +1.2**
GTA2 S **S** **00 15 45.4 -1.8**
GTA2 pmax pmax
comp=Z,14nm,1.1s
GTA2 L L
comp=Z,180nm,17.8s
GTA2 L L
comp=Z,360nm,17.8s
GTA2 L L
comp=Z,520nm,20.3s
MEEK Meekatharra 48.06 213 P **P** **00 08 57.4 +0.2**
comp=Z,74nm,0.9s
MEEK Meekatharra 48.06 213 P **P** **00 08 57.4 +0.2**
comp=Z,74nm,0.9s
MEEK Meekatharra 48.06 213 P **P** **00 08 57.5 +0.2**
comp=Z,74nm,0.9s
MEEK Meekatharra 48.06 213 P **P** **00 08 57.3 0.0**
comp=Z,74nm,0.9s
KCSI Kotacane, Aceh 48.47 262 P **P** **00 08 59.7 -0.9**
comp=Z,2μmcomp=Z,151nm,1.3s
LHMI Lhok Sumawe 48.84 265 P **P** **00 09 05.8 +2.3**
comp=Z,2μmcomp=Z,232nm,1.1s
LHMI Lhok Sumawe 48.84 265 P **P** **00 09 04.9 +1.4**
comp=Z,230nm,1.1s
CAN Canberra 48.89 177 P **P** **00 09 05.2 +1.7**
CAN pP **sP** **00 09 27.4 -0.2**
GSI Gunungsitoli 49.27 260 P **P** **00 09 05.8 -1.0**
comp=Z,158nm,1.1s
MORE Moreh 49.56 290 IAmb IAmb 00 09 08.1
comp=Z,30nm,0.8s
YAK Yakutsk 49.58 350 LR LR 00 30 32.4
comp=Z,232nm,21.6s,baz=155,slow=36
YAK Yakutsk 49.58 350 **P** **00 09 08.1 -0.2**
YAK Yakutsk 49.58 350 P **P** **00 09 07.7 -0.6**
comp=Z,63nm,0.9s
KOHI KOHIMA 49.81 292 *i* P **P** **00 09 10.6 -0.3**
KOHI IAmb IAmb 00 09 35.0
comp=Z,86nm,1.7s
AUSMG Snowy Mountain 49.97 177 P **P** **00 09 13.5 +1.8**
comp=Z,74nm,0.6s
SNSI Sinabang, Aceh 50.16 262 P **P** **00 09 14.1 +0.6**
BSI Banda Aceh 50.38 266 P **P** **00 09 14.8 -0.4**
comp=Z,61nm,1.1s
ARPS Mount Arapiles 50.38 184 P **P** **00 09 16.9 +2.1**
KMBL Kambalda 50.40 207 P **P** **00 09 15.1 +0.1**
comp=Z,39nm,1.2s
KMBL Kambalda 50.40 207 P **P** **00 09 15.2 +0.3**
comp=Z,39nm,1.2s
GOMU GeErMu 50.68 306 P **P** **00 09 18.3 +0.7**
GOMU S **S** **00 16 30.3 +2.4**
GOMU pmax pmax
comp=Z,4.0nm,0.5s
GOMU L L
comp=Z,210nm,10.4s
GOMU L L
comp=Z,75nm,10.6s
GOMU L L
comp=Z,190nm,10.9s
TLY Talaya 50.71 327 LR LR 00 30 51.1
comp=Z,144nm,19.6s,baz=114,slow=36
TLY Talaya 50.71 327 P **P** **00 09 17.4 +0.2**
TLY S **S** **00 16 27.6 +0.6**
TLY Talaya 50.71 327 P **P** **00 09 17.6 +0.5**
TLY IAmb IAmb 00 09 40.9
comp=Z,19nm,0.8s
TLY Talaya 50.71 327 P **P** **00 09 17.3 +0.2**
comp=Z,34nm,1.1s
TLY Talaya 50.71 327 P **P** **00 09 16.1 -1.0**
TLY pP **pwP** **00 09 38.1 -0.3**
TEZP TEZPUR 51.04 293 *i* P **P** **00 09 20.6 +0.6**
TEZP IAmb IAmb 00 09 28.3
comp=Z,20nm,0.6s
TOO Toolangi 51.05 180 P **P** **00 09 20.8 +1.0**
BRAT Ballarat 51.05 182 P **P** **00 09 21.4 +1.7**
comp=Z,8.6nm,1.5s
AUMTC Mt Clear Colle 51.12 182 P **P** **00 09 21.4 +1.2**
comp=Z,43nm,0.9s
MORW Morawa 51.37 214 P **P** **00 09 22.6 +0.2**
comp=Z,168nm,0.9s
MORW Morawa 51.37 214 P **P** **00 09 22.4 +0.1**
comp=Z,168nm,0.9s
MORW Morawa 51.37 214 P **P** **00 09 22.2 -0.1**
comp=Z,168nm,0.9s
MORW Morawa 51.37 214 P **P** **00 09 21.1 -1.2**
MORW Morawa 51.37 214 P **P** **00 09 22.5 +0.2**
comp=Z,168nm,0.9s
SHL Shillong 51.81 292 P **P** **00 09 25.7 -0.3**
SNR=8.4
SHL Shillong 51.81 292 P **P** **00 09 24.6 -1.4**
SHL Shillong 51.81 292 *i* P **P** **00 09 24.9 -1.1**
SHL IAmb IAmb 00 09 26.7
comp=Z,25nm,0.8s
BRDH Bariadhala 51.97 288 LR LR 00 33 38.0
comp=Z,175nm,18.9s,baz=196,slow=38
BLDU Ballidu 52.24 212 P **P** **00 09 29.0 +0.2**
comp=Z,229nm,0.9s
BLDU Ballidu 52.24 212 P **P** **00 09 29.2 +0.4**
comp=Z,228nm,0.9s
BLDU Ballidu 52.24 212 P **P** **00 09 28.6 -0.2**
comp=Z,229nm,0.9s
BLDU Ballidu 52.24 212 P **P** **00 09 28.9 +0.2**
comp=Z,229nm,0.9s
KLBR Kellerberrin 52.50 210 P **P** **00 09 30.9 +0.3**
comp=Z,235nm,0.8s
KLBR Kellerberrin 52.50 210 P **P** **00 09 30.8 +0.1**
comp=Z,235nm,0.8s
KLBR Kellerberrin 52.50 210 P **P** **00 09 30.5 -0.2**
comp=Z,235nm,0.8s
KLBR Kellerberrin 52.50 210 P **P** **00 09 30.6 -0.1**
comp=Z,235nm,0.8s
LSA Lhasa 52.73 297 *i* eP **P** **00 09 31.0 -2.1**
LSA Lhasa 52.73 297 P **P** **00 09 34.5 +1.4**
comp=Z,46nm,1.0s
AUKUL Kulin High Sch 53.20 209 P **P** **00 09 35.7 -0.1**
comp=Z,131nm,1.1s
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.8 +0.3**
comp=Z,119nm,1.0s
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.8 +0.3**
comp=Z,75nm,1.2s
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.7 +0.3**
comp=Z,75nm,1.0s
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.8 +0.3**
comp=Z,119nm,1.0s
NWAO Narrogin (SRO) 53.84 210 LR LR 00 35 17.8
comp=Z,220nm,18.1s,baz=314,slow=39
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.5 0.0**
comp=Z,55nm,1.0s
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.3 -0.2**
comp=Z,55nm,1.0s
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 41.1 +0.6**
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 39.7 -0.8**
NWAO Narrogin (SRO) 53.84 210 P **P** **00 09 40.8 +0.3**
comp=Z,70nm,1.0s
GLAD Gladstone 54.49 178 P **P** **00 09 46.0 +1.0**
comp=Z,28nm,0.8s
UNV Unalaska Valle 54.70 32 P **P** **00 09 47.7 +1.2**
COCO West Island 54.96 244 P **P** **00 09 49.1 +0.2**
RAO Raoul Island 55.27 141 P **P** **00 09 51.1 +0.2**
comp=Z,258nm,0.3s,baz=187,slow=23,SNR=4.3
RAO LR LR 00 30 02.9
comp=Z,135nm,21.1s,baz=322,slow=32
RAO Raoul Island 55.27 141 IAmb IAmb 00 09 52.0
comp=Z,306nm,0.4s
RKGY Rocky Gully 55.34 209 P **P** **00 09 52.5 +1.2**
comp=Z,45nm,1.0s
RKGY Rocky Gully 55.34 209 P **P** **00 09 52.5 +1.2**
comp=Z,45nm,1.0s
KHLH Kahului Airpor 55.37 74 P **P** **00 09 53.2 +1.4**
BILL Bilibino 55.86 9 P **P** **00 09 54.6 0.0**
BILL IAmb IAmb 00 10 33.9
comp=Z,45nm,1.3s
BILL Bilibino 55.86 9 P **P** **00 09 55.6 +1.0**
BILL pP **sP** **00 10 17.5 -1.6**
BILI Bilibino, Chuk 55.90 9 P **P** **00 09 55.9 +1.0**
comp=Z,27nm,1.1s
EVN Everest 56.42 295 IAmb IAmb 00 10 58.7
comp=Z,25nm,0.9s
EVN Everest 56.42 295 P **P** **00 10 00.5 +0.4**
comp=Z,37nm,1.6s
BOK Bokaro 57.25 290 *i* P **P** **00 10 03.3 -2.0**
BOK IAmb IAmb 00 10 06.9
comp=Z,56nm,1.0s
WMQ Urumqi 57.69 313 *e*P **P** **00 10 09.0 +0.9**
WMQ sP sP 00 10 32.0 -1.1
WMQ PcP **PcP** **00 11 00.6 +0.2**
WMQ S **S** **00 18 01.8 +0.4**
WMQ pmax pmax
comp=Z,20nm,1.5s
WMQ pmax pmax
comp=Z,170nm,3.9s
WMQ L L
comp=Z,470nm,14.5s
WMQ L L
comp=Z,360nm,22.9s
WMQ L L
comp=Z,370nm,24.5s
TIXI Tiksi 58.77 354 LR LR 00 36 19.5
comp=Z,81nm,20.4s,baz=189,slow=37
TIXI Tiksi 58.77 354 P **P** **00 10 15.1 +0.1**
TIXI Tiksi 58.77 354 P **P** **00 10 14.6 -0.4**
comp=Z,13nm,1.0s
URZ Urewera 59.47 152 P **P** **00 10 20.8 +0.5**
comp=Z,18nm,0.9s,baz=340,slow=4.0,SNR=5.4
URZ LR LR 00 34 48.4
comp=Z,216nm,18.7s,baz=326,slow=35
comp=Z,18nm,0.9s
URZ Urewera 59.47 152 P **P** **00 10 21.6 +1.3**
comp=Z,31nm,1.2s
K13K Kusilvak Mount 59.58 25 P **P** **00 10 23.7 +2.9**
K13K IAmb IAmb 00 10 50.8
comp=Z,33nm,0.8s
RTZ Ruatahuna 59.70 152 P **P** **00 10 23.4 +1.4**
BKZ Black Stump Fm 59.93 153 P **P** **00 10 24.7 +1.2**
comp=Z,19nm,0.8s
ZSN Zaisan 60.41 317⇑ *i*P **P** **00 10 27.3 +0.5**
comp=Z,16nm,1.7s
THZ Tophouse 60.63 157 P **P** **00 10 30.1 +1.8**
MRZ Mangatainoka R 60.77 154 IAmb IAmb 00 10 33.3
comp=Z,25nm,1.0s
INZ Inchbonnie 60.93 159 IAmb IAmb 00 10 32.7
comp=Z,42nm,1.0s
SNZO South Karori 60.95 155 P **P** **00 10 31.6 +1.3**
SNZO South Karori 60.95 155 P **P** **00 10 31.4 +1.0**
K15K Wolf Creek Mou 61.04 25 IAmb IAmb 00 10 56.8
comp=Z,39nm,1.2s
LTZ Lake Taylor 61.28 158 IAmb IAmb 00 10 45.6
comp=Z,25nm,1.1s
RPZ Rata Peaks 61.66 159 LR LR 00 35 42.1
comp=Z,38nm,19.5s,baz=243,slow=34
RPZ Rata Peaks 61.66 159 P **P** **00 10 36.3 +1.2**
RPZ IAmb IAmb 00 11 14.8
comp=Z,40nm,1.1s
OXZ Oxford 61.67 158 IAmb IAmb 00 10 36.8
comp=Z,36nm,1.0s
MKAR Makanchi Array 62.01 316 P **P** **00 10 37.4 -0.2**
comp=Z,3.5nm,0.3s,baz=93,slow=8.4,SNR=172
MKAR LR LR 00 39 19.7
comp=Z,177nm,19.0s,baz=74,slow=38
MKAR PKP2bc **P'P'bc** **00 39 52.0 -4.1**
comp=Z,0.4nm,0.8s,baz=249,slow=4.0,SNR=3.6
comp=Z,3.5nm,0.3s
MKAR Makanchi Array 62.01 316 P **P** **00 10 37.8 +0.2**
ZAA0 Zalesovo Array 62.02 324 IAmb IAmb 00 11 07.7
comp=Z,31nm,1.1s
ZALV Zalesovo Beam 62.02 324 P **P** **00 10 36.8 -0.7**
comp=Z,2.7nm,0.8s,baz=108,slow=4.8,SNR=13
ZALV LR LR 00 40 02.4
comp=Z,109nm,18.2s,baz=104,slow=38
comp=Z,2.7nm,0.8s
ZALV Zalesovo Beam 62.02 324 P **P** **00 10 37.1 -0.4**
I17K Unalakleet 62.12 24 IAmb IAmb 00 10 41.6
comp=Z,32nm,0.9s
MAKZ Makanchi 62.22 316 P **P** **00 10 39.6 +0.6**
MAKZ IAmb IAmb 00 11 08.2
comp=Z,22nm,0.7s
MAKZ Makanchi 62.22 316 P **P** **00 10 39.7 +0.6**
comp=Z,33nm,0.7s
MAKZ Makanchi 62.22 316 P **P** **00 10 39.5 +0.6**
MAKZ pP **pwP** **00 11 01.5 +1.2**
RDOG Red Dog Mine 63.43 19 IAmb IAmb 00 11 14.3
comp=Z,93nm,1.6s
KDAK Kodiak Island 63.46 32 LR LR 00 35 40.5
comp=Z,71nm,21.2s,baz=250,slow=33
WUS Wushi 63.49 309 P **P** **00 10 47.1 -0.6**
comp=Z,10nm,1.8s
SHLS Shalkode 63.49 311⇑ *i*P **P** **00 10 45.9 -1.7**
J18K Innoko River 63.54 25 IAmb IAmb 00 11 51.5
comp=Z,46nm,1.6s
H18K Honhosa River 63.60 23 IAmb IAmb 00 11 29.6
comp=Z,110nm,1.8s
RAR Rarotonga 63.74 122 LR LR 00 30 44.5
comp=Z,184nm,21.9s,baz=292,slow=28
UZB Uzynbulak 63.81 311 *e*P **P** **00 10 50.1 +0.3**
comp=Z,18nm,1.5s
G18K Tagagawik 63.83 22 IAmb IAmb 00 10 52.1
comp=Z,33nm,1.0s
KPKS Kokpek 64.09 312 *e*P **P** **00 10 52.0 +0.5**
PALK Pallekele 64.18 271 LR LR 00 36 21.7
comp=Z,59nm,21.2s,baz=78,slow=34
SATY Saty 64.25 311⇑ *i*P **P** **00 10 53.1 +0.5**
comp=Z,17nm,1.4s
TDK Taldyqorghan 64.44 313⇑ *i*P **P** **00 10 54.3 +0.6**
comp=Z,35nm,1.0s
TARG Taragay, Kyrgy 64.59 310 P **P** **00 10 56.1 +0.9**
comp=Z,12nm,1.1s
HYB Hyderabad 64.59 283 *i* P **P** **00 10 53.0 -2.2**
HYB IAmb IAmb 00 10 55.4
comp=Z,24nm,1.0s
SMLA Simla 64.84 298 *i* P P 00 10 49.5 -7.1
SMLA IAmb IAmb 00 10 57.8
comp=Z,43nm,0.9s
I20K Naaghedeneel 64.96 24 IAmb IAmb 00 11 30.3
comp=Z,54nm,0.8s
E19K Redstone River 65.03 21 IAmb IAmb 00 11 24.1
comp=Z,37nm,0.9s
KURK Kurchatov 65.05 320 P **P** **00 10 57.2 -0.3**
KURK S **S** **00 19 33.1 -1.2**
KURK Kurchatov 65.05 320 P **P** **00 10 57.5 0.0**
KURK Kurchatov 65.05 320 P **P** **00 10 57.6 0.0**
comp=Z,94nm,0.9s
KURK Kurchatov 65.05 320 P **P** **00 10 57.4 -0.1**
KURK pP **pwP** **00 11 20.1 +0.7**
KURBB Kurchatov Arra 65.09 320 P **P** **00 10 57.5 -0.3**
comp=Z,14nm,0.8s,baz=101,slow=6.7,SNR=15
KURBB LR LR 00 40 52.3
comp=Z,240nm,19.3s,baz=173,slow=37
comp=Z,14nm,0.8s
D19K Kuna River 65.20 20 IAmb IAmb 00 11 24.3
comp=Z,24nm,0.7s
SKT Skwentna 65.24 28 IAmb IAmb 00 11 24.2
comp=Z,46nm,1.0s
PPLA Purkeypile 65.24 26 IAmb IAmb 00 11 34.5
comp=Z,58nm,0.9s
MDOK Medeo 65.25 311 *e*P **P** **00 10 59.7 +0.5**
TNSS Tian-Shan 65.32 311 *e*P **P** **00 11 00.1 +0.1**
AAA Alma-Ata 65.35 311 *e*P **P** **00 11 00.1 +0.4**
comp=Z,40nm,1.5s
CAST Castle Rocks 65.46 26 IAmb IAmb 00 11 25.9
comp=Z,49nm,0.9s
ASAI AK-SAY(Kyrgyzs 65.50 309 P **P** **00 11 01.9 +0.8**
comp=Z,20nm,1.0s
ASAI pP **pwP** **00 11 23.2 +0.6**
KSH2 Kashi 66.17 307 P **P** **00 11 06.1 +0.9**
KSH2 sP pwP 00 11 26.1 -0.6
KSH2 pmax pmax
comp=Z,13nm,1.2s
TRF Thorofare Moun 66.23 26 IAmb IAmb 00 11 41.0
comp=Z,33nm,0.9s
NRIK Noril'sk 66.28 341 P **P** **00 11 05.0 -0.1**
comp=Z,13nm,0.8s,baz=118,slow=7.0,SNR=17
NRIK LR LR 00 41 17.1
comp=Z,193nm,18.3s,baz=123,slow=37
comp=Z,13nm,0.8s
NRIK Noril'sk 66.28 341 IAmb IAmb 00 11 29.4
comp=Z,45nm,1.0s
TKM2 Tokmak 2 66.30 311 P **P** **00 11 06.5 +0.5**
SNR=8.4
MLY Manley 66.54 24 IAmb IAmb 00 11 39.9
comp=Z,28nm,0.9s
KBK Karagaybulak 66.76 311 P **P** **00 11 09.4 +0.5**
SNR=6.7
RND Reindeer 66.84 26 IAmb IAmb 00 11 34.5
comp=Z,53nm,1.2s
CHMS Chumysh 66.92 311 P **P** **00 11 10.4 +0.6**
SNR=6.9
AAK Ala-Archa 67.10 311 LR LR 00 41 41.4
comp=Z,160nm,20.4s,baz=80,slow=37
AAK Ala-Archa 67.10 311 *i* P **P** **00 11 11.4 +0.4**
SNR=7.5
AAK Ala-Archa 67.10 311 P **P** **00 11 10.4 -0.7**
AAK Ala-Archa 67.10 311 P **P** **00 11 11.3 +0.4**
AAK Ala-Archa 67.10 311 P **P** **00 11 11.4 +0.4**
comp=Z,9.4nm,1.2s
AAK Ala-Archa 67.10 311 P **P** **00 11 11.0 -0.1**
AAK pP **sP** **00 11 34.2 -2.3**
AAK PcP **PcP** **00 11 37.4 -1.4**
USP Ospenovka 67.12 311 P **P** **00 11 11.0 0.0**

SNR=6.6
I23K Minto, Yukon-K 67.13 25 lAmb lAmb 00 11 37.2
comp=Z,27nm,0.8s
D22K Ayikyak River 67.17 20 lAmb lAmb 00 11 14.1
comp=Z,28nm,0.8s
WRH Wood River Hil 67.46 25 lAmb lAmb 00 11 45.9
comp=Z,45nm,1.1s
CCB Clear Creek Bu 67.62 25 lAmb lAmb 00 11 39.0
comp=Z,38nm,1.4s
EKS2 Erkin-Say 67.62 311 P P **00 11 15.2 +0.9**
SNR=6.7
COLA College 67.67 25 P P **00 11 16.2 +2.3**
comp=Z,18nm,1.3s
IL31 68.04 25 lAmb lAmb 00 11 41.3
comp=Z,40nm,1.1s
ILAR Eielson Array 68.04 25 P P **00 11 16.4 0.0**
comp=Z,12nm,0.9s,baz=258,slow=4.5,SNR=68
ILAR LR LR 00 39 27.5
comp=Z,92nm,20.5s,baz=242,slow=34
comp=Z,12nm,0.9s
ILAR Eielson Array 68.04 25 P P **00 11 16.1 -0.2**
NIL Nilore 68.08 301 P P **00 11 18.3 +1.1**
NIL Nilore 68.08 301 P P **00 11 18.0 +0.8**
NIL Nilore 68.08 301 P P **00 11 18.0 +0.8**
comp=Z,94nm,0.9s
ARSB Arslanbob 68.19 309 lAmb lAmb 00 11 46.7
comp=Z,41nm,1.1s
PAX Paxson 68.21 27 lAmb lAmb 00 11 43.4
comp=Z,87nm,1.4s
K24K Donnelly Dome 68.27 26 lAmb lAmb 00 11 44.0
comp=Z,52nm,1.0s
OHH Osh 68.33 308 P P **00 11 17.9 -0.9**
comp=Z,22nm,1.1s
ARK Arkit 68.96 310 P P **00 11 22.8 +0.2**
comp=Z,21nm,0.9s
DOT Dot Lake 68.98 27 lAmb lAmb 00 11 48.5
comp=Z,61nm,1.2s
DZA Taraz 69.43 311 eP P **00 11 26.0 +0.5**
BMAR Burnt Mountain 69.60 23 P P **00 11 28.4 +2.3**
G26K Porcupine Rive 69.80 23 lAmb lAmb 00 11 53.4
comp=Z,33nm,0.9s
BTK Batken 69.84 308 P P **00 11 28.3 +0.2**
comp=Z,9.0nm,0.9s
KKAR Karatay Array 70.03 311 P P **00 11 29.1 -0.1**
BVAR Borovoye Array 70.36 322 P P **00 11 30.3 -0.7**
comp=Z,8.6nm,0.5s,baz=102,slow=7.3,SNR=72
comp=Z,8.6nm,0.5s
IUG Iuzhnay 70.40 310 eP P **00 11 31.9 +0.4**
comp=Z,24nm,1.5s
BORK Borovoye 70.41 322 P P **00 11 31.3 +0.1**
BRLS Borolday 70.53 311 eP P **00 11 32.9 +0.8**
PPT Papeete 70.95 114 P P **00 11 36.1 +1.1**
comp=Z,13nm,0.4s,baz=219,slow=20,SNR=3.6
PPT LR LR 00 34 11.5
comp=Z,415nm,20.9s,baz=314,slow=28
comp=Z,13nm,0.4s
PPT2 Papeete2 70.96 114 eS S **00 20 46.3 +0.4**
comp=Z,148nm,25.2s
PPT2 eLR LR 00 32 51.0
comp=Z,837nm,33.2s
PPT2 eLR LR 00 32 58.0
comp=Z,928nm,25.8s
DAWY Dawson 71.09 27 lAmb lAmb 00 12 02.2
comp=Z,51nm,1.3s
KBL Kabul 71.52 302 P P **00 11 38.8 +0.2**
SNR=15
KBL S S **00 20 50.4 -1.9**
KBL Kabul 71.52 302 P P **00 11 38.4 -0.1**
KBL lAmb lAmb 00 12 04.9
comp=Z,45nm,1.2s
KBL Kabul 71.52 302 P P **00 11 38.5 -0.1**
comp=Z,36nm,1.1s
L29M L29M 71.54 28 lAmb lAmb 00 12 12.6
comp=Z,36nm,0.8s
HYT Haines Junctio 71.61 30 lAmb lAmb 00 12 06.3
comp=Z,63nm,1.0s
J29N Klondike Camp 71.65 26 lAmb lAmb 00 12 05.9
comp=Z,45nm,1.2s
I29M Ogilvie Camp, 71.72 25 lAmb lAmb 00 12 11.5
comp=Z,46nm,1.1s
K29M Barlow Dome 71.88 27 lAmb lAmb 00 12 07.4
comp=Z,34nm,0.9s
EPYK Eagle Plains 72.48 24 lAmb lAmb 00 12 17.4
comp=Z,28nm,0.7s
F30M Barrier River 72.97 23 lAmb lAmb 00 11 49.5
comp=Z,45nm,0.9s
TBI Tubuai 73.26 120 eLR LR 00 33 54.1
comp=Z,3μm,29.8s
F31M Tsiigehtchic 73.74 23 lAmb lAmb 00 12 15.8
comp=Z,42nm,1.2s
INK Inuvik 73.87 22 P P **00 11 52.1 +0.6**
comp=Z,22nm,0.9s,baz=261,slow=6.5,SNR=55
INK LR LR 00 43 28.5
comp=Z,63nm,20.9s,baz=286,slow=35
comp=Z,22nm,0.9s
INK Inuvik 73.87 22 P P **00 11 52.7 +1.2**
comp=Z,32nm,1.0s
DLBC Dease Lake 75.36 33 LR LR 00 40 59.0
comp=Z,38nm,19.7s,baz=254,slow=32
A36M Sachs Harbour 76.70 19 lAmb lAmb 00 12 10.1
comp=Z,32nm,0.8s
TAOE Nuku Hiva Isla 76.83 103 eLR LR 00 35 46.6
comp=Z,657nm,31.5s
BBB Bella Bella 76.88 39 LR LR 00 37 56.1
comp=Z,241nm,21.0s,baz=275,slow=29
ABKAR Akbulak array 77.03 318 P P **00 12 09.6 -0.4**
ARTI Arti 77.25 325 LR LR 00 48 53.3
comp=Z,189nm,18.8s,baz=86,slow=38
ARTI Arti 77.25 325 P P **00 12 10.9 -0.3**
ARTI Arti 77.25 325 P P **00 12 10.3 -0.8**
ARTI pP pwP **00 12 34.0 +0.7**
C36M Paulatuk 77.29 21 lAmb lAmb 00 12 13.2
comp=Z,31nm,0.9s
AKTO Aktyubinsk 78.14 319 LR LR 00 49 06.2
comp=Z,202nm,19.5s,baz=63,slow=37
F04A Amboy 81.48 45 lAmb lAmb 00 13 05.2
comp=Z,68nm,1.3s
JRO Jston Ridge Ob 81.56 44 lAmb lAmb 00 13 00.8
comp=Z,81nm,1.3s
G04A Mulino 81.58 46 lAmb lAmb 00 13 14.4
comp=Z,69nm,1.0s
JLN Jalan Bani Buh 81.65 291 P P **00 12 36.0 +0.3**
SNR=5.1
KIRV Kirov 81.69 328 LR LR 00 51 13.7
comp=Z,104nm,19.2s,baz=76,slow=37
I04A Tendick Farm, 81.90 47 lAmb lAmb 00 13 11.5
comp=Z,42nm,1.2s
WBK Wadi Bani Khal 81.96 291 P P **00 12 38.1 +0.7**
YBH Yreka Blue Hor 82.08 49 P P **00 12 39.7 +1.9**
comp=Z,10nm,0.8s,baz=278,slow=3.9,SNR=30
YBH LR LR 00 42 40.3
comp=Z,138nm,20.8s,baz=281,slow=31
comp=Z,10nm,0.8s
WSAR Wadi Sarin 82.14 292 P P **00 12 40.1 +1.8**
SNR=5.3
WIFE Three Sisters- 82.27 47 lAmb lAmb 00 13 14.5
comp=Z,38nm,1.0s
L04D Klamath Falls 82.28 49 lAmb lAmb 00 13 13.6
comp=Z,58nm,1.2s
YKA Yellowknife Ar 82.30 28 P P **00 12 39.4 +1.1**
comp=Z,3.7nm,0.6s,baz=268,slow=5.2,SNR=16
YKA LR LR 00 49 00.1
comp=Z,57nm,19.9s,baz=265,slow=35
comp=Z,3.7nm,0.6s
YKA Yellowknife Ar 82.30 28 P P **00 12 39.8 +1.5**
O02D Mt. Diablo Mer 82.33 51 lAmb lAmb 00 13 13.2
comp=Z,69nm,1.6s
BIDO Bidbid 82.54 292 P P **00 12 40.9 +0.5**
SNR=9.1
M03C McCloud 82.61 49 lAmb lAmb 00 13 17.5
comp=Z,50nm,1.0s
SMDO Samad 82.70 292 P P **00 12 41.4 +0.1**
JMDO Jabal Madar 82.79 291 P P **00 12 42.0 +0.3**
J05D Fort Rock, OR 82.84 47 lAmb lAmb 00 13 19.4
comp=Z,31nm,0.8s
PINE Pine Mountain 82.94 47 lAmb lAmb 00 13 20.2
comp=Z,49nm,0.9s
O03E Paynes Creek 83.05 50 lAmb lAmb 00 13 23.5
comp=Z,34nm,0.9s
EPH Ephrata 83.10 43 lAmb lAmb 00 13 15.2
comp=Z,40nm,1.2s
MHTO MHTO 83.20 290 P P **00 12 43.5 -0.3**
SNR=19
K05A Summer Lake 83.20 48 lAmb lAmb 00 13 23.6
comp=Z,43nm,1.0s
HOQ Hoqain 83.26 293 P P **00 12 44.5 +0.4**
SNR=7.4
ORV Oroville 83.43 51 lAmb lAmb 00 13 13.8
comp=Z,42nm,1.5s
BSY Bisya 83.53 292 P P **00 12 46.3 +0.8**
DQM DQM 83.81 289 P P **00 12 47.8 +0.8**
SOHO SOHO 83.84 293 *i* P P **00 12 46.7 -0.3**
SNR=6.3
SOHO SOHO 83.84 293 P P **00 12 47.5 +0.5**
C09A Chrisman Ranch 83.87 42 lAmb lAmb 00 13 19.3
comp=Z,37nm,1.4s
MASF Masafi 83.91 295 P P **00 12 48.6 +1.1**
MSFE Esma-Masafi 83.91 295 P P **00 12 47.6 +0.2**
UOSS Minazif 83.96 294 P P **00 12 48.8 +1.1**
UOSS Minazif 83.96 294 P P **00 12 48.7 +1.1**
AFDM Forest Hills D 83.96 52 lAmb lAmb 00 13 12.0
comp=Z,50nm,1.7s
ARQ Araqi 84.02 292 P P **00 12 49.2 +1.2**
SPITS Spitsbergen Ar 84.04 351 LR LR 00 52 06.6
comp=Z,80nm,21.9s,baz=42,slow=37
HATD Hatta, Dubai 84.05 294 P P **00 12 49.4 +1.3**
HATD Hatta, Dubai 84.05 294 P P **00 12 49.3 +1.3**
ASHO Ashiyiah 84.14 294 P P **00 12 49.4 +0.8**
ASHO Ashiyiah 84.14 294 P P **00 12 49.4 +0.8**
BELG Belogornoye 84.15 322 LR LR 00 51 52.3
comp=Z,126nm,19.4s,baz=86,slow=37
RES Resolute Bay 84.19 13 P P **00 12 47.2 -0.6**
comp=Z,11nm,0.8s
NAZ Nazwa, Dubai 84.43 294 P P **00 12 50.6 +0.6**
NAZ Nazwa, Dubai 84.43 294 P P **00 12 50.7 +0.6**
NEW Newport 84.51 42 P P **00 12 51.9 +1.9**
comp=Z,6.1nm,0.8s,baz=269,slow=4.9,SNR=11
NEW LR LR 00 41 50.0
comp=Z,106nm,21.3s,baz=291,slow=29
comp=Z,6.1nm,0.8s
NEW Newport 84.51 42 P P **00 12 52.1 +2.1**
FAQ Al Faqa, Dubai 84.54 294 *i* P P **00 12 51.0 +0.4**
SNR=11
FAQ Al Faqa, Dubai 84.54 294 P P **00 12 51.5 +0.9**
ALNE Al Ain 84.55 293 *i* P P **00 12 51.6 +0.9**
SNR=8.9
ALNE Al Ain 84.55 293 P P **00 12 51.4 +0.7**
MPK Martis Peak 84.60 51 lAmb lAmb 00 13 22.3
comp=Z,36nm,0.9s
CMB Columbia Colle 84.61 52 lAmb lAmb 00 13 21.4
comp=Z,36nm,1.3s
ASUD Al Ashush, Dub 84.80 294 P P **00 12 52.8 +1.0**
ASUD Al Ashush, Dub 84.80 294 P P **00 12 52.9 +1.0**
WVOR Wild Horse Val 84.89 48 lAmb lAmb 00 13 24.5
comp=Z,68nm,1.8s
WVOR Wild Horse Val 84.89 48 P P **00 12 54.5 +2.3**
comp=Z,19nm,0.9s
PKD Bear Valley Ra 84.97 54 lAmb lAmb 00 13 24.1
comp=Z,43nm,0.9s
PNTR Pine Nut 84.97 51 P P **00 12 55.0 +2.2**
PNTR lAmb lAmb 00 13 31.2
comp=Z,23nm,0.8s
AJN Ajban 85.12 294 P P **00 12 54.0 +0.5**
BMO Blue Mountains 85.24 45 lAmb lAmb 00 13 23.1
comp=Z,21nm,0.9s
UMZA Um Al Zommool 85.38 292 P P **00 12 54.9 +0.2**
RKT Rikitea 85.70 115 eLR LR 00 40 00.2
comp=Z,1μm,26.2s
SHAO Shalim 86.00 287 *i* P P **00 12 58.5 +0.6**
SNR=6.0
SHAO Shalim 86.00 287 P P **00 12 58.2 +0.2**
KVN Kaiserville 86.11 51 lAmb lAmb 00 13 31.7
comp=Z,22nm,1.0s
NVAR Mina Array Bea 86.11 52 P P **00 13 00.7 +2.2**
comp=Z,5.7nm,0.6s,baz=267,slow=5.9,SNR=30
NVAR LR LR 00 49 36.2
comp=Z,54nm,18.4s,baz=270,slow=34
comp=Z,5.7nm,0.6s
MZWR Madinat Zayed 86.29 293 P P **00 12 59.2 -0.1**
DMTO DMTO 86.70 287 P P **00 13 01.4 0.0**
SNR=5.3
MZR Muzera 86.82 293 *i* P P **00 13 02.3 +0.3**
SNR=18
MZR Muzera 86.82 293 P P **00 13 02.1 +0.1**
SNR=6.2
TPH Tonopah 87.03 52 lAmb lAmb 00 13 32.9
comp=Z,17nm,0.9s
GHWR Ruwais 87.13 294 P P **00 13 04.5 +1.1**
ARCES ARCESS Array B 87.21 342 P P **00 13 03.1 +0.2**
comp=Z,24nm,0.9s,baz=44,slow=7.2,SNR=17
ARCES LR LR 00 54 58.5
comp=Z,144nm,21.7s,baz=61,slow=38
comp=Z,24nm,0.9s
ARCES ARCESS Array B 87.21 342 P P **00 13 03.6 +0.7**
ARCES lAmb lAmb 00 13 04.9
comp=Z,44nm,1.2s
DOK Doka 87.25 288 P P **00 13 03.6 -0.5**
SNR=9.4
CLC China Lake 87.32 54 lAmb lAmb 00 13 34.4
comp=Z,25nm,1.1s
LRMC Laurel Mtn Rad 87.34 54 lAmb lAmb 00 13 34.7
comp=Z,23nm,1.0s
MPMC Manual Prospec 87.34 54 lAmb lAmb 00 13 35.3
comp=Z,30nm,1.1s
RBK Rabkut 87.44 287 P P **00 13 04.8 -0.3**
SNR=5.9
HLID Hailey 87.58 46 lAmb lAmb 00 13 34.9
comp=Z,23nm,0.9s
HLID Hailey 87.58 46 P P **00 13 07.9 +2.4**
comp=Z,26nm,1.0s
ROCAM Rodrigues Isla 87.64 249 P P **00 13 07.3 +1.5**
FURC Furnace Creek, 87.72 53 lAmb lAmb 00 13 41.5
comp=Z,36nm,1.2s
WHFO Wadi Hawf 87.74 288 P P **00 13 05.8 -0.7**
ELK Elko 87.79 49 lAmb lAmb 00 13 36.4
comp=Z,24nm,0.8s
GBMT Granite Butte, 87.93 42 lAmb lAmb 00 13 35.7
comp=Z,42nm,1.1s
GWY Greenwater Val 87.95 53 lAmb lAmb 00 13 37.4
comp=Z,32nm,1.1s
BCYI Bear Canyon 88.06 45 lAmb lAmb 00 13 41.2
comp=Z,26nm,1.2s
TPNV Topopah Spring 88.07 53 lAmb lAmb 00 13 40.4
comp=Z,22nm,1.1s
GSC Goldstone, Bar 88.08 54 lAmb lAmb 00 13 38.2
comp=Z,34nm,1.1s
SLWR Sila 88.16 294 P P **00 13 09.5 +1.2**
DLMT Dillon 88.30 44 lAmb lAmb 00 13 41.6
comp=Z,20nm,0.9s
ABTO Aybut 88.31 287 P P **00 13 09.2 -0.1**
DPP Dos Picos Cty 88.58 56 lAmb lAmb 00 13 47.3
comp=Z,18nm,1.1s
PFO Pinyon Flats O 88.80 56 LR LR 00 54 38.9
comp=Z,74nm,18.2s,baz=266,slow=37
PFO Pinyon Flats O 88.80 56 P P **00 13 13.7 +2.4**
PFO lAmb lAmb 00 13 42.1
comp=Z,36nm,1.4s
PRN Pahroc Range 88.86 52 lAmb lAmb 00 13 58.1
comp=Z,24nm,1.2s
SHPR Sheep Range 89.03 53 lAmb lAmb 00 13 45.4
comp=Z,16nm,1.1s
BLKN Baker Lake 89.28 23 lAmb lAmb 00 13 14.8
comp=Z,21nm,1.1s
YHL Hebgen Lake 89.41 44 lAmb lAmb 00 13 43.4
comp=Z,39nm,1.2s
YHB Horse Butte 89.43 44 lAmb lAmb 00 13 44.8
comp=Z,13nm,0.9s
GNI Garni 89.50 311 LR LR 00 56 49.4
comp=Z,87nm,20.1s,baz=80,slow=38
GNI Garni 89.50 311 P P **00 13 13.7 -0.8**
GNI Garni 89.50 311 P P **00 13 15.3 +0.8**
GNI lAmb lAmb 00 13 16.6
comp=Z,39nm,1.6s
GNI Garni 89.50 311 P P **00 13 14.4 -0.1**
comp=Z,13nm,1.5s
GNI Garni 89.50 311 ⇑P P **00 13 14.2 -0.3**
comp=Z,13nm,1.5s
YUH Yuha Desert 89.50 57 lAmb lAmb 00 13 44.0
comp=Z,17nm,1.0s
BC3 Big Chuckawall 89.60 56 lAmb lAmb 00 13 45.5
comp=Z,27nm,1.1s
SPUT South Promonto 89.64 48 lAmb lAmb 00 13 44.4
comp=Z,24nm,1.0s
ESJX Sierra Juarez 89.65 57 lAmb lAmb 00 13 54.8
comp=Z,22nm,1.1s
YHH Holmes Hill 89.65 44 lAmb lAmb 00 13 49.2
comp=Z,31nm,1.4s
KBZ Khabaz 89.69 315 P P **00 13 14.0 -1.1**
comp=Z,4.4nm,0.9s,baz=70,slow=5.0,SNR=8.8
KBZ LR LR 00 55 18.0
comp=Z,114nm,21.7s,baz=66,slow=37
comp=Z,4.4nm,0.9s
IRM Iron Mountain 89.70 55 lAmb lAmb 00 13 45.2
comp=Z,37nm,1.3s
DUG Dugway, Tooele 89.72 49 lAmb lAmb 00 13 45.3
comp=Z,25nm,0.8s
DUG Dugway, Tooele 89.72 49 P P **00 13 17.8 +2.2**
comp=Z,37nm,1.1s
DUG pP pwP **00 13 36.8 -2.2**
KIV Kislovodsk 89.76 315 P P **00 13 15.0 -0.7**
KIV Kislovodsk 89.76 315 P P **00 13 15.0 -0.7**
KIV Kislovodsk 89.76 315 P P **00 13 14.6 -1.0**
comp=Z,9.7nm,0.9s
KIV Kislovodsk 89.76 315 P P **00 13 14.4 -1.2**
comp=Z,12nm,0.9s
CCD Concordia, Ant 89.77 186 P P **00 13 16.9 +1.7**
CCD pP sP **00 13 41.9 +1.4**
AHID Auburn Hatcher 90.14 46 lAmb lAmb 00 13 47.0
comp=Z,28nm,1.0s
AHID Auburn Hatcher 90.14 46 P P **00 13 19.9 +2.3**
comp=Z,29nm,1.1s
HWUT Hardware Ranch 90.18 47 lAmb lAmb 00 13 47.1
comp=Z,31nm,1.1s
HWUT Hardware Ranch 90.18 47 P P **00 13 19.9 +2.2**
comp=Z,34nm,1.1s
GLA Glamis 90.27 56 lAmb lAmb 00 13 55.4
comp=Z,30nm,0.9s
SZCU Shurtz Canyon 90.30 51 lAmb lAmb 00 13 52.4
comp=Z,42nm,1.8s
BLYC Blythe 90.31 55 PcP 00 13 28.0 +8.6
BLYC lAmb lAmb 00 13 48.0
comp=Z,28nm,1.2s
LCMT Little Creek M 90.36 52 lAmb lAmb 00 13 51.6
comp=Z,29nm,1.4s
W13A Hualapai Mount 90.43 54 lAmb lAmb 00 13 48.9
comp=Z,32nm,1.4s
KNB Kanab 90.68 52 lAmb lAmb 00 13 55.1
comp=Z,37nm,1.3s
HAKT HAKKARI 91.06 309 ⇑P P **00 13 20.9 -1.1**
comp=Z,36nm,1.4s
113A Mohawk Valley, 91.20 56 lAmb lAmb 00 13 52.1
comp=Z,26nm,1.5s
BW06 Boulder Array 91.21 45 lAmb lAmb 00 13 50.8
comp=Z,19nm,1.6s
PD31 Pinedale Array 91.21 45 lAmb lAmb 00 13 50.8
comp=Z,17nm,1.6s
PDAR Pinedale Array 91.21 45 P P **00 13 23.5 +0.9**
comp=Z,1.5nm,0.6s,baz=234,slow=3.3,SNR=22
PDAR LR LR 00 47 40.7
comp=Z,107nm,21.1s,baz=281,slow=31
comp=Z,1.5nm,0.6s
PDAR Pinedale Array 91.21 45 P P **00 13 23.2 +0.7**
U15A North Rim 91.27 52 lAmb lAmb 00 13 52.8
comp=Z,15nm,1.0s
Q16A Castle Valley 91.33 49 lAmb lAmb 00 14 03.5
comp=Z,20nm,1.1s
FINES FINESS Array B 91.40 335 P P **00 13 21.7 -1.0**
comp=Z,2.5nm,0.4s,baz=58,slow=4.9,SNR=36
FINES LR LR 00 57 06.0
comp=Z,88nm,20.5s,baz=54,slow=37
comp=Z,2.5nm,0.4s
MSEY Mahe Island 91.41 266 P P **00 13 23.7 0.0**
MSEY Mahe Island 91.41 266 P P **00 13 24.1 +0.4**
MSEY Mahe Island 91.41 266 P P **00 13 24.6 +0.8**
MSEY lAmb lAmb 00 13 24.8
comp=Z,19nm,1.1s
P17A Butcher Ranch, 91.46 49 lAmb lAmb 00 13 52.9
comp=Z,14nm,1.1s
VNDA Vanda 91.57 177 P P **00 13 23.7 +0.7**
comp=Z,2.6nm,0.9s,baz=325,slow=6.6,SNR=12
VNDA LR LR 00 52 40.8
comp=Z,31nm,19.6s,baz=342,slow=34
comp=Z,2.6nm,0.9s
VNDA Vanda 91.57 177 P P **00 13 25.2 +2.2**
VNDA pP **00 13 36.6 -4.7**
VNDA Vanda 91.57 177 ⇑P P **00 13 23.8 +0.8**
comp=Z,5.4nm,1.8s
SRU San Rafael Swe 91.74 49 lAmb lAmb 00 13 54.3
comp=Z,11nm,0.9s
RDMU Red Mountain 91.94 48 lAmb lAmb 00 13 55.4
comp=Z,19nm,0.9s
HMU Henry Mountain 91.96 50 lAmb lAmb 00 13 59.1
comp=Z,10nm,1.0s
GURO Guroymak-BITLI 91.99 310 lAmb lAmb 00 13 26.9
comp=Z,13nm,1.1s
WUAZ Wupatki 92.26 53 lAmb lAmb 00 14 20.4
comp=Z,13nm,0.9s
X16A Lo Mia Camp, P 92.55 54 lAmb lAmb 00 14 03.2
comp=Z,20nm,1.7s
KOPT Kop Dagi 92.62 312 lAmb lAmb 00 13 30.2
comp=Z,28nm,1.5s
O20A White River Ci 93.05 48 lAmb lAmb 00 14 00.5
comp=Z,14nm,1.0s
PV05 Paradox Valley 93.14 50 P P **00 13 32.8 +1.2**
PV05 lAmb lAmb 00 14 00.5
comp=Z,23nm,1.2s
PV22 Blue Mesa, Par 93.21 49 P P **00 13 32.2 +0.3**
PV22 lAmb lAmb 00 14 11.4
comp=Z,16nm,1.0s
PV03 Paradox Valley 93.26 50 lAmb lAmb 00 14 23.9
comp=Z,20nm,1.0s
MARD Mardin 93.34 310 lAmb lAmb 00 13 32.5
comp=Z,13nm,1.1s
PV07 Paradox Valley 93.35 49 lAmb lAmb 00 14 07.8
comp=Z,16nm,1.1s
PV02 Paradox Valley 93.36 50 P P **00 13 33.8 +1.2**
PV02 lAmb lAmb 00 13 35.5
comp=Z,14nm,0.8s
PV15 Paradox Valley 93.50 49 P P **00 13 34.6 +1.3**
PV15 lAmb lAmb 00 14 06.2
comp=Z,21nm,1.0s
PV01 Paradox Valley 93.51 50 P P **00 13 34.6 +1.3**
PV01 lAmb lAmb 00 14 02.3
comp=Z,14nm,0.8s
TUC Tucson 93.74 56 P P **00 13 37.7 +3.4**
TUC lAmb lAmb 00 14 04.4
comp=Z,16nm,1.4s
TUC Tucson 93.74 56 P P **00 13 37.1 +2.8**
comp=Z,9.1nm,1.4s
RAYN Ar Rayn 93.77 295 *i* P P **00 13 33.8 -0.7**
SNR=16
RAYN Ar Rayn 93.77 295 P P **00 13 33.6 -1.0**
RAYN Ar Rayn 93.77 295 P P **00 13 33.3 -1.2**
RAYN lAmb lAmb 00 13 35.0
comp=Z,11nm,0.8s
RAYN Ar Rayn 93.77 295 ⇑P P **00 13 33.6 -1.0**
comp=Z,18nm,1.0s
MVCO Mesa Verde 93.88 50 P P **00 13 35.7 +0.6**
MVCO lAmb lAmb 00 14 04.7
comp=Z,16nm,1.2s
AKASG Malin Array Be 95.41 325 P P **00 13 39.8 -1.6**
comp=Z,0.6nm,0.5s,baz=52,slow=6.0,SNR=4.2
AKASG LR LR 00 58 45.7
comp=Z,126nm,20.0s,baz=55,slow=37
comp=Z,0.6nm,0.5s
ULM Lac du Bonnet 96.60 35 P P **00 13 47.0 +0.2**
comp=Z,2.2nm,0.7s,baz=332,slow=3.0,SNR=3.2
ULM LR LR 00 58 28.5
comp=Z,64nm,18.2s,baz=9.0,slow=36
comp=Z,2.2nm,0.7s
ULM Lac du Bonnet 96.60 35 lAmb lAmb 00 14 24.8
comp=Z,30nm,1.8s
LUBAR Lubar, Ukraine 96.61 325 P P **00 13 45.1 -1.8**
NB2 NORSAR Subarra 97.22 340 P P **00 13 48.3 -1.1**
comp=Z,5.2nm,1.1s,baz=43,slow=5.1
NOA NORSAR Array B 97.22 340 P P **00 13 48.9 -0.5**
comp=Z,2.1nm,0.9s,baz=47,slow=4.8,SNR=5.3
NOA LR LR 00 59 10.8
comp=Z,112nm,21.9s,baz=45,slow=36
comp=Z,2.1nm,0.9s
BR131 Keskin Array S 97.61 314 P P **00 13 49.7 -2.1**
BRTR Keskin Array B 97.61 314 P P **00 13 50.6 -1.1**
comp=Z,2.1nm,0.9s,baz=72,slow=4.0,SNR=13
BRTR LR LR 01 02 38.2
comp=Z,34nm,18.5s,baz=35,slow=38
comp=Z,2.1nm,0.9s
BRTR Keskin Array B 97.61 314 P P **00 13 49.9 -1.9**
BR104 Keskin Array S 97.61 314 P P **00 13 50.2 -1.6**
comp=Z,28nmcomp=Z,3.2nm,1.1s
BR106 Keskin Array S 97.62 314 P P **00 13 49.7 -2.1**
comp=Z,29nmcomp=Z,3.1nm,1.0s
KMPD K-Podol'skiy 98.03 324 P P **00 13 51.8 -1.5**
ASF Jabal al Asfar 98.15 306 LR LR 01 03 08.6
comp=Z,42nm,20.8s,baz=64,slow=38
MNTX Cornudas Mount 98.26 55 P Pdif 00 13 57.6 +2.8
comp=Z,4.6nm,1.2s
FRB Frobisher Bay 98.35 15 LR LR 00 58 07.3
comp=Z,44nm,20.1s,baz=312,slow=35
SFJD Kangerlussuaq 98.58 6 LR LR 00 57 04.4
comp=Z,33nm,22.0s,baz=350,slow=34
MMAI Mount Meron Ar 99.00 307 LR LR 01 02 48.8
comp=Z,53nm,21.5s,baz=56,slow=38

MAW	**Mawson**	**99.92**	**203**	P		**Pdif**	**00 14 01.5**	**+0.3**
	comp=Z,2.3nm,0.9s,baz=74,slow=4.6,SNR=3.7							
MAW				PP		**PP**	**00 18 06.8**	**-0.1**
	comp=Z,5.0nm,1.0s,baz=84,slow=9.6,SNR=5.3							
MAW				LR		LR	00 55 31.0	
	comp=Z,95nm,21.9s,baz=70,slow=33							
	comp=Z,2.3nm,0.9s							
MLR	**Muntele Rosu**	**99.93**	**322**	LR		LR	01 02 45.3	
	comp=Z,109nm,19.5s,baz=52,slow=38							
TXAR	**Lajitas Array**	**100.51**	**56**	P		**Pdif**	**00 14 06.6**	**+1.7**
	comp=Z,0.4nm,0.7s,baz=240,slow=4.0,SNR=3.5							
TXAR				PKiKP		**PKiKP**	**00 18 30.9**	**-0.5**
	comp=Z,0.6nm,0.9s,baz=233,slow=1.0,SNR=3.6							
ARR	**Arges**	**100.78**	**322**	P		**Pdif**	**00 14 05.9**	**+0.2**
CLL	**Collm**	**103.33**	**332**	*e*PP			00 18 54.0	
CLL				LQ		LQ	00 42 00.0	
CLL				L		L	00 51 00.0	
CLL				AMS		AMS	00 56 00.0	
	comp=N,100nm,23.2s							
CLL				AMS		AMS	00 56 00.0	
	comp=E,200nm,25.8s							
CLL				AMS		AMS	01 02 00.0	
	comp=Z,200nm,21.7s							
QSPA	**South Pole Qui**	**103.59**	**180**	PKiKP		**PKiKP**	**00 18 35.8**	**+0.2**
	comp=Z,1.4nm,0.9s,baz=289,slow=1.6,SNR=4.4							
ABNA	**Allensteig Bun**	**103.91**	**329**	*e*PP		**PP**	**00 18 35.4**	**-1.3**
	comp=Z,4.9nm,1.4s							
WINA	**Aland / Wiene**	**103.94**	**328**	*e*PP		**PKiKP**	**00 18 37.1**	**+0.2**
	comp=Z,5.6nm,1.3s							
RONA	**Rosalia, Austr**	**104.09**	**327**	*e*PP		**PKiKP**	**00 18 36.8**	**-0.4**
	comp=Z,8.1nm,1.5s							
CONA	**Conrad Observa**	**104.17**	**328**	*e*PP		**PKiKP**	**00 18 37.6**	**+0.2**
	comp=Z,3.6nm,1.1s							
MOA	**Molln**	**105.04**	**329**	*e*PP		**PP**	**00 18 44.0**	**-1.1**
	comp=Z,4.5nm,1.2s							
SESA	**Seetaler Alpe,**	**105.36**	**328**	*e*PP		**PP**	**00 18 50.4**	**+2.6**
	comp=Z,4.2nm,1.2s							
OBKA	**Obir**	**105.77**	**327**	*e*PP		**PP**	**00 18 52.7**	**+2.0**
	comp=Z,6.3nm,1.1s							
KBA	**Koelnbreinsper**	**106.02**	**328**	PP		**PP**	**00 18 52.3**	**-0.2**
	comp=Z,8.5nm,1.5s							
ABTA	**Abfaltersbach**	**106.66**	**329**	*e*PP		**PP**	**00 18 56.7**	**-0.5**
	comp=Z,3.8nm,1.2s							
MOTA	**Moosalm**	**106.96**	**330**	*e*pPKiKP		**PP**	**00 18 57.0**	**-2.4**
	comp=Z,7.9nm,1.2s							
SQTA	**Sankt Quirin**	**106.99**	**329**	*e*pPKiKP		**PP**	**00 18 57.0**	**-2.6**
	comp=Z,2.8nm,0.8s							
FETA	**Feichten**	**107.36**	**330**	*e*pPKiKP		**PP**	**00 18 58.6**	**-3.7**
	comp=Z,4.5nm,1.6s							
DAVA	**Damuels**	**107.59**	**330**	*e*pPKiKP		**PP**	**00 18 59.1**	**-4.9**
	comp=Z,4.7nm,1.2s							
BELA	**Belgrano 2**	**115.86**	**180**			**PKPdf**	**00 18 58.9**	**+0.4**
TROLL	**Troll, Antarti**	**117.81**	**192**	⇓PKPdf		**PKiKP**	**00 19 03.5**	**+1.0**
	comp=Z,248nm,1.1s							
TROLL				⇑pPKPdf		**pPKPdf**	**00 19 22.5**	**+1.0**
	comp=Z,121nm,0.7s							
TROLL				⇑sPKPdf		**sPKPdf**	**00 19 29.2**	**+0.7**
	comp=Z,264nm,0.8s							
SNAA	**Sanae**	**119.11**	**191**	⇓PKPdf		**PKiKP**	**00 19 05.6**	**+0.6**
	comp=Z,48nm,0.6s							
SNAA				⇑pPKPdf		**pPKPdf**	**00 19 24.2**	**+0.3**
	comp=Z,42nm,0.6s							
SNAA				sPKPdf		**sPKPdf**	**00 19 31.4**	**+0.5**
	comp=Z,58nm,0.5s							
SNAA				⇑PP		**PP**	**00 20 24.7**	**-0.8**
	comp=Z,35nm,0.5s							
SNAA	**Sanae**	**119.11**	**191**	PKP		**PKPdf**	**00 19 04.9**	**0.0**
	comp=Z,2.7nm,0.7s,baz=125,slow=2.0,SNR=5.2							
ESDC	**Sonseca Array**	**119.85**	**333**	PP		**PP**	**00 20 29.9**	**-0.8**
	comp=Z,4.3nm,1.1s,baz=34,slow=6.1,SNR=7.6							
VNA2	**Neumayer--Watz**	**120.54**	**190**	⇓PKPdf		**PKiKP**	**00 19 08.6**	**+0.9**
	comp=Z,12nm,0.7s,baz=114,slow=1.4							
VNA2				⇑pPKPdf		**pPKPdf**	**00 19 27.4**	**+0.8**
	comp=Z,10nm,0.8s,baz=123,slow=1.6							
VNA2				⇓sPKPdf		**sPKPdf**	**00 19 34.0**	**+0.3**
	comp=Z,12nm,0.7s,baz=128,slow=1.6							
VNA3	**Neumayer Olymp**	**120.63**	**189**	⇓PKPdf		**PKiKP**	**00 19 08.6**	**+0.7**
	comp=Z,7.7nm,0.8s							
VNA3				⇑pPKPdf		**pPKPdf**	**00 19 27.2**	**+0.4**
	comp=Z,7.7nm,0.7s							
VNA3				⇓sPKPdf		**sPKPdf**	**00 19 33.8**	**0.0**
	comp=Z,7.6nm,0.7s							
VNA1	**Neumayer--Stat**	**120.93**	**190**	⇓PKPdf		**PKiKP**	**00 19 09.3**	**+0.9**
	comp=Z,11nm,0.9s							
VNA1				⇑pPKPdf		**pPKPdf**	**00 19 28.5**	**+1.3**
	comp=Z,5.9nm,1.0s							
VNA1				⇑sPKPdf		**sPKPdf**	**00 19 35.6**	**+1.3**
	comp=Z,16nm,1.0s							
BOSA	**Boshof**	**123.14**	**245**	PKP		**PKiKP**	**00 19 14.4**	**+0.2**
	comp=Z,2.5nm,0.8s,baz=88,slow=5.4,SNR=4.7							
KDWAN	**Kaudwane**	**123.70**	**251**			**PKiKP**	**00 19 16.9**	**+1.4**
MD01	**Midelt array s**	**125.78**	**329**			**PKiKP**	**00 19 20.7**	**+1.2**
NMDO	**Nuevo Mundo**	**127.37**	**50**			**PKiKP**	**00 19 24.5**	**+1.8**
TORD	**Torodi Ar. Bea**	**135.52**	**305**	PKP		**PKiKP**	**00 19 38.9**	**-0.4**
	comp=Z,1.1nm,0.7s,baz=64,slow=10,SNR=6.0							
TORD				SKPbc		**SKPbc**	**00 23 01.9**	**-1.1**
	comp=Z,5.7nm,1.2s,baz=48,slow=2.2,SNR=6.3							
TORD	**Torodi Ar. Bea**	**135.52**	**305**			**PKiKP**	**00 19 40.1**	**+0.8**
RUSC	**La Rusia**	**136.75**	**66**			**PKiKP**	**00 19 42.0**	**-0.4**
SDV	**Santo Domingo**	**137.41**	**60**			**PKPdf**	**00 19 41.4**	**-0.1**
PLCA	**Paso Flores**	**138.44**	**137**	PKP		**PKiKP**	**00 19 44.0**	**-0.6**
	comp=Z,2.6nm,0.6s,baz=246,slow=1.4,SNR=5.5							
PLCA	**Paso Flores**	**138.44**	**137**	*e*P		**PKPdf**	**00 19 36.7**	**-5.8**
CZSB	**Cruzeiro do Su**	**141.73**	**85**	*e*P		**PKPdf**	**00 19 41.7**	**-7.4**
AC05	**El Transito**	**143.36**	**120**			**PKPdf**	**00 19 51.5**	**-0.3**
ZON	**Zonda**	**143.79**	**125**			**PKPdf**	**00 19 51.9**	**-0.5**
CFA	**Coronel Fontan**	**144.12**	**125**	PKP		**PKPdf**	**00 19 52.2**	**-0.7**
	comp=Z,7.0nm,0.6s,baz=259,slow=3.9,SNR=29							
DBIC	**Dimbokro**	**144.50**	**303**	PKP		PKPbc	00 19 53.1	+0.4
	comp=Z,71nm,0.8s,baz=61,slow=3.7,SNR=55							
DBIC	**Dimbokro**	**144.50**	**303**			**PKPab**	**00 19 50.2**	**-2.3**
PB11	**IPOC Station P**	**145.57**	**105**			**PKPab**	**00 19 56.5**	**0.0**
PB08	**IPOC Station P**	**146.01**	**106**			**PKPdf**	**00 19 56.6**	**-0.3**
LPAZ	**La Paz**	**147.15**	**99**	PKPbc		**PKPbc**	**00 20 00.8**	**-0.6**
	comp=Z,2.5nm,0.8s,baz=260,slow=2.3,SNR=9.0							
LPAZ	**La Paz**	**147.15**	**99**			**PKPbc**	**00 20 01.6**	**+0.2**
LPAZ	**La Paz**	**147.15**	**99**	*e*P		PKPdf	00 19 50.8	-8.4
BOAV	**Boa Vista**	**149.36**	**60**			**PKPbc**	**00 20 05.1**	**-1.6**
BOAV	**Boa Vista**	**149.36**	**60**	*e*P		PKPdf	00 19 54.5	-7.7
ANCO	**Parque Anchore**	**150.32**	**138**	*e*P		**PKPdf**	**00 19 57.3**	**-5.7**
MACA	**Manacapuru-AM**	**151.81**	**70**	*e*P		**PKPdf**	**00 19 58.9**	**-7.1**
PSAL	**Palomas, Salto**	**152.42**	**133**	*e*P		**PKPdf**	**00 20 01.3**	**-5.1**
ITQB	**Itaqui**	**153.90**	**131**	*e*P		**PKPdf**	**00 20 01.4**	**-7.1**
SIV	**San Ignacio**	**153.94**	**98**	PKP		**PKPdf**	**00 20 10.3**	**+1.3**
	comp=Z,1.0nm,0.8s,baz=282,slow=1.3,SNR=4.0							
BBSD	**Serra de San D**	**154.33**	**101**	*e*P		**PKPdf**	**00 20 03.5**	**-6.1**
VILB	**Vilhena**	**154.69**	**91**	*e*P		**PKPdf**	**00 20 05.2**	**-4.9**
CPUP	**Villa Florida**	**154.98**	**124**	*e*P		**PKPdf**	**00 20 05.4**	**-4.7**
CPSB	**Cacapava Do Su**	**155.72**	**136**	*e*P		**PKPdf**	**00 20 05.4**	**-5.6**
PTLB	**Pontes e Lacer**	**155.81**	**97**	*e*P		**PKPdf**	**00 20 06.8**	**-4.7**
SJPY	**San Joaquin**	**156.54**	**122**	*e*P		**PKPdf**	**00 20 07.2**	**-5.1**
COIM	**Forte Coimbra**	**156.62**	**108**	*e*P		**PKPdf**	**00 20 06.6**	**-5.9**
ITTB	**Itaituba**	**156.80**	**68**	*e*P		**PKPdf**	**00 20 07.5**	**-5.4**
BDQN	**Bodoquena, MS**	**157.45**	**110**	*e*P		**PKPdf**	**00 20 08.6**	**-5.5**
PDRB	**Porto dos Gac**	**157.92**	**87**	*e*P		**PKPdf**	**00 20 06.7**	**-7.6**
NPGB	**Novo Progresso**	**158.16**	**74**	*e*P		**PKPdf**	**00 20 07.1**	**-7.5**
CLDB	**Colider**	**158.71**	**85**	*e*P		**PKPdf**	**00 20 09.9**	**-5.4**
SALV	**Santo Antonio**	**159.11**	**99**	*e*P		**PKPdf**	**00 20 10.0**	**-5.6**
LDASE	**Londrina, Braz**	**161.33**	**123**	*e*P		**PKPdf**	**00 20 13.8**	**-4.2**
ARAG	**Araguaiana, MT**	**162.85**	**99**	*e*P		**PKPdf**	**00 20 14.3**	**-5.4**
SNDB	**Serra Nova Dou**	**163.24**	**86**	*e*P		**PKPdf**	**00 20 12.9**	**-7.2**
SMTB	**Santa Maria do**	**166.00**	**71**	*e*P		**PKPdf**	**00 20 18.1**	**-4.4**
BDFB	**Brasilia**	**166.50**	**100**	PKP		**PKPdf**	**00 20 25.1**	**+2.1**
	comp=Z,4.9nm,0.8s,baz=288,slow=0.4,SNR=8.2							
BDFB	**Brasilia**	**166.50**	**100**			**PKPdf**	**00 20 25.7**	**+2.7**
CAM01	**Campos-RJ**	**169.28**	**140**	*e*P		**PKPdf**	**00 20 19.0**	**-5.6**
SDBA	**SAO DESIDERIO**	**169.49**	**84**	*e*P		**PKPdf**	**00 20 20.3**	**-4.8**
DIAM	**Diamantina, MG**	**169.83**	**118**	*e*P		**PKPdf**	**00 20 18.7**	**-6.6**
NBPA	**Parau_RN**	**171.55**	**20**	*e*P		**PKPdf**	**00 20 21.0**	**-5.1**
SJMB	**Sao Joao De Ma**	**171.68**	**127**	*e*P		**PKPdf**	**00 20 19.4**	**-6.7**
RIB01	**Linhares ES**	**171.88**	**134**	*e*P		**PKPdf**	**00 20 21.4**	**-4.7**
NBPN	**Ponto Novo - B**	**173.47**	**64**	*e*P		**PKPdf**	**00 20 21.9**	**-5.1**

*SDD **24** 00:22:30.9±1.9, 17°.99N×71°.57W, h15km±312km, MD2.6, ML2.3, MW2.3, Presumed earthquake*
*OSPL **24** 00:22:33.9±0.8, 18°.20N×71°.35W, h8km±6km, ML2.2, Presumed earthquake*
ISC 24 00:22:32.7±1.0, 18°.16N±0°.03×71°.42W±0°.04, h10km±7km, n11, σ0°86/18, 3C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.13**	**87**	*e*P	**Pg**	**00 22 35.8**	**-0.1**
PODR				IAML		00 22 39.6	
	comp=E,1μm,0.2s						
PODR				IAML		00 22 40.0	
	comp=N,788nm,0.3s						
PODR	**Polo**	**0.13**	**87**	*i* P	**Pg**	**00 22 35.8**	**-0.1**
PODR				*e*S	**Sg**	**00 22 37.8**	**-0.5**
PODR				IAML		00 22 39.3	
	comp=Z,8μm,0.2s						
LODU1	**El Espartillar**	**0.20**	**345**	*i* P	**Pg**	**00 22 37.1**	**+0.2**
LODU1				*e*S	**Sg**	**00 22 40.4**	**+0.6**
LODU1				IAML		00 22 41.4	
	comp=Z,569nm,0.4s						
NEDR	**Neiba UASD**	**0.32**	**0**	⇑*e*Pg	**Pb**	**00 22 40.2**	**-0.3**
NEDR				⇑*e*Sg	**Sb**	**00 22 46.7**	**+0.9**
NEDR				IAML		00 22 48.2	
	comp=N,285nm,0.3s						
LOBH	**Bahia de las A**	**0.36**	**215**	*i* P	**Pb**	**00 22 41.7**	**+0.5**
LOBH				*e*S	**Sb**	**00 22 47.9**	**+1.0**
LOBH				IAML		00 22 53.4	
	comp=Z,98nm,0.7s						
LOVI	**El Cajuil, Ovi**	**0.36**	**172**	*i* P	**Pb**	**00 22 41.1**	**-0.1**
LOVI				*e*S	**Sb**	**00 22 46.8**	**-0.1**
LOVI				IAML		00 22 53.7	
	comp=Z,103nm,0.8s						
LONE3	**El Aguacate, B**	**0.45**	**355**	*i* P	**Pg**	**00 22 42.0**	**+0.6**
LONE3				IAML		00 22 52.0	
	comp=Z,168nm,0.5s						
JIDR	**Jimani**	**0.53**	**309**	*e*Pg	**Pg**	**00 22 41.1**	**-1.9**
JIDR				*e*Sg	**Sn**	**00 22 53.9**	**-1.2**
JIDR				IAML		00 22 57.1	
	comp=N,50nm,0.6s						
REDR	**Restauracion**	**1.00**	**1**	*e*Pg	**Pn**	**00 22 53.8**	**+1.0**
REDR				IAML		00 23 10.2	
	comp=N,25nm,0.2s						
BANI	**BANI**	**1.03**	**77**	⇑*e*Pg	**Pn**	**00 22 53.5**	**+0.1**
BANI				*e*Sg	**Sn**	**00 23 08.2**	**+0.2**
BANI				IAML		00 23 15.9	
	comp=N,35nm,1.8s						
HATOM	**Hato Mayor del**	**2.03**	**72**	*e*Pg	**Pb**	**00 23 08.6**	**-1.1**

*SDD **24** 00:31:56.3±16.0, 17°.28N×69°.17W, h130km±192km, MD3.2, ML2.7, MW2.9, Presumed earthquake*
*NEIC **24** 00:32:02.1±1.2, 18°.5N±0°.4×68°.6W±0°.1, h158km±6km, ML2.7/22, Md3.6/12(RSPR), Error ellipse: s-maj=52.9km s-min=7.0km az=196.0*
*RSPR **24** 00:32:03.2, 18°.53N×68°.55W, h151km, MD3.6/12*
*OSPL **24** 00:32:04.8±1.6, 18°.17N×68°.41W, h120km±205km, ML2.7, Presumed earthquake*
ISC 24 00:32:03.2±1.5, 18°.23N±0°.09×68°.57W±0°.03, h146km±9km, n50, σ0°77/68, 17C-16D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SADR	**Isla Saona**	**0.20**	**260**	⇑*i*P	**Pn**	**00 32 22.6**	**-0.4**
SADR				IAML		00 32 37.8	
	comp=N,109nm,1.6s						
SADR				⇑*i*S	**Sn**	**00 32 38.1**	**+0.2**
PCDR	**Punta Cana, DR**	**0.34**	**33**		**Pn**	**00 32 22.9**	**-0.4**
PCDR					**Sn**	**00 32 38.9**	**+0.2**
PCDR				IAML		00 32 43.8	
	comp=N,147nm,1.2s						
PCDR				IAML		00 33 03.1	
	comp=E,76nm,2.6s						
PCDR	**Punta Cana, DR**	**0.34**	**33**	⇑*i*P	**Pn**	**00 32 23.3**	**-0.1**
PCDR				⇑*i*S	**Sn**	**00 32 39.5**	**+0.8**
PCDR				IAML		00 32 43.7	
	comp=N,52nm,0.3s						
PCDR	**Punta Cana, DR**	**0.34**	**33**	⇑*e*P	**Pn**	**00 32 23.2**	**-0.1**
PCDR				*e*S	**Sn**	**00 32 38.9**	**+0.2**
HIDR	**Higuey Centro**	**0.39**	**340**	⇓*i*P	**Pn**	**00 32 23.2**	**-0.4**
HIDR				⇑*i*S	**Sn**	**00 32 39.7**	**+0.6**
HIDR				IAML		00 32 41.6	
	comp=N,228nm,0.2s						
HIDR	**Higuey Centro**	**0.39**	**340**	⇓*e*P	**Pn**	**00 32 23.2**	**-0.4**
HIDR				*e*S	**Sn**	**00 32 38.8**	**-0.3**
DR12	**Loma Pena Alta**	**0.95**	**306**		**Sn**	**00 32 44.7**	**-0.8**
DR12	**Loma Pena Alta**	**0.95**	**306**		**Pn**	**00 32 26.5**	**-0.7**
HATOM	**Hato Mayor del**	**0.95**	**306**	⇑*i*P	**Pn**	**00 32 26.6**	**-0.5**
HATOM				⇑*i*S	**Sn**	**00 32 45.2**	**-0.3**
HATOM				IAML		00 32 48.4	
	comp=N,50nm,0.3s						
IDE	**Isla Desecheo**	**1.06**	**81**		**Pn**	**00 32 28.7**	**+0.6**
IDE					**Sn**	**00 32 47.8**	**+0.8**
IDE	**Isla Desecheo**	**1.06**	**81**	⇑*e*P	**Pn**	**00 32 28.7**	**+0.6**
IDE				*e*S	**Sn**	**00 32 47.8**	**+0.8**
SMDR	**Samana, DR**	**1.21**	**331**		**Pn**	**00 32 29.2**	**-0.2**
SMDR	**Samana, DR**	**1.21**	**331**	⇓*i*P	**Pn**	**00 32 29.0**	**-0.5**
SMDR				⇓*i*S	**Sn**	**00 32 50.0**	**+0.5**
SMDR				IAML		00 32 56.1	
	comp=N,75nm,0.5s						
SMDR	**Samana, DR**	**1.21**	**331**	⇓*e*P	**Pn**	**00 32 29.2**	**-0.2**
AGPR	**Aguadilla, PR**	**1.41**	**80**		**Pn**	**00 32 31.5**	**0.0**
AGPR					**Sn**	**00 32 52.6**	**-0.5**
AGPR	**Aguadilla, PR**	**1.41**	**80**	IAML		00 33 17.4	
	comp=N,97nm,3.2s						
AGPR				IAML		00 33 18.2	
	comp=N,84nm,2.3s						
AGPR	**Aguadilla, PR**	**1.41**	**80**	⇑*i*P	**Pn**	**00 32 32.3**	**+0.8**
AGPR				⇓*i*S	**Sn**	**00 32 54.1**	**+1.0**
AGPR	**Aguadilla, PR**	**1.41**	**80**	⇓*e*P	**Pn**	**00 32 31.5**	**0.0**
CRPR	**Cabo Rojo, PR**	**1.41**	**99**		**Sn**	**00 32 54.2**	**+1.2**
CRPR	**Cabo Rojo, PR**	**1.41**	**99**		**Pn**	**00 32 31.5**	**0.0**
CRPR	**Cabo Rojo, PR**	**1.41**	**99**	⇑*i*P	**Pn**	**00 32 31.1**	**-0.3**
CRPR				⇓*i*S	**Sn**	**00 32 51.7**	**-1.4**
CRPR				IAML		00 32 58.8	
	comp=N,28nm,1.1s						
CRPR	**Cabo Rojo, PR**	**1.41**	**99**	⇓*e*P	**Pn**	**00 32 31.8**	**+0.3**
MLPR	**Magueyes Islan**	**1.48**	**100**		**Sn**	**00 32 54.5**	**+0.2**
MLPR	**Magueyes Islan**	**1.48**	**100**		**Pn**	**00 32 32.2**	**0.0**
MLPR	**Magueyes Islan**	**1.48**	**100**	IAML		00 33 05.9	
	comp=N,34nm,2.9s						
MLPR	**Magueyes Islan**	**1.48**	**100**	⇑*i*P	**Pn**	**00 32 32.5**	**+0.3**
MLPR				⇑*i*S	**Sn**	**00 32 53.1**	**-1.2**
MLPR				IAML		00 33 04.6	
	comp=N,8.5nm,1.5s						
MLPR	**Magueyes Islan**	**1.48**	**100**	⇓*e*P	**Pn**	**00 32 32.5**	**+0.3**
BANI	**BANI**	**1.70**	**276**	Pn	**Pn**	**00 32 34.8**	**0.0**
BANI	**BANI**	**1.70**	**276**	⇓*i*P	**Pn**	**00 32 36.2**	**+1.4**
BANI				IAML		00 33 02.0	
	comp=N,142nm,0.2s						
AOPR	**Arecibo Observ**	**1.73**	**86**		**Sn**	**00 32 59.1**	**-0.3**
AOPR	**Arecibo Observ**	**1.73**	**86**		**Pn**	**00 32 34.1**	**-0.9**
AOPR	**Arecibo Observ**	**1.73**	**86**	IAML		00 33 01.8	
	comp=N,110nm,0.2s						
AOPR				IAML		00 33 04.6	
	comp=N,202nm,0.3s						
AOPR	**Arecibo Observ**	**1.73**	**86**	⇑*i*P	**Pn**	**00 32 34.1**	**-0.9**
AOPR				⇓*i*S	**Sn**	**00 32 60.0**	**+0.6**
AOPR				IAML		00 33 04.8	
	comp=N,74nm,0.2s						
AOPR	**Arecibo Observ**	**1.73**	**86**	⇓*e*P	**Pn**	**00 32 34.4**	**-0.6**
CELP	**Cerrillos**	**1.90**	**94**		**Pn**	**00 32 36.8**	**-0.2**
CELP					**Sn**	**00 33 03.5**	**+0.7**
CELP	**Cerrillos**	**1.90**	**94**	IAML		00 33 05.0	
	comp=N,28nm,0.6s						
CELP				IAML		00 33 07.0	
	comp=N,29nm,0.4s						
CELP	**Cerrillos**	**1.90**	**94**	⇑*i*P	**Pn**	**00 32 37.3**	**+0.3**
CELP				IAML		00 33 08.1	
	comp=N,6.6nm,0.2s						
CELP	**Cerrillos**	**1.90**	**94**	⇓*e*P	**Pn**	**00 32 36.8**	**-0.2**
ABDR	**Alto Bandera**	**2.03**	**287**	⇑*i*P	**Pn**	**00 32 40.3**	**+1.5**
ABDR				IAML		00 33 14.7	
	comp=N,40nm,0.6s						
ECPR	**Experimental S**	**2.10**	**87**		**Pn**	**00 32 38.5**	**-0.8**
ECPR					**Sn**	**00 33 06.1**	**-0.9**
ECPR	**Experimental S**	**2.10**	**87**	⇓*e*P	**Pn**	**00 32 38.5**	**-0.8**
PODR	**Polo**	**2.57**	**269**	⇑*i*P	**Pn**	**00 32 45.6**	**+0.3**
PODR				IAML		00 33 20.5	
	comp=N,54nm,0.2s						
PODR	**Polo**	**2.57**	**269**	*i* P	**Pn**	**00 32 45.8**	**+0.6**
PODR				*e*S	**Sn**	**00 33 17.0**	**-0.6**
HUMP	**Col San Antoni**	**2.59**	**91**		**Pn**	**00 32 45.4**	**+0.2**
HUMP					**Sn**	**00 33 16.8**	**-0.8**
HUMP	**Col San Antoni**	**2.59**	**91**	IAML		00 33 19.1	
	comp=N,31nm,0.2s						
HUMP	**Col San Antoni**	**2.59**	**91**	⇓*e*P	**Pn**	**00 32 45.4**	**+0.2**
LOVI	**El Cajuil, Ovi**	**2.69**	**261**	*i* P	**Pn**	**00 32 47.0**	**+0.5**
LOVI				*e*S	**Sn**	**00 33 18.2**	**-1.6**
LOVI				IAML		00 33 20.5	
	comp=Z,38nm,1.2s						
LODU1	**El Espartillar**	**2.76**	**273**	*i* P	**Pn**	**00 32 48.8**	**+1.4**
LODU1				*e*S	**Sn**	**00 33 21.3**	**-0.1**
LONE3	**El Aguacate, B**	**2.76**	**278**	*i* P	**Pn**	**00 32 49.6**	**+2.1**
LONE3				*e*S	**Sn**	**00 33 19.9**	**-1.8**
LONE3				IAML		00 33 20.7	
	comp=Z,15nm,2.5s						
LOBH	**Bahia de las A**	**2.94**	**263**	*i* P	**Pn**	**00 32 49.9**	**+0.3**
LOBH				*e*S	**Sn**	**00 33 24.3**	**-1.1**
LOBH				IAML		00 33 28.7	
	comp=Z,19nm,0.4s						

*SJA **24** 01:44:42.2±0.6, 33°.67S×70°.29W, h121km±2km, ML4.1, MW4.0*
*NEIC **24** 01:44:43.5±0.8, 33°.70S±0°.04×70°.33W±0°.05, h111km±4km, mb4.6/9, Mwr4.2(GUC), Error ellipse: s-maj=6.6km s-min=5.5km az=75.0*
*GUC **24** 01:44:43.4±0.8, 33°.68S×70°.38W, h107km±2km, ML4.3, Presumed earthquake*
*IDC **24** 01:44:47.7±2.4, 33°.22S×70°.39W, h124km±19km, mb3.6/4, mbtmp3.7/8, Error ellipse: s-maj=28.5km s-min=20.2km az=95.0*
ISC 24 01:44:43.7±0.6, 33°.67S±0°.02×70°.34W±0°.03, h115km±4km, n113, σ1°03/156, mb4.2/8, 17C-12D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MT13	**San Alfonso**	**0.09**	**147**		**Pn**	**01 44 59.0**	**-0.6**
MT13				Sn	**Sn**	**01 45 10.6**	**-1.1**
MT13	**San Alfonso**	**0.09**	**147**	*i* P	**Pn**	**01 44 59.1**	**-0.6**
MT13				*i* S	**Sn**	**01 45 11.2**	**-0.4**
MT13				IAML		01 45 12.5	
	comp=N,21μm,0.3s						
MT15	**Las Vizcachas**	**0.15**	**297**	⇓*i*P	**Pn**	**01 44 59.3**	**-0.3**
MT15				*i* S	**Sn**	**01 45 11.0**	**-0.6**
MT12	**Pirque**	**0.18**	**249**	⇓*i*P	**Pn**	**01 44 59.4**	**-0.3**
MT12				*i* S	**Sn**	**01 45 11.1**	**-0.6**
MT12				IAML		01 45 13.2	
	comp=E,27μm,0.7s						
LMEL	**Las Melosas**	**0.21**	**147**	⇓*i*P	**Pn**	**01 44 59.2**	**-0.8**
LMEL				*i* S	**Sn**	**01 45 11.7**	**-0.5**
LMEL				IAML		01 45 12.8	
	comp=N,10μm,0.4s						
MT03	**Universidad Ad**	**0.22**	**321**	⇓*i*P	**Pn**	**01 44 59.9**	**0.0**
MT03				*i* S	**Sn**	**01 45 12.7**	**+0.7**
MT03				IAML		01 45 14.1	
	comp=Z,11μm,0.2s						
MT03	**Universidad Ad**	**0.22**	**321**		**Pn**	**01 44 59.4**	**-0.5**
MT03				Sn	**Sn**	**01 45 10.6**	**-1.5**
MT03	**Universidad Ad**	**0.22**	**321**	⇓*i*P	**Pn**	**01 44 59.5**	**-0.4**
MT03				*i* S	**Sn**	**01 45 11.4**	**-0.6**
MT03				IAML		01 45 12.6	
	comp=E,26μm,0.2s						
MT16	**CCHEN**	**0.28**	**328**		**Pn**	**01 44 59.7**	**-0.3**
MT16				Sn	**Sn**	**01 45 11.3**	**-1.0**
MT16	**CCHEN**	**0.28**	**328**	⇓*i*P	**Pn**	**01 44 59.9**	**-0.2**
MT16				*i* S	**Sn**	**01 45 12.2**	**-0.2**
MT16				IAML		01 45 13.1	
	comp=E,16μm,0.2s						
MT04	**Ro Olivares**	**0.32**	**33**	⇓*i*P	**

GO05	**Hualane**	**1.87**	**224**	*e*S		**Sn**	**01 45 38.3**	**-1.2**
RFA	**San Rafael**	**1.91**	**126**	*i* P		**Pn**	**01 45 15.0**	**-0.7**
RFA				IAML			01 45 39.4	
	comp=Z,112nm,1.3s							
RFA				*i* S		**Sn**	**01 45 39.4**	**-0.8**
RTLS	**Leoncito**	**2.06**	**26**	*i* P		**Pn**	**01 45 18.8**	**+0.8**
RTLS				*i* S		**Sn**	**01 45 44.5**	**+0.4**
RTLS				IAML			01 45 47.2	
	comp=Z,2µm,0.6s							
EDS3	**Malargue**	**2.24**	**160**	*i* P		**Pn**	**01 45 20.1**	**+0.1**
ML02	**Panimavida**	**2.27**	**203**			**Pn**	**01 45 19.9**	**-0.3**
ML02	**Panimavida**	**2.27**	**203**	*e*P		**Pn**	**01 45 20.0**	**-0.3**
ML02				*e*S		**Sn**	**01 45 47.9**	**-0.4**
CO02	**Combarbal**	**2.52**	**347**	*i* P		**Pn**	**01 45 23.2**	**-0.4**
CO02				*i* S		**Sn**	**01 45 54.3**	**0.0**
CO02				IAML			01 45 57.9	
	comp=Z,827nm,0.2s							
CO02	**Combarbal**	**2.52**	**347**			**Pn**	**01 45 23.2**	**-0.4**
CO02	**Combarbal**	**2.52**	**347⇑**	*i* P		**Pn**	**01 45 23.3**	**-0.4**
CO02				*i* S		**Sn**	**01 45 53.4**	**-0.9**
ZON	**Zonda**	**2.54**	**34**			**Pn**	**01 45 23.9**	**0.0**
CFA	**Coronel Fontan**	**2.72**	**41**	P		**Pn**	**01 45 25.8**	**-0.4**
	comp=Z,25nm,0.3s,baz=228,slow=15,SNR=177							
CFA				S		**Sn**	**01 45 57.6**	**-1.2**
	comp=Z,86nm,0.3s,baz=243,slow=18,SNR=6.0							
RTLL	**Cerro Villicun**	**2.82**	**35**	*i* P		**Pn**	**01 45 26.8**	**-0.7**
RTLL				*i* S		**Sn**	**01 45 60.0**	**-1.2**
RTLL				IAML			01 46 01.7	
	comp=Z,408nm,0.5s							
CO03	**El Pedregal**	**2.84**	**354**	*i* P		**Pn**	**01 45 27.6**	**-0.2**
CO03				*i* S		**Sn**	**01 46 01.1**	**-0.6**
CO03				IAML			01 46 02.2	
	comp=Z,667nm,0.2s							
CO03	**El Pedregal**	**2.84**	**354**			**Pn**	**01 45 28.0**	**+0.2**
CO03	**El Pedregal**	**2.84**	**354⇑**	*i* P		**Pn**	**01 45 28.0**	**+0.2**
CO03				*i* S		**Sn**	**01 46 01.1**	**-0.6**
ACAN	**Cantantal**	**3.00**	**63**	*i* P		**Pn**	**01 45 29.0**	**-0.8**
ACAN				*i* S		**Sn**	**01 46 03.9**	**-1.4**
ACAN				IAML			01 46 06.8	
	comp=Z,956nm,0.7s							
BI02	**San Fabin de**	**3.08**	**194**			**Pn**	**01 45 30.6**	**-0.3**
CO06	**Fray Jorge**	**3.18**	**340**			**Pn**	**01 45 31.8**	**-0.5**
CO06	**Fray Jorge**	**3.18**	**340**	*i* P		**Pn**	**01 45 31.8**	**-0.5**
CO06				*i* S		**Sn**	**01 46 07.2**	**-2.5**
GO04	**Tololo Observa**	**3.51**	**354**			**Pn**	**01 45 36.0**	**-0.8**
GO04	**Tololo Observa**	**3.51**	**354⇑**	*i* P		**Pn**	**01 45 36.0**	**-0.8**
GO04				*i* S		**Sn**	**01 46 16.3**	**-1.5**
AROD	**Rodeo**	**3.57**	**12**	*i* P		**Pn**	**01 45 37.9**	**+0.2**
AROD				*i* S		**Sn**	**01 46 18.9**	**-0.4**
CO01	**Juntas del Tor**	**3.69**	**3**			**Pn**	**01 45 39.7**	**+0.5**
CO05	**La Serena**	**3.82**	**348**			**Pn**	**01 45 39.7**	**-1.0**
CO05	**La Serena**	**3.82**	**348**	*i* P		**Pn**	**01 45 39.6**	**-1.1**
CO05				*i* S		**Sn**	**01 46 21.6**	**-3.1**
BI05	**Punta Hualpn**	**3.86**	**216**			**Pn**	**01 45 38.5**	**-2.6**
BI05	**Punta Hualpn**	**3.86**	**216**	*i* P		**Pn**	**01 45 39.0**	**-2.2**
BI05				*i* S		**Sn**	**01 46 21.7**	**-3.9**
LCO	**Las Campanas**	**4.65**	**356**			**Pn**	**01 45 50.7**	**-1.5**
AC05	**El Transito**	**4.82**	**1**			**Pn**	**01 45 53.9**	**-0.4**
AC04	**Llanos de Chal**	**5.48**	**353**			**Pn**	**01 46 01.7**	**-1.4**
GO03	**Copiapo**	**6.06**	**1**			**Pn**	**01 46 09.1**	**-1.9**
AC06	**Mina Casimiro**	**6.29**	**360**			**Pn**	**01 46 12.3**	**-1.8**
PLCA	**Paso Flores**	**7.05**	**181**	P		Pn	01 46 33.9	+10
	comp=Z,1.6nm,0.7s,baz=355,slow=14,SNR=1.7							
VA04	**Juan Fernndez**	**7.08**	**268**			**Pn**	**01 46 24.8**	**+0.2**
H03S1	**Juan Fernandez**	**7.13**	**266**	T		T	01 52 53.3	
	baz=85,slow=75,SNR=67							
H03S3	**Juan Fernandez**	**7.14**	**266**	T		T	01 52 54.5	
	baz=85,slow=75,SNR=91							
H03S2	**Juan Fernandez**	**7.15**	**266**	T		T	01 52 46.9	
	baz=85,slow=75,SNR=66							
H03N1	**Juan Fernandez**	**7.16**	**269**	T		T	01 53 36.2	
	baz=175,slow=74,SNR=29							
H03N2	**Juan Fernandez**	**7.17**	**269**	T		T	01 53 40.7	
	baz=87,slow=74,SNR=35							
PB12	**IPOC Station P**	**14.99**	**0**	Pn		**Pn**	**01 48 09.9**	**+0.1**
PB12				IAmb		IAmb	01 48 22.6	
	comp=Z,21nm,1.2s							
ITAB	**Concordia**	**16.95**	**73**			**Pn**	**01 48 33.3**	**-0.6**
ITAB				IAmb		IAmb	01 48 51.2	
	comp=Z,33nm,1.4s							
LPAZ	**La Paz**	**17.42**	**7**	P		**P**	**01 48 37.0**	**-2.9**
	comp=Z,0.5nm,0.8s,baz=187,slow=8.1,SNR=4.7							
SIV	**San Ignacio**	**19.49**	**28**	P		**P**	**01 49 01.3**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=210,slow=11,SNR=4.2							
EFI	**East Falkland**	**20.08**	**157**	P		**P**	**01 49 07.4**	**-0.5**
EFI				IAmb		IAmb	01 49 37.0	
	comp=Z,106nm,1.4s							
PMSA	**Palmer Station**	**31.37**	**175**	P		**P**	**01 50 50.5**	**-2.6**
ORCD	**Orcadas**	**31.78**	**156**	P		**P**	**01 50 56.8**	**+0.1**
VNA3	**Neumayer Olymp**	**49.14**	**158**	⇑P		**P**	**01 53 23.1**	**+3.8**
	comp=Z,5.2nm,0.6s							
VNA2	**Neumayer--Watz**	**49.77**	**157**	⇑P		**P**	**01 53 27.0**	**+2.9**
	comp=Z,2.9nm,0.8s,baz=287,slow=7.5							
SNAA	**Sanae**	**51.36**	**158**	⇑P		**P**	**01 53 39.4**	**+3.3**
	comp=Z,28nm,0.4s							
TXAR	**Lajitas Array**	**70.15**	**329**	P		**P**	**01 55 45.2**	**+1.4**
	comp=Z,0.6nm,0.6s,baz=156,slow=8.9,SNR=7.2							
	comp=Z,0.6nm,0.6s							
WVT	**Waverly**	**71.34**	**345**	P		**P**	**01 55 50.8**	**0.0**
WVT				IAmb		IAmb	01 55 52.1	
	comp=Z,111nm,0.6s							
DBIC	**Dimbokro**	**73.74**	**70**	P		**P**	**01 56 04.7**	**-0.9**
DBIC				IAmb		IAmb	01 56 33.2	
	comp=Z,16nm,1.3s							
BOSA	**Boshof**	**78.97**	**117**	P		P	01 56 40.8	+5.6
	comp=Z,2.8nm,0.7s,baz=256,slow=5.4,SNR=8.7							
	comp=Z,2.8nm,0.7s							
TOA0	**Torodi Ar. Sit**	**82.77**	**69**	P		**P**	**01 56 55.1**	**-0.2**
TORD	**Torodi Ar. Bea**	**82.77**	**69**	P		**P**	**01 56 54.8**	**-0.5**
PDAR	**Pinedale Array**	**84.12**	**332**	P		**P**	**01 57 03.0**	**+1.2**
	comp=Z,0.5nm,0.7s,baz=144,slow=6.4,SNR=6.8							
	comp=Z,0.5nm,0.7s							
NVAR	**Mina Array Bea**	**84.43**	**324**	P		**P**	**01 57 05.1**	**+1.6**
	comp=Z,0.8nm,0.7s,baz=148,slow=3.6,SNR=4.0							
	comp=Z,0.8nm,0.7s							
H11S2	**WAKE ISLAND Hy**	**127.19**	**268**	T		T	04 23 05.4	
	baz=118							
H11S1	**WAKE ISLAND Hy**	**127.20**	**268**	T		T	04 23 08.7	
	baz=118,slow=74							
H11S3	**WAKE ISLAND Hy**	**127.20**	**268**	T		T	04 23 03.3	
	baz=118,slow=74							
KURBB	**Kurchatov Arra**	**151.66**	**44**	PKPbc		**PKiKP**	**02 04 24.6**	**+0.2**
	comp=Z,0.9nm,0.5s,baz=300,slow=3.2,SNR=12							
ZALV	**Zalesovo Beam**	**153.18**	**33**	PKPbc		**PKiKP**	**02 04 27.8**	**+0.3**
	comp=Z,1.5nm,0.7s,baz=327,slow=2.4,SNR=6.1							
NJ2	**Nanjing**	**172.09**	**261**	*e*P		**PKPdf**	**02 04 39.3**	**+0.4**
NJ2				pmax		pmax		
	comp=Z,6.0nm,0.7s							
HHC	**Hu-ho-hao-te**	**172.67**	**349**	*e*P		**PKPdf**	**02 04 40.8**	**+1.7**

*IDC **24** 01:56:19.3±1.6,20.°94N×120.°38E,h0km,mb3.5/7, mbtmp3.5/7,MS3.0/3,Error ellipse: s-maj=146.3km s-min=18.9km az=63.0*
ISC 24 01:56:23.2±1.4,20.°9N±0.°4×120.°2E±0.°7,h25km,n9,
σ1°36/7,mb3.5/6,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KSRS	**Korea Array**	**17.85**	**20**	LR	LR	02 09 05.1	
	comp=Z,34nm,18.0s,baz=195,slow=43						
LZDM	**Lanzhou Array**	**20.87**	**320**	P	**P**	**02 01 05.0**	**+1.3**
	1.2nm,0.2s,baz=133,slow=6.3,SNR=4.6						
	1.2nm,0.2s						
SONM	**Songino Array**	**29.14**	**341**	P	**P**	**02 02 21.4**	**-0.9**
	0.4nm,0.7s,baz=149,slow=14,SNR=2.2						
SONM				LR	LR	02 15 52.0	
	comp=Z,31nm,18.9s,baz=178,slow=40						
	0.4nm,0.7s						
KLR	**Kul'dur**	**29.78**	**15**	LR	LR	02 14 39.4	
	comp=Z,31nm,18.9s,baz=218,slow=37						
MKAR	**Makanchi Array**	**40.18**	**319**	P	**P**	**02 03 57.0**	**-0.4**
	0.2nm,0.6s,baz=128,slow=9.3,SNR=2.9						
	0.2nm,0.6s						
ZALV	**Zalesovo Beam**	**42.60**	**330**	P	**P**	**02 04 18.7**	**+1.6**
	0.6nm,0.4s,baz=100,slow=7.5,SNR=3.6						
	0.6nm,0.4s						
WRA	**Warramunga Arr**	**42.84**	**160**	P	**P**	**02 04 19.3**	**0.0**
	1.6nm,1.0s,baz=339,slow=8.3,SNR=5.8						
	1.6nm,1.0s						
KURBB	**Kurchatov Arra**	**44.13**	**323**	P	**P**	**02 04 28.0**	**-1.5**
	0.1nm,0.3s,baz=124,slow=7.8,SNR=6.8						
	0.1nm,0.3s						
ASAR	**Alice Springs**	**46.22**	**163**	P	**P**	**02 04 46.6**	**+0.2**
	0.9nm,1.1s,baz=341,slow=7.1,SNR=5.1						
	0.9nm,1.1s						

*ISK **24** 02:07:24.5,35.°83N×30.°94E,h5km,ML2.7/22*
*NIC **24** 02:07:25.4,35.°76N×30.°73E,h10km±3km,Ml2.4/7*
*AFAD **24** 02:07:27.1,36.°03N×30.°91E,h7km±4km,ML2.2*
ISC 24 02:07:25.2±1.1,35.°85N±0.°03×30.°86E±0.°02,h8km±10km, n47,σ1°08/65,Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AKUM	**Antalya-Kumluc**	**0.63**	**318**	P	**Pg**	**02 07 37.4**	**-0.1**
AKUM				S	**Sg**	**02 07 46.3**	**+0.5**
AKUM				IAML		02 07 49.0	
	comp=N,164nm,0.7s						
AKUM				IAML		02 07 52.0	
	comp=E,170nm,0.5s						
ANTB	**Antalya**	**1.06**	**351**	Pn	**Pg**	**02 07 45.9**	**+0.2**
ANTB				Sn	**Sb**	**02 08 01.3**	**+1.4**
ANTB				AML	AML		
KSL	**Kastellorizon**	**1.08**	**287**	P	**Pg**	**02 07 44.6**	**-1.4**
KSL				S	**Sg**	**02 07 59.6**	**-0.5**
AKAS	**Kas**	**1.09**	**291**	P	**Pn**	**02 07 47.9**	**+1.0**
AKAS				S	**Sb**	**02 08 02.8**	**+2.0**
AKAS				IAML		02 08 08.0	
	comp=N,108nm,0.6s						
AKAS				IAML		02 08 12.0	
	comp=E,83nm,0.7s						
AKAS	**Kas**	**1.09**	**291**	Pn	**Pg**	**02 07 46.7**	**+0.5**
AKAS				AML	AML		
ALAN	**Alanya-ANTALYA**	**1.18**	**53**	Pn	**Pg**	**02 07 46.9**	**-1.0**
ELL	**Elmali**	**1.18**	**320**	P	**Pg**	**02 07 48.2**	**+0.2**
ELL				S	**Sb**	**02 08 05.0**	**+1.5**
ELL	**Elmali**	**1.18**	**320**	Pn	**Pg**	**02 07 48.6**	**+0.6**
ELL				AML	AML		
KEPZ	**Antalya-Kepez**	**1.21**	**29**	P	**Pg**	**02 07 47.4**	**-1.1**
KEPZ				S	**Sg**	**02 08 01.1**	**-3.1**
KEPZ				IAML		02 08 05.0	
	comp=N,66nm,0.7s						
KEPZ				IAML		02 08 05.0	
	comp=E,66nm,0.5s						
KORT	**Korkueli**	**1.22**	**340**	P	**Pg**	**02 07 48.4**	**-0.3**
KORT				S	**Sn**	**02 08 06.7**	**+1.2**
KORT				IAML		02 08 14.0	
	comp=E,71nm,0.5s						
KORT	**Korkueli**	**1.22**	**340**	Pn	**Pg**	**02 07 48.7**	**0.0**
KORT				AML	AML		
GAZI	**Gazipasa**	**1.24**	**71**	Pn	**Pg**	**02 07 47.4**	**-1.6**
GAZI				Sn	**Sg**	**02 08 04.2**	**-0.9**
GAZI				AML	AML		
KNIK	**Mula-Seydike**	**1.44**	**314**	P	**Pn**	**02 07 52.7**	**+1.0**
KNIK				S	**Sn**	**02 08 07.4**	**-3.4**
IZZE	**Mula-Seydike**	**1.45**	**294**	P	**Pn**	**02 07 50.4**	**-1.3**
AKMS	**Akamas**	**1.46**	**124**	P	**Pg**	**02 07 54.2**	**+0.9**
AKMS				S	**Sg**	**02 08 13.5**	**+1.4**
AKMS				AML	AML	02 08 19.9	
	0.1nm,0.4s						
AKMS				AML	AML	02 08 23.6	
	0.2nm,0.4s						
BUCA	**Burdur, Bucak-**	**1.50**	**351**	P	**Pg**	**02 07 54.3**	**+0.3**
ALFC	**Alefka**	**1.57**	**115**	P	**Pn**	**02 07 53.0**	**-0.4**
ALFC				S	**Sg**	**02 08 16.9**	**+1.0**
ALFC				AML	AML	02 08 26.1	
	0.1nm,0.3s						
ALFC				AML	AML	02 08 28.8	
	0.2nm,0.5s						
HDMB	**Hadim**	**1.72**	**49**	Pn	**Pn**	**02 07 55.6**	**0.0**
HDMB				AML	AML		
BOZY	**Bozyazi-Mersin**	**1.73**	**81**	Pn	**Pn**	**02 07 55.3**	**-0.3**
BOZY				AML	AML		
GOLH	**Golhisar**	**1.74**	**323**	P	**Pn**	**02 07 56.3**	**+0.5**
SEYD	**Seydisehir-KON**	**1.74**	**26**	Pn	**Pn**	**02 07 55.6**	**-0.2**
SEYD				AML	AML		
NATA	**Nata**	**1.76**	**127**	P	**Pb**	**02 07 57.5**	**-0.2**
NATA				S	**Sg**	**02 08 21.2**	**-0.5**
NATA				AML	AML	02 08 36.5	
	0.3nm,0.8s						
NATA				AML	AML	02 08 39.0	
	0.3nm,0.4s						
CAEL	**Denizli, Camel**	**1.78**	**316**	P	**Pg**	**02 08 00.5**	**+1.1**
SABU	**Mula-Dalaman**	**1.81**	**303**	P	**Pn**	**02 07 55.8**	**-1.0**
TEKE	**Tekeli-Mersin**	**1.85**	**80**	Pn	**Pn**	**02 07 57.2**	**0.0**
TEKE				AML	AML		
TROD	**Troodos**	**1.87**	**118**	P	**Pn**	**02 07 57.2**	**-0.4**
TROD				S	**Sg**	**02 08 26.3**	**+1.1**
TROD				AML	AML	02 08 38.1	
	0.1nm,0.6s						
TROD				AML	AML	02 08 51.4	
	0.1nm,0.5s						
BRDR	**BURDUR-Merkez**	**1.95**	**341**	P	**Pb**	**02 08 02.0**	**+0.9**
XYLS	**Xyliatos**	**1.97**	**114**	P	**Pn**	**02 07 58.4**	**-0.5**
XYLS				S	**Sb**	**02 08 25.9**	**-0.1**
XYLS				AML	AML	02 08 37.4	
	0.1nm,0.5s						
XYLS				AML	AML	02 08 38.0	
	0.1nm,0.3s						
BERE	**Bereket-Mersin**	**1.98**	**75**	Pn	**Pn**	**02 07 59.0**	**-0.1**
BERE				AML	AML		
DALY	**Dalyan (Mula)**	**2.03**	**299**	P	**Pn**	**02 07 59.3**	**-0.3**
INCE	**Denizli-Bozkur**	**2.13**	**331**	P	**Pg**	**02 08 06.3**	**+0.3**
TEVE	**Tevekalti-Mers**	**2.17**	**74**	Pn	**Pn**	**02 08 01.5**	**-0.2**
TEVE				AML	AML		
CSS	**Mathiatis**	**2.20**	**113**	P	**Pn**	**02 08 01.6**	**-0.4**
CSS	**Mathiatis**	**2.20**	**113**	Pn	**Pn**	**02 08 01.5**	**-0.6**
CSS				AML	AML		
BECE	**Buyukeceli-Mer**	**2.21**	**81**	Pn	**Pn**	**02 08 01.7**	**-0.4**
BECE				AML	AML		
ASGA	**Asgata**	**2.22**	**118**	P	**Pn**	**02 08 03.3**	**+1.0**
ASGA				S	**Sn**	**02 08 30.3**	**+0.4**
ASGA				AML	AML	02 08 48.4	
	0.1nm,0.8s						
ASGA				AML	AML	02 08 53.1	
	0.1nm,0.4s						
ARG	**Arkhangelos**	**2.25**	**280**	P	**Pn**	**02 08 01.1**	**-1.6**
ARG				S	**Sn**	**02 08 29.4**	**-1.2**
LFK	**Lefkose**	**2.25**	**104**	Pn	**Pn**	**02 08 02.6**	**-0.2**
LFK				AML	AML		
IKL	**Isikli**	**2.32**	**80**	Pn	**Pn**	**02 08 03.7**	**0.0**
IKL				AML	AML		
KRMN	**Karaman**	**2.34**	**55**	Pn	**Pn**	**02 08 04.4**	**+0.3**
KRMN				AML	AML		
KEBE	**Keben-Mersin**	**2.38**	**75**	Pn	**Pn**	**02 08 04.6**	**0.0**
KEBE				AML	AML		
MVOU	**Mavrovouni**	**2.41**	**109**	P	**Pn**	**02 08 03.8**	**-1.0**
MVOU				S	**Sn**	**02 08 35.8**	**+1.3**
MVOU				AML	AML	02 08 49.5	
	0.1nm,0.7s						
MVOU				AML	AML	02 08 52.6	
KONT	**Konya--Tatoy**	**2.41**	**29**	Pn	**Pn**	**02 08 05.5**	**+0.5**
KONT				AML	AML		
SILI	**Silifke-Mersin**	**2.53**	**77**	Pn	**Pn**	**02 08 06.4**	**-0.2**
SILI				AML	AML		
LADK	**Ladik-KONYA**	**2.64**	**27**	Pn	**Pn**	**02 08 08.9**	**+0.7**
YESY	**Yesilyurt**	**3.01**	**49**	Pn	**Pn**	**02 08 13.2**	**-0.1**
KARP	**Karpathos**	**3.03**	**265**	P	**Pn**	**02 08 12.3**	**-1.2**
KARP				S	**Sn**	**02 08 47.2**	**-2.7**

*IDC **24** 02:20:01.1±0.9,20.°79N×119.°71E,h0km,mb3.8/8, mbtmp3.8/10,ML3.8/2,MS3.3/22,Error ellipse: s-maj=29.2km s-min=16.3km az=79.0*
ISC 24 02:20:04.9±0.7,20.°85N±0.°05×120.°0E±0.°1,h25km,n37, σ2°15/25,mb4.0/12,MS3.3/18,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TWGBT	**Beinan**	**2.19**	**27**	P	**Pn**	**02 20 39.0**	**-0.8**
PIP	**Pasuquin**	**2.58**	**167**	*e*P	Pn	02 20 40.9	-4.2
PIP				*e*S	**Sn**	**02 21 11.4**	**-4.3**
YULB	**Yu-li**	**2.79**	**25**	P	**Pn**	**02 20 48.0**	**-0.1**
SIPP	**Brgy, Tapao**	**2.94**	**172**	*e*P	**Pb**	**02 20 56.0**	**-0.7**
SIPP				*e*S	**Sn**	**02 21 21.7**	**-3.0**
SSLB	**Suanglung**	**3.05**	**16**	P	**Pn**	**02 20 53.6**	**+2.0**
CVP	**Callao Caves**	**3.57**	**151**	*e*P	**Pn**	**02 21 01.4**	**+2.6**
CVP				*e*S	**Sn**	**02 21 37.8**	**-2.3**
NACB	**Ninganchiao**	**3.62**	**24**	P	**Pn**	**02 21 00.1**	**+0.7**
YHNB	**Yeheng**	**4.00**	**18**	P	**Pn**	**02 21 07.1**	**+2.3**
DAV	**Davao City (W)**	**14.72**	**158**	LR	LR	02 30 40.9	
	comp=Z,173nm,19.9s,baz=331,slow=43						
JNU	**Nakatsue**	**15.58**	**36**	Pn	**Pn**	**02 23 42.4**	**-0.6**
	0.4nm,0.3s,baz=44,slow=15,SNR=4.3						
JNU				LR	LR	02 30 43.9	
	comp=Z,70nm,20.6s,baz=155,slow=41						
	2.2nm,0.4s						
JNU				AML	AML		
KSRS	**Korea Array**	**17.91**	**21**	P	**P**	**02 24 12.1**	**-0.7**
	0.2nm,0.3s,baz=202,slow=9.7,SNR=8.1						
KSRS				LR	LR	02 32 48.0	
	comp=Z,82nm,19.2s,baz=205,slow=42						
	3.0nm,0.9s						
KSRS				AML	AML		
CMAR	**Chiang Mai Arr**	**19.98**	**267**	LR	LR	02 32 29.5	
	comp=Z,97nm,19.3s,baz=75,slow=38						
APSI	**Ampana**	**21.69**	**176**	P	**P**	**02 24 59.4**	**+5.4**
	817nm89nm,1.2s						
MJAR	**Matsushiro Arr**	**22.28**	**42**	P	**P**	**02 25 02.4**	**+2.1**
	1.6nm,0.4s,baz=235,slow=9.9,SNR=7.1						
MJAR				LR	LR	02 34 33.0	
	comp=Z,62nm,20.4s,baz=216,slow=39						
	1.6nm,0.4s						
MMSI	**Mamuju**	**23.42**	**183**	P	**P**	**02 25 15.3**	**+3.0**
	609nm40nm,1.2s						
SANI	**Sanana**	**23.50**	**165**	P	**P**	**02 25 12.0**	**-1.0**
	17nm,1.0s						
USRK	**Ussuriysk Ar.**	**25.32**	**20**	P	**P**	**02 25 31.0**	**+1.4**
	2.4nm,0.7s,baz=199,slow=8.7,SNR=5.7						
USRK				LR	LR	02 36 51.2	
	comp=Z,44nm,19.1s,baz=59,slow=40						
	2.4nm,0.7s						
KAPI	**Kappang**	**25.71**	**181**	LR	LR	02 36 09.9	
	comp=Z,26nm,18.6s,baz=9.5,slow=38						
SONM	**Songino Array**	**29.08**	**341**	P	**P**	**02 26 02.3**	**-1.2**
	0.6nm,1.0s,baz=151,slow=6.8,SNR=4.0						
SONM				LR	LR	02 38 40.8	
	comp=Z,59nm,19.8s,baz=120,slow=38						
	0.6nm,1.0s						
EDFI	**Ende, Flores**	**29.46**	**177**	P	**P**	**02 26 07.8**	**+0.7**
	16nm,1.2s						
KLR	**Kul'dur**	**29.83**	**16**	LR	LR	02 40 39.5	
	comp=Z,59nm,18.1s,baz=214,slow=41						
ASAJ	**Asahikawa**	**29.83**	**34**	LR	LR	02 38 23.5	
	comp=Z,104nm,19.6s,baz=92,slow=37						
TLY	**Talaya**	**33.32**	**341**	LR	LR	02 39 33.5	
	comp=Z,68nm,18.3s,baz=137,slow=35						
MKAR	**Makanchi Array**	**40.05**	**319**	P	**P**	**02 27 37.0**	**-1.1**
	0.3nm,0.5s,baz=110,slow=7.0,SNR=3.9						
MKAR				LR	LR	02 45 24.2	
	comp=Z,43nm,19.8s,baz=32,slow=38						
	0.3nm,0.5s						
PALK	**Pallekele**	**40.32**	**256**	LR	LR	02 45 43.6	
	comp=Z,30nm,18.5s,baz=78,slow=38						
YAK	**Yakutsk**	**41.69**	**7**	LR	LR	02 47 55.5	
	comp=Z,56nm,20.4s,baz=136,slow=40						
ZALV	**Zalesovo Beam**	**42.50**	**330**	P	**P**	**02 27 57.5**	**-0.6**
	0.4nm,0.4s,baz=115,slow=7.0,SNR=6.2						
ZALV				LR	LR	02 48 13.6	
	comp=Z,48nm,18.5s,baz=106,slow=40						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**42.90**	**160**	P	**P**	**02 28 01.2**	**-0.4**
	6.5nm,1.1s,baz=343,slow=8.5,SNR=21						
WRA				PcP	**PcP**	**02 29 52.8**	**+0.5**
	0.9nm,0.9s,baz=342,slow=3.6,SNR=3.4						
	6.5nm,1.1s						
PETK	**Petropavlovsk-**	**43.23**	**33**	LR	LR	02 48 03.2	
	comp=Z,46nm,19.6s,baz=247,slow=39						
KURBB	**Kurchatov Arra**	**44.02**	**323**	P	**P**	**02 28 09.4**	**-0.9**
	0.5nm,0.6s,baz=123,slow=7.6,SNR=4.4						
	0.5nm,0.6s						
MA2	**Magadan**	**44.47**	**22**	LR	LR	02 47 26.4	
	comp=Z,31nm,21.0s,baz=202,slow=37						
ASAR	**Alice Springs**	**46.27**	**162**	P	**P**	**02 28 29.0**	**+0.4**
	2.0nm,0.9s,baz=334,slow=6.8,SNR=15						
	2.0nm,0.9s						
TIXI	**Tiksi**	**51.07**	**4**	LR	LR	02 54 38.4	
	comp=Z,56nm,18.2s,baz=138,slow=41						
NRIK	**Noril'sk**	**52.34**	**346**	LR	LR	02 53 49.4	
	comp=Z,36nm,18.5s,baz=232,slow=39						
SPITS	**Spitsbergen Ar**	**72.49**	**348**	LR	LR	03 06 08.3	
	comp=Z,37nm,19.9s,baz=67,slow=38						
RPZ	**Rata Peaks**	**79.47**	**145**	LR	LR	03 06 15.4	
	comp=Z,6.5nm,20.6s,baz=234,slow=35						
NOA	**NORSAR Array B**	**80.65**	**332**	LR	LR	03 11 08.7	
	comp=Z,33nm,18.5s,baz=75,slow=38						

*JMA **24** 02:34:04.8±0.1,38.°5N±0.°2×141.°7E±0.°3,h52km,MV3.7/39, KINKAZAN REGION*
JMA Felt I J1 at KINKAZAN REGION .
*IDC **24** 02:34:21.5±2.1,37.°82N×139.°98E,h170km±17km,mb3.2/5, mbtmp3.6/6,Error ellipse: s-maj=32.0km s-min=19.9km az=77.0*
ISC 24 02:34:04.0±1.3,38.°52N±0.°05×141.°78E±0.°09,h54km±7km, n24,σ0°54/27,mb3.7/5,14D,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JIKH	**Ishinomakikobu**

MKAR	**Makanchi Array**	**43.59**	**301**	P		**P**	**02 42 02.9**	**+0.1**
	0.4nm,0.6s,baz=74,slow=8.9,SNR=4.1							
	0.4nm,0.6s							
KURBB	**Kurchatov Arra**	**45.33**	**307**	P		**P**	**02 42 16.1**	**-0.4**
	1.5nm,0.5s,baz=80,slow=8.2,SNR=18							
	1.5nm,0.5s							
ILAR	**Eielson Array**	**48.09**	**33**	P		P	02 42 53.4	+16
	0.3nm,0.7s,baz=275,slow=7.5,SNR=3.6							
	0.3nm,0.7s							
WRA	**Warramunga Arr**	**58.57**	**188**	P		**P**	**02 43 54.6**	**-0.6**
	0.4nm,0.6s,baz=4.3,slow=6.7,SNR=5.5							
	0.4nm,0.6s							

GCG ***24*** *02:41:06.5±1.7, 15°.54N×90°.08W, h13km±15km, MD3.9, Presumed earthquake*

CATAC ***24*** *02:41:07.3±0.4, 16°.N±2°×9°.0W±°, h3km±2km, M3.4/19, MLv3.4/19, Error ellipse: s-maj=4.9km s-min=2.8km az=29.5, confirmed*

ISC 24 02:41:06.0±1.8, 15°.58N±0°.04×90°.04W±0°.03, h4km±14km, n25, σ1§05/44, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
ESQI	**Esquipulas**	**1.22**	**146**	P		**Pb**	**02 41 29.7**	**-0.1**
ESQI				S		**Sn**	**02 41 46.6**	**-0.5**
JUAM	**Asuncion Mita**	**1.28**	**165**	*i* S		**Sb**	**02 41 44.8**	**-2.8**
PETF	**Flores**	**1.34**	**7**	P		**Pn**	**02 41 31.5**	**0.0**
PETF	**Flores**	**1.34**	**7**	*i* P		Pn	02 41 27.2	-4.3
PETF				*i* S		**Sb**	**02 41 48.4**	**-0.8**
MTO3	**Montecristo**	**1.35**	**151**	P		**Pn**	**02 41 30.7**	**-1.1**
MTO3				S		**Sg**	**02 41 49.8**	**+0.4**
MTO3	**Montecristo**	**1.35**	**151**	*i* S		**Sb**	**02 41 48.8**	**-0.9**
HUEH	**Huehuetenango**	**1.43**	**260**	P		**Pb**	**02 41 33.7**	**+0.2**
HUEH				S		**Sg**	**02 41 52.7**	**+0.5**
SARH	**Santa Rosa de**	**1.47**	**123**	P		**Pn**	**02 41 33.3**	**-0.2**
SARH				S		**Sg**	**02 41 54.4**	**+0.9**
SARH	**Santa Rosa de**	**1.47**	**123**	*i* P		**Pn**	**02 41 32.5**	**-0.9**
SARH				*i* S		**Sn**	**02 41 52.5**	**-0.7**
SLOZ	**Alcaldia de Sa**	**1.57**	**171**	P		**Pn**	**02 41 35.3**	**+0.6**
SLOZ				S		**Sg**	**02 41 56.7**	**+0.3**
LOAL	**Lomas de Alarc**	**1.59**	**171**	P		**Pn**	**02 41 35.7**	**+0.6**
LOAL				S		**Sb**	**02 41 56.6**	**-0.1**
UNIC	**Universidad Ca**	**1.66**	**163**	P		**Pn**	**02 41 36.7**	**+0.6**
UNIC				S		**Sb**	**02 41 59.1**	**+0.5**
NUBE	**Las Nubes**	**1.69**	**171**	P		**Pn**	**02 41 36.8**	**+0.3**
NUBE				S		**Sg**	**02 42 00.0**	**-0.4**
NUBE	**Las Nubes**	**1.69**	**171**	*i* P		**Pn**	**02 41 36.2**	**-0.3**
FAME	**Alcaldia de Sa**	**1.73**	**179**	P		**Pb**	**02 41 37.8**	**-0.6**
FAME				S		**Sb**	**02 42 00.7**	**+0.2**
RTAL	**Retalhuleu**	**1.91**	**237**	P		**Pb**	**02 41 40.9**	**-0.6**
RTAL				S		**Sb**	**02 42 05.7**	**0.0**
PMON	**Piamonte**	**1.99**	**159**	P		**Pb**	**02 41 42.0**	**-0.8**
PMON				S		**Sb**	**02 42 02.7**	**-0.8**
JAYA	**Jayaque - finc**	**2.00**	**163**	P		**Pb**	**02 41 42.2**	**-0.9**
JAYA				S		**Sb**	**02 42 08.0**	**-0.5**
LOMA	**Loma Larga**	**2.10**	**156**	P		**Pn**	**02 41 43.7**	**+1.5**
LOMA				S		**Sb**	**02 42 10.6**	**-0.8**
PANCS	**Alcalda de**	**2.13**	**157**	P		**Pn**	**02 41 43.5**	**+1.0**
CCIG	**Comitan**	**2.13**	**289**	*i* P		**Pn**	**02 41 42.1**	**-0.6**
CCIG				*i* S		**Sn**	**02 42 10.4**	**+0.7**
PAVA	**Las Pavas**	**2.14**	**150**	P		**Pn**	**02 41 44.3**	**+1.6**
PAVA				S		**Sb**	**02 42 12.1**	**-0.4**
COEG	**Centro de Oper**	**2.25**	**150**	P		**Pn**	**02 41 45.8**	**+1.6**
COEG				S		**Sb**	**02 42 14.1**	**-1.5**
TECO	**Alcaldia de Te**	**2.37**	**149**	P		**Pn**	**02 41 47.4**	**+1.6**
TECO				S		**Sb**	**02 42 17.4**	**-1.5**
TGUH	**Tegucigalpa,Un**	**3.08**	**119**	P		**Pn**	**02 41 57.3**	**+1.7**
TGUH				S		**Sn**	**02 42 35.3**	**+2.4**

NEIC ***24*** *02:56:12.3±1.9, 0°.02N±0°.09×124°.31E±0°.06, h100km±8km, mb4.0/15, Error ellipse: s-maj=13.3km s-min=7.7km az=157.0*

IDC ***24*** *02:56:12.6±4.5, 0°.01N×124°.17E, h106km±45km, mb3.5/10, mbtmp3.8/12, MS2.5/1, Error ellipse: s-maj=35.0km s-min=15.2km az=62.0*

DJA ***24*** *02:56:13.7±0.7, 0°.S±4°×12°.4E±°, h35km±15km, M4.3/16, mb4.3/4, MLv4.2/16*

ISC 24 02:56:11.8±0.6, 0°.07S±0°.05×124°.32E±0°.07, h100km, n47, σ1§17/49, mb3.8/18, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KMSI	**Cibinong**	**0.72**	**332**	P		**Pn**	**02 56 29.6**	**+0.1**
MNI	**Manado**	**1.59**	**19**	P		**Pn**	**02 56 41.6**	**+2.3**
MNI				AML		AML		
LUWI	**Luwuk**	**1.82**	**238**	Pn		**Pn**	**02 56 42.9**	**+0.7**
LUWI				Sn		**Sn**	**02 57 06.9**	**+1.6**
LUWI	**Luwuk**	**1.82**	**238**	P		**Pn**	**02 56 45.2**	**+3.0**
LUWI				AML		AML		
SANI	**Sanana**	**2.58**	**140**	P		**Pn**	**02 56 51.0**	**-1.0**
SANI				AML		AML		
APSI	**Ampana**	**2.80**	**253**	Pn		Pn	02 57 00.1	+5.2
APSI				AML		AML		
TNTI	**Ternate**	**3.16**	**75**	Pn		**Pn**	**02 56 59.8**	**0.0**
TOLI2	**Tolitoli**	**3.73**	**288**			**Pn**	**02 57 07.6**	**+0.2**
KDI	**Kendari**	**4.22**	**204**	P		**Pn**	**02 57 14.1**	**+0.1**
KDI				AML		AML		
TTSI	**Tana Toraja**	**5.38**	**237**	P		**Pn**	**02 57 29.7**	**-0.1**
	0.3nm83nm,0.7s							
TTSI				AML		AML		
PMSI	**Majene**	**6.39**	**238**	P		Pn	02 57 53.9	+10
KAPI	**Kappang**	**6.70**	**223**	P		**Pn**	**02 57 48.1**	**+0.4**
	9.1nm,0.5s,baz=22,slow=5.4,SNR=7.1							
KAPI				S		**Sn**	**02 59 03.8**	**+1.1**
	3.6nm,0.5s,baz=94,slow=20,SNR=1.3							
KAPI				LR		LR	03 00 53.5	
	comp=Z,35nm,19.4s,baz=350,slow=42							
KAPI	**Kappang**	**6.70**	**223**			**Pn**	**02 57 48.8**	**+1.0**
FAKI	**Fak Fak**	**8.41**	**110**	Pn		**Pn**	**02 58 12.5**	**+1.5**
FITZ	**Fitzroy Crossi**	**17.96**	**176**	P		**P**	**03 00 14.8**	**+0.4**
	2.1nm,0.7s,baz=1.1,slow=10,SNR=8.5							
FITZ	**Fitzroy Crossi**	**17.96**	**176**	P		**P**	**03 00 15.3**	**+0.9**
MBWA	**Marble Bar**	**21.43**	**192**	P		**P**	**03 00 52.4**	**+0.3**
MBWA				IAmb		IAmb	03 01 02.9	
	comp=Z,18nm,1.4s							
WB0	**Warramunga Arr**	**21.92**	**154**	P		**P**	**03 00 57.0**	**-0.3**
WB0				IAmb		IAmb	03 01 11.8	
	comp=Z,2.1nm,0.8s							
WRA	**Warramunga Arr**	**22.05**	**154**	P		**P**	**03 00 59.4**	**+0.7**
	comp=Z,0.7nm,0.6s,baz=337,slow=9.3,SNR=8.2							
	comp=Z,0.7nm,0.6s							
WRA	**Warramunga Arr**	**22.05**	**154**	P		**P**	**03 00 58.9**	**+0.3**
WR8	**Warramunga Arr**	**22.14**	**154**	P		**P**	**03 00 59.7**	**+0.1**
WR8				IAmb		IAmb	03 01 19.7	
	comp=Z,3.1nm,1.1s							
AS31	**Alice Springs**	**25.23**	**159**	P		**P**	**03 01 30.1**	**+1.5**
ASAR	**Alice Springs**	**25.23**	**159**	P		**P**	**03 01 30.6**	**+1.9**
	comp=Z,0.8nm,0.6s,baz=344,slow=15,SNR=13							
ASAR				PcP		**PcP**	**03 05 00.7**	**+0.8**
	comp=Z,0.4nm,0.4s,baz=350,slow=2.8,SNR=8.8							
	comp=Z,0.8nm,0.6s							
ASAR	**Alice Springs**	**25.23**	**159**	P		**P**	**03 01 29.2**	**+0.6**
ASAR						**PcP**	**03 05 00.3**	**+0.5**
	comp=Z,1.0nm,0.3s							
CMAR	**Chiang Mai Arr**	**31.00**	**308**	P		**P**	**03 02 19.0**	**-1.1**
	comp=Z,1.0nm,0.3s,baz=101,slow=6.8,SNR=1.5							
	comp=Z,1.0nm,0.3s							
CMAR	**Chiang Mai Arr**	**31.00**	**308**	P		**P**	**03 02 19.9**	**-0.2**
ENH	**Enshi**	**33.31**	**336**	P		**P**	**03 02 40.6**	**+0.4**
USRK	**Ussuriysk Ar.**	**44.60**	**8**	P		**P**	**03 04 14.4**	**+0.3**
	comp=Z,1.8nm,0.4s,baz=193,slow=7.6,SNR=10							
	comp=Z,1.8nm,0.4s							
USRK	**Ussuriysk Ar.**	**44.60**	**8**	P		**P**	**03 04 14.0**	**-0.1**
SONM	**Songino Array**	**50.20**	**344**	P		**P**	**03 04 57.8**	**+0.2**
	comp=Z,0.3nm,0.4s,baz=167,slow=13,SNR=2.7							
	comp=Z,0.3nm,0.4s							
SONM	**Songino Array**	**50.20**	**344**	P		**P**	**03 04 56.6**	**-0.9**
SONM				IAmb		IAmb	03 05 34.6	
	comp=Z,1.8nm,1.3s							
MKAR	**Makanchi Array**	**59.37**	**328**	P		**P**	**03 06 01.9**	**-1.8**
	comp=Z,0.6nm,0.4s,baz=125,slow=7.9,SNR=11							
	comp=Z,0.6nm,0.4s							
MKAR	**Makanchi Array**	**59.37**	**328**	P		**P**	**03 06 02.4**	**-1.4**
ZALV	**Zalesovo Beam**	**62.93**	**335**	P		**P**	**03 06 27.1**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=126,slow=6.7,SNR=2.1							
	comp=Z,0.3nm,0.3s							
ZALV	**Zalesovo Beam**	**62.93**	**335**	P		**P**	**03 06 27.3**	**-0.2**
KURBB	**Kurchatov Arra**	**63.69**	**329**	P		**P**	**03 06 30.8**	**-1.8**
	comp=Z,0.4nm,0.4s,baz=129,slow=6.6,SNR=7.0							
	comp=Z,0.4nm,0.4s							
KURK	**Kurchatov**	**63.70**	**330**	P		**P**	**03 06 30.6**	**-2.0**
KURK				IAmb		IAmb	03 06 33.3	
	comp=Z,3.4nm,1.1s							
HRA	**Herat**	**67.26**	**308**	P		**P**	**03 06 55.7**	**-0.5**
HRA				IAmb		IAmb	03 07 00.4	
	comp=Z,2.9nm,0.6s							
BVAR	**Borovoye Array**	**69.23**	**329**	P		**P**	**03 07 07.3**	**-0.6**
	comp=Z,0.3nm,0.4s,baz=122,slow=7.0,SNR=2.3							
	comp=Z,0.3nm,0.4s							
AB31	**Akbulak array**	**73.60**	**322**	P		**P**	**03 07 32.6**	**-1.6**
AB31				IAmb		IAmb	03 07 59.6	
	comp=Z,1.6nm,1.2s							
ABKAR	**Akbulak array**	**73.60**	**322**	P		**P**	**03 07 32.2**	**-2.0**
M16K	**Timber Creek**	**83.64**	**28**	P		**P**	**03 08 30.8**	**+1.7**
C18K	**Utukok River**	**84.44**	**21**	P		**P**	**03 08 34.0**	**+0.9**
G19K	**Purcell Mounta**	**85.45**	**24**	P		**P**	**03 08 39.0**	**+0.9**
G19K				IAmb		IAmb	03 08 52.4	
	comp=Z,4.2nm,1.1s							
D20K	**Etivluk River**	**86.09**	**21**	P		**P**	**03 08 41.6**	**+0.3**
D20K				IAmb		IAmb	03 09 20.9	
	comp=Z,6.8nm,1.4s							
ILAR	**Eielson Array**	**89.55**	**25**	P		**P**	**03 08 56.9**	**-0.9**
	comp=Z,0.5nm,1.0s,baz=256,slow=5.7,SNR=1.9							
	comp=Z,0.5nm,1.0s							
ILAR	**Eielson Array**	**89.55**	**25**	P		**P**	**03 08 56.2**	**-1.6**

IDC ***24*** *03:38:20.0±2.3, 7°.03S×150°.33E, h84km±20km, mb3.5/10, mbtmp3.9/12, MS2.9/3, Error ellipse: s-maj=28.4km s-min=14.3km az=119.0*

NEIC ***24*** *03:38:20.0±1.3, 7°.09S±0°.08×150°.37E±0°.08, h84km±8km, mb4.2/18, Error ellipse: s-maj=13.0km s-min=10.1km az=127.0*

ISC 24 03:38:19.2±0.6, 7°.02S±0°.08×150°.40E±0°.09, h84km, n38, σ1§39/38, mb4.0/14, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KRVT	**Keravat (AS076**	**3.15**	**31**	P		**Pn**	**03 39 08.7**	**+2.0**
	140nm,0.3s,baz=210,slow=16,SNR=1.0							
KRVT				S		**Sn**	**03 39 37.2**	**-6.0**
	235nm,0.3s,baz=232,slow=21,SNR=3.9							
PMG	**Port Moresby**	**3.99**	**233**	P		**Pn**	**03 39 16.2**	**-1.7**
	14nm,0.6s,baz=48,slow=6.8,SNR=5.4							
PMG				S		**Sn**	**03 40 04.2**	**+0.6**
	60nm,0.7s,baz=342,slow=19,SNR=12							
PMG	**Port Moresby**	**3.99**	**233**			**Pn**	**03 39 17.2**	**-0.8**
PMG						**Sn**	**03 40 03.4**	**-0.2**
CTA	**Charters Tower**	**13.60**	**197**	LR		LR	03 46 05.6	
	comp=Z,30nm,18.4s,baz=34,slow=34							
WB0	**Warramunga Arr**	**20.05**	**229**	P		**P**	**03 42 45.7**	**0.0**
WR8	**Warramunga Arr**	**20.08**	**229**	P		**P**	**03 42 43.6**	**-2.5**
WR8				IAmb		IAmb	03 42 47.6	
	comp=Z,4.3nm,0.8s							
WRA	**Warramunga Arr**	**20.19**	**229**	P		**P**	**03 42 47.0**	**-0.3**
	comp=Z,2.5nm,0.6s,baz=56,slow=11,SNR=25							
	comp=Z,2.5nm,0.6s							
WRA	**Warramunga Arr**	**20.19**	**229**	P		**P**	**03 42 46.9**	**-0.5**
MARNC	**Mare, Loyalty**	**22.29**	**132**	P		**P**	**03 43 10.5**	**+0.7**
KNRA	**Kununurra**	**22.87**	**246**	P		**P**	**03 43 14.5**	**-1.4**
KNRA				IAmb		IAmb	03 43 20.0	
	comp=Z,3.1nm,0.7s							
AS31	**Alice Springs**	**22.91**	**222**	P		**P**	**03 43 15.8**	**-0.4**
ASAR	**Alice Springs**	**22.91**	**222**	P		**P**	**03 43 16.1**	**-0.1**
	comp=Z,2.5nm,0.8s,baz=54,slow=9.2,SNR=21							
	comp=Z,2.5nm,0.8s							
ASAR	**Alice Springs**	**22.91**	**222**	P		**P**	**03 43 15.7**	**-0.6**
STKA	**Stephens Creek**	**26.06**	**197**	P		**P**	**03 43 45.2**	**+0.4**
	comp=Z,0.7nm,0.4s,baz=313,slow=16,SNR=1.9							
	comp=Z,0.7nm,0.4s							
STKA	**Stephens Creek**	**26.06**	**197**	P		**P**	**03 43 43.7**	**-1.1**
STKA				IAmb		IAmb	03 44 17.9	
	comp=Z,32nm,1.5s							
FITZ	**Fitzroy Crossi**	**26.52**	**243**	P		**P**	**03 43 49.4**	**+0.3**
BBOO	**Buckleboo**	**28.91**	**206**	P		**P**	**03 44 11.1**	**+0.7**
BBOO				IAmb		IAmb	03 44 54.6	
	comp=Z,11nm,1.4s							
FORT	**Forrest**	**31.57**	**219**	P		**P**	**03 44 33.2**	**-0.6**
FORT				IAmb		IAmb	03 44 35.1	
	comp=Z,3.8nm,0.8s							
TAU	**Tasmania Unive**	**35.84**	**184**	P		**P**	**03 45 09.8**	**-0.9**
RTZ	**Ruatahuna**	**39.56**	**147**	P		**P**	**03 45 41.7**	**-0.6**
NWAO	**Narrogin (SRO)**	**40.13**	**226**	LR		LR	04 04 05.0	
	comp=Z,41nm,18.5s,baz=295,slow=39							
NWAO	**Narrogin (SRO)**	**40.13**	**226**	P		**P**	**03 45 46.4**	**-0.6**
NWAO				IAmb		IAmb	03 45 53.0	
	comp=Z,15nm,0.8s							
SNZO	**South Karori**	**40.41**	**151**	P		**P**	**03 45 48.5**	**-0.6**
RPZ	**Rata Peaks**	**40.79**	**157**	LR		LR	04 02 29.2	
	comp=Z,11nm,18.1s,baz=350,slow=36							
SONM	**Songino Array**	**66.97**	**329**	P		**P**	**03 49 04.5**	**+1.5**
	comp=Z,0.8nm,0.9s,baz=128,slow=6.9,SNR=3.6							
	comp=Z,0.8nm,0.9s							
SONM	**Songino Array**	**66.97**	**329**	P		**P**	**03 49 03.4**	**+0.3**
SONM				IAmb		IAmb	03 49 06.0	
	comp=Z,1.6nm,1.3s							
VNDA	**Vanda**	**70.72**	**177**	P		**P**	**03 49 27.4**	**+1.7**
	comp=Z,0.8nm,0.6s,baz=4.1,slow=4.8,SNR=6.0							
	comp=Z,0.8nm,0.6s							
VNDA	**Vanda**	**70.72**	**177**	P		**P**	**03 49 26.2**	**+0.5**
VNDA				IAmb		IAmb	03 49 35.9	
	comp=Z,1.4nm,1.1s							
MKAR	**Makanchi Array**	**80.44**	**320**	P		**P**	**03 50 22.9**	**+1.1**
	comp=Z,0.1nm,0.5s,baz=103,slow=6.1,SNR=2.5							
	comp=Z,0.1nm,0.5s							
MKAR	**Makanchi Array**	**80.44**	**320**	P		**P**	**03 50 21.9**	**+0.1**
QSPA	**South Pole Qui**	**82.95**	**180**	P		**P**	**03 50 35.6**	**+0.8**
	comp=Z,2.1nm,0.8s,baz=313,slow=1.4,SNR=5.7							
	comp=Z,2.1nm,0.8s							
QSPA	**South Pole Qui**	**82.95**	**180**	P		**P**	**03 50 35.1**	**+0.3**
QSPA				IAmb		IAmb	03 50 52.8	
	comp=Z,7.0nm,1.5s							
KURK	**Kurchatov**	**84.06**	**323**	P		**P**	**03 50 41.3**	**+0.8**
KURK				IAmb		IAmb	03 50 45.0	
	comp=Z,1.6nm,0.9s							
KURBB	**Kurchatov Arra**	**84.08**	**323**	P		**P**	**03 50 40.9**	**+0.2**
	comp=Z,0.7nm,0.8s,baz=115,slow=3.9,SNR=4.8							
	comp=Z,0.7nm,0.8s							
ILAR	**Eielson Array**	**85.11**	**22**	P		**P**	**03 50 46.1**	**+0.5**
	comp=Z,1.0nm,0.8s,baz=257,slow=5.4,SNR=11							
	comp=Z,1.0nm,0.8s							
ILAR	**Eielson Array**	**85.11**	**22**	P		**P**	**03 50 45.9**	**+0.4**
BVAR	**Borovoye Array**	**89.59**	**323**	P		**P**	**03 51 08.2**	**+0.8**
	comp=Z,1.1nm,0.8s,baz=101,slow=7.5,SNR=1.8							
	comp=Z,1.1nm,0.8s							
ABKAR	**Akbulak array**	**95.56**	**319**	P		**P**	**03 51 35.5**	**+0.5**

IDC ***24*** *03:48:58.9±1.1, 17°.37N×93°.74W, h159km±13km, mb3.5/12, mbtmp3.9/13, Error ellipse: s-maj=31.1km s-min=13.0km az=66.0*

NEIC ***24*** *03:49:00.7±1.4, 17°.35N±0°.05×94°.02W±0°.06, h175km±3km, mb4.4/73, Md4.3/21(MEX), Error ellipse: s-maj=9.7km s-min=5.9km az=49.0*

MEX ***24*** *03:49:01.8±1.2, 17°.22N×94°.10W, h179km±8km, MD4.3, Presumed earthquake*

ISC 24 03:49:00.1±0.6, 17°.24N±0°.04×94°.06W±0°.03, h179km±5km, n120, σ1§58/155, mb4.2/23, Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
UXUV	**UXUV**	**0.12**	**314**			**Pn**	**03 49 24.4**	**+0.6**
UXUV						**Sn**	**03 49 41.2**	**-0.8**
UXUV	**UXUV**	**0.12**	**314**	*i* P		**Pn**	**03 49 24.4**	**+0.6**
UXUV				*i* S		**Sn**	**03 49 41.2**	**-0.8**
CMIG	**Matias Romero**	**0.80**	**260**	P		**Pn**	**03 49 26.6**	**+0.2**
	694nm,0.2s,baz=76,slow=6.8,SNR=3822							
CMIG				S		**Sn**	**03 49 46.0**	**-0.5**
	199nm,0.3s,baz=128,slow=5.8,SNR=12							
CMIG	**Matias Romero**	**0.80**	**260**			**Pn**	**03 49 26.8**	**+0.4**
CMIG						**Sn**	**03 49 46.2**	**-0.4**
CMIG	**Matias Romero**	**0.80**	**260**	*i* P		**Pn**	**03 49 26.8**	**+0.4**
CMIG				*e*S		**Sn**	**03 49 46.2**	**-0.4**
TUIG	**Tuzandepetl**	**0.87**	**336**	*e*P		**Pn**	**03 49 27.4**	**+0.7**
TUIG				*e*S		**Sn**	**03 49 46.1**	**-1.4**
TGIG		**1.00**	**117**			**Pn**	**03 49 28.4**	**+0.7**
TGIG						**Sn**	**03 49 48.1**	**-1.0**
TGIG		**1.00**	**117**	*i* P		**Pn**	**03 49 28.4**	**+0.7**
TGIG				*e*S		**Sn**	**03 49 48.1**	**-1.0**
PCIG		**1.72**	**152**	*e*P		**Pn**	**03 49 35.2**	**+1.0**
PCIG				*e*S		**Sn**	**03 50 00.2**	**-0.4**
NEUV	**Arroyo Zacate**	**1.73**	**286**			**Pn**	**03 49 34.2**	**0.0**
NEUV						**Sn**	**03 49 58.9**	**-1.8**
NEUV	**Arroyo Zacate**	**1.73**	**286**	*i* P		**Pn**	**03 49 34.2**	**0.0**
NEUV				*e*S		**Sn**	**03 49 58.9**	**-1.8**
CCIG	**Comitan**	**2.07**	**117**			**Pn**	**03 49 39.0**	**+1.0**
CCIG						Sn		
CCIG	**Comitan**	**2.07**	**117**	*i* P		**Pn**	**03 49 39.2**	**+1.2**
CCIG				*i* S		**Sn**	**03 50 07.2**	**-0.2**
HUIG	**Huatulco**	**2.45**	**234**			**Pn**	**03 49 40.4**	**-1.7**
HUIG						**Sn**	**03 50 13.3**	**-1.5**
HUIG	**Huatulco**	**2.45**	**234**	*i* P		**Pn**	**03 49 40.4**	**-1.7**
HUIG				*e*S		**Sn**	**03 50 13.3**	**-1.5**
OXLC	**Oaxaca**	**2.54**	**267**			**Pn**	**03 49 43.9**	**+0.5**
OXLC						**Sn**	**03 50 17.8**	**+0.8**
OXLC	**Oaxaca**	**2.54**	**267**	*e*P		**Pn**	**03 49 43.9**	**+0.5**
OXLC				*e*S		**Sn**	**03 50 17.8**	**+0.8**
OXBJ	**Oaxaca**	**2.56**	**267**			**Pn**	**03 49 44.1**	**+0.5**
OXBJ						**Sn**	**03 50 18.9**	**+1.6**
OXBJ	**Oaxaca**	**2.56**	**267**	*e*P		**Pn**	**03 49 44.1**	**+0.5**
OXBJ				*e*S		**Sn**	**03 50 18.9**	**+1.6**
VHO	**Vista Hermosa**	**2.56**	**267**	*e*P		**Pn**	**03 49 44.2**	**+0.5**
VHO				*e*S		**Sn**	**03 50 17.9**	**+0.4**
PAVE	**Pavencul**	**2.72**	**138**	*e*P		**Pn**	**03 49 46.4**	**+0.8**
PAVE				*e*S		**Sn**	**03 50 19.6**	**-1.2**
PATR	**El Naranjo**	**2.74**	**140**	*e*P		**Pn**	**03 49 47.5**	**+1.7**
PATR				*e*S		**Sn**	**03 50 20.2**	**-1.2**
CHUJ	**Union Juarez**	**2.84**	**138**	*e*P		**Pn**	**03 49 47.7**	**+0.7**
CHUJ				*e*S		**Sn**	**03 50 21.0**	**-2.4**
THIG		**2.88**	**143**	*e*S		**Sn**	**03 50 25.0**	**+0.9**
TOIG	**Toxpalan**	**2.99**	**287**	*e*P		**Pn**	**03 49 49.4**	**+0.8**
TOIG				*e*S		**Sn**	**03 50 25.1**	**-1.4**
HUEH	**Huehuetenango**	**3.11**	**127**	*e*S		**Sn**	**03 50 26.5**	**-2.8**
PEIG	**Puerto Escondi**	**3.21**	**248**	*e*P		**Pn**	**03 49 49.6**	**-1.6**
PEIG				*e*S		**Sn**	**03 50 26.5**	**-4.6**
SCIG	**Sabancuy**	**3.23**	**57**	*e*P		**Pn**	**03 49 50.7**	**-0.8**
SCIG				*e*S		**Sn**	**03 50 27.4**	**-4.1**
YOIG	**Yosondua**	**3.36**	**264**	*e*P		**Pn**	**03 49 53.4**	**0.0**
YOIG				*e*S		**Sn**	**03 50 30.1**	**-4.8**
JAUV	**Jalcomulco**	**3.36**	**310**			**Pn**	**03 49 52.5**	**-0.6**
JAUV						**Sn**	**03 50 33.2**	**-1.4**
JAUV	**Jalcomulco**	**3.36**	**310**	*e*P		**Pn**	**03 49 52.5**	**-0.6**
JAUV				*e*S		**Sn**	**03 50 33.2**	**-1.4**
TPIG	**Tehuac#an**	**3.36**	**291**	*e*P		**Pn**	**03 49 54.4**	**+1.1**
TPIG				*e*S		**Sn**	**03 50 32.6**	**-2.2**
RTAL	**Retalhuleu**	**3.53**	**140**	*e*S		**Sn**	**03 50 34.1**	**-4.1**
TXIG	**Tlaxiaco**	**3.55**	**271**	*e*P		**Pn**	**03 49 55.8**	**+0.1**
TXIG				*e*S		**Sn**	**03 50 34.6**	**-4.5**
HLIG	**Huajuapan de L**	**3.62**	**280**	*e*P		**Pn**	**03 49 57.3**	**+0.7**
HLIG				*e*S		**Sn**	**03 50 37.8**	**-2.9**
FTIG	**Fresnillo de T**	**3.94**	**280**	*e*P		**Pn**	**03 50 01.5**	**+0.9**
FTIG				*e*S		**Sn**	**03 50 45.9**	**-1.9**
PNIG	**Pinotepa**	**3.99**	**258**	*e*P		**Pn**	**03 49 59.7**	**-1.4**
PNIG				*e*S		**Sn**	**03 50 43.5**	**-5.1**
PETF	**Flores**	**4.02**	**94**			**Pn**	**03 50 01.1**	**-0.3**
TLIG	**Tlapa**	**4.32**	**275**			**Pn**	**03 50 06.0**	**+0.7**
TLIG	**Tlapa**	**4.32**	**275**	*e*P		**Pn**	**03 50 05.7**	**+0.3**
TLIG				*e*S		**Sn**	**03 50 54.1**	**-2.4**
MGIG	**Malinaltepec**	**4.37**	**271**	*e*P		**Pn**	**03 50 06.3**	**+0.1**
MGIG				*e*S		**Sn**	**03 50 56.6**	**-1.2**
CXUV	**Coxquihui**	**4.44**	**312**			**Pn**	**03 50 06.4**	**-0.5**
CXUV						**Sn**	**03 50 54.1**	**-5.1**
CXUV	**Coxquihui**	**4.44**	**312**	*e*P		**Pn**	**03 50 07.4**	**+0.5**
CXUV				*e*S		**Sn**	**03 50 57.5**	**-1.7**
PPAX	**Atlixo**	**4.48**	**293**	*e*P		**Pn**	**03 50 09.8**	**+2.3**

comp=Z,0.6nm,0.6s,baz=136,slow=6.6,SNR=4.4
comp=Z,0.6nm,0.6s
AGMN Agassiz Nation 31.02 358 IAmb IAmb 03 55 00.7
comp=Z,7.2nm,0.8s
ULM Lac du Bonnet 32.97 358 P **P** **03 55 15.7 -2.0**
comp=Z,1.3nm,0.4s,baz=162,slow=9.4,SNR=5.5
comp=Z,1.3nm,0.4s
ULM Lac du Bonnet 32.97 358 IAmb IAmb 03 55 57.6
comp=Z,9.5nm,1.4s
J08A Circle Bar Ran 33.26 327 **P** **03 55 21.7 +1.2**
F10A Beach Ranch, E 34.54 331 IAmb IAmb 03 55 34.2
comp=Z,6.0nm,0.9s
LPAZ La Paz 41.98 141 P **P** **03 56 34.4 -0.1**
comp=Z,1.1nm,0.5s,baz=324,slow=7.7,SNR=3.5
comp=Z,1.1nm,0.5s
LPAZ La Paz 41.98 141 P **P** **03 56 35.0 +0.6**
SIV San Ignacio 46.34 134 P **P** **03 57 08.0 -0.5**
comp=Z,1.3nm,0.6s,baz=316,slow=11,SNR=4.2
comp=Z,1.3nm,0.6s
YKA Yellowknife Ar 47.45 347 P **P** **03 57 16.2 -0.2**
comp=Z,3.6nm,0.7s,baz=154,slow=7.4,SNR=19
comp=Z,3.6nm,0.7s
INK Inuvik 56.79 344 P **P** **03 58 25.5 +0.4**
INK IAmb IAmb 03 58 26.3
comp=Z,5.4nm,0.7s
ILAR Eielson Array 59.10 337 P **P** **03 58 42.4 +1.1**
comp=Z,0.6nm,1.0s,baz=157,slow=5.6,SNR=8.7
comp=Z,0.6nm,1.0s
PLCA Paso Flores 61.67 160 P **P** **03 59 00.6 +1.5**
comp=Z,2.9nm,0.9s,baz=335,slow=12,SNR=4.4
comp=Z,2.9nm,0.9s
ARCES ARCESS Array B 83.69 18 P **P** **04 01 07.8 -0.5**
comp=Z,4.8nm,1.0s,baz=304,slow=4.8,SNR=3.2
comp=Z,4.8nm,1.0s
ARCES ARCESS Array B 83.69 18 P **P** **04 01 08.1 -0.3**
STU Stuttgart 85.65 40 P **P** **04 01 18.6 +0.1**
STU IAmb IAmb 04 01 35.3
comp=Z,7.4nm,0.8s
TUE Stuetta 86.58 42 P **P** **04 01 22.6 -0.8**
TIXI Tiksi 86.69 348 P **P** **04 01 24.9 +1.7**
TIXI IAmb IAmb 04 01 26.5
comp=Z,5.7nm,0.8s
GERES GERESS Array B 88.36 39 P **P** **04 01 32.1 +0.3**
comp=Z,0.5nm,0.7s,baz=295,slow=4.6,SNR=4.5
comp=Z,0.5nm,0.7s
HHC Hu-ho-hao-te 117.50 338 *eP* **PKiKP** **04 07 26.1 +1.1**
NJ2 Nanjing 121.72 327 *eP* **PKPdf** **04 07 34.1 +0.9**
NJ2 pmax pmax
comp=Z,7.0nm,0.7s
WRA Warramunga Arr 134.17 259 PKP **PKPdf** **04 07 57.7 +0.5**
comp=Z,0.6nm,0.7s,baz=87,slow=2.2,SNR=10
ASAR Alice Springs 134.77 254 PKP **PKPdf** **04 07 59.0 +0.8**
comp=Z,0.2nm,0.6s,baz=104,slow=1.9,SNR=4.4

*IDC **24** 03:51:01.1±2.7, 22°.37S×68°.48W, h68^{km}±25^{km}, mb3.5/2, mbtmp3.5/6, Error ellipse: s-maj=44.7km s-min=19.3km az=115.0*
*VAO **24** 03:51:03.5±1.0, 22°.33S×68°.77W, h114^{km}, mb4.2, Presumed earthquake*
*SJA **24** 03:51:05.0±1.0, 22°.38S×68°.83W, h124^{km}±6^{km}, ML3.6, MW3.6*
*NEIC **24** 03:51:05.3±1.6, 22°.46S±0°.05×68°.69W±0°.04, h114^{km}±6^{km}, mb4.2/12, ML3.6(GUC), Error ellipse: s-maj=7.3km s-min=4.8km az=213.0*
*GUC **24** 03:51:06.5±0.7, 22°.40S×68°.67W, h106^{km}±4^{km}, ML3.6, Presumed earthquake*

ISC 24 03:51:04.4±0.6, 22°.44S±0°.04×68°.60W±0°.04, h112^{km}±6^{km}, n104, σ1^{s}52/113, mb4.1/4, 5C, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AF01	**San Pedro de A**	**0.64**	**143**		**Pn**	**03 51 24.0**	**+1.2**
AF01				Sn	**Sn**	**03 51 38.3**	**+1.7**
AF01	**San Pedro de A**	**0.64**	**143**	*eP*	**Pn**	**03 51 24.4**	**+1.6**
AF01				*eS*	**Sn**	**03 51 39.0**	**+2.4**
PB09	**IPOC Station P**	**0.87**	**317**	*i* P	**Pn**	**03 51 25.7**	**+1.0**
PB09				*i* S	**Sn**	**03 51 40.5**	**+0.6**
PB09				IAML		03 51 41.2	
	comp=Z,1μm,0.5s						
PB09				IAML		03 51 41.2	
	comp=Z,1μm,0.5s						
PB09	**IPOC Station P**	**0.87**	**317**		**Pn**	**03 51 25.8**	**+1.1**
PB09				Sn	**Sn**	**03 51 39.7**	**-0.2**
PB09	**IPOC Station P**	**0.87**	**317**	↑*iP*	**Pn**	**03 51 25.6**	**+0.9**
PB09				*eS*	**Sn**	**03 51 40.1**	**+0.3**
PB09				IAML		03 51 41.9	
	comp=E,2μm,0.4s						
PB06	**IPOC Station P**	**0.94**	**253**	*i* P	**Pn**	**03 51 25.8**	**+0.6**
PB06				*i* S	**Sn**	**03 51 41.9**	**+1.0**
PB06				IAML		03 51 47.0	
	comp=Z,1μm,0.2s						
PB06				IAML		03 51 47.0	
	comp=Z,1μm,0.2s						
PB06	**IPOC Station P**	**0.94**	**253**		**Pn**	**03 51 25.7**	**+0.6**
PB06				Sn	**Sn**	**03 51 40.7**	**-0.2**
PB06	**IPOC Station P**	**0.94**	**253**	↑*iP*	**Pn**	**03 51 25.8**	**+0.6**
PB06				IAML		03 51 43.8	
	comp=N,2μm,0.2s						
PB03	**IPOC Station P**	**1.14**	**290**	*i* P	**Pn**	**03 51 27.6**	**+0.4**
PB03				*i* S	**Sn**	**03 51 43.8**	**-0.8**
PB03				IAML		03 51 45.3	
	comp=Z,2μm,0.2s						
PB03				IAML		03 51 46.5	
	comp=Z,2μm,0.2s						
PB03	**IPOC Station P**	**1.14**	**290**		**Pn**	**03 51 27.6**	**+0.4**
PB03				Sn	**Sn**	**03 51 43.6**	**-1.0**
PB03	**IPOC Station P**	**1.14**	**290**	↑*iP*	**Pn**	**03 51 27.7**	**+0.4**
PB03				*eS*	**Sn**	**03 51 44.0**	**-0.6**
PB03				IAML		03 51 45.9	
	comp=N,2μm,0.2s						
PB07	**IPOC Station P**	**1.39**	**301**	*i* P	**Pn**	**03 51 30.7**	**+0.6**
PB07				*i* S	**Sn**	**03 51 49.4**	**-0.2**
PB07				IAML		03 51 50.0	
	comp=Z,2μm,0.3s						
PB07				IAML		03 51 50.0	
	comp=Z,2μm,0.3s						
PB07	**IPOC Station P**	**1.39**	**301**		**Pn**	**03 51 30.7**	**+0.6**
PB07				Sn	**Sn**	**03 51 48.9**	**-0.8**
PB07	**IPOC Station P**	**1.39**	**301**	↑*iP*	**Pn**	**03 51 30.6**	**+0.6**
PB07				*i* S	**Sn**	**03 51 49.2**	**-0.4**
PB05	**IPOC Station P**	**1.54**	**254**	*i* P	**Pn**	**03 51 32.0**	**+0.2**
PB05				*i* S	**Sn**	**03 51 51.4**	**-1.2**
PB05				IAML		03 52 00.5	
	comp=Z,397nm,0.6s						
PB05				IAML		03 52 00.5	
	comp=Z,397nm,0.6s						
PB05	**IPOC Station P**	**1.54**	**254**		**Pn**	**03 51 31.7**	**-0.1**
PB05	**IPOC Station P**	**1.54**	**254**	↑*iP*	**Pn**	**03 51 32.2**	**+0.4**
PB02	**IPOC Station P**	**1.64**	**313**	*i* P	**Pn**	**03 51 33.5**	**+0.5**
PB02				*i* S	**Sn**	**03 51 53.2**	**-1.6**
PB02				IAML		03 51 58.3	
	comp=Z,2μm,0.4s						
PB02				IAML		03 51 58.3	
	comp=Z,2μm,0.4s						
PB02	**IPOC Station P**	**1.64**	**313**		**Pn**	**03 51 33.5**	**+0.5**
PB02	**IPOC Station P**	**1.64**	**313**	*eP*	**Pn**	**03 51 33.5**	**+0.5**
PB02				*eS*	**Sn**	**03 51 54.3**	**-0.6**
PB10	**IPOC Station P**	**2.09**	**239**	*i* P	**Pn**	**03 51 39.0**	**+0.4**
PB10				IAML		03 52 09.5	
	comp=Z,137nm,0.3s						
PB10	**IPOC Station P**	**2.09**	**239**		**Pn**	**03 51 38.6**	**+0.1**
PB10	**IPOC Station P**	**2.09**	**239**	*eP*	**Pn**	**03 51 38.7**	**+0.1**
PB08	**IPOC Station P**	**2.34**	**347**	*i* P	**Pn**	**03 51 43.2**	**+0.9**
PB08				IAML		03 52 19.4	
	comp=Z,77nm,0.3s						
PB08	**IPOC Station P**	**2.34**	**347**		**Pn**	**03 51 43.5**	**+1.3**
PB08	**IPOC Station P**	**2.34**	**347**	*eP*	**Pn**	**03 51 43.5**	**+1.3**
TA01	**Diego Aracena**	**2.38**	**321**	*i* P	**Pn**	**03 51 41.9**	**-0.3**
TA01				IAML		03 52 14.6	
	comp=Z,152nm,0.3s						
TA01	**Diego Aracena**	**2.38**	**321**		**Pn**	**03 51 41.9**	**-0.3**
TA01	**Diego Aracena**	**2.38**	**321**	*eP*	**Pn**	**03 51 41.8**	**-0.3**
TA01				IAML		03 52 12.4	
	comp=N,303nm,0.3s						
PB14	**IPOC Station P**	**2.73**	**217**	*i* P	**Pn**	**03 51 48.3**	**+1.1**
PB14				IAML		03 52 22.0	
	comp=Z,188nm,0.1s						
PB14				IAML		03 52 49.7	
	comp=Z,176nm,0.4s						
PB14	**IPOC Station P**	**2.73**	**217**		**Pn**	**03 51 47.4**	**+0.2**
PB14	**IPOC Station P**	**2.73**	**217**	*eP*	**Pn**	**03 51 48.0**	**+0.8**
PB14				IAML		03 52 21.2	
	comp=E,149nm,0.2s						
GO01	**Chusmiza**	**2.81**	**349**		**Pn**	**03 51 48.9**	**+0.4**
GO01	**Chusmiza**	**2.81**	**349**	*eP*	**Pn**	**03 51 49.2**	**+0.8**
GO01				IAML		03 52 26.9	
	comp=N,203nm,0.2s						
PB11	**IPOC Station P**	**2.84**	**340**	*i* P	**Pn**	**03 51 48.7**	**+0.2**
PB11				IAML		03 52 22.3	
	comp=Z,125nm,0.7s						
PB11				IAML		03 52 26.1	
	comp=Z,108nm,1.1s						
PB11	**IPOC Station P**	**2.84**	**340**		**Pn**	**03 51 48.2**	**-0.3**
PB11	**IPOC Station P**	**2.84**	**340**	*eP*	**Pn**	**03 51 48.2**	**-0.3**
PSGCX	**Pisagua**	**3.17**	**333**	IAML		03 52 23.2	
	comp=Z,170nm,0.3s						
PSGCX	**Pisagua**	**3.17**	**333**		**Pn**	**03 51 53.7**	**+0.9**
AC01	**Pan de Azucar**	**4.12**	**206**		**Pn**	**03 52 04.5**	**-0.8**
AC01	**Pan de Azucar**	**4.12**	**206**	*eP*	**Pn**	**03 52 04.5**	**-0.8**
PB12	**IPOC Station P**	**4.14**	**337**	IAML		03 53 04.3	
	comp=Z,49nm,0.5s						
PB12	**IPOC Station P**	**4.14**	**337**		**Pn**	**03 52 06.3**	**+0.6**
PB16	**IPOC Station P**	**4.17**	**348**		**Pn**	**03 52 07.1**	**+0.5**
AC02	**Maricunga**	**4.40**	**186**		**Pn**	**03 52 10.4**	**+0.8**
AC06	**Mina Casimiro**	**5.15**	**198**		**Pn**	**03 52 17.6**	**-1.7**
GO03	**Copiapo**	**5.34**	**196**		**Pn**	**03 52 21.1**	**-0.8**
LPAZ	**La Paz**	**6.14**	**4**	P	Pn	03 52 28.7	-4.5
	comp=Z,0.3nm,0.4s,baz=179,slow=8.9,SNR=10.0						
LPAZ	**La Paz**	**6.14**	**4**		**Pn**	**03 52 35.1**	**+1.9**
LPAZ	**La Paz**	**6.14**	**4**	*eP*	**Pn**	**03 52 31.2**	**-2.0**
AC05	**El Transito**	**6.55**	**193**		**Pn**	**03 52 36.8**	**-1.5**
CFA	**Coronel Fontan**	**9.13**	**178**	P	**Pn**	**03 53 10.1**	**-3.1**
	comp=Z,0.2nm,0.3s,baz=339,slow=14,SNR=6.2						
CFA				S	**Sn**	**03 54 46.7**	**-7.6**
	comp=Z,0.5nm,0.3s,baz=136,slow=21,SNR=1.3						
BBSD	**Serra de San D**	**9.16**	**57**	*eP*	**Pn**	**03 53 12.5**	**-1.1**
SIV	**San Ignacio**	**9.57**	**49**	P	**Pn**	**03 53 15.7**	**-3.6**
	comp=Z,2.7nm,0.5s,baz=223,slow=13,SNR=20						
SIV				S	**Sn**	**03 54 57.6**	**-7.5**
	comp=Z,1.4nm,0.8s,baz=292,slow=23,SNR=2.2						
AQDB	**Aquidauana**	**12.17**	**83**	*eP*	**Pn**	**03 53 55.1**	**+1.0**
VILB	**Vilhena**	**12.37**	**42**	*eP*	**Pn**	**03 53 55.6**	**-1.1**
PP1B	**Ponte de Pedra**	**13.76**	**72**	*eP*	**Pn**	**03 54 16.0**	**+1.1**
SALV	**Santo Antonio**	**13.82**	**64**	*eP*	**Pn**	**03 54 16.8**	**+1.3**
PTGB	**Pitanga**	**15.33**	**102**	*eP*	**P**	**03 54 36.9**	**-0.2**
PDRB	**Porto dos Gac**	**15.63**	**48**	*eP*	**P**	**03 54 39.9**	**-0.6**
ITAB	**Concordia**	**15.69**	**111**		**P**	**03 54 41.7**	**+0.7**
ITAB	**Concordia**	**15.69**	**111**	*eP*	**Pn**	**03 54 40.5**	**+1.3**
CPSB	**Cacapava Do Su**	**15.72**	**123**		**P**	**03 54 42.2**	**+0.9**
CPSB				IAmb	IAmb	03 54 42.7	
	comp=Z,9.0nm,0.6s						
CPSB	**Cacapava Do Su**	**15.72**	**123**	*eP*	**Pn**	**03 54 40.4**	**+0.9**
PCMB	**Pacaembu**	**16.10**	**90**	*eP*	**Pn**	**03 54 44.7**	**+0.3**
LDASE	**Londrina, Braz**	**16.14**	**97**	*eP*	**P**	**03 54 46.3**	**+0.3**
CLDB	**Colider**	**16.80**	**49**	*eP*	**Pn**	**03 54 52.8**	**-0.2**
ARAG	**Araguaiana, MT**	**17.22**	**70**	*eP*	**P**	**03 54 56.8**	**-1.2**
PLCA	**Paso Flores**	**18.31**	**185**	P	**Pn**	**03 55 10.9**	**-0.3**
	comp=Z,0.5nm,0.6s,baz=7.9,slow=11,SNR=3.0						
BB19B	**Bebedouro**	**18.70**	**90**	*eP*	**Pn**	**03 55 15.4**	**-0.4**
SNDB	**Serra Nova Dou**	**19.52**	**61**	*eP*	**P**	**03 55 22.3**	**-0.7**
IPMB	**Ipameri, GO**	**19.64**	**81**	*eP*	**P**	**03 55 24.1**	**-0.4**
PET01	**Itanhaem-SP**	**19.66**	**100**	*eP*	**P**	**03 55 25.8**	**+1.2**
NPGB	**Novo Progresso**	**19.93**	**42**	*eP*	**P**	**03 55 25.8**	**-1.7**
VAO	**Valinhos**	**19.97**	**96**	P	**P**	**03 55 28.0**	**0.0**
VAO				IAmb	IAmb	03 55 29.2	
	comp=Z,10nm,0.8s						
VAO	**Valinhos**	**19.97**	**96**	*eP*	**P**	**03 55 27.9**	**-0.1**
BDFB	**Brasilia**	**20.59**	**74**	P	**P**	**03 55 34.4**	**-0.4**
	comp=Z,3.2nm,0.7s,baz=257,slow=12,SNR=6.1						
	comp=Z,3.2nm,0.7s						
BDFB	**Brasilia**	**20.59**	**74**	P	**P**	**03 55 34.9**	**+0.1**
MACA	**Manacapuru-AM**	**20.65**	**23**	P	**P**	**03 55 34.2**	**-1.0**
MACA				IAmb	IAmb	03 55 38.2	
	comp=Z,13nm,0.7s						
MACA	**Manacapuru-AM**	**20.65**	**23**	*eP*	**P**	**03 55 32.3**	**-2.9**
CANS	**Sao Roque de M**	**20.79**	**88**	*eP*	**P**	**03 55 38.0**	**+1.0**
PARB	**Pariquera**	**21.19**	**97**	*eP*	**P**	**03 55 42.0**	**+0.9**
ITTB	**Itaituba**	**21.86**	**37**	*eP*	**P**	**03 55 46.4**	**-1.9**
SMTB	**Santa Maria do**	**24.28**	**60**	P	**P**	**03 56 11.3**	**-0.1**
SMTB				IAmb	IAmb	03 56 13.5	
	comp=Z,5.2nm,0.7s						
SMTB	**Santa Maria do**	**24.28**	**60**	*eP*	**P**	**03 56 11.4**	**-0.1**
SDBA	**SAO DESIDERIO**	**24.68**	**70**	*eP*	**P**	**03 56 15.4**	**+0.3**
BOAV	**Boa Vista**	**25.91**	**19**	P	**P**	**03 56 27.4**	**+1.2**
BOAV				IAmb	IAmb	03 56 28.4	
	comp=Z,4.5nm,0.7s						
BOAV	**Boa Vista**	**25.91**	**19**	*eP*	**P**	**03 56 24.8**	**-1.4**
BSFB	**Barra de Sao F**	**26.20**	**87**	*eP*	**P**	**03 56 29.1**	**+0.2**
NBPS	**Pedro II - PI**	**31.82**	**60**	*eP*	**P**	**03 57 18.6**	**-0.2**
LCBC	**Las crdobas,**	**32.02**	**345**	P	**P**	**03 57 22.6**	**+2.2**
BIM	**Bigot**	**37.46**	**12**	P	**P**	**03 58 05.7**	**-1.5**
CRPR	**Cabo Rojo, PR**	**40.22**	**2**	P	**P**	**03 58 33.6**	**+3.4**
SNAA	**Sanae**	**61.30**	**161**	P	**P**	**04 01 09.5**	**+1.8**
SNAA				IAmb	IAmb	04 01 19.3	
	comp=Z,6.0nm,1.5s						
QSPA	**South Pole Qui**	**67.76**	**180**	P	**P**	**04 01 52.1**	**+2.2**
	comp=Z,0.5nm,0.5s,baz=47,slow=4.4,SNR=1.4						
	comp=Z,0.5nm,0.5s						
TOA0	**Torodi Ar. Sit**	**77.40**	**70**	P	**P**	**04 02 46.5**	**-1.1**
TORD	**Torodi Ar. Bea**	**77.40**	**70**	P	**P**	**04 02 48.0**	**+0.4**
	comp=Z,0.9nm,0.3s,baz=259,slow=6.9,SNR=2.0						
H11S2	**WAKE ISLAND Hyl**	**28.27**	**276**	T	T	06 30 20.4	
	baz=105						
H11S1	**WAKE ISLAND Hyl**	**28.28**	**276**	T	T	06 30 18.8	
	baz=105						
H11S3	**WAKE ISLAND Hyl**	**28.28**	**276**	T	T	06 30 10.0	
	baz=105						
H11N3	**WAKE ISLAND Hyl**	**28.38**	**278**	T	T	06 30 26.0	
	baz=104						
H11N2	**WAKE ISLAND Hyl**	**28.39**	**278**	T	T	06 30 29.6	
	baz=104						
H11N1	**WAKE ISLAND Hyl**	**28.39**	**278**	T	T	06 30 25.4	
	baz=104						
MKAR	**Makanchi Array**	**146.22**	**37**	PKPbc	**PKPab**	**04 10 32.6**	**-0.1**
	comp=Z,0.1nm,0.6s,baz=316,slow=4.0,SNR=3.5						

*UCR **24** 03:53:47.4±0.5, 10°.53N×86°.65W, h12^{km}±10^{km}, MW3.7, Presumed earthquake*
*CATAC **24** 03:53:48.8±0.8, 10°.N±6°.×8°.7W±°., h47^{km}±53^{km}, M3.2/12, MLv3.2/12, Error ellipse: s-maj=21.0km s-min=7.0km az=55.9, confirmed*

ISC 24 03:53:47.3±1.9, 10°.48N±0°.07×86°.7W±0°.1, h23^{km}, n51, σ1^{s}15/54, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DELF	**Filadelfia**	**1.11**	**91**	*eP*	**Pn**	**03 54 07.5**	**+0.1**
DELF				*eS*	**Sn**	**03 54 22.6**	**+0.5**
ALIBA	**Liberia Airpor**	**1.12**	**84**	*eP*	**Pb**	**03 54 08.2**	**+0.2**
ALIBA				*eS*	**Sn**	**03 54 23.8**	**+1.4**
LCRUZ	**La Cruz**	**1.19**	**60**	*eP*	**Pn**	**03 54 08.4**	**-0.2**
LAPC	**Finca la Perla**	**1.26**	**77**	*eP*	**Pn**	**03 54 09.5**	**-0.1**
NICO	**Nicoya**	**1.26**	**106**	*eP*	**Pn**	**03 54 09.6**	**0.0**
CMARA	**Lajas Hojancha**	**1.32**	**110**	P	**Pb**	**03 54 11.5**	**+0.1**
CMARA				S	**Sn**	**03 54 27.0**	**-0.3**
CMARA	**Lajas Hojancha**	**1.32**	**110**	*eP*	**Pn**	**03 54 10.6**	**+0.2**
GPS3	**Bodega del ICE**	**1.32**	**78**	*eP*	**Pb**	**03 54 12.2**	**+0.7**
VRLE	**La Escondida,**	**1.33**	**76**	*eP*	**Pn**	**03 54 10.6**	**0.0**
GPS2	**Hotel Rincn d**	**1.34**	**78**	*eP*	**Pn**	**03 54 10.9**	**+0.3**
CARN	**Rivas**	**1.34**	**58**	P	**Pb**	**03 54 11.1**	**-0.7**
CARN	**Rivas**	**1.34**	**58**	*eP*	**Pn**	**03 54 10.8**	**+0.1**
BAGA	**Bagaces**	**1.40**	**88**	*eP*	**Pb**	**03 54 12.0**	**-0.7**
PEJA	**Penjamo Buenos**	**1.41**	**73**	*eP*	**Pb**	**03 54 12.6**	**-0.4**
NADN	**Granada**	**1.42**	**27**	P	**Pb**	**03 54 12.4**	**-0.7**
NADN	**Granada**	**1.42**	**27**	*eP*	**Pn**	**03 54 11.9**	**+0.3**
JAPN	**Al SSO del Vol**	**1.43**	**43**	P	**Pb**	**03 54 12.8**	**-0.5**
JAPN	**Al SSO del Vol**	**1.43**	**43**	*eP*	**Pb**	**03 54 12.7**	**-0.7**
OMEN	**Al SSO del Vol**	**1.46**	**45**	P	**Pn**	**03 54 12.4**	**+0.1**
COLC	**Colonia**	**1.47**	**83**	*eP*	**Pn**	**03 54 12.9**	**+0.5**
MESS	**Mesas**	**1.49**	**80**	*eP*	**Pn**	**03 54 13.1**	**+0.4**
HORNC	**Hornillas**	**1.50**	**81**	*eP*	**Pn**	**03 54 13.2**	**+0.4**
CUI	**Cuipilapa**	**1.50**	**83**	*eP*	**Pn**	**03 54 13.4**	**+0.5**
CLARA	**Aguas Claras**	**1.51**	**78**	*eP*	**Pn**	**03 54 13.5**	**+0.5**
NANN	**Nandasmo**	**1.55**	**21**	P	**Pb**	**03 54 15.0**	**-0.4**
VMAR	**Armenia, Volca**	**1.58**	**78**	*eP*	**Pb**	**03 54 14.9**	**-0.9**
TIMP	**Tierras Morena**	**1.64**	**86**	*eP*	**Pn**	**03 54 15.4**	**+0.6**
TENO	**El Achiote**	**1.69**	**82**	*eP*	**Pn**	**03 54 15.8**	**+0.2**
UPAL	**Upala**	**1.69**	**76**	P	**Pn**	**03 54 15.9**	**+0.4**
UPAL	**Upala**	**1.69**	**76**	*eP*	**Pb**	**03 54 16.7**	**-1.1**
JTS	**Las Juntas de**	**1.71**	**96**	P	**Pn**	**03 54 15.5**	**-0.2**
JTS	**Las Juntas de**	**1.71**	**96**	*eP*	**Pn**	**03 54 16.3**	**+0.5**
QUEB	**Quebradon, Cot**	**1.76**	**85**	*eP*	**Pn**	**03 54 17.6**	**+1.1**
MTEVE	**Monteverde**	**1.83**	**95**	*eP*	**Pn**	**03 54 18.6**	**+1.0**
VARE2	**V. Arenal**	**1.93**	**90**	*eP*	**Pn**	**03 54 19.3**	**+0.5**
CEDE	**Laguna Cedeo**	**1.95**	**90**	*eP*	**Pb**	**03 54 20.6**	**-1.5**
CNGN	**Cerro Negro**	**2.01**	**360**	P	**Pn**	**03 54 20.6**	**+0.7**
PACN	**Al O del Volca**	**2.01**	**357**	P	**Pn**	**03 54 19.8**	**-0.1**
MOM3	**MOM3**	**2.03**	**5**	P	**Pn**	**03 54 20.8**	**+0.7**
ROCN	**Rota Cerro Neg**	**2.03**	**358**	P	**Pn**	**03 54 20.7**	**+0.5**
ACON	**Acoyapa**	**2.09**	**45**	P	**Pn**	**03 54 21.3**	**+0.3**
PLRN	**Geotermica Pol**	**2.10**	**358**	P	**Pn**	**03 54 21.2**	**+0.2**
VBV1	**V. Barva**	**2.57**	**98**	*eP*	**Pb**	**03 54 31.6**	**-1.3**
ACOS	**Acosta**	**2.57**	**105**	*eP*	**Pb**	**03 54 30.7**	**-2.1**
PIEC	**Cerro El Cedra**	**2.81**	**107**	*eP*	**Pn**	**03 54 33.5**	**+2.3**
VICA	**Volcano Irazu**	**2.83**	**100**	*eP*	**Pn**	**03 54 33.9**	**+2.3**
CVTG	**V. Turrialba,**	**2.88**	**96**	*eP*	**Pb**	**03 54 35.3**	**-2.8**
CVTV	**Tajo**	**2.92**	**99**	*eP*	**Pb**	**03 54 36.7**	**-2.3**
ABRB	**Las Abras (San**	**2.96**	**99**	*eP*	**Pn**	**03 54 35.4**	**+2.3**
RESJ	**San Isidro (Tu**	**3.02**	**98**	*eP*	**Pb**	**03 54 37.2**	**-3.3**
VERH	**Veragua Rainfo**	**3.48**	**99**	*eP*	**Pn**	**03 54 42.4**	**+2.3**

NOU 24 04:05:30.8, 17°.62S×168°.32E, h61^{km}, MLv3.8/15, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DVP	**Devils Point**	**0.16**	**230**	P	Pn	04 05 42.3	+2.1
RTV	**Rentapao**	**0.20**	**150**	P	Pn	04 05 42.9	+2.5
RTV	**Rentapao**	**0.20**	**150**	S	Sn	04 05 48.5	+1.2
SANVU	**Saraoutou**	**2.41**	**333**	P	Pn	04 06 07.5	-0.4
YATNC	**Mamie plateau,**	**4.62**	**197**	P	Pn	04 06 38.0	-0.1
NGOA	**Tingoa Renbel**	**10.01**	**306**	P	Pn	04 07 51.9	0.0

*GCG **24** 04:10:18.3±1.5, 15°.65N×89°.96W, h15^{km}±12^{km}, MD4.1, Presumed earthquake*
*CATAC **24** 04:10:20.5±0.4, 16°.N±2°.×9°.0W±°., h28^{km}±3^{km}, M3.6/22, MLv3.6/22, Error ellipse: s-maj=3.6km s-min=2.3km az=30.1, confirmed*

ISC 24 04:10:19.1±2.4, 15°.71N±0°.03×90°.02W±0°.03, h16^{km}±17^{km}, n30, σ0^{s}88/51, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PETF	**Flores**	**1.21**	**7**	P	**Pn**	**04 10 41.1**	**-0.3**
PETF				S	**Sb**	**04 10 57.3**	**+0.2**
PETF	**Flores**	**1.21**	**7**	*i* P	**Pn**	**04 10 40.8**	**-0.6**
PETF				*i* S	**Sb**	**04 10 56.8**	**-0.3**
ZAFR2	**Estanzuela, Za**	**1.30**	**150**	*i* P	Pn	04 10 31.6	-11
ESQI	**Esquipulas**	**1.32**	**150**	P	**Pn**	**04 10 41.5**	**-1.5**
ESQI				S	**Sb**	**04 11 00.8**	**+0.5**
IZABA	**Izabal, Puerto**	**1.38**	**89**	P	**Pn**	**04 10 44.3**	**+0.4**
IZABA				S	**Sb**	**04 11 02.3**	**+0.2**
JUAM	**Asuncion Mita**	**1.40**	**167**	*i* S	**Sn**	**04 10 59.7**	**-2.6**
MTO3	**Montecristo**	**1.45**	**154**	P	**Pn**	**04 10 43.5**	**-1.4**
MTO3				S	**Sn**	**04 11 04.0**	**+0.2**
HUEH	**Huehuetenango**	**1.48**	**255**	P	**Pn**	**04 10 45.4**	**0.0**
HUEH				S	**Sn**	**04 11 03.9**	**-0.7**
HUEH	**Huehuetenango**	**1.48**	**255**	*i* S	**Sg**	**04 11 07.0**	**+0.1**
FG16	**Alotenango, Sa**	**1.50**	**198**	*i* P	**Pn**	**04 10 44.2**	**-1.5**
SARH	**Santa Rosa de**	**1.53**	**127**	P	**Pn**	**04 10 44.9**	**-1.0**
SARH				S	**Sn**	**04 11 05.9**	**+0.3**
SARH	**Santa Rosa de**	**1.53**	**127**	*i* P	**Pn**	**04 10 44.2**	**-1.7**
SARH				*i* S	**Sn**	**04 11 03.9**	**-1.6**
FG8	**Yepocapa, Chim**	**1.53**	**200**	*i* P	**Pn**	**04 10 45.6**	**-0.4**
SLOZ	**Alcaldia de Sa**	**1.69**	**172**	P	**Pn**	**04 10 47.8**	**-0.3**
SLOZ				S	**Sn**	**04 11 09.8**	**+0.4**
UNIC	**Universidad Ca**	**1.78**	**165**	P	**Pn**	**04 10 49.2**	**-0.1**
UNIC				S	**Sn**	**04 11 12.1**	**+0.5**
NUBE	**Las Nubes**	**1.81**	**173**	P	**Pn**	**04 10 48.9**	**-1.0**
NUBE				S	**Sn**	**04 11 13.0**	**+0.4**
FAME	**Alcaldia de

comp=Z,21nm,19.8s,baz=45,slow=40
ARTI Arti 30.50 323 LR LR 04 35 08.7
comp=Z,79nm,18.7s,baz=109,slow=38
KLR Kul'dur 32.47 52 LR LR 04 37 21.5
comp=Z,51nm,19.4s,baz=166,slow=40
NRIK Noril'sk 33.93 358 LR LR 04 37 14.3
comp=Z,47nm,19.2s,baz=272,slow=38
KBZ Khabaz 37.70 298 LR LR 04 41 59.5
comp=Z,66nm,18.2s,baz=74,slow=42
DAV Davao City (W) 42.31 124 LR LR 04 42 27.8
comp=Z,34nm,18.2s,baz=330,slow=38
BRTR Keskin Array B 45.18 293 P **P 04 24 09.9 +0.3**
comp=Z,0.2nm,0.3s,baz=66,slow=8.1,SNR=1.5
comp=Z,0.2nm,0.3s
BRTR Keskin Array B 45.18 293 P **P 04 24 09.4 -0.3**
EIL Elat 47.28 280 LR LR 04 48 27.0
comp=Z,46nm,18.3s,baz=80,slow=41
FINES FINESS Array B 47.80 324 P **P 04 24 30.2 +0.5**
comp=Z,1.8nm,0.9s,baz=97,slow=12,SNR=1.2
comp=Z,1.8nm,0.9s
FINES FINESS Array B 47.80 324 P **P 04 24 30.6 +0.9**
MLR Muntele Rosu 49.41 303 LR LR 04 46 46.7
comp=Z,44nm,18.2s,baz=31,slow=38
DAVOX Davos/Dischmat 59.73 308 LR LR 04 56 17.3
comp=Z,50nm,18.3s,baz=74,slow=41
EKA Eskdalemuir Ar 63.98 321 LR LR 04 56 06.7
comp=Z,38nm,20.7s,baz=184,slow=38
D22K Ayikyak River 65.83 21 P **P 04 26 39.2 +1.7**
D23K Nanushuk River 66.36 20 P **P 04 26 42.3 +1.5**
D23K IAmb IAmb 04 26 43.7
comp=Z,3.9nm,1.2s
IMAR Indian Mountai 67.24 24 P **P 04 26 46.4 -0.1**
E24K Your Creek 67.55 21 P **P 04 26 50.9 +2.4**
E24K IAmb IAmb 04 27 29.2
comp=Z,2.1nm,1.2s
C27K Jago River 67.79 18 P **P 04 26 52.6 +2.6**
J20K Nowinta River 68.19 25 P **P 04 26 53.6 +1.1**
WB0 Warramunga Arr 68.51 136 P **P 04 26 55.2 +0.1**
WB0 IAmb IAmb 04 26 57.1
comp=Z,3.2nm,1.0s
WRA Warramunga Arr 68.62 136 P **P 04 26 56.3 +0.5**
comp=Z,1.5nm,0.9s,baz=334,slow=6.5,SNR=7.9
comp=Z,1.5nm,0.9s
WRA Warramunga Arr 68.62 136 P **P 04 26 55.9 +0.2**
F25K Christian Rive 68.68 20 P **P 04 26 56.0 +0.4**
F25K IAmb IAmb 04 27 22.5
comp=Z,1.8nm,1.1s
ILAR Eielson Array 70.23 23 P **P 04 27 06.7 +1.6**
comp=Z,0.5nm,0.8s,baz=306,slow=6.2,SNR=5.6
comp=Z,0.5nm,0.8s
ILAR Eielson Array 70.23 23 P **P 04 27 05.6 +0.5**
ASAR Alice Springs 71.37 139 P **P 04 27 13.5 +0.9**
comp=Z,1.8nm,0.7s,baz=328,slow=6.6,SNR=25
comp=Z,1.8nm,0.7s
ASAR Alice Springs 71.37 139 P **P 04 27 13.2 +0.6**
YKA Yellowknife Ar 80.12 12 P **P 04 28 02.7 +0.7**
comp=Z,0.2nm,0.4s,baz=343,slow=5.3,SNR=1.9
comp=Z,0.2nm,0.4s
YKA Yellowknife Ar 80.12 12 P **P 04 28 03.0 +0.9**
STKA Stephens Creek 82.00 139 P **P 04 28 12.9 +0.5**
comp=Z,1.5nm,0.7s,baz=326,slow=6.3,SNR=3.3
comp=Z,1.5nm,0.7s
STKA Stephens Creek 82.00 139 P **P 04 28 12.3 -0.1**

*VIE **24** 04:16:26.8±0.1, 46°.49N×14°.67E, h12km±2km, mb2.0/12, ml2.5/19, ml2.4/19, Error ellipse: s-maj=1.0km s-min=0.8km az=9.0 6 km E of Eisenkappel felt 3-4 ems98 E of Bad Eisenkappel / Carinthia*
*LJU **24** 04:16:27.2, 46°.49N×14°.69E, h6km, ML2.2, Presumed earthquake*
*PRU **24** 04:16:29.1, 46°.58N×14°.64E, h1km, Eisenkappel*
ISC 24 04:16:27.5±0.8, 46°.50N±0°.01×14°.67E±0°.01, h9km±6km, n64, σ0s90/112, 1C-8D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res
OBKA	**Obir**	**0.09**	**276**	*i* Pg		**Pg**	**04 16 30.0**	**0.0**
	97nm,0.1s,SNR=2255							
OBKA				*e*Sg		**Sg**	**04 16 31.9**	**+0.2**
	362nm,0.1s,SNR=1437							
ZAVS	**Zavodnje**	**0.25**	**105**	⇓*i* Pg		**Pg**	**04 16 32.3**	**-0.4**
ZAVS				*i* Sg		**Sg**	**04 16 36.0**	**-0.1**
ZAVS				IAML			04 16 36.7	
	comp=Z,249nm,0.1s							
MOZS	**Mozjanca**	**0.26**	**218**	⇓*i* Pg		**Pg**	**04 16 32.5**	**-0.3**
MOZS				*i* Sg		**Sg**	**04 16 36.3**	**-0.1**
MOZS				IAML			04 16 37.0	
	comp=Z,202nm,0.1s							
SOKA	**Soboth**	**0.30**	**54**	*i* Pg		**Pg**	**04 16 33.5**	**-0.2**
	comp=Z,6.7nm,0.0s,SNR=74							
SOKA				*i* Sg		**Sg**	**04 16 37.7**	**-0.1**
	comp=Z,121nm,0.1s							
PERS	**Pernice**	**0.34**	**66**	⇑*i* Pg		**Pg**	**04 16 33.9**	**-0.3**
PERS				*i* Sg		**Sg**	**04 16 38.3**	**-0.4**
PERS				IAML			04 16 38.6	
	comp=Z,358nm,0.2s							
VNDS	**Vrh nad Dolski**	**0.40**	**177**	⇓*i* Pg		**Pg**	**04 16 35.1**	**-0.3**
VNDS				*i* Sg		**Sg**	**04 16 40.4**	**-0.3**
VNDS				IAML			04 16 41.1	
	comp=Z,68nm,0.1s							
LJU	**Ljubljana**	**0.47**	**192**	⇓*i* Pg		**Pg**	**04 16 36.4**	**-0.3**
LJU				*i* Sg		**Sg**	**04 16 42.4**	**-0.4**
LJU				IAML			04 16 43.4	
	comp=Z,102nm,0.2s							
PDKS	**Podkum**	**0.49**	**153**	⇓*i* Pg		**Pg**	**04 16 37.0**	**-0.2**
PDKS				*i* Sg		**Sg**	**04 16 43.2**	**-0.5**
PDKS				IAML			04 16 45.0	
	comp=Z,42nm,0.1s							
GORS	**Gorjuse**	**0.50**	**249**	*i* Pg		**Pg**	**04 16 37.1**	**-0.3**
GORS				*i* Sg		**Sb**	**04 16 44.7**	**-1.4**
GORS				IAML			04 16 45.7	
	comp=Z,36nm,0.1s							
CRNS	**Crni Vrh**	**0.51**	**214**	⇓*i* Pg		**Pg**	**04 16 37.1**	**-0.3**
CRNS				*i* Sg		**Sg**	**04 16 44.3**	**+0.2**
CRNS				IAML			04 16 44.8	
	comp=Z,132nm,0.2s							
GROS	**Grobnik**	**0.57**	**94**	*i* Pg		**Pg**	**04 16 38.1**	**-0.5**
GROS				IAML			04 16 46.8	
	comp=Z,79nm,0.1s							
GBAS	**Gorenja Brezov**	**0.59**	**196**	*i* Pg		**Pg**	**04 16 38.3**	**-0.6**
GBAS				*i* Sg		**Sg**	**04 16 45.8**	**-0.9**
GBAS				IAML			04 16 46.7	
	comp=Z,48nm,0.1s							
SESA	**Seetaler Alpe,**	**0.62**	**353**	*i* Pg		**Pg**	**04 16 39.5**	**-0.1**
	comp=Z,44nm,0.1s,SNR=536							
SESA				*e*Sg		**Sg**	**04 16 47.4**	**-0.3**
	comp=Z,34nm,0.1s							
DOBS	**Dobrina**	**0.65**	**122**	*i* Pg		**Pg**	**04 16 39.6**	**-0.6**
DOBS				IAML			04 16 49.7	
	comp=Z,40nm,0.1s							
CADS	**Cadrg**	**0.70**	**248**	*i* Pg		**Pg**	**04 16 40.5**	**-0.7**
CADS				IAML			04 16 54.0	
	comp=Z,41nm,0.2s							
VISS	**Visnje**	**0.71**	**171**	*i* Pg		**Pg**	**04 16 40.6**	**-0.6**
VISS				IAML			04 16 50.1	
	comp=Z,27nm,0.1s							
LEGS	**Legarje**	**0.71**	**141**	⇓*i* Pg		**Pg**	**04 16 40.9**	**-0.3**
LEGS				*i* Sg		**Sg**	**04 16 49.9**	**-0.6**
VOJS	**Vojsko**	**0.72**	**230**	*i* Pg		**Pg**	**04 16 40.7**	**-0.8**
VOJS				IAML			04 16 52.6	
	comp=Z,20nm,0.1s							
MYKA	**Terra Mystica**	**0.72**	**281**	*e*PG		**Pb**	**04 16 41.8**	**-0.5**
MYKA				*e*SG		**Sb**	**04 16 51.6**	**-0.8**
MYKA	**Terra Mystica**	**0.72**	**281**	*i* Pg		**Pg**	**04 16 41.0**	**-0.5**
	comp=Z,1.8nm,0.1s,SNR=8.7							
MYKA				*e*Sg		**Sg**	**04 16 51.2**	**+0.2**
	comp=Z,18nm,0.2s							
JAVS	**Javornik**	**0.74**	**215**	*i* Pg		**Pg**	**04 16 40.9**	**-0.9**
JAVS				*e*Sg		**Sg**	**04 16 51.4**	**-0.1**
JAVS				IAML			04 16 52.6	
	comp=Z,19nm,0.1s							
CESS	**Cesta pri Krsk**	**0.76**	**134**	*i* Pg		**Pg**	**04 16 41.9**	**-0.3**
CESS				IAML			04 16 52.6	
	comp=Z,52nm,0.1s							
GOLS	**Golise**	**0.82**	**126**	⇓*i* Pg		**Pg**	**04 16 43.1**	**-0.3**
GOLS				*e*Sg		**Sg**	**04 16 53.6**	**-0.5**
GOLS				IAML			04 16 56.3	
	comp=Z,22nm,0.1s							
CRES	**Cresnjevec Ost**	**0.87**	**141**	*i* Pg		**Pg**	**04 16 43.5**	**-0.7**
CRES				IAML			04 16 56.5	
	comp=Z,6.5nm,0.1s							
GCIS	**Gornji Cirnik**	**0.92**	**133**	*i* Pg		**Pg**	**04 16 44.7**	**-0.4**
GCIS				IAML			04 16 59.9	
	comp=Z,49nm,0.3s							

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res
ARSA	**Arzberg**	**0.95**	**38**	*e*Pg		**Pg**	**04 16 45.1**	**-0.7**
	comp=Z,1.1nm,0.1s,SNR=12							
ARSA				Sg		**Sg**	**04 16 57.3**	**-0.8**
	comp=Z,6.0nm,0.1s							
GBRS	**Gornja Briga**	**0.97**	**174**	*i* Pg		**Pg**	**04 16 45.5**	**-0.8**
GBRS				IAML			04 17 02.0	
	comp=Z,14nm,0.1s							
LOBO	**Lobor**	**1.03**	**109**	*e*Pg		**Pg**	**04 16 47.1**	**-0.2**
LOBO				Sg		**Sb**	**04 17 00.8**	**-0.3**
OZLJ	**Ozalj**	**1.04**	**148**	*e*Pg		**Pg**	**04 16 46.9**	**-0.7**
OZLJ				Sg		**Sg**	**04 17 00.2**	**-0.9**
SKDS	**Skadanscina**	**1.06**	**206**	*i* Sg		**Sg**	**04 17 01.2**	**-0.4**
SKDS				IAML			04 17 03.3	
	comp=Z,15nm,0.1s							
BOJS	**Bojanci**	**1.08**	**158**	*i* Pg		**Pg**	**04 16 47.5**	**-0.7**
BOJS				IAML			04 17 05.1	
	comp=Z,27nm,0.2s							
PTJ	**Puntijarka**	**1.08**	**123**	*e*Pg		**Pb**	**04 16 48.1**	**-0.3**
PTJ				Sg		**Sg**	**04 17 01.5**	**-0.8**
KBA	**Koelnbreinsper**	**1.08**	**303**	*i* Pg		**Pg**	**04 16 47.4**	**-1.0**
	comp=Z,2.6nm,0.1s,SNR=23							
KBA				*e*Sg		**Sg**	**04 17 01.7**	**-0.7**
	comp=Z,8.9nm,0.1s							
ZAG	**Zagreb**	**1.14**	**126**	*e*Pg		**Pn**	**04 16 49.7**	**+0.2**
ZAG				Sg		**Sg**	**04 17 03.5**	**-0.5**
RIY	**Rijeka**	**1.18**	**186**	*e*Pg		**Pg**	**04 16 48.7**	**-1.5**
RIY				Sg		**Sg**	**04 17 04.3**	**-1.3**
KALN	**Kalnik**	**1.29**	**106**	*i* Pg		**Pb**	**04 16 51.9**	**-0.1**
KALN				Sg		**Sn**	**04 17 09.3**	**+0.1**
MOA	**Molln**	**1.38**	**349**	*i* Pg		**Pg**	**04 16 53.7**	**-0.3**
	comp=Z,0.9nm,0.1s,SNR=13							
BIOA	**Bad Ischl, Aus**	**1.39**	**330**	*e*Pg		**Pn**	**04 16 53.2**	**+0.2**
	comp=Z,2.4nm,0.2s,SNR=8.8							
BIOA				Sg		**Sb**	**04 17 11.2**	**-0.2**
	comp=Z,17nm,0.4s							
ABTA	**Abfaltersbach**	**1.51**	**280**	*e*Pg		**Pn**	**04 16 55.1**	**+0.2**
	comp=Z,1.1nm,0.1s,SNR=5.8							
ABTA				Sg		**Sg**	**04 17 15.9**	**-0.2**
	comp=Z,1.4nm,0.2s							
RONA	**Rosalia, Austr**	**1.63**	**42**	Pg		**Pb**	**04 16 57.5**	**-0.4**
	comp=Z,0.9nm,0.2s,SNR=7.1							
RONA				Sg		**Sb**	**04 17 19.1**	**+0.6**
	comp=Z,3.3nm,0.4s							
CONA	**Conrad Observa**	**1.64**	**29**	*e*Pn		**Pn**	**04 16 55.9**	**-0.8**
	comp=Z,0.2nm,0.2s,SNR=8.2							
CONA				*e*Sg		**Sb**	**04 17 19.6**	**+0.7**
	comp=Z,3.0nm,0.4s							
LESA	**Schwarzleotal**	**1.65**	**305**	*e*Pg		**Pb**	**04 16 57.8**	**-0.3**
	comp=Z,2.8nm,0.1s,SNR=27							
LESA				*e*Sg		**Sb**	**04 17 19.5**	**+0.4**
	comp=Z,4.5nm,0.2s							
RABC	**Rab**	**1.75**	**177**	*i* Pn		**Pn**	**04 16 58.5**	**+0.5**
RABC				Sn		**Sb**	**04 17 22.0**	**+0.2**
PLIT	**Plitvice**	**1.75**	**157**	*e*Pn		**Pn**	**04 16 58.9**	**+0.7**
PLIT				Sn		**Sb**	**04 17 21.3**	**-0.7**
WINA	**Alland / Wiene**	**1.87**	**30**	Sg		**Sg**	**04 17 27.4**	**-0.2**
	comp=Z,3.6nm,0.2s							
UDBI	**Udbina**	**2.12**	**158**	*e*Pn		**Pb**	**04 17 05.0**	**-1.1**
UDBI				Sn		**Sb**	**04 17 32.1**	**-0.4**
WTTA	**Wattenberg**	**2.22**	**291**	*e*Pg		**Pb**	**04 17 07.7**	**-0.2**
	comp=Z,2.0nm,0.2s							
WTTA				Sg		**Sg**	**04 17 39.1**	**+0.2**
	comp=Z,2.6nm,0.3s							
ABNA	**Allensteig Bun**	**2.23**	**13**	*e*Pn		**Pn**	**04 17 04.5**	**-0.2**
	comp=Z,0.4nm,0.1s							
ABNA				*e*Sg		**Sg**	**04 17 39.7**	**+0.5**
	comp=Z,5.7nm,0.1s							
WATA	**Walderalm**	**2.28**	**293**	*e*Pg		**Pg**	**04 17 10.0**	**-1.2**
	comp=Z,0.5nm,0.2s							
WATA				Sg		**Sg**	**04 17 39.1**	**-1.7**
	comp=Z,2.2nm,0.2s							
CKRC	**Cesky Krumlov**	**2.33**	**354**	*e*PG		**Pb**	**04 17 10.2**	**+0.4**
CKRC				*e*SG		**Sg**	**04 17 40.7**	**-1.8**
	comp=Z,2.3nm,0.3s							
CKRC				AML		AML		
SQTA	**Sankt Quirin**	**2.48**	**288**	Pg		**Pb**	**04 17 13.2**	**+0.8**
	comp=Z,0.4nm,0.1s							
SQTA				Sg		**Sg**	**04 17 48.5**	**+1.2**
	comp=Z,1.6nm,0.3s							
DUGI	**Dugi Otok**	**2.52**	**174**	*e*Pn		**Pn**	**04 17 09.3**	**+0.6**
DUGI				Sn		**Sn**	**04 17 41.6**	**+2.1**
MOTA	**Moosalm**	**2.59**	**290**	*e*Pg		**Pb**	**04 17 14.3**	**+0.1**
	comp=Z,0.4nm,0.2s							
MOTA				*e*Sg		**Sg**	**04 17 48.9**	**-1.8**
	comp=Z,3.7nm,0.5s							
KHC	**Kasperske Hory**	**2.73**	**345**	*e*PN		**Pn**	**04 17 12.0**	**+0.4**
KHC				*e*PG		**Pb**	**04 17 17.6**	**+1.0**
KHC				*e*SG		**Sg**	**04 17 53.0**	**-2.3**
	comp=Z,1.4nm,0.2s							
KHC				AML		AML		
MORI	**Morici**	**2.73**	**164**	*e*Pn		**Pn**	**04 17 12.1**	**+0.5**
MORI				Sn		**Sn**	**04 17 45.8**	**+1.2**
KRUC	**Moravsky**	**2.81**	**24**	*e*SG		**Sb**	**04 17 53.7**	**+1.2**
ZVC	**Zvikov**	**2.96**	**354**	*e*PG		**Pb**	**04 17 20.7**	**+0.3**
ZVC				*e*SG		**Sg**	**04 18 00.4**	**-2.1**
	comp=Z,2.0nm,0.3s							
ZVC				AML		AML		
VRAC	**Vranov**	**3.09**	**24**	*e*SG		**Sb**	**04 18 03.1**	**+2.6**
DAVA	**Damuels**	**3.38**	**285**	*i* Pn		**Pn**	**04 17 20.5**	**-0.1**
	comp=Z,0.3nm,0.1s							
DAVA				Sg		**Sg**	**04 18 18.5**	**+2.4**
	comp=Z,1.7nm,0.3s							
RICI	**Ricice**	**3.48**	**149**	*e*Pn		**Pn**	**04 17 22.8**	**+1.0**
RICI				Sn		**Sn**	**04 18 04.3**	**+1.2**
HVAR	**Hvar**	**3.56**	**159**	*e*Pn		**Pn**	**04 17 24.4**	**+1.5**
HVAR				Sn		**Sn**	**04 18 05.4**	**+0.5**
KRLC	**Kraliky**	**3.84**	**21**	*e*SG		**Sg**	**04 18 29.3**	**-1.6**
LSTV	**Lastovo**	**4.05**	**156**	*e*Pn		**Pn**	**04 17 30.8**	**+1.1**
LSTV				Sn		**Sn**	**04 18 17.9**	**+0.7**
OSTC	**Ostas**	**4.19**	**14**	*e*SG		**Sg**	**04 18 39.1**	**-2.8**

*UCR **24** 04:18:52.1±0.5, 10°.55N×86°.65W, h13km±10km, MW3.5, Presumed earthquake*
*CATAC **24** 04:18:56.3±0.6, 11°.N±4°.×8°.6W±°., h94km±5km, M3.0/8, MLv3.0/8, Error ellipse: s-maj=14.9km s-min=5.7km az=57.2, confirmed*
ISC 24 04:18:53.6±2.3, 10°.61N±0°.07×86°.6W±0°.1, h67km±24km, n50, σ2s00/52, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res
ALIBA	**Liberia Airpor**	**0.98**	**91**	*e*P		**Pn**	**04 19 12.9**	**+1.2**
ALIBA				*e*S		**Sn**	**04 19 28.5**	**+3.3**
DELF	**Filadelfia**	**0.99**	**99**	*e*P		**Pn**	**04 19 11.8**	**0.0**
SACU	**Santa Cruz**	**1.01**	**110**	*e*P		**Pn**	**04 19 11.9**	**-0.1**
LCRUZ	**La Cruz**	**1.01**	**62**	*e*P		**Pn**	**04 19 13.1**	**+1.0**
LAPC	**Finca la Perla**	**1.11**	**82**	*e*P		**Pn**	**04 19 14.2**	**+0.9**
CARN	**Rivas**	**1.16**	**60**	P		**Pn**	**04 19 14.7**	**+0.8**
CARN	**Rivas**	**1.16**	**60**	*e*P		**Pn**	**04 19 15.0**	**+1.1**
GPS3	**Bodega del ICE**	**1.17**	**83**	*e*P		**Pn**	**04 19 16.6**	**+2.4**
VRLE	**La Escondida,**	**1.18**	**81**	*e*P		**Pn**	**04 19 15.3**	**+1.0**
NICO	**Nicoya**	**1.18**	**113**	*e*P		**Pn**	**04 19 14.2**	**0.0**
GPS2	**Hotel Rincn d**	**1.18**	**83**	*e*P		**Pn**	**04 19 15.3**	**+1.0**
BUAI	**Buenos Aires**	**1.22**	**77**	*e*P		**Pn**	**04 19 16.1**	**+1.2**
NADN	**Granada**	**1.24**	**24**	P		**Pn**	**04 19 16.5**	**+1.5**
NADN				S		**Sn**	**04 19 32.1**	**+1.0**
NADN	**Granada**	**1.24**	**24**	*e*P		**Pn**	**04 19 16.0**	**+0.9**
PEJA	**Penjamo Buenos**	**1.25**	**77**	*e*P		**Pn**	**04 19 16.9**	**+1.8**
JAPN	**Al SSO del Vol**	**1.25**	**43**	*e*P		**Pn**	**04 19 17.3**	**+2.1**
CMARA	**Lajas Hojancha**	**1.25**	**118**	S		**Sn**	**04 19 30.4**	**-1.0**
CMARA	**Lajas Hojancha**	**1.25**	**118**	*e*P		**Pn**	**04 19 15.1**	**-0.1**
BAGA	**Bagaces**	**1.27**	**94**	*e*P		**Pn**	**04 19 16.9**	**+1.5**
OMEN	**Al SSO del Vol**	**1.27**	**45**	P		**Pn**	**04 19 15.2**	**-0.2**
OMEN				S		**Sn**	**04 19 29.1**	**-2.7**
MORN	**Al O del Volca**	**1.28**	**43**	P		**Pn**	**04 19 15.1**	**-0.5**
CONN	**Concepcion**	**1.31**	**44**	P		**Pn**	**04 19 15.6**	**-0.4**
CONN				S		**Sn**	**04 19 31.0**	**-1.8**
COLC	**Colonia**	**1.32**	**87**	*e*P		**Pn**	**04 19 17.4**	**+1.3**
MESS	**Mesas**	**1.34**	**84**	*e*P		**Pn**	**04 19 17.7**	**+1.4**
HORNC	**Hornillas**	**1.35**	**85**	*e*P		**Pn**	**04 19 17.7**	**+1.1**
CLARA	**Aguas Claras**	**1.36**	**82**	*e*P		**Pn**	**04 19 18.0**	**+1.3**
CUI	**Cuipilapa**	**1.36**	**88**	*e*P		**Pn**	**04 19 18.1**	**+1.4**
VMAR	**Armenia, Volca**	**1.42**	**82**	*e*P		**Pn**	**04 19 18.9**	**+1.4**
CANAL	**Canalete**	**1.48**	**81**	*e*P		**Pn**	**04 19 20.0**	**+1.8**
TIMP	**Tierras Morena**	**1.50**	**91**	*e*P		**Pn**	**04 19 20.1**	**+1.5**
UPAL	**Upala**	**1.54**	**79**	P		Pn	04 19 15.3	-3.6
UPAL				S		Sn	04 19 30.9	-7.1
TENO	**El Achiote**	**1.55**	**86**	*e*P		**Pn**	**04 19 20.4**	**+1.3**
JTS	**Las Juntas de**	**1.60**	**101**	*e*P		**Pn**	**04 19 21.0**	**+1.2**
QUEB	**Quebradon, Cot**	**1.62**	**89**	*e*P		**Pn**	**04 19 22.3**	**+2.2**
MTEVE	**Monteverde**	**1.72**	**100**	*e*P		**Pn**	**04 19 23.0**	**+1.5**
VARE2	**V. Arenal**	**1.80**	**95**	*e*P		**Pn**	**04 19 25.2**	**+2.6**
CEDE	**Laguna Cedeo**	**1.82**	**94**	*e*P		**Pn**	**04 19 25.1**	**+2.3**
MOM3	**MOM3**	**1.89**	**1**	P		**Pn**	**04 19 25.6**	**+1.9**
ACON	**Acoyapa**	**1.91**	**45**	*e*P		**Pn**	**04 19 25.6**	**+1.7**
BOAB	**BOACO BROADBAN**	**2.02**	**25**	P		**Pn**	**04 19 24.4**	**-1.0**
BOAB				S		**Sn**	**04 19 46.9**	**-2.9**
VBV1	**V. Barva**	**2.46**	**101**	*e*P		**Pn**	**04 19 34.1**	**+2.5**
ABE2	**San Pablo**	**2.61**	**110**	*e*P		Pn	04 19 36.8	+3.1
LCR2	**La Lucha 2**	**2.65**	**109**	P		**Pn**	**04 19 32.1**	**-2.1**
LCR2				S		**Sn**	**04 19 58.4**	**-6.8**
LCR2	**La Lucha 2**	**2.65**	**109**	*e*P		**Pn**	**04 19 36.5**	**+2.4**
VICA	**Volcano Irazu**	**2.73**	**103**	*e*P		**Pn**	**04 19 38.5**	**+3.0**
PIEC	**Cerro El Cedra**	**2.73**	**111**	*e*P		**Pn**	**04 19 38.0**	**+2.6**
CVTG	**V. Turrialba,**	**2.77**	**99**	*e*P		Pn	04 19 40.1	+4.5
CVTV	**Tajo**	**2.82**	**102**	*e*P		Pn	04 19 41.5	+4.9
RCVN	**Varillal2**	**2.98**	**7**	P		**Pn**	**04 19 39.7**	**+1.1**
VERH	**Veragua Rainfo**	**3.37**	**101**	*e*P		**Pn**	**04 19 46.5**	**+2.7**

*IDC **24** 04:37:54.7±1.9, 52°.22S×16°.20E, h0km, mb3.8/5, mbtmp3.8/5, MS2.8/1, Error ellipse: s-maj=56.5km s-min=35.9km az=55.0*
*NEIC **24** 04:37:56.4±1.2, 52°.2S±0°.1×16°.2E±0°.2, h10km±1km, mb4.3/12, Error ellipse: s-maj=26.2km s-min=21.8km az=309.0*
ISC 24 04:37:56.0±0.7, 52°.2S±0°.1×16°.2E±0°.1, h10km, n32, σ0s78/22, mb3.9/8, Southwest of Africa

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res
SUR	**Sutherland**	**20.07**	**11**	P		**P**	**04 42 29.7**	**+0.2**
SUR				IAmb		IAmb	04 42 41.7	
	comp=Z,15nm,1.1s							
SNAA	**Sanae**	**21.31**	**196**	P		**P**	**04 42 42.6**	**0.0**
	comp=Z,3.9nm,1.0s,baz=96,slow=9.2,SNR=4.3							
	comp=Z,3.9nm,1.0s							
SNAA	**Sanae**	**21.31**	**196**	P		**P**	**04 42 41.8**	**-0.8**
SNAA				IAmb		IAmb	04 42 45.5	
	comp=Z,6.7nm,1.1s							
VNA2	**Neumayer--Watz**	**21.62**	**201**	P		**P**	**04 42 48.0**	**+2.2**
	baz=43,slow=8.1							
VNA3	**Neumayer Olymp**	**22.36**	**202**	P		**P**	**04 42 53.9**	**+0.1**
H04S2	**CROZET ISLANDS**	**23.62**	**91**	T		T	05 07 45.3	
	baz=245,slow=75,SNR=17							
H04S3	**CROZET ISLANDS**	**23.63**	**91**	T		T	05 07 49.6	
	baz=245,slow=75,SNR=16							
H04S1	**CROZET ISLANDS**	**23.64**	**91**	T		T	05 07 45.9	
	baz=245,slow=75,SNR=17							
CRZF	**Crozet Islands**	**23.80**	**90**	P		**P**	**04 43 09.3**	**+0.7**
BOSA	**Boshof**	**24.49**	**20**	LR		LR	04 51 53.1	
	comp=Z,22nm,18.4s,baz=182,slow=34							
BOSA	**Boshof**	**24.49**	**20**	P		**P**	**04 43 15.9**	**+0.6**
PAF	**Port-aux-Franc**	**33.64**	**107**	P		**P**	**04 44 36.1**	**-0.3**
QSPA	**South Pole Qui**	**38.06**	**180**	P		**P**	**04 45 14.2**	**-0.2**
	comp=Z,1.4nm,0.7s,baz=215,slow=5.9,SNR=3.6							
	comp=Z,1.4nm,0.7s							
QSPA	**South Pole Qui**	**38.06**	**180**	P		**P**	**04 45 14.4**	**0.0**
PMSA	**Palmer Station**	**40.83**	**220**	P		**P**	**04 45 37.5**	**+0.3**
PMSA				IAmb		IAmb	04 45 42.3	
	comp=Z,50nm,1.1s							
VNDA	**Vanda**	**48.83**	**171**	P		**P**	**04 46 40.4**	**-0.3**
	comp=Z,0.6nm,0.7s,baz=234,slow=2.2,SNR=3.7							
	comp=Z,0.6nm,0.7s							
VNDA	**Vanda**	**48.83**	**171**	P		**P**	**04 46 39.6**	**-1.1**
VNDA				IAmb		IAmb	04 46 47.3	
	comp=Z,1.6nm,1.1s							
SBA	**Scott Base**	**48.98**	**172**	P		**P**	**04 46 43.0**	**+1.1**
SBA				IAmb		IAmb	04 46 43.7	
	comp=Z,3.4nm,0.9s							
H10S2	**ASCENSION HYDR**	**49.88**	**319**	T		T	05 40 28.1	
	baz=154,slow=74,SNR=13							
H10S3	**ASCENSION HYDR**	**49.89**	**319**	T		T	05 40 29.3	
	baz=66,slow=74,SNR=22							
BI02	**San Fabin de**	**60.63**	**247**	P		**P**	**04 48 07.0**	**0.0**
H01W2	**Cape Leeuwin H**	**67.75**	**118**	T		T	06 03 26.8	
	baz=221							
H01W3	**Cape Leeuwin H**	**67.76**	**118**	T		T	06 03 27.1	
	baz=221							
H01W1	**Cape Leeuwin H**	**67.76**	**118**	T		T	06 03 29.6	
	baz=221							
LPAZ	**La Paz**	**73.84**	**264**	P		**P**	**04 49 31.4**	**-0.2**
	comp=Z,0.8n

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.39**	**257**	I	I	06 08 10.0	
	baz=78,slow=338,SNR=10.0						
ZALV	**Zalesovo Beam**	**1.39**	**257**	Pg	Pg	05 59 59.6	-1.9
	0.2nm,0.3s,baz=72,slow=17,SNR=8.4						
ZALV				Lg	Lg	06 00 21.1	
	0.6nm,0.3s,baz=76,slow=31,SNR=5.6						
KURBB	**Kurchatov Arra**	**6.40**	**238**	Pn	Pn	06 01 11.6	+1.2
	0.1nm,0.3s,baz=50,slow=12,SNR=1.7						
KURBB				Lg	Lg	06 02 57.7	
	0.1nm,0.3s,baz=49,slow=18,SNR=1.7						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.10**	**204**	Pn	Pn	06 01 35.7	+1.8
	baz=20,slow=12,SNR=1.6						
	0.1nm,0.5s						

ASRS 24 06:00:17.0±1.4, 54°24'N×87°23'E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

KRNET ***24*** *06:00:41.7±0.1, 41°.55N×69°.55E, mb2.7*
ISC 24 06:00:48.7±2.4, 41°.50N±0°.06×69°.7E±0°.1, h35km, n6, σ1§70/11, 8C-2D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BTK	**Batken**	**1.69**	**148**	⇑*eP*	**Pn**	**06 01 14.6**	**-1.1**
BTK				⇑*eS*	**Sn**	**06 01 38.0**	**+1.8**
KK31	**Karatay Array**	**1.72**	**21**	Pg	**Pn**	**06 01 16.0**	**-0.1**
	1.3nm,0.4s,baz=201,slow=16,SNR=12						
KK31				Lg	Lg	06 01 46.3	
	7.8nm,0.5s,baz=199,slow=27,SNR=17						
MNAS	**Manas**	**2.33**	**64**	⇑*eP*	**Pn**	**06 01 22.9**	**-1.8**
MNAS				⇑*eS*	**Sn**	**06 01 53.6**	**+1.4**
DRK	**Karamyk**	**2.59**	**140**	⇓*eP*	**Pn**	**06 01 26.8**	**-1.6**
DRK				⇓*eS*	**Sn**	**06 02 00.8**	**+2.0**
SALK	**Salom-Alik**	**3.20**	**100**	⇑*eP*	**Pn**	**06 01 35.1**	**-1.5**
SALK				⇑*eS*	**Sn**	**06 02 14.3**	**+0.8**
SFK	**Sufi-Kurgan**	**3.27**	**116**	⇑*eP*	**Pn**	**06 01 36.7**	**-1.0**
SFK				⇑*eS*	**Sn**	**06 02 17.3**	**+1.8**

IDC 24 06:43:53.2±3.3, 63°.79S×177°.94E, h0km, mb3.8/3, mbtmp3.7/4, ML3.0/1, MS3.3/10, Error ellipse: s-maj=109.6km s-min=23.1km az=73.0, Balleny Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNDA	**Vanda**	**14.68**	**194**	Pn	Pn	06 47 16.8	-4.9
	0.1nm,0.3s,baz=34,slow=14,SNR=6.1						
VNDA				LR	LR	06 51 23.0	
	comp=Z,99nm,18.6s,baz=20,slow=31						
	0.6nm,0.7s						
VNDA				AML	AML		
RPZ	**Rata Peaks**	**20.50**	**346**	LR	LR	06 56 18.6	
	comp=Z,19nm,18.3s,baz=304,slow=36						
URZ	**Urewera**	**25.57**	**358**	LR	LR	06 57 37.2	
	comp=Z,80nm,21.5s,baz=171,slow=32						
QSPA	**South Pole Qui**	**26.30**	**180**	P	P	06 49 28.6	-1.5
	2.7nm,0.4s,baz=48,slow=3.5,SNR=11						
QSPA				LR	LR	06 58 25.5	
	comp=Z,80nm,18.6s,baz=68,slow=33						
	2.7nm,0.4s						
SNAA	**Sanae**	**44.80**	**180**	LR	LR	07 09 16.3	
	comp=Z,58nm,20.7s,baz=194,slow=34						
H01W1	**Cape Leeuwin H**	**47.82**	**276**	T	T	07 43 21.8	
	baz=146,slow=75,SNR=10						
H01W2	**Cape Leeuwin H**	**47.83**	**276**	T	T	07 43 28.1	
	baz=146,slow=75,SNR=10						
H01W3	**Cape Leeuwin H**	**47.84**	**276**	T	T	07 43 22.8	
	baz=146,slow=75,SNR=8.6						
CTA	**Charters Tower**	**48.62**	**319**	LR	LR	07 11 31.9	
	comp=Z,67nm,18.7s,baz=9.5,slow=34						
ASAR	**Alice Springs**	**49.44**	**303**	P	P	06 52 45.4	+0.6
	0.5nm,0.8s,baz=151,slow=6.8,SNR=8.8						
	0.5nm,0.8s						
WRA	**Warramunga Arr**	**52.68**	**305**	P	P	06 53 07.1	-2.0
	0.2nm,0.5s,baz=158,slow=7.5,SNR=5.8						
	0.2nm,0.5s						
HNR	**Honiara**	**55.77**	**338**	LR	LR	07 14 20.8	
	comp=Z,26nm,20.5s,baz=340,slow=33						
H03S2	**Juan Fernandez**	**65.63**	**117**	T	T	08 07 09.8	
	baz=204,slow=74,SNR=7.3						
H03S1	**Juan Fernandez**	**65.63**	**117**	T	T	08 07 11.1	
	baz=204,slow=74,SNR=7.8						
H03S3	**Juan Fernandez**	**65.64**	**117**	T	T	08 07 10.3	
	baz=204,slow=74,SNR=8.0						
KAPI	**Kappang**	**71.89**	**297**	LR	LR	07 27 14.9	
	comp=Z,79nm,18.1s,baz=70,slow=36						
SUR	**Sutherland**	**82.45**	**199**	LR	LR	07 28 49.4	
	comp=Z,23nm,21.8s,baz=162,slow=33						
LBTB	**Lobatse**	**88.85**	**205**	LR	LR	07 36 34.7	
	comp=Z,17nm,18.1s,baz=182,slow=36						
H08S2	**Diego Garcia H**	**89.93**	**253**	T	T	08 35 59.7	
	baz=154,slow=76,SNR=12						
H08S1	**Diego Carcia H**	**89.94**	**253**	T	T	08 35 50.7	
	baz=154,slow=76,SNR=7.7						
H08S3	**Diego Garcia H**	**89.95**	**253**	T	T	08 35 57.7	
	baz=154,slow=76,SNR=14						
BRTR	**Keskin Array B**	**148.04**	**238**	PKPbc	PKiKP	07 03 41.4	-0.1
	0.9nm,0.8s,baz=160,slow=4.6,SNR=6.0						

UCR ***24*** *06:46:21.2±0.9, 10°.35N×86°.40W, h18km±5km, MW4.3, Presumed earthquake*
CATAC ***24*** *06:46:22.7±0.7, 10°N±4°×8°6W±°, h29km±10km, M3.5/25, MLv3.5/25, Error ellipse: s-maj=9.1km s-min=3.9km az=24.7, confirmed*
ISC 24 06:46:22.1±1.6, 10°.31N±0°.05×86°.38W±0°.06, h23km±14km, n94, σ1§04/114, 18C-1D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SACU	**Santa Cruz**	**0.79**	**93**	⇑*eP*	**Pb**	**06 46 36.5**	**-0.6**
SACU				⇑*eS*	**Sb**	**06 46 47.6**	**+0.2**
DELF	**Filadelfia**	**0.83**	**80**	⇑*iP*	**Pb**	**06 46 37.3**	**-0.5**
DELF				⇑*eS*	**Sn**	**06 46 50.0**	**+0.1**
ALIBA	**Liberia Airpor**	**0.87**	**71**	⇑*iP*	**Pb**	**06 46 38.4**	**-0.1**
ALIBA				⇑*eS*	**Sn**	**06 46 51.8**	**+0.9**
NICO	**Nicoya**	**0.94**	**100**	⇑*iP*	**Pn**	**06 46 38.7**	**-1.1**
NICO				⇑*eS*	**Sb**	**06 46 49.8**	**-1.8**
ERIA	**Liberia**	**0.98**	**71**	⇑*iP*	**Pn**	**06 46 40.0**	**-0.5**
ERIA				⇑*eS*	**Sn**	**06 46 54.2**	**+0.5**
CMARA	**Lajas Hojancha**	**0.99**	**107**	P	**Pb**	**06 46 41.8**	**+1.2**
CMARA				S	**Sb**	**06 46 52.3**	**-0.9**
CMARA	**Lajas Hojancha**	**0.99**	**107**	*eP*	**Pn**	**06 46 39.8**	**-0.8**
CMARA				*eS*	**Sb**	**06 46 52.0**	**-1.2**
LAPC	**Finca la Perla**	**1.04**	**64**	⇑*iP*	**Pn**	**06 46 40.2**	**-1.0**
LCRUZ	**La Cruz**	**1.07**	**44**	⇑*iP*	**Pn**	**06 46 40.8**	**-0.8**
LCRUZ				*eS*	**Sn**	**06 46 55.7**	**-0.1**
GPS3	**Bodega del ICE**	**1.10**	**66**	⇑*iP*	**Pb**	**06 46 42.7**	**+0.3**
GPS3				*eS*	**Sb**	**06 47 00.9**	**+4.6**
GPS2	**Hotel Rincn d**	**1.11**	**66**	⇑*iP*	**Pn**	**06 46 41.4**	**-0.8**
VRLE	**La Escondida,**	**1.11**	**64**	⇑*iP*	**Pn**	**06 46 41.2**	**-1.1**
BAGA	**Bagaces**	**1.13**	**79**	*eP*	**Pn**	**06 46 39.4**	**-3.0**
BUAI	**Buenos Aires**	**1.18**	**61**	*eP*	**Pn**	**06 46 42.5**	**-0.7**
PEJA	**Penjamo Buenos**	**1.20**	**61**	*eP*	**Pn**	**06 46 43.0**	**-0.6**
COLC	**Colonia**	**1.21**	**73**	⇑*iP*	**Pn**	**06 46 43.0**	**-0.7**
CARN	**Rivas**	**1.22**	**44**	P	**Pn**	**06 46 43.3**	**-0.4**
CARN				S	**Sn**	**06 46 59.3**	**-0.1**
CARN	**Rivas**	**1.22**	**44**	*eP*	**Pn**	**06 46 42.5**	**-1.2**
MESS	**Mesas**	**1.25**	**70**	⇑*iP*	**Pn**	**06 46 43.7**	**-0.5**
MESS				*eS*	**Sb**	**06 47 03.4**	**+2.8**
CUI	**Cuipilapa**	**1.25**	**74**	⇑*iP*	**Pn**	**06 46 43.7**	**-0.5**
CUI				*eS*	**Sn**	**06 46 59.9**	**-0.4**
HORNC	**Hornillas**	**1.25**	**71**	⇑*iP*	**Pn**	**06 46 43.5**	**-0.7**
HORNC				*eS*	**Sn**	**06 46 59.9**	**-0.5**
CNAS	**Canas**	**1.28**	**84**	⇑*iP*	**Pb**	**06 46 45.4**	**-0.1**
CLARA	**Aguas Claras**	**1.28**	**68**	*eP*	**Pn**	**06 46 43.9**	**-0.7**
VMAR	**Armenia, Volca**	**1.35**	**68**	⇑*iP*	**Pn**	**06 46 45.4**	**-0.1**
TIMP	**Tierras Morena**	**1.37**	**78**	⇑*eP*	**Pn**	**06 46 45.3**	**-0.6**
JAPN	**Al SSO del Vol**	**1.40**	**30**	P	**Pn**	**06 46 46.4**	**+0.2**
JAPN	**Al SSO del Vol**	**1.40**	**30**	*eP*	**Pn**	**06 46 46.4**	**+0.2**
TILA	**Tilaran**	**1.40**	**83**	*eP*	**Pn**	**06 46 45.8**	**-0.5**
CANAL	**Canalete**	**1.41**	**68**	*eP*	**Pn**	**06 46 45.8**	**-0.5**
JTS	**Las Juntas de**	**1.41**	**91**	P	**Pn**	**06 46 45.9**	**-0.4**
JTS				S	**Sn**	**06 47 03.4**	**-0.8**
JTS	**Las Juntas de**	**1.41**	**91**	*eP*	**Pn**	**06 46 45.8**	**-0.6**
JTS				*eS*	Sb	06 47 15.9	+11
OMEN	**Al SSO del Vol**	**1.41**	**32**	P	**Pn**	**06 46 46.5**	**+0.1**
OMEN				S	**Sb**	**06 47 04.7**	**-0.5**
MORN	**Al O del Volca**	**1.43**	**30**	P	**Pn**	**06 46 46.6**	**-0.1**
MORN				S	**Sb**	**06 47 05.5**	**-0.3**
TENO	**El Achiote**	**1.44**	**74**	*eP*	**Pn**	**06 46 45.8**	**-1.0**
CONN	**Concepcion**	**1.45**	**31**	P	**Pn**	**06 46 46.0**	**-0.9**
COTE	**Lago Cote**	**1.47**	**79**	⇓*iP*	**Pn**	**06 46 47.2**	**0.0**
UPAL	**Upala**	**1.47**	**66**	P	**Pn**	**06 46 46.9**	**-0.3**
UPAL	**Upala**	**1.47**	**66**	*eP*	**Pn**	**06 46 47.1**	**-0.1**
NADN	**Granada**	**1.47**	**13**	P	**Pn**	**06 46 46.8**	**-0.4**
NADN				S	**Sn**	**06 47 05.8**	**-0.1**
QUEB	**Quebradon, Cot**	**1.50**	**78**	*eP*	**Pn**	**06 46 47.4**	**-0.1**
MTEVE	**Monteverde**	**1.53**	**89**	⇑*iP*	**Pn**	**06 46 47.5**	**-0.6**
TABAC	**Tabacon**	**1.60**	**83**	*eP*	**Pn**	**06 46 49.2**	**+0.1**
CASC	**Castillo**	**1.63**	**85**	*eP*	**Pn**	**06 46 49.4**	**0.0**
NANN	**Nandasmo**	**1.64**	**9**	P	**Pn**	**06 46 50.7**	**+1.1**
VARE2	**V. Arenal**	**1.64**	**85**	*eP*	**Pn**	**06 46 50.1**	**+0.5**
SABN	**Sabanita**	**1.65**	**8**	P	**Pn**	**06 46 48.8**	**-0.9**
CEDE	**Laguna Cedeo**	**1.66**	**84**	*eP*	**Pn**	**06 46 50.2**	**+0.4**
VACR	**Volcan Arenal**	**1.69**	**84**	*eP*	**Pn**	**06 46 50.6**	**+0.4**
FORC	**Fortuna**	**1.69**	**84**	*eP*	**Pn**	**06 46 50.9**	**+0.7**
MAS3	**Al N del Volca**	**1.72**	**7**	P	**Pn**	**06 46 50.6**	**-0.1**
SAPS	**Ciudad Sandino**	**1.85**	**359**	P	**Pn**	**06 46 52.6**	**+0.2**
SAPS				S	**Sn**	**06 47 14.4**	**-0.7**
COPN	**Copaltepe**	**1.87**	**354**	*eP*	Pn	06 46 45.6	-7.1
APQ2	**Apoyeque**	**1.88**	**2**	P	**Pn**	**06 46 53.0**	**+0.2**
APQ2				S	**Sb**	**06 47 18.1**	**-0.7**
SRA1	**San Ramn**	**1.89**	**97**	*eP*	**Pn**	**06 46 53.5**	**+0.5**
QUEU	**Ciudad Quesada**	**1.92**	**89**	*eP*	**Pn**	**06 46 54.2**	**+0.8**
PALD	**Palmares**	**1.93**	**97**	*eP*	**Pn**	**06 46 54.1**	**+0.4**
TRB2	**Turrubares**	**1.94**	**101**	*eP*	**Pn**	**06 46 53.4**	**-0.3**
ZARE	**Zarcero**	**1.97**	**93**	*eP*	**Pn**	**06 46 54.6**	**+0.4**
VAL1	**V. Platanar**	**1.99**	**91**	*eP*	**Pn**	**06 46 54.9**	**+0.4**
COVE	**Coope Vega, Sa**	**1.99**	**78**	P	**Pn**	**06 46 54.5**	**+0.2**
ACON	**Acoyapa**	**2.03**	**36**	P	**Pn**	**06 46 54.7**	**-0.3**
ACON				S	**Sn**	**06 47 20.2**	**+0.5**
TCS1	**Tacares**	**2.07**	**97**	*eP*	**Pn**	**06 46 56.7**	**+1.2**
PURI	**Puriscal**	**2.09**	**102**	*eP*	**Pn**	**06 46 55.8**	**-0.1**
VPS8	**V Poas**	**2.11**	**93**	*eP*	**Pn**	**06 46 57.0**	**+0.7**
BELE	**Belen**	**2.19**	**98**	*eP*	**Pn**	**06 46 58.0**	**+0.9**
MOM3	**MOM3**	**2.19**	**357**	P	**Pn**	**06 46 57.3**	**+0.1**
CNGA	**Al SSO del Vol**	**2.20**	**352**	P	**Pn**	**06 46 57.6**	**+0.3**
SANTA	**Santa Ana**	**2.20**	**100**	*eP*	**Pn**	**06 46 57.9**	**+0.6**
PACN	**Al O del Volca**	**2.22**	**350**	P	**Pn**	**06 46 57.1**	**-0.4**
ROCN	**Rota Cerro Neg**	**2.23**	**351**	P	**Pn**	**06 46 57.7**	**+0.1**
HEME	**Heredia, Merce**	**2.23**	**98**	*eP*	**Pn**	**06 46 58.7**	**+0.9**
BOAB	**BOACO BROADBAN**	**2.24**	**18**	P	**Pn**	**06 46 57.4**	**-0.4**
ACOS	**Acosta**	**2.24**	**103**	*eP*	**Pn**	**06 46 57.9**	**-0.1**
HDC	**Heredia**	**2.25**	**98**	*eP*	**Pn**	**06 46 59.2**	**+1.1**
VBV1	**V. Barva**	**2.26**	**95**	*eP*	**Pn**	**06 46 58.8**	**+0.5**
TEL3	**Telica 3**	**2.30**	**349**	P	**Pn**	**06 46 59.3**	**+0.7**
LUJA	**Lujan**	**2.31**	**99**	*eP*	**Pn**	**06 47 00.2**	**+1.4**
QUEN	**Al S del Volca**	**2.32**	**349**	P	**Pn**	**06 46 59.4**	**+0.5**
CORON	**Coronado**	**2.37**	**98**	*eP*	**Pb**	**06 47 02.8**	**-1.3**
ABE2	**San Pablo**	**2.37**	**104**	*i P*	**Pn**	**06 47 01.4**	**+1.6**
LCR2	**La Lucha 2**	**2.41**	**103**	*eP*	**Pn**	**06 47 01.5**	**+1.2**
RAZU	**San Marcos de**	**2.41**	**105**	*eP*	**Pn**	**06 47 01.0**	**+0.7**
PIEC	**Cerro El Cedra**	**2.48**	**106**	*eP*	**Pn**	**06 47 02.4**	**+1.1**
VICA	**Volcano Irazu**	**2.52**	**97**	*eP*	**Pn**	**06 47 03.2**	**+1.1**
CVTG	**V. Turrialba,**	**2.57**	**93**	*eP*	**Pn**	**06 47 05.1**	**+2.7**
VTR0	**Volcan Turrial**	**2.60**	**96**	*eP*	**Pb**	**06 47 06.2**	**-2.0**
CVTR	**Volcan Turrial**	**2.60**	**96**	*eP*	**Pn**	**06 47 05.9**	**+2.8**
CVTV	**Tajo**	**2.61**	**96**	*eP*	**Pn**	**06 47 05.0**	**+1.9**
ABRB	**Las Abras (San**	**2.64**	**96**	*eP*	**Pn**	**06 47 05.1**	**+1.6**
TURIB	**Turrialba**	**2.69**	**98**	*eP*	**Pn**	**06 47 05.1**	**+1.2**
RESJ	**San Isidro (Tu**	**2.71**	**96**	*eP*	**Pn**	**06 47 06.8**	**+2.5**
CSJG	**Cosiguina Volc**	**2.89**	**337**	P	**Pn**	**06 47 07.6**	**+0.8**
CSJG				S	**Sn**	**06 47 40.4**	**-0.6**
BLUN	**Bluefields**	**3.07**	**56**	P	**Pn**	**06 47 09.0**	**-0.1**
LCND	**La Caada**	**3.33**	**334**	P	**Pn**	**06 47 13.3**	**+0.6**

CATAC ***24*** *06:52:44.9±0.4, 8°N×3°×8°3W±°, h1km, M3.7/13, MLv3.7/13, Error ellipse: s-maj=7.0km s-min=3.8km az=25.0, confirmed*
UCR ***24*** *06:52:44.7±0.6, 8°.16N×82°.80W, h2km±8km, MW3.9, Presumed earthquake*
UPA ***24*** *06:52:45.7±1.3, 8°.21N×82°.76W, h5km±2km, MW3.7, Presumed earthquake*
ISC 24 06:52:45.3±0.9, 8°.12N±0°.04×82°.81W±0°.02, h17km±5km, n105, σ1§39/143, 12C-11D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LIMO3	**Limones**	**0.06**	**256**	*eP*	**Pg**	**06 52 48.2**	**-0.3**
LIMO3				*eS*	**Sg**	**06 52 51.3**	**+0.6**
PTPM	**Petroterminale**	**0.11**	**320**	*eP*	**Pg**	**06 52 48.9**	**-0.1**
PTPM				*eS*	**Sg**	**06 52 50.8**	**-0.7**
LPPC	**Paso Canoas**	**0.41**	**355**	⇓*iP*	**Pg**	**06 52 53.1**	**-0.7**
BAGA3	**Bagala, Chiriq**	**0.44**	**38**	*eP*	**Pb**	**06 52 54.2**	**-0.5**
BAGA3				*eS*	**Sg**	**06 52 59.2**	**-1.3**
CDITO	**Canoas**	**0.46**	**352**	P	**Pg**	**06 52 53.9**	**-0.7**
CDITO				S	**Sg**	**06 52 59.6**	**-1.2**
CDITO	**Canoas**	**0.46**	**352**	*eP*	**Pg**	**06 52 53.9**	**-0.7**
CDITO				*eS*	**Sb**	**06 53 00.3**	**-1.1**
DVD	**David**	**0.47**	**48**	*eP*	**Pg**	**06 52 54.3**	**-0.5**
DVD				*eS*	**Sg**	**06 52 59.4**	**-1.9**
LOMA3	**Las Lomas, Chi**	**0.52**	**53**	*eP*	**Pg**	**06 52 55.1**	**-0.5**
LOMA3				*eS*	**Sg**	**06 53 02.1**	**-0.5**
CHIR3	**Chiriqui UPA,**	**0.55**	**60**	*eP*	**Pg**	**06 52 55.5**	**-0.7**
CHIR3				*eS*	**Sg**	**06 53 03.0**	**-0.5**
NELY	**Ciudad Neily**	**0.55**	**345**	⇓*iP*	**Pg**	**06 52 55.2**	**-1.0**
NELY				*eS*	**Sb**	**06 53 03.5**	**-0.5**
NELY	**Ciudad Neily**	**0.55**	**345**	*i P*	**Pg**	**06 52 55.2**	**-1.0**
NELY				*eS*	**Sb**	**06 53 03.4**	**-0.6**
BGUAL	**Bijagual, Pana**	**0.61**	**50**	⇓*iP*	**Pg**	**06 52 56.6**	**-0.7**
BGUAL	**Bijagual, Pana**	**0.61**	**50**	⇓*iP*	**Pg**	**06 52 56.6**	**-0.7**
BGUAL				*eS*	**Sb**	**06 53 06.3**	**+0.5**
FITO	**Golfito**	**0.61**	**326**	*eP*	**Pg**	**06 52 55.6**	**-1.8**
FITO				*eS*	**Sg**	**06 53 04.8**	**-0.8**
PTAR3	**Potrerillos Ar**	**0.65**	**28**	*eP*	**Pg**	**06 52 57.4**	**-0.8**
PTAR3				*eS*	**Sb**	**06 53 07.4**	**+0.3**
CLLRA	**Cordillera,**	**0.65**	**17**	*eP*	**Pg**	**06 52 57.4**	**-0.8**
CLLRA	**Cordillera,**	**0.65**	**17**	*i P*	**Pg**	**06 52 57.4**	**-0.8**
CLLRA				*eS*	**Sb**	**06 53 07.9**	**+0.8**
MLIR3	**Monte Lirio, C**	**0.67**	**358**	*eP*	**Pb**	**06 52 58.1**	**-0.5**
MLIR3				*eS*	**Sb**	**06 53 07.1**	**-0.6**
BRU2	**Volcan**	**0.68**	**10**	P	**Pg**	**06 52 58.0**	**-0.8**
BRU2	**Volcan**	**0.68**	**10**	*eP*	**Pg**	**06 52 57.8**	**-0.9**
BRU2	**Volcan**	**0.68**	**10**	*eP*	**Pg**	**06 52 57.8**	**-0.9**
BRU2				⇓*iP*	**Pg**	**06 52 57.9**	**-0.9**
BRU2				*eS*	**Sb**	**06 53 07.8**	**-0.2**
BRU2				*eS*	**Sg**	**06 53 08.2**	**+0.3**
SCLRA	**Santa Clara, W**	**0.71**	**2**	*eP*	**Pb**	**06 52 58.6**	**-0.7**
SCLRA	**Santa Clara, W**	**0.71**	**2**	⇓*iP*	**Pb**	**06 52 58.6**	**-0.7**
SCLRA				*eS*	**Sb**	**06 53 09.7**	**+0.8**
VITO	**San Vito**	**0.72**	**347**	⇑*iP*	**Pg**	**06 52 58.5**	**-0.8**
VITO	**San Vito**	**0.72**	**347**	⇑*iP*	**Pg**	**06 52 58.6**	**-0.8**
VITO				*eS*	**Sb**	**06 53 10.4**	**+1.5**
BQSF3	**Alto Boquete,**	**0.72**	**31**	*eP*	**Pg**	**06 52 58.4**	**-1.1**
BQSF3				*eS*	**Sb**	**06 53 08.3**	**-0.8**
BQTLY	**Boquete Panama**	**0.72**	**28**	⇓*iP*	**Pg**	**06 52 58.4**	**-1.1**
BQTLY	**Boquete Panama**	**0.72**	**28**	⇓*iP*	**Pg**	**06 52 58.4**	**-1.1**
PSOM3	**Paja de Sombre**	**0.74**	**40**	*eP*	**Pg**	**06 52 58.3**	**-1.5**
PSOM3				*eS*	**Sg**	**06 53 08.4**	**-1.3**
LNBQ3	**Los Naranjos,**	**0.76**	**28**	*eP*	**Pg**	**06 52 58.8**	**-1.5**
LNBQ3				*eS*	**Sg**	**06 53 09.3**	**-1.1**
CTCR	**Cotoan**	**0.78**	**3**	*eP*	**Pg**	**06 52 59.4**	**-1.2**
CTCR				*eS*	**Sb**	**06 53 10.2**	**-0.5**
EDP2	**Potrero Grande**	**0.97**	**338**	*eP*	**Pg**	**06 53 02.5**	**-1.6**
RBALA	**Bur**	**0.99**	**40**	⇓*iP*	**Pg**	**06 53 02.6**	**-2.1**
RBALA	**Bur**	**0.99**	**40**	⇓*iP*	**Pg**	**06 53 02.5**	**-2.1**
RBALA				*eS*	**Sg**	**06 53 15.8**	**-1.9**
FIMO	**Fila Mora**	**1.02**	**328**	*eP*	**Pg**	**06 53 03.3**	**-1.9**
CHGR2	**Aguacate**	**1.05**	**39**	*eP*	**Pg**	**06 53 03.4**	**-2.2**
CHGR2				*eS*	**Sg**	**06 53 17.6**	**-1.7**
PANP	**Palmar Norte**	**1.06**	**322**	*eP*	**Pg**	**06 53 03.7**	**-2.2**
PDCAN	**Manzana , Fuen**	**1.11**	**81**	*eP*	**Pg**	**06 53 04.4**	**-2.5**
PDCAN	**Manzana , Fuen**	**1.11**	**81**	*eP*	**Pg**	**06 53 04.3**	**-2.5**
BURE	**Buenos Aires**	**1.17**	**333**	⇑*iP*	**Pg**	**06 53 06.4**	**-1.6**
PVID3	**Puerto Vidal,**	**1.19**	**93**	*eP*	**Pg**	**06 53 05.4**	**-2.8**
EDPE	**Pejibaye, P**	**1.28**	**324**	⇑*iP*	**Pg**	**06 53 07.3**	**-2.8**
CEUA	**Cerro Uatsi, L**	**1.50**	**355**	*eP*	**Pn**	**06 53 12.5**	**+1.0**
ZEDO	**Perez Zeledon**	**1.50**	**325**	*eP*	**Pn**	**06 53 12.6**	**+1.1**
GMAL	**Guarumal, Vera**	**1.60**	**103**	*eP*	**Pn**	**06 53 10.9**	**-1.8**
GMAL	**Guarumal, Vera**	**1.60**	**103**	*eP*	**Pn**	**06 53 13.2**	**+0.4**
GMAL				*eS*	**Sn**	**06 53 34.2**	**+1.2**
RSUS3	**Rio de Jesus,**	**1.64**	**95**	*eP*	**Pn**	**06 53 12.9**	**-0.3**
LAES	**El Progreso Va**	**1.65**	**352**	*eP*	**Pn**	**06 53 14.5**	**+1.0**
SAFE3	**Santa Fe, Vera**	**1.75**	**77**	*eP*	**Pn**	**06 53 15.5**	**+0.5**
STIA3	**Santiago, Vera**	**1.82**	**90**	*eP*	**Pn**	**06 53 16.2**	**+0.4**
VERH	**Veragua Rainfo**	**1.84**	**348**	*eP*	**Pn**	**06 53 16.8**	**+0.7**
QUEP	**Quepos**	**1.87**	**314**	*eP*	**Pn**	**06 53 17.0**	**+0.5**
PIEC	**Cerro El Cedra**	**1.88**	**323**	*eP*	**Pn**	**06 53 16.8**	**0.0**
RAZU	**San Marcos de**	**1.95**	**322**	*eP*	**Pn**	**06 53 18.7**	**+1.0**
PITB	**Pirrs, San**	**1.95**	**322**	*eP*	**Pn**	**06 53 18.9**	**+1.2**
TURIB	**Turrialba**	**1.98**	**334**	⇑*iP*	**Pn**	**06 53 18.7**	**+0.6**
VINA	**Juan Vinas**	**2.00**	**332**	⇓*iP*	**Pn**	**06 53 19.4**	**+1.1**
REPA	**Paraso**	**2.00**	**328**	*eP*	**Pn**	**06 53 18.7**	**+0.3**
ABE2	**San Pablo**	**2.00**	**322**	*eP*	**Pn**	**06 53 18.8**	**+0.3**
LCR2	**La Lucha 2**	**2.00**	**324**	P	**Pn**	**06 53 18.9**	**+0.3**
LCR2	**La Lucha 2**	**2.00**	**324**	*eP*	**Pn**	**06 53 18.0**	**-0.5**
LCR2	**La Lucha 2**	**2.00**	**324**	*eP*	**Pn**	**06 53 18.8**	**+0.3**
LCR2				*eS*	**Sn**	**06 53 45.3**	**+2.1**
PCAYA	**Pacayas**	**2.05**	**331**	*eP*	**Pn**	**06 53 19.8**	**+0.6**
RITA	**Parrita**	**2.05**	**313**	*eP*	**Pn**	**06 53 18.2**	**-0.8**
TAGO	**Cartago**	**2.06**	**328**	*eP*	**Pn**	**06 53 20.5**	**+1.2**
VTCV	**VTCV, Calle Va**	**2.07**	**334**	⇑*eP*	**Pn**	**06 53 20.5**	**+1.1**
RESJ	**San Isidro (Tu**	**2.07**	**337**	⇑*iP*	**Pn**	**06 53 20.8**	**+1.5**
CACAO	**El Cacao, Vera**	**2.07**	**112**	*eP*	**Pn**	**06 53 20.9**	**+1.6**
CACAO				*eS*	**Sn**	**06 53 45.9**	**+1.2**
ABRB	**Las Abras (San**	**2.08**	**334**	*eP*	**Pn**	**06 53 20.7**	**+1.1**
LCOCO	**El Coco**	**2.09**	**339**	⇑*iP*	**Pn**	**06 53 20.9**	**+1.4**
CVTV	**Tajo**	**2.09**	**334**	⇑*iP*	**Pn**	**06 53 20.9**	**+1.1**
VTR0	**Volcan Turrial**	**2.11**	**334**	⇑*iP*	**Pn**	**06 53 21.0**	**+0.9**
CVTR	**Volcan Turrial**	**2.11**	**334**	⇑*iP*	**Pn**	**06 53 21.2**	**+1.0**
VICA	**Volcano Irazu**	**2.12**	**331**	*eP*	**Pn**	**06 53 20.9**	**+0.6**
RVLA	**Villa Bonita**	**2.12**	**339**	*eP*	**Pn**	**06 53 21.7**	**+1.8**
TRIO	**Tres Rios**	**2.13**	**327**	*eP*	**Pn**	**06 53 21.5**	**+1.3**
ACOS	**Acosta**	**2.14**	**321**	*e

OWD	**Renai**	**1.50**	**266**	P	**Pn**	**06 58 14.1**	**-0.1**
OWD				*e*S	**Sn**	**06 58 32.4**	**-1.1**
YULB	**Yu-li**	**1.55**	**245**	*e*S	**Sn**	**06 58 33.3**	**-1.0**
EYUL	**Yuli**	**1.55**	**243**	P	**Pn**	**06 58 14.8**	**+0.1**
EYUL				S	**Sn**	**06 58 34.1**	**-0.3**
WUSB	**Renai**	**1.56**	**268**	P	**Pn**	**06 58 15.3**	**+0.3**
WUSB				S	**Sn**	**06 58 35.1**	**+0.4**
YM01	**YM01**	**1.56**	**314**	P	**Pb**	**06 58 16.1**	**-0.4**
YM01				*e*S	**Sb**	**06 58 36.0**	**+0.1**
TWF1	**Yuli**	**1.56**	**243**	S	**Sn**	**06 58 35.1**	**+0.3**
VWDT	**VWDT**	**1.56**	**259**	S	**Sn**	**06 58 34.2**	**-0.5**
FULB	**Fuli**	**1.64**	**239**	P	**Pn**	**06 58 16.1**	**0.0**
FULB				*e*S	**Sn**	**06 58 37.4**	**+0.7**
SSLB	**Suanglung**	**1.73**	**261**	S	**Sn**	**06 58 39.7**	**+0.8**
SMLT	**Sun Moon Lake**	**1.76**	**264**	P	**Pn**	**06 58 18.1**	**+0.3**
SMLT				*e*S	**Sb**	**06 58 42.0**	**+0.3**
TYC	**Yuchr**	**1.80**	**265**	P	**Pn**	**06 58 18.7**	**+0.5**
TYC				S	**Sn**	**06 58 40.6**	**0.0**
WHYT	**Xinyi Township**	**1.83**	**259**	P	**Pn**	**06 58 19.2**	**+0.5**
WHYT				*e*S	**Sn**	**06 58 41.5**	**0.0**
ELDTW	**Lidau**	**1.87**	**242**	P	**Pn**	**06 58 19.6**	**+0.4**
ELDTW				*e*S	**Sn**	**06 58 42.4**	**0.0**
TSMG	**Majia**	**2.41**	**236**	*e*P	**Pn**	**06 58 27.7**	**+1.1**
TSMG				*e*S	**Sn**	**06 58 53.9**	**-1.8**

TAP 24 06:58:07.7, 23°61′N×121°38′E, h32 km, ML1.9, B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EGFH	**Guangfu**	**0.07**	**39**	*i* P	Pb	06 58 12.8	-0.4
EGFH				S	Sb	06 58 16.8	-0.2
WARBT	**Fenglin Townsh**	**0.10**	**3**	P	Pn	06 58 13.1	-0.1
WARBT				*e*S	Sb	06 58 16.9	-0.4
EHY	**Hungye**	**0.12**	**206**	*i* P	Pb	06 58 13.5	0.0
EHY				S	Sn	06 58 17.0	+0.2
EHY	**Hungye**	**0.12**	**206**	P	Pb	06 58 13.7	+0.2
EHYH	**Wanrong**	**0.12**	**195**	P	Pn	06 58 13.2	-0.3
EHYH				*i* S	Sb	06 58 17.4	-0.1
EHYH	**Wanrong**	**0.12**	**195**	P	Pn	06 58 13.3	-0.2
HGSD	**Ruisui**	**0.13**	**162**	P	Pn	06 58 12.9	-0.6
HGSD				*e*S	Sb	06 58 18.7	+1.2
ESL	**Shilin**	**0.20**	**14**	*e*P	Pb	06 58 14.0	-0.3
ESL				S	Sb	06 58 18.5	-0.2
YULB	**Yu-li**	**0.23**	**199**	P	Pb	06 58 14.2	-0.4
YULB				S	Sb	06 58 18.9	-0.4
YULB	**Yu-li**	**0.23**	**199**	*i* P	Pb	06 58 14.3	-0.3
SHUL	**Shoufeng**	**0.24**	**44**	P	Pn	06 58 15.1	+0.1
SHUL				S	Sn	06 58 20.1	+0.3
VWDT	**VWDT**	**0.26**	**302**	*e*P	Pn	06 58 15.3	0.0
VWDT				*e*S	Sn	06 58 22.4	+2.2
VWDT	**VWDT**	**0.26**	**302**	P	Pb	06 58 15.0	+0.2
EYUL	**Yuli**	**0.27**	**192**	P	Pb	06 58 14.2	-0.8
EYUL				*e*S	Sn	06 58 20.7	+0.2
TWF1	**Yuli**	**0.27**	**196**	P	Pb	06 58 14.4	-0.6
TWF1				*i* S	Sb	06 58 19.6	-0.4
TWF1	**Yuli**	**0.27**	**196**	P	Pb	06 58 14.5	-0.6
ETM	**Tongmen**	**0.36**	**16**	*e*P	Pb	06 58 15.6	-0.7
ETM				*e*S	Sb	06 58 22.0	-0.2
OWD	**Renai**	**0.39**	**331**	*e*P	Pb	06 58 16.7	0.0
OWD				*e*S	Sn	06 58 23.6	0.0
LXIB	**Xiulin Townshi**	**0.41**	**4**	P	Pb	06 58 16.9	-0.2
LXIB				S	Sb	06 58 23.3	0.0
FULB	**Fuli**	**0.42**	**191**	*e*P	Pb	06 58 17.2	+0.2
FULB				*e*S	Sn	06 58 24.7	+0.5
SSLB	**Suanglung**	**0.43**	**294**	*e*P	Pn	06 58 17.6	-0.1
SSLB	**Suanglung**	**0.43**	**294**	P	Pn	06 58 18.1	+0.4
WHYT	**Xinyi Township**	**0.49**	**280**	*e*P	Pn	06 58 20.0	+1.5
WHYT				*e*S	Sn	06 58 26.7	+0.7
SMLT	**Sun Moon Lake**	**0.52**	**301**	P	Pn	06 58 19.0	0.0

*NNC **24** 06:58:32.5±3.0, 51°.29N×82°.02E, h0 km, mb2.8, mpv2.3, Error ellipse: s-maj=20.4km s-min=11.4km az=66.0, Suspected Mining explosion.*

*ASRS **24** 06:58:32.0±1.3, 51°.39N×82°.15E, h0 km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 24 06:58:35.1±2.2, 51°29′N×82°29′E, h0 km, mbtmp2.3/2, ML1.8/2, 2C-3D, Error ellipse: s-maj=50.3km s-min=11.3km az=104.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.39**	**257**	⇑Pg	Pn	06 59 12.9	-2.5
	0.4nm,0.3s						
KURK				⇓Lg	Lg	06 59 42.6	
	3.5nm,0.7s						
KURBB	**Kurchatov Arra**	**2.47**	**256**	⇓Pg	Pn	06 59 14.3	-2.3
	1.5nm,0.3s,baz=74,slow=16						
KURBB				⇑Lg	Lg	06 59 46.5	
	12nm,0.6s,baz=72,slow=28						
I46RU	**ZALESOVO INFRA**	**3.08**	**29**	I	I	07 16 40.0	
	0.1nm,0.8s,baz=210,slow=330,SNR=1.4						
ZALV	**Zalesovo Beam**	**3.08**	**29**	Pn	Pn	06 59 24.3	-0.6
	0.2nm,0.3s,baz=206,slow=15,SNR=2.3						
ZALV				Pg	Pb	06 59 31.6	+0.9
	0.6nm,0.3s,baz=219,slow=15,SNR=7.9						
ZALV				Lg	Lg	07 00 14.8	
	0.5nm,0.3s,baz=209,slow=23,SNR=7.1						
	0.7nm,0.4s						
ZALV				AML	AML		
MK31	**Makanchi Array**	**4.50**	**180**	⇓Lg	Lg	07 00 57.2	
	1.4nm,0.6s,baz=11,slow=27,SNR=3.0						
MKAR	**Makanchi Array**	**4.50**	**180**	Pn	Pn	06 59 45.5	+1.0
	0.2nm,0.3s,baz=4.9,slow=11,SNR=6.0						
MKAR				Lg	Lg	07 00 56.8	
	0.4nm,0.3s,baz=13,slow=28,SNR=5.4						
	0.6nm,0.7s						
MKAR				AML	AML		

*IDC **24** 07:03:39.3±0.9, 7°.05S×148°.30E, h0 km, mb4.0/9, mbtmp4.0/12, ML4.0/2, MS3.1/7, Error ellipse: s-maj=35.4km s-min=14.0km az=99.0*

ISC 24 07:03:47.0±0.9, 7°13′S±0°09′×148°1′E±0°2′, h54 km, n18, σ1s 8/08/14, mb4.0/9, MS3.1/7, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**2.45**	**202**	Pn	**Pn**	**07 04 23.8**	**-0.7**
	152nm,0.3s,baz=6.7,slow=6.5,SNR=60						
PMG				Sn	**Sn**	**07 04 55.3**	**+2.1**
	29nm,0.3s,baz=219,slow=9.5,SNR=4.6						
CTA	**Charters Tower**	**13.01**	**188**	Pn	**Pn**	**07 06 49.5**	**+0.3**
	0.3nm,0.3s,baz=2.2,slow=14,SNR=2.1						
	0.9nm,0.3s						
CTA				AML	AML		
WRA	**Warramunga Arr**	**18.45**	**225**	P	**P**	**07 07 57.0**	**-1.3**
	0.6nm,0.3s,baz=49,slow=11,SNR=24						
WRA				S	Sn	07 11 12.8	-12
	0.4nm,0.8s,baz=39,slow=21,SNR=2.7						
	3.2nm,0.7s						
WRA				AML	AML		
GUMO	**Guam**	**20.83**	**351**	LR	LR	07 15 14.7	
	comp=Z,42nm,20.3s,baz=150,slow=34						
ASAR	**Alice Springs**	**21.36**	**218**	P	**P**	**07 08 29.1**	**-0.8**
	3.2nm,0.5s,baz=58,slow=9.2,SNR=113						
ASAR				S	**S**	**07 12 23.2**	**-1.2**
	0.7nm,0.8s,baz=34,slow=23,SNR=4.2						
	3.2nm,0.5s						
DZM	**Mont Dzumac**	**23.11**	**132**	LR	LR	07 16 32.8	
	comp=Z,75nm,20.3s,baz=24,slow=34						
FITZ	**Fitzroy Crossi**	**24.44**	**241**	LR	LR	07 18 27.8	
	comp=Z,32nm,19.0s,baz=332,slow=36						
STKA	**Stephens Creek**	**25.36**	**193**	P	**P**	**07 09 08.3**	**-0.9**
	3.5nm,0.7s,baz=355,slow=11,SNR=8.2						
	3.5nm,0.7s						
URZ	**Urewera**	**40.61**	**144**	LR	LR	07 25 59.3	
	comp=Z,46nm,19.6s,baz=296,slow=33						
MJAR	**Matsushiro Arr**	**44.41**	**349**	LR	LR	07 28 13.8	
	comp=Z,24nm,19.8s,baz=90,slow=33						
KSRS	**Korea Array**	**48.19**	**338**	P	**P**	**07 12 22.3**	**+0.2**
	0.8nm,0.4s,baz=157,slow=8.9,SNR=4.4						
KSRS				LR	LR	07 30 40.0	
	comp=Z,12nm,21.7s,baz=145,slow=34						
	0.8nm,0.4s						
CMAR	**Chiang Mai Arr**	**54.73**	**298**	P	**P**	**07 13 12.1**	**+0.6**
	0.8nm,0.5s,baz=102,slow=6.8,SNR=1.4						
	0.8nm,0.5s						
MA2	**Magadan**	**66.52**	**1**	LR	LR	07 39 16.9	
	comp=Z,19nm,21.7s,baz=97,slow=32						
VNDA	**Vanda**	**70.73**	**177**	P	**P**	**07 14 57.7**	**+0.7**
	0.9nm,0.6s,baz=336,slow=6.9,SNR=6.2						
	0.9nm,0.6s						

MKAR	**Makanchi Array**	**79.05**	**320**	P	**P**	**07 15 46.9**	**+1.4**
	0.2nm,0.5s,baz=113,slow=6.2,SNR=2.4						
	0.2nm,0.5s						
ZALV	**Zalesovo Beam**	**80.53**	**328**	P	**P**	**07 15 52.9**	**-0.5**
	0.4nm,0.5s,baz=121,slow=6.9,SNR=3.7						
	0.4nm,0.5s						
QSPA	**South Pole Qui**	**82.85**	**180**	P	**P**	**07 16 05.7**	**+0.1**
	4.0nm,0.6s,baz=306,slow=3.0,SNR=23						
	4.0nm,0.6s						
ILAR	**Eielson Array**	**86.09**	**23**	P	**P**	**07 16 21.1**	**-0.6**
	0.4nm,0.6s,baz=248,slow=5.0,SNR=8.6						
	0.4nm,0.6s						

IDC 24 07:13:32.6±3.2, 12°.97S×166°.43E, h0 km, mb3.8/3, mbtmp3.7/4, ML3.5/1, Error ellipse: s-maj=65.9km s-min=23.6km az=72.0, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**9.05**	**180**	Pn	Pn	07 15 46.3	+1.6
	0.5nm,0.3s,baz=41,slow=19,SNR=7.1						
DZM				Sn	Sn	07 17 20.5	-6.9
	0.1nm,0.3s,baz=140,slow=22,SNR=1.0						
	1.5nm,0.4s						
DZM				AML	AML		
WRA	**Warramunga Arr**	**31.50**	**253**	P	P	07 19 57.0	+0.4
	0.2nm,0.4s,baz=83,slow=8.6,SNR=4.9						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**32.58**	**246**	P	P	07 20 05.7	-0.4
	0.8nm,0.6s,baz=79,slow=8.6,SNR=16						
	0.8nm,0.6s						
MKAR	**Makanchi Array**	**95.37**	**317**	P	P	07 26 58.2	-0.8
	0.6nm,0.8s,baz=112,slow=6.4,SNR=3.1						
	0.6nm,0.8s						

*UPP **24** 07:26:27.4±0.2, 59°.00N×18°.19E, h0 km, ML2.3, Suspected explosion*

*DNK **24** 07:26:27.6±2.0, 59°.00N×18°.26E, h0 km, ML2.8, ML2.3(UPP), Explosion*

*IDC **24** 07:26:29.3±2.6, 59°.11N×18°.04E, h0 km, mbtmp3.0/4, ML1.9/4, Error ellipse: s-maj=33.0km s-min=10.4km az=177.0*

ISC 24 07:26:26.9±0.9, 58°.99N±0°.03×18°.27E±0°.04, h0 km, n36, σ0s 89/48, Baltic Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NYNU	**Nynaeshamn**	**0.14**	**278**	P	**Pg**	**07 26 29.6**	**0.0**
NYNU				S	**Sg**	**07 26 31.0**	**-0.3**
NYNU	**Nynaeshamn**	**0.14**	**278**	P	**Pg**	**07 26 29.6**	**0.0**
NYNU				S	**Sg**	**07 26 31.0**	**-0.3**
BOGU	**Bogesund**	**0.42**	**353**	P	**Pg**	**07 26 35.3**	**+0.3**
BOGU				S	**Sg**	**07 26 40.6**	**+0.1**
BOGU	**Bogesund**	**0.42**	**353**	P	**Pg**	**07 26 35.3**	**+0.3**
BOGU				S	**Sg**	**07 26 40.6**	**+0.1**
UPP	**Uppsala**	**0.94**	**340**	P	**Pg**	**07 26 44.6**	**-0.2**
UPP	**Uppsala**	**0.94**	**340**	P	**Pg**	**07 26 44.6**	**-0.2**
VIKU	**Vikbolandet**	**0.95**	**240**	P	**Pg**	**07 26 45.0**	**-0.1**
	baz=43						
VIKU	**Vikbolandet**	**0.95**	**240**	P	**Pg**	**07 26 45.0**	**-0.1**
	baz=43						
ESKU	**Eskilstuna**	**1.00**	**285**	P	**Pg**	**07 26 45.2**	**-0.8**
ESKU	**Eskilstuna**	**1.00**	**285**	P	**Pg**	**07 26 45.2**	**-0.8**
FIBU	**Brunna**	**1.03**	**333**	P	**Pg**	**07 26 46.1**	**-0.5**
FIBU	**Brunna**	**1.03**	**333**	P	**Pg**	**07 26 46.1**	**-0.5**
BACU	**Backbrunna**	**1.05**	**326**	P	**Pg**	**07 26 46.5**	**-0.6**
BACU	**Backbrunna**	**1.05**	**326**	P	**Pg**	**07 26 46.5**	**-0.6**
FLYU	**Flymyra**	**1.16**	**351**	P	**Pg**	**07 26 48.8**	**-0.4**
FLYU				S	**Sg**	**07 27 03.8**	**-0.4**
FLYU	**Flymyra**	**1.16**	**351**	P	**Pg**	**07 26 48.8**	**-0.4**
FLYU				S	**Sg**	**07 27 03.8**	**-0.4**
GOTU	**Gotland**	**1.31**	**173**	P	**Pg**	**07 26 51.5**	**-0.5**
GOTU	**Gotland**	**1.31**	**173**	P	**Pg**	**07 26 51.5**	**-0.5**
GRAU	**Graesoe**	**1.36**	**6**	P	**Pg**	**07 26 52.6**	**-0.3**
GRAU	**Graesoe**	**1.36**	**6**	P	**Pg**	**07 26 52.6**	**-0.3**
VSTU	**Vaestervik**	**1.61**	**215**	P	**Pn**	**07 26 56.8**	**+0.3**
VSTU	**Vaestervik**	**1.61**	**215**	P	**Pn**	**07 26 56.8**	**+0.3**
LNKU	**Linkoeping**	**1.64**	**243**	P	**Pn**	**07 26 56.9**	**0.0**
LNKU	**Linkoeping**	**1.64**	**243**	P	**Pn**	**07 26 56.9**	**0.0**
HFS	**Hagfors**	**2.60**	**298**	Pn	**Pn**	**07 27 11.1**	**+1.0**
	0.4nm,0.3s,baz=112,slow=15,SNR=13						
HFS				Lg	Lg	07 27 45.0	
	1.6nm,0.3s,baz=113,slow=29,SNR=16						
	0.9nm,0.2s						
HFS				AML	AML		
BLEU	**Blekinge**	**2.99**	**207**	*i* P	**Pn**	**07 27 16.6**	**+1.1**
BLEU				*i* S	**Sn**	**07 27 53.9**	**+1.9**
DEL	**Delary**	**3.45**	**225**	*i* P	**Pn**	**07 27 23.0**	**+1.2**
DEL				*i* S	**Sn**	**07 28 03.4**	**0.0**
TJOU	**Tjoern**	**3.61**	**258**	*i* P	**Pn**	**07 27 25.3**	**+1.3**
TJOU				*i* S	**Sn**	**07 28 08.3**	**+1.0**
STRU	**Stroemstad**	**3.66**	**274**	*i* P	**Pn**	**07 27 26.2**	**+1.5**
STRU				*i* S	**Sn**	**07 28 08.8**	**+0.3**
ONAU	**Onsala**	**3.72**	**247**	*i* P	**Pn**	**07 27 26.0**	**+0.6**
NC602	**NORSAR Array S**	**3.82**	**300**	*e*P	**Pn**	**07 27 27.2**	**+0.4**
NOA	**NORSAR Array B**	**4.09**	**303**	Pn	**Pn**	**07 27 29.4**	**-1.3**
	baz=127,slow=11,SNR=10						
NOA				Lg	Lg	07 28 29.9	
	0.1nm,0.3s,baz=138,slow=17,SNR=5.4						
	0.6nm,0.8s						
NAO01	**NORSAR Array S**	**4.16**	**300**	*e*P	**Pn**	**07 27 31.9**	**+0.4**
BSD	**Bornholm Skovb**	**4.29**	**207**	*i* P	**Pn**	**07 27 33.6**	**+0.2**
BSD				*i* S	**Sn**	**07 28 21.8**	**-2.2**
BSD				IAML		07 28 35.8	
	comp=Z,9.7nm,0.9s						
FINES	**FINESS Array B**	**4.61**	**54**	Pn	**Pn**	**07 27 39.9**	**+2.1**
	comp=Z,0.2nm,0.3s,baz=239,slow=10,SNR=11						
FINES				Sn	**Sn**	**07 28 33.1**	**+1.2**
	comp=Z,0.5nm,0.3s,baz=246,slow=20,SNR=6.9						
FINES				Lg	Lg	07 28 50.2	
	comp=Z,0.7nm,0.3s,baz=238,slow=26,SNR=7.5						
	comp=Z,2.9nm,0.8s						
FINES				AML	AML		
ARCES	**ARCESS Array B**	**11.04**	**13**	Pn	**Pn**	**07 29 03.4**	**-2.4**
	comp=Z,0.1nm,0.3s,baz=197,slow=12,SNR=7.5						
	comp=Z,2.1nm,0.8s						
ARCES				AML	AML		

*SSNC **24** 07:28:38.8±0.9, 17°.84N×71°.65W, h26 km±16 km, MD3.7, ML2.5, Presumed earthquake*

*SDD **24** 07:28:40.9±1.2, 18°.25N×72°.12W, h0 km±6 km, MD2.6, ML2.5, MW2.6, Presumed earthquake*

*OSPL **24** 07:28:43.3±1.1, 18°.28N×71°.94W, h7 km±5 km, ML2.2, Presumed earthquake*

ISC 24 07:28:41.9±1.2, 18°29′N±0°.04×71°94′W±0°.04, h15 km±9 km, n18, σ0s 95/30, 1D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIDR	**Jimani**	**0.22**	**22**	*e*Pg	**Pg**	**07 28 47.0**	**+0.1**
JIDR				*e*Sg	**Sb**	**07 28 51.3**	**-0.3**
JIDR				IAML		07 28 54.3	
	comp=N,630nm,0.2s						
LODU1	**El Espartillar**	**0.45**	**81**	*i* P	**Pb**	**07 28 51.0**	**-0.6**
LODU1				*e*S	**Sb**	**07 28 57.8**	**-0.3**
LODU1				IAML		07 29 01.3	
	comp=Z,328nm,0.2s						
LOBH	**Bahia de las A**	**0.51**	**146**	*i* P	**Pb**	**07 28 52.3**	**-0.3**
LOBH				*e*S	**Sb**	**07 28 59.5**	**-0.3**
LOBH				IAML		07 29 04.8	
	comp=Z,80nm,0.2s						
NEDR	**Neiba UASD**	**0.53**	**68**	⇓*e*Pg	**Pb**	**07 28 53.2**	**+0.2**
NEDR				*e*Sg	**Sn**	**07 29 02.4**	**-1.4**
NEDR				IAML		07 29 03.9	
	comp=N,280nm,0.2s						
LONE3	**El Aguacate, B**	**0.56**	**55**	*i* P	**Pb**	**07 28 53.1**	**-0.4**
LONE3				*e*S	**Sb**	**07 29 01.0**	**-0.3**
LONE3				IAML		07 29 04.4	
	comp=Z,129nm,0.3s						
PODR	**Polo**	**0.64**	**101**	*e*Pg	**Pb**	**07 28 55.2**	**+0.2**
PODR				*i* S	**Sn**	**07 29 05.4**	**-1.2**
PODR				IAML		07 29 14.5	
	comp=N,266nm,0.5s						
PODR	**Polo**	**0.64**	**101**	*i* P	**Pb**	**07 28 55.0**	**0.0**
PODR				IAML		07 29 11.2	
	comp=Z,961nm,0.5s						
LGNH	**Logne**	**0.67**	**290**	*i* P	**Pn**	**07 28 55.9**	**-1.1**
LGNH				IAML		07 29 09.7	
	comp=Z,18nm,0.8s						
LOVI	**El Cajuil, Ovi**	**0.73**	**132**	*i* P	**Pb**	**07 28 56.0**	**-0.4**
LOVI				*e*S	**Sb**	**07 29 06.2**	**+0.1**
LOVI				IAML		07 29 12.9	
	comp=Z,74nm,0.4s						
SDDR	**Presa de Saban**	**0.93**	**42**	*i* P	**Pg**	**07 28 59.9**	**-0.1**
SDDR				*e*S	**Sb**	**07 29 12.5**	**+0.5**
SDDR				IAML		07 29 20.5	
	comp=Z,18nm,0.8s						
REDR	**Restauracion**	**1.02**	**30**	*e*Pg	**Pb**	**07 29 00.6**	**-0.6**
REDR				*e*Sg	**Sg**	**07 29 15.2**	**+0.3**
REDR				IAML		07 29 15.7	
	comp=N,114nm,0.1s						
ABDR	**Alto Bandera**	**1.35**	**67**	*e*Pg	**Pg**	**07 29 07.5**	**-0.5**
ABDR				IAML		07 29 36.8	
	comp=N,22nm,0.3s						
BANI	**BANI**	**1.50**	**86**	*i* P	**Pb**	**07 29 09.5**	**-0.2**
BANI				*i* S	**Sg**	**07 29 30.6**	**+0.1**
LOPP1	**Punta Rusia, P**	**1.71**	**24**	*i* P	**Pb**	**07 29 12.2**	**-0.9**
LOPP1				IAML		07 29 39.5	
	comp=Z,50nm,1.8s						
HATOM	**Hato Mayor del**	**2.48**	**78**	*i* P	**Pn**	**07 29 23.4**	**+1.5**
HATOM				IAML		07 30 09.0	
	comp=N,19nm,3.5s						
QMBU	**Quimbuelo**	**3.31**	**305**	*e*P	**Pn**	**07 29 34.8**	**+1.4**
QMBU				*e*S	**Sn**	**07 30 15.4**	**+2.8**
QMBU				*e*Sg	**Sb**	**07 30 19.1**	**-1.7**
QMBU				IAML		07 30 20.2	
	comp=E,7.4nm,0.4s						
QMBU				IAML		07 30 21.6	
	comp=N,3.4nm,0.4s						
GTBY	**Guantanamo Bay**	**3.42**	**299**	*e*P	**Pn**	**07 29 35.7**	**+0.9**
SABCS	**La Quijada**	**3.80**	**303**	*e*P	**Pn**	**07 29 40.5**	**+0.4**

*ASRS **24** 07:44:33.0±1.4, 54°.15N×86°.42E, h0 km, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 24 07:44:35.3±3.8, 54°.15N×86°.52E, h0 km, mbtmp3.1/2, ML2.9/2, Error ellipse: s-maj=32.8km s-min=15.4km az=68.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.02**	**259**	I	I	07 50 10.0	
	baz=79,slow=338,SNR=3.3						
ZALV	**Zalesovo Beam**	**1.02**	**259**	Pg	Pg	07 44 53.8	-1.1
	3.7nm,0.3s,baz=76,slow=18,SNR=9.4						
ZALV				Lg	Lg	07 45 10.0	
	2.9nm,0.3s,baz=77,slow=30,SNR=6.0						
KURBB	**Kurchatov Arra**	**6.03**	**237**	Pn	Pn	07 46 06.7	+1.0
	0.2nm,0.3s,baz=54,slow=14,SNR=7.9						
	0.7nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.84**	**202**	Pn	Pn	07 46 31.9	+1.2
	0.3nm,0.3s,baz=25,slow=14,SNR=11						
	0.4nm,0.3s						
MKAR				AML	AML		

IDC 24 07:51:49.8±63.0, 15°.40S×175°.16W, h0 km, mb3.8/3, mbtmp3.8/3, MS3.3/1, Error ellipse: s-maj=1186.0km s-min=195.7km az=77.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**23.77**	**195**	LR	LR	08 04 54.9	
	comp=Z,67nm,20.1s,baz=30,slow=33						
STKA	**Stephens Creek**	**42.58**	**239**	P	P	07 59 48.2	+0.5
	1.3nm,0.7s,baz=84,slow=10,SNR=2.2						
	1.3nm,0.7s						
WRA	**Warramunga Arr**	**48.20**	**257**	P	P	08 00 32.2	-0.3
	0.3nm,0.6s,baz=93,slow=7.2,SNR=7.7						
	0.3nm,0.6s						
ASAR	**Alice Springs**	**48.50**	**252**	P	P	08 00 34.5	-0.3
	1.4nm,0.6s,baz=92,slow=7.6,SNR=20						
	1.4nm,0.6s						

IDC 24 07:54:44.0±1.4, 51°.83N×75°.49E, h0 km, mbtmp2.7/2, ML1.9/2, 1C-3D, Error ellipse: s-maj=18.3km s-min=10.0km az=27.0, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.26**	**118**	⇑Pg	Pb	07 55 25.5	-0.1
	0.6nm,0.6s						
KURK				⇓Lg	Lg	07 55 53.7	
	4.9nm,0.8s						
KURBB	**Kurchatov Arra**	**2.26**	**121**	Pg	Pg	07 55 27.1	-0.1
	0.4nm,0.3s,baz=307,slow=19,SNR=11						
KURBB				Lg	Lg	07 55 56.7	
	0.4nm,0.3s,baz=308,slow=30,SNR=10						
KURBB	**Kurchatov Arra**	**2.26**	**121**	⇓Pg	Pb	07 55 26.4	+0.7
	2.2nm,0.5s,baz=307,slow=16						
KURBB				⇓Lg	Lg	07 55 55.2	
	28nm,0.8s,baz=298,slow=30						
BVAR	**Borovoye Array**	**3.34**	**293**	Pg	Pb	07 55 45.5	+1.4
	baz=113,slow=16,SNR=7.4						
BVAR				Lg	Lg	07 56 32.3	
	0.1nm,0.3s,baz=102,slow=27,SNR=11						
ZALV	**Zalesovo Beam**	**6.03**	**66**	Pn	Pn	07 56 16.1	+1.8
	0.1nm,0.3s,baz=248,slow=10,SNR=2.6						
ZALV				Lg	Lg	07 57 54.1	
	0.1nm,0.3s,baz=251,slow=31,SNR=1.4						
	0.4nm,0.4s						
ZALV				AML	AML		
I46RU	**ZALESOVO INFRA**	**6.03**	**66**	I	I	08 35 00.0	
	baz=250,slow=283,SNR=4.5						
MKAR	**Makanchi Array**	**6.72**	**136**	Pn	Pn	07 56 23.8	-0.1
	baz=317,slow=10,SNR=2.8						
MKAR				Pg	Pb	07 56 43.6	+2.0
	baz=322,slow=16,SNR=3.9						
MKAR				Lg	Lg	07 58 12.3	
	0.1nm,0.3s,baz=320,slow=26,S

UPP ***24*** *08:30:26.9±3.2, 63°.66N×29°.25E, h0km, ML2.0, Presumed earthquake*

HEL 24 08:30:34.8±0.1, 63°.98N×28°.11E, h0km, ML1.8, Suspected explosion, Finland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIF	**Nilsia**	**0.61**	**193**	PG	Pg	08 30 43.5	-2.9
NIF				SG	Sg	08 30 53.7	-0.6
NIF				MSG		08 30 54.3	
	comp=Z,9.8nm,0.2s						
RMF	**Romuvaara**	**0.83**	**73**	PB	Pg	08 30 50.5	-0.3
	baz=258						
RMF				MSG		08 31 00.7	
	comp=Z,22nm,0.2s						
RMF				SB	Sg	08 31 01.2	-0.3
OUL	**Oulu**	**1.47**	**320**	PN	Pn	08 31 01.9	-0.5
OUL				SN	Sg	08 31 21.0	-0.8
OUF	**Merijarvi**	**1.53**	**286**	PG	Pn	08 31 02.4	-1.0
OUF				MSG		08 31 20.7	
	comp=Z,5.5nm,0.2s						
OUF				SN	Sb	08 31 23.1	-0.8
SUF	**Sumiainen**	**1.54**	**216**	PG	Pn	08 31 02.8	-0.7
	baz=32						
SUF				MSG		08 31 21.2	
	comp=Z,3.6nm,0.2s						
OBF4	**Vikkela, Lumij**	**1.55**	**304**	PG	Pn	08 31 03.2	-0.4
OBF4				MSG		08 31 21.2	
	comp=Z,5.5nm,0.2s						
KU1	**Kurvinen**	**1.71**	**21**	PG	Pn	08 31 05.9	+0.1
	baz=205						
KU1				SN	Sn	08 31 28.6	+0.3
KU2	**Taivalkoski**	**1.74**	**2**	PG	Pn	08 31 06.3	+0.1
	baz=186						
KU2				SN	Sg	08 31 30.9	+0.4
JOF	**Joensuu**	**1.79**	**125**	PG	Pn	08 31 07.1	+0.2
	baz=310						
JOF				SG	Sn	08 31 30.3	0.0
MSF	**Maaselka**	**1.98**	**11**	PG	Pn	08 31 10.0	+0.5
	baz=193						
MSF				SG	Sn	08 31 35.6	+0.6
KAF	**Kangasniemi**	**2.05**	**204**	PG	Pn	08 31 11.4	+1.0
	baz=19						
KAF				MSG		08 31 35.7	
	comp=Z,6.6nm,0.2s						
KAF				SG	Sb	08 31 38.3	-0.5
OBF8	**Ulkokalla**	**2.07**	**282**	PG	Pn	08 31 11.6	+0.8
OBF8				MSG		08 31 36.2	
	comp=Z,3.6nm,0.2s						
RANF	**Ranua**	**2.12**	**345**	PG	Pb	08 31 12.8	-1.2
	baz=168						
RANF				SG	Sb	08 31 40.1	-0.7
KU6	**Riekki**	**2.19**	**19**	PG	Pb	08 31 14.0	-1.2
	baz=202						
KU6				MSG		08 31 39.6	
	comp=Z,3.1nm,0.2s						
KU6				SG	Sb	08 31 41.5	-1.3
KEF	**Keuruu**	**2.34**	**220**	PG	Pn	08 31 16.1	+1.6
KEF				MSG		08 31 44.0	
	comp=Z,6.6nm,0.2s						
KEF				SG	Sb	08 31 46.4	-0.9
OLKF	**Oulanka, Finla**	**2.41**	**12**	PG	Pb	08 31 17.7	-1.3
OLKF				MSG		08 31 46.1	
	comp=Z,6.3nm,0.2s						
OLKF				SG	Sb	08 31 48.2	-1.1
RUF	**Ruokolahti**	**2.59**	**171**	PG	Pb	08 31 20.3	-1.8
	baz=348						
RUF				MSG		08 31 51.2	
	comp=Z,5.5nm,0.2s						
RUF				SG	Sb	08 31 53.4	-1.1
VAF	**Ylistaro**	**2.61**	**251**	PG	Pb	08 31 20.4	-2.0
VAF				MSG		08 31 52.0	
	comp=Z,4.1nm,0.2s						
VAF				SG	Sb	08 31 54.3	-0.7
TOF	**Tornio**	**2.65**	**324**	PB	Pn	08 31 19.4	+0.7
TOF				SB	Sn	08 31 51.4	0.0
TOF				MSG		08 31 52.8	
	comp=Z,1.9nm,0.2s						
FIA0	**FINESS Array S**	**2.71**	**201**	PB	Pn	08 31 21.6	+2.0
	baz=22						
FIA0				MSG		08 31 54.9	
	comp=Z,2.3nm,0.2s						
FIA0				SB	Sb	08 31 56.5	-1.4
RNF	**Rovaniemi**	**2.78**	**342**	PB	Pn	08 31 21.8	+1.3
RNF				SG	Sb	08 31 58.9	-1.0
BURU	**Burvik**	**3.00**	**285**	P	Pn	08 31 23.3	-0.2
BURU				S	Sb	08 32 06.2	+0.1
BURU	**Burvik**	**3.00**	**285**	PN	Pn	08 31 23.5	0.0
	baz=101						
BURU				SG	Sb	08 32 06.8	+0.7
SJUU	**Sjulsmark**	**3.18**	**302**	P	Pn	08 31 26.2	+0.2
ODEU	**Stanfors**	**3.26**	**281**	P	Pn	08 31 26.6	-0.6
UMAU	**Umeaa**	**3.28**	**272**	P	Pn	08 31 26.7	-0.7
	baz=1.2						
UMAU	**Umeaa**	**3.28**	**272**	PN	Pn	08 31 27.0	-0.4
VJF	**Virojoki**	**3.46**	**185**	PB	Pb	08 31 33.4	-3.5
KPF	**Kankaanpaa**	**3.50**	**235**	PB	Pn	08 31 32.5	+2.1
ERTU	**Ertsjaerv**	**3.59**	**319**	PN	Pn	08 31 32.6	+1.0
ERTU				SN	Sn	08 32 14.8	+0.2
KLF	**Kolari**	**3.69**	**334**	PN	Pn	08 31 33.8	+0.8
KLF				SN	Sn	08 32 16.5	-0.6
SVAU	**Svanoeiden**	**3.76**	**282**	P	Pn	08 31 33.5	-0.5
HUSU	**Husum**	**4.01**	**265**	PN	Pn	08 31 38.5	+1.1
	baz=78						
RAJF	**Raja-Jooseppi**	**4.51**	**1**	SN	Sn	08 32 37.9	+0.4
HEMU	**Hemsoen**	**4.73**	**258**	PN	Pn	08 31 47.3	+0.1

BJI ***24*** *08:33:19.5, 3°.05S×128°.49E, h10km, mB5.0/8, mb5.0/62, Ms4.6/2, Ms7 4.3/2*

IDC ***24*** *08:33:25.4±0.4, 2°.39S×128°.19E, h0km, mb4.5/22, mbtmp4.5/24, ML5.1/3, MS3.5/23, Error ellipse: s-maj=18.6km s-min=10.5km az=78.0*

NEIC ***24*** *08:33:27.7±2.3, 2°.40S±0°.06×128°.10E±0°.03, h10km±1km, mb4.8/52, Error ellipse: s-maj=10.7km s-min=2.8km az=26.0*

GFZ ***24*** *08:33:28.9±0.2, 2°.5S±3°×12°8E±°, h10km, M4.9/21, mb5.2/21*

DJA ***24*** *08:33:29.6±0.2, 2°.5S±2°×12°8E±°, h10km, M5.1/20, mB5.6/13, mb5.4/19, mb5.4/20, mB5.5/16, ML5.2/6, MLv5.2/15, MLv5.2/15, Mw(mB)5.0/15, Mw(mB)5.1/13*

ISC 24 08:33:27.5±0.3, 2°.37S±0°.03×128°.10E±0°.04, h10km, n252, σ1§49/217, mb4.8/73, MS3.5/21, 3C-2D, Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSAI	**Masohi**	**1.27**	**139**	P	**Pn**	**08 33 54.4**	**+3.0**
MSAI				AML	AML		
MSAI				AML	AML		
MSAI				AML	AML		
NLAI	**Namlea**	**1.32**	**229**	P	**Pn**	**08 33 51.6**	**-0.4**
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
SANI	**Sanana**	**2.13**	**279**	P	**Pn**	**08 34 01.5**	**-1.7**
SANI	**Sanana**	**2.13**	**279**	P	Pn	08 34 00.2	-3.0
SANI	**Sanana**	**2.13**	**279**	P	**Pn**	**08 34 00.9**	**-2.3**
BNDI	**Bandanaira**	**2.79**	**140**	P	**Pn**	**08 34 14.6**	**+2.3**
BNDI	**Bandanaira**	**2.79**	**140**	S	**Sn**	**08 34 49.3**	**+3.2**
BNDI	**Bandanaira**	**2.79**	**140**	P	**Pn**	**08 34 14.3**	**+2.0**
BNDI	**Bandanaira**	**2.79**	**140**	P	**Pn**	**08 34 14.5**	**+2.1**
TNTI	**Ternate**	**3.21**	**347**	P	**Pn**	**08 34 19.3**	**+1.3**
TNTI	**Ternate**	**3.21**	**347**		**Pn**	**08 34 19.6**	**+1.6**
TNTI	**Ternate**	**3.21**	**347**	P	**Pn**	**08 34 19.8**	**+1.8**
TNTI	**Ternate**	**3.21**	**347**	P	**Pn**	**08 34 20.3**	**+2.3**
FAKI	**Fak Fak**	**4.18**	**98**	P	**Pn**	**08 34 33.1**	**+1.7**
FAKI	**Fak Fak**	**4.18**	**98**		**Pn**	**08 34 32.6**	**+1.3**
FAKI	**Fak Fak**	**4.18**	**98**	P	**Pn**	**08 34 33.1**	**+1.7**
FAKI				AML	AML		
FAKI	**Fak Fak**	**4.18**	**98**	P	**Pn**	**08 34 32.7**	**+1.3**
GAMI	**Galela, Maluku**	**4.19**	**356**	P	**Pn**	**08 34 33.8**	**+2.2**
MNI	**Manado**	**5.00**	**319**	P	**Pn**	**08 34 42.8**	**+0.1**
KMSI	**Cibinong**	**5.05**	**305**	P	**Pn**	**08 34 43.7**	**+0.3**
KMSI				AML	AML		
LUWI	**Luwuk**	**5.49**	**284**	P	**Pn**	**08 34 49.5**	**+0.1**
LUWI	**Luwuk**	**5.49**	**284**	S	**Sn**	**08 35 49.2**	**-3.4**
LUWI	**Luwuk**	**5.49**	**284**		**Pn**	**08 34 48.8**	**-0.6**
LUWI	**Luwuk**	**5.49**	**284**	P	**Pn**	**08 34 49.0**	**-0.4**
	2.3nm5µm5µm396nm,0.7s						
LUWI				AML	AML		
LUWI	**Luwuk**	**5.49**	**284**	P	**Pn**	**08 34 48.8**	**-0.6**
	comp=Z,325nm,0.5s						
KDI	**Kendari**	**5.70**	**254**	P	**Pn**	**08 34 53.7**	**+1.5**
KDI				AML	AML		
MWPI	**Manokwari, Pap**	**6.11**	**77**	P	Pn	08 35 07.8	+10
SAUI	**Saumlaki**	**6.42**	**150**		**Pn**	**08 35 02.2**	**0.0**
SAUI	**Saumlaki**	**6.42**	**150**	P	Pn	08 35 11.4	+9.2
SAUI	**Saumlaki**	**6.42**	**150**	P	Pn	08 35 07.3	+5.1
	comp=Z,502nm,0.8s						
APSI	**Ampana**	**6.61**	**283**	P	**Pn**	**08 35 05.0**	**+0.2**
KKSI	**Kolaka, Sulawe**	**6.68**	**254**	P	Pn	08 35 09.8	+4.0
	comp=Z,0.5nmcomp=Z,109nm,0.7s,comp=Z,109nm,0.7s						
KKSI				AML	AML		
BAKI	**Biak**	**8.09**	**82**	P	**Pn**	**08 35 25.7**	**+0.6**
	comp=Z,2µmcomp=Z,2µmcomp=Z,241nm,0.7s,comp=Z,241nm,0.7s						
TOLI2	**Tolitoli**	**8.09**	**295**	P	**Pn**	**08 35 25.0**	**-0.2**
TOLI2	**Tolitoli**	**8.09**	**295**		**Pn**	**08 35 25.0**	**-0.2**
TOLI2	**Tolitoli**	**8.09**	**295**	P	**Pn**	**08 35 25.5**	**+0.3**
	comp=Z,156nm,0.9s						
SOEI	**Soe**	**8.27**	**207**		**Pn**	**08 35 26.9**	**-0.8**
SOEI	**Soe**	**8.27**	**207**	P	Pn	08 35 38.1	+10
SOEI	**Soe**	**8.27**	**207**	P	Pn	08 35 32.9	+5.2
	comp=Z,106nm,0.7s						
TTSI	**Tana Toraja**	**8.30**	**265**	P	**Pn**	**08 35 30.6**	**+2.6**
	comp=Z,3µmcomp=Z,3µmcomp=Z,128nm,0.7s,comp=Z,128nm,0.7s						
PCI	**Palu**	**8.39**	**280**	P	**Pn**	**08 35 31.7**	**+2.4**
	comp=Z,252nm,0.7s,comp=Z,252nm,0.7s						
BKSI	**Bulukumba**	**8.48**	**250**	P	**Pn**	**08 35 33.9**	**+3.4**
	comp=Z,2µmcomp=Z,2µmcomp=Z,203nm,0.6s						
KAPI	**Kappang**	**8.73**	**252**	Pn	Pn	08 35 37.9	+3.9
	comp=Z,50nm,0.3s,baz=90,slow=7.0,SNR=104						
KAPI				Sn	**Sn**	**08 37 10.8**	**-1.8**
	baz=72,slow=20						
KAPI				LR	LR	08 39 27.8	
	comp=Z,254nm,18.8s,baz=66,slow=41						
KAPI				AML	AML		
KAPI	**Kappang**	**8.73**	**252**	P	**Pn**	**08 35 36.6**	**+2.6**
KAPI	**Kappang**	**8.73**	**252**		**Pn**	**08 35 37.2**	**+3.2**
KAPI	**Kappang**	**8.73**	**252**	P	Pn	08 35 37.9	+3.9
	comp=Z,362nm,1.0s						
EDFI	**Ende, Flores**	**8.99**	**225**	P	Pn	08 35 42.0	+4.4
MKS	**Makassar**	**9.06**	**252**	P	Pn	08 35 43.8	+5.3
MMSI	**Mamuju**	**9.19**	**268**	P	Pn	08 35 52.8	+13
DAV	**Davao City (W)**	**9.71**	**345**	P	Pn	08 35 45.4	-2.0
DRS	**Darwin Rock St**	**10.37**	**165**	P	**Pn**	**08 35 58.9**	**+2.5**
MTN	**Manton Dam**	**10.83**	**164**		**Pn**	**08 36 03.8**	**+1.1**
GENI	**Genyem**	**12.06**	**91**	P	**Pn**	**08 36 24.1**	**+4.5**
	comp=Z,182nm,1.0s						
PLAI	**Plampang**	**12.11**	**238**	P	**Pn**	**08 36 21.6**	**+1.4**
KNRA	**Kununurra**	**13.24**	**177**		**Pn**	**08 36 35.9**	**+0.2**
KKM	**Kota Kinabalu**	**14.52**	**305**	Pn	**Pn**	**08 36 53.2**	**-0.2**
FITZ	**Fitzroy Crossi**	**15.81**	**189**	Pn	**Pn**	**08 37 07.9**	**-2.5**
	comp=Z,3.0nm,0.3s,baz=20,slow=9.7,SNR=46						
FITZ				LR	LR	08 43 55.7	
	comp=Z,292nm,19.1s,baz=4.5,slow=40						
	comp=Z,4.3nm,0.8s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.81**	**189**	Pn	**Pn**	**08 37 09.8**	**-0.6**
FITZ	**Fitzroy Crossi**	**15.81**	**189**	P	**Pn**	**08 37 13.1**	**+2.6**
	comp=Z,5.3nm,0.7s						
WB0	**Warramunga Arr**	**18.35**	**161**		**Pn**	**08 37 39.6**	**-2.7**
WRAB	**Tennant Creek**	**18.49**	**161**	P	**P**	**08 37 41.0**	**-2.9**
WRAB	**Tennant Creek**	**18.49**	**161**	P	**P**	**08 37 41.3**	**-2.6**
WRAB				IAmb	IAmb	08 37 54.6	
	comp=Z,54nm,1.1s						
WRAB	**Tennant Creek**	**18.49**	**161**	P	**P**	**08 37 41.7**	**-2.2**
	comp=Z,64nm,0.9s						
WRA	**Warramunga Arr**	**18.50**	**161**	P	**P**	**08 37 41.4**	**-2.6**
	comp=Z,5.5nm,0.3s,baz=343,slow=12,SNR=93						
WRA				S	**Sn**	**08 41 03.9**	**-7.1**
	comp=Z,9.1nm,0.8s,baz=339,slow=21,SNR=6.8						
	comp=Z,21nm,0.5s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**18.50**	**161**		**P**	**08 37 41.1**	**-2.9**
WB2	**Warramunga Arr**	**18.50**	**161**	P	**P**	**08 37 42.1**	**-2.0**
WR8	**Warramunga Arr**	**18.56**	**161**		**P**	**08 37 42.2**	**-2.5**
WR8				IAmb	IAmb	08 37 43.9	
	comp=Z,28nm,0.4s						
WR0	**Warramunga Arr**	**18.58**	**161**	P	**P**	**08 37 42.7**	**-2.1**
PMG	**Port Moresby**	**20.19**	**111**	P	**P**	**08 38 02.3**	**-0.3**
	comp=Z,7.4nm,0.6s,baz=281,slow=9.9,SNR=5.6						
	comp=Z,7.4nm,0.6s						
PMG	**Port Moresby**	**20.19**	**111**	P	**P**	**08 38 02.4**	**-0.3**
PMG	**Port Moresby**	**20.19**	**111**	P	Pn	08 38 07.4	+2.9
	comp=Z,39nm,0.8s						
MBWA	**Marble Bar**	**20.38**	**203**	P	**P**	**08 38 03.1**	**-1.5**
BBJI	**Bungbulang**	**20.99**	**255**	P	**P**	**08 38 08.8**	**-2.5**
BBJI	**Bungbulang**	**20.99**	**255**		**P**	**08 38 11.2**	**-0.1**
BBJI	**Bungbulang**	**20.99**	**255**	P	**P**	**08 38 11.6**	**+0.3**
	comp=Z,118nm,0.8s						
QIS	**Mount Isa**	**21.28**	**149**	P	**P**	**08 38 12.9**	**-1.4**
QIS	**Mount Isa**	**21.28**	**149**	P	**P**	**08 38 13.0**	**-1.3**
	comp=Z,59nm,0.6s						
AS31	**Alice Springs**	**21.90**	**166**		**P**	**08 38 19.8**	**-1.3**
AS31				IAmb	IAmb	08 38 33.6	
	comp=Z,22nm,0.8s						
ASAR	**Alice Springs**	**21.90**	**166**	P	**P**	**08 38 19.6**	**-1.5**
	comp=Z,31nm,0.4s,baz=346,slow=10,SNR=464						
ASAR				S	S	08 42 14.6	-8.6
	comp=Z,24nm,0.8s,baz=346,slow=23,SNR=14						
ASAR				LR	LR	08 47 14.3	
	comp=Z,238nm,19.2s,baz=338,slow=38						
	comp=Z,31nm,0.4s						
ASAR	**Alice Springs**	**21.90**	**166**		**P**	**08 38 19.8**	**-1.3**
AS01	**Alice Springs**	**21.91**	**165**	P	**P**	**08 38 19.3**	**-1.8**
MTSU	**Mount Surprise**	**22.32**	**136**	P	**P**	**08 38 24.8**	**-0.8**
MTSU	**Mount Surprise**	**22.32**	**136**	P	**P**	**08 38 25.8**	**+0.2**
	comp=Z,27nm,0.6s						
GUMO	**Guam**	**22.98**	**46**	LR	LR	08 47 13.4	
	comp=Z,70nm,20.9s,baz=197,slow=36						
KRVT	**Keravat (AS076**	**23.96**	**95**	LR	LR	08 50 15.8	
	comp=Z,84nm,18.4s,baz=274,slow=42						
CTAO	**Charters Tower**	**24.99**	**136**	P	**P**	**08 38 51.5**	**-0.1**
CTAO				IAmb	IAmb	08 39 06.2	
	comp=Z,17nm,0.8s						
CTAO	**Charters Tower**	**24.99**	**136**	P	**P**	**08 38 52.6**	**+1.0**
	comp=Z,23nm,0.9s						
MEEK	**Meekatharra**	**25.79**	**200**	P	**P**	**08 38 56.1**	**-2.8**
TWG	**Pinlang**	**25.96**	**345**	P	**P**	**08 38 58.9**	**-1.5**
YULB	**Yu-li**	**26.45**	**346**	P	P	08 39 59.3	-5.6
TPUB	**Ta-pu**	**26.54**	**344**	P	P	08 38 59.8	-5.8
TPUB	**Ta-pu**	**26.54**	**344**	P	**P**	**08 39 05.5**	**-0.2**
SSLB	**Suanglung**	**26.92**	**345**		**P**	**08 39 08.6**	**-0.5**
SSLB				IAmb	IAmb	08 39 16.8	
	comp=Z,28nm,0.8s						
IPM	**Ipoh**	**27.90**	**284**	P	**P**	**08 39 20.0**	**+2.0**
	comp=Z,66nm,1.4s						
INKA	**Innaminka**	**27.98**	**156**		**P**	**08 39 18.4**	**-0.1**
FORT	**Forrest**	**28.25**	**180**	P	**P**	**08 39 19.6**	**-1.3**
FORT				IAmb	IAmb	08 39 32.7	
	comp=Z,11nm,0.6s						
KULM	**Kulim**	**28.46**	**286**		**P**	**08 39 22.8**	**-0.2**
JOW	**Kunigami**	**29.03**	**0**	LR	LR	08 50 30.0	
	comp=Z,121nm,21.0s,baz=348,slow=35						
RPSI	**Rantau Prapat**	**29.60**	**280**	P	**P**	**08 39 33.3**	**+0.2**
RPSI				IAmb	IAmb	08 39 34.5	
	comp=Z,13nm,0.7s						
RPSI	**Rantau Prapat**	**29.60**	**280**	P	**P**	**08 39 33.7**	**+0.6**
	comp=Z,22nm,0.8s						
PSI	**Prapat**	**29.61**	**280**	P	P	08 39 28.5	-4.9
GSI	**Gunungsitoli**	**30.74**	**277**	P	**P**	**08 39 41.6**	**-1.7**
	comp=Z,115nm,0.9s						
BBOO	**Buckleboo**	**31.19**	**167**	P	**P**	**08 39 45.0**	**-2.0**
BBOO	**Buckleboo**	**31.19**	**167**	IAmb	IAmb	08 40 55.5	
	comp=Z,18nm,1.1s						
EIDS	**Eidsvold**	**31.82**	**138**	P	**P**	**08 39 51.7**	**-1.0**
EIDS				IAmb	IAmb	08 39 54.5	
	comp=Z,28nm,1.6s						
STKA	**Stephens Creek**	**31.98**	**158**	P	**P**	**08 39 52.6**	**-1.4**
	comp=Z,3.1nm,0.4s,baz=335,slow=8.3,SNR=11						
STKA				LR	LR	08 53 38.0	
	comp=Z,258nm,21.2s,baz=354,slow=38						
	comp=Z,3.1nm,0.4s						
STKA	**Stephens Creek**	**31.98**	**158**	P	**P**	**08 39 52.9**	**-1.1**
STKA	**Stephens Creek**	**31.98**	**158**	P	**P**	**08 39 55.7**	**+1.7**
	comp=Z,78nm,0.9s						
NWAO	**Narrogin (SRO)**	**32.06**	**197**	LR	LR	08 53 16.4	
	comp=Z,159nm,20.2s,baz=318,slow=37						
NWAO	**Narrogin (SRO)**	**32.06**	**197**	P	**P**	**08 39 53.8**	**-0.9**
NWAO				IAmb	IAmb	08 40 12.3	
	comp=Z,28nm,1.1s						
HNR	**Honiara**	**32.42**	**104**	LR	LR	08 54 50.9	
	comp=Z,65nm,19.3s,baz=0.0,slow=40						
SLVN	**Son La**	**33.40**	**316**	P	**P**	**08 40 08.4**	**+1.7**
	comp=Z,8.7nm,1.7s						
WHN	**Wuhan**	**35.26**	**339**	⇓P	**P**	**08 40 23.6**	**+1.1**
WHN				pmax	pmax		
	comp=Z,120nm,1.2s						
NJ2	**Nanjing**	**35.34**	**346**	*e*P	**P**	**08 40 24.6**	**+1.4**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
GYA	**Guiyang**	**35.36**	**326**	⇑P	**P**	**08 40 24.8**	**+1.2**
GYA				pmax	pmax		
	comp=Z,32nm,0.5s						
CMAR	**Chiang Mai Arr**	**35.38**	**307**	P	**P**	**08 40 25.1**	**+1.4**
	comp=Z,3.7nm,0.4s,baz=136,slow=8.0,SNR=24						
CMAR				PcP	**PcP**	**08 42 55.2**	**+1.3**
	comp=Z,4.2nm,0.6s,baz=171,slow=2.3,SNR=16						
CMAR				LR	LR	08 56 17.5	
	comp=Z,25nm,21.9s,baz=110,slow=39						
	comp=Z,3.7nm,0.4s						
CMAR	**Chiang Mai Arr**	**35.38**	**307**		**P**	**08 40 23.3**	**-0.5**
CMAR					**PcP**	**08 42 55.0**	**+1.1**
JNU	**Nakatsue**	**35.40**	**4**	LR	LR	08 57 12.3	
	comp=Z,55nm,18.1s,baz=163,slow=40						
CHTO	**Chiang Mai**	**35.58**	**308**		**P**	**08 40 26.2**	**+0.7**
CHTO				IAmb	IAmb	08 40 27.3	
	comp=Z,16nm,0.7s						
CHTO	**Chiang Mai**	**35.58**	**308**	P	**P**	**08 40 26.7**	**+1.2**
	comp=Z,26nm,1.4s						
ARMA	**Armidale**	**35.70**	**144**	P	**P**	**08 40 26.0**	**-0.5**
JMN	**Monobe**	**36.32**	**8**	P	**P**	**08 40 31.7**	**+0.1**
KMI2	**Kunming**	**36.78**	**320**	P	**P**	**08 40 37.5**	**+1.6**
KMI2				pmax	pmax		
	comp=Z,17nm,1.2s						
ENH	**Enshi**	**37.01**	**333**	P	**P**	**08 40 37.0**	**-0.6**
CAN	**Canberra**	**38.10**	**152**	P	**P**	**08 40 46.9**	**+0.1**
CAN				IAmb	IAmb	08 41 05.8	
	comp=Z,11nm,0.7s						
TOO	**Toolangi**	**38.50**	**158**	P	**P**	**08 40 50.5**	**+0.4**
LYN	**LuoYang**	**39.56**	**340**	P	**P**	**08 40 58.9**	**0.0**
LYN				pmax	pmax		
	comp=Z,42nm,0.7s						
KSAR	**Wonju Array Be**	**39.61**	**360**	P	**P**	**08 40 59.5**	**+0.2**
KSRS	**Korea Array**	**39.62**	**360**	P	**P**	**08 40 59.3**	**-0.1**
	comp=Z,3.0nm,0.7s,baz=176,slow=9.8,SNR=18						
KSRS				PcP	**PcP**	**08 43 07.4**	**+0.9**
	comp=Z,1.2nm,0.6s,baz=194,slow=2.5,SNR=4.9						
KSRS				LR	LR	08 56 30.3	
	comp=Z,64nm,21.4s,baz=185,slow=35						
	comp=Z,3.0nm,0.7s						
KS19	**Wonju Array Si**	**39.67**	**360**	P	**P**	**08 41 00.0**	**+0.2**
KS19				IAmb	IAmb	08 41 01.5	
	comp=Z,77nm,2.0s						
MJAR	**Matsushiro Arr**	**39.84**	**13**	P	**P**	**08 40 59.9**	**-1.4**
	comp=Z,3.6nm,0.8s,baz=190,slow=9.0,SNR=8.5						
MJAR				LR	LR	08 57 25.7	
	comp=Z,51nm,19.4s,baz=204,slow=36						
	comp=Z,3.6nm,0.8s						
MJAR	**Matsushiro Arr**	**39.84**	**13**	P	**P**	**08 41 00.6**	**-0.7**
CD2	**Chengdu**	**40.41**	**327**	P	**P**	**08 41 06.0**	**-0.1**
CD2				pmax	pmax		
	comp=Z,30nm,0.4s						
XAN	**Xi'an**	**40.47**	**335**	P	**P**	**08 41 06.0**	**-0.6**
XAN				pmax	pmax		
	comp=Z,35nm,0.8s						
HNS	**HongShan**	**41.48**	**344**	⇑P	**P**	**08 41 14.3**	**-0.4**
HNS				pmax	pmax		
	comp=Z,16nm,1.0s						
DL2	**Dalian**	**41.51**	**352**	*e*P	P	08 41 07.1	-7.8
DL2				pmax	pmax		
	comp=Z,29nm,0.9s						
BJI2	**Beijing**	**43.58**	**347**	P	**P**	**08 41 31.5**	**-0.3**
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LZDM	**Lanzhou Array**	**44.42**	**331**	P	**P**	**08 41 39.5**	**+0.4**
	comp=Z,6.2nm,0.5s,baz=141,slow=9.6,SNR=7.2						
	comp=Z,6.2nm,0.5s						
SHL	**Shillong**	**44.73**	**311**		**P**	**08 41 40.7**	**-0.8**
HHC	**Hu-ho-hao-te**	**45.59**	**342**	*e*P	**P**	**08 41 50.8**	**+2.8**
HHC				pmax	pmax		
	comp=Z,15nm,0.8s						
HHC				pmax	pmax		
	comp=Z,69nm,4.4s						
BTO2	**Baotou**	**46.02**	**341**	*e*P	**P**	**08 41 54.8**	**+3.3**
BTO2				S	**S**	**08 48 43.0**	**+6.1**
BTO2				pmax	pmax		
	comp=Z,16nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,230nm,4.1s						
BTO2				L	L		
	comp=Z,200nm,5.0s						
BTO2				L	L		
	comp=Z,230nm,9.3s						
USA0B	**Ussuriysk Arra**	**46.49**	**4**	P	**P**	**08 41 54.7**	**-0.2**
USRK	**Ussuriysk Ar.**	**46.49**	**4**	P	**P**	**08 41 55.3**	**+0.4**
	comp=Z,17nm,0.5s,baz=181,slow=7.4,SNR=63						
USRK				LR	LR	09 01 18.7	
	comp=Z,46nm,18.5s,baz=101,slow=36						
	comp=Z,17nm,0.5s						
USRK	**Ussuriysk Ar.**	**46.49**	**4**		**P**	**08 41 55.2**	**+0.2**
MDJ	**Mudanjiang**	**46.80**	**1**	P	**P**	**08 41 57.9**	**+0.6**
MDJ				pmax	pmax		
	comp=Z,19nm,1.5s						
XLT	**XiLinHaoTe**	**47.31**	**348**	*e*P	**P**	**08 42 01.3**	**-0.2**
XLT				sP	pwP	08

TKGZ	Te Karaka	57.83	135	P		P		08 43 20.1	+0.7
RIGZ	Rimuhau	57.88	135	P		P		08 43 20.5	+0.6
WMGZ	Waiomatatini S	57.97	134	P		P		08 43 20.5	0.0
CNGZ	Carnagh Statio	58.10	135	P		P		08 43 21.1	-0.3
WMQ	Urumqi	58.51	327	*eP*		P		08 43 24.1	-0.1
WMQ	comp=Z,18nm,1.1s				pmax		pmax		
PETK	Petropavlovsk-comp=Z,3.5nm,0.8s,baz=196,slow=4.5,SNR=4.8 comp=Z,3.5nm,0.8s	60.60	20	P		P		08 43 39.0	+0.7
ZSN	Zaisan	62.36	328	*eP*		P		08 43 50.5	+0.1
SHLS	Shalkode	62.93	322	*eP*		P		08 43 52.6	-1.8
PDGK	Podgornoye	63.00	322			P		08 43 53.8	-1.1
UZB	Uzynbulak	63.19	322	*eP*		P		08 43 56.1	-0.1
	comp=Z,4.5nm,1.1s								
MKAR	Makanchi Array	63.34	327	P		P		08 43 56.3	-0.7
	comp=Z,3.2nm,0.5s,baz=124,slow=8.3,SNR=39 comp=Z,3.2nm,0.5s								
MKAR	Makanchi Array	63.34	327			P		08 43 55.8	-1.2
KSH2	Kashi	63.46	316	P		P		08 44 00.8	+2.7
KSH2				pP		sP		08 44 05.4	+4.7
KSH2				pmax		pmax			
	comp=Z,4.0nm,1.0s								
MAKZ	Makanchi	63.52	326			P		08 43 56.9	-1.3
MAKZ				IAmb		IAmb		08 44 12.5	
	comp=Z,5.8nm,0.8s								
MAKZ	Makanchi	63.52	326	P		P		08 43 57.0	-1.2
	comp=Z,8.4nm,1.1s								
SATY	Saty	63.53	321	*eP*		P		08 43 58.4	0.0
	comp=Z,5.9nm,0.8s								
KPKS	Kokpek	63.57	322	*eP*		P		08 43 58.6	-0.1
ASAI	AK-SAY(Kyrgyzs	63.66	319	P		P		08 43 59.4	-0.1
	comp=Z,4.5nm,0.9s								
YAK	Yakutsk	64.24	1	P		P		08 44 02.7	+0.2
	comp=Z,41nm,0.6s,baz=32,slow=2.0,SNR=9.8								
YAK				LR		LR		09 11 49.1	
	comp=Z,35nm,20.5s,baz=98,slow=36								
YAK	Yakutsk	64.24	1			P		08 44 02.1	-0.3
YAK	Yakutsk	64.24	1	P		P		08 44 02.7	+0.2
	comp=Z,79nm,0.8s								
MA2	Magadan	64.29	13	LR		LR		09 13 09.2	
	comp=Z,28nm,19.7s,baz=96,slow=37								
MDOK	Medeo	64.44	321	*eP*		P		08 44 04.3	-0.1
TNSS	Tian-Shan	64.44	321	*eP*		P		08 44 04.3	-0.4
AAA	Alma-Ata	64.54	321	*eP*		P		08 44 05.1	+0.1
TDK	Taldyqorghan	64.56	323	*eP*		P		08 44 05.1	+0.1
	comp=Z,5.3nm,0.5s								
ZAA0	Zalesovo Array	66.62	334	IAmb		IAmb		08 44 31.7	
	comp=Z,5.3nm,1.0s								
ZALV	Zalesovo Beam	66.62	334	P		P		08 44 16.3	-1.8
	comp=Z,0.8nm,0.3s,baz=262,slow=9.8,SNR=10 comp=Z,0.8nm,0.3s								
KURBB	Kurchatov Arra	67.60	328	P		P		08 44 23.3	-1.1
	comp=Z,3.9nm,0.6s,baz=129,slow=5.6,SNR=44								
KURBB				PP		PP		08 46 51.0	-2.5
	comp=Z,0.5nm,0.7s,baz=126,slow=8.5,SNR=4.5 comp=Z,3.9nm,0.6s								
KURK	Kurchatov	67.61	328			P		08 44 23.3	-1.2
KURK				IAmb		IAmb		08 44 41.1	
	comp=Z,8.6nm,0.8s								
DZA	Taraz	68.00	318	*eP*		P		08 44 27.3	+0.1
	comp=Z,5.0nm,0.4s								
IUG	Iuzhnay	68.56	317	*eP*		P		08 44 30.6	-0.1
	comp=Z,4.2nm,1.0s								
KK31	Karatay Array	68.64	318			P		08 44 29.9	-1.2
KKAR	Karatay Array	68.64	318			P		08 44 29.7	-1.5
CHM	Chimkent	68.92	317	*eP*		P		08 44 33.1	+0.2
BVAR	Borovoye Array	73.16	328	P		P		08 44 57.5	-0.9
	comp=Z,3.0nm,0.8s,baz=126,slow=7.5,SNR=10 comp=Z,3.0nm,0.8s								
BORK	Borovoye	73.21	328			P		08 44 57.8	-0.9
BORK				IAmb		IAmb		08 45 13.5	
	comp=Z,16nm,1.3s								
TIXI	Tiksi	73.89	0	LR		LR		09 18 16.9	
	comp=Z,51nm,19.6s,baz=144,slow=36								
TIXI	Tiksi	73.89	0			P		08 45 01.1	-1.2
TIXI				IAmb		IAmb		08 45 02.4	
	comp=Z,8.2nm,0.5s								
NRIK	Noril'sk	76.64	346	P		P		08 45 16.7	-1.4
	comp=Z,2.5nm,0.6s,baz=122,slow=8.4,SNR=4.1 comp=Z,2.5nm,0.6s								
NRIK	Noril'sk	76.64	346	IAmb		IAmb		08 45 43.3	
	comp=Z,6.7nm,1.0s								
VNDA	Vanda	77.24	173	P		P		08 45 19.2	-2.2
	comp=Z,2.7nm,0.9s,baz=309,slow=5.4,SNR=11								
VNDA				LR		LR		09 17 13.6	
	comp=Z,57nm,21.8s,baz=4.5,slow=34 comp=Z,2.7nm,0.9s								
VNDA	Vanda	77.24	173			P		08 45 21.0	-0.5
AB31	Akbulak array	77.73	322	IAmb		IAmb		08 45 38.8	
	comp=Z,9.3nm,1.4s								
ABKAR	Akbulak array	77.73	322	P		P		08 45 22.7	-2.0
MAW	Mawson	78.56	201	P		P		08 45 28.8	-0.1
	comp=Z,1.9nm,0.7s,baz=92,slow=6.1,SNR=2.9								
MAW				LR		LR		09 18 59.0	
	comp=Z,24nm,18.1s,baz=58,slow=35 comp=Z,1.9nm,0.7s								
AKTO	Aktyubinsk	79.28	322	P		P		08 45 31.9	-1.3
	comp=Z,2.6nm,0.6s,baz=118,slow=4.3,SNR=6.1 comp=Z,2.6nm,0.6s								
ARTI	Arti	80.88	328	P		P		08 45 43.2	+1.5
	comp=Z,1.6nm,0.5s,baz=26,slow=2.7,SNR=3.1 comp=Z,1.6nm,0.5s								
ARTI	Arti	80.88	328	IAmb		IAmb		08 45 55.5	
	comp=Z,15nm,1.4s								
RAYN	Ar Rayn	84.15	294			P		08 45 58.7	-0.9
RAYN				IAmb		IAmb		08 46 01.8	
	comp=Z,2.5nm,0.6s								
QSPA	South Pole Qui	87.57	180	P		P		08 46 14.8	-0.9
	comp=Z,3.5nm,0.9s,baz=334,slow=2.4,SNR=11								
QSPA				LR		LR		09 26 55.7	
	comp=Z,75nm,18.8s,baz=13,slow=37 comp=Z,3.5nm,0.9s								
QSPA	South Pole Qui	87.57	180			P		08 46 13.8	-2.0
QSPA				IAmb		IAmb		08 46 27.8	
	comp=Z,6.3nm,0.9s								
E23K	Chandalar	89.29	22	P		P		08 46 23.6	-0.2
E23K				IAmb		IAmb		08 46 31.1	
	comp=Z,4.8nm,0.9s								
ILAR	Eielson Array	90.00	25	P		P		08 46 25.2	-1.9
	comp=Z,1.1nm,0.9s,baz=243,slow=5.5,SNR=10 comp=Z,1.1nm,0.9s								
TROLL	Troll, Antarti	98.14	195	⇑P		Pdif		08 47 07.0	+2.5
	comp=Z,63nm,0.9s								
LSZ	Lusaka	98.93	254	LR		LR		09 29 57.4	
	comp=Z,17nm,21.9s,baz=63,slow=34								
ESDC	Sonseca Array	122.87	317	PKP		PKPdf		08 52 23.9	-0.6
	comp=Z,1.4nm,1.0s,baz=350,slow=7.8,SNR=4.3								
TXAR	Lajitas Array	124.05	56	PKP		PKPdf		08 52 27.1	0.0
	comp=Z,0.4nm,0.8s,baz=132,slow=1.9,SNR=5.2								
TORD	Torodi Ar. Bea	125.94	284	PKP		PKPdf		08 52 30.8	-0.2
	comp=Z,1.7nm,0.8s,baz=87,slow=1.6,SNR=7.0								
PLCA	Paso Flores	133.84	160	PKP		PKPdf		08 52 45.6	+0.2
	comp=Z,1.3nm,0.7s,baz=324,slow=4.7,SNR=4.0								
CPUP	Villa Florida	150.99	170	PKPbc		PKPbc		08 53 21.8	+0.3
	comp=Z,5.1nm,0.8s,baz=191,slow=3.0,SNR=15								
LPAZ	La Paz	155.49	140	PKPab		PKPab		08 53 47.7	-1.1
	comp=Z,1.7nm,0.3s,baz=178,slow=5.7,SNR=34								
LPAZ	La Paz	155.49	140	PKPab		PKPab		08 53 43.3	-5.5

*UPP **24** 09:34:19.6±0.1,58.99N×18.24E,h0km,ML2.6,Suspected explosion*
*DNK **24** 09:34:20.0±1.5,58.99N×18.31E,h0km,ML2.9, ML2.6(UPP), Explosion*
*BER **24** 09:34:21.6±0.6,59.22N×18.44E,h0km,ML1.8,Suspected explosion*
*IDC **24** 09:34:22.6±2.6,59.13N×18.08E,h0km,mbtmp3.0/3, ML2.1/3,Error ellipse: s-maj=32.9km s-min=9.4km az=178.0*

ISC 24 09:34:19.7±0.8,59.00N±0.03×18.23E±0.03,h0km,n44, σ0s91/57,Sweden

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
NYNU	Nynaeshamn	0.12	270	P		Pg	09 34 22.2	+0.3
NYNU	Nynaeshamn	0.12	270	P		Pg	09 34 22.2	+0.3
BOGU	Bogesund	0.40	355	P		Pg	09 34 27.9	+0.5
BOGU				S		Sg	09 34 33.1	+0.5
BOGU	Bogesund	0.40	355	P		Pg	09 34 27.9	+0.5
BOGU				S		Sg	09 34 33.1	+0.5
NRTU	Norrtaelje	0.71	17	P		Pg	09 34 32.8	-0.4
NRTU				S		Sg	09 34 42.2	-0.2
NRTU	Norrtaelje	0.71	17	P		Pg	09 34 32.8	-0.4
NRTU				S		Sg	09 34 42.2	-0.2
UPP	Uppsala	0.91	340	P		Pg	09 34 37.2	+0.1
UPP	Uppsala	0.91	340	P		Pg	09 34 37.2	+0.1
VIKU	Vikbolandet	0.94	238	P		Pg	09 34 37.6	-0.1
VIKU	Vikbolandet	0.94	238	P		Pg	09 34 37.6	-0.1
ESKU	Eskilstuna	0.97	284	P		Pg	09 34 37.7	-0.6
ESKU	Eskilstuna	0.97	284	P		Pg	09 34 37.7	-0.6
FIBU	Brunna	1.01	334	P		Pg	09 34 38.7	-0.2
FIBU	Brunna	1.01	334	P		Pg	09 34 38.7	-0.2
BACU	Backbrunna	1.03	327	P		Pg	09 34 39.0	-0.3
BACU	Backbrunna	1.03	327	P		Pg	09 34 39.0	-0.3
FLYU	Flymyra	1.14	351	P		Pg	09 34 41.3	-0.2
FLYU	Flymyra	1.14	351	P		Pg	09 34 41.3	-0.2
GOTU	Gotland	1.33	172	P		Pg	09 34 44.3	-0.9
GOTU	Gotland	1.33	172	P		Pg	09 34 44.3	-0.9
GRAU	Graesoe	1.34	7	P		Pb	09 34 45.1	-0.6
GRAU	Graesoe	1.34	7	P		Pb	09 34 45.1	-0.6
FORU	Forsmark	1.39	359	P		Pn	09 34 45.7	-0.5
FORU	Forsmark	1.39	359	P		Pn	09 34 45.7	-0.5
VSTU	Vaestervik	1.62	214	S		Sn	09 35 10.7	-0.2
VSTU	Vaestervik	1.62	214	S		Sn	09 35 10.7	-0.2
LNKU	Linkoeping	1.63	242	P		Pn	09 34 49.6	+0.1
LNKU	Linkoeping	1.63	242	P		Pn	09 34 49.6	+0.1
ASKU	Askersund	1.77	268	P		Pn	09 34 51.9	+0.5
	baz=96							
ASKU	Askersund	1.77	268	P		Pn	09 34 51.9	+0.5
	baz=96							
HFS	Hagfors	2.57	298	Pg		Pn	09 35 03.7	+1.2
	0.8nm,0.3s,baz=112,slow=19,SNR=11							
HFS				Lg		Lg	09 35 37.5	
	3.0nm,0.3s,baz=114,slow=28,SNR=21							
BLEU	Blekinge	3.00	207	*i* P		Pn	09 35 09.3	+0.9
BLEU				*i* S		Sn	09 35 44.8	-0.2
DEL	Delary	3.45	224	*i* P		Pn	09 35 15.6	+1.0
DEL				*i* S		Sn	09 35 56.3	+0.2
FABU	Falkenberg	3.55	238	*i* P		Pn	09 35 17.0	+1.1
FABU				*i* S		Sn	09 36 00.6	+1.9
STRU	Stroemstad	3.64	273	*eP*		Pn	09 35 18.5	+1.3
STRU				*eS*		Sn	09 36 01.3	+0.5
STRU	Stroemstad	3.64	273	*i* P		Pn	09 35 18.7	+1.5
STRU				*i* S		Sn	09 36 01.2	+0.3
NC602	NORSAR Array S	3.79	300	*eP*		Pn	09 35 19.6	+0.4
NC602				IAML			09 36 19.9	
	comp=Z,4.3nm,0.6s							
NOA	NORSAR Array B	4.07	303	Pn		Pn	09 35 23.7	+0.6
	baz=129,slow=10,SNR=8.0							
NOA				Pg		Pb	09 35 31.6	-0.5
	baz=105,slow=16,SNR=7.8							
NOA				Lg		Lg	09 36 24.3	
	comp=Z,0.1nm,0.3s,baz=150,slow=19,SNR=6.5 comp=Z,0.5nm,0.8s							
NAO01	NORSAR Array S	4.13	300	*eP*		Pn	09 35 23.8	-0.1
NAO01				IAML			09 36 30.0	
	comp=Z,4.9nm,0.4s							
NBO00	NORSAR Array S	4.26	302	*eP*		Pn	09 35 25.8	+0.1
NBO00				IAML			09 36 33.0	
	comp=Z,4.6nm,0.3s							
BSD	Bornholm Skovb	4.30	206	*i* P		Pn	09 35 25.8	-0.4
BSD				*i* S		Sn	09 36 16.2	-0.8
BSD				IAML			09 36 36.0	
	comp=Z,10nm,0.3s							
FINES	FINESS Array B	4.62	55	Pn		Pn	09 35 32.3	+1.8
	comp=Z,0.3nm,0.3s,baz=247,slow=12,SNR=23							
FINES				Pg		Pb	09 35 42.9	+1.5
	comp=Z,0.4nm,0.3s,baz=246,slow=15,SNR=7.2							
FINES				Sn		Sn	09 36 26.1	+1.3
	comp=Z,0.7nm,0.3s,baz=245,slow=22,SNR=8.7							
FINES				Lg		Lg	09 36 42.5	
	comp=Z,1.4nm,0.3s,baz=242,slow=28,SNR=11 comp=Z,1.2nm,0.2s							
FINES				AML		AML		
SKAR	Skarslia	5.28	293	*eS*		Sn	09 36 37.5	-3.8
SKAR				IAML			09 37 11.9	
	comp=Z,3.2nm,0.5s							
ARCES	ARCESS Array B	11.02	13	Pn		Pn	09 36 56.4	-2.0
	comp=Z,0.1nm,0.3s,baz=189,slow=14,SNR=8.5 comp=Z,0.3nm,0.3s							
ARCES				AML		AML		

IDC 24 09:45:08.8±2.8,50.43N×73.46E,h0km,mbtmp3.0/1, ML2.2/1,Error ellipse: s-maj=34.2km s-min=11.0km az=34.0,Central Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
BVAR	Borovoye Array	3.23	325	Pg		Pb	09 46 08.5	+1.5
	0.1nm,0.3s,baz=138,slow=15,SNR=8.1							
BVAR				Lg		Lg	09 46 52.1	
	0.2nm,0.3s,baz=138,slow=27,SNR=8.3							
KURBB	Kurchatov Arra	3.24	85	Pg		Pb	09 46 08.6	+1.4
	0.3nm,0.3s,baz=269,slow=16,SNR=13							
KURBB				Lg		Lg	09 46 53.3	
	0.3nm,0.3s,baz=269,slow=29,SNR=9.7							
MKAR	Makanchi Array	6.89	118	Pg		Pb	09 47 12.4	+3.0
	0.5nm,0.3s,baz=308,slow=17,SNR=4.8							
MKAR				Lg		Lg	09 48 41.7	
	baz=309,slow=29							
ZALV	Zalesovo Beam	7.82	59	Pn		Pn	09 47 05.5	+1.8
	0.2nm,0.3s,baz=253,slow=15,SNR=1.8 0.3nm,0.3s							
ZALV				AML		AML		
I46RU	ZALESOVO INFRA	7.82	59	I		I	10 34 50.0	
	baz=245,slow=326,SNR=2.2							

HEL 24 09:59:47.9±0.3,61.44N×23.57E,h0km,ML0.9, Explosion,Finland

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KPF	Kankaanpaa	0.82	300	PG		Pg	10 00 02.4	-1.2
	baz=123							
KPF				MSG			10 00 13.3	
	comp=Z,1.0nm,0.2s							
KPF				SB		Sg	10 00 13.8	-0.3
KEF	Keuruu	0.96	40	PG		Pg	10 00 05.6	-0.7
KEF				MSG			10 00 17.2	
	comp=Z,1.2nm,0.2s							
RAF	Rauma	0.97	245	PB		Pg	10 00 06.6	+0.2
RAF				MSG			10 00 17.5	
	comp=Z,1.1nm,0.2s							
FIA0	FINESS Array S	1.21	89	PN		Pg	10 00 11.0	0.0
FIA0				MSG			10 00 24.5	
	comp=Z,0.6nm,0.2s							
FIA0				SN		Sn	10 00 28.9	-0.1
KAF	Kangasniemi	1.47	61	PN		Pn	10 00 15.2	-0.4
KAF				MSG			10 00 32.0	
	comp=Z,1.3nm,0.2s							
VAF	Ylistaro	1.67	346	PG		Pn	10 00 18.0	-0.3
VAF				MSG			10 00 37.9	
	comp=Z,0.8nm,0.2s							
VAF				SG		Sn	10 00 39.1	-1.2
SUF	Sumiainen	1.77	42	PG		Pb	10 00 20.5	-0.7
	baz=221							
SUF				MSG			10 00 40.8	
	comp=Z,0.5nm,0.2s							
SUF				SN		Sb	10 00 43.7	-0.2
HEMU	Hemsoen	2.88	298	PB		Pn	10 00 36.9	+1.9
HEMU				SG		Sb	10 01 15.4	-0.6

*IDC **24** 10:03:22.3±2.2,37.11N×142.02E,h0km,mb3.2/3, mbtmp3.1/4,ML2.0/1,MS3.1/2,Error ellipse: s-maj=41.3km s-min=24.9km az=19.0*
*JMA **24** 10:03:28.8±0.1,37.2N±0.2×141.5E±0.2,h22km,MV3.4/39, E OFF FUKUSHIMA PREF*

ISC 24 10:03:25.0±2.5,37.21N±0.07×141.73E±0.10,h12km±12km, n18,σ1s47/16,mb3.2/3,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JFK	Kawauchi	0.70	283	*i* P		Pg	10 03 39.4	+0.8
JFK				S		Sg	10 03 46.7	-1.0
ONAJ	Iwakimizuishiy	0.75	262	*i* P		Pb	10 03 40.2	+0.2
ONAJ				S		Sb	10 03 48.5	-1.8
JFFD	Fukushimafurud	0.94	263	*i* P		Pb	10 03 43.2	-0.1
JMM	Marumori	0.99	312	*i* P		Pb	10 03 44.3	+0.2
JMM				S		Sb	10 03 55.3	-1.9
JHO	Hitachi	1.10	238	P		Pb	10 03 45.9	-0.1
JHO				S		Sb	10 03 58.6	-1.8
JOTO	OTAMA OYAMA	1.17	288	*i* P		Pn	10 03 47.3	+0.1
JOTO				*eS*		Sb	10 04 00.8	-1.4
MJAR	Matsushiro Arr	2.90	258	Pn		Pn	10 04 12.5	+1.5
	0.2nm,0.3s,baz=75,slow=17,SNR=12							
MJAR				Sn		Sn	10 04 48.2	+2.4
	0.3nm,0.3s,baz=81,slow=16,SNR=5.1 1.0nm,0.3s							
MJAR				AML		AML		
USRK	Ussuriysk Ar.	10.17	316	LR		LR	10 09 45.1	
	comp=Z,56nm,20.4s,baz=341,slow=37							
H11N2	WAKE ISLAND Hy	28.02	121	T		T	10 38 45.9	
	baz=314,slow=75,SNR=36							
H11N1	WAKE ISLAND Hy	28.03	122	T		T	10 38 45.8	
	baz=314,slow=75,SNR=31							
H11N3	WAKE ISLAND Hy	28.04	121	T		T	10 38 46.6	
	baz=314,slow=75,SNR=34							
H11S1	WAKE ISLAND Hy	28.74	124	T		T	10 39 38.6	
	baz=316,slow=76,SNR=26							
H11S3	WAKE ISLAND Hy	28.74	124	T		T	10 39 41.0	
	baz=316,slow=76,SNR=29							
H11S2	WAKE ISLAND Hy	28.76	124	T		T	10 39 42.1	
	baz=316,slow=76,SNR=24							
TLY	Talaya	30.41	311	LR		LR	10 23 35.6	
	comp=Z,69nm,18.3s,baz=38,slow=40							
MKAR	Makanchi Array	44.24	302	P		P	10 11 35.1	+1.0
	0.5nm,0.7s,baz=81,slow=8.9,SNR=3.9 0.5nm,0.7s							
WRA	Warramunga Arr	57.27	188	P		P	10 13 11.1	-1.4
	0.2nm,0.7s,baz=7.7,slow=7.5,SNR=2.7 0.2nm,0.7s							
ASAR	Alice Springs	60.99	188	P		P	10 13 37.2	-1.1
	0.1nm,0.7s,baz=4.2,slow=8.3,SNR=1.2 0.1nm,0.7s							

IDC 24 10:09:19.2±341.0,63.76N×24.55E,h0km,Error ellipse: s-maj=146.3km s-min=107.9km az=162.0,Finland

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
I37NO	I37NO	5.84	339	I		I	10 47 00.0	
	baz=154,slow=331,SNR=1.1							
I43RU	DUBNA INFRASON	9.45	133	I		I	11 06 40.0	
	baz=325,slow=321,SNR=0.9							
I31KZ	AKTYUBINSK INF	22.24	111	I		I	12 25 30.0	
	baz=321,slow=332,SNR=0.9							
I46RU	ZALESOVO INFRA	31.48	79	I		I	13 22 00.0	
	baz=314,slow=321,SNR=5.4							

*IDC **24** 10:22:05.8±1.4,55.12N×164.91E,h0km,mb3.7/3, mbtmp3.7/4,ML3.0/1,Error ellipse: s-maj=58.7km s-min=15.8km az=156.0*
*KRSC **24** 10:22:06.8±1.6,54.98N×164.82E,h53km±21km,Ml4.4*
*MOS **24** 10:22:08.4±0.7,55.00N×164.95E,h35km,mb4.0/1,Error ellipse: s-maj=8.2km s-min=6.6km az=147.3*

ISC 24 10:22:09.0±1.4,54.97N±0.04×164.92E±0.07,h28km±14km, n79,σ1s31/105,mb3.7/3,Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
BKI	Bering	0.65	69	PN		Pb	10 22 21.3	-0.3
BKI				S		Sb	10 22 30.7	+0.4
BKI	Bering	0.65	69	*eP*		Pb	10 22 21.3	-0.3
BKI				*eS*		Sb	10 22 30.8	+0.4
KBTR	Krutoberegovo	1.72	317	PN		Pn	10 22 34.3	-2.6
KBTR	Krutoberegovo	1.72	317	*eP*		Pn	10 22 34.4	-2.6
KBG	Krutoberegovo	1.80	316	PN		Pn	10 22 35.7	-2.3
KBG				S		Sn	10 22 56.6	-3.2
KBG	Krutoberegovo	1.80	316	*eP*		Pn	10 22 35.7	-2.3
KBG				*eS*		Sn	10 22 56.6	-3.2
MKZ	Mys Kozlova	1.90	259	PN		Pn	10 22 38.4	-0.9
MKZ				S		Sn	10 22 59.9	-2.3
MKZ	Mys Kozlova	1.90	259	*eP*		Pn	10 22 38.5	-0.9
MKZ				*eS*		Sn	10 22 60.0	-2.3
SMKR	Semkarok	2.53	311	PN		Pn	10 22 47.6	-0.5
SMKR				S		Sn	10 23 17.9	-0.1
SMKR	Semkarok	2.53	311	*eP*		Pn	10 22 47.7	-0.5
SMKR				*eS*		Sn	10 23 17.9	-0.1
TUMD	Tumrok D	2.61	277	PN		Pn	10 22 49.1	-0.1
TUMD				S		Sn	10 23 19.6	-0.3
TUMD	Tumrok D	2.61	277	*eP*		Pn	10 22 49.1	-0.1
TUMD				*eS*		Sn	10 23 19.7	-0.3
BDR	Baidarnaya	2.64	309	PN		Pn	10 22 49.8	+0.2
BDR	Baidarnaya	2.64	309	*eP*		Pn	10 22 49.8	+0.2
KZV	Kizimen	2.67	275	PN		Pn	10 22 49.9	-0.2
KZV				S		Sn	10 23 21.0	-0.5
KZV	Kizimen	2.67	275	*eP*		Pn	10 22 49.9	-0.2
KZV				*eS*		Sn	10 23 21.1	-0.5
SRKR	Sorokina	2.71	310	PN		Pn	10 22 50.5	-0.1
SRKR				S		Sn	10 23 23.7	+1.3
SRKR	Sorokina	2.71	310	*eP*		Pn	10 22 50.5	-0.1
SRKR				*eS*		Sn	10 23 23.7	+1.3
TUMR	Tumrok	2.76	278	PN		Pn	10 22 51.9	+0.6
TUMR	Tumrok	2.76	278	*eP*		Pn	10 22 51.9	+0.6
KLY	Klyuchi	2.77	301	PN		Pn	10 22 50.1	-1.2
KLY				S		Sn	10 23 22.7	-1.0
KLY	Klyuchi	2.77	301	*eP*		Pn	10 22 50.2	-1.2
KLY				*eS*		Sn	10 23 22.7	-1.0
KMNR	Kamenistaya	2.79	288	PN		Pn	10 22 52.7	+1.0
KMNR	Kamenistaya	2.79	288	*eP*		Pn	10 22 52.7	+1.0
KPT	Kopyto	2.85	292	PN		Pn	10 22 53.8	+1.2
KPT	Kopyto	2.85	292	*eP*		Pn	10 22 53.8	+1.2
KOZ	Kozyrevsk	3.07	293	PN		Pn	10 22 56.4	+0.9
KOZ	Kozyrevsk	3.07	293	*eP*		Pn	10 22 56.5	+0.9
KII	Karymskiy	3.33	256	PN		Pn	10 22 59.7	+0.6
KII				S		Sn	10 23 36.6	-1.1
KII	Karymskiy	3.33	256	*eP*		Pn	10 22 59.7	+0.6
KII				*eS*		Sn	10 23 36.7	-1.1
SPN	Mys Shipunski	3.45	239	PN		Pn	10 23 00.7

KDTR	**Khodutka, Kamc**	**5.18**	**235**	PN	**Pn**	**10 23 24.1**	**-0.3**
KDTR	**Khodutka, Kamc**	**5.18**	**235**	*e*P	**Pn**	**10 23 24.2**	**-0.3**
KDTR				*e*S	**Sn**	**10 24 18.5**	**-4.7**
ILAR	**Eielson Array**	**25.45**	**48**	P	**P**	**10 27 34.0**	**+0.1**
	1.3nm,0.7s,baz=261,slow=8.6,SNR=16						
	1.3nm,0.7s						
H11N2	**WAKE ISLAND Hy**	**35.22**	**177**	T	T	11 06 49.2	
	baz=359,slow=76,SNR=58						
H11N3	**WAKE ISLAND Hy**	**35.23**	**177**	T	T	11 06 49.7	
	baz=359,slow=76,SNR=44						
H11N1	**WAKE ISLAND Hy**	**35.23**	**177**	T	T	11 06 49.4	
	baz=359,slow=76,SNR=48						
H11S1	**WAKE ISLAND Hy**	**36.43**	**177**	T	T	11 08 17.4	
	baz=354						
H11S3	**WAKE ISLAND Hy**	**36.44**	**177**	T	T	11 08 19.0	
	baz=354						
H11S2	**WAKE ISLAND Hy**	**36.44**	**177**	T	T	11 08 18.8	
	baz=354						
KURK	**Kurchatov**	**49.13**	**303**	P	**P**	**10 30 54.8**	**+1.2**
KURBB	**Kurchatov Arra**	**49.23**	**303**	P	**P**	**10 30 54.8**	**+0.4**
	1.4nm,0.6s,baz=56,slow=7.9,SNR=6.9						
	1.4nm,0.6s						
TXAR	**Lajitas Array**	**67.30**	**71**	P	**P**	**10 33 02.3**	**+1.2**
	0.3nm,0.7s,baz=302,slow=5.6,SNR=5.4						
	0.3nm,0.7s						

*UPP **24** 10:42:03.8±0.0, 67.64N×21.02E, h0km, ML2.6, Suspected explosion*
*HEL **24** 10:42:04.3±0.4, 67.62N×21.03E, h0km, ML1.1, Suspected explosion*

ISC 24 10:42:01.8±0.8, 67.63N±0.02×21.04E±0.02, h0km, n25, σ0.91 s/38, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MASU	**Masugnsbyn**	**0.41**	**115**	P	**Pb**	**10 42 11.8**	**-0.1**
MASU				S	**Sb**	**10 42 17.9**	**-0.8**
KUA	**Kurravaara**	**0.42**	**321**	P	**Pb**	**10 42 11.8**	**-0.3**
KUA				S	**Sb**	**10 42 17.6**	**-1.3**
DUNU	**Dundret**	**0.55**	**200**	P	**Pb**	**10 42 14.2**	**0.0**
DUNU				S	**Sb**	**10 42 21.7**	**-0.9**
LANU	**Lannavaara**	**0.55**	**41**	P	**Pb**	**10 42 14.2**	**-0.1**
LANU				S	**Sb**	**10 42 22.0**	**-0.8**
LANU	**Lannavaara**	**0.55**	**41**	PG	**Pb**	**10 42 14.2**	**-0.1**
LANU				SG	**Sb**	**10 42 21.9**	**-0.9**
RATU	**Laukkuluspa**	**0.58**	**290**	P	**Pb**	**10 42 14.7**	**-0.2**
RATU				S	**Sb**	**10 42 23.1**	**-0.6**
KOVU	**Salmi**	**0.68**	**331**	P	**Pb**	**10 42 16.7**	**+0.2**
NIKU	**Nikkaluokta**	**0.80**	**288**	P	**Pb**	**10 42 18.5**	**0.0**
SALU	**Saltoluokta**	**1.01**	**256**	P	**Pb**	**10 42 22.2**	**+0.1**
SALU	**Saltoluokta**	**1.01**	**256**	*e*P	**Pg**	**10 42 21.3**	**+0.2**
ERTU	**Ertsjaerv**	**1.18**	**157**	P	**Pn**	**10 42 25.6**	**+0.2**
ERTU	**Ertsjaerv**	**1.18**	**157**	PG	**Pn**	**10 42 25.4**	**-0.1**
ERTU				SB	**Sb**	**10 42 41.5**	**+0.8**
KLF	**Kolari**	**1.20**	**108**	PB	**Pn**	**10 42 26.2**	**+0.4**
KLF				MSG		10 42 40.6	
	comp=Z,0.7nm,0.2s						
KLF				SN	**Sn**	**10 42 43.6**	**+0.9**
HEF	**Hetta**	**1.26**	**51**	*e*P	**Pn**	**10 42 26.7**	**+0.1**
HEF	**Hetta**	**1.26**	**51**	PG	**Pn**	**10 42 26.8**	**+0.1**
HEF				MSG		10 42 42.4	
	comp=Z,1.8nm,0.2s						
HEF				SG	**Sn**	**10 42 43.6**	**-0.6**
HARU	**Harads**	**1.48**	**181**	P	**Pg**	**10 42 30.9**	**+0.8**
KTK1	**Kautokeino**	**1.61**	**30**	PN	**Pg**	**10 42 33.9**	**+1.4**
KTK1				SN	**Sg**	**10 42 54.7**	**+1.4**
TOF	**Tornio**	**2.03**	**139**	PG	**Pg**	**10 42 40.3**	**-0.3**
TOF				MSG		10 43 04.4	
	comp=Z,1.5nm,0.2s						
TOF				SG	**Sg**	**10 43 07.2**	**+0.3**
TRO	**Tromso**	**2.15**	**340**	SG	**Sg**	**10 43 11.8**	**+0.9**
RNF	**Rovaniemi**	**2.20**	**116**	PG	**Pb**	**10 42 43.0**	**+0.6**
RNF				SG	**Sg**	**10 43 11.7**	**-0.6**
ARA0	**ARCESS Array S**	**2.52**	**39**	PG	**Pg**	**10 42 48.9**	**-1.1**
ARA0				SB	**Sb**	**10 43 19.8**	**+0.5**
RANF	**Ranua**	**2.80**	**123**	SG	**Sg**	**10 43 29.9**	**-1.6**
RAJF	**Raja-Jooseppi**	**2.86**	**69**	SG	**Sb**	**10 43 30.6**	**+1.5**
KEV	**Kevo**	**3.05**	**43**	SB	**Sb**	**10 43 31.6**	**-2.9**
BURU	**Burvik**	**3.07**	**177**	SB	**Sb**	**10 43 33.9**	**-1.2**

IDC 24 10:51:44.9±7.0, 6.47S×129.07E, h35km±67km, mb3.3/1, mbtmp3.4/4, ML3.2/3, MS2.8/1, Error ellipse: s-maj=45.9km s-min=30.9km az=83.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**12.03**	**196**	Pn	Pn	10 54 28.9	-4.9
	0.1nm,0.3s,baz=15,slow=12,SNR=1.8						
FITZ				Sn	Sn	10 56 33.2	-14
	0.2nm,0.3s,baz=35,slow=10,SNR=1.4						
	0.9nm,0.6s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.33**	**160**	Pn	Pn	10 54 58.4	-7.0
	0.1nm,0.3s,baz=336,slow=12,SNR=7.9						
WRA				Sn	Sn	10 57 25.7	-18
	0.2nm,0.3s,baz=337,slow=22,SNR=1.6						
	0.2nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.71**	**165**	Pn	Pn	10 55 44.5	-4.5
	0.1nm,0.3s,baz=346,slow=11,SNR=16						
ASAR				Sn	Sn	10 58 48.1	-17
	baz=350,slow=24,SNR=2.0						
	0.8nm,0.7s						
ASAR				AML	AML		
RPZ	**Rata Peaks**	**52.21**	**142**	LR	LR	11 24 21.6	
	comp=Z,9.5nm,18.3s,baz=133,slow=38						
MKAR	**Makanchi Array**	**67.28**	**327**	P	P	11 02 35.9	-0.1
	0.2nm,0.4s,baz=130,slow=7.1,SNR=2.0						
	0.2nm,0.4s						

IDC 24 11:26:47.4±370.0, 63.92N×25.10E, h0km, Error ellipse: s-maj=148.1km s-min=106.3km az=161.0, Finland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I37NO	**I37NO**	**5.79**	**336**	I	I	12 03 30.0	
	baz=151,slow=327,SNR=1.6						
I43RU	**DUBNA INFRASON**	**9.38**	**135**	I	I	12 23 50.0	
	baz=326,slow=320,SNR=1.5						
I31KZ	**AKTYUBINSK INF**	**22.07**	**112**	I	I	13 42 20.0	
	baz=322,slow=336,SNR=0.6						

*HEL **24** 11:33:31.4±0.5, 67.15N×20.54E, h0km, ML1.6, Suspected explosion*

UPP 24 11:33:31.6±0.0, 67.19N×20.66E, h0km, ML2.3, Confirmed Induced event, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.08**	**207**	P	Pg	11 33 33.4	+0.3
DUNU				S	Sg	11 33 34.5	+0.4
MASU	**Masugnsbyn**	**0.58**	**62**	P	Pg	11 33 42.8	0.0
MASU				S	Sg	11 33 50.8	+0.5
RATU	**Laukkuluspa**	**0.76**	**328**	P	Pg	11 33 45.8	-0.3
RATU				S	Sg	11 33 56.0	+0.1
KUA	**Kurravaara**	**0.78**	**351**	P	Pg	11 33 46.1	-0.3
KUA				S	Sg	11 33 57.0	+0.5
SALU	**Saltoluokta**	**0.86**	**284**	P	Pg	11 33 47.8	-0.2
SALU	**Saltoluokta**	**0.86**	**284**	*e*P	Pg	11 33 47.8	-0.2
ERTU	**Ertsjaerv**	**0.88**	**136**	P	Pg	11 33 47.7	-0.7
ERTU				S	Sg	11 34 00.4	+0.6
ERTU	**Ertsjaerv**	**0.88**	**136**	PB	Pg	11 33 47.6	-0.9
ERTU				SB	Sg	11 34 00.4	+0.6
NIKU	**Nikkaluokta**	**0.92**	**318**	P	Pg	11 33 48.8	-0.4
LANU	**Lannavaara**	**1.00**	**30**	P	Pg	11 33 50.1	-0.7
LANU	**Lannavaara**	**1.00**	**30**	PG	Pg	11 33 50.2	-0.5
LANU				SG	Sb	11 34 04.9	-0.6
HARU	**Harads**	**1.04**	**173**	P	Pg	11 33 50.6	-0.8
KOVU	**Salmi**	**1.05**	**350**	P	Pg	11 33 51.1	-0.6
KLF	**Kolari**	**1.29**	**87**	PG	Pg	11 33 55.2	-1.1
KLF				MSG		11 34 11.8	
	comp=Z,3.0nm,0.2s						
KLF				SG	Sg	11 34 12.5	-0.4
HEF	**Hetta**	**1.67**	**42**	*e*P	Pn	11 34 01.8	-0.3
HEF	**Hetta**	**1.67**	**42**	PG	Pn	11 34 01.6	-0.5
HEF				MSG		11 34 23.2	
	comp=Z,4.6nm,0.2s						
HEF				SG	Sn	11 34 23.8	-0.4
SJUU	**Sjulsmark**	**1.73**	**167**	P	Pn	11 34 02.7	-0.1
TOF	**Tornio**	**1.84**	**126**	PG	Pn	11 34 04.6	+0.3
TOF				MSG		11 34 26.6	
	comp=Z,3.5nm,0.2s						
TOF				SN	Sb	11 34 29.8	+0.3
KTK1	**Kautokeino**	**2.07**	**27**	PB	Pb	11 34 09.1	-0.9
KTK1				SN	Sb	11 34 36.7	+0.5
RNF	**Rovaniemi**	**2.19**	**103**	PB	Pn	11 34 10.2	+1.0
RNF				SG	Sb	11 34 39.6	-0.1
TRO	**Tromso**	**2.54**	**346**	SG	Sg	11 34 51.6	-1.3
RANF	**Ranua**	**2.72**	**113**	PB	Pb	11 34 19.2	-1.7
RANF				SG	Sb	11 34 54.5	-0.3
ARA0	**ARCESS Array S**	**2.96**	**35**	PN	Pn	11 34 20.6	+0.9
ARA0				SN	Sn	11 34 58.6	+2.6
OBF4	**Vikkela, Lumij**	**3.00**	**141**	SG	Sb	11 35 01.8	-1.1
OUL	**Oulu**	**3.00**	**132**	SG	Sb	11 35 03.4	+0.5
RAJF	**Raja-Jooseppi**	**3.17**	**63**	PB	Pb	11 34 28.4	-0.4
RAJF				SG	Sg	11 35 10.9	-2.6
OUF	**Merijarvi**	**3.29**	**147**	PG	Pb	11 34 28.9	-1.9
KEV	**Kevo**	**3.48**	**39**	PN	Pn	11 34 28.2	+1.3
KEV				SN	Sn	11 35 08.8	+0.1
VRF	**Varrio**	**3.49**	**77**	PG	Pb	11 34 34.7	+0.5
VRF				SB	Sb	11 35 18.3	+1.2
OLKF	**Oulanka, Finla**	**3.58**	**100**	PG	Pb	11 34 37.0	+1.4
VAF	**Ylistaro**	**4.25**	**168**	PN	Pn	11 34 36.6	-0.8

HEL 24 12:07:20.7±0.1, 62.82N×27.57E, h0km, ML1.3, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NIF	**Nilsia**	**0.59**	**11**	PG	Pg	12 07 30.9	-1.0
	baz=186						
NIF				MSG		12 07 39.4	
	comp=Z,4.6nm,0.2s						
SUF	**Sumiainen**	**0.66**	**262**	*e*P	Pg	12 07 32.7	-0.7
SUF	**Sumiainen**	**0.66**	**262**	PG	Pg	12 07 32.7	-0.6
SUF				SG	Sg	12 07 41.1	-0.8
SUF				MSG		12 07 41.7	
	comp=Z,1.4nm,0.2s						
KAF	**Kangasniemi**	**0.92**	**220**	PB	Pg	12 07 37.5	-0.8
	baz=42						
KAF				MSG		12 07 49.0	
	comp=Z,3.0nm,0.2s						
KAF				SB	Sg	12 07 49.8	-0.3
KEF	**Keuruu**	**1.41**	**244**	*e*P	Pn	12 07 46.2	-1.4
KEF	**Keuruu**	**1.41**	**244**	PG	Pn	12 07 46.4	-1.2
	baz=59						
KEF				MSG		12 08 03.2	
	comp=Z,2.5nm,0.2s						
KEF				SG	Sg	12 08 04.6	-1.4
RUF	**Ruokolahti**	**1.54**	**154**	PN	Pn	12 07 48.8	-0.5
	baz=335						
RUF				MSG		12 08 06.8	
	comp=Z,2.1nm,0.2s						
FIA0	**FINESS Array S**	**1.55**	**208**	PN	Pn	12 07 49.3	-0.1
FIA0				MSG		12 08 07.1	
	comp=Z,1.3nm,0.2s						
JOF	**Joensuu**	**1.72**	**85**	*e*P	Pn	12 07 52.2	+0.3
JOF	**Joensuu**	**1.72**	**85**	PG	Pn	12 07 51.9	+0.1
	baz=267						
JOF				SG	Sn	12 08 13.9	-0.6
RMF	**Romuvaara**	**1.76**	**36**	PG	Pn	12 07 52.2	-0.2
	baz=217						
RMF				MSG		12 08 13.3	
	comp=Z,1.6nm,0.2s						
RMF				SN	Sg	12 08 18.3	+1.1
OUF	**Merijarvi**	**2.01**	**322**	PB	Pn	12 07 56.0	+0.2
OUF				MSG		12 08 20.3	
	comp=Z,2.3nm,0.2s						
OUF				SG	Sb	12 08 22.9	-0.6
VAF	**Ylistaro**	**2.25**	**278**	PG	Pb	12 08 00.7	-1.5
VAF				MSG		12 08 27.6	
	comp=Z,2.6nm,0.2s						
VAF				SG	Sb	12 08 29.6	-0.9
OBF4	**Vikkela, Lumij**	**2.29**	**332**	PG	Pn	12 08 01.1	+1.5
OBF4				MSG		12 08 28.3	
	comp=Z,1.1nm,0.2s						
OBF4				SG	Sb	12 08 31.6	+0.1
VJF	**Virojoki**	**2.29**	**180**	MSG		12 08 28.3	
	comp=Z,0.9nm,0.2s						
VJF				SG	Sb	12 08 32.6	+1.1
OBF8	**Ulkokalla**	**2.39**	**311**	PG	Pn	12 08 02.7	+1.6
OBF8				MSG		12 08 31.4	
	comp=Z,2.0nm,0.2s						
OBF8				SG	Sb	12 08 34.7	+0.2
OUL	**Oulu**	**2.40**	**343**	PG	Pb	12 08 03.0	-1.6
OUL				SG	Sb	12 08 33.5	-1.1
KPF	**Kankaanpaa**	**2.75**	**251**	MSG		12 08 41.8	
	comp=Z,0.9nm,0.2s						
KPF				SG	Sb	12 08 43.7	-1.2
HEMU	**Hemsoen**	**4.39**	**272**	PN	Pn	12 08 29.0	+0.5
	baz=81						
HEMU				SG	Sb	12 09 35.8	+3.8
ERTU	**Ertsjaerv**	**4.41**	**331**	SG	Sg	12 09 37.3	-4.8
MTSE	**Matsula**	**4.51**	**206**	SG	Sb	12 09 39.7	+4.3

HEL 24 12:14:30.2±0.2, 62.69N×21.26E, h0km, ML1.1, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VAF	**Ylistaro**	**0.74**	**61**	PG	Pg	12 14 43.3	-1.1
	baz=238						
VAF				MSG		12 14 53.3	
	comp=Z,1.5nm,0.2s						
VAF				SG	Sg	12 14 53.4	-0.5
KPF	**Kankaanpaa**	**0.94**	**156**	PB	Pg	12 14 47.3	-0.8
	baz=341						
KPF				MSG		12 14 59.0	
	comp=Z,0.8nm,0.2s						
KPF				SB	Sg	12 15 00.5	+0.3
UMAU	**Umeaa**	**1.23**	**348**	SN	Sn	12 15 12.0	+0.1
HEMU	**Hemsoen**	**1.49**	**271**	PN	Pn	12 14 58.0	-0.1
HEMU				SN	Sn	12 15 19.8	+1.6
RAF	**Rauma**	**1.69**	**172**	PG	Pn	12 15 00.4	-0.5
RAF				MSG		12 15 20.7	
	comp=Z,1.2nm,0.2s						
RAF				SN	Sg	12 15 24.6	+0.2
KEF	**Keuruu**	**1.76**	**106**	PG	Pn	12 15 02.0	+0.1
	baz=286						
KEF				MSG		12 15 22.6	
	comp=Z,1.1nm,0.2s						
KEF				SG	Sn	12 15 24.6	-0.4
SUF	**Sumiainen**	**2.25**	**87**	PG	Pn	12 15 10.1	+1.4
SUF				MSG		12 15 36.8	
	comp=Z,0.7nm,0.2s						
SUF				SG	Sb	12 15 39.5	-0.7
KAF	**Kangasniemi**	**2.42**	**102**	MSG		12 15 41.7	
	comp=Z,0.7nm,0.2s						
KAF				SG	Sb	12 15 44.2	-0.7
FIA0	**FINESS Array S**	**2.59**	**117**	PB	Pn	12 15 14.7	+1.4
FIA0				MSG		12 15 46.6	
	comp=Z,0.5nm,0.2s						
FIA0				SG	Sb	12 15 47.9	-1.8
JOF	**Joensuu**	**4.62**	**83**	PB	Pb	12 15 48.2	-3.8
MSF	**Maaselka**	**4.68**	**43**	SG	Sb	12 16 54.8	+4.8

*ISK **24** 12:15:52.2, 37.81N×26.84E, h15km, ML2.6/19*
*THE **24** 12:15:53.0, 37.8N±0.7×26.9E±0.4, h8km±1km, M2.6/9, ML2.6/9*
*AFAD **24** 12:15:52.7, 37.82N×26.85E, h10km±2km, ML2.3*

ISC 24 12:15:52.7±0.8, 37.81N±0.02×26.86E±0.02, h12km±6km, n50, σ0.45/81, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.10**	**192**	P	**Pg**	**12 15 55.5**	**-0.1**
SMG				S	**Sg**	**12 15 57.2**	**-0.4**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**4**	P	**Pg**	**12 15 57.8**	**0.0**
DGB				S	**Sg**	**12 16 01.5**	**+0.2**
DGB				IAML		12 16 03.0	
	comp=N,309nm,0.3s						
DGB				IAML		12 16 03.0	
	comp=E,347nm,0.2s						
GMLD	**Gumuldur**	**0.27**	**9**	Pg	**Pg**	**12 15 58.4**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.31**	**110**	P	**Pg**	**12 15 59.4**	**+0.4**
GCAM				S	**Sb**	**12 16 04.7**	**-0.6**
GCAM				IAML		12 16 06.0	
	comp=E,623nm,0.2s						
GCAM	**G?zelcaml?**	**0.31**	**110**	Pg	**Pg**	**12 15 59.3**	**+0.3**
GCAM				Sg	**Sb**	**12 16 05.0**	**-0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**81**	Pg	**Pg**	**12 15 59.5**	**-0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**7**	P	**Pg**	**12 16 01.1**	**0.0**
BEYE				S	**Sg**	**12 16 07.0**	**+0.3**
BEYE				IAML		12 16 07.0	
	comp=E,303nm,0.2s						
BEYE				IAML		12 16 08.0	
	comp=N,400nm,0.4s						
DDIM	**Aydin, Didim**	**0.46**	**139**	P	**Pg**	**12 16 01.8**	**0.0**
DDIM				S	**Sb**	**12 16 09.6**	**0.0**
DDIM				IAML		12 16 10.0	
	comp=E,308nm,0.5s						
DDIM				IAML		12 16 12.0	
	comp=N,272nm,0.6s						
ZEYE	**Izmir, Urla-Ze**	**0.52**	**327**	P	**Pg**	**12 16 02.6**	**-0.2**
ZEYE				S	**Sg**	**12 16 09.8**	**+0.1**
ZEYE				IAML		12 16 10.0	
	comp=E,261nm,0.5s						
ZEYE				IAML		12 16 11.0	
	comp=N,573nm,0.7s						
DIDI	**Didim-Aydin**	**0.52**	**145**	Pg	**Pg**	**12 16 03.5**	**+0.6**
DIDI				AML	AML		
BLCB	**Balcova**	**0.59**	**14**	P	**Pg**	**12 16 04.3**	**0.0**
BLCB				S	**Sg**	**12 16 12.7**	**+0.6**
BLCB	**Balcova**	**0.59**	**14**	Pg	**Pg**	**12 16 04.3**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.62**	**48**	P	**Pg**	**12 16 04.8**	**0.0**
DUVT				S	**Sg**	**12 16 12.1**	**-0.9**
DUVT				IAML		12 16 17.0	
	comp=E,400nm,0.3s						
CESE	**eme**	**0.69**	**320**	Pg	**Pg**	**12 16 05.8**	**-0.2**
CESE				AML	AML		
DAGE	**izmir**	**0.73**	**74**	P	**Pb**	**12 16 07.6**	**+0.2**
DAGE				S	**Sg**	**12 16 15.0**	**-1.4**
DAGE				IAML		12 16 19.0	
	comp=E,298nm,0.2s						
DAGE				IAML		12 16 19.0	
	comp=N,216nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.76**	**154**	Pg	**Pg**	**12 16 07.8**	**+0.4**
YKAV				AML	AML		
AYDN	**Tasoluk**	**0.82**	**100**	P	**Pg**	**12 16 08.5**	**0.0**
AYDN				S	**Sg**	**12 16 18.7**	**-0.6**
AYDN				IAML		12 16 24.0	
	comp=N,126nm,0.3s						
AYDN				IAML		12 16 26.0	
	comp=E,146nm,0.4s						
KRBN	**Karaburun**	**0.82**	**343**	Pg	**Pg**	**12 16 08.4**	**-0.2**
KRBN				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.82**	**80**	Pg	**Pg**	**12 16 08.9**	**+0.2**
AYDB				AML	AML		
BODT	**Bodrum**	**0.82**	**154**	P	**Pg**	**12 16 08.4**	**-0.2**
BODT				S	**Sb**	**12 16 20.6**	**+0.6**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**154**	Pg	**Pg**	**12 16 08.5**	**-0.1**
BODT				AML	AML		
BAGT	**Foa**	**0.85**	**359**	P	**Pg**	**12 16 09.0**	**-0.1**
BAGT				S	**Sb**	**12 16 20.9**	**+0.3**
BAGT				IAML		12 16 24.0	
	comp=N,420nm,0.6s						
BAGT				IAML		12 16 28.0	
	comp=E,156nm,0.7s						
CHOS	**Chios island**	**0.86**	**312**	P	**Pg**	**12 16 09.2**	**-0.1**
CHOS				S	**Sb**	**12 16 22.0**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.86**	**312**	Pg	**Pg**	**12 16 08.9**	**-0.4**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.87**	**148**	P	**Pb**	**12 16 10.0**	**+0.2**
BDRM				S	**Sg**	**12 16 21.0**	**0.0**
BDRM				IAML		12 16 26.0	
	comp=E,132nm,0.3s						
BDRM				IAML		12 16 26.0	
	comp=N,170nm,0.5s						
MLSB	**Milas**	**0.89**	**125**	Pg	**Pb**	**12 16 10.3**	**+0.2**
MLSB				AML	AML		
FOCM	**Foa**	**0.91**	**353**	Pg	**Pg**	**12 16 10.1**	**-0.2**
FOCM				AML	AML		
IZMR	**zmir-demi**	**0.92**	**69**	P	**Pb**	**12 16 11.2**	**+0.5**
IZMR				S	**Sg**	**12 16 21.8**	**-0.7**
IZMR				IAML		12 16 23.0	
	comp=N,83nm,0.4s						
IZMR				IAML		12 16 26.0	
	comp=E,70nm,0.5s						
KARB	**zmir-Karabur**	**0.93**	**338**	P	**Pg**	**12 16 10.3**	**-0.3**
KARB				S	**Sb**	**12 16 23.6**	**+0.6**
KARB				IAML		12 16 25.0	
	comp=N,227nm,0.7s						
KARB				IAML		12 16 27.0	
	comp=E,222nm,0.9s						
CAMT	**Merkez**	**1.00**	**21**	P	**Pb**	**12 16 12.3**	**+0.3**
CAMT				S	**Sb**	**12 16 25.9**	**+0.7**
CAMT				IAML		12 16 31.0	
	comp=N,219nm,0.5s						
CAMT				IAML		12 16 32.0	
	comp=E,200nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.14**	**82**	Pn	**Pb**	**12 16 14.4**	**0.0**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.17**	**8**	P	**Pg**	**12 16 15.4**	**+0.2**
ZEDA				S	**Sb**	**12 16 29.9**	**0.0**
ZEDA				IAML		12 16 33.0	
	comp=E,75nm,0.8s						
ZEDA				IAML		12 16 36.0	
	comp=N,107nm,0.4s						
ESEN	**Aydn-Nazilli**	**1.18**	**90**	P	**Pb**	**12 16 15.0**	**0.0**
ESEN				S	**Sg**	**12 16 30.9**	**+0.3**
ESEN				IAML		12 16 35.0	
	comp=N,24nm,0.5s						
ESEN				IAML		12 16 35.0	
	comp=E,36nm,0.4s						
DAT	**Datca**	**1.22**	**152**	P	**Pn**	**12 16 15.3**	**-0.3**
DAT				S	**Sn**	**12 16 32.6**	**+0.5**
DAT				AML	AML		
DAT	**Datca**	**1.22**	**152**	Pn	**Pn**	**12 16 15.7**	**0.0**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.22**	**157**	P	**Pb**	**12 16 16.0**	**+0.3**
YAZI				S	**Sb**	**12 16 31.2**	**-0.2**
YAZI				IAML		12 16 37.0	
	comp=N,38nm,0.4s						
YAZI				IAML		12 16 37.0	
	comp=E,43nm,0.3s						
GOMA	**Golmarmara-Man**	**1.22**	**42**	Pn	**Pn**	**12 16 15.5**	**-0.1**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.27**	**72**	P	**Pn**	**12 16 16.9**	**+0.4**
KIRA				S	**Sb**	**12 16 33.2**	**+0.1**
KIRA				IAML		12 16 35.0	
	comp=N,47nm,0.3s						
KIRA				IAML		12 16 38.0	
	comp=E,36nm,0.5s						
APE	**Apeiranthos**	**1.29**	**236**	P	**Pn**	**12 16 15.9**	**-0.7**
APE				S	**Sg**	**12 16 34.3**	**0.0**
APE				AML	AML		
AKS	**Akhisar**	**1.30**	**35**	Pn	**Pn**	**12 16 16.8**	**0.0**
AKS				AML	AML		
KTTT	**Salihli**	**1.31**	**47**	P	**Pb**	**12 16 17.5**	**+0.3**
KTTT				S	**Sb**	**12 16 33.6**	**-0.4**
KTTT				IAML		12 16 37.0	
	comp=N,83nm,0.4s						
YER	**Yerkesik**	**1.31**	**120**	P	**Pn**	**12 16 17.4**	**+0.5**
YER

STEP				S	Sg	12 16 47.5	0.0
STEP				IAML		12 16 55.0	
	comp=E,62nm,0.4s						
STEP				IAML		12 17 06.0	
	comp=N,59nm,0.5s						
CMBO	**Columbo, Santo**	**1.77**	**222**	P	**Pn**	**12 16 23.5**	**+0.3**
USAK	**Uak-Merkez**	**1.92**	**61**	P	**Pb**	**12 16 28.4**	**+0.6**
USAK				IAML		12 16 50.0	
	comp=E,9.4nm,2.1s						
USAK				IAML		12 16 51.0	
	comp=N,21nm,2.0s						
USAK				S	**Sb**	**12 16 51.5**	**-0.2**

*IDC **24** 12:56:44.4±2.1,4˚.24N×126˚.14E,h0km,mb3.8/4, mbtmp3.8/4,Error ellipse: s-maj=116.5km s-min=27.1km az=69.0*

MAN 24 12:56:44.0,4˚.25N×126˚.19E,h1km,MS3.2,Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KCP	**Kidapawan**	**2.95**	**338**	*eP*	Pg	12 57 40.2	-0.4
FITZ	**Fitzroy Crossi**	**22.21**	**181**	P	P	13 01 43.0	+0.9
	4.3nm,0.5s,baz=5.2,slow=8.0,SNR=31						
	4.3nm,0.5s						
WRA	**Warramunga Arr**	**25.34**	**162**	P	P	13 02 12.9	+0.3
	3.6nm,1.3s,baz=340,slow=9.7,SNR=12						
	3.6nm,1.3s						
ASAR	**Alice Springs**	**28.75**	**165**	P	P	13 02 43.7	+0.4
	0.2nm,0.5s,baz=341,slow=9.2,SNR=9.6						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**56.82**	**325**	P	P	13 06 30.5	+0.3
	1.2nm,1.2s,baz=127,slow=6.7,SNR=2.4						
	1.2nm,1.2s						

WEL 24 13:31:52.1±1.2,33˚S±24˚×17˚9W±4˚6,h427km±19km, M4.1/5,mB4.2/3,MLv4.1/5,Mw(mB)3.3/3,Error ellipse: s-maj=66.8km s-min=12.4km az=116.1,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PKGZ	**Pakihiroa**	**5.73**	**205**	P	P	13 33 22.5	-0.1
PKGZ				S	S	13 34 36.5	-0.2
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.75**	**208**	P	P	13 33 22.4	-0.4
HAZ				S	S	13 34 38.2	+1.3
PUZ	**Puketiti**	**5.86**	**203**	P	P	13 33 23.2	-0.7
PUZ				S	S	13 34 39.6	+0.5
RUGZ	**Raukumara Rang**	**5.97**	**207**	S	S	13 34 39.9	-1.5
TWGZ	**Tauwhareparae**	**6.05**	**204**	P	S	13 33 27.6	+1.7
TWGZ				S	S	13 34 44.8	+2.0
TWGZ				AML	AML		
TKGZ	**Te Karaka**	**6.33**	**204**	P	P	13 33 28.9	+0.1
TKGZ				S	S	13 34 47.8	-0.3
TKGZ				AML	AML		
MWZ	**Matawai**	**6.35**	**207**	P	P	13 33 28.8	-0.3
MWZ				S	S	13 34 51.0	+2.4
URZ	**Urewera**	**6.45**	**209**	P	S	13 33 28.9	-1.2
URZ				S	S	13 34 50.9	+0.4
RIGZ	**Rimuhau**	**6.60**	**204**	P	P	13 33 32.2	+0.1
RIGZ				S	S	13 34 53.4	-0.1
RIGZ				AML	AML		
MUGZ	**Murupara**	**6.78**	**210**	P	P	13 33 34.0	0.0
MUGZ				S	S	13 34 56.9	-0.2
MUGZ				AML	AML		
BKZ	**Black Stump Fm**	**7.47**	**209**	P	P	13 33 41.3	-0.2
BKZ				S	S	13 35 12.9	+1.9
PXZ	**Pawanui**	**8.09**	**204**	P	P	13 33 48.8	+0.7
PXZ				S	S	13 35 23.0	-0.4
BFZ	**Birch Farm**	**8.88**	**205**	P	P	13 33 58.4	+1.5
BFZ				S	S	13 35 39.5	-0.1

*IDC **24** 13:32:29.9±4.8,6˚.97S×129˚.90E,h80km±48km,mb3.8/9, mbtmp4.2/12,ML4.3/3,MS2.9/1,Error ellipse: s-maj=44.3km s-min=21.2km az=62.0*

*NEIC **24** 13:32:32.9±1.9,6˚.97S±0˚.08×129˚.8E±0˚.1,h109km±8km, mb4.4/19,Error ellipse: s-maj=17.2km s-min=10.8km az=77.0*

*DJA **24** 13:32:34.9±0.3,7˚S±3˚×13˚0E±˚,h154km±12km,M4.5/9, mB5.1/5,mB5.1/5,mb4.4/9,mb4.4/9,MLv4.5/7,MLv4.5/9, Mw(mB)4.5/5,Mw(mB)4.5/5*

ISC 24 13:32:35.6±0.4,7˚11S±0˚.05×129˚.99E±0˚.07,h150km,n67, σ1§81/69,mb4.2/15,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.56**	**124**	P	**Pn**	**13 33 05.5**	**-0.3**
SAUI	**Saumlaki**	**1.56**	**124**		**Pn**	**13 33 05.4**	**-0.3**
SAUI				Sn	**Sn**	**13 33 24.7**	**-4.2**
SAUI	**Saumlaki**	**1.56**	**124**	P	**Pn**	**13 33 05.5**	**-0.3**
SAUI				AML	AML		
SAUI				AML	AML		
BNDI	**Bandanaira**	**2.57**	**358**	P	**Pn**	**13 33 15.9**	**-1.7**
BNDI	**Bandanaira**	**2.57**	**358**	P	**Pn**	**13 33 15.3**	**-2.3**
BNDI				AML	AML		
FAKI	**Fak Fak**	**4.73**	**28**		**Pn**	**13 33 40.9**	**-4.6**
FAKI				Sn	Sn	13 34 28.1	-12
DRS	**Darwin Rock St**	**5.36**	**170**	P	**Pn**	**13 33 54.7**	**+0.9**
DRS	**Darwin Rock St**	**5.36**	**170**	S	**Sn**	**13 34 55.2**	**+0.2**
MTN	**Manton Dam**	**5.81**	**169**		**Pn**	**13 33 58.6**	**-1.1**
SOEI	**Soe**	**6.24**	**245**		**Pn**	**13 34 05.8**	**+0.1**
SANI	**Sanana**	**6.42**	**321**	P	**Pn**	**13 34 08.1**	**+0.2**
SANI	**Sanana**	**6.42**	**321**	P	**Pn**	**13 34 07.4**	**-0.5**
	13nm,0.6s,13nm,0.6s						
MWPI	**Manokwari, Pap**	**7.35**	**34**	P	**Pn**	**13 34 18.5**	**-1.8**
	0.7nm80nm,1.0s,80nm,1.0s						
MWPI				AML	AML		
MMRI	**Maumere**	**7.83**	**258**	Pn	**Pn**	**13 34 27.2**	**+0.4**
MMRI	**Maumere**	**7.83**	**258**	P	**Pn**	**13 34 27.3**	**+0.6**
	0.2nm0.2nm21nm,0.6s,21nm,0.6s						
MMRI				AML	AML		
MMRI				AML	AML		
EDFI	**Ende, Flores**	**8.38**	**258**	P	**Pn**	**13 34 34.6**	**+0.4**
BAKI	**Biak**	**8.47**	**46**	P	**Pn**	**13 34 34.1**	**-1.2**
	58nm,0.6s,58nm,0.6s						
KNRA	**Kununurra**	**8.60**	**188**		**Pn**	**13 34 36.0**	**-1.0**
FITZ	**Fitzroy Crossi**	**11.72**	**201**	P	**Pn**	**13 35 15.3**	**-2.9**
	1.3nm,0.3s,baz=22,slow=7.7,SNR=48						
FITZ				S	Sn	13 37 17.2	-11
	14nm,0.3s,baz=223,slow=24,SNR=10						
	4.7nm,0.5s						
FITZ				AML	AML		
PLAI	**Plampang**	**12.22**	**261**	P	**Pn**	**13 35 23.0**	**-1.8**
TOLI2	**Tolitoli**	**12.29**	**311**	P	**Pn**	**13 35 26.9**	**+1.2**
WB0	**Warramunga Arr**	**13.29**	**162**		**Pn**	**13 35 36.6**	**-2.0**
WRAB	**Tennant Creek**	**13.43**	**162**	P	**Pn**	**13 35 39.7**	**-0.6**
WRAB	**Tennant Creek**	**13.43**	**162**		**Pn**	**13 35 38.3**	**-2.0**
WRA	**Warramunga Arr**	**13.44**	**162**	P	**Pn**	**13 35 38.0**	**-2.4**
	1.4nm,0.3s,baz=344,slow=14,SNR=58						
WRA				S	Sn	13 37 59.9	-9.3
	9.4nm,0.5s,baz=332,slow=22,SNR=14						
	1.1nm,0.3s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**13.44**	**162**		**Pn**	**13 35 38.5**	**-2.0**
WRA				Sn	Sn	13 37 59.0	-10
WR8	**Warramunga Arr**	**13.50**	**162**		**Pn**	**13 35 39.2**	**-2.0**
JAGI	**Jajag, Banyuwa**	**15.75**	**264**	P	**Pn**	**13 36 08.5**	**-0.9**
QIS	**Mount Isa**	**16.29**	**146**	P	**P**	**13 36 17.3**	**+1.1**
AS31	**Alice Springs**	**16.89**	**168**	Pn	**P**	**13 36 21.5**	**-1.2**
ASAR	**Alice Springs**	**16.89**	**168**	P	**Pn**	**13 36 23.7**	**+0.5**
	1.1nm,0.3s,baz=341,slow=9.0,SNR=73						
ASAR				S	**S**	**13 39 24.2**	**-6.8**
	3.4nm,0.6s,baz=346,slow=24,SNR=11						
	4.6nm,0.5s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**16.89**	**168**	Pn	**P**	**13 36 21.7**	**-1.0**
AS01	**Alice Springs**	**16.90**	**167**	P	**Pn**	**13 36 23.7**	**+0.4**
MBWA	**Marble Bar**	**17.13**	**214**	P	**P**	**13 36 24.1**	**-1.3**
MBWA				IAmb	IAmb	13 36 49.0	
	comp=Z,19nm,1.2s						
MTSU	**Mount Surprise**	**17.75**	**129**	P	**Pn**	**13 36 34.5**	**+1.0**
KKM	**Kota Kinabalu**	**18.96**	**313**	P	**P**	**13 36 41.9**	**-3.7**
KKM				IAmb	IAmb	13 37 19.8	
	comp=Z,32nm,1.3s						
SMRI	**Semarang**	**19.40**	**269**	P	**P**	**13 36 47.4**	**-2.9**
SMRI				IAmb	IAmb	13 37 03.8	
	comp=Z,82nm,1.4s						
MEEK	**Meekatharra**	**22.23**	**208**	P	**P**	**13 37 21.4**	**+1.2**
FORT	**Forrest**	**23.62**	**184**	P	**P**	**13 37 34.4**	**+1.4**
FORT				IAmb	IAmb	13 38 06.9	
	comp=Z,8.8nm,1.1s						
MORW	**Morawa**	**25.50**	**209**	P	**P**	**13 37 50.2**	**+0.1**
MORW				IAmb	IAmb	13 37 59.6	
	comp=Z,23nm,1.2s						
BBOO	**Buckleboo**	**26.19**	**168**	P	**P**	**13 37 57.0**	**+0.7**
BBOO				IAmb	IAmb	13 38 41.8	
	comp=Z,15nm,1.4s						
STKA	**Stephens Creek**	**26.92**	**158**	P	**P**	**13 38 05.6**	**+2.8**
	comp=Z,1.1nm,0.4s,baz=352,slow=8.4,SNR=4.3						
	comp=Z,1.1nm,0.4s						
STKA	**Stephens Creek**	**26.92**	**158**	P	**P**	**13 38 04.7**	**+1.9**
STKA				IAmb	IAmb	13 38 11.0	
	comp=Z,10nm,1.1s						
CAN	**Canberra**	**33.06**	**151**	P	**P**	**13 38 58.5**	**+1.5**
CMAR	**Chiang Mai Arr**	**39.79**	**310**	P	**P**	**13 39 55.1**	**+0.9**
	comp=Z,0.5nm,0.5s,baz=140,slow=6.4,SNR=4.3						
CMAR				LR	LR	13 58 00.2	
	comp=Z,13nm,18.4s,baz=40,slow=39						
	comp=Z,0.5nm,0.5s						
CMAR	**Chiang Mai Arr**	**39.79**	**310**	P	**P**	**13 39 52.9**	**-1.3**
KSRS	**Korea Array**	**44.37**	**358**	P	**P**	**13 40 31.2**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=179,slow=9.9,SNR=1.9						
	comp=Z,0.4nm,0.5s						
JKA	**Kamikawa-asahi**	**52.24**	**11**	P	**P**	**13 41 31.8**	**+0.6**
LSA	**Lhasa**	**52.27**	**316**	P	**P**	**13 41 32.0**	**-0.3**
SONM	**Songino Array**	**58.54**	**342**	P	**P**	**13 42 17.6**	**+1.3**
	comp=Z,0.5nm,0.4s,baz=167,slow=6.8,SNR=5.7						
	comp=Z,0.5nm,0.4s						
SONM	**Songino Array**	**58.54**	**342**	P	**P**	**13 42 16.0**	**-0.4**
SONM				IAmb	IAmb	13 42 21.4	
	comp=Z,1.9nm,1.3s						
PETK	**Petropavlovsk-**	**64.43**	**18**	P	**P**	**13 42 57.1**	**+1.5**
	comp=Z,3.5nm,0.8s,baz=180,slow=5.5,SNR=6.1						
	comp=Z,3.5nm,0.8s						
MKAR	**Makanchi Array**	**68.31**	**327**	P	**P**	**13 43 21.9**	**+1.4**
	comp=Z,6.9nm,0.4s,baz=117,slow=7.8,SNR=71						
	comp=Z,6.9nm,0.4s						
MKAR	**Makanchi Array**	**68.31**	**327**	P	**P**	**13 43 21.6**	**+1.1**
MAKZ	**Makanchi**	**68.49**	**327**	P	**P**	**13 43 22.8**	**+1.2**
MAKZ				IAmb	IAmb	13 43 23.4	
	comp=Z,6.1nm,0.4s						
ARSB	**Arslanbob**	**70.97**	**318**	P	**P**	**13 43 38.5**	**+1.4**
ARSB				IAmb	IAmb	13 43 39.3	
	comp=Z,1.8nm,0.6s						
ZAA0	**Zalesovo Array**	**71.68**	**334**	P	**P**	**13 43 41.3**	**+0.5**
ZALV	**Zalesovo Beam**	**71.68**	**334**	P	**P**	**13 43 41.0**	**+0.1**
	comp=Z,0.7nm,0.4s,baz=129,slow=4.4,SNR=4.1						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**71.68**	**334**	P	**P**	**13 43 41.1**	**+0.2**
KURBB	**Kurchatov Arra**	**72.60**	**329**	P	**P**	**13 43 47.2**	**+0.8**
	comp=Z,2.7nm,0.2s,baz=130,slow=5.0,SNR=7.4						
	comp=Z,2.7nm,0.2s						
KURK	**Kurchatov**	**72.61**	**329**	P	**P**	**13 43 47.2**	**+0.8**
MAW	**Mawson**	**74.85**	**201**	P	**P**	**13 44 01.8**	**+2.6**
BVAR	**Borovoye Array**	**78.15**	**328**	P	**P**	**13 44 17.6**	**-0.5**
	comp=Z,0.4nm,0.3s,baz=123,slow=5.3,SNR=2.6						
	comp=Z,0.4nm,0.3s						
TIXI	**Tiksi**	**78.60**	**360**	P	**P**	**13 44 21.1**	**+1.0**
TIXI				IAmb	IAmb	13 44 21.3	
	comp=Z,3.0nm,0.5s						
ABKAR	**Akbulak array**	**82.59**	**322**	P	**P**	**13 44 42.7**	**+0.9**
D19K	**Kuna River**	**90.03**	**21**	P	**P**	**13 45 19.0**	**+1.1**
LPAZ	**La Paz**	**150.64**	**142**	PKPbc	**PKiKP**	**13 52 14.8**	**+2.5**
	comp=Z,0.7nm,0.4s,baz=354,slow=8.2,SNR=2.4						

*CATAC **24** 13:33:12.7,9˚N±3˚×7˚3W±˚,h157km±6km,M4.2/10, mb4.4/3,mB4.5/2,MLv4.1/10,Mw(mB)3.7/2,confirmed*

*RSNC **24** 13:33:13.4±0.0,9˚N±1˚×7˚3W±˚,h157km±4km,M3.9, mB4.9,mb4.4,ML3.3,Mw(mB)4.2*

*FUNV **24** 13:33:13.9,8˚.69N×73˚.05W,h6km,MW3.7,Presumed earthquake*

*IDC **24** 13:33:14.7±1.4,8˚.61N×73˚.02W,h168km±15km,mb3.0/5, mbtmp3.5/7,Error ellipse: s-maj=26.4km s-min=15.2km az=108.0*

ISC 24 13:33:13.2±0.8,8˚.66N±0˚.03×73˚.11W±0˚.03,h154km±6km, n62,σ1§66/107,mb3.0/5,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OCAC	**Ocana**	**0.47**	**206**	P	**Pn**	**13 33 35.8**	**+0.8**
OCAC				S	**Sn**	**13 33 52.0**	**+0.4**
ARGC	**Ariguani, Magd**	**1.63**	**317**	P	**Pn**	**13 33 46.3**	**+1.9**
ARGC				S	**Sn**	**13 34 10.3**	**+1.9**
BRJC	**Barrancabermej**	**1.79**	**201**	P	**Pn**	**13 33 46.8**	**+0.6**
BRJC				S	**Sn**	**13 34 12.1**	**+0.5**
BARC	**Barichara**	**2.06**	**182**	P	**Pn**	**13 33 50.3**	**+0.8**
BARC				S	**Sn**	**13 34 17.7**	**+0.3**
CRJC	**Cerrejon, Guaj**	**2.35**	**5**	P	**Pn**	**13 33 53.0**	**+0.2**
CRJC				S	**Sn**	**13 34 21.9**	**-1.5**
SJCC	**San Jacinto, C**	**2.38**	**301**	P	**Pn**	**13 33 53.2**	**+0.1**
SJCC				S	**Sn**	**13 34 24.1**	**+0.2**
SJCC	**San Jacinto, C**	**2.38**	**301**	P	**Pn**	**13 33 53.5**	**+0.4**
SJCC				S	**Sn**	**13 34 23.3**	**-0.6**
SJCC	**San Jacinto, C**	**2.38**	**301**	*eP*	**Pn**	**13 33 53.6**	**+0.5**
SJCC				*eS*	**Sn**	**13 34 22.4**	**-1.5**
SDV	**Santo Domingo**	**2.46**	**85**	P	**Pn**	**13 33 55.6**	**+1.4**
	11nm,0.3s,baz=256,slow=8.4,SNR=11						
SDV				S	**Sn**	**13 34 23.2**	**-2.6**
	49nm,0.3s,baz=315,slow=12,SNR=34						
SDV	**Santo Domingo**	**2.46**	**85**	P	**Pn**	**13 33 55.5**	**+1.4**
SDV				S	**Sn**	**13 34 24.8**	**-0.9**
SDV	**Santo Domingo**	**2.46**	**85**	*eP*	**Pn**	**13 33 54.3**	**+0.1**
SDV				*eS*	**Sn**	**13 34 22.2**	**-3.5**
PTBC	**PUERTO BERRIO,**	**2.50**	**212**	P	**Pn**	**13 33 55.0**	**+0.5**
PTBC				S	**Sn**	**13 34 25.8**	**-0.6**
UREC	**San Jos de Ur**	**2.56**	**249**	P	**Pn**	**13 33 54.7**	**-0.6**
UREC				S	**Sn**	**13 34 25.1**	**-2.7**
TAMC	**Tame, Arauca**	**2.57**	**149**	P	**Pn**	**13 33 56.6**	**+1.2**
TAMC				S	**Sn**	**13 34 27.9**	**-0.1**
SMRC	**Santa Marta, M**	**2.72**	**336**	P	**Pn**	**13 33 57.2**	**0.0**
SMRC				S	**Sn**	**13 34 28.6**	**-2.6**
RUSC	**La Rusia**	**2.75**	**179**	P	**Pn**	**13 33 57.8**	**-0.2**
RUSC	**La Rusia**	**2.75**	**179**	P	**Pn**	**13 33 57.9**	**-0.2**
RUSC				S	**Sn**	**13 34 33.7**	**+0.9**
RUSC	**La Rusia**	**2.75**	**179**	*eP*	**Pn**	**13 33 58.0**	**-0.1**
RUSC				*eS*	**Sn**	**13 34 31.1**	**-1.7**
SPBC	**San Pablo de B**	**3.14**	**198**	P	**Pn**	**13 34 03.3**	**+0.7**
SPBC				S	**Sn**	**13 34 41.1**	**+0.2**
URI	**Uribia**	**3.21**	**20**	P	**Pn**	**13 34 02.8**	**-0.6**
URI				S	**Sn**	**13 34 39.8**	**-2.6**
URIC	**Uribia, Colomb**	**3.21**	**20**	P	**Pn**	**13 34 03.2**	**-0.2**
URIC				S	**Sn**	**13 34 39.5**	**-2.9**
URIC	**Uribia, Colomb**	**3.21**	**20**	*eP*	**Pn**	**13 34 03.3**	**-0.2**
URIC				*eS*	**Sn**	**13 34 39.7**	**-2.7**
LCBC	**Los crdobas,**	**3.23**	**274**	P	**Pn**	**13 34 06.0**	**+2.4**
LCBC				S	**Sn**	**13 34 39.4**	**-3.2**
HELC	**Santa Helena**	**3.43**	**224**	P	**Pn**	**13 34 07.7**	**+1.1**
HELC				S	**Sn**	**13 34 45.3**	**-2.7**
HELC	**Santa Helena**	**3.43**	**224**	P	**Pn**	**13 34 07.4**	**+0.8**
HELC				S	**Sn**	**13 34 45.3**	**-2.7**
HELC	**Santa Helena**	**3.43**	**224**	*eP*	**Pn**	**13 34 07.6**	**+1.0**
HELC				*eS*	**Sn**	**13 34 46.9**	**-1.0**
APAC	**Apartado, Choc**	**3.52**	**258**	P	**Pn**	**13 34 07.6**	**+0.3**
APAC				S	**Sn**	**13 34 46.7**	**-2.6**
NORC	**Norcasia**	**3.54**	**210**	P	**Pn**	**13 34 07.9**	**+0.2**
NORC				S	**Sn**	**13 34 48.4**	**-1.6**
ROSC	**El Rosal**	**3.98**	**198**	P	**Pn**	**13 34 16.4**	**+2.7**
	38nm,0.4s,baz=300,slow=23,SNR=8.6						
ROSC				S	**Sn**	**13 35 02.3**	**+1.6**
	36nm,0.3s,baz=166,slow=22,SNR=5.8						
ROSC	**El Rosal**	**3.98**	**198**	P	**Pn**	**13 34 16.2**	**+2.5**
ROSC				S	**Sn**	**13 35 02.5**	**+1.7**
CBOC	**Ciudad Bolivar**	**4.00**	**226**	P	**Pn**	**13 34 14.9**	**+1.1**
CBOC				S	**Sn**	**13 34 58.9**	**-2.0**
CHIC	**Chingaza**	**4.05**	**189**	P	**Pn**	**13 34 15.9**	**+1.2**
CHIC				S	**Sn**	**13 35 03.8**	**+1.3**
TEPV	**Terepaima**	**4.08**	**71**	*eP*	**Pn**	**13 34 14.2**	**-0.4**
GUY2C	**Guyana, Caldas**	**4.08**	**213**	P	**Pn**	**13 34 15.9**	**+0.8**
GUY2C				S	**Sn**	**13 35 00.4**	**-2.8**
CVER	**Cruz Verde, Cu**	**4.22**	**193**	P	**Pn**	**13 34 19.6**	**+2.6**
CVER				S	**Sn**	**13 35 09.3**	**+2.8**
NIZA	**Niza - Manizal**	**4.28**	**213**	P	**Pn**	**13 34 18.9**	**+1.4**
NIZA				S	**Sn**	**13 35 05.7**	**-1.8**
PTGC	**Puerto Gaitan,**	**4.54**	**168**	P	**Pn**	**13 34 20.5**	**-0.2**
PTGC				S	**Sn**	**13 35 10.8**	**-2.5**
VILC	**Villavicencio,**	**4.56**	**187**	P	**Pn**	**13 34 22.0**	**+1.0**
VILC				S	**Sn**	**13 35 13.9**	**0.0**
MAPV	**Macapo**	**4.74**	**75**	*eP*	**Pn**	**13 34 23.9**	**+0.6**
PLMC	**San Jos del P**	**4.88**	**220**	P	**Pn**	**13 34 26.2**	**+0.9**
PLMC				S	**Sn**	**13 35 22.4**	**+0.9**
PTAC	**Punta Ardita,**	**4.89**	**252**	P	**Pn**	**13 34 25.7**	**+0.4**
PTAC				S	**Sn**	**13 35 19.4**	**-2.1**
ORTC	**Ortega, Tolima**	**5.18**	**204**	P	**Pn**	**13 34 29.8**	**+0.7**
	3µm79nm,0.7s						
ORTC				S	**Sn**	**13 35 29.3**	**+0.9**
	3µm79nm,0.7s						
ORTC				AML	AML		
PRAC	**Prado**	**5.22**	**200**	P	**Pn**	**13 34 29.0**	**-0.7**
PRAC				S	**Sn**	**13 35 27.6**	**-1.9**
PRAC	**Prado**	**5.22**	**200**	P	**Pn**	**13 34 29.8**	**+0.1**
	2µm44nm,0.5s						
PRAC				S	**Sn**	**13 35 27.9**	**-1.6**
	2µm44nm,0.5s						
PRAC				AML	AML		
TURV	**Turiamo**	**5.49**	**71**	*eP*	**Pn**	**13 34 33.3**	**+0.1**
URMC	**La Uribe, Meta**	**5.53**	**193**	P	**Pn**	**13 34 34.4**	**+0.6**
	4µm121nm,0.7s						
URMC				S	**Sn**	**13 35 34.4**	**-2.4**
	4µm121nm,0.7s						
URMC				AML	AML		
BENV	**Beln**	**5.59**	**76**	*eP*	**Pn**	**13 34 34.5**	**0.0**
YOTC	**Yotoco, Valle**	**5.65**	**215**	P	**Pn**	**13 34 35.5**	**0.0**
	360nm22nm,0.6s						
YOTC				S	**Sn**	**13 35 39.1**	**-0.7**
	360nm22nm,0.6s						
YOTC				AML	AML		
TACV	**Tcata**	**6.18**	**76**	*eP*	**Pn**	**13 34 42.7**	**+0.3**
JAMC	**Jamundi, Valle**	**6.47**	**213**	P	**Pn**	**13 34 46.6**	**+0.2**
MACC	**Macarena, Meta**	**6.52**	**187**	P	**Pn**	**13 34 45.5**	**-1.4**
MACC				S	**Sn**	**13 35 54.2**	**-6.2**
CACV	**CAICARA DEL OR**	**6.60**	**99**	*eP*	Pn	13 34 55.0	+7.1
GARC	**Garzon, Huila**	**6.86**	**200**	P	**Pn**	**13 34 50.9**	**-0.7**
GARC				S	**Sn**	**13 36 05.7**	**-3.1**
POPC	**Popayan, Colom**	**7.04**	**210**	P	**Pn**	**13 34 52.8**	**-1.3**
POPC				S	**Sn**	**13 36 08.9**	**-4.3**
BBAC	**Balboa, Cauca**	**7.78**	**212**	P	**Pn**	**13 35 04.9**	**+1.0**
LPAZ	**La Paz**	**25.28**	**169**	P	**P**	**13 38 25.7**	**-0.5**
	0.9nm,0.5s,baz=326,slow=12,SNR=4.2						
	0.9nm,0.5s						
TXAR	**Lajitas Array**	**35.27**	**310**	P	**P**	**13 39 54.8**	**+1.2**
	0.1nm,0.4s,baz=120,slow=9.2,SNR=2.2						
	0.1nm,0.4s						
PDAR	**Pinedale Array**	**46.61**	**323**	P	**P**	**13 41 27.1**	**+0.9**
	0.1nm,0.5s,baz=119,slow=6.6,SNR=2.0						
	0.1nm,0.5s						
YKA	**Yellowknife Ar**	**61.55**	**340**	P	**P**	**13 43 13.9**	**+0.2**
	0.7nm,0.5s,baz=129,slow=6.9,SNR=8.7						
	0.7nm,0.5s						
ILAR	**Eielson Array**	**75.31**	**335**	P	**P**	**13 44 39.3**	**+0.2**
	0.3nm,0.9s,baz=92,slow=5.8,SNR=1.6						
	0.3nm,0.9s						
ASAR	**Alice Springs**	**150.16**	**237**	PKPbc	**PKPbc**	**13 52 46.0**	**-0.9**
	0.3nm,0.3s,baz=124,slow=2.8,SNR=5.6						
WRA	**Warramunga Arr**	**151.19**	**244**	PKPbc	**PKiKP**	**13 52 49.3**	**-0.4**
	1.1nm,0.6s,baz=105,slow=2.8,SNR=21						

*IDC **24** 14:02:29.1±0.4,13˚.63N×144˚.73E,h107km±4km,mb3.7/16, mbtmp4.1/16,MS3.1/1,Error ellipse: s-maj=18.9km s-min=11.8km az=72.0*

*NEIC **24** 14:02:29.8±1.1,13˚.57N±0˚.08×144˚.6E±0˚.1,h108km±4km, mb4.4/49,Error ellipse: s-maj=14.7km s-min=11.8km az=102.0*

ISC 24 14:02:29.5±0.8,13˚.56N±0˚.06×144˚.64E±0˚.10,h110km±7km, n83,σ0§58/76,mb4.3/41,Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**0.23**	**84**	P	**Pn**	**14 02 44.9**	**-0.1**
	5µm,0.3s,baz=153,slow=9.0,SNR=1256						
GUMO				S	**Sn**	**14 02 56.3**	**-0.3**
	6µm,0.3s,baz=292,slow=19,SNR=12						
DPSS	**Saipan**	**2.00**	**34**		**Pn**	**14 03 03.1**	**+0.5**
JOW	**Kunigami**	**20.22**	**313**	P	Pn	14 06 57.9	-1.0
	17nm,0.7s,baz=122,slow=13,SNR=4.8						
	17nm,0.7s						
JOW	**Kunigami**	**20.22**	**313**	P	**P**	**14 06 56.8**	**+0.9**
H11S3	**WAKE ISLAND Hy**	**21.74**	**74**	T	T	14 29 46.1	
	baz=260,slow=75,SNR=18						
H11S1	**WAKE ISLAND Hy**	**21.76**	**74**	T	T	14 29 38.0	
	baz=260,slow=75,SNR=14						
H11S2	**WAKE ISLAND Hy**	**21.76**	**74**	T	T	14 29 48.2	
	baz=260,slow=75,SNR=10						
H11N1	**WAKE ISLAND Hy**	**22.17**	**71**	T	T	14 30 19.0	
	baz=257,slow=75,SNR=23						
H11N2	**WAKE ISLAND Hy**	**22.18**	**71**	T	T	14 30 19.2	
	baz=257,slow=75,SNR=19						
H11N3	**WAKE ISLAND Hy**	**22.19**	**71**	T	T	14 30 21.4	
	baz=257,slow=75,SNR=23						
JGF	**Kuroka**	**22.90**	**345**	P	**P**	**14 07 24.2**	**+0.1**
JGF				IAmb	IAmb	14 08 00.9	
	comp=Z,21nm,1.3s						
MJAR	**Matsushiro Ar

FORT	**Forrest**	**46.88**	**200**	P	**P**	**14 10 49.0**	**+0.2**
FORT				IAmb	IAmb	14 11 10.5	
	comp=Z,5.8nm,0.9s						
GTA2	**Gaotai**	**47.09**	**312**	*e*P	**P**	**14 10 51.6**	**+0.9**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.2s						
GSI	**Gununguitoli**	**48.12**	**259**	P	**P**	**14 10 57.5**	**-1.3**
CAN	**Canberra**	**48.79**	**175**	P	**P**	**14 11 04.1**	**+0.5**
MORW	**Morawa**	**50.59**	**213**	P	**P**	**14 11 16.6**	**-0.8**
TOO	**Toolangi**	**50.87**	**179**	P	**P**	**14 11 20.3**	**+1.0**
TOO				IAmb	IAmb	14 11 51.9	
	comp=Z,4.8nm,1.5s						
EVN	**Everest**	**55.47**	**295**	P	**P**	**14 11 53.6**	**-0.5**
EVN				IAmb	IAmb	14 12 14.1	
	comp=Z,5.5nm,1.4s						
N14K	**Kuskokwak Cree**	**60.56**	**28**	P	**P**	**14 12 28.5**	**+0.4**
MKAR	**Makanchi Array**	**61.35**	**316**	P	**P**	**14 12 33.8**	**-0.1**
	comp=Z,1.5nm,0.6s,baz=90,slow=9.0,SNR=17						
	comp=Z,1.5nm,0.6s						
MKAR	**Makanchi Array**	**61.35**	**316**	P	**P**	**14 12 33.6**	**-0.3**
ZALV	**Zalesovo Beam**	**61.51**	**324**	P	**P**	**14 12 34.4**	**-0.3**
	comp=Z,0.4nm,0.3s,baz=107,slow=9.3,SNR=2.3						
	comp=Z,0.4nm,0.3s						
MAKZ	**Makanchi**	**61.57**	**316**	P	**P**	**14 12 35.2**	**-0.1**
MAKZ				IAmb	IAmb	14 12 35.8	
	comp=Z,2.0nm,0.6s						
N19K	**Bonanza Creek**	**64.21**	**28**	P	**P**	**14 12 52.5**	**-0.1**
N19K				IAmb	IAmb	14 13 02.3	
	comp=Z,9.7nm,1.2s						
KURK	**Kurchatov**	**64.46**	**320**	P	**P**	**14 12 53.4**	**-0.9**
KURK				IAmb	IAmb	14 12 54.1	
	comp=Z,3.2nm,0.7s						
KURBB	**Kurchatov Arra**	**64.50**	**320**	P	**P**	**14 12 54.1**	**-0.5**
	comp=Z,2.7nm,0.6s,baz=102,slow=6.8,SNR=20						
	comp=Z,2.7nm,0.6s						
J19K	**Poorman**	**64.83**	**25**	P	**P**	**14 12 56.6**	**+0.1**
J19K				IAmb	IAmb	14 13 18.1	
	comp=Z,13nm,1.5s						
CAST	**Castle Rocks**	**66.12**	**26**	P	**P**	**14 13 04.6**	**-0.2**
CAST				IAmb	IAmb	14 13 40.4	
	comp=Z,6.1nm,1.3s						
RC01	**Rabbit Creek A**	**66.50**	**29**	P	**P**	**14 13 06.5**	**-0.8**
IL31		**68.69**	**25**	P	**P**	**14 13 19.0**	**-1.9**
ILAR	**Eielson Array**	**68.69**	**25**	P	**P**	**14 13 19.2**	**-1.8**
	comp=Z,0.4nm,0.4s,baz=252,slow=5.9,SNR=11						
	comp=Z,0.4nm,0.4s						
D24K	**Happy Valley**	**69.13**	**21**	P	**P**	**14 13 23.6**	**0.0**
BVAR	**Borovoye Array**	**69.81**	**322**	P	**P**	**14 13 27.4**	**-0.7**
	comp=Z,1.6nm,0.7s,baz=101,slow=7.8,SNR=7.2						
	comp=Z,1.6nm,0.7s						
BMAR	**Burnt Mountain**	**70.21**	**23**	P	**P**	**14 13 30.1**	**-0.2**
BCAR	**Beaver Creek A**	**70.57**	**28**	P	**P**	**14 13 32.3**	**-0.3**
D27M	**Malcolm River**	**71.88**	**21**	P	**P**	**14 13 40.1**	**-0.3**
H31M	**Peel River**	**74.04**	**25**	P	**P**	**14 13 53.4**	**+0.2**
H31M				IAmb	IAmb	14 14 02.5	
	comp=Z,8.2nm,1.4s						
AB31	**Akbulak array**	**76.41**	**318**	P	**P**	**14 14 07.3**	**+0.3**
ABKAR	**Akbulak array**	**76.41**	**318**	P	**P**	**14 14 07.1**	**+0.1**
YKA	**Yellowknife Ar**	**82.98**	**27**	P	**P**	**14 14 41.5**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=288,slow=5.4,SNR=4.2						
	comp=Z,0.6nm,0.5s						
YBH	**Yreka Blue Hor**	**83.06**	**49**	P	**P**	**14 14 43.4**	**+0.1**
YBH				IAmb	IAmb	14 14 44.9	
	comp=Z,7.7nm,1.4s						
PINE	**Pine Mountain**	**83.89**	**47**	P	**P**	**14 14 47.7**	**+0.1**
PINE				IAmb	IAmb	14 14 48.7	
	comp=Z,4.8nm,0.7s						
EPH	**Ephrata**	**84.00**	**43**	P	**P**	**14 14 47.7**	**-0.1**
K05A	**Summer Lake**	**84.16**	**48**	P	**P**	**14 14 48.8**	**-0.2**
K05A				IAmb	IAmb	14 15 32.4	
	comp=Z,11nm,1.5s						
RES	**Resolute Bay**	**84.63**	**13**	P	**P**	**14 14 50.8**	**+0.4**
RES				IAmb	IAmb	14 14 54.9	
	comp=Z,4.6nm,1.3s						
PLID	**Pearl Lake**	**86.99**	**44**	P	**P**	**14 15 02.2**	**-0.8**
NVAR	**Mina Array Bea**	**87.11**	**51**	P	**P**	**14 15 03.6**	**-0.1**
	comp=Z,1.3nm,0.7s,baz=265,slow=5.9,SNR=9.0						
	comp=Z,1.3nm,0.7s						
NVAR	**Mina Array Bea**	**87.11**	**51**	P	**P**	**14 15 03.1**	**-0.6**
VNDA	**Vanda**	**91.45**	**176**	P	**P**	**14 15 23.2**	**+0.3**
	comp=Z,1.2nm,1.0s,baz=332,slow=7.1,SNR=3.7						
	comp=Z,1.2nm,1.0s						
VNDA	**Vanda**	**91.45**	**176**	IAmb	IAmb	14 15 24.7	
	comp=Z,2.1nm,1.1s						
DBIC	**Dimbokro**	**143.65**	**302**	PKhKP	PKPpre	14 21 49.5	
	comp=Z,2.1nm,0.3s,baz=62,slow=4.1,SNR=3.8						
LPAZ	**La Paz**	**148.24**	**99**	PKPbc	**PKPbc**	**14 22 04.7**	**+0.1**
	comp=Z,4.3nm,0.7s,baz=324,slow=2.1,SNR=12						
LPAZ	**La Paz**	**148.24**	**99**		**PKPbc**	**14 22 05.1**	**+0.5**

BJI ***24*** *14:07:32.3,22.00S×175.76W,h62km,mB5.4/4,mb4.9/26, Ms4.9/1,Ms7.4/2*

MOS ***24*** *14:07:32.60.9,22.17S×176.29W,h54km,mb5.4/15, Error ellipse: s-maj=12.2km s-min=11.4km az=23.5*

NEIC ***24*** *14:07:35.61.4,22.18S±0.09×176.2W±0.1,h65km±5km, mb5.2/80,Error ellipse: s-maj=14.4km s-min=11.6km az=128.0*

GFZ ***24*** *14:07:40.50.2,22°S±3°×17°6W±°,h123km,M5.0/39, mb5.1/39,confirmed*

GCMT ***24*** *14:07:42.60.3,22.36S±0.02×176.00W±0.02, h122km±3km,MW4.9/105,Moment Tensor Solution. s31,c35; s105,c130; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.31±.12; Mθθ0.88±.15; Mφφ-0.57±.14; Mrθ-1.36±.08; Mrφ-0.17±.12; Mθφ-2.25±.07; Best double couple: M◻2.69700×10^16 NP1:φs303.00000°,δ14.00000°, λ-3.00000°. NP2:φs36.00000°,δ89.00000°,λ-104.00000°. Principal axes: T 2.3990, Plg43.0000°, Azm139.0000°; N 0.5970, Plg14.0000°, Azm36.0000°; P -2.9950, Plg44.0000°, Azm292.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NOU ***24*** *14:07:43.1,22.20S×176.03W,h108km,mb5.4/19,South of Fiji Islands*

IDC ***24*** *14:07:46.22.2,22.14S×176.49W,h155km±18km, mb4.2/17,mbtmp4.7/19,MS3.5/17,Error ellipse: s-maj=15.4km s-min=12.1km az=94.0*

ISC 24 14:07:34.7±0.4, 22.15S±0.04×176.08W±0.05, h65km±3km, h65km:pP-P,n434,σ1s58/430, mb5.2/104, 46C-28D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
LKBA	**Tubou, Lakemba**	**4.67**	**326**	P		Pn	14 08 52.0	+9.3
TAVE	**Taveuni**	**6.51**	**326**	P		Pn	14 09 17.0	+9.1
NIUE	**Niue**	**6.52**	**63**			**Pn**	**14 09 10.0**	**+2.0**
NIUE	**Niue**	**6.52**	**63**	P		**Pn**	**14 09 10.5**	**+2.5**
NIUE				S		Sn	14 10 15.3	-5.7
NIUE				AML		AML		
NIUE	**Niue**	**6.52**	**63**	P		**Pn**	**14 09 09.5**	**+1.5**
	comp=Z,417nm,1.0s							
DGTI	**Dogotuki**	**7.03**	**325**	P		Pn	14 09 23.5	+8.4
MSVF	**Nonsavu**	**7.06**	**307**	P		Pn	14 09 24.6	+9.1
	comp=Z,149nm,0.8s,baz=130,slow=14,SNR=73							
MSVF				LR		LR	14 11 29.7	
	comp=Z,296nm,21.2s,baz=119,slow=33							
MSVF	**Nonsavu**	**7.06**	**307**	P		Pn	14 09 24.8	+9.3
MSVF	**Nonsavu**	**7.06**	**307**	P		Pn	14 09 24.6	+9.1
MSVF				AML		AML		
MSVF	**Nonsavu**	**7.06**	**307**	P		Pn	14 09 24.6	+9.1
	comp=Z,250nm,0.8s							
RIZ	**Raoul Island**	**7.26**	**193**	P		Pn	14 09 23.4	+5.2
RIZ				S		**Sn**	**14 10 40.9**	**+1.7**
RIZ				AML		AML		
RAO	**Raoul Island**	**7.27**	**193**	P		Pn	14 09 29.9	+12
	comp=Z,89nm,0.3s,baz=141,slow=20,SNR=1.5							
RAO				S		**Sn**	**14 10 37.7**	**-1.6**
	comp=Z,400nm,0.3s,baz=237,slow=23,SNR=12							
RAO	**Raoul Island**	**7.27**	**193**	Pn		**Pn**	**14 09 18.8**	**+0.6**
RAO						**Sn**	**14 10 41.1**	**+1.8**
RAO	**Raoul Island**	**7.27**	**193**	P		**Pn**	**14 09 22.8**	**+4.5**
RAO				AML		AML		
GLKZ	**Green Lake**	**7.28**	**193**	P		**Pn**	**14 09 22.2**	**+3.8**
GLKZ				S		**Sn**	**14 10 38.9**	**-0.6**
GLKZ				AML		AML		
FUTU	**Fugatoga**	**8.04**	**346**	P		Pn	14 09 39.2	+10
FUTU	**Fugatoga**	**8.04**	**346**	P		Pn	14 09 38.5	+10
	comp=Z,168nm,1.5s							
AFI	**Afiamalu**	**9.16**	**27**	P		**Pn**	**14 09 45.7**	**+1.5**
	comp=Z,11nm,0.3s,baz=11,slow=1.5,SNR=11							
AFI				S		**Sn**	**14 11 20.1**	**-5.7**
	comp=Z,42nm,0.4s,baz=61,slow=19,SNR=3.6							
FUNA	**Funafuti**	**14.29**	**341**	P		**P**	**14 10 59.4**	**+0.2**
	comp=Z,81nm,1.6s							
MARNC	**Mare, Loyalty**	**14.78**	**270**	P		**P**	**14 11 07.0**	**+2.4**
MARNC	**Mare, Loyalty**	**14.78**	**270**			**P**	**14 11 03.6**	**-1.0**
RAR	**Rarotonga**	**15.19**	**90**	P		**Pn**	**14 11 07.0**	**+1.6**
	comp=Z,35nm,0.6s,baz=255,slow=10,SNR=18							
RAR				S		Sn	14 13 42.4	-10
	comp=Z,59nm,0.6s,baz=267,slow=16,SNR=8.4							
RAR				LR		LR	14 17 37.6	
	comp=Z,66nm,18.9s,baz=274,slow=38							
RAR	**Rarotonga**	**15.19**	**90**	P		**P**	**14 11 11.2**	**+2.1**
RAR	**Rarotonga**	**15.19**	**90**	P		**Pn**	**14 11 07.2**	**+1.8**
RAR				pmax		pmax		
	comp=Z,110nm,1.2s							
RAR	**Rarotonga**	**15.19**	**90**	Pn		**Pn**	**14 11 07.2**	**+1.8**
RAR						**Sn**	**14 13 45.6**	**-7.0**
RAR	**Rarotonga**	**15.19**	**90**	P		**Pn**	**14 11 08.1**	**+2.7**
RAR				S		Sn	14 13 40.8	-12
RAR	**Rarotonga**	**15.19**	**90**	P		**Pn**	**14 11 07.0**	**+1.6**
	comp=Z,106nm,1.7s							
RTV	**Rentapao**	**15.20**	**284**	P		**P**	**14 11 13.8**	**+4.5**
PINNC	**Pines Island,**	**15.25**	**265**	P		**P**	**14 11 13.7**	**+3.9**
DVP	**Devils Point**	**15.44**	**284**	P		**P**	**14 11 16.0**	**+4.1**
YATNC	**Mamie plateau,**	**15.79**	**267**	P		**P**	**14 11 21.0**	**+5.2**
OUZ	**Omahuta**	**15.85**	**213**	P		**P**	**14 11 17.7**	**+1.3**
ONTNC	**Ouen Toro**	**16.18**	**266**	P		**P**	**14 11 25.1**	**+5.0**
ONTNC	**Ouen Toro**	**16.18**	**266**	Pn		**Pn**	**14 11 17.3**	**-0.7**
DZM	**Mont Dzumac**	**16.20**	**267**	P		**P**	**14 11 24.0**	**+3.5**
	comp=Z,111nm,1.1s,baz=86,slow=18,SNR=29							
NOUC	**Port Laguerre**	**16.33**	**267**	P		**P**	**14 11 26.6**	**+4.8**
PUZ	**Puketiti**	**16.60**	**196**	P		**Pn**	**14 11 23.8**	**+0.5**
RUGZ	**Raukumara Rang**	**16.66**	**197**	P		**Pn**	**14 11 22.4**	**-1.7**
CNGZ	**Carnagh Statio**	**17.01**	**196**	P		**Pn**	**14 11 26.8**	**-1.4**
URZ	**Urewera**	**17.09**	**199**	P		**Pn**	**14 11 28.5**	**-0.8**
	comp=Z,11nm,0.6s,baz=337,slow=2.5,SNR=20							
URZ				S		Sn	14 14 22.0	-17
	comp=Z,12nm,0.5s,baz=68,slow=22,SNR=11							
URZ	**Urewera**	**17.09**	**199**	P		**Pn**	**14 11 28.7**	**-0.6**
	comp=Z,23nm,1.7s							
SANVU	**Saraoutou**	**17.17**	**290**	P		**P**	**14 11 36.0**	**+4.9**
SANVU	**Saraoutou**	**17.17**	**290**	P		**P**	**14 11 36.2**	**+5.1**
	comp=Z,395nm,1.4s							
NMHZ	**Naumai**	**17.96**	**198**	P		**P**	**14 11 38.6**	**-1.2**
BKZ	**Black Stump Fm**	**18.11**	**199**	P		**P**	**14 11 38.2**	**-3.2**
BHHZ	**Black Hill Sta**	**18.54**	**199**	P		**P**	**14 11 42.7**	**-3.4**
KAHZ	**Kahuranaki**	**18.59**	**197**	P		**P**	**14 11 45.5**	**-1.1**
KRHZ	**Kereru**	**18.59**	**199**	P		**P**	**14 11 43.2**	**-3.5**
PXZ	**Pawanui**	**18.81**	**197**	P		**P**	**14 11 47.3**	**-1.7**
WPHZ	**Waipukurau**	**18.96**	**198**	P		**P**	**14 11 50.5**	**-0.1**
ANWZ	**Angora Road**	**19.32**	**197**	P		**Pn**	**14 11 56.4**	**+0.2**
BFZ	**Birch Farm**	**19.59**	**198**	P		**P**	**14 11 56.3**	**-1.2**
BFZ	**Birch Farm**	**19.59**	**198**	P		**P**	**14 11 56.0**	**-1.5**
MRZ	**Mangatainoka R**	**19.76**	**199**	P		**P**	**14 11 56.9**	**-2.5**
TUWZ	**Tuamarina**	**20.98**	**201**	P		**P**	**14 12 08.6**	**-4.0**
LTZ	**Lake Taylor**	**22.76**	**203**	P		**P**	**14 12 30.3**	**-1.3**
INZ	**Inchbonnie**	**23.01**	**204**			**P**	**14 12 32.8**	**-1.4**
INZ				IAmb		IAmb	14 12 37.3	
	comp=Z,60nm,1.1s							
RPZ	**Rata Peaks**	**24.01**	**203**	LR		LR	14 22 38.5	
	comp=Z,20nm,19.2s,baz=46,slow=37							
TBI	**Tubuai**	**24.56**	**98**	*e*S		**S**	**14 16 59.2**	**-5.9**
	comp=Z,623nm,28.8s							
TBI				*e*LR		LR	14 19 01.0	
	comp=Z,2μm,33.8s							
PPT2	**Papeete2**	**25.32**	**84**	*e*LR		LR	14 19 14.7	
	comp=Z,167nm,26.2s							
PPT2				*e*LR		LR	14 19 21.7	
	comp=Z,214nm,24.2s							
PPT	**Papeete**	**25.32**	**84**	LR		LR	14 20 37.8	
	comp=Z,111nm,20.4s,baz=288,slow=30							
TIAR	**Tiarei**	**25.54**	**84**	*e*P		**P**	**14 12 59.8**	**+2.3**
	comp=Z,450nm,0.9s							
MLZ	**Mavora Lakes**	**26.53**	**205**	P		**P**	**14 13 04.2**	**-2.0**
ARMA	**Armidale**	**30.03**	**247**	P		**P**	**14 13 37.9**	**+0.2**
ARMA	**Armidale**	**30.03**	**247**	P		**P**	**14 13 38.7**	**+1.0**
	comp=Z,24nm,1.9s							
EIDS	**Eidsvold**	**30.19**	**257**	P		**P**	**14 13 39.1**	**0.0**
EIDS	**Eidsvold**	**30.19**	**257**	P		**P**	**14 13 39.3**	**+0.3**
	comp=Z,18nm,0.7s							
CAN	**Canberra**	**33.14**	**239**	P		**P**	**14 14 04.4**	**-0.6**
CAN				pmax		pmax		
	comp=Z,76nm,1.9s							
CAN	**Canberra**	**33.14**	**239**	P		**P**	**14 14 04.4**	**-0.6**
CAN				IAmb		IAmb	14 14 24.0	
	comp=Z,76nm,1.9s							
CAN	**Canberra**	**33.14**	**239**	P		**P**	**14 14 05.7**	**+0.7**
CTAO	**Charters Tower**	**35.14**	**266**	P		**P**	**14 14 23.0**	**+0.6**
CTAO				pmax		pmax		
	comp=Z,66nm,0.6s							
CTAO	**Charters Tower**	**35.14**	**266**	P		**P**	**14 14 23.0**	**+0.6**
CTAO	**Charters Tower**	**35.14**	**266**	P		**P**	**14 14 22.8**	**+0.4**
	comp=Z,66nm,0.6s							
CTAO	**Charters Tower**	**35.14**	**266**	P		**P**	**14 14 22.6**	**+0.2**
CTAO				PcP		**PcP**	**14 16 53.8**	**+1.1**
CMSA	**Cobar Meteorol**	**35.22**	**246**	P		**P**	**14 14 22.9**	**-0.1**
	comp=Z,44nm,0.8s							
QLP	**Quilpie**	**36.32**	**255**	P		**P**	**14 14 32.2**	**-0.2**
	comp=Z,80nm,1.0s							
TAU	**Tasmania Unive**	**36.77**	**227**	P		**P**	**14 14 34.4**	**-1.6**
TAU				pmax		pmax		
	comp=Z,53nm,1.3s							
TAU	**Tasmania Unive**	**36.77**	**227**	P		**P**	**14 14 34.4**	**-1.6**
TAU				IAmb		IAmb	14 15 17.5	
	comp=Z,53nm,1.3s							
TAOE	**Nuku Hiva Isla**	**36.95**	**75**	*e*LR		LR	14 24 41.4	
	comp=Z,206nm,28.3s							
MTSU	**Mount Surprise**	**37.33**	**269**	P		**P**	**14 14 41.7**	**+0.6**
	comp=Z,32nm,0.8s							
PMG	**Port Moresby**	**37.47**	**284**	LR		LR	14 27 51.9	
	comp=Z,79nm,19.4s,baz=115,slow=32							
PMG	**Port Moresby**	**37.47**	**284**	P		**P**	**14 14 42.7**	**+0.5**
PMG				pmax		pmax		
	comp=Z,40nm,0.8s							
PMG	**Port Moresby**	**37.47**	**284**	P		**P**	**14 14 42.7**	**+0.5**
PMG				IAmb		IAmb	14 14 44.5	
	comp=Z,40nm,0.8s							
PMG	**Port Moresby**	**37.47**	**284**	P		**P**	**14 14 42.2**	**-0.1**
	comp=Z,53nm,1.0s							
PMG	**Port Moresby**	**37.47**	**284**	P		**P**	**14 14 42.8**	**+0.5**
	comp=Z,53nm,1.0s							
PMG	**Port Moresby**	**37.47**	**284**	P		**P**	**14 14 42.5**	**+0.2**
PMG				PcP		**PcP**	**14 16 59.9**	**+0.2**
STKA	**Stephens Creek**	**38.73**	**246**	P		**P**	**14 14 52.0**	**-0.7**
	comp=Z,11nm,0.6s,baz=96,slow=11,SNR=24							
STKA				LR		LR	14 28 10.6	
	comp=Z,45nm,21.0s,baz=34,slow=32							
	comp=Z,11nm,0.6s							
STKA	**Stephens Creek**	**38.73**	**246**	P		**P**	**14 14 51.9**	**-0.8**
STKA				pmax		pmax		
	comp=Z,270nm,1.8s							
STKA	**Stephens Creek**	**38.73**	**246**	P		**P**	**14 14 51.9**	**-0.8**
STKA	**Stephens Creek**	**38.73**	**246**	P		**P**	**14 14 52.8**	**0.0**
	comp=Z,76nm,0.6s							
INKA	**Innaminka**	**39.40**	**253**	P		**P**	**14 14 58.6**	**+0.3**
INKA				IAmb		IAmb	14 15 00.7	
	comp=Z,26nm,1.3s							
QIS	**Mount Isa**	**41.20**	**264**	P		**P**	**14 15 13.0**	**-0.4**
	comp=Z,9.8nm,1.0s							
BBOO	**Buckleboo**	**43.46**	**245**	P		**P**	**14 15 29.5**	**-2.0**
BBOO				IAmb		IAmb	14 15 32.0	
	comp=Z,41nm,1.5s							
BBOO	**Buckleboo**	**43.46**	**245**	P		**P**	**14 15 30.1**	**-1.5**
	comp=Z,210nm,0.6s							
AS31	**Alice Springs**	**45.91**	**258**	P		**P**	**14 15 50.3**	**-1.0**
ASAR	**Alice Springs**	**45.91**	**258**	P		**P**	**14 15 50.1**	**-1.2**
	comp=Z,42nm,0.9s,baz=92,slow=6.7,SNR=234							
ASAR				PcP		**PcP**	**14 17 26.4**	**-1.1**
	comp=Z,6.3nm,0.7s,baz=106,slow=3.9,SNR=9.7							
ASAR				ScP		**ScP**	**14 21 07.0**	**-8.0**
	comp=Z,1.2nm,1.0s,baz=89,slow=3.1,SNR=4.5							
ASAR				S			14 22 16.2	-15
	comp=Z,0.7nm,0.8s,baz=99,slow=14,SNR=4.3							
ASAR				LR		LR	14 33 47.4	
	comp=Z,76nm,19.1s,baz=90,slow=34							
	comp=Z,42nm,0.9s							
ASAR	**Alice Springs**	**45.91**	**258**	P		**P**	**14 15 50.2**	**-1.1**
ASAR	**Alice Springs**	**45.91**	**258**	P		**P**	**14 15 50.2**	**-1.1**
WR8	**Warramunga Arr**	**46.02**	**263**	P		**P**	**14 15 50.2**	**-1.9**
WR8				IAmb		IAmb	14 15 52.5	
	comp=Z,21nm,1.0s							
WB0	**Warramunga Arr**	**46.16**	**263**	IAmb		IAmb	14 15 53.5	
	comp=Z,25nm,0.7s							
WRAB	**Tennant Creek**	**46.16**	**263**	*d*P		**P**	**14 15 51.3**	**-1.9**
WRAB				pmax		pmax		
	comp=Z,33nm,0.9s							
WRAB	**Tennant Creek**	**46.16**	**263**	P		**P**	**14 15 51.0**	**-2.2**
WRAB				IAmb		IAmb	14 15 53.5	
	comp=Z,28nm,0.9s							
WRAB	**Tennant Creek**	**46.16**	**263**	P		**P**	**14 15 51.6**	**-1.6**
	comp=Z,37nm,1.1s							
WRAB	**Tennant Creek**	**46.16**	**263**	P		**P**	**14 15 51.3**	**-1.9**
WRAB				PcP		**PcP**	**14 17 28.0**	**-0.3**
WRA	**Warramunga Arr**	**46.17**	**263**	P		**P**	**14 15 51.7**	**-1.6**
	comp=Z,13nm,0.5s,baz=103,slow=9.3,SNR=175							
WRA				PcP		**PcP**	**14 17 27.7**	**-0.6**
	comp=Z,6.5nm,0.9s,baz=99,slow=3.7,SNR=8.6							
WRA				S		S	14 22 19.0	-16
	comp=Z,0.3nm,0.8s,baz=99,slow=15,SNR=2.3							
	comp=Z,13nm,0.5s							
WRA	**Warramunga Arr**	**46.17**	**263**	P		**P**	**14 15 51.7**	**-1.6**
HON	**Honolulu**	**46.67**	**23**	P		**P**	**14 15 56.8**	**-0.2**
	comp=Z,198nm,1.0s							
GENI	**Genyen**	**46.70**	**288**	P		**P**	**14 15 57.3**	**-0.1**
	comp=Z,38nm,0.5s							
SMPI	**Sarmi**	**48.27**	**288**	P		**P**	**14 16 09.6**	**0.0**
	comp=Z,27nm,0.9s							
FORT	**Forrest**	**50.31**	**248**	P		**P**	**14 16 23.6**	**-1.5**
BAKI	**Biak**	**50.94**	**287**	P		**P**	**14 16 27.2**	**-2.8**
KNRA	**Kununurra**	**52.35**	**267**	P		**P**	**14 16 39.4**	**-1.1**
DRV	**Dumont d'Urvil**	**52.42**	**200**	P		**P**	**14 16 42.3**	**+2.1**
FAKI	**Fak Fak**	**53.62**	**283**	P		**P**	**14 16 47.0**	**-2.9**
FITZ	**Fitzroy Crossi**	**54.60**	**263**	P		**P**	**14 16 55.6**	**-1.3**
	comp=Z,6.5nm,1.3s							
BNDI	**Bandanaira**	**55.09**	**280**	P		**P**	**14 16 59.5**	**-1.0**
BNDI	**Bandanaira**	**55.09**	**280**	P		**P**	**14 16 59.3**	**-1.2**
	comp=Z,150nm,0.6s							
SBA	**Scott Base**	**56.36**	**184**	P		**P**	**14 17 09.5**	**+0.8**
SBA				pmax		pmax		
	comp=Z,9.0nm,0.9s							
SBA	**Scott Base**	**56.36**	**184**	P		**P**	**14 17 09.5**	**+0.8**
SBA	**Scott Base**	**56.36**	**184**	P		**P**	**14 17 11.6**	**+2.9**
	comp=Z,14nm,0.9s							
VNDA	**Vanda**	**56.45**	**186**	P		**P**	**14 17 11.2**	**+1.9**
	comp=Z,2.4nm,0.9s,baz=351,slow=7.1,SNR=10							
	comp=Z,2.4nm,0.9s							
VNDA	**Vanda**	**56.45**	**186**	P		**P**	**14 17 09.6**	**+0.3**
VNDA				pmax		pmax		
	comp=Z,4.0nm,1.0s							
VNDA	**Vanda**	**56.45**	**186**	P		**P**	**14 17 09.6**	**+0.3**
VNDA	**Vanda**	**56.45**	**186**	P		**P**	**14 17 09.8**	**+0.5**
	comp=Z,4.5nm,1.4s							
VNDA	**Vanda**	**56.45**	**186**	P		**P**	**14 17 11.4**	**+2.2**
SOEI	**Soe**	**58.35**	**272**	P		**P**	**14 17 24.4**	**+0.6**
	comp=Z,123nm,0.8s							
KLBR	**Kellerberrin**	**59.00**	**246**	P		**P**	**14 17 27.0**	**-1.0**
	comp=Z,39nm,0.6s							
MEEK	**Meekatharra**	**59.09**	**251**	P		**P**	**14 17 27.5**	**-1.2**
	comp=Z,12nm,0.8s							
MBWA	**Marble Bar**	**59.26**	**258**	P		**P**	**14 17 28.1**	**-1.7**
MBWA				PcP		**PcP**	**14 18 17.1**	**-0.5**
TNTI	**Ternate**	**59.61**	**285**	P		**P**	**14 17 31.7**	**-0.7**
TNTI				IAmb		IAmb	14 17 33.8	
	comp=Z,28nm,1.0s							
TNTI	**Ternate**	**59.61**	**285**	P		**P**	**14 17 30.4**	**-2.0**
	comp=Z,31nm,0.9s							
TNTI	**Ternate**	**59.61**	**285**	P		**P**	**14 17 31.7**	**-0.7**
	comp=Z,31nm,0.9s							
SANI	**Sanana**	**59.66**	**281**	P		**P**	**14 17 30.9**	**-1.8**
	comp=Z,36nm,0.7s							
SANI	**Sanana**	**59.66**	**281**	P		**P**	**14 17 31.8**	**-1.0**
	comp=Z,35nm,0.7s							
BLDU	**Ballidu**	**60.04**	**247**	P		**P**	**14 17 33.3**	**-1.8**
	comp=Z,23nm,1.2s							
MMRI	**Maumere**	**60.61**	**272**	P		**P**	**14 17 38.0**	**-1.3**
MMRI	**Maumere**	**60.61**	**272**	P		**P**	**14 17 38.0**	**-1.3**
	comp=Z,47nm,0.8s							
MORW	**Morawa**	**60.87**	**248**	P		**P**	**14 17 39.8**	**-1.1**
MORW	**Morawa**	**60.87**	**248**	P		**P**	**14 17 39.4**	**-1.4**
	comp=Z,21nm,0.7s							
EDFI	**Ende, Flores**	**61.08**	**

PET Petropavlovsk 78.01 345 P P 14 19 25.5 -0.3
comp=Z,48nm,2.0s
YSS Yuzhno-Sakhali 78.17 333 eP P 14 19 27.0 +0.2
YSS pmax pmax
comp=Z,10.0nm,0.5s
YSS Yuzhno-Sakhali 78.17 333 P P 14 19 27.8 +0.9
PEA0B Petropavlovsk- 78.33 344 P P 14 19 28.0 +0.4
PEA0B pmax pmax
comp=Z,58nm,1.3s
PEA0B Petropavlovsk- 78.33 344 P P 14 19 28.0 +0.4
PEA0B lAmb lAmb 14 20 32.3
comp=Z,58nm,1.3s
PETK Petropavlovsk- 78.33 344 P P 14 19 27.8 +0.2
comp=Z,6.9nm,0.7s,baz=119,slow=7.0,SNR=18
PETK LR LR 14 51 38.8
comp=Z,44nm,19.4s,baz=76,slow=34
comp=Z,6.9nm,0.7s
PETK Petropavlovsk- 78.33 344 P P 14 19 27.9 +0.3
PETK Petropavlovsk- 78.33 344 P P 14 19 27.9 +0.3
LPIG La Paz 78.72 58 LR LR 14 50 11.7
comp=Z,65nm,18.8s,baz=300,slow=32
KSRS Korea Array 79.31 318 P P 14 19 33.7 +0.4
comp=Z,1.0nm,0.6s,baz=128,slow=6.3,SNR=6.4
comp=Z,1.0nm,0.6s
MAW Mawson 80.62 199 P P 14 19 41.5 +1.6
comp=Z,4.6nm,0.7s,baz=136,slow=8.7,SNR=13
comp=Z,4.6nm,0.7s
MAW Mawson 80.62 199 P P 14 19 40.4 +0.4
MAW pmax pmax
comp=Z,1.0nm,0.7s
MAW Mawson 80.62 199 P P 14 19 40.4 +0.4
MAW Mawson 80.62 199 P P 14 19 42.0 +2.0
comp=Z,2.2nm,0.9s
NVAR Mina Array Bea 81.01 42 P P 14 19 46.0 +3.2
comp=Z,1.0nm,0.7s,baz=226,slow=9.0,SNR=7.3
comp=Z,1.0nm,0.7s
NVAR Mina Array Bea 81.01 42 P P 14 19 43.9 +1.2
TYV Tymovskoe 81.28 335 eP P 14 19 51.9 +8.3
TYV pmax pmax
comp=Z,25nm,1.6s
TYV pmax pmax
comp=Z,300nm,5.4s
USA0B Ussuriysk Arra 81.33 325 c iP P 14 19 45.3 +1.3
USRK Ussuriysk Ar. 81.33 325 P P 14 19 45.2 +1.2
comp=Z,4.2nm,0.7s,baz=63,slow=3.2,SNR=10
USRK LR LR 14 52 00.1
comp=Z,37nm,19.3s,baz=60,slow=33
comp=Z,4.2nm,0.7s
USRK Ussuriysk Ar. 81.33 325 P P 14 19 44.6 +0.5
USRK Ussuriysk Ar. 81.33 325 P P 14 19 44.6 +0.5
NJ2 Nanjing 82.31 309 eP P 14 19 51.1 +1.7
NJ2 pmax pmax
comp=Z,7.0nm,0.7s
MDJ Mudanjiang 82.89 324 P P 14 19 54.0 +1.8
MDJ pmax pmax
comp=Z,11nm,0.8s
H03S2 Juan Fernandez 83.59 124 T T 15 51 55.6
baz=246,slow=74,SNR=381
H03S1 Juan Fernandez 83.60 124 T T 15 52 04.0
baz=246,slow=74,SNR=407
H03S3 Juan Fernandez 83.60 124 T T 15 52 01.4
baz=246,slow=74,SNR=456
ILSW Iliamna Southw 83.96 11 lAmb lAmb 14 19 59.4
comp=Z,28nm,0.8s
BNX BinXian 84.80 324 ⇑P P 14 20 01.9 0.0
BNX pmax pmax
comp=Z,9.0nm,0.7s
KLR Kul'dur 84.86 329 ⇓eP P 14 20 01.7 -0.4
KLR pmax pmax
comp=Z,19nm,2.8s
IPM Ipoh 85.11 277 P 14 20 03.6 -0.7
IPM Ipoh 85.11 277 P P 14 20 04.0 -0.3
comp=Z,34nm,0.7s
ELIB Princess Elisa 85.21 186 dP P 14 20 03.9 +0.1
comp=Z,5.0nm,0.9s
SYO Syowa Base 85.51 192 ⇓eP P 14 20 05.4 +0.2
SUA Susitna One 85.78 12 lAmb lAmb 14 20 08.3
comp=Z,21nm,0.6s
MA2 Magadan 85.85 344 LR LR 14 51 26.6
comp=Z,24nm,20.8s,baz=74,slow=31
MA2 Magadan 85.85 344 ⇓eP P 14 20 06.0 -0.8
MA2 pmax pmax
comp=Z,70nm,1.7s
TROLL Troll, Antarti 86.09 180 ⇓P P 14 20 08.2 0.0
comp=Z,99nm,0.6s
TROLL ⇓pP pP 14 20 22.2 -3.7
comp=Z,232nm,0.5s
VNA3 Neumayer Olymp 86.38 176 ⇑P P 14 20 09.3 -0.3
comp=Z,3.4nm,0.6s
VNA3 Neumayer Olymp 86.38 176 P P 14 20 09.7 +0.1
comp=Z,10.0nm,0.8s
TXAR Lajitas Array 86.45 57 P P 14 20 13.2 +2.5
comp=Z,1.4nm,0.9s,baz=214,slow=7.9,SNR=9.3
comp=Z,1.4nm,0.9s
J18K Innoko River 86.68 9 lAmb lAmb 14 20 13.3
comp=Z,19nm,1.1s
VNA2 Neumayer--Watz 86.84 176 ⇑P P 14 20 10.0 -1.8
comp=Z,5.0nm,0.6s,baz=206,slow=4.2
VNA2 ⇓pP pP 14 20 26.5 -3.0
comp=Z,4.2nm,0.7s,baz=189,slow=4.8
VNA2 Neumayer--Watz 86.84 176 P P 14 20 10.9 -0.9
comp=Z,11nm,0.7s
PLCA Paso Flores 86.84 133 P P 14 20 14.1 +1.6
comp=Z,1.7nm,0.7s,baz=221,slow=16,SNR=3.6
PLCA LR LR 14 57 57.6
comp=Z,31nm,18.6s,baz=241,slow=35
comp=Z,1.7nm,0.7s
PLCA Paso Flores 86.84 133 P P 14 20 13.8 +1.3
ANMO Albuquerque 87.05 50 LR LR 14 55 44.2
comp=Z,81nm,18.4s,baz=316,slow=33
ANMO Albuquerque 87.05 50 ⇓eP P 14 20 12.6 -1.0
ANMO pmax pmax
comp=Z,10.0nm,2.3s
GSI Gunungsitoli 87.10 273 P P 14 20 14.0 -0.1
comp=Z,48nm,0.8s
CAST Castle Rocks 87.35 11 P P 14 20 13.9 -0.2
CAST lAmb lAmb 14 20 14.8
comp=Z,8.7nm,0.8s
TRF Thorofare Moun 87.69 11 lAmb lAmb 14 20 17.4
comp=Z,21nm,0.8s
MCK McKinley 88.20 12 lAmb lAmb 14 20 19.9
comp=Z,25nm,1.1s
BJI2 Beijing 88.31 315 P P 14 20 19.6 +0.4
BJI2 pmax pmax
comp=Z,5.0nm,0.5s
SEY Seymchan 88.39 346 ⇓eP P 14 20 19.5 +0.5
SEY pmax pmax
comp=Z,19nm,0.8s
ENH Enshi 88.44 304 P P 14 20 20.1 0.0
PDAR Pinedale Array 88.94 42 P P 14 20 25.0 +2.6
comp=Z,0.6nm,0.8s,baz=204,slow=3.3,SNR=3.8
comp=Z,0.6nm,0.8s
MLY Manley 89.07 10 lAmb lAmb 14 20 23.0
comp=Z,5.4nm,0.6s
HDA Harding Lake 89.19 12 lAmb lAmb 14 20 24.1
comp=Z,6.0nm,0.5s
CCB Clear Creek Bu 89.24 12 lAmb lAmb 14 20 24.8
comp=Z,29nm,1.4s
COLA College 89.44 12 P P 14 20 24.0 +0.2
COLA pmax pmax
comp=Z,14nm,0.8s
COLA College 89.44 12 P P 14 20 24.0 +0.2
COLA lAmb lAmb 14 20 25.3
comp=Z,13nm,0.8s
COLA College 89.44 12 P P 14 20 24.7 +0.9
comp=Z,22nm,1.0s
COLA College 89.44 12 P P 14 20 24.4 +0.6
IL31 89.53 12 lAmb lAmb 14 21 36.9
comp=Z,37nm,1.9s
ILAR Eielson Array 89.53 12 P P 14 20 24.9 +0.6
comp=Z,2.4nm,0.8s,baz=217,slow=5.0,SNR=36
comp=Z,2.4nm,0.8s
H22K Ishtalitna Cre 89.76 10 lAmb lAmb 14 20 27.4
comp=Z,8.9nm,0.8s
E19K Redstone River 90.43 7 lAmb lAmb 14 20 30.7
comp=Z,13nm,0.8s
PRP Porcupine Dome 90.46 12 lAmb lAmb 14 20 58.3
comp=Z,14nm,1.6s
XAN Xi'an 90.55 307 P P 14 20 30.4 +0.5
XAN pP pP 14 20 43.5 -4.1
XAN pmax pmax
comp=Z,12nm,1.0s
DAWY Dawson 90.56 15 lAmb lAmb 14 20 31.9
comp=Z,14nm,0.9s
F21K Alatna River 90.69 9 lAmb lAmb 14 20 44.8
comp=Z,26nm,1.8s
K29M Barlow Dome 90.84 16 lAmb lAmb 14 20 33.7
comp=Z,11nm,1.0s
BILL Bilibino 90.86 353 ⇑eP P 14 20 30.7 +0.2
BILL pmax pmax
comp=Z,33nm,2.2s
BILL Bilibino 90.86 353 P P 14 20 31.1 +0.6
BILL lAmb lAmb 14 20 32.8
comp=Z,13nm,1.0s
KMI2 Kunming 91.69 296 P P 14 20 36.8 +1.1
KMI2 pmax pmax
comp=Z,20nm,0.6s
HHC Hu-ho-hao-te 91.78 314 eP P 14 20 38.6 +3.0
HHC pmax pmax
comp=Z,5.0nm,0.7s
HHC pmax pmax
comp=Z,57nm,4.7s
CMAR Chiang Mai Arr 92.35 289 P P 14 20 39.4 +0.8
comp=Z,5.8nm,0.8s,baz=132,slow=3.1,SNR=40
CMAR LR LR 15 00 29.9
comp=Z,11nm,20.9s,baz=100,slow=34
comp=Z,5.8nm,0.8s
CMAR Chiang Mai Arr 92.35 289 P P 14 20 37.7 -0.8
CMAR Chiang Mai Arr 92.35 289 P P 14 20 37.7 -0.8
CHTO Chiang Mai 92.48 289 P P 14 20 39.7 +0.5
comp=Z,14nm,0.7s
BTO2 Baotou 92.87 313 eP P 14 20 42.0 +1.4
BTO2 sP sP 14 21 05.0 -0.3
BTO2 S S 14 31 42.8 +1.6
BTO2 pmax pmax
comp=Z,13nm,0.6s
BTO2 pmax pmax
comp=Z,330nm,5.3s
JTS Las Juntas de 94.84 81 LR LR 14 54 42.6
comp=Z,30nm,19.8s,baz=328,slow=30
TNCH TengChong 95.18 295 P P 14 20 49.3 -2.4
TNCH pP pP 14 21 06.8 -2.5
TNCH S S 14 32 01.0 -1.2
TNCH sS pS 14 32 27.1 +2.4
TNCH SS SS 14 38 31.4 +1.1
TNCH pmax pmax
comp=Z,15nm,0.9s
TNCH L L
comp=Z,93nm,5.5s
TIXI Tiksi 100.80 345 ⇓iP Pdif 14 21 15.9 +0.3
TIXI pmax pmax
comp=Z,9.0nm,2.0s
TIXI Tiksi 100.80 345 P Pdif 14 21 15.6 +0.1
comp=Z,5.8nm,2.7s
TLY Talaya 101.30 321 ⇓eP Pdif 14 21 19.2 +0.9
TLY pmax pmax
comp=Z,5.0nm,0.9s
NRIK Noril'sk 112.76 338 ⇑iPKIKP PKiKP 14 26 02.7 -0.6
ZALV Zalesovo Beam 112.90 321 PKiKP PKiKP 14 26 02.9 -1.0
comp=Z,1.3nm,0.6s,baz=142,slow=0.6,SNR=8.6
MK31 Makanchi Array 113.63 313 c iPKIKP PKiKP 14 26 05.6 0.0
MKAR Makanchi Array 113.63 313 PKiKP PKiKP 14 26 04.2 -1.4
comp=Z,1.1nm,0.7s,baz=78,slow=1.0,SNR=7.4
KURK Kurchatov 116.42 317 ⇓iPKIKP PKPdf 14 26 10.3 -0.5
KURK pmax pmax
comp=Z,6.0nm,1.7s
KURK Kurchatov 116.42 317 PKPdf 14 26 09.4 -1.4
KURBB Kurchatov Arra 116.47 317 PKP PKPdf 14 26 09.7 -1.2
comp=Z,1.9nm,0.7s,baz=95,slow=1.7,SNR=19
BVAR Borovoye Array 121.49 320 PKP PKPdf 14 26 19.7 -0.8
comp=Z,5.0nm,0.6s,baz=116,slow=2.0,SNR=32
BORK Borovoye 121.53 320 PKIKP PKPdf 14 26 20.1 -0.5
BORK Borovoye 121.53 320 PKPdf 14 26 20.1 -0.5
KKAR Karatay Array 121.67 308 PKIKP PKPdf 14 26 20.2 -1.0
KKAR Karatay Array 121.67 308 PKPdf 14 26 20.2 -1.0
KBL Kabul 122.25 298 PKIKP PKPdf 14 26 22.3 -0.6
KBL Kabul 122.25 298 PKPdf 14 26 22.2 -0.6
SPITS Spitsbergen Ar 123.60 357 PKP PKPdf 14 26 24.1 +0.1
comp=Z,12nm,0.9s,baz=54,slow=2.5,SNR=3.0
BOSA Boshof 125.50 203 PKP PKPdf 14 26 29.1 -0.2
comp=Z,2.5nm,1.0s,baz=225,slow=2.9,SNR=1.6
ARTI Arti 127.68 325 i PKIKP PKPdf 14 26 32.5 +0.2
ARTI 14 28 34.8
ARTI 14 33 38.0
ARTI SS SS 14 45 40.8 -0.1
LVZ Lovozero 130.43 345 ⇓iPKIKP PKiKP 14 26 39.1 +1.0
ARCES ARCESS Array B 130.85 350 PKP PKPdf 14 26 38.0 +0.1
comp=Z,2.9nm,0.6s,baz=15,slow=1.3,SNR=11
KIRV Kirov 131.28 330 ⇓ePKIKP PKPdf 14 26 39.3 +0.3
KLMR Klimovskoe 134.10 337 ePKIKP PKPdf 14 26 41.3 -3.0
KLMR pmax pmax
comp=Z,12nm,1.1s
FINES FINESS Array B 137.84 344 PKhKP PKPpre 14 26 40.2
comp=Z,2.5nm,0.8s,baz=20,slow=6.1,SNR=4.9
FINES PKP PKPdf 14 26 51.3 +0.1
comp=Z,2.1nm,0.4s,baz=67,slow=2.9,SNR=14
OBN Obninsk 139.05 332 i PKIKP PKiKP 14 26 56.2 +0.4
OBN e 14 29 45.8
OBN ePPP PPP 14 32 47.7
OBN pmax pmax
comp=Z,7.0nm,1.3s
NB2 NORSAR Subarra 140.81 354 PKP PKPdf 14 26 48.5 -8.2
comp=Z,0.8nm,0.6s,baz=12,slow=3.0
NOA NORSAR Array B 140.81 354 PKhKP PKPpre 14 26 49.6
comp=Z,1.2nm,0.7s,baz=12,slow=2.3,SNR=5.4
HFS Hagfors 141.42 352 PKhKP PKPpre 14 26 50.6
comp=Z,1.9nm,0.3s,baz=73,slow=5.1,SNR=14
SHA1 Shidzhatmaz 141.48 313 ⇑ePKIKP PKPdf 14 26 58.6 -0.1
NEUR Neytrino 141.62 313 ⇑iPKIKP PKiKP 14 27 03.1 +1.3
OZAP Van, Ozalp-Mer 142.06 305 ⇓P PKPdf 14 26 55.6 -4.3
STRU Stroemstad 142.78 354 iP PKPdf 14 26 57.3 -2.9
MNK Minsk 143.00 337 i PKIKP PKPdf 14 26 58.6 -2.1
MNK i 14 27 16.8
MNK i 14 30 10.7
MNK iPPP PPP 14 33 19.5
MNK i 14 34 02.2
MNK iSS SS 14 48 46.8 +3.1
MNK iSSS SSS 14 54 07.8
MNK pmax pmax
comp=N,10.0nm,1.0s
MNK pmax pmax
comp=E,22nm,0.8s
MNK pmax pmax
comp=Z,9.0nm,0.8s
MNK Minsk 143.00 337 i PKP PKPdf 14 26 58.6 -2.1
comp=E,22nm,0.8s
MNK i PKP PKPdf 14 26 58.6 -2.1
comp=N,10.0nm,1.0s
MNK i PKP PKPdf 14 26 58.6 -2.1
comp=Z,9.0nm,0.8s,baz=39
MNK iPKP pPKPdf 14 27 16.9 -2.3
MNK iPP PP 14 30 10.7 +0.2
MNK iPPP PPP 14 33 19.6
MNK iSKS SKSdf 14 34 02.2 -2.5
MNK iSKKS SKKSdf 14 43 18.1 -5.0
MNK iSS SS 14 48 46.9 +3.2
MNK iSSS SSS 14 54 07.8
MNK iLQ LQ 15 23 08.9
MNK iLR LR 15 33 04.1
HOMI Horasan 143.24 308 ⇑P PKPab 14 26 59.2 +1.3
TJOU Tjoern 143.72 353 iP PKPbc 14 27 00.5 +1.0
KPL Plockton 144.16 9 eP PKPab 14 27 01.0 +0.5
MCD Coleburn Disti 144.22 7 eP PKPab 14 27 00.0 -0.7
LODK Lodwar 144.28 243 PKPab 14 27 02.4 +0.1
KOPT Kop Dagi 144.28 308 PKPab 14 27 02.7 +0.7
ONAU Onsala 144.31 353 iP PKPab 14 27 02.0 +1.0
BLEU Blekinge 144.77 349 iP PKPab 14 27 03.0 +0.2
MARD Mardin 144.85 304 PKPab 14 27 03.8 -0.2
DEL Delary 144.94 350 i P PKPab 14 27 03.5 0.0
DRUM Mains of Drumt 144.96 6 eP PKPbc 14 27 03.6 +0.1
SUW Suwalki 145.00 340 ePKP PKPbc 14 27 04.2 +0.5
LAWE Loch Awe, Argy 145.24 9 eP PKPbc 14 27 04.5 +0.2
INVG Invergeldie, C 145.26 8 eP PKPbc 14 27 04.7 +0.2
AK03 Malin Array Si 145.30 332 P PKPbc 14 27 04.0 -0.7
AKASG Malin Array Be 145.31 331 PKPbc PKPbc 14 27 04.2 -0.6
comp=Z,48nm,0.5s,baz=43,slow=4.3,SNR=232
AKBB Malin Array Si 145.31 331 d iPKIKP PKPbc 14 27 04.2 -0.6
KIEV Kiev 145.32 331 PKP2 PKPbc 14 27 03.9 -0.9
KIEV Kiev 145.32 331 PKPbc 14 27 03.9 -0.9
KIEV Kiev 145.32 331 ⇓P PKPbc 14 27 04.3 -0.5
BJUU Bjuv 145.45 351 iP PKPab 14 27 08.0 +2.7
EAB Aberfoyle 145.46 8 eP PKPdf 14 27 05.0 0.0
LLD Lille Linde 146.28 351 iP PKPab 14 27 10.2 +1.7
EKA Eskdalemuir Ar 146.44 7 PKPbc PKPdf 14 27 08.0 +1.3
comp=Z,2.3nm,0.5s,baz=322,slow=2.7,SNR=10
EKA Eskdalemuir Ar 146.44 7 PKP2 PKPdf 14 27 08.0 +1.3
SORM Soroca 147.54 329 ⇑P PKPbc 14 27 11.5 +0.1
BZK Bozkurt 148.00 315 ⇑P PKPbc 14 27 14.1 +1.2
KWP Kalwaria Pacla 148.81 336 ePKP PKPbc 14 27 15.6 +0.8
FOEL Foel Wylfa 148.82 8 eP PKPdf 14 27 13.6 +2.9
DMBR Dumbraveni 148.99 328 ⇓P PKPbc 14 27 15.6 +0.3
ASF Jabal al Asfar 149.12 296 P PKPbc 14 27 17.5 +1.3
HLM1 Long Mynd 149.23 8 eP PKPbc 14 27 15.7 -0.1
BR131 Keskin Array S 149.27 312 PKP2 PKPbc 14 27 15.8 -0.7
BR131 Keskin Array S 149.27 312 PKPbc 14 27 15.8 -0.7
BRTR Keskin Array B 149.27 312 PKPbc PKPbc 14 27 16.0 -0.4
comp=Z,9.7nm,0.7s,baz=134,slow=4.0,SNR=46
BRTR Keskin Array B 149.27 312 PKP2 PKPbc 14 27 15.8 -0.7
BRTR Keskin Array B 149.27 312 PKPbc 14 27 15.8 -0.7
TLCR 149.29 324 ⇑P PKPbc 14 27 16.1 +0.1
KIRS Kirsehir-Merke 149.33 310 ⇑P PKPbc 14 27 16.0 -0.5
OJC Ojcow 149.33 340 ePKP PKPbc 14 27 16.5 +0.5
BURAR Bucovina Array 149.37 331 PKPbc 14 27 15.5 -0.8
BURAR Bucovina Array 149.37 331 ⇑P PKiKP 14 27 18.0 +0.5
BIZ Bicaz 149.46 329 ⇑P PKPbc 14 27 17.7 +1.2
TESR Tescani 149.50 328 ⇑P PKPbc 14 27 17.0 +0.4
KOLS Kolonicke sedl 149.55 336 ePKP2 PKPbc 14 27 17.2 +0.6
KOLS Kolonicke sedl 149.55 336 ePKP PKPbc 14 27 17.2 +0.6
KOLS e 14 27 22.6
CFR Carcaliu 149.66 325 ⇑P PKPbc 14 27 16.7 -0.3
TPGR Topolog 149.71 324 ⇑P PKPbc 14 27 17.8 +0.6
HSUJ Al Zarqa 149.72 296 P PKiKP 14 27 19.7 +1.1
HSUJ AML AML
KSP Ksiaz 149.77 344 ePKP PKPbc 14 27 17.2 +0.1
VRI Vrincioaia 149.92 327 ⇓P PKPbc 14 27 17.8 +0.1
GEM Giv'at Ha'Em 149.92 298 P PKiKP 14 27 19.7 +0.8
GEM AML AML
PLOR Plostina 149.97 327 ⇓P PKPbc 14 27 17.2 -0.6
CLL Collm 150.05 349 ePKPdf PKPdf 14 27 14.0 +1.3
CLL i PKPbc PKPbc 14 27 18.3 +0.6
comp=Z,24nm,1.0s
CLL i PKPab PKPab 14 27 23.5 -0.2
comp=Z,13nm,0.7s
CLL i sPKPab sPKPab 14 27 48.5 +0.4
comp=Z,10.0nm,0.8s
OSTC Ostas 150.05 344 ⇑ePKP PKiKP 14 27 19.2 +0.5
OSTC ePKPAB PKPab 14 27 24.9 +1.1
CHVC Chvalec 150.06 344 ⇑ePKP PKPbc 14 27 19.1 +1.2
TLBR Topalu 150.12 324 ⇓P PKPbc 14 27 19.2 +1.1
MMAI Mount Meron Ar 150.18 298 PKPbc PKPbc 14 27 18.4 -0.3
comp=Z,14nm,0.5s,baz=39,slow=9.7,SNR=16
QRNJ Al-Qirein 150.18 297 P PKiKP 14 27 20.6 +1.2
QRNJ AML AML
STEB Steborice 150.19 342 ⇑ePKP PKPbc 14 27 18.6 +0.4
STEB ePKPAB PKPab 14 27 25.3 +0.9
DPC Dobruska-Polom 150.21 344 ⇑ePKP PKPbc 14 27 19.0 +0.7
DPC ePKPAB PKPab 14 27 25.1 +0.6
OZUR 150.22 329 ⇑P PKPbc 14 27 18.7 +0.3
BRG Berggiesshubel 150.28 347 ⇑ePKP PKPbc 14 27 19.2 +0.9
BRG Amp 14 27 20.1
comp=Z,12nm,0.9s
BRG PKPab PKPab 14 27 25.6 +1.0
BRG Amp 14 27 26.4
comp=Z,10nm,0.8s
MANR Mangalia 150.28 322 ⇑P PKPbc 14 27 19.4 +0.9
KRLC Kraliky 150.34 343 ⇑ePKP PKPbc 14 27 19.1 +0.5
LANS Liptovska Anna 150.36 339 ePKIKP PKPbc 14 27 19.6 +1.0
LANS Liptovska Anna 150.36 339 ePKP PKPbc 14 27 19.6 +1.0
LANS e 14 27 26.3
GHAJ Ghor Haditha 150.39 295 P PKiKP 14 27 20.8 +0.9
GHAJ AML AML
MORC Moravsky Berou 150.40 342 ePKP PKPbc 14 27 19.3 +0.6
MORC e 14 27 25.9
MORC Moravsky Berou 150.40 342 ⇑P PKPbc 14 27 19.7 +1.0
PVCC Panska Ves 150.47 346 ⇑ePKP PKPbc 14 27 19.7 +0.9
PVCC ePKPAB PKPab 14 27 26.2 +0.8
LISJ El Lisan 150.47 295 P PKiKP 14 27 21.5 +1.5
LISJ AML AML
DOPR Dopca 150.50 329 ⇓P PKPbc 14 27 20.0 +0.9
SALP Salfit 150.56 296 P PKiKP 14 27 21.3 +1.0
MLR Muntele Rosu 150.57 328 ⇓P PKiKP 14 27 21.0 +0.9
SAHE Sakarya_HENDEK 150.60 316 ⇑P PKPbc 14 27 19.6 +0.1
MAUZ Maruska 150.69 341 ⇑ePKP PKPbc 14 27 18.4 -1.0
MARR Marisel-Cluj 151.01 332 ⇑P PKPbc 14 27 20.1 -0.2
PRNI Paran 151.02 293 P PKiKP 14 27 21.9 +0.6
PRNI AML AML
HRFI Mount Harif 151.04 292 P PKiKP 14 27 22.1 +0.7
HRFI AML AML
VOIR 151.05 328 ⇓P PKPbc 14 27 21.0 +0.6
VRAC Vranov 151.09 343 ePKP PKPbc 14 27 20.4 +0.1
VRAC e 14 27 29.1
VRAC Vranov 151.09 343 ⇑P PKPab 14 27 29.2 +1.1
VYHS Vyhne 151.14 339 ePKIKP PKiKP 14 27 22.5 +1.5
VYHS Vyhne 151.14 339 ePKP PKiKP 14 27 22.5 +1.5
VYHS e 14 27 28.8
EIL Elat 151.17 292 P PKPbc 14 27 22.0 +0.9
EIL AML AML
JAVC Velka Javorina 151.19 341 ePKP PKiKP 14 27 22.4 +1.3
JAVC e 14 27 30.5
CSS Mathiatis 151.30 303 P PKPbc 14 27 22.1 +0.8
CSS AML AML
ARR Arges 151.30 329 ⇑P PKiKP 14 27 22.3 +0.8
KRUC Moravsky 151.37 343 ePKP PKPbc 14 27 21.4 +0.5
KRUC e 14 27 30.1
SMOL Smolenice 151.57 341 ePKIKP PKiKP 14 27 22.8 +0.9
LOT Lotru 151.65 330 ⇓P PKPbc 14 27 22.5 +0.7
MODS Modra-Piesok 151.74 341 ePKIKP PKiKP 14 27 23.0 +0.8
MODS Modra-Piesok 151.74 341 ePKP PKiKP 14 27 23.0 +0.8
MODS e 14 27 31.4
BMRD Maredsous 151.89 359 dPKP PKPab 14 27 31.7 +0.4
KEPZ Antalya-Kepez 151.91 308 ⇑P PKPbc 14 27 22.4 -0.3
SIRR Siria 151.95 333 ⇑P PKPbc 14 27 22.9 +0.5
ABNA Allensteig Bun 151.99 344 ePKiKP PKPbc 14 27 23.2 +0.8
comp=Z,2.7nm,0.6s
ABNA ePKP PKPab 14 27 32.8 +0.9
comp=Z,14nm,0.8s
KHC Kasperske Hory 152.00 346 PKIKP PKPbc 14 27 22.0 -0.4
KHC Kasperske Hory 152.00 346 PKPbc 14 27 22.0 -0.4
KHC Kasperske Hory 152.00 346 ⇑ePKP PKPbc 14 27 23.2 +0.8
KHC ePKPAB PKPab 14 27 33.2 +1.3
CKRC Cesky Krumlov 152.13 345 ⇑ePKP PKPbc 14 27 23.4 +0.7
CKRC ePKPAB PKPab 14 27 33.3 +0.9
GZR Gura Zlata 152.15 331 ⇓P PKPbc 14 27 22.8 -0.1
SURR Surduc 152.16 332 ⇑P PKPbc 14 27 23.1 +0.3
GERES GERESS Array B 152.24 346 PKPbc PKPbc 14 27 23.1 0.0
comp=Z,3.0nm,0.7s,baz=11,slow=1.4,SNR=18
GERES GERESS Array B 152.24 346 PKIKP PKPbc 14 27 22.7 -0.4
GERES GERESS Array B 152.24 346 PKPbc 14 27 22.7 -0.4
WINA Alland / Wiene 152.33 342 ePKP PKPbc 14 27 23.4 +0.2
comp=Z,5.2nm,0.9s
WINA ePKP PKPab 14 27 34.2 +0.9
comp=Z,11nm,0.6s
BZS Buzias 152.49 333 ⇑P PKPbc 14 27 23.9 +0.3
CONA Conrad Observa 152.55 342 ePKP PKPbc 14 27 23.9 +0.1
comp=Z,7.5nm,1.0s
CONA ePKP PKPab 14 27 35.3 +1.0
comp=Z,9.0nm,0.6s
RONA Rosalia, Austr 152.63 342 ePKP PKPbc 14 27 24.0 0.0
comp=Z,9.3nm,1.0s
RONA i PKP PKPab 14 27 35.0 +0.3
comp=Z,15nm,0.9s
HERR Herculane 152.71 331 ⇑P PKPbc 14 27 24.3 +0.2
PLVB Pleven 152.73 326 ⇑P PKPbc 14 27 24.9 +0.7
MOA Molln 153.04 345 i PKP PKPab 14 27 37.5 +1.2
comp=Z,7.7nm,0.9s
MDVR Moldovita 153.10 331 ⇑P PKPbc 14 27 24.9 -0.2
MORH Mrgy, Hungar 153.17 337 ⇑P PKPbc 14 27 24.6 -0.5
BIOA Bad Ischl, Aus 153.34 345 ePKP PKPab 14 27 38.6 +1.0
comp=Z,12nm,0.7s
BLKB Belogradchik 153.54 328 ⇑P PKPbc 14 27 26.2 +0.1
TAVA DENIZLI_Tavas 153.59 311 ⇑P PKiKP 14 27 27.8 +1.2
SESA Seetaler Alpe, 153.65 343 ePKP PKPbc 14 27 26.3 -0.1
comp=Z,7.1nm,0.9s
SESA i PKP PKPab 14 27 40.1 +1.0
comp=Z,22nm,0.6s
AKAS Kas 153.65 308 PKPbc 14 27 26.0 -0.6
LESA Schwarzleotal 153.81 346 ePKP PKPab 14 27 40.6 +0.9
comp=Z,5.0nm,0.6s
SOKA Soboth 153.92 342 i PKP PKPab 14 27 40.7 +0.5
comp=Z,10nm,1.1s
KBA Koelnbreinsper 153.99 345 ePKP PKPab 14 27 40.5 0.0
comp=Z,7.7nm,0.7s
RETA Reutte 154.12 349 ePKP PKPab 14 27 41.8 +0.8
comp=Z,4.2nm,0.7s
WTTA Wattenberg 154.18 348 ePKP PKPbc 14 27 27.2 -0.3
comp=Z,3.8nm,0.5s
WTTA ePKP PKPab 14 27 42.1 +0.8
comp=Z,9.6nm,0.6s
MOTA Moosalm 154.20 349 ePKP PKPab 14 27 41.8 +0.4
comp=Z,13nm,1.0s
OBKA Obir 154.21 343 i PKP PKPab 14 27 41.1 -0.3
comp=Z,17nm,1.6s
MYKA Terra Mystica 154.34 344 i PKP PKPab 14 27 42.0 +0.1

	comp=Z,7.5nm,0.5s								
DAVA	**Damuels**	**154.46**	**351**	*e*PKP		**PKPab**	**14 27 43.0**	**+0.5**
	comp=Z,8.8nm,0.9s								
ABTA	**Abfaltersbach**	**154.49**	**346**	*e*PKP		**PKPbc**	**14 27 27.3**	**-0.8**
ABTA	comp=Z,4.4nm,0.8s			*e*PKP		**PKPab**	**14 27 42.7**	**+0.1**
	comp=Z,12nm,0.9s								
FETA	**Feichten**	**154.58**	**349**	*e*PKP		**PKPab**	**14 27 42.5**	**-0.5**
	comp=Z,4.3nm,1.0s								
ESDC	**Sonseca Array**	**161.28**	**19**	PKPab		**PKPab**	**14 28 13.2**	**+1.2**
	comp=Z,0.8nm,0.5s,baz=328,slow=4.6,SNR=5.9								
KEST	**Kesra**	**165.66**	**342**	PKPab		**PKPab**	**14 28 31.6**	**+0.1**
	comp=Z,6.3nm,0.9s,baz=27,slow=4.5,SNR=4.2								
TORD	**Torodi Ar. Bea**	**170.80**	**166**	PKPab		**PKPab**	**14 28 55.3**	**+0.9**
	comp=Z,1.5nm,0.9s,baz=156,slow=4.3,SNR=4.0								

*IDC **24** 14:17:17.7±0.7, 8°.81N×127°.12E, h0km, mb4.0/12, mbtmp4.0/13, ML4.2/1, MS3.1/6, Error ellipse: s-maj=23.4km s-min=14.3km az=90.0*
*MAN **24** 14:17:25.0, 8°.53N×126°.56E, h19km, MS4.0*
*NEIC **24** 14:17:27.5±1.1, 8°.58N±0°.08×126°.7E±0°.1, h63km±8km, mb4.6/26, Error ellipse: s-maj=15.6km s-min=11.8km az=98.0*

ISC 24 14:17:28.2±1.2, **8°.55N**±0°.04×**126°.56E**±0°.08, **h78**km±11km, **n68**, σ1**§44**/68, **mb4.3**/27, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**1.76**	**214**	Pn	**Pn**	**14 17 57.4**	**-0.6**
	56nm,0.3s,baz=44,slow=3.0,SNR=7.0						
DAV				Sn	**Sn**	**14 18 23.1**	**+4.4**
	70nm,0.3s,baz=248,slow=23,SNR=5.8						
DAV				LR	LR	14 18 54.6	
	comp=Z,370nm,21.7s,baz=340,slow=42 269nm,0.5s						
DAV				AML	AML		
DAV	**Davao City (W)**	**1.76**	**214**	Pn	**Pn**	**14 17 56.4**	**-0.6**
DAV				Sn	**Sn**	**14 18 20.6**	**+1.9**
DAV	**Davao City (W)**	**1.76**	**214**	P	**Sn**	**14 18 22.0**	**+3.3**
DMPH	**Davao City--Mi**	**1.79**	**216**	*i* P	**Pn**	**14 17 56.5**	**-0.8**
DMPH				*i* S	**Sn**	**14 18 23.1**	**+3.8**
CGP	**Cagayan de Oro**	**1.85**	**267**	*i* P	**Pn**	**14 17 56.1**	**-1.9**
CGP				*i* S	**Sn**	**14 18 19.8**	**-1.0**
KCP	**Kidapawan**	**2.11**	**224**	*i* P	**Pn**	**14 17 59.8**	**-1.8**
KCP				*i* S	**Sn**	**14 18 25.7**	**-1.4**
CTBH	**Cotabato--PC H**	**2.64**	**240**	*i* P	**Pn**	**14 18 07.4**	**-1.3**
TBP	**Tagbilaran**	**2.90**	**293**	*e*P	**Pn**	**14 18 11.2**	**-1.1**
TBP				*e*S	**Sn**	**14 18 43.8**	**-2.2**
GSPH	**General Santos**	**2.92**	**213**	*i* P	**Pn**	**14 18 10.9**	**-1.7**
GSPH				*i* S	**Sn**	**14 18 47.8**	**+1.1**
PLP	**Palo**	**3.04**	**329**	*e*P	**Pn**	**14 18 12.2**	**-1.9**
PLP				*e*S	**Sn**	**14 18 54.1**	**+4.7**
LLP	**Lapu-Lapu**	**3.11**	**305**	*e*P	**Pn**	**14 18 14.8**	**-0.2**
LLP				*e*S	**Sn**	**14 18 52.5**	**+1.4**
DCPH	**Dipolog City**	**3.17**	**271**	*i* P	**Pn**	**14 18 14.9**	**-1.0**
SNPH	**Sibulan**	**3.38**	**284**	*e*P	**Pn**	**14 18 17.1**	**-1.7**
SNPH				*e*S	**Sn**	**14 18 57.7**	**-0.1**
JAP	**San Jose, Anti**	**5.05**	**296**	*e*P	**Pn**	**14 18 42.9**	**+1.4**
FAKI	**Fak Fak**	**12.72**	**153**	Pn	**Pn**	**14 20 24.9**	**-1.3**
KAPI	**Kappang**	**15.08**	**207**	LR	LR	14 28 12.3	
	comp=Z,32nm,19.0s,baz=45,slow=42						
TPUB	**Ta-pu**	**15.74**	**339**	Pn	**Pn**	**14 21 04.8**	**-0.6**
TPUB				IAmb	IAmb	14 21 13.4	
	comp=Z,57nm,1.3s						
KNRA	**Kununurra**	**24.16**	**175**	P	**P**	**14 22 37.7**	**+0.4**
JNU	**Nakatsue**	**24.78**	**9**	P	**P**	**14 22 42.8**	**-0.1**
	comp=Z,12nm,0.9s,baz=114,slow=1.4,SNR=7.6						
FITZ	**Fitzroy Crossi**	**26.49**	**182**	P	**P**	**14 22 58.9**	**+0.5**
CMAR	**Chiang Mai Arr**	**28.56**	**293**	P	**P**	**14 23 18.6**	**+1.5**
	comp=Z,1.4nm,0.5s,baz=108,slow=6.8,SNR=9.2 comp=Z,1.4nm,0.5s						
KSRS	**Korea Array**	**28.81**	**2**	P	**P**	**14 23 18.6**	**-0.3**
	comp=Z,2.8nm,0.7s,baz=179,slow=10,SNR=13						
KSRS				LR	LR	14 37 13.2	
	comp=Z,19nm,18.5s,baz=180,slow=42						
WB0	**Warramunga Arr**	**29.17**	**165**	P	**P**	**14 23 21.4**	**-1.0**
WB0				IAmb	IAmb	14 23 31.1	
	comp=Z,13nm,1.5s						
WRA	**Warramunga Arr**	**29.32**	**165**	P	**P**	**14 23 22.8**	**-1.0**
	comp=Z,0.2nm,0.5s,baz=343,slow=8.5,SNR=1.9						
WRA				PcP	**PcP**	**14 26 28.4**	**-0.3**
	comp=Z,0.3nm,0.7s,baz=338,slow=2.7,SNR=2.0 comp=Z,0.2nm,0.5s						
PATS	**Pohnpei**	**31.51**	**91**	P	**P**	**14 23 41.3**	**-1.8**
ASAR	**Alice Springs**	**32.81**	**168**	P	**P**	**14 23 53.6**	**-0.8**
	comp=Z,0.2nm,0.3s,baz=345,slow=7.3,SNR=7.2						
ASAR				PcP	**PcP**	**14 26 38.6**	**+0.7**
	comp=Z,0.5nm,0.7s,baz=352,slow=2.2,SNR=4.1 comp=Z,0.2nm,0.3s						
USA0B	**Ussuriysk Arra**	**35.83**	**7**	P	**P**	**14 24 21.2**	**+1.0**
USRK	**Ussuriysk Ar.**	**35.83**	**7**	P	**P**	**14 24 19.7**	**-0.6**
	comp=Z,8.9nm,0.7s,baz=89,slow=7.8,SNR=20						
USRK	**Ussuriysk Ar.**	**35.83**	**7**	P	**P**	**14 24 21.0**	**+0.7**
H11S3	**WAKE ISLAND Hy**	**40.16**	**71**	T	T	15 08 09.1	
	baz=261,slow=75,SNR=34						
H11S1	**WAKE ISLAND Hy**	**40.18**	**71**	T	T	15 08 05.0	
	baz=261,slow=75,SNR=23						
H11S2	**WAKE ISLAND Hy**	**40.18**	**72**	T	T	15 08 04.2	
	baz=261,slow=75,SNR=31						
H11N1	**WAKE ISLAND Hy**	**40.55**	**70**	T	T	15 08 42.4	
	baz=264,slow=74,SNR=19						
H11N2	**WAKE ISLAND Hy**	**40.56**	**70**	T	T	15 08 36.8	
	baz=264,slow=74,SNR=10						
H11N3	**WAKE ISLAND Hy**	**40.57**	**70**	T	T	15 08 36.7	
	baz=264,slow=74,SNR=19						
BBOO	**Buckleboo**	**42.11**	**168**	P	**P**	**14 25 13.0**	**+0.2**
BBOO				IAmb	IAmb	14 25 13.3	
	comp=Z,9.8nm,1.3s						
EVN	**Everest**	**42.13**	**303**	P	**P**	**14 25 14.5**	**+0.5**
STKA	**Stephens Creek**	**42.69**	**161**	P	**P**	**14 25 17.4**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=336,slow=12,SNR=1.5						
STKA				LR	LR	14 44 16.3	
	comp=Z,35nm,21.4s,baz=25,slow=38 comp=Z,0.5nm,0.3s						
STKA	**Stephens Creek**	**42.69**	**161**	P	**P**	**14 25 17.7**	**+0.2**
STKA				IAmb	IAmb	14 25 34.5	
	comp=Z,11nm,0.9s						
PALK	**Pallekele**	**45.42**	**272**	LR	LR	14 44 44.9	
	comp=Z,30nm,20.6s,baz=22,slow=36						
PETK	**Petropavlovsk-**	**51.09**	**24**	P	**P**	**14 26 21.2**	**-1.5**
	comp=Z,5.4nm,0.8s,baz=216,slow=3.2,SNR=6.7						
MKAR	**Makanchi Array**	**53.57**	**323**	P	**P**	**14 26 41.1**	**-0.2**
	comp=Z,0.5nm,0.4s,baz=116,slow=8.3,SNR=4.5 comp=Z,0.5nm,0.4s						
MA2	**Magadan**	**54.12**	**15**	P	**P**	**14 26 45.4**	**+0.4**
NIL	**Nilore**	**54.95**	**305**	P	**P**	**14 26 52.1**	**+0.6**
NIL				IAmb	IAmb	14 26 53.4	
	comp=Z,8.2nm,0.8s						
ZALV	**Zalesovo Beam**	**56.27**	**332**	P	**P**	**14 26 59.9**	**-0.7**
	comp=Z,1.3nm,0.7s,baz=99,slow=7.7,SNR=4.4 comp=Z,1.3nm,0.7s						
AAK	**Ala-Archa**	**56.75**	**316**	LR	LR	14 52 56.8	
	comp=Z,80nm,20.9s,baz=60,slow=38						
KURK	**Kurchatov**	**57.65**	**326**	P	**P**	**14 27 10.7**	**+0.3**
KURK				IAmb	IAmb	14 27 15.0	
	comp=Z,5.0nm,1.1s						
KURBB	**Kurchatov Arra**	**57.65**	**326**	P	**P**	**14 27 09.9**	**-0.4**
	comp=Z,1.2nm,0.6s,baz=123,slow=6.8,SNR=12 comp=Z,1.2nm,0.6s						
KKAR	**Karatay Array**	**59.66**	**315**	P	**P**	**14 27 24.6**	**0.0**
TIXI	**Tiksi**	**63.06**	**1**		**P**	**14 27 47.4**	**+0.5**
TIXI				IAmb	IAmb	14 27 48.1	
	comp=Z,7.2nm,1.1s						
BVAR	**Borovoye Array**	**63.24**	**326**	P	**P**	**14 27 48.5**	**0.0**
	comp=Z,1.9nm,0.6s,baz=134,slow=8.5,SNR=6.6 comp=Z,1.9nm,0.6s						
BORK	**Borovoye**	**63.29**	**326**	P	**P**	**14 27 49.1**	**+0.3**
BORK				IAmb	IAmb	14 27 49.7	
	comp=Z,2.6nm,0.8s						
BILL	**Bilibino**	**64.98**	**15**	P	**P**	**14 28 01.0**	**+1.4**
BILL				IAmb	IAmb	14 28 15.9	
	comp=Z,12nm,1.4s						
NRIK	**Noril'sk**	**65.75**	**346**	P	**P**	**14 28 04.5**	**+0.1**
	comp=Z,2.9nm,0.6s,baz=115,slow=6.5,SNR=4.7 comp=Z,2.9nm,0.6s						
NRIK	**Noril'sk**	**65.75**	**346**	IAmb	IAmb	14 28 05.1	
	comp=Z,4.5nm,0.9s						
ABKAR	**Akbulak array**	**68.36**	**320**	P	**P**	**14 28 20.8**	**-0.7**
H19K	**Roundabout Mou**	**76.88**	**25**	P	**P**	**14 29 12.3**	**+0.7**
H19K				IAmb	IAmb	14 29 13.9	
	comp=Z,12nm,1.2s						
SKT	**Skwentna**	**78.70**	**28**	P	**P**	**14 29 22.4**	**+0.5**
I21K	**Tanana**	**78.71**	**25**	P	**P**	**14 29 22.3**	**+0.4**
I21K				IAmb	IAmb	14 29 23.3	
	comp=Z,4.4nm,0.8s						
CCB	**Clear Creek Bu**	**80.47**	**26**	P	**P**	**14 29 32.1**	**+0.8**
ILAR	**Eielson Array**	**80.86**	**26**	P	**P**	**14 29 31.1**	**-2.4**
	comp=Z,0.5nm,0.5s,baz=247,slow=4.6,SNR=11 comp=Z,0.5nm,0.5s						
J25K	**Salcha River,**	**81.52**	**26**	P	**P**	**14 29 37.4**	**+0.4**
F30M	**Barrier River**	**85.07**	**22**	P	**P**	**14 29 55.9**	**+0.7**
F30M				IAmb	IAmb	14 29 57.8	
	comp=Z,5.1nm,0.9s						
ARCES	**ARCESS Array B**	**85.90**	**340**	P	**P**	**14 29 59.6**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=99,slow=5.8,SNR=4.0 comp=Z,0.9nm,0.5s						
ARCES	**ARCESS Array B**	**85.90**	**340**	IAmb	IAmb	14 30 04.2	
	comp=Z,21nm,1.4s						
A36M	**Sachs Harbour**	**87.47**	**17**	IAmb	IAmb	14 30 38.1	
	comp=Z,5.5nm,1.2s						
FINES	**FINESS Array B**	**87.54**	**332**	P	**P**	**14 30 06.9**	**-0.5**
	comp=Z,1.8nm,0.8s,baz=72,slow=6.2,SNR=3.9 comp=Z,1.8nm,0.8s						
P32M	**Atlin**	**87.59**	**30**	P	**P**	**14 30 07.7**	**0.0**

*UPP **24** 14:26:44.6±0.1, 59°.00N×18°.24E, h0km, ML2.7, Suspected explosion*
*DNK **24** 14:26:45.3±1.9, 59°.00N×18°.27E, h0km, ML2.7(UPP), Explosion*

ISC 24 14:26:45.0±0.9, **59°.00N**±0°.03×**18°.23E**±0°.03, **h0**km, **n49**, σ1**§09**/56, **Baltic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NYNU	**Nynaeshamn**	**0.12**	**275**	P	**Pg**	**14 26 47.2**	**0.0**
	baz=94						
NYNU				S	**Sg**	**14 26 48.6**	**-0.2**
NYNU	**Nynaeshamn**	**0.12**	**275**	P	**Pg**	**14 26 47.2**	**0.0**
	baz=94						
NYNU				S	**Sg**	**14 26 48.6**	**-0.2**
BOGU	**Bogesund**	**0.41**	**355**	P	**Pg**	**14 26 52.9**	**0.0**
BOGU				S	**Sg**	**14 26 58.1**	**-0.1**
BOGU	**Bogesund**	**0.41**	**355**	P	**Pg**	**14 26 52.9**	**0.0**
BOGU				S	**Sg**	**14 26 58.1**	**-0.1**
NRTU	**Norrtaelje**	**0.71**	**16**	P	**Pg**	**14 26 57.5**	**-1.1**
NRTU				S	**Sg**	**14 27 07.1**	**-0.8**
NRTU	**Norrtaelje**	**0.71**	**16**	P	**Pg**	**14 26 57.5**	**-1.1**
NRTU				S	**Sg**	**14 27 07.1**	**-0.8**
UPP	**Uppsala**	**0.92**	**340**	*e*P	**Pg**	**14 27 02.7**	**+0.1**
VIKU	**Vikbolandet**	**0.94**	**239**	P	**Pg**	**14 27 02.7**	**-0.3**
VIKU	**Vikbolandet**	**0.94**	**239**	P	**Pg**	**14 27 02.7**	**-0.3**
ESKU	**Eskilstuna**	**0.98**	**285**	P	**Pg**	**14 27 02.8**	**-0.9**
ESKU	**Eskilstuna**	**0.98**	**285**	P	**Pg**	**14 27 02.8**	**-0.9**
FIBU	**Brunna**	**1.01**	**334**	P	**Pg**	**14 27 03.7**	**-0.7**
FIBU	**Brunna**	**1.01**	**334**	P	**Pg**	**14 27 03.7**	**-0.7**
BACU	**Backbrunna**	**1.04**	**327**	P	**Pg**	**14 27 04.0**	**-0.8**
BACU	**Backbrunna**	**1.04**	**327**	P	**Pg**	**14 27 04.0**	**-0.8**
FLYU	**Flymyra**	**1.15**	**351**	P	**Pg**	**14 27 06.4**	**-0.7**
FLYU	**Flymyra**	**1.15**	**351**	P	**Pg**	**14 27 06.4**	**-0.7**
GOTU	**Gotland**	**1.32**	**172**	P	**Pg**	**14 27 09.3**	**-1.0**
GOTU	**Gotland**	**1.32**	**172**	P	**Pg**	**14 27 09.3**	**-1.0**
GRAU	**Graesoe**	**1.35**	**7**	P	**Pg**	**14 27 10.1**	**-0.8**
GRAU	**Graesoe**	**1.35**	**7**	P	**Pg**	**14 27 10.1**	**-0.8**
OSTU	**Oestervaala**	**1.36**	**336**	P	**Pg**	**14 27 09.9**	**-1.1**
OSTU	**Oestervaala**	**1.36**	**336**	P	**Pg**	**14 27 09.9**	**-1.1**
FORU	**Forsmark**	**1.40**	**359**	P	**Pg**	**14 27 10.8**	**-1.0**
FORU	**Forsmark**	**1.40**	**359**	P	**Pg**	**14 27 10.8**	**-1.0**
VSTU	**Vaestervik**	**1.61**	**214**	P	**Pn**	**14 27 14.7**	**+0.1**
VSTU	**Vaestervik**	**1.61**	**214**	P	**Pn**	**14 27 14.7**	**+0.1**
LNKU	**Linkoeping**	**1.62**	**243**	P	**Pn**	**14 27 14.6**	**-0.2**
LNKU	**Linkoeping**	**1.62**	**243**	P	**Pn**	**14 27 14.6**	**-0.2**
NRAU	**Nora**	**1.74**	**291**	P	**Pb**	**14 27 16.6**	**-1.1**
NRAU	**Nora**	**1.74**	**291**	P	**Pb**	**14 27 16.6**	**-1.1**
ASKU	**Askersund**	**1.77**	**268**	P	**Pn**	**14 27 16.9**	**+0.1**
ASKU	**Askersund**	**1.77**	**268**	P	**Pn**	**14 27 16.9**	**+0.1**
SLIT	**Slitere, Latvi**	**2.54**	**121**	*e*P	**Pn**	**14 27 28.0**	**+0.6**
RAF	**Rauma**	**2.70**	**40**	*e*P	**Pn**	**14 27 30.6**	**+1.0**
MTSE	**Matsula**	**2.92**	**93**	*e*P	**Pn**	**14 27 34.0**	**+1.4**
BLEU	**Blekinge**	**3.00**	**207**	*i* P	**Pn**	**14 27 34.5**	**+0.9**
BLEU				*i* S	**Sn**	**14 28 12.4**	**+2.2**
MEF	**Metsahovi**	**3.36**	**66**	*e*P	**Pn**	**14 27 41.0**	**+2.3**
DEL	**Delary**	**3.45**	**225**	*i* P	**Pn**	**14 27 40.8**	**+1.0**
TJOU	**Tjaern**	**3.60**	**257**	*i* P	**Pn**	**14 27 44.7**	**+2.7**
STRU	**Stroemstad**	**3.65**	**274**	*i* P	**Pn**	**14 27 44.7**	**+2.1**
ONAU	**Onsala**	**3.71**	**247**	*i* P	**Pn**	**14 27 45.9**	**+2.5**
NC602	**NORSAR Array S**	**3.80**	**300**	*e*P	**Pn**	**14 27 44.6**	**-0.1**
BJUU	**Bjuv**	**4.06**	**226**	*i* P	**Pn**	**14 27 48.4**	**+0.1**
NAO01	**NORSAR Array S**	**4.14**	**300**	*e*P	**Pn**	**14 27 48.8**	**-0.6**
BSD	**Bornholm Skovb**	**4.29**	**206**	*i* P	**Pn**	**14 27 50.0**	**-1.5**
KEF	**Keuruu**	**4.56**	**43**	*e*P	**Pn**	**14 27 57.2**	**+2.0**
VAF	**Ylistaro**	**4.60**	**26**	*e*P	**Pn**	**14 27 57.5**	**+1.8**
JOF	**Joensuu**	**7.48**	**53**	*e*P	**Pn**	**14 28 35.8**	**+0.6**

*DSN **24** 14:27:28.8±1.2, 27°.27N×54°.45E, h10km, ML2.9/8, Error ellipse: s-maj=17.0km s-min=4.7km az=9.0*
*TEH **24** 14:27:30.7, 27°.21N×54°.54E, h9km±56km, ML2.7, Presumed earthquake*

ISC 24 14:27:31.5±1.0, **27°.10N**±0°.06×**54°.50E**±0°.05, **h18**km, **n14**, σ1**§16**/16, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KHL1	**Khalili_Fars**	**1.19**	**297**	Pg	**Pn**	**14 27 53.4**	**0.0**
LMD1	**Lamerd**	**1.21**	**282**	Pg	**Pn**	**14 27 53.6**	**0.0**
LMD1				Sg	**Sg**	**14 28 13.1**	**+2.2**
BNDS	**Bandar-Abbas**	**1.52**	**78**	Pg	**Pb**	**14 27 58.7**	**-0.6**
JHRM	**Jahrom**	**1.62**	**330**	Pg	**Pb**	**14 28 00.3**	**-0.7**
SHME	**Shamm**	**1.80**	**125**	P	**Pn**	**14 28 02.0**	**+0.3**
BANOM	**Banah**	**1.99**	**125**	P	**Pn**	**14 28 04.8**	**+0.4**
BANOM				S	**Sb**	**14 28 31.3**	**-0.5**
MSFE	**Esma-Masafi**	**2.28**	**139**	P	**Pn**	**14 28 08.1**	**-0.3**
MDH	**Madha**	**2.41**	**138**	P	**Pn**	**14 28 10.1**	**0.0**
UOSS	**Minazif**	**2.63**	**144**	P	**Pn**	**14 28 14.6**	**+1.4**
ASHO	**Ashiyiah**	**2.78**	**149**	P	**Pn**	**14 28 17.1**	**+1.8**
CHMN	**Chesme madani**	**3.84**	**43**	Pn	**Pn**	**14 28 31.7**	**+1.6**
IMEH	**Mehriz**	**4.28**	**1**	Pn	**Pn**	**14 28 36.3**	**+0.2**
IBAF	**Bafgh**	**4.58**	**12**	Pn	**Pn**	**14 28 40.3**	**+0.2**
RAYN	**Ar Rayn**	**8.88**	**248**	P	**Pn**	**14 29 37.3**	**-1.8**

*IDC **24** 14:42:40.5±2.4, 10°.42N×126°.29E, h0km, mb3.5/4, mbtmp3.5/4, MS2.7/2, Error ellipse: s-maj=102.3km s-min=23.8km az=58.0*
*MAN **24** 14:42:50.0, 10°.29N×125°.84E, h25km, MS3.1*

ISC 24 14:42:48.1±1.3, **10°.29N**±0°.07×**126°.1E**±0°.1, **h51**km, **n11**, σ0**§72**/12, **mb3.4**/4, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLP	**Palo**	**1.37**	**310**	*e*P	**Pn**	**14 43 11.5**	**+0.6**
PLP				*e*S	**Sn**	**14 43 28.6**	**+0.6**
LLP	**Lapu-Lapu**	**2.06**	**271**	*e*P	**Pn**	**14 43 20.3**	**+0.1**
LLP				*e*S	**Sn**	**14 43 43.6**	**-1.1**
TBP	**Tagbilaran**	**2.24**	**255**	*e*P	**Pn**	**14 43 23.2**	**+0.4**
TBP				*e*S	**Sn**	**14 43 49.5**	**+0.2**
CGP	**Cagayan de Oro**	**2.26**	**217**	*e*P	**Pn**	**14 43 24.1**	**+1.0**
CGP				*e*S	**Sn**	**14 43 49.8**	**-0.1**
DAV	**Davao City (W)**	**3.23**	**188**	LR	LR	14 44 44.1	
	comp=Z,41nm,20.6s,baz=360,slow=36						
KCP	**Kidapawan**	**3.40**	**196**	*e*P	Pn	14 43 52.2	+14
CMAR	**Chiang Mai Arr**	**27.46**	**290**	P	**P**	**14 48 30.1**	**+0.5**
	0.5nm,0.3s,baz=108,slow=7.4,SNR=4.7 0.5nm,0.3s						
WRA	**Warramunga Arr**	**31.13**	**165**	P	**P**	**14 49 01.1**	**-0.9**
	0.3nm,0.9s,baz=344,slow=8.6,SNR=1.5 0.3nm,0.9s						
ASAR	**Alice Springs**	**34.61**	**167**	P	**P**	**14 49 32.5**	**0.0**
	0.1nm,0.3s,baz=350,slow=7.0,SNR=14 0.1nm,0.3s						
PALK	**Pallekele**	**44.90**	**270**	LR	LR	15 09 53.7	
	comp=Z,22nm,19.4s,baz=52,slow=36						
MKAR	**Makanchi Array**	**51.89**	**323**	P	**P**	**14 51 51.1**	**-0.4**
	0.5nm,0.6s,baz=126,slow=6.2,SNR=4.7 0.5nm,0.6s						

*IDC **24** 14:48:16.9±1.3, 54°.84N×162°.40E, h0km, mb3.7/5, mbtmp3.8/6, ML4.2/2, Error ellipse: s-maj=29.5km s-min=26.1km az=35.0*
*NEIC **24** 14:48:18.3±1.6, 54°.8N±0°.2×162°.44E±0°.10, h10km±1km, mb4.3/6, Error ellipse: s-maj=29.1km s-min=6.7km az=166.0*
*KRSC **24** 14:48:43.8±1.1, 53°.66N×158°.91E, h170km±9km, Ml3.8*

ISC 24 14:48:45.3±0.8, **53°.70N**±0°.06×**158°.89E**±0°.07, **h166**km±6km, **n38**, σ1**§00**/52, **mb3.5**/8, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRX	**Arik**	**0.37**	**203**	*e*P	**Pn**	**14 49 08.1**	**0.0**
KRER	**Koryakskii**	**0.40**	**192**	*e*P	**Pn**	**14 49 08.8**	**+0.4**
KRER				*e*S	**Sn**	**14 49 26.7**	**+0.8**
SDLR	**Sedlovina**	**0.42**	**181**	*e*P	**Pn**	**14 49 08.4**	**+0.1**
SDLR				*e*S	**Sn**	**14 49 25.8**	**0.0**
KOK	**Koryaka**	**0.43**	**201**	*e*P	**Pn**	**14 49 08.6**	**+0.3**
AVH	**Avacha**	**0.44**	**192**	*e*P	**Pn**	**14 49 08.6**	**+0.3**
KII	**Karymskiy**	**0.47**	**44**	*e*P	**Pn**	**14 49 08.3**	**-0.1**
UGLR	**Uglovaya**	**0.49**	**185**	*e*P	**Pn**	**14 49 08.9**	**+0.3**
GNL	**Ganaly**	**0.56**	**270**	*e*P	**Pn**	**14 49 08.3**	**-0.6**
NLC	**Nalytchevo**	**0.59**	**153**	*e*P	**Pn**	**14 49 08.9**	**0.0**
NLC				*e*S	**Sn**	**14 49 26.5**	**-0.4**
INSR	**Institute**	**0.66**	**195**	*e*P	**Pn**	**14 49 09.3**	**+0.1**
INSR				*e*S	**Sn**	**14 49 28.1**	**+0.5**
DALK	**Dalny**	**0.67**	**187**	*e*P	**Pn**	**14 49 09.2**	**-0.1**
DALK				*e*S	**Sn**	**14 49 27.1**	**-0.6**
PET	**Petropavlovsk**	**0.69**	**192**	*e*P	**Pn**	**14 49 09.6**	**+0.1**
PET				*e*S	**Sn**	**14 49 27.9**	**0.0**
SPN	**Mys Shipunski**	**0.91**	**131**	*e*P	**Pn**	**14 49 11.1**	**+0.2**
SPN				*e*S	**Sn**	**14 49 29.6**	**-0.8**
PEA0B	**Petropavlovsk-**	**0.93**	**231**		**Pn**	**14 49 10.7**	**-0.3**
PETK	**Petropavlovsk-**	**0.93**	**231**	Pn	**Pn**	**14 49 10.8**	**-0.3**
	30nm,0.3s,baz=59,slow=12,SNR=964 91nm,0.4s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**0.93**	**231**		**Pn**	**14 49 10.6**	**-0.4**
KRMR	**Karymshinskiy**	**0.98**	**208**	*e*P	**Pn**	**14 49 11.4**	**0.0**
KRMR				*e*S	**Sn**	**14 49 31.4**	**0.0**
GRL	**Gorelyy**	**1.25**	**204**	*e*P	**Pn**	**14 49 14.6**	**+0.7**
GRL				*e*S	**Sn**	**14 49 37.4**	**+1.7**
RUS	**Russkaya**	**1.29**	**190**	*e*P	**Pn**	**14 49 13.8**	**-0.2**
RUS				*e*S	**Sn**	**14 49 35.3**	**-0.8**
MTVR	**Mutnovka**	**1.29**	**200**	*e*P	**Pn**	**14 49 15.2**	**+0.9**
MTVR				*e*S	**Sn**	**14 49 38.4**	**+2.0**
APC	**Apacha**	**1.30**	**234**	*e*P	**Pn**	**14 49 14.4**	**+0.3**
APC				*e*S	**Sn**	**14 49 36.3**	**+0.1**
KZV	**Kizimen**	**1.64**	**29**	*e*P	**Pn**	**14 49 18.4**	**+0.8**
TUMD	**Tumrok D**	**1.75**	**30**	*e*P	**Pn**	**14 49 19.2**	**+0.6**
TUMR	**Tumrok**	**1.75**	**24**	*e*P	**Pn**	**14 49 20.0**	**+1.3**
MKZ	**Mys Kozlova**	**1.88**	**62**	*e*P	**Pn**	**14 49 20.2**	**+0.2**
MKZ				*e*S	**Sn**	**14 49 45.4**	**-1.4**
KDTR	**Khodutka, Kamc**	**1.96**	**195**	*e*P	**Pn**	**14 49 20.1**	**-0.7**
KDTR				*e*S	**Sn**	**14 49 46.5**	**-1.8**
ESO	**Esso**	**2.24**	**357**	*e*P	**Pn**	**14 49 24.3**	**+0.3**
KBTR	**Krutoberegovo**	**3.38**	**40**	*e*P	**Pn**	**14 49 38.4**	**+0.5**
KURK	**Kurchatov**	**46.80**	**301**	P	**P**	**14 56 56.9**	**-0.9**
KURK				IAmb	IAmb	14 56 57.7	
	comp=Z,1.4nm,0.7s						
KURBB	**Kurchatov Arra**	**46.91**	**301**	P	**P**	**14 56 57.4**	**-1.1**
	comp=Z,0.6nm,0.6s,baz=59,slow=7.5,SNR=9.1 comp=Z,0.6nm,0.6s						
MKAR	**Makanchi Array**	**47.25**	**294**	P	**P**	**14 57 00.5**	**-0.9**
	comp=Z,0.3nm,0.5s,baz=56,slow=6.9,SNR=5.7 comp=Z,0.3nm,0.5s						
BVAR	**Borovoye Array**	**49.45**	**307**	P	**P**	**14 57 16.6**	**-1.5**
	comp=Z,0.6nm,0.5s,baz=53,slow=7.1,SNR=4.3 comp=Z,0.6nm,0.5s						
WR8	**Warramunga Arr**	**76.31**	**204**	P	**P**	**15 00 17.1**	**+1.5**
WR8				IAmb	IAmb	15 00 19.4	
	comp=Z,4.6nm,1.1s						
WRA	**Warramunga Arr**	**76.34**

CCM	**Cathedral Cave**	**39.88**	**320**	P	**P**	**14 56 22.0**	**+1.1**
735A	**Kenedy**	**40.37**	**303**	P	**P**	**14 56 24.9**	**-0.1**
BRDY	**Brady**	**42.20**	**306**	P	**P**	**14 56 40.6**	**+0.5**
WMOK	**Wichita Mounta**	**43.41**	**311**	P	**P**	**14 56 51.0**	**+1.1**
WMOK				IAmb	IAmb	14 57 29.7	
	comp=Z,10.0nm,0.9s						
TXAR	**Lajitas Array**	**45.39**	**302**	P	**P**	**14 57 06.6**	**+0.8**
	comp=Z,0.3nm,0.6s,baz=117,slow=9.6,SNR=4.6						
	comp=Z,0.3nm,0.6s						
EPLO	**Experimental L**	**48.72**	**331**	P	**P**	**14 57 32.9**	**+1.5**
ANMO	**Albuquerque**	**49.34**	**308**	P	**P**	**14 57 37.9**	**+1.3**
SDCO	**Great Sand Dun**	**49.59**	**312**	P	**P**	**14 57 39.6**	**+1.0**
ULM	**Lac du Bonnet**	**50.13**	**330**	P	**P**	**14 57 43.0**	**+0.8**
	comp=Z,1.2nm,0.4s,baz=133,slow=8.8,SNR=4.0						
	comp=Z,1.2nm,0.4s						
ULM	**Lac du Bonnet**	**50.13**	**330**	P	**P**	**14 57 42.9**	**+0.8**
ULM				IAmb	IAmb	14 58 25.9	
	comp=Z,16nm,1.5s						
ISCO	**Idaho Springs**	**50.46**	**314**	P	**P**	**14 57 45.6**	**+0.4**
PLCA	**Paso Flores**	**51.31**	**191**	P	**P**	**14 57 50.3**	**-0.9**
PLCA				IAmb	IAmb	14 57 58.4	
	comp=Z,10.0nm,1.1s						
PV03	**Paradox Valley**	**52.24**	**311**	P	**P**	**14 57 59.6**	**+1.2**
PV03				IAmb	IAmb	14 58 01.9	
	comp=Z,7.0nm,1.4s						
BW06	**Boulder Array**	**54.35**	**316**	P	**P**	**14 58 14.9**	**+1.0**
BW06				IAmb	IAmb	14 58 39.5	
	comp=Z,4.2nm,1.4s						
PD31	**Pinedale Array**	**54.35**	**316**	P	**P**	**14 58 14.9**	**+1.0**
PD31				IAmb	IAmb	14 58 39.5	
	comp=Z,4.2nm,1.4s						
PDAR	**Pinedale Array**	**54.35**	**316**	P	**P**	**14 58 15.1**	**+1.2**
	comp=Z,0.9nm,0.5s,baz=114,slow=8.9,SNR=10						
	comp=Z,0.9nm,0.5s						
FCC	**Fort Churchill**	**55.33**	**339**	P	**P**	**14 58 22.7**	**+2.3**
FCC				IAmb	IAmb	14 58 35.5	
	comp=Z,9.2nm,1.3s						
SFJD	**Kangerlussuaq**	**57.41**	**4**	P	**P**	**14 58 37.9**	**+2.8**
H29M	**Whitestone**	**76.48**	**336**	P	**P**	**15 00 39.0**	**+2.5**
H29M				IAmb	IAmb	15 01 15.7	
	comp=Z,4.2nm,1.3s						
MCARA	**McCarthy VSAT**	**78.22**	**331**	P	**P**	**15 00 46.0**	**-0.3**

*SJA **24** 15:20:47.5±0.6,20°.23S×69°.10W,h113^{km}±4^{km},ML3.5, MW3.6*
*GUC **24** 15:20:49.5±0.7,20°.25S×69°.05W,h99^{km}±4^{km},ML3.4, Presumed earthquake*

ISC 24 15:20:49.9±1.6,20°.26S±0°.03×69°.16W±0°.08, h100^{km}±11^{km},n24,σ0°80/44,6C-3D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GO01	**Chusmiza**	**0.59**	**357**	*eP*	**Pn**	**15 21 06.3**	**-0.8**
GO01				*eS*	**Sn**	**15 21 20.3**	**+0.5**
GO01				IAML		15 21 22.1	
	comp=Z,1μm,0.2s						
GO01	**Chusmiza**	**0.59**	**357**	⇓*iP*	**Pn**	**15 21 06.2**	**-0.8**
GO01				*eS*	**Sn**	**15 21 18.9**	**-0.8**
PB11	**IPOC Station P**	**0.68**	**317**	*eP*	**Pn**	**15 21 07.0**	**-0.5**
PB11				*eS*	**Sn**	**15 21 21.5**	**+0.9**
PB11				IAML		15 21 22.7	
	comp=Z,818nm,0.6s						
PB11	**IPOC Station P**	**0.68**	**317**	⇑*eP*	**Pn**	**15 21 06.9**	**-0.5**
PB11				*eS*	**Sn**	**15 21 20.7**	**+0.2**
PB11				IAML		15 21 21.4	
	comp=N,3μm,0.3s						
TA01	**Diego Aracena**	**1.00**	**252**	*eP*	**Pn**	**15 21 10.2**	**-0.3**
TA01				IAML		15 21 32.1	
	comp=Z,344nm,0.5s						
TA01	**Diego Aracena**	**1.00**	**252**	⇑*eP*	**Pn**	**15 21 10.0**	**-0.4**
TA01				IAML		15 21 31.9	
	comp=N,444nm,0.4s						
PSGCX	**Pisagua**	**1.12**	**306**	*eP*	**Pn**	**15 21 11.5**	**-0.4**
PSGCX				*eS*	**Sn**	**15 21 29.3**	**+0.9**
PSGCX				IAML		15 21 30.5	
	comp=Z,684nm,0.6s						
PSGCX	**Pisagua**	**1.12**	**306**	⇑*eP*	**Pn**	**15 21 11.4**	**-0.5**
PSGCX				*eS*	**Sn**	**15 21 28.4**	**0.0**
PB02	**IPOC Station P**	**1.26**	**213**	*eP*	**Pn**	**15 21 13.3**	**-0.1**
PB02				*eS*	**Sn**	**15 21 33.4**	**+2.2**
PB02				IAML		15 21 35.4	
	comp=Z,950nm,0.3s						
PB02	**IPOC Station P**	**1.26**	**213**	⇑*eP*	**Pn**	**15 21 13.2**	**-0.3**
PB02				*eS*	**Sn**	**15 21 32.0**	**+0.8**
PB02				IAML		15 21 36.6	
	comp=E,1μm,0.2s						
PB09	**IPOC Station P**	**1.53**	**183**	*eP*	**Pn**	**15 21 16.5**	**-0.3**
PB09				*eS*	**Sn**	**15 21 39.1**	**+2.0**
PB09				IAML		15 21 43.8	
	comp=Z,288nm,0.3s						
PB09	**IPOC Station P**	**1.53**	**183**	⇑*iP*	**Pn**	**15 21 16.5**	**-0.3**
PB09				*eS*	**Sn**	**15 21 37.4**	**+0.3**
PB09				IAML		15 21 38.8	
	comp=N,363nm,0.4s						
PB07	**IPOC Station P**	**1.61**	**205**	*eP*	**Pn**	**15 21 17.7**	**-0.1**
PB07				*eS*	**Sn**	**15 21 39.6**	**+0.7**
PB07				IAML		15 21 43.8	
	comp=Z,538nm,0.4s						
PB07	**IPOC Station P**	**1.61**	**205**	*eP*	**Pn**	**15 21 17.2**	**-0.5**
PB07				*eS*	**Sn**	**15 21 38.5**	**-0.4**
PB07				IAML		15 21 43.6	
	comp=E,475nm,0.3s						
PB03	**IPOC Station P**	**1.86**	**197**	*eP*	**Pn**	**15 21 20.6**	**-0.4**
PB03				*eS*	**Sn**	**15 21 45.5**	**+0.9**
PB03				IAML		15 21 51.6	
	comp=Z,428nm,0.3s						
PB03	**IPOC Station P**	**1.86**	**197**	⇓*iP*	**Pn**	**15 21 20.5**	**-0.4**
PB03				*eS*	**Sn**	**15 21 43.8**	**-0.7**
PB03				IAML		15 21 50.9	
	comp=N,384nm,0.5s						
PB16	**IPOC Station P**	**1.94**	**350**	*eP*	**Pn**	**15 21 22.7**	**+0.2**
PB16				*eS*	**Sn**	**15 21 48.3**	**+1.2**
PB16	**IPOC Station P**	**1.94**	**350**	⇓*iP*	**Pn**	**15 21 22.6**	**+0.2**
PB16				*eS*	**Sn**	**15 21 47.7**	**+0.7**
PB16				IAML		15 21 53.5	
	comp=E,130nm,0.4s						
PB12	**IPOC Station P**	**1.98**	**326**	*eP*	**Pn**	**15 21 21.5**	**-0.9**
PB12				*eS*	**Sn**	**15 21 48.1**	**+1.0**
PB12				IAML		15 21 53.6	
	comp=Z,228nm,0.3s						
PB12	**IPOC Station P**	**1.98**	**326**	⇑*eP*	**Pn**	**15 21 21.4**	**-0.9**
PB12				*eS*	**Sn**	**15 21 47.1**	**+0.1**
PB12				IAML		15 21 55.7	
	comp=E,307nm,0.3s						
PB06	**IPOC Station P**	**2.46**	**189**	*eP*	**Pn**	**15 21 28.6**	**-0.1**
PB06				*eS*	**Sn**	**15 21 58.6**	**+0.2**
PB06				IAML		15 22 07.7	
	comp=Z,192nm,0.3s						
PB06	**IPOC Station P**	**2.46**	**189**	*eP*	**Pn**	**15 21 28.6**	**-0.1**
PB06				IAML		15 21 59.2	
	comp=E,269nm,0.2s						
PB05	**IPOC Station P**	**2.76**	**200**	*eP*	**Pn**	**15 21 32.2**	**-0.4**
PB05				*eS*	**Sn**	**15 22 03.9**	**-1.5**
PB05				IAML		15 22 14.8	
	comp=Z,88nm,0.7s						
PB05	**IPOC Station P**	**2.76**	**200**	*eP*	**Pn**	**15 21 31.6**	**-1.0**
PB05				IAML		15 22 16.9	
	comp=N,208nm,0.8s						

*IDC **24** 16:11:04.5±2.1,2°.70S×130°.76E,h0^{km},mb3.7/4, mbtmp3.7/6,ML3.7/2,MS3.3/2,Error ellipse: s-maj=110.4km s-min=21.7km az=78.0*
*DJA **24** 16:11:07.5±0.3,3°.5±3°×13°.0E±°,h10^{km},M4.4/7,mB4.8/2, mb4.4/7,mb4.4/7,mB4.8/2,ML4.0/12,MLv4.2/12,MLv4.5/6, Mw(mB)4.1/2,Mw(mB)4.1/2*

ISC 24 16:11:07.8±0.8,2°.92S±0°.09×129°.76E±0°.09,h10^{km},n16, σ1§16/13,mb3.8/4,Seram

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**1.60**	**175**	P	**Pb**	**16 11 39.2**	**+1.8**
BNDI				AML	AML		
BNDI				AML	AML		
FAKI	**Fak Fak**	**2.49**	**90**	P	**Pn**	**16 11 48.7**	**+0.3**
SANI	**Sanana**	**3.86**	**283**	P	Pn	16 12 02.7	-4.6
SANI				AML	AML		
MWPI	**Manokwari, Pap**	**4.72**	**65**	P	**Pn**	**16 12 18.3**	**-0.8**
MWPI				AML	AML		
MWPI				AML	AML		
MWPI				AML	AML		
BAKI	**Biak**	**6.58**	**75**	P	**Pn**	**16 12 44.8**	**+0.2**
KDI	**Kendari**	**7.20**	**262**	P	**Pn**	**16 12 52.8**	**-0.4**
KDI				AML	AML		
KDI				AML	AML		
KDI				AML	AML		
LUWI	**Luwuk**	**7.23**	**285**	P	**Pn**	**16 12 53.2**	**-0.4**
	0.1nm0.2nm0.2nm35nm,0.9s,35nm,0.9s						
LUWI				AML	AML		
LUWI				AML	AML		
LUWI				AML	AML		
GTOI	**Gorontalo**	**7.61**	**298**	P	**Pn**	**16 12 58.6**	**-0.3**
	0.0nm0.1nm0.1nm14nm,0.8s,14nm,0.8s						
GTOI				AML	AML		
GTOI				AML	AML		
GTOI				AML	AML		
APSI	**Ampana**	**8.35**	**284**	P	Pn	16 13 04.6	-4.3
	28nm,0.9s						
KAPI	**Kappang**	**10.20**	**258**	LR	LR	16 18 53.4	
	comp=Z,144nm,19.6s,baz=76,slow=42						
FITZ	**Fitzroy Crossi**	**15.61**	**195**	Pn	**Pn**	**16 14 46.9**	**-1.2**
	0.2nm,0.3s,baz=25,slow=14,SNR=6.2						
	2.3nm,1.0s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**17.50**	**166**	P	**Pn**	**16 15 09.8**	**-2.4**
	0.3nm,0.3s,baz=356,slow=12,SNR=24						
	0.6nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.01**	**169**	P	**P**	**16 15 50.8**	**-0.9**
	2.6nm,0.6s,baz=348,slow=10,SNR=64						
ASAR				LR	LR	16 25 15.8	
	comp=Z,82nm,18.6s,baz=344,slow=40						
	2.6nm,0.6s						
MKAR	**Makanchi Array**	**64.72**	**326**	P	**P**	**16 21 46.8**	**+0.5**
	0.2nm,0.4s,baz=118,slow=8.3,SNR=2.1						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**68.94**	**328**	P	**P**	**16 22 13.3**	**+0.3**
	0.6nm,0.6s,baz=129,slow=5.7,SNR=4.3						
	0.6nm,0.6s						
BVAR	**Borovoye Array**	**74.51**	**327**	P	**P**	**16 22 47.6**	**+1.0**
	0.7nm,0.8s,baz=144,slow=5.2,SNR=3.6						
	0.7nm,0.8s						

*IDC **24** 16:11:55.8±1.7,2°.72S×130°.33E,h0^{km},mb3.8/4, mbtmp3.8/6,ML3.8/2,MS3.0/4,Error ellipse: s-maj=84.9km s-min=21.7km az=77.0*
*NEIC **24** 16:11:56.7±1.3,2°.76S±0°.08×130°.2E±0°.1,h10^{km}±1^{km}, mb4.4/12,Error ellipse: s-maj=24.6km s-min=13.4km az=75.0*

ISC 24 16:11:56.0±0.8,2°.86S±0°.08×130°.1E±0°.1,h10^{km},n30, σ1§61/24,mb4.1/9,MS2.9/4,Seram

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**4.53**	**323**	Pn	**Pn**	**16 13 04.5**	**-0.2**
LUWI	**Luwuk**	**7.55**	**284**	Pn	Pn	16 13 42.3	-3.9
SOEI	**Soe**	**8.97**	**220**	Pn	**Pn**	**16 14 07.8**	**+1.9**
TOLI2	**Tolitoli**	**10.12**	**293**	Pn	**Pn**	**16 14 19.9**	**-1.6**
KNRA	**Kununurra**	**12.80**	**186**	Pn	**Pn**	**16 14 60.0**	**+1.7**
FITZ	**Fitzroy Crossi**	**15.76**	**196**	Pn	**Pn**	**16 15 37.8**	**-0.4**
	0.2nm,0.3s,baz=14,slow=12,SNR=1.8						
	2.8nm,0.8s						
FITZ				AML	AML		
WB0	**Warramunga Arr**	**17.32**	**166**	Pn	**Pn**	**16 15 58.8**	**+0.7**
WRA	**Warramunga Arr**	**17.47**	**167**	P	**Pn**	**16 16 01.4**	**+1.4**
	0.4nm,0.3s,baz=347,slow=12,SNR=6.7						
WRA				S	**Sn**	**16 19 12.6**	**-2.1**
	0.7nm,0.7s,baz=337,slow=24,SNR=3.0						
	1.6nm,0.7s						
WRA				AML	AML		
WB2	**Warramunga Arr**	**17.48**	**167**	P	**Pn**	**16 16 02.0**	**+1.9**
WB2				IAmb	IAmb	16 16 06.5	
	comp=Z,13nm,1.5s						
WR8	**Warramunga Arr**	**17.52**	**166**		**Pn**	**16 16 01.5**	**+0.9**
AS31	**Alice Springs**	**21.01**	**170**	P	**P**	**16 16 41.0**	**+1.1**
ASAR	**Alice Springs**	**21.01**	**170**	P	**P**	**16 16 41.5**	**+1.6**
	comp=Z,6.5nm,0.8s,baz=349,slow=10,SNR=9.9						
ASAR				S	**S**	**16 20 30.0**	**-4.0**
	comp=Z,1.0nm,1.1s,baz=351,slow=21,SNR=1.9						
	comp=Z,6.5nm,0.8s						
ASAR	**Alice Springs**	**21.01**	**170**	P	**P**	**16 16 40.7**	**+0.8**
KRVT	**Keravat (AS076**	**21.93**	**94**	LR	LR	16 25 30.4	
	comp=Z,58nm,20.0s,baz=316,slow=38						
CTA	**Charters Tower**	**23.27**	**139**	LR	LR	16 27 48.5	
	comp=Z,123nm,18.9s,baz=7.5,slow=41						
INKA	**Innaminka**	**26.75**	**159**	P	**P**	**16 17 35.6**	**-0.3**
INKA				IAmb	IAmb	16 18 12.2	
	comp=Z,5.1nm,1.4s						
YULB	**Yu-li**	**27.47**	**342**	P	**P**	**16 17 40.7**	**-1.8**
CAN	**Canberra**	**36.75**	**154**	P	**P**	**16 19 04.3**	**+0.5**
CAN				IAmb	IAmb	16 19 47.8	
	comp=Z,20nm,1.5s						
KSRS	**Korea Array**	**40.16**	**357**	LR	LR	16 36 17.3	
	comp=Z,7.1nm,19.8s,baz=50,slow=36						
ONTNC	**Ouen Toro**	**40.21**	**122**	P	P	16 19 31.2	-1.8
ONTNC				IAmb	IAmb	16 19 44.6	
	comp=Z,10nm,0.8s						
RPZ	**Rata Peaks**	**54.47**	**144**	LR	LR	16 45 03.4	
	comp=Z,9.3nm,18.1s,baz=38,slow=36						
MKAR	**Makanchi Array**	**64.86**	**326**	P	**P**	**16 22 37.6**	**+2.1**
	comp=Z,0.3nm,0.5s,baz=116,slow=6.7,SNR=2.2						
	comp=Z,0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**69.07**	**328**	P	**P**	**16 23 03.5**	**+1.4**
	comp=Z,0.6nm,0.5s,baz=128,slow=5.8,SNR=5.3						
	comp=Z,0.6nm,0.5s						
KURK	**Kurchatov**	**69.08**	**328**	P	**P**	**16 23 02.4**	**+0.3**
KURK				IAmb	IAmb	16 23 11.7	
	comp=Z,5.7nm,1.4s						
BVAR	**Borovoye Array**	**74.65**	**327**	P	**P**	**16 23 36.9**	**+1.3**
	comp=Z,0.5nm,0.5s,baz=116,slow=3.4,SNR=3.8						
	comp=Z,0.5nm,0.5s						
GAMB	**Gambell**	**79.08**	**23**	P	**P**	**16 24 00.3**	**0.0**
K15K	**Wolf Creek Mou**	**82.63**	**26**	P	**P**	**16 24 18.6**	**-0.7**
BMAR	**Burnt Mountain**	**90.82**	**23**	P	P	16 24 57.5	-1.9
C26K	**Camden Bay**	**90.94**	**20**	P	P	16 24 56.5	-3.3
C26K				IAmb	IAmb	16 25 03.2	
	comp=Z,4.3nm,1.1s						
PB14	**IPOC Station P**	**146.18**	**145**	PKPdf	**PKPdf**	**16 31 35.7**	**-1.2**

*IDC **24** 16:19:08.8±0.9,55°.66N×160°.50E,h0^{km},mb3.5/7, mbtmp3.5/8,ML2.7/1,MS3.7/1,Error ellipse: s-maj=30.4km s-min=16.0km az=132.0*
*KRSC **24** 16:19:09.8±0.3,55°.68N×160°.54E,h5^{km}±4^{km},Ml3.6*

ISC 24 16:19:09.9±1.1,55°.67N±0°.02×160°.56E±0°.03,h8^{km}±7^{km}, n30,σ0°96/44,mb3.6/7,Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KMNR	**Kamenistaya**	**0.20**	**295**	*eP*	**Pg**	**16 19 14.5**	**+0.5**
BZP	**Bezymyannyi-Pe**	**0.24**	**358**	*eP*	**Pg**	**16 19 14.9**	**+0.2**
BZP				*eS*	**Sg**	**16 19 18.6**	**+0.5**
BZMR	**Bezymyannaya**	**0.27**	**352**	*eP*	**Pg**	**16 19 15.5**	**+0.3**
BZMR				*eS*	**Sg**	**16 19 19.6**	**+0.8**
BZGR	**Bezymyannyi-Gr**	**0.28**	**16**	*eP*	**Pg**	**16 19 16.1**	**+0.6**
BZGR				*eS*	**Sb**	**16 19 20.8**	**-1.3**
BZWR	**Bezymyannyi-We**	**0.29**	**353**	*eP*	**Pb**	**16 19 16.3**	**-1.2**
BZWR				*eS*	**Sb**	**16 19 21.1**	**-1.5**
KIRR	**Kirishev**	**0.31**	**337**	*eP*	**Pb**	**16 19 16.7**	**-1.0**
KIRR				*eS*	**Sb**	**16 19 21.8**	**-1.1**
KPT	**Kopyto**	**0.35**	**327**	*eP*	**Pg**	**16 19 17.0**	**+0.3**
KPT				*eS*	**Sb**	**16 19 22.5**	**-1.6**
TUMR	**Tumrok**	**0.46**	**211**	*eP*	**Pb**	**16 19 19.3**	**-0.9**
TUMR				*eS*	**Sb**	**16 19 26.5**	**-0.6**
TUMD	**Tumrok D**	**0.48**	**191**	*eP*	**Pb**	**16 19 19.6**	**-0.9**
TUMD				*eS*	**Sb**	**16 19 26.6**	**-1.2**
KOZ	**Kozyrevsk**	**0.55**	**315**	*eP*	**Pb**	**16 19 20.7**	**-1.0**
KOZ				*eS*	**Sb**	**16 19 28.8**	**-0.9**
KRSR	**Krestovskiy**	**0.55**	**1**	*eP*	**Pb**	**16 19 20.9**	**-0.8**
KZV	**Kizimen**	**0.58**	**195**	*eP*	**Pb**	**16 19 21.4**	**-0.9**
KLY	**Klyuchi**	**0.64**	**5**	*eP*	**Pb**	**16 19 22.8**	**-0.5**
KLY				*eS*	**Sb**	**16 19 32.8**	**+0.3**
SRDR	**Sredinnyy**	**0.80**	**324**	*eP*	**Pg**	**16 19 24.7**	**-0.6**
SRDR				*eS*	**Sb**	**16 19 36.3**	**-0.7**
BDR	**Baidarnaya**	**0.97**	**22**	*eP*	**Pb**	**16 19 28.6**	**-0.3**
SRKR	**Sorokina**	**1.04**	**19**	*eP*	**Pg**	**16 19 29.5**	**-0.4**
SMKR	**Semkarok**	**1.04**	**29**	*eP*	**Pg**	**16 19 29.8**	**-0.1**
ESO	**Esso**	**1.08**	**284**	*eP*	**Pg**	**16 19 29.0**	**-1.5**
MKZ	**Mys Kozlova**	**1.31**	**148**	*eP*	**Pg**	**16 19 34.1**	**-0.8**
MKZ				*eS*	**Sn**	**16 19 52.7**	**+0.7**
KBG	**Krutoberegovo**	**1.34**	**63**	*eP*	**Pn**	**16 19 34.2**	**-0.7**
KBG				*eS*	**Sg**	**16 19 53.0**	**+0.1**
KBTR	**Krutoberegovo**	**1.38**	**66**	*eP*	**Pn**	**16 19 34.7**	**-0.7**
KBTR				*eS*	**Sg**	**16 19 54.1**	**-0.2**
PETK	**Petropavlovsk-**	**3.06**	**214**	Pn	**Pn**	**16 19 59.6**	**+1.0**
	4.8nm,0.3s,baz=46,slow=15,SNR=5.8						
PETK					Sn	**Sn**	**16 20 38.4**	**+3.0**
	1.2nm,0.3s,baz=45,slow=16,SNR=3.5						
	4.3nm,0.3s						
PETK				AML	AML		
ILAR	**Eielson Array**	**26.86**	**49**	P	**P**	**16 24 51.1**	**+0.7**
	0.3nm,0.8s,baz=271,slow=8.6,SNR=4.1						
	0.3nm,0.8s						
KURBB	**Kurchatov Arra**	**46.74**	**300**	P	**P**	**16 27 38.7**	**-0.3**
	0.3nm,0.5s,baz=55,slow=8.1,SNR=3.0						
	0.3nm,0.5s						
BVAR	**Borovoye Array**	**49.02**	**307**	P	**P**	**16 27 57.1**	**+0.4**
	0.5nm,0.6s,baz=60,slow=9.2,SNR=4.7						
	0.5nm,0.6s						
AAK	**Ala-Archa**	**54.21**	**295**	LR	LR	16 52 30.6	
	comp=Z,68nm,18.0s,baz=34,slow=37						
NVAR	**Mina Array Bea**	**54.65**	**72**	P	**P**	**16 28 40.2**	**+1.1**
	0.8nm,0.7s,baz=294,slow=7.2,SNR=5.8						
	0.8nm,0.7s						
TXAR	**Lajitas Array**	**69.40**	**68**	P	**P**	**16 30 18.4**	**+0.2**
	0.3nm,0.7s,baz=315,slow=6.4,SNR=3.9						
	0.3nm,0.7s						
WRA	**Warramunga Arr**	**78.54**	**205**	P	**P**	**16 31 11.0**	**-0.5**
	0.3nm,0.5s,baz=17,slow=5.8,SNR=3.5						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**82.22**	**205**	P	**P**	**16 31 31.0**	**-0.3**
	0.6nm,0.8s,baz=7.9,slow=5.7,SNR=6.6						
	0.6nm,0.8s						

*KRNET **24** 16:47:42.0±0.1,41°.98N×72°.06E,h28^{km},mb2.7*
*SOME **24** 16:47:42.5,41°.98N×72°.12E,h10^{km}*
*NNC **24** 16:47:43.5±0.5,42°.07N×72°.09E,h0^{km},mb3.1,mpv2.9, Error ellipse: s-maj=5.8km s-min=2.0km az=172.0*
*ISU **24** 16:47:43,41°.94N×72°.04E,h21^{km}*
*KNET **24** 16:47:45.6±0.2,42°.04N×72°.31E,h6^{km}±2^{km},ml2.4, Error ellipse: s-maj=3.6km s-min=1.7km az=147.0*

ISC 24 16:47:41.7±1.1,42°.02N±0°.02×72°.10E±0°.02,h4^{km}±10^{km}, n51,σ1§06/92,23C-24D,Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNAS	**Manas**	**0.56**	**32**	⇑*iP*	**Pb**	**16 47 54.1**	**-0.1**
MNAS				⇑*iS*	**Sb**	**16 48 02.6**	**+0.1**
TRKS	**Terek-Sug**	**0.87**	**236**	⇑*iP*	**Pg**	**16 47 57.9**	**-0.5**
TRKS				⇑*iS*	**Sg**	**16 48 09.3**	**-0.4**
ARSB	**Arslanbob**	**0.96**	**136**	⇓*eP*	**Pg**	**16 47 59.8**	**-0.3**
ARSB				⇓*iS*	**Sg**	**16 48 12.6**	**+0.1**
MRKS	**Merke**	**1.10**	**48**	P	**Pn**	**16 48 04.3**	**+0.2**
	12nm,0.3s						
MRKS				S	**Sn**	**16 48 19.6**	**-0.2**
	92nm,0.3s						
MRKS	**Merke**	**1.10**	**48**	*eP*	**Pn**	**16 48 04.3**	**+0.2**
	12nm,0.3s						
MRKS				*eS*	**Sn**	**16 48 19.6**	**-0.2**
	92nm,0.3s						
PSK	**Pskem**	**1.29**	**267**	P	**Pn**	**16 48 07.7**	**+1.0**
PSK				S	**Sn**	**16 48 25.2**	**+0.7**
EKS2	**Erkin-Say**	**1.40**	**62**	⇑P	**Pg**	**16 48 09.5**	**+0.9**
	2.0nm,0.1s,SNR=8.2						
EKS2				⇓S	**Sn**	**16 48 28.1**	**+1.0**
	11nm,0.2s						
EKS2	**Erkin-Say**	**1.40**	**62**	⇑*iP*	**Pn**	**16 48 08.2**	**0.0**
EKS2				⇑*iS*	**Sn**	**16 48 27.3**	**+0.2**
TSTA	**Tashata**	**1.47**	**169**	P	**Pg**	**16 48 10.0**	**+0.2**
TSTA				S	**Sg**	**16 48 30.0**	**+1.2**
IUG	**Iuzhnay**	**1.55**	**275**	P	**Pb**	**16 48 11.3**	**+0.3**
	33nm,0.4s						
IUG				S	**Sg**	**16 48 32.0**	**+0.6**
	301nm,0.4s						
IUG	**Iuzhnay**	**1.55**	**275**	*eP*	**Pb**	**16 48 11.3**	**+0.3**
	33nm,0.4s						
IUG				*eS*	**Sg**	**16 48 32.0**	**+0.6**
	301nm,0.4s						
KK31	**Karatay Array**	**1.60**	**313**	P	**Pb**	**16 48 11.9**	**0.0**
	4.3nm,0.3s,baz=130,slow=16,SNR=84						
KK31				S	**Sg**	**16 48 33.7**	**+0.6**
	9.0nm,0.2s,baz=130,slow=28,SNR=21						
CHMG	**Chimgan**	**1.63**	**254**	S	**Sn**	**16 48 31.3**	**-1.6**
CHRV	**Charvak**	**1.65**	**258**	P	**Pb**	**16 48 13.1**	**+0.3**
CHRV				S	**Sg**	**16 48 35.3**	**+0.5**
FRG	**Fergana**	**1.66**	**188**	P	**Pg**	**16 48 14.6**	**+1.1**
FRG				S	**Sg**	**16 48 36.4**	**+1.4**
SALK	**Salom-Alik**	**1.72**	**131**	⇑*eP*	**Pn**	**16 48 12.6**	**0.0**
SALK				⇑*eS*	**Sn**	**16 48 34.7**	**-0.4**
UCH	**Uchtor**	**1.81**	**83**	⇓P	**Pg**	**16 48 16.9**	**+0.6**
	4.7nm,0.2s,SNR=23						
UCH				⇓S	**Sg**	**16 48 41.0**	**+1.2**
	19nm,0.3s						
UCH	**Uchtor**	**1.81**	**83**	⇓*eP*	**Pn**	**16 48 14.6**	**+0.5**
UCH				⇓*iS*	**Sn**	**16 48 38.1**	**+0.5**
AAK	**Ala-Archa**	**1.88**	**70**	⇑P	**Pg**	**16 48 18.0**	**+0.3**
	5.9nm,0.2s,SNR=7.6						
AAK				⇓S	**Sg**	**16 48 42.8**	**+0.7**
	11nm,0.3s						
**AAK

KRBS					*e*S	**Sg**	**16 49 19.9**	**-1.9**	
	2.9nm,0.6s								
MTBS	**Maitube**	**3.38**	**69**	Pg	**Pg**	**Pg**	**16 48 45.1**	**-1.4**	
	1.3nm,0.1s								
MTBS					Lg	Lg	16 49 29.7		
	4.9nm,0.4s								
MTBS	**Maitube**	**3.38**	**69**	*e*P	**Pg**	**Pg**	**16 48 45.1**	**-1.4**	
	1.3nm,0.1s								
MTBS					*e*S	**Sg**	**16 49 29.7**	**-0.7**	
	4.9nm,0.4s								
MDOK	**Medeo**	**3.83**	**71**	Pg	**Pg**	**Pg**	**16 48 53.3**	**-1.8**	
	2.3nm,0.8s								
MDOK					Lg	Lg	16 49 43.7		
	9.8nm,0.6s								
MDOK	**Medeo**	**3.83**	**71**	*e*P	**Pg**	**Pg**	**16 48 53.3**	**-1.8**	
	2.3nm,0.8s								
MDOK					*e*S	**Sg**	**16 49 43.7**	**-1.0**	
	9.8nm,0.6s								
KOTS	**Kotyrbulak**	**3.89**	**70**	Pg	**Pg**	**Pg**	**16 48 55.3**	**-1.0**	
	1.8nm,0.5s								
KOTS					Lg	Lg	16 49 47.2		
	6.6nm,0.7s								
KOTS	**Kotyrbulak**	**3.89**	**70**	*e*P	**Pg**	**Pg**	**16 48 55.3**	**-1.0**	
	1.8nm,0.5s								
KOTS					*e*S	**Sg**	**16 49 47.2**	**+0.5**	
	6.6nm,0.7s								
ARXS	**Arharly**	**4.73**	**60**	Pg	**Pg**	**Pg**	**16 49 09.4**	**-3.0**	
	1.2nm,0.5s								
ARXS					Lg	Lg	16 50 11.2		
	9.0nm,0.7s								
ARXS	**Arharly**	**4.73**	**60**	*e*P	**Pg**	**Pg**	**16 49 09.4**	**-3.0**	
	1.2nm,0.5s								
ARXS					*e*S	**Sg**	**16 50 11.2**	**-2.4**	
	9.0nm,0.7s								

BJI **24** *16:51:50.8,25˚.14N×143˚.05E,h10km,mB5.0/15,mb4.6/64, Ms4.4/36,Ms7 4.2/38*

NIED **24** *16:51:55.7,25˚.41N×142˚.80E,h0km,MW4.8,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁶Nm; Mrr1.23; Mθθ-0.97; Mϕϕ-0.26; Mrθ-1.00; Mθϕ0.27; Mϕr1.21; Fault plane solution: M₀1.93000×10¹⁶ NP1:φ₈99.00000°, δ21.00000°,λ.58.00000°. NP2:φ₈313.00000°,δ73.00000°, λ101.00000°.*

MOS **24** *16:51:55.3±0.8,25˚.4N±0˚.6×142˚.52E,h10km,mb5.2/40 Error ellipse: s-maj=10.1km s-min=4.9km az=111.5*

JMA **24** *16:51:55.7±0.3,25˚.4N±0˚.6×14˚3E±˚,h0km,MV4.9/26, IOTO ISLANDS REGION*

IDC **24** *16:51:55.3±0.5,25˚.43N×142˚.48E,h0km,mb4.7/27, mbtmp4.6/28,ML4.0/1,MS3.9/61,Error ellipse: s-maj=16.4km s-min=11.5km az=80.0*

GFZ **24** *16:51:57.3±0.1,25˚N±2˚×14˚3E±˚,h10km,M5.0/55, mb4.9/55,confirmed*

NEIC **24** *16:51:57.3±1.3,25˚.52N±0˚.07×142˚.7E±0˚.1,h10km±1km, mb5.0/244,Error ellipse: s-maj=19.1km s-min=10.6km az=77.0*

GCMT **24** *16:52:00.3±0.3,25˚.36N±0˚.02×142˚.77E±0˚.05,h17km±1km, MW4.8/69,Moment Tensor Solution. s12,c13; s69,c101; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr1.49±.17; Mθθ-1.69±.10; Mϕϕ0.20±.09; Mrθ1.22±.22; Mθϕ-0.07±.05; Mϕr-0.06±.33; Best double couple: M₀2.00600×10¹⁶ NP1:φ₈264.00000°,δ26.00000°,λ83.00000°. NP2: φ₈91.00000°,δ64.00000°,λ93.00000°. Principal axes: T 1.9080, Plg71.0000°, Azm8.0000°; N 0.2020, Plg3.0000°, Azm270.0000°; P -2.1050, Plg19.0000°, Azm179.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 24 16:51:56.8±0.6,25˚.50N±0˚.04×142˚.74E±0˚.07,h9km±2km, h9km:pP-P,n458,σ1s32/353,mb5.0/240,MS4.1/71, 18C-10D,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
JHH2	**Haha-jima-NKT2**	**1.24**	**336**	P	**Pg**		**16 52 21.1**	**+0.5**
JHH2				A	A		16 52 21.1	
	comp=N,31nm,7.1s,comp=E,47nm,5.4s							
JCJ	**Chichijima**	**1.67**	**343**	Pn	**Pn**		**16 52 25.0**	**-1.2**
	comp=E,407nm,0.3s,baz=167,slow=7.8,SNR=354							
JCJ				Sn	**Sn**		**16 52 47.2**	**-0.5**
	comp=E,323nm,0.3s,baz=288,slow=22,SNR=9.6							
JCJ	**Chichijima**	**1.67**	**343**		**Pb**		**16 52 28.0**	**+0.3**
JCJ	**Chichijima**	**1.67**	**343**	P	**Pb**		**16 52 28.2**	**+0.6**
CBIJ	**Chichi˙jima**	**1.67**	**343**	*e*P	**Pb**		**16 52 28.1**	**+0.4**
CBIJ				A	A		16 52 28.1	
	comp=N,23nm,2.1s,comp=E,26nm,4.6s							
CBIJ				*e*S	**Sg**		**16 52 51.7**	**+1.3**
JHJ	**Hachijo jima 2**	**8.02**	**342**	LR	LR		16 56 56.7	
	comp=E,102nm,20.6s,baz=146,slow=38							
BSO3	**Boso 3**	**9.47**	**349**	*e*P	**Pn**		**16 54 15.1**	**+1.9**
JHU2	**Hanno**	**10.73**	**345**	*e*P	**Pn**		**16 54 31.2**	**+0.6**
JYT	**Yasato**	**10.92**	**349**	*e*P	**Pn**		**16 54 35.6**	**+2.4**
INU	**Inuyama**	**10.99**	**335**	Pn	**Pn**		**16 54 33.9**	**-0.3**
JHO	**Hitachi**	**11.23**	**351**	P	**Pn**		**16 54 38.4**	**+0.8**
JHO				*e*S	**Sn**		**16 56 40.7**	**-2.5**
JAG	**Ashikaga**	**11.25**	**346**	*e*P	**Pn**		**16 54 37.8**	**0.0**
MJAR	**Matsushiro Arr**	**11.67**	**342**	Pn	**Pn**		**16 54 44.7**	**+1.1**
	comp=E,0.2nm,0.3s,baz=166,slow=12,SNR=8.8							
MJAR				LR	LR		16 59 17.3	
	comp=E,540nm,20.4s,baz=158,slow=38							
MJAR	**Matsushiro Arr**	**11.67**	**342**	P	**Pn**		**16 54 44.0**	**+0.4**
MJAR	**Matsushiro Arr**	**11.67**	**342**	Pn	**Pn**		**16 54 44.0**	**+0.4**
MAJO	**Matsushiro**	**11.67**	**342**	↑*e*P	**Pn**		**16 54 46.0**	**+2.4**
MAJO	**Matsushiro**	**11.67**	**342**	P	**Pn**		**16 54 44.2**	**+0.6**
	comp=Z,17nm,1.4s							
MJB9	**Matsu-Tunnel**	**11.68**	**342**	Pn	**Pn**		**16 54 42.2**	**-1.4**
JFK	**Kawauchi**	**11.94**	**353**	*e*P	**Pn**		**16 54 46.9**	**-0.3**
JFK				*e*S	**Sn**		**16 56 52.4**	**-8.2**
GUMO	**Guam**	**12.02**	**170**	LR	LR		16 58 59.9	
	comp=Z,787nm,18.3s,baz=10.0,slow=35							
JNU	**Nakatsue**	**12.83**	**309**	Pn	**Pn**		**16 55 01.3**	**+1.9**
	comp=Z,0.5nm,0.3s,baz=5.3,slow=20,SNR=7.2							
JNU				LR	LR		16 58 59.8	
	comp=Z,294nm,20.4s,baz=116,slow=33							
JOW	**Kunigami**	**13.06**	**279**	LR	LR		16 59 05.7	
	comp=Z,347nm,21.3s,baz=82,slow=34							
ERM	**Erimo**	**16.48**	**1**	P	**Pn**		**16 55 46.9**	**-1.3**
ERM				pmax	pmax			
	comp=Z,77nm,1.3s							
ERM	**Erimo**	**16.48**	**1**	Pn	**Pn**		**16 55 46.9**	**-1.3**
KSRS	**Korea Array**	**17.34**	**317**	P	**P**		**16 56 00.7**	**+0.2**
	comp=Z,3.4nm,0.7s,baz=126,slow=12,SNR=12							
KSRS				LR	LR		17 02 28.0	
	comp=Z,457nm,18.8s,baz=125,slow=37							
KS19	**Wonju Array Si**	**17.41**	**317**		**P**		**16 56 02.0**	**+0.8**
JKA	**Kamikawa-asahi**	**18.57**	**360**	P	**P**		**16 56 14.1**	**0.0**
ASAJ	**Asahikawa**	**18.58**	**360**	P	**Pn**		**16 56 16.2**	**+1.9**
	comp=Z,0.9nm,0.3s,baz=236,slow=9.1,SNR=6.6							
ASAJ				LR	LR		17 03 43.6	
	comp=Z,376nm,21.8s,baz=152,slow=38							
	comp=Z,7.2nm,0.8s							
ASAJ				AML	AML			
YHNB	**Yeheng**	**19.37**	**272**	P	**P**		**16 56 23.1**	**+0.2**
VLA	**Vladivostok**	**19.70**	**336**	↓*e*P	**P**		**16 56 25.7**	**-0.7**
USRK	**Ussuriysk Ar.**	**20.60**	**338**	P	**P**		**16 56 36.3**	**+0.1**
	comp=Z,6.1nm,0.7s,baz=151,slow=12,SNR=20							
USRK				LR	LR		17 04 27.8	
	comp=Z,268nm,19.5s,baz=147,slow=37							
	comp=Z,6.1nm,0.7s							
USRK	**Ussuriysk Ar.**	**20.60**	**338**	P	**P**		**16 56 36.7**	**+0.5**
USRK	**Ussuriysk Ar.**	**20.60**	**338**	P	**P**		**16 56 36.7**	**+0.5**
USA0B	**Ussuriysk Arra**	**20.60**	**338**	↑*i*P	Pn		16 56 38.0	-0.5
USA0B	**Ussuriysk Arra**	**20.60**	**338**	P	**P**		**16 56 36.6**	**+0.4**
YSS	**Yuzhno-Sakhali**	**21.41**	**0**	*e*P	**P**		**16 56 48.7**	**+3.8**
YSS				*e*S	**S**		**17 00 40.3**	**-2.2**
YSS				pmax	pmax			
	comp=Z,30nm,1.2s							
YSS				pmax	pmax			
	comp=Z,300nm,3.3s							
YSS				smax	smax			
	comp=N,600nm,6.7s							
YSS				smax	smax			
	comp=E,400nm,6.8s							
YSS				MLR	MLR			
	comp=Z,500nm,17.0s							
YSS				MLR	MLR			
	comp=N,400nm,15.0s							
MDJ	**Mudanjiang**	**21.85**	**334**	P	**P**		**16 56 48.8**	**-0.8**
MDJ				S	**S**		**17 00 50.0**	**-1.1**
MDJ				pmax	pmax			
	comp=N,6.0nm,0.9s							
MDJ				L	L			
	comp=N,510nm,15.1s							
MDJ				L	L			
	comp=N,540nm,18.7s							
MDJ				L	L			
	comp=N,750nm,14.4s							
NJ2	**Nanjing**	**21.91**	**293**	*e*P	**P**		**16 56 50.1**	**-0.2**
NJ2				pmax	pmax			
	comp=N,7.0nm,0.6s							
DL2	**Dalian**	**22.24**	**312**	P	**P**		**16 56 55.5**	**+1.6**
DL2				S	**S**		**17 01 02.5**	**+3.7**
DL2				pmax	pmax			
	comp=N,21nm,1.0s							
DL2				pmax	pmax			
	comp=N,240nm,4.9s							
DL2				L	L			
	comp=N,590nm,22.3s							
DL2				L	L			
	comp=N,580nm,19.9s							
DL2				L	L			
	comp=N,500nm,24.0s							
SNY	**Shenyang**	**22.71**	**321**	P	**P**		**16 56 58.0**	**-0.9**
SNY				pmax	pmax			
	comp=N,6.0nm,0.8s							
H11N2	**WAKE ISLAND Hy**	**23.01**	**100**	T	T		17 20 57.0	
	baz=290,slow=75,SNR=32							
H11N1	**WAKE ISLAND Hy**	**23.01**	**100**	T	T		17 20 53.1	
	baz=290,slow=75,SNR=26							
H11N3	**WAKE ISLAND Hy**	**23.03**	**100**	T	T		17 20 58.5	
	baz=290,slow=75,SNR=48							
H11S3	**WAKE ISLAND Hy**	**23.25**	**103**	T	T		17 21 06.5	
	baz=292,slow=75,SNR=36							
H11S1	**WAKE ISLAND Hy**	**23.26**	**103**	T	T		17 21 12.1	
	baz=292,slow=75,SNR=52							
H11S2	**WAKE ISLAND Hy**	**23.27**	**103**	T	T		17 21 08.0	
	baz=292,slow=75,SNR=52							
BNX	**BinXian**	**23.66**	**333**	↓P	**P**		**16 57 07.4**	**-1.0**
BNX				pP	**pP**		**16 57 10.5**	**0.0**
BNX				sP	**sP**		**16 57 12.0**	**+0.6**
BNX				S	**S**		**17 01 23.0**	**-0.2**
BNX				pmax	pmax			
	comp=N,15nm,0.9s							
BNX				L	L			
	comp=N,380nm,17.4s							
BNX				L	L			
	comp=N,540nm,13.6s							
BNX				L	L			
	comp=N,320nm,17.7s							
TIA	**Tai'an**	**24.38**	**302**	P	**P**		**16 57 12.5**	**-2.9**
TIA				pmax	pmax			
	comp=N,12nm,1.0s							
DAV	**Davao City (W)**	**24.58**	**225**	LR	LR		17 05 10.3	
	comp=N,606nm,21.1s,baz=54,slow=33							
KLR	**Kul'dur**	**25.19**	**343**	LR	LR		17 07 01.4	
	comp=N,326nm,20.2s,baz=216,slow=36							
KLR	**Kul'dur**	**25.19**	**343**	*c i*P	**P**		**16 57 23.6**	**+1.0**
KLR				pmax	pmax			
	comp=Z,28nm,0.9s							
WHN	**Wuhan**	**25.52**	**288**	P	**P**		**16 57 26.8**	**+1.0**
GRNR	**Gornyy**	**25.70**	**351**	↓*i*P	**P**		**16 57 27.8**	**+0.6**
GRNR				pmax	pmax			
	comp=Z,7.0nm,1.2s							
GRNR				MLR	MLR			
	comp=N,240nm,17.0s							
GRNR				MLR	MLR			
	comp=E,260nm,17.0s							
GRNR				MLR	MLR			
	comp=E,250nm,22.0s							
BJI2	**Beijing**	**26.50**	**310**	P	**P**		**16 57 32.3**	**-2.2**
BJI2				S	**S**		**17 02 15.4**	**+6.7**
BJI2				pmax	pmax			
	comp=E,4.0nm,0.8s							
BJI2				L	L			
	comp=E,160nm,12.4s							
BJI2				L	L			
	comp=E,240nm,13.7s							
BJI2				L	L			
	comp=E,350nm,16.5s							
HNS	**HongShan**	**26.59**	**303**	↓P	**P**		**16 57 33.4**	**-2.0**
HNS				pmax	pmax			
	comp=E,18nm,0.9s							
HNS				L	L			
	comp=E,390nm,12.9s							
HNS				L	L			
	comp=E,560nm,14.3s							
HNS				L	L			
	comp=E,470nm,14.7s							
HEH	**HeiHe**	**27.41**	**338**	*e*P	**P**		**16 57 42.8**	**+0.2**
HEH				pmax	pmax			
	comp=E,19nm,0.7s							
HEH				L	L			
	comp=E,360nm,17.9s							
HEH				L	L			
	comp=E,710nm,13.4s							
HEH				L	L			
	comp=E,550nm,17.3s							
LYN	**LuoYang**	**27.63**	**296**	P	**P**		**16 57 46.8**	**+2.0**
LYN				pmax	pmax			
	comp=E,9.0nm,0.6s							
MANU	**Manus Island**	**27.74**	**170**	P	**P**		**16 57 45.5**	**-0.4**
ENH	**Enshi**	**29.71**	**287**	P	**P**		**16 58 03.3**	**-0.1**
	comp=Z,11nm,1.9s							
PEA0B	**Petropavlovsk-**	**29.78**	**18**	↑*e*P	**P**		**16 58 03.7**	**0.0**
PETK	**Petropavlovsk-**	**29.78**	**18**	P	**P**		**16 58 05.3**	**+1.6**
	comp=Z,3.7nm,0.8s,baz=202,slow=7.3,SNR=2.0							
PETK				LR	LR		17 11 22.9	
	comp=Z,64nm,20.6s,baz=196,slow=39							
	comp=Z,3.7nm,0.8s							
PETK	**Petropavlovsk-**	**29.78**	**18**	P	**P**		**16 58 03.9**	**+0.2**
HILR	**Hailar Array B**	**29.92**	**329**	LR	LR		17 09 56.8	
	comp=Z,166nm,21.2s,baz=100,slow=36							
HHC	**Hu-ho-hao-te**	**30.06**	**308**	*e*P	**P**		**16 58 06.9**	**+0.5**
HHC				pmax	pmax			
	comp=Z,8.0nm,0.6s							
HHC				pmax	pmax			
	comp=Z,84nm,5.6s							
HHC				L	L			
	comp=Z,190nm,15.5s							
HHC				L	L			
	comp=Z,240nm,15.5s							
HHC				L	L			
	comp=Z,320nm,15.1s							
XAN	**Xi'an**	**30.45**	**294**	P	**P**		**16 58 08.3**	**-1.7**
XAN				pmax	pmax			
	comp=Z,11nm,1.2s							
XAN				L	L			
	comp=Z,340nm,12.4s							
XAN				L	L			
	comp=Z,250nm,15.8s							
XAN				L	L			
	comp=Z,330nm,15.1s							
ZEA	**Zeya**	**30.48**	**342**	*e*P	**P**		**16 58 10.7**	**+0.8**
ZEA				pmax	pmax			
	comp=N,10.0nm,0.8s							
ZEA				pmax	pmax			
	comp=Z,20nm,0.7s							
ZEA				MLR	MLR			
	comp=Z,300nm,24.0s							
KRVT	**Keravat (AS076**	**30.97**	**162**	LR	LR		17 09 19.8	
	comp=Z,158nm,21.9s,baz=348,slow=34							
GTOI	**Gorontalo**	**31.20**	**221**	P	**P**		**16 58 18.8**	**+2.2**
	comp=Z,16nm,0.8s							
BTO2	**Baotou**	**31.23**	**307**	*e*P	**P**		**16 58 18.8**	**+2.0**
BTO2				S	**S**		**17 03 24.0**	**+0.7**
BTO2				pmax	pmax			
	comp=Z,14nm,0.5s							
BTO2				pmax	pmax			
	comp=Z,360nm,4.5s							
BTO2				L	L			
	comp=Z,570nm,10.1s							
BTO2				L	L			
	comp=Z,260nm,8.1s							
BTO2				L	L			
	comp=Z,440nm,12.9s							
SANI	**Sanana**	**31.83**	**213**	P	**P**		**16 58 21.8**	**-0.3**
	comp=Z,633nmcomp=Z,12nm,0.8s							
SANI	**Sanana**	**31.83**	**213**	P	**P**		**16 58 19.4**	**-2.8**
	comp=Z,12nm,0.8s							
BNDI	**Bandanaira**	**32.34**	**204**	P	P		16 58 32.1	+5.5
BNDI	**Bandanaira**	**32.34**	**204**	P	**P**		**16 58 26.1**	**-0.5**
	comp=Z,77nm,1.3s							
LUWI	**Luwuk**	**32.70**	**219**	P	**P**		**16 58 28.3**	**-1.5**
APSI	**Ampana**	**33.24**	**221**	P	**P**		**16 58 36.7**	**+2.2**
	comp=Z,41nm,0.9s							
PCI	**Palu**	**34.34**	**224**	P	P		16 58 48.9	+4.8
	comp=Z,38nm,1.1s							
MA2	**Magadan**	**34.52**	**7**	↑*e*P	**P**		**16 58 45.4**	**+0.2**
MA2				pmax	pmax			
	comp=Z,31nm,1.3s							
CD2	**Chengdu**	**34.65**	**288**	P	**P**		**16 58 45.5**	**-1.2**
CD2				pmax	pmax			
	comp=Z,30nm,0.4s							
CD2				pmax	pmax			
	comp=Z,140nm,4.7s							
LZDM	**Lanzhou Array**	**34.94**	**297**	P	**P**		**16 58 47.3**	**-2.2**
	comp=Z,12nm,0.7s,baz=114,slow=6.8,SNR=12							
	comp=Z,12nm,0.7s							
PMG	**Port Moresby**	**34.96**	**172**	LR	LR		17 12 56.7	
	comp=Z,130nm,18.2s,baz=354,slow=36							
PMG	**Port Moresby**	**34.96**	**172**	P	**P**		**16 58 49.0**	**-0.4**
PMG				pmax	pmax			
	comp=Z,36nm,1.0s							
PMG	**Port Moresby**	**34.96**	**172**		**P**		**16 58 49.0**	**-0.4**
PMG				IAmb	IAmb		16 58 55.9	
	comp=Z,35nm,1.0s							
PMG	**Port Moresby**	**34.96**	**172**	P	**P**		**16 58 49.4**	**0.0**
	comp=Z,37nm,1.1s							
KDI	**Kendari**	**35.19**	**217**	P	**P**		**16 58 52.9**	**+1.5**
	comp=Z,40nm,0.9s							
ULN	**Ulaanbaatar**	**35.83**	**318**	P	**P**		**16 58 55.2**	**-1.6**
ULN				pmax	pmax			
	comp=Z,5.0nm,1.0s							
ULN	**Ulaanbaatar**	**35.83**	**318**		**P**		**16 58 55.2**	**-1.6**
ULN	**Ulaanbaatar**	**35.83**	**318**	P	**P**		**16 58 56.8**	**0.0**
	comp=Z,24nm,1.2s							
ULN	**Ulaanbaatar**	**35.83**	**318**	P	**P**		**16 58 55.3**	**-1.6**
	comp=Z,6.0nm,1.2s							
SHEM	**Shemya Is, Ala**	**35.99**	**33**	LR	LR		17 12 37.8	
	comp=Z,155nm,19.6s,baz=294,slow=34							
KMI2	**Kunming**	**36.05**	**278**	P	**P**		**16 58 59.6**	**+0.5**
KMI2				pmax	pmax			
	comp=Z,12nm,0.9s							
KMI2				L	L			
	comp=Z,130nm,18.8s							
KMI2				L	L			
	comp=Z,160nm,16.9s							
KMI2				L	L			
	comp=Z,170nm,18.6s							
SONM	**Songino Array**	**36.21**	**317**	P	**P**		**16 58 58.7**	**-1.4**
	comp=Z,1.6nm,0.5s,baz=131,slow=10,SNR=9.6							
SONM				PcP	**PcP**		**17 01 25.3**	**-0.1**
	comp=Z,1.5nm,0.7s,baz=150,slow=4.4,SNR=4.8							
SONM				LR	LR		17 14 54.1	
	comp=Z,154nm,18.4s,baz=44,slow=38							
	comp=Z,1.6nm,0.5s							
PZH	**PanZhiHua**	**36.75**	**281**	P	**P**		**16 59 04.8**	**-0.1**
PZH				pmax	pmax			
	comp=Z,20nm,0.9s							
YAK	**Yakutsk**	**37.57**	**350**	LR	LR		17 13 39.5	
	comp=Z,268nm,21.5s,baz=142,slow=35							
YAK	**Yakutsk**	**37.57**	**350**		**P**		**16 59 09.5**	**-1.7**
YAK				IAmb	IAmb		16 59 15.0	
	comp=Z,20nm,1.0s							
YAK	**Yakutsk**	**37.57**	**350**	P	**P**		**16 59 11.2**	**0.0**
	comp=Z,23nm,1.1s							
KAPI	**Kappang**	**37.66**	**220**	LR	LR		17 13 00.1	
	comp=Z,125nm,20.9s,baz=31,slow=34							
KAPI	**Kappang**	**37.66**	**220**	P	**P**		**16 59 12.5**	**0.0**
KAPI				pmax	pmax			
	comp=Z,29nm,1.1s							
KAPI	**Kappang**	**37.66**	**220**		**P**		**16 59 12.5**	**0.0**
KAPI				IAmb	IAmb		16 59 26.2	
	comp=Z,29nm,1.1s							
BKSI	**Bukukumba**	**37.70**	**219**	P	**P**		**16 59 16.1**	**+3.3**
	comp=Z,29nm,0.8s							
SEY	**Seymchan**	**37.98**	**7**	↑*i*P	**P**		**16 59 16.3**	**+1.6**
SEY				pmax	pmax			
	comp=Z,12nm,0.9s							
GTA2	**Gaotai**	**38.48**	**302**	*e*P	**P**		**16 59 17.8**	**-1.6**
GTA2				pP	pwP		16 59 23.9	-0.5
GTA2				pmax	pmax			
	comp=Z,4.0nm,1.0s							
GTA2				L	L			
	comp=Z,170nm,13.6s							
GTA2				L	L			
	comp=Z,270nm,12.7s							
GTA2				L	L			
	comp=Z,350nm,15.6s							
HNR	**Honiara**	**38.55**	**152**	LR	LR		17 15 23.6	
	comp=Z,206nm,18.7s,baz=54,slow=36							
SOEI	**Soe**	**39.39**	**209**	P	**P**		**16 59 26.6**	**-0.5**
SOEI	**Soe**	**39.39**	**209**	P	**P**		**16 59 26.6**	**-0.5**
	comp=Z,27nm,0.8s							
TLY	**Talaya**	**39.49**	**322**	LR	LR		17 16 11.8	
	comp=Z,166nm,18.7s,baz=110,slow=37							
MTN	**Manton Dam**	**39.75**	**198**		**P**		**16 59 29.7**	**-0.3**
CHTO	**Chiang Mai**	**40.96**	**270**	P	**P**		**16 59 40.2**	**0.0**
CHTO				pmax	pmax			
	comp=Z,19nm,1.7s							
CHTO	**Chiang Mai**	**40.96**	**270**	P	**P**		**16 59 40.2**	**0.0**
CHTO	**Chiang Mai**	**40.96**	**270**	P	P		17 00 00.6	+20
CHTO	**Chiang Mai**	**40.96**	**270**	P	**P**		**16 59 40.0**	**-0.1**
	comp=Z,3.9nm,0.9s							
CMAR	**Chiang Mai Arr**	**41.07**	**269**	P	**P**		**16 59 40.1**	**-1.0**
	comp=Z,1.6nm,0.7s,baz=58,slow=8.1,SNR=12							
CMAR				LR	LR		17 16 21.7	
	comp=Z,67nm,20.3s,baz=75,slow=36							
	comp=Z,1.6nm,0.7s							
PLAI	**Plampang**	**41.89**	**219**	P	**P**		**16 59 47.2**	**-0.5**
	comp=Z,35nm,1.4s							
GOMU	**GeErMu**	**42.13**	**296**	P	**P**		**16 59 48.9**	**-1.1**
GOMU				pP	pP		16 59 52.4	+0.2
GOMU				sP	pwP		16 59 56.8	+1.9
GOMU				pmax	pmax			
	comp=Z,11nm,0.9s							
KHKI	**Kahang-Kahang**	**42.78**	**222**	P	**P**		**16 59 57.0**	**+2.0**
	comp=Z,55nm,1.4s							
KNRA	**Kununurra**	**43.13**	**200**	P	**P**		**16 59 57.6**	**-0.1**
KNRA				IAmb	IAmb		17 00 43.2	
	comp=Z,76nm,1.9s							
NPW	**Naypyitaw**	**43.22**	**272**	P	**P**		**16 59 59.4**	**+0.8**
	comp=Z,11nm,0.9s							
MTSU	**Mount Surprise**	**43.40**	**178**	P	**P**		**17 00 01.2**	**+1.3**
	comp=Z,4.1nm,0.8s							
MORE	**Moreh**	**43.77**	**279**	P	**P**		**17 00 01.8**	**-1.2**
BILL	**Bilibino**	**44.90**	**12**	*c i*P	**P**		**17 00 12.7**	**+1.3**
BILL				pmax	pmax			
	comp=Z,24nm,1.0s							
BILL	**Bilibino**	**44.90**	**12**	P	**P**		**17 00 12.3**	**+0.9**
BILL				IAmb	IAmb		17 00 14.0	
	comp=Z,16nm,0.8s							
BILI	**Bilibino, Chuk**	**44.95**	**12**	P	**P**		**17 00 13.2**	**+1.3**
	comp=Z,27nm,1.0s							
KULM	**Kulim**	**45.00**	**251**	P	**P**		**17 00 13.1**	**+0.1**
KULM				IAmb	IAmb		17 00 42.2	
	comp=Z,44nm,1.7s							
IPM	**Ipoh**	**45.10**	**249**	P	**P**		**17 00 13.9**	**+0.2**
IPM				IAmb	IAmb		17 00 18.7	
	comp=Z,14nm,1.0s							
CTA	**Charters Tower**	**45.44**	**175**	LR	LR		17 18 27.4	
	comp=Z,116nm,18.0s,baz=10.0,slow=35							
CTAO	**Charters Tower**	**45.44**	**175**	P	**P**		**17 00 16.4**	**+0.2**
CTAO				pmax	p

TIXI **Tiksi** **46.84 354** LR LR 17 20 27.5
comp=Z,199nm,21.6s,baz=185,slow=36
TIXI **Tiksi** **46.84 354**⇑ *e*P **P** **17 00 27.0 +0.3**
TIXI pmax pmax
comp=Z,12nm,1.1s
TIXI **Tiksi** **46.84 354** P **P** **17 00 26.9 +0.2**
TIXI **Tiksi** **46.84 354** P **P** **17 00 26.4 -0.2**
comp=Z,12nm,1.1s
SANVU **Saraoutou** **47.16 147** P **P** **17 00 29.9 +0.1**
SANVU **Saraoutou** **47.16 147** P **P** **17 00 30.4 +0.5**
comp=Z,41nm,0.9s
PSI **Prapat** **47.77 249** P **P** **17 00 34.9 +0.1**
PSI pmax pmax
comp=Z,14nm,0.8s
PSI **Prapat** **47.77 249** P **P** **17 00 35.4 +0.6**
comp=Z,16nm,0.5s
RPSI **Rantau Prapat** **47.82 249** P **P** **17 00 34.9 -0.2**
RPSI IAmb IAmb 17 00 35.7
comp=Z,14nm,0.8s
RPSI **Rantau Prapat** **47.82 249** P **P** **17 00 35.4 +0.3**
comp=Z,16nm,0.5s
WMQ **Urumqi** **47.92 307** *e*P **P** **17 00 36.4 +0.8**
WMQ pP pwP 17 00 40.6 0.0
WMQ pmax pmax
comp=Z,13nm,0.9s
WMQ L L
comp=Z,170nm,16.3s
AS31 **Alice Springs** **49.62 191** P **P** **17 00 48.5 -0.2**
ASAR **Alice Springs** **49.62 191** P **P** **17 00 47.8 -1.0**
comp=Z,3.1nm,0.6s,baz=13,slow=9.4,SNR=50
ASAR PcP **PcP** **17 02 09.7 -0.5**
comp=Z,2.7nm,0.8s,baz=16,slow=5.1,SNR=7.4
ASAR LR LR 17 20 24.5
comp=Z,172nm,21.5s,baz=32,slow=34
comp=Z,3.1nm,0.6s
EVN **Everest** **49.64 286** P **P** **17 00 48.9 -0.8**
EVN IAmb IAmb 17 01 00.7
comp=Z,21nm,1.4s
EVN **Everest** **49.64 286** P **P** **17 00 49.6 -0.1**
comp=Z,9.5nm,0.9s
GSI **Gunungsitoli** **49.70 248** P **P** **17 00 48.8 -0.7**
GSI IAmb IAmb 17 00 54.5
comp=Z,15nm,0.7s
GSI **Gunungsitoli** **49.70 248** P **P** **17 00 48.5 -1.1**
comp=Z,26nm,1.0s
ZSN **Zaisan** **50.16 312** *e*P **P** **17 00 52.5 -0.2**
ZSN **Zaisan** **50.16 312** *e*P **P** **17 00 52.5 -0.2**
ZALV **Zalesovo Beam** **51.02 320** P **P** **17 00 57.9 -1.2**
comp=Z,3.4nm,0.7s,baz=101,slow=7.7,SNR=17
ZALV PcP **PcP** **17 02 14.7 -0.2**
comp=Z,2.0nm,0.6s,baz=104,slow=3.1,SNR=4.9
ZALV LR LR 17 23 12.5
comp=Z,111nm,18.3s,baz=93,slow=37
comp=Z,3.4nm,0.7s
ZALV **Zalesovo Beam** **51.02 320** P **P** **17 00 57.2 -1.8**
QLP **Quilpie** **51.80 178** P **P** **17 01 04.6 -0.5**
comp=Z,28nm,1.4s
MK31 **Makanchi Array** **51.88 311** *d i*P **P** **17 01 05.1 -0.5**
MKAR **Makanchi Array** **51.88 311** P **P** **17 01 03.9 -1.8**
comp=Z,2.1nm,0.7s,baz=91,slow=9.0,SNR=16
MKAR LR LR 17 24 16.7
comp=Z,217nm,18.4s,baz=77,slow=38
comp=Z,2.1nm,0.7s
MKAR **Makanchi Array** **51.88 311** P **P** **17 01 03.2 -2.4**
MAKZ **Makanchi** **52.09 311** P **P** **17 01 05.4 -1.8**
MAKZ pmax pmax
comp=Z,11nm,1.4s
MAKZ **Makanchi** **52.09 311** P **P** **17 01 05.4 -1.8**
MAKZ **Makanchi** **52.09 311** P **P** **17 01 07.0 -0.3**
comp=Z,5.9nm,1.1s
DZM **Mont Dzumac** **52.58 152** LR LR 17 20 50.1
comp=Z,196nm,20.2s,baz=327,slow=33
SHLS **Shalkode** **53.90 306** *e*P **P** **17 01 17.9 -2.8**
SHLS **Shalkode** **53.90 306** *e*P **P** **17 01 18.0 -2.8**
UZB **Uzynbulak** **54.22 306** *e*P **P** **17 01 22.5 -0.6**
UZB **Uzynbulak** **54.22 306** *e*P **P** **17 01 22.6 -0.6**
NRIK **Noril'sk** **54.31 339** P **P** **17 01 22.8 -0.3**
comp=Z,14nm,0.8s,baz=113,slow=7.7,SNR=21
comp=Z,14nm,0.8s
NRIK **Noril'sk** **54.31 339** *c i*P **P** **17 01 23.3 +0.2**
NRIK pmax pmax
comp=Z,20nm,0.9s
NRIK **Noril'sk** **54.31 339** P **P** **17 01 23.1 0.0**
NRIK IAmb IAmb 17 01 24.5
comp=Z,18nm,0.9s
KPKS **Kokpek** **54.45 306** *e*P **P** **17 01 24.3 -0.4**
KPKS **Kokpek** **54.45 306** *e*P **P** **17 01 24.4 -0.4**
KURK **Kurchatov** **54.46 315** P **P** **17 01 23.3 -1.2**
KURK **Kurchatov** **54.46 315** P **P** **17 01 22.6 -1.9**
KURK IAmb IAmb 17 01 25.4
comp=Z,20nm,1.1s
KURK **Kurchatov** **54.46 315** P **P** **17 01 23.7 -0.8**
comp=Z,18nm,0.9s
KURBB **Kurchatov Arra** **54.51 315** P **P** **17 01 23.3 -1.6**
comp=Z,17nm,0.8s,baz=92,slow=7.6,SNR=109
KURBB LR LR 17 25 21.9
comp=Z,122nm,21.5s,baz=179,slow=37
comp=Z,17nm,0.8s
TDK **Taldyqorghan** **54.59 308** *e*P **P** **17 01 25.2 -0.4**
TDK **Taldyqorghan** **54.59 308** *e*P **P** **17 01 25.3 -0.4**
SATY **Saty** **54.68 306** *e*P **P** **17 01 25.9 -0.5**
SATY **Saty** **54.68 306** *e*P **P** **17 01 25.9 -0.5**
J19K **Poorman** **55.01 28** IAmb IAmb 17 01 37.0
comp=Z,20nm,1.2s
TARG **Taragay, Kyrgy** **55.21 304** P **P** **17 01 31.2 +0.6**
comp=Z,7.1nm,1.0s
E19K **Redstone River** **55.31 24** IAmb IAmb 17 01 33.7
comp=Z,13nm,1.0s
KDAK **Kodiak Island** **55.35 36** LR LR 17 25 48.8
comp=Z,114nm,18.9s,baz=141,slow=37
MDOK **Medeo** **55.66 306** *e*P **P** **17 01 33.1 -0.4**
MDOK **Medeo** **55.66 306** *e*P **P** **17 01 33.2 -0.4**
J20K **Nowinta River** **55.68 28** IAmb IAmb 17 01 36.5
comp=Z,23nm,0.9s
TNSS **Tian-Shan** **55.75 306** *e*P **P** **17 01 33.6 -0.9**
TNSS **Tian-Shan** **55.75 306** *e*P **P** **17 01 33.6 -0.9**
AAA **Alma-Ata** **55.76 306** *e*P **P** **17 01 33.7 -0.4**
AAA pmax pmax
comp=Z,6.0nm,0.5s
AAA **Alma-Ata** **55.76 306** *e*P **P** **17 01 33.8 -0.4**
comp=Z,6.1nm,0.5s
CAST **Castle Rocks** **56.42 29** IAmb IAmb 17 01 41.5
comp=Z,17nm,0.8s
G21K **Aliakket** **56.47 26** IAmb IAmb 17 01 42.5
comp=Z,20nm,1.2s
CMSA **Cobar Meteorol** **56.78 177** P **P** **17 01 41.7 +0.4**
comp=Z,26nm,1.0s
STKA **Stephens Creek** **57.06 181** P **P** **17 01 42.9 -0.4**
comp=Z,4.1nm,0.7s,baz=339,slow=6.6,SNR=8.0
STKA LR LR 17 26 20.9
comp=Z,117nm,19.8s,baz=24,slow=36
comp=Z,4.1nm,0.7s
STKA **Stephens Creek** **57.06 181** P **P** **17 01 43.1 -0.1**
comp=Z,40nm,0.8s
KSH2 **Kashi** **57.19 301** P **P** **17 01 44.6 +0.1**
KSH2 pmax pmax
comp=Z,7.0nm,0.8s
TRF **Thorofare Moun** **57.23 29** IAmb IAmb 17 01 48.1
comp=Z,17nm,0.9s
PMR **Palmer** **57.52 32** IAmb IAmb 17 01 48.3
comp=Z,24nm,1.0s
AAK **Ala-Archa** **57.58 306**⇓ *i*P **P** **17 01 46.2 -1.0**
AAK pmax pmax
comp=Z,4.0nm,1.1s
AAK **Ala-Archa** **57.58 306** P **P** **17 01 45.8 -1.4**
AAK **Ala-Archa** **57.58 306** P **P** **17 01 45.6 -1.6**
comp=Z,3.9nm,1.4s
FORT **Forrest** **57.70 195** IAmb IAmb 17 01 54.0
comp=Z,19nm,0.8s
KNK **Knik Glacier** **57.83 32** IAmb IAmb 17 02 43.4
comp=Z,20nm,0.9s
RND **Reindeer** **57.86 30** IAmb IAmb 17 01 50.4
comp=Z,10nm,0.7s
MCK **McKinley** **57.87 29** IAmb IAmb 17 01 50.6
comp=Z,12nm,0.9s
NEA2 **Nenana** **57.92 28** IAmb IAmb 17 01 51.7
comp=Z,11nm,0.9s
COLA **College** **58.48 28**⇑ *e*P **P** **17 01 55.6 +2.7**
E24K **Your Creek** **58.69 24** IAmb IAmb 17 01 58.0
comp=Z,14nm,0.8s
IL31 **58.88 28** IAmb IAmb 17 01 57.1
comp=Z,12nm,0.9s
ILAR **Eielson Array** **58.88 28** P **P** **17 01 56.2 +0.5**
comp=Z,7.7nm,0.8s,baz=255,slow=6.2,SNR=63
comp=Z,7.7nm,0.8s
ILAR **Eielson Array** **58.88 28** P **P** **17 01 55.7 -0.1**

KLU **Klutina** **59.05 32** IAmb IAmb 17 02 16.6
comp=Z,21nm,1.1s
AFI **Afiamalu** **59.14 126** LR LR 17 27 35.5
comp=Z,54nm,18.1s,baz=305,slow=36
PAX **Paxson** **59.35 30** IAmb IAmb 17 02 04.7
comp=Z,20nm,1.4s
ARK **Arkit** **59.55 305** P **P** **17 02 00.9 0.0**
comp=Z,10nm,0.8s
BVAR **Borovoye Array** **59.55 318** P **P** **17 01 59.7 -0.9**
comp=Z,13nm,0.6s,baz=92,slow=8.2,SNR=65
comp=Z,13nm,0.6s
BORK **Borovoye** **59.59 318** P **P** **17 02 00.0 -0.9**
BORK pmax pmax
comp=Z,10.0nm,0.6s
BORK **Borovoye** **59.59 318** P **P** **17 02 00.0 -0.9**
BORK IAmb IAmb 17 02 01.1
comp=Z,9.7nm,0.6s
RIDG **Independent Ri** **59.68 29** P **P** **17 02 01.2 -0.1**
RIDG IAmb IAmb 17 02 09.2
comp=Z,20nm,1.2s
NIL **Nilore** **59.98 296** P **P** **17 02 03.5 -0.4**
NIL pmax pmax
comp=Z,9.0nm,0.7s
NIL **Nilore** **59.98 296** P **P** **17 02 03.5 -0.4**
NIL IAmb IAmb 17 02 05.1
comp=Z,9.2nm,0.7s
NIL **Nilore** **59.98 296** P **P** **17 02 03.6 -0.3**
comp=Z,16nm,0.7s
F26K **Shenjek River** **60.27 25** IAmb IAmb 17 02 09.1
comp=Z,12nm,0.8s
KK31 **Karatay Array** **60.42 307** IAmb IAmb 17 02 07.2
comp=Z,8.6nm,0.9s
KKAR **Karatay Array** **60.42 307** P **P** **17 02 06.0 -0.8**
KKAR **Karatay Array** **60.42 307** P **P** **17 02 06.0 -0.8**
CAN **Canberra** **60.78 174** P **P** **17 02 09.0 -0.1**
CAN pmax pmax
comp=Z,30nm,1.2s
CAN **Canberra** **60.78 174** P **P** **17 02 09.0 -0.1**
CAN **Canberra** **60.78 174** P **P** **17 02 08.6 -0.5**
comp=Z,21nm,1.7s
IUG **luzhnay** **60.92 306** *e*P **P** **17 02 09.9 -0.4**
IUG pmax pmax
comp=Z,8.0nm,0.8s
IUG **luzhnay** **60.92 306** *e*P **P** **17 02 09.9 -0.4**
comp=Z,8.2nm,0.8s
BRLS **Boroldav** **60.93 307** *e*P **P** **17 02 10.9 +0.7**
BRLS **Boroldav** **60.93 307** *e*P **P** **17 02 11.0 +0.7**
G27K **Doyon Strip** **61.18 26** IAmb IAmb 17 02 17.2
comp=Z,15nm,1.5s
CHM **Chimkent** **61.21 306** *e*P **P** **17 02 11.8 -0.3**
CHM **Chimkent** **61.21 306** *e*P **P** **17 02 11.8 -0.3**
PALK **Pallekele** **61.69 264** LR LR 17 29 13.1
comp=Z,30nm,18.9s,baz=72,slow=36
F28M **Old Crow** **61.90 25** IAmb IAmb 17 02 19.6
comp=Z,16nm,1.0s
H29M **Whitestone** **62.49 27** IAmb IAmb 17 02 23.4
comp=Z,11nm,0.9s
E29M **Blow River** **62.65 24** P **P** **17 02 22.0 +0.6**
E29M IAmb IAmb 17 02 26.8
comp=Z,18nm,1.2s
L29M **L29M** **62.69 30** IAmb IAmb 17 02 25.2
comp=Z,20nm,1.1s
KBL **Kabul** **63.19 297** P **P** **17 02 24.8 -1.0**
KBL pmax pmax
comp=Z,8.0nm,0.8s
KBL **Kabul** **63.19 297** P **P** **17 02 24.8 -1.0**
KBL IAmb IAmb 17 02 27.2
comp=Z,8.0nm,0.8s
KBL **Kabul** **63.19 297** P **P** **17 02 24.9 -0.8**
comp=Z,11nm,0.8s
I30M **Mount Dempster** **63.35 28** IAmb IAmb 17 02 41.5
comp=Z,9.9nm,1.1s
F31M **Tsiigehtchic** **64.26 25** IAmb IAmb 17 02 34.1
comp=Z,9.4nm,0.8s
INK **Inuvik** **64.27 24** IAmb IAmb 17 02 34.6
comp=Z,17nm,1.2s
INK **Inuvik** **64.27 24** P **P** **17 02 33.6 +1.6**
comp=Z,18nm,2.7s
ARTI **Arti** **66.09 323** LR LR 17 33 08.3
comp=Z,118nm,18.0s,baz=56,slow=38
ARTI **Arti** **66.09 323** *c i*P **P** **17 02 44.0 -0.1**
ARTI 17 03 14.3
ARTI S **S** **17 11 32.9 +0.6**
ARTI SS **SS** **17 15 49.9 +2.6**
ARTI pmax pmax
comp=Z,11nm,1.6s
ARTI **Arti** **66.09 323** P **P** **17 02 43.5 -0.5**
ARTI IAmb IAmb 17 02 49.6
comp=Z,20nm,1.3s
RAO **Raoul Island** **66.26 143** LR LR 17 25 58.3
comp=Z,85nm,20.7s,baz=74,slow=31
ABKAR **Akbulak array** **66.56 315** P **P** **17 02 45.4 -1.9**
A36M **Sachs Harbour** **66.61 20** IAmb IAmb 17 02 49.9
comp=Z,14nm,0.9s
DLBC **Dease Lake** **67.23 35** LR LR 17 34 31.8
comp=Z,223nm,18.3s,baz=202,slow=38
C36M **Paulatuk** **67.52 23** IAmb IAmb 17 02 54.6
comp=Z,11nm,0.8s
AKTO **Aktyubinsk** **67.52 316** LR LR 17 34 26.2
comp=Z,130nm,19.3s,baz=39,slow=38
KIRV **Kirov** **70.29 326** LR LR 17 36 29.9
comp=Z,138nm,18.8s,baz=68,slow=38
KIRV **Kirov** **70.29 326**⇑ *e*P **P** **17 03 08.8 -1.5**
URZ **Urewera** **71.14 152** LR LR 17 33 34.8
comp=Z,46nm,18.8s,baz=332,slow=35
KAAM **Kaadhehdhoo** **71.55 261** P **P** **17 03 17.1 -1.7**
comp=Z,84nm,1.0s
SPITS **Spitsbergen Ar** **72.03 350** LR LR 17 35 43.9
comp=Z,126nm,20.7s,baz=18,slow=36
YKAW3 **Yellowknife Wh** **73.28 28** P **P** **17 03 27.9 -0.4**
YKAW3 IAmb IAmb 17 03 30.1
comp=Z,13nm,0.8s
YKA **Yellowknife Ar** **73.31 28** P **P** **17 03 29.2 +0.8**
comp=Z,10nm,0.7s,baz=292,slow=6.1,SNR=25
comp=Z,10nm,0.7s
YKA **Yellowknife Ar** **73.31 28** P **P** **17 03 27.5 -0.9**
YKAW1 **Yellowknife Wh** **73.36 28** IAmb IAmb 17 03 30.5
comp=Z,18nm,0.8s
RES **Resolute Bay** **73.49 14** IAmb IAmb 17 04 25.9
comp=Z,28nm,1.9s
KLMR **Klimovskoe** **74.21 330** *e*P **P** **17 03 32.2 -1.5**
KLMR pmax pmax
comp=Z,15nm,1.1s
ARCES **ARCESS Array B** **75.21 341** P **P** **17 03 39.5 +0.1**
comp=Z,5.7nm,0.8s,baz=63,slow=6.3,SNR=8.5
ARCES LR LR 17 40 43.3
comp=Z,112nm,19.9s,baz=46,slow=39
comp=Z,5.7nm,0.8s
ARCES **ARCESS Array B** **75.21 341** P **P** **17 03 39.5 +0.1**
ARCES pmax pmax
comp=Z,62nm,1.8s
MSF **Maaselka** **76.03 337** P **P** **17 03 44.6 +0.4**
comp=Z,23nm,1.9s
HOOD **Mount Hood Mea** **76.05 46** IAmb IAmb 17 03 47.1
comp=Z,17nm,1.1s
SGF **Sodankyl** **76.06 339** P **P** **17 03 44.0 -0.2**
I04A **Tendick Farm,** **76.12 48** IAmb IAmb 17 03 47.6
comp=Z,24nm,1.1s
YBH **Yreka Blue Hor** **76.69 50** LR LR 17 31 34.4
comp=Z,116nm,19.9s,baz=324,slow=31
UOSS **Minazif** **76.75 291** P **P** **17 03 48.7 -0.3**
comp=Z,12nm,1.3s
VRH **Novokhopyorsk** **77.05 321** *e*P **P** **17 03 49.6 -0.6**
VRH pmax pmax
comp=Z,18nm,0.7s
D08A **Wollman Farm,** **77.13 44** IAmb IAmb 17 03 53.6
comp=Z,13nm,1.0s
C09A **Chrisman Ranch** **77.23 43** P **P** **17 03 50.6 -0.8**
C09A IAmb IAmb 17 03 53.1
comp=Z,8.8nm,0.8s
DAG **Danmarks Havn** **77.33 356** P **P** **17 03 51.3 0.0**
comp=Z,4.9nm,1.6s
OUL **Oulu** **77.59 337** P **P** **17 03 53.2 +0.3**
NEW **Newport** **77.75 42** IAmb IAmb 17 03 56.6
comp=Z,13nm,0.9s
NEW **Newport** **77.75 42** P **P** **17 03 55.7 +1.4**
comp=Z,17nm,0.9s
EDM **Edmonton** **77.80 37** IAmb IAmb 17 03 56.6
comp=Z,19nm,1.0s
E09A **Wood Farm, Sta** **77.83 44** IAmb IAmb 17 03 57.3
comp=Z,13nm,0.9s
LPSR **Galich'ya Gora** **78.01 323** *e*P **P** **17 03 55.1 -0.5**
LPSR pmax pmax
comp=Z,15nm,0.6s
OBN **Obninsk** **78.12 326** *c i*P **P** **17 03 55.3 -0.8**
OBN *e**PP **pwP** **17 04 00.9 -0.2**
OBN *e* 17 04 06.7

OBN *e* 17 06 52.3
OBN *e*PPP PPP 17 08 40.8
OBN pmax pmax
comp=Z,37nm,1.9s
OBN MLR MLR
comp=Z,241nm,16.0s
VORR **Voronezh** **78.27 322** *e*P **P** **17 03 56.8 -0.2**
VORR pmax pmax
comp=Z,21nm,0.4s
ORV **Oroville** **78.38 52** IAmb IAmb 17 03 59.9
comp=Z,13nm,1.1s
VSR **Storozhevoye** **78.49 321** *e*P **P** **17 03 57.8 -0.5**
VSR pmax pmax
comp=Z,25nm,0.9s
VORD **Divnogorie** **78.53 321** *e*P **P** **17 03 57.2 -1.3**
VORD pmax pmax
comp=Z,10.0nm,0.9s
PPT2 **Papeete2** **78.54 116** *e*LR LR 17 28 19.7
comp=Z,70nm,21.8s
PPT2 *e*LR LR 17 28 19.9
comp=Z,355nm,32.5s
J08A **Circle Bar Ran** **78.92 47** IAmb IAmb 17 04 03.1
comp=Z,12nm,1.0s
BMO **Blue Mountains** **79.06 46** IAmb IAmb 17 04 04.2
comp=Z,14nm,1.1s
BEKR **Beckworth** **79.06 51** P **P** **17 04 02.4 +0.5**
BEKR IAmb IAmb 17 04 04.0
comp=Z,14nm,0.9s
NCK **Nalchik** **79.10 313**⇑ *e*P **P** **17 04 00.1 -1.7**
NCK pmax pmax
comp=Z,10.0nm,0.4s
WVOR **Wild Horse Val** **79.19 48** IAmb IAmb 17 04 20.8
comp=Z,21nm,1.7s
WVOR **Wild Horse Val** **79.19 48** P **P** **17 04 03.1 +0.6**
comp=Z,6.2nm,1.1s
KBZ **Khabaz** **79.46 313** P **P** **17 04 03.5 -0.1**
comp=Z,18nm,0.8s,baz=79,slow=2.8,SNR=43
KBZ LR LR 17 42 12.2
comp=Z,99nm,19.1s,baz=56,slow=38
comp=Z,18nm,0.8s
KIV **Kislovodsk** **79.50 314** P **P** **17 04 03.2 -0.9**
KIV **Kislovodsk** **79.50 314** P **P** **17 04 04.9 +0.8**
comp=Z,12nm,1.0s
MPK **Martis Peak** **79.53 52** IAmb IAmb 17 04 07.0
comp=Z,21nm,1.1s
FINES **FINESS Array B** **79.59 334** P **P** **17 04 04.0 -0.1**
comp=Z,4.7nm,0.4s,baz=66,slow=5.4,SNR=57
FINES LR LR 17 40 06.0
comp=Z,98nm,21.8s,baz=39,slow=36
comp=Z,4.7nm,0.4s
FINES **FINESS Array B** **79.59 334** P **P** **17 04 04.0 -0.1**
FINES **FINESS Array B** **79.59 334** P **P** **17 04 03.7 -0.4**
SHA1 **Shidzhatmaz** **79.61 313** *c i*P **P** **17 04 04.8 -0.1**
GNI **Garni** **79.71 310** LR LR 17 43 57.4
comp=Z,74nm,18.1s,baz=52,slow=39
NEUR **Neytrino** **79.78 313**⇓ *e*P **P** **17 04 04.7 -1.1**
NEUR pmax pmax
comp=Z,7.0nm,1.3s
CMB **Columbia Colle** **79.79 53** IAmb IAmb 17 04 08.0
comp=Z,14nm,0.8s
PLID **Pearl Lake** **79.80 45** IAmb IAmb 17 04 19.6
comp=Z,24nm,1.9s
PAHR **Pah Rah Range** **79.81 51** IAmb IAmb 17 04 08.1
comp=Z,12nm,1.0s
DBG **Daneborg** **79.82 355** P **P** **17 04 05.3 +0.3**
PNTR **Pine Nut** **79.92 52** IAmb IAmb 17 04 11.5
comp=Z,11nm,0.8s
ILON **Igloolik, Nuna** **80.09 15** IAmb IAmb 17 04 08.5
comp=Z,31nm,1.4s
ERBR **Yeremizino-Bor** **80.15 316** *e*P **P** **17 04 07.4 0.0**
ERBR *e**PP **pwP** **17 04 12.5 +0.1**
ERBR *e*S **S** **17 14 12.8 +0.4**
ERBR pmax pmax
comp=Z,29nm,0.9s
LABN **Labinsk** **80.47 315** *e*P **P** **17 04 07.8 -1.4**
LABN *e**PP **pP** **17 04 11.3 -0.2**
LABN *e*S **S** **17 14 13.7 -2.1**
LABN pmax pmax
comp=Z,14nm,0.5s
EPOS **Posof** **80.52 311** P **P** **17 04 10.0 +0.2**
comp=Z,14nm,1.1s
PKD **Bear Valley Ra** **80.54 55** IAmb IAmb 17 04 14.6
comp=Z,20nm,1.2s
DIGO **Kars** **80.55 310** P **P** **17 04 10.3 +0.3**
comp=Z,22nm,1.4s
MFID **Camas Ranch** **80.64 46** IAmb IAmb 17 04 12.7
comp=Z,12nm,0.9s
NVAR **Mina Array Bea** **81.11 52** P **P** **17 04 14.5 +1.5**
comp=Z,6.4nm,0.8s,baz=271,slow=5.8,SNR=34
NVAR LR LR 17 36 30.3
comp=Z,108nm,20.1s,baz=340,slow=33
comp=Z,6.4nm,0.8s
NVAR **Mina Array Bea** **81.11 52** P **P** **17 04 13.0 -0.1**
VSLR **Vesyoloye** **81.45 314**⇓ *e*P **P** **17 04 14.4 0.0**
VSLR pmax pmax
comp=Z,28nm,0.9s
HLID **Hailey** **81.50 46** P **P** **17 04 16.4 +1.5**
comp=Z,5.8nm,1.6s
HAKT **HAKKARI** **81.54 307** P **P** **17 04 14.7 -0.6**
comp=Z,28nm,1.0s
SOC **Sochi** **81.59 314** *e*P **P** **17 04 13.8 -1.4**
SOC *e* 17 07 24.9
SOC *e*PPP PPP 17 09 08.6
SOC *e*S **S** **17 14 24.9 -2.6**
SOC *e*SS **SS** **17 19 47.3 +3.5**
SOC *e*SSS SSS 17 23 05.6
SOC pmax pmax
comp=Z,16nm,0.8s
DLMT **Dillon** **81.82 44** IAmb IAmb 17 04 42.3
comp=Z,22nm,1.6s
ELK **Elko** **82.22 49** LR LR 17 34 26.3
comp=Z,98nm,20.3s,baz=322,slow=31
ANN **Anapa** **82.48 316** *e*P **P** **17 04 19.4 -0.4**
ANN *e**PP **sP** **17 04 23.0 0.0**
ANN *e*S **S** **17 14 33.7 -2.9**
ANN pmax pmax
comp=Z,25nm,0.8s
TPO **Tropico Hills** **82.70 55** IAmb IAmb 17 04 23.9
comp=Z,14nm,1.0s
MNK **Minsk** **82.75 328** *i*P **P** **17 04 22.9 +1.9**
MNK *i* 17 07 32.4
MNK *i*PPP PPP 17 09 25.9
MNK *i*S **SKSac** **17 14 42.0 -0.6**
MNK *i*SS **SS** **17 20 06.2 +6.0**
MNK *i*SSS SSS 17 23 33.8
MNK pmax pmax
comp=N,11nm,0.8s
MNK pmax pmax
comp=E,12nm,0.8s
MNK pmax pmax
comp=Z,22nm,0.7s
MNK MLR MLR
comp=E,181nm,20.0s
MNK MLR MLR
comp=N,146nm,19.0s
MNK MLR MLR
comp=Z,161nm,14.0s
MNK **Minsk** **82.75 328** *i*P **P** **17 04 23.0 +1.9**
comp=E,12nm,0.8s
MNK *i*P **P** **17 04 23.0 +1.9**
comp=N,11nm,0.8s
MNK *i*P **P** **17 04 23.0 +1.9**
comp=Z,22nm,0.7s,baz=56
MNK *i*PP **PP** **17 07 32.5 +2.1**
MNK *i*PPP PPP 17 09 25.9
MNK *i*S **SKSac** **17 14 42.1 -0.6**
MNK *i*SS **SS** **17 20 06.3 +6.0**
MNK *i*SSS SSS 17 23 33.9
MNK *i*LR LR 17 41 48.9
MNK *i*LRM MLR 17 43 13.7
comp=E,181nm,20.0s
CLC **China Lake** **82.76 54** IAmb IAmb 17 04 29.5
comp=Z,29nm,1.9s
FFC **Flin Flon** **82.83 32** P **P** **17 04 22.6 +1.2**
LRMC **Laurel Mtn Rad** **82.84 54** IAmb IAmb 17 04 24.2
comp=Z,14nm,1.1s
YHL **Hebgen Lake** **82.94 44** IAmb IAmb 17 04 26.1
comp=Z,14nm,1.0s
YHB **Horse Butte** **82.98 44** IAmb IAmb 17 04 26.2
comp=Z,8.2nm,1.0s
TPNV **Topopah Spring** **83.23 52** IAmb IAmb 17 04 26.2
comp=Z,9.3nm,0.8s
GWY **Greenwater Val** **83.27 53** IAmb IAmb 17 04 26.3
comp=Z,11nm,0.8s
YNR **Norris Junctio** **83.32 43** IAmb IAmb 17 04 28.2
comp=Z,14nm,1.1s
comp=Z,15nm,1.2s

KELT	**Kelkit**	83.48	311	P		P	17 04 26.0	+0.6
	comp=Z,66nm,0.9s							
GSC	**Goldstone, Bar**	83.56	54	IAmb		IAmb	17 04 28.0	
	comp=Z,8.4nm,0.9s							
MARD	**Mardin**	83.73	308	IAmb		IAmb	17 04 27.7	
	comp=Z,11nm,0.8s							
RLMT	**Red Lodge**	83.99	43	IAmb		IAmb	17 04 31.7	
	comp=Z,11nm,0.7s							
PABE	**Paberze**	83.99	330	P		P	17 04 26.7	-0.7
	comp=Z,26nm,1.6s							
AHID	**Auburn Hatcher**	84.01	45	IAmb		IAmb	17 04 32.9	
	comp=Z,9.9nm,1.1s							
AHID	**Auburn Hatcher**	84.01	45	P		P	17 04 29.6	+1.5
	comp=Z,14nm,1.1s							
DUG	**Dugway, Tooele**	84.12	48	IAmb		IAmb	17 04 30.9	
	comp=Z,11nm,1.1s							
DUG	**Dugway, Tooele**	84.12	48	P		P	17 04 30.2	+1.6
	comp=Z,11nm,1.0s							
PSUT	**Pine Spring**	84.19	50	IAmb		IAmb	17 04 31.1	
	comp=Z,7.4nm,0.9s							
AKASG	**Malin Array Be**	84.19	324	P		P	17 04 28.1	-0.4
	comp=Z,5.7nm,0.6s,baz=52,slow=5.3,SNR=23							
AKASG				LR		LR	17 44 50.1	
	comp=Z,183nm,18.7s,baz=45,slow=38							
	comp=Z,5.7nm,0.6s							
AKBB	**Malin Array Si**	84.19	324	⇓*i*P		P	17 04 27.8	-0.7
AKBB				pmax		pmax		
	comp=Z,20nm,1.3s							
KIEV	**Kiev**	84.21	324	P		P	17 04 27.7	-0.9
KIEV				pmax		pmax		
	comp=Z,23nm,1.3s							
KIEV	**Kiev**	84.21	324	P		P	17 04 27.7	-0.9
KIEV	**Kiev**	84.21	324	P		P	17 04 28.1	-0.5
	comp=Z,20nm,1.1s							
HWUT	**Hardware Ranch**	84.27	47	IAmb		IAmb	17 04 32.4	
	comp=Z,17nm,1.2s							
HWUT	**Hardware Ranch**	84.27	47	P		P	17 04 30.5	+1.1
	comp=Z,15nm,1.4s							
KEMA	**Kemaliye**	84.42	311	P		P	17 04 30.6	+0.6
	comp=Z,60nm,0.9s							
PFO	**Pinyon Flats O**	84.58	55	LR		LR	17 37 53.5	
	comp=Z,86nm,18.6s,baz=304,slow=32							
PFO	**Pinyon Flats O**	84.58	55	*i* P		P	17 04 32.6	+1.6
ARPR	**Arapgir-MALATY**	84.61	311	P		P	17 04 32.0	+0.9
	comp=Z,20nm,1.0s							
PDAR	**Pinedale Array**	84.99	45	P		P	17 04 33.8	+0.7
	comp=Z,3.6nm,0.9s,baz=272,slow=3.3,SNR=14							
PDAR				LR		LR	17 36 49.0	
	comp=Z,171nm,21.1s,baz=309,slow=32							
	comp=Z,3.6nm,0.9s							
HFS	**Hagfors**	85.08	337	P		P	17 04 32.1	-0.8
	comp=Z,7.5nm,0.7s,baz=85,slow=3.3,SNR=11							
HFS				LR		LR	17 43 58.0	
	comp=Z,224nm,19.4s,baz=46,slow=37							
	comp=Z,7.5nm,0.7s							
NB2	**NORSAR Subarra**	85.27	339	P		P	17 04 32.7	-1.1
	comp=Z,5.3nm,0.7s,baz=49,slow=4.6							
NB2	**NORSAR Subarra**	85.27	339	P		P	17 04 32.0	-1.8
NOA	**NORSAR Array B**	85.27	339	P		P	17 04 33.2	-0.6
	comp=Z,7.3nm,0.7s,baz=48,slow=4.7,SNR=22							
NOA				LR		LR	17 46 33.7	
	comp=Z,110nm,19.4s,baz=40,slow=38							
	comp=Z,7.3nm,0.7s							
LUBAR	**Lubar, Ukraine**	85.41	324	P		P	17 04 34.4	-0.3
RNPP9	**Sopachiv**	85.52	326	P		P	17 04 35.3	+0.1
RNPP8	**Varash**	85.58	326	P		P	17 04 35.6	+0.1
Q16A	**Castle Valley**	85.85	49	IAmb		IAmb	17 04 39.8	
	comp=Z,9.2nm,0.8s							
P17A	**Butcher Ranch,**	85.86	48	IAmb		IAmb	17 04 39.6	
	comp=Z,11nm,0.9s							
RDMU	**Red Mountain**	86.09	47	IAmb		IAmb	17 04 41.2	
	comp=Z,14nm,0.9s							
P18A	**Preston Nutter**	86.12	48	IAmb		IAmb	17 04 41.5	
	comp=Z,6.7nm,0.7s							
RAYN	**Ar Rayn**	86.25	294	P		P	17 04 39.0	-0.4
RAYN				pmax		pmax		
	comp=Z,19nm,1.0s							
RAYN	**Ar Rayn**	86.25	294	P		P	17 04 39.0	-0.4
RAYN	**Ar Rayn**	86.25	294	P		P	17 04 39.6	+0.1
	comp=Z,22nm,0.9s							
U15A	**North Rim**	86.28	51	IAmb		IAmb	17 04 42.0	
	comp=Z,7.2nm,0.9s							
HMU	**Henry Mountain**	86.62	49	IAmb		IAmb	17 04 43.0	
	comp=Z,11nm,0.8s							
O20A	**White River Ci**	87.19	47	IAmb		IAmb	17 04 45.6	
	comp=Z,8.0nm,0.9s							
SFJD	**Kangerlussuaq**	87.24	5	LR		LR	17 46 25.2	
	comp=Z,105nm,19.2s,baz=332,slow=37							
WUAZ	**Wupatki**	87.38	52	IAmb		IAmb	17 04 47.8	
	comp=Z,13nm,1.1s							
BRTR	**Keskin Array B**	87.45	313	P		P	17 04 44.0	-1.1
	comp=Z,2.7nm,0.9s,baz=103,slow=3.1,SNR=11							
	comp=Z,2.7nm,0.9s							
BRTR	**Keskin Array B**	87.45	313	P		P	17 04 43.8	-1.3
PV22	**Blue Mesa, Par**	87.65	48	IAmb		IAmb	17 04 50.8	
	comp=Z,13nm,1.0s							
FRB	**Frobisher Bay**	87.71	13	LR		LR	17 45 54.1	
	comp=Z,112nm,20.7s,baz=293,slow=37							
PV07	**Paradox Valley**	87.79	48	IAmb		IAmb	17 05 22.3	
	comp=Z,22nm,1.7s							
PV13	**Radium Mtn., P**	87.82	48	IAmb		IAmb	17 04 48.9	
	comp=Z,10.0nm,0.6s							
PV02	**Paradox Valley**	87.85	48	IAmb		IAmb	17 04 49.2	
	comp=Z,11nm,0.9s							
X16A	**Lo Mia Camp, P**	87.87	53	IAmb		IAmb	17 04 50.1	
	comp=Z,7.7nm,1.1s							
PV15	**Paradox Valley**	87.95	48	IAmb		IAmb	17 07 31.1	
	comp=Z,6.6nm,0.9s							
PV01	**Paradox Valley**	88.00	48	IAmb		IAmb	17 04 49.8	
	comp=Z,8.8nm,0.9s							
BURAR	**Bucovina Array**	88.12	323	P		P	17 04 48.0	-0.2
ULM	**Lac du Bonnet**	88.51	33	P		P	17 04 50.4	+0.7
	comp=Z,4.8nm,1.0s,baz=287,slow=5.9,SNR=3.9							
	comp=Z,4.8nm,1.0s							
ULM	**Lac du Bonnet**	88.51	33	IAmb		IAmb	17 05 22.0	
	comp=Z,19nm,1.4s							
BORG	**Borgarnes**	89.20	353	LR		LR	17 45 59.0	
	comp=Z,45nm,18.9s,baz=322,slow=36							
TRPA	**Tarpa**	89.24	325	P		P	17 04 52.3	-0.9
	comp=Z,6.2nm,1.5s							
ARR	**Arges**	89.80	322	P		P	17 04 56.4	+0.4
	comp=Z,8.5nm,1.0s							
STEB	**Steborice**	90.45	328	*e*P		P	17 04 58.3	-0.6
MORC	**Moravsky Berou**	90.67	328	*e*P		P	17 04 58.6	-1.4
PSZ	**Piszkesteto**	90.74	326	IAmb		IAmb	17 05 01.4	
	comp=Z,8.9nm,1.1s							
DPC	**Dobruska-Polom**	90.86	329	*e*P		P	17 05 00.4	-0.4
DPC	**Dobruska-Polom**	90.86	329	P		P	17 05 00.3	-0.4
F33A	**5 Mile Ranch,**	91.09	37	IAmb		IAmb	17 05 03.4	
	comp=Z,6.5nm,0.8s							
TASM	**ASL Pad, Albuq**	91.12	50	IAmb		IAmb	17 05 05.1	
	comp=Z,6.0nm,0.8s							
ANMO	**Albuquerque**	91.12	50	⇓*i*P		P	17 05 04.1	+1.5
ANMO				pmax		pmax		
	comp=Z,7.0nm,0.9s							
ANMO	**Albuquerque**	91.12	50	P		P	17 05 01.9	-0.6
	comp=Z,8.5nm,2.1s							
ALQ	**Albuquerque**	91.12	50	IAmb		IAmb	17 05 05.1	
	comp=Z,6.5nm,0.8s							
ALQ	**Albuquerque**	91.12	50	IAmb		IAmb	17 05 05.1	
	comp=Z,6.3nm,0.8s							
JAVC	**Velka Javorina**	91.23	327	*e*P		P	17 05 03.2	+0.6
Y22A	**Socorro**	91.30	51	IAmb		IAmb	17 05 07.1	
	comp=Z,7.8nm,1.0s							
BZS	**Buzias**	91.31	323	P		P	17 05 02.3	-0.7
HRFI	**Mount Harif**	91.43	304	P		P	17 05 02.3	-1.5
	comp=Z,7.4nm,1.3s							
VRAC	**Vranov**	91.44	328	LR		LR	17 48 25.4	
	comp=Z,80nm,18.9s,baz=34,slow=37							
VRAC	**Vranov**	91.44	328	*e*P		P	17 05 02.8	-0.7
121A	**Cookes Peak, D**	91.46	53	IAmb		IAmb	17 05 07.2	
	comp=Z,13nm,1.1s							
CLL	**Collm**	91.68	331	*i* P		P	17 05 03.5	-1.0
	comp=Z,5.0nm,1.0s							
CLL				LV			17 38 00.0	
EIL	**Elat**	91.68	304	LR		LR	17 51 59.6	
	comp=Z,32nm,18.4s,baz=31,slow=39							
KRUC	**Moravsky**	91.71	328	*e*P		P	17 05 03.6	-1.1
KRUC	**Moravsky**	91.71	328	P		P	17 05 04.2	-0.5
	comp=Z,8.4nm,1.6s							
TREC	**Trest**	91.98	329	*e*P		P	17 05 05.6	-0.4
TREC	**Trest**	91.98	329	P		P	17 05 05.4	-0.6
	comp=Z,3.9nm,1.0s							
ECSD	**EROS Data Cent**	92.24	39	IAmb		IAmb	17 05 11.4	
	comp=Z,12nm,1.1s							
ABNA	**Allensteig Bun**	92.44	328	*e*PcP		P	17 05 07.8	-0.3
	comp=Z,5.4nm,0.8s							
ZVC	**Zvikov**	92.48	329	*e*P		P	17 05 08.2	-0.1
RONA	**Rosalia, Austr**	92.69	327	*e*PcP		P	17 05 08.9	-0.4
	comp=Z,2.8nm,0.9s							
CONA	**Conrad Observa**	92.74	327	*e*PcP		P	17 05 09.1	-0.6
	comp=Z,3.3nm,0.7s							
CKRC	**Cesky Krumlov**	92.86	329	*e*P		P	17 05 08.5	-1.6
KHC	**Kasperske Hory**	92.98	329	*e*P		P	17 05 10.2	-0.5
KHC				*ex*		x	17 05 22.3	
KHC	**Kasperske Hory**	92.98	329	P		P	17 05 09.9	-0.8
	comp=Z,4.5nm,0.7s							
GEC2	**GERESS Array S**	93.13	329	P		P	17 05 10.2	-1.2
	comp=Z,5.0nm,1.9s							
GERES	**GERESS Array B**	93.13	329	P		P	17 05 10.5	-0.9
	comp=Z,2.0nm,0.7s,baz=39,slow=5.1,SNR=18							
GERES				LR		LR	17 51 20.8	
	comp=Z,85nm,18.7s,baz=44,slow=38							
	comp=Z,2.0nm,0.7s							
MOA	**Molln**	93.57	328	*e*PcP		P	17 05 12.7	-0.7
	comp=Z,1.8nm,0.6s							
SESA	**Seetaler Alpe,**	93.94	327	*e*PcP		P	17 05 14.0	-1.4
	comp=Z,5.1nm,0.8s							
EKA	**Eskdalemuir Ar**	94.37	341	LR		LR	17 54 08.9	
	comp=Z,99nm,18.1s,baz=11,slow=40							
OBKA	**Obir**	94.38	327	*e*PcP		P	17 05 16.0	-1.2
	comp=Z,10nm,1.5s							
LESA	**Schwarzleotal**	94.62	329	*e*PcP		P	17 05 17.2	-1.2
	comp=Z,1.7nm,0.6s							
MYKA	**Terra Mystica**	94.73	328	*e*P		P	17 05 17.4	-1.4
	comp=Z,2.0nm,0.5s							
ABTA	**Abfaltersbach**	95.19	328	*e*P		P	17 05 19.0	-2.0
	comp=Z,2.6nm,0.8s							
BFO	**Black Forest**	95.92	331	P		P	17 05 23.2	-1.0
DAVA	**Damuels**	96.02	330	P		P	17 05 23.9	-0.9
	comp=Z,6.0nm,1.2s							
TXAR	**Lajitas Array**	96.15	54	P		P	17 05 26.7	+1.0
	comp=Z,1.9nm,0.9s,baz=298,slow=2.7,SNR=12							
	comp=Z,1.9nm,0.8s							
DAVOX	**Davos/Dischmat**	96.40	330	LR		LR	17 52 49.3	
	comp=Z,123nm,18.3s,baz=36,slow=38							
CEL	**Celeste**	99.36	320	P		Pdif	17 05 39.4	-0.5
	comp=Z,22nm,1.0s							
QSPA	**South Pole Qui**	115.28	180	PKP		PKiKP	17 10 37.6	-0.5
	comp=Z,2.0nm,1.2s,baz=306,slow=1.2,SNR=6.3							
TROLL	**Troll, Antarti**	128.51	195	⇑PKPdf		PKPdf	17 11 03.9	+0.4
	comp=Z,69nm,0.6s							
VNA2	**Neumayer--Watz**	131.45	193	⇑PKPdf		PKPdf	17 11 08.8	-0.2
	comp=Z,4.3nm,0.7s,baz=100,slow=1.4							
VNA3	**Neumayer Olymp**	131.62	192	⇑PKPdf		PKPdf	17 11 09.6	+0.3
	comp=Z,2.2nm,0.7s							
PLCA	**Paso Flores**	148.47	127	PKPbc		PKPbc	17 11 44.1	0.0
	comp=Z,3.2nm,0.7s,baz=212,slow=4.1,SNR=6.7							
LPAZ	**La Paz**	149.80	78	PKPbc		PKPbc	17 11 49.2	+0.4
	comp=Z,8.4nm,0.7s,baz=305,slow=1.1,SNR=34							
LPAZ	**La Paz**	149.80	78	PKIKP		PKiKP	17 11 49.6	-0.2
LPAZ	**La Paz**	149.80	78			PKiKP	17 11 49.6	-0.2

*NEIC **24** 17:06:53.1±1.6, 12.°4S±0.°1×167.°1E±0.°2, h216km±3km, mb4.2/13, Error ellipse: s-maj=26.1km s-min=14.9km az=99.0*
*IDC **24** 17:06:58.0±5.0, 12.°54S×166.°94E, h266km±48km, mb3.3/6, mbtmp3.8/7, Error ellipse: s-maj=32.3km s-min=26.1km az=180.0*

ISC 24 17:06:53.0±0.9, **12.°52S**±0.°09×**167.°1E**±0.°2, **h220**km, **n30, σ1§25/32, mb4.0/13, 1C, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	2.92	177		Pn	17 07 44.2	+1.4
SANVU				Sn	S	17 08 20.3	-1.5
KOUNC	**Koumac, New Ca**	8.42	198	Pn	Pn	17 08 50.3	-1.4
DZM	**Mont Dzumac**	9.52	183	P	P	17 09 10.3	-3.4
	1.9nm,0.8s,baz=300,slow=20,SNR=1.4						
DZM				S	S	17 10 57.1	+4.1
	2.4nm,0.9s,baz=147,slow=22,SNR=1.4						
EIDS	**Eidsvold**	19.76	227	P	P	17 11 07.8	+1.2
CTA	**Charters Tower**	21.32	247	P	P	17 11 24.0	+0.9
	2.0nm,0.5s,baz=74,slow=11,SNR=1.9						
	2.0nm,0.5s						
LTZ	**Lake Taylor**	30.49	172	P	P	17 12 46.0	+0.5
WR8	**Warramunga Arr**	32.08	252	P	P	17 12 58.8	-0.9
WR8				IAmb	IAmb	17 12 59.5	
	comp=Z,7.2nm,1.3s						
WB0	**Warramunga Arr**	32.15	253	P	P	17 12 59.7	-0.6
WB0				IAmb	IAmb	17 13 12.6	
	comp=Z,6.4nm,1.4s						
WRA	**Warramunga Arr**	32.23	252	P	P	17 13 00.6	-0.4
	comp=Z,0.4nm,0.4s,baz=83,slow=8.9,SNR=8.1						
	comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	33.32	246	P	P	17 13 10.2	-0.3
	comp=Z,0.5nm,0.7s,baz=72,slow=9.5,SNR=12						
	comp=Z,0.5nm,0.7s						
BBOO	**Buckleboo**	34.81	229	P	P	17 13 23.8	+0.6
BBOO				IAmb	IAmb	17 13 35.1	
	comp=Z,11nm,1.2s						
KNRA	**Kununurra**	37.24	261	P	P	17 13 44.4	+0.5
KNRA				IAmb	IAmb	17 13 53.9	
	comp=Z,9.8nm,1.3s						
FITZ	**Fitzroy Crossi**	40.27	257	P	P	17 14 09.7	+0.7
QSPA	**South Pole Qui**	77.50	180	P	P	17 18 24.1	-0.1
	comp=Z,1.1nm,0.9s,baz=50,slow=4.4,SNR=5.4						
	comp=Z,1.1nm,0.9s						
QSPA	**South Pole Qui**	77.50	180	P	P	17 18 24.5	+0.3
SML	**Sawmill**	81.92	20	P	P	17 18 48.3	+0.6
CAST	**Castle Rocks**	81.95	17	P	P	17 18 47.8	-0.1
CAST				IAmb	IAmb	17 18 48.4	
	comp=Z,9.2nm,1.4s						
TRF	**Thorofare Moun**	82.51	18	P	P	17 18 50.3	-0.6
RND	**Reindeer**	82.91	18	P	P	17 18 52.9	0.0
IMAR	**Indian Mountai**	83.50	15	P	P	17 18 56.9	+1.1
E19K	**Redstone River**	83.86	13	P	P	17 18 59.2	+1.7
E19K				IAmb	IAmb	17 19 11.4	
	comp=Z,4.6nm,1.2s						
WRH	**Wood River Hil**	83.92	18	P	P	17 18 57.6	-0.2
WRH				IAmb	IAmb	17 19 15.0	
	comp=Z,4.0nm,1.4s						
CCB	**Clear Creek Bu**	84.13	18	P	P	17 18 58.8	-0.1
IL31		84.50	18	P	P	17 19 00.9	+0.2
ILAR	**Eielson Array**	84.50	18	P	P	17 19 00.8	0.0
	comp=Z,0.9nm,0.6s,baz=247,slow=5.9,SNR=22						
	comp=Z,0.9nm,0.6s						
J25K	**Salcha River,**	84.85	19	P	P	17 19 02.8	+0.1
TROLL	**Troll, Antarti**	95.04	185	⇑P	P	17 19 51.0	+0.4
	comp=Z,50nm,0.6s						
MKAR	**Makanchi Array**	95.47	317	P	P	17 19 52.6	-0.2
	comp=Z,0.3nm,0.8s,baz=84,slow=5.5,SNR=2.7						
	comp=Z,0.3nm,0.6s						
VNA3	**Neumayer Olymp**	96.41	181	P	P	17 19 56.0	-0.7
VNA2	**Neumayer--Watz**	96.67	182	P	P	17 19 58.0	+0.1
	baz=196,slow=4.4						

*IDC **24** 17:27:26.5±2.1, 17.°58S×178.°44W, h519km±19km, mb3.3/7, mbtmp4.2/8, Error ellipse: s-maj=25.9km s-min=20.5km az=107.0*

ISC 24 17:27:28.9±1.2, **17.°6S**±0.°2×**178.°6W**±0.°2, **h547**km, **n11, σ1§30/13, mb3.7/7, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	3.19	266	P	P	17 28 42.0	-3.0
	96nm,0.8s,baz=122,slow=12,SNR=40						
STKA	**Stephens Creek**	38.63	241	P	P	17 34 06.3	+0.6
	2.4nm,0.5s,baz=87,slow=8.5,SNR=8.0						
	2.4nm,0.5s						
WRA	**Warramunga Arr**	44.50	259	P	P	17 34 52.0	-0.3
	1.1nm,0.6s,baz=96,slow=7.1,SNR=31						
WRA				PcP	PcP	17 36 24.6	+0.8
	0.6nm,0.8s,baz=94,slow=3.2,SNR=3.3						
	1.1nm,0.6s						
ASAR	**Alice Springs**	44.70	254	P	P	17 34 54.1	+0.3
	15nm,0.5s,baz=89,slow=8.2,SNR=257						
ASAR				PcP	PcP	17 36 25.3	+0.8
	0.7nm,0.8s,baz=87,slow=3.4,SNR=4.0						
	1.0nm,0.5s						
MJAR	**Matsushiro Arr**	67.51	323	P	P	17 37 31.4	+0.5
	1.4nm,0.7s,baz=164,slow=5.9,SNR=5.0						
	1.4nm,0.7s						
QSPA	**South Pole Qui**	72.49	180	P	P	17 37 60.0	-0.2
	1.2nm,0.5s,baz=280,slow=3.0,SNR=16						
	1.2nm,0.5s						
ILAR	**Eielson Array**	85.59	13	P	P	17 39 08.0	-1.2
	0.3nm,0.4s,baz=223,slow=5.4,SNR=10						
	0.3nm,0.4s						
CMAR	**Chiang Mai Arr**	88.58	290	P	P	17 39 26.2	+1.8
	0.8nm,0.8s,baz=102,slow=2.8,SNR=8.2						
	0.8nm,0.8s						
BRTR	**Keskin Array B**	144.40	315	PKP	PKPab	17 46 04.2	+0.3
	0.4nm,0.5s,baz=343,slow=3.9,SNR=4.1						
MMAI	**Mount Meron Ar**	145.79	303	PKPbc	PKPbc	17 46 08.6	+0.9
	0.9nm,0.5s,baz=3.8,slow=4.3,SNR=2.7						
GERES	**GERESS Array B**	147.23	345	PKPbc	PKPbc	17 46 11.2	0.0
	0.9nm,0.6s,baz=5.7,slow=2.7,SNR=7.6						

*HEL **24** 17:32:41.9±0.2, 67.°65N×34.°14E, h0km, ML2.0, Suspected explosion*
*KOLA **24** 17:32:42.0±0.6, 67.°69N±0.°02×34.°12E±0.°06, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*IDC **24** 17:32:43.7±2.7, 67.°65N×34.°04E, h0km, mbtmp3.4/4, ML2.0/3, Error ellipse: s-maj=28.4km s-min=12.7km az=88.0*
*BER **24** 17:32:48.2±1.5, 67.°83N×33.°41E, h0km, ML1.9, Suspected explosion*

ISC 24 17:32:40.8±0.9, **67.°61N**±0.°03×**34.°27E**±0.°04, **h0**km, **n35, σ1§49/61, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LVZ	**Lovozero**	0.32	26	P	Pg	17 32 47.9	+0.9
LVZ				S	Sg	17 32 51.8	+0.6
LVZ	**Lovozero**	0.32	26	PG	Pg	17 32 47.6	+0.7
APA	**Apatity**	0.34	264	P	Pg	17 32 47.8	+0.6
APA				S	Sg	17 32 52.0	+0.4
APA0	**Apatity Array**	0.49	270	P	Pg	17 32 50.1	-0.1
APA0				S	Sg	17 32 57.0	+0.5
KVDA	**Kovda**	1.07	211	P	Pn	17 33 02.5	-0.5
KVDA				S	Sn	17 33 18.2	-0.4
TERR	**Teriberka**	1.63	11	P	Pn	17 33 10.6	-0.1
TERR				S	Sn	17 33 31.6	-0.7
VRF	**Varrio**	1.79	277	PG	Pn	17 33 12.8	-0.1
VRF				MSG		17 33 33.7	
	comp=Z,23nm,0.2s						
VRF				SN	Sn	17 33 36.0	-0.2
OLKF	**Oulanka, Finla**	2.31	238	PG	Pb	17 33 22.2	-1.1
OLKF				MSG		17 33 49.8	
	comp=Z,6.9nm,0.2s						
OLKF				SG	Sg	17 33 53.5	-1.5
KU6	**Riekki**	2.35	230	PG	Pb	17 33 22.8	-1.2
	baz=45						
KU6				MSG		17 33 51.1	
	comp=Z,4.5nm,0.2s						
KU6				SG	Sb	17 33 54.4	+0.9
RAJF	**Raja-Jooseppi**	2.40	294	PB	Pn	17 33 21.7	+0.4
RAJF				SB	Sn	17 33 52.4	+0.9
MSF	**Maaselka**	2.69	233	PB	Pb	17 33 27.9	-1.8
MSF				SG	Sb	17 34 04.3	+1.2
KU1	**Kurvinen**	2.79	225	PB	Pn	17 33 28.4	+1.8
	baz=41						
KU2	**Taivalkoski**	3.07	234	PB	Pb	17 33 34.2	-2.0
VADS	**Vadso**	3.09	327	*e*P	Pn	17 33 30.6	-0.1
VADS				IAML		17 34 13.6	
	comp=Z,12nm,0.2s						
VADS	**Vadso**	3.09	327	P	Pn	17 33 30.8	+0.1
VADS				S	Sn	17 34 08.0	-0.2
RANF	**Ranua**	3.37	245	PB	Pn	17 33 36.9	+2.3
	baz=53						
RANF				SG	Sb	17 34 23.1	+0.4
RNF	**Rovaniemi**	3.38	257	PN	Pn	17 33 35.4	+0.6
	baz=68						
RNF				SN	Sn	17 34 16.8	+1.3
KEV	**Kevo**	3.42	312	PN	Pn	17 33 35.4	+0.2
KEV				SG	Sb	17 34 24.0	-0.1
ARA0	**ARCESS Array S**	3.75	305	*e*P	Pn	17 33 40.2	+0.3
ARA0				IAML		17 34 36.9	
	comp=Z,6.1nm,0.2s						
ARA0	**ARCESS Array S**	3.75	305	PN	Pn	17 33 39.9	+0.1
	baz=118						
ARA0				SG	Sb	17 34 35.5	+1.7
ARCES	**ARCESS Array B**	3.75	305	Pn	Pn	17 33 40.1	+0.2
	comp=Z,0.4nm,0.3s,baz=120,slow=14,SNR=73						
ARCES				Pg	Pb	17 33 47.6	-0.2
	comp=Z,0.8nm,0.3s,baz=119,slow=17,SNR=19						
ARCES				Sn	Sn	17 34 22.5	-2.2
	comp=Z,0.6nm,0.3s,baz=115,slow=26,SNR=3.9						
ARCES				Lg	Lg	17 34 33.6	
	comp=Z,2.0nm,0.3s,baz=118,slow=32,SNR=13						
	comp=Z,1.3nm,0.2s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	3.75	305	P	Pn	17 33 40.0	+0.1
ARCES				S	Sn	17 34 21.9	-2.8
RMF	**Romuvaara**	3.84	210	PN	Pn	17 33 42.4	+1.3
RMF				SN	Sn	17 34 28.0	+1.1
KLF	**Kolari**	3.99	269	PN	Pn	17 33 45.0	+1.8
HEF	**Hetta**	4.07	286	*e*P	Pn	17 33 44.7	+0.4
HEF	**Hetta**	4.07	286	PN	Pn	17 33 45.3	+1.1
	baz=98						
HEF				SG	Sb	17 34 46.2	+3.2
OUL	**Oulu**	4.22	237	PG	Pb	17 33

*SJA **24** 17:45:17.8±0.8,31°.64S×68°.64W,h111km±2km,ML4.3, MW4.2*
*NEIC **24** 17:45:18.9±2.2,31°.60S±0°.05×68°.77W±0°.07,h104km±3km, mb4.5/25,Error ellipse: s-maj=8.3km s-min=6.5km az=75.0*
*IDC **24** 17:45:18.4±0.8,31°.59S×68°.65W,h104km±5km,mb3.8/8, mbtmp4.1/12,Error ellipse: s-maj=24.6km s-min=14.5km az=93.0*
*GFZ **24** 17:45:18.8±0.3,32°S±2°×6°9W±°,h109km±4km,M4.5/13, mb4.5/13,Error ellipse: s-maj=12.8km s-min=4.1km az=97.9,confirmed*

ISC 24 17:45:18.3±0.6,31°.63S±0°.03×68°.66W±0°.03,h110km±4km, n183,σ1§42/213,mb4.4/21,3D,San Juan Province

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time	Res
ZON	**Zonda**	**0.09**	**349**	*eP*		**Pn**		**17 45 33.6**	**0.0**
ZON				*eS*		**Sn**		**17 45 45.3**	**+0.2**
ZON	**Zonda**	**0.09**	**349**			**Pn**		**17 45 33.6**	**0.0**
ZON				Sn		**Sn**		**17 45 44.8**	**-0.3**
ZON	**Zonda**	**0.09**	**349**	P		**Pn**		**17 45 33.8**	**+0.1**
SJA	**San Juan**	**0.13**	**40**	*eP*		**Pn**		**17 45 34.4**	**+0.3**
RTLL	**Cerro Villicun**	**0.34**	**28**	*eP*		**Pn**		**17 45 34.4**	**0.0**
RTLL				*eS*		**Sn**		**17 45 48.1**	**+1.7**
RTLL				IAML				17 45 50.4	
	comp=Z,7μm,0.3s								
CFA	**Coronel Fontan**	**0.36**	**86**	P		**Pn**		**17 45 35.0**	**+0.4**
	comp=Z,3μm,0.3s,baz=306,slow=4.9								
CFA				S		**Sn**		**17 45 47.0**	**+0.4**
	comp=Z,3μm,0.2s,baz=339,slow=24,SNR=29								
CFA	**Coronel Fontan**	**0.36**	**86**	*eP*		**Pn**		**17 45 34.9**	**+0.4**
CFA				*eS*		**Sn**		**17 45 47.1**	**+0.5**
CFA				IAML				17 45 49.1	
	comp=Z,8μm,0.2s								
RTLS	**Leoncito**	**0.57**	**253**	*eP*		**Pn**		**17 45 36.5**	**+0.5**
RTLS				*eS*		**Sn**		**17 45 50.5**	**+1.1**
ACCO	**Cerro Coronel**	**1.09**	**341**	*eP*		**Pn**		**17 45 41.4**	**+0.4**
ACCO				IAML				17 45 59.6	
	comp=Z,3μm,0.4s								
ARCO	**CERRO ARCO**	**1.23**	**191**	*eP*		**Pn**		**17 45 43.3**	**+1.0**
ARCO				*eS*		**Sn**		**17 46 00.7**	**+0.4**
ARCO				IAML				17 46 03.0	
	comp=Z,6μm,0.7s								
ACAN	**Cantantal**	**1.41**	**118**	*eP*		**Pn**		**17 45 45.7**	**+1.6**
AVFE	**Valle Fertil**	**1.41**	**47**	*eP*		Pn		17 45 39.4	-4.9
AVFE				IAML				17 46 06.1	
	comp=Z,2μm,0.3s								
AAGR	**Agrelo**	**1.46**	**186**	*eP*		**Pn**		**17 45 46.0**	**+1.2**
ACDV	**Cuesta del Vie**	**1.51**	**345**	*eP*		**Pn**		**17 45 46.2**	**+0.7**
ACDV				IAML		**Sn**		**17 46 07.4**	**+1.4**
	comp=Z,2μm,0.5s								
ACDV				*eS*		**Sn**		**17 46 07.4**	**+1.4**
AROD	**Rodeo**	**1.62**	**334**	*eP*		**Pn**		**17 45 47.6**	**+0.7**
AVIZ	**Vizcacheras**	**1.84**	**176**	*eP*		**Pn**		**17 45 50.9**	**+1.4**
AVIZ				*eS*		**Sn**		**17 46 09.9**	**-3.3**
CO03	**El Pedregal**	**1.91**	**294**	*eP*		**Pn**		**17 45 51.0**	**+0.7**
CO03				*eS*		**Sn**		**17 46 16.1**	**+1.4**
CO03				IAML				17 46 20.0	
	comp=Z,2μm,0.7s								
CO03	**El Pedregal**	**1.91**	**294**			**Pn**		**17 45 50.8**	**+0.5**
CO03				Sn		**Sn**		**17 46 14.6**	**-0.1**
CO03	**El Pedregal**	**1.91**	**294**	P		**Pn**		**17 45 51.0**	**+0.7**
VA03	**San Esteban**	**1.96**	**234**	*eP*		**Pn**		**17 45 52.1**	**+1.2**
VA03				*eS*		**Sn**		**17 46 22.1**	**+6.3**
VA03	**San Esteban**	**1.96**	**234**			**Pn**		**17 45 52.1**	**+1.2**
VA03				Sn		**Sn**		**17 46 17.3**	**+1.5**
VA03	**San Esteban**	**1.96**	**234**	P		**Pn**		**17 45 52.3**	**+1.3**
CO04	**Los Peladeros**	**2.01**	**258**			**Pn**		**17 45 51.4**	**-0.4**
CO04				Sn		**Sn**		**17 46 16.4**	**-0.8**
CO04	**Los Peladeros**	**2.01**	**258**	P		**Pn**		**17 45 51.8**	**0.0**
CO02	**Combarbal**	**2.05**	**281**	*eP*		**Pn**		**17 45 52.4**	**+0.3**
CO02				*eS*		**Sn**		**17 46 18.7**	**+0.9**
CO02				IAML				17 46 19.6	
	comp=Z,3μm,0.3s								
CO02	**Combarbal**	**2.05**	**281**			**Pn**		**17 45 52.2**	**+0.1**
CO02				Sn		**Sn**		**17 46 18.0**	**+0.2**
CO02	**Combarbal**	**2.05**	**281**	P		**Pn**		**17 45 52.4**	**+0.3**
CO01	**Juntas del Tor**	**2.06**	**323**	*eP*		**Pn**		**17 45 48.1**	**-4.2**
CO01				*eP*				17 45 53.7	
CO01				*eS*		**Sn**		**17 46 19.8**	**+1.5**
CO01				IAML				17 46 20.9	
	comp=Z,872nm,0.7s								
CO01	**Juntas del Tor**	**2.06**	**323**			**Pn**		**17 45 53.6**	**+1.2**
CO01				Sn		**Sn**		**17 46 18.1**	**-0.1**
CO01	**Juntas del Tor**	**2.06**	**323**	P		**Pn**		**17 45 53.8**	**+1.4**
MT08	**Bocatoma Ro**	**2.14**	**212**	*eP*		**Pn**		**17 45 55.1**	**+1.7**
MT08				*eS*		**Sn**		**17 46 19.0**	**-1.2**
MT08				IAML				17 46 25.7	
	comp=Z,773nm,0.5s								
MT08	**Bocatoma Ro**	**2.14**	**212**			**Pn**		**17 45 54.9**	**+1.5**
MT08				Sn		**Sn**		**17 46 22.0**	**+1.8**
MT04	**Ro Olivares**	**2.17**	**215**	*eP*		**Pn**		**17 45 55.3**	**+1.6**
MT04				*eS*		**Sn**		**17 46 20.9**	**+0.2**
PEL	**Peldehue**	**2.28**	**228**	*eP*		**Pn**		**17 45 55.8**	**+0.8**
PEL				*eS*		**Sn**		**17 46 18.1**	**-5.0**
PEL	**Peldehue**	**2.28**	**228**			**Pn**		**17 45 55.5**	**+0.5**
PEL				Sn		**Sn**		**17 46 22.9**	**-0.2**
PEL	**Peldehue**	**2.28**	**228**	P		**Pn**		**17 45 55.8**	**+0.8**
GO04	**Tololo Observa**	**2.34**	**308**	*eP*		**Pn**		**17 45 55.8**	**-0.2**
GO04				*eS*		**Sn**		**17 46 26.2**	**+1.4**
GO04				IAML				17 46 27.4	
	comp=Z,2μm,0.3s								
GO04	**Tololo Observa**	**2.34**	**308**			**Pn**		**17 45 55.7**	**-0.2**
GO04				Sn		**Sn**		**17 46 23.9**	**-0.9**
GO04	**Tololo Observa**	**2.34**	**308**	P		**Pn**		**17 45 56.0**	**0.0**
MT16	**CCHEN**	**2.39**	**221**			**Pn**		**17 45 57.2**	**+0.9**
MT16				Sn		**Sn**		**17 46 26.5**	**+1.0**
MT03	**Universidad Ad**	**2.43**	**220**	*eP*		**Pn**		**17 45 58.3**	**+1.4**
MT03				*eS*		**Sn**		**17 46 23.9**	**-2.7**
MT03	**Universidad Ad**	**2.43**	**220**			**Pn**		**17 45 57.9**	**+1.0**
MT03				Sn		**Sn**		**17 46 28.4**	**+1.8**
MT05	**Renca**	**2.48**	**224**	*eP*		**Pn**		**17 45 58.7**	**+1.1**
MT05				*eS*		**Sn**		**17 46 25.2**	**-2.6**
MT05	**Renca**	**2.48**	**224**			**Pn**		**17 45 58.3**	**+0.6**
MT05				Sn		**Sn**		**17 46 28.2**	**+0.4**
MT13	**San Alfonso**	**2.52**	**213**	*eP*		**Pn**		**17 45 59.5**	**+1.4**
MT13				*eS*		**Sn**		**17 46 24.8**	**-3.8**
MT13	**San Alfonso**	**2.52**	**213**			**Pn**		**17 45 59.0**	**+1.0**
MRA	**San Martin**	**2.62**	**108**	*eP*		**Pn**		**17 46 01.2**	**+1.8**
MRA				*eS*		**Sn**		**17 46 27.7**	**-3.3**
MRA				IAML				17 46 33.5	
	comp=Z,1μm,0.3s								
ACLC	**CERRO LA CRUZ**	**2.65**	**34**	*eP*		**Pn**		**17 46 00.3**	**+0.4**
ACLC				IAML				17 46 34.6	
	comp=Z,893nm,0.4s								
MT02	**Curacav**	**2.65**	**232**	*eP*		**Pn**		**17 45 59.7**	**-0.1**
MT02				*eS*		**Sn**		**17 46 32.0**	**+0.4**
MT02	**Curacav**	**2.65**	**232**			**Pn**		**17 45 58.9**	**-0.9**
MT02				Sn		**Sn**		**17 46 30.4**	**-1.2**
CO06	**Fray Jorge**	**2.72**	**290**			**Pn**		**17 45 59.1**	**-1.6**
BO04	**La Punta**	**2.87**	**214**			**Pn**		**17 46 03.3**	**+0.6**
VA01	**Torpederas**	**2.89**	**240**	*eP*		**Pn**		**17 46 03.5**	**+0.7**
VA01	**Torpederas**	**2.89**	**240**	Pn		**Pn**		**17 46 02.0**	**-0.8**
MT09	**Talagante**	**2.91**	**222**			**Pn**		**17 46 02.9**	**-0.3**
VCA	**Vinchina**	**2.91**	**8**	*eP*		**Pn**		**17 46 04.1**	**+0.8**
VCA				*eS*		**Sn**		**17 46 39.4**	**+1.5**
VCA				IAML				17 46 43.4	
	comp=Z,1μm,0.3s								
AC05	**El Transito**	**3.12**	**333**			**Pn**		**17 46 06.8**	**+0.8**
AC05	**El Transito**	**3.12**	**333**	P		**Pn**		**17 46 07.1**	**+1.0**
MT01	**Popeta**	**3.12**	**224**	*eS*		Sn		17 46 31.2	-11
MT01	**Popeta**	**3.12**	**224**			**Pn**		**17 46 05.2**	**-0.7**
RFA	**San Rafael**	**3.14**	**177**	*eP*		**Pn**		**17 46 06.5**	**+0.2**
RFA				IAML				17 46 43.4	
	comp=Z,610nm,0.3s								
LCO	**Las Campanas**	**3.15**	**325**	*eS*		**Sn**		**17 46 43.4**	**-0.4**
LCO	**Las Campanas**	**3.15**	**325**			**Pn**		**17 46 06.3**	**-0.4**
VA05	**Santo Domingo**	**3.21**	**230**			**Pn**		**17 46 05.7**	**-1.4**
VA05	**Santo Domingo**	**3.21**	**230**	P		**Pn**		**17 46 08.9**	**+1.8**
BO01	**Tunca**	**3.43**	**216**			**Pn**		**17 46 09.4**	**-0.6**
BO01	**Tunca**	**3.43**	**216**	P		**Pn**		**17 46 09.9**	**-0.1**
TCA	**Tanti**	**3.48**	**86**	*eP*		**Pn**		**17 46 11.3**	**+0.4**
TCA				*eS*		**Sn**		**17 46 51.0**	**-0.4**
TCA				IAML				17 47 08.3	
	comp=Z,646nm,0.7s								
BO02	**Sierra Bellavi**	**3.62**	**209**	*eP*		**Pn**		**17 46 13.4**	**+0.7**
BO02				*eS*		**Sn**		**17 46 57.5**	**+2.8**
BO02				*eS*		**Sn**		**17 46 57.5**	**+2.8**
BO02				*eS*		**Sn**		**17 46 57.5**	**+2.8**
BO02				IAML				17 47 00.5	
	comp=Z,270nm,0.2s								
BO02	**Sierra Bellavi**	**3.62**	**209**			**Pn**		**17 46 13.2**	**+0.5**
BO02	**Sierra Bellavi**	**3.62**	**209**	P		**Pn**		**17 46 13.5**	**+0.7**
TINO	**Tinogasta**	**3.68**	**15**	*eS*		**Sn**		**17 46 56.0**	**-0.1**
TINO				IAML				17 47 05.4	
	comp=Z,388nm,0.4s								
TINO				IAML				17 47 05.4	
	comp=Z,388nm,0.4s								
AC04	**Llanos de Chal**	**4.01**	**328**			**Pn**		**17 46 16.6**	**-1.2**
AC04	**Llanos de Chal**	**4.01**	**328**	P		**Pn**		**17 46 16.9**	**-0.9**
CYA	**Choya**	**4.03**	**39**	*eP*		**Pn**		**17 46 17.6**	**-0.6**
CYA				IAML				17 47 03.3	
	comp=Z,229nm,0.4s								
EDS3	**Malargue**	**4.18**	**188**	*eP*		**Pn**		**17 46 20.6**	**+0.5**
EDS3				*eS*		Sn		17 46 53.5	-15
GO03	**Copiapo**	**4.25**	**341**	*eP*		**Pn**		**17 46 20.9**	**-0.2**
GO03				*eS*		Sn		17 47 28.4	+19
GO03	**Copiapo**	**4.25**	**341**			**Pn**		**17 46 20.5**	**-0.6**
GO03	**Copiapo**	**4.25**	**341**	P		**Pn**		**17 46 20.6**	**-0.6**
GO05	**Hualane**	**4.34**	**218**			**Pn**		**17 46 19.9**	**-2.4**
GO05	**Hualane**	**4.34**	**218**	P		**Pn**		**17 46 24.8**	**+2.4**
AC06	**Mina Casimiro**	**4.51**	**340**			**Pn**		**17 46 23.7**	**-0.9**
ML02	**Panimavida**	**4.72**	**208**			**Pn**		**17 46 26.1**	**-1.3**
ML02	**Panimavida**	**4.72**	**208**	P		**Pn**		**17 46 26.4**	**-0.9**
AC02	**Maricunga**	**4.79**	**355**	*eS*		**Sn**		**17 47 24.3**	**+0.6**
AC02	**Maricunga**	**4.79**	**355**			**Pn**		**17 46 29.4**	**+0.6**
AC02	**Maricunga**	**4.79**	**355**	P		**Pn**		**17 46 29.5**	**+0.6**
BI02	**San Fabin de**	**5.47**	**203**			**Pn**		**17 46 36.3**	**-1.3**
BI02	**San Fabin de**	**5.47**	**203**	P		**Pn**		**17 46 36.7**	**-0.8**
AC01	**Pan de Azucar**	**5.72**	**342**			**Pn**		**17 46 39.5**	**-1.4**
AC01	**Pan de Azucar**	**5.72**	**342**	P		**Pn**		**17 46 39.8**	**-1.2**
	comp=Z,192nm,0.8s								
BI05	**Punta Hualpn**	**6.34**	**215**	Pn		Pn		17 46 45.2	-4.0
PB14	**IPOC Station P**	**7.14**	**347**			**Pn**		**17 46 57.8**	**-2.7**
SALTA		**7.66**	**16**	P		**Pn**		**17 47 07.1**	**-0.6**
	comp=Z,6.0nm,0.8s								
PB10	**IPOC Station P**	**8.26**	**348**	Pn		**Pn**		**17 47 12.6**	**-2.8**
GO06	**Curarrehue**	**8.26**	**195**			**Pn**		**17 47 13.2**	**-2.2**
AF01	**San Pedro de A**	**8.65**	**3**	Pn		**Pn**		**17 47 19.5**	**-1.5**
PB05	**IPOC Station P**	**8.85**	**351**			**Pn**		**17 47 20.0**	**-3.5**
PB05	**IPOC Station P**	**8.85**	**351**	P		**Pn**		**17 47 25.4**	**+1.9**
	comp=Z,60nm,0.6s								
PB06	**IPOC Station P**	**8.93**	**355**			**Pn**		**17 47 21.4**	**-3.2**
LR05	**Currie**	**9.00**	**197**	Pn		**Pn**		**17 47 22.7**	**-2.6**
LR04	**Corral**	**9.10**	**204**			Pn		17 47 21.0	-5.6
PLCA	**Paso Flores**	**9.21**	**189**	P		**Pn**		**17 47 27.6**	**-0.7**
	comp=Z,1.3nm,0.3s,baz=358,slow=12,SNR=8.8								
PLCA	**Paso Flores**	**9.21**	**189**	P		**Pn**		**17 47 27.7**	**-0.5**
PB03	**IPOC Station P**	**9.59**	**354**	Pn		**Pn**		**17 47 29.8**	**-3.8**
PB02	**IPOC Station P**	**10.33**	**354**			Pn		17 47 38.4	-5.2
TA01	**Diego Aracena**	**11.10**	**353**	Pn		Pn		17 47 48.8	-5.1
CPUP	**Villa Florida**	**11.23**	**65**	P		**Pn**		**17 47 54.0**	**-1.7**
	comp=Z,1.0nm,0.4s,baz=247,slow=12,SNR=4.3								
CPUP	**Villa Florida**	**11.23**	**65**			**Pn**		**17 47 53.6**	**-2.0**
PB08	**IPOC Station P**	**11.45**	**358**			Pn		17 47 52.9	-6.0
PB11	**IPOC Station P**	**11.85**	**355**	Pn		Pn		17 47 57.9	-6.2
GO01	**Chusmiza**	**11.92**	**358**			Pn		17 47 58.4	-6.8
PSGCX	**Pisagua**	**12.05**	**353**	Pn		Pn		17 47 59.8	-6.9
PB12	**IPOC Station P**	**13.05**	**353**			Pn		17 48 13.0	-6.7
PB16	**IPOC Station P**	**13.26**	**356**			Pn		17 48 15.8	-7.1
LPAZ	**La Paz**	**15.28**	**2**	P		**Pn**		**17 48 48.5**	**-0.4**
	comp=Z,10nm,0.6s,baz=188,slow=7.3,SNR=39								
LPAZ	**La Paz**	**15.28**	**2**			**Pn**		**17 48 46.3**	**-2.5**
LPAZ				IAmb		IAmb		17 48 51.0	
	comp=Z,11nm,0.7s								
LPAZ	**La Paz**	**15.28**	**2**	P		**Pn**		**17 48 48.4**	**-0.4**
	comp=Z,16nm,0.9s								
SIV	**San Ignacio**	**17.03**	**26**	P		**P**		**17 49 10.3**	**+0.4**
	comp=Z,4.7nm,0.6s,baz=197,slow=10,SNR=24								
GO08	**Villa O'Higgin**	**17.07**	**189**	P		**Pn**		**17 49 06.5**	**-3.6**
GO08				IAmb		IAmb		17 49 31.0	
	comp=Z,24nm,1.4s								
EFI	**East Falkland**	**21.49**	**162**	P		**P**		**17 49 56.7**	**-1.4**
EFI				IAmb		IAmb		17 50 18.1	
	comp=Z,53nm,1.2s								
CLDB	**Colider**	**23.84**	**33**	P		**P**		**17 50 21.4**	**-0.1**
	comp=Z,5.2nm,1.1s								
BOAV	**Boa Vista**	**34.71**	**14**	P		**P**		**17 51 56.9**	**-0.9**
BOAV				IAmb		IAmb		17 52 27.8	
	comp=Z,7.5nm,1.2s								
BELA	**Belgrano 2**	**48.74**	**171**	P		**P**		**17 53 52.5**	**+1.3**
BELA				IAmb		IAmb		17 53 59.9	
	comp=Z,2.5nm,0.6s								
MLPR	**Magueyes Islan**	**49.34**	**2**	P		**P**		**17 53 54.5**	**-2.0**
CELP	**Cerrillos**	**49.46**	**3**	P		**P**		**17 53 57.0**	**-0.4**
VNA3	**Neumayer Olymp**	**50.51**	**159**	⇓P		**P**		**17 54 05.9**	**+1.1**
	comp=Z,3.4nm,0.6s								
VNA3	**Neumayer Olymp**	**50.51**	**159**	P		**P**		**17 54 06.0**	**+1.1**
	comp=Z,6.1nm,0.6s								
VNA2	**Neumayer--Watz**	**51.12**	**158**	⇓P		**P**		**17 54 10.5**	**+1.2**
	comp=Z,4.5nm,0.5s,baz=281,slow=7.9								
VNA2	**Neumayer--Watz**	**51.12**	**158**	P		**P**		**17 54 10.9**	**+1.5**
	comp=Z,6.9nm,0.7s								
SNAA	**Sanae**	**52.73**	**159**	P		**P**		**17 54 22.3**	**+1.0**
	comp=Z,1.8nm,0.4s,baz=279,slow=5.2,SNR=4.8								
	comp=Z,1.8nm,0.4s								
SNAA	**Sanae**	**52.73**	**159**	P		**P**		**17 54 21.8**	**+0.5**
SNAA				IAmb		IAmb		17 54 23.4	
	comp=Z,6.3nm,1.1s								
SNAA	**Sanae**	**52.73**	**159**	P		**P**		**17 54 22.1**	**+0.7**
	comp=Z,6.3nm,1.1s								
TROLL	**Troll, Antarti**	**54.44**	**159**	⇓P		**P**		**17 54 35.1**	**+1.2**
	comp=Z,151nm,1.0s								
TEIG	**Tepich**	**54.89**	**337**	P		**P**		**17 54 36.7**	**-0.8**
QSPA	**South Pole Qui**	**58.60**	**180**	P		**P**		**17 55 04.5**	**+1.0**
	comp=Z,3.1nm,0.8s,baz=135,slow=4.7,SNR=20								
	comp=Z,3.1nm,0.8s								
QSPA	**South Pole Qui**	**58.60**	**180**	P		**P**		**17 55 04.2**	**+0.7**
QSPA				IAmb		IAmb		17 55 05.7	
	comp=Z,6.2nm,1.1s								
QSPA	**South Pole Qui**	**58.60**	**180**	P		**P**		**17 55 04.7**	**+1.2**
	comp=Z,6.8nm,1.0s								
SBA	**Scott Base**	**65.95**	**191**	P		**P**		**17 55 51.1**	**-1.0**
	comp=Z,21nm,1.3s								
VNDA	**Vanda**	**66.96**	**191**	P		**P**		**17 56 00.3**	**+1.7**
	comp=Z,1.3nm,0.8s,baz=127,slow=7.9,SNR=6.8								
	comp=Z,1.3nm,0.8s								
VNDA	**Vanda**	**66.96**	**191**	P		**P**		**17 55 58.5**	**-0.1**
SAND	**Sanderson**	**69.00**	**329**	P		**P**		**17 56 12.6**	**+0.6**
TXAR	**Lajitas Array**	**69.16**	**328**	P		**P**		**17 56 13.9**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=164,slow=8.1,SNR=6.3								
	comp=Z,0.6nm,0.6s								
TXAR	**Lajitas Array**	**69.16**	**328**	P		**P**		**17 56 12.7**	**-0.3**
WVT	**Waverly**	**69.76**	**344**	P		**P**		**17 56 16.1**	**-0.3**
	comp=Z,12nm,1.8s								
WMOK	**Wichita Mounta**	**71.84**	**334**	P		**P**		**17 56 28.6**	**-0.5**
SUR	**Sutherland**	**73.45**	**118**	P		**P**		**17 56 40.6**	**+1.5**
MAW	**Mawson**	**74.61**	**163**	P		**P**		**17 56 46.0**	**+1.1**
	comp=Z,3.9nm,0.8s,baz=204,slow=7.5,SNR=6.9								
	comp=Z,3.9nm,0.8s								
MAW	**Mawson**	**74.61**	**163**	P		**P**		**17 56 46.2**	**+1.2**
MAW	**Mawson**	**74.61**	**163**	P		**P**		**17 56 46.2**	**+1.2**
	comp=Z,1.1nm,1.2s								
ALKP	**Alkanpan, Nort**	**75.67**	**116**	P		**P**		**17 56 53.1**	**+1.1**
TSUM	**Tsumeb**	**77.09**	**105**	P		**P**		**17 57 01.8**	**+1.7**
TSUM				IAmb		IAmb		17 57 03.9	
	comp=Z,4.3nm,1.0s								
BOSA	**Boshof**	**78.61**	**117**	P		**P**		**17 57 09.5**	**+1.1**
	comp=Z,4.9nm,0.8s,baz=244,slow=5.5,SNR=5.9								
	comp=Z,4.9nm,0.8s								
BOSA	**Boshof**	**78.61**	**117**	P		**P**		**17 57 09.1**	**+0.7**
BOSA	**Boshof**	**78.61**	**117**	P		**P**		**17 57 09.5**	**+1.1**
	comp=Z,15nm,2.9s								
ECSD	**EROS Data Cent**	**79.24**	**340**	P		**P**		**17 57 11.0**	**-0.1**
LBTB	**Lobatse**	**80.68**	**114**	P		**P**		**17 57 20.1**	**+0.6**
LBTB				IAmb		IAmb		17 57 20.9	
	comp=Z,13nm,1.4s								
LBTB	**Lobatse**	**80.68**	**114**	P		**P**		**17 57 20.1**	**+0.6**
	comp=Z,9.3nm,2.2s								
TORD	**Torodi Ar. Bea**	**80.71**	**68**	P		**P**		**17 57 20.1**	**+0.4**
	comp=Z,2.9nm,0.7s,baz=256,slow=5.0,SNR=8.6								
KDWAN	**Kaudwane**	**80.76**	**112**	P		**P**		**17 57 21.0**	**+0.9**
KDWAN				IAmb		IAmb		17 57 42.6	
	comp=Z,20nm,1.5s								
PDAR	**Pinedale Array**	**83.01**	**331**	P		**P**		**17 57 31.7**	**+0.3**
	comp=Z,0.4nm,0.7s,baz=143,slow=5.2,SNR=3.6								
	comp=Z,0.4nm,0.7s								
PDAR	**Pinedale Array**	**83.01**	**331**	P		**P**		**17 57 31.0**	**-0.4**
LHV	**Little Huntoon**	**83.61**	**323**	P		**P**		**17 57 34.0**	**-0.2**
NVAR	**Mina Array Bea**	**83.64**	**323**	P		**P**		**17 57 35.3**	**+0.6**
	comp=Z,0.5nm,0.6s,baz=143,slow=5.2,SNR=3.7								
	comp=Z,0.5nm,0.6s								
YNE	**Yellowstone No**	**85.04**	**332**	P		**P**		**17 57 41.2**	**-0.5**
YNE				IAmb		IAmb		17 58 19.0	
	comp=Z,6.8nm,0.8s								
K05A	**Summer Lake**	**88.16**	**324**	P		**P**		**17 57 57.5**	**+0.7**
K05A				IAmb		IAmb		17 58 34.4	
	comp=Z,9.4nm,1.3s								
QRZ	**Quartz Range**	**88.40**	**222**	P		**P**		**17 57 58.0**	**-0.1**
ASAR	**Alice Springs**	**120.93**	**204**	PKP		**PKPdf**		**18 03 57.5**	**-0.8**
	comp=Z,0.6nm,0.4s,baz=134,slow=1.6,SNR=24								
ASAR	**Alice Springs**	**120.93**	**204**			**PKPdf**		**18 03 57.0**	**-1.3**
WRA	**Warramunga Arr**	**124.18**	**206**	PKP		**PKPdf**		**18 04 04.0**	**-0.6**
	comp=Z,2.2nm,0.7s,baz=164,slow=1.8,SNR=40								
WRA	**Warramunga Arr**	**124.18**	**206**			**PKPdf**		**18 04 03.5**	**-1.1**
KKAR	**Karatay Array**	**145.90**	**59**	PKPbc		**PKPdf**		**18 04 44.5**	**+0.5**
YAK	**Yakutsk**	**147.35**	**344**			**PKPbc**		**18 04 47.8**	**-0.6**
ARSB	**Arslanbob**	**147.90**	**62**			**PKPbc**		**18 04 51.1**	**+0.4**
TOLI2	**Tolitoli**	**148.36**	**198**	PKPbc		**PKPdf**		**18 04 51.4**	**+2.4**
KURBB	**Kurchatov Arra**	**149.20**	**42**	PKPbc		**PKPbc**		**18 04 54.0**	**+0.5**
	comp=Z,1.6nm,0.4s,baz=297,slow=3.1,SNR=15								
KURK	**Kurchatov**	**149.21**	**42**			**PKPbc**		**18 04 53.5**	**0.0**
KSH2	**Kashi**	**150.03**	**66**	PKPbc		**PKPbc**		**18 04 54.4**	**-1.8**
KSH2				pPKP		pPKPdf		18 05 19.3	-2.1
ZAA0	**Zalesovo Array**	**150.70**	**33**			**PKPbc**		**18 04 57.1**	**+0.1**
ZALV	**Zalesovo Beam**	**150.70**	**33**	PKPbc		**PKPbc**		**18 04 57.6**	**+0.6**
	comp=Z,6.5nm,0.4s,baz=312,slow=3.1,SNR=35								
ZALV	**Zalesovo Beam**	**150.70**	**33**			**PKPbc**		**18 04 57.3**	**+0.3**
MKAR	**Makanchi Array**	**153.07**	**47**	PKPbc		**PKPbc**		**18 05 03.0**	**+0.3**
	comp=Z,1.6nm,0.8s,baz=297,slow=2.4,SNR=9.0								
MKAR				PKPab		**PKPab**		**18 05 15.1**	**+0.5**
	comp=Z,2.1nm,0.7s,baz=284,slow=3.1,SNR=12								
MKAR	**Makanchi Array**	**153.07**	**47**			**PKPbc**		**18 05 02.6**	**-0.1**
MKAR						**PKPab**		**18 05 14.7**	**+0.1**

*UPP **24** 18:00:33.1±0.1,67°.04N×20°.96E,h0km,ML2.3,Suspected explosion*
*IDC **24** 18:00:34.0±1.5,67°.10N×20°.75E,h0km,mbtmp2.9/4, ML1.9/4,Error ellipse: s-maj=35.0km s-min=13.9km az=116.0*

ISC 24 18:00:33.2±0.9,67°.05N±0°.03×20°.97E±0°.03,h0km,n24, σ0§95/28,Sweden

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time	Res

MLv4.5/7, Mw(mB)4.2/25, Mw(mB)4.2/24
*GFZ **24** 18:27:01.4±0.2, 8˚S±3˚×11˚8E±˚, h579km, M4.2/25, mb4.4/25, confirmed*
ISC 24 18:27:01.8±0.3, **7˚54S**±0˚05×**118˚33E**±0˚05, **h600**km, **n187,**
σ1§**79**/198, **mb4.3**/39, **Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLAI	**Plampang**	**1.39**	**203**	P	**P**	**18 28 11.5**	**-2.5**
PLAI	**Plampang**	**1.39**	**203**	S	**S**	**18 29 07.2**	**-5.5**
PLAI	**Plampang**	**1.39**	**203**	P	**P**	**18 28 11.9**	**-2.1**
PLAI				AML	AML		
PLAI	**Plampang**	**1.39**	**203**	P	**P**	**18 28 12.1**	**-1.9**
LBFI	**Labuhan Bajo,**	**1.81**	**121**	P	**P**	**18 28 13.2**	**-2.2**
TWSI	**Taliwang, Sumb**	**1.86**	**230**	P	**P**	**18 28 13.6**	**-1.9**
TWSI				AML	AML		
BSSI	**Bau Bau, Buton**	**2.56**	**57**	P	**P**	**18 28 16.8**	**-1.9**
BSSI				AML	AML		
MKS	**Makassar**	**2.57**	**26**	P	**P**	**18 28 17.7**	**-1.0**
MKS				AML	AML		
KHKI	**Kahang-Kahang**	**2.81**	**253**	P	**P**	**18 28 18.6**	**-1.3**
KHKI				AML	AML		
BKSI	**Bulukumba**	**2.84**	**39**	P	**P**	**18 28 19.3**	**-0.8**
BKSI				AML	AML		
WSI	**Waingapu**	**2.88**	**137**	P	**P**	**18 28 18.6**	**-1.6**
KAPI	**Kappang**	**2.88**	**30**	P	**P**	**18 28 19.7**	**-0.7**
	212nm,0.6s,baz=219,slow=5.2,SNR=95						
KAPI				S	**S**	**18 29 22.3**	**-1.9**
	17nm,0.7s,baz=340,slow=22,SNR=1.1						
KAPI	**Kappang**	**2.88**	**30**	P	**P**	**18 28 19.1**	**-1.3**
KAPI	**Kappang**	**2.88**	**30**	S	**S**	**18 29 21.4**	**-2.8**
KAPI	**Kappang**	**2.88**	**30**		**P**	**18 28 19.6**	**-0.7**
KAPI				S	**S**	**18 29 20.8**	**-3.4**
KAPI	**Kappang**	**2.88**	**30**	P	**P**	**18 28 19.8**	**-0.7**
SRBI	**Singaraja**	**3.13**	**260**	P	**P**	**18 28 20.2**	**-1.5**
SRBI				AML	AML		
EDFI	**Ende, Flores**	**3.54**	**110**	P	**P**	**18 28 21.5**	**-2.8**
EDFI				AML	AML		
MMRI	**Maumere**	**4.02**	**106**	P	**P**	**18 28 24.6**	**-2.8**
MMRI	**Maumere**	**4.02**	**106**	S	**S**	**18 29 31.4**	**-5.8**
MMRI	**Maumere**	**4.02**	**106**		**P**	**18 28 24.9**	**-2.5**
MMRI				S	**S**	**18 29 30.2**	**-7.0**
MMRI	**Maumere**	**4.02**	**106**	P	**P**	**18 28 25.0**	**-2.5**
MMRI				AML	AML		
MMRI	**Maumere**	**4.02**	**106**	P	**P**	**18 28 25.2**	**-2.2**
PMSI	**Majene**	**4.06**	**8**	P	**P**	**18 28 27.1**	**-0.7**
JAGI	**Jajag, Banyuwa**	**4.24**	**257**	P	**P**	**18 28 25.9**	**-3.0**
JAGI	**Jajag, Banyuwa**	**4.24**	**257**		**P**	**18 28 26.0**	**-3.0**
JAGI				S	**S**	**18 29 31.2**	**-8.7**
JAGI	**Jajag, Banyuwa**	**4.24**	**257**	P	**P**	**18 28 26.0**	**-3.0**
JAGI				AML	AML		
JAGI	**Jajag, Banyuwa**	**4.24**	**257**	P	**P**	**18 28 26.2**	**-2.7**
BBSI	**Bau Bau**	**4.69**	**64**	P	**P**	**18 28 33.3**	**+1.0**
BLJI	**Banyuglugur**	**4.69**	**267**	P	**P**	**18 28 30.8**	**-1.5**
KKSI	**Kolaka, Sulawe**	**4.71**	**45**	P	**P**	**18 28 32.0**	**-0.5**
TTSI	**Tana Toraja**	**4.71**	**18**	P	**P**	**18 28 32.4**	**-0.1**
TTSI				AML	AML		
MMSI	**Mamuju**	**4.86**	**7**	P	**P**	**18 28 33.3**	**-0.3**
	85nm,0.8s,85nm,0.8s						
BBKI	**Banjar Baru**	**5.33**	**319**	P	**P**	**18 28 37.4**	**0.0**
	4µm4µm149nm,0.6s,149nm,0.6s						
KDI	**Kendari**	**5.56**	**50**	P	**P**	**18 28 39.3**	**0.0**
	0.7nm2µm2µm202nm,0.8s,202nm,0.8s						
KDI				AML	AML		
GRJI	**Gresik**	**5.83**	**276**	P	**P**	**18 28 41.8**	**+0.3**
	194nm,1.0s						
SOEI	**Soe**	**6.27**	**111**	P	**P**	**18 28 43.7**	**-1.7**
SOEI	**Soe**	**6.27**	**111**		**P**	**18 28 43.5**	**-2.0**
SOEI				S	**S**	**18 30 03.6**	**-6.6**
SOEI	**Soe**	**6.27**	**111**	P	**P**	**18 28 43.8**	**-1.7**
	3µm3µm121nm,0.5s,121nm,0.5s						
SOEI	**Soe**	**6.27**	**111**	P	**P**	**18 28 43.8**	**-1.7**
	comp=Z,117nm,0.5s						
BKB	**Balikpapan**	**6.40**	**347**	P	**P**	**18 28 47.5**	**+1.0**
	comp=Z,7.6nm,0.9s						
PWJI	**Pagerwojo**	**6.48**	**265**	P	**P**	**18 28 45.5**	**-1.6**
	comp=Z,0.6nmcomp=Z,165nm,0.9s,comp=Z,165nm,0.9s						
PWJI				AML	AML		
SJI	**Sawahan**	**6.50**	**268**	P	**P**	**18 28 46.6**	**-0.9**
SNJI	**Sawahan-Nganju**	**6.51**	**267**	P	**P**	**18 28 47.3**	**-0.3**
	comp=Z,2µmcomp=Z,2µmcomp=Z,185nm,0.5s,comp=Z,185nm,0.5s						
PCI	**Palu**	**6.76**	**13**	P	**P**	**18 28 50.9**	**+1.2**
	comp=Z,1µmcomp=Z,1µmcomp=Z,95nm,0.6s,comp=Z,95nm,0.6s						
PKKI	**Palangkaraya**	**6.82**	**320**	P	**P**	**18 28 49.8**	**-0.5**
PCJI	**Pacitan**	**7.11**	**264**	P	**P**	**18 28 51.4**	**-1.4**
WOJI	**Wonogiri, Jawa**	**7.34**	**267**	P	**P**	**18 28 53.7**	**-1.3**
	comp=Z,0.7nmcomp=Z,3µmcomp=Z,3µmcomp=Z,253nm,0.8s, comp=Z,253nm,0.8s						
WOJI				AML	AML		
APSI	**Ampana**	**7.37**	**27**	P	**P**	**18 28 56.7**	**+1.4**
	comp=Z,0.3nmcomp=Z,100nm,0.9s,comp=Z,100nm,0.9s						
APSI				AML	AML		
UGM	**Wanagama**	**7.74**	**267**		**P**	**18 28 57.4**	**-1.4**
UGM				S	**S**	**18 30 29.4**	**-5.1**
UGM	**Wanagama**	**7.74**	**267**	P	**P**	**18 28 57.5**	**-1.2**
	comp=Z,123nm,0.7s						
LUWI	**Luwuk**	**7.83**	**35**	P	**P**	**18 28 59.6**	**0.0**
LUWI	**Luwuk**	**7.83**	**35**		**P**	**18 28 59.4**	**-0.2**
LUWI				S	**S**	**18 30 34.2**	**-1.8**
LUWI	**Luwuk**	**7.83**	**35**	P	**P**	**18 28 59.5**	**0.0**
	comp=Z,0.6nmcomp=Z,2µmcomp=Z,2µmcomp=Z,200nm,0.8s, comp=Z,200nm,0.8s						
LUWI				AML	AML		
LUWI	**Luwuk**	**7.83**	**35**	P	**P**	**18 28 59.8**	**+0.2**
	comp=Z,203nm,0.8s						
SMRI	**Semarang**	**7.84**	**273**	P	**P**	**18 28 59.2**	**-0.4**
SMRI	**Semarang**	**7.84**	**273**	P	**P**	**18 28 57.8**	**-1.8**
SMRI	**Semarang**	**7.84**	**273**	P	**P**	**18 28 59.2**	**-0.4**
	comp=Z,0.8nmcomp=Z,233nm,0.6s,comp=Z,233nm,0.6s						
SMRI				AML	AML		
SMRI	**Semarang**	**7.84**	**273**	P	**P**	**18 28 58.7**	**-1.0**
	comp=Z,228nm,0.6s						
TOLI2	**Tolitoli**	**8.94**	**16**	P	**P**	**18 29 07.8**	**-2.5**
TOLI2				S	**S**	**18 30 53.0**	**-2.4**
SCJI	**Gunung Srandil**	**9.08**	**269**	P	**P**	**18 29 11.5**	**0.0**
	comp=Z,2µmcomp=Z,2µmcomp=Z,99nm,0.7s,comp=Z,99nm,0.7s						
KPJI	**Karang Pucung**	**9.32**	**271**	P	**P**	**18 29 13.3**	**-0.6**
	comp=Z,167nm,0.6s,comp=Z,167nm,0.6s						
GTOI	**Gorontalo**	**9.37**	**30**	P	**P**	**18 29 14.4**	**0.0**
	comp=Z,80nm,0.9s,comp=Z,80nm,0.9s						
SANI	**Sanana**	**9.38**	**55**	P	**P**	**18 29 13.3**	**-1.2**
SANI	**Sanana**	**9.38**	**55**	P	**P**	**18 29 13.3**	**-1.2**
	comp=Z,790nmcomp=Z,790nmcomp=Z,80nm,0.7s,comp=Z,80nm,0.7s						
SANI	**Sanana**	**9.38**	**55**	P	**P**	**18 29 13.8**	**-0.7**
	comp=Z,79nm,0.7s						
NLAI	**Namlea**	**9.72**	**64**	P	**P**	**18 29 18.1**	**+0.3**
	comp=Z,97nm,0.7s						
CMJI	**Cimerak**	**9.79**	**268**	P	**P**	**18 29 16.7**	**-1.9**
	comp=Z,152nm,0.8s						
KMSI	**Cibinong**	**9.84**	**35**	P	**P**	**18 29 23.1**	**+4.1**
	comp=Z,128nm,0.7s,comp=Z,128nm,0.7s						
STKI	**Sintang**	**10.19**	**318**	P	**P**	**18 29 23.1**	**+0.6**
	comp=Z,4µmcomp=Z,4µmcomp=Z,77nm,0.9s,comp=Z,77nm,0.9s						
BBJI	**Bungbulang**	**10.59**	**270**	P	**P**	**18 29 25.0**	**-1.5**
BBJI	**Bungbulang**	**10.59**	**270**		**P**	**18 29 24.4**	**-2.1**
BBJI	**Bungbulang**	**10.59**	**270**	P	**P**	**18 29 25.0**	**-1.5**
	comp=Z,740nmcomp=Z,740nmcomp=Z,68nm,0.7s,comp=Z,68nm,0.7s						
BBJI	**Bungbulang**	**10.59**	**270**	P	**P**	**18 29 25.1**	**-1.5**
	comp=Z,67nm,0.7s						
LBMI	**Labuha**	**11.43**	**54**	P	**P**	**18 29 32.9**	**-2.1**
	comp=Z,0.1nm,1.3s						
TNTI	**Ternate**	**12.23**	**48**	P	**P**	**18 29 41.5**	**-1.4**
CGJI	**Cibinong**	**12.57**	**273**	P	**P**	**18 29 44.3**	**-2.0**
	comp=Z,53nm,0.6s						
FITZ	**Fitzroy Crossi**	**12.68**	**147**	P	**P**	**18 29 46.8**	**-0.6**
	comp=Z,17nm,0.3s,baz=336,slow=5.7,SNR=246						
FITZ				S	**S**	**18 32 03.5**	**-0.1**
	comp=Z,6.4nm,0.8s,baz=324,slow=10.0,SNR=3.5						
FITZ	**Fitzroy Crossi**	**12.68**	**147**	P	**P**	**18 29 46.6**	**-0.8**
FITZ	**Fitzroy Crossi**	**12.68**	**147**	P	**P**	**18 29 46.9**	**-0.5**
	comp=Z,6.6nm,0.7s						
SAUI	**Saumlaki**	**12.86**	**93**		**P**	**18 29 47.3**	**-2.0**
SAUI	**Saumlaki**	**12.86**	**93**	P	**P**	**18 29 47.5**	**-1.9**
	comp=Z,94nm,0.7s						
KNRA	**Kununurra**	**13.03**	**129**	P	**P**	**18 29 49.7**	**-1.2**
DRS	**Darwin Rock St**	**13.30**	**112**	P	**P**	**18 29 53.1**	**-0.6**
MBWA	**Marble Bar**	**13.61**	**174**	P	**P**	**18 29 55.8**	**-0.9**
KKM	**Kota Kinabalu**	**13.66**	**351**	P	**P**	**18 29 55.8**	**-1.7**
MTN	**Manton Dam**	**13.66**	**114**		**P**	**18 29 56.1**	**-1.3**
PMBI	**Palembang**	**14.25**	**288**	P	**P**	**18 30 02.3**	**-0.9**
FAKI	**Fak Fak**	**14.60**	**72**	P	**P**	**18 30 03.7**	**-2.8**
GIRL	**Giralia**	**15.52**	**194**	P	**P**	**18 30 13.4**	**-1.3**
MNAI	**Manna**	**15.61**	**281**	P	**P**	**18 30 12.4**	**-3.2**
MEEK	**Meekatharra**	**18.99**	**179**	P	**P**	**18 30 47.5**	**+1.0**
	comp=Z,17nm,1.5s						
WRA	**Warramunga Arr**	**19.82**	**130**	P	**P**	**18 30 54.4**	**+0.3**
	comp=Z,20nm,0.4s,baz=309,slow=9.6,SNR=350						
WRA				S	**S**	**18 34 01.5**	**-0.3**
	comp=Z,0.8nm,0.5s,baz=296,slow=18,SNR=2.2						
WRA	**Warramunga Arr**	**19.82**	**130**	P	**P**	**18 30 54.0**	**0.0**
WRAB	**Tennant Creek**	**19.82**	**130**	P	**P**	**18 30 54.5**	**+0.5**
WRAB	**Tennant Creek**	**19.82**	**130**	P	**P**	**18 30 55.1**	**+1.0**
	comp=Z,46nm,0.8s						
WR8	**Warramunga Arr**	**19.95**	**130**		**P**	**18 30 55.7**	**+0.5**
MORW	**Morawa**	**21.52**	**185**	P	**P**	**18 31 09.3**	**+0.2**
MORW				IAmb	IAmb	18 31 18.8	
	comp=Z,16nm,1.1s						
KULM	**Kulim**	**21.76**	**305**	P	**P**	**18 31 10.6**	**-0.9**
AS31	**Alice Springs**	**21.92**	**139**	P	**P**	**18 31 13.2**	**+0.4**
ASAR	**Alice Springs**	**21.92**	**139**	P	**P**	**18 31 13.3**	**+0.5**
	comp=Z,15nm,0.3s,baz=317,slow=8.1,SNR=937						
ASAR				S	**S**	**18 34 33.7**	**-1.2**
	comp=Z,2.9nm,0.8s,baz=302,slow=15,SNR=7.1						
ASAR				ScP	**ScP**	**18 37 29.6**	**+0.9**
	comp=Z,1.0nm,0.5s,baz=320,slow=1.9,SNR=6.0						
	comp=Z,15nm,0.3s						
AUALC	**St Philip's Co**	**21.92**	**139**	P	**P**	**18 31 13.6**	**+0.7**
AS01	**Alice Springs**	**21.95**	**139**	P	**P**	**18 31 13.7**	**+0.6**
QIS	**Mount Isa**	**24.32**	**124**	P	**P**	**18 31 34.9**	**+0.8**
QIS	**Mount Isa**	**24.32**	**124**	P	**P**	**18 31 34.9**	**+0.8**
	comp=Z,16nm,0.8s						
FORT	**Forrest**	**24.85**	**160**	P	**P**	**18 31 39.5**	**+0.9**
NWAO	**Narrogin (SRO)**	**25.28**	**182**	P	**P**	**18 31 43.1**	**+0.7**
	comp=Z,9.0nm,1.0s,baz=16,slow=7.4,SNR=1.4						
	comp=Z,9.0nm,1.0s						
NWAO	**Narrogin (SRO)**	**25.28**	**182**	P	**P**	**18 31 42.9**	**+0.5**
NWAO				IAmb	IAmb	18 31 48.2	
	comp=Z,39nm,1.4s						
MTSU	**Mount Surprise**	**27.40**	**115**	P	**P**	**18 32 02.2**	**+0.9**
MTSU	**Mount Surprise**	**27.40**	**115**	P	**P**	**18 32 02.5**	**+1.2**
	comp=Z,26nm,0.6s						
PMG	**Port Moresby**	**28.57**	**96**	P	**P**	**18 32 11.5**	**0.0**
	comp=Z,5.9nm,0.6s,baz=270,slow=9.1,SNR=2.6						
	comp=Z,5.9nm,0.6s						
PMG	**Port Moresby**	**28.57**	**96**	IAmb	IAmb	18 32 27.2	
	comp=Z,13nm,1.1s						
INKA	**Innaminka**	**29.22**	**136**	P	**P**	**18 32 18.0**	**+1.2**
CTA	**Charters Tower**	**29.79**	**118**	P	**P**	**18 32 22.4**	**+0.5**
	comp=Z,9.7nm,0.8s,baz=289,slow=8.6,SNR=16						
	comp=Z,9.7nm,0.8s						
CTA	**Charters Tower**	**29.79**	**118**	P	**P**	**18 32 23.3**	**+1.4**
CTAO	**Charters Tower**	**29.79**	**118**	P	**P**	**18 32 23.4**	**+1.5**
CTAO	**Charters Tower**	**29.79**	**118**	P	**P**	**18 32 23.0**	**+1.1**
CTAO				IAmb	IAmb	18 32 24.0	
	comp=Z,12nm,0.9s						
CTAO	**Charters Tower**	**29.79**	**118**	P	**P**	**18 32 23.1**	**+1.3**
	comp=Z,16nm,0.9s						
BBOO	**Buckleboo**	**30.05**	**149**	P	**P**	**18 32 24.3**	**+0.4**
BBOO	**Buckleboo**	**30.05**	**149**		**P**	**18 32 24.4**	**+0.5**
BBOO	**Buckleboo**	**30.05**	**149**	P	**P**	**18 32 24.7**	**+0.8**
	comp=Z,31nm,1.1s						
QLP	**Quilpie**	**31.06**	**131**	P	**P**	**18 32 34.2**	**+1.6**
QLP	**Quilpie**	**31.06**	**131**	P	**P**	**18 32 34.3**	**+1.7**
	comp=Z,34nm,1.0s						
HTT	**Hallett**	**32.05**	**146**	P	**P**	**18 32 42.3**	**+1.3**
CMAR	**Chiang Mai Arr**	**32.14**	**324**	P	**P**	**18 32 42.5**	**+0.6**
	comp=Z,0.6nm,0.6s,baz=147,slow=7.4,SNR=5.4						
CMAR				ScP	**ScP**	**18 38 02.4**	**+2.5**
	comp=Z,0.8nm,0.8s,baz=169,slow=3.7,SNR=4.0						
	comp=Z,0.6nm,0.6s						
STKA	**Stephens Creek**	**32.50**	**141**	P	**P**	**18 32 45.6**	**+0.9**
	comp=Z,18nm,0.4s,baz=326,slow=7.6,SNR=68						
STKA				S	**S**	**18 37 19.7**	**+0.9**
	comp=Z,2.0nm,0.8s,baz=322,slow=11,SNR=3.4						
	comp=Z,18nm,0.4s						
STKA	**Stephens Creek**	**32.50**	**141**	P	**P**	**18 32 45.7**	**+0.9**
STKA	**Stephens Creek**	**32.50**	**141**		**P**	**18 32 45.9**	**+1.1**
STKA	**Stephens Creek**	**32.50**	**141**	P	**P**	**18 32 46.1**	**+1.3**
	comp=Z,118nm,0.7s						
CMSA	**Cobar Meteorol**	**34.95**	**137**	P	**P**	**18 33 06.6**	**+1.4**
CMSA	**Cobar Meteorol**	**34.95**	**137**	P	**P**	**18 33 06.9**	**+1.7**
	comp=Z,8.7nm,1.0s						
EIDS	**Eidsvold**	**35.92**	**123**	P	**P**	**18 33 14.4**	**+1.1**
EIDS				IAmb	IAmb	18 33 54.5	
	comp=Z,14nm,1.4s						
WHN	**Wuhan**	**38.06**	**354**	P	**P**	**18 33 27.6**	**-3.0**
ARMA	**Armidale**	**38.60**	**131**	P	**P**	**18 33 37.3**	**+2.0**
ARMA				IAmb	IAmb	18 33 43.9	
	comp=Z,8.8nm,0.9s						
TOO	**Toolangi**	**38.73**	**145**	P	**P**	**18 33 37.4**	**+1.3**
TOO				IAmb	IAmb	18 34 12.3	
	comp=Z,8.4nm,1.4s						
MORE	**Moreh**	**39.33**	**324**	P	**P**	**18 33 40.9**	**-0.2**
MORE				IAmb	IAmb	18 33 41.4	
	comp=Z,5.2nm,1.2s						
CAN	**Canberra**	**39.43**	**139**	P	**P**	**18 33 43.4**	**+1.6**
CAN				IAmb	IAmb	18 33 45.6	
	comp=Z,20nm,1.4s						
HNR	**Honiara**	**41.19**	**96**	P	**P**	**18 33 56.2**	**+0.2**
SANVU	**Saraoutou**	**48.45**	**104**	P	**P**	**18 34 51.3**	**0.0**
SANVU				IAmb	IAmb	18 35 11.2	
	comp=Z,12nm,0.9s						
HHC	**Hu-ho-hao-te**	**48.55**	**353**	*eP*	**P**	**18 34 54.5**	**+2.7**
HHC				pmax	pmax		
	comp=Z,11nm,0.7s						
HHC				pmax	pmax		
	comp=Z,170nm,5.6s						
SONM	**Songino Array**	**56.14**	**350**	P	**P**	**18 35 46.6**	**+0.9**
	comp=Z,0.3nm,0.4s,baz=167,slow=6.8,SNR=2.3						
	comp=Z,0.3nm,0.4s						
RPZ	**Rata Peaks**	**58.32**	**137**	P	**P**	**18 36 01.4**	**+0.8**
RPZ				IAmb	IAmb	18 36 41.7	
	comp=Z,36nm,1.4s						
TUWZ	**Tuamarina**	**59.54**	**134**	P	**P**	**18 36 10.3**	**+1.5**
KHZ	**Kahutara**	**59.57**	**135**	P	**P**	**18 36 10.4**	**+1.4**
KHZ				IAmb	IAmb	18 36 28.0	
	comp=Z,44nm,1.4s						
TCW	**Tory Channel**	**59.71**	**134**	P	**P**	**18 36 10.7**	**+0.8**
FUNA	**Funafuti**	**60.23**	**96**	P	**P**	**18 36 14.4**	**+0.6**
MRZ	**Mangatainoka R**	**60.49**	**133**	P	**P**	**18 36 15.3**	**+0.3**
KSH2	**Kashi**	**61.05**	**323**	P	**P**	**18 36 19.1**	**+0.2**
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
PDGK	**Podgornoye**	**61.68**	**329**	P	**P**	**18 36 23.5**	**+0.6**
KBL	**Kabul**	**62.59**	**315**	P	**P**	**18 36 29.6**	**+0.5**
KBL				IAmb	IAmb	18 36 29.9	
	comp=Z,5.4nm,0.5s						
KBL	**Kabul**	**62.59**	**315**	P	**P**	**18 36 29.6**	**+0.5**
	comp=Z,6.3nm,0.6s						
MKAR	**Makanchi Array**	**62.86**	**333**	P	**P**	**18 36 30.9**	**+0.6**
	comp=Z,1.9nm,0.4s,baz=150,slow=6.4,SNR=35						
	comp=Z,1.9nm,0.4s						
MKAR	**Makanchi Array**	**62.86**	**333**	P	**P**	**18 36 30.7**	**+0.4**
MKAR				PcP	**PcP**	**18 37 02.4**	**+0.6**
MAKZ	**Makanchi**	**63.02**	**333**	P	**P**	**18 36 31.5**	**+0.2**
MAKZ	**Makanchi**	**63.02**	**333**	P	**P**	**18 36 32.0**	**+0.7**
	comp=Z,1.2nm,0.6s						
AAK	**Ala-Archa**	**63.91**	**325**	P	**P**	**18 36 38.1**	**+0.8**
	comp=Z,6.0nm,0.8s						
ARSB	**Arslanbob**	**63.95**	**323**	P	**P**	**18 36 38.0**	**+0.5**
ARSB				IAmb	IAmb	18 37 21.8	
	comp=Z,6.5nm,0.5s						
ZAA0	**Zalesovo Array**	**67.45**	**339**	P	**P**	**18 36 58.4**	**-0.4**
ZALV	**Zalesovo Beam**	**67.45**	**339**	P	**P**	**18 36 58.4**	**-0.4**
	comp=Z,1.9nm,0.4s,baz=146,slow=5.3,SNR=11						
	comp=Z,1.9nm,0.4s						
ABPO	**Ambohimpanom**	**69.75**	**253**	P	**P**	**18 37 14.1**	**+0.5**
ABPO				IAmb	IAmb	18 37 50.3	
	comp=Z,11nm,1.4s						
ABPO	**Ambohimpanom**	**69.75**	**253**	P	**P**	**18 37 14.5**	**+0.9**
	comp=Z,7.9nm,2.4s						
VOI	**Vohitsoka**	**70.12**	**249**	P	**P**	**18 37 16.7**	**+1.0**
VOI				IAmb	IAmb	18 37 17.2	
	comp=Z,7.5nm,0.7s						
VOI	**Vohitsoka**	**70.12**	**249**	P	**P**	**18 37 16.8**	**+1.1**
	comp=Z,10.0nm,1.0s						
MAW	**Mawson**	**70.38**	**200**	P	**P**	**18 37 17.3**	**+1.2**
	comp=Z,1.6nm,0.5s,baz=66,slow=10,SNR=4.8						
	comp=Z,1.6nm,0.5s						
MAW	**Mawson**	**70.38**	**200**	P	**P**	**18 37 17.3**	**+1.2**
MAW	**Mawson**	**70.38**	**200**	P	**P**	**18 37 17.8**	**+1.8**
	comp=Z,0.6nm,1.2s						
BVAR	**Borovoye Array**	**72.70**	**332**	P	**P**	**18 37 30.2**	**+0.4**
	comp=Z,0.4nm,0.4s,baz=141,slow=9.3,SNR=3.9						
	comp=Z,0.4nm,0.4s						
VNDA	**Vanda**	**73.52**	**171**	P	**P**	**18 37 35.5**	**+1.4**
	comp=Z,0.5nm,0.5s,baz=326,slow=6.9,SNR=7.3						
	comp=Z,0.5nm,0.5s						
VNDA	**Vanda**	**73.52**	**171**	P	**P**	**18 37 35.3**	**+1.2**
VNDA	**Vanda**	**73.52**	**171**	P	**P**	**18 37 35.7**	**+1.6**
AB31	**Akbulak array**	**75.99**	**325**	P	**P**	**18 37 48.3**	**0.0**
ABKAR	**Akbulak array**	**75.99**	**325**	P	**P**	**18 37 48.5**	**+0.1**
RAYN	**Ar Rayn**	**77.47**	**296**	P	**P**	**18 37 57.2**	**+0.2**
RAYN	**Ar Rayn**	**77.47**	**296**	P	**P**	**18 37 57.6**	**+0.6**
	comp=Z,4.7nm,0.8s						
QSPA	**South Pole Qui**	**82.44**	**180**	P	**P**	**18 38 23.2**	**+1.0**
	comp=Z,1.1nm,0.5s,baz=305,slow=0.7,SNR=13						
	comp=Z,1.1nm,0.5s						
QSPA	**South Pole Qui**	**82.44**	**180**	P	**P**	**18 38 22.8**	**+0.6**
QSPA				IAmb	IAmb	18 38 30.1	
	comp=Z,4.2nm,1.4s						
POGA	**Pongola**	**83.59**	**243**	P	**P**	**18 38 29.4**	**+0.8**
POGA	**Pongola**	**83.59**	**243**	P	**P**	**18 38 30.2**	**+1.6**
	comp=Z,69nm,1.1s						
KBZ	**Khabaz**	**84.78**	**315**	P	**P**	**18 38 34.6**	**+0.7**
	comp=Z,1.4nm,0.8s,baz=8.4,slow=6.2,SNR=3.5						
	comp=Z,1.4nm,0.8s						
LSZ	**Lusaka**	**88.17**	**255**	P	**P**	**18 38 51.4**	**+0.6**
LSZ				IAmb	IAmb	18 38 52.5	
	comp=Z,3.2nm,0.8s						
BOSA	**Boshof**	**89.11**	**241**	P	**P**	**18 38 55.8**	**+0.8**
TORD	**Torodi Ar. Bea**	**117.54**	**281**	PKP	**PKiKP**	**18 44 41.8**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=82,slow=1.9,SNR=3.2						
CRNM	**Carthage**	**130.89**	**51**		PKPpre	18 44 57.5	
TPB01	**Permian Basin**	**134.32**	**54**		PKPpre	18 45 03.0	
P53A	**Whipple**	**143.60**	**26**	PKPdf	PKPbc	18 45 29.0	+0.4
M57A	**Sunshine Farm,**	**143.65**	**20**	PKPbc	**PKPdf**	**18 45 29.9**	**+0.2**
CPUP	**Villa Florida**	**146.07**	**187**	PKPbc	**PKPbc**	**18 45 37.2**	**+0.9**
	comp=Z,2.0nm,0.7s,baz=135,slow=4.7,SNR=4.6						

*DJA **24** 18:36:27.1±1.3, 3˚N±11˚×12˚9E±˚, h10km, M4.3/11, mB5.0/2, mB5.0/2, mb4.4/10, mb4.4/10, MLv4.3/12, MLv4.3/11, Mw(mB)4.3/2, Mw(mB)4.3/2*
*IDC **24** 18:36:29.8±0.8, 2˚86N×128˚26E, h0km, mb3.8/10, mbtmp3.8/10, Error ellipse: s-maj=60.8km s-min=14.3km az=76.0*
*MAN **24** 18:36:29.0, 2˚32N×128˚29E, h234km, MS3.9*
*NEIC **24** 18:36:35.7±1.9, 2˚92N±0˚09×128˚46E±0˚09, h41km±7km, mb4.4/22, Error ellipse: s-maj=14.0km s-min=11.7km az=52.0*
ISC 24 18:36:34.4±0.5, **2˚92N**±0˚06×**128˚6E**±0˚1, **h35**km, **n58,**
σ1§**39**/51, **mb4.2**/17, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**2.48**	**211**		**Pn**	**18 37 11.7**	**-0.7**
TNTI	**Ternate**	**2.48**	**211**	P	**Pn**	**18 37 13.4**	**+1.0**
TNTI				AML	AML		
TNTI				AML	AML		
MNI	**Manado**	**4.07**	**249**	P	**Pn**	**18 37 36.6**	**+2.4**
MNI				AML	AML		
MNI				AML	AML		
KMSI	**Cibinong**	**5.20**	**243**	P	**Pn**	**18 37 52.6**	**+2.8**
KCP	**Kidapawan**	**5.38**	**319**	*i* P	**Pn**	**18 37 55.0**	**+2.7**
SANI	**Sanana**	**5.60**	**208**	P	**Pn**	**18 37 57.4**	**+2.1**
	9.3nm,0.5s,9.3nm,0.5s						
GTOI	**Gorontalo**	**6.06**	**248**	P	**Pn**	**18 38 04.2**	**+2.6**
	0.1nm28nm,0.6s,28nm,0.6s						
GTOI				AML	AML		
NLAI	**Namlea**	**6.31**	**194**	P	**Pn**	**18 38 05.5**	**+0.5**
	0.1nm0.1nm26nm,0.9s,26nm,0.9s						
NLAI				AML	AML		
NLAI				AML

TAN 24 18:39:37.6,17.90S×47.12E,h35km,ML2.4, Fault plane solution: NP1:ϕ204.90000°,δ32.30000°,,Madagascar

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FIRM	**Firavahana**	**0.82**	**196**	Pg	Pn	18 39 53.2	+0.2
FIRM				Sg	Sb	18 40 05.6	+0.9
FIRM	**Firavahana**	**0.82**	**196**	Pg	Pn	18 39 53.2	+0.3
FIRM				Sg	Sb	18 40 05.7	+1.0
ABPO	**Ambohimpanom**	**1.11**	**175**	Pg	Pb	18 39 59.9	+1.3
ABPO				Sg	Sb	18 40 13.7	+0.9
ABPO	**Ambohimpanom**	**1.11**	**175**	Pg	Pn	18 39 55.8	-1.1
ABPO				Sg	Sb	18 40 13.9	+1.1
AVY	**Angavokely**	**1.18**	**150**	Pg	Pb	18 39 58.9	-0.7
AVY				Sg	Sb	18 40 15.8	+1.1
ATG	**Ambohiby**	**1.31**	**222**	Pg	Pb	18 40 01.8	-0.1
ATG				Sg	Sb	18 40 19.9	+1.4
ATG	**Ambohiby**	**1.31**	**222**	Pg	Pb	18 40 01.7	-0.2
ATG				Sg	Sb	18 40 19.9	+1.4
DGRM	**Ambatolahisoa**	**1.50**	**206**	Pg	Pb	18 40 04.6	-0.4
DGRM				Sg	Sb	18 40 25.3	+1.5
DGRM	**Ambatolahisoa**	**1.50**	**206**	Pg	Pb	18 40 04.6	-0.4
DGRM				Sg	Sb	18 40 25.4	+1.6
ABM	**Ambohimiarambe**	**1.88**	**173**	Pg	Pb	18 40 10.5	-1.1
ABM				Sg	Sb	18 40 36.8	+2.0

*CATAC **24** 18:40:12.9±0.3,13˚N±1˚×88˚3W±1˚0,h29km±2km,M5.3/54, MLv5.3/54,Error ellipse: s-maj=3.6km s-min=1.2km az=31.2,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; Mrr2.13; Mθθ-1.08; Mϕϕ-1.04; Mrθ6.38; Mθϕ3.42; Mϕr-6.35; Fault plane solution: Mo9.80386×10^{15} NP1: ϕs134.87010°,δ79.91928°,λ90.02558°. NP2: ϕs314.72393°,δ10.08075°,λ89.85609°. Principal axes: T 8.4140, Plg55.0807°, Azm44.9017°; N 2.3601, Plg0.0252°, Azm314.8656°; P -10.7641, Plg34.9193°, Azm224.8480°; confirmed*

*SNET **24** 18:40:13.0±1.0, 12˚63N×88˚29W, h40km±7km, ML5.0, Presumed earthquake*

*IDC **24** 18:40:13.8±1.2, 12˚89N×88˚00W, h49km±9km, mb4.2/17, mbtmp4.4/20, ML4.0/3, MS3.8/42, Error ellipse: s-maj=20.2km s-min=8.8km az=50.0*

*NEIC **24** 18:40:14.7±2.0, 12˚65N±0˚06×88˚24W±0˚06, h57km±5km, mb4.8/328, Error ellipse: s-maj=10.2km s-min=6.0km az=221.0*

*GFZ **24** 18:40:18.2±0.2, 13˚N±3˚×8˚8W±˚, h84km, M4.8/23, mb4.8/23, confirmed*

*UCR **24** 18:40:33.6±1.4, 11˚83N×86˚79W, h0km±816km, MW4.0, Presumed earthquake*

*UPA **24** 18:40:46.2±0.8, 11˚34N×86˚29W, h10km, MW4.1, Presumed earthquake*

ISC 24 18:40:13.7±0.6,12.62N±0˚03×88.30W±0˚03,h52km±4km, n468,σ1s21/408,mb4.8/163,MS4.0/41,3C-9D,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
INTP	**Intipuca**	**0.62**	**23**	*eP*	**Pn**	**18 40 26.5**	**-0.1**
INTP				*eS*	**Sn**	**18 40 36.5**	**+0.6**
JUCU	**Jucuarįn**	**0.63**	**5**	*eP*	**Pn**	**18 40 26.5**	**-0.3**
JUCU				*eS*	**Sn**	**18 40 36.0**	**-0.2**
ALJI	**Alcalda de J**	**0.75**	**339**	P	**Pn**	**18 40 28.0**	**-0.2**
ALJI				S	**Sn**	**18 40 38.5**	**-0.2**
ALJI	**Alcalda de J**	**0.75**	**339**	*eP*	**Pn**	**18 40 27.6**	**-0.6**
ALJI				*eS*	**Sn**	**18 40 39.3**	**+0.6**
LCND	**La Caada**	**0.79**	**30**	P	**Pn**	**18 40 28.9**	**+0.1**
LCND				S	**Sn**	**18 40 40.1**	**+0.4**
LCND	**La Caada**	**0.79**	**30**	*eP*	**Pn**	**18 40 28.9**	**+0.1**
CNCH	**Conchagua**	**0.79**	**35**	P	**Pn**	**18 40 29.2**	**+0.3**
CNCH				S	**Sn**	**18 40 39.9**	**0.0**
CNCH	**Conchagua**	**0.79**	**35**	*eP*	**Pn**	**18 40 29.0**	**+0.1**
CSGN	**Cosiguina Volc**	**0.80**	**64**	P	**Pn**	**18 40 28.6**	**-0.4**
CSGN				S	**Sn**	**18 40 40.8**	**+0.7**
TECA	**Tecapa**	**0.89**	**347**	*iP*	**Pn**	**18 40 30.1**	**-0.2**
TECO	**Alcaldia de Te**	**1.02**	**333**	P	**Pn**	**18 40 31.1**	**-0.7**
TECO				S	**Sn**	**18 40 44.7**	**-0.5**
TECO	**Alcaldia de Te**	**1.02**	**333**	*eP*	**Pn**	**18 40 31.1**	**-0.7**
COEG	**Centro de Oper**	**1.14**	**330**	P	**Pn**	**18 40 33.2**	**-0.3**
COEG				S	**Sn**	**18 40 48.8**	**+0.7**
COEG	**Centro de Oper**	**1.14**	**330**	*eP*	**Pn**	**18 40 33.0**	**-0.5**
SJTE	**Alcalda de S**	**1.20**	**325**	*eP*	**Pn**	**18 40 33.6**	**-0.8**
CRIN	**San Cristobal**	**1.22**	**86**	P	**Pn**	**18 40 34.9**	**+0.4**
CRIN	**San Cristobal**	**1.22**	**86**			**18 40 35.0**	**+0.4**
CRIN					**Sn**	**18 40 50.9**	**+0.8**
CRIN	**San Cristobal**	**1.22**	**86**	P	**Pn**	**18 40 34.9**	**+0.4**
CRIN				S	**Sn**	**18 40 51.4**	**+1.3**
CRIN	**San Cristobal**	**1.22**	**86**	P	**Pn**	**18 40 35.0**	**+0.4**
PAVA	**Las Pavas**	**1.25**	**330**	P	**Pn**	**18 40 35.0**	**-0.1**
PAVA				S	**Sn**	**18 40 51.5**	**+0.7**
PAVA	**Las Pavas**	**1.25**	**330**	*eP*	**Pn**	**18 40 34.9**	**-0.1**
PKGN	**Cerro Pekin**	**1.29**	**88**	P	**Pn**	**18 40 36.5**	**+1.0**
PKGN				S	**Sn**	**18 40 53.2**	**+1.6**
LOMA	**Loma Larga**	**1.32**	**320**	P	**Pn**	**18 40 35.3**	**-0.7**
LOMA				S	**Sn**	**18 40 53.2**	**+0.5**
LOMA	**Loma Larga**	**1.32**	**320**	*eP*	**Pn**	**18 40 35.2**	**-0.7**
LFU	**La Fuente**	**1.37**	**325**	*iP*	**Pn**	**18 40 36.6**	**0.0**
IGN	**Direccin Gen**	**1.38**	**322**	P	**Pn**	**18 40 36.8**	**+0.1**
IGN				S	**Sn**	**18 40 53.9**	**+0.1**
IGN	**Direccin Gen**	**1.38**	**322**	*eP*	**Pn**	**18 40 36.4**	**-0.3**
UTEC	**Universidad Te**	**1.39**	**321**	P	**Pn**	**18 40 36.6**	**-0.2**
UTEC				S	**Sn**	**18 40 54.2**	**+0.1**
SEMO	**Seminario San**	**1.40**	**320**	P	**Pn**	**18 40 36.8**	**-0.2**
SEMO				S	**Sn**	**18 40 54.2**	**-0.2**
UEES	**Universidad Ev**	**1.42**	**320**	P	**Pn**	**18 40 37.1**	**-0.2**
UEES				S	**Sn**	**18 40 55.7**	**+0.7**
UEES	**Universidad Ev**	**1.42**	**320**	*eP*	**Pn**	**18 40 37.0**	**-0.3**
MAGS	**Ministerio de**	**1.43**	**318**	*eP*	**Pn**	**18 40 36.9**	**-0.5**
PIC2	**El Picacho**	**1.45**	**320**	*eP*	**Pn**	**18 40 37.9**	**0.0**
BOQS	**Boqueron**	**1.46**	**319**	*eP*	**Pn**	**18 40 37.4**	**-0.6**
PMON	**Piamonte**	**1.47**	**318**	P	**Pn**	**18 40 37.2**	**-0.7**
PMON				S	**Sn**	**18 40 56.4**	**+0.3**
PMON	**Piamonte**	**1.47**	**318**	*eP*	**Pn**	**18 40 37.2**	**-0.7**
PLRN	**Geotermica Pol**	**1.50**	**91**	P	**Pn**	**18 40 37.9**	**-0.4**
PLRN				S	**Sn**	**18 40 56.7**	**+0.1**
JAYA	**Jayaque - finc**	**1.52**	**313**	P	**Pn**	**18 40 37.7**	**-1.0**
JAYA				S	**Sn**	**18 40 56.3**	**-1.1**
JAYA	**Jayaque - finc**	**1.52**	**313**	*eP*	**Pn**	**18 40 37.6**	**-1.0**
QUEZ	**Alcaldia de Qu**	**1.53**	**322**	*eP*	**Pn**	**18 40 39.0**	**+0.2**
CNGN	**Cerro Negro**	**1.57**	**94**	P	**Pn**	**18 40 38.5**	**-0.8**
CNGN				S	**Sn**	**18 40 59.0**	**+0.5**
CNGN	**Cerro Negro**	**1.57**	**94**	P	**Pn**	**18 40 39.1**	**-0.2**
CNGN				S	**Sn**	**18 40 59.0**	**+0.5**
CNGN	**Cerro Negro**	**1.57**	**94**	P	**Pn**	**18 40 38.8**	**-0.5**
CEDA	**San Andres**	**1.58**	**318**	P	**Pn**	**18 40 39.7**	**+0.2**
CEDA				S	**Sn**	**18 40 59.5**	**+0.6**
CEDA	**San Andres**	**1.58**	**318**	*eP*	**Pn**	**18 40 39.1**	**-0.4**
MOMN	**Momotombo**	**1.73**	**97**	P	**Pn**	**18 40 41.1**	**-0.4**
MOMN				S	**Sn**	**18 41 02.7**	**+0.2**
TGUH	**Tegucigalpa,Un**	**1.74**	**35**	P	**Pn**	**18 40 42.7**	**+1.0**
TGUH				S	**Sn**	**18 41 04.8**	**+1.9**
TGUH	**Tegucigalpa,Un**	**1.74**	**35**		**Pn**	**18 40 42.3**	**+0.6**
TGUH				Sn	**Sn**	**18 41 01.6**	**-1.2**
TGUH	**Tegucigalpa,Un**	**1.74**	**35**	P	**Pn**	**18 40 42.9**	**+1.2**
TGUH				S	**Sn**	**18 41 04.7**	**+1.9**
TGUH	**Tegucigalpa,Un**	**1.74**	**35**	P	**Pn**	**18 40 43.0**	**+1.2**
MOM3	**MOM3**	**1.74**	**93**	P	**Pn**	**18 40 41.5**	**-0.1**
MOM3				S	**Sn**	**18 41 03.9**	**+1.2**
CEVE	**Cerro Verde**	**1.76**	**313**	P	**Pn**	**18 40 41.6**	**-0.5**
CEVE				S	**Sn**	**18 41 05.2**	**+1.7**
CEVE	**Cerro Verde**	**1.76**	**313**	*eP*	**Pn**	**18 40 41.3**	**-0.7**
SBLS	**San Blas**	**1.77**	**313**	*eP*	**Pn**	**18 40 41.6**	**-0.5**
SNJE	**San Jose**	**1.77**	**314**	*eP*	**Pn**	**18 40 42.0**	**-0.3**
UNIC	**Universidad Ca**	**1.82**	**318**	P	**Pn**	**18 40 42.8**	**+0.2**
UNIC				S	**Sn**	**18 41 05.2**	**+0.6**
AMTN	**Mateare**	**1.87**	**102**	P	**Pn**	**18 40 43.1**	**-0.1**
AMTN				S	**Sn**	**18 41 05.9**	**+0.2**
NUBE	**Las Nubes**	**1.92**	**312**	P	**Pn**	**18 40 44.1**	**-0.1**
NUBE				S	**Sn**	**18 41 06.4**	**-0.9**
NUBE	**Las Nubes**	**1.92**	**312**	*eP*	**Pn**	**18 40 43.8**	**-0.4**
LIMN	**Finca el Limon**	**1.94**	**77**	P	**Pn**	**18 40 44.6**	**+0.2**
LIMN				S	**Sn**	**18 41 08.8**	**+1.3**
APYN	**Apoyeque**	**1.94**	**101**	P	**Pn**	**18 40 44.1**	**-0.3**
APYN				S	**Sn**	**18 41 08.5**	**+0.9**
APQ2	**Apoyeque**	**1.98**	**102**	P	**Pn**	**18 40 44.5**	**-0.3**
APQ2				S	**Sn**	**18 41 09.2**	**+0.8**
LOAL	**Lomas de Alarc**	**1.99**	**314**	P	**Pn**	**18 40 45.5**	**+0.5**
LOAL				S	**Sn**	**18 41 10.1**	**+1.3**
LOAL	**Lomas de Alarc**	**1.99**	**314**	*eP*	**Pn**	**18 40 45.2**	**+0.2**
RBDL	**Robledal**	**2.00**	**318**	*eP*	**Pn**	**18 40 45.5**	**+0.2**
ABCN	**Banco Central**	**2.01**	**104**	P	**Pn**	**18 40 45.0**	**-0.2**
ABCN				S	**Sn**	**18 41 09.3**	**+0.2**
SLOZ	**Alcaldia de Sa**	**2.01**	**314**	P	**Pn**	**18 40 45.3**	**0.0**
SLOZ	**Alcaldia de Sa**	**2.01**	**314**	*eP*	**Pn**	**18 40 45.2**	**-0.1**
OCON	**Estacion meteo**	**2.04**	**60**	P	**Pn**	**18 40 46.1**	**+0.4**
OCON				S	**Sn**	**18 41 10.8**	**+0.7**
TISN	**Laguna Tiscapa**	**2.04**	**103**	P	**Pn**	**18 40 45.1**	**-0.5**
USIM	**UNAN**	**2.04**	**104**		**Pn**	**18 40 45.6**	**-0.1**
USIM				Sn	**Sn**	**18 41 09.2**	**-0.8**
MTO3	**Montecristo**	**2.04**	**330**	P	**Pn**	**18 40 46.5**	**+0.5**
MTO3				S	**Sn**	**18 41 11.7**	**+1.3**
MTO3	**Montecristo**	**2.04**	**330**		**Pn**	**18 40 46.3**	**+0.4**
MGAN	**Managua**	**2.06**	**103**	P	**Pn**	**18 40 45.7**	**-0.2**
MGAN				S	**Sn**	**18 41 10.8**	**+0.4**
MGAN	**Managua**	**2.06**	**103**		**Pn**	**18 40 45.5**	**-0.4**
MGAN				Sn	**Sn**	**18 41 08.5**	**-2.0**
MGAN	**Managua**	**2.06**	**103**	P	**Pn**	**18 40 45.3**	**-0.6**
MGAN				S	**Sn**	**18 41 09.8**	**-0.7**
MGAN	**Managua**	**2.06**	**103**	P	**Pn**	**18 40 45.7**	**-0.2**
FAME	**Alcaldia de Sa**	**2.06**	**306**	P	**Pn**	**18 40 45.1**	**-0.9**
FAME				S	**Sn**	**18 41 10.3**	**-0.3**
WILN	**Americas 2**	**2.11**	**102**	P	**Pn**	**18 40 46.7**	**+0.1**
WILN				S	**Sn**	**18 41 12.4**	**+0.6**
MAS3	**Al N del Volca**	**2.16**	**106**	P	**Pn**	**18 40 46.7**	**-0.6**
MAS3				S	**Sn**	**18 41 12.0**	**-0.9**
ESQI	**Esquipulas**	**2.18**	**332**	P	**Pn**	**18 40 48.6**	**+1.0**
ESQI				S	**Sn**	**18 41 14.5**	**+1.1**
ESQI	**Esquipulas**	**2.18**	**332**		**Pn**	**18 40 48.6**	**+1.0**
ESQI				Sn	**Sn**	**18 41 14.1**	**+0.7**
SARH	**Santa Rosa de**	**2.19**	**348**	P	**Pn**	**18 40 48.9**	**+1.1**
SARH				S	**Sn**	**18 41 15.5**	**+1.8**
SABN	**Sabanita**	**2.19**	**107**	P	**Pn**	**18 40 47.2**	**-0.5**
MASN	**Masaya**	**2.19**	**107**	P	**Pn**	**18 40 47.5**	**-0.3**
MASN				S	**Sn**	**18 41 14.2**	**+0.4**
RCFN	**Al S de San Ju**	**2.23**	**66**	P	**Pn**	**18 40 48.1**	**-0.3**
RCFN				S	**Sn**	**18 41 15.4**	**+0.7**
NANN	**Nandasmo**	**2.23**	**107**	P	**Pn**	**18 40 48.7**	**+0.4**
NANN				S	**Sn**	**18 41 15.8**	**+1.0**
RCVN	**Varillal2**	**2.26**	**65**	P	**Pn**	**18 40 49.6**	**+0.8**
RCVN				S	**Sn**	**18 41 16.9**	**+1.2**
RCPN	**Sur Rio San Ju**	**2.33**	**67**	S	**Sn**	**18 41 18.9**	**+1.6**
NADN	**Granada**	**2.38**	**111**	P	**Pn**	**18 40 49.6**	**-0.8**
NADN				S	**Sn**	**18 41 18.6**	**+0.2**
BOAB	**BOACO BROADBAN**	**2.58**	**94**	P	**Pn**	**18 40 52.7**	**-0.3**
BOAB				S	**Sn**	**18 41 23.3**	**+0.1**
BOAB	**BOACO BROADBAN**	**2.58**	**94**	P	**Pn**	**18 40 52.7**	**-0.3**
BOAB	**BOACO BROADBAN**	**2.58**	**94**	P	**Pn**	**18 40 52.8**	**-0.3**
MORN	**Al O del Volca**	**2.81**	**112**	P	**Pn**	**18 40 56.0**	**-0.2**
MORN				S	**Sn**	**18 41 29.0**	**+0.2**
CONN	**Concepcion**	**2.82**	**112**	P	**Pn**	**18 40 56.3**	**0.0**
LCRUZ	**La Cruz**	**3.03**	**120**	*eP*	**Pn**	**18 40 58.6**	**-0.7**
CARN	**Rivas**	**3.07**	**117**	P	**Pn**	**18 40 59.2**	**-0.6**
CARN				S	**Sn**	**18 41 35.5**	**+0.2**
CARN	**Rivas**	**3.07**	**117**		**Pn**	**18 40 59.0**	**-0.8**
CARN				Sn	**Sn**	**18 41 34.4**	**-0.9**
ACON	**Acoyapa**	**3.12**	**102**	P	**Pn**	**18 40 59.9**	**-0.6**
LAPC	**Finca la Perla**	**3.36**	**123**	*eP*	**Pn**	**18 41 04.2**	**+0.4**
ALIBA	**Liberia Airpor**	**3.37**	**126**	*eP*	**Pn**	**18 41 05.2**	**+1.3**
BUAI	**Buenos Aires**	**3.38**	**121**	*eP*	**Pn**	**18 41 04.5**	**+0.3**
PEJA	**Penjamo Buenos**	**3.39**	**120**	*eP*	**Pn**	**18 41 04.5**	**+0.2**
VRLE	**La Escondida,**	**3.40**	**122**	*eP*	**Pn**	**18 41 05.3**	**+0.9**
CLARA	**Aguas Claras**	**3.56**	**121**	*eP*	**Pn**	**18 41 07.3**	**+0.7**
MESS	**Mesas**	**3.57**	**121**	*eP*	**Pn**	**18 41 06.5**	**-0.2**
HORNC	**Hornillas**	**3.60**	**122**	*eP*	**Pn**	**18 41 06.7**	**-0.4**
VMAR	**Armenia, Volca**	**3.60**	**120**	*eP*	**Pn**	**18 41 07.7**	**+0.6**
SIUN	**Universidad Ur**	**3.60**	**72**		**Pn**	**18 41 07.3**	**+0.2**
CUI	**Cuipilapa**	**3.64**	**122**	*eP*	**Pn**	**18 41 08.1**	**+0.4**
CANAL	**Canalete**	**3.64**	**119**	*eP*	**Pn**	**18 41 07.3**	**-0.3**
TIMP	**Tierras Morena**	**3.80**	**122**	*eP*	**Pn**	**18 41 10.8**	**+0.9**
RTAL	**Retalhuleu**	**3.80**	**300**	S	**Sn**	**18 41 54.6**	**+1.2**
RTAL	**Retalhuleu**	**3.80**	**300**		**Pn**	**18 41 10.6**	**+0.7**
CMARA	**Lajas Hojancha**	**3.83**	**132**	P	**Pn**	**18 41 10.7**	**+0.4**
CMARA				S	**Sn**	**18 41 53.9**	**-0.1**
CMARA	**Lajas Hojancha**	**3.83**	**132**	*eP*	**Pn**	**18 41 10.9**	**+0.6**
QUEB	**Quebradon, Cot**	**3.88**	**120**	*eP*	**Pn**	**18 41 11.4**	**+0.4**
JTS	**Las Juntas de**	**4.02**	**125**	P	**Pn**	**18 41 13.8**	**+1.0**
	19nm,0.3s,baz=310,slow=12,SNR=38						
JTS				S	**Sn**	**18 41 58.7**	**+0.1**
	151nm,0.4s,baz=199,slow=11,SNR=3.8						
	51nm,0.3s						
JTS				AML	AML		
JTS	**Las Juntas de**	**4.02**	**125**		**Pn**	**18 41 12.5**	**-0.3**
JTS	**Las Juntas de**	**4.02**	**125**	P	**Pn**	**18 41 13.9**	**+1.1**
JTS	**Las Juntas de**	**4.02**	**125**	*eP*	**Pn**	**18 41 14.0**	**+1.2**
JTS	**Las Juntas de**	**4.02**	**125**	P	**Pn**	**18 41 14.1**	**+1.2**
TABAC	**Tabacon**	**4.05**	**121**	*eP*	**Pn**	**18 41 14.2**	**+0.8**
MTEVE	**Monteverde**	**4.10**	**124**	*eP*	**Pn**	**18 41 15.1**	**+1.0**
HUEH	**Huehuetenango**	**4.10**	**311**		**Pn**	**18 41 14.3**	**+0.1**
CASO	**Castillo**	**4.12**	**122**	*eP*	**Pn**	**18 41 14.3**	**+0.1**
PETF	**Flores**	**4.53**	**341**		**Pn**	**18 41 20.3**	**+0.5**
HDC	**Heredia**	**4.86**	**122**		**Pn**	**18 41 25.6**	**+1.1**
HDC	**Heredia**	**4.86**	**122**	*eP*	**Pn**	**18 41 26.0**	**+1.4**
HDC	**Heredia**	**4.86**	**122**	P	**Pn**	**18 41 26.4**	**+2.0**
HDC	**Heredia**	**4.86**	**122**	*eP*	**Pn**	**18 41 26.5**	**+2.0**
BILN	**Bilwi Airport**	**5.00**	**73**		**Pn**	**18 41 25.4**	**-0.9**
LCR2	**La Lucha 2**	**5.09**	**124**		**Pn**	**18 41 28.5**	**+0.7**
LCR2	**La Lucha 2**	**5.09**	**124**	*eP*	**Pn**	**18 41 29.2**	**+1.4**
VICA	**Volcano Irazu**	**5.10**	**121**	*eP*	**Pn**	**18 41 29.7**	**+1.7**
RAFA	**San Farael, Vo**	**5.14**	**121**		**Pn**	**18 41 29.8**	**+1.3**
CCIG	**Comitan**	**5.20**	**315**		**Pn**	**18 41 30.4**	**+1.2**
SAJE	**San Jernim**	**5.72**	**124**	*eP*	**Pn**	**18 41 38.5**	**+2.2**
BURE	**Buenos Aires**	**5.96**	**125**	*eP*	**Pn**	**18 41 42.1**	**+2.6**
FITO	**Golfito**	**6.43**	**128**	*eP*	**Pn**	**18 41 48.8**	**+2.9**
BRU2	**Volcan**	**6.70**	**124**		**Pn**	**18 41 51.2**	**+1.5**
BRU2	**Volcan**	**6.70**	**124**	*iP*	**Pn**	**18 41 52.0**	**+2.3**
BRU2				*eS*	**Sn**	18 42 31.9	-33
CLLRA	**Cordillera,**	**6.79**	**124**	*eP*	**Pn**	**18 41 53.4**	**+2.4**
BQTLY	**Boquete Panama**	**6.90**	**123**	*iP*	**Pn**	**18 41 55.6**	**+3.1**
PTPM	**Petroterminale**	**6.91**	**129**	*eP*	**Pn**	**18 41 54.7**	**+2.3**
RBALA	**Bur**	**7.09**	**121**	*eP*	**Pn**	**18 41 55.9**	**+0.9**
RBALA	**Bur**	**7.09**	**121**	*eP*	**Pn**	**18 41 57.3**	**+2.3**
DVD	**David**	**7.10**	**125**	*eP*	**Pn**	**18 41 57.8**	**+2.8**
BGUAL	**Bijagual, Pana**	**7.15**	**124**	*iP*	**Pn**	**18 41 57.6**	**+1.8**
TEIG	**Tepich**	**7.56**	**0**		**Pn**	**18 42 02.1**	**+0.7**
TEIG	**Tepich**	**7.56**	**0**	P	**Pn**	**18 42 04.6**	**+3.2**
	141nm,0.8s						
CMIG	**Matias Romero**	**7.76**	**306**	P	**Pn**	**18 42 05.3**	**+1.1**
	4.5nm,0.3s,baz=154,slow=12,SNR=39						
CMIG				S	**Sn**	**18 43 32.1**	**+1.4**
	61nm,0.6s,baz=194,slow=13,SNR=5.7						
	14nm,0.3s						
CMIG				AML	AML		
PDCAN	**Manzana , Fuen**	**7.79**	**123**	*eP*	**Pn**	18 41 56.6	-8.0
CACAO	**El Cacao, Vera**	**9.01**	**125**	P	**Pn**	18 42 27.7	+6.4
	61nm,0.7s						
TLIG	**Tlapa**	**11.06**	**298**		**Pn**	**18 42 51.0**	**+1.5**
SOR	**Soroa**	**11.30**	**26**		**Pn**	18 42 57.5	+5.0
MTDJ	**Mount Denham**	**11.78**	**60**	Pn	**Pn**	**18 43 02.0**	**+2.8**
CAIB	**Caibarien**	**12.92**	**39**	Pn	**Pn**	**18 43 13.8**	**-0.9**
SJCC	**San Jacinto, C**	**13.15**	**101**		**Pn**	**18 43 18.1**	**+0.1**
HELC	**Santa Helena**	**14.12**	**116**	Pn	**Pn**	**18 43 28.4**	**-3.0**
GTBY	**Guantanamo Bay**	**14.59**	**58**	Pn	**Pn**	**18 43 34.6**	**-2.6**
POPC	**Popayan, Colom**	**15.26**	**130**	P	**Pn**	**18 43 48.5**	**+2.3**
	537nm70nm,1.0s						
OTAV	**Otavalo**	**15.71**	**141**	*eP*	**P**	**18 43 57.1**	**+1.6**
ROSC	**El Rosal**	**15.83**	**118**	LR	LR	18 51 19.7	
	comp=Z,156nm,18.1s,baz=59,slow=42						
URIC	**Uribia, Colomb**	**15.97**	**92**	Pn	**Pn**	**18 43 52.7**	**-2.4**
RUSC	**La Rusia**	**16.43**	**113**	Pn	**Pn**	**18 43 59.1**	**-2.3**
ZAIG	**Zacatecas**	**16.91**	**309**	P	**Pn**	**18 44 08.3**	**+1.0**
ZAIG	**Zacatecas**	**16.91**	**309**	P	**P**	**18 44 11.6**	**+3.0**
	comp=Z,10nm,0.8s						
PODR	**Polo**	**17.30**	**69**	P	**Pn**	**18 44 10.6**	**-1.4**
656A	**Willston**	**17.50**	**17**	P	**P**	**18 44 15.0**	**+0.3**
656A				IAmb	IAmb	18 44 20.6	
	comp=Z,44nm,0.7s						
SDV	**Santo Domingo**	**17.75**	**100**	P	**Pn**	**18 44 15.9**	**-1.6**
	comp=Z,1.6nm,0.3s,baz=267,slow=6.8,SNR=12						
SDV				LR	LR	18 53 08.9	
	comp=Z,34nm,18.5s,baz=273,slow=44						
	comp=Z,19nm,0.9s						
SDV				AML	AML		
SDV	**Santo Domingo**	**17.75**	**100**	P	**Pn**	**18 44 16.6**	**-0.9**
SDV	**Santo Domingo**	**17.75**	**100**	P	**Pn**	**18 44 13.7**	**-3.8**
	comp=Z,146nm,0.8s						
346A	**Big Creek Wild**	**18.71**	**357**	P	**Pn**	**18 44 29.1**	**+0.3**
346A				IAmb	IAmb	18 44 33.9	
	comp=Z,44nm,0.8s						
833A	**Chaparral WMA,**	**18.74**	**328**	P	**P**	**18 44 29.2**	**+0.8**
352A	**Blakely**	**19.02**	**9**	P	**Pn**	**18 44 32.8**	**+0.2**
TIGA	**Tifton**	**19.22**	**12**	P	**P**	**18 44 33.6**	**0.0**
TIGA				IAmb	IAmb	18 44 40.1	
	comp=Z,85nm,0.9s						
250A	**Grady**	**19.36**	**5**	P	**P**	**18 44 34.2**	**-0.9**
SNAG	**San Augustine**	**19.57**	**345**	P	**P**	**18 44 36.7**	**-0.7**
SNAG				IAmb	IAmb	18 44 44.5	
	comp=Z,82nm,1.1s						
VBMS	**Vicksburg**	**19.61**	**354**	P	**P**	**18 44 36.7**	**-1.2**
HNDO	**Hondo**	**19.67**	**330**	P	**P**	**18 44 38.0**	**-0.6**
HNDO				IAmb	IAmb	18 44 44.8	
	comp=Z,45nm,0.5s						
NATX	**Nacogdoches**	**19.93**	**344**	P	**P**	**18 44 40.1**	**-1.2**
NATX				IAmb	IAmb	18 44 45.4	
	comp=Z,35nm,0.7s						
146A	**Union**	**19.93**	**358**	P	**P**	**18 44 40.0**	**-1.4**
435B	**Jarrell**	**20.01**	**336**		**P**	**18 44 41.1**	**-1.0**
435B				IAmb	IAmb	18 44 59.0	
	comp=Z,33nm,0.6s						
PCDR	**Punta Cana, DR**	**20.05**	**71**	P	**P**	**18 44 41.4**	**-1.4**
152A	**Waverly Hall**	**20.22**	**9**	P	**P**	**18 44 44.2**	**-0.3**
LRAL	**Lakeview Retre**	**20.35**	**3**	P	**P**	**18 44 46.2**	**+0.3**
JCT	**Junction City**	**20.71**	**331**	P	**P**	**18 44 49.6**	**-0.3**
JCT				IAmb	IAmb	18 44 56.1	
	comp=Z,33nm,0.6s						
Z41A	**Richland Creek**	**20.95**	**349**	P	**P**	**18 44 52.2**	**-0.1**
Z41A				IAmb	IAmb	18 45 01.0	
	comp=Z,55nm,1.0s						
BRDY	**Brady**	**21.03**	**334**		**P**	**18 44 53.2**	**-0.1**
WHTX	**Lake Whitney,**	**21.04**	**338**	P	**P**	**18 44 52.6**	**-0.7**
GOGA	**Godfrey**	**21.16**	**11**		**P**	**18 44 55.1**	**+0.5**
GOGA				IAmb	IAmb	18 44 59.3	
	comp=Z,51nm,0.7s						
MLPR	**Magueyes Islan**	**21.17**	**73**	P	**P**	**18 44 54.6**	**-0.3**
Y45A	**Yeager Farm, C**	**21.18**	**357**		**P**	**18 44 55.4**	**+0.6**
Y45A				IAmb	IAmb	18 45 01.2	
	comp=Z,33nm,0.7s						
Y49A	**Blount Mountai**	**21.21**	**4**		**P**	**18 44 55.2**	**+0.1**
WLAR	**White Oak Lake**	**21.42**	**349**	P	**P**	**18 44 58.0**	**+0.6**
WLAR				IAmb	IAmb	18 45 13.1	
	comp=Z,43nm,0.8s						
Z38A	**Mt. Pleasant**	**21.43**	**345**	P	**P**	**18 44 58.4**	**+0.9**
Z38A				IAmb	IAmb	18 45 01.5	
	comp=Z,24nm,0.7s						
CCAR	**Cane Creek**	**21.43**	**352**	P	**P**	**18 44 57.1**	**-0.4**

comp=Z,25nm,0.9s
S44A Carbondale 24.98 358 IAmb IAmb 18 45 33.0
comp=Z,16nm,0.5s
AMTX Amarillo 25.27 334 IAmb IAmb 18 45 54.1
comp=Z,38nm,0.8s
S51A Beattyville 25.27 9 IAmb IAmb 18 45 54.7
comp=Z,27nm,0.8s
ELIS Ellis County 25.40 339 IAmb IAmb 18 45 41.7
comp=Z,54nm,1.1s
CCM Cathedral Cave 25.46 355 P **P** **18 45 36.7 -0.2**
CCM IAmb IAmb 18 45 37.8
comp=Z,15nm,0.5s
CCM Cathedral Cave 25.46 355 P **P** **18 45 36.8 -0.1**
comp=Z,34nm,0.5s
CZSB Cruzeiro do Su 25.48 142 *e*P **P** **18 45 40.0 +2.8**
WCI Wyandotte Cave 25.56 4 P **P** **18 45 37.4 -0.4**
WCI IAmb IAmb 18 45 40.3
comp=Z,26nm,0.6s
WCI Wyandotte Cave 25.56 4 P **P** **18 45 38.1 +0.2**
comp=Z,37nm,0.7s
R49A Shelbyville 25.71 6 IAmb IAmb 18 45 39.7
comp=Z,11nm,0.5s
Q44A Meyer Farm, Va 26.18 359 IAmb IAmb 18 45 45.7
comp=Z,23nm,0.6s
R55A Marlinton 26.57 14 IAmb IAmb 18 46 10.9
comp=Z,24nm,1.1s
Q51A Peebles 26.66 9 IAmb IAmb 18 45 50.8
comp=Z,24nm,0.7s
121A Cookes Peak, D 26.68 321 IAmb IAmb 18 45 53.8
comp=Z,20nm,0.9s
Q52A Bidwell 26.77 10 IAmb IAmb 18 46 10.8
comp=Z,39nm,1.0s
RTBA Rita Blanca 27.04 334 IAmb IAmb 18 45 53.6
comp=Z,52nm,1.4s
Q54A Coxs Mills 27.08 13 **P** **18 45 50.9 -0.6**
Y22A Socorro 27.19 324 IAmb IAmb 18 45 58.5
comp=Z,18nm,0.7s
P38A Dawn 27.29 351 IAmb IAmb 18 45 55.5
comp=Z,28nm,0.9s
P53A Whipple 27.45 12 IAmb IAmb 18 46 11.5
comp=Z,52nm,1.5s
ALQ Albuquerque 27.65 327 IAmb IAmb 18 46 02.3
comp=Z,5.0nm,0.7s
ANMO Albuquerque 27.65 327 P **P** **18 45 55.9 -1.1**
ANMO Albuquerque 27.65 327 P **P** **18 45 58.0 +1.1**
comp=Z,12nm,2.5s
TASM ASL Pad, Albuq 27.65 327 IAmb IAmb 18 46 02.4
comp=Z,4.5nm,0.7s
O53A New Philadelph 28.22 12 **P** **18 46 01.9 +0.2**
O53A IAmb IAmb 18 46 56.0
comp=Z,43nm,1.6s
P57A Homestead Farm 28.26 17 IAmb IAmb 18 46 07.3
comp=Z,13nm,0.7s
O54A Avella 28.33 13 IAmb IAmb 18 46 05.0
comp=Z,13nm,0.7s
T25A Trinidad 28.36 332 IAmb IAmb 18 46 07.7
comp=Z,20nm,0.7s
TUC Tucson 28.45 317 P **P** **18 46 06.0 +2.0**
TUC Tucson 28.45 317 P P 18 46 09.0 +5.0
comp=Z,12nm,0.8s
M50A Fremont 29.04 8 IAmb IAmb 18 46 11.1
comp=Z,23nm,0.6s
KSCO Kaye Shedlock' 29.19 337 IAmb IAmb 18 46 13.7
comp=Z,23nm,0.7s
L40A Anamosa 29.44 356 IAmb IAmb 18 46 14.5
comp=Z,44nm,1.1s
SCIA State Center 29.49 353 IAmb IAmb 18 46 15.8
comp=Z,19nm,0.6s
X16A Lo Mia Camp, P 30.21 320 P **P** **18 46 20.1 +0.4**
PV02 Paradox Valley 31.31 328 IAmb IAmb 18 46 33.0
comp=Z,13nm,0.7s
PV05 Paradox Valley 31.41 327 IAmb IAmb 18 46 34.0
comp=Z,22nm,0.8s
PV03 Paradox Valley 31.41 328 IAmb IAmb 18 46 34.2
comp=Z,22nm,0.8s
PV07 Paradox Valley 31.44 328 IAmb IAmb 18 46 34.7
comp=Z,18nm,0.9s
PV22 Blue Mesa, Par 31.59 328 IAmb IAmb 18 46 35.7
comp=Z,17nm,0.7s
I37A Lemond, Waseca 31.59 353 IAmb IAmb 18 46 44.6
comp=Z,17nm,0.9s
PV10 Paradox Valley 31.60 328 IAmb IAmb 18 46 35.1
comp=Z,21nm,0.7s
PV21 Cone Mtn., Par 31.70 328 IAmb IAmb 18 46 40.4
comp=Z,10nm,0.6s
ECSD EROS Data Cent 31.82 349 P **P** **18 46 31.8 -1.7**
comp=Z,14nm,1.5s
U15A North Rim 32.05 322 IAmb IAmb 18 47 36.2
comp=Z,22nm,2.0s
HMU Henry Mountain 32.19 325 IAmb IAmb 18 46 42.4
comp=Z,11nm,0.7s
W13A Hualapai Mount 32.20 318 **P** **18 46 38.4 +1.1**
G40A Rib Lake 32.58 358 IAmb IAmb 18 46 42.4
comp=Z,12nm,0.6s
SRU San Rafael Swe 32.92 327 IAmb IAmb 18 46 47.8
comp=Z,8.3nm,0.6s
SADO Sadowa 32.98 12 LR LR 18 59 34.5
comp=Z,234nm,19.4s,baz=180,slow=36
PFO Pinyon Flats O 33.09 314 LR LR 19 01 41.1
comp=Z,191nm,21.0s,baz=119,slow=39
P17A Butcher Ranch, 33.30 327 IAmb IAmb 18 46 51.6
comp=Z,8.8nm,0.7s
RDMU Red Mountain 33.53 330 IAmb IAmb 18 46 51.8
comp=Z,19nm,1.4s
K22A Casper 33.84 336 IAmb IAmb 18 46 54.7
comp=Z,27nm,1.3s
BSUT Blindstream Ca 34.10 329 IAmb IAmb 18 46 58.9
comp=Z,19nm,1.4s
DUG Dugway, Tooele 34.92 326 P **P** **18 47 03.8 +3.0**
comp=Z,5.6nm,0.8s
LPAZ La Paz 34.97 145 P **P** **18 47 02.6 +0.7**
comp=Z,2.6nm,0.9s,baz=333,slow=8.9,SNR=7.7
LPAZ LR LR 19 02 40.0
comp=Z,71nm,21.3s,baz=323,slow=38
comp=Z,2.6nm,0.9s
LPAZ La Paz 34.97 145 P **P** **18 47 01.8 -0.1**
LPAZ La Paz 34.97 145 P **P** **18 47 02.5 +0.5**
comp=Z,4.2nm,1.9s
LPAZ La Paz 34.97 145 P **P** **18 47 03.0 +1.0**
BW06 Boulder Array 35.23 332 IAmb IAmb 18 47 07.9
comp=Z,28nm,1.6s
PD31 Pinedale Array 35.23 332 IAmb IAmb 18 47 07.9
comp=Z,28nm,1.6s
PDAR Pinedale Array 35.23 332 P **P** **18 47 04.0 +0.4**
comp=Z,2.8nm,0.5s,baz=127,slow=12,SNR=39
PDAR PcP **PcP** **18 49 33.0 -0.6**
comp=Z,0.9nm,0.5s,baz=136,slow=5.3,SNR=5.7
PDAR ScP **ScP** **18 53 14.5 -0.7**
comp=Z,0.3nm,0.4s,baz=125,slow=6.0,SNR=3.5
PDAR LR LR 19 04 27.3
comp=Z,83nm,18.7s,baz=312,slow=41
comp=Z,2.8nm,0.5s
PDAR Pinedale Array 35.23 332 P **P** **18 47 03.9 +0.3**
HWUT Hardware Ranch 35.30 329 P **P** **18 47 06.2 +2.2**
comp=Z,24nm,0.7s
EYMN Ely 35.31 356 P **P** **18 47 02.0 -1.8**
comp=Z,12nm,0.5s
GRAC Grapevine Rang 35.59 318 IAmb IAmb 18 47 11.5
comp=Z,5.9nm,0.7s
PB16 IPOC Station P 35.92 149 P **P** **18 47 10.7 +0.7**
PB16 IAmb IAmb 18 47 12.7
comp=Z,10nm,0.8s
PB16 IPOC Station P 35.92 149 P **P** **18 47 12.0 +2.0**
comp=Z,13nm,0.8s
AHID Auburn Hatcher 35.95 331 P **P** **18 47 10.8 +1.2**
comp=Z,37nm,0.7s
MDP Montagnes des 35.98 99 LR LR 19 03 27.8
comp=Z,92nm,18.1s,baz=118,slow=39
AGMN Agassiz Nation 36.12 351 P **P** **18 47 10.0 -0.7**
comp=Z,33nm,0.5s
HELL Mitchell Peak, 36.51 316 P **P** **18 47 17.0 +2.6**
H17A Grant Village 36.97 333 IAmb IAmb 18 47 24.3
comp=Z,12nm,1.0s
YPP Pitchstone Pla 36.98 333 IAmb IAmb 18 47 29.3
comp=Z,7.8nm,0.9s
NVAR Mina Array Bea 37.03 319 P **P** **18 47 20.3 +1.4**
comp=Z,3.7nm,0.6s,baz=127,slow=6.7,SNR=27
NVAR PcP **PcP** **18 49 40.1 +1.1**
comp=Z,1.3nm,0.5s,baz=146,slow=2.6,SNR=9.4
NVAR ScP **ScP** **18 53 22.4 +0.6**
comp=Z,1.6nm,0.7s,baz=140,slow=4.0,SNR=8.6
NVAR LR LR 19 03 53.7
comp=Z,155nm,18.1s,baz=42,slow=38
comp=Z,3.7nm,0.6s
NVAR Mina Array Bea 37.03 319 P **P** **18 47 19.8 +0.9**
NVAR **PcP** **18 49 38.7 -0.2**
NVAR **ScP** **18 53 21.9 0.0**
LHV Little Huntoon 37.05 319 P **P** **18 47 20.4 +1.6**
LHV IAmb IAmb 18 47 24.5
comp=Z,7.4nm,0.7s
YFT Old Faithful 37.13 333 IAmb IAmb 18 47 24.9
comp=Z,20nm,0.9s
GO01 Chusmiza 37.20 149 P **P** **18 47 20.9 +0.1**
GO01 IAmb IAmb 18 47 23.6
comp=Z,5.6nm,0.6s
YNE Yellowstone No 37.21 334 IAmb IAmb 18 47 22.9
comp=Z,15nm,0.7s
YNR Norris Junctio 37.27 333 IAmb IAmb 18 47 25.6
comp=Z,13nm,0.9s
YMR Madison River 37.36 333 IAmb IAmb 18 47 26.6
comp=Z,17nm,0.9s
YHH Holmes Hill 37.40 333 IAmb IAmb 18 47 26.9
comp=Z,14nm,0.9s
YHB Horse Butte 37.52 333 IAmb IAmb 18 47 27.9
comp=Z,9.4nm,0.7s
VILB Vilhena 37.71 131 P **P** **18 47 24.6 -0.1**
VILB Vilhena 37.71 131 *e*P **P** **18 47 25.2 +0.5**
ULM Lac du Bonnet 38.03 352 P **P** **18 47 25.4 -1.5**
comp=Z,15nm,0.5s,baz=162,slow=9.4,SNR=73
ULM ScP **S** **18 53 23.6 +7.9**
comp=Z,2.9nm,0.5s,baz=144,slow=4.0,SNR=8.3
ULM LR LR 19 04 00.8
comp=Z,210nm,20.1s,baz=193,slow=38
comp=Z,15nm,0.5s
HLID Hailey 38.16 329 IAmb IAmb 18 47 31.1
comp=Z,14nm,1.4s
HLID Hailey 38.16 329 P **P** **18 47 31.1 +2.8**
comp=Z,8.2nm,0.7s
BCYI Bear Canyon 38.21 331 IAmb IAmb 18 47 33.8
comp=Z,8.2nm,0.8s
PNTR Pine Nut 38.24 319 IAmb IAmb 18 47 39.1
comp=Z,7.2nm,0.7s
BOZ Bozeman (W) 38.38 333 IAmb IAmb 18 47 33.8
comp=Z,15nm,0.9s
PDRB Porto dos Gac 39.52 126 *e*P **P** **18 47 39.7 -0.2**
WVOR Wild Horse Val 39.68 324 P **P** **18 47 43.7 +2.7**
comp=Z,9.0nm,1.0s
CLDB Colider 39.83 125 P **P** **18 47 41.8 -0.7**
comp=Z,14nm,1.0s
CLDB Colider 39.83 125 *e*P **P** **18 47 41.9 -0.5**
PTLB Pontes e Lacer 40.14 133 *e*P **P** **18 47 44.4 -0.6**
BBSD Serra de San D 40.32 137 *e*P **P** **18 47 47.1 +0.7**
MSO Missoula 40.35 333 P **P** **18 47 47.8 +1.2**
MSO IAmb IAmb 18 47 50.1
comp=Z,18nm,0.9s
BMO Blue Mountains 40.55 328 IAmb IAmb 18 47 51.4
comp=Z,28nm,2.0s
NEW Newport 42.86 332 LR LR 19 07 58.0
comp=Z,171nm,18.1s,baz=306,slow=39
HOOD Mount Hood Mea 43.19 325 IAmb IAmb 18 48 13.7
comp=Z,20nm,1.0s
FFC Flin Flon 43.36 348 P **P** **18 48 10.6 -0.2**
FFC IAmb IAmb 18 48 11.7
comp=Z,9.3nm,0.5s
FFC Flin Flon 43.36 348 P **P** **18 48 11.0 +0.2**
comp=Z,14nm,0.6s
FFC Flin Flon 43.36 348 P **P** **18 48 10.5 -0.3**
FFC pP **pP** **18 48 26.0 +1.5**
AC02 Maricunga 43.42 155 P **P** **18 48 13.2 +1.0**
AC02 IAmb IAmb 18 49 00.6
comp=Z,39nm,1.8s
I02E Swisshome, OR 43.72 323 P **P** **18 48 15.7 +1.8**
COIM Forte Coimbra 44.12 137 *e*P **P** **18 48 18.4 +1.0**
RPN Rapa Nui 44.48 207 LR LR 19 02 03.6
comp=Z,214nm,20.6s,baz=46,slow=29
BDQN Bodoquena, MS 45.20 136 *e*P **P** **18 48 25.6 -0.4**
SCHQ Schefferville 45.36 17 P **P** **18 48 25.2 -1.6**
comp=Z,6.7nm,0.4s,baz=204,slow=5.7,SNR=20
SCHQ PcP **PcP** **18 50 05.3 -0.2**
comp=Z,2.3nm,0.4s,baz=269,slow=2.7,SNR=3.6
SCHQ LR LR 19 07 30.9
comp=Z,259nm,19.5s,baz=58,slow=36
comp=Z,6.7nm,0.4s
SCHQ Schefferville 45.36 17 IAmb IAmb 18 48 31.7
comp=Z,28nm,1.3s
ARAG Araguaiana, MT 45.78 127 *e*P **P** **18 48 29.7 -0.9**
AQDB Aquidauana 45.93 135 P **P** **18 48 31.8 +0.1**
AQDB Aquidauana 45.93 135 *e*P **P** **18 48 33.2 +1.4**
FCC Fort Churchill 46.26 356 P **P** **18 48 32.2 -1.5**
FCC IAmb IAmb 18 48 35.5
comp=Z,9.7nm,0.5s
H03N2 Juan Fernandez 46.67 169 T T 19 38 51.0
baz=344,slow=74,SNR=9.8
H03N1 Juan Fernandez 46.67 169 T T 19 38 51.7
baz=278,slow=74,SNR=12
LLLB Lillooet 46.73 331 IAmb IAmb 18 48 45.6
comp=Z,8.6nm,0.7s
VA03 San Esteban 48.21 160 P **P** **18 48 49.8 +0.4**
VA03 San Esteban 48.21 160 P **P** **18 48 50.6 +1.1**
comp=Z,27nm,0.8s
BDFB Brasilia 48.76 124 P **P** **18 48 53.3 -0.7**
comp=Z,3.8nm,0.5s,baz=301,slow=8.8,SNR=5.1
comp=Z,3.8nm,0.5s
BDFB Brasilia 48.76 124 P **P** **18 48 53.0 -1.0**
BDFB IAmb IAmb 18 49 10.0
comp=Z,21nm,1.7s
MT08 Bocatoma Ro 49.02 160 P **P** **18 48 55.4 -0.4**
CPUP Villa Florida 49.05 142 P **P** **18 48 55.9 0.0**
comp=Z,2.0nm,0.6s,baz=352,slow=14,SNR=5.6
CPUP LR LR 19 11 01.4
comp=Z,52nm,18.2s,baz=102,slow=38
comp=Z,2.0nm,0.6s
CPUP Villa Florida 49.05 142 P **P** **18 48 55.3 -0.6**
CPUP IAmb IAmb 18 50 29.2
comp=Z,17nm,1.6s
CPUP Villa Florida 49.05 142 P **P** **18 48 55.2 -0.6**
CPUP pP **pP** **18 49 10.7 +0.9**
BO01 Tunca 49.54 161 P **P** **18 48 60.0 +0.5**
comp=Z,20nm,2.8s
BI02 San Fabin de 51.58 163 P **P** **18 49 15.9 +1.0**
comp=Z,8.4nm,1.8s
ITQB Itaqui 51.97 145 *e*P **P** **18 49 18.7 +0.8**
FRB Frobisher Bay 52.91 11 LR LR 19 12 39.4
comp=Z,201nm,18.7s,baz=264,slow=37
ITAB Concordia 52.93 139 P **P** **18 49 24.4 -0.6**
comp=Z,14nm,1.0s
YKA Yellowknife Ar 53.23 345 P **P** **18 49 25.9 -0.9**
comp=Z,5.3nm,0.6s,baz=147,slow=6.4,SNR=37
YKA PcP **PcP** **18 50 33.0 -1.0**
comp=Z,1.3nm,0.5s,baz=150,slow=3.8,SNR=5.6
YKA LR LR 19 13 31.6
comp=Z,273nm,18.4s,baz=254,slow=38
comp=Z,5.3nm,0.6s
YKAW3 Yellowknife Wh 53.29 345 P **P** **18 49 26.3 -0.8**
YKAW3 IAmb IAmb 18 49 43.7
comp=Z,14nm,0.9s
CPSB Cacapava Do Su 54.36 143 P **P** **18 49 34.9 -0.6**
comp=Z,12nm,0.8s
ANCO Parque Anchore 54.83 149 *e*P **P** **18 49 39.5 +0.8**
PLCA Paso Flores 55.57 164 P **P** **18 49 45.0 +0.8**
comp=Z,4.7nm,0.9s,baz=325,slow=9.1,SNR=6.7
PLCA LR LR 19 08 22.2
comp=Z,27nm,19.2s,baz=355,slow=30
comp=Z,4.7nm,0.9s
PLCA Paso Flores 55.57 164 P **P** **18 49 45.1 +1.0**
PLCA Paso Flores 55.57 164 P **P** **18 49 44.8 +0.7**
TAOE Nuku Hiva Isla 55.76 250 *e*LR LR 19 06 02.0
comp=Z,190nm,23.3s
ILON Igloolik, Nuna 56.85 3 **P** **18 49 51.6 -1.2**
COYC Coyhaique 59.75 167 P **P** **18 50 14.0 +0.8**
comp=Z,16nm,0.9s
SFJD Kangerlussuaq 59.78 16 LR LR 19 16 44.4
comp=Z,101nm,18.3s,baz=280,slow=37
I30M Mount Dempster 61.85 339 IAmb IAmb 18 50 46.1
comp=Z,6.5nm,0.9s
RES Resolute Bay 62.16 358 LR LR 19 17 59.3
comp=Z,101nm,19.9s,baz=207,slow=37
INK Inuvik 62.80 343 P **P** **18 50 33.2 -0.3**
INK IAmb IAmb 18 50 50.3
comp=Z,6.2nm,0.8s
G29M Pine Creek 63.36 340 IAmb IAmb 18 50 39.6
comp=Z,9.8nm,0.7s
I27K Kandik River 63.91 338 IAmb IAmb 18 51 00.9
comp=Z,6.2nm,0.8s
H27K Steamboat Moun 64.19 339 IAmb IAmb 18 50 46.0
comp=Z,9.4nm,0.8s
I26K Coal Creek Min 64.33 338 IAmb IAmb 18 50 44.9
comp=Z,17nm,1.5s
F28M Old Crow 64.34 341 IAmb IAmb 18 51 03.5
comp=Z,11nm,0.9s
G27K Doyon Strip 64.53 339 IAmb IAmb 18 51 09.9
comp=Z,22nm,1.9s
E28M Babbage River 64.77 342 IAmb IAmb 18 51 03.7
comp=Z,6.2nm,0.8s
J25K Salcha River, 64.87 336 IAmb IAmb 18 51 01.3
comp=Z,22nm,1.8s
G26K Porcupine Rive 65.33 339 IAmb IAmb 18 51 01.5
comp=Z,21nm,1.6s
IL31 65.53 336 P **P** **18 50 50.3 -1.2**
IL31 IAmb IAmb 18 51 54.7
comp=Z,31nm,1.9s
ILAR Eielson Array 65.53 336 P **P** **18 50 50.7 -0.9**
comp=Z,1.5nm,0.5s,baz=164,slow=4.8,SNR=39
ILAR LR LR 19 22 13.1
comp=Z,148nm,18.6s,baz=119,slow=38
comp=Z,1.5nm,0.5s
ILAR Eielson Array 65.53 336 P **P** **18 50 50.3 -1.3**
D27M Malcolm River 65.55 342 IAmb IAmb 18 50 54.2
comp=Z,16nm,1.6s
RND Reindeer 65.80 335 P **P** **18 50 53.3 -0.1**
RND IAmb IAmb 18 51 10.7
comp=Z,12nm,0.9s
CCB Clear Creek Bu 65.84 336 P **P** **18 50 52.5 -1.1**
CCB IAmb IAmb 18 52 18.1
comp=Z,22nm,2.0s
F25K Christian Rive 66.27 339 IAmb IAmb 18 50 57.5
comp=Z,4.5nm,0.6s
C27K Jago River 66.58 342 IAmb IAmb 18 51 31.5
comp=Z,21nm,1.7s
C26K Camden Bay 67.09 342 IAmb IAmb 18 51 19.8
comp=Z,30nm,1.7s
MLY Manley 67.15 336 IAmb IAmb 18 51 02.1
comp=Z,6.1nm,0.5s
D25K Kavik River 67.27 341 IAmb IAmb 18 51 19.8
comp=Z,9.6nm,0.8s
PPT Papeete 67.52 245 LR LR 19 14 31.6
comp=Z,45nm,21.6s,baz=36,slow=30
PPT2 Papeete2 67.53 245 *e*LR LR 19 11 22.0
comp=Z,212nm,24.5s
PPT2 *e*LR LR 19 11 29.1
comp=Z,104nm,41.8s
E23K Chandalar 67.83 339 IAmb IAmb 18 51 29.4
comp=Z,15nm,1.4s
F21K Alatna River 68.93 338 P **P** **18 51 13.3 +0.2**
EKA Eskdalemuir Ar 76.97 36 P **P** **18 51 57.4 -3.4**
comp=Z,0.7nm,0.5s,baz=278,slow=5.5,SNR=3.7
comp=Z,0.7nm,0.5s
ESDC Sonseca Array 77.74 52 P **P** **18 52 02.6 -2.9**
comp=Z,0.6nm,0.6s,baz=274,slow=5.3,SNR=5.4
ESDC LR LR 19 20 08.5
comp=Z,76nm,19.5s,baz=288,slow=31
comp=Z,0.6nm,0.6s
ESDC Sonseca Array 77.74 52 P **P** **18 52 03.1 -2.4**
ESDC IAmb IAmb 18 54 08.0
comp=Z,30nm,1.9s
RAR Rarotonga 77.80 245 LR LR 19 16 58.8
comp=Z,75nm,22.0s,baz=83,slow=28
MDT Midelt 78.03 59 LR LR 19 20 14.6
comp=Z,85nm,20.3s,baz=279,slow=31
SPITS Spitsbergen Ar 80.71 12 LR LR 19 28 18.1
comp=Z,111nm,20.2s,baz=305,slow=36
DBIC Dimbokro 82.20 85 LR LR 19 26 00.1
comp=Z,43nm,20.1s,baz=332,slow=34
NOA NORSAR Array B 83.62 29 LR LR 19 26 02.2
comp=Z,43nm,22.0s,baz=280,slow=33
BILL Bilibino 84.06 339 P **P** **18 52 37.6 -0.9**
BILL Bilibino 84.06 339 P **P** **18 52 37.7 -0.9**
BILL PcP **PcP** **18 52 41.7 -0.7**
BILL pP **pP** **18 52 54.3 +0.8**
HFS Hagfors 85.04 29 P **P** **18 52 42.0 -1.7**
comp=Z,1.2nm,0.7s,baz=269,slow=8.6,SNR=1.0
HFS LR LR 19 30 22.1
comp=Z,53nm,18.6s,baz=270,slow=36
comp=Z,1.2nm,0.7s
ARCES ARCESS Array B 86.29 19 P **P** **18 52 48.8 -0.9**
comp=Z,1.9nm,0.7s,baz=291,slow=5.1,SNR=12
ARCES LR LR 19 29 59.9
comp=Z,34nm,21.4s,baz=310,slow=35
comp=Z,1.9nm,0.7s
ARCES ARCESS Array B 86.29 19 P **P** **18 52 48.2 -1.5**
DAVOX Davos/Dischmat 86.43 43 LR LR 19 25 21.5
comp=Z,84nm,20.7s,baz=269,slow=32
AFI Afiamalu 86.80 255 LR LR 19 22 28.8
comp=Z,35nm,18.6s,baz=93,slow=29
GERES GERESS Array B 88.34 40 LR LR 19 31 42.0
comp=Z,61nm,18.7s,baz=342,slow=35
VRAC Vranov 90.00 39 LR LR 19 29 15.2
comp=Z,62nm,19.9s,baz=310,slow=33
FINES FINESS Array B 90.18 26 LR LR 19 31 41.7
comp=Z,43nm,20.4s,baz=305,slow=34
VAE Valguarnera 92.25 51 LR LR 19 28 42.0
comp=Z,95nm,18.9s,baz=316,slow=32
TIXI Tiksi 92.32 349 LR LR 19 40 22.2
comp=Z,57nm,18.1s,baz=31,slow=39
RAO Raoul Island 95.73 241 LR LR 19 26 06.7
comp=Z,48nm,20.6s,baz=84,slow=29
AKASG Malin Array Be 96.85 35 LR LR 19 35 09.1
comp=Z,54nm,19.5s,baz=256,slow=34
NRIK Norilsk 98.19 1 LR LR 19 39 42.6
comp=Z,72nm,21.3s,baz=18,slow=36
ZALV Zalesovo Beam 113.44 4 PKiKP **PKiKP** **18 58 44.0 -1.9**
comp=Z,0.6nm,0.4s,baz=240,slow=1.5,SNR=4.8
ZALV Zalesovo Beam 113.44 4 **PKiKP** **18 58 43.2 -2.7**
KURK Kurchatov 115.90 9 **PKiKP** **18 58 49.6 -1.1**
KURBB Kurchatov Arra 115.98 9 PKP **PKiKP** **18 58 49.6 -1.3**
comp=Z,0.3nm,0.6s,baz=357,slow=1.5,SNR=5.1
SONM Songino Array 118.41 349 PKP **PKPdf** **18 58 55.1 -0.8**
comp=Z,0.6nm,0.6s,baz=120,slow=1.8,SNR=5.1
SONM Songino Array 118.41 349 **PKPdf** **18 58 53.9 -2.0**
KSRS Korea Array 119.68 327 PKP **PKPdf** **18 58 58.5 0.0**
comp=Z,1.2nm,0.5s,baz=355,slow=1.9,SNR=9.1
MKAR Makanchi Array 120.26 7 PKP **PKPdf** **18 58 57.3 -2.0**
comp=Z,0.4nm,0.3s,baz=324,slow=2.7,SNR=16
MKAR Makanchi Array 120.26 7 **PKPdf** **18 58 56.9 -2.5**
HHC Hu-ho-hao-te 123.71 342 *e*P **PKPdf** **18 59 07.9 +1.6**
WMQ Urumqi 123.71 3 *e*PKP **PKiKP** **18 59 08.3 +1.9**
WMQ LR LR
comp=Z,59nm,20.1s
GTA2 Gaotai 127.62 352 *e*PKP **PKPdf** **18 59 13.8 0.0**
NJ2 Nanjing 128.53 330 *e*P **PKiKP** **18 59 17.6 +1.4**
NJ2 pmax pmax
comp=Z,5.0nm,0.6s
LZDM Lanzhou Array 130.37 347 SKPbc **SKPab** **19 02 39.1 +0.6**
comp=Z,5.5nm,0.5s,baz=0.0,slow=1.8,SNR=8.0
STKA Stephens Creek 130.47 239 PKP **PKPdf** **18 59 19.0 -0.3**
comp=Z,1.5nm,0.6s,baz=142,slow=6.3,SNR=6.5
XAN Xi'an 130.79 341 PKP **PKPdf** **18 59 21.4 +1.5**
XAN sPKP sPKPdf 18 59 37.4 -3.6
WRA Warramunga Arr 138.52 254 PKhKP PKPpre 18 59 26.1
comp=Z,0.6nm,0.7s,baz=95,slow=2.7,SNR=3.7
WRA PKP **PKPdf** **18 59 35.8 +1.1**
comp=Z,1.1nm,0.4s,baz=91,slow=2.5,SNR=7.8
WRA SKPbc **SKPbc** **19 03 06.5 +1.4**
comp=Z,0.3nm,0.6s,baz=88,slow=2.8,SNR=1.5
WRA Warramunga Arr 138.52 254 **PKPdf** **18 59 36.2 +1.6**
ASAR Alice Springs 138.56 249 PKhKP PKPpre 18 59 25.9
comp=Z,0.4nm,0.4s,baz=112,slow=3.6,SNR=12
ASAR PKP **PKPdf** **18 59 35.8 +1.1**
comp=Z,1.6nm,0.6s,baz=101,slow=1.9,SNR=11
ASAR SKPbc **SKPbc** **19 03 07.8 +2.7**
comp=Z,1.3nm,0.9s,baz=94,slow=2.0,SNR=8.4
CMAR Chiang Mai Arr 148.30 347 PKPbc **PKPdf** **18 59 52.6 +0.8**
comp=Z,3.8nm,0.6s,baz=328,slow=2.4,SNR=29
CMAR Chiang Mai Arr 148.30 347 **PKPdf** **18 59 52.2 +0.4**

NNC 24 18:44:57.3±10.0, 43.12N×78.38E, h0km, mb2.3, mpv2.3,
Error ellipse: s-maj=73.4km s-min=24.3km az=125.0,
Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
SATY	**Saty**	**0.07**	**165**	P	Pg		18 44 58.1	-0.4
	4.3nm,0.1s							
SATY				S	Sg		18 45 00.1	+0.6
	16nm,0.1s							
UZB	**Uzynbulak**	**0.47**	**87**	P	Pg		18 45 05.0	-1.3
	1.4nm,0.3s							
UZB				S	Sg		18 45 11.8	-0.6
	0.7nm,0.2s							
SHLS	**Shalkode**	**0.79**	**87**	P	Pn		18 45 20.5	+4.7
	3.2nm,0.3s							
SHLS				S	Sn		18 45 35.5	+7.0
	7.9nm,0.5s							

SOME 24 18:44:59.7, 42.20N×80.65E, h10km,
Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
UZB	**Uzynbulak**	**1.53**	**309**	*e*P	Pn		18 45 26.6	-0.6
	2.8nm,0.4s							

UZB				*e*S	Sn	18 45 46.0	-1.3
	1.7nm,0.6s							
SATY	**Saty**	**1.86**	**298**	*e*P	Pg	18 45 34.8	-0.6
	1.5nm,0.5s							
SATY				*e*S	Sg	18 46 00.2	+0.6
	3.3nm,0.3s							
KPKS	**Kokpek**	**1.92**	**312**	*e*P	Pb	18 45 35.0	+0.1
	0.2nm,0.1s							
KPKS				*e*S	Sg	18 46 00.5	-1.0
	1.6nm,0.3s							

*NEIC **24** 19:05:36.3±2.2,7.°00N±0.°06×77.°98W±0.°07,h10km±1km, mb4.5/12,Error ellipse: s-maj=11.2km s-min=10.8km az=117.0*

*UPA **24** 19:05:37.9±1.4,6.°76N×77.°73W,h2km±3km,MW3.9, Presumed earthquake*

*CATAC **24** 19:05:40.6±0.8,7.°N±3.°×7.°8W±.°,h9km±6km,M4.5/17, mb5.0/3,mB5.1/1,MLv4.2/17,Mw(mB)4.5/1,Error ellipse: s-maj=6.3km s-min=3.0km az=25.9,confirmed*

ISC 24 19:05:38.0±1.3,**6.°85N**±0.°05×**77.°68W**±0.°03,**h10**km±9km, **n51,**σ1§**96/63,3D,Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTAC	**Punta Ardita,**	**0.32**	**336**	⇓*i*P	**Pg**	**19 05 45.0**	**+0.6**
PTAC				*e*S	**Sg**	**19 05 50.2**	**+1.5**
UPD2	**Meteti**	**1.72**	**349**	⇓*i*P	**Pn**	**19 06 08.7**	**+0.7**
UPD2				*e*S	**Sn**	**19 06 33.2**	**+3.2**
HELC	**Santa Helena**	**2.23**	**107**	P	**Pb**	**19 06 18.4**	**-0.3**
HELC				S	**Sb**	**19 06 48.1**	**+1.5**
HELC	**Santa Helena**	**2.23**	**107**		**Pn**	**19 06 17.9**	**+2.5**
HELC				Sn	**Sn**	**19 06 45.7**	**+2.4**
HELC	**Santa Helena**	**2.23**	**107**	*e*P	**Pb**	**19 06 18.8**	**0.0**
HELC				*e*S	**Sn**	**19 06 45.7**	**+2.4**
UREC	**San Jos de Ur**	**2.31**	**67**	*e*P	**Pn**	**19 06 17.5**	**+1.3**
UREC				*e*S	**Sn**	**19 06 48.2**	**+3.6**
LCBC	**Los crdobas,**	**2.38**	**33**		**Pn**	**19 06 15.7**	**-1.4**
LCBC				Sn	**Sn**	**19 06 46.8**	**+0.4**
ACHO3	**Achotines, Los**	**2.54**	**283**	*e*P	**Pn**	**19 06 19.6**	**+0.4**
ACHO3				*e*S	**Sn**	**19 06 51.7**	**+1.4**
CNTA3	**Canitas, Panam**	**2.64**	**333**	*e*P	**Pn**	**19 06 22.4**	**+1.7**
CNTA3				*e*S	**Sn**	**19 06 55.7**	**+2.9**
CHPO	**Chepo, Panama**	**2.71**	**328**	*e*P	**Pn**	**19 06 22.5**	**+0.9**
CHPO				*e*S	**Sn**	**19 06 57.1**	**+2.7**
FLAM	**Flamenco Islan**	**2.75**	**318**	*e*P	**Pn**	**19 06 23.0**	**+0.8**
FLAM				*e*S	**Sn**	**19 06 56.9**	**+1.3**
UPA	**Univ. de Panam**	**2.80**	**319**	*e*P	**Pn**	**19 06 24.4**	**+1.5**
UPA				*e*S	**Sn**	**19 06 59.6**	**+2.8**
ARRA3	**Arraijan, Pana**	**2.87**	**317**	*e*P	**Pn**	**19 06 24.8**	**+0.9**
ARRA3				*e*S	**Sn**	**19 07 00.1**	**+1.5**
CHIT3	**Chitre**	**2.93**	**292**	*e*P	**Pn**	**19 06 25.2**	**+0.5**
CHIT3				*e*S	**Sn**	**19 06 58.7**	**-1.2**
ZANG	**Zanguenga, Cho**	**3.01**	**314**	*e*P	**Pn**	**19 06 25.4**	**-0.4**
ZANG				*e*S	**Sn**	**19 07 04.8**	**+2.8**
BCIP	**Isla Barro Col**	**3.14**	**317**	P	**Pn**	**19 06 26.7**	**-0.9**
BCIP				S	**Sn**	**19 07 03.6**	**-1.6**
BCIP	**Isla Barro Col**	**3.14**	**317**	⇓*i*P	**Pn**	**19 06 26.6**	**-0.9**
BCIP				*e*S	**Sn**	**19 07 06.7**	**+1.5**
CACAO	**El Cacao, Vera**	**3.20**	**279**	*e*P	**Pn**	**19 06 28.6**	**+0.3**
CACAO				*e*S	**Sn**	**19 07 06.2**	**-0.3**
MLIR	**Monte Lirio**	**3.21**	**318**	*e*P	**Pn**	**19 06 29.6**	**+1.1**
MLIR				*e*S	**Sn**	**19 07 08.9**	**+2.1**
ROSC	**El Rosal**	**3.89**	**121**		**Pn**	**19 06 41.6**	**+3.4**
SJCC	**San Jacinto, C**	**3.91**	**39**	P	**Pn**	**19 06 39.6**	**+1.4**
SJCC				S	**Sn**	**19 07 25.2**	**+1.0**
SJCC	**San Jacinto, C**	**3.91**	**39**		**Pn**	**19 06 38.0**	**-0.2**
SJCC				Sn	**Sn**	**19 07 22.8**	**-1.4**
SJCC	**San Jacinto, C**	**3.91**	**39**	*e*P	**Pn**	**19 06 39.5**	**+1.3**
SJCC				*e*S	**Sn**	**19 07 27.8**	**+3.6**
PRAC	**Prado**	**4.18**	**138**	P	**Pb**	**19 06 47.9**	**-3.7**
RUSC	**La Rusia**	**4.67**	**102**	P	Pn	19 06 54.1	+5.1
RUSC	**La Rusia**	**4.67**	**102**		**Pn**	**19 06 52.2**	**+3.2**
BRU2	**Volcan**	**5.33**	**292**	Pn	Pn	19 06 52.1	-5.7
SMRC	**Santa Marta, M**	**5.48**	**38**		**Pn**	**19 06 58.9**	**-0.9**
SMRC				Sn	**Sn**	**19 08 03.0**	**+0.1**
OTAV	**Otavalo**	**6.61**	**187**		**Pn**	**19 07 15.2**	**-0.5**
LCR2	**La Lucha 2**	**6.89**	**295**	Pn	Pn	19 07 12.7	-6.6
GGPC	**Guagua Pichinc**	**7.04**	**188**	P	Pn	19 07 27.5	+5.7
SDV	**Santo Domingo**	**7.27**	**73**		**Pn**	**19 07 25.5**	**+1.0**
URIC	**Uribia, Colomb**	**7.40**	**49**		**Pn**	**19 07 26.4**	**+0.3**
URI	**Uribia**	**7.40**	**49**	P	**Pn**	**19 07 27.2**	**+1.1**
URI				S	**Sn**	**19 08 50.0**	**-0.2**
SLOR	**San Lorenzo -**	**7.57**	**186**	Pn	**Pn**	**19 07 28.8**	**-0.2**
MTDJ	**Mount Denham**	**11.31**	**1**	Pn	**Pn**	**19 08 17.6**	**-2.2**
PODR	**Polo**	**12.86**	**28**	Pn	**Pn**	**19 08 39.6**	**-1.6**
SDDR	**Presa de Saban**	**13.57**	**27**		**Pn**	**19 08 51.0**	**+0.3**
NMDO	**Nuevo Mundo**	**13.88**	**11**	Pn	Pn	19 08 52.3	-2.6
CRPR	**Cabo Rojo, PR**	**15.14**	**42**	Pn	**Pn**	**19 09 08.9**	**-3.1**
CRPR				IAmb	IAmb	19 09 35.9	
	comp=Z,24nm,1.0s						
MLPR	**Magueyes Islan**	**15.15**	**42**	Pn	**Pn**	**19 09 08.9**	**-3.4**
MLPR				IAmb	IAmb	19 09 10.9	
	comp=Z,20nm,1.0s						
CELP	**Cerrillos**	**15.54**	**43**	Pn	**Pn**	**19 09 13.7**	**-3.7**
AOPR	**Arecibo Observ**	**15.62**	**42**	Pn	**Pn**	**19 09 15.7**	**-2.7**
AOPR				IAmb	IAmb	19 09 20.3	
	comp=Z,30nm,0.9s						
RTAL	**Retalhuleu**	**15.73**	**300**	Pn	Pn	19 09 10.9	-9.0
PDPR	**Patillas Dam,**	**15.89**	**45**	Pn	**Pn**	**19 09 18.5**	**-3.4**
YMP	**Mirror Lake Pl**	**47.15**	**329**	P	P	19 14 05.9	-5.0
DLMT	**Dillon**	**48.85**	**328**	P	P	19 14 17.9	-6.0
M02C	**Callahan**	**52.79**	**318**	P	P	19 14 47.9	-5.8
M02C				IAmb	IAmb	19 15 12.6	
	comp=Z,9.4nm,1.2s						
S31K	**Pelican**	**67.89**	**331**	P	P	19 16 31.3	-5.3
TGL	**Tana Glacier**	**72.05**	**332**	P	P	19 16 57.4	-4.8
E29M	**Blow River**	**72.98**	**340**	P	P	19 17 02.6	-4.9

*NOU **24** 19:26:09.0,38.°52S×175.°65E,h174km,MLv3.7/16,North Island, New Zealand*

*WEL **24** 19:26:11.4±1.7,38.°S±8.°×17.°6E±.°,h157km±16km,M2.9/17, ML2.0/5,MLv2.9/17,Error ellipse: s-maj=11.3km s-min=6.4km az=25.6*

ISC 24 19:26:06.6±1.7,**38.°42S**±0.°05×**175.°63E**±0.°05, **h196**km±11km,**n116,**σ1§**43/121,North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLZ	**Tolley Road**	**0.11**	**321**	P	**Pn**	**19 26 33.3**	**+0.9**
TLZ				AML	AML		
KUTZ	**Kaahu Road**	**0.17**	**115**	P	**Pn**	**19 26 33.5**	**+1.2**
KUTZ				AML	AML		
KUTZ				AML	AML		
WATZ	**Wairara**	**0.30**	**164**	P	**Pn**	**19 26 33.9**	**+1.3**
WATZ				AML	AML		
GRRZ	**Galatos Road**	**0.39**	**80**	P	**Pn**	**19 26 33.8**	**+1.0**
WPRZ	**Whakapapatarin**	**0.43**	**104**	P	**Pn**	**19 26 33.9**	**+0.9**
WPRZ				AML	AML		
WPRZ				AML	AML		
UTU	**Utuhina**	**0.51**	**62**	P	**Pn**	**19 26 34.3**	**+1.0**
HRRZ	**Handcock Road**	**0.52**	**87**	P	**Pn**	**19 26 34.3**	**+1.0**
ALRZ	**Allen Road**	**0.58**	**105**	P	**Pn**	**19 26 34.6**	**+1.1**
ALRZ				AML	AML		
RITZ	**Rihia Road**	**0.59**	**162**	P	**Pn**	**19 26 35.2**	**+1.6**
RITZ				AML	AML		
RITZ				AML	AML		
HIZ	**Hauiti**	**0.61**	**261**	P	**Pn**	**19 26 34.9**	**+1.3**
HIZ	**Hauiti**	**0.61**	**261**	P	**Pn**	**19 26 34.9**	**+1.3**
KMRZ	**Kaimai**	**0.62**	**23**	P	**Pn**	**19 26 34.7**	**+0.9**
KMRZ				AML	AML		
KARZ	**Kaharoa**	**0.63**	**51**	P	**Pn**	**19 26 34.6**	**+0.8**
KARZ				AML	AML		
KARZ				AML	AML		
NTVZ	**North Tongarir**	**0.68**	**177**	P	**Pn**	**19 26 35.8**	**+1.7**
TOZ	**Tahuroa Road**	**0.69**	**352**	P	**Pn**	**19 26 35.1**	**+1.0**
TOZ				AML	AML		
WTVZ	**West Tongariro**	**0.70**	**182**	P	**Pn**	**19 26 34.1**	**-0.1**
TMVZ	**Te Maari**	**0.70**	**175**	P	**Pn**	**19 26 35.9**	**+1.7**
ETVZ	**East Tongariro**	**0.72**	**175**	P	**Pn**	**19 26 36.0**	**+1.7**
MRHZ	**Matea Rd**	**0.74**	**124**	P	**Pn**	**19 26 35.2**	**+0.8**
OTVZ	**Oturere**	**0.74**	**178**	P	**Pn**	**19 26 36.1**	**+1.6**
NGZ	**Ngauruhoe**	**0.76**	**182**	P	**Pn**	**19 26 35.7**	**+1.1**
COVZ	**Chateau Observ**	**0.78**	**185**	P	**Pn**	**19 26 36.1**	**+1.5**
FWVZ	**Far West T-bar**	**0.84**	**184**	P	**Pn**	**19 26 36.5**	**+1.4**
TUVZ	**Tukino**	**0.85**	**179**	P	**Pn**	**19 26 36.8**	**+1.7**
MAVZ	**Matarangi**	**0.85**	**183**	P	**Pn**	**19 26 37.0**	**+1.7**
TGRZ	**Tauranga**	**0.85**	**36**	P	**Pn**	**19 26 35.8**	**+0.8**
WHVZ	**Whangaehu Hut**	**0.86**	**182**	P	**Pn**	**19 26 37.1**	**+1.9**
WNVZ	**Wahianoa**	**0.91**	**181**	P	**Pn**	**19 26 37.1**	**+1.6**
OPRZ	**Ohinepanea**	**0.93**	**52**	P	**Pn**	**19 26 36.1**	**+0.7**
MARZ	**Manawahe**	**0.93**	**63**	P	**Pn**	**19 26 36.8**	**+1.3**
VRZ	**Vera Road**	**0.98**	**224**	P	**Pn**	**19 26 37.7**	**+1.9**
MOVZ	**Moawhango**	**0.99**	**174**	P	**Pn**	**19 26 37.2**	**+1.3**
BKZ	**Black Stump Fm**	**1.01**	**138**	P	**Pn**	**19 26 37.0**	**+1.0**
BKZ	**Black Stump Fm**	**1.01**	**138**	P	**Sn**	**19 26 57.6**	**-1.3**
BKZ	**Black Stump Fm**	**1.01**	**138**	P	**Pn**	**19 26 37.1**	**+1.2**
BKZ				AML	AML		
MTHZ	**Maungataniwha**	**1.04**	**115**	P	**Pn**	**19 26 37.3**	**+1.1**
MTHZ				AML	AML		
RTZ	**Ruatahuna**	**1.08**	**101**	P	**Pn**	**19 26 37.6**	**+1.0**
RTZ				AML	AML		
BHHZ	**Black Hill Sta**	**1.12**	**163**	P	**Pn**	**19 26 38.1**	**+1.3**
NMHZ	**Naumai**	**1.14**	**127**	P	**Pn**	**19 26 39.1**	**+2.1**
NMHZ				AML	AML		
URZ	**Urewera**	**1.18**	**83**	P	**Pn**	**19 26 37.4**	**+0.2**
URZ	**Urewera**	**1.18**	**83**	S	**Sn**	**19 26 59.3**	**-1.5**
URZ	**Urewera**	**1.18**	**83**	P	**Pn**	**19 26 37.6**	**+0.4**
URZ				AML	AML		
KWHZ	**Kaweka Forest**	**1.18**	**149**	P	**Pn**	**19 26 38.9**	**+1.7**
RAHZ	**Arahi**	**1.24**	**114**	P	**Pn**	**19 26 39.6**	**+1.8**
RAHZ				AML	AML		
MCHZ	**McNeill Hill**	**1.32**	**141**	P	**Pn**	**19 26 40.7**	**+2.4**
KRHZ	**Kereru**	**1.35**	**155**	P	**Pn**	**19 26 40.4**	**+1.8**
ARHZ	**Aropaoanui**	**1.36**	**129**	P	**Pn**	**19 26 40.7**	**+2.0**
MKAZ	**Moumakai**	**1.36**	**344**	P	**Pn**	**19 26 39.9**	**+1.2**
RAGZ	**Rawiri**	**1.41**	**94**	P	**Pn**	**19 26 40.3**	**+1.1**
RAGZ				S	**Sn**	**19 27 03.1**	**-1.2**
RAGZ				AML	AML		
WHHZ	**Waihua**	**1.42**	**118**	P	**Pn**	**19 26 41.0**	**+1.9**
WAZ	**Wanganui**	**1.43**	**200**	P	**Pn**	**19 26 41.6**	**+2.4**
MWZ	**Matawai**	**1.50**	**87**	P	**Pn**	**19 26 40.7**	**+0.8**
MWZ				AML	AML		
PKE	**Pukeiti**	**1.50**	**238**	P	**Pn**	**19 26 42.4**	**+2.5**
AWAZ	**Awhitu Peninsu**	**1.56**	**330**	P	**Pn**	**19 26 42.0**	**+1.5**
AWAZ				AML	AML		
ETAZ	**East Tamaki Re**	**1.56**	**339**	P	**Pn**	**19 26 41.8**	**+1.3**
TSZ	**Takapari Road**	**1.66**	**171**	P	**Pn**	**19 26 43.1**	**+1.8**
CKHZ	**Cape Kidnapper**	**1.68**	**138**	P	**Pn**	**19 26 43.6**	**+2.1**
RUGZ	**Raukumara Rang**	**1.68**	**75**	P	**Pn**	**19 26 41.7**	**0.0**
RUGZ				S	**Sn**	**19 27 05.5**	**-3.3**
KAHZ	**Kahuranaki**	**1.68**	**145**	P	**Pn**	**19 26 43.7**	**+2.1**
RIGZ	**Rimuhau**	**1.70**	**100**	P	**Pn**	**19 26 43.3**	**+1.5**
RIGZ				S	**Sn**	**19 27 07.9**	**-1.2**
RIGZ				AML	AML		
WTAZ	**Waiatarua**	**1.70**	**330**	P	**Pn**	**19 26 43.7**	**+1.8**
WTAZ				AML	AML		
KNZ	**Kokohu**	**1.71**	**111**	P	**Pn**	**19 26 43.3**	**+1.5**
TKGZ	**Te Karaka**	**1.74**	**91**	P	**Pn**	**19 26 43.7**	**+1.6**
TKGZ				S	**Sn**	**19 27 08.8**	**-1.0**
MBAZ	**Motutapu North**	**1.75**	**340**	P	**Pn**	**19 26 43.5**	**+1.3**
MBAZ				AML	AML		
WPHZ	**Waipukurau**	**1.76**	**159**	P	**Pn**	**19 26 44.1**	**+1.8**
OHWZ	**Ohakea**	**1.80**	**188**	P	**Pn**	**19 26 45.0**	**+2.3**
HAZ	**Te Kaha**	**1.82**	**69**	P	**Pn**	**19 26 43.3**	**+0.3**
PRGZ	**Paritu Road**	**1.83**	**107**	P	**Pn**	**19 26 44.7**	**+1.6**
TWGZ	**Tauwhareparae**	**1.87**	**83**	P	**Pn**	**19 26 45.0**	**+1.5**
TWGZ				S	**Sn**	**19 27 11.6**	**-0.4**
TWGZ				AML	AML		
PXZ	**Pawanui**	**1.87**	**150**	P	**Pn**	**19 26 45.2**	**+1.8**
DVHZ	**Dannevirke**	**1.92**	**168**	P	**Pn**	**19 26 45.5**	**+1.5**
MHGZ	**Mahia Peninsul**	**1.93**	**113**	P	**Pn**	**19 26 45.9**	**+2.0**
POWZ	**Post Office Ro**	**1.97**	**177**	P	**Pn**	**19 26 46.0**	**+1.5**
PRHZ	**Porangahau**	**2.00**	**157**	P	**Pn**	**19 26 46.6**	**+1.9**
PKGZ	**Pakihiroa**	**2.01**	**75**	P	**Pn**	**19 26 46.0**	**+1.1**
CNGZ	**Carnagh Statio**	**2.03**	**93**	P	**Pn**	**19 26 46.9**	**+1.9**
PUZ	**Puketiti**	**2.10**	**81**	P	**Pn**	**19 26 46.7**	**+0.9**
ANWZ	**Angora Road**	**2.14**	**162**	P	**Pn**	**19 26 48.3**	**+2.1**
PRWZ	**Pori Road**	**2.15**	**173**	P	**Pn**	**19 26 48.1**	**+1.8**
GRZ	**Great Barrier**	**2.17**	**356**	P	**Pn**	**19 26 48.1**	**+1.5**
MRZ	**Mangatainoka R**	**2.24**	**181**	P	**Pn**	**19 26 48.4**	**+1.2**
WMGZ	**Waiomatatini S**	**2.28**	**76**	P	**Pn**	**19 26 48.8**	**+1.1**
MXZ	**Matakaoa Point**	**2.28**	**69**	P	**Pn**	**19 26 48.9**	**+1.1**
MXZ	**Matakaoa Point**	**2.28**	**69**	P	**Sn**	**19 27 19.2**	**-0.6**
MXZ	**Matakaoa Point**	**2.28**	**69**	P	**Pn**	**19 26 49.1**	**+1.3**
BFZ	**Birch Farm**	**2.31**	**168**	P	**Pn**	**19 26 49.2**	**+1.2**
BFZ	**Birch Farm**	**2.31**	**168**	S	**Sn**	**19 27 19.0**	**-1.5**
BFZ	**Birch Farm**	**2.31**	**168**	P	**Pn**	**19 26 49.4**	**+1.4**
TIWZ	**Tintock**	**2.36**	**175**	P	**Pn**	**19 26 50.0**	**+1.3**
OGWZ	**Otaki Gorge**	**2.42**	**188**	P	**Pn**	**19 26 50.6**	**+1.4**
HOWZ	**Holdsworth Sta**	**2.48**	**182**	P	**Pn**	**19 26 50.9**	**+1.0**
KIW	**Kapiti Island**	**2.50**	**193**	P	**Pn**	**19 26 51.2**	**+1.0**
CPWZ	**Castlepoint**	**2.53**	**170**	P	**Pn**	**19 26 52.2**	**+1.8**
TMWZ	**Te Maipa**	**2.69**	**176**	P	**Pn**	**19 26 52.4**	**0.0**
CAW	**Cannon Point**	**2.72**	**189**	P	**Pn**	**19 26 53.8**	**+1.1**
DUWZ	**D'Urville Isla**	**2.72**	**208**	P	**Pn**	**19 26 53.6**	**+0.9**
MTW	**Mount Morrison**	**2.74**	**182**	P	**Pn**	**19 26 53.6**	**+0.8**
WEL	**Wellington**	**2.94**	**193**	P	**Pn**	**19 26 56.2**	**+1.0**
PAWZ	**Paruwai Farm**	**2.96**	**183**	P	**Pn**	**19 26 56.1**	**+0.6**
SNZO	**South Karori**	**2.97**	**194**	P	**Pn**	**19 26 56.3**	**+0.7**
SNZO	**South Karori**	**2.97**	**194**	S	**Sn**	**19 27 32.2**	**-1.9**
TCW	**Tory Channel**	**2.98**	**200**	P	**Pn**	**19 26 56.5**	**+0.9**
TRWZ	**Traveller**	**2.98**	**179**	P	**Pn**	**19 26 56.4**	**+0.8**
BHW	**Baring Head**	**3.04**	**191**	P	**Pn**	**19 26 57.0**	**+0.5**
PLWZ	**Palliser**	**3.16**	**185**	P	**Pn**	**19 26 58.3**	**+0.4**
TUWZ	**Tuamarina**	**3.27**	**203**	P	**Pn**	**19 27 00.7**	**+1.5**
NNZ	**Nelson**	**3.29**	**211**	P	**Pn**	**19 27 00.0**	**+0.7**
TKNZ	**Takaka Hill**	**3.32**	**217**	P	**Pn**	**19 27 01.0**	**+1.2**
QRZ	**Quartz Range**	**3.39**	**224**	P	**Pn**	**19 27 01.8**	**+1.2**
QRZ	**Quartz Range**	**3.39**	**224**	S	**Sn**	**19 27 41.7**	**-1.4**
QRZ	**Quartz Range**	**3.39**	**224**	P	**Pn**	**19 27 00.8**	**+0.1**
BSWZ	**Blackbirch Sta**	**3.56**	**202**	P	**Pn**	**19 27 03.4**	**+0.8**
MRNZ	**Matariki Terra**	**3.71**	**216**	P	**Pn**	**19 27 04.7**	**+0.2**
KHZ	**Kahutara**	**4.30**	**201**	P	**Pn**	**19 27 12.3**	**+0.4**
KHZ	**Kahutara**	**4.30**	**201**	S	**Sn**	**19 28 01.6**	**-1.7**
ODZ	**Otahua Downs**	**7.59**	**208**	P	**Pn**	**19 27 56.3**	**+1.9**
	16nm,2.7s						
ODZ				AML	AML		

*IDC **24** 19:30:17.2±2.1,17.°60S×178.°67W,h629km±21km,mb3.1/6, mbtmp4.1/7,Error ellipse: s-maj=79.8km s-min=18.5km az=147.0*

ISC 24 19:30:18.7±1.5,**17.°4S**±0.°6×**178.°9W**±0.°4,**h650**km,**n8,** σ1§**23/8,mb3.6/6,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**2.94**	**264**	P	**P**	**19 31 39.6**	**-2.1**
	18nm,0.6s,baz=238,slow=23,SNR=13						
STKA	**Stephens Creek**	**38.47**	**240**	P	**P**	**19 36 48.3**	**+0.4**
	2.2nm,0.5s,baz=86,slow=8.6,SNR=12						
	2.2nm,0.5s						
WRA	**Warramunga Arr**	**44.27**	**259**	P	**P**	**19 37 34.7**	**+1.1**
	1.4nm,0.5s,baz=96,slow=7.4,SNR=32						
	1.4nm,0.5s						
ASAR	**Alice Springs**	**44.49**	**254**	P	**P**	**19 37 36.2**	**+1.0**
	7.0nm,0.6s,baz=87,slow=8.7,SNR=148						
	7.0nm,0.6s						
ILAR	**Eielson Array**	**85.53**	**13**	P	**P**	**19 41 50.1**	**+0.6**
	0.3nm,0.5s,baz=220,slow=4.2,SNR=7.7						
	0.3nm,0.5s						
TXAR	**Lajitas Array**	**86.12**	**58**	P	**P**	**19 41 53.4**	**+0.1**
	0.6nm,0.7s,baz=215,slow=6.1,SNR=4.1						
	0.6nm,0.7s						
PDAR	**Pinedale Array**	**87.32**	**44**	P	**P**	**19 41 58.9**	**+0.1**
	0.5nm,0.7s,baz=222,slow=3.6,SNR=4.9						
	0.5nm,0.7s						
GERES	**GERESS Array B**	**147.03**	**345**	PKPbc	**PKiKP**	**19 48 51.4**	**-0.7**
	0.3nm,0.5s,baz=36,slow=5.3,SNR=3.8						

*SOF **24** 19:35:39.1,42.°13N±0.°01×22.°07E±0.°01,h3km±2km, MD2.7/10*

*BEO **24** 19:35:42.5±0.7,42.°22N×22.°10E,h0km,ML1.9/7*

*SKO **24** 19:35:42.2,41.°98N×22.°14E,h17km,ML1.9*

ISC 24 19:35:40.1±1.0,**42.°16N**±0.°02×**22.°10E**±0.°02,**h17**km±9km, **n28,**σ0§**69/53,2C-8D,Bulgaria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOSS	**Bosilegrad**	**0.44**	**40**	*e*Pg	**Pb**	**19 35 49.3**	**-0.1**
BOSS				*e*Sg	**Sb**	**19 35 55.3**	**-0.4**
SKO	**Skopje**	**0.53**	**250**	*i*Pg	**Pn**	**19 35 52.5**	**-0.3**
SKO				*i*Sg	**Sb**	**19 35 57.9**	**-0.3**
BARS	**Barje**	**0.69**	**342**	*e*Pg	**Pb**	**19 35 53.5**	**-0.2**
BARS				*e*Sg	**Sb**	**19 36 02.9**	**0.0**
TRAN	**Tran**	**0.79**	**31**	P	**Pb**	**19 35 55.0**	**-0.4**
TRAN				S	**Sb**	**19 36 06.0**	**+0.2**
KKB	**Krupnik**	**0.83**	**112**	P	**Pn**	**19 35 56.5**	**-0.5**
KKB				S	**Sg**	**19 36 07.3**	**+0.1**
VAY	**Valandovo**	**0.91**	**157**	*i*Pg	**Pb**	**19 35 57.0**	**-0.3**
VAY				*i*Sg	**Sg**	**19 36 09.1**	**-0.5**
VAY				*e*Lg	Lg	19 36 09.4	
	comp=N,21nm,0.4s						
VAY				*e*Lg	Lg	19 36 10.1	
	comp=E,23nm,0.5s						
VTS	**Vitosha**	**0.96**	**61**	P	**Pn**	**19 35 58.9**	**0.0**
VTS				S	**Sn**	**19 36 11.8**	**-0.5**
VTS	**Vitosha**	**0.96**	**61**	*e*Pg	**Pn**	**19 35 58.8**	**-0.1**
VTS				*e*Sg	**Sn**	**19 36 11.7**	**-0.5**
PLNA	**Plana**	**1.03**	**72**	P	**Pg**	**19 36 00.5**	**+0.4**
PLNA				S	**Sn**	**19 36 14.5**	**+0.5**
BLSH	**Balsha**	**1.12**	**51**	P	**Pg**	**19 36 02.6**	**+0.9**
BLSH				S	**Sg**	**19 36 17.1**	**+0.7**
ZAPS	**Zavoj**	**1.18**	**19**	*e*Pg	**Pg**	**19 36 03.2**	**+0.3**
ZAPS				*e*Sg	**Sg**	**19 36 18.9**	**+0.5**
SELS	**Selova**	**1.28**	**326**	*e*Pg	**Pg**	**19 36 04.5**	**-0.4**
SELS				*e*Sg	**Sg**	**19 36 21.6**	**0.0**
MMB	**Musomishta**	**1.38**	**116**	P	**Pg**	**19 36 06.2**	**-0.4**
MMB				S	**Sg**	**19 36 24.2**	**-0.3**
OHR	**Ohrid**	**1.43**	**223**	*i*Pg	**Pg**	**19 36 08.3**	**+0.6**
OHR				*i*Sg	**Sg**	**19 36 26.9**	**+0.6**
OHR				*e*Lg	Lg	19 36 27.5	
	comp=N,9.7nm,0.3s						
OHR				*e*Lg	Lg	19 36 28.2	
	comp=E,28nm,0.9s						
BOVS	**Bovan**	**1.50**	**349**	*e*Pn	**Pb**	**19 36 08.0**	**+0.4**
BOVS	**Bovan**	**1.50**	**349**	⇓P	**Pb**	**19 36 07.9**	**+0.4**
BOVS				⇓S	**Sg**	**19 36 28.8**	**+0.2**
BLKB	**Belogradchik**	**1.52**	**16**	*e*Pg	**Pb**	**19 36 08.3**	**+0.4**
BLKB				*e*Sg	**Sg**	**19 36 28.2**	**-1.1**
BLKB	**Belogradchik**	**1.52**	**16**	⇑P	**Pb**	**19 36 08.3**	**+0.4**
BLKB				⇓S	**Sg**	**19 36 29.3**	**0.0**
PGB	**Panagyurishte**	**1.58**	**76**	*e*P	**Pg**	**19 36 10.3**	**-0.1**
PGB				*e*S	**Sg**	**19 36 31.0**	**0.0**
ZAGS	**Zajecar**	**1.66**	**3**	*e*Pg	**Pg**	**19 36 11.7**	**-0.2**
ZAGS				*e*Sg	**Sb**	**19 36 31.6**	**+0.9**
GOCS	**Kraljevo Serbi**	**1.67**	**328**	*e*Pn	**Pg**	**19 36 11.2**	**-1.0**
MPEP	**Malo Peshtene**	**1.70**	**45**	P	**Pg**	**19 36 12.2**	**-0.6**
GRUS	**Gruza**	**2.00**	**330**	*e*Pn	**Pb**	**19 36 17.0**	**+0.9**
GRUS				*e*Sn	**Sg**	**19 36 44.2**	**-0.4**
RZN	**Rozhen**	**2.02**	**102**	P	**Pb**	**19 36 16.1**	**-0.4**
RZN				S	**Sb**	**19 36 43.0**	**+1.6**
KDZ	**Kurdzhali**	**2.48**	**101**	*e*P	**Pb**	**19 36 24.5**	**+0.4**
KDZ				*e*S	**Sg**	**19 36 58.2**	**-1.5**
MDVR	**Moldovita**	**2.64**	**354**	⇑P	**Pg**	**19 36 29.7**	**-1.0**
MDVR				⇓S	**Sg**	**19 37 04.1**	**-0.7**
HERR	**Herculane**	**2.73**	**5**	⇓P	**Pg**	**19 36 30.7**	**-1.8**
HERR				⇓S	**Sn**	**19 36 55.9**	**+0.2**
GZR	**Gura Zlata**	**3.27**	**8**	⇓P	**Pb**	**19 36 39.6**	**+1.9**
GZR				⇓S	**Sn**

MK31	**Makanchi Array**	**12.68**	**34**	⇑P		**P**	**19 54 15.2**	**+3.1**
	comp=N,0.4nm,0.6s,baz=207,slow=10,SNR=7.7							
MKAR	**Makanchi Array**	**12.68**	**34**	P		**Pn**	**19 54 07.0**	**+2.2**
	comp=N,1.1nm,0.8s,baz=228,slow=14,SNR=7.9							
MKAR				S		**Sn**	**19 56 22.2**	**-1.8**
	comp=N,0.4nm,0.7s,baz=198,slow=23,SNR=2.2							
KURBB	**Kurchatov Arra**	**14.67**	**17**	P		**P**	**19 54 33.8**	**-0.2**
	comp=N,0.8nm,0.5s,baz=204,slow=10,SNR=5.5							
KURBB	**Kurchatov Arra**	**14.67**	**17**	⇑P		**P**	**19 54 34.7**	**+0.6**
	comp=N,1.1nm,0.5s							
KURK	**Kurchatov**	**14.78**	**17**	⇑P		**P**	**19 54 35.4**	**+0.2**
	comp=N,0.1nm,0.5s							
AB31	**Akbulak array**	**15.23**	**329**	P		**Pn**	**19 54 33.8**	**-3.9**
	comp=N,1.1nm,0.4s,baz=135,slow=13,SNR=59							
AB31				⇑S		Sn	19 57 10.2	-15
	comp=N,0.3nm,0.3s,baz=143,slow=26,SNR=5.4							
BVAR	**Borovoye Array**	**16.31**	**357**	P		**Pn**	**19 54 49.0**	**-2.2**
	comp=N,1.3nm,0.4s,baz=163,slow=12,SNR=15							
AKTO	**Aktyubinsk**	**16.93**	**328**	P		**Pn**	**19 54 57.6**	**-1.3**
	comp=N,7.4nm,0.5s,baz=127,slow=9.6,SNR=26							
AKTO				S		Sn	19 57 53.6	-13
	comp=N,0.9nm,0.5s,baz=71,slow=14,SNR=1.7							
AKTO	**Aktyubinsk**	**16.93**	**328**	⇑P		**P**	**19 54 59.3**	**+0.1**
	comp=N,3.6nm,0.5s							
ZALV	**Zalesovo Beam**	**19.40**	**23**	P		**P**	**19 55 27.9**	**+1.8**
	comp=N,0.9nm,0.3s,baz=234,slow=11,SNR=7.1							
ARTI	**Arti**	**21.65**	**339**	P		**P**	**19 55 50.3**	**-0.1**
	comp=N,0.9nm,0.5s,baz=138,slow=6.5,SNR=3.1							
	comp=N,0.9nm,0.5s							
MLR	**Muntele Rosu**	**35.29**	**299**	LR		LR	20 17 22.6	
	comp=N,71nm,19.1s,baz=0.0,slow=45							
FINES	**FINESS Array B**	**37.68**	**326**	P		**P**	**19 58 15.7**	**+2.3**
	comp=N,2.9nm,1.0s,baz=126,slow=7.1,SNR=3.6							
	comp=N,2.9nm,1.0s							
ARCES	**ARCESS Array B**	**41.19**	**337**	P		**P**	**19 58 43.6**	**+1.1**
	comp=N,3.0nm,1.0s,baz=114,slow=8.4,SNR=5.9							
	comp=N,3.0nm,1.0s							
HFS	**Hagfors**	**43.32**	**322**	P		**P**	**19 59 03.0**	**+3.1**
	comp=N,3.1nm,1.0s,baz=82,slow=13,SNR=1.3							
	comp=N,3.1nm,1.0s							

*PGC **24** 19:51:53.4±0.0,62°.20N×124°.45W,h1km,ML3.7/8, 127km south of Wrigley, Nt Nw Territories - Nunavut, Canada*
*IDC **24** 19:51:54.2±1.5,62°.28N×124°.29W,h0km,mb3.3/1, mbtmp3.1/3,ML2.9/2,Error ellipse: s-maj=29.6km s-min=12.3km az=4.0*
ISC 24 19:51:52.7±0.8,62°.23N±0°.04×124°.40W±0°.04,h7km,n35, σ3$22/53,Northwest Territories

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
NAHA	**Nahanni Butte**	**1.30**	**158**	P		**Pn**	**19 52 16.1**	**-1.1**
NAHA				S		**Sb**	**19 52 33.5**	**-0.6**
NBC1	**NorthernBC 1**	**2.60**	**174**	Pn		**Pn**	**19 52 35.2**	**+0.1**
FNSB	**Fort Nelson**	**3.54**	**166**	Pn		**Pn**	**19 52 48.6**	**+0.6**
N32M	**Quiet Lake**	**4.28**	**259**	Pn		**Pn**	**19 52 58.5**	**+0.4**
N32M				Sg		**Sb**	**19 54 04.7**	**+4.8**
R33M	**Jennings River**	**4.29**	**231**	Pn		**Pn**	**19 52 58.3**	**-0.1**
R33M				Sn		**Sn**	**19 53 47.3**	**-1.5**
P33M	**Teslin, Yukon**	**4.55**	**247**	Pn		**Pn**	**19 53 01.5**	**-0.4**
P33M				Sg		**Sb**	**19 54 12.7**	**+5.1**
YKA	**Yellowknife Ar**	**4.57**	**82**	Pn		**Pn**	**19 53 02.7**	**+0.6**
	0.7nm,0.3s,baz=272,slow=13,SNR=15							
YKA				Pg		**Pb**	**19 53 16.4**	**+3.3**
	2.4nm,0.3s,baz=271,slow=17,SNR=21							
YKA				Sn		**Sn**	**19 53 55.0**	**-0.4**
	1.6nm,0.3s,baz=272,slow=23,SNR=4.3							
YKA				Lg		Lg	19 54 14.3	
	3.3nm,0.3s,baz=271,slow=30,SNR=7.2							
	2.1nm,0.5s							
YKA				AML		AML		
DLBC	**Dease Lake**	**4.72**	**219**	Pn		**Pn**	**19 53 04.4**	**+0.1**
Q32M	**Nakina River**	**5.08**	**233**	Sn		**Sn**	**19 54 06.8**	**-1.4**
P32M	**Atlin**	**5.26**	**244**	Sn		**Sn**	**19 54 09.2**	**-3.3**
WHY	**Whitehorse**	**5.27**	**257**	Pn		**Pn**	**19 53 12.8**	**+0.9**
WHY				Sn		**Sn**	**19 54 10.5**	**-2.3**
WHY				Sg		**Sb**	**19 54 34.9**	**+6.4**
S34M	**Telegraph Cree**	**5.49**	**221**	Pn		**Pn**	**19 53 14.8**	**+0.1**
S34M				Sg		**Sg**	**19 54 42.0**	**-6.7**
H31M	**Peel River**	**5.65**	**314**	Pn		**Pn**	**19 53 17.1**	**+0.1**
M30M	**Minto, Yukon**	**5.77**	**279**	Pn		**Pn**	**19 53 18.9**	**+0.2**
O30N	**Mendenhall**	**5.79**	**261**	Pn		**Pn**	**19 53 18.3**	**-0.6**
O30N				Sn		**Sn**	**19 54 24.3**	**-1.1**
O30N				Sg		**Sb**	**19 54 48.9**	**+5.6**
N30M	**Aishikik Lake**	**6.06**	**268**	Pn		**Pn**	**19 53 22.5**	**-0.1**
N30M				Sn		**Sn**	**19 54 31.1**	**-1.0**
I30M	**Mount Dempster**	**6.10**	**305**	Pn		**Pn**	**19 53 23.8**	**+0.5**
I30M				Sn		**Sn**	**19 54 32.0**	**-1.3**
BESE	**Bessie Mountai**	**6.34**	**239**	Pn		**Pn**	**19 53 25.9**	**-0.6**
HYT	**Haines Junctio**	**6.42**	**263**	Pn		**Pn**	**19 53 27.5**	**-0.2**
P30M	**Million Dollar**	**6.43**	**256**	Pn		**Pn**	**19 53 27.5**	**-0.3**
P30M				Sn		**Sn**	**19 54 41.1**	**-0.2**
P30M				Sg		**Sb**	**19 55 07.6**	**+5.8**
YUK5	**Granite Creek**	**6.50**	**266**	Pn		**Pn**	**19 53 28.6**	**-0.1**
YUK5				Sg		**Sb**	**19 55 11.8**	**+7.9**
M29M	**Somme Creek**	**6.55**	**278**	Sg		**Sg**	**19 55 15.3**	**-7.5**
F31M	**Tsiigehtchic**	**6.57**	**327**	Pn		**Pn**	**19 53 28.5**	**-0.9**
F31M				Sn		**Sn**	**19 54 41.6**	**-2.9**
EPYK	**Eagle Plains**	**6.77**	**313**	Pn		**Pn**	**19 53 32.2**	**-0.1**
YUK6	**Outpost Mounta**	**6.79**	**265**	Sg		**Sg**	**19 55 22.0**	**-8.4**
YUK4	**Talbot Arm**	**6.81**	**269**	Pn		**Pn**	**19 53 31.8**	**-1.3**
YUK7	**Dusty Glacier**	**6.82**	**262**	Sg		Sg	19 55 22.3	-9.0
KUKN	**Kugluktuk,NWT**	**6.85**	**31**	Sn		**Sn**	**19 54 48.2**	**-3.2**
G30M	**tAoh Zrail Nji**	**6.96**	**318**	Pn		**Pn**	**19 53 33.9**	**-1.0**
G30M				Sn		**Sn**	**19 54 51.4**	**-2.9**
DAWY	**Dawson**	**7.03**	**292**	Pn		**Pn**	**19 53 35.8**	**-0.2**
C36M	**Paulatuk**	**7.15**	**1**	Sn		**Sn**	**19 54 54.1**	**-4.6**
INK	**Inuvik**	**7.19**	**332**	Pn		**Pn**	**19 53 37.9**	**-0.1**
INK				Sn		**Sn**	**19 54 54.9**	**-4.9**
F30M	**Barrier River**	**7.24**	**323**	Sn		**Sn**	**19 55 00.0**	**-1.0**
ILAR	**Eielson Array**	**10.34**	**294**	Pn		**Pn**	**19 54 23.1**	**+1.8**
	0.1nm,0.3s,baz=100,slow=11,SNR=5.0							
ILAR				Lg		Lg	19 57 17.8	
	baz=96,slow=28,SNR=5.3							
	0.3nm,0.7s							
ILAR				AML		AML		
NVAR	**Mina Array Bea**	**24.12**	**168**	P		**P**	**19 57 12.3**	**+3.1**
	0.5nm,0.7s,baz=354,slow=8.2,SNR=2.8							
	0.5nm,0.7s							

*AFAD **24** 19:53:54.3,38°.50N×44°.26E,h22km±2km, ML2.7*
*TEH **24** 19:53:55.6,38°.62N×44°.41E,h6km±9km, ML2.7, Presumed earthquake*
*ISK **24** 19:53:55.0,38°.59N×44°.19E,h5km, ML2.8/5*
*AZER **24** 19:53:55.0,38°.72N×44°.47E,h2km, ml2.6*
ISC 24 19:53:53.7±1.1,38°.53N±0°.02×44°.34E±0°.02,h6km±10km, n54,σ1$34/84,Turkey-Iran border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
OZAP	**Van, Ozalp-Mer**	**0.30**	**297**	P		**Pb**	**19 54 01.2**	**-0.5**
OZAP				S		**Sb**	**19 54 06.1**	**-1.0**
OZAP				IAML			19 54 09.0	
	comp=N,2μm,0.8s							
OZAP				IAML			19 54 10.0	
	comp=E,2μm,0.6s							
CLDR	**Caldiran**	**0.70**	**332**	P		**Pg**	**19 54 07.4**	**+0.1**
CLDR				S		**Sb**	**19 54 17.4**	**-1.2**
CLDR	**Caldiran**	**0.70**	**332**	Pg		**Pg**	**19 54 07.2**	**0.0**
TVAN	**Van**	**0.73**	**271**	P		**Pg**	**19 54 07.7**	**-0.1**
TVAN				IAML			19 54 29.0	
	comp=E,281nm,0.8s							
TVAN				IAML			19 54 33.0	
	comp=N,272nm,0.7s							
VMUR	**Van-Muradiye**	**0.76**	**308**	P		**Pb**	**19 54 09.2**	**-0.3**
VMUR				S		**Sb**	**19 54 19.9**	**-0.3**
YOVA	**Hakkari_Yksek**	**0.94**	**182**	P		**Pg**	**19 54 12.2**	**+0.5**
YOVA				S		**Sb**	**19 54 25.1**	**-0.2**
GEVA	**Gevas**	**1.03**	**258**	P		**Pg**	**19 54 12.2**	**-1.2**
GEVA				S		**Sg**	**19 54 26.4**	**-0.4**
GEVA				IAML			19 54 33.0	
	comp=E,171nm,0.3s							
ISHB	**Shabestar**	**1.03**	**103**	Pg		**Pn**	**19 54 15.3**	**+0.3**
ISHB				Sg		**Sn**	**19 54 29.4**	**-0.6**
AKDM	**Akdamar-Van**	**1.08**	**260**	Pg		**Pg**	**19 54 14.1**	**-0.4**
AKDM				Sg		**Sb**	**19 54 29.9**	**+0.4**
AKDM				AML		AML		
HAKT	**HAKKARI**	**1.09**	**207**	P		**Pg**	**19 54 14.3**	**-0.3**
HAKT				S		**Sg**	**19 54 27.5**	**-1.2**
HAKT	**HAKKARI**	**1.09**	**207**	P		**Pg**	**19 54 14.9**	**+0.3**
HAKT				S		**Sn**	**19 54 32.2**	**+0.9**
IMRD	**Marand**	**1.09**	**80**	Pg		**Pb**	**19 54 14.8**	**-0.3**
NAX	**Nakhchivan**	**1.11**	**54**	P		**Pn**	**19 54 16.3**	**+0.3**
NAX				S		**Sn**	**19 54 33.0**	**+1.3**
DYDN	**Diyadin**	**1.14**	**334**	P		**Pb**	**19 54 15.6**	**-0.3**
DYDN				S		**Sg**	**19 54 28.9**	**-1.4**
DYDN				IAML			19 54 33.0	
	comp=E,122nm,0.3s							
DYDN				IAML			19 54 34.0	
	comp=N,187nm,0.3s							
HYR	**Heyderabad**	**1.26**	**18**	P		**Pg**	**19 54 18.7**	**+0.8**
HYR				S		**Sn**	**19 54 36.9**	**+1.6**
SBZ	**Shahbuz**	**1.29**	**47**	P		**Pg**	**19 54 19.2**	**+0.8**
SBZ				S		**Sn**	**19 54 38.2**	**+2.1**
ADCV	**BITLIS_Adilcev**	**1.29**	**283**	P		**Pg**	**19 54 18.9**	**+0.4**
ADCV				S		**Sb**	**19 54 33.5**	**-2.1**
IGDI	**IGDIR**	**1.36**	**352**	P		**Pg**	**19 54 20.5**	**+0.8**
IGDI				S		**Sg**	**19 54 38.2**	**+0.8**
IGDI				IAML			19 54 43.0	
	comp=N,106nm,0.4s							
IGDI				IAML			19 54 43.0	
	comp=E,148nm,1.0s							
IGDI	**IGDIR**	**1.36**	**352**	P		**Pg**	**19 54 20.4**	**+0.6**
IGDI				S		**Sg**	**19 54 40.4**	**+3.1**
ORD	**Ordubad**	**1.36**	**72**	P		**Pg**	**19 54 20.4**	**+0.6**
ORD				S		**Sg**	**19 54 41.0**	**+3.7**
CUKT	**Cukurca**	**1.40**	**205**	P		**Pg**	**19 54 21.0**	**+0.4**
CUKT				S		**Sn**	**19 54 38.3**	**-0.6**
CUKT				IAML			19 54 45.0	
	comp=E,237nm,0.6s							
CUKT				IAML			19 54 50.0	
	comp=N,120nm,0.9s							
CUKT	**Cukurca**	**1.40**	**205**	Pn		**Pg**	**19 54 22.9**	**+2.3**
CUKT				AML		AML		
ITBZ	**Tabriz**	**1.45**	**101**	Pg		**Pg**	**19 54 21.7**	**+0.2**
ITBZ				Sg		**Sg**	**19 54 41.6**	**+1.2**
TASB	**TASBURUN-IGDIR**	**1.46**	**357**	Pn		**Pg**	**19 54 22.7**	**+1.0**
TASB				Sn		**Sg**	**19 54 43.1**	**+2.4**
TASB				AML		AML		
AGRB	**Hanur-Agry**	**1.48**	**315**	Pn		**Pg**	**19 54 22.2**	**0.0**
MLAZ	**Malazgirt-MUS**	**1.53**	**294**	Pn		**Pb**	**19 54 22.7**	**+0.1**
MLAZ				AML		AML		
PERV	**Siirt/Pervari-**	**1.53**	**248**	P		**Pb**	**19 54 22.1**	**-0.5**
PERV				S		**Sn**	**19 54 41.5**	**-0.6**
PERV				IAML			19 54 50.0	
	comp=N,179nm,0.6s							
PERV				IAML			19 54 51.0	
	comp=E,124nm,0.6s							
IAZR	**Azarshahr**	**1.55**	**123**	Pg		**Pg**	**19 54 24.4**	**+1.0**
KOTA	**Agri, Merkez-K**	**1.55**	**326**	P		**Pb**	**19 54 22.3**	**-0.7**
KOTA				S		**Sn**	**19 54 40.1**	**-2.6**
GNI	**Garni**	**1.65**	**11**	Pn		**Pg**	**19 54 25.9**	**+0.5**
GNI				AML		AML		
BLIS	**Bitlis-Merkez**	**1.75**	**267**	Pn		**Pb**	**19 54 25.6**	**-0.7**
GURO	**Guroymak-BITLI**	**1.81**	**272**	Pn		**Pb**	**19 54 26.9**	**-0.5**
SIRN	**Sırnak**	**1.83**	**237**	P		**Pg**	**19 54 28.9**	**0.0**
SIRN				IAML			19 55 00.0	
	comp=N,76nm,0.8s							
SIRN				IAML			19 55 04.0	
	comp=E,71nm,0.8s							
EKAR	**Karacoban**	**1.92**	**293**	P		**Pg**	**19 54 30.8**	**+0.2**
EKAR				IAML			19 55 11.0	
	comp=N,65nm,0.7s							
EKAR				IAML			19 55 20.0	
	comp=E,84nm,0.8s							
EATA	**Eleskirt**	**1.96**	**314**	P		**Pb**	**19 54 30.1**	**0.0**
SRTM	**Siirt_Merkez**	**1.98**	**255**	P		**Pb**	**19 54 30.1**	**-0.1**
SRTM				S		**Sb**	**19 54 55.9**	**+0.8**
SRTM				IAML			19 55 10.0	
	comp=E,89nm,0.6s							
SRTM				IAML			19 55 11.0	
	comp=N,75nm,0.8s							
DIGO	**Kars**	**2.03**	**339**	P		**Pg**	**19 54 32.2**	**-0.5**
DIGO				IAML			19 55 09.0	
	comp=N,69nm,0.6s							
DIGO				IAML			19 55 09.0	
	comp=E,90nm,0.7s							
IHRS	**Heris**	**2.13**	**95**	Pn		**Pg**	**19 54 33.6**	**-1.0**
MUSM	**Mu-Merkez**	**2.22**	**276**	P		**Pb**	**19 54 33.6**	**-0.8**
EAK	**Akyaka**	**2.23**	**346**	P		**Pg**	**19 54 35.8**	**-0.7**
EAK				IAML			19 55 12.0	
	comp=N,89nm,0.6s							
EAK				IAML			19 55 13.0	
	comp=E,49nm,0.8s							
KOPR	**Koprukoy-ERZUR**	**2.42**	**308**	Pn		**Pb**	**19 54 35.7**	**-2.2**
GDB	**GEDABAY**	**2.45**	**26**	P		**Pb**	**19 54 37.1**	**-1.3**
GDB				S		**Sg**	**19 55 12.5**	**0.0**
SVAN	**Silvan-Diyarba**	**2.50**	**262**	Pn		**Pb**	**19 54 36.9**	**-2.1**
QRD	**Qoradiz**	**2.50**	**67**	P		**Pb**	**19 54 38.4**	**-0.8**
QRD				S		**Sg**	**19 55 15.6**	**+1.3**
SENK	**Senkaya-Erzuru**	**2.55**	**324**	Pn		**Pb**	**19 54 37.6**	**-2.4**
GANJ	**Ganja**	**2.62**	**35**	P		**Pb**	**19 54 38.8**	**-2.2**
GANJ				S		**Sg**	**19 55 16.9**	**-0.9**
QZX	**Qazax, Azerbai**	**2.65**	**17**	P		**Pg**	**19 54 43.3**	**-1.3**
QZX				S		**Sg**	**19 55 17.7**	**-1.2**
AGDM	**Agdam**	**2.67**	**53**	P		**Pb**	**19 54 40.9**	**-1.1**
AGDM				S		**Sg**	**19 55 20.5**	**+1.0**
GRMI	**Germi**	**2.80**	**83**	Pn		**Pb**	**19 54 42.1**	**-2.2**
BNGB	**Bingl**	**2.90**	**280**	Pn		**Pn**	**19 54 42.4**	**+1.8**
YRD	**Yardimli**	**3.08**	**81**	P		**Pb**	**19 54 47.4**	**-1.6**
YRD				S		**Sg**	**19 55 29.8**	**-2.8**
YEDI	**Yedisu-Bingol**	**3.09**	**288**	Pn		**Pn**	**19 54 45.2**	**+1.9**
LRK	**Lerik**	**3.14**	**87**	P		**Pb**	**19 54 48.1**	**-2.0**
LRK				S		**Sg**	**19 55 32.8**	**-1.8**
SVRC	**Sivrice-ELAZID**	**3.95**	**269**	Pn		**Pn**	**19 54 57.6**	**+2.5**

*UPA **24** 20:05:49.1±0.5, 10°.66N×84°.48W,h10km, MW3.3, Presumed earthquake*
*UCR **24** 20:06:00.5±0.7, 10°.01N×84°.06W,h78km±1km, MW3.7, Presumed earthquake*
ISC 24 20:06:01.5±1.5,9°.96N±0°.05×84°.08W±0°.04,h74km±7km, n96,σ0$60/103,1D,Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DOMI	**Santo Domingo**	**0.03**	**323**	*eP*		**Pn**	**20 06 11.9**	**-0.5**
DOMI				*eS*		**Sn**	**20 06 20.7**	**+0.4**
LUPE	**Guadalupe**	**0.03**	**125**	*eP*		**Pn**	**20 06 11.7**	**-0.6**
SJS	**Escuela Geolog**	**0.03**	**137**	*eP*		**Pn**	**20 06 11.8**	**-0.6**
SJS				*eS*		**Sn**	**20 06 20.8**	**+0.5**
ECI	**Escuela Centro**	**0.03**	**136**	*eP*		**Pn**	**20 06 11.9**	**-0.5**
ECI				*eS*		**Sn**	**20 06 20.8**	**+0.5**
SJS3	**Mercedes San J**	**0.03**	**136**	*eP*		**Pn**	**20 06 12.0**	**-0.4**
LUJA	**Lujan**	**0.04**	**174**	*eP*		**Pn**	**20 06 11.9**	**-0.6**
PAVB	**Pavas, San Jos**	**0.05**	**243**	*eP*		**Pn**	**20 06 11.9**	**-0.5**
HEME	**Heredia, Merce**	**0.07**	**299**	*eP*		**Pn**	**20 06 12.1**	**-0.3**
HEME				*eS*		**Sn**	**20 06 20.9**	**+0.5**
CORON	**Coronado**	**0.07**	**81**	*eP*		**Pn**	**20 06 12.1**	**-0.3**
CORON				*eS*		**Sn**	**20 06 21.3**	**+0.8**
TRIO	**Tres Rios**	**0.10**	**125**	*eP*		**Pn**	**20 06 11.9**	**-0.6**
TRIO				*eS*		**Sn**	**20 06 20.8**	**+0.2**
BELE	**Belen**	**0.11**	**277**	*eP*		**Pn**	**20 06 11.9**	**-0.6**
SANTA	**Santa Ana**	**0.11**	**255**	*eP*		**Pn**	**20 06 11.7**	**-0.7**
CVIMO	**Finca Echandi**	**0.14**	**65**	*eP*		**Pn**	**20 06 15.8**	**+3.1**
VBV1	**V. Barva**	**0.15**	**351**	*eP*		**Pn**	**20 06 12.3**	**-0.5**
TAGO	**Cartago**	**0.18**	**123**	*eP*		**Pn**	**20 06 12.2**	**-0.5**
ACOS	**Acosta**	**0.19**	**208**	*eP*		**Pn**	**20 06 12.2**	**-0.6**
VICA	**Volcano Irazu**	**0.23**	**84**	*eP*		**Pn**	**20 06 12.8**	**-0.5**
LCR2	**La Lucha 2**	**0.23**	**162**	*eP*		**Pn**	**20 06 12.3**	**-0.7**
TCS1	**Tacares**	**0.23**	**290**	*eP*		**Pn**	**20 06 12.8**	**-0.1**
REPA	**Paraso**	**0.24**	**123**	*eP*		**Pn**	**20 06 12.4**	**-0.7**
ABE2	**San Pablo**	**0.26**	**175**	*eP*		**Pn**	**20 06 12.5**	**-0.7**
PURI	**Puriscal**	**0.26**	**244**	*eP*		**Pn**	**20 06 12.7**	**-0.4**
PCAYA	**Pacayas**	**0.27**	**100**	*eP*		**Pn**	**20 06 12.7**	**-0.5**
VPS8	**V Poas**	**0.27**	**323**	*eP*		**Pn**	**20 06 13.0**	**-0.4**
VPS5	**V. Poas**	**0.27**	**326**	*eP*		**Pn**	**20 06 12.8**	**-0.6**
ATEO	**Atenas**	**0.30**	**273**	*eP*		**Pn**	**20 06 12.8**	**-0.4**
PITB	**Pirrs, San**	**0.30**	**170**	*eP*		**Pn**	**20 06 12.7**	**-0.7**
RAZU	**San Marcos de**	**0.31**	**170**	*eP*		**Pn**	**20 06 12.7**	**-0.8**
CVTQ	**Turrialba Volc**	**0.31**	**82**	*eP*		**Pn**	**20 06 13.5**	**-0.1**
VTR0	**Volcan Turrial**	**0.32**	**80**	*eP*		**Pn**	**20 06 13.3**	**-0.5**
CVTR	**Volcan Turrial**	**0.32**	**80**	*eP*		**Pn**	**20 06 13.4**	**-0.3**
NARAN	**Naranjo de Ala**	**0.33**	**294**	*eP*		**Pn**	**20 06 13.2**	**-0.3**
VINA	**Juan Vinas**	**0.33**	**102**	*eP*		**Pn**	**20 06 12.9**	**-0.6**
VTCV	**VTCV, Calle Va**	**0.34**	**87**	*eP*		**Pn**	**20 06 13.3**	**-0.4**
CVTG	**V. Turrialba,**	**0.35**	**58**	*eP*		**Pn**	**20 06 13.1**	**-0.4**
ABRB	**Las Abras (San**	**0.36**	**83**	*eP*		**Pn**	**20 06 13.5**	**-0.4**
PIEC	**Cerro El Cedra**	**0.36**	**161**	*eP*		**Pn**	**20 06 13.0**	**-0.9**
PALD	**Palmares**	**0.36**	**284**	*eP*		**Pn**	**20 06 13.2**	**-0.5**
TRB2	**Turrubares**	**0.37**	**263**	*eP*		**Pn**	**20 06 13.3**	**-0.3**
ZARE	**Zarcero**	**0.38**	**305**	*eP*		**Pn**	**20 06 13.8**	**-0.2**
ARTO	**Ro Cuarto**	**0.40**	**340**	*eP*		**Pn**	**20 06 13.4**	**-0.6**
VPL1	**V. Platanar**	**0.41**	**316**	*eP*		**Pn**	**20 06 13.7**	**-0.5**
SRA1	**San Ramn**	**0.42**	**287**	*eP*		**Pn**	**20 06 13.7**	**-0.5**
RESJ	**San Isidro (Tu**	**0.43**	**81**	*eP*		**Pn**	**20 06 13.9**	**-0.3**
VPL2	**V. Platanar**	**0.46**	**319**	*eP*		**Pn**	**20 06 14.4**	**-0.2**
QUEU	**Ciudad Quesada**	**0.50**	**315**	*eP*		**Pn**	**20 06 14.8**	**0.0**
ITAL	**Pital**	**0.52**	**338**	*eP*		**Pn**	**20 06 14.2**	**-0.8**
LCOCO	**El Coco**	**0.53**	**77**	*eP*		**Pn**	**20 06 14.2**	**-0.8**
QUEP	**Quepos**	**0.54**	**189**	*eP*		**Pn**	**20 06 14.8**	**-0.3**
BITO	**Garabito Jaco**	**0.64**	**238**	*eP*		**Pn**	**20 06 15.5**	**-0.6**
FORC	**Fortuna**	**0.77**	**311**	*eP*		**Pn**	**20 06 17.2**	**-0.3**
VACR	**Volcan Arenal**	**0.78**	**311**	*eP*		**Pn**	**20 06 17.2**	**-0.4**
CASO	**Castillo**	**0.80**	**306**	*eP*		**Pn**	**20 06 17.6**	**-0.3**
VARE2	**V. Arenal**	**0.80**	**308**	*eP*		**Pn**	**20 06 17.7**	**-0.3**
CEDE	**Laguna Cedeo**	**0.81**	**310**	*eP*		**Pn**	**20 06 17.7**	**-0.4**
MTEVE	**Monteverde**	**0.82**	**296**	*eP*		**Pn**	**20 06 17.9**	**-0.3**
REZ	**Monterrey de S**	**0.83**	**313**	*eP*		**Pn**	**20 06 18.1**	**-0.2**
TABAC	**Tabacon**	**0.86**	**308**	*eP*		**Pn**	**20 06 18.4**	**-0.3**
VERH	**Veragua Rainfo**	**0.87**	**92**	*eP*		**Pn**	**20 06 17.8**	**-0.9**
JTS	**Las Juntas de**	**0.92**	**291**	*eP*		**Pn**	**20 06 19.0**	**-0.3**
EDPE	**Pejibaye, P**	**0.94**	**148**	*eP*		**Pn**	**20 06 19.5**	**-0.1**
CHIK	**Chiripa**	**0.95**	**300**	*eP*		**Pn**	**20 06 19.1**	**-0.7**
TILA	**Tilaran**	**1.01**	**300**	*eP*		**Pn**	**20 06 20.4**	**-0.1**
COTE	**Lago Cote**	**1.03**	**306**	*eP*		**Pn**	**20 06 20.2**	**-0.4**
LAES	**El Progreso Va**	**1.03**	**101**	*eP*		**Pn**	**20 06 20.3**	**-0.3**
QUEB	**Quebradon, Cot**	**1.04**	**309**	*eP*		**Pn**	**20 06 20.1**	**-0.7**
CNAS	**Canas**	**1.10**	**295**	*eP*		**Pn**	**20 06 22.2**	**+0.7**
TIMP	**Tierras Morena**	**1.11**	**304**	*eP*		**Pn**	**20 06 21.2**	**-0.5**
TENO	**El Achiote**	**1.15**	**310**	*eP*		**Pn**	**20 06 21.7**	**-0.5**
CEUA	**Cerro Uatsi, L**	**1.17**	**107**	*eP*		**Pn**	**20 06 22.7**	**+0.3**
FIMO	**Fila Mora**	**1.20**	**144**	*eP*		**Pn**	**20 06 22.4**	**-0.4**
EDP2	**Potrero Grande**	**1.29**	**137**	*eP*		**Pn**	**20 06 23.0**	**-1.0**
CANAL	**Canalete**	**1.29**	**312**	*eP*		**Pn**	**20 06 23.2**	**-0.7**
COLC	**Colonia**	**1.31**	**302**	*eP*		**Pn**	**20 06 23.9**	**-0.3**
VMAR	**Armenia, Volca**	**1.32**	**310**	*eP*		**Pn**	**20 06 23.9**	**-0.5**
CMARA	**Lajas Hojancha**	**1.33**	**273**	*eP*		**Pn**	**20 06 23.7**	**-0.8**
MESS	**Mesas**	**1.34**	**305**	*eP*		**Pn**	**20 06 24.3**	**-0.4**
CLARA	**Aguas Claras**	**1.36**	**307**	*eP*		**Pn**	**20 06 24.4**	**-0.4**
NICO	**Nicoya**	**1.36**	**277**	*eP*		**Pn**	**20 06 25.3**	**+0.5**
GPS2	**Hotel Rincn d**	**1.48**	**302**	*eP*		**Pn**	**20 06 25.7**	**-0.8**
VRLE	**La Escondida,**	**1.51**	**303**	*eP*		**Pn**	**20 06 26.6**	**-0.3**

PB05 IPOC Station P 7.29 154 Pn Pn 20 22 46.5 -0.1
PB06 IPOC Station P 7.45 149 Pn Pn 20 22 48.6 -0.2
PB06 IPOC Station P 7.45 149 P **Pn** 20 22 48.9 0.0
comp=Z,24nm,0.7s
PB10 IPOC Station P 7.74 158 Pn **Pn** 20 22 52.6 -0.2
CZSB Cruzeiro do Su 8.58 6 Pn 20 23 03.0 -1.4
CZSB Cruzeiro do Su 8.58 6 *eP* **Pn** 20 23 02.9 -1.4
PB14 IPOC Station P 8.82 160 Pn **Pn** 20 23 07.2 -0.7
AC01 Pan de Azucar 10.20 164 Pn **Pn** 20 23 25.7 -0.9
ATAH Atahualpa 10.22 333 Pn **Pn** 20 23 26.6 -0.6
comp=Z,0.9nm,0.3s,baz=135,slow=5.7,SNR=7.3
ATAH Sn **Sn** 20 25 28.4 +7.7
comp=Z,1.0nm,0.3s,baz=113,slow=15,SNR=1.9
comp=Z,2.9nm,0.7s
ATAH AML AML
AC02 Maricunga 11.29 159 Pn **Pn** 20 23 40.8 -1.1
AC06 Mina Casimiro 11.42 165 Pn **Pn** 20 23 42.1 -1.1
SIV San Ignacio 12.11 90 Pn **Pn** 20 23 51.4 -1.3
comp=Z,0.2nm,0.3s,baz=266,slow=15,SNR=17
SIV Sn **Sn** 20 26 06.5 -0.1
baz=271,slow=6.1
comp=Z,7.1nm,0.6s
SIV AML AML
BBSD Serra de San D 12.54 96 *eP* **Pn** 20 23 58.0 -0.6
VILB Vilhena 13.46 77 Pn 20 24 09.5 -1.6
VILB Vilhena 13.46 77 *eP* **Pn** 20 24 11.9 +0.8
PTLB Pontes e Lacer 14.01 89 Pn 20 24 17.5 -1.1
PTLB Pontes e Lacer 14.01 89 *eP* **Pn** 20 24 18.7 +0.1
CO04 Los Peladeros 15.86 172 P **P** 20 24 45.6 -0.9
CO04 IAmb IAmb 20 24 51.1
comp=Z,41nm,1.2s
CO04 Los Peladeros 15.86 172 P **P** 20 24 47.0 +0.4
comp=Z,28nm,1.2s
CFA Coronel Fontan 16.01 163 Pn **Pn** 20 24 44.9 -0.2
comp=Z,0.3nm,0.3s,baz=343,slow=13,SNR=13
comp=Z,0.7nm,0.4s
CFA AML AML
MT02 Curacav 17.03 173 P **P** 20 24 58.7 -0.6
PDRB Porto dos Gac 17.09 76 *eP* **Pn** 20 24 57.8 -0.9
SALV Santo Antonio 17.28 91 *eP* **Pn** 20 24 59.4 -1.7
H03N1 Juan Fernandez 17.70 195 T T 20 43 31.8
baz=18,slow=74,SNR=5710
H03N2 Juan Fernandez 17.71 195 T T 20 43 31.3
baz=244,slow=74,SNR=7291
PP1B Ponte de Pedra 18.02 97 *eP* **P** 20 25 09.7 -0.7
CPUP Villa Florida 18.18 126 P **P** 20 25 09.9 -2.1
comp=Z,0.5nm,0.3s,baz=289,slow=9.2,SNR=5.4
CPUP LR LR 20 33 38.2
comp=Z,79nm,20.1s,baz=256,slow=42
comp=Z,1.3nm,0.3s
CPUP AML AML
CLDB Colider 18.19 75 P **P** 20 25 11.3 -1.0
comp=Z,12nm,1.5s
MACA Manacapuru-AM 18.27 46 P **P** 20 25 10.7 -2.4
MACA IAmb IAmb 20 25 38.4
comp=Z,27nm,1.0s
BO02 Sierra Bellavi 18.59 173 P **P** 20 25 15.3 -1.3
NPGB Novo Progresso 20.14 65 *eP* **P** 20 25 31.8 -1.8
BI02 San Fabin de 20.39 174 P **P** 20 25 35.7 -0.5
BI02 San Fabin de 20.39 174 P Pn 20 25 39.0 +0.5
comp=Z,12nm,1.1s
PSAL Palomas, Salto 20.76 138 *eP* **P** 20 25 40.9 +0.8
ARAG Araguaiana, MT 21.02 91 *eP* **P** 20 25 42.4 -0.7
ROSC El Rosal 21.02 358 LR LR 20 35 54.3
comp=Z,102nm,19.2s,baz=254,slow=43
ITTB Itatiuba 21.24 58 *eP* **P** 20 25 43.8 -1.7
PCMB Pacaembu 21.83 107 P **P** 20 25 51.6 -0.2
comp=Z,41nm,1.0s
PCMB Pacaembu 21.83 107 *eP* **P** 20 25 52.0 +0.3
PTGB Pitanga 21.88 116 *eP* **P** 20 25 53.3 +1.0
RUSC La Rusia 22.07 2 P 20 25 52.5 -2.3
RUSC IAmb IAmb 20 26 03.5
comp=Z,16nm,0.9s
LDASE Londrina, Braz 22.34 112 *eP* **P** 20 25 57.2 -0.1
BOAV Boa Vista 22.68 36 P 20 25 59.5 -1.3
BOAV IAmb IAmb 20 26 07.0
comp=Z,10nm,0.9s
BOAV Boa Vista 22.68 36 *eP* **P** 20 26 00.2 -0.6
CPSB Cacapava Do Su 23.22 131 P **P** 20 26 06.4 +0.1
comp=Z,8.0nm,1.5s
GO06 Curarrehue 23.27 176 P **P** 20 26 06.4 -0.5
GO06 IAmb IAmb 20 26 09.7
comp=Z,8.8nm,0.9s
GO06 Curarrehue 23.27 176 P **P** 20 26 09.2 +2.4
comp=Z,11nm,2.0s
IPMB Ipameri, GO 24.38 98 *eP* **P** 20 26 16.5 -1.0
PLCA Paso Flores 24.49 174 P **P** 20 26 18.0 -0.2
comp=Z,4.3nm,1.1s,baz=351,slow=13,SNR=3.6
comp=Z,4.3nm,1.1s
PLCA Paso Flores 24.49 174 P **P** 20 26 17.1 -1.1
PLCA IAmb IAmb 20 26 33.9
comp=Z,10nm,1.2s
PLCA Paso Flores 24.49 174 P **P** 20 26 19.8 +1.6
CNLB Canela 24.64 126 P **P** 20 26 19.9 +0.3
comp=Z,33nm,1.9s
BDFB Brasilia 24.67 92 P **P** 20 26 20.2 0.0
comp=Z,2.3nm,0.4s,baz=254,slow=9.5,SNR=4.4
comp=Z,2.3nm,0.4s
BDFB Brasilia 24.67 92 P **P** 20 26 19.9 -0.2
SDV Santo Domingo 25.21 7 LR LR 20 37 17.5
comp=Z,77nm,19.8s,baz=187,slow=39
SDV Santo Domingo 25.21 7 P **P** 20 26 23.0 -2.1
SDV IAmb IAmb 20 26 42.3
comp=Z,5.2nm,0.6s
SDV Santo Domingo 25.21 7 P **P** 20 26 23.4 -1.7
comp=Z,43nm,1.0s
SJCC San Jacinto, C 26.08 357 P **P** 20 26 31.5 -1.3
JTS Las Juntas de 28.69 336 LR LR 20 38 24.7
comp=Z,64nm,19.6s,baz=167,slow=37
NBPN Ponto Novo - B 32.96 85 *eP* **P** 20 27 33.0 -0.9
RPN Rapa Nui 34.73 246 LR LR 20 38 02.1
comp=Z,177nm,18.7s,baz=58,slow=30
AOPR Arecibo Observ 35.10 11 P **P** 20 27 50.5 -1.8
CMIG Matias Romero 39.23 327 LR LR 20 42 45.5
comp=Z,79nm,19.3s,baz=188,slow=33
TXAR Lajitas Array 53.83 327 P **P** 20 30 20.8 -1.0
comp=Z,0.2nm,0.3s,baz=136,slow=5.8,SNR=2.5
comp=Z,0.2nm,0.3s
CCM Cathedral Cave 56.54 343 P **P** 20 30 41.2 +0.1
ECSD EROS Data Cent 63.34 342 pP pP 20 31 38.5 -0.7
VNA3 Neumayer Olymp 66.41 162 ⇑P **P** 20 31 48.8 +1.4
comp=Z,3.4nm,1.1s
VNA3 Neumayer Olymp 66.41 162 P **P** 20 31 49.0 +1.6
comp=Z,5.1nm,0.9s
DUG Dugway, Tooele 66.98 328 P **P** 20 31 51.0 -0.6
comp=Z,5.0nm,2.4s
DUG pP **pP** 20 32 04.0 +0.7
VNA2 Neumayer--Watz 67.01 161 ⇑P **P** 20 31 52.4 +1.2
comp=Z,2.4nm,0.5s,baz=285,slow=7.2
VNA2 Neumayer--Watz 67.01 161 P **P** 20 31 52.9 +1.7
comp=Z,6.5nm,1.3s
SNAA Sanae 68.62 161 ⇑P **P** 20 32 02.7 +1.2
comp=Z,128nm,0.7s
SNAA Sanae 68.62 161 P **P** 20 32 01.4 0.0
comp=Z,4.5nm,0.6s,baz=276,slow=19,SNR=8.3
comp=Z,4.5nm,0.6s
SNAA Sanae 68.62 161 P **P** 20 32 02.5 +1.0
SNAA Sanae 68.62 161 P **P** 20 32 02.4 +1.0
comp=Z,11nm,1.1s
TROLL Troll, Antarti 70.34 161 ⇑P **P** 20 32 13.3 +1.3
comp=Z,88nm,0.5s
DBIC Dimbokro 71.79 77 P **P** 20 32 20.3 -1.4
comp=Z,3.7nm,0.7s,baz=246,slow=8.1,SNR=4.0
DBIC LR LR 21 04 57.2
comp=Z,68nm,18.1s,baz=318,slow=37
comp=Z,3.7nm,0.7s
DBIC Dimbokro 71.79 77 IAmb IAmb 20 32 26.8
comp=Z,18nm,1.4s
PPT Papeete 72.13 256 LR LR 20 56 32.4
comp=Z,66nm,21.5s,baz=9.0,slow=30
QSPA South Pole Qui 73.85 180 P **P** 20 32 33.8 +0.6
comp=Z,1.9nm,0.7s,baz=136,slow=3.1,SNR=4.6
comp=Z,1.9nm,0.7s
QSPA South Pole Qui 73.85 180 IAmb IAmb 20 32 36.2
comp=Z,7.3nm,1.4s
TORD Torodi Ar. Bea 80.02 73 P **P** 20 33 08.0 -0.6
comp=Z,6.1nm,0.8s,baz=258,slow=6.1,SNR=16
comp=Z,6.1nm,0.8s
RAR Rarotonga 80.72 251 LR LR 21 00 22.6
comp=Z,50nm,18.7s,baz=284,slow=29
VNDA Vanda 81.13 190 P **P** 20 33 14.6 +1.1
comp=Z,0.9nm,0.9s,baz=130,slow=4.2,SNR=3.7
comp=Z,0.9nm,0.9s
VNDA Vanda 81.13 190 IAmb IAmb 20 33 35.0
comp=Z,4.3nm,1.4s
YKA Yellowknife Ar 84.86 342 P **P** 20 33 31.6 -1.2
comp=Z,1.5nm,0.7s,baz=138,slow=5.8,SNR=13
comp=Z,1.5nm,0.7s
ESDC Sonseca Array 85.44 47 P **P** 20 33 36.4 0.0
comp=Z,2.3nm,0.9s,baz=240,slow=4.8,SNR=9.4
comp=Z,2.3nm,0.9s
ESDC Sonseca Array 85.44 47 IAmb IAmb 20 33 37.4
comp=Z,4.2nm,0.9s
TAM Tamanrasset 86.64 65 P **P** 20 33 43.6 +0.9
comp=Z,4.7nm,1.1s
KOOLE Kule 87.21 113 P **P** 20 33 46.6 +0.9
BOSA Boshof 89.89 120 LR LR 21 13 50.8
comp=Z,36nm,18.4s,baz=298,slow=35
LBTB Lobatse 91.32 116 LR LR 21 13 46.1
comp=Z,42nm,18.2s,baz=296,slow=35
TULEG Thule 92.70 1 P **P** 20 34 12.3 +2.4
comp=Z,54nm,0.9s
H11S2 WAKE ISLAND Hyd 22.58 282 T T 22 54 00.0
baz=98,slow=75,SNR=11
H11S1 WAKE ISLAND Hyd 22.58 282 T T 22 53 58.4
baz=98,slow=75,SNR=8.8
H11S3 WAKE ISLAND Hyd 22.59 282 T T 22 53 53.7
baz=98,slow=75,SNR=8.4
ASAR Alice Springs 131.99 215 PKP **PKPdf** 20 40 11.8 -1.0
comp=Z,1.3nm,1.1s,baz=144,slow=1.5,SNR=6.1
BVAR Borovoye Array 133.79 29 PKP **PKPdf** 20 40 15.1 -0.1
comp=Z,0.3nm,0.4s,baz=309,slow=0.9,SNR=2.4
WRA Warramunga Arr 134.66 218 PKP **PKPdf** 20 40 17.9 +0.1
comp=Z,0.7nm,0.8s,baz=141,slow=2.0,SNR=6.5
ZALV Zalesovo Beam 138.87 19 PKP **PKPdf** 20 40 24.7 +0.1
comp=Z,0.9nm,0.7s,baz=254,slow=2.8,SNR=5.0
MKAR Makanchi Array 143.64 28 PKP PKPbc 20 40 31.4 +0.5
comp=Z,0.6nm,0.9s,baz=298,slow=3.1,SNR=3.1
KSH2 Kashi 144.80 44 PKP **PKPdf** 20 40 36.0 +0.2
HILR Hailar Array B 145.09 345 PKPbc **PKPbc** 20 40 34.7 -0.7
comp=Z,3.1nm,0.6s,baz=55,slow=5.5,SNR=2.6
MJAR Matsushiro Arr 145.30 312 PKPbc **PKPab** 20 40 36.1 -0.5
comp=Z,1.0nm,0.7s,baz=84,slow=4.4,SNR=5.5
BNX BinXian 145.76 333 ⇓P **PKPdf** 20 40 36.8 -0.3
BNX pmax pmax
comp=Z,7.0nm,0.9s
SONM Songino Array 148.56 360 PKPbc **PKPbc** 20 40 44.9 -0.6
comp=Z,2.2nm,0.8s,baz=346,slow=0.8,SNR=14
SONM Songino Array 148.56 360 PKPdf 20 40 42.5 +0.6
KSRS Korea Array 151.59 322 PKPbc **PKPbc** 20 40 52.5 -0.5
comp=Z,2.2nm,0.8s,baz=50,slow=0.9,SNR=9.6

IDC 24 20:24:52.2±1.9, 6°46S×128°72E, h0km, mb3.7/1, mbtmp3.4/4, ML3.4/3, Error ellipse: s-maj=63.4km s-min=23.2km az=77.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.95**	**194**	Pn	Pn	20 27 38.6	-5.4
	0.4nm,0.3s,baz=17,slow=10,SNR=20						
FITZ				Sn	Sn	20 29 34.4	-24
	0.7nm,0.3s,baz=84,slow=9.2,SNR=6.0						
	0.8nm,0.2s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.47**	**158**	Pn	Pn	20 28 12.4	-6.1
	0.1nm,0.3s,baz=339,slow=13,SNR=5.7						
WRA				Sn	Sn	20 30 35.7	-24
	0.2nm,0.3s,baz=336,slow=23,SNR=5.5						
	0.1nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.82**	**164**	Pn	Pn	20 28 55.5	-6.3
	0.1nm,0.3s,baz=338,slow=11,SNR=6.2						
ASAR				Sn	Sn	20 31 56.4	-25
	0.1nm,0.3s,baz=320,slow=16,SNR=4.2						
	0.3nm,0.5s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.08**	**327**	P	P	20 35 47.5	0.0
	0.6nm,0.7s,baz=134,slow=5.9,SNR=4.4						
	0.6nm,0.7s						

IDC 24 20:53:25.9±4.5, 2°49S×137°04E, h0km, mb3.8/2, mbtmp3.8/3, ML3.6/1, Error ellipse: s-maj=106.5km s-min=43.3km az=107.0, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**17.55**	**188**	P	Pn	20 57 32.0	-0.1
	0.2nm,0.3s,baz=11,slow=12,SNR=8.1						
WRA				S	Sn	21 00 48.7	+0.3
	0.2nm,0.4s,baz=6.9,slow=22,SNR=2.0						
	0.9nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.27**	**188**	P	P	20 58 15.0	+0.8
	2.2nm,0.7s,baz=13,slow=12,SNR=34						
	2.2nm,0.7s						
STKA	**Stephens Creek**	**29.55**	**172**	P	P	20 59 32.1	-0.3
	0.8nm,0.5s,baz=0.6,slow=6.7,SNR=3.9						
	0.8nm,0.5s						

*SJA **24** 21:00:02.1±0.7, 23°02S×68°17W, h139km±5km, ML3.1, MW3.5*
*GUC **24** 21:00:03.6±0.9, 22°93S×68°18W, h133km±5km, ML3.2, Presumed earthquake*
ISC 24 21:00:04.0±1.6, 23°00S±0°04×68°21W±0°06, h128km±10km, n26, σ0s80/36, 1C, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AF01	**San Pedro de A**	**0.06**	**32**	*eP*	**Pn**	**21 00 21.3**	**-0.5**
AF01				IAML		21 00 53.0	
	comp=Z,545nm,0.7s						
AF01	**San Pedro de A**	**0.06**	**32**	*eP*	**Pn**	**21 00 20.9**	**-0.9**
AF01				*eS*	**Sn**	**21 00 34.5**	**-0.7**
AF01				IAML		21 00 35.9	
	comp=E,2μm,0.5s						
PB06	**IPOC Station P**	**1.29**	**283**	*eP*	**Pn**	**21 00 29.9**	**+0.1**
PB06				*eS*	**Sn**	**21 00 50.5**	**+1.1**
PB06				IAML		21 00 52.2	
	comp=Z,532nm,0.2s						
PB06	**IPOC Station P**	**1.29**	**283**	⇑*iP*	**Pn**	**21 00 30.0**	**+0.1**
PB06				*eS*	**Sn**	**21 00 49.7**	**+0.3**
PB06				IAML		21 00 52.0	
	comp=N,761nm,0.2s						
PB09	**IPOC Station P**	**1.53**	**321**	*eP*	**Pn**	**21 00 33.0**	**+0.5**
PB09				*eS*	**Sn**	**21 00 55.3**	**+1.1**
PB09				IAML		21 00 58.6	
	comp=Z,102nm,0.4s						
PB09	**IPOC Station P**	**1.53**	**321**	*eP*	**Pn**	**21 00 32.9**	**+0.3**
PB09				IAML		21 00 56.9	
	comp=E,116nm,0.4s						
PB03	**IPOC Station P**	**1.71**	**303**	*eP*	**Pn**	**21 00 34.5**	**-0.1**
PB03				IAML		21 01 00.8	
	comp=Z,260nm,0.3s						
PB03	**IPOC Station P**	**1.71**	**303**	*i* P	**Pn**	**21 00 34.5**	**-0.1**
PB03				*eS*	**Sn**	**21 00 57.2**	**-0.7**
PB03				IAML		21 01 01.1	
	comp=N,250nm,0.2s						
PB05	**IPOC Station P**	**1.84**	**274**	*eP*	**Pn**	**21 00 36.1**	**0.0**
PB05				*eS*	**Sn**	**21 01 02.6**	**+2.1**
PB05				IAML		21 01 11.2	
	comp=Z,79nm,0.7s						
PB05	**IPOC Station P**	**1.84**	**274**	*eP*	**Pn**	**21 00 35.6**	**-0.5**
PB05				IAML		21 01 09.4	
	comp=E,114nm,0.3s						
PB07	**IPOC Station P**	**2.00**	**309**	*eP*	**Pn**	**21 00 38.0**	**-0.1**
PB07				IAML		21 01 07.0	
	comp=Z,142nm,0.2s						
PB07	**IPOC Station P**	**2.00**	**309**	*i* P	**Pn**	**21 00 38.0**	**-0.1**
PB07				IAML		21 01 05.5	
	comp=N,242nm,0.2s						
SALTA		**2.10**	**126**	*eP*	**Pn**	**21 00 40.5**	**+0.8**
PB10	**IPOC Station P**	**2.21**	**256**	*eP*	**Pn**	**21 00 40.5**	**0.0**
PB10				*eS*	**Sn**	**21 01 08.2**	**-0.3**
PB10				IAML		21 01 10.7	
	comp=Z,41nm,0.3s						
PB10	**IPOC Station P**	**2.21**	**256**	*eP*	**Pn**	**21 00 40.4**	**0.0**
PB10				IAML		21 01 18.2	
	comp=N,66nm,0.3s						
PB02	**IPOC Station P**	**2.29**	**317**	*eP*	**Pn**	**21 00 41.5**	**-0.1**
PB02				IAML		21 01 15.5	
	comp=Z,175nm,0.2s						
PB02	**IPOC Station P**	**2.29**	**317**	*eP*	**Pn**	**21 00 41.2**	**-0.4**
PB02				IAML		21 01 13.0	
	comp=E,214nm,0.2s						
PB14	**IPOC Station P**	**2.58**	**231**	*eP*	**Pn**	**21 00 45.4**	**0.0**
PB14				IAML		21 01 17.0	
	comp=Z,55nm,0.2s						
PB14				*eS*	**Sn**	**21 01 17.0**	**-0.2**
PB14	**IPOC Station P**	**2.58**	**231**	*eP*	**Pn**	**21 00 44.8**	**-0.6**
PB14				IAML		21 01 27.4	
	comp=N,32nm,0.2s						
TA01	**Diego Aracena**	**3.04**	**323**	*eP*	**Pn**	**21 00 50.9**	**-0.2**
TA01				IAML		21 01 36.8	
	comp=Z,20nm,0.4s						
GO01	**Chusmiza**	**3.44**	**344**	*eP*	**Pn**	**21 00 57.0**	**+0.1**
GO01				*eS*	**Sn**	**21 01 39.2**	**+1.7**
GO01				IAML		21 01 42.1	
	comp=Z,16nm,0.6s						
GO01	**Chusmiza**	**3.44**	**344**	*eP*	**Pn**	**21 00 56.2**	**-0.6**
PB11	**IPOC Station P**	**3.50**	**337**	*eP*	**Pn**	**21 00 56.2**	**-1.0**
PB11				*eS*	**Sn**	**21 01 37.5**	**-0.8**
PB11				IAML		21 01 45.2	
	comp=Z,18nm,0.4s						
PB11	**IPOC Station P**	**3.50**	**337**	*eP*	**Pn**	**21 00 55.4**	**-1.8**
AC01	**Pan de Azucar**	**3.81**	**214**	*eP*	**Pn**	**21 01 00.1**	**-1.2**
AC02	**Maricunga**	**3.91**	**192**	*eP*	**Pn**	**21 01 03.0**	**+0.1**

*NAO **24** 21:11:09.9±0.7, 79°21N×3°11E, h10km, ML2.8*
*BER **24** 21:11:12.8±3.1, 79°16N×2°88E, h23km±29km, Mw3.6, ML2.8(NAO), Confirmed Earthquake*
*DNK **24** 21:11:13.1±1.9, 79°14N×3°21E, h36km±15km, ML1.8, Presumed earthquake*
ISC 24 21:11:08.0±1.0, 79°13N±0°07×2°76E±0°04, h10km, n23, σ2s17/40, Greenland Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBS	**Kingsbay**	**1.77**	**92**	Pn	**Pn**	**21 11 39.3**	**+0.7**
KBS				Sn	**Sn**	**21 11 58.3**	**-2.8**
KBS	**Kingsbay**	**1.77**	**92**	*i* P	**Pn**	**21 11 39.1**	**+0.5**
KBS				*i* S	**Sn**	**21 11 58.2**	**-2.8**
KBS	**Kingsbay**	**1.77**	**92**	*i* P	**Pn**	**21 11 39.1**	**+0.5**
KBS				*i* S	**Sn**	**21 11 58.2**	**-2.8**
BRBB	**Barentsburg B**	**2.50**	**109**	Pn	**Pn**	**21 11 50.4**	**+1.9**
BRBB				Sn	**Sn**	**21 12 16.8**	**-2.2**
BRBB	**Barentsburg B**	**2.50**	**109**	Pn	**Pn**	**21 11 50.4**	**+1.9**
BRBB				Sn	**Sn**	**21 12 16.8**	**-2.2**
BRBA	**Barentsburg A**	**2.52**	**110**	Pn	**Pn**	**21 11 51.2**	**+2.4**
BRBA				Sn	**Sn**	**21 12 19.1**	**-0.4**
BRBA	**Barentsburg A**	**2.52**	**110**	Pn	**Pn**	**21 11 51.2**	**+2.4**
BRBA				Sn	**Sn**	**21 12 19.1**	**-0.4**
BRBA				IAML		21 12 22.2	
	comp=E,34nm,0.4s						
SPA0	**Spitsbergen Ar**	**2.85**	**103**	Pn	**Pn**	**21 11 55.6**	**+2.2**
	baz=290,slow=10						
SPA0				Sn	**Sn**	**21 12 28.0**	**+0.2**
	baz=286,slow=22						
SPA0	**Spitsbergen Ar**	**2.85**	**103**	Pn	**Pn**	**21 11 55.6**	**+2.2**
SPA0				Sn	**Sn**	**21 12 28.0**	**+0.2**
SPA0				IAML		21 12 37.9	
	comp=Z,15nm,0.6s						
NOR	**Nord**	**4.08**	**316**	Pn	**Pn**	**21 12 11.4**	**+1.2**
NOR				Sn	**Sn**	**21 12 56.5**	**-1.4**
NOR	**Nord**	**4.08**	**316**	*i* P	**Pn**	**21 12 11.0**	**+0.8**
NOR				*i* S	**Sn**	**21 12 56.7**	**-1.1**
NOR				IAML		21 13 01.6	
	comp=Z,4.5nm,0.9s						
NOR	**Nord**	**4.08**	**316**	*i* P	**Pn**	**21 12 11.0**	**+0.8**
NOR				*i* S	**Sn**	**21 12 56.7**	**-1.1**
NOR				IAML		21 13 01.6	
	comp=Z,4.5nm,0.9s						
DAG	**Danmarks Havn**	**5.05**	**253**	*i* P	**Pn**	**21 12 26.0**	**+2.5**
DAG				*i* S	**Sn**	**21 13 18.4**	**-3.4**
DAG				IAML		21 13 28.9	
	comp=Z,4.4nm,0.4s						
DAG	**Danmarks Havn**	**5.05**	**253**	*i* P	**Pn**	**21 12 26.0**	**+2.5**
DAG				*i* S	**Sn**	**21 13 18.4**	**-3.4**
DAG				IAML		21 13 28.9	
	comp=Z,4.4nm,0.4s						
HOPEN	**Hopen**	**5.36**	**108**	Pn	**Pn**	**21 12 29.6**	**+1.8**
HOPEN				Sn	**Sn**	**21 13 26.4**	**-3.1**
HOPEN	**Hopen**	**5.36**	**108**	*eP*	**Pn**	**21 12 29.6**	**+1.8**
HOPEN				*eS*	**Sn**	**21 13 26.7**	**-2.8**
DBG	**Daneborg**	**7.11**	**239**	Pn	**Pn**	**21 12 54.5**	**+2.7**
DBG				Sn	**Sn**	**21 14 08.2**	**-4.2**
DBG	**Daneborg**	**7.11**	**239**	*i* P	**Pn**	**21 12 54.3**	**+2.6**
DBG				*i* S	Sn	21 14 07.1	-5.3
DBG				IAML		21 14 16.4	
	comp=Z,2.2nm,0.4s						
DBG	**Daneborg**	**7.11**	**239**	*i* P	**Pn**	**21 12 54.3**	**+2.6**
DBG				*i* S	Sn	21 14 07.1	-5.3
DBG				IAML		21 14 16.4	
	comp=Z,2.2nm,0.4s						
NEEM	**North Greenlan**	**10.72**	**288**	*i* P	**Pn**	**21 13 41.1**	**-0.4**
NEEM				*i* S	Sn	21 15 33.2	-8.2
NEEM	**North Greenlan**	**10.72**	**288**	*i* P	**Pn**	**21 13 41.1**	**-0.4**
NEEM				*i* S	Sn	21 15 33.2	-8.2
SUMG	**Summit**	**11.70**	**258**	*i* P	**Pn**	**21 13 57.0**	**+2.0**
SUMG				*i* S	Sn	21 15 52.5	-13
SUMG	**Summit**	**11.70**	**258**	*i* P	**Pn**	**21 13 57.0**	**+2.0**
SUMG				*i* S	Sn	21 15 52.5	-13

*CNRM **24** 21:14:18.0, 35°50N×9°82W, h16km, ML2.6*
*SFS **24** 21:14:19.5, 35°76N×9°98W, h0km, ML3.0/13, ML3.2/13, MLv3.2/13*
*INMG **24** 21:14:23.5±0.9, 35°76N×10°06W, h36km, ML1.9, Error ellipse: s-maj=6.2km s-min=3.2km az=106.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Mar de Marrocos*
*IGIL **24** 21:14:23.0, 35°73N×10°02W, h32km, ML1.4*
*MDD **24** 21:14:23.8±1.8, 35°79N×9°95W, h33km±33km, Mb4.0/5, Error ellipse: s-maj=22.6km s-min=9.5km az=39.0*
ISC 24 21:14:20.0±2.6, 35°76N±0°09×10°0W±0°1, h23km±20km, n57, σ1s43/87, 7C, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**1.66**	**34**	Pn	**Pb**	**21 14 49.2**	**-0.7**
PFVI				Sn	**Sn**	**21 15 08.0**	**-0.3**
PFVI	**Vila Bisbo**	**1.66**	**34**	P	**Pn**	**21 14 49.1**	**+1.4**
PFVI				S	**Sn**	**21 15 08.1**	**-0.2**
PFVI	**Vila Bisbo**	**1.66**	**34**	⇑*eP*	**Pb**	**21 14 49.2**	**-0.7**
PFVI				*eS*	**Sn**	**21 15 08.3**	**0.0**
PFVI				IAML		21 15 08.6	
PFVI				IAML		21 15 08.9	
PFVI				IAML		21 15 09.9	
MORF	**Marmelete**	**1.88**	**35**	*eP*	**Pn**	**21 14 52.3**	**+1.6**
MORF				*eS*	**Sn**	**21 15 13.6**	**-0.2**
MORF				IAML		21 15 14.1	
	comp=N,7.5nm,0.1s						
MORF	**Marmelete**	**1.88**	**35**	*eP*	**Pn**	**21 14 52.4**	**+1.6**
MORF				*eS*	**Sn**	**21 15 13.7**	**-0.1**
MORF				IAML		21 15 14.0	
MORF				IAML		21 15 14.3	
MORF				IAML		21 15 16.1	
PTEO	**Sao Teotonio**	**2.05**	**30**	*eP*	**Pn**	**21 14 54.5**	**+1.5**
PTEO				*eS*	**Sn**	**21 15 18.1**	**+0.2**
PTEO				IAML		21 15 21.3	
PTEO				IAML		21 15 22.5	
PTEO				IAML		21 15 24.7	
PTEO	**Sao Teotonio**	**2.05**	**30**	Pn	**Pn**	**21 14 54.5**	**+1.5**
PTEO				Sn	**Sn**	**21 15 17.6**	**-0.3**
PBDV	**Barranco-do-Ve**	**2.23**	**48**	Pn	**Pn**	**21 14 57.5**	**+2.0**
PBDV				Sn	**Sn**	**21 15 22.4**	**+0.1**
PBDV	**Barranco-do-Ve**	**2.23**	**48**	*eP*	**Pn**	**21 14 57.5**	**+2.0**
PBDV				*eS*	**Sn**	**21 15 22.3**	**+0.1**
PBDV				IAML		21 15 23.3	
PBDV				IAML		21 15 23.8	
PBDV				IAML		21 15 26.9	
PCVE	**Castro Verde**	**2.44**	**40**	Pn	**Pn**	**21 15 00.3**	**+1.9**
PCVE				Sn	**Sn**	**21 15 27.5**	**+0.1**
PCVE	**Castro Verde**	**2.44**	**40**	⇑*eP*	**Pn**	**21 15 00.3**	**+1.9**
PCVE				*eS*	**Sn**	**21 15 27.6**	**+0.1**
PCVE				IAML		21 15 29.3	
PCVE				IAML		21 15 29.6	
PCVE				IAML		21 15 31.1	
PVAQ	**Vaqueiros**	**2.46**	**48**	P	**Pn**	**21 15 00.5**	**+1.9**
PVAQ				S	**Sn**	**21 15 28.2**	**+0.3**
PVAQ	**Vaqueiros**	**2.46**	**48**	⇑*eP*	**Pn**	**21 15 00.6**	**+1.9**
PVAQ				*eS*	**Sn**	**21 15 28.0**	**0.0**
PVAQ				IAML		21 15 29.2	
PVA

MESJ	**Messejana**	**2.52**	**34**	*eP*	**Pn**	**21 15 01.4 +1.9**
MESJ				*eS*	**Sn**	**21 15 29.6 +0.2**
PLOUS	**Minas do Lousa**	**2.59**	**29**	*eP*	**Pn**	**21 15 01.6 +1.2**
PLOUS				*eS*	**Sn**	**21 15 31.2 0.0**
PLOUS				IAML		21 15 32.0
PLOUS				IAML		21 15 32.2
PLOUS				IAML		21 15 33.9
EGRO	**El Granado**	**2.69**	**48**	Pn	**Pn**	**21 15 03.6 +1.8**
EGRO				Sn	**Sn**	**21 15 33.9 +0.3**
EGRO	**El Granado**	**2.69**	**48**	Pn	**Pn**	**21 15 03.6 +1.8**
EGRO				⇑IVmb_VC		21 15 04.7
	comp=N,138nm,SNR=1.2					
EGRO				Sn	**Sn**	**21 15 32.8 -0.7**
MOE	**Montemor**	**3.05**	**25**	*eP*	**Pn**	**21 15 08.1 +1.3**
MOE				*eS*	**Sn**	**21 15 42.3 -0.3**
MOE				IAML		21 15 42.9
MOE				IAML		21 15 43.4
MOE				IAML		21 15 43.6
EVO	**Evora**	**3.19**	**29**	Pn	**Pn**	**21 15 09.9 +1.3**
EVO				Sn	**Sn**	**21 15 45.1 -0.8**
EVO	**Evora**	**3.19**	**29**	*eP*	**Pn**	**21 15 09.9 +1.3**
EVO				*eS*	**Sn**	**21 15 45.2 -0.7**
EVO				IAML		21 15 45.6
EVO				IAML		21 15 46.2
EVO				IAML		21 15 48.2
PMAFR	**Mafra**	**3.24**	**10**	Pn	**Pn**	**21 15 09.7 +0.4**
PMAFR	**Mafra**	**3.24**	**10**	*eP*	**Pn**	**21 15 11.2 +1.8**
PMAFR				*eS*	**Sn**	**21 15 46.8 -0.4**
PMAFR				IAML		21 15 49.0
PMAFR				IAML		21 15 50.4
EMIN	**Mina Concepcio**	**3.34**	**52**	Pn	**Pn**	**21 15 12.4 +1.7**
EMIN				Sn	**Sn**	**21 15 48.9 -0.7**
PBAR	**Barrancos**	**3.38**	**44**	Pn	Pb	21 15 13.0 -6.1
PBAR				P	**Pn**	**21 15 12.7 +1.4**
PBAR				Sn	**Sn**	**21 15 50.1 -0.5**
PBAR	**Barrancos**	**3.38**	**44**	*eP*	**Pn**	**21 15 13.1 +1.8**
PBAR				*eS*	**Sn**	**21 15 50.1 -0.5**
PBAR				IAML		21 15 51.2
PBAR				IAML		21 15 53.1
PBAR				IAML		21 15 53.9
PARRA	**Arraiolos**	**3.42**	**27**	*eP*	**Pn**	**21 15 12.8 +0.8**
PARRA				*eS*	**Sn**	**21 15 50.6 -1.2**
ESPR	**Espera**	**3.52**	**71**	Pn	**Pn**	**21 15 14.7 +1.4**
ESPR				Sn	**Sn**	**21 15 54.2 0.0**
PMTG	**Montargil**	**3.59**	**23**	*eP*	**Pn**	**21 15 15.6 +1.4**
PMTG				*eS*	**Sn**	**21 15 54.6 -1.3**
PMTG				IAML		21 15 55.0
PMTG				IAML		21 15 57.7
PMTG				IAML		21 15 58.4
PMTG	**Montargil**	**3.59**	**23**	Pn	**Pn**	**21 15 15.5 +1.4**
PMTG				Sn	**Sn**	**21 15 54.3 -1.6**
ZHG	**ZHG**	**3.61**	**129**	P	Pn	21 15 10.9 -3.6
ZHG				Sn	Sn	21 15 49.4 -7.0
PESTR	**Estremoz**	**3.64**	**31**	Pn	**Pn**	**21 15 15.8 +0.8**
PESTR				Sn	**Sn**	**21 15 55.8 -1.5**
PESTR	**Estremoz**	**3.64**	**31**	*eS*	**Sn**	**21 15 56.3 -1.0**
PESTR				IAML		21 15 58.4
PESTR				IAML		21 16 00.1
EBAD	**Badajoz**	**3.82**	**38**	Pn	**Pn**	**21 15 17.9 +0.5**
EBAD				Sn	**Sn**	**21 16 00.8 -0.7**
PSBE	**So Bento**	**3.86**	**14**	*eP*	**Pn**	**21 15 19.0 +1.0**
PSBE				*eS*	**Sn**	**21 16 02.3 -0.4**
PSARD	**Sardoal**	**4.10**	**20**	*eP*	**Pn**	**21 15 22.5 +1.3**
PSARD				*eS*	**Sn**	**21 16 06.7 -1.8**
PSARD				IAML		21 16 08.2
PSARD				IAML		21 16 10.1
PSARD				IAML		21 16 11.3
PMRV	**Marv??o**	**4.20**	**29**	*eP*	**Pn**	**21 15 23.6 +1.0**
PMRV				*eS*	**Sn**	**21 16 09.5 -1.6**
PMRV				IAML		21 16 10.8
PMRV				IAML		21 16 11.3
PMRV				IAML		21 16 11.5
EMIJ	**Mijas**	**4.30**	**78**	Pn	**Pn**	**21 15 26.1 +2.0**
EMIJ				Sn	**Sn**	**21 16 10.7 -2.9**
ECAB	**El Cabril**	**4.33**	**56**	Pn	**Pn**	**21 15 25.8 +1.3**
ECAB				⇑IVmb_VC		21 15 30.0
	comp=N,65nm,SNR=1.0					
ECAB				Sn	**Sn**	**21 16 11.4 -2.9**
IFR	**Ifrane**	**4.60**	**118**	Pn	**Pn**	**21 15 28.4 +0.2**
LCRM	**LCR**	**4.71**	**115**	P	Pn	21 15 27.8 -2.0
LCRM				Sn	Sn	21 16 17.9 -5.9
OUK	**Oukaimeden**	**4.88**	**158**	P	Pn	21 15 28.0 -4.2
OUK				S	Sn	21 16 19.2 -9.0
EGOR	**Sierra Gorda,**	**4.93**	**72**	Sn	**Sn**	**21 16 29.6 +0.3**
EADA	**Adamuz**	**4.96**	**59**	Pn	**Pn**	**21 15 34.5 +1.4**
EADA				Sn	**Sn**	**21 16 28.6 -1.1**
EADA	**Adamuz**	**4.96**	**59**	Pn	**Pn**	**21 15 35.2 +2.1**
EADA				⇑IVmb_VC		21 15 36.1
	comp=N,124nm,SNR=1.9					
EADA				Sn	**Sn**	**21 16 26.4 -3.3**
TISM	**Timmit**	**5.00**	**143**	P	Pn	21 15 29.0 -4.6
TISM				Sn	Sn	21 16 23.5 -7.2
AKLM	**AKL**	**5.18**	**102**	P	Pn	21 15 33.2 -2.9
AKLM				Sn	Sn	21 16 28.0 -7.3
MD31	**MD31**	**5.21**	**122**	P	Pn	21 15 33.9 -2.7
MD31				Sn	Sn	21 16 29.5 -6.5
ELGU	**Los Guajares,**	**5.26**	**76**	Pn	**Pn**	**21 15 38.1 +1.4**
ELGU				Sn	**Sn**	**21 16 37.5 +0.3**
EPLA	**Plasencia**	**5.29**	**35**	⇑IVmb_VC		21 15 28.7
	comp=N,210nm,SNR=1.5					
EPLA				Sn	**Sn**	**21 16 35.5 -2.5**
CIBOR	**Castaar de Ib**	**5.30**	**42**	Pn	**Pn**	**21 15 39.2 +1.5**
CIBOR				Sn	**Sn**	**21 16 34.5 -3.6**
TIO	**Tiouine**	**5.34**	**154**	Sn	Sn	21 16 34.3 -5.0
MDT	**Midelt**	**5.34**	**122**	P	Pn	21 15 34.4 -4.0
MDT				Sn	Sn	21 16 32.3 -7.0
TTIG	**Tnine Tigouga,**	**5.36**	**165**	P	Pn	21 15 33.8 -5.0
TTIG				Sn	Sn	21 16 30.0 -10
EQTA	**Presa de Quent**	**5.47**	**73**	Sn	**Sn**	**21 16 42.9 +0.3**
OUZM	**OUZ**	**5.55**	**150**	P	Pn	21 15 37.0 -4.2
OUZM				Sn	Sn	21 16 36.9 -7.5
ETOB	**Tobarra**	**7.33**	**64**	Sn	**Sn**	**21 17 25.2 -2.9**

*ISK **24** 21:24:34.9, 34°.09N×25°.70E, h8km, ML3.9/27*
*ATH **24** 21:24:35.4, 34°.10N±25°.56E, h9km±4km, ML4.0/13, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*IDC **24** 21:24:36.4±0.6, 34°.24N×25°.62E, h0km, mb4.1/23, mbtmp4.0/35, ML3.5/10, MS3.6/12, Error ellipse: s-maj=12.5km s-min=8.0km az=19.0*
*THE **24** 21:24:38.8, 34°N±3°×2°6E±°, h3km±2km, M3.7/16, MLh3.7/16*
*GFZ **24** 21:24:39.6±0.3, 34°N±4°×2°6E±°, h10km, M4.2/29, mb4.2/29, Error ellipse: s-maj=9.4km s-min=4.3km az=13.0, confirmed*
*NEIC **24** 21:24:39.9±1.2, 34°.26N±0°.07×25°.57E±0°.07, h21km±6km, mb4.3/29, Error ellipse: s-maj=10.6km s-min=8.3km az=173.0*
*GII **24** 21:24:43.8±0.0, 33°.889N±0°.002×25°.944E±0°.001, h0km, Mws3.7, confirmed*

ISC 24 21:24:36.9±1.4, **34°.17N**±0°.04×**25°.61E**±0°.03, **h8**km±8km, **n298**, σ1$**46**/337, **mb4.2**/31, **MS3.6**/9, **1D**, **Crete**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGNA	**Agios Nikolaos**	**1.02**	**5**	P	**Pb**	**21 24 56.4**	**-0.4**
AGNA				S	**Sn**	**21 25 10.9**	**-1.2**
AGNA				AML	AML		
ZKR	**Zakros**	**1.07**	**28**	P	**Pn**	**21 24 57.7**	**-0.5**
ZKR	**Zakros**	**1.07**	**28**	P	**Pb**	**21 24 57.5**	**-0.2**
ZKR	**Zakros**	**1.07**	**28**	Pn	**Pg**	**21 24 56.8**	**-0.6**
ZKR				Sn	**Sn**	**21 25 12.3**	**-1.0**
ZKR				AML	AML		
ZKR	**Zakros**	**1.07**	**28**	P	**Pb**	**21 24 57.5**	**-0.2**
ZKR				S	**Sn**	**21 25 12.2**	**-1.0**
ZKR				AML	AML		
SIVA	**Sivas**	**1.07**	**322**	P	**Pg**	**21 24 56.3**	**-1.2**
SIVA				S	**Sb**	**21 25 10.6**	**-1.3**
SIVA				AML	AML		
SIVA	**Sivas**	**1.07**	**322**	P	**Pg**	**21 24 56.9**	**-0.6**
SIVA				S	**Sb**	**21 25 10.9**	**-0.9**
SIVA				AML	AML		
NPS	**Neapolis**	**1.09**	**0**	P	**Pg**	**21 24 57.2**	**-0.6**
NPS				S	**Sn**	**21 25 12.2**	**-1.6**
NPS				AML	AML		
NPS	**Neapolis**	**1.09**	**0**	P	**Pg**	**21 24 57.2**	**-0.6**
NPS				S	**Sn**	**21 25 12.9**	**-0.9**
SIT2	**Siteia**	**1.11**	**22**	P	**Pn**	**21 24 58.3**	**-0.5**
SIT2				S	**Sn**	**21 25 14.0**	**-0.3**
IACM	**Heraklion**	**1.22**	**339**	P	**Pg**	**21 24 59.5**	**-0.7**
IACM				S	**Sb**	**21 25 14.8**	**-1.2**
IACM	**Heraklion**	**1.22**	**339**	P	**Pn**	**21 24 59.7**	**-0.5**
IDI	**Anoyia**	**1.26**	**332**	Pn	**Pb**	**21 25 00.4**	**-0.6**
	8.8nm,0.3s,baz=146,slow=15,SNR=56						
IDI				Sn	**Sn**	**21 25 21.2**	**+3.0**
	65nm,0.3s,baz=90,slow=20,SNR=6.7						
IDI	**Anoyia**	**1.26**	**332**	P	**Pb**	**21 24 59.9**	**-1.0**
IDI				S	**Sg**	**21 25 15.2**	**-2.3**
IDI	**Anoyia**	**1.26**	**332**		**Pb**	**21 25 00.0**	**-1.0**
IDI	**Anoyia**	**1.26**	**332**	Pn	**Pn**	**21 25 00.7**	**-0.2**
IDI				Sn	**Sn**	**21 25 19.8**	**+1.7**
IDI	**Anoyia**	**1.26**	**332**	P	**Pb**	**21 25 00.1**	**-1.0**
GVD	**Gavdhos**	**1.42**	**298**	P	**Pn**	**21 25 02.3**	**-0.8**
GVD				S	**Sb**	**21 25 19.3**	**-2.7**
GVD				AML	AML		
GVD	**Gavdhos**	**1.42**	**298**	P	**Pg**	**21 25 04.7**	**+0.5**
GVD	**Gavdhos**	**1.42**	**298**	Pn	**Pn**	**21 25 03.0**	**-0.1**
GVD				Sn	**Sg**	**21 25 24.0**	**+1.3**
GVD				AML	AML		
GVD	**Gavdhos**	**1.42**	**298**	P	**Pn**	**21 25 01.4**	**-1.7**
GVD				AML	AML		
GVDS	**Gavdos**	**1.44**	**298**	P	**Pn**	**21 25 02.9**	**-0.4**
GVDS				S	**Sb**	**21 25 19.9**	**-2.7**
GVDS				AML	AML		
GVDS	**Gavdos**	**1.44**	**298**	P	**Pn**	**21 25 01.8**	**-1.6**
GVDS				AML	AML		
VAM	**Vamos**	**1.69**	**317**	P	**Pn**	**21 25 07.2**	**+0.3**
VAM				S	**Sn**	**21 25 27.5**	**-1.1**
VAM				AML	AML		
IMMV	**Iera Moni Meta**	**1.86**	**314**	P	**Pn**	**21 25 09.8**	**+0.7**
IMMV				S	**Sn**	**21 25 32.1**	**-0.6**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.86**	**314**	P	**Pg**	**21 25 12.1**	**-0.4**
IMMV	**Iera Moni Meta**	**1.86**	**314**	Pn	**Pn**	**21 25 09.8**	**+0.7**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.86**	**314**	P	**Pn**	**21 25 07.6**	**-1.5**
IMMV				AML	AML		
KARP	**Karpathos**	**1.88**	**43**	P	**Pb**	**21 25 10.6**	**-0.9**
KARP				S	**Sb**	**21 25 35.3**	**+0.2**
KARP				AML	AML		
KARP	**Karpathos**	**1.88**	**43**		**Pb**	**21 25 10.3**	**-1.2**
KARP				Sn	**Sn**	**21 25 31.2**	**-2.0**
KARP	**Karpathos**	**1.88**	**43**	P	**Pg**	**21 25 12.5**	**-0.4**
KARP	**Karpathos**	**1.88**	**43**	P	**Pg**	**21 25 12.8**	**-0.1**
KARP				AML	AML		
KARP	**Karpathos**	**1.88**	**43**	P	**Pg**	**21 25 12.4**	**-0.4**
KARP	**Karpathos**	**1.88**	**43**	Pn	**Pn**	**21 25 09.7**	**+0.3**
KARP				AML	AML		
KARP	**Karpathos**	**1.88**	**43**	P	**Pn**	**21 25 09.2**	**-0.2**
KARP				AML	AML		
KNDR	**Palaiochora Ch**	**1.95**	**304**	S	**Sn**	**21 25 34.6**	**-0.3**
KNDR				AML	AML		
RODP	**Rodopos**	**2.06**	**313**	P	**Pn**	**21 25 12.5**	**+0.6**
RODP				S	**Sn**	**21 25 37.4**	**-0.3**
RODP				AML	AML		
THR6	**Thira Island,**	**2.19**	**356**	P	**Pb**	**21 25 15.3**	**-1.4**
THR6	**Thira Island,**	**2.19**	**356**	P	**Pn**	**21 25 12.9**	**-0.6**
THR9	**Santorini-Faro**	**2.19**	**355**	P	**Pn**	**21 25 13.6**	**0.0**
THERA	**Ancient Thera,**	**2.19**	**357**	P	**Pb**	**21 25 15.0**	**-1.9**
THERA				S	**Sn**	**21 25 40.3**	**-0.7**
THERA	**Ancient Thera,**	**2.19**	**357**	P	**Pn**	**21 25 13.9**	**+0.2**
THR8	**Santorini-Mono**	**2.23**	**357**	P	**Pn**	**21 25 15.3**	**+1.1**
THR8	**Santorini-Mono**	**2.23**	**357**	P	**Pn**	**21 25 13.9**	**-0.4**
SNT5	**Nea Kammeni, S**	**2.23**	**356**	P	**Pb**	**21 25 15.9**	**-1.7**
SNT5				S	**Sn**	**21 25 40.9**	**-1.1**
SNT5				AML	AML		
THR3	**Thira Island,**	**2.24**	**356**	P	**Pb**	**21 25 16.4**	**-1.2**
THR3	**Thira Island,**	**2.24**	**356**	P	**Pn**	**21 25 13.7**	**-0.6**
SFIR	**Foira Santorin**	**2.25**	**356**	P	**Pn**	**21 25 14.9**	**+0.4**
THR5	**Thira Island,**	**2.25**	**355**	P	**Pb**	**21 25 16.6**	**-1.2**
THR5	**Thira Island,**	**2.25**	**355**	P	**Pn**	**21 25 13.9**	**-0.5**
SAP3	**Santorini-Thir**	**2.27**	**355**	P	**Pb**	**21 25 16.3**	**-1.9**
SAP3	**Santorini-Thir**	**2.27**	**355**	P	**Pn**	**21 25 14.3**	**-0.4**
THR2	**Thira island,**	**2.27**	**356**	P	**Pn**	**21 25 15.3**	**+0.5**
CMBO	**Columbo, Santo**	**2.30**	**356**	P	**Pb**	**21 25 16.7**	**-1.9**
ANKY	**Antikythira Is**	**2.54**	**312**	P	**Pn**	**21 25 18.8**	**+0.4**
ANKY				AML	AML		
MHLO	**Agia Marina, M**	**2.70**	**339**	P	**Pn**	**21 25 22.1**	**+1.5**
MHO	**Agia Marina, M**	**2.70**	**339**	P	**Pn**	**21 25 19.5**	**-1.2**
APE	**Apeiranthos**	**2.89**	**359**	Pn	**Pn**	**21 25 23.9**	**+0.5**
APE	**Apeiranthos**	**2.89**	**359**	P	**Pn**	**21 25 22.8**	**-0.5**
ARG	**Arkhangelos**	**2.90**	**45**		**Pn**	**21 25 24.3**	**+0.9**
ARG	**Arkhangelos**	**2.90**	**45**	P	**Pb**	**21 25 26.7**	**-2.2**
ARG	**Arkhangelos**	**2.90**	**45**	Pn	**Pn**	**21 25 24.1**	**+0.7**
ARG				AML	AML		
DAT	**Datca**	**3.02**	**32**	Pn	**Pn**	**21 25 25.0**	**-0.1**
DAT				AML	AML		
BODT	**Bodrum**	**3.20**	**25**	Pn	**Pn**	**21 25 27.8**	**+0.2**
BODT				AML	AML		
VLI	**Veliai**	**3.35**	**320**	P	**Pn**	**21 25 28.7**	**-0.9**
TURN	**Turunc**	**3.37**	**39**	Pn	**Pn**	**21 25 29.9**	**0.0**
TURN				AML	AML		
MLSB	**Milas**	**3.58**	**29**	Pn	**Pn**	**21 25 33.1**	**+0.3**
MLSB				AML	AML		
DALY	**Dalyan (Mula)**	**3.62**	**42**	Pn	**Pn**	**21 25 33.3**	**-0.1**
DALY				AML	AML		
SMG	**Samos**	**3.67**	**15**	P	**Pn**	**21 25 34.0**	**0.0**
YER	**Yerkesik**	**3.67**	**36**	Pn	**Pn**	**21 25 34.2**	**+0.1**
YER				AML	AML		
FETY	**Fethiye**	**3.75**	**48**	Pn	**Pn**	**21 25 35.0**	**-0.2**
FETY				AML	AML		
AKAS	**Kas**	**3.87**	**57**		**Pn**	**21 25 37.7**	**+0.9**
AKAS	**Kas**	**3.87**	**57**	P	**Pn**	**21 25 39.1**	**+2.3**
AKAS	**Kas**	**3.87**	**57**	Pn	**Pn**	**21 25 37.3**	**+0.5**
AKAS				AML	AML		
AYDN	**Tasoluk**	**3.94**	**27**	P	**Pn**	**21 25 40.7**	**+2.9**
CAME	**Cameli-Denizli**	**4.09**	**46**	Pn	**Pn**	**21 25 39.8**	**-0.1**
CAME				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**4.20**	**25**	Pn	**Pn**	**21 25 41.8**	**+0.4**
CHOS	**Chios island**	**4.22**	**5**	Pn	**Pn**	**21 25 42.7**	**+1.0**
ITM	**Ithomi**	**4.24**	**316**	Pn	**Pn**	**21 25 41.3**	**-0.6**
ITM	**Ithomi**	**4.24**	**316**	Pn	**Pn**	**21 25 43.1**	**+1.2**
ITM				AML	AML		
ELL	**Elmali**	**4.35**	**53**		**Pn**	**21 25 44.4**	**+0.9**
ELL	**Elmali**	**4.35**	**53**	Pn	**Pn**	**21 25 43.4**	**-0.1**
ELL				AML	AML		
BLCB	**Balcova**	**4.36**	**15**	Pn	**Pn**	**21 25 44.5**	**+1.0**
NAZL	**Nazilli-Aydin**	**4.36**	**29**	Pn	**Pn**	**21 25 44.2**	**+0.6**
NAZL				AML	AML		
APMY	**Acipayam-Deniz**	**4.46**	**41**	Pn	**Pn**	**21 25 45.2**	**+0.3**
APMY				AML	AML		
KORT	**Korkueli**	**4.79**	**53**	Pn	**Pn**	**21 25 49.6**	**+0.1**
KORT				AML	AML		
MANT	**Manisa**	**4.92**	**28**		**Pn**	**21 25 51.1**	**-0.4**
ANTB	**Antalya**	**4.93**	**55**	Pn	**Pn**	**21 25 51.6**	**+0.3**
ANTB				AML	AML		
KULA	**Kula-Manisa**	**4.99**	**29**	Pn	**Pn**	**21 25 53.0**	**+0.8**
GORD	**Gordes-Manisa**	**5.16**	**23**	Pn	**Pn**	**21 25 55.9**	**+1.4**
AGG	**Agios Georgios**	**5.51**	**332**	Pn	**Pn**	**21 25 59.7**	**+0.3**
YAYO	**Edremit-Balk**	**5.55**	**12**	Pn	**Pn**	**21 26 01.4**	**+1.5**
SIMA	**Simav-Kutahya**	**5.60**	**28**	Pn	**Pn**	**21 26 01.8**	**+1.2**
SIMA				AML	AML		
EZN	**Ezine**	**5.67**	**6**	Pn	**Pn**	**21 26 03.4**	**+1.9**
GAZI	**Gazipasa**	**5.87**	**68**	Pn	**Pn**	**21 26 04.6**	**+0.4**
GAZI				AML	AML		
SHUT	**Suhut-Afyon**	**5.92**	**41**	Pn	**Pn**	**21 26 06.0**	**+1.0**
SHUT				AML	AML		
SEYD	**Seydisehir-KON**	**6.00**	**56**	Pn	**Pn**	**21 26 06.9**	**+0.7**
SEYD				AML	AML		
TVSB	**Tavsanli**	**6.11**	**29**	Pn	**Pn**	**21 26 09.1**	**+1.5**
SUSR	**Susurluk-Balik**	**6.11**	**18**	Pn	**Pn**	**21 26 09.2**	**+1.7**
HDMB	**Hadim**	**6.26**	**62**	Pn	**Pn**	**21 26 10.4**	**+0.6**
HDMB				AML	AML		
CSS	**Mathiatis**	**6.42**	**81**		**Pn**	**21 26 12.5**	**+0.7**
CSS	**Mathiatis**	**6.42**	**81**	P	**Pn**	**21 26 15.1**	**+3.3**
	0.2nm35nm,0.9s						
CSS				AML	AML		
CSS	**Mathiatis**	**6.42**	**81**	P	**Pn**	**21 26 14.8**	**+3.0**
	comp=Z,35nm,0.9s						
CSS	**Mathiatis**	**6.42**	**81**	Pn	**Pn**	**21 26 11.9**	**+0.1**
CSS	**Mathiatis**	**6.42**	**81**	P	**Pn**	**21 26 13.1**	**+1.3**
CSS				S	**Sn**	**21 27 24.2**	**-1.1**
LIT	**Litokhoron**	**6.42**	**338**	Pn	**Pn**	**21 26 12.0**	**+0.2**
TEKE	**Tekeli-Mersin**	**6.46**	**70**	Pn	**Pn**	**21 26 12.7**	**+0.4**
BERE	**Bereket-Mersin**	**6.60**	**69**	Pn	**Pn**	**21 26 14.7**	**+0.3**
LFK	**Lefkose**	**6.62**	**78**	Pn	**Pn**	**21 26 15.1**	**+0.5**
KONT	**Konya--Tatoy**	**6.64**	**54**	Pn	**Pn**	**21 26 15.9**	**+1.1**
ALN	**Alexandroupoli**	**6.72**	**3**	Pn	**Pn**	**21 26 15.0**	**-0.9**
TEVE	**Tevekalti-Mers**	**6.79**	**68**	Pn	**Pn**	**21 26 17.4**	**+0.4**
BECE	**Buyukeceli-Mer**	**6.81**	**71**	Pn	**Pn**	**21 26 17.7**	**+0.6**
KRMN	**Karaman**	**6.91**	**62**	Pn	**Pn**	**21 26 19.3**	**+0.6**
IKL	**Isikli**	**6.93**	**70**	Pn	**Pn**	**21 26 19.3**	**+0.6**
KEBE	**Keben-Mersin**	**7.00**	**69**	Pn	**Pn**	**21 26 20.3**	**+0.4**
SRCK	**Saricakaya, Es**	**7.10**	**33**	Pn	**Pn**	**21 26 22.3**	**+1.2**
KEK	**Kerkira**	**7.22**	**322**	Pn	**Pn**	**21 26 22.6**	**-0.2**
CY604	**RAF Akrotiri,**	**7.38**	**86**		**Pn**	**21 26 25.8**	**+1.1**
KZIT	**Kziot**	**8.10**	**111**	P	**Pn**	**21 26 36.2**	**+1.3**
	comp=Z,0.3nmcomp=Z,743nmcomp=Z,50nm,0.9s						
KZIT				AML	AML		
KZIT	**Kziot**	**8.10**	**111**	P	**Pn**	**21 26 34.9**	**-0.1**
KZIT				S	**Sn**	**21 28 02.1**	**-4.6**
SLTI	**Sal'it**	**8.14**	**101**	P	**Pn**	**21 26 37.1**	**+1.8**
SLTI				S	**Sn**	**21 28 03.6**	**-3.9**
SCTE	**Santa Cesarea**	**8.20**	**318**	Pn	**Pn**	**21 26 36.3**	**+0.1**
MMA0B	**Mount Meron ar**	**8.25**	**95**	P	**Pn**	**21 26 38.5**	**+1.5**
MMA0B				S	**Sn**	**21 28 07.9**	**-2.6**
MMAI	**Mount Meron Ar**	**8.25**	**95**	Pn	**Pn**	**21 26 36.6**	**-0.5**
	comp=Z,1.8nm,0.3s,baz=280,slow=12,SNR=6.5						
MMAI				Sn	**Sn**	**21 28 05.9**	**-4.6**
	comp=Z,4.3nm,0.3s,baz=285,slow=28,SNR=7.8 comp=Z,0.5nm,0.3s						
MMAI				AML	AML		
AMAZ	**Amatzia**	**8.26**	**106**	P	**Pn**	**21 26 37.8**	**+0.7**
AMAZ				S	**Sn**	**21 28 06.9**	**-3.7**
SALP	**Salfit**	**8.31**	**102**	P	**Pn**	**21 26 39.7**	**+1.9**
	comp=Z,0.3nmcomp=Z,45nm,0.7s						
SALP				AML	AML		
ARIL	**Ariel Universi**	**8.31**	**102**	P	**Pn**	**21 26 39.1**	**+1.2**
ARIL				S	**Sn**	**21 28 09.2**	**-2.8**
MMLI	**Mount Malkishu**	**8.39**	**99**	P	**Pn**	**21 26 39.9**	**+1.0**
MMLI				S	**Sn**	**21 28 11.0**	**-3.0**
JER	**Jerusalem**	**8.40**	**104**	P	**Pn**	**21 26 39.9**	**+0.8**
JER				S	**Sn**	**21 28 10.2**	**-4.0**
GEM	**Giv'at Ha'Em**	**8.44**	**94**	P	**Pn**	**21 26 40.9**	**+1.5**
GEM				S	**Sn**	**21 28 12.2**	**-2.6**
BR131	**Keskin Array S**	**8.49**	**47**		**Pn**	**21 26 40.5**	**+0.2**
BRTR	**Keskin Array B**	**8.49**	**47**	Pn	**Pn**	**21 26 40.6**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=225,slow=14,SNR=13						
BRTR				Sn	**Sn**	**21 28 12.9**	**-3.4**
	comp=Z,0.1nm,0.3s,baz=245,slow=3.0,SNR=1.2 comp=Z,2.8nm,0.9s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**8.49**	**47**		**Pn**	**21 26 40.0**	**-0.3**
ROII	**Roi**	**8.50**	**100**	P	**Pn**	**21 26 40.4**	**+0.1**
ROII				S	**Sn**	**21 28 12.7**	**-3.7**
RMNI	**Mount Ramon**	**8.52**	**112**	P	**Pn**	**21 26 41.2**	**+0.4**
RMNI				S	**Sn**	**21 28 12.7**	**-4.4**
YITV	**Yitav**	**8.53**	**102**	P	**Pn**	**21 26 41.5**	**+0.7**
YITV				S	**Sn**	**21 28 13.5**	**-3.7**
QRNJ	**Al-Qirein**	**8.55**	**100**	P	**Pn**	**21 26 42.3**	**+1.3**
	comp=Z,15nmcomp=Z,16μmcomp=Z,2μm,0.7s						
QRNJ				AML	AML		
UJAP	**Al Uja**	**8.56**	**102**	P	**Pn**	**21 26 42.4**	**+1.3**
UJAP				S	**Sn**	**21 28 13.8**	**-4.2**
TIP	**Timpagrande**	**8.69**	**308**	Pn	**Pn**	**21 26 43.3**	**+0.4**
MSBI	**Mazada**	**8.69**	**106**	P	**Pn**	**21 26 45.0**	**+2.0**
	comp=Z,0.0nmcomp=Z,5.0nm,0.9s						
MSBI				AML	AML		
MSBI	**Mazada**	**8.69**	**106**	P	**Pn**	**21 26 43.5**	**+0.5**
MSBI				S	**Sn**	**21 28 17.0**	**-4.1**
LISJ	**El Lisan**	**8.82**	**107**	P	**Pn**	**21 26 46.6**	**+1.9**
	comp=Z,0.1nmcomp=Z,13nm,0.8s						
LISJ				AML	AML		
PRNI	**Paran**	**8.82**	**113**	P	**Pn**	**21 26 46.2**	**+1.4**
	comp=Z,0.5nmcomp=Z,80nm,0.8s						
PRNI				AML	AML		
CEL	**Celeste**	**8.85**	**300**		**Pn**	**21 26 45.0**	**-0.1**
CEL	**Celeste**	**8.85**	**300**	P	**Pn**	**21 26 45.9**	**+0.7**
	comp=Z,26nm,0.8s						
GHAJ	**Ghor Haditha**	**8.86**	**106**		**Pn**	**21 26 46.1**	**+0.8**
GHAJ	**Ghor Haditha**	**8.86**	**106**	P	**Pn**	**21 26 47.4**	**+2.1**
	comp=Z,0.3nmcomp=Z,730nmcomp=Z,32nm,0.5s						
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**8.86**	**106**	P	**Pn**	**21 26 46.0**	**+0.7**
GHAJ				S	**Sn**	**21 28 21.6**	**-3.8**
HRFI	**Mount Harif**	**9

VRAC LR LR 21 36 13.6
comp=Z,107nm,18.2s,baz=173,slow=42
comp=Z,2.4nm,0.8s
VRAC AML AML
VRAC Vranov 16.53 339 *e*PN **Pn 21 28 27.2 -1.9**
VRAC Vranov 16.53 339 P **P 21 28 31.8 0.0**
comp=Z,2.3nm,1.2s
MORC Moravsky Berou 16.69 342 *e*PN **Pn 21 28 28.7 -2.4**
MORC Moravsky Berou 16.69 342 P **Pn 21 28 30.7 -0.4**
comp=Z,6.9nm,1.4s
KIEV Kiev 16.72 8 Pn 21 28 31.9 +0.5
KIEV IAmb IAmb 21 28 34.1
comp=Z,18nm,0.8s
KIEV Kiev 16.72 8 P **P 21 28 33.1 -0.7**
comp=Z,28nm,0.8s
AKASG Malin Array Be 16.73 8 Pn **Pn 21 28 30.7 -0.9**
comp=Z,3.4nm,0.7s,baz=203,slow=11,SNR=22
AKASG LR LR 21 35 31.0
comp=Z,98nm,19.3s,baz=201,slow=39
WTTA Wattenberg 16.79 325 *e*P **P 21 28 35.1 +0.3**
comp=Z,21nm,1.0s
WATA Walderalm 16.87 325 *e*P **P 21 28 36.5 +0.8**
comp=Z,3.7nm,0.5s
CKRC Cesky Krumlov 16.88 334 *e*P **P 21 28 36.9 +1.4**
SQTA Sankt Quirin 16.97 324 *e*P **P 21 28 37.4 +0.8**
comp=Z,20nm,1.4s
FUORN Ofenpass-Fuorn 17.03 321 P 21 28 36.4 -1.1
FUORN IAmb IAmb 21 28 52.7
comp=Z,20nm,1.0s
FUORN Ofenpass-Fuorn 17.03 321 P **P 21 28 36.7 -0.8**
comp=Z,22nm,1.3s
FETA Feichten 17.06 323 *e*Pn **P 21 28 38.2 +0.4**
comp=Z,2.8nm,0.6s
MOTA Moosalm 17.11 325 *e*P **P 21 28 38.5 +0.3**
comp=Z,5.7nm,1.0s
GERES GERESS Array B 17.13 332 P **Pn 21 28 36.5 -0.2**
baz=145,slow=12,SNR=9.4
comp=Z,2nm,0.7s
GERES GERESS Array B 17.13 332 Pn 21 28 37.3 +0.6
KRLC Kraliky 17.17 340 P **Pn 21 28 37.6 +0.5**
comp=Z,9.2nm,1.7s
DAVOX Davos/Dischmat 17.33 321 P **P 21 28 40.8 +0.1**
comp=Z,0.1nm,0.3s,baz=133,slow=14,SNR=9.1
DAVOX LR LR 21 36 08.5
comp=Z,101nm,19.1s,baz=108,slow=40
comp=Z,5.2nm,0.8s
DAVOX AML AML
KHC Kasperske Hory 17.41 333 P 21 28 41.6 +0.2
KHC Kasperske Hory 17.41 333 *e*P **P 21 28 43.4 +2.0**
KHC Kasperske Hory 17.41 333 P **P 21 28 42.5 +1.1**
comp=Z,4.1nm,1.6s
TUE Stuetta 17.41 320 P 21 28 41.1 -0.6
ZVC Zvikov 17.43 334 *e*P **P 21 28 41.9 +0.2**
DPC Dobruska-Polom 17.54 340 *e*P **P 21 28 42.6 -0.3**
DAVA Damuels 17.67 323 *e*Pn **P 21 28 46.2 +1.8**
comp=Z,2.4nm,0.6s
WET Wettzell 17.69 332 P **P 21 28 44.9 +0.4**
comp=Z,7.9nm,1.6s
UBR Ueberruh 17.82 324 P **P 21 28 47.8 +1.7**
comp=Z,22nm,2.2s
BNALP Bannalp 18.16 319 P **P 21 28 50.9 +1.0**
comp=Z,15nm,2.3s
GRB2 Grafenberg Arr 18.28 330 P **P 21 28 52.0 +1.0**
comp=Z,12nm,1.5s
GRB3 Grafenberg Arr 18.28 330 P **P 21 28 52.8 +1.8**
comp=Z,23nm,1.3s
GRB1 Grafenberg Arr 18.38 330 P **P 21 28 52.6 +0.5**
comp=Z,21nm,1.2s
GRB4 Grafenberg Arr 18.48 330 P **Pn 21 28 53.7 +0.4**
comp=Z,20nm,1.4s
SENIN Lac Senin/Sane 18.48 317 P **Pn 21 28 54.8 +1.3**
SLE Schleitheim 18.69 322 P **Pn 21 28 56.9 +1.0**
comp=Z,6.3nm,0.8s
GRA2 Grafenberg Arr 18.70 330 P **Pn 21 28 56.9 +0.9**
BRG Berggiesshubel 18.73 336 *e*P **Pn 21 28 56.8 +0.4**
BRG Amp 21 29 02.9
comp=Z,3.6nm,1.1s
GRA3 Grafenberg Arr 18.80 330 P **Pn 21 28 59.6 +2.3**
comp=Z,19nm,1.6s
TANN Tannenbergstha 18.87 333 P **Pn 21 29 00.4 +2.3**
comp=Z,14nm,1.3s
CLL Collm 19.42 336 *e*Px Px 21 29 06.0
CLL AMS AMS 21 38 00.0
comp=Z,100nm,16.0s
ECH Echery 19.67 321 P **P 21 29 05.8 -0.4**
ECH IAmb IAmb 21 29 17.6
comp=Z,20nm,1.5s
SUW Suwalki 19.91 356 P 21 29 08.9 +0.1
CORI Orista 20.07 300 P **P 21 29 10.9 +0.2**
CORI IAmb IAmb 21 29 30.0
comp=Z,24nm,1.3s
RAYN Ar Rayn 20.37 116 P 21 29 15.6 +1.5
RAYN Ar Rayn 20.37 116 P Pn 21 29 17.1 +1.0
comp=Z,6.5nm,1.0s
TNS Taunus Mts 20.39 327 P Pn 21 29 15.3 -0.8
comp=Z,16nm,1.5s
MNK Minsk 20.39 4 *i* P **P 21 29 14.1 0.0**
comp=E,21nm,1.0s
MNK *i* P **P 21 29 14.1 0.0**
comp=N,11nm,0.9s
MNK *i* P **P 21 29 14.1 0.0**
comp=Z,14nm,0.9s,baz=186
MNK *i* PP **PnPn 21 29 32.1 +1.1**
MNK *i* PPP PPP 21 29 40.6
MNK *i* S Sn 21 33 03.9 -1.9
MNK *i* SS **SnSn 21 33 23.0 +2.6**
MNK *i* SSS SSS 21 33 35.9
MNK *i* LQ LQ 21 35 25.7
MNK *i* LR LR 21 36 27.0
MNK *i* LRM MLR 21 37 52.4
comp=Z,84nm,13.8s
MNK *i* LRM MLR 21 38 05.0
comp=E,472nm,30.6s
MNK *i* LRM MLR 21 38 20.8
comp=N,237nm,24.7s
GTTG Gottingen 20.73 332 P Pn 21 29 18.8 -1.3
comp=Z,41nm,1.4s
NACGM Naroch 20.75 2 *e*P Pn 21 29 21.9 +1.6
comp=E,15nm,0.7s
CEST Esterri de Car 20.81 301 P **P 21 29 19.8 +0.9**
CEST IAmb IAmb 21 29 38.3
comp=Z,22nm,1.2s
FLTG Flechtingen 20.88 335 P **P 21 29 18.9 -0.4**
comp=Z,12nm,1.2s
TAM Tamanrasset 20.94 242 P **P 21 29 21.0 +0.6**
TAM IAmb IAmb 21 29 27.7
comp=Z,13nm,0.9s
TAM Tamanrasset 20.94 242 P Pn 21 29 23.8 +0.8
comp=Z,5.1nm,1.4s
WLF Walferdange 21.10 323 *d*P **P 21 29 24.1 +2.3**
PABE Paberze 21.36 357 P **P 21 29 23.7 -0.8**
BUG Bochum--Univer 21.78 328 P **P 21 29 30.1 +1.1**
comp=Z,22nm,1.3s
MEM Membach 21.79 325 P **P 21 29 31.8 +2.7**
comp=Z,25nm,1.0s
ESBB Sonseca Array 24.21 292 P **P 21 29 54.2 +0.2**
ESBB IAmb IAmb 21 30 08.5
comp=Z,11nm,1.2s
ESDC Sonseca Array 24.21 292 P **P 21 29 54.6 +0.5**
comp=Z,4.1nm,1.1s,baz=91,slow=8.2,SNR=9.6
comp=Z,4.1nm,1.1s
ESDC Sonseca Array 24.21 292 P 21 29 53.4 -0.7
PAB San Pablo 24.50 291 P 21 29 56.8 0.0
MD01 Midelt array s 25.31 276 P 21 30 04.6 +0.4
HFS Hagfors 27.12 347 P 21 30 21.2 +1.0
comp=Z,3.4nm,0.9s,baz=160,slow=18,SNR=1.8
HFS LR LR 21 41 28.1
comp=Z,111nm,18.3s,baz=166,slow=37
comp=Z,3.4nm,0.9s
FINES FINESS Array B 27.29 0 P **P 21 30 20.1 -1.5**
comp=Z,1.6nm,0.5s,baz=185,slow=9.0,SNR=13
FINES LR LR 21 41 21.2
comp=Z,108nm,21.2s,baz=176,slow=37
comp=Z,1.6nm,0.5s
FIA1 FINESS Array S 27.29 0 P P 21 30 20.9 -0.8
NOA NORSAR Array B 28.45 345 P **P 21 30 33.3 +1.3**
comp=Z,1.1nm,0.9s,baz=146,slow=11,SNR=2.3
NOA LR LR 21 42 35.9
comp=Z,26nm,18.8s,baz=135,slow=38
comp=Z,1.1nm,0.9s
EKA Eskdalemuir Ar 29.06 326 P **P 21 30 38.0 +0.5**
comp=Z,1.4nm,0.7s,baz=123,slow=10,SNR=4.2
comp=Z,1.4nm,0.7s
AB31 Akbulak array 29.43 49 P **P 21 30 41.3 +0.4**
AB31 IAmb IAmb 21 31 17.0
comp=Z,5.2nm,1.4s
ABKAR Akbulak array 29.43 49 P **P 21 30 41.5 +0.6**

TORD Torodi Ar. Bea 30.15 232 P **P 21 30 48.5 +0.9**
comp=Z,0.9nm,0.5s,baz=33,slow=10,SNR=4.5
comp=Z,0.9nm,0.5s
TORD Torodi Ar. Bea 30.15 232 P **P 21 30 48.0 +0.4**
ARTI Arti 31.53 35 P **P 21 30 59.2 -0.2**
ARTI IAmb IAmb 21 31 33.8
comp=Z,3.6nm,0.8s
ARCES ARCESS Array B 35.41 360 P **P 21 31 31.3 -1.8**
comp=Z,2.9nm,0.8s,baz=185,slow=8.8,SNR=7.8
comp=Z,2.9nm,0.8s
ARCES ARCESS Array B 35.41 360 P **P 21 31 32.0 -1.0**
KKAR Karatay Array 35.83 62 P **P 21 31 37.6 +0.7**
BVAR Borovoye Array 36.77 45 P **P 21 31 45.1 +0.3**
comp=Z,1.8nm,1.0s,baz=248,slow=6.1,SNR=6.3
comp=Z,1.8nm,1.0s
DBIC Dimbokro 39.25 233 P **P 21 32 06.9 +0.8**
comp=Z,1.9nm,0.6s,baz=35,slow=12,SNR=1.7
DBIC LR LR 21 49 47.1
comp=Z,101nm,19.9s,baz=30,slow=38
comp=Z,1.9nm,0.6s
DBIC Dimbokro 39.25 233 P **P 21 32 06.3 +0.2**
KURBB Kurchatov Arra 41.46 50 P **P 21 32 23.5 -0.6**
comp=Z,1.8nm,0.7s,baz=276,slow=8.7,SNR=21
comp=Z,1.8nm,0.7s
KURK Kurchatov 41.52 50 P **P 21 32 25.4 +0.8**
KURK IAmb IAmb 21 32 30.6
comp=Z,3.9nm,0.9s
KURK Kurchatov 41.52 50 P **P 21 32 25.8 +1.2**
comp=Z,5.1nm,1.1s
WUS Wushi 42.44 64 P **P 21 32 33.6 +1.3**
comp=Z,4.9nm,0.8s
MKAR Makanchi Array 44.02 56 P **P 21 32 45.3 +0.4**
comp=Z,4.3nm,0.6s,baz=278,slow=6.5,SNR=54
comp=Z,4.3nm,0.6s
MKAR Makanchi Array 44.02 56 P **P 21 32 46.4 +1.4**
SPITS Spitsbergen Ar 44.29 357 P **P 21 32 46.7 0.0**
comp=Z,14nm,1.1s,baz=164,slow=7.5,SNR=4.0
comp=Z,14nm,1.1s
ZALV Zalesovo Beam 45.43 45 P **P 21 32 55.6 -0.4**
comp=Z,1.0nm,0.5s,baz=264,slow=9.2,SNR=8.5
comp=Z,1.0nm,0.5s
ZALV Zalesovo Beam 45.43 45 P **P 21 32 56.6 +0.6**
NRIK Noril'sk 48.62 25 P **P 21 33 20.9 +0.2**
comp=Z,1.2nm,0.4s,baz=207,slow=16,SNR=3.5
NRIK LR LR 21 55 37.4
comp=Z,74nm,18.1s,baz=54,slow=38
comp=Z,1.2nm,0.4s
NRIK Noril'sk 48.62 25 P **P 21 33 21.4 +0.6**
NRIK IAmb IAmb 21 33 24.7
comp=Z,3.6nm,0.9s
TSUM Tsumeb 53.62 189 LR LR 21 58 35.0
comp=Z,175nm,19.4s,baz=334,slow=38
SONM Songino Array 59.83 50 P **P 21 34 43.2 +0.3**
comp=Z,0.7nm,0.7s,baz=290,slow=6.8,SNR=5.0
comp=Z,0.7nm,0.7s
SONM Songino Array 59.83 50 P **P 21 34 43.3 +0.4**
SONM IAmb IAmb 21 35 09.2
comp=Z,2.6nm,1.3s
TIXI Tiksi 61.96 20 LR LR 22 05 48.9
comp=Z,99nm,18.3s,baz=48,slow=40
BOSA Boshof 62.45 180 P **P 21 35 01.6 +0.9**
comp=Z,3.6nm,0.8s,baz=0.0,slow=15,SNR=3.9
comp=Z,3.6nm,0.8s
BOSA Boshof 62.45 180 P **P 21 35 01.2 +0.5**
NPW Naypyitaw 63.36 83 P **P 21 35 07.8 +0.7**
comp=Z,8.2nm,1.4s
HHC Hu-ho-hao-te 65.88 56 *e*P **P 21 35 24.6 +1.3**
HHC pmax pmax
comp=Z,10.0nm,0.6s
HHC pmax pmax
comp=Z,120nm,5.1s
CMAR Chiang Mai Arr 66.32 83 P **P 21 35 27.0 +0.6**
comp=Z,0.4nm,0.3s,baz=304,slow=4.5,SNR=7.3
comp=Z,0.4nm,0.3s
XAN Xi'an 66.94 64 *e*P **P 21 35 29.4 -0.8**
HILR Hailar Array B 67.34 45 LR LR 22 08 24.9
comp=Z,174nm,20.5s,baz=25,slow=39
USRK Ussuriysk Ar. 77.28 45 P **P 21 36 31.8 0.0**
comp=Z,1.5nm,0.7s,baz=277,slow=5.3,SNR=4.0
comp=Z,1.5nm,0.7s
USRK Ussuriysk Ar. 77.28 45 P **P 21 36 32.5 +0.7**
YKA Yellowknife Ar 78.50 342 P **P 21 36 38.5 +0.2**
comp=Z,0.8nm,0.8s,baz=38,slow=5.7,SNR=2.3
comp=Z,0.8nm,0.8s
YKA Yellowknife Ar 78.50 342 P 21 36 37.3 -1.0
KSRS Korea Array 78.59 52 P **P 21 36 39.4 +0.2**
comp=Z,0.7nm,0.5s,baz=290,slow=3.6,SNR=1.9
comp=Z,0.7nm,0.5s
ILAR Eielson Array 81.21 357 P **P 21 36 53.3 +0.3**
comp=Z,0.5nm,0.6s,baz=351,slow=3.4,SNR=8.0
comp=Z,0.5nm,0.6s
ILAR Eielson Array 81.21 357 P 21 36 54.7 +1.8
MJAR Matsushiro Arr 85.71 48 P **P 21 37 16.3 -0.3**
comp=Z,1.1nm,0.6s,baz=314,slow=4.7,SNR=3.0
comp=Z,1.1nm,0.6s
PDAR Pinedale Array 93.14 329 P **P 21 37 51.4 -0.5**
comp=Z,0.4nm,0.9s,baz=32,slow=4.1,SNR=2.1
comp=Z,0.4nm,0.9s
PDAR Pinedale Array 93.14 329 P P 21 37 51.8 -0.1

IDC 24 21:26:28.8±590.0, 55.75N×4.84E, h0km, Error ellipse: s-maj=322.3km s-min=210.9km az=140.0, North Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I26DE	**FREYUNG INFRAS**	**8.78**	**138**	I	I	22 21 04.6	
	0.1nm,1.0s,baz=323,slow=317,SNR=4.4						
I43RU	**DUBNA INFRASON**	**17.94**	**73**	I	I	23 16 20.0	
	baz=281,slow=322,SNR=1.2						
I48TN	**KESRA INFRASON**	**20.18**	**169**	I	I	23 33 30.0	
	baz=352,slow=323,SNR=0.6						

*SDD **24** 21:30:24.4±2.2, 19.88N×71.21W, h20km±13km, MD3.0, ML3.1, MW3.1, Presumed earthquake*
*OSPL **24** 21:30:26.0±2.6, 19.83N×71.20W, h9km±5km, ML3.0, Presumed earthquake*

ISC 24 21:30:24.0±1.1, 19.84N±0.03×71.17W±0.04, h21km±1km, n24, σ1s09/41, 4D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LOPP1	**Punta Rusia, P**	**0.03**	**301**	*i* P	**Pb**	**21 30 27.3**	**-0.4**
LOPP1				*e*S	**Sb**	**21 30 29.8**	**-0.3**
LOPP1				IAML		21 30 31.8	
	comp=Z,5μm,0.3s						
LUDR	**Luperon**	**0.21**	**75**	*e*Pg	**Pb**	**21 30 29.2**	**-0.7**
LUDR				*e*Sg	**Sb**	**21 30 34.2**	**+0.2**
MADR	**Mao Valverde**	**0.28**	**167**	*e*Pg	**Pb**	**21 30 29.8**	**-0.6**
MADR				*e*Sg	**Sb**	**21 30 35.7**	**+0.8**
MADR				IAML		21 30 36.1	
	comp=N,12μm,0.4s						
SODR	**Sosua Marina B**	**0.57**	**98**	*e*Pg	**Pb**	**21 30 34.2**	**-1.1**
SODR				IAML		21 31 00.9	
	comp=N,413nm,1.6s						
SC01	**Santiago de lo**	**0.58**	**134**	*e*Pg	**Pb**	**21 30 35.5**	**-0.2**
SC01				*e*Sg	**Sn**	**21 30 45.4**	**-0.6**
SC01				IAML		21 30 51.8	
	comp=N,605nm,0.3s						
SC01	**Santiago de lo**	**0.58**	**134**	*i* P	**Pb**	**21 30 35.5**	**-0.2**
SC01				*e*S	**Sn**	**21 30 45.2**	**-0.8**
REDR	**Restauracion**	**0.70**	**198**	*e*Pg	**Pn**	**21 30 37.8**	**-0.9**
REDR				⇓*e*Sg	**Sn**	**21 30 48.5**	**-0.4**
REDR				IAML		21 30 49.4	
	comp=N,2μm,0.2s						
SDDR	**Presa de Saban**	**0.86**	**187**	*e*Pg	**Pb**	**21 30 39.4**	**-0.9**
SDDR				⇓*e*Sg	**Sb**	**21 30 51.3**	**0.0**
SDDR				*e*Sg	**Sn**	**21 30 51.5**	**-1.4**
	comp=N,757nm,0.4s						
SDDR				IAML		21 30 51.9	
	comp=N,757nm,0.4s						
SDDR	**Presa de Saban**	**0.86**	**187**	*i* P	**Pb**	**21 30 39.4**	**-0.9**
SDDR				*e*S	**Sb**	**21 30 51.3**	**0.0**
SDDR				IAML		21 30 51.9	
	comp=Z,593nm,0.5s						
ABDR	**Alto Bandera**	**1.14**	**153**	⇓*e*Pg	**Pn**	**21 30 43.9**	**-1.2**
ABDR				IAML		21 31 02.9	
	comp=N,214nm,0.6s						
CADR	**Cabrera**	**1.17**	**98**	⇓*e*Sg	**Sn**	**21 31 02.2**	**+1.7**
CADR				IAML		21 31 07.9	
	comp=N,356nm,1.5s						
LONE3	**El Aguacate, B**	**1.26**	**193**	*i* P	**Pb**	**21 30 46.7**	**-0.4**
LONE3				*e*S	**Sb**	**21 31 03.6**	**+0.8**
LONE3				IAML		21 31 04.1	
	comp=Z,114nm,0.8s						
NADR	**Nagua**	**1.33**	**111**	*e*Sg	**Sb**	**21 31 06.8**	**+2.0**
NADR				IAML		21 31 12.7	
	comp=N,579nm,0.4s						
NEDR	**Neiba UASD**	**1.37**	**190**	*e*Pg	**Pb**	**21 30 49.3**	**+0.4**
NEDR				*e*Sg	**Sb**	**21 31 07.8**	**+2.0**
NEDR				IAML		21 31 08.7	
	comp=N,294nm,0.3s						
JIDR	**Jimani**	**1.49**	**206**	*e*Pg	**Pb**	**21 30 50.9**	**0.0**
JIDR				*e*Sg	**Sb**	**21 31 11.6**	**+2.3**
JIDR				IAML		21 31 12.8	
	comp=N,243nm,0.4s						
LODU1	**El Espartillar**	**1.50**	**191**	*i* P	**Pb**	**21 30 51.3**	**+0.1**
LODU1				IAML		21 31 12.9	
	comp=Z,203nm,0.7s						
BANI	**BANI**	**1.63**	**152**	*e*Pg	**Pb**	**21 30 52.6**	**-0.8**
BANI				IAML		21 31 21.6	
	comp=N,217nm,0.6s						
GRTK	**Grand Turk**	**1.67**	**1**	*e*Pg	**Pb**	**21 30 53.3**	**-0.6**
GRTK				*e*Sg	**Sb**	**21 31 16.6**	**+2.0**
PODR	**Polo**	**1.67**	**184**	*e*Pg	**Pb**	**21 30 53.5**	**-0.6**
PODR				*e*Sg	**Sb**	**21 31 17.7**	**+3.0**
PODR				IAML		21 31 20.8	
	comp=N,192nm,0.2s						
PODR	**Polo**	**1.67**	**184**	*i* P	**Pb**	**21 30 53.9**	**-0.2**
PODR				*e*S	**Sb**	**21 31 14.7**	**0.0**
PODR				IAML		21 31 21.5	
	comp=Z,964nm,0.1s						
SDD	**Santo Domingo**	**1.82**	**139**	IAML		21 31 19.4	
	comp=N,34nm,1.5s						
SDD				*e*Sg	**Sb**	**21 31 20.0**	**+1.2**
SMDR	**Samana, DR**	**1.95**	**106**	*e*Pg	**Pn**	**21 30 56.4**	**+0.6**
SMDR				*e*Sg	**Sb**	**21 31 22.3**	**-0.3**
SMDR				IAML		21 31 36.3	
	comp=N,88nm,0.8s						
LOBH	**Bahia de las A**	**2.01**	**193**	*i* P	**Pb**	**21 30 59.7**	**-0.2**
LOBH				*e*S	**Sn**	**21 31 22.4**	**+1.1**
LOBH				IAML		21 31 28.2	
	comp=Z,57nm,1.6s						
LOVI	**El Cajuil, Ovi**	**2.04**	**185**	*i* P	**Pb**	**21 31 00.3**	**0.0**
LOVI				IAML		21 31 31.8	
	comp=Z,56nm,0.9s						

*THE **24** 21:52:30.9, 37.N±2.×2.8E±., h58km±3km, M3.2/17, MLh3.2/17*
*ISK **24** 21:52:30.5, 36.96N×28.00E, h76km±1km, ML3.0/10*
*ATH **24** 21:52:30.4, 36.87N×28.14E, h58km±2km, ML3.3/6, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **24** 21:52:31.0, 36.87N×28.17E, h54km±1km, ML2.7*
*GII **24** 21:52:31.8±0.0, 36.59N±0.06×28.32E±0.02, h0km, Mws2.7, confirmed*

ISC 24 21:52:29.3±1.1, 36.82N±0.03×28.20E±0.03, h68km±6km, n92, σ1s21/137, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TURN	**Turunc**	**0.06**	**146**	P	**Pn**	**21 52 39.2**	**0.0**
TURN				S	**Sn**	**21 52 45.1**	**-1.4**
TURN				IAML		21 52 46.0	
	comp=E,942nm,0.1s						
YER	**Yerkesik**	**0.32**	**12**	P	**Pn**	**21 52 41.0**	**+0.5**
YER				S	**Sn**	**21 52 48.8**	**+0.1**
DALY	**Dalyan (Mula)**	**0.36**	**91**	P	**Pn**	**21 52 41.3**	**+0.6**
DALY				S	**Sn**	**21 52 49.2**	**+0.2**
DALY				IAML		21 52 52.0	
	comp=E,601nm,0.2s						
RDI1	**Rhodes Town Ha**	**0.37**	**177**	P	**Pn**	**21 52 41.5**	**+0.7**
RDI1				S	**Sn**	**21 52 50.1**	**+0.9**
RDI1				AML	AML		
RODB	**Rodos**	**0.38**	**178**	P	**Pn**	**21 52 40.8**	**-0.1**
RODB				S	**Sn**	**21 52 49.4**	**+0.1**
RODB				AML	AML		
MULA	**Mugla, Merkez-**	**0.44**	**12**	P	**Pn**	**21 52 42.1**	**+0.5**
MULA				S	**Sn**	**21 52 50.7**	**+0.2**
MULA				IAML		21 52 52.0	
	comp=E,594nm,0.2s						
MULA				IAML		21 52 53.0	
	comp=N,418nm,0.4s						
DAT	**Datca**	**0.51**	**259**	P	**Pn**	**21 52 41.9**	**-0.2**
DAT				S	**Sn**	**21 52 51.0**	**-0.6**
DAT				AML	AML		
MLSB	**Milas**	**0.58**	**324**	Pg	**Pn**	**21 52 43.4**	**+0.6**
MLSB				Sg	**Sn**	**21 52 52.9**	**+0.1**
MLSB				AML	AML		
ARG	**Arkhangelos**	**0.61**	**186**	P	**Pn**	**21 52 44.1**	**+1.0**
ARG				S	**Sn**	**21 52 54.5**	**+1.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**0.61**	**186**	P	**Pn**	**21 52 44.1**	**+1.0**
ARG				S	**Sn**	**21 52 54.3**	**+1.1**
SABU	**Mula-Dalaman**	**0.61**	**90**	P	**Pn**	**21 52 43.8**	**+0.7**
SABU				S	**Sn**	**21 52 53.9**	**+0.6**
YAZI	**Mula-Dat§a-**	**0.62**	**257**	P	**Pn**	**21 52 43.1**	**-0.1**
YAZI				S	**Sn**	**21 52 51.0**	**-2.4**
YAZI				IAML		21 52 53.0	
	comp=N,302nm,0.2s						
YAZI				IAML		21 52 53.0	
	comp=E,278nm,0.2s						
BDRM	**Kayabasi**	**0.65**	**292**	P	**Pn**	**21 52 43.7**	**+0.1**
BDRM				S	**Sn**	**21 52 51.5**	**-2.6**
BODT	**Bodrum**	**0.75**	**289**	P	**Pn**	**21 52 44.8**	**+0.2**
BODT				S	**Sn**	**21 52 55.9**	**-0.2**
BODT	**Bodrum**	**0.75**	**289**	Pg	**Pn**	**21 52 44.9**	**+0.2**
BODT				Sg	**Sn**	**21 52 55.9**	**-0.2**
BODT				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.80**	**292**	Pg	**Pn**	**21 52 45.4**	**+0.2**
YKAV				Sg	**Sn**	**21 52 56.1**	**-0.9**
YKAV				AML	AML		
TAVA	**DENIZLI_Tavas**	**0.85**	**41**	P	**Pn**	**21 52 46.5**	**+0.5**
TAVA				S	**Sn**	**21 52 57.0**	**-1.4**
AYDN	**Tasoluk**	**0.87**	**343**	P	**Pn**	**21 52 46.9**	**+0.7**
AYDN				S	**Sn**	**21 52 57.7**	**-1.1**
IZZE	**Mula-Seydike**	**0.91**	**115**	P	**Pn**	**21 52 48.2**	**+1.7**
IZZE				S	**Sn**	**21 53 01.3**	**+1.9**
CAEL	**Denizli, Camel**	**0.94**	**71**	P	**Pn**	**21 52 48.3**	**+1.2**
CAEL				S	**Sn**	**21 52 60.0**	**-0.4**
ESEN	**Aydn-Nazilli**	**0.98**	**7**	P	**Pn**	**21 52 48.0**	**+0.6**
ESEN				S	**Sn**	**21 53 00.3**	**-0.6**
ESEN				IAML		21 53 03.0	
	comp=E,306nm,0.5s						
ESEN				IAML		21 53 04.0	
	comp=N,187nm,0.3s						
DDIM	**Aydin, Didim**	**0.99**	**310**	P	**Pn**	**21 52 48.2**	**+0.6**
DDIM				S	**Sn**	**21 53 00.6**	**-0.6**
KLNA	**Kalymnos**	**1.00**	**278**	P	**Pn**	**21 52 47.7**	**+0.1**
KLNA				S	**Sn**	**21 53 00.1**	**-1.1**
DNIZ	**Denizli-Tavas-**	**1.04**	**40**	P	**Pn**	**21 52 49.0**	**+0.7**
DNIZ				IAML		21 53 04.0	
	comp=N,342nm,0.4s						
KNIK	**Mula-Seydike**	**1.10**	**88**	P	**Pn**	**21 52 50.1**	**+1.1**
KNIK				S	**Sn**	**21 53 01.9**	**-1.8**
NAZL	**Nazilli-Aydin**	**1.14**	**4**	Pg	**Pn**	**21 52 50.2**	**+0.7**
NAZL				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.15**	**348**	Pg	**Pn**	**21 52 50.0**	**+0.3**
AYDB				AML	AML		
GOLH	**Golhisar**	**1.16**	**69**	P	**Pn**	**21 52 51.1**	**+1.2**
GOLH				S	**Sn**	**21 53 04.3**	**-0.9**
GCAM	**G?zelcaml?**	**1.17**	**319**	P	**Pn**	**21 52 50.1**	**+0.3**
GCAM				S	**Sn**	**21 53 03.9**	**-1.3**
GCAM				IAML		21 53 06.0	
	comp=E,274nm,0.4s						
GCAM	**G?zelcaml?**	**1.17**	**319**	Pg	**Pn**	**21 52 50.0**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**1.27**	**325**	Pg	**Pn**	**21 52 51.0**	**-0.1**
AKAS	**Kas**	**1.27**	**117**	P	**Pn**	**21 52 52.6**	**+1.3**
AKAS				S	**Sn**	**21 53 07.7**	**-0.1**
AKAS				IAML		21 53 20.0	
	comp=N,114nm,0.5s						
AKAS				IAML		21 53 20.0	
	comp=E,116nm,0.5s						
KSL	**Kastellorizon**	**1.30**	**121**	S	**Sn**	**21 53 09.9**	**+1.6**
SULTU	**Buldan**	**1.31**	**20**	P	**Pn**	**21 52 52.3**	**+0.5**
SULTU				S	**Sn**	**21 53 06.8**	**-1.9**
SULTU				IAML		21 53 11.0	
	comp=E,113nm,0.5s						
SULTU				IAML		21 53 13.0	
	comp=N,97nm,0.7s						
IZMR	**zmir-demi**	**1.33**	**351**	P	**Pn**	**21 52 52.3**	**+0.4**
IZMR				S	**Sn**	**21 53 07.3**	**-1.5**
IZMR				IAML		21 53 09.0	
	comp=N,137nm,0.6s						
IZMR				IAML		21 53 09.0	
	comp=E,149nm,0.5s						
ELL	**Elmali**	**1.37**	**93**	P	**Pn**	**21 52 54.3**	**+1.7**

ELL				AML	AML			
KIRA	**zmir-Kiraz**	**1.38**	**6**	P	**Pn**	**21 52 52.9**	**+0.2**
KIRA				S	**Sn**	**21 53 08.7**	**-1.5**
KIRA				IAML		21 53 11.0	
	comp=E,121nm,0.6s						
KIRA				IAML		21 53 12.0	
	comp=N,122nm,0.2s						
SMG	**Samos**	**1.40**	**309**	P	**Pn**	**21 52 53.4**	**+0.5**
SMG				S	**Sn**	**21 53 10.0**	**-0.7**
SMG	**Samos**	**1.40**	**309**	P	**Pn**	**21 52 52.9**	**0.0**
INCE	**Denizli-Bozkur**	**1.41**	**51**	P	**Pn**	**21 52 54.2**	**+1.1**
INCE				S	**Sn**	**21 53 10.0**	**-0.9**
KARP	**Karpathos**	**1.53**	**214**	P	**Pn**	**21 52 55.3**	**+0.7**
KARP				S	**Sn**	**21 53 13.6**	**-0.1**
KARP				AML	AML		
KARP	**Karpathos**	**1.53**	**214**	P	**Pn**	**21 52 55.2**	**+0.6**
KARP				AML	AML		
KRL1	**Karlovasi Samo**	**1.54**	**310**	P	**Pn**	**21 52 53.8**	**-0.8**
SAM2	**Drakei, Karlov**	**1.58**	**307**	P	**Pn**	**21 52 54.9**	**-0.3**
HARTU	**Esme**	**1.59**	**17**	P	**Pn**	**21 52 56.3**	**+0.9**
HARTU				S	**Sn**	**21 53 13.5**	**-1.6**
GMLD	**Gumuldur**	**1.62**	**321**	Pn	**Pn**	**21 52 55.6**	**-0.1**
GMLD				AML	AML		
BRDR	**BURDUR-Merkez**	**1.72**	**59**	P	**Pn**	**21 52 58.8**	**+1.6**
KORT	**Korkueli**	**1.73**	**84**	P	**Pn**	**21 52 59.9**	**+2.5**
KORT				S	**Sn**	**21 53 19.6**	**+0.9**
AKUM	**Antalya-Kumluc**	**1.79**	**106**	P	**Pn**	**21 52 58.0**	**0.0**
BLCB	**Balcova**	**1.81**	**330**	P	**Pn**	**21 52 58.7**	**+0.4**
BLCB				S	**Sn**	**21 53 19.9**	**-0.5**
BLCB	**Balcova**	**1.81**	**330**	Pn	**Pn**	**21 52 58.5**	**+0.2**
BLCB				AML	AML		
PASA	**Karahalli, USA**	**1.83**	**33**	P	**Pn**	**21 52 59.4**	**+0.7**
PASA				S	**Sn**	**21 53 19.5**	**-1.5**
PASA				IAML		21 53 22.0	
	comp=E,102nm,0.5s						
PASA				IAML		21 53 23.0	
	comp=N,73nm,0.4s						
GOMA	**Golmarmara-Man**	**1.89**	**353**	Pn	**Pn**	**21 53 00.1**	**+0.7**
BUCA	**Burdur, Bucak-**	**1.95**	**74**	P	**Pn**	**21 53 03.4**	**+3.2**
GORD	**Gordes-Manisa**	**2.08**	**359**	Pn	**Pn**	**21 53 02.8**	**+0.8**
GORD				AML	AML		
APE	**Apeiranthos**	**2.15**	**277**	P	**Pn**	**21 53 03.8**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**2.15**	**277**	P	**Pn**	**21 53 03.5**	**+0.5**
THR3	**Thira Island,**	**2.29**	**260**	P	**Pn**	**21 53 06.1**	**+1.3**
THR6	**Thira Island,**	**2.31**	**259**	P	**Pn**	**21 53 06.9**	**+1.9**
THR6	**Thira Island,**	**2.31**	**259**	P	**Pn**	**21 53 05.9**	**+0.9**
CHOS	**Chios island**	**2.31**	**313**	P	**Pn**	**21 53 05.8**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**2.31**	**313**	Pn	**Pn**	**21 53 04.8**	**-0.4**
CHOS				AML	AML		
SIT2	**Siteia**	**2.34**	**227**	P	**Pn**	**21 53 06.5**	**+0.9**
ZKR	**Zakros**	**2.35**	**224**	P	**Pn**	**21 53 07.4**	**+1.8**
ZKR	**Zakros**	**2.35**	**224**	P	**Pn**	**21 53 06.5**	**+0.9**
DKL	**Dikili**	**2.47**	**336**	P	**Pn**	**21 53 07.6**	**+0.4**
NPS	**Neapolis**	**2.62**	**234**	P	**Pn**	**21 53 09.8**	**+0.5**
NPS	**Neapolis**	**2.62**	**234**	P	**Pn**	**21 53 09.5**	**+0.2**
BALB	**Balikesir**	**2.82**	**355**	P	**Pn**	**21 53 12.5**	**+0.5**
PRK	**Paraskevi**	**2.86**	**328**	P	**Pn**	**21 53 13.6**	**+1.1**
PRK				AML	AML		
PRK	**Paraskevi**	**2.86**	**328**	P	**Pn**	**21 53 13.2**	**+0.7**
IDI	**Anoyia**	**3.09**	**241**	P	**Pn**	**21 53 16.9**	**+1.1**
IDI				AML	AML		
IDI	**Anoyia**	**3.09**	**241**	P	**Pn**	**21 53 16.4**	**+0.6**
SIVA	**Sivas**	**3.29**	**238**	P	**Pn**	**21 53 20.9**	**+2.5**
SIVA				AML	AML		
SIVA	**Sivas**	**3.29**	**238**	P	**Pn**	**21 53 19.6**	**+1.1**
EZN	**Ezine**	**3.34**	**334**	P	**Pn**	**21 53 20.1**	**+1.0**
EZN				AML	AML		
GVD	**Gavdhos**	**3.89**	**241**	P	**Pn**	**21 53 28.5**	**+1.9**
GVD				AML	AML		
ENEZ	**Enez**	**4.22**	**338**	P	**Pn**	**21 53 32.6**	**+1.5**
VLI	**Veliai**	**4.23**	**270**	P	**Pn**	**21 53 33.8**	**+2.5**
ALN	**Alexandroupoli**	**4.40**	**338**	P	**Pn**	**21 53 34.5**	**+0.9**
ALN				AML	AML		
CSS	**Mathiatis**	**4.56**	**113**	P	**Pn**	**21 53 36.0**	**+0.3**
CSS				S	**Sn**	**21 54 27.3**	**-0.2**
KAVA	**Kavala**	**5.06**	**326**	P	**Pn**	**21 53 44.5**	**+1.9**
KAVA				AML	AML		
KDZ	**Kurdzhali**	**5.29**	**336**	P	**Pn**	**21 53 47.2**	**+1.5**
KDZ				AML	AML		
SRS	**Serrai**	**5.59**	**321**	P	**Pn**	**21 53 50.5**	**+0.6**
SRS				AML	AML		
NVR	**Nevrokopi**	**5.64**	**325**	P	**Pn**	**21 53 51.8**	**+1.2**
MMA0B	**Mount Meron ar**	**7.03**	**121**	P	**Pn**	**21 54 09.8**	**+0.3**
MMA0B				S	**Sn**	**21 55 26.5**	**-1.6**
GEM	**Giv'at Ha'Em**	**7.10**	**118**	P	**Pn**	**21 54 10.3**	**-0.2**
GEM				S	**Sn**	**21 55 28.5**	**-1.3**
MMLI	**Mount Malkishu**	**7.38**	**124**	P	**Pn**	**21 54 14.6**	**+0.2**
MMLI				S	**Sn**	**21 55 34.0**	**-2.7**
KZIT	**Kziot**	**7.83**	**137**	P	**Pn**	**21 54 19.7**	**-0.8**
KZIT				S	**Sn**	**21 55 43.9**	**-3.8**
RMNI	**Mount Ramon**	**8.27**	**137**	P	**Pn**	**21 54 26.8**	**+0.2**
RMNI				S	**Sn**	**21 55 55.5**	**-3.0**
HRFI	**Mount Harif**	**8.85**	**138**	P	**Pn**	**21 54 33.8**	**-0.7**
HRFI				S	**Sn**	**21 56 10.0**	**-2.8**
EIL	**Elat**	**9.10**	**140**	P	**Pn**	**21 54 36.9**	**-0.9**
EIL				S	**Sn**	**21 56 15.8**	**-2.9**

IDC 24 21:55:25.5$_{±}$2.2,2.2°84S$_{×}$127.98E,h0^{km},mb3.2/2,
mbtmp3.4/4,ML3.3/2,Error ellipse: s-maj=95.9km
s-min=27.4km az=74.0,Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**15.34**	**188**	Pn	Pn	21 58 59.4	-4.0
	0.1nm,0.3s,baz=12,slow=19,SNR=1.2						
	1.5nm,1.0s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**18.09**	**160**	Pn	Pn	21 59 34.0	-4.5
	0.1nm,0.3s,baz=340,slow=14,SNR=5.6						
	0.4nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.48**	**165**	P	P	22 00 16.0	+0.1
	0.6nm,0.6s,baz=344,slow=11,SNR=9.1						
	0.6nm,0.6s						
MKAR	**Makanchi Array**	**63.67**	**327**	P	P	22 05 58.7	0.0
	0.2nm,0.5s,baz=144,slow=6.7,SNR=1.6						
	0.2nm,0.5s						

*BGR **24** 22:02:51.1, 12.°35S×67.°00E, h10^{km}, mb5.1*
*IDC **24** 22:02:55.7±0.4, 8.°89S×67.°45E, h0^{km}, mb4.6/35, mbtmp4.6/35, MS4.5/72, Error ellipse: s-maj=13.1km s-min=11.5km az=105.0*
*BJI **24** 22:02:55.8, 8.°70S×67.°20E, h9^{km}, mB5.3/29, mb4.9/78, Ms5.1/69, Ms7 4.8/66*
*MOS **24** 22:02:55.3±0.9, 8.°82S×67.°48E, h9^{km}, mb5.3/64, MS4.7/19, Error ellipse: s-maj=7.8km s-min=5.1km az=83.6*
*PTWC **24** 22:02:57, 9.°00S×67.°50E, Mwp5.5/11*
*NEIC **24** 22:02:58.1±2.2, 8.°98S±0.°08×67.°58E±0.°07, h10^{km}±1^{km}, mb5.3/122, Ms_20 4.8/66, Mwb5.5/50, Mww5.5/31, Error ellipse: s-maj=13.6km s-min=11.4km az=145.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$=0.02; M$_{θθ}$=2.16; M$_{φφ}$=2.18; M$_{rθ}$=0.00; M$_{rφ}$=0.35; M$_{θφ}$=-0.63; Fault plane solution: M$_{o}$2.29000×10^{17} NP1: φ$_{s}$230.51000°, δ78.59000°, λ9.50000°. NP2:φ$_{s}$138.62000°, δ80.69000°, λ168.44000°. Principal axes: T 2.3779, Plg15.0000°, Azm94.0000°; N -0.1870, Plg75.0000°, Azm280.0000°; P -2.1909, Plg1.0000°, Azm185.0000°;*
*NEIC **24** 22:02:58.2, 8.°91S×67.°52E, h10^{km}*
*NEIC **24** 22:02:58.2, 8.°91S×67.°52E, h10^{km}*
*NEIC **24** 22:02:58.6, 8.°81S×67.°62E, h22^{km}, Moment Tensor Solution. Duration: 2^{s}7 Moment tensor: Scale 10^{17}Nm; M$_{rr}$=0.15; M$_{θθ}$=2.11; M$_{φφ}$2.25; M$_{rθ}$=-0.22; M$_{rφ}$0.52; M$_{θφ}$0.11; Fault plane solution: M$_{o}$2.26000×10^{17} NP1:φ$_{s}$51.51000°, δ84.01000°, λ-3.30000°. NP2:φ$_{s}$141.86000°, δ86.71000°, λ-174.00000°. Principal axes: T 2.3175, Plg2.0000°, Azm277.0000°; N -0.1211, Plg83.0000°, Azm170.0000°; P -2.1964, Plg7.0000°, Azm7.0000°;*
*GFZ **24** 22:02:58.4±0.1, 9.°3S×6.°7E±.°, h10^{km}, M5.2/102, mb5.2/102 Error ellipse: s-maj=5.1km s-min=4.0km az=10.8, confirmed*
*IPGP **24** 22:02:58.0, 8.°92S×67.°54E, h13^{km}, Mw5.6, Fault plane solution: NP1:φ$_{s}$142.00000°, δ86.00000°, λ177.00000°. NP2:φ$_{s}$232.00000°, δ87.00000°, λ4.00000°.*
*GFZ **24** 22:02:59.3, 9.°05S×67.°64E, h18^{km}, Mw5.5/107, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$=0.12; M$_{θθ}$=2.29; M$_{φφ}$2.41; M$_{rθ}$=0.51; M$_{θφ}$0.21; M$_{rφ}$0.25; Fault plane solution: M$_{o}$2.43016×10^{17} NP1: φ$_{s}$318.04038°, δ76.85470°, λ-175.57208°. NP2: φ$_{s}$227.03147°, δ85.68833°, λ-13.18328°. Principal axes: T 2.4507, Plg6.1798°, Azm273.2035°; N -0.0417, Plg76.1414°, Azm29.2369°; P -2.4091, Plg12.3553°, Azm181.8444°;*
*GCMT **24** 22:03:01.1±0.1, 8.°94S±0.°01×67.°42E±0.°01, h24^{km}, MW5.6/156, Moment Tensor Solution. s125,c200; s156,c325; Duration: 1^{s}5 Moment tensor: Scale 10^{17} Nm; M$_{rr}$=0.29±.04; M$_{θθ}$=-2.96±.04; M$_{φφ}$3.25±.04; M$_{rθ}$=0.17±.05; M$_{φθ}$0.34±.03; M$_{φr}$0.18±.05; Best double couple: M$_{o}$3.13400×10^{17} NP1:φ$_{s}$48.00000°, δ85.00000°, λ-1.00000°. NP2:φ$_{s}$138.00000°, δ89.00000°, λ-175.00000°. Principal axes: T 3.2770, Plg3.0000°, Azm273.0000°; N -0.2850, Plg85.0000°, Azm147.0000°; P -2.9900, Plg4.0000°, Azm3.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 24 22:02:58.1$_{±}$0.5,8.°93S±0.°04×67.°49E±0.°04,h13^{km}±2^{km},
h13^{km}:pP-P,n866,σ1°44/837,mb5.2/296,MS4.7/135,
22C-35D,Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGAR	**Diego Garcia**	**5.14**	**73**	P	**Pn**	**22 04 11.9**	**-3.0**
DGAR	**Diego Garcia**	**5.14**	**73**	P	**Pn**	**22 04 11.6**	**-3.3**
DGAR	**Diego Garcia**	**5.14**	**73**		**Pn**	**22 04 11.6**	**-3.3**
DGAR	**Diego Garcia**	**5.14**	**73**	P	**Pn**	**22 04 11.9**	**-3.0**
DGAR	**Diego Garcia**	**5.14**	**73**	P	**Pn**	**22 04 12.0**	**-2.9**
	comp=Z,1μm,0.9s						
I52GB	**DIEGO GARCIA I**	**5.18**	**73**	Pn	**Pn**	**22 04 13.2**	**-2.3**
	baz=244,slow=14						
KAAM	**Kaadhehdhoo**	**10.85**	**31**	P	**Pn**	**22 05 34.4**	**+1.1**
	SNR=6.9						
KAAM	**Kaadhehdhoo**	**10.85**	**31**		**Pn**	**22 05 33.5**	**+0.3**
KAAM	**Kaadhehdhoo**	**10.85**	**31**	P	**Pn**	**22 05 35.1**	**+1.8**
KAAM	**Kaadhehdhoo**	**10.85**	**31**	P	**Pn**	**22 05 35.0**	**+1.8**
	comp=Z,6μmcomp=Z,429nm,1.8s						
KAAM	**Kaadhehdhoo**	**10.85**	**31**	P	**Pn**	**22 05 34.8**	**+1.5**
	comp=Z,426nm,1.9s						
ROCAM	**Rodrigues Isla**	**11.48**	**200**		**Pn**	**22 05 43.5**	**+1.6**
MSEY	**Mahe Island**	**12.65**	**289**	*i* P	**Pn**	**22 05 57.9**	**-0.1**
	SNR=401						
MSEY	**Mahe Island**	**12.65**	**289**	P	**Pn**	**22 05 59.3**	**+1.3**
MSEY	**Mahe Island**	**12.65**	**289**	P	**Pn**	**22 05 58.1**	**+0.1**
MSEY	**Mahe Island**	**12.65**	**289**		**Pn**	**22 05 58.1**	**+0.1**
MSEY	**Mahe Island**	**12.65**	**289**	P	**Pn**	**22 05 58.6**	**+0.6**
MSEY	**Mahe Island**	**12.65**	**289**	P	**Pn**	**22 05 59.3**	**+1.3**
	comp=Z,1μm,0.7s						
HMDM	**Hanimaadhoo**	**16.60**	**20**	P	**Pn**	**22 06 51.2**	**+0.4**
	SNR=9.2						
HMDM	**Hanimaadhoo**	**16.60**	**20**		**Pn**	**22 06 50.7**	**-0.1**
HMDM				IAmb	IAmb	22 06 55.2	
	comp=Z,237nm,1.1s						
HMDM	**Hanimaadhoo**	**16.60**	**20**	P	**Pn**	**22 06 51.0**	**+0.2**
HMDM	**Hanimaadhoo**	**16.60**	**20**	P	**P**	**22 06 52.1**	**-1.2**
	comp=Z,4μmcomp=Z,245nm,1.3s						
HMDM	**Hanimaadhoo**	**16.60**	**20**	P	**P**	**22 06 52.0**	**-1.2**
	comp=Z,245nm,1.3s						
PALK	**Pallekele**	**20.80**	**40**	P	**P**	**22 07 39.3**	**-0.2**
	comp=Z,24nm,0.8s,baz=228,slow=11,SNR=10.0						
PALK				LR	LR	22 13 36.8	
	comp=Z,2μm,21.8s,baz=217,slow=31						
	comp=Z,24nm,0.8s						
PALK	**Pallekele**	**20.80**	**40**	P	Pn	22 07 40.2	-1.7
PALK	**Pallekele**	**20.80**	**40**	P	**P**	**22 07 39.1**	**-0.3**
PALK				S	Sn	22 11 34.4	-2.4
PALK	**Pallekele**	**20.80**	**40**	P	**P**	**22 07 39.7**	**+0.3**
PALK				pmax	pmax		
	comp=Z,47nm,0.9s						
PALK				MLR	MLR		
	comp=Z,3μm,21.0s						
PALK	**Pallekele**	**20.80**	**40**		**P**	**22 07 39.7**	**+0.3**
PALK	**Pallekele**	**20.80**	**40**	P	Pn	22 07 40.9	-1.0
PALK	**Pallekele**	**20.80**	**40**	P	Pn	22 07 44.6	+2.7
PALK	**Pallekele**	**20.80**	**40**	P	Pn	22 07 40.1	-1.8
	comp=Z,73nm,1.1s						
OPO	**Ambohidratompo**	**21.90**	**242**	P	**P**	**22 07 51.8**	**+0.3**
	comp=Z,38nm,1.0s,baz=56,slow=11,SNR=20						
OPO				LR	LR	22 13 58.3	
	comp=Z,2μm,18.3s,baz=119,slow=30						
	comp=Z,38nm,1.0s						
ABPO	**Ambohimpanom**	**22.05**	**241**	*i* P	**P**	**22 07 54.5**	**+1.5**
ABPO	**Ambohimpanom**	**22.05**	**241**		**P**	**22 07 53.8**	**+0.7**
ABPO				IAmb	IAmb	22 07 55.6	
	comp=Z,167nm,1.1s						
ABPO	**Ambohimpanom**	**22.05**	**241**	P	**P**	**22 07 54.3**	**+1.3**
ABPO	**Ambohimpanom**	**22.05**	**241**	P	**P**	**22 07 54.3**	**+1.3**
	comp=Z,149nm,1.4s						
ABPO	**Ambohimpanom**	**22.05**	**241**	P	**P**	**22 07 54.4**	**+1.3**
VOI	**Vohitsoka**	**23.72**	**235**	P	**P**	**22 08 13.9**	**+3.7**
VOI	**Vohitsoka**	**23.72**	**235**		**P**	**22 08 09.8**	**-0.5**
VOI				IAmb	IAmb	22 08 17.8	
	comp=Z,207nm,1.7s						
VOI	**Vohitsoka**	**23.72**	**235**	P	**P**	**22 08 10.8**	**+0.5**
	comp=Z,65nm,1.5s						
VOI	**Vohitsoka**	**23.72**	**235**	P	**P**	**22 08 10.5**	**+0.2**
FOMA	**Nahampoana Res**	**25.23**	**228**		**P**	**22 08 24.2**	**+0.2**
FOMA				IAmb	IAmb	22 08 33.7	
	comp=Z,97nm,1.2s						
SKRH	**Sakahara**	**25.83**	**235**	P	**P**	**22 08 28.9**	**-0.6**
COCO	**West Island**	**29.02**	**99**	P	**P**	**22 08 58.5**	**+0.3**
SHAO	**Shalim**	**29.23**	**336**	P	**P**	**22 09 00.5**	**+0.5**
SHAO				S	**S**	**22 13 54.6**	**+2.0**
DMTO	**DMTO**	**29.23**	**335**	P	**P**	**22 09 01.4**	**+1.4**
DMTO				S	**S**	**22 13 54.4**	**+1.8**
RBK	**Rabkut**	**29.36**	**333**	P	**P**	**22 09 02.5**	**+1.4**
RBK				S	**S**	**22 13 57.1**	**+2.3**
ABTO	**Aybut**	**29.64**	**332**	P	**P**	**22 09 04.5**	**+0.8**
WHFO	**Wadi Hawf**	**29.92**	**333**	P	**P**	**22 09 07.2**	**+1.1**
WHFO				S	**S**	**22 14 03.9**	**+0.5**
KIBK	**Kibwezi**	**30.00**	**281**	P	**P**	**22 09 06.9**	**-0.1**
KIBK	**Kibwezi**	**30.00**	**281**	P	**P**	**22 09 07.7**	**+0.6**
	SNR=11						
KIBK	**Kibwezi**	**30.00**	**281**	P	**P**	**22 09 07.4**	**+0.3**
KIBK				IAmb	IAmb	22 09 13.3	
	comp=Z,91nm,1.7s						
KIBK	**Kibwezi**	**30.00**	**281**	P	**P**	**22 09 07.0**	**-0.1**
KIBK	**Kibwezi**	**30.00**	**281**	P	**P**	**22 09 08.0**	**+0.9**
	comp=Z,30nm,1.4s						
DQM	**DQM**	**30.30**	**341**	P	**P**	**22 09 09.9**	**+0.4**
DOK	**Doka**	**30.38**	**334**	P	**P**	**22 09 10.6**	**+0.4**
KMBO	**Kilima Mbogo**	**31.08**	**283**	P	P	22 09 10.9	-5.8
KMBO				LR	LR	22 19 41.8	
	comp=Z,685nm,18.4s,baz=112,slow=32						
KMBO	**Kilima Mbogo**	**31.08**	**283**	*i* P	**P**	**22 09 17.5**	**+0.8**
	SNR=14						
KMBO	**Kilima Mbogo**	**31.08**	**283**	P	**P**	**22 09 17.8**	**+1.1**
KMBO				S	**S**	**22 14 23.1**	**+0.9**
KMBO	**Kilima Mbogo**	**31.08**	**283**	P	**P**	**22 09 17.0**	**+0.3**
KMBO				pmax	pmax		
	comp=Z,102nm,2.0s						
KMBO				MLR	MLR		
	comp=Z,900nm,18.0s						
KMBO	**Kilima Mbogo**	**31.08**	**283**	P	**P**	**22 09 16.9**	**+0.3**
KMBO				IAmb	IAmb	22 09 23.6	
	comp=Z,102nm,1.9s						
KMBO	**Kilima Mbogo**	**31.08**	**283**	P	**P**	**22 09 17.8**	**+1.1**
KMBO	**Kilima Mbogo**	**31.08**	**283**	P	**P**	**22 09 17.9**	**+1.1**
	comp=Z,28nm,1.6s						
MHTO	**MHTO**	**31.17**	**343**	P	**P**	**22 09 16.8**	**-0.2**
MHTO				S	**S**	**22 14 23.2**	**+0.3**
BSI	**Banda Aceh**	**31.21**	**64**	P	**P**	**22 09 18.8**	**+1.2**
	comp=Z,1μmcomp=Z,105nm,1.1s						
GSI	**Gunungsitoli**	**31.66**	**73**	P	**P**	**22 09 23.5**	**+2.0**
GSI	**Gunungsitoli**	**31.66**	**73**	P	**P**	**22 09 21.6**	**0.0**
GSI				IAMs_20	IAMs_20	22 20 17.5	
	comp=Z,2μm,19.0s						
GSI	**Gunungsitoli**	**31.66**	**73**	P	**P**	**22 09 23.5**	**+2.0**
GSI	**Gunungsitoli**	**31.66**	**73**	P	**P**	**22 09 23.1**	**+1.6**
	comp=Z,1μmcomp=Z,1μmcomp=Z,84nm,1.2s,comp=Z,84nm,1.2s						
GSI	**Gunungsitoli**	**31.66**	**73**	P	**P**	**22 09 23.5**	**+2.0**
	comp=Z,85nm,1.2s						
MLSI	**Meulaboh, Aceh**	**31.67**	**67**	P	**P**	**22 09 23.9**	**+2.3**
	comp=Z,123nm,1.0s						
PBSI	**Pulau Batu**	**31.91**	**76**	P	**P**	**22 09 25.1**	**+1.4**
	comp=Z,244nm,1.2s						
PBSI	**Pulau Batu**	**31.91**	**76**	P	**P**	**22 09 27.5**	**+3.8**
SISI	**Saibi**	**32.34**	**78**	P	**P**	**22 09 29.2**	**+1.6**
	comp=Z,2μmcomp=Z,2μmcomp=Z,194nm,1.2s,comp=Z,194nm,1.2s						
WBK	**Wadi Bani Khal**	**32.44**	**345**	P	**P**	**22 09 28.0**	**-0.3**
JMDO	**Jabal Madar**	**32.44**	**344**	P	**P**	**22 09 28.5**	**+0.2**
LHMI	**Lhok Sumawe**	**32.56**	**66**	P	**P**	**22 09 31.6**	**+2.1**
LHMI	**Lhok Sumawe**	**32.56**	**66**		**P**	**22 09 28.6**	**-0.9**
LHMI				IAMs_20	IAMs_20	22 19 26.7	
	comp=Z,2μm,22.0s						
LHMI	**Lhok Sumawe**	**32.56**	**66**	P	**P**	**22 09 32.2**	**+2.7**
	comp=Z,1μmcomp=Z,99nm,0.9s						
LHMI	**Lhok Sumawe**	**32.56**	**66**	P	**P**	**22 09 31.7**	**+2.1**
	comp=Z,102nm,0.9s						
KCSI	**Kotacane, Aceh**	**32.63**	**69**	P	**P**	**22 09 31.4**	**+1.3**
	comp=Z,57nm,1.0s,comp=Z,57nm,1.0s						
KCSI	**Kotacane, Aceh**	**32.63**	**69**	P	**P**	**22 09 31.8**	**+1.7**
	comp=Z,57nm,1.0s						
BSY	**Bisya**	**33.05**	**342**	P	**P**	**22 09 33.8**	**+0.2**
BSY				S	**S**	**22 14 53.3**	**+1.0**
SMDO	**Samad**	**33.11**	**344**	P	**P**	**22 09 34.4**	**+0.2**
WSAR	**Wadi Sarin**	**33.12**	**345**	LR	LR	22 19 52.5	
	comp=Z,5.6nm,18.4s,baz=168,slow=31						
WSAR	**Wadi Sarin**	**33.12**	**345**	P	**P**	**22 09 34.3**	**0.0**
WSAR				S	**S**	**22 14 55.1**	**+1.7**
TSI	**Tuntungan**	**33.35**	**70**	P	**P**	**22 09 38.8**	**+2.4**
	comp=Z,77nm,1.0s						
RPSI	**Rantau Prapat**	**33.40**	**71**	P	**P**	**22 09 36.5**	**-0.2**
RPSI				IAmb	IAmb	22 09 39.6	
	comp=Z,32nm,0.9s						
RPSI				IAMs_20	IAMs_20	22 20 46.6	
	comp=Z,2μm,20.0s						
RPSI	**Rantau Prapat**	**33.40**	**71**	P	**P**	**22 09 38.7**	**+1.9**
RPSI	**Rantau Prapat**	**33.40**	**71**	P	**P**	**22 09 38.7**	**+1.9**
	comp=Z,37nm,0.9s						
PSI	**Prapat**	**33.43**	**71**	P	**P**	**22 09 38.6**	**+1.4**
PSI	**Prapat**	**33.43**	**71**	P	**P**	**22 09 36.6**	**-0.7**
PSI				pmax	pmax		
	comp=Z,32nm,0.9s						
PSI				MLR	MLR		
	comp=Z,2μm,20.0s						
PSI	**Prapat**	**33.43**	**71**	P	**P**	**22 09 38.4**	**+1.1**
	comp=Z,679nmcomp=Z,37nm,0.9s						
BIDO	**Bidbid**	**33.52**	**344**	P	**P**	**22 09 38.3**	**+0.6**
UMZA	**Um Al Zommool**	**33.69**	**339**	P	**P**	**22 09 39.0**	**-0.2**
UMZA				S	**S**	**22 15 00.4**	**-1.7**
FURI	**Furi**	**33.72**	**301**	P	**P**	**22 09 40.8**	**+0.8**
FURI				IAmb	IAmb	22 09 48.4	
	comp=Z,55nm,1.1s						
FURI				IAMs_20	IAMs_20	22 20 23.5	
	comp=Z,1μm,22.0s						
FURI	**Furi**	**33.72**	**301**	P	**P**	**22 09 42.0**	**+2.0**
	comp=Z,45nm,1.3s						
HOQ	**Hoqain**	**33.81**	**343**	P	**P**	**22 09 40.8**	**+0.5**
	SNR=7.5						
HOQ				S	**S**	**22 15 03.4**	**-0.7**
ARQ	**Araqi**	**33.81**	**342**	P	**P**	**22 09 40.3**	**0.0**
	SNR=7.1						
PPI	**Padang Panjang**	**33.83**	**77**	P	**P**	**22 09 42.5**	**+1.9**
	comp=Z,2μmcomp=Z,2μmcomp=Z,1μmcomp=Z,1μm						
	comp=Z,122nm,1.2s,comp=Z,122nm,1.2s						
PPI	**Padang Panjang**	**33.83**	**77**	P	**P**	**22 09 42.4**	**+1.9**
	comp=Z,2μmcomp=Z,1μmcomp=Z,122nm,1.2s						
LODK	**Lodwar**	**34.30**	**290**	P	**P**	**22 09 46.1**	**+1.4**
	SNR=14						
LODK	**Lodwar**	**34.30**	**290**		**P**	**22 09 44.9**	**+0.1**
LODK				IAmb	IAmb	22 09 47.6	
	comp=Z,40nm,1.2s						
LODK				IAMs_20	IAMs_20	22 20 36.8	
	comp=Z,1μm,22.0s						
LODK	**Lodwar**	**34.30**	**290**	P	**P**	**22 09 46.3**	**+1.6**
LODK	**Lodwar**	**34.30**	**290**	P	**P**	**22 09 46.4**	**+1.6**
	comp=Z,33nm,1.8s						
KRJI	**Kerinci**	**34.47**	**81**	P	**P**	**22 09 48.9**	**+2.6**
KRJI	**Kerinci**	**34.47**	**81**	P	**P**	**22 09 49.4**	**+3.1**
SOHO	**SOHO**	**34.56**	**342**	P	**P**	**22 09 46.6**	**-0.1**
MZR	**Muzera**	**34.57**	**337**	P	**P**	**22 09 47.6**	**+0.7**
MZR	**Muzera**	**34.57**	**337**	P	**P**	**22 09 49.5**	**+2.7**
BKNI	**Bangkinang**	**34.66**	**76**	P	**P**	**22 09 49.1**	**+1.4**
BKNI	**Bangkinang**	**34.66**	**76**	P	**P**	**22 09 49.9**	**+2.1**
BKNI	**Bangkinang**	**34.66**	**76**	P	**P**	**22 09 47.8**	**0.0**
BKNI				IAMs_20	IAMs_20	22 21 49.1	
	comp=Z,1μm,19.0s						
BKNI	**Bangkinang**	**34.66**	**76**	P	**P**	**22 09 49.6**	**+1.8**
	comp=Z,2μmcomp=Z,2μmcomp=Z,189nm,1.1s,comp=Z,189nm,1.1s						
**B

LSZ pmax pmax
comp=Z,181nm,1.1s
LSZ Lusaka 38.90 257 P **P** **22 10 23.6 -0.4**
TNG Tangerang 38.90 89 P P **22 10 19.4 -4.5**
CBJI Citeko 39.08 89 P P 22 10 17.7 -7.7
BRDH Bariadhala 39.33 37 LR LR 22 26 09.8
comp=Z,2µm,20.3s,baz=178,slow=36
H04N2 CROZET ISLANDS 39.47 197 T T 22 53 39.3
baz=26,slow=74
H04N1 CROZET ISLANDS 39.47 197 T T 22 53 13.8
baz=26,slow=74
H04N3 CROZET ISLANDS 39.48 197 T T 22 53 36.1
baz=26
BBJI Bungbulang 39.77 91 P **P** **22 10 32.8 +1.5**
BBJI Bungbulang 39.77 91 P **P** **22 10 31.3 0.0**
BBJI Bungbulang 39.77 91 P **P** **22 10 32.6 +1.3**
BBJI Bungbulang 39.77 91 P **P** **22 10 32.6 +1.3**
comp=Z,39nm,2.0s
NPW Naypyitaw 40.12 44 P **P** **22 10 35.3 +1.3**
comp=Z,28nm,1.2s
KPJI Karang Pucung 41.04 91 P **P** **22 10 43.8 +2.1**
comp=Z,46nm,1.1s
EVN Everest 41.16 26 P **P** **22 10 42.4 -0.9**
EVN IAmb IAmb 22 10 49.3
comp=Z,49nm,1.0s
EVN Everest 41.16 26 P **P** **22 10 44.4 +1.1**
comp=Z,58nm,1.2s
CM31 Chiang Mai Arr 41.28 49 P **P** **22 10 45.1 +1.6**
SNR=11
CM31 Chiang Mai Arr 41.28 49 P **P** **22 10 44.1 +0.5**
CMAR Chiang Mai Arr 41.28 49 P **P** **22 10 44.3 +0.7**
comp=Z,18nm,0.8s,baz=243,slow=9.5,SNR=124
CMAR PcP **PcP** **22 12 42.3 -0.1**
comp=Z,1.0nm,0.3s,baz=208,slow=4.1,SNR=2.6
CMAR LR LR 22 25 49.3
comp=Z,386nm,18.6s,baz=215,slow=33
comp=Z,18nm,0.8s
CMAR Chiang Mai Arr 41.28 49 P **P** **22 10 44.2 +0.6**
CHTO Chiang Mai 41.50 48 P **P** **22 10 46.4 +1.0**
CHTO Chiang Mai 41.50 48 P **P** **22 10 46.4 +1.0**
CHTO S **S** **22 17 04.7 +3.7**
CHTO Chiang Mai 41.50 48 P **P** **22 10 45.2 -0.2**
CHTO pmax pmax
comp=Z,27nm,0.8s
CHTO Chiang Mai 41.50 48 P **P** **22 10 45.2 -0.2**
CHTO Chiang Mai 41.50 48 P **P** **22 10 46.5 +1.0**
CHTO Chiang Mai 41.50 48 P **P** **22 10 46.2 +0.8**
comp=Z,39nm,1.0s
CHTO Chiang Mai 41.50 48 P **P** **22 10 46.6 +1.2**
comp=Z,39nm,1.0s
SHL Shillong 41.71 34 P **P** **22 10 48.3 +1.1**
SNR=22
SHL Shillong 41.71 34 P **P** **22 10 47.0 -0.2**
SHL pmax pmax
comp=Z,78nm,0.9s
SHL Shillong 41.71 34 P **P** **22 10 47.0 -0.2**
SHL IAmb IAmb 22 10 53.3
comp=Z,78nm,0.9s
KSANE Kasane 42.03 253 P **P** **22 10 49.1 -0.8**
KSANE IAmb IAmb 22 10 55.1
comp=Z,62nm,1.1s
MORE Moreh 42.09 38 P **P** **22 10 51.1 +0.9**
MORE IAmb IAmb 22 10 57.5
comp=Z,85nm,1.2s
SMRI Semarang 42.56 91 P **P** **22 10 55.9 +1.7**
SMRI Semarang 42.56 91 P **P** **22 10 54.1 -0.1**
NIL Nilore 42.70 7 P **P** **22 10 55.4 +0.4**
NIL Nilore 42.70 7 P **P** **22 10 54.4 -0.6**
NIL pmax pmax
comp=Z,31nm,0.8s
NIL MLR MLR
comp=Z,900nm,20.0s
NIL Nilore 42.70 7 P **P** **22 10 54.4 -0.6**
NIL Nilore 42.70 7 IAMs_20 IAMs_20 22 26 06.6
comp=Z,922nm,20.0s
NIL Nilore 42.70 7 P **P** **22 10 55.6 +0.6**
NIL Nilore 42.70 7 P **P** **22 10 55.6 +0.6**
comp=Z,45nm,1.1s
LBTB Lobatse 42.93 243 LR LR 22 26 26.7
comp=Z,996nm,21.5s,baz=80,slow=33
LBTB Lobatse 42.93 243 P **P** **22 10 56.9 -0.3**
LBTB pmax pmax
comp=Z,60nm,1.2s
LBTB Lobatse 42.93 243 P **P** **22 10 56.9 -0.3**
LBTB IAmb IAmb 22 11 02.2
comp=Z,60nm,1.2s
LBTB Lobatse 42.93 243 P **P** **22 10 56.9 -0.3**
LBTB Lobatse 42.93 243 P **P** **22 10 56.9 -0.3**
comp=Z,49nm,1.2s
LBTB Lobatse 42.93 243 P **P** **22 10 57.4 +0.2**
WOJI Wonogiri, Jawa 42.97 92 P **P** **22 10 58.5 +1.0**
comp=Z,3µmcomp=Z,197nm,1.2s
PCJI Pacitan 43.19 92 P **P** **22 11 00.6 +1.3**
HRA Herat 43.36 354 P **P** **22 10 59.2 -1.4**
KDWAN **Kaudwane 43.39 245** P **P** **22 11 00.6 -0.3**
KDWAN IAmb IAmb 22 11 07.5
comp=Z,52nm,1.0s
KDWAN **Kaudwane 43.39 245** P **P** **22 11 01.1 +0.2**
SNJI Sawahan-Nganju 43.80 92 P **P** **22 11 06.1 +1.7**
comp=Z,2µmcomp=Z,83nm,1.4s
SJI Sawahan 43.81 92 P **P** **22 11 05.5 +1.1**
comp=Z,152nm,1.0s
PWJI Pagerwojo 43.82 92 P **P** **22 11 04.9 +0.5**
comp=Z,2µmcomp=Z,102nm,1.2s
BOSA Boshof 44.22 238 P **P** **22 11 06.9 -0.6**
comp=Z,35nm,1.0s,baz=68,slow=7.9,SNR=28
BOSA LR LR 22 27 18.4
comp=Z,497nm,18.2s,baz=80,slow=33
comp=Z,35nm,1.0s
BOSA Boshof 44.22 238 P **P** **22 11 06.9 -0.6**
BOSA pmax pmax
comp=Z,59nm,1.1s
BOSA Boshof 44.22 238 P **P** **22 11 06.9 -0.6**
BOSA IAmb IAmb 22 11 12.4
comp=Z,58nm,1.1s
BOSA Boshof 44.22 238 P **P** **22 11 08.8 +1.2**
comp=Z,52nm,1.2s
BOSA Boshof 44.22 238 P **P** **22 11 07.1 -0.4**
LSA Lhasa 44.65 30 P **P** **22 11 12.9 +1.6**
LSA Lhasa 44.65 30 P **P** **22 11 12.6 +1.3**
LSA Lhasa 44.65 30 P **P** **22 11 10.5 -0.8**
LSA S **S** **22 17 48.1 +0.2**
LSA pmax pmax
comp=Z,47nm,1.2s
LSA L L
comp=Z,850nm,20.2s
LSA L L
comp=Z,1µm,20.6s
LSA Lhasa 44.65 30 P **P** **22 11 11.4 +0.1**
LSA pmax pmax
comp=Z,83nm,1.3s
LSA MLR MLR
comp=Z,1µm,20.0s
LSA Lhasa 44.65 30 P **P** **22 11 11.4 +0.1**
LSA IAMs_20 IAMs_20 22 28 00.3
comp=Z,1µm,20.0s
LSA Lhasa 44.65 30 P **P** **22 11 13.0 +1.6**
comp=Z,53nm,1.1s
GRHM Grahamstown, E 44.94 231 P **P** **22 11 12.9 -0.3**
TNCH TengChong 45.32 41 ⇓P **P** **22 11 18.8 +2.4**
TNCH pP pwP 22 11 22.0 -3.9
TNCH sP sP 22 11 24.4 +5.0
TNCH S **S** **22 17 56.9 -0.2**
TNCH sS sS 22 18 06.5 +5.6
TNCH pmax pmax
comp=Z,29nm,1.0s
TNCH pmax pmax
comp=Z,260nm,3.2s
TNCH L L
comp=Z,430nm,15.4s
TNCH L L
comp=Z,440nm,12.2s
TNCH L L
comp=Z,940nm,15.5s
DLV Lat 45.73 64 P **P** **22 11 21.2 +1.4**
DLV Lat 45.73 64 IAMs_20 IAMs_20 22 26 10.6
comp=Z,719nm,19.0s
DLV Lat 45.73 64 P **P** **22 11 21.2 +1.4**
comp=Z,72nm,1.1s
JAGI Jajag, Banyuwa 46.11 93 P **P** **22 11 22.7 +0.1**
JAGI Jajag, Banyuwa 46.11 93 P **P** **22 11 21.3 -1.3**
JAGI IAMs_20 IAMs_20 22 26 06.3
comp=Z,1µm,22.0s
JAGI Jajag, Banyuwa 46.11 93 P **P** **22 11 22.9 +0.3**
JAGI Jajag, Banyuwa 46.11 93 P **P** **22 11 22.7 +0.1**

JAGI Jajag, Banyuwa 46.11 93 P **P** **22 11 23.0 +0.3**
comp=Z,145nm,0.9s
GRTLG Ghanzi 46.17 249 P **P** **22 11 23.6 +0.4**
GRTLG IAmb IAmb 22 11 29.1
comp=Z,39nm,1.4s
GRTLG Ghanzi 46.17 249 P **P** **22 11 26.4 +3.2**
ABJI Asem Bagus 46.24 92 P **P** **22 11 25.1 +1.5**
comp=Z,2µmcomp=Z,137nm,1.4s
LKGWB Lokgwabe 46.63 245 P **P** **22 11 23.1 -3.6**
SLVN Son La 46.73 49 P **P** **22 11 28.4 +1.0**
SLVN Son La 46.73 49 P **P** **22 11 27.2 -0.2**
SLVN IAmb IAmb 22 11 29.2
comp=Z,19nm,0.7s
SLVN Son La 46.73 49 P **P** **22 11 28.7 +1.3**
comp=Z,35nm,1.0s
ALKP Alkanpan, Nort 47.12 237 P **P** **22 11 30.4 -0.1**
SRBI Singaraja 47.18 93 P **P** **22 11 31.7 +0.7**
comp=Z,2µmcomp=Z,135nm,1.4s
KOOLE Kule 47.36 247 P **P** **22 11 31.9 -0.6**
KOOLE Kule 47.36 247 P **P** **22 11 32.6 +0.1**
KHKI Kahang-Kahang 47.55 93 P P 22 11 39.5 +5.6
comp=Z,55nm,1.1s
KMI2 Kunming 48.24 45 P **P** **22 11 41.9 +2.6**
KMI2 S **S** **22 18 39.3 +0.3**
KMI2 pmax pmax
comp=Z,9.0nm,0.8s
KMI2 L L
comp=Z,920nm,21.5s
KMI2 L L
comp=Z,740nm,21.7s
KMI2 L L
comp=Z,590nm,21.3s
DRK Karamyk 48.33 4 P **P** **22 11 38.4 -1.4**
DRK pmax pmax
comp=Z,33nm,0.9s
DRK Karamyk 48.33 4 P **P** **22 11 38.4 -1.4**
DRK IAmb IAmb 22 11 43.8
comp=Z,32nm,0.9s
DRK Karamyk 48.33 4 P **P** **22 11 39.2 -0.6**
comp=Z,41nm,0.9s
KSH2 Kashi 48.41 8 P **P** **22 11 40.4 +0.1**
KSH2 pP sP 22 11 44.3 0.0
KSH2 S **S** **22 18 39.6 -1.3**
KSH2 pmax pmax
comp=Z,93nm,1.0s
KSH2 L L
comp=Z,700nm,19.9s
KSH2 L L
comp=Z,2µm,21.0s
PZH PanZhiHua 48.44 42 P **P** **22 11 41.8 +1.1**
PZH S **S** **22 18 41.8 +0.2**
PZH pmax pmax
comp=Z,40nm,1.0s
PZH L L
comp=Z,1µm,20.0s
PZH L L
comp=Z,630nm,20.8s
PZH L L
comp=Z,730nm,20.8s
BTK Batken 48.84 3 P **P** **22 11 42.7 -0.8**
BTK pmax pmax
comp=Z,84nm,1.4s
BTK Batken 48.84 3 P **P** **22 11 42.7 -0.8**
BTK Batken 48.84 3 P **P** **22 11 43.5 0.0**
comp=Z,39nm,1.4s
SUR Sutherland 49.02 235 LR LR 22 29 11.7
comp=Z,765nm,20.2s,baz=76,slow=32
SUR Sutherland 49.02 235 P **P** **22 11 46.2 +0.9**
SUR Sutherland 49.02 235 P **P** **22 11 45.1 -0.2**
SUR IAmb IAmb 22 12 02.2
comp=Z,32nm,1.1s
TSUM Tsumeb 49.32 252 LR LR 22 30 30.3
comp=Z,507nm,20.7s,baz=80,slow=34
TSUM Tsumeb 49.32 252 P **P** **22 11 47.3 -0.3**
TSUM Tsumeb 49.32 252 IAMs_20 IAMs_20 22 29 34.2
comp=Z,869nm,21.0s
TSUM Tsumeb 49.32 252 P **P** **22 11 48.4 +0.7**
comp=Z,19nm,1.3s
EIL Elat 49.53 322 LR LR 22 29 40.7
comp=Z,1µm,19.3s,baz=147,slow=32
EIL Elat 49.53 322 P P 22 11 55.1 +6.2
comp=Z,16nm,1.3s
EIL Elat 49.53 322 P **P** **22 11 51.4 +2.5**
comp=Z,16nm,1.3s
PLAI Plampang 49.65 94 P **P** **22 11 50.9 +0.8**
PLAI Plampang 49.65 94 P **P** **22 11 50.5 +0.4**
comp=Z,59nm,1.1s
PLAI Plampang 49.65 94 P **P** **22 11 50.1 0.0**
comp=Z,59nm,1.1s
MORW Morawa 49.68 121 P **P** **22 11 50.3 +0.1**
comp=Z,46nm,1.3s
MORW Morawa 49.68 121 P **P** **22 11 51.1 +1.0**
comp=Z,31nm,1.7s
MORW Morawa 49.68 121 P **P** **22 11 51.6 +1.5**
MORW Morawa 49.68 121 P **P** **22 11 49.7 -0.4**
MORW IAmb IAmb 22 12 06.9
comp=Z,46nm,1.1s
MORW Morawa 49.68 121 P **P** **22 11 51.0 +0.8**
comp=Z,31nm,1.7s
HRFI Mount Harif 49.74 322 P **P** **22 11 53.4 +2.9**
comp=Z,441nmcomp=Z,42nm,1.4s
HRFI Mount Harif 49.74 322 P **P** **22 11 50.9 +0.3**
comp=Z,42nm,1.4s
H01W3 Cape Leeuwin H 49.80 128 T T 23 05 24.9
baz=290,slow=75,SNR=323
H01W2 Cape Leeuwin H 49.81 129 T T 23 05 26.4
baz=290,slow=75,SNR=345
H01W1 Cape Leeuwin H 49.82 129 T T 23 05 14.5
baz=290,slow=75,SNR=331
PRNI Paran 49.99 323 P P 22 11 59.3 +6.9
comp=Z,98nm,1.3s
WIN Windhoek 50.12 248 P **P** **22 11 53.8 0.0**
WIN pmax pmax
comp=Z,33nm,1.3s
WIN MLR MLR
comp=Z,2µm,22.0s
WIN Windhoek 50.12 248 P **P** **22 11 53.8 0.0**
WIN IAmb IAmb 22 11 59.3
comp=Z,33nm,1.3s
WIN IAMs_20 IAMs_20 22 30 54.5
comp=Z,2µm,22.0s
WIN Windhoek 50.12 248 P **P** **22 11 54.4 +0.6**
comp=Z,18nm,1.5s
QIZ Qiongzhong 50.15 56 P **P** **22 11 54.4 +0.6**
QIZ S **S** **22 19 08.5 +2.9**
QIZ L L
comp=Z,1µm,12.4s
QIZ L L
comp=Z,700nm,12.4s
QIZ L L
comp=Z,560nm,17.5s
DBNI Kabupaten Domp 50.21 94 P P 22 12 00.1 +5.8
comp=Z,19nm,0.8s
ARSB Arslanbob 50.26 5 IAmb IAmb 22 12 07.9
comp=Z,44nm,1.4s
ASF Jabal al Asfar 50.27 326 LR LR 22 31 45.1
comp=Z,754nm,18.1s,baz=132,slow=34
ASF Jabal al Asfar 50.27 326 P **P** **22 11 56.6 +2.3**
comp=Z,75nm,1.2s
ASAI AK-SAY(Kyrgyzs 50.29 9 P **P** **22 11 55.4 +0.5**
comp=Z,24nm,1.1s
GHAJ Ghor Haditha 50.35 324 P **P** **22 11 55.0 0.0**
GHAJ IAmb IAmb 22 12 06.3
comp=Z,32nm,1.1s
GHAJ IAMs_20 IAMs_20 22 29 46.7
comp=Z,1µm,19.0s
GHAJ Ghor Haditha 50.35 324 P P 22 12 03.2 +8.2
comp=Z,387nmcomp=Z,29nm,1.2s
GHAJ Ghor Haditha 50.35 324 P **P** **22 11 57.1 +2.0**
comp=Z,29nm,1.2s
LISJ El Lisan 50.35 324 P P 22 12 02.4 +7.4
comp=Z,21nm,1.2s
BLDU Ballidu 50.62 122 P **P** **22 11 57.8 +0.6**
comp=Z,50nm,1.4s
BLDU Ballidu 50.62 122 P **P** **22 11 57.9 +0.6**
ARK Arkit 50.64 4 P **P** **22 11 57.1 -0.1**
comp=Z,49nm,1.2s
NRN Naryn 50.72 8 IAmb IAmb 22 12 03.4
comp=Z,28nm,1.1s
KZIT Kziot 50.75 323 P P 22 12 04.8 +6.7
comp=Z,18nm,1.2s
KKM Kota Kinabalu 50.80 75 P **P** **22 11 58.1 -0.8**
KKM IAMs_20 IAMs_20 22 32 03.8
comp=Z,1µm,21.0s
IUG luzhnay 50.88 2*d* iP **P** **22 11 58.5 -0.5**
IUG *e*S **S** **22 19 14.7 -0.4**

IUG pmax pmax
comp=Z,30nm,0.8s
IUG luzhnay 50.88 2 ⇓*i*P **P** **22 11 58.5 -0.5**
comp=Z,30nm,0.8s
IUG *e*S **S** **22 19 14.8 -0.4**
UJAP Al Uja 50.88 324 P **P** **22 12 00.6 +1.6**
comp=Z,28nm,1.4s
CHM Chimkent 51.03 2 *e*P **P** **22 11 59.7 -0.3**
CHM pmax pmax
comp=Z,31nm,1.1s
CHM Chimkent 51.03 2 *e*P **P** **22 11 59.7 -0.3**
comp=Z,31nm,1.1s
WUS Wushi 51.03 11 P **P** **22 12 00.2 0.0**
comp=Z,18nm,1.1s
MMLI Mount Malkishu 51.27 325 P **P** **22 12 03.6 +1.6**
comp=Z,26nm,1.7s
TARG Taragay, Kyrgy 51.29 10 P **P** **22 12 02.1 -0.4**
comp=Z,8.9nm,1.0s
HAKT HAKKARI 51.32 336 P **P** **22 12 02.8 +0.3**
comp=Z,42nm,1.6s
MEEK Meekatharra 51.41 117 P **P** **22 12 04.1 +0.9**
comp=Z,50nm,1.3s
MEEK Meekatharra 51.41 117 P **P** **22 12 04.2 +0.9**
MEEK Meekatharra 51.41 117 P **P** **22 12 03.6 +0.3**
comp=Z,50nm,1.3s
MMSI Mamuju 51.49 86 P **P** **22 12 04.1 +0.1**
KDJ Kajisay 51.58 9 IAmb IAmb 22 12 05.1
comp=Z,23nm,0.8s
KDJ Kajisay 51.58 9 P **P** **22 12 03.8 -0.6**
comp=Z,37nm,0.9s
NWAO Narrogin (SRO) 51.66 125 LR LR 22 28 31.6
comp=Z,936nm,21.4s,baz=288,slow=30
NWAO Narrogin (SRO) 51.66 125 P **P** **22 12 03.0 -2.0**
EKS2 Erkin-Say 51.66 6 P **P** **22 12 05.0 +0.1**
SNR=20
MBWA Marble Bar 51.68 110 P **P** **22 12 06.3 +1.0**
comp=Z,36nm,1.0s
MBWA Marble Bar 51.68 110 P **P** **22 12 05.9 +0.6**
MBWA Marble Bar 51.68 110 P **P** **22 12 06.0 +0.6**
MBWA Marble Bar 51.68 110 P **P** **22 12 04.4 -0.9**
MBWA IAmb IAmb 22 12 06.6
comp=Z,20nm,0.8s
MBWA Marble Bar 51.68 110 IAMs_20 IAMs_20 22 29 47.9
comp=Z,1µm,20.0s
MBWA Marble Bar 51.68 110 P **P** **22 12 06.3 +1.0**
comp=Z,36nm,1.0s
DZA Taraz 51.69 4 *e*P **P** **22 12 04.5 -0.5**
DZA pmax pmax
comp=Z,24nm,0.9s
DZA Taraz 51.69 4 *e*P **P** **22 12 04.5 -0.5**
comp=Z,24nm,0.9s
MMAI Mount Meron Ar 51.70 325 P **P** **22 12 04.4 -1.0**
comp=Z,0.7nm,0.5s,baz=58,slow=11,SNR=3.6
MMAI LR LR 22 30 43.6
comp=Z,844nm,20.0s,baz=146,slow=32
comp=Z,0.7nm,0.5s
AAK Ala-Archa 51.71 7 P **P** **22 12 05.5 +0.2**
SNR=18
AAK Ala-Archa 51.71 7 *i*P **P** **22 12 05.3 -0.1**
SNR=38
AAK Ala-Archa 51.71 7 P **P** **22 12 05.5 +0.2**
AAK S **S** **22 19 29.6 +2.8**
AAK Ala-Archa 51.71 7*d* *i*P **P** **22 12 05.2 -0.1**
AAK pmax pmax
comp=Z,33nm,1.0s
AAK Ala-Archa 51.71 7 P **P** **22 12 04.6 -0.7**
AAK IAmb IAmb 22 12 10.3
comp=Z,26nm,0.9s
AAK Ala-Archa 51.71 7 IAMs_20 IAMs_20 22 31 42.3
comp=Z,728nm,21.0s
AAK Ala-Archa 51.71 7 P **P** **22 12 05.6 +0.2**
comp=Z,32nm,1.0s
GOMU GeErMu 51.73 28 P **P** **22 12 06.6 +0.8**
GOMU pP sP 22 12 09.9 0.0
GOMU sP pwP 22 12 13.8 -1.6
GOMU S **S** **22 19 28.1 +0.4**
GOMU pmax pmax
comp=Z,16nm,1.0s
GOMU L L
comp=Z,840nm,18.8s
GOMU L L
comp=Z,1µm,18.3s
GOMU L L
comp=Z,380nm,18.3s
KLBR Kellerberrin 51.73 123 P **P** **22 12 06.1 +0.5**
comp=Z,67nm,0.9s
KLBR Kellerberrin 51.73 123 P **P** **22 12 06.0 +0.5**
comp=Z,67nm,0.9s
KLBR Kellerberrin 51.73 123 P **P** **22 12 06.1 +0.5**
KLBR Kellerberrin 51.73 123 P **P** **22 12 06.0 +0.4**
comp=Z,67nm,0.9s
BRLS Borolday 51.75 2 *e*P **P** **22 12 03.0 -2.4**
BRLS Borolday 51.75 2 *e*P **P** **22 12 03.1 -2.4**
LBFI Labuhan Bajo, 51.76 94 P **P** **22 12 05.4 -0.7**
KBK Karagaybulak 51.79 7 P **P** **22 12 06.1 +0.2**
SNR=18
KK31 Karatay Array 51.85 3 P **P** **22 12 05.6 -0.6**
KK31 pmax pmax
comp=Z,28nm,1.4s
KK31 Karatay Array 51.85 3 P **P** **22 12 05.6 -0.6**
KKAR Karatay Array 51.85 3 P **P** **22 12 05.5 -0.7**
KKAR Karatay Array 51.85 3 P **P** **22 12 05.5 -0.7**
FRU1 Bishkek 51.90 7 IAmb IAmb 22 12 11.6
comp=Z,32nm,0.9s
KAPI Kappang 51.99 89 LR LR 22 31 06.9
comp=Z,547nm,21.9s,baz=226,slow=32
KAPI Kappang 51.99 89 P **P** **22 12 07.6 -0.1**
KAPI Kappang 51.99 89 P **P** **22 12 07.2 -0.5**
KAPI S **S** **22 19 31.8 +0.6**
KAPI Kappang 51.99 89 P **P** **22 12 06.6 -1.1**
KAPI pmax pmax
comp=Z,82nm,1.6s
KAPI MLR MLR
comp=Z,500nm,20.0s
KAPI Kappang 51.99 89 P **P** **22 12 06.6 -1.1**
KAPI IAmb IAmb 22 12 08.6
comp=Z,82nm,1.6s
KAPI Kappang 51.99 89 P **P** **22 12 08.6 +0.9**
KAPI Kappang 51.99 89 P **P** **22 12 07.4 -0.3**
comp=Z,31nm,1.1s
WSI Waingapu 52.08 95 P P 22 12 16.0 +7.6
TKM2 Tokmak 2 52.13 8 P **P** **22 12 08.1 -0.4**
SNR=26
OZAP Van, Ozalp-Mer 52.16 337 ⇑P **P** **22 12 09.1 +0.3**
BKSI Bulukumba 52.32 90 P **P** **22 12 09.9 -0.3**
comp=Z,1µmcomp=Z,79nm,1.2s
TTSI Tana Toraja 52.33 87 P **P** **22 12 11.7 +1.4**
comp=Z,44nm,0.9s
USP Ospenovka 52.34 6 P **P** **22 12 09.3 -0.5**
SNR=17
MARD Mardin 52.37 333 P **P** **22 12 09.3 -0.9**
MARD IAmb IAmb 22 12 21.1
comp=Z,65nm,1.7s
TNSS Tian-Shan 52.43 9 *e*P **P** **22 12 10.1 -0.9**
TNSS Tian-Shan 52.43 9 *e*P **P** **22 12 10.1 -0.9**
MDOK Medeo 52.57 9 *e*P **P** **22 12 11.2 -0.5**
MDOK *e*S **S** **22 19 38.1 -0.4**
MDOK Medeo 52.57 9 *e*P **P** **22 12 11.2 -0.5**
MDOK *e*S **S** **22 19 38.1 -0.4**
AAA Alma-Ata 52.59 9 *e*P **P** **22 12 11.2 -0.6**
AAA pmax pmax
comp=Z,26nm,0.9s
AAA Alma-Ata 52.59 9 *e*P **P** **22 12 11.2 -0.6**
comp=Z,26nm,0.9s
SATY Saty 52.69 10*d* *i*P **P** **22 12 12.0 -0.5**
SATY *e*S **S** **22 19 39.6 -0.5**
SATY pmax pmax
comp=Z,23nm,0.9s
SATY Saty 52.69 10 ⇓*i*P **P** **22 12 12.1 -0.5**
comp=Z,23nm,0.9s
SATY *e*S **S** **22 19 39.6 -0.5**
PCI Palu 52.71 84 P **P** **22 12 13.6 +0.5**
comp=Z,47nm,0.9s
CD2 Chengdu 52.71 40 P **P** **22 12 12.3 -0.5**
CD2 pP sP 22 12 16.9 -0.1
CD2 S **S** **22 19 38.9 -1.8**
CD2 pmax pmax
comp=Z,50nm,0.7s
CD2 pmax pmax
comp=Z,230nm,6.0s
CD2 L L
comp=Z,920nm,18.4s
CD2 L L
comp=Z,1µm,17.1s
CD2 L L
comp=Z,850nm,20.6s

GURO	Guroymak-BITLI	52.86	335		P		P	22 12 13.8	-0.1
UZB	Uzynbulak	52.88	11	*e*	P		P	22 12 13.3	-0.7
UZB	Uzynbulak	52.88	11	*e*	P		P	22 12 13.4	-0.7
SHLS	Shalkode	52.97	11	*e*	P		P	22 12 14.8	+0.2
SHLS					pmax		pmax		
	comp=Z,14nm,0.7s								
SHLS	Shalkode	52.97	11	*e*	P		P	22 12 14.9	+0.2
	comp=Z,14nm,0.7s								
KPKS	Kokpek	53.13	10	*e*	P		P	22 12 15.0	-0.7
KPKS	Kokpek	53.13	10	*e*	P		P	22 12 15.1	-0.7
GNI	Garni	53.17	338		LR		LR	22 33 59.2	
	comp=Z,660nm,18.3s,baz=166,slow=35								
GNI	Garni	53.17	338		P		P	22 12 16.8	+0.6
GNI	Garni	53.17	338		P		P	22 12 17.3	+1.1
GNI	Garni	53.17	338		P		P	22 12 15.1	-1.1
GNI					pmax		pmax		
	comp=Z,37nm,1.0s								
GNI	Garni	53.17	338		P		P	22 12 15.1	-1.1
GNI					IAmb		IAmb	22 12 28.2	
	comp=Z,37nm,0.9s								
GNI	Garni	53.17	338		P		P	22 12 15.9	-0.3
	comp=Z,609nmcomp=Z,40nm,1.1s								
GNI	Garni	53.17	338		P		P	22 12 16.3	+0.1
	comp=Z,40nm,1.1s								
EDFI	Ende, Flores	53.52	94		P		P	22 12 18.7	-0.5
	comp=Z,636nmcomp=Z,21nm,0.8s								
DIGO	Kars	53.91	337		P		P	22 12 22.0	+0.3
	comp=Z,63nm,1.2s								
TOLI2	Tolitoli	54.02	82		P		P	22 12 22.4	-0.3
TOLI2	Tolitoli	54.02	82		P		P	22 12 21.5	-1.2
TOLI2	Tolitoli	54.02	82		P		P	22 12 22.6	-0.2
	comp=Z,48nm,1.5s								
MMRI	Maumere	54.06	94		P		P	22 12 22.4	-0.7
MMRI	Maumere	54.06	94		P		P	22 12 22.8	-0.3
	comp=Z,2µmcomp=Z,50nm,1.1s								
MMRI	Maumere	54.06	94		P		P	22 12 22.2	-0.9
	comp=Z,48nm,1.8s								
CSS	Mathiatis	54.30	325		IAMs_20		IAMs_20	22 32 16.2	
	comp=Z,1µm,18.0s								
CSS	Mathiatis	54.30	325		P		P	22 12 32.4	+8.0
ARPR	Arapgir-MALATY	54.92	332		IAmb		IAmb	22 12 40.6	
	comp=Z,37nm,1.1s								
KDI	Kendari	54.96	89		P		P	22 12 30.4	+0.8
	comp=Z,753nmcomp=Z,24nm,0.9s								
KEMA	Kemaliye	54.99	333		P		P	22 12 29.8	+0.3
	comp=Z,36nm,2.1s								
EPOS	Posof	55.10	337		P		P	22 12 31.1	+0.9
	comp=Z,22nm,1.2s								
HKPS	Hong Kong Po S	55.25	55		IAMs_20		IAMs_20	22 32 18.9	
	comp=Z,646nm,20.0s								
KELT	Kelkit	55.37	334		P		P	22 12 30.8	-1.5
	comp=Z,57nm,1.6s								
LUWI	Luwuk	55.57	85		IAMs_20		IAMs_20	22 32 07.3	
	comp=Z,679nm,22.0s								
WMQ	Urumqi	55.62	18	*e*	P		P	22 12 34.1	+0.3
WMQ					PP		PP	22 14 43.1	+4.9
WMQ					S		S	22 20 19.0	-0.5
WMQ					pmax		pmax		
	comp=Z,27nm,0.9s								
WMQ					pmax		pmax		
	comp=Z,160nm,3.7s								
WMQ					L		L		
	comp=Z,1µm,20.7s								
WMQ					L		L		
	comp=Z,1µm,17.9s								
WMQ					L		L		
	comp=Z,1µm,24.9s								
KTUT	Trabzon	55.85	335	⇑	P		P	22 12 37.0	+1.6
BNN	Bunyan	55.91	330		IAmb		IAmb	22 12 55.9	
	comp=Z,21nm,1.0s								
SOEI	Soe	55.98	96		P		P	22 12 37.4	+0.4
SOEI	Soe	55.98	96		P		P	22 12 38.6	+1.6
SOEI	Soe	55.98	96		P		P	22 12 36.6	-0.4
SOEI	Soe	55.98	96		P		P	22 12 38.2	+1.2
SOEI	Soe	55.98	96		P		P	22 12 38.4	+1.3
	comp=Z,181nm,0.9s								
ENH	Enshi	56.09	44		P		P	22 12 37.6	+0.2
ENH	Enshi	56.09	44		P		P	22 12 37.4	0.0
	comp=Z,38nm,1.2s								
LZDM	Lanzhou Array	56.17	35		P		P	22 12 38.1	-0.2
	comp=Z,9.2nm,1.0s,baz=208,slow=5.0,SNR=9.5								
LZDM					LR		LR	22 34 31.6	
	comp=Z,347nm,21.2s,baz=80,slow=34								
	comp=Z,9.2nm,1.0s								
NCK	Nalchik	56.52	339	⇓	*e*P		P	22 12 37.6	-2.6
NCK					pmax		pmax		
	comp=Z,27nm,2.2s								
NEUR	Neytrino	56.63	338	⇑	*e*P		P	22 12 41.3	+0.1
NEUR					pmax		pmax		
	comp=Z,17nm,1.5s								
GTA2	Gaotai	56.71	30		P		P	22 12 41.9	+0.1
GTA2					S		S	22 20 35.5	+1.1
GTA2					pmax		pmax		
	comp=Z,17nm,0.9s								
GTA2					L		L		
	comp=Z,560nm,20.6s								
GTA2					L		L		
	comp=Z,720nm,20.9s								
GTA2					L		L		
	comp=Z,830nm,16.5s								
TOKA	Tokat	56.77	332		IAmb		IAmb	22 12 50.7	
	comp=Z,20nm,0.9s								
KBZ	Khabaz	56.97	339		P		P	22 12 42.8	-0.6
	comp=Z,6.1nm,0.9s,baz=146,slow=7.8,SNR=7.5								
KBZ					LR		LR	22 35 32.7	
	comp=Z,467nm,19.3s,baz=168,slow=34								
	comp=Z,6.1nm,0.9s								
MAKZ	Makanchi	56.97	12		P		P	22 12 41.9	-1.5
MAKZ					pmax		pmax		
	comp=Z,28nm,1.1s								
MAKZ					MLR		MLR		
	comp=Z,700nm,19.0s								
MAKZ	Makanchi	56.97	12				P	22 12 41.9	-1.5
MAKZ					IAmb		IAmb	22 12 47.1	
	comp=Z,28nm,1.1s								
MAKZ					IAMs_20		IAMs_20	22 36 37.0	
	comp=Z,745nm,19.0s								
MAKZ	Makanchi	56.97	12		P		P	22 12 42.4	-1.0
	comp=Z,30nm,1.1s								
MK31	Makanchi Array	57.02	12	*d*	*i*P		P	22 12 42.3	-1.5
MKAR	Makanchi Array	57.02	12		P		P	22 12 42.5	-1.3
	comp=Z,9.2nm,0.7s,baz=198,slow=7.7,SNR=66								
MKAR					LR		LR	22 36 41.2	
	comp=Z,556nm,18.1s,baz=198,slow=36								
	comp=Z,9.2nm,0.7s								
MKAR	Makanchi Array	57.02	12		P		P	22 12 42.1	-1.7
FITZ	Fitzroy Crossi	57.08	106		P		P	22 12 45.5	+0.8
	comp=Z,6.9nm,1.1s								
FITZ	Fitzroy Crossi	57.08	106		LR		LR	22 32 52.7	
	comp=Z,716nm,21.7s,baz=274,slow=32								
FITZ	Fitzroy Crossi	57.08	106		P		P	22 12 45.3	+0.6
FITZ	Fitzroy Crossi	57.08	106		P		P	22 12 44.0	-0.7
FITZ	Fitzroy Crossi	57.08	106		P		P	22 12 45.4	+0.8
	comp=Z,7.0nm,1.1s								
KIRS	Kirsehir-Merke	57.09	329	⇑	P		P	22 12 45.5	+1.1
KVAR	Kislovodsk Arr	57.24	339		LR		LR	22 34 10.6	
	comp=Z,554nm,21.2s,baz=97,slow=33								
KIV	Kislovodsk	57.24	339		P		P	22 12 48.7	+3.3
KIV	Kislovodsk	57.24	339		P		P	22 12 46.0	+0.6
	comp=Z,8.9nm,1.1s								
KIV	Kislovodsk	57.24	339		P		P	22 12 46.3	+0.8
	comp=Z,11nm,1.1s								
CNSH	ChangSha	57.35	48		P		P	22 12 46.8	+0.4
CNSH					S		S	22 20 45.9	+3.0
CNSH					pmax		pmax		
	comp=Z,15nm,0.9s								
CNSH					L		L		
	comp=Z,470nm,14.4s								
CNSH					L		L		
	comp=Z,500nm,15.7s								
CNSH					L		L		
	comp=Z,660nm,18.4s								
KKUL	Konya-Kulu	57.63	329		P		P	22 12 49.2	+0.9
	comp=Z,26nm,1.7s								
BR104	Keskin Array S	57.66	329		P		P	22 12 48.4	-0.1
	comp=Z,120nmcomp=Z,13nm,1.1s								
BR131	Keskin Array S	57.68	329		P		P	22 12 50.7	+2.0
BR131	Keskin Array S	57.68	329		P		P	22 12 48.2	-0.4
BR131					pmax		pmax		
	comp=Z,15nm,1.0s								
BR131	Keskin Array S	57.68	329				P	22 12 48.2	-0.4
BRTR	Keskin Array B	57.68	329		P		P	22 12 48.2	-0.4
	comp=Z,3.6nm,0.9s,baz=129,slow=9.7,SNR=10								
BRTR					LR		LR	22 36 54.0	
	comp=Z,699nm,18.5s,baz=141,slow=35								
	comp=Z,3.6nm,0.9s								

BRTR	Keskin Array B	57.68	329		P		P	22 12 48.1	-0.5
BR105	Keskin Array S	57.68	329		P		P	22 12 48.5	-0.2
	comp=Z,137nmcomp=Z,21nm,0.9s								
BR106	Keskin Array S	57.69	329		P		P	22 12 48.8	0.0
	comp=Z,123nmcomp=Z,13nm,0.9s								
SOC	Sochi	58.04	336	*e*	P		P	22 12 51.0	+0.1
SOC				*e*				22 14 56.9	
SOC				*e*	PPP		PPP	22 16 21.2	
SOC				*e*	S		S	22 20 51.8	+0.4
SOC				*e*	SS		SS	22 24 38.1	-4.9
SOC				*e*	SSS		SSS	22 26 57.4	
XAN	Xi'an	58.05	40		P		P	22 12 50.6	-0.7
XAN					pP		sP	22 12 55.4	+1.0
XAN					S		S	22 20 53.1	+1.1
XAN					SS		SS	22 24 42.0	-1.6
XAN					pmax		pmax		
	comp=Z,43nm,1.2s								
XAN					L		L		
	comp=Z,690nm,16.5s								
XAN					L		L		
	comp=Z,470nm,16.8s								
XAN					L		L		
	comp=Z,590nm,20.6s								
ZSN	Zaisan	58.22	14	*e*	P		P	22 12 51.8	-0.3
ZSN					pmax		pmax		
	comp=Z,22nm,1.6s								
ZSN	Zaisan	58.22	14	*e*	P		P	22 12 51.9	-0.3
	comp=Z,22nm,1.6s								
AB31	Akbulak array	58.31	354				P	22 12 51.6	-1.1
ABKAR	Akbulak array	58.31	354				P	22 12 51.7	-1.0
EDA	Edea	58.53	280				P	22 12 53.6	-1.3
SANI	Sanana	58.57	87		P		P	22 12 53.9	-1.4
SANI	Sanana	58.57	87		P		P	22 12 54.9	-0.3
SANI	Sanana	58.57	87		P		P	22 12 55.0	-0.3
	comp=Z,23nm,0.8s								
SANI	Sanana	58.57	87		P		P	22 12 55.0	-0.3
	comp=Z,23nm,0.8s								
MAW	Mawson	58.68	182		P		P	22 12 55.6	+0.6
	comp=Z,5.2nm,1.4s								
MAW	Mawson	58.68	182		P		P	22 12 54.6	-0.3
	comp=Z,21nm,1.1s,baz=351,slow=7.9,SNR=18								
MAW					LR		LR	22 31 41.3	
	comp=Z,611nm,20.5s,baz=352,slow=29								
	comp=Z,21nm,1.1s								
MAW	Mawson	58.68	182		P		P	22 12 54.8	-0.3
MAW					pmax		pmax		
	comp=Z,8.0nm,1.3s								
MAW	Mawson	58.68	182				P	22 12 54.8	-0.3
MAW	Mawson	58.68	182		P		P	22 12 55.5	+0.4
	comp=Z,5.2nm,1.4s								
IDI	Anoyia	59.58	320		LR		LR	22 37 53.1	
	comp=Z,294nm,21.2s,baz=116,slow=35								
WHN	Wuhan	59.68	47		P		P	22 13 03.0	+0.4
WHN					sP		pwP	22 13 14.4	+2.2
WHN					S		S	22 21 15.3	+2.2
WHN					pmax		pmax		
	comp=Z,44nm,0.8s								
WHN					L		L		
	comp=Z,790nm,9.2s								
WHN					L		L		
	comp=Z,2µm,14.3s								
WHN					L		L		
	comp=Z,1µm,16.7s								
WRKA	Warakurna	59.87	114		P		P	22 13 05.0	+0.9
	comp=Z,15nm,1.2s								
KURBB	Kurchatov Arra	60.08	8		P		P	22 13 03.8	-1.1
	comp=Z,31nm,1.1s,baz=205,slow=6.6,SNR=52								
KURBB					LR		LR	22 38 23.0	
	comp=Z,201nm,21.3s,baz=204,slow=35								
	comp=Z,31nm,1.1s								
KNRA	Kununurra	60.08	103		P		P	22 13 04.8	-0.8
KURK	Kurchatov	60.18	8		P		P	22 13 05.1	-0.6
KURK	Kurchatov	60.18	8	*d*	*i*P		P	22 13 04.7	-0.9
KURK					pmax		pmax		
	comp=Z,48nm,1.2s								
KURK	Kurchatov	60.18	8				P	22 13 04.6	-1.0
KURK					IAmb		IAmb	22 13 10.3	
	comp=Z,30nm,0.9s								
KURK	Kurchatov	60.18	8		P		P	22 13 05.0	-0.6
	comp=Z,42nm,1.1s								
FORT	Forrest	60.24	120		P		P	22 13 06.0	-0.5
TNTI	Ternate	60.41	84		P		P	22 13 08.2	+0.2
TNTI	Ternate	60.41	84				P	22 13 07.0	-1.0
TNTI	Ternate	60.41	84		P		P	22 13 09.6	+1.6
	comp=Z,1µmcomp=Z,45nm,1.2s								
TNTI	Ternate	60.41	84		P		P	22 13 08.0	0.0
	comp=Z,70nm,1.3s								
YLV	Yalova	60.51	327		P		P	22 13 08.4	+0.2
	comp=Z,1µmcomp=Z,46nm,1.1s								
LYN	LuoYang	60.67	42		P		P	22 13 09.9	+0.6
LYN					pP		pwP	22 13 17.3	-1.7
LYN					S		S	22 21 25.8	0.0
LYN					SS		SS	22 25 24.0	-0.7
LYN					pmax		pmax		
	comp=Z,13nm,0.9s								
LYN					L		L		
	comp=Z,840nm,17.9s								
LYN					L		L		
	comp=Z,470nm,15.8s								
LYN					L		L		
	comp=Z,420nm,18.8s								
BVAR	Borovoye Array	61.76	2		P		P	22 13 15.2	-1.1
	comp=Z,14nm,0.7s,baz=163,slow=8.7,SNR=93								
	comp=Z,14nm,0.7s								
BORK	Borovoye	61.78	2		P		P	22 13 15.6	-0.8
BORK					pmax		pmax		
	comp=Z,15nm,0.8s								
BORK					MLR		MLR		
	comp=Z,400nm,20.0s								
BORK	Borovoye	61.78	2				P	22 13 15.6	-0.8
BORK					IAmb		IAmb	22 13 16.6	
	comp=Z,15nm,0.8s								
BORK					IAMs_20		IAMs_20	22 40 12.5	
	comp=Z,449nm,20.0s								
BTO2	Baotou	62.99	35	*e*	P		P	22 13 25.3	+0.3
BTO2				*e*	pP		pwP	22 13 35.8	+1.2
BTO2				*e*	PP		PP	22 15 50.4	+6.7
BTO2				*e*	S		S	22 21 53.6	-1.6
BTO2					pmax		pmax		
	comp=Z,24nm,1.0s								
BTO2					pmax		pmax		
	comp=Z,350nm,3.5s								
BTO2					L		L		
	comp=Z,2µm,15.2s								
BTO2					L		L		
	comp=Z,710nm,10.0s								
BTO2					L		L		
	comp=Z,1µm,16.9s								
SAUI	Saumlaki	63.05	94		P		P	22 13 25.6	-0.2
NJ2	Nanjing	63.74	48	*e*	P		P	22 13 31.6	+1.6
NJ2					pmax		pmax		
	comp=Z,9.0nm,0.7s								
NJ2					L		L		
	comp=Z,650nm,18.0s								
NJ2					L		L		
	comp=Z,470nm,19.9s								
NJ2					L		L		
	comp=Z,1µm,19.9s								
KDU	Kakadu	63.81	100		P		P	22 13 31.2	+0.5
	comp=Z,15nm,0.9s								
HNS	HongShan	63.82	41	⇑	P		P	22 13 30.9	+0.5
HNS					S		S	22 22 04.4	-1.0
HNS					pmax		pmax		
	comp=Z,12nm,0.9s								
HNS					L		L		
	comp=Z,520nm,18.2s								
HNS					L		L		
	comp=Z,300nm,15.1s								
HNS					L		L		
	comp=Z,390nm,14.1s								
VRH	Novokhopyorsk	63.90	342	*e*	P		P	22 13 28.7	-1.9
VRH					pmax		pmax		
	comp=Z,16nm,1.2s								
HHC	Hu-ho-hao-te	64.02	36	*e*	P		P	22 13 34.8	+3.0
HHC					sP		pwP	22 13 43.9	+2.4
HHC					S		S	22 22 09.5	+1.4
HHC					sS		sS	22 22 17.5	+5.5
HHC					pmax		pmax		
	comp=Z,11nm,1.3s								
HHC					pmax		pmax		
	comp=Z,100nm,3.9s								
HHC					L		L		
	comp=Z,290nm,16.5s								
HHC					L		L		
	comp=Z,240nm,16.3s								
HHC					L		L		

	comp=Z,430nm,19.6s									
ZAA0	Zalesovo Array	64.33	11				P	22 13 32.2	-1.2
ZAA0					IAmb		IAmb	22 13 37.6		
	comp=Z,26nm,1.1s									
ZALV	Zalesovo Beam	64.33	11		P		P	22 13 31.7	-1.7
	comp=Z,8.4nm,0.7s,baz=210,slow=6.6,SNR=41									
ZALV					LR		LR	22 41 51.3		
	comp=Z,477nm,19.2s,baz=196,slow=36									
	comp=Z,8.4nm,0.7s									
ZALV	Zalesovo Beam	64.33	11	*i*	P		P	22 13 32.0	-1.4	
ZALV					pmax		pmax			
	comp=Z,8.0nm,0.7s									
ZALV	Zalesovo Beam	64.33	11				P	22 13 31.8	-1.6	
VORD	Divnogorie	64.46	341	*e*	P		P	22 13 31.8	-2.4	
VORD					pmax		pmax			
	comp=Z,20nm,1.0s									
FAKI	Fak Fak	64.62	89		P		P	22 13 35.0	-1.1	
VSR	Storozhevoye	64.71	341	*e*	P		P	22 13 34.2	-1.7	
VSR					pmax		pmax			
	comp=Z,7.0nm,0.7s									
TIA	Tai'an	64.73	43		P		P	22 13 36.6	+0.2	
TIA					PcP		PcP	22 14 14.5	+4.5	
TIA					pmax		pmax			
	comp=Z,13nm,0.9s									
TIA					L		L			
	comp=Z,320nm,20.6s									
TIA					L		L			
	comp=Z,770nm,19.2s									
TIA					L		L			
	comp=Z,560nm,18.5s									
KNGR	Kungurtug, Tuv	64.77	21	⇑	*e*P		P	22 13 37.5	+1.0	
KNGR					pmax		pmax			
	comp=Z,19nm,1.2s									
AUALC	St Philip's Co	64.89	112		P		P	22 13 38.7	+0.9	
ASAR	Alice Springs	64.91	112		P		P	22 13 37.5	-0.4	
	comp=Z,13nm,0.9s,baz=277,slow=6.1,SNR=85									
ASAR					LR		LR	22 37 43.5		
	comp=Z,438nm,21.8s,baz=272,slow=32									
	comp=Z,13nm,0.9s									
AS31	Alice Springs	64.91	112		P		P	22 13 38.1	+0.1	
	comp=Z,6.5nm,0.8s									
AS31	Alice Springs	64.91	112		P		P	22 13 36.3	-1.6	
	comp=Z,6.5nm,0.8s									
AS31	Alice Springs	64.91	112		P		P	22 13 37.3	-0.7	
AS15	Alice Springs	64.92	112		P		P	22 13 38.0	0.0	
	comp=Z,16nm,0.8s									
AS09	Alice Springs	64.95	112		P		P	22 13 38.3	+0.1	
	comp=Z,28nm,0.8s									
AS01	Alice Springs	64.96	112		P		P	22 13 38.0	-0.2	
AS17	Alice Springs	64.99	112		P		P	22 13 38.5	+0.1	
	comp=Z,25nm,0.9s									
SSE	Sheshan	65.00	50		P		P	22 13 38.8	+0.5	
SSE					S		S	22 22 19.9	-0.4	
SSE					pmax		pmax			
	comp=Z,7.0nm,1.0s									
SSE					pmax		pmax			
	comp=Z,79nm,3.9s									
SSE					L		L			
	comp=Z,320nm,26.0s									
SSE					L		L			
	comp=Z,200nm,25.8s									
PLVB	Pleven	65.01	327	⇓	P		P	22 13 38.1	0.0	
VORR	Voronezh	65.09	341	*e*	P		P	22 13 36.1	-2.3	
VORR					pmax		pmax			
	comp=Z,15nm,0.4s									
ISR	Istrita	65.20	329		P		P	22 13 41.5	+2.2	
	comp=Z,39nm,1.1s									
WRA	Warramunga Arr	65.31	108		P		P	22 13 40.7	+0.1	
	comp=Z,13nm,1.0s,baz=279,slow=6.1,SNR=59									
WRA					LR		LR	22 38 21.1		
	comp=Z,1µm,21.9s,baz=270,slow=32									
	comp=Z,13nm,1.0s									
WRA	Warramunga Arr	65.31	108				P	22 13 40.4	-0.2	
WRAB	Tennant Creek	65.32	108		P		P	22 13 41.2	+0.6	
WRAB	Tennant Creek	65.32	108	*c*	*i*P		P	22 13 40.8	+0.2	
WRAB					pmax		pmax			
	comp=Z,50nm,1.2s									
WRAB	Tennant Creek	65.32	108		P		P	22 13 41.0	+0.4	
	comp=Z,35nm,1.4s									
WB2	Warramunga Arr	65.32	108		P		P	22 13 41.0	+0.4	
WB0	Warramunga Arr	65.36	108				P	22 13 40.4	-0.5	
WB0					IAmb		IAmb	22 13 58.5		
	comp=Z,25nm,1.0s									
BISRR	Bisoca	65.42	330	⇓	P		P	22 13 42.2	+1.5	
GHRR		65.43	330		P		P	22 13 43.1	+2.4	
GHRR		65.43	330		P		P	22 13 40.8	+0.1	
	comp=Z,51nm,0.9s									
ARTI	Arti	65.52	354	*d*	*i*P		P	22 13 40.1	-1.0	
ARTI								22 14 10.9		
ARTI					S		S	22 22 26.1	+0.5	
ARTI					SS		SS	22 26 36.9	-2.8	
ARTI					pmax		pmax			
	comp=Z,33nm,1.0s									
ARTI	Arti	65.52	354				P	22 13 40.0	-1.1	
VRI	Vrincioaia	65.63	330		P		P	22 13 42.4	+0.4	
	comp=Z,59nm,1.0s									
VRI	Vrincioaia	65.63	330		P		P	22 13 42.6	+0.5	
	comp=Z,59nm,1.0s									
PLOR	Plostina	65.66	330	⇓	P		P	22 13 42.9	+0.7	
MLR	Muntele Rosu	65.76	329	⇓	P		P	22 13 44.8	+1.8	
MLR	Muntele Rosu	65.76	329		P		P	22 13 43.4	+0.4	
	comp=Z,24nm,1.3s									
SVE	Sverdlovsk	65.76	356	*e*	P		P	22 13 42.2	-0.4	
SVE					pmax		pmax			
	comp=Z,40nm,1.5s									
LPSR	Galich'ya Gora	65.98	341	*e*	P		P	22 13 41.7	-2.4	
LPSR					pmax		pmax			
	comp=Z,20nm,1.0s									
TURR	Turia	66.12	330	⇑	P		P	22 13 46.0	+0.8	
TESR	Tescani	66.12	330	⇓	P		P	22 13 45.0	-0.3	
TESR	Tescani	66.12	330		P		P	22 13 47.6	+2.4	
	comp=Z,28nm,1.4s									
TESR	Tescani	66.12	330		P		P	22 13 44.3	-0.9	
	comp=Z,28nm,1.3s									
SONM	Songino Array	66.17	28		P		P	22 13 45.6	0.0	
	comp=Z,15nm,0.8s,baz=210,slow=7.5,SNR=90									
SONM					LR		LR	22 41 58.6		
	comp=Z,864nm,21.4s,baz=222,slow=35									
	comp=Z,15nm,0.8s									
SONM	Songino Array	66.17	28				P	22 13 45.5	-0.2	
SONM					IAmb		IAmb	22 13 47.0		
	comp=Z,18nm,0.8s									
VOIR		66.18	329	⇑	P		P	22 13 47.4	+1.7	
VOIR		66.18	329		P		P	22 13 47.5	+1.8	
	comp=Z,15nm,1.0s									
BLKB	Belogradchik	66.23	326	⇓	P		P	22 13 47.4	+1.4	
BJT	Baijiatuao	66.28	39		P		P	22 13 47.4	+1.1	
BJT	Baijiatuao	66.28	39		P		P	22 13 44.5	-1.9	
BJT					pmax		pmax			

BBOO **Buckleboo** 67.22 122 P **P** 22 13 52.4 -0.2
comp=Z,26nm,1.0s
BBOO **Buckleboo** 67.22 122 P **P** 22 13 55.1 +2.5
comp=Z,26nm,1.0s
BBOO **Buckleboo** 67.22 122 P **P** 22 13 52.4 -0.2
BBOO **Buckleboo** 67.22 122 P **P** 22 13 52.0 -0.6
BBOO IAmb IAmb 22 14 05.3
comp=Z,24nm,1.1s
BBOO **Buckleboo** 67.22 122 P **P** 22 13 52.4 -0.2
comp=Z,26nm,1.0s
GZR **Gura Zlata** 67.33 328 ⇑P **P** 22 13 53.7 +0.7
MDVR **Moldovita** 67.51 326 ⇓P **P** 22 13 55.0 +0.9
BURAR **Bucovina Array** 67.60 331 ⇓P **P** 22 13 56.0 +1.4
BUR08 **Bucovina Ar. S** 67.62 331 **P** 22 13 55.1 +0.2
BUR08 IAmb IAmb 22 14 26.8
comp=Z,27nm,1.6s
KMPD **K-Podol'skiy** 67.67 332 P **P** 22 13 56.9 +1.9
VAE **Valguarnera** 67.74 317 LR LR 22 41 12.6
comp=Z,336nm,20.0s,baz=111,slow=34
AK07 **Malin Array Si** 67.91 335 P **P** 22 13 57.5 +1.0
TLY **Talaya** 67.91 23 LR LR 22 43 18.4
comp=Z,373nm,18.4s,baz=212,slow=36
TLY **Talaya** 67.91 23 P **P** 22 13 57.9 +1.4
TLY **Talaya** 67.91 23⇓ *e*P **P** 22 13 56.1 -0.4
TLY pmax pmax
comp=Z,25nm,1.5s
SURR **Surduc** 67.92 327 ⇑P **P** 22 13 57.0 +0.4
AK09 **Malin Array Si** 67.93 335 P **P** 22 13 58.2 +1.7
AK10 **Malin Array Si** 67.93 335 P **P** 22 13 57.8 +1.2
AK06 **Malin Array Si** 67.94 335 P **P** 22 13 57.8 +1.2
AK08 **Malin Array Si** 67.95 335 P **P** 22 13 58.2 +1.5
AK05 **Malin Array Si** 67.97 335 P **P** 22 13 58.1 +1.3
AK02 **Malin Array Si** 67.99 335 P **P** 22 13 58.1 +1.1
AK12 **Malin Array Si** 68.00 335 P **P** 22 14 00.2 +3.2
MARR **Marisel-Cluj** 68.01 329 ⇓P **P** 22 13 57.5 +0.2
AK14 **Malin Array Si** 68.01 335 P **P** 22 13 58.7 +1.6
AK01 **Malin Array Si** 68.01 335 P **P** 22 13 58.6 +1.5
AKASG **Malin Array Be** 68.02 335 P **P** 22 13 55.9 -1.2
comp=Z,5.7nm,0.8s,baz=141,slow=5.4,SNR=7.7
AKASG LR LR 22 45 13.5
comp=Z,209nm,18.1s,baz=143,slow=37
comp=Z,5.7nm,0.8s
AKASG **Malin Array Be** 68.02 335 *i* P **P** 22 13 58.5 +1.4
AKASG pmax pmax
comp=Z,5.0nm,0.7s
AKBB **Malin Array Si** 68.02 335⇓ *e*P **P** 22 13 54.3 -2.8
AKBB pmax pmax
comp=Z,15nm,0.9s
AKBB **Malin Array Si** 68.02 335 P **P** 22 13 58.7 +1.6
AK13 **Malin Array Si** 68.02 335 P **P** 22 13 59.8 +2.7
KIEV **Kiev** 68.02 335 P **P** 22 14 00.2 +3.1
KIEV **Kiev** 68.02 335 P **P** 22 13 58.5 +1.4
comp=Z,63nm,0.9s
KIEV **Kiev** 68.02 335 P **P** 22 13 56.1 -1.1
comp=Z,16nm,0.9s
AK11 **Malin Array Si** 68.02 335 P **P** 22 13 58.3 +1.1
AK03 **Malin Array Si** 68.04 335 P **P** 22 13 58.5 +1.3
AK16 **Malin Array Si** 68.04 335 P **P** 22 13 58.5 +1.2
AK04 **Malin Array Si** 68.06 335 P **P** 22 13 59.0 +1.6
LUBAR **Lubar, Ukraine** 68.07 334 P **P** 22 13 58.9 +1.4
AK17 **Malin Array Si** 68.08 335 P **P** 22 13 59.3 +1.8
AK18 **Malin Array Si** 68.10 335 P **P** 22 14 00.3 +2.7
BZS **Buzias** 68.10 327 ⇓P **P** 22 13 57.7 -0.1
BZS **Buzias** 68.10 327 P **P** 22 13 56.9 -0.8
comp=Z,11nm,1.4s
AK19 **Malin Array Si** 68.12 335 P **P** 22 14 00.1 +2.3
AK22 **Malin Array Si** 68.13 335 P **P** 22 13 59.7 +1.9
AK20 **Malin Array Si** 68.14 335 P **P** 22 13 59.1 +1.2
AK21 **Malin Array Si** 68.15 335 P **P** 22 13 59.7 +1.8
DRGR 68.29 329 ⇓P **P** 22 14 00.6 +1.6
DRGR 68.29 329 ⇑S **SKiKP** 22 23 54.5 +0.7
DRGR 68.29 329 P **P** 22 13 58.5 -0.6
comp=Z,12nm,0.9s
TAM **Tamanrasset** 68.33 299 P **P** 22 13 59.8 -0.1
TAM pmax pmax
comp=Z,25nm,0.2s
TAM MLR MLR
comp=Z,600nm,18.0s
TAM **Tamanrasset** 68.33 299 **P** 22 13 59.8 -0.1
TAM IAMs_20 IAMs_20 22 39 09.7
comp=Z,623nm,18.0s
TAM **Tamanrasset** 68.33 299 P **P** 22 14 01.0 +1.1
comp=Z,7.6nm,1.8s
BMR **Baia Mare** 68.48 330 ⇑P **P** 22 14 01.5 +1.4
MI30 **MI30,Zelenitsa** 68.49 334 P **P** 22 14 01.7 +1.6
comp=Z,18nm,1.1s
SIRR **Siria** 68.50 328 ⇓P **P** 22 14 00.4 +0.2
XLT **XiLinHaoTe** 68.54 36 *e*P **P** 22 14 04.6 +3.9
XLT S **S** 22 23 07.0 +4.2
XLT pmax pmax
comp=Z,12nm,1.0s
XLT pmax pmax
comp=Z,86nm,5.5s
XLT L L
comp=Z,500nm,18.0s
XLT L L
comp=Z,350nm,16.5s
IRK **Irkutsk** 68.59 23 *e*P **P** 22 13 58.0 -2.7
IRK pmax pmax
comp=Z,34nm,2.0s
JOW **Kunigami** 68.80 57 LR LR 22 43 37.0
comp=Z,215nm,18.9s,baz=192,slow=36
OBN **Obninsk** 68.85 342 LR LR 22 44 57.8
comp=Z,273nm,19.4s,baz=170,slow=37
OBN **Obninsk** 68.85 342⇓ *e*P **P** 22 14 02.5 +0.3
OBN *e**PP **sP** 22 14 06.5 +0.2
OBN *e* 22 14 26.5
OBN *e* 22 16 29.8
OBN pmax pmax
comp=Z,6.0nm,1.1s
OBN MLR MLR
comp=Z,269nm,18.0s
OBN **Obninsk** 68.85 342 P **P** 22 14 04.7 +2.5
comp=Z,19nm,1.8s
KIRV **Kirov** 68.86 350 LR LR 22 44 17.3
comp=Z,284nm,18.9s,baz=183,slow=36
KIRV **Kirov** 68.86 350⇑ *i*P **P** 22 14 00.6 -1.6
TORD **Torodi Ar. Bea** 68.91 288 P **P** 22 14 02.7 -0.8
comp=Z,2.5nm,0.9s,baz=113,slow=3.4,SNR=9.3
TORD LR LR 22 41 31.5
comp=Z,556nm,21.8s,baz=104,slow=34
comp=Z,2.5nm,0.9s
TORD **Torodi Ar. Bea** 68.91 288 P **P** 22 14 02.9 -0.6
MOS **Moscow** 69.06 342 *e*P **P** 22 14 03.1 -0.4
MOS *e* 22 14 22.3
MOS *e* 22 16 36.5
MOS *e*S **S** 22 23 09.2 +1.0
MOS *e*SS **SS** 22 27 38.0 +3.5
MOS pmax pmax
comp=Z,84nm,1.6s
MOS MLR MLR
comp=N,800nm,21.0s
MOS MLR MLR
comp=Z,800nm,21.0s
DL2 **Dalian** 69.20 43 P **P** 22 14 06.4 +1.7
DL2 S **S** 22 23 09.8 -0.8
DL2 pmax pmax
comp=Z,33nm,1.2s
DL2 pmax pmax
comp=Z,220nm,4.5s
DL2 L L
comp=Z,650nm,20.4s
DL2 L L
comp=Z,280nm,20.4s
DL2 L L
comp=Z,610nm,22.7s
TRPA **Tarpa** 69.27 330 P **P** 22 14 04.6 -0.3
comp=Z,23nm,1.0s
HTT **Hallett** 69.66 122 P **P** 22 14 09.2 +1.3
comp=Z,6.7nm,1.3s
HTT **Hallett** 69.66 122 P P 22 14 15.1 +7.2
comp=Z,6.8nm,1.3s
HTT **Hallett** 69.66 122 P **P** 22 14 09.2 +1.3
RNPP5 **Staryi Chortor** 69.84 334 P **P** 22 14 10.5 +2.1
KOLS **Kolonicke sedl** 69.94 330 P **P** 22 14 08.9 -0.2
comp=Z,11nm,0.8s
ABAH **Abaujker** 70.03 329 P **P** 22 14 09.1 -0.6
comp=Z,11nm,1.5s
BLY **Banja Luka** 70.03 324 ⇑P **P** 22 14 10.9 +1.1
MORH **Mrgy, Hungar** 70.09 326 ⇓P **P** 22 14 11.2 +1.1
MORH **Mrgy, Hungar** 70.09 326 P **P** 22 14 13.7 +3.6
comp=Z,12nm,0.9s
MORH **Mrgy, Hungar** 70.09 326 P **P** 22 14 10.6 +0.5
comp=Z,13nm,0.9s
KWP **Kalwaria Pacla** 70.19 331 *e*P **P** 22 14 13.8 +3.2
KWP **Kalwaria Pacla** 70.19 331 P **P** 22 14 14.2 +3.5
comp=Z,32nm,0.9s
QIS **Mount Isa** 70.24 109 P **P** 22 14 12.1 +0.4
comp=Z,37nm,1.2s
QIS **Mount Isa** 70.24 109 P **P** 22 14 12.2 +0.6
QIS **Mount Isa** 70.24 109 P **P** 22 14 12.0 +0.4
comp=Z,36nm,1.2s
KEST **Kesra** 70.45 313 LR LR 22 43 48.1
comp=Z,430nm,19.1s,baz=78,slow=35
NVL **N'lazarevskaya** 70.72 197 *e*P **P** 22 14 13.2 -0.4
NVL *e* 22 16 59.4
NVL *e*S **S** 22 23 35.4 +7.9
NVL pmax pmax
comp=Z,18nm,0.9s
INKA **Innaminka** 71.11 116 **P** 22 14 16.6 -0.2
MNK **Minsk** 71.41 337 *i* P **P** 22 14 17.3 -0.7
MNK *i* 22 16 59.7
MNK *i* PPP PPP 22 18 43.1
MNK *i* S **S** 22 23 35.5 -0.4
MNK pmax pmax
comp=N,14nm,0.9s
MNK pmax pmax
comp=Z,6.0nm,0.6s
MNK pmax pmax
comp=E,13nm,0.8s
MNK MLR MLR
comp=Z,265nm,17.0s
MNK MLR MLR
comp=N,311nm,20.0s
MNK MLR MLR
comp=E,276nm,17.0s
MNK **Minsk** 71.41 337 *i* P **P** 22 14 17.3 -0.7
comp=E,13nm,0.8s
MNK *i* P **P** 22 14 17.3 -0.7
comp=N,14nm,0.9s
MNK *i* P **P** 22 14 17.3 -0.7
comp=Z,6.0nm,0.6s,baz=138
MNK *i* PP **PP** 22 16 59.8 +3.1
MNK *i* PPP PPP 22 18 43.1
MNK *i* S **S** 22 23 35.5 -0.4
MNK *i* LQ LQ 22 40 20.6
MNK *i* LR LR 22 44 40.5
MNK *i* LRM MLR 22 48 37.5
comp=Z,265nm,16.9s
MNK *i* LRM MLR 22 48 48.2
comp=N,311nm,20.0s
MNK *i* LRM MLR 22 49 39.9
comp=E,276nm,17.1s
STKA **Stephens Creek** 71.87 121 P **P** 22 14 21.4 +0.1
STKA **Stephens Creek** 71.87 121 P P 22 14 26.3 +5.0
STKA **Stephens Creek** 71.87 121 P **P** 22 14 20.9 -0.4
comp=E,4.1nm,0.9s,baz=281,slow=5.4,SNR=7.0
STKA LR LR 22 41 21.7
comp=E,623nm,21.2s,baz=249,slow=32
comp=E,4.1nm,0.9s
STKA **Stephens Creek** 71.87 121 P **P** 22 14 21.3 0.0
STKA **Stephens Creek** 71.87 121 P **P** 22 14 20.6 -0.8
OJC **Ojcow** 72.00 330 *e*P P 22 14 25.8 +4.1
RONA **Rosalia, Austr** 72.27 326 *e*P **P** 22 14 25.0 +1.7
comp=E,11nm,1.5s
SOKA **Soboth** 72.38 325 *e*P **P** 22 14 26.1 +2.0
comp=E,5.2nm,1.1s
CIT **Chita** 72.40 28 *e*P **P** 22 14 22.4 -1.6
CIT *e* 22 14 36.2
CIT *e* 22 17 10.6
ARSA **Arzberg** 72.43 326 *e*P **P** 22 14 25.6 +1.3
comp=E,7.8nm,1.3s
OBKA **Obir** 72.56 325 *e*P **P** 22 14 27.4 +2.2
comp=E,14nm,1.5s
WINA **Alland / Wiene** 72.63 327 *e*P **P** 22 14 28.0 +2.5
comp=E,6.9nm,1.5s
CONA **Conrad Observa** 72.64 326 *e*P **P** 22 14 26.7 +1.1
comp=E,14nm,1.3s
MORC **Moravsky Berou** 72.86 329 *e*P **P** 22 14 28.4 +1.6
KSRS **Korea Array** 72.87 46 P **P** 22 14 26.5 -0.5
comp=E,1.7nm,0.7s,baz=235,slow=6.5,SNR=6.0
KSRS LR LR 22 47 29.1
comp=E,362nm,18.4s,baz=235,slow=37
comp=E,1.7nm,0.7s
SESA **Seetaler Alpe,** 72.89 325 *e*P **P** 22 14 28.2 +1.0
comp=E,8.5nm,0.9s
DRE **Drenchia** 72.89 324 P **P** 22 14 27.6 +0.5
comp=Z,28nm,0.8s
KLMR **Klimovskoe** 72.98 346 *e*P **P** 22 14 25.5 -1.7
KLMR *e* 22 14 42.2
KLMR pmax pmax
comp=Z,60nm,1.1s
KLMR MLR MLR
comp=Z,221nm,14.0s
KRUC **Moravsky** 73.02 328 *e*P P 22 14 32.0 +4.3
KRUC **Moravsky** 73.02 328 P **P** 22 14 26.7 -1.0
comp=Z,12nm,1.5s
VRAC **Vranov** 73.06 328 LR LR 22 48 10.5
comp=Z,103nm,18.2s,baz=112,slow=37
VRAC **Vranov** 73.06 328 *e*P **P** 22 14 29.9 +1.9
MYKA **Terra Mystica** 73.14 324 *e*P **P** 22 14 29.5 +0.9
comp=Z,9.1nm,1.2s
JNU **Nakatsue** 73.29 52 P **P** 22 14 29.1 -0.6
comp=Z,14nm,1.0s,baz=247,slow=5.7,SNR=6.4
JNU LR LR 22 46 18.2
comp=Z,240nm,18.6s,baz=243,slow=36
comp=Z,14nm,1.0s
ABNA **Allensteig Bun** 73.30 327 *e*P **P** 22 14 30.6 +1.2
comp=Z,5.7nm,1.4s
MOA **Molln** 73.47 326 *e*P **P** 22 14 31.5 +1.0
comp=Z,25nm,1.7s
MOA **Molln** 73.47 326 P **P** 22 14 29.6 -0.9
comp=Z,21nm,1.0s
PABE **Paberze** 73.69 336 IAMs_20 IAMs_20 22 50 58.9
comp=Z,671nm,21.0s
BIOA **Bad Ischl, Aus** 73.73 325 *e*P **P** 22 14 33.1 +1.1
comp=Z,7.7nm,0.7s
DBIC **Dimbokro** 73.75 280 P **P** 22 14 31.6 -1.1
comp=Z,13nm,1.1s,baz=98,slow=7.1,SNR=5.8
comp=Z,13nm,1.1s
DBIC **Dimbokro** 73.75 280 P **P** 22 14 31.8 -1.0
DBIC pmax pmax
comp=Z,39nm,1.3s
DBIC **Dimbokro** 73.75 280 P **P** 22 14 31.8 -1.0
DBIC IAmb IAmb 22 14 33.7
comp=Z,39nm,1.3s
DBIC **Dimbokro** 73.75 280 P **P** 22 14 32.4 -0.4
comp=Z,17nm,1.1s
DPC **Dobruska-Polom** 73.83 329 *e*P **P** 22 14 34.1 +1.6
DPC **Dobruska-Polom** 73.83 329 P **P** 22 14 34.7 +2.2
comp=Z,4.2nm,3.0s
ABTA **Abfaltersbach** 73.86 324 *e*P **P** 22 14 33.4 +0.5
comp=Z,29nm,1.6s
HILR **Hailar Array B** 73.93 32 P **P** 22 14 32.9 -0.3
comp=Z,13nm,0.8s,baz=229,slow=5.5,SNR=8.4
HILR LR LR 22 47 06.7
comp=Z,296nm,20.8s,baz=95,slow=36
comp=Z,13nm,0.8s
TROLL **Troll, Antarti** 73.95 197 ⇑P **P** 22 14 33.6 +0.5
comp=Z,450nm,1.0s
CKRC **Cesky Krumlov** 74.00 327 *e*P P 22 14 39.1 +5.6
LESA **Schwarzleotal** 74.13 325 *e*P **P** 22 14 34.3 -0.2
comp=Z,11nm,1.0s
KSP **Ksiaz** 74.14 329 *e*P P 22 14 40.3 +6.0
KSP **Ksiaz** 74.14 329 P **P** 22 14 36.1 +1.8
comp=Z,8.3nm,2.1s
QLP **Quilpie** 74.25 115 P **P** 22 14 36.5 +1.0
comp=Z,33nm,1.4s
QLP **Quilpie** 74.25 115 P **P** 22 14 36.3 +0.8
QLP **Quilpie** 74.25 115 P **P** 22 14 35.7 +0.2
comp=Z,33nm,1.4s
GERES **GERESS Array B** 74.34 326 P **P** 22 14 34.6 -1.1
comp=Z,1.2nm,1.0s,baz=107,slow=4.6,SNR=6.1
GERES LR LR 22 47 42.4
comp=Z,134nm,20.2s,baz=168,slow=36
comp=Z,1.2nm,1.0s
GERES **GERESS Array B** 74.34 326 P **P** 22 14 35.8 +0.1
GERES **GERESS Array B** 74.34 326 P **P** 22 14 35.8 +0.1
ZVC **Zvikov** 74.41 327 *e*P P 22 14 40.3 +4.4
KHC **Kasperske Hory** 74.57 327 *e*P **P** 22 14 35.7 -1.2
KHC *e*pP **sP** 22 14 40.0 -0.3
KHC **Kasperske Hory** 74.57 327 P **P** 22 14 40.3 +3.4
comp=Z,8.2nm,1.4s
KHC **Kasperske Hory** 74.57 327 P **P** 22 14 37.2 +0.4
comp=Z,8.3nm,1.4s
WTTA **Wattenberg** 74.64 324 *e*P **P** 22 14 37.0 -0.5
comp=Z,12nm,0.9s
WTTA **Wattenberg** 74.64 324 P **P** 22 14 37.6 0.0
comp=Z,21nm,0.8s
WATA **Walderalm** 74.72 324 *e*P **P** 22 14 37.2 -0.7
comp=Z,18nm,0.9s
MTSU **Mount Surprise** 74.82 106 P **P** 22 14 40.1 +1.1
comp=Z,15nm,0.9s
MTSU **Mount Surprise** 74.82 106 P **P** 22 14 39.7 +0.7
MTSU **Mount Surprise** 74.82 106 P **P** 22 14 39.8 +0.8
comp=Z,15nm,0.9s
SQTA **Sankt Quirin** 74.87 324 *e*P **P** 22 14 38.4 -0.4
comp=Z,11nm,1.4s
MOTA **Moosalm** 74.99 324 P **P** 22 14 39.5 0.0
comp=Z,12nm,1.1s
FETA **Feichten** 75.04 324 *e*P **P** 22 14 40.6 +0.8
comp=Z,17nm,1.5s
FUORN **Ofenpass-Fuorn** 75.11 323 P **P** 22 14 40.7 +0.4
FUORN IAmb IAmb 22 15 17.1
comp=Z,35nm,1.4s
TOO **Toolangi** 75.12 126 P P 22 14 46.9 +6.5
TOO **Toolangi** 75.12 126 P **P** 22 14 40.2 -0.2
TOO **Toolangi** 75.12 126 P **P** 22 14 40.2 -0.2
RETA **Reutte** 75.27 324 *e*P **P** 22 14 41.1 +0.1
comp=Z,17nm,1.6s
FUR **Furstenfeldbru** 75.33 325 P **P** 22 14 42.5 +1.2
comp=Z,55nm,0.8s
CMSA **Cobar Meteorol** 75.36 120 P **P** 22 14 42.5 +0.6
comp=Z,24nm,1.0s
CMSA **Cobar Meteorol** 75.36 120 P **P** 22 14 41.9 +0.1
comp=Z,24nm,1.0s
CMSA **Cobar Meteorol** 75.36 120 P **P** 22 14 42.9 +1.0
CMSA **Cobar Meteorol** 75.36 120 P **P** 22 14 42.5 +0.6
comp=Z,24nm,1.0s
BRG **Berggiesshubel** 75.36 328 P **P** 22 14 42.3 +0.9
comp=Z,9.5nm,0.8s
BRG **Berggiesshubel** 75.36 328 *e*P P 22 14 46.9 +5.6
BRG Amp 22 14 48.4
comp=Z,8.5nm,1.0s
BRG **Berggiesshubel** 75.36 328 S S 22 24 30.0 +9.2
BRG **Berggiesshubel** 75.36 328 SS SS 22 29 17.0 +5.7
DAVOX **Davos/Dischmat** 75.42 323 LR LR 22 49 18.6
comp=Z,179nm,19.9s,baz=124,slow=37
SNAA **Sanae** 75.43 198 ⇓P **P** 22 14 41.6 0.0
comp=Z,173nm,0.9s
SNAA **Sanae** 75.43 198 P **P** 22 14 40.8 -0.8
comp=Z,8.9nm,1.0s,baz=76,slow=6.1,SNR=9.5
SNAA LR LR 22 39 53.6
comp=Z,495nm,21.5s,baz=18,slow=29
comp=Z,8.9nm,1.0s
SNAA **Sanae** 75.43 198 P **P** 22 14 41.0 -0.6
SNAA pmax pmax
comp=Z,14nm,1.1s
SNAA MLR MLR
comp=Z,500nm,20.0s
SNAA **Sanae** 75.43 198 **P** 22 14 41.0 -0.6
SNAA IAMs_20 IAMs_20 22 39 31.8
comp=Z,505nm,20.0s
SNAA **Sanae** 75.43 198 P **P** 22 14 41.9 +0.3
comp=Z,12nm,1.1s
GRC3 **Grafenberg Arr** 75.54 326 P **P** 22 14 42.0 -0.5
comp=Z,18nm,1.2s
GRB5 **Grafenberg Arr** 75.60 326 P **P** 22 14 43.8 +1.0
comp=Z,25nm,0.9s
DAVA **Damuels** 75.68 324 *e*P **P** 22 14 44.9 +1.4
comp=Z,7.8nm,0.8s
DAVA **Damuels** 75.68 324 P **P** 22 14 43.2 -0.3
comp=Z,40nm,0.9s
GRC4 **Grafenberg Arr** 75.68 326 P **P** 22 14 43.2 -0.1
comp=Z,25nm,1.0s
UBR **Ueberruh** 75.75 324 P **P** 22 14 43.8 +0.1
comp=Z,35nm,0.9s
GRB1 **Grafenberg Arr** 75.77 326 P **P** 22 14 45.7 +2.0
comp=Z,18nm,1.1s
NKC **Novy Kostel** 75.80 327 P **P** 22 14 45.2 +1.3
comp=Z,47nm,1.1s
JMN **Monobe** 75.84 52 P **P** 22 14 45.0 +0.4
JMN IAmb IAmb 22 15 05.9
comp=Z,22nm,1.0s
GRB4 **Grafenberg Arr** 75.86 326 P **P** 22 14 46.5 +2.3
comp=Z,24nm,1.1s
MAHO **Mahon** 75.88 315 P **P** 22 14 45.8 +1.3
TANN **Tannenbergstha** 75.89 327 P **P** 22 14 43.8 -0.7
comp=Z,14nm,1.0s
ADZR **Andozero** 75.95 347 *e*P **P** 22 14 42.5 -1.9
ADZR S **S** 22 24 25.9 -0.8
ADZR SS **SS** 22 29 20.8 +1.2
ADZR pmax pmax
comp=Z,29nm,1.4s
CLL **Collm** 76.10 328 P **P** 22 14 47.6 +2.0
comp=Z,18nm,1.1s
CLL **Collm** 76.10 328 *e*P **P** 22 14 46.0 +0.4
CLL ⇑ *i*P(2) 22 14 51.0
comp=Z,31nm,1.4s
CLL *i* x x 22 14 58.9
CLL *e*S **S** 22 24 21.0 -7.9
CLL *e*SS SS 22 29 00.0 -22
CLL *ex* x 22 33 42.0
CLL LH 22 34 00.0
CLL AMS AMS 22 40 00.0
comp=N,400nm,30.4s
CLL AMS AMS 22 40 00.0
comp=E,300nm,30.6s
CLL AMS AMS 22 42 00.0
comp=Z,300nm,30.9s
CLL AMS AMS 22 49 00.0
comp=Z,200nm,21.6s
GRA3 **Grafenberg Arr** 76.15 326 P **P** 22 14 48.5 +2.6
comp=Z,16nm,0.8s
GRA1 **Grafenberg Arr** 76.17 326 P **P** 22 14 47.4 +1.3
comp=Z,28nm,1.4s
GRF **Grafenberg Arr** 76.17 326 *e*P P 22 14 51.7 +5.7
comp=Z,24nm,1.1s,baz=122,slow=6.8
BNX **BinXian** 76.30 39 ⇑P **P** 22 14 47.4 +0.5
BNX pP **pwP** 22 14 54.1 -2.6
BNX PcP **PcP** 22 14 59.8 +1.1
BNX S **S** 22 24 31.9 +0.5
BNX sS sS 22 24 41.6 +6.3
BNX pmax pmax
comp=Z,12nm,1.0s
BNX pmax pmax
comp=Z,250nm,4.6s
BNX L L
comp=Z,480nm,19.5s
BNX L L
comp=Z,260nm,16.8s
BNX L L
comp=Z,340nm,23.9s
CTA **Charters Tower** 76.49 109 P **P** 22 14 49.1 +0.6
comp=Z,6.9nm,1.1s
CTA **Charters Tower** 76.49 109 LR LR 22 44 47.6
comp=Z,936nm,21.4s,baz=250,slow=33
CTA **Charters Tower** 76.49 109 P **P** 22 14 49.0 +0.4
CTAO **Charters Tower** 76.49 109 P **P** 22 14 49.0 +0.4
CTAO **Charters Tower** 76.49 109 P **P** 22 14 47.8 -0.7
CTAO pmax pmax
comp=Z,21nm,1.1s
CTAO MLR MLR
comp=Z,1µm,21.0s
CTAO **Charters Tower** 76.49 109 **P** 22 14 47.8 -0.7
CTAO IAmb IAmb 22 15 11.3
comp=Z,21nm,1.1s
CTAO **Charters Tower** 76.49 109 P **P** 22 14 48.9 +0.4
comp=Z,17nm,1.1s
VNA2 **Neumayer--Watz** 76.68 199 ⇓P **P** 22 14 48.8 +0.2
comp=Z,9.3nm,0.9s,baz=67,slow=5.2
VNA2 **Neumayer--Watz** 76.68 199 P **P** 22 14 49.0 +0.4
comp=Z,20nm,1.1s
SENIN **Lac Senin/Sane** 76.77 322 IAmb IAmb 22 15 02.2
comp=Z,17nm,0.8s
STU **Stuttgart** 76.83 325 P **P** 22 14 51.1 +1.3
comp=Z,19nm,0.7s
VNA1 **Neumayer--Stat** 76.91 199 ⇓P **P** 22 14 50.3 +0.4
comp=Z,9.0nm,1.0s
MDJ **Mudanjiang** 77.16 40 P **P** 22 14 51.9 +0.2
MDJ S **S** 22 24 40.8 0.0
MDJ pmax pmax
comp=Z,5.0nm,0.6s
MDJ L L
comp=Z,460nm,13.3s
MDJ L L
comp=Z,380nm,11.1s
MDJ L L
comp=Z,490nm,16.1s
FINES **FINESS Array B** 77.24 341 P **P** 22 14 50.8 -1.0
comp=Z,3.0nm,0.8s,baz=128,slow=12,SNR=5.3
FINES LR LR 22 49 32.4
comp=Z,305nm,21.0s,baz=146,slow=36
comp=Z,3.0nm,0.8s
FINES **FINESS Array B** 77.24 341 P **P** 22 14 50.7 -1.1
VNA3 **Neumayer Olymp** 77.47 199 ⇓P **P** 22 14 53.3 +0.3
comp=Z,13nm,0.8s
VNA3 **Neumayer Olymp** 77.47 199 P **P** 22 14 53.4 +0.3
comp=Z,30nm,1.4s

FLTG	**Flechtingen**	**77.58**	**329**	P		**P**		**22 14 54.4**	**+0.5**
	comp=Z,14nm,0.9s								
CAN	**Canberra**	**77.99**	**124**	P		P		22 15 01.9	+5.1
CAN	**Canberra**	**77.99**	**124**	P		**P**		**22 14 58.2**	**+1.4**
CAN	**Canberra**	**77.99**	**124**	P		**P**		**22 14 57.4**	**+0.6**
	comp=Z,23nm,1.9s								
AUMTS	**Mt Stromlo**	**78.00**	**124**	P		**P**		**22 14 56.7**	**-0.1**
CNB	**Canberra Magne**	**78.29**	**124**	P		P		22 15 07.0	+8.6
PMG	**Port Moresby**	**78.47**	**98**	LR		LR		22 45 39.2	
	comp=Z,342nm,21.1s,baz=260,slow=33								
PMG	**Port Moresby**	**78.47**	**98**	P		**P**		**22 15 00.7**	**+1.0**
PMG	**Port Moresby**	**78.47**	**98**	P		**P**		**22 15 00.4**	**+0.7**
PMG	**Port Moresby**	**78.47**	**98**	P		**P**		**22 14 59.4**	**-0.3**
PMG				pmax	pmax				
	comp=Z,30nm,0.9s								
PMG	**Port Moresby**	**78.47**	**98**			**P**		**22 14 59.4**	**-0.3**
PMG				IAmb	IAmb			22 15 01.3	
	comp=Z,30nm,0.8s								
PMG	**Port Moresby**	**78.47**	**98**	P		**P**		**22 15 00.7**	**+1.0**
PMG	**Port Moresby**	**78.47**	**98**	P		**P**		**22 15 00.8**	**+1.0**
	comp=Z,33nm,0.9s								
HEH	**HeiHe**	**78.49**	**35**	*e*P		**P**		**22 14 59.6**	**+0.6**
HEH				pmax	pmax				
	comp=Z,8.0nm,0.9s								
HEH				L	L				
	comp=Z,330nm,19.0s								
HEH				L	L				
	comp=Z,510nm,21.6s								
HEH				L	L				
	comp=Z,460nm,17.5s								
USA0B	**Ussuriysk Arra**	**78.53**	**41**⇓	*e*P		**P**		**22 14 59.2**	**-0.2**
USA0B	**Ussuriysk Arra**	**78.53**	**41**			**P**		**22 14 58.8**	**-0.5**
USRK	**Ussuriysk Ar.**	**78.53**	**41**	P		**P**		**22 14 58.6**	**-0.8**
	comp=Z,2.4nm,0.6s,baz=262,slow=4.4,SNR=5.6								
USRK				LR		LR		22 48 24.6	
	comp=Z,228nm,21.8s,baz=231,slow=35								
	comp=Z,2.4nm,0.6s								
CART	**Cartagena**	**78.81**	**311**	IAMs_20	IAMs_20			22 53 29.6	
	comp=Z,343nm,21.0s								
WLF	**Walferdange**	**79.00**	**324**	P		**P**		**22 15 02.0**	**+0.2**
NRIK	**Noril'sk**	**79.33**	**7**⇓	*e*P		**P**		**22 15 01.4**	**-1.8**
NRIK				pmax	pmax				
	comp=Z,10.0nm,1.1s								
GUMO	**Guam**	**79.99**	**74**	LR		LR		22 48 11.4	
	comp=Z,173nm,21.2s,baz=239,slow=34								
MDT	**Midelt**	**80.06**	**306**	LR		LR		22 50 38.8	
	comp=Z,871nm,19.6s,baz=114,slow=36								
ZEA	**Zeya**	**80.12**	**31**	*e*P		**P**		**22 15 10.9**	**+3.1**
ZEA				pmax	pmax				
	comp=Z,10.0nm,1.4s								
ZEA				MLR	MLR				
	comp=Z,300nm,21.0s								
MAJO	**Matsushiro**	**80.14**	**50**	P		**P**		**22 15 09.2**	**+0.9**
MAJO	**Matsushiro**	**80.14**	**50**	P		**P**		**22 15 10.8**	**+2.5**
	comp=Z,19nm,1.9s								
MJAR	**Matsushiro Arr**	**80.14**	**50**	P		**P**		**22 15 08.0**	**-0.4**
	comp=Z,6.1nm,1.0s,baz=244,slow=5.8,SNR=10								
MJAR				LR		LR		22 49 40.7	
	comp=Z,165nm,18.8s,baz=246,slow=35								
	comp=Z,6.1nm,1.0s								
MJAR	**Matsushiro Arr**	**80.14**	**50**	P		**P**		**22 15 08.0**	**-0.4**
MJAR				pmax	pmax				
	comp=Z,10.0nm,1.0s								
MJAR	**Matsushiro Arr**	**80.14**	**50**			**P**		**22 15 08.0**	**-0.4**
MD01	**Midelt array s**	**80.20**	**306**			**P**		**22 15 08.8**	**-0.1**
EIDS	**Eidsvold**	**80.48**	**114**	P		**P**		**22 15 10.1**	**-0.4**
EIDS				IAmb	IAmb			22 15 27.6	
	comp=Z,44nm,1.7s								
KLR	**Kul'dur**	**80.51**	**37**	LR		LR		22 50 30.0	
	comp=Z,224nm,21.8s,baz=254,slow=36								
KLR	**Kul'dur**	**80.51**	**37**⇑	*e*P		**P**		**22 15 09.0**	**-1.1**
KLR				pmax	pmax				
	comp=Z,13nm,1.0s								
ARMA	**Armidale**	**80.52**	**119**	P		P		22 15 19.8	+9.1
ARMA	**Armidale**	**80.52**	**119**	P		**P**		**22 15 11.3**	**+0.6**
ARMA				IAmb	IAmb			22 15 33.6	
	comp=Z,59nm,1.6s								
JCJ	**Chichijima**	**80.64**	**61**	LR		LR		22 46 16.2	
	comp=Z,138nm,20.1s,baz=241,slow=32								
HFS	**Hagfors**	**80.87**	**336**	P		**P**		**22 15 11.2**	**-0.6**
	comp=Z,3.4nm,0.6s,baz=126,slow=7.5,SNR=5.6								
	comp=Z,3.4nm,0.6s								
QSPA	**South Pole Qui**	**81.11**	**180**	P		**P**		**22 15 12.9**	**-0.3**
	comp=Z,6.9nm,1.0s,baz=328,slow=1.6,SNR=8.0								
QSPA				LR		LR		22 45 40.8	
	comp=Z,315nm,20.8s,baz=284,slow=32								
	comp=Z,6.9nm,1.0s								
QSPA	**South Pole Qui**	**81.11**	**180**	P		**P**		**22 15 12.4**	**-0.8**
QSPA	**South Pole Qui**	**81.11**	**180**	P		**P**		**22 15 13.4**	**+0.2**
	comp=Z,24nm,1.5s								
EMAL	**Malaga-Limoner**	**81.12**	**309**	P		**P**		**22 15 13.4**	**-0.1**
ESDC	**Sonseca Array**	**81.69**	**312**	P		**P**		**22 15 16.1**	**-0.5**
	comp=Z,2.0nm,0.8s,baz=105,slow=4.2,SNR=12								
ESDC				LR		LR		22 50 43.2	
	comp=Z,170nm,18.4s,baz=110,slow=35								
	comp=Z,2.0nm,0.8s								
ESDC	**Sonseca Array**	**81.69**	**312**			**P**		**22 15 16.1**	**-0.5**
TIO	**Tiouine**	**81.69**	**303**	P		**P**		**22 15 16.0**	**-1.0**
TIO	**Tiouine**	**81.69**	**303**	P		**P**		**22 15 17.8**	**+0.8**
	comp=Z,20nm,1.4s								
PAB	**San Pablo**	**81.93**	**312**	P		**P**		**22 15 17.9**	**0.0**
PAB				pmax	pmax				
	comp=Z,34nm,1.3s								
PAB	**San Pablo**	**81.93**	**312**	P		**P**		**22 15 17.9**	**0.0**
PAB				IAmb	IAmb			22 15 35.6	
	comp=Z,34nm,1.2s								
VNDA	**Vanda**	**82.29**	**167**	P		**P**		**22 15 19.4**	**+0.4**
	comp=Z,1.8nm,1.0s,baz=279,slow=6.7,SNR=5.6								
VNDA				LR		LR		22 46 32.9	
	comp=Z,229nm,20.8s,baz=270,slow=32								
	comp=Z,1.8nm,1.0s								
VNDA	**Vanda**	**82.29**	**167**	P		**P**		**22 15 19.5**	**+0.4**
VNDA				pmax	pmax				
	comp=Z,12nm,1.3s								
VNDA	**Vanda**	**82.29**	**167**			**P**		**22 15 19.5**	**+0.4**
VNDA	**Vanda**	**82.29**	**167**			**P**		**22 15 20.2**	**+1.1**
	comp=Z,8.7nm,1.4s								
NB2	**NORSAR Subarra**	**82.40**	**336**	P		P		22 15 24.1	+4.3
	comp=Z,45nm,2.0s,baz=124,slow=5.3								
NB2	**NORSAR Subarra**	**82.40**	**336**	P		P		22 15 24.0	+4.2
NOA	**NORSAR Array B**	**82.40**	**336**	P		**P**		**22 15 19.1**	**-0.7**
	comp=Z,0.9nm,0.8s,baz=112,slow=5.5,SNR=3.5								
NOA				LR		LR		22 50 53.7	
	comp=Z,142nm,21.4s,baz=100,slow=35								
	comp=Z,0.9nm,0.8s								
AVE	**Averroes**	**82.45**	**305**	P		**P**		**22 15 19.3**	**-1.5**
ARCES	**ARCESS Array B**	**83.46**	**346**	P		**P**		**22 15 24.4**	**-0.7**
	comp=Z,8.2nm,0.8s,baz=134,slow=5.2,SNR=12								
ARCES				LR		LR		22 53 02.9	
	comp=Z,266nm,18.7s,baz=136,slow=36								
	comp=Z,8.2nm,0.8s								
ARCES	**ARCESS Array B**	**83.46**	**346**	P		**P**		**22 15 24.8**	**-0.3**
ARCES				pmax	pmax				
	comp=Z,62nm,1.6s								
ARCES	**ARCESS Array B**	**83.46**	**346**	P		**P**		**22 15 24.8**	**-0.3**
BELA	**Belgrano 2**	**83.86**	**192**			**P**		**22 15 27.0**	**-0.2**
BELA				IAmb	IAmb			22 15 28.3	
	comp=Z,15nm,1.1s								
KRVT	**Keravat (AS076**	**83.96**	**93**	LR		LR		22 51 58.0	
	comp=Z,148nm,21.5s,baz=270,slow=35								
EVO	**Evora**	**84.36**	**310**	P		**P**		**22 15 29.0**	**-1.3**
YAK	**Yakutsk**	**85.34**	**25**	LR		LR		22 52 41.0	
	comp=Z,393nm,21.2s,baz=240,slow=35								
YAK	**Yakutsk**	**85.34**	**25**	P		**P**		**22 15 33.3**	**-1.4**
YAK				IAmb	IAmb			22 15 41.6	
	comp=Z,26nm,0.9s								
YAK	**Yakutsk**	**85.34**	**25**	P		**P**		**22 15 34.3**	**-0.4**
	comp=Z,30nm,0.9s								
EKA	**Eskdalemuir Ar**	**86.53**	**327**	P		**P**		**22 15 39.9**	**-0.9**
	comp=Z,2.4nm,0.8s,baz=129,slow=5.6,SNR=2.4								
	comp=Z,2.4nm,0.8s								
YSS	**Yuzhno-Sakhali**	**86.57**	**42**	P		**P**		**22 15 42.0**	**+0.8**
YSS	**Yuzhno-Sakhali**	**86.57**	**42**	*e*P		**P**		**22 15 40.2**	**-1.0**
YSS				*e*				22 18 58.4	
YSS				*e*S		**S**		**22 26 15.0**	**-2.7**
YSS				*e*SS		**SS**		**22 31 55.4**	**-3.4**
YSS				pmax	pmax				
	comp=Z,40nm,1.3s								
YSS				pmax	pmax				
	comp=Z,500nm,3.6s								
YSS				smax	smax				
	comp=N,300nm,3.6s								
YSS				MLR	MLR				
	comp=Z,400nm,16.0s								
YSS				MLR	MLR				
	comp=N,400nm,17.0s								
YSS				MLR	MLR				
	comp=E,600nm,16.0s								
TYV	**Tymovskoe**	**87.65**	**38**	*e*P		**P**		**22 15 43.4**	**-3.0**
TYV				pmax	pmax				
	comp=Z,22nm,1.5s								
TYV				pmax	pmax				
	comp=Z,500nm,3.4s								
TIXI	**Tiksi**	**89.79**	**16**	LR		LR		22 56 16.6	
	comp=Z,527nm,21.2s,baz=246,slow=36								
TIXI	**Tiksi**	**89.79**	**16**	P		**P**		**22 15 55.2**	**-0.8**
TIXI				pmax	pmax				
	comp=Z,25nm,1.4s								
TIXI	**Tiksi**	**89.79**	**16**	P		**P**		**22 15 55.1**	**-0.8**
TIXI				IAmb	IAmb			22 16 21.6	
	comp=Z,24nm,1.4s								
TIXI	**Tiksi**	**89.79**	**16**	P		**P**		**22 15 55.3**	**-0.7**
	comp=Z,17nm,1.1s								
HSPB	**Hornsund (broa**	**90.71**	**350**	P		**P**		**22 15 59.2**	**-1.0**
HNR	**Honiara**	**90.96**	**100**	LR		LR		22 51 55.5	
	comp=Z,250nm,20.3s,baz=324,slow=32								
SPITS	**Spitsbergen Ar**	**91.32**	**351**	LR		LR		22 59 25.9	
	comp=Z,138nm,19.3s,baz=104,slow=37								
JMIC	**Jan Mayen**	**93.86**	**341**	LR		LR		22 59 46.5	
	comp=Z,138nm,18.7s,baz=42,slow=36								
MA2	**Magadan**	**94.24**	**30**	LR		LR		22 59 58.4	
	comp=Z,230nm,19.7s,baz=256,slow=36								
DZM	**Mont Dzumac**	**94.88**	**113**	LR		LR		22 57 31.8	
	comp=Z,319nm,20.3s,baz=296,slow=34								
SEY	**Seymchan**	**95.56**	**27**	LR		LR		23 00 28.6	
	comp=Z,512nm,21.0s,baz=270,slow=36								
SEY	**Seymchan**	**95.56**	**27**⇑	*e*P		**P**		**22 16 24.1**	**+1.3**
SEY				pmax	pmax				
	comp=Z,21nm,2.2s								
PETK	**Petropavlovsk-**	**97.19**	**37**	LR		LR		23 01 31.8	
	comp=Z,111nm,21.7s,baz=246,slow=36								
BORG	**Borgarnes**	**97.50**	**334**	LR		LR		23 00 59.7	
	comp=Z,115nm,21.6s,baz=95,slow=36								
PMSA	**Palmer Station**	**98.13**	**199**	LR		LR		22 54 43.4	
	comp=Z,143nm,18.4s,baz=124,slow=32								
URZ	**Urewera**	**99.56**	**131**	LR		LR		22 54 02.2	
	comp=Z,200nm,21.1s,baz=242,slow=31								
RIB01	**Linhares ES**	**103.64**	**248**	*e*P		**Pdif**		**22 16 50.6**	**-10**
ITQB	**Itaqui**	**113.97**	**232**	*e*P		**Pdif**		**22 17 36.5**	**-9.3**
LL06	**Loncomilla**	**117.91**	**212**	IAMs_20	IAMs_20			23 22 53.3	
	comp=Z,145nm,19.0s								
ILAR	**Eielson Array**	**119.26**	**16**	PKP		**PKPdf**		**22 21 45.5**	**-1.4**
	comp=Z,0.7nm,0.7s,baz=296,slow=2.5,SNR=7.5								
ILAR				PP		**PP**		**22 23 06.9**	**-0.2**
	comp=Z,1.5nm,1.0s,baz=313,slow=5.1,SNR=4.6								
ILAR	**Eielson Array**	**119.26**	**16**	PKIKP		**PKiKP**		**22 21 47.9**	**+1.0**
ILAR	**Eielson Array**	**119.26**	**16**	PKPdf		**PKiKP**		**22 21 47.9**	**+1.0**
PDRB	**Porto dos Gac**	**120.90**	**251**	*e*P		**PKPdf**		**22 21 44.0**	**-7.4**
YKA	**Yellowknife Ar**	**126.51**	**1**	PKP		**PKPdf**		**22 21 59.5**	**-1.2**
	comp=Z,2.7nm,0.9s,baz=348,slow=2.3,SNR=7.9								
YKA				PP		**PP**		**22 23 57.0**	**+1.1**
	comp=Z,2.9nm,1.1s,baz=350,slow=6.6,SNR=3.9								
LPAZ	**La Paz**	**129.43**	**240**	PKP		**PKiKP**		**22 22 08.5**	**-0.7**
	comp=Z,3.1nm,0.9s,baz=113,slow=2.2,SNR=6.3								
LPAZ	**La Paz**	**129.43**	**240**	*e*P		PKPdf		22 21 58.5	-10
PPT2	**Papeete2**	**134.89**	**126**	*e*SS		SS		22 42 42.6	-2.5
	comp=Z,234nm,28.5s								
PPT2				*e*LR	LR			23 05 19.3	
	comp=Z,192nm,28.5s								
PPT2				*e*LR	LR			23 05 28.0	
	comp=Z,258nm,26.0s								
NNA	**Nana**	**138.90**	**240**	IAMs_20	IAMs_20			23 22 07.6	
	comp=Z,314nm,21.0s								
I07A	**Izee**	**144.46**	**9**	PKPdf		**PKPdf**		**22 22 34.3**	**-0.4**
PDAR	**Pinedale Array**	**146.19**	**356**	PKPbc		**PKPab**		**22 22 38.9**	**-0.7**
	comp=Z,6.6nm,1.1s,baz=12,slow=3.3,SNR=16								
TAOE	**Nuku Hiva Isla**	**147.29**	**122**	*e*LR		LR		23 11 08.1	
	comp=Z,413nm,28.9s								
ORV	**Oroville**	**148.46**	**13**	PKP2		**PKPbc**		**22 22 44.8**	**-0.3**
ORV	**Oroville**	**148.46**	**13**			**PKPbc**		**22 22 44.8**	**-0.3**
BSUT	**Blindstream Ca**	**148.49**	**357**			**PKPbc**		**22 22 45.1**	**-0.5**
NVAR	**Mina Array Bea**	**150.17**	**9**	PKPbc		**PKiKP**		**22 22 50.6**	**+0.2**
	comp=Z,8.8nm,0.9s,baz=0.0,slow=3.0,SNR=14								
NVAR	**Mina Array Bea**	**150.17**	**9**	PKPbc		**PKPbc**		**22 22 49.0**	**-0.6**
TXAR	**Lajitas Array**	**158.07**	**339**	PKP		**PKPdf**		**22 22 56.2**	**+0.4**
	comp=Z,0.6nm,1.0s,baz=26,slow=2.0,SNR=2.6								
TXAR				PKPab		**pPKPab**		**22 23 30.2**	**-1.8**
	comp=Z,4.7nm,0.8s,baz=25,slow=5.3,SNR=5.3								
TXAR	**Lajitas Array**	**158.07**	**339**			**PKPdf**		**22 22 54.5**	**-1.3**

NIED ***24*** *22:17:35.6, 30˚.46N×138˚.84E, h462km, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.58; $M_{\theta\theta}$0.96; $M_{\phi\phi}$-0.38; $M_{r\theta}$0.63; $M_{\theta\phi}$0.13; $M_{r\phi}$-0.60; Fault plane solution: $M_0$1.21000×10^{16} NP1:ϕ_s53.00000°, δ37.00000°, λ-150.00000°. NP2:ϕ_s298.00000°, δ73.00000°, λ-57.00000°.*

JMA ***24*** *22:17:35.6±0.3, 30˚N±2˚×13˚9E±˚, h462km, MV4.4/36, NEAR TORISHIMA IS*

MOS ***24*** *22:17:36.5±0.7, 30˚.43N×138˚.32E, h437km, mb4.6/32, Error ellipse: s-maj=8.6km s-min=4.6km az=107.7*

BJI ***24*** *22:17:37.3, 30˚.45N×138˚.37E, h450km, mB5.0/15, mb5.0/64*

IDC ***24*** *22:17:37.4±0.6, 30˚.44N×138˚.42E, h436km±5km, mb3.9/48, mbtmp4.8/57, Error ellipse: s-maj=7.3km s-min=6.7km az=112.0*

NEIC ***24*** *22:17:38.1±1.4, 30˚.44N±0˚.09×138˚.4E±0˚.1, h438km±3km, mb4.5/254, Error ellipse: s-maj=13.2km s-min=12.3km az=107.0*

GFZ ***24*** *22:17:38.0±0.2, 30˚N±2˚×13˚8E±˚, h438km±2km, M4.9/97, mb4.7/97, Error ellipse: s-maj=5.1km s-min=3.4km az=112.3, confirmed*

ISC 24 22:17:37.6±0.4,**30˚.40N**±0˚.03×**138˚.47E**±0˚.04,**h440**km±4km, **n594,**σ1**^{s}07**/559,**mb4.5**/262,**21C-17D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID	Time			Res
					Op	ISC	h	m	s	ISC
JHCJ	**Hachijojimakas**	**2.89**	**23**	*e*P		**P**	**22**	**18**	**42.5**	**-0.5**
JHCJ				*e*S		**S**	**22**	**19**	**34.2**	**-2.0**
JHJ	**Hachijo jima 2**	**2.93**	**22**	P		**P**	**22**	**18**	**42.6**	**-0.7**
	139nm,0.3s,baz=64,slow=22,SNR=115									
JHJ				S		**S**	**22**	**19**	**35.6**	**-1.1**
	113nm,0.3s,baz=49,slow=22,SNR=8.4									
JHJ2	**Mitsune**	**2.94**	**23**	P		**P**	**22**	**18**	**43.0**	**-0.3**
JHJ2	**Mitsune**	**2.94**	**23**	S		**S**	**22**	**19**	**35.9**	**-0.9**
JHJ2	**Mitsune**	**2.94**	**23**			**P**	**22**	**18**	**42.8**	**-0.5**
JHJ2	**Mitsune**	**2.94**	**23**	P		**P**	**22**	**18**	**43.0**	**-0.3**
JHJ2	**Mitsune**	**2.94**	**23**	P		**P**	**22**	**18**	**42.5**	**-0.8**
JHJ2				*e*S		**S**	**22**	**19**	**35.5**	**-1.3**
TTO1	**TONANKAI O.B.S**	**3.52**	**336**	P		**P**	**22**	**18**	**49.4**	**+1.9**
JTNC	**Tanabenakahech**	**4.18**	**325**	*e*P		**P**	**22**	**18**	**54.9**	**+1.1**
JTNC				*e*S		**S**	**22**	**19**	**55.8**	**0.0**
JIE	**Ise**	**4.25**	**340**	*e*P		**P**	**22**	**18**	**55.0**	**+0.8**
HMMJ	**Hamamatsu 2**	**4.49**	**352**	*e*P		**P**	**22**	**18**	**57.5**	**+1.0**
CBIJ	**Chichi jima**	**4.63**	**134**	P		**P**	**22**	**18**	**55.8**	**-2.3**
JCJ	**Chichijima**	**4.63**	**134**	P		P	22	18	53.0	-5.0
	297nm,0.3s,baz=6.5,slow=17,SNR=104									
JCJ				S		**S**	**22**	**19**	**55.2**	**-8.3**
	1µm,0.3s,baz=297,slow=23,SNR=26									
JCJ	**Chichijima**	**4.63**	**134**	P		**P**	**22**	**18**	**56.4**	**-1.7**
JCJ	**Chichijima**	**4.63**	**134**			**P**	**22**	**18**	**56.1**	**-1.9**
JCJ	**Chichijima**	**4.63**	**134**	P		**P**	**22**	**18**	**56.2**	**-1.9**
BSO3	**Boso 3**	**4.71**	**21**	*e*P		**P**	**22**	**18**	**56.2**	**-2.1**
BSO3				*e*S		**S**	**22**	**20**	**00.9**	**-3.3**
BSO1	**Boso 1**	**4.74**	**26**	*e*P		**P**	**22**	**18**	**56.9**	**-1.3**
BSO1				*e*S		**S**	**22**	**20**	**00.1**	**-4.0**
INU	**Inuyama**	**5.08**	**346**	P		**P**	**22**	**19**	**03.0**	**+0.8**
INU	**Inuyama**	**5.08**	**346**			**P**	**22**	**19**	**03.0**	**+0.8**
INU	**Inuyama**	**5.08**	**346**	P		**P**	**22**	**19**	**03.3**	**+1.1**
	comp=Z,290nm,1.1s									
JMN	**Monobe**	**5.12**	**312**	P		**P**	**22**	**19**	**03.0**	**+0.4**
JMN	**Monobe**	**5.12**	**312**			**P**	**22**	**19**	**04.1**	**+1.5**
JMN	**Monobe**	**5.12**	**312**	P		**P**	**22**	**19**	**04.8**	**+2.2**
	comp=Z,124nm,0.8s									
JGF	**Kuroka**	**5.27**	**350**	P		**P**	**22**	**19**	**04.3**	**+0.2**
JGF	**Kuroka**	**5.27**	**350**	S		**S**	**22**	**20**	**14.5**	**-0.2**
JGF	**Kuroka**	**5.27**	**350**			**P**	**22**	**19**	**04.1**	**0.0**
JGF	**Kuroka**	**5.27**	**350**	P		**P**	**22**	**19**	**04.6**	**+0.5**
	comp=Z,166nm,1.1s									
MJAR	**Matsushiro Arr**	**6.13**	**358**	P		**P**	**22**	**19**	**11.5**	**-1.3**
	comp=Z,103nm,0.5s,baz=175,slow=11,SNR=251									
MJAR				S		**S**	**22**	**20**	**27.6**	**-3.1**
	comp=Z,30nm,0.7s,baz=182,slow=21,SNR=5.7									
MAJO	**Matsushiro**	**6.13**	**358**	P		**P**	**22**	**19**	**11.5**	**-1.3**
MAJO	**Matsushiro**	**6.13**	**358**	S		**S**	**22**	**20**	**31.0**	**+0.3**
MAJO	**Matsushiro**	**6.13**	**358**	P		**P**	**22**	**19**	**11.7**	**-1.1**
MAJO	**Matsushiro**	**6.13**	**358**	P		**P**	**22**	**19**	**11.7**	**-1.1**
	comp=Z,331nm,0.6s									
MJB9	**Matsu-Tunnel**	**6.13**	**358**			**P**	**22**	**19**	**13.1**	**+0.3**
JHS	**Saijyo**	**6.43**	**317**	P		**P**	**22**	**19**	**15.4**	**-0.6**
	comp=Z,0.1nm,0.8s									
JSU	**Suzuyama**	**6.97**	**281**	P		**P**	**22**	**19**	**22.0**	**+0.1**
JSU	**Suzuyama**	**6.97**	**281**			**P**	**22**	**19**	**23.4**	**+1.5**
JSU	**Suzuyama**	**6.97**	**281**	P		**P**	**22**	**19**	**23.6**	**+1.7**
	comp=Z,52nm,1.4s									
JNU	**Nakatsue**	**7.01**	**295**	P		**P**	**22**	**19**	**21.4**	**-0.9**
	comp=Z,18nm,0.8s,baz=170,slow=9.2,SNR=28									
JNU				S		**S**	**22**	**20**	**48.1**	**+0.2**
	comp=Z,6.8nm,0.5s,baz=198,slow=20,SNR=5.8									
JMZ	**Minamidaito 2**	**7.86**	**236**	P		**P**	**22**	**19**	**30.9**	**-0.6**
JTU	**Tsushima**	**8.70**	**301**	P		**P**	**22**	**19**	**41.2**	**+0.8**
JTU	**Tsushima**	**8.70**	**301**	P		**P**	**22**	**19**	**41.0**	**+0.6**
JOW	**Kunigami**	**9.64**	**251**	P		**P**	**22**	**19**	**51.9**	**+1.0**
	comp=Z,68nm,0.5s,baz=85,slow=15,SNR=26									
JOW				S		**S**	**22**	**21**	**41.6**	**+1.0**
	comp=Z,27nm,1.1s,baz=69,slow=29,SNR=6.6									
JOW	**Kunigami**	**9.64**	**251**	P		**P**	**22**	**19**	**51.3**	**+0.4**
JOW	**Kunigami**	**9.64**	**251**	P		**P**	**22**	**19**	**52.7**	**+1.8**
JOW	**Kunigami**	**9.64**	**251**	P		**P**	**22**	**19**	**53.1**	**+2.3**
	comp=Z,126nm,1.0s									
JTM	**Tenmabayashi**	**10.58**	**11**	P		**P**	**22**	**20**	**00.9**	**0.0**
JTM	**Tenmabayashi**	**10.58**	**11**			**P**	**22**	**20**	**01.0**	**+0.2**
JTM	**Tenmabayashi**	**10.58**	**11**	P		**P**	**22**	**20**	**01.3**	**+0.4**
	comp=Z,440nm,0.7s									
TJN	**Taejon**	**11.03**	**306**⇑	*i*P		**P**	**22**	**20**	**06.4**	**+0.5**
TJN	**Taejon**	**11.03**	**306**	P		**P**	**22**	**20**	**06.3**	**+0.5**
	comp=Z,92nm,0.7s									
KSRS	**Korea Array**	**11.23**	**312**	P		**P**	**22**	**20**	**08.6**	**+0.5**
	comp=Z,18nm,0.5s,baz=125,slow=11,SNR=70									
KSRS				S		**S**	**22**	**22**	**12.2**	**+0.1**
	comp=Z,2.0nm,0.7s,baz=118,slow=21,SNR=5.9									
KSRS				ScP		**ScP**	**22**	**28**	**13.7**	**+1.4**
	comp=Z,3.9nm,0.8s,baz=183,slow=1.8,SNR=14									
KSAR	**Wonju Array Be**	**11.25**	**311**	P		**P**	**22**	**20**	**08.1**	**-0.2**
KSAR	**Wonju Array Be**	**11.25**	**311**			**P**	**22**	**20**	**08.1**	**-0.2**
KS19	**Wonju Array Si**	**11.29**	**312**			**P**	**22**	**20**	**09.1**	**+0.3**
ERM	**Erimo**	**12.19**	**17**	P		**P**	**22**	**20**	**19.0**	**+0.6**
ERM	**Erimo**	**12.19**	**17**	P		**P**	**22**	**20**	**19.3**	**+0.9**
ERM	**Erimo**	**12.19**	**17**			**P**	**22**	**20**	**19.3**	**+0.9**
ERM	**Erimo**	**12.19**	**17**	P		**P**	**22**	**20**	**19.0**	**+0.6**
	comp=Z,178nm,0.9s									
JEM	**Erimo**	**12.19**	**17**	P		**P**	**22**	**20**	**18.8**	**+0.4**
VLA	**Vladivostok**	**13.74**	**339**	*de*P		**P**	**22**	**20**	**35.0**	**-0.2**
VLA				pmax	pmax					
	comp=Z,75nm,1.1s									
ASAJ	**Asahikawa**	**14.08**	**12**	P		**P**	**22**	**20**	**39.2**	**+0.4**
	comp=Z,44nm,0.4s,baz=214,slow=8.3,SNR=86									
ASAJ	**Asahikawa**	**14.08**	**12**	P		**P**	**22**	**20**	**39.7**	**+0.8**
JKA	**Kamikawa-asahi**	**14.08**	**12**			**P**	**22**	**20**	**39.7**	**+0.9**
JKA	**Kamikawa-asahi**	**14.08**	**12**	P		**P**	**22**	**20**	**39.8**	**+0.9**
	comp=Z,137nm,1.4s									
TEY	**Ternei**	**14.68**	**355**⇑	*e*P		**P**	**22**	**20**	**44.9**	**-0.5**
TEY				pmax	pmax					
	comp=E,20nm,0.6s									
TEY				pmax	pmax					
	comp=N,60nm,0.8s									
TEY				pmax	pmax

WHN **Wuhan** 20.79 277 ⇑P P 22 21 47.3 +0.6
WHN pmax pmax
comp=E,140nm,1.3s
SZP **Santa** 20.81 236 P P 22 21 47.8 +0.7
comp=Z,146nm,1.7s
HNS **HongShan** 20.89 296 ⇓P P 22 21 46.6 -1.0
HNS ScP **ScP** 22 28 32.3 +1.2
HNS pmax pmax
comp=Z,47nm,0.9s
HEH **HeiHe** 21.50 340 *e*P P 22 21 53.1 +0.1
HEH pmax pmax
comp=Z,67nm,0.9s
LYN **LuoYang** 22.30 288 P P 22 21 59.4 -1.1
LYN pmax pmax
comp=Z,37nm,0.8s
HIA **Hailar** 23.59 328 P P 22 22 11.9 +0.1
comp=Z,19nm,0.7s
HILR **Hailar Array B** 23.80 329 P P 22 22 14.1 +0.3
comp=Z,3.9nm,0.3s,baz=107,slow=23,SNR=13
comp=Z,3.9nm,0.3s
HHC **Hu-ho-hao-te** 24.14 303 *e*P P 22 22 16.8 -0.2
HHC pmax pmax
comp=Z,9.0nm,0.9s
HHC pmax pmax
comp=Z,170nm,4.2s
ZEA **Zeya** 24.70 344 *e*P P 22 22 21.9 +0.2
ZEA pmax pmax
comp=Z,20nm,0.6s
ENH **Enshi** 24.99 277 P P 22 22 23.4 -1.2
ENH **Enshi** 24.99 277 P P 22 22 24.1 -0.6
comp=Z,101nm,0.7s
XAN **Xi'an** 25.22 286 ⇓P P 22 22 26.0 -0.7
XAN S **S** 22 26 18.5 -1.2
XAN ScP **ScP** 22 28 43.9 +1.0
XAN pmax pmax
comp=Z,120nm,0.8s
BTO2 **Baotou** 25.34 302 *e*P P 22 22 27.6 -0.2
BTO2 S **S** 22 26 27.4 +5.7
BTO2 pmax pmax
comp=Z,23nm,0.6s
BTO2 pmax pmax
comp=Z,320nm,7.2s
PEA0B **Petropavlovsk-** 26.68 26 P P 22 22 40.1 +0.9
PEA0B pmax pmax
comp=Z,39nm,1.2s
PEA0B **Petropavlovsk-** 26.68 26 P P 22 22 40.1 +0.9
PETK **Petropavlovsk-** 26.68 26 P P 22 22 39.6 +0.3
comp=Z,6.6nm,0.7s,baz=216,slow=8.7,SNR=14
comp=Z,6.6nm,0.7s
PETK **Petropavlovsk-** 26.68 26 P P 22 22 39.9 +0.7
PETK **Petropavlovsk-** 26.68 26 P P 22 22 39.9 +0.7
LZDM **Lanzhou Array** 29.53 290 P P 22 23 04.3 -0.5
comp=Z,13nm,0.5s,baz=117,slow=8.3,SNR=41
LZDM PcP **PcP** 22 25 56.6 -0.4
comp=Z,0.9nm,0.3s,baz=47,slow=2.6,SNR=1.6
LZDM ScP **ScP** 22 28 56.9 +0.5
comp=Z,0.7nm,0.3s,baz=81,slow=3.7,SNR=5.1
comp=Z,13nm,0.5s
ULN **Ulaanbaatar** 29.69 315 P P 22 23 06.1 +0.2
ULN pmax pmax
comp=Z,5.0nm,0.5s
ULN **Ulaanbaatar** 29.69 315 P P 22 23 06.1 +0.2
CD2 **Chengdu** 29.80 280 P P 22 23 06.3 -0.7
SONM **Songino Array** 30.08 314 P P 22 23 09.0 -0.3
comp=Z,2.6nm,0.4s,baz=128,slow=9.2,SNR=6.8
SONM PcP **PcP** 22 25 56.8 -1.1
comp=Z,0.5nm,0.6s,baz=126,slow=3.5,SNR=1.9
SONM ScP **ScP** 22 28 57.6 -0.2
comp=Z,1.1nm,0.7s,baz=104,slow=3.5,SNR=5.7
comp=Z,2.6nm,0.4s
SONM **Songino Array** 30.08 314 P P 22 23 09.2 -0.1
GAMI **Galela, Maluku** 30.16 202 P P 22 23 10.1 -0.2
comp=Z,58nm,1.0s
MA2 **Magadan** 30.34 12 P P 22 23 11.3 +0.1
comp=Z,88nm,0.8s,baz=190,slow=8.0,SNR=28
comp=Z,88nm,0.8s
MA2 **Magadan** 30.34 12 *c i*P P 22 23 11.7 +0.5
MA2 pmax pmax
comp=Z,147nm,1.0s
MA2 **Magadan** 30.34 12 P 22 23 11.3 +0.1
MA2 **Magadan** 30.34 12 P P 22 23 12.2 +1.0
comp=Z,165nm,1.0s
MA2 **Magadan** 30.34 12 P P 22 23 12.1 +0.9
comp=Z,149nm,1.0s
TNTI **Ternate** 31.30 202 P P 22 23 21.5 +1.4
comp=Z,57nm,1.5s
KMI2 **Kunming** 31.95 269 P P 22 23 26.3 +0.4
KMI2 pmax pmax
comp=Z,20nm,0.9s
YAK **Yakutsk** 32.16 352 P P 22 23 26.4 -0.4
comp=Z,26nm,0.4s,baz=164,slow=8.5,SNR=9.6
comp=Z,26nm,0.4s
YAK **Yakutsk** 32.16 352 P P 22 23 26.0 -0.8
YAK **Yakutsk** 32.16 352 P P 22 23 26.6 -0.3
comp=Z,45nm,1.1s
SLVN **Son La** 32.28 262 P P 22 23 28.8 +0.1
SLVN **Son La** 32.28 262 P P 22 23 28.7 +0.1
SLVN **Son La** 32.28 262 P P 22 23 29.4 +0.8
comp=Z,45nm,1.3s
KMSI **Cibinong** 32.70 208 P P 22 23 32.5 +0.4
KMSI **Cibinong** 32.70 208 P P 22 23 32.6 +0.5
comp=Z,232nm,0.9s
GTA2 **Gaotai** 32.80 297 P P 22 23 32.1 -0.7
GTA2 S **S** 22 28 14.4 -3.1
GTA2 ScP **ScP** 22 29 07.3 +0.1
GTA2 pmax pmax
comp=Z,36nm,1.2s
GTOI **Gorontalo** 33.05 209 P P 22 23 35.4 +0.3
comp=Z,654nmcomp=Z,654nmcomp=Z,46nm,1.1s,comp=Z,46nm,1.1s
DLV **Lat** 33.29 243 P P 22 23 37.3 -0.1
comp=Z,51nm,1.3s
TLY **Talaya** 33.32 320⇑ *e*P P 22 23 37.0 0.0
TLY pmax pmax
comp=Z,6.0nm,0.8s
TLY **Talaya** 33.32 320 P P 22 23 37.8 +0.8
TOLI2 **Tolitoli** 33.63 213 P P 22 23 39.4 -0.6
TOLI2 **Tolitoli** 33.63 213 P P 22 23 39.7 -0.3
TOLI2 IAmb IAmb 22 23 43.0
comp=Z,23nm,0.9s
TOLI2 **Tolitoli** 33.63 213 P P 22 23 40.4 +0.4
comp=Z,31nm,1.4s
FAKI **Fak Fak** 33.66 191 P P 22 23 40.5 +0.2
FAKI **Fak Fak** 33.66 191 P P 22 23 41.2 +0.9
FAKI **Fak Fak** 33.66 191 P P 22 23 40.6 +0.3
comp=Z,44nm,0.8s
SEY **Seymchan** 33.76 11 P P 22 23 40.5 0.0
comp=Z,22nm,0.8s,baz=206,slow=6.6,SNR=20
comp=Z,22nm,0.8s
SEY **Seymchan** 33.76 11⇑ *e*P P 22 23 41.2 +0.7
SEY pmax pmax
comp=Z,31nm,0.9s
SANI **Sanana** 34.40 202 P P 22 23 45.4 -1.1
SANI **Sanana** 34.40 202 P P 22 23 45.7 -0.8
comp=Z,1μmcomp=Z,1μmcomp=Z,98nm,0.9s,comp=Z,98nm,0.9s
SANI **Sanana** 34.40 202 P P 22 23 45.9 -0.6
comp=Z,98nm,0.9s
APSI **Ampana** 35.02 210 P P 22 23 52.2 +0.4
APSI **Ampana** 35.02 210 P P 22 23 52.4 +0.6
comp=Z,161nm,1.2s
NLAI **Namlea** 35.17 200 P P 22 23 55.1 +2.1
comp=Z,41nm,1.0s,comp=Z,41nm,1.0s
NLAI **Namlea** 35.17 200 P P 22 23 54.8 +1.7
comp=Z,23nm,0.9s
AAI **Ambon** 35.29 198 P P 22 23 55.5 +1.5
BNDI **Bandanaira** 35.68 195 P P 22 23 57.7 +0.4
comp=Z,178nm,1.0s
PCI **Palu** 35.84 213 P P 22 23 59.0 +0.4
comp=Z,104nm,1.0s,comp=Z,104nm,1.0s
KNGR **Kungurtug, Tuv** 36.50 315⇓ *e*P P 22 24 03.9 0.0
KNGR pmax pmax
comp=Z,15nm,2.0s
GOMU **GeErMu** 36.71 291 P P 22 24 05.8 -0.3
GOMU pmax pmax
comp=Z,20nm,0.8s
KDI **Kendari** 37.38 207 P P 22 24 12.8 +1.4
CHTO **Chiang Mai** 37.57 261 P P 22 24 12.9 0.0
CHTO **Chiang Mai** 37.57 261 P P 22 24 13.0 0.0
CHTO pmax pmax
comp=Z,49nm,0.6s
CHTO **Chiang Mai** 37.57 261 P 22 24 13.0 0.0
CHTO **Chiang Mai** 37.57 261 P P 22 24 13.3 +0.3
comp=Z,74nm,0.6s
CMAR **Chiang Mai Arr** 37.72 261 P P 22 24 14.6 +0.3
comp=Z,11nm,0.5s,baz=49,slow=7.5,SNR=72
CMAR PcP **PcP** 22 26 21.2 +0.8
comp=Z,1.6nm,0.6s,baz=56,slow=3.8,SNR=6.1
CMAR ScP **ScP** 22 29 26.1 +0.7
comp=Z,4.3nm,1.0s,baz=60,slow=3.4,SNR=21
comp=Z,11nm,0.5s
CMAR **Chiang Mai Arr** 37.72 261 P P 22 24 14.3 +0.1
MMSI **Mamuju** 37.84 213 P P 22 24 14.9 -0.3
comp=Z,431nm,1.0s
KKSI **Kolaka, Sulawe** 37.96 208 P P 22 24 18.1 +1.9
comp=Z,22nm,1.3s
KAPI **Kappang** 39.51 210 P P 22 24 29.6 +0.7
KAPI pmax pmax
comp=Z,73nm,1.3s
KAPI **Kappang** 39.51 210 P P 22 24 29.6 +0.7
KAPI **Kappang** 39.51 210 P P 22 24 30.0 +1.1
comp=Z,50nm,1.3s
MORE **Moreh** 39.53 272 IAmb IAmb 22 24 28.8
comp=Z,22nm,0.8s
NPW **Naypyitaw** 39.57 265 P P 22 24 30.1 +0.7
comp=Z,68nm,1.0s
BKSI **Bulukumba** 39.63 209 P P 22 24 30.2 +0.4
comp=Z,31nm,1.1s,comp=Z,31nm,1.1s
BBKI **Banjar Baru** 40.55 218 P P 22 24 37.3 +0.1
comp=Z,11μmcomp=Z,11μmcomp=Z,93nm,1.1s
BBKI **Banjar Baru** 40.55 218 P P 22 24 37.3 +0.1
comp=Z,92nm,1.1s
BILL **Bilibino** 41.06 15 *c i*P P 22 24 41.0 +0.3
BILL pmax pmax
comp=Z,86nm,1.1s
BILL **Bilibino** 41.06 15 P 22 24 41.4 +0.7
BILI **Bilibino, Chuk** 41.12 16 P P 22 24 41.5 +0.4
comp=Z,73nm,1.2s
TIXI **Tiksi** 41.63 355 P P 22 24 44.6 -0.5
TIXI pmax pmax
comp=Z,20nm,0.6s
TIXI **Tiksi** 41.63 355 P P 22 24 44.6 -0.5
TIXI **Tiksi** 41.63 355 P P 22 24 44.7 -0.4
comp=Z,34nm,0.6s
MMRI **Maumere** 41.83 204 P P 22 24 46.8 -0.6
MMRI **Maumere** 41.83 204 P P 22 24 48.2 +0.7
comp=Z,59nm,1.1s
WMQ **Urumqi** 42.02 303 *e*P P 22 24 49.3 +0.5
WMQ PP **PP** 22 26 39.6 +2.0
WMQ S **S** 22 30 33.6 -1.1
WMQ pmax pmax
comp=Z,26nm,1.5s
SOEI **Soe** 42.20 201 P P 22 24 50.6 +0.1
SOEI **Soe** 42.20 201 P P 22 24 50.1 -0.4
SOEI **Soe** 42.20 201 P P 22 24 50.9 +0.3
comp=Z,68nm,1.0s
BRDH **Bariadhala** 42.36 271 P P 22 24 52.5 +0.9
comp=Z,88nm,0.4s,baz=74,slow=11,SNR=7.8
KDU **Kadu** 43.23 189 P P 22 24 59.1 +0.6
comp=Z,12nm,0.9s
KULM **Kulim** 43.47 243 P P 22 25 00.7 +0.2
KULM **Kulim** 43.47 243 P 22 25 01.1 +0.6
KULM **Kulim** 43.47 243 P P 22 25 01.0 +0.5
comp=Z,60nm,1.1s
MTN **Manton Dam** 43.57 190 P P 22 24 57.0 -4.1
IPM **Ipoh** 43.70 241 P P 22 25 02.4 +0.1
IPM **Ipoh** 43.70 241 P P 22 25 02.0 -0.4
IPM **Ipoh** 43.70 241 P P 22 25 02.5 +0.1
comp=Z,55nm,0.7s
PLAI **Plampang** 43.78 210 P P 22 25 01.9 -1.0
PLAI **Plampang** 43.78 210 P P 22 25 02.3 -0.5
comp=Z,75nm,1.0s
ZSN **Zaisan** 44.13 308 *e*P P 22 25 05.2 -0.1
ZSN **Zaisan** 44.13 308 *e*P P 22 25 05.2 -0.1
EVN **Everest** 44.85 280 IAmb IAmb 22 25 13.3
comp=Z,18nm,0.6s
EVN **Everest** 44.85 280 P P 22 25 12.3 +0.5
comp=Z,27nm,0.9s
ZALV **Zalesovo Beam** 44.86 318 P P 22 25 10.1 -0.7
comp=Z,2.6nm,0.3s,baz=93,slow=7.9,SNR=17
ZALV PcP **PcP** 22 26 43.0 -0.4
comp=Z,2.9nm,0.4s,baz=116,slow=2.7,SNR=12
ZALV ScP **ScP** 22 29 52.2 -1.0
comp=Z,2.3nm,0.8s,baz=119,slow=4.3,SNR=7.1
comp=Z,2.6nm,0.3s
ZALV **Zalesovo Beam** 44.86 318 P P 22 25 10.0 -0.8
JAGI **Jajag, Banyuwa** 45.16 215 P P 22 25 13.4 -0.2
JAGI **Jajag, Banyuwa** 45.16 215 P P 22 25 12.5 -1.1
comp=Z,54nm,1.2s
UNV **Unalaska Valle** 45.65 43 P P 22 25 17.8 +1.0
MK31 **Makanchi Array** 45.87 307 *d i*P P 22 25 18.3 -0.5
MKAR **Makanchi Array** 45.87 307 P P 22 25 18.2 -0.6
comp=Z,3.3nm,0.5s,baz=87,slow=10,SNR=48
MKAR PcP **PcP** 22 26 47.0 -0.3
comp=Z,1.8nm,0.4s,baz=246,slow=3.1,SNR=13
MKAR ScP **ScP** 22 29 57.1 -0.5
comp=Z,2.7nm,0.8s,baz=76,slow=5.1,SNR=10
comp=Z,3.3nm,0.5s
MKAR **Makanchi Array** 45.87 307 P P 22 25 18.5 -0.3
PWJI **Pagerwojo** 45.99 218 P P 22 25 19.2 -0.8
comp=Z,54nm,1.0s
MAKZ **Makanchi** 46.09 307 P P 22 25 20.1 -0.3
MAKZ pmax pmax
comp=Z,7.0nm,0.8s
MAKZ **Makanchi** 46.09 307 P P 22 25 20.1 -0.3
MAKZ **Makanchi** 46.09 307 P P 22 25 20.5 +0.1
comp=Z,10nm,1.3s
PSI **Prapat** 46.38 241 P P 22 25 23.7 +0.5
LHMI **Lhok Sumawe** 46.39 246 P P 22 25 24.5 +1.4
comp=Z,98nm,1.1s
RPSI **Rantau Prapat** 46.45 241 IAmb IAmb 22 25 24.4
comp=Z,21nm,0.8s
RPSI **Rantau Prapat** 46.45 241 P P 22 25 23.4 -0.2
comp=Z,30nm,1.0s
UGM **Wanagama** 46.59 220 P P 22 25 24.7 +0.1
YOGI **Yogyakarta** 46.64 220 P P 22 25 24.7 -0.3
comp=Z,4μm,1.1s
KNRA **Kununurra** 46.76 193 P P 22 25 26.7 +0.9
comp=Z,28nm,0.7s
KNRA **Kununurra** 46.76 193 IAmb IAmb 22 25 27.3
comp=Z,19nm,0.8s
KCSI **Kotacane, Aceh** 46.80 243 P P 22 25 25.1 -1.2
comp=Z,12nm,1.4s
KPJI **Karang Pucung** 47.02 222 P P 22 25 28.0 +0.2
comp=Z,74nm,1.0s
SDSI **Sungai Dareh** 47.05 235 P P 22 25 28.7 +0.6
comp=Z,40nm,0.8s
SEM **Semipalatinsk** 47.31 312 *e*P P 22 25 28.7 -1.2
SEM **Semipalatinsk** 47.31 312 *e*P P 22 25 28.7 -1.2
MLSI **Meulaboh, Aceh** 47.40 245 P P 22 25 29.5 -1.3
comp=Z,49nm,1.1s
MDSI **Mera Dua** 47.74 229 P P 22 25 33.7 +0.4
comp=Z,186nm,1.1s
BBJI **Bungbulang** 47.87 223 P P 22 25 33.6 -0.8
BBJI **Bungbulang** 47.87 223 IAmb IAmb 22 25 35.5
comp=Z,17nm,1.1s
SHLS **Shalkode** 48.03 302 *e*P P 22 25 32.4 -3.0
SHLS **Shalkode** 48.03 302 *e*P P 22 25 32.5 -3.0
MASI **Maura Aman, Be** 48.05 233 P P 22 25 36.8 +1.0
comp=Z,180nm,0.9s
KURK **Kurchatov** 48.35 313 P P 22 25 37.3 -0.2
KURK **Kurchatov** 48.35 313 P P 22 25 37.0 -0.5
KURK IAmb IAmb 22 25 38.4
comp=Z,9.3nm,0.5s
KURK **Kurchatov** 48.35 313 P P 22 25 36.9 -0.5
comp=Z,16nm,0.7s
UZB **Uzynbulak** 48.35 302 *e*P P 22 25 37.2 -0.6
UZB **Uzynbulak** 48.35 302 *e*P P 22 25 37.2 -0.6
GSI **Gunungsitoli** 48.37 241 P P 22 25 38.2 +0.1
GSI **Gunungsitoli** 48.37 241 P P 22 25 38.1 -0.1
comp=Z,219nm,1.3s
NRIK **Noril'sk** 48.39 338 P P 22 25 37.1 -0.3
comp=Z,11nm,0.4s,baz=111,slow=10,SNR=14
NRIK ScP **ScP** 22 30 07.0 -0.8
comp=Z,8.9nm,0.9s,baz=114,slow=4.7,SNR=9.7
NRIK S **S** 22 32 02.8 -1.1
comp=Z,1.3nm,0.6s,baz=200,slow=23,SNR=11
comp=Z,11nm,0.4s
NRIK **Noril'sk** 48.39 338 P P 22 25 37.5 0.0
NRIK IAmb IAmb 22 25 38.5
comp=Z,18nm,0.8s
CGJI **Cibinong** 48.39 226 P P 22 25 36.0 -2.2
comp=Z,51nm,0.4s
KURBB **Kurchatov Arra** 48.41 313 P P 22 25 37.3 -0.6
comp=Z,4.8nm,0.4s,baz=93,slow=7.4,SNR=18
KURBB S **S** 22 32 05.0 +0.3
comp=Z,1.3nm,0.2s,baz=90,slow=17,SNR=5.4
comp=Z,4.8nm,0.4s
WUS **Wushi** 48.42 300 P P 22 25 38.7 +0.4
comp=Z,14nm,1.1s
MNAI **Manna** 48.46 231 P P 22 25 38.5 -0.2
KPKS **Kokpek** 48.57 303 *e*P P 22 25 38.8 -0.6
KPKS **Kokpek** 48.57 303 *e*P P 22 25 38.9 -0.5
TDK **Taldyqorghan** 48.65 305 *e*P P 22 25 39.5 -0.3
TDK **Taldyqorghan** 48.65 305 *e*P P 22 25 39.5 -0.3
PBSI **Pulau Batu** 48.74 239 P P 22 25 40.2 -0.6
comp=Z,67nm,1.1s
SATY **Saty** 48.81 302 *e*P P 22 25 40.8 -0.4
SATY **Saty** 48.81 302 *e*P P 22 25 40.9 -0.4
PRZ **Przheval'sk** 48.88 302 P P 22 25 42.2 +0.4
comp=Z,24nm,0.5s
SDPT **Sand Point** 49.30 41 P P 22 25 45.6 +1.2
TARG **Taragay, Kyrgy** 49.41 301 P P 22 25 46.5 +0.5
comp=Z,12nm,1.2s
FITZ **Fitzroy Crossi** 49.78 196 P P 22 25 49.9 +1.4
comp=Z,5.8nm,1.3s
FITZ **Fitzroy Crossi** 49.78 196 P P 22 25 49.4 +1.0
FITZ **Fitzroy Crossi** 49.78 196 P P 22 25 49.3 +0.9
FITZ **Fitzroy Crossi** 49.78 196 P P 22 25 49.8 +1.4
comp=Z,5.8nm,1.3s
MDOK **Medeo** 49.79 303 *e*P P 22 25 48.2 -0.3
MDOK **Medeo** 49.79 303 *e*P P 22 25 48.3 -0.3
TNSS **Tian-Shan** 49.88 303 *e*P P 22 25 48.7 -0.8
TNSS **Tian-Shan** 49.88 303 *e*P P 22 25 48.7 -0.8
AAA **Alma-Ata** 49.88 303 *e*P P 22 25 48.5 -0.6
AAA pmax pmax
comp=Z,12nm,0.6s
AAA **Alma-Ata** 49.88 303 *e*P P 22 25 48.6 -0.6
comp=Z,12nm,0.6s
WB0 **Warramunga Arr** 50.03 185 P P 22 25 50.6 +0.3
WB0 IAmb IAmb 22 25 51.6
comp=Z,24nm,0.8s
WRAB **Tennant Creek** 50.20 185 P P 22 25 51.8 +0.2
WRAB **Tennant Creek** 50.20 185 *d i*P P 22 25 51.9 +0.3
WRAB pmax pmax
comp=Z,28nm,1.0s
WRAB **Tennant Creek** 50.20 185 P P 22 25 51.7 +0.1
comp=Z,29nm,1.0s
WRA **Warramunga Arr** 50.21 185 P P 22 25 51.7 +0.1
comp=Z,8.1nm,0.3s,baz=0.4,slow=7.7,SNR=157
WRA PcP **PcP** 22 27 03.7 +0.4
comp=Z,1.8nm,0.4s,baz=354,slow=3.6,SNR=4.9
WRA pP **pP** 22 27 17.3 +0.2
comp=Z,9.2nm,1.0s,baz=3.3,slow=8.4,SNR=10.0
WRA ScP **ScP** 22 30 16.6 +0.4
comp=Z,2.0nm,0.9s,baz=1.9,slow=4.5,SNR=4.7
WRA S **S** 22 32 26.0 -4.0
comp=Z,4.7nm,1.1s,baz=0.5,slow=13,SNR=8.1
comp=Z,8.1nm,0.3s
WR8 **Warramunga Arr** 50.21 185 P 22 25 51.9 +0.2
WR8 IAmb IAmb 22 25 52.9
comp=Z,28nm,0.8s
ASAI **AK-SAY(Kyrgyzs** 50.48 300 P P 22 25 54.6 +0.7
comp=Z,11nm,1.6s
QIS **Mount Isa** 50.68 179 P P 22 25 55.4 +0.3
QIS **Mount Isa** 50.68 179 P P 22 25 55.4 +0.3
comp=Z,7.8nm,1.2s
C18K **Utukok River** 51.31 24 IAmb IAmb 22 26 01.6
comp=Z,26nm,1.0s
KSH2 **Kashi** 51.49 298 P P 22 26 00.8 -0.3
KSH2 pmax pmax
comp=Z,8.0nm,0.8s
G18K **Tagagawik** 51.62 28 IAmb IAmb 22 26 03.4
comp=Z,34nm,1.1s
AAK **Ala-Archa** 51.72 302 P P 22 26 02.3 -0.4
comp=Z,3.8nm,0.4s,baz=80,slow=7.6,SNR=26
AAK PcP **PcP** 22 27 08.9 0.0
comp=Z,1.8nm,0.6s,baz=79,slow=3.7,SNR=4.2
comp=Z,3.8nm,0.4s
AAK **Ala-Archa** 51.72 302 P P 22 26 02.5 -0.2
AAK **Ala-Archa** 51.72 302 P P 22 26 02.4 -0.3
AAK **Ala-Archa** 51.72 302 P P 22 26 02.8 +0.1
comp=Z,7.8nm,0.7s
H19K **Roundabout Mou** 52.45 28 IAmb IAmb 22 26 09.7
comp=Z,19nm,0.9s
E19K **Redstone River** 52.48 26 IAmb IAmb 22 26 09.7
comp=Z,21nm,0.8s
J19K **Poorman** 52.59 30 IAmb IAmb 22 26 10.6
comp=Z,13nm,0.7s
N19K **Bonanza Creek** 52.84 34 IAmb IAmb 22 26 12.9
comp=Z,22nm,1.0s
D20K **Etivluk River** 52.95 24 P P 22 26 11.8 +0.8
D20K IAmb IAmb 22 26 13.1
comp=Z,25nm,0.9s
ARSB **Arslanbob** 53.05 301 IAmb IAmb 22 26 13.8
comp=Z,25nm,1.2s
K20K **Telida** 53.22 31 IAmb IAmb 22 26 15.7
comp=Z,34nm,0.9s
J20K **Nowinta River** 53.26 30 IAmb IAmb 22 26 15.8
comp=Z,23nm,0.8s
OHH **Osh** 53.34 300 P P 22 26 12.5 -1.8
comp=Z,13nm,1.8s
BVAR **Borovoye Array** 53.41 316 P P 22 26 14.3 -0.2
comp=Z,5.3nm,0.3s,baz=95,slow=7.7,SNR=60
BVAR PcP **PcP** 22 27 15.1 +0.1
comp=Z,2.3nm,0.3s,baz=82,slow=2.8,SNR=8.4
BVAR S **S** 22 33 09.8 -2.6
comp=Z,1.9nm,0.9s,baz=83,slow=14,SNR=6.5
comp=Z,5.3nm,0.3s
BORK **Borovoye** 53.45 316 P P 22 26 14.5 -0.3
BORK pmax pmax
comp=Z,7.0nm,0.5s
BORK **Borovoye** 53.45 316 P P 22 26 14.5 -0.3
RED **Redoubt Volcan** 53.66 35 IAmb IAmb 22 26 17.8
comp=Z,21nm,1.0s
ARK **Arkit** 53.71 302 P P 22 26 17.4 +0.4
comp=Z,20nm,1.2s
KDAK **Kodiak Island** 53.74 38 P P 22 26 16.9 +0.1
comp=Z,8.3nm,0.3s,baz=278,slow=1.2,SNR=39
comp=Z,8.3nm,0.3s
KDAK **Kodiak Island** 53.74 38⇑ *e*P P 22 26 17.1 +0.4
KDAK pmax pmax
comp=Z,137nm,2.4s
KDAK **Kodiak Island** 53.74 38 P P 22 26 16.9 +0.1
KDAK IAmb IAmb 22 26 18.2
comp=Z,40nm,1.0s
AS01 **Alice Springs** 53.93 185 P P 22 26 18.8 +0.2
AS31 **Alice Springs** 53.94 185 P P 22 26 19.3 +0.7
comp=Z,5.2nm,0.8s
ASAR **Alice Springs** 53.94 185 P P 22 26 18.6 0.0
comp=Z,7.5nm,0.7s,baz=2.6,slow=6.7,SNR=70
ASAR ScP **ScP** 22 30 32.9 +0.5
comp=Z,0.6nm,0.7s,baz=2.9,slow=5.0,SNR=3.5
ASAR S **S** 22 33 17.5 -2.5
comp=Z,1.1nm,0.8s,baz=358,slow=11,SNR=7.5
comp=Z,7.5nm,0.7s
H21K **Melozitna Rive** 53.97 29 IAmb IAmb 22 26 20.8
comp=Z,26nm,1.1s
DZA **Taraz** 53.98 303 *e*P P 22 26 18.3 -0.5
DZA **Taraz** 53.98 303 *e*P P 22 26 18.3 -0.5
PPLA **Purkeypile** 54.04 32 IAmb IAmb 22 26 21.1
comp=Z,38nm,1.1s
CAST **Castle Rocks** 54.11 31 IAmb IAmb 22 26 21.9
comp=Z,35nm,1.0s
MBWA **Marble Bar** 54.34 202 P P 22 26 22.1 +0.6
comp=Z,40nm,1.2s,comp=Z,0.0nm
MBWA **Marble Bar** 54.34 202 P P 22 26 21.7 +0.3
MBWA **Marble Bar** 54.34 202 P P 22 26 21.8 +0.3
MBWA IAmb IAmb 22 26 22.9
comp=Z,30nm,0.8s
MBWA **Marble Bar** 54.34 202 P P 22 26 22.0 +0.5
comp=Z,40nm,1.2s
KK31 **Karatay Array** 54.53 304 IAmb IAmb 22 26 23.7
comp=Z,15nm,0.8s
KKAR **Karatay Array** 54.53 304 P P 22 26 22.5 -0.2
KKAR **Karatay Array** 54.53 304 P P 22 26 22.5 -0.2
NIL **Nilore** 54.56 292 P P 22 26 23.7 +0.6
NIL pmax pmax
comp=Z,26nm,1.1s
NIL **Nilore** 54.56 292 P P 22 26 23.7 +0.6
NIL IAmb IAmb 22 26 24.7
comp=Z,26nm,1.1s
NIL **Nilore** 54.56 292 P P 22 26 23.5 +0.4
comp=Z,37nm,0.5s
BPAW **Bear Paw Mtn.** 54.64 31 IAmb IAmb 22 26 25.3
comp=Z,22nm,1.2s
MLY **Manley** 54.79 29 IAmb IAmb 22 26 26.6
comp=Z,23nm,1.1s
BTK **Batken** 54.91 300 P P 22 26 25.1 -0.3
comp=Z,9.9nm,0.9s
TRF **Thorofare Moun** 54.92 31 IAmb IAmb 22 26 28.9
comp=Z,33nm,1.4s
BRLS **Borolday** 55.03 304 *e*P P 22 26 26.9 +0.7
BRLS **Borolday** 55.03 304 *e*P P 22 26 27.0 +0.7
IUG **luzhnay** 55.06 302 *e*P P 22 26 26.4 -0.1
IUG pmax pmax
comp=Z,21nm,0.8s
IUG **luzhnay** 55.06 302 *e*P P 22 26 26.5 -0.1
comp=Z,21nm,0.8s
D23K **Nanushuk River** 55.12 25 IAmb IAmb 22 26 28.4
comp=Z,24nm,1.2s

RC01 **Rabbit Creek A** 55.16 34 IAmb IAmb 22 26 28.1
comp=Z,52nm,1.2s
G23K **Bananza Creek** 55.18 27 P **P** **22 26 27.9 +1.0**
G23K IAmb IAmb 22 26 29.2
comp=Z,20nm,1.0s
CHM **Chimkent** 55.34 303 *e*P **P** **22 26 28.1 -0.3**
CHM **Chimkent** 55.34 303 *e*P **P** **22 26 28.1 -0.3**
PMR **Palmer** 55.45 34 IAmb IAmb 22 26 30.0
comp=Z,34nm,1.1s
NEA2 **Nenana** 55.49 30 IAmb IAmb 22 26 31.1
comp=Z,35nm,1.2s
MCK **McKinley** 55.53 31 IAmb IAmb 22 26 31.6
comp=Z,29nm,1.0s
GHO **Glory Hole Cre** 55.54 33 IAmb IAmb 22 26 39.7
comp=Z,27nm,1.2s
KNK **Knik Glacier** 55.77 34 IAmb IAmb 22 26 32.7
comp=Z,31nm,0.8s
D24K **Happy Valley** 55.80 24 P **P** **22 26 32.3 +1.2**
D24K IAmb IAmb 22 26 33.4
comp=Z,28nm,0.8s
SML **Sawmill** 55.82 33 IAmb IAmb 22 26 33.1
comp=Z,23nm,0.8s
C24K **Franklin Bluff** 55.88 24 IAmb IAmb 22 26 33.8
comp=Z,40nm,1.1s
WRKA **Warakurna** 55.98 191 P **P** **22 26 33.9 +0.9**
comp=Z,11nm,0.8s
COLA **College** 56.01 30 P **P** **22 26 34.4 +1.8**
COLA **College** 56.01 30⇓*e*P **P** **22 26 34.1 +1.4**
COLA **College** 56.01 30 P **P** **22 26 34.0 +1.4**
HDA **Harding Lake** 56.40 30 IAmb IAmb 22 26 36.3
comp=Z,19nm,1.0s
ILAR **Eielson Array** 56.43 30 P **P** **22 26 35.0 -0.6**
comp=Z,2.7nm,0.8s,baz=242,slow=5.5,SNR=36
comp=Z,2.7nm,0.8s
ILAR **Eielson Array** 56.43 30 P **P** **22 26 34.3 -1.2**
GLI **Glacier Island** 56.45 34 P **P** **22 26 36.2 +0.4**
GLI IAmb IAmb 22 26 37.4
comp=Z,24nm,0.8s
KLU **Klutina** 56.99 34 IAmb IAmb 22 26 41.6
comp=Z,20nm,0.9s
DIV **Divide** 57.08 34 IAmb IAmb 22 26 42.3
comp=Z,20nm,1.0s
RIDG **Independent Ri** 57.35 31 IAmb IAmb 22 26 44.3
comp=Z,23nm,1.1s
F26K **Sheenjek River** 57.49 26 IAmb IAmb 22 26 45.9
comp=Z,13nm,0.8s
C27K **Jago River** 57.62 24 IAmb IAmb 22 26 46.2
comp=Z,13nm,0.9s
G26K **Porcupine Rive** 57.65 27 P **P** **22 26 44.8 +0.9**
KBL **Kabul** 57.67 294 P **P** **22 26 44.5 -0.4**
comp=Z,11nm,0.5s
DOT **Dot Lake** 57.70 31 IAmb IAmb 22 26 45.7
comp=Z,19nm,0.6s
SCRK **Sand Creek** 57.72 31 IAmb IAmb 22 26 46.0
comp=Z,31nm,1.2s
MENT **Mentasta** 57.91 32 P **P** **22 26 46.9 +1.0**
MENT **Mentasta** 57.91 32 IAmb IAmb 22 26 48.2
comp=Z,19nm,0.8s
GLB **Gilahina Butte** 58.00 34 P **P** **22 26 47.7 +1.2**
L26K **Log Cabin Wild** 58.07 32 P **P** **22 26 47.6 +0.6**
L26K IAmb IAmb 22 26 49.3
comp=Z,17nm,0.7s
M26K **Nabesna, AK** 58.29 32 IAmb IAmb 22 26 51.3
comp=Z,16nm,1.1s
MCARA **McCarthy VSAT** 58.38 34 IAmb IAmb 22 26 52.0
comp=Z,27nm,0.9s
K27K **Chicken** 58.55 30 IAmb IAmb 22 26 52.4
comp=Z,18nm,1.2s
I27K **Kandik River** 58.61 29 P **P** **22 26 51.3 +0.7**
I27K IAmb IAmb 22 26 52.5
comp=Z,17nm,1.2s
DZM **Mont Dzumac** 58.69 149 P **P** **22 26 52.3 +0.6**
comp=Z,6.1nm,0.8s,baz=16,slow=10,SNR=5.2
comp=Z,6.1nm,0.8s
E28M **Babbage River** 59.16 25 IAmb IAmb 22 26 56.9
comp=Z,20nm,1.3s
I28M **Miner Creek** 59.32 29 IAmb IAmb 22 26 57.1
comp=Z,21nm,1.1s
MEEK **Meekatharra** 59.81 201 P **P** **22 26 59.3 +0.1**
ARTI **Arti** 59.92 321*d i*P **P** **22 26 58.8 -0.7**
ARTI 22 27 39.4
ARTI S **S** **22 34 34.5 -1.9**
ARTI SS **SS** **22 38 35.5 -5.9**
ARTI pmax pmax
comp=Z,5.0nm,0.5s
ARTI **Arti** 59.92 321 **P** **22 26 58.7 -0.7**
ARTI IAmb IAmb 22 26 59.9
comp=Z,16nm,0.6s
M29M **Somme Creek** 60.38 32 IAmb IAmb 22 27 05.4
comp=Z,12nm,0.8s
PNL **Peninsula** 60.40 35 P **P** **22 27 03.9 +1.2**
L29M **L29M** 60.42 31 IAmb IAmb 22 27 05.7
comp=Z,25nm,0.9s
AB31 **Akbulak array** 60.46 312 **P** **22 27 02.8 -0.4**
AB31 IAmb IAmb 22 27 04.0
comp=Z,15nm,0.6s
ABKAR **Akbulak array** 60.46 312 P **P** **22 27 02.8 -0.4**
K29M **Barlow Dome** 60.57 30 IAmb IAmb 22 27 06.2
comp=Z,15nm,0.8s
O29M **Mount Kennedy** 60.70 35 IAmb IAmb 22 27 07.7
comp=Z,34nm,1.2s
I30M **Mount Dempster** 60.83 29 IAmb IAmb 22 27 08.9
comp=Z,12nm,0.8s
HYT **Haines Junctio** 61.12 34 **P** **22 27 09.3 +1.8**
HYT IAmb IAmb 22 27 10.6
comp=Z,24nm,1.3s
AKTO **Aktyubinsk** 61.40 314 P **P** **22 27 08.8 -0.7**
comp=Z,6.5nm,0.6s,baz=78,slow=13,SNR=16
comp=Z,6.5nm,0.6s
INK **Inuvik** 61.40 25 P **P** **22 27 09.2 +0.1**
comp=Z,4.1nm,0.3s,baz=274,slow=2.7,SNR=7.1
comp=Z,4.1nm,0.3s
INK **Inuvik** 61.40 25 P **P** **22 27 09.5 +0.4**
INK pmax pmax
comp=Z,17nm,1.3s
INK **Inuvik** 61.40 25 **P** **22 27 09.5 +0.4**
INK IAmb IAmb 22 27 10.8
comp=Z,17nm,1.3s
INK **Inuvik** 61.40 25 P **P** **22 27 09.2 +0.1**
comp=Z,17nm,1.1s
FORT **Forrest** 61.64 190 P **P** **22 27 12.2 +1.0**
comp=Z,23nm,1.0s
CMSA **Cobar Meteorol** 61.98 173 P **P** **22 27 15.2 +1.9**
CMSA **Cobar Meteorol** 61.98 173 P **P** **22 27 14.7 +1.3**
STKA **Stephens Creek** 62.01 177 P **P** **22 27 14.6 +1.0**
comp=Z,71nm,1.0s
STKA **Stephens Creek** 62.01 177 P **P** **22 27 13.3 -0.2**
comp=Z,4.2nm,0.3s,baz=349,slow=8.0,SNR=16
comp=Z,4.2nm,0.3s
STKA **Stephens Creek** 62.01 177 P **P** **22 27 14.0 +0.5**
STKA **Stephens Creek** 62.01 177 P **P** **22 27 14.4 +0.8**
STKA pmax pmax
comp=Z,42nm,0.8s
STKA **Stephens Creek** 62.01 177 **P** **22 27 14.4 +0.8**
STKA **Stephens Creek** 62.01 177 P **P** **22 27 14.6 +1.0**
comp=Z,71nm,1.0s
BBOO **Buckleboo** 62.91 182 P **P** **22 27 20.0 +0.6**
BBOO **Buckleboo** 62.91 182 P **P** **22 27 19.4 0.0**
BBOO IAmb IAmb 22 27 21.8
comp=Z,20nm,1.2s
BLDU **Balldu** 64.11 201 P **P** **22 27 28.1 +0.9**
KIRV **Kirov** 64.13 324 P **P** **22 27 26.4 -0.5**
comp=Z,5.1nm,0.5s,baz=70,slow=8.9,SNR=4.2
comp=Z,5.1nm,0.5s
KIRV **Kirov** 64.13 324⇑*e*P **P** **22 27 27.2 +0.3**
HMDM **Hanimaadhoo** 65.31 263 P **P** **22 27 36.0 +0.7**
comp=Z,44nm,1.7s
DLBC **Dease Lake** 65.40 35 P **P** **22 27 35.8 +0.6**
comp=Z,9.1nm,1.0s,baz=275,slow=7.0,SNR=6.6
comp=Z,9.1nm,1.0s
NWAO **Narrogin (SRO)** 66.12 199 P **P** **22 27 39.9 +0.1**
NWAO **Narrogin (SRO)** 66.12 199 P **P** **22 27 40.2 +0.3**
comp=Z,37nm,1.2s
SPA0 **Spitsbergen Ar** 66.55 349 *e*P **P** **22 27 42.5 +0.6**
SPITS **Spitsbergen Ar** 66.55 349 P **P** **22 27 42.2 +0.2**
comp=Z,14nm,0.8s,baz=54,slow=6.3,SNR=13
comp=Z,14nm,0.8s
BELG **Belogornoye** 67.04 318 P **P** **22 27 45.1 -0.3**
comp=Z,12nm,0.7s,baz=86,slow=1.6,SNR=6.6
comp=Z,12nm,0.7s
VADS **Vadso** 67.89 340 *e*P **P** **22 27 50.2 -0.1**
ARA0 **ARCESS Array S** 69.34 340 *e*P **P** **22 27 59.4 +0.2**
ARCES **ARCESS Array B** 69.34 340 P **P** **22 27 59.3 0.0**
comp=Z,4.5nm,0.4s,baz=70,slow=8.8,SNR=73
comp=Z,4.5nm,0.4s
ARCES **ARCESS Array B** 69.34 340 P **P** **22 27 59.4 +0.2**
ARCES pmax pmax
comp=Z,10.0nm,0.9s
ARCES **ARCESS Array B** 69.34 340 P **P** **22 27 59.4 +0.2**
ARCES IAmb IAmb 22 28 00.6
comp=Z,10nm,0.9s
RES **Resolute Bay** 69.61 13 P **P** **22 28 00.7 0.0**
comp=Z,7.7nm,0.8s,baz=296,slow=3.1,SNR=12
comp=Z,7.7nm,0.8s
RES **Resolute Bay** 69.61 13 P **P** **22 28 01.1 +0.4**
RES pmax pmax
comp=Z,12nm,1.0s
RES **Resolute Bay** 69.61 13 P **P** **22 28 01.1 +0.4**
RES IAmb IAmb 22 28 02.2
comp=Z,12nm,1.0s
RES **Resolute Bay** 69.61 13 P **P** **22 28 01.4 +0.6**
comp=Z,17nm,1.0s
KTK1 **Kautokeino** 70.31 340 *e*P **P** **22 28 04.8 -0.2**
YKA **Yellowknife Ar** 70.78 28 P **P** **22 28 07.7 -0.3**
comp=Z,8.0nm,0.9s,baz=301,slow=5.7,SNR=17
comp=Z,8.0nm,0.9s
YKA **Yellowknife Ar** 70.78 28 P **P** **22 28 07.2 -0.7**
JETT **Jettan, Norway** 70.82 341 *e*P **P** **22 28 08.7 +0.6**
SHME **Shamm** 71.12 290 P **P** **22 28 11.0 +0.4**
TRO **Tromso** 71.19 341 *e*P **P** **22 28 09.9 -0.3**
SOHO **SOHO** 71.61 288 P **P** **22 28 13.7 +0.1**
HATD **Hatta, Dubai** 71.65 288 P **P** **22 28 14.4 +0.6**
ASHO **Ashiyiah** 71.77 288 P **P** **22 28 14.5 0.0**
OBN **Obninsk** 71.96 324 *e*P **P** **22 28 14.7 -0.3**
OBN *e* 22 28 30.7
OBN *e**PP **pP** **22 29 50.5 +1.8**
OBN *e**SP **sP** **22 30 36.9 +2.0**
OBN *e* 22 31 04.9
OBN *e*PPP PPP 22 32 50.0
OBN pmax pmax
comp=Z,2.0nm,0.9s
FAQ **Al Faqa, Dubai** 72.12 289 P **P** **22 28 16.6 +0.1**
DAG **Danmarks Havn** 72.14 355 P **P** **22 28 16.1 +0.4**
comp=Z,17nm,1.6s
ALNE **Al Ain** 72.29 288 P **P** **22 28 17.4 -0.1**
LLLB **Lillooet** 72.79 41 P **P** **22 28 20.1 +0.1**
LLLB IAmb IAmb 22 28 22.1
comp=Z,10nm,1.0s
NCK **Nalchik** 73.03 311⇑*e*P **P** **22 28 21.6 +0.1**
NCK pmax pmax
comp=Z,21nm,1.8s
STEI **Steigen** 73.31 341 *e*P **P** **22 28 22.9 +0.4**
KBZ **Khabaz** 73.38 311 P **P** **22 28 23.4 -0.1**
comp=Z,9.4nm,0.8s,baz=81,slow=2.2,SNR=30
comp=Z,9.4nm,0.8s
KIV **Kislovodsk** 73.42 311 P **P** **22 28 24.3 +0.5**
KIV **Kislovodsk** 73.42 311 P **P** **22 28 24.1 +0.2**
KIV **Kislovodsk** 73.42 311 P **P** **22 28 23.9 +0.1**
comp=Z,16nm,0.9s
SHA1 **Shidzhatmaz** 73.53 311⇑*e*P **P** **22 28 25.5 +0.8**
FINES **FINESS Array B** 73.54 332 P **P** **22 28 23.4 -0.6**
comp=Z,2.8nm,0.3s,baz=74,slow=4.8,SNR=53
comp=Z,2.8nm,0.3s
FINES **FINESS Array B** 73.54 332 P **P** **22 28 22.8 -1.2**
FAUS **Fauske** 73.66 340 *e*P **P** **22 28 24.7 +0.2**
GNI **Garni** 73.72 307 P **P** **22 28 26.1 +0.4**
comp=Z,2.7nm,0.5s,baz=46,slow=5.7,SNR=3.4
comp=Z,2.7nm,0.5s
GNI **Garni** 73.72 307 P **P** **22 28 26.3 +0.6**
GNI pmax pmax
comp=Z,17nm,1.2s
GNI **Garni** 73.72 307 P **P** **22 28 26.3 +0.6**
GNI IAmb IAmb 22 28 32.9
comp=Z,17nm,1.2s
GNI **Garni** 73.72 307 P **P** **22 28 26.2 +0.4**
comp=Z,13nm,1.2s
DBG **Daneborg** 74.61 354 P **P** **22 28 29.7 -0.2**
comp=Z,7.4nm,2.2s
RAUS **Rausandaksla** 74.65 340 *e*P **P** **22 28 29.9 -0.4**
VAGH **Vaagaholmen** 74.68 340 *e*P **P** **22 28 30.7 +0.3**
KONS **Konsvik** 74.88 340 *e*P **P** **22 28 32.1 +0.5**
STOK **Stokkvaagen** 75.03 340 *e*P **P** **22 28 33.0 +0.6**
LTY **Liberty** 75.06 44 IAmb IAmb 22 28 34.8
comp=Z,11nm,1.0s
LEIR **Leirfjorden** 75.15 340 *e*P **P** **22 28 33.0 -0.1**
VSLR **Vesyoloye** 75.36 312*de*P **P** **22 28 35.0 +0.3**
VSLR pmax pmax
comp=Z,28nm,0.9s
HAKT **HAKKARI** 75.61 305 P **P** **22 28 36.1 -0.5**
comp=Z,23nm,1.2s
EPH **Ephrata** 75.66 43 IAmb IAmb 22 28 38.6
comp=Z,26nm,1.4s
WIFE **Three Sisters-** 75.89 47 IAmb IAmb 22 28 40.1
comp=Z,7.7nm,1.1s
D08A **Wollman Farm,** 76.20 43 IAmb IAmb 22 28 41.5
comp=Z,18nm,0.9s
ILON **Igloolik, Nuna** 76.27 14 P **P** **22 28 39.1 -0.1**
ILON IAmb IAmb 22 28 40.8
comp=Z,14nm,0.9s
YBH **Yreka Blue Hor** 76.42 50 P **P** **22 28 42.0 +1.2**
comp=Z,3.7nm,0.8s,baz=289,slow=3.5,SNR=7.9
comp=Z,3.7nm,0.8s
NSS **Namsos** 76.60 339 *e*P **P** **22 28 41.2 +0.1**
NEW **Newport** 76.64 42 P **P** **22 28 42.4 +0.6**
comp=Z,13nm,0.8s,baz=310,slow=4.5,SNR=15
comp=Z,13nm,0.8s
NEW **Newport** 76.64 42 P **P** **22 28 42.6 +0.7**
NEW pmax pmax
comp=Z,12nm,0.8s
NEW **Newport** 76.64 42 P **P** **22 28 42.6 +0.7**
NEW IAmb IAmb 22 28 43.9
comp=Z,12nm,0.8s
NEW **Newport** 76.64 42 P **P** **22 28 43.3 +1.5**
E09A **Wood Farm, Sta** 76.94 44 IAmb IAmb 22 28 45.8
comp=Z,16nm,1.0s
SUMG **Summit** 77.28 359 P **P** **22 28 46.3 +1.0**
SUMG pmax pmax
comp=Z,26nm,1.3s
SUMG **Summit** 77.28 359 P **P** **22 28 46.3 +1.0**
SUMG IAmb IAmb 22 28 47.6
comp=Z,26nm,1.3s
SUMG **Summit** 77.28 359 P **P** **22 28 46.5 +1.2**
MARD **Mardin** 77.78 306 IAmb IAmb 22 28 49.5
comp=Z,11nm,0.7s
PABE **Paberze** 77.86 328 P **P** **22 28 48.4 +0.2**
comp=Z,23nm,0.5s
AKASG **Malin Array Be** 78.03 322 P **P** **22 28 48.6 -0.6**
comp=Z,1.9nm,0.3s,baz=53,slow=5.6,SNR=12
comp=Z,1.9nm,0.3s
AKBB **Malin Array Si** 78.03 322⇓*e*P **P** **22 28 48.5 -0.8**
AKBB pmax pmax
comp=Z,6.0nm,1.1s
KIEV **Kiev** 78.04 322 P **P** **22 28 48.8 -0.5**
BMO **Blue Mountains** 78.29 45 IAmb IAmb 22 28 53.1
comp=Z,9.0nm,0.9s
J08A **Circle Bar Ran** 78.34 47 IAmb IAmb 22 28 53.8
comp=Z,11nm,0.8s
WVOR **Wild Horse Val** 78.71 47 IAmb IAmb 22 28 55.6
comp=Z,14nm,1.3s
WVOR **Wild Horse Val** 78.71 47 P **P** **22 28 54.5 +1.2**
comp=Z,10nm,2.0s
BEKR **Beckworth** 78.89 50 IAmb IAmb 22 28 56.3
comp=Z,8.4nm,0.9s
HFS **Hagfors** 79.09 335 P **P** **22 28 54.3 -0.5**
comp=Z,2.8nm,0.3s,baz=81,slow=3.8,SNR=42
comp=Z,2.8nm,0.3s
DOMB **Dombas** 79.30 338 *e*P **P** **22 28 55.5 -0.4**
NB2 **NORSAR Subarra** 79.32 337 P **P** **22 28 55.3 -0.8**
comp=Z,1.1nm,0.5s,baz=46,slow=5.1
NB2 **NORSAR Subarra** 79.32 337 P **P** **22 28 55.0 -1.1**
NB2 AMP 22 28 55.0
NOA **NORSAR Array B** 79.32 337 P **P** **22 28 55.4 -0.8**
comp=Z,2.4nm,0.7s,baz=47,slow=5.1,SNR=13
comp=Z,2.4nm,0.7s
NC602 **NORSAR Array S** 79.43 336 P **P** **22 28 55.4 -1.2**
NC602 **NORSAR Array S** 79.43 336 *e*P **P** **22 28 55.3 -1.2**
CMB **Columbia Colle** 79.80 52 IAmb IAmb 22 29 01.8
comp=Z,12nm,1.1s
MFID **Camas Ranch** 79.95 45 IAmb IAmb 22 29 02.3
comp=Z,12nm,1.2s
GAZ **Gaziantep** 80.32 307 IAmb IAmb 22 29 04.2
comp=Z,9.1nm,1.0s
SKAR **Skarsla** 80.56 338 *e*P **P** **22 29 03.5 +0.8**
FFC **Flin Flon** 80.62 31 P **P** **22 29 03.2 +0.2**
comp=Z,21nm,2.3s
HLID **Hailey** 80.74 45 P **P** **22 29 04.7 +0.6**
comp=Z,13nm,1.9s
DLMT **Dillon** 80.82 42 IAmb IAmb 22 29 07.1
comp=Z,15nm,0.9s
RAYN **Ar Rayn** 80.87 292 P **P** **22 29 05.0 +0.1**
RAYN **Ar Rayn** 80.87 292 P **P** **22 29 05.1 +0.1**
RAYN pmax pmax
comp=Z,26nm,1.2s
RAYN **Ar Rayn** 80.87 292 P **P** **22 29 05.1 +0.1**
comp=Z,18nm,0.8s
LHV **Little Huntoon** 80.96 51 IAmb IAmb 22 29 08.0
comp=Z,14nm,1.4s
NVAR **Mina Array Bea** 81.00 51 P **P** **22 29 06.7 +1.1**
comp=Z,1.1nm,0.3s,baz=292,slow=4.6,SNR=11
comp=Z,1.1nm,0.3s
FCC **Fort Churchill** 81.03 25 P **P** **22 29 05.9 +0.9**
FCC pmax pmax
comp=Z,15nm,1.4s
FCC **Fort Churchill** 81.03 25 P **P** **22 29 05.9 +0.9**
FCC IAmb IAmb 22 29 14.7
comp=Z,15nm,1.4s
BR131 **Keskin Array S** 81.38 311 IAmb IAmb 22 29 09.0
comp=Z,8.8nm,0.8s
BRTR **Keskin Array B** 81.38 311 P **P** **22 29 07.6 +0.2**
comp=Z,6.5nm,0.9s,baz=58,slow=5.4,SNR=23
comp=Z,6.5nm,0.9s
BRTR **Keskin Array B** 81.38 311 P **P** **22 29 07.5 0.0**
ELK **Elko** 81.76 47 P **P** **22 29 10.4 +0.9**
comp=Z,2.6nm,0.8s,baz=310,slow=5.0,SNR=9.5
comp=Z,2.6nm,0.8s
TPGR **Topolog** 81.76 318 ⇑P **P** **22 29 09.4 +0.3**
TESR **Tescani** 81.82 320 P **P** **22 29 09.6 +0.2**
comp=Z,17nm,1.5s
TPH **Tonopah** 81.91 51 IAmb IAmb 22 29 13.2
comp=Z,20nm,1.2s
BUR08 **Bucovina Ar. S** 81.94 321 P **P** **22 29 10.3 +0.2**
BURAR **Bucovina Array** 81.95 321 P **P** **22 29 10.3 +0.1**
BURAR **Bucovina Array** 81.95 321 ⇓P **P** **22 29 10.7 +0.6**
YHB **Horse Butte** 81.99 42 IAmb IAmb 22 29 13.2
comp=Z,9.2nm,1.0s
MZP **Montezuma Peak** 82.00 51 IAmb IAmb 22 29 12.9
comp=Z,12nm,1.2s
KKUL **Konya-Kulu** 82.14 311 P **P** **22 29 11.6 +0.2**
comp=Z,19nm,1.5s
VRI **Vrincioaia** 82.15 319 ⇓P **P** **22 29 12.6 +1.4**
VRI **Vrincioaia** 82.15 319 P **P** **22 29 12.1 +0.9**
comp=Z,12nm,1.4s
YFT **Old Faithful** 82.37 43 IAmb IAmb 22 29 16.6
comp=Z,11nm,1.0s
GRAC **Grapevine Rang** 82.39 52 IAmb IAmb 22 29 42.7
comp=Z,9.2nm,0.6s
MPMC **Manual Prospec** 82.81 52 IAmb IAmb 22 29 16.8
comp=Z,7.5nm,1.0s
MLR **Muntele Rosu** 82.82 319 ⇑P **P** **22 29 14.8 +0.1**
MLR **Muntele Rosu** 82.82 319 P **P** **22 29 14.8 +0.1**
CLC **China Lake** 82.86 53 IAmb IAmb 22 29 17.0
comp=Z,8.3nm,1.1s
LRMC **Laurel Mtn Rad** 82.98 53 IAmb IAmb 22 29 17.6
comp=Z,12nm,1.1s
ASF **Jabal al Asfar** 83.12 303 P **P** **22 29 16.1 -0.3**
comp=Z,7.2nm,1.0s,baz=56,slow=5.1,SNR=9.6
comp=Z,7.2nm,1.0s
TPNV **Topopah Spring** 83.17 51 P **P** **22 29 17.7 +1.0**
TPNV pmax pmax
comp=Z,11nm,0.8s
TPNV **Topopah Spring** 83.17 51 **P** **22 29 17.7 +1.0**
TPNV IAmb IAmb 22 29 18.6
comp=Z,11nm,0.8s
SPUT **South Promonto** 83.20 46 IAmb IAmb 22 29 19.3
comp=Z,13nm,1.3s
GWY **Greenwater Val** 83.30 52 P **P** **22 29 18.0 +0.7**
GWY IAmb IAmb 22 29 19.2
comp=Z,14nm,1.0s
HWUT **Hardware Ranch** 83.58 45 P **P** **22 29 20.0 +1.4**
comp=Z,24nm,1.0s
DUG **Dugway, Tooele** 83.61 47 IAmb IAmb 22 29 21.1
comp=Z,13nm,0.9s
DUG **Dugway, Tooele** 83.61 47 P **P** **22 29 20.2 +1.5**
comp=Z,15nm,1.1s
ARR **Arges** 83.63 320 ⇓P **P** **22 29 19.5 +0.9**
ARR **Arges** 83.63 320 P **P** **22 29 19.7 +1.0**
comp=Z,8.7nm,1.4s
GSC **Goldstone, Bar** 83.68 53 IAmb IAmb 22 29 21.2
comp=Z,12nm,0.9s
PRN **Pahroc Range** 83.72 50 IAmb IAmb 22 29 21.7
comp=Z,7.5nm,1.0s
MMAI **Mount Meron Ar** 83.75 305 P **P** **22 29 19.8 +0.3**
comp=Z,1.3nm,0.4s,baz=62,slow=5.5,SNR=8.4
comp=Z,1.3nm,0.4s
PDAR **Pinedale Array** 84.11 43 P **P** **22 29 21.5 +0.2**
comp=Z,3.1nm,0.8s,baz=321,slow=3.8,SNR=6.7
comp=Z,3.1nm,0.8s
PDAR **Pinedale Array** 84.11 43 P **P** **22 29 21.4 +0.1**
SHPR **Sheep Range** 84.14 51 IAmb IAmb 22 29 23.8
comp=Z,7.6nm,1.0s
CSS **Mathiatis** 84.15 307 P **P** **22 29 21.0 -0.5**
comp=Z,9.0nm,0.9s
NLU **North Lily Min** 84.21 47 IAmb IAmb 22 29 24.1
comp=Z,8.7nm,1.0s
PFO **Pinyon Flats O** 84.84 54 *i*P **P** **22 29 26.5 +1.5**
PFO **Pinyon Flats O** 84.84 54 P **P** **22 29 25.5 +0.6**
PFO IAmb IAmb 22 29 26.9
comp=Z,13nm,1.0s
PFO **Pinyon Flats O** 84.84 54 P **P** **22 29 26.0 +1.0**
comp=Z,14nm,1.2s
BELC **Belle Mtn. Jos** 84.95 53 IAmb IAmb 22 29 27.0
comp=Z,8.0nm,1.0s
P17A **Butcher Ranch,** 85.33 47 IAmb IAmb 22 29 29.6
comp=Z,14nm,1.1s
Q16A **Castle Valley** 85.38 47 IAmb IAmb 22 29 53.6
comp=Z,8.7nm,1.2s
RDMU **Red Mountain** 85.41 45 IAmb IAmb 22 29 29.9
comp=Z,11nm,1.0s
KNB **Kanab** 85.41 50 IAmb IAmb 22 29 30.3
comp=Z,15nm,1.1s
CLL **Collm** 85.57 329 P **P** **22 29 27.6 -0.4**
comp=Z,4.1nm,2.8s
ULM **Lac du Bonnet** 86.40 32 P **P** **22 29 32.3 +0.3**
comp=Z,1.7nm,0.4s,baz=301,slow=4.5,SNR=6.0
comp=Z,1.7nm,0.4s
SRS **Serrai** 86.83 317 P **P** **22 29 32.4 -1.9**
comp=Z,21nm,1.3s
GERES **GERESS Array B** 86.99 327 P **P** **22 29 33.8 -1.2**
comp=Z,0.3nm,0.4s,baz=36,slow=2.5,SNR=4.3
comp=Z,0.3nm,0.4s
PV14 **Lion Creek, Pa** 87.06 47 P **P** **22 29 36.5 +0.7**
EKA **Eskdalemuir Ar** 88.50 339 P **P** **22 29 41.3 -0.5**
comp=Z,2.5nm,0.9s,baz=39,slow=3.7,SNR=2.3
comp=Z,2.5nm,0.9s
F33A **5 Mile Ranch,** 89.34 35 IAmb IAmb 22 29 47.6
comp=Z,10nm,0.9s
KTHA **Kythira Island** 90.18 313 P **P** **22 29 50.9 +0.9**
comp=Z,101nm,1.4s
FUORN **Ofenpass-Fuorn** 90.20 327 P **P** **22 29 50.0 -0.2**
comp=Z,10.0nm,2.1s
DAVOX **Davos/Dischmat** 90.26 328 P **P** **22 29 48.5 -1.9**
comp=Z,1.2nm,0.5s,baz=43,slow=5.2,SNR=3.1
comp=Z,1.2nm,0.5s
ITM **Ithomi** 90.31 314 P **P** **22 29 49.5 -1.1**
comp=Z,29nm,2.2s
TASM **ASL Pad, Albuq** 90.78 48 IAmb IAmb 22 29 55.9
comp=Z,5.3nm,1.0s
ANMO **Albuquerque** 90.78 48 P **P** **22 29 54.3 +1.2**
comp=Z,8.4nm,1.0s
ALQ **Albuquerque** 90.78 48 IAmb IAmb 22 29 55.9
comp=Z,6.2nm,1.0s
ALQ **Albuquerque** 90.78 48 IAmb IAmb 22 29 55.9
comp=Z,6.0nm,0.9s
TXAR **Lajitas Array** 96.15 51 P **P** **22 30 18.3 +0.7**
comp=Z,0.4nm,0.6s,baz=321,slow=5.4,SNR=3.3
comp=Z,0.4nm,0.6s
TXAR **Lajitas Array** 96.15 51 P **P** **22 30 18.9 +1.3**
TXAR **Lajitas Array** 96.15 51 P **P** **22 30 18.9 +1.3**
HPIG **96.29 54 P P 22 30 18.6 +0.2**
comp=Z,22nm,0.8s
TORD **Torodi Ar. Bea** 119.97 310 PKP **PKPdf** **22 35 37.1 -0.7**
comp=Z,0.8nm,0.5s,baz=41,slow=2.6,SNR=2.9
TORD **Torodi Ar. Bea** 119.97 310 **PKPdf** **22 35 36.9 -0.9**
QSPA **South Pole Qui** 120.16 180 PKP **PKiKP** **22 35 36.9 +0.1**
comp=Z,1.9nm,0.6s,baz=0.0,slow=1.8,SNR=7.5
BOSA **Boshof** 122.64 254 PKP **PKPdf** **22 35 42.3 -0.4**
comp=Z,2.8nm,0.9s,baz=85,slow=1.2,SNR=6.2
BOSA **Boshof** 122.64 254 PKPdf **PKPdf** **22 35 41.8 -0.9**
TROLL **Troll, Antarti** 132.19 197 ⇑SKPbc **SKPab** **22 38 45.6 -0.2**
comp=Z,365nm,0.9s
SNAA **Sanae** 133.71 196 ⇑SKPbc **SKPbc** **22 38 49.5 +0.3**
comp=Z,89nm,0.8s
SNAA **Sanae** 133.71 196 SKPbc **SKPbc** **22 38 49.4 +0.3**
comp=Z,4.3nm,0.9s,baz=97,slow=5.9,SNR=5.5
VNA2 **Neumayer--Watz** 135.29 195 ⇓PKPdf **PKiKP** **22 36 06.3 -0.6**
comp=Z,3.1nm,0.6s,baz=114,slow=1.9
VNA2 ⇑SKPbc **SKPbc** **22 38 54.5 +0.3**
comp=Z,3.6nm,0.7s,baz=114,slow=2.2
VNA3 **Neumayer Olymp** 135.55 194 ⇓PKPdf **PKPdf** **22 36 06.4 +0.7**
comp=Z,0.8nm,0.2s

VNA3 ⇑SKPbc **SKPbc** 22 38 55.0 0.0
comp=Z,2.1nm,0.7s
VNA1 **Neumayer--Stat** 135.69 195 ⇑SKPbc **SKPbc** 22 38 56.3 +1.0
comp=Z,4.5nm,0.9s

ISK ***24*** *22:18:14.3, 32˚.59N×29˚.69E, h12km, ML4.3/44*
NEIC ***24*** *22:18:16.9±1.9, 32˚.67N±0˚.08×29˚.77E±0˚.07, h10km±2km, mb4.1/17, Error ellipse: s-maj=14.4km s-min=10.2km az=196.0*
IDC ***24*** *22:18:20.3±1.3, 32˚.79N×29˚.81E, h40km±17km, mb3.7/8, mbtmp3.9/15, ML4.0/5, Error ellipse: s-maj=18.2km s-min=8.8km az=23.0*
NIC ***24*** *22:18:21.3, 32˚.90N×29˚.92E, h52km±31km, Ml3.7/9*
GII ***24*** *22:18:22.6±0.0, 32˚.657N±0˚.002×30˚.176E±0˚.001, h0km, Mws3.6, confirmed*
THE ***24*** *22:18:33.2, 34˚N±14˚×2˚9E±1˚3, h114km±37km, M4.0/23, MLh4.0/23*
NAO ***24*** *22:19:09.8, 36˚.96N×22˚.36E, h33km, MB3.5*
ISC 24 22:18:18.6±0.7,**32˚.70N**±0˚.05×**29˚.75E**±0˚.04,**h35**km,**n223,**
s209/279,mb4.0/12,Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time h m s	Res ISC
OSC1	**CSNet OBS 1**	**1.51**	**58**	P	**Pn**		**22 19 44.0**	**+0.9**
OSC1				S	**Sn**		**22 19 01.2**	**-0.4**
OSC2	**CSNet OBS 4**	**2.15**	**79**	P	**Pn**		**22 18 53.0**	**+1.0**
OSC2				S	**Sn**		**22 19 16.7**	**-0.7**
NATA	**Nata**	**3.13**	**48**	P	**Pn**		**22 19 06.7**	**+1.2**
NATA				S	**Sn**		**22 19 39.6**	**-2.1**
NATA	1.0nm,0.4s			AML	AML		22 19 46.1	
NATA	1.3nm,0.4s			AML	AML		22 19 48.0	
AKMS	**Akamas**	**3.16**	**42**	P	**Pn**		**22 19 06.3**	**+0.4**
AKMS				S	**Sn**		**22 19 38.0**	**-4.3**
AKMS	0.8nm,0.4s			AML	AML		22 19 44.4	
AKMS	0.8nm,0.3s			AML	AML		22 19 44.4	
APOL	**The Sanctuary**	**3.26**	**52**	P	**Pn**		**22 19 08.6**	**+1.5**
APOL				S	**Sn**		**22 19 43.0**	**-1.7**
APOL	0.4nm,0.3s			AML	AML		22 19 48.4	
APOL	0.6nm,0.3s			AML	AML		22 19 49.6	
ALFC	**Alefka**	**3.41**	**43**	P	**Pn**		**22 19 09.8**	**+0.5**
TROD	**Troodos**	**3.43**	**48**	P	**Pn**		**22 19 10.1**	**+0.3**
TROD				S	**Sn**		**22 19 46.0**	**-3.2**
TROD	0.4nm,0.4s			AML	AML		22 19 54.5	
TROD	0.5nm,0.3s			AML	AML		22 19 56.7	
KSL	**Kastellorizon**	**3.44**	**358**	P	**Pn**		**22 19 11.6**	**+1.8**
KSL				S	**Sn**		**22 19 44.8**	**-4.5**
KSL	**Kastellorizon**	**3.44**	**358**	P	**Pn**		**22 19 11.5**	**+1.8**
KSL				S	**Sn**		**22 19 47.4**	**-1.9**
AKAS	**Kas**	**3.53**	**358**		**Pn**		**22 19 12.4**	**+1.4**
AKAS				Sn	**Sn**		**22 19 50.0**	**-1.6**
AKAS	**Kas**	**3.53**	**358**	Pn	**Pn**		**22 19 12.2**	**+1.2**
AKAS				AML	AML			
KARP	**Karpathos**	**3.56**	**324**	P	**Pn**		**22 19 13.8**	**+2.4**
KARP				S	**Sn**		**22 19 44.3**	**-7.9**
KARP				AML	AML			
KARP	**Karpathos**	**3.56**	**324**	P	**Pn**		**22 19 13.7**	**+2.4**
KARP				S	**Sn**		**22 19 54.1**	**+1.8**
KARP	**Karpathos**	**3.56**	**324**		**Pn**		**22 19 13.4**	**+2.1**
KARP	**Karpathos**	**3.56**	**324**	Pn	**Pn**		**22 19 12.1**	**+0.7**
KARP				AML	AML			
ASGA	**Asgata**	**3.58**	**54**	P	**Pn**		**22 19 12.8**	**+1.1**
ASGA				S	**Sn**		**22 19 49.9**	**-2.8**
ASGA	0.8nm,0.3s			AML	AML		22 19 55.4	
ASGA	1.2nm,0.4s			AML	AML		22 19 55.5	
XYLS	**Xyliatos**	**3.59**	**49**	P	**Pn**		**22 19 12.8**	**+1.0**
XYLS				S	**Sn**		**22 19 49.9**	**-3.0**
XYLS	0.8nm,0.3s			AML	AML		22 19 53.1	
XYLS	0.7nm,0.4s			AML	AML		22 19 57.7	
CSS	**Mathiatis**	**3.74**	**52**	P	**Pn**		**22 19 15.5**	**+1.7**
CSS				S	**Sn**		**22 19 53.5**	**-3.1**
CSS	0.3nm,0.3s			AML	AML		22 19 59.2	
CSS	0.6nm,0.5s			AML	AML		22 20 00.4	
CSS	**Mathiatis**	**3.74**	**52**		**Pn**		**22 19 15.1**	**+1.3**
CSS	**Mathiatis**	**3.74**	**52**	P	**Pn**		**22 19 15.5**	**+1.7**
CSS				AML	AML			
CSS	**Mathiatis**	**3.74**	**52**	Pn	**Pn**		**22 19 15.1**	**+1.3**
CSS				AML	AML			
CSS	**Mathiatis**	**3.74**	**52**	P	**Pn**		**22 19 15.1**	**+1.3**
CSS				S	**Sn**		**22 19 55.8**	**-0.8**
ARG	**Arkhangelos**	**3.75**	**340**	P	**Pn**		**22 19 15.6**	**+1.6**
ARG				S	**Sn**		**22 19 49.2**	**-7.8**
ARG	**Arkhangelos**	**3.75**	**340**	P	**Pn**		**22 19 15.8**	**+1.8**
ARG				S	**Sn**		**22 19 55.4**	**-1.6**
ARG	**Arkhangelos**	**3.75**	**340**		**Pn**		**22 19 15.1**	**+1.1**
ARG				Sn	**Sn**		**22 19 55.1**	**-1.9**
ARG	**Arkhangelos**	**3.75**	**340**	Pn	**Pn**		**22 19 15.3**	**+1.3**
ARG				AML	AML			
ZKR	**Zakros**	**3.80**	**310**	P	**Pn**		**22 19 17.5**	**+2.9**
ZKR	**Zakros**	**3.80**	**310**	P	**Pn**		**22 19 17.0**	**+2.4**
ZKR				S	**Sn**		**22 19 59.7**	**+1.6**
ZKR	**Zakros**	**3.80**	**310**	Pn	**Pn**		**22 19 15.1**	**+0.5**
ZKR				Sn	**Sn**		**22 19 59.4**	**+1.3**
ZKR				AML	AML			
ATHAL	**Athalassa**	**3.89**	**50**	P	**Pn**		**22 19 17.9**	**+2.0**
ATHAL				S	**Sn**		**22 19 59.4**	**-0.9**
ATHAL	1.2nm,0.6s			AML	AML		22 20 09.8	
ATHAL	0.9nm,0.6s			AML	AML		22 20 12.9	
FETY	**Fethiye**	**3.96**	**352**	Pn	**Pn**		**22 19 18.2**	**+1.3**
FETY				AML	AML			
MVOU	**Mavrovouni**	**3.97**	**53**	P	**Pn**		**22 19 18.8**	**+1.8**
MVOU				S	**Sn**		**22 20 02.1**	**-0.3**
MVOU	0.4nm,0.5s			AML	AML		22 20 06.4	
MVOU	0.4nm,0.4s			AML	AML		22 20 08.1	
ELL	**Elmali**	**4.04**	**2**	P	**Pn**		**22 19 20.8**	**+2.7**
ELL				S	**Sn**		**22 20 03.4**	**-0.8**
ELL	**Elmali**	**4.04**	**2**		**Pn**		**22 19 20.4**	**+2.3**
ELL	**Elmali**	**4.04**	**2**	Pn	**Pn**		**22 19 19.4**	**+1.3**
ELL				AML	AML			
LFK	**Lefkose**	**4.06**	**50**	Pn	**Pn**		**22 19 19.9**	**+1.6**
LFK				AML	AML			
GAZI	**Gazipasa**	**4.11**	**30**	Pn	**Pn**		**22 19 20.9**	**+1.9**
GAZI				AML	AML			
DALY	**Dalyan (Mula)**	**4.21**	**348**	Pn	**Pn**		**22 19 21.5**	**+1.3**
DALY				AML	AML			
CAME	**Cameli-Denizli**	**4.25**	**355**	Pn	**Pn**		**22 19 22.4**	**+1.4**
CAME				AML	AML			
TURN	**Turunc**	**4.25**	**343**	Pn	**Pn**		**22 19 22.5**	**+1.7**
TURN				AML	AML			
ANTB	**Antalya**	**4.26**	**10**	Pn	**Pn**		**22 19 22.5**	**+1.6**
ANTB				AML	AML			
NPS	**Neapolis**	**4.28**	**308**	P	**Pn**		**22 19 24.3**	**+3.0**
NPS				S	**Sn**		**22 20 02.9**	**-7.1**
NPS				AML	AML			
ALAN	**Alanya-ANTALYA**	**4.28**	**25**	Pn	**Pn**		**22 19 23.4**	**+2.1**
ALAN				AML	AML			
CY604	**RAF Akrotiri,**	**4.30**	**66**		**Pn**		**22 19 22.4**	**+1.1**
KORT	**Korkueli**	**4.32**	**6**	Pn	**Pn**		**22 19 25.3**	**+3.4**
KORT				AML	AML			
BOZY	**Bozyazi-Mersin**	**4.32**	**37**	Pn	**Pn**		**22 19 23.4**	**+1.6**
BOZY				AML	AML			
KZIT	**Kziot**	**4.34**	**113**	P	**Pn**		**22 19 23.5**	**+1.4**
KZIT				S	**Sn**		**22 20 08.4**	**-3.1**
KZIT	**Kziot**	**4.34**	**113**	P	**Pn**		**22 19 23.7**	**+1.6**
KZIT				AML	AML			
KZIT	**Kziot**	**4.34**	**113**	P	**Pn**		**22 19 23.3**	**+1.2**
KZIT				S	**Sn**		**22 20 09.5**	**-2.0**
DAT	**Datca**	**4.40**	**337**	P	**Pn**		**22 19 24.6**	**+1.6**
DAT				AML	AML			
DAT	**Datca**	**4.40**	**337**	Pn	**Pn**		**22 19 24.5**	**+1.5**
DAT				AML	AML			
OFRI	**`Ofer**	**4.42**	**90**	P	**Pn**		**22 19 23.0**	**-0.2**
OFRI				S	**Sn**		**22 20 10.5**	**-2.9**
TEKE	**Tekeli-Mersin**	**4.42**	**38**	Pn	**Pn**		**22 19 24.8**	**+1.7**
TEKE				AML	AML			
SLTI	**Sal'it**	**4.50**	**94**	P	**Pn**		**22 19 24.5**	**+0.3**
SLTI				S	**Sn**		**22 20 12.5**	**-2.8**
AMAZ	**Amatzia**	**4.54**	**103**	P	**Pn**		**22 19 25.4**	**+0.6**
AMAZ				S	**Sn**		**22 20 13.7**	**-2.6**
AMAZ	**Amatzia**	**4.54**	**103**	P	**Pn**		**22 19 26.0**	**+1.2**
AMAZ				AML	AML			
AMAZ	**Amatzia**	**4.54**	**103**	P	**Pn**		**22 19 25.4**	**+0.6**
AMAZ				S	**Sn**		**22 20 14.1**	**-2.2**
HNTI	**Hanita**	**4.58**	**84**	P	**Pn**		**22 19 25.7**	**+0.3**
HNTI				S	**Sn**		**22 20 14.6**	**-2.8**
YORU	**Yoruktepe-Mers**	**4.58**	**40**	Pn	**Pn**		**22 19 27.6**	**+2.2**
YORU				AML	AML			
YER	**Yerkesik**	**4.58**	**345**	P	**Pn**		**22 19 27.6**	**+2.2**
YER				S	**Sn**		**22 20 09.1**	**-8.4**
YER	**Yerkesik**	**4.58**	**345**	Pn	**Pn**		**22 19 27.5**	**+2.0**
YER				AML	AML			
BLGI	**Bet Lehem HaGe**	**4.59**	**88**	P	**Pn**		**22 19 26.4**	**+0.9**
BERE	**Bereket-Mersin**	**4.63**	**37**	Pn	**Pn**		**22 19 28.5**	**+2.3**
BERE				AML	AML			
SALP	**Salfit**	**4.65**	**96**	P	**Pn**		**22 19 27.2**	**+0.9**
SALP				AML	AML			
AKK1	**Akkuyu-Mersin**	**4.65**	**41**	Pn	**Pn**		**22 19 28.4**	**+2.1**
AKK1				AML	AML			
AKK2	**Akkuyu-Mersin**	**4.65**	**41**	Pn	**Pn**		**22 19 28.5**	**+2.2**
AKK2				AML	AML			
OREN	**Orenkoy-Mersin**	**4.65**	**40**	Pn	**Pn**		**22 19 28.3**	**+2.0**
ARIL	**Ariel Universi**	**4.66**	**96**	P	**Pn**		**22 19 27.6**	**+1.1**
ARIL				S	**Sn**		**22 20 17.6**	**-1.8**
BECE	**Buyukeceli-Mer**	**4.67**	**41**	Pn	**Pn**		**22 19 28.9**	**+2.3**
BECE				AML	AML			
ZRT	**Zar'it**	**4.68**	**84**	P	**Pn**		**22 19 27.9**	**+1.2**
ZRT				S	**Sn**		**22 20 17.1**	**-2.8**
JER	**Jerusalem**	**4.71**	**100**	P	**Pn**		**22 19 27.7**	**+0.5**
JER				S	**Sn**		**22 20 17.9**	**-2.8**
TEPK	**Tepekoy-MERSIN**	**4.71**	**41**	Pn	**Pn**		**22 19 29.2**	**+2.0**
TEPK				AML	AML			
SIVA	**Sivas**	**4.71**	**301**	P	**Pn**		**22 19 30.3**	**+3.1**
SIVA				AML	AML			
BODA	**Bodrum-Mula**	**4.73**	**337**	Pn	**Pn**		**22 19 29.1**	**+1.8**
TISA	**Tisan-Mersin**	**4.74**	**42**	Pn	**Pn**		**22 19 29.4**	**+1.9**
TISA				AML	AML			
YESI	**Yesilovacik-Me**	**4.74**	**42**	Pn	**Pn**		**22 19 29.8**	**+2.2**
YESI				AML	AML			
RMNI	**Mount Ramon**	**4.76**	**115**	P	**Pn**		**22 19 29.2**	**+1.2**
RMNI				S	**Sn**		**22 20 19.4**	**-2.6**
MMA0B	**Mount Meron ar**	**4.77**	**85**	P	**Pn**		**22 19 28.3**	**+0.2**
MMA0B				S	**Sn**		**22 20 20.1**	**-2.0**
MMAI	**Mount Meron Ar**	**4.77**	**85**	Pn	**Pn**		**22 19 28.1**	**0.0**
	17nm,0.3s,baz=280,slow=11,SNR=138							
MMAI	54nm,0.3s,baz=275,slow=19,SNR=17 6.5nm,0.2s			Sn	**Sn**		**22 20 18.4**	**-3.7**
MMAI				AML	AML			
APMY	**Acipayam-Deniz**	**4.78**	**356**	Pn	**Pn**		**22 19 30.0**	**+1.9**
APMY				AML	AML			
KARG	**Kargicak-Mersi**	**4.79**	**42**	Pn	**Pn**		**22 19 30.1**	**+1.9**
KARG				AML	AML			
BODT	**Bodrum**	**4.79**	**336**	P	**Pn**		**22 19 29.4**	**+1.1**
BODT				AML	AML			
BODT	**Bodrum**	**4.79**	**336**	Pn	**Pn**		**22 19 29.6**	**+1.3**
BODT				AML	AML			
IDI	**Anoyia**	**4.79**	**304**	Pn	**Pn**		**22 19 28.9**	**+0.6**
	22nm,0.8s,baz=173,slow=8.8,SNR=25							
IDI	8.1nm,0.3s,baz=168,slow=2.1,SNR=6.8			Sn	**Sn**		**22 20 21.9**	**-0.7**
IDI	**Anoyia**	**4.79**	**304**	P	**Pn**		**22 19 31.0**	**+2.6**
IDI				AML	AML			
IDI	**Anoyia**	**4.79**	**304**	Pn	**Pn**		**22 19 29.7**	**+1.4**
MMLI	**Mount Malkishu**	**4.80**	**92**	P	**Pn**		**22 19 28.1**	**-0.2**
MMLI				S	**Sn**		**22 20 18.1**	**-4.6**
MMLI	**Mount Malkishu**	**4.80**	**92**	P	**Pn**		**22 19 28.3**	**-0.1**
MMLI				S	**Sn**		**22 20 19.6**	**-3.1**
IKL	**Isikli**	**4.80**	**42**	Pn	**Pn**		**22 19 30.4**	**+2.0**
IKL				AML	AML			
HDMB	**Hadim**	**4.81**	**27**	Pn	**Pn**		**22 19 30.4**	**+1.6**
HDMB				AML	AML			
TEVE	**Tevekalti-Mers**	**4.81**	**38**	Pn	**Pn**		**22 19 30.9**	**+2.2**
TEVE				AML	AML			
ZEFT	**Zefat**	**4.84**	**85**	P	**Pn**		**22 19 30.0**	**+0.9**
ZEFT				S	**Sn**		**22 20 22.4**	**-1.6**
MLSB	**Milas**	**4.86**	**341**	Pn	**Pn**		**22 19 30.8**	**+1.5**
MLSB				AML	AML			
YITV	**Yitav**	**4.86**	**97**	P	**Pn**		**22 19 29.6**	**+0.4**
ROII	**Roi**	**4.87**	**94**	P	**Pn**		**22 19 30.5**	**+1.2**
ROII				S	**Sn**		**22 20 22.7**	**-1.9**
TVER	**Teveria**	**4.88**	**87**	P	**Pn**		**22 19 30.8**	**+1.4**
TVER				S	**Sn**		**22 20 22.4**	**-2.3**
UJAP	**Al Uja**	**4.90**	**97**	Pn	**Pn**		**22 19 30.8**	**+1.1**
UJAP	**Al Uja**	**4.90**	**97**	P	**Pn**		**22 19 29.9**	**+0.3**
UJAP				S	**Sn**		**22 20 22.7**	**-2.4**
RGMN	**Argaman**	**4.91**	**95**	P	**Pn**		**22 19 31.0**	**+1.1**
RGMN				S	**Sn**		**22 20 22.4**	**-3.0**
KNHM	**Kefar Nahum**	**4.91**	**86**	P	**Pn**		**22 19 30.8**	**+0.8**
KNHM				S	**Sn**		**22 20 23.4**	**-2.2**
KIRY	**Kiryat Shemona**	**4.92**	**83**	P	**Pn**		**22 19 31.2**	**+1.2**
KIRY				S	**Sn**		**22 20 23.2**	**-2.5**
ALMO	**Almog**	**4.92**	**99**	P	**Pn**		**22 19 31.1**	**+1.0**
ALMO				S	**Sn**		**22 20 23.7**	**-2.1**
MZS	**Mizpe Shalem**	**4.92**	**102**	P	**Pn**		**22 19 30.5**	**+0.4**
MZS				S	**Sn**		**22 20 23.7**	**-2.2**
QRNJ	**Al-Qirein**	**4.94**	**93**	P	**Pn**		**22 19 31.4**	**+1.2**
QRNJ				AML	AML			
HULT	**Hulata**	**4.95**	**84**	P	**Pn**		**22 19 31.3**	**+0.9**
HULT				S	**Sn**		**22 20 24.2**	**-2.2**
MSBI	**Mazada**	**4.96**	**105**	P	**Pn**		**22 19 31.9**	**+1.3**
MSBI				AML	AML			
MSBI	**Mazada**	**4.96**	**105**	P	**Pn**		**22 19 30.9**	**+0.3**
KEBE	**Keben-Mersin**	**4.97**	**40**	Pn	**Pn**		**22 19 32.3**	**+1.6**
KEBE				AML	AML			
DQRL	**Deir Qamar**	**4.98**	**77**	*eP*	**Pn**		**22 19 31.2**	**+0.2**
RMOT	**Ramot**	**4.99**	**87**	P	**Pn**		**22 19 32.1**	**+1.2**
GEM	**Giv'at Ha'Em**	**5.00**	**83**	P	**Pn**		**22 19 32.3**	**+1.2**
GEM				AML	AML			
GEM	**Giv'at Ha'Em**	**5.00**	**83**	P	**Pn**		**22 19 32.1**	**+1.0**
GEM				S	**Sn**		**22 20 25.7**	**-2.0**
SEYD	**Seydisehir-KON**	**5.00**	**19**	Pn	**Pn**		**22 19 33.8**	**+2.6**
SEYD				AML	AML			
SILI	**Silifke-Mersin**	**5.03**	**42**	Pn	**Pn**		**22 19 34.0**	**+2.5**
SILI				AML	AML			
IDAN	**Idan**	**5.06**	**110**	P	**Pn**		**22 19 33.2**	**+1.3**
IDAN				S	**Sn**		**22 20 27.0**	**-2.2**
PRNI	**Paran**	**5.06**	**116**	P	**Pn**		**22 19 35.6**	**+3.6**
PRNI				AML	AML			
NATI	**Neve Ativ**	**5.06**	**82**	P	**Pn**		**22 19 32.6**	**+0.6**
NATI				S	**Sn**		**22 20 27.0**	**-2.3**
THERA	**Ancient Thera,**	**5.08**	**317**	P	**Pn**		**22 19 33.5**	**+1.2**
THERA				AML	AML			
LISJ	**El Lisan**	**5.08**	**105**	P	**Pn**		**22 19 34.0**	**+1.8**
LISJ				AML	AML			
BHL	**Bhannes**	**5.09**	**75**	*eP*	**Pn**		**22 19 31.3**	**-1.1**
HZVA	**Hazeva**	**5.09**	**111**	P	**Pn**		**22 19 33.9**	**+1.5**
HZVA				S	**Sn**		**22 20 27.0**	**-3.0**
ZFRI	**Zfri**	**5.10**	**113**	P	**Pn**		**22 19 33.5**	**+1.0**
ZFRI				S	**Sn**		**22 20 26.7**	**-3.5**
THR8	**Santorini-Mono**	**5.11**	**318**	P	**Pn**		**22 19 33.6**	**+1.1**
KSHT	**Keshet**	**5.11**	**85**	P	**Pn**		**22 19 34.1**	**+1.4**
KSHT				S	**Sn**		**22 20 29.2**	**-1.3**
THR6	**Thira Island,**	**5.12**	**317**	P	**Pn**		**22 19 33.8**	**+1.1**
GHAJ	**Ghor Haditha**	**5.13**	**104**		**Pn**		**22 19 33.9**	**+0.9**
GHAJ	**Ghor Haditha**	**5.13**	**104**	P	**Pn**		**22 19 35.0**	**+2.0**
GHAJ				AML	AML			
GHAJ	**Ghor Haditha**	**5.13**	**104**	P	**Pn**		**22 19 34.3**	**+1.3**
THRA	**Thira**	**5.14**	**317**	P	**Pn**		**22 19 33.7**	**+0.6**
THRA				AML	AML			
SFIR	**Foira Santorin**	**5.15**	**317**	P	**Pn**		**22 19 34.8**	**+1.6**
ISP	**Isparta**	**5.15**	**7**		**Pn**		**22 19 36.6**	**+3.3**
SNT5	**Nea Kammeni, S**	**5.15**	**317**	P	**Pn**		**22 19 34.4**	**+1.2**
SNT5				AML	AML			
THR3	**Thira Island,**	**5.15**	**317**	P	**Pn**		**22 19 34.7**	**+1.5**
THR2	**Thira island,**	**5.16**	**318**	P	**Pn**		**22 19 34.3**	**+1.0**
RCY	**Rachaya**	**5.17**	**80**	*eP*	**Pn**		**22 19 33.9**	**+0.2**
GVD	**Gavdhos**	**5.17**	**296**	P	**Pn**		**22 19 36.3**	**+2.8**
GVD				AML	AML			
GVD	**Gavdhos**	**5.17**	**296**	Pn	**Pn**		**22 19 36.1**	**+2.6**
GVD				AML	AML			
THR5	**Thira Island,**	**5.19**	**317**	P	**Pn**		**22 19 34.5**	**+0.7**
GVDS	**Gavdos**	**5.20**	**296**	P	**Pn**		**22 19 36.6**	**+2.8**
GVDS				S	**Sn**		**22 20 10.5**	**-2.9**
SAP3	**Santorini-Thir**	**5.20**	**317**	P	**Pn**		**22 19 34.7**	**+0.8**
HRFI	**Mount Harif**	**5.24**	**119**	P	**Pn**		**22 19 37.9**	**+3.4**
HRFI				AML	AML			
HRFI	**Mount Harif**	**5.24**	**119**	P	**Pn**		**22 19 35.8**	**+1.2**
HRFI				S	**Sn**		**22 20 32.3**	**-1.5**
ZAHL	**Zahle**	**5.27**	**76**	*eP*	**Pn**		**22 19 34.6**	**-0.3**
KRMN	**Karaman**	**5.32**	**32**	Pn	**Pn**		**22 19 37.6**	**+2.0**
KRMN				AML	AML			
YTVT	**Yotvata**	**5.34**	**120**	P	**Pn**		**22 19 36.9**	**+1.1**
YTVT				S	**Sn**		**22 20 33.5**	**-2.5**
VAM	**Vamos**	**5.34**	**302**	P	**Pn**		**22 19 40.0**	**+4.2**
VAM				AML	AML			
EIL	**Elat**	**5.38**	**123**	Pn	**Pn**		**22 19 38.1**	**+1.7**
	2.0nm,0.3s,baz=314,slow=2.2,SNR=41							
EIL	21nm,0.3s,baz=297,slow=3.4,SNR=17 4.4nm,0.3s			Sn	**Sn**		**22 20 34.8**	**-2.4**
EIL				AML	AML			
EIL	**Elat**	**5.38**	**123**	P	**Pn**		**22 19 39.7**	**+3.3**
EIL				AML	AML			
EIL	**Elat**	**5.38**	**123**	Pn	**Pn**		**22 19 36.8**	**+0.4**
EIL				AML	AML			
EIL	**Elat**	**5.38**	**123**	P	**Pn**		**22 19 38.2**	**+1.8**
EIL				S	**Sn**		**22 20 34.5**	**-2.7**
HWQ	**Hawqa**	**5.41**	**71**	*eP*	**Pn**		**22 19 36.7**	**-0.2**
AQBJ	**Aqaba**	**5.42**	**122**	P	**Pn**		22 19 42.9	+6.0
	1.1nm5µm50nm,0.5s							
AQBJ				AML	AML			
IMMV	**Iera Moni Meta**	**5.52**	**301**	P	**Pn**		**22 19 40.8**	**+2.5**
IMMV				AML	AML			
IMMV	**Iera Moni Meta**	**5.52**	**301**	Pn	**Pn**		**22 19 39.5**	**+1.2**
IMMV				AML	AML			
SMG	**Samos**	**5.54**	**335**	P	**Pn**		**22 19 39.8**	**+1.3**
SMG				AML	AML			
APE	**Apeiranthos**	**5.57**	**323**	P	**Pn**		**22 19 40.1**	**+1.1**
APE				AML	AML			
APE	**Apeiranthos**	**5.57**	**323**	Pn	**Pn**		**22 19 40.1**	**+1.1**
APE				AML	AML			
BEIL	**Beino**	**5.67**	**69**	*eP*	**Pn**		**22 19 40.7**	**+0.3**
MANT	**Manisa**	**5.86**	**351**		**Pn**		**22 19 44.8**	**+1.6**
ASF	**Jabal al Asfar**	**6.07**	**93**	Pn	**Pn**		**22 19 47.2**	**+1.3**
	2.4nm,0.3s,baz=271,slow=5.2,SNR=18							
ASF	3.4nm,0.3s,baz=343,slow=12,SNR=6.4 5.0nm,0.3s			Sn	**Sn**		**22 20 50.5**	**-3.6**
ASF				AML	AML			
ASF	**Jabal al Asfar**	**6.07**	**93**	P	**Pn**		**22 19 47.6**	**+1.7**
ASF				AML	AML			
BLCB	**Balcova**	**6.09**	**340**	P	**Pn**		**22 19 47.5**	**+1.4**
BLCB				AML	AML			
TAHT	**Tahtakopru-Hat**	**6.45**	**54**	Pn	**Pn**		**22 19 52.5**	**+1.4**
CMRD	**Camardi-Nigde**	**6.55**	**39**	Pn	**Pn**		**22 19 54.9**	**+2.3**
BALB	**Balikesir**	**7.09**	**348**		**Pn**		**22 20 01.7**	**+1.9**
GAZ	**Gaziantep**	**7.58**	**52**	P	**Pn**		**22 20 07.3**	**+0.6**
GAZ	**Gaziantep**	**7.58**	**52**	Pn	**Pn**		**22 20 07.2**	**+0.6**
BR131	**Keskin Array S**	**7.68**	**23**		**Pn**		**22 20 10.0**	**+1.9**
BRTR	**Keskin Array B**	**7.68**	**23**	Pn	**Pn**		**22 20 08.7**	**+0.6**
	1.5nm,0.3s,baz=197,slow=15,SNR=45							
BRTR	0.6nm,0.3s,baz=197,slow=25,SNR=6.5 4.1nm,0.5s			Sn	**Sn**		**22 21 30.4**	**-3.6**
BRTR				AML	AML			
BRTR	**Keskin Array B**	**7.68**	**23**	Pn	**Pn**		**22 20 09.9**	**+1.9**
ITM	**Ithomi**	**7.82**	**307**	Pn	**Pn**		**22 20 10.4**	**+0.5**
MDUB	**Mudurnu**	**7.84**	**8**	Pn	**Pn**		**22 20 12.3**	**+2.0**
BNN	**Bunyan**	**7.89**	**37**		**Pn**		**22 20 12.5**	**+1.6**
ALN	**Alexandroupoli**	**8.70**	**341**	P	**Pn**		**22 20 23.9**	**+2.0**
ALN				AML	AML			
ALN	**Alexandroupoli**	**8.70**	**341**	Pn	**Pn**		**22 20 23.4**	**+1.4**
AGG	**Agios Georgios**	**8.72**	**318**	Pn	**Pn**		**22 20 23.0**	**+0.8**
PVO	**Paravola**	**8.92**	**314**	P	**Pn**		**22 20 27.3**	**+2.4**
LIT	**Litokhoron**	**9.42**	**324**	Pn	**Pn**		**22 20 33.0**	**+1.2**
MARD	**Mardin**	**10.15**	**60**	Pn	**Pn**		**22 20 43.0**	**+1.1**
KEK	**Kerkira**	**10.65**	**314**	Pn	**Pn**		**22 20 47.5**	**-1.2**
TIP	**Timpagrande**	**12.35**	**305**	Pn	**Pn**		**22 21 10.0**	**-1.9**
CEL	**Celeste**	**12.58**	**300**	Pn	**Pn**		**22 21 14.0**	**-1.0**
MLR	**Muntele Rosu**	**13.11**	**348**	Pn	**Pn**		**22 21 22.0**	**-0.3**
	0.2nm,0.3s,baz=272,slow=23,SNR=5.6 3.0nm,0.8s							
MLR				AML	AML			
MLR	**Muntele Rosu**	**13.11**	**348**	Pn	**Pn**		**22 21 22.8**	**+0.5**
RAFF	**Raffo Rosso**	**13.40**	**294**	Pn	**Pn**		**22 21 26.4**	**+0.2**
VAE	**Valguarnera**	**13.43**	**295**	Pn	**Pn**		**22 21 26.7**	**0.0**
	1.6nm,0.5s,baz=139,slow=19,SNR=1.7							
VAE	1.4nm,0.3s,baz=190,slow=6.7,SNR=7.2			Sn	**Sn**		**22 23 46.6**	**-8.1**
BURAR	**Bucovina Array**	**15.29**	**348**	P	**P**		**22 21 56.0**	**-0.2**
BUR08	**Bucovina Ar. S**	**15.32**	**348**	Pn	**

comp=Z,2.2nm,0.9s
ARCES ARCESS Array B 36.96 358 P P 22 25 24.7 +0.6

*IDC **24** 22:18:49.1±0.7,16˚.60S×174˚.22E,h0km,mb4.2/11, mbtmp4.2/13,ML4.8/1,MS4.0/9,Error ellipse: s-maj=24.7km s-min=14.3km az=159.0*
*NEIC **24** 22:18:50.7±1.1,16˚.8S±0˚.1×174˚.37E±0˚.08,h10km±1km, mb4.8/19,Ms_20 5.0/16,Mww5.0/5,Error ellipse: s-maj=21.8km s-min=12.2km az=345.0*

ISC 24 22:18:51.7±0.6, 16.8S±0.1×174.33E±0˚07, h18km, n65, σ1§04/52, mb4.6/22, MS4.1/10, 3C, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**3.69**	**106**	Pn	**Pn**	**22 19 49.8**	**+1.9**
	2.6nm,0.3s,baz=275,slow=15,SNR=9.7						
MSVF				Sn	**Sn**	**22 20 30.7**	**-0.2**
	2.2nm,0.3s,baz=149,slow=22,SNR=2.4						
	11nm,0.5s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**3.69**	**106**		**Pn**	**22 19 48.9**	**+1.1**
MSVF				Sn	**Sn**	**22 20 29.4**	**-1.5**
MARNC	**Mare, Loyalty**	**7.58**	**231**	Pn	**Pn**	**22 20 41.1**	**-0.2**
PINNC	**Pines Island,**	**8.71**	**227**	Pn	**Pn**	**22 20 56.4**	**-0.4**
OUENC	**Ouen Island, N**	**9.02**	**230**	Pn	**Pn**	**22 21 01.0**	**-0.1**
DZM	**Mont Dzumac**	**9.12**	**233**	Pn	**Pn**	**22 21 02.6**	**+0.1**
	14nm,1.2s,baz=59,slow=14,SNR=16						
AFI	**Afiamalu**	**13.70**	**80**	LR	LR	22 26 12.8	
	comp=Z,673nm,22.0s,baz=244,slow=32						
RAO	**Raoul Island**	**14.33**	**152**	LR	LR	22 26 24.2	
	comp=Z,1µm,21.8s,baz=344,slow=31						
HNR	**Honiara**	**15.78**	**296**	LR	LR	22 27 48.2	
	comp=Z,169nm,19.2s,baz=223,slow=34						
URZ	**Urewera**	**21.56**	**174**	LR	LR	22 30 01.6	
	comp=Z,491nm,20.6s,baz=8.5,slow=31						
EIDS	**Eidsvold**	**23.30**	**245**	P	**P**	**22 23 58.9**	**+0.2**
EIDS				IAmb	IAmb	22 24 04.2	
	comp=Z,39nm,1.4s						
MRZ	**Mangatainoka R**	**23.84**	**178**	P	**P**	**22 24 02.5**	**-1.3**
MRZ				IAmb	IAmb	22 24 05.5	
	comp=Z,43nm,1.3s						
BFZ	**Birch Farm**	**23.89**	**176**	P	**P**	**22 24 03.2**	**-1.1**
TCW	**Tory Channel**	**24.37**	**180**	P	**P**	**22 24 07.6**	**-1.1**
MSWZ	**Moikau Station**	**24.58**	**178**	P	**P**	**22 24 09.8**	**-0.9**
TUWZ	**Tuamarina**	**24.59**	**181**	P	**P**	**22 24 09.7**	**-1.0**
THZ	**Tophouse**	**24.95**	**183**	P	**P**	**22 24 12.3**	**-1.8**
RPZ	**Rata Peaks**	**27.01**	**185**	LR	LR	22 34 08.4	
	comp=Z,193nm,18.9s,baz=358,slow=34						
TOO	**Toolangi**	**32.77**	**225**	P	**P**	**22 25 22.9**	**-0.8**
STKA	**Stephens Creek**	**33.25**	**237**	P	**P**	**22 25 29.6**	**+1.6**
	comp=Z,2.7nm,0.8s,baz=70,slow=9.0,SNR=5.7						
	comp=Z,2.7nm,0.8s						
STKA	**Stephens Creek**	**33.25**	**237**	P	**P**	**22 25 27.4**	**-0.6**
STKA				IAmb	IAmb	22 25 32.5	
	comp=Z,14nm,0.9s						
WB0	**Warramunga Arr**	**37.98**	**259**	P	**P**	**22 26 08.3**	**-0.5**
WRA	**Warramunga Arr**	**38.03**	**259**	P	**P**	**22 26 09.4**	**+0.2**
	comp=Z,4.9nm,0.8s,baz=91,slow=8.9,SNR=20						
	comp=Z,4.9nm,0.8s						
AS17	**Alice Springs**	**38.37**	**253**	P	**P**	**22 26 14.3**	**+2.2**
AS09	**Alice Springs**	**38.42**	**253**	P	**P**	**22 26 14.8**	**+2.3**
AS15	**Alice Springs**	**38.45**	**253**	P	**P**	**22 26 13.8**	**+1.1**
ASAR	**Alice Springs**	**38.45**	**253**	P	**P**	**22 26 13.5**	**+0.7**
	comp=Z,6.2nm,0.8s,baz=80,slow=8.9,SNR=56						
	comp=Z,6.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**46.37**	**261**	LR	LR	22 45 13.5	
	comp=Z,260nm,20.1s,baz=153,slow=34						
VNDA	**Vanda**	**61.10**	**183**	P	**P**	**22 29 06.6**	**+2.3**
	comp=Z,0.9nm,1.0s,baz=15,slow=7.0,SNR=3.5						
	comp=Z,0.9nm,1.0s						
VNDA	**Vanda**	**61.10**	**183**	P	**P**	**22 29 04.4**	**+0.2**
QSPA	**South Pole Qui**	**73.28**	**180**	P	**P**	**22 30 21.4**	**-0.4**
	comp=Z,1.7nm,0.6s,baz=355,slow=2.2,SNR=6.1						
	comp=Z,1.7nm,0.6s						
QSPA	**South Pole Qui**	**73.28**	**180**	P	**P**	**22 30 20.9**	**-1.0**
QSPA				IAmb	IAmb	22 30 38.1	
	comp=Z,12nm,1.2s						
M02C	**Callahan**	**81.92**	**43**	P	**P**	**22 31 10.5**	**+0.1**
M02C				IAmb	IAmb	22 31 36.9	
	comp=Z,15nm,1.4s						
CMAR	**Chiang Mai Arr**	**81.99**	**292**	P	**P**	**22 31 10.1**	**-1.0**
	comp=Z,1.0nm,0.3s,baz=108,slow=6.1,SNR=1.7						
	comp=Z,1.0nm,0.3s						
YBH	**Yreka Blue Hor**	**82.19**	**42**	P	**P**	**22 31 12.1**	**+0.3**
	comp=Z,2.2nm,0.7s,baz=235,slow=5.2,SNR=6.2						
	comp=Z,2.2nm,0.7s						
L19K	**White Mountain**	**82.36**	**14**	P	**P**	**22 31 11.9**	**-0.2**
MAW	**Mawson**	**82.51**	**201**	P	**P**	**22 31 12.4**	**-0.5**
NVAR	**Mina Array Bea**	**83.56**	**47**	P	**P**	**22 31 19.3**	**+0.1**
	comp=Z,1.6nm,0.8s,baz=225,slow=8.4,SNR=6.3						
	comp=Z,1.6nm,0.8s						
CAST	**Castle Rocks**	**84.08**	**14**	P	**P**	**22 31 20.5**	**-0.5**
CAST				IAmb	IAmb	22 31 44.3	
	comp=Z,11nm,1.4s						
PINE	**Pine Mountain**	**84.35**	**41**	P	**P**	**22 31 22.3**	**-0.7**
TPNV	**Topopah Spring**	**84.36**	**49**	P	**P**	**22 31 23.3**	**+0.1**
TPNV				IAmb	IAmb	22 31 25.8	
	comp=Z,4.5nm,0.9s						
113A	**Mohawk Valley,**	**84.47**	**54**	P	**P**	**22 31 23.4**	**-0.2**
113A				IAmb	IAmb	22 31 26.4	
	comp=Z,11nm,1.3s						
LZDM	**Lanzhou Array**	**84.82**	**310**	LR	LR	23 05 07.5	
	comp=Z,87nm,21.8s,baz=320,slow=33						
BMN	**Battle Mountai**	**85.21**	**45**	P	**P**	**22 31 27.7**	**+0.3**
BMN				IAmb	IAmb	22 31 29.9	
	comp=Z,6.0nm,1.1s						
PRN	**Pahroc Range**	**85.42**	**49**	P	**P**	**22 31 28.7**	**+0.2**
PRN				IAmb	IAmb	22 31 31.4	
	comp=Z,7.2nm,1.1s						
ILAR	**Eielson Array**	**86.50**	**16**	P	**P**	**22 31 31.3**	**-1.7**
	comp=Z,0.4nm,0.6s,baz=232,slow=5.5,SNR=4.3						
	comp=Z,0.4nm,0.6s						
ELK	**Elko**	**86.71**	**46**	P	**P**	**22 31 34.7**	**-0.2**
	comp=Z,1.2nm,0.7s,baz=224,slow=4.0,SNR=4.1						
	comp=Z,1.2nm,0.7s						
TROLL	**Troll, Antarti**	**91.28**	**183**	⇑P	**P**	**22 31 58.1**	**+2.2**
	comp=Z,241nm,0.8s						
TXAR	**Lajitas Array**	**91.34**	**60**	P	**P**	**22 31 58.2**	**+1.3**
	comp=Z,1.4nm,0.7s,baz=240,slow=6.7,SNR=9.0						
	comp=Z,1.4nm,0.7s						
TXAR	**Lajitas Array**	**91.34**	**60**	P	**P**	**22 31 55.6**	**-1.3**
TLY	**Talaya**	**91.55**	**324**	LR	LR	23 10 52.5	
	comp=Z,70nm,19.7s,baz=95,slow=34						
SNAA	**Sanae**	**91.77**	**181**	LR	LR	23 09 22.5	
	comp=Z,46nm,21.9s,baz=162,slow=33						
VNA3	**Neumayer Olymp**	**92.18**	**179**	⇑P	**P**	**22 31 59.4**	**-0.5**
	comp=Z,3.1nm,0.7s						
VNA2	**Neumayer--Watz**	**92.53**	**179**	P	**P**	**22 32 01.5**	**0.0**
	comp=Z,3.5nm,0.8s,baz=173,slow=4.7						
VNA1	**Neumayer--Stat**	**92.80**	**179**	⇑P	**P**	**22 32 03.1**	**+0.4**
	comp=Z,6.2nm,0.9s						
OTAV	**Otavalo**	**106.55**	**95**	IAMs_20	IAMs_20	23 20 38.2	
	comp=Z,438nm,21.0s						
TA01	**Diego Aracena**	**106.64**	**118**	IAMs_20	IAMs_20	23 08 39.2	
	comp=Z,543nm,18.0s						
CLL	**Collm**	**142.45**	**341**	L	L	23 35 00.0	
RCBR	**Riachuelo**	**142.62**	**124**	IAMs_20	IAMs_20	23 25 08.0	
	comp=Z,226nm,20.0s						
GERES	**GERESS Array B**	**144.31**	**338**	PKP	PKPbc	22 38 26.3	+1.2
	comp=Z,1.3nm,0.9s,baz=45,slow=2.1,SNR=7.7						
GERES	**GERESS Array B**	**144.31**	**338**	PKPdf	**PKPab**	**22 38 25.1**	**+0.4**
FUORN	**Ofenpass-Fuorn**	**147.42**	**339**	PKPbc	**PKPbc**	**22 38 35.5**	**+0.6**
TUE	**Stuetta**	**147.85**	**340**	PKPbc	**PKPbc**	**22 38 36.2**	**+0.2**
ITM	**Ithomi**	**148.27**	**315**	PKPbc	**PKPbc**	**22 38 37.0**	**-0.1**
CART	**Cartagena**	**158.85**	**350**	IAMs_20	IAMs_20	00 04 53.0	
	comp=Z,195nm,20.0s						

*KRNET **24** 22:21:02.9±0.1,41˚.78N×79˚.45E,h15km,mb2.5*
*SOME **24** 22:21:03.1,41˚.80N×79˚.55E,h15km*
*NNC **24** 22:21:04.3±1.2,41˚.88N×79˚.52E,h0km,mb2.9,mpv2.7, Error ellipse: s-maj=7.8km s-min=5.8km az=139.0*

ISC 24 22:21:01.1±2.5, 41.72N±0˚.09×79.55E±0˚.07, h8km±13km, n21, σ0§73/39, 6C-8D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRZ	**Przheval'sk**	**1.15**	**312**	⇓eP	**Pb**	**22 21 23.2**	**-0.1**
PRZ				⇓eS	**Sg**	**22 21 38.1**	**+0.1**
TARG	**Taragay, Kyrgy**	**1.30**	**271**	⇑eP	**Pn**	**22 21 26.5**	**+0.6**
TARG				⇑eS	**Sn**	**22 21 43.7**	**-0.1**
SHLS	**Shalkode**	**1.44**	**358**	P	**Pg**	**22 21 28.9**	**+0.2**
	2.2nm,0.2s						
SHLS				S	**Sg**	**22 21 47.6**	**+0.2**
	20nm,0.5s						
SHLS	**Shalkode**	**1.44**	**358**	*e*P	**Pg**	**22 21 28.9**	**+0.2**
	2.2nm,0.2s						
SHLS				*e*S	**Sg**	**22 21 47.6**	**+0.2**
	20nm,0.5s						
UZB	**Uzynbulak**	**1.48**	**345**	P	**Pb**	**22 21 28.9**	**0.0**
	2.1nm,0.1s						
UZB				S	**Sb**	**22 21 47.4**	**-0.5**
	4.7nm,0.2s						
UZB	**Uzynbulak**	**1.48**	**345**	*e*P	**Pb**	**22 21 28.9**	**0.0**
	2.1nm,0.1s						
UZB				*e*S	**Sb**	**22 21 47.5**	**-0.5**
	4.7nm,0.2s						
SATY	**Saty**	**1.59**	**328**	P	**Pb**	**22 21 30.7**	**0.0**
	2.6nm,0.2s						
SATY				S	**Sb**	**22 21 50.4**	**-0.5**
	14nm,0.2s						
SATY	**Saty**	**1.59**	**328**	*e*P	**Pb**	**22 21 30.7**	**0.0**
	2.6nm,0.2s						
SATY				*e*S	**Sb**	**22 21 50.5**	**-0.5**
	14nm,0.2s						
PDGK	**Podgornoye**	**1.61**	**359**	⇑P	**Pb**	**22 21 30.9**	**-0.3**
	2.0nm,0.3s						
PDGK				⇑S	**Sb**	**22 21 50.6**	**-1.1**
	4.6nm,0.3s						
ANVS	**Anan'yevo**	**1.76**	**308**	⇓eP	**Pb**	**22 21 34.2**	**+0.6**
ANVS				⇓eS	**Sg**	**22 21 57.0**	**-0.5**
KDJ	**Kajisay**	**1.81**	**284**	⇓eP	**Pb**	**22 21 35.0**	**+0.4**
KDJ				⇓eS	**Sb**	**22 21 58.5**	**+1.0**
KPKS	**Kokpek**	**1.86**	**340**	P	**Pb**	**22 21 35.5**	**+0.2**
	0.2nm,0.2s						
KPKS				S	**Sb**	**22 21 58.7**	**-0.1**
	9.8nm,0.3s						
KPKS	**Kokpek**	**1.86**	**340**	*e*P	**Pb**	**22 21 35.5**	**+0.2**
	0.2nm,0.2s						
KPKS				*e*S	**Sb**	**22 21 58.7**	**-0.1**
	9.8nm,0.3s						
MDOK	**Medeo**	**2.35**	**309**	Pg	**Pb**	**22 21 44.4**	**+0.7**
	1.4nm,0.3s						
MDOK				Lg	Lg	22 22 13.8	
	11nm,0.7s						
MDOK	**Medeo**	**2.35**	**309**	*e*P	**Pb**	**22 21 44.4**	**+0.7**
	1.4nm,0.3s						
MDOK				*e*S	**Sb**	**22 22 13.8**	**+1.0**
	11nm,0.7s						
KOTS	**Kotyrbulak**	**2.35**	**311**	Pg	**Pb**	**22 21 45.3**	**+1.5**
	1.7nm,0.2s						
KOTS				Lg	Lg	22 22 15.3	
	8.9nm,0.3s						
KOTS	**Kotyrbulak**	**2.35**	**311**	*e*P	**Pb**	**22 21 45.3**	**+1.5**
	1.7nm,0.2s						
KOTS				*e*S	**Sg**	**22 22 15.3**	**-1.4**
	8.9nm,0.3s						
ULHL	**Ulahol**	**2.52**	**283**	⇑eP	**Pb**	**22 21 46.1**	**-0.6**
ULHL				⇑eS	**Sb**	**22 22 17.5**	**-0.4**
DJR	**Jarkent**	**2.62**	**4**	Pg	**Pb**	**22 21 48.3**	**0.0**
	1.1nm,0.3s						
DJR				Lg	Lg	22 22 20.5	
	2.9nm,0.4s						
DJR	**Jarkent**	**2.62**	**4**	*e*P	**Pb**	**22 21 48.3**	**0.0**
	1.1nm,0.3s						
DJR				*e*S	**Sb**	**22 22 20.5**	**-0.2**
	2.9nm,0.4s						
BOOM	**Boomskoye usch**	**2.79**	**287**	⇓eP	**Pb**	**22 21 49.8**	**-1.5**
BOOM				⇓eS	**Sb**	**22 22 24.0**	**-1.7**

PGC 24 22:36:05.0±0.2, 62˚.23N×124˚.64W, h1km, ML3.8/7, 128km southwest of Wrigley, Nt Nw Territories - Nunavut, Canada, Northwest Territories

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NAHA	**Nahanni Butte**	**1.34**	**153**	P	Pg	22 36 29.1	-1.5
NAHA				S	Sg	22 36 45.3	-2.7
TGTN	**Hyland Airport**	**1.86**	**249**	Pn	Pn	22 36 37.3	-0.7
TGTN				Sn	Sn	22 37 02.1	0.0
NBC1	**NorthernBC 1**	**2.61**	**171**	Pn	Pn	22 36 46.9	-1.4
WTLY	**Watson Lake, Y**	**2.92**	**225**	Pg	Pb	22 36 57.5	-0.4
R33M	**Jennings River**	**4.20**	**230**	Pn	Pn	22 37 09.5	-0.8
R33M				Sn	Sn	22 37 58.2	-1.8
P33M	**Teslin, Yukon**	**4.44**	**247**	Pn	Pn	22 37 12.9	-0.6
P33M				Sg	Sb	22 38 21.1	+3.3
DLBC	**Dease Lake**	**4.65**	**218**	Pn	Pn	22 37 15.2	-1.1
Q32M	**Nakina River**	**4.99**	**232**	Pn	Pn	22 37 20.2	-0.9
Q32M				Sg	Sb	22 38 37.2	+3.7
P32M	**Atlin**	**5.16**	**243**	Pn	Pn	22 37 22.6	-0.7
P32M				Sn	Sn	22 38 20.9	-2.5
WHY	**Whitehorse**	**5.16**	**257**	Pn	Pn	22 37 22.6	-0.8
WHY				Sg	Sb	22 38 43.8	+5.3
N31M	**Braeburn, Yuko**	**5.33**	**267**	Sg	Sg	22 38 50.7	-5.2
M30M	**Minto, Yukon**	**5.66**	**279**	Pn	Pn	22 37 28.7	-1.6
O30N	**Mendenhall**	**5.67**	**260**	Pn	Pn	22 37 29.3	-1.1
O30N				Sg	Sg	22 38 00.3	-6.8
N30M	**Aishikik Lake**	**5.95**	**268**	Pn	Pn	22 37 33.2	-0.9
K29M	**Barlow Dome**	**6.08**	**291**	Pn	Pn	22 37 35.3	-0.7
BESE	**Bessie Mountai**	**6.24**	**239**	Sn	Sn	22 38 47.0	-3.1
HYT	**Haines Junctio**	**6.31**	**263**	Pn	Pn	22 37 38.7	-0.5
P30M	**Million Dollar**	**6.32**	**256**	Pn	Pn	22 37 38.3	-1.0
P30M				Sg	Sg	22 39 20.1	-7.7
YUK5	**Granite Creek**	**6.39**	**266**	Pn	Pn	22 37 39.4	-0.9
M29M	**Somme Creek**	**6.44**	**278**	Pn	Pn	22 37 39.4	-1.6
YUK6	**Outpost Mounta**	**6.67**	**265**	Pn	Pn	22 37 43.7	-0.6
YUK6				Sg	Sg	22 39 32.6	-6.6
EPYK	**Eagle Plains**	**6.69**	**314**	Pn	Pn	22 37 42.8	-1.5
EPYK				Sn	Sn	22 38 57.8	-3.3
YUK4	**Talbot Arm**	**6.70**	**269**	Pn	Pn	22 37 42.0	-2.7
YUK7	**Dusty Glacier**	**6.71**	**261**	Pn	Pn	22 37 44.4	-0.2
G30M	**tAoh Zraii Nji**	**6.89**	**319**	Pn	Pn	22 37 44.8	-2.2
G30M				Sn	Sn	22 39 01.1	-4.9
INK	**Inuvik**	**7.14**	**333**	Pn	Pn	22 37 48.8	-1.7
INK				Sn	Sn	22 39 04.7	-7.4
C36M	**Paulatuk**	**7.16**	**2**	Sn	Sn	22 39 03.9	-8.5
F30M	**Barrier River**	**7.18**	**324**	Pn	Pn	22 37 48.6	-2.3
H29M	**Whitestone**	**7.19**	**310**	Pn	Pn	22 37 49.6	-1.6
YUK8	**Steele Glacier**	**7.24**	**269**	Pn	Pn	22 37 51.7	-0.4
I28M	**Miner Creek**	**7.49**	**302**	Pn	Pn	22 37 54.2	-1.1
YUK2	**White River**	**7.64**	**274**	Pn	Pn	22 37 56.5	-0.9
BDMTA	**Bald Mountain**	**8.01**	**156**	Pn	Pn	22 38 00.3	-2.2
E29M	**Blow River**	**8.29**	**324**	Pn	Pn	22 38 03.4	-2.8
E28M	**Babbage River**	**8.89**	**322**	Pn	Pn	22 38 11.6	-2.8
G26K	**Porcupine Rive**	**9.47**	**308**	Pn	Pn	22 38 22.1	-0.2
D27M	**Malcolm River**	**9.70**	**323**	Pn	Pn	22 38 24.3	-1.2
F26K	**Sheenjek River**	**9.89**	**312**	Pn	Pn	22 38 26.4	-1.7

*ISK **24** 22:52:55.8,37˚.87N×27˚.02E,h4km,ML2.6/17*
*AFAD **24** 22:52:55.8,37˚.86N×27˚.01E,h7km±4km,ML2.4*
*THE **24** 22:52:56.2,38˚.N±1˚×27˚.E±˚,h2km±2km,M2.6/11, MLh2.6/11*

ISC 24 22:52:56.3±0.8, 37.87N±0˚.02×27.04E±0˚.02, h16km±6km, n46, σ0§98/73, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUSD	**Kusadasi-Aydin**	**0.20**	**91**	Pg	**Pg**	**22 53 00.9**	**-0.1**
KUSD				AML	AML		
SMG	**Samos**	**0.22**	**225**	P	**Pg**	**22 53 00.6**	**-0.7**
SMG				S	**Sg**	**22 53 04.3**	**-0.6**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**327**	P	**Pg**	**22 53 01.0**	**-0.4**
DGB				S	**Sg**	**22 53 04.0**	**-0.8**
GCAM	**G?zelcaml?**	**0.23**	**137**	P	**Pg**	**22 53 00.9**	**-0.5**
GCAM				S	**Sg**	**22 53 04.8**	**-0.1**
GCAM				IAML		22 53 05.0	
	comp=N,1µm,0.4s						
GCAM				IAML		22 53 05.0	
	comp=E,680nm,0.2s						
GCAM	**G?zelcaml?**	**0.23**	**137**	Pg	**Pg**	**22 53 01.4**	**0.0**
GCAM				Sg	**Sg**	**22 53 05.3**	**+0.4**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.23**	**336**	Pg	**Pg**	**22 53 00.9**	**-0.6**
GMLD				Sg	**Sg**	**22 53 04.9**	**-0.2**
GMLD				AML	AML		
BEYE	**izmir**	**0.37**	**347**	P	**Pg**	**22 53 03.9**	**-0.1**
BEYE				S	**Sg**	**22 53 08.2**	**-1.0**
DDIM	**Aydin, Didim**	**0.44**	**158**	P	**Pg**	**22 53 05.0**	**-0.1**
DDIM				S	**Sg**	**22 53 10.6**	**-0.5**
DDIM				IAML		22 53 16.0	
	comp=E,300nm,0.7s						
DUVT	**Torbali**	**0.48**	**42**	P	**Pg**	**22 53 06.0**	**+0.1**
DUVT				S	**Sg**	**22 53 11.9**	**-0.5**
DUVT				IAML		22 53 14.0	
	comp=E,401nm,0.2s						
BLCB	**Balcova**	**0.52**	**0**	P	**Pg**	**22 53 06.5**	**-0.2**
BLCB				S	**Sb**	**22 53 14.1**	**-0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**0**	Pg	**Pg**	**22 53 06.5**	**-0.2**
BLCB				Sg	**Sb**	**22 53 14.4**	**0.0**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**312**	P	**Pg**	**22 53 06.8**	**-0.7**
ZEYE				S	**Sg**	**22 53 14.4**	**-0.5**
ZEYE				IAML		22 53 15.0	
	comp=E,372nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.68**	**83**	Pg	**Pg**	**22 53 09.6**	**-0.1**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.70**	**107**	P	**Pg**	**22 53 09.9**	**-0.1**
YKAV	**Yalikavak-Bodr**	**0.77**	**165**	Pg	**Pg**	**22 53 10.9**	**-0.3**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.77**	**69**	P	**Pb**	**22 53 11.6**	**+0.3**
IZMR				S	**Sg**	**22 53 19.5**	**-2.1**
BAGT	**Foa**	**0.80**	**350**	P	**Pb**	**22 53 12.0**	**+0.1**
BAGT				S	**Sg**	**22 53 22.1**	**-0.4**
BAGT				IAML		22 53 25.0	
	comp=N,213nm,0.8s						
BAGT				IAML		22 53 27.0	
	comp=E,171nm,0.6s						
MLSB	**Milas**	**0.82**	**134**	Pg	**Pb**	**22 53 12.2**	**0.0**
MLSB				AML	AML		
KRBN	**Karaburun**	**0.82**	**333**	Pg	**Pb**	**22 53 12.1**	**-0.1**
KRBN				AML	AML		
BODT	**Bodrum**	**0.83**	**165**	P	**Pg**	**22 53 11.9**	**-0.6**
BODT				S	**Sb**	**22 53 23.4**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.83**	**165**	Pg	**Pb**	**22 53 12.6**	**+0.2**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.86**	**158**	P	**Pg**	**22 53 12.7**	**-0.3**
BDRM				S	**Sg**	**22 53 22.4**	**-2.0**
BDRM				IAML		22 53 27.0	
	comp=N,142nm,0.6s						
BDRM				IAML		22 53 27.0	
	comp=E,112nm,0.3s						
FOCM	**Foa**	**0.88**	**344**	Pg	**Pg**	**22 53 13.0**	**-0.4**
FOCM				AML	AML		
BODA	**Bodrum-Mula**	**0.89**	**159**	Pg	**Pb**	**22 53 13.6**	**+0.3**
CAMT	**Merkez**	**0.91**	**14**	P	**Pb**	**22 53 14.0**	**+0.3**
CAMT				S	**Sb**	**22 53 26.6**	**+1.0**
CAMT				IAML		22 53 30.0	
	comp=E,116nm,0.2s						
CAMT				IAML		22 53 31.0	
	comp=N,109nm,0.3s						
CHOS	**Chios island**	**0.93**	**304**	P	**Pg**	**22 53 13.9**	**-0.5**
CHOS				S	**Sb**	**22 53 26.8**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.93**	**304**	Pg	**Pb**	**22 53 14.2**	**0.0**
CHOS				AML	AML		
KARB	**zmir-Karabur**	**0.94**	**329**	P	**Pb**	**22 53 14.1**	**0.0**
KARB				S	**Sg**	**22 53 25.8**	**-1.0**
KARB				IAML		22 53 29.0	
	comp=N,141nm,0.9s						
KARB				IAML		22 53 30.0	
	comp=E,118nm,0.4s						
NAZL	**Nazilli-Aydin**	**1.00**	**84**	Pg	**Pg**	**22 53 15.5**	**-0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.04**	**93**	P	**Pg**	**22 53 15.8**	**-0.6**
ESEN				S	**Sg**	**22 53 29.3**	**-0.8**
GOMA	**Golmarmara-Man**	**1.09**	**39**	Pn	**Pb**	**22 53 17.3**	**+0.5**
GOMA				AML	AML		
ZEDA	**zmir-Bergama**	**1.10**	**2**	P	**Pg**	**22 53 16.3**	**-1.2**
ZEDA				S	**Sb**	**22 53 31.9**	**+0.9**
ZEDA				IAML		22 53 35.0	
	comp=N,83nm,0.8s						
ZEDA				IAML		22 53 36.0	
	comp=E,67nm,0.5s						
KIRA	**zmir-Kiraz**	**1.13**	**73**	P	**Pb**	**22 53 18.0**	**+0.5**
KIRA				S	**Sg**	**22 53 30.2**	**-2.7**
KIRA				IAML		22 53 35.0	
	comp=N,72nm,0.3s						
KTTT	**Salihli**	**1.17**	**45**	P	**Pg**	**22 53 18.5**	**-0.4**
KTTT				S	**Sg**	**22 53 31.1**	**-3.0**
KTTT				IAML		22 53 36.0	
	comp=N,60nm,0.6s						
AKHS	**Akhisar**	**1.18**	**31**	P	**Pg**	**22 53 18.4**	**-0.8**
AKHS				IAML		22 53 38.0	
	comp=N,112nm,0.5s						
AKS	**Akhisar**	**1.18**	**31**	Pn	**Pn**	**22 53 19.2**	**+1.0**
AKS				AML	AML		
DKL	**Dikili**	**1.21**	**355**	Pn	**Pn**	**22 53 19.5**	**+0.9**
DKL				AML	AML		
DAT	**Datca**	**1.21**	**159**	P	**Pg**	**22 53 18.1**	**-1.6**
DAT				AML	AML		
YER	**Yerkesik**	**1.23**	**126**	P	**Pg**	**22 53 19.1**	**-1.0**
YER				S	**Sb**	**22 53 36.6**	**+1.7**
SOMA	**Soma-Manisa**	**1.35**	**17**	Pn	**Pn**	**22 53 21.4**	**+0.9**
SOMA				AML	AML		
MANT	**Manisa**	**1.35**	**62**	P	**Pb**	**22 53 23.0**	**+1.6**
MANT				S	**Sg**	**22 53 36.4**	**-3.6**
GORD	**Gordes-Manisa**	**1.37

PTGC	**Puerto Gaitan,**	**2.67**	**146**	P	**Pn**	**23 50 26.1 -0.8**
PTGC				S	**Sn**	**23 50 57.0 -2.1**
PRAC	**Prado**	**2.96**	**205**	P	**Pn**	**23 50 31.0 +0.3**
PRAC				S	**Sn**	**23 51 06.1 +0.1**
PRAC	**Prado**	**2.96**	**205**	P	**Pn**	**23 50 30.5 -0.3**
PRAC				S	**Sn**	**23 51 06.1 +0.1**
ORTC	**Ortega, Tolima**	**2.97**	**213**	P	**Pn**	**23 50 31.1 +0.3**
ORTC				S	**Sn**	**23 51 06.7 +0.7**
PLMC	**San Jos del P**	**3.03**	**240**	P	**Pn**	**23 50 32.0 +0.4**
PLMC				S	**Sn**	**23 51 08.6 +1.1**
URMC	**La Uribe, Meta**	**3.24**	**193**	P	**Pn**	**23 50 35.1 +0.6**
URMC				S	**Sn**	**23 51 13.3 +0.7**
APAC	**Apartado, Choc**	**3.26**	**297**	P	**Pn**	**23 50 34.6 0.0**
APAC				S	**Sn**	**23 51 09.8 -3.1**
YOTC	**Yotoco, Valle**	**3.62**	**228**	P	**Pn**	**23 50 38.6 -1.0**
SJCC	**San Jacinto, C**	**3.77**	**336**	P	**Pn**	**23 50 42.2 +0.8**
SJCC				S	**Sn**	**23 51 24.3 -0.8**
SJCC	**San Jacinto, C**	**3.77**	**336**	P	**Pn**	**23 50 41.3 -0.2**
SJCC				S	**Sn**	**23 51 23.3 -1.9**
CRJC	**Cerrejon, Guaj**	**4.63**	**9**	P	**Pn**	**23 50 53.0 0.0**
CRJC				S	**Sn**	**23 51 45.7 -0.1**
URI	**Uribia**	**5.49**	**17**	P	**Pn**	**23 51 06.4 +1.8**
URIC	**Uribia, Colomb**	**5.49**	**17**	P	**Pn**	**23 51 03.7 -0.9**
URIC				S	**Sn**	**23 52 06.1 -0.4**
COVE	**Coope Vega, Sa**	**11.46**	**293**	P	Pn	23 52 17.7 -7.7

*IDC **25** 00:01:51.2±0.8, 0.˚15S×125.˚42E, h0km, mb3.9/11, mbtmp4.0/12, ML4.0/1, MS3.3/3, Error ellipse: s-maj=31.0km s-min=15.3km az=75.0*
*DJA **25** 00:01:56.6±0.2, 0.˚S±3.˚×12.˚5E±.˚, h10km, M4.5/21, mB5.1/5, mB5.1/6, mb4.8/13, mb4.8/13, MLv4.5/25, MLv4.5/21, Mw(mB)4.4/6, Mw(mB)4.4/5*
*NEIC **25** 00:01:58.8±2.3, 0.˚19S±0.˚09×125.˚47E±0.˚01, h49km±9km, mb4.3/14, Error ellipse: s-maj=13.4km s-min=1.7km az=177.0*

ISC 25 00:01:57.2±0.6, **0.˚26S**±0.˚06×**125.˚44E**±0.˚07, **h35**km, **n53**, σ1§**85**/49, **mb4.1**/18, **Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**1.68**	**300**	P	**Pn**	**00 02 23.4**	**-0.7**
KMSI				AML	AML		
KMSI				AML	AML		
MNI	**Manado**	**1.80**	**341**	P	**Pn**	**00 02 28.1**	**+2.3**
MNI				AML	AML		
SANI	**Sanana**	**1.86**	**163**	P	**Pn**	**00 02 26.1**	**-0.5**
TNTI	**Ternate**	**2.19**	**62**	Pn	**Pn**	**00 02 32.5**	**+1.4**
TNTI	**Ternate**	**2.19**	**62**	P	**Pn**	**00 02 35.3**	**+4.2**
LUWI	**Luwuk**	**2.77**	**254**	Pn	**Pn**	**00 02 43.4**	**+4.2**
LUWI	**Luwuk**	**2.77**	**254**	P	Pn	00 02 44.5	+5.3
LUWI				AML	AML		
LUWI				AML	AML		
GAMI	**Galela, Maluku**	**3.14**	**48**	P	**Pn**	**00 02 47.4**	**+3.1**
GAMI				AML	AML		
GAMI				AML	AML		
NLAI	**Namlea**	**3.39**	**151**	P	Pn	00 02 42.1	-5.6
NLAI				AML	AML		
NLAI				AML	AML		
APSI	**Ampana**	**3.84**	**260**	P	**Pn**	**00 02 58.6**	**+4.7**
TOLI2	**Tolitoli**	**4.85**	**286**	Pn	**Pn**	**00 03 09.0**	**+1.3**
MPSI	**Mapaga**	**5.57**	**276**	P	Pn	00 03 26.3	+8.6
PCI	**Palu**	**5.64**	**263**	P	**Pn**	**00 03 20.4**	**+1.8**
	114nm,0.6s,114nm,0.6s						
BBSI	**Bau Bau**	**5.93**	**209**	P	**Pn**	**00 03 24.5**	**+1.9**
	0.2nm0.2nm60nm,0.9s,60nm,0.9s						
BBSI				AML	AML		
BBSI				AML	AML		
TTSI	**Tana Toraja**	**6.26**	**244**	P	**Pn**	**00 03 28.4**	**+1.3**
	0.4nm0.4nm1µm1µm52nm,0.5s,52nm,0.5s						
TTSI				AML	AML		
TTSI				AML	AML		
SPSI	**Sidrap Palu**	**6.75**	**237**	P	**Pn**	**00 03 35.4**	**+1.5**
SPSI				AML	AML		
SPSI				AML	AML		
PMSI	**Majene**	**7.27**	**244**	P	**Pn**	**00 03 42.9**	**+1.9**
	0.3nm0.3nm43nm,0.9s,43nm,0.9s						
PMSI				AML	AML		
PMSI				AML	AML		
DAV	**Davao City (W)**	**7.29**	**1**	LR	LR	00 06 48.1	
	comp=Z,138nm,20.8s,baz=189,slow=41						
FAKI	**Fak Fak**	**7.30**	**111**	Pn	**Pn**	**00 03 42.1**	**+0.7**
FAKI	**Fak Fak**	**7.30**	**111**	P	**Pn**	**00 03 43.4**	**+1.9**
FAKI				AML	AML		
FAKI				AML	AML		
BKSI	**Bulukumba**	**7.31**	**226**	P	**Pn**	**00 03 41.8**	**+0.3**
BKSI				AML	AML		
BKSI				AML	AML		
KAPI	**Kappang**	**7.38**	**230**	Pn	**Pn**	**00 03 43.7**	**+1.2**
	2.6nm,0.3s,baz=179,slow=18,SNR=5.4						
KAPI				LR	LR	00 07 21.3	
	comp=Z,117nm,21.4s,baz=44,slow=44						
	6.1nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**7.38**	**230**	Pn	**Pn**	**00 03 44.2**	**+1.7**
FITZ	**Fitzroy Crossi**	**17.72**	**179**	P	**Pn**	**00 06 02.3**	**+1.0**
BBJI	**Bungbulang**	**19.12**	**248**	P	**P**	**00 06 19.0**	**+1.5**
BBJI				IAmb	IAmb	00 06 21.2	
	comp=Z,12nm,0.9s						
WB0	**Warramunga Arr**	**21.28**	**156**	P	**P**	**00 06 40.5**	**-0.3**
WB0				IAmb	IAmb	00 06 48.5	
	comp=Z,8.6nm,1.1s						
WRA	**Warramunga Arr**	**21.41**	**156**	P	**P**	**00 06 41.4**	**-0.9**
	comp=Z,2.1nm,0.8s,baz=336,slow=12,SNR=12						
	comp=Z,2.1nm,0.8s						
WRA	**Warramunga Arr**	**21.41**	**156**	P	**P**	**00 06 46.0**	**+3.7**
WR8	**Warramunga Arr**	**21.49**	**156**	P	**P**	**00 06 42.5**	**-0.5**
WR8				IAmb	IAmb	00 07 11.8	
	comp=Z,5.8nm,1.2s						
AS31	**Alice Springs**	**24.67**	**161**	P	**P**	**00 07 16.9**	**+1.9**
ASAR	**Alice Springs**	**24.67**	**161**	P	**P**	**00 07 15.4**	**+0.4**
	comp=Z,0.5nm,0.4s,baz=351,slow=15,SNR=7.0						
	comp=Z,0.5nm,0.4s						
ASAR	**Alice Springs**	**24.67**	**161**	P	**P**	**00 07 16.6**	**+1.6**
CMAR	**Chiang Mai Arr**	**32.00**	**307**	P	**P**	**00 08 19.4**	**-1.1**
	comp=Z,0.6nm,0.3s,baz=132,slow=6.6,SNR=6.1						
	comp=Z,0.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**32.00**	**307**	P	**P**	**00 08 18.5**	**-2.0**
STKA	**Stephens Creek**	**34.96**	**156**	P	**P**	**00 08 46.2**	**+0.1**
	comp=Z,1.4nm,0.7s,baz=304,slow=6.9,SNR=2.9						
	comp=Z,1.4nm,0.7s						
STKA	**Stephens Creek**	**34.96**	**156**	P	**P**	**00 08 46.1**	**0.0**
GTA2	**Gaotai**	**46.01**	**332**	*eP*	**P**	**00 10 18.6**	**+1.1**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
HILR	**Hailar Array B**	**49.87**	**355**	P	**P**	**00 10 45.4**	**-1.7**
	comp=Z,0.9nm,0.5s,baz=178,slow=10,SNR=5.4						
	comp=Z,0.9nm,0.5s						
SONM	**Songino Array**	**50.69**	**343**	P	**P**	**00 10 51.6**	**-1.8**
	comp=Z,1.4nm,0.8s,baz=153,slow=8.3,SNR=8.7						
	comp=Z,1.4nm,0.8s						
MKAR	**Makanchi Array**	**60.13**	**327**	P	**P**	**00 11 59.6**	**-1.7**
	comp=Z,1.5nm,0.6s,baz=118,slow=8.0,SNR=14						
	comp=Z,1.5nm,0.6s						
MKAR	**Makanchi Array**	**60.13**	**327**	P	**P**	**00 11 59.5**	**-1.8**
ARSB	**Arslanbob**	**62.87**	**318**	P	**P**	**00 12 20.9**	**+0.9**
ARSB				IAmb	IAmb	00 12 21.7	
	comp=Z,3.0nm,0.8s						
ZALV	**Zalesovo Beam**	**63.58**	**335**	P	**P**	**00 12 22.6**	**-1.7**
	comp=Z,0.3nm,0.3s,baz=48,slow=2.2,SNR=4.6						
	comp=Z,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**64.43**	**329**	P	**P**	**00 12 28.4**	**-1.5**
	comp=Z,2.8nm,0.9s,baz=130,slow=6.0,SNR=19						
	comp=Z,2.8nm,0.9s						
KURK	**Kurchatov**	**64.44**	**329**	P	**P**	**00 12 28.5**	**-1.5**
KURK				IAmb	IAmb	00 12 31.8	
	comp=Z,3.9nm,0.8s						
BVAR	**Borovoye Array**	**69.98**	**328**	P	**P**	**00 13 04.4**	**-0.7**
	comp=Z,1.0nm,0.7s,baz=98,slow=9.3,SNR=3.9						
	comp=Z,1.0nm,0.7s						
NRIK	**Noril'sk**	**73.99**	**347**	P	**P**	**00 13 27.6**	**-1.1**
	comp=Z,1.6nm,0.6s,baz=59,slow=4.0,SNR=3.8						
NRIK				LR	LR	00 52 14.9	
	comp=Z,45nm,18.3s,baz=49,slow=41						
	comp=Z,1.6nm,0.6s						
NRIK	**Noril'sk**	**73.99**	**347**	P	**P**	**00 13 27.6**	**-1.1**
NRIK				IAmb	IAmb	00 13 29.9	
	comp=Z,7.7nm,1.4s						
AB31	**Akbulak array**	**74.44**	**322**	P	**P**	**00 13 31.1**	**-0.7**
AB31				IAmb	IAmb	00 13 31.8	
	comp=Z,2.1nm,0.9s						
ABKAR	**Akbulak array**	**74.44**	**322**	P	**P**	**00 13 31.2**	**-0.6**
GURO	**Guroymak-BITLI**	**85.00**	**309**	P	**P**	**00 14 30.0**	**+0.5**
GURO				IAmb	IAmb	00 14 30.9	
	comp=Z,6.4nm,0.7s						
D19K	**Kuna River**	**85.29**	**21**	P	**P**	**00 14 31.5**	**+1.3**
D20K	**Etivluk River**	**85.87**	**21**	P	**P**	**00 14 34.0**	**+0.9**

*ASRS **25** 00:17:12.6±0.2, 50.˚6N±0.˚9×8.˚7E±.˚, h8km, MLh4.0/20, Error ellipse: s-maj=2.5km s-min=1.9km az=69.1, confirmed*
*NNC **25** 00:17:17.5±1.6, 50.˚61N×87.˚28E, h0km, mb4.0, mpv3.6, Error ellipse: s-maj=14.9km s-min=6.1km az=101.0*

ISC 25 00:17:12.7±1.2, **50.˚59N**±0.˚02×**87.˚46E**±0.˚03, **h0**km±11km, **n30**, σ2§**40**/61, **12C-9D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHBI	**Chibit, Altay**	**0.27**	**175**	⇓Pg	**Pg**	**00 17 18.3**	**+0.4**
CHBI				Sg	**Sg**	**00 17 21.5**	**+0.1**
CHBI				AML	AML		
AKAR	**Aktash**	**0.28**	**159**	⇓Pg	**Pg**	**00 17 18.6**	**+0.6**
AKAR				Sg	**Sg**	**00 17 22.2**	**+0.4**
AKAR				AML	AML		
ULGR	**Ulagan, Altay**	**0.32**	**83**	⇑Pg	**Pb**	**00 17 21.8**	**+0.5**
ULGR				Sg	**Sb**	**00 17 26.6**	**-0.5**
ULGR				AML	AML		
CUR	**Chagan-Uzun**	**0.75**	**130**	⇑Pg	**Pg**	**00 17 27.6**	**+0.6**
CUR				Sg	**Sg**	**00 17 38.0**	**+1.3**
CUR				AML	AML		
ELDR	**Elanda**	**1.07**	**307**	⇓Pg	**Pn**	**00 17 34.3**	**-0.6**
ELDR				Sg	**Sn**	**00 17 49.7**	**-0.9**
ELDR				AML	AML		
YALR	**Yailyu, Altay**	**1.19**	**4**	⇓Pg	**Pn**	**00 17 36.8**	**+0.2**
YALR				Sg	**Sn**	**00 17 53.5**	**+0.1**
YALR				AML	AML		
ARTR	**Artybash**	**1.22**	**355**	Pg	**Pn**	**00 17 37.5**	**+0.5**
ARTR				Sg	**Sn**	**00 17 55.4**	**+1.2**
ARTR				AML	AML		
GALT	**Gorno-Altaysk,**	**1.67**	**326**	Pg	**Pg**	**00 17 47.3**	**+2.6**
GALT				Sg	**Sg**	**00 18 10.8**	**+4.4**
GALT				AML	AML		
TEL	**Teeli**	**1.79**	**75**	Pg	**Pg**	**00 17 47.8**	**+0.8**
TEL				Sg	**Sg**	**00 18 13.0**	**+2.8**
TEL				AML	AML		
TASR	**Tashtagol**	**2.19**	**7**	Pg	**Pg**	**00 17 56.4**	**+1.7**
TASR				Sg	**Sg**	**00 18 27.7**	**+4.6**
TASR				AML	AML		
ELT	**Eltsovka**	**2.79**	**345**	Pg	**Pb**	**00 18 03.0**	**-0.3**
ELT				Sg	**Sg**	**00 18 39.9**	**-2.2**
ELT				AML	AML		
KALT2	**Kaltan 2**	**2.82**	**358**	Pg	**Pg**	**00 18 06.3**	**-0.4**
KALT2				Sg	**Sg**	**00 18 43.5**	**+0.2**
KALT2				AML	AML		
KALT1	**Kaltan 1**	**2.83**	**360**	Pg	**Pg**	**00 18 06.7**	**-0.3**
KALT1				Sg	**Sg**	**00 18 45.0**	**+1.3**
KALT1				AML	AML		
KIYZ	**Kiyzas, Kuzbas**	**2.98**	**3**	Pg	**Pb**	**00 18 06.3**	**-0.3**
KIYZ				Sg	**Sg**	**00 18 48.2**	**-0.2**
KIYZ				AML	AML		
VEH	**Verkhnyaya Baz**	**3.20**	**32**	Pn	**Pb**	**00 18 09.2**	**-1.2**
VEH				Pg	**Pg**	**00 18 12.9**	**-1.1**
VEH				Sg	**Sg**	**00 18 54.4**	**-1.1**
VEH				AML	AML		
LUZB	**Luzhba, Kemero**	**3.21**	**15**	Pg	**Pg**	**00 18 12.2**	**-1.9**
LUZB				Sg	**Sg**	**00 18 56.6**	**+1.0**
LUZB				AML	AML		
DJQ	**Djoy, Khakassi**	**3.21**	**45**	Pg	**Pg**	**00 18 13.6**	**-0.6**
DJQ				Sg	**Sg**	**00 18 55.7**	**0.0**
DJQ				AML	AML		
ERU	**Erunakovo, Kuz**	**3.56**	**359**	Pn	**Pb**	**00 18 15.6**	**-0.9**
ERU				Pg	**Pg**	**00 18 21.1**	**+0.2**
ERU				Sg	**Sg**	**00 19 09.2**	**+2.2**
ERU				AML	AML		
ZAA0	**Zalesovo Array**	**3.74**	**335**	⇓Pn	**Pb**	**00 18 14.8**	**-4.7**
	4.7nm,0.5s						
ZAA0				⇑Sn	**Sb**	**00 19 00.9**	**-4.5**
	20nm,0.8s						
ZAA0				⇑Lg	Lg	00 19 14.6	
	58nm,0.9s						
SALR	**Pechorkino, Sa**	**3.99**	**345**	Pg	**Pb**	**00 18 19.6**	**-4.1**
SALR				Sg	**Sg**	**00 19 21.8**	**+1.2**
SALR				AML	AML		
ARDR	**Aradan**	**4.22**	**59**	Pg	**Pg**	**00 18 32.8**	**-0.7**
ARDR				Sg	**Sg**	**00 19 28.6**	**+0.3**
ARDR				AML	AML		
BSTK	**Bystrovka, Nov**	**4.95**	**326**	Pn	**Pn**	**00 18 30.4**	**+2.2**
BSTK				Pg	**Pg**	**00 18 47.3**	**-0.1**
BSTK				Sg	**Sg**	**00 19 54.6**	**+3.0**
BSTK				AML	AML		
NVSII	**Novosibirsk**	**4.98**	**331**	Pn	**Pn**	**00 18 30.6**	**+2.1**
NVSII				Pg	**Pb**	**00 18 43.3**	**+2.7**
NVSII				Sg	**Sg**	**00 19 54.6**	**+2.2**
NVSII				AML	AML		
BRCR	**Berchikul'**	**5.09**	**5**	Pn	Pn	00 18 34.6	+4.5
BRCR				Pg	**Pg**	**00 18 46.9**	**-3.2**
BRCR				Sg	**Sg**	**00 19 58.0**	**+1.9**
BRCR				AML	AML		
MK31	**Makanchi Array**	**5.11**	**224**	⇑Pn	Pn	00 18 35.3	+4.9
	6.5nm,0.6s,baz=45,slow=12,SNR=213						
MK31				⇑Sn	**Sb**	**00 19 36.4**	**-8.5**
	12nm,0.7s,baz=52,slow=24,SNR=5.6						
MK31				⇓Lg	Lg	00 19 54.8	
	22nm,0.6s,baz=41,slow=29,SNR=8.6						
MAKZ	**Makanchi**	**5.24**	**226**	⇑Pn	Pn	00 18 36.7	+4.4
	14nm,0.9s						
MAKZ				⇑Sn	**Sn**	**00 19 36.6**	**+3.2**
	18nm,0.7s						
MAKZ				⇑Lg	Lg	00 19 58.4	
	54nm,1.1s						
MAKZ	**Makanchi**	**5.24**	**226**	Pn	Pn	00 18 37.3	+5.0
MAKZ				Sg	**Sg**	**00 19 58.4**	**-2.5**
MAKZ				AML	AML		
KURK	**Kurchatov**	**5.63**	**275**	⇑Pn	**Pn**	**00 18 39.2**	**+1.8**
	1.5nm,0.6s						
KURK				⇓Sn	**Sn**	**00 19 46.1**	**+3.4**
	2.9nm,0.6s						
KURK				⇑Lg	Lg	00 20 11.4	
	13nm,0.7s						
KURK	**Kurchatov**	**5.63**	**275**	Pn	**Pn**	**00 18 40.2**	**+2.7**
KURK				Sg	**Sg**	**00 20 10.9**	**-2.4**
KURK				AML	AML		
KURBB	**Kurchatov Arra**	**5.69**	**274**	⇓Pn	**Pn**	**00 18 40.7**	**+2.4**
	8.5nm,0.5s						
KURBB				⇓Sn	**Sn**	**00 19 48.1**	**+3.8**
	14nm,0.6s						
KURBB				⇑Lg	Lg	00 20 12.1	
	74nm,0.7s						

*IDC **25** 00:21:47.6±0.7, 5.˚20N×77.˚57W, h0km, mb4.0/12, mbtmp4.1/14, ML3.1/2, MS3.3/4, Error ellipse: s-maj=19.7km s-min=13.9km az=28.0*
*NEIC **25** 00:21:50.8±2.5, 5.˚31N±0.˚07×77.˚61W±0.˚08, h10km±1km, mb4.6/28, Error ellipse: s-maj=13.7km s-min=11.4km az=280.0*
*CATAC **25** 00:21:51.3±1.3, 5˚N±4˚×7˚8W±˚, h23km±11km, M4.2/7, MLv4.2/7, Error ellipse: s-maj=10.3km s-min=5.6km az=46.0, confirmed*
*RSNC **25** 00:21:52.0±0.0, 5˚N±1˚×7˚8W±˚, h29km±4km, M3.6, mB5.1, mb4.5, ML3.1, Mw(mB)4.4*

ISC 25 00:21:49.6±1.3, **5.˚24N**±0.˚03×**77.˚69W**±0.˚03, **h14**km±7km, **n105**, σ1§**50**/122, **mb4.5**/24, **3D, Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PIZC	**Pizarro, Choco**	**0.43**	**130**	P	**Pb**	**00 21 59.3**	**+0.3**
PIZC				S	**Sn**	**00 22 07.1**	**-1.9**
SOLC	**Bahia Solano**	**1.02**	**16**	P	**Pb**	**00 22 07.8**	**-1.2**
SOLC				S	**Sb**	**00 22 20.9**	**-1.4**
PLMC	**San Jos del P**	**1.44**	**103**	P	**Pn**	**00 22 13.1**	**-2.3**
PLMC				S	**Sn**	**00 22 33.0**	**-1.2**
CBOC	**Ciudad Bolivar**	**1.78**	**70**	P	**Pn**	**00 22 17.7**	**-2.4**
CBOC				S	**Sn**	**00 22 38.6**	**-4.1**
YOTC	**Yotoco, Valle**	**1.83**	**133**	P	**Pn**	**00 22 19.5**	**-1.3**
YOTC				S	**Sn**	**00 22 42.1**	**-1.8**
PTAC	**Punta Ardita,**	**1.90**	**356**	P	**Pn**	**00 22 20.6**	**-1.0**
PTAC				S	**Sn**	**00 22 41.3**	**-4.0**
JAMC	**Jamundi, Valle**	**2.25**	**153**	P	**Pn**	**00 22 24.6**	**-2.1**
GUY2C	**Guyana, Caldas**	**2.31**	**90**	P	**Pn**	**00 22 26.9**	**-0.9**
GUY2C				S	**Sn**	**00 22 58.9**	**+2.6**

HELC	**Santa Helena**	**2.35**	**66**	P	**Pn**	**00 22 26.9 -1.2**
HELC				S	**Sn**	**00 22 57.6 +0.7**
HELC	**Santa Helena**	**2.35**	**66**		**Pn**	**00 22 26.7 -1.4**
HELC	**Santa Helena**	**2.35**	**66**	P	**Pn**	**00 22 26.8 -1.4**
HELC				S	**Sn**	**00 22 58.2 +1.3**
ORTC	**Ortega, Tolima**	**2.77**	**118**	P	**Pn**	**00 22 34.3 +0.6**
ORTC				S	**Sn**	**00 23 04.2 -2.8**
NORC	**Norcasia**	**2.83**	**83**	P	**Pn**	**00 22 34.9 +0.5**
NORC				S	**Sn**	**00 23 08.2 -0.1**
APAC	**Apartado, Choc**	**2.86**	**23**	P	**Pn**	**00 22 35.8 +0.9**
POPC	**Popayan, Colom**	**2.87**	**159**	P	**Pn**	**00 22 35.5 +0.3**
PRAC	**Prado**	**3.18**	**118**	P	**Pn**	**00 22 40.2 +0.9**
PRAC				S	**Sn**	**00 23 17.4 +0.3**
PRAC	**Prado**	**3.18**	**118**	P	**Pn**	**00 22 40.3 +0.9**
PRAC				S	**Sn**	**00 23 19.1 +2.0**
BBAC	**Balboa, Cauca**	**3.23**	**172**	P	**Pn**	**00 22 40.0 -0.2**
UREC	**San Jos de Ur**	**3.29**	**41**	P	**Pn**	**00 22 41.4 +0.6**
UREC				S	**Sn**	**00 23 17.0 -2.7**
UPD2	**Meteti**	**3.30**	**354**	P	**Pn**	**00 22 41.1 +0.2**
ROSC	**El Rosal**	**3.38**	**97**	Pn	**Pn**	**00 22 42.6 +0.3**
	22nm,0.3s,baz=65,slow=4.7,SNR=24					
ROSC				Pg	**Pb**	**00 22 46.9 -2.7**
	22nm,0.3s,baz=282,slow=20,SNR=18					
	35nm,0.4s					
ROSC				AML	AML	
ROSC	**El Rosal**	**3.38**	**97**	Pn	**Pn**	**00 22 44.0 +1.6**
ROSC	**El Rosal**	**3.38**	**97**	P	**Pn**	**00 22 44.5 +2.1**
BETC	**Betania**	**3.39**	**139**	P	**Pn**	**00 22 44.4 +2.2**
PTBC	**PUERTO BERRIO,**	**3.46**	**68**	P	**Pn**	**00 22 43.8 +0.6**
SPBC	**San Pablo de B**	**3.62**	**83**	P	**Pn**	**00 22 47.2 +1.7**
CVER	**Cruz Verde, Cu**	**3.67**	**101**	P	**Pn**	**00 22 49.1 +2.6**
GARC	**Garzon, Huila**	**3.74**	**144**	P	**Pn**	**00 22 49.0 +1.7**
CACAO	**El Cacao, Vera**	**3.78**	**304**	P	**Pn**	**00 22 47.4 -0.1**
CACAO				S	**Sn**	**00 23 30.8 -1.1**
LCBC	**Los crdobas,**	**3.82**	**20**	Pn	**Pn**	**00 22 49.7 +1.6**
LCBC	**Los crdobas,**	**3.82**	**20**	P	**Pn**	**00 22 49.0 +0.9**
URMC	**La Uribe, Meta**	**3.85**	**121**	P	**Pn**	**00 22 49.2 +0.6**
URMC				S	**Sn**	**00 23 33.4 -0.3**
CHIC	**Chingaza**	**3.99**	**99**	P	**Pn**	**00 22 53.1 +2.3**
UPA	**Univ. de Panam**	**4.14**	**334**	P	**Pn**	**00 22 51.2 -1.3**
UPA				S	**Sn**	**00 23 42.0 +1.3**
BRJC	**Barrancabermej**	**4.28**	**66**	P	**Pn**	**00 22 54.9 +0.5**
GMAL	**Guarumal, Vera**	**4.32**	**306**	P	**Pn**	**00 22 56.4 +1.4**
BCIP	**Isla Barro Col**	**4.44**	**331**	P	**Pn**	**00 22 56.8 +0.2**
BCIP				S	**Sn**	**00 23 49.0 +0.8**
RUSC	**La Rusia**	**4.63**	**82**	P	**Pn**	**00 23 00.4 +0.7**
RUSC	**La Rusia**	**4.63**	**82**	Pn	**Pn**	**00 23 01.0 +1.3**
RUSC	**La Rusia**	**4.63**	**82**	P	**Pn**	**00 23 02.9 +3.3**
BARC	**Barichara**	**4.68**	**73**	P	**Pn**	**00 23 02.1 +2.0**
MACC	**Macarena, Meta**	**4.92**	**129**	P	**Pn**	**00 23 03.7 +0.5**
CUSE	**Cuicocha Este**	**4.96**	**188**	P	Pn	00 22 59.3 -4.8
CUSE				S	**Sn**	**00 24 01.2 -0.3**
OTAV	**Otavalo**	**5.03**	**189**	Pn	**Pn**	**00 23 05.9 +0.8**
OTAV	**Otavalo**	**5.03**	**189**	P	**Pn**	**00 23 05.4 +0.3**
	20nm,0.7s					
OTAV				S	**Sn**	**00 24 01.0 -2.3**
	20nm,0.7s					
OTAV				AML	AML	
PAC1	**Pacto, Paraso**	**5.07**	**193**	P	**Pn**	**00 23 04.4 -0.9**
PAC1				S	**Sn**	**00 24 01.8 -2.0**
PAC1				AML	AML	
SJCC	**San Jacinto, C**	**5.25**	**28**	Pn	**Pn**	**00 23 07.0 -0.8**
SJCC	**San Jacinto, C**	**5.25**	**28**	P	**Pn**	**00 23 08.8 +1.0**
	14nm,1.5s					
SJCC				AML	AML	
PTGC	**Puerto Gaitan,**	**5.63**	**100**	P	**Pn**	**00 23 13.7 +0.7**
	25nm,0.6s					
PTGC				AML	AML	
PTLC	**Puerto Leguiza**	**5.81**	**150**	P	Pn	00 23 21.8 +6.4
TAMC	**Tame, Arauca**	**5.99**	**78**	P	**Pn**	**00 23 18.9 +1.0**
	2µm43nm,0.6s					
TAMC				AML	AML	
SLOR	**San Lorenzo -**	**5.99**	**188**	Pn	**Pn**	**00 23 22.2 +3.9**
SDV	**Santo Domingo**	**7.88**	**62**	Pn	**Pn**	**00 23 45.0 +0.9**
	5.8nm,0.3s,baz=224,slow=9.4,SNR=11					
SDV				LR	LR	00 27 04.4
	comp=Z,241nm,18.6s,baz=143,slow=41					
	14nm,0.3s					
SDV				AML	AML	
SDV	**Santo Domingo**	**7.88**	**62**	Pn	**Pn**	**00 23 45.2 +1.1**
SDV	**Santo Domingo**	**7.88**	**62**	P	**Pn**	**00 23 44.8 +0.7**
URIC	**Uribia, Colomb**	**8.54**	**41**	Pn	**Pn**	**00 23 51.2 -1.7**
JTS	**Las Juntas de**	**8.77**	**305**	LR	LR	00 27 21.4
	comp=Z,86nm,19.2s,baz=113,slow=38					
ATAH	**Atahualpa**	**12.32**	**183**	LR	LR	00 30 17.8
	comp=Z,178nm,20.9s,baz=13,slow=42					
CRPR	**Cabo Rojo, PR**	**16.37**	**38**	P	**P**	**00 25 43.5 +1.6**
CELP	**Cerrillos**	**16.75**	**39**	P	**P**	**00 25 47.5 +1.3**
HUMP	**Col San Antoni**	**17.27**	**41**	P	**Pn**	**00 25 51.9 +1.4**
MACA	**Manacapuru-AM**	**18.93**	**116**	P	**P**	**00 26 08.4 -1.9**
MACA				IAmb	IAmb	00 26 10.7
	comp=Z,15nm,0.6s					
LPAZ	**La Paz**	**23.39**	**156**	P	**P**	**00 26 58.1 -0.8**
	comp=Z,1.9nm,0.5s,baz=336,slow=6.5,SNR=7.9					
	comp=Z,1.9nm,0.5s					
LPAZ	**La Paz**	**23.39**	**156**	P	**P**	**00 26 58.1 -0.

TORD	**Torodi Ar. Bea**	**78.51**	**78**	P		**P**		**00 33 49.8**	**-1.4**
	comp=Z,1.0nm,0.5s,baz=272,slow=7.3,SNR=4.1								
	comp=Z,1.0nm,0.5s								
D23K	**Nanushuk River**	**79.06**	**339**	P		**P**		**00 33 55.0**	**+1.8**
D23K				IAmb		IAmb		00 33 57.1	
	comp=Z,4.2nm,1.2s								
BMRD	**Maredsous**	**81.17**	**40**	*d*P		**P**		**00 34 05.4**	**+0.4**
BMRD				d**p**P		**pP**		**00 34 08.4**	**-0.3**
BMRD				d**s**P		**PcP**		**00 34 09.8**	**-1.3**
TAM	**Tamanrasset**	**81.74**	**68**	P		**P**		**00 34 09.3**	**+0.5**
TAM				IAmb		IAmb		00 34 11.2	
	comp=Z,5.0nm,0.7s								
GERES	**GERESS Array B**	**87.01**	**41**	P		**P**		**00 34 34.6**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=267,slow=5.3,SNR=5.1								
	comp=Z,0.6nm,0.8s								
QSPA	**South Pole Qui**	**95.26**	**180**	P		**P**		**00 35 14.0**	**+1.1**
	comp=Z,0.9nm,0.3s,baz=130,slow=1.5,SNR=4.1								
	comp=Z,0.9nm,0.3s								
ASAR	**Alice Springs**	**144.49**	**236**	PKP		PKPbc		00 41 25.8	+0.6
	comp=Z,2.6nm,0.5s,baz=118,slow=3.9,SNR=40								
ASAR	**Alice Springs**	**144.49**	**236**			PKPbc		00 41 25.3	+0.2
WR8	**Warramunga Arr**	**145.45**	**242**	PKPdf		**PKPab**		**00 41 28.6**	**+0.1**
WRA	**Warramunga Arr**	**145.59**	**242**	PKPbc		**PKPab**		**00 41 29.3**	**+0.2**
	comp=Z,1.4nm,0.7s,baz=108,slow=3.4,SNR=13								
WRA	**Warramunga Arr**	**145.59**	**242**			**PKPbc**		**00 41 28.8**	**+0.1**
WB0	**Warramunga Arr**	**145.61**	**242**			**PKPdf**		**00 41 28.7**	**+0.1**

*CATAC **25** 00:30:06.4±0.7, 13˚N±3˚×8˚9W±˚, h24km±4km, M3.6/12, MLv3.6/12, Error ellipse: s-maj=7.8km s-min=4.3km az=26.8, confirmed*
*SNET **25** 00:30:07.0±0.7, 13˚.00N×89˚.40W, h37km±16km, ML3.6, Presumed earthquake*
*GCG **25** 00:30:08.9±0.9, 13˚.10N×89˚.49W, h47km±16km, MD4.0, ML4.0, Presumed earthquake*
ISC 25 00:30:10.4±1.6, 13˚13N±0˚.06×89˚31W±0˚.03, h35km±3km, n50, σ1s37/68, 5C-2D, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PANCS	**Alcalda de**	**0.50**	**15**	P	**Pb**	**00 30 20.3**	**-0.8**
PANCS				S	**Sb**	**00 30 29.7**	**+1.2**
LOMA	**Loma Larga**	**0.53**	**15**	*e*P	**Pb**	**00 30 20.9**	**-0.8**
LOMA				*e*S	**Sb**	**00 30 31.1**	**+1.6**
JAYA	**Jayaque - finc**	**0.54**	**346**	P	**Pb**	**00 30 20.3**	**-1.6**
JAYA	**Jayaque - finc**	**0.54**	**346**	*i* P	**Pb**	**00 30 20.3**	**-1.6**
JAYA				*e*S	**Sb**	**00 30 29.5**	**-0.2**
JAYA				IAML		00 30 31.7	
	comp=E,6µm,0.2s						
JAYA	**Jayaque - finc**	**0.54**	**346**	↑*i*P	**Pb**	**00 30 20.3**	**-1.6**
JAYA				*e*S	**Sb**	**00 30 29.8**	**0.0**
LFRS	**El Faro**	**0.55**	**26**	*e*P	**Pb**	**00 30 21.1**	**-0.9**
LFRS				*e*S	**Sb**	**00 30 31.5**	**+1.6**
MAGS	**Ministerio de**	**0.56**	**2**	*e*P	**Pb**	**00 30 21.4**	**-0.6**
SJTE	**Alcalda de S**	**0.57**	**31**	*e*P	**Pn**	**00 30 21.2**	**-0.9**
PMON	**Piamonte**	**0.58**	**360**	P	**Pn**	**00 30 21.2**	**-1.1**
PMON				S	**Sb**	**00 30 31.8**	**+1.1**
PMON	**Piamonte**	**0.58**	**360**	*e*P	**Pn**	**00 30 21.1**	**-1.1**
UEES	**Universidad Ev**	**0.59**	**7**	P	**Pn**	**00 30 21.4**	**-0.9**
UEES				S	**Sb**	**00 30 32.6**	**+1.6**
UEES	**Universidad Ev**	**0.59**	**7**	*e*P	**Pn**	**00 30 21.4**	**-0.9**
IGN	**Direccin Gen**	**0.60**	**13**	S	**Sb**	**00 30 32.8**	**+1.7**
BOQS	**Boqueron**	**0.61**	**3**	↑*i*P	**Pn**	**00 30 21.9**	**-0.8**
PIC2	**El Picacho**	**0.62**	**5**	*e*P	**Pn**	**00 30 22.1**	**-0.8**
COEG	**Centro de Oper**	**0.64**	**40**	P	**Pn**	**00 30 22.3**	**-0.9**
COEG				S	**Sb**	**00 30 33.6**	**+1.2**
COEG	**Centro de Oper**	**0.64**	**40**	↓*e*P	**Pn**	**00 30 22.2**	**-0.9**
LFIJ	**La Fuente**	**0.65**	**17**	*e*P	**Pn**	**00 30 22.8**	**-0.4**
TECO	**Alcaldia de Te**	**0.66**	**51**	P	**Pn**	**00 30 22.2**	**-1.0**
TECO				S	**Sn**	**00 30 33.8**	**+1.4**
TECO	**Alcaldia de Te**	**0.66**	**51**	*e*P	**Pn**	**00 30 22.2**	**-1.0**
CEDA	**San Andres**	**0.68**	**353**	↑*i*P	**Pn**	**00 30 22.3**	**-1.3**
PAVA	**Las Pavas**	**0.69**	**32**	P	**Pn**	**00 30 23.1**	**-0.6**
PAVA				S	**Sn**	**00 30 35.3**	**+2.0**
PAVA	**Las Pavas**	**0.69**	**32**	*e*P	**Pn**	**00 30 23.2**	**-0.6**
ALJI	**Alcalda de J**	**0.75**	**74**	P	**Pn**	**00 30 23.3**	**-1.2**
ALJI				S	**Sn**	**00 30 35.4**	**+0.8**
ALJI	**Alcalda de J**	**0.75**	**74**	*e*P	**Pn**	**00 30 23.2**	**-1.2**
CEVE	**Cerro Verde**	**0.76**	**336**	P	**Pn**	**00 30 23.2**	**-1.7**
CEVE				S	**Sn**	**00 30 36.4**	**+1.0**
CEVE	**Cerro Verde**	**0.76**	**336**	↑*e*P	**Pn**	**00 30 23.2**	**-1.7**
SBLS	**San Blas**	**0.77**	**337**	↑*i*P	**Pn**	**00 30 23.4**	**-1.7**
SBLS				*e*S	**Sn**	**00 30 36.1**	**+0.5**
TECA	**Tecapa**	**0.87**	**65**	*e*P	**Pn**	**00 30 25.4**	**-0.9**
UNIC	**Universidad Ca**	**0.88**	**345**	P	**Pn**	**00 30 25.1**	**-1.3**
UNIC				S	**Sn**	**00 30 39.2**	**+1.1**
NUBE	**Las Nubes**	**0.90**	**329**	P	**Pn**	**00 30 24.4**	**-2.3**
NUBE	**Las Nubes**	**0.90**	**329**	*e*P	**Pn**	**00 30 24.4**	**-2.3**
NUBE				*e*S	**Sn**	**00 30 37.3**	**-1.2**
LOAL	**Lomas de Alarc**	**0.98**	**332**	S	**Sn**	**00 30 41.3**	**+0.8**
LOAL	**Lomas de Alarc**	**0.98**	**332**	*e*P	**Pn**	**00 30 26.2**	**-1.6**
FAME	**Alcaldia de Sa**	**0.99**	**316**	P	**Pn**	**00 30 25.1**	**-2.8**
FAME				S	**Sn**	**00 30 38.6**	**-2.0**
JUCU	**Jucuar¡n**	**1.04**	**83**	*e*P	**Pn**	**00 30 27.2**	**-1.4**
RBDL	**Robledal**	**1.05**	**340**	*e*P	**Pn**	**00 30 27.4**	**-1.4**
INTP	**Intipuca**	**1.23**	**87**	*e*P	**Pn**	**00 30 29.5**	**-1.6**
ESSJ	**San Jos, E**	**1.24**	**291**	*e*P	**Pb**	**00 30 34.6**	**+1.3**
JUAM	**Asuncion Mita**	**1.26**	**342**	*e*P	**Pn**	**00 30 30.1**	**-1.5**
MTO3	**Montecristo**	**1.27**	**358**	P	**Pn**	**00 30 30.8**	**-1.1**
MTO3				S	**Sn**	**00 30 49.2**	**+1.4**
MTO3	**Montecristo**	**1.27**	**358**	*e*P	**Pn**	**00 30 31.0**	**-0.9**
MTO3	**Montecristo**	**1.27**	**358**	*e*P	**Pn**	**00 30 30.9**	**-0.9**
LCND	**La Caada**	**1.39**	**82**	*e*P	**Pn**	**00 30 32.4**	**-1.0**
CNCH	**Conchagua**	**1.45**	**84**	↓*e*P	**Pn**	**00 30 32.9**	**-1.3**
PCG5	**San Vicente Pa**	**1.50**	**316**	*e*P	**Pn**	**00 30 36.4**	**+1.4**
FG16	**Alotenango, Sa**	**1.63**	**314**	*e*P	**Pb**	**00 30 39.3**	**-0.7**
FG8	**Yepocapa, Chim**	**1.66**	**313**	*e*P	**Pn**	**00 30 39.6**	**+2.4**
SARH	**Santa Rosa de**	**1.72**	**18**	*e*P	**Pn**	**00 30 38.2**	**+0.2**
STG8	**El Palmar, Qui**	**2.38**	**304**	*e*P	**Pn**	**00 30 49.5**	**+2.3**
STG8				*e*S	**Sb**	**00 31 20.7**	**-1.2**

*SOME **25** 00:31:27.7, 41˚.42N×83˚.73E, h10km*
*NNC **25** 00:31:29.5±3.0, 41˚.29N×83˚.52E, h0km, mb3.6, mpv3.2, Error ellipse: s-maj=21.9km s-min=16.4km az=170.0*
ISC 25 00:31:29.0±3.6, 41˚5N±0˚.2×83˚6E±0˚.1, h10km, n14, σ2s22/19, 4C-2D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**3.50**	**300**	Pg	**Pb**	**00 32 30.6**	**-0.5**
	6.1nm,0.3s						
SHLS				Lg	Lg	00 33 16.0	
	32nm,0.6s						
PDGK	**Podgornoye**	**3.57**	**303**	↑Pg	**Pb**	**00 32 35.2**	**+3.0**
	3.6nm,0.7s						
PDGK				↑Lg	Lg	00 33 24.2	
	13nm,0.5s						
UZB	**Uzynbulak**	**3.79**	**298**	Pg	**Pb**	**00 32 38.0**	**+2.0**
	4.2nm,0.3s						
UZB				Lg	Lg	00 33 28.5	
	4.8nm,0.2s						
UZB	**Uzynbulak**	**3.79**	**298**	*e*P	**Pb**	**00 32 38.0**	**+2.0**
	4.2nm,0.3s						
UZB				*e*S	**Sg**	**00 33 28.5**	**-2.1**
	4.8nm,0.2s						
DJR	**Jarkent**	**4.00**	**317**	Pg	**Pg**	**00 32 46.8**	**+1.2**
	3.3nm,0.4s						
DJR				Lg	Lg	00 33 43.2	
	4.1nm,0.3s						
DJR	**Jarkent**	**4.00**	**317**	*e*P	**Pg**	**00 32 44.3**	**-1.4**
	1.9nm,0.5s						
DJR				*e*S	**Sg**	**00 33 39.1**	**+1.6**
	4.1nm,0.3s						
KPKS	**Kokpek**	**4.15**	**300**	Pg	**Pg**	**00 32 46.2**	**-2.3**
	0.4nm,0.2s						
KPKS				Lg	Lg	00 33 42.4	
	3.4nm,0.3s						
KPKS	**Kokpek**	**4.15**	**300**	*e*P	**Pg**	**00 32 46.2**	**-2.3**
	0.4nm,0.2s						
KPKS				*e*S	**Sg**	**00 33 42.4**	**+0.2**
	3.4nm,0.3s						
SATY	**Saty**	**4.17**	**294**	Pg	**Pb**	**00 32 45.5**	**+3.1**
	1.6nm,0.3s						
SATY				Lg	Lg	00 33 41.1	
	5.1nm,0.4s						
SATY	**Saty**	**4.17**	**294**	*e*P	**Pb**	**00 32 45.5**	**+3.1**
	1.6nm,0.3s						
SATY				*e*S	**Sg**	**00 33 41.1**	**-1.7**
	5.1nm,0.4s						
ARXS	**Arharly**	**5.05**	**305**	Pg	**Pg**	**00 33 03.5**	**-2.2**
	1.2nm,0.3s						
ARXS				Lg	Lg	00 34 11.9	
	2.3nm,0.2s						
ARXS	**Arharly**	**5.05**	**305**	*e*P	**Pg**	**00 33 03.5**	**-2.2**
	1.2nm,0.3s						
ARXS				*e*S	**Sg**	**00 34 11.9**	**+0.7**
	2.3nm,0.2s						
MK31	**Makanchi Array**	**5.41**	**350**	↓Pg	**Pg**	**00 33 10.8**	**-1.7**
	0.6nm,0.6s,baz=182,slow=13,SNR=2.5						
MK31				↓Lg	Lg	00 34 24.3	
	3.3nm,0.6s,baz=181,slow=22,SNR=4.0						
MAKZ	**Makanchi**	**5.46**	**348**	↑Pg	**Pg**	**00 33 11.0**	**-2.6**
	1.2nm,0.8s						
MAKZ				↑Lg	Lg	00 34 26.7	
	2.8nm,0.6s						

*UPA **25** 00:41:24.1±1.9, 8˚.24N×82˚.89W, h15km±5km, MW3.2, Presumed earthquake*
*UCR **25** 00:41:25.0±0.9, 8˚.25N×82˚.89W, h12km±4km, MW3.8, Presumed earthquake*
*CATAC **25** 00:41:26.5±0.5, 8˚N±4˚×8˚3W±˚, h4km, M3.2/7, MLv3.2/7, Error ellipse: s-maj=8.2km s-min=3.5km az=18.4, confirmed*
ISC 25 00:41:24.8±1.0, 8˚24N±0˚.05×82˚87W±0˚.03, h17km±6km, n54, σ1s23/69, 5C-10D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTPA	**Petro Terminal**	**0.04**	**183**	↑*e*P	**Pg**	**00 41 27.7**	**-0.1**
PTPA				*e*S	**Sg**	**00 41 30.7**	**+0.9**
ARIEL	**Armuelles**	**0.05**	**18**	↓*i*P	Pg	00 41 38.3	+10
LPPC	**Paso Canoas**	**0.29**	**6**	*e*P	**Pg**	**00 41 31.0**	**-0.2**
LPPC				*e*S	**Sb**	**00 41 35.8**	**-0.5**
CDITO	**Canoas**	**0.33**	**359**	P	**Pg**	**00 41 31.3**	**-0.5**
NELY	**Ciudad Neily**	**0.42**	**349**	*e*P	**Pg**	**00 41 32.9**	**-0.4**
NELY				*e*S	**Sb**	**00 41 39.4**	**-0.4**
NELY	**Ciudad Neily**	**0.42**	**349**	↑*i*P	**Pg**	**00 41 32.9**	**-0.4**
NELY				*e*S	**Sb**	**00 41 39.7**	**-0.1**
FITO	**Golfito**	**0.48**	**324**	↑*i*P	**Pg**	**00 41 33.1**	**-1.3**
FITO				*e*S	**Sg**	**00 41 39.7**	**-1.2**
CLLRA	**Cordillera,**	**0.56**	**27**	↓*e*P	**Pg**	**00 41 35.8**	**-0.2**
CLLRA	**Cordillera,**	**0.56**	**27**	↓*i*P	**Pg**	**00 41 35.8**	**-0.2**
CLLRA				*e*S	**Sg**	**00 41 41.3**	**-2.3**
BRU2	**Volcan**	**0.58**	**18**	P	**Pg**	**00 41 36.3**	**-0.1**
BRU2				S	**Sb**	**00 41 45.0**	**+0.4**
BRU2	**Volcan**	**0.58**	**18**	*e*P	**Pg**	**00 41 36.2**	**-0.1**
BRU2	**Volcan**	**0.58**	**18**	↓*i*P	**Pg**	**00 41 36.2**	**-0.1**
BRU2				*e*S	**Sb**	**00 41 45.1**	**+0.4**
VITO	**San Vito**	**0.58**	**350**	*e*S	**Sb**	**00 41 45.6**	**+0.9**
BGUAL	**Bijagual, Pana**	**0.59**	**63**	↓*e*P	**Pg**	**00 41 36.3**	**-0.3**
BGUAL	**Bijagual, Pana**	**0.59**	**63**	↓*i*P	**Pg**	**00 41 36.3**	**-0.3**
BGUAL				*e*S	**Sg**	**00 41 44.5**	**0.0**
SCLRA	**Santa Clara, W**	**0.60**	**8**	*e*P	**Pg**	**00 41 36.6**	**0.0**
SCLRA	**Santa Clara, W**	**0.60**	**8**	*i* P	**Pg**	**00 41 36.6**	**0.0**
SCLRA				*e*S	**Sb**	**00 41 46.3**	**+1.1**
BQTLY	**Boquete Panama**	**0.66**	**38**	↓*e*P	**Pg**	**00 41 37.2**	**-0.6**
BQTLY	**Boquete Panama**	**0.66**	**38**	↓*i*P	**Pg**	**00 41 37.2**	**-0.6**
BQTLY				*e*S	**Sg**	**00 41 46.7**	**+0.2**
EDP2	**Potrero Grande**	**0.83**	**338**	*e*P	**Pg**	**00 41 40.1**	**-0.9**
FIMO	**Fila Mora**	**0.89**	**327**	↑*e*P	**Pg**	**00 41 40.6**	**-1.5**
PANP	**Palmar Norte**	**0.93**	**321**	*e*P	**Pg**	**00 41 41.0**	**-1.8**
RBALA	**Bur**	**0.95**	**48**	↓*e*P	**Pg**	**00 41 41.9**	**-1.3**
RBALA	**Bur**	**0.95**	**48**	↓*i*P	**Pg**	**00 41 42.0**	**-1.3**
RBALA				*e*S	**Sg**	**00 41 54.8**	**-1.0**
EDPE	**Pejibaye, P**	**1.15**	**323**	↑*e*P	**Pb**	**00 41 44.7**	**-1.6**
PDCAN	**Manzana , Fuen**	**1.16**	**87**	*e*P	**Pb**	**00 41 44.8**	**-1.6**
PDCAN	**Manzana , Fuen**	**1.16**	**87**	*e*P	**Pb**	**00 41 45.6**	**-0.9**
SAJE	**San Jernim**	**1.27**	**330**	*e*P	**Pn**	**00 41 46.9**	**-1.1**
RGM0	**Gandoca**	**1.37**	**11**	S	**Sg**	**00 42 10.4**	**+1.4**
LAES	**El Progreso Va**	**1.52**	**353**	*e*P	**Pn**	**00 41 52.2**	**+0.9**
GMAL	**Guarumal, Vera**	**1.69**	**106**	*e*P	**Pn**	**00 41 52.5**	**-1.1**
VERH	**Veragua Rainfo**	**1.71**	**349**	*e*P	**Pn**	**00 41 54.6**	**+0.7**
PIEC	**Cerro El Cedra**	**1.75**	**322**	*e*P	**Pn**	**00 41 55.2**	**+0.5**
LCR2	**La Lucha 2**	**1.87**	**323**	P	**Pn**	**00 41 57.0**	**+0.7**
LCR2				S	**Sb**	**00 42 22.2**	**+0.3**
LCR2	**La Lucha 2**	**1.87**	**323**	*e*P	**Pn**	**00 41 56.6**	**+0.3**
VTCV	**VTCV, Calle Va**	**1.93**	**334**	*e*P	**Pn**	**00 41 57.7**	**+0.6**
RESJ	**San Isidro (Tu**	**1.94**	**337**	*e*P	**Pn**	**00 41 57.9**	**+0.8**
ABRB	**Las Abras (San**	**1.95**	**335**	*e*P	**Pn**	**00 41 58.2**	**+0.8**
LCOCO	**El Coco**	**1.96**	**340**	*e*P	**Pn**	**00 41 58.4**	**+1.1**
CVTY	**Tajo**	**1.96**	**334**	*e*P	**Pn**	**00 41 58.4**	**+0.8**
VTR0	**Volcan Turrial**	**1.98**	**334**	*e*P	**Pn**	**00 41 59.0**	**+1.1**
CVTR	**Volcan Turrial**	**1.98**	**334**	*e*P	**Pn**	**00 41 58.9**	**+1.0**
VICA	**Volcano Irazu**	**1.98**	**331**	*e*P	**Pn**	**00 41 59.2**	**+1.2**
RVLA	**Villa Bonita**	**1.99**	**339**	*e*P	**Pb**	**00 41 59.7**	**-0.9**
ACOS	**Acosta**	**2.01**	**321**	*e*P	**Pn**	**00 41 59.5**	**+1.4**
CVTG	**V. Turrialba,**	**2.10**	**335**	*e*P	**Pn**	**00 42 00.3**	**+1.1**
HDC	**Heredia**	**2.14**	**325**	P	**Pb**	**00 42 01.9**	**-1.3**
HDC				S	**Sb**	**00 42 30.4**	**+0.8**
TRB2	**Turrubares**	**2.28**	**317**	S	**Sb**	**00 42 33.5**	**-0.1**
VPS8	**V Poas**	**2.36**	**325**	*e*P	**Pb**	**00 42 06.3**	**-0.8**
COVE	**Coope Vega, Sa**	**2.89**	**329**	P	**Pn**	**00 42 13.0**	**+2.8**
JTS	**Las Juntas de**	**2.90**	**315**	P	**Pn**	**00 42 12.7**	**+2.5**
JTS				S	**Sn**	**00 42 46.8**	**+2.1**
JTS	**Las Juntas de**	**2.90**	**315**	*e*P	**Pn**	**00 42 13.3**	**+3.0**
ZANG	**Zanguenga, Cho**	**3.05**	**76**	*e*P	**Pb**	**00 42 16.4**	**-2.3**
BCIP	**Isla Barro Col**	**3.13**	**73**	P	**Pn**	**00 42 17.3**	**+3.8**
BCIP				S	**Sb**	**00 42 58.5**	**+0.4**

*NEIC **25** 00:52:01.1±2.5, 34˚.72N±0˚.07×19˚.33E±0˚.07, h10km±1km, mb4.1/7, Error ellipse: s-maj=14.0km s-min=5.5km az=220.0*
*IDC **25** 00:52:02.3±1.2, 34˚.93N×19˚.57E, h0km, mb3.9/8, mbtmp3.9/17, MLv4.0/7, Error ellipse: s-maj=26.2km s-min=10.8km az=12.0*
*GII **25** 00:52:15.3±0.0, 34˚.774N±0˚.002×20˚.976E±0˚.001, h0km, Mws4.1, confirmed*
ISC 25 00:52:00.6±0.9, 34˚8N±0˚.1×19˚44E±0˚.05, h10km, n103, σ2s05/102, mb3.9/8, 19C-18D, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ITM	**Ithomi**	**3.14**	**39**		**Pn**	**00 52 51.8**	**+1.7**
WDD	**Wied Dalam**	**4.16**	**286**	Pn	**Pn**	**00 53 04.8**	**+0.8**
CEL	**Celeste**	**4.50**	**322**	Pn	**Pn**	**00 53 10.0**	**+1.2**
IDI	**Anoyia**	**4.50**	**82**	Pn	**Pn**	**00 53 10.6**	**+1.7**
	13nm,0.3s,baz=257,slow=7.8,SNR=31						
IDI				Sn	**Sn**	**00 53 59.7**	**-1.7**
	18nm,0.3s,baz=5.6,slow=15,SNR=11						
RAFF	**Raffo Rosso**	**4.79**	**302**	Pn	**Pn**	**00 53 14.0**	**+1.3**
AGG	**Agios Georgios**	**4.83**	**28**	Pn	**Pn**	**00 53 16.9**	**+3.5**
VAE	**Valguarnera**	**4.88**	**305**	Pn	**Pn**	**00 53 17.4**	**+3.3**
	18nm,0.4s,baz=101,slow=7.5,SNR=55						
VAE				Sn	**Sn**	**00 54 09.9**	**-0.7**
	6.5nm,0.3s,baz=53,slow=5.0,SNR=6.4						
TIP	**Timpagrande**	**4.89**	**335**	Pn	**Pn**	**00 53 14.5**	**+0.2**
TIP	**Timpagrande**	**4.89**	**335**	↓P	**Pn**	**00 53 14.5**	**+0.2**
TIP				↓S	Sn	00 54 02.5	-8.5
KEK	**Kerkira**	**4.94**	**3**	Pn	**Pn**	**00 53 13.8**	**-1.0**
LIT	**Litokhoron**	**5.84**	**24**	Pn	**Pn**	**00 53 29.5**	**+2.2**
MATE	**Matera**	**6.25**	**341**	↑P	**Pn**	**00 53 31.9**	**+0.9**
MATE				↑S	Sn	00 54 37.9	-6.5
KARP	**Karpathos**	**6.37**	**81**	P	**Pn**	**00 53 38.5**	**+3.9**
	0.4nm2µm66nm,1.4s						
KARP				AML	AML		
OHR	**Ohrid**	**6.42**	**9**	*i* Pn	**Pn**	**00 53 38.6**	**+3.4**
BDRM	**Kayabasi**	**6.89**	**68**	↓P	**Pn**	**00 53 44.0**	**+2.4**
VAY	**Valandovo**	**6.99**	**20**	*i* Pn	**Pn**	**00 53 44.6**	**+1.7**
ARG	**Arkhangelos**	**7.23**	**76**	Pn	**Pn**	**00 53 47.7**	**+1.4**
SKO	**Skopje**	**7.36**	**12**	*i* Pn	**Pn**	**00 53 48.6**	**+0.6**
PDG	**Podgorica**	**7.65**	**359**	↑P	**Pn**	**00 53 51.8**	**-0.2**
PDG				↓S	Sn	00 55 11.4	-7.3
ALN	**Alexandroupoli**	**8.04**	**39**	Pn	**Pn**	**00 53 58.5**	**+1.2**
TAVA	**DENIZLI_Tavas**	**8.12**	**68**	↓P	**Pn**	**00 54 02.2**	**+3.6**
TAVA				↓S	**Sn**	**00 55 29.3**	**-1.3**
KEST	**Kesra**	**8.31**	**279**	Pn	**Pn**	**00 54 02.4**	**+1.1**
	0.2nm,0.3s,baz=109,slow=22,SNR=9.6						
KEST				Sn	**Sn**	**00 55 29.0**	**-6.2**
	0.5nm,0.3s,baz=333,slow=22,SNR=9.2						
	1.4nm,0.7s						
KEST				AML	AML		
KEST	**Kesra**	**8.31**	**279**	Pn	**Pn**	**00 54 00.8**	**-0.4**
AKAS	**Kas**	**8.42**	**77**	Pn	**Pn**	**00 54 03.4**	**+0.7**
ELL	**Elmali**	**8.73**	**74**	Pn	**Pn**	**00 54 07.7**	**+0.7**
BOVS	**Bovan**	**9.02**	**11**	↓P	**Pn**	**00 54 10.7**	**-0.1**
BOVS				↓S	Sn	00 55 44.4	-8.0
BLKB	**Belogradchik**	**9.19**	**15**	↓P	**Pn**	**00 54 13.9**	**+0.8**
BLKB				↓S	Sn	00 55 47.3	-9.3
VSL	**Villasalto**	**9.31**	**303**	Pn	**Pn**	**00 54 15.5**	**+0.7**
KEPZ	**Antalya-Kepez**	**10.10**	**74**	↑P	**Pn**	**00 54 27.4**	**+1.7**
KEPZ				↑S	**Sn**	**00 56 13.9**	**-5.2**
BLY	**Banja Luka**	**10.11**	**351**	Pn	**Pn**	**00 54 26.6**	**+0.8**
BLY	**Banja Luka**	**10.11**	**351**	↓P	**Pn**	**00 54 26.7**	**+1.0**
BLY				↓S	**Sn**	**00 56 14.6**	**-4.6**
MDVR	**Moldovita**	**10.15**	**9**	↑S	Sn	00 56 13.8	-6.3
HERR	**Herculane**	**10.35**	**12**	↓P	**Pn**	**00 54 29.5**	**+0.5**
HERR				↑S	Sn	00 56 19.1	-6.0
GZR	**Gura Zlata**	**10.91**	**13**	↑P	**Pn**	**00 54 36.9**	**+0.2**
GZR				↑S	Sn	00 56 32.2	-6.7
BZS	**Buzias**	**10.96**	**8**	↑S	Sn	00 56 30.0	-10
SURR	**Surduc**	**11.16**	**10**	↑S	Sn	00 56 38.5	-6.3
ICOR	**Ion Corvin**	**11.34**	**32**	↑P	**Pn**	**00 54 45.2**	**+2.6**
CSS	**Mathiatis**	**11.41**	**85**	P	**Pn**	**00 54 41.5**	**-2.2**
CSS				S	Sn	00 56 35.3	-16
MORH	**Mrgy, Hungar**	**11.45**	**357**	↑P	**Pn**	**00 54 43.3**	**-0.7**
MORH				↓S	Sn	00 56 43.4	-8.4
VOIR		**11.48**	**20**	↑P	**Pn**	**00 54 46.7**	**+2.1**
SIRR	**Siria**	**11.60**	**8**	↓P	**Pn**	**00 54 46.8**	**+0.6**
SIRR				↑S	Sn	00 56 46.9	-8.9
MLR	**Muntele Rosu**	**11.80**	**23**	Pn	**Pn**	**00 54 49.5**	**+0.5**
	0.6nm,0.3s,baz=90,slow=23,SNR=11						
	2.5nm,0.8s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**11.80**	**23**	Pn	**Pn**	**00 54 51.3**	**+2.3**
MLR	**Muntele Rosu**	**11.80**	**23**	↑P	**Pn**	**00 54 52.1**	**+3.1**
HARR	**Harsova**	**11.86**	**31**	↑P	**Pn**	**00 54 51.6**	**+2.0**
DOPR	**Dopca**	**12.06**	**20**	↑P	**Pn**	**00 54 55.4**	**+3.0**
MARR	**Marisel-Cluj**	**12.21**	**12**	↓P	**Pn**	**00 54 54.3**	**-0.2**
SAHR	**Sahastru**	**12.25**	**25**	↓P	**Pn**	**00 54 57.5**	**+2.4**
CFR	**Carcaliu**	**12.34**	**30**	↑P	**Pn**	**00 54 58.0**	**+1.8**
BRTR	**Keskin Array B**	**12.34**	**62**	Pn	**Pn**	**00 54 57.8**	**+1.3**
	0.2nm,0.3s,baz=249,slow=12,SNR=9.3						
	1.5nm,0.7s						
BRTR				AML	AML		
PLOR	**Plostina**	**12.35**	**24**	↓P	**Pn**	**00 54 58.8**	**+2.3**
CY604	**RAF Akrotiri,**	**12.44**	**88**	Pn	**Pn**	**00 54 55.6**	**-1.8**
OFRI	**`Ofer**	**13.12**	**95**	P	**Pn**	**00 55 05.0**	**-2.1**
OFRI				S	Sn	00 57 17.0	-16
KZIT	**Kziot**	**13.15**	**103**	P	**Pn**	**00 55 06.6**	**-0.9**
	10nm,0.6s						
KZIT	**Kziot**	**13.15**	**103**	P	**Pn**	**00 55 05.8**	**-1.7**
KZIT				S	Sn	00 57 19.1	-15
SLTI	**Sal'it**	**13.26**	**97**	P	**Pn**	**00 55 06.8**	**-2.2**
SLTI				S	Sn	00 57 20.6	-16
AMAZ	**Amatzia**	**13.36**	**100**	P	**Pn**	**00 55 10.6**	**+0.3**
	18nm,1.1s						
AMAZ	**Amatzia**	**13.36**	**100**	P	**Pn**	**00 55 08.0**	**-2.3**
AMAZ				S	Sn	00 57 23.6	-15
MMA0B	**Mount Meron ar**

ML3.1/22, Error ellipse: s-maj=13.2km s-min=8.6km az=40.0

ISC 25 01:19:37.1±0.7, 17°40S±0.04×66°25W±0.04, h10km, n31, σ2.946/33, Central Bolivia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SOET	**ToroToro**	**0.83**	**150**	Pg	**Pg**	**01 19 51.6**	**-1.5**
SOET				Sg	**Sg**	**01 20 02.4**	**-1.6**
SOET				IAML		01 20 06.3	
	769nm,0.3s						
BBOJ	**La Paz, Jacaqu**	**1.90**	**283**	Pn	**Pg**	**01 20 14.6**	**+0.9**
SOEJ	**Jacaque**	**1.90**	**283**	Pn	**Pg**	**01 20 14.8**	**+1.1**
LPAZ	**La Paz**	**2.11**	**301**	Pn	**Pg**	**01 20 15.7**	**-2.0**
LPAZ	**La Paz**	**2.11**	**301**	Pn	**Pg**	**01 20 16.3**	**-1.4**
LPAZ	**La Paz**	**2.11**	**301**	*eP*	**Pb**	**01 20 15.0**	**-0.9**
LPAZ				*eS*	**Sg**	**01 20 42.9**	**-2.3**
BBOB	**La Paz, Bander**	**2.19**	**304**	Pn	**Pg**	**01 20 17.8**	**-1.5**
BBOD	**La Paz, Gloria**	**2.37**	**288**	Pn	**Pg**	**01 20 22.0**	**-0.6**
PB18	**Visviri**	**3.09**	**266**	Pn	**Pb**	**01 20 30.0**	**-2.5**
PB16	**IPOC Station P**	**3.24**	**253**	Pn	**Pb**	**01 20 33.2**	**-1.9**
GO01	**Chusmiza**	**3.59**	**231**	Pn	**Pb**	**01 20 37.9**	**-3.1**
PB08	**IPOC Station P**	**3.87**	**225**	Pn	**Pn**	**01 20 39.7**	**+2.6**
PB08				IAML		01 21 48.8	
	comp=E,11nm,4.7s						
MOCB	**Mochara**	**3.87**	**172**	Pn	**Pb**	**01 20 43.8**	**-2.1**
MOCB				Sn	**Sb**	**01 21 33.4**	**+0.4**
MOCB				IAML		01 21 44.6	
	comp=E,179nm,0.7s						
PB11	**IPOC Station P**	**3.99**	**233**	Pn	**Pn**	**01 20 43.0**	**+4.4**
PB11				IAML		01 21 45.7	
	comp=N,20nm,2.2s						
PB11				IAML		01 22 50.2	
	comp=E,17nm,3.4s						
AP01	**Chacalluta**	**4.01**	**255**	Pn	**Pn**	**01 20 41.6**	**+2.9**
PB12	**IPOC Station P**	**4.06**	**252**	Pn	**Pb**	**01 20 44.3**	**-4.6**
PB12				IAML		01 22 09.6	
	comp=E,17nm,1.9s						
PB12				IAML		01 22 56.6	
	comp=N,14nm,2.5s						
PSGCX	**Pisagua**	**4.28**	**239**	Pn	**Pn**	**01 20 46.2**	**+3.8**
PSGCX				IAML		01 21 40.1	
	comp=E,16nm,2.5s						
PSGCX				IAML		01 22 06.8	
	comp=N,11nm,1.9s						
TA01	**Diego Aracena**	**4.87**	**229**	Pn	**Pn**	**01 20 54.8**	**+4.2**
TA01				IAML		01 22 28.7	
	comp=E,20nm,2.7s						
TA01				IAML		01 22 58.6	
	comp=N,16nm,3.9s						
SIV	**San Ignacio**	**5.16**	**75**	Pn	Pn	01 20 55.8	+1.3
PB02	**IPOC Station P**	**5.20**	**221**	Pn	**Pn**	**01 20 58.2**	**+3.1**
PB02				IAML		01 22 12.3	
	comp=N,20nm,0.4s						
PB09	**IPOC Station P**	**5.20**	**212**	Pn	**Pn**	**01 20 59.7**	**+4.4**
PB09				IAML		01 23 07.7	
	comp=N,17nm,3.0s						
PB09				IAML		01 24 18.2	
	comp=E,19nm,3.3s						
BBSD	**Serra de San D**	**5.39**	**89**	Pn	Pn	01 21 00.4	+2.7
BBSD	**Serra de San D**	**5.39**	**89**	*eP*	**Pn**	**01 20 58.1**	**+0.4**
BBSD				*eS*	**Sn**	**01 22 00.6**	**+0.7**
PB07	**IPOC Station P**	**5.50**	**218**	Pn	**Pn**	**01 21 03.1**	**+3.8**
PTLB	**Pontes e Lacer**	**7.10**	**75**	Pn	Pn	01 21 22.2	+1.1
PTLB	**Pontes e Lacer**	**7.10**	**75**	*eP*	**Pn**	**01 21 21.7**	**+0.6**
PTLB				*eS*	**Sn**	**01 22 42.7**	**+0.8**
VILB	**Vilhena**	**7.32**	**54**	Pn	Pn	01 21 26.5	+2.2
VILB	**Vilhena**	**7.32**	**54**	*eP*	Pn	01 21 25.0	+0.7
VILB				*eS*	**Sn**	**01 22 46.6**	**-1.0**
COIM	**Forte Coimbra**	**8.40**	**109**	*eP*	**Pn**	**01 21 38.2**	**-0.8**
PDRB	**Porto dos Gac**	**10.86**	**59**	*eP*	**Pn**	**01 22 13.2**	**+0.4**
PDRB				*eS*	**Sn**	**01 24 15.7**	**+1.1**
CLDB	**Colider**	**12.03**	**59**	*eP*	**Pn**	**01 22 29.0**	**+0.2**

*ISK **25** 01:42:42.9, 37.86N×26.92E, h8km, ML2.6/17*
*THE **25** 01:42:43.2, 38°N±1.2×2.7E±, h13km±2km, M2.7/8, MLh2.7/8*
*AFAD **25** 01:42:43.0, 37.87N×26.95E, h8km±4km, ML2.3*

ISC 25 01:42:43.0±0.8, 37.86N±0.02×26.94E±0.02, h15km±6km, n51, σ0.956/77, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**208**	P	**Pg**	**01 42 47.1**	**0.0**
SMG				S	**Sg**	**01 42 50.5**	**+0.6**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**347**	P	**Pg**	**01 42 47.4**	**-0.2**
DGB				S	**Sg**	**01 42 49.6**	**-1.1**
DGB				IAML		01 42 50.0	
	comp=E,804nm,0.1s						
GMLD	**Gumuldur**	**0.22**	**355**	Pg	**Pg**	**01 42 47.9**	**0.0**
GMLD				Sg	**Sg**	**01 42 51.3**	**0.0**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.28**	**90**	Pg	**Pg**	**01 42 49.3**	**+0.4**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**124**	P	**Pg**	**01 42 49.4**	**+0.4**
GCAM				S	**Sg**	**01 42 53.0**	**0.0**
GCAM				IAML		01 42 54.0	
	comp=N,490nm,0.4s						
GCAM				IAML		01 42 54.0	
	comp=E,407nm,0.2s						
GCAM	**G?zelcaml?**	**0.28**	**124**	Pg	**Pg**	**01 42 49.2**	**+0.2**
GCAM				Sg	**Sg**	**01 42 53.9**	**+0.8**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**359**	P	**Pg**	**01 42 50.5**	**0.0**
BEYE				S	**Sg**	**01 42 55.6**	**0.0**
BEYE				IAML		01 42 56.0	
	comp=N,432nm,0.6s						
BEYE				IAML		01 42 56.0	
	comp=E,403nm,0.1s						
DDIM	**Aydin, Didim**	**0.47**	**149**	P	**Pg**	**01 42 52.7**	**+0.4**
DDIM				IAML		01 43 05.0	
	comp=N,190nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.51**	**318**	P	**Pg**	**01 42 52.9**	**-0.2**
ZEYE				S	**Sg**	**01 42 59.8**	**-0.2**
ZEYE				IAML		01 43 01.0	
	comp=E,234nm,0.4s						
BLCB	**Balcova**	**0.53**	**9**	P	**Pg**	**01 42 53.7**	**+0.3**
BLCB				S	**Sg**	**01 43 01.0**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**9**	Pg	**Pg**	**01 42 53.8**	**+0.3**
BLCB				Sg	**Sg**	**01 43 01.4**	**+0.8**
BLCB				AML	AML		
DUVT	**Torbali**	**0.54**	**48**	P	**Pg**	**01 42 53.7**	**0.0**
DUVT				S	**Sg**	**01 42 59.9**	**-1.0**
AYDB	**Zeytinkoy-Aydi**	**0.76**	**83**	Pg	**Pb**	**01 42 58.1**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.77**	**105**	P	**Pb**	**01 42 58.2**	**+0.1**
AYDN				S	**Sb**	**01 43 07.8**	**-0.6**
AYDN				IAML		01 43 13.0	
	comp=N,113nm,0.3s						
AYDN				IAML		01 43 13.0	
	comp=E,136nm,0.7s						
YKAV	**Yalikavak-Bodr**	**0.78**	**160**	Pg	**Pb**	**01 42 58.5**	**+0.3**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**338**	Pg	**Pb**	**01 42 58.6**	**+0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.80**	**355**	P	**Pg**	**01 42 59.2**	**+0.7**
BAGT				S	**Sb**	**01 43 08.8**	**-0.3**
BAGT				IAML		01 43 11.0	
	comp=N,148nm,0.7s						
BAGT				IAML		01 43 14.0	
	comp=E,166nm,0.5s						
IZMR	**zmir-demi**	**0.85**	**71**	P	**Pb**	**01 42 59.2**	**-0.2**
IZMR				S	**Sb**	**01 43 08.8**	**-1.8**
BODT	**Bodrum**	**0.85**	**159**	P	**Pb**	**01 42 59.5**	**0.0**
BODT				S	**Sn**	**01 43 12.3**	**-0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**159**	Pg	**Pb**	**01 42 59.4**	**0.0**
BODT				AML	AML		
FOCM	**Foa**	**0.87**	**349**	Pg	**Pb**	**01 42 59.8**	**+0.1**
FOCM				AML	AML		
MLSB	**Milas**	**0.87**	**130**	Pg	**Pb**	**01 43 00.0**	**+0.2**
MLSB				AML	AML		
CHOS	**Chios island**	**0.87**	**307**	P	**Pb**	**01 42 59.5**	**-0.4**
CHOS				S	**Sn**	**01 43 12.8**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**307**	Pg	**Pb**	**01 43 00.1**	**+0.2**
CHOS				AML	AML		
BDRM	**Kayabasi**	**0.89**	**153**	P	**Pb**	**01 42 59.8**	**-0.3**
BDRM				S	**Sb**	**01 43 10.4**	**-1.3**
BDRM				IAML		01 43 16.0	
	comp=N,80nm,0.3s						
BDRM				IAML		01 43 16.0	
	comp=E,74nm,0.5s						
KARB	**zmir-Karabur**	**0.90**	**333**	P	**Pn**	**01 43 01.4**	**+0.3**
KARB				S	**Sb**	**01 43 11.6**	**-0.5**
KARB				IAML		01 43 16.0	
	comp=N,140nm,0.3s						
KARB				IAML		01 43 16.0	
	comp=E,102nm,0.2s						
CAMT	**Merkez**	**0.94**	**18**	P	**Pb**	**01 43 01.4**	**+0.5**
CAMT				S	**Sg**	**01 43 14.1**	**+0.7**
NAZL	**Nazilli-Aydin**	**1.08**	**84**	Pn	**Pn**	**01 43 04.1**	**+0.6**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.11**	**6**	P	**Pn**	**01 43 04.6**	**+0.6**
ZEDA				S	**Sb**	**01 43 18.7**	**+0.5**
ZEDA				IAML		01 43 21.0	
	comp=E,108nm,0.3s						
ZEDA				IAML		01 43 24.0	
	comp=N,88nm,0.3s						
ESEN	**Aydn-Nazilli**	**1.12**	**93**	P	**Pn**	**01 43 04.3**	**+0.3**
ESEN				S	**Sb**	**01 43 18.2**	**-0.2**
GOMA	**Golmarmara-Man**	**1.15**	**42**	Pn	**Pg**	**01 43 05.4**	**+0.3**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.20**	**73**	P	**Pg**	**01 43 06.8**	**+0.6**
KIRA				S	**Sb**	**01 43 20.0**	**-0.9**
KIRA				IAML		01 43 54.0	
	comp=N,55nm,2.1s						
DKL	**Dikili**	**1.21**	**359**	Pn	**Pg**	**01 43 06.6**	**+0.3**
DKL				AML	AML		
AKHS	**Akhisar**	**1.23**	**34**	P	**Pg**	**01 43 06.8**	**+0.1**
AKS	**Akhisar**	**1.23**	**34**	Pn	**Pg**	**01 43 07.2**	**+0.5**
KTTT	**Salihli**	**1.23**	**47**	P	**Pn**	**01 43 05.4**	**-0.2**
KTTT				S	**Sb**	**01 43 20.3**	**-1.3**
KTTT				IAML		01 43 25.0	
	comp=N,106nm,0.4s						
DAT	**Datca**	**1.24**	**155**	P	**Pn**	**01 43 06.0**	**+0.2**
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	**1.25**	**161**	P	**Pn**	**01 43 06.1**	**+0.3**
MULA	**Mugla, Merkez-**	**1.25**	**118**	P	**Pg**	**01 43 07.4**	**+0.3**
YER	**Yerkesik**	**1.29**	**124**	P	**Pb**	**01 43 07.4**	**+0.5**
APE	**Apeiranthos**	**1.37**	**235**	P	**Pn**	**01 43 07.4**	**-0.2**
APE				S	**Sg**	**01 43 28.4**	**+1.2**
SOMA	**Soma-Manisa**	**1.38**	**20**	Pn	**Pb**	**01 43 08.9**	**+0.5**
SOMA				AML	AML		
MANT	**Manisa**	**1.42**	**63**	P	**Pg**	**01 43 10.6**	**+0.2**
MANT				S	**Sn**	**01 43 26.0**	**-1.0**
MANT				IAML		01 43 31.0	
	comp=N,42nm,0.3s						
MANT				IAML		01 43 32.0	
	comp=E,55nm,0.3s						
GORD	**Gordes-Manisa**	**1.43**	**43**	Pn	**Pg**	**01 43 10.6**	**+0.1**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.46**	**352**	P	**Pn**	**01 43 09.5**	**+0.8**
AYVA				IAML		01 44 02.0	
	comp=E,54nm,2.2s						
SULTU	**Buldan**	**1.46**	**82**	P	**Pb**	**01 43 10.0**	**+0.1**
SULTU				IAML		01 43 39.0	
	comp=E,32nm,0.7s						
PRK	**Paraskevi**	**1.48**	**340**	P	**Pb**	**01 43 10.1**	**-0.1**
TURN	**Turunc**	**1.50**	**136**	P	**Pn**	**01 43 09.5**	**+0.2**
HARTU	**Esme**	**1.55**	**71**	P	**Pb**	**01 43 12.3**	**+0.9**
HARTU				S	**Sn**	**01 43 28.9**	**-0.9**
TAVA	**DENIZLI_Tavas**	**1.62**	**103**	P	**Pb**	**01 43 12.6**	**0.0**
BUHA	**Balikesir, Bur**	**1.64**	**4**	P	**Pn**	**01 43 12.1**	**+0.8**
BUHA				S	**Sb**	**01 43 33.9**	**+0.4**

IDC 25 01:56:13.7±67.0, 20.95S×178.37W, h0km, mb3.9/3, mbtmp3.9/3, Error ellipse: s-maj=1214.0km s-min=173.3km az=83.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**37.28**	**245**	P	P	02 03 27.1	-0.5
	0.9nm,0.4s,baz=86,slow=11,SNR=3.1						
	0.9nm,0.4s						
ASAR	**Alice Springs**	**44.08**	**257**	P	P	02 04 23.8	-0.2
	1.1nm,0.7s,baz=94,slow=7.6,SNR=12						
	1.1nm,0.7s						
WRA	**Warramunga Arr**	**44.20**	**263**	P	P	02 04 25.0	+0.1
	0.4nm,0.3s,baz=96,slow=8.2,SNR=13						
	0.4nm,0.3s						

*AFAD **25** 01:58:57.8, 37.88N×26.93E, h11km±2km, ML3.2*
*ISK **25** 01:58:57.9, 37.89N×26.94E, h7km, ML3.5/18*
*ATH **25** 01:58:57.8, 37.86N×26.93E, h18km, ML3.5/6, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **25** 01:58:58.4, 38°N±1.2×2.7E±, h12km±2km, M3.3/10, MLh3.3/10*

ISC 25 01:58:57.5±0.9, 37.88N±0.01×26.94E±0.02, h18km±2km, n73, σ0.945/110, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DGB	**zmir**	**0.18**	**345**	P	**Pg**	**01 59 02.1**	**-0.1**
DGB				S	**Sb**	**01 59 04.7**	**+0.2**
SMG	**Samos**	**0.19**	**207**	P	**Pg**	**01 59 02.5**	**+0.1**
SMG				S	**Sg**	**01 59 05.9**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.19**	**207**	P	**Pg**	**01 59 02.4**	**+0.1**
SMG				S	**Sg**	**01 59 05.8**	**+0.3**
SMG				AML	AML		
GMLD	**Gumuldur**	**0.20**	**354**	Pg	**Pg**	**01 59 02.6**	**+0.1**
GMLD				Sg	**Sg**	**01 59 05.8**	**-0.1**
GMLD				AML	AML		
KRL1	**Karlovasi Samo**	**0.20**	**247**	P	**Pg**	**01 59 02.6**	**+0.1**
KRL1				S	**Sg**	**01 59 06.2**	**+0.2**
KRL1				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**93**	Pg	**Pg**	**01 59 04.1**	**+0.5**
KUSD				Sg	**Sg**	**01 59 07.9**	**+0.1**
KUSD				AML	AML		
SAM2	**Drakei, Karlov**	**0.29**	**246**	P	**Pg**	**01 59 03.8**	**-0.1**
SAM2				S	**Sb**	**01 59 08.0**	**-0.5**
SAM2				AML	AML		
GCAM	**G?zelcaml?**	**0.29**	**127**	P	**Pb**	**01 59 04.6**	**+0.5**
GCAM				S	**Sg**	**01 59 09.2**	**+1.0**
GCAM				IAML		01 59 10.0	
	comp=N,3µm,0.2s						
GCAM	**G?zelcaml?**	**0.29**	**127**	Pg	**Pb**	**01 59 04.7**	**+0.5**
GCAM				Sg	**Sg**	**01 59 09.2**	**+1.0**
GCAM				AML	AML		
BEYE	**izmir**	**0.35**	**358**	P	**Pb**	**01 59 05.2**	**-0.2**
BEYE				IAML		01 59 10.0	
	comp=N,3µm,0.2s						
BEYE				S	**Sg**	**01 59 10.1**	**0.0**
BEYE				IAML		01 59 11.0	
	comp=E,3µm,0.3s						
DDIM	**Aydin, Didim**	**0.48**	**150**	P	**Pb**	**01 59 07.8**	**+0.4**
DDIM				S	**Sb**	**01 59 14.0**	**-0.1**
ZEYE	**Izmir, Urla-Ze**	**0.50**	**316**	P	**Pb**	**01 59 07.5**	**-0.3**
ZEYE				S	**Sb**	**01 59 14.5**	**-0.3**
ZEYE				IAML		01 59 15.0	
	comp=E,3µm,0.1s						
BLCB	**Balcova**	**0.52**	**9**	P	**Pg**	**01 59 08.4**	**+0.5**
BLCB				S	**Sg**	**01 59 15.5**	**+0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.52**	**9**	Pg	**Pg**	**01 59 08.6**	**+0.7**
BLCB				Sg	**Sg**	**01 59 15.5**	**+0.6**
BLCB				AML	AML		
DUVT	**Torbali**	**0.53**	**49**	P	**Pg**	**01 59 08.5**	**+0.4**
DUVT				S	**Sb**	**01 59 15.0**	**-0.4**
DUVT				IAML		01 59 20.0	
	comp=E,2µm,0.3s						
CESE	**eme**	**0.68**	**312**	Pg	**Pg**	**01 59 11.3**	**+0.3**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**84**	Pg	**Pn**	**01 59 13.1**	**-0.3**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.77**	**106**	P	**Pn**	**01 59 13.6**	**0.0**
AYDN				S	**Sg**	**01 59 22.7**	**-0.2**
AYDN				IAML		01 59 26.0	
	comp=E,828nm,0.6s						
KRBN	**Karaburun**	**0.78**	**337**	Pg	**Pg**	**01 59 13.1**	**+0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.78**	**355**	P	**Pn**	**01 59 13.4**	**-0.2**
BAGT				S	**Sg**	**01 59 23.4**	**+0.1**
BAGT				IAML		01 59 27.0	
	comp=E,2µm,0.7s						
YKAV	**Yalikavak-Bodr**	**0.80**	**160**	Pg	**Pn**	**01 59 13.8**	**0.0**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.84**	**72**	P	**Pg**	**01 59 13.9**	**0.0**
IZMR				S	**Sb**	**01 59 23.7**	**-0.7**
FOCM	**Foa**	**0.85**	**349**	Pg	**Pn**	**01 59 14.6**	**0.0**
FOCM				AML	AML		
BODT	**Bodrum**	**0.86**	**160**	P	**Pn**	**01 59 14.9**	**+0.1**
BODT				S	**Sn**	**01 59 27.4**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**160**	Pg	**Pn**	**01 59 15.3**	**+0.5**
BODT				AML	AML		
CHOS	**Chios island**	**0.87**	**306**	P	**Pn**	**01 59 15.1**	**+0.2**
CHOS				S	**Sn**	**01 59 27.2**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**306**	Pg	**Pg**	**01 59 14.6**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**306**	P	**Pn**	**01 59 14.9**	**0.0**
CHOS				S	**Sg**	**01 59 26.3**	**+0.4**
CHOS				AML	AML		
MLSB	**Milas**	**0.88**	**131**	Pg	**Pn**	**01 59 15.7**	**+0.7**
MLSB				AML	AML		
KARB	**zmir-Karabur**	**0.89**	**332**	P	**Pb**	**01 59 14.5**	**+0.1**
KARB				S	**Sg**	**01 59 26.8**	**+0.1**
KARB				IAML		01 59 32.0	
	comp=N,1µm,0.8s						
BDRM	**Kayabasi**	**0.90**	**154**	P	**Pn**	**01 59 15.4**	**+0.1**
BDRM				S	**Sg**	**01 59 26.8**	**-0.2**
BDRM				IAML		01 59 31.0	
	comp=N,654nm,0.5s						
BDRM				IAML		01 59 31.0	
	comp=E,695nm,0.4s						
KLNA	**Kalymnos**	**0.92**	**178**	P	**Pg**	**01 59 15.2**	**-0.2**
KLNA				S	**Sg**	**01 59 27.4**	**-0.1**
KLNA				AML	AML		
CAMT	**Merkez**	**0.92**	**18**	P	**Pg**	**01 59 16.1**	**+0.7**
CAMT				S	**Sn**	**01 59 28.6**	**+0.3**
BODA	**Bodrum-Mula**	**0.93**	**155**	Pg	**Pg**	**01 59 16.1**	**+0.6**
EAG2	**Marmaro, Chios**	**0.94**	**316**	P	**Pg**	**01 59 16.0**	**+0.3**
EAG2				S	**Sn**	**01 59 28.6**	**0.0**
NAZL	**Nazilli-Aydin**	**1.07**	**85**	Pg	**Pg**	**01 59 19.1**	**+0.8**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.09**	**5**	P	**Pg**	**01 59 18.5**	**-0.2**
ZEDA				S	**Sb**	**01 59 31.9**	**+0.1**
ZEDA				IAML		01 59 36.0	
	comp=E,408nm,0.3s						
ZEDA				IAML		01 59 37.0	
	comp=N,427nm,0.4s						
ESEN	**Aydn-Nazilli**	**1.12**	**94**	P	**Pg**	**01 59 18.5**	**-0.6**
ESEN				S	**Sn**	**01 59 32.5**	**-0.5**
GOMA	**Golmarmara-Man**	**1.13**	**42**	Pn	**Pg**	**01 59 19.9**	**+0.5**
GOMA				AML	AML		
DKL	**Dikili**	**1.19**	**359**	Pn	**Pg**	**01 59 20.2**	**-0.4**
DKL				AML	AML		
DKL	**Dikili**	**1.19**	**359**	P	**Pb**	**01 59 19.7**	**+0.1**
DKL				S	**Sg**	**01 59 35.7**	**-0.6**
KIRA	**zmir-Kiraz**	**1.20**	**74**	P	**Pg**	**01 59 20.4**	**-0.2**
AKHS	**Akhisar**	**1.21**	**34**	P	**Pb**	**01 59 20.1**	**+0.1**
AKHS				S	**Sg**	**01 59 36.9**	**0.0**
AKHS				IAML		01 59 40.0	
	comp=N,966nm,0.5s						
AKS	**Akhisar**	**1.21**	**34**	Pn	**Pg**	**01 59 21.4**	**+0.4**
AKS				AML	AML		
KTTT	**Salihli**	**1.22**	**48**	P	**Pg**	**01 59 20.4**	**-0.6**
KTTT				S	**Sg**	**01 59 36.6**	**-0.4**
KTTT				IAML		01 59 42.0	
	comp=N,470nm,0.6s						
MULA	**Mugla, Merkez-**	**1.26**	**119**	P	**Pg**	**01 59 21.7**	**-0.1**
MULA				IAML		01 59 44.0	
	comp=E,332nm,1.1s						
YAZI	**Mula-Dat§a-**	**1.26**	**161**	P	**Pb**	**01 59 20.7**	**0.0**
YER	**Yerkesik**	**1.30**	**124**	P	**Pg**	**01 59 22.4**	**-0.2**
YER				S	**Sg**	**01 59 38.7**	**-0.9**
YER				AML	AML		
SOMA	**Soma-Manisa**	**1.36**	**20**	Pn	**Pg**	**01 59 23.9**	**+0.1**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.38**	**235**	P	**Pn**	**01 59 22.0**	**+0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.38**	**235**	P	**Pn**	**01 59 21.8**	**-0.2**
MANT	**Manisa**	**1.41**	**64**	P	**Pg**	**01 59 24.0**	**-0.8**
MANT				S	**Sb**	**01 59 42.0**	**+0.7**
GORD	**Gordes-Manisa**	**1.42**	**43**	Pn	**Pg**	**01 59 24.7**	**-0.2**
GORD				AML	AML		
AYVA	**Ayvalik**	**1.44**	**352**	P	**Pg**	**01 59 25.0**	**-0.4**
AYVA				IAML		01 59 47.0	
	comp=N,623nm,0.9s						
AYVA				IAML		01 59 53.0	
	comp=E,527nm,0.9s						
TNSA	**Tinos**	**1.45**	**257**	P	**Pn**	**01 59 22.8**	**0.0**
SULTU	**Buldan**	**1.45**	**82**	P	**Pb**	**01 59 23.9**	**-0.2**
SULTU				S	**Sb**	**01 59 42.3**	**0.0**
PRK	**Paraskevi**	**1.47**	**339**	P	**Pb**	**01 59 23.9**	**-0.3**
PRK				S	**Sg**	**01 59 44.4**	**-0.5**
PRK				AML	AML		
PRK	**Paraskevi**	**1.47**	**339**	P	**Pb**	**01 59 23.5**	**-0.7**
TURN	**Turunc**	**1.51**	**136**	P	**Pb**	**01 59 24.4**	**-0.6**
HARTU	**Esme**	**1.54**	**72**	P	**Pn**	**01 59 23.5**	**-0.6**
TAVA	**DENIZLI_Tavas**	**1.62**	**104**	P	**Pb**	**01 59 26.3**	**-0.5**
BUHA	**Balikesir, Bur**	**1.63**	**4**	P	**Pb**	**01 59 26.2**	**-0.8**
BUHA				S	**Sb**	**01 59 47.4**	**+0.2**
BUHA				IAML		01 59 53.0	
	comp=N,626nm,0.9s						
KOCA	**Canakkale, Ayv**	**1.74**	**339**	P	**Pn**	**01 59 27.8**	**+0.9**
KOCA				S	**Sb**	**01 59 50.3**	**-0.2**
KOCA				IAML		01 59 57.0	
	comp=N,309nm,0.4s						
THR8	**Santorini-Mono**	**1.88**	**219**	P	**Pg**	**01 59 33.4**	**-0.1**
ARG	**Arkhangelos**	**1.91**	**150**	P	**Pb**	**01 59 30.7**	**-1.1**
ARG	**Arkhangelos**	**1.91**	**150**	P	**Pn**	**01 59 29.9**	**+0.8**
THERA	**Ancient Thera,**	**1.91**	**218**	P	**Pn**	**01 59 29.2**	**+0.1**
THR3	**Thira Island,**	**1.91**	**221**	P	**Pg**	**01 59 33.6**	**-0.7**
KARY	**Karystos**	**1.99**	**275**	P	**Pn**	**01 59 30.7**	**+0.5**
KARP	**Karpathos**	**2.33**	**176**	P	**Pn**	**01 59 35.4**	**+0.4**
DION	**Dionisos Attik**	**2.39**	**276**	P	**Pn**	**01 59 36.0**	**+0.2**
LIA	**Limnos Island**	**2.44**	**326**	P	**Pn**	**01 59 37.5**	**+1.1**
ATHU	**Athens Univers**	**2.50**	**273**	P	**Pn**	**01 59 37.7**	**+0.5**

*BJI **25** 02:20:13.6, 35.83N×140.37E, h60km, mB4.8/6, mb4.6/25*
*NEIC **25** 02:20:18.9, 35.98N×140.01E, h50km*
*GFZ **25** 02:20:19.2±0.2, 36°N±3°×14°E±, h54km, M5.0/22, mb4.7/22, confirmed*
*NEIC **25** 02:20:19.0±1.5, 36.00N±0.05×139.95E±0.08, h49km±6km, mb4.7/51, Mwr4.3/22, Error ellipse: s-maj=8.8km s-min=7

JAG Ashikaga 0.59 320 ⇓P Pn 02 20 30.6 -0.1
JAG A A 02 20 30.6
comp=N,33nm,0.3s,comp=E,30nm,0.9s
JAG ⇓S Sn 02 20 38.7 -0.8
JCCN Chibachonan 0.64 157 A A 02 20 33.1
comp=N,38nm,1.1s,comp=E,35nm,0.6s
JHYU Hitachinakayam 0.65 56 A A 02 20 32.0
comp=N,84nm,0.4s,comp=E,22nm,0.6s
JSGW Sagamiharawaka 0.69 238 A A 02 20 33.1
comp=N,31nm,1.8s,comp=E,21nm,1s
JYO Yokosk 0.78 196 A A 02 20 34.8
comp=N,28nm,0.6s,comp=E,35nm,0.6s
JHO Hitachi 0.82 39 A A 02 20 34.2
comp=N,13nm,0.6s,comp=E,15nm,0.4s
JRY Ryogami san 0.83 273 ⇓*i*P Pn 02 20 34.0 +0.1
JRY ⇓S Sn 02 20 44.5 -0.6
JKUC kamogawauchiur 0.84 164 A A 02 20 36.0
comp=N,17nm,1.6s,comp=E,15nm,2.5s
TATJ Tateyama 2 0.94 182 A A 02 20 37.3
comp=N,36nm,2.4s,comp=E,31nm,2.1s
JOD2 Odawara 2 0.98 224 ⇓*i*P Pn 02 20 36.9 +0.9
JOD2 A A 02 20 36.9
comp=N,21nm,1.4s,comp=E,15nm,3.1s
JOD2 ⇓S Sn 02 20 49.5 +0.7
JSB Shiboa 0.99 360 A A 02 20 36.2
comp=N,13nm,1.4s,comp=E,19nm,1.5s
JGK Kuni 1.19 300 A A 02 20 39.3
comp=N,5.0nm,1.1s,comp=E,5.0nm,1.0s
JYN Shimob 1.22 247 *i*P Pn 02 20 40.4 +1.2
JYN A A 02 20 40.4
comp=N,18nm,1.5s,comp=E,16nm,0.5s
JHTM Izuhatsuma 1.26 217 A A 02 20 41.6
comp=N,21nm,0.9s,comp=E,22nm,1.3s
JFNN Fujinakano 1.27 233 A A 02 20 41.6
comp=N,12nm,0.7s,comp=E,12nm,2.7s
JIM2 Oshima 3 1.32 198 A A 02 20 42.7
comp=N,14nm,0.4s,comp=E,18nm,0.4s
ONAJ Iwakimizuishiy 1.33 32 A A 02 20 41.5
comp=N,12nm,0.3s,comp=E,15nm,0.3s
JFY Yanaizu 1.44 353 A A 02 20 42.7
comp=N,4.0nm,1.0s,comp=E,8.0nm,1.1s
MJAR Matsushiro Arr 1.50 293 P Pn 02 20 43.1 +0.2
comp=E,715nm,0.8s,baz=92,slow=14,SNR=944
MJAR S Sn 02 21 06.0 +4.6
comp=E,289nm,0.5s,baz=168,slow=41,SNR=3.5
MJAR LR LR 02 21 33.5
comp=E,880nm,20.9s,baz=146,slow=55
MJAR Matsushiro Arr 1.50 293 Pn 02 20 43.5 +0.6
MAJO Matsushiro 1.50 293 P Pn 02 20 43.8 +0.8
MAJO Matsushiro 1.50 293 P Pn 02 20 43.5 +0.5
MAJO Matsushiro 1.50 293 Pn 02 20 43.8 +0.8
MAJO Matsushiro 1.50 293 P Pn 02 20 43.9 +0.8
MJB9 Matsu-Tunnel 1.50 293 Pn 02 20 45.0 +2.0
JFK Kawauchi 1.58 29 A A 02 20 45.1
comp=N,3.0nm,0.7s,comp=E,5.0nm,1.6s
JOTO OTAMA OYAMA 1.62 12 A A 02 20 45.3
comp=N,11nm,1.0s,comp=E,12nm,2.2s
SHZ3 Shizuoka 3 1.67 237 A A 02 20 47.2
comp=N,10.0nm,1.0s,comp=E,8.0nm,1.2s
JNY Yasuok 1.79 250 A A 02 20 48.7
comp=N,7.0nm,0.9s,comp=E,8.0nm,0.7s
JMST Minamisoumatoc 1.91 24 A A 02 20 49.6
comp=N,4.0nm,0.4s,comp=E,6.0nm,0.5s
JSG Sagara 1.92 228 P Pn 02 20 53.8 +5.0
JSG Sagara 1.92 228 P Pn 02 20 50.0 +1.2
JSG Sagara 1.92 228 Pn 02 20 50.8 +2.0
JSG Sn Sn 02 21 12.6 +0.8
JGF Kuroka 2.12 261 P Pn 02 20 54.2 +2.7
JGF Kuroka 2.12 261 S Sn 02 21 22.0 +5.3
JGF Kuroka 2.12 261 Pn 02 20 53.7 +2.2
JGF Sn Sn 02 21 18.2 +1.6
JGF Kuroka 2.12 261 P Pn 02 20 53.9 +2.4
INU Inuyama 2.45 256 P Pn 02 20 58.4 +2.4
INU Inuyama 2.45 256 P Pn 02 20 58.0 +2.0
INU Inuyama 2.45 256 Pn 02 20 57.2 +1.2
INU Inuyama 2.45 256 P Pn 02 20 57.8 +1.8
JOU Okura 2.46 14 A A 02 20 57.4
comp=N,4.0nm,2.1s,comp=E,4.0nm,0.8s
JICN Ichinomiyachia 2.60 256 A A 02 21 00.1
comp=N,5.0nm,1.9s,comp=E,5.0nm,1.5s
JOFO Osakifurukawao 2.74 16 A A 02 21 01.4
comp=N,11nm,2.7s,comp=E,10.0nm,2.1s
JHJ Hachijo jima 2 2.85 182 P Pn 02 21 02.7 +1.1
comp=E,120nm,0.3s,baz=263,slow=23,SNR=74
JHJ S Sn 02 21 35.6 +1.0
comp=E,74nm,0.4s,baz=38,slow=23,SNR=9.1
JHJ2 Mitsune 2.86 182 P Pn 02 21 02.4 +0.8
JHJ2 Mitsune 2.86 182 Pn 02 21 02.2 +0.6
JHJ2 Mitsune 2.86 182 P Pn 02 21 02.0 +0.4
JTM Tenmabayashi 4.89 10 P Pn 02 21 33.0 +3.6
JTM Tenmabayashi 4.89 10 Pn 02 21 31.2 +1.8
JMN Monobe 5.45 247 P Pn 02 21 38.6 +1.4
JMN Monobe 5.45 247 Pn Pn 02 21 37.6 +0.4
JMN Monobe 5.45 247 P Pn 02 21 38.4 +1.1
comp=Z,50nm,0.8s
ERM Erimo 6.54 22 P Pn 02 21 54.0 +2.0
ERM Erimo 6.54 22 Pn Pn 02 21 52.5 +0.5
ERM Erimo 6.54 22 P Pn 02 21 53.8 +1.8
comp=Z,39nm,0.7s
JEM Erimo 6.54 22 P Pn 02 21 53.8 +1.8
JNU Nakatsue 7.99 252 P Pn 02 22 13.3 +1.3
comp=Z,7.9nm,0.7s,baz=81,slow=7.6,SNR=5.6
JNU LR LR 02 25 39.4
comp=Z,262nm,19.6s,baz=55,slow=41
ASAJ Asahikawa 8.38 13 P Pn 02 22 17.9 +0.6
comp=Z,4.3nm,0.3s,baz=233,slow=10,SNR=7.7
ASAJ LR LR 02 25 54.1
comp=Z,115nm,19.3s,baz=197,slow=40
JKA Kamikawa-asahi 8.39 13 Pn Pn 02 22 17.4 0.0
JKA Kamikawa-asahi 8.39 13 P Pn 02 22 18.4 +1.0
comp=Z,30nm,1.9s
JCJ Chichijima 9.06 167 P Pn 02 22 21.2 -5.5
comp=Z,78nm,0.3s,baz=102,slow=22,SNR=20
JCJ S Sn 02 23 57.6 -10
comp=Z,37nm,0.5s,baz=105,slow=23,SNR=1.7
JCJ Chichijima 9.06 167 P Pn 02 22 25.4 -1.3
JCJ Chichijima 9.06 167 Pn Pn 02 22 25.2 -1.5
JCJ Chichijima 9.06 167 P Pn 02 22 24.9 -1.8
comp=Z,115nm,0.9s
KSRS Korea Array 9.75 282 P Pn 02 22 35.6 -0.4
comp=Z,2.0nm,0.6s,baz=95,slow=14,SNR=9.3
KSRS LR LR 02 26 16.1
comp=Z,212nm,20.0s,baz=95,slow=37
USA0B Ussuriysk Arra 10.21 326 Pn 02 22 44.5 +2.1
USRK Ussuriysk Ar. 10.21 326 P Pn 02 22 43.2 +0.8
comp=Z,5.5nm,0.7s,baz=139,slow=13,SNR=24
USRK LR LR 02 26 23.5
comp=Z,143nm,19.1s,baz=151,slow=36
BNX BinXian 13.58 320 ⇓P Pn 02 23 29.8 +1.4
BNX pmax pmax
comp=Z,11nm,0.8s
KLR Kul'dur 14.54 338 P Pn 02 23 40.6 -0.6
comp=Z,1.2nm,0.6s,baz=151,slow=11,SNR=7.7
KLR LR LR 02 28 48.5
comp=Z,103nm,20.4s,baz=88,slow=35
HILR Hailar Array B 20.00 319 P P 02 24 45.6 -1.5
comp=Z,3.1nm,0.6s,baz=129,slow=12,SNR=3.5
HNS HongShan 20.26 282 ⇓P P 02 24 47.6 -2.3
HNS pmax pmax
comp=Z,8.0nm,0.9s
SSLB Suanglung 20.40 239 P P 02 24 50.3 -1.3
comp=Z,242nm,0.7s
PETK Petropavlovsk- 21.21 31 P P 02 25 01.5 +1.5
comp=Z,5.2nm,0.9s,baz=247,slow=11,SNR=2.1
PETK LR LR 02 33 20.8
comp=Z,18nm,20.6s,baz=218,slow=37
comp=Z,5.2nm,0.9s
HHC Hu-ho-hao-te 22.70 291 *e*P P 02 25 14.8 -1.4
HHC pmax pmax
comp=Z,16nm,0.5s
HHC pmax pmax
comp=Z,76nm,5.4s
MA2 Magadan 24.65 13 P P 02 25 34.6 +0.2
comp=Z,4.3nm,0.3s,baz=182,slow=13,SNR=4.2
comp=Z,4.3nm,0.3s
MA2 Magadan 24.65 13 P P 02 25 34.7 +0.2
MA2 IAmb IAmb 02 25 41.8
comp=Z,32nm,1.3s
XAN Xi'an 25.42 275 P P 02 25 42.3 +0.6
XAN pmax pmax
comp=Z,8.0nm,0.7s
YAK Yakutsk 26.86 349 LR LR 02 36 02.1
comp=Z,83nm,20.7s,baz=92,slow=35
SONM Songino Array 27.41 306 P P 02 25 58.8 -0.9
comp=Z,0.9nm,0.6s,baz=105,slow=9.8,SNR=7.0
SONM LR LR 02 35 46.2
comp=Z,96nm,21.8s,baz=122,slow=34
comp=Z,0.9nm,0.6s
SONM Songino Array 27.41 306 P P 02 25 59.3 -0.4
SEY Seymchan 28.07 12 P P 02 26 07.6 +2.4
comp=Z,2.0nm,0.7s,baz=191,slow=8.8,SNR=4.8
comp=Z,2.0nm,0.7s
H11N2 WAKE ISLAND Hy 28.69 117 T T 02 56 21.7
baz=312,slow=75,SNR=58
H11N1 WAKE ISLAND Hy 28.70 117 T T 02 56 10.0
baz=312,slow=75,SNR=48
H11N3 WAKE ISLAND Hy 28.71 117 T T 02 56 19.7
baz=312,slow=75,SNR=46
H11S1 WAKE ISLAND Hy 29.34 119 T T 02 57 14.0
baz=314,slow=76,SNR=62
H11S3 WAKE ISLAND Hy 29.34 119 T T 02 57 11.3
baz=314,slow=76,SNR=52
H11S2 WAKE ISLAND Hy 29.36 119 T T 02 57 13.8
baz=314,slow=76,SNR=47
TLY Talaya 30.14 313 LR LR 02 39 08.8
comp=Z,33nm,19.8s,baz=66,slow=38
TIXI Tiksi 36.21 354 P P 02 27 15.4 -0.8
comp=Z,3.5nm,0.5s,baz=164,slow=4.5,SNR=9.0
comp=Z,3.5nm,0.5s
TIXI Tiksi 36.21 354 P P 02 27 15.2 -1.1
TIXI IAmb IAmb 02 27 15.8
comp=Z,4.4nm,0.6s
TIXI Tiksi 36.21 354 P P 02 27 15.0 -1.3
comp=Z,8.1nm,0.6s
ZAA0 Zalesovo Array 41.75 313 P P 02 28 02.1 -0.7
ZAA0 IAmb IAmb 02 28 03.5
comp=Z,13nm,0.7s
ZALV Zalesovo Beam 41.75 313 P P 02 28 02.1 -0.8
comp=Z,13nm,0.6s,baz=92,slow=6.4,SNR=56
ZALV PcP PcP 02 29 57.9 -0.6
comp=Z,2.1nm,0.5s,baz=116,slow=3.5,SNR=5.3
comp=Z,13nm,0.6s
ZALV Zalesovo Beam 41.75 313 P P 02 28 02.0 -0.8
ZALV PcP 02 29 58.2 -0.2
MKAR Makanchi Array 43.67 303 P P 02 28 18.1 -0.5
comp=Z,2.6nm,0.6s,baz=83,slow=10.0,SNR=25
comp=Z,2.6nm,0.6s
NRIK Noril'sk 43.73 336 P P 02 28 17.6 -1.1
comp=Z,3.4nm,0.6s,baz=76,slow=20,SNR=3.8
comp=Z,3.4nm,0.6s
NRIK Noril'sk 43.73 336 P P 02 28 18.8 0.0
MAKZ Makanchi 43.88 303 P P 02 28 19.5 -0.8
MAKZ Makanchi 43.88 303 P P 02 28 19.6 -0.7
comp=Z,6.3nm,1.1s
EVN Everest 45.29 275 P 02 28 32.5 0.0
EVN IAmb IAmb 02 28 33.5
comp=Z,12nm,1.4s
EVN Everest 45.29 275 P P 02 28 32.2 -0.2
comp=Z,4.7nm,0.6s
KURK Kurchatov 45.65 309 P 02 28 33.4 -0.8
KURK Kurchatov 45.65 309 P P 02 28 33.6 -0.6
comp=Z,28nm,0.7s
KURBB Kurchatov Arra 45.71 309 P P 02 28 34.0 -0.7
comp=Z,9.8nm,0.5s,baz=83,slow=7.7,SNR=161
comp=Z,9.8nm,0.5s
PDGK Podgornoye 46.21 298 P 02 28 38.3 -0.7
WUS Wushi 46.90 296 P 02 28 44.3 -0.1
WUS IAmb IAmb 02 28 45.5
comp=Z,13nm,1.2s
WUS Wushi 46.90 296 P P 02 28 45.0 +0.6
comp=Z,6.9nm,1.0s
TARG Taragay, Kyrgy 47.80 297 P P 02 28 51.6 -0.1
TARG Taragay, Kyrgy 47.80 297 P P 02 28 52.5 +0.9
comp=Z,16nm,0.8s
Q19K Cape Douglas, 48.07 40 P P 02 28 52.5 -0.6
KDJ Kajisay 48.15 297 P P 02 28 53.4 -0.7
KDJ IAmb IAmb 02 29 02.6
comp=Z,17nm,1.4s
IMAR Indian Mountai 48.17 30 P P 02 28 53.8 +0.1
KDAK Kodiak Island 48.69 41 P P 02 28 58.2 +0.4
ASAI AK-SAY(Kyrgyzs 48.94 296 P P 02 29 00.7 +0.3
comp=Z,5.9nm,1.0s
BOOM Boomskoye usch 48.95 298 P P 02 29 00.2 0.0
NRN Naryn 49.18 297 P 02 29 02.0 -0.3
NRN IAmb IAmb 02 29 02.7
comp=Z,3.5nm,0.6s
AAK Ala-Archa 49.94 299 P 02 29 07.5 -0.3
AAK IAmb IAmb 02 29 08.4
comp=Z,7.3nm,0.9s
AAK Ala-Archa 49.94 299 P P 02 29 07.8 0.0
comp=Z,8.9nm,0.8s
KSH2 Kashi 50.16 294 P P 02 29 10.0 +0.5
KSH2 pmax pmax
comp=Z,5.0nm,0.7s
D24K Happy Valley 50.25 26 P P 02 29 10.2 +0.7
D24K IAmb IAmb 02 29 14.1
comp=Z,11nm,1.2s
BVAR Borovoye Array 50.40 313 P P 02 29 10.4 -0.6
comp=Z,3.6nm,0.5s,baz=78,slow=7.2,SNR=16
comp=Z,3.6nm,0.5s
BORK Borovoye 50.44 313 P 02 29 10.5 -0.7
BORK IAmb IAmb 02 29 11.6
comp=Z,5.3nm,1.0s
IL31 51.03 32 P P 02 29 15.4 0.0
ILAR Eielson Array 51.03 32 P P 02 29 16.4 +0.9
comp=Z,2.4nm,0.8s,baz=272,slow=6.5,SNR=23
comp=Z,2.4nm,0.8s
ILAR Eielson Array 51.03 32 P P 02 29 16.0 +0.5
ARSB Arslanbob 51.39 298 P P 02 29 19.1 +0.3
BMAR Burnt Mountain 51.84 28 P P 02 29 22.9 +1.4
ARK Arkit 51.98 298 P P 02 29 23.6 +0.5
comp=Z,14nm,0.9s
F26K Sheenjek River 51.99 28 P P 02 29 23.9 +1.3
F26K IAmb IAmb 02 29 44.7
comp=Z,9.6nm,1.4s
SCRK Sand Creek 52.35 33 P 02 29 25.8 +0.3
SCRK IAmb IAmb 02 29 28.6
comp=Z,7.5nm,1.4s
KNRA Kununurra 52.45 194 P P 02 29 26.9 +0.4
KNRA IAmb IAmb 02 29 30.1
comp=Z,5.4nm,0.8s
KK31 Karatay Array 52.62 300 P 02 29 27.0 -0.7
KK31 IAmb IAmb 02 29 28.4
comp=Z,8.2nm,0.9s
KKAR Karatay Array 52.62 300 P 02 29 27.1 -0.6
DRK Karamyk 52.82 296 P 02 29 29.1 -0.5
DRK Karamyk 52.82 296 P P 02 29 29.6 +0.1
comp=Z,12nm,0.5s
BTK Batken 53.35 297 P P 02 29 32.8 -0.4
comp=Z,5.7nm,0.7s
NIL Nilore 53.81 288 P P 02 29 36.6 0.0
comp=Z,14nm,1.7s
I30M Mount Dempster 55.40 31 P 02 29 48.9 +1.2
I30M IAmb IAmb 02 29 50.9
comp=Z,9.6nm,0.9s
FITZ Fitzroy Crossi 55.45 197 P P 02 29 48.4 0.0
FITZ Fitzroy Crossi 55.45 197 P P 02 29 48.9 +0.5
comp=Z,2.2nm,0.7s
WB0 Warramunga Arr 55.68 186 P P 02 29 49.4 -0.7
WB0 IAmb IAmb 02 30 04.9
comp=Z,12nm,1.1s
WRA Warramunga Arr 55.86 186 P P 02 29 51.2 -0.2
comp=Z,3.5nm,0.6s,baz=0.9,slow=7.5,SNR=47
comp=Z,3.5nm,0.6s
WRA Warramunga Arr 55.86 186 P 02 29 50.5 -0.8
INK Inuvik 55.87 27 P P 02 29 51.4 +0.5
INK IAmb IAmb 02 29 53.0
comp=Z,4.5nm,0.8s
INK Inuvik 55.87 27 P P 02 29 51.9 +1.0
ARTI Arti 56.47 319 P 02 29 54.7 -0.6
KBL Kabul 56.67 291 P P 02 29 56.9 -0.5
comp=Z,9.5nm,0.8s
A36M Sachs Harbour 57.69 22 P P 02 30 04.7 +1.0
AB31 Akbulak array 57.70 310 P 02 30 03.8 -0.4
AB31 IAmb IAmb 02 30 04.7
comp=Z,7.0nm,1.1s
ABKAR Akbulak array 57.70 310 P 02 30 03.6 -0.5
AS31 Alice Springs 59.59 186 P P 02 30 17.7 +0.2
AS31 IAmb IAmb 02 30 47.3
comp=Z,2.0nm,0.3s
ASAR Alice Springs 59.59 186 P P 02 30 17.8 +0.2
comp=Z,1.1nm,0.6s,baz=17,slow=10,SNR=11
comp=Z,1.1nm,0.6s
ASAR Alice Springs 59.59 186 P P 02 30 17.4 -0.1
HRA Herat 61.84 294 P P 02 30 32.5 -0.7
HRA IAmb IAmb 02 30 33.9
comp=Z,4.4nm,0.7s
RES Resolute Bay 63.92 14 P P 02 30 46.4 +0.4
RES IAmb IAmb 02 30 51.9
comp=Z,12nm,1.5s
RES Resolute Bay 63.92 14 P P 02 30 46.5 +0.4
ARCES ARCESS Array B 64.56 339 P P 02 30 50.1 -0.1
comp=Z,1.3nm,0.5s,baz=53,slow=7.8,SNR=10.0
comp=Z,1.3nm,0.5s
ARCES ARCESS Array B 64.56 339 P P 02 30 50.2 -0.1
ARCES IAmb IAmb 02 31 05.3
comp=Z,15nm,1.4s
YKA Yellowknife Ar 65.32 30 P P 02 30 55.7 +0.4
comp=Z,1.1nm,0.7s,baz=305,slow=6.3,SNR=5.0
comp=Z,1.1nm,0.7s
DAG Danmarks Havn 66.72 355 P P 02 31 03.9 -0.2
FORT Forrest 67.33 191 P P 02 31 08.8 +0.4
AFI Afiamalu 67.40 128 LR LR 02 54 15.9
comp=Z,19nm,21.2s,baz=254,slow=30
STKA Stephens Creek 67.52 178 P P 02 31 09.7 +0.1
comp=Z,1.6nm,0.7s,baz=340,slow=10,SNR=3.1
comp=Z,1.6nm,0.7s
BBOO Buckleboo 68.52 183 P P 02 31 15.9 0.0
BBOO IAmb IAmb 02 31 27.5
comp=Z,13nm,1.5s
FIA1 FINESS Array S 69.18 332 P P 02 31 19.1 -0.6
FINES FINESS Array B 69.19 332 P P 02 31 19.4 -0.4
comp=Z,5.4nm,0.8s,baz=61,slow=6.2,SNR=18
comp=Z,5.4nm,0.8s
FINES FINESS Array B 69.19 332 P P 02 31 19.1 -0.7
KBZ Khabaz 70.67 310 P P 02 31 28.1 -1.2
comp=Z,3.3nm,0.9s,baz=94,slow=4.1,SNR=4.9
comp=Z,3.3nm,0.9s
SUMG Summit 71.73 359 P P 02 31 34.7 -1.0
SUMG IAmb IAmb 02 31 38.8
comp=Z,7.2nm,0.9s
SCO Scoresbysund 73.04 354 P P 02 31 43.2 +0.2
AKASG Malin Array Be 74.39 322 P P 02 31 50.5 -0.8
comp=Z,1.1nm,0.4s,baz=49,slow=6.0,SNR=10
AKASG LR LR 03 06 07.8
comp=Z,64nm,18.5s,baz=16,slow=37
comp=Z,1.1nm,0.4s
KIEV Kiev 74.40 322 P P 02 31 50.7 -0.6
comp=Z,5.9nm,1.7s
NC405 NORSAR Array S 74.47 337 P P 02 31 51.1 -0.5
HFS Hagfors 74.55 335 P P 02 31 50.9 -1.1
comp=Z,1.0nm,0.6s,baz=46,slow=4.3,SNR=5.5
comp=Z,1.0nm,0.6s
NB2 NORSAR Subarra 74.69 337 P P 02 31 52.4 -0.5
comp=Z,1.2nm,0.5s,baz=42,slow=5.9
NOA NORSAR Array B 74.69 337 P P 02 31 52.6 -0.3
comp=Z,1.6nm,0.5s,baz=40,slow=5.9,SNR=7.9
NOA LR LR 03 07 40.9
comp=Z,41nm,18.2s,baz=270,slow=38
comp=Z,1.6nm,0.5s
ARPR Arapgir-MALATY 76.08 308 P P 02 32 01.5 +0.1
ARPR IAmb IAmb 02 32 24.0
comp=Z,14nm,1.3s
KVN Kaiserville 76.36 52 P P 02 32 02.9 -0.1
NVAR Mina Array Bea 76.58 52 P P 02 32 06.3 +2.0
comp=Z,1.1nm,0.6s,baz=301,slow=5.5,SNR=12
comp=Z,1.1nm,0.6s
NVAR Mina Array Bea 76.58 52 P P 02 32 04.9 +0.6
ANDN Andirin 78.23 308 P P 02 32 14.0 +0.6
comp=Z,23nm,1.1s
BUR08 Bucovina Ar. S 78.38 321 P P 02 32 13.9 -0.2
BURAR Bucovina Array 78.39 321 P P 02 32 13.7 -0.4
BR131 Keskin Array S 78.64 311 P P 02 32 15.0 -0.7
BRTR Keskin Array B 78.64 311 P P 02 32 16.0 +0.3
comp=Z,1.3nm,0.9s,baz=139,slow=3.9,SNR=5.9
comp=Z,1.3nm,0.9s
BRTR Keskin Array B 78.64 311 P P 02 32 15.0 -0.7
DUG Dugway, Tooele 78.95 48 P P 02 32 19.2 +1.8
PDAR Pinedale Array 79.26 45 P P 02 32 20.2 +1.0
comp=Z,0.6nm,0.6s,baz=250,slow=2.5,SNR=7.8
comp=Z,0.6nm,0.6s
PDAR Pinedale Array 79.26 45 P P 02 32 19.1 0.0
RAYN Ar Rayn 79.94 292 P P 02 32 21.6 -1.3
RAYN Ar Rayn 79.94 292 P P 02 32 22.5 -0.4
comp=Z,4.1nm,1.1s
STEB Steborice 80.36 326 *e*P P 02 32 24.8 +0.1
KRLC Kraliky 80.70 327 *e*P P 02 32 26.3 -0.3
KRLC Kraliky 80.70 327 P P 02 32 26.6 0.0
comp=Z,2.5nm,0.5s
DPC Dobruska-Polom 80.71 327 *e*P P 02 32 26.9 +0.3
SRU San Rafael Swe 81.01 48 P P 02 32 28.2 -0.4
SRU IAmb IAmb 02 32 30.6
comp=Z,4.7nm,0.6s
VRAC Vranov 81.34 326 LR LR 03 10 16.9
comp=Z,31nm,20.1s,baz=338,slow=37
CLL Collm 81.41 330 *i*P P 02 32 29.5 -0.7
KHC Kasperske Hory 82.81 328 *e*P P 02 32 35.4 -2.2
GERES GERESS Array B 82.97 328 P P 02 32 38.2 -0.3
comp=Z,0.6nm,0.5s,baz=36,slow=5.4,SNR=6.5
comp=Z,0.6nm,0.5s
GERES GERESS Array B 82.97 328 P P 02 32 37.9 -0.7
EKA Eskdalemuir Ar 83.72 340 P P 02 32 42.0 -0.1
comp=Z,3.6nm,1.0s,baz=37,slow=5.1,SNR=4.2
comp=Z,3.6nm,1.0s
SESA Seetaler Alpe, 83.88 326 *e*P P 02 32 43.5 +0.1
comp=Z,3.1nm,0.8s
SOKA Soboth 83.99 325 *e*P P 02 32 43.8 0.0
comp=Z,3.4nm,0.9s
OBKA Obir 84.34 326 *e*P P 02 32 45.1 -0.6
comp=Z,4.1nm,1.2s
KBA Koelnbreinsper 84.46 327 *e*P P 02 32 46.5 +0.2
comp=Z,3.0nm,0.9s
LESA Schwarzleotal 84.49 327 *e*P P 02 32 46.4 0.0
comp=Z,3.7nm,1.1s
MYKA Terra Mystica 84.66 326 *e*P P 02 32 46.5 -0.7
comp=Z,1.1nm,0.5s
ABTA Abfaltersbach 85.08 327 *e*P P 02 32 48.9 -0.5
comp=Z,2.7nm,0.9s
PPT Papeete 85.25 116 LR LR 03 02 05.4
comp=Z,30nm,21.8s,baz=358,slow=29
FUORN Ofenpass-Fuorn 86.16 328 P P 02 32 54.9 -0.1
FUORN IAmb IAmb 02 32 59.0
comp=Z,3.4nm,0.7s
FUORN Ofenpass-Fuorn 86.16 328 P P 02 32 54.6 -0.3
comp=Z,5.5nm,1.4s
TX31 Lajitas Ar. Si 91.72 51 P P 02 33 21.8 +0.4
TXAR Lajitas Array 91.72 51 P P 02 33 22.7 +1.4
comp=Z,8.8nm,0.5s,baz=288,slow=3.0,SNR=13
comp=Z,0.8nm,0.5s
TXAR Lajitas Array 91.72 51 P P 02 33 21.9 +0.6
LPAZ La Paz 148.26 59 PKPbc PKPbc 02 40 01.5 +0.8
comp=Z,1.6nm,0.6s,baz=253,slow=2.8,SNR=8.3

IDC 25 02:22:15.8±999.0, 28.37N×78.66W, h0km, Error ellipse: s-maj=491.8km s-min=236.6km az=22.0, Off east coast of United States

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I51GB	**BERMUDA INFRAS**	**12.69**	**68**	I	I	03 41 06.7	
	baz=255,slow=316						
I10CA	**LAC DU BONNET**	**25.49**	**334**	I	I	04 57 40.0	
	baz=142,slow=335,SNR=0.4						
I18DK	**QAANAAQ INFRAS**	**39.38**	**3**	I	I	07 25 50.0	
	baz=188,slow=328,SNR=1.3						

TAP 25 02:24:27.6, 24.00N×121.67E, h37km, ML3.1, 6C, B, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HWA	**Hwalien**	**0.06**	**252**	*e*P	Pn	02 24 34.3	+0.6
TWD	**Chiawan**	**0.11**	**323**	P	Pn	02 24 34.3	-6.5
TWD				S	Sn	02 24 39.1	-14
TEYL	**Yanliau Villag**	**0.14**	**206**	*e*P	Pn	02 24 34.5	-4.4
TEYL				*e*S	Sn	02 24 39.5	-11
ETM	**Tongmen**	**0.16**	**259**	*i*P	Pn	02 24 34.6	-3.5
ETM				*e*S	Sn	02 24 39.5	-9.0
ETL	**Fush Village**	**0.17**	**347**	*e*P	Pn	02 24 34.9	-3.1
ETL				*e*S	Sn	02 24 40.0	-8.0
NACB	**Ninganchiao**	**0.19**	**340**	⇑*i*P	Pn	02 24 34.8	-2.4
NACB				*i*S	Sn	02 24 40.1	-6.4
SHUL	**Shoufeng**	**0.23**	**204**	*e*P	Pn	02 24 35.5	-0.8
SHUL				*e*S	Sn	02 24 41.4	-3.2
LXIB	**Xiulin Townshi**	**0.23**	**276**	⇑*i*P	Pn	02 24 35.1	-1.3
LXIB				*i*S	Sn	02 24 40.5	-4.2
ETLH	**Xiulin Townshi**	**0.27**	**322**	⇑P	Pn	02 24 35.6	-0.4
ETLH				*e*S	Sn	02 24 41.2	-2.3
ESL	**Shilin**	**0.28**	**230**	*e*P	Pn	02 24 35.3	-0.6
ESL				*e*S	Sn	02 24 40.9	-2.3
TEGC	**Jichi Village**	**0.31**	**202**	*e*P	Pn	02 24 36.3	+0.5
TEGC				*e*S	Sn	02 24 43.0	+0.2
EAHA	**Aohua**	**0.34**	**12**	*e*P	Pn	02 24 36.5	+0.5
EAHA				*e*S	Sn	02 24 42.9	+0.1
WARBT	**Fenglin Townsh**	**0.38**	**223**	⇑*e*P	Pn	02 24 36.2	-0.2
WARBT				*e*S	Sn	02 24 42.3	-0.9

EGFH	**Guangfu**	**0.39 214**	*e*P	Pn	02 24 37.0 +0.5	DAV		LR	LR	02 26 25.7	
WHF	**Hehuan Shan**	**0.40 292**	⇑*i*P	Pn	02 24 37.4 +0.3		comp=Z,389nm,21.4s,baz=24,slow=32				
WHF			*i* S	Sn	02 24 44.2 0.0	**DAV**	**Davao City (W)**	**1.74 219**		**Pn**	**02 25 54.8 -1.2**
ENA	**Nanau**	**0.44 9**	*e*P	Pn	02 24 38.0 +0.8	DAV			Sn	**Sn**	**02 26 12.9 -4.6**
OWD	**Renai**	**0.45 265**	⇑*e*P	Pn	02 24 38.1 +0.6	**DAV**	**Davao City (W)**	**1.74 219**	P	**Pn**	**02 25 57.4 +1.4**
OWD			*e*S	Sn	02 24 45.0 +0.3	**DAV**	**Davao City (W)**	**1.74 219**	P	**Pn**	**02 25 55.0 -1.0**
EWUT	**Wuta**	**0.46 13**	*e*P	Pn	02 24 38.3 +0.8	**DMPH**	**Davao City--Mi**	**1.77 221**	*i* P	**Pn**	**02 25 57.3 +0.8**
EWUT			*e*S	Sn	02 24 45.6 +0.9	DMPH			*i* S	**Sn**	**02 26 21.4 +3.1**
FUSS	**Fushou**	**0.46 303**	*e*P	Pn	02 24 38.4 +0.7	**SCPH**	**Surigao**	**1.78 319**	*e*P	**Pn**	**02 25 54.4 -2.1**
FUSS			*e*S	Sn	02 24 46.1 +1.0	SCPH			*e*S	**Sn**	**02 26 17.9 -0.6**
WUSB	**Renai**	**0.50 270**	*e*P	Pn	02 24 38.9 +0.6	**CGP**	**Cagayan de Oro**	**1.96 271**	*i* P	**Pn**	**02 25 57.8 -1.2**
WUSB			*e*S	Sn	02 24 46.4 +0.6	CGP			*i* S	**Sn**	**02 26 23.8 +1.0**
NNSB	**Datong**	**0.50 329**	*e*P	Pn	02 24 38.6 +0.3	**KCP**	**Kidapawan**	**2.12 228**	*i* P	**Pn**	**02 25 59.9 -1.2**
NNSB			*e*S	Sn	02 24 46.3 +0.4	KCP			*i* S	**Sn**	**02 26 27.5 +0.9**
NNSH	**Datong**	**0.50 329**	*e*P	Pn	02 24 38.8 +0.4	**CTBH**	**Cotabato--PC H**	**2.69 244**	*i* P	**Pn**	**02 26 08.4 -0.4**
NNSH			*e*S	Sn	02 24 46.4 +0.6	**GSPH**	**General Santos**	**2.90 216**	*i* P	**Pn**	**02 26 12.3 +0.6**
TWT	**Tachien**	**0.52 300**	*e*P	Pn	02 24 39.6 +1.0	GSPH			*i* S	**Sn**	**02 26 43.5 -2.0**
TWT			*e*S	Sn	02 24 47.1 +0.8	**TBP**	**Tagbilaran**	**3.05 294**	*i* P	**Pn**	**02 26 12.8 -0.9**
NNS	**Nan Shan**	**0.52 329**	*e*P	Pn	02 24 38.9 +0.3	TBP			*i* S	**Sn**	**02 26 48.2 -0.8**
NNS			*e*S	Sn	02 24 46.8 +0.5	**PLP**	**Palo**	**3.19 328**	*e*P	**Pn**	**02 26 13.0 -2.5**
TDCB	**Techi**	**0.53 299**	P	Pn	02 24 39.3 +0.5	PLP			*e*S	**Sn**	**02 26 57.0 +4.5**
TDCB			*e*S	Sn	02 24 47.0 +0.4	**LLP**	**Lapu-Lapu**	**3.26 305**	*e*P	**Pn**	**02 26 17.1 +0.6**
VWDT	**VWDT**	**0.54 243**	*e*P	Pn	02 24 39.2 +0.5	LLP			*i* S	**Sn**	**02 26 56.4 +2.1**
VWDT			S	Sn	02 24 47.0 +0.5	**DCPH**	**Dipolog City**	**3.29 273**	*i* P	**Pn**	**02 26 16.6 -0.3**
HGSD	**Ruisui**	**0.55 204**	*e*P	Pn	02 24 39.5 +0.5	DCPH			*i* S	**Sn**	**02 26 58.5 +3.5**
HGSD			*e*S	Sn	02 24 48.1 +1.2	**SNPH**	**Sibulan**	**3.52 285**	*i* P	**Pn**	**02 26 19.4 -0.6**
EHYH	**Wanrong**	**0.58 210**	*e*P	Pn	02 24 39.8 +0.3	SNPH			*i* S	**Sn**	**02 27 01.4 +0.8**
EHYH			*e*S	Sn	02 24 46.9 -0.8	**TNTI**	**Ternate**	**7.64 175**	Pn	**Pn**	**02 27 15.3 -1.1**
EOS4	**EOS4**	**0.61 78**	*e*P	Pn	02 24 39.4 -0.1	**SIJI**	**Sorong**	**10.31 153**	P	**Pn**	**02 27 54.1 +1.3**
EOS4			*e*S	Sn	02 24 48.6 +0.6		7.0nm,0.3s,baz=342,slow=6.4,SNR=4.4				
NDT	**Datong Townshi**	**0.62 347**	*e*P	Pn	02 24 40.4 +0.3	**SANI**	**Sanana**	**10.44 184**	P	**Pn**	**02 27 53.6 -0.9**
NDT			*e*S	Sn	02 24 49.1 +0.4	**FAKI**	**Fak Fak**	**12.57 154**		**Pn**	**02 28 23.3 -0.4**
TWC	**Suao**	**0.63 15**	*e*P	Pn	02 24 40.9 +0.7	**KAPI**	**Kappang**	**15.04 208**	LR	LR	02 35 18.6
TWC			*e*S	Sn	02 24 50.4 +1.3		comp=Z,77nm,19.6s,baz=42,slow=39				
NDS	**Dongshan**	**0.64 4**	*e*P	Pn	02 24 40.5 +0.2	**SOEI**	**Soe**	**18.23 188**	P	**Pn**	**02 29 35.6 -0.2**
NDS			*e*S	Sn	02 24 49.7 +0.6	**JOW**	**Kunigami**	**18.36 5**	LR	LR	02 36 08.6
WPL	**Puli Township**	**0.65 272**	*e*P	Pn	02 24 40.9 +0.6		comp=Z,100nm,21.5s,baz=27,slow=35				
WPL			*e*S	Sn	02 24 50.3 +1.0	**MTN**	**Manton Dam**	**21.60 168**	P	**P**	**02 30 11.3 -0.1**
EOS3	**EOS3**	**0.66 64**	P	Pn	02 24 40.9 +0.5	**JCJ**	**Chichijima**	**23.67 36**	LR	LR	02 38 04.8
EOS3			*e*S	Sn	02 24 49.6 +0.1		comp=Z,60nm,21.4s,baz=246,slow=32				
EOS2	**EOS2**	**0.67 51**	*e*P	Pn	02 24 41.1 +0.7	**KNRA**	**Kununurra**	**24.05 175**	P	**P**	**02 30 36.2 +0.4**
SSLB	**Suanglung**	**0.68 253**	*e*P	Pn	02 24 41.0 +0.2	**NJ2**	**Nanjing**	**24.60 344**	*e*P	**P**	**02 30 41.8 +1.0**
SSLB			S	Sn	02 24 50.8 +0.6	NJ2			pmax	pmax	
YULB	**Yu-li**	**0.69 209**	*e*P	Pn	02 24 40.5 -0.3		comp=Z,15nm,0.5s				
WCS	**Beigang Elemen**	**0.69 275**	*e*P	Pn	02 24 41.8 +0.9	**FITZ**	**Fitzroy Crossi**	**26.39 182**	P	**P**	**02 30 57.5 +0.4**
WCS			*e*S	Sn	02 24 51.5 +1.2	**FITZ**	**Fitzroy Crossi**	**26.39 182**	P	**P**	**02 30 59.0 +2.0**
SMLT	**Sun Moon Lake**	**0.71 261**	*e*P	Pn	02 24 42.6 +1.4		comp=Z,3.8nm,0.9s				
SMLT			*e*S	Sn	02 24 52.1 +1.2	**CM31**	**Chiang Mai Arr**	**28.71 293**	P	**P**	**02 31 18.0 0.0**
WHP	**Taichung City**	**0.71 293**	*e*P	Pn	02 24 42.7 +1.5	CM31			IAmb	IAmb	02 31 20.4
WHP			*e*S	Sn	02 24 52.3 +1.3		comp=Z,15nm,0.8s				
YHNB	**Yeheng**	**0.72 339**	P	Pn	02 24 41.9 +0.5	**CMAR**	**Chiang Mai Arr**	**28.71 293**	P	**P**	**02 31 19.2 +1.2**
	comp=Z,106nm,0.8s						comp=Z,8.1nm,0.8s,baz=109,slow=6.8,SNR=39				
YHNB	**Yeheng**	**0.72 339**	*i* P	Pn	02 24 42.0 +0.6	CMAR			PcP	**PcP**	**02 34 27.6 +0.7**
YHNB			S	Sn	02 24 51.6 +0.4		comp=Z,1.3nm,0.3s,baz=54,slow=1.2,SNR=5.1				
TWE	**Neicheng**	**0.72 0**	*e*P	Pn	02 24 42.7 +1.4	CMAR			LR	LR	02 43 03.8
TWE			*e*S	Sn	02 24 52.4 +1.3		comp=Z,41nm,19.9s,baz=105,slow=37				
TWF1	**Yuli**	**0.72 208**	*e*P	Pn	02 24 41.1 -0.2		comp=Z,8.1nm,0.8s				
NSK	**Sanguang**	**0.73 338**	P	Pn	02 24 42.1 +0.6	**CMAR**	**Chiang Mai Arr**	**28.71 293**		**P**	**02 31 17.9 -0.2**
NSK			*e*S	Sn	02 24 52.1 +0.7	**CHTO**	**Chiang Mai**	**28.82 294**		**P**	**02 31 18.6 -0.4**
TYC	**Yuchr**	**0.74 263**	*e*P	Pn	02 24 42.4 +0.8	**CHTO**	**Chiang Mai**	**28.82 294**	P	**P**	**02 31 19.7 +0.8**
TYC			*e*S	Sn	02 24 52.5 +0.9		comp=Z,9.1nm,0.9s				
FUSB	**Fushanzhiwuyua**	**0.77 355**	*e*P	Pn	02 24 42.3 +0.4	**KSRS**	**Korea Array**	**28.91 2**	P	**P**	**02 31 20.1 +0.6**
FUSB			S	Sn	02 24 53.2 +1.0		comp=Z,1.5nm,0.7s,baz=185,slow=10,SNR=7.3				
NWLT	**Wulai**	**0.79 349**	*e*P	Pn	02 24 42.8 +0.5	KSRS			LR	LR	02 45 12.0
NWLT			*e*S	Sn	02 24 53.8 +0.9		comp=Z,48nm,18.5s,baz=180,slow=41				
WHYT	**Xinyi Township**	**0.80 248**	*e*P	Pn	02 24 43.2 +1.1		comp=Z,1.5nm,0.7s				
WHYT			*e*S	Sn	02 24 54.2 +1.0	**WB0**	**Warramunga Arr**	**29.04 165**	P	**P**	**02 31 20.2 -0.6**
NFF	**Wufeng Townshi**	**0.81 322**	*e*P	Pn	02 24 43.8 +1.3	**WRA**	**Warramunga Arr**	**29.19 165**	P	**P**	**02 31 21.4 -0.8**
NFF			*e*S	Sn	02 24 55.0 +1.7		comp=Z,1.3nm,0.9s,baz=341,slow=8.0,SNR=4.7				
CHKH	**Chenggong**	**0.84 197**	*e*P	Pn	02 24 43.6 +0.8		comp=Z,1.3nm,0.9s				
CHKH			*e*S	Sn	02 24 55.1 +1.2	**WRA**	**Warramunga Arr**	**29.19 165**	P	**P**	**02 31 20.3 -1.9**
FULB	**Fuli**	**0.86 203**	*e*P	Pn	02 24 43.9 +0.7	**MJAR**	**Matsushiro Arr**	**29.88 19**	LR	LR	02 44 47.6
FULB			*e*S	Sn	02 24 55.9 +1.3		comp=Z,36nm,18.6s,baz=192,slow=39				
LIOB	**Emei**	**0.88 318**	*e*P	Pn	02 24 45.0 +1.6	**XAN**	**Xi'an**	**30.28 330**	P	**P**	**02 31 30.4 -1.3**
LIOB			*e*S	Sn	02 24 56.6 +1.5	XAN			sP	pP	02 31 47.8 -1.2
WWF	**Wufeng**	**0.89 273**	*e*P	Pn	02 24 44.3 +0.8	XAN			pmax	pmax	
TWQ1	**Liyutan**	**0.89 294**	*e*P	Pn	02 24 44.9 +1.4		comp=Z,7.0nm,0.7s				
TWQ1			*e*S	Sn	02 24 56.9 +1.6	**QIS**	**Mount Isa**	**31.49 156**	P	**P**	**02 31 43.0 +0.5**
KSHI	**Guanxi Townshi**	**0.90 330**	*e*P	Pn	02 24 44.9 +1.2		comp=Z,14nm,0.8s				
KSHI			*e*S	Sn	02 24 57.4 +1.9	**ASAR**	**Alice Springs**	**32.68 168**	P	**P**	**02 31 52.9 0.0**
WNT	**Mingjian**	**0.91 263**	*e*P	Pn	02 24 45.2 +1.5		comp=Z,0.9nm,0.3s,baz=342,slow=7.7,SNR=10				
WNT			*e*S	Sn	02 24 57.6 +2.0	ASAR			ScP	**ScP**	**02 38 14.7 0.0**
WNT1	**Nantou City**	**0.91 265**	*e*P	Pn	02 24 45.5 +1.7		comp=Z,0.3nm,0.5s,baz=349,slow=3.2,SNR=5.3				
WNT1			*e*S	Sn	02 24 58.3 +2.6		comp=Z,0.9nm,0.3s				
ALS	**Alishan**	**0.92 239**	*e*P	Pn	02 24 45.4 +1.1	**ASAR**	**Alice Springs**	**32.68 168**	P	**P**	**02 31 52.2 -0.7**
ALS			*e*S	Sn	02 24 57.4 +0.9	**USA0B**	**Ussuriysk Arra**	**35.93 7**	P	**P**	**02 32 20.1 -0.5**
CHKT	**Chengkung**	**0.93 197**	*e*P	Pn	02 24 45.0 +0.9	USA0B			IAmb	IAmb	02 32 22.7
CHKT			*e*S	Sn	02 24 57.7 +1.4		comp=Z,8.4nm,0.8s				
EHD	**Haiduan**	**0.94 207**	*e*P	Pn	02 24 44.9 +0.6	**USRK**	**Ussuriysk Ar.**	**35.93 7**	P	**P**	**02 32 21.7 +1.0**
EHD			*e*S	Sn	02 24 56.3 -0.3		comp=Z,7.3nm,0.7s,baz=190,slow=7.5,SNR=19				
TIPB	**Shuangxi**	**0.98 9**	*e*P	Pn	02 24 46.4 +1.5	USRK			LR	LR	02 46 35.0
TIPB			*e*S	Sn	02 24 59.7 +2.1		comp=Z,42nm,19.4s,baz=114,slow=35				
CHN5	**Tsauling**	**0.99 247**	P	Pn	02 24 46.1 +1.1		comp=Z,7.3nm,0.7s				
CHN5			*e*S	Sn	02 24 59.6 +1.9	**USRK**	**Ussuriysk Ar.**	**35.93 7**	P	**P**	**02 32 20.1 -0.5**
TATO	**Taipei**	**0.99 351**	*e*P	Pn	02 24 45.9 +1.0	**BNX**	**BinXian**	**37.17 1**	⇑P	**P**	**02 32 31.8 +0.5**
ELDTW	**Lidau**	**1.00 217**	*e*P	Pn	02 24 45.8 +0.7	BNX			pmax	pmax	
ELDTW			*e*S	Sn	02 24 58.4 +0.4		comp=Z,6.0nm,0.9s				
TWB1	**Santiao Chiao**	**1.05 16**	*e*P	Pn	02 24 47.2 +1.5	**SHL**	**Shillong**	**37.22 302**	P	**P**	**02 32 30.8 -1.4**
SXI1	**Grass Mountain**	**1.11 10**	*e*P	Pn	02 24 48.1 +1.4	**HNR**	**Honiara**	**37.59 117**	LR	LR	02 47 07.9
SXI1			*e*S	Sn	02 25 02.5 +1.8		comp=Z,74nm,21.6s,baz=65,slow=34				
YM01	**YM01**	**1.15 356**	*e*P	Pn	02 24 48.6 +1.5	**MORW**	**Morawa**	**38.67 195**	P	**P**	**02 32 44.5 +0.5**
YM01			*e*S	Sn	02 25 03.1 +1.4	MORW			IAmb	IAmb	02 32 56.6
CHN4	**Tsaushan**	**1.17 237**	*e*P	Pn	02 24 48.9 +1.4		comp=Z,21nm,1.2s				
CHN4			*e*S	Sn	02 25 04.6 +2.4	**FORT**	**Forrest**	**39.01 178**	P	**P**	**02 32 47.4 +0.5**
STYT	**Tauyuan**	**1.18 225**	*e*P	Pn	02 24 48.4 +0.9	FORT			IAmb	IAmb	02 33 17.0
STYT			*e*S	Sn	02 25 04.3 +2.0		comp=Z,13nm,1.1s				
WRL	**Guolierlin Hig**	**1.18 266**	*e*P	Pn	02 24 48.8 +1.3	**GTA2**	**Gaotai**	**39.20 326**	*e*P	**P**	**02 32 47.9 -0.7**
WRL			*e*S	Sn	02 25 04.7 +2.3	GTA2			pmax	pmax	
LONT	**Longtian**	**1.19 205**	*e*P	Pn	02 24 48.2 +0.6		comp=Z,8.0nm,0.9s				
RLNB	**Erlin**	**1.20 265**	*e*P	Pn	02 24 49.0 +1.2	**H11S3**	**WAKE ISLAND Hy**	**40.09 71**	T	T	03 16 06.0
RLNB			*e*S	Sn	02 25 04.9 +2.1		baz=262,slow=75,SNR=39				
WTP	**Ta-pu**	**1.22 232**	*e*P	Pn	02 24 49.5 +1.4	**H11S1**	**WAKE ISLAND Hy**	**40.10 71**	T	T	03 16 06.2
TWGBT	**Beinan**	**1.29 205**	*e*P	Pn	02 24 49.2 +0.1		baz=262,slow=75,SNR=22				
TWGBT			*e*S	Sn	02 25 06.1 +1.0	**H11S2**	**WAKE ISLAND Hy**	**40.10 71**	T	T	03 16 09.4
TWG	**Pinlang**	**1.29 205**	*e*P	Pn	02 24 48.9 -0.2		baz=262,slow=75,SNR=22				
TWG			*e*S	Sn	02 25 05.1 0.0	**H11N1**	**WAKE ISLAND Hy**	**40.48 70**	T	T	03 16 44.1
TWK	**Hsinying**	**1.30 236**	*e*P	Pn	02 24 50.4 +1.1		baz=265,slow=74,SNR=29				
TWK			*e*S	Sn	02 25 07.2 +1.8	**H11N2**	**WAKE ISLAND Hy**	**40.49 70**	T	T	03 16 44.6
YOJ	**Yonaguni jima**	**1.31 69**	P	Pn	02 24 49.1 +0.2		baz=265,slow=74,SNR=24				
YOJ			S	Sn	02 25 06.4 +0.8	**H11N3**	**WAKE ISLAND Hy**	**40.50 70**	T	T	03 16 45.5
CHN1	**Nanshi**	**1.32 233**	*e*P	Pn	02 24 50.9 +1.5		baz=265,slow=74,SNR=32				
CHN1			*e*S	Sn	02 25 07.7 +1.9	**KLBR**	**Kellerberrin**	**40.71 192**	P	**P**	**02 33 02.3 +1.4**
SGST	**Jiashian**	**1.35 228**	*e*P	Pn	02 24 50.5 +0.6		comp=Z,30nm,1.1s				
SGST			*e*S	Sn	02 25 07.5 +1.0	**KLR**	**Kul'dur**	**40.88 5**	P	**P**	**02 33 03.2 +1.0**
MASBT	**Mashibuluo**	**1.67 215**	*e*P	Pn	02 24 55.9 +1.6		comp=Z,3.3nm,0.6s,baz=171,slow=6.5,SNR=11				
MASBT			*e*S	Sn	02 25 16.0 +1.5	KLR			LR	LR	02 48 54.2
EAST	**Anshuo**	**1.77 205**	*e*P	Pn	02 24 56.5 +0.8		comp=Z,34nm,20.7s,baz=314,slow=34				
EAST			*e*S	Sn	02 25 18.3 +1.3		comp=Z,3.3nm,0.6s				
SCZT	**Fangliau**	**1.88 211**	*e*P	Pn	02 24 58.4 +1.2	**BBOO**	**Buckleboo**	**41.98 168**	P	**P**	**02 33 11.7 +0.3**
PHUB	**P'eng-hu**	**1.98 256**	*e*P	Pn	02 24 58.9 +0.4	BBOO			IAmb	IAmb	02 33 13.1
VCHM	**Qimei**	**2.19 250**	*e*P	Pn	02 25 02.6 +1.1		comp=Z,10nm,0.8s				
VWUC	**VWUC**	**2.25 297**	*e*P	Pn	02 25 01.9 -0.3	**BBOO**	**Buckleboo**	**41.98 168**	P	**P**	**02 33 12.3 +0.9**
VWUC			*e*S	Sn	02 25 28.2 -0.5	**EVN**	**Everest**	**42.29 303**		**P**	**02 33 15.5 +0.7**
PTMZ	**Houxiangcun**	**2.54 295**	*e*P	Pn	02 25 06.4 +0.1	EVN			IAmb	IAmb	02 33 16.9
PTMZ			*e*S	Sn	02 25 35.8 -0.1		comp=Z,20nm,1.3s				
LQP	**Lukban**	**9.83 181**	*e*P	Pn	02 26 47.2 +0.6	**EVN**	**Everest**	**42.29 303**	P	**P**	**02 33 16.2 +1.4**
							comp=Z,13nm,1.1s				
						STKA	**Stephens Creek**	**42.55 161**	P	**P**	**02 33 16.8 +0.8**
							comp=Z,2.9nm,0.3s,baz=348,slow=8.3,SNR=13				
							comp=Z,2.9nm,0.3s				
						STKA	**Stephens Creek**	**42.55 161**	P	**P**	**02 33 15.8 -0.2**
						ULN	**Ulaanbaatar**	**42.67 341**		**P**	**02 33 16.0 -1.0**
						ULN	**Ulaanbaatar**	**42.67 341**	P	**P**	**02 33 16.6 -0.4**
							comp=Z,5.9nm,0.7s				
						SONM	**Songino Array**	**42.87 340**	P	**P**	**02 33 17.9 -0.7**
							comp=Z,1.0nm,0.6s,baz=158,slow=9.9,SNR=7.6				
						SONM			PcP	**PcP**	**02 35 08.5 +0.1**
							comp=Z,1.3nm,0.7s,baz=153,slow=5.0,SNR=7.6				
							comp=Z,1.0nm,0.6s				
						SONM	**Songino Array**	**42.87 340**	P	**P**	**02 33 17.5 -1.1**
						SONM			PcP	**PcP**	**02 35 08.7 +0.4**
						PALK	**Pallekele**	**45.54 272**	LR	LR	02 55 14.3
							comp=Z,31nm,18.6s,baz=68,slow=39				
						WMQ	**Urumqi**	**48.91 323**	*e*P	**P**	**02 34 06.8 +0.6**
						WMQ			pmax	pmax	
							comp=Z,15nm,0.7s				
						PETK	**Petropavlovsk-**	**51.14 24**	P	**P**	**02 34 22.8 0.0**
							comp=Z,5.9nm,0.9s,baz=238,slow=9.5,SNR=2.4				
							comp=Z,5.9nm,0.9s				
						MKAR	**Makanchi Array**	**53.73 323**	P	**P**	**02 34 41.7 -0.3**
							comp=Z,6.2nm,0.8s,baz=121,slow=8.2,SNR=29				
						MKAR			PcP	**PcP**	**02 35 47.6 +0.3**
							comp=Z,2.2nm,0.8s,baz=113,slow=5.0,SNR=4.7				
							comp=Z,6.2nm,0.8s				
						MKAR	**Makanchi Array**	**53.73 323**		**P**	**02 34 40.9 -1.1**
						MKAR				**PcP**	**02 35 47.4 +0.1**
						PDGK	**Podgornoye**	**53.82 318**		**P**	**02 34 42.2 -0.7**
						MAKZ	**Makanchi**	**53.92 323**	P	**P**	**02 34 42.4 -1.0**
						MAKZ			IAmb	IAmb	02 35 20.7
							comp=Z,7.9nm,1.2s				
						MAKZ	**Makanchi**	**53.92 323**	P	**P**	**02 34 43.1 -0.4**
							comp=Z,5.7nm,1.3s				
						MA2	**Magadan**	**54.19 15**	LR	LR	02 55 05.5
							comp=Z,26nm,21.6s,baz=104,slow=33				
						ASAI	**AK-SAY(Kyrgyzs**	**54.87 315**	P	**P**	**02 34 50.9 +0.1**
							comp=Z,2.7nm,2.2s				
						NIL	**Nilore**	**55.10 305**		**P**	**02 34 51.8 -0.5**
						NIL	**Nilore**	**55.10 305**	P	**P**	**02 34 52.9 +0.7**
							comp=Z,38nm,0.7s				
						ZAA0	**Zalesovo Array**	**56.42 332**	P	**P**	**02 34 59.9 -1.3**
						ZAA0			IAmb	IAmb	02 35 01.7
							comp=Z,4.2nm,0.8s				
						ZALV	**Zalesovo Beam**	**56.42 332**	P	**P**	**02 35 00.3 -0.9**
							comp=Z,4.3nm,0.7s,baz=112,slow=6.9,SNR=13				
							comp=Z,4.3nm,0.7s				
						ZALV	**Zalesovo Beam**	**56.42 332**	P	**P**	**02 34 59.9 -1.4**
						SEY	**Seymchan**	**57.49 14**	P	**P**	**02 35 09.0 +0.3**
							comp=Z,3.9nm,0.9s,baz=240,slow=10,SNR=4.4				
							comp=Z,3.9nm,0.9s				
						KURK	**Kurchatov**	**57.80 326**	P	**P**	**02 35 10.2 -0.8**
						KURK			IAmb	IAmb	02 35 12.1
							comp=Z,4.3nm,0.6s				
						KURK	**Kurchatov**	**57.80 326**	P	**P**	**02 35 10.8 -0.3**
							comp=Z,7.5nm,0.7s				
						KURBB	**Kurchatov Arra**	**57.80 326**	P	**P**	**02 35 10.6 -0.5**
							comp=Z,4.4nm,0.6s,baz=124,slow=6.7,SNR=54				
							comp=Z,4.4nm,0.6s				
						BTK	**Batken**	**58.70 312**	P	**P**	**02 35 16.6 -1.0**
						BTK			IAmb	IAmb	02 35 18.5
							comp=Z,5.1nm,1.0s				
						BTK	**Batken**	**58.70 312**	P	**P**	**02 35 17.9 +0.2**
							comp=Z,4.9nm,0.7s				
						KBL	**Kabul**	**58.70 305**	P	**P**	**02 35 16.9 -1.0**
						KBL	**Kabul**	**58.70 305**	P	**P**	**02 35 17.4 -0.6**
							comp=Z,15nm,0.8s				
						KK31	**Karatay Array**	**59.82 315**	P	**P**	**02 35 24.5 -0.8**
						KK31			IAmb	IAmb	02 35 26.3
							comp=Z,6.2nm,0.8s				
						KKAR	**Karatay Array**	**59.82 315**	P	**P**	**02 35 24.5 -0.8**
						TIXI	**Tiksi**	**63.17 1**	P	**P**	**02 35 48.1 +0.8**
							comp=Z,6.3nm,0.6s,baz=201,slow=4.9,SNR=24				
						TIXI			LR	LR	03 04 48.1
							comp=Z,58nm,18.1s,baz=87,slow=37				
							comp=Z,6.3nm,0.6s				
						TIXI	**Tiksi**	**63.17 1**	P	**P**	**02 35 47.4 +0.2**
						TIXI			IAmb	IAmb	02 35 48.5
							comp=Z,8.6nm,0.8s				
						TIXI	**Tiksi**	**63.17 1**	P	**P**	**02 35 48.0 +0.8**
							comp=Z,15nm,1.1s				
						BVAR	**Borovoye Array**	**63.40 326**	P	**P**	**02 35 49.4 +0.2**
							comp=Z,14nm,0.7s,baz=120,slow=8.4,SNR=48				
							comp=Z,14nm,0.7s				
						BORK	**Borovoye**	**63.44 326**	P	**P**	**02 35 49.0 -0.4**
						NRIK	**Noril'sk**	**65.88 346**	P	**P**	**02 36 05.5 +0.6**
							comp=Z,11nm,0.7s,baz=122,slow=6.3,SNR=12				
							comp=Z,11nm,0.7s				
						NRIK	**Noril'sk**	**65.88 346**	P	**P**	**02 36 04.6 -0.4**
						AB31	**Akbulak array**	**68.52 320**	P	**P**	**02 36 21.6 -0.4**
						AB31			IAmb	IAmb	02 36 22.5
							comp=Z,5.0nm,0.8s				
						ABKAR	**Akbulak array**	**68.52 320**	P	**P**	**02 36 21.5 -0.6**
						ARTI	**Arti**	**71.06 327**	P	**P**	**02 36 36.6 -0.9**
						KIRV	**Kirov**	**76.21 328**	P	**P**	**02 37 07.1 -0.5**
							comp=Z,7.5nm,0.6s,baz=146,slow=4.9,SNR=4.6				
							comp=Z,7.5nm,0.6s				
						KDAK	**Kodiak Island**	**77.97 33**	P	**P**	**02 37 19.1 +1.6**
							comp=Z,12nm,0.6s,baz=305,slow=8.1,SNR=4.8				
							comp=Z,12nm,0.6s				
						IMAR	**Indian Mountai**	**78.10 24**		**P**	**02 37 19.1 +1.0**
						RAYN	**Ar Rayn**	**78.63 292**	P	**P**	**02 37 21.1 -0.8**
						RAYN	**Ar Rayn**	**78.63 292**	P	**P**	**02 37 21.4 -0.5**
							comp=Z,4.2nm,1.4s				
						MLY	**Manley**	**79.27 25**	P	**P**	**02 37 25.3 +0.7**
						MLY			IAmb	IAmb	02 37 27.8
							comp=Z,7.2nm,0.9s				
						D23K	**Nanushuk River**	**79.53 21**	P	**P**	**02 37 27.6 +1.7**
						D23K			IAmb	IAmb	02 37 29.5
							comp=Z,5.1nm,0.9s				
						I23K	**Minto, Yukon-K**	**79.86 25**	P	**P**	**02 37 29.0 +1.3**
						I23K			IAmb	IAmb	02 37 31.8
							comp=Z,4.2nm,0.7s				
						CCB	**Clear Creek Bu**	**80.51 26**	P	**P**	**02 37 31.6 +0.3**
						CCB			IAmb	IAmb	02 37 59.0
							comp=Z,6.9nm,1.4s				
						GURO	**Guroymak-BITLI**	**80.63 308**	P	**P**	**02 37 33.0 +0.4**
						GURO			IAmb	IAmb	02 37 36.1
							comp=Z,9.3nm,0.8s				
						IL31		**80.91 26**	P	**P**	**02 37 34.0 +0.7**
						ILAR	**Eielson Array**	**80.91 26**	P	**P**	**02 37 34.5 +1.1**
							comp=Z,1.5nm,0.7s,baz=238,slow=5.2,SNR=24				
							comp=Z,1.5nm,0.7s				
						ILAR	**Eielson Array**	**80.91 26**	P	**P**	**02 37 34.0 +0.6**
						D25K	**Kavik River**	**81.09 21**	P	**P**	**02 37 35.5 +1.2**
						D25K

MLv4.1/7,Mw(mB)4.0/1,Mw(mB)4.0/1,Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KMSI	**Cibinong**	**0.82**	**346**	P	Pn	02 33 33.0	+1.4
KMSI				S	Sn	02 33 45.6	+2.6
KMSI				AML	AML		
KMSI				AML	AML		
KMSI				AML	AML		
GTOI	**Gorontalo**	**1.45**	**306**	P	Pn	02 33 41.8	+1.9
GTOI				AML	AML		
GTOI				AML	AML		
LUWI	**Luwuk**	**1.62**	**240**	P	Pn	02 33 43.6	+1.4
LUWI				AML	AML		
LUWI				AML	AML		
MNI	**Manado**	**1.79**	**22**	P	Pn	02 33 44.1	-0.4
MNI				AML	AML		
MNI				AML	AML		
SANI	**Sanana**	**2.56**	**135**	P	Pn	02 33 53.1	-1.8
APSI	**Ampana**	**2.62**	**255**	P	Pn	02 33 55.7	-0.1
NLAI	**Namlea**	**4.18**	**136**	P	Pn	02 34 16.4	-0.8
NLAI				AML	AML		
MPSI	**Mapaga**	**4.32**	**277**	P	Pn	02 34 20.5	+1.4
TTSI	**Tana Toraja**	**5.18**	**237**	P	Pn	02 34 30.9	0.0
	930nm930nm49nm,0.5s,49nm,0.5s						
MMSI	**Mamuju**	**5.81**	**245**	P	Pn	02 34 39.6	+0.1
	26nm,0.7s						

*IDC **25** 02:34:37.2±2.5,54°.55N×161°.90W,h0km,mb3.9/6, mbtmp3.8/9,ML3.3/3,Error ellipse: s-maj=61.6km s-min=17.3km az=162.0*
*AEIC **25** 02:34:41.8±3.6,54°.43N±0°.03×161°.71W±0°.05,h2km±4km, Error ellipse: s-maj=4.8km s-min=4.4km az=185.0*
*NEIC **25** 02:34:42.1±1.9,54°.36N±0°.04×161°.65W±0°.04,h42km±9km, mb3.8/9,ML3.5/22,ML3.5(AEIC),Error ellipse: s-maj=6.8km s-min=1.7km az=202.0*

ISC 25 02:34:41.8±1.3,54°.35N±0°.07×161°.57W±0°.04, h42km±13km,n75,σ1s04/85,mb4.0/6,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DOL	**Dolgoi Island**	**0.81**	**348**		**Pn**	**02 34 55.8**	**-1.1**
DOL					**Sn**	**02 35 06.5**	**-1.3**
DT1	**Dutton Round H**	**0.86**	**332**		**Pn**	**02 34 56.1**	**-1.4**
DT1					**Sn**	**02 35 06.8**	**-2.1**
DTNA	**Dutton South F**	**0.89**	**334**		**Pn**	**02 34 56.8**	**-1.1**
DTNA					**Sn**	**02 35 08.3**	**-1.4**
PS4A	**Pavlof South-4**	**1.01**	**351**		**Pn**	**02 34 59.2**	**-0.3**
PS4A					**Sn**	**02 35 13.3**	**+0.8**
PS1A	**Pavlof South-1**	**1.07**	**355**		**Pn**	**02 35 00.4**	**0.0**
PN7A	**Pavlof North-7**	**1.11**	**347**		**Pn**	**02 35 01.4**	**+0.4**
PN7A					**Sn**	**02 35 17.1**	**+2.0**
SDPT	**Sand Point**	**1.18**	**32**	Pn	**Pn**	**02 35 02.3**	**+0.4**
SDPT				Sn	**Sn**	**02 35 18.3**	**+1.5**
CNBA	**Chernabura Isl**	**1.25**	**67**	Pn	**Pn**	**02 35 02.0**	**-0.7**
CNBA				Sn	**Sn**	**02 35 19.4**	**+1.2**
ISLZ	**Isanotski Laza**	**1.30**	**288**		**Pn**	**02 35 02.5**	**-1.0**
ISLZ					**Sn**	**02 35 20.3**	**+0.6**
ISNN	**Isanotski Nort**	**1.37**	**291**		**Pn**	**02 35 04.7**	**+0.3**
S12K	**Black Hills**	**1.38**	**348**	Pn	**Pn**	**02 35 05.4**	**+0.8**
S12K				Sn	**Sn**	**02 35 24.4**	**+2.7**
S12K				IAML		02 35 27.0	
	comp=N,869nm,0.6s						
S12K				IAML		02 35 27.7	
	comp=E,1μm,0.4s						
SSLS	**Shishaldin Sou**	**1.46**	**285**		**Pn**	**02 35 05.9**	**+0.1**
SSLS					**Sn**	**02 35 24.1**	**+0.5**
SSBA	**Shishaldin**	**1.54**	**287**		**Pn**	**02 35 06.8**	**-0.1**
WTUG	**Tugumak**	**1.71**	**288**		**Pn**	**02 35 09.3**	**+0.2**
WESN	**West Dahl Nort**	**1.77**	**278**		**Pn**	**02 35 10.5**	**+0.5**
WESN					**Sn**	**02 35 32.7**	**+1.4**
WECS	**Westdahl Cape**	**1.88**	**277**	Pn	**Pn**	**02 35 11.6**	**+0.1**
WECS				IAML		02 35 53.0	
	comp=N,604nm,1.3s						
WECS				IAML		02 35 55.9	
	comp=E,396nm,1.4s						
AKUT	**Akutan**	**2.47**	**267**	Pn	**Pn**	**02 35 19.4**	**-0.2**
AKUT				Sn	**Sn**	**02 35 48.1**	**-0.4**
AKUT				IAML		02 35 59.4	
	comp=E,187nm,1.2s						
AHB	**Akutan Harbor**	**2.50**	**266**		**Pn**	**02 35 20.3**	**+0.3**
AHB					**Sn**	**02 35 49.5**	**+0.3**
ZRO	**Akutan Zero**	**2.60**	**266**		**Pn**	**02 35 21.8**	**+0.5**
ZRO					**Sn**	**02 35 53.2**	**+1.6**
LVA	**Lava Point**	**2.62**	**268**	Pn	**Pn**	**02 35 22.5**	**+0.8**
LVA				IAML		02 36 07.1	
	comp=E,187nm,1.5s						
CHGN	**Chignik**	**2.66**	**41**	Pn	**Pn**	**02 35 22.4**	**+0.4**
CHGN				IAML		02 36 02.4	
	comp=E,214nm,0.7s						
UNV	**Unalaska Valle**	**2.95**	**262**	Pn	**Pn**	**02 35 25.5**	**-0.6**
UNV				IAML		02 36 12.8	
	comp=N,115nm,1.3s						
MNAT	**Makushin Natee**	**3.04**	**263**		**Pn**	**02 35 27.3**	**-0.2**
MNAT					**Sn**	**02 36 02.3**	**-0.3**
O14K	**Tigyukauivet M**	**4.92**	**2**	Pn	**Pn**	**02 35 53.9**	**+0.8**
O14K				IAML		02 37 02.4	
	comp=E,32nm,1.4s						
O14K				IAML		02 37 47.4	
	comp=N,35nm,1.4s						
O15K	**Ungalikthiuk R**	**4.93**	**11**	Pn	**Pn**	**02 35 54.0**	**+0.7**
O15K				IAML		02 36 56.3	
	comp=N,24nm,1.4s						
O15K				IAML		02 37 38.8	
	comp=E,24nm,0.9s						
P16K	**Nushagak River**	**5.09**	**21**	Pn	**Pn**	**02 35 56.3**	**+0.9**
OHAK	**Old Harbor**	**5.49**	**55**	Pn	**Pn**	**02 36 00.6**	**-0.4**
KAWH	**Katmai**	**5.52**	**40**		**Pn**	**02 36 02.2**	**+0.8**
N14K	**Kuskokwak Cree**	**5.58**	**359**	Pn	**Pn**	**02 36 02.6**	**+0.3**
O16K	**Kokwok River B**	**5.59**	**18**	Pn	**Pn**	**02 36 02.9**	**+0.6**
N15K	**Kwethluk River**	**5.89**	**7**		**Pn**	**02 36 07.1**	**+0.7**
KDAK	**Kodiak Island**	**6.09**	**52**	Pn	**Pn**	**02 36 09.1**	**-0.2**
	comp=E,0.5nm,0.3s,baz=117,slow=0.6,SNR=12						
KDAK				Sn	**Sn**	**02 37 15.0**	**-2.6**
	comp=E,0.4nm,0.3s,baz=125,slow=4.9,SNR=1.7						
	comp=E,4.0nm,0.7s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**6.09**	**52**		**Pn**	**02 36 09.0**	**-0.3**
M13K	**Dall Lake**	**6.15**	**352**	Pn	**Pn**	**02 36 10.6**	**+0.6**
Q19K	**Cape Douglas,**	**6.33**	**40**	Pn	**Pn**	**02 36 13.2**	**+0.6**
M14K	**Bethel**	**6.42**	**358**		**Pn**	**02 36 14.7**	**+1.0**
M16K	**Timber Creek**	**6.83**	**11**	Pn	**Pn**	**02 36 20.5**	**+1.2**
L14K	**Kuka Creek**	**7.03**	**356**	Pn	**Pn**	**02 36 22.6**	**+0.5**
L15K	**Ungalak Mounta**	**7.35**	**0**		**Pn**	**02 36 26.7**	**+0.4**
M17K	**Holitna River**	**7.40**	**16**		**Pn**	**02 36 28.1**	**+1.0**
N19K	**Bonanza Creek**	**7.51**	**28**		**Pn**	**02 36 30.9**	**+2.2**
CNPM	**China Poot**	**7.67**	**43**		**Pn**	**02 36 31.8**	**+1.0**
K15K	**Wolf Creek Mou**	**7.96**	**0**	Pn	**Pn**	**02 36 36.1**	**+1.2**
SEW	**Seward**	**8.73**	**44**	Pn	**Pn**	**02 36 46.0**	**+0.6**
PWL	**Port Wells**	**9.63**	**42**	Pn	**Pn**	**02 36 57.2**	**-0.5**
KNK	**Knik Glacier**	**9.93**	**39**	Pn	**Pn**	**02 37 00.8**	**-0.9**
HIN	**Hinchinbrook I**	**10.13**	**47**	Pn	**Pn**	**02 37 04.2**	**-0.3**
DHY	**Denali Highway**	**11.41**	**34**	Pn	**Pn**	**02 37 20.1**	**-2.0**
ILAR	**Eielson Array**	**12.78**	**29**	Pn	**Pn**	**02 37 38.9**	**-1.8**
	comp=E,0.1nm,0.3s,baz=220,slow=14,SNR=4.1						
	comp=E,0.2nm,0.4s						
ILAR				AML	AML		
O29M	**Mount Kennedy**	**13.73**	**55**	Pn	**Pn**	**02 37 54.4**	**+0.6**
L29M	**L29M**	**14.92**	**45**	Pn	**Pn**	**02 38 10.5**	**+0.9**
E24K	**Your Creek**	**15.08**	**19**	Pn	**P**	**02 38 14.2**	**-2.2**
E24K				IAmb	IAmb	02 38 20.1	
	comp=Z,4.5nm,1.0s						
D22K	**Ayikyak River**	**15.15**	**12**		**P**	**02 38 16.7**	**-0.3**
TOLK	**Toolik Lake Re**	**15.38**	**17**		**P**	**02 38 17.8**	**-1.0**
TOLK				IAmb	IAmb	02 38 33.3	
	comp=Z,8.2nm,1.5s						
H27K	**Steamboat Moun**	**15.40**	**32**		**P**	**02 38 18.5**	**-1.4**
H29M	**Whitestone**	**16.41**	**34**		**P**	**02 38 30.2**	**-0.7**
C26K	**Camden Bay**	**17.34**	**19**		**P**	**02 38 40.8**	**-0.4**
C26K				IAmb	IAmb	02 38 53.4	
	comp=Z,12nm,1.4s						
INK	**Inuvik**	**19.14**	**32**	P	**P**	**02 39 01.2**	**+0.2**
	comp=Z,0.2nm,0.3s,baz=224,slow=9.0,SNR=5.6						
	comp=Z,0.8nm,0.6s						
INK				AML	AML		
INK	**Inuvik**	**19.14**	**32**	P	**P**	**02 39 01.0**	**0.0**
INK				IAmb	IAmb	02 39 07.8	
	comp=Z,3.9nm,1.2s						
PETK	**Petropavlovsk-**	**23.89**	**284**	P	**P**	**02 39 49.9**	**-1.4**
	comp=Z,2.0nm,0.6s,baz=78,slow=12,SNR=6.6						
	comp=Z,2.0nm,0.6s						
PETK	**Petropavlovsk-**	**23.89**	**284**	P	**P**	**02 39 50.3**	**-1.0**
ULM	**Lac du Bonnet**	**39.08**	**68**	P	**P**	**02 42 06.7**	**+2.2**
	comp=Z,1.8nm,0.7s,baz=302,slow=9.5,SNR=3.4						
	comp=Z,1.8nm,0.7s						
ULM	**Lac du Bonnet**	**39.08**	**68**	P	**P**	**02 42 05.5**	**+1.1**
H11N2	**WAKE ISLAND Hy**	**42.09**	**227**	T	T	03 27 14.4	
	baz=27,slow=76,SNR=42						
H11N3	**WAKE ISLAND Hy**	**42.10**	**227**	T	T	03 27 14.8	
	baz=27,slow=76,SNR=54						
H11N1	**WAKE ISLAND Hy**	**42.11**	**227**	T	T	03 27 15.6	
	baz=27,slow=76,SNR=51						
H11S1	**WAKE ISLAND Hy**	**43.26**	**227**	T	T	03 28 46.8	
	baz=26,slow=76,SNR=51						
H11S2	**WAKE ISLAND Hy**	**43.27**	**227**	T	T	03 28 48.0	
	baz=26,slow=76,SNR=46						
H11S3	**WAKE ISLAND Hy**	**43.28**	**227**	T	T	03 28 49.6	
	baz=26,slow=76,SNR=42						
SONM	**Songino Array**	**54.19**	**304**	P	**P**	**02 44 02.6**	**-0.2**
	comp=Z,0.5nm,0.5s,baz=46,slow=8.3,SNR=2.9						
	comp=Z,0.5nm,0.5s						
SONM	**Songino Array**	**54.19**	**304**	P	**P**	**02 44 02.2**	**-0.6**
SONM				IAmb	IAmb	02 44 09.6	
	comp=Z,2.8nm,1.5s						
FINES	**FINESS Array B**	**64.39**	**356**	P	**P**	**02 45 12.6**	**-0.3**
	comp=Z,1.0nm,0.6s,baz=10.0,slow=9.5,SNR=8.4						
	comp=Z,1.0nm,0.6s						
EKA	**Eskdalemuir Ar**	**69.25**	**13**	P	**P**	**02 45 44.2**	**+0.3**
	comp=Z,2.4nm,0.9s,baz=338,slow=4.5,SNR=5.5						
	comp=Z,2.4nm,0.9s						
ABKAR	**Akbulak array**	**71.02**	**333**	P	**P**	**02 45 54.7**	**0.0**
AKASG	**Malin Array Be**	**74.92**	**353**	P	**P**	**02 46 17.9**	**0.0**
	comp=Z,0.4nm,0.5s,baz=2.2,slow=4.9,SNR=2.1						
	comp=Z,0.4nm,0.5s						

*MDD **25** 02:35:31.0±0.7,36°.79N×13°.20W,h37km±40km,Mb4.5/50, M_mb3.9/33,Error ellipse: s-maj=16.0km s-min=3.9km az=66.0*
*IGIL **25** 02:35:32.5,36°.72N×13°.31W,h25km,ML3.4*
*INMG **25** 02:35:32.5±2.0,36°.72N×13°.32W,h11km±7km,ML3.2, Error ellipse: s-maj=3.9km s-min=3.0km az=127.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Josephine*
*CNRM **25** 02:35:32.0,36°.27N×12°.90W,h52km,ML3.8*

ISC 25 02:35:24.1±0.4,36°.62N±0°.02×13°.05W±0°.02,h10km,n125, σ2s91/176,34C-1D,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**3.42**	**80**	P	Pn	02 36 22.1	+4.6
PFVI				S	**Sn**	**02 36 59.1**	**+0.9**
PFVI	**Vila Bisbo**	**3.42**	**80**	P	Pn	02 36 22.6	+5.1
PFVI				S	**Sn**	**02 37 02.4**	**+4.2**
PFVI	**Vila Bisbo**	**3.42**	**80**	*eP*	Pn	02 36 22.3	+4.8
PFVI				*eS*	**Sn**	**02 36 59.6**	**+1.4**
PFVI				IAML		02 37 02.6	
PFVI				IAML		02 37 03.4	
PFVI				IAML		02 37 04.1	
PTEO	**Sao Teotonio**	**3.58**	**74**	*eP*	Pn	02 36 24.3	+4.7
PTEO				*eS*	**Sn**	**02 37 02.9**	**+0.9**
PTEO				IAML		02 37 03.8	
PTEO				IAML		02 37 04.8	
PTEO				IAML		02 37 07.1	
PTEO				*eT*	T	02 39 46.4	
PTEO	**Sao Teotonio**	**3.58**	**74**	P	Pn	02 36 24.4	+4.7
PTEO				S	**Sn**	**02 37 02.5**	**+0.5**
MORF	**Marmelete**	**3.59**	**78**	*eP*	Pn	02 36 24.7	+4.9
MORF				*eS*	**Sn**	**02 37 03.1**	**+0.9**
MORF				IAML		02 37 05.6	
	comp=E,57nm,0.3s						
MORF	**Marmelete**	**3.59**	**78**	*eP*	Pn	02 36 24.9	+5.1
MORF				*eS*	**Sn**	**02 37 04.0**	**+1.7**
MORF				IAML		02 37 07.7	
MORF				IAML		02 37 08.6	
MORF				IAML		02 37 09.0	
LIS	**Lisbon**	**3.74**	**55**	*eP*	Pn	02 36 25.8	+4.0
LIS				*eS*	**Sn**	**02 37 04.8**	**-1.1**
LIS				IAML		02 37 12.4	
	comp=N,126nm,0.4s						
LIS	**Lisbon**	**3.74**	**55**	*eP*	Pn	02 36 25.8	+4.0
LIS				*eS*	**Sn**	**02 37 06.2**	**+0.4**
LIS				IAML		02 37 08.8	
LIS				IAML		02 37 11.3	
LIS				IAML		02 37 13.1	
LIS				*eT*	T	02 39 51.6	
PMAFR	**Mafra**	**3.79**	**51**	P	Pn	02 36 26.5	+4.0
PMAFR				S	**Sn**	**02 37 07.7**	**+0.5**
PMAFR	**Mafra**	**3.79**	**51**	*eP*	Pn	02 36 26.5	+4.0
PMAFR				*eS*	**Sn**	**02 37 06.3**	**-0.9**
PMAFR				IAML		02 37 11.1	
PMAFR				IAML		02 37 11.6	
PMAFR				IAML		02 37 15.1	
PMAFR				*eT*	T	02 39 59.4	
PLOUS	**Minas do Lousa**	**3.95**	**68**	*eP*	Pn	02 36 29.3	+4.6
PLOUS				*eS*	**Sn**	**02 37 12.0**	**+0.9**
PLOUS				IAML		02 37 13.0	
PLOUS				IAML		02 37 14.6	
PLOUS				IAML		02 37 15.4	
PLOUS				*eT*	T	02 40 01.5	
MESJ	**Messejana**	**4.04**	**71**	*eP*	Pn	02 36 30.6	+4.6
MESJ				*eS*	**Sn**	**02 37 13.2**	**-0.2**
MESJ	**Messejana**	**4.04**	**71**	*eP*	Pn	02 36 31.1	+5.0
MESJ				*eS*	**Sn**	**02 37 14.2**	**+0.7**
PCVE	**Castro Verde**	**4.13**	**74**	P	Pn	02 36 32.4	+5.2
PCVE				S	**Sn**	**02 37 16.5**	**+0.9**
PCVE	**Castro Verde**	**4.13**	**74**	*eP*	Pn	02 36 32.0	+4.8
PCVE				*eS*	**Sn**	**02 37 16.5**	**+0.9**
PCVE				IAML		02 37 21.0	
PCVE				IAML		02 37 21.2	
PCVE				IAML		02 37 25.8	
PBDV	**Barranco-do-Ve**	**4.15**	**80**	P	Pn	02 36 32.9	+5.4
PBDV				S	**Sn**	**02 37 19.4**	**+3.4**
PBDV	**Barranco-do-Ve**	**4.15**	**80**	*eP*	Pn	02 36 33.0	+5.5
PBDV				*eS*	**Sn**	**02 37 17.9**	**+1.8**
PBDV				IAML		02 37 22.9	
PBDV				IAML		02 37 23.9	
PBDV				IAML		02 37 24.5	
MOE	**Montemor**	**4.19**	**62**	*eP*	Pn	02 36 32.1	+4.1
MOE				*eS*	**Sn**	**02 37 17.2**	**+0.2**
MOE				IAML		02 37 24.7	
MOE				IAML		02 37 25.3	
MOE				IAML		02 37 26.1	
MOE				*eT*	T	02 40 07.3	
PVAQ	**Vaqueiros**	**4.34**	**78**	P	Pn	02 36 35.1	+5.1
PVAQ				S	**Sn**	**02 37 23.7**	**+3.0**
PVAQ	**Vaqueiros**	**4.34**	**78**	*eP*	Pn	02 36 35.5	+5.4
PVAQ				*eS*	**Sn**	**02 37 21.6**	**+0.8**
PVAQ				IAML		02 37 27.2	
PVAQ				IAML		02 37 27.9	
PVAQ				IAML		02 37 28.0	
PBEJ	**Beja**	**4.37**	**70**	*eP*	Pn	02 36 35.4	+5.0
PBEJ				*eS*	**Sn**	**02 37 21.1**	**-0.3**
PBEJ				IAML		02 37 25.5	
PBEJ				IAML		02 37 26.9	
PBEJ				IAML		02 37 27.3	
PSBE	**So Bento**	**4.43**	**48**	*eP*	Pn	02 36 35.3	+3.9
PSBE				*eS*	**Sn**	**02 37 21.6**	**-1.4**
PSBE				IAML		02 37 27.8	
PSBE				IAML		02 37 28.8	
PSBE				IAML		02 37 28.9	
PSBE				*eT*	T	02 40 13.2	
EVO	**Evora**	**4.43**	**63**	P	Pn	02 36 35.8	+4.5
EVO				S	**Sn**	**02 37 21.4**	**-1.7**
EVO	**Evora**	**4.43**	**63**	*eP*	Pn	02 36 35.9	+4.5
EVO				*eS*	**Sn**	**02 37 22.1**	**-1.0**
EVO				IAML		02 37 29.2	
EVO				IAML		02 37 29.2	
EVO				IAML		02 37 29.2	
PMPST	**Porto Santo, M**	**4.44**	**218**	*eP*	**Pn**	**02 36 33.3**	**+1.8**
PMPST				*eS*	**Sn**	**02 37 18.2**	**-5.0**
PMPST				IAML		02 37 21.9	
PMPST				IAML		02 37 23.0	
PMPST				IAML		02 37 23.2	
PMPS	**Porto Santo**	**4.46**	**218**	IAML		02 37 21.7	
PMTG	**Montargil**	**4.54**	**56**	*eP*	Pn	02 36 36.5	+3.8
PMTG				*eS*	**Sn**	**02 37 24.9**	**-0.7**
PMTG				IAML		02 37 31.3	
PMTG				IAML		02 37 31.8	
PMTG				IAML		02 37 37.1	
PMTG				*eT*	T	02 40 22.1	
PMTG	**Montargil**	**4.54**	**56**	P	**Pn**	**02 36 36.4**	**+3.7**
PMTG				S	**Sn**	**02 37 24.4**	**-1.1**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PARRA	**Arraiolos**	**4.54**	**60**	*eP*	**Pn**	**02 36 36.5**	**+3.7**
PARRA				*eS*	**Sn**	**02 37 25.2**	**-0.5**
PARRA				IAML		02 37 26.4	
PARRA				IAML		02 37 27.8	
PARRA				IAML		02 37 29.8	
PARRA				*eT*	T	02 40 17.0	
EGRO	**El Granado**	**4.54**	**77**	P	Pn	02 36 38.0	+5.1
EGRO				S	**Sn**	**02 37 27.3**	**+1.5**
EGRO	**El Granado**	**4.54**	**77**	P	Pn	02 36 38.2	+5.3
EGRO				IAmb_VC		02 36 40.7	
	comp=N,248nm,SNR=2.2						
EGRO				S	**Sn**	**02 37 26.7**	**+0.9**
PSARD	**Sardoal**	**4.87**	**51**	*eP*	Pn	02 36 41.3	+3.9
PSARD				*eS*	**Sn**	**02 37 32.9**	**-0.9**
PSARD				IAML		02 37 38.0	
PSARD				IAML		02 37 38.3	
PSARD				IAML		02 37 41.9	
PSARD				*eT*	T	02 40 34.7	
PESTR	**Estremoz**	**4.88**	**61**	P	Pn	02 36 41.7	+4.2
PESTR				S	**Sn**	**02 37 33.7**	**-0.3**
PESTR	**Estremoz**	**4.88**	**61**	P	Pn	02 36 43.5	+6.0
PESTR				S	**Sn**	**02 37 38.5**	**+4.6**
PESTR	**Estremoz**	**4.88**	**61**	*eP*	Pn	02 36 42.3	+4.8
PESTR				*eS*	**Sn**	**02 37 33.5**	**-0.5**
PESTR				IAML		02 37 39.5	
PESTR				IAML		02 37 42.2	
PESTR				IAML		02 37 45.8	
PESTR				*eT*	T	02 40 36.8	
PMAR	**Madeira**	**5.02**	**220**	P	**Pn**	**02 36 41.4**	**+1.8**
PMAR				S	**Sn**	**02 37 38.3**	**+0.5**
PMAR	**Madeira**	**5.02**	**220**	*eP*	**Pn**	**02 36 40.5**	**+0.9**
PMAR				*eS*	**Sn**	**02 37 32.6**	**-5.2**
PMAR				IAML		02 37 40.2	
PMAR				IAML		02 37 40.9	
PMAR				IAML		02 37 44.3	
PBAR	**Barrancos**	**5.03**	**70**	P	Pn	02 36 44.6	+5.0
PBAR				S	**Sn**	**02 37 37.4**	**-0.4**
PBAR	**Barrancos**	**5.03**	**70**	*eP*	Pn	02 36 44.8	+5.2
PBAR				*eS*	**Sn**	**02 37 37.9**	**+0.1**
PBAR				IAML		02 37 42.1	
PBAR				IAML		02 37 43.8	
PBAR				IAML		02 37 48.0	
FUL	**Funchal**	**5.07**	**220**	*eP*	**Pn**	**02 36 41.7**	**+1.6**
FUL				*eS*	**Sn**	**02 37 32.7**	**-6.0**
FUL				IAML		02 37 37.4	
FUL				IAML		02 37 38.5	
FUL				IAML		02 37 41.4	
PMMZ	**Porto Moniz, M**	**5.10**	**223**	P	**Pn**	**02 36 41.5**	**+0.9**
PMOZ				S	**Sn**	**02 37 35.9**	**-3.6**
PMOZ	**Porto Moniz, M**	**5.10**	**223**	P	**Pn**	**02 36 42.0**	**+1.4**
PMOZ				S	**Sn**	**02 37 40.9**	**+1.4**
PMOZ	**Porto Moniz, M**	**5.10**	**223**	*eP*	**Pn**	**02 36 42.0**	**+1.4**
PMOZ				*eS*	**Sn**	**02 37 36.1**	**-3.4**
PMOZ				IAML		02 37 44.8	
EMIN	**Mina Concepcio**	**5.22**	**75**	P	Pn	02 36 46.8	+4.7
EMIN				S	**Sn**	**02 37 42.6**	**+0.2**
EMIN	**Mina Concepcio**	**5.22**	**75**	P	Pn	02 36 46.8	+4.7
EMIN				IAmb_VC		02 36 49.5	
	comp=N,194nm,SNR=2.3						
EMIN				S	**Sn**	**02 37 41.8**	**-0.6**
EBAD	**Badajoz**	**5.24**	**64**	P	Pn	02 36 46.6	+4.2
EBAD				S	**Sn**	**02 37 42.6**	**-0.3**
EBAD	**Badajoz**	**5.24**	**64**	P	Pn	02 36 46.7	+4.2
EBAD				IAmb_VC		02 36 49.6	
	comp=N,406nm,SNR=3.8						
EBAD				S	**Sn**	**02 37 42.3**	**-0.6**
PMRV	**Marv??o**	**5.28**	**56**	*eP*	**Pn**	**02 36 46.6**	**+3.6**
PMRV				*eS*	**Sn**	**02 37 42.2**	**-1.7**
PMRV				IAML		02 37 45.2	
PMRV				IAML		02 37 46.4	
PMRV				IAML		02 37 48.1	
PCBR	**Castelo Branco**	**5.44**	**52**	*eP*	Pn	02 36 49.3	+4.1
PCBR				*eS*	**Sn**	**02 37 45.7**	**-2.2**
PCBR				IAML		02 37 52.9	
PCBR				IAML		02 37 54.6	
PCBR				IAML		02 37 56.0	
AVE	**Averroes**	**5.69**	**124**	P	Pn	02 36 53.6	+5.0
AVE				S	**Sn**	**02 37 56.6**	**+2.6**
PTO	**Porto**	**5.69**	**36**	*eP*	**Pn**	**02 36 51.7**	**+3.1**
PTO				*eS*	**Sn**	**02 37 51.6**	**-2.5**
PTO				IAML		02 37 54.7	
PTO				IAML		02 37 55.4	
PTO				IAML		02 37 57.4	
PTO	**Porto**	**5.69**	**36**	P	**Pn**	**02 36 51.4**	**+2.8**
PTO				S	**Sn**	**02 37 51.3**	**-2.7**
RTC	**Rabat Centre**	**5.70**	**116**	S	**Sn**	**02 37 55.6**	**+1.3**
MTE	**Manteigas**	**5.74**	**47**	*eP*	Pn	02 36 53.0	+3.7
MTE				*eS*	**Sn**	**02 37 52.9**	**-2.4**
MTE				IAML		02 37 56.0	
MTE				IAML		02 37 57.1	
MTE				IAML		02 37 57.3	
PVIS	**Viseu**	**5.75**	**43**	*eP*	**Pn**	**02 36 52.7**	**+3.3**
PVIS				*eS*	**Sn**	**02 37 53.2**	**-2.3**
ESPR	**Espera**	**5.78**	**85**	P	Pn	02 36 55.4	+5.5
ESPR				S	**Sn**	**02 37 58.2**	**+1.9**
ESPR	**Espera**	**5.78**	**85**	P	Pn	02 36 55.7	+5.8
ESPR				IAmb_VC		02 36 57.7	
	comp=N,229nm,SNR=2.6						
ESPR				S	**Sn**	**02 37 57.9**	**+1.7**
SRHM	**Skhour des Reh**	**5.93**	**133**	P	**Pn**	**02 36 54.4**	**+2.4**
SRHM				S	**Sn**	**02 37 58.4**	**-1.6**
EJIF	**Jimena Fronter**	**6.11**	**89**	P	Pn	02 37 00.6	+6.3
EJIF				S	**Sn**	**02 38 06.3**	**+2.1**
ZHG	**ZHG**	**6.13**	**119**	P	**Pn**	**02 36 56.5**	**+1.7**
ZHG				S	**Sn**	**02 38 02.5**	**-2.6**
PVRL	**Vila Real**	**6.24**	**40**	*eP*

EADA					⇑IVmb_VC			02 37 13.6	
	comp=N,139nm,SNR=1.9								
EADA					S		**Sn**	**02 38 22.8**	**-1.6**
EMAL	**Malaga-Limoner**	**6.93**	**86**		P		Pn	02 37 11.8	+6.2
EMAL					S		**Sn**	**02 38 29.3**	**+4.8**
EMAZ	**Mazaricos**	**7.06**	**25**		P		**Pn**	**02 37 09.1**	**+1.7**
EMAZ					⇑IVmb_VC			02 37 10.9	
	comp=N,574nm,SNR=1.7								
EMAZ					S		**Sn**	**02 38 19.7**	**-8.0**
PBRG	**Braganca**	**7.13**	**41**	*eP*			**Pn**	**02 37 11.6**	**+3.1**
PBRG				*eS*			**Sn**	**02 38 24.2**	**-5.3**
PBRG				IAML				02 38 30.3	
PBRG				IAML				02 38 32.0	
PBRG				IAML				02 38 32.0	
EJUZ	**Juzbado, Salam**	**7.15**	**49**		P		**Pn**	**02 37 11.9**	**+3.2**
EJUZ					S		**Sn**	**02 38 26.3**	**-3.8**
STS	**Santiago**	**7.16**	**28**		P		**Pn**	**02 37 11.0**	**+2.2**
STS					S		Sn	02 38 20.9	-9.2
EGOR	**Sierra Gorda,**	**7.18**	**83**		P		Pn	02 37 15.0	+5.7
EGOR					S		**Sn**	**02 38 31.9**	**+0.9**
EGOR	**Sierra Gorda,**	**7.18**	**83**		P		Pn	02 37 15.2	+5.9
EGOR					⇑IVmb_VC			02 37 18.1	
	comp=N,77nm,SNR=1.5								
EGOR					S		**Sn**	**02 38 29.3**	**-1.7**
IFR	**Ifrane**	**7.19**	**113**		P		**Pn**	**02 37 13.5**	**+4.1**
IFR					S		**Sn**	**02 38 31.2**	**-0.1**
ECAL	**Calabor**	**7.23**	**41**		P		**Pn**	**02 37 12.8**	**+3.0**
ECAL					S		**Sn**	**02 38 29.0**	**-3.0**
ECAL	**Calabor**	**7.23**	**41**		P		**Pn**	**02 37 12.8**	**+3.0**
ECAL					⇑IVmb_VC			02 37 15.3	
	comp=N,1µm,SNR=2.6								
ECAL					S		**Sn**	**02 38 27.7**	**-4.3**
EAGO	**Agolada(Pontev**	**7.26**	**30**		P		**Pn**	**02 37 12.5**	**+2.2**
EAGO					⇑IVmb_VC			02 37 14.6	
	comp=N,472nm,SNR=1.4								
EAGO					S		**Sn**	**02 38 26.4**	**-6.4**
LCRM	**LCR**	**7.32**	**111**		P		**Pn**	**02 37 13.2**	**+2.0**
LCRM					S		**Sn**	**02 38 33.2**	**-1.2**
TISM	**Timmit**	**7.34**	**130**		P		**Pn**	**02 37 12.1**	**+0.9**
TISM					S		**Sn**	**02 38 30.2**	**-4.4**
CDLV	**Cueva Verdes**	**7.44**	**183**		P		**Pn**	**02 37 16.3**	**+3.7**
CDLV					⇑IVmb_VC			02 37 18.4	
	comp=N,123nm,SNR=0.8								
CDLV					S		**Sn**	**02 38 34.4**	**-2.7**
TIO	**Tiouine**	**7.44**	**138**		P		Pn	02 37 18.7	+5.8
TIO					S		**Sn**	**02 38 41.9**	**+4.5**
TIO	**Tiouine**	**7.44**	**138**		P		**Pn**	**02 37 15.2**	**+2.4**
TIO					Sn		**Sn**	**02 38 33.6**	**-3.9**
PAB	**San Pablo**	**7.46**	**64**		P		Pn	02 37 16.9	+3.9
PAB					⇑IVmb_VC			02 37 19.7	
	comp=N,103nm,SNR=1.8								
PAB					S		**Sn**	**02 38 34.9**	**-2.8**
ELGU	**Los Guajares,**	**7.57**	**85**		P		Pn	02 37 22.2	+7.7
ELGU					S		**Sn**	**02 38 43.4**	**+3.0**
ELGU	**Los Guajares,**	**7.57**	**85**		P		Pn	02 37 20.5	+5.9
ELGU					⇑IVmb_VC			02 37 24.4	
	comp=N,50nm,SNR=0.9								
ELGU					S		**Sn**	**02 38 39.6**	**-0.9**
EQTA	**Presa de Quent**	**7.72**	**83**		P		Pn	02 37 22.5	+5.9
EQTA					S		**Sn**	**02 38 47.9**	**+3.7**
EQUE	**Quentar**	**7.72**	**83**		P		Pn	02 37 22.7	+6.1
EQUE					⇑IVmb_VC			02 37 25.8	
	comp=N,49nm,SNR=1.1								
EQUE					S		**Sn**	**02 38 45.7**	**+1.6**
OUZM	**OUZ**	**7.73**	**136**		P		**Pn**	**02 37 17.6**	**+0.8**
OUZM					Sn		**Sn**	**02 38 40.3**	**-4.2**
AKLM	**AKL**	**7.78**	**103**		P		**Pn**	**02 37 20.4**	**+3.1**
AKLM					Sn		**Sn**	**02 38 44.1**	**-1.4**
MD31	**MD31**	**7.78**	**116**		P		**Pn**	**02 37 19.9**	**+2.4**
MD31					Sn		**Sn**	**02 38 43.5**	**-2.1**
ESDC	**Sonseca Array**	**7.78**	**64**		P		Pn	02 37 21.3	+3.9
ESDC					⇑IVmb_VC			02 37 24.0	
	comp=N,224nm,SNR=2.5								
ESDC					S		**Sn**	**02 38 41.6**	**-4.1**
ESBB	**Sonseca Array**	**7.79**	**64**		P		**Pn**	**02 37 20.8**	**+3.3**
ESBB					⇑IVmb_VC			02 37 24.0	
	comp=N,224nm,SNR=2.6								
ESBB					S		**Sn**	**02 38 41.7**	**-4.0**
MDT	**Midelt**	**7.92**	**116**		P		**Pn**	**02 37 21.4**	**+2.1**
MDT					Sn		**Sn**	**02 38 47.1**	**-1.9**
CFUE	**Fuerteventura**	**7.98**	**186**		P		**Pn**	**02 37 23.2**	**+3.0**
CFUE					⇑IVmb_VC			02 37 26.2	
	comp=N,71nm,SNR=1.2								
CFUE					S		**Sn**	**02 38 44.2**	**-6.3**
EQES	**Quesada**	**8.05**	**79**		P		Pn	02 37 25.6	+4.4
EQES					⇑IVmb_VC			02 37 28.7	
	comp=N,64nm,SNR=0.7								
EQES					S		**Sn**	**02 38 50.7**	**-1.6**
EPON	**Pontenova**	**8.09**	**32**		P		**Pn**	**02 37 23.7**	**+2.2**
EPON					⇑IVmb_VC			02 37 27.1	
	comp=N,246nm,SNR=0.8								
EPON					S		**Sn**	**02 38 46.5**	**-6.5**
EBER	**Berja**	**8.16**	**85**		P		Pn	02 37 29.7	+7.0
EBER					S		**Sn**	**02 38 55.4**	**+0.3**
CFTV	**Fuerteventura**	**8.22**	**186**		P		**Pn**	**02 37 25.2**	**+1.7**
CFTV					⇑IVmb_VC			02 37 27.9	
	comp=N,84nm,SNR=1.1								
CFTV					S		Sn	02 38 48.5	-8.0
TZRR	**Tazzarine**	**8.52**	**131**		P		**Pn**	**02 37 29.2**	**+1.6**
TZRR					Sn		**Sn**	**02 39 01.1**	**-2.8**
UCM	**Universidad Co**	**8.53**	**61**		P		Pn	02 37 32.2	+4.6
UCM					S		**Sn**	**02 39 01.3**	**-2.6**
JBK	**JBK**	**8.85**	**102**		P		**Pn**	**02 37 33.2**	**+1.0**
JBK					Sn		**Sn**	**02 39 09.4**	**-2.7**
CMIR	**El Paso, La Pa**	**8.88**	**209**		P		**Pn**	**02 37 32.6**	**+0.1**
CMIR					⇑IVmb_VC			02 37 36.0	
	comp=N,194nm,SNR=1.2								
CMIR					S		Sn	02 39 01.3	-11
TBT	**Taburiente**	**8.91**	**209**		P		**Pn**	**02 37 32.8**	**0.0**
TBT					⇑IVmb_VC			02 37 35.5	
	comp=N,153nm,SNR=0.8								
TBT					S		Sn	02 39 01.6	-12
CENR	**El Paso, La Pa**	**8.93**	**208**		P		**Pn**	**02 37 33.2**	**-0.1**
CENR					⇑IVmb_VC			02 37 36.5	
	comp=N,476nm,SNR=1.0								
CENR					S		Sn	02 39 04.7	-9.3
ZGR	**Zagora**	**8.97**	**134**		P		**Pn**	**02 37 34.3**	**+0.5**
ZGR					Sn		**Sn**	**02 39 11.6**	**-3.4**
EARI	**Arriondas**	**8.99**	**40**		P		**Pn**	**02 37 37.3**	**+3.4**
EARI					⇑IVmb_VC			02 37 42.3	
	comp=N,273nm,SNR=1.4								
EARI					S		**Sn**	**02 39 08.6**	**-6.5**
EZAR	**Zarzadilla de**	**9.14**	**79**		P		Pn	02 37 41.0	+4.9
EZAR					⇑IVmb_VC			02 37 44.6	
	comp=N,89nm,SNR=1.1								
EZAR					S		**Sn**	**02 39 17.7**	**-1.4**
ETOB	**Tobarra**	**9.35**	**74**		P		**Pn**	**02 37 42.0**	**+3.1**
ETOB					S		**Sn**	**02 39 22.0**	**-2.1**
ETOB	**Tobarra**	**9.35**	**74**		P		**Pn**	**02 37 42.7**	**+3.9**
ETOB					⇑IVmb_VC			02 37 45.6	
	comp=N,44nm,SNR=0.4								
ETOB					S		**Sn**	**02 39 19.3**	**-4.8**
EMUR	**La Murta**	**9.50**	**79**		P		Pn	02 37 46.6	+5.7
EMUR					S		**Sn**	**02 39 27.2**	**-0.6**
ETOR	**Torete**	**9.56**	**61**		P		**Pn**	**02 37 45.5**	**+3.7**
ETOR					⇑IVmb_VC			02 37 47.8	
	comp=N,194nm,SNR=1.9								
ETOR					S		**Sn**	**02 39 23.8**	**-5.6**
ELAN	**Lanestosa**	**9.90**	**45**		P		Pn	02 37 50.1	+3.6
ELAN					⇑IVmb_VC			02 37 53.3	
	comp=N,159nm,SNR=1.1								
ELAN					S		**Sn**	**02 39 32.8**	**-5.0**
EORO	**Oroz-Betelu**	**10.99**	**52**		P		**Pn**	**02 38 04.2**	**+2.8**
EORO					⇑IVmb_VC			02 38 08.1	
	comp=N,126nm,SNR=1.2								
EORO					S		**Sn**	**02 39 58.1**	**-6.3**

TRN 25 02:43:55.6,17°.61N×61°.69W,h32km,MD3.9,East of Barbuda.,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ANWB	**Willy Bob**	**0.11**	**302**	*eP*	Pb	02 44 02.6	+1.3
ANWB				*eS*	Sb	02 44 07.0	+1.9
SEUS	**St. Eustatius**	**1.24**	**265**	*eP*	Pb	02 44 18.2	-0.3
SEUS				*eS*	Sb	02 44 35.0	+0.9
DHSZ	**Broadband at M**	**1.33**	**183**	*eP*	Pb	02 44 20.0	0.0
DHSZ				*eS*	Sb	02 44 36.2	-0.5
SMRT	**St. Maarten**	**1.39**	**289**	*eP*	Pb	02 44 20.0	-1.0
SMRT				*eS*	Sb	02 44 38.3	-0.2
DSDZ	**La Diserade, G**	**1.42**	**155**	*eP*	Pn	02 44 20.3	+1.1
DSDZ				*eS*	Sb	02 44 39.1	-0.2
SABA	**Saba**	**1.48**	**271**	*eP*	Pb	02 44 21.8	-0.8
SABA				*eS*	Sb	02 44 40.6	-0.5
MAGL	**Barre de l'ile**	**1.70**	**167**	*eP*	Pb	02 44 25.2	-1.0
MAGL				*eS*	Sb	02 44 45.7	-1.5
DSLB	**Salisbury**	**2.17**	**173**	*eP*	Pn	02 44 31.2	+1.6
DSLB				*eS*	Sn	02 44 58.0	+2.5

CNRM ***25*** *02:50:01.0,36°.21N×12°.87W,h21km,ML3.6*
MDD ***25*** *02:50:03.8±0.7,36°.79N×13°.15W,h64km±34km,Mb3.9/22, Error ellipse: s-maj=6.0km s-min=3.8km az=84.0*
INMG ***25*** *02:50:04.9±1.4,36°.68N×13°.29W,h25km,ML2.7,Error ellipse: s-maj=5.2km s-min=2.9km az=127.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Josephine*
IGIL ***25*** *02:50:05.1,36°.68N×13°.29W,h32km,ML2.8*

ISC 25 02:49:57.0±1.3,36°.72N±0°.05×13°.16W±0°.06,h10km,n90,σ3s05/159,15C,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**3.50**	**82**	P	**Pn**	**02 50 54.9**	**+3.5**
PFVI				S	**Sn**	**02 51 31.4**	**-1.5**
PFVI	**Vila Bisbo**	**3.50**	**82**	P	**Pn**	**02 50 52.0**	**+0.6**
PFVI				S	**Sn**	**02 51 33.0**	**+0.2**
PFVI	**Vila Bisbo**	**3.50**	**82**	*eP*	**Pn**	**02 50 54.9**	**+3.5**
PFVI				*eS*	**Sn**	**02 51 31.7**	**-1.2**
PFVI				IAML		02 51 33.8	
PFVI				IAML		02 51 33.8	
PFVI				IAML		02 51 34.1	
PTEO	**Sao Teotonio**	**3.64**	**76**	*eP*	**Pn**	**02 50 56.4**	**+3.0**
PTEO				*eS*	**Sn**	**02 51 35.2**	**-1.2**
PTEO				IAML		02 51 36.8	
PTEO				IAML		02 51 38.8	
PTEO				IAML		02 51 43.2	
PTEO	**Sao Teotonio**	**3.64**	**76**	P	**Pn**	**02 50 55.5**	**+2.2**
PTEO				S	**Sn**	**02 51 35.1**	**-1.2**
MORF	**Marmelete**	**3.66**	**79**	*eP*	**Pn**	**02 50 57.4**	**+3.8**
MORF				*eS*	**Sn**	**02 51 35.5**	**-1.3**
MORF				IAML		02 51 39.6	
	comp=N,24nm,0.3s						
MORF	**Marmelete**	**3.66**	**79**	*eP*	**Pn**	**02 50 57.7**	**+4.1**
MORF				*eS*	**Sn**	**02 51 36.0**	**-0.8**
MORF				IAML		02 51 39.6	
MORF				IAML		02 51 41.8	
MORF				IAML		02 51 43.5	
LIS	**Lisbon**	**3.75**	**57**	*eP*	**Pn**	**02 50 58.6**	**+3.6**
LIS				*eS*	**Sn**	**02 51 37.8**	**-1.4**
LIS				IAML		02 51 39.8	
	comp=E,18nm,0.1s						
LIS	**Lisbon**	**3.75**	**57**	*eP*	**Pn**	**02 50 59.3**	**+4.4**
LIS				*eS*	**Sn**	**02 51 39.3**	**+0.1**
PMAFR	**Mafra**	**3.80**	**53**	P	**Pn**	**02 50 57.7**	**+2.1**
PMAFR				S	**Sn**	**02 51 39.5**	**-0.7**
PMAFR	**Mafra**	**3.80**	**53**	*eP*	**Pn**	**02 50 59.3**	**+3.8**
PMAFR				*eS*	**Sn**	**02 51 40.0**	**-0.3**
PMAFR				IAML		02 51 42.0	
PMAFR				IAML		02 51 42.0	
PMAFR				IAML		02 51 42.6	
PMAFR				*eT*	T	02 54 25.2	
PLOUS	**Minas do Lousa**	**4.00**	**69**	*eP*	**Pn**	**02 51 01.7**	**+3.4**
PLOUS				*eS*	**Sn**	**02 51 44.0**	**-1.2**
PLOUS				IAML		02 51 47.4	
PLOUS				IAML		02 51 51.5	
PLOUS				IAML		02 51 51.8	
PLOUS				*eT*	T	02 54 33.8	
MESJ	**Messejana**	**4.10**	**73**	*eP*	**Pn**	**02 51 03.3**	**+3.9**
MESJ				*eS*	**Sn**	**02 51 45.7**	**-1.9**
MESJ	**Messejana**	**4.10**	**73**	*eP*	**Pn**	**02 51 04.1**	**+4.5**
MESJ				*eS*	**Sn**	**02 51 46.3**	**-1.4**
PCVE	**Castro Verde**	**4.19**	**76**	P	**Pn**	**02 51 05.0**	**+4.0**
PCVE				S	**Sn**	**02 51 48.2**	**-1.8**
PCVE	**Castro Verde**	**4.19**	**76**	*eP*	**Pn**	**02 51 04.9**	**+4.0**
PCVE				*eS*	**Sn**	**02 51 48.6**	**-1.4**
PCVE				IAML		02 51 53.0	
PCVE				IAML		02 51 54.1	
PCVE				IAML		02 51 56.6	
PBDV	**Barranco-do-Ve**	**4.22**	**81**	P	**Pn**	**02 51 04.8**	**+3.4**
PBDV				S	**Sn**	**02 51 51.1**	**+0.4**
PBDV	**Barranco-do-Ve**	**4.22**	**81**	*eP*	**Pn**	**02 51 05.5**	**+4.2**
PBDV				*eS*	**Sn**	**02 51 51.2**	**+0.5**
PBDV				IAML		02 51 54.7	
PBDV				IAML		02 51 57.6	
PBDV				IAML		02 52 00.3	
MOE	**Montemor**	**4.22**	**63**	*eP*	**Pn**	**02 51 04.3**	**+2.9**
MOE				*eS*	**Sn**	**02 51 49.4**	**-1.4**
MOE				IAML		02 51 54.6	
MOE				IAML		02 51 57.3	
MOE				IAML		02 52 01.3	
PVAQ	**Vaqueiros**	**4.41**	**79**	P	**Pn**	**02 51 05.3**	**+1.4**
PVAQ				S	**Sn**	**02 51 55.5**	**+0.1**
PVAQ	**Vaqueiros**	**4.41**	**79**	*eP*	**Pn**	**02 51 08.0**	**+4.0**
PVAQ				*eS*	**Sn**	**02 51 54.5**	**-0.8**
PVAQ				IAML		02 51 58.6	
PVAQ				IAML		02 51 59.8	
PVAQ				IAML		02 51 59.9	
PBEJ	**Beja**	**4.42**	**71**	*eS*	**Sn**	**02 51 55.1**	**-0.4**
PBEJ				IAML		02 51 57.7	
PBEJ				IAML		02 51 59.3	
PBEJ				IAML		02 51 59.4	
PSBE	**So Bento**	**4.43**	**50**	*eP*	**Pn**	**02 51 07.6**	**+3.3**
PSBE				*eS*	**Sn**	**02 51 55.0**	**-1.0**
PSBE				IAML		02 51 59.5	
PSBE				IAML		02 52 00.8	
PSBE				IAML		02 52 01.1	
PMPST	**Porto Santo, M**	**4.47**	**217**	*eP*	**Pn**	**02 51 05.8**	**+1.0**
PMPST				*eS*	**Sn**	**02 51 50.2**	**-6.6**
EVO	**Evora**	**4.47**	**65**	P	**Pn**	**02 51 07.8**	**+3.0**
EVO				S	**Sn**	**02 51 54.5**	**-2.3**
EVO	**Evora**	**4.47**	**65**	*eP*	**Pn**	**02 51 08.1**	**+3.3**
EVO				*eS*	**Sn**	**02 51 54.3**	**-2.6**
EVO				IAML		02 51 59.1	
EVO				IAML		02 52 01.3	
EVO				IAML		02 52 01.9	
PMPS	**Porto Santo**	**4.49**	**216**	*eS*	**Sn**	**02 51 49.5**	**-7.7**
PMTG	**Montargil**	**4.55**	**57**	*eP*	**Pn**	**02 51 08.9**	**+2.9**
PMTG				*eS*	**Sn**	**02 51 57.6**	**-1.3**
PMTG				IAML		02 52 07.0	
PMTG				IAML		02 52 09.0	
PMTG				IAML		02 52 09.8	
PMTG	**Montargil**	**4.55**	**57**	P	**Pn**	**02 51 08.4**	**+2.5**
PMTG				S	**Sn**	**02 51 56.9**	**-2.1**
PARRA	**Arraiolos**	**4.57**	**61**	*eP*	**Pn**	**02 51 08.8**	**+2.7**
PARRA				*eS*	**Sn**	**02 51 57.1**	**-2.1**
PARRA				IAML		02 52 00.0	
PARRA				IAML		02 52 00.4	
PARRA				IAML		02 52 00.9	
PARRA				*eT*	T	02 54 45.3	
EGRO	**El Granado**	**4.61**	**78**	P	**Pn**	**02 51 09.5**	**+2.8**
EGRO				S	**Sn**	**02 51 58.2**	**-2.1**
EGRO	**El Granado**	**4.61**	**78**	P	**Pn**	**02 51 10.7**	**+4.0**
EGRO				⇑IVmb_VC		02 51 13.4	
	comp=E,91nm,SNR=1.0						
EGRO				S	**Sn**	**02 51 58.6**	**-1.7**
PSARD	**Sardoal**	**4.88**	**52**	*eP*	**Pn**	**02 51 13.8**	**+3.4**
PSARD				*eS*	**Sn**	**02 52 05.0**	**-1.9**
PSARD				IAML		02 52 08.9	
PSARD				IAML		02 52 09.6	
PSARD				IAML		02 52 10.9	
PESTR	**Estremoz**	**4.91**	**62**	P	**Pn**	**02 51 13.6**	**+2.8**
PESTR				S	**Sn**	**02 52 05.9**	**-1.7**
PESTR	**Estremoz**	**4.91**	**62**	P	**Pn**	**02 51 13.7**	**+2.9**
PESTR				S	**Sn**	**02 52 11.5**	**+3.8**
PESTR	**Estremoz**	**4.91**	**62**	*eP*	**Pn**	**02 51 14.5**	**+3.7**
PESTR				*eS*	**Sn**	**02 52 06.4**	**-1.2**
PESTR				IAML		02 52 09.0	
PESTR				IAML		02 52 13.8	
PESTR				IAML		02 52 17.5	
PMAR	**Madeira**	**5.04**	**219**	P	**Pn**	**02 51 12.8**	**0.0**
PMAR				S	**Sn**	**02 52 08.4**	**-2.8**
PMAR	**Madeira**	**5.04**	**219**	*eS*	**Sn**	**02 52 04.6**	**-6.7**
PBAR	**Barrancos**	**5.08**	**72**	P	**Pn**	**02 51 15.9**	**+2.7**
PBAR				S	**Sn**	**02 52 09.6**	**-2.4**
PBAR	**Barrancos**	**5.08**	**72**	*eP*	**Pn**	**02 51 17.2**	**+4.0**
PBAR				*eS*	**Sn**	**02 52 09.9**	**-2.1**
PBAR				IAML		02 52 12.7	
PBAR				IAML		02 52 14.4	
PBAR				IAML		02 52 14.6	
PBAR				IAML		02 52 16.4	
PBAR				IAML		02 52 19.8	
PMOZ	**Porto Moniz, M**	**5.11**	**222**	P	**Pn**	**02 51 14.0**	**+0.3**
PMOZ	**Porto Moniz, M**	**5.11**	**222**	P	**Pn**	**02 51 13.4**	**-0.3**
PMOZ				S	**Sn**	**02 52 10.8**	**-2.0**
EBAD	**Badajoz**	**5.28**	**65**	P	**Pn**	**02 51 18.9**	**+3.0**
EBAD				S	**Sn**	**02 52 13.3**	**-3.5**
EBAD	**Badajoz**	**5.28**	**65**	P	**Pn**	**02 51 18.9**	**+3.0**
EBAD				⇑IVmb_VC		02 51 20.9	
	comp=E,164nm,SNR=1.7						
EBAD				S	**Sn**	**02 52 14.4**	**-2.5**
EMIN	**Mina Concepcio**	**5.28**	**77**	P	**Pn**	**02 51 18.4**	**+2.4**
EMIN				S	**Sn**	**02 52 14.4**	**-2.5**
PMRV	**Marv??o**	**5.29**	**58**	*eP*	**Pn**	**02 51 19.2**	**+3.0**
PMRV				*eS*	**Sn**	**02 52 14.7**	**-2.5**
PMRV				IAML		02 52 17.4	
PMRV				IAML		02 52 19.0	
PMRV				IAML		02 52 19.7	
PMRV				IAML		02 52 25.9	
PCBR	**Castelo Branco**	**5.45**	**53**	*eP*	**Pn**	**02 51 21.8**	**+3.6**
PCBR				*eS*	**Sn**	**02 52 18.2**	**-2.8**
PCBR				IAML		02 52 24.5	
PCBR				IAML		02 52 26.1	
PCBR				IAML		02 52 26.8	
PCBR				IAML		02 52 27.6	
PCBR				IAML		02 52 30.4	
PTO	**Porto**	**5.67**	**37**	*eP*	**Pn**	**02 51 25.7**	**+4.5**
PTO				*eS*	**Sn**	**02 52 24.1**	**-2.3**
PTO				IAML		02 52 25.7	
PTO				IAML		02 52 27.8	
PTO				IAML		02 52 28.1	
PTO	**Porto**	**5.67**	**37**	P	**Pn**	**02 51 23.8**	**+2.6**
PTO				S	**Sn**	**02 52 23.4**	**-2.9**
MTE	**Manteigas**	**5.73**	**48**	*eP*	**Pn**	**02 51 25.5**	**+3.3**
MTE				*eS*	**Sn**	**02 52 26.3**	**-1.8**
MTE				IAML		02 52 29.2	
MTE				IAML		02 52 29.3	
MTE				IAML		02 52 31.9	
PVIS	**Viseu**	**5.74**	**44**	*eP*	**Pn**	**02 51 23.6**	**+1.4**
PVIS				*eS*	**Sn**	**02 52 24.7**	**-3.4**
AVE	**Averroes**	**5.82**	**124**	S	**Sn**	**02 52 30.1**	**-0.1**
ESPR	**Espera**	**5.86**	**86**	P	**Pn**	**02 51 26.4**	**+2.5**
ESPR				S	**Sn**	**02 52 30.4**	**-0.8**
ESPR	**Espera**	**5.86**	**86**	P	**Pn**	**02 51 27.5**	**+3.6**
ESPR				⇑IVmb_VC		02 51 29.4	
	comp=E,108nm,SNR=1.8						
ESPR				S	**Sn**	**02 52 29.5**	**-1.7**
PVRL	**Vila Real**	**6.22**	**41**	*eP*	**Pn**	**02 51 31.6**	**+2.8**
PVRL				*eS*	**Sn**	**02 52 37.7**	**-2.3**
PVRL				IAML		02 52 41.1	
PVRL				IAML		02 52 42.4	
PVRL				IAML		02 52 46.0	
POLO	**Lamas de Olo**	**6.25**	**40**	*eP*	**Pn**	**02 51 32.1**	**+2.8**
POLO				*eS*	**Sn**	**02 52 37.7**	**-3.1**
POLO				IAML		02 52 41.5	
POLO				IAML		02 52 41.7	
POLO				IAML		02 52 50.5	
POLO	**Lamas de Olo**	**6.25**	**40**	P	**Pn**	**02 51 31.4**	**+2.1**
POLO				S	**Sn**	**02 52 36.5**	**-4.3**
ZHG	**ZHG**	**6.26**	**120**	P	Pn	02 51 25.3	-4.2
ZHG				Sn	Sn	02 52 33.3	-7.9
ECAB	**El Cabril**	**6.31**	**75**	P	**Pn**	**02 51 32.7**	**+2.5**
ECAB				S	**Sn**	**02 52 37.7**	**-4.6**
ECAB	**El Cabril**	**6.31**	**75**	P	**Pn**	**02 51 32.8**	**+2.7**
ECAB				⇑IVmb_VC		02 51 35.5	
	comp=E,100nm,SNR=1.3						
ECAB				S	**Sn**	**02 52 37.9**	**-4.4**
PCAB	**Cabril**	**6.38**	**37**	*eP*	**Pn**	**02 51 34.7**	**+3.6**
PCAB				*eS*	**Sn**	**02 52 41.5**	**-2.5**
PCAB				IAML		02 52 45.1	
PCAB				IAML		02 52 45.7	
PCAB				IAML		02 52 50.4	
EZAM	**Zamans**	**6.43**	**31**	P	**Pn**	**02 51 33.5**	**+1.8**
EZAM				⇑IVmb_VC		02 51 35.5	
	comp=E,237nm,SNR=0.5						
EZAM				S	**Sn**	**02 52 40.6**	**-4.6**
PGAV	**Gavieira, Arco**	**6.47**	**34**	*eP*	**Pn**	**02 51 35.6**	**+3.3**
PGAV				*eS*	**Sn**	**02 52 42.5**	**-3.7**
PGAV				IAML		02 52 44.0	
PGAV				IAML		02 52 45.8	
PGAV				IAML		02 52 46.2	
ELOB	**Lobios**	**6.49**	**36**	P	**Pn**	**02 51 35.1**	**+2.5**
ELOB				⇑IVmb_VC		02 51 37.1	
	comp=E,274nm,SNR=1.2						
ELOB				S	**Sn**	**02 52 41.8**	**-4.8**
EPLA	**Plasencia**	**6.49**	**57**	P	**Pn**	**02 51 35.6**	**+3.1**
EPLA				⇑IVmb_VC		02 51 37.9	
	comp=E,107nm,SNR=1.1						
EPLA				S	**Sn**	**02 52 42.5**	**-4.1**
EMIJ	**Mijas**	**6.75**	**89**	P	**Pn**	**02 51 39.7**	**+3.6**
EMIJ				S	**Sn**	**02 52 53.2**	**+0.2**
CIBOR	**Castaar de Ib**	**6.75**	**62**	P	**Pn**	**02 51 39.4**	**+3.2**
CIBOR				S	**Sn**	**02 52 49.4**	**-3.7**
EADA	**Adamuz**	**6.98**	**75**	P	**Pn**	**02 51 41.7**	**+2.4**
EADA				S	**Sn**	**02 52 54.6**	**-4.2**
EADA	**Adamuz**	**6.98**	**75**	P	**Pn**	**02 51 41.7**	**+2.4**
EADA				⇑IVmb_VC		02 51 45.1	
	comp=E,101nm,SNR=1.5						
EADA				S	**Sn**	**02 52 54.

s-min=15.2km az=134.0
*NEIC **25** 03:01:53.0±1.5, 16°.15S±0°.07×173°.1W±0°.1, h10km±1km, mb4.4/15, Error ellipse: s-maj=18.3km s-min=11.1km az=293.0*

ISC 25 03:01:52.7±0.6, **16°.13S**±0°.08×**173°.2W**±0°.1, **h10**km, **n40, σ1°13/31, mb4.2/13, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**2.58**	**31**	Pn	**Pn**	**03 02 35.0**	**+0.5**
	8.7nm,0.3s,baz=187,slow=2.4,SNR=10						
AFI				Sn	**Sn**	**03 03 03.5**	**-2.5**
	50nm,0.3s,baz=34,slow=23,SNR=14						
AFI				LR	LR	03 03 34.2	
	comp=Z,142nm,20.9s,baz=193,slow=37						
	22nm,0.3s						
AFI				AML	AML		
NIUE	**Niue**	**4.25**	**134**		**Pn**	**03 02 57.1**	**-0.3**
MSVF	**Nonsavu**	**8.57**	**258**	LR	LR	03 06 45.5	
	comp=Z,201nm,18.7s,baz=11,slow=36						
RAR	**Rarotonga**	**13.64**	**114**	LR	LR	03 09 17.0	
	comp=Z,37nm,21.6s,baz=280,slow=32						
PINNC	**Pines Island,**	**19.40**	**248**	Pn	**Pn**	**03 06 20.6**	**+0.5**
PINNC				IAmb	IAmb	03 06 30.6	
	comp=Z,26nm,1.0s						
MRZ	**Mangatainoka R**	**26.33**	**200**	P	**P**	**03 07 27.2**	**-1.5**
MRZ				IAmb	IAmb	03 07 43.2	
	comp=Z,17nm,1.1s						
HNR	**Honiara**	**27.05**	**281**	LR	LR	03 16 24.0	
	comp=Z,112nm,22.0s,baz=192,slow=33						
QRZ	**Quartz Range**	**27.56**	**204**	P	**P**	**03 07 40.1**	**+0.3**
QRZ				IAmb	IAmb	03 07 53.7	
	comp=Z,3.5nm,0.6s						
RPZ	**Rata Peaks**	**30.60**	**203**	P	**P**	**03 08 06.6**	**-0.3**
MLZ	**Mavora Lakes**	**33.12**	**204**	P	**P**	**03 08 28.8**	**-0.2**
MLZ				IAmb	IAmb	03 08 44.1	
	comp=Z,5.7nm,0.9s						
H11S2	**WAKE ISLAND Hy**	**39.71**	**329**	T	T	03 51 26.8	
	baz=149,slow=76,SNR=4.5						
H11S3	**WAKE ISLAND Hy**	**39.72**	**329**	T	T	03 51 29.7	
	baz=149,slow=76,SNR=4.4						
H11S1	**WAKE ISLAND Hy**	**39.73**	**329**	T	T	03 51 30.2	
	baz=149,slow=76,SNR=5.4						
H11N3	**WAKE ISLAND Hy**	**40.66**	**330**	T	T	03 52 15.9	
	baz=150,slow=76,SNR=12						
H11N1	**WAKE ISLAND Hy**	**40.67**	**330**	T	T	03 52 16.3	
	baz=150,slow=76,SNR=11						
H11N2	**WAKE ISLAND Hy**	**40.68**	**330**	T	T	03 52 17.4	
	baz=150,slow=76,SNR=11						
BBOO	**Buckleboo**	**48.66**	**240**	P	**P**	**03 10 36.7**	**-0.5**
BBOO				IAmb	IAmb	03 10 46.5	
	comp=Z,5.3nm,1.1s						
WR8	**Warramunga Arr**	**49.76**	**257**	P	**P**	**03 10 45.2**	**-0.7**
WB0	**Warramunga Arr**	**49.88**	**258**	P	**P**	**03 10 45.9**	**-0.8**
WB0				IAmb	IAmb	03 11 03.6	
	comp=Z,3.3nm,1.1s						
WRA	**Warramunga Arr**	**49.92**	**257**	P	**P**	**03 10 45.7**	**-1.3**
	comp=Z,0.3nm,0.6s,baz=94,slow=6.6,SNR=5.6						
	comp=Z,0.3nm,0.6s						
WRA	**Warramunga Arr**	**49.92**	**257**	P	**P**	**03 10 46.2**	**-0.8**
AS31	**Alice Springs**	**50.12**	**252**	P	**P**	**03 10 46.9**	**-1.7**
ASAR	**Alice Springs**	**50.12**	**252**	P	**P**	**03 10 46.2**	**-2.3**
	comp=Z,1.8nm,0.5s,baz=88,slow=8.4,SNR=24						
	comp=Z,1.8nm,0.5s						
ASAR	**Alice Springs**	**50.12**	**252**	P	**P**	**03 10 48.5**	**0.0**
MTN	**Manton Dam**	**53.91**	**266**	P	**P**	**03 11 15.8**	**-1.0**
MTN				IAmb	IAmb	03 11 29.0	
	comp=Z,4.2nm,1.1s						
SBA	**Scott Base**	**62.55**	**185**	P	**P**	**03 12 16.5**	**+0.3**
NWAO	**Narrogin (SRO)**	**64.47**	**241**	P	**P**	**03 12 29.4**	**-0.4**
JGF	**Kuroka**	**69.59**	**319**	P	**P**	**03 13 02.8**	**+0.5**
JGF				IAmb	IAmb	03 13 04.7	
	comp=Z,4.4nm,1.0s						
JNU	**Nakatsue**	**72.47**	**313**	LR	LR	03 42 06.3	
	comp=Z,20nm,18.5s,baz=66,slow=33						
QSPA	**South Pole Qui**	**73.92**	**180**	P	**P**	**03 13 29.2**	**+1.3**
	comp=Z,1.6nm,0.8s,baz=57,slow=2.3,SNR=8.4						
	comp=Z,1.6nm,0.8s						
QSPA	**South Pole Qui**	**73.92**	**180**	P	**P**	**03 13 28.4**	**+0.5**
QSPA				IAmb	IAmb	03 13 29.9	
	comp=Z,3.0nm,0.9s						
NVAR	**Mina Array Bea**	**74.71**	**42**	P	**P**	**03 13 35.3**	**+2.3**
	comp=Z,0.2nm,0.3s,baz=247,slow=8.7,SNR=7.9						
	comp=Z,0.2nm,0.3s						
PDAR	**Pinedale Array**	**82.65**	**42**	P	**P**	**03 14 18.2**	**+1.6**
	comp=Z,0.4nm,0.7s,baz=225,slow=1.9,SNR=4.5						
	comp=Z,0.4nm,0.7s						
PDAR	**Pinedale Array**	**82.65**	**42**	P	**P**	**03 14 15.5**	**-1.2**
ILAR	**Eielson Array**	**83.11**	**11**	P	**P**	**03 14 17.9**	**-0.4**
	comp=Z,0.4nm,0.6s,baz=228,slow=6.0,SNR=9.2						
	comp=Z,0.4nm,0.6s						
ILAR	**Eielson Array**	**83.11**	**11**	P	**P**	**03 14 17.7**	**-0.6**
BRTR	**Keskin Array B**	**146.87**	**321**	PKPbc	**PKPbc**	**03 21 37.0**	**+1.2**
	comp=Z,0.6nm,0.8s,baz=105,slow=3.7,SNR=2.1						
BRTR	**Keskin Array B**	**146.87**	**321**		**PKPdf**	**03 21 34.6**	**+0.6**
GERES	**GERESS Array B**	**146.90**	**352**	PKPbc	**PKPbc**	**03 21 36.0**	**+0.5**
	comp=Z,0.9nm,0.7s,baz=2.9,slow=2.7,SNR=7.3						
GERES	**GERESS Array B**	**146.90**	**352**		**PKPbc**	**03 21 35.3**	**-0.2**

RSNC 25 03:20:17.6±0.0, **10°N**±1°×**7°3W**±°, **h1**km±5km, **M0.7, ML0.8, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AGCC	**Aguachica**	**1.03**	**185**	P	Pg	03 20 36.2	-1.1
AGCC				S	Sg	03 20 50.0	-0.6
CRJC	**Cerrejon, Guaj**	**1.59**	**22**	P	Pn	03 20 47.2	+0.2
CRJC				S	Sn	03 21 07.4	-0.8

*SJA **25** 03:23:22.2±0.6, 37°.08S×71°.10W, h164km±5km, ML3.5, MW3.6*

ISC 25 03:23:23.6±1.4, **37°.04S**±0°.03×**71°.08W**±0°.09, **h155**km±11km, **n21**, σ1°**33**/36, **1C, Southern Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BI02	**San Fabin de**	**0.41**	**338**	*eP*	**Pn**	**03 23 45.0**	**-0.2**
BI02	**San Fabin de**	**0.41**	**338**	*iP*	**Pn**	**03 23 44.9**	**-0.4**
BI02				*eS*	**Sn**	**03 24 00.7**	**-0.9**
BI02				IAML		03 24 02.3	
	comp=N,150nm,0.5s						
CANA	**Caviahue**	**0.84**	**179**	*eP*	**Pn**	**03 23 47.5**	**-0.3**
CANA				*eS*	Sn	03 24 17.3	+11
ML02	**Panimavida**	**1.30**	**348**	*eP*	**Pn**	**03 23 51.7**	**+0.1**
ML02				*eS*	**Sn**	**03 24 13.7**	**+0.7**
ML02				IAML		03 24 14.9	
	comp=Z,256nm,0.3s						
BI05	**Punta Hualpn**	**1.71**	**279**	*eP*	**Pn**	**03 23 56.9**	**+1.2**
BI05				IAML		03 24 24.9	
	comp=Z,199nm,0.1s						
GO05	**Hualane**	**2.14**	**341**	*eP*	**Pn**	**03 24 01.1**	**+0.4**
GO05				*eS*	**Sn**	**03 24 29.5**	**+0.3**
GO05				IAML		03 24 30.9	
	comp=Z,140nm,0.1s						
BO02	**Sierra Bellavi**	**2.26**	**6**	*eP*	**Pn**	**03 24 02.5**	**+0.4**
BO02				*eS*	**Sn**	**03 24 35.6**	**+3.8**
BO02				IAML		03 24 36.1	
	comp=Z,213nm,0.2s						
GO06	**Curarrehue**	**2.56**	**187**	*eP*	**Pn**	**03 24 05.0**	**-0.7**
GO06				*eS*	**Sn**	**03 24 38.0**	**-0.3**
BO01	**Tunca**	**2.64**	**360**	*eP*	**Pn**	**03 24 06.5**	**-0.2**
BO01				*eS*	**Sn**	**03 24 39.4**	**-0.6**
BO01				IAML		03 24 40.2	
	comp=Z,106nm,0.6s						
BO01	**Tunca**	**2.64**	**360**	*eP*	**Pn**	**03 24 06.5**	**-0.2**
BO01				*eS*	**Sn**	**03 24 38.6**	**-1.5**
BO01				IAML		03 24 40.1	
	comp=E,215nm,0.4s						
LR03	**Panguipulli**	**2.77**	**201**	*eP*	**Pn**	**03 24 06.9**	**-1.3**
LR03				*eS*	**Sn**	**03 24 41.1**	**-1.7**
LR03				IAML		03 24 43.6	
	comp=Z,76nm,0.2s						
RFA	**San Rafael**	**3.11**	**44**	*eP*	**Pn**	**03 24 12.5**	**0.0**
RFA				*eS*	Sn	03 25 04.8	+14
MT01	**Popeta**	**3.17**	**357**	*eP*	**Pn**	**03 24 12.6**	**-0.8**
MT01				*eS*	**Sn**	**03 24 50.2**	**-1.7**
MT01				IAML		03 24 51.7	
	comp=Z,165nm,0.5s						
LR05	**Currie**	**3.26**	**192**	*eP*	**Pn**	**03 24 13.7**	**-0.7**
LR05				*eS*	**Sn**	**03 24 58.6**	**+4.7**
MT13	**San Alfonso**	**3.35**	**11**	*eP*	**Pn**	**03 24 16.4**	**+0.7**
MT13				*eS*	**Sn**	**03 24 56.3**	**+0.1**
MT13				IAML		03 24 58.6	
	comp=Z,85nm,0.3s						
MT03	**Universidad Ad**	**3.57**	**8**	*eP*	**Pn**	**03 24 18.7**	**+0.2**
MT03				*eS*	**Sn**	**03 25 00.6**	**-0.6**
MT03				IAML		03 25 02.1	
	comp=Z,150nm,0.1s						
MT05	**Renca**	**3.65**	**5**	*eP*	**Pn**	**03 24 19.7**	**+0.2**
MT05				*eS*	**Sn**	**03 25 02.9**	**-0.1**
MT05				IAML		03 25 03.6	
	comp=Z,146nm,0.4s						
PLCA	**Paso Flores**	**3.71**	**174**	*eP*	**Pn**	**03 24 19.8**	**-0.4**
PLCA				*eS*	**Sn**	**03 25 04.8**	**+0.5**
MT02	**Curacav**	**3.77**	**359**	*eP*	**Pn**	**03 24 20.4**	**-0.6**
MT02				*eS*	Sn	03 24 54.2	-12
MT02				IAML		03 25 08.7	
	comp=Z,54nm,0.4s						
VA03	**San Esteban**	**4.29**	**6**	*eP*	**Pn**	**03 24 27.6**	**-0.3**
VA03				*eS*	**Sn**	**03 25 16.6**	**-1.3**
VA03				IAML		03 25 22.9	
	comp=Z,59nm,0.4s						
AAGR	**Agrelo**	**4.36**	**26**	*eP*	**Pn**	**03 24 30.0**	**+1.2**

*VAO **25** 04:04:54.3±1.4, 31°.56S×69°.18W, h111km±4km, mb4.4, Presumed earthquake*
*SJA **25** 04:04:57.7±0.7, 31°.27S×68°.99W, h115km±2km, ML4.4, MW4.4*
*GFZ **25** 04:04:57.3±0.3, 31°.S±2°×6°.9W±°, h102km±3km, M4.7/24, mb4.7/24, Error ellipse: s-maj=8.6km s-min=3.4km az=98.4, confirmed*
*IDC **25** 04:04:58.6±0.4, 31°.28S×68°.83W, h115km±3km, mb4.1/11, mbtmp4.4/15, Error ellipse: s-maj=15.9km s-min=11.0km az=66.0*
*NEIC **25** 04:04:58.6±1.0, 31°.29S±0°.05×68°.97W±0°.07, h113km±4km, mb4.6/107, Error ellipse: s-maj=8.5km s-min=7.4km az=65.0*

ISC 25 04:04:57.9±0.4, **31°.28S**±0°.03×**68°.97W**±0°.03, **h114**km±3km, **h114**km:**pP-P, n294**, σ1°**23**/340, **mb4.6**/58, **2D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZON	**Zonda**	**0.36**	**137**	*eP*	**Pn**	**04 05 15.1**	**+0.5**
ZON				*eS*	**Sn**	**04 05 27.7**	**+0.6**
ZON				IAML		04 05 28.6	
	comp=Z,9μm,0.5s						
ZON	**Zonda**	**0.36**	**137**		**Pn**	**04 05 15.1**	**+0.5**
ZON				Sn	**Sn**	**04 05 27.4**	**+0.3**
RTLL	**Cerro Villicun**	**0.42**	**97**	*eP*	**Pn**	**04 05 15.2**	**+0.3**
RTLL				*eS*	**Sn**	**04 05 28.5**	**+0.9**
RTLL				IAML		04 05 29.8	
	comp=Z,15μm,0.2s						
SJA	**San Juan**	**0.42**	**125**	*eP*	**Pn**	**04 05 15.8**	**+0.9**
SJA				*eS*	**Sn**	**04 05 28.8**	**+1.2**
SJA				IAML		04 05 29.8	
	comp=Z,11μm,0.4s						
RTLS	**Leoncito**	**0.59**	**209**	*eP*	**Pn**	**04 05 16.9**	**+0.7**
RTLS				*eS*	**Sn**	**04 05 31.1**	**+1.1**
RTLS				IAML		04 05 32.3	
	comp=Z,18μm,0.3s						
ACCO	**Cerro Coronel**	**0.70**	**353**	*eP*	**Pn**	**04 05 17.7**	**+0.6**
ACCO				IAML		04 05 33.2	
	comp=Z,13μm,0.4s						
CFA	**Coronel Fontan**	**0.70**	**118**	P	**Pn**	**04 05 17.4**	**+0.6**
	comp=Z,1μm,0.3s,baz=303,slow=4.4						
CFA				S	**Sn**	**04 05 31.4**	**+0.5**
	comp=Z,993nm,0.3s,baz=9.7,slow=23,SNR=6.5						
CFA	**Coronel Fontan**	**0.70**	**118**	*eP*	**Pn**	**04 05 17.5**	**+0.7**
CFA				IAML		04 05 34.2	
	comp=Z,7μm,0.2s						
ACDV	**Cuesta del Vie**	**1.11**	**353**	*eP*	**Pn**	**04 05 21.6**	**+0.7**
ACDV				IAML		04 05 41.2	
	comp=Z,5μm,1.1s						
AROD	**Rodeo**	**1.19**	**338**	*eP*	**Pn**	**04 05 22.7**	**+0.8**
AVFE	**Valle Fertil**	**1.44**	**65**	*eP*	**Pn**	**04 05 19.6**	**-4.7**
AVFE				IAML		04 05 46.5	
	comp=Z,4μm,0.5s						
CO03	**El Pedregal**	**1.54**	**286**	*eP*	**Pn**	**04 05 26.3**	**+0.7**
CO03				*eS*	**Sn**	**04 05 48.1**	**+1.4**
CO03				IAML		04 05 48.4	
	comp=Z,5μm,0.8s						
CO03	**El Pedregal**	**1.54**	**286**		**Pn**	**04 05 26.3**	**+0.7**
CO03	**El Pedregal**	**1.54**	**286**	P	**Pn**	**04 05 26.4**	**+0.9**
ARCO	**CERRO ARCO**	**1.56**	**179**	*eP*	**Pn**	**04 05 27.1**	**+1.2**
ARCO				*eS*	**Sn**	**04 05 45.1**	**-1.9**
ARCO				IAML		04 05 53.2	
	comp=Z,5μm,0.7s						
CO01	**Juntas del Tor**	**1.62**	**323**	*eP*	**Pn**	**04 05 28.1**	**+1.4**
CO01				*eS*	**Sn**	**04 05 50.7**	**+2.1**
CO01				IAML		04 05 53.5	
	comp=Z,3μm,0.6s						
CO01	**Juntas del Tor**	**1.62**	**323**		**Pn**	**04 05 28.3**	**+1.5**
CO01	**Juntas del Tor**	**1.62**	**323**	P	**Pn**	**04 05 28.4**	**+1.7**
CO02	**Combarbal**	**1.74**	**272**	*eP*	**Pn**	**04 05 28.6**	**+0.5**
CO02				*eS*	**Sn**	**04 05 52.7**	**+1.7**
CO02				IAML		04 05 53.4	
	comp=Z,5μm,0.3s						
CO02	**Combarbal**	**1.74**	**272**		**Pn**	**04 05 28.5**	**+0.5**
CO02	**Combarbal**	**1.74**	**272**	P	**Pn**	**04 05 28.6**	**+0.5**
CO02				S	**Sn**	**04 05 51.2**	**+0.2**
AAGR	**Agrelo**	**1.80**	**176**	*eP*	**Pn**	**04 05 30.0**	**+1.2**
AAGR				*eS*	**Sn**	**04 05 55.4**	**+3.1**
AAGR				IAML		04 05 59.9	
	comp=Z,2μm,2.6s						
ACAN	**Cantantal**	**1.81**	**124**	*eP*	**Pn**	**04 05 30.1**	**+1.4**
ACAN				IAML		04 05 56.8	
	comp=Z,7μm,0.4s						
CO04	**Los Peladeros**	**1.87**	**246**		**Pn**	**04 05 30.2**	**+0.4**
CO04	**Los Peladeros**	**1.87**	**246**	P	**Pn**	**04 05 30.3**	**+0.5**
CO04				S	**Sn**	**04 05 54.7**	**+0.6**
GO04	**Tololo Observa**	**1.93**	**305**	*eP*	**Pn**	**04 05 30.6**	**+0.1**
GO04				*eS*	**Sn**	**04 05 55.2**	**0.0**
GO04				IAML		04 05 57.1	
	comp=Z,7μm,0.2s						
GO04	**Tololo Observa**	**1.93**	**305**		**Pn**	**04 05 30.5**	**+0.1**
GO04	**Tololo Observa**	**1.93**	**305**	P	**Pn**	**04 05 30.6**	**+0.1**
VA03	**San Esteban**	**2.00**	**222**	*eP*	**Pn**	**04 05 32.3**	**+1.1**
VA03				*eS*	**Sn**	**04 05 59.1**	**+2.5**
VA03				IAML		04 06 04.6	
	comp=Z,3μm,0.5s						
VA03	**San Esteban**	**2.00**	**222**		**Pn**	**04 05 32.3**	**+1.1**
VA03	**San Esteban**	**2.00**	**222**	P	**Pn**	**04 05 32.4**	**+1.2**
AVIZ	**Vizcacheras**	**2.22**	**170**	*eP*	**Pn**	**04 05 35.3**	**+1.3**
AVIZ				*eS*	**Sn**	**04 05 57.6**	**-4.0**
MT08	**Bocatoma Ro**	**2.33**	**202**	*eP*	**Pn**	**04 05 37.2**	**+1.6**
MT08				*eS*	**Sn**	**04 06 05.0**	**+0.6**
MT08				IAML		04 06 19.9	
	comp=Z,707nm,0.9s						
MT08	**Bocatoma Ro**	**2.33**	**202**		**Pn**	**04 05 37.0**	**+1.5**
MT04	**Ro Olivares**	**2.34**	**205**	*eP*	**Pn**	**04 05 37.4**	**+1.7**
MT04				*eS*	**Sn**	**04 06 04.8**	**+0.2**
MT04				IAML		04 06 20.1	
	comp=Z,754nm,0.9s						
PEL	**Peldehue**	**2.36**	**218**	*eP*	**Pn**	**04 05 36.3**	**+0.6**
PEL				*eS*	**Sn**	**04 06 06.8**	**+2.1**
PEL				IAML		04 06 09.2	
	comp=Z,2μm,0.3s						
PEL	**Peldehue**	**2.36**	**218**		**Pn**	**04 05 36.2**	**+0.4**
PEL	**Peldehue**	**2.36**	**218**	P	**Pn**	**04 05 36.1**	**+0.4**
CO06	**Fray Jorge**	**2.37**	**284**		**Pn**	**04 05 34.6**	**-1.2**
MT16	**CCHEN**	**2.51**	**211**		**Pn**	**04 05 38.8**	**+1.0**
ACLC	**CERRO LA CRUZ**	**2.54**	**44**	*eP*	**Pn**	**04 05 38.8**	**+0.5**
ACLC				IAML		04 06 37.5	
	comp=Z,770nm,0.4s						
MT03	**Universidad Ad**	**2.56**	**210**	*eP*	**Pn**	**04 05 39.5**	**+1.1**
MT03				*eS*	**Sn**	**04 06 08.1**	**-1.4**
MT03				IAML		04 06 13.8	
	comp=Z,1μm,0.2s						
MT03	**Universidad Ad**	**2.56**	**210**		**Pn**	**04 05 39.4**	**+1.0**
MT05	**Renca**	**2.58**	**215**	*eP*	**Pn**	**04 05 39.5**	**+0.9**
MT05				*eS*	**Sn**	**04 06 12.3**	**+2.4**
MT05				IAML		04 06 13.1	
	comp=Z,3μm,0.5s						
MT05	**Renca**	**2.58**	**215**		**Pn**	**04 05 39.2**	**+0.6**
VCA	**Vinchina**	**2.62**	**15**	*eP*	**Pn**	**04 05 40.3**	**+1.0**
VCA				*eS*	**Sn**	**04 06 12.8**	**+1.8**
VCA				IAML		04 06 14.7	
	comp=Z,2μm,0.7s						
AC05	**El Transito**	**2.69**	**335**	*eP*	**Pn**	**04 05 41.2**	**+1.1**
AC05				*eS*	**Sn**	**04 06 13.4**	**+0.9**
AC05				IAML		04 06 14.8	
	comp=Z,1μm,0.4s						
AC05	**El Transito**	**2.69**	**335**		**Pn**	**04 05 41.2**	**+1.1**
AC05	**El Transito**	**2.69**	**335**	P	**Pn**	**04 05 41.4**	**+1.3**
MT02	**Curacav**	**2.70**	**222**	*eP*	**Pn**	**04 05 39.7**	**-0.4**
MT02				*eS*	**Sn**	**04 06 12.9**	**+0.4**
MT02				IAML		04 06 17.9	
	comp=Z,928nm,0.5s						
MT02	**Curacav**	**2.70**	**222**		**Pn**	**04 05 39.5**	**-0.6**
MT13	**San Alfonso**	**2.70**	**204**	*eP*	**Pn**	**04 05 41.5**	**+1.3**
MT13				*eS*	**Sn**	**04 06 12.6**	**-0.1**
MT13				*eS*		04 06 17.5	
MT13				IAML		04 06 22.0	
	comp=Z,816nm,0.6s						
MT13	**San Alfonso**	**2.70**	**204**		**Pn**	**04 05 41.3**	**+1.1**
LCO	**Las Campanas**	**2.72**	**326**	*eP*	**Pn**	**04 05 40.5**	**-0.1**
LCO				*eS*	**Sn**	**04 06 13.6**	**+0.2**
LCO				IAML		04 06 18.1	
	comp=Z,3μm,0.5s						
LCO	**Las Campanas**	**2.72**	**326**		**Pn**	**04 05 40.5**	**-0.1**
VA01	**Torpederas**	**2.86**	**232**	*eP*	**Pn**	**04 05 41.7**	**-0.5**
VA01				IAML		04 06 24.4	
	comp=Z,1μm,0.5s						
VA01	**Torpederas**	**2.86**	**232**		**Pn**	**04 05 41.3**	**-0.9**
VA01	**Torpederas**	**2.86**	**232**	P	**Pn**	**04 05 41.7**	**-0.5**
MRA	**San Martin**	**2.99**	**113**	*eP*	**Pn**	**04 05 45.0**	**+1.0**
MRA				*eS*	**Sn**	**04 06 20.0**	**+0.5**
MRA				IAML		04 06 21.6	
	comp=Z,930nm,0.4s						
MT09	**Talagante**	**3.02**	**214**		**Pn**	**04 05 44.0**	**-0.4**
BO04	**La Punta**	**3.04**	**207**		**Pn**	**04 05 45.1**	**+0.5**
MT01	**Popeta**	**3.22**	**216**	*eP*	**Pn**	**04 05 45.9**	**-1.0**
MT01				*eS*	**Sn**	**04 06 24.2**	**-0.5**
MT01				IAML		04 06 26.5	
	comp=Z,853nm,0.1s						
MT01	**Popeta**	**3.22**	**216**		**Pn**	**04 05 45.8**	**-1.1**
VA05	**Santo Domingo**	**3.26**	**223**		**Pn**	**04 05 46.3**	**-1.1**
VA05	**Santo Domingo**	**3.26**	**223**	P	**Pn**	**04 05 46.8**	**-0.6**
TINO	**Tinogasta**	**3.43**	**21**	*eP*	**Pn**	**04 05 50.7**	**+0.8**
TINO				*eS*	Sn	04 06 13.5	-17
TINO				IAML		04 06 34.0	
	comp=Z,936nm,0.4s						
RFA	**San Rafael**	**3.50**	**173**	*eP*	**Pn**	**04 05 50.7**	**-0.1**
RFA				*eP*		04 05 50.8	
RFA				*eS*	Sn	04 06 18.7	-13
RFA				IAML		04 06 33.0	
	comp=Z,992nm,1.1s						
AC04	**Llanos de Chal**	**3.57**	**329**	*eP*	**Pn**	**04 05 50.9**	**-0.8**
AC04				*eS*	Sn	04 06 23.5	-10
AC04				IAML		04 07 03.6	
	comp=Z,808nm,0.4s						
AC04	**Llanos de Chal**	**3.57**	**329**		**Pn**	**04 05 50.7**	**-1.0**
AC04	**Llanos de Chal**	**3.57**	**329**	P	**Pn**	**04 05 50.9**	**-0.8**
BO01	**Tunca**	**3.58**	**209**	*eP*	**Pn**	**04 05 50.7**	**-1.0**
BO01				*eP*		04 05 50.7	
BO01				*eS*	**Sn**	**04 06 33.8**	**+0.5**
BO01				IAML		04 06 40.1	
	comp=Z,386nm,0.8s						
BO01	**Tunca**	**3.58**	**209**		**Pn**	**04 05 50.4**	**-1.3**
BO01	**Tunca**	**3.58**	**209**	P	**Pn**	**04 05 50.8**	**-1.0**
TCA	**Tanti**	**3.74**	**92**	*eP*	**Pn**	**04 05 54.3**	**+0.3**
TCA				*eS*	**Sn**	**04 06 35.8**	**-1.6**
TCA				IAML		04 06 37.1	
	comp=Z,796nm,0.7s						
BO02	**Sierra Bellavi**	**3.82**	**203**	*eP*	**Pn**	**04 05 55.1**	**+0.1**
BO02				*eP*		04 05 55.1	
BO02				*eS*	Sn	04 06 21.0	-18
BO02				IAML		04 06 42.9	
	comp=Z,515nm,1.0s						
BO02	**Sierra Bellavi**	**3.82**	**203**		**Pn**	**04 05 55.0**	**+0.1**
BO02	**Sierra Bellavi**	**3.82**	**203**	P	**Pn**	**04 05 55.0**	**+0.1**
GO03	**Copiapo**	**3.84**	**343**	*eP*	**Pn**	**04 05 55.1**	**-0.2**
GO03				*eS*	**Sn**	**04 06 41.5**	**+1.8**
GO03				IAML		04 06 44.4	
	comp=Z,537nm,0.4s						
GO03	**Copiapo**	**3.84**	**343**		**Pn**	**04 05 54.7**	**-0.6**
GO03	**Copiapo**	**3.84**	**343**	P	**Pn**	**04 05 55.1**	**-0.2**
CYA	**Choya**	**3.94**	**45**	*eP*	**Pn**	**04 05 56.2**	**-0.5**
CYA				*eS*	**Sn**	**04 06 40.9**	**-1.3**
CYA				IAML		04 06 40.9	
	comp=Z,240nm,0.5s						
AC06	**Mina Casimiro**	**4.09**	**342**		**Pn**	**04 05 57.9**	**-0.8**
AC02	**Maricunga**	**4.43**	**358**	*eP*	**Pn**	**04 06 04.5**	**+0.8**
AC02				*eS*	**Sn**	**04 06 55.3**	**+0.7**
AC02				IAML		04 06 57.0	
	comp=Z,237nm,1.1s						
AC02	**Maricunga**	**4.43**	**358**		**Pn**	**04 06 04.1**	**+0.4**
AC02	**Maricunga**	**4.43**	**358**	P	**Pn**	**04 06 04.5**	**+0.8**
GO05	**Hualane**	**4.47**	**213**		**Pn**	**04 06 00.9**	**-2.7**
GO05	**Hualane**	**4.47**	**213**	P	**Pn**	**04 06 02.1**	**-1.6**
ML02	**Panimavida**	**4.92**	**204**	*eP*	**Pn**	**04 06 08.4**	**-1.2**
ML02				IAML		04 07 06.3	
	comp=Z,231nm,0.8s						
ML02	**Panimavida**	**4.92**	**204**		**Pn**	**04 06 07.7**	**-2.0**
ML02	**Panimavida**	**4.92**	**204**	P	**Pn**	**04 06 08.0**	**-1.6**
AC01	**Pan de Azucar**	**5.31**	**344**	*eP*	**Pn**	**04 06 13.9**	**-1.1**
AC01				*eS*	**Sn**	**04 07 14.2**	**-0.9**
AC01				IAML		04 07 26.4	
	comp=Z,200nm,0.6s						
AC01	**Pan de Azucar**	**5.31**	**344**		**Pn**	**04 06 13.6**	**-1.5**

PTLB	Pontes e Lacer	18.14	32	eP		Pn	04 09 01.5	-1.1
PCMB	Pacaembu	18.53	63	P		P	04 09 02.8	-2.8
	comp=Z,25nm,1.0s							
PCMB	Pacaembu	18.53	63	eP		P	04 09 05.7	+0.1
PP1B	Ponte de Pedra	18.68	46	eP		Pn	04 09 07.9	-1.1
PP1B				epP		pP	04 09 27.5	-0.9
SALV	Santo Antonio	19.52	41	eP		P	04 09 16.7	+0.2
VILB	Vilhena	19.95	26	P		P	04 09 21.4	+0.2
VILB	Vilhena	19.95	26	eP		P	04 09 20.8	-0.3
VAO	Valinhos	21.22	73	P		P	04 09 34.8	0.0
VAO				IAmb	IAmb		04 09 36.3	
	comp=Z,16nm,1.1s							
EFI	East Falkland	21.91	162	P		P	04 09 40.9	-0.7
EFI				IAmb	IAmb		04 10 09.9	
	comp=Z,76nm,1.4s							
PDRB	Porto dos Gac	22.61	33	eP		P	04 09 48.9	-0.3
CZSB	Cruzeiro do Su	23.69	351	eP		P	04 09 59.1	-0.3
CLDB	Colider	23.69	34	P		P	04 09 59.6	+0.2
	comp=Z,15nm,1.3s							
CLDB	Colider	23.69	34	eP		P	04 09 58.9	-0.5
CLDB				epP		pP	04 10 22.2	-0.8
BDFB	Brasilia	24.66	56	P		P	04 10 06.8	-1.6
	comp=Z,5.7nm,1.0s,baz=192,slow=11,SNR=4.9							
	comp=Z,5.7nm,1.0s							
BDFB	Brasilia	24.66	56	IAmb	IAmb		04 10 50.7	
	comp=Z,13nm,1.0s							
MACA	Manacapuru-AM	29.04	17	P		P	04 10 46.9	-0.5
MACA				IAmb	IAmb		04 10 47.7	
	comp=Z,8.1nm,0.6s							
BOAV	Boa Vista	34.44	15	eP		P	04 11 34.5	-0.2
RUSC	La Rusia	37.17	353	P		P	04 11 59.1	+0.5
SJCC	San Jacinto, C	41.37	351	P		P	04 12 33.6	+0.6
OBIP	Obispado Ponce	49.09	3	P		P	04 13 33.5	-0.3
OBIP				IAmb	IAmb		04 13 34.9	
	comp=Z,18nm,1.2s							
CELP	Cerrillos	49.13	3	P		P	04 13 32.9	-1.2
VNA3	Neumayer Olymp	50.93	159	⇓P		P	04 13 48.1	+1.0
	comp=Z,4.5nm,0.7s							
VNA3	Neumayer Olymp	50.93	159	P		P	04 13 48.3	+1.2
	comp=Z,11nm,0.8s							
VNA2	Neumayer--Watz	51.54	158	⇓P		P	04 13 52.6	+0.9
	comp=Z,6.5nm,0.5s,baz=280,slow=7.9							
VNA2	Neumayer--Watz	51.54	158	P		P	04 13 52.8	+1.2
	comp=Z,12nm,0.9s							
SNAA	Sanae	53.15	159	P		P	04 14 04.3	+0.6
	comp=Z,56nm,0.5s							
SNAA	Sanae	53.15	159	P		P	04 14 03.2	-0.4
	comp=Z,3.6nm,0.8s,baz=270,slow=8.4,SNR=6.1							
	comp=Z,3.6nm,0.8s							
SNAA	Sanae	53.15	159	P		P	04 14 04.2	+0.6
SNAA				IAmb	IAmb		04 14 46.5	
	comp=Z,9.4nm,1.0s							
SNAA	Sanae	53.15	159	P		P	04 14 04.6	+1.0
	comp=Z,5.1nm,1.0s							
TEIG	Tepich	54.47	338	P		P	04 14 13.9	+0.3
TEIG	Tepich	54.47	338	P		P	04 14 14.3	+0.6
	comp=Z,34nm,0.9s							
TROLL	Troll, Antarti	54.86	159	P		P	04 14 16.4	+0.3
	comp=Z,221nm,0.8s							
QSPA	South Pole Qui	58.95	180	P		P	04 14 45.9	+0.8
	comp=Z,5.0nm,0.6s,baz=164,slow=1.3,SNR=32							
QSPA				pP		pP	04 15 14.5	+1.1
	comp=Z,10nm,0.9s,baz=109,slow=2.1,SNR=8.8							
	comp=Z,5.0nm,0.6s							
QSPA	South Pole Qui	58.95	180	P		P	04 14 45.7	+0.7
QSPA	South Pole Qui	58.95	180	P		P	04 14 46.6	+1.6
	comp=Z,17nm,2.1s							
GOGA	Godfrey	65.79	347	P		P	04 15 30.7	0.0
	comp=Z,18nm,1.1s							
HNDO	Hondo	67.00	331	P		P	04 15 39.1	+0.6
HNDO				IAmb	IAmb		04 15 40.9	
	comp=Z,9.2nm,0.7s							
143A	Socs Landing,	67.08	340	P		P	04 15 40.1	+1.1
X51A	Calhoun	67.19	346	P		P	04 15 40.0	+0.4
X48A	Hartselle	67.57	344			P	04 15 42.5	+0.6
X48A				IAmb	IAmb		04 15 43.2	
	comp=Z,12nm,0.7s							
Y45A	Yeager Farm, C	67.64	342	P		P	04 15 43.1	+0.7
W50A	Signal Mountai	67.89	346	P		P	04 15 44.7	+0.6
CPCT	Cooper Cave	67.97	346	P		P	04 15 44.5	+0.1
CPCT				IAmb	IAmb		04 15 45.5	
	comp=Z,11nm,1.0s							
SWET	Sewanee	68.04	345			P	04 15 45.4	+0.4
BRDY	Brady	68.44	333			P	04 15 48.4	+0.9
BRDY				IAmb	IAmb		04 15 49.1	
	comp=Z,7.5nm,1.1s							
SAND	Sanderson	68.57	329			P	04 15 49.4	+1.0
SAND				IAmb	IAmb		04 15 50.7	
	comp=Z,13nm,1.2s							
TXAR	Lajitas Array	68.73	328	P		P	04 15 50.6	+1.1
	comp=Z,1.8nm,0.6s,baz=153,slow=8.6,SNR=19							
TXAR				pP		pP	04 16 18.9	+0.2
	comp=Z,1.0nm,0.8s,baz=148,slow=7.4,SNR=3.7							
	comp=Z,1.8nm,0.6s							
TXAR	Lajitas Array	68.73	328	P		P	04 15 50.3	+0.8
TX31	Lajitas Ar. Si	68.73	328			P	04 15 50.5	+1.0
V48A	Smith Brothers	68.75	344	P		P	04 15 49.6	+0.3
CLTN	Cedars of Leba	68.97	345	P		P	04 15 51.4	+0.7
CLTN				IAmb	IAmb		04 15 51.8	
	comp=Z,6.0nm,0.9s							
OZNA	Ozona	68.98	331			P	04 15 52.1	+1.2
OZNA				IAmb	IAmb		04 15 52.4	
	comp=Z,9.1nm,0.8s							
WVT	Waverly	69.36	344			P	04 15 53.3	+0.2
WVT	Waverly	69.36	344	P		P	04 15 53.3	+0.2
	comp=Z,41nm,0.7s							
TMB01	Midkiff	70.03	330			P	04 15 57.6	+0.2
TMB01				IAmb	IAmb		04 16 28.4	
	comp=Z,5.9nm,1.0s							
MNHN	Monahans	70.04	330			P	04 15 58.3	+0.9
MNHN				IAmb	IAmb		04 15 59.4	
	comp=Z,9.8nm,0.8s							
TPB01	Permian Basin	70.15	329	P		P	04 15 59.8	+1.6
TPB01				IAmb	IAmb		04 15 60.0	
	comp=Z,6.5nm,0.7s							
LCAR	Lake Charles	70.16	341			P	04 15 58.2	+0.2
PARMO	Parma	70.34	342	P		P	04 16 00.4	+1.3
ODSA	Odessa	70.62	330			P	04 16 01.7	+0.7
PBMO	Poplar Bluff	70.63	342	P		P	04 16 01.2	+0.4
APMT	Aspermont	70.68	333			P	04 16 02.0	+0.8
APMT				IAmb	IAmb		04 16 02.9	
	comp=Z,11nm,0.6s							
WCI	Wyandotte Cave	71.02	346	P		P	04 16 02.9	-0.3
TPB28		71.09	328	P		P	04 16 04.4	+0.5
TPB28				IAmb	IAmb		04 16 27.7	
	comp=Z,30nm,0.4s							
TPB11	China Draw	71.11	329	P		P	04 16 05.2	+1.3
TPB11				IAmb	IAmb		04 16 06.8	
	comp=Z,14nm,0.9s							
HHAR	Hobbs	71.17	339	P		P	04 16 04.6	+0.4
HHAR				IAmb	IAmb		04 16 05.5	
	comp=Z,12nm,0.9s							
S44A	Carbondale	71.19	343	P		P	04 16 04.2	0.0
S44A				IAmb	IAmb		04 16 25.7	
	comp=Z,20nm,1.3s							
TUL3	Leonard	71.43	337	P		P	04 16 06.4	+0.7
TUL3				IAmb	IAmb		04 16 35.9	
	comp=Z,9.6nm,1.1s							
MNTX	Cornudas Mount	71.51	328			P	04 16 06.6	+0.3
MNTX				IAmb	IAmb		04 16 07.2	
	comp=Z,4.7nm,0.8s							
MNTX	Cornudas Mount	71.51	328	P		P	04 16 06.3	0.0
FVM	French Village	71.76	342			P	04 16 07.9	+0.3
DBIC	Dimbokro	71.84	70	P		P	04 16 09.1	+0.4
	comp=Z,5.8nm,0.7s,baz=231,slow=7.2,SNR=6.9							
	comp=Z,5.8nm,0.7s							
DBIC	Dimbokro	71.84	70	P		P	04 16 08.8	+0.2
DBIC				IAmb	IAmb		04 16 44.8	
	comp=Z,25nm,1.5s							
DBIC	Dimbokro	71.84	70	P		P	04 16 09.2	+0.6
	comp=Z,9.8nm,1.2s							
S39A	Bolivar	72.29	340			P	04 16 11.6	+0.8
MSTX	Muleshoe	72.31	331			P	04 16 12.0	+0.9
MSTX				IAmb	IAmb		04 16 13.1	
	comp=Z,16nm,0.9s							
O49A	Covington	72.52	348			P	04 16 12.6	+0.5
O49A				IAmb	IAmb		04 16 12.9	
	comp=Z,20nm,1.1s							
R40A	Maddies Statio	72.55	341	P		P	04 16 12.6	+0.3
P40A	Paris	73.64	342			P	04 16 19.2	+0.5
P38A	Dawn	74.15	341			P	04 16 21.4	-0.3
P38A				IAmb	IAmb		04 16 22.4	
	comp=Z,8.8nm,0.8s							
ALQ	Albuquerque	74.72	329			P	04 16 26.6	+1.2
ALQ	Albuquerque	74.72	329			P	04 16 26.4	+1.0
ALQ				IAmb	IAmb		04 16 27.7	
	comp=Z,3.8nm,0.9s							
ANMO	Albuquerque	74.73	329			P	04 16 26.3	+0.9
ANMO	Albuquerque	74.73	329	P		P	04 16 26.8	+1.4
TASM	ASL Pad, Albuq	74.73	329	P		P	04 16 25.8	+0.4
TASM	ASL Pad, Albuq	74.73	329	P		P	04 16 26.1	+0.7
TASM				IAmb	IAmb		04 16 27.7	
	comp=Z,3.6nm,0.9s							
MAW	Mawson	75.02	163	P		P	04 16 26.8	+0.4
	comp=Z,2.8nm,0.8s,baz=209,slow=5.7,SNR=6.8							
	comp=Z,2.8nm,0.8s							
MAW	Mawson	75.02	163	P		P	04 16 26.8	+0.4
MAW	Mawson	75.02	163	P		P	04 16 27.0	+0.5
	comp=Z,1.2nm,2.9s							
N38A	Joes South For	75.15	341	P		P	04 16 28.9	+1.5
N38A				IAmb	IAmb		04 17 06.9	
	comp=Z,8.8nm,1.1s							
T25A	Trinidad	75.71	331			P	04 16 31.2	+0.1
T25A				IAmb	IAmb		04 16 33.3	
	comp=Z,10nm,1.0s							
L40A	Anamosa	75.81	343			P	04 16 31.5	+0.4
X16A	Lo Mia Camp, P	76.62	325			P	04 16 37.4	+1.1
SDCO	Great Sand Dun	76.68	331	P		P	04 16 37.4	+0.8
WUAZ	Wupatki	77.47	326			P	04 16 41.8	+0.8
MVCO	Mesa Verde	77.52	329			P	04 16 41.5	+0.3
MVCO	Mesa Verde	77.52	329	P		P	04 16 42.6	+1.4
BC3	Big Chuckawall	78.07	322	P		P	04 16 45.1	+0.9
BC3				IAmb	IAmb		04 16 46.8	
	comp=Z,4.8nm,0.9s							
PV13	Radium Mtn., P	78.45	329	P		P	04 16 47.3	+1.0
PV13				IAmb	IAmb		04 16 48.8	
	comp=Z,11nm,1.0s							
PV05	Paradox Valley	78.51	329	P		P	04 16 47.2	+0.6
PV05				IAmb	IAmb		04 16 49.0	
	comp=Z,17nm,1.2s							
PFO	Pinyon Flats O	78.58	321	P		P	04 16 47.4	+0.3
ECSD	EROS Data Cent	78.83	340			P	04 16 48.4	+0.4
ECSD				IAmb	IAmb		04 16 49.3	
	comp=Z,11nm,0.8s							
ECSD	EROS Data Cent	78.83	340	P		P	04 16 48.5	+0.4
	comp=Z,25nm,0.9s							
BOSA	Boshof	79.00	117	P		P	04 16 50.2	+0.6
	comp=Z,6.6nm,0.9s,baz=153,slow=2.7,SNR=6.1							
	comp=Z,6.6nm,0.9s							
BOSA	Boshof	79.00	117	P		P	04 16 49.5	-0.1
BOSA				IAmb	IAmb		04 16 51.0	
	comp=Z,9.6nm,0.9s							
BOSA	Boshof	79.00	117	P		P	04 16 50.1	+0.5
	comp=Z,11nm,2.1s							
HMU	Henry Mountain	79.14	328			P	04 16 50.7	+0.6
KNB	Kanab	79.37	326			P	04 16 51.7	+0.3
KNB				IAmb	IAmb		04 16 54.3	
	comp=Z,12nm,1.1s							
SZCU	Shurtz Canyon	79.96	326	P		P	04 16 55.5	+0.9
SRU	San Rafael Swe	79.99	328	P		P	04 16 55.4	+0.8
SRU				IAmb	IAmb		04 16 56.7	
	comp=Z,4.9nm,0.8s							
CCUT	Cedar City	80.06	326			P	04 16 55.9	+0.8
CCUT				IAmb	IAmb		04 16 58.3	
	comp=Z,6.5nm,1.1s							
P18A	Preston Nutter	80.29	329	P		P	04 16 57.1	+0.7
RDMU	Red Mountain	80.77	330	P		P	04 16 59.5	+0.7
RDMU				IAmb	IAmb		04 17 00.8	
	comp=Z,7.0nm,0.9s							
PRN	Pahroc Range	80.77	324			P	04 16 59.8	+1.0
PRN				IAmb	IAmb		04 17 01.9	
	comp=Z,9.8nm,1.1s							
TOA0	Torodi Ar. Sit	80.83	69	P		P	04 16 59.5	0.0
TORD	Torodi Ar. Bea	80.83	69	P		P	04 17 00.3	+0.9
	comp=Z,4.5nm,0.8s,baz=251,slow=4.5,SNR=6.8							
TORD				pP		pP	04 17 29.2	+0.3
	comp=Z,1.4nm,0.4s,baz=228,slow=1.7,SNR=2.1							
	comp=Z,4.5nm,0.8s							
TPNV	Topopah Spring	81.02	323	P		P	04 17 00.5	+0.3
PSUT	Pine Spring	81.07	326	P		P	04 17 00.8	+0.3
K22A	Casper	81.26	333			P	04 17 02.1	+0.8
K22A				IAmb	IAmb		04 17 03.7	
	comp=Z,10.0nm,1.0s							
EYMN	Ely	81.42	345	P		P	04 17 02.0	+0.2
	comp=Z,19nm,1.4s							
GMN	Gold Mountain	81.81	323	P		P	04 17 05.0	+0.5
DUG	Dugway, Tooele	81.91	328	P		P	04 17 05.9	+1.2
	comp=Z,3.8nm,1.5s							
TPH	Tonopah	82.38	324	P		P	04 17 07.4	+0.1
PD31	Pinedale Array	82.58	331	P		P	04 17 08.7	+0.4
PDAR	Pinedale Array	82.58	331	P		P	04 17 08.8	+0.6
	comp=Z,1.6nm,0.8s,baz=143,slow=5.5,SNR=12							
PDAR				pP		pP	04 17 38.6	+0.1
	comp=Z,0.5nm,0.6s,baz=132,slow=8.0,SNR=3.5							
	comp=Z,1.6nm,0.8s							
PDAR	Pinedale Array	82.58	331	P		P	04 17 08.4	+0.2
AGMN	Agassiz Nation	82.81	342	P		P	04 17 09.3	+0.3
NVAR	Mina Array Bea	83.20	323	P		P	04 17 12.4	+0.8
	comp=Z,1.8nm,0.8s,baz=163,slow=6.1,SNR=13							
NVAR				pP		pP	04 17 42.1	+0.2
	comp=Z,0.6nm,0.7s,baz=157,slow=5.5,SNR=2.9							
	comp=Z,1.8nm,0.8s							
NVAR	Mina Array Bea	83.20	323	P		P	04 17 11.9	+0.3
ELK	Elko	83.47	326	P		P	04 17 13.6	+0.7
PNTR	Pine Nut	84.37	323	P		P	04 17 18.2	+0.7
PNTR				IAmb	IAmb		04 17 20.2	
	comp=Z,7.8nm,0.9s							
ULM	Lac du Bonnet	84.61	343	P		P	04 17 17.9	-0.3
	comp=Z,5.4nm,0.8s,baz=174,slow=5.2,SNR=7.4							
	comp=Z,5.4nm,0.8s							
ULM	Lac du Bonnet	84.61	343	P		P	04 17 18.0	-0.1
ULM				IAmb	IAmb		04 17 53.1	
	comp=Z,6.1nm,1.1s							
PAHR	Pah Rah Range	84.72	323			P	04 17 20.1	+0.9
PAHR				IAmb	IAmb		04 17 21.9	
	comp=Z,13nm,1.4s							
HLID	Hailey	85.31	329			P	04 17 22.9	+0.8
HLID				IAmb	IAmb		04 17 24.5	
	comp=Z,11nm,1.2s							
HLID	Hailey	85.31	329	P		P	04 17 24.0	+1.9
BEKR	Beckworth	85.34	323	P		P	04 17 23.6	+1.3
BCYI	Bear Canyon	85.46	330			P	04 17 23.7	+0.9
MCMT	McKenzie Canyo	85.64	330	P		P	04 17 24.6	+0.8
J08A	Circle Bar Ran	87.02	326	P		P	04 17 31.1	+0.7
PLID	Pearl Lake	87.21	329			P	04 17 32.3	+0.8
PLID				IAmb	IAmb		04 17 33.4	
	comp=Z,5.9nm,0.8s							
K05A	Summer Lake	87.72	325	P		P	04 17 34.7	+0.8
PINE	Pine Mountain	88.53	325			P	04 17 37.8	+0.1
PINE				IAmb	IAmb		04 17 40.3	
	comp=Z,9.6nm,0.8s							
ASAR	Alice Springs	121.14	205	PKP		PKPdf	04 23 37.1	-0.7
	comp=Z,0.6nm,0.6s,baz=180,slow=2.7,SNR=6.7							
ASAR	Alice Springs	121.14	205			PKPdf	04 23 37.4	-0.4
WRA	Warramunga Arr	124.37	207	PKP		PKPdf	04 23 43.9	-0.2
	comp=Z,1.1nm,0.6s,baz=157,slow=1.9,SNR=20							
WRA				pPKP		pPKPdf	04 24 16.9	+1.3
	comp=Z,0.7nm,0.5s,baz=170,slow=1.6,SNR=4.2							
WRA	Warramunga Arr	124.37	207			PKPdf	04 23 43.6	-0.4
BVAR	Borovoye Array	143.53	41	PKP		PKPdf	04 24 20.3	+1.7
	comp=Z,0.8nm,0.5s,baz=289,slow=4.5,SNR=3.6							
KURBB	Kurchatov Arra	149.12	42	PKPbc		PKPbc	04 24 33.2	+0.8
	comp=Z,3.4nm,0.7s,baz=301,slow=3.5,SNR=23							
KURBB				PKPab		PKPab	04 24 37.6	+0.5
	comp=Z,2.9nm,0.8s,baz=301,slow=3.9,SNR=9.9							
KURBB				pPKPbc		pPKPbc	04 25 03.4	-0.3
	comp=Z,1.3nm,0.7s,baz=297,slow=3.2,SNR=3.8							
KURK	Kurchatov	149.13	42			PKPbc	04 24 33.1	+0.6
KSH2	Kashi	150.12	65	PKPbc		PKiKP	04 24 36.6	+0.3
KSH2				sPKP		sPKPdf	04 25 12.9	-1.3
ZALV	Zalesovo Beam	150.55	32	PKPbc		PKPbc	04 24 36.4	+0.7
	comp=Z,12nm,0.6s,baz=302,slow=2.9,SNR=47							
ZALV				pPKPbc		pPKPbc	04 25 07.2	-0.1
	comp=Z,3.9nm,0.4s,baz=321,slow=3.4,SNR=5.5							
ZALV	Zalesovo Beam	150.55	32			PKPbc	04 24 36.2	+0.4
MKAR	Makanchi Array	153.02	47	PKPbc		PKPbc	04 24 42.0	+0.3
	comp=Z,3.8nm,0.8s,baz=308,slow=2.4,SNR=19							
MKAR				PKPab		PKPab	04 24 54.1	+0.5
	comp=Z,3.7nm,0.7s,baz=298,slow=4.2,SNR=14							
MKAR				pPKPbc		pPKPbc	04 25 12.8	-0.3
	comp=Z,2.2nm,0.7s,baz=321,slow=3.4,SNR=4.2							
MKAR	Makanchi Array	153.02	47			PKPbc	04 24 41.9	+0.2
MKAR						PKPab	04 24 54.0	+0.4
SONM	Songino Array	163.09	11	PKPab		PKPab	04 25 37.6	+0.5
	comp=Z,0.3nm,0.8s,baz=311,slow=1.8,SNR=5.4							
SONM				pPKPab		pPKPab	04 26 07.1	-0.4
	comp=Z,0.6nm,0.7s,baz=345,slow=5.2,SNR=3.2							
SONM	Songino Array	163.09	11			PKPab	04 25 38.0	+0.9
HHC	Hu-ho-hao-te	170.44	358	eP		PKPdf	04 24 53.0	+0.6

*IDC **25** 04:20:05.9±1.8,0.˚85S×127.˚69E,h0km,mb3.9/5, mbtmp4.0/5,MS2.8/7,Error ellipse: s-maj=171.4km s-min=14.1km az=69.0*

*NEIC **25** 04:20:08.9±1.6,0.˚69S±0.˚07×127.˚83E±0.˚09,h10km±1km, mb4.2/10,Error ellipse: s-maj=15.4km s-min=10.2km az=61.0*

*DJA **25** 04:20:10.7±0.2,1.˚5S±2.˚×12.˚8E±.˚,h10km,M4.3/12,mb4.6/7, mb4.6/7,mB5.3/3,mB5.3/3,ML3.7/4,MLv3.9/8,MLv4.1/12, Mw(mB)4.8/3,Mw(mB)4.8/3*

ISC 25 04:20:08.3±0.6, 0.˚77S±0.˚05×127.˚78E±0.˚09, h10km, n38, σ1°59/34, mb4.4/9, MS2.9/4, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	Ternate	1.59	345		Pb	04 20 37.4	-0.3
TNTI	Ternate	1.59	345	P	Pb	04 20 37.6	-0.1
TNTI				S	Sg	04 20 59.6	+0.2
TNTI				AML	AML		
TNTI				AML	AML		
TNTI				AML	AML		
SANI	Sanana	2.20	235	P	Pn	04 20 44.8	-0.1
SANI				AML	AML		
NLAI	Namlea	2.54	195	P	Pn	04 20 50.6	+0.9
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
GAMI	Galela, Maluku	2.59	0	P	Pb	04 20 53.4	-1.5
GAMI				AML	AML		
MSAI	Masohi	2.81	156	P	Pb	04 20 57.9	-0.6
MSAI				AML	AML		
SIJI	Sorong	3.49	92	LR	LR	04 22 49.4	
	comp=Z,218nm,20.3s,baz=32,slow=46						
KMSI	Cibinong	4.03	289	P	Pn	04 21 10.6	+0.5
FAKI	Fak Fak	4.95	116		Pn	04 21 25.9	+3.1
FAKI	Fak Fak	4.95	116	P	Pn	04 21 25.7	+2.9
	0.2nm633nm633nm64nm,1.0s,64nm,1.0s						
FAKI				AML	AML		
LUWI	Luwuk	5.01	267		Pn	04 21 24.7	+1.1
KDI	Kendari	6.05	238	P	Pn	04 21 37.8	-0.1
TOLI2	Tolitoli	7.24	285	Pn	Pn	04 21 55.0	+0.7
DAV	Davao City (W)	8.09	344	LR	LR	04 25 36.3	
	comp=Z,46nm,19.5s,baz=9.0,slow=41						
KAPI	Kappang	9.06	242	LR	LR	04 25 55.3	
	comp=Z,33nm,19.6s,baz=90,slow=39						
KAPI	Kappang	9.06	242		Pn	04 22 20.9	+1.7
MTN	Manton Dam	12.45	165	Pn	Pn	04 23 06.3	+0.6
FITZ	Fitzroy Crossi	17.35	187	Pn	Pn	04 24 11.3	+0.6
WB0	Warramunga Arr	19.96	161	IAmb	IAmb	04 24 41.9	
	comp=Z,7.7nm,1.1s						
WB0				P	P	04 24 42.2	+1.3
WRA	Warramunga Arr	20.11	162	P	P	04 24 42.5	+0.1
	comp=Z,1.4nm,0.7s,baz=345,slow=13,SNR=10						
WRA				S	S	04 28 22.2	-6.3
	comp=Z,0.5nm,0.9s,baz=345,slow=22,SNR=1.7						
	comp=Z,1.4nm,0.7s						
WRA	Warramunga Arr	20.11	162	P	P	04 24 43.6	+1.2
WR8	Warramunga Arr	20.17	161	P	P	04 24 43.0	-0.1
WR8				IAmb	IAmb	04 25 04.1	
	comp=Z,6.7nm,1.2s						
PMG	Port Moresby	21.11	115	LR	LR	04 34 27.6	
	comp=Z,93nm,19.0s,baz=82,slow=41						
AS31	Alice Springs	23.52	166		P	04 25 19.7	+0.9
AS31				IAmb	IAmb	04 25 24.8	
	comp=Z,2.0nm,0.9s						
ASAR	Alice Springs	23.52	166	P	P	04 25 19.0	+0.2
	comp=Z,4.8nm,0.8s,baz=344,slow=10,SNR=43						
ASAR				S	S	04 29 31.9	-1.0
	comp=Z,1.6nm,1.0s,baz=347,slow=21,SNR=11						
	comp=Z,4.8nm,0.8s						
ASAR	Alice Springs	23.52	166	P	P	04 25 19.2	+0.4
CTA	Charters Tower	26.37	138	LR	LR	04 38 32.2	
	comp=Z,65nm,18.2s,baz=42,slow=42						
BBOO	Buckleboo	32.81	167	P	P	04 26 43.4	+1.4
BBOO				IAmb	IAmb	04 26 44.2	
	comp=Z,7.7nm,0.9s						
EIDS	Eidsvold	33.23	139	P	P	04 26 44.3	-1.4
EIDS				IAmb	IAmb	04 27 13.8	
	comp=Z,5.0nm,1.1s						
KSRS	Korea Array	38.03	0	LR	LR	04 44 44.7	
	comp=Z,5.5nm,20.6s,baz=215,slow=39						
TAU	Tasmania Unive	45.46	160	P	P	04 28 27.5	-0.1
EVN	Everest	48.57	309	P	P	04 28 53.0	+0.1
RPZ	Rata Peaks	57.52	144	LR	LR	04 55 23.5	
	comp=Z,5.0nm,18.8s,baz=288,slow=37						
MKAR	Makanchi Array	61.84	326	P	P	04 30 27.0	-0.7
	comp=Z,1.1nm,0.4s,baz=117,slow=8.1,SNR=11						
	comp=Z,1.1nm,0.4s						
KSH2	Kashi	62.09	316	P	P	04 30 30.3	+0.6
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KURBB	Kurchatov

QSPA	**South Pole Qui**	**69.79**	**180**	P		**P**	**04 39 27.0**	**+0.1**	
ADK	**Adak**	**71.86**	**1**	P		**P**	**04 39 38.8**	**-0.2**	
CLES	**Cleveland East**	**73.14**	**5**	P		**P**	**04 39 47.4**	**+1.1**	
UNV	**Unalaska Valle**	**74.49**	**7**	P		**P**	**04 39 54.6**	**+0.7**	
PEA0B	**Petropavlovsk-**	**76.03**	**345**	P		**P**	**04 40 02.0**	**-0.6**	
ILAR	**Eielson Array**	**88.12**	**13**	P		**P**	**04 41 04.5**	**+0.7**	
	comp=Z,0.3nm,0.5s,baz=207,slow=5.0,SNR=4.8 comp=Z,0.3nm,0.5s								
AKASG	**Malin Array Be**	**142.76**	**331**	PKP		**PKPdf**	**04 47 40.2**	**-2.6**	
	comp=Z,1.6nm,0.6s,baz=47,slow=4.1,SNR=7.5								
BRTR	**Keskin Array B**	**146.61**	**312**	PKPbc		**PKPbc**	**04 47 52.9**	**+0.3**	
	comp=Z,0.6nm,0.7s,baz=86,slow=4.7,SNR=2.1								
BRTR	**Keskin Array B**	**146.61**	**312**			**PKPbc**	**04 47 52.0**	**-0.5**	
BURAR	**Bucovina Array**	**146.81**	**331**	PKPab		**PKiKP**	**04 47 55.0**	**+0.2**	

*IDC **25** 04:48:09.1±4.5,2°.20N×128°.59E,h75^{km}±49^{km},mb3.6/7, mbtmp3.9/8,ML3.9/1,MS3.0/1,Error ellipse: s-maj=47.6km s-min=21.2km az=79.0*
*DJA **25** 04:48:09.3±0.7,2°.1N±6°×12°.8E±°,h63^{km}±6^{km},M3.8/5, ML3.9/4,MLv4.0/4,MLv3.8/5*
*NEIC **25** 04:48:09.8±0.9,2°.26N±0°.05×128°.58E±0°.10,h77^{km}±9^{km}, mb4.2/12,Error ellipse: s-maj=14.2km s-min=6.9km az=74.0*

ISC 25 04:48:09.1±0.6,2°.20N±0°.08×128°.52E±0°.07,h77^{km},n28, σ0^{s}94/28,mb4.1/12,Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GAMI	**Galela, Maluku**	**0.81**	**244**	P	**Pn**	**04 48 24.2**	**-1.6**
GAMI				S	**Sn**	**04 48 36.6**	**-1.6**
GAMI				AML	AML		
GAMI				AML	AML		
GAMI				AML	AML		
TNTI	**Ternate**	**1.82**	**219**	Pn	**Pn**	**04 48 40.1**	**+1.5**
TNTI	**Ternate**	**1.82**	**219**	P	Pn	04 48 33.2	-5.4
TNTI				AML	AML		
SIJI	**Sorong**	**4.10**	**138**	P	**Pn**	**04 49 10.2**	**+0.7**
	8.4nm,0.3s,baz=304,slow=23,SNR=13						
SIJI				S	**Sn**	**04 49 54.7**	**-1.6**
	40nm,0.6s,baz=126,slow=20,SNR=17 20nm,0.2s						
SIJI				AML	AML		
FAKI	**Fak Fak**	**6.31**	**144**	Pn	**Pn**	**04 49 39.1**	**-0.4**
TOLI2	**Tolitoli**	**7.81**	**262**	Pn	**Pn**	**04 50 00.0**	**0.0**
FITZ	**Fitzroy Crossi**	**20.37**	**188**	P	**P**	**04 52 40.5**	**+0.9**
WB0	**Warramunga Arr**	**22.58**	**165**	P	**P**	**04 53 03.6**	**+0.2**
WB0				IAmb	IAmb	04 53 19.4	
	comp=Z,12nm,1.5s						
WRA	**Warramunga Arr**	**22.73**	**166**	P	**P**	**04 53 04.0**	**-0.9**
	comp=Z,1.0nm,0.5s,baz=343,slow=10,SNR=12 comp=Z,1.0nm,0.5s						
WRA	**Warramunga Arr**	**22.73**	**166**	P	**P**	**04 53 04.6**	**-0.4**
WR8	**Warramunga Arr**	**22.79**	**165**	P	**P**	**04 53 05.5**	**0.0**
KRVT	**Keravat (AS076**	**24.37**	**105**	LR	LR	05 00 45.1	
	comp=Z,39nm,20.7s,baz=72,slow=31						
ASAR	**Alice Springs**	**26.24**	**169**	P	**P**	**04 53 38.2**	**+1.0**
	comp=Z,0.4nm,0.4s,baz=340,slow=7.0,SNR=4.5 comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	**26.24**	**169**	P	**P**	**04 53 39.0**	**+1.8**
BBOO	**Buckleboo**	**35.54**	**169**	P	**P**	**04 54 58.4**	**-0.5**
CAN	**Canberra**	**41.96**	**155**	P	**P**	**04 55 52.3**	**-0.4**
EVN	**Everest**	**47.33**	**307**	P	**P**	**04 56 36.2**	**0.0**
EVN				IAmb	IAmb	04 56 40.5	
	comp=Z,2.8nm,0.7s						
SONM	**Songino Array**	**49.32**	**340**	P	**P**	**04 56 51.9**	**+1.3**
	comp=Z,0.6nm,0.5s,baz=152,slow=8.1,SNR=4.0 comp=Z,0.6nm,0.5s						
SONM	**Songino Array**	**49.32**	**340**	P	**P**	**04 56 50.8**	**+0.2**
SONM				IAmb	IAmb	04 57 32.7	
	comp=Z,1.3nm,1.2s						
PETK	**Petropavlovsk-**	**56.19**	**21**	P	**P**	**04 57 40.3**	**-0.7**
	comp=Z,2.9nm,0.5s,baz=220,slow=6.9,SNR=5.1 comp=Z,2.9nm,0.5s						
MKAR	**Makanchi Array**	**59.82**	**325**	P	**P**	**04 58 07.7**	**+1.2**
	comp=Z,0.5nm,0.3s,baz=115,slow=7.7,SNR=9.3 comp=Z,0.5nm,0.3s						
MKAR	**Makanchi Array**	**59.82**	**325**	P	**P**	**04 58 06.3**	**-0.3**
KURBB	**Kurchatov Array**	**63.98**	**327**	P	**P**	**04 58 34.2**	**-0.1**
	comp=Z,0.7nm,0.4s,baz=126,slow=5.9,SNR=8.8 comp=Z,0.7nm,0.4s						
KURK	**Kurchatov**	**63.98**	**327**	P	**P**	**04 58 34.6**	**+0.3**
KURK				IAmb	IAmb	04 58 35.8	
	comp=Z,1.4nm,0.8s						
BVAR	**Borovoye Array**	**69.57**	**327**	P	**P**	**04 59 10.0**	**+0.2**
	comp=Z,1.7nm,0.8s,baz=134,slow=11,SNR=4.6 comp=Z,1.7nm,0.8s						
CAST	**Castle Rocks**	**83.30**	**26**	P	**P**	**05 00 27.4**	**+0.2**
CAST				IAmb	IAmb	05 00 28.9	
	comp=Z,11nm,1.4s						
SKT	**Skwentna**	**83.34**	**28**	P	**P**	**05 00 26.8**	**-0.7**
D24K	**Happy Valley**	**85.34**	**21**	P	**P**	**05 00 38.1**	**+0.7**
D24K				IAmb	IAmb	05 01 04.5	
	comp=Z,2.0nm,1.0s						

*SSNC **25** 06:17:12.7±1.9,18°.41N×76°.94W,h23^{km}±25^{km},MD3.0, ML2.4,Presumed earthquake*
*JSN **25** 06:17:13.4±0.3,18°.37N×76°.95W,h1^{km}±4^{km},MD2.4, Confirmed Earthquake*

ISC 25 06:17:09.3±1.1,18°.54N±0°.03×76°.94W±0°.04,h14^{km}±10^{km}, n17,σ1^{s}02/33,4C-5D,Jamaica region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STH	**Stony Hill**	**0.48**	**165**	⇑*i* P	**Pb**	**06 17 19.9**	**+0.3**
STH				⇑*i* P	**Pb**	**06 17 19.9**	**+0.3**
STH				*i* S	**Sg**	**06 17 24.6**	**-0.7**
STH				*i* S	**Sb**	**06 17 24.9**	**-1.6**
STH	**Stony Hill**	**0.48**	**165**	*i* P	**Pb**	**06 17 19.8**	**+0.3**
STH				*e*S	**Sg**	**06 17 24.3**	**-0.9**
GWJ	**Greenwich**	**0.51**	**156**	⇑*i* P	**Pb**	**06 17 20.5**	**+0.4**
GWJ				⇑*i* S	**Sg**	**06 17 26.2**	**0.0**
HOJ	**Hope**	**0.56**	**161**	⇓*i* P	**Pb**	**06 17 21.5**	**+0.6**
HOJ				⇓*i* P	**Pb**	**06 17 21.5**	**+0.6**
CVJ	**Coleyville**	**0.65**	**241**	⇓*i* P	**Pn**	**06 17 24.2**	**+0.1**
CVJ				*i* S	**Sb**	**06 17 32.6**	**+1.3**
PCJ	**Portland Cotta**	**0.82**	**194**	⇓*i* P	**Pb**	**06 17 25.7**	**+0.4**
MCJ	**Malvern**	**0.94**	**229**	⇓*i* P	**Pn**	**06 17 28.6**	**+0.5**
PILO	**Pilon**	**1.43**	**342**	*e*P	**Pg**	**06 17 37.8**	**+1.0**
PILO				*e*S	**Sn**	**06 17 54.5**	**+1.1**
LMGC	**Las Mercedes**	**1.52**	**358**	*e*P	**Pg**	**06 17 38.8**	**+0.4**
LMGC				*e*S	**Sb**	**06 17 57.1**	**+0.9**
MARVS	**Santiago de Cu**	**1.75**	**34**	*e*P	**Pg**	**06 17 42.4**	**-0.6**
MARVS				*e*S	**Sn**	**06 18 01.9**	**+0.5**
MARVS				*e*Sg	**Sb**	**06 18 04.1**	**+1.0**
MARVS				IAML		06 18 05.5	
	comp=N,18nm,0.3s						
MARVS				IAML		06 18 05.6	
	comp=E,11nm,0.2s						
GTBY	**Guantanamo Bay**	**2.21**	**51**	*e*P	**Pb**	**06 17 49.3**	**+0.2**
GTBY				*e*S	**Sn**	**06 18 11.6**	**-1.1**
PINC	**Pinares de May**	**2.22**	**29**	*e*P	**Pb**	**06 17 49.1**	**-0.1**
PINC				*e*S	**Sn**	**06 18 14.7**	**+1.8**
SABCS	**La Quijada**	**2.38**	**40**	*e*P	**Pb**	**06 17 51.7**	**-0.2**
SABCS				*e*S	**Sn**	**06 18 16.8**	**0.0**
SABCS				IAML		06 18 21.3	
	comp=E,23nm,0.6s						
SABCS				IAML		06 18 21.5	
	comp=N,20nm,0.5s						
HLGC	**Holguin**	**2.48**	**19**	*e*P	**Pb**	**06 17 53.9**	**+0.2**
HLGC				*e*S	**Sb**	**06 18 23.6**	**-0.5**
QMBU	**Quimbuelo**	**2.60**	**50**	*e*P	**Pn**	**06 17 51.2**	**+0.3**
QMBU				*e*S	**Sn**	**06 18 20.5**	**-1.8**
QMBU				IAML		06 18 24.1	
	comp=E,19nm,0.2s						
QMBU				IAML		06 18 24.1	
	comp=N,19nm,0.2s						
CCCC	**Cccc**	**2.76**	**344**	*e*P	**Pb**	**06 17 56.5**	**-1.9**
FSCY	**Frank Sound, G**	**4.09**	**281**	*e*S	**Sn**	**06 18 56.5**	**-2.6**

IDC 25 06:19:40.7±5.6,48°.66S×108°.12E,h0^{km},mb3.8/3, mbtmp3.8/3,MS3.2/5,Error ellipse: s-maj=749.4km s-min=28.0km az=130.0,Southeast Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H01W2	**Cape Leeuwin H**	**14.45**	**20**	T	T	06 38 33.2	
	baz=199,slow=74,SNR=69						
H01W1	**Cape Leeuwin H**	**14.46**	**20**	T	T	06 38 40.2	
	baz=199,slow=74,SNR=75						
H01W3	**Cape Leeuwin H**	**14.47**	**20**	T	T	06 38 36.4	
	baz=199,slow=74,SNR=56						
MAW	**Mawson**	**29.51**	**214**	P	P	06 25 46.2	0.0
	0.5nm,0.5s,baz=56,slow=7.3,SNR=1.6 0.5nm,0.5s						
STKA	**Stephens Creek**	**30.24**	**69**	LR	LR	06 36 24.4	
	comp=Z,24nm,18.1s,baz=236,slow=33						
ASAR	**Alice Springs**	**32.20**	**48**	P	P	06 26 10.2	-0.3
	0.7nm,0.6s,baz=212,slow=8.7,SNR=11 0.7nm,0.6s						
VNDA	**Vanda**	**35.32**	**162**	LR	LR	06 39 29.3	
	comp=Z,44nm,18.5s,baz=4.0,slow=34						
WRA	**Warramunga Arr**	**35.57**	**46**	P	P	06 26 39.9	+0.2
	1.4nm,0.8s,baz=213,slow=8.4,SNR=7.2 1.4nm,0.8s						
QSPA	**South Pole Qui**	**41.48**	**180**	LR	LR	06 44 36.8	
	comp=Z,46nm,18.1s,baz=24,slow=36						
CTA	**Charters Tower**	**41.77**	**61**	LR	LR	06 44 40.3	
	comp=Z,46nm,18.1s,baz=44,slow=36						
KAPI	**Kappang**	**44.60**	**17**	LR	LR	06 44 15.6	
	comp=Z,14nm,20.4s,baz=284,slow=33						
H08S2	**Diego Garcia H**	**50.71**	**312**	T	T	07 22 05.6	
	baz=150						
H08S1	**Diego Garcia H**	**50.72**	**312**	T	T	07 22 03.3	
	baz=150,slow=74						
H08S3	**Diego Garcia H**	**50.73**	**312**	T	T	07 22 07.2	
	baz=150,slow=74						

*IDC **25** 06:25:39.2±5.5,38°.16S×176°.58E,h0^{km},mb3.8/2, mbtmp3.8/2,Error ellipse: s-maj=362.0km s-min=70.3km az=180.0*
*NOU **25** 06:26:06.4,38°.77S×175°.08E,h245^{km},MLv4.1/12,North Island, New Zealand*
*WEL **25** 06:26:12.1±0.8,39°.2S±8°×17°.5E±°,h197^{km}±5^{km},M2.8/20, ML2.7/5,MLv2.8/20,Error ellipse: s-maj=10.8km s-min=7.3km az=167.2*

ISC 25 06:26:08.6±1.0,38°.87S±0°.07×175°.25E±0°.06,h226^{km}±6^{km}, n59,σ1^{s}08/83,North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TWVZ	**Taurewa**	**0.24**	**143**	P	**Pn**	**06 26 39.0**	**+0.9**
TWVZ				S	**S**	**06 27 00.3**	**-1.1**
TWVZ				AML	AML		
WTVZ	**West Tongariro**	**0.36**	**132**	P	**Pn**	**06 26 39.5**	**+1.1**
WTVZ				S	**S**	**06 27 01.0**	**-0.8**
WTVZ				AML	AML		
WTVZ				AML	AML		
KATZ	**Kakaramea**	**0.36**	**106**	P	**Pn**	**06 26 39.4**	**+1.0**
KATZ				S	**S**	**06 27 00.5**	**-1.3**
KATZ				AML	AML		
KATZ				AML	AML		
KRVZ	**Karewarewa**	**0.38**	**126**	P	**Pn**	**06 26 39.6**	**+1.1**
KRVZ				S	**S**	**06 27 01.0**	**-0.8**
KRVZ				AML	AML		
COVZ	**Chateau Observ**	**0.40**	**145**	P	**Pn**	**06 26 38.9**	**+0.4**
COVZ				S	**S**	**06 27 00.9**	**-1.1**
COVZ				AML	AML		
NTVZ	**North Tongarir**	**0.40**	**124**	P	**Pn**	**06 26 39.8**	**+1.3**
NTVZ				S	**S**	**06 27 01.1**	**-0.8**
NTVZ				AML	AML		
NTVZ				AML	AML		
NGZ	**Ngauruhoe**	**0.41**	**138**	P	**Pn**	**06 26 39.5**	**+1.0**
NGZ				S	**S**	**06 27 01.3**	**-0.8**
NGZ				AML	AML		
RATZ	**Rangitukua**	**0.41**	**89**	P	**Pn**	**06 26 39.3**	**+0.8**
RATZ				S	**S**	**06 27 01.7**	**0.0**
RATZ				AML	AML		
WATZ	**Wairara**	**0.41**	**66**	P	**Pn**	**06 26 39.6**	**+1.1**
WATZ				S	**S**	**06 26 59.9**	**-1.9**
WATZ				AML	AML		
PKVZ	**Pokaka**	**0.42**	**170**	P	**Pn**	**06 26 39.5**	**+1.0**
PKVZ				S	**S**	**06 27 01.1**	**-0.9**
PKVZ				AML	AML		
TMVZ	**Te Maari**	**0.43**	**124**	P	**Pn**	**06 26 39.9**	**+1.3**
TMVZ				S	**S**	**06 27 01.0**	**-1.1**
TMVZ				AML	AML		
OTVZ	**Oturere**	**0.43**	**132**	P	**Pn**	**06 26 39.8**	**+1.2**
OTVZ				S	**S**	**06 27 01.7**	**-0.5**
SNVZ	**South Ngauruho**	**0.44**	**136**	P	**Pn**	**06 26 40.0**	**+1.3**
SNVZ				S	**S**	**06 27 01.4**	**-0.9**
ETVZ	**East Tongariro**	**0.44**	**126**	P	**Pn**	**06 26 40.0**	**+1.3**
ETVZ				AML	AML		
FWVZ	**Far West T-bar**	**0.45**	**148**	P	**Pn**	**06 26 39.9**	**+1.1**
FWVZ				AML	AML		
VRZ	**Vera Road**	**0.46**	**237**	P	**Pn**	**06 26 38.8**	**+0.3**
VRZ				S	**S**	**06 27 00.7**	**-1.3**
VRZ				AML	AML		
MAVZ	**Matarangi**	**0.46**	**148**	P	**Pn**	**06 26 40.0**	**+1.1**
HIZ	**Hauiti**	**0.47**	**319**	P	**Pn**	**06 26 38.7**	**+0.1**
HIZ	**Hauiti**	**0.47**	**319**	P	**Pn**	**06 26 39.0**	**+0.4**
HIZ				S	**S**	**06 27 01.2**	**-0.8**
HIZ				AML	AML		
TRVZ	**Turoa**	**0.48**	**151**	P	**Pn**	**06 26 40.1**	**+1.2**
TRVZ				AML	AML		
RITZ	**Rihia Road**	**0.49**	**102**	P	**Pn**	**06 26 39.9**	**+1.2**
RITZ				AML	AML		
WHVZ	**Whangaehu Hut**	**0.49**	**147**	P	**Pn**	**06 26 40.3**	**+1.4**
TUVZ	**Tukino**	**0.50**	**141**	P	**Pn**	**06 26 40.1**	**+1.3**
TUVZ				S	**S**	**06 27 01.5**	**-1.1**
WNVZ	**Wahianoa**	**0.53**	**149**	P	**Pn**	**06 26 40.1**	**+1.2**
WNVZ				S	**S**	**06 27 01.5**	**-1.3**
WNVZ				AML	AML		
WNVZ				AML	AML		
MTVZ	**Mangateitei**	**0.54**	**161**	P	**Pn**	**06 26 40.0**	**+1.2**
MTVZ				S	**S**	**06 27 02.0**	**-0.7**
MTVZ				AML	AML		
TLZ	**Tolley Road**	**0.59**	**23**	P	**Pn**	**06 26 39.6**	**+0.6**
TLZ				S	**S**	**06 27 02.4**	**-0.5**
TLZ				AML	AML		
KUTZ	**Kaahu Road**	**0.59**	**50**	P	**Pn**	**06 26 40.0**	**+1.0**
KUTZ				AML	AML		
WHTZ	**Whakaora**	**0.59**	**70**	P	**Pn**	**06 26 40.3**	**+1.2**
WHTZ				AML	AML		
HATZ	**Hinemaiaia**	**0.66**	**92**	P	**Pn**	**06 26 40.1**	**+0.9**
HATZ				S	**S**	**06 27 01.5**	**-1.7**
HATZ				AML	AML		
HATZ				AML	AML		
MOVZ	**Moawhango**	**0.66**	**144**	P	**Pn**	**06 26 40.2**	**+0.9**
MOVZ				S	**S**	**06 27 01.3**	**-2.2**
WPRZ	**Whakapapatarin**	**0.80**	**64**	P	**Pn**	**06 26 40.7**	**+0.8**
DREZ	**Durham Road**	**0.88**	**249**	P	**Pn**	**06 26 41.1**	**+0.8**
DREZ				AML	AML		
LREZ	**Lake Rotokare**	**0.88**	**228**	P	**Pn**	**06 26 41.4**	**+1.1**
LREZ				S	**S**	**06 27 05.1**	**0.0**
LREZ				AML	AML		
WAZ	**Wanganui**	**0.90**	**193**	P	**Pn**	**06 26 41.8**	**+1.4**
WAZ				S	**S**	**06 27 05.1**	**-0.4**
ALRZ	**Allen Road**	**0.91**	**70**	P	**Pn**	**06 26 41.3**	**+0.8**
MRHZ	**Matea Rd**	**0.91**	**88**	P	**Pn**	**06 26 41.2**	**+0.6**
MRHZ				S	**S**	**06 27 03.4**	**-2.1**
PREZ	**Palmer Road**	**0.97**	**241**	P	**Pn**	**06 26 41.8**	**+0.9**
PRPZ	**Plateau Road**	**0.97**	**68**	P	**Pn**	**06 26 41.3**	**+0.5**
BKZ	**Black Stump Fm**	**1.01**	**107**	P	**Pn**	**06 26 41.8**	**+0.7**
UTU	**Utuhina**	**1.02**	**47**	P	**Pn**	**06 26 42.1**	**+0.9**
KHEZ	**Kahui Hut**	**1.05**	**246**	P	**Pn**	**06 26 41.5**	**+0.1**
NBEZ	**Newall Road No**	**1.15**	**249**	P	**Pn**	**06 26 42.6**	**+0.7**
NBEZ				S	**S**	**06 27 06.9**	**-1.1**
NBEZ				AML	AML		
KRHZ	**Kereru**	**1.16**	**132**	P	**Pn**	**06 26 43.6**	**+1.6**
KRHZ				S	**S**	**06 27 07.7**	**-0.6**
TARZ	**Mount Tarawera**	**1.17**	**57**	P	**Pn**	**06 26 43.1**	**+0.8**
NMEZ	**Namu Road**	**1.20**	**243**	P	**Pn**	**06 26 43.2**	**+1.0**
MUGZ	**Murupara**	**1.25**	**72**	P	**Pn**	**06 26 43.2**	**+0.5**
MUGZ				S	**S**	**06 27 07.1**	**-2.2**
TGRZ	**Tauranga**	**1.39**	**35**	P	**Pn**	**06 26 44.2**	**+0.5**
URZ	**Urewera**	**1.58**	**68**	P	**Pn**	**06 26 45.1**	**-0.2**
BFZ	**Birch Farm**	**1.96**	**157**	P	**Pn**	**06 26 49.6**	**+1.0**
SNZO	**South Karori**	**2.47**	**190**	P	**Pn**	**06 26 53.9**	**+0.2**
MXZ	**Matakaoa Point**	**2.74**	**62**	P	**Pn**	**06 26 57.3**	**+0.6**
QRZ	**Quartz Range**	**2.86**	**226**	P	**Pn**	**06 26 56.6**	**-1.4**
KHZ	**Kahutara**	**3.77**	**200**	P	**Pn**	**06 27 08.1**	**-0.3**
RPZ	**Rata Peaks**	**5.78**	**212**	P	Pn	06 27 31.7	-1.6
ODZ	**Otahua Downs**	**7.05**	**208**	P	Pn	06 27 48.2	-1.3
JCZ	**Jackson Bay**	**7.11**	**221**	P	Pn	06 27 47.7	-2.6
	25nm,1.2s						
JCZ				AML	AML		
ASAR	**Alice Springs**	**38.11**	**281**	P	**P**	**06 33 07.3**	**+1.4**
	1.0nm,0.6s,baz=122,slow=8.6,SNR=18 1.0nm,0.6s						
WRA	**Warramunga Arr**	**39.92**	**286**	P	**P**	**06 33 22.1**	**+1.1**
	0.8nm,0.8s,baz=126,slow=7.1,SNR=5.9 0.8nm,0.8s						
ARCES	**ARCESS Array B**	**145.31**	**342**	PKP	**PKPdf**	**06 45 16.9**	**-1.3**
	1.0nm,0.7s,baz=64,slow=2.1,SNR=4.1						

*CATAC **25** 06:54:49.5±0.3,16°.N±2°×9°.1W±°,h3^{km}±4^{km},M3.1/8, MLv3.1/8,Error ellipse: s-maj=6.2km s-min=4.7km az=104.0,confirmed*
*GCG **25** 06:54:49.3±1.3,15°.53N×90°.77W,h13^{km}±8^{km},MD4.1, Presumed earthquake*

ISC 25 06:54:49.9±1.0,15°.55N±0°.04×90°.76W±0°.05,h10^{km},n17, σ0^{s}99/25,Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HUEH	**Huehuetenango**	**0.75**	**252**	P	**Pg**	**06 55 02.9**	**-1.7**
HUEH				S	**Sg**	**06 55 15.2**	**+0.8**
STG8	**El Palmar, Qui**	**1.23**	**208**	*i* P	Pb	06 55 08.8	-4.7
RTAL	**Retalhuleu**	**1.36**	**222**	P	**Pn**	**06 55 14.6**	**-0.5**
RTAL				S	**Sb**	**06 55 35.7**	**+2.6**
JUAM	**Asuncion Mita**	**1.58**	**140**	*i* P	**Pn**	**06 55 16.9**	**-1.2**
PETF	**Flores**	**1.60**	**32**	P	**Pn**	**06 55 19.3**	**+0.9**
PETF				S	**Sn**	**06 55 40.1**	**+0.9**
PETF	**Flores**	**1.60**	**32**	*i* P	**Pn**	**06 55 17.5**	**-0.9**
PETF				*i* S	**Sn**	**06 55 38.6**	**-0.6**
ZAFR2	**Estanzuela, Za**	**1.67**	**125**	*i* P	Pn	06 55 12.0	-7.3
ESQI	**Esquipulas**	**1.69**	**126**	P	**Pn**	**06 55 19.3**	**-0.3**
ESQI				S	**Sn**	**06 55 41.2**	**-0.2**
MTO3	**Montecristo**	**1.77**	**130**	P	**Pn**	**06 55 19.9**	**-1.0**
MTO3				S	**Sn**	**06 55 43.3**	**-0.3**
MTO3	**Montecristo**	**1.77**	**130**	*i* P	**Pn**	**06 55 19.6**	**-1.3**
MTO3				*i* S	**Sn**	**06 55 42.8**	**-0.8**
SLOZ	**Alcaldia de Sa**	**1.79**	**148**	P	**Pn**	**06 55 20.6**	**-0.3**
FAME	**Alcaldia de Sa**	**1.84**	**157**	P	**Pn**	**06 55 21.5**	**-0.2**
FAME				S	**Sn**	**06 55 46.0**	**+0.9**
NUBE	**Las Nubes**	**1.89**	**150**	P	**Pn**	**06 55 22.2**	**-0.3**
NUBE				S	**Sn**	**06 55 47.4**	**+0.9**
NUBE	**Las Nubes**	**1.89**	**150**	*i* P	**Pn**	**06 55 22.5**	**0.0**
UNIC	**Universidad Ca**	**1.95**	**143**	P	**Pn**	**06 55 23.2**	**0.0**
SARH	**Santa Rosa de**	**2.08**	**112**	P	**Pn**	**06 55 25.8**	**+0.9**
SARH	**Santa Rosa de**	**2.08**	**112**	*i* P	**Pn**	**06 55 26.0**	**+1.0**
SARH				*i* S	**Sn**	**06 55 51.0**	**0.0**

*ASRS **25** 06:55:15.0±0.8,54°.30N×86°.15E,h0^{km},M2.7(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 25 06:55:16.7±2.5,54°.31N×86°.18E,h0^{km},mbtmp3.0/2, ML2.8/2,Error ellipse: s-maj=18.9km s-min=12.4km az=50.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.88**	**246**	I	I	07 00 10.0	
	0.1nm,0.8s,baz=66,slow=336,SNR=9.6						
ZALV	**Zalesovo Beam**	**0.88**	**246**	Pg	Pg	06 55 31.9	-1.6
	1.0nm,0.3s,baz=67,slow=17,SNR=11						
ZALV				Lg	Lg	06 55 46.7	
	4.3nm,0.3s,baz=66,slow=29,SNR=22						
KURBB	**Kurchatov Arra**	**5.96**	**235**	Pn	Pn	06 56 46.9	+0.8
	0.1nm,0.3s,baz=52,slow=14,SNR=8.7						
KURBB				Sn	Sn	06 57 54.5	-0.5
	baz=50,slow=29,SNR=1.2						
KURBB				Lg	Lg	06 58 24.8	
	baz=49,slow=29,SNR=4.5 0.6nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.92**	**200**	Pn	Pn	06 57 14.2	+1.1
	0.2nm,0.3s,baz=22,slow=12,SNR=8.7						
MKAR				Sn	Sn	06 58 38.5	-4.8
	0.2nm,0.3s,baz=24,slow=28,SNR=5.7 0.6nm,0.5s						
MKAR				AML	AML		

*IDC **25** 06:59:08.4±0.6,0°.69S×127°.70E,h0^{km},mb4.2/15, mbtmp4.2/17,ML4.1/2,MS3.2/14,Error ellipse: s-maj=20.2km s-min=12.2km az=82.0*
*BJI **25** 06:59:08.5,0°.93S×128°.10E,h25^{km},mB5.0/5,mb4.7/28*
*GFZ **25** 06:59:10.8±0.2,1°.S±3°×12°.8E±°,h10^{km},M4.7/18, mb4.6/18,confirmed*
*NEIC **25** 06:59:11.8±2.3,0°.73S±0°.06×127°.75E±0°.08,h19^{km}±2^{km}, mb4.4/22,Error ellipse: s-maj=11.5km s-min=7.5km az=70.0*
*DJA **25** 06:59:13.2±0.2,1°.S±2°×12°.8E±°,h10^{km},M4.7/14,mB5.2/9, mb5.1/14,mb5.1/13,mB5.2/10,ML4.7/12,MLv4.9/13, MLv4.8/13,Mw(mB)4.6/9,Mw(mB)4.5/10*

ISC 25 06:59:10.2±0.4,0°.73S±0°.04×127°.71E±0°.07,h10^{km},n99, σ1^{s}21/92,mb4.5/35,MS3.2/10,Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.53**	**347**		**Pn**	**06 59 39.0**	**+1.4**
TNTI	**Ternate**	**1.53**	**347**	P	**Pn**	**06 59 39.1**	**+1.4**
SANI	**Sanana**	**2.16**	**233**	P	**Pn**	**06 59 44.9**	**-1.5**
GAMI	**Galela, Maluku**	**2.55**	**2**	P	**Pb**	**06 59 56.3**	**+0.2**
GAMI				S	**Sg**	**07 00 32.2**	**-0.1**
GAMI				AML	AML		
GAMI				AML	AML		
GAMI				AML	AML		
NLAI	**Namlea**	**2.57**	**194**	P	**Pn**	**06 59 51.9**	**0.0**
NLAI				S	**Sn**	**07 00 23.1**	**-0.1**
NLAI	**Namlea**	**2.57**	**194**	P	**Pn**	**06 59 51.8**	**-0.2**

FITZ	Fitzroy Crossi	17.38	187	P		Pn	07 03 15.0	+2.0
	comp=Z,2.2nm,1.6s							
WB0	Warramunga Arr	20.02	161			P	07 03 42.0	-1.5
WB0				IAmb		IAmb	07 03 43.3	
	comp=Z,11nm,1.1s							
WRAB	Tennant Creek	20.16	162	P		P	07 03 44.0	-1.0
WRAB				IAmb		IAmb	07 03 45.0	
	comp=Z,9.6nm,1.0s							
WRAB	Tennant Creek	20.16	162	P		P	07 03 44.4	-0.5
	comp=Z,9.2nm,1.0s							
WRA	Warramunga Arr	20.17	162	P		P	07 03 43.9	-1.2
	comp=Z,3.2nm,0.7s,baz=339,slow=11,SNR=28							
	comp=Z,3.2nm,0.7s							
WRA	Warramunga Arr	20.17	162	P		P	07 03 43.6	-1.5
WR8	Warramunga Arr	20.23	161			P	07 03 45.1	-0.7
CMJI	Cimerak	20.43	249	P		P	07 03 48.1	+0.1
	comp=Z,86nm,1.2s							
BBJI	Bungbulang	21.09	251			P	07 03 54.5	-0.6
BBJI				IAmb		IAmb	07 04 07.8	
	comp=Z,16nm,0.8s							
BBJI	Bungbulang	21.09	251	P		P	07 03 55.5	+0.4
	comp=Z,25nm,1.0s							
QIS	Mount Isa	22.88	150	P		P	07 04 14.4	+0.2
	comp=Z,15nm,1.2s							
AS31	Alice Springs	23.58	166			P	07 04 20.7	-0.6
ASAR	Alice Springs	23.58	166	P		P	07 04 20.9	-0.4
	comp=Z,11nm,0.8s,baz=345,slow=10,SNR=101							
ASAR				PcP		PcP	07 08 05.6	-1.0
	comp=Z,0.7nm,0.8s,baz=344,slow=2.4,SNR=4.9							
ASAR				S		S	07 08 33.1	-2.7
	comp=Z,4.0nm,1.0s,baz=348,slow=21,SNR=15							
	comp=Z,11nm,0.8s							
ASAR	Alice Springs	23.58	166			P	07 04 20.4	-0.9
MTSU	Mount Surprise	23.78	138	P		P	07 04 24.2	+0.9
	comp=Z,5.5nm,1.0s							
CTA	Charters Tower	26.45	138	LR		LR	07 17 33.4	
	comp=Z,128nm,19.8s,baz=34,slow=42							
CTAO	Charters Tower	26.45	138	P		P	07 04 47.9	+0.3
	comp=Z,5.7nm,1.5s							
IPM	Ipoh	27.16	281	P		P	07 04 54.3	+0.2
	comp=Z,28nm,1.0s							
RPSI	Rantau Prapat	28.98	277	P		P	07 05 10.0	-0.4
RPSI				IAmb		IAmb	07 05 15.6	
	comp=Z,21nm,1.1s							
RPSI	Rantau Prapat	28.98	277	P		P	07 05 10.8	+0.5
	comp=Z,18nm,0.9s							
RPSI	Rantau Prapat	28.98	277	P		P	07 05 09.9	-0.5
	comp=Z,12nm,1.0s							
BBOO	Buckleboo	32.87	167			P	07 05 44.9	+0.4
BBOO	Buckleboo	32.87	167	P		P	07 05 44.8	+0.4
	comp=Z,13nm,0.7s							
STKA	Stephens Creek	33.65	158	P		P	07 05 52.3	+1.0
	comp=Z,2.2nm,0.7s,baz=331,slow=9.5,SNR=6.4							
STKA				LR		LR	07 19 57.4	
	comp=Z,67nm,19.9s,baz=23,slow=37							
	comp=Z,2.2nm,0.7s							
STKA	Stephens Creek	33.65	158	IAmb		IAmb	07 05 58.9	
	comp=Z,17nm,0.8s							
STKA	Stephens Creek	33.65	158	P		P	07 05 51.9	+0.7
	comp=Z,30nm,1.6s							
CMAR	Chiang Mai Arr	34.10	305	P		P	07 05 56.6	+1.1
	comp=Z,1.0nm,0.3s,baz=135,slow=7.5,SNR=5.9							
CMAR				LR		LR	07 20 44.5	
	comp=Z,8.7nm,20.0s,baz=120,slow=38							
	comp=Z,1.0nm,0.3s							
KSRS	Korea Array	37.99	0	P		P	07 06 28.6	+0.2
	comp=Z,1.8nm,0.8s,baz=178,slow=8.6,SNR=5.9							
	comp=Z,1.8nm,0.8s							
MJAR	Matsushiro Arr	38.34	14	P		P	07 06 31.1	-0.4
	comp=Z,1.1nm,0.4s,baz=179,slow=10,SNR=4.2							
MJAR				LR		LR	07 20 11.5	
	comp=Z,36nm,21.2s,baz=216,slow=33							
	comp=Z,1.1nm,0.4s							
MJAR	Matsushiro Arr	38.34	14	IAmb		IAmb	07 06 41.4	
	comp=Z,5.5nm,1.5s							
XAN	Xi'an	38.83	335	P		P	07 06 37.5	+1.9
XAN				pP		sP	07 06 49.8	+10
XAN				pmax		pmax		
	comp=Z,18nm,0.7s							
LZDM	Lanzhou Array	42.80	331	P		P	07 07 09.4	+0.7
	comp=Z,1.0nm,0.3s,baz=134,slow=12,SNR=0.8							
	comp=Z,1.0nm,0.3s							
HHC	Hu-ho-hao-te	43.91	342	eP		P	07 07 19.0	+1.6
HHC				pmax		pmax		
	comp=Z,14nm,0.6s							
HHC				pmax		pmax		
	comp=Z,120nm,5.3s							
ASAJ	Asahikawa	46.59	15	LR		LR	07 25 32.5	
	comp=Z,21nm,20.9s,baz=73,slow=34							
GTA2	Gaotai	47.50	331	eP		P	07 07 46.5	+0.7
GTA2				pmax		pmax		
	comp=Z,6.0nm,0.9s							
PALK	Pallekele	47.56	280	LR		LR	07 28 26.1	
	comp=Z,27nm,21.1s,baz=82,slow=37							
GOMU	GeErMu	47.80	324	P		P	07 07 48.5	0.0
GOMU				sP		sP	07 07 56.3	+3.4
GOMU				pmax		pmax		
	comp=Z,4.0nm,0.7s							
EVN	Everest	48.49	309			P	07 07 54.9	+0.6
EVN	Everest	48.49	309	P		P	07 07 55.1	+0.9
	comp=Z,47nm,0.9s							
KLR	Kul'dur	49.88	3	LR		LR	07 29 27.2	
	comp=Z,48nm,18.7s,baz=38,slow=36							
ULN	Ulaanbaatar	51.63	342	P		P	07 08 17.4	+0.2
	comp=Z,4.8nm,1.1s							
SONM	Songino Array	51.81	342	P		P	07 08 18.0	-0.5
	comp=Z,1.9nm,0.8s,baz=157,slow=8.3,SNR=7.9							
	comp=Z,1.9nm,0.8s							
RPZ	Rata Peaks	57.59	144	LR		LR	07 34 26.9	
	comp=Z,15nm,19.3s,baz=350,slow=37							
MKAR	Makanchi Array	61.77	326	P		P	07 09 28.5	-0.7
	comp=Z,2.4nm,0.5s,baz=124,slow=8.1,SNR=25							
	comp=Z,2.4nm,0.5s							
MAKZ	Makanchi	61.95	326			P	07 09 29.4	-1.0
MAKZ	Makanchi	61.95	326	P		P	07 09 30.0	-0.4
	comp=Z,9.2nm,1.0s							
KSH2	Kashi	62.02	316	P		P	07 09 31.5	+0.4
KSH2				pmax		pmax		
	comp=Z,4.0nm,0.9s							
ASAI	AK-SAY(Kyrgyzs	62.18	318	P		P	07 09 32.4	-0.1
	comp=Z,3.6nm,1.6s							
ZALV	Zalesovo Beam	64.98	334	P		P	07 09 48.4	-1.9
	comp=Z,1.2nm,0.7s,baz=126,slow=6.3,SNR=4.9							
ZALV				LR		LR	07 41 05.3	
	comp=Z,32nm,20.0s,baz=9.5,slow=39							
	comp=Z,1.2nm,0.7s							
ZALV	Zalesovo Beam	64.98	334			P	07 09 47.5	-2.7
KURBB	Kurchatov Arra	66.01	328	P		P	07 09 55.9	-1.1
	comp=Z,4.6nm,0.7s,baz=127,slow=6.0,SNR=30							
	comp=Z,4.6nm,0.7s							
KURK	Kurchatov	66.01	328			P	07 09 55.7	-1.3
KURK	Kurchatov	66.01	328	P		P	07 09 56.4	-0.6
	comp=Z,19nm,0.9s							
KK31	Karatay Array	67.16	318	P		P	07 10 03.0	-1.5
KK31				IAmb		IAmb	07 10 08.7	
	comp=Z,3.6nm,0.9s							
KKAR	Karatay Array	67.16	318			P	07 10 02.6	-1.9
BVAR	Borovoye Array	71.58	328	P		P	07 10 29.8	-1.8
	comp=Z,3.2nm,0.8s,baz=114,slow=6.2,SNR=9.6							
	comp=Z,3.2nm,0.8s							
BORK	Borovoye	71.62	328			P	07 10 30.6	-1.3
BORK				IAmb		IAmb	07 10 37.0	
	comp=Z,4.5nm,0.7s							
TIXI	Tiksi	72.26	0			P	07 10 34.6	-0.8
TIXI				IAmb		IAmb	07 10 38.6	
	comp=Z,3.0nm,0.8s							
TIXI	Tiksi	72.26	0	P		P	07 10 34.9	-0.4
	comp=Z,4.4nm,0.8s							
NRIK	Noril'sk	74.96	346	P		P	07 10 50.7	-0.6
	comp=Z,2.6nm,0.6s,baz=130,slow=7.9,SNR=5.5							
	comp=Z,2.6nm,0.6s							
NRIK	Noril'sk	74.96	346	IAmb		IAmb	07 10 56.5	
	comp=Z,4.3nm,0.8s							
AB31	Akbulak array	76.21	321	P		P	07 10 59.1	+0.2
AB31				IAmb		IAmb	07 11 09.9	
	comp=Z,3.4nm,0.8s							
ABKAR	Akbulak array	76.21	321	P		P	07 10 57.9	-0.9
VNDA	Vanda	78.91	173	P		P	07 11 13.7	+0.2
	comp=Z,1.5nm,0.9s,baz=331,slow=5.0,SNR=3.7							
	comp=Z,1.5nm,0.9s							
VNDA	Vanda	78.91	173	IAmb		IAmb	07 11 14.9	
	comp=Z,2.7nm,1.1s							
QSPA	South Pole Qui	89.21	180	P		P	07 12 06.1	0.0
	comp=Z,2.0nm,0.7s,baz=334,slow=6.1,SNR=14							
	comp=Z,2.0nm,0.7s							
QSPA	South Pole Qui	89.21	180	P		P	07 12 06.2	0.0
QSPA				IAmb		IAmb	07 12 14.5	
	comp=Z,5.2nm,1.1s							
EIL	Elat	92.76	300	LR		LR	07 59 24.3	
	comp=Z,9.7nm,18.0s,baz=320,slow=39							
TORD	Torodi Ar. Bea	125.14	286	PKP		PKPdf	07 18 13.2	+1.0
	comp=Z,0.4nm,0.7s,baz=63,slow=1.3,SNR=3.9							
CPUP	Villa Florida	152.66	170	PKPbc		PKPbc	07 19 08.2	+0.2
	comp=Z,2.1nm,0.9s,baz=194,slow=4.2,SNR=4.3							

*IDC **25** 06:59:51.5±0.8,55°.30N×159°.98W,h0km,mb3.9/18, mbtmp3.9/21,ML3.8/3,MS3.5/4,Error ellipse: s-maj=21.2km s-min=14.5km az=176.0*
*NEIC **25** 06:59:59.1±1.9,55°.20N±0°.07×159°.65W±0°.09,h48km±5km, mb4.2/9,ML4.0/34,ML3.7(AEIC),Error ellipse: s-maj=10.3km s-min=6.5km az=156.0*
*AEIC **25** 06:59:59.8±2.3,55°.19N±0°.06×159°.61W±0°.09,h38km±5km, Error ellipse: s-maj=10.1km s-min=6.4km az=151.0*

ISC 25 06:59:57.3±0.5,55°23N±0°.05×159°55W±0°.04,h37km, n148,σ2$28/138,mb4.1/21,MS3.5/4,1D,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
CHNA	Chernabura Isl	0.40	183	P		Pn	07 00 07.8	+1.6
CHNA	Chernabura Isl	0.40	183	S		Sn	07 00 12.6	-0.4
CNBA	Chernabura Isl	0.41	183			Pn	07 00 08.1	+1.7
CNBA				IAML			07 00 15.5	
	comp=E,9μm,0.3s							
CNBA				IAML			07 00 17.8	
	comp=N,8μm,0.3s							
CNBA	Chernabura Isl	0.41	183			Sn	07 00 14.9	+1.7
SDPT	Sand Point	0.54	283	P		Pn	07 00 09.7	+1.2
SDPT	Sand Point	0.54	283	S		Sn	07 00 18.1	+1.8
SDPT	Sand Point	0.54	283			Pn	07 00 10.0	+1.4
SDPT				IAML			07 00 18.6	
	comp=N,9μm,0.6s							
SDPT	Sand Point	0.54	283			Sn	07 00 18.0	+1.7
VNKR	Veniaminof 5	0.81	7			Pn	07 00 16.6	+4.4
VNSW	Veniaminof 7	0.84	360			Pn	07 00 14.4	+1.8
VNWF	Veniaminof 8	0.92	360			Pn	07 00 16.1	+2.3
VNSS	Veniaminof 8	1.00	3			Pn	07 00 17.7	+2.8
VNFG	Fog Glacier, M	1.06	360			Pn	07 00 18.4	+2.9
CHGN	Chignik	1.25	30			Pn	07 00 20.5	+2.4
CHGN				IAML			07 00 41.6	
	comp=N,2μm,0.3s							
CHGN	Chignik	1.25	30			Sn	07 00 37.5	+3.8
PS1A	Pavlof South-1	1.27	280			Pn	07 00 19.8	+1.4
PS1A						Sn	07 00 35.5	+1.4
PS4A	Pavlof South-4	1.32	276			Pn	07 00 20.5	+1.4
DOL	Dolgoi Island	1.33	267			Pn	07 00 20.5	+1.3
DOL						Sn	07 00 37.1	+1.5
HAG	Hague Volcano	1.35	275			Pn	07 00 20.8	+1.3
PN7A	Pavlof North-7	1.41	279			Pn	07 00 22.1	+1.7
BPBCA	Veniaminof	1.50	24			Pn	07 00 24.6	+3.0
S12K	Black Hills	1.50	289			Pn	07 00 23.2	+1.5
S12K				IAML			07 00 42.3	
	comp=E,3μm,0.4s							
S12K				IAML			07 00 51.6	
	comp=N,2μm,0.5s							
S12K	Black Hills	1.50	289			Sn	07 00 41.5	+1.5
DTNA	Dutton South F	1.55	268			Pn	07 00 23.8	+1.5
DTNA						Sn	07 00 42.5	+1.4
DT1	Dutton Round H	1.57	267			Sn	07 00 44.2	+2.7
ANPB	Aniakchak Plen	1.73	24			Pn	07 00 27.6	+2.8
AZAC	Aniakchak	1.82	23			Pn	07 00 28.8	+2.7
ISLZ	Isanotski Laza	2.45	260			Pn	07 00 36.8	+2.1
ISLZ						Sn	07 01 06.8	+3.4
ISNN	Isanotski Nort	2.46	262			Pn	07 00 37.0	+2.1
R16K	Pilot Point	2.59	24			Pn	07 00 39.4	+2.9
R16K	Pilot Point	2.59	24	IAML			07 01 13.8	
	comp=N,689nm,0.6s							
R16K				IAML			07 01 51.8	
	comp=E,741nm,3.4s							
SSBA	Shishaldin	2.67	262			Pn	07 00 39.4	+1.7
WTUG	Tugumak	2.81	264			Pn	07 00 41.0	+1.5
WESN	West Dahl Nort	2.98	259			Pn	07 00 43.4	+1.5
R17L	Mt. Peulik Vol	2.99	35			Sn	07 01 20.6	+4.1
PLK3	Peulik 3	3.06	35			Pn	07 00 46.8	+3.8
AKUT	Akutan	3.77	256	P		Pn	07 00 55.6	+2.8
ACHA	Angle Creek He	3.79	36			Pn	07 00 56.5	+3.5
AHB	Akutan Harbor	3.81	255			Pn	07 00 55.8	+2.5
P16K	Nushagak River	3.90	12			Pn	07 00 57.8	+3.2
O15K	Ungalikthiuk R	3.96	358			Pn	07 00 57.3	+2.0
OHAK	Old Harbor	4.03	58	P		Pn	07 00 57.6	+1.4
OHAK	Old Harbor	4.03	58			Pn	07 00 59.3	+3.1
KAWH	Katmai	4.10	38			Pn	07 01 00.0	+2.7
O14K	Tigyukauivet M	4.14	348			Pn	07 00 59.7	+1.9
O14K				IAML			07 01 52.4	
	comp=E,97nm,3.5s							
O14K				IAML			07 02 51.4	
	comp=N,129nm,2.8s							
KAHG	Katmai Hook Gl	4.27	38			Pn	07 01 02.9	+3.2
UNV	Unalaska Valle	4.28	254	P		Pn	07 01 01.2	+1.5
UNV	Unalaska Valle	4.28	254	S		Sn	07 01 51.8	+3.5
UNV	Unalaska Valle	4.28	254			Pn	07 01 01.5	+1.8
UNV	Unalaska Valle	4.28	254	IAML			07 01 57.7	
	comp=E,90nm,3.7s							
UNV				IAML			07 02 15.8	
	comp=N,140nm,1.9s							
P17K	Kvichak River	4.32	22			Pn	07 01 03.7	+3.5
P17K				IAML			07 02 31.4	
	comp=E,280nm,1.9s							
MNAT	Makushin Natee	4.37	255			Pn	07 01 02.9	+1.9
O16K	Kokwok River B	4.45	10			Pn	07 01 04.6	+2.6
O16K	Kokwok River B	4.45	10	IAML			07 02 54.7	
	comp=N,72nm,3.2s							
KDAK	Kodiak Island	4.63	54	Pn		Pn	07 01 05.6	+1.1
	comp=N,3.1nm,0.3s,baz=211,slow=5.8,SNR=24							
KDAK				Sn		Sn	07 01 56.4	-0.6
	comp=N,1.3nm,0.3s,baz=29,slow=20,SNR=1.1							
	comp=N,6.8nm,0.3s							
KDAK				AML		AML		
KDAK	Kodiak Island	4.63	54			Pn	07 01 06.5	+2.0
KDAK	Kodiak Island	4.63	54	IAML			07 02 26.0	
	comp=N,101nm,1.4s							
KDAK				IAML			07 02 58.7	
	comp=N,73nm,4.2s							
N14K	Kuskokwak Cree	4.84	347			Pn	07 01 09.5	+2.1
Q19K	Cape Douglas,	4.91	39			Pn	07 01 11.8	+3.4
N15K	Kwethluk River	4.96	357			Pn	07 01 11.7	+2.6
N15K				IAML			07 02 12.4	
	comp=N,84nm,2.9s							
N15K				IAML			07 03 51.5	
	comp=E,104nm,3.6s							
M15K	Kasigluk River	5.51	354			Pn	07 01 18.5	+1.9
M13K	Dall Lake	5.58	340			Pn	07 01 19.7	+2.2
M14K	Bethel	5.68	348			Pn	07 01 20.5	+1.6
O19K	Port Alsworth	5.71	27			Pn	07 01 22.8	+3.5
N18K	Kilae Creek	5.80	18			Pn	07 01 23.3	+2.7
M16K	Timber Creek	5.82	3			Pn	07 01 23.6	+2.8
ILSW	Iliamna Southw	5.88	33	Pn		Pn	07 01 25.0	+3.2
IVE	Iliamna Volcan	5.94	34			Pn	07 01 25.5	+2.9
N19K	Bonanza Creek	6.21	24			Pn	07 01 30.2	+3.9
CNPM	China Poot	6.22	43	Pn		Pn	07 01 29.9	+3.5
M11K	Mekoryuk	6.27	328			Pn	07 01 28.6	+1.7
M17K	Holitna River	6.29	9			Pn	07 01 29.5	+2.2
RED	Redoubt Volcan	6.34	32			Pn	07 01 31.2	+3.2
L14K	Kuka Creek	6.35	346			Pn	07 01 29.8	+1.8
L15K	Ungalak Mounta	6.54	352			Pn	07 01 31.5	+0.7
BRSE	Bradley Lake S	6.55	43			Pn	07 01 31.7	+0.8
RDT	Redoubt	6.57	32			Pn	07 01 34.0	+2.8
L17K	Donlin	6.96	5			Pn	07 01 38.1	+1.7
K15K	Wolf Creek Mou	7.16	353			Pn	07 01 41.3	+2.1
L18K	Granite Mounta	7.17	11			Pn	07 01 41.6	+2.3
K13K	Kusilvak Mount	7.23	340			Pn	07 01 42.2	+2.1
L19K	White Mountain	7.39	17			Pn	07 01 45.0	+2.6
M20K	Styx River	7.46	24			Pn	07 01 47.4	+3.9
STLK	Strandline Lak	7.48	30			Pn	07 01 47.0	+3.4
K17K	Iditarod	7.54	4			Pn	07 01 46.2	+1.8
SUA	Susitna One	7.77	33			Pn	07 01 50.0	+2.2
RC01	Rabbit Creek A	7.83	37			Pn	07 01 50.4	+2.0
P23K	Montague Islan	8.08	49			Pn	07 01 53.4	+1.6
J16K	Anvik River	8.10	357			Pn	07 01 53.3	+1.2
PWL	Port Wells	8.19	42			Pn	07 01 54.7	+1.3
J17K	VABM Dome	8.20	1			Pn	07 01 54.6	+1.2
PMR	Palmer	8.39	36	P		Pn	07 01 59.8	+3.7
KNK	Knik Glacier	8.51	39	Pn		Pn	07 02 00.8	+3.2
GHO	Glory Hole Cre	8.59	36			Pn	07 01 59.2	+0.3
HIN	Hinchinbrook I	8.67	48			Pn	07 02 00.8	+0.9
CAST	Castle Rocks	9.05	22			Pn	07 02 08.9	+3.8
SCM	Sheep Creek Mo	9.19	39			Pn	07 02 07.8	+0.7
KLU	Klutina	9.51	43			Pn	07 02 12.6	+1.1
GOAT	Goat Mountain	9.53	50			Pn	07 02 12.7	+1.0
BMRM	Bremner River	9.77	48	Pn		Pn	07 02 16.9	+1.9
BERG	Berg Lake	9.90	52	Pn		Pn	07 02 19.1	+2.3
PAX	Paxson	10.59	37			Pn	07 02 27.8	+1.5
I23K	Minto, Yukon-K	11.15	23			Pn	07 02 33.8	+0.1
M26K	Nabesna, AK	11.17	43			Pn	07 02 36.8	+2.7
ILAR	Eielson Array	11.45	28	Pn		Pn	07 02 36.1	-1.8
	comp=E,0.2nm,0.3s,baz=214,slow=13,SNR=15							
ILAR				Sn		Sn	07 04 37.6	-6.7
	baz=220,slow=24							
	comp=E,0.8nm,0.5s							
ILAR				AML		AML		
PNL	Peninsula	11.71	59	P		Pn	07 02 44.3	+2.7
L27K	Beaver Creek,	11.98	42			Pn	07 02 45.8	+0.6
F20K	Avaraart Lake	12.00	7			Pn	07 02 48.7	+3.4
S32K	Killisnoo	14.00	71	Pn		Pn	07 03 15.1	+2.4
H27K	Steamboat Moun	14.04	31	Pn		Pn	07 03 15.2	+1.9
G30M	tAoh Zraii Nji	16.16	34	IAmb		IAmb	07 03 47.1	
	comp=Z,10nm,0.7s							
INK	Inuvik	17.77	32	P		Pn	07 03 59.8	-1.5
	comp=Z,0.8nm,0.3s,baz=219,slow=12,SNR=28							
	comp=Z,2.4nm,0.4s							
INK				AML		AML		
A36M	Sachs Harbour	22.15	28	P		P	07 04 48.1	-1.1
A36M				IAmb		IAmb	07 04 51.1	
	comp=Z,8.3nm,1.1s							
YKAW3	Yellowknife Wh	23.90	54	P		P	07 05 07.8	+0.7
YKAW3				IAmb		IAmb	07 05 24.1	
	comp=Z,7.0nm,1.3s							
YKA	Yellowknife Ar	23.91	54	P		P	07 05 08.0	+0.9
	comp=Z,0.6nm,0.6s,baz=270,slow=9.2,SNR=6.3							
	comp=Z,0.6nm,0.6s							
PETK	Petropavlovsk-	24.83	283	P		P	07 05 12.8	-2.8
	comp=Z,5.6nm,0.8s,baz=35,slow=12,SNR=5.4							
	comp=Z,5.6nm,0.8s							
PETK	Petropavlovsk-	24.83	283	P		P	07 05 15.2	-0.5
NVAR	Mina Array Bea	32.26	104	P		P	07 06 23.4	+1.1
	comp=Z,0.3nm,0.6s,baz=311,slow=5.0,SNR=1.6							
	comp=Z,0.3nm,0.6s							
PDAR	Pinedale Array	34.34	90	P		P	07 06 41.8	+1.5
	comp=Z,0.1nm,0.5s,baz=316,slow=7.5,SNR=2.3							
	comp=Z,0.1nm,0.5s							
YAK	Yakutsk	35.73	310	LR		LR	07 21 00.0	
	comp=Z,74nm,20.0s,baz=38,slow=36							
ULM	Lac du Bonnet	37.67	70	P		P	07 07 08.9	+0.5
	comp=Z,2.8nm,1.0s,baz=315,slow=8.6,SNR=2.4							
	comp=Z,2.8nm,1.0s							
ULM	Lac du Bonnet	37.67	70	IAmb		IAmb	07 07 43.2	
	comp=Z,5.2nm,1.2s							
H11N2	WAKE ISLAND Hy	43.55	229	T		T	07 54 11.4	
	baz=28,slow=76,SNR=5.7							
H11N3	WAKE ISLAND Hy	43.55	229	T		T	07 54 10.4	
	baz=28,slow=76,SNR=4.5							
H11N1	WAKE ISLAND Hy	43.57	229	T		T	07 54 08.4	
	baz=28,slow=76,SNR=8.0							
H11S1	WAKE ISLAND Hy	44.72	229	T		T	07 55 48.3	
	baz=28,slow=76,SNR=6.3							
H11S2	WAKE ISLAND Hy	44.73	229	T		T	07 55 58.1	
	baz=28,slow=76,SNR=8.9							
H11S3	WAKE ISLAND Hy	44.73	229	T		T	07 55 51.3	
	baz=28,slow=76,SNR=5.6							
SPITS	Spitsbergen Ar	46.83	1	P		P	07 08 21.2	-1.5
	comp=Z,9.4nm,0.8s,baz=2.0,slow=8.2,SNR=2.3							
	comp=Z,9.4nm,0.8s							
TXAR	Lajitas Array	47.15	100	P		P	07 08 27.0	+1.1
	comp=Z,0.1nm,0.5s,baz=326,slow=7.6,SNR=2.8							
TXAR				PcP		PcP	07 09 58.3	+1.3
	comp=Z,0.2nm,0.7s,baz=315,slow=4.5,SNR=2.6							
	comp=Z,0.1nm,0.5s							
SONM	Songino Array	54.66	305	P		P	07 09 20.3	-1.9
	comp=Z,0.7nm,0.5s,baz=64,slow=7.7,SNR=2.1							
SONM				PcP		PcP	07 10 24.6	0.0
	comp=Z,0.9nm,0.6s,baz=35,slow=3.3,SNR=3.3							
SONM				LR		LR	07 34 44.4	
	comp=Z,43nm,19.9s,baz=340,slow=38							
	comp=Z,0.7nm,0.5s							
ARCES	ARCESS Array B	55.49	358	P		P	07 09 26.1	-1.6
	comp=Z,1.3nm,0.6s,baz=32,slow=7.4,SNR=7.0							
	comp=Z,1.3nm,0.6s							
ARCES	ARCESS Array B	55.49	358	IAmb		IAmb	07 09 33.6	
	comp=Z,11nm,1.3s							
HNS	HongShan	58.02	291	⇓P		P	07 09 46.5	+0.5
HNS				pmax		pmax		
	comp=Z,8.0nm,0.7s							
JOW	Kunigami	58.35	272	LR		LR	07 34 04.5	
	comp=Z,36nm,21.4s,baz=35,slow=35							
FINES	FINESS Array B	63.58

I46RU	**ZALESOVO INFRA**	**4.74**	**23**	I		I		07 52 10.0	
	baz=202,slow=333,SNR=3.6								

*NNC **25** 07:27:25.7±0.6,49.98N×78.65E,h0km,mb3.2,mpv2.8, Error ellipse: s-maj=14.3km s-min=2.7km az=78.0, Suspected Mining explosion.*
*IDC **25** 07:27:25.8±1.1,50.01N×78.71E,h0km,mbtmp2.8/3, ML2.1/3, Error ellipse: s-maj=9.9km s-min=7.5km az=24.0*
ISC 25 07:27:26.4±0.9,50.07N±0.05×78.69E±0.09,h0km,n17, σ0.98/30,19C-6D,Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUR07	**Kurchatov Arra**	**0.53**	**348**	⇑P	**Pb**	**07 27 37.8**	**-0.8**
KUR07				⇑S	**Sb**	**07 27 47.8**	**+1.1**
KUR06	**Kurchatov Arra**	**0.55**	**349**	⇑P	**Pb**	**07 27 38.2**	**-0.7**
KUR06				⇓S	**Sb**	**07 27 47.2**	**0.0**
KUR14	**Kurchatov Arra**	**0.55**	**354**	⇑P	**Pb**	**07 27 37.9**	**-1.1**
KUR14				⇓S	**Sb**	**07 27 47.4**	**0.0**
KUR15	**Kurchatov Arra**	**0.56**	**352**	⇑P	**Pb**	**07 27 38.1**	**-1.0**
KUR15				⇑S	**Sb**	**07 27 47.8**	**+0.2**
KURBB	**Kurchatov Arra**	**0.56**	**350**	Pg	**Pg**	**07 27 37.8**	**+0.5**
	1.3nm,0.3s,baz=166,slow=18,SNR=51						
KURBB				Lg	Lg	07 27 46.8	
	4.6nm,0.3s,baz=170,slow=33,SNR=15						
KURBB	**Kurchatov Arra**	**0.56**	**350**	⇑P	**Pb**	**07 27 38.3**	**-0.9**
	23nm,0.5s						
KURBB				⇓S	**Sb**	**07 27 47.7**	**-0.1**
	120nm,0.7s						
KUR16	**Kurchatov Arra**	**0.57**	**348**	⇑P	**Pb**	**07 27 38.6**	**-0.8**
KUR16				⇑S	**Sb**	**07 27 48.1**	**+0.1**
KUR17	**Kurchatov Arra**	**0.58**	**346**	⇑P	**Pb**	**07 27 38.9**	**-0.6**
KUR17				⇑S	**Sb**	**07 27 48.2**	**-0.1**
KUR05	**Kurchatov Arra**	**0.58**	**350**	⇑P	**Pb**	**07 27 38.6**	**-0.9**
KUR05				⇑S	**Sb**	**07 27 47.8**	**-0.5**
KUR04	**Kurchatov Arra**	**0.60**	**351**	⇑P	**Pb**	**07 27 39.0**	**-0.8**
KUR04				⇑S	**Sb**	**07 27 47.9**	**-1.0**
KURK	**Kurchatov**	**0.65**	**356**	⇓P	**Pb**	**07 27 39.7**	**-0.9**
	5.3nm,0.5s						
KURK				⇑S	**Sb**	**07 27 50.5**	**+0.2**
	38nm,1.1s						
MAKZ	**Makanchi**	**3.93**	**145**	⇓Pg	**Pb**	**07 28 37.2**	**+0.7**
	6.1nm,0.9s						
MAKZ				⇑Lg	Lg	07 29 26.9	
	16nm,0.7s						
MK31	**Makanchi Array**	**4.06**	**142**	⇑Pn	**Pn**	**07 28 30.4**	**+0.6**
	0.2nm,0.3s,baz=321,slow=9.9,SNR=13						
MK31				⇑Pg	**Pb**	**07 28 39.0**	**+0.2**
	1.9nm,0.6s,baz=332,slow=15,SNR=17						
MK31				⇓Lg	Lg	07 29 31.2	
	4.0nm,0.5s,baz=332,slow=26,SNR=5.8						
MKAR	**Makanchi Array**	**4.06**	**142**	Pn	**Pn**	**07 28 29.8**	**0.0**
	0.2nm,0.3s,baz=321,slow=10,SNR=13						
MKAR				Pg	**Pb**	**07 28 37.1**	**-1.6**
	0.7nm,0.3s,baz=320,slow=14,SNR=13						
MKAR				Sn	**Sn**	**07 29 15.1**	**-2.9**
	0.5nm,0.3s,baz=326,slow=25,SNR=4.9						
MKAR				Lg	Lg	07 29 31.3	
	2.3nm,0.3s,baz=331,slow=26,SNR=13						
	0.8nm,0.6s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**5.42**	**42**	I	I	07 58 50.0	
	0.1nm,1.0s,baz=222,slow=323,SNR=1.4						
ZALV	**Zalesovo Beam**	**5.42**	**42**	Pn	**Pn**	**07 28 50.0**	**+1.5**
	0.4nm,0.3s,baz=226,slow=14,SNR=8.9						
ZALV				Lg	Lg	07 30 19.0	
	0.3nm,0.3s,baz=227,slow=32,SNR=3.9						
	1.2nm,0.4s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**5.96**	**303**	Pn	**Pn**	**07 28 57.1**	**+1.2**
	baz=114,slow=14,SNR=2.0						
BVAR				Sn	**Sn**	**07 30 04.4**	**-0.5**
	0.1nm,0.3s,baz=116,slow=25,SNR=6.0						
BVAR				Lg	Lg	07 30 35.9	
	0.1nm,0.3s,baz=113,slow=23,SNR=3.6						
	0.5nm,0.4s						

*ASRS **25** 07:34:39.0±0.7,54.02N×86.56E,h0km,M2.3(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 25 07:34:40.3±3.8,53.95N×86.64E,h0km,mbtmp2.7/2, ML2.4/2,Error ellipse: s-maj=32.8km s-min=16.5km az=76.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.08**	**271**	I	I	07 40 20.0	
	baz=88,slow=338,SNR=8.2						
ZALV	**Zalesovo Beam**	**1.08**	**271**	Pg	Pg	07 34 59.5	-1.4
	0.4nm,0.3s,baz=90,slow=19,SNR=4.6						
ZALV				Lg	Lg	07 35 17.1	
	0.9nm,0.3s,baz=92,slow=28,SNR=4.1						
KURBB	**Kurchatov Arra**	**5.99**	**239**	Pn	Pn	07 36 11.9	+1.8
	0.1nm,0.3s,baz=56,slow=13,SNR=2.1						
	0.2nm,0.2s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.68**	**203**	Pn	Pn	07 36 34.2	+0.8
	0.1nm,0.3s,baz=25,slow=13,SNR=3.7						
	0.1nm,0.3s						
MKAR				AML	AML		

*IDC **25** 07:36:31.4±1.6,31.48S×68.95W,h99km±12km,mb3.2/3, mbtmp3.5/5,Error ellipse: s-maj=41.1km s-min=24.6km az=102.0*
*SJA **25** 07:36:33.0±0.7,31.61S×68.60W,h112km±2km,ML3.4, MW3.5*
ISC 25 07:36:33.2±0.7,31.64S±0.03×68.59W±0.03,h117km±5km, n50,σ1.69/82,San Juan Province

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SJA	**San Juan**	**0.11**	**13**	*e*P	**Pn**	**07 36 49.5**	**+0.2**
SJA				IAML		07 37 03.4	
	comp=Z,803nm,0.1s						
ZON	**Zonda**	**0.12**	**319**	*e*P	**Pn**	**07 36 49.0**	**-0.3**
ZON				*e*S	**Sn**	**07 37 00.7**	**-0.7**
ZON				IAML		07 37 00.9	
	comp=Z,861nm,0.2s						
CFA	**Coronel Fontan**	**0.30**	**84**	P	**Pn**	**07 36 49.8**	**0.0**
	comp=Z,587nm,0.3s,baz=238,slow=6.7,SNR=3271						
CFA				S	**Sn**	**07 37 01.9**	**-0.3**
	comp=Z,229nm,0.3s,baz=66,slow=20,SNR=70						
CFA	**Coronel Fontan**	**0.30**	**84**	*e*P	**Pn**	**07 36 49.7**	**0.0**
CFA				*e*S	**Sn**	**07 37 02.3**	**0.0**
CFA				IAML		07 37 03.2	
	comp=Z,957nm,0.1s						
RTLL	**Cerro Villicun**	**0.32**	**18**	*e*P	**Pn**	**07 36 49.5**	**-0.4**
RTLL				*e*S	**Sn**	**07 37 01.9**	**-0.5**
RTLL				IAML		07 37 01.9	
	comp=Z,2μm,0.7s						
RTLS	**Leoncito**	**0.62**	**255**	*e*P	**Pn**	**07 36 52.1**	**+0.2**
RTLS				*e*S	**Sn**	**07 37 06.7**	**+0.6**
ACCO	**Cerro Coronel**	**1.12**	**339**	*e*P	**Pn**	**07 36 56.6**	**+0.1**
ACCO				*e*S	**Sn**	**07 37 14.4**	**+0.2**
ACCO				IAML		07 37 15.2	
	comp=Z,537nm,0.4s						
ARCO	**CERRO ARCO**	**1.24**	**193**	*e*P	**Pn**	**07 36 58.9**	**+1.3**
ARCO				IAML		07 37 19.1	
	comp=Z,1μm,0.3s						
AVFE	**Valle Fertil**	**1.38**	**45**	*e*P	**Pn**	**07 36 59.3**	**+0.3**
AVFE				*e*S	**Sn**	**07 37 19.1**	**+0.5**
AVFE				IAML		07 37 20.3	
	comp=Z,206nm,0.2s						
AAGR	**Agrelo**	**1.46**	**188**	*e*P	**Pn**	**07 37 00.7**	**+0.7**
AAGR				*e*S	**Sn**	**07 37 21.6**	**+1.1**
AAGR				IAML		07 37 24.2	
	comp=Z,751nm,0.7s						
ACDV	**Cuesta del Vie**	**1.53**	**343**	*e*P	**Pn**	**07 37 01.1**	**+0.2**
ACDV				*e*S	**Sn**	**07 37 22.0**	**+0.1**
ACDV				IAML		07 37 22.5	
	comp=Z,414nm,0.5s						
AROD	**Rodeo**	**1.65**	**332**	*e*S	**Sn**	**07 37 25.9**	**+1.1**
AVIZ	**Vizcacheras**	**1.83**	**178**	*e*P	**Pn**	**07 37 06.2**	**+1.7**
AVIZ				*e*S	**Sn**	**07 37 21.9**	**-6.5**
CO03	**El Pedregal**	**1.97**	**293**	*e*P	**Pn**	**07 37 06.7**	**+0.6**
CO03				*e*S	**Sn**	**07 37 31.6**	**+0.4**
CO03				IAML		07 37 33.7	
	comp=Z,302nm,0.2s						
VA03	**San Esteban**	**2.01**	**235**	*e*P	**Pn**	**07 37 08.2**	**+1.5**
VA03				*e*S	**Sn**	**07 37 36.0**	**+3.8**
VA03				IAML		07 37 37.9	
	comp=Z,152nm,0.6s						

CO01	**Juntas del Tor**	**2.10**	**322**	*e*P		**Pn**		**07 37 08.9**	**+1.0**
CO01				*e*S		**Sn**		**07 37 35.4**	**+0.8**
CO01				IAML				07 37 38.9	
	comp=Z,66nm,0.3s								
CO02	**Combarbal**	**2.10**	**281**	*e*P		**Pn**		**07 37 08.0**	**+0.1**
CO02				*e*S		**Sn**		**07 37 35.0**	**+0.5**
CO02				IAML				07 37 35.6	
	comp=Z,442nm,0.2s								
MT08	**Bocatoma Ro**	**2.17**	**213**	*e*P		**Pn**		**07 37 10.7**	**+1.9**
MT08				*e*S		**Sn**		**07 37 35.0**	**-1.1**
MT08				IAML				07 37 41.7	
	comp=Z,132nm,0.3s								
MT04	**Ro Olivares**	**2.20**	**216**	*e*P		**Pn**		**07 37 11.7**	**+2.5**
MT04				*e*S		**Sn**		**07 37 36.5**	**-0.2**
MT04				IAML				07 37 43.6	
	comp=Z,71nm,0.2s								
PEL	**Peldehue**	**2.33**	**229**	*e*P		**Pn**		**07 37 11.4**	**+0.8**
PEL				*e*S		**Sn**		**07 37 41.2**	**+1.9**
PEL				IAML				07 37 44.0	
	comp=Z,86nm,0.3s								
GO04	**Tololo Observa**	**2.39**	**307**	*e*P		**Pn**		**07 37 11.6**	**-0.1**
GO04				*e*S		**Sn**		**07 37 41.3**	**+0.1**
GO04				IAML				07 37 45.4	
	comp=Z,216nm,0.2s								
MT03	**Universidad Ad**	**2.46**	**221**	*e*P		**Pn**		**07 37 14.2**	**+1.8**
MT03				*e*S		**Sn**		**07 37 46.6**	**+4.0**
MT03				IAML				07 37 55.2	
	comp=Z,135nm,0.6s								
MT05	**Renca**	**2.52**	**225**	*e*P		**Pn**		**07 37 14.3**	**+1.2**
MT05				*e*S		**Sn**		**07 37 46.5**	**+2.6**
MT05				IAML				07 37 48.7	
	comp=Z,77nm,0.3s								
MT13	**San Alfonso**	**2.54**	**214**	*e*P		**Pn**		**07 37 13.0**	**-0.5**
MT13				*e*S		**Sn**		**07 37 44.9**	**+0.5**
MT13				IAML				07 37 51.9	
	comp=Z,56nm,0.3s								
MRA	**San Martin**	**2.56**	**109**	*e*P		**Pn**		**07 37 15.2**	**+1.5**
MRA				*e*S		**Sn**		**07 37 42.2**	**-2.7**
MRA				IAML				07 37 50.4	
	comp=Z,314nm,0.6s								
ACLC	**CERRO LA CRUZ**	**2.62**	**33**	*e*P		**Pn**		**07 37 14.9**	**+0.3**
ACLC				IAML				07 38 18.0	
	comp=Z,97nm,0.6s								
MT02	**Curacav**	**2.69**	**232**	*e*P		**Pn**		**07 37 15.5**	**+0.2**
MT02				*e*S		**Sn**		**07 37 47.4**	**-0.4**
MT02				IAML				07 38 31.8	
	comp=Z,50nm,0.6s								
VCA	**Vinchina**	**2.91**	**7**	*e*P		**Pn**		**07 37 19.1**	**+0.7**
VCA				*e*S		**Sn**		**07 37 54.6**	**+1.5**
VCA				IAML				07 37 57.3	
	comp=Z,118nm,0.4s								
VA01	**Torpederas**	**2.94**	**241**	*e*P		**Pn**		**07 37 18.6**	**+0.1**
VA01				*e*S		**Sn**		**07 37 44.9**	**-8.5**
VA01				IAML				07 37 54.5	
	comp=Z,52nm,0.6s								
RFA	**San Rafael**	**3.13**	**178**	*e*P		**Pn**		**07 37 21.7**	**+0.6**
RFA				*e*S		Sn		07 37 48.2	-10
RFA				IAML				07 37 57.7	
	comp=Z,160nm,0.8s								
AC05	**El Transito**	**3.15**	**332**	*e*P		**Pn**		**07 37 22.2**	**+0.8**
AC05				*e*S		**Sn**		**07 37 58.6**	**0.0**
AC05				IAML				07 38 02.9	
	comp=Z,57nm,0.2s								
MT01	**Popeta**	**3.16**	**225**	*e*P		**Pn**		**07 37 20.9**	**-0.5**
MT01				IAML				07 38 03.8	
	comp=Z,39nm,0.2s								
LCO	**Las Campanas**	**3.19**	**325**	*e*P		**Pn**		**07 37 21.7**	**-0.4**
LCO				*e*S		**Sn**		**07 37 58.3**	**-1.6**
LCO				IAML				07 38 00.2	
	comp=Z,267nm,0.5s								
TCA	**Tanti**	**3.42**	**86**	*e*P		**Pn**		**07 37 25.9**	**+0.8**
TCA				*e*S		Sn		07 37 50.9	-14
TCA				IAML				07 38 22.4	
	comp=Z,125nm,1.1s								
BO01	**Tunca**	**3.46**	**217**	*e*P		**Pn**		**07 37 25.4**	**0.0**
BO02	**Sierra Bellavi**	**3.65**	**210**	*e*P		**Pn**		**07 37 29.1**	**+1.1**
BO02				IAML				07 38 21.6	
	comp=Z,42nm,0.2s								
TINO	**Tinogasta**	**3.67**	**14**	*e*P		**Pn**		**07 37 29.3**	**+1.0**
TINO				*e*S		**Sn**		**07 38 11.8**	**+0.8**
TINO				IAML				07 38 17.3	
	comp=Z,73nm,0.4s								
AC04	**Llanos de Chal**	**4.04**	**327**	*e*P		**Pn**		**07 37 32.2**	**-1.0**
AC04				IAML				07 38 58.7	
	comp=Z,46nm,1.4s								
GO03	**Copiapo**	**4.28**	**340**	*e*P		**Pn**		**07 37 36.0**	**-0.4**
GO03				*e*S		**Sn**		**07 38 24.4**	**-1.1**
GO03				IAML				07 38 27.9	
	comp=Z,31nm,0.5s								
ML02	**Panimavida**	**4.74**	**209**	*e*P		**Pn**		**07 37 42.2**	**-0.4**
ML02				*e*S		**Sn**		**07 38 36.6**	**0.0**
ML02				IAML				07 38 40.2	
	comp=Z,29nm,1.4s								
AC02	**Maricunga**	**4.81**	**354**	*e*P		**Pn**		**07 37 44.7**	**+0.7**
AC02				*e*S		**Sn**		**07 38 38.3**	**-0.6**
AC02				IAML				07 38 41.5	
	comp=Z,22nm,1.1s								
PLCA	**Paso Flores**	**9.22**	**189**	P		**Pn**		**07 38 42.6**	**-0.5**
	comp=Z,2.1nm,1.0s,baz=336,slow=18,SNR=3.7								
LPAZ	**La Paz**	**15.29**	**2**	P		**Pn**		**07 40 02.6**	**-0.8**
	comp=Z,0.5nm,0.4s,baz=175,slow=4.1,SNR=4.4								
QSPA	**South Pole Qui**	**58.60**	**180**	P		**P**		**07 46 19.2**	**+1.6**
	comp=Z,0.6nm,0.8s,baz=191,slow=17,SNR=1.8								
	comp=Z,0.6nm,0.8s								
TXAR	**Lajitas Array**	**69.20**	**328**	P		**P**		**07 47 24.6**	**-2.8**
	comp=Z,0.1nm,0.6s,baz=152,slow=7.3,SNR=1.0								
	comp=Z,0.1nm,0.6s								
TORD	**Torodi Ar. Bea**	**80.66**	**68**	P		**P**		**07 48 34.4**	**+0.9**
	comp=Z,0.5nm,0.6s,baz=281,slow=5.5,SNR=2.5								
	comp=Z,0.5nm,0.6s								
ASAR	**Alice Springs**	**120.95**	**204**	PKP		**PKPdf**		**07 55 12.2**	**-0.3**
	comp=Z,0.2nm,0.5s,baz=141,slow=2.0,SNR=2.5								
WRA	**Warramunga Array**	**124.20**	**206**	PKP		**PKPdf**		**07 55 18.9**	**+0.2**
	comp=Z,0.3nm,0.5s,baz=163,slow=1.7,SNR=6.9								
ZALV	**Zalesovo Beam**	**150.68**	**33**	PKPbc		**PKiKP**		**07 56 12.3**	**+0.6**
	comp=Z,2.1nm,0.6s,baz=325,slow=4.7,SNR=8.5								
MKAR	**Makanchi Array**	**153.03**	**47**	PKPbc		**PKiKP**		**07 56 17.0**	**+0.2**
	comp=Z,0.5nm,0.8s,baz=318,slow=1.9,SNR=3.2								
MKAR				PKPab		**PKPab**		**07 56 28.6**	**0.0**
	comp=Z,0.5nm,0.7s,baz=325,slow=1.8,SNR=3.3								

*IDC **25** 07:58:04.3±3.4,53.71N×87.83E,h0km,mbtmp3.0/2, ML2.7/2, Error ellipse: s-maj=25.5km s-min=18.3km az=73.0*
ASRS 25 07:57:59.0±0.8,53.74N×88.20E,h0km,M2.5(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**2.02**	**277**	I	I	08 09 25.0	
	baz=94,slow=340,SNR=9.3						
ZALV	**Zalesovo Beam**	**2.02**	**277**	Pg	Pg	07 58 37.3	-0.3
	1.8nm,0.3s,baz=101,slow=14,SNR=27						
ZALV				Lg	Lg	07 59 04.2	
	3.6nm,0.3s,baz=98,slow=24,SNR=16						
KURBB	**Kurchatov Arra**	**6.72**	**246**	Pn	Pn	07 59 42.4	+3.6
	0.1nm,0.3s,baz=62,slow=14,SNR=5.5						
KURBB				Sn	Sn	08 00 54.3	-1.6
	0.1nm,0.3s,baz=59,slow=25,SNR=1.6						
KURBB				Lg	Lg	08 01 28.9	
	baz=60,slow=32,SNR=4.3						
	1.0nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.92**	**211**	Pn	Pn	07 59 59.6	+4.3
	0.1nm,0.3s,baz=26,slow=13,SNR=4.3						
MKAR				Lg	Lg	08 02 09.4	
	baz=22,slow=28,SNR=3.2						
	0.2nm,0.4s						
MKAR				AML	AML		

*GCG **25** 07:58:30.8±2.3, 15.76N×91.25W,h23km±20km,MD4.2, Presumed earthquake*
*CATAC **25** 07:58:31.4±0.3, 16.1N±3.3×9.1W±.1, h1km,M3.4/7,MLv3.4/7, Error ellipse: s-maj=5.9km s-min=4.6km az=140.4, confirmed*
ISC 25 07:58:27.3±1.4,15.78N±0.03×91.13W±0.05,h14km±16km, n17,σ1.04/23,Mexico-Guatemala border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HUEH	**Huehuetenango**	**0.58**	**218**	P	**Pn**	**07 58 41.6**	**+0.1**
HUEH	**Huehuetenango**	**0.58**	**218**	*i* P	**Pb**	**07 58 39.7**	**+0.3**
HUEH				*i* S	**Sb**	**07 58 48.9**	**+1.2**
STG8	**El Palmar, Qui**	**1.34**	**189**	*i* P	**Pn**	**07 58 51.3**	**-0.6**
FG8	**Yepocapa, Chim**	**1.61**	**160**	*i* P	**Pn**	**07 58 54.8**	**-0.6**
PETF	**Flores**	**1.66**	**47**	P	**Pg**	**07 58 59.8**	**+0.6**
PETF				S	**Sg**	**07 59 22.6**	**+1.8**
PETF	**Flores**	**1.66**	**47**	*i* P	**Pg**	**07 58 59.9**	**+0.7**
PETF				*i* S	**Sg**	**07 59 20.8**	**+0.1**
JUAM	**Asuncion Mita**	**1.99**	**136**	*i* P	**Pg**	**07 59 04.6**	**-0.9**
ESQI	**Esquipulas**	**2.11**	**125**	P	**Pb**	**07 59 05.7**	**+0.3**
ESQI				S	**Sg**	**07 59 34.8**	**-0.4**
MTO3	**Montecristo**	**2.19**	**129**	P	**Pb**	**07 59 07.4**	**+0.5**
MTO3				S	**Sg**	**07 59 38.3**	**+0.4**
MTO3	**Montecristo**	**2.19**	**129**	*i* S	**Sb**	**07 59 35.1**	**+1.1**
FAME	**Alcaldia de Sa**	**2.21**	**151**	P	**Pg**	**07 59 09.1**	**-0.6**
FAME				S	**Sg**	**07 59 39.0**	**+0.7**
NUBE	**Las Nubes**	**2.28**	**145**	P	**Pg**	**07 59 11.0**	**-0.1**
NUBE	**Las Nubes**	**2.28**	**145**	*i* P	**Pb**	**07 59 09.1**	**+0.8**
SARH	**Santa Rosa de**	**2.50**	**113**	P	**Pg**	**07 59 12.9**	**-2.3**
SARH	**Santa Rosa de**	**2.50**	**113**	*i* P	**Pb**	**07 59 12.8**	**+0.8**
COEG	**Centro de Oper**	**3.06**	**134**	P	**Pb**	**07 59 20.6**	**-1.0**
SCIG	**Sabancuy**	**3.17**	**359**	P	**Pb**	**07 59 21.7**	**-1.8**

*IDC **25** 08:09:17.4±1.4,3.69S×139.79E,h0km,mb3.9/4, mbtmp3.9/6,ML4.0/2,MS2.6/1,Error ellipse: s-maj=38.0km s-min=14.6km az=104.0*
*DJA **25** 08:09:20.4±1.2,4.5S±5.4×14.1E±1.3,h10km,M4.0/4, mb4.5/1,ML4.1/3,MLv4.0/3,MLv4.0/4*
ISC 25 08:09:16.1±1.4,3.68S±0.10×141.0E±0.2,h10km,n10, σ1.59/11,mb4.0/4,Irian Jaya

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GENI	**Genyem**	**1.33**	**324**	P	**Pb**	**08 09 41.3**	**+0.1**
GENI				S	**Sg**	**08 09 56.7**	**-2.3**
GENI				AML	AML		
GENI				AML	AML		
GENI				AML	AML		
SMPI	**Sarmi**	**2.80**	**307**	P	**Pn**	**08 10 03.2**	**+2.3**
SMPI				S	**Sn**	**08 10 35.4**	**+0.7**
SMPI				AML	AML		
SMPI				AML	AML		
SMPI				AML	AML		
BAKI	**Biak**	**5.43**	**297**	P	**Pn**	**08 10 38.6**	**+1.4**
BAKI				AML	AML		
WRA	**Warramunga Arr**	**17.41**	**201**	Pn	**Pn**	**08 13 18.0**	**-1.3**
	0.6nm,0.3s,baz=24,slow=12,SNR=23						
WRA				Sn	Sn	08 16 25.8	-7.4
	0.1nm,0.3s,baz=19,slow=21,SNR=2.1						
	4.2nm,0.7s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**20.74**	**225**	P	P	08 13 52.5	-4.6
	0.3nm,0.3s,baz=45,slow=14,SNR=3.7						
FITZ				S	S	08 17 35.9	-13
	1.4nm,0.4s,baz=39,slow=9.7,SNR=3.1						
	0.6nm,0.4s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**21.01**	**198**	P	**P**	**08 14 00.7**	**+0.7**
	7.7nm,0.9s,baz=25,slow=9.5,SNR=53						
ASAR				S	**S**	**08 17 52.5**	**-1.7**
	1.6nm,0.9s,baz=16,slow=24,SNR=7.2						
	7.7nm,0.9s						
KAPI	**Kappang**	**21.18**	**266**	LR	LR	08 22 46.4	
	comp=Z,15nm,18.2s,baz=80,slow=40						
MKAR	**Makanchi Array**	**71.92**	**322**	P	**P**	**08 20 39.1**	**-0.7**
	0.2nm,0.4s,baz=112,slow=6.1,SNR=2.7						
	0.2nm,0.4s						
BVAR	**Borovoye Array**	**81.38**	**325**	P	**P**	**08 21 32.2**	**-0.9**
	0.6nm,0.5s,baz=127,slow=4.9,SNR=2.0						
	0.6nm,0.5s						
QSPA	**South Pole Qui**	**86.28**	**180**	P	**P**	**08 21 59.1**	**+1.0**
	1.5nm,1.0s,baz=355,slow=5.0,SNR=5.7						
	1.5nm,1.0s						

*TIF **25** 08:16:20.1,39.34N×49.19E,h63km±3km*
*AZER **25** 08:16:20.6,39.34N×49.12E,h41km,ml3.5*
*TEH **25** 08:16:21.4,39.29N×49.20E,h40km,ML3.2, Presumed earthquake*
*IDC **25** 08:16:22.9±2.4,40.33N×49.58E,h0km,mb3.8/5, mbtmp3.8/7,ML3.3/2,MS2.6/2,Error ellipse: s-maj=59.4km s-min=18.7km az=168.0*
*DRS **25** 08:16:22.4,39.54N×49.31E,h10km*
*MOS **25** 08:16:22.4±1.4,40.09N×49.73E,h11km,mb3.8/1,Error ellipse: s-maj=16.6km s-min=7.5km az=123.8*
ISC 25 08:16:18.8±1.5,39.39N±0.02×49.32E±0.04,h16km±10km, n77,σ1.24/120,mb3.7/5,Caspian Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ALIB	**&Aumlli-Bayram**	**0.62**	**337**	Pg	**Pn**	**08 16 34.9**	**+2.0**
ALIB	**&Aumlli-Bayram**	**0.62**	**337**	P	**Pn**	**08 16 35.0**	**+2.0**
ALIB				S	**Sn**	**08 16 46.7**	**+4.1**
GLBA	**Clilabad**	**0.73**	**259**	Pg	**Pn**	**08 16 34.1**	**-0.4**
GLBA	**Clilabad**	**0.73**	**259**	P	**Pn**	**08 16 34.4**	**-0.2**
GLBA				S	**Sn**	**08 16 45.4**	**+0.1**
LKRN	**Lenkeran, Azer**	**0.80**	**212**	Pg	**Pn**	**08 16 35.2**	**-0.2**
LKRN	**Lenkeran, Azer**	**0.80**	**212**	P	**Pn**	**08 16 35.3**	**-0.1**
LKRN				S	**Sn**	**08 16 46.9**	**-0.1**
SAAT	**Saatly**	**0.84**	**305**	Pg	**Pn**	**08 16 37.7**	**+1.8**
SAAT	**Saatly**	**0.84**	**305**	P	**Pn**	**08 16 37.8**	**+1.8**
SAAT				S	**Sn**	**08 16 51.1**	**+3.2**
ASTR	**Astara**	**0.92**	**207**	Pg	**Pn**	**08 16 36.9**	**-0.2**
ASTR	**Astara**	**0.92**	**207**	P	**Pn**	**08 16 36.9**	**-0.2**
ASTR				S	**Sg**	**08 16 49.8**	**+0.9**
YRD	**Yardimli**	**0.96**	**241**	Pg	**

SBZ				Sn	Sn	08 17 43.0	+3.5	
NAX	**Nakhchivan**	**2.98**	**267**	Sg	Sb	08 17 50.2	+2.6	
GDB	**GEDABAY**	**3.04**	**297**	Pn	Pn	08 17 06.6	+0.2	
GDB				Sn	Sn	08 17 41.3	-1.3	
ZKTA	**Zakatala**	**3.04**	**318**	Pn	Pn	08 17 07.9	+1.5	
ZKTA				Sn	Sn	08 17 42.6	+0.1	
IGZV	**Ghazvin**	**3.08**	**166**	Pn	Pn	08 17 07.3	+0.2	
ISHB	**Shabestar**	**3.10**	**250**	Pn	Pn	08 17 07.6	+0.4	
KMKR	**Kumukh**	**3.22**	**329**	*e*PN	Pn	08 17 10.1	+1.2	
KMKR				*e*S	Sn	08 17 48.5	+1.5	
KMKR				pmax	pmax			
	comp=Z,7.0nm,0.3s							
LGD	**Lagodekhi**	**3.38**	**317**	P	Pn	08 17 12.1	+1.1	
LGD				S	Sn	08 17 49.9	-0.9	
LGD	**Lagodekhi**	**3.38**	**317**	PN	Pn	08 17 12.1	+1.1	
LGD				S	Sn	08 17 49.9	-0.9	
MZPU	**Pul - Mazandar**	**3.44**	**148**	Pn	Pn	08 17 13.3	+1.3	
TLTR	**Tlyarata**	**3.53**	**321**	*e*Pn	Pn	08 17 14.1	+0.9	
	comp=Z,4.0nm,0.1s							
TLTR				*e*Sn	Sn	08 17 55.8	+1.2	
	comp=Z,19nm,0.4s							
TLTR	**Tlyarata**	**3.53**	**321**	*e*PN	Pn	08 17 14.0	+0.9	
TLTR				*e*S	Sn	08 17 55.7	+1.2	
TLTR				pmax	pmax			
	comp=Z,4.0nm,0.1s							
GNI	**Garni**	**3.61**	**284**	Pn	Pb	08 17 24.0	+1.7	
	comp=Z,4.4nm,0.3s,baz=97,slow=8.1,SNR=8.1							
GNI				LR	LR	08 19 11.5		
	comp=Z,47nm,19.2s,baz=42,slow=45 comp=Z,11nm,0.3s							
GNI				AML	AML			
ARKR	**Arakani**	**3.66**	**332**	*e*Pn	Pn	08 17 15.4	+0.5	
	comp=Z,2.0nm,0.7s							
ARKR				*e*Sn	Sn	08 17 59.0	+1.2	
	comp=Z,54nm,0.4s							
ARKR	**Arakani**	**3.66**	**332**	*e*PN	Pn	08 17 15.3	+0.5	
ARKR				*e*S	Sn	08 17 58.9	+1.2	
ARKR				pmax	pmax			
	comp=Z,2.0nm,0.7s							
QABG	**Abgarm-Qazvin**	**3.68**	**177**	Pn	Pn	08 17 15.6	+0.3	
XNZR	**Khunzakh**	**3.72**	**329**	*e*Pn	Pn	08 17 16.4	+0.7	
	comp=Z,4.0nm,0.5s							
XNZR				*e*Sn	Sn	08 18 00.1	+0.8	
	comp=Z,22nm,0.4s							
HNZR	**Khunzah**	**3.73**	**329**	*e*PN	Pn	08 17 16.4	+0.5	
HNZR				*e*S	Sn	08 18 00.0	+0.4	
HNZR				pmax	pmax			
	comp=Z,4.0nm,0.5s							
UNCR	**Uncukul**	**3.83**	**331**	*e*Pn	Pn	08 17 17.8	+0.6	
	comp=Z,5.0nm,0.3s							
UNCR				*e*Sn	Sn	08 18 03.2	+1.2	
	comp=Z,42nm,0.6s							
UNCR	**Uncukul**	**3.83**	**331**	*e*PN	Pn	08 17 17.8	+0.6	
UNCR				*e*S	Sn	08 18 03.1	+1.2	
UNCR				pmax	pmax			
	comp=Z,5.0nm,0.3s							
KRNR	**Karanay**	**3.89**	**333**	*e*Pn	Pn	08 17 18.4	+0.4	
	comp=Z,4.0nm,0.3s							
KRNR				*e*Sn	Sn	08 18 03.8	+0.3	
	comp=Z,38nm,0.3s							
KRNR	**Karanay**	**3.89**	**333**	*e*PN	Pn	08 17 18.4	+0.4	
KRNR				*e*S	Sn	08 18 03.7	+0.3	
KRNR				pmax	pmax			
	comp=Z,4.0nm,0.3s							
IPRN	**Peran**	**3.95**	**142**	Pn	Pn	08 17 19.8	+1.0	
DBC	**Dubki**	**4.08**	**333**	*e*Pn	Pn	08 17 21.0	+0.3	
	comp=Z,7.0nm,1.0s							
DBC				*e*Sn	Sn	08 18 08.8	+0.6	
	comp=Z,33nm,0.7s							
DBC	**Dubki**	**4.08**	**333**	*e*PN	Pn	08 17 20.9	+0.3	
DBC				*e*S	Sn	08 18 08.8	+0.6	
DBC				pmax	pmax			
	comp=Z,7.0nm,1.0s							
IDMV	**Damavand**	**4.37**	**150**	Pn	Pn	08 17 26.7	+1.8	
CHRG	**Chargali**	**4.44**	**313**	P	Pn	08 17 26.2	+0.6	
CHRG				S	Sn	08 18 14.6	-2.5	
SHTL	**Shatili**	**4.54**	**317**	P	Pn	08 17 29.9	+2.9	
SHTL				S	Sn	08 18 20.6	+1.1	
SHTL	**Shatili**	**4.54**	**317**	PN	Pn	08 17 29.9	+2.9	
SHTL				S	Sn	08 18 20.6	+1.1	
IFIR	**Firoozkooh**	**4.63**	**143**	Pn	Pn	08 17 30.4	+2.0	
BRTR	**Keskin Array B**	**12.11**	**277**	LR	LR	08 24 27.4		
	comp=Z,41nm,19.6s,baz=126,slow=40							
BVAR	**Borovoye Array**	**19.86**	**40**	P	P	08 20 47.8	-1.3	
	baz=237,slow=10,SNR=4.4 comp=Z,0.9nm,0.5s							
KURBB	**Kurchatov Arra**	**23.36**	**52**	P	P	08 21 26.2	-0.1	
	comp=Z,0.7nm,0.3s,baz=257,slow=9.5,SNR=2.1 comp=Z,0.7nm,0.3s							
KURK	**Kurchatov**	**23.44**	**51**	P	P	08 21 26.2	-1.0	
MKAR	**Makanchi Array**	**25.05**	**62**	P	P	08 21 42.4	+0.1	
	comp=Z,1.4nm,0.8s,baz=255,slow=9.7,SNR=5.4 comp=Z,1.4nm,0.8s							
FINES	**FINESS Array B**	**26.31**	**335**	P	P	08 21 52.5	-0.9	
	comp=Z,2.8nm,0.9s,baz=132,slow=8.9,SNR=2.5 comp=Z,2.8nm,0.9s							
ZALV	**Zalesovo Beam**	**28.03**	**47**	P	P	08 22 08.0	-0.9	
	comp=Z,0.4nm,0.3s,baz=260,slow=8.5,SNR=2.8 comp=Z,0.4nm,0.3s							
ARCES	**ARCESS Array B**	**32.75**	**345**	P	P	08 22 49.3	-1.3	
	comp=Z,1.9nm,0.8s,baz=138,slow=9.6,SNR=5.2 comp=Z,1.9nm,0.8s							

*CNRM **25** 08:34:41.4, 36.62N×8.91W, h32km, ML2.5*
*MDD **25** 08:34:44.7±0.6, 36.77N×8.75W, h28km±5km, mb_Lg2.7/10, Error ellipse: s-maj=5.7km s-min=3.6km az=73.0*
*IGIL **25** 08:34:45.6, 36.77N×8.70W, h27km, ML1.8*
*INMG **25** 08:34:45.2±1.4, 36.77N×8.70W, h24km±3km, ML1.8, Error ellipse: s-maj=5.1km s-min=2.7km az=78.0, #DIST_RANGE: LOCAL #IPMA_REGION: S Lagos*
*SFS **25** 08:34:46.3, 36.86N×8.69W, h26km, ML2.4/15, ML2.6/15, MLv2.7/12*

ISC 25 08:34:43.9±1.2, 36.80N±0.03×8.71W±0.04, h32km±10km, n56, σ1.38/101, 5C-1D, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**0.34**	**344**	Pg	Pn	**08 34 53.1**	**+0.4**
PFVI				Sg	Sb	**08 34 58.0**	**+0.3**
PFVI	**Vila Bisbo**	**0.34**	**344**	P	Pn	**08 34 52.4**	**-0.3**
PFVI				S	Sn	**08 34 59.6**	**+1.0**
PFVI	**Vila Bisbo**	**0.34**	**344**	*e*P	Pn	**08 34 53.1**	**+0.4**
PFVI				*e*S	Sn	**08 34 58.9**	**+0.3**
PFVI				IAML		08 34 59.2	
PFVI				IAML		08 34 59.3	
PFVI				IAML		08 34 59.5	
MORF	**Marmelete**	**0.51**	**5**	*e*P	Pn	**08 34 55.5**	**+0.6**
MORF				*e*S	Sn	**08 35 03.1**	**+0.5**
MORF				IAML		08 35 04.4	
	comp=N,45nm,0.1s						
MORF	**Marmelete**	**0.51**	**5**	*e*P	Pn	**08 34 55.6**	**+0.6**
MORF				*e*S	Sn	**08 35 03.2**	**+0.6**
MORF				IAML		08 35 04.4	
MORF				IAML		08 35 04.4	
MORF				IAML		08 35 04.4	
PMONC	**Monchique**	**0.53**	**14**	*e*P	Pn	**08 34 55.9**	**+0.6**
PTEO	**Sao Teotonio**	**0.74**	**359**	*e*P	Pn	**08 34 58.8**	**+0.6**
PTEO				*e*S	Sn	**08 35 08.9**	**+0.5**
PTEO				IAML		08 35 09.8	
PTEO				IAML		08 35 09.8	
PTEO				IAML		08 35 10.5	
PTEO	**Sao Teotonio**	**0.74**	**359**	P	Pn	**08 34 58.8**	**+0.6**
PTEO				S	Sb	**08 35 08.3**	**0.0**
PBDV	**Barranco-do-Ve**	**0.76**	**54**	Pg	Pn	**08 34 59.7**	**+1.2**
PBDV				Sg	Sn	**08 35 09.5**	**+0.6**
PBDV	**Barranco-do-Ve**	**0.76**	**54**	*e*P	Pn	**08 34 59.7**	**+1.2**
PBDV				*e*S	Sn	**08 35 09.2**	**+0.3**
PBDV				IAML		08 35 10.5	
PBDV				IAML		08 35 10.6	
PBDV				IAML		08 35 10.9	
PCVE	**Castro Verde**	**0.99**	**33**	Pn	Pn	**08 35 02.7**	**+1.1**
PCVE				Sn	Sn	**08 35 15.4**	**+0.9**
PCVE	**Castro Verde**	**0.99**	**33**	*e*P	Pn	**08 35 02.7**	**+1.1**
PCVE				*e*S	Sn	**08 35 15.6**	**+1.2**
PCVE				IAML		08 35 16.1	
PCVE				IAML		08 35 16.5	
PCVE				IAML		08 35 16.6	
PVAQ	**Vaqueiros**	**1.00**	**53**	P	Pn	**08 35 02.9**	**+1.3**
PVAQ				S	Sn	**08 35 18.4**	**+3.8**
PVAQ	**Vaqueiros**	**1.00**	**53**	*e*P	Pn	**08 35 02.8**	**+1.1**
PVAQ				*e*S	Sn	**08 35 15.6**	**+0.9**
PVAQ				IAML		08 35 16.3	
PVAQ				IAML		08 35 16.4	
PVAQ				IAML		08 35 16.6	
MESJ	**Messejana**	**1.11**	**20**	*e*P	Pb	**08 35 04.3**	**-0.2**
MESJ	**Messejana**	**1.11**	**20**	*e*P	Pb	**08 35 04.3**	**-0.2**
MESJ				*e*S	Sb	**08 35 17.9**	**-0.7**
EGRO	**El Granado**	**1.22**	**53**	Pn	Pb	**08 35 05.8**	**-0.6**
EGRO				Sn	Sn	**08 35 21.1**	**+0.8**
EGRO	**El Granado**	**1.22**	**53**	P	Pb	**08 35 05.8**	**-0.6**
EGRO				S	Sn	**08 35 20.8**	**+0.6**
EGRO				IVmb_Lg		08 35 22.5	
PLOUS	**Minas do Lousa**	**1.25**	**10**	*e*P	Pn	**08 35 05.6**	**+0.5**
PLOUS				*e*S	Sn	**08 35 21.7**	**+0.8**
PLOUS				IAML		08 35 25.2	
PLOUS				IAML		08 35 27.7	
PLOUS				IAML		08 35 36.1	
PBEJ	**Beja**	**1.40**	**28**	*e*S	Sn	**08 35 24.7**	**+0.2**
MOE	**Montemor**	**1.74**	**9**	*e*P	Pn	**08 35 12.8**	**+0.8**
MOE				*e*S	Sn	**08 35 34.0**	**+0.9**
EVO	**Evora**	**1.81**	**18**	Pn	Pn	**08 35 13.6**	**+0.7**
EVO				Sn	Sn	**08 35 34.5**	**-0.4**
EVO	**Evora**	**1.81**	**18**	*e*P	Pn	**08 35 13.7**	**+0.7**
EMIN	**Mina Concepcio**	**1.89**	**59**	Sn	Sn	**08 35 37.9**	**+1.2**
EMIN	**Mina Concepcio**	**1.89**	**59**	P	Pn	**08 35 14.5**	**+0.5**
EMIN				S	Sn	**08 35 37.4**	**+0.7**
PBAR	**Barrancos**	**1.91**	**44**	Pn	Pn	**08 35 14.9**	**+0.6**
PBAR				Sn	Sn	**08 35 37.5**	**+0.3**
PBAR	**Barrancos**	**1.91**	**44**	*e*P	Pn	**08 35 15.2**	**+1.0**
PBAR				*e*S	Sn	**08 35 37.4**	**+0.3**
PBAR				IAML		08 35 40.1	
PBAR				IAML		08 35 40.7	
PBAR				IAML		08 35 41.7	
PARRA	**Arraiolos**	**2.08**	**15**	*e*P	Pn	**08 35 17.0**	**+0.5**
PARRA				*e*S	Sn	**08 35 42.2**	**+0.8**
PMAFR	**Mafra**	**2.20**	**348**	Pn	Pn	**08 35 19.2**	**+1.0**
PMAFR				Sn	Sn	**08 35 44.4**	**+0.1**
PMAFR	**Mafra**	**2.20**	**348**	*e*P	Pn	**08 35 19.4**	**+1.2**
PMAFR				*e*S	Sn	**08 35 45.3**	**+1.0**
PESTR	**Estremoz**	**2.25**	**23**	Pn	Pn	**08 35 19.5**	**+0.7**
PESTR				Sn	Sn	**08 35 45.3**	**-0.2**
PESTR	**Estremoz**	**2.25**	**23**	*e*P	Pn	**08 35 19.7**	**+0.8**
PESTR				*e*S	Sn	**08 35 46.0**	**+0.5**
ESPR	**Espera**	**2.29**	**87**	Pn	Pn	**08 35 20.9**	**+1.5**
ESPR				Sn	Sn	**08 35 46.7**	**+0.2**
ESPR	**Espera**	**2.29**	**87**	P	Pn	**08 35 20.9**	**+1.5**
ESPR				S	Sn	**08 35 47.2**	**+0.6**
ESPR				IVmb_Lg		08 35 50.2	
PMTG	**Montargil**	**2.30**	**9**	*e*P	Pn	**08 35 20.0**	**+0.4**
PMTG				*e*S	Sn	**08 35 45.8**	**-0.9**
PMTG				IAML		08 35 48.8	
PMTG				IAML		08 35 48.9	
PMTG				IAML		08 35 49.0	
PMTG	**Montargil**	**2.30**	**9**	P	Pn	**08 35 20.0**	**+0.4**
PMTG				S	Sn	**08 35 45.5**	**-1.2**
EBAD	**Badajoz**	**2.37**	**34**	Pn	Pn	**08 35 21.0**	**+0.4**
EBAD				Sn	Sn	**08 35 49.0**	**+0.5**
EBAD	**Badajoz**	**2.37**	**34**	P	Pn	**08 35 21.0**	**+0.4**
EBAD				S	Sn	**08 35 48.8**	**+0.2**
EBAD				IVmb_Lg		08 35 53.2	
PMRV	**Marv??o**	**2.82**	**21**	*e*P	Pn	**08 35 27.3**	**+0.5**
PMRV				*e*S	Sn	**08 35 59.8**	**+0.1**
PMRV				IAML		08 36 00.6	
PMRV				IAML		08 36 00.7	
PMRV				IAML		08 36 01.4	
PSARD	**Sardoal**	**2.83**	**9**	*e*P	Pn	**08 35 27.5**	**+0.7**
PSARD				*e*S	Sn	**08 35 59.9**	**0.0**
PSARD				IAML		08 36 01.4	
PSARD				IAML		08 36 01.8	
PSARD				IAML		08 36 01.9	
ECEU	**Ceuta**	**2.84**	**108**	P	Pn	**08 35 27.1**	**+0.1**
ECEU				IVmb_Lg		08 36 03.1	
ECAB	**El Cabril**	**2.91**	**63**	Pn	Pn	**08 35 29.5**	**+1.4**
ECAB				Sn	Sn	**08 36 01.6**	**-0.4**
ECAB	**El Cabril**	**2.91**	**63**	P	Pn	**08 35 29.4**	**+1.4**
ECAB				S	Sn	**08 36 00.6**	**-1.3**
ECAB				IVmb_Lg		08 36 03.5	
EADA	**Adamuz**	**3.56**	**66**	Pn	Pn	**08 35 38.1**	**+1.2**
EADA				Sn	Sn	**08 36 15.5**	**-2.4**
EADA	**Adamuz**	**3.56**	**66**	P	Pn	**08 35 38.1**	**+1.2**
EADA				S	Sn	**08 36 15.8**	**-2.1**
EADA				IVmb_Lg		08 36 18.6	
AVE	**Averroes**	**3.65**	**163**	Pn	Pn	**08 35 41.6**	**+3.4**
EQTA	**Presa de Quent**	**4.24**	**83**	Pn	Pn	**08 35 49.1**	**+2.8**
SRHM	**Skhour des Reh**	**4.37**	**171**	P	Pn	**08 35 48.1**	**0.0**
SRHM				Sn	Sn	**08 36 36.9**	**-1.1**
PAB	**San Pablo**	**4.39**	**50**	P	Pn	**08 35 49.4**	**+0.9**
PAB				S	Sn	**08 36 36.2**	**-2.4**
PAB				IVmb_Lg		08 36 37.4	
POLO	**Lamas de Olo**	**4.62**	**9**	P	Pn	**08 35 52.0**	**+0.4**
POLO				S	Sn	**08 36 38.6**	**-5.6**
ESDC	**Sonseca Array**	**4.71**	**51**	S	Sn	**08 36 43.9**	**-2.5**
ESDC				IVmb_Lg		08 36 49.5	
ELOB	**Lobios**	**5.08**	**5**	P	Pn	**08 35 58.0**	**+0.1**
ELOB				S	Sn	**08 36 53.1**	**-2.5**
ELOB				IVmb_Lg		08 36 55.6	
MD31	**MD31**	**5.09**	**139**	P	Pn	**08 35 55.4**	**-2.7**
MD31				Sn	Sn	**08 36 53.6**	**-2.3**
MDT	**Midelt**	**5.21**	**138**	P	Pn	**08 35 57.5**	**-2.3**
MDT				Sn	Sn	**08 36 56.7**	**-2.2**
OUZM	**OUZ**	**6.10**	**164**	P	Pn	**08 36 09.3**	**-2.6**
OUZM				Sn	Sn	**08 37 17.3**	**-3.3**
TTIG	**Tnine Tigouga,**	**6.24**	**178**	P	Pn	08 36 09.0	-4.9

*JMA **25** 08:37:51.0±0.2, 23.5N±0.6×124.2E±0.6, h29km±2km, MV3.2/13, NEAR ISHIGAKIJIMA ISLAND*

ISC 25 08:37:53.8±1.7, 23.61N±0.08×124.06E±0.04, h32km±11km, n23, σ1.64/34, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HATJ	**Hateruma jima**	**0.51**	**332**	P	Pb	**08 38 03.8**	**-0.7**
HATJ				*e*S	Sb	**08 38 12.4**	**+0.6**
JKRS	**Kuro-shima**	**0.63**	**355**	*e*P	Pb	**08 38 05.4**	**-1.0**
JKRS				*e*S	Sb	**08 38 16.0**	**+1.0**
JIJ	**Ishigaki jima**	**0.76**	**6**	*i* P	Pb	**08 38 10.1**	**-1.5**
JIJ				*e*S	Sb	**08 38 18.8**	**+0.2**
IRIF	**Iriomote-Funau**	**0.79**	**337**	P	Pb	**08 38 08.4**	**-0.6**
IRIF				*e*S	Sb	**08 38 20.8**	**+1.5**
JISG	**Ishigakijimahi**	**1.00**	**13**	P	Pn	**08 38 10.4**	**-1.2**
JISG				*e*S	Sb	**08 38 24.9**	**-0.6**
JTJ	**Tarama**	**1.18**	**29**	*e*P	Pn	**08 38 13.0**	**-1.0**
JTJ				*e*S	Sb	**08 38 28.7**	**-1.9**
YOJ	**Yonaguni jima**	**1.28**	**312**	P	Pn	**08 38 15.6**	**+0.1**
YOJ	**Yonaguni jima**	**1.28**	**312**	S	Sn	**08 38 31.8**	**+0.3**
YOJ	**Yonaguni jima**	**1.28**	**312**	P	Pn	**08 38 15.8**	**+0.3**
YOJ				*e*S	Sn	**08 38 33.6**	**+2.1**
JYNG	**Yonagunijimaku**	**1.32**	**310**	*e*P	Pn	**08 38 16.3**	**+0.4**
JYNG				*e*S	Sn	**08 38 34.2**	**+1.7**
JIRJ	**Irabujima**	**1.60**	**40**	*e*P	Pn	**08 38 18.8**	**-1.0**
JIRJ				S	Sn	**08 38 38.6**	**-0.7**
JMJ2	**Miyako jima3**	**1.61**	**45**	*e*P	Pn	**08 38 18.8**	**-1.2**
JMJ2				*e*S	Sn	**08 38 38.3**	**-1.4**
JMJ	**Miyako jima 2**	**1.64**	**43**	P	Pb	**08 38 25.9**	**+2.4**
JMJ	**Miyako jima 2**	**1.64**	**43**	S	Sb	**08 38 50.0**	**+6.2**
JIKM	**Ikemajima**	**1.70**	**39**	*e*P	Pn	**08 38 19.9**	**-1.2**
JIKM				*e*S	Sn	**08 38 41.3**	**-0.5**
NACB	**Ninganchiao**	**2.33**	**284**	P	Pn	**08 38 28.9**	**-0.9**
NACB	**Ninganchiao**	**2.33**	**284**	S	Sn	**08 38 56.5**	**-0.9**
YULB	**Yu-li**	**2.55**	**266**	P	Pn	**08 38 31.1**	**-1.8**
YULB	**Yu-li**	**2.55**	**266**	S	Sn	**08 39 01.0**	**-1.8**
YHNB	**Yeheng**	**2.67**	**294**	P	Pn	**08 38 35.1**	**+0.4**
TWGBT	**Beinan**	**2.85**	**255**	P	Pn	**08 38 37.0**	**-0.1**
SSLB	**Suanglung**	**2.86**	**274**	P	Pn	**08 38 37.4**	**+0.3**
TPUB	**Ta-pu**	**3.17**	**265**	P	Pn	**08 38 41.4**	**0.0**

IDC 25 08:47:27.2±2.5, 0.47S×127.98E, h0km, mb3.0/3, mbtmp3.1/3, Error ellipse: s-maj=185.8km s-min=29.5km az=67.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.33**	**163**	P	P	08 52 05.3	+0.1
	0.3nm,0.7s,baz=342,slow=11,SNR=2.2 0.3nm,0.7s						
ASAR	**Alice Springs**	**23.77**	**166**	P	P	08 52 41.5	-0.1
	0.3nm,0.6s,baz=344,slow=9.0,SNR=5.6 0.3nm,0.6s						
MKAR	**Makanchi Array**	**61.70**	**326**	P	P	08 57 47.3	0.0
	0.2nm,0.6s,baz=123,slow=5.3,SNR=1.8 0.2nm,0.6s						

*NEIC **25** 08:47:35.4±0.2, 36.53N±0.01×98.99W±0.01, h8km±2km, mb_Lg3.0/3, ML2.8/14, ML2.7/6, Error ellipse: s-maj=2.2km s-min=1.5km az=204.0*
*NEIC **25** 08:47:40.4±2.1, 36.45N±0.03×99.00W±0.01, h10km±1km, mb_Lg3.1/4, ML2.8/10, ML2.5/6, Error ellipse: s-maj=4.9km s-min=2.6km az=9.0*

NEIC 25 08:47:30.6±0.4, 36.53N±0.01×98.99W±0.01, h9km±2km, mb_Lg2.9/3, ML2.4/11, ML2.8/24, Error ellipse: s-maj=1.8km s-min=1.4km az=208.0, Oklahoma

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NOKA	**Waynoka**	**0.12**	**23**		Pg	08 47 33.8	+0.4
NOKA					Sg	08 47 36.0	+0.6
NOKA				IAML		08 47 36.2	
	comp=N,3μm,0.2s						
CROK	**Carrier**	**0.81**	**91**		Pg	08 47 46.1	-0.1
GC02	**Grant County #**	**0.96**	**70**		Pg	08 47 48.9	-0.3
DRZT	**Darrouzett**	**1.06**	**266**		Pg	08 47 50.6	-0.4
KAN08	**Anthony NE Sta**	**1.07**	**49**	IAmb_Lg		08 48 18.6	
	comp=Z,292nm,1.1s						
OK048	**Pawnee Station**	**1.65**	**93**	Pn	Pn	08 48 00.5	+0.7
OKCFA	**Oklahoma City**	**1.67**	**131**	Pn	Pn	08 48 00.7	+0.6
SMWD	**Samnorwood**	**1.75**	**216**	Pn	Pb	08 48 02.2	-0.7
FNO	**Franklin**	**1.81**	**134**	Pn	Pn	08 48 02.4	+0.4
PH02	**Texas Public H**	**2.65**	**246**	IAmb_Lg		08 48 53.6	
	comp=Z,11nm,0.8s						
AMTX	**Amarillo**	**2.73**	**234**	IAmb_Lg		08 49 06.3	
	comp=Z,35nm,0.7s						
KSU1	**Kansas State U**	**3.19**	**36**	IAmb_Lg		08 49 20.7	
	comp=Z,18nm,0.9s						
P38A	**Dawn**	**5.30**	**53**	IAmb_Lg		08 50 37.9	
	comp=Z,11nm,0.9s						
545A	**Edgard**	**9.61**	**130**	IAmb_Lg		08 52 57.8	
	comp=Z,878nm,0.9s						
545A	**Edgard**	**9.61**	**130**	IAmb_Lg		08 53 00.4	
	comp=Z,989nm,1.0s						

NEIC 25 08:47:35.4±0.3, 36.53N±0.01×98.99W±0.01, h8km±1km, Error ellipse: s-maj=1.9km s-min=1.2km az=49.0, Oklahoma

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NOKA	**Waynoka**	**0.12**	**24**		Pg	08 47 38.5	+0.4
NOKA					Sg	08 47 40.8	+0.8
NOKA				IAML		08 47 41.0	
	comp=N,4μm,0.2s						
NOKA				IAML		08 47 41.0	
	comp=E,4μm,0.2s						
CROK	**Carrier**	**0.81**	**91**	Pg	Pg	08 47 50.8	-0.3
CROK				IAML		08 48 08.3	
	comp=E,389nm,0.3s						
CROK				IAML		08 48 09.1	
	comp=N,478nm,0.3s						
GC02	**Grant County #**	**0.97**	**70**	Pg	Pg	08 47 53.6	-0.4
OK048	**Pawnee Station**	**1.65**	**93**	Pn	Pn	08 48 05.4	+0.6
OK048	**Pawnee Station**	**1.65**	**93**	Pn	Pg	08 48 08.8	+1.7
OKCFA	**Oklahoma City**	**1.67**	**131**	Pn	Pn	08 48 05.6	+0.6
SMWD	**Samnorwood**	**1.75**	**216**	Pn	Pg	08 48 08.8	-0.1

NEIC 25 08:47:40.7±0.7, 36.53N±0.02×98.99W±0.01, h8km±1km, Error ellipse: s-maj=2.6km s-min=1.2km az=199.0, Oklahoma

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CROK	**Carrier**	**0.81**	**91**	Pg	Pg	08 47 56.3	0.0

IDC 25 09:42:23.0±341.0, 54.17N×43.58E, h0km, Error ellipse: s-maj=145.5km s-min=88.0km az=133.0, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I43RU	**DUBNA INFRASON**	**4.44**	**308**	I	I	10 11 25.0	
	0.1nm,1.0s,baz=125,slow=331,SNR=7.0						
I31KZ	**AKTYUBINSK INF**	**9.62**	**107**	I	I	10 41 00.0	
	baz=303,slow=310,SNR=0.9						
I46RU	**ZALESOVO INFRA**	**23.96**	**74**	I	I	12 08 40.0	
	baz=290,slow=338,SNR=0.9						

*JMA **25** 09:53:54.2±0.1, 28.4N±0.7×129.5E±0.5, h38km±1km, MV3.3/22, NEAR AMAMI-OSHIMA ISLAND*
JMA Felt I J1 at NEAR AMAMI-OSHIMA ISLAND.
*IDC **25** 09:53:55.3±1.7, 28.34N×129.55E, h54km±16km, mb3.3/7, mbtmp3.6/9, ML3.4/2, Error ellipse: s-maj=25.2km s-min=9.0km az=107.0*

ISC 25 09:53:54.0±0.9, 28.31N±0.04×129.60E±0.05, h39km±4km, n27, σ1.26/34, mb3.6/7, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAM	**Amami Oshima**	**0.11**	**5**	P	Pn	09 54 00.3	-2.3
JAM				S	Sn	09 54 05.1	-4.6
JZK	**Kikaishima**	**0.33**	**88**	*i* P	Pn	**09 54 03.8**	**+1.2**
JAMN	**Amaminishikomi**	**0.38**	**261**	P	Pn	**09 54 02.6**	**-0.4**
JTK	**Tokunoshima**	**0.77**	**228**	P	Pn	**09 54 08.2**	**-0.1**
JTK				*e*S	Sn	**09 54 18.9**	**+0.2**
JTAJ	**Takarajima**	**0.91**	**338**	P	Pn	**09 54 09.1**	**-1.2**
JTAJ				*e*S	Sn	**09 54 18.9**	**-3.4**
JOKE	**Okinoerabujima**	**1.31**	**224**	*e*P	Pn	**09 54 17.1**	**+1.3**
JYRO	**Yoronjima**	**1.63**	**219**	*e*P	Pn	**09 54 21.1**	**+1.0**
JOW	**Kunigami**	**1.88**	**219**	P	Pn	**09 54 24.7**	**+1.1**
	37nm,0.3s,baz=38,slow=9.2,SNR=29						
JOW				S	Sn	**09 54 48.1**	**+2.0**
	48nm,0.3s,baz=169,slow=26,SNR

*KOLA **25** 10:00:27.5, 64°.84N × 30°.54E, h0km, ML2.2, Error ellipse: s-maj=13.8km s-min=9.8km az=160.0, Karelia*

ISC 25 10:00:23.5±1.0, 64°.70N±0°.03×30°.62E±0°.05, h0km, n35, σ2s22/48, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RMF	**Romuvaara**	**0.57**	**212**	SG	**Sg**	**10 00 36.5**	**-5.1**
RMF				MSG		10 00 37.6	
	comp=Z,14nm,0.2s						
KU1	**Kurvinen**	**0.98**	**333**	PG	**Pg**	**10 00 41.8**	**-0.4**
KU1				SG	**Sn**	**10 00 57.6**	**-1.4**
KU6	**Riekki**	**1.37**	**347**	PG	**Pg**	**10 00 48.4**	**-1.2**
	baz=162						
KU6				SG	**Sg**	**10 01 05.8**	**-1.5**
KU6				MSG		10 01 07.7	
	comp=Z,11nm,0.2s						
MSF	**Maaselka**	**1.39**	**332**	PG	**Pg**	**10 00 49.1**	**-0.9**
	baz=151						
MSF				SN	**Sn**	**10 01 10.6**	**+1.5**
KU2	**Taivalkoski**	**1.43**	**316**	PG	**Pg**	**10 00 50.4**	**-0.4**
OLKF	**Oulanka, Finla**	**1.71**	**343**	PG	**Pn**	**10 00 54.5**	**+0.1**
OLKF				MSG		10 01 17.5	
	comp=Z,10nm,0.2s						
OLKF				SG	**Sg**	**10 01 19.2**	**+0.9**
JOF	**Joensuu**	**1.81**	**170**	*eP*	**Pn**	**10 00 57.4**	**+1.5**
OUL	**Oulu**	**2.05**	**283**	PG	**Pb**	**10 01 01.8**	**+0.2**
	baz=99						
OUL				SG	**Sg**	**10 01 30.0**	**+0.7**
RANF	**Ranua**	**2.08**	**311**	PG	**Pb**	**10 01 01.7**	**-0.4**
	baz=132						
RANF				SB	**Sg**	**10 01 30.4**	**+0.2**
KVDA	**Kovda**	**2.21**	**24**	P	**Pn**	**10 01 03.0**	**+1.7**
KVDA				S	**Sn**	**10 01 28.6**	**-0.6**
OBF4	**Vikkela, Lumij**	**2.37**	**275**	PG	**Pb**	**10 01 06.9**	**0.0**
OBF4				MSG		10 01 35.6	
	comp=Z,11nm,0.2s						
OBF4				SG	**Sg**	**10 01 39.1**	**-0.3**
OUF	**Merijarvi**	**2.57**	**265**	PG	**Pb**	**10 01 09.1**	**-1.2**
	baz=86						
OUF				MSG		10 01 40.3	
	comp=Z,11nm,0.2s						
OUF				SG	**Sb**	**10 01 44.3**	**+1.9**
RNF	**Rovaniemi**	**2.71**	**317**	PB	**Pn**	**10 01 10.3**	**+2.1**
RNF				SB	**Sg**	**10 01 48.9**	**-1.4**
SUF	**Sumiainen**	**2.81**	**227**	*eP*	**Pn**	**10 01 13.5**	**+3.9**
TOF	**Tornio**	**2.98**	**301**	SG	**Sg**	**10 01 57.6**	**-1.4**
APA0	**Apatity Array**	**3.08**	**17**	P	**Pn**	**10 01 16.1**	**+2.8**
APA0				S	**Sn**	**10 01 50.9**	**+0.3**
VRF	**Varrio**	**3.09**	**353**	PB	**Pn**	**10 01 14.5**	**+1.0**
	baz=173						
VRF				SG	**Sg**	**10 01 59.6**	**-3.0**
KAF	**Kangasniemi**	**3.24**	**219**	PN	Pn	10 01 09.7	-5.8
LVZ	**Lovozero**	**3.60**	**25**	SB	**Sn**	**10 02 07.2**	**+3.5**
KEF	**Keuruu**	**3.62**	**228**	*eP*	**Pn**	**10 01 24.4**	**+3.7**
KEF	**Keuruu**	**3.62**	**228**	PG	**Pn**	**10 01 24.9**	**+4.1**
FIA0	**FINESS Array S**	**3.87**	**214**	PG	**Pn**	**10 01 28.7**	**+4.6**
FINES	**FINESS Array B**	**3.87**	**214**	Pn	**Pn**	**10 01 27.0**	**+2.9**
	comp=Z,0.1nm,0.3s,baz=34,slow=15,SNR=5.4						
FINES				Lg	Lg	10 02 28.4	
	comp=Z,1.3nm,0.3s,baz=34,slow=28,SNR=12						
	comp=Z,1.6nm,0.9s						
FINES				AML	AML		
VAF	**Ylistaro**	**3.89**	**248**	*eP*	**Pn**	**10 01 27.7**	**+3.3**
VAF	**Ylistaro**	**3.89**	**248**	PG	**Pb**	**10 01 31.0**	**-1.9**
SJUU	**Sjulsmark**	**3.90**	**286**	*eP*	**Pn**	**10 01 26.2**	**+1.7**
RAJF	**Raja-Jooseppi**	**3.90**	**347**	PN	**Pn**	**10 01 28.2**	**+0.6**
ERTU	**Ertsjaerv**	**3.96**	**302**	PB	**Pn**	**10 01 29.2**	**+3.8**
BURU	**Burvik**	**3.98**	**273**	PB	**Pb**	**10 01 32.4**	**-2.0**
TERR	**Teriberka**	**4.85**	**19**	S	**Sn**	**10 02 33.7**	**-0.7**
ARCES	**ARCESS Array B**	**5.25**	**340**	Pn	**Pn**	**10 01 43.4**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=154,slow=12,SNR=21						
ARCES				Sn	**Sn**	**10 02 44.1**	**-0.2**
	comp=Z,0.4nm,0.3s,baz=157,slow=26,SNR=8.5						
ARCES				Lg	Lg	10 03 06.8	
	comp=Z,0.6nm,0.3s,baz=155,slow=29,SNR=8.8						
	comp=Z,0.6nm,0.4s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.25**	**340**	P	**Pn**	**10 01 43.1**	**+0.1**
ARCES				S	**Sn**	**10 02 40.1**	**-4.2**
VADS	**Vadso**	**5.47**	**355**	S	**Sn**	**10 02 47.9**	**-1.6**
I43RU	**DUBNA INFRASON 8.63**		**155**	I	I	10 52 50.0	
	baz=344,slow=325,SNR=3.0						
HFS	**Hagfors**	**9.07**	**248**	Pn	**Pn**	**10 02 36.8**	**+1.3**
	comp=Z,0.2nm,0.3s,baz=53,slow=17,SNR=1.6						
HFS				Sn	**Sn**	**10 04 17.4**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=46,slow=44,SNR=1.5						
HFS				Lg	Lg	10 05 11.0	
	comp=Z,0.2nm,0.3s,baz=54,slow=34,SNR=1.9						
	comp=Z,1.6nm,0.7s						
HFS				AML	AML		

*IDC **25** 10:10:56.9±0.7, 0°.48N × 98°.51E, h0km, mb4.1/14, mbtmp4.1/15, ML4.3/1, MS3.2/7, Error ellipse: s-maj=31.6km s-min=13.9km az=65.0*

*NEIC **25** 10:10:59.1±0.6, 0°.43N±0°.07×98°.27E±0°.07, h16km±5km, mb4.5/26, Error ellipse: s-maj=12.8km s-min=7.2km az=220.0*

*DJA **25** 10:11:00.6±0.2, 1°.N±2°.×9°.8E±°, h10km, M4.9/25, mB5.3/1, mb4.8/2, mb4.8/2, ML4.9/25, MLv4.9/25, MLv4.9/25, Mw(mB)4.8/1*

ISC 25 10:10:58.5±0.5, 0°.44N±0°.04×98°.30E±0°.05, h10km, n95, σ1s45/81, mb4.5/31, MS3.1/5, 1C, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBSI	**Pulau Batu**	**0.49**	**183**	P	**Pn**	**10 11 12.1**	**+0.4**
PBSI				AML	AML		
PBSI				AML	AML		
PBSI				AML	AML		
GSI	**Gunungsitoli**	**1.12**	**320**	P	**Pb**	**10 11 20.0**	**-0.1**
GSI	**Gunungsitoli**	**1.12**	**320**		**Pb**	**10 11 19.9**	**-0.1**
GSI	**Gunungsitoli**	**1.12**	**320**	P	**Pb**	**10 11 19.6**	**-0.5**
GSI				AML	AML		
GSI				AML	AML		
GSI				AML	AML		
MNSI	**Mandailing Nat**	**1.32**	**75**	P	**Pn**	**10 11 23.2**	**+0.1**
SISI	**Saibi**	**1.93**	**156**	P	**Pb**	**10 11 33.3**	**-0.4**
PPI	**Padang Panjang**	**2.28**	**113**	P	**Pn**	**10 11 37.9**	**+1.7**
PPI				AML	AML		
PPI				AML	AML		
PPI				AML	AML		
RPSI	**Rantau Prapat**	**2.32**	**15**		**Pn**	**10 11 36.9**	**+0.1**
PSI	**Prapat**	**2.42**	**15**	P	**Pn**	**10 11 36.8**	**-1.5**
PSI	**Prapat**	**2.42**	**15**	P	**Pn**	**10 11 36.1**	**-2.2**
BKNI	**Bangkinang**	**2.74**	**92**	P	**Pn**	**10 11 45.8**	**+3.3**
BKNI	**Bangkinang**	**2.74**	**92**	Pn	**Pn**	**10 11 42.7**	**+0.1**
BKNI	**Bangkinang**	**2.74**	**92**	P	**Pb**	**10 11 47.4**	**-0.2**
BKNI				AML	AML		
SNSI	**Sinabang, Aceh**	**2.78**	**315**	P	**Pn**	**10 11 43.9**	**+0.8**
SNSI				AML	AML		
SNSI				AML	AML		
TPTI		**3.02**	**338**	P	**Pn**	**10 11 47.1**	**+0.7**
TSI	**Tuntungan**	**3.05**	**5**	P	**Pn**	**10 11 46.1**	**-0.7**
TSI				AML	AML		
KCSI	**Kotacane, Aceh**	**3.10**	**350**	P	**Pn**	**10 11 47.9**	**+0.3**
KCSI				AML	AML		
KCSI				AML	AML		
KCSI				AML	AML		
SDSI	**Sungai Dareh**	**3.41**	**114**	P	**Pb**	**10 11 56.7**	**-2.4**
SDSI				AML	AML		
SDSI				AML	AML		
SDSI				AML	AML		
KRJI	**Kerinci**	**4.04**	**129**	P	**Pn**	**10 12 04.4**	**+3.9**
MLSI	**Meulaboh, Aceh**	**4.25**	**333**	P	Pg	10 12 25.3	+5.4
IPM	**Ipoh**	**4.84**	**34**	P	**Pn**	**10 12 13.6**	**+2.0**
IPM	**Ipoh**	**4.84**	**34**		**Pn**	**10 12 12.2**	**+0.6**
LHMI	**Lhok Sumawe**	**4.94**	**344**	Pn	**Pn**	**10 12 12.1**	**-0.8**
KULM	**Kulim**	**5.36**	**26**	P	**Pn**	**10 12 19.5**	**+0.9**
KULM	**Kulim**	**5.36**	**26**		**Pn**	**10 12 18.7**	**+0.1**
MNAI	**Manna**	**6.66**	**136**	Pn	**Pn**	**10 12 36.7**	**+0.2**
MDSI	**Maura Dua**	**7.64**	**130**	P	Pn	10 12 55.6	+5.6
	0.1nm32nm,0.7s						
MDSI				AML	AML		
BBJI	**Bungbulang**	**12.19**	**130**	Pn	**Pn**	**10 13 49.6**	**-2.8**
CMAR	**Chiang Mai Arr**	**17.91**	**2**	P	**Pn**	**10 15 06.8**	**-1.2**
	0.4nm,0.3s,baz=194,slow=11,SNR=12						
CMAR				LR	LR	10 22 01.5	
	comp=Z,46nm,19.2s,baz=215,slow=37						
	1.4nm,0.6s						
CMAR				AML	AML		
CHTO	**Chiang Mai**	**18.27**	**2**	P	**Pn**	**10 15 11.4**	**-0.9**
KKM	**Kota Kinabalu**	**18.72**	**72**	P	**P**	**10 15 16.7**	**-0.9**
KKM				IAmb	IAmb	10 15 60.0	
	comp=Z,70nm,1.4s						
PALK	**Pallekele**	**18.82**	**292**	LR	LR	10 23 00.9	
	comp=Z,38nm,18.0s,baz=110,slow=38						
TOLI2	**Tolitoli**	**22.48**	**88**	P	**P**	**10 15 58.2**	**-0.2**
AZL	**Aizawl**	**23.79**	**347**	*i* P	P	10 15 60.0	-12
AZL				IAmb	IAmb	10 16 16.8	
	comp=Z,7.6nm,0.5s						
LUWI	**Luwuk**	**24.51**	**93**	P	**P**	**10 16 17.9**	**-0.6**
BOK	**Bokaro**	**26.15**	**333**	*i* P	P	10 16 21.7	-12
BOK				IAmb	IAmb	10 16 30.4	
	comp=Z,21nm,0.9s						
H08S2	**Diego Garcia H**	**26.96**	**252**	T	T	10 44 07.0	
	baz=73,slow=76,SNR=329						
H08S3	**Diego Garcia H**	**26.97**	**252**	T	T	10 44 07.3	
	baz=73,slow=76,SNR=317						
H08S1	**Diego Garcia H**	**26.98**	**252**	T	T	10 44 08.1	
	baz=73,slow=76,SNR=274						
DAV	**Davao City (W)**	**27.99**	**76**	LR	LR	10 28 16.4	
	comp=Z,46nm,19.3s,baz=318,slow=37						
FITZ	**Fitzroy Crossi**	**32.59**	**126**	LR	LR	10 30 38.5	
	comp=Z,33nm,19.8s,baz=343,slow=36						
FITZ	**Fitzroy Crossi**	**32.59**	**126**	P	**P**	**10 17 30.0**	**-0.5**
XAN	**Xi'an**	**34.87**	**16**	P	**P**	**10 17 52.8**	**+2.6**
XAN				pP	sP	10 17 58.0	+3.5
XAN				pmax	pmax		
	comp=Z,8.0nm,0.9s						
GTA2	**Gaotai**	**38.88**	**2**	*eP*	**P**	**10 18 29.0**	**+4.6**
GTA2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
WB0	**Warramunga Arr**	**40.67**	**122**	P	**P**	**10 18 38.0**	**-1.4**
WB0				IAmb	IAmb	10 18 43.2	
	comp=Z,18nm,1.5s						
WRA	**Warramunga Arr**	**40.70**	**122**	P	**P**	**10 18 37.0**	**-2.7**
	comp=Z,1.0nm,0.7s,baz=302,slow=9.0,SNR=10						
WRA				PcP	**PcP**	**10 20 41.0**	**-0.4**
	comp=Z,0.9nm,0.6s,baz=310,slow=2.5,SNR=9.3						
	comp=Z,1.0nm,0.7s						
WRAB	**Tennant Creek**	**40.70**	**122**	P	**P**	**10 18 37.9**	**-1.8**
WRAB				IAmb	IAmb	10 19 11.8	
	comp=Z,7.1nm,1.4s						
WR8	**Warramunga Arr**	**40.84**	**122**	P	**P**	**10 18 39.1**	**-1.8**
WR0	**Warramunga Arr**	**40.88**	**122**	P	**P**	**10 18 39.8**	**-1.3**
HHC	**Hu-ho-hao-te**	**41.98**	**15**	*eP*	**P**	**10 18 53.0**	**+3.0**
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,5.4s						
FORT	**Forrest**	**41.99**	**140**	P	**P**	**10 18 48.9**	**-1.2**
FORT				IAmb	IAmb	10 19 11.2	
	comp=Z,12nm,0.9s						
AS31	**Alice Springs**	**42.06**	**127**	P	**P**	**10 18 49.5**	**-1.4**
ASAR	**Alice Springs**	**42.06**	**127**	P	**P**	**10 18 49.2**	**-1.6**
	comp=Z,1.0nm,0.6s,baz=302,slow=7.9,SNR=21						
ASAR				PcP	**PcP**	**10 20 45.8**	**0.0**
	comp=Z,1.0nm,0.8s,baz=303,slow=2.8,SNR=7.4						
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	**42.06**	**127**	P	**P**	**10 18 48.5**	**-2.3**
WMQ	**Urumqi**	**44.22**	**349**	*eP*	**P**	**10 19 09.3**	**+1.3**
WMQ				pP	sP	10 19 13.0	+0.7
WMQ				pmax	pmax		
	comp=Z,12nm,0.9s						
KSRS	**Korea Array**	**45.86**	**33**	P	**P**	**10 19 20.3**	**-0.7**
	comp=Z,1.2nm,0.7s,baz=234,slow=8.5,SNR=2.7						
	comp=Z,1.2nm,0.7s						
AAK	**Ala-Archa**	**47.13**	**336**	LR	LR	10 43 08.0	
	comp=Z,21nm,19.3s,baz=100,slow=41						
SONM	**Songino Array**	**47.73**	**7**	P	**P**	**10 19 35.4**	**-0.3**
	comp=Z,1.2nm,0.6s,baz=188,slow=9.9,SNR=14						
SONM				LR	LR	10 42 14.3	
	comp=Z,81nm,18.1s,baz=14,slow=39						
	comp=Z,1.2nm,0.6s						
SONM	**Songino Array**	**47.73**	**7**	P	**P**	**10 19 35.1**	**-0.6**
SONM				IAmb	IAmb	10 19 41.9	
	comp=Z,3.0nm,0.8s						
ULN	**Ulaanbaatar**	**47.84**	**8**	P	**P**	**10 19 35.8**	**-0.9**
ULN				IAmb	IAmb	10 19 42.7	
	comp=Z,3.2nm,0.8s						
MK31	**Makanchi Array**	**48.24**	**345**	P	**P**	**10 19 38.5**	**-1.1**
MK31				IAmb	IAmb	10 19 42.7	
	comp=Z,2.3nm,0.7s						
MKAR	**Makanchi Array**	**48.24**	**345**	P	**P**	**10 19 39.7**	**+0.1**
	comp=Z,3.0nm,0.6s,baz=159,slow=7.3,SNR=17						
	comp=Z,3.0nm,0.6s						
MKAR	**Makanchi Array**	**48.24**	**345**	P	**P**	**10 19 39.2**	**-0.4**
MAKZ	**Makanchi**	**48.34**	**345**	P	**P**	**10 19 39.3**	**-1.1**
MAKZ				IAmb	IAmb	10 20 03.2	
	comp=Z,7.4nm,1.4s						
BBOO	**Buckleboo**	**48.57**	**137**	P	**P**	**10 19 42.0**	**-0.4**
CTA	**Charters Tower**	**51.18**	**116**	LR	LR	10 44 21.4	
	comp=Z,41nm,18.9s,baz=212,slow=39						
BNX	**BinXian**	**51.88**	**26**	⇑P	**P**	**10 20 11.5**	**+4.4**
BNX				pmax	pmax		
	comp=Z,12nm,0.9s						
STKA	**Stephens Creek**	**52.03**	**132**	P	**P**	**10 20 07.8**	**-0.8**
	comp=Z,1.5nm,0.6s,baz=288,slow=4.4,SNR=5.3						
	comp=Z,1.5nm,0.6s						
STKA	**Stephens Creek**	**52.03**	**132**	P	**P**	**10 20 07.6**	**-1.0**
KURBB	**Kurchatov Arra**	**52.75**	**344**	P	**P**	**10 20 13.8**	**+0.3**
	comp=Z,1.7nm,0.2s,baz=168,slow=7.4,SNR=12						
	comp=Z,1.7nm,0.2s						
USA0B	**Ussuriysk Arra**	**52.86**	**30**	P	**P**	**10 20 14.0**	**-0.4**
USA0B				IAmb	IAmb	10 20 19.9	
	comp=Z,4.5nm,0.9s						
USRK	**Ussuriysk Ar.**	**52.86**	**30**	P	**P**	**10 20 13.4**	**-1.1**
	comp=Z,1.3nm,0.6s,baz=186,slow=4.6,SNR=5.0						
	comp=Z,1.3nm,0.6s						
USRK	**Ussuriysk Ar.**	**52.86**	**30**	P	**P**	**10 20 13.8**	**-0.6**
ZAA0	**Zalesovo Array**	**54.48**	**350**	P	**P**	**10 20 25.4**	**-0.8**
ZALV	**Zalesovo Beam**	**54.48**	**350**	P	**P**	**10 20 26.1**	**-0.1**
	comp=Z,4.8nm,0.5s,baz=165,slow=6.2,SNR=20						
	comp=Z,4.8nm,0.5s						
ZALV	**Zalesovo Beam**	**54.48**	**350**	P	**P**	**10 20 25.3**	**-0.9**
BVAR	**Borovoye Array**	**57.33**	**340**	P	**P**	**10 20 46.8**	**+0.2**
	comp=Z,4.2nm,0.7s,baz=152,slow=9.6,SNR=9.3						
	comp=Z,4.2nm,0.7s						
BORK	**Borovoye**	**57.37**	**340**	P	**P**	**10 20 46.4**	**-0.5**
BORK				IAmb	IAmb	10 20 52.8	
	comp=Z,3.7nm,0.6s						
TOO	**Toolangi**	**57.63**	**136**	P	**P**	**10 20 49.2**	**0.0**
TOO				IAmb	IAmb	10 21 02.8	
	comp=Z,4.8nm,1.3s						
AB31	**Akbulak array**	**58.70**	**332**	P	**P**	**10 20 55.4**	**-0.9**
AB31				IAmb	IAmb	10 20 58.7	
	comp=Z,2.5nm,0.8s						
ABKAR	**Akbulak array**	**58.70**	**332**	P	**P**	**10 20 56.1**	**-0.2**
H04S1	**CROZET ISLANDS**	**62.10**	**214**	T	T	11 28 02.3	
	baz=54,slow=76,SNR=18						
H04S3	**CROZET ISLANDS**	**62.11**	**214**	T	T	11 28 03.2	
	baz=54,slow=76,SNR=19						
H04S2	**CROZET ISLANDS**	**62.12**	**214**	T	T	11 28 04.9	
	baz=54,slow=76,SNR=11						
CASY	**Casey**	**67.15**	**175**	P	**P**	**10 21 52.0**	**-0.2**
BRTR	**Keskin Array B**	**70.43**	**312**	P	**P**	**10 22 12.9**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=134,slow=8.3,SNR=2.0						
	comp=Z,0.7nm,0.8s						
BRTR	**Keskin Array B**	**70.43**	**312**	P	**P**	**10 22 12.4**	**-1.0**
FINES	**FINESS Array B**	**81.18**	**332**	P	**P**	**10 23 13.9**	**-0.3**
	comp=Z,1.1nm,0.6s,baz=81,slow=8.6,SNR=2.4						
	comp=Z,1.1nm,0.6s						
FINES	**FINESS Array B**	**81.18**	**332**	P	**P**	**10 23 13.5**	**-0.7**
VNDA	**Vanda**	**84.87**	**169**	P	**P**	**10 23 32.6**	**-0.5**
	comp=Z,0.6nm,0.8s,baz=259,slow=4.2,SNR=1.8						
	comp=Z,0.6nm,0.8s						
VNDA	**Vanda**	**84.87**	**169**	P	**P**	**10 23 32.9**	**-0.1**
VNDA				IAmb	IAmb	10 24 03.7	
	comp=Z,2.6nm,1.4s						
QSPA	**South Pole Qui**	**90.39**	**180**	P	**P**	**10 24 01.5**	**+1.5**
	comp=Z,0.4nm,0.5s,baz=339,slow=8.6,SNR=8.3						
	comp=Z,0.4nm,0.5s						
QSPA	**South Pole Qui**	**90.39**	**180**	P	**P**	**10 23 59.4**	**-0.6**
QSPA				IAmb	IAmb	10 24 18.3	
	comp=Z,3.9nm,1.3s						
TXAR	**Lajitas Array**	**143.71**	**33**	PKP	PKPab	10 30 31.8	+0.4
	comp=Z,0.3nm,0.6s,baz=318,slow=2.0,SNR=6.2						
CPUP	**Villa Florida**	**145.17**	**220**	PKPbc	**PKPbc**	**10 30 36.8**	**+0.1**
	comp=Z,1.0nm,0.5s,baz=254,slow=7.4,SNR=3.7						

PRE 25 10:34:23.4±1.2, 25°.75S × 30°.50E, h0km, ML1.5, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PILG	**Pilgrimsrest,**	**0.84**	**13**	*eP*	Pb	10 34 40.5	-0.5
PILG				*eS*	Sg	10 34 51.5	+1.2
PILG				IAML		10 35 22.7	
	comp=Z,5.2nm,0.8s						
NWCL	**Newcastle**	**2.05**	**195**	*eP*	Pn	10 34 59.6	+0.3
NWCL				*eS*	Sb	10 35 26.8	-0.9
MOPA	**Mopani**	**2.37**	**20**	*eP*	Pn	10 35 03.8	+0.3
MOPA				*eS*	Sn	10 35 33.6	+0.3
MOPA				IAML		10 35 56.7	
	comp=Z,8.4nm,1.0s						
HRAO	**HartRAO**	**2.54**	**266**	*eP*	Pn	10 35 07.2	+1.1
HRAO				*eS*	Sn	10 35 39.1	+1.3
LEPH	**Lephalale, Lim**	**3.10**	**307**	*eP*	Pn	10 35 13.8	+0.1
LEPH				*eS*	Sn	10 35 50.9	-0.5
LEPH				IAML		10 35 52.5	
	comp=Z,5.1nm,0.5s						

PRE 25 10:34:27.4±1.0, 25°.74S × 29°.80E, h0km, ML1.5, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PILG	**Pilgrimsrest,**	**1.15**	**46**	*eP*	Pb	10 34 50.1	-0.2
PILG				*eS*	Sg	10 35 05.0	+0.6
PILG				IAML		10 35 12.6	
	comp=Z,17nm,0.9s						
HRAO	**HartRAO**	**1.91**	**265**	*eP*	Pn	10 35 01.7	+0.3
HRAO				*eS*	Sn	10 35 26.6	+0.4
NWCL	**Newcastle**	**1.99**	**178**	*eP*	Pn	10 35 03.4	+0.9
NWCL				*eS*	Sb	10 35 29.3	-0.7
LEPH	**Lephalale, Lim**	**2.61**	**315**	*eP*	Pn	10 35 11.9	+0.9
LEPH				*eS*	Sn	10 35 44.7	+1.3
LEPH				IAML		10 36 10.3	
	comp=Z,2.0nm,0.9s						
MOPA	**Mopani**	**2.65**	**34**	*eP*	Pn	10 35 11.8	+0.4
MOPA				*eS*	Sn	10 35 44.7	+0.5
MOPA				IAML		10 36 00.3	
	comp=Z,4.0nm,0.6s						

*SJA **25** 10:58:23.0±0.8, 35°.59S × 71°.72W, h90km±4km, ML4.8, MW4.5*

*VAO **25** 10:58:24.7±1.0, 35°.75S × 71°.58W, h107km±11km, mb4.7, Presumed earthquake*

*GUC **25** 10:58:24.5±0.9, 35°.61S × 71°.63W, h84km±3km, ML5.0, Presumed earthquake*

*GFZ **25** 10:58:24.1±0.2, 36°.S±2°.×7°.2W±°, h76km, M5.1/18, mb4.9/18, confirmed*

*NEIC **25** 10:58:24.3±1.5, 35°.58S±0°.04×71°.7W±0°.1, h77km±4km, mb4.6/23, Mwr4.5/69, Mwr4.7(GUC), Error ellipse: s-maj=13.8km s-min=5.3km az=92.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.54; $M_{\theta\theta}$-0.65; $M_{\phi\phi}$0.11; $M_{r\theta}$-0.53; $M_{\theta\phi}$7.60; $M_{\phi r}$-3.36; Fault plane solution: M_o8.35000×10^{15} NP1:ϕs177.50000°, δ85.10000°, λ156.17000°. NP2:ϕs269.66000°, δ66.26000°, λ5.35000°. Principal axes: T 8.3725, Plg20.0000°, Azm131.0000°; N -0.0499, Plg66.0000°, Azm347.0000°; P -8.3226, Plg13.0000°, Azm226.0000°;*

*NEIC **25** 10:58:24.3, 35°.58S × 71°.72W, h78km*

*IDC **25** 10:58:26.4±1.8, 35°.61S × 71°.20W, h86km±15km, mb4.5/8, mbtmp4.8/13, MS3.3/6, Error ellipse: s-maj=25.4km s-min=9.1km az=100.0*

ISC 25 10:58:24.0±0.6, 35°.59S±0°.02×71°.70W±0°.03, h79km±5km, n225, σ1s17/266, mb4.7/19, 3C-14D, Central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ML02	**Panimavida**	**0.28**	**127**	*eP*	**Pn**	**10 58 36.5**	**+0.4**
ML02				IAML		10 58 51.9	
	comp=Z,16μm,0.5s						
ML02	**Panimavida**	**0.28**	**127**		**Pn**	**10 58 36.3**	**+0.3**
ML02				Sn	**Sn**	**10 58 44.9**	**-0.1**
ML02	**Panimavida**	**0.28**	**127**	*i* P	**Pn**	**10 58 36.4**	**+0.3**
ML02				*eS*	**Sn**	**10 58 45.2**	**+0.3**
ML02				IAML		10 58 46.6	
	comp=N,45μm,0.5s						
ML02	**Panimavida**	**0.28**	**127**	P	**Pn**	**10 58 36.4**	**+0.4**
	comp=Z,22μm,0.8s						
ML02				S	**Sn**	**10 58 45.0**	**-0.1**
GO05	**Hualane**	**0.61**	**342**	*eP*	**Pn**	**10 58 39.8**	**+1.1**
GO05				*eS*	**Sn**	**10 58 52.0**	**+2.5**
GO05				IAML		10 58 52.4	
	comp=Z,34μm,0.2s						
GO05	**Hualane**	**0.61**	**342**		**Pn**	**10 58 39.8**	**+1.1**
GO05				Sn	**Sn**	**10 58 50.8**	**+1.2**
GO05	**Hualane**	**0.61**	**342**	*i* P	**Pn**	**10 58 40.1**	**+1.4**
GO05				*eS*	**Sn**	**10 58 51.0**	**+1.5**
GO05	**Hualane**	**0.61**	**342**	P	**Pn**	**10 58 40.0**	**+1.4**
	comp=Z,49μm,0.7s						
GO05				S	**Sn**	**10 58 51.2**	**+1.7**
BO02	**Sierra Bellavi**	**1.09**	**44**	*eP*	**Pn**	**10 58 44.6**	**+0.5**
BO02				IAML		10 59 03.5	
	comp=Z,30μm,0.1s						
BO02	**Sierra Bellavi**	**1.09**	**44**		**Pn**	**10 58 44.9**	**+0.7**
BO02				Sn	**Sn**	**10 58 59.8**	**+0.4**
BO02	**Sierra Bellavi**	**1.09**	**44**	⇓*i* P	**Pn**	**10 58 44.8**	**+0.6**
BO02	**Sierra Bellavi**	**1.09**	**44**	P	**Pn**	**10 58 44.6**	**+0.5**
BO02				S	**Sn**	**10 58 59.7**	**+0.4**
BO03	**Pichilemu**	**1.11**	**349**	*eP*	**Pn**	**10 58 45.7**	**+1.4**
BO03

MT13 eS Sn 10 59 26.8 +2.2
MT13 IAML 10 59 30.5
comp=Z,3µm,0.2s
MT13 San Alfonso 2.18 33 Pn 10 58 59.3 +0.9
MT13 San Alfonso 2.18 33 eP Pn 10 58 59.2 +0.9
MT13 IAML 10 59 29.4
comp=E,6µm,0.4s
MT15 Las Vizcachas 2.22 27 ⇓i P Pn 10 58 59.2 +0.4
MT15 eS Sn 10 59 25.4 0.0
MT15 IAML 10 59 26.6
comp=N,20µm,0.1s
MT03 Universidad Ad 2.31 25 eP Pn 10 59 00.8 +0.8
MT03 eS Sn 10 59 28.7 +1.0
MT03 IAML 10 59 38.0
comp=Z,5µm,0.4s
MT03 Universidad Ad 2.31 25 Pn 10 59 00.3 +0.2
MT03 Universidad Ad 2.31 25 ⇓i P Pn 10 59 00.5 +0.4
MT03 eS Sn 10 59 28.4 +0.7
MT05 Renca 2.33 20 eP Pn 10 59 01.2 +0.8
MT05 eS Sn 10 59 30.3 +2.1
MT05 IAML 10 59 36.9
comp=Z,4µm,0.8s
MT05 Renca 2.33 20 Pn 10 59 00.9 +0.5
MT05 Renca 2.33 20 ⇓i P Pn 10 59 00.9 +0.5
MT05 eS Sn 10 59 28.6 +0.4
MT05 IAML 10 59 35.4
comp=E,16µm,0.2s
CANA Caviahue 2.35 168 eP Pn 10 59 02.7 +2.0
CANA eS Sn 10 59 44.9 +16
MT16 CCHEN 2.37 25 Pn 10 59 01.2 +0.4
MT02 Curacav 2.37 11 eP Pn 10 59 01.3 +0.5
MT02 IAML 10 59 43.7
comp=Z,4µm,0.5s
MT02 Curacav 2.37 11 Pn 10 59 01.3 +0.5
MT02 Curacav 2.37 11 ⇓i P Pn 10 59 01.2 +0.5
MT02 eS Sn 10 59 28.8 -0.2
MT02 IAML 10 59 32.8
comp=E,6µm,0.4s
MT14 Cerro Cal¡n 2.39 24 ⇓i P Pn 10 59 01.7 +0.6
MT14 eS Sn 10 59 30.0 +0.5
MT14 IAML 10 59 32.8
comp=E,14µm,0.4s
MT10 Hacienda Santa 2.50 23 ⇓i P Pn 10 59 03.3 +0.6
MT10 IAML 10 59 39.8
comp=E,15µm,0.4s
MT04 Ro Olivares 2.53 31 eP Pn 10 59 04.3 +1.1
MT04 eS Sn 10 59 34.7 +1.5
MT04 IAML 10 59 36.5
comp=Z,3µm,0.4s
MT04 Ro Olivares 2.53 31 i P Pn 10 59 04.4 +1.1
MT04 IAML 10 59 37.9
comp=N,6µm,0.4s
FCH Farellones 2.54 28 ⇓i P Pn 10 59 04.0 +0.6
FCH eS Sn 10 59 34.5 +1.0
FCH IAML 10 59 35.5
comp=E,7µm,0.2s
MT08 Bocatoma Ro 2.55 33 eP Pn 10 59 04.7 +1.3
MT08 eS Sn 10 59 36.6 +2.9
MT08 IAML 10 59 39.2
comp=Z,2µm,0.4s
MT08 Bocatoma Ro 2.55 33 Pn 10 59 04.8 +1.3
MT08 Bocatoma Ro 2.55 33 i P Pn 10 59 04.9 +1.4
MT08 eS Sn 10 59 36.3 +2.6
MT08 IAML 10 59 37.5
comp=N,3µm,0.5s
VA01 Torpederas 2.56 1 eP Pn 10 59 04.0 +0.7
VA01 eS Sn 10 59 33.8 +0.2
VA01 IAML 10 59 52.6
comp=Z,2µm,0.6s
VA01 Torpederas 2.56 1 Pn 10 59 03.8 +0.4
VA01 Torpederas 2.56 1 eP Pn 10 59 04.0 +0.7
VA01 eS Sn 10 59 33.0 -0.6
VA01 IAML 10 59 34.1
comp=E,8µm,0.3s
VA01 Torpederas 2.56 1 P Pn 10 59 03.8 +0.4
comp=Z,2µm,0.4s
PEL Peldehue 2.58 19 eP Pn 10 59 04.3 +0.7
PEL eS Sn 10 59 19.6 -14
PEL IAML 10 59 25.1
comp=Z,5µm,0.4s
PEL Peldehue 2.58 19 Pn 10 59 04.5 +0.8
PEL Peldehue 2.58 19 eP Pn 10 59 04.3 +0.7
PEL IAML 10 59 36.2
comp=N,7µm,0.5s
PEL Peldehue 2.58 19 P Pn 10 59 04.5 +0.8
comp=Z,6µm,0.7s
ROCH El Roble 2.67 12 i P Pn 10 59 05.5 +0.4
ROCH ⇓i P Pn 10 59 05.5 +0.4
RFA San Rafael 2.77 74 eP Pn 10 59 07.4 +1.1
RFA eS Sn 10 59 39.9 +1.1
VA03 San Esteban 2.98 19 eP Pn 10 59 09.6 +0.5
VA03 eS Sn 10 59 45.5 +1.7
VA03 IAML 10 59 46.6
comp=Z,7µm,0.4s
VA03 San Esteban 2.98 19 Pn 10 59 09.4 +0.4
VA03 San Esteban 2.98 19 i P Pn 10 59 09.3 +0.2
VA03 eS Sn 10 59 44.5 +0.7
VA03 San Esteban 2.98 19 P Pn 10 59 09.4 +0.4
comp=Z,3µm,0.6s
LC01 Cunco 3.31 182 ⇓i P Pn 10 59 13.9 +0.5
LC01 IAML 10 59 54.4
comp=E,3µm,0.3s
BI04 Isla Mocha 3.32 211 i P Pn 10 59 12.1 -1.5
BI04 IAML 10 59 51.3
comp=E,3µm,0.3s
AVIZ Vizcacheras 3.37 52 eP Pn 10 59 16.6 +2.2
AAGR Agrelo 3.45 44 eP Pn 10 59 17.2 +1.8
AAGR eS Sn 10 59 46.4 -8.9
ARCO CERRO ARCO 3.57 41 eP Pn 10 59 18.9 +1.6
ARCO eS Sn 10 59 40.4 -18
ARCO IAML 10 59 48.8
comp=Z,877nm,0.5s
CO04 Los Peladeros 3.59 10 Pn 10 59 17.4 -0.2
CO04 Los Peladeros 3.59 10 P Pn 10 59 17.4 -0.2
GO06 Curarrehue 3.99 177 eS Sn 11 00 08.8 +0.3
GO06 IAML 11 00 14.7
comp=Z,496nm,0.5s
GO06 Curarrehue 3.99 177 Pn 10 59 23.8 +0.9
GO06 Curarrehue 3.99 177 ⇓i P Pn 10 59 23.7 +0.9
GO06 Curarrehue 3.99 177 P Pn 10 59 23.9 +0.9
LR03 Panguipulli 4.07 187 Pn 10 59 23.5 -0.3
CO02 Combarbal 4.41 8 P Pn 10 59 28.3 -0.4
LR04 Corral 4.50 197 Pn 10 59 28.0 -1.6
LR05 Currie 4.64 183 eS Sn 11 00 21.9 -2.2
LR05 IAML 11 00 35.4
comp=Z,470nm,1.6s
LR05 Currie 4.64 183 Pn 10 59 31.8 +0.3
ZON Zonda 4.75 33 Pn 10 59 33.6 +0.3
ZON Zonda 4.75 33 P Pn 10 59 33.9 +0.7
CO03 El Pedregal 4.81 10 eS Sn 11 00 27.9 -0.8
CO03 IAML 11 00 30.1
comp=Z,2µm,0.6s
CO03 El Pedregal 4.81 10 Pn 10 59 34.2 +0.1
CO03 El Pedregal 4.81 10 P Pn 10 59 34.2 +0.1
CO06 Fray Jorge 4.90 1 Pn 10 59 34.6 -0.7
CFA Coronel Fontan 4.91 37 P Pn 10 59 35.2 -0.2
comp=Z,138nm,0.3s,baz=218,slow=15,SNR=364
CFA S Sn 11 00 29.0 -1.9
comp=Z,76nm,0.4s,baz=111,slow=18,SNR=5.5
RTLL Cerro Villicun 5.03 33 eS Sn 11 00 35.6 +1.7
RTLL IAML 11 00 40.1
comp=Z,542nm,0.5s
PLCA Paso Flores 5.21 170 P Pn 10 59 40.8 +1.3
comp=Z,116nm,0.4s,baz=353,slow=14,SNR=762
PLCA S Sn 11 00 39.5 +1.2
comp=Z,120nm,0.9s,baz=51,slow=12,SNR=4.1
PLCA Paso Flores 5.21 170 Pn 10 59 41.1 +1.6
PLCA Paso Flores 5.21 170 P Pn 10 59 41.1 +1.6
comp=Z,183nm,0.5s
PLCA Paso Flores 5.21 170 eP Pn 10 59 38.1 -1.4
GO04 Tololo Observa 5.46 8 Pn 10 59 42.4 -0.6
GO04 Tololo Observa 5.46 8 P Pn 10 59 42.4 -0.6
LL03 Petrohue 5.57 186 P Pn 10 59 44.0 -0.2
comp=Z,733nm,0.6s
CO01 Juntas del Tor 5.76 14 P Pn 10 59 47.2 +0.1
comp=Z,118nm,0.5s
LL05 Los Muermos 5.97 193 P Pn 10 59 47.1 -2.6
comp=Z,231nm,1.1s
H03S1 Juan Fernandez 6.19 284 P Pn 10 59 53.4 +1.0
baz=102,slow=15,SNR=332
H03S1 S Sn 11 01 01.6 0.0
SNR=3.9
VA04 Juan Fernndez 6.19 286 P Pn 10 59 53.9 +1.1
H03S3 Juan Fernandez 6.20 284 P Pn 10 59 53.8 +1.2
baz=102,slow=15,SNR=272
H03S3 S Sn 11 01 00.9 -1.0
SNR=4.9
H03S2 Juan Fernandez 6.21 284 P Pn 10 59 53.7 +1.0
baz=102,slow=15,SNR=571
H03S2 S Sn 11 00 60.0 -2.1
SNR=3.1
H03N1 Juan Fernandez 6.33 288 P Pn 10 59 56.7 +2.3
baz=22,slow=74,SNR=921
H03N1 S Sn 11 01 07.5 +2.4
baz=112,slow=74,SNR=3.4
H03N2 Juan Fernandez 6.35 288 P Pn 10 59 57.1 +2.5
baz=239,slow=74,SNR=557
H03N2 S Sn 11 01 07.1 +1.6
LCO Las Campanas 6.61 8 Pn 10 59 57.9 -1.0
AC05 El Transito 6.84 11 Pn 11 00 00.9 -0.9
AC05 El Transito 6.84 11 P Pn 11 00 00.9 -0.9
comp=Z,296nm,0.5s
AC04 Llanos de Chal 7.38 4 Pn 11 00 07.9 -1.2
LL02 Futaleuf 7.59 181 P Pn 11 00 11.8 -0.1
comp=Z,42nm,0.7s
GO03 Copiapo 8.07 9 P Pn 11 00 16.8 -1.8
comp=Z,89nm,0.6s
AC06 Mina Casimiro 8.29 8 Pn 11 00 19.8 -1.7
AC02 Maricunga 9.00 15 Pn 11 00 29.9 -1.7
AC02 Maricunga 9.00 15 P Pn 11 00 29.8 -1.7
comp=Z,52nm,0.6s
ANCO Parque Anchore 11.35 87 eP Pn 11 01 01.5 -1.6
AY03 Cochrane 11.67 183 Pn 11 01 06.4 -1.0
PB10 IPOC Station P 12.08 5 Pn Pn 11 01 12.7 -0.4
SALTA 12.24 24 P Pn 11 01 15.3 -0.4
comp=Z,10nm,0.9s
PB05 IPOC Station P 12.76 6 Pn 11 01 21.7 -0.7
GO08 Villa O'Higgin 12.88 183 Pn Pn 11 01 23.4 -0.4
PB06 IPOC Station P 12.97 9 Pn Pn 11 01 23.8 -1.5
PB03 IPOC Station P 13.60 8 Pn 11 01 33.4 -0.3
PB03 IPOC Station P 13.60 8 P Pn 11 01 33.5 -0.1
comp=Z,41nm,0.7s
PB07 IPOC Station P 13.90 7 Pn 11 01 36.8 -0.9
PB07 IPOC Station P 13.90 7 P Pn 11 01 36.6 -1.0
comp=Z,29nm,1.0s
PB09 IPOC Station P 13.91 10 Pn 11 01 37.3 -0.4
PB09 IPOC Station P 13.91 10 P Pn 11 01 37.8 +0.1
comp=Z,33nm,0.8s
ITQB Itaqui 14.00 69 eP Pn 11 01 38.2 -0.4
PB02 IPOC Station P 14.30 7 Pn 11 01 41.7 -1.1
PB02 IPOC Station P 14.30 7 P Pn 11 01 43.3 +0.5
comp=Z,77nm,0.8s
PB01 IPOC Station P 14.62 8 Pn 11 01 46.1 -0.8
CPUP Villa Florida 15.38 57 P Pn 11 01 52.9 -3.6
comp=Z,1.1nm,0.3s,baz=237,slow=11,SNR=5.5
CPUP LR LR 11 08 23.8
comp=Z,90nm,18.4s,baz=255,slow=40
CPUP Villa Florida 15.38 57 Pn 11 01 53.1 -3.4
CPUP Villa Florida 15.38 57 eP Pn 11 01 55.6 -0.9
PB08 IPOC Station P 15.55 9 P Pn 11 01 57.1 -2.0
comp=Z,21nm,0.9s
PB11 IPOC Station P 15.87 7 Pn 11 02 01.9 -0.9
PB11 IAmb IAmb 11 02 07.5
comp=Z,64nm,0.9s
PB11 IPOC Station P 15.87 7 P Pn 11 02 02.6 -0.3
comp=Z,82nm,0.9s
PSGCX Pisagua 15.99 5 Pn 11 02 03.0 -1.3
GO01 Chusmiza 16.01 9 IAmb IAmb 11 02 09.1
comp=Z,14nm,0.7s
GO01 Chusmiza 16.01 9 P Pn 11 02 04.8 -0.2
comp=Z,25nm,0.7s
CPSB Cacapava Do Su 16.16 77 eP Pn 11 02 05.0 -1.3
PB16 IPOC Station P 17.30 7 P P 11 02 22.5 +1.2
comp=Z,23nm,0.8s
PB18 Visviri 18.04 7 P Pn 11 02 30.9 +0.9
comp=Z,45nm,0.7s
MURT Porto Murtinho 18.56 45 eP P 11 02 33.6 -1.0
ITAB Concordia 18.64 69 P P 11 02 34.5 -0.9
ITAB IAmb IAmb 11 02 53.7
comp=Z,26nm,1.2s
ITAB Concordia 18.64 69 eP P 11 02 34.1 -1.3
CNLB Canela 18.66 76 eP P 11 02 33.9 -1.8
EFI East Falkland 18.81 153 P P 11 02 35.6 -1.5
EFI IAmb IAmb 11 02 37.8
comp=Z,80nm,1.4s
USHA Ushuaia 19.38 174 P Pn 11 02 45.4 +0.4
comp=Z,14nm,0.6s,baz=6.5,slow=12,SNR=12
LPAZ La Paz 19.48 10 P Pn 11 02 47.0 -0.2
comp=Z,20nm,0.7s,baz=195,slow=10,SNR=37
LPAZ La Paz 19.48 10 P P 11 02 45.4 0.0
LPAZ IAmb IAmb 11 02 52.3
comp=Z,25nm,0.8s
LPAZ La Paz 19.48 10 P Pn 11 02 47.2 -0.1
comp=Z,33nm,0.8s
LPAZ La Paz 19.48 10 eP P 11 02 44.3 -1.0
COIM Forte Coimbra 19.85 42 eP P 11 02 48.6 -0.1
BDQN Bodoquena, MS 20.00 45 eP P 11 02 48.9 -1.4
PTGB Pitanga 20.10 63 eP P 11 02 50.5 -1.0
AQDB Aquidauana 20.60 47 P P 11 02 55.9 -0.8
AQDB Aquidauana 20.60 47 P P 11 02 56.2 -0.5
comp=Z,161nm,0.7s
AQDB Aquidauana 20.60 47 eP P 11 02 56.0 -0.7
BBSD Serra de San D 20.82 31 eP P 11 02 58.5 -0.6
LDASE Londrina, Braz 21.60 61 eP P 11 03 05.5 -2.0
SIV San Ignacio 21.71 29 P P 11 03 08.0 -0.7
comp=Z,43nm,1.0s,baz=203,slow=8.8,SNR=136
comp=Z,43nm,1.0s
PCMB Pacaembu 22.65 58 P P 11 03 16.2 -2.5
comp=Z,35nm,0.7s
PCMB Pacaembu 22.65 58 eP P 11 03 16.1 -2.7
PTLB Pontes e Lacer 23.00 32 P P 11 03 21.1 -1.1
PTLB IAmb IAmb 11 03 51.9
comp=Z,8.5nm,0.8s
PTLB Pontes e Lacer 23.00 32 eP P 11 03 20.9 -1.3
PP1B Ponte de Pedra 23.33 44 eP P 11 03 23.9 -1.5
SALV Santo Antonio 24.27 40 eP P 11 03 32.7 -1.2
VILB Vilhena 24.81 28 P P 11 03 38.8 0.0
VILB Vilhena 24.81 28 eP P 11 03 37.9 -1.0
ARAG Araguaiana, MT 26.61 47 eP P 11 03 53.7 -1.4
CLDB Colider 28.53 34 P P 11 04 11.7 -0.5
comp=Z,25nm,0.8s
CLDB Colider 28.53 34 eP P 11 04 11.2 -1.0
BDFB Brasilia 29.03 53 P P 11 04 15.9 -0.9
comp=Z,3.3nm,0.6s,baz=178,slow=5.7,SNR=4.8
BDFB LR LR 11 15 54.4
comp=Z,57nm,21.1s,baz=133,slow=36
comp=Z,3.3nm,0.6s
BDFB Brasilia 29.03 53 P P 11 04 15.8 -0.9
ESPZ Base Esperanza 29.28 166 P P 11 04 17.6 -0.8
PMSA Palmer Station 29.58 173 LR LR 11 16 05.2
comp=Z,37nm,19.8s,baz=324,slow=36
SNDB Serra Nova Dou 29.89 43 eP P 11 04 21.9 -2.5
MACA Manacapuru-AM 33.84 20 eP P 11 04 58.8 -0.2
ITTB Itaituba 34.39 29 eP P 11 05 01.6 -2.1
SLOR San Lorenzo - 35.26 348 P P 11 05 10.9 -0.7
SLOR IAmb IAmb 11 05 40.2
comp=Z,5.0nm,0.6s
BOAV Boa Vista 39.21 18 P P 11 05 44.5 -0.1
BOAV IAmb IAmb 11 05 45.1
comp=Z,6.5nm,0.7s
ROSC El Rosal 40.29 356 P P 11 05 57.1 +3.1
comp=Z,9.3nm,0.3s,baz=150,slow=14,SNR=1.7
comp=Z,9.3nm,0.3s
ROSC El Rosal 40.29 356 P P 11 05 53.0 -1.0
BELA Belgrano 2 45.27 170 P P 11 06 33.7 +0.6
BELA IAmb IAmb 11 06 38.7
comp=Z,5.5nm,0.9s
VNA3 Neumayer Olymp 47.79 157 ⇑P P 11 06 53.2 +0.3
comp=Z,3.8nm,0.3s
VNA2 Neumayer--Watz 48.44 157 ⇑P P 11 06 58.2 +0.3
comp=Z,11nm,0.6s,baz=284,slow=8.5
SNAA Sanae 50.01 157 P P 11 07 09.6 -0.4
comp=Z,58nm,0.3s
SNAA Sanae 50.01 157 P P 11 07 09.9 0.0
comp=Z,2.4nm,0.3s,baz=275,slow=6.6,SNR=4.5
comp=Z,2.4nm,0.3s
SNAA Sanae 50.01 157 P P 11 07 09.7 -0.2
SNAA IAmb IAmb 11 07 14.1
comp=Z,11nm,1.2s
TROLL Troll, Antarti 51.72 158 ⇑P P 11 07 23.2 +0.3
comp=Z,560nm,0.6s
QSPA South Pole Qui 54.65 180 P P 11 07 45.9 +1.4
comp=Z,5.0nm,0.8s,baz=152,slow=5.3,SNR=46
comp=Z,5.0nm,0.8s
QSPA South Pole Qui 54.65 180 P 11 07 45.4 +0.9
QSPA IAmb IAmb 11 07 46.8
comp=Z,9.5nm,1.1s
VNDA Vanda 62.60 191 P P 11 08 41.8 +2.6
comp=Z,0.2nm,0.7s,baz=130,slow=7.9,SNR=1.2
VNDA Vanda 62.60 191 P P 11 08 40.3 +1.1
VNDA IAmb IAmb 11 09 05.2
comp=Z,5.2nm,1.4s
TX31 Lajitas Ar. Si 71.26 331 P P 11 09 35.2 +0.3
TXAR Lajitas Array 71.26 331 P P 11 09 36.9 +2.1
comp=Z,0.5nm,0.8s,baz=143,slow=8.7,SNR=5.0
TXAR Lajitas Array 71.26 331 P P 11 09 35.3 +0.5
MAW Mawson 71.58 163 P P 11 09 36.7 +0.5
comp=Z,6.5nm,0.6s,baz=200,slow=4.3,SNR=16
comp=Z,6.5nm,0.6s
MAW Mawson 71.58 163 P P 11 09 36.7 +0.5
SUR Sutherland 73.82 118 LR LR 11 40 00.3
comp=Z,24nm,18.1s,baz=214,slow=34
DBIC Dimbokro 75.43 71 P P 11 09 59.6 0.0
comp=Z,6.0nm,0.6s,baz=214,slow=3.6,SNR=5.2
comp=Z,6.0nm,0.6s
DBIC Dimbokro 75.43 71 P P 11 09 59.5 -0.2
DBIC IAmb IAmb 11 10 00.7
comp=Z,15nm,1.2s
TSUM Tsumeb 78.52 105 LR LR 11 40 50.3
comp=Z,21nm,19.2s,baz=344,slow=33
BOSA Boshof 79.09 117 P P 11 10 20.0 -0.2
comp=Z,10nm,0.5s,baz=247,slow=3.5,SNR=38
BOSA LR LR 11 43 43.5
comp=Z,13nm,18.4s,baz=202,slow=34
comp=Z,10nm,0.5s
BOSA Boshof 79.09 117 P P 11 10 20.1 -0.1
TORD Torodi Ar. Bea 84.49 70 P P 11 10 48.6 +0.1
comp=Z,1.5nm,0.7s,baz=249,slow=4.0,SNR=9.1
PDAR Pinedale Array 85.30 333 P P 11 10 55.4 +3.2
comp=Z,0.3nm,0.7s,baz=136,slow=8.1,SNR=2.6
PDAR Pinedale Array 85.30 333 P P 11 10 52.0 -0.2
WRA Warramunga Arr 119.50 208 PKP PKiKP 11 17 07.2 +2.1
comp=Z,0.3nm,0.7s,baz=160,slow=2.1,SNR=4.7
BVAR Borovoye Array 148.23 45 PKPbc PKiKP 11 18 01.8 -0.2
comp=Z,0.9nm,0.4s,baz=265,slow=2.8,SNR=2.8
KURBB **Kurchatov Arra 153.80 46** PKPbc **PKiKP 11 18 14.0 +0.4**
comp=Z,0.9nm,0.6s,baz=299,slow=2.9,SNR=11
KURBB PKPab **PKPab 11 18 27.5 +0.7**
comp=Z,0.5nm,0.7s,baz=290,slow=3.9,SNR=4.6
ZALV Zalesovo Beam 155.40 34 PKPab PKPab 11 18 33.0 -0.5
comp=Z,0.9nm,0.6s,baz=298,slow=3.1,SNR=3.6
MKAR Makanchi Array 157.56 52 PKPab PKPab 11 18 42.0 -1.1
comp=Z,0.3nm,0.5s,baz=260,slow=4.3,SNR=2.8
NJ2 Nanjing 170.54 251 eP PKPdf 11 18 22.5 -0.3
NJ2 pmax pmax
comp=Z,6.0nm,0.5s
HHC Hu-ho-hao-te 174.16 335 eP PKPdf 11 18 21.0 -3.3

PRE 25 11:00:02.5±1.1, 26°.17S×30°.24E, h0km, ML1.9,
Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CRLN	**Carolina, Mapu**	**0.26**	**312**	*eP*	Pg	11 00 07.3	-0.2
CRLN				*eS*	Sg	11 00 11.6	+0.7
CRLN				IAML		11 00 14.5	
	comp=Z,528nm,0.3s						
PILG	**Pilgrimsrest,**	**1.30**	**19**	*eP*	Pb	11 00 27.8	-0.2
PILG				*eS*	Sg	11 00 44.3	-0.1
PILG				IAML		11 00 49.9	
	comp=Z,31nm,0.3s						
PILG	**Pilgrimsrest,**	**1.30**	**19**	*eP*	Pb	11 00 28.0	0.0
PILG				*eS*	Sb	11 00 45.7	+0.3
PILG				IAML		11 00 57.6	
	comp=Z,16nm,0.6s						
NWCL	**Newcastle**	**1.59**	**191**	*eP*	Pg	11 00 37.7	+4.7
NWCL				*eS*	Sg	11 00 59.7	+6.0
NWCL				IAML		11 01 13.3	
	comp=Z,6.8nm,0.6s						
NWCL	**Newcastle**	**1.59**	**191**	*eP*	Pn	11 00 32.1	+0.1
NWCL				*eS*	Sg	11 00 55.4	+1.8
NWCL				IAML		11 01 06.2	
	comp=Z,9.5nm,0.3s						
HRAO	**HartRAO**	**2.31**	**276**	*eP*	Pg	11 00 48.1	+1.2
HRAO	**HartRAO**	**2.31**	**276**	*eP*	Pn	11 00 43.0	+1.0
HRAO				*eS*	Sn	11 01 12.4	+1.1
LEPH	**Lephalale, Lim**	**3.19**	**316**	*eP*	Pb	11 00 58.0	-2.2
LEPH				*eS*	Sb	11 01 38.0	-1.7
LEPH				IAML		11 01 57.7	
	comp=Z,2.9nm,0.8s						
LEPH	**Lephalale, Lim**	**3.19**	**316**	*eP*	Pn	11 00 54.1	0.0
LEPH				*eS*	Sn	11 01 32.7	-0.3
LEPH				IAML		11 01 50.4	
	comp=Z,4.2nm,0.3s						
BOSA	**Boshof**	**5.05**	**240**	*eP*	Pn	11 01 19.8	+0.1
BOSA				*eS*	Sn	11 02 17.3	-1.5
BOSA				IAML		11 02 51.1	
	comp=Z,2.3nm,0.5s						

VIE ***25*** *11:00:56.6±0.6, 51°.41N×16°.21E, h0km, mb2.4/3, ml2.6/3, ml2.5/3, Error ellipse: s-maj=5.0km s-min=3.2km az=62.0*
66 km WNW of Wroclaw Suspected Mining induced.
PRU ***25*** *11:00:57.7, 51°.46N×16°.13E, h0km*
ISC 25 11:00:56.8±1.3, 51°.43N±0°.06×16°.14E±0°.03, h0km, n19,
σ0s56/38, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.59**	**171**	*eP*	**Pg**	**11 01 08.8**	**+0.7**
KSP				*eSg*	**Sg**	**11 01 16.4**	**+0.7**
CHVC	**Chvalec**	**0.84**	**184**	*eP*	**Pb**	**11 01 13.6**	**-0.7**
CHVC				*eSG*	**Sb**	**11 01 25.9**	**-0.2**
	comp=Z,17nm,0.4s						
CHVC				AML	AML		
OSTC	**Ostas**	**0.87**	**177**	*eP*	**Pb**	**11 01 14.3**	**-0.5**
OSTC				*eSG*	**Sb**	**11 01 26.8**	**-0.2**
	comp=Z,17nm,0.3s						
OSTC				AML	AML		
UPC	**Upice**	**0.92**	**185**	*eP*	**Pg**	**11 01 14.7**	**+0.2**
UPC				*eSG*	**Sb**	**11 01 28.3**	**-0.2**
	comp=Z,43nm,0.3s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.08**	**174**	*eP*	**Pg**	**11 01 17.5**	**0.0**
DPC				*eSG*	**Sb**	**11 01 32.7**	**-0.4**
	comp=Z,15nm,0.3s						
DPC				AML	AML		
PVCC	**Panska Ves**	**1.34**	**229**	*eP*	**Pg**	**11 01 22.0**	**-0.5**
PVCC				*eSG*	**Sn**	**11 01 41.4**	**+0.1**
	comp=Z,50nm,0.2s						
PVCC				AML	AML		
KRLC	**Kraliky**	**1.41**	**163**	*eP*	**Pn**	**11 01 23.7**	**-0.1**
KRLC				*eSG*	**Sn**	**11 01 43.4**	**+0.3**
	comp=Z,21nm,0.3s						
KRLC				AML	AML		
BRG	**Berggiesshubel**	**1.49**	**249**	Pg	**Pn**	**11 01 23.9**	**-0.9**
BRG				Sg	**Sg**	**11 01 44.3**	**-0.4**
BRG				Amp		11 01 46.7	
	comp=Z,22nm,0.4s						
STEB	**Steborice**	**1.82**	**145**	*eP*	**Pb**	**11 01 31.0**	**+0.1**
STEB				*eSG*	**Sg**	**11 01 56.3**	**+1.2**
	comp=Z,8.7nm,0.3s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**1.88**	**151**	*eP*	**Pn**	**11 01 29.3**	**-0.9**
MORC				*eSG*	**Sb**	**11 01 55.8**	**-0.1**
CLL	**Collm**	**1.97**	**268**	*i* Pg	**Pn**	**11 01 31.9**	**+0.5**
CLL				*eSg*	**Sn**	**11 01 57.0**	**+0.1**
	comp=Z,10.0nm,0.3s						
VRAC	**Vranov**	**2.14**	**172**	*eP*	**Pn**	**11 01 33.3**	**-0.5**
VRAC				*eSG*	**Sg**	**11 02 05.0**	**-0.5**
ZVC	**Zvikov**	**2.35**	**213**	*eP*	**Pb**	**11 01 40.0**	**0.0**
ZVC				*eSG*	**Sg**	**11 02 12.9**	**+0.7**
	comp=Z,7.0nm,0.3s						
ZVC				AML	AML		
KRUC	**Moravsky**	**2.37**	**176**	*eP*	**Pn**	**11 01 36.5**	**-0.4**
KRUC				*eSG*	**Sg**	**11 02 11.9**	**-1.0**
OJC	**Ojcow**	**2.61**	**116**	*eP*	**Pg**	**11 01 46.7**	**-0.2**
OJC				*eSg*	**Sg**	**11 02 21.0**	**+0.3**
ABNA	**Allensteig Bun**	**2.80**	**190**	*eP*	**Pg**	**11 01 50.4**	**0.0**
ABNA				Sg	**Sg**	**11 02 27.4**	**+0.9**
	comp=Z,4.4nm,0.6s						
ABNA							
	comp=Z,3.2nm,0.3s						
KHC	**Kasperske Hory**	**2.83**	**217**	*eP*	**Pn**	**11 01 43.7**	**+0.5**
KHC				*eP*	**Pb**	**11 01 49.4**	**+1.3**
KHC				*eSN*	**Sn**	**11 02 18.1**	**+0.1**
KHC				*eSG*	**Sg**	**11 02 27.3**	**-0.2**
	comp=Z,3.6nm,0.6s						
KHC				AML	AML		
LANS	**Liptovska Anna**	**3.12**	**136**	*eSG*	**Sg**	**11 02 37.5**	**+0.6**
LANS				*eLG*	Lg	11 02 38.3	
MOA	**Molln**	**3.78**	**200**	*ePn*	**Pn**	**11 01 56.0**	**-0.3**
	comp=Z,1.6nm,0.3s						

*DJA **25** 11:01:06.9±0.8,4.7°N×8.5°×12.6°E±1°, h75km±13km, M4.1/7, mB4.7/5, mb4.3/7, mb4.3/7, mB4.7/3, ML4.1/1, MLv4.0/1, MLv3.9/4, Mw(mB)4.0/5, Mw(mB)3.9/3*
*IDC **25** 11:01:06.8±4.6,4.01N×126.34E, h96km±45km, mb3.2/5, mbtmp3.6/6, Error ellipse: s-maj=37.7km s-min=19.1km az=85.0*
*MAN **25** 11:01:07.0, 3.89N×126.01E, h35km, MS3.8*

ISC 25 11:01:07.3±0.9, 3.75N±0.08×126.19E±0.07, h100km, n15, σ1°58/19, mb3.4/5, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GAMI	**Galela, Maluku**	**2.48**	**140**	P	**Pn**	**11 01 45.8**	**-0.4**
GAMI				S	**Sn**	**11 02 16.2**	**+0.2**
GAMI				AML	AML		
MNI	**Manado**	**2.66**	**211**	P	**Pn**	**11 01 49.5**	**+0.9**
MNI				S	**Sn**	**11 02 18.0**	**-2.3**
MNI				AML	AML		
KCP	**Kidapawan**	**3.42**	**341**	*eP*	**Pn**	**11 02 00.3**	**+1.6**
GTOI	**Gorontalo**	**4.44**	**226**	P	**Pn**	**11 02 11.0**	**-1.4**
SANI	**Sanana**	**5.77**	**182**	P	**Pn**	**11 02 28.4**	**-2.0**
LUWI	**Luwuk**	**5.86**	**216**	P	**Pn**	**11 02 32.9**	**+1.2**
	936nm936nm30nm,0.7s,30nm,0.7s						
APSI	**Ampana**	**6.49**	**225**	P	**Pn**	**11 02 41.3**	**+1.1**
	592nm29nm,0.8s,29nm,0.8s						
SIJI	**Sorong**	**6.84**	**132**	P	**Pn**	**11 02 45.6**	**+0.6**
	4.3nm,0.3s,baz=330,slow=20,SNR=4.3						
NLAI	**Namlea**	**7.00**	**173**	P	**Pn**	**11 02 46.0**	**-1.3**
	26nm,0.9s,26nm,0.9s						
GUMO	**Guam**	**20.87**	**61**	P	**P**	**11 05 38.9**	**-2.6**
	35nm,0.3s,baz=300,slow=20,SNR=8.6						
FITZ	**Fitzroy Crossi**	**21.72**	**181**	P	**P**	**11 05 53.0**	**+2.5**
	1.1nm,0.3s,baz=7.7,slow=11,SNR=20						
	1.1nm,0.3s						
WRA	**Warramunga Arr**	**24.87**	**162**	P	**P**	**11 06 22.1**	**+1.3**
	0.9nm,0.6s,baz=344,slow=8.9,SNR=17						
	0.9nm,0.6s						
ASAR	**Alice Springs**	**28.27**	**165**	P	**P**	**11 06 52.9**	**+1.6**
	0.2nm,0.6s,baz=343,slow=8.2,SNR=2.1						
ASAR				PcP	**PcP**	**11 10 03.5**	**+1.1**
	0.2nm,0.4s,baz=344,slow=2.1,SNR=4.8						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**57.23**	**325**	P	**P**	**11 10 43.1**	**-1.1**
	0.2nm,0.3s,baz=111,slow=7.9,SNR=4.1						
MKAR				PcP	**PcP**	**11 11 37.6**	**+0.1**
	0.6nm,0.7s,baz=142,slow=3.9,SNR=3.8						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**61.43**	**328**	P	**P**	**11 11 11.7**	**-1.3**
	0.3nm,0.7s,baz=131,slow=6.4,SNR=4.4						
	0.3nm,0.7s						

PRE 25 11:12:31.2±0.9, 25.91S×29.18E, h0km, ML1.5, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CRLN	**Carolina, Mapu**	**0.76**	**97**	*eP*	Pg	11 12 45.5	-0.3
CRLN				*eS*	Sb	11 12 59.3	+0.8
CRLN				IAML		11 13 12.9	
	comp=Z,4.3nm,0.2s						
HRAO	**HartRAO**	**1.35**	**271**	*eP*	Pg	11 12 52.6	-4.4
HRAO				*eS*	Sg	11 13 08.3	-6.2
HRAO	**HartRAO**	**1.35**	**271**	*eP*	Pn	11 12 57.4	0.0
HRAO				*eS*	Sn	11 13 15.7	-0.4
PILG	**Pilgrimsrest,**	**1.69**	**55**	*eP*	Pb	11 13 03.2	-0.1
PILG				*eS*	Sg	11 13 27.2	+1.7
PILG				IAML		11 13 33.2	
	comp=Z,5.5nm,0.4s						
PILG	**Pilgrimsrest,**	**1.69**	**55**	*eP*	Pb	11 13 03.0	-0.3
PILG				*eS*	Sg	11 13 26.5	+1.0
PILG				IAML		11 13 34.9	
	comp=Z,5.0nm,0.4s						
NWCL	**Newcastle**	**1.93**	**161**	*eP*	Pn	11 13 04.2	-1.2
NWCL				*eS*	Sn	11 13 29.1	-1.3
NWCL				IAML		11 13 30.5	
	comp=Z,4.8nm,0.4s						
NWCL	**Newcastle**	**1.93**	**161**	*eP*	Pn	11 13 06.2	+0.8
NWCL				*eS*	Sn	11 13 30.8	+0.4
NWCL				IAML		11 13 30.8	
	comp=Z,7.4nm,0.4s						
LEPH	**Lephalale, Lim**	**2.40**	**328**	*eP*	Pn	11 13 10.1	-1.8
LEPH				*eS*	Sn	11 13 40.5	-1.5
LEPH				IAML		11 14 00.0	
	comp=Z,2.3nm,0.4s						
LEPH	**Lephalale, Lim**	**2.40**	**328**	*eP*	Pn	11 13 12.0	+0.1
LEPH				*eS*	Sn	11 13 42.6	+0.6
LEPH				IAML		11 13 57.6	
	comp=Z,2.7nm,0.3s						
MOPA	**Mopani**	**3.12**	**41**	*eP*	Pn	11 13 22.2	+0.5
MOPA				*eS*	Sn	11 13 59.4	-0.3
MOPA				IAML		11 14 13.6	
	comp=Z,5.4nm,0.3s						
BOSA	**Boshof**	**4.41**	**232**	*eP*	Pn	11 13 40.8	+1.2
BOSA				*eS*	Sn	11 14 31.3	-0.5
BOSA				IAML		11 15 56.9	
	comp=Z,0.9nm,0.9s						

PRE 25 11:35:40.3±1.1, 25.96S×29.42E, h0km, ML1.3, Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PILG	**Pilgrimsrest,**	**1.55**	**49**	*eP*	Pg	11 36 10.1	+0.1
PILG				*eS*	Sn	11 36 32.4	+2.1
PILG				IAML		11 36 48.9	
	comp=Z,2.5nm,0.4s						
HRAO	**HartRAO**	**1.56**	**272**	*eP*	Pg	11 36 10.4	+0.1
HRAO				*eS*	Sb	11 36 31.8	+1.2
NWCL	**Newcastle**	**1.82**	**167**	*eP*	Pb	11 36 14.1	-0.5
NWCL				*eS*	Sb	11 36 37.5	-0.4
MOPA	**Mopani**	**3.02**	**37**	*eP*	Pn	11 36 29.2	-0.2
MOPA				*eS*	Sn	11 37 06.1	-0.3
MOPA				IAML		11 37 31.8	
	comp=Z,3.0nm,0.3s						

*SDD **25** 11:41:01.8±1.2, 19.08N×67.64W, h0km±10km, MD3.1, ML2.8, MW2.9, Presumed earthquake*
*RSPR **25** 11:41:04.0, 19.07N×67.71W, h38km±16km, MD3.5/12*
*NEIC **25** 11:41:03.7±1.2, 18.97N±0.07×67.71W±0.02, h35km±2km, ML2.9/35, Md3.6/12(RSPR), Error ellipse: s-maj=11.9km s-min=3.1km az=167.0*

ISC 25 11:41:02.3±1.5, 19.01N±0.07×67.64W±0.03, h18km±4km, n37, σ0°39/50, 6C-9D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
IDE	**Isla Desecheo**	**0.64**	**166**		**Pb**	**11 41 14.9**	**0.0**
IDE					**Sb**	**11 41 23.0**	**-0.3**
IDE	**Isla Desecheo**	**0.64**	**166**	*eP*	**Pb**	**11 41 14.9**	**0.0**
IDE				*eS*	**Sb**	**11 41 23.0**	**-0.3**
AGPR	**Aguadilla, PR**	**0.73**	**137**		**Pb**	**11 41 16.6**	**+0.1**
AGPR				IAML		11 41 27.3	
	516nm,0.5s						
AGPR				IAML		11 41 27.3	
	439nm,0.4s						
PCDR	**Punta Cana, DR**	**0.86**	**235**		**Pb**	**11 41 19.0**	**+0.4**
PCDR				Sn	**Sb**	**11 41 30.1**	**+0.4**
PCDR				IAML		11 41 38.0	
	comp=N,340nm,0.4s						
PCDR	**Punta Cana, DR**	**0.86**	**235**	*eSg*	**Sb**	**11 41 30.0**	**+0.2**
PCDR				IAML		11 41 34.0	
	comp=N,188nm,0.3s						
PCDR	**Punta Cana, DR**	**0.86**	**235**	*eP*	**Pg**	**11 41 19.2**	**+0.1**
PCDR				*eS*	**Sb**	**11 41 29.3**	**-0.5**
PRSN	**Puerto Rico Se**	**0.91**	**149**		**Pb**	**11 41 19.8**	**+0.2**
PRSN					**Sg**	**11 41 32.6**	**+0.4**
PRSN	**Puerto Rico Se**	**0.91**	**149**	*ePg*	**Pb**	**11 41 19.8**	**+0.2**
PRSN				*eSg*	**Sg**	**11 41 32.3**	**+0.1**
PRSN				IAML		11 41 40.6	
	comp=N,719nm,0.2s						
PRSN	**Puerto Rico Se**	**0.91**	**149**	*eP*	**Pb**	**11 41 19.4**	**-0.2**
AOPR	**Arecibo Observ**	**1.06**	**128**		**Pb**	**11 41 22.1**	**-0.2**
AOPR				IAML		11 41 48.1	
	comp=N,223nm,0.3s						
AOPR	**Arecibo Observ**	**1.06**	**128**	*ePg*	**Pb**	**11 41 21.9**	**-0.3**
AOPR				IAML		11 41 48.0	
	comp=N,198nm,0.5s						
AOPR	**Arecibo Observ**	**1.06**	**128**	*eP*	**Pb**	**11 41 22.0**	**-0.3**
HIDR	**Higuey Centro**	**1.10**	**248**	IAML		11 41 43.8	
	comp=N,254nm,0.2s						
CRPR	**Cabo Rojo, PR**	**1.11**	**153**		**Pn**	**11 41 22.7**	**-0.3**
CRPR				IAML		11 41 40.5	
	comp=N,264nm,0.5s						
CRPR				IAML		11 41 43.2	
	comp=N,186nm,0.4s						
CRPR	**Cabo Rojo, PR**	**1.11**	**153**	*ePg*	**Pn**	**11 41 22.9**	**-0.1**
CRPR				IAML		11 41 42.0	
	comp=N,231nm,0.2s						
CRPR	**Cabo Rojo, PR**	**1.11**	**153**	*eP*	**Pn**	**11 41 22.6**	**-0.4**
MLPR	**Magueyes Islan**	**1.18**	**151**		**Pn**	**11 41 23.3**	**-0.5**
MLPR				IAML		11 41 42.4	
	comp=N,201nm,0.5s						
MLPR				IAML		11 41 43.5	
	comp=N,198nm,0.5s						
MLPR	**Magueyes Islan**	**1.18**	**151**	*ePg*	**Pn**	**11 41 23.5**	**-0.3**
MLPR				*eSg*	**Sg**	**11 41 41.1**	**+0.6**
MLPR				IAML		11 41 42.4	
	comp=N,70nm,0.4s						
MLPR	**Magueyes Islan**	**1.18**	**151**	*eP*	**Pn**	**11 41 23.4**	**-0.5**
EMPR	**Esperanza - Ma**	**1.18**	**116**		**Pb**	**11 41 24.0**	**-0.1**
EMPR					**Sg**	**11 41 39.9**	**-0.6**
EMPR	**Esperanza - Ma**	**1.18**	**116**	*eP*	**Pb**	**11 41 24.0**	**-0.1**
EMPR				*eS*	**Sg**	**11 41 39.9**	**-0.6**
GBPR	**Guanica, Bosqu**	**1.25**	**145**		**Pb**	**11 41 25.2**	**-0.2**
GBPR					**Sb**	**11 41 41.7**	**+0.5**
GBPR	**Guanica, Bosqu**	**1.25**	**145**	*eP*	**Pb**	**11 41 25.2**	**-0.2**
GBPR				*eS*	**Sb**	**11 41 41.7**	**+0.5**
SADR	**Isla Saona**	**1.35**	**233**	*ePg*	**Pn**	**11 41 26.1**	**-0.1**
SADR				IAML		11 41 53.9	
	comp=N,207nm,0.5s						
CELP	**Cerrillos**	**1.37**	**132**		**Pb**	**11 41 27.0**	**-0.4**
CELP				IAML		11 41 49.1	
	comp=N,161nm,0.2s						
CELP	**Cerrillos**	**1.37**	**132**	*ePg*	**Pn**	**11 41 26.7**	**+0.2**
CELP				*eSg*	**Sg**	**11 41 46.5**	**-0.1**
CELP				IAML		11 41 52.3	
	comp=N,52nm,0.3s						
CELP	**Cerrillos**	**1.37**	**132**	*eP*	**Pb**	**11 41 27.0**	**-0.4**
OBIP	**Obispado Ponce**	**1.37**	**134**		**Pb**	**11 41 26.9**	**-0.6**
OBIP	**Obispado Ponce**	**1.37**	**134**	*eP*	**Pn**	**11 41 26.6**	**+0.1**
OBIP				*eS*	**Sb**	**11 41 45.2**	**+0.6**
ECPR	**Experimental S**	**1.39**	**119**		**Pn**	**11 41 26.9**	**+0.1**
ECPR	**Experimental S**	**1.39**	**119**	*eP*	**Pn**	**11 41 26.7**	**-0.1**
SMDR	**Samana, DR**	**1.49**	**281**	*iP*	**Pn**	**11 41 28.1**	**-0.1**
SMDR				*iS*	**Sn**	**11 41 46.9**	**-0.3**
SMDR				IAML		11 41 56.7	
	comp=N,120nm,0.5s						
GCPR	**Guaynabo City**	**1.63**	**115**	Pn	**Pn**	**11 41 30.2**	**+0.1**
PDPR	**Patillas Dam,**	**1.82**	**122**		**Pn**	**11 41 33.5**	**+0.8**
PDPR				IAML		11 42 01.6	
	comp=N,77nm,0.2s						
PDPR	**Patillas Dam,**	**1.82**	**122**	*eP*	**Pn**	**11 41 33.4**	**+0.6**
HUMP	**Col San Antoni**	**1.90**	**117**		**Pn**	**11 41 34.6**	**+0.7**
HUMP	**Col San Antoni**	**1.90**	**117**	*eP*	**Pn**	**11 41 34.6**	**+0.7**

*IDC **25** 11:52:18.9±2.1, 63.05N×27.98E, h0km, mbtmp3.1/2, ML2.1/2, Error ellipse: s-maj=25.6km s-min=11.6km az=104.0*
*HEL **25** 11:52:19.2±0.1, 63.11N×27.74E, h0km, ML1.9, Explosion*

ISC 25 11:52:18.8±0.8, 63.11N±0.02×27.72E±0.03, h0km, n45, σ1°60/68, Finland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NIF	**Nilsia**	**0.29**	**8**	PG	**Pg**	**11 52 24.3**	**+0.1**
	baz=185						
NIF				SG	**Sg**	**11 52 28.2**	**+0.2**
NIF				MSG		11 52 29.1	
	comp=Z,41nm,0.2s						
SUF	**Sumiainen**	**0.81**	**242**	*eP*	**Pg**	**11 52 34.5**	**+0.2**
SUF	**Sumiainen**	**0.81**	**242**	PB	**Pg**	**11 52 34.5**	**+0.2**
	baz=58						
SUF				MSG		11 52 44.9	
	comp=Z,7.2nm,0.2s						
KAF	**Kangasniemi**	**1.19**	**214**	PG	**Pg**	**11 52 41.0**	**-0.5**
KAF				MSG		11 52 55.5	
	comp=Z,17nm,0.2s						
KAF				SB	**Sb**	**11 52 57.8**	**-0.3**
RMF	**Romuvaara**	**1.49**	**41**	PG	**Pn**	**11 52 46.1**	**-0.6**
RMF				MSG		11 53 03.8	
	comp=Z,12nm,0.2s						
RMF				SN	**Sb**	**11 53 06.7**	**0.0**
KEF	**Keuruu**	**1.62**	**236**	*eP*	**Pb**	**11 52 49.4**	**-0.1**
KEF	**Keuruu**	**1.62**	**236**	PN	**Pn**	**11 52 49.0**	**+0.5**
KEF				MSG		11 53 07.9	
	comp=Z,9.1nm,0.2s						
KEF				SN	**Sn**	**11 53 10.2**	**+0.2**
JOF	**Joensuu**	**1.65**	**95**	*eP*	**Pn**	**11 52 49.0**	**0.0**
JOF	**Joensuu**	**1.65**	**95**	PG	**Pn**	**11 52 48.6**	**-0.4**
	baz=281						
JOF				SG	**Sn**	**11 53 09.8**	**-1.0**
RUF	**Ruokolahti**	**1.78**	**161**	PG	**Pn**	**11 52 51.0**	**+0.2**
	baz=339						
RUF				MSG		11 53 12.3	
	comp=Z,8.5nm,0.2s						
RUF				SN	**Sg**	**11 53 16.7**	**+0.7**
OUF	**Merijarvi**	**1.83**	**315**	PG	**Pn**	**11 52 52.2**	**+0.8**
	baz=130						
OUF				MSG		11 53 13.9	
	comp=Z,14nm,0.2s						
OUF				SG	**Sb**	**11 53 17.0**	**+0.4**
FIA0	**FINESS Array S**	**1.84**	**205**	PG	**Pn**	**11 52 52.4**	**+0.9**
FIA0				MSG		11 53 14.2	
	comp=Z,13nm,0.2s						
FIA0				SG	**Sb**	**11 53 16.3**	**-0.3**
FINES	**FINESS Array B**	**1.84**	**205**	Pn	**Pn**	**11 52 52.0**	**+0.5**
	comp=Z,0.6nm,0.3s,baz=26,slow=17,SNR=21						
FINES				Lg	Lg	11 53 16.3	
	comp=Z,1.9nm,0.3s,baz=29,slow=28,SNR=25						
OBF4	**Vikkela, Lumij**	**2.07**	**327**	PG	**Pb**	**11 52 56.3**	**-0.8**
OBF4				MSG		11 53 20.6	
	comp=Z,7.0nm,0.2s						
OUL	**Oulu**	**2.14**	**339**	PG	**Pb**	**11 52 57.2**	**-1.1**
	baz=153						
OUL				SG	**Sb**	**11 53 25.2**	**-0.2**
OBF8	**Ulkokalla**	**2.26**	**305**	PB	**Pn**	**11 52 57.4**	**+0.1**
OBF8				MSG		11 53 26.3	
	comp=Z,5.3nm,0.2s						
VAF	**Ylistaro**	**2.30**	**271**	*eP*	**Pb**	**11 53 00.5**	**-0.5**
VAF	**Ylistaro**	**2.30**	**271**	PG	**Pb**	**11 53 00.1**	**-0.9**
	baz=82						
VAF				MSG		11 53 27.6	
	comp=Z,6.7nm,0.2s						
VAF				SG	**Sb**	**11 53 30.4**	**+0.5**
VJF	**Virojoki**	**2.58**	**182**	PB	**Pn**	**11 53 03.6**	**+1.9**
VJF				MSG		11 53 35.4	
	comp=Z,4.9nm,0.2s						
VJF				SB	**Sb**	**11 53 36.8**	**-1.2**
KU1	**Kurvinen**	**2.60**	**17**	PB	**Pn**	**11 53 04.0**	**+2.0**
	baz=197						
KU1				SG	**Sb**	**11 53 37.9**	**-0.6**
KU2	**Taivalkoski**	**2.62**	**5**	PB	**Pn**	**11 53 04.5**	**+2.1**
KU2				SG	**Sb**	**11 53 39.0**	**-0.3**
PVF	**Pernaja**	**2.72**	**200**	MSG		11 53 39.5	
	comp=Z,5.1nm,0.2s						
PVF				SG	**Sb**	**11 53 42.6**	**+0.7**
MSF	**Maaselka**	**2.88**	**11**	PB	**Pn**	**11 53 07.2**	**+1.5**
	baz=193						
MSF				SB	**Sb**	**11 53 44.8**	**-1.8**
KPF	**Kankaanpaa**	**2.92**	**247**	PB	**Pn**	**11 53 08.5**	**+2.2**
KPF				MSG		11 53 45.2	
	comp=Z,3.3nm,0.2s						
KPF				SG	**Sb**	**11 53 48.1**	**+0.4**
RANF	**Ranua**	**2.95**	**353**	PB	**Pn**	**11 53 08.4**	**+1.6**
RANF				SB	**Sb**	**11 53 46.8**	**-1.9**
NUR	**Nurmijarvi**	**2.98**	**211**	MSG		11 53 47.3	
	comp=Z,4.3nm,0.2s						
NUR				SG	**Sb**	**11 53 51.6**	**+1.9**
KU6	**Riekki**	**3.08**	**17**	PB	**Pn**	**11 53 10.2**	**+1.7**
KU6				SB	**Sn**	**11 53 48.9**	**+2.9**
KU6				MSG		11 53 49.4	
	comp=Z,2.2nm,0.2s						
BURU	**Burvik**	**3.17**	**301**	PN	**Pn**	**11 53 09.6**	**-0.3**
UMAU	**Umeaa**	**3.25**	**287**	PB	**Pn**	**11 53 12.8**	**+1.9**
UMAU				SB	**Sb**	**11 53 54.2**	**-3.1**
MEF	**Metsahovi**	**3.30**	**210**	*eP*	**Pn**	**11 53 13.2**	**+1.6**
OLKF	**Oulanka, Finla**	**3.31**	**12**	PB	**Pn**	**11 53 13.7**	**+2.0**
OLKF				SG	**Sb**	**11 54 00.8**	**+1.8**
TOF	**Tornio**	**3.32**	**335**	PB	**Pn**	**11 53 14.3**	**+2.4**
RAF	**Rauma**	**3.49**	**236**	*eP*	**Pn**	**11 53 15.7**	**+1.5**
RAF	**Rauma**	**3.49**	**236**	PB	**Pb**	**11 53 19.2**	**-2.2**
	baz=53						
SJUU	**Sjulsmark**	**3.59**	**315**	*eP*	**Pn**	**11 53 18.6**	**+3.1**
RNF	**Rovaniemi**	**3.59**	**349**	PN	**Pn**	**11 53 17.6**	**+2.0**
RNF				SB	**Sb**	**11 54 03.7**	**-3.4**
HUSU	**Husum**	**3.85**	**277**	SB	**Sb**	**11 54 10.7**	**-3.9**
TVF	**Tvarminne**	**3.91**	**215**	PG	**Pb**	**11 53 27.9**	**-0.6**
ERTU	**Ertsjaerv**	**4.19**	**328**	PG	**Pb**	**11 53 34.8**	**+1.6**
ERTU				SB	**Sb**	**11 54 20.3**	**-4.0**
KLF	**Kolari**	**4.44**	**341**	PN	**Pn**	**11 53 28.5**	**+1.3**
	baz=158						
KLF				SN	**Sn**	**11 54 20.2**	**+0.7**
HEMU	**Hemsoen**	**4.45**	**269**	PN	**Pn**	**11 53 28.5**	**+1.1**
LANU	**Lannavaara**	**5.50**	**337**	*eP*	**Pn**	**11 53 44.0**	**+2.2**
ARCES	**ARCESS Array B**	**6.52**	**353**	Pn	**Pn**	**11 53 55.9**	**+0.1**
	baz=170,slow=13,SNR=5.7						
ARCES				Sn	**Sn**	**11 55 08.8**	**-2.0**
	comp=Z,0.1nm,0.3s,baz=173,slow=22,SNR=5.6						
ARCES				Lg	Lg	11 55 38.6	
	comp=Z,0.1nm,0.3s,baz=176,slow=28,SNR=2.2						
	comp=Z,1.5nm,0.9s						
HFS	**Hagfors**	**7.31**	**252**	Pn	**Pn**	**11 54 08.6**	**+1.9**
	comp=Z,0.1nm,0.3s,baz=62,slow=19,SNR=1.1						
HFS				Sn	**Sn**	**11 55 28.9**	**-1.4**
	comp=Z,0.1nm,0.3s,baz=62,slow=28,SNR=2.5						
	comp=Z,1.5nm,0.8s						
HFS				AML	AML		
I43RU	**DUBNA INFRASON**	**7.98**	**139**	I	I	12 44 11.3	
	baz=323,slow=313,SNR=1.6						

FUNV 25 11:56:23.2, 12.24N×70.02W, h35km, MW2.7, Presumed earthquake, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TEPV	**Terepaima**	**2.41**	**160**	*eP*	Pn	11 56 58.9	-1.3
TEPV				*eS*	Sn	11 57 26.4	-2.1
TURV	**Turiamo**	**2.78**	**130**	*eP*	Pn	11 57 04.0	-1.2
TURV				*eS*	Sn	11 57 34.6	-3.0
BENV	**Beln**	**3.28**	**133**	*eP*	Pn	11 57 11.8	-0.4
BENV				*eS*	Sn	11 57 46.9	-3.2
TACV	**Tcata**	**3.60**	**125**	*eP*	Pn	11 57 15.7	-0.9
TACV				*eS*	Sn	11 57 53.9	-4.2

*TRN **25** 11:57:00.0, 8.56N×59.14W, h94km, MD4.7, North of Guyana.*
*FUNV **25** 11:57:17.0, 8.86N×59.03W, h34km, MW4.4, Presumed earthquake*

ISC 25 11:57:15.2±3.2, 8.9N±0.1×59.4W±0.1, h10km, n21, σ1°87/33, Guyana

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TRN	**Trinidad (W)**	**2.67**	**312**	*eP*	**Pn**	**11 58 00.2**	**+1.9**
TRN				*eS*	**Sn**	**11 58 32.0**	**+1.3**
TRN	**Trinidad (W)**	**2.67**	**312**	*eP*	**Pn**	**11 57 59.4**	**+1.2**
TRN				*eS*	**Sb**	**11 58 33.6**	**-2.4**
PSDM	**Port of Spain,**	**2.75**	**311**	*eP*	**Pn**	**11 57 59.9**	**+0.5**
PSDM				*eS*	**Sn**	**11 58 35.1**	**+2.3**
PSKH	**Kent House, Po**	**2.78**	**311**	*eS*	**Sn**	**11 58 35.6**	**+2.1**
PSMG	**Mucurapo Girls**	**2.78**	**311**	*eS*	**Sn**	**11 58 36.0**	**+2.5**
DMDM	**Guralp CMG5TDE**	**2.81**	**311**	*eP*	**Pn**	**11 58 01.1**	**+0.9**
DMDM				*eS*	**Sn**	**11 58 36.0**	**+1.8**
GRGR	**Grenville**	**3.95**	**326**	*eP*	**Pn**	**11 58 17.3**	**+1.4**
GRGR				*eS*	**Sn**	**11 59 00.4**	**-1.9**
GRGR	**Grenville**	**3.95**	**326**	*eP*	**Pn**	**11 58 17.1**	**+1.3**
GRGR				*eS*	**Sn**	**11 59 03.0**	**+0.6**
GRW	**Mount Saint Ca**	**3.98**	**326**	*eP*	**Pn**	**11 58 18.0**	**+1.7**
GRW				*eS*	**Sn**	**11 59 05.1**	**+2.0**
GRSS	**Sisters**	**4.07**	**328**	*eP*	**Pn**	**11 58 18.0**	**+0.6**
GRSS				*eS*	**Sn**	**11 59 06.3**	**+1.2**
SVB	**Belmont**	**4.76**	**338**	*eP*	**Pn**	**11 58 27.0**	**0.0**
SVB				*eS*	**Sn**	**11 59 23.4**	**+1.0**
PCRV	**Puerto La Cruz**	**5.34**	**285**	*eP*	**Pn**	**11 58 36.4**	**+1.3**
SLBI	**Saint Lucia, B**	**5.37**	**343**	*eP*	**Pn**	**11 58 34.5**	**-0.9**
SLBI				*eS*	**Sn**	**11 59 36.0**	**-1.3**
BIM	**Bigot**	**5.87**	**344**	*eP*	**Pn**	**11 58 42.8**	**+0.5**
BIM				*eS*	**Sn**	**11 59 46.1**	**-3.6**
CACV	**CAICARA DEL OR**	**7.19**	**260**	*eP*	Pn	11 58 54.2	-6.3
CACV				*eS*	Sn	12 00 08.0	-14
FUNV	**FUNVISIS**	**7.49**	**283**	*eP*	**Pn**	**11 59 05.8**	**+1.1**
TACV	**Tcata**	**7.64**	**280**	*eP*	**Pn**	**11 59 07.6**	**+0.9**
TACV				*eS*	**Sn**	**12 00 30.9**	**-2.5**
BENV	**Beln**	**8.18**	**278**	*eP*	**Pn**	**11 59 15.0**	**+1.0**
TURV	**Turiamo**	**8.48**	**281**	*eP*	**Pn**	**11 59 19.8**	**+1.6**
TURV				*eS*	**Sn**	**12 00 49.3**	**-4.7**
MAPV	**Macapo**	**9.00**	**277**	*eP*	**Pn**	**11 59 26.9**	**+1.5**
TEPV	**Terepaima**	**9.73**	**277**	*eP*	**Pn**	**11 59 36.3**	**+0.8**

*SDD **25** 12:05:56.2±2.0, 18.08N×71.31W, h12km±11km, MD2.6, ML2.2, MW2.5, Presumed earthquake*
*OSPL **25** 12:05:57.0±1.2, 18.21N×71.33W, h7km±5km, ML2.3, Presumed earthquake*

ISC 25 12:05:56.5±1.1, 18.16N±0.03×71.35W±0.05, h9km±7km, n11, σ0°68/17, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.06**	**86**	*eP*	**Pg**	**12 05 58.3**	**-0.4**
PODR				*eS*	**Sg**	**12 06 01.7**	**+1.4**
PODR				IAML		12 06 02.5	
	comp=N,3µm,0.2s						
PODR	**Polo**	**0.06**	**86**	*iP*	**Pg**	**12 05 58.3**	**-0.4**
PODR				*eS*	**Sg**	**12 06 00.5**	**+0.2**
PODR				IAML		12 06 01.9	
	comp=Z,23µm,0.1s						
LODU1	**El Espartillar**	**0.23**	**327**	*iP*	**Pg**	**12 06 00.2**	**-1.0**
LODU1				*eS*	**Sg**	**12 06 03.6**	**-0.6**
LODU1				IAML		12 06 06.4	
	comp=Z,828nm,0.6s						
NEDR	**Neiba UASD**	**0.33**	**348**	*ePg*

UZB				eS		Sb	12 20 38.2	-0.3	
UZB	**Uzynbulak**	**0.55**	**62**	*eP*		**Pb**	**12 20 30.8**	**+0.1**	
	2.4nm,0.1s								
UZB				eS		Sb	12 20 38.2	-0.3	
	16nm,0.1s								
KURS	**Kuram**	**0.62**	**347**	P		**Pb**	**12 20 32.2**	**+0.4**	
	0.5nm,0.1s								
KURS				S		Sb	12 20 40.5	+0.1	
	3.1nm,0.2s								
KURS	**Kuram**	**0.62**	**347**	*eP*		**Pb**	**12 20 32.2**	**+0.4**	
	0.5nm,0.1s								
KURS				eS		Sb	12 20 40.5	+0.1	
	3.1nm,0.2s								
KPKS	**Kokpek**	**0.62**	**22**	P		**Pb**	**12 20 32.0**	**-0.1**	
	0.2nm,0.1s								
KPKS				S		Sg	12 20 39.9	0.0	
	6.1nm,0.3s								
KPKS	**Kokpek**	**0.62**	**22**	*eP*		**Pb**	**12 20 32.0**	**-0.1**	
	0.2nm,0.1s								
KPKS				eS		Sg	12 20 39.9	0.0	
	6.1nm,0.3s								
PDGK	**Podgornoye**	**0.94**	**61**	⇑P		**Pg**	**12 20 37.7**	**+0.2**	
	0.4nm,0.3s								
PDGK				⇑S		Sb	12 20 49.7	+0.1	
	9.0nm,0.7s								
KDJ	**Kajisay**	**1.16**	**230**	⇑*iP*		**Pg**	**12 20 42.0**	**+0.4**	
KDJ				⇑*iS*		Sn	12 20 57.3	+0.5	
BLB	**Baldybastay**	**1.21**	**4**	P		**Pg**	**12 20 43.3**	**+0.5**	
	2.3nm,0.1s								
BLB				S		Sg	12 20 59.5	+1.0	
	4.2nm,0.1s								
TARG	**Taragay, Kyrgy**	**1.23**	**200**	⇑*iP*		**Pg**	**12 20 43.3**	**+0.2**	
TARG				⇑*iS*		Sg	12 20 59.8	+0.7	
ARXS	**Arharly**	**1.38**	**344**	P		**Pg**	**12 20 46.3**	**+0.4**	
	0.7nm,0.1s								
ARXS				S		Sg	12 21 04.5	+0.6	
	2.4nm,0.1s								
ARXS	**Arharly**	**1.38**	**344**	*eP*		**Pg**	**12 20 46.3**	**+0.4**	
	0.7nm,0.1s								
ARXS				eS		Sg	12 21 04.5	+0.6	
	2.4nm,0.1s								
ULHL	**Ulahol**	**1.69**	**248**	⇓*iP*		**Pg**	**12 20 51.3**	**-0.5**	
ULHL				⇓*iS*		Sg	12 21 13.8	-0.1	
DJR	**Jarkent**	**1.78**	**35**	P		**Pg**	**12 20 53.5**	**0.0**	
	0.9nm,0.1s								
DJR				S		Sg	12 21 16.8	+0.3	
	20nm,0.3s								
DJR	**Jarkent**	**1.78**	**35**	*eP*		**Pg**	**12 20 53.5**	**0.0**	
	0.9nm,0.1s								
DJR				eS		Sg	12 21 16.8	+0.3	
	20nm,0.3s								
BOOM	**Boomskoye usch**	**1.83**	**258**	⇓*iP*		**Pb**	**12 20 53.4**	**+0.8**	
BOOM				⇓*iS*		Sg	12 21 17.6	-0.6	
TKM2	**Tokmak 2**	**2.03**	**272**	⇑*iP*		**Pb**	**12 20 56.5**	**+0.4**	
TKM2				⇑*iS*		Sb	12 21 22.6	+1.3	
NRN	**Naryn**	**2.28**	**231**	⇓*iP*		**Pb**	**12 20 59.9**	**-0.5**	
NRN				⇓*iS*		Sb	12 21 29.3	+0.8	
KAPS	**Kapalarasan**	**2.50**	**16**	Pg		**Pg**	**12 21 06.7**	**-0.6**	
	1.0nm,0.1s								
KAPS				Lg		Lg	12 21 39.4		
	16nm,0.1s								
KAPS	**Kapalarasan**	**2.50**	**16**	*eP*		**Pg**	**12 21 06.7**	**-0.6**	
	1.0nm,0.1s								
KAPS				eS		Sg	12 21 39.4	-0.4	
	16nm,0.1s								
AAK	**Ala-Archa**	**2.86**	**266**	⇓*iP*		**Pb**	**12 21 07.8**	**-2.3**	
AAK				⇓*iS*		Sb	12 21 42.5	-2.5	

*MEX **25** 12:36:57.9±0.6, 14°.92N×92°.52W, h106km±6km, MD4.3, Presumed earthquake*
*NEIC **25** 12:36:57.3±0.6, 14°.92N±0°.09×92°.51W±0°.08, h102km±4km, mb4.2/8, Md4.3/44(MEX), Error ellipse: s-maj=15.8km s-min=7.4km az=216.0*
*CATAC **25** 12:36:58.9±0.6, 15°.N±4°×9°.3W±°, h74km±5km, M3.7/8, MLv3.7/8, Error ellipse: s-maj=11.5km s-min=5.4km az=41.9, confirmed*

ISC 25 12:36:55.6±0.9, 14°.97N±0°.04×92°.56W±0°.03, h110km±6km, n57, σ2s16/100, mb4.2/3, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THIG		**0.29**	**102**		**Pn**	**12 37 11.1**	**-0.3**
THIG					**Sn**	**12 37 21.9**	**-1.2**
THIG		**0.29**	**102**	*eP*	**Pn**	**12 37 11.1**	**-0.3**
THIG				*eS*	**Sn**	**12 37 21.9**	**-1.2**
RTAL	**Retalhuleu**	**0.95**	**118**	P	**Pn**	**12 37 16.7**	**+0.3**
RTAL				S	**Sn**	**12 37 31.3**	**-0.7**
RTAL	**Retalhuleu**	**0.95**	**118**		**Pn**	**12 37 16.5**	**+0.2**
RTAL				Sn	**Sn**	**12 37 31.2**	**-0.8**
RTAL	**Retalhuleu**	**0.95**	**118**	*eP*	**Pn**	**12 37 16.6**	**+0.3**
RTAL				*eS*	**Sn**	**12 37 30.8**	**-1.1**
PCIG		**0.97**	**319**		**Pn**	**12 37 18.0**	**+1.5**
PCIG					**Sn**	**12 37 34.2**	**+1.9**
PCIG		**0.97**	**319**	*eP*	**Pn**	**12 37 18.0**	**+1.5**
PCIG				*eS*	**Sn**	**12 37 34.2**	**+1.9**
HUEH	**Huehuetenango**	**1.08**	**71**	P	**Pn**	**12 37 18.6**	**+0.7**
HUEH				S	**Sn**	**12 37 35.1**	**+0.3**
HUEH	**Huehuetenango**	**1.08**	**71**		**Pn**	**12 37 17.8**	**-0.1**
HUEH				Sn	**Sn**	**12 37 33.8**	**-1.0**
HUEH	**Huehuetenango**	**1.08**	**71**	*eP*	**Pn**	**12 37 18.3**	**+0.4**
HUEH				*eS*	**Sn**	**12 37 34.1**	**-0.7**
CCIG	**Comitan**	**1.37**	**17**		**Pn**	**12 37 21.0**	**-0.1**
CCIG				Sn	**Sn**	**12 37 41.1**	**+0.7**
CCIG	**Comitan**	**1.37**	**17**	*eP*	**Pn**	**12 37 22.7**	**+1.6**
CCIG				*eS*	**Sn**	**12 37 40.8**	**+0.4**
TGIG		**1.88**	**343**		**Pn**	**12 37 28.3**	**+1.1**
TGIG					**Sn**	**12 37 51.0**	**-0.2**
TGIG		**1.88**	**343**	*eP*	**Pn**	**12 37 28.3**	**+1.1**
TGIG				*eS*	**Sn**	**12 37 51.0**	**-0.2**
FAME	**Alcaldia de Sa**	**2.71**	**114**	P	**Pn**	**12 37 41.0**	**+3.1**
UXUV	**UXUV**	**2.79**	**327**		**Pn**	**12 37 41.3**	**+2.5**
UXUV					**Sn**	**12 38 12.9**	**+0.8**
UXUV	**UXUV**	**2.79**	**327**	*eP*	**Pn**	**12 37 41.3**	**+2.5**
UXUV				*eS*	**Sn**	**12 38 12.9**	**+0.8**
NUBE	**Las Nubes**	**2.90**	**111**	P	**Pn**	**12 37 43.8**	**+3.4**
NUBE				S	**Sn**	**12 38 18.3**	**+3.4**
CMIG	**Matias Romero**	**3.07**	**314**		**Pn**	**12 37 45.0**	**+2.5**
CMIG					**Sn**	**12 38 20.7**	**+1.9**
CMIG	**Matias Romero**	**3.07**	**314**	*eP*	**Pn**	**12 37 45.0**	**+2.5**
CMIG				*eS*	**Sn**	**12 38 20.7**	**+1.9**
ESQI	**Esquipulas**	**3.14**	**97**	Pn	**Pn**	**12 37 43.6**	**0.0**
MTO3	**Montecristo**	**3.15**	**100**		**Pn**	**12 37 44.2**	**+0.4**
PETF	**Flores**	**3.24**	**53**	P	**Pn**	**12 37 46.2**	**+1.4**
PETF	**Flores**	**3.24**	**53**		**Pn**	**12 37 46.2**	**+1.4**
PETF	**Flores**	**3.24**	**53**	*eP*	**Pn**	**12 37 45.9**	**+1.1**
PETF				*eS*	**Sn**	**12 38 18.3**	**-4.4**
HUIG	**Huatulco**	**3.51**	**284**		**Pn**	**12 37 49.7**	**+1.2**
HUIG					**Sn**	**12 38 26.0**	**-3.3**
HUIG	**Huatulco**	**3.51**	**284**	*eP*	**Pn**	**12 37 49.7**	**+1.2**
HUIG				*eS*	**Sn**	**12 38 26.0**	**-3.3**
NEUV	**Arroyo Zacate**	**4.14**	**312**		**Pn**	**12 37 58.9**	**+2.1**
NEUV					**Sn**	**12 38 44.0**	**-0.3**
NEUV	**Arroyo Zacate**	**4.14**	**312**	*eP*	**Pn**	**12 37 58.9**	**+2.1**
NEUV				*eS*	**Sn**	**12 38 44.0**	**-0.3**
SCIG	**Sabancuy**	**4.19**	**18**	P	**Pn**	**12 38 00.0**	**+2.5**
SCIG	**Sabancuy**	**4.19**	**18**		**Pn**	**12 37 59.6**	**+2.1**
SCIG					**Sn**	**12 38 42.9**	**-2.7**
SCIG	**Sabancuy**	**4.19**	**18**	*eP*	**Pn**	**12 37 59.6**	**+2.1**
SCIG				*eS*	**Sn**	**12 38 42.9**	**-2.7**
PEIG	**Puerto Escondi**	**4.54**	**284**		**Pn**	**12 38 04.1**	**+1.9**
PEIG					**Sn**	**12 38 50.6**	**-3.4**
PEIG	**Puerto Escondi**	**4.54**	**284**	*eP*	**Pn**	**12 38 04.1**	**+1.9**
PEIG				*eS*	**Sn**	**12 38 50.6**	**-3.4**
YOIG	**Yosondua**	**5.15**	**292**		**Pn**	**12 38 13.9**	**+3.2**
YOIG					**Sn**	**12 39 07.4**	**-1.8**
YOIG	**Yosondua**	**5.15**	**292**	*eP*	**Pn**	**12 38 13.9**	**+3.2**
YOIG				*eS*	**Sn**	**12 39 07.4**	**-1.8**
TOIG	**Toxpalan**	**5.32**	**306**		**Pn**	**12 38 15.1**	**+2.2**
TOIG					**Sn**	**12 39 10.9**	**-2.2**
TOIG	**Toxpalan**	**5.32**	**306**	*eP*	**Pn**	**12 38 15.1**	**+2.2**
TOIG				*eS*	**Sn**	**12 39 10.9**	**-2.2**
TXIG	**Tlaxiaco**	**5.49**	**295**		**Pn**	**12 38 17.6**	**+2.2**
TXIG					**Sn**	**12 39 14.5**	**-3.0**
TXIG	**Tlaxiaco**	**5.49**	**295**	*eP*	**Pn**	**12 38 17.6**	**+2.2**
TXIG				*eS*	**Sn**	**12 39 14.5**	**-3.0**
PNIG	**Pinotepa**	**5.54**	**286**		**Pn**	**12 38 18.8**	**+3.0**
PNIG					**Sn**	**12 39 15.0**	**-3.3**
PNIG	**Pinotepa**	**5.54**	**286**	*eP*	**Pn**	**12 38 18.8**	**+3.0**
PNIG				*eS*	**Sn**	**12 39 15.0**	**-3.3**
HLIG	**Huajuapan de L**	**5.78**	**300**		**Pn**	**12 38 20.7**	**+1.5**
HLIG					**Sn**	**12 39 24.9**	**+0.6**
HLIG	**Huajuapan de L**	**5.78**	**300**	*eP*	**Pn**	**12 38 20.7**	**+1.5**
HLIG				*eS*	**Sn**	**12 39 24.9**	**+0.6**
JAUV	**Jalcomulco**	**5.96**	**318**		**Pn**	**12 38 22.7**	**+1.2**
JAUV					**Sn**	**12 39 23.9**	**-4.7**
JAUV	**Jalcomulco**	**5.96**	**318**	*eP*	**Pn**	**12 38 22.7**	**+1.2**
JAUV				*eS*	**Sn**	**12 39 23.9**	**-4.7**
FTIG	**Fresnillo de T**	**6.09**	**299**		**Pn**	**12 38 27.6**	**+4.3**
FTIG					**Sn**	**12 39 29.9**	**-1.8**
FTIG	**Fresnillo de T**	**6.09**	**299**	*eP*	**Pn**	**12 38 27.6**	**+4.3**
FTIG				*eS*	**Sn**	**12 39 29.9**	**-1.8**
TEIG	**Tepich**	**6.64**	**37**		**Pn**	**12 38 30.6**	**0.0**
TEIG	**Tepich**	**6.64**	**37**	*eP*	**Pn**	**12 38 30.3**	**-0.3**
TEIG				*eS*	**Sn**	**12 39 41.5**	**-3.3**
HKT	**Hockley**	**15.21**	**349**	Pn	**Pn**	**12 40 24.5**	**+0.1**
HNVL	**Huntsville, TX**	**15.94**	**351**	Pn	**Pn**	**12 40 34.0**	**+0.4**
HNVL				IAmb	IAmb	12 40 50.6	
	comp=Z,17nm,0.9s						
NATX	**Nacogdoches**	**16.82**	**354**	Pn	**Pn**	**12 40 44.9**	**+0.4**
SN07	**Snyder 07**	**19.56**	**339**	P	**P**	**12 41 15.5**	**+0.7**
P38A	**Dawn**	**24.58**	**358**	P	**P**	**12 42 03.0**	**-2.2**
P38A				IAmb	IAmb	12 42 08.7	
	comp=Z,4.5nm,0.6s						
TPNV	**Topopah Spring**	**30.38**	**320**	P	**P**	**12 42 59.2**	**+1.8**
TPNV				IAmb	IAmb	12 43 04.3	
	comp=Z,6.7nm,1.1s						
WCT	**Wildcat Mounta**	**30.52**	**320**	P	**P**	**12 42 56.0**	**-2.5**
WCT				IAmb	IAmb	12 42 58.7	
	comp=Z,2.5nm,0.5s						

WEL 25 12:56:56.6±0.6, 33°S±4°×17°.9W±°, h200km, M4.2/9, mB4.5/4, ML4.3/9, MLv4.3/9, Mw(mB)3.6/4, Error ellipse: s-maj=12.1km s-min=4.0km az=111.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**4.09**	**12**	P	Pn	12 57 57.4	-2.2
GLKZ				S	Sn	12 58 43.2	-5.8
GLKZ				AML	AML		
MXZ	**Matakaoa Point**	**4.83**	**207**	S	Sn	12 59 05.3	-0.5
WMGZ	**Waiomatatini S**	**5.02**	**205**	P	Pn	12 58 12.8	+1.5
WMGZ				S	Sn	12 59 08.0	-2.2
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.19**	**207**	P	Pn	12 58 14.5	+1.2
PKGZ				S	Sn	12 59 12.7	-1.3
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.21**	**210**	P	Pn	12 58 14.7	+1.1
HAZ				S	Sn	12 59 14.2	-0.3
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**5.30**	**205**	P	Pn	12 58 15.3	+0.4
PUZ				S	Sn	12 59 13.8	-2.9
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.43**	**210**	P	Pn	12 58 18.8	+2.2
RUGZ				S	Sn	12 59 19.4	-0.4
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.50**	**206**	P	Pn	12 58 17.5	+0.1
TWGZ				S	Sn	12 59 19.8	-1.4
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.69**	**203**	P	Pn	12 58 20.4	+0.6
MWZ	**Matawai**	**5.81**	**209**	P	Pn	12 58 23.0	+1.7
MWZ				S	Sn	12 59 26.9	-1.6
MWZ				AML	AML		
OPRZ	**Ohinepanea**	**5.86**	**218**	P	Pn	12 58 25.1	+3.2
OPRZ				AML	AML		
URZ	**Urewera**	**5.92**	**212**	P	Pn	12 58 22.3	-0.5
URZ				S	Sn	12 59 28.7	-2.3
URZ				AML	AML		
RIGZ	**Rimuhau**	**6.04**	**205**	P	Pn	12 58 26.0	+1.6
RIGZ				S	Sn	12 59 32.4	-1.5
RIGZ				AML	AML		
RIGZ				AML	AML		
WCZ	**Waipu Caves**	**6.15**	**243**	P	Pn	12 58 29.8	+4.0
PRGZ	**Paritu Road**	**6.20**	**204**	P	Pn	12 58 25.6	-0.8
PRGZ				AML	AML		
MHGZ	**Mahia Peninsul**	**6.40**	**203**	P	Pn	12 58 28.9	0.0
OUZ	**Omahuta**	**6.48**	**251**	P	Pn	12 58 34.4	+4.3
OUZ				S	Sn	12 59 42.6	-1.6
RAHZ	**Arahi**	**6.49**	**209**	P	Pn	12 58 32.6	+2.5
MTHZ	**Maungataniwha**	**6.53**	**210**	P	Pn	12 58 33.2	+2.5
MTHZ				S	Sn	12 59 44.5	-0.9
MTHZ				AML	AML		
NMHZ	**Naumai**	**6.75**	**209**	P	Pn	12 58 35.4	+1.8
NMHZ				S	Sn	12 59 50.6	0.0
NMHZ				AML	AML		
NMHZ				AML	AML		
ARHZ	**Aropaoanui**	**6.82**	**208**	P	Pn	12 58 37.1	+2.7
ARHZ				S	Sn	12 59 51.4	-0.6
ARHZ				AML	AML		
BKZ	**Black Stump Fm**	**6.94**	**211**	P	Pn	12 58 37.3	+1.3
BKZ				S	Sn	12 59 54.4	-0.7
BKZ				AML	AML		
KWHZ	**Kaweka Forest**	**7.19**	**210**	P	Pn	12 58 40.6	+1.3
KWHZ				S	Sn	12 59 59.2	-1.7
KWHZ				AML	AML		

IDC 25 12:59:11.2±2.4, 4°.93S×144°.75E, h0km, mb3.7/2, mbtmp3.6/4, ML2.3/2, Error ellipse: s-maj=52.0km s-min=19.9km az=53.0, Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**5.05**	**152**	Pn	Pn	13 00 29.9	+1.7
	0.8nm,0.3s,baz=277,slow=16,SNR=2.2						
PMG				Sn	Sn	13 01 27.0	-0.3
	1.2nm,0.3s,baz=288,slow=19,SNR=1.5						
	8.0nm,0.8s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**18.04**	**213**	P	Pn	13 03 23.6	+0.1
	baz=34,slow=12,SNR=5.8						
	0.9nm,0.8s						
ASAR	**Alice Springs**	**21.36**	**208**	P	P	13 04 00.2	-0.2
	1.7nm,0.9s,baz=29,slow=12,SNR=11						
	1.7nm,0.9s						
CMAR	**Chiang Mai Arr**	**50.77**	**299**	P	P	13 08 13.4	-0.2
	1.1nm,0.6s,baz=125,slow=6.1,SNR=8.6						
	1.1nm,0.6s						

DNK 25 13:00:43.6±2.0, 56°.26N×12°.95E, h0km, ML1.1 (UPP), Explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DEL	**Delary**	**0.56**	**67**	*iP*	Pb	13 00 55.5	-0.7
DEL				*iS*	Sg	13 01 01.0	-0.4
DEL	**Delary**	**0.56**	**67**	P	Pb	13 00 55.5	-0.7
DEL				S	Sg	13 01 01.2	-0.2
LUNU	**Lund**	**0.69**	**156**	P	Pg	13 00 57.4	+0.7
LUNU				S	Sg	13 01 04.6	-1.0
ONAU	**Onsala**	**1.27**	**334**	*iP*	Pn	13 01 19.2	+11
ONAU				*iS*	Sn	13 01 42.6	+16
VXJU	**Vaexsjoe**	**1.29**	**58**	P	Pg	13 01 06.5	-1.8
BLEU	**Blekinge**	**1.60**	**87**	*iP*	Pn	13 01 07.3	-5.8
BLEU				*iS*	Sn	13 01 21.4	-13
BLEU	**Blekinge**	**1.60**	**87**	P	Pn	13 01 07.1	-6.0
BSD	**Bornholm Skovb**	**1.60**	**135**	*iP*	Pn	13 01 07.9	-5.1
BSD				*iS*	Sn	13 01 22.9	-11
BSD				IAML		13 01 25.1	
	comp=Z,3.5nm,0.2s						
OSKU	**Oskarshamn**	**1.97**	**60**	P	Pn	13 01 17.4	-0.9

IDC 25 13:02:43.7±2.5, 23°.64S×177°.23W, h0km, mb4.1/5, mbtmp4.1/5, MS3.1/4, Error ellipse: s-maj=158.6km s-min=29.3km az=162.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**7.35**	**322**	LR	LR	13 07 15.2	
	comp=Z,170nm,18.2s,baz=93,slow=37						
DZM	**Mont Dzumac**	**15.13**	**273**	LR	LR	13 10 43.0	
	comp=Z,56nm,20.0s,baz=263,slow=32						
URZ	**Urewera**	**15.36**	**197**	LR	LR	13 11 06.7	
	comp=Z,61nm,19.6s,baz=34,slow=33						
CTA	**Charters Tower**	**34.01**	**269**	P	P	13 09 30.7	+1.1
	3.0nm,0.6s,baz=96,slow=11,SNR=8.3						
CTA				LR	LR	13 22 26.6	
	comp=Z,40nm,18.6s,baz=46,slow=35						
	3.0nm,0.6s						
ASAR	**Alice Springs**	**44.58**	**260**	P	P	13 10 57.6	-0.3
	2.3nm,0.9s,baz=91,slow=8.3,SNR=18						
	2.3nm,0.9s						
WRA	**Warramunga Arr**	**44.95**	**265**	P	P	13 11 00.3	-0.6
	1.7nm,0.7s,baz=104,slow=7.9,SNR=13						
	1.7nm,0.7s						
FITZ	**Fitzroy Crossi**	**53.38**	**264**	P	P	13 12 04.8	-0.6
	4.3nm,1.0s,baz=111,slow=8.6,SNR=3.7						
	4.3nm,1.0s						
H03S2	**Juan Fernandez**	**83.65**	**124**	T	T	14 46 59.9	
	baz=244,slow=74,SNR=23						
H03S1	**Juan Fernandez**	**83.66**	**124**	T	T	14 47 01.5	
	baz=244,slow=74,SNR=21						
H03S3	**Juan Fernandez**	**83.66**	**124**	T	T	14 47 00.3	
	baz=244,slow=74,SNR=19						
TXAR	**Lajitas Array**	**88.15**	**57**	P	P	13 15 36.9	0.0
	0.5nm,0.8s,baz=227,slow=5.0,SNR=5.1						
	0.5nm,0.8s						
AKASG	**Malin Array Be**	**146.08**	**329**	PKPbc	PKPdf	13 22 24.6	0.0
	1.9nm,0.7s,baz=43,slow=4.0,SNR=8.3						

*SJA **25** 13:05:37.6±0.8, 22°.14S×67°.44W, h204km, ML3.6, MW3.6*
*NEIC **25** 13:05:37.9±1.8, 22°.21S±0°.07×67°.6W±0°.1, h220km±7km, mb4.1/6, ML3.9(GUC), Error ellipse: s-maj=14.2km s-min=9.4km az=97.0*
*GUC **25** 13:05:39.5±0.8, 22°.12S×67°.50W, h188km±9km, ML4.0, Presumed earthquake*
*SCB **25** 13:05:40.1±2.1, 22°.19S×67°.46W, h161km±27km, MB5.3, ML4.0/2, Error ellipse: s-maj=8.8km s-min=5.8km az=0.0*

ISC 25 13:05:37.0±0.8, 22°.18S±0°.04×67°.47W±0°.04, h211km±7km, n84, σ1s47/114, 11C, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AF01	**San Pedro de A**	**1.01**	**220**		**Pn**	**13 06 09.4**	**+1.0**
AF01				Sn	**S**	**13 06 32.9**	**+0.3**
PB09	**IPOC Station P**	**1.69**	**283**	*eP*	**Pn**	**13 06 14.5**	**+0.9**
PB09	**IPOC Station P**	**1.69**	**283**		**Pn**	**13 06 14.8**	**+1.2**
PB09				Sn	**S**	**13 06 42.2**	**+0.5**
PB09	**IPOC Station P**	**1.69**	**283**	⇑*eP*	**Pn**	**13 06 14.7**	**+1.2**
PB09				*eS*	**S**	**13 06 40.3**	**-1.3**
PB09	**IPOC Station P**	**1.69**	**283**	P	**Pn**	**13 06 14.1**	**+0.5**
YJA	**Yavi**	**1.81**	**90**	*eP*	**Pn**	**13 06 15.7**	**+0.7**
YJA				*eS*	**S**	**13 06 41.7**	**-2.4**
YJA	**Yavi**	**1.81**	**90**	*eP*	**Pn**	**13 06 15.5**	**+0.5**
YJA	**Yavi**	**1.81**	**90**	P	**Pn**	**13 06 15.5**	**+0.5**
MOCB	**Mochara**	**1.94**	**62**	P	**Pn**	**13 06 16.5**	**+0.3**
PB06	**IPOC Station P**	**2.02**	**255**	*eP*	**Pn**	**13 06 17.6**	**+0.9**
PB06				*eS*	**S**	**13 06 47.8**	**+0.7**
PB06				IAML		13 06 49.5	
	comp=Z,224nm,0.2s						
PB06	**IPOC Station P**	**2.02**	**255**		**Pn**	**13 06 17.5**	**+0.8**
PB06				Sn	**S**	**13 06 47.3**	**+0.2**
PB06	**IPOC Station P**	**2.02**	**255**	⇑*eP*	**Pn**	**13 06 17.4**	**+0.8**
PB06				*eS*	**S**	**13 06 45.8**	**-1.4**
PB06				IAML		13 06 49.6	
	comp=N,367nm,0.2s						
PB06	**IPOC Station P**	**2.02**	**255**	P	**Pn**	**13 06 17.2**	**+0.5**
PB03	**IPOC Station P**	**2.12**	**273**	*eP*	**Pn**	**13 06 18.6**	**+0.8**
PB03				IAML		13 06 51.5	
	comp=Z,406nm,0.2s						
PB03	**IPOC Station P**	**2.12**	**273**		**Pn**	**13 06 18.4**	**+0.7**
PB03				Sn	**S**	**13 06 47.6**	**-1.4**
PB03	**IPOC Station P**	**2.12**	**273**	⇑*eP*	**Pn**	**13 06 18.6**	**+0.8**
PB03				*eS*	**S**	**13 06 47.7**	**-1.4**
PB03				IAML		13 06 48.6	
	comp=N,2μm,0.1s						
PB01	**IPOC Station P**	**2.19**	**301**	Pn	**Pn**	**13 06 19.2**	**+0.8**
PB01				Sn	**S**	**13 06 49.4**	**-1.0**
SALTA		**2.28**	**153**	*eP*	**Pn**	**13 06 21.4**	**+1.7**
PB07	**IPOC Station P**	**2.29**	**281**	*eP*	**Pn**	**13 06 20.5**	**+0.9**
PB07				IAML		13 06 54.5	
	comp=Z,189nm,0.3s						
PB07	**IPOC Station P**	**2.29**	**281**		**Pn**	**13 06 20.6**	**+0.9**
PB07	**IPOC Station P**	**2.29**	**281**	⇑*eP*	**Pn**	**13 06 20.4**	**+0.9**
PB07				*eS*	**S**	**13 06 50.4**	**-1.8**
PB07				IAML		13 06 51.7	
	comp=N,373nm,0.3s						
PB02	**IPOC Station P**	**2.42**	**290**	*eP*	**Pn**	**13 06 21.4**	**+0.6**
PB02				*eP*		13 06 21.6	
PB02				IAML		13 06 58.7	
	comp=Z,334nm,0.4s						
PB02	**IPOC Station P**	**2.42**	**290**		**Pn**	**13 06 21.6**	**+0.8**
PB02	**IPOC Station P**	**2.42**	**290**	⇑*eP*	**Pn**	**13 06 21.4**	**+0.6**
PB02				*iS*	**S**	**13 06 52.6**	**-1.9**
PB02				IAML		13 06 58.6	
	comp=E,545nm,0.2s						
PB02	**IPOC Station P**	**2.42**	**290**	P	**Pn**	**13 06 21.6**	**+0.8**
PB02				S	**S**	**13 06 51.9**	**-2.6**
PB02				IAML		13 06 58.5	
	comp=E,504nm,0.2s						
PB08	**IPOC Station P**	**2.57**	**322**	*eP*	**Pn**	**13 06 24.5**	**+1.7**
PB08				*eS*	**S**	**13 06 59.1**	**+1.1**
PB08				IAML		13 06 59.4	
	comp=Z,137nm,0.5s						
PB08	**IPOC Station P**	**2.57**	**322**		**Pn**	**13 06 24.6**	**+1.8**
PB08	**IPOC Station P**	**2.57**	**322**	*iP*	**Pn**	**13 06 24.6**	**+1.7**
PB08				*eS*	**S**	**13 06 58.4**	**+0.3**
PB08				IAML		13 06 59.5	
	comp=E,183nm,0.3s						
PB08	**IPOC Station P**	**2.57**	**322**	P

PB14					IAML		13 07 21.2	
	comp=Z,165nm,0.4s							
PB14	**IPOC Station P**	**3.63**	**227**			**Pn**	**13 06 36.3**	**+1.2**
PB14	**IPOC Station P**	**3.63**	**227**	*eP*		**Pn**	**13 06 36.4**	**+1.4**
PB14				*eS*		**S**	**13 07 19.5**	**-0.7**
PB14					IAML		13 07 20.1	
	comp=E,101nm,0.3s							
PB14	**IPOC Station P**	**3.63**	**227**	P		**Pn**	**13 06 36.5**	**+1.4**
PB16	**IPOC Station P**	**4.28**	**333**			**Pn**	**13 06 44.9**	**+1.6**
PB16	**IPOC Station P**	**4.28**	**333**	⇑*iP*		**Pn**	**13 06 44.8**	**+1.6**
PB16	**IPOC Station P**	**4.28**	**333**	P		**Pn**	**13 06 44.9**	**+1.6**
SOET	**ToroToro**	**4.33**	**21**	P		**Pn**	**13 06 45.0**	**+1.3**
PB12	**IPOC Station P**	**4.45**	**322**			**Pn**	**13 06 45.1**	**+0.2**
PB12	**IPOC Station P**	**4.45**	**322**	*eP*		**Pn**	**13 06 44.6**	**-0.3**
PB12				*eS*		**S**	**13 07 34.5**	**-3.5**
PB12					IAML		13 07 41.5	
	comp=N,83nm,0.3s							
AP01	**Chacalluta**	**4.65**	**324**	Pn		**Pn**	**13 06 48.7**	**+1.3**
AC02	**Maricunga**	**4.88**	**198**	Pn		**Pn**	**13 06 52.5**	**+1.9**
AC01	**Pan de Azucar**	**4.88**	**215**	Pn		**Pn**	**13 06 50.8**	**+0.6**
PB18	**Visviri**	**4.95**	**337**			**Pn**	**13 06 51.4**	**-0.2**
BBOJ	**La Paz, Jacaqu**	**5.22**	**352**	P		**Pn**	**13 06 58.0**	**+2.9**
SOEJ	**Jacaque**	**5.22**	**352**	P		**Pn**	**13 06 58.2**	**+3.1**
BBOD	**La Paz, Gloria**	**5.62**	**349**	P		**Pn**	**13 07 03.3**	**+3.1**
AC06	**Mina Casimiro**	**5.78**	**206**	Pn		**Pn**	**13 07 00.9**	**-0.8**
LPAZ	**La Paz**	**5.90**	**354**			**Pn**	**13 07 06.3**	**+2.4**
LPAZ	**La Paz**	**5.90**	**354**	P		**Pn**	**13 07 06.2**	**+2.4**
GO03	**Copiapo**	**5.95**	**204**	Pn		**Pn**	**13 07 03.9**	**+0.1**
BBOB	**La Paz, Bander**	**6.04**	**354**	P		**Pn**	**13 07 07.9**	**+2.4**
BBSD	**Serra de San D**	**8.15**	**54**	P		**Pn**	**13 07 31.6**	**-0.7**
SIV	**San Ignacio**	**8.63**	**46**	P		**Pn**	**13 07 37.7**	**-0.8**
PTLB	**Pontes e Lacer**	**10.34**	**51**			**Pn**	**13 08 02.2**	**+1.6**
BI05	**Punta Hualpn**	**15.34**	**198**			**Pn**	**13 09 00.7**	**-2.1**
GO06	**Curarrehue**	**17.68**	**190**	P		**P**	**13 09 28.0**	**-0.8**
GO06				IAmb		IAmb	13 09 47.9	
	comp=Z,18nm,1.4s							
SPB	**Sao Paulo**	**18.51**	**98**	P		**P**	**13 09 37.7**	**-0.1**
BDFB	**Brasilia**	**19.51**	**74**	P		**P**	**13 09 49.1**	**+0.4**
BDFB				IAmb		IAmb	13 09 53.8	
	comp=Z,4.5nm,0.9s							
SMAI	**San Martin Ant**	**45.95**	**180**	P		**P**	**13 13 38.0**	**-0.5**
VNA3	**Neumayer Olymp**	**59.01**	**161**	P		**P**	**13 15 17.6**	**+3.3**
	comp=Z,2.2nm,0.8s							
VNA2	**Neumayer--Watz**	**59.57**	**161**	P		**P**	**13 15 20.3**	**+2.2**
	baz=262,slow=5.2							
SNAA	**Sanae**	**61.20**	**161**	P		**P**	**13 15 28.2**	**-1.1**
SNAA				IAmb		IAmb	13 15 46.9	
	comp=Z,6.0nm,1.4s							

*IDC **25** 13:13:57.5±3.4, 9°.01N×124°.14E, h565km±45km, mb3.1/11, mbtmp4.0/11, Error ellipse: s-maj=52.7km s-min=11.6km az=66.0*

ISC 25 13:13:56.2±0.8, 9°.0N±0°.2×124°.2E±0°.4, h551km, n12, σ0s40/15, mb3.6/11, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
TBP	**Tagbilaran**	**0.72**	**337**	*i* P		**P**	**13 15 02.2**	**+0.1**
FITZ	**Fitzroy Crossi**	**26.99**	**177**	P		**P**	**13 18 54.2**	**-0.3**
	1.0nm,0.7s,baz=337,slow=7.7,SNR=1.6							
	1.0nm,0.7s							
WRA	**Warramunga Arr**	**30.48**	**161**	P		**P**	**13 19 24.8**	**-0.1**
	0.5nm,0.5s,baz=347,slow=8.7,SNR=15							
WRA				PcP		**PcP**	**13 22 06.5**	**-0.4**
	0.8nm,1.1s,baz=345,slow=3.2,SNR=2.3							
	0.5nm,0.5s							
ASAR	**Alice Springs**	**33.86**	**164**	P		**P**	**13 19 54.2**	**+0.7**
	0.5nm,0.3s,baz=338,slow=7.1,SNR=23							
ASAR				PcP		**PcP**	**13 22 15.8**	**-0.6**
	0.3nm,0.5s,baz=332,slow=3.2,SNR=2.8							
	0.5nm,0.3s							
SONM	**Songino Array**	**41.50**	**342**	P		**P**	**13 20 56.0**	**+0.3**
	0.7nm,0.8s,baz=161,slow=12,SNR=4.7							
	0.7nm,0.8s							
MKAR	**Makanchi Array**	**51.78**	**324**	P		**P**	**13 22 13.6**	**+0.4**
	2.1nm,0.3s,baz=119,slow=7.8,SNR=34							
MKAR				PcP		**PcP**	**13 23 16.8**	**-0.1**
	0.7nm,0.6s,baz=106,slow=4.8,SNR=3.4							
	2.1nm,0.3s							
ZALV	**Zalesovo Beam**	**54.74**	**333**	P		**P**	**13 22 33.5**	**-0.5**
	1.3nm,0.3s,baz=132,slow=5.6,SNR=5.8							
	1.3nm,0.3s							
KURBB	**Kurchatov Arra**	**55.93**	**327**	P		**P**	**13 22 42.5**	**+0.2**
	2.6nm,0.6s,baz=125,slow=7.1,SNR=36							
	2.6nm,0.6s							
BVAR	**Borovoye Array**	**61.52**	**326**	P		**P**	**13 23 19.9**	**+0.1**
	0.8nm,0.4s,baz=111,slow=7.9,SNR=3.8							
	0.8nm,0.4s							
ILAR	**Eielson Array**	**81.47**	**26**	P		**P**	**13 25 16.1**	**+0.2**
	0.2nm,0.6s,baz=250,slow=5.1,SNR=4.9							
	0.2nm,0.6s							
ARCES	**ARCESS Array B**	**84.63**	**340**	P		**P**	**13 25 31.4**	**-0.3**
	5.4nm,1.1s,baz=79,slow=5.0,SNR=3.6							
	5.4nm,1.1s							
FINES	**FINESS Array B**	**85.99**	**332**	P		**P**	**13 25 37.9**	**-0.4**
	0.9nm,0.4s,baz=64,slow=4.4,SNR=5.7							
	0.9nm,0.4s							

IDC 25 13:18:04.1±5.3, 14°.49N×145°.71E, h82km±34km, mb3.0/4, mbtmp3.3/4, MS2.9/1, Error ellipse: s-maj=76.0km s-min=25.1km az=83.0, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
GUMO	**Guam**	**1.21**	**222**	P		Pn	13 18 27.2	+1.4
	91nm,0.3s,baz=349,slow=5.2,SNR=38							
GUMO				S		Sn	13 18 41.9	-0.3
	321nm,0.3s,baz=345,slow=20,SNR=10							
JAY	**Jayapura**	**17.61**	**197**	LR		LR	13 29 34.1	
	comp=Z,41nm,19.1s,baz=131,slow=39							
H11S3	**WAKE ISLAND Hy**	**20.50**	**76**	T		T	13 44 04.8	
	baz=263,slow=74,SNR=22							
H11S1	**WAKE ISLAND Hy**	**20.52**	**76**	T		T	13 44 06.3	
	baz=263,slow=74,SNR=12							
H11S2	**WAKE ISLAND Hy**	**20.52**	**76**	T		T	13 43 59.2	
	baz=263,slow=74,SNR=12							
H11N1	**WAKE ISLAND Hy**	**20.90**	**73**	T		T	13 44 25.2	
	baz=260,slow=75							
H11N2	**WAKE ISLAND Hy**	**20.91**	**73**	T		T	13 44 18.1	
	baz=260							
H11N3	**WAKE ISLAND Hy**	**20.91**	**73**	T		T	13 44 24.5	
	baz=260,slow=75							
WRA	**Warramunga Arr**	**36.00**	**198**	P		P	13 24 57.5	+0.1
	0.4nm,0.7s,baz=30,slow=9.4,SNR=7.5							
	0.4nm,0.7s							
ASAR	**Alice Springs**	**39.64**	**197**	P		P	13 25 28.1	+0.1
	0.1nm,0.5s,baz=16,slow=7.8,SNR=4.5							
	0.1nm,0.5s							
MKAR	**Makanchi Array**	**61.42**	**316**	P		P	13 28 11.1	-0.7
	0.3nm,0.5s,baz=104,slow=6.1,SNR=2.3							
	0.3nm,0.5s							
KURBB	**Kurchatov Arra**	**64.47**	**319**	P		P	13 28 31.8	-0.1
	0.4nm,0.7s,baz=100,slow=7.3,SNR=4.6							
	0.4nm,0.7s							

*NEIC **25** 13:43:46.6±1.4, 44°.33N±0°.02×115°.04W±0°.03, h10km±2km, mb4.1/6, ML3.8/68, ML4.1/33(BUT), Error ellipse: s-maj=4.3km s-min=3.6km az=249.0*

*IDC **25** 13:43:47.6±1.0, 44°.40N×115°.09W, h0km, mb3.3/1, mbtmp3.4/6, ML3.5/5, Error ellipse: s-maj=19.9km s-min=9.7km az=83.0*

*BUT **25** 13:43:47.4±1.5, 44°.34N±0°.03×115°.04W±0°.03, h7km±5km, Error ellipse: s-maj=3.9km s-min=2.3km az=209.0*

ISC 25 13:43:47.3±0.7, 44°.34N±0°.03×115°.03W±0°.03, h11km, n63, σ1s20/68, mb4.0/4, Western Idaho

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
HLID	**Hailey**	**0.89**	**150**			**Pg**	**13 44 04.0**	**-0.5**
HLID				Sg		**Sg**	**13 44 15.7**	**-0.4**
HLID					IAML		13 44 16.9	
	2µm,0.3s							
PLID	**Pearl Lake**	**1.02**	**318**			**Pg**	**13 44 06.4**	**-0.6**
PLID				Sg		**Sg**	**13 44 19.8**	**-0.6**
PLID					IAML		13 44 25.0	
	3µm,0.4s							
MFID	**Camas Ranch**	**1.09**	**213**			**Pb**	**13 44 07.8**	**-0.4**
MFID						**Sb**	**13 44 22.7**	**+0.3**
BCYI	**Bear Canyon**	**1.16**	**91**			**Pb**	**13 44 09.2**	**-0.4**
ICI	**Italian Canyon**	**1.50**	**90**			**Pn**	**13 44 15.2**	**+0.9**
MCMT	**McKenzie Canyo**	**1.63**	**72**			**Pn**	**13 44 16.9**	**+0.7**
BMO	**Blue Mountains**	**1.71**	**288**			**Pn**	**13 44 17.1**	**0.0**
BMO					IAML		13 44 46.0	
	656nm,0.3s							
MOMT	**Monida**	**1.90**	**81**			**Pn**	**13 44 21.4**	**+1.5**
DLMT	**Dillon**	**2.01**	**58**	Pn		**Pn**	**13 44 22.0**	**+0.7**
VCMT	**Victor**	**2.19**	**15**			**Pn**	**13 44 23.9**	**+0.2**
HBMT	**Mount Humbug**	**2.25**	**49**			**Pn**	**13 44 25.1**	**+0.4**
F10A	**Beach Ranch, E**	**2.26**	**317**	Pn		**Pn**	**13 44 25.8**	**+1.1**
BGMT	**Barton Gulch**	**2.31**	**66**			**Pn**	**13 44 26.5**	**+1.0**
LRM	**Limekiln Ridge**	**2.35**	**50**			**Pn**	**13 44 26.5**	**+0.4**
BPMT	**Black Pine Rid**	**2.38**	**27**			**Pn**	**13 44 26.6**	**+0.2**
BUT	**Butte**	**2.42**	**45**	Pn		**Pn**	**13 44 27.2**	**+0.3**
BUT					IAML		13 45 04.2	
	comp=E,390nm,0.4s							
BUT					IAML		13 45 05.0	
	comp=N,427nm,0.7s							
MSO	**Missoula**	**2.61**	**17**			**Pn**	**13 44 30.1**	**+0.7**
MSO					IAML		13 45 10.6	
	comp=N,480nm,0.4s							
MSO					IAML		13 45 17.2	
	comp=N,459nm,0.8s							
QLMT	**Earthquake Lak**	**2.62**	**78**	Pn		**Pn**	**13 44 30.8**	**+1.1**
J08A	**Circle Bar Ran**	**2.68**	**250**	Pn		**Pn**	**13 44 31.1**	**+0.7**
BOZ	**Bozeman (W)**	**2.72**	**61**			**Pn**	**13 44 31.8**	**+0.8**
YHB	**Horse Butte**	**2.77**	**80**	Pn		**Pn**	**13 44 33.2**	**+1.4**
YHB					IAML		13 45 17.4	
	comp=N,294nm,0.7s							
YHB					IAML		13 45 18.5	
	comp=E,224nm,0.6s							
LNOR	**Lincton Mounta**	**2.77**	**305**			**Pn**	**13 44 32.7**	**+1.1**
YHL	**Hebgen Lake**	**2.79**	**78**	Pn		**Pn**	**13 44 33.2**	**+1.0**
YHL					IAML		13 45 19.3	
	comp=E,451nm,0.9s							
YHL					IAML		13 45 19.6	
	comp=N,510nm,0.9s							
ELMT	**Elliston**	**2.82**	**38**			**Pn**	**13 44 32.3**	**-0.1**
CHMT	**Chamberlain Mo**	**2.86**	**25**			**Pn**	**13 44 33.3**	**+0.2**
YMR	**Madison River**	**2.92**	**82**	Pn		**Pn**	**13 44 35.0**	**+1.0**
G08A	**Pilot Rock**	**2.96**	**290**			**Pn**	**13 44 34.6**	**+0.3**
PCMT	**Pistol Creek**	**2.96**	**13**			**Pn**	**13 44 34.9**	**+0.5**
YFT	**Old Faithful**	**3.00**	**86**	Pn		**Pn**	**13 44 35.5**	**+0.5**
OVMT	**Ovando**	**3.08**	**27**			**Pn**	**13 44 36.0**	**+0.1**
E09A	**Wood Farm, Sta**	**3.09**	**316**			**Pn**	**13 44 37.1**	**+1.1**
E09A					IAML		13 45 23.8	
	comp=E,243nm,0.8s							
E09A					IAML		13 45 28.9	
	comp=N,227nm,0.7s							
SLMT	**Seeley Lake**	**3.10**	**20**			**Pn**	**13 44 36.2**	**0.0**
FBMT	**Ferry Basin**	**3.10**	**8**			**Pn**	**13 44 36.6**	**+0.3**
GBMT	**Granite Butte,**	**3.10**	**35**			**Pn**	**13 44 36.6**	**+0.3**
GBMT					IAML		13 45 25.1	
	comp=N,305nm,0.6s							
GBMT					IAML		13 45 27.3	
	comp=E,312nm,0.6s							
YPT	**Yellepit**	**3.27**	**303**			**Pn**	**13 44 39.2**	**+0.8**
E08A	**Dider Farm, El**	**3.57**	**309**			**Pn**	**13 44 42.9**	**+0.4**
E08A					IAML		13 45 40.5	
	comp=E,132nm,1.1s							
E08A					IAML		13 45 45.3	
	comp=N,130nm,1.6s							
ELK	**Elko**	**3.59**	**183**	Pn		**Pn**	**13 44 45.5**	**+2.3**
	comp=N,7.4nm,0.3s,baz=353,slow=14,SNR=80							
ELK				Pg		**Pb**	**13 44 49.0**	**-2.0**
	comp=N,13nm,0.3s,baz=352,slow=18,SNR=80							
ELK				Lg		Lg	13 45 36.7	
	comp=N,13nm,0.3s,baz=200,slow=16,SNR=11							
	comp=N,34nm,0.4s							
ELK				AML		AML		
HAWA	**Hanford**	**3.78**	**304**			**Pn**	**13 44 46.2**	**+0.6**
F07A	**Phinny Hill Vi**	**3.80**	**296**			**Pn**	**13 44 46.5**	**+0.7**
F07A					IAML		13 45 52.9	
	comp=E,159nm,0.8s							
F07A					IAML		13 45 54.5	
	comp=N,170nm,0.8s							
C15A	**Salmond Ranch,**	**3.83**	**25**			**Pn**	**13 44 46.6**	**+0.3**
C15A					IAML		13 45 49.4	
	comp=N,143nm,0.5s							
D08A	**Wollman Farm,**	**3.85**	**316**			**Pn**	**13 44 47.3**	**+0.8**
D08A					IAML		13 45 55.0	
	comp=E,128nm,0.8s							
D08A					IAML		13 45 56.1	
	comp=N,126nm,0.9s							
WAH2	**Wahluke Slope**	**4.00**	**309**			**Pn**	**13 44 49.5**	**+0.9**
E07A	**Sunnyside**	**4.06**	**305**			**Pn**	**13 44 50.3**	**+1.0**
E07A					IAML		13 46 00.1	
	comp=N,170nm,0.5s							
E07A					IAML		13 46 09.7	
	comp=E,151nm,0.7s							
G06A	**Carlson Farm,**	**4.09**	**285**			**Pn**	**13 44 50.6**	**+0.8**
NEW	**Newport**	**4.19**	**340**	Pn		**Pn**	**13 44 52.0**	**+0.9**
	comp=E,1.9nm,0.3s,baz=165,slow=14,SNR=28							
NEW				Pg		**Pb**	**13 45 03.0**	**+2.0**
	comp=E,8.0nm,0.3s,baz=158,slow=15,SNR=22							
NEW				Lg		Lg	13 45 56.2	
	comp=E,83nm,0.3s,baz=100,slow=20,SNR=10							
	comp=E,4.0nm,0.3s							
NEW				AML		AML		
PDAR	**Pinedale Array**	**4.27**	**110**	Pn		**Pn**	**13 44 57.0**	**+4.5**
	comp=E,0.3nm,0.3s,baz=291,slow=12,SNR=20							
	comp=E,3.6nm,0.8s							
PDAR				AML		AML		
PINE	**Pine Mountain**	**4.30**	**265**			**Pn**	**13 44 53.9**	**+1.1**
MXC	**Moxie City**	**4.33**	**303**			**Pn**	**13 44 54.4**	**+1.4**
MXC					IAML		13 46 19.3	
	comp=N,66nm,1.4s							
EPH	**Ephrata**	**4.39**	**315**			**Pn**	**13 44 54.5**	**+0.6**
EPH					IAML		13 46 09.3	
	comp=E,92nm,0.6s							
EPH					IAML		13 46 20.5	
	comp=N,139nm,0.8s							
I05D	**Terrebonne, OR**	**4.53**	**272**			**Pn**	**13 44 56.9**	**+1.0**
I05D					IAML		13 46 18.6	
	comp=E,64nm,3.2s							
I05D					IAML		13 46 58.1	
	comp=N,62nm,4.9s							
LTY	**Liberty**	**4.91**	**308**			**Pn**	**13 45 01.7**	**+0.6**
LTY					IAML		13 45 59.9	
	comp=E,55nm,0.3s							
LTY					IAML		13 46 00.4	
	comp=N,58nm,0.3s							
B08A	**Colville Reser**	**5.01**	**325**	Pn		**Pn**	**13 45 02.8**	**+0.4**
NVAR	**Mina Array Bea**	**6.39**	**204**	Pn		**Pn**	**13 45 26.2**	**+4.6**
	comp=N,0.7nm,0.3s,baz=22,slow=13,SNR=13							
NVAR				Lg		Lg	13 47 08.1	
	comp=N,2.3nm,0.3s,baz=29,slow=30,SNR=6.8							
	comp=N,0.7nm,0.3s							
NVAR				AML		AML		
YKA	**Yellowknife Ar**	**18.19**	**1**	P		**P**	**13 48 00.2**	**+0.4**
	comp=N,0.1nm,0.3s,baz=177,slow=13,SNR=7.8							
	comp=N,0.7nm,0.7s							
YKA				AML		AML		
YKA	**Yellowknife Ar**	**18.19**	**1**	P		**Pn**	**13 47 59.1**	**-0.4**
YKAW3	**Yellowknife Wh**	**18.26**	**1**			**Pn**	**13 48 00.2**	**-0.1**
R32K	**Eaglecrest**	**18.43**	**326**	P		**P**	**13 48 01.8**	**-0.6**
R32K					IAmb	IAmb	13 48 40.3	
	comp=Z,12nm,1.2s							
SNAG	**San Augustine**	**20.77**	**121**	P		**P**	**13 48 27.1**	**-1.0**
YAH	**Yahtse**	**22.64**	**325**	P		**P**	**13 48 47.7**	**-0.7**
YAH					IAmb	IAmb	13 48 54.1	
	comp=Z,16nm,1.2s							
IL31		**27.07**	**330**	P		**P**	**13 49 28.5**	**-0.9**
IL31					IAmb	IAmb	13 50 12.1	
	comp=Z,0.9nm,0.8s							
ILAR	**Eielson Array**	**27.07**	**330**	P		**P**	**13 49 32.1**	**+2.6**
	comp=Z,0.4nm,0.9s,baz=134,slow=7.8,SNR=2.8							
	comp=Z,0.4nm,0.9s							
ILAR	**Eielson Array**	**27.07**	**330**	P		**P**	**13 49 29.2**	**-0.2**
MCK	**McKinley**	**27.29**	**327**	P		**P**	**13 49 30.6**	**-0.9**
MCK					IAmb	IAmb	13 50 10.3	
	comp=Z,12nm,1.4s							

*SJA **25** 14:01:45.9±1.1, 23°.97S×66°.89W, h215km±9km, ML3.5, MW3.5*

*GUC **25** 14:01:46.0±0.6, 23°.92S×66°.86W, h222km±12km, ML4.2, Presumed earthquake*

*NEIC **25** 14:01:47.9±2.1, 23°.95S±0°.06×67°.12W±0°.06, h220km±5km, mb4.4/9, ML3.9(GUC), Error ellipse: s-maj=10.5km s-min=6.7km az=216.0*

ISC 25 14:01:46.4±0.7, 23°.97S±0°.04×66°.93W±0°.04, h210km±7km, n69, σ1s04/87, mb4.6/3, 5C-1D, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
SALTA		**0.60**	**115**	*i* P		**Pn**	**14 02 15.6**	**-0.1**
SLA	**San Lorenzo**	**1.50**	**120**	*i* P		**Pn**	**14 02 21.1**	**-0.1**
SLA				*i* S		**S**	**14 02 48.0**	**-0.1**
SLA	**San Lorenzo**	**1.50**	**120**	*eP*		**Pn**	**14 02 21.1**	**-0.1**
AF01	**San Pedro de A**	**1.53**	**311**	Pn		**Pn**	**14 02 23.4**	**+1.8**
AF01				Sn		**S**	**14 02 47.5**	**-1.3**
FSA	**Cafayete**	**2.30**	**158**	*i* P		**Pn**	**14 02 29.1**	**+0.1**
FSA				*i* S		**S**	**14 03 00.4**	**-1.5**
PB06	**IPOC Station P**	**2.73**	**297**	*i* P		**Pn**	**14 02 35.0**	**+1.3**
PB06				*i* S		**S**	**14 03 10.8**	**+0.5**
PB06					IAML		14 03 12.6	
	comp=Z,157nm,0.1s							
PB06	**IPOC Station P**	**2.73**	**297**			**Pn**	**14 02 35.0**	**+1.3**
PB06				Sn		**S**	**14 03 10.6**	**+0.3**
PB06	**IPOC Station P**	**2.73**	**297**	⇑*iP*		**Pn**	**14 02 35.0**	**+1.3**
PB06					IAML		14 03 12.5	
	comp=E,299nm,0.2s							
PB09	**IPOC Station P**	**3.04**	**315**	*i* P		**Pn**	**14 02 38.6**	**+1.4**
PB09					IAML		14 03 21.0	
	comp=Z,62nm,0.2s							
PB09	**IPOC Station P**	**3.04**	**315**			**Pn**	**14 02 38.4**	**+1.2**
PB09				Sn		**S**	**14 03 17.4**	**+0.9**
PB09	**IPOC Station P**	**3.04**	**315**	⇓*eP*		**Pn**	**14 02 38.1**	**+0.9**
PB05	**IPOC Station P**	**3.20**	**290**	*i* P		**Pn**	**14 02 40.0**	**+0.9**
PB05					IAML		14 03 23.2	
	comp=Z,53nm,0.3s							
PB05	**IPOC Station P**	**3.20**	**290**			**Pn**	**14 02 40.0**	**+0.9**
PB05				Sn		**S**	**14 03 19.2**	**-0.7**
PB05	**IPOC Station P**	**3.20**	**290**	*eP*		**Pn**	**14 02 40.0**	**+0.9**
PB05					IAML		14 03 23.2	
	comp=E,84nm,0.3s							
PB03	**IPOC Station P**	**3.23**	**306**	*i* P		**Pn**	**14 02 40.2**	**+0.8**
PB03				*i* S		**S**	**14 03 19.3**	**-1.2**
PB03					IAML		14 03 21.9	
	comp=Z,125nm,0.1s							
PB03	**IPOC Station P**	**3.23**	**306**			**Pn**	**14 02 40.3**	**+0.8**
PB03				Sn		**S**	**14 03 19.8**	**-0.7**
PB03	**IPOC Station P**	**3.23**	**306**	⇑*iP*		**Pn**	**14 02 40.2**	**+0.8**
PB14	**IPOC Station P**	**3.23**	**258**	*i* P		**Pn**	**14 02 40.6**	**+1.0**
PB14					IAML		14 03 24.9	
	comp=Z,117nm,0.2s							
PB14	**IPOC Station P**	**3.23**	**258**			**Pn**	**14 02 40.8**	**+1.1**
PB14	**IPOC Station P**	**3.23**	**258**	*i* P		**Pn**	**14 02 40.7**	**+1.1**
PB10	**IPOC Station P**	**3.35**	**277**	*i* P		**Pn**	**14 02 41.9**	**+1.2**
PB10				*i* S		**S**	**14 03 22.5**	**-0.3**
PB10					IAML		14 03 26.5	
	comp=Z,55nm,1.4s							
PB10	**IPOC Station P**	**3.35**	**277**			**Pn**	**14 02 42.0**	**+1.2**
PB10	**IPOC Station P**	**3.35**	**277**	⇑*iP*		**Pn**	**14 02 41.9**	**+1.2**
AC02	**Maricunga**	**3.48**	**214**	*i* P		**Pn**	**14 02 44.2**	**+1.6**
AC02					IAML		14 03 36.6	
	comp=Z,16nm,0.2s							
AC02	**Maricunga**	**3.48**	**214**			**Pn**	**14 02 44.3**	**+1.6**
PB07	**IPOC Station P**	**3.52**	**309**	*i* P		**Pn**	**14 02 43.6**	**+0.6**
PB07				*i* S		**S**	**14 03 26.3**	**-0.6**
PB07					IAML		14 03 27.3	
	comp=Z,80nm,0.1s							
PB07	**IPOC Station P**	**3.52**	**309**			**Pn**	**14 02 43.5**	**+0.6**
PB07	**IPOC Station P**	**3.52**	**309**	⇑*iP*		**Pn**	**14 02 43.6**	**+0.6**
PB01	**IPOC Station P**	**3.75**	**320**	Pn		**Pn**	**14 02 46.0**	**+0.3**
PB02	**IPOC Station P**	**3.80**	**313**	*i* P		**Pn**	**14 02 46.4**	**+0.1**
PB02				*i* S		**S**	**14 03 31.8**	**-1.1**
PB02					IAML		14 03 38.4	
	comp=Z,132nm,0.3s							
PB02	**IPOC Station P**	**3.80**	**313**			**Pn**	**14 02 46.6**	**+0.3**
PB02	**IPOC Station P**	**3.80**	**313**	⇑*iP*		**Pn**	**14 02 46.4**	**+0.1**
PB02				*eS*		**S**	**14 03 31.6**	**-1.3**
PB02					IAML		14 03 35.3	
	comp=E,106nm,0.4s							
AC01	**Pan de Azucar**	**3.97**	**236**	*i* P		**Pn**	**14 02 48.3**	**+0.1**
AC01				*i* S		**S**	**14 03 34.8**	**-1.7**
AC01					IAML		14 03 36.4	
	comp=Z,62nm,0.5s							
AC01	**Pan de Azucar**	**3.97**	**236**			**Pn**	**14 02 48.6**	**+0.4**
AC01	**Pan de Azucar**	**3.97**	**236**	*eP*		**Pn**	**14 02 48.6**	**+0.4**
AC01				*eS*		**S**	**14 03 35.9**	**-0.6**
AC01					IAML		14 03 36.1	
	comp=E,155nm,0.3s							
PB08	**IPOC Station P**	**4.33**	**331**	*i* P		**Pn**	**14 02 54.4**	**+1.3**
PB08				*i* S		**S**	**14 03 43.3**	**-1.9**
PB08					IAML		14 03 50.8	
	comp=Z,29nm,0.5s							
PB08	**IPOC Station P**	**4.33**	**331**			**Pn**	**14 02 53.8**	**+0.6**
PB08	**IPOC Station P**	**4.33**	**331**	*eP*		**Pn**	**14 02 53.7**	**+0.6**
TA01	**Diego Aracena**	**4.53**	**318**	*i* P		**Pn**	**14 02 55.4**	**+0.2**
TA01					IAML		14 03 50.4	
	comp=Z,15nm,0.6s							
TA01	**Diego Aracena**	**4.53**	**318**	Pn		**Pn**	**14 02 55.6**	**+0.5**

	comp=Z,14nm,0.6s								
KMY	**Karmoy**	**1.30**	**336**	*e*P		Pg	14 15 29.7	-2.1	
KMY				IAML			14 15 51.0		
	comp=Z,10nm,0.6s								
KMY	**Karmoy**	**1.30**	**336**	*e*P		Pg	14 15 29.7	-2.1	
KMY				IAML			14 15 51.0		
	comp=Z,10nm,0.6s								
BLS5	**Blasjo**	**1.41**	**4**	*e*P		Pn	14 15 30.4	-3.3	
BLS5				*e*S		Sg	14 15 44.9	-7.0	
BLS5				IAML			14 15 49.0		
	comp=Z,6.6nm,0.1s								
BLS5	**Blasjo**	**1.41**	**4**	*e*P		Pn	14 15 30.4	-3.3	
BLS5				*e*S		Sg	14 15 44.9	-7.0	
BLS5				IAML			14 15 49.0		
	comp=Z,6.6nm,0.1s								
STRU	**Stroemstad**	**2.77**	**67**	*i* P		Pn	14 15 51.9	-0.5	
STRU				*i* S		Sn	14 16 23.5	-3.1	
SKAR	**Skarslia**	**2.86**	**21**	*e*P		Pn	14 15 52.0	-1.7	
SKAR				IAML			14 16 33.9		
	comp=Z,3.1nm,0.4s								
SKAR	**Skarslia**	**2.86**	**21**	*e*P		Pn	14 15 52.0	-1.7	
SKAR				IAML			14 16 33.9		
	comp=Z,3.1nm,0.4s								

BJI ***25*** *14:25:50.9,20.01S×175.31W,h196km,mB5.1/6, mb4.8/27*
IDC ***25*** *14:25:51.7±2.4,20.16S×176.06W,h172km±20km, mb4.3/18,mbtmp4.8/20,MS3.3/3,Error ellipse: s-maj=14.3km s-min=11.5km az=113.0*
NEIC ***25*** *14:25:53.3±1.2,20.24S±0.05×175.65W±0.08, h198km±6km,mb4.9/103,Error ellipse: s-maj=11.8km s-min=6.5km az=73.0*
NOU ***25*** *14:25:54.6,20.24S×175.66W,h216km,mb5.2/85,Tonga Islands*
GFZ ***25*** *14:25:54.3±0.2,20°S±4'×17°6W±', h201km,M5.0/42, mb5.0/42,Mw5.1/11,confirmed*
GCMT ***25*** *14:25:57.3±0.2,20.24S±0.02×175.73W±0.01, h217km±2km,MW5.1/112,Moment Tensor Solution. s46,c53; s112,c161; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.28±.15; Mθθ1.84±.21; Mφφ-1.56±.18; Mrθ-2.61±.14; Mrφ2.36±.14; Mθφ-4.75±.12; Best double couple: M=6.11600×10^16 NP1:φ=290.00000°,δ27.00000°, λ-5.00000°. NP2:φ=25.00000°,δ88.00000°,λ-117.00000°. Principal axes: T 6.5190, Plg37.0000°, Azm139.0000°; N -0.8050, Plg27.0000°, Azm26.0000°; P -5.7130, Plg41.0000°, Azm269.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 25 14:25:52.9±0.4,20.35S±0.04×175.69W±0.03, h195km±3km,h196km:pP-P,n494,σ1.57/497,mb5.0/124, **28C-23D,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIUE	**Niue**	**5.58**	**78**	P	**Pn**	**14 27 13.8**	**-0.9**
	comp=Z,2μm,1.4s						
NIUE				S	**Sn**	**14 28 13.6**	**-5.5**
NIUE	**Niue**	**5.58**	**78**	P	**Pn**	**14 27 13.9**	**-0.7**
	comp=Z,2μm,1.4s						
NIUE				S	**Sn**	**14 28 13.6**	**-5.5**
NIUE	**Niue**	**5.58**	**78**	P	**Pn**	**14 27 14.2**	**-0.4**
NIUE	**Niue**	**5.58**	**78**		**Pn**	**14 27 13.9**	**-0.7**
NIUE				Sn	**Sn**	**14 28 13.4**	**-5.7**
NIUE	**Niue**	**5.58**	**78**	P	**Pn**	**14 27 13.9**	**-0.7**
NIUE				S	**Sn**	**14 28 12.8**	**-6.3**
NIUE				AML	AML		
NIUE				AML	AML		
NIUE	**Niue**	**5.58**	**78**	P	**Pn**	**14 27 14.0**	**-0.7**
	comp=Z,2μm,1.4s						
FUTU	**Fugatoga**	**6.45**	**339**	P	**Pn**	**14 27 26.2**	**+0.2**
FUTU	**Fugatoga**	**6.45**	**339**		**Pn**	**14 27 25.8**	**-0.2**
FUTU	**Fugatoga**	**6.45**	**339**	P	**Pn**	**14 27 26.1**	**+0.1**
	comp=Z,608nm,0.9s						
MSVF	**Nonsavu**	**6.47**	**293**	P	**Pn**	**14 27 27.5**	**+1.2**
	comp=Z,234nm,0.7s,baz=125,slow=14,SNR=124						
MSVF				LR	LR	14 29 26.1	
	comp=Z,644nm,21.5s,baz=57,slow=35						
MSVF	**Nonsavu**	**6.47**	**293**	P	**Pn**	**14 27 27.8**	**+1.5**
MSVF	**Nonsavu**	**6.47**	**293**		**Pn**	**14 27 27.9**	**+1.5**
MSVF	**Nonsavu**	**6.47**	**293**	P	**Pn**	**14 27 27.6**	**+1.2**
	comp=Z,514nm,0.8s						
AFI	**Afiamalu**	**7.42**	**31**	P	Pn	14 27 32.7	-6.0
	comp=Z,45nm,0.3s,baz=212,slow=6.5,SNR=34						
AFI				S	Sn	14 28 46.9	-16
	comp=Z,129nm,0.3s,baz=79,slow=22,SNR=10						
RIZ	**Raoul Island**	**9.08**	**192**	S	**Sn**	**14 29 39.5**	**-2.5**
RAO	**Raoul Island**	**9.09**	**192**	S	**Sn**	**14 29 40.0**	**-2.0**
	comp=Z,808nm,0.4s,baz=59,slow=23,SNR=9.4						
RAO	**Raoul Island**	**9.09**	**192**	Pn	**Pn**	**14 28 02.0**	**+1.7**
RAO	**Raoul Island**	**9.09**	**192**	S	**Sn**	**14 29 36.7**	**-5.3**
GLKZ	**Green Lake**	**9.10**	**192**	P	**Pn**	**14 27 59.5**	**-0.9**
GLKZ				S	**Sn**	**14 29 36.6**	**-5.7**
GLKZ				AML	AML		
GLKZ				AML	AML		
FUNA	**Funafuti**	**12.76**	**336**	P	**Pn**	**14 28 47.5**	**-0.1**
RAR	**Rarotonga**	**14.91**	**96**	P	**P**	**14 29 18.3**	**+3.0**
	comp=Z,152nm,1.0s,baz=252,slow=7.8,SNR=14						
RAR				S	**S**	**14 31 58.1**	**-2.5**
	comp=Z,6.3nm,0.3s,baz=28,slow=17,SNR=1.3						
RAR	**Rarotonga**	**14.91**	**96**	P	**P**	**14 29 15.7**	**+0.5**
RAR	**Rarotonga**	**14.91**	**96**	S	**S**	**14 32 00.8**	**+0.2**
RAR	**Rarotonga**	**14.91**	**96**	P	**Pn**	**14 29 14.4**	**+0.1**
RAR	**Rarotonga**	**14.91**	**96**	P	**P**	**14 29 18.8**	**+3.5**
RAR	**Rarotonga**	**14.91**	**96**	P	**P**	**14 29 18.6**	**+3.3**
	comp=Z,209nm,1.2s						
RTV	**Rentapao**	**15.23**	**277**	P	**P**	**14 29 20.5**	**+1.7**
MARNC	**Mare, Loyalty**	**15.25**	**263**	P	**P**	**14 29 19.7**	**+0.7**
MARNC	**Mare, Loyalty**	**15.25**	**263**	S	**Sn**	**14 32 09.8**	**+0.4**
MARNC	**Mare, Loyalty**	**15.25**	**263**	P	**P**	**14 29 19.8**	**+0.8**
DVP	**Devils Point**	**15.47**	**277**	P	**P**	**14 29 23.7**	**+2.3**
DVP	**Devils Point**	**15.47**	**277**	S	**Sn**	**14 32 14.0**	**-0.5**
PINNC	**Pines Island,**	**15.86**	**259**	P	**Pn**	**14 29 27.9**	**+2.1**
PINNC	**Pines Island,**	**15.86**	**259**	S	**Sn**	**14 32 23.4**	**-0.3**
PINNC	**Pines Island,**	**15.86**	**259**		**Pn**	**14 29 28.3**	**+2.5**
YATNC	**Mamie plateau,**	**16.33**	**261**	P	**Pn**	**14 29 32.9**	**+1.3**
YATNC	**Mamie plateau,**	**16.33**	**261**	S	**S**	**14 32 32.5**	**+0.5**
OUENC	**Ouen Island, N**	**16.40**	**260**	P	**Pn**	**14 29 34.0**	**+1.6**
DZM	**Mont Dzumac**	**16.75**	**261**	P	**Pn**	**14 29 37.5**	**+0.9**
	comp=Z,437nm,0.8s,baz=79,slow=17,SNR=168						
ONTNC	**Ouen Toro**	**16.75**	**260**	P	**Pn**	**14 29 36.8**	**+0.3**
ONTNC	**Ouen Toro**	**16.75**	**260**	S	**S**	**14 32 41.4**	**+0.9**
ONTNC	**Ouen Toro**	**16.75**	**260**		**Pn**	**14 29 36.8**	**+0.3**
NOUC	**Port Laguerre**	**16.88**	**261**	P	**Pn**	**14 29 38.4**	**+0.3**
NOUC	**Port Laguerre**	**16.88**	**261**	S	**S**	**14 32 43.9**	**+0.8**
SANVU	**Saraoutou**	**16.99**	**284**	P	**Pn**	**14 29 38.9**	**-0.5**
SANVU	**Saraoutou**	**16.99**	**284**		**Pn**	**14 29 38.9**	**-0.5**
SANVU	**Saraoutou**	**16.99**	**284**	P	**Pn**	**14 29 39.0**	**-0.5**
	comp=Z,357nm,1.1s						
OUZ	**Omahuta**	**17.56**	**210**	P	**Pn**	**14 29 46.4**	**+0.3**
WCZ	**Waipu Caves**	**17.82**	**207**	P	**Pn**	**14 29 49.7**	**+0.7**
WMGZ	**Waiomatatini S**	**18.14**	**195**	P	**P**	**14 29 51.0**	**+0.5**
HAZ	**Te Kaha**	**18.25**	**197**	P	**P**	**14 29 50.1**	**-1.5**
HAZ				S	**S**	**14 32 59.8**	**-10**
PKGZ	**Pakihiroa**	**18.27**	**196**	P	**P**	**14 29 51.2**	**-0.7**
PKGZ				S	S	14 32 59.5	-11
PUZ	**Puketiti**	**18.42**	**195**	P	**P**	**14 29 54.2**	**+0.6**
PUZ				S	S	14 33 00.5	-13
RUGZ	**Raukumara Rang**	**18.47**	**197**	P	**P**	**14 29 55.6**	**+1.3**
MKAZ	**Moumakai**	**18.50**	**204**	P	**Pn**	**14 29 56.9**	**-0.1**
KOUNC	**Koumac, New Ca**	**18.77**	**266**	P	**P**	**14 29 58.7**	**+1.2**
KOUNC	**Koumac, New Ca**	**18.77**	**266**	P	**P**	**14 29 58.0**	**+0.6**
CNGZ	**Carnagh Statio**	**18.82**	**195**	P	**P**	**14 29 56.8**	**-1.2**
MWZ	**Matawai**	**18.86**	**197**	P	**P**	**14 29 59.4**	**+1.0**
URZ	**Urewera**	**18.90**	**198**	P	**P**	**14 29 58.7**	**-0.1**
	comp=Z,37nm,0.4s,baz=312,slow=2.2,SNR=62						
URZ				S	**S**	**14 33 15.3**	**-7.8**
	comp=Z,18nm,0.4s,baz=73,slow=22,SNR=11						
URZ	**Urewera**	**18.90**	**198**	P	**P**	**14 29 59.1**	**+0.3**
URZ	**Urewera**	**18.90**	**198**	P	**P**	**14 29 58.0**	**-0.8**
URZ	**Urewera**	**18.90**	**198**	P	**P**	**14 29 60.0**	**+1.2**
	comp=Z,82nm,1.4s						
TOZ	**Tahuroa Road**	**18.93**	**202**	P	**Pn**	**14 30 01.5**	**-0.6**
MRZ	**Mangatainoka R**	**21.57**	**198**	P	**P**	**14 30 25.6**	**-1.5**
TMWZ	**Te Maipa**	**21.89**	**197**	P	**P**	**14 30 32.3**	**+1.9**
MTW	**Mount Morrison**	**22.05**	**198**	P	**P**	**14 30 32.5**	**+0.5**
PAWZ	**Paruwai Farm**	**22.28**	**198**	P	**P**	**14 30 35.9**	**+1.7**
MSWZ	**Moikau Station**	**22.36**	**198**	P	**P**	**14 30 36.6**	**+1.7**
TCW	**Tory Channel**	**22.47**	**200**	P	**P**	**14 30 35.1**	**-0.7**
QRZ	**Quartz Range**	**22.74**	**204**	P	**P**	**14 30 39.5**	**+1.2**
QRZ	**Quartz Range**	**22.74**	**204**	P	**P**	**14 30 41.0**	**+2.7**
TKNZ	**Takaka Hill**	**22.77**	**203**	P	**P**	**14 30 40.8**	**+2.3**
TUWZ	**Tuamarina**	**22.78**	**200**	P	**P**	**14 30 40.0**	**+1.4**
NNZ	**Nelson**	**22.78**	**202**	P	**P**	**14 30 39.3**	**+0.7**
MRNZ	**Matariki Terra**	**23.16**	**203**	P	**P**	**14 30 44.3**	**+2.3**
KHZ	**Kahutara**	**23.80**	**200**	P	**P**	**14 30 49.1**	**+1.3**
TBI	**Tubuai**	**24.52**	**102**	*e*P	**P**	**14 30 51.2**	**-3.4**
	comp=Z,730nm,37.8s						
TBI				*es*S	**sS**	**14 36 04.0**	**-4.9**
	comp=Z,3μm,33.8s						
TBI				*e*LR	LR	14 37 12.6	
	comp=Z,2μm,38.8s						
PAE	**Paea**	**24.82**	**88**	*e*P	**P**	**14 30 59.7**	**+2.3**
	comp=Z,166nm,1.3s						
PPT2	**Papeete2**	**24.84**	**88**	*e*P	**P**	**14 30 58.4**	**+0.7**
	comp=Z,65nm,1.2s						
PPT2				*es*S	**sS**	**14 36 15.5**	**+0.7**
	comp=Z,356nm,28.5s						
PPT2				*e*LR	LR	14 37 19.2	
	comp=Z,82nm,23.2s						
HNR	**Honiara**	**25.89**	**291**	LR	LR	14 40 14.7	
	comp=Z,49nm,21.6s,baz=234,slow=34						
HNR	**Honiara**	**25.89**	**291**	P	**P**	**14 31 06.2**	**-0.9**
	comp=Z,99nm,1.1s						
SAVO	**Savo Central**	**26.14**	**292**	P	**P**	**14 31 08.9**	**-0.4**
TATA	**Tatamba Isabel**	**26.50**	**293**	P	**P**	**14 31 10.1**	**-2.5**
JCZ	**Jackson Bay**	**26.96**	**205**	P	**P**	**14 31 17.9**	**+1.5**
ODZ	**Otahua Downs**	**27.10**	**202**	P	**P**	**14 31 19.1**	**+1.6**
TW1H	**Toowoomba 1 Ha**	**30.34**	**250**	P	**P**	**14 31 47.2**	**+0.6**
AUTOO	**Toowoomba Stat**	**30.35**	**250**	P	**P**	**14 31 47.2**	**+0.6**
GD1S	**Gladstone Soft**	**30.86**	**257**	P	**P**	**14 31 51.7**	**+0.6**
EIDS	**Eidsvold**	**30.97**	**254**	P	**P**	**14 31 51.3**	**-0.7**
	comp=Z,59nm,1.1s						
EIDS	**Eidsvold**	**30.97**	**254**	P	**P**	**14 31 51.6**	**-0.5**
	comp=Z,59nm,1.1s						
EIDS	**Eidsvold**	**30.97**	**254**	P	**P**	**14 31 51.5**	**-0.5**
EIDS	**Eidsvold**	**30.97**	**254**	P	**P**	**14 31 52.1**	**+0.1**
EIDS	**Eidsvold**	**30.97**	**254**	P	**P**	**14 31 50.9**	**-1.2**
	comp=Z,59nm,1.1s						
ARMA	**Armidale**	**31.08**	**245**	P	**P**	**14 31 53.2**	**+0.1**
	comp=Z,39nm,1.1s						
ARMA	**Armidale**	**31.08**	**245**	P	**P**	**14 31 53.8**	**+0.7**
	comp=Z,40nm,1.1s						
ARMA	**Armidale**	**31.08**	**245**	P	**P**	**14 31 53.5**	**+0.4**
ARMA	**Armidale**	**31.08**	**245**	P	**P**	**14 31 53.6**	**+0.5**
ARMA				IAmb	IAmb	14 31 54.1	
	comp=Z,24nm,0.8s						
ARMA	**Armidale**	**31.08**	**245**	P	**P**	**14 31 53.6**	**+0.5**
	comp=Z,40nm,1.1s						
AUNRC	**North Rockhamp**	**31.45**	**258**	P	**P**	**14 31 55.9**	**-0.4**
AUPHS	**Peel High Scho**	**31.84**	**244**	P	**P**	**14 32 00.1**	**+0.5**
RMQ	**Roma**	**33.12**	**253**	P	**P**	**14 32 10.3**	**-0.5**
	comp=Z,25nm,1.6s						
AUDCS	**Duo College**	**33.95**	**242**	P	**P**	**14 32 17.6**	**-0.3**
AULRC	**Lightning Ridg**	**34.06**	**247**	P	**P**	**14 32 18.5**	**-0.3**
CNB	**Canberra Magne**	**34.11**	**237**	P	**P**	**14 32 19.4**	**+0.1**
	comp=Z,28nm,1.8s						
CNB	**Canberra Magne**	**34.11**	**237**	P	**P**	**14 32 18.4**	**-0.9**
	comp=Z,28nm,1.8s						
AUMTS	**Mt Stromlo**	**34.39**	**237**	P	**P**	**14 32 21.4**	**-0.3**
CAN	**Canberra**	**34.39**	**237**	P	**P**	**14 32 21.6**	**-0.1**
	comp=Z,44nm,1.9s						
CAN	**Canberra**	**34.39**	**237**	P	**P**	**14 32 21.3**	**-0.4**
	comp=Z,44nm,1.9s						
CAN	**Canberra**	**34.39**	**237**	P	**P**	**14 32 21.7**	**-0.1**
CAN	**Canberra**	**34.39**	**237**		**P**	**14 32 21.9**	**+0.2**
CAN				IAmb	IAmb	14 32 22.2	
	comp=Z,107nm,1.7s						
CAN	**Canberra**	**34.39**	**237**	P	**P**	**14 32 21.3**	**-0.4**
	comp=Z,44nm,1.9s						
CAN	**Canberra**	**34.39**	**237**	P	**P**	**14 32 21.3**	**-0.4**
AUAYR	**Ayr State High**	**34.65**	**265**	P	**P**	**14 32 23.4**	**-0.6**
CTA	**Charters Tower**	**35.66**	**264**	P	**P**	**14 32 32.5**	**-0.2**
	comp=Z,79nm,0.9s						
CTAO	**Charters Tower**	**35.66**	**264**	P	**P**	**14 32 32.3**	**-0.4**
CTAO	**Charters Tower**	**35.66**	**264**		**P**	**14 32 32.5**	**-0.2**
CTAO	**Charters Tower**	**35.66**	**264**	P	**P**	**14 32 32.0**	**-0.7**
	comp=Z,200nm,0.9s						
CTAO	**Charters Tower**	**35.66**	**264**	P	**P**	**14 32 32.0**	**-0.7**
CTAO				pP	**pwP**	**14 33 15.7**	**+0.8**
CMSA	**Cobar Meteorol**	**36.30**	**244**	P	**P**	**14 32 37.1**	**-0.8**
	comp=Z,54nm,0.9s						
CMSA	**Cobar Meteorol**	**36.30**	**244**	P	**P**	**14 32 37.6**	**-0.4**
	comp=Z,54nm,0.9s						
CMSA	**Cobar Meteorol**	**36.30**	**244**	P	**P**	**14 32 36.9**	**-1.0**
CMSA	**Cobar Meteorol**	**36.30**	**244**	P	**P**	**14 32 37.2**	**-0.8**
	comp=Z,54nm,0.9s						
QLP	**Quilpie**	**37.17**	**253**	P	**P**	**14 32 44.0**	**-1.4**
	comp=Z,68nm,1.0s						
QLP	**Quilpie**	**37.17**	**253**	P	**P**	**14 32 46.2**	**+0.8**
	comp=Z,68nm,1.0s						
QLP	**Quilpie**	**37.17**	**253**	P	**P**	**14 32 44.4**	**-1.0**
QLP	**Quilpie**	**37.17**	**253**	P	**P**	**14 32 44.0**	**-1.4**
	comp=Z,68nm,1.0s						
PMG	**Port Moresby**	**37.43**	**281**	P	**P**	**14 32 46.7**	**-1.0**
PMG	**Port Moresby**	**37.43**	**281**		**P**	**14 32 46.9**	**-0.8**
PMG	**Port Moresby**	**37.43**	**281**	P	**P**	**14 32 46.7**	**-1.0**
	comp=Z,1μmcomp=Z,157nm,1.0s						
PMG	**Port Moresby**	**37.43**	**281**	P	**P**	**14 32 46.7**	**-1.0**
	comp=Z,160nm,1.0s						
PMG	**Port Moresby**	**37.43**	**281**	P	**P**	**14 32 46.3**	**-1.3**
TOO	**Toolangi**	**37.74**	**234**	P	**P**	**14 32 50.2**	**+0.1**
MTSU	**Mount Surprise**	**37.76**	**266**	P	**P**	**14 32 49.4**	**-1.0**
	comp=Z,84nm,0.8s						
MTSU	**Mount Surprise**	**37.76**	**266**	P	**P**	**14 32 50.3**	**-0.1**
	comp=Z,84nm,0.8s						
MTSU	**Mount Surprise**	**37.76**	**266**	P	**P**	**14 32 49.5**	**-1.0**
MTSU	**Mount Surprise**	**37.76**	**266**	P	**P**	**14 32 49.6**	**-0.9**
	comp=Z,84nm,0.8s						
TAU	**Tasmania Unive**	**38.26**	**226**	P	**P**	**14 32 55.0**	**+0.7**
BRAT	**Ballarat**	**38.93**	**235**	P	**P**	**14 33 00.6**	**+0.7**
AUMTC	**Mt Clear Colle**	**38.98**	**235**	P	**P**	**14 33 00.8**	**+0.5**
COEN	**Coen**	**39.74**	**273**	P	**P**	**14 33 06.5**	**-0.4**
COEN	**Coen**	**39.74**	**273**	P	**P**	**14 33 06.1**	**-0.8**
	comp=Z,117nm,1.0s						
STKA	**Stephens Creek**	**39.80**	**244**	P	**P**	**14 33 06.6**	**-0.6**
	comp=Z,101nm,0.7s						
STKA	**Stephens Creek**	**39.80**	**244**	P	**P**	**14 33 06.9**	**-0.3**
	comp=Z,100nm,0.7s						
STKA	**Stephens Creek**	**39.80**	**244**	P	**P**	**14 33 06.4**	**-0.8**
	comp=Z,13nm,0.6s,baz=93,slow=9.2,SNR=23						
STKA				PcP	**PcP**	**14 35 10.4**	**+0.9**
	comp=Z,2.0nm,0.5s,baz=58,slow=3.5,SNR=3.8						
	comp=Z,13nm,0.6s						
STKA	**Stephens Creek**	**39.80**	**244**	P	**P**	**14 33 06.5**	**-0.8**
STKA	**Stephens Creek**	**39.80**	**244**	P	**P**	**14 33 06.5**	**-0.8**
STKA					**PcP**	**14 35 08.9**	**-0.5**
STKA	**Stephens Creek**	**39.80**	**244**	P	**P**	**14 33 06.6**	**-0.6**
	comp=Z,100nm,0.7s						
INKA	**Ininmka**	**40.29**	**251**	P	**P**	**14 33 11.3**	**0.0**
ARPS	**Mount Arapiles**	**40.37**	**237**	P	**P**	**14 33 11.8**	**0.0**
	comp=Z,9.3nm,0.9s						
ARPS	**Mount Arapiles**	**40.37**	**237**	P	**P**	**14 33 11.3**	**-0.6**
	comp=Z,9.3nm,0.9s						
MANU	**Manus Island**	**40.38**	**292**	P	**P**	**14 33 11.5**	**-0.8**
MANU				IAmb	IAmb	14 33 13.1	
	comp=Z,30nm,0.7s						
MGBR	**Mount Gambier**	**41.56**	**236**	P	**P**	**14 33 21.4**	**-0.1**
MGBR				IAmb	IAmb	14 34 45.8	
	comp=Z,51nm,1.5s						
QIS	**Mount Isa**	**41.78**	**262**	P	**P**	**14 33 22.5**	**-1.2**
	comp=Z,15nm,1.3s						
QIS	**Mount Isa**	**41.78**	**262**	P	**P**	**14 33 22.0**	**-1.6**
	comp=Z,15nm,1.3s						
QIS	**Mount Isa**	**41.78**	**262**	P	**P**	**14 33 22.4**	**-1.2**
QIS	**Mount Isa**	**41.78**	**262**	P	**P**	**14 33 21.9**	**-1.6**
	comp=Z,15nm,1.3s						
AUMBR	**Murray Bridge**	**42.12**	**240**	P	**P**	**14 33 25.7**	**-0.4**
HTT	**Hallett**	**42.21**	**242**	P	**P**	**14 33 26.3**	**-0.6**
	comp=Z,10nm,1.1s						
HTT	**Hallett**	**42.21**	**242**	P	**P**	**14 33 25.8**	**-1.1**
	comp=Z,10nm,1.1s						
HTT	**Hallett**	**42.21**	**242**	P	**P**	**14 33 26.2**	**-0.7**
BBOO	**Buckleboo**	**44.55**	**244**	P	**P**	**14 33 44.5**	**-1.1**
	comp=Z,27nm,0.6s						
BBOO	**Buckleboo**	**44.55**	**244**	P	**P**	**14 33 43.7**	**-1.9**
	comp=Z,27nm,0.6s						
BBOO	**Buckleboo**	**44.55**	**244**	P	**P**	**14 33 44.2**	**-1.4**
BBOO	**Buckleboo**	**44.55**	**244**	P	**P**	**14 33 44.7**	**-0.9**
BBOO				IAmb	IAmb	14 33 47.7	
	comp=Z,15nm,0.6s						
BBOO	**Buckleboo**	**44.55**	**244**	P	**P**	**14 33 43.4**	**-2.2**
	comp=Z,26nm,0.6s						
GENI	**Genyem**	**46.51**	**286**	P	**P**	**14 34 00.7**	**-0.5**
GENI	**Genyem**	**46.51**	**286**	P	**P**	**14 34 00.4**	**-0.7**
GENI	**Genyem**	**46.51**	**286**	P	**P**	**14 34 00.5**	**-0.7**
	comp=Z,352nm,0.9s						
AS17	**Alice Springs**	**46.58**	**256**	P	**P**	**14 34 00.6**	**-1.1**
	comp=Z,125nm,0.8s						
AS17	**Alice Springs**	**46.58**	**256**	P	**P**	**14 33 59.9**	**-1.7**
	comp=Z,125nm,0.8s						
WR8	**Warramunga Arr**	**46.61**	**261**	P	**P**	**14 34 00.6**	**-1.4**
WR8				IAmb	IAmb	14 34 01.8	
	comp=Z,42nm,0.6s						
AS01	**Alice Springs**	**46.62**	**256**	P	**P**	**14 34 00.7**	**-1.2**
AS09	**Alice Springs**	**46.62**	**256**	P	**P**	**14 34 00.9**	**-1.0**
	comp=Z,83nm,1.0s						
AS09	**Alice Springs**	**46.62**	**256**	P	**P**	**14 34 00.5**	**-1.5**
	comp=Z,83nm,1.0s						
AS15	**Alice Springs**	**46.65**	**256**	P	**P**	**14 34 01.1**	**-1.1**
	comp=Z,149nm,0.7s						
AS15	**Alice Springs**	**46.65**	**256**	P	**P**	**14 34 00.6**	**-1.7**
	comp=Z,149nm,0.7s						
AS31	**Alice Springs**	**46.66**	**256**	P	**P**	**14 34 01.1**	**-1.1**
	comp=Z,27nm,0.8s						
AS31	**Alice Springs**	**46.66**	**256**	P	**P**	**14 34 00.8**	**-1.4**
	comp=Z,27nm,0.8s						
AS31	**Alice Springs**	**46.66**	**256**	P	**P**	**14 34 01.6**	**-0.7**
AS31				IAmb	IAmb	14 34 02.4	
	comp=Z,18nm,0.7s						
ASAR	**Alice Springs**	**46.66**	**256**	P	**P**	**14 34 00.6**	**-1.7**
	comp=Z,64nm,0.7s,baz=98,slow=8.1,SNR=564						
ASAR				PcP	**PcP**	**14 35 32.7**	**-0.1**
	comp=Z,3.9nm,0.7s,baz=109,slow=3.9,SNR=4.3						
ASAR				ScP	**ScP**	**14 39 10.0**	**+2.1**
	comp=Z,1.5nm,1.0s,baz=123,slow=3.9,SNR=4.6						
ASAR				S	**S**	**14 40 31.6**	**-5.3**
	comp=Z,3.3nm,0.9s,baz=94,slow=15,SNR=14						
	comp=Z,64nm,0.7s						
ASAR	**Alice Springs**	**46.66**	**256**	P	**P**	**14 34 01.1**	**-1.2**
ASAR					**PcP**	**14 35 33.0**	**+0.2**
AUALC	**St Philip's Co**	**46.67**	**256**	P	**P**	**14 34 01.9**	**-0.5**
WRAB	**Warramunga Arr**	**46.74**	**262**	P	**P**	**14 34 01.5**	**-1.5**
WRAB	**Tennant Creek**	**46.76**	**261**	P	**P**	**14 34 01.4**	**-1.6**
WRAB	**Tennant Creek**	**46.76**	**261**	P	**P**	**14 34 01.7**	**-1.3**
	comp=Z,98nm,1.0s						
WRAB	**Tennant Creek**	**46.76**	**261**	P	**P**	**14 34 00.9**	**-2.1**
WRA	**Warramunga Arr**	**46.76**	**261**	P	**P**	**14 34 01.2**	**-1.9**
	comp=Z,60nm,0.8s,baz=95,slow=5.2,SNR=425						
WRA				PcP	**PcP**	**14 35 33.2**	**0.0**
	comp=Z,2.4nm,0.7s,baz=101,slow=3.5,SNR=2.2						
WRA				ScP	**ScP**	**14 39 10.0**	**+1.7**
	comp=Z,0.8nm,0.8s,baz=94,slow=3.1,SNR=3.4						
WRA				S	**S**	**14 40 32.2**	**-6.3**
	comp=Z,1.4nm,0.8s,baz=96,slow=15,SNR=5.1						
	comp=Z,60nm,0.8s						
WRA	**Warramunga Arr**	**46.76**	**261**	P	**P**	**14 34 01.8**	**-1.4**
KDU	**Kakadu**	**50.11**	**270**	P	**P**	**14 34 26.9**	**-1.8**
	comp=Z,19nm,1.5s						
KDU	**Kakadu**	**50.11**	**270**	P	**P**	**14 34 26.8**	**-1.9**
	comp=Z,19nm,1.5s						
BAKI	**Biak**	**50.77**	**286**	P	**P**	**14 34 34.2**	**+0.6**
MTN	**Manton Dam**	**51.33**	**270**	P	**P**	**14 34 36.1**	**-1.6**
	comp=Z,38nm,0.8s						
MTN	**Manton Dam**	**51.33**	**270**	P	**P**	**14 34 35.9**	**-1.8**
	comp=Z,38nm,0.8s						
MTN	**Manton Dam**	**51.33**	**270**	P	**P**	**14 34 36.6**	**-1.2**
MTN				IAmb	IAmb	14 34 37.5	
	comp=Z,27nm,0.8s						
FORT	**Forrest**	**51.34**	**246**	P	**P**	**14 34 37.2**	**-0.4**
	comp=Z,19nm,0.7s						
FORT	**Forrest**	**51.34**	**246**	P	**P**	**14 34 36.5**	**-1.2**
	comp=Z,19nm,0.7s						
FORT	**Forrest**	**51.34**	**246**	P	**P**	**14 34 36.8**

LUWI	Luwuk	63.04	280	P		P	14 35 59.6	-0.3
	comp=Z,54nm,1.0s							
CCD	Concordia, Ant	63.15	195	P		P	14 36 02.3	+2.3
CCD				PcP		PcP	14 36 37.4	+1.6
CCD				pP		pwP	14 36 50.1	+2.7
LBFI	Labuhan Bajo,	63.16	271	P		P	14 35 59.8	-0.9
APSI	Ampana	64.13	279	P		P	14 36 08.1	+1.1
	comp=Z,44nm,1.1s							
DBNI	Kabupaten Domp	64.64	270	P		P	14 36 08.6	-1.7
CASY	Casey	65.02	205	P		P	14 36 13.0	+1.1
CASY				IAmb		IAmb	14 36 14.7	
	comp=Z,22nm,0.9s							
CASY	Casey	65.02	205	P		P	14 36 13.9	+2.1
	comp=Z,28nm,0.9s							
CASY	Casey	65.02	205	P		P	14 36 13.5	+1.7
CASY				PcP		PcP	14 36 45.2	+2.1
PLAI	Plampang	65.04	270	P		P	14 36 11.6	-1.3
PLAI	Plampang	65.04	270	P		P	14 36 12.0	-0.9
	comp=Z,96nm,0.8s							
PLAI	Plampang	65.04	270	P		P	14 36 11.8	-1.1
	comp=Z,97nm,0.8s							
TOLI2	Tolitoli	65.70	281	P		P	14 36 17.2	+0.1
TOLI2	Tolitoli	65.70	281	P		P	14 36 16.6	-0.5
TOLI2				IAmb		IAmb	14 36 16.7	
	comp=Z,30nm,1.4s							
TOLI2	Tolitoli	65.70	281	P		P	14 36 15.2	-1.9
	comp=Z,16nm,1.2s							
PCI	Palu	65.81	278	P		P	14 36 19.0	+1.2
	comp=Z,67nm,1.1s							
JAGI	Jajag, Banyuwa	68.55	269	P		P	14 36 34.5	-0.6
JAGI	Jajag, Banyuwa	68.55	269	P		P	14 36 33.5	-1.5
JAGI	Jajag, Banyuwa	68.55	269	P		P	14 36 35.1	0.0
	comp=Z,64nm,0.8s							
JAGI	Jajag, Banyuwa	68.55	269	P		P	14 36 33.0	-2.1
	comp=Z,64nm,0.8s							
QSPA	South Pole Qui	69.72	180	P		P	14 36 44.3	+2.8
	comp=Z,22nm,0.8s,baz=32,slow=1.6,SNR=64							
	comp=Z,22nm,0.8s							
QSPA	South Pole Qui	69.72	180	P		P	14 36 43.0	+1.5
QSPA				IAmb		IAmb	14 36 45.3	
	comp=Z,29nm,0.9s							
QSPA	South Pole Qui	69.72	180	P		P	14 36 44.5	+3.0
	comp=Z,36nm,1.3s							
QSPA	South Pole Qui	69.72	180	P		P	14 36 44.0	+2.5
QSPA				pP		pP	14 37 32.4	+5.3
SNJI	Sawahan-Nganju	71.02	269	P		P	14 36 50.5	+0.2
SJI	Sawahan	71.02	269	P		P	14 36 52.6	+2.3
MJAR	Matsushiro Arr	71.40	322	P		P	14 36 50.4	-1.5
	comp=Z,7.2nm,0.8s,baz=156,slow=6.1,SNR=18							
	comp=Z,7.2nm,0.8s							
MJAR	Matsushiro Arr	71.40	322			P	14 36 50.7	-1.2
MAJO	Matsushiro	71.40	322	P		P	14 36 50.9	-1.1
MAJO				IAmb		IAmb	14 36 51.5	
	comp=Z,13nm,1.0s							
MAJO	Matsushiro	71.40	322	P		P	14 36 50.4	-1.6
	comp=Z,17nm,1.1s							
MJB9	Matsu-Tunnel	71.40	322	P		P	14 36 51.3	-0.6
MJB9				IAmb		IAmb	14 36 52.9	
	comp=Z,15nm,1.1s							
KKM	Kota Kinabalu	71.82	284	P		P	14 36 54.6	-0.4
JMN	Monobe	72.12	318	P		P	14 36 55.5	-0.8
JMN				IAmb		IAmb	14 38 03.3	
	comp=Z,43nm,1.5s							
BBJI	Bungbulang	74.97	268	P		P	14 37 11.7	-1.7
BBJI	Bungbulang	74.97	268			P	14 37 11.5	-1.9
BBJI				IAmb		IAmb	14 37 12.3	
	comp=Z,15nm,0.8s							
BBJI	Bungbulang	74.97	268	P		P	14 37 11.3	-2.1
	comp=Z,24nm,1.1s							
NACB	Ninganchiao	75.40	303	P		P	14 37 14.1	-1.4
NACB				IAmb		IAmb	14 37 14.8	
	comp=Z,42nm,1.2s							
TPUB	Ta-pu	75.73	302	P		P	14 37 14.6	-2.8
	comp=Z,48nm,2.0s							
PEA0B	Petropavlovsk-	76.71	344			P	14 37 22.7	+0.4
PETK	Petropavlovsk-	76.71	344	P		P	14 37 22.6	+0.4
	comp=Z,13nm,0.9s,baz=112,slow=4.8,SNR=13							
	comp=Z,13nm,0.9s							
PETK	Petropavlovsk-	76.71	344	P		P	14 37 22.2	0.0
YSS	Yuzhno-Sakhali	76.75	332	P		P	14 37 23.1	+0.5
YSS	Yuzhno-Sakhali	76.75	332	P		P	14 37 22.1	-0.5
YSS				IAmb		IAmb	14 37 24.0	
	comp=Z,56nm,1.3s							
YSS	Yuzhno-Sakhali	76.75	332	P		P	14 37 22.7	+0.1
	comp=Z,36nm,1.6s							
CGJI	Cibinong	77.08	268	P		P	14 37 24.9	-0.4
	comp=Z,102nm,1.3s							
HELL	Mitchell Peak,	77.95	43	P		P	14 37 29.1	-0.5
SMAI	San Martin Ant	77.96	159	P		P	14 37 29.7	+0.6
KSRS	Korea Array	78.23	317	P		P	14 37 30.7	-0.3
	comp=Z,3.9nm,1.0s,baz=145,slow=7.5,SNR=11							
	comp=Z,3.9nm,1.0s							
KSAR	Wonju Array Be	78.25	317	P		P	14 37 30.2	-0.9
BELC	Belle Mtn. Jos	78.41	47	P		P	14 37 31.0	-1.3
BELA	Belgrano 2	79.42	172			P	14 37 38.5	+1.6
BELA				IAmb		IAmb	14 37 39.7	
	comp=Z,14nm,0.9s							
NVAR	Mina Array Bea	79.45	42	P		P	14 37 39.9	+1.9
	comp=Z,4.8nm,0.8s,baz=226,slow=8.6,SNR=22							
	comp=Z,4.8nm,0.8s							
NVAR	Mina Array Bea	79.45	42	P		P	14 37 38.5	+0.5
TPNV	Topopah Spring	79.91	44	P		P	14 37 39.4	-1.0
TPNV				IAmb		IAmb	14 38 34.1	
	comp=Z,30nm,1.9s							
USA0B	Ussuriysk Arra	80.08	325	P		P	14 37 39.2	-1.6
USA0B				IAmb		IAmb	14 37 42.4	
	comp=Z,29nm,1.6s							
USRK	Ussuriysk Ar.	80.08	325	P		P	14 37 41.1	+0.2
	comp=Z,2.1nm,0.8s,baz=117,slow=6.6,SNR=6.6							
	comp=Z,2.1nm,0.8s							
USRK	Ussuriysk Ar.	80.08	325			P	14 37 39.5	-1.3
TUC	Tucson	81.20	51	P		P	14 37 46.3	-1.0
TUC	Tucson	81.20	51	P		P	14 37 50.2	+3.0
	comp=Z,8.2nm,1.0s							
TUC	Tucson	81.20	51	P		P	14 37 49.8	+2.5
G04A	Mulino	81.22	35	P		P	14 37 45.2	-1.8
G04A				IAmb		IAmb	14 38 25.7	
	comp=Z,67nm,1.3s							
NJ2	Nanjing	81.47	309	*e*P		P	14 37 48.5	0.0
NJ2				pmax		pmax		
	comp=Z,7.0nm,0.5s							
MASI	Maura Aman, Be	81.48	270	P		P	14 37 52.1	+3.0
MAW	Mawson	82.42	199	P		P	14 37 54.9	+1.9
	comp=Z,7.4nm,0.9s,baz=115,slow=6.9,SNR=6.7							
	comp=Z,7.4nm,0.9s							
CN2	Changchun	83.52	321	*e*P		P	14 37 59.0	+0.1
CN2				*es*P		sP	14 39 07.0	+1.2
CN2				*e*S		S	14 48 03.8	-0.3
CN2				pmax		pmax		
	comp=Z,10.0nm,1.2s							
CN2				pmax		pmax		
	comp=Z,100nm,7.0s							
HAWA	Hanford	83.56	35	IAmb		IAmb	14 38 02.8	
	comp=Z,46nm,1.8s							
BNX	BinXian	83.57	324	⇓P		P	14 37 58.3	-0.8
BNX				pmax		pmax		
	comp=Z,18nm,1.0s							
MFID	Camas Ranch	83.89	39	P		P	14 37 59.2	-1.7
WHN	Wuhan	84.11	305	P		P	14 38 01.8	-0.4
H03S2	Juan Fernandez	84.28	124	T		T	16 10 54.4	
	baz=248,slow=74,SNR=189							
H03S1	Juan Fernandez	84.30	124	T		T	16 10 55.0	
	baz=248,slow=74,SNR=207							
H03S3	Juan Fernandez	84.30	124	T		T	16 10 55.4	
	baz=248,slow=74,SNR=220							
H03N2	Juan Fernandez	84.42	123	T		T	16 10 57.3	
	baz=257,slow=74,SNR=105							
H03N1	Juan Fernandez	84.43	123	T		T	16 11 00.5	
	baz=5.2,slow=74,SNR=69							
HLID	Hailey	84.82	40	P		P	14 38 07.7	+2.0
	comp=Z,8.6nm,1.4s							
MNTX	Cornudas Mount	84.91	54	P		P	14 38 08.9	+2.6
	comp=Z,10nm,1.0s							
TXAR	Lajitas Array	85.16	56	P		P	14 38 10.3	+2.7
	comp=Z,5.7nm,0.9s,baz=212,slow=6.8,SNR=25							
	comp=Z,5.7nm,0.9s							
IPM	Ipoh	85.26	277	P		P	14 38 07.9	-0.5
IPM	Ipoh	85.26	277	IAmb		IAmb	14 38 08.9	
	comp=Z,20nm,0.8s							
IPM	Ipoh	85.26	277	P		P	14 38 08.2	-0.2
	comp=Z,36nm,1.4s							
IPM	Ipoh	85.26	277	P		P	14 38 08.2	-0.2
	comp=Z,36nm,1.4s							
VRDI	Verde Repeater	85.33	15	P		P	14 38 07.4	-0.4
VRDI				IAmb		IAmb	14 38 52.9	
	comp=Z,68nm,1.9s							
LL05	Los Muermos	85.50	132	P		P	14 38 08.4	-0.7
ALQ	Albuquerque	85.63	50	IAmb		IAmb	14 38 13.4	
	comp=Z,6.1nm,1.0s							
ANMO	Albuquerque	85.63	50	P		P	14 38 08.6	-1.3
ANMO	Albuquerque	85.63	50	P		P	14 38 11.9	+2.0
ANMO	Albuquerque	85.63	50	P		P	14 38 12.1	+2.1
ANMO				pP		pP	14 39 02.1	+4.8
ALPN	Alpine	85.65	56	P		P	14 38 09.4	-0.7
TPB01	Permian Basin	85.79	55	P		P	14 38 10.0	-0.7
TPB01				IAmb		IAmb	14 38 13.9	
	comp=Z,12nm,0.9s							
TRF	Thorofare Moun	85.87	11	P		P	14 38 09.4	-1.0
TRF				IAmb		IAmb	14 38 48.6	
	comp=Z,62nm,1.8s							
HEH	HeiHe	86.34	327	*e*P		P	14 38 12.5	-0.3
HEH				pmax		pmax		
	comp=Z,14nm,1.6s							
MCK	McKinley	86.38	12	P		P	14 38 12.3	-0.4
MCK				IAmb		IAmb	14 38 41.0	
	comp=Z,50nm,1.8s							
RPSI	Rantau Prapat	86.60	274	IAmb		IAmb	14 38 14.7	
	comp=Z,12nm,1.0s							
RPSI	Rantau Prapat	86.60	274	P		P	14 38 12.6	-2.3
	comp=Z,15nm,1.1s							
PSI	Prapat	86.64	274	P		P	14 38 13.9	-1.4
PSI	Prapat	86.64	274	P		P	14 38 14.1	-1.2
	comp=Z,15nm,1.1s							
ELIB	Princess Elisa	87.02	186	*d*P		P	14 38 17.5	+1.4
	comp=Z,13nm,0.9s							
ELIB				*d*pP		pwP	14 39 08.0	+2.4
HNS	HongShan	87.06	312	⇑P		P	14 38 16.8	+0.3
HNS				pmax		pmax		
	comp=Z,9.0nm,1.5s							
WRH	Wood River Hil	87.21	12	IAmb		IAmb	14 38 18.5	
	comp=Z,23nm,1.3s							
LYN	LuoYang	87.35	308	P		P	14 38 18.3	+0.2
LYN				pmax		pmax		
	comp=Z,28nm,0.7s							
GSI	Gunungsitoli	87.38	272	P		P	14 38 18.4	-0.3
	comp=Z,44nm,1.2s							
PDAR	Pinedale Array	87.38	42	P		P	14 38 19.9	+1.5
	comp=Z,0.5nm,0.7s,baz=225,slow=4.0,SNR=4.7							
	comp=Z,0.5nm,0.7s							
PDAR	Pinedale Array	87.38	42	P		P	14 38 17.4	-0.9
CCB	Clear Creek Bu	87.42	12			P	14 38 17.8	+0.1
CCB				IAmb		IAmb	14 38 19.3	
	comp=Z,36nm,1.7s							
COLA	College	87.62	12	P		P	14 38 18.2	-0.3
IL31		87.71	12	P		P	14 38 19.1	+0.2
IL31				IAmb		IAmb	14 39 29.9	
	comp=Z,35nm,1.9s							
ILAR	Eielson Array	87.71	12	P		P	14 38 19.8	+0.8
	comp=Z,1.4nm,0.6s,baz=218,slow=5.7,SNR=24							
	comp=Z,1.4nm,0.6s							
ILAR	Eielson Array	87.71	12	P		P	14 38 18.6	-0.5
ENH	Enshi	87.76	303	P		P	14 38 19.9	-0.2
ENH	Enshi	87.76	303	IAmb		IAmb	14 38 22.0	
	comp=Z,42nm,1.3s							
ENH	Enshi	87.76	303	P		P	14 38 19.9	-0.2
PLCA	Paso Flores	87.79	133	P		P	14 38 23.3	+3.0
	comp=Z,3.1nm,0.7s,baz=321,slow=6.2,SNR=3.6							
	comp=Z,3.1nm,0.7s							
TROLL	Troll, Antarti	87.87	179	⇑P		P	14 38 21.4	+1.3
	comp=Z,265nm,0.8s							
K27K	Chicken	88.08	14	IAmb		IAmb	14 38 23.4	
	comp=Z,15nm,1.4s							
SNAA	Sanae	88.08	178	⇑P		P	14 38 22.1	+1.0
	comp=Z,139nm,0.7s							
SNAA	Sanae	88.08	178	P		P	14 38 22.4	+1.4
	comp=Z,7.3nm,0.9s,baz=162,slow=2.7,SNR=12							
	comp=Z,7.3nm,0.9s							
SNAA	Sanae	88.08	178	P		P	14 38 22.0	+1.0
SNAA	Sanae	88.08	178	P		P	14 38 22.4	+1.4
	comp=Z,7.7nm,0.9s							
VNA3	Neumayer Olymp	88.13	176	⇑P		P	14 38 22.4	+1.2
	comp=Z,14nm,0.8s							
VNA3	Neumayer Olymp	88.13	176	P		P	14 38 22.7	+1.5
	comp=Z,23nm,0.8s							
L29M	L29M	88.27	16	IAmb		IAmb	14 38 24.4	
	comp=Z,26nm,1.4s							
VNA2	Neumayer--Watz	88.60	176	⇑P		P	14 38 24.9	+1.6
	comp=Z,13nm,0.7s,baz=168,slow=2.7							
VNA2	Neumayer--Watz	88.60	176	P		P	14 38 25.1	+1.8
	comp=Z,24nm,0.9s							
DAWY	Dawson	88.74	15	IAmb		IAmb	14 41 20.9	
	comp=Z,38nm,1.9s							
VNA1	Neumayer--Stat	88.81	176	P		P	14 38 26.4	+2.1
	comp=Z,26nm,0.9s							
J29N	Klondike Camp	89.35	15	IAmb		IAmb	14 38 29.7	
	comp=Z,44nm,1.6s							
XAN	Xi'an	89.78	307	P		P	14 38 29.8	+0.3
XAN				pP		pwP	14 39 20.5	+0.2
XAN				pmax		pmax		
	comp=Z,18nm,1.0s							
J30M	Hart River	89.93	16	IAmb		IAmb	14 38 32.5	
	comp=Z,30nm,1.8s							
H27K	Steamboat Moun	90.08	13	IAmb		IAmb	14 38 32.3	
	comp=Z,21nm,1.6s							
G26K	Porcupine Rive	90.24	12	IAmb		IAmb	14 38 33.8	
	comp=Z,29nm,1.6s							
I30M	Mount Dempster	90.44	15	IAmb		IAmb	14 38 34.6	
	comp=Z,17nm,1.6s							
HHC	Hu-ho-hao-te	90.81	314	*e*P		P	14 38 35.5	+1.2
HHC				pmax		pmax		
	comp=Z,12nm,0.6s							
HHC				pmax		pmax		
	comp=Z,110nm,5.0s							
KMI2	Kunming	91.22	296	P		P	14 38 37.3	+0.6
KMI2				pmax		pmax		
	comp=Z,15nm,1.0s							
F28M	Old Crow	91.60	13	IAmb		IAmb	14 41 51.7	
	comp=Z,23nm,1.9s							
G30M	tAoh Zraii Nji	91.89	14	IAmb		IAmb	14 38 40.3	
	comp=Z,36nm,1.5s							
CMAR	Chiang Mai Arr	92.11	289	P		P	14 38 41.0	+0.4
	comp=Z,4.9nm,0.9s,baz=114,slow=2.9,SNR=30							
	comp=Z,4.9nm,0.9s							
CMAR	Chiang Mai Arr	92.11	289			P	14 38 40.7	0.0
CHTO	Chiang Mai	92.24	289	P		P	14 38 41.2	0.0
CHTO	Chiang Mai	92.24	289	P		P	14 38 40.9	-0.3
CHTO				IAmb		IAmb	14 38 42.4	
	comp=Z,11nm,1.1s							
CHTO	Chiang Mai	92.24	289	P		P	14 38 41.4	+0.2
CHTO	Chiang Mai	92.24	289	P		P	14 38 41.4	+0.2
	comp=Z,10nm,1.3s							
D27M	Malcolm River	92.76	12	IAmb		IAmb	14 38 44.8	
	comp=Z,34nm,1.9s							
F31M	Tsiigehtchic	92.85	15	IAmb		IAmb	14 38 46.0	
	comp=Z,28nm,1.4s							
INK	Inuvik	93.58	14	IAmb		IAmb	14 38 56.4	
	comp=Z,15nm,1.4s							
INK	Inuvik	93.58	14	P		P	14 38 46.3	+0.1
	comp=Z,8.5nm,1.9s							
YKA	Yellowknife Ar	95.49	24	P		P	14 38 55.9	+0.8
	comp=Z,0.4nm,0.6s,baz=230,slow=4.7,SNR=2.0							
	comp=Z,0.4nm,0.6s							
ZALV	Zalesovo Beam	111.74	321	PKiKP		PKiKP	14 44 03.6	-0.6
	comp=Z,0.8nm,0.6s,baz=248,slow=1.6,SNR=4.8							
MKAR	Makanchi Array	112.67	313	PKiKP		PKiKP	14 44 05.5	-0.8
	comp=Z,1.0nm,0.6s,baz=217,slow=1.4,SNR=13							
KURK	Kurchatov	115.35	317			PKPdf	14 44 10.7	-0.5
KURBB	Kurchatov Arra	115.41	317	PKP		PKPdf	14 44 10.7	-0.6
	comp=Z,1.5nm,0.8s,baz=93,slow=1.8,SNR=13							
BVAR	Borovoye Array	120.36	320	PKP		PKPdf	14 44 20.3	-0.5
	comp=Z,3.0nm,0.6s,baz=103,slow=1.4,SNR=19							
ARCES	ARCESS Array B	129.15	351	PKP		PKPdf	14 44 37.0	-0.1
	comp=Z,2.2nm,0.8s,baz=33,slow=2.9,SNR=6.5							
FINES	FINESS Array B	136.22	345	PKP		PKPdf	14 44 50.0	-0.5
	comp=Z,1.4nm,0.5s,baz=150,slow=3.1,SNR=9.8							
AKASG	Malin Array Be	143.90	333	PKhKP		PKPpre	14 45 02.0	
	comp=Z,6.4nm,0.6s,baz=39,slow=4.0,SNR=32							
AKASG				SKPbc		SKiKP	14 48 26.6	+0.5
	comp=Z,1.8nm,0.8s,baz=35,slow=2.0,SNR=7.5							
KIEV	Kiev	143.91	333	⇑P		PKPab	14 45 02.3	-0.2
EKA	Eskdalemuir Ar	144.62	7	PKP		PKPbc	14 45 05.2	+0.1
	comp=Z,2.6nm,0.5s,baz=322,slow=2.7,SNR=11							
RNPP9	Sopachiv	144.69	337	PKP		PKPab	14 45 05.0	-0.4
RNPP8	Varash	144.76	336	PKP		PKPab	14 45 05.3	-0.4
RNPP5	Staryi Chortor	144.84	336	PKP		PKPbc	14 45 05.3	-0.7
SORM	Soroca	146.18	331	⇑P		PKPbc	14 45 09.7	-0.5
SORM	Soroca	146.18	331	PKP		PKPdf	14 45 09.2	+0.4
KWP	Kalwaria Pacla	147.31	338	*e*PKP		PKPbc	14 45 13.5	+0.1
MNTR	Muntenesti	147.56	330	⇑P		PKPbc	14 45 14.6	+0.5
PDRR	Padureni	147.58	330	⇓P		PKPbc	14 45 14.7	+0.6
VLDR	Vladesti	147.94	328	⇑P		PKPbc	14 45 14.6	-0.6
BURAR	Bucovina Array	147.96	333	⇑P		PKiKP	14 45 16.3	-0.7
TLCR		148.02	326	⇓P		PKPbc	14 45 15.9	+0.6
BIZ	Bicaz	148.09	331	⇓P		PKiKP	14 45 16.6	-0.5
TESR	Tescani	148.15	330	⇓P		PKPbc	14 45 15.9	+0.2
BRTR	Keskin Array B	148.32	314	PKPbc		PKPbc	14 45 16.6	0.0
	comp=Z,9.4nm,0.7s,baz=132,slow=4.1,SNR=38							
BRTR	Keskin Array B	148.32	314			PKPbc	14 45 16.2	-0.3
CLL	Collm	148.36	350	⇓*i*PKPbc		PKPbc	14 45 16.6	+0.6
	comp=Z,22nm,1.3s							
CLL				*i* PKPab		PKPab	14 45 19.9	+0.1
	comp=Z,8.0nm,0.9s							
CLL				*i* pPKPab		pPKPab	14 46 07.4	-0.6
CLL				*i* x		x	14 46 17.7	
CFR	Carcaliu	148.38	327	⇓P		PKPbc	14 45 16.5	+0.2
KIRS	Kirsehir-Merke	148.41	313	⇓P		PKPbc	14 45 16.8	+0.1
OSTC	Ostas	148.42	345	⇑*e*PKP		PKiKP	14 45 17.8	+0.1
TPGR	Topolog	148.45	326	⇑P		PKiKP	14 45 17.5	-0.5
DPC	Dobruska-Polom	148.59	345	⇑*e*PKP		PKiKP	14 45 17.8	-0.3
VRI	Vrincioaia	148.59	329	⇑P		PKiKP	14 45 17.3	+0.4
STEB	Steborice	148.60	343	⇑*e*PKP		PKPbc	14 45 17.0	+0.3
STEB				*ex*		x	14 45 21.8	
ASF	Jabal al Asfar	148.62	299	P		PKiKP	14 45 18.8	0.0
ASF				AML		AML		
PLOR	Plostina	148.64	329	⇓P		PKPbc	14 45 17.1	+0.1
SAHR	Sahastru	148.71	329	⇑P		PKPbc	14 45 17.4	+0.1
KRLC	Kraliky	148.73	344	⇓*e*PKP		PKPab	14 45 19.9	-1.5
TURR	Turia	148.79	330	⇓P		PKiKP	14 45 18.9	+0.2
HARR	Harsova	148.82	326	⇑P		PKiKP	14 45 17.8	+0.3
OZUR		148.86	330	⇑P		PKiKP	14 45 18.6	-0.2
DOPR	Dopca	149.14	331	⇓P		PKiKP	14 45 19.4	0.0
ISR	Istrita	149.22	328	⇓P		PKiKP	14 45 19.5	-0.1
MLR	Muntele Rosu	149.24	330	⇑P		PKiKP	14 45 19.3	-0.5
GEM	Giv'at Ha'Em	149.34	301	P		PKiKP	14 45 21.1	+0.9
GEM				AML		AML		
VRAC	Vranov	149.49	344	*e*PKP		PKiKP	14 45 19.8	-0.2
SAHE	Sakarya_HENDEK	149.55	318	⇓P		PKPbc	14 45 19.1	-0.3
VYHS	Vyhne	149.59	341	*e*PKP		PKPbc	14 45 19.5	+0.3
VYHS				*e*			14 45 25.3	
JAVC	Velka Javorina	149.60	342	*e*PKP		PKiKP	14 45 21.3	+1.0
MMAI	Mount Meron Ar	149.61	301	PKPbc		PKiKP	14 45 20.6	-0.2
	comp=Z,1.8nm,0.3s,baz=30,slow=6.8,SNR=7.3							
QRNJ	Al-Qirein	149.66	300	P		PKiKP	14 45 22.7	+1.9
QRNJ				AML		AML		
VOIR		149.70	330	⇑P		PKiKP	14 45 21.0	+0.4
KRUC	Moravsky	149.76	344	*e*PKP		PKiKP	14 45 20.4	-0.1
MEM	Membach	149.78	358	*d*PKP		PKiKP	14 45 21.1	+0.6
ZVC	Zvikov	149.92	347	⇑*e*PKP		PKiKP	14 45 21.0	+0.2
ARR	Arges	149.94	331	⇑P		PKiKP	14 45 21.9	+0.8
BCLA	Clavier	149.99	359	*d*PKP		PKiKP	14 45 21.3	+0.4
LISJ	El Lisan	150.01	298	P		PKiKP	14 45 22.5	+1.0
LISJ				AML		AML		
SALP	Salfit	150.04	299	P		PKiKP	14 45 22.6	+0.9
SALP				AML		AML		
MSBI	Mazada	150.09	298	P		PKiKP	14 45 22.6	+0.9
MSBI				AML		AML		
BMRD	Maredsous	150.11	359	*d*PKP		PKiKP	14 45 21.3	+0.1
BMRD				*dp*PKP		pPKPdf	14 45 59.9	-5.3
MODS	Modra-Piesok	150.16	343	*e*PKP		PKiKP	14 45 22.0	+0.6
MODS				*e*			14 45 28.7	
GRF	Grafenberg Arr	150.21	351	*e*PKPdf		PKiKP	14 45 21.6	+0.2
	baz=17,slow=1.6							
RCHB	Rochefort	150.25	359	*d*PKP		PKiKP	14 45 21.5	0.0
LOT	Lotru	150.27	332	⇑P		PKPbc	14 45 21.1	-0.1
DOU	Dourbes	150.32	360	*d*PKP		PKiKP	14 45 21.8	+0.2
KHC	Kasperske Hory	150.34	348	⇑*e*PKP		PKiKP	14 45 21.8	0.0
ABNA	Allensteig Bun	150.37	345	*e*PKiKP		PKiKP	14 45 22.2	+0.4
	comp=Z,15nm,1.3s							
CKRC	Cesky Krumlov	150.49	347	⇑*e*PKP		PKiKP	14 45 22.4	+0.4
GERES	GERESS Array B	150.59	347	PKPbc		PKiKP	14 45 22.1	-0.2
	comp=Z,7.3nm,0.9s,baz=5.7,slow=1.3,SNR=32							
GERES	GERESS Array B	150.59	347			PKiKP	14 45 22.2	-0.1
CSS	Mathiatis	150.59	306	P		PKiKP	14 45 23.5	+0.8
CSS				AML		AML		
PRNI	Paran	150.61	296	P		PKiKP	14 45 23.4	+0.5
PRNI				AML		AML		
HRFI	Mount Harif

ISLZ	**Isanotski Laza**	**1.24**	**26**			Pn		14 59 54.8	-0.7
WTUG	**Tugumak**	**1.24**	**7**			Pn		14 59 55.5	0.0
MSW	**Makushin Switc**	**1.30**	**284**			Pn		14 59 56.2	-0.1
MGOD	**Makushin Gods**	**1.33**	**279**			Pn		14 59 56.6	-0.2
MGOD						Sn		15 00 14.1	+0.8
MAPS	**Pakushin South**	**1.37**	**279**			Pn		14 59 57.2	-0.1
MAPS						Sn		15 00 15.8	+1.5
OKFG	**Magazine Ridge**	**1.96**	**265**			Pn		15 00 05.2	-0.1
DT1	**Dutton Round H**	**2.04**	**42**			Pn		15 00 06.6	+0.2
OKTU	**Okmok Mt. Tuli**	**2.04**	**265**			Pn		15 00 07.1	+0.7
DTNA	**Dutton South F**	**2.08**	**41**			Pn		15 00 07.4	+0.4
DTNA						Sn		15 00 33.8	+2.1
OKNC	**Okmok New Cone**	**2.08**	**267**	Pn		Pn		15 00 07.6	+0.6
OKNC				IAML				15 00 41.2	
	comp=N,260nm,3.2s								
OKNC				IAML				15 01 00.7	
	comp=E,337nm,2.5s								
DOL	**Dolgoi Island**	**2.24**	**46**			Pn		15 00 09.5	+0.3
S12K	**Black Hills**	**2.58**	**35**			Pn		15 00 13.5	-0.3
S12K				IAML				15 00 52.7	
	comp=N,170nm,2.0s								
S12K				IAML				15 00 58.8	
	comp=E,191nm,2.2s								
SDPT	**Sand Point**	**2.99**	**53**			Pn		15 00 19.8	+0.3
SDPT				IAML				15 01 20.2	
	comp=E,197nm,2.3s								
CHGN	**Chignik**	**4.49**	**51**	Pn	Pn			15 00 40.2	+0.2
N14K	**Kuskokwak Cree**	**6.53**	**13**	Pn	Pn			15 01 11.6	+3.6
M13K	**Dall Lake**	**6.85**	**5**	Pn	Pn			15 01 16.0	+3.5
O16K	**Kokwok River B**	**7.00**	**28**	Pn	Pn			15 01 17.4	+2.9
N15K	**Kwethluk River**	**7.02**	**19**	Pn	Pn			15 01 17.3	+2.4
GSTR	**Great Sitkin T**	**7.08**	**262**	Pn	Pn			15 01 16.4	+0.8
ADK	**Adak**	**7.51**	**261**	Pn	Pn			15 01 24.9	+3.4
L14K	**Kuka Creek**	**7.82**	**7**	Pn	Pn			15 01 28.7	+3.0
KDAK	**Kodiak Island**	**7.99**	**54**	Pn	Pn			15 01 28.9	+0.8
M16K	**Timber Creek**	**8.03**	**20**	Pn	Pn			15 01 31.0	+2.3
K13K	**Kusilvak Mount**	**8.34**	**360**	Pn	Pn			15 01 35.7	+2.9
M17K	**Holitna River**	**8.71**	**24**	Pn	Pn			15 01 39.9	+1.9
K15K	**Wolf Creek Mou**	**8.86**	**10**	Pn	Pn			15 01 42.3	+2.3
L19K	**White Mountain**	**10.03**	**27**	Pn	Pn			15 01 58.1	+2.0
O28M	**Mount Upton**	**15.00**	**52**	Pn	Pn			15 03 03.4	-0.6
BCPM	**Bancas Point**	**15.04**	**55**	Pn	Pn			15 03 03.7	-0.6
BCAR	**Beaver Creek A**	**15.20**	**42**	Pn	Pn			15 03 04.7	-1.6
D20K	**Etivluk River**	**15.61**	**11**	Pn	Pn			15 03 10.9	-0.8
D20K				IAmb	IAmb			15 03 19.5	
	comp=Z,3.0nm,1.1s								
M29M	**Somme Creek**	**16.33**	**47**	Pn	Pn			15 03 20.3	-0.8
M29M				IAmb	IAmb			15 03 24.8	
	comp=Z,6.8nm,1.3s								
TOLK	**Toolik Lake Re**	**16.65**	**19**	Pn	Pn			15 03 24.8	-0.2
TOLK				IAmb	IAmb			15 04 06.3	
	comp=Z,5.7nm,1.4s								
L29M	**L29M**	**16.72**	**45**	Pn	Pn			15 03 24.9	-1.0
I28M	**Miner Creek**	**17.09**	**36**	Pn	Pn			15 03 30.0	-0.6
I28M				IAmb	IAmb			15 03 36.3	
	comp=Z,7.8nm,1.4s								
M30M	**Minto, Yukon**	**17.11**	**47**	Pn	Pn			15 03 29.7	-1.1
M30M				IAmb	IAmb			15 04 09.6	
	comp=Z,4.8nm,1.3s								
J30M	**Hart River**	**18.03**	**41**			Pn		15 03 41.3	-0.9
H29M	**Whitestone**	**18.05**	**35**			Pn		15 03 42.2	-0.1
H29M				IAmb	IAmb			15 04 21.6	
	comp=Z,4.2nm,1.2s								
I30M	**Mount Dempster**	**18.29**	**39**	P	P			15 03 43.9	-1.4
I30M				IAmb	IAmb			15 03 49.0	
	comp=Z,9.8nm,1.5s								
F28M	**Old Crow**	**18.36**	**31**	P	P			15 03 45.4	-0.5
EPYK	**Eagle Plains**	**18.70**	**36**	P	P			15 03 48.8	-0.9
EPYK				IAmb	IAmb			15 04 00.6	
	comp=Z,10nm,1.4s								
C27K	**Jago River**	**18.71**	**23**	P	P			15 03 49.2	-0.5
H31M	**Peel River**	**19.31**	**39**	P	P			15 03 55.9	-0.4
H31M				IAmb	IAmb			15 04 22.4	
	comp=Z,6.5nm,1.3s								
F30M	**Barrier River**	**19.65**	**33**	P	P			15 03 59.5	-0.5
INK	**Inuvik**	**20.74**	**33**	P	P			15 04 10.7	-1.1
PEA0B	**Petropavlovsk-**	**22.31**	**284**	P	P			15 04 26.5	-2.3
C36M	**Paulatuk**	**24.29**	**34**	P	P			15 04 46.5	-1.7
C36M				IAmb	IAmb			15 05 02.0	
	comp=Z,3.1nm,1.3s								
AB31	**Akbulak array**	**70.80**	**331**	P	P			15 10 46.5	-0.6
ABKAR	**Akbulak array**	**70.80**	**331**	P	P			15 10 47.1	0.0

*IDC **25** 15:06:48.1±2.2,5.6^{0}S×147.9^{0}E±0.7,h62^{km}±22^{km},mb3.8/12, mbtmp4.1/15,ML4.2/2,MS3.3/6,Error ellipse: s-maj=26.0km s-min=13.4km az=102.0*

*NEIC **25** 15:06:49.8±2.2,5.6^{0}S±0.0^{0}7×147.1^{0}E±0.0^{0}9,h74^{km}±8^{km}, mb4.4/29,Error ellipse: s-maj=12.6km s-min=9.6km az=91.0*

ISC 25 15:06:51.5±0.5,5.7^{1}S±0.0^{0}5×147.9^{4}E±0.0^{0}7,h100^{km},n64, σ1^{0}81/55,mb4.2/23,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MANU	**Manus Island**	**3.69**	**351**	Pn	**Pn**	**15 07 43.4**	**-3.1**
PMG	**Port Moresby**	**3.76**	**192**	P	**Pn**	**15 07 44.2**	**-3.3**
	98nm,0.5s,baz=358,slow=3.9,SNR=31						
PMG				S	**Sn**	**15 08 30.0**	**-0.8**
	171nm,0.8s,baz=212,slow=22,SNR=13						
PMG	**Port Moresby**	**3.76**	**192**	Pn	**Pn**	**15 07 44.0**	**-3.5**
KRVT	**Keravat (AS076**	**4.30**	**71**	P	**Pn**	**15 07 51.6**	**-3.1**
	16nm,0.3s,baz=60,slow=2.6,SNR=9.7						
KRVT				LR	LR	15 09 16.8	
	comp=Z,378nm,19.8s,baz=294,slow=34 96nm,0.5s						
KRVT				AML	AML		
RABL	**Rabaul**	**4.46**	**70**	Pn	Pn	15 07 49.2	-7.8
JAY	**Jayapura**	**7.89**	**293**	LR	LR	15 12 24.4	
	comp=Z,237nm,18.0s,baz=52,slow=43						
HNR	**Honiara**	**12.46**	**108**	LR	LR	15 13 28.1	
	comp=Z,90nm,20.1s,baz=50,slow=32						
HNR	**Honiara**	**12.46**	**108**	Pn	**Pn**	**15 09 41.6**	**-3.8**
CTA	**Charters Tower**	**14.39**	**186**	LR	LR	15 15 25.5	
	comp=Z,65nm,19.1s,baz=358,slow=36						
MTN	**Manton Dam**	**18.04**	**246**	P	**P**	**15 10 51.2**	**-3.7**
WB0	**Warramunga Arr**	**19.21**	**222**	P	**P**	**15 11 07.0**	**-0.8**
WB0				IAmb	IAmb	15 11 09.3	
	comp=Z,18nm,1.0s						
WR8	**Warramunga Arr**	**19.27**	**221**	P	**P**	**15 11 07.3**	**-1.2**
WR8				IAmb	IAmb	15 11 10.7	
	comp=Z,31nm,1.5s						
WRAB	**Tennant Creek**	**19.36**	**222**	P	**P**	**15 11 08.2**	**-1.1**
WRAB				IAmb	IAmb	15 11 11.4	
	comp=Z,11nm,0.8s						
WRA	**Warramunga Arr**	**19.37**	**222**	P	**P**	**15 11 08.7**	**-0.8**
	comp=Z,0.6nm,0.3s,baz=42,slow=12,SNR=43 comp=Z,9.1nm,0.8s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**19.37**	**222**	P	**P**	**15 11 08.1**	**-1.4**
EIDS	**Eidsvold**	**19.78**	**172**	P	**Pn**	**15 11 15.6**	**-0.7**
SANVU	**Saraoutou**	**21.24**	**119**	P	**P**	**15 11 29.5**	**-0.2**
SANVU				IAmb	IAmb	15 11 51.1	
	comp=Z,16nm,0.9s						
KNRA	**Kununurra**	**21.27**	**241**	P	**P**	**15 11 27.1**	**-2.9**
AS31	**Alice Springs**	**22.39**	**216**	P	**P**	**15 11 41.5**	**-0.4**
AS31				IAmb	IAmb	15 11 45.6	
	comp=Z,4.8nm,0.5s						
ASAR	**Alice Springs**	**22.40**	**216**	P	**P**	**15 11 41.7**	**-0.2**
	comp=Z,13nm,0.9s,baz=53,slow=8.3,SNR=93						
ASAR				LR	LR	15 21 39.4	
	comp=Z,144nm,19.0s,baz=63,slow=40 comp=Z,13nm,0.9s						
ASAR	**Alice Springs**	**22.40**	**216**	P	**P**	**15 11 42.4**	**+0.5**
INKA	**Innaminka**	**22.96**	**197**	P	**P**	**15 11 47.9**	**+0.5**
OUENC	**Ouen Island, N**	**24.68**	**134**	P	**P**	**15 12 03.0**	**-0.3**
OUENC				IAmb	IAmb	15 12 35.9	
	comp=Z,12nm,1.1s						
ARMA	**Armidale**	**24.82**	**172**	P	**P**	**15 12 08.1**	**+3.4**
ARMA				IAmb	IAmb	15 12 17.4	
	comp=Z,15nm,1.3s						
FITZ	**Fitzroy Crossi**	**25.02**	**239**	P	**P**	**15 12 06.4**	**0.0**
STKA	**Stephens Creek**	**26.70**	**192**	P	**P**	**15 12 22.6**	**+1.1**
	comp=Z,3.0nm,0.7s,baz=6.7,slow=9.6,SNR=3.5						
STKA				LR	LR	15 24 37.8	
	comp=Z,70nm,18.1s,baz=32,slow=40 comp=Z,3.0nm,0.7s						
STKA	**Stephens Creek**	**26.70**	**192**	P	**P**	**15 12 21.9**	**+0.4**
H11S3	**WAKE ISLAND Hy**	**30.33**	**37**	T	T	15 44 43.7	
	baz=221,slow=75,SNR=98						
H11S2	**WAKE ISLAND Hy**	**30.34**	**37**	T	T	15 44 34.2	
	baz=221,slow=75,SNR=60						
H11S1	**WAKE ISLAND Hy**	**30.35**	**37**	T	T	15 44 40.2	
	baz=221,slow=75,SNR=68						
MBWA	**Marble Bar**	**31.36**	**238**	P	**P**	**15 13 03.2**	**+0.3**
MBWA				IAmb	IAmb	15 13 22.7	
	comp=Z,12nm,1.2s						
H11N1	**WAKE ISLAND Hy**	**31.40**	**36**	T	T	15 45 51.0	
	baz=219,slow=76,SNR=8.9						
H11N3	**WAKE ISLAND Hy**	**31.41**	**36**	T	T	15 45 54.3	
	baz=219,slow=76,SNR=15						
H11N2	**WAKE ISLAND Hy**	**31.41**	**36**	T	T	15 45 52.7	
	baz=219,slow=76,SNR=21						
RTZ	**Ruatahuna**	**42.02**	**145**	P	**P**	**15 14 35.1**	**+1.9**
TCW	**Tory Channel**	**42.46**	**150**	P	**P**	**15 14 38.4**	**+1.7**
TUWZ	**Tuamarina**	**42.47**	**151**	P	**P**	**15 14 39.7**	**+3.0**
MJAR	**Matsushiro Arr**	**43.01**	**348**	P	**P**	**15 14 39.6**	**-1.5**
	comp=Z,1.7nm,0.8s,baz=157,slow=9.8,SNR=4.3 comp=Z,1.7nm,0.8s						
MSWZ	**Moikau Station**	**43.10**	**150**	P	**P**	**15 14 43.2**	**+1.4**
WHZ	**Wether Hill Ro**	**43.63**	**160**	P	**P**	**15 14 48.6**	**+2.5**
USRK	**Ussuriysk Ar.**	**51.72**	**345**	P	**P**	**15 15 48.2**	**-0.2**
	comp=Z,1.8nm,0.8s,baz=160,slow=6.1,SNR=4.5 comp=Z,1.8nm,0.8s						
USRK	**Ussuriysk Ar.**	**51.72**	**345**	P	**P**	**15 15 47.5**	**-0.9**
CMAR	**Chiang Mai Arr**	**53.94**	**298**	P	**P**	**15 16 06.0**	**+0.6**
	comp=Z,0.6nm,0.3s,baz=127,slow=5.9,SNR=6.2 comp=Z,0.6nm,0.3s						
SONM	**Songino Array**	**64.61**	**330**	P	**P**	**15 17 19.5**	**+1.0**
	comp=Z,1.2nm,0.9s,baz=158,slow=6.7,SNR=6.0 comp=Z,1.2nm,0.9s						
SONM	**Songino Array**	**64.61**	**330**	P	**P**	**15 17 18.4**	**-0.1**
WECS	**Westdahl Cape**	**71.75**	**27**	P	**P**	**15 18 03.5**	**+0.7**
VNDA	**Vanda**	**72.15**	**177**	P	**P**	**15 18 06.9**	**+2.1**
	comp=Z,0.6nm,0.7s,baz=330,slow=7.3,SNR=6.9 comp=Z,0.6nm,0.7s						
VNDA	**Vanda**	**72.15**	**177**	P	**P**	**15 18 06.7**	**+1.9**
L14K	**Kuka Creek**	**76.95**	**22**	P	**P**	**15 18 34.7**	**+1.9**
MKAR	**Makanchi Array**	**77.87**	**320**	P	**P**	**15 18 38.6**	**+0.3**
	comp=Z,2.6nm,1.1s,baz=129,slow=3.3,SNR=4.5 comp=Z,2.6nm,1.1s						
ZALV	**Zalesovo Beam**	**79.27**	**328**	P	**P**	**15 18 45.9**	**+0.1**
	comp=Z,1.2nm,0.5s,baz=100,slow=7.7,SNR=5.8 comp=Z,1.2nm,0.5s						
ZALV	**Zalesovo Beam**	**79.27**	**328**	P	**P**	**15 18 45.6**	**-0.2**
L18K	**Granite Mounta**	**79.76**	**23**	P	**P**	**15 18 50.8**	**+2.5**
L18K				IAmb	IAmb	15 19 26.1	
	comp=Z,8.9nm,1.2s						
E19K	**Redstone River**	**82.54**	**19**	P	**P**	**15 19 04.8**	**+1.9**
E19K				IAmb	IAmb	15 19 39.6	
	comp=Z,9.4nm,1.2s						
D19K	**Kuna River**	**82.87**	**17**	P	**P**	**15 19 06.4**	**+1.8**
QSPA	**South Pole Qui**	**84.26**	**180**	P	**P**	**15 19 13.4**	**+1.4**
	comp=Z,1.0nm,0.6s,baz=289,slow=1.6,SNR=14 comp=Z,1.0nm,0.6s						
QSPA	**South Pole Qui**	**84.26**	**180**	P	**P**	**15 19 13.1**	**+1.1**
QSPA				IAmb	IAmb	15 19 41.5	
	comp=Z,4.2nm,1.3s						
ILAR	**Eielson Array**	**84.84**	**23**	P	**P**	**15 19 14.9**	**+0.2**
	comp=Z,1.9nm,0.8s,baz=248,slow=5.0,SNR=17 comp=Z,1.9nm,0.8s						
ILAR	**Eielson Array**	**84.84**	**23**	P	**P**	**15 19 15.2**	**+0.5**
J25K	**Salcha River,**	**85.37**	**23**	P	**P**	**15 19 17.9**	**+0.4**
J25K				IAmb	IAmb	15 19 19.7	
	comp=Z,4.3nm,0.9s						
BVAR	**Borovoye Array**	**87.09**	**324**	P	**P**	**15 19 25.7**	**-0.4**
	comp=Z,1.0nm,0.8s,baz=99,slow=7.7,SNR=4.8 comp=Z,1.0nm,0.8s						
L29M	**L29M**	**87.86**	**26**	P	**P**	**15 19 31.6**	**+2.1**
L29M				IAmb	IAmb	15 19 32.8	
	comp=Z,5.1nm,0.9s						
J30M	**Hart River**	**89.04**	**25**	P	**P**	**15 19 37.4**	**+2.2**
J30M				IAmb	IAmb	15 19 39.8	
	comp=Z,3.3nm,1.1s						
H31M	**Peel River**	**90.16**	**24**	P	**P**	**15 19 41.7**	**+1.4**
H31M				IAmb	IAmb	15 20 07.6	
	comp=Z,6.3nm,1.4s						

*BJI **25** 15:20:31.9, 1.6^{7}N×127.6^{0}E,h123^{km},mB5.3/24,mb5.2/80*

*GFZ **25** 15:20:34.9, 1.8^{8}N×127.5^{0}E,h109^{km},Mw5.0/77,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.66; M$_{\theta\theta}$2.38; M$_{\phi\phi}$-3.04; M$_{r\theta}$-2.29; M$_{r\phi}$1.01; M$_{\theta r}$-1.03; Fault plane solution: M$_{o}$3.86781×10^{16} NP1: ϕ_s311.29259°,δ57.29160°,λ18.07538°. NP2: ϕ_s211.29069°,δ74.86648°,λ145.95964°. Principal axes: T 4.2382, Plg34.5203°, Azm166.6198°; N -0.8993, Plg53.1211°, Azm10.1610°; P -3.3390, Plg11.3903°, Azm264.5845°;*

*NEIC **25** 15:20:34.5, 1.8^{9}N×127.4^{2}E,h112^{km}*

*MOS **25** 15:20:34.9±1.0, 1.8^{8}N×127.4^{9}E,h135^{km},mb4.9/48,Error ellipse: s-maj=9.8km s-min=4.9km az=113.0*

*NEIC **25** 15:20:34.2±2.0, 1.9^{0}N±0.0^{5}×127.4^{3}E±0.0^{6},h109^{km}±4^{km}, mb5.3/135,Mww5.0/16,Error ellipse: s-maj=9.4km s-min=7.1km az=74.0*

*GFZ **25** 15:20:34.8±0.3,2.7^{0}N±2.7^{0}×12.7^{0}E±.7°,h118^{km}±3^{km},M5.2/37, mb5.5/37*

*DJA **25** 15:20:35.8±0.4,2.7^{0}N±4.7^{0}×12.7^{0}E±.7°,h77^{km}±10^{km},M5.5/17, mB6.1/8,mb6.0/14,mB6.0/14,mB6.0/14,MLv5.8/17, MLv5.8/16,Mw(mB)5.7/8,Mw(mB)5.6/14,MwMwp4.6/5, MwMwp4.7/6,Mwp5.0/5,Mwp5.0/6*

*IDC **25** 15:20:35.0±1.1,1.8^{4}N×127.5^{5}E,h122^{km}±9^{km},mb4.7/28, mbtmp5.1/32,MS3.7/45,Error ellipse: s-maj=13.4km s-min=6.4km az=73.0*

*GCMT **25** 15:20:36.2±0.2, 1.9^{5}N±0.0^{1}×127.4^{2}E±0.0^{1},h121^{km}±1^{km}, MW5.1/126,Moment Tensor Solution. s72,c100; s126,c218; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.77±.14; M$_{\theta\theta}$2.82±.14; M$_{\phi\phi}$-3.59±.15; M$_{r\theta}$-4.25±.09; M$_{r\phi}$2.68±.14; M$_{\theta r}$-2.85±.11; Best double couple: M$_{o}$6.28900×10^{16} NP1:ϕ_s305.00000°,δ47.00000°, λ13.00000°. NP2:ϕ_s206.00000°,δ81.00000°,λ136.00000°. Principal axes: T 7.5190, Plg37.0000°, Azm156.0000°; N -2.4580, Plg45.0000°, Azm16.0000°; P -5.0590, Plg21.0000°, Azm263.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **25** 15:20:40, 1.8^{9}N×127.4^{2}E,h100^{km},Moment Tensor Solution. Duration: 1^{s}7 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.69; M$_{\theta\theta}$0.88; M$_{\phi\phi}$-2.56; M$_{r\theta}$-2.51; M$_{r\phi}$1.33; M$_{\theta r}$-2.26; Fault plane solution: M$_{o}$4.27000×10^{16} NP1: ϕ_s311.78000°,δ39.05000°,λ24.41000°. NP2: ϕ_s202.36000°,δ74.91000°,λ126.46000°. Principal axes: T 4.7403, Plg47.0000°, Azm151.0000°; N -1.1848, Plg35.0000°, Azm11.0000°; P -3.5555, Plg21.0000°, Azm266.0000°;*

ISC 25 15:20:34.8±0.3,1.8^{6}N±0.0^{3}×127.4^{3}E±0.0^{4},h120^{km}±2^{km}, h120^{km}:pP-P,n646,σ1^{0}32/682,mb5.1/190,10C-27D, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GAMI	**Galela, Maluku**	**0.36**	**93**	P	**Pn**	**15 20 50.1**	**-1.9**
GAMI				AML	AML		
TNTI	**Ternate**	**1.08**	**183**	P	**Pn**	**15 20 57.4**	**-0.2**
TNTI	**Ternate**	**1.08**	**183**	S	**Sn**	**15 21 15.0**	**0.0**
TNTI	**Ternate**	**1.08**	**183**		**Pn**	**15 20 57.3**	**-0.4**
TNTI				Sn	**Sn**	**15 21 14.3**	**-0.7**
TNTI	**Ternate**	**1.08**	**183**	P	**Pn**	**15 20 57.4**	**-0.2**
TNTI	**Ternate**	**1.08**	**183**	P	**Pn**	**15 20 57.5**	**-0.2**
MNI	**Manado**	**2.62**	**261**	P	**Pn**	**15 21 15.3**	**-0.9**
MNI				AML	AML		
KMSI	**Cibinong**	**3.68**	**250**	P	**Pn**	**15 21 29.6**	**-0.5**
SANI	**Sanana**	**4.14**	**200**	P	**Pn**	**15 21 35.0**	**-1.3**
SANI	**Sanana**	**4.14**	**200**	P	**Pn**	**15 21 34.9**	**-1.3**
SANI				AML	AML		
SANI	**Sanana**	**4.14**	**200**	P	**Pn**	**15 21 35.0**	**-1.3**
SIJI	**Sorong**	**4.70**	**125**	P	**Pn**	**15 21 43.8**	**0.0**
	63nm,0.4s,baz=334,slow=20,SNR=63						
SIJI				LR	LR	15 23 22.0	
	comp=Z,2μm,18.7s,baz=296,slow=36						
GSPH	**General Santos**	**4.87**	**330**	*i* P	**Pn**	**15 21 43.7**	**-2.6**
GSPH				*i* S	**Sn**	**15 22 34.8**	**-7.0**
NLAI	**Namlea**	**5.08**	**184**	P	**Pn**	**15 21 48.5**	**-0.3**
	10nm34μm34μm979nm,0.7s,979nm,0.7s						
NLAI				AML	AML		
LUWI	**Luwuk**	**5.48**	**238**	P	**Pn**	**15 21 53.4**	**-0.8**
LUWI	**Luwuk**	**5.48**	**238**	S	**Sn**	**15 22 56.9**	**+0.8**
LUWI	**Luwuk**	**5.48**	**238**		**Pn**	**15 21 53.0**	**-1.2**
LUWI				Sn	**Sn**	**15 22 54.6**	**-1.5**
LUWI	**Luwuk**	**5.48**	**238**	P	**Pn**	**15 21 53.2**	**-1.0**
	3μm,0.9s,3μm,0.9s						
LUWI	**Luwuk**	**5.48**	**238**	P	**Pn**	**15 21 53.2**	**-1.0**
	comp=Z,3μm,0.9s						
DAV	**Davao City (W)**	**5.50**	**340**	P	**Pn**	**15 21 54.3**	**-0.2**
	comp=Z,207nm,0.3s,baz=123,slow=2.8,SNR=21						
DAV				S	**Sn**	**15 22 55.0**	**-1.6**
	comp=Z,1μm,0.5s,baz=296,slow=23,SNR=4.7						
DAV				LR	LR	15 24 26.3	
	comp=Z,2μm,21.4s,baz=140,slow=42						
DAV	**Davao City (W)**	**5.50**	**340**	P	**Pn**	**15 21 55.2**	**+0.7**
DAV	**Davao City (W)**	**5.50**	**340**	S	**Sn**	**15 22 57.4**	**+0.8**
DAV	**Davao City (W)**	**5.50**	**340**		**Pn**	**15 21 53.4**	**-1.1**
DAV				Sn	**Sn**	**15 22 54.2**	**-2.3**
DAV	**Davao City (W)**	**5.50**	**340**	P	**Pn**	**15 21 54.9**	**+0.4**
	comp=Z,15nmcomp=Z,5μmcomp=Z,16μmcomp=Z,16μm comp=Z,928nm,0.6s,comp=Z,928nm,0.6s						
DAV				AML	AML		
DAV	**Davao City (W)**	**5.50**	**340**	P	**Pn**	**15 21 54.4**	**0.0**
	comp=Z,928nm,0.6s						
DAV	**Davao City (W)**	**5.50**	**340**	P	**Pn**	**15 21 58.0**	**+3.5**
KCP	**Kidapawan**	**5.62**	**336**	*i* P	**Pn**	**15 21 55.6**	**-0.6**
KCP				*i* S	**Sn**	**15 22 58.0**	**-1.7**
APSI	**Ampana**	**6.40**	**245**	P	**Pn**	**15 22 05.8**	**-0.9**
	comp=Z,12nmcomp=Z,20μmcomp=Z,20μmcomp=Z,2μm,0.6s, comp=Z,2μm,0.6s						
APSI				AML	AML		
TOLI2	**Tolitoli**	**6.69**	**264**	P	**Pn**	**15 22 10.3**	**-0.3**
TOLI2	**Tolitoli**	**6.69**	**264**		**Pn**	**15 22 09.9**	**-0.7**
TOLI2	**Tolitoli**	**6.69**	**264**	P	**Pn**	**15 22 10.1**	**-0.5**
	comp=Z,2μm,0.7s						
FAKI	**Fak Fak**	**6.76**	**135**	P	**Pn**	**15 22 12.7**	**+1.1**
FAKI	**Fak Fak**	**6.76**	**135**		**Pn**	**15 22 12.3**	**+0.6**
FAKI	**Fak Fak**	**6.76**	**135**	P	**Pn**	**15 22 12.9**	**+1.3**
FAKI				AML	AML		
FAKI	**Fak Fak**	**6.76**	**135**	P	**Pn**	**15 22 13.2**	**+1.6**
	comp=Z,291nm,0.9s						
BNDI	**Bandanaira**	**6.80**	**159**	P	**Pn**	**15 22 13.3**	**+1.1**
BNDI	**Bandanaira**	**6.80**	**159**	P	**Pn**	**15 22 13.8**	**+1.6**
	comp=Z,3.9nmcomp=Z,17μmcomp=Z,17μmcomp=Z,1μm,0.9s, comp=Z,1μm,0.9s						
BNDI				AML	AML		
BNDI	**Bandanaira**	**6.80**	**159**	P	**Pn**	**15 22 13.7**	**+1.6**
	comp=Z,1μm,0.8s						
MWPI	**Manokwari, Pap**	**7.17**	**113**	P	**Pn**	**15 22 21.5**	**+4.4**
MWPI				AML	AML		
KDI	**Kendari**	**7.52**	**220**	P	**Pn**	**15 22 20.6**	**-1.2**
	comp=Z,2.6nmcomp=Z,10μmcomp=Z,10μmcomp=Z,778nm,0.7s, comp=Z,778nm,0.7s						
KDI				AML	AML		
DCPH	**Dipolog City**	**7.81**	**329**	*i* P	**Pn**	**15 22 25.7**	**-0.2**
PCI	**Palu**	**8.07**	**250**	P	**Pn**	**15 22 28.5**	**-0.9**
	comp=Z,2.4nmcomp=Z,7μmcomp=Z,7μmcomp=Z,915nm,1.0s, comp=Z,915nm,1.0s						
PCI				AML	AML		
SNPH	**Sibulan**	**8.52**	**331**	*e*P	**Pn**	**15 22 35.3**	**-0.2**
TBP	**Tagbilaran**	**8.55**	**336**	*e*P	**Pn**	**15 22 31.9**	**-3.9**
LLP	**Lapu-Lapu**	**9.08**	**338**	*i* P	**Pn**	**15 22 41.3**	**-1.6**
LLP				*i* S	**Sn**	**15 24 20.1**	**-3.3**
PLP	**Palo**	**9.56**	**345**	*e*P	**Pn**	**15 22 47.8**	**-1.6**
PLP				*e*S	**Sn**	**15 24 31.5**	**-3.6**
KAPI	**Kappang**	**10.27**	**228**	P	**Pn**	**15 22 59.6**	**+0.6**
	comp=Z,684nm,0.5s,baz=330,slow=3.8,SNR=141						
KAPI				S	**Sn**	**15 24 48.2**	**-4.1**
	comp=Z,107nm,0.4s,baz=49,slow=22,SNR=9.7						
KAPI				LR	LR	15 28 12.4	
	comp=Z,211nm,18.9s,baz=52,slow=44						
KAPI	**Kappang**	**10.27**	**228**	P	**Pn**	**15 22 59.4**	**+0.4**
KAPI	**Kappang**	**10.27**	**228**		**Pn**	**15 22 58.9**	**-0.1**
KAPI	**Kappang**	**10.27**	**228**	P	**Pn**	**15 22 59.0**	**0.0**
	comp=Z,944nm,0.6s						
SAUI	**Saumlaki**	**10.51**	**159**	P	**Pn**	**15 23 02.0**	**-0.3**
SAUI	**Saumlaki**	**10.51**	**159**		**Pn**	**15 23 01.8**	**-0.5**
SAUI	**Saumlaki**	**10.51**	**159**	P	**Pn**	**15 23 01.9**	**-0.5**
	comp=Z,1μm,1.0s						
MMRI	**Maumere**	**11.64**	**206**	P	**Pn**	**15 23 17.8**	**+0.4

YULB Yu-li 22.22 345 P **P** 15 25 19.4 -2.4
YULB Yu-li 22.22 345 P **P** 15 25 20.1 -1.6
comp=Z,59nm,0.5s
TPUB Ta-pu 22.31 343 P **P** 15 25 21.7 -1.0
TPUB Ta-pu 22.31 343 P **P** 15 25 21.4 -1.3
TPUB IAmb IAmb 15 25 22.4
comp=Z,168nm,0.8s
TPUB Ta-pu 22.31 343 P **P** 15 25 21.8 -1.0
comp=Z,168nm,0.5s
WB0 Warramunga Arr 22.55 163 **P** 15 25 24.0 -1.1
PMG Port Moresby 22.62 120 P **P** 15 25 24.0 -1.8
comp=Z,18nm,0.8s,baz=8.8,slow=4.6,SNR=12
comp=Z,18nm,0.8s
PMG Port Moresby 22.62 120 P **P** 15 25 24.3 -1.6
PMG pmax pmax
comp=Z,61nm,1.3s
PMG Port Moresby 22.62 120 P **P** 15 25 24.3 -1.6
SSLB Suanglung 22.68 344 P **P** 15 25 25.6 -0.8
SSLB Suanglung 22.68 344 P **P** 15 25 25.4 -1.0
SSLB IAmb IAmb 15 25 29.2
comp=Z,122nm,0.9s
SSLB Suanglung 22.68 344 P **P** 15 25 23.5 -3.0
comp=Z,159nm,1.0s
WRAB Tennant Creek 22.70 163 P **P** 15 25 25.4 -1.1
WRAB Tennant Creek 22.70 163*ce*P **P** 15 25 25.5 -1.1
WRAB pmax pmax
comp=Z,275nm,0.9s
WRAB Tennant Creek 22.70 163 P **P** 15 25 25.4 -1.1
WRAB Tennant Creek 22.70 163 P **P** 15 25 25.7 -0.9
comp=Z,571nm,1.0s
WRA Warramunga Arr 22.70 163 P **P** 15 25 25.7 -0.9
comp=Z,270nm,0.5s,baz=341,slow=11,SNR=935
WRA PcP **PcP** 15 29 14.8 -0.1
comp=Z,2.1nm,0.5s,baz=331,slow=2.2,SNR=2.3
WRA S **S** 15 29 24.3 -2.0
comp=Z,9.1nm,0.9s,baz=345,slow=18,SNR=6.2
WRA ScP **ScP** 15 32 41.0 -0.9
comp=Z,3.1nm,0.8s,baz=332,slow=3.0,SNR=4.7
WRA Warramunga Arr 22.70 163 P **P** 15 25 25.6 -1.0
WB1 Warramunga Ar. 22.72 163 P **P** 15 25 27.4 +0.6
WR8 Warramunga Arr 22.76 163 P **P** 15 25 26.1 -1.1
YOJ Yonaguni jima 22.87 350 P **P** 15 25 29.0 +0.8
YOJ Yonaguni jima 22.87 350 P **P** 15 25 28.3 +0.1
YOJ pmax pmax
comp=Z,118nm,0.8s
YOJ Yonaguni jima 22.87 350 P **P** 15 25 28.3 +0.1
YOJ IAmb IAmb 15 25 30.8
comp=Z,118nm,0.8s
NACB Ninganchiao 22.89 346 P **P** 15 25 29.2 +0.8
NACB Ninganchiao 22.89 346 P **P** 15 25 27.9 -0.5
NACB IAmb IAmb 15 25 43.5
comp=Z,125nm,1.5s
YHNB Yeheng 23.42 346 P **P** 15 25 34.0 +0.6
YHNB Yeheng 23.42 346 **P** 15 25 33.5 +0.1
YHNB IAmb IAmb 15 26 06.3
comp=Z,124nm,1.1s
YHNB Yeheng 23.42 346 P **P** 15 25 33.3 -0.1
comp=Z,116nm,1.1s
BTDF Bukit Timah Da 23.65 269 P **P** 15 25 35.9 +0.3
MBWA Marble Bar 24.09 198 P **P** 15 25 39.0 -0.3
comp=Z,147nm,1.3s
MBWA Marble Bar 24.09 198 P **P** 15 25 38.6 -0.7
comp=Z,147nm,1.3s
MBWA Marble Bar 24.09 198 P **P** 15 25 38.8 -0.6
comp=Z,147nm,1.3s
MBWA Marble Bar 24.09 198 P **P** 15 25 39.0 -0.3
MBWA Marble Bar 24.09 198 **P** 15 25 38.8 -0.6
MBWA IAmb IAmb 15 25 40.1
comp=Z,180nm,1.1s
MBWA Marble Bar 24.09 198 P **P** 15 25 38.9 -0.5
comp=Z,147nm,1.3s
KNMB Chin-men Tao 24.11 339 P **P** 15 25 39.5 -0.1
KNMB IAmb IAmb 15 25 41.5
comp=Z,99nm,0.8s
QIZ Qiongzhong 24.25 316 P **P** 15 25 40.5 -0.4
QIZ pP **pwP** 15 26 07.3 -0.5
QIZ S **S** 15 29 54.5 +3.4
QIZ pmax pmax
comp=Z,47nm,1.3s
QIZ L L
comp=Z,630nm,10.2s
QIZ L L
comp=Z,530nm,12.1s
QIZ L L
comp=Z,470nm,18.5s
JOW Kunigami 24.84 2 P **P** 15 25 47.1 +0.9
JOW Kunigami 24.84 2 P **P** 15 25 46.1 -0.1
JOW IAmb IAmb 15 25 49.1
comp=Z,102nm,1.1s
JOW Kunigami 24.84 2 P **P** 15 25 47.0 +0.9
comp=Z,102nm,1.1s
MNAI Manna 25.22 256 P **P** 15 25 50.6 +0.8
MNAI Manna 25.22 256 P **P** 15 25 49.7 -0.1
MNAI Manna 25.22 256 P **P** 15 25 53.4 +3.5
comp=Z,384nm,1.1s
QIS Mount Isa 25.27 152 P **P** 15 25 50.7 +0.5
comp=Z,116nm,1.3s
QIS Mount Isa 25.27 152 P **P** 15 25 50.3 +0.2
comp=Z,116nm,1.3s
QIS Mount Isa 25.27 152 P **P** 15 25 49.8 -0.4
comp=Z,116nm,1.3s
QIS Mount Isa 25.27 152 P **P** 15 25 50.6 +0.4
QIS Mount Isa 25.27 152 P **P** 15 25 50.4 +0.2
comp=Z,116nm,1.3s
KRVT Keravat (AS076 25.33 104 P **P** 15 25 50.1 -0.7
comp=Z,45nm,0.3s,baz=73,slow=19,SNR=3.8
comp=Z,45nm,0.3s
RABL Rabaul 25.44 104 P **P** 15 25 51.7 -0.1
MTSU Mount Surprise 25.91 141 P **P** 15 25 56.0 0.0
comp=Z,60nm,1.1s
MTSU Mount Surprise 25.91 141 P **P** 15 25 55.6 -0.3
comp=Z,60nm,1.1s
MTSU Mount Surprise 25.91 141 P **P** 15 25 55.9 0.0
comp=Z,60nm,1.1s
MTSU Mount Surprise 25.91 141 P **P** 15 25 56.2 +0.2
MTSU Mount Surprise 25.91 141 P **P** 15 25 56.0 0.0
comp=Z,60nm,1.1s
AS15 Alice Springs 26.11 166 P **P** 15 25 57.1 -0.6
comp=Z,151nm,0.6s
AS15 Alice Springs 26.11 166 P **P** 15 25 56.7 -1.1
comp=Z,151nm,0.6s
AS31 Alice Springs 26.14 166 P **P** 15 25 57.4 -0.7
comp=Z,57nm,0.7s
AS31 Alice Springs 26.14 166 P **P** 15 25 57.1 -0.9
comp=Z,57nm,0.7s
AS31 Alice Springs 26.14 166 P **P** 15 25 57.2 -0.9
AS31 IAmb IAmb 15 25 57.9
comp=Z,42nm,0.6s
ASAR Alice Springs 26.14 166 P **P** 15 25 57.4 -0.7
comp=Z,82nm,0.5s,baz=348,slow=7.8,SNR=2913
ASAR PcP **PcP** 15 29 21.8 -0.7
comp=Z,5.1nm,0.5s,baz=348,slow=2.0,SNR=4.6
ASAR S **S** 15 30 20.8 -0.3
comp=Z,3.5nm,0.7s,baz=353,slow=22,SNR=4.1
ASAR ScP **ScP** 15 32 50.3 -1.1
comp=Z,5.2nm,0.9s,baz=351,slow=3.2,SNR=7.2
ASAR LR LR 15 36 23.1
comp=Z,270nm,19.8s,baz=337,slow=36
comp=Z,82nm,0.5s
AS01 Alice Springs 26.15 166 P **P** 15 25 57.4 -0.7
AUALC St Philip's Co 26.16 166 P **P** 15 25 57.4 -0.8
AS17 Alice Springs 26.16 166 P **P** 15 25 57.5 -0.7
comp=Z,138nm,0.7s
AS17 Alice Springs 26.16 166 P **P** 15 25 57.1 -1.1
comp=Z,138nm,0.7s
AS09 Alice Springs 26.18 166 P **P** 15 25 57.7 -0.7
comp=Z,219nm,0.6s
AS09 Alice Springs 26.18 166 P **P** 15 25 57.3 -1.1
comp=Z,219nm,0.6s
BKNI Bangkinang 26.43 267 P **P** 15 26 02.4 +1.7
BKNI Bangkinang 26.43 267 P **P** 15 26 00.6 -0.1
BKNI Bangkinang 26.43 267 P **P** 15 26 04.1 +3.4
comp=Z,222nm,1.1s
IPM Ipoh 26.49 276 P **P** 15 26 01.5 +0.2
IPM Ipoh 26.49 276 P **P** 15 25 59.8 -1.5
IPM Ipoh 26.49 276 P **P** 15 26 01.8 +0.5
comp=Z,49nm,1.0s
WRKA Warakurna 26.75 178 P **P** 15 26 03.0 -0.5
comp=Z,74nm,1.2s
WRKA Warakurna 26.75 178 P **P** 15 26 02.5 -0.9
comp=Z,74nm,1.2s
WRKA Warakurna 26.75 178 P **P** 15 26 03.2 -0.3
comp=Z,74nm,1.2s
GIRL Giralia 27.55 207 P **P** 15 26 11.9 +1.4
comp=Z,69nm,1.3s
GIRL Giralia 27.55 207 P **P** 15 26 10.8 +0.2
comp=Z,69nm,1.3s
RPSI Rantau Prapat 28.49 272 P **P** 15 26 18.8 -0.4
RPSI IAmb IAmb 15 26 21.2
comp=Z,63nm,1.0s
RPSI Rantau Prapat 28.49 272 P **P** 15 26 19.0 -0.1
comp=Z,70nm,0.9s
PSI Prapat 28.50 272 P **P** 15 26 19.1 -0.2
PSI Prapat 28.50 272 P **P** 15 26 18.8 -0.5
PSI pmax pmax
comp=Z,63nm,1.0s
CTA Charters Tower 28.58 141 P **P** 15 26 20.4 +0.6
comp=Z,22nm,1.3s
CTA Charters Tower 28.58 141 P **P** 15 26 20.1 +0.3
comp=Z,22nm,1.3s
CTA Charters Tower 28.58 141 P **P** 15 26 19.9 +0.1
comp=Z,11nm,0.6s,baz=318,slow=10,SNR=20
CTA LR LR 15 38 50.2
comp=Z,306nm,19.7s,baz=328,slow=38
comp=Z,11nm,0.6s
CTA Charters Tower 28.58 141 P **P** 15 26 20.2 +0.4
CTAO Charters Tower 28.58 141 P **P** 15 26 20.3 +0.4
CTAO Charters Tower 28.58 141 P **P** 15 26 19.4 -0.4
CTAO pmax pmax
comp=Z,81nm,1.3s
CTAO Charters Tower 28.58 141 P **P** 15 26 19.4 -0.4
CTAO IAmb IAmb 15 26 26.2
comp=Z,81nm,1.3s
CTAO Charters Tower 28.58 141 P **P** 15 26 20.4 +0.6
comp=Z,55nm,1.3s
JCJ Chichijima 28.81 28 LR LR 15 37 08.3
comp=Z,62nm,19.7s,baz=152,slow=34
JCJ Chichijima 28.81 28 P **P** 15 26 20.5 -1.3
MEEK Meekatharra 29.58 196 P **P** 15 26 28.1 -0.5
comp=Z,127nm,1.1s
MEEK Meekatharra 29.58 196 P **P** 15 26 28.4 -0.2
comp=Z,127nm,1.1s
MEEK Meekatharra 29.58 196 P **P** 15 26 28.1 -0.5
MEEK Meekatharra 29.58 196 P **P** 15 26 28.5 -0.2
comp=Z,127nm,1.1s
JSU Suzuyama 29.63 5 P **P** 15 26 28.0 -0.9
GSI Gunungsitoli 29.85 269 P **P** 15 26 30.8 -0.4
GSI Gunungsitoli 29.85 269 P **P** 15 26 30.4 -0.8
GSI Gunungsitoli 29.85 269 P **P** 15 26 30.4 -0.8
comp=Z,198nm,0.8s
SLVN Son La 30.00 312 P **P** 15 26 33.7 +1.2
SLVN Son La 30.00 312 P **P** 15 26 33.5 +1.1
comp=Z,30nm,1.4s
NJ2 Nanjing 31.10 346 *e*P **P** 15 26 43.8 +1.9
NJ2 pmax pmax
comp=Z,13nm,0.5s
WHN Wuhan 31.11 338 ⇓P **P** 15 26 44.0 +2.0
WHN pP **pwP** 15 27 13.0 +2.4
WHN S **S** 15 31 43.8 +5.0
WHN pmax pmax
comp=Z,210nm,1.0s
GYA Guiyang 31.56 323 ⇓P **P** 15 26 47.0 +0.8
GYA pmax pmax
comp=Z,22nm,1.0s
JMN Monobe 32.27 10 P **P** 15 26 52.8 +0.5
JMN Monobe 32.27 10 IAmb IAmb 15 26 53.9
comp=Z,62nm,1.0s
CM31 Chiang Mai Arr 32.44 302 IAmb IAmb 15 26 56.0
comp=Z,38nm,1.1s
CMAR Chiang Mai Arr 32.44 302 P **P** 15 26 54.6 +0.8
comp=Z,13nm,0.9s,baz=118,slow=6.9,SNR=91
CMAR ScP **ScP** 15 33 11.7 +0.1
comp=Z,7.2nm,1.1s,baz=142,slow=2.1,SNR=18
CMAR LR LR 15 40 56.7
comp=Z,86nm,21.2s,baz=110,slow=38
comp=Z,13nm,0.9s
CMAR Chiang Mai Arr 32.44 302 P **P** 15 26 53.8 -0.1
FORT Forrest 32.46 179 P **P** 15 26 53.2 -0.7
comp=Z,142nm,0.9s
FORT Forrest 32.46 179 P **P** 15 26 54.2 +0.3
comp=Z,142nm,0.9s
FORT Forrest 32.46 179 P **P** 15 26 53.1 -0.7
CHTO Chiang Mai 32.60 303 P **P** 15 26 56.0 +0.7
CHTO Chiang Mai 32.60 303 P **P** 15 26 55.8 +0.5
CHTO pmax pmax
comp=Z,60nm,1.2s
CHTO Chiang Mai 32.60 303 P **P** 15 26 55.8 +0.5
CHTO IAmb IAmb 15 26 57.1
comp=Z,60nm,1.1s
CHTO Chiang Mai 32.60 303 P **P** 15 26 56.0 +0.7
comp=Z,48nm,1.4s
CHTO Chiang Mai 32.60 303 P **P** 15 26 55.6 +0.3
CHTO ScP **ScP** 15 33 12.7 +0.6
QLP Quilpie 32.60 151 P **P** 15 26 54.7 -0.4
comp=Z,85nm,1.7s
QLP Quilpie 32.60 151 P **P** 15 26 55.4 +0.2
comp=Z,85nm,1.7s
QLP Quilpie 32.60 151 P **P** 15 26 54.6 -0.5
QLP Quilpie 32.60 151 P **P** 15 26 54.4 -0.7
comp=Z,85nm,1.7s
MORW Morawa 32.63 199 P **P** 15 26 54.7 -0.6
comp=Z,76nm,1.3s
MORW Morawa 32.63 199 P **P** 15 26 54.8 -0.6
comp=Z,76nm,1.3s
MORW Morawa 32.63 199 P **P** 15 26 54.9 -0.5
MORW Morawa 32.63 199 P **P** 15 26 54.4 -1.0
MORW IAmb IAmb 15 26 55.9
comp=Z,75nm,1.1s
MORW Morawa 32.63 199 P **P** 15 26 54.8 -0.6
comp=Z,76nm,1.3s
ENH Enshi 32.99 331 P **P** 15 26 59.3 +0.8
ENH Enshi 32.99 331 P **P** 15 26 59.3 +0.8
ENH pP **pwP** 15 27 26.1 -1.3
ENH sP **sP** 15 27 39.7 +2.1
ENH PcP **PcP** 15 29 40.4 +0.4
JHJ Hachijo jima 2 33.19 19 LR LR 15 39 54.0
comp=Z,11nm,21.3s,baz=157,slow=35
KMI2 Kunming 33.21 316 ⇓P **P** 15 27 02.3 +1.6
KMI2 pmax pmax
comp=Z,41nm,1.1s
KMI2 L L
comp=Z,240nm,20.4s
KMI2 L L
comp=Z,240nm,17.7s
KMI2 L L
comp=Z,320nm,20.1s
KMBL Kambalda 33.46 189 P **P** 15 27 02.0 -0.5
comp=Z,49nm,1.2s
KMBL Kambalda 33.46 189 P **P** 15 27 02.1 -0.5
comp=Z,49nm,1.2s
AUNRC North Rockhamp 33.67 139 P **P** 15 27 04.7 +0.2
BLDU Ballidu 33.87 197 P **P** 15 27 05.6 -0.6
comp=Z,48nm,0.7s
BLDU Ballidu 33.87 197 P **P** 15 27 06.3 +0.1
comp=Z,48nm,0.7s
BLDU Ballidu 33.87 197 P **P** 15 27 05.5 -0.6
BLDU Ballidu 33.87 197 P **P** 15 27 05.5 -0.6
comp=Z,48nm,0.7s
TJN Taejon 34.35 360 P **P** 15 27 11.0 +0.9
TJN Taejon 34.35 360*de*P **P** 15 27 10.2 +0.1
TJN pmax pmax
comp=Z,1.0nm,1.1s
GD1S Gladstone Soft 34.43 139 P **P** 15 27 11.6 +0.5
INU Inuyama 34.49 14 P **P** 15 27 11.5 0.0
INU Inuyama 34.49 14 P **P** 15 27 11.5 0.0
comp=Z,67nm,1.1s
INU Inuyama 34.49 14 P **P** 15 27 11.2 -0.3
INU pP **pP** 15 27 37.7 +0.9
INU sP **sP** 15 27 50.5 +0.4
KLBR Kellerberrin 34.51 195 P **P** 15 27 11.2 -0.5
comp=Z,207nm,0.7s
KLBR Kellerberrin 34.51 195 P **P** 15 27 11.3 -0.4
comp=Z,207nm,0.7s
KLBR Kellerberrin 34.51 195 P **P** 15 27 11.2 -0.5
KLBR Kellerberrin 34.51 195 P **P** 15 27 11.1 -0.6
comp=Z,207nm,0.7s
PZH PanZhiHua 34.77 317 P **P** 15 27 15.0 +0.9
PZH pmax pmax
comp=Z,20nm,1.2s
JGF Kuroka 34.81 14 P **P** 15 27 14.3 0.0
RMQ Roma 34.90 145 P **P** 15 27 16.3 +1.2
comp=Z,24nm,1.7s
LYN LuoYang 35.39 338 ⇓P **P** 15 27 20.5 +1.3
LYN pP pwP 15 27 48.0 -0.2
LYN pmax pmax
comp=Z,100nm,0.8s
NPW Naypyitaw 35.40 302 P **P** 15 27 20.5 +1.1
comp=Z,53nm,1.2s
KSAR Wonju Array Be 35.41 1 P **P** 15 27 19.2 -0.1
KSAR Wonju Array Be 35.41 1 P **P** 15 27 19.2 -0.1
KSRS Korea Array 35.42 1 P **P** 15 27 19.8 +0.4
comp=Z,9.4nm,0.7s,baz=177,slow=9.8,SNR=35
KSRS PcP **PcP** 15 29 47.5 +0.8
comp=Z,2.4nm,0.7s,baz=179,slow=2.2,SNR=5.8
KSRS LR LR 15 43 38.3
comp=Z,58nm,20.3s,baz=180,slow=39
comp=Z,9.4nm,0.7s
BBOO Buckleboo 35.44 167 P **P** 15 27 18.9 -0.7
comp=Z,301nm,0.9s
BBOO Buckleboo 35.44 167 P **P** 15 27 18.9 -0.7
comp=Z,301nm,0.9s
BBOO Buckleboo 35.44 167 P **P** 15 27 18.8 -0.7
BBOO Buckleboo 35.44 167 P **P** 15 27 18.9 -0.7
BBOO Buckleboo 35.44 167 P **P** 15 27 18.9 -0.7
comp=Z,301nm,0.9s
AUKUL Kulin High Sch 35.45 194 P **P** 15 27 18.9 -0.8
EIDS Eidsvold 35.46 141 P **P** 15 27 19.5 -0.4
comp=Z,74nm,1.1s
EIDS Eidsvold 35.46 141 P **P** 15 27 19.2 -0.6
comp=Z,74nm,1.1s
EIDS Eidsvold 35.46 141 P **P** 15 27 19.5 -0.4
EIDS Eidsvold 35.46 141 **P** 15 27 19.3 -0.6
EIDS IAmb IAmb 15 27 20.3
comp=Z,68nm,1.0s
EIDS Eidsvold 35.46 141 P **P** 15 27 19.3 -0.6
comp=Z,74nm,1.1s
KS19 Wonju Array Si 35.47 1 P **P** 15 27 19.8 0.0
KS19 IAmb IAmb 15 27 49.6
comp=Z,21nm,0.8s
TIA Tai'an 35.49 346 P **P** 15 27 20.0 0.0
TIA PcP **PcP** 15 29 48.0 +1.1
TIA pmax pmax
comp=Z,17nm,0.9s
NWAO Narrogin (SRO) 35.92 195 P **P** 15 27 23.4 -0.3
comp=Z,69nm,1.0s
NWAO Narrogin (SRO) 35.92 195 P **P** 15 27 23.3 -0.3
comp=Z,69nm,1.0s
NWAO Narrogin (SRO) 35.92 195 P **P** 15 27 23.4 -0.3
NWAO Narrogin (SRO) 35.92 195 P **P** 15 27 23.2 -0.5
NWAO pmax pmax
comp=Z,58nm,1.0s
NWAO Narrogin (SRO) 35.92 195 P **P** 15 27 23.2 -0.5
NWAO IAmb IAmb 15 27 23.7
comp=Z,58nm,1.0s
MAJO Matsushiro 35.92 15 P **P** 15 27 22.2 -1.5
MAJO Matsushiro 35.92 15*de*P **P** 15 27 22.4 -1.3
MAJO pmax pmax
comp=Z,31nm,1.0s
MAJO Matsushiro 35.92 15 P **P** 15 27 21.9 -1.8
MAJO Matsushiro 35.92 15 P **P** 15 27 22.1 -1.6
MJAR Matsushiro Arr 35.92 15 P **P** 15 27 22.2 -1.5
comp=Z,16nm,0.6s,baz=192,slow=8.9,SNR=41
MJAR LR LR 15 39 12.2
comp=Z,126nm,21.6s,baz=218,slow=31
comp=Z,16nm,0.6s
MJAR Matsushiro Arr 35.92 15 P **P** 15 27 22.4 -1.3
MJAR pmax pmax
comp=Z,53nm,1.3s
MJAR Matsushiro Arr 35.92 15 P **P** 15 27 22.4 -1.3
MJAR IAmb IAmb 15 27 24.6
comp=Z,53nm,1.3s
MJB9 Matsu-Tunnel 35.92 15 P **P** 15 27 23.6 -0.2
STKA Stephens Creek 36.15 159 P **P** 15 27 25.3 -0.3
comp=Z,862nm,0.9s
STKA Stephens Creek 36.15 159 P **P** 15 27 25.3 -0.3
comp=Z,862nm,0.9s
STKA Stephens Creek 36.15 159 P **P** 15 27 25.2 -0.4
comp=Z,157nm,0.8s,baz=332,slow=8.1,SNR=223
comp=Z,157nm,0.8s
STKA Stephens Creek 36.15 159 P **P** 15 27 25.0 -0.6
STKA Stephens Creek 36.15 159 P **P** 15 27 25.0 -0.6
TNCH TengChong 36.17 312 ⇓P **P** 15 27 26.8 +0.6
TNCH pP pP 15 27 51.5 -0.6
TNCH sP sP 15 28 04.0 -1.5
TNCH S **S** 15 32 59.0 +1.4
TNCH sS sS 15 33 42.5 -0.9
TNCH SS **SnSn** 15 35 32.8 -4.1
TNCH pmax pmax
comp=Z,67nm,1.4s
TNCH L L
comp=Z,89nm,4.7s
XAN Xi'an 36.39 334 ⇓P **P** 15 27 28.5 +0.7
XAN pmax pmax
comp=Z,150nm,1.1s
CD2 Chengdu 36.56 325 P **P** 15 27 29.5 +0.2
CD2 pmax pmax
comp=Z,80nm,1.0s
CD2 pmax pmax
comp=Z,150nm,6.9s
HTT Hallett 36.74 164 P **P** 15 27 30.6 -0.1
comp=Z,21nm,1.2s
HTT Hallett 36.74 164 P **P** 15 27 30.4 -0.3
comp=Z,21nm,1.2s
HTT Hallett 36.74 164 P **P** 15 27 30.4 -0.3
AUCAS Cummins Area S 36.77 168 P **P** 15 27 30.6 -0.2
AULRC Lightning Ridg 36.81 149 P **P** 15 27 30.3 -1.0
DL2 Dalian 37.25 353 P **P** 15 27 34.3 -0.6
DL2 pP **pP** 15 28 01.8 +0.9
DL2 S **S** 15 33 10.3 -2.9
DL2 pmax pmax
comp=Z,34nm,1.2s
DL2 pmax pmax
comp=Z,160nm,5.2s
HNS HongShan 37.26 343 ⇓P **P** 15 27 35.5 +0.5
HNS pP **pwP** 15 28 04.3 +0.2
HNS pmax pmax
comp=Z,34nm,1.2s
CMSA Cobar Meteorol 37.47 154 P **P** 15 27 37.1 +0.2
comp=Z,51nm,1.2s
CMSA Cobar Meteorol 37.47 154 P **P** 15 27 36.2 -0.7
comp=Z,51nm,1.2s
CMSA Cobar Meteorol 37.47 154 P **P** 15 27 37.4 +0.5
RKGY Rocky Gully 37.58 194 P **P** 15 27 38.6 +0.9
comp=Z,64nm,0.9s
RKGY Rocky Gully 37.58 194 P **P** 15 27 39.2 +1.4
comp=Z,64nm,0.9s
TW1H Toowoomba 1 Ha 37.59 143 P **P** 15 27 38.4 +0.4
AUTOO Toowoomba Stat 37.59 143 P **P** 15 27 37.9 -0.1
AUBSH Beerwah State 37.70 141 P **P** 15 27 38.1 -0.7
AUALB St Joseph's Co 37.74 193 P **P** 15 27 39.6 +0.5
AUMAR Marden Senior 38.04 165 P **P** 15 27 42.0 +0.4
GHSS Government Hou 38.06 165 P **P** 15 27 42.5 +0.8
TIY Taiyuan 38.25 341 *e*P **P** 15 27 44.5 +1.0
TIY pmax pmax
comp=Z,29nm,0.8s
AUMBR Murray Bridge 38.44 164 P **P** 15 27 45.0 +0.1
H01W3 Cape Leeuwin H 38.62 198 P **P** 15 27 48.8 +2.6
baz=27,slow=6.1,SNR=4.8
H01W1 Cape Leeuwin H 38.62 198 P **P** 15 27 47.5 +1.2
baz=27,slow=6.1,SNR=4.6
H01W2 Cape Leeuwin H 38.63 198 P **P** 15 27 48.9 +2.6
baz=27,slow=6.1,SNR=5.0
MORE Moreh 38.99 308 P **P** 15 27 49.6 -0.2
MORE IAmb IAmb 15 27 50.7
comp=Z,35nm,0.9s
BJI2 Beijing 39.34 346 P **P** 15 27 53.0 +0.6
BJI2 pP **pP** 15 28 18.5 -0.1
BJI2 S **S** 15 33 47.8 +3.1
BJI2 pmax pmax
comp=Z,38nm,0.7s
BJT Baijiatuau 39.34 346 P **P** 15 27 53.1 +0.7
BJT Baijiatuau 39.34 346 IAmb IAmb 15 28 23.3
comp=Z,49nm,0.8s
BJT Baijiatuau 39.34 346 P **P** 15 27 52.6 +0.2
BJT pP **pwP** 15 28 20.8 -0.9
AUDCS Dubbo College 39.41 151 P **P** 15 27 53.6 +0.5
ARMA Armidale 39.53 146 P **P** 15 27 54.5 +0.2
comp=Z,81nm,0.9s
ARMA Armidale 39.53 146 P **P** 15 27 54.5 +0.2
comp=Z,81nm,0.9s
ARMA Armidale 39.53 146 P **P** 15 27 55.2 +0.9
ARMA Armidale 39.53 146 P **P** 15 27 53.7 -0.6
ARMA IAmb IAmb 15 27 55.6
comp=Z,48nm,0.7s
LZDM Lanzhou Array 40.43 330 P **P** 15 28 03.5 +1.5
comp=Z,12nm,0.5s,baz=165,slow=12,SNR=14
LZDM LR LR 15 45 44.0
comp=Z,143nm,21.3s,baz=15,slow=37
comp=Z,12nm,0.5s
JTM Tenmabayashi 40.67 16 P **P** 15 28 04.0 +0.6
JTM Tenmabayashi 40.67 16 P **P** 15 28 02.9 -0.5
ARPS Mount Arapiles 40.70 162 P **P** 15 28 03.9 +0.2
comp=Z,67nm,1.0s
AUMAG Moama Anglican 41.08 158 P **P** 15 28 07.1 +0.3
SHL Shillong 41.55 308 P **P** 15 28 11.1 0.0
SHL Shillong 41.55 308 P **P** 15 28 11.1 0.0
CN2 Changchun 41.80 358 *e*P **P** 15 28 15.5 +2.9

CN2 pmax pmax
comp=Z,10.0nm,0.5s
BTO2 Baotou 41.84 340 *e*P P 15 28 08.0 -5.1
BTO2 pP pP 15 28 36.8 -2.7
BTO2 PP **PP 15 29 50.3 -2.0**
BTO2 S **S 15 34 13.5 -8.6**
BTO2 pmax pmax
comp=Z,18nm,0.5s
BTO2 pmax pmax
comp=Z,340nm,3.8s
BTO2 L L
comp=Z,230nm,6.6s
BTO2 L L
comp=Z,220nm,6.1s
BTO2 L L
comp=Z,350nm,5.8s
H11S3 WAKE ISLAND Hy 41.88 64 T T 16 11 48.2
baz=252,slow=74,SNR=12
H11S2 WAKE ISLAND Hy 41.89 64 T T 16 11 50.4
baz=252,slow=74,SNR=8.9
H11S1 WAKE ISLAND Hy 41.89 64 T T 16 11 41.9
baz=252,slow=74,SNR=6.6
BRAT Ballarat 42.09 160 P **P 15 28 15.7 +0.7**
AUMTC Mt Clear Colle 42.13 160 P **P 15 28 15.7 +0.4**
AUMTS Mt Stromlo 42.14 153 P **P 15 28 16.0 +0.5**
CAN Canberra 42.14 153 P **P 15 28 16.2 +0.7**
comp=Z,64nm,1.2s
CAN Canberra 42.14 153 P **P 15 28 15.8 +0.3**
CAN Canberra 42.14 153 P **P 15 28 15.4 -0.1**
CAN pmax pmax
comp=Z,66nm,1.1s
CAN Canberra 42.14 153 P **P 15 28 15.4 -0.1**
CAN IAmb IAmb 15 28 18.1
comp=Z,66nm,1.1s
CAN Canberra 42.14 153 P **P 15 28 16.0 +0.4**
CAN pP **pP 15 28 43.1 +0.4**
AUDAR Daramalan Coll 42.14 153 P **P 15 28 15.9 +0.4**
CNB Canberra Magne 42.30 153 P **P 15 28 17.9 +1.1**
comp=Z,29nm,1.3s
USA0B Ussuriysk Arra 42.35 5 P **P 15 28 17.4 +0.3**
USA0B pmax pmax
comp=Z,42nm,1.1s
USA0B Ussuriysk Arra 42.35 5 P **P 15 28 17.4 +0.3**
USA0B IAmb IAmb 15 28 18.6
comp=Z,42nm,1.1s
USRK Ussuriysk Ar. 42.35 5 P **P 15 28 17.5 +0.4**
comp=Z,23nm,0.8s,baz=189,slow=7.7,SNR=41
USRK LR LR 15 44 49.6
comp=Z,52nm,20.8s,baz=201,slow=34
comp=Z,23nm,0.8s
USRK Ussuriysk Ar. 42.35 5 **P 15 28 17.2 +0.1**
H11N1 WAKE ISLAND Hy 42.46 62 T T 16 12 23.1
baz=250,slow=75,SNR=6.7
H11N2 WAKE ISLAND Hy 42.47 62 T T 16 12 24.2
baz=250,slow=75,SNR=3.4
H11N3 WAKE ISLAND Hy 42.48 63 T T 16 12 25.8
baz=250,slow=75,SNR=7.6
MDJ Mudanjiang 42.62 2 P **P 15 28 19.3 +0.1**
MDJ pmax pmax
comp=Z,49nm,1.1s
TOO Toolangi 42.66 159 IAmb IAmb 15 28 21.7
comp=Z,74nm,1.8s
AUSMG Snowy Mountain 42.89 155 P **P 15 28 22.1 +0.5**
SANVU Saraoutou 42.92 115 P **P 15 28 22.7 +0.6**
SANVU Saraoutou 42.92 115 P **P 15 28 22.3 +0.2**
XLT XiLinHaoTe 43.06 348 *e*P **P 15 28 23.3 +0.4**
XLT pP pP 15 28 50.3 +0.9
XLT sP sP 15 29 01.5 -1.1
XLT pmax pmax
comp=Z,35nm,1.1s
XLT pmax pmax
comp=Z,280nm,5.5s
MILA Mila 43.66 155 P **P 15 28 26.1 -1.7**
comp=Z,15nm,1.2s
MILA Mila 43.66 155 P **P 15 28 27.5 -0.3**
BNX BinXian 43.70 360 ⇑P **P 15 28 27.5 -0.4**
BNX pmax pmax
comp=Z,16nm,1.0s
ASAJ Asahikawa 44.18 16 LR LR 15 47 09.5
comp=Z,98nm,19.2s,baz=270,slow=36
LSA Lhasa 44.20 312 P **P 15 28 31.8 -0.9**
LSA pmax pmax
comp=Z,45nm,1.5s
NOUC Port Laguerre 44.80 124 P **P 15 28 36.8 -0.2**
NOUC Port Laguerre 44.80 124 P **P 15 28 36.6 -0.4**
DZM Mont Dzumac 44.90 124 LR LR 15 47 06.1
comp=Z,78nm,19.0s,baz=304,slow=36
ONTNC Ouen Toro 45.02 124 P **P 15 28 39.2 +0.4**
ONTNC Ouen Toro 45.02 124 P **P 15 28 37.9 -0.9**
ONTNC IAmb IAmb 15 28 39.2
comp=Z,68nm,1.5s
GTA2 Gaotai 45.14 330 P **P 15 28 40.8 +1.2**
GTA2 pP pwP 15 29 14.0 +4.4
GTA2 PcP **PcP 15 30 18.8 +0.7**
GTA2 ScP **ScP 15 34 00.5 +0.7**
GTA2 ScS **ScS 15 38 23.8 -0.8**
GTA2 pmax pmax
comp=Z,55nm,1.0s
OUENC Ouen Island, N 45.39 124 IAmb IAmb 15 28 43.5
comp=Z,128nm,2.0s
GOMU GeErMu 45.58 322 P **P 15 28 44.3 +0.8**
GOMU pmax pmax
comp=Z,29nm,1.0s
AUBRN Burnie High Sc 45.88 161 P **P 15 28 45.7 +0.5**
MARNC Mare, Loyalty 45.97 123 P **P 15 28 46.8 +0.5**
MARNC Mare, Loyalty 45.97 123 P **P 15 28 46.5 +0.2**
PINNC Pines Island, 45.97 124 IAmb IAmb 15 28 48.2
comp=Z,102nm,1.5s
EVN Everest 46.67 308 **P 15 28 53.5 +1.1**
YSS Yuzhno-Sakhali 46.86 14 *e*P **P 15 28 53.1 +0.3**
YSS pmax pmax
comp=Z,20nm,1.0s
YSS Yuzhno-Sakhali 46.86 14 P **P 15 28 52.4 -0.4**
YSS IAmb IAmb 15 28 54.0
comp=Z,71nm,1.4s
KLR Kul'dur 47.34 4 LR LR 15 49 23.1
comp=Z,39nm,21.8s,baz=192,slow=36
KLR Kul'dur 47.34 4*de*P **P 15 28 56.3 -0.2**
KLR pmax pmax
comp=Z,22nm,1.1s
MOO Moorlands 47.58 160 P **P 15 28 58.4 0.0**
HILR Hailar Array B 47.97 353 P **P 15 29 01.8 +0.4**
comp=Z,4.2nm,0.5s,baz=168,slow=9.3,SNR=7.2
HILR PcP **PcP 15 30 27.9 +0.1**
comp=Z,3.5nm,0.4s,baz=173,slow=2.8,SNR=5.2
comp=Z,4.2nm,0.5s
HEH HeiHe 48.22 360 *e*P **P 15 29 02.8 -0.4**
HEH pmax pmax
comp=Z,34nm,1.3s
HEH pmax pmax
comp=Z,160nm,4.7s
ULN Ulaanbaatar 49.10 342 P **P 15 29 11.3 +1.0**
ULN pmax pmax
comp=Z,77nm,1.3s
ULN Ulaanbaatar 49.10 342 **P 15 29 11.3 +1.0**
ULN IAmb IAmb 15 29 12.4
comp=Z,77nm,1.3s
ULN Ulaanbaatar 49.10 342 P **P 15 29 11.0 +0.7**
ULN pP **pwP 15 29 39.2 -1.4**
ULN PcP **PcP 15 30 32.6 +0.5**
ULN ScP **ScP 15 34 16.3 -0.1**
SONM Songino Array 49.28 341 P **P 15 29 12.3 +0.7**
comp=Z,7.9nm,0.6s,baz=157,slow=9.0,SNR=57
SONM PP **PP 15 31 08.1 +1.4**
comp=Z,2.5nm,0.9s,baz=164,slow=7.7,SNR=3.6
SONM ScP **ScP 15 34 16.2 -0.9**
comp=Z,2.1nm,1.1s,baz=160,slow=5.8,SNR=4.2
SONM LR LR 15 50 33.6
comp=Z,95nm,18.7s,baz=178,slow=36
comp=Z,7.9nm,0.6s
SONM Songino Array 49.28 341 **P 15 29 12.3 +0.7**
ZEA Zeya 51.71 360 *e*P **P 15 29 29.2 -0.4**
ZEA pmax pmax
comp=Z,10.0nm,0.8s
ZAK Zakamensk 52.51 341 *e*P **P 15 29 35.5 -0.2**
ZAK *e* 15 30 40.6
ZAK pmax pmax
comp=Z,9.0nm,1.5s
ZAK pmax pmax
comp=Z,9.0nm,1.4s
TLY Talaya 53.51 342 LR LR 15 53 10.5
comp=Z,72nm,18.4s,baz=142,slow=36
TLY Talaya 53.51 342 *e*P **P 15 29 42.4 -0.5**
TLY pmax pmax
comp=Z,18nm,1.8s

MSVF Nonsavu 53.52 114 LR LR 15 52 36.5
comp=Z,46nm,18.1s,baz=206,slow=36
MSVF Nonsavu 53.52 114 P **P 15 29 44.6 +1.0**
MSVF Nonsavu 53.52 114⇓*e*P **P 15 29 45.1 +1.5**
MSVF pmax pmax
comp=Z,39nm,1.1s
MSVF Nonsavu 53.52 114 P **P 15 29 43.7 +0.1**
MSVF IAmb IAmb 15 29 45.7
comp=Z,46nm,1.1s
MSVF Nonsavu 53.52 114 P **P 15 29 44.4 +0.8**
MSVF pP **pP 15 30 12.1 +0.2**
IRK Irkutsk 53.81 343 *e*P **P 15 29 45.6 +0.5**
IRK *e* 15 30 16.3
IRK pmax pmax
comp=Z,37nm,1.7s
WMQ Urumqi 54.65 325 ⇓P **P 15 29 53.0 +1.6**
WMQ pP pwP 15 30 21.5 -0.8
WMQ pmax pmax
comp=Z,56nm,0.9s
WMQ pmax pmax
comp=Z,260nm,4.3s
WMQ L L
comp=Z,120nm,23.1s
KNGR Kungurtug, Tuv 54.77 337 *e*P **P 15 29 54.6 +2.4**
KNGR pmax pmax
comp=Z,12nm,1.1s
H08S2 Diego Garcia H 55.60 259 P **P 15 29 59.6 +1.2**
baz=42,slow=8.9,SNR=3.6
H08S3 Diego Garcia H 55.61 260 P **P 15 29 59.4 +1.0**
baz=42,slow=8.9,SNR=3.4
H08S1 Diego Garcia H 55.62 259 P **P 15 29 59.8 +1.3**
baz=42,slow=8.9,SNR=3.3
BOD Bodaibo 56.80 351 *e*P **P 15 30 06.2 -0.2**
BOD pmax pmax
comp=Z,36nm,1.5s
PEA0B Petropavlovsk- 56.90 21 P **P 15 30 08.1 +0.9**
PEA0B pmax pmax
comp=Z,137nm,1.5s
PEA0B Petropavlovsk- 56.90 21 P **P 15 30 08.1 +0.9**
PETK Petropavlovsk- 56.90 21 P **P 15 30 07.7 +0.5**
comp=Z,9.6nm,0.4s,baz=202,slow=4.7,SNR=64
comp=Z,9.6nm,0.4s
PETK Petropavlovsk- 56.90 21 P **P 15 30 06.6 -0.6**
ZSN Zaisan 58.45 327 *e*P **P 15 30 19.1 +1.0**
ZSN Zaisan 58.45 327 *e*P **P 15 30 19.2 +1.0**
MSZ Milford Sound 58.69 147 P **P 15 30 20.4 +0.6**
QRZ Quartz Range 59.04 141 P **P 15 30 21.2 -1.2**
SHLS Shalkode 59.23 321*d* *i*P **P 15 30 22.9 -0.9**
SHLS pmax pmax
comp=Z,17nm,0.9s
SHLS Shalkode 59.23 321⇓*i*P **P 15 30 22.1 -1.7**
comp=Z,17nm,0.9s
PDGK Podgornoye 59.29 321 P **P 15 30 24.7 +0.4**
PDGK pmax pmax
comp=Z,36nm,0.9s
TOZ Tahuroa Road 59.34 137 P **P 15 30 25.1 +0.6**
MK31 Makanchi Array 59.48 326*ce*P **P 15 30 26.0 +0.7**
MKAR Makanchi Array 59.48 326 P **P 15 30 26.2 +0.8**
comp=Z,37nm,0.5s,baz=117,slow=8.1,SNR=648
MKAR LR LR 15 56 01.1
comp=Z,110nm,20.8s,baz=110,slow=36
comp=Z,37nm,0.5s
UZB Uzunbulak 59.50 321*d* *i*P **P 15 30 26.7 +1.0**
UZB pmax pmax
comp=Z,8.0nm,0.7s
UZB Uzunbulak 59.50 321⇓*i*P **P 15 30 26.7 +1.0**
comp=Z,8.2nm,0.7s
MRNZ Matariki Terra 59.51 142 P **P 15 30 25.1 -0.5**
TARG Taragay, Kyrgy 59.60 319 IAmb IAmb 15 30 32.1
comp=Z,14nm,0.6s
NIL Nilore 59.62 308 P **P 15 30 27.4 +0.9**
NIL pmax pmax
comp=Z,83nm,1.6s
NIL Nilore 59.62 308 P **P 15 30 27.4 +0.9**
MAKZ Makanchi 59.67 325 P **P 15 30 26.4 -0.2**
MAKZ pmax pmax
comp=Z,109nm,1.3s
MAKZ Makanchi 59.67 325 P **P 15 30 26.4 -0.2**
MAKZ Makanchi 59.67 325 P **P 15 30 27.1 +0.5**
MAKZ pP **pP 15 30 56.2 +1.5**
MAKZ PcP **PcP 15 31 12.1 -0.4**
LBZ Lake Benmore 59.75 146 P **P 15 30 27.0 -0.2**
NNZ Nelson 59.80 141 P **P 15 30 27.7 +0.2**
THZ Tophouse 59.81 142 P **P 15 30 26.2 -1.4**
RPZ Rata Peaks 59.84 145 LR LR 15 57 47.6
comp=Z,22nm,18.3s,baz=344,slow=37
SATY Saty 59.85 320*d* *i*P **P 15 30 29.1 +1.1**
SATY pmax pmax
comp=Z,17nm,0.8s
SATY Saty 59.85 320⇓*i*P **P 15 30 29.2 +1.1**
comp=Z,16nm,0.8s
KPKS Kokpek 59.87 321 *e*P **P 15 30 29.1 +1.0**
KPKS Kokpek 59.87 321 *e*P **P 15 30 29.1 +1.0**
KSH2 Kashi 59.98 315 P **P 15 30 30.3 +1.2**
KSH2 pmax pmax
comp=Z,19nm,0.8s
KARZ Kaharoa 60.00 137 P **P 15 30 30.9 +1.9**
LTZ Lake Taylor 60.00 143 P **P 15 30 27.1 -1.9**
YAK Yakutsk 60.05 1 *e*P **P 15 30 28.1 -0.7**
YAK *e* 15 31 12.6
YAK ePPP PPP 15 34 05.8
YAK *e*S **S 15 38 32.1 0.0**
YAK *e* 15 39 59.2
YAK *e*SS **SS 15 42 27.9 -3.0**
YAK pmax pmax
comp=Z,73nm,0.9s
YAK pmax pmax
comp=N,23nm,1.1s
YAK pmax pmax
comp=E,8.0nm,1.1s
YAK pmax pmax
comp=Z,249nm,4.3s
YAK pmax pmax
comp=N,185nm,3.3s
YAK pmax pmax
comp=E,107nm,3.3s
YAK smax smax
comp=N,196nm,4.0s
YAK smax smax
comp=E,123nm,3.3s
YAK Yakutsk 60.05 1 P **P 15 30 29.3 +0.4**
YAK Yakutsk 60.05 1 P **P 15 30 28.9 0.0**
YAK pP **pP 15 30 58.3 +1.4**
YAK PcP **PcP 15 31 13.6 0.0**
KDJ Kajisay 60.20 319 IAmb IAmb 15 30 34.4
comp=Z,45nm,1.1s
MA2 Magadan 60.34 13 LR LR 15 53 42.2
comp=Z,25nm,20.5s,baz=193,slow=33
MA2 Magadan 60.34 13 P **P 15 30 31.5 +0.6**
MA2 PcP **PcP 15 31 16.1 +1.3**
KHZ Kahutara 60.56 142 P **P 15 30 31.6 -1.1**
GVZ Greta Valley S 60.57 143 P **P 15 30 30.2 -2.6**
BHHZ Black Hill Sta 60.61 138 P **P 15 30 32.4 -0.8**
NRN Naryn 60.67 318 IAmb IAmb 15 30 37.0
comp=Z,14nm,0.7s
RAO Raoul Island 60.68 125 LR LR 15 55 33.4
comp=Z,122nm,21.6s,baz=62,slow=35
URZ Urewera 60.71 137 LR LR 15 57 56.7
comp=Z,111nm,18.3s,baz=302,slow=37
URZ Urewera 60.71 137 P **P 15 30 33.5 -0.3**
BKZ Black Stump Fm 60.74 138 P **P 15 30 33.2 -0.9**
MDOK Medeo 60.77 320 *e*P **P 15 30 35.5 +1.1**
MDOK Medeo 60.77 320 *e*P **P 15 30 35.5 +1.1**
TNSS Tian-Shan 60.78 320 *e*P **P 15 30 35.5 +0.8**
TNSS Tian-Shan 60.78 320 *e*P **P 15 30 35.5 +0.8**
RTZ Ruatahuna 60.80 137 P **P 15 30 33.6 -0.8**
RTZ IAmb IAmb 15 30 35.1
comp=Z,29nm,0.7s
TDK Taldyqorghan 60.81 322 *e*P **P 15 30 35.4 +1.0**
TDK pmax pmax
comp=Z,16nm,0.8s
TDK Taldyqorghan 60.81 322 *e*P **P 15 30 35.5 +1.0**
comp=Z,16nm,0.8s
MTHZ Maungataniwha 60.82 137 P **P 15 30 32.2 -2.4**
KWHZ Kaweka Forest 60.82 138 P **P 15 30 34.6 0.0**
TSZ Takapari Road 60.84 139 P **P 15 30 33.6 -1.1**
KRHZ Kereru 60.90 138 P **P 15 30 33.9 -1.2**
NMHZ Naumai 60.91 137 P **P 15 30 35.8 +0.5**
RAHZ Arahi 61.01 137 P **P 15 30 35.6 -0.3**
MWZ Matawai 61.03 136 P **P 15 30 35.6 -0.5**
KAHZ Kahuranaki 61.31 138 P **P 15 30 38.1 +0.2**
KNZ Kokohu 61.47 137 P **P 15 30 38.1 -0.7**
TKM2 Tokmak 2 61.60 319 P **P 15 30 41.1 +1.1**
SNR=21

KBK Karagaybulak 61.91 318 P **P 15 30 43.5 +1.4**
SNR=14
UCH Uchtor 62.02 318 P **P 15 30 44.6 +1.5**
SNR=34
CHMS Chumysh 62.19 319 P **P 15 30 44.5 +0.7**
SNR=9.1
AAK Ala-Archa 62.21 318 LR LR 16 00 31.5
comp=Z,72nm,20.9s,baz=104,slow=38
AAK Ala-Archa 62.21 318 P **P 15 30 45.3 +1.3**
SNR=9.6
AAK Ala-Archa 62.21 318 P **P 15 30 45.3 +1.3**
AAK Ala-Archa 62.21 318 P **P 15 30 45.4 +1.3**
AAK pmax pmax
comp=Z,10.0nm,0.8s
AAK Ala-Archa 62.21 318 P **P 15 30 45.4 +1.4**
USP Ospenovka 62.48 319 P **P 15 30 46.7 +1.0**
SNR=37
ZAA0 Zalesovo Array 62.56 333 P **P 15 30 45.4 -0.5**
ZALV Zalesovo Beam 62.56 333 P **P 15 30 45.4 -0.5**
comp=Z,2.7nm,0.4s,baz=116,slow=6.8,SNR=25
ZALV LR LR 15 59 33.5
comp=Z,78nm,19.4s,baz=122,slow=37
comp=Z,2.7nm,0.4s
ZALV Zalesovo Beam 62.56 333 P **P 15 30 44.6 -1.3**
ARSB Arslanbob 62.68 316 IAmb IAmb 15 30 51.0
comp=Z,53nm,1.3s
EKS2 Erkin-Say 62.70 318 P **P 15 30 48.7 +1.5**
SNR=16
KBL Kabul 63.21 308 P **P 15 30 51.6 +0.7**
KBL pmax pmax
comp=Z,20nm,0.7s
KBL Kabul 63.21 308 P **P 15 30 51.6 +0.7**
KBL IAmb IAmb 15 30 53.7
comp=Z,20nm,0.7s
KURBB Kurchatov Arra 63.68 328 P **P 15 30 53.8 +0.3**
comp=Z,29nm,0.5s,baz=129,slow=6.2,SNR=479
comp=Z,29nm,0.5s
KURBB Kurchatov Arra 63.68 328 P **P 15 30 53.7 +0.3**
KURBB pmax pmax
comp=Z,38nm,0.6s
KURK Kurchatov 63.68 328 P **P 15 30 53.9 +0.5**
KURK pmax pmax
comp=Z,49nm,0.6s
KURK Kurchatov 63.68 328 P **P 15 30 53.9 +0.5**
KURK Kurchatov 63.68 328 P **P 15 30 53.7 +0.3**
KURK pP **pP 15 31 23.3 +1.4**
SEY Seymchan 63.69 12 LR LR 15 55 58.8
comp=Z,80nm,20.7s,baz=266,slow=33
SEY Seymchan 63.69 12⇓*e*P **P 15 30 55.0 +1.8**
SEY pmax pmax
comp=Z,20nm,0.9s
BTK Batken 63.72 314 IAmb IAmb 15 30 59.3
comp=Z,85nm,1.8s
IUG Iuzhnay 65.04 316*d* *i*P **P 15 31 03.6 +1.0**
IUG pmax pmax
comp=Z,22nm,0.9s
IUG Iuzhnay 65.04 316⇓*i*P **P 15 31 03.6 +1.0**
comp=Z,22nm,0.9s
KK31 Karatay Array 65.07 317 *i* P **P 15 31 03.2 +0.5**
KK31 pmax pmax
comp=Z,10.0nm,0.7s
KK31 Karatay Array 65.07 317 IAmb IAmb 15 31 04.2
comp=Z,37nm,1.1s
KKAR Karatay Array 65.07 317 P **P 15 31 02.6 -0.1**
KKAR Karatay Array 65.07 317 P **P 15 31 02.5 -0.1**
CHM Chimkent 65.40 316 *e*P **P 15 31 05.9 +1.1**
CHM pmax pmax
comp=Z,8.0nm,0.4s
CHM Chimkent 65.40 316 *e*P **P 15 31 05.9 +1.1**
comp=Z,8.0nm,0.4s
CASY Casey 69.06 187 P **P 15 31 26.1 -1.2**
CASY IAmb IAmb 15 31 28.6
comp=Z,102nm,1.8s
CASY Casey 69.06 187 P **P 15 31 27.1 -0.2**
BVA2 Borovoye Array 69.25 327 P **P 15 31 28.9 0.0**
BVA2 pmax pmax
comp=Z,19nm,1.0s
BVAR Borovoye Array 69.26 327 P **P 15 31 29.0 +0.1**
comp=Z,15nm,0.6s,baz=138,slow=7.9,SNR=84
comp=Z,15nm,0.6s
BORK Borovoye 69.31 327 P **P 15 31 29.3 +0.1**
BORK pmax pmax
comp=Z,27nm,0.8s
BORK Borovoye 69.31 327 **P 15 31 29.3 +0.1**
BORK IAmb IAmb 15 32 01.8
comp=Z,27nm,0.8s
TIXI Tiksi 69.69 0 LR LR 16 07 34.7
comp=Z,57nm,18.6s,baz=150,slow=40
TIXI Tiksi 69.69 0 *e*P **P 15 31 30.1 -1.1**
TIXI pmax pmax
comp=Z,11nm,1.1s
TIXI Tiksi 69.69 0 P **P 15 31 30.0 -1.2**
TIXI Tiksi 69.69 0 P **P 15 31 30.4 -0.8**
TIXI pP **pP 15 32 00.8 +0.8**
BILL Bilibino 71.17 14 P **P 15 31 40.5 +0.2**
BILL IAmb IAmb 15 34 17.4
comp=Z,82nm,2.0s
SHAO Shalim 72.13 288 P **P 15 31 47.0 0.0**
UOSS Minazif 72.21 295 P **P 15 31 47.2 -0.1**
HATD Hatta, Dubai 72.26 295 P **P 15 31 48.2 +0.5**
SHME Shamm 72.39 297 P **P 15 31 50.0 +1.6**
NRIK Noril'sk 72.40 346 P **P 15 31 47.6 0.0**
comp=Z,14nm,0.5s,baz=124,slow=6.0,SNR=20
NRIK LR LR 16 05 41.8
comp=Z,77nm,20.1s,baz=132,slow=37
comp=Z,14nm,0.5s
NRIK Noril'sk 72.40 346 P **P 15 31 47.8 +0.2**
NRIK pmax pmax
comp=Z,51nm,1.3s
NRIK Noril'sk 72.40 346 P **P 15 31 47.8 +0.2**
NRIK IAmb IAmb 15 31 48.7
comp=Z,51nm,1.3s
ALNE Al Ain 72.53 295 P **P 15 31 50.0 +0.7**
FAQ Al Faqa, Dubai 72.74 295 P **P 15 31 51.2 +0.7**
ASUD Al Ashush, Dub 72.97 295 P **P 15 31 52.7 +0.9**
AJN Ajban 73.27 295 P **P 15 31 53.8 +0.2**
AB31 Akbulak array 74.03 321 *i* P **P 15 31 57.0 -0.6**
AB31 pmax pmax
comp=Z,6.0nm,0.6s
AB31 Akbulak array 74.03 321 P **P 15 31 57.5 -0.1**
ABKAR Akbulak array 74.03 321 P **P 15 31 57.4 -0.1**
MZR Muzera 74.50 293 P **P 15 32 01.4 +0.5**
AKTO Aktyubinsk 75.55 322 LR LR 16 06 44.7
comp=Z,89nm,21.5s,baz=224,slow=37
AKTO Aktyubinsk 75.55 322 P **P 15 32 06.0 -0.3**
AKTO pmax pmax
comp=Z,13nm,0.7s
SVE Sverdlovsk 75.91 329*ce*P **P 15 32 08.0 -0.2**
SVE pmax pmax
comp=Z,35nm,0.7s
ARTI Arti 76.96 328 LR LR 16 07 49.2
comp=Z,70nm,20.3s,baz=59,slow=37
ARTI Arti 76.96 328*d* *i*P **P 15 32 13.3 -0.8**
ARTI 15 35 03.5
ARTI S **S 15 41 53.9 +1.4**
ARTI pmax pmax
comp=Z,33nm,1.4s
ARTI Arti 76.96 328 P **P 15 32 13.6 -0.6**
ARTI IAmb IAmb 15 32 14.1
comp=Z,68nm,1.5s
ARTI Arti 76.96 328 P **P 15 32 13.2 -1.0**
ARTI pP **pP 15 32 43.8 +0.1**
VNDA Vanda 81.50 173 P **P 15 32 38.0 -0.3**
comp=Z,19nm,0.6s,baz=318,slow=6.2,SNR=89
VNDA PP PP 15 35 36.9 -9.2
comp=Z,6.6nm,1.1s,baz=322,slow=8.7,SNR=3.8
VNDA LR LR 16 07 04.4
comp=Z,47nm,20.3s,baz=324,slow=34
comp=Z,19nm,0.6s
VNDA Vanda 81.50 173 P **P 15 32 38.4 0.0**
VNDA pmax pmax
comp=Z,24nm,0.9s
VNDA Vanda 81.50 173 P **P 15 32 38.4 0.0**
VNDA Vanda 81.50 173 P **P 15 32 37.8 -0.5**
RAYN Ar Rayn 81.86 293 P **P 15 32 41.4 0.0**
RAYN Ar Rayn 81.86 293 P **P 15 32 40.9 -0.6**
RAYN pmax pmax
comp=Z,15nm,0.9s
RAYN Ar Rayn 81.86 293 P **P 15 32 40.9 -0.6**
RAYN Ar Rayn 81.86 293 P **P 15 32 41.3 -0.2**
RAYN pP **pP 15 33 11.9 +0.7**
VOI Vohitsoka 82.01 248 **P 15 32 42.3 0.0**
SII Sitkinak Islan 82.05 33 P **P 15 32 41.1 -0.6**
KIRV Kirov 82.17 329⇑*e*P **P 15 32 42.3 +0.1**
MAW Mawson 82.25 200 P **P 15 32 43.0 +0.5**

MAW	**Mawson**	**82.25**	**200**	P		**P**	**15 32 42.7**	**+0.3**
	comp=Z,10nm,0.7s,baz=78,slow=5.8,SNR=11							
MAW				LR		LR	16 10 00.5	
	comp=Z,37nm,18.8s,baz=79,slow=36							
	comp=Z,10nm,0.7s							
MAW	**Mawson**	**82.25**	**200**	P		**P**	**15 32 43.0**	**+0.5**
MAW				pmax		pmax		
	comp=Z,5.0nm,1.3s							
MAW	**Mawson**	**82.25**	**200**	P		**P**	**15 32 43.0**	**+0.5**
BELG	**Belogornoye**	**82.31**	**323**⇑	*e*P		**P**	**15 32 42.9**	**-0.2**
BELG				pmax		pmax		
	comp=Z,9.0nm,1.1s							
SBA	**Scott Base**	**82.40**	**172**	P		**P**	**15 32 44.0**	**+0.9**
SBA				pmax		pmax		
	comp=Z,57nm,1.5s							
SBA	**Scott Base**	**82.40**	**172**	P		**P**	**15 32 44.0**	**+0.9**
SBA				IAmb		IAmb	15 32 45.0	
	comp=Z,56nm,1.5s							
SBA	**Scott Base**	**82.40**	**172**	P		**P**	**15 32 43.6**	**+0.5**
G19K	**Purcell Mounta**	**82.45**	**23**	IAmb		IAmb	15 32 45.7	
	comp=Z,26nm,1.0s							
H19K	**Roundabout Mou**	**82.58**	**24**	IAmb		IAmb	15 32 46.5	
	comp=Z,30nm,0.6s							
E19K	**Redstone River**	**82.69**	**22**	IAmb		IAmb	15 32 47.0	
	comp=Z,29nm,1.0s							
SHTL	**Shatili**	**83.06**	**313**	P		**P**	**15 32 47.4**	**0.0**
SHTL				S		**pP**	**15 33 19.3**	**+2.0**
SHTL	**Shatili**	**83.06**	**313**	P		**P**	**15 32 47.4**	**0.0**
SHTL				S		**pP**	**15 33 19.3**	**+2.0**
GNI	**Garni**	**83.21**	**310**	LR		LR	16 15 17.7	
	comp=Z,14nm,19.7s,baz=70,slow=39							
J20K	**Nowinta River**	**83.29**	**26**	IAmb		IAmb	15 33 17.5	
	comp=Z,58nm,1.8s							
M20K	**Styx River**	**83.39**	**28**	IAmb		IAmb	15 33 32.4	
	comp=Z,32nm,1.3s							
OZAP	**Van, Ozalp-Mer**	**83.71**	**309**	⇑P		**P**	**15 32 53.4**	**+2.4**
PPT2	**Papeete2**	**83.88**	**108**	*e*S		**S**	**15 43 13.0**	**+6.7**
	comp=Z,64nm,24.0s							
PPT2				*e*LQ		LQ	15 55 54.9	
	comp=Z,511nm,37.2s							
PPT2				*e*LR		LR	15 59 21.5	
	comp=Z,194nm,36.0s							
PPT2				*e*LR		LR	15 59 23.9	
	comp=Z,152nm,37.2s							
H21K	**Melozitna Rive**	**84.09**	**24**	IAmb		IAmb	15 32 56.4	
	comp=Z,41nm,1.6s							
SKT	**Skwentna**	**84.15**	**28**	P		**P**	**15 32 52.2**	**-0.2**
SKT				IAmb		IAmb	15 32 52.7	
	comp=Z,18nm,0.4s							
ATD	**Arta Tunnel**	**84.33**	**281**	LR		LR	16 12 38.7	
	comp=Z,12nm,18.1s,baz=102,slow=37							
GEVA	**Gevas**	**84.43**	**308**	IAmb		IAmb	15 33 00.9	
	comp=Z,30nm,0.8s							
TKB	**Tkibuli**	**84.64**	**312**	P		**P**	**15 32 55.8**	**+0.5**
TKB	**Tkibuli**	**84.64**	**312**	P		**P**	**15 32 55.8**	**+0.5**
KBZ	**Khabaz**	**84.77**	**314**	P		**P**	**15 32 56.1**	**+0.3**
	comp=Z,3.5nm,0.8s,baz=98,slow=6.0,SNR=7.5							
	comp=Z,3.5nm,0.8s							
M22K	**Willow**	**84.79**	**28**	IAmb		IAmb	15 33 59.0	
	comp=Z,61nm,1.1s							
GURO	**Guroymak-BITLI**	**85.25**	**308**	IAmb		IAmb	15 33 05.4	
	comp=Z,25nm,0.8s							
HOMI	**Horasan**	**85.38**	**310**	⇑P		**P**	**15 33 00.4**	**+1.0**
KNK	**Knik Glacier**	**85.55**	**29**	IAmb		IAmb	15 33 01.8	
	comp=Z,53nm,1.4s							
VRH	**Novokhopyorsk**	**85.86**	**321**	*e*P		**P**	**15 33 02.8**	**+1.7**
VRH				pmax		pmax		
	comp=Z,10.0nm,1.0s							
D24K	**Happy Valley**	**86.04**	**21**	IAmb		IAmb	15 33 49.3	
	comp=Z,15nm,0.8s							
MARD	**Mardin**	**86.22**	**307**	IAmb		IAmb	15 33 09.0	
	comp=Z,27nm,1.3s							
KOPT	**Kop Dagi**	**86.46**	**310**	IAmb		IAmb	15 33 09.7	
	comp=Z,20nm,0.8s							
ILAR	**Eielson Array**	**86.48**	**25**	P		**P**	**15 33 02.1**	**-1.8**
	comp=Z,0.9nm,0.5s,baz=259,slow=4.6,SNR=21							
ILAR				PP		**PP**	**15 36 21.2**	**-5.7**
	comp=Z,2.4nm,1.1s,baz=249,slow=8.0,SNR=6.0							
	comp=Z,0.9nm,0.5s							
ILAR	**Eielson Array**	**86.48**	**25**	P		**P**	**15 33 01.8**	**-2.1**
ERBR	**Yeremizino-Bor**	**86.54**	**316**	*e*P		**P**	**15 33 03.9**	**-0.7**
ERBR				*e**PP		**pP**	**15 33 35.2**	**+0.5**
ERBR				pmax		pmax		
	comp=Z,17nm,1.1s							
KLMR	**Klimovskoe**	**87.37**	**331**	*e*P		**P**	**15 33 06.2**	**-2.1**
KLMR				*e**PP		**pP**	**15 33 38.7**	**+0.3**
KLMR				*e*			15 36 30.6	
KLMR				pmax		pmax		
	comp=Z,18nm,1.4s							
VORD	**Divnogorie**	**87.39**	**321**	*e*P		**P**	**15 33 06.8**	**-1.8**
VORD				*e**PP		**pP**	**15 33 37.7**	**-1.0**
VORD				pmax		pmax		
	comp=Z,5.0nm,0.7s							
VORR	**Voronezh**	**87.45**	**321**	*e*P		**P**	**15 33 07.4**	**-1.4**
VORR				*e**PP		**pP**	**15 33 38.5**	**-0.5**
VORR				pmax		pmax		
	comp=Z,10.0nm,0.8s							
VSR	**Storozhevoye**	**87.47**	**321**	*e*P		**P**	**15 33 07.0**	**-2.0**
VSR				*e**PP		**pP**	**15 33 38.2**	**-0.9**
VSR				pmax		pmax		
	comp=Z,8.0nm,0.9s							
LPSR	**Galich'ya Gora**	**87.62**	**322**	*e*P		**P**	**15 33 08.0**	**-1.7**
LPSR				*e**PP		**pP**	**15 33 39.5**	**-0.3**
LPSR				pmax		pmax		
	comp=Z,10.0nm,0.9s							
ARPR	**Arapgir-MALATY**	**88.14**	**309**	IAmb		IAmb	15 33 48.9	
	comp=Z,19nm,0.9s							
ANN	**Anapa**	**88.70**	**315**	*e*P		**P**	**15 33 13.4**	**-1.5**
ANN				*e**PP		**pP**	**15 33 44.9**	**-0.3**
ANN				pmax		pmax		
	comp=Z,20nm,0.7s							
OBN	**Obninsk**	**88.98**	**325**	*e*P		**P**	**15 33 14.4**	**-1.6**
OBN				*i **PP		**pwP**	**15 33 47.7**	**-1.2**
OBN				*e*			15 36 43.0	
OBN				*e*PPP		PPP	15 38 41.8	
OBN				*e*S		**S**	**15 43 59.2**	**+5.1**
OBN				*e*SS		**SS**	**15 49 53.6**	**+4.1**
OBN				pmax		pmax		
	comp=Z,8.0nm,0.9s							
ASF	**Jabal al Asfar**	**89.47**	**302**	LR		LR	16 20 49.2	
	comp=Z,26nm,18.9s,baz=26,slow=40							
DAWY	**Dawson**	**89.74**	**26**	IAmb		IAmb	15 35 51.7	
	comp=Z,37nm,2.0s							
APA	**Apatity**	**89.84**	**337**	*e*P		**P**	**15 33 18.4**	**-1.4**
APA				*e**PP		**pP**	**15 33 49.8**	**-0.2**
APA				*e*			15 36 52.5	
APA				*e*S		**S**	**15 43 58.4**	**-3.2**
APA				*e*SS		**SS**	**15 49 57.4**	**-3.9**
APA				pmax		pmax		
	comp=Z,6.0nm,1.4s							
APA				MLR		MLR		
	comp=Z,1μm,6.8s							
MMAI	**Mount Meron Ar**	**90.70**	**303**	LR		LR	16 22 04.4	
	comp=Z,17nm,18.3s,baz=102,slow=41							
EIL	**Elat**	**91.25**	**300**	LR		LR	16 20 20.9	
	comp=Z,30nm,18.8s,baz=98,slow=39							
BRTR	**Keskin Array B**	**91.74**	**310**	P		**P**	**15 33 28.7**	**-0.8**
	comp=Z,1.2nm,0.8s,baz=109,slow=5.4,SNR=5.6							
BRTR				PP		**PP**	**15 37 09.4**	**-0.4**
	comp=Z,1.5nm,0.9s,baz=119,slow=10,SNR=4.7							
BRTR				LR		LR	16 20 49.6	
	comp=Z,25nm,18.4s,baz=129,slow=39							
	comp=Z,1.2nm,0.8s							
BRTR	**Keskin Array B**	**91.74**	**310**	P		**P**	**15 33 27.4**	**-2.1**
QSPA	**South Pole Qui**	**91.78**	**180**	P		**P**	**15 33 28.6**	**-0.3**
	comp=Z,5.0nm,0.7s,baz=311,slow=1.2,SNR=23							
QSPA				LR		LR	16 14 02.1	
	comp=Z,47nm,19.1s,baz=354,slow=35							
	comp=Z,5.0nm,0.7s							
QSPA	**South Pole Qui**	**91.78**	**180**	P		**P**	**15 33 28.4**	**-0.6**
QSPA				IAmb		IAmb	15 33 30.1	
	comp=Z,23nm,1.3s							
ARCES	**ARCESS Array B**	**92.43**	**340**	P		**P**	**15 33 30.7**	**-1.1**
	comp=Z,4.4nm,0.5s,baz=78,slow=6.2,SNR=28							
ARCES				PKiKP		**PKiKP**	**15 38 20.3**	**+0.2**
	comp=Z,1.2nm,0.9s,baz=116,slow=2.1,SNR=3.8							
ARCES				LR		LR	16 21 55.6	
	comp=Z,36nm,19.2s,baz=119,slow=40							
	comp=Z,4.4nm,0.5s							
ARCES	**ARCESS Array B**	**92.43**	**340**	P		**P**	**15 33 30.1**	**-1.7**
SPITS	**Spitsbergen Ar**	**92.44**	**349**	P		**P**	**15 33 30.8**	**-0.9**
	comp=Z,5.4nm,0.5s,baz=85,slow=9.5,SNR=15							
	comp=Z,5.4nm,0.5s							
FINES	**FINESS Array B**	**93.80**	**332**	P		**P**	**15 33 36.8**	**-1.4**
	comp=Z,1.6nm,0.4s,baz=57,slow=5.9,SNR=21							
FINES				LR		LR	16 20 17.3	
	comp=Z,70nm,18.9s,baz=26,slow=38							
	comp=Z,1.6nm,0.4s							
FINES	**FINESS Array B**	**93.80**	**332**	P		**P**	**15 33 36.7**	**-1.5**
MNK	**Minsk**	**94.04**	**325**	*i* P		**P**	**15 33 39.2**	**-0.3**
MNK				*i **PP		**pP**	**15 34 10.2**	**+0.4**
MNK				*i*			15 37 27.0	
MNK				*i* PPP		PPP	15 39 28.6	
MNK				*i* S		**SKSac**	**15 44 02.4**	**-0.8**
MNK				*i* PS		**PS**	**15 46 11.1**	**+1.2**
MNK				*i* SS		**SS**	**15 51 04.4**	**+2.2**
MNK				*i* SSS		SSS	15 54 46.7	
MNK				pmax		pmax		
	comp=E,19nm,0.9s							
MNK				pmax		pmax		
	comp=Z,3.0nm,0.5s							
MNK				pmax		pmax		
	comp=N,11nm,1.0s							
MNK				MLR		MLR		
	comp=N,82nm,14.0s							
MNK				MLR		MLR		
	comp=Z,109nm,16.0s							
MNK				MLR		MLR		
	comp=E,109nm,18.0s							
MNK	**Minsk**	**94.04**	**325**	*i* P		**P**	**15 33 39.2**	**-0.3**
	comp=E,19nm,0.9s							
MNK				*i* P		**P**	**15 33 39.2**	**-0.3**
	comp=N,11nm,1.0s							
MNK				*i* P		**P**	**15 33 39.2**	**-0.3**
	comp=Z,3.0nm,0.5s,baz=81							
MNK				*i* pP		**pP**	**15 34 10.2**	**+0.4**
MNK				*i* PP		**PP**	**15 37 27.1**	**0.0**
MNK				*i* PPP		PPP	15 39 28.6	
MNK				*i* S		**SKSac**	**15 44 02.4**	**-0.8**
MNK				*i* sS		ScS	15 44 59.0	+18
MNK				*i* PS		**PS**	**15 46 11.2**	**+1.2**
MNK				*i* SS		**SS**	**15 51 04.5**	**+2.2**
MNK				*i* SSS		SSS	15 54 46.8	
MNK				*i* LR		LR	16 16 24.8	
MNK				*i* LRM		MLR	16 16 57.7	
	comp=N,82nm,13.6s							
MNK				*i* LRM		MLR	16 17 08.1	
	comp=Z,109nm,16.2s							
MNK				*i* LRM		MLR	16 17 19.2	
	comp=E,109nm,17.9s							
R33M	**Jennings River**	**94.31**	**30**	P		**P**	**15 33 41.2**	**+0.4**
SORM	**Soroca**	**94.69**	**318**	⇓P		**P**	**15 33 40.9**	**-1.7**
NOR	**Nord**	**95.00**	**355**	*i* P		**P**	**15 33 42.7**	**-0.7**
NOR				IAmb		IAmb	15 33 43.9	
	comp=Z,5.4nm,0.7s							
CFR	**Carcaliu**	**95.24**	**315**	⇓P		**P**	**15 33 40.5**	**-4.7**
NEGRR	**Negrea**	**95.37**	**316**	⇓P		**P**	**15 33 46.6**	**+0.8**
TESR	**Tescani**	**96.07**	**317**	⇑P		**P**	**15 33 48.5**	**-0.5**
VRI	**Vrincioaia**	**96.12**	**316**	⇑P		**P**	**15 33 49.6**	**+0.4**
PLOR	**Plostina**	**96.18**	**316**	⇓P		**P**	**15 33 48.2**	**-1.3**
MBAR	**Mbarara**	**96.71**	**270**	LR		LR	16 14 05.8	
	comp=Z,26nm,19.0s,baz=108,slow=33							
MLR	**Muntele Rosu**	**96.72**	**316**	LR		LR	16 25 32.4	
	comp=Z,34nm,18.6s,baz=0.0,slow=40							
BURAR	**Bucovina Array**	**96.85**	**318**	⇓P		**P**	**15 33 52.7**	**0.0**
BUR08	**Bucovina Ar. S**	**96.86**	**318**	IAmb		IAmb	15 34 27.8	
	comp=Z,8.0nm,0.8s							
DAG	**Danmarks Havn**	**99.19**	**353**	*i* P		**Pdif**	**15 34 01.2**	**-1.2**
NB2	**NORSAR Subarra1**	**00.76**	**334**	P		**Pdif**	**15 34 07.9**	**-1.8**
	comp=Z,0.6nm,0.5s,baz=64,slow=4.6							
NOA	**NORSAR Array B**	**00.76**	**334**	P		**Pdif**	**15 34 07.9**	**-1.8**
	comp=Z,0.6nm,0.6s,baz=66,slow=4.6,SNR=3.7							
NOA	**NORSAR Array B**	**00.76**	**334**	*i* P		**Pdif**	**15 34 08.0**	**-1.8**
NEEM	**North Greenlan**	**00.78**	**360**	*i* P		**Pdif**	**15 34 09.7**	**-0.2**
YKA	**Yellowknife Ar**	**00.90**	**25**	P		**Pdif**	**15 34 09.4**	**-0.8**
	comp=Z,0.4nm,0.6s,baz=294,slow=4.3,SNR=2.6							
YKA				PKiKP		**PKiKP**	**15 38 35.2**	**+0.1**
	comp=Z,0.3nm,0.4s,baz=297,slow=1.7,SNR=4.5							
YKA				PKKPbc		**PKKPbc**	**15 50 21.3**	**-3.6**
	comp=Z,0.4nm,0.5s,baz=122,slow=3.4,SNR=4.4							
DBG	**Daneborg**	**101.47**	**351**	*i* P		**Pdif**	**15 34 11.7**	**-0.8**
GERES	**GERESS Array B**	**103.97**	**321**	PKiKP		**PKiKP**	**15 38 41.6**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=76,slow=4.7,SNR=4.0							
ELK	**Elko**	**109.13**	**46**	PKKPbc		PKKPbc	15 49 59.1	-0.4
	comp=Z,0.7nm,0.6s,baz=144,slow=8.7,SNR=3.7							
PDAR	**Pinedale Array**	**112.28**	**42**	PKiKP		**PKiKP**	**15 38 57.3**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=45,slow=2.9,SNR=5.4							
PDAR				PKKPbc		**PKKPbc**	**15 49 47.5**	**-1.8**
	comp=Z,0.6nm,0.6s,baz=109,slow=4.9,SNR=6.9							
MNTX	**Cornudas Mount**	**119.88**	**52**	PKPdf		**PKPdf**	**15 39 11.2**	**-0.6**
TXAR	**Lajitas Array**	**122.17**	**53**	PKP		**PKPdf**	**15 39 15.9**	**-0.4**
	comp=Z,0.8nm,0.6s,baz=248,slow=0.7,SNR=6.0							
SCHQ	**Schefferville**	**122.29**	**10**	PKP		**PKPdf**	**15 39 15.6**	**-0.1**
	comp=Z,5.0nm,0.8s,baz=87,slow=2.1,SNR=5.4							
S39A	**Bolivar**	**125.52**	**40**	PKPdf		**PKPdf**	**15 39 22.1**	**-0.3**
DBIC	**Dimbokro**	**131.63**	**281**	PKP		**PKPdf**	**15 39 34.9**	**+0.2**
	comp=Z,2.3nm,0.5s,baz=63,slow=2.3,SNR=2.0							
DBIC				SKPbc		**SKPbc**	**15 42 49.5**	**+0.1**
	comp=Z,19nm,0.9s,baz=95,slow=4.6,SNR=13							
BOAB	**BOACO BROADBAN**	**144.19**	**66**	PKPdf		**PKPab**	**15 39 55.1**	**-0.5**
LCO	**Las Campanas**	**147.94**	**149**	PKP2		**PKPbc**	**15 40 06.8**	**-0.4**
LCO	**Las Campanas**	**147.94**	**149**			**PKPbc**	**15 40 06.8**	**-0.4**
CPUP	**Villa Florida**	**155.24**	**170**	PKPbc		PKPdf	15 40 23.7	+8.9
	comp=Z,2.6nm,0.7s,baz=60,slow=1.1,SNR=5.5							
CPUP				PKPab		**PKPab**	**15 40 40.0**	**0.0**
	comp=Z,6.9nm,0.8s,baz=203,slow=7.2,SNR=8.9							
CPUP	**Villa Florida**	**155.24**	**170**	PKPbc		**PKPdf**	**15 40 22.3**	**+7.5**
CPUP						**PKPab**	**15 40 40.0**	**0.0**
LPAZ	**La Paz**	**159.01**	**134**	PKP		**PKPdf**	**15 40 19.4**	**-1.2**
	comp=Z,1.2nm,0.7s,baz=342,slow=3.2,SNR=5.4							
LPAZ				PKPab		**PKPab**	**15 40 56.8**	**-0.7**
	comp=Z,7.1nm,1.0s,baz=153,slow=2.1,SNR=12							
LPAZ	**La Paz**	**159.01**	**134**			**PKPdf**	**15 40 19.2**	**-1.4**
LPAZ				PKPab		**PKPab**	**15 40 57.3**	**-0.1**

***WEL* 25 16:08:32.5±1.3, 32°S±24″×17°8W±4′0, h256km±43km, M4.5/7, mB4.4/1, MLv4.5/7, Mw(mB)3.5/1, Error ellipse: s-maj=58.9km s-min=14.6km az=119.7, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKGZ	**Pakihiroa**	**6.71**	**210**	P	Pn	16 10 10.5	+1.0
PKGZ				S	S	16 11 26.9	-0.5
PKGZ				AML	AML		
HAZ	**Te Kaha**	**6.75**	**212**	P	Pn	16 10 10.8	+0.8
HAZ				S	S	16 11 29.7	+1.4
PUZ	**Puketiti**	**6.81**	**208**	P	Pn	16 10 11.9	+1.2
PUZ				S	S	16 11 29.3	-0.4
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.97**	**212**	P	Pn	16 10 12.2	-0.7
RUGZ				S	S	16 11 33.2	-0.2
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**7.01**	**209**	P	Pn	16 10 13.7	+0.3
TWGZ				S	S	16 11 36.1	+1.7
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**7.19**	**207**	P	Pn	16 10 16.2	+0.8
TKGZ	**Te Karaka**	**7.29**	**209**	P	Pn	16 10 17.2	+0.4
TKGZ				S	S	16 11 40.8	+0.1
TKGZ				AML	AML		
MWZ	**Matawai**	**7.34**	**211**	P	Pn	16 10 16.1	-1.4
MWZ				S	S	16 11 40.8	-1.1
MWZ				AML	AML		
URZ	**Urewera**	**7.47**	**213**	P	Pn	16 10 18.3	-0.6
URZ				S	S	16 11 45.9	+1.2
RIGZ	**Rimuhau**	**7.55**	**208**	P	Pn	16 10 18.1	-2.0
RIGZ				S	S	16 11 45.9	-0.9
RIGZ				AML	AML		
BKZ	**Black Stump Fm**	**8.48**	**212**	P	Pn	16 10 31.0	-0.8
BKZ				S	S	16 12 08.7	+0.5
KAHZ	**Kahuranaki**	**8.84**	**208**	P	Pn	16 10 36.8	+0.5
KAHZ				S	S	16 12 17.9	+1.4

IDC ***25*** *16:14:27.4±0.9, 14°.99S×173°.56W, h0km, mb3.7/5, mbtmp3.7/6, ML4.0/1, Error ellipse: s-maj=44.6km s-min=19.9km az=147.0*

NEIC ***25*** *16:14:28.5±2.5, 15°.01S±0°.08×173°.09W±0°.06, h10km±1km, mb4.4/8, Error ellipse: s-maj=15.3km s-min=7.8km az=327.0*

ISC 25 16:14:30.7±0.6, 15°.04S±0°.08×173°.14W±0°.08, h29km, n19, σ1s79/20, mb3.9/7, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**1.73**	**50**	Pn	**Pn**	**16 14 58.5**	**-0.4**
	59nm,0.3s,baz=224,slow=2.4,SNR=56						
AFI				Sn	**Sn**	**16 15 16.5**	**-3.6**
	200nm,0.3s,baz=210,slow=9.2,SNR=20						
	167nm,0.3s						
AFI				AML	AML		
NIUE	**Niue**	**5.05**	**143**	Pn	**Pn**	**16 15 43.6**	**-1.0**
FUNA	**Funafuti**	**9.91**	**310**	Pn	**Pn**	**16 16 52.0**	**+0.8**
RAR	**Rarotonga**	**14.10**	**118**	Pn	**Pn**	**16 17 49.2**	**+0.6**
MARNC	**Mare, Loyalty**	**18.99**	**248**	P	**Pn**	**16 18 51.0**	**+0.1**
MARNC				IAmb	IAmb	16 19 15.5	
	comp=Z,34nm,0.8s						
WHZ	**Wether Hill Ro**	**34.62**	**203**		**P**	**16 21 17.8**	**+0.5**
STKA	**Stephens Creek**	**44.44**	**240**	P	**P**	**16 22 36.5**	**-2.8**
WR8	**Warramunga Arr**	**50.02**	**256**	P	**P**	**16 23 22.1**	**-0.9**
WR8				IAmb	IAmb	16 23 57.8	
	comp=Z,12nm,1.4s						
WB0	**Warramunga Arr**	**50.13**	**257**	P	**P**	**16 23 23.6**	**-0.2**
WRA	**Warramunga Arr**	**50.17**	**256**	P	**P**	**16 23 22.3**	**-1.8**
	comp=Z,0.2nm,0.6s,baz=96,slow=7.7,SNR=11						
	comp=Z,0.2nm,0.6s						
WRA	**Warramunga Arr**	**50.17**	**256**	P	**P**	**16 23 22.3**	**-1.8**
AS31	**Alice Springs**	**50.46**	**252**	P	**P**	**16 23 24.5**	**-1.8**
AS31				IAmb	IAmb	16 24 01.1	
	comp=Z,1.6nm,1.2s						
ASAR	**Alice Springs**	**50.46**	**252**	P	**P**	**16 23 24.2**	**-2.1**
	comp=Z,1.2nm,0.9s,baz=90,slow=7.5,SNR=18						
	comp=Z,1.2nm,0.9s						
QSPA	**South Pole Qui**	**75.00**	**180**	P	**P**	**16 26 11.2**	**+1.9**
	comp=Z,2.2nm,1.0s,baz=32,slow=2.5,SNR=6.4						
	comp=Z,2.2nm,1.0s						
QSPA	**South Pole Qui**	**75.00**	**180**	P	**P**	**16 26 10.9**	**+1.6**
QSPA				IAmb	IAmb	16 26 11.9	
	comp=Z,3.0nm,1.0s						
PDAR	**Pinedale Array**	**81.83**	**42**	P	**P**	**16 26 50.2**	**+2.8**
	comp=Z,0.3nm,0.7s,baz=240,slow=4.9,SNR=2.9						
	comp=Z,0.3nm,0.7s						
ILAR	**Eielson Array**	**82.05**	**11**	P	**P**	**16 26 49.1**	**+1.3**
	comp=Z,0.4nm,0.7s,baz=219,slow=5.7,SNR=4.3						
	comp=Z,0.4nm,0.7s						
BRTR	**Keskin Array B**	**146.04**	**322**	PKPbc	**PKPbc**	**16 34 08.0**	**-0.3**
	comp=Z,0.9nm,0.8s,baz=0.0,slow=0.1,SNR=3.9						
BRTR	**Keskin Array B**	**146.04**	**322**	PKPdf	**PKPab**	**16 34 08.8**	**0.0**

NEIC ***25*** *16:27:08.0±2.2, 11°.05S±0°.1×162°.1E±0°.1, h10km±1km, mb4.6/24, Error ellipse: s-maj=23.2km s-min=11.3km az=42.0*

NOU ***25*** *16:27:10.0, 11°.07S×162°.11E, h18km, mb4.7/36, Solomon Islands*

IDC ***25*** *16:27:14.1±2.8, 10°.99S×162°.13E, h65km±21km, mb3.6/9, mbtmp4.0/12, MS3.5/16, Error ellipse: s-maj=25.9km s-min=15.4km az=76.0*

ISC 25 16:27:10.8±0.5, 11°.04S±0°.05×162°.20E±0°.07, h36km, n92, σ1s25/79, mb4.2/26, MS3.4/12, 1D, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HURO	**Huro Makira**	**0.64**	**333**	P	**Pn**	**16 27 22.5**	**-1.0**
HURO	**Huro Makira**	**0.64**	**333**	S	**Sn**	**16 27 31.7**	**-0.7**
NGOA	**Tingoa Renbel**	**2.15**	**256**	P	**Pn**	**16 27 43.7**	**-0.5**
ALEG	**Aligegeo Malai**	**2.71**	**327**	P	**Pn**	**16 27 53.6**	**+1.7**
ALEG	**Aligegeo Malai**	**2.71**	**327**	S	**Sn**	**16 28 25.2**	**+1.8**
HNR	**Honiara**	**2.73**	**306**	P	**Pn**	**16 27 53.9**	**+1.8**
	669nm,0.4s,baz=10,slow=2.6,SNR=67						
HNR				S	**Sn**	**16 28 26.6**	**+2.7**
	573nm,0.4s,baz=232,slow=5.2,SNR=4.4						
HNR	**Honiara**	**2.73**	**306**	P	**Pn**	**16 27 53.8**	**+1.7**
HNR	**Honiara**	**2.73**	**306**	S	**Sn**	**16 28 24.8**	**+0.9**
HNR	**Honiara**	**2.73**	**306**		**Pn**	**16 27 52.5**	**+0.4**
SAVO	**Savo Central**	**3.01**	**309**	P	**Pn**	**16 27 56.8**	**+0.9**
SAVO	**Savo Central**	**3.01**	**309**	S	**Sn**	**16 28 31.8**	**+1.1**
TATA	**Tatamba Isabel**	**3.54**	**318**	P	**Pn**	**16 28 04.5**	**+1.3**
TATA	**Tatamba Isabel**	**3.54**	**318**	S	**Sn**	**16 28 45.3**	**+1.5**
LUES	**Luesalemba Tem**	**3.67**	**84**	P	**Pn**	**16 28 06.1**	**+1.0**
SANVU	**Saraoutou**	**6.55**	**132**	P	**Pn**	**16 28 46.3**	**+1.6**
	141nm,0.7s						
SANVU				AML	AML		
SANVU	**Saraoutou**	**6.55**	**132**	Pn	**Pn**	**16 28 46.1**	**+1.4**
DVP	**Devils Point**	**8.82**	**140**	P	**Pn**	**16 29 17.2**	**+1.4**
	472nm,1.4s						
NOUC	**Port Laguerre**	**11.68**	**161**	P	**Pn**	**16 29 55.7**	**+0.7**
	9.9nm,1.4s						
DZM	**Mont Dzumac**	**11.70**	**160**	P	**Pn**	**16 29 58.3**	**+2.9**
	3.0nm,1.0s,baz=32,slow=8.6,SNR=39						
DZM				S	**Sn**	**16 32 01.8**	**-2.9**
	1.6nm,0.3s,baz=72,slow=20,SNR=2.5						
DZM				LR		16 33 42.

	comp=Z,24nm,1.4s						
KNRA	**Kununurra**	**32.83 258**	P	**P**		**16 33 40.4**	**-0.9**
KNRA			IAmb	IAmb		16 33 41.5	
	comp=Z,4.3nm,0.9s						
FITZ	**Fitzroy Crossi**	**36.02 254**	P	**P**		**16 34 09.9**	**+1.1**
	comp=Z,17nm,0.7s						
FITZ	**Fitzroy Crossi**	**36.02 254**	P	**P**		**16 34 07.9**	**-1.0**
SOEI	**Soe**	**37.31 268**	P	**P**		**16 34 19.4**	**-0.6**
SOEI			IAmb	IAmb		16 34 25.6	
	comp=Z,36nm,1.5s						
RAR	**Rarotonga**	**37.82 110**	LR	LR		16 48 22.1	
	comp=Z,41nm,18.1s,baz=196,slow=34						
BATI	**Baumata**	**37.86 268**	LR	LR		16 52 54.9	
	comp=Z,41nm,18.5s,baz=115,slow=41						
MMRI	**Maumere**	**39.42 270**	P	P		16 34 37.2	-1.6
	comp=Z,48nm,1.0s						
EDFI	**Ende, Flores**	**39.95 270**	P	Pn		16 34 47.2	+0.8
DAV	**Davao City (W)**	**40.64 295**	LR	LR		16 49 27.1	
	comp=Z,68nm,21.0s,baz=348,slow=33						
MBWA	**Marble Bar**	**41.90 251**	P	**P**		**16 34 58.1**	**0.0**
MBWA			IAmb	IAmb		16 35 23.0	
	comp=Z,20nm,1.4s						
KAPI	**Kappang**	**42.42 275**	P	**P**		**16 35 02.8**	**+0.4**
KAPI			IAmb	IAmb		16 35 08.0	
	comp=Z,11nm,0.9s						
PLAI	**Plampang**	**43.78 269**	P	**P**		**16 35 12.0**	**-1.4**
	comp=Z,31nm,1.3s						
MEEK	**Meekatharra**	**43.83 243**	P	**P**		**16 35 14.5**	**+0.8**
	comp=Z,22nm,2.1s						
MORW	**Morawa**	**46.58 240**	P	**P**		**16 35 36.4**	**+0.9**
	comp=Z,20nm,1.3s						
MORW	**Morawa**	**46.58 240**	P	**P**		**16 35 35.0**	**-0.5**
MORW			IAmb	IAmb		16 35 42.0	
	comp=Z,19nm,1.2s						
NWAO	**Narrogin (SRO)**	**46.59 235**	P	**P**		**16 35 35.1**	**-0.4**
PPT	**Papeete**	**47.08 104**	LR	LR		16 52 56.4	
	comp=Z,45nm,18.3s,baz=306,slow=33						
PPT2	**Papeete2**	**47.08 104**	eLR	LR		16 49 02.7	
	comp=Z,90nm,26.2s						
JAGI	**Jajag, Banyuwa**	**47.38 269**	P	**P**		**16 35 39.9**	**-2.1**
TBI	**Tubuai**	**47.57 112**	eLR	LR		16 49 20.4	
	comp=Z,1μm,37.8s						
SNJI	**Sawahan-Nganju**	**49.82 269**	P	P		16 36 01.8	-0.6
	comp=Z,38nm,1.3s						
UGM	**Wanagama**	**51.01 269**	P	**P**		**16 36 10.1**	**+0.3**
	comp=Z,112nm,2.0s						
UGM	**Wanagama**	**51.01 269**	P	**P**		**16 36 08.4**	**-1.3**
LEM	**Lembang**	**54.02 270**	LR	LR		17 00 35.6	
	comp=Z,18nm,20.2s,baz=28,slow=37						
USRK	**Ussuriysk Ar.**	**61.44 336**	P	**P**		**16 37 23.5**	**-0.1**
	comp=Z,0.5nm,0.5s,baz=152,slow=9.9,SNR=5.2						
	comp=Z,0.5nm,0.5s						
CMAR	**Chiang Mai Arr**	**68.93 295**	P	**P**		**16 38 12.2**	**-0.4**
	comp=Z,0.6nm,0.7s,baz=126,slow=5.8,SNR=6.1						
	comp=Z,0.6nm,0.7s						
SONM	**Songino Array**	**76.63 325**	P	**P**		**16 38 57.2**	**-0.8**
	comp=Z,0.9nm,0.6s,baz=125,slow=6.4,SNR=9.4						
	comp=Z,0.9nm,0.6s						
SONM	**Songino Array**	**76.63 325**	P	**P**		**16 38 57.8**	**-0.2**
QSPA	**South Pole Qui**	**78.96 180**	P	**P**		**16 39 12.2**	**+1.6**
	comp=Z,1.6nm,0.9s,baz=352,slow=5.4,SNR=4.3						
	comp=Z,1.6nm,0.9s						
QSPA	**South Pole Qui**	**78.96 180**	P	**P**		**16 39 10.2**	**-0.4**
QSPA			IAmb	IAmb		16 39 22.7	
	comp=Z,4.4nm,1.1s						
ILAR	**Eielson Array**	**84.64 20**	P	**P**		**16 39 39.9**	**-0.5**
	comp=Z,0.2nm,0.5s,baz=253,slow=5.3,SNR=5.3						
	comp=Z,0.2nm,0.5s						
MKAR	**Makanchi Array**	**91.15 317**	P	**P**		**16 40 10.8**	**-1.2**
	comp=Z,0.2nm,0.3s,baz=94,slow=6.6,SNR=7.8						
	comp=Z,0.2nm,0.3s						
MKAR	**Makanchi Array**	**91.15 317**	P	**P**		**16 40 10.7**	**-1.3**
ELK	**Elko**	**91.56 49**	LR	LR		17 16 47.4	
	comp=Z,113nm,19.5s,baz=173,slow=32						
YKA	**Yellowknife Ar**	**96.58 28**	LR	LR		17 19 36.1	
	comp=Z,107nm,18.6s,baz=312,slow=32						
BMRD	**Maredsous**	**136.66 339**	*d*PKP	**PKiKP**		**16 46 30.8**	**-0.2**
KEST	**Kesra**	**145.22 319**	PKPbc	**PKPab**		**16 46 45.1**	**+0.1**
	comp=Z,4.6nm,0.8s,baz=128,slow=2.6,SNR=5.0						
KEST	**Kesra**	**145.22 319**		**PKPbc**		**16 46 44.5**	**-0.4**

NOU 25 16:36:24.4, 17.15S×167.95E, h9km, MLv3.9/18, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DVP	**Devils Point**	**0.61**	**158**	P	Pb	16 36 38.0	+0.7
DVP	**Devils Point**	**0.61**	**158**	S	Sb	16 36 45.8	-0.3
RTV	**Rentapao**	**0.78**	**145**	P	Pb	16 36 40.0	-0.2
RTV	**Rentapao**	**0.78**	**145**	S	Sb	16 36 50.8	-0.2
SANVU	**Saraoutou**	**1.84**	**337**	P	Pn	16 36 55.3	-0.9
SANVU	**Saraoutou**	**1.84**	**337**	S	Sn	16 37 20.2	+0.6
MARNC	**Mare, Loyalty**	**4.31**	**179**	P	Pn	16 37 29.7	-0.5
YATNC	**Mamie plateau,**	**4.98**	**191**	P	Pn	16 37 39.0	-0.5
NOUC	**Port Laguerre**	**5.16**	**197**	P	Pn	16 37 42.0	+0.1
OUENC	**Ouen Island, N**	**5.34**	**191**	P	Pn	16 37 45.7	+1.3
PINNC	**Pines Island,**	**5.46**	**185**	P	Pn	16 37 46.6	+0.7

*IDC **25** 16:44:43.9±1.9, 23.69S×66.62W, h183km±22km, mb3.6/1, mbtmp3.9/5, Error ellipse: s-maj=32.4km s-min=17.2km az=103.0*

*GUC **25** 16:44:43.6±0.7, 23.62S×66.84W, h208km±7km, ML4.2, Presumed earthquake*

*NEIC **25** 16:44:44.3±1.2, 23.77S±0.02×66.77W±0.1, h188km±11km, mb4.2/2, ML4.2(GUC), Error ellipse: s-maj=16.9km s-min=3.1km az=90.0*

*SJA **25** 16:44:45.7±0.6, 23.49S×66.70W, h193km±5km, ML3.9, MW3.6*

ISC 25 16:44:44.2±0.8, 23.68S±0.04×66.77W±0.04, h204km±7km, n66, σ1s54/92, 7C-1D, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**0.67**	**144**	*e*P	**Pn**	**16 45 14.7**	**+1.5**
SALTA				*e*P		16 45 14.7	
SALTA				*e*P		16 45 14.8	
AF01	**San Pedro de A**	**1.48**	**299**	*e*P	**Pn**	**16 45 18.4**	**-0.1**
AF01				*e*S	S	16 45 54.2	+9.4
AF01	**San Pedro de A**	**1.48**	**299**		**Pn**	**16 45 19.7**	**+1.2**
AF01	**San Pedro de A**	**1.48**	**299**	*e*P	**Pn**	**16 45 20.7**	**+2.1**
SLA	**San Lorenzo**	**1.55**	**132**	*e*P	**Pn**	**16 45 21.1**	**+2.1**
SLA	**San Lorenzo**	**1.55**	**132**	↓*e*P	**Pn**	**16 45 20.9**	**+1.9**
YJA	**Yavi**	**1.89**	**38**	*e*P	**Pn**	**16 45 19.8**	**-2.7**
YJA				*e*S	**S**	**16 45 49.3**	**-2.4**
YJA	**Yavi**	**1.89**	**38**	*e*P	**Pn**	**16 45 23.7**	**+1.2**
YJA				*e*S	**S**	**16 45 53.9**	**+2.3**
FSA	**Cafayete**	**2.53**	**164**	*e*P	**Pn**	**16 45 29.9**	**+1.0**
PB06	**IPOC Station P**	**2.75**	**290**	*e*P	**Pn**	**16 45 32.7**	**+1.3**
PB06				*e*S	**S**	**16 46 08.1**	**+0.4**
PB06				IAML		16 46 12.1	
	comp=Z,272nm,0.6s						
PB06	**IPOC Station P**	**2.75**	**290**	Pn	**Pn**	**16 45 31.9**	**+0.4**
PB06	**IPOC Station P**	**2.75**	**290**	*e*P	**Pn**	**16 45 32.6**	**+1.2**
PB06				IAML		16 46 09.9	
	comp=N,408nm,0.1s						
PB09	**IPOC Station P**	**2.95**	**309**	*e*P	**Pn**	**16 45 35.4**	**+1.7**
PB09				*e*S	**S**	**16 46 13.4**	**+1.6**
PB09				IAML		16 46 16.8	
	comp=Z,121nm,0.4s						
PB09	**IPOC Station P**	**2.95**	**309**	Pn	**Pn**	**16 45 33.9**	**+0.1**
PB09	**IPOC Station P**	**2.95**	**309**	↑*e*P	**Pn**	**16 45 35.2**	**+1.5**
PB09				*e*S	**S**	**16 46 12.9**	**+1.1**
PB09				IAML		16 46 15.7	
	comp=N,166nm,0.3s						
PB03	**IPOC Station P**	**3.19**	**300**	*e*P	**Pn**	**16 45 37.5**	**+0.9**
PB03				*e*S	**S**	**16 46 16.5**	**-0.4**
PB03				IAML		16 46 18.7	
	comp=Z,327nm,0.3s						
PB03	**IPOC Station P**	**3.19**	**300**	Pn	**Pn**	**16 45 36.9**	**+0.3**
PB03	**IPOC Station P**	**3.19**	**300**	↑*e*P	**Pn**	**16 45 37.5**	**+0.9**
PB03				*e*S	**S**	**16 46 16.0**	**-0.9**
PB03				IAML		16 46 18.1	
	comp=E,472nm,0.2s						
PB05	**IPOC Station P**	**3.26**	**284**	*e*P	**Pn**	**16 45 38.2**	**+0.9**
PB05				*e*S	**S**	**16 46 18.4**	**+0.2**
PB05				IAML		16 46 23.6	
	comp=Z,106nm,0.4s						
PB05	**IPOC Station P**	**3.26**	**284**	Pn	**Pn**	**16 45 37.5**	**+0.2**
PB05	**IPOC Station P**	**3.26**	**284**	↑*e*P	**Pn**	**16 45 38.0**	**+0.6**
PB05				*e*S	**S**	**16 46 17.1**	**-1.2**
PB05				IAML		16 46 20.1	
	comp=E,190nm,0.4s						
AHML	**Horco Molle**	**3.36**	**158**	*e*P	Pn	16 45 32.1	-6.3
AHML				*e*S	**S**	**16 46 13.4**	**-6.9**
PB14	**IPOC Station P**	**3.45**	**253**	*e*P	**Pn**	**16 45 40.5**	**+0.7**
PB14				*e*S	**S**	**16 46 23.2**	**+0.5**
PB14				IAML		16 46 25.6	
	comp=Z,142nm,0.1s						
PB14	**IPOC Station P**	**3.45**	**253**	Pn	**Pn**	**16 45 40.1**	**+0.3**
PB14	**IPOC Station P**	**3.45**	**253**	↑*e*P	**Pn**	**16 45 40.4**	**+0.6**
PB14				*e*S	**S**	**16 46 22.2**	**-0.5**
PB07	**IPOC Station P**	**3.47**	**303**	*e*P	**Pn**	**16 45 40.9**	**+0.9**
PB07				*e*S	**S**	**16 46 22.2**	**-0.7**
PB07				IAML		16 46 29.5	
	comp=Z,196nm,0.6s						
PB07	**IPOC Station P**	**3.47**	**303**	Pn	**Pn**	**16 45 40.7**	**+0.8**
PB07	**IPOC Station P**	**3.47**	**303**	↑*e*P	**Pn**	**16 45 40.6**	**+0.8**
PB07				*e*S	**S**	**16 46 21.4**	**-1.5**
PB10	**IPOC Station P**	**3.48**	**272**	*e*P	**Pn**	**16 45 40.9**	**+1.2**
PB10				*e*S	**S**	**16 46 22.6**	**-0.1**
PB10				IAML		16 46 24.1	
	comp=Z,156nm,0.3s						
PB10	**IPOC Station P**	**3.48**	**272**	Pn	**Pn**	**16 45 39.8**	**0.0**
PB10	**IPOC Station P**	**3.48**	**272**	↑*e*P	**Pn**	**16 45 40.4**	**+0.6**
PB10				*e*S	**S**	**16 46 21.3**	**-1.4**
PB10				IAML		16 46 24.5	
	comp=N,203nm,0.2s						
PB01	**IPOC Station P**	**3.63**	**316**	Pn	**Pn**	**16 45 42.1**	**+0.3**
PB02	**IPOC Station P**	**3.72**	**308**	*e*P	**Pn**	**16 45 44.1**	**+1.2**
PB02				*e*S	**S**	**16 46 27.2**	**-1.2**
PB02				IAML		16 46 31.1	
	comp=Z,343nm,0.2s						
PB02	**IPOC Station P**	**3.72**	**308**	Pn	**Pn**	**16 45 43.0**	**+0.1**
PB02	**IPOC Station P**	**3.72**	**308**	↑*e*P	**Pn**	**16 45 43.2**	**+0.3**
PB02				*e*S	**S**	**16 46 26.4**	**-2.0**
AC02	**Maricunga**	**3.80**	**214**	*e*P	**Pn**	**16 45 45.6**	**+1.4**
AC02				*e*S	**S**	**16 46 28.9**	**-1.9**
AC02				IAML		16 47 05.1	
	comp=Z,413nm,0.8s						
PB08	**IPOC Station P**	**4.16**	**327**	Pn	**Pn**	**16 45 49.2**	**+0.6**
AC01	**Pan de Azucar**	**4.26**	**234**	*e*P	Pn	16 45 34.3	-15
AC01				*e*S	**S**	**16 46 38.6**	**-1.6**
AC01				IAML		16 46 39.9	
	comp=Z,104nm,0.2s						
AC01	**Pan de Azucar**	**4.26**	**234**	Pn	**Pn**	**16 45 48.4**	**-1.0**
TA01	**Diego Aracena**	**4.43**	**314**	*e*P	**Pn**	**16 45 52.6**	**+1.1**
TA01				*e*S	**S**	**16 46 42.7**	**-1.3**
TA01				IAML		16 46 43.8	
	comp=Z,51nm,0.3s						
TA01	**Diego Aracena**	**4.43**	**314**	Pn	**Pn**	**16 45 52.2**	**+0.7**
TINO	**Tinogasta**	**4.43**	**189**	*e*P	**Pn**	**16 45 53.3**	**+1.7**
TINO				*e*S	**S**	**16 46 44.3**	**+0.1**
GO01	**Chusmiza**	**4.58**	**330**	*e*P	**Pn**	**16 45 56.7**	**+2.7**
GO01				*e*S	**S**	**16 46 50.3**	**+2.0**
GO01				IAML		16 46 52.4	
	comp=Z,33nm,0.3s						
GO01	**Chusmiza**	**4.58**	**330**	Pn	**Pn**	**16 45 54.7**	**+0.8**
PB11	**IPOC Station P**	**4.73**	**325**	*e*P	**Pn**	**16 45 56.0**	**+0.4**
PB11				*e*S	**S**	**16 46 49.3**	**-2.0**
PB11				IAML		16 46 54.7	
	comp=Z,73nm,0.6s						
PB11	**IPOC Station P**	**4.73**	**325**	Pn	**Pn**	**16 45 56.1**	**+0.6**
PB11	**IPOC Station P**	**4.73**	**325**	*e*P	**Pn**	**16 45 55.2**	**-0.3**
PB11				*e*S	**S**	**16 46 49.1**	**-2.1**
AC06	**Mina Casimiro**	**4.89**	**221**	Pn	**Pn**	**16 45 55.8**	**-1.6**
GO03	**Copiapo**	**5.00**	**218**	*e*P	**Pn**	**16 45 58.3**	**-0.4**
GO03				*e*S	**S**	**16 46 55.3**	**-1.9**
GO03				IAML		16 46 58.2	
	comp=Z,71nm,0.3s						
GO03	**Copiapo**	**5.00**	**218**	Pn	**Pn**	**16 45 57.5**	**-1.3**
PSGCX	**Pisagua**	**5.12**	**322**	*e*P	**Pn**	**16 45 59.7**	**-0.8**
PSGCX				*e*S	**S**	**16 46 56.0**	**-4.1**
PSGCX				IAML		16 46 57.6	
	comp=Z,47nm,0.6s						
VCA	**Vinchina**	**5.20**	**194**	*e*P	**Pn**	**16 46 03.8**	**+2.4**
PB16	**IPOC Station P**	**5.90**	**334**	Pn	**Pn**	**16 46 11.1**	**+0.2**
AC05	**El Transito**	**6.03**	**211**	Pn	**Pn**	**16 46 11.9**	**-0.1**
PB12	**IPOC Station P**	**6.03**	**326**	Pn	**Pn**	**16 46 11.0**	**-1.1**
LPAZ	**La Paz**	**7.46**	**350**	P	**Pn**	**16 46 32.1**	**+0.9**
	comp=Z,1.3nm,0.3s,baz=149,slow=8.1,SNR=8.4						
LPAZ				S	**S**	**16 47 55.8**	**-0.2**
	comp=Z,2.3nm,0.9s,baz=342,slow=18,SNR=1.8						
CFA	**Coronel Fontan**	**8.00**	**189**	P	**Pn**	**16 46 37.1**	**-0.4**
	comp=Z,0.7nm,0.3s,baz=47,slow=19,SNR=12						
CFA				S	S	16 47 59.1	-8.8
	comp=Z,3.8nm,0.3s,baz=201,slow=18,SNR=13						
CO02	**Combarbal**	**8.39**	**206**	Pn	**Pn**	**16 46 40.1**	**-2.4**
SIV	**San Ignacio**	**9.34**	**36**	P	**Pn**	**16 46 53.6**	**-1.4**
	comp=Z,3.7nm,0.6s,baz=211,slow=13,SNR=17						
CPSB	**Cacapava Do Su**	**13.63**	**122**	P	**P**	**16 47 51.5**	**-0.2**
VAO	**Valinhos**	**18.20**	**92**	P	**Pn**	**16 48 42.7**	**-1.9**
VAO				IAmb	IAmb	16 48 43.6	
	comp=Z,19nm,0.5s						
BDFB	**Brasilia**	**19.37**	**69**	P	**P**	**16 48 54.7**	**-0.1**
	comp=Z,4.3nm,0.4s,baz=237,slow=13,SNR=8.5						
QSPA	**South Pole Qui**	**66.53**	**180**	P	**P**	**16 55 13.9**	**+1.9**
	comp=Z,1.0nm,0.5s,baz=122,slow=0.5,SNR=16						
	comp=Z,1.0nm,0.5s						
QSPA	**South Pole Qui**	**66.53**	**180**	P	**P**	**16 55 13.9**	**+1.9**
QSPA				IAmb	IAmb	16 55 18.6	
	comp=Z,1.0nm,1.1s						
WRA	**Warramunga Arr**	**132.01**	**207**	PKP	**PKiKP**	**17 03 35.5**	**+0.3**
	comp=Z,0.2nm,0.5s,baz=141,slow=2.0,SNR=1.6						
MKAR	**Makanchi Array**	**146.14**	**39**	PKPbc	**PKPab**	**17 04 01.5**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=286,slow=3.3,SNR=2.3						

*IDC **25** 16:49:59.9±0.8, 18.63N×81.47W, h0km, mb3.8/10, mbtmp3.9/12, ML3.8/3, MS3.9/40, Error ellipse: s-maj=22.9km s-min=15.5km az=5.0*

*NEIC **25** 16:50:01.2±2.2, 18.81N±0.05×81.44W±0.06, h10km±1km, mb4.4/69, Error ellipse: s-maj=10.8km s-min=5.5km az=231.0*

*CATAC **25** 16:50:02.8±0.5, 19°N±3′×8°1W±′, h21km±4km, M5.1/7, mb5.0/6, mB5.3/1, MLv5.1/7, Mw(mB)4.7/1, Error ellipse: s-maj=8.4km s-min=4.2km az=135.7, Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr=0.20; Mθθ=0.07; Mφφ0.28; Mrθ=-0.13; Mθφ1.32; Mφr=0.22; Fault plane solution: M0 1.37125×10^16 NP1:ϕs175.99167°, δ86.04224°, λ171.97897°. NP2:ϕs266.54891°, δ81.99822°, λ3.99673°. Principal axes: T 1.4749, Plg8.4669°, Azm131.0563°; N -0.2397, Plg81.0614°, Azm329.8958°; P -1.2361, Plg2.8446°, Azm221.4801°; confirmed*

*SSNC **25** 16:50:03.7±1.7, 18.85N×81.40W, h25km±13km, MD4.2, ML4.8, MW4.9, Presumed earthquake*

*JSN **25** 16:50:05.0±1.1, 18.57N×81.10W, h0km±348km, MD4.5, Presumed earthquake*

*GCMT **25** 16:50:05.2±0.4, 18.88N±0.02×81.58W±0.03, h17km±1km, MW4.8/78, Moment Tensor Solution. s6,c6; s78,c97; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.14±.07; Mθθ-0.46±.08; Mφφ0.60±.09; Mrθ0.40±.22; Mθφ1.50±.07; Mφr0.35±.19; Best double couple: M0 1.66700×10^16 NP1:ϕs349.00000°, δ76.00000°, λ173.00000°. NP2: ϕs81.00000°, δ83.00000°, λ14.00000°. Principal axes: T 1.8020, Plg15.0000°, Azm306.0000°; N -0.2710, Plg74.0000°, Azm105.0000°; P -1.5310, Plg5.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 25 16:50:00.8±0.4, 18.78N±0.04×81.36W±0.04, h10km, n169, σ1s54/163, mb4.3/21, MS3.9/36, 3C-3D, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FSCY	**Frank Sound, G**	**0.56**	**17**	↓P	**Pb**	**16 50 13.0**	**+0.3**
FSCY				S	**Sg**	**16 50 19.7**	**+0.6**
FSCY	**Frank Sound, G**	**0.56**	**17**	*e*P	**Pb**	**16 50 12.7**	**0.0**
FSCY				*e*S	**Sb**	**16 50 20.2**	**-0.5**
LCCY	**Blossom Villag**	**1.50**	**53**		**Pn**	**16 50 27.1**	**-0.6**
LCCY				Sn	**Sn**	**16 50 44.8**	**-2.6**
LCCY	**Blossom Villag**	**1.50**	**53**	*e*P	**Pn**	**16 50 27.0**	**-0.7**
LCCY				*e*S	**Sn**	**16 50 44.7**	**-2.6**
CBCY	**The Bluff, Cay**	**1.79**	**57**	P	**Pn**	**16 50 31.2**	**-0.5**
CBCY				S	**Sn**	**16 50 50.7**	**-3.8**
CBCY	**The Bluff, Cay**	**1.79**	**57**	*e*P	**Pn**	**16 50 30.9**	**-0.9**
CBCY				*e*S	**Sn**	**16 50 51.1**	**-3.4**
CVJ	**Coleyville**	**3.67**	**98**	↑*i*P	**Pn**	**16 50 57.8**	**+0.1**
CVJ				*i* S	**Sn**	**16 51 38.5**	**-2.6**
MTDJ	**Mount Denham**	**3.67**	**98**	↑↑P	**Pn**	**16 50 57.3**	**-0.4**
MTDJ				S	**Sn**	**16 51 37.7**	**-3.5**
MTDJ	**Mount Denham**	**3.67**	**98**		**Pn**	**16 50 57.2**	**-0.5**
MTDJ				Sn	**Sn**	**16 51 37.2**	**-3.9**
MTDJ	**Mount Denham**	**3.67**	**98**	*e*P	**Pn**	**16 50 57.7**	**0.0**
MTDJ				*e*S	**Sn**	**16 51 38.0**	**-3.1**
PILO	**Pilon**	**3.90**	**73**	P	**Pn**	**16 51 01.3**	**+0.4**
PILO				S	**Sn**	**16 51 42.8**	**-3.9**
PILO	**Pilon**	**3.90**	**73**	*e*P	**Pn**	**16 51 01.1**	**+0.3**
PILO				*e*S	**Sn**	**16 51 42.3**	**-4.4**
PILO				*e*Sg	**Sn**	**16 51 46.9**	**+0.2**
CAIB	**Caibarien**	**4.10**	**25**	↓↓P	**Pn**	**16 51 03.9**	**+0.4**
CAIB				S	**Sn**	**16 51 49.7**	**-1.9**
CAIB	**Caibarien**	**4.10**	**25**		**Pn**	**16 51 03.0**	**-0.5**
CAIB	**Caibarien**	**4.10**	**25**	*e*P	**Pn**	**16 51 03.5**	**0.0**
PCJ	**Portland Cotta**	**4.12**	**104**	*i* P	**Pn**	**16 51 04.2**	**+0.3**
CCCC	**Cccc**	**4.15**	**54**	*e*P	**Pn**	**16 51 08.5**	**+4.3**
CAMR	**Camarioca**	**4.26**	**360**	Pn	**Pn**	**16 51 05.9**	**+0.1**
SOR	**Soroa**	**4.28**	**339**	Pn	**Pn**	**16 51 05.0**	**-1.1**
SOR	**Soroa**	**4.28**	**339**	*e*P	**Pn**	**16 51 04.8**	**-1.3**
LMGC	**Las Mercedes**	**4.30**	**72**	*e*P	**Pn**	**16 51 07.0**	**+0.7**
STH	**Stony Hill**	**4.37**	**98**	↓↓*i*P	**Pn**	**16 51 07.8**	**+0.4**
STH				↑↑*i*P	**Pn**	**16 51 08.1**	**+0.7**
STH				*i* S	**Sn**	**16 51 55.1**	**-3.4**
STH				*i* S	**Sn**	**16 51 55.6**	**-2.8**
STH	**Stony Hill**	**4.37**	**98**	*e*P	**Pn**	**16 51 07.6**	**+0.2**
HOJ	**Hope**	**4.44**	**99**	*i* P	**Pn**	**16 51 09.3**	**+1.0**
HOJ				*i* P	**Pn**	**16 51 09.3**	**+1.0**
GWJ	**Greenwich**	**4.45**	**98**	*i* P	**Pn**	**16 51 08.9**	**+0.3**
GWJ				*i* S	**Sn**	**16 51 57.9**	**-2.5**
YAR	**Yar**	**4.97**	**71**	*e*P	**Pn**	**16 51 16.2**	**+0.6**
BILN	**Bilwi Airport**	**5.08**	**203**	Pn	**Pn**	**16 51 15.6**	**-1.5**
MARVS	**Santiago de Cu**	**5.29**	**76**	*e*P	**Pn**	**16 51 21.6**	**+1.6**
HLGC	**Holguin**	**5.41**	**66**	*e*P	**Pn**	**16 51 20.7**	**+0.9**
SABCS	**La Quijada**	**5.91**	**74**	*e*P	**Pn**	**16 51 29.0**	**+0.5**
GTBY	**Guantanamo Bay**	**6.01**	**78**	P	**Pn**	**16 51 32.2**	**+2.4**
GTBY				S	**Sn**	**16 52 35.5**	**-3.1**
GTBY	**Guantanamo Bay**	**6.01**	**78**	Pn	**Pn**	**16 51 30.0**	**+0.2**
GTBY	**Guantanamo Bay**	**6.01**	**78**	*i* P	**Pn**	**16 51 32.0**	**+2.2**
GTBY				*i* S	**Sn**	**16 52 35.4**	**-3.3**
GTBY	**Guantanamo Bay**	**6.01**	**78**	*e*P	**Pn**	**16 51 30.5**	**+0.7**
SIUN	**Universidad Ur**	**6.01**	**214**			**16 51 29.8**	**0.0**
NMDO	**Nuevo Mundo**	**6.26**	**72**	P	**Pn**	**16 51 34.9**	**+1.6**
NMDO				S	**Sn**	**16 52 43.7**	**-1.3**
NMDO	**Nuevo Mundo**	**6.26**	**72**		**Pn**	**16 51 33.8**	**+0.5**
QMBU	**Quimbuelo**	**6.33**	**76**	P	**Pn**	**16 51 34.9**	**+0.6**
QMBU				S	**Sn**	**16 52 44.2**	**-2.6**
TEIG	**Tepich**	**6.68**	**284**		**Pn**	**16 51 37.1**	**-2.0**
BLUN	**Bluefields**	**7.12**	**199**	P	**Pn**	**16 51 47.7**	**+2.6**
BOAB	**BOACO BROADBAN**	**7.54**	**214**		**Pn**	**16 51 51.3**	**+0.4**
ACON	**Acoyapa**	**7.71**	**209**	P	**Pn**	**16 51 54.9**	**+1.8**
LGNH	**Logne**	**8.30**	**90**	P	**Pn**	**16 52 02.4**	**+1.0**
LGNH				S	**Sn**	**16 53 31.8**	**-3.4**
MTO3	**Montecristo**	**8.82**	**242**		**Pn**	**16 52 08.1**	**-0.6**
JTS	**Las Juntas de**	**9.12**	**203**	LR	LR	16 55 47.2	
	comp=Z,749nm,18.0s,baz=35,slow=39						
DWPF	**Disney Wildern**	**9.29**	**360**	Pn	**Pn**	**16 52 14.3**	**-0.5**
LCR2	**La Lucha 2**	**9.34**	**196**	Pn	**Pn**	**16 52 15.9**	**+0.1**
SDDR	**Presa de Saban**	**9.54**	**87**	Pn	**Pn**	**16 52 20.2**	**+1.9**
PODR	**Polo**	**9.58**	**92**		**Pn**	**16 52 20.7**	**+1.6**
BRU2	**Volcan**	**10.01**	**188**	Pn	**Pn**	**16 52 24.8**	**-0.1**
SMRC	**Santa Marta, M**	**10.23**	**137**		**Pn**	**16 52 28.4**	**+0.5**
SJCC	**San Jacinto, C**	**10.66**	**145**	Pn	**Pn**	**16 52 35.2**	**+1.4**
DR12	**Loma Pena Alta**	**11.34**	**88**	Pn	**Pn**	**16 52 45.2**	**+2.1**
URIC	**Uribia, Colomb**	**11.45**	**127**		**Pn**	**16 52 45.4**	**+0.9**
TIGA	**Tifton**	**12.77**	**351**	Pn	**Pn**	**16 53 01.6**	**-0.9**
CMIG	**Matias Romero**	**12.98**	**265**	Pn	**Pn**	**16 53 02.8**	**-2.7**
	0.2nm,0.3s,baz=64,slow=18,SNR=1.9						
CMIG				Sn	Sn	16 55 18.5	-12
	0.4nm,0.3s,baz=252,slow=23,SNR=6.1						
CMIG				LR	LR	16 57 21.7	
	comp=Z,245nm,19.8s,baz=82,slow=34						
	0.9nm,0.2s						
CMIG			

R40A	**Maddies Statio**	**21.64**	**336**	P	**P**	**16 54 51.6**	**+0.2**
R40A				IAmb	IAmb	16 55 17.4	
	comp=Z,22nm,0.9s						
SAND	**Sanderson**	**21.91**	**304**		**P**	**16 54 54.1**	**-0.3**
SGCY	**Sterling City**	**22.10**	**310**	P	**P**	**16 54 56.8**	**+0.5**
SGCY				IAmb	IAmb	16 55 01.7	
	comp=Z,8.7nm,0.8s						
WMOK	**Wichita Mounta**	**22.19**	**319**	P	**P**	**16 54 58.0**	**+0.7**
WMOK				IAmb	IAmb	16 55 11.3	
	comp=Z,14nm,1.2s						
SN07	**Snyder 07**	**22.57**	**313**	P	**P**	**16 54 59.9**	**-1.5**
SN07				IAmb	IAmb	16 55 17.2	
	comp=Z,17nm,1.2s						
P40A	**Paris**	**22.66**	**338**	P	**P**	**16 55 01.4**	**-0.8**
P40A				IAmb	IAmb	16 55 27.8	
	comp=Z,21nm,1.2s						
TXAR	**Lajitas Array**	**22.88**	**302**	P	**P**	**16 55 04.3**	**-0.5**
	comp=Z,1.1nm,0.7s,baz=118,slow=9.1,SNR=9.1						
	comp=Z,1.1nm,0.7s						
TXAR	**Lajitas Array**	**22.88**	**302**	P	**P**	**16 55 02.9**	**-2.0**
TX31	**Lajitas Ar. Si**	**22.89**	**302**	P	**P**	**16 55 03.2**	**-1.6**
P38A	**Dawn**	**23.29**	**336**		**P**	**16 55 08.3**	**-0.4**
SMWD	**Samnorwood**	**23.34**	**318**	P	**P**	**16 55 10.3**	**+0.9**
128A	**Castleberry Fa**	**23.45**	**310**	P	**P**	**16 55 11.2**	**+0.7**
TPB01	**Permian Basin**	**23.63**	**305**	P	**P**	**16 55 12.1**	**-0.3**
TPB01				IAmb	IAmb	16 55 29.0	
	comp=Z,14nm,1.3s						
VHRN	**Van Horn**	**24.50**	**304**	P	**P**	**16 55 21.0**	**+0.3**
VHRN				IAmb	IAmb	16 55 33.1	
	comp=Z,12nm,1.3s						
ATAH	**Atahualpa**	**25.91**	**173**	LR	LR	17 06 11.3	
	comp=Z,163nm,21.9s,baz=9.1,slow=38						
SADO	**Sadowa**	**25.98**	**4**	LR	LR	17 05 37.6	
	comp=Z,268nm,18.9s,baz=210,slow=36						
BOAV	**Boa Vista**	**26.10**	**126**		**P**	**16 55 34.4**	**-0.6**
BOAV				IAmb	IAmb	16 55 39.1	
	comp=Z,13nm,1.1s						
MNTQ	**Montreal, Queb**	**27.41**	**12**	P	**P**	**16 55 46.9**	**+0.3**
MNTQ				IAmb	IAmb	16 55 56.2	
	comp=Z,6.2nm,0.8s						
LPIG	**La Paz**	**27.44**	**286**	LR	LR	17 07 09.7	
	comp=Z,182nm,18.4s,baz=48,slow=38						
ANMO	**Albuquerque**	**27.47**	**311**	LR	LR	17 09 08.1	
	comp=Z,130nm,19.0s,baz=112,slow=42						
CZSB	**Cruzeiro do Su**	**27.69**	**161**	P	**P**	**16 55 49.8**	**+0.5**
BSUT	**Blindstream Ca**	**33.26**	**317**		**P**	**16 56 37.9**	**-0.9**
BSUT				IAmb	IAmb	16 57 02.0	
	comp=Z,3.5nm,0.9s						
SZCU	**Shurtz Canyon**	**33.44**	**311**	P	**P**	**16 56 38.9**	**-1.3**
SZCU				IAmb	IAmb	16 57 01.2	
	comp=Z,6.2nm,1.4s						
ULM	**Lac du Bonnet**	**33.48**	**343**	LR	LR	17 09 41.0	
	comp=Z,308nm,18.5s,baz=188,slow=35						
PDAR	**Pinedale Array**	**33.77**	**321**	LR	LR	17 11 57.6	
	comp=Z,109nm,18.6s,baz=214,slow=39						
LPAZ	**La Paz**	**37.20**	**159**	LR	LR	17 15 15.2	
	comp=Z,100nm,18.5s,baz=326,slow=41						
NVAR	**Mina Array Bea**	**37.56**	**309**	P	**P**	**16 57 17.3**	**+1.7**
	comp=Z,0.2nm,0.3s,baz=135,slow=7.9,SNR=2.2						
NVAR				LR	LR	17 14 04.4	
	comp=Z,114nm,19.7s,baz=168,slow=39						
	comp=Z,0.2nm,0.3s						
SCHQ	**Schefferville**	**37.66**	**14**	P	**P**	**16 57 17.7**	**+1.7**
	comp=Z,6.1nm,1.0s,baz=203,slow=13,SNR=1.8						
SCHQ				LR	LR	17 12 48.5	
	comp=Z,192nm,18.8s,baz=156,slow=36						
	comp=Z,6.1nm,1.0s						
TA01	**Diego Aracena**	**40.60**	**164**	P	**P**	**16 57 40.0**	**-0.9**
PB02	**IPOC Station P**	**41.40**	**164**	P	**P**	**16 57 47.6**	**-0.1**
YBH	**Yreka Blue Hor**	**41.88**	**312**	LR	LR	17 17 12.8	
	comp=Z,190nm,18.8s,baz=357,slow=39						
SMTB	**Santa Maria do**	**43.17**	**127**	P	**P**	**16 58 02.8**	**+0.7**
F04A	**Amboy**	**43.31**	**318**	P	**P**	**16 58 01.6**	**-1.3**
PB10	**IPOC Station P**	**43.34**	**165**	P	**P**	**16 58 03.9**	**+0.6**
FRB	**Frobisher Bay**	**45.78**	**8**	LR	LR	17 17 10.1	
	comp=Z,342nm,19.1s,baz=196,slow=36						
BDFB	**Brasilia**	**47.40**	**134**	LR	LR	17 19 38.7	
	comp=Z,89nm,20.1s,baz=315,slow=38						
YKA	**Yellowknife Ar**	**49.36**	**340**	P	**P**	**16 58 52.0**	**+1.8**
	comp=Z,0.6nm,1.0s,baz=142,slow=7.9,SNR=4.5						
	comp=Z,0.6nm,1.0s						
YKA	**Yellowknife Ar**	**49.36**	**340**	P	**P**	**16 58 50.9**	**+0.7**
CPUP	**Villa Florida**	**50.55**	**152**	LR	LR	17 23 21.3	
	comp=Z,78nm,18.7s,baz=59,slow=40						
RCBR	**Riachuelo**	**51.03**	**114**	LR	LR	17 23 47.8	
	comp=Z,21nm,18.3s,baz=222,slow=40						
SFJD	**Kangerlussuaq**	**52.10**	**15**	LR	LR	17 21 00.7	
	comp=Z,195nm,20.7s,baz=209,slow=36						
DLBC	**Dease Lake**	**53.04**	**330**	LR	LR	17 22 12.6	
	comp=Z,143nm,18.8s,baz=96,slow=36						
BORG	**Borgarnes**	**60.53**	**25**	LR	LR	17 22 33.4	
	comp=Z,66nm,21.8s,baz=253,slow=32						
ILAR	**Eielson Array**	**62.79**	**334**	P	**P**	**17 00 26.4**	**+0.2**
	comp=Z,0.4nm,0.7s,baz=110,slow=4.5,SNR=8.2						
ILAR				LR	LR	17 27 43.0	
	comp=Z,138nm,19.6s,baz=122,slow=36						
	comp=Z,0.4nm,0.7s						
ILAR	**Eielson Array**	**62.79**	**334**	P	**P**	**17 00 24.9**	**-1.3**
KDAK	**Kodiak Island**	**64.31**	**326**	LR	LR	17 29 07.1	
	comp=Z,97nm,20.0s,baz=105,slow=36						
KDAK	**Kodiak Island**	**64.31**	**326**	P	**P**	**17 00 36.8**	**+0.4**
TOLK	**Toolik Lake Re**	**64.75**	**338**	P	**P**	**17 00 39.2**	**0.0**
EKA	**Eskdalemuir Ar**	**68.08**	**37**	P	**P**	**17 01 02.3**	**+1.6**
	comp=Z,1.4nm,0.8s,baz=261,slow=8.6,SNR=3.6						
EKA				LR	LR	17 28 34.9	
	comp=Z,66nm,18.1s,baz=294,slow=34						
	comp=Z,1.4nm,0.8s						
ESDC	**Sonseca Array**	**68.71**	**54**	P	**P**	**17 01 07.1**	**+2.1**
	comp=Z,1.2nm,0.6s,baz=280,slow=6.1,SNR=7.5						
ESDC				LR	LR	17 25 28.1	
	comp=Z,63nm,19.5s,baz=286,slow=31						
	comp=Z,1.2nm,0.6s						
SPITS	**Spitsbergen Ar**	**73.33**	**12**	LR	LR	17 34 48.9	
	comp=Z,156nm,18.1s,baz=290,slow=37						
NOA	**NORSAR Array B**	**75.00**	**30**	LR	LR	17 32 17.4	
	comp=Z,48nm,19.3s,baz=280,slow=34						
HFS	**Hagfors**	**76.39**	**31**	LR	LR	17 32 47.7	
	comp=Z,50nm,19.9s,baz=312,slow=34						
DAVOX	**Davos/Dischmat**	**77.39**	**45**	LR	LR	17 29 23.0	
	comp=Z,95nm,20.9s,baz=284,slow=30						
ARCES	**ARCESS Array B**	**78.30**	**20**	P	**P**	**17 02 03.2**	**+2.5**
	comp=Z,1.4nm,0.7s,baz=328,slow=4.3,SNR=3.6						
ARCES				LR	LR	17 39 03.5	
	comp=Z,32nm,18.2s,baz=314,slow=38						
	comp=Z,1.4nm,0.7s						
GERES	**GERESS Array B**	**79.34**	**42**	P	**P**	**17 02 09.6**	**+2.6**
	comp=Z,0.5nm,0.8s,baz=193,slow=5.5,SNR=4.7						
GERES				LR	LR	17 31 40.5	
	comp=Z,76nm,20.2s,baz=318,slow=31						
	comp=Z,0.5nm,0.8s						
VRAC	**Vranov**	**81.02**	**41**	LR	LR	17 33 09.3	
	comp=Z,111nm,21.2s,baz=302,slow=32						
FINES	**FINESS Array B**	**81.71**	**28**	P	**P**	**17 02 20.7**	**+1.3**
	comp=Z,1.1nm,0.6s,baz=96,slow=1.9,SNR=5.9						
FINES				LR	LR	17 36 09.1	
	comp=Z,68nm,18.7s,baz=224,slow=34						
	comp=Z,1.1nm,0.6s						
FINES	**FINESS Array B**	**81.71**	**28**	P	**P**	**17 02 20.0**	**+0.7**
VAE	**Valguarnera**	**83.22**	**53**	LR	LR	17 33 53.5	
	comp=Z,147nm,20.2s,baz=300,slow=32						
MLR	**Muntele Rosu**	**88.33**	**42**	LR	LR	17 38 39.9	
	comp=Z,70nm,21.4s,baz=0.0,slow=33						
MA2	**Magadan**	**91.18**	**336**	LR	LR	17 46 58.7	
	comp=Z,55nm,19.6s,baz=47,slow=38						
NRIK	**Norilʹsk**	**91.77**	**4**	LR	LR	17 47 01.0	
	comp=Z,84nm,18.5s,baz=8.5,slow=37						
PETK	**Petropavlovsk-**	**92.20**	**329**	LR	LR	17 46 28.0	
	comp=Z,28nm,21.9s,baz=50,slow=37						
YAK	**Yakutsk**	**95.77**	**346**	LR	LR	17 49 08.1	
	comp=Z,51nm,19.7s,baz=22,slow=37						
ARTI	**Arti**	**97.83**	**21**	LR	LR	17 47 11.7	
	comp=Z,61nm,19.7s,baz=337,slow=35						
WRA	**Warramunga Arr**	**146.34**	**262**	PKPbc	**PKPdf**	**17 09 42.1**	**+0.6**
	comp=Z,2.0nm,0.7s,baz=85,slow=3.6,SNR=12						
ASAR	**Alice Springs**	**146.83**	**255**	PKPbc	**PKPbc**	**17 09 43.8**	**-0.4**
	comp=Z,1.3nm,0.8s,baz=102,slow=3.7,SNR=6.0						
ASAR	**Alice Springs**	**146.83**	**255**		**PKPdf**	**17 09 41.8**	**-0.5**

*GFZ **25** 16:57:23.6±0.5,33°N±3°,14°E±°,h41km±4km,M4.7/43, mb4.7/43,Error ellipse: s-maj=9.7km s-min=5.7km az=105.1,confirmed*

*NEIC **25** 16:57:23.1,33.44N×141.10E,h31km*

*NEIC **25** 16:57:23.2±2.0,33.45N±0.06×141.09E±0.04,h32km±4km, mb4.7/54,Mwr4.3/14,Error ellipse: s-maj=9.2km s-min=4.4km az=160.0,Moment Tensor Solution.*

Moment tensor: Scale 10¹⁵Nm; Mrr3.09; Mθθ-0.05; Mθθ-3.04; Mtθ-0.88; Mθθ0.38; Mθf1.57; Fault plane solution: Ms3.58000×10¹⁵ NP1:φs342.18000°,δ60.02000°, λ79.31000°. NP2:φs182.87000°,δ31.66000°,λ107.83000°. Principal axes: T 3.6318, Plg73.0000°, Azm226.0000°; N -0.1151, Plg9.0000°, Azm348.0000°; P -3.5167, Plg14.0000°, Azm80.0000°;

*NIED **25** 16:57:24.0,33.50N×141.07E,h42km,MW4.5,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr5.14; Mθθ0.19; Mθθ-5.33; Mtθ0.51; Mθθ-0.55; Mθf2.57; Fault plane solution: Ms5.88000×10¹⁵ NP1: φs183.00000°,δ32.00000°,λ85.00000°. NP2:φs8.00000°, δ58.00000°,λ93.00000°.*

*JMA **25** 16:57:24.0±0.1,33.5N±0.4×141.1E±0.3,h42km,MD4.5/39, MV4.5/39,E OFF HACHIJOJIMA ISLAND*

*IDC **25** 16:57:26.3±1.6,33.47N×140.97E,h60km±12km,mb4.1/25, mbtmp4.3/29,MS3.5/25,Error ellipse: s-maj=17.0km s-min=9.2km az=85.0*

ISC 25 16:57:23.4±0.5,33.48N±0.04×141.11E±0.06,h38km±1km, n261,σ1°13/253,mb4.7/106,MS3.6/21,4D,Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
JHJ2	**Mitsune**	**1.14**	**252**	P	**Pn**	**16 57 43.9**	**+1.1**
JHJ2	**Mitsune**	**1.14**	**252**	S	**Sn**	**16 57 59.0**	**+1.8**
JHJ2	**Mitsune**	**1.14**	**252**		**Pn**	**16 57 43.8**	**+0.9**
JHJ2	**Mitsune**	**1.14**	**252**	P	**Pn**	**16 57 44.1**	**+1.3**
JHJ2	**Mitsune**	**1.14**	**252**	*i* P	**Pn**	**16 57 43.9**	**+1.1**
JHJ2				A	A	16 57 43.9	
	comp=N,25nm,3.6s,comp=E,73nm,4.9s						
JHJ2				*e*S	**Sn**	**16 57 58.6**	**+1.4**
JHJ	**Hachijo jima 2**	**1.17**	**253**	P	**Pn**	**16 57 44.0**	**+0.8**
	comp=E,682nm,0.3s,baz=345,slow=3.6,SNR=2106						
JHJ				S	**Sn**	**16 57 58.9**	**+1.1**
	comp=E,474nm,0.4s,baz=49,slow=21,SNR=5.4						
JHCJ	**Hachijojimakas**	**1.17**	**250**	*i* P	**Pn**	**16 57 44.0**	**+0.8**
JHCJ				A	A	16 57 44.0	
	comp=N,16nm,5.7s,comp=E,12nm,4.4s						
JHCJ				*e*S	**Sn**	**16 57 59.1**	**+1.2**
BSO1	**Boso 1**	**1.18**	**355**	P	**Pn**	**16 57 43.3**	**+0.4**
BSO1				S	**Sn**	**16 57 59.5**	**+2.1**
JMKN	**Mikurajimanish**	**1.33**	**289**	⇓*i* P	**Pn**	**16 57 46.1**	**+0.7**
JMKN				A	A	16 57 46.1	
	comp=N,15nm,1.6s,comp=E,14nm,1.4s						
JMKN				⇓S	**Sn**	**16 58 02.6**	**+0.7**
BSO3	**Boso 3**	**1.41**	**340**	*i* P	**Pn**	**16 57 46.8**	**+0.5**
BSO3				*e*S	**Sn**	**16 58 04.2**	**+0.7**
JMYK	**Miyake Tsubota**	**1.43**	**295**	*i* P	**Pn**	**16 57 47.3**	**+0.6**
JMYK				A	A	16 57 47.3	
	comp=N,13nm,1.1s,comp=E,11nm,0.8s						
JMYK				*e*S	**Sn**	**16 58 05.4**	**+1.2**
JAOM	**Aogashimamukai**	**1.52**	**229**	P	**Pn**	**16 57 49.0**	**+1.0**
JAOM				A	A	16 57 49.0	
	comp=N,10.0nm,1.1s,comp=E,10.0nm,3.8s						
JAOM				S	**Sn**	**16 58 07.8**	**+1.3**
BSO4	**Boso 4**	**1.64**	**337**	P	**Pn**	**16 57 50.6**	**+1.1**
BSO4				S	**Sn**	**16 58 11.8**	**+2.4**
JNIO	**Niijimaoohara**	**1.76**	**300**	A	A	16 57 52.4	
	comp=N,16nm,2.1s,comp=E,15nm,1.3s						
JKO	**Kozu shima**	**1.79**	**294**	⇓P	**Pn**	**16 57 52.6**	**+0.8**
JKO				A	A	16 57 52.6	
	comp=N,11nm,1.3s,comp=E,23nm,3.3s						
JKO				⇓*e*S	**Sn**	**16 58 14.3**	**+1.1**
JSKK	**Shikinejimakit**	**1.80**	**299**	P	**Pn**	**16 57 52.7**	**+0.9**
JTHY	**Toshimahigashi**	**1.84**	**305**	P	**Pn**	**16 57 53.2**	**+0.8**
JTHY				*e*S	**Sn**	**16 58 14.7**	**+0.2**
JKUC	**kamogawauchiur**	**1.84**	**336**	P	**Pn**	**16 57 52.7**	**+0.3**
JKUC				*e*S	**Sn**	**16 58 14.3**	**-0.1**
JIM2	**Oshima 3**	**1.86**	**312**	*i* P	**Pn**	**16 57 53.0**	**+0.2**
JIM2				A	A	16 57 53.0	
	comp=N,9.0nm,0.8s,comp=E,14nm,0.9s						
JIZS	**Izushimoda**	**2.23**	**304**	A	A	16 57 59.1	
	comp=N,4.0nm,1.2s,comp=E,8.0nm,1.2s						
JSG	**Sagara**	**2.70**	**297**	P	**Pn**	**16 58 06.7**	**+2.4**
JSG	**Sagara**	**2.70**	**297**		**Pn**	**16 58 05.5**	**+1.1**
JSG	**Sagara**	**2.70**	**297**	P	**Pn**	**16 58 06.8**	**+2.5**
JGF	**Kuroka**	**3.75**	**305**		**Pn**	**16 58 21.3**	**+2.5**
JGF	**Kuroka**	**3.75**	**305**	P	**Pn**	**16 58 21.7**	**+2.9**
INU	**Inuyama**	**3.86**	**300**	P	**Pn**	**16 58 22.6**	**+2.3**
INU	**Inuyama**	**3.86**	**300**		**Pn**	**16 58 21.9**	**+1.6**
INU	**Inuyama**	**3.86**	**300**	P	**Pn**	**16 58 23.0**	**+2.7**
MJAR	**Matsushiro Arr**	**3.88**	**323**	P	**Pn**	**16 58 22.0**	**+1.5**
	comp=E,61nm,0.4s,baz=149,slow=12,SNR=229						
MJAR				S	**Sn**	**16 59 06.0**	**+1.3**
	comp=E,22nm,0.4s,baz=306,slow=17,SNR=6.0						
MJAR				LR	LR	17 00 08.5	
	comp=E,489nm,19.7s,baz=146,slow=42						
MJAR	**Matsushiro Arr**	**3.88**	**323**	Pn	**Pn**	**16 58 22.4**	**+2.0**
MAJO	**Matsushiro**	**3.88**	**323**	P	**Pn**	**16 58 22.6**	**+2.2**
MAJO	**Matsushiro**	**3.88**	**323**		**Pn**	**16 58 22.4**	**+2.0**
MAJO	**Matsushiro**	**3.88**	**323**	P	**Pn**	**16 58 22.7**	**+2.2**
MJB9	**Matsu-Tunnel**	**3.88**	**323**		**Pn**	**16 58 23.9**	**+3.4**
JMN	**Monobe**	**6.04**	**274**		**Pn**	**16 58 50.2**	**+0.1**
JMN	**Monobe**	**6.04**	**274**	P	**Pn**	**16 58 52.7**	**+2.5**
	comp=Z,40nm,1.5s						
JCJ	**Chichijima**	**6.43**	**171**	P	**Pn**	**16 58 51.5**	**-4.1**
	comp=Z,46nm,0.3s,baz=171,slow=19,SNR=30						
JCJ				S	Sn	16 59 57.7	-10
	comp=Z,82nm,0.3s,baz=281,slow=21,SNR=7.0						
JCJ				LR	LR	17 00 44.6	
	comp=Z,96nm,20.3s,baz=351,slow=31						
JCJ	**Chichijima**	**6.43**	**171**	P	**Pn**	**16 58 55.3**	**-0.2**
JCJ	**Chichijima**	**6.43**	**171**	Pn	**Pn**	**16 58 55.1**	**-0.4**
JTM	**Tenmabayashi**	**7.30**	**360**	P	**Pn**	**16 59 08.2**	**+0.8**
JTM	**Tenmabayashi**	**7.30**	**360**		**Pn**	**16 59 07.7**	**+0.4**
JTM	**Tenmabayashi**	**7.30**	**360**	P	**Pn**	**16 59 07.3**	**-0.1**
	comp=Z,46nm,1.3s						
JNU	**Nakatsue**	**8.57**	**270**	P	**Pn**	**16 59 26.9**	**+2.0**
	comp=Z,2.0nm,0.3s,baz=45,slow=5.2,SNR=12						
JNU				LR	LR	17 01 42.1	
	comp=Z,80nm,19.3s,baz=69,slow=30						
ERM	**Erimo**	**8.68**	**10**	P	**Pn**	**16 59 26.4**	**+0.1**
ERM	**Erimo**	**8.68**	**10**	Pn	**Pn**	**16 59 25.7**	**-0.6**
ERM	**Erimo**	**8.68**	**10**	P	**Pn**	**16 59 25.7**	**-0.6**
	comp=Z,49nm,1.1s						
JEM	**Erimo**	**8.68**	**10**	P	**Pn**	**16 59 25.8**	**-0.5**
ASAJ	**Asahikawa**	**10.69**	**6**	P	**Pn**	**16 59 52.5**	**-1.3**
	comp=Z,4.0nm,0.3s,baz=197,slow=16,SNR=17						
ASAJ				S	**Sn**	**17 01 46.7**	**-5.4**
	comp=Z,12nm,1.1s,baz=288,slow=26,SNR=1.6						
JKA	**Kamikawa-asahi**	**10.69**	**6**	Pn	**Pn**	**16 59 52.0**	**-1.8**
KSRS	**Korea Array**	**11.46**	**294**	P	**Pn**	**17 00 07.0**	**+2.6**
	comp=Z,1.8nm,0.7s,baz=112,slow=14,SNR=13						
KSRS				LR	LR	17 04 22.1	
	comp=Z,383nm,20.3s,baz=105,slow=36						
KSRS	**Korea Array**	**11.46**	**294**		**Pn**	**17 00 07.0**	**+2.6**
KSAR	**Wonju Array Be**	**11.48**	**294**	Pn	**Pn**	**17 00 03.2**	**-1.6**
KS19	**Wonju Array Si**	**11.52**	**294**	Pn	**Pn**	**17 00 03.9**	**-1.3**
USA0B	**Ussuriysk Arra**	**12.84**	**329**	Pn	**Pn**	**17 00 22.3**	**-1.0**
USRK	**Ussuriysk Ar.**	**12.84**	**329**	P	**Pn**	**17 00 24.0**	**+0.7**
	comp=Z,1.1nm,0.8s,baz=107,slow=12,SNR=4.7						
USRK	**Ussuriysk Ar.**	**12.84**	**329**	Pn	**Pn**	**17 00 23.0**	**-0.3**
JOW	**Kunigami**	**12.92**	**243**	LR	LR	17 04 58.0	
	comp=Z,237nm,21.2s,baz=6.0,slow=35						
YSS	**Yuzhno-Sakhali**	**13.52**	**5**	Pn	**Pn**	**17 00 31.2**	**-1.3**
KLR	**Kul'dur**	**17.21**	**339**	P	**Pn**	**17 01 19.1**	**-1.7**
	comp=Z,1.1nm,0.3s,baz=173,slow=15,SNR=6.3						
KLR				LR	LR	17 07 50.0	
	comp=Z,142nm,19.5s,baz=159,slow=36						
NACB	**Ninganchiao**	**19.42**	**247**	P	**P**	**17 01 46.5**	**0.0**
NACB	**Ninganchiao**	**19.42**	**247**	P	**P**	**17 01 44.7**	**-1.8**
HEH	**HeiHe**	**19.57**	**333**	*e*P	**P**	**17 01 46.0**	**-1.9**
HEH				pmax	pmax		
	comp=Z,7.0nm,1.5s						
YULB	**Yu-li**	**20.08**	**245**	P	Pn	17 01 55.2	-0.5
YULB	**Yu-li**	**20.08**	**245**	P	**P**	**17 01 53.9**	**+0.2**
YULB				IAmb	IAmb	17 02 02.9	
	comp=Z,55nm,1.5s						
GUMO	**Guam**	**20.09**	**169**	LR	LR	17 07 21.1	
	comp=Z,41nm,19.9s,baz=12,slow=30						
SSLB	**Suanglung**	**20.12**	**247**	P	**P**	**17 01 53.5**	**-0.7**
SSLB	**Suanglung**	**20.12**	**247**	P	**P**	**17 01 52.8**	**-1.4**
SSLB				IAmb	IAmb	17 02 04.3	
	comp=Z,50nm,1.3s						
SSLB	**Suanglung**	**20.12**	**247**	P	**P**	**17 01 54.0**	**-0.2**
	comp=Z,27nm,0.5s						
TPUB	**Ta-pu**	**20.64**	**246**	P	**P**	**17 02 00.7**	**+0.9**
TPUB	**Ta-pu**	**20.64**	**246**	P	**P**	**17 01 58.8**	**-1.0**
TPUB				IAmb	IAmb	17 02 03.1	
	comp=Z,65nm,1.3s						
HILR	**Hailar Array B**	**22.55**	**322**	P	**P**	**17 02 21.1**	**+1.0**
	comp=Z,3.1nm,0.3s,baz=128,slow=8.8,SNR=7.0						
	comp=Z,3.1nm,0.3s						
WHN	**Wuhan**	**22.86**	**270**	P	**P**	**17 02 22.8**	**-0.6**
PETK	**Petropavlovsk-**	**22.94**	**26**	LR	LR	17 12 35.0	
	comp=Z,40nm,20.6s,baz=190,slow=40						
HHC	**Hu-ho-hao-te**	**24.59**	**296**	*e*P	**P**	**17 02 42.5**	**+2.5**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=N,98nm,4.5s						
HHC				LR	LR		
	comp=N,160nm,18.3s						
HHC				LR	LR		
	comp=E,150nm,16.8s						
HHC				LR	LR		
	comp=Z,190nm,19.1s						
XAN	**Xi'an**	**26.71**	**280**	P	**P**	**17 02 57.3**	**-1.9**
XAN				sP	pwP	17 03 11.3	-0.6
XAN				pmax	pmax		
	comp=Z,6.0nm,0.9s						
H11N2	**WAKE ISLAND Hy**	**26.73**	**114**	T	T	17 31 58.6	
	baz=306,slow=75,SNR=166						
H11N1	**WAKE ISLAND Hy**	**26.73**	**114**	T	T	17 32 04.4	
	baz=306,slow=75,SNR=181						
H11N3	**WAKE ISLAND Hy**	**26.74**	**114**	T	T	17 32 03.4	
	baz=306,slow=75,SNR=91						
MA2	**Magadan**	**26.88**	**11**	LR	LR	17 14 35.5	
	comp=Z,88nm,19.8s,baz=200,slow=38						
ENH	**Enshi**	**26.99**	**272**	P	**P**	**17 02 59.9**	**-1.9**
	comp=Z,7.3nm,1.1s						
H11S3	**WAKE ISLAND Hy**	**27.31**	**117**	T	T	17 32 49.8	
	baz=307,slow=75,SNR=14						
H11S1	**WAKE ISLAND Hy**	**27.31**	**117**	T	T	17 32 44.7	
	baz=307,slow=75,SNR=14						
H11S2	**WAKE ISLAND Hy**	**27.32**	**117**	T	T	17 32 50.8	
	baz=307,slow=75,SNR=8.7						
ULN	**Ulaanbaatar**	**29.29**	**310**		**P**	**17 03 22.1**	**-0.1**
ULN	**Ulaanbaatar**	**29.29**	**310**	P	**P**	**17 03 23.3**	**+1.0**
	comp=Z,6.9nm,1.2s						
YAK	**Yakutsk**	**29.49**	**349**	LR	LR	17 14 51.6	
	comp=Z,150nm,20.8s,baz=151,slow=36						
YAK	**Yakutsk**	**29.49**	**349**		**P**	**17 03 24.0**	**+0.3**
YAK				IAmb	IAmb	17 03 24.5	
	comp=Z,17nm,1.1s						
YAK	**Yakutsk**	**29.49**	**349**	P	**P**	**17 03 23.7**	**+0.1**
	comp=Z,20nm,1.7s						
SONM	**Songino Array**	**29.70**	**309**	P	**P**	**17 03 26.7**	**+0.9**
	comp=Z,3.1nm,0.7s,baz=114,slow=9.0,SNR=12						
SONM				LR	LR	17 15 37.5	
	comp=Z,198nm,20.0s,baz=108,slow=37						
	comp=Z,3.1nm,0.7s						
SONM	**Songino Array**	**29.70**	**309**		**P**	**17 03 26.8**	**+0.9**
DAV	**Davao City (W)**	**29.96**	**212**	LR	LR	17 13 33.6	
	comp=Z,98nm,21.2s,baz=32,slow=32						
SEY	**Seymchan**	**30.32**	**10**	LR	LR	17 16 45.4	
	comp=Z,141nm,19.3s,baz=244,slow=38						
TLY	**Talaya**	**32.58**	**315**	LR	LR	17 16 17.8	
	comp=Z,86nm,20.0s,baz=83,slow=35						
TLY	**Talaya**	**32.58**	**315**	P	**P**	**17 03 51.4**	**+0.4**
TLY				IAmb	IAmb	17 03 54.9	
	comp=Z,10nm,0.9s						
TLY	**Talaya**	**32.58**	**315**	P	**P**	**17 03 51.9**	**+0.9**
	comp=Z,12nm,0.9s						
GTA2	**Gaotai**	**33.56**	**292**	*e*P	**P**	**17 03 58.8**	**-1.1**
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FAKI	**Fak Fak**	**37.15**	**195**	P	**P**	**17 04 30.8**	**0.0**
FAKI	**Fak Fak**	**37.15**	**195**	P	**P**	**17 04 30.4**	**-0.4**
SANI	**Sanana**	**38.11**	**205**	P	**P**	**17 04 37.0**	**-1.8**
SANI	**Sanana**	**38.11**	**205**	P	**P**	**17 04 35.8**	**-3.0**
	comp=Z,10nm,0.7s						
TIXI	**Tiksi**	**38.79**	**354**	LR	LR	17 22 39.2	
	comp=Z,

comp=Z,7.7nm,1.2s
GSI Gunungsitoli 51.81 241 P P 17 06 26.7 -1.2
GSI Gunungsitoli 51.81 241 P P 17 06 26.7 -1.2
GSI Gunungsitoli 51.81 241 P P 17 06 26.3 -1.6
comp=Z,33nm,1.1s
AAK Ala-Archa 52.02 301 P P 17 06 29.5 +0.1
comp=Z,4.0nm,1.3s
KSH2 Kashi 52.10 296 P P 17 06 30.0 0.0
KSH2 pmax pmax
comp=Z,4.0nm,1.1s
ILAR Eielson Array 52.65 31 P P 17 06 33.9 +0.4
comp=Z,2.0nm,0.8s,baz=268,slow=6.5,SNR=16
comp=Z,2.0nm,0.8s
ILAR Eielson Array 52.65 31 P P 17 06 34.0 +0.6
BVAR Borovoye Array 52.83 314 P P 17 06 34.9 0.0
comp=Z,4.2nm,0.7s,baz=89,slow=7.6,SNR=20
BVAR PcP **PcP 17 07 43.6 -0.2**
comp=Z,1.3nm,0.4s,baz=89,slow=3.5,SNR=5.6
comp=Z,4.2nm,0.7s
BORK Borovoye 52.87 314 P P 17 06 35.9 +0.7
FITZ Fitzroy Crossi 53.37 198 P P 17 06 39.1 -0.1
comp=Z,2.7nm,0.6s,baz=15,slow=8.6,SNR=7.0
comp=Z,2.7nm,0.6s
CTA Charters Tower 53.49 174 LR LR 17 28 48.6
comp=Z,54nm,20.7s,baz=38,slow=35
WRAB Tennant Creek 53.50 188 P P 17 06 39.8 -0.3
WRAB Tennant Creek 53.50 188 P P 17 06 39.8 -0.3
WRAB IAmb IAmb 17 06 40.9
comp=Z,17nm,1.0s
WRAB Tennant Creek 53.50 188 P P 17 06 39.9 -0.3
comp=Z,24nm,1.2s
WR8 Warramunga Arr 53.51 188 P P 17 06 39.5 -0.7
WRA Warramunga Arr 53.51 188 P P 17 06 40.1 -0.1
comp=Z,12nm,0.6s,baz=6.4,slow=7.6,SNR=212
comp=Z,12nm,0.6s
WRA Warramunga Arr 53.51 188 P P 17 06 38.8 -1.4
QIS Mount Isa 53.75 182 P P 17 06 41.7 -0.2
comp=Z,10nm,1.1s
C27K Jago River 53.91 25 P P 17 06 44.4 +1.8
C27K IAmb IAmb 17 06 48.2
comp=Z,13nm,1.4s
KKAR Karatay Array 54.75 302 P P 17 06 49.2 0.0
L29M L29M 56.63 33 P P 17 07 04.7 +2.3
L29M IAmb IAmb 17 07 05.8
comp=Z,9.9nm,0.9s
AS01 Alice Springs 57.23 188 P P 17 07 06.9 -0.1
AS31 Alice Springs 57.24 188 IAmb IAmb 17 07 09.2
comp=Z,4.9nm,0.6s
ASAR Alice Springs 57.24 188 P P 17 07 07.0 0.0
comp=Z,5.5nm,0.6s,baz=2.1,slow=5.7,SNR=100
comp=Z,5.5nm,0.6s
ASAR Alice Springs 57.24 188 P P 17 07 06.3 -0.7
INK Inuvik 57.67 26 P P 17 07 10.2 +0.6
comp=Z,5.4nm,1.1s
MBWA Marble Bar 58.03 204 P P 17 07 12.6 0.0
MBWA Marble Bar 58.03 204 P P 17 07 12.7 0.0
comp=Z,15nm,1.7s
ARTI Arti 58.99 320 P P 17 07 18.6 -0.4
AB31 Akbulak array 60.08 312 P P 17 07 25.5 -1.1
AB31 IAmb IAmb 17 07 26.8
comp=Z,4.7nm,0.7s
ABKAR Akbulak array 60.08 312 P P 17 07 25.6 -1.0
DZM Mont Dzumac 60.29 153 LR LR 17 35 04.4
comp=Z,49nm,19.1s,baz=300,slow=37
MEEK Meekatharra 63.49 202 P P 17 07 49.8 +0.1
MEEK Meekatharra 63.49 202 P P 17 07 49.8 +0.1
comp=Z,17nm,1.6s
SPITS Spitsbergen Ar 63.96 349 P P 17 07 52.7 +0.5
comp=Z,3.9nm,0.6s,baz=347,slow=10,SNR=17
comp=Z,3.9nm,0.6s
CMSA Cobar Meteorol 64.81 176 P P 17 07 59.4 +1.1
comp=Z,9.4nm,1.1s
STKA Stephens Creek 65.01 180 P P 17 08 00.2 +0.8
comp=Z,3.0nm,0.8s,baz=338,slow=10.0,SNR=5.2
comp=Z,3.0nm,0.8s
STKA Stephens Creek 65.01 180 P P 17 07 59.9 +0.4
BBOO Buckleboo 66.11 185 P P 17 08 07.0 +0.4
BBOO Buckleboo 66.11 185 P P 17 08 06.8 +0.2
comp=Z,13nm,1.5s
KEV Kevo 66.68 340 P P 17 08 09.6 -0.3
comp=Z,23nm,0.7s
YKA Yellowknife Ar 67.02 29 P P 17 08 13.1 +1.0
comp=Z,1.1nm,0.8s,baz=294,slow=6.7,SNR=4.3
comp=Z,1.1nm,0.8s
ARCES ARCESS Array B 67.24 340 P P 17 08 13.5 0.0
comp=Z,2.4nm,0.7s,baz=58,slow=7.3,SNR=5.2
comp=Z,2.4nm,0.7s
ARCES ARCESS Array B 67.24 340 P P 17 08 13.0 -0.5
ARCES IAmb IAmb 17 08 15.5
comp=Z,10.0nm,1.2s
BLDU Ballidu 67.79 203 P P 17 08 17.6 +0.3
BLDU Ballidu 67.79 203 P P 17 08 17.3 0.0
comp=Z,29nm,2.2s
GHSS Government Hou 68.08 182 P P 17 08 19.3 +0.3
SGF Sodankyl 68.14 338 P P 17 08 19.0 -0.2
comp=Z,36nm,2.8s
MSF Maaselka 68.18 336 P P 17 08 19.5 +0.1
comp=Z,9.9nm,0.7s
KLBR Kellerberrin 68.37 201 P P 17 08 21.3 +0.3
comp=Z,37nm,0.9s
RNF Rovaniemi 68.79 337 P P 17 08 23.4 +0.2
comp=Z,14nm,0.7s
NEEM North Greenlan 69.09 3 *i* P **P 17 08 25.7 +0.4**
NEEM IAmb IAmb 17 08 26.6
comp=Z,9.2nm,0.8s
DAG Danmarks Havn 69.29 355 P P 17 08 26.4 +0.2
DAG Danmarks Havn 69.29 355 *i* P **P 17 08 26.3 +0.2**
DAG IAmb IAmb 17 08 27.3
comp=Z,10nm,1.0s
OUL Oulu 69.73 336 P P 17 08 29.3 +0.3
NWAO Narrogin (SRO) 69.77 201 P P 17 08 30.1 +0.5
NWAO Narrogin (SRO) 69.77 201 P P 17 08 29.9 +0.3
comp=Z,27nm,1.6s
FINES FINESS Array B 71.85 333 P P 17 08 41.8 -0.2
comp=Z,7.2nm,0.8s,baz=70,slow=3.8,SNR=20
comp=Z,7.2nm,0.8s
KBZ Khabaz 73.04 311 P P 17 08 49.7 +0.3
comp=Z,7.3nm,0.8s,baz=63,slow=2.9,SNR=15
comp=Z,7.3nm,0.8s
KIV Kislovodsk 73.06 312 P P 17 08 50.1 +0.4
comp=Z,20nm,0.9s
GNI Garni 73.65 307 LR LR 17 43 46.7
comp=Z,64nm,18.0s,baz=4.0,slow=38
SUMG Summit 74.23 360 *i* P **P 17 08 57.7 +1.2**
SUMG IAmb IAmb 17 08 58.6
comp=Z,11nm,0.9s
SCO Scoresbysund 75.62 354 *i* P **P 17 09 05.3 +1.4**
SCO IAmb IAmb 17 09 06.2
comp=Z,9.5nm,0.8s
SLIT Slitere, Latvi 75.76 331 P P 17 09 06.9 +2.0
comp=Z,330nm,0.9s
GURO Guroymak-BITLI 76.27 307 P P 17 09 07.7 -0.7
GURO IAmb IAmb 17 09 12.5
comp=Z,15nm,1.5s
AKASG Malin Array Be 76.96 323 P P 17 09 11.2 -0.7
comp=Z,1.8nm,0.3s,baz=49,slow=6.0,SNR=20
comp=Z,1.8nm,0.3s
KIEV Kiev 76.97 323 P 17 09 11.6 -0.4
KIEV IAmb IAmb 17 09 12.3
comp=Z,6.8nm,0.7s
KIEV Kiev 76.97 323 P P 17 09 11.9 -0.1
comp=Z,9.8nm,1.2s
HFS Hagfors 77.22 336 P P 17 09 12.6 -0.6
comp=Z,2.1nm,0.4s,baz=5.2,slow=1.6,SNR=14
comp=Z,2.1nm,0.4s
NVAR Mina Array Bea 77.34 52 P P 17 09 16.2 +1.6
comp=Z,2.0nm,0.9s,baz=293,slow=6.0,SNR=6.7
comp=Z,2.0nm,0.9s
NVAR Mina Array Bea 77.34 52 P P 17 09 14.6 0.0
NB2 NORSAR Subarra 77.37 338 P P 17 09 14.2 +0.1
comp=Z,3.1nm,0.7s,baz=41,slow=5.9
NOA NORSAR Array B 77.37 338 P P 17 09 14.0 -0.1
comp=Z,5.1nm,0.8s,baz=40,slow=5.7,SNR=19
NOA LR LR 17 48 45.0
comp=Z,38nm,19.2s,baz=275,slow=40
comp=Z,5.1nm,0.8s
KEMA Kemaliye 78.21 309 P P 17 09 20.0 +0.8
comp=Z,23nm,1.1s
RAR Rarotonga 78.30 125 LR LR 17 43 05.4
comp=Z,21nm,18.8s,baz=236,slow=35
TESR Tescani 80.91 320 P P 17 09 33.9 +0.2
comp=Z,9.9nm,1.6s
BRTR Keskin Array B 81.03 312 P P 17 09 34.8 +0.2
comp=Z,3.6nm,0.9s,baz=104,slow=4.1,SNR=14
comp=Z,3.6nm,0.9s
BRTR Keskin Array B 81.03 312 P P 17 09 34.7 +0.1
PFO Pinyon Flats O 81.24 56 LR LR 17 41 51.5
comp=Z,82nm,19.4s,baz=298,slow=33
PFO Pinyon Flats O 81.24 56 P P 17 09 35.5 -0.4
PFO IAmb IAmb 17 09 38.1
comp=Z,9.2nm,1.2s
VRI Vrincioaia 81.28 320 P P 17 09 36.6 +1.0
comp=Z,6.9nm,1.4s
RAYN Ar Rayn 81.78 293 P P 17 09 38.8 0.0
RAYN IAmb IAmb 17 09 39.5
comp=Z,12nm,0.9s
RAYN Ar Rayn 81.78 293 P P 17 09 38.6 -0.2
comp=Z,13nm,1.0s
KKUL Konya-Kulu 81.81 312 P P 17 09 39.4 +0.7
comp=Z,14nm,0.9s
SRU San Rafael Swe 81.95 48 P P 17 09 40.1 +0.6
SRU IAmb IAmb 17 09 41.9
comp=Z,9.1nm,0.8s
TRPA Tarpa 81.96 324 P P 17 09 39.9 +0.7
comp=Z,8.3nm,1.7s
MDUB Mudurnu 82.08 314 P P 17 09 40.1 0.0
VOIR 82.45 320 P P 17 09 42.3 +0.3
ARR Arges 82.72 320 P P 17 09 44.5 +1.2
comp=Z,15nm,1.2s
MORC Moravsky Berou 83.20 327 P P 17 09 46.2 +0.6
PV21 Cone Mtn., Par 83.25 48 P P 17 09 48.2 +1.8
PV23 Carpenter Ridg 83.29 48 P P 17 09 48.0 +1.4
PPT2 Papeete2 83.30 116 *e*LR LR 17 35 48.6
comp=Z,73nm,25.2s
DPC Dobruska-Polom 83.33 328 P P 17 09 47.3 +0.9
comp=Z,5.7nm,1.4s
PSZ Piszkesteto 83.40 325 P P 17 09 47.3 +0.5
comp=Z,10.0nm,1.5s
CLL Collm 84.05 330 P P 17 09 50.0 +0.1
comp=Z,7.2nm,1.2s
CLL Collm 84.05 330 *i* P **P 17 09 49.5 -0.4**
comp=Z,7.0nm,0.9s
BZS Buzias 84.13 322 P P 17 09 50.0 -0.4
comp=Z,4.1nm,2.4s
KRUC Moravsky 84.23 327 P P 17 09 51.7 +0.8
comp=Z,8.2nm,1.4s
MODS Modra-Piesok 84.32 326 P P 17 09 51.3 -0.1
comp=Z,13nm,1.5s
HSKC Hora Svate Kat 84.40 330 P P 17 09 51.9 +0.1
comp=Z,4.9nm,2.2s
TREC Trest 84.47 328 P P 17 09 52.5 +0.4
comp=Z,5.2nm,1.4s
WINA Alland / Wiene 85.07 327 *e*P **P 17 09 55.8 +0.6**
comp=Z,3.2nm,0.5s
RONA Rosalia, Austr 85.27 326 *e*P **P 17 09 56.8 +0.6**
comp=Z,2.4nm,0.6s
CONA Conrad Observa 85.30 327 *e*P **P 17 09 57.0 +0.6**
comp=Z,2.9nm,0.6s
FRGS Fruska Gora 85.37 323 P P 17 09 56.9 +0.1
comp=Z,8.9nm,1.2s
KHC Kasperske Hory 85.44 328 P P 17 09 57.1 0.0
comp=Z,5.8nm,2.3s
GERES GERESS Array B 85.60 328 P P 17 09 57.6 -0.3
comp=Z,1.3nm,0.5s,baz=38,slow=4.7,SNR=12
comp=Z,1.3nm,0.5s
GERES GERESS Array B 85.60 328 P P 17 09 57.3 -0.6
EKA Eskdalemuir Ar 86.39 340 P P 17 10 01.4 -0.2
comp=Z,1.0nm,0.5s,baz=45,slow=5.1,SNR=4.8
comp=Z,1.0nm,0.5s
ECSD EROS Data Cent 86.87 38 P P 17 10 04.7 +0.5
WATA Walderalm 87.67 328 *i* P **P 17 10 07.9 -0.2**
comp=Z,0.9nm,0.3s
ABTA Abfaltersbach 87.70 327 *e*P **P 17 10 07.5 -0.7**
comp=Z,2.6nm,0.4s
KIJV Kijevo 87.90 324 P P 17 10 08.6 -0.5
comp=Z,19nm,1.2s
FUORN Ofenpass-Fuorn 88.80 329 P P 17 10 13.6 0.0
comp=Z,6.2nm,1.3s
TXAR Lajitas Array 92.49 52 P P 17 10 32.0 +1.1
comp=Z,2.8nm,1.0s,baz=292,slow=2.1,SNR=14
comp=Z,2.8nm,1.0s
GBN Guysborough 98.85 16 P P 17 10 57.8 -1.6
QSPA South Pole Qui 123.23 180 PKP PKPdf 17 16 15.1 -0.1
comp=Z,2.5nm,0.9s,baz=264,slow=1.4,SNR=13
QSPA South Pole Qui 123.23 180 PKPdf 17 16 15.0 -0.2
LPAZ La Paz 148.59 64 PKPbc PKPbc 17 17 08.1 +0.5
comp=Z,7.6nm,0.8s,baz=326,slow=2.0,SNR=28
LPAZ La Paz 148.59 64 PKPbc 17 17 07.9 +0.3

*ISK **25** 17:02:16.9, 37.82N×26.91E, h12km, ML2.4/24*
*AFAD **25** 17:02:17.2, 37.82N×26.91E, h7km±2km, ML2.4*
*THE **25** 17:02:17.8, 38.2°×2.7E±, h14km±1km, M2.6/4, MLh2.6/4*
ISC 25 17:02:17.4±0.9, 37.81N±0.02×26.91E±0.03, h15km±6km, n36, σ0.56/47, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
SMG	**Samos**	**0.12**	**209**	P		**Pb**	**17 02 21.1**	**-0.4**
SMG				S		**Sg**	**17 02 23.9**	**+0.6**
SMG				AML		AML		
DGB	**zmir**	**0.24**	**355**	P		**Pg**	**17 02 22.6**	**-0.2**
DGB				S		**Sg**	**17 02 25.0**	**-1.3**
GMLD	**Gumuldur**	**0.26**	**1**	Pg		**Pg**	**17 02 23.1**	**0.0**
GMLD				Sg		**Sg**	**17 02 26.9**	**-0.1**
GMLD				AML		AML		
GCAM	**G?zelcaml?**	**0.28**	**114**	P		**Pg**	**17 02 23.3**	**-0.1**
GCAM				S		**Sg**	**17 02 27.2**	**-0.2**
GCAM				IAML			17 02 29.0	
	comp=N,618nm,0.7s							
GCAM	**G?zelcaml?**	**0.28**	**114**	Pg		**Pg**	**17 02 23.4**	**0.0**
GCAM				Sg		**Sg**	**17 02 27.7**	**+0.3**
GCAM				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.30**	**81**	Pg		**Pg**	**17 02 23.6**	**-0.2**
KUSD				Sg		**Sg**	**17 02 27.9**	**-0.2**
KUSD				AML		AML		
BEYE	**izmir**	**0.41**	**2**	P		**Pg**	**17 02 25.6**	**-0.2**
BEYE				S		**Sg**	**17 02 30.8**	**-0.7**
BEYE				IAML			17 02 32.0	
	comp=N,268nm,0.5s							
DDIM	**Aydin, Didim**	**0.44**	**143**	P		**Pg**	**17 02 26.0**	**-0.3**
ZEYE	**Izmir, Urla-Ze**	**0.53**	**323**	P		**Pg**	**17 02 27.9**	**-0.1**
ZEYE				S		**Sg**	**17 02 35.4**	**+0.2**
ZEYE				IAML			17 02 39.0	
	comp=N,226nm,0.2s							
BLCB	**Balcova**	**0.58**	**10**	Pg		**Pg**	**17 02 28.7**	**-0.2**
BLCB				Sg		**Sg**	**17 02 36.5**	**-0.2**
BLCB				AML		AML		
DAGE	**izmir**	**0.69**	**74**	P		**Pg**	**17 02 30.7**	**-0.3**
DAGE				S		**Sg**	**17 02 38.2**	**-2.0**
DAGE				IAML			17 02 40.0	
	comp=E,353nm,0.2s							
YKAV	**Yalikavak-Bodr**	**0.75**	**157**	Pg		**Pg**	**17 02 31.2**	**-0.8**
YKAV				AML		AML		
AYDB	**Zeytinkoy-Aydi**	**0.79**	**80**	Pg		**Pb**	**17 02 32.8**	**-0.1**
AYDB				AML		AML		
BODT	**Bodrum**	**0.81**	**157**	P		**Pb**	**17 02 33.2**	**-0.2**
BODT				S		**Sb**	**17 02 45.1**	**+1.1**
BODT	**Bodrum**	**0.81**	**157**	Pg		**Pb**	**17 02 33.1**	**-0.2**
BODT				AML		AML		
BAGT	**Foa**	**0.84**	**357**	P		Pg	17 02 23.8	-10
MLSB	**Milas**	**0.86**	**127**	Pg		**Pb**	**17 02 34.2**	**+0.1**
MLSB				AML		AML		
CHOS	**Chios island**	**0.89**	**311**	P		**Pn**	**17 02 35.4**	**-0.1**
CHOS	**Chios island**	**0.89**	**311**	Pg		**Pb**	**17 02 34.6**	**0.0**
CHOS				AML		AML		
FOCM	**Foa**	**0.91**	**351**	Pg		**Pb**	**17 02 35.1**	**+0.2**
FOCM				AML		AML		
CAMT	**Merkez**	**0.99**	**19**	P		**Pb**	**17 02 36.2**	**-0.1**
CAMT				S		**Sn**	**17 02 50.2**	**-0.3**
CAMT				IAML			17 02 53.0	
	comp=E,123nm,0.3s							
NAZL	**Nazilli-Aydin**	**1.10**	**82**	Pn		**Pb**	**17 02 38.0**	**-0.3**
NAZL				AML		AML		
GOMA	**Golmarmara-Man**	**1.19**	**41**	Pn		**Pb**	**17 02 39.8**	**0.0**
GOMA				AML		AML		
DAT	**Datca**	**1.21**	**154**	Pn		**Pn**	**17 02 40.0**	**+0.1**
DAT				AML		AML		
DKL	**Dikili**	**1.26**	**360**	Pn		**Pg**	**17 02 41.1**	**-0.6**
DKL				AML		AML		
APE	**Apeiranthos**	**1.33**	**236**	P		**Pn**	**17 02 41.4**	**-0.1**
APE	**Apeiranthos**	**1.33**	**236**	Pn		**Pn**	**17 02 41.8**	**+0.3**
APE				AML		AML		
SOMA	**Soma-Manisa**	**1.43**	**20**	Pn		**Pb**	**17 02 43.5**	**-0.3**
SOMA				AML		AML		
GORD	**Gordes-Manisa**	**1.48**	**42**	Pn		**Pb**	**17 02 44.2**	**-0.5**
GORD				AML		AML		
TURN	**Turunc**	**1.48**	**134**	Pn		**Pn**	**17 02 43.6**	**0.0**
TURN				AML		AML		
KULA	**Kula-Manisa**	**1.55**	**63**	Pn		**Pn**	**17 02 45.2**	**+0.6**
KULA				AML		AML		
YAYO	**Edremit-Balk**	**1.80**	**4**	Pn		**Pn**	**17 02 48.9**	**+0.9**
YAYO				AML		AML		
APMY	**Acipayam-Deniz**	**1.93**	**99**	Pn		**Pn**	**17 02 50.5**	**+0.7**
BALB	**Balikesir**	**1.98**	**22**	Pn		**Pn**	**17 02 51.3**	**+0.9**
BALB				AML		AML		
SIMA	**Simav-Kutahya**	**2.06**	**51**	Pn		**Pn**	**17 02 52.4**	**+0.7**
SIMA				AML		AML		
CAME	**Cameli-Denizli**	**2.09**	**114**	Pn		**Pn**	**17 02 52.8**	**+0.7**

*IDC **25** 17:28:21.4±0.7, 10.69N×126.01E, h0km, mb4.2/15, mbtmp4.2/15, MS3.2/8, Error ellipse: s-maj=32.2km s-min=14.6km az=70.0*
*MAN **25** 17:28:23.0, 10.83N×126.24E, h3km, MS4.1*
*NEIC **25** 17:28:27.4±1.9, 10.7N±0.1×126.0E±0.2, h35km±2km, mb4.4/26, Error ellipse: s-maj=28.4km s-min=16.5km az=76.0*
ISC 25 17:28:28.3±0.6, 10.81N±0.04×126.19E±0.07, h49km, n75, σ1.952/67, mb4.4/27, MS3.2/5, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
					Op	ISC	h m s	ISC
PLP	**Palo**	**1.24**	**287**	*e*P		**Pn**	**17 28 46.8**	**-2.5**
PLP				*e*S		**Sn**	**17 29 05.5**	**+0.6**
LLP	**Lapu-Lapu**	**2.24**	**258**	*e*P		**Pn**	**17 29 02.8**	**-0.2**
LLP				*e*S		**Sn**	**17 29 31.0**	**+1.6**
CGP	**Cagayan de Oro**	**2.76**	**212**	*i* P		**Pn**	**17 29 10.5**	**+0.4**
CGP				*i* S		**Sn**	**17 29 43.7**	**+1.4**
MMPH	**Masbate**	**2.95**	**302**	*e*P		**Pn**	**17 29 12.5**	**-0.2**
MMPH				*i* S		**Sn**	**17 29 51.5**	**+4.7**
SNPH	**Sibulan**	**3.25**	**244**	*i* P		**Pn**	**17 29 17.5**	**+0.6**
SNPH				*i* S		**Sn**	**17 29 57.5**	**+3.1**
DCPH	**Dipolog City**	**3.56**	**232**	*i* P		**Pn**	**17 29 21.2**	**+0.1**
DCPH				*i* S		**Sn**	**17 30 00.8**	**-1.3**
DAV	**Davao City (W)**	**3.76**	**189**	LR		LR	17 31 13.9	
	comp=Z,829nm,18.1s,baz=356,slow=48							
KCP	**Kidapawan**	**3.92**	**196**	*e*P		**Pn**	**17 29 29.3**	**+3.1**
IBAJ	**Ibajay, Aklan**	**4.07**	**285**	*e*P		**Pn**	**17 29 28.8**	**+0.8**
JAP	**San Jose, Anti**	**4.17**	**270**	*e*P		**Pn**	**17 29 31.6**	**+2.1**
GQP	**Guinayangan**	**4.78**	**310**	*e*P		**Pn**	**17 29 38.9**	**+1.0**
GQP				*i* S		**Sn**	**17 30 37.5**	**+5.5**
LQP	**Lukban**	**5.61**	**306**	*e*P		**Pn**	**17 29 46.1**	**-3.3**
SIJI	**Sorong**	**12.65**	**156**	LR		LR	17 37 38.1	
	comp=Z,50nm,19.5s,baz=30,slow=44							
GUMO	**Guam**	**18.47**	**79**	LR		LR	17 38 29.5	
	comp=Z,57nm,20.1s,baz=244,slow=33							
SOEI	**Soe**	**20.52**	**185**	P		**P**	**17 33 02.1**	**-0.6**
SOEI				IAmb		IAmb	17 33 28.8	
	comp=Z,16nm,0.8s							
KNRA	**Kununurra**	**26.43**	**174**	P		**P**	**17 34 00.5**	**-0.2**
KSRS	**Korea Array**	**26.58**	**3**	LR		LR	17 45 19.3	
	comp=Z,28nm,19.1s,baz=190,slow=38							
CMAR	**Chiang Mai Arr**	**27.41**	**289**	P		**P**	**17 34 08.4**	**-1.1**
	comp=Z,0.7nm,0.8s,baz=101,slow=7.3,SNR=5.9							
	comp=Z,0.7nm,0.8s							
PSI	**Prapat**	**28.19**	**256**	LR		LR	17 49 21.9	
	comp=Z,52nm,18.1s,baz=358,slow=45							
FITZ	**Fitzroy Crossi**	**28.73**	**181**			**P**	**17 34 20.4**	**-0.8**
WB0	**Warramunga Arr**	**31.44**	**165**	P		**P**	**17 34 43.9**	**-1.3**
WB0				IAmb		IAmb	17 35 19.9	
	comp=Z,5.5nm,1.2s							
WRA	**Warramunga Arr**	**31.59**	**165**	P		**P**	**17 34 45.3**	**-1.3**
	comp=Z,0.8nm,0.6s,baz=343,slow=9.3,SNR=11							
	comp=Z,0.8nm,0.6s							
WRA	**Warramunga Arr**	**31.59**	**165**	P		**P**	**17 34 44.5**	**-2.1**
WR8	**Warramunga Arr**	**31.64**	**165**	P		**P**	**17 34 44.5**	**-2.5**
WR8				IAmb		IAmb	17 35 04.6	
	comp=Z,11nm,1.4s							
MBWA	**Marble Bar**	**32.39**	**191**	P		**P**	**17 34 52.4**	**-1.1**
MBWA				IAmb		IAmb	17 34 55.4	
	comp=Z,11nm,1.1s							
USRK	**Ussuriysk Ar.**	**33.65**	**8**	P		**P**	**17 35 05.2**	**+0.9**
	comp=Z,2.2nm,0.8s,baz=203,slow=6.4,SNR=4.6							
	comp=Z,2.2nm,0.8s							
AS31	**Alice Springs**	**35.08**	**168**			**P**	**17 35 17.0**	**+0.1**
ASAR	**Alice Springs**	**35.08**	**168**	P		**P**	**17 35 15.8**	**-1.2**
	comp=Z,1.1nm,0.4s,baz=350,slow=7.0,SNR=47							
	comp=Z,1.1nm,0.4s							
ASAR	**Alice Springs**	**35.08**	**168**	P		**P**	**17 35 15.6**	**-1.3**
CTA	**Charters Tower**	**36.50**	**147**	LR		LR	17 52 31.7	
	comp=Z,42nm,18.6s,baz=215,slow=40							
HNR	**Honiara**	**39.14**	**120**	LR		LR	17 51 57.5	
	comp=Z,39nm,18.5s,baz=36,slow=36							
H11S3	**WAKE ISLAND Hy**	**39.85**	**74**	T		T	18 18 44.9	
	baz=264,slow=75,SNR=32							
H11S1	**WAKE ISLAND Hy**	**39.86**	**74**	T		T	18 18 44.8	
	baz=264,slow=75,SNR=32							
H11S2	**WAKE ISLAND Hy**	**39.87**	**74**	T		T	18 18 43.7	
	baz=264,slow=75,SNR=44							
H11N1	**WAKE ISLAND Hy**	**40.17**	**72**	T		T	18 19 07.4	
	baz=265,slow=74,SNR=51							
H11N2	**WAKE ISLAND Hy**	**40.17**	**72**	T		T	18 19 07.0	
	baz=265,slow=74,SNR=33							
H11N3	**WAKE ISLAND Hy**	**40.18**	**72**	T		T	18 19 07.6	
	baz=265,slow=74,SNR=48							
ULN	**Ulaanbaatar**	**40.30**	**340**			**P**	**17 36 01.6**	**+0.7**
ULN				IAmb		IAmb	17 36 02.9	
	comp=Z,12nm,1.4s							
SONM	**Songino Array**	**40.49**	**339**	P		**P**	**17 36 03.3**	**+0.8**
	comp=Z,1.5nm,0.5s,baz=157,slow=11,SNR=12							
	comp=Z,1.5nm,0.5s							
SONM	**Songino Array**	**40.49**	**339**	P		**P**	**17 36 03.2**	**+0.7**
SONM				IAmb		IAmb	17 36 04.4	
	comp=Z,6.2nm,1.4s							
INKA	**Innaminka**	**40.83**	**160**	P		**P**	**17 36 04.2**	**-1.2**
MORW	**Morawa**	**40.83**	**194**	P		**P**	**17 36 05.0**	**-0.3**
MORW				IAmb		IAmb	17 36 30.6	
	comp=Z,19nm,1.2s							
FORT	**Forrest**	**41.38**	**178**	P		**P**	**17 36 10.0**	**+0.2**
NWAO	**Narrogin (SRO)**	**44.32**	**191**	P		**P**	**17 36 33.2**	**-0.4**
BBOO	**Buckleboo**	**44.38**	**168**	P		**P**	**17 36 34.0**	**-0.1**
STKA	**Stephens Creek**	**44.93**	**161**	P		**P**	**17 36 38.6**	**+0.1**
	comp=Z,4.6nm,0.9s,baz=8.0,slow=4.6,SNR=5.9							
	comp=Z,4.6nm,0.9s							
STKA	**Stephens Creek**	**44.93**	**161**	IAmb		IAmb	17 36 42.5	
	comp=Z,20nm,0.8s							
PETK	**Petropavlovsk-**	**49.19**	**25**	P		**P**	**17 37 13.4**	**+2.0**
	comp=Z,6.6nm,1.0s,baz=178,slow=3.9,SNR=3.7							
	comp=Z,6.6nm,1.0s							
MKAR	**Makanchi Array**	**51.56**	**323**	P		**P**	**17 37 29.6**	**+0.1**
	comp=Z,4.2nm,0.7s,baz=124,slow=8.1,SNR=30							
	comp=Z,4.2nm,0.7s							
MKAR	**Makanchi Array**	**51.56**	**323**			**P**	**17 37 28.6**	**-0.9**
MAKZ	**Makanchi**	**51.75**	**322**	P		**P**	**17 37 30.4**	**-0.5**
MAKZ				IAmb		IAmb	17 37 31.9	
	comp=Z,5.8nm,1.1s							
PDGK	**Podgornoye**	**51.75**	**317**			**P**	**17 37 30.4**	**-0.8**
NRN	**Naryn**	**53.43**	**314**			**P**	**17 37 43.0**	**-0.8**
NRN				IAmb		IAmb	17 37 44.4	
	comp=Z,3.7nm,0.9s							
ZAA0	**Zalesovo Array**	**54.12**	**331**	P		**P**	**17 37 47.6**	**-0.6**
ZAA0				IAmb		IAmb	17 37 48.8	
	comp=Z,3.9nm,0.9s							
ZALV	**Zalesovo Beam**	**54.12**	**331**	P		**P**	**17 37 48.0**	**-0.3**
	comp=Z,1.7nm,0.5s,baz=118,slow=7.8,SNR=12							
	comp=Z,1.7nm,0.5s							
ZALV	**Zalesovo Beam**	**54.12**	**331**	P		**P**	**17 37 47.5**	**-0.8**
KURK	**Kurchatov**	**55.58**	**325**			**P**	**17 37 58.6**	**-0.3**
KURBB	**Kurchatov Arra**	**55.59**	**325**	P		**P**	**17 37 59.0**	**0.0**
	comp=Z,2.7nm,0.5s,baz=124,slow=6.8,SNR=24							
	comp=Z,2.7nm,0.5s							
KK31	**Karatay Array**	**57.82**	**314**			**P**	**17 38 13.8**	**-1.2**
KK31				IAmb		IAmb	17 38 15.1	
	comp=Z,4.5nm,1.1s							
KKAR	**Karatay Array**	**57.82**	**314**	P		**P**	**17 38 13.9**	**-1.0**
BVAR	**Borovoye Array**	**61.18**	**325**	P		**P**	**17 38 37.7**	**-0.2**
	comp=Z,2.6nm,0.8s,baz=120,slow=11,S

	comp=Z,4.9nm,1.4s						
ARCES	**ARCESS Array B**	83.67	340	P	**P**	17 40 51.8	+0.3
	comp=Z,6.6nm,0.9s,baz=80,slow=6.6,SNR=15						
	comp=Z,6.6nm,0.9s						
ARCES	**ARCESS Array B**	83.67	340	P	**P**	17 40 51.3	-0.2
BRTR	**Keskin Array B**	85.13	309	P	**P**	17 40 58.1	-1.5
	comp=Z,0.6nm,0.5s,baz=126,slow=5.4,SNR=4.4						
	comp=Z,0.6nm,0.5s						
BRTR	**Keskin Array B**	85.13	309	P	**P**	17 40 58.6	-1.1
FINES	**FINESS Array B**	85.39	332	P	**P**	17 40 59.6	-0.6
	comp=Z,6.8nm,1.1s,baz=64,slow=4.4,SNR=9.0						
	comp=Z,6.8nm,1.1s						
FINES	**FINESS Array B**	85.39	332	P	**P**	17 40 59.1	-1.2

*ISK **25** 17:38:42.3, 37.83N×26.92E, h9km, ML2.9/44*
*AFAD **25** 17:38:42.7, 37.82N×26.91E, h7km±1km, ML2.7*
*THE **25** 17:38:43.4, 38.1N±3.2×7.2E±.1, h14km±2km, M3.2/7, MLh3.2/7*
*ATH **25** 17:38:43.2, 37.80N×26.88E, h12km±1km, ML3.2/9, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 25 17:38:42.9±0.8, 37.82N±0.02×26.92E±0.02, h12km±6km, n82, σ0.50/96, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	0.13	209	P	**Pg**	17 38 46.0	-0.1
SMG				S	**Sg**	17 38 48.7	+0.3
SMG				AML	AML		
SMG	**Samos**	0.13	209	P	**Pg**	17 38 46.1	0.0
SMG				S	**Sg**	17 38 48.2	-0.2
SMG				AML	AML		
DGB	**zmir**	0.23	354	P	**Pg**	17 38 47.6	-0.2
DGB				S	**Sg**	17 38 50.5	-0.7
SAM2	**Drakei, Karlov**	0.25	256	P	**Pg**	17 38 48.1	0.0
SAM2				S	**Sg**	17 38 51.7	+0.1
GMLD	**Gumuldur**	0.26	0	Pg	**Pg**	17 38 48.1	-0.2
GMLD				Sg	**Sg**	17 38 52.1	+0.2
GMLD				AML	AML		
GCAM	**G?zelcaml?**	0.28	115	P	**Pg**	17 38 48.6	-0.1
GCAM				S	**Sg**	17 38 52.7	+0.2
GCAM				IAML		17 38 54.0	
	comp=N,1μm,0.6s						
GCAM	**G?zelcaml?**	0.28	115	Pg	**Pg**	17 38 48.6	-0.1
GCAM				Sg	**Sg**	17 38 52.7	+0.2
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	0.30	82	Pg	**Pg**	17 38 48.5	-0.5
KUSD				Sg	**Sg**	17 38 53.0	-0.1
KUSD				AML	AML		
BEYE	**İzmir**	0.41	1	P	**Pg**	17 38 50.7	-0.4
BEYE				S	**Sg**	17 38 56.6	+0.2
BEYE				IAML		17 39 00.0	
	comp=N,707nm,0.3s						
DDIM	**Aydin, Didim**	0.45	144	P	**Pg**	17 38 51.9	+0.2
ZEYE	**İzmir, Urla-Ze**	0.53	322	P	**Pg**	17 38 53.0	-0.3
ZEYE				S	**Sg**	17 39 00.7	+0.4
ZEYE				IAML		17 39 01.0	
	comp=N,1μm,0.3s						
BLCB	**Balcova**	0.57	10	Pg	**Pg**	17 38 53.7	-0.4
BLCB				Sg	**Sg**	17 39 02.1	+0.4
BLCB				AML	AML		
CESE	**eme**	0.70	317	Pg	**Pg**	17 38 56.2	-0.4
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	0.75	157	Pg	**Pg**	17 38 57.6	+0.1
YKAV				AML	AML		
AYDN	**Tasoluk**	0.78	101	P	**Pg**	17 38 58.0	0.0
AYDB	**Zeytinkoy-Aydi**	0.78	80	Pg	**Pg**	17 38 58.0	-0.1
AYDB				Sg	**Sg**	17 39 08.2	-0.2
AYDB				AML	AML		
BODT	**Bodrum**	0.82	157	P	**Pg**	17 38 58.5	-0.2
BODT				AML	AML		
BODT	**Bodrum**	0.82	157	Pg	**Pg**	17 38 58.6	-0.2
BODT				AML	AML		
KRBN	**Karaburun**	0.82	340	Pg	**Pg**	17 38 58.5	-0.4
KRBN				AML	AML		
BAGT	**Foa**	0.84	357	P	Pg	17 38 50.7	-8.4
KLNA	**Kalymnos**	0.86	177	P	**Pg**	17 38 59.4	-0.2
KLNA				S	**Sg**	17 39 10.6	-0.3
KLNA				AML	AML		
MLSB	**Milas**	0.86	127	Pg	**Pg**	17 38 59.3	-0.3
MLSB				AML	AML		
BDRM	**Kayabasi**	0.86	151	P	**Pg**	17 38 59.6	0.0
IZMR	**zmir-demi**	0.88	69	P	**Pg**	17 38 59.7	-0.2
CHOS	**Chios island**	0.88	310	P	**Pg**	17 39 00.2	+0.1
CHOS				AML	AML		
CHOS	**Chios island**	0.88	310	Pg	**Pg**	17 38 59.9	-0.1
CHOS				AML	AML		
CHOS	**Chios island**	0.88	310	P	**Pg**	17 39 00.3	+0.3
CHOS				S	**Sb**	17 39 12.8	+0.7
CHOS				AML	AML		
FOCM	**Foa**	0.90	351	Pg	**Pg**	17 38 59.2	-1.2
FOCM				AML	AML		
KARB	**zmir-Karabur**	0.93	335	P	**Pg**	17 39 00.9	0.0
EAG2	**Marmaro, Chios**	0.96	319	P	**Pb**	17 39 01.8	+0.2
EAG2				S	**Sb**	17 39 14.6	+0.3
CAMT	**Merkez**	0.98	19	P	**Pg**	17 39 01.4	-0.4
NAZL	**Nazilli-Aydin**	1.10	82	Pn	**Pb**	17 39 03.0	-0.9
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	1.14	91	P	Pg	17 39 13.7	+8.9
ZEDA	**zmir-Bergama**	1.15	6	P	**Pb**	17 39 04.4	-0.4
ZEDA				S	**Sb**	17 39 19.3	-0.4
ZEDA				IAML		17 39 25.0	
	comp=E,166nm,0.6s						
GOMA	**Golmarmara-Man**	1.19	41	Pn	**Pn**	17 39 05.4	0.0
GOMA				AML	AML		
DAT	**Datca**	1.21	154	Pn	**Pn**	17 39 04.9	-0.9
DAT				AML	AML		
KIRA	**zmir-Kiraz**	1.23	72	P	Pg	17 39 12.8	+6.1
DKL	**Dikili**	1.25	360	Pn	**Pn**	17 39 05.8	-0.5
DKL				AML	AML		
DKL	**Dikili**	1.25	360	P	**Pb**	17 39 06.8	+0.4
KTTT	**Salihli**	1.27	47	P	**Pn**	17 39 06.5	0.0
AKHS	**Akhisar**	1.27	33	P	**Pn**	17 39 06.5	-0.1
AKS	**Akhisar**	1.27	33	Pn	**Pn**	17 39 06.9	+0.3
AKS				AML	AML		
APE	**Apeiranthos**	1.33	236	P	**Pn**	17 39 06.8	-0.6
APE				AML	AML		
APE	**Apeiranthos**	1.33	236	Pn	**Pn**	17 39 07.9	+0.4
APE				AML	AML		
APE	**Apeiranthos**	1.33	236	P	**Pn**	17 39 07.8	+0.4
APE				S	**Sb**	17 39 23.6	-1.3
APE				AML	AML		
ASTA	**Astypalaia**	1.35	200	P	**Pb**	17 39 08.3	+0.2
ASTA				AML	AML		
TNSA	**Tinos**	1.42	259	P	**Pn**	17 39 08.2	-0.3
TNSA				AML	AML		
SOMA	**Soma-Manisa**	1.42	20	Pn	**Pn**	17 39 09.1	+0.5
SOMA				AML	AML		
GORD	**Gordes-Manisa**	1.47	42	Pn	**Pn**	17 39 09.8	+0.4
GORD				AML	AML		
TURN	**Turunc**	1.49	134	Pn	**Pn**	17 39 10.0	+0.5
TURN				AML	AML		
AYVA	**Ayvalik**	1.50	353	P	**Pg**	17 39 11.4	-0.3
PRK	**Paraskevi**	1.51	341	P	**Pn**	17 39 10.1	+0.3
PRK	**Paraskevi**	1.51	341	P	**Pb**	17 39 11.2	+0.3
PRK				AML	AML		
KULA	**Kula-Manisa**	1.54	63	Pn	**Pn**	17 39 10.7	+0.3
KULA				AML	AML		
DALY	**Dalyan (Mula)**	1.71	125	Pn	**Pn**	17 39 13.3	+0.7
DALY				AML	AML		
YAYO	**Edremit-Balk**	1.79	4	Pn	**Pn**	17 39 14.3	+0.6
YAYO				AML	AML		
CMBO	**Columbo, Santo**	1.81	222	P	**Pn**	17 39 13.9	0.0
THERA	**Ancient Thera,**	1.85	219	P	**Pn**	17 39 14.6	+0.1
THERA				AML	AML		
ARG	**Arkhangelos**	1.87	148	Pn	**Pn**	17 39 15.4	+0.6
ARG				AML	AML		
ARG	**Arkhangelos**	1.87	148	P	**Pn**	17 39 15.8	+1.0
ARG				AML	AML		
APMY	**Acipayam-Deniz**	1.93	100	Pn	**Pn**	17 39 15.6	0.0
APMY				AML	AML		
BALB	**Balikesir**	1.97	22	Pn	**Pn**	17 39 16.9	+0.8
BALB				AML	AML		
EZN	**Ezine**	2.06	347	Pn	**Pn**	17 39 17.9	+0.6
EZN				AML	AML		
SIMA	**Simav-Kutahya**	2.06	52	Pn	**Pn**	17 39 18.1	+0.7
SIMA				AML	AML		
CAME	**Cameli-Denizli**	2.09	114	Pn	**Pn**	17 39 18.6	+0.6
CAME				AML	AML		
FETY	**Fethiye**	2.10	124	Pn	**Pn**	17 39 18.8	+0.9
FETY				AML	AML		
BOZC	**Bozcaada**	2.13	342	Pn	**Pn**	17 39 18.9	+0.5
BOZC				AML	AML		
CANM	**Can-anakkale**	2.19	3	Pn	**Pn**	17 39 20.1	+0.9
CANM				AML	AML		
COMU	**Canakkale**	2.30	352	Pn	**Pn**	17 39 21.0	+0.2
COMU				AML	AML		
GONE	**Gonen-Balikesi**	2.30	15	Pn	**Pn**	17 39 21.6	+0.9
SUSR	**Susurluk-Balik**	2.33	23	Pn	**Pn**	17 39 21.9	+0.8
SUSR				AML	AML		
DION	**Dionisos Attik**	2.37	277	P	**Pn**	17 39 21.2	-0.6
PTL	**Penteli**	2.42	276	P	**Pn**	17 39 22.8	+0.4
VLY	**Voula,Athens**	2.47	272	P	**Pn**	17 39 22.6	-0.5
GADA	**Gvkgeada**	2.50	342	Pn	**Pn**	17 39 24.4	+1.0
GADA				AML	AML		
LPK	**Lapseki**	2.55	357	Pn	**Pn**	17 39 24.5	+0.3
LPK				AML	AML		
TVSB	**Tavsanli**	2.57	50	Pn	**Pn**	17 39 25.4	+0.8
TVSB				AML	AML		
KRBG	**Karabiga-Canak**	2.59	6	Pn	**Pn**	17 39 25.6	+1.0
KRBG				AML	AML		
GELI	**Tayfur-Gelibol**	2.60	353	Pn	**Pn**	17 39 24.6	-0.2
GELI				AML	AML		
EDC	**Edincik**	2.63	16	Pn	**Pn**	17 39 26.2	+1.0
EDC				AML	AML		
KCTX	**Karacabey (Bur**	2.69	24	Pn	**Pn**	17 39 26.9	+0.8
KCTX				AML	AML		
ERIK	**Erikli-Kesan**	2.86	354	Pn	**Pn**	17 39 28.1	-0.3
ERIK				AML	AML		

*ISK **25** 17:51:39.8, 37.83N×26.91E, h8km, ML2.6/39*
*AFAD **25** 17:51:39.8, 37.82N×26.87E, h7km±2km, ML2.6*
*THE **25** 17:51:40.4, 38.1N±1.2×7.2E±.1, h7km±3km, M2.9/8, MLh2.9/8*

ISC 25 17:51:40.4±0.8, 37.84N±0.02×26.92E±0.02, h14km±6km, n68, σ0.69/85, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	0.14	207	P	**Pg**	17 51 43.7	-0.3
SMG				S	**Sg**	17 51 46.3	-0.1
SMG				AML	AML		
DGB	**zmir**	0.22	353	P	**Pg**	17 51 44.9	-0.3
GMLD	**Gumuldur**	0.24	359	Pg	**Pg**	17 51 45.2	-0.4
GMLD				Sg	**Sg**	17 51 49.3	+0.2
GMLD				AML	AML		
GCAM	**G?zelcaml?**	0.28	118	P	**Pg**	17 51 46.3	0.0
GCAM				S	**Sg**	17 51 50.7	+0.4
GCAM				IAML		17 51 51.0	
	comp=N,1μm,0.2s						
GCAM	**G?zelcaml?**	0.28	118	Pg	**Pg**	17 51 46.2	0.0
GCAM				Sg	**Sg**	17 51 50.4	+0.1
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	0.29	85	Pg	**Pg**	17 51 46.1	-0.4
KUSD				Sg	**Sg**	17 51 50.7	+0.1
KUSD				AML	AML		
BEYE	**İzmir**	0.39	1	P	**Pg**	17 51 47.8	-0.5
BEYE				S	**Sg**	17 51 53.0	-0.6
DDIM	**Aydin, Didim**	0.46	146	P	**Pg**	17 51 49.2	-0.2
DDIM				IAML		17 51 56.0	
	comp=N,542nm,0.5s						
DDIM				S	**Sb**	17 51 56.2	-0.6
ZEYE	**İzmir, Urla-Ze**	0.52	321	P	**Pg**	17 51 49.8	-0.9
ZEYE				IAML		17 51 57.0	
	comp=N,476nm,0.2s						
ZEYE				S	**Sg**	17 51 57.8	+0.2
ZEYE				IAML		17 51 58.0	
	comp=E,231nm,0.3s						
DIDI	**Didim-Aydin**	0.52	151	Pg	**Pg**	17 51 50.4	-0.3
DIDI				AML	AML		
BLCB	**Balcova**	0.56	10	P	**Pg**	17 51 51.0	-0.3
BLCB				S	**Sg**	17 51 58.5	-0.3
BLCB				AML	AML		
BLCB	**Balcova**	0.56	10	Pg	**Pg**	17 51 51.0	-0.3
BLCB				Sg	**Sg**	17 51 58.6	-0.2
BLCB				AML	AML		
DAGE	**izmir**	0.68	75	P	**Pb**	17 51 54.9	+0.9
DAGE				S	**Sg**	17 52 01.5	-1.1
DAGE				IAML		17 52 02.0	
	comp=N,587nm,0.2s						
YKAV	**Yalikavak-Bodr**	0.77	158	Pg	**Pg**	17 51 54.9	-0.3
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	0.78	81	Pg	**Pg**	17 51 55.3	-0.2
AYDB				AML	AML		
AYDN	**Tasoluk**	0.78	103	P	**Pb**	17 51 56.0	+0.2
KRBN	**Karaburun**	0.81	339	Pg	**Pb**	17 51 55.9	-0.4
KRBN				AML	AML		
BAGT	**Foa**	0.82	356	P	**Pg**	17 51 55.9	-0.4
BODT	**Bodrum**	0.83	158	P	**Pg**	17 51 56.1	-0.4
BODT				S	**Sb**	17 52 08.2	+0.5
BODT				AML	AML		
BODT	**Bodrum**	0.83	158	Pg	**Pb**	17 51 56.2	-0.4
BODT				AML	AML		
MLSB	**Milas**	0.87	128	Pg	**Pb**	17 51 56.9	-0.4
MLSB				AML	AML		
IZMR	**zmir-demi**	0.87	69	P	**Pb**	17 51 57.7	+0.4
IZMR				P	**Pn**	17 51 57.8	-0.4
IZMR				S	**Sg**	17 52 07.1	-1.6
IZMR				S	**Sg**	17 52 07.1	-1.6
IZMR				IAML		17 52 08.0	
	comp=N,204nm,0.3s						
BDRM	**Kayabasi**	0.88	151	P	**Pb**	17 51 57.2	-0.1
BDRM				S	**Sb**	17 52 09.2	+0.3
BDRM				IAML		17 52 11.0	
	comp=N,264nm,0.3s						
CHOS	**Chios island**	0.88	309	P	**Pg**	17 51 56.9	-0.5
CHOS				S	**Sb**	17 52 09.7	+0.6
CHOS				AML	AML		
CHOS	**Chios island**	0.88	309	Pg	**Pb**	17 51 57.0	-0.4
CHOS				AML	AML		
FOCM	**Foa**	0.89	350	Pg	**Pb**	17 51 57.3	-0.3
FOCM				AML	AML		
BODA	**Bodrum-Mula**	0.90	153	Pg	**Pb**	17 51 57.5	-0.2
KARB	**zmir-Karabur**	0.92	334	P	**Pg**	17 51 56.8	-1.3
CAMT	**Merkez**	0.96	19	P	**Pg**	17 51 58.4	-0.6
NAZL	**Nazilli-Aydin**	1.09	83	Pn	**Pg**	17 52 00.6	-0.9
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	1.13	91	P	**Pg**	17 52 01.2	-1.0
ZEDA	**zmir-Bergama**	1.14	6	S	Sg	17 52 01.2	-16
ZEDA				P	**Pg**	17 52 01.4	-0.9
GOMA	**Golmarmara-Man**	1.17	42	Pn	**Pn**	17 52 02.7	+0.3
GOMA				AML	AML		
DAT	**Datca**	1.22	154	Pn	**Pn**	17 52 03.5	+0.3
DAT				AML	AML		
KIRA	**zmir-Kiraz**	1.23	72	P	**Pg**	17 52 03.3	-0.7
DATC	**Datca-Mugla**	1.23	151	Pn	**Pn**	17 52 03.6	+0.5
DATC				AML	AML		
YAZI	**Mula-Dat§a-**	1.23	160	P	**Pn**	17 52 03.6	+0.4
DKL	**Dikili**	1.23	360	Pn	**Pg**	17 52 03.8	-0.3
DKL				AML	AML		
MULA	**Mugla, Merkez-**	1.25	117	P	**Pn**	17 52 03.1	-0.5
KTTT	**Salihli**	1.26	47	P	**Pg**	17 52 04.2	-0.4
AKHS	**Akhisar**	1.26	34	P	**Pn**	17 52 03.7	+0.1
AKS	**Akhisar**	1.26	34	Pn	**Pg**	17 52 04.5	-0.1
AKS				AML	AML		
APE	**Apeiranthos**	1.34	236	P	**Pn**	17 52 05.0	+0.2
APE				AML	AML		
APE	**Apeiranthos**	1.34	236	Pn	**Pb**	17 52 05.3	-0.1
APE				AML	AML		
SOMA	**Soma-Manisa**	1.41	20	Pn	**Pn**	17 52 06.1	+0.5
SOMA				AML	AML		
GORD	**Gordes-Manisa**	1.46	42	Pn	**Pb**	17 52 07.1	-0.3
GORD				AML	AML		
SULTU	**Buldan**	1.48	81	P	**Pg**	17 52 08.8	0.0
AYVA	**Ayvalik**	1.48	353	P	**Pb**	17 52 07.8	0.0
TURN	**Turunc**	1.50	135	Pn	**Pb**	17 52 07.5	-0.4
TURN				AML	AML		
PRK	**Paraskevi**	1.50	340	P	**Pn**	17 52 07.5	+0.6
KULA	**Kula-Manisa**	1.53	63	Pn	**Pn**	17 52 08.1	+0.7
KULA				AML	AML		
BUHA	**Balikesir, Bur**	1.67	4	P	**Pb**	17 52 10.5	-0.4
DALY	**Dalyan (Mula)**	1.72	126	Pn	**Pn**	17 52 10.6	+0.8
DALY				AML	AML		
YAYO	**Edremit-Balk**	1.78	4	Pn	**Pn**	17 52 11.5	+0.8
YAYO				AML	AML		
ARG	**Arkhangelos**	1.88	149	Pn	**Pn**	17 52 13.0	+0.8
ARG				AML	AML		
APMY	**Acipayam-Deniz**	1.93	100	Pn	**Pn**	17 52 13.0	+0.2
APMY				AML	AML		
BALB	**Balikesir**	1.95	22	Pn	**Pn**	17 52 14.2	+1.1
BALB				AML	AML		
EZN	**Ezine**	2.04	347	Pn	**Pn**	17 52 15.5	+1.2
EZN				AML	AML		
SIMA	**Simav-Kutahya**	2.04	52	Pn	**Pn**	17 52 15.6	+1.1
SIMA				AML	AML		
CAME	**Cameli-Denizli**	2.10	114	Pn	**Pn**	17 52 16.3	+1.1
CAME				AML	AML		
FETY	**Fethiye**	2.10	124	Pn	**Pn**	17 52 16.2	+1.0
FETY				AML	AML		
BOZC	**Bozcaada**	2.12	342	Pn	**Pn**	17 52 16.5	+1.1
BOZC				AML	AML		
DST	**Dursunbey**	2.21	36	Pn	**Pn**	17 52 18.1	+1.4
COMU	**Canakkale**	2.29	351	Pn	**Pn**	17 52 18.8	+1.0
COMU				AML	AML		
GONE	**Gonen-Balikesi**	2.29	15	Pn	**Pn**	17 52 18.9	+1.2
SUSR	**Susurluk-Balik**	2.31	23	Pn	**Pn**	17 52 19.4	+1.3
SUSR				AML	AML		
KRBG	**Karabiga-Canak**	2.57	6	Pn	**Pn**	17 52 22.9	+1.3
KRBG				AML	AML		
GELI	**Tayfur-Gelibol**	2.58	352	Pn	**Pn**	17 52 23.1	+1.3

*GII **25** 18:02:50.2±0.0, 35.607N±0.003×27.899E±0.001, h0km, Mws3.6, confirmed*
*ATH **25** 18:02:54.8, 35.75N×28.10E, h5km±1km, ML3.3/12, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*ISK **25** 18:02:54.9, 35.81N×28.01E, h7km, ML3.1/23*
*AFAD **25** 18:02:55.0, 35.84N×28.00E, h30km±5km, ML3.1*
*NIC **25** 18:02:55.7, 35.89N×28.00E, h34km±10km, ML3.2/13*
*THE **25** 18:02:56.0, 36.2×2.8E±., h6km±2km, M3.1/10, MLh3.1/10*

ISC 25 18:02:54.1±1.2, 35.77N±0.02×28.07E±0.02, h10km±9km, n110, σ1.40/154, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ARG	**Arkhangelos**	0.45	6	P	**Pb**	18 03 04.1	0.0
ARG				S	**Sb**	18 03 10.3	-0.6
ARG				AML	AML		
ARG	**Arkhangelos**	0.45	6	P	**Pb**	18 03 04.0	-0.2
ARG				S	**Sb**	18 03 10.7	-0.2
ARG				AML	AML	18 03 11.7	
	8.0nm,0.3s						
ARG				AML	AML	18 03 13.0	
	6.3nm,0.7s						
ARG	**Arkhangelos**	0.45	6	Pg	**Pb**	18 03 03.4	-0.7
ARG				Sg	**Sb**	18 03 09.9	-1.0
ARG				AML	AML		
ARG	**Arkhangelos**	0.45	6	P	**Pb**	18 03 04.1	0.0
ARG				S	**Sb**	18 03 10.1	-0.8
RODB	**Rodos**	0.69	10	P	**Pb**	18 03 08.3	+0.1
RODB				S	**Sb**	18 03 18.1	+0.3
RODB				AML	AML		
KARP	**Karpathos**	0.77	254	P	**Pb**	18 03 09.4	-0.1
KARP				S	**Sb**	18 03 20.3	+0.3
KARP				AML	AML		
KARP	**Karpathos**	0.77	254	P	**Pg**	18 03 08.9	0.0
KARP				S	**Sb**	18 03 20.8	+0.7
KARP				AML	AML	18 03 24.7	
	6.2nm,0.4s						
KARP				AML	AML	18 03 24.9	
	5.5nm,0.6s						
KARP	**Karpathos**	0.77	254	Pg	**Pb**	18 03 09.6	+0.1
KARP				Sg	**Sb**	18 03 20.5	+0.5
KARP				AML	AML		
KARP	**Karpathos**	0.77	254	P	**Pb**	18 03 09.8	+0.3
KARP				S	**Sb**	18 03 20.7	+0.7
KARP				AML	AML		
TURN	**Turunc**	1.02	8	P	**Pn**	18 03 14.1	-0.3
TURN				S	**Sn**	18 03 27.9	-0.8
TURN				IAML		18 03 35.0	
	comp=E,510nm,0.4s						
TURN	**Turunc**	1.02	8	Pg	**Pn**	18 03 14.0	-0.3
TURN				Sg	**Sn**	18 03 28.3	-0.4
TURN				AML	AML		
DAT	**Datca**	1.04	338	P	**Pn**	18 03 14.6	-0.2
DAT				S	**Sn**	18 03 28.6	-0.8
DAT				AML	AML		
DAT	**Datca**	1.04	338	Pg	**Pb**	18 03 14.4	+0.2
DAT				AML	AML		
YAZI	**Mula-Dat§a-**	1.04	332	P	**Pb**	18 03 14.2	+0.1
YAZI				S	**Sb**	18 03 27.8	0.0
DATC	**Datca-Mugla**	1.04	342	Pg	**Pb**	18 03 14.4	+0.2
DATC				AML	AML		
DALY	**Dalyan (Mula)**	1.15	24	P	**Pn**	18 03 17.0	+0.8
DALY	**Dalyan (Mula)**	1.15	24	Pn	**Pn**	18 03 16.6	+0.4
DALY				AML	AML		
IZZE	**Mula-Seydike**	1.15	54	P	**Pn**	18 03 17.2	+0.9
IZZE				S	**Sn**	18 03 35.1	+3.0
IZZE				IAML		18 03 38.0	
	comp=N,653nm,0.6s						
FETY	**Fethiye**	1.20	43	Pn	**Pn**	18 03 18.1	+1.2
FETY				AML	AML		
SABU	**Mula-Dalaman**	1.28	34	P	**Pg**	18 03 19.7	+1.0
SABU				S	**Sn**	18 03 36.3	+1.0
SABU				IAML		18 03 46.0	
	comp=E,255nm,0.8s						
SABU				IAML		18 03 47.0	
	comp=N,257nm,0.7s						
KSL	**Kastellorizon**	1.29	72	P	**Pg**	18 03 19.7	+0.9
KSL				S	**Sn**	18 03 38.8	+3.4
KSL				AML	AML		
KSL	**Kastellorizon**	1.29	72	S	**Sb**	18 03 34.5	-0.4
KSL				AML	AML	18 03 41.0	
	0.6nm,0.8s						
KSL				AML	AML	18 03 49.3	
	0.5nm,0.8s						
AKAS	**Kas**	1.33	69	P	**Pg**	18 03 20.2	+0.5
AKAS	**Kas**	1.33	69	Pn	**Pg**	18 03 20.5	+0.8
AKAS				AML	AML		
BDRM	**Kayabasi**	1.39	339	P	**Pb**	18 03 20.2	0.0
BDRM				S	**Sg**	18 03 38.4	-0.5
BDRM				IAML		18 03 42.0	
	comp=N,423nm,0.4s						
BDRM				IAML		18 03 42.0	
	comp=E,430nm,0.5s						
BODT	**Bodrum**	1.43	335	P	**Pb**	18 03 20.8	0.0
BODT				S	**Sg**	18 03 40.2	+0.1
BODT				AML	AML		
BODT	**Bodrum**	1.43	335	Pn	**Pb**	18 03 20.9	0.0
BODT				AML	AML		
KLNA	**Kalymnos**	1.48	324

APMY	**Acipayam-Deniz**	**1.97**	**30**	Pn	**Pb**	**18 03 29.7**	**-0.4**
APMY				AML	AML			
DNIZ	**Denizli-Tavas-**	**2.02**	**23**	P	**Pb**	**18 03 31.1**	**+0.2**
DNIZ				S	**Sg**	**18 03 57.2**	**-1.7**
DNIZ				IAML		18 04 03.0		
	comp=E,630nm,0.4s							
ESEN	**Aydn-Nazilli**	**2.04**	**6**	P	**Pg**	**18 03 32.7**	**-0.5**
ESEN				S	**Sb**	**18 03 57.0**	**+0.4**
GCAM	**G?zelcaml?**	**2.04**	**341**	P	**Pn**	**18 03 29.3**	**+0.8**
GCAM	**G?zelcaml?**	**2.04**	**341**	Pn	**Pb**	**18 03 29.8**	**-1.4**
GCAM				AML	AML			
NPS	**Neapolis**	**2.06**	**257**	P	**Pb**	**18 03 30.5**	**-1.1**
NPS				S	**Sn**	**18 03 55.1**	**+0.5**
NPS				AML	AML			
NPS	**Neapolis**	**2.06**	**257**	P	**Pb**	**18 03 31.1**	**-0.5**
NPS				AML	AML			
SMG	**Samos**	**2.18**	**333**	P	**Pb**	**18 03 32.0**	**-1.5**
SMG				AML	AML			
AYDB	**Zeytinkoy-Aydi**	**2.18**	**356**	Pn	**Pb**	**18 03 32.1**	**-1.6**
AYDB				AML	AML			
THERA	**Ancient Thera,**	**2.18**	**287**	P	**Pn**	**18 03 31.0**	**+0.6**
THERA				S	**Sn**	**18 03 57.7**	**+0.3**
THERA				AML	AML			
THERA	**Ancient Thera,**	**2.18**	**287**	P	**Pn**	**18 03 32.0**	**+1.6**
THERA				AML	AML			
THR8	**Santorini-Mono**	**2.19**	**288**	P	**Pn**	**18 03 31.6**	**+1.1**
NAZL	**Nazilli-Aydin**	**2.20**	**5**	Pn	**Pn**	**18 03 32.1**	**+1.4**
KORT	**Korkueli**	**2.22**	**56**	Pn	**Pb**	**18 03 33.5**	**-0.8**
KORT				AML	AML			
THR3	**Thira Island,**	**2.25**	**287**	P	**Pn**	**18 03 32.4**	**+1.1**
SAP3	**Santorini-Thir**	**2.30**	**288**	P	**Pb**	**18 03 34.1**	**-1.5**
SAM2	**Drakei, Karlov**	**2.31**	**330**	P	**Pn**	**18 03 33.5**	**+1.4**
SULTU	**Buldan**	**2.35**	**14**	P	**Pb**	**18 03 37.5**	**+0.9**
SULTU				S	**Sb**	**18 04 05.5**	**-0.2**
IZMR	**zmir-demi**	**2.37**	**358**	P	**Pb**	**18 03 35.1**	**-1.7**
APE	**Apeiranthos**	**2.42**	**303**	P	**Pn**	**18 03 34.4**	**+0.7**
APE				AML	AML			
APE	**Apeiranthos**	**2.42**	**303**	Pn	**Pn**	**18 03 34.6**	**+0.9**
APE				AML	AML			
DGB	**zmir**	**2.47**	**338**	P	**Pn**	**18 03 34.3**	**0.0**
BEYE	**izmir**	**2.62**	**340**	P	**Pn**	**18 03 37.5**	**+1.1**
IDI	**Anoyia**	**2.63**	**261**	P	**Pn**	**18 03 38.3**	**+1.7**
IDI	**Anoyia**	**2.63**	**261**	P	**Pn**	**18 03 38.5**	**+1.8**
BLCB	**Balcova**	**2.74**	**343**	Pn	**Pn**	**18 03 40.0**	**+1.9**
BLCB				AML	AML			
SIVA	**Sivas**	**2.76**	**255**	P	**Pn**	**18 03 40.3**	**+2.0**
KULA	**Kula-Manisa**	**2.79**	**10**	Pn	**Pn**	**18 03 40.8**	**+2.0**
KULA				AML	AML			
ISP	**Isparta**	**2.85**	**43**	P	**Pn**	**18 03 41.9**	**+2.2**
CHOS	**Chios island**	**3.07**	**329**	P	**Pn**	**18 03 44.7**	**+2.0**
GORD	**Gordes-Manisa**	**3.14**	**2**	Pn	**Pn**	**18 03 45.6**	**+2.0**
AKMS	**Akamas**	**3.57**	**101**	P	**Pn**	**18 03 50.5**	**+1.1**
AKMS				S	**Sn**	**18 04 32.9**	**+1.3**
AKMS				AML	AML	18 04 33.7		
	0.2nm,0.8s							
AKMS				AML	AML	18 04 34.0		
	0.3nm,0.9s							
AKMS	**Akamas**	**3.57**	**101**	P	**Pn**	**18 03 50.8**	**+1.4**
POL7C	**Prodromi**	**3.62**	**100**	P	**Pn**	**18 03 51.7**	**+1.5**
ALFC	**Alefka**	**3.75**	**98**	P	**Pn**	**18 03 52.9**	**+0.9**
ALFC				S	**Sn**	**18 04 37.0**	**+0.8**
ALFC				AML	AML	18 04 38.2		
	0.2nm,0.8s							
ALFC				AML	AML	18 04 43.4		
	0.1nm,0.6s							
ALFC	**Alefka**	**3.75**	**98**	P	**Pn**	**18 03 53.0**	**+1.1**
NATA	**Nata**	**3.81**	**104**	P	**Pn**	**18 03 54.0**	**+1.1**
NATA				S	**Sn**	**18 04 40.0**	**+2.3**
NATA				AML	AML	18 04 41.7		
	0.5nm,1.3s							
NATA				AML	AML	18 04 42.1		
	0.7nm,0.8s							
NATA	**Nata**	**3.81**	**104**	P	**Pn**	**18 03 54.1**	**+1.2**
TROD	**Troodos**	**4.01**	**100**	P	**Pn**	**18 03 56.1**	**+0.5**
TROD				S	**Sn**	**18 04 43.9**	**+1.1**
TROD				AML	AML	18 04 52.2		
	0.1nm,0.4s							
TROD				AML	AML	18 04 52.5		
	0.1nm,0.4s							
VLY	**Voula,Athens**	**4.01**	**303**	P	**Pn**	**18 03 57.4**	**+1.8**
DION	**Dionisos Attik**	**4.04**	**306**	P	**Pn**	**18 03 58.0**	**+2.1**
APOL	**The Sanctuary**	**4.08**	**104**	P	**Pn**	**18 03 57.7**	**+1.3**
APOL				S	**Sn**	**18 04 45.9**	**+1.7**
APOL				AML	AML	18 04 48.8		
	0.1nm,0.3s							
APOL				AML	AML	18 04 50.3		
	0.1nm,0.7s							
XYLS	**Xyliatos**	**4.14**	**99**	P	**Pn**	**18 03 58.3**	**+0.9**
XYLS				S	**Sn**	**18 04 46.6**	**+0.7**
XYLS				AML	AML	18 04 49.9		
	0.2nm,0.4s							
XYLS				AML	AML	18 04 53.2		
	0.1nm,0.6s							
VLI	**Veliai**	**4.25**	**284**	P	**Pn**	**18 04 00.8**	**+2.0**
ASGA	**Asgata**	**4.35**	**101**	P	**Pn**	**18 04 01.1**	**+0.9**
ASGA				AML	AML	18 04 55.4		
	0.1nm,0.3s							
ASGA				AML	AML	18 04 58.7		
	0.1nm,0.7s							
ASGA	**Asgata**	**4.35**	**101**	P	**Pn**	**18 04 01.3**	**+1.1**
ASGA				AML	AML			
CSS	**Mathiatis**	**4.38**	**99**	P	**Pn**	**18 04 01.7**	**+1.2**
CSS				AML	AML	18 04 53.2		
	0.1nm,0.8s							
CSS				S	**Sn**	**18 04 54.1**	**+2.5**
CSS				AML	AML	18 05 00.1		
	0.1nm,0.6s							
CSS	**Mathiatis**	**4.38**	**99**	P	**Pn**	**18 03 59.1**	**-1.5**
CSS				S	**Sn**	**18 04 50.8**	**-0.8**
CSS	**Mathiatis**	**4.38**	**99**	P	**Pn**	**18 04 01.6**	**+1.1**
CSS				AML	AML			
MVOU	**Mavrovouni**	**4.61**	**98**	P	**Pn**	**18 04 04.0**	**+0.3**
MVOU				S	**Sn**	**18 04 58.7**	**+1.4**
MVOU				AML	AML	18 05 00.2		
	0.1nm,1.1s							
MVOU				AML	AML	18 05 06.2		
	0.1nm,0.8s							
MVOU	**Mavrovouni**	**4.61**	**98**	P	**Pn**	**18 04 04.7**	**+0.9**
GUR	**Goura**	**5.08**	**297**	P	**Pn**	**18 04 12.3**	**+2.1**
KLV	**Kalavryta, Ach**	**5.26**	**297**	P	**Pn**	**18 04 15.1**	**+2.4**
LAKA	**Lakka**	**5.46**	**299**	P	**Pn**	**18 04 17.9**	**+2.4**
DRO	**Drossia**	**5.54**	**295**	P	**Pn**	**18 04 18.9**	**+2.3**
ANX	**Ano Chora**	**5.66**	**302**	P	**Pn**	**18 04 20.2**	**+1.9**
MMA0B	**Mount Meron ar**	**6.66**	**112**	P	**Pn**	**18 04 29.8**	**-2.2**
MMA0B				S	**Sn**	**18 05 46.7**	**-1.2**
GEM	**Giv'at Ha'Em**	**6.77**	**110**	P	**Pn**	**18 04 31.0**	**-2.4**
GEM				S	**Sn**	**18 05 49.7**	**-0.9**
MMLI	**Mount Malkishu**	**6.95**	**116**	P	**Pn**	**18 04 33.6**	**-2.3**
MMLI				S	**Sn**	**18 05 52.8**	**-2.2**
AMAZ	**Amatzia**	**7.10**	**125**	P	**Pn**	**18 04 35.4**	**-2.7**
AMAZ				S	**Sn**	**18 05 56.6**	**-2.2**
KZIT	**Kziot**	**7.18**	**131**	P	**Pn**	**18 04 35.9**	**-3.2**
KZIT				S	**Sn**	**18 05 58.1**	**-2.6**
MSBI	**Mazada**	**7.53**	**124**	P	**Pn**	**18 04 40.9**	**-3.0**
MSBI				S	**Sn**	**18 06 06.7**	**-2.6**
RMNI	**Mount Ramon**	**7.62**	**131**	P	**Pn**	**18 04 42.1**	**-3.1**
RMNI				S	**Sn**	**18 06 09.2**	**-2.4**
HRFI	**Mount Harif**	**8.18**	**132**	P	**Pn**	**18 04 49.5**	**-3.4**
HRFI				S	**Sn**	**18 06 22.4**	**-3.0**
EIL	**Elat**	**8.40**	**134**	P	Pn	18 04 51.3	-4.5
EIL				S	**Sn**	**18 06 27.4**	**-3.3**

*IDC **25** 18:22:14.8±1.1, 17°.55S×177°.67W, h0km, mb4.3/6, mbtmp4.3/6, Error ellipse: s-maj=42.2km s-min=26.2km az=145.0*
*NEIC **25** 18:23:13.8±1.0, 17°.8S±0°.2×178°.6W±0°.1, h569km±8km, mb4.2/22, Error ellipse: s-maj=24.8km s-min=13.5km az=154.0*
ISC 25 18:23:12.2±0.8, **17°.7S**±0°.1×**178°.6W**±0°.1, **h550**km, **n32**, σ0s**88**/32, **mb4.2**/18, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**3.17**	**269**	P	**P**	**18 24 31.4**	**+3.0**
PINNC	**Pines Island,**	**13.96**	**247**	P	**P**	**18 26 11.5**	**+0.6**
EIDS	**Eidsvold**	**29.14**	**250**		**P**	**18 29 28.0**	**-1.3**
ARMA	**Armidale**	**29.86**	**239**	P	**P**	**18 28 36.2**	**+0.7**
ARMA				IAmb	IAmb	18 28 59.0		
	comp=Z,18nm,1.4s							
CTAO	**Charters Tower**	**33.28**	**260**	P	**P**	**18 29 03.5**	**-1.2**
CTAO				IAmb	IAmb	18 29 05.1		
	comp=Z,4.7nm,0.8s							
TOO	**Toolangi**	**37.13**	**231**		**P**	**18 29 36.3**	**-0.2**
STKA	**Stephens Creek**	**38.54**	**241**	P	**P**	**18 29 48.1**	**0.0**
	comp=Z,4.2nm,0.5s,baz=90,slow=9.4,SNR=20							
	comp=Z,4.2nm,0.5s							
STKA	**Stephens Creek**	**38.54**	**241**	P	**P**	**18 29 47.9**	**-0.2**
INKA	**Innaminka**	**38.63**	**248**	P	**P**	**18 29 49.5**	**+0.7**
INKA				IAmb	IAmb	18 29 50.1		
	comp=Z,2.5nm,0.5s							
BBOO	**Buckleboo**	**43.32**	**241**	P	**P**	**18 30 26.2**	**+0.2**
WR8	**Warramunga Arr**	**44.31**	**259**	P	**P**	**18 30 33.1**	**-0.8**
WR8				IAmb	IAmb	18 30 43.4		
	comp=Z,17nm,1.4s							
WRA	**Warramunga Arr**	**44.47**	**259**	P	**P**	**18 30 34.5**	**-0.6**
	comp=Z,1.8nm,0.6s,baz=97,slow=6.9,SNR=47							
	comp=Z,1.8nm,0.6s							
WRA	**Warramunga Arr**	**44.47**	**259**	P	**P**	**18 30 34.0**	**-1.1**
AS31	**Alice Springs**	**44.65**	**254**		**P**	**18 30 36.4**	**-0.1**
AS31				IAmb	IAmb	18 30 36.9		
	comp=Z,6.7nm,0.7s							
ASAR	**Alice Springs**	**44.65**	**254**	P	**P**	**18 30 36.4**	**-0.1**
	comp=Z,24nm,0.6s,baz=90,slow=7.8,SNR=972							
	comp=Z,24nm,0.6s							
ASAR	**Alice Springs**	**44.65**	**254**		**P**	**18 30 36.1**	**-0.3**
MTN	**Manton Dam**	**48.60**	**268**	P	**P**	**18 31 06.4**	**0.0**
MTN				IAmb	IAmb	18 31 46.2		
	comp=Z,8.0nm,1.3s							
FORT	**Forrest**	**49.90**	**244**	P	**P**	**18 31 14.9**	**-0.8**
FORT				IAmb	IAmb	18 31 48.8		
	comp=Z,11nm,1.1s							
KNRA	**Kununurra**	**50.31**	**264**	P	**P**	**18 31 18.3**	**-0.6**
KNRA				IAmb	IAmb	18 31 53.6		
	comp=Z,7.5nm,1.4s							
FITZ	**Fitzroy Crossi**	**52.86**	**260**	P	**P**	**18 31 37.3**	**0.0**
SOEI	**Soe**	**55.87**	**270**	P	**P**	**18 31 59.4**	**+0.8**
SOEI				IAmb	IAmb	18 32 09.9		
	comp=Z,10nm,0.8s							
MBWA	**Marble Bar**	**57.92**	**256**	P	**P**	**18 32 12.0**	**-0.5**
MBWA				IAmb	IAmb	18 32 19.0		
	comp=Z,24nm,1.4s							
VNDA	**Vanda**	**60.61**	**185**	P	**P**	**18 32 28.8**	**-0.6**
TOLI2	**Tolitoli**	**62.48**	**281**	P	**P**	**18 32 41.9**	**-0.9**
TOLI2				IAmb	IAmb	18 32 46.5		
	comp=Z,5.0nm,0.8s							
QSPA	**South Pole Qui**	**72.33**	**180**	P	**P**	**18 33 42.9**	**+0.7**
	comp=Z,2.3nm,0.9s,baz=44,slow=0.4,SNR=9.5							
	comp=Z,2.3nm,0.9s							
QSPA	**South Pole Qui**	**72.33**	**180**	P	**P**	**18 33 42.5**	**+0.2**
PEA0B	**Petropavlovsk-**	**73.45**	**345**	P	**P**	**18 33 48.8**	**+0.2**
RYN	**Ryan**	**79.39**	**44**	P	**P**	**18 34 21.6**	**-0.1**
ILAR	**Eielson Array**	**85.75**	**13**	P	**P**	**18 34 52.6**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=226,slow=4.3,SNR=6.2							
	comp=Z,0.2nm,0.3s							
ILAR	**Eielson Array**	**85.75**	**13**	P	**P**	**18 34 51.4**	**-1.5**
PDAR	**Pinedale Array**	**87.36**	**44**	P	**P**	**18 35 02.2**	**+0.9**
	comp=Z,0.4nm,0.6s,baz=259,slow=3.8,SNR=2.3							
	comp=Z,0.4nm,0.6s							
SNAA	**Sanae**	**90.78**	**179**	P	**P**	**18 35 16.8**	**+0.2**
SNAA				IAmb	IAmb	18 35 55.3		
	comp=Z,6.1nm,1.3s							

*SDD **25** 18:29:54.5±2.3, 19°.07N×68°.66W, h2km±13km, MD2.4, ML2.5, MW2.7, Presumed earthquake*
*NEIC **25** 18:29:55.0±0.8, 18°.98N±0°.03×68°.72W±0°.03, h16km±2km, ML2.7/23, Md3.8/8(RSPR), Error ellipse: s-maj=5.5km s-min=2.7km az=209.0*
*RSPR **25** 18:29:56.0, 18°.96N×68°.76W, h5km±31km, MD3.8/8*
ISC 25 18:29:54.4±1.5, **19°.04N**±0°.08×**68°.72W**±0°.04, **h16**km±11km, **n53**, σ0s**75**/56, **14C-2D**, **North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HIDR	**Higuey Centro**	**0.45**	**180**	⇑*e*Pg	**Pg**	**18 30 03.7**	**+0.3**
HIDR				⇑*e*Sg	**Sg**	**18 30 09.7**	**+0.1**
HIDR				IAML		18 30 10.4		
	comp=E,374nm,0.2s							
HIDR				IAML		18 30 10.4		
	comp=N,465nm,0.3s							
HIDR	**Higuey Centro**	**0.45**	**180**	⇑*e*P	**Pg**	**18 30 03.7**	**+0.3**
HIDR				*e*S	**Sg**	**18 30 09.6**	**+0.1**
SMDR	**Samana, DR**	**0.51**	**299**		**Pb**	**18 30 04.7**	**-0.1**
SMDR					**Sn**	**18 30 13.9**	**-1.3**
SMDR	**Samana, DR**	**0.51**	**299**	*e*Pg	**Pb**	**18 30 04.5**	**-0.3**
SMDR				IAML		18 30 14.8		
	comp=N,93nm,1.4s							
SMDR	**Samana, DR**	**0.51**	**299**	⇑*e*P	**Pb**	**18 30 04.7**	**-0.1**
SMDR				*e*S	**Sn**	**18 30 13.9**	**-1.3**
PCDR	**Punta Cana, DR**	**0.61**	**148**		**Pg**	**18 30 04.9**	**-1.6**
PCDR					**Sg**	**18 30 14.8**	**+0.1**
PCDR	**Punta Cana, DR**	**0.61**	**148**	*e*Pg	**Pg**	**18 30 06.3**	**-0.2**
PCDR				IAML		18 30 18.9		
	comp=E,47nm,0.4s							
PCDR				IAML		18 30 27.1		
	comp=N,180nm,1.6s							
PCDR	**Punta Cana, DR**	**0.61**	**148**	⇓*e*P	**Pg**	**18 30 06.4**	**-0.1**
PCDR				*e*S	**Sg**	**18 30 15.2**	**+0.5**
DR12	**Loma Pena Alta**	**0.67**	**248**		**Sg**	**18 30 17.2**	**+0.6**
DR12	**Loma Pena Alta**	**0.67**	**248**		**Pg**	**18 30 07.4**	**-0.2**
HATOM	**Hato Mayor del**	**0.67**	**248**	*e*Pg	**Pg**	**18 30 07.6**	**0.0**
HATOM				⇑*e*Sg	**Sg**	**18 30 17.1**	**+0.5**
HATOM				IAML		18 30 17.4		
	comp=N,88nm,0.5s							
HATOM				IAML		18 30 17.8		
	comp=E,90nm,0.2s							
SADR	**Isla Saona**	**0.85**	**184**	IAML		18 30 25.2		
	comp=E,77nm,0.4s							
SADR				IAML		18 30 26.1		
	comp=N,109nm,0.1s							
NADR	**Nagua**	**1.12**	**286**	IAML		18 30 38.8		
	comp=E,296nm,0.3s							
IDE	**Isla Desecheo**	**1.35**	**119**		**Pn**	**18 30 17.8**	**-0.8**
IDE					**Sn**	**18 30 36.1**	**-0.1**
IDE	**Isla Desecheo**	**1.35**	**119**	⇓*i*P	**Pn**	**18 30 17.8**	**-0.8**
IDE				*e*S	**Sn**	**18 30 36.1**	**-0.1**
AGPR	**Aguadilla, PR**	**1.63**	**110**		**Pn**	**18 30 23.0**	**+0.7**
AGPR				IAML		18 31 05.0		
	comp=E,139nm,2.6s							
AGPR	**Aguadilla, PR**	**1.63**	**110**		**Sb**	**18 30 44.3**	**0.0**
AGPR	**Aguadilla, PR**	**1.63**	**110**	IAML		18 30 43.8		
	comp=E,128nm,2.3s							
AGPR	**Aguadilla, PR**	**1.63**	**110**	*e*Pg	**Pn**	**18 30 23.0**	**+0.7**
AGPR				IAML		18 30 53.6		
	comp=N,75nm,1.6s							
AGPR	**Aguadilla, PR**	**1.63**	**110**	*e*P	**Pn**	**18 30 23.0**	**+0.7**
PRSN	**Puerto Rico Se**	**1.70**	**118**		**Sb**	**18 30 46.6**	**+0.1**
PRSN	**Puerto Rico Se**	**1.70**	**118**		**Pn**	**18 30 23.4**	**0.0**
PRSN	**Puerto Rico Se**	**1.70**	**118**	IAML		18 30 51.6		
	comp=N,228nm,0.3s							
PRSN				IAML		18 30 57.4		
	comp=N,195nm,0.3s							
PRSN	**Puerto Rico Se**	**1.70**	**118**	⇑*e*P	**Pb**	**18 30 24.6**	**-0.7**
ABDR	**Alto Bandera**	**1.82**	**263**	*i* P	**Pb**	**18 30 27.5**	**0.0**
ABDR				*i* S	**Sn**	**18 30 48.4**	**+0.2**
ABDR				IAML		18 30 59.8		
	comp=N,45nm,0.2s							
CRPR	**Cabo Rojo, PR**	**1.84**	**124**		**Pn**	**18 30 25.4**	**+0.1**
CRPR					**Sb**	**18 30 50.1**	**-0.4**
CRPR	**Cabo Rojo, PR**	**1.84**	**124**	IAML		18 30 56.4		
	comp=N,51nm,2.6s							
CRPR				IAML		18 31 15.4		
	comp=N,61nm,2.9s							
CRPR	**Cabo Rojo, PR**	**1.84**	**124**	*e*Pg	**Pn**	**18 30 25.6**	**+0.3**
CRPR				IAML		18 30 56.8		
	comp=N,60nm,2.8s							
CRPR	**Cabo Rojo, PR**	**1.84**	**124**	⇑*e*P	**Pn**	**18 30 25.4**	**+0.1**
MLPR	**Magueyes Islan**	**1.92**	**124**		**Sn**	**18 30 50.3**	**+0.3**
MLPR	**Magueyes Islan**	**1.92**	**124**		**Pn**	**18 30 26.5**	**+0.2**
MLPR	**Magueyes Islan**	**1.92**	**124**	⇑*e*P	**Pn**	**18 30 26.0**	**-0.3**
AOPR	**Arecibo Observ**	**1.99**	**110**		**Pn**	**18 30 28.1**	**+0.8**
AOPR					**Sb**	**18 30 54.8**	**+0.1**
AOPR	**Arecibo Observ**	**1.99**	**110**	IAML		18 31 01.6		
	comp=N,104nm,0.3s							
AOPR	**Arecibo Observ**	**1.99**	**110**	⇑*e*P	**Pn**	**18 30 28.1**	**+0.8**
EMPR	**Esperanza - Ma**	**2.15**	**105**		**Sn**	**18 30 57.0**	**+1.1**
EMPR	**Esperanza - Ma**	**2.15**	**105**	*e*S	**Sn**	**18 30 57.0**	**+1.1**
OBIP	**Obispado Ponce**	**2.24**	**116**		**Sn**	**18 30 57.5**	**-0.6**
OBIP	**Obispado Ponce**	**2.24**	**116**		**Pn**	**18 30 31.1**	**+0.4**
OBIP	**Obispado Ponce**	**2.24**	**116**	IAML		18 31 08.8		
	comp=N,44nm,0.6s							
OBIP	**Obispado Ponce**	**2.24**	**116**	⇑*e*P	**Pb**	**18 30 32.9**	**-1.5**
OBIP				*e*S	**Sn**	**18 30 57.5**	**-0.6**
CELP	**Cerrillos**	**2.25**	**115**		**Sn**	**18 31 00.2**	**+1.9**
CELP	**Cerrillos**	**2.25**	**115**		**Pn**	**18 30 31.1**	**+0.2**
CELP	**Cerrillos**	**2.25**	**115**	IAML		18 31 06.0		
	comp=N,57nm,0.5s							
CELP				IAML		18 31 11.2		
	comp=N,37nm,0.6s							
CELP	**Cerrillos**	**2.25**	**115**	⇑*e*P	**Pn**	**18 30 32.1**	**+1.2**
ECPR	**Experimental S**	**2.35**	**107**		**Sn**	**18 31 02.2**	**+1.4**
ECPR	**Experimental S**	**2.35**	**107**		**Pn**	**18 30 32.8**	**+0.5**
ECPR	**Experimental S**	**2.35**	**107**	IAML		18 31 10.6		
	comp=N,91nm,0.2s							
ECPR				IAML		18 31 10.9		
	comp=N,94nm,0.2s							
ECPR	**Experimental S**	**2.35**	**107**	⇑*e*P	**Pn**	**18 30 33.8**	**+1.5**
HUMP	**Col San Antoni**	**2.87**	**108**		**Sn**	**18 31 13.8**	**+0.2**
HUMP	**Col San Antoni**	**2.87**	**108**		**Pn**	**18 30 39.8**	**+0.4**
HUMP	**Col San Antoni**	**2.87**	**108**	IAML		18 31 22.9		
	comp=N,24nm,0.9s							
HUMP				IAML		18 31 24.5		
	comp=N,21nm,0.2s							
HUMP	**Col San Antoni**	**2.87**	**108**	⇑*e*P	**Pn**	**18 30 40.7**	**+1.3**

*IDC **25** 18:37:16.9±4.0, 0°.57S×98°.56E, h0km, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=171.6km s-min=22.3km az=57.0*
*DJA **25** 18:37:19.2±0.5, 0°.N±7°×9°8E±°, h37km±14km, M3.9/13, MLv3.9/12, MLv3.9/13*
ISC 25 18:37:19.1±1.3, **0°.14N**±0°.07×**98°.36E**±0°.08, **h35**km, **n21**, σ0s**22**/10, **mb3.8/5**, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBSI	**Pulau Batu**	**0.21**	**203**	P	**Pn**	**18 37 27.5**	**+1.4**
GSI	**Gunungsitoli**	**1.40**	**326**	P	**Pn**	**18 37 43.6**	**+1.4**
GSI	**Gunungsitoli**	**1.40**	**326**	P	**Pn**	**18 37 42.7**	**+0.5**
GSI				AML	AML			
GSI				AML	AML			
PPI	**Padang Panjang**	**2.12**	**106**	P	**Pn**	**18 37 52.1**	**0.0**
PPI				AML	AML			
PPI				AML	AML			
BKNI	**Bangkinang**	**2.68**	**86**	P	Pn	18 38 07.1	+7.3
BKNI	**Bangkinang**	**2.68**	**86**	P	**Pn**	**18 38 01.6**	**+1.8**
PSI	**Prapat**	**2.70**	**12**	P	**Pn**	**18 38 03.9**	**+3.7**
PSI	**Prapat**	**2.70**	**12**	P	**Pn**	**18 37 59.5**	**-0.7**
KULM	**Kulim**	**5.60**	**24**	P	Pn	18 38 47.0	+7.0
MNAI	**Manna**	**6.41**	**134**	P	**Pn**	**18 38 53.6**	**+2.5**
H08S2	**Diego Garcia H**	**26.93**	**253**	T	T	19 11 04.6		
	baz=74,slow=76,SNR=165							
H08S3	**Diego Garcia H**	**26.93**	**253**	T	T	19 11 04.9		
	baz=74,slow=76,SNR=158							
H08S1	**Diego Carcia H**	**26.95**	**253**	T	T	19 11 06.0		
	baz=74,slow=76,SNR=95							
WRA	**Warramunga Arr**	**40.49**	**122**	P	**P**	**18 44 53.0**	**-2.0**
	0.2nm,0.5s,baz=303,slow=8.0,SNR=4.5							
	0.2nm,0.5s							
ASAR	**Alice Springs**	**41.83**	**127**	P	**P**	**18 45 04.3**	**-1.7**
	0.3nm,0.8s,baz=295,slow=7.7,SNR=10.0							
	0.3nm,0.8s							
SONM	**Songino Array**	**48.01**	**7**	P	P	18 46 03.0	+8.1
	0.7nm,0.7s,baz=180,slow=9.7,SNR=4.5							
	0.7nm,0.7s							
MKAR	**Makanchi Array**	**48.55**	**345**	P	P	18 46 07.3	+8.4
	2.0nm,0.6s,baz=154,slow=9.1,SNR=10							
	2.0nm,0.6s							
ZALV	**Zalesovo Beam**	**54.78**	**350**	P	P	18 46 53.5	+8.2
	1.0nm,0.5s,baz=151,slow=3.3,SNR=3.5							
	1.0nm,0.5s							
H04N2	**CROZET ISLANDS**	**61.57**	**215**	T	T	19 54 00.2		
	baz=57,slow=75,SNR=23							
H04N1	**CROZET ISLANDS**	**61.58**	**215**	T	T	19 54 00.8		
	baz=57,slow=75,SNR=34							
H04N3	**CROZET ISLANDS**	**61.59**	**215**	T	T	19 53 59.4		
	baz=57,slow=75,SNR=24							

*IDC **25** 18:39:53.8±1.1, 42°.48N×59°.12E, h0km, mb3.6/7, mbtmp3.8/14, ML3.7/7, MS3.2/3, Error ellipse: s-maj=16.8km s-min=11.8km az=16.0*
*NNC **25** 18:40:01.4±2.7, 42°.89N×59°.49E, h77km±47km, mb3.5, mpv3.5, Error ellipse: s-maj=28.2km s-min=9.0km az=42.0*
*ISU **25** 18:40:04, 42°.85N×58°.86E, h30km*
ISC 25 18:39:57.6±0.8, **42°.94N**±0°.06×**59°.50E**±0°.06, **h10**km, **n34**, σ2s**31**/42, **mb3.9**/8, **8C-2D**, **Northwestern Uzbekistan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TMD	**Tamdy-Bulak**	**3.99**	**106**	P	**Pn**	**18 40 59.4**	**+0.6**
TMD				S	**Sn**	**18 41 46.0**	**+0.4**
GZLY	**Gazly**	**4.08**	**132**	S	**Sn**	**18 41 47.0**	**-0.9**
AB31	**Akbulak array**	**6.32**	**3**	⇑Pn	**Pn**	**18 41 32.5

6.0nm,1.2s
MK31 Makanchi Array 16.59 69 P **Pn 18 43 50.8 +0.6**
2.1nm,0.8s,baz=251,slow=14,SNR=22
MKAR Makanchi Array 16.59 69 Pn **Pn 18 43 50.9 +0.7**
0.4nm,0.3s,baz=251,slow=14,SNR=18
MKAR Sn **Sn 18 46 53.1 -1.2**
0.2nm,0.3s,baz=6.5,slow=14,SNR=4.2
0.8nm,0.5s
MKAR AML AML
ZALV Zalesovo Beam 19.96 48 P **Pn 18 44 32.2 +0.8**
1.7nm,0.6s,baz=249,slow=11,SNR=9.3
ZALV S **S 18 48 08.4 -5.7**
1.6nm,0.8s,baz=247,slow=22,SNR=5.4
ZALV LR LR 18 53 30.0
comp=Z,25nm,20.9s,baz=48,slow=40
1.7nm,0.6s
KLMR Klimovskoe 21.61 333 *e*P **P 18 44 46.2 -1.2**
7.9nm,1.3s
AKASG Malin Array Be 22.01 301 P **P 18 44 48.8 -3.0**
0.2nm,0.3s,baz=89,slow=9.8,SNR=6.2
0.2nm,0.3s
LSH Leshukonskoye 23.32 345 *e*P **P 18 45 12.5 +7.1**
12nm,1.4s
FINES FINESS Array B 27.15 325 P **P 18 45 40.1 -0.5**
2.9nm,0.9s,baz=112,slow=9.1,SNR=4.5
2.9nm,0.9s
NOA NORSAR Array B 33.82 319 LR LR 19 02 39.5
comp=Z,51nm,18.2s,baz=350,slow=40
CMAR Chiang Mai Arr 41.24 114 P **P 18 47 42.2 -0.7**
0.2nm,0.3s,baz=302,slow=7.9,SNR=1.2
0.2nm,0.3s
USRK Ussuriysk Ar. 50.91 62 P **P 18 49 00.4 +1.7**
1.3nm,0.6s,baz=271,slow=7.4,SNR=2.8
1.3nm,0.6s
MA2 Magadan 54.82 38 LR LR 19 14 54.8
comp=Z,38nm,19.2s,baz=60,slow=38
ILAR Eielson Array 70.64 12 P **P 18 51 13.2 +0.4**
0.3nm,0.9s,baz=294,slow=2.9,SNR=2.0
0.3nm,0.9s
YKA Yellowknife Ar 74.81 357 P **P 18 51 37.4 -0.1**
0.6nm,0.7s,baz=3.6,slow=5.5,SNR=6.0
0.6nm,0.7s

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*IDC **25** 19:28:58.4±7.8, 37.43N×72.05E, h115km±56km, mb3.8/2, mbtmp4.0/7, Error ellipse: s-maj=66.9km s-min=47.7km az=167.0*
ISC 25 19:28:57.4±2.4, 37.5N±0.2×71.9E±0.2, h100km, n10, σ0.96/13, 2C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
AAK	**Ala-Archa**	**5.57**	**20**	P			**Pn**	**19 30 18.5**	**+0.6**
	2.9nm,0.3s,baz=189,slow=7.1,SNR=20								
AAK				S			**Sn**	**19 31 21.6**	**+1.0**
	8.2nm,0.6s,baz=329,slow=24,SNR=22								
AAK	**Ala-Archa**	**5.57**	**20**	⇑P			**Pn**	**19 30 18.1**	**+0.2**
	0.5nm,0.4s								
AAK				⇓S			**Sn**	**19 31 21.3**	**+0.7**
	5.2nm,0.6s								
KK31	**Karatay Array**	**5.75**	**350**	⇑P			**Pn**	**19 30 20.6**	**+0.4**
	9.2nm,0.4s,baz=172,slow=13,SNR=78								
KK31				⇓S			**Sn**	**19 31 24.1**	**-0.6**
	2.3nm,0.3s,baz=181,slow=24,SNR=5.7								
MKAR	**Makanchi Array**	**12.12**	**36**	P			**Pn**	**19 31 46.8**	**+0.1**
	0.5nm,0.8s,baz=215,slow=11,SNR=10.0								
KURBB	**Kurchatov Arra**	**14.01**	**18**	P			**Pn**	**19 32 10.3**	**-1.0**
	1.6nm,0.2s,baz=206,slow=10,SNR=4.2								
BVAR	**Borovoye Array**	**15.61**	**357**	P			**Pn**	**19 32 29.7**	**-2.0**
	0.8nm,0.5s,baz=165,slow=11,SNR=4.3								
AKTO	**Aktyubinsk**	**16.33**	**327**	P			**Pn**	**19 32 41.9**	**+1.3**
	4.2nm,0.4s,baz=133,slow=12,SNR=23								
ZALV	**Zalesovo Beam**	**18.77**	**24**	P			**P**	**19 33 07.7**	**-0.8**
	2.5nm,0.7s,baz=221,slow=9.7,SNR=9.3								
FINES	**FINESS Array B**	**37.09**	**325**	P			**P**	**19 35 57.8**	**+0.1**
	3.2nm,0.9s,baz=126,slow=9.7,SNR=6.2								
	3.2nm,0.9s								
ARCES	**ARCESS Array B**	**40.54**	**337**	P			**P**	**19 36 26.5**	**+0.1**
	3.3nm,1.0s,baz=98,slow=8.7,SNR=4.2								
	3.3nm,1.0s								

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*IDC **25** 19:31:27.4±6.4, 37.20N×136.38E, h95km±53km, mb3.1/2, mbtmp3.4/2, MS2.8/1, Error ellipse: s-maj=70.4km s-min=31.4km az=105.0*
*JMA **25** 19:31:31.7±0.1, 36.3N±0.2×140.0E±0.2, h73km, MV3.2/38, SW IBARAKI PREF*
JMA Felt I J1 at SW IBARAKI PREF .
ISC 25 19:31:31.2±1.0, 36.29N±0.06×140.04E±0.06, h77km±8km, n14, σ0.65/20, 10D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
JYT	**Yasato**	**0.14**	**117**	⇓*i*P			**Pn**	**19 31 42.6**	**+0.2**
JYT				⇓S			**Sn**	**19 31 50.6**	**-0.1**
JAG	**Ashikaga**	**0.49**	**286**	⇓*i*P			**Pn**	**19 31 44.5**	**-0.1**
JAG				⇓S			**Sn**	**19 31 53.9**	**-0.7**
JRY	**Ryogami san**	**0.96**	**254**	⇓*i*P			**Pn**	**19 31 49.9**	**+0.3**
JRY				⇓S			**Sn**	**19 32 03.5**	**+0.2**
JFY	**Yanaizu**	**1.14**	**347**	P			**Pn**	**19 31 51.8**	**0.0**
JUON	**Uonuma**	**1.21**	**320**	P			**Pn**	**19 31 52.7**	**0.0**
JFK	**Kawauchi**	**1.27**	**32**	P			**Pn**	**19 31 53.5**	**+0.1**
JOD2	**Odawara 2**	**1.28**	**217**	⇓*i*P			**Pn**	**19 31 53.8**	**+0.2**
JOD2				⇓S			**Sn**	**19 32 10.1**	**-0.4**
JOTO	**OTAMA OYAMA**	**1.29**	**10**	*i* P			**Pn**	**19 31 54.0**	**+0.4**
JOTO				S			**Sn**	**19 32 11.0**	**+0.5**
JYN	**Shimob**	**1.45**	**237**	⇓*i*P			**Pn**	**19 31 56.6**	**+0.9**
JYN				⇓S			**Sn**	**19 32 15.2**	**+0.8**
MJAR	**Matsushiro Arr**	**1.50**	**280**	P			**Pn**	**19 31 55.0**	**-1.3**
	9.8nm,0.3s,baz=78,slow=31,SNR=134								
MJAR				S			**Sn**	**19 32 16.5**	**+1.1**
	13nm,0.4s,baz=71,slow=41,SNR=5.1								
MAT	**Matsushiro**	**1.50**	**280**	P			**Pn**	**19 31 56.8**	**+0.4**
PETK	**Petropavlovsk-**	**20.89**	**31**	LR			LR	19 44 17.5	
	comp=Z,27nm,20.9s,baz=59,slow=35								
ILAR	**Eielson Array**	**50.71**	**32**	P			**P**	**19 40 22.9**	**+0.3**
	0.4nm,0.6s,baz=278,slow=6.3,SNR=4.2								
	0.4nm,0.6s								
WRA	**Warramunga Arr**	**56.19**	**186**	P			**P**	**19 41 02.2**	**-0.8**
	0.2nm,0.5s,baz=1.6,slow=7.1,SNR=5.3								
	0.2nm,0.5s								

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*NEIC **25** 19:48:16.4±2.1, 52.02N±0.05×171.00W±0.07, h35km±1km, mb4.4/85, ML4.3/24, ML3.9(AEIC), Error ellipse: s-maj=10.8km s-min=4.2km az=144.0*
*IDC **25** 19:48:17.9±3.7, 52.18N×171.09W, h54km±32km, mb3.8/27, mbtmp4.1/30, ML3.8/3, MS3.3/3, Error ellipse: s-maj=20.0km s-min=12.2km az=174.0*
*AEIC **25** 19:48:17.1±2.4, 51.96N±0.06×170.97W±0.06, h25km±3km, Error ellipse: s-maj=8.8km s-min=4.5km az=152.0*
ISC 25 19:48:17.2±1.2, 52.00N±0.09×171.00W±0.04, h51km±9km, n196, σ0.95/194, mb4.4/70, MS3.3/4, 1C-1D, Fox Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CLES	**Cleveland East**	**1.06**	**39**				**Pn**	**19 48 34.7**	**-1.1**
CLES					Sn		**Sn**	**19 48 49.4**	**-0.2**
CLCO	**Concord Point,**	**1.11**	**44**				**Pn**	**19 48 35.2**	**-1.2**
CLCO							**Sn**	**19 48 49.9**	**-0.7**
KOSE	**Korovin Southe**	**1.91**	**282**				**Sn**	**19 49 10.5**	**+0.4**
KOFP	**Korovin Flat P**	**1.93**	**279**				**Pn**	**19 48 47.8**	**+0.2**
KOFP							**Sn**	**19 49 11.2**	**+0.6**
KONE	**Korovin Northe**	**1.96**	**283**				**Pn**	**19 48 47.7**	**-0.3**
KONE							**Sn**	**19 49 11.1**	**-0.3**
ATKA	**Atka Island**	**1.98**	**277**	P			**Pn**	**19 48 47.5**	**-0.7**
ATKA	**Atka Island**	**1.98**	**277**				**Pn**	**19 48 47.8**	**-0.4**
ATKA	**Atka Island**	**1.98**	**277**				**Sn**	**19 49 11.0**	**-0.8**
KOKL	**Mount Kliuchef**	**2.00**	**281**				**Pn**	**19 48 48.2**	**-0.4**
KOKL							**Sn**	**19 49 14.1**	**+1.8**
KOWE	**Korovin West**	**2.03**	**282**				**Pn**	**19 48 49.2**	**+0.2**
KOWE							**Sn**	**19 49 16.8**	**+3.5**
OKCE	**Okmok Cone E**	**2.24**	**49**				**Pn**	**19 48 51.7**	**-0.2**
OKTU	**Okmok Mt. Tuli**	**2.27**	**51**				**Pn**	**19 48 51.8**	**-0.5**
OKTU							**Sn**	**19 49 18.5**	**-0.6**
OKNC	**Okmok New Cone**	**2.28**	**49**				**Pn**	**19 48 52.6**	**+0.3**
OKNC					IAML			19 49 32.1	
	comp=N,1μm,1.2s								
OKFG	**Magazine Ridge**	**2.35**	**52**				**Pn**	**19 48 52.9**	**-0.4**
GSIG	**Igitkin Island**	**3.04**	**272**				**Pn**	**19 49 02.7**	**-0.1**
GSIG							**Sn**	**19 49 38.3**	**+0.3**
MGOD	**Makushin Gods**	**3.08**	**53**				**Pn**	**19 49 02.5**	**-0.8**
MGOD							**Sn**	**19 49 39.4**	**+0.5**
GSMY	**Great Sitkin M**	**3.12**	**273**				**Pn**	**19 49 04.0**	**+0.1**
GSMY							**Sn**	**19 49 40.9**	**+0.9**
GSTR	**Great Sitkin T**	**3.12**	**274**		Pn		**Pn**	**19 49 03.2**	**-0.8**
GSTD	**Great Sitkin T**	**3.18**	**273**				**Pn**	**19 49 04.8**	**+0.1**
GSTD							**Sn**	**19 49 41.1**	**-0.3**
MSW	**Makushin Switc**	**3.19**	**51**				**Pn**	**19 49 04.5**	**-0.3**
MNAT	**Makushin Natee**	**3.22**	**52**				**Sn**	**19 49 42.6**	**+0.3**
UNV	**Unalaska Valle**	**3.29**	**54**	P			**Pn**	**19 49 05.7**	**-0.4**
UNV	**Unalaska Valle**	**3.29**	**54**				**Pn**	**19 49 05.6**	**-0.6**
UNV						IAML		19 49 54.2	
	comp=N,485nm,0.7s								
ETKA	**Kagalaska Isla**	**3.35**	**270**				**Pn**	**19 49 06.8**	**-0.2**
ADK	**Adak**	**3.52**	**270**	P			**Pn**	**19 49 09.6**	**+0.3**
ADK	**Adak**	**3.52**	**270**				**Pn**	**19 49 08.7**	**-0.7**
ADK						IAML		19 50 03.9	
	comp=N,725nm,0.7s								
ADK						IAML		19 50 07.0	
	comp=N,497nm,0.4s								
LVA	**Lava Point**	**3.69**	**52**				**Pn**	**19 49 09.8**	**-2.0**
LVA						IAML		19 50 09.6	
	comp=E,534nm,0.9s								
AKBBA	**Akutan Broad B**	**3.71**	**54**				**Pn**	**19 49 12.2**	**+0.2**
AKGG	**Akutan Green G**	**3.74**	**52**				**Pn**	**19 49 12.9**	**+0.6**
AHB	**Akutan Harbor**	**3.78**	**54**				**Pn**	**19 49 13.8**	**+0.9**
AKUT	**Akutan**	**3.81**	**54**	P			**Pn**	**19 49 14.2**	**+0.9**
AKUT	**Akutan**	**3.81**	**54**	Pn			**Pn**	**19 49 12.9**	**-0.4**
KIWB	**Kanaga Island**	**3.81**	**270**				**Pn**	**19 49 13.7**	**+0.4**
KIWB						IAML		19 50 08.1	
	comp=N,552nm,0.6s								
KIWB						IAML		19 50 13.2	
	comp=E,598nm,0.6s								
KIKV	**Kanaga Island**	**3.82**	**271**				**Pn**	**19 49 13.9**	**+0.4**
KIMD	**Kanaga Island**	**3.87**	**269**				**Pn**	**19 49 14.4**	**+0.3**
TAFL	**Tanaga Flats**	**4.28**	**269**				**Pn**	**19 49 20.2**	**+0.4**
WECS	**Westdahl Cape**	**4.51**	**53**		Pn		**Pn**	**19 49 22.8**	**-0.2**
WECS						IAML		19 50 33.9	
	comp=E,301nm,0.8s								
WECS						IAML		19 50 43.6	
	comp=N,431nm,1.0s								
GANO	**Gareloi North**	**4.83**	**271**		Pn		**Pn**	**19 49 27.6**	**+0.2**
GANO						IAML		19 50 58.4	
	comp=N,276nm,0.4s								
SPIA	**Saint Paul Isl**	**5.20**	**5**	P			**Pn**	**19 49 36.4**	**+4.0**
	comp=N,369nm,2.0s								
SPIA						AML	AML		
SPIA	**Saint Paul Isl**	**5.20**	**5**		Pn		**Pn**	**19 49 32.2**	**-0.2**
SPIA						IAML		19 50 36.1	
	comp=N,213nm,1.0s								
SPIA						IAML		19 50 36.2	
	comp=E,231nm,0.6s								
SDPT	**Sand Point**	**7.09**	**58**	P			**Pn**	**19 49 58.7**	**+0.5**
SDPT	**Sand Point**	**7.09**	**58**	Pn			**Pn**	**19 49 58.6**	**+0.4**
CHGN	**Chignik**	**8.55**	**55**	Pn			**Pn**	**19 50 18.0**	**-0.1**
O14K	**Tigyukauivet M**	**9.11**	**33**	Pn			**Pn**	**19 50 28.6**	**+2.8**
M13K	**Dall Lake**	**9.44**	**24**	Pn			**Pn**	**19 50 33.9**	**+3.6**
N14K	**Kuskokwak Cree**	**9.49**	**30**				**Pn**	**19 50 32.9**	**+1.8**
O15K	**Ungalikthiuk R**	**9.56**	**37**	Pn			**Pn**	**19 50 34.7**	**+2.6**
N15K	**Kwethluk River**	**10.19**	**32**	Pn			**Pn**	**19 50 43.1**	**+2.5**
KDAK	**Kodiak Island**	**12.06**	**54**	P			**Pn**	**19 51 05.1**	**-1.0**
	comp=E,1.2nm,0.3s,baz=86,slow=4.8,SNR=11								
	comp=E,16nm,1.1s								
KDAK						AML	AML		
J17K	**VABM Dome**	**13.05**	**24**	Pn			**Pn**	**19 51 19.3**	**-0.3**
RED	**Redoubt Volcan**	**13.15**	**43**				**Pn**	**19 51 20.2**	**-0.8**
J19K	**Poorman**	**14.47**	**28**	Pn			**Pn**	**19 51 38.5**	**-0.2**
CAST	**Castle Rocks**	**15.19**	**34**	Pn			**Pn**	**19 51 47.8**	**-0.3**
SML	**Sawmill**	**15.71**	**43**	Pn			**Pn**	**19 51 55.4**	**+0.4**
SML						IAmb	IAmb	19 52 05.5	
	comp=Z,29nm,1.2s								
BPAW	**Bear Paw Mtn.**	**16.00**	**33**	Pn			**Pn**	**19 51 58.2**	**-0.4**
H21K	**Melozitna Rive**	**16.51**	**27**				**P**	**19 52 06.2**	**-0.7**
DHY	**Denali Highway**	**16.73**	**39**	P			**P**	**19 52 09.0**	**-0.5**
DHY						IAmb	IAmb	19 52 31.0	
	comp=Z,17nm,1.0s								
E19K	**Redstone River**	**16.91**	**18**				**P**	**19 52 11.3**	**0.0**
PAX	**Paxson**	**17.44**	**41**				**Pn**	**19 52 17.0**	**+0.4**
ILAR	**Eielson Array**	**17.82**	**35**	P			**Pn**	**19 52 19.9**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=240,slow=12,SNR=8.9								
	comp=Z,0.9nm,0.8s								
ILAR						AML	AML		
ILAR	**Eielson Array**	**17.82**	**35**				**P**	**19 52 22.0**	**+0.6**
RIDG	**Independent Ri**	**18.05**	**39**	P			**Pn**	**19 52 24.6**	**+0.6**
LOGN	**Logan Glacier**	**18.64**	**50**	P			**P**	**19 52 31.0**	**+0.4**
PETK	**Petropavlovsk-**	**18.99**	**286**	P			**P**	**19 52 34.8**	**+0.5**
	comp=Z,0.8nm,0.3s,baz=77,slow=14,SNR=8.3								
	comp=Z,1.7nm,0.4s								
PETK						AML	AML		
PETK	**Petropavlovsk-**	**18.99**	**286**	P			**P**	**19 52 34.4**	**+0.1**
O28M	**Mount Upton**	**19.02**	**50**	P			**P**	**19 52 35.5**	**+0.6**
PNL	**Peninsula**	**19.18**	**54**	P			**Pn**	**19 52 37.6**	**-0.1**
	comp=Z,39nm,1.7s								
O29M	**Mount Kennedy**	**19.70**	**52**			IAmb	IAmb	19 52 45.5	
	comp=Z,15nm,0.5s								
F25K	**Christian Rive**	**19.93**	**29**	P			**P**	**19 52 45.1**	**+0.7**
BMAR	**Burnt Mountain**	**20.15**	**30**	P			**P**	**19 52 47.6**	**+0.8**
HYT	**Haines Junctio**	**20.32**	**51**				**P**	**19 52 49.9**	**+1.1**
HYT						IAmb	IAmb	19 53 18.1	
	comp=Z,17nm,0.9s								
O30N	**Mendenhall**	**20.99**	**52**	P			**P**	**19 52 56.9**	**+1.0**
K29M	**Barlow Dome**	**21.07**	**43**	IAmb		IAmb		19 53 00.5	
	comp=Z,14nm,1.5s								
SKAG	**Skagway**	**21.21**	**55**	P			**P**	**19 52 59.7**	**+1.5**
	comp=Z,17nm,0.6s								
SKAG	**Skagway**	**21.21**	**55**	IAmb		IAmb		19 53 03.0	
	comp=Z,8.8nm,0.8s								
H29M	**Whitestone**	**21.62**	**36**	IAmb		IAmb		19 53 06.5	
	comp=Z,19nm,1.2s								
SEY	**Seymchan**	**22.19**	**314**	P			**P**	**19 53 08.1**	**-0.6**
	comp=Z,2.3nm,0.7s,baz=89,slow=11,SNR=6.7								
	comp=Z,2.3nm,0.7s								
EPYK	**Eagle Plains**	**22.30**	**37**	P			**P**	**19 53 07.8**	**-2.1**
EPYK						IAmb	IAmb	19 53 35.1	
	comp=Z,14nm,1.1s								
WRAK	**Wrangell Islan**	**22.82**	**64**	P			**P**	**19 53 15.3**	**-0.1**
WRAK						IAmb	IAmb	19 53 34.8	
	comp=Z,15nm,0.9s								
INK	**Inuvik**	**24.20**	**33**	P			**P**	**19 53 27.7**	**-0.8**
INK						IAmb	IAmb	19 53 28.7	
	comp=Z,4.4nm,0.5s								
C36M	**Paulatuk**	**27.79**	**34**	P			**P**	**19 54 00.5**	**-0.4**
C36M						IAmb	IAmb	19 54 41.6	
	comp=Z,7.3nm,1.5s								
YKAW3	**Yellowknife Wh**	**31.23**	**48**	P			**P**	**19 54 31.9**	**+0.5**
YKAW3						IAmb	IAmb	19 54 45.8	
	comp=Z,8.8nm,1.3s								
YKA	**Yellowknife Ar**	**31.24**	**48**	P			**P**	**19 54 31.4**	**-0.1**
	comp=Z,0.7nm,0.3s,baz=275,slow=7.8,SNR=11								
YKA						LR	LR	20 09 08.9	
	comp=Z,108nm,20.6s,baz=284,slow=40								
	comp=Z,0.7nm,0.3s								
YKA	**Yellowknife Ar**	**31.24**	**48**	P			**P**	**19 54 31.8**	**+0.4**
TIXI	**Tiksi**	**32.53**	**329**	LR			LR	20 09 42.2	
	comp=Z,39nm,19.3s,baz=264,slow=40								
YAK	**Yakutsk**	**32.66**	**311**	LR			LR	20 07 48.0	
	comp=Z,36nm,21.2s,baz=55,slow=36								
H11N2	**WAKE ISLAND Hy**	**36.55**	**217**	T			T	20 34 25.2	
	baz=22,slow=76,SNR=26								
H11N3	**WAKE ISLAND Hy**	**36.56**	**216**	T			T	20 34 14.0	
	baz=22,slow=76,SNR=31								
H11N1	**WAKE ISLAND Hy**	**36.57**	**217**	T			T	20 34 26.7	
	baz=22,slow=76,SNR=22								
C15A	**Salmond Ranch,**	**36.98**	**73**	P			**P**	**19 55 22.2**	**+0.7**
C15A						IAmb	IAmb	19 55 42.7	
	comp=Z,4.5nm,0.7s								
H11S1	**WAKE ISLAND Hy**	**37.74**	**216**	T			T	20 36 11.0	
	baz=22,slow=76,SNR=241								
H11S2	**WAKE ISLAND Hy**	**37.76**	**216**	T			T	20 36 12.2	
	baz=22,slow=76,SNR=166								
H11S3	**WAKE ISLAND Hy**	**37.76**	**216**	T			T	20 36 12.2	
	baz=22,slow=76,SNR=145								
MCMT	**McKenzie Canyo**	**38.34**	**77**	P			**P**	**19 55 33.6**	**+0.5**
NVAR	**Mina Array Bea**	**38.67**	**89**	P			**P**	**19 55 36.9**	**+0.9**
	comp=Z,0.7nm,0.8s,baz=308,slow=5.7,SNR=2.1								
	comp=Z,0.7nm,0.8s								
MJAR	**Matsushiro Arr**	**38.67**	**267**	P			**P**	**19 55 36.0**	**+0.3**
	comp=Z,0.7nm,0.5s,baz=26,slow=6.0,SNR=4.0								
	comp=Z,0.7nm,0.5s								
MJAR	**Matsushiro Arr**	**38.67**	**267**	IAmb		IAmb		19 55 60.0	
	comp=Z,5.0nm,1.5s								
NV11	**Mina Array Sit**	**38.76**	**89**	P			**P**	**19 55 36.8**	**+0.2**
FFC	**Flin Flon**	**39.77**	**58**	P			**P**	**19 55 45.5**	**+0.9**
FFC						IAmb	IAmb	19 56 03.8	
	comp=Z,7.1nm,1.4s								
PDAR	**Pinedale Array**	**41.46**	**78**	P			**P**	**19 55 59.9**	**+0.8**
	comp=Z,0.5nm,0.5s,baz=289,slow=4.5,SNR=8.0								
	comp=Z,0.5nm,0.5s								
PDAR	**Pinedale Array**	**41.46**	**78**	P			**P**	**19 55 59.3**	**+0.2**
FCC	**Fort Churchill**	**41.95**	**49**	P			**P**	**19 56 02.9**	**+0.5**
FCC						IAmb	IAmb	19 56 03.8	
	comp=Z,9.8nm,0.7s								
ILON	**Igloolik, Nuna**	**42.42**	**32**	P			**P**	**19 56 05.8**	**-0.4**
ILON						IAmb	IAmb	19 56 22.8	
	comp=Z,11nm,1.1s								
KSRS	**Korea Array**	**44.45**	**276**	P			**P**	**19 56 22.6**	**-0.3**
	comp=Z,1.1nm,0.8s,baz=40,slow=7.4,SNR=2.9								
	comp=Z,1.1nm,0.8s								
PV02	**Paradox Valley**	**44.70**	**82**	P			**P**	**19 56 25.4**	**+0.1**
PV02						IAmb	IAmb	19 56 56.1	
	comp=Z,3.9nm,0.8s								
ULM	**Lac du Bonnet**	**45.21**	**61**	P			**P**	**19 56 28.6**	**-0.2**
	comp=Z,1.5nm,0.5s,baz=321,slow=6.5,SNR=3.2								
	comp=Z,1.5nm,0.5s								
ULM	**Lac du Bonnet**	**45.21**	**61**	P			**P**	**19 56 29.2**	**+0.4**
ULM						IAmb	IAmb	19 57 08.5	
	comp=Z,5.3nm,1.2s								
NEEM	**North Greenlan**	**45.61**	**15**	*i* P			**P**	**19 56 31.7**	**-0.4**
NEEM						IAmb	IAmb	19 56 32.1	
	comp=Z,14nm,0.5s								
NOR	**Nord**	**45.93**	**5**	*i* P			**P**	**19 56 33.6**	**-0.6**
NOR						IAmb	IAmb	19 56 34.0	
	comp=Z,1.1nm,0.4s								
EPLO	**Experimental L**	**46.68**	**61**	P			**P**	**19 56 40.5**	**0.0**
EPLO						IAmb	IAmb	19 57 07.4	
	comp=Z,13nm,1.4s								
TBO	**Thunder Bay**	**49.59**	**59**	P			**P**	**19 57 03.2**	**+0.3**
TBO						IAmb	IAmb	19 57 28.3	
	comp=Z,6.8nm,1.2s								
SPITS	**Spitsbergen Ar**	**50.01**	**358**	P			**P**	**19 57 04.8**	**-0.8**
	comp=Z,9.3nm,0.9s,baz=36,slow=6.2,SNR=8.5								
	comp=Z,9.3nm,0.9s								
SPB2	**Spitsbergen Ar**	**50.01**	**358**	P			**P**	**19 57 05.0**	**-0.7**
DPSS	**Saipan**	**50.19**	**239**	P			**P**	**19 57 07.7**	**-0.1**
DAG	**Danmarks Havn**	**50.30**	**8**	*i* P			**P**	**19 57 06.8**	**-1.1**
DAG						IAmb	IAmb	19 57 07.3	
	comp=Z,3.5nm,0.7s								
SONM	**Songino Array**	**50.62**	**300**	P			**P**	**19 57 10.3**	**-0.5**
	comp=Z,0.7nm,0.5s,baz=57,slow=5.9,SNR=7.9								
SONM						PcP	**PcP**	**19 58 27.8**	**0.0**
	comp=Z,0.4nm,0.4s,baz=60,slow=3.0,SNR=3.8								
	comp=Z,0.7nm,0.5s								
SONM	**Songino Array**	**50.62**	**300**	P			**P**	**19 57 11.0**	**+0.1**
SUMG	**Summit**	**51.42**	**16**	P			**P**	**19 57 16.9**	**+0.1**
SUMG						IAmb	IAmb	19 57 17.7	
	comp=Z,11nm,1.2s								
GUMO	**Guam**	**52.05**	**239**	P			**P**	**19 57 21.6**	**-0.1**
DBG	**Daneborg**	**52.45**	**10**	*i* P			**P**	**19 57 22.9**	**-1.0**
DBG						IAmb	IAmb	19 57 23.4	
	comp=Z,7.5nm,0.5s								
HNS	**HongShan**	**52.51**	**285**	⇑P			**P**	**19 57 25.5**	**+0.6**
HNS						pmax	pmax		
	comp=Z,12nm,0.9s								
E46A	**Sault Ste Mari**	**53.72**	**59**	P			**P**	**19 57 34.5**	**+0.8**
E46A						IAmb	IAmb	19 57 59.6	
	comp=Z,5.3nm,1.0s								
TXAR	**Lajitas Array**	**53.76**	**87**	P			**P**	**19 57 35.3**	**+0.9**
	comp=Z,0.2nm,0.3s,baz=308,slow=7.1,SNR=4.8								
	comp=Z,0.2nm,0.3s								
TXAR	**Lajitas Array**	**53.76**	**87**	P			**P**	**19 57 34.7**	**+0.3**
P40A	**Paris**	**53.85**	**70**	P			**P**	**19 57 34.3**	**-0.5**
P40A						IAmb	IAmb	19 57 39.9	
	comp=Z,5.3nm,0.7s								
SCO	**Scoresbysund**	**55.80**	**12**	*i* P			**P**	**19 57 47.8**	**-0.6**
SCO						IAmb	IAmb	19 57 48.8	
	comp=Z,4.2nm,0.6s								
SCHQ	**Schefferville**	**56.39**	**42**	P			**P**	**19 57 52.9**	**+0.1**
	comp=Z,3.0nm,0.7s,baz=333,slow=4.5,SNR=1.6								
	comp=Z,3.0nm,0.7s								
SCHQ	**Schefferville**	**56.39**	**42**	P			**P**	**19 57 53.3**	**+0.5**
S44A	**Carbondale**	**56.70**	**70**	P			**P**	**19 57 54.7**	**-0.6**
S44A						IAmb	IAmb	19 58 27.6	
	comp=Z,4.1nm,0.7s								
ZALV	**Zalesovo Beam**	**57

comp=Z,1.2nm,0.5s
NIL Nilore 77.91 310 P P 20 00 09.3 -0.2
BMRD Maredsus 78.01 3 *dP* **P 20 00 09.6 -0.1**
comp=Z,3.6nm,0.7s
KHC Kasperske Hory 79.17 357 P P 20 00 17.2 +1.0
KHC IAmb IAmb 20 00 17.4
comp=Z,2.3nm,0.7s
GERES GERESS Array B 79.45 357 P P 20 00 17.7 -0.2
comp=Z,1.0nm,0.6s,baz=5.7,slow=5.4,SNR=10
comp=Z,1.0nm,0.6s
GERES GERESS Array B 79.45 357 P P 20 00 17.2 -0.6
BUR08 Bucovina Ar. S 79.77 349 P P 20 00 18.9 -0.7
BUR08 IAmb IAmb 20 00 27.0
comp=Z,6.3nm,1.4s
BURAR Bucovina Array 79.79 349 P P 20 00 19.1 -0.6
MTN Manton Dam 81.54 237 P P 20 00 29.4 +0.1
MTN IAmb IAmb 20 01 11.1
comp=Z,7.2nm,1.2s
FUORN Ofenpass-Fuorn 81.75 359 P P 20 00 31.1 +0.7
FUORN IAmb IAmb 20 00 32.1
comp=Z,6.3nm,1.4s
MLR Muntele Rosu 81.79 348 P P 20 00 31.5 +1.0
MLR IAmb IAmb 20 01 10.1
comp=Z,8.3nm,1.5s
MSSA Maissana 84.06 360 P P 20 00 42.1 0.0
ILGA Ilgaz 84.86 341 P P 20 00 47.2 +0.7
WB0 Warramunga Arr 85.82 230 P P 20 00 50.6 -0.5
WR0 Warramunga Arr 85.91 230 P P 20 00 51.0 -0.4
WR0 IAmb IAmb 20 01 21.2
comp=Z,8.1nm,1.5s
WR8 Warramunga Arr 85.93 230 P P 20 00 51.2 -0.4
WR8 IAmb IAmb 20 01 15.1
comp=Z,4.9nm,1.1s
WRA Warramunga Arr 85.99 230 P P 20 00 51.3 -0.6
comp=Z,0.5nm,0.5s,baz=34,slow=5.7,SNR=8.1
comp=Z,0.5nm,0.5s
WRA Warramunga Arr 85.99 230 P P 20 00 51.7 -0.2
BRTR Keskin Array B 86.16 341 P P 20 00 52.2 -0.7
comp=Z,0.6nm,0.8s,baz=34,slow=5.4,SNR=2.2
comp=Z,0.6nm,0.8s
BRTR Keskin Array B 86.16 341 P P 20 00 53.4 +0.6
ESDC Sonseca Array 88.00 10 P P 20 01 01.1 -0.6
comp=Z,1.9nm,0.8s,baz=347,slow=4.4,SNR=11
comp=Z,1.9nm,0.8s
ESDC Sonseca Array 88.00 10 P P 20 01 01.6 0.0
ESDC IAmb IAmb 20 01 34.1
comp=Z,4.5nm,1.2s
AS31 Alice Springs 89.39 229 P P 20 01 08.5 +0.4
AS31 IAmb IAmb 20 01 20.2
comp=Z,1.7nm,1.2s
ASAR Alice Springs 89.39 229 P P 20 01 08.4 +0.2
comp=Z,1.5nm,0.5s,baz=25,slow=5.0,SNR=28
comp=Z,1.5nm,0.5s
CEL Celeste 89.91 355 P P 20 01 11.7 +1.0
H03N2 Juan Fernandez 116.73 111 T T 22 14 32.5
baz=313,slow=76,SNR=11
H03N1 Juan Fernandez 116.74 111 T T 22 14 33.4
baz=309,slow=76,SNR=19

*NEIC **25** 20:00:27.2±0.8, 19°.1N±0°.1×64°.70W±0°.06, h35km±2km, ML3.1/29, Md3.6/10(RSPR), Error ellipse: s-maj=18.5km s-min=8.8km az=358.0*
*RSPR **25** 20:00:28.8, 19°.07N×64°.70W, h25km±15km, MD3.6/10*
ISC 25 20:00:27.7±2.2, 19°.1N±0°.2×64°.69W±0°.07, h42km, n39, σ0s36/37, 1C-9D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUMP	**Col San Antoni**	**1.42**	**231**		**Sn**	**20 01 08.2**	**-0.2**
HUMP	**Col San Antoni**	**1.42**	**231**		**Pn**	**20 00 50.6**	**-0.3**
HUMP	**Col San Antoni**	**1.42**	**231**	IAML		20 01 12.9	
	182nm,0.2s						
HUMP				IAML		20 01 16.3	
	174nm,0.2s						
HUMP	**Col San Antoni**	**1.42**	**231**	*i*P	**Pn**	**20 00 50.8**	**-0.1**
GCPR	**Guaynabo City**	**1.51**	**241**		**Pn**	**20 00 51.5**	**-0.7**
PDPR	**Patillas Dam,**	**1.62**	**231**		**Sn**	**20 01 13.8**	**+0.3**
PDPR	**Patillas Dam,**	**1.62**	**231**		**Pn**	**20 00 53.4**	**-0.4**
PDPR	**Patillas Dam,**	**1.62**	**231**	*e*P	**Pn**	**20 00 54.2**	**+0.4**
IGPR	**InterUniversit**	**1.72**	**231**		**Pn**	**20 00 55.3**	**+0.2**
IGPR					**Sn**	**20 01 15.9**	**+0.1**
IGPR	**InterUniversit**	**1.72**	**231**	*e*P	**Pn**	**20 00 55.3**	**+0.2**
ECPR	**Experimental S**	**1.74**	**246**		**Sn**	**20 01 16.5**	**+0.1**
ECPR	**Experimental S**	**1.74**	**246**		**Pn**	**20 00 54.5**	**-0.9**
ECPR	**Experimental S**	**1.74**	**246**	IAML		20 01 23.6	
	431nm,0.2s						
ECPR				IAML		20 01 25.3	
	285nm,0.2s						
ECPR	**Experimental S**	**1.74**	**246**	*e*P	**Pn**	**20 00 54.9**	**-0.5**
EMPR	**Esperanza - Ma**	**1.83**	**252**		**Pn**	**20 00 56.9**	**+0.3**
EMPR					**Sn**	**20 01 18.4**	**-0.1**
EMPR	**Esperanza - Ma**	**1.83**	**252**	*e*P	**Pn**	**20 00 56.9**	**+0.3**
EMPR				*e*S	**Sn**	**20 01 18.4**	**-0.1**
SMRT	**St. Maarten**	**1.83**	**123**		**Pn**	**20 00 56.6**	**-0.1**
SMRT				IAML		20 01 30.4	
	comp=N,264nm,0.5s						
CELP	**Cerrillos**	**2.03**	**242**		**Sn**	**20 01 23.9**	**+0.3**
CELP	**Cerrillos**	**2.03**	**242**		**Pn**	**20 00 59.0**	**-0.5**
CELP	**Cerrillos**	**2.03**	**242**	IAML		20 01 29.0	
	comp=N,84nm,0.5s						
CELP				IAML		20 01 29.6	
	comp=N,72nm,0.5s						
CELP	**Cerrillos**	**2.03**	**242**	*e*P	**Pn**	**20 00 59.7**	**+0.3**
OBIP	**Obispado Ponce**	**2.07**	**241**		**Pn**	**20 00 59.5**	**-0.4**
OBIP	**Obispado Ponce**	**2.07**	**241**		**Sn**	**20 01 24.6**	**0.0**
OBIP	**Obispado Ponce**	**2.07**	**241**	*e*P	**Pn**	**20 01 00.1**	**+0.2**
OBIP				*e*S	**Sn**	**20 01 24.6**	**0.0**
AOPR	**Arecibo Observ**	**2.07**	**251**		**Sn**	**20 01 24.3**	**-0.3**
AOPR	**Arecibo Observ**	**2.07**	**251**		**Pn**	**20 00 59.2**	**-0.7**
AOPR	**Arecibo Observ**	**2.07**	**251**	IAML		20 01 48.6	
	comp=N,165nm,0.6s						
AOPR	**Arecibo Observ**	**2.07**	**251**	*e*P	**Pn**	**20 01 00.2**	**+0.3**
AGPR	**Aguadilla, PR**	**2.36**	**256**		**Pn**	**20 01 04.0**	**+0.1**
AGPR					**Sn**	**20 01 32.0**	**+0.3**
AGPR	**Aguadilla, PR**	**2.36**	**256**	IAML		20 02 14.9	
	comp=N,132nm,2.5s						
AGPR	**Aguadilla, PR**	**2.36**	**256**	*e*P	**Pn**	**20 01 04.0**	**+0.1**
MLPR	**Magueyes Islan**	**2.47**	**245**		**Sn**	**20 01 34.3**	**-0.1**
MLPR	**Magueyes Islan**	**2.47**	**245**		**Pn**	**20 01 05.5**	**+0.1**
MLPR	**Magueyes Islan**	**2.47**	**245**	IAML		20 02 25.9	
	comp=N,58nm,2.9s						
MLPR	**Magueyes Islan**	**2.47**	**245**	*e*P	**Pn**	**20 01 05.8**	**+0.4**
CRPR	**Cabo Rojo, PR**	**2.51**	**246**		**Sn**	**20 01 35.9**	**+0.4**
CRPR	**Cabo Rojo, PR**	**2.51**	**246**		**Pn**	**20 01 05.8**	**-0.2**
CRPR	**Cabo Rojo, PR**	**2.51**	**246**	IAML		20 01 42.8	
	comp=N,62nm,1.9s						
CRPR				IAML		20 02 00.1	
	comp=N,86nm,2.6s						
CRPR	**Cabo Rojo, PR**	**2.51**	**246**	*e*P	**Pn**	**20 01 06.4**	**+0.4**

IDC 25 20:07:01.9±2.1, 10°.61N×91°.71E, h0km, mb3.4/4, mbtmp3.4/5, Error ellipse: s-maj=51.6km s-min=24.7km az=76.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.47**	**41**	Pn	Pn	20 09 35.0	+1.5
	0.2nm,0.3s,baz=237,slow=15,SNR=5.3						
H08S3	**Diego Garcia H**	**26.36**	**227**	T	T	20 40 21.7	
	baz=46,slow=76,SNR=11						
H08S2	**Diego Garcia H**	**26.36**	**227**	T	T	20 40 25.3	
	baz=46,slow=76,SNR=6.7						
H08S1	**Diego Garcia H**	**26.38**	**227**	T	T	20 40 26.9	
	baz=46,slow=76,SNR=6.8						
SONM	**Songino Array**	**39.11**	**16**	P	P	20 14 29.9	-1.1
	0.3nm,0.3s,baz=192,slow=7.8,SNR=4.5						
	0.3nm,0.3s						
KURBB	**Kurchatov Array**	**41.34**	**347**	P	P	20 14 50.5	+1.2
	0.2nm,0.3s,baz=173,slow=7.9,SNR=2.1						
	0.2nm,0.3s						
WRA	**Warramunga Arr**	**51.79**	**126**	P	P	20 16 11.6	-0.3
	0.6nm,0.9s,baz=302,slow=7.6,SNR=5.0						
	0.6nm,0.9s						
ASAR	**Alice Springs**	**53.50**	**130**	P	P	20 16 24.4	-0.1
	0.5nm,0.7s,baz=312,slow=9.3,SNR=5.5						
	0.5nm,0.7s						
H04N2	**CROZET ISLANDS**	**66.89**	**209**	T	T	21 30 56.5	
	baz=44,slow=76,SNR=4.4						
H04N1	**CROZET ISLANDS**	**66.90**	**209**	T	T	21 30 56.3	
	baz=44,slow=76,SNR=3.9						
H04N3	**CROZET ISLANDS**	**66.91**	**209**	T	T	21 30 57.3	
	baz=44,slow=76,SNR=3.6						

*SJA **25** 20:09:09.9±0.8, 19°.46S×70°.31W, h32km±2km, ML3.4, MW3.6*
*GUC **25** 20:09:11.7±0.9, 19°.45S×70°.31W, h32km±4km, ML3.3, Presumed earthquake*
ISC 25 20:09:10.8±1.1, 19°.45S±0°.03×70°.33W±0°.06, h31km±8km, n22, σ0s96/36, 3C-6D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSGCX	**Pisagua**	**0.24**	**127**	*e*P	**Pb**	**20 09 17.5**	**-0.2**
PSGCX	**Pisagua**	**0.24**	**127**	*e*P	**Pb**	**20 09 17.7**	**0.0**
PSGCX				*e*S	**Sb**	**20 09 22.5**	**+0.1**
PX02	**IPOC Station P**	**0.50**	**15**	*i*P	**Pb**	**20 09 20.6**	**-0.7**
PB11	**IPOC Station P**	**0.71**	**116**	*e*P	**Pn**	**20 09 24.3**	**-0.5**
PB11				*e*S	**Sn**	**20 09 34.3**	**-0.5**
PB11				IAML		20 09 34.4	
	comp=Z,1μm,0.5s						
PB11	**IPOC Station P**	**0.71**	**116**	*i*P	**Pn**	**20 09 24.5**	**-0.4**
PB11				*e*S	**Sb**	**20 09 33.6**	**-0.7**
PB11				IAML		20 09 34.7	
	comp=N,1μm,0.5s						
PB12	**IPOC Station P**	**0.83**	**0**	*e*P	**Pn**	**20 09 26.4**	**-0.1**
PB12				*e*S	**Sb**	**20 09 38.1**	**+0.4**
PB12				IAML		20 09 38.2	
	comp=Z,826nm,0.6s						
PB12	**IPOC Station P**	**0.83**	**0**	*i*P	**Pn**	**20 09 26.4**	**-0.1**
PB12				*e*S	**Sn**	**20 09 36.7**	**-1.1**
PB12				IAML		20 09 39.0	
	comp=E,992nm,0.6s						
AP01	**Chacalluta**	**1.07**	**359**	*e*P	**Pb**	**20 09 30.6**	**-0.2**
AP01				IAML		20 09 53.3	
	comp=Z,791nm,0.5s						
AP01	**Chacalluta**	**1.07**	**359**	*e*P	**Pn**	**20 09 30.3**	**+0.6**
AP01				IAML		20 09 48.9	
	comp=E,2μm,0.5s						
GO01	**Chusmiza**	**1.09**	**102**	*e*P	**Pb**	**20 09 31.2**	**-0.3**
GO01				*e*S	**Sb**	**20 09 45.7**	**+0.2**
GO01				IAML		20 09 46.8	
	comp=Z,939nm,0.2s						
GO01	**Chusmiza**	**1.09**	**102**	*i*P	**Pb**	**20 09 31.0**	**-0.4**
GO01				*e*S	**Sb**	**20 09 45.7**	**+0.2**
TA01	**Diego Aracena**	**1.12**	**173**	*i*P	**Pn**	**20 09 29.9**	**-0.5**
TA01				*e*S	**Sn**	**20 09 43.6**	**-1.1**
TA01				IAML		20 09 45.3	
	comp=E,1μm,0.2s						
PB16	**IPOC Station P**	**1.35**	**35**	*e*P	**Pb**	**20 09 35.5**	**-0.4**
PB16				*e*S	**Sb**	**20 09 54.0**	**+0.9**
PB16				IAML		20 09 54.3	
	comp=Z,954nm,0.9s						
PB16	**IPOC Station P**	**1.35**	**35**	*e*P	**Pb**	**20 09 35.5**	**-0.4**
PB16				*e*S	**Sb**	**20 09 53.8**	**+0.7**
PB16				IAML		20 09 54.9	
	comp=N,598nm,0.5s						
PB02	**IPOC Station P**	**1.91**	**168**	*e*P	**Pn**	**20 09 42.3**	**+1.0**
PB02				*e*S	**Sb**	**20 10 06.2**	**-2.2**
PB02				IAML		20 10 10.4	
	comp=Z,635nm,0.3s						
PB02	**IPOC Station P**	**1.91**	**168**	*e*P	**Pn**	**20 09 41.9**	**+0.6**
PB02				IAML		20 10 13.4	
	comp=E,632nm,0.3s						
PB07	**IPOC Station P**	**2.31**	**170**	*e*P	**Pn**	**20 09 48.1**	**+1.2**
PB07				*e*S	**Sn**	**20 10 16.0**	**+1.7**
PB07				IAML		20 10 22.0	
	comp=Z,210nm,0.3s						
PB09	**IPOC Station P**	**2.55**	**157**	*e*P	**Pn**	**20 09 52.1**	**+1.8**
PB09				*e*S	**Sn**	**20 10 21.3**	**+1.0**
PB09				IAML		20 10 30.5	
	comp=Z,115nm,0.4s						
PB09	**IPOC Station P**	**2.55**	**157**	*e*P	**Pn**	**20 09 52.0**	**+1.8**
PB09				IAML		20 10 35.6	
	comp=E,182nm,0.4s						
PB03	**IPOC Station P**	**2.64**	**168**	*e*P	**Pn**	**20 09 52.8**	**+1.3**
PB03				*e*S	**Sb**	**20 10 28.3**	**-1.3**
PB03				IAML		20 10 34.3	
	comp=Z,122nm,0.4s						
PB03	**IPOC Station P**	**2.64**	**168**	*i*P	**Pn**	**20 09 52.5**	**+1.0**
PB03				IAML		20 10 36.8	
	comp=E,157nm,0.3s						
PB06	**IPOC Station P**	**3.32**	**168**	*i*P	**Pn**	**20 10 01.0**	**+0.2**
PB06				IAML		20 10 59.3	
	comp=N,88nm,0.2s						

*BGR **25** 20:11:09.4, 36°.07N×60°.61E, h33km, mb4.2*
*TEH **25** 20:11:37.5, 38°.07N×55°.96E, h9km±24km, ML4.8, Presumed earthquake*
*IDC **25** 20:11:38.7±0.6, 38°.08N×55°.93E, h0km, mb4.4/33, mbtmp4.5/44, ML4.0/10, MS4.3/67, Error ellipse: s-maj=10.8km s-min=7.9km az=174.0*
*THR **25** 20:11:38.6±0.0, 38°.07N×55°.99E, h10km±3km, ML4.8, Presumed earthquake*
*BJI **25** 20:11:39.3, 38°.29N×56°.30E, h3km, mB4.9/14, mb4.5/45, Ms5.1/39, Ms7.4.8/39*
*GCMT **25** 20:11:39.7±0.2, 38°.12N±0°.01×56°.03E±0°.01, h15km±1km, MW4.9/115, Moment Tensor Solution. s34,c38; s115,c187; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr0.50±.09; Mθθ-3.28±.09; Mϕϕ2.78±.07; Mrθ-0.06±.26; Mθϕ0.61±.07; Mϕr-0.38±.23; Best double couple: Mo3.12100×10^16 NP1:ϕ140.00000°, δ83.00000°, λ174.00000°. NP2:ϕ231.00000°, δ84.00000°, λ7.00000°. Principal axes: T 2.9010, Plg9.0000°, Azm96.0000°; N 0.4390, Plg81.0000°, Azm274.0000°; P -3.3410, Plg0.0000°, Azm6.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*MOS **25** 20:11:40.7±2.7, 38°.20N×56°.00E, h10km, mb5.0/17, MS4.2/10 Error ellipse: s-maj=4.6km s-min=4.0km az=133.1*
*NEIC **25** 20:11:40.7±2.0, 38°.23N±0°.08×56°.05E±0°.08, h10km±1km, mb4.8/71, Error ellipse: s-maj=13.0km s-min=10.1km az=186.0*
*GFZ **25** 20:11:41.0±0.1, 38°.1N±4°.4×5°.6E±°, h10km, M4.6/91, mb4.8/91, Mw4.8/17, Error ellipse: s-maj=7.8km s-min=2.8km az=6.3, confirmed*
*NNC **25** 20:11:46.3±2.8, 38°.63N×56°.60E, h0km, mb4.7, Error ellipse: s-maj=33.4km s-min=22.5km az=51.0*
ISC 25 20:11:39.6±0.3, 38°.14N±0°.03×56°.01E±0°.02, h10km, n635, σ2s06/605, mb4.7/181, MS4.4/80, 64C-49D, Iran-Turkmenistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MRVT	**Maraveh tapeh**	**0.49**	**172**	*e*Pg	**Pb**	**20 11 46.7**	**-3.6**
MRVT	**Maraveh tapeh**	**0.49**	**172**	Pg	**Pb**	**20 11 46.8**	**-3.6**
IMND	**Minoodasht**	**1.00**	**208**	Pg	**Pn**	**20 11 56.3**	**-3.4**
BJND	**Bojnord**	**1.41**	**128**	Pg	**Pg**	**20 12 05.5**	**-1.2**
ISFR	**Sfrayin**	**1.92**	**124**	Pn	**Pb**	**20 12 13.3**	**-1.6**
SHRO	**Shahrood**	**2.15**	**180**	*e*Pn	**Pb**	**20 12 15.5**	**-3.2**
SHRO				IAML		20 13 12.9	
	comp=Z,2.3nm,1.0s						
SHRO	**Shahrood**	**2.15**	**180**	Pn	**Pb**	**20 12 15.5**	**-3.2**
SBZV	**Sabzevar**	**2.17**	**143**	*e*Pn	**Pb**	**20 12 15.8**	**-3.4**
SBZV				IAML		20 12 58.7	
	comp=Z,4μm,1.0s						
SBZV	**Sabzevar**	**2.17**	**143**	Pn	**Pb**	**20 12 16.0**	**-3.2**
IGLO	**Ghaloghah**	**2.39**	**227**	Pn	**Pb**	**20 12 18.4**	**-4.4**
IAKL	**Akhelmad**	**2.68**	**124**	Pn	**Pb**	**20 12 24.2**	**-3.6**
IKRD	**Kardeh**	**3.11**	**115**	Pn	**Pn**	**20 12 29.5**	**+0.5**
IANJ	**Anjilo**	**3.15**	**213**	Pn	Pb	20 12 29.7	-6.3
ISHM	**Shahmirzad**	**3.19**	**224**	Pn	Pb	20 12 30.4	-6.1
TAPT	**Tabas- Tapeh t**	**3.38**	**164**	Pn	**Pn**	**20 12 33.0**	**+0.3**
IPRN	**Peran**	**3.49**	**238**	Pn	**Pn**	**20 12 33.5**	**-0.6**
IFIR	**Firoozkooh**	**3.61**	**227**	Pn	**Pn**	**20 12 36.3**	**+0.4**
IMYA	**Miami**	**3.73**	**118**	Pn	**Pn**	**20 12 38.1**	**+0.6**
TBHD	**Torbat heydari**	**3.76**	**135**	Pn	**Pn**	**20 12 38.5**	**+0.6**
DAMV	**Damavand**	**4.09**	**233**	*e*Pn	**Pn**	**20 12 43.8**	**+1.3**
DAMV				IAML		20 13 51.5	
	comp=Z,1μm,1.0s						
TNSJ	**Nastanj**	**4.20**	**173**	Pn	**Pn**	**20 12 44.0**	**+0.1**
TSHB	**Tabas_ShorAb**	**4.46**	**175**	Pn	**Pn**	**20 12 47.2**	**-0.2**
CHTH	**Charan**	**4.50**	**242**	*e*Pn	**Pn**	**20 12 48.9**	**+0.8**
CHTH				IAML		20 14 00.0	
	comp=Z,220nm,1.0s						
TABS	**Tabas**	**4.58**	**168**	*e*Pn	**Pn**	**20 12 49.7**	**+0.7**
TABS				IAML		20 14 28.1	
	comp=Z,650nm,1.0s						
GIDE	**GILAN DEYLAMAN**	**5.00**	**258**	*e*Pn	**Pn**	**20 12 54.5**	**-0.4**
GIDE				IAML		20 15 07.7	
	comp=Z,640nm,1.0s						
GALA	**Gala**	**5.07**	**298**	Pn	**Pn**	**20 12 56.9**	**+1.2**
NDR	**Nardaran**	**5.26**	**299**	Pn	**Pn**	**20 12 59.4**	**+1.1**
GHVR	**GHOM**	**5.28**	**228**	*e*Pn	**Pn**	**20 12 59.4**	**+0.8**
GHVR				IAML		20 14 47.3	
	comp=Z,1μm,1.0s						
CSN1	**Caspian**	**5.50**	**266**	Pn	**Pn**	**20 13 01.1**	**-0.4**
SHRT	**Shahrakht**	**5.68**	**141**	*e*Pn	**Pn**	**20 13 03.7**	**-0.4**
SHRT				IAML		20 15 17.8	
	comp=Z,280nm,1.0s						
ALIB	**&Aumlli-Bayram**	**5.74**	**291**	Pn	**Pn**	**20 13 06.1**	**+1.2**
YZKH	**Yazd**	**5.86**	**192**	*e*Pn	**Pn**	**20 13 06.9**	**+0.3**
YZKH				IAML		20 14 55.4	
	comp=Z,240nm,1.0s						
GBS	**Qobustan**	**5.97**	**296**	Pn	**Pn**	**20 13 09.3**	**+1.1**
ZNJK	**Zanjan**	**6.01**	**258**	*e*Pn	**Pn**	**20 13 09.2**	**+0.3**
ZNJK				IAML		20 14 53.5	
	comp=Z,310nm,1.0s						
ASAO	**Ashtian**	**6.01**	**235**	*e*Pn	**Pn**	**20 13 09.6**	**+0.7**
ASAO				IAML		20 15 22.4	
	comp=Z,250nm,1.0s						
ICHK	**Chekchek**	**6.03**	**193**	Pn	**Pn**	**20 13 09.3**	**+0.2**
IZEF	**Zefreh**	**6.03**	**211**	Pn	**Pn**	**20 13 09.3**	**+0.1**
HRA	**Herat**	**6.28**	**125**		**Pn**	**20 13 12.6**	**+0.1**
KHMZ	**Khomeyn**	**6.58**	**230**	*e*Pn	**Pn**	**20 13 17.3**	**+0.6**
KHMZ				IAML		20 15 24.1	
	comp=Z,130nm,1.0s						
ISRB	**Sarab**	**6.59**	**270**	Pn	**Pn**	**20 13 16.4**	**-0.5**
BSRN	**Basiran**	**6.67**	**157**	*e*Pn	**Pn**	**20 13 18.1**	**+0.2**
BSRN				IAML		20 15 42.2	
	comp=Z,130nm,1.0s						
IHRS	**Heris**	**7.06**	**274**	Pn	**Pn**	**20 13 23.2**	**-0.1**
AKT	**Akhty**	**7.19**	**300**	*ce*P	**Pn**	**20 13 25.0**	**+0.1**
AKT				pmax	pmax		
	comp=Z,277nm,0.3s						
SNGE	**Sanandaj**	**7.60**	**249**	*e*Pn	**Pn**	**20 13 31.7**	**+1.1**
SNGE				IAML		20 15 32.5	
	comp=Z,41nm,1.0s						
GTMR	**Gotvand**	**7.98**	**227**	*e*Pn	**Pn**	**20 13 36.5**	**+0.7**
GTMR				IAML		20 16 06.0	
	comp=Z,83nm,1.0s						
KLNJ	**Kolanjah**	**7.99**	**208**	*e*Pn	**Pn**	**20 13 36.3**	**+0.1**
KLNJ				IAML		20 15 28.3	
	comp=Z,67nm,1.0s						
IMRD	**Marand**	**8.11**	**277**	Pn	**Pn**	**20 13 37.9**	**+0.3**
SRSL	**SARDASHT**	**8.66**	**260**	*e*Pn	**Pn**	**20 13 46.1**	**+1.0**
BTLR	**Botlikh**	**8.72**	**304**	*e*P	**Pn**	**20 13 46.3**	**+0.4**
DVE	**Vedeno**	**8.92**	**306**	*e*P	**Pn**	**20 13 49.8**	**+1.2**
GNI	**Garni**	**8.98**	**286**	Pn	**Pn**	**20 13 50.8**	**+1.4**
	comp=Z,15nm,0.3s,baz=73,slow=2.4,SNR=56						
GNI				Sn	**Sn**	**20 15 30.6**	**-0.1**
	comp=Z,2.1nm,0.3s,baz=227,slow=16,SNR=2.2						
GNI				LR	LR	20 19 17.7	
	comp=Z,2μm,18.7s,baz=116,slow=51						
	comp=Z,143nm,0.8s						
GNI				AML	AML		
GNI	**Garni**	**8.98**	**286**	Pn	**Pn**	**20 13 50.5**	**+1.0**
GNI	**Garni**	**8.98**	**286**		**Pn**	**20 13 50.4**	**+0.9**
GNI	**Garni**	**8.98**	**286**	P	**Pn**	**20 13 50.9**	**+1.4**
	comp=Z,2μmcomp=Z,286nm,0.8s						
GNI	**Garni**	**8.98**	**286**	P	**Pn**	**20 13 50.7**	**+1.2**
	comp=Z,288nm,0.8s						
ILBA	**Ilam Banvizeh**	**9.14**	**243**	*e*Pn	**Pn**	**20 13 52.1**	**+0.5**
GROC	**Groznyy**	**9.25**	**306**	*e*P	**Pn**	**20 13 53.6**	**+0.5**
OZAP	**Van, Ozalp-Mer**	**9.45**	**277**	*i*P	**Pn**	**20 13 58.1**	**+2.1**
HAKT	**HAKKARI**	**9.75**	**270**	P	Pn	20 14 02.9	+2.8
	comp=Z,276nm,0.8s						
DIGO	**Kars**	**10.05**	**287**	P	**Pn**	**20 14 05.9**	**+1.6**
	comp=Z,420nm,0.8s						
GEVA	**Gevas**	**10.19**	**275**		**Pn**	**20 14 07.5**	**+1.4**
EPOS	**Posof**	**10.75**	**292**	P	**Pn**	**20 14 15.6**	**+1.8**
	comp=Z,47nm,1.3s						
NCK	**Nalchik**	**10.81**	**304**	*e*P	**Pn**	**20 14 14.7**	**+0.2**
NCK				pmax	pmax		
	comp=Z,36nm,0.3s						
GURO	**Guroymak-BITLI**	**10.98**	**276**		**Pn**	**20 14 18.0**	**+1.1**
KBL	**Kabul**	**11.11**	**105**	P	**Pn**	**20 14 19.7**	**+1.0**
	comp=Z,28nm,0.8s						
HOMI	**Horasan**	**11.12**	**284**	*i*P	Pn	20 14 21.5	+2.6
CHM	**Chimkent**	**11.20**	**64**	*e*P	**Pn**	**20 14 17.5**	**-2.2**
CHM	**Chimkent**	**11.20**	**64**	*e*Pn	**Pn**	**20 14 17.6**	**-2.2**
NEUR	**Neytrino**	**11.31**	**301**	*e*P	**Pn**	**20 14 22.9**	**+1.4**
NEUR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KBZ	**Khabaz**	**11.37**	**304**	Pn	**Pn**	**20 14 20.0**	**-2.1**
	comp=Z,2.1nm,0.3s,baz=104,slow=6.8,SNR=28						
KBZ				Sn	**Sn**	**20 16 23.4**	**-5.7**
	comp=Z,2.9nm,0.3s,baz=281,slow=4.1,SNR=4.8						
	comp=Z,7.2nm,0.4s						
KBZ				AML	AML		
KBZ	**Khabaz**	**11.37**	**304**	*e*P	**Pn**	**20 14 20.1**	**-2.0**
IUG	**Iuzhnay**	**11.45**	**65**	*e*P	**Pn**	**20 14 20.6**	**-2.7**
IUG	**Iuzhnay**	**11.45**	**65**	*e*Pn	**Pn**	**20 14 20.6**	**-2.7**
AB31	**Akbulak array**	**11.46**	**13**	P	**Pn**	**20 14 21.9**	**-1.4**
	comp=Z,1.1nm,0.5s,baz=209,slow=15,SNR=259						
AB31				⇑S	**Sn**	**20 16 29.7**	**-1.7**
	comp=Z,33nm,0.5s,baz=201,slow=25,SNR=5.9						
AB31	**Akbulak array**	**11.46**	**13**		**Pn**	**20 14 21.4**	**-1.9**
ABKAR	**Akbulak array**	**11.46**	**13**		**Pn**	**20 14 21.5**	**-1.8**
SHA1	**Shidzhatmaz**	**11.53**	**303**	*de*P	**Pn**	**20 14 23.8**	**-0.7**
BRLS	**Borolday**	**11.59**	**61**	*e*P	Pn	20 14 20.1	-5.0
BRLS	**Borolday**	**11.59**	**61**	*e*Pn	Pn	20 14 20.2	-5.0
KVAR	**Kislovodsk Arr**	**11.60**	**304**	Pn	**Pn**	**20 14 24.0**	**-1.3**
	baz=75,slow=19						
KVAR				Sn	**Sn**	**20 16 27.4**	**-7.5**
	baz=218,slow=18						
	comp=Z,4.0nm,0.4s						
KIV	**Kislovodsk**	**11.61**	**304**	Pn	**Pn**	**20 14 23.5**	**-1.9**
KIV	**Kislovods

SNR=10.0
NIL Nilore 14.68 103 P **Pn** **20 15 06.2 -1.1**
NIL Nilore 14.68 103 **Pn** **20 15 06.2 -1.1**
NIL Nilore 14.68 103 **Pn** **20 15 05.8 -1.6**
comp=Z,36nm,1.1s
UCH Uchtor 14.72 68 P **Pn** **20 15 06.2 -2.1**
SNR=10
AAK Ala-Archa 14.78 67 Pn **Pn** **20 15 06.9 -2.0**
comp=Z,0.8nm,0.3s,baz=211,slow=3.7,SNR=29
AAK Sn **Sn** **20 17 45.6 -7.1**
comp=Z,0.4nm,0.3s,baz=37,slow=7.9,SNR=5.0
AAK LR LR 20 21 39.5
comp=Z,3µm,18.3s,baz=270,slow=40
comp=Z,10nm,0.8s
AAK AML AML
AAK Ala-Archa 14.78 67 P **Pn** **20 15 07.4 -1.5**
SNR=10
AAK Ala-Archa 14.78 67 ⇓P **Pn** **20 15 06.2 -2.7**
comp=Z,17nm,0.9s
AAK ⇑S **Sn** **20 17 47.7 -5.1**
comp=Z,51nm,1.2s
AAK Ala-Archa 14.78 67 Pn **Pn** **20 15 06.9 -2.0**
AAK Ala-Archa 14.78 67 *i* P **Pn** **20 15 07.6 -1.3**
AAK Ala-Archa 14.78 67 P **Pn** **20 15 07.5 -1.4**
comp=Z,30nm,1.2s
USP Ospenovka 14.92 64 P **Pn** **20 15 07.5 -3.2**
SNR=11
CHMS Chumnysh 15.04 65 P **Pn** **20 15 10.3 -1.9**
SNR=5.7
KBK Karagaybulak 15.11 67 P **Pn** **20 15 11.1 -2.2**
SNR=11
MZR Muzera 15.25 189 Pn **P** **20 15 15.4 -4.6**
KSH2 Kashi 15.32 80 P **Pn** **20 15 13.0 -3.1**
KSH2 S **Sn** **20 17 57.3 -8.6**
KSH2 pmax pmax
comp=Z,29nm,0.9s
KSH2 L L
comp=Z,5µm,9.6s
KSH2 L L
comp=Z,3µm,11.0s
KSH2 L L
comp=Z,5µm,12.7s
BELG Belogornoye 15.40 340 Pn **Pn** **20 15 13.6 -3.4**
comp=Z,30nm,0.4s,baz=332,slow=0.8,SNR=42
BELG Sn **Sn** **20 17 57.4 -10**
comp=Z,6.0nm,0.3s,baz=3.2,slow=16,SNR=12
BELG LR LR 20 23 26.2
comp=Z,1µm,19.3s,baz=155,slow=46
ANN Anapa 15.41 301 *e*P **P** **20 15 19.0 -2.7**
ANN *e*S **Sn** **20 18 10.6 +2.9**
ANN pmax pmax
comp=Z,58nm,0.9s
ANN MLR MLR
comp=Z,645nm,17.0s
ANDN Andirin 15.54 274 P **P** **20 15 21.3 -2.0**
NRN Naryn 15.71 72 P **Pn** **20 15 18.1 -3.3**
NRN pmax pmax
comp=Z,42nm,1.2s
NRN Naryn 15.71 72 Pn **Pn** **20 15 18.1 -3.3**
BNN Bunyan 15.80 279 **P** **20 15 22.6 -3.6**
BOOM Boomskoye usch 15.81 68 P **Pn** **20 15 20.4 -2.0**
BOOM pmax pmax
comp=Z,12nm,0.9s
BOOM Boomskoye usch 15.81 68 **Pn** **20 15 20.4 -2.0**
BOOM Boomskoye usch 15.81 68 P **Pn** **20 15 21.6 -0.8**
comp=Z,23nm,0.9s
ASAI AK-SAY(Kyrgyzs 16.07 74 P **P** **20 15 28.5 -0.9**
comp=Z,21nm,0.9s
KUU Kurty 16.37 63 *e*P **P** **20 15 32.0 -0.3**
KUU Kurty 16.37 63 *e*P **P** **20 15 32.0 -0.3**
SNOP Sinop 16.38 290 Pn **P** **20 15 30.3 -2.1**
VRH Novokhopyorsk 16.50 327 *e*P **P** **20 15 31.6 -2.1**
VRH pmax pmax
comp=Z,22nm,0.6s
TNSS Tian-Shan 16.63 66 *e*P **P** **20 15 35.2 -0.4**
TNSS Tian-Shan 16.63 66 *e*P **P** **20 15 35.3 -0.4**
KNDC Almaty 16.68 66 ⇑P **Pn** **20 15 32.2 -1.2**
comp=Z,65nm,0.9s
MDOK Medeo 16.72 66 *e*P **P** **20 15 36.3 -0.1**
MDOK *e*S **Sn** **20 18 43.0 +3.1**
MDOK Medeo 16.72 66 *e*P **P** **20 15 36.4 -0.1**
MDOK *e*S **Sn** **20 18 43.0 +3.1**
ASF Jabal al Asfar 16.75 255 Pn **P** **20 15 35.0 -1.3**
comp=Z,0.3nm,0.3s,baz=68,slow=5.0,SNR=19
ASF LR LR 20 23 31.8
comp=Z,786nm,21.0s,baz=46,slow=43
comp=Z,31nm,1.0s
ASF AML AML
ASF Jabal al Asfar 16.75 255 P **P** **20 15 38.2 +1.9**
comp=Z,320nm,1.1s
TARG Taragay, Kyrgy 17.09 71 P **Pn** **20 15 37.7 -1.3**
TARG pmax pmax
comp=Z,108nm,1.6s
TARG Taragay, Kyrgy 17.09 71 **Pn** **20 15 37.7 -1.3**
TARG IAmb IAmb 20 15 45.3
comp=Z,108nm,1.6s
TARG Taragay, Kyrgy 17.09 71 P **Pn** **20 15 38.1 -0.9**
comp=Z,37nm,1.5s
RAYN Ar Rayn 17.12 215 Pn **P** **20 15 37.2 -3.6**
RAYN Ar Rayn 17.12 215 P **Pn** **20 15 36.2 -2.9**
RAYN pmax pmax
comp=Z,15nm,0.8s
RAYN Ar Rayn 17.12 215 Pn **Pn** **20 15 36.2 -2.9**
BZK Bozkurt 17.26 290 P **P** **20 15 41.4 -0.8**
comp=Z,139nm,0.9s
KIRS Kirsehir-Merke 17.28 280 ⇓P **P** **20 15 42.7 +0.1**
VORD Divnogorie 17.44 323 *e*P **Pn** **20 15 40.2 -2.7**
VORD pmax pmax
comp=Z,70nm,0.9s
BR104 Keskin Array S 17.47 282 P **P** **20 15 44.1 -0.6**
comp=Z,89nmcomp=Z,13nm,0.9s
BRTR Keskin Array B 17.47 282 P **P** **20 15 43.6 -1.1**
comp=Z,0.1nm,0.3s,baz=96,slow=13,SNR=22
comp=Z,3.8nm,0.8s
BRTR AML AML
BRTR Keskin Array B 17.47 282 P **P** **20 15 43.7 -1.0**
BR106 Keskin Array S 17.49 282 P **P** **20 15 44.5 -0.4**
comp=Z,101nmcomp=Z,13nm,0.9s
BR105 Keskin Array S 17.49 282 P **P** **20 15 44.6 -0.3**
comp=Z,108nmcomp=Z,16nm,0.9s
MMAI Mount Meron Ar 17.51 259 P **P** **20 15 44.3 -0.8**
comp=Z,0.1nm,0.3s,baz=64,slow=16,SNR=3.6
MMAI LR LR 20 23 56.1
comp=Z,478nm,19.8s,baz=59,slow=42
comp=Z,9.2nm,0.9s
MMAI AML AML
VSR Storozhevoye 17.67 323 *e*P **Pn** **20 15 42.9 -2.8**
VSR pmax pmax
comp=Z,35nm,0.7s
SATY Saty 17.69 67 *e*P **P** **20 15 48.9 +1.8**
SATY *e*S **S** **20 19 06.5 -4.2**
SATY Saty 17.69 67 *e*P **P** **20 15 48.9 +1.8**
SATY *e*S **S** **20 19 06.5 -4.2**
SIM Simferopol' 17.71 300 *e*P **P** **20 15 45.8 -1.4**
SIM *e*S **Sn** **20 18 58.0 -5.6**
SIM pmax pmax
comp=Z,64nm,0.7s
SIM MLR MLR
comp=Z,200nm,16.9s
BORK Borovoye 17.90 29 P **Pn** **20 15 47.5 -1.1**
BORK pmax pmax
comp=Z,31nm,0.9s
BORK Borovoye 17.90 29 **Pn** **20 15 47.5 -1.1**
BVAR Borovoye Array 17.91 29 P **P** **20 15 48.4 -1.0**
comp=Z,0.2nm,0.3s,baz=217,slow=10,SNR=39
BVAR S **Sn** **20 19 01.2 -7.2**
comp=Z,14nm,0.8s,baz=231,slow=25,SNR=5.4
comp=Z,18nm,0.8s
BVAR AML AML
KPKS Kokpek 17.95 66 *e*P **P** **20 15 51.9 +2.0**
KPKS Kokpek 17.95 66 *e*P **P** **20 15 51.9 +2.0**
VORR Voronezh 17.95 324 *e*P **Pn** **20 15 46.9 -2.3**
VORR pmax pmax
comp=Z,23nm,0.5s
KKUL Konya-Kulu 18.06 280 P **P** **20 15 51.8 +0.7**
comp=Z,44nm,1.2s
WUS Wushi 18.12 73 P **Pn** **20 15 49.8 -1.7**
comp=Z,17nm,1.1s
UZB Uzynbulak 18.15 67 *e*P **P** **20 15 54.2 +2.1**
UZB Uzynbulak 18.15 67 *e*P **P** **20 15 54.3 +2.1**
ARTI Arti 18.32 4 P **Pn** **20 15 53.2 -0.5**
comp=Z,2.8nm,0.3s,baz=188,slow=8.4,SNR=33
ARTI S **Sn** **20 19 08.9 -9.2**
comp=Z,14nm,0.6s,baz=325,slow=22,SNR=3.5
ARTI LR LR 20 23 26.9
comp=Z,2µm,21.6s,baz=180,slow=38
comp=Z,22nm,0.6s
ARTI AML AML
ARTI Arti 18.32 4 P **P** **20 15 52.3 -1.5**
ARTI S **Sn** **20 19 19.3 +1.1**
ARTI MLR MLR
comp=Z,2µm,20.0s
ARTI Arti 18.32 4 **P** **20 15 52.2 -1.5**
ARTI IAmb IAmb 20 16 03.1
comp=Z,49nm,0.9s
KHAM Kharkiv 18.43 316 P **Pn** **20 15 56.0 +0.9**
PDGK Podgornoye 18.51 66 ⇑P **Pn** **20 15 57.4 +1.1**
comp=Z,20nm,1.4s
LPSR Galich'ya Gora 18.71 326 *e*P **Pn** **20 15 57.8 -0.7**
LPSR pmax pmax
comp=Z,110nm,0.8s
LPSR MLR MLR
comp=Z,710nm,11.0s
SVE Sverdlovsk 18.95 8 *e*P **Pn** **20 16 03.9 +2.6**
SVE *e*S **Sn** **20 19 29.5 -3.7**
SVE pmax pmax
comp=Z,36nm,1.2s
SVE MLR MLR
comp=Z,2µm,13.0s
PRNI Paran 19.00 252 P **Pn** **20 16 04.5 +2.4**
comp=Z,88nm,1.0s
HRFI Mount Harif 19.13 251 P **Pn** **20 16 05.9 +2.2**
comp=Z,540nmcomp=Z,33nm,0.9s
HRFI Mount Harif 19.13 251 P **Pn** **20 16 04.9 +1.2**
comp=Z,33nm,0.9s
KZIT Kziot 19.19 254 P **Pn** **20 16 07.3 +2.9**
comp=Z,37nm,1.1s
KZIT Kziot 19.19 254 P **Pn** **20 16 05.7 +1.3**
comp=Z,37nm,1.1s
AQBJ Aqaba 19.28 250 P **Pn** **20 16 09.8 +4.3**
comp=Z,55nm,0.9s
MDUB Mudurnu 19.32 285 P **Pn** **20 16 06.2 +0.1**
MDUB IAmb IAmb 20 16 10.0
comp=Z,48nm,0.9s
EIL Elat 19.38 250 P **Pn** **20 16 07.1 +0.3**
comp=Z,0.3nm,0.3s,baz=48,slow=5.6,SNR=8.1
EIL LR LR 20 24 55.0
comp=Z,1µm,20.9s,baz=60,slow=41
comp=Z,26nm,0.9s
EIL AML AML
EIL Elat 19.38 250 P **Pn** **20 16 08.5 +1.8**
comp=Z,30nm,1.1s
EIL Elat 19.38 250 P **Pn** **20 16 07.4 +0.7**
comp=Z,30nm,0.9s
KEPZ Antalya-Kepez 19.39 274 ⇑P **Pn** **20 16 07.7 +0.9**
SAHE Sakarya_HENDEK 19.58 286 ⇑P **Pn** **20 16 09.8 +0.8**
SHAO Shalim 20.05 181 P **Pn** **20 16 12.5 -2.2**
ISP Isparta 20.08 277 *e*P Pn 20 16 14.9 -0.2
ISP pmax pmax
comp=Z,43nm,1.0s
KURBB Kurchatov Arra 20.27 45 P Pn 20 16 16.3 -0.8
comp=Z,6.4nm,1.0s,baz=247,slow=12,SNR=16
KURBB S Sn 20 20 08.6 +3.4
comp=Z,1.2nm,0.5s,baz=257,slow=29,SNR=2.4
comp=Z,6.4nm,1.0s
KURBB Kurchatov Arra 20.27 45 ⇑P Pn 20 16 18.7 +1.6
comp=Z,21nm,1.4s
KURK Kurchatov 20.37 45 ⇑P Pn 20 16 18.1 -0.2
comp=Z,9.9nm,1.4s
KURK Kurchatov 20.37 45 P Pn 20 16 16.3 -1.9
KURK S Sn 20 20 08.6 +1.1
KURK Kurchatov 20.37 45 Sn 20 20 08.6 +1.1
KURK Kurchatov 20.37 45 P Pn 20 16 16.1 -2.1
KURK Kurchatov 20.37 45 P Pn 20 16 18.4 +0.2
comp=Z,22nm,0.8s
YLV Yalova 20.71 285 P Pn 20 16 21.5 -1.0
comp=Z,2µmcomp=Z,264nm,0.9s
KIRV Kirov 20.90 350 P Pn 20 16 22.0 -2.4
comp=Z,21nm,0.7s,baz=162,slow=16,SNR=9.1
KIRV S Sn 20 20 18.2 -2.0
comp=Z,9.0nm,0.8s,baz=352,slow=23,SNR=1.6
KIRV LR LR 20 26 08.7
comp=Z,2µm,19.1s,baz=173,slow=42
comp=Z,21nm,0.7s
MAKZ Makanchi 20.95 57 ⇓P **P** **20 16 23.1 +0.4**
comp=Z,26nm,1.2s
MAKZ Makanchi 20.95 57 P **P** **20 16 23.0 +0.4**
MAKZ pmax pmax
comp=Z,23nm,1.2s
MAKZ Makanchi 20.95 57 P **P** **20 16 23.0 +0.4**
MAKZ Makanchi 20.95 57 P **P** **20 16 24.3 +1.7**
comp=Z,20nm,1.0s
PURM Purcari 20.98 302 ⇓P Pn 20 16 23.9 -1.6
PURM Purcari 20.98 302 P Pn 20 16 23.9 -1.6
comp=Z,2µmcomp=Z,343nm,0.8s
AKAS Kas 21.10 273 P **P** **20 16 25.1 +0.7**
AKAS IAmb IAmb 20 16 34.4
comp=Z,35nm,0.7s
AKAS Kas 21.10 273 P **P** **20 16 24.0 -0.4**
comp=Z,261nm,1.0s
SEM Semipalatinsk 21.14 47 *e*P **P** **20 16 26.8 +2.0**
SEM Semipalatinsk 21.14 47 *e*P **P** **20 16 26.9 +2.0**
MK31 Makanchi Array 21.15 57 ⇑P **P** **20 16 25.6 +0.8**
comp=Z,17nm,0.9s,baz=241,slow=9.4,SNR=59
MK31 Makanchi Array 21.15 57 *de*P **P** **20 16 26.7 +1.9**
MKAR Makanchi Array 21.15 57 P **P** **20 16 26.1 +1.4**
comp=Z,8.8nm,0.8s,baz=247,slow=8.6,SNR=27
comp=Z,8.8nm,0.8s
MKAR Makanchi Array 21.15 57 P **P** **20 16 25.2 +0.4**
JURR Jurilovca 21.32 297 ⇑P **P** **20 16 27.6 +1.1**
SHAB Shabla 21.37 293 ⇑P **P** **20 16 29.5 +2.4**
TAVA DENIZLI_Tavas 21.39 277 ⇓P **P** **20 16 28.8 +1.2**
MANR Mangalia 21.41 294 ⇑P **P** **20 16 29.5 +2.0**
TLCR 21.43 298 ⇑P **P** **20 16 28.9 +1.2**
OBN Obninsk 21.47 329 P **P** **20 16 27.8 -0.2**
comp=Z,20nm,0.3s,baz=123,slow=6.4,SNR=13
OBN S **S** **20 20 27.9 +1.9**
comp=Z,10nm,0.3s,baz=233,slow=19,SNR=3.0
comp=Z,20nm,0.3s
OBN Obninsk 21.47 329 ⇑*i*P **P** **20 16 29.0 +1.0**
OBN *e* 20 16 56.6
OBN *i* S **S** **20 20 18.5 -7.5**
OBN pmax pmax
comp=Z,72nm,1.4s
OBN MLR MLR
comp=Z,867nm,14.0s
OBN Obninsk 21.47 329 P **P** **20 16 27.7 -0.3**
OBN Obninsk 21.47 329 ⇑P **P** **20 16 29.7 +1.7**
OBN Obninsk 21.47 329 P **P** **20 16 28.8 +0.8**
comp=Z,1µmcomp=Z,84nm,0.8s
OBN Obninsk 21.47 329 P **P** **20 16 29.6 +1.6**
comp=Z,85nm,0.8s
KALB Balgarevo 21.50 293 ⇑P **P** **20 16 31.1 +2.7**
MOS Moscow 21.50 331 *e*P **P** **20 16 29.2 +0.9**
MOS *e*S **S** **20 20 29.3 +2.8**
MOS *e*SS **SnSn** **20 20 55.2 +5.5**
MOS pmax pmax
comp=E,42nm,0.8s
MOS pmax pmax
comp=Z,52nm,0.7s
MOS MLR MLR
comp=Z,1µm,15.0s
MOS MLR MLR
comp=N,900nm,14.0s
CTYL Yalikoy Yolu 21.51 288 ⇑P **P** **20 16 31.0 +2.3**
CTYL Yalikoy Yolu 21.51 288 P **P** **20 16 30.0 +1.4**
comp=N,106nm,0.8s
MFTR Murfatlar 21.57 295 ⇓P **P** **20 16 30.9 +1.7**
TIRR Tirgusor 21.61 296 IAmb IAmb 20 16 34.4
comp=Z,50nm,0.8s
TIRR Tirgusor 21.61 296 ⇑P **P** **20 16 31.1 +1.5**
TIRR Tirgusor 21.61 296 P **P** **20 16 30.7 +1.1**
comp=Z,69nm,1.0s
TIRR Tirgusor 21.61 296 P **P** **20 16 31.4 +1.7**
comp=Z,69nm,1.0s
TPGR Topolog 21.66 297 ⇑P **P** **20 16 31.5 +1.3**
BAND Balkesir-Ban 21.69 285 ⇓P **P** **20 16 32.0 +1.4**
KIS Kishinev 21.80 303 P **P** **20 16 32.5 +0.8**
comp=Z,124nm,0.8s
TLBR Topalu 21.88 296 ⇑P **P** **20 16 34.3 +1.7**
CFR Carcaliu 21.91 298 ⇓P **P** **20 16 34.2 +1.4**
BALB Balikesir 21.91 283 IAmb IAmb 20 16 35.9
comp=Z,42nm,0.9s
HARR Harsova 21.98 296 ⇑P **P** **20 16 34.9 +1.3**
ICOR Ion Corvin 22.00 295 ⇓P **P** **20 16 36.3 +2.4**
TATR Tatarca 22.03 299 ⇓P **P** **20 16 35.7 +1.5**
VLDR Vladesti 22.05 299 ⇑P **P** **20 16 35.7 +1.3**
SCTR Scanteiesti 22.08 299 ⇑P **P** **20 16 36.1 +1.4**
BALY Balya 22.10 283 P **P** **20 16 36.2 +1.2**
comp=Z,96nm,0.9s
NEGRR Negrea 22.14 298 ⇑P **P** **20 16 36.6 +1.2**
SCHLR Schela 22.16 298 ⇑P **P** **20 16 37.6 +2.0**
SCHL Schela 22.17 298 ⇓P **P** **20 16 37.2 +1.6**
VARL Varlezi 22.23 299 ⇓P **P** **20 16 37.8 +1.5**
SORM Soroca 22.41 305 ⇑P **P** **20 16 39.1 +1.0**
SORM Soroca 22.41 305 P **P** **20 16 38.5 +0.3**
comp=Z,60nm,0.8s
VASR Vaslui 22.41 301 ⇓P **P** **20 16 40.6 +2.3**
GHRR 22.56 300 ⇑P **P** **20 16 42.4 +2.6**
GHRR 22.56 300 P **P** **20 16 40.3 +0.5**
GHRR 22.56 300 P **P** **20 16 41.7 +1.8**
comp=Z,206nm,0.9s
MNTR Muntenesti 22.61 301 ⇑P **P** **20 16 41.5 +1.1**
AK09 Malin Array Si 22.67 312 P **P** **20 16 40.9 0.0**
AK10 Malin Array Si 22.68 312 P **P** **20 16 41.1 0.0**
AK07 Malin Array Si 22.69 312 P **P** **20 16 41.2 0.0**
AK08 Malin Array Si 22.69 312 P **P** **20 16 41.2 0.0**
AK06 Malin Array Si 22.70 312 P **P** **20 16 41.4 +0.1**
AK05 Malin Array Si 22.71 312 P **P** **20 16 41.5 +0.1**
AK02 Malin Array Si 22.73 312 P **P** **20 16 41.9 +0.3**
DMBR Dumbraveni 22.73 301 ⇓P **P** **20 16 43.7 +2.0**
AKASG Malin Array Be 22.73 312 P **P** **20 16 41.9 +0.3**
comp=Z,41nm,0.8s,baz=116,slow=10,SNR=91
AKASG LR LR 20 26 53.6
comp=Z,922nm,19.0s,baz=114,slow=40
comp=Z,41nm,0.8s
AKBB Malin Array Si 22.73 312 *e*P **P** **20 16 42.2 +0.6**
AKBB pmax pmax
comp=Z,114nm,1.0s
AKBB Malin Array Si 22.73 312 P **P** **20 16 42.0 +0.4**
KIEV Kiev 22.74 312 P **P** **20 16 42.0 +0.3**
KIEV Kiev 22.74 312 P **P** **20 16 41.8 +0.1**
KIEV pmax pmax
comp=Z,88nm,0.9s
KIEV Kiev 22.74 312 P **P** **20 16 41.8 +0.1**
KIEV Kiev 22.74 312 P **P** **20 16 42.0 +0.3**
comp=Z,453nm,1.1s
KIEV Kiev 22.74 312 P **P** **20 16 42.2 +0.4**
comp=Z,115nm,1.1s
GRER 22.75 298 ⇓P **P** **20 16 44.2 +2.4**
ODBI Odobesti 22.75 299 ⇑P **P** **20 16 44.3 +2.4**
LOZB Loznitsa 22.82 293 ⇓P **P** **20 16 44.0 +1.4**
BISRR Bisoca 22.95 298 ⇓P **P** **20 16 46.8 +2.7**
VRI Vrincioaia 22.99 299 ⇑P **P** **20 16 46.0 +1.6**
VRI Vrincioaia 22.99 299 P **P** **20 16 45.7 +1.3**
comp=Z,38nm,0.7s
SAHR Sahastru 23.00 299 ⇑P **P** **20 16 45.9 +1.3**
ISR Istrita 23.01 297 ⇑P **P** **20 16 47.4 +2.7**
ZSN Zaisan 23.02 57 *e*P **P** **20 16 47.4 +2.7**
ZSN Zaisan 23.02 57 *e*P **P** **20 16 47.4 +2.7**
PLOR Plostina 23.04 299 ⇑P **P** **20 16 46.7 +1.7**
EZN Ezine 23.09 283 ⇓P **P** **20 16 48.1 +2.7**
TESR Tescani 23.16 301 ⇓P **P** **20 16 47.1 +1.1**
TESR Tescani 23.16 301 P **P** **20 16 46.6 +0.5**
comp=Z,49nm,0.9s
SULR 23.16 296 ⇓P **P** **20 16 48.5 +2.3**
SULR 23.16 296 P **P** **20 16 48.8 +2.6**
comp=Z,69nm,0.8s
KARP Karpathos 23.19 272 P **P** **20 16 46.9 +0.3**
KARP Karpathos 23.19 272 P P 20 16 52.4 +5.8
ALN Alexandroupoli 23.22 286 IAmb IAmb 20 16 50.6
comp=Z,23nm,0.9s
NEHR Nehoiu 23.23 298 ⇓P **P** **20 16 48.7 +1.9**
ONER Baraj Valea Uz 23.30 300 ⇑P **P** **20 16 50.2 +2.7**
SGRR Singureni 23.32 295 ⇑P **P** **20 16 48.9 +1.1**
LUBAR Lubar, Ukraine 23.33 309 P **P** **20 16 48.4 +0.6**
GIRR Girov 23.34 302 ⇑P **P** **20 16 49.2 +1.3**
COVR Voineasa-Covas 23.35 299 ⇑P **P** **20 16 50.6 +2.5**
MI30 MI30,Zelenitsa 23.36 312 P **P** **20 16 49.6 +1.5**
comp=Z,96nm,0.7s
MI29 MI29, Kamyanyy 23.44 311 P **P** **20 16 49.7 +0.8**
comp=Z,824nm,0.9s
MLR Muntele Rosu 23.48 298 P **P** **20 16 50.6 +1.1**
comp=Z,36nm,1.1s,baz=49,slow=7.6,SNR=34
MLR LR LR 20 28 05.0
comp=Z,828nm,19.2s,baz=74,slow=42
comp=Z,36nm,1.1s
MLR Muntele Rosu 23.48 298 P **P** **20 16 50.8 +1.3**
MLR pmax pmax
comp=Z,52nm,1.0s
MLR Muntele Rosu 23.48 298 P **P** **20 16 50.8 +1.3**
MLR IAmb IAmb 20 17 10.6
comp=Z,52nm,1.0s
MLR Muntele Rosu 23.48 298 ⇓P **P** **20 16 51.9 +2.3**
MLR Muntele Rosu 23.48 298 P **P** **20 16 51.2 +1.7**
comp=Z,873nmcomp=Z,56nm,1.0s
MLR Muntele Rosu 23.48 298 P **P** **20 16 51.7 +2.2**
comp=Z,57nm,1.1s
TURR Turia 23.51 299 ⇑P **P** **20 16 51.4 +1.7**
DRBR Darabani 23.55 305 ⇓P **P** **20 16 52.5 +2.5**
BIZ Bicaz 23.60 301 ⇑P **P** **20 16 51.6 +1.0**
PRAR RASCA 23.61 303 ⇓P **P** **20 16 52.0 +1.4**
OZUR 23.68 299 ⇓P **P** **20 16 52.6 +1.3**
KMPD K-Podol'skiy 23.73 306 P **P** **20 16 52.1 +0.3**
DOPR Dopca 23.93 299 ⇑P **P** **20 16 55.4 +1.7**
HUMR Humele 24.06 295 ⇑P **P** **20 16 56.3 +1.4**
HUMR Humele 24.06 295 P **P** **20 16 56.5 +1.6**
comp=Z,63nm,0.8s
VOIR 24.10 298 ⇓P **P** **20 16 57.3 +2.0**
VOIR 24.10 298 P **P** **20 16 57.4 +2.0**
comp=Z,25nm,0.8s
PLVB Pleven 24.25 292 ⇑P **P** **20 16 58.8 +2.1**
BURAR Bucovina Array 24.33 303 P **P** **20 16 58.3 +0.8**
BURAR IAmb IAmb 20 17 09.0
comp=Z,26nm,0.7s
BURAR Bucovina Array 24.33 303 ⇑P **P** **20 16 59.0 +1.4**
BUR08 Bucovina Ar. S 24.34 303 IAmb IAmb 20 17 22.4
comp=Z,23nm,0.8s
ARR Arges 24.38 297 ⇑P **P** **20 17 00.2 +2.2**
ARR Arges 24.38 297 P **P** **20 17 00.1 +2.1**
comp=Z,30nm,1.2s
VLAD Vladila 24.44 294 ⇓P **P** **20 17 00.5 +2.1**
WMQ Urumqi 24.49 67 ⇑P **P** **20 17 01.0 +2.0**
WMQ pP sP 20 17 03.0 -0.5
WMQ PP **PnPn** **20 17 31.5 +1.8**
WMQ S **S** **20 21 15.0 -4.3**
WMQ pmax pmax
comp=Z,17nm,1.1s
WMQ pmax pmax
comp=Z,160nm,3.6s
WMQ L L
comp=Z,2µm,11.9s
WMQ L L
comp=Z,2µm,15.3s
WMQ L L
comp=Z,560nm,20.9s
TGMR Targu Mures 24.61 300 ⇓P **P** **20 17 02.2 +2.3**
ARCR ARCALIA 24.81 301 ⇓P **P** **20 17 04.3 +2.5**
RNPP5 Staryi Chortor 24.89 311 P **P** **20 17 03.1 +0.7**
RNPP8 Varash 24.95 312 P **P** **20 17 04.0 +1.1**
RNPP9 Sopachiv 24.95 312 P **P** **20 17 04.0 +1.0**
KLMR Klimovskoe 24.98 341 *e*P **P** **20 17 04.1 +1.0**
KLMR S **S** **20 21 25.3 -1.3**
KLMR pmax pmax
comp=Z,30nm,1.1s
KLMR MLR MLR
comp=Z,1µm,11.0s
LOT Lotru 25.00 297 ⇑P **P** **20 17 04.8 +1.2**
LOT Lotru 25.00 297 P **P** **20 17 05.2 +1.6**
comp=Z,19nm,0.9s
IDI Anoyia 25.05 273 P **P** **20 17 03.1 -1.0**
comp=Z,38nm,0.7s,baz=41,slow=7.2,SNR=17
comp=Z,38nm,0.7s
IDI Anoyia 25.05 273 P **P** **20 17 04.9 +0.8**
SRS Serrai 25.06 287 P **P** **20 17 05.5 +1.4**
comp=Z,25nm,1.1s
MNK Minsk 25.15 320 *i* P **P** **20 17 05.5 +0.8**
MNK *i* PPP PPP 20 17 46.7
MNK *i* 20 20 40.0
MNK *i* S **S** **20 21 30.5 +1.1**
MNK *i* SSS SSS 20 22 34.2
MNK pmax pmax
comp=Z,55nm,0.8s
MNK pmax pmax
comp=N,25nm,0.8s
MNK pmax pmax
comp=E,12nm,0.8s
MNK MLR MLR
comp=Z,436nm,18.0s
MNK MLR MLR
comp=N,397nm,17.0s
MNK MLR MLR
comp=E,528nm,17.0s
MNK Minsk 25.15 320 *i* P **P** **20 17 05.5 +0.8**
comp=E,12nm,0.8s
MNK *i* P **P** **20 17 05.5 +0.8**

comp=N,25nm,0.8s
MNK *i* P **P** **20 17 05.5 +0.8**
comp=Z,55nm,0.8s,baz=119
MNK *i* PP **PnPn** **20 17 38.7 +0.2**
MNK *i* PPP PPP 20 17 46.8
MNK *i* S **S** **20 21 30.6 +1.1**
MNK *i* SS **SnSn** **20 22 20.5 +1.4**
MNK *i* SSS SSS 20 22 34.3
MNK *i* LQ LQ 20 24 56.1
MNK *i* LR LR 20 26 50.3
MNK *i* LRM MLR 20 28 19.2
comp=Z,436nm,17.6s
MNK *i* LRM MLR 20 28 20.5
comp=N,397nm,17.2s
MNK *i* LRM MLR 20 28 23.7
comp=E,528nm,16.6s
ZAA0 Zalesovo Array 25.25 42 ⇑P **P** **20 17 07.6 +2.0**
comp=E,16nm,1.2s
ZAA0 Zalesovo Array 25.25 42 IAmb IAmb 20 17 25.1
comp=Z,18nm,1.0s
ZALV Zalesovo Beam 25.25 42 P **P** **20 17 07.4 +1.8**
comp=Z,2.3nm,0.4s,baz=259,slow=10,SNR=19
ZALV LR LR 20 28 19.1
comp=Z,523nm,19.4s,baz=234,slow=40
comp=Z,2.3nm,0.4s
ZALV Zalesovo Beam 25.25 42 P **P** **20 17 06.2 +0.5**
CJR Cluj-Napoca 25.26 300 ⇓P **P** **20 17 08.6 +2.7**
SOH Sokhos 25.26 286 P **P** **20 17 08.2 +2.2**
comp=Z,28nm,0.8s
BMR Baia Mare 25.48 302 P **P** **20 17 10.5 +2.6**
comp=Z,53nm,0.9s
THE Thessaloniki 25.57 286 P **P** **20 17 10.7 +2.0**
comp=Z,16nm,0.9s
KNT Kendrikon 25.58 287 P **P** **20 17 10.0 +1.2**
comp=Z,14nm,1.3s
MARR Marisel-Cluj 25.59 300 ⇓P **P** **20 17 11.1 +2.2**
BLKB Belogradchik 25.68 293 ⇑P **P** **20 17 11.3 +1.6**
GZR Gura Zlata 25.69 297 ⇑P **P** **20 17 10.9 +1.1**
GVD Gavdhos 25.80 272 P **P** **20 17 12.8 +1.9**
DRGR 25.88 300 ⇓P **P** **20 17 14.1 +2.6**
DRGR 25.88 300 P **P** **20 17 14.3 +2.8**
comp=Z,38nm,1.0s
NACGM Naroch 25.90 320 ⇑*i*P **P** **20 17 13.1 +1.5**
comp=Z,54nm,0.9s,baz=118
HERR Herculane 25.91 296 ⇑P **P** **20 17 12.8 +1.0**
GRG Griva 25.97 287 P **P** **20 17 16.0 +3.6**
comp=Z,30nm,0.9s
SURR Surduc 26.17 298 ⇑P **P** **20 17 16.5 +2.4**
TRPA Tarpa 26.20 303 P **P** **20 17 16.8 +2.5**
comp=Z,24nm,0.8s
BOVS Bovan 26.38 293 ⇑P **P** **20 17 18.0 +2.0**
MDVR Moldovita 26.40 296 ⇑P **P** **20 17 18.0 +1.7**
LTVH Ltavrtes, Hu 26.51 301 P **P** **20 17 19.4 +2.2**
comp=Z,50nm,0.9s
BZS Buzias 26.52 297 ⇓P **P** **20 17 19.0 +1.8**
BZS Buzias 26.52 297 P **P** **20 17 19.5 +2.2**
comp=Z,18nm,0.9s
KOLS Kolonicke sedl 26.52 305 *e*P **P** **20 17 19.5 +2.3**
KOLS Kolonicke sedl 26.52 305 *e*P **P** **20 17 19.5 +2.3**
KOLS Kolonicke sedl 26.52 305 P **P** **20 17 19.8 +2.5**
comp=Z,20nm,0.7s
SIRR Siria 26.54 299 ⇑P **P** **20 17 19.8 +2.3**
ITM Ithomi 26.91 279 P **P** **20 17 21.4 +0.5**
ITM IAmb IAmb 20 17 40.1
comp=Z,46nm,1.2s
AMBH Ambrzfalva 27.19 299 ⇓P **P** **20 17 24.2 +0.9**
SUW Suwalki 27.43 316 *e*P **P** **20 17 27.3 +1.9**
LKD2 Lefkada island 27.58 282 P **P** **20 17 26.9 0.0**
comp=Z,53nm,0.8s
PABE Paberze 27.61 319 P **P** **20 17 28.6 +1.7**
comp=Z,95nm,0.8s
EVN Everest 27.64 102 P **P** **20 17 29.9 +1.7**
comp=Z,12nm,0.9s
VSU Vasula 27.78 327 *e*P **P** **20 17 28.5 +0.2**
VSU pmax pmax
comp=Z,23nm,1.0s
VSU Vasula 27.78 327 P **P** **20 17 28.6 +0.2**
comp=Z,66nm,0.8s
PSZ Piszkesteto 27.92 302 ⇓P **P** **20 17 31.8 +1.8**
PSZ Piszkesteto 27.92 302 P **P** **20 17 31.5 +1.6**
comp=Z,26nm,1.1s
OJC Ojcow 28.35 307 *e*P **P** **20 17 35.2 +1.6**
OJC Ojcow 28.35 307 P **P** **20 17 34.9 +1.3**
comp=Z,19nm,1.0s
OJC Ojcow 28.35 307 P **P** **20 17 35.3 +1.6**
comp=Z,19nm,1.0s
MORH Mrgy, Hungar 28.62 298 P **P** **20 17 37.6 +1.5**
comp=Z,5.5nm,0.9s
VYHS Vyhne 28.69 303 *e*P **P** **20 17 39.4 +2.7**
VYHS Vyhne 28.69 303 *e*P **P** **20 17 39.4 +2.7**
ATD Arta Tunnel 29.00 207 LR LR 20 30 28.0
comp=Z,268nm,19.8s,baz=23,slow=39
MPLH Magyarpolny 29.44 300 P **P** **20 17 44.9 +1.6**
comp=Z,5.4nm,1.2s
STEB Steborice 29.59 306 *e*P **P** **20 17 47.0 +2.4**
MORC Moravsky Berou 29.71 306 *e*P **P** **20 17 47.7 +1.9**
MORC Moravsky Berou 29.71 306 ⇑P **P** **20 17 47.2 +1.4**
MORC Moravsky Berou 29.71 306 P **P** **20 17 47.1 +1.3**
comp=Z,6.4nm,1.0s
MODS Modra-Piesok 29.71 303 *e*P **P** **20 17 47.7 +1.9**
MODS Modra-Piesok 29.71 303 *e*P **P** **20 17 47.7 +1.9**
MODS Modra-Piesok 29.71 303 P **P** **20 17 48.0 +2.2**
comp=Z,13nm,1.1s
FINES FINESS Array B 29.80 331 P **P** **20 17 47.1 +0.7**
comp=Z,2.0nm,0.8s,baz=138,slow=8.8,SNR=11
FINES LR LR 20 30 36.4
comp=Z,250nm,20.2s,baz=134,slow=38
comp=Z,2.0nm,0.8s
FINES FINESS Array B 29.80 331 P **P** **20 17 47.8 +1.4**
FINES FINESS Array B 29.80 331 P **P** **20 17 47.8 +1.4**
KIJV Kijevo 30.21 294 P **P** **20 17 50.9 +0.7**
comp=Z,24nm,1.7s
KRLC Kraliky 30.24 306 *e*P **P** **20 17 52.5 +2.0**
KRLC Kraliky 30.24 306 P **P** **20 17 52.3 +1.8**
comp=Z,10nm,0.8s
VRAC Vranov 30.26 304 P **P** **20 17 51.4 +0.8**
comp=Z,1.0nm,0.3s,baz=99,slow=13,SNR=2.4
comp=Z,1.0nm,0.3s
VRAC Vranov 30.26 304 *e*P **P** **20 17 52.7 +2.1**
VRAC Vranov 30.26 304 P **P** **20 17 52.5 +1.9**
comp=Z,1.0nm,0.9s
KRUC Moravsky 30.36 304 *e*P **P** **20 17 53.4 +1.9**
KRUC Moravsky 30.36 304 P **P** **20 17 51.5 0.0**
comp=Z,4.7nm,1.2s
DPC Dobruska-Polom 30.57 306 *e*P **P** **20 17 55.8 +2.4**
comp=Z,2.6nm,0.6s
DPC Dobruska-Polom 30.57 306 P **P** **20 17 54.6 +1.2**
comp=Z,9.2nm,0.9s
DPC Dobruska-Polom 30.57 306 P **P** **20 17 55.7 +2.4**
comp=Z,9.2nm,0.9s
CONA Conrad Observa 30.62 302 *e*pP **P** **20 17 55.7 +1.8**
comp=Z,0.8nm,0.4s
KSP Ksiaz 30.66 307 *e*P **P** **20 17 56.5 +2.4**
KSP Ksiaz 30.66 307 P **P** **20 17 55.5 +1.4**
comp=Z,9.9nm,0.9s
OSTC Ostas 30.67 307 AMS AMS 20 32 40.0
comp=Z,600nm,14.9s
CHVC Chvalec 30.77 307 *e*P **P** **20 17 57.4 +2.3**
UPC Upice 30.79 307 P P 20 17 58.1 +2.8
comp=Z,12nm,1.1s
ARSA Arzberg 30.82 300 P **P** **20 17 56.8 +1.2**
ARSA IAmb IAmb 20 17 58.2
comp=Z,7.3nm,0.8s
ARSA Arzberg 30.82 300 *i* pP **P** **20 17 57.7 +2.1**
comp=Z,8.8nm,0.9s
ARSA Arzberg 30.82 300 P **P** **20 17 57.8 +2.2**
comp=Z,14nm,1.1s
GOMU GeErMu 30.84 81 P **P** **20 17 56.3 0.0**
GOMU pP sP 20 18 00.0 -0.8
GOMU sP pP 20 18 04.0 +4.5
GOMU S **S** **20 23 02.5 +2.3**
GOMU pmax pmax
comp=Z,2.0nm,0.6s
GOMU L L
comp=Z,730nm,11.9s
GOMU L L
comp=Z,800nm,11.7s
GOMU L L
comp=Z,590nm,11.4s
ABNA Allensteig Bun 30.96 303 *e*pP **P** **20 17 58.8 +2.0**
comp=Z,7.0nm,0.9s
TREC Trest 30.98 304 P **P** **20 17 58.7 +1.7**
comp=Z,7.0nm,1.0s
MARCO Tramutola 31.03 287 P **P** **20 18 00.1 +2.5**
comp=Z,13nm,1.8s
SOKA Soboth 31.14 299 *e*P **P** **20 17 59.8 +1.4**
comp=Z,6.4nm,0.9s,SNR=5.4
CEL Celeste 31.35 283 P **P** **20 18 00.6 +0.2**
comp=Z,9.8nm,1.2s
SESA Seetaler Alpe, 31.46 300 *i* pP **P** **20 18 03.9 +2.4**
comp=Z,22nm,0.8s,SNR=7.8
OBKA Obir 31.47 299 *i* pP **P** **20 18 03.2 +1.9**
comp=Z,4.2nm,0.8s
OBKA Obir 31.47 299 P **P** **20 18 03.0 +1.6**
comp=Z,7.1nm,2.5s
MOA Molln 31.69 301 *e*P **P** **20 18 05.0 +1.7**
comp=Z,2.3nm,0.7s
PVCC Panska Ves 31.70 307 *e*P **P** **20 18 05.8 +2.5**
PVCC Panska Ves 31.70 307 P **P** **20 18 05.8 +2.5**
comp=Z,17nm,0.8s
CKRC Cesky Krumlov 31.71 303 *e*P **P** **20 18 05.1 +1.7**
CKRC AMS AMS 20 32 50.0
comp=Z,600nm,19.0s
ZVC Zvikov 31.84 304 *e*P **P** **20 18 06.3 +1.8**
PAOL Paolisi 31.85 288 IAmb IAmb 20 18 09.2
comp=Z,8.9nm,0.9s
APA Apatity 32.08 344 *e*P **P** **20 18 06.8 +0.4**
APA pmax pmax
comp=Z,8.0nm,1.1s
APA MLR MLR
comp=Z,2µm,17.8s
LVZ Lovozero 32.09 345 *e*P **P** **20 18 08.9 +2.4**
LVZ pmax pmax
comp=Z,23nm,1.1s
DRE Drenchia 32.10 298 P **P** **20 18 08.2 +1.3**
comp=Z,12nm,0.8s
GEC2 GERESS Array S 32.12 303 IAmb IAmb 20 18 59.0
comp=Z,17nm,1.7s
GEC2 GERESS Array S 32.12 303 P **P** **20 18 08.3 +1.2**
comp=Z,5.4nm,0.9s
GERES GERESS Array B 32.12 303 P **P** **20 18 08.5 +1.4**
comp=Z,3.3nm,0.8s,baz=99,slow=7.7,SNR=25
GERES LR LR 20 33 15.7
comp=Z,429nm,20.0s,baz=75,slow=40
comp=Z,3.3nm,0.8s
SABO M.te Sabotino 32.13 298 IAmb IAmb 20 18 11.7
comp=Z,11nm,0.9s
BRG Berggiesshubel 32.14 307 P **P** **20 18 09.4 +2.2**
comp=Z,16nm,1.2s
BRG Berggiesshubel 32.14 307 *e*P **P** **20 18 09.2 +2.0**
BRG Amp 20 18 10.6
comp=Z,9.5nm,0.9s
PRED Cave del Predi 32.15 299 P **P** **20 18 08.3 +1.0**
comp=Z,4.4nm,1.1s
ACOM Acomizza, Ital 32.18 299 P **P** **20 18 09.0 +1.2**
comp=Z,7.0nm,0.8s
KHC Kasperske Hory 32.21 304 ⇑*e*P **P** **20 18 09.6 +1.7**
KHC pmax pmax
comp=Z,4.0nm,0.9s
KHC Kasperske Hory 32.21 304 *e*P **P** **20 18 09.2 +1.3**
comp=Z,1.2nm,0.4s
KHC AMS AMS 20 32 50.0
comp=Z,600nm,21.2s
KHC Kasperske Hory 32.21 304 P **P** **20 18 08.9 +1.0**
comp=Z,9.1nm,2.8s
KHC Kasperske Hory 32.21 304 P **P** **20 18 09.1 +1.2**
comp=Z,9.1nm,2.8s
KBA Koelnbreinsper 32.30 300 *e*pP **P** **20 18 10.7 +2.0**
comp=Z,9.0nm,0.9s
KBA Koelnbreinsper 32.30 300 P **P** **20 18 10.9 +2.1**
comp=Z,18nm,0.9s
HSKC Hora Svate Kat 32.43 307 *e*P **P** **20 18 12.4 +2.6**
HSKC Hora Svate Kat 32.43 307 P **P** **20 18 12.5 +2.8**
comp=Z,20nm,1.0s
RJOB Jochberg 32.68 301 P **P** **20 18 13.8 +1.8**
comp=Z,8.3nm,0.8s
FDMO Fiordimonte 32.69 292 P **P** **20 18 12.8 +0.7**
FDMO IAmb IAmb 20 18 47.4
comp=Z,17nm,1.3s
NRCA Norcia 32.69 292 P **P** **20 18 12.9 +0.7**
NRCA IAmb IAmb 20 18 14.4
comp=Z,6.3nm,0.8s
LESA Schwarzleotal 32.76 301 *i* P **P** **20 18 14.3 +1.6**
comp=Z,14nm,0.7s,SNR=17
RAFF Raffo Rosso 32.77 282 P **P** **20 18 14.3 +1.4**
CLL Collm 32.78 308 P **P** **20 18 13.7 +1.0**
comp=Z,6.6nm,1.4s
CLL pP **sP** **20 18 16.9 -0.3**
comp=Z,6.6nm,1.4s
CLL Collm 32.78 308 *i* P **P** **20 18 14.0 +1.3**
comp=Z,6.0nm,1.1s
CLL *ex* x 20 19 14.0
CLL *e*PP **PP** **20 19 23.0 -3.7**
CLL *e*SSS SSS 20 25 48.0
CLL LH 20 28 00.0
CLL AMS AMS 20 31 00.0
comp=N,700nm,19.2s
CLL AMS AMS 20 31 00.0
comp=E,300nm,23.6s
CLL AMS AMS 20 31 00.0
comp=Z,500nm,21.8s
CLL AMS AMS 20 33 00.0
comp=Z,600nm,16.5s
ABTA Abfaltersbach 32.87 299 *e*P **P** **20 18 15.1 +1.4**
comp=Z,3.1nm,0.8s
CGRP Cima Grappa 33.39 298 P **P** **20 18 19.5 +1.1**
comp=Z,10nm,1.2s
WTTA Wattenberg 33.46 300 *i* P **P** **20 18 20.0 +1.1**
comp=Z,9.0nm,0.8s,SNR=9.2
WTTA Wattenberg 33.46 300 P **P** **20 18 19.9 +0.9**
comp=Z,15nm,0.9s
CTI Castel Tesino 33.49 298 P **P** **20 18 20.2 +1.1**
CTI pmax pmax
comp=Z,7.0nm,0.9s
CTI Castel Tesino 33.49 298 P **P** **20 18 20.2 +1.1**
CTI IAmb IAmb 20 18 35.5
comp=Z,7.0nm,0.9s
GRB1 Grafenberg Arr 33.49 304 P **P** **20 18 20.6 +1.6**
comp=Z,9.9nm,1.2s
WATA Walderalm 33.50 300 *e*pP **P** **20 18 21.1 +1.8**
comp=Z,0.8nm,0.3s
TEOL Teolo 33.51 297 P **P** **20 18 20.2 +1.1**
TEOL IAmb IAmb 20 18 21.5
comp=Z,19nm,0.8s
NEUB Neuenburg 33.54 307 P **P** **20 18 21.9 +2.6**
comp=Z,27nm,0.8s
CLTB Caltabellotta 33.57 283 P **P** **20 18 20.4 +0.5**
comp=Z,30nm,0.8s
MOX Moxa 33.59 306 P **P** **20 18 22.0 +2.2**
comp=Z,14nm,0.9s
GRF Grafenberg Arr 33.78 305 *e*P **P** **20 18 23.6 +2.1**
comp=Z,4.3nm,0.8s,baz=100,slow=8.3
MOTA Mosalm 33.82 300 *i* P **P** **20 18 22.8 +0.7**
comp=Z,6.9nm,1.0s
GTA2 Gaotai 33.87 74 *e*P **P** **20 18 24.8 +2.2**
GTA2 pP sP 20 18 30.0 +2.9
GTA2 pmax pmax
comp=Z,6.0nm,1.4s
GTA2 L L
comp=Z,840nm,14.6s
GTA2 L L
comp=Z,700nm,14.6s
GTA2 L L
comp=Z,1µm,14.3s
FLTG Flechtingen 33.99 309 P **P** **20 18 25.2 +2.0**
comp=Z,16nm,0.8s
FETA Feichten 34.09 300 *e*P **P** **20 18 25.2 +0.8**
comp=Z,3.0nm,0.6s,SNR=8.3
BRDH Bariadhala 34.14 107 LR LR 20 34 01.9
comp=Z,556nm,19.4s,baz=340,slow=39
FUORN Ofenpass-Fuorn 34.42 299 IAmb IAmb 20 19 00.8
comp=Z,8.3nm,0.9s
FUORN Ofenpass-Fuorn 34.42 299 P **P** **20 18 27.5 +0.1**
comp=Z,7.5nm,0.7s
CLZ Clausthal 34.47 308 P **P** **20 18 29.5 +2.0**
comp=Z,9.5nm,0.9s
HFS Hagfors 34.48 323 P **P** **20 18 28.6 +1.2**
comp=Z,4.9nm,0.7s,baz=109,slow=11,SNR=11
comp=Z,4.9nm,0.7s
UBR Ueberruh 34.49 301 P **P** **20 18 28.2 +0.5**
comp=Z,7.5nm,0.9s
DAVA Damuels 34.66 300 *i* P **P** **20 18 30.0 +0.7**
comp=Z,11nm,0.9s,SNR=7.5
DAVA Damuels 34.66 300 P **P** **20 18 29.6 +0.3**
comp=Z,17nm,1.0s
DAVOX Davos/Dischmat 34.68 299 P **P** **20 18 30.0 +0.5**
comp=Z,4.5nm,0.7s,baz=114,slow=7.4,SNR=13
comp=Z,4.5nm,0.7s
BSEG Bad Segeberg 34.74 312 P **P** **20 18 32.0 +2.2**
comp=Z,16nm,1.1s
TUE Stuetta 35.06 299 IAmb IAmb 20 18 35.7
comp=Z,36nm,2.0s
TUE Stuetta 35.06 299 P **P** **20 18 32.9 0.0**
TUE pP **sP** **20 18 36.7 -0.7**
TUE Stuetta 35.06 299 P **P** **20 18 33.6 +0.7**
comp=Z,8.0nm,0.8s
MSSA Maissana 35.12 295 P **P** **20 18 33.9 +0.6**
MSSA IAmb IAmb 20 18 54.5
comp=Z,15nm,0.8s
ARCES ARCESS Array B 35.44 342 P **P** **20 18 37.0 +1.4**
comp=Z,2.8nm,0.8s,baz=139,slow=7.6,SNR=5.2
ARCES LR LR 20 34 32.0
comp=Z,477nm,21.0s,baz=132,slow=39
comp=Z,2.8nm,0.8s
ARCES ARCESS Array B 35.44 342 IAmb IAmb 20 19 26.5
comp=Z,57nm,1.9s
NRIK Noril'sk 35.56 19 P **P** **20 18 38.3 +1.7**
comp=Z,1.3nm,0.3s,baz=209,slow=11,SNR=4.8
NRIK LR LR 20 34 51.0
comp=Z,649nm,19.1s,baz=214,slow=39
comp=Z,1.3nm,0.3s
NRIK Noril'sk 35.56 19 *de*P P 20 18 40.4 +3.8
NRIK pmax pmax
comp=Z,5.0nm,1.1s
NRIK Noril'sk 35.56 19 IAmb IAmb 20 18 41.9
comp=Z,25nm,1.8s
SLE Schleitheim 35.58 301 P **P** **20 18 37.3 +0.1**
comp=Z,3.9nm,0.9s
SMPL Sampolo 35.60 291 P **P** **20 18 38.1 +0.7**
BNALP Bannalp 35.67 300 P **P** **20 18 38.1 +0.1**
comp=Z,9.2nm,1.5s
NC602 NORSAR Array S 35.69 324 P **P** **20 18 39.5 +1.6**
NC405 NORSAR Array S 35.73 325 P **P** **20 18 39.2 +1.0**
NC405 IAmb IAmb 20 19 43.8
comp=Z,41nm,1.4s
PGF Pioggiola 35.73 292 P **P** **20 18 39.2 +0.6**
comp=Z,16nm,0.9s
NB2 NORSAR Subarra 35.94 324 P **P** **20 18 41.1 +1.1**
comp=Z,3.1nm,0.8s,baz=111,slow=8.6
NOA NORSAR Array B 35.94 324 P **P** **20 18 40.9 +0.8**
comp=Z,6.1nm,0.9s,baz=110,slow=8.3,SNR=18
comp=Z,6.1nm,0.9s
VSL Villasalto 36.04 287 P **P** **20 18 41.9 +0.8**
comp=Z,11nm,1.3s
SENIN Lac Senin/Sane 36.48 299 IAmb IAmb 20 19 18.4
comp=Z,37nm,1.9s
BNI Bardonecchia 37.05 297 P **P** **20 18 50.6 +0.8**
BNI pmax pmax
comp=Z,32nm,1.6s
BNI Bardonecchia 37.05 297 P **P** **20 18 50.6 +0.8**
BNI IAmb IAmb 20 18 57.2
comp=Z,32nm,1.6s
BNI Bardonecchia 37.05 297 P **P** **20 18 50.3 +0.4**
comp=Z,15nm,1.4s
KEST Kesra 37.07 281 P **P** **20 18 51.6 +1.6**
comp=Z,11nm,0.8s,baz=32,slow=2.3,SNR=11
comp=Z,11nm,0.8s
KEST Kesra 37.07 281 IAmb IAmb 20 18 53.3
comp=Z,13nm,0.9s
WLF Walferdange 37.07 305 *d*P **P** **20 18 52.1 +2.3**
comp=Z,9.2nm,1.0s
WLF Walferdange 37.07 305 P **P** **20 18 51.8 +2.0**
comp=Z,22nm,1.0s
MEM Membach 37.16 306 *d*P **P** **20 18 52.0 +1.6**
comp=Z,7.1nm,1.1s
MEM Membach 37.16 306 P **P** **20 18 51.9 +1.4**
comp=Z,14nm,1.6s
SONM Songino Array 37.51 58 P **P** **20 18 55.6 +1.9**
comp=Z,0.7nm,0.7s,baz=269,slow=7.9,SNR=7.2
SONM LR LR 20 34 50.3
comp=Z,338nm,20.4s,baz=280,slow=37
comp=Z,0.7nm,0.7s
SONM Songino Array 37.51 58 P **P** **20 18 54.7 +1.0**
BCLA Clavier 37.61 306 *d*P **P** **20 18 56.4 +2.0**
comp=Z,5.0nm,1.1s
RCHB Rochefort 37.66 305 *d*P **P** **20 18 57.3 +2.5**
comp=Z,8.2nm,0.9s
RCHB Rochefort 37.66 305 P **P** **20 18 57.1 +2.4**
comp=Z,18nm,0.8s
LZDM Lanzhou Array 37.80 78 LR LR 20 36 50.1
comp=Z,654nm,20.2s,baz=300,slow=40
BMRD Maredsous 37.95 306 *d*P **P** **20 18 59.7 +2.5**
ULN Ulaanbaatar 37.95 58 *ce*P **P** **20 18 59.6 +2.2**
ULN pmax pmax
comp=Z,10.0nm,1.4s
ULN Ulaanbaatar 37.95 58 P **P** **20 18 57.7 +0.2**
ULN Ulaanbaatar 37.95 58 P **P** **20 18 59.7 +2.2**
comp=Z,9.1nm,0.8s
PALK Pallekele 38.00 138 LR LR 20 35 26.0
comp=Z,497nm,20.9s,baz=323,slow=38
DOU Dourbes 38.07 305 *d*P **P** **20 19 00.5 +2.3**
comp=Z,8.1nm,1.0s
TNCH TengChong 38.18 97 ⇑P **P** **20 19 01.3 +1.6**
TNCH pP sP 20 19 03.0 -1.2
TNCH PP **PnPn** **20 20 31.3 +2.9**
TNCH S **S** **20 24 49.3 -4.0**
TNCH sS ScP 20 24 59.3 -2.7
TNCH pmax pmax
comp=Z,10.0nm,1.3s
TNCH pmax pmax
comp=Z,150nm,3.6s
TNCH L L
comp=Z,540nm,14.1s
TNCH L L
comp=Z,340nm,13.4s
TNCH L L
comp=Z,900nm,15.5s
SSB Saint Sauveur 38.52 298 P **P** **20 19 03.2 +1.0**
SSB pmax pmax
comp=Z,11nm,0.8s
SSB Saint Sauveur 38.52 298 P **P** **20 19 03.1 +1.0**
SSB IAmb IAmb 20 19 19.1
comp=Z,10nm,0.8s
SSB Saint Sauveur 38.52 298 P **P** **20 19 03.0 +0.9**
comp=Z,18nm,1.6s
SSB pP **sP** **20 19 08.1 +1.4**
NPW Naypyitaw 39.23 106 P **P** **20 19 08.8 +0.5**
comp=Z,24nm,0.9s
CD2 Chengdu 39.64 86 P **P** **20 19 14.0 +2.3**
CD2 pmax pmax
comp=Z,20nm,0.8s
CEST Esterri de Car 41.34 294 P **P** **20 19 26.6 +0.8**
CEST IAmb IAmb 20 20 21.7
comp=Z,46nm,1.6s
KMI2 Kunming 41.44 94 P **P** **20 19 28.5 +1.7**
KMI2 pP sP 20 19 30.5 -0.9
KMI2 S **S** **20 25 42.0 -0.2**
KMI2 pmax pmax
comp=Z,17nm,0.8s
KMI2 L L
comp=Z,550nm,18.6s
KMI2 L L
comp=Z,430nm,17.1s
KMI2 L L
comp=Z,380nm,23.7s
CHTO Chiang Mai 41.93 105 P **P** **20 19 33.1 +2.5**
comp=Z,6.2nm,1.2s
EDMD Edmundbyers 41.96 313 P **P** **20 19 32.0 +1.6**
comp=Z,41nm,2.1s
PBA Port Blair 42.06 119 P **P** **20 19 32.8 +1.1**
comp=Z,97nm,0.9s
CMAR Chiang Mai Arr 42.14 105 P **P** **20 19 33.2 +0.9**
comp=Z,2.8nm,0.9s,baz=297,slow=8.2,SNR=23
CMAR LR LR 20 42 06.1
comp=Z,205nm,18.2s,baz=300,slow=43
comp=Z,2.8nm,0.9s
CMAR Chiang Mai Arr 42.14 105 P **P** **20 19 32.6 +0.3**
HHC Hu-ho-hao-te 42.35 68 *e*P **P** **20 19 34.0 0.0**
HHC S **S** **20 25 50.5 -4.7**
HHC sS pS 20 25 57.8 -1.2
HHC pmax pmax
comp=Z,8.0nm,0.6s
HHC pmax pmax
comp=Z,120nm,5.6s
HHC L L
comp=Z,880nm,14.5s
HHC L L
comp=Z,550nm,13.8s
HHC L L
comp=Z,570nm,16.0s
XAN Xi'an 42.48 79 P **P** **20 19 36.5 +1.5**
XAN pmax pmax
comp=Z,9.0nm,1.4s
EKA Eskdalemuir Ar 42.63 314 P **P** **20 19 37.0 +1.1**
comp=Z,2.6nm,0.5s,baz=97,slow=8.1,SNR=24
EKA LR LR 20 41 21.9
comp=Z,184nm,18.4s,baz=80,slow=42
comp=Z,2.6nm,0.5s
ESK Eskdalemuir 42.66 314 P **P** **20 19 37.4 +1.3**
ESK pmax pmax

comp=Z,69nm,1.6s
ESK Eskdalemuir 42.66 314 P P 20 19 37.4 +1.3
KMBO Kilima Mbogo 42.74 208 LR LR 20 40 18.4
comp=Z,403nm,18.9s,baz=69,slow=40
SPITS Spitsbergen Ar 43.36 349 P P 20 19 43.0 +1.4
comp=Z,5.1nm,0.6s,baz=111,slow=12,SNR=13
SPITS LR LR 20 40 56.4
comp=Z,636nm,19.1s,baz=138,slow=40
comp=Z,5.1nm,0.6s
SPITS Spitsbergen Ar 43.36 349 P P **20 19 43.0 +1.4**
KIBK Kibwezi 43.57 207 P P **20 19 45.4 +1.3**
KIBK Kibwezi 43.57 207 P P **20 19 45.9 +1.8**
comp=Z,5.0nm,2.2s
MBAR Mbarara 45.04 217 LR LR 20 41 31.5
comp=Z,164nm,18.3s,baz=20,slow=40
ESDC Sonseca Array 45.92 292 P P **20 20 02.6 0.0**
comp=Z,6.3nm,0.8s,baz=67,slow=7.8,SNR=37
ESDC LR LR 20 43 49.5
comp=Z,174nm,18.9s,baz=62,slow=42
comp=Z,6.3nm,0.8s
ESDC Sonseca Array 45.92 292 P P **20 20 03.0 +0.5**
JMIC Jan Mayen 46.19 336 LR LR 20 40 38.1
comp=Z,286nm,18.1s,baz=108,slow=38
PAB San Pablo 46.24 292 P P **20 20 05.7 +0.5**
PESTR Estremoz 48.84 292 P P **20 20 26.3 +1.0**
comp=Z,20nm,1.3s
TIXI Tiksi 48.93 24 LR LR 20 44 13.0
comp=Z,658nm,19.2s,baz=246,slow=40
TIXI Tiksi 48.93 24‖ *e*P P 20 20 28.9 +3.5
TIXI pmax pmax
comp=Z,10.0nm,1.2s
TIXI Tiksi 48.93 24 P P **20 20 26.4 +1.0**
TIXI IAmb IAmb 20 20 30.7
comp=Z,14nm,1.1s
TIXI Tiksi 48.93 24 P P **20 20 28.6 +3.2**
comp=Z,13nm,1.7s
MD01 Midelt array s 48.98 283 P P **20 20 27.6 +1.0**
PVAQ Vaqueiros 49.46 290 P P **20 20 30.6 +0.7**
comp=Z,34nm,1.2s
YAK Yakutsk 49.69 36 *e*P P **20 20 33.9 +2.5**
YAK *e* 20 22 00.7
YAK *e* 20 22 28.1
YAK *e*S **S** **20 27 43.2 +3.4**
YAK *e* 20 30 25.4
YAK *e*SS **SS** **20 31 16.8 +5.2**
YAK *e*SSS SSS 20 32 36.7
YAK pmax pmax
comp=Z,9.0nm,1.5s
YAK pmax pmax
comp=N,7.0nm,1.5s
YAK pmax pmax
comp=E,4.0nm,1.7s
YAK pmax pmax
comp=Z,102nm,4.1s
YAK pmax pmax
comp=N,138nm,3.2s
YAK pmax pmax
comp=E,108nm,3.8s
YAK smax smax
comp=N,149nm,5.2s
YAK smax smax
comp=E,102nm,3.0s
YAK MLR MLR
comp=Z,256nm,16.0s
YAK MLR MLR
comp=N,129nm,13.0s
YAK MLR MLR
comp=E,140nm,13.0s
YAK Yakutsk 49.69 36 P P **20 20 33.8 +2.4**
comp=Z,15nm,0.7s
DAG Danmarks Havn 49.72 343 P P **20 20 34.5 +3.1**
DAG Danmarks Havn 49.72 343 *i*P P **20 20 33.0 +1.6**
DAG IAmb IAmb 20 20 35.2
comp=Z,10nm,1.1s
DBG Daneborg 49.99 340 *i*P P **20 20 35.9 +2.5**
DBG IAmb IAmb 20 20 37.0
comp=Z,3.5nm,0.8s
NOR Nord 49.99 349 *i*P P **20 20 35.4 +1.9**
NOR IAmb IAmb 20 20 37.4
comp=Z,6.8nm,1.0s
QIZ Qiongzhong 50.25 97 P P **20 20 36.5 +0.3**
QIZ S **S** **20 27 50.3 +1.7**
QIZ L L
comp=Z,500nm,7.6s
QIZ L L
comp=Z,490nm,11.7s
QIZ L L
comp=Z,460nm,16.1s
DL2 Dalian 50.31 67 P P 20 20 40.8 +4.4
DL2 S **S** **20 27 56.5 +7.4**
DL2 pmax pmax
comp=Z,32nm,1.6s
DL2 pmax pmax
comp=Z,300nm,8.4s
DL2 L L
comp=Z,1μm,18.2s
DL2 L L
comp=Z,940nm,16.8s
DL2 L L
comp=Z,870nm,15.2s
HEH HeiHe 50.73 52 *e*P P **20 20 41.0 +1.6**
HEH pmax pmax
comp=Z,10.0nm,1.3s
HEH L L
comp=Z,2μm,21.7s
HEH L L
comp=Z,960nm,21.4s
HEH L L
comp=Z,780nm,16.2s
NJ2 Nanjing 50.92 77 *e*P P **20 20 39.5 -1.6**
NJ2 pmax pmax
comp=Z,4.0nm,0.5s
NJ2 L L
comp=Z,910nm,13.2s
NJ2 L L
comp=Z,610nm,19.8s
NJ2 L L
comp=Z,740nm,13.8s
CN2 Changchun 51.34 60 *e*P P **20 20 44.0 -0.1**
CN2 *es*P *s*P 20 20 50.0 +1.3
CN2 *e*S **S** **20 28 00.0 -3.3**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
CN2 pmax pmax
comp=Z,100nm,6.0s
CN2 L L
comp=Z,500nm,11.0s
CN2 L L
comp=Z,300nm,11.0s
CN2 L L
comp=Z,400nm,13.0s
KULM Kulim 52.05 117 P P **20 20 50.0 +0.2**
PSI Prapat 52.66 121 LR LR 20 45 47.8
comp=Z,212nm,19.2s,baz=302,slow=39
SUMG Summit 55.39 339 *i*P P **20 21 16.0 +2.1**
SUMG IAmb IAmb 20 21 17.9
comp=Z,15nm,1.1s
KSRS Korea Array 55.44 67 P P **20 21 15.0 +0.7**
comp=Z,1.5nm,0.7s,baz=287,slow=5.9,SNR=5.8
KSRS LR LR 20 45 33.0
comp=Z,498nm,18.1s,baz=285,slow=37
comp=Z,1.5nm,0.7s
USRK Ussuriysk Ar. 55.62 58 P P **20 21 16.6 +1.1**
comp=Z,3.0nm,0.9s,baz=270,slow=7.6,SNR=4.8
USRK LR LR 20 46 50.9
comp=Z,477nm,18.8s,baz=292,slow=38
comp=Z,3.0nm,0.9s
NEEM North Greenlan 56.66 346 *i*P P **20 21 24.9 +2.0**
NEEM IAmb IAmb 20 21 28.2
comp=Z,8.3nm,1.0s
OPO Ambohidratompo 57.02 190 LR LR 20 44 40.1
comp=Z,239nm,21.3s,baz=93,slow=35
LSZ Lusaka 59.20 212 LR LR 20 49 56.1
comp=Z,400nm,18.3s,baz=34,slow=39
MA2 Magadan 60.26 36 LR LR 20 51 45.3
comp=Z,232nm,19.6s,baz=291,slow=40
JOW Kunigami 60.61 78 LR LR 20 51 16.0
comp=Z,364nm,18.7s,baz=10,slow=39
SFJD Kangerlussuaq 61.52 335 LR LR 20 49 11.0
comp=Z,298nm,18.2s,baz=51,slow=37
ASAJ Asahikawa 62.58 54 LR LR 20 51 02.2
comp=Z,588nm,18.2s,baz=265,slow=38
ASAJ Asahikawa 62.58 54 P P **20 22 03.7 -0.1**
ASAJ pmax pmax
comp=Z,139nm,1.8s
JKA Kamikawa-asahi 62.59 54 P P **20 22 03.7 -0.2**
DBIC Dimbokro 63.11 257 P P **20 22 07.1 -0.6**
comp=Z,9.7nm,0.9s,baz=64,slow=7.9,SNR=6.7
DBIC LR LR 20 52 38.8
comp=Z,126nm,18.3s,baz=42,slow=39
comp=Z,9.7nm,0.9s
DBIC Dimbokro 63.11 257 P P **20 22 07.3 -0.4**
DBIC pmax pmax
comp=Z,22nm,1.4s
DBIC Dimbokro 63.11 257 P P **20 22 07.2 -0.4**
DBIC Dimbokro 63.11 257 P P **20 22 07.6 -0.1**
comp=Z,12nm,1.1s
MJAR Matsushiro Arr 63.21 63 P P **20 22 08.0 -0.1**
comp=Z,2.4nm,0.8s,baz=290,slow=7.8,SNR=5.1
MJAR LR LR 20 49 44.0
comp=Z,136nm,20.4s,baz=304,slow=36
comp=Z,2.4nm,0.8s
MJAR Matsushiro Arr 63.21 63 IAmb IAmb 20 22 48.7
comp=Z,15nm,2.0s
LEM Lembang 65.57 121 LR LR 20 56 12.1
comp=Z,116nm,18.7s,baz=333,slow=41
RES Resolute Bay 65.80 352 LR LR 20 54 57.8
comp=Z,306nm,19.4s,baz=19,slow=40
JHJ Hachijo jima 2 66.03 66 LR LR 20 53 48.0
comp=Z,23nm,18.1s,baz=335,slow=38
BBJI Bungbulang 66.06 122 P P **20 22 26.3 -0.7**
PETK Petropavlovsk- 66.77 40 P P **20 22 32.6 +1.6**
comp=Z,6.4nm,0.9s,baz=292,slow=7.6,SNR=2.4
PETK LR LR 20 56 21.8
comp=Z,254nm,19.0s,baz=294,slow=40
comp=Z,6.4nm,0.9s
TSUM Tsumeb 67.50 219 P P **20 22 36.3 +0.2**
FRB Frobisher Bay 69.39 337 LR LR 20 54 24.8
comp=Z,265nm,19.5s,baz=54,slow=37
DAV Davao City (W) 69.61 97 LR LR 20 58 15.8
comp=Z,307nm,19.2s,baz=353,slow=40
MAKGR Makgori 70.03 210 P P **20 22 51.7 0.0**
MAKGR IAmb IAmb 20 22 53.6
comp=Z,9.9nm,0.9s
JCJ Chichijima 71.00 70 LR LR 20 58 22.1
comp=Z,189nm,18.0s,baz=324,slow=39
BOSA Boshof 72.38 208 P P **20 23 05.2 -0.6**
comp=Z,3.8nm,0.8s,baz=33,slow=6.1,SNR=7.0
BOSA LR LR 20 55 58.2
comp=Z,358nm,20.9s,baz=30,slow=37
comp=Z,3.8nm,0.8s
BOSA Boshof 72.38 208 P P **20 23 05.3 -0.6**
BOSA pmax pmax
comp=Z,48nm,1.8s
BOSA Boshof 72.38 208 P P **20 23 05.3 -0.6**
KAPI Kappang 72.90 111 LR LR 21 01 38.0
comp=Z,71nm,18.5s,baz=308,slow=41
INK Inuvik 73.63 4 LR LR 20 58 02.5
comp=Z,189nm,21.4s,baz=340,slow=38
PLAI Plampang 74.05 115 P P 20 23 20.1 +4.1
comp=Z,22nm,1.1s
SHEM Shemya Is, Ala 74.78 34 LR LR 20 59 23.5
comp=Z,206nm,19.0s,baz=302,slow=38
SCHQ Schefferville 75.27 330 P P **20 23 22.8 +0.3**
comp=Z,5.2nm,0.6s,baz=22,slow=6.6,SNR=7.3
SCHQ LR LR 20 57 20.3
comp=Z,200nm,18.6s,baz=340,slow=36
comp=Z,5.2nm,0.6s
ILAR Eielson Array 75.85 10 P P **20 23 26.9 +1.2**
comp=Z,1.0nm,0.8s,baz=322,slow=3.7,SNR=6.5
ILAR LR LR 20 59 58.0
comp=Z,226nm,20.9s,baz=290,slow=38
comp=Z,1.0nm,0.8s
I28M Miner Creek 75.99 7 P P **20 23 28.3 +1.7**
I28M IAmb IAmb 20 23 37.2
comp=Z,6.5nm,0.9s
H31M Peel River 76.07 4 P P **20 23 27.7 +0.7**
RND Reindeer 76.86 11 P P **20 23 30.6 -1.0**
RND pmax pmax
comp=Z,19nm,1.1s
RND Reindeer 76.86 11 P P **20 23 30.6 -1.0**
SUR Sutherland 77.44 210 LR LR 21 00 03.9
comp=Z,252nm,19.6s,baz=30,slow=38
BATI Baumata 79.24 112 LR LR 21 02 03.7
comp=Z,176nm,21.9s,baz=306,slow=38
YKA Yellowknife Ar 79.42 356 P P **20 23 46.5 +0.9**
comp=Z,2.8nm,0.8s,baz=6.4,slow=6.1,SNR=14
YKA LR LR 21 02 32.7
comp=Z,215nm,20.6s,baz=10,slow=38
comp=Z,2.8nm,0.8s
GUMO Guam 80.86 80 LR LR 21 02 51.7
comp=Z,130nm,19.2s,baz=12,slow=38
KDAK Kodiak Island 81.46 15 LR LR 21 05 53.6
comp=Z,281nm,18.3s,baz=338,slow=40
DLBC Dease Lake 83.64 3 LR LR 21 06 24.5
comp=Z,226nm,18.4s,baz=270,slow=39
FITZ Fitzroy Crossi 85.92 117 LR LR 21 06 01.2
comp=Z,60nm,19.7s,baz=334,slow=38
ULM Lac du Bonnet 88.56 342 P P **20 24 33.7 +1.3**
comp=Z,3.1nm,0.9s,baz=357,slow=8.2,SNR=4.0
ULM LR LR 21 08 25.2
comp=Z,192nm,18.2s,baz=10.0,slow=38
comp=Z,3.1nm,0.9s
BBB Bella Bella 89.97 3 LR LR 21 11 58.4
comp=Z,215nm,18.1s,baz=349,slow=40
NWAO Narrogin (SRO) 90.78 133 LR LR 21 04 24.7
comp=Z,77nm,19.4s,baz=336,slow=35
WRA Warramunga Arr 93.36 113 P P **20 24 55.9 +0.7**
comp=Z,0.7nm,0.9s,baz=312,slow=4.5,SNR=3.4
comp=Z,0.7nm,0.9s
NEW Newport 93.75 355 LR LR 21 12 58.0
comp=Z,230nm,18.8s,baz=4.5,slow=39
ASAR Alice Springs 95.39 116 LR LR 21 12 21.3
comp=Z,46nm,19.4s,baz=283,slow=38
KRVT Keravat (AS076 97.37 90 LR LR 21 10 14.6
comp=Z,66nm,19.7s,baz=236,slow=36
PDAR Pinedale Array 98.41 349 LR LR 21 14 49.5
comp=Z,345nm,18.3s,baz=356,slow=38
TAOE Nuku Hiva Isla 147.41 31 *e*LR LR 21 19 45.4
comp=Z,170nm,26.0s
PPT2 Papeete2 149.66 55 *e*LR LR 21 20 53.2
comp=Z,133nm,23.5s
PPT2 *e*LR LR 21 20 55.7
comp=Z,166nm,29.2s
RKT Rikitea 162.32 35 *e*LR LR 21 26 54.3
comp=Z,4μm,40.2s

*IDC **25** 20:25:15.1±2.8,4.°84S×102.°85E,h0km,mb3.5/7, mbtmp3.5/7,Error ellipse: s-maj=118.0km s-min=19.3km az=50.0*
*DJA **25** 20:25:18.0±0.5,5.°5S±5.°×10.°3E±.°,h10km,M4.4/10, MLv4.5/7,MLv4.4/10*
ISC 25 20:25:22.0±1.2,**5.0S**±0.°1×**102.8E**±0.°1,**h59**km,**n28,**
σ1§17/16,mb3.6/8,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
MNAI	**Manna**	**0.64**	**12**	P	**Pn**	**20 25 34.2**	**-1.3**
UBSI	**University, Be**	**1.33**	**336**	P	**Pn**	**20 25 43.5**	**-1.0**
UBSI				AML	AML		
UBSI				AML	AML		
KSI	**Kapahiang**	**1.34**	**350**	P	**Pn**	**20 25 43.3**	**-1.4**
KSI				AML	AML		
KSI				AML	AML		
MDSI	**Maura Dua**	**1.44**	**70**	P	**Pn**	**20 25 46.0**	**+0.1**
MDSI				AML	AML		
MASI	**Maura Aman, Be**	**1.92**	**342**	P	**Pn**	**20 25 50.6**	**-1.9**
KRJI	**Kerinci**	**3.18**	**335**	P	**Pn**	**20 26 09.9**	**+0.2**
KRJI				AML	AML		
CGJI	**Cibinong**	**3.28**	**120**	P	**Pn**	**20 26 09.7**	**-1.3**
SDSI	**Sungai Dareh**	**4.26**	**341**	P	**Pn**	**20 26 25.9**	**+1.5**
BATI	**Baumata**	**21.30**	**105**	P	**P**	**20 30 03.6**	**-0.4**
	1.8nm,0.3s,baz=250,slow=15,SNR=1.4 1.8nm,0.3s						
CMAR	**Chiang Mai Arr**	**23.61**	**351**	P	**P**	**20 30 26.4**	**-1.5**
	0.4nm,0.7s,baz=163,slow=9.0,SNR=4.3 0.4nm,0.7s						
H08S2	**Diego Garcia H**	**30.25**	**263**	T	T	21 02 22.9	
	baz=87,slow=76,SNR=12						
H08S3	**Diego Garcia H**	**30.26**	**263**	T	T	21 02 21.6	
	baz=87,slow=76,SNR=9.6						
H08S1	**Diego Carcia H**	**30.27**	**263**	T	T	21 02 29.9	
	baz=87,slow=76,SNR=12						
H01W3	**Cape Leeuwin H**	**31.54**	**162**	T	T	21 05 01.6	
	baz=340,slow=76,SNR=10						
H01W2	**Cape Leeuwin H**	**31.55**	**162**	T	T	21 05 00.6	
	baz=340,slow=76,SNR=13						
H01W1	**Cape Leeuwin H**	**31.55**	**162**	T	T	21 05 01.8	
	baz=340,slow=76,SNR=14						
WRA	**Warramunga Arr**	**34.08**	**119**	P	**P**	**20 32 02.2**	**+1.0**
	0.3nm,0.5s,baz=298,slow=8.0,SNR=1.9 0.3nm,0.5s						
ASAR	**Alice Springs**	**35.24**	**125**	P	**P**	**20 32 12.0**	**+0.8**
	0.2nm,0.5s,baz=296,slow=8.7,SNR=12 0.2nm,0.5s						
BTO2	**Baotou**	**45.96**	**7**	*e*P	**P**	**20 33 40.3**	**+0.9**
BTO2				pmax	pmax		
	comp=Z,11nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,330nm,5.9s						
MKAR	**Makanchi Array**	**54.67**	**343**	P	**P**	**20 34 44.6**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=156,slow=7.8,SNR=6.8 comp=Z,0.4nm,0.5s						
H04N2	**CROZET ISLANDS baz=64**	**60.16**	**219**	T	T	21 39 58.6	
H04N1	**CROZET ISLANDS baz=64**	**60.17**	**219**	T	T	21 40 03.5	
H04N3	**CROZET ISLANDS baz=64**	**60.17**	**219**	T	T	21 39 57.4	
H04S1	**CROZET ISLANDS baz=62,slow=76,SNR=5.9**	**60.40**	**218**	T	T	21 40 13.8	
H04S3	**CROZET ISLANDS baz=62,slow=76,SNR=14**	**60.41**	**218**	T	T	21 40 15.1	
H04S2	**CROZET ISLANDS baz=62,slow=76,SNR=8.5**	**60.41**	**218**	T	T	21 40 16.4	
ZALV	**Zalesovo Beam**	**60.63**	**348**	P	**P**	**20 35 27.5**	**+0.8**
	comp=Z,0.4nm,0.4s,baz=173,slow=4.9,SNR=4.9 comp=Z,0.4nm,0.4s						
BVAR	**Borovoye Array**	**63.95**	**339**	P	**P**	**20 35 48.8**	**-0.1**
	comp=Z,0.3nm,0.5s,baz=124,slow=13,SNR=2.6 comp=Z,0.3nm,0.5s						

*ISK **25** 20:51:36.9,37.°82N×26.°95E,h9km,ML2.8/28*
*AFAD **25** 20:51:37.0,37.°80N×26.°92E,h7km±2km,ML2.9*
*THE **25** 20:51:37.6,37.°8N±0.°8×27.°0E±0.°8,h7km±2km,M2.9/7, MLh2.9/7*
ISC 25 20:51:37.2±0.9,**37.84N**±0.°02×**27.°00E**±0.°02,**h19**km±2km,
n54,σ0§64/72,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
SMG	**Samos**	**0.18**	**224**	P	**Pg**	**20 51 40.9**	**-0.3**
SMG				S	**Sb**	**20 51 43.4**	**-0.4**
SMG				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**85**	Pg	**Pg**	**20 51 42.7**	**-0.1**
KUSD				AML	AML		
DGB	**zmir**	**0.23**	**336**	P	**Pb**	**20 51 42.3**	**-0.2**
GCAM	**G?zelcaml?**	**0.23**	**127**	P	**Pg**	**20 51 43.0**	**+0.1**
GCAM				S	**Sg**	**20 51 46.8**	**+0.2**
GCAM				IAML		20 51 47.0	
	comp=N,3μm,0.3s						
GCAM	**G?zelcaml?**	**0.23**	**127**	Pg	**Pg**	**20 51 42.9**	**+0.1**
GCAM				Sg	**Sg**	**20 51 46.6**	**0.0**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.24**	**344**	Pg	**Pb**	**20 51 42.7**	**-0.1**
GMLD				Sg	**Sg**	**20 51 46.6**	**-0.3**
GMLD				AML	AML		
BEYE	**izmir**	**0.39**	**352**	P	**Pg**	**20 51 45.3**	**-0.1**
BEYE				S	**Sb**	**20 51 51.0**	**-0.4**
DDIM	**Aydin, Didim**	**0.43**	**153**	P	**Pg**	**20 51 45.8**	**-0.3**
DDIM				S	**Sb**	**20 51 52.4**	**+0.1**
DDIM				IAML		20 51 53.0	
	comp=N,876nm,0.3s						
DDIM				IAML		20 51 53.0	
	comp=E,769nm,0.3s						
BLCB	**Balcova**	**0.54**	**3**	P	**Pg**	**20 51 48.2**	**0.0**
BLCB				S	**Sg**	**20 51 56.3**	**+0.7**
BLCB				AML	AML		
BLCB	**Balcova**	**0.54**	**3**	Pg	**Pg**	**20 51 48.2**	**0.0**
BLCB				Sg	**Sg**	**20 51 56.2**	**+0.6**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.56**	**316**	P	**Pb**	**20 51 48.0**	**-0.3**
ZEYE				S	**Sb**	**20 51 55.5**	**-0.4**
ZEYE				IAML		20 51 56.0	
	comp=N,2μm,0.4s						
ZEYE				IAML		20 51 59.0	
	comp=E,680nm,0.2s						
DAGE	**izmir**	**0.62**	**74**	P	**Pg**	**20 51 49.3**	**-0.3**
AYDB	**Zeytinkoy-Aydi**	**0.71**	**81**	Pg	**Pn**	**20 51 51.9**	**-0.5**
AYDB				Sg	**Sn**	**20 52 02.7**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.72**	**104**	Pn	**Pn**	**20 51 51.9**	**-0.6**
YKAV	**Yalikavak-Bodr**	**0.75**	**163**	Pg	**Pb**	**20 51 51.5**	**-0.1**
YKAV				AML	AML		
IZMR	**zmir-demi**	**0.81**	**68**	P	**Pn**	**20 51 53.8**	**+0.2**
IZMR				P	**Pg**	**20 51 54.4**	**+1.3**
IZMR				S	**Sb**	**20 52 02.8**	**-0.4**
BODT	**Bodrum**	**0.82**	**162**	P	**Pb**	**20 51 52.9**	**0.0**
BODT				S	**Sg**	**20 52 04.9**	**+0.8**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**162**	Pg	**Pb**	**20 51 52.8**	**0.0**
BODT				Sg	**Sg**	**20 52 04.8**	**+0.8**
BODT				AML	AML		
BAGT	**Foa**	**0.82**	**352**	P	**Pg**	**20 51 53.0**	**-0.3**
MLSB	**Milas**	**0.82**	**131**	Pg	**Pg**	**20 51 53.3**	**-0.1**
MLSB				AML	AML		
KRBN	**Karaburun**	**0.83**	**335**	Pg	**Pn**	**20 51 53.9**	**0.0**
KRBN				AML	AML		
BDPA	**Kayabasi**	**0.85**	**155**	P	**Pb**	**20 51 53.3**	**-0.1**
BODA	**Bodrum-Mula**	**0.88**	**157**	Pg	**Pn**	**20 51 54.6**	**+0.1**
FOCM	**Foa**	**0.90**	**346**	Pg	**Pn**	**20 51 54.9**	**+0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.92**	**306**	P	**Pn**	**20 51 55.1**	**-0.2**
CHOS				S	**Sn**	**20 52 08.1**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.92**	**306**	Pg	**Pn**	**20 51 55.2**	**-0.1**
CHOS				Sg	**Sg**	**20 52 07.7**	**+0.2**
CHOS				AML	AML		
CAMT	**Merkez**	**0.94**	**15**	P	**Pg**	**20 51 55.9**	**+0.3**
CAMT				S	**Sn**	**20 52 10.0**	**+1.7**
CAMT				IAML		20 52 11.0	
	comp=E,555nm,0.4s						
KARB	**zmir-Karabur**	**0.94**	**331**	P	**Pg**	**20 51 56.3**	**+0.7**
KARB				S	**Sn**	**20 52 08.6**	**+0.2**
NAZL	**Nazilli-Aydin**	**1.03**	**83**	Pg	**Pg**	**20 51 57.8**	**+0.5**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.12**	**3**	P	**Pg**	**20 51 59.4**	**+0.3**
GOMA	**Golmarmara-Man**	**1.13**	**40**	Pn	**Pg**	**20 51 59.7**	**+0.6**
DAT	**Datca**	**1.20**	**157**	Pn	**Pg**	**20 52 00.2**	**-0.4**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.20**	**154**	Pn	**Pb**	**20 51 59.8**	**+0.4**
DATC				AML	AML		
AKS	**Akhisar**	**1.22**	**31**	Pn	**Pg**	**20 52 00.9**	**+0.1**
DKL	**Dikili**	**1.23**	**357**	Pn	**Pg**	**20 52 01.1**	**0.0**
DKL				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**18**	Pn	**Pg**	**20 52 03.7**	**-0.2**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.40**	**237**	P	**Pn**	**20 52 01.9**	**+0.2**
APE	**Apeiranthos**	**1.40**	**237**	Pn	**Pn**	**20 52 02.4**	**+0.6**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.41**	**41**	Pn	**Pg**	**20 52 04.1**	**-0.4**
GORD				AML	AML		
TURN	**Turunc**	**1.46**	**137**	Pn	**Pb**	**20 52 03.5**	**-0.2**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.47**	**62**	Pn	**Pg**	**20 52 04.8**	**-0.9**
DALY	**Dalyan (Mula)**	**1.67**	**127**	Pn	**Pb**	**20 52 07.0**	**-0.3**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.77**	**2**	Pn	**Pb**	**20 52 09.1**	**+0.1**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.86**	**151**	Pn	**Pb**	**20 52 09.5**	**-1.0**
APMY	**Acipayam-Deniz**	**1.86**	**101**	Pn	**Pb**	**20 52 10.1**	**-0.6**
BALB	**Balikesir**	**1.92**	**21**	Pn	**Pb**	**20 52 11.7**	**0.0**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**1.99**	**51**	Pn	**Pb**	**20 52 12.5**	**-0.4**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.04**	**115**	Pn	**Pb**	**20 52 13.2**	**-0.6**
EZN	**Ezine**	**2.05**	**345**	Pn	**Pb**	**20 52 13.0**	**-0.8**
EZN				AML	AML		
BOZC	**Bozcaada**	**2.13**	**340**	Pn	**Pb**	**20 52 14.0**	**-1.2**
BOZC				AML	AML		
CANM	**Can-anakkale**	**2.17**	**1**	Pn	**Pb**	**20 52 14.7**	**-1.1**
CANM				AML	AML		
SUSR	**Susurluk-Balik**	**2.28**	**21**	Pn	**Pb**	**20 52 16.5**	**-1.3**
SUSR				AML	AML		
BASM	**Basmaki-Afyon**	**2.42**	**87**	Pn	**Pn**	**20 52 17.5**	**+1.7**
AKAS	**Kas**	**2.63**	**127**	Pn	**Pb**	**20 52 21.4**	**-2.4**
AKAS				AML	AML		

*SJA **25** 20:52:43.2±1.2,21.°06S×68.°56W,h144km,ML3.5,MW3.6*
*NEIC **25** 20:52:43.5±0.6,21.°07S±0.°04×68.°63W±0.°09,h151km±8km, mb4.3/8,ML3.8(GUC),Error ellipse: s-maj=12.9km s-min=6.1km az=79.0*

*GUC **25** 20:52:43.8±0.8, 21°.06S×68°.72W, h155km±5km, ML3.8, Presumed earthquake*

ISC 25 20:52:42.8±0.7, **21°.07S**±0°.03×**68°.63W**±0°.07, **h157**km±6km, **n58**, σ0**91**/89, **mb4.3**/3, **9C-2D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
PB09	**IPOC Station P**	**0.92**	**218**	*eP*		**Pn**	**20 53 08.2**	**+0.3**
PB09				IAML			20 53 27.2	
	comp=Z,684nm,0.4s							
PB09				*eS*		**Sn**	**20 53 27.4**	**+0.3**
PB09	**IPOC Station P**	**0.92**	**218**			**Pn**	**20 53 08.0**	**+0.2**
PB09				Sn		**Sn**	**20 53 26.1**	**-0.8**
PB09	**IPOC Station P**	**0.92**	**218**↑	*eP*		**Pn**	**20 53 08.1**	**+0.3**
PB09				*eS*		**Sn**	**20 53 26.2**	**-0.8**
PB08	**IPOC Station P**	**1.05**	**332**	*eP*		**Pn**	**20 53 09.4**	**+0.2**
PB08				*eS*		**Sn**	**20 53 29.4**	**+0.1**
PB08				IAML			20 53 29.6	
	comp=Z,348nm,0.2s							
PB08	**IPOC Station P**	**1.05**	**332**			**Pn**	**20 53 08.9**	**-0.2**
PB08				Sn		**Sn**	**20 53 27.7**	**-1.6**
PB08	**IPOC Station P**	**1.05**	**332**↓	*eP*		**Pn**	**20 53 09.3**	**+0.2**
PB08				*eS*		**Sn**	**20 53 28.2**	**-1.0**
PB08				IAML			20 53 30.0	
	comp=E,908nm,0.3s							
PB02	**IPOC Station P**	**1.21**	**258**	*eP*		**Pn**	**20 53 10.8**	**+0.6**
PB02				*eS*		**Sn**	**20 53 31.2**	**+0.1**
PB02	**IPOC Station P**	**1.21**	**258**			**Pn**	**20 53 10.7**	**+0.6**
PB02	**IPOC Station P**	**1.21**	**258**↑	*iP*		**Pn**	**20 53 10.8**	**+0.6**
PB02				*eS*		**Sn**	**20 53 29.6**	**-1.5**
PB02				IAML			20 53 31.5	
	comp=N,4μm,0.2s							
PB07	**IPOC Station P**	**1.34**	**241**	*eP*		**Pn**	**20 53 12.1**	**+0.6**
PB07				*eS*		**Sn**	**20 53 34.0**	**+0.5**
PB07				IAML			20 53 34.8	
	comp=Z,943nm,0.3s							
PB07	**IPOC Station P**	**1.34**	**241**			**Pn**	**20 53 11.8**	**+0.3**
PB07	**IPOC Station P**	**1.34**	**241**↑	*eP*		**Pn**	**20 53 12.1**	**+0.6**
PB07				*eS*		**Sn**	**20 53 31.8**	**-1.8**
PB07				IAML			20 53 33.8	
	comp=N,1μm,0.1s							
PB03	**IPOC Station P**	**1.43**	**227**	*eP*		**Pn**	**20 53 12.9**	**+0.5**
PB03				*eS*		**Sn**	**20 53 35.0**	**0.0**
PB03				IAML			20 53 37.7	
	comp=Z,822nm,0.2s							
PB03	**IPOC Station P**	**1.43**	**227**			**Pn**	**20 53 12.6**	**+0.2**
PB03	**IPOC Station P**	**1.43**	**227**↑	*eP*		**Pn**	**20 53 12.9**	**+0.5**
PB03				*eS*		**Sn**	**20 53 34.2**	**-0.9**
PB03				IAML			20 53 35.3	
	comp=N,1μm,0.3s							
GO01	**Chusmiza**	**1.49**	**339**	*eP*		**Pn**	**20 53 13.7**	**+0.3**
GO01				*eS*		**Sn**	**20 53 38.2**	**+1.4**
GO01				IAML			20 53 39.5	
	comp=Z,334nm,0.1s							
GO01	**Chusmiza**	**1.49**	**339**			**Pn**	**20 53 13.4**	**0.0**
GO01	**Chusmiza**	**1.49**	**339**↑	*eP*		**Pn**	**20 53 13.4**	**0.0**
GO01				*eS*		**Sn**	**20 53 36.4**	**-0.4**
GO01				IAML			20 53 39.9	
	comp=N,2μm,0.2s							
TA01	**Diego Aracena**	**1.54**	**289**	*eP*		**Pn**	**20 53 13.7**	**+0.4**
TA01				*eP*			20 53 13.8	
TA01				*eS*		**Sn**	**20 53 37.0**	**+0.3**
TA01				IAML			20 53 39.6	
	comp=Z,295nm,0.2s							
TA01	**Diego Aracena**	**1.54**	**289**			**Pn**	**20 53 13.7**	**+0.4**
TA01				Sn		**Sn**	**20 53 36.3**	**-0.4**
TA01	**Diego Aracena**	**1.54**	**289**↑	*eP*		**Pn**	**20 53 13.6**	**+0.3**
TA01				*eS*		**Sn**	**20 53 34.5**	**-2.1**
PB11	**IPOC Station P**	**1.62**	**323**	*eP*		**Pn**	**20 53 14.7**	**+0.4**
PB11				*eS*		**Sn**	**20 53 38.7**	**+0.1**
PB11				IAML			20 53 39.6	
	comp=Z,573nm,0.2s							
PB11	**IPOC Station P**	**1.62**	**323**			**Pn**	**20 53 14.5**	**+0.1**
PB11	**IPOC Station P**	**1.62**	**323**↓	*eP*		**Pn**	**20 53 14.5**	**+0.1**
PB11				*eS*		**Sn**	**20 53 37.7**	**-0.9**
PB11				IAML			20 53 39.1	
	comp=E,2μm,0.2s							
PB06	**IPOC Station P**	**1.85**	**208**	*eP*		**Pn**	**20 53 17.4**	**+0.6**
PB06				*eS*		**Sn**	**20 53 44.5**	**+1.4**
PB06				IAML			20 53 52.6	
	comp=Z,153nm,0.1s							
PB06	**IPOC Station P**	**1.85**	**208**			**Pn**	**20 53 17.1**	**+0.3**
PB06	**IPOC Station P**	**1.85**	**208**↑	*eP*		**Pn**	**20 53 17.4**	**+0.6**
PB06				*eS*		**Sn**	**20 53 42.7**	**-0.4**
AF01	**San Pedro de A**	**1.92**	**167**	*eP*		**Pn**	**20 53 18.6**	**+0.8**
AF01				IAML			20 54 02.1	
	comp=Z,234nm,0.5s							
AF01	**San Pedro de A**	**1.92**	**167**			**Pn**	**20 53 18.0**	**+0.2**
PSGCX	**Pisagua**	**2.03**	**316**	*eP*		**Pn**	**20 53 19.0**	**+0.1**
PSGCX				*eS*		**Sn**	**20 53 46.5**	**-0.1**
PSGCX				IAML			20 53 50.3	
	comp=Z,199nm,0.4s							
PSGCX	**Pisagua**	**2.03**	**316**			**Pn**	**20 53 18.7**	**-0.1**
PSGCX	**Pisagua**	**2.03**	**316**↑	*eP*		**Pn**	**20 53 18.7**	**-0.1**
PSGCX				*eS*		**Sn**	**20 53 45.6**	**-1.0**
PB05	**IPOC Station P**	**2.30**	**219**	*eP*		**Pn**	**20 53 22.6**	**+0.6**
PB05				*eS*		**Sn**	**20 53 53.6**	**+1.4**
PB05				IAML			20 53 54.8	
	comp=Z,106nm,0.2s							
PB05	**IPOC Station P**	**2.30**	**219**			**Pn**	**20 53 22.0**	**0.0**
PB05	**IPOC Station P**	**2.30**	**219**	*eP*		**Pn**	**20 53 22.4**	**+0.4**
PB05				*eS*		**Sn**	**20 53 51.3**	**-0.9**
PB05				IAML			20 53 59.9	
	comp=E,162nm,0.3s							
PB16	**IPOC Station P**	**2.84**	**343**	*eP*		**Pn**	**20 53 30.6**	**+1.5**
PB16				IAML			20 54 08.9	
	comp=Z,56nm,0.3s							
PB16	**IPOC Station P**	**2.84**	**343**			**Pn**	**20 53 29.1**	**0.0**
PB16	**IPOC Station P**	**2.84**	**343**↑	*eP*		**Pn**	**20 53 30.1**	**+1.0**
PB16				*eS*		**Sn**	**20 54 04.8**	**0.0**
PB16				IAML			20 54 09.8	
	comp=N,142nm,0.5s							
PB12	**IPOC Station P**	**2.92**	**327**	*eP*		**Pn**	**20 53 29.6**	**0.0**
PB12				*eS*		**Sn**	**20 54 05.7**	**-0.1**
PB12				IAML			20 54 13.2	
	comp=Z,130nm,0.4s							
PB12	**IPOC Station P**	**2.92**	**327**			**Pn**	**20 53 29.3**	**-0.4**
PB12	**IPOC Station P**	**2.92**	**327**	*eP*		**Pn**	**20 53 29.2**	**-0.4**
PB12				*eS*		**Sn**	**20 54 03.3**	**-2.5**
PB12				IAML			20 54 11.9	
	comp=N,219nm,0.6s							
PB10	**IPOC Station P**	**3.01**	**216**	*eP*		**Pn**	**20 53 31.2**	**+0.6**
PB10				*eS*		**Sn**	**20 54 08.3**	**+0.6**
PB10	**IPOC Station P**	**3.01**	**216**			**Pn**	**20 53 30.6**	**+0.1**
PB10	**IPOC Station P**	**3.01**	**216**	*eP*		**Pn**	**20 53 30.7**	**+0.1**
PB10				*eS*		**Sn**	**20 54 03.7**	**-4.1**
PB14	**IPOC Station P**	**3.90**	**204**	*eP*		**Pn**	**20 53 42.5**	**+0.2**
PB14				*eS*		**Sn**	**20 54 27.6**	**-0.8**
PB14				IAML			20 54 33.6	
	comp=Z,33nm,1.4s							
PB14	**IPOC Station P**	**3.90**	**204**			**Pn**	**20 53 41.7**	**-0.6**
AC01	**Pan de Azucar**	**5.37**	**199**	Pn		**Pn**	**20 54 00.1**	**-1.1**
AC02	**Maricunga**	**5.76**	**184**			**Pn**	**20 54 06.5**	**-0.3**
GO03	**Copiapo**	**6.66**	**192**			**Pn**	**20 54 16.7**	**-1.7**
PTLB	**Pontes e Lacer**	**10.61**	**60**			**Pn**	**20 55 08.6**	**-2.2**
ITAB	**Concordia**	**16.25**	**115**	P		**Pn**	**20 56 22.8**	**+0.4**
ITAB				IAmb		IAmb	20 56 27.5	
	comp=Z,27nm,1.4s							
GO06	**Curarrehue**	**18.61**	**187**	P		**P**	**20 56 49.0**	**+0.7**
MACA	**Manacapuru-AM**	**19.41**	**25**	P		**P**	**20 56 57.2**	**+0.2**
OTAV	**Otavalo**	**23.25**	**334**	P		**P**	**20 57 37.4**	**+0.5**
SMTB	**Santa Maria do**	**23.64**	**62**	P		**P**	**20 57 40.4**	**+0.5**
SMTB				IAmb		IAmb	20 57 42.5	
	comp=Z,10nm,0.9s							
BOAV	**Boa Vista**	**24.64**	**20**	P		**P**	**20 57 49.7**	**+0.7**
BOAV				IAmb		IAmb	20 57 51.1	
	comp=Z,4.4nm,1.1s							
SJCC	**San Jacinto, C**	**31.44**	**348**	P		**P**	**20 58 50.2**	**+0.7**
PDPR	**Patillas Dam,**	**38.93**	**4**	P		**P**	**20 59 54.1**	**+0.6**
PDPR				IAmb		IAmb	21 00 22.1	
	comp=Z,10nm,1.0s							

*NEIC **25** 21:02:22.3±0.9, 43°.77N±0°.04×105°.34W±0°.05, h0km±1km, ML3.3/70, Error ellipse: s-maj=8.0km s-min=2.9km az=40.0*

*IDC **25** 21:02:23.3±2.3, 43°.96N×105°.54W, h0km, mbtmp3.5/2, ML3.4/2, Error ellipse: s-maj=60.1km s-min=12.3km az=146.0*

ISC 25 21:02:22.7±1.2, **43°.74N**±0°.06×**105°.36W**±0°.07, **h0**km, **n54**, σ1**19**/53, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
K22A	**Casper**	**1.38**	**218**			**Pg**	**21 02 48.7**	**-0.4**
LAO	**LASA Array**	**3.02**	**349**			**Pn**	**21 03 12.8**	**+1.1**
RLMT	**Red Lodge**	**3.12**	**298**			**Pn**	**21 03 14.7**	**+1.3**
RLMT				IAML			21 04 07.0	
	82nm,0.3s							
RLMT				IAML			21 04 10.4	
	104nm,0.3s							
PD31	**Pinedale Array**	**3.21**	**254**			**Pn**	**21 03 16.0**	**+1.4**
PDAR	**Pinedale Array**	**3.21**	**254**	Pn		**Pn**	**21 03 16.1**	**+1.5**
	5.2nm,0.3s,baz=71,slow=17,SNR=108							
PDAR				Lg		Lg	21 04 01.2	
	18nm,0.3s,baz=74,slow=32,SNR=5.8 7.8nm,0.3s							
PDAR				AML		AML		
BW06	**Boulder Array**	**3.21**	**254**			**Pn**	**21 03 16.1**	**+1.5**
BW06				IAML			21 04 05.8	
	80nm,0.3s							
HAYD	**Hayden**	**3.51**	**204**			**Pn**	**21 03 20.8**	**+2.1**
HAYD				IAML			21 04 14.0	
	comp=E,55nm,0.4s							
YNE	**Yellowstone No**	**3.57**	**293**			**Pn**	**21 03 20.6**	**+1.0**
YMP	**Mirror Lake Pl**	**3.59**	**288**			**Pn**	**21 03 21.4**	**+1.5**
GCMT	**Greycliff**	**3.69**	**305**			**Pn**	**21 03 23.0**	**+1.9**
LKWY	**Lake**	**3.72**	**285**			**Pn**	**21 03 22.7**	**+1.0**
LKWY				IAML			21 04 57.2	
	comp=E,58nm,1.0s							
LKWY				IAML			21 05 04.9	
	comp=E,52nm,4.6s							
OGNE	**Ogallala**	**3.72**	**137**			**Pn**	**21 03 23.3**	**+1.8**
H17A	**Grant Village**	**3.81**	**282**			**Pn**	**21 03 22.9**	**0.0**
H17A				IAML			21 04 35.5	
	comp=E,40nm,4.9s							
SNOW	**Snow King Moun**	**3.93**	**268**			**Pn**	**21 03 25.7**	**+1.2**
SNOW				IAML			21 04 48.1	
	comp=E,43nm,1.3s							
SNOW				IAML			21 05 02.1	
	comp=E,49nm,2.5s							
ISCO	**Idaho Springs**	**3.94**	**183**			**Pn**	**21 03 26.0**	**+1.3**
YPP	**Pitchstone Pla**	**3.96**	**280**			**Pn**	**21 03 26.5**	**+1.5**
YFT	**Old Faithful**	**4.01**	**282**			**Pn**	**21 03 27.6**	**+2.0**
YHH	**Holmes Hill**	**4.08**	**287**			**Pn**	**21 03 27.6**	**+1.0**
YMR	**Madison River**	**4.13**	**285**			**Pn**	**21 03 29.1**	**+1.8**
YMR				IAML			21 04 53.9	
	comp=E,38nm,1.1s							
YMR				IAML			21 04 59.1	
	comp=N,35nm,2.2s							
O20A	**White River Ci**	**4.19**	**212**			**Pn**	**21 03 28.9**	**+0.9**
O20A				IAML			21 04 44.6	
	comp=N,36nm,3.0s							
AHID	**Auburn Hatcher**	**4.30**	**259**			**Pn**	**21 03 31.1**	**+1.5**
AHID				IAML			21 04 43.1	
	comp=N,40nm,4.9s							
AHID				IAML			21 04 46.5	
	comp=N,32nm,1.2s							
YHB	**Horse Butte**	**4.31**	**286**			**Pn**	**21 03 31.4**	**+1.6**
YHL	**Hebgen Lake**	**4.33**	**287**			**Pn**	**21 03 31.5**	**+1.5**
YHL				IAML			21 05 11.5	
	comp=E,37nm,3.6s							
YHL				IAML			21 05 14.5	
	comp=N,44nm,4.4s							
E28A	**Huff**	**4.36**	**48**			**Pn**	**21 03 29.8**	**-0.3**
RDMU	**Red Mountain**	**4.45**	**226**			**Pn**	**21 03 31.5**	**-0.1**
RDMU				IAML			21 04 48.5	
	comp=N,31nm,1.2s							
RDMU				IAML			21 04 50.8	
	comp=E,32nm,0.7s							
SUSD	**Miller**	**4.67**	**79**			**Pn**	**21 03 34.2**	**-0.2**
Q24A	**Divide**	**4.77**	**178**			**Pn**	**21 03 36.2**	**+0.1**
Q24A				IAML			21 04 55.2	
	comp=N,29nm,2.3s							
DGMT	**Dagmar**	**4.80**	**9**			**Pn**	**21 03 37.4**	**+1.1**
BOZ	**Bozeman (W)**	**4.84**	**295**			**Pn**	**21 03 35.2**	**-1.8**
BOZ				IAML			21 04 56.9	
	comp=N,24nm,4.8s							
BOZ				IAML			21 05 13.6	
	comp=N,23nm,4.5s							
HWUT	**Hardware Ranch**	**5.04**	**247**			**Pn**	**21 03 40.3**	**+0.6**
HWUT				IAML			21 05 17.5	
	comp=N,24nm,1.1s							
HWUT				IAML			21 05 42.2	
	comp=N,25nm,4.9s							
BSUT	**Blindstream Ca**	**5.13**	**233**			**Pn**	**21 03 41.6**	**+0.5**
BSUT				IAML			21 05 12.1	
	comp=N,18nm,3.1s							
BSUT				IAML			21 05 42.2	
	comp=E,16nm,4.5s							
KSCO	**Kaye Shedlock'**	**5.15**	**156**			**Pn**	**21 03 42.2**	**+1.1**
TCUT	**Toone Canyon**	**5.18**	**242**			**Pn**	**21 03 43.2**	**+1.5**
EGMT	**Eagleton**	**5.27**	**326**			**Pn**	**21 03 42.4**	**-0.4**
DLMT	**Dillon**	**5.42**	**290**			**Pn**	**21 03 44.1**	**-0.7**
P18A	**Preston Nutter**	**5.50**	**223**			**Pn**	**21 03 46.6**	**+0.5**
SPUT	**South Promonto**	**5.77**	**248**	Pn		**Pn**	**21 03 50.0**	**+0.3**
PV22	**Blue Mesa, Par**	**5.80**	**208**			**Pn**	**21 03 51.4**	**+1.2**
PV21	**Cone Mtn., Par**	**5.84**	**209**	Pn		**Pn**	**21 03 51.4**	**+0.6**
PV07	**Paradox Valley**	**5.84**	**206**			**Pn**	**21 03 52.0**	**+1.2**
P17A	**Butcher Ranch,**	**5.86**	**225**			**Pn**	**21 03 49.6**	**-1.3**
PV15	**Paradox Valley**	**5.88**	**205**			**Pn**	**21 03 51.5**	**+0.2**
GBMT	**Granite Butte,**	**5.90**	**304**	Pn		**Pn**	**21 03 52.7**	**+1.1**
PV04	**Paradox Valley**	**5.97**	**208**			**Pn**	**21 03 53.4**	**+1.0**
SDCO	**Great Sand Dun**	**5.99**	**181**	Pn		**Pn**	**21 03 51.9**	**-0.9**
PV14	**Lion Creek, Pa**	**6.03**	**209**			**Pn**	**21 03 54.1**	**+0.7**
SRU	**San Rafael Swe**	**6.03**	**222**			**Pn**	**21 03 53.5**	**+0.2**
ECSD	**EROS Data Cent**	**6.34**	**87**	Pn		**Pn**	**21 03 57.7**	**+0.4**
CBKS	**Cedar Bluff**	**6.49**	**137**	Pn		**Pn**	**21 03 59.4**	**-0.1**
T25A	**Trinidad**	**6.63**	**173**			**Pn**	**21 04 01.0**	**-0.5**
L34A	**Svendsen Farm,**	**6.84**	**102**			**Pn**	**21 04 06.2**	**+1.9**
RTBA	**Rita Blanca**	**7.56**	**164**			**Pn**	**21 04 14.5**	**+0.3**
I10CA	**LAC DU BONNET**	**9.08**	**41**	I		I	21 59 00.0	
	baz=226,slow=346,SNR=2.6							
ULM	**Lac du Bonnet**	**9.19**	**42**	Pn		**Pn**	**21 04 34.8**	**-1.6**
	comp=E,0.7nm,0.3s,baz=224,slow=13,SNR=5.7							
ULM				Pg			21 05 10.4	
	comp=E,0.9nm,0.3s,baz=236,slow=13,SNR=5.0							
ULM				Lg		Lg	21 07 07.3	
	comp=E,0.3nm,0.3s,baz=121,slow=21,SNR=1.9 comp=E,1.0nm,0.3s							
ULM				AML		AML		

IDC 25 21:19:19.4±957.0, **53°.69N**×4°.48E, **h0**km, **Error ellipse: s-maj=369.6km s-min=181.5km az=123.0, North Sea**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
I26DE	**FREYUNG INFRAS**	**7.54**	**126**	I		I	22 04 18.9	
	0.1nm,1.0s,baz=312,slow=308,SNR=4.2							
I48TN	**KESRA INFRASON**	**18.20**	**167**	I		I	23 14 20.0	
	baz=353,slow=298,SNR=0.8							
I43RU	**DUBNA INFRASON**	**18.82**	**68**	I		I	23 22 34.4	
	baz=278,slow=326,SNR=2.5							

*IDC **25** 21:24:35.6±1.9, 32°.86S×179°.21W, h0km, mb4.0/3, mbtmp4.1/4, ML4.3/1, MS3.2/4, Error ellipse: s-maj=47.6km s-min=33.1km az=62.0*

*WEL **25** 21:24:35.5±0.8, 33°.5±6°.×17°.9W±1°.5, h12km, M4.6/9, mB5.1/6, ML4.5/13, MLv4.7/9, Mw(mB)4.4/6, Error ellipse: s-maj=20.2km s-min=4.0km az=109.3*

ISC 25 21:24:36.9±1.3, **33°.30S**±0°.07×**178°.5W**±0°.2, **h41**km, **n29**, σ1**75**/37, **mb3.8**/3, **MS3.1**/3, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
GLKZ	**Green Lake**	**4.05**	**7**	P		**Pn**	**21 25 36.1**	**-0.3**
GLKZ				S		**Sn**	**21 26 20.8**	**-1.7**
MXZ	**Matakaoa Point**	**5.00**	**211**	P		**Pn**	**21 25 52.2**	**+2.8**
MXZ				S		**Sn**	**21 26 46.2**	**+0.3**
MXZ				T		T	21 30 17.4	
MXZ				AML		AML		
WMGZ	**Waiomatatini S**	**5.18**	**208**	P		**Pn**	**21 25 52.3**	**+0.5**
WMGZ				S		**Sn**	**21 26 51.7**	**+1.5**
WMGZ				AML		AML		
WMGZ				AML		AML		
PKGZ	**Pakihiroa**	**5.36**	**211**	P		**Pn**	**21 25 53.5**	**-0.8**
PKGZ				S		**Sn**	**21 26 54.2**	**-0.5**
PKGZ				AML		AML		
PKGZ				AML		AML		
HAZ	**Te Kaha**	**5.40**	**213**	P		**Pn**	**21 25 56.4**	**+1.6**
HAZ				S		**Sn**	**21 26 56.0**	**+0.3**
HAZ				AML		AML		
HAZ				AML		AML		
PUZ	**Puketiti**	**5.46**	**208**	P		**Pn**	**21 25 58.3**	**+2.7**
PUZ				S		**Sn**	**21 26 57.2**	**0.0**
PUZ				AML		AML		
PUZ				AML		AML		
RUGZ	**Raukumara Rang**	**5.61**	**213**	P		**Pn**	**21 25 58.6**	**+0.7**
RUGZ				S		**Sn**	**21 27 00.9**	**-0.3**
RUGZ				AML		AML		
RUGZ				AML		AML		
TWGZ	**Tauwhareparae**	**5.66**	**210**	P		**Pn**	**21 26 01.0**	**+2.5**
TWGZ				S		**Sn**	**21 27 02.6**	**+0.4**
TWGZ				AML		AML		
TWGZ				AML		AML		
CNGZ	**Carnagh Statio**	**5.83**	**207**	P		**Pn**	**21 26 01.2**	**+0.4**
CNGZ				S		**Sn**	**21 27 07.4**	**+1.0**
CNGZ				AML		AML		
CNGZ				AML		AML		
TKGZ	**Te Karaka**	**5.94**	**209**	S		**Sn**	**21 27 08.6**	**-0.4**
MWZ	**Matawai**	**5.99**	**212**	P		**Pn**	**21 26 02.7**	**-0.2**
MWZ				S		**Sn**	**21 27 06.4**	**-3.8**
MWZ				AML		AML		
MWZ				AML		AML		
OPRZ	**Ohinepanea**	**6.08**	**220**	P		**Pn**	**21 26 05.4**	**+1.1**
OPRZ				AML		AML		
URZ	**Urewera**	**6.12**	**215**	Pn		**Pn**	**21 26 06.0**	**+1.4**
	6.8nm,0.3s,baz=256,slow=5.4,SNR=20							
URZ				Sn		**Sn**	**21 27 10.8**	**-2.5**
	9.1nm,0.3s,baz=89,slow=23,SNR=6.6 15nm,0.3s							
URZ				AML		AML		
URZ	**Urewera**	**6.12**	**215**	P		**Pn**	**21 26 05.8**	**+1.1**
URZ				S		**Sn**	**21 27 11.3**	**-2.0**
URZ				AML		AML		
URZ				AML		AML		
RIGZ	**Rimuhau**	**6.20**	**208**	P		**Pn**	**21 26 06.7**	**+0.8**
RIGZ				S		**Sn**	**21 27 11.0**	**-4.5**
RIGZ				AML		AML		
RIGZ				AML		AML		
PRGZ	**Paritu Road**	**6.34**	**207**	P		**Pn**	**21 26 10.4**	**+2.6**
PRGZ				AML		AML		
PRGZ				AML		AML		
WCZ	**Waipu Caves**	**6.48**	**244**	P		**Pn**	**21 26 11.7**	**+2.0**
WCZ				AML		AML		
TOZ	**Tahuroa Road**	**6.61**	**226**	P		**Pn**	**21 26 13.1**	**+1.6**
TOZ				AML		AML		
OUZ	**Omahuta**	**6.84**	**252**	P		**Pn**	**21 26 15.5**	**+0.9**
OUZ				AML		AML		
BKZ	**Black Stump Fm**	**7.13**	**213**	P		**Pn**	**21 26 17.5**	**-1.1**
HIZ	**Hauiti**	**7.51**	**224**	P		**Pn**	**21 26 26.1**	**+2.3**
HIZ				AML		AML		
DZM	**Mont Dzumac**	**17.40**	**306**	LR		LR	21 33 41.0	
	comp=Z,154nm,18.0s,baz=126,slow=33							
CTA	**Charters Tower**	**33.98**	**284**	LR		LR	21 42 52.9	
	comp=Z,38nm,19.4s,baz=210,slow=33							
ASAR	**Alice Springs**	**42.63**	**270**	P		**P**	**21 32 28.8**	**-0.7**
	1.0nm,0.6s,baz=108,slow=7.7,SNR=11 1.0nm,0.6s							
WRA	**Warramunga Arr**	**43.88**	**275**	P		**P**	**21 32 39.1**	**-0.5**
	0.7nm,0.3s,baz=116,slow=8.0,SNR=13 0.7nm,0.3s							
QSPA	**South Pole Qui**	**56.82**	**180**	P		P	21 34 25.2	+8.2
	1.2nm,0.3s,baz=42,slow=2.5,SNR=6.3 1.2nm,0.3s							
SIJI	**Sorong**	**57.07**	**294**	LR		LR	21 58 19.7	
	comp=Z,21nm,19.5s,baz=297,slow=36							
KSRS	**Korea Array**	**86.30**	**320**	LR		LR	22 13 11.0	
	comp=Z,6.2nm,19.3s,baz=15,slow=34							
FINES	**FINESS Array B**	**147.70**	**338**	PKPbc		**PKiKP**	**21 44 18.1**	**-0.1**
	1.8nm,0.5s,baz=36,slow=3.5,SNR=7.7							

*ISK **25** 21:26:47.9, 37°.77N×26°.89E, h9km, ML3.0/32*

*ATH **25** 21:26:47.2, 37°.73N×26°.90E, h12km, ML3.0/6, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*AFAD **25** 21:26:48.3, 37°.80N×26°.91E, h7km±2km, ML2.9*

*THE **25** 21:26:48.5, 37°.8N±1°.0×26°.9E±0°.8, h5km±1km, M3.0/7, MLh3.0/7*

ISC 25 21:26:48.0±0.8, **37°.76N**±0°.02×**26°.86E**±0°.02, **h10**km±5km, **n75**, σ0**67**/102, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
SMG	**Samos**	**0.06**	**201**	P		**Pg**	**21 26 50.2**	**+0.1**
SMG				S		**Sg**	**21 26 51.8**	**+0.1**
SMG				AML		AML		
SMG	**Samos**	**0.06**	**201**	P		**Pg**	**21 26 49.9**	**-0.2**
SMG				S		**Sg**	**21 26 51.7**	**+0.1**
SMG				AML		AML		
KRL1	**Karlovasi Samo**	**0.13**	**284**	P		**Pg**	**21 26 51.0**	**0.0**
KRL1				S		**Sg**	**21 26 52.8**	**-0.3**
KRL1				AML		AML		
SAM2	**Drakei, Karlov**	**0.20**	**269**	P		**Pg**	**21 26 52.3**	**0.0**
SAM2				S		**Sg**	**21 26 55.7**	**+0.6**
DGB	**zmir**	**0.29**	**3**	P		**Pg**	**21 26 53.6**	**-0.3**
GCAM	**G?zelcaml?**	**0.30**	**102**	P		**Pb**	**21 26 54.6**	**-0.9**
GCAM	**G?zelcaml?**	**0.30**	**102**	Pg		**Pg**	**21 26 54.2**	**+0.2**
GCAM				Sg		**Sg**	**21 26 58.6**	**+0.5**
GCAM				AML		AML		
GMLD	**Gumuldur**	**0.32**	**7**	Pg		**Pg**	**21 26 54.4**	**0.0**
GMLD				Sg		**Sg**	**21 26 59.4**	**+0.8**
GMLD				AML		AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**74

KARB	**zmir-Karabur**	**0.97**	**339**	P		**Pg**	**21 27 06.3**	**-0.4**
KARB				S		**Sg**	**21 27 19.7**	**+0.5**
KARB				IAML			21 27 22.0	
	comp=N,1µm,0.6s							
KARB				IAML			21 27 24.0	
	comp=E,970nm,0.5s							
CAMT	**Merkez**	**1.04**	**20**	P		**Pg**	**21 27 08.1**	**-0.1**
CAMT				S		**Sn**	**21 27 23.2**	**-0.3**
CAMT				IAML			21 27 28.0	
	comp=N,744nm,0.9s							
NAZL	**Nazilli-Aydin**	**1.15**	**80**	Pn		**Pb**	**21 27 09.9**	**-0.1**
NAZL				AML		AML		
ESEN	**Aydn-Nazilli**	**1.18**	**88**	P		**Pg**	**21 27 10.1**	**-0.6**
YAZI	**Mula-Dat§a-**	**1.18**	**156**	P		**Pn**	**21 27 10.9**	**+0.3**
YAZI				S		**Sn**	**21 27 26.6**	**-0.1**
DAT	**Datca**	**1.18**	**151**	Pn		**Pn**	**21 27 11.0**	**+0.3**
DAT				AML		AML		
DATC	**Datca-Mugla**	**1.19**	**147**	Pn		**Pg**	**21 27 10.9**	**+0.1**
DATC				AML		AML		
ZEDA	**zmir-Bergama**	**1.21**	**8**	P		**Pb**	**21 27 11.0**	**-0.1**
ZEDA				S		**Sb**	**21 27 26.6**	**-0.3**
ZEDA				IAML			21 27 29.0	
	comp=N,107nm,0.6s							
ZEDA				IAML			21 27 32.0	
	comp=E,308nm,1.0s							
GOMA	**Golmarmara-Man**	**1.26**	**41**	Pn		**Pg**	**21 27 12.2**	**0.0**
MULA	**Mugla, Merkez-**	**1.26**	**113**	P		**Pg**	**21 27 12.3**	**0.0**
APE	**Apeiranthos**	**1.27**	**237**	P		**Pn**	**21 27 11.6**	**-0.4**
APE	**Apeiranthos**	**1.27**	**237**	Pn		**Pn**	**21 27 11.5**	**-0.4**
APE	**Apeiranthos**	**1.27**	**237**	P		**Pn**	**21 27 11.2**	**-0.7**
APE				S		**Sb**	**21 27 27.9**	**-0.5**
APE				AML		AML		
KIRA	**zmir-Kiraz**	**1.29**	**70**	P		**Pg**	**21 27 13.1**	**+0.3**
DKL	**Dikili**	**1.31**	**1**	Pn		**Pn**	**21 27 12.5**	**+0.1**
DKL				AML		AML		
DKL	**Dikili**	**1.31**	**1**	P		**Pn**	**21 27 11.7**	**-0.6**
DKL				S		**Sb**	**21 27 29.4**	**-0.1**
KTTT	**Salihli**	**1.34**	**46**	P		**Pg**	**21 27 13.6**	**-0.1**
KTTT				S		**Sn**	**21 27 30.8**	**0.0**
KTTT				IAML			21 27 35.0	
	comp=N,153nm,0.5s							
AKHS	**Akhisar**	**1.34**	**34**	P		**Pb**	**21 27 13.2**	**-0.1**
AKS	**Akhisar**	**1.34**	**34**	Pn		**Pg**	**21 27 13.5**	**-0.3**
AKS				AML		AML		
TURN	**Turunc**	**1.48**	**131**	Pn		**Pn**	**21 27 14.8**	**+0.1**
TURN				AML		AML		
SOMA	**Soma-Manisa**	**1.49**	**21**	Pn		**Pb**	**21 27 15.5**	**-0.3**
SOMA				AML		AML		
MANT	**Manisa**	**1.52**	**61**	P		**Pg**	**21 27 17.2**	**0.0**
GORD	**Gordes-Manisa**	**1.54**	**42**	Pn		**Pn**	**21 27 16.1**	**+0.4**
AYVA	**Ayvalik**	**1.55**	**355**	P		**Pb**	**21 27 16.8**	**0.0**
AYVA				S		**Sg**	**21 27 39.2**	**+1.3**
AYVA				IAML			21 27 42.0	
	comp=N,357nm,0.8s							
PRK	**Paraskevi**	**1.55**	**343**	P		**Pn**	**21 27 15.2**	**-0.6**
KULA	**Kula-Manisa**	**1.60**	**62**	Pn		**Pn**	**21 27 16.0**	**-0.5**
DALY	**Dalyan (Mula)**	**1.71**	**123**	Pn		**Pn**	**21 27 18.5**	**+0.6**
DALY				AML		AML		
BUHA	**Balikesir, Bur**	**1.74**	**5**	P		**Pb**	**21 27 20.7**	**+0.5**
STEP	**BALIKESIR_Sava**	**1.75**	**22**	P		**Pg**	**21 27 21.4**	**-0.1**
THERA	**Ancient Thera,**	**1.78**	**219**	P		**Pn**	**21 27 17.9**	**-1.0**
THERA				AML		AML		
ARG	**Arkhangelos**	**1.84**	**146**	Pn		**Pn**	**21 27 20.9**	**+1.1**
ARG				AML		AML		
ARG	**Arkhangelos**	**1.84**	**146**	P		**Pn**	**21 27 19.4**	**-0.4**
ARG				AML		AML		
YAYO	**Edremit-Balk**	**1.85**	**5**	Pn		**Pn**	**21 27 19.8**	**-0.1**
YAYO				AML		AML		
APMY	**Acipayam-Deniz**	**1.96**	**98**	Pn		**Pn**	**21 27 22.1**	**+0.7**
APMY				AML		AML		
BALB	**Balikesir**	**2.04**	**23**	Pn		**Pn**	**21 27 23.5**	**+1.1**
BALB				AML		AML		
EZN	**Ezine**	**2.10**	**349**	Pn		**Pn**	**21 27 24.7**	**+1.4**
EZN				AML		AML		
CAME	**Cameli-Denizli**	**2.11**	**112**	Pn		**Pn**	**21 27 24.2**	**+0.7**
CAME				AML		AML		
SIMA	**Simav-Kutahya**	**2.12**	**51**	Pn		**Pn**	**21 27 24.3**	**+0.6**
SIMA				AML		AML		
BOZC	**Bozcaada**	**2.17**	**343**	Pn		**Pn**	**21 27 25.7**	**+1.4**
BOZC				AML		AML		
CANM	**Can-anakkale**	**2.25**	**4**	Pn		**Pn**	**21 27 26.5**	**+1.1**
CANM				AML		AML		
DION	**Dionisos Attik**	**2.34**	**279**	P		**Pn**	**21 27 26.1**	**-0.5**
SUSR	**Susurluk-Balik**	**2.39**	**23**	Pn		**Pn**	**21 27 28.5**	**+1.1**
SUSR				AML		AML		
BASM	**Basmaki-Afyon**	**2.53**	**85**	Pn		**Pn**	**21 27 30.1**	**+0.9**
BASM				AML		AML		
ELL	**Elmali**	**2.63**	**112**	Pn		**Pn**	**21 27 31.9**	**+1.2**
ELL				AML		AML		
AKAS	**Kas**	**2.67**	**124**	Pn		**Pn**	**21 27 32.6**	**+1.3**
AKAS				AML		AML		

*IDC **25** 21:44:17.7±1.7,8°.60S×159°.62E, h96km±18km, mb3.4/4, mbtmp3.8/5, Error ellipse: s-maj=41.2km s-min=29.4km az=122.0*

ISC 25 21:44:18.4±1.1,**8.7S**±0.1×**159.7E**±0.2,**h103km,n12,**
σ0.43/7,mb3.5/4,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**0.81**	**162**	P	**Pn**	**21 44 36.7**	**-0.5**
	68nm,0.3s,baz=311,slow=21,SNR=14						
HNR				S	**Sn**	**21 44 51.6**	**+0.3**
	518nm,0.3s,baz=80,slow=22,SNR=18						
CTA	**Charters Tower**	**17.26**	**227**	P	**Pn**	**21 48 13.5**	**+0.3**
	2.5nm,0.8s,baz=75,slow=12,SNR=2.3						
WRA	**Warramunga Arr**	**26.96**	**243**	P	**P**	**21 49 50.1**	**-0.5**
	0.4nm,0.4s,baz=68,slow=9.3,SNR=5.4						
	0.4nm,0.4s						
H11S2	**WAKE ISLAND Hy**	**27.84**	**14**	T	T	22 18 46.0	
	baz=194,slow=76,SNR=198						
H11S3	**WAKE ISLAND Hy**	**27.84**	**14**	T	T	22 18 47.9	
	baz=194,slow=76,SNR=154						
H11S1	**WAKE ISLAND Hy**	**27.86**	**14**	T	T	22 18 49.2	
	baz=194,slow=76,SNR=143						
H11N1	**WAKE ISLAND Hy**	**29.07**	**14**	T	T	22 20 17.4	
	baz=194,slow=76,SNR=117						
H11N3	**WAKE ISLAND Hy**	**29.07**	**14**	T	T	22 20 20.9	
	baz=194,slow=76,SNR=46						
H11N2	**WAKE ISLAND Hy**	**29.08**	**14**	T	T	22 20 18.3	
	baz=194,slow=76,SNR=132						
VNDA	**Vanda**	**68.85**	**179**	P	**P**	**21 55 11.6**	**+0.3**
	0.7nm,0.8s,baz=329,slow=5.1,SNR=4.6						
	0.7nm,0.8s						
ILAR	**Eielson Array**	**83.25**	**20**	P	**P**	**21 56 33.2**	**+0.1**
	0.3nm,0.6s,baz=247,slow=4.9,SNR=5.0						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	**87.73**	**318**	P	**P**	**21 56 55.8**	**0.0**
	0.5nm,0.6s,baz=99,slow=4.2,SNR=6.4						
	0.5nm,0.6s						

*ISK **25** 21:46:04.7, 37°.77N×26°.89E, h8km, ML2.5/28*
*AFAD **25** 21:46:04.0, 37°.77N×26°.87E, h7km±3km, ML2.6*
*THE **25** 21:46:05.0, 37°.8N±0°.9×26°.9E±0°.8, h5km±2km, M2.7/7, MLh2.7/7*

ISC 25 21:46:04.8±0.9,**37.78N**±0.02×**26.87E**±0.02,**h9km**±6km,
n58,σ0.68/78,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.07**	**202**	P	**Pg**	**21 46 06.5**	**-0.3**
SMG				S	**Sg**	**21 46 08.3**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.28**	**2**	P	**Pg**	**21 46 09.8**	**-0.5**
GCAM	**G?zelcaml?**	**0.30**	**104**	P	**Pg**	**21 46 10.1**	**-0.6**
GCAM	**G?zelcaml?**	**0.30**	**104**	Pg	**Pg**	**21 46 10.8**	**+0.1**
GCAM				Sg	**Sg**	**21 46 15.3**	**+0.7**
GCAM				AML	AML		
GMLD	**Gumuldur**	**0.30**	**7**	Pg	**Pg**	**21 46 10.9**	**+0.1**
GMLD				Sg	**Sg**	**21 46 16.3**	**+1.5**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.34**	**75**	Pg	**Pg**	**21 46 11.6**	**+0.1**
KUSD				AML	AML		
DDIM	**Aydin, Didim**	**0.43**	**137**	P	**Pg**	**21 46 13.2**	**0.0**
BEYE	**Izmir**	**0.45**	**6**	P	**Pg**	**21 46 13.4**	**-0.2**
BEYE				S	**Sg**	**21 46 18.4**	**-1.1**
ZEYE	**Izmir, Urla-Ze**	**0.55**	**328**	P	**Pg**	**21 46 14.0**	**-1.4**
ZEYE				S	**Sg**	**21 46 23.4**	**+0.9**
ZEYE				IAML		21 46 28.0	
	comp=N,356nm,0.6s						

BLCB	**Balcova**	**0.62**	**12**	P		**Pg**	**21 46 16.9**	**0.0**
BLCB				S		**Sb**	**21 46 26.5**	**-0.2**
BLCB				AML		AML		
BLCB	**Balcova**	**0.62**	**12**	Pg		**Pg**	**21 46 16.8**	**0.0**
BLCB				Sg		**Sb**	**21 46 26.2**	**-0.6**
BLCB				AML		AML		
DUVT	**Torbali**	**0.64**	**46**	P		**Pg**	**21 46 15.9**	**-1.1**
DUVT				S		**Sg**	**21 46 25.4**	**-0.1**
DUVT				IAML			21 46 30.0	
	comp=E,366nm,0.6s							
YKAV	**Yalikavak-Bodr**	**0.73**	**153**	Pg		**Pg**	**21 46 18.9**	**+0.1**
YKAV				AML		AML		
BODT	**Bodrum**	**0.79**	**154**	P		**Pg**	**21 46 20.0**	**-0.1**
BODT				S		**Sb**	**21 46 32.1**	**+0.5**
BODT				AML		AML		
BODT	**Bodrum**	**0.79**	**154**	Pg		**Pg**	**21 46 19.9**	**-0.1**
BODT				AML		AML		
AYDN	**Tasoluk**	**0.81**	**98**	P		**Pg**	**21 46 19.3**	**-1.1**
AYDN				S		**Sg**	**21 46 31.5**	**+0.6**
AYDN				IAML			21 46 38.0	
	comp=N,133nm,0.4s							
AYDB	**Zeytinkoy-Aydi**	**0.83**	**78**	Pg		**Pg**	**21 46 20.9**	**+0.2**
AYDB				AML		AML		
BDRM	**Kayabasi**	**0.84**	**147**	P		**Pg**	**21 46 19.8**	**-1.2**
BDRM				S		**Sg**	**21 46 30.9**	**-1.0**
BDRM				IAML			21 46 37.0	
	comp=N,228nm,0.6s							
BODA	**Bodrum-Mula**	**0.86**	**149**	Pg		**Pg**	**21 46 21.4**	**0.0**
MLSB	**Milas**	**0.86**	**123**	Pg		**Pg**	**21 46 21.4**	**0.0**
MLSB				AML		AML		
BAGT	**Foa**	**0.88**	**359**	P		**Pg**	**21 46 21.2**	**-0.5**
BAGT				S		**Sb**	**21 46 34.3**	**+0.1**
BAGT				IAML			21 46 37.0	
	comp=N,305nm,0.5s							
CHOS	**Chios island**	**0.89**	**314**	P		**Pb**	**21 46 22.5**	**0.0**
CHOS				S		**Sb**	**21 46 35.1**	**+0.7**
CHOS				AML		AML		
CHOS	**Chios island**	**0.89**	**314**	Pg		**Pb**	**21 46 22.8**	**+0.4**
CHOS				Sg		**Sn**	**21 46 35.9**	**-0.7**
CHOS				AML		AML		
IZMR	**zmir-demi**	**0.93**	**67**	P		**Pg**	**21 46 22.0**	**-0.6**
IZMR				S		**Sg**	**21 46 32.6**	**-2.1**
FOCM	**Foa**	**0.94**	**353**	Pg		**Pb**	**21 46 23.5**	**+0.2**
FOCM				AML		AML		
KARB	**zmir-Karabur**	**0.96**	**338**	P		**Pg**	**21 46 21.8**	**-1.4**
KARB				S		**Sn**	**21 46 38.1**	**-0.1**
KARB				IAML			21 46 39.0	
	comp=N,446nm,0.6s							
CAMT	**Merkez**	**1.03**	**20**	P		**Pb**	**21 46 25.1**	**+0.2**
CAMT				S		**Sn**	**21 46 39.8**	**-0.3**
CAMT				IAML			21 46 46.0	
	comp=N,370nm,0.7s							
NAZL	**Nazilli-Aydin**	**1.14**	**80**	Pn		**Pb**	**21 46 26.8**	**+0.1**
NAZL				AML		AML		
ESEN	**Aydn-Nazilli**	**1.17**	**88**	P		**Pb**	**21 46 27.3**	**+0.1**
ESEN				S		**Sb**	**21 46 42.6**	**+0.1**
DAT	**Datca**	**1.19**	**151**	Pn		**Pn**	**21 46 27.8**	**+0.1**
DAT				AML		AML		
YAZI	**Mula-Dat§a-**	**1.19**	**157**	P		**Pg**	**21 46 27.3**	**-0.2**
ZEDA	**zmir-Bergama**	**1.20**	**8**	P		**Pn**	**21 46 28.1**	**+0.3**
ZEDA				S		**Sg**	**21 46 43.1**	**-0.3**
ZEDA				IAML			21 46 48.0	
	comp=E,91nm,0.7s							
ZEDA				IAML			21 46 49.0	
	comp=N,94nm,0.5s							
GOMA	**Golmarmara-Man**	**1.24**	**41**	Pn		**Pg**	**21 46 28.8**	**+0.2**
MULA	**Mugla, Merkez-**	**1.26**	**114**	P		**Pn**	**21 46 27.3**	**-1.4**
APE	**Apeiranthos**	**1.28**	**237**	P		**Pn**	**21 46 28.5**	**-0.4**
APE	**Apeiranthos**	**1.28**	**237**	Pn		**Pg**	**21 46 29.4**	**+0.1**
APE				AML		AML		
KIRA	**zmir-Kiraz**	**1.28**	**70**	P		**Pg**	**21 46 29.5**	**+0.2**
DKL	**Dikili**	**1.29**	**1**	Pn		**Pb**	**21 46 29.5**	**+0.2**
DKL				AML		AML		
KTTT	**Salihli**	**1.33**	**46**	P		**Pn**	**21 46 29.5**	**0.0**
AKHS	**Akhisar**	**1.33**	**34**	P		**Pn**	**21 46 29.0**	**-0.6**
SOMA	**Soma-Manisa**	**1.47**	**20**	Pn		**Pb**	**21 46 32.4**	**0.0**
SOMA				AML		AML		
TURN	**Turunc**	**1.48**	**132**	Pn		**Pn**	**21 46 31.5**	**-0.1**
TURN				AML		AML		
MANT	**Manisa**	**1.51**	**61**	P		**Pn**	**21 46 31.5**	**-0.8**
SULTU	**Buldan**	**1.53**	**79**	P		**Pn**	**21 46 32.3**	**-0.1**
GORD	**Gordes-Manisa**	**1.53**	**42**	Pn		**Pn**	**21 46 32.9**	**+0.5**
GORD				AML		AML		
KULA	**Kula-Manisa**	**1.59**	**62**	Pn		**Pn**	**21 46 33.8**	**+0.5**
KULA				AML		AML		
HARTU	**Esme**	**1.62**	**69**	P		**Pg**	**21 46 35.9**	**0.0**
DALY	**Dalyan (Mula)**	**1.71**	**123**	Pn		**Pn**	**21 46 35.5**	**+0.7**
DALY				AML		AML		
BUHA	**Balikesir, Bur**	**1.73**	**5**	P		**Pb**	**21 46 36.2**	**-0.6**
BUHA				S		**Sb**	**21 46 59.0**	**+0.3**
BUHA				IAML			21 47 08.0	
	comp=N,66nm,0.8s							
YAYO	**Edremit-Balk**	**1.84**	**5**	Pn		**Pn**	**21 46 37.6**	**+1.0**
YAYO				AML		AML		
ARG	**Arkhangelos**	**1.85**	**147**	Pn		**Pn**	**21 46 37.0**	**+0.2**
ARG				AML		AML		
APMY	**Acipayam-Deniz**	**1.95**	**98**	Pn		**Pn**	**21 46 38.9**	**+0.7**
APMY				AML		AML		
BALB	**Balikesir**	**2.02**	**23**	Pn		**Pn**	**21 46 40.1**	**+1.0**
BALB				AML		AML		
EZN	**Ezine**	**2.09**	**348**	Pn		**Pn**	**21 46 41.4**	**+1.4**
EZN				AML		AML		
CAME	**Cameli-Denizli**	**2.11**	**112**	Pn		**Pn**	**21 46 40.9**	**+0.5**
CAME				AML		AML		
SIMA	**Simav-Kutahya**	**2.11**	**51**	Pn		**Pn**	**21 46 41.1**	**+0.7**
SIMA				AML		AML		
SUSR	**Susurluk-Balik**	**2.38**	**23**	Pn		**Pn**	**21 46 45.2**	**+1.2**
AKAS	**Kas**	**2.68**	**124**	Pn		**Pn**	**21 46 49.3**	**+1.1**

*IDC **25** 21:47:50.3±5.5, 30°.59N×57°.43E, h0km, mb3.7/8, mbtmp3.7/9, ML3.4/1, MS3.1/3, Error ellipse: s-maj=108.2km s-min=25.1km az=173.0*
*TEH **25** 21:47:50.1, 30°.77N×57°.37E, h6km±38km, ML4.0, Presumed earthquake*

ISC 25 21:47:51.7±2.7,**30.76N**±0.05×**57.36E**±0.05,**h1km**±21km,
n32,σ0.93/30,mb3.6/8,Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRM1	**Kerman Provinc**	**0.27**	**196**	Pg	**Pb**	**21 47 57.4**	**-2.0**
KRM1				Sg	**Sg**	**21 48 01.6**	**+1.3**
ZRDN	**Zarand Kerman**	**0.74**	**287**	Pg	**Pb**	**21 48 06.0**	**-1.5**
KHGB	**Koh Gabri**	**0.85**	**243**	Pg	**Pb**	**21 48 08.0**	**-1.4**
CHMN	**Cheshme madani**	**0.91**	**170**	Pg	**Pb**	**21 48 09.1**	**-1.3**
IBAF	**Bafgh**	**1.74**	**299**	Pg	**Pn**	**21 48 23.5**	**+0.3**
KBAM	**BAM**	**1.88**	**149**	Pn	**Pn**	**21 48 25.7**	**+0.7**
BSRN	**Basiran**	**1.93**	**51**	Pn	**Pn**	**21 48 26.1**	**+0.3**
IKOO	**Kooshah**	**2.17**	**40**	Pn	**Pn**	**21 48 29.7**	**+0.4**
TPRV	**Parvadeh(Tabas**	**2.33**	**346**	Pn	**Pn**	**21 48 31.7**	**+0.4**
NHDN	**Nehbandan**	**2.39**	**74**	Pn	**Pn**	**21 48 33.0**	**+0.8**
IMEH	**Mehriz**	**2.44**	**286**	Pn	**Pn**	**21 48 33.8**	**+0.9**
TKDS	**Koohdasht(Taba**	**2.85**	**356**	Pn	**Pn**	**21 48 39.2**	**+0.8**
TAFT	**Taft - Yazd**	**2.89**	**290**	Pn	**Pn**	**21 48 40.2**	**+1.1**
AFRZ	**Afriz**	**3.01**	**27**	Pn	**Pn**	**21 48 41.0**	**+0.4**
TSHB	**Tabas_ShorAb**	**3.02**	**346**	Pn	**Pn**	**21 48 41.3**	**+0.6**
IMON	**Monand**	**3.12**	**38**	Pn	**Pn**	**21 48 42.7**	**+0.5**
TNSJ	**Nastanj**	**3.26**	**349**	Pn	**Pn**	**21 48 44.5**	**+0.5**
ANAR	**Anarak**	**3.92**	**309**	Pn	**Pn**	**21 48 53.8**	**+0.7**
SRVN	**Saravan**	**5.54**	**126**	Pn	**Pn**	**21 49 16.6**	**+1.3**
ISHM	**Shahmirzad**	**6.08**	**327**	Pn	**Pn**	**21 49 23.9**	**+1.0**
AAK	**Ala-Archa**	**18.11**	**44**	LR	LR	21 58 42.6	
	comp=Z,28nm,19.2s,baz=326,slow=36						
AKTO	**Aktyubinsk**	**19.66**	**1**	P	**P**	**21 52 22.3**	**+0.4**
	0.1nm,0.3s,baz=174,slow=8.6,SNR=4.3						
	0.6nm,0.5s						
AKTO				AML	AML		
BRTR	**Keskin Array B**	**21.29**	**301**	P	**P**	**21 52 39.4**	**-0.4**
	1.0nm,0.7s,baz=135,slow=12,SNR=5.8						
	1.0nm,0.7s						
BVAR	**Borovoye Array**	**24.19**	**19**	P	**P**	**21 53 10.1**	**+0.5**
	0.8nm,0.6s,baz=201,slow=7.9,SNR=6.0						
	0.8nm,0.6s						
MKAR	**Makanchi Array**	**25.03**	**43**	P	**P**	**21 53 16.5**	**-0.7**
	0.6nm,0.7s,baz=233,slow=8.1,SNR=6.3						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**25.36**	**32**	P	**P**	**21 53 20.0**	**-0.1**
	0.5nm,0.6s,baz=231,slow=8.8,SNR=5.7						
	0.5nm,0.6s						
IDI	**Anoyia**	**27.52**	**288**	LR	LR	22 07 19.2	
	comp=Z,70nm,21.7s,baz=314,slow=42						

ZALV	**Zalesovo Beam**	**30.46**	**33**	P		**P**	**21 54 05.6**	**-0.1**
	1.1nm,0.5s,baz=238,slow=9.7,SNR=7.6							
	1.1nm,0.5s							
FINES	**FINESS Array B**	**36.89**	**335**	P		**P**	**21 55 02.1**	**+0.6**
	5.0nm,1.0s,baz=147,slow=11,SNR=6.7							
	5.0nm,1.0s							
GERES	**GERESS Array B**	**37.49**	**311**	P		**P**	**21 55 07.4**	**+0.5**
	1.2nm,0.8s,baz=110,slow=7.7,SNR=9.9							
	1.2nm,0.8s							
MBAR	**Mbarara**	**40.16**	**224**	LR	LR		22 14 27.8	
	comp=Z,33nm,18.1s,baz=41,slow=40							
ARCES	**ARCESS Array B**	**42.81**	**344**	P		**P**	**21 55 50.3**	**-0.5**
	1.9nm,0.8s,baz=125,slow=9.5,SNR=2.5							
	1.9nm,0.8s							

*CNRM **25** 22:01:37.2, 35°.76N×3°.58W, h9km, ML2.4*
*SFS **25** 22:01:40.1, 35°.48N×3°.81W, h9km, ML2.6/6, ML2.6/6, MLv2.6/6*
*MDD **25** 22:01:41.3±0.9, 35°.53N×3°.75W, h23km±2km, mb_Lg2.4/7, Error ellipse: s-maj=10.3km s-min=4.6km az=40.0*
*INMG **25** 22:01:43.5±1.2, 35°.67N×3°.54W, h18km, Error ellipse: s-maj=3.6km s-min=2.3km az=79.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Alboran*

ISC 25 22:01:40.9±1.0,**35.60N**±0.02×**3.66W**±0.03,**h14km**±9km,
n29,σ1§44/50,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.45**	**211**	P	**Pg**	**22 01 48.4**	**-1.4**
PALE				S	**Sg**	**22 01 57.3**	**+1.5**
EALB	**Alboran**	**0.61**	**56**	Pg	**Pn**	**22 01 54.5**	**-0.7**
EALB				Sg	**Sn**	**22 02 05.1**	**+0.2**
WMELI	**Melilla**	**0.64**	**116**	Pg	**Pg**	**22 01 53.6**	**+0.2**
WMELI				Sg	**Sg**	**22 02 02.7**	**+0.8**
EMEL	**Melilla**	**0.65**	**117**	Pg	**Pg**	**22 01 54.0**	**+0.4**
EMEL				Sg	**Sb**	**22 02 03.6**	**+0.7**
EMEL				IVmb_Lg		22 02 06.2	
EMLI	**Melilla**	**0.65**	**117**	Pg	**Pg**	**22 01 53.8**	**+0.2**
EMLI				Sg	**Sg**	**22 02 03.4**	**+1.2**
AKLM	**AKL**	**1.10**	**189**	P	**Pb**	**22 02 00.4**	**-1.4**
AKLM				S	**Sg**	**22 02 18.8**	**+2.2**
ELGU	**Los Guajares,**	**1.27**	**1**	Pn	**Pn**	**22 02 03.8**	**-0.5**
ELGU				Sn	**Sn**	**22 02 23.2**	**+2.1**
ELGU	**Los Guajares,**	**1.27**	**1**	Pg	**Pg**	**22 02 04.6**	**-0.7**
ELGU				Sg	**Sn**	**22 02 21.4**	**+0.2**
ELGU				IVmb_Lg		22 02 25.4	
TAF	**Taforalt**	**1.28**	**127**	P	**Pn**	**22 02 03.0**	**-1.6**
TAF				S	**Sb**	**22 02 21.4**	**+0.1**
EMAL	**Malaga-Limoner**	**1.32**	**332**	Pn	**Pn**	**22 02 03.7**	**-1.2**
EMAL				Sn	**Sn**	**22 02 22.1**	**-0.2**
EMIJ	**Mijas**	**1.32**	**317**	Pn	**Pn**	**22 02 04.1**	**-0.9**
EMIJ				Sn	**Sb**	**22 02 20.6**	**-1.7**
EMIJ	**Mijas**	**1.32**	**317**	Pg	**Pn**	**22 02 04.6**	**-0.4**
EMIJ				Sg	**Sb**	**22 02 21.1**	**-1.3**
EMIJ				IVmb_Lg		22 02 25.5	
SMIR	**Smir Dam**	**1.41**	**274**	P	**Pn**	**22 02 03.9**	**-2.2**
SMIR				S	**Sn**	**22 02 25.5**	**+1.0**
JBK	**JBK**	**1.55**	**144**	P	**Pn**	**22 02 06.6**	**-1.7**
JBK				S	**Sn**	**22 02 27.8**	**-0.5**
EQUE	**Quentar**	**1.61**	**6**	Pg	**Pg**	**22 02 11.4**	**-0.4**
EQUE				IVmb_Lg		22 02 30.6	
EQUE				Sg	**Sg**	**22 02 33.6**	**+0.8**
EQES	**Quesada**	**2.25**	**12**	Pg	**Pb**	**22 02 21.3**	**-0.1**
EQES				Sg	**Sg**	**22 02 50.2**	**-3.0**
EQES				IVmb_Lg		22 02 55.5	
EADA	**Adamuz**	**2.67**	**344**	Pg	**Pb**	**22 02 27.5**	**-1.0**
EADA				Sg	**Sb**	**22 03 02.9**	**+1.8**
EADA				IVmb_Lg		22 03 12.7	
MD31	**MD31**	**2.88**	**199**	P	**Pn**	**22 02 26.1**	**-0.3**
MD31				S	**Sn**	**22 03 02.7**	**+1.8**
PVAQ	**Vaqueiros**	**3.73**	**300**	*eP*	**Pn**	**22 02 39.9**	**+1.8**
PVAQ				*eS*	**Sn**	**22 03 21.7**	**-0.2**
PBAR	**Barrancos**	**3.73**	**314**	*eP*	**Pn**	**22 02 40.4**	**+2.2**
PBAR				*eS*	**Sn**	**22 03 22.3**	**+0.3**
PBDV	**Barranco-do-Ve**	**3.82**	**297**	*eP*	**Pn**	**22 02 40.4**	**+1.1**
PLOUS	**Minas do Lousa**	**4.53**	**304**	*eP*	**Pn**	**22 02 50.3**	**+1.3**
EVO	**Evora**	**4.55**	**311**	*eP*	**Pn**	**22 02 51.1**	**+1.8**
PARRA	**Arraiolos**	**4.75**	**314**	*eP*	**Pn**	**22 02 53.9**	**+1.8**
PMRV	**Marv??o**	**4.84**	**323**	*eP*	**Pn**	**22 02 54.9**	**+1.6**
PMTG	**Montargil**	**5.02**	**315**	*eP*	**Pn**	**22 02 58.0**	**+2.1**
PCBR	**Castelo Branco**	**5.20**	**326**	*eP*	**Pn**	**22 03 00.5**	**+2.2**
PSARD	**Sardoal**	**5.36**	**319**	*eP*	**Pn**	**22 03 02.3**	**+1.8**

SONM Songino Array 69.27 28 P P 22 42 14.3 -0.3
comp=Z,0.5nm,0.6s,baz=209,slow=7.8,SNR=4.2
comp=Z,0.5nm,0.6s

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*IDC **25** 22:37:40.8±0.5,41˚.21S×90˚.33W,h0km,mb4.2/13, mbtmp4.2/15,ML4.0/2,MS5.0/21,Error ellipse: s-maj=19.3km s-min=16.3km az=89.0*

*NEIC **25** 22:37:43.0±1.8,41˚.12S±0˚.10×90˚.4W±0˚.2,h10km±1km, mb5.1/77,Ms_20 5.3/119,Mwb5.7/36,Mww5.7/31,Error ellipse: s-maj=19.4km s-min=15.8km az=287.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr=0.60; Mθθ=0.15; Mϕϕ=-0.75; Mrθ=0.44; Mθϕ=-3.66; Mϕr=0.08; Fault plane solution: M₀3.75000×10¹⁷ NP1: ϕs=176.49000°,δ=82.83000°,λ=0.98000°. NP2:ϕs=86.37000°, δ=89.02000°,λ=172.83000°. Principal axes: T 3.4192, Plg6.0000°, Azm41.0000°; N 0.5977, Plg83.0000°, Azm259.0000°; P -4.0169, Plg4.0000°, Azm132.0000°;*

*NEIC **25** 22:37:42.5,41˚.05S×90˚.62W,h10km*

*NEIC **25** 22:37:42.5,41˚.05S×90˚.62W,h10km*

*MOS **25** 22:37:43.1±1.1,40˚.72S×90˚.12W,h9km,mb5.3/23, MS4.9/6,Error ellipse: s-maj=16.1km s-min=11.3km az=78.7*

*GFZ **25** 22:37:45.1,41˚.39S×90˚.12W,h14km,Mw5.7/92,Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr=0.44; Mθθ=0.42; Mϕϕ=0.01; Mrθ=0.41; Mθϕ=-4.16; Mϕr=0.22; Fault plane solution: M₀4.21044×10¹⁷ NP1: ϕs=178.70486°,δ=84.86689°,λ=2.34889°. NP2:ϕs=88.49459°, δ=87.66053°,λ=174.86260°. Principal axes: T 4.4280, Plg5.2861°, Azm43.5082°; N -0.4755, Plg84.3563°, Azm244.0750°; P -3.9525, Plg1.9714°, Azm133.6906°;*

*GCMT **25** 22:37:46.0±0.1,41˚.19S±0˚.01×90˚.70W±0˚.01,h15km, MW5.7/153,Moment Tensor Solution. s138,c240; s153,c327; Duration: 18 Moment tensor: Scale 10¹⁷ Nm; Mrr=0.51±.05; Mθθ=0.64±.05; Mϕϕ=-0.12±.05; Mrθ=0.77±.14; Mθϕ=-4.63±.05; Mϕr=1.43±.16; Best double couple: M₀4.88800×10¹⁷ NP1:ϕs=87.00000°,δ=74.00000°, λ=175.00000°. NP2:ϕs=178.00000°,δ=85.00000°,λ=16.00000°. Principal axes: T 5.3090, Plg15.0000°, Azm43.0000°; N -0.8440, Plg73.0000°, Azm193.0000°; P -4.4660, Plg8.0000°, Azm311.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **25** 22:37:50.7,41˚.15S×90˚.49W,h20km,Moment Tensor Solution. Duration: 36 Moment tensor: Scale 10¹⁷Nm; Mrr=0.55; Mθθ=0.58; Mϕϕ=-0.03; Mrθ=-0.38; Mθϕ=-5.04; Mϕr=0.37; Fault plane solution: M₀5.10000×10¹⁷ NP1: ϕs=268.13000°,δ=86.28000°,λ=176.50000°. NP2: ϕs=358.36000°,δ=86.51000°,λ=3.72000°. Principal axes: T 5.3754, Plg5.0000°, Azm223.0000°; N -0.5978, Plg85.0000°, Azm41.0000°; P -4.7776, Plg0.0000°, Azm133.0000°;*

*GFZ **25** 22:37:52.0±0.5,40˚.S±6˚×9˚.0W±˚,h10km,M5.2/25, mb4.8/25*

ISC 25 22:37:42.4±0.3, 41˚.16S±0˚.06×90˚.57W±0˚.05, h10km, n351, σ 25/04/288, mb5.0/67, MS5.2/76, 4C-5D, Southeast of Easter Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H03S2	**Juan Fernandez**	**11.78**	**55**	T	T	22 52 58.8	
	baz=227,slow=73,SNR=8290						
H03S1	**Juan Fernandez**	**11.79**	**55**	T	T	22 53 00.0	
	baz=227,slow=73,SNR=9179						
H03S3	**Juan Fernandez**	**11.80**	**55**	T	T	22 52 59.1	
	baz=227,slow=73,SNR=8323						
H03N2	**Juan Fernandez**	**12.04**	**54**	T	T	22 53 15.4	
	baz=34,slow=74						
H03N1	**Juan Fernandez**	**12.05**	**54**	T	T	22 53 13.9	
	baz=228,slow=74						
LL03	**Petrohue**	**13.69**	**96**	Pn	**Pn**	**22 40 55.1**	**-1.5**
LL02	**Futaleuf**	**14.03**	**105**		**Pn**	**22 41 00.8**	**-0.4**
LL02	**Futaleuf**	**14.03**	**105**	P	**P**	**22 41 12.6**	**+3.5**
	comp=Z,38nm,1.4s						
LR05	**Currie**	**14.12**	**92**		**Pn**	**22 41 02.1**	**-0.3**
COYC	**Coyhaique**	**14.14**	**114**		**Pn**	**22 41 02.9**	**+0.2**
COYC	**Coyhaique**	**14.14**	**114**	P	P	22 41 16.9	+6.6
	comp=Z,67nm,1.6s						
AY03	**Cochrane**	**14.24**	**121**	Pn	**Pn**	**22 41 02.6**	**-1.5**
GO06	**Curarrehue**	**14.64**	**90**		**Pn**	**22 41 08.1**	**-1.6**
GO06	**Curarrehue**	**14.64**	**90**	P	**Pn**	**22 41 12.2**	**+2.5**
	comp=Z,41nm,1.7s						
GO08	**Villa O'Higgin**	**14.70**	**126**	P	**P**	**22 41 19.9**	**+3.4**
	comp=Z,38nm,0.4s						
PLCA	**Paso Flores**	**15.13**	**95**	Pn	**Pn**	**22 41 09.8**	**-6.5**
	comp=Z,0.1nm,0.3s,baz=260,slow=15,SNR=1.3						
PLCA				LR	LR	22 45 41.0	
	comp=Z,4μm,21.4s,baz=261,slow=32						
	comp=Z,1.3nm,0.8s						
PLCA				AML	AML		
PLCA	**Paso Flores**	**15.13**	**95**	P	**Pn**	**22 41 15.7**	**-0.6**
PLCA				pmax	pmax		
	comp=Z,10.0nm,1.5s						
PLCA	**Paso Flores**	**15.13**	**95**		**Pn**	**22 41 15.7**	**-0.6**
PLCA	**Paso Flores**	**15.13**	**95**	P	**P**	**22 41 21.4**	**-0.1**
	comp=Z,23nm,1.4s						
PLCA	**Paso Flores**	**15.13**	**95**	*eP*	**P**	**22 41 20.5**	**-1.0**
BI02	**San Fabin de**	**15.67**	**80**		**Pn**	**22 41 22.6**	**-0.8**
BI02	**San Fabin de**	**15.67**	**80**	P	**P**	**22 41 30.1**	**+2.6**
	comp=Z,59nm,1.3s						
GO05	**Hualane**	**15.90**	**73**		**Pn**	**22 41 24.3**	**-1.9**
ML02	**Panimavida**	**15.93**	**76**	Pn	**Pn**	**22 41 26.5**	**-0.1**
ML02				IAmb	IAmb	22 41 32.6	
	comp=Z,139nm,2.0s						
ML02	**Panimavida**	**15.93**	**76**	P	**P**	**22 41 33.7**	**+3.4**
	comp=Z,123nm,1.6s						
BO01	**Tunca**	**16.80**	**73**	Pn	**Pn**	**22 41 36.4**	**-1.4**
BO01	**Tunca**	**16.80**	**73**	P	**Pn**	**22 41 37.4**	**-0.4**
	comp=Z,39nm,1.3s						
BO04	**La Punta**	**17.35**	**72**	P	**P**	**22 41 46.6**	**+0.6**
MT05	**Renca**	**17.56**	**70**	P	**Pn**	**22 41 46.1**	**-1.2**
MT16	**CCHEN**	**17.70**	**71**	P	**Pn**	**22 41 48.4**	**-0.6**
CO02	**Combarbal**	**18.62**	**64**	P	**P**	**22 41 57.4**	**-2.8**
CO02	**Combarbal**	**18.62**	**64**	P	**Pn**	**22 42 01.9**	**+1.4**
	comp=Z,64nm,1.3s						
CO01	**Juntas del Tor**	**20.00**	**63**	P	**P**	**22 42 15.3**	**-0.1**
ZON	**Zonda**	**20.03**	**68**	P	**P**	**22 42 14.0**	**-1.5**
ZON				pmax	pmax		
	comp=Z,60nm,1.7s						
ZON	**Zonda**	**20.03**	**68**		**P**	**22 42 14.0**	**-1.5**
USHA	**Ushuaia**	**20.04**	**140**	P	**P**	**22 42 14.6**	**-0.8**
	comp=Z,3.8nm,0.3s,baz=330,slow=9.6,SNR=1.7						
USHA				LR	LR	22 48 28.0	
	comp=Z,10μm,19.2s,baz=292,slow=32						
	comp=Z,16nm,0.5s						
USHA				AML	AML		
CFA	**Coronel Fontan**	**20.30**	**69**	P	**P**	**22 42 16.7**	**-1.8**
	comp=Z,1.4nm,0.7s,baz=237,slow=10.0,SNR=7.8						
CFA				LR	LR	22 48 33.5	
	comp=Z,3μm,19.0s,baz=226,slow=32						
	comp=Z,1.4nm,0.7s						
AC05	**El Transito**	**20.62**	**60**		**P**	**22 42 20.7**	**-1.3**
AC05				IAMs_20	IAMs_20	22 47 51.8	
	comp=Z,9μm,21.0s						
AC05	**El Transito**	**20.62**	**60**	P	Pn	22 42 23.1	-1.2
	comp=Z,86nm,1.2s						
RPN	**Rapa Nui**	**20.85**	**306**	LR	LR	22 48 02.8	
	comp=Z,10μm,21.4s,baz=135,slow=30						
RPN	**Rapa Nui**	**20.85**	**306**	IAMs_20	IAMs_20	22 47 51.2	
	comp=Z,11μm,21.0s						
VA02	**Isla de Pascua**	**20.89**	**306**	IAMs_20	IAMs_20	22 47 53.2	
	comp=Z,12μm,22.0s						
GO03	**Copiapo**	**21.49**	**57**		**P**	**22 42 29.4**	**-1.9**
GO03				IAmb	IAmb	22 42 46.1	
	comp=Z,57nm,1.2s						
GO03	**Copiapo**	**21.49**	**57**	P	**P**	**22 42 34.8**	**+3.4**
	comp=Z,42nm,1.3s						
AC02	**Maricunga**	**22.72**	**58**		**P**	**22 42 43.4**	**-1.7**
AC02				IAmb	IAmb	22 42 53.4	
	comp=Z,48nm,1.1s						
AC02	**Maricunga**	**22.72**	**58**	P	**P**	**22 42 47.2**	**+2.1**
	comp=Z,42nm,1.2s						
PB14	**IPOC Station P**	**23.55**	**52**	P	**P**	**22 42 51.4**	**-1.9**
PB14				IAmb	IAmb	22 43 08.4	
	comp=Z,110nm,1.6s						
PB14	**IPOC Station P**	**23.55**	**52**	P	**P**	**22 42 53.6**	**+0.3**
	comp=Z,47nm,1.4s						
PB10	**IPOC Station P**	**24.31**	**50**	IAMs_20	IAMs_20	22 49 34.7	
	comp=Z,7μm,21.0s						
EFI	**East Falkland**	**24.55**	**126**	*eP*	**P**	**22 43 03.6**	**+1.4**
EFI	**East Falkland**	**24.55**	**126**	P	**P**	**22 43 02.4**	**+0.2**
PB05	**IPOC Station P**	**25.02**	**49**	IAMs_20	IAMs_20	22 49 55.6	
	comp=Z,7μm,21.0s						
PB03	**IPOC Station P**	**25.91**	**49**	P	**P**	**22 43 13.6**	**-1.2**
PB03				IAmb	IAmb	22 43 33.9	
	comp=Z,50nm,1.4s						
PB07	**IPOC Station P**	**26.09**	**48**	IAMs_20	IAMs_20	22 50 25.9	
	comp=Z,7μm,22.0s						
SALTA		**26.34**	**58**	P	**P**	**22 43 20.9**	**+1.7**
	comp=Z,20nm,1.9s						
PB09	**IPOC Station P**	**26.40**	**49**	IAMs_20	IAMs_20	22 50 47.1	
	comp=Z,5μm,18.0s						
PB09	**IPOC Station P**	**26.40**	**49**	P	**P**	**22 43 22.9**	**+3.6**
	comp=Z,40nm,2.3s						
PB02	**IPOC Station P**	**26.41**	**48**	IAMs_20	IAMs_20	22 50 36.3	
	comp=Z,7μm,22.0s						
TA01	**Diego Aracena**	**26.86**	**46**	IAMs_20	IAMs_20	22 50 48.1	
	comp=Z,6μm,21.0s						
PB01	**IPOC Station P**	**26.86**	**48**	P	**P**	**22 43 21.5**	**-1.8**
PB01				IAmb	IAmb	22 43 46.8	
	comp=Z,131nm,2.0s						
PSGCX	**Pisagua**	**27.67**	**45**	IAMs_20	IAMs_20	22 51 11.6	
	comp=Z,8μm,22.0s						
PB08	**IPOC Station P**	**27.76**	**47**	P	**P**	**22 43 30.3**	**-1.5**
PB08	**IPOC Station P**	**27.76**	**47**	P	**P**	**22 43 32.9**	**+1.1**
	comp=Z,11nm,2.2s						
PMSA	**Palmer Station**	**28.12**	**156**	LR	LR	22 51 38.5	
	comp=Z,4μm,20.2s,baz=310,slow=30						
PMSA	**Palmer Station**	**28.12**	**156**	P	**P**	**22 43 34.7**	**+0.5**
PMSA				IAmb	IAmb	22 43 39.5	
	comp=Z,39nm,1.1s						
PMSA	**Palmer Station**	**28.12**	**156**	IAMs_20	IAMs_20	22 51 17.8	
	comp=Z,5μm,20.0s						
GO01	**Chusmiza**	**28.12**	**47**	IAMs_20	IAMs_20	22 51 38.6	
	comp=Z,5μm,19.0s						
PB12	**IPOC Station P**	**28.38**	**44**	IAMs_20	IAMs_20	22 51 31.6	
	comp=Z,9μm,22.0s						
AP01	**Chacalluta**	**28.57**	**43**	IAMs_20	IAMs_20	22 51 56.4	
	comp=Z,5μm,20.0s						
PB16	**IPOC Station P**	**29.04**	**45**		**P**	**22 43 41.8**	**-1.6**
PB16				IAmb	IAmb	22 44 12.8	
	comp=Z,30nm,1.2s						
PB16				IAMs_20	IAMs_20	22 52 05.8	
	comp=Z,6μm,19.0s						
PB18	**Visviri**	**29.67**	**44**	IAMs_20	IAMs_20	22 52 43.5	
	comp=Z,6μm,20.0s						
PB18	**Visviri**	**29.67**	**44**	P	**P**	**22 43 52.8**	**+3.8**
	comp=Z,33nm,1.8s						
CPUP	**Villa Florida**	**31.13**	**72**	P	**P**	**22 43 58.9**	**-2.3**
	comp=Z,1.5nm,0.9s,baz=286,slow=18,SNR=2.1						
CPUP				LR	LR	22 55 21.6	
	comp=Z,3μm,19.1s,baz=243,slow=34						
	comp=Z,1.5nm,0.9s						
CPUP	**Villa Florida**	**31.13**	**72**	P	**P**	**22 44 00.0**	**-1.2**
CPUP				pmax	pmax		
	comp=Z,24nm,1.8s						
CPUP	**Villa Florida**	**31.13**	**72**	P	**P**	**22 43 60.0**	**-1.2**
NNA	**Nana**	**31.46**	**26**	LR	LR	22 53 20.7	
	comp=Z,3μm,20.4s,baz=193,slow=30						
NNA	**Nana**	**31.46**	**26**	P	**P**	**22 44 02.6**	**-1.7**
NNA				pmax	pmax		
	comp=Z,44nm,1.1s						
NNA				MLR	MLR		
	comp=Z,2μm,19.0s						
NNA	**Nana**	**31.46**	**26**	P	**P**	**22 44 02.6**	**-1.7**
NNA				IAmb	IAmb	22 44 24.9	
	comp=Z,44nm,1.1s						
LPAZ	**La Paz**	**31.46**	**45**	P	**P**	**22 44 02.6**	**-2.3**
	comp=Z,2.5nm,0.6s,baz=181,slow=4.5,SNR=11						
LPAZ				LR	LR	22 54 12.4	
	comp=Z,3μm,18.4s,baz=210,slow=32						
	comp=Z,2.5nm,0.6s						
LPAZ	**La Paz**	**31.46**	**45**	P	**P**	**22 44 02.8**	**-2.1**
LPAZ				pmax	pmax		
	comp=Z,42nm,1.4s						
LPAZ	**La Paz**	**31.46**	**45**		**P**	**22 44 02.8**	**-2.1**
LPAZ				IAmb	IAmb	22 44 25.8	
	comp=Z,42nm,1.4s						
LPAZ	**La Paz**	**31.46**	**45**	P	**P**	**22 44 04.1**	**-0.8**
	comp=Z,25nm,1.3s						
LPAZ	**La Paz**	**31.46**	**45**	*eP*	**P**	**22 44 01.8**	**-3.2**
ITAB	**Concordia**	**34.41**	**78**	P	**P**	**22 44 28.6**	**-1.3**
COIM	**Forte Coimbra**	**34.99**	**63**	*eP*	**P**	**22 44 34.3**	**-0.7**
BBSD	**Serra de San D**	**35.13**	**56**	*eP*	**P**	**22 44 35.6**	**-0.6**
ATAH	**Atahualpa**	**35.58**	**21**	LR	LR	22 55 39.9	
	comp=Z,6μm,20.9s,baz=214,slow=30						
AQDB	**Aquidauana**	**36.02**	**66**		**P**	**22 44 42.4**	**-1.4**
AQDB				IAmb	IAmb	22 45 01.8	
	comp=Z,44nm,1.4s						
AQDB	**Aquidauana**	**36.02**	**66**	P	**P**	**22 44 43.8**	**-0.1**
	comp=Z,22nm,0.9s						
AQDB	**Aquidauana**	**36.02**	**66**	*eP*	**P**	**22 44 43.7**	**-0.1**
CZSB	**Cruzeiro do Su**	**36.89**	**30**	P	**P**	**22 44 49.2**	**-2.1**
CZSB	**Cruzeiro do Su**	**36.89**	**30**	*eP*	**P**	**22 44 52.3**	**+1.0**
PTLB	**Pontes e Lacer**	**37.36**	**56**		**P**	**22 44 53.5**	**-1.8**
PTLB				IAmb	IAmb	22 45 13.4	
	comp=Z,28nm,1.3s						
PTLB	**Pontes e Lacer**	**37.36**	**56**	*eP*	**P**	**22 44 54.3**	**-0.9**
VILB	**Vilhena**	**38.64**	**52**		**P**	**22 45 04.6**	**-1.5**
VILB				IAmb	IAmb	22 45 32.3	
	comp=Z,35nm,1.1s						
VILB	**Vilhena**	**38.64**	**52**	*eP*	**P**	**22 45 05.5**	**-0.7**
SALV	**Santo Antonio**	**39.23**	**60**	*eP*	**P**	**22 45 10.4**	**-0.7**
RKT	**Rikitea**	**41.19**	**282**	*eS*	**S**	**22 51 41.5**	**+0.8**
	comp=Z,7μm,28.2s						
RKT				*e*LQ	LQ	22 55 06.7	
	comp=Z,49μm,29.2s						
RKT				*e*LR	LR	22 56 45.9	
	comp=Z,15μm,28.5s						
SLOR	**San Lorenzo -**	**41.71**	**18**	P	**P**	**22 45 29.9**	**-2.1**
SLOR				IAmb	IAmb	22 46 11.7	
	comp=Z,22nm,1.0s						
ARAG	**Araguaiana, MT**	**41.97**	**64**	*eP*	**P**	**22 45 32.8**	**-0.9**
OTAV	**Otavalo**	**42.65**	**18**	P	**P**	**22 45 37.8**	**-1.9**
OTAV				pmax	pmax		
	comp=Z,42nm,1.3s						
OTAV				MLR	MLR		
	comp=Z,2μm,21.0s						
OTAV	**Otavalo**	**42.65**	**18**		**P**	**22 45 37.8**	**-1.9**
OTAV				IAmb	IAmb	22 45 50.9	
	comp=Z,42nm,1.2s						
OTAV	**Otavalo**	**42.65**	**18**	*eP*	**P**	**22 45 41.9**	**+2.2**
CLDB	**Colider**	**42.94**	**55**	P	P	22 45 46.8	+5.2
	comp=Z,9.4nm,1.3s						
CLDB	**Colider**	**42.94**	**55**	*eP*	**P**	**22 45 40.5**	**-1.1**
BELA	**Belgrano 2**	**43.09**	**165**	P	**P**	**22 45 42.6**	**+0.5**
BDFB	**Brasilia**	**44.64**	**68**	P	**P**	**22 45 52.3**	**-3.1**
	comp=Z,2.1nm,0.6s,baz=287,slow=6.6,SNR=3.1						
BDFB				LR	LR	23 03 46.7	
	comp=Z,4μm,19.5s,baz=228,slow=35						
	comp=Z,2.1nm,0.6s						
BDFB	**Brasilia**	**44.64**	**68**	P	**P**	**22 45 53.4**	**-2.0**
BDFB				pmax	pmax		
	comp=Z,18nm,1.4s						
BDFB	**Brasilia**	**44.64**	**68**	P	**P**	**22 45 53.4**	**-2.0**
SNDB	**Serra Nova Dou**	**45.00**	**61**	*eP*	**P**	**22 45 57.1**	**-1.0**
DIAM	**Diamantina, MG**	**45.99**	**75**	*eP*	**P**	**22 46 06.4**	**+0.3**
MACA	**Manacapuru-AM**	**46.40**	**43**	P	**P**	**22 46 06.4**	**-2.9**
MACA				IAmb	IAmb	22 46 34.9	
	comp=Z,23nm,0.9s						
MACA	**Manacapuru-AM**	**46.40**	**43**	*eP*	**P**	**22 46 08.6**	**-0.6**
BSFB	**Barra de Sao F**	**47.72**	**78**	P	P	22 46 28.5	+8.9
	comp=Z,28nm,1.1s						
BSFB	**Barra de Sao F**	**47.72**	**78**	*eP*	**P**	**22 46 20.5**	**+0.9**
RIB01	**Linhares ES**	**47.76**	**78**	*eP*	**P**	**22 46 20.3**	**+0.5**
ITTB	**Itaituba**	**48.12**	**50**	*eP*	**P**	**22 46 21.7**	**-1.0**
ROSC	**El Rosal**	**48.14**	**22**	P	**P**	**22 46 23.6**	**+0.4**
	comp=Z,5.8nm,0.3s,baz=112,slow=16,SNR=4.3						
ROSC				LR	LR	23 03 57.9	
	comp=Z,2μm,22.0s,baz=186,slow=33						
	comp=Z,5.8nm,0.3s						
ROSC	**El Rosal**	**48.14**	**22**	P	**P**	**22 46 21.3**	**-1.9**
VNA3	**Neumayer Olymp**	**48.77**	**155**	⇓P	**P**	**22 46 26.2**	**-0.8**
	comp=Z,16nm,1.0s						
SDBA	**SAO DESIDERIO**	**49.04**	**68**	*eP*	**P**	**22 46 29.6**	**-0.3**
QSPA	**South Pole Qui**	**49.07**	**180**	P	**P**	**22 46 27.8**	**-1.7**
	comp=Z,2.9nm,1.0s,baz=120,slow=1.7,SNR=5.2						
	comp=Z,2.9nm,1.0s						
QSPA	**South Pole Qui**	**49.07**	**180**	P	**P**	**22 46 29.3**	**-0.2**
QSPA	**South Pole Qui**	**49.07**	**180**	IAMs_20	IAMs_20	23 03 38.3	
	comp=Z,2μm,18.0s						
HELC	**Santa Helena**	**49.10**	**20**	P	**P**	**22 46 29.2**	**-1.3**
VNA1	**Neumayer--Stat**	**49.31**	**154**	P	P	22 46 36.1	+5.0
	comp=Z,25nm,1.0s						
RUSC	**La Rusia**	**49.49**	**23**	P	**P**	**22 46 31.7**	**-2.0**
VNA2	**Neumayer--Watz**	**49.55**	**155**	⇓P	**P**	**22 46 32.5**	**-0.5**
	comp=Z,19nm,1.0s,baz=261,slow=7.2						
SMTB	**Santa Maria do**	**49.74**	**62**		**P**	**22 46 33.3**	**-1.8**
SMTB	**Santa Maria do**	**49.74**	**62**	*eP*	**P**	**22 46 35.3**	**+0.2**
SNAA	**Sanae**	**50.84**	**156**	⇓P	**P**	**22 46 41.9**	**-0.8**
	comp=Z,247nm,0.9s						
SNAA	**Sanae**	**50.84**	**156**	P	**P**	**22 46 42.0**	**-0.8**
	comp=Z,9.2nm,1.1s,baz=296,slow=3.0,SNR=5.6						
	comp=Z,9.2nm,1.1s						
SNAA	**Sanae**	**50.84**	**156**	P	**P**	**22 46 42.0**	**-0.8**
SNAA	**Sanae**	**50.84**	**156**		**P**	**22 46 41.3**	**-1.5**
SNAA				IAmb	IAmb	22 46 58.6	
	comp=Z,15nm,1.0s						
SNAA				IAMs_20	IAMs_20	23 04 37.2	
	comp=Z,2μm,19.0s						
CMC01	**Camacan, BA**	**50.91**	**75**	*eP*	**P**	**22 46 45.0**	**+1.1**
HDC	**Heredia**	**51.26**	**8**	IAMs_20	IAMs_20	23 02 46.3	
	comp=Z,2μm,20.0s						
BOAV	**Boa Vista**	**51.26**	**40**		**P**	**22 46 44.1**	**-2.4**
BOAV	**Boa Vista**	**51.26**	**40**	*eP*	**P**	**22 46 47.6**	**+1.1**
JTS	**Las Juntas de**	**51.46**	**7**	LR	LR	23 03 14.1	
	comp=Z,2μm,18.6s,baz=185,slow=30						
JTS	**Las Juntas de**	**51.46**	**7**	*eP*	**P**	**22 46 46.2**	**-1.8**
JTS				pmax	pmax		
	comp=Z,28nm,1.3s						
JTS	**Las Juntas de**	**51.46**	**7**	IAMs_20	IAMs_20	23 02 52.7	
	comp=Z,2μm,19.0s						
JTS	**Las Juntas de**	**51.46**	**7**	P	P	22 46 54.5	+6.6
	comp=Z,22nm,1.5s						
TBI	**Tubuai**	**51.91**	**271**	*eS*	**S**	**22 54 17.3**	**+3.0**
	comp=Z,1μm,25.8s						
TBI				*e*SS	**SS**	**22 57 49.8**	**-1.1**
	comp=Z,3μm,24.2s						
TBI				*e*LQ	LQ	22 59 34.0	
	comp=Z,16μm,30.8s						
SBA	**Scott Base**	**52.72**	**195**	P	**P**	**22 46 55.4**	**-1.2**
SBA				pmax	pmax		
	comp=Z,43nm,1.6s						
SBA				MLR	MLR		
	comp=Z,21μm,19.0s						
SBA	**Scott Base**	**52.72**	**195**	P	**P**	**22 46 55.4**	**-1.2**
SBA				IAmb	IAmb	22 47 26.8	
	comp=Z,43nm,1.6s						
SJCC	**San Jacinto, C**	**52.75**	**19**	P	**P**	**22 46 55.9**	**-1.8**
SDV	**Santo Domingo**	**53.08**	**25**	LR	LR	23 07 26.1	
	comp=Z,2μm,21.7s,baz=196,slow=34						
SDV	**Santo Domingo**	**53.08**	**25**	P	**P**	**22 46 58.2**	**-2.0**
SDV				IAmb	IAmb	22 47 13.4	
	comp=Z,26nm,1.2s						
SDV				IAMs_20	IAMs_20	23 07 03.7	
	comp=Z,2μm,22.0s						
SDV	**Santo Domingo**	**53.08**	**25**	P	**P**	**22 47 04.8**	**+4.6**
	comp=Z,122nm,1.3s						
NBPN	**Ponto Novo - B**	**53.44**	**70**	*eP*	**P**	**22 47 03.4**	**+0.6**
BOAB	**BOACO BROADBAND**	**53.53**	**6**	P	P	22 47 08.5	+5.3
	comp=Z,67nm,1.2s						
VNDA	**Vanda**	**53.81**	**195**	P	**P**	**22 47 03.2**	**-1.5**
	comp=Z,1.2nm,1.0s,baz=113,slow=4.9,SNR=4.3						
	comp=Z,1.2nm,1.0s						
VNDA	**Vanda**	**53.81**	**195**	P	**P**	**22 47 03.9**	**-0.8**
VNDA				pmax	pmax		
	comp=Z,22nm,1.6s						
VNDA	**Vanda**	**53.81**	**195**	P	**P**	**22 47 03.9**	**-0.8**
VNDA				IAmb	IAmb	22 47 45.1	
	comp=Z,22nm,1.6s						
TAOE	**Nuku Hiva Isla**	**54.27**	**292**	*e*PKP2	**P**	**22 47 11.2**	**+2.3**
	comp=Z,124nm,25.9s						
TAOE				*e*S	**S**	**22 54 45.1**	**-1.6**
	comp=Z,1μm,26.5s						
TAOE				*e*SS	**SKiKP**	**22 58 20.2**	**-0.1**
	comp=Z,338nm,26.2s						
TAOE				*e*LQ	LQ	23 00 33.7	
	comp=Z,4μm,24.7s						
TAOE				*e*LR	LR	23 02 55.8	
	comp=Z,4μm,26.2s						
MTO3	**Montecristo**	**55.29**	**1**	P	**P**	**22 47 16.2**	**-0.1**
MTO3				IAmb	IAmb	22 47 23.5	
	comp=Z,25nm,1.1s						
URIC	**Uribia, Colomb**	**55.33**	**22**	P	**P**	**22 47 14.0**	**-2.3**
PPT2	**Papeete2**	**55.41**	**277**	*e*PKP2	P	22 47 10.1	-7.0
	comp=Z,73nm,26.2s						
PPT2				*e*S	**S**	**22 54 59.4**	**-2.5**
	comp=Z,944nm,26.2s						
PPT2				*e*SS	**SS**	**22 58 42.6**	**-3.9**
	comp=Z,1μm,26.8s						
PPT2				*e*LQ	LQ	23 00 57.0	
	comp=Z,2μm,22.8s						
PPT2				*e*LR	LR	23 03 19.3	
	comp=Z,1μm,34.2s						
PPT2				*e*LR	LR	23 03 25.5	
	comp=Z,2μm,25.2s						
NVL	**N'lazarevskaya**	**55.60**	**157**	*eP*	**P**	**22 47 13.6**	**-4.1**
NVL				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NVL				MLR	MLR		
	comp=Z,471nm,14.0s						
CCIG	**Comitan**	**57.17**	**358**	P	**P**	**22 47 30.1**	**+0.4**
CCIG				IAmb	IAmb	22 47 43.4	
	comp=Z,23nm,1.1s						
MDP	**Montagnes des**	**57.63**	**46**	LR	LR	23 09 58.3	
	comp=Z,2μm,21.8s,baz=212,slow=34						
CMIG	**Matias Romero**	**58.09**	**355**	LR	LR	23 06 58.6	
	comp=Z,467nm,19.3s,baz=276,slow=30						
ELIB	**Princess Elisa**	**58.16**	**160**

DUN6	**Lazy B Ranch**	**75.32**	**344**	P	**P**	**22 49 26.8**	**+1.0**	CLL			*e*SSSS		23 24 18.0	
MIAR	**Mount Ida**	**75.39**	**357**	P	**P**	**22 49 30.4**	**+4.4**	CLL			LH		23 36 00.0	
TUC	**Tucson**	**75.45**	**342**	P	**P**	**22 49 27.5**	**+1.0**	CLL			L	L	23 41 00.0	
TUC				pmax	pmax			CLL			AMS	AMS	23 46 00.0	
	comp=Z,31nm,1.5s								comp=N,400nm,23.4s					
TUC	**Tucson**	**75.45**	**342**	P	**P**	**22 49 27.5**	**+1.0**	CLL			AMS	AMS	23 46 00.0	
TUC				IAmb	IAmb	22 49 35.1			comp=E,500nm,26.2s					
	comp=Z,31nm,1.5s							CLL			AMS	AMS	23 46 00.0	
WMOK	**Wichita Mounta**	**75.91**	**353**	P	**P**	**22 49 33.0**	**+4.0**		comp=Z,700nm,22.7s					
	comp=Z,9.5nm,1.5s							CLL			AMS	AMS	23 50 00.0	
ESJX	**Sierra Juarez**	**76.48**	**338**	P	**P**	**22 49 33.3**	**+0.8**		comp=Z,600nm,20.8s					
ESJX				IAmb	IAmb	22 49 40.4		**CONA**	**Conrad Observa**	**128.97**	**56**	*e*pPKiKP	**PKiKP**	**22 56 54.8**	**+4.1**
	comp=Z,15nm,1.2s								comp=Z,3.5nm,1.1s								
TKL	**Tuckaleechee C**	**76.70**	**6**	LR	LR	23 17 32.6		**MORH**	**Mrgy, Hungar**	**130.12**	**59**	PKP	**PKiKP**	**22 56 54.4**	**+1.6**
	comp=Z,797nm,19.5s,baz=170,slow=31							**NOA**	**NORSAR Array B**	**130.38**	**39**	PKP	**PKPdf**	**22 56 52.0**	**-0.1**
OK052	**Battle Ridge R**	**77.00**	**355**	IAMs_20	IAMs_20	23 28 30.8			comp=Z,0.8nm,0.8s,baz=253,slow=1.7,SNR=2.0								
	comp=Z,2μm,20.0s							**NOA**	**NORSAR Array B**	**130.38**	**39**	PKIKP	**PKPdf**	**22 56 52.0**	**-0.1**
ANMO	**Albuquerque**	**77.14**	**347**	LR	LR	23 17 16.3		**PSZ**	**Piszkesteto**	**131.51**	**57**	IAMs_20	IAMs_20	23 54 23.0	
	comp=Z,345nm,19.6s,baz=165,slow=31								comp=Z,638nm,18.0s								
ANMO	**Albuquerque**	**77.14**	**347**	*e*P	**P**	**22 49 36.4**	**+0.3**	**MLR**	**Muntele Rosu**	**134.68**	**62**	IAMs_20	IAMs_20	23 44 28.1	
ANMO				pmax	pmax				comp=Z,657nm,22.0s								
	comp=Z,70nm,4.8s							**ISP**	**Isparta**	**135.16**	**74**	IAMs_20	IAMs_20	00 09 18.2	
ANMO	**Albuquerque**	**77.14**	**347**		**P**	**22 49 36.2**	**0.0**		comp=Z,614nm,22.0s								
ANMO	**Albuquerque**	**77.14**	**347**	P	**P**	**22 49 40.6**	**+4.4**	**PABE**	**Paberze**	**135.86**	**48**	IAMs_20	IAMs_20	23 55 27.8	
	comp=Z,17nm,2.1s								comp=Z,604nm,20.0s								
U38A	**Gravette**	**77.31**	**357**		**P**	**22 49 36.9**	**+0.1**	**KMPD**	**K-Podol'skiy**	**135.89**	**58**	PKP	**PKiKP**	**22 57 04.2**	**-0.2**
U38A				IAmb	IAmb	22 49 49.2		**TIRR**	**Tirgusor**	**136.02**	**64**	IAMs_20	IAMs_20	00 10 02.7	
	comp=Z,18nm,0.9s								comp=Z,509nm,22.0s								
U49A	**Red Boiling Sp**	**77.43**	**4**		**P**	**22 49 37.1**	**-0.4**	**GHAJ**	**Ghor Haditha**	**136.06**	**85**	IAMs_20	IAMs_20	00 02 56.1	
U49A				IAmb	IAmb	22 49 49.8			comp=Z,1μm,20.0s								
	comp=Z,21nm,0.9s							**ARCES**	**ARCESS Array B**	**136.93**	**28**	PKP	**PKPdf**	**22 57 02.6**	**-1.5**
BLYC	**Blythe**	**77.75**	**340**	P	**P**	**22 49 40.5**	**+1.2**		comp=Z,1.4nm,0.8s,baz=270,slow=0.9,SNR=1.4								
BLYC				IAmb	IAmb	22 49 53.8		**LUBAR**	**Lubar, Ukraine**	**137.04**	**57**	PKP	**PKiKP**	**22 57 08.2**	**+1.4**
	comp=Z,27nm,1.2s							**MNK**	**Minsk**	**137.94**	**50**	*i* PKIKP	**PKPdf**	**22 57 06.3**	**-0.1**
PFO	**Pinyon Flats O**	**78.14**	**338**	LR	LR	23 17 28.8		MNK				*i*		22 59 54.2	
	comp=Z,225nm,18.9s,baz=172,slow=30							MNK				*i* PPP	PPP	23 02 54.2	
PFO	**Pinyon Flats O**	**78.14**	**338**	*e*P	**P**	**22 49 42.2**	**+0.5**	MNK				*i*		23 04 17.0	
PFO				pmax	pmax			MNK				*i* PS	**PS**	**23 10 15.8**	**-7.1**
	comp=Z,12nm,1.3s							MNK				*i* SS	SS	23 18 05.7	+0.3
PFO	**Pinyon Flats O**	**78.14**	**338**	P	P	22 49 46.7	+5.0	MNK				*i* SSS	SSS	23 23 13.1	
	comp=Z,9.5nm,2.5s							MNK				pmax	pmax		
S51A	**Beattyville**	**78.69**	**6**	P	**P**	**22 49 44.5**	**0.0**		comp=E,8.0nm,1.0s								
S51A				IAmb	IAmb	22 49 56.8		MNK				pmax	pmax		
	comp=Z,27nm,0.9s								comp=N,17nm,1.0s								
T25A	**Trinidad**	**78.95**	**349**	P	**P**	**22 49 46.9**	**+0.7**	MNK				pmax	pmax		
T25A				IAmb	IAmb	22 49 53.6			comp=Z,6.0nm,0.9s								
	comp=Z,50nm,1.6s							MNK				MLR	MLR		
MVCO	**Mesa Verde**	**79.71**	**346**	P	**P**	**22 49 51.2**	**+0.9**		comp=E,156nm,19.0s								
MVCO				IAmb	IAmb	22 50 09.8		MNK				MLR	MLR		
	comp=Z,19nm,1.2s								comp=N,313nm,20.0s								
SDCO	**Great Sand Dun**	**79.71**	**348**	P	**P**	**22 49 50.9**	**+0.4**	MNK				MLR	MLR		
U15A	**North Rim**	**79.75**	**342**	P	**P**	**22 49 51.1**	**+0.5**		comp=Z,148nm,16.0s								
U15A				IAmb	IAmb	22 50 13.7		**MNK**	**Minsk**	**137.94**	**50**	*i* PKP	**PKPdf**	**22 57 06.4**	**-0.1**
	comp=Z,24nm,1.6s								comp=E,8.0nm,1.0s								
TPNV	**Topopah Spring**	**81.22**	**339**	P	**P**	**22 49 59.4**	**+1.0**	MNK				*i* PKP	**PKPdf**	**22 57 06.4**	**-0.1**
TPNV				pmax	pmax				comp=N,17nm,1.0s								
	comp=Z,10.0nm,1.2s							MNK				*i* PKP	**PKPdf**	**22 57 06.4**	**-0.1**
TPNV	**Topopah Spring**	**81.22**	**339**	P	**P**	**22 49 59.4**	**+1.0**		comp=Z,6.0nm,0.9s,baz=262								
PRN	**Pahroc Range**	**81.34**	**340**	P	**P**	**22 50 00.6**	**+1.6**	MNK				*i* PP	**PP**	**22 59 54.2**	**-0.8**
PRN				IAmb	IAmb	22 50 06.8		MNK				*i* PPP	PPP	23 02 54.3	
	comp=Z,23nm,1.5s							MNK				*i* SKS	**SKSdf**	**23 04 17.0**	**+0.3**
NLU	**North Lily Min**	**83.08**	**344**	P	**P**	**22 50 09.0**	**+0.9**	MNK				*i* PS	**PS**	**23 10 15.9**	**-7.1**
NVAR	**Mina Array Bea**	**83.17**	**338**	P	**P**	**22 50 09.8**	**+1.1**	MNK				*i* SKKS	**SKKSdf**	**23 13 51.2**	**-0.7**
	comp=Z,1.2nm,0.7s,baz=158,slow=2.3,SNR=7.2							MNK				*i* SS	**SS**	**23 18 05.8**	**+0.3**
	comp=Z,1.2nm,0.7s							MNK				*i* SSS	SSS	23 23 13.1	
NVAR	**Mina Array Bea**	**83.17**	**338**	P	**P**	**22 50 09.3**	**+0.7**	MNK				*i* LQ	LQ	23 49 28.7	
DUG	**Dugway, Tooele**	**83.47**	**343**	P	**P**	**22 50 11.4**	**+1.3**	MNK				*i* LRM	MLR	23 57 19.7	
DUG				pmax	pmax				comp=E,156nm,18.8s								
	comp=Z,30nm,1.5s							MNK				*i* LRM	MLR	23 57 19.7	
DUG	**Dugway, Tooele**	**83.47**	**343**	P	**P**	**22 50 11.4**	**+1.3**		comp=N,313nm,20.5s								
DUG				IAmb	IAmb	22 50 18.7		MNK				*i* LRM	MLR	23 57 19.7	
	comp=Z,30nm,1.5s								comp=Z,148nm,16.0s								
MMNY	**Mt. Morris Dam**	**84.29**	**9**	IAMs_20	IAMs_20	23 16 29.3		**KIEV**	**Kiev**	**138.11**	**56**	PKP	**PKPdf**	**22 57 07.6**	**+0.7**
	comp=Z,2μm,22.0s							**AKBB**	**Malin Array Si**	**138.12**	**56**	PKP	**PKPdf**	**22 57 07.6**	**+0.7**
ECSD	**EROS Data Cent**	**84.69**	**356**	P	**P**	**22 50 17.1**	**+1.1**	**BRTR**	**Keskin Array B**	**138.14**	**73**	PKP	**PKPdf**	**22 57 05.9**	**-1.6**
ORV	**Oroville**	**85.14**	**336**	P	**P**	**22 50 19.6**	**+1.3**		comp=Z,0.5nm,0.7s,baz=173,slow=2.3,SNR=2.9								
ORV				pmax	pmax			**OBN**	**Obninsk**	**142.99**	**50**	PKP	**PKPdf**	**22 57 14.9**	**-0.6**
	comp=Z,27nm,1.6s								comp=Z,6.2nm,0.4s,baz=244,slow=8.0,SNR=3.9								
ORV	**Oroville**	**85.14**	**336**	P	**P**	**22 50 19.6**	**+1.3**	**OBN**	**Obninsk**	**142.99**	**50**	*e*PKIKP	**PKPdf**	**22 57 16.8**	**+1.3**
ORV				IAmb	IAmb	22 50 29.1		OBN				*e*		23 00 30.4	
	comp=Z,27nm,1.6s							OBN				pmax	pmax		
BW06	**Boulder Array**	**85.29**	**346**	P	**P**	**22 50 19.8**	**+0.5**		comp=Z,25nm,1.3s								
BW06				IAmb	IAmb	22 50 48.8		OBN				MLR	MLR		
	comp=Z,31nm,1.7s								comp=Z,568nm,20.0s								
PDAR	**Pinedale Array**	**85.29**	**346**	P	**P**	**22 50 20.7**	**+1.3**	**OBN**	**Obninsk**	**142.99**	**50**		**PKPdf**	**22 57 16.1**	**+0.5**
	comp=Z,1.4nm,1.0s,baz=157,slow=4.8,SNR=12							**KOPT**	**Kop Dagi**	**143.21**	**75**		**PKPdf**	**22 57 16.0**	**-0.9**
	comp=Z,1.4nm,1.0s							**MOS**	**Moscow**	**143.59**	**48**	*e*PKIKP	**PKPdf**	**22 57 17.2**	**+0.6**
PDAR	**Pinedale Array**	**85.29**	**346**	P	**P**	**22 50 19.7**	**+0.4**	MOS				MLR	MLR		
AHID	**Auburn Hatcher**	**85.58**	**345**	P	**P**	**22 50 21.6**	**+0.9**		comp=E,700nm,20.0s								
AHID				IAmb	IAmb	22 50 44.4		MOS				MLR	MLR		
	comp=Z,16nm,1.4s								comp=Z,600nm,20.0s								
RSSD	**Black Hills**	**85.76**	**350**	IAMs_20	IAMs_20	23 33 13.0		**TIXI**	**Tiksi**	**143.77**	**340**	*i* PKIKP	**PKPdf**	**22 57 15.4**	**-1.0**
	comp=Z,987nm,19.0s							**TIXI**	**Tiksi**	**143.77**	**340**	IAMs_20	IAMs_20	00 10 49.2	
BOSA	**Boshof**	**88.67**	**128**	P	**P**	**22 50 37.2**	**+1.0**		comp=Z,1μm,22.0s								
	comp=Z,5.2nm,1.0s,baz=144,slow=7.0,SNR=3.6							**GURO**	**Guroymak-BITLI**	**143.87**	**78**		PKPbc	22 57 16.2	+0.5
	comp=Z,5.2nm,1.0s							**KLMR**	**Klimovskoe**	**144.07**	**40**	*e*PKIKP	**PKPdf**	**22 57 17.1**	**-0.2**
TSUM	**Tsumeb**	**90.45**	**116**	IAMs_20	IAMs_20	23 35 53.6		KLMR				pmax	pmax		
	comp=Z,787nm,19.0s								comp=Z,57nm,1.2s								
LSZ	**Lusaka**	**100.30**	**121**	IAMs_20	IAMs_20	23 44 46.3		**LPSR**	**Galich'ya Gora**	**144.34**	**54**	*e*PKIKP	PKPbc	22 57 16.9	+0.5
	comp=Z,1μm,20.0s							LPSR				pmax	pmax		
TAM	**Tamanrasset**	**109.06**	**76**	IAMs_20	IAMs_20	23 42 18.9			comp=Z,30nm,0.8s								
	comp=Z,660nm,20.0s							**VSR**	**Storozhevoye**	**144.42**	**56**	*e*PKIKP	**PKPdf**	**22 57 19.9**	**+1.7**
H11S2	**WAKE ISLAND Hyl**	**11.38**	**276**	T	T	00 56 52.9		VSR				pmax	pmax		
	baz=126,slow=75,SNR=6.1								comp=Z,36nm,1.4s								
H11S1	**WAKE ISLAND Hyl**	**11.40**	**276**	T	T	00 56 54.7		**VORR**	**Voronezh**	**144.47**	**55**	*e*PKIKP	**PKPdf**	**22 57 19.3**	**+1.1**
	baz=126,slow=75,SNR=3.9							VORR				pmax	pmax		
H11S3	**WAKE ISLAND Hyl**	**11.40**	**276**	T	T	00 56 57.0			comp=Z,27nm,0.5s								
	baz=126,slow=75,SNR=4.3							**VORD**	**Divnogorie**	**144.49**	**57**	*e*PKIKP	**PKPab**	**22 57 16.2**	**-0.5**
MBAR	**Mbarara**	**112.67**	**112**	IAMs_20	IAMs_20	23 54 47.6		VORD				pmax	pmax		
	comp=Z,1μm,21.0s								comp=Z,20nm,0.9s								
ILAR	**Eielson Array**	**114.39**	**337**	PKP	**PKiKP**	**22 56 22.1**	**+0.8**	**GEVA**	**Gevas**	**144.55**	**79**	PKPdf	**PKPab**	**22 57 17.1**	**-0.5**
	comp=Z,0.5nm,0.8s,baz=297,slow=0.6,SNR=5.0							**LABN**	**Labinsk**	**144.57**	**68**	*e*PKIKP	PKPbc	22 57 17.9	+0.5
O15K	**Ungalikthiuk R**	**115.11**	**328**	IAMs_20	IAMs_20	23 34 00.7		LABN				*i*		22 57 21.5	
	comp=Z,1μm,19.0s							LABN				pmax	pmax		
KIBK	**Kibwezi**	**116.37**	**119**	IAMs_20	IAMs_20	23 54 15.9			comp=Z,17nm,0.7s								
	comp=Z,926nm,20.0s							LABN				pmax	pmax		
KMBO	**Kilima Mbogo**	**116.75**	**118**	IAMs_20	IAMs_20	23 57 17.3			comp=Z,25nm,0.9s								
	comp=Z,979nm,20.0s							**ERBR**	**Yeremizino-Bor**	**144.61**	**66**	*i* PKIKP	**PKiKP**	**22 57 21.3**	**-1.1**
LODK	**Lodwar**	**118.76**	**113**	IAMs_20	IAMs_20	23 53 03.9		ERBR				pmax	pmax		
	comp=Z,1μm,20.0s								comp=Z,81nm,1.1s								
EKA	**Eskdalemuir Ar**	**121.24**	**42**	PKP	**PKiKP**	**22 56 36.3**	**+1.4**	**NEUR**	**Neytrino**	**145.67**	**71**	*i* PKIKP	**PKiKP**	**22 57 26.7**	**+1.8**
	comp=Z,0.9nm,0.8s,baz=259,slow=0.7,SNR=1.8							**JSU**	**Suzuyama**	**145.85**	**267**	PKPdf	**PKPdf**	**22 57 21.6**	**+0.2**
DAVOX	**Davos/Dischmat**	**124.78**	**55**	PKP	**PKPdf**	**22 56 40.9**	**-1.2**	**KBZ**	**Khabaz**	**145.91**	**70**	PKPbc	**PKPdf**	**22 57 20.7**	**-0.3**
	comp=Z,1.1nm,0.8s,baz=194,slow=4.2,SNR=2.1								comp=Z,1.8nm,0.8s,baz=76,slow=5.6,SNR=4.7								
CEL	**Celeste**	**124.94**	**67**	IAMs_20	IAMs_20	23 50 40.6		**VRH**	**Novokhopyorsk**	**146.03**	**56**	*e*PKIKP	**PKPdf**	**22 57 21.1**	**+0.2**
	comp=Z,692nm,20.0s							VRH				pmax	pmax		
FUORN	**Ofenpass-Fuorn**	**124.95**	**56**	IAMs_20	IAMs_20	23 48 44.5			comp=Z,40nm,1.0s								
	comp=Z,916nm,20.0s							**GNI**	**Garni**	**146.36**	**77**	PKPbc	**PKPdf**	**22 57 22.4**	**+0.3**
FETA	**Feichten**	**125.41**	**55**	*e*pPKP	**PKiKP**	**22 56 47.3**	**+3.6**		comp=Z,27nm,1.1s,baz=305,slow=6.1,SNR=7.9								
	comp=Z,4.6nm,1.3s							**YAK**	**Yakutsk**	**148.21**	**325**	*e*PKIKP	**PKPdf**	**22 57 24.8**	**+0.6**
RETA	**Reutte**	**125.62**	**55**	*e*pPKiKP	**PKiKP**	**22 56 49.1**	**+5.2**	YAK				*e*		23 00 59.3	
	comp=Z,11nm,1.4s							YAK				pmax	pmax		
MOTA	**Moosalm**	**125.78**	**55**	*e*pPKiKP	**PKiKP**	**22 56 48.6**	**+4.2**		comp=Z,99nm,1.1s								
	comp=Z,8.6nm,1.4s							YAK				pmax	pmax		
SQTA	**Sankt Quirin**	**125.79**	**55**	*e*pPKiKP	**PKiKP**	**22 56 48.8**	**+4.5**		comp=N,6.0nm,1.4s								
	comp=Z,11nm,1.5s							YAK				pmax	pmax		
TIP	**Timpagrande**	**125.97**	**66**	IAMs_20	IAMs_20	23 49 15.6			comp=E,10.0nm,1.3s								
	comp=Z,1μm,22.0s							YAK				pmax	pmax		
WATA	**Walderalm**	**126.06**	**55**	*e*pPKiKP	**PKiKP**	**22 56 48.9**	**+4.0**		comp=Z,219nm,4.8s								
	comp=Z,2.6nm,1.1s							YAK				pmax	pmax		
WTTA	**Wattenberg**	**126.07**	**55**	*e*pPKiKP	**PKiKP**	**22 56 50.0**	**+5.0**		comp=N,199nm,3.8s								
	comp=Z,12nm,1.5s							YAK				pmax	pmax		
ABTA	**Abfaltersbach**	**126.41**	**56**	*i* pPKiKP	**PKiKP**	**22 56 49.6**	**+4.0**		comp=E,152nm,3.7s								
	comp=Z,6.0nm,1.7s							**YAK**	**Yakutsk**	**148.21**	**325**		**PKPdf**	**22 57 25.4**	**+1.2**
LESA	**Schwarzleotal**	**126.78**	**56**	*e*pPKiKP	**PKiKP**	**22 56 50.8**	**+4.6**	**YAK**	**Yakutsk**	**148.21**	**325**	IAMs_20	IAMs_20	23 54 09.8	
	comp=Z,10nm,2.0s								comp=Z,975nm,22.0s								
KBA	**Koelnbreinsper**	**127.06**	**56**	*e*pPKiKP	**PKiKP**	**22 56 52.1**	**+5.1**	**USRK**	**Ussuriysk Ar.**	**148.82**	**290**	PKPbc	**PKPbc**	**22 57 28.8**	**-0.9**
	comp=Z,3.7nm,1.3s								comp=Z,6.0nm,0.9s,baz=93,slow=3.2,SNR=5.9								
SESA	**Seetaler Alpe**	**127.85**	**57**	*i* pPKiKP	**PKiKP**	**22 56 52.5**	**+3.9**	**KIRV**	**Kirov**	**149.48**	**42**	*e*/PKP2	**PKPab**	**22 57 34.7**	**-1.1**
	comp=Z,6.3nm,1.3s							**BELG**	**Belogornoye**	**149.66**	**54**	PKPbc	**PKPbc**	**22 57 31.2**	**-0.3**
MOA	**Molln**	**127.94**	**56**	*e*pPKP	**PKiKP**	**22 56 52.0**	**+3.6**		comp=Z,42nm,1.1s,baz=225,slow=8.6,SNR=10								
	comp=Z,3.7nm,1.1s							**KSRS**	**Korea Array**	**150.15**	**276**	PKPbc	**PKPbc**	**22 57 32.7**	**-0.5**
GERES	**GERESS Array B**	**127.97**	**54**	PKP	**PKPdf**	**22 56 46.8**	**-1.2**		comp=Z,11nm,1.1s,baz=80,slow=2.2,SNR=8.7								
	comp=Z,0.8nm,0.8s,baz=188,slow=3.8,SNR=5.1							**KSAR**	**Wonju Array Be**	**150.18**	**276**	PKIKP	**PKPbc**	**22 57 31.6**	**-1.7**
GERES	**GERESS Array B**	**127.97**	**54**	PKIKP	**PKiKP**	**22 56 49.5**	**+0.9**	**KSAR**	**Wonju Array Be**	**150.18**	**276**		**PKPbc**	**22 57 31.6**	**-1.7**
GERES	**GERESS Array B**	**127.97**	**54**		**PKiKP**	**22 56 49.5**	**+0.9**	**MDJ**	**Mudanjiang**	**150.58**	**290**	PKPbc	**PKPdf**	**22 57 30.5**	**+1.9**
SOKA	**Soboth**	**127.97**	**57**	*e*pPKiKP	**PKiKP**	**22 56 53.1**	**+4.5**	**NRIK**	**Noril'sk**	**151.74**	**1**	PKPbc	**PKPbc**	**22 57 34.5**	**-1.5**
	comp=Z,2.3nm,1.0s								comp=Z,4.1nm,0.7s,baz=92,slow=2.7,SNR=5.9								
KHC	**Kasperske Hory**	**128.00**	**54**	*i* PKIKP	**PKPdf**	**22 56 47.7**	**-0.3**	**ZEA**	**Zeya**	**151.86**	**309**	*i* PKIKP	**PKiKP**	**22 57 38.9**	**+1.8**
CLL	**Collm**	**128.44**	**51**	*e*PKPdf	**PKiKP**	**22 56 52.0**	**+2.7**	ZEA				pmax	pmax		
CLL				*e*PP	**PP**	**22 59 00.0**	**+5.6**		comp=Z,10.0nm,0.8s								
CLL				*e*PS	**PS**	**23 09 00.0**	**-1.5**	**HEH**	**HeiHe**	**152.23**	**302**	*e*PKPbc	**PKiKP**	**22 57 39.3**	**+1.4**
CLL				*e*PPS	PPS	23 10 33.0		HEH				LR	LR		
CLL				*ex*	x	23 12 28.0			comp=N,600nm,19.9s								
CLL				*e*SS	SS	23 16 12.0	+1.5	HEH				LR	LR		
CLL				*e*SSS	SSS	23 20 48.0			comp=E,480nm,19.9s								
								HEH				LR	LR		
									comp=Z,870nm,22.2s								
								BNX	**BinXian**	**152.24**	**292**	⇓P	**PKiKP**	**22 57 38.5**	**+0.4**
								BNX				pmax	pmax		
									comp=Z,12nm,0.8s								
								ARTI	**Arti**	**154.78**	**42**	*i* PKIKP	**PKPdf**	**22 57 35.5**	**+1.1**
								ARTI	**Arti**	**154.78**	**42**		**PKPdf**	**22 57 35.7**	**+1.3**
								ARTI				IAMs_20	IAMs_20	00 13 07.6	
									comp=Z,805nm,21.0s								
								NJ2	**Nanjing**	**154.79**	**258**	*e*PKPbc	**PKPdf**	**22 57 33.5**	**-1.7**
								DL2	**Dalian**	**155.32**	**275**	PKP	**PKPdf**	**22 57 36.8**	**+1.1**
								DL2				PP	**PP**	**23 01 36.3**	**-1.7**
								DL2				SS	SS	23 21 22.5	-0.9
								DL2				PPMZ			
									comp=Z,380nm,6.8s								
								DL2				L	L		
									comp=Z,1μm,25.4s								
								DL2				L	L		
									comp=Z,1μm,23.9s								
								DL2				L	L		
									comp=Z,2μm,26.6s								
								CMAR	**Chiang Mai Arr**	**155.94**	**203**	PKP	**PKPdf**	**22 57 38.3**	**+1.2**
									comp=Z,0.8nm,0.3s,baz=261,slow=0.8,SNR=5.8								
								CMAR	**Chiang Mai Arr**	**155.94**	**203**	PKPdf	**PKPdf**	**22 57 36.3**	**-0.9**
								HIA	**Hailar**	**157.28**	**301**	IAMs_20	IAMs_20	00 01 28.4	
									comp=Z,776nm,21.0s								
								AB31	**Akbulak array**	**157.81**	**59**		**PKPdf**	**22 57 37.5**	**-1.1**
								ABKAR	**Akbulak array**	**157.81**	**59**		**PKPdf**	**22 57 38.2**	**-0.4**
								LYN	**LuoYang**	**160.68**	**257**	PKP	**PKPdf**	**22 57 43.8**	**+1.4**
								LYN				L	L		
									comp=Z,640nm,22.0s								
								LYN				L	L		
									comp=Z,710nm,15.9s								
								LYN				L	L		
									comp=Z,1μm,17.7s								
								BVAR	**Borovoye Array**	**162.49**	**41**	PKP	**PKPdf**	**22 57 43.8**	**0.0**
									comp=Z,2.7nm,0.8s,baz=11,slow=3.0,SNR=6.9								
								MORE	**Moreh**	**162.63**	**195**		**PKPab**	**22 58 31.6**	**-1.3**
								XAN	**Xi'an**	**163.02**	**252**	PKP	**PKPdf**	**22 57 41.5**	**-3.4**
								XAN				L	L		
									comp=Z,480nm,22.0s								
								XAN				L	L		
									comp=Z,480nm,17.9s								
								XAN				L	L		
									comp=Z,560nm,20.6s								
								HHC	**Hu-ho-hao-te**	**163.29**	**276**	*e*PKP	**PKPdf**	**22 57 40.5**	**-4.6**
								HHC				SS	SS	23 22 44.5	-3.6
								HHC				L	L		
									comp=Z,240nm,18.3s								
								HHC				L	L		
									comp=Z,280nm,19.1s								
								HHC				L	L		
									comp=Z,500nm,17.6s								
								BTO2	**Baotou**	**164.54**	**275**	*e*PKP	**PKPdf**	**22 57 43.5**	**-2.7**
								CD2	**Chengdu**	**164.56**	**233**	*e*PKP	**PKPdf**	**22 57 45.5**	**-1.0**
								SONM	**Songino Array**	**166.19**	**305**	PKP	**PKPdf**	**22 57 48.7**	**+1.3**
									comp=Z,0.3nm,0.7s,baz=17,slow=1.5,SNR=2.0								
								SONM				PKPab	**pPKPab**	**22 58 49.7**	**-1.0**
									comp=Z,1.5nm,1.1s,baz=64,slow=3.4,SNR=5.4								
								ZALV	**Zalesovo Beam**	**166.84**	**12**	PKP	**PKPdf**	**22 57 47.0**	**-0.5**
									comp=Z,4.7nm,1.0s,baz=52,slow=2.4,SNR=7.6								
								ZALV	**Zalesovo Beam**	**166.84**	**12**	PKIKP	**PKPdf**	**22 57 47.0**	**-0.5**
								ZALV	**Zalesovo Beam**	**166.84**	**12**		**PKPdf**	**22 57 46.6**	**-0.8**
								ARSB	**Arslanbob**	**167.61**	**84**	PKIKP	**PKPdf**	**22 57 47.5**	**-1.2**
								ARSB	**Arslanbob**	**167.61**	**84**		**PKPdf**	**22 57 47.5**	**-1.2**
								KURK	**Kurchatov**	**167.85**	**35**	PKIKP	**PKPdf**	**22 57 47.9**	**-0.4**
								KURK	**Kurchatov**	**167.85**	**35**		**PKPdf**	**22 57 47.6**	**-0.7**
								KURBB	**Kurchatov Arra**	**167.88**	**35**	PKP	**PKPdf**	**22 57 47.9**	**-0.4**
									comp=Z,1.1nm,0.3s,baz=322,slow=0.8,SNR=8.2								
								KURBB				PKPab	**PKPab**	**22 58 55.5**	**0.0**
									comp=Z,0.5nm,0.2s,baz=291,slow=2.6,SNR=1.6								
								KSH2	**Kashi**	**169.19**	**96**	PKP	**PKPdf**	**22 57 53.8**	**+4.0**
								KSH2				L	L		
									comp=Z,400nm,16.8s								
								KSH2				L	L		
									comp=Z,360nm,14.4s								

HSKC				AML	AML		
CLL	**Collm**	**1.99**	**263**	*e*Pn	**Pn**	**22 39 55.0**	**+0.3**
CLL				*e*Pg	**Pg**	**22 39 58.0**	**+0.1**
CLL				*ex*	x	22 40 01.0	
CLL				*e*Sg	**Sg**	**22 40 24.0**	**+0.4**
	comp=Z,71nm,0.6s						
MORC	**Moravsky Berou**	**2.03**	**153**	*e*Pn	**Pn**	**22 39 55.4**	**0.0**
	baz=335						
MORC				*e*Sg	**Sb**	**22 40 23.0**	**-0.5**
	comp=Z,59nm,0.7s,baz=335						
MORC				AML	AML		
OKC	**Ostrava-Krasne**	**2.18**	**143**	*e*PG	**Pg**	**22 40 01.5**	**0.0**
VRAC	**Vranov**	**2.31**	**173**	Pn	**Pn**	**22 40 00.2**	**+1.0**
	comp=Z,1.6nm,0.3s,baz=344,slow=11,SNR=13						
VRAC				Lg	Lg	22 40 31.9	
	comp=Z,5.9nm,0.3s,baz=68,slow=19,SNR=8.8						
	comp=Z,5.5nm,0.4s						
VRAC				AML	AML		
VRAC	**Vranov**	**2.31**	**173**	*e*Pn	**Pn**	**22 39 59.5**	**+0.3**
	baz=354						
VRAC				*e*Sg	**Sb**	**22 40 32.0**	**+0.5**
	comp=Z,38nm,0.4s,baz=354						
VRAC				AML	AML		
TREC	**Trest**	**2.35**	**191**	*e*SG	**Sb**	**22 40 33.1**	**+0.6**
MAUC	**Maruska**	**2.48**	**154**	*e*PN	**Pn**	**22 40 02.1**	**+0.5**
ZVC	**Zvikov**	**2.50**	**211**	*e*SG	**Sg**	**22 40 39.6**	**-0.4**
KRUC	**Moravsky**	**2.55**	**176**	*e*Pn	**Pn**	**22 40 02.7**	**+0.4**
	baz=357						
KRUC				*e*Sg	**Sb**	**22 40 39.2**	**+1.0**
	comp=Z,37nm,0.5s,baz=357						
KRUC				AML	AML		
KRUC	**Moravsky**	**2.55**	**176**	*e*PN	**Pn**	**22 40 02.8**	**+0.4**
KRUC				*e*SG	**Sb**	**22 40 39.3**	**+1.0**
STAC	**Stalkov**	**2.63**	**192**	*e*Pn	**Pn**	**22 40 03.9**	**+0.3**
	baz=12						
STAC				*e*Sg	**Sb**	**22 40 42.2**	**+1.5**
	comp=Z,32nm,0.2s,baz=12						
STAC				AML	AML		
OJC	**Ojcow**	**2.70**	**119**	*e*Pg	**Pg**	**22 40 13.3**	**+1.8**
OJC				*e*Sg	**Sg**	**22 40 47.5**	**+1.1**
NKC	**Novy Kostel**	**2.71**	**241**	*e*PN	**Pn**	**22 40 05.7**	**+1.0**
NKC				*e*PG	**Pg**	**22 40 12.5**	**+0.8**
NKC				*e*SG	**Sg**	**22 40 47.5**	**+0.7**
	comp=Z,114nm,0.3s						
NKC				AML	AML		
JAVC	**Velka Javorina**	**2.92**	**160**	*e*Pn	**Pn**	**22 40 07.8**	**+0.3**
	baz=341						
JAVC	**Velka Javorina**	**2.92**	**160**	*e*PN	**Pn**	**22 40 07.9**	**+0.4**
KHC	**Kasperske Hory**	**2.97**	**215**	*e*PN	**Pn**	**22 40 07.6**	**-0.6**
KHC				*e*PG	**Pb**	**22 40 14.3**	**+0.7**
KHC				*e*SN	**Sn**	**22 40 45.0**	**+0.5**
KHC				*e*SG	**Sg**	**22 40 53.1**	**-2.0**
	comp=Z,22nm,0.4s						
KHC				AML	AML		
ABNA	**Allensteig Bun**	**2.97**	**189**	*e*Pn	**Pn**	**22 40 08.7**	**+0.5**
	comp=Z,3.9nm,0.1s						
ABNA				*e*Sg	**Sg**	**22 40 53.3**	**-1.8**
	comp=Z,25nm,0.2s						
CKRC	**Cesky Krumlov**	**3.02**	**204**	*e*PN	**Pn**	**22 40 09.9**	**+0.9**
CKRC				*e*PG	**Pb**	**22 40 16.0**	**+1.5**
CKRC				*e*SG	**Sg**	**22 40 55.0**	**-1.9**
	comp=Z,31nm,0.4s						
CKRC				AML	AML		
GERES	**GERESS Array B**	**3.17**	**211**	Pn	**Pn**	**22 40 11.9**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=29,slow=12,SNR=27						
GERES				Pg	**Pg**	**22 40 19.5**	**-1.1**
	comp=Z,0.4nm,0.3s,baz=24,slow=17,SNR=29						
GERES				Lg	Lg	22 40 57.7	
	comp=Z,1.0nm,0.3s,baz=28,slow=26,SNR=12						
	comp=Z,2.1nm,0.4s						
GERES				AML	AML		
LANS	**Liptovska Anna**	**3.25**	**138**	*e*PG	**Pg**	**22 40 23.4**	**+1.3**
LANS				*e*SG	**Sg**	**22 41 03.1**	**-1.0**
LANS				*e*LG	Lg	22 41 07.0	
MODS	**Modra-Piesok**	**3.31**	**167**	*e*PG	**Pg**	**22 40 22.6**	**-0.7**
MODS				*e*SG	**Sg**	**22 41 06.0**	**-0.2**
WINA	**Alland / Wiene**	**3.50**	**181**	*i* Pn	**Pn**	**22 40 16.4**	**+0.9**
	comp=Z,1.5nm,0.1s						
WINA				*e*Sg	**Sg**	**22 41 10.0**	**-2.1**
	comp=Z,14nm,0.3s						
BSD	**Bornholm Skovb**	**3.60**	**349**	*i* P	**Pn**	**22 40 18.0**	**+1.2**
BSD				*i* S	**Sn**	**22 40 58.9**	**-1.0**
BSD				IAML		22 42 15.3	
	comp=Z,23nm,2.0s						
CONA	**Conrad Observa**	**3.68**	**183**	*i* Pn	**Pn**	**22 40 19.3**	**+1.2**
	comp=Z,1.0nm,0.1s						
CONA				*e*Sg	**Sg**	**22 41 16.4**	**-1.6**
	comp=Z,26nm,0.5s						
RONA	**Rosalia, Austr**	**3.91**	**178**	*i* Pn	**Pn**	**22 40 22.4**	**+1.3**
	comp=Z,0.5nm,0.1s						
RONA				Sg	**Sg**	**22 41 23.0**	**-2.3**
	comp=Z,8.9nm,0.3s						
MOA	**Molln**	**3.95**	**199**	*i* Pn	**Pn**	**22 40 22.5**	**+0.8**
	comp=Z,2.5nm,0.2s						
MOA				Sg	**Sg**	**22 41 26.1**	**-0.5**
	comp=Z,24nm,0.5s						
BIOA	**Bad Ischl, Aus**	**4.24**	**204**	*e*Pn	**Pn**	**22 40 26.3**	**+0.7**
	comp=Z,4.3nm,0.3s						
BIOA				*e*Pg	**Pg**	**22 40 41.8**	**+0.8**
	comp=Z,4.8nm,0.3s						
BIOA				*i* Sn	**Sn**	**22 41 17.6**	**+1.8**
	comp=Z,5.7nm,0.4s						
BIOA				*e*Sg	**Sg**	**22 41 37.5**	**+1.6**
	comp=Z,37nm,0.5s						
LUNU	**Lund**	**4.35**	**339**	*i* P	**Pn**	**22 40 27.7**	**+0.6**
LUNU				*i* S	**Sn**	**22 41 18.5**	**+0.1**
ARSA	**Arzberg**	**4.37**	**186**	*e*Pn	**Pn**	**22 40 30.3**	**+2.7**
	comp=Z,1.0nm,0.3s						
ARSA				Sg	**Sg**	**22 41 38.3**	**-1.9**
	comp=Z,8.4nm,0.4s						
SESA	**Seetaler Alpe,**	**4.61**	**194**	*i* Pn	**Pn**	**22 40 31.5**	**+0.6**
	comp=Z,3.4nm,0.3s						
SESA				*e*Sg	**Sg**	**22 41 46.8**	**-1.0**
	comp=Z,6.4nm,0.4s						
BLEU	**Blekinge**	**4.72**	**358**	*i* P	**Pn**	**22 40 34.0**	**+1.8**
BLEU				*i* S	**Sn**	**22 41 25.5**	**-2.0**
LESA	**Schwarzleotal**	**4.75**	**210**	*i* Pn	**Pn**	**22 40 34.0**	**+1.3**
	comp=Z,0.7nm,0.2s						
LESA				*e*Sg	**Sg**	**22 41 49.6**	**-2.8**
	comp=Z,6.3nm,0.3s						
KBA	**Koelnbreinsper**	**4.88**	**203**	*e*Pn	**Pn**	**22 40 35.5**	**+0.9**
	comp=Z,0.7nm,0.2s						
KBA				*e*Sg	**Sg**	**22 41 56.6**	**0.0**
	comp=Z,5.2nm,0.4s						
SOKA	**Soboth**	**4.98**	**189**	Sg	**Sg**	**22 41 59.7**	**0.0**
	comp=Z,5.8nm,0.5s						
DEL	**Delary**	**5.06**	**346**	*i* P	**Pn**	**22 40 37.9**	**+1.1**
OBKA	**Obir**	**5.20**	**192**	*e*Pg	**Pg**	**22 40 58.9**	**-0.6**
	comp=Z,1.3nm,0.4s						
OBKA				*e*Sg	**Sg**	**22 42 08.8**	**+2.0**
	comp=Z,4.7nm,0.4s						
WATA	**Walderalm**	**5.20**	**217**	*e*Pn	**Pn**	**22 40 40.9**	**+1.9**
	comp=Z,0.7nm,0.1s						
WATA				*e*Sg	**Sg**	**22 42 07.1**	**+0.2**
	comp=Z,5.0nm,0.3s						
MYKA	**Terra Mystica**	**5.24**	**199**	*e*Sg	**Sg**	**22 42 07.1**	**-0.9**
	comp=Z,3.5nm,0.4s						
WTTA	**Wattenberg**	**5.24**	**216**	*i* Pn	**Pn**	**22 40 41.6**	**+2.0**
	comp=Z,0.4nm,0.1s						
WTTA				*e*Sg	**Sg**	**22 42 09.9**	**+1.7**
	comp=Z,7.2nm,0.4s						
MOTA	**Moosalm**	**5.38**	**220**	*i* Pn	**Pn**	**22 40 43.6**	**+2.2**
	comp=Z,0.6nm,0.2s						
MOTA				*e*Sn	**Sn**	**22 41 43.9**	**-0.2**
	comp=Z,1.1nm,0.2s						
MOTA				*e*Sg	**Sg**	**22 42 13.3**	**+0.8**
	comp=Z,9.2nm,0.5s						
RETA	**Reutte**	**5.40**	**222**	*i* Pn	**Pn**	**22 40 42.5**	**+0.7**
	comp=Z,0.5nm,0.2s						
RETA				*e*Sg	**Sg**	**22 42 13.1**	**-0.2**
	comp=Z,7.7nm,0.6s						
SQTA	**Sankt Quirin**	**5.44**	**218**	*i* Pn	**Pn**	**22 40 44.2**	**+2.0**
	comp=Z,1.3nm,0.2s						
SQTA				*e*Sn	**Sn**	**22 41 45.3**	**-0.3**
	comp=Z,2.3nm,0.4s						
SQTA				*e*Sg	**Sg**	**22 42 13.3**	**-1.2**
	comp=Z,2.4nm,0.3s						
FABU	**Falkenberg**	**5.77**	**341**	*i* P	**Pn**	**22 40 47.9**	**+1.3**
FABU				*i* S	**Sn**	**22 41 52.7**	**-0.7**
FETA	**Feichten**	**5.79**	**220**	*e*Pn	**Pn**	**22 40 48.5**	**+1.4**
	comp=Z,0.6nm,0.4s						
FETA				*e*Sg	**Sg**	**22 42 26.1**	**+0.4**
	comp=Z,3.6nm,0.6s						
DAVA	**Damuels**	**5.94**	**226**	*e*Sg	**Sg**	**22 42 31.2**	**+0.6**
	comp=Z,8.6nm,0.6s						
ONAU	**Onsala**	**6.31**	**339**	*i* S	**Sn**	**22 42 03.3**	**-3.4**
DAVOX	**Davos/Dischmat**	**6.33**	**223**	Pn	**Pn**	**22 40 54.2**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=40,slow=16,SNR=2.4						
DAVOX				Pg	**Pg**	**22 41 20.0**	**-1.1**
	comp=Z,0.3nm,0.3s,baz=42,slow=16,SNR=2.3						
DAVOX				Lg	Lg	22 42 36.3	
	comp=Z,0.4nm,0.3s,baz=180,slow=20,SNR=1.9						
	comp=Z,1.2nm,0.6s						
DAVOX				AML	AML		
AKASG	**Malin Array Be**	**8.28**	**91**	Pn	**Pn**	**22 41 23.0**	**+2.0**
	comp=Z,0.3nm,0.3s,baz=275,slow=12,SNR=3.1						
HFS	**Hagfors**	**8.66**	**352**	Pn	**Pn**	**22 41 26.9**	**+0.6**
	comp=Z,0.1nm,0.3s,baz=170,slow=13,SNR=1.5						
	comp=Z,1.3nm,0.8s						
HFS				AML	AML		
NOA	**NORSAR Array B**	**9.85**	**346**	Pn	**Pn**	**22 41 42.9**	**+0.4**
	baz=173,slow=16,SNR=1.5						
	comp=Z,0.3nm,0.7s						
FINES	**FINESS Array B**	**11.27**	**25**	Pn	**Pn**	**22 42 02.1**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=213,slow=12,SNR=6.6						
	comp=Z,0.6nm,0.3s						
FINES				AML	AML		
EKA	**Eskdalemuir Ar**	**12.09**	**296**	Pn	**Pn**	**22 42 10.5**	**-2.6**
	baz=104,slow=14						
	comp=Z,0.2nm,0.4s						

GII ***25*** *22:44:53.8±0.0, 37.091N±0.002×24.559E±0.001, h0km, Mws4.2, confirmed*
PDG ***25*** *22:44:53.8±0.4, 37.17N×23.96E, h158km±42km, ML4.0/13, Error ellipse: s-maj=5.6km s-min=6.4km az=0.0*
TIR ***25*** *22:44:56.0, 37.94N×24.54E, h53km±99km, ML3.8, ML3.8, Presumed earthquake*
NEIC ***25*** *22:44:57.0±2.1, 37.37N±0.07×24.23E±0.08, h168km±10km, mb4.0/5, Error ellipse: s-maj=11.5km s-min=7.5km az=215.0*
GFZ ***25*** *22:44:56.6±0.2, 37.N±3°×2°4E±°, h183km±3km, M3.9/13, mb3.9/13, Error ellipse: s-maj=6.8km s-min=3.2km az=37.9, confirmed*
IDC ***25*** *22:44:57.5±0.8, 37.22N×24.31E, h178km±19km, mb3.4/8, mbtmp3.9/15, Error ellipse: s-maj=24.1km s-min=13.0km az=21.0*
ISK ***25*** *22:44:57.9, 37.35N×24.45E, h2km, ML3.5/13*
ATH ***25*** *22:44:58.4, 37.38N×24.24E, h158km±2km, ML3.5/62, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
THE ***25*** *22:44:59.0, 37.N±1°×2°4E±°, h150km±2km, M3.4/82, MLh3.4/82*
AFAD ***25*** *22:45:09.0, 37.39N×25.01E, h77km, ML2.9*

ISC 25 22:44:56.2±0.6, 37.40N±0.03×24.25E±0.03, h169km±5km, n426, σ1♯93/538, mb3.9/12, 2C-5D, Southern Greece

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LVRA	**Laurium**	**0.35**	**334**	P	**Pn**	**22 45 20.1**	**+1.1**
VLY	**Voula,Athens**	**0.58**	**321**	P	**Pn**	**22 45 21.2**	**+1.2**
VLY				S	**Sn**	**22 45 37.4**	**-1.0**
VLY				AML	AML		
VLY	**Voula,Athens**	**0.58**	**321**	P	**Pn**	**22 45 21.2**	**+1.2**
VLY				S	**Sn**	**22 45 37.7**	**-0.8**
VLY				AML	AML		
YDRA	**Hydra**	**0.63**	**266**	P	**Pn**	**22 45 21.5**	**+1.3**
YDRA				AML	AML		
KARY	**Karystos**	**0.65**	**13**	P	**Pn**	**22 45 21.7**	**+1.3**
KARY				S	**Sn**	**22 45 38.5**	**-0.7**
KARY	**Karystos**	**0.65**	**13**	P	**Pn**	**22 45 21.7**	**+1.3**
KARY				S	**Sn**	**22 45 38.5**	**-0.7**
ATHU	**Athens Univers**	**0.68**	**327**	P	**Pn**	**22 45 21.9**	**+1.3**
ATHU				S	**Sn**	**22 45 38.4**	**-1.0**
ATHU	**Athens Univers**	**0.68**	**327**	P	**Pn**	**22 45 21.6**	**+1.0**
ATHU				S	**Sn**	**22 45 38.4**	**-1.0**
MET1	**Methana Town,**	**0.71**	**285**	P	**Pn**	**22 45 21.9**	**+1.2**
MHLO	**Agia Marina, M**	**0.71**	**170**	P	**Pn**	**22 45 22.4**	**+1.6**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**0.71**	**170**	P	**Pn**	**22 45 22.2**	**+1.3**
MHLO				AML	AML		
ATH	**Athens Observa**	**0.72**	**324**	P	**Pn**	**22 45 21.9**	**+1.2**
ATH				S	**Sn**	**22 45 39.0**	**-0.7**
ATH				AML	AML		
ATH	**Athens Observa**	**0.72**	**324**	P	**Pn**	**22 45 22.0**	**+1.3**
ATH				S	**Sn**	**22 45 39.4**	**-0.3**
NOAC	**Athens-Thissio**	**0.72**	**324**	P	**Pn**	**22 45 22.0**	**+1.3**
NOAC				AML	AML		
PTL	**Penteli**	**0.72**	**335**	P	**Pn**	**22 45 22.2**	**+1.3**
PTL				S	**Sn**	**22 45 39.1**	**-0.8**
PTL				AML	AML		
PTL	**Penteli**	**0.72**	**335**	P	**Pn**	**22 45 22.1**	**+1.3**
PTL				S	**Sn**	**22 45 39.1**	**-0.8**
PTL				AML	AML		
DION	**Dionisos Attik**	**0.73**	**340**	P	**Pn**	**22 45 22.0**	**+1.2**
DION				S	**Sn**	**22 45 39.1**	**-0.9**
DION				AML	AML		
DION	**Dionisos Attik**	**0.73**	**340**	P	**Pn**	**22 45 22.2**	**+1.3**
DION				S	**Sn**	**22 45 39.4**	**-0.6**
DION				AML	AML		
TNSA	**Tinos**	**0.74**	**78**	P	**Pn**	**22 45 22.1**	**+1.2**
MET6	**Megalochori,Me**	**0.74**	**286**	P	**Pn**	**22 45 22.1**	**+1.2**
MET6				AML	AML		
MET5	**Makryloggos,Me**	**0.75**	**288**	P	**Pn**	**22 45 22.3**	**+1.3**
MET5				AML	AML		
MET2	**Kameni Chora,**	**0.77**	**287**	P	**Pn**	**22 45 22.3**	**+1.2**
MET2				AML	AML		
ACHAR	**Athens-Acharne**	**0.79**	**329**	P	**Pn**	**22 45 22.6**	**+1.4**
ACHAR				AML	AML		
MET3	**Ano Fanari,Met**	**0.84**	**283**	P	**Pn**	**22 45 22.5**	**+0.9**
MET3				AML	AML		
EPID	**Epidavros**	**0.93**	**284**	P	**Pn**	**22 45 23.4**	**+1.3**
EPID				S	**Sn**	**22 45 42.6**	**+0.4**
EPID				AML	AML		
EPID	**Epidavros**	**0.93**	**284**	P	**Pn**	**22 45 23.5**	**+1.3**
EPID				AML	AML		
STFN	**Stefani**	**0.96**	**324**	P	**Pn**	**22 45 24.1**	**+1.6**
STFN				S	**Sn**	**22 45 42.5**	**-0.3**
STFN				AML	AML		
STFN	**Stefani**	**0.96**	**324**	P	**Pn**	**22 45 23.8**	**+1.3**
STFN				AML	AML		
APE	**Apeiranthos**	**1.07**	**107**	P	**Pn**	**22 45 24.8**	**+1.5**
APE				S	**Sn**	**22 45 44.1**	**-0.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.07**	**107**	P	**Pn**	**22 45 24.9**	**+1.5**
APE	**Apeiranthos**	**1.07**	**107**	Pg	**Pn**	**22 45 24.4**	**+1.1**
APE				AML	AML		
APE	**Apeiranthos**	**1.07**	**107**	P	**Pn**	**22 45 24.5**	**+1.1**
VILL	**Villia**	**1.07**	**316**	P	**Pn**	**22 45 24.5**	**+1.2**
VILL				S	**Sn**	**22 45 44.2**	**-0.2**
VILL				AML	AML		
VIL2	**Platees**	**1.13**	**317**	P	**Pn**	**22 45 24.8**	**+1.0**
VIL2				AML	AML		
LTK	**Loutraki**	**1.20**	**302**	P	**Pn**	**22 45 25.7**	**+1.3**
LTK				S	**Sn**	**22 45 45.5**	**-0.7**
LTK				AML	AML		
LTK	**Loutraki**	**1.20**	**302**	P	**Pn**	**22 45 25.7**	**+1.3**
LTK				AML	AML		
ACOR	**Acrocorinthos**	**1.21**	**295**	P	**Pn**	**22 45 26.0**	**+1.5**
ACOR				S	**Sn**	**22 45 46.2**	**-0.1**
ACOR				AML	AML		
ARS1	**Argos**	**1.24**	**282**	P	**Pn**	**22 45 26.7**	**+2.1**
KYMI	**Kymi, Euboea I**	**1.24**	**354**	P	**Pn**	**22 45 26.4**	**+1.6**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.24**	**354**	P	**Pn**	**22 45 26.0**	**+1.2**
KYMI				AML	AML		
VLI	**Veliai**	**1.25**	**238**	P	**Pn**	**22 45 25.9**	**+1.0**
VLI				S	**Sn**	**22 45 45.6**	**-1.3**
VLI				AML	AML		
VLI	**Veliai**	**1.25**	**238**	P	**Pn**	**22 45 25.9**	**+1.0**
SAP3	**Santorini-Thir**	**1.30**	**137**	P	**Pn**	**22 45 27.0**	**+1.7**
SAP3				S	**Sn**	**22 45 48.8**	**+1.2**
SAP3	**Santorini-Thir**	**1.30**	**137**	P	**Pn**	**22 45 26.9**	**+1.6**
NPS1	**Neapolis Lacon**	**1.30**	**228**	P	**Pn**	**22 45 26.4**	**+1.1**
NPS1				S	**Sn**	**22 45 46.7**	**-0.9**
CMBO	**Columbo, Santo**	**1.30**	**135**	P	**Pn**	**22 45 27.0**	**+1.6**
CMBO				S	**Sn**	**22 45 48.8**	**+1.0**
CMBO	**Columbo, Santo**	**1.30**	**135**	P	**Pn**	**22 45 26.9**	**+1.6**
THR5	**Thira Island,**	**1.31**	**138**	P	**Pn**	**22 45 26.9**	**+1.6**
THR5	**Thira Island,**	**1.31**	**138**	P	**Pn**	**22 45 27.0**	**+1.6**
THR2	**Thira island,**	**1.34**	**135**	P	**Pn**	**22 45 27.4**	**+1.7**
THR2	**Thira island,**	**1.34**	**135**	P	**Pn**	**22 45 26.7**	**+1.0**
THR3	**Thira Island,**	**1.35**	**137**	P	**Pn**	**22 45 27.8**	**+2.1**
THR3	**Thira Island,**	**1.35**	**137**	P	**Pn**	**22 45 27.1**	**+1.4**
SNT5	**Nea Kammeni, S**	**1.35**	**137**	P	**Pn**	**22 45 27.6**	**+1.8**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.35**	**137**	P	**Pn**	**22 45 27.6**	**+1.8**
THR6	**Thira Island,**	**1.39**	**138**	P	**Pn**	**22 45 28.1**	**+2.0**
THR6	**Thira Island,**	**1.39**	**138**	P	**Pn**	**22 45 27.8**	**+1.7**
THR8	**Santorini-Mono**	**1.39**	**135**	P	**Pn**	**22 45 27.9**	**+1.7**
THR8	**Santorini-Mono**	**1.39**	**135**	P	**Pn**	**22 45 27.4**	**+1.3**
THAL	**Thalero**	**1.42**	**297**	P	**Pn**	**22 45 27.8**	**+1.4**
THAL				S	**Sn**	**22 45 49.3**	**-0.3**
THAL				AML	AML		
THAL	**Thalero**	**1.42**	**297**	P	**Pn**	**22 45 27.7**	**+1.4**
THERA	**Ancient Thera,**	**1.42**	**136**	P	**Pn**	**22 45 28.1**	**+1.6**
THERA				S	**Sn**	**22 45 50.5**	**+0.8**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.42**	**136**	P	**Pn**	**22 45 27.9**	**+1.5**
THERA	**Ancient Thera,**	**1.42**	**136**	P	**Pn**	**22 45 27.8**	**+1.3**
KTHA	**Kythira Island**	**1.48**	**220**	P	**Pn**	**22 45 28.8**	**+1.7**
KTHA				S	**Sn**	**22 45 50.5**	**-0.4**
KTHA				AML	AML		
KTHA	**Kythira Island**	**1.48**	**220**	P	**Pn**	**22 45 28.4**	**+1.4**
KTHA				P	**Sn**	**22 45 51.2**	**+0.4**
KTHA	**Kythira Island**	**1.48**	**220**	Pn	**Pn**	**22 45 27.6**	**+0.5**
KTHA				Sn	**Sn**	**22 45 49.1**	**-1.8**
KTHA				AML	AML		
KTHA	**Kythira Island**	**1.48**	**220**	P	**Pn**	**22 45 28.5**	**+1.4**
VLX	**Vlachokerasia**	**1.49**	**270**	P	**Pn**	**22 45 28.8**	**+1.6**
VLX				S	**Sn**	**22 45 50.6**	**-0.5**
VLX				AML	AML		
KTHR	**Kythira**	**1.53**	**222**	P	**Pn**	**22 45 29.0**	**+1.5**
KTHR				S	**Sn**	**22 45 51.4**	**-0.2**
KTHR				AML	AML		
LKR	**Lokris**	**1.60**	**322**	P	**Pn**	**22 45 29.5**	**+1.4**
LKR				AML	AML		
LKR	**Lokris**	**1.60**	**322**	P	**Pn**	**22 45 29.5**	**+1.4**
GUR	**Goura**	**1.61**	**290**	P	**Pn**	**22 45 29.8**	**+1.5**
GUR				S	**Sn**	**22 45 53.3**	**0.0**
GUR				AML	AML		
GUR	**Goura**	**1.61**	**290**	P	**Pn**	**22 45 29.9**	**+1.5**
ATAL	**Atalanti**	**1.62**	**323**	P	**Pn**	**22 45 29.9**	**+1.5**
ANKY	**Antikythira Is**	**1.71**	**207**	P	**Pn**	**22 45 30.5**	**+1.3**
ANKY				S	**Sn**	**22 45 53.7**	**-1.2**
ANKY				AML	AML		
ANKY	**Antikythira Is**	**1.71**	**207**	P	**Pn**	**22 45 30.6**	**+1.3**
ANKY				AML	AML		
CHOS	**Chios island**	**1.73**	**55**	P	**Pn**	**22 45 31.1**	**+1.5**
CHOS				AML	AML		
CHOS	**Chios island**	**1.73**	**55**	P	**Pn**	**22 45 31.1**	**+1.5**
CHOS	**Chios island**	**1.73**	**55**	Pn	**Pn**	**22 45 28.6**	**-1.0**
CHOS				AML	AML		
CHOS	**Chios island**	**1.73**	**55**	P	**Pn**	**22 45 31.4**	**+1.8**
CHOS				AML	AML		
DLFA	**Delphi**	**1.76**	**308**	P	**Pn**	**22 45 31.4**	**+1.5**
DLFA				AML	AML		
KLV	**Kalavryta, Ach**	**1.79**	**292**	P	**Pn**	**22 45 31.5**	**+1.2**
KLV				S	**Sn**	**22 45 56.4**	**-0.1**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**1.79**	**292**	Pn	**Pn**	**22 45 31.5**	**+1.2**
KLV				Sn	**Sn**	**22 45 55.7**	**-0.8**
KLV	**Kalavryta, Ach**	**1.79**	**292**	P	**Pn**	**22 45 31.4**	**+1.2**
KLV				AML	AML		
KLV1	**Kalavrita**	**1.82**	**291**	P	**Pn**	**22 45 32.1**	**+1.6**
KLV1				AML	AML		
VALY	**Valyra**	**1.82**	**263**	P	**Pn**	**22 45 32.8**	**+2.3**
VALY				S	**Sn**	**22 45 57.5**	**+0.5**
VALY				AML	AML		
VALY	**Valyra**	**1.82**	**263**	P	**Pn**	**22 45 33.0**	**+2.4**
ITM	**Ithomi**	**1.87**	**264**	P	**Pn**	**22 45 33.4**	**+2.3**
ITM				S	**Sn**	**22 45 58.3**	**+0.4**
ITM				AML	AML		
ITM	**Ithomi**	**1.87**	**264**	Pn	**Pn**	**22 45 32.9**	**+1.9**
ITM				Sn	**Sn**	**22 45 57.9**	**-0.1**
ITM	**Ithomi**	**1.87**	**264**	Pn	**Pn**	**22 45 33.3**	**+2.3**
ITM				Sn	**Sn**	**22 45 58.5**	**+0.5**
ITM	**Ithomi**	**1.87**	**264**	P	**Pn**	**22 45 33.2**	**+2.1**
ITM				P		22 45 58.9	
ITM	**Ithomi**	**1.87**	**264**	Pn	**Pn**	**22 45 33.6**	**+2.6**
ITM				AML	AML		
ITM	**Ithomi**	**1.87**	**264**	P	**Pn**	**22 45 33.3**	**+2.3**
RODP	**Rodopos**	**1.88**	**192**	P	**Pn**	**22 45 32.3**	**+1.2**
RODP				S	**Sn**	**22 45 57.9**	**-0.2**
RODP				AML	AML		
RODP	**Rodopos**	**1.88**	**192**	P	**Pn**	**22 45 32.4**	**+1.2**
RODP				AML	AML		
CHAN	**Chania**	**1.88**	**185**	P	**Pn**	**22 45 32.2**	**+1.1**
CH01	**Chania**	**1.88**	**186**	P	**Pn**	**22 45 32.3**	**+1.1**
CH01				AML	AML		
SAM2	**Drakei, Karlov**	**1.91**	**78**	P	**Pn**	**22 45 33.1**	**+1.7**
SAM2				AML	AML		
CHNB	**Souda**	**1.91**	**185**	P	**Pn**	**22 45 32.5**	**+1.0**
AGEO	**AgiosGiorgios,**	**1.94**	**297**	P	**Pn**	**22 45 33.8**	**+2.1**
IMMV	**Iera Moni Meta**	**1.94**	**187**	P	**Pn**	**22 45 32.8**	**+1.0**
IMMV				S	**Sn**	**22 45 58.8**	**-0.7**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.94**	**187**	P	**Pn**	**22 45 32.9**	**+1.0**
IMMV	**Iera Moni Meta**	**1.94**	**187**	Pn	**Pn**	**22 45 32.6**	**+0.7**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.94**	**187**	P	**Pn**	**22 45 33.0**	**+1.2**
IMMV				AML	AML		
KALE	**Kalithea**	**1.94**	**301**

VVK AML AML
ANX Ano Chora 2.20 304 P **Pn** **22 45 36.4 +1.6**
ANX AML AML
ANX Ano Chora 2.20 304 P **Pn** **22 45 36.0 +1.2**
ANX AML AML
KNDR Palaiochora Ch 2.21 193 P **Pn** **22 45 36.9 +2.0**
KNDR S **Sn** **22 46 07.2 +2.3**
KNDR AML AML
KNDR Palaiochora Ch 2.21 193 P **Pn** **22 45 36.5 +1.6**
KNDR AML AML
AGG Agios Georgios 2.22 318 P **Pn** **22 45 36.7 +1.8**
AGG AML AML
AGG Agios Georgios 2.22 318 **Pn** **22 45 36.7 +1.8**
AGG Sn **Sn** **22 46 04.2 -0.9**
AGG Agios Georgios 2.22 318 P **Pn** **22 45 37.2 +2.2**
AGG Agios Georgios 2.22 318 P **Pn** **22 45 36.4 +1.4**
RLS Riolos of Patr 2.31 288 P **Pn** **22 45 38.9 +3.0**
RLS S **Sn** **22 46 08.8 +2.1**
RLS AML AML
RLS Riolos of Patr 2.31 288 P **Pn** **22 45 38.5 +2.6**
NPS Neapolis 2.40 152 P **Pn** **22 45 37.7 +0.7**
NPS AML AML
NPS Neapolis 2.40 152 P **Pn** **22 45 37.6 +0.6**
SIVA Sivas 2.42 169 P **Pn** **22 45 38.8 +1.5**
SIVA S **Sn** **22 46 09.6 +0.6**
SIVA AML AML
SIVA Sivas 2.42 169 P **Pn** **22 45 38.4 +1.1**
AXS Araxos 2.42 290 P **Pn** **22 45 39.8 +2.6**
AXS S **Sn** **22 46 09.8 +0.8**
AXS AML AML
AXS Araxos 2.42 290 P **Pn** **22 45 39.4 +2.2**
AXS AML AML
BLCB Balcova 2.42 65 Pn **Pn** **22 45 38.2 +1.0**
LCHA Lechaina 2.43 284 P **Pn** **22 45 39.8 +2.4**
PRK Paraskevi 2.44 40 P **Pn** **22 45 39.0 +1.6**
PRK AML AML
EVR Evrytania 2.45 309 P **Pn** **22 45 39.5 +1.8**
EVR AML AML
EVR Evrytania 2.45 309 P **Pn** **22 45 39.4 +1.6**
EVR AML AML
BODT Bodrum 2.46 97 P **Pn** **22 45 40.2 +2.4**
BODT AML AML
BODT Bodrum 2.46 97 Pn **Pn** **22 45 38.3 +0.5**
PLEV Plevrona-Mesol 2.47 295 P **Pn** **22 45 40.2 +2.4**
PLEV S **Sn** **22 46 11.0 +0.8**
PLEV AML AML
PLEV Plevrona-Mesol 2.47 295 P **Pn** **22 45 39.9 +2.1**
PLEV AML AML
PVO Paravola 2.48 300 P **Pn** **22 45 40.9 +3.0**
PVO S **Sn** **22 46 12.0 +1.7**
PVO AML AML
PVO Paravola 2.48 300 P **Pn** **22 45 40.4 +2.5**
CLEM Kyllini,Ilia,G 2.53 282 P **Pn** **22 45 40.5 +2.0**
GVD Gavdhos 2.56 183 P **Pn** **22 45 40.4 +1.5**
GVD S **Sn** **22 46 12.8 +0.7**
GVD AML AML
GVD Gavdhos 2.56 183 P **Pn** **22 45 40.4 +1.5**
GVD Gavdhos 2.56 183 Pn **Pn** **22 45 40.4 +1.5**
GVD AML AML
GVD Gavdhos 2.56 183 P **Pn** **22 45 40.2 +1.3**
GVDS Gavdos 2.56 184 P **Pn** **22 45 40.3 +1.3**
GVDS S **Sn** **22 46 12.5 +0.4**
GVDS AML AML
GVDS Gavdos 2.56 184 P **Pn** **22 45 40.2 +1.3**
YAZI Mula-Dat§a- 2.66 105 P **Pn** **22 45 41.9 +1.8**
GINA Giannouli 2.70 328 P **Pn** **22 45 42.3 +1.8**
GINA AML AML
PDO Prodromos 2.71 297 P **Pn** **22 45 43.0 +2.3**
PDO AML AML
PDO Prodromos 2.71 297 P **Pn** **22 45 42.7 +2.0**
PDO AML AML
LTHK Lithakia 2.73 278 P **Pn** **22 45 42.1 +1.1**
LTHK AML AML
LTHK Lithakia 2.73 278 P **Pn** **22 45 41.9 +0.9**
LTHK AML AML
AST1 Astakos 2.75 296 P **Pn** **22 45 42.8 +1.7**
KYPS Kipseli, Zakin 2.76 280 P **Pn** **22 45 42.9 +1.6**
ZKR Zakros 2.77 145 Pn **Pn** **22 45 42.9 +1.3**
ZKR AML AML
THL Klokotos Trika 2.79 322 P **Pn** **22 45 43.3 +1.7**
THL AML AML
THL Klokotos Trika 2.79 322 Pn **Pn** **22 45 43.4 +1.7**
THL Sn **Sn** **22 46 16.7 -0.4**
THL Klokotos Trika 2.79 322 P **Pn** **22 45 43.2 +1.5**
TYRN Tyrnavos 2.80 326 P **Pn** **22 45 43.5 +1.7**
TYRN AML AML
AMPL Ampelaki 2.84 303 P **Pn** **22 45 44.4 +2.1**
AMPL AML AML
AMPL Ampelaki 2.84 303 P **Pn** **22 45 44.1 +1.8**
AMPL AML AML
RTZL Ratzakli, Kefa 2.84 285 P **Pn** **22 45 44.0 +1.7**
RTZL AML AML
RTZL Ratzakli, Kefa 2.84 285 P **Pn** **22 45 44.1 +1.7**
RTZL AML AML
AYDN Tasoluk 2.89 84 P **Pn** **22 45 45.8 +2.7**
OUR Ouranopolis 2.94 356 Pn **Pn** **22 45 47.9 +4.4**
OUR AML AML
OUR Ouranopolis 2.94 356 P **Pn** **22 45 45.0 +1.4**
OUR AML AML
KARP Karpathos 2.98 127 P **Pn** **22 45 45.2 +1.1**
KARP AML AML
KARP Karpathos 2.98 127 **Pn** **22 45 45.5 +1.3**
KARP Karpathos 2.98 127 P **Pn** **22 45 46.4 +2.3**
KARP AML AML
KARP Karpathos 2.98 127 P **Pn** **22 45 45.3 +1.1**
KARP Karpathos 2.98 127 Pn **Pn** **22 45 45.5 +1.3**
KARP Sn **Sn** **22 46 20.3 -1.1**
KARP AML AML
KARP Karpathos 2.98 127 P **Pn** **22 45 45.1 +0.9**
PSDA Pessada-Kefalo 3.00 285 P **Pn** **22 45 45.2 +1.0**
PSDA AML AML
PSDA Pessada-Kefalo 3.00 285 P **Pn** **22 45 45.2 +1.0**
VLS Valsamata 3.01 286 P **Pn** **22 45 45.4 +1.1**
VLS AML AML
VLS Valsamata 3.01 286 P **Pn** **22 45 45.2 +0.9**
VLS AML AML
LIT Litokhoron 3.03 333 P **Pn** **22 45 46.7 +2.0**
LIT AML AML
LIT Litokhoron 3.03 333 **Pn** **22 45 46.4 +1.7**
LIT Litokhoron 3.03 333 P **Pn** **22 45 46.6 +2.0**
LIT Litokhoron 3.03 333 P **Pn** **22 45 46.2 +1.5**
PLG Polygyros 3.04 348 P **Pn** **22 45 46.5 +1.7**
TETR Tetrakomo, Epi 3.04 311 P **Pn** **22 45 47.4 +2.5**
TETR AML AML
TETR Tetrakomo, Epi 3.04 311 P **Pn** **22 45 47.1 +2.2**
TETR AML AML
VSK1 VASILIKIADES 3.09 290 P **Pn** **22 45 46.6 +1.2**
EVGI Lefkada island 3.09 294 P **Pn** **22 45 46.8 +1.4**
EVGI AML AML
EVGI Lefkada island 3.09 294 P **Pn** **22 45 46.5 +1.1**
EVGI AML AML
NYDR Nydri-Lefkada 3.10 296 P **Pn** **22 45 46.9 +1.4**
NYDR AML AML
LKD2 Lefkada island 3.16 297 P **Pn** **22 45 48.0 +1.7**
LKD2 AML AML
LKD2 Lefkada island 3.16 297 Pn **Pn** **22 45 47.9 +1.7**
LKD2 Sn **Sn** **22 46 25.1 -0.2**
LKD2 IAML 22 46 28.6
321nm,0.3s
LKD2 Lefkada island 3.16 297 P **Pn** **22 45 48.3 +2.1**
LKD2 Lefkada island 3.16 297 P **Pn** **22 45 47.7 +1.4**
LKD2 AML AML
DRAG Dragano-Lefkad 3.18 295 P **Pn** **22 45 47.8 +1.3**
DRAG Dragano-Lefkad 3.18 295 P **Pn** **22 45 47.6 +1.1**
TSLK Tsoukalades, L 3.18 298 P **Pn** **22 45 48.3 +1.9**
TSLK AML AML
TSLK Tsoukalades, L 3.18 298 P **Pn** **22 45 48.0 +1.6**
TSLK AML AML
DMLN Damoulianata-K 3.19 286 P **Pn** **22 45 47.7 +1.1**
DMLN AML AML
DMLN Damoulianata-K 3.19 286 P **Pn** **22 45 47.5 +0.9**
TURN Turunc 3.25 100 P **Pn** **22 45 49.6 +2.3**
PRMD Pramanda 3.27 312 P **Pn** **22 45 50.2 +2.5**
PRMD AML AML
PRMD Pramanda 3.27 312 P **Pn** **22 45 50.0 +2.3**
PRMD AML AML
ESEN Aydn-Nazilli 3.28 82 P **Pn** **22 45 49.6 +1.9**
ARG Arkhangelos 3.32 110 P **Pn** **22 45 50.7 +2.3**
ARG AML AML
ARG Arkhangelos 3.32 110 Pn **Pn** **22 45 50.9 +2.6**
ARG Sn **Sn** **22 46 28.9 0.0**
ARG Arkhangelos 3.32 110 P **Pn** **22 45 50.9 +2.6**
ARG Arkhangelos 3.32 110 Pn **Pn** **22 45 50.3 +2.0**
ARG AML AML
ARG Arkhangelos 3.32 110 P **Pn** **22 45 50.3 +2.0**
ARG AML AML
THE Thessaloniki 3.38 343 P **Pn** **22 45 51.4 +2.4**
THE Thessaloniki 3.38 343 P **Pn** **22 45 51.4 +2.4**
KPRO Kipourio 3.41 319 P **Pn** **22 45 51.0 +1.5**
KPRO AML AML
KPRO Kipourio 3.41 319 P **Pn** **22 45 50.7 +1.2**
KPRO AML AML
SOH Sokhos 3.49 349 P **Pn** **22 45 52.5 +2.1**
SOH Sokhos 3.49 349 P **Pn** **22 45 52.3 +1.9**
KZN Kozani 3.49 327 P **Pn** **22 45 52.2 +1.7**
KZN AML AML
KZN Kozani 3.49 327 P **Pn** **22 45 51.9 +1.4**
KZN AML AML
JAN Janina 3.50 311 P **Pn** **22 45 52.6 +2.1**
JAN AML AML
JAN Janina 3.50 311 P **Pn** **22 45 52.4 +1.9**
JAN AML AML
DALY Dalyan (Mula) 3.56 98 P **Pn** **22 45 54.7 +3.4**
DALY IAML 22 46 28.0
comp=N,41nm,1.2s
PENT Pentalofos 3.71 320 P **Pn** **22 45 55.2 +1.9**
PENT Pentalofos 3.71 320 P **Pn** **22 45 54.7 +1.5**
TAVA DENIZLI_Tavas 3.71 88 P **Pn** **22 45 53.6 +0.3**
IGT Igoumenitsa 3.75 306 Pn **Pn** **22 45 54.5 +0.9**
IGT Sn **Sn** **22 46 35.9 -2.6**
IGT Igoumenitsa 3.75 306 P **Pn** **22 45 54.5 +0.9**
SRS Serrai 3.75 352 P **Pn** **22 45 55.3 +1.6**
ALN Alexandroupoli 3.76 21 Pn **Pn** **22 45 54.5 +0.6**
SABU Mula-Dalaman 3.81 97 P **Pn** **22 45 57.8 +3.3**
GRG Griva 3.84 339 P **Pn** **22 45 56.2 +1.4**
GRG AML AML
GRG Griva 3.84 339 P **Pn** **22 45 56.4 +1.6**
GRG Griva 3.84 339 P **Pn** **22 45 56.4 +1.6**
GRG AML AML
KNT Kendrikon 3.91 345 P **Pn** **22 45 57.9 +2.2**
KNT Kendrikon 3.91 345 P **Pn** **22 45 57.9 +2.2**
KNT Kendrikon 3.91 345 P **Pn** **22 45 57.8 +2.1**
NEST Nestorio 3.92 321 P **Pn** **22 45 57.4 +1.5**
NEST Nestorio 3.92 321 Pn **Pn** **22 45 57.6 +1.7**
NEST Sn **Sn** **22 46 41.9 -0.7**
NEST IAML 22 46 46.9
36nm,0.3s
NEST Nestorio 3.92 321 P **Pn** **22 45 57.2 +1.3**
NEST AML AML
NVR Nevrokopi 3.96 356 P **Pn** **22 45 58.1 +1.7**
LSK Leskovik 3.96 315 Pn **Pn** **22 45 58.4 +1.8**
LSK Sn **Sn** **22 46 42.4 -1.2**
CAEL Denizli, Camel 4.05 92 P **Pn** **22 45 59.7 +2.0**
CAEL IAML 22 47 05.0
comp=E,65nm,2.2s
CAEL IAML 22 47 30.0
comp=N,54nm,2.0s
IZZE Mula-Seydike 4.10 102 P **Pn** **22 46 00.6 +2.4**
IZZE S **Sn** **22 46 42.1 -4.5**
IZZE IAML 22 46 57.0
comp=N,23nm,0.6s
IZZE IAML 22 47 22.0
comp=E,20nm,1.3s
SRN Sarande 4.15 308 Pn **Pn** **22 45 59.8 +0.9**
SRN Sn **Sn** **22 46 44.8 -3.0**
SRN IAML 22 46 46.1
107nm,0.2s
SRN Sarande 4.15 308 P **Pn** **22 45 59.9 +1.0**
KEK Kerkira 4.19 305 Pn **Pn** **22 45 57.9 -1.4**
KEK Kerkira 4.19 305 Pn **Pn** **22 45 58.0 -1.4**
KEK Kerkira 4.19 305 P **Pn** **22 45 57.9 -1.4**
GOLH Golhisar 4.23 91 P **Pn** **22 46 03.5 +3.5**
GOLH IAML 22 46 53.0
comp=E,31nm,3.5s
GOLH IAML 22 48 06.0
comp=N,23nm,2.5s
KNIK Mula-Seydike 4.29 96 P **Pn** **22 46 02.2 +1.5**
AKAS Kas 4.45 104 P **Pn** **22 46 04.3 +1.5**
AKAS Kas 4.45 104 Pn **Pn** **22 46 05.1 +2.2**
AKAS Kas 4.45 104 P **Pn** **22 46 05.8 +3.0**
ELL Elmali 4.57 96 Pn **Pn** **22 46 06.2 +1.8**
OHR Ohrid 4.58 325 *i* Pn **Pn** **22 46 06.1 +1.7**
OHR *i* Sn **Sn** **22 46 56.4 -1.5**
BERA Berati 4.70 316 Pn **Pn** **22 46 07.1 +1.1**
BERA Sn **Sn** **22 46 58.0 -2.6**
BERA IAML 22 46 58.8
143nm,0.5s
VLO Vlora 4.81 311 Pn **Pn** **22 46 08.3 +0.9**
VLO Sn **Sn** **22 47 02.3 -0.9**
VLO Vlora 4.81 311 P **Pn** **22 46 08.4 +1.0**
AKUM Antalya-Kumluc 5.00 101 P **Pn** **22 46 10.8 +1.0**
PHP Peshkopia 5.20 327 Pn **Pn** **22 46 12.8 +0.3**
PHP Sn **Sn** **22 47 09.5 -2.8**
PHP IAML 22 47 12.9
36nm,0.2s
TIR Tirane 5.21 321 Pn **Pn** **22 46 13.4 +0.8**
TIR Sn **Sn** **22 47 09.8 -2.7**
TIR IAML 22 47 13.3
71nm,0.5s
SCTE Santa Cesarea 5.25 302 Pn **Pn** **22 46 12.9 -0.3**
SDA Shkodra 5.92 323 Pn **Pn** **22 46 21.5 -0.4**
SDA Sn **Sn** **22 47 25.2 -4.0**
SDA IAML 22 47 28.1
71nm,0.2s
ULC Ulcinj 5.98 321⇑ *i* Pn **Pn** **22 46 22.3 -0.4**
ULC *i* Sn **Sn** **22 47 26.5 -4.2**
PVY Plav 6.15 329 *e*Pn **Pn** **22 46 24.8 -0.3**
PVY *i* Sn **Sn** **22 47 31.5 -3.5**
TIP Timpagrande 6.16 289 **Pn** **22 46 25.4 +0.2**
TIP Timpagrande 6.16 289 Pn **Pn** **22 46 25.6 +0.4**
TIP Timpagrande 6.16 289 P **Pn** **22 46 26.0 +0.8**
comp=Z,38nm,0.8s
DRME Dracevica, Mon 6.17 322 *e*Pn **Pn** **22 46 24.6 -0.7**
DRME Dracevica, Mon 6.17 322 *e*Pn **Pn** **22 46 24.6 -0.7**
DRME *i* Sn **Sn** **22 47 32.2 -3.1**
PDG Podgorica 6.33 324 **Pn** **22 46 26.9 -0.4**
PDG Podgorica 6.33 324 *e*Pn **Pn** **22 46 26.6 -0.7**
PDG Podgorica 6.33 324 Pn **Pn** **22 46 26.9 -0.4**
PDG Podgorica 6.33 324 P **Pn** **22 46 26.7 -0.5**
comp=Z,34nm,0.9s
PDG Podgorica 6.33 324⇓ *i* Pn **Pn** **22 46 26.6 -0.7**
PDG *i* Sn **Sn** **22 47 34.8 -4.1**
BUM Brajici-Budva 6.40 322⇑ *i* Pn **Pn** **22 46 27.4 -1.0**
BUM *i* Sn **Sn** **22 47 36.4 -4.5**
IVA Berane 6.41 330 *e*Pn **Pn** **22 46 28.2 -0.3**
IVA *i* Sn **Sn** **22 47 37.0 -3.2**
KOME Kolasin 6.55 328⇓ *i* Pn **Pn** **22 46 30.3 0.0**
KOME *i* Sn **Sn** **22 47 41.1 -3.2**
CEME Cevo 6.58 323 *e*Pn **Pn** **22 46 29.5 -1.2**
CEME *i* Sn **Sn** **22 47 40.5 -4.5**
CEL Celeste 6.67 280 **Pn** **22 46 32.1 +0.2**
CEL Celeste 6.67 280 P **Pn** **22 46 32.1 +0.2**
comp=Z,15nm,0.6s
SJES Sjenica 6.71 332 *e*Pn **Pn** **22 46 31.4 -1.0**
HCY Herceg Novi 6.71 321 *e*Pn **Pn** **22 46 30.3 -2.1**
HCY Herceg Novi 6.71 321 *e*Pn **Pn** **22 46 30.9 -1.5**
HCY *i* Sn **Sn** **22 47 42.2 -5.9**
MATE Matera 6.71 301 P **Pn** **22 46 32.0 -0.4**
comp=Z,24nm,1.0s
NKME Niksic 6.73 325⇓ *i* Pn **Pn** **22 46 32.1 -0.6**
NKME *i* Sn **Sn** **22 47 44.2 -4.4**
TREB Trebinje 6.98 321 *e*Pn **Pn** **22 46 34.3 -1.6**
PLE Pljevlja 6.99 329⇓ *i* Pn **Pn** **22 46 35.6 -0.6**
PLE *i* Sn **Sn** **22 47 50.3 -4.7**
BRY Bratogost 7.03 323 *e*Pn **Pn** **22 46 35.9 -0.8**
BRY Bratogost 7.03 323⇓ *i* Pn **Pn** **22 46 41.3 +4.6**
BRY *i* Sn **Sn** **22 47 51.0 -4.8**
CUC Castrocucco 7.09 294 **Pn** **22 46 38.2 +0.7**
CUC Castrocucco 7.09 294 Pn **Pn** **22 46 38.6 +1.1**
CUC Castrocucco 7.09 294 P **Pn** **22 46 38.8 +1.3**
comp=Z,57nm,0.7s
UPM Unac-Piva 7.09 327 *e*Pn **Pn** **22 46 37.7 +0.1**
UPM Unac-Piva 7.09 327 *e*Pn **Pn** **22 46 37.1 -0.5**
UPM *i* Sn **Sn** **22 47 53.3 -4.2**
MARCO Tramutola 7.20 296 P **Pn** **22 46 39.1 +0.2**
comp=Z,28nm,0.7s
KLINJ Klinje 7.21 325 *e*Pn **Pn** **22 46 38.7 -0.4**
ACER Acerenza 7.30 300 **Pn** **22 46 40.1 -0.1**
BBLS Lazi&#263i 7.44 332 *e*Pn **Pn** **22 46 41.3 -0.8**
BBLS Lazi&#263i 7.44 332 P **Pn** **22 46 41.7 -0.4**
comp=Z,4.4nm,0.5s
BRTR Keskin Array B 7.71 70 P **Pn** **22 46 47.3 +1.5**
comp=Z,0.3nm,0.5s,baz=257,slow=13,SNR=2.1
CSS Mathiatis 7.73 106 Pn **Pn** **22 46 46.9 +0.9**
CSS Mathiatis 7.73 106 P **Pn** **22 46 46.1 +0.1**
comp=Z,14nm,0.7s
CSS Mathiatis 7.73 106 P **Pn** **22 46 43.8 -2.2**
CSS S **Sn** **22 48 08.5 -4.1**
VAE Valguarnera 7.83 274 P **Pn** **22 46 50.2 +2.9**
comp=Z,2.2nm,0.3s,baz=176,slow=13,SNR=9.0
VAE S **Sn** **22 48 09.9 -5.1**
comp=Z,6.4nm,0.4s,baz=299,slow=10.0,SNR=6.8
RAFF Raffo Rosso 7.88 272 **Pn** **22 46 48.5 +0.6**
WDD Wied Dalam 7.98 262 Pn **Pn** **22 46 51.0 +1.8**
TEKS Tekeris 7.99 335 *e*Pn **Pn** **22 46 49.0 -0.3**
PAOL Paolisi 8.35 299 **Pn** **22 46 55.3 +1.2**
FRGS Fruska Gora 8.44 338 *e*Pn **Pn** **22 46 57.3 +2.0**
CY604 RAF Akrotiri, 8.87 107 Pn **Pn** **22 47 00.1 -0.6**
KIJV Kijevo 8.89 320 P **Pn** **22 47 00.7 -0.5**
comp=Z,20nm,0.6s
BLY Banja Luka 9.08 326 Pn **Pn** **22 47 02.8 -0.8**
BLY Banja Luka 9.08 326 *e*Pn **Pn** **22 47 02.4 -1.2**
BLY Banja Luka 9.08 326 P **Pn** **22 47 02.9 -0.8**
INTR Introdacqua 9.21 303 Pn **Pn** **22 47 08.0 +2.5**
AQU L'Aquila 9.70 304 Pn **Pn** **22 47 15.2 +3.3**
AQU L'Aquila 9.70 304 *e*Pn **Pn** **22 47 14.2 +2.3**
MORH Mrgy, Hungar 9.75 336 *e*Pn **Pn** **22 47 13.8 +1.3**
MORH Mrgy, Hungar 9.75 336 P **Pn** **22 47 12.3 -0.2**
comp=Z,2.6nm,2.4s
ZRT Zar'it 9.99 112 P **Pn** **22 47 13.9 -1.9**
ZRT S **Sn** **22 49 03.1 -3.6**
OFRI `Ofer 10.01 115 P **Pn** **22 47 13.6 -2.4**
OFRI S **Sn** **22 49 03.1 -4.0**
NRCA Norcia 10.11 306 Pn **Pn** **22 47 17.5 +0.2**
MMA0B Mount Meron ar 10.11 112 P **Pn** **22 47 15.4 -2.1**
MMA0B S **Sn** **22 49 05.4 -4.4**
MMAI Mount Meron Ar 10.11 112 P **Pn** **22 47 17.3 -0.2**
comp=Z,2.1nm,0.2s,baz=325,slow=14,SNR=54
MMAI S **Sn** **22 49 03.9 -5.9**
comp=Z,0.6nm,0.3s,baz=152,slow=15,SNR=4.4
GEM Giv'at Ha'Em 10.21 111 P **Pn** **22 47 20.2 +1.5**
GEM Giv'at Ha'Em 10.21 111 P **Pn** **22 47 16.6 -2.1**
GEM S **Sn** **22 49 08.2 -3.9**
FDMO Fiordimonte 10.23 307 Pn **Pn** **22 47 19.1 +0.3**
NATI Neve Ativ 10.24 110 P **Pn** **22 47 17.1 -1.9**
NATI S **Sn** **22 49 08.7 -4.1**
KNHM Kefar Nahum 10.31 113 P **Pn** **22 47 17.7 -2.3**
KNHM S **Sn** **22 49 10.0 -4.3**
RMOT Ramot 10.38 113 P **Pn** **22 47 18.7 -2.2**
MMLI Mount Malkishu 10.41 115 P **Pn** **22 47 21.0 -0.3**
comp=Z,43nm,2.2s
MMLI Mount Malkishu 10.41 115 P **Pn** **22 47 19.2 -2.2**
MMLI S **Sn** **22 49 12.5 -4.5**
ARIL Ariel Universi 10.44 117 P **Pn** **22 47 19.7 -2.1**
ARIL S **Sn** **22 49 13.3 -4.4**
ROII Roi 10.56 116 P **Pn** **22 47 21.4 -1.8**
ROII S **Sn** **22 49 16.8 -3.6**
AMAZ Amatzia 10.56 120 P **Pn** **22 47 23.4 +0.1**
comp=Z,56nm,1.6s
AMAZ Amatzia 10.56 120 P **Pn** **22 47 21.4 -1.9**
AMAZ S **Sn** **22 49 16.3 -4.2**
QRNJ Al-Qirein 10.58 115 P **Pn** **22 47 26.6 +3.2**
comp=Z,2µm,0.9s
KZIT Kziot 10.60 125 P **Pn** **22 47 25.1 +1.3**
comp=Z,19nm,1.0s
KZIT Kziot 10.60 125 P **Pn** **22 47 23.5 -0.4**
comp=Z,19nm,1.0s
KZIT Kziot 10.60 125 P **Pn** **22 47 21.4 -2.4**
KZIT S **Sn** **22 49 17.8 -3.7**
RGMN Argaman 10.63 116 P **Pn** **22 47 21.7 -2.4**
RGMN S **Sn** **22 49 17.6 -4.4**
YITV Yitav 10.68 117 P **Pn** **22 47 22.5 -2.3**
YITV S **Sn** **22 49 19.2 -4.0**
MURB Monte Urbino 10.70 307 Pn **Pn** **22 47 26.2 +1.2**
UJAP Al Uja 10.71 117 P **Pn** **22 47 25.2 +0.1**
comp=Z,18nm,1.8s
UJAP Al Uja 10.71 117 P **Pn** **22 47 23.0 -2.1**
UJAP S **Sn** **22 49 19.6 -4.3**
ALMO Almog 10.79 118 P **Pn** **22 47 24.5 -1.8**
ALMO S **Sn** **22 49 21.6 -4.4**
MZS Mizpe Shalem 10.88 119 P **Pn** **22 47 25.5 -1.9**
MZS S **Sn** **22 49 24.1 -3.9**
MSBI Mazada 11.00 120 P **Pn** **22 47 29.5 +0.6**
comp=Z,18nm,0.7s
MSBI Mazada 11.00 120 P **Pn** **22 47 26.8 -2.1**
MSBI S **Sn** **22 49 26.7 -4.2**
RMNI Mount Ramon 11.04 125 P **Pn** **22 47 28.0 -1.6**
RMNI S **Sn** **22 49 27.7 -4.5**
GHAJ Ghor Haditha 11.15 120 Pn **Pn** **22 47 32.2 +1.3**
GHAJ Ghor Haditha 11.15 120 P **Pn** **22 47 34.4 +3.5**
comp=Z,18nm,0.5s
GHAJ Ghor Haditha 11.15 120 P **Pn** **22 47 28.8 -2.1**
GHAJ S **Sn** **22 49 30.2 -4.3**
IDAN Idan 11.23 122 P **Pn** **22 47 29.5 -2.4**
IDAN S **Sn** **22 49 32.2 -4.3**
HZVA Hazeva 11.28 123 P **Pn** **22 47 30.8 -1.8**
HZVA S **Sn** **22 49 33.2 -4.4**
HRFI Mount Harif 11.59 126 P **Pn** **22 47 36.1 -0.6**
comp=Z,11nm,1.0s
HRFI Mount Harif 11.59 126 P **Pn** **22 47 34.6 -2.1**
HRFI S **Sn** **22 49 40.8 -4.4**
SABO M.te Sabotino 11.70 321 Pn **Pn** **22 47 37.3 -0.6**
EIL Elat 11.78 128 P **Pn** **22 47 39.1 -0.1**
comp=Z,3.1nm,0.5s,baz=337,slow=14,SNR=14
EIL S **Sn** 22 49 39.5 -10
comp=Z,6.1nm,0.3s,baz=212,slow=11,SNR=10.0
EIL Elat 11.78 128 P **Pn** **22 47 39.3 +0.2**
comp=Z,8.7nm,1.8s
EIL Elat 11.78 128 P **Pn** **22 47 37.4 -1.8**
DRE Drenchia 11.81 321 P **Pn** **22 47 37.3 -2.1**
comp=Z,3.5nm,0.7s
KEST Kesra 12.10 267 P **Pn** **22 47 46.1 +2.8**
comp=Z,2.9nm,1.0s,baz=61,slow=13,SNR=2.3
KEST S **Sn** **22 49 52.4 -5.2**
comp=Z,1.9nm,0.8s,baz=312,slow=8.4,SNR=1.9
ABTA Abfaltersbach 12.77 321 *e*Pn **Pn** **22 47 52.1 +0.4**
comp=Z,0.3nm,0.2s
MAUC Maruska 12.84 341 *e*P **P** **22 48 00.6 +3.6**
KRUC Moravsky 12.98 336 *e*P **P** **22 48 01.8 +3.3**
VRAC Vranov 13.14 337 P **P** **22 48 01.5 +1.2**
comp=Z,4.6nm,0.6s,baz=148,slow=8.8,SNR=8.7
VRAC Vranov 13.14 337 *e*P **P** **22 48 03.5 +3.2**
LESA Schwarzleotal 13.16 323 *e*Pn **P** **22 48 02.1 +1.5**
comp=Z,9nm,0.3s
MORC Moravsky Berou 13.29 341 **P** **22 48 02.3 +0.3**
MORC Moravsky Berou 13.29 341 *e*P **P** **22 48 05.3 +3.3**
CKRC Cesky Krumlov 13.52 331 *e*P **P** **22 48 08.1 +3.6**
SQTA Sankt Quirin 13.75 320 *e*Pn **P** **22 48 06.3 -1.0**
comp=Z,0.4nm,0.1s
KRLC Kraliky 13.77 339 *e*P **P** **22 48 10.0 +2.7**
AKASG Malin Array Be 13.77 13 P **P** **22 48 08.8 +1.5**
comp=Z,0.3nm,0.3s,baz=206,slow=9.8,SNR=4.1
GEC2 GERESS Array S 13.78 329 **P** **22 48 06.5 -1.0**
GERES GERESS Array B 13.78 329 P **P** **22 48 09.2 +1.7**
comp=Z,1.8nm,0.7s,baz=145,slow=11,SNR=20
GERES GERESS Array B 13.78 329 **P** **22 48 07.2 -0.4**
KHC Kasperske Hory 14.06 330 *e*P **P** **22 48 13.7 +3.2**
DPC Dobruska-Polom 14.14 339 *e*P **P** **22 48 14.2 +2.7**
TUE Stuetta 14.31 314 Pn **Pn** **22 48 10.8 -0.5**
SENIN Lac Senin/Sane 15.46 311 **P** **22 48 27.2 +1.0**
SENIN IAmb IAmb 22 48 30.5
comp=Z,3.5nm,1.1s
PBUR Paburge 18.70 356 P **Pn** **22 49 03.3 -0.5**
comp=Z,65nm,1.1s
BSD Bornholm Skovb 18.83 343 P **P** **22 49 03.0 +0.2**
comp=Z,44nm,1.9s
BSD Bornholm Skovb 18.83 343 *i* P **P** **22 49 03.1 +0.2**
LUNU Lund 19.66 342 *i* P **P** **22 49 13.0 +1.2**
BLEU Blekinge 19.75 346 *i* P **P** **22 49 12.3 -0.5**
DEL Delary 20.31 343 *i* P **P** **22 49 20.5 +1.7**
HFS Hagfors 23.74 347 P **P** **22 49 53.3 +0.7**
comp=Z,1.6nm,0.8s,baz=186,slow=12,SNR=5.2
comp=Z,1.6nm,0.8s
FINES FINESS Array B 24.10 2 P **P** **22 49 57.2 +1.3**
comp=Z,1.4nm,0.4s,baz=165,slow=10,SNR=16
comp=Z,1.4nm,0.4s
FINES FINESS Array B 24.10 2 P **P** **22 49 56.9 +1.0**
FIA1 FINESS Array S 24.10 2 P **P** **22 49 56.5 +0.6**
NOA NORSAR Array B 25.05 345 P **P** **22 50 05.8 +1.2**
comp=Z,0.2nm,0.4s,baz=146,slow=10,SNR=4.0
comp=Z,0.2nm,0.4s
EKA Eskdalemuir Ar 25.81 323 P **P** **22 50 13.6 +2.2**
comp=Z,0.5nm,0.4s,baz=121,slow=9.6,SNR=9.0
comp=Z,0.5nm,0.4s

ESK	**Eskdalemuir**	**25.82**	**323**	P	**P**	**22 50 12.4**	**+0.9**
ESK				IAmb	IAmb	22 50 24.3	
	comp=Z,5.2nm,1.1s						
MSF	**Maaselka**	**28.69**	**4**	P	**P**	**22 50 38.1**	**+1.1**
	comp=Z,9.9nm,2.7s						
ARCES	**ARCESS Array B**	**32.21**	**1**	P	**P**	**22 51 08.7**	**+0.8**
	comp=Z,1.3nm,0.9s,baz=186,slow=8.6,SNR=5.4						
	comp=Z,1.3nm,0.9s						
MAKZ	**Makanchi**	**42.98**	**58**	P	**P**	**22 52 39.0**	**+0.4**
MAKZ				IAmb	IAmb	22 52 58.2	
	comp=Z,5.8nm,1.1s						
MKAR	**Makanchi Array**	**43.19**	**58**	P	**P**	**22 52 41.6**	**+1.4**
	comp=Z,0.6nm,0.4s,baz=266,slow=8.0,SNR=16						
	comp=Z,0.6nm,0.4s						
MKAR	**Makanchi Array**	**43.19**	**58**	P	**P**	**22 52 41.2**	**+0.9**
ZAA0	**Zalesovo Array**	**44.02**	**48**	P	**P**	**22 52 47.0**	**+0.4**
ZALV	**Zalesovo Beam**	**44.02**	**48**	P	**P**	**22 52 47.9**	**+1.2**
	comp=Z,1.1nm,0.3s,baz=268,slow=8.3,SNR=7.2						
	comp=Z,1.1nm,0.3s						
ZALV	**Zalesovo Beam**	**44.02**	**48**	P	**P**	**22 52 47.2**	**+0.5**
SCHQ	**Schefferville**	**61.02**	**319**	P	**P**	**22 54 53.4**	**+1.7**
	comp=Z,2.4nm,0.7s,baz=90,slow=6.1,SNR=1.1						
	comp=Z,2.4nm,0.7s						
SCHQ	**Schefferville**	**61.02**	**319**	P	**P**	**22 54 52.7**	**+1.1**
HHC	**Hu-ho-hao-te**	**65.02**	**57**	*eP*	**P**	**22 55 20.3**	**+2.0**
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,4.4s						

RSNC ***25*** *22:49:36.1±1.9, 13˚N±47˚×6˚7W±˚, h22km±19km, M4.0, mB4.8,mb4.0,ML3.1,Mw(mB)4.1*

FUNV ***25*** *22:49:40.1, 12˚.20N×66˚.28W, h34km, MW3.4, Presumed earthquake*

ISC 25 22:49:40.3±2.3, 12˚.1N±0˚.1×66˚.43W±0˚.08, h35km, n11, σ1§31/18, Caribbean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FUNV	**FUNVISIS**	**1.70**	**193**	*eP*	**Pn**	**22 50 07.6**	**+0.1**
FUNV				*eS*	**Sn**	**22 50 28.7**	**+0.7**
TURV	**Turiamo**	**2.17**	**220**	*eP*	**Pn**	**22 50 14.5**	**+0.5**
TURV				*eS*	**Sn**	**22 50 40.3**	**+0.7**
BENV	**Beln**	**2.44**	**208**	*eP*	**Pn**	**22 50 19.4**	**+1.7**
BENV				*eS*	**Sn**	**22 50 47.3**	**+0.8**
PCRV	**Puerto La Cruz**	**2.63**	**138**	*eP*	**Pn**	**22 50 18.8**	**-1.4**
MAPV	**Macapo**	**3.03**	**221**	*eP*	**Pn**	**22 50 27.1**	**+1.3**
TEPV	**Terepaima**	**3.46**	**232**	*eP*	**Pn**	**22 50 33.2**	**+1.4**
TEPV				*eS*	**Sn**	**22 51 11.9**	**+0.3**
CACV	**CAICARA DEL OR**	**4.54**	**181**	*eP*	**Pn**	**22 50 46.8**	**+0.3**
CACV				*eS*	**Sn**	**22 51 36.8**	**-1.4**
GRGR	**Grenville**	**4.67**	**90**	P	**Pn**	**22 50 48.1**	**-0.3**
URIC	**Uribia, Colomb**	**5.46**	**266**	P	**Pn**	**22 50 56.5**	**-2.7**
	16nm,1.5s						
URIC				S	**Sn**	**22 52 00.4**	**-0.4**
	16nm,1.5s						
URIC				AML	AML		
CRJC	**Cerrejon, Guaj**	**6.42**	**261**	P	**Pn**	**22 51 11.0**	**-1.4**
	791nm9.1nm,1.3s						
CRJC				S	**Sn**	**22 52 24.8**	**+0.3**
	791nm9.1nm,1.3s						
SJCC	**San Jacinto, C**	**8.87**	**256**	P	**Pn**	**22 51 44.2**	**-1.9**

IDC ***25*** *22:56:02.8±0.5, 61˚.95S×154˚.84E, h0km, mb4.9/14, mbtmp4.9/15, ML5.4/1, MS5.3/43, Error ellipse: s-maj=23.6km s-min=13.0km az=78.0*

PTWC ***25*** *22:56:02, 62˚.20S×155˚.70E, h10km, Mwp6.2/6, BALLENY ISLANDS REGION*

NEIC ***25*** *22:56:04.1, 61˚.92S×154˚.91E, h10km*

GFZ ***25*** *22:56:04.6, 62˚.06S×154˚.86E, h16km, MW5.9, Moment Tensor Solution. s24 Moment tensor: Scale 10¹⁷Nm; Mrr-0.70; Mθθ5.90; Mφφ-5.20; Mrθ5.17; Mθφ-3.04; Mφr-1.45; Fault plane solution: NP1:φs152.00000°, δ72.00000°, λ22.00000°. NP2:φs55.00000°, δ69.00000°, λ161.00000°. Principal axes: T 9.5000, Plg27.0000°, Azm14.0000°; N -3.5100, Plg62.0000°, Azm189.0000°; P -5.9900, Plg2.0000°, Azm283.0000°;*

NEIC ***25*** *22:56:04.1±1.1, 61˚.91S±0˚.08×154˚.9E±0˚.2, h10km±1km, mb5.5/92, Ms_20 5.6/196, Mwb5.9/38, Mww5.9/10 Error ellipse: s-maj=15.0km s-min=12.4km az=135.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-0.96; Mθθ5.60; Mφφ-4.64; Mrθ-0.16; Mθφ-6.26; Mφr-0.37; Fault plane solution: Mo8.14000×10¹⁷ NP1: φs340.32000°, δ87.59000°, λ-2.50000°. NP2:φs70.42000°, δ87.50000°, λ-177.59000°. Principal axes: T 8.5672, Plg0.0000°, Azm25.0000°; N -0.9384, Plg87.0000°, Azm116.0000°; P -7.6289, Plg3.0000°, Azm295.0000°;*

ISC-PP ***25*** *22:56:04, 61˚.91S×154˚.92E, h16km*

GFZ ***25*** *22:56:04.7, 61˚.98S×154˚.76E, h16km, Mw5.9/49, Moment Tensor Solution. Moment tensor: Scale 10¹⁷Nm; Mrr-1.19; Mθθ6.85; Mφφ-5.66; Mrθ-1.72; Mθφ-4.27; Mφr-2.05; Fault plane solution: Mo8.09674×10¹⁷ NP1: φs330.60028°, δ70.94734°, λ-10.08561°. NP2:φs63.92330°, δ80.47219°, λ-160.67033°. Principal axes: T 8.2863, Plg6.5333°, Azm196.1146°; N -0.3936, Plg68.5305°, Azm89.1852°; P -7.8928, Plg20.3571°, Azm288.5501°;*

GFZ ***25*** *22:56:04.6, 62˚.06S×154˚.86E, h16km, MW5.9, Moment Tensor Solution. s24 Moment tensor: Scale 10¹⁷Nm; Mrr-0.70; Mθθ5.90; Mφφ-5.20; Mrθ5.17; Mθφ-3.04; Mφr-1.45; Fault plane solution: NP1:φs152.00000°, δ72.00000°, λ22.00000°. NP2:φs55.00000°, δ69.00000°, λ161.00000°. Principal axes: T 9.5000, Plg27.0000°, Azm14.0000°; N -3.5100, Plg62.0000°, Azm189.0000°; P -5.9900, Plg2.0000°, Azm283.0000°;*

MOS ***25*** *22:56:04.1±1.6, 61˚.90S×154˚.90E, h10km, mb5.4/17, MS5.4/10 Error ellipse: s-maj=30.9km s-min=7.5km az=93.7*

NEIC ***25*** *22:56:04.5, 61˚.89S×154˚.99E, h10km*

GFZ ***25*** *22:56:04.7±0.1, 62˚.S±2˚×15˚.5E±˚, h10km, M5.5/49, mb5.3/49, Error ellipse: s-maj=7.6km s-min=4.6km az=78.5, confirmed*

NEIC ***25*** *22:56:07.6, 62˚.12S×154˚.91E, h20km, Moment Tensor Solution. Duration: 4ˢ7 Moment tensor: Scale 10¹⁷Nm; Mrr0.77; Mθθ6.94; Mφφ-7.71; Mrθ-0.20; Mθφ-4.48; Mφr-1.34; Fault plane solution: Mo8.72000×10¹⁷ NP1:φs61.00000°, δ83.58000°, λ-175.48000°. NP2:φs330.49000°, δ85.51000°, λ-6.44000°. Principal axes: T 8.2088, Plg1.0000°, Azm16.0000°; N 0.9480, Plg82.0000°, Azm116.0000°; P -9.1568, Plg8.0000°, Azm286.0000°;*

GCMT ***25*** *22:56:07.1±0.1, 61˚.97S×154˚.94E, h13km, MW5.9/170, Moment Tensor Solution. s150, c284; s170, c502; Duration: 2ˢ2 Moment tensor: Scale 10¹⁸Nm; Mrr-0.09±.01; Mθθ0.70±.01; Mφφ-0.60±.01; Mrθ-0.26±.02; Mθφ-0.52±.01; Mφr-0.10±.02; Best double couple: Mo0.88100×10¹⁸ NP1:φs334.00000°, δ72.00000°, λ-1.00000°. NP2:φs65.00000°, δ89.00000°, λ-162.00000°. Principal axes: T 0.9280, Plg12.0000°, Azm198.0000°; N -0.0920, Plg72.0000°, Azm68.0000°; P -0.8350, Plg14.0000°, Azm291.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

ISC 25 22:56:04.2±0.2, 61˚.96S±0˚.04×154˚.94E±0˚.05, h10km, n791, σ1§51/680, mb5.3/127, MS5.6/154, 59C-54D, Balleny Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCQ	**Macquarie Isla**	**7.78**	**18**	P	**Pn**	**22 57 56.7**	**-0.6**
	comp=Z,382nm,1.3s,comp=Z,0.0nm						
MCQ	**Macquarie Isla**	**7.78**	**18**	P	**Pn**	**22 57 54.2**	**-3.0**
	comp=Z,381nm,1.3s,comp=Z,0.0nm						
MCQ	**Macquarie Isla**	**7.78**	**18**	P	**Pn**	**22 57 54.3**	**-3.0**
MCQ	**Macquarie Isla**	**7.78**	**18**		**Pn**	**22 57 54.3**	**-3.0**
MCQ	**Macquarie Isla**	**7.78**	**18**	P	**Pn**	**22 57 56.3**	**-0.9**
DRV	**Dumont d'Urvil**	**8.01**	**227**	P	**Pn**	**22 57 58.9**	**-1.4**
DRV	**Dumont d'Urvil**	**8.01**	**227**	P	**Pn**	**22 57 58.7**	**-1.6**
DRV				AML	AML		
DRV				AML	AML		
VNDA	**Vanda**	**15.79**	**174**	Pn	**Pn**	**22 59 40.1**	**-6.1**
	comp=Z,15nm,0.3s,baz=341,slow=12,SNR=341						
VNDA				LR	LR	23 05 10.5	
	comp=Z,35μm,20.0s,baz=7.0,slow=35						
	comp=Z,70nm,0.4s						
VNDA				AML	AML		
VNDA	**Vanda**	**15.79**	**174**		**Pn**	**22 59 39.5**	**-6.7**
VNDA				IAmb	IAmb	22 59 42.4	
	comp=Z,621nm,1.7s						
VNDA	**Vanda**	**15.79**	**174**	P	**Pn**	**22 59 40.2**	**-6.0**
VNDA	**Vanda**	**15.79**	**174**	P	**Pn**	**22 59 40.2**	**-6.0**
	comp=Z,279nm,1.3s						
SBA	**Scott Base**	**16.41**	**171**	P	**Pn**	**22 59 48.5**	**-5.5**
SBA				pmax	pmax		
	comp=Z,1μm,1.6s						
SBA	**Scott Base**	**16.41**	**171**		**Pn**	**22 59 48.5**	**-5.5**
SBA	**Scott Base**	**16.41**	**171**	P	**Pn**	**22 59 49.2**	**-4.8**
SBA	**Scott Base**	**16.41**	**171**	P	**Pn**	**22 59 49.3**	**-4.8**
	comp=Z,511nm,1.9s						
APZ	**The Paps**	**16.90**	**32**	P	**Pn**	**23 00 01.6**	**+1.0**
CCD	**Concordia, Ant**	**17.18**	**207**	P	**Pn**	**23 00 01.2**	**-3.0**
PYZ	**Puysegur Point**	**17.21**	**29**	P	**P**	**23 00 06.9**	**+0.9**
	comp=Z,295nm,1.9s						
PYZ	**Puysegur Point**	**17.21**	**29**		**Pn**	**23 00 03.4**	**-1.1**
PYZ	**Puysegur Point**	**17.21**	**29**	P	**P**	**23 00 05.9**	**-0.1**
SYZ	**Scrubby Hill**	**17.47**	**34**	P	**P**	**23 00 09.6**	**+0.8**
	comp=Z,374nm,2.0s						
SYZ	**Scrubby Hill**	**17.47**	**34**	P	**P**	**23 00 08.6**	**-0.2**
WHZ	**Wether Hill Ro**	**17.77**	**31**		**Pn**	**23 00 10.4**	**-0.9**
WHZ				IAmb	IAmb	23 00 20.0	
	comp=Z,521nm,1.9s						
WHZ	**Wether Hill Ro**	**17.77**	**31**	P	**P**	**23 00 12.8**	**+0.7**
DCZ	**Deep Cove**	**17.98**	**29**	P	**Pn**	**23 00 13.5**	**-0.5**
DCZ	**Deep Cove**	**17.98**	**29**	P	**P**	**23 00 15.9**	**+1.4**
MLZ	**Mavora Lakes**	**18.30**	**31**		**Pn**	**23 00 17.3**	**-0.6**
MLZ	**Mavora Lakes**	**18.30**	**31**	P	**P**	**23 00 20.1**	**+2.0**
WKZ	**Wanaka**	**19.03**	**32**	P	**P**	**23 00 25.6**	**-0.5**
WKZ				IAmb	IAmb	23 00 37.3	
	comp=Z,316nm,1.3s						
WKZ	**Wanaka**	**19.03**	**32**	P	**Pn**	**23 00 26.9**	**+0.1**
ODZ	**Otahua Downs**	**19.26**	**36**	P	**P**	**23 00 28.3**	**-0.2**
ODZ	**Otahua Downs**	**19.26**	**36**	P	**Pn**	**23 00 29.8**	**+0.3**
ODZ	**Otahua Downs**	**19.26**	**36**	⇓P	**Pn**	**23 00 31.0**	**+1.5**
ODZ	**Otahua Downs**	**19.26**	**36**	P	**Pn**	**23 00 30.0**	**+0.5**
	comp=Z,380nm,2.2s						
CASY	**Casey**	**19.52**	**238**		**P**	**23 00 30.8**	**-0.3**
CASY	**Casey**	**19.52**	**238**	P	**Pn**	**23 00 32.7**	**+0.3**
CASY	**Casey**	**19.52**	**238**	⇑P	**Pn**	**23 00 32.4**	**0.0**
CASY	**Casey**	**19.52**	**238**	P	**Pn**	**23 00 32.8**	**+0.3**
	comp=Z,278nm,1.9s						
TAU	**Tasmania Unive**	**19.61**	**343**	P	**Pn**	**23 00 33.3**	**-0.4**
	comp=Z,214nm,1.2s						
TAU	**Tasmania Unive**	**19.61**	**343**	P	**P**	**23 00 31.1**	**-1.3**
TAU				pmax	pmax		
	comp=Z,197nm,1.1s						
TAU	**Tasmania Unive**	**19.61**	**343**		**P**	**23 00 31.1**	**-1.3**
TAU				IAmb	IAmb	23 00 39.7	
	comp=Z,197nm,1.1s						
TAU	**Tasmania Unive**	**19.61**	**343**	P	**Pn**	**23 00 33.7**	**0.0**
TAU	**Tasmania Unive**	**19.61**	**343**	⇑P	**Pn**	**23 00 33.4**	**-0.4**
TAU	**Tasmania Unive**	**19.61**	**343**	P	**P**	**23 00 32.5**	**+0.1**
	comp=Z,212nm,1.2s						
JCZ	**Jackson Bay**	**19.68**	**31**	P	**Pn**	**23 00 36.1**	**+1.4**
	comp=Z,266nm,2.1s						
JCZ	**Jackson Bay**	**19.68**	**31**	P	**Pn**	**23 00 35.3**	**+0.7**
LBZ	**Lake Benmore**	**19.74**	**34**		**P**	**23 00 33.9**	**+0.1**
LBZ				IAmb	IAmb	23 00 40.7	
	comp=Z,546nm,1.7s						
MOO	**Moorlands**	**20.09**	**343**	P	Pn	23 00 40.1	+0.7
	comp=Z,202nm,1.8s						
MOO	**Moorlands**	**20.09**	**343**	P	Pn	23 00 39.1	-0.4
	comp=Z,202nm,1.8s						
MOO	**Moorlands**	**20.09**	**343**	P	Pn	23 00 38.9	-0.5
	comp=Z,202nm,1.8s						
MOO	**Moorlands**	**20.09**	**343**	P	**P**	**23 00 37.8**	**+0.2**
MOO	**Moorlands**	**20.09**	**343**	P	**P**	**23 00 37.9**	**+0.2**
MOO	**Moorlands**	**20.09**	**343**	P	**P**	**23 00 37.8**	**+0.2**
	comp=Z,201nm,1.8s						
FOZ	**Fox Glacier**	**20.44**	**32**	P	**P**	**23 00 40.8**	**-0.6**
FOZ				IAmb	IAmb	23 00 46.7	
	comp=Z,484nm,1.5s						
FOZ				IAMs_20	IAMs_20	23 07 25.2	
	comp=Z,21μm,19.0s						
FOZ	**Fox Glacier**	**20.44**	**32**	P	Pn	23 00 42.9	-0.7
RPZ	**Rata Peaks**	**20.60**	**35**	P	**P**	**23 00 43.7**	**+0.5**
	comp=Z,14nm,0.9s,baz=210,slow=7.5,SNR=15						
RPZ				LR	LR	23 07 24.4	
	comp=Z,5μm,18.4s,baz=179,slow=33						
	comp=Z,14nm,0.9s						
RPZ	**Rata Peaks**	**20.60**	**35**		**P**	**23 00 42.4**	**-0.7**
RPZ				IAmb	IAmb	23 00 55.7	
	comp=Z,405nm,1.9s						
RPZ	**Rata Peaks**	**20.60**	**35**	P	Pn	23 00 45.0	-0.3
WACZ	**Wakanui South**	**20.60**	**37**	P	Pn	23 00 44.8	-0.6
MQZ	**McQueen's Vall**	**21.05**	**38**	P	**P**	**23 00 46.9**	**-1.1**
MQZ				IAmb	IAmb	23 00 53.2	
	comp=Z,400nm,1.5s						
MQZ				IAMs_20	IAMs_20	23 08 09.4	
	comp=Z,25μm,18.0s						
OXZ	**Oxford**	**21.23**	**36**	P	**P**	**23 00 49.9**	**0.0**
OXZ				IAmb	IAmb	23 00 54.2	
	comp=Z,173nm,1.2s						
OXZ				IAMs_20	IAMs_20	23 07 49.0	
	comp=Z,29μm,19.0s						
GLAD	**Gladstone**	**21.42**	**346**	P	**P**	**23 00 53.1**	**+1.1**
	comp=Z,119nm,1.0s						
INZ	**Inchbonnie**	**21.62**	**35**		**P**	**23 00 54.1**	**-0.1**
INZ				IAmb	IAmb	23 01 06.1	
	comp=Z,346nm,1.8s						
AUBRN	**Burnie High Sc**	**21.66**	**341**	P	**P**	**23 00 55.2**	**+0.7**
	comp=Z,178nm,1.1s						
LTZ	**Lake Taylor**	**21.80**	**36**		**P**	**23 00 56.3**	**+0.2**
LTZ				IAmb	IAmb	23 01 03.7	
	comp=Z,277nm,1.5s						
LTZ				IAMs_20	IAMs_20	23 08 50.0	
	comp=Z,20μm,19.0s						
GVZ	**Greta Valley S**	**21.84**	**38**	P	**P**	**23 00 57.3**	**+0.8**
GVZ				IAmb	IAmb	23 01 05.8	
	comp=Z,251nm,1.3s						
GVZ				IAMs_20	IAMs_20	23 09 14.3	
	comp=Z,22μm,18.0s						
KHZ	**Kahutara**	**22.50**	**38**		**P**	**23 01 03.8**	**+0.3**
KHZ				IAmb	IAmb	23 01 15.0	
	comp=Z,271nm,1.6s						
KHZ				IAMs_20	IAMs_20	23 08 49.6	
	comp=Z,27μm,19.0s						
KHZ	**Kahutara**	**22.50**	**38**	⇑P	**P**	**23 01 04.7**	**+1.2**
KHZ	**Kahutara**	**22.50**	**38**	P	**P**	**23 01 04.4**	**+0.9**
	comp=Z,247nm,2.8s						
DSZ	**Denniston Nort**	**22.63**	**34**	P	**P**	**23 01 05.1**	**+0.1**
DSZ	**Denniston Nort**	**22.63**	**34**	P	**P**	**23 01 05.7**	**+0.7**
THZ	**Tophouse**	**22.92**	**36**	P	**P**	**23 01 07.5**	**-0.6**
THZ				IAMs_20	IAMs_20	23 09 02.7	
	comp=Z,27μm,18.0s						
NNZ	**Nelson**	**23.56**	**37**	IAMs_20	IAMs_20	23 09 31.6	
	comp=Z,26μm,19.0s						
QRZ	**Quartz Range**	**23.68**	**35**	IAMs_20	IAMs_20	23 08 51.0	
	comp=Z,20μm,21.0s						
QRZ	**Quartz Range**	**23.68**	**35**	P	**P**	**23 01 14.7**	**-1.0**
BHW	**Baring Head**	**23.81**	**39**	P	**P**	**23 01 17.0**	**0.0**
SNZO	**South Karori**	**23.85**	**39**	IAMs_20	IAMs_20	23 09 42.4	
	comp=Z,22μm,19.0s						
SNZO	**South Karori**	**23.85**	**39**	P	**P**	**23 01 17.6**	**+0.4**
	comp=Z,175nm,2.6s						
MRZ	**Mangatainoka R**	**24.71**	**40**	P	**P**	**23 01 24.1**	**-1.2**
MRZ				IAmb	IAmb	23 01 28.7	
	comp=Z,168nm,1.0s						
BFZ	**Birch Farm**	**24.90**	**41**	IAMs_20	IAMs_20	23 10 24.1	
	comp=Z,24μm,18.0s						
TOO	**Toolangi**	**25.11**	**342**	P	**P**	**23 01 28.4**	**-0.5**
TOO				pmax	pmax		
	comp=Z,140nm,2.0s						
TOO	**Toolangi**	**25.11**	**342**	P	**P**	**23 01 28.4**	**-0.5**
TOO				IAmb	IAmb	23 01 31.8	
	comp=Z,140nm,2.0s						
MILA	**Mila**	**25.19**	**349**	P	**P**	**23 01 29.7**	**0.0**
	comp=Z,33nm,1.1s						
MILA	**Mila**	**25.19**	**349**	P	**P**	**23 01 29.3**	**-0.4**
	comp=Z,33nm,1.1s						
MILA	**Mila**	**25.19**	**349**	P	**P**	**23 01 29.8**	**+0.2**
MILA	**Mila**	**25.19**	**349**	⇑P	**P**	**23 01 30.1**	**+0.5**
AUMTC	**Mt Clear Colle**	**25.33**	**339**	P	**P**	**23 01 32.7**	**+1.9**
	comp=Z,68nm,1.4s						
BRAT	**Ballarat**	**25.38**	**339**	P	**P**	**23 01 32.8**	**+1.6**
	comp=Z,19nm,1.0s						
BKZ	**Black Stump Fm**	**26.36**	**40**	P	**P**	**23 01 40.9**	**+0.7**
	comp=Z,57nm,1.8s						
HIZ	**Hauiti**	**26.48**	**37**	IAMs_20	IAMs_20	23 10 28.0	
	comp=Z,18μm,21.0s						
ARPS	**Mount Arapiles**	**26.51**	**336**	P	**P**	**23 01 42.4**	**+0.9**
	comp=Z,22nm,1.3s						
ARPS	**Mount Arapiles**	**26.51**	**336**	P	**P**	**23 01 41.9**	**+0.4**
	comp=Z,22nm,1.3s						
CNB	**Canberra Magne**	**26.90**	**350**	P	**P**	**23 01 49.7**	**+4.6**
	comp=Z,113nm,1.7s						
CNB	**Canberra Magne**	**26.90**	**350**	P	**P**	**23 01 46.1**	**+1.0**
	comp=Z,113nm,1.7s						
CAN	**Canberra**	**26.93**	**349**	P	**P**	**23 01 47.4**	**+2.1**
	comp=Z,131nm,1.9s						
CAN	**Canberra**	**26.93**	**349**	P	**P**	**23 01 46.1**	**+0.8**
	comp=Z,132nm,1.9s						
CAN	**Canberra**	**26.93**	**349**	P	**P**	**23 01 44.4**	**-0.9**
CAN				pmax	pmax		
	comp=Z,126nm,1.4s						
CAN				MLR	MLR		
	comp=Z,10μm,21.0s						
CAN	**Canberra**	**26.93**	**349**	P	**P**	**23 01 44.4**	**-0.9**
CAN				IAmb	IAmb	23 01 49.8	
	comp=Z,126nm,1.4s						
CAN	**Canberra**	**26.93**	**349**	P	**P**	**23 01 46.2**	**+0.9**
CAN	**Canberra**	**26.93**	**349**	⇓P	**P**	**23 01 46.4**	**+0.9**
CAN	**Canberra**	**26.93**	**349**	P	**P**	**23 01 46.3**	**+0.9**
	comp=Z,86nm,1.9s						
AUMTS	**Mt Stromlo**	**26.93**	**349**	P	**P**	**23 01 46.5**	**+1.2**
	comp=Z,101nm,1.9s						
RTZ	**Ruatahuna**	**27.02**	**40**	IAMs_20	IAMs_20	23 11 31.1	
	comp=Z,14μm,19.0s						
URZ	**Urewera**	**27.38**	**40**	LR	LR	23 12 55.0	
	comp=Z,10μm,18.3s,baz=190,slow=37						
URZ	**Urewera**	**27.38**	**40**	⇑P	**P**	**23 01 51.6**	**+2.2**
URZ	**Urewera**	**27.38**	**40**	P	**P**	**23 01 51.8**	**+2.4**
	comp=Z,88nm,1.1s						
TOZ	**Tahuroa Road**	**27.40**	**37**	IAMs_20	IAMs_20	23 10 57.1	
	comp=Z,16μm,22.0s						
WOLH	**Wollongong Har**	**27.69**	**353**	P	**P**	**23 01 53.9**	**+1.7**
	comp=Z,41nm,1.0s						
QSPA	**South Pole Qui**	**28.13**	**180**	P	**P**	**23 01 56.5**	**+0.5**
	comp=Z,63nm,1.0s,baz=0.3,slow=3.7,SNR=130						
QSPA				LR	LR	23 12 38.2	
	comp=Z,14μm,21.9s,baz=16,slow=35						
	comp=Z,63nm,1.0s						
QSPA	**South Pole Qui**	**28.13**	**180**	P	**P**	**23 01 56.0**	**0.0**
QSPA	**South Pole Qui**	**28.13**	**180**	P	**P**	**23 01 56.7**	**+0.6**
	comp=Z,196nm,1.0s						
RIV	**Riverview**	**28.25**	**353**	P	**P**	**23 01 58.9**	**+1.8**
	comp=Z,106nm,1.2s						
RIV	**Riverview**	**28.25**	**353**	P	**P**	**23 01 58.2**	**+1.0**
	comp=Z,106nm,1.2s						
RIV	**Riverview**	**28.25**	**353**	P	**P**	**23 01 57.9**	**+0.8**
	comp=Z,106nm,1.2s						
SYDH	**Sydney Hard Ro**	**28.34**	**353**	P	**P**	**23 01 59.7**	**+1.7**
	comp=Z,42nm,1.4s						
MXZ	**Matakaoa Point**	**28.39**	**42**	IAMs_20	IAMs_20	23 14 22.6	
	comp=Z,12μm,20.0s						
OUZ	**Omahuta**	**29.24**	**32**	IAMs_20	IAMs_20	23 11 03.9	
	comp=Z,14μm,22.0s						
HTT	**Hallett**	**30.34**	**333**	P	**P**	**23 02 16.1**	**+0.4**
	comp=Z,13nm,0.9s						
HTT	**Hallett**	**30.34**	**333**	P	**P**	**23 02 17.0**	**+1.3**
HTT	**Hallett**	**30.34**	**333**	P	**P**	**23 02 15.6**	**-0.1**
	comp=Z,13nm,0.9s						
HTT	**Hallett**	**30.34**	**333**	P	**P**	**23 02 16.6**	**+0.9**
	comp=Z,33nm,0.9s						
HTT	**Hallett**	**30.34**	**333**	⇓P	**P**	**23 02 16.9**	**+1.2**
CMSA	**Cobar Meteorol**	**31.02**	**345**	P	**P**	**23 02 22.5**	**+0.8**
	comp=Z,48nm,1.0s						
CMSA	**Cobar Meteorol**	**31.02**	**345**	P	**P**	**23 02 22.4**	**+0.7**
	comp=Z,48nm,1.0s						
CMSA	**Cobar Meteorol**	**31.02**	**345**	P	**P**	**23 02 22.4**	**+0.7**
	comp=Z,48nm,1.0s						
CMSA	**Cobar Meteorol**	**31.02**	**345**	P	**P**	**23 02 21.5**	**-0.2**
	comp=Z,48nm,1.0s						
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.5**	**+1.2**
	comp=Z,202nm,1.0s						
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.7**	**+1.4**
	comp=Z,202nm,1.0s						
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.1**	**+0.8**
	comp=Z,202nm,1.0s						
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.4**	**+1.1**
	comp=Z,29nm,0.8s,baz=159,slow=8.1,SNR=37						
STKA				LR	LR	23 11 58.8	
	comp=Z,5μm,20.4s,baz=158,slow=31						
	comp=Z,29nm,0.8s						
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.2**	**+0.9**
	comp=Z,10.0nm,1.0s						
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 23.3**	**-1.0**
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.5**	**+1.2**
STKA	**Stephens Creek**	**31.31**	**338**	P	**P**	**23 02 25.5**	**+1.2**
	comp=Z,202nm,1.0s						
BBOO	**Buckleboo**	**31.59**	**329**	P	**P**	**23 02 27.7**	**+1.0**
	comp=Z,46nm,2.2s						
BBOO	**Buckleboo**	**31.59**	**329**	P	**P**	**23 02 27.1**	**+0.3**
	comp=Z,46nm,2.2s						
BBOO	**Buckleboo**	**31.59**	**329**	P	**P**	**23 02 27.3**	**+0.6**
	comp=Z,46nm,2.2s						
BBOO	**Buckleboo**	**31.59**	**329**	P	**P**	**23 02 25.9**	**-0.8**
BBOO	**Buckleboo**	**31.59**	**329**	P	**P**	**23 02 27.7**	**+1.0**
	comp=Z,46nm,2.2s						
ARMA	**Armidale**	**31.62**	**355**	P	**P**	**23 02 28.5**	**+1.4**
	comp=Z,56nm,1.3s						
ARMA	**Armidale**	**31.62**	**355**	P	**P**	**23 02

baz=148,slow=75,SNR=1366
KMBL Kambalda 37.32 310 P **P** **23 03 16.9 +0.6**
comp=Z,31nm,1.5s
KMBL Kambalda 37.32 310 P **P** **23 03 15.9 -0.4**
comp=Z,31nm,1.5s
AUKUL Kulin High Sch 37.56 304 P **P** **23 03 18.2 -0.2**
comp=Z,50nm,1.8s
NWAO Narrogin (SRO) 37.70 303 LR LR 23 14 54.4
comp=Z,9µm,20.0s,baz=137,slow=30
NWAO Narrogin (SRO) 37.70 303 IAMs_20 IAMs_20 23 14 42.1
comp=Z,8µm,20.0s
GD1S Gladstone Soft 38.19 354 P **P** **23 03 25.3 +1.7**
KLBR Kellerberrin 38.67 304 P **P** **23 03 27.9 +0.1**
comp=Z,83nm,1.0s
KLBR Kellerberrin 38.67 304 P **P** **23 03 27.1 -0.7**
comp=Z,83nm,1.0s
KLBR Kellerberrin 38.67 304 P **P** **23 03 27.6 -0.1**
comp=Z,84nm,1.0s
KLBR Kellerberrin 38.67 304 P **P** **23 03 27.8 +0.1**
comp=Z,84nm,1.0s
BLDU Ballidu 39.95 304 P **P** **23 03 37.8 -0.6**
comp=Z,95nm,1.5s
BLDU Ballidu 39.95 304 P **P** **23 03 37.9 -0.5**
comp=Z,95nm,1.5s
BLDU Ballidu 39.95 304 P **P** **23 03 37.6 -0.8**
comp=Z,95nm,1.5s
BLDU Ballidu 39.95 304 P **P** **23 03 38.0 -0.4**
comp=Z,95nm,1.5s
BLDU Ballidu 39.95 304 P **P** **23 03 38.3 -0.1**
comp=Z,95nm,1.5s
PINNC Pines Island, 40.25 18 P **P** **23 03 42.3 +1.4**
comp=Z,102nm,1.4s
PINNC Pines Island, 40.25 18 P **P** **23 03 40.9 0.0**
PINNC IAmb IAmb 23 03 44.6
comp=Z,266nm,1.7s
BELA Belgrano 2 40.28 177 P **P** **23 03 41.1 +0.4**
BELA IAmb IAmb 23 03 42.6
comp=Z,142nm,1.2s
OUENC Ouen Island, N 40.36 17 P **P** **23 03 42.3 +0.5**
comp=Z,26nm,1.1s
OUENC Ouen Island, N 40.36 17 P **P** **23 03 41.4 -0.4**
NOUC Port Laguerre 40.60 16 P **P** **23 03 43.9 +0.1**
comp=Z,81nm,2.1s
DZM Mont Dzumac 40.65 17 LR LR 23 16 54.7
comp=Z,9µm,21.1s,baz=192,slow=31
YATNC Mamie plateau, 40.72 17 P **P** **23 03 45.2 +0.4**
comp=Z,76nm,2.0s
AS09 Alice Springs 40.83 330 P **P** **23 03 45.7 -0.1**
comp=Z,31nm,0.9s
AS09 Alice Springs 40.83 330 P **P** **23 03 46.5 +0.7**
comp=Z,31nm,0.9s
AS09 Alice Springs 40.83 330 P **P** **23 03 45.4 -0.4**
comp=Z,31nm,0.9s
AS10 Alice Springs 40.84 330 P **P** **23 03 46.3 +0.4**
comp=Z,37nm,0.9s
AS17 Alice Springs 40.85 330 P **P** **23 03 46.0 +0.1**
comp=Z,39nm,1.0s
AS01 Alice Springs 40.86 330 P **P** **23 03 45.7 -0.3**
comp=Z,43nm,1.0s
ASAR Alice Springs 40.87 330 P **P** **23 03 45.5 -0.6**
comp=Z,28nm,0.9s,baz=166,slow=8.6,SNR=134
ASAR PcP **PcP** **23 05 45.8 -0.9**
comp=Z,4.0nm,0.8s,baz=157,slow=3.7,SNR=4.6
comp=Z,28nm,0.9s
ASAR Alice Springs 40.87 330 P **P** **23 03 44.9 -1.2**
AS31 Alice Springs 40.87 330 P **P** **23 03 46.1 0.0**
comp=Z,11nm,0.9s
AS31 Alice Springs 40.87 330 P **P** **23 03 45.2 -0.9**
AS15 Alice Springs 40.90 330 P **P** **23 03 46.4 0.0**
comp=Z,41nm,0.9s
WRKA Warakurna 41.06 322 P **P** **23 03 47.7 +0.1**
comp=Z,22nm,2.1s
WRKA Warakurna 41.06 322 P **P** **23 03 47.2 -0.4**
comp=Z,22nm,2.1s
WRKA Warakurna 41.06 322 P **P** **23 03 47.0 -0.6**
comp=Z,22nm,2.1s
MARNC Mare, Loyalty 41.45 19 P **P** **23 03 51.2 +0.4**
comp=Z,211nm,1.2s
MARNC Mare, Loyalty 41.45 19 P **P** **23 03 50.3 -0.5**
MARNC Mare, Loyalty 41.45 19 ⇓P **P** **23 03 51.1 +0.3**
MORW Morawa 41.59 304 P **P** **23 03 52.2 +0.3**
comp=Z,64nm,1.1s
MORW Morawa 41.59 304 P **P** **23 03 51.8 -0.2**
comp=Z,64nm,1.1s
MORW Morawa 41.59 304 P **P** **23 03 51.7 -0.2**
comp=Z,64nm,1.1s
MORW Morawa 41.59 304 P **P** **23 03 50.4 -1.6**
MORW Morawa 41.59 304 ⇓P **P** **23 03 51.9 0.0**
MORW Morawa 41.59 304 P **P** **23 03 52.2 +0.3**
comp=Z,64nm,1.1s
KOUNC Koumac, New Ca 41.88 13 P **P** **23 03 55.1 +0.7**
comp=Z,172nm,1.5s
KOUNC Koumac, New Ca 41.88 13 P **P** **23 03 54.1 -0.2**
CTA Charters Tower 42.27 348 P **P** **23 03 58.5 +1.0**
comp=Z,24nm,2.6s
CTA Charters Tower 42.27 348 P **P** **23 03 57.5 -0.1**
comp=Z,24nm,2.6s
CTA Charters Tower 42.27 348 LR LR 23 19 00.0
comp=Z,5µm,18.8s,baz=174,slow=33
CTA Charters Tower 42.27 348 P **P** **23 03 57.9 +0.4**
comp=Z,1.8nm,2.6s
CTAO Charters Tower 42.27 348 P **P** **23 03 58.0 +0.4**
comp=Z,22nm,2.6s
CTAO Charters Tower 42.27 348 P **P** **23 03 57.3 -0.3**
CTAO pmax pmax
comp=Z,31nm,0.9s
CTAO MLR MLR
comp=Z,7µm,20.0s
CTAO Charters Tower 42.27 348 P **P** **23 03 57.3 -0.3**
CTAO Charters Tower 42.27 348 IAMs_20 IAMs_20 23 18 18.4
comp=Z,7µm,20.0s
CTAO Charters Tower 42.27 348 ⇑P **P** **23 03 57.6 0.0**
CTAO Charters Tower 42.27 348 P **P** **23 03 57.4 -0.1**
comp=Z,61nm,2.6s
ELIB Princess Elisa 42.30 200 *d*P **P** **23 03 58.0 +0.5**
comp=Z,33nm,1.3s
ELIB *d*PP **PP** **23 05 33.2 -1.8**
comp=Z,50nm,1.4s
ELIB *d*S **S** **23 10 19.3 +1.5**
AUAYR Ayr State High 42.67 350 P **P** **23 04 01.8 +1.1**
comp=Z,205nm,0.6s
QIS Mount Isa 42.72 339 P **P** **23 04 01.1 -0.1**
comp=Z,16nm,1.3s
QIS Mount Isa 42.72 339 P **P** **23 04 00.4 -0.8**
comp=Z,16nm,1.3s
QIS Mount Isa 42.72 339 P **P** **23 04 01.1 -0.1**
comp=Z,16nm,1.3s
QIS Mount Isa 42.72 339 P **P** **23 04 00.6 -0.7**
comp=Z,16nm,1.3s
MEEK Meekatharra 42.80 309 P **P** **23 04 01.3 -0.6**
comp=Z,65nm,1.2s
MEEK Meekatharra 42.80 309 P **P** **23 04 01.2 -0.6**
comp=Z,65nm,1.2s
MEEK Meekatharra 42.80 309 P **P** **23 04 01.4 -0.4**
comp=Z,65nm,1.2s
MEEK Meekatharra 42.80 309 P **P** **23 04 01.5 -0.3**
comp=Z,64nm,1.2s
WR8 Warramunga Arr 44.31 332 P **P** **23 04 12.4 -1.7**
WR6 Warramunga Arr 44.32 332 P **P** **23 04 14.0 -0.1**
WR6 Warramunga Arr 44.32 332 P **P** **23 04 13.1 -1.0**
WR1 Warramunga Arr 44.36 332 P **P** **23 04 14.3 -0.2**
WRA Warramunga Arr 44.36 332 P **P** **23 04 13.6 -0.8**
comp=Z,16nm,0.9s,baz=166,slow=6.9,SNR=84
WRA PcP **PP** **23 05 57.0 -0.8**
comp=Z,7.4nm,1.0s,baz=173,slow=2.9,SNR=4.7
WRA LR LR 23 20 20.8
comp=Z,4µm,20.6s,baz=134,slow=33
comp=Z,16nm,0.9s
WRA Warramunga Arr 44.36 332 P **P** **23 04 13.1 -1.4**
WRAB Tennant Creek 44.37 332 P **P** **23 04 13.5 -1.0**
comp=Z,21nm,2.1s
WRAB Tennant Creek 44.37 332 *i*P **P** **23 04 13.8 -0.7**
WRAB pmax pmax
comp=Z,43nm,1.3s
WRAB Tennant Creek 44.37 332 P **P** **23 04 13.3 -1.2**
WRAB IAmb IAmb 23 04 19.6
comp=Z,58nm,1.2s
WRAB Tennant Creek 44.37 332 P **P** **23 04 13.5 -1.0**
comp=Z,43nm,0.8s
MTSU Mount Surprise 44.41 345 P **P** **23 04 15.7 +0.8**
comp=Z,37nm,1.0s
MTSU Mount Surprise 44.41 345 P **P** **23 04 15.3 +0.4**
comp=Z,37nm,1.0s
MTSU Mount Surprise 44.41 345 P **P** **23 04 15.4 +0.4**
comp=Z,37nm,1.0s
MTSU Mount Surprise 44.41 345 P **P** **23 04 15.3 +0.4**
comp=Z,37nm,1.0s

TROLL Troll, Antarti 44.97 192 ⇑P **P** **23 04 18.9 +0.1**
comp=Z,2µm,0.7s
TROLL ⇑S **S** **23 10 58.3 +1.6**
comp=E,102µm,7.5s
NVL N'lazarevskaya 45.07 196 *e*P **P** **23 04 18.7 -0.8**
NVL *e*S **S** **23 10 57.6 -0.2**
NVL pmax pmax
comp=Z,44nm,0.9s
NVL MLR MLR
comp=Z,4µm,16.0s
SNAA Sanae 45.76 190 ⇑P **P** **23 04 25.2 +0.2**
comp=Z,1µm,1.5s
SNAA ⇓PP **PP** **23 06 19.6 +7.8**
comp=Z,15µm,2.3s
SNAA ⇑S **S** **23 11 12.9 +4.9**
comp=E,41µm,7.1s
SNAA Sanae 45.76 190 P **P** **23 04 25.3 +0.2**
comp=E,54nm,1.2s,baz=176,slow=8.5,SNR=50
SNAA PcP **PcP** **23 06 01.6 -0.8**
comp=E,8.4nm,0.9s,baz=135,slow=1.4,SNR=2.3
SNAA LR LR 23 24 11.0
comp=E,29µm,18.2s,baz=175,slow=37
comp=E,54nm,1.2s
SNAA Sanae 45.76 190 P **P** **23 04 24.9 -0.2**
SNAA Sanae 45.76 190 P **P** **23 04 25.3 +0.2**
comp=Z,99nm,1.9s
PAF Port-aux-Franc 45.96 245 P **P** **23 04 24.9 -1.9**
comp=Z,237nm,1.7s
VNA3 Neumayer Olymp 46.64 187 ⇑P **P** **23 04 31.9 0.0**
comp=Z,54nm,1.0s
VNA3 ⇓PP **PP** **23 06 23.1 +1.9**
comp=Z,16nm,0.8s
VNA3 ⇑S **S** **23 11 25.1 +4.6**
comp=E,2µm,10.6s
VNA3 Neumayer Olymp 46.64 187 P **P** **23 04 32.0 0.0**
comp=Z,130nm,1.3s
SMAI Syowa Sth Ant 46.71 160 P **P** **23 04 32.6 +0.1**
VNA2 Neumayer--Watz 46.82 188 ⇑P **P** **23 04 33.2 -0.2**
comp=Z,28nm,0.8s,baz=150,slow=5.0
VNA2 ⇑PP **PP** **23 06 24.4 +1.4**
comp=Z,686nm,2.0s,baz=158,slow=7.0
VNA2 Neumayer--Watz 46.82 188 P **P** **23 04 33.2 -0.2**
comp=Z,113nm,1.4s
MSVF Nonsavu 47.08 31 LR LR 23 21 42.8
comp=Z,6µm,18.2s,baz=211,slow=33
MSVF Nonsavu 47.08 31 P **P** **23 04 36.6 +0.6**
comp=Z,29nm,1.7s
MSVF Nonsavu 47.08 31 P **P** **23 04 34.6 -1.4**
MSVF pmax pmax
comp=Z,33nm,1.2s
MSVF MLR MLR
comp=Z,6µm,20.0s
MSVF Nonsavu 47.08 31 P **P** **23 04 34.6 -1.4**
MSVF Nonsavu 47.08 31 IAMs_20 IAMs_20 23 20 13.0
comp=Z,6µm,20.0s
VNA1 Neumayer--Stat 47.15 188 ⇑P **P** **23 04 36.1 +0.2**
comp=Z,139nm,1.1s
SANVU Saraoutou 47.27 16 P **P** **23 04 37.0 -0.4**
comp=Z,100nm,1.0s
SANVU Saraoutou 47.27 16 P **P** **23 04 35.8 -1.6**
SANVU Saraoutou 47.27 16 ⇑P **P** **23 04 37.0 -0.4**
SANVU Saraoutou 47.27 16 P **P** **23 04 36.9 -0.5**
comp=Z,100nm,1.0s
MBWA Marble Bar 47.42 313 P **P** **23 04 38.9 +0.4**
comp=Z,47nm,1.6s
MBWA Marble Bar 47.42 313 P **P** **23 04 38.0 -0.6**
comp=Z,47nm,1.6s
MBWA Marble Bar 47.42 313 P **P** **23 04 38.4 -0.1**
comp=Z,27nm,1.6s
MBWA Marble Bar 47.42 313 P **P** **23 04 37.8 -0.8**
MBWA IAmb IAmb 23 04 45.2
comp=Z,85nm,1.4s
MBWA Marble Bar 47.42 313 IAMs_20 IAMs_20 23 20 51.8
comp=Z,7µm,21.0s
MBWA Marble Bar 47.42 313 P **P** **23 04 38.0 -0.6**
comp=Z,47nm,1.6s
FITZ Fitzroy Crossi 48.39 322 P **P** **23 04 45.5 -0.5**
comp=Z,11nm,1.2s
FITZ Fitzroy Crossi 48.39 322 P **P** **23 04 45.6 -0.5**
comp=Z,11nm,1.2s
FITZ Fitzroy Crossi 48.39 322 LR LR 23 23 58.1
comp=Z,5µm,18.2s,baz=167,slow=35
FITZ Fitzroy Crossi 48.39 322 P **P** **23 04 46.0 -0.1**
comp=Z,113nm,1.2s
FITZ Fitzroy Crossi 48.39 322 P **P** **23 04 45.4 -0.6**
FITZ Fitzroy Crossi 48.39 322 P **P** **23 04 46.8 +0.7**
comp=Z,11nm,1.2s
KNRA Kununurra 49.82 326 P **P** **23 04 57.1 0.0**
comp=Z,25nm,1.6s
KNRA Kununurra 49.82 326 P **P** **23 04 57.2 +0.2**
comp=Z,25nm,1.6s
KNRA Kununurra 49.82 326 P **P** **23 04 56.6 -0.4**
comp=Z,25nm,1.6s
KNRA Kununurra 49.82 326 P **P** **23 04 55.8 -1.2**
PMSA Palmer Station 50.29 159 LR LR 23 25 27.0
comp=Z,3µm,18.1s,baz=211,slow=35
PMSA Palmer Station 50.29 159 IAMs_20 IAMs_20 23 24 42.1
comp=Z,4µm,18.0s
RAR Rarotonga 51.16 58 LR LR 23 23 50.2
comp=Z,883nm,19.3s,baz=205,slow=33
FUTU Fugatoga 51.33 34 P **P** **23 05 07.2 -1.2**
FUTU IAmb IAmb 23 05 08.5
comp=Z,96nm,1.1s
FUTU Fugatoga 51.33 34 P **P** **23 05 06.2 -2.2**
comp=Z,103nm,2.1s
KDU Kakadu 51.80 332 P **P** **23 05 12.1 +0.2**
comp=Z,21nm,1.6s
KDU Kakadu 51.80 332 P **P** **23 05 11.4 -0.5**
comp=Z,21nm,1.0s
MTN Manton Dam 51.95 330 P **P** **23 05 13.2 +0.1**
comp=Z,30nm,1.0s
MTN Manton Dam 51.95 330 P **P** **23 05 12.1 -1.0**
comp=Z,30nm,1.0s
MTN Manton Dam 51.95 330 P **P** **23 05 12.2 -0.9**
HNR Honiara 52.56 6 LR LR 23 22 23.0
comp=Z,8µm,22.0s,baz=272,slow=30
HNR Honiara 52.56 6 P **P** **23 05 16.9 -0.7**
HNR pmax pmax
comp=Z,106nm,1.0s
HNR MLR MLR
comp=Z,9µm,22.0s
HNR Honiara 52.56 6 P **P** **23 05 16.9 -0.7**
HNR Honiara 52.56 6 IAMs_20 IAMs_20 23 22 10.7
comp=Z,9µm,22.0s
HNR Honiara 52.56 6 P **P** **23 05 17.6 0.0**
comp=Z,148nm,1.0s
PMG Port Moresby 52.77 350 LR LR 23 24 48.2
comp=Z,5µm,18.9s,baz=165,slow=33
PMG Port Moresby 52.77 350 P **P** **23 05 20.4 +1.3**
comp=Z,64nm,2.5s
PMG Port Moresby 52.77 350 P **P** **23 05 18.7 -0.5**
PMG pmax pmax
comp=Z,55nm,1.1s
PMG MLR MLR
comp=Z,6µm,21.0s
PMG Port Moresby 52.77 350 P **P** **23 05 18.6 -0.5**
PMG IAmb IAmb 23 05 20.9
comp=Z,55nm,1.1s
PMG Port Moresby 52.77 350 IAMs_20 IAMs_20 23 22 52.5
comp=Z,6µm,21.0s
PMG Port Moresby 52.77 350 P **P** **23 05 19.0 -0.1**
comp=Z,64nm,2.5s
SAVO Savo Central 52.83 6 P **P** **23 05 20.0 +0.3**
comp=Z,70nm,1.4s
AFI Afiamalu 53.55 41 LR LR 23 27 44.3
comp=Z,1µm,19.4s,baz=207,slow=36
TATA Tatamba Isabel 53.59 6 P **P** **23 05 25.9 +0.7**
comp=Z,40nm,1.4s
BATI Baumata 56.45 322 LR LR 23 27 56.2
comp=Z,4µm,21.4s,baz=198,slow=34
SAUI Saumlaki 56.61 332 P **P** **23 05 46.4 -0.6**
SAUI IAMs_20 IAMs_20 23 26 47.5
comp=Z,4µm,18.0s
SOEI Soe 56.70 323 P **P** **23 05 48.5 +0.7**
comp=Z,50nm,1.1s
SOEI Soe 56.70 323 P **P** **23 05 47.1 -0.7**
SOEI IAMs_20 IAMs_20 23 31 03.0
comp=Z,4µm,19.0s
SOEI Soe 56.70 323 P **P** **23 05 50.1 +2.2**
comp=Z,51nm,1.1s
KRVT Keravat (AS076 57.56 357 LR LR 23 26 29.3
comp=Z,963nm,21.3s,baz=166,slow=32
MMRI Maumere 58.35 321 P **P** **23 06 00.1 +0.8**
comp=Z,29nm,0.5s
MMRI Maumere 58.35 321 P **P** **23 05 57.9 -1.4**
MMRI IAmb IAmb 23 06 30.3
comp=Z,58nm,0.9s

MMRI Maumere 58.35 321 P **P** **23 05 59.4 0.0**
comp=Z,29nm,0.5s
PPT2 Papeete2 58.66 67 *e*S **S** **23 14 04.4 -1.5**
comp=Z,2µm,29.0s
PPT2 *e*SS **SS** **23 18 00.1 +1.5**
comp=Z,2µm,27.8s
PPT2 *e*LQ LQ 23 20 38.8
comp=Z,4µm,26.2s
PPT2 *e*LR LR 23 22 59.5
comp=Z,5µm,27.2s
PPT2 *e*LR LR 23 23 06.8
comp=Z,4µm,28.5s
PPT Papeete 58.68 67 LR LR 23 26 30.1
comp=Z,2µm,19.0s,baz=208,slow=31
PLAI Plampang 59.57 316 P **P** **23 06 07.1 -0.6**
comp=Z,42nm,1.9s
DBNI Kabupaten Domp 59.70 317 P **P** **23 06 08.2 -0.5**
comp=Z,23nm,1.4s
JAY Jayapura 60.26 344 LR LR 23 30 09.8
comp=Z,3µm,20.6s,baz=137,slow=34
RKT Rikitea 60.51 84 *e*S **S** **23 14 29.2 -0.4**
comp=Z,18µm,29.8s
RKT *e*LQ LQ 23 21 19.4
comp=Z,5µm,24.8s
RKT *e*LR LR 23 23 58.4
comp=Z,20µm,28.2s
FAKI Fak Fak 61.31 334 P **P** **23 06 20.3 +0.7**
comp=Z,66nm,0.9s
FAKI Fak Fak 61.31 334 P **P** **23 06 18.8 -0.8**
FAKI Fak Fak 61.31 334 ⇑P **P** **23 06 20.0 +0.3**
FAKI Fak Fak 61.31 334 P **P** **23 06 20.4 +0.7**
comp=Z,66nm,0.9s
BKSI Bulukumba 62.13 320 P **P** **23 06 23.4 -1.8**
comp=Z,19nm,1.4s
KAPI Kappang 62.53 320 LR LR 23 31 02.2
comp=Z,3µm,20.7s,baz=166,slow=34
KAPI Kappang 62.53 320 P **P** **23 06 28.8 +0.9**
comp=Z,14nm,1.2s
KAPI Kappang 62.53 320 *i*P **P** **23 06 27.4 -0.5**
KAPI pmax pmax
comp=Z,19nm,1.1s
KAPI Kappang 62.53 320 P **P** **23 06 27.3 -0.6**
KAPI IAmb IAmb 23 07 08.2
comp=Z,43nm,1.3s
KAPI Kappang 62.53 320 P **P** **23 06 27.7 -0.2**
comp=Z,28nm,1.2s
UGM Wanagama 62.94 309 IAMs_20 IAMs_20 23 30 11.6
comp=Z,3µm,19.0s
SANI Sanana 63.61 327 P **P** **23 06 35.9 +0.9**
comp=Z,28nm,1.1s
SANI Sanana 63.61 327 P **P** **23 06 34.1 -0.9**
comp=Z,28nm,1.1s
BBJI Bungbulang 64.43 306 P **P** **23 06 39.9 -0.7**
BBJI Bungbulang 64.43 306 P **P** **23 06 39.5 -1.1**
comp=Z,13nm,1.3s
TARA Tarawa 64.62 20 IAMs_20 IAMs_20 23 29 54.0
comp=Z,4µm,20.0s
LEM Lembang 65.03 306 LR LR 23 30 18.4
comp=Z,2µm,21.5s,baz=150,slow=32
LUWI Luwuk 65.43 324 P **P** **23 06 46.6 -0.3**
CGJI Cibinong 65.97 305 P **P** **23 06 50.5 +0.1**
comp=Z,43nm,1.7s
TOLI2 Tolitoli 68.04 323 P **P** **23 07 03.4 -0.2**
TOLI2 IAmb IAmb 23 07 08.1
comp=Z,64nm,1.9s
GO07 Milladeo Hill, 68.20 144 IAMs_20 IAMs_20 23 30 13.6
comp=Z,5µm,21.0s
LL02 Futaleuf 68.63 145 P **P** **23 07 07.6 +0.6**
LL02 IAmb IAmb 23 07 14.2
comp=Z,76nm,1.9s
RPN Rapa Nui 69.04 108 LR LR 23 31 08.0
comp=Z,830nm,21.9s,baz=210,slow=30
PMBI Palembang 69.69 305 IAMs_20 IAMs_20 23 32 04.9
comp=Z,3µm,21.0s
LL03 Petrohue 70.38 144 P **P** **23 07 17.8 0.0**
TAOE Nuku Hiva Isla 70.56 72 *e*S **S** **23 16 32.6 -0.3**
comp=Z,178nm,23.5s
TAOE *e*SS **SS** **23 21 03.2 -0.9**
comp=Z,266nm,27.8s
TAOE *e*LQ LQ 23 25 26.6
comp=Z,7µm,27.2s
TAOE *e*LR LR 23 28 31.0
comp=Z,2µm,27.4s
PLCA Paso Flores 71.27 145 P **P** **23 07 24.1 +0.7**
comp=Z,4.9nm,0.8s,baz=215,slow=6.3,SNR=8.3
PLCA LR LR 23 32 19.6
comp=Z,2µm,20.6s,baz=205,slow=30
comp=Z,4.9nm,0.8s
PLCA Paso Flores 71.27 145 P **P** **23 07 23.3 0.0**
PLCA Paso Flores 71.27 145 P **P** **23 07 24.3 +0.9**
comp=Z,23nm,2.8s
BI02 San Fabin de 74.87 143 P **P** **23 07 46.9 +2.2**
comp=Z,22nm,1.2s
H03S2 Juan Fernandez 75.14 136 T T 00 30 52.0
baz=201,slow=74
H03S1 Juan Fernandez 75.14 136 T T 00 30 53.3
baz=201,slow=74
H03S3 Juan Fernandez 75.15 136 T T 00 30 54.8
baz=201,slow=74
H03N2 Juan Fernandez 75.50 136 T T 00 31 12.5
baz=80,slow=74,SNR=201
H03N1 Juan Fernandez 75.50 136 T T 00 31 10.3
baz=182,slow=74,SNR=52
GUMO Guam 75.72 350 LR LR 23 38 30.0
comp=Z,695nm,20.1s,baz=178,slow=34
FOMA Nahampoana Res 76.24 243 IAMs_20 IAMs_20 23 36 36.0
comp=Z,2µm,20.0s
GSI Gunungsitoli 76.42 300 P **P** **23 07 53.4 -0.2**
GSI IAmb IAmb 23 08 23.3
comp=Z,57nm,1.2s
BO02 Sierra Bellavi 76.76 143 P **P** **23 07 55.6 0.0**
BO02 IAmb IAmb 23 08 09.6
comp=Z,32nm,1.0s
BO02 Sierra Bellavi 76.76 143 P **P** **23 07 56.0 +0.5**
comp=Z,30nm,1.0s
BO01 Tunca 77.05 142 P **P** **23 07 56.8 -0.3**
BO01 IAmb IAmb 23 08 13.5
comp=Z,29nm,1.1s
BO01 Tunca 77.05 142 P **P** **23 07 57.6 +0.6**
comp=Z,28nm,1.1s
RPSI Rantau Prapat 77.13 302 P **P** **23 07 56.4 -1.3**
RPSI Rantau Prapat 77.13 302 P **P** **23 07 56.2 -1.4**
comp=Z,12nm,0.8s
PSI Prapat 77.23 302 P **P** **23 07 57.9 -0.5**
comp=Z,13nm,0.8s
PSI Prapat 77.23 302 P **P** **23 07 56.4 -2.0**
PSI pmax pmax
comp=Z,14nm,1.1s
PSI MLR MLR
comp=Z,1µm,19.0s
BO04 La Punta 77.56 143 P **P** **23 07 59.9 -0.1**
BO04 IAmb IAmb 23 08 13.4
comp=Z,50nm,1.1s
MT13 San Alfonso 77.88 143 P **P** **23 08 01.3 -0.6**
MT13 IAmb IAmb 23 08 16.9
comp=Z,34nm,1.0s
IPM Ipoh 77.93 305 P **P** **23 08 02.6 +0.4**
comp=Z,11nm,1.2s
VA03 San Esteban 78.72 142 P **P** **23 08 06.3 -0.3**
VA03 IAmb IAmb 23 08 18.7
comp=Z,64nm,1.2s
VA03 San Esteban 78.72 142 P **P** **23 08 09.2 +2.7**
comp=Z,48nm,1.2s
KULM Kulim 78.82 304 P **P** **23 08 07.3 +0.2**
comp=Z,43nm,1.2s
KULM Kulim 78.82 304 P **P** **23 08 05.8 -1.2**
KULM IAmb IAmb 23 08 21.6
comp=Z,42nm,1.0s
KULM Kulim 78.82 304 ⇑P **P** **23 08 07.2 +0.2**
KULM Kulim 78.82 304 P **P** **23 08 07.2 +0.2**
comp=Z,43nm,1.2s
SUR Sutherland 78.97 218 LR LR 23 40 15.7
comp=Z,3µm,21.4s,baz=161,slow=34
SUR Sutherland 78.97 218 IAMs_20 IAMs_20 23 39 35.0
comp=Z,3µm,20.0s
H08S2 Diego Garcia H 79.74 273 T T 00 36 20.7
baz=151,slow=76,SNR=98
H08S1 Diego Carcia H 79.75 273 T T 00 36 32.5
baz=151,slow=76,SNR=103
H08S3 Diego Garcia H 79.76 273 T T 00 36 11.3
baz=151,slow=76,SNR=270
CFA Coronel Fontan 80.47 144 P **P** **23 08 16.1 +0.1**
comp=Z,5.3nm,0.8s,baz=199,slow=5.1,SNR=5.7
CFA LR LR 23 38 18.5
comp=Z,502nm,19.2s,baz=184,slow=32
comp=Z,5.3nm,0.8s
ALKP Alkanpan, Nort 80.82 220 P **P** **23 08 18.1 +0.1**

ALKP IAmb IAmb 23 08 34.6
comp=Z,140nm,1.9s
BOSA Boshof 81.11 223 P **P** **23 08 19.1 -0.4**
comp=Z,14nm,1.1s,baz=163,slow=3.3,SNR=8.7
BOSA LR LR 23 43 32.4
comp=Z,2µm,18.0s,baz=158,slow=35
comp=Z,14nm,1.1s
BOSA Boshof 81.11 223 P **P** **23 08 19.3 -0.2**
BOSA pmax pmax
comp=Z,28nm,1.1s
BOSA Boshof 81.11 223 P **P** **23 08 19.3 -0.2**
BOSA Boshof 81.11 223 P **P** **23 08 21.2 +1.7**
comp=Z,31nm,1.9s
JOHN Johnston Islan 83.32 34 P **P** **23 08 31.9 +1.0**
comp=Z,240nm,1.1s
MAKGR Makgori 83.85 224 P **P** **23 08 33.1 -0.8**
LBTB Lobatse 84.33 225 P **P** **23 08 35.7 -0.6**
LBTB pmax pmax
comp=Z,22nm,1.1s
LBTB Lobatse 84.33 225 P **P** **23 08 35.7 -0.6**
LBTB IAmb IAmb 23 08 46.1
comp=Z,22nm,1.1s
CPSB Cacapava Do Su 85.14 156 P **P** **23 08 39.9 -0.3**
KDWAN Kaudwane 86.15 225 P **P** **23 08 44.9 -0.6**
KDWAN IAmb IAmb 23 08 56.2
comp=Z,39nm,1.1s
LKGWB Lokgwabe 86.58 221 P **P** **23 08 46.1 -1.5**
KOOLE Kule 87.95 221 P **P** **23 08 53.9 -0.4**
KOOLE IAmb IAmb 23 09 08.9
comp=Z,22nm,1.1s
SALTA 87.97 143 P **P** **23 08 56.3 +1.5**
comp=Z,21nm,1.3s
CPUP Villa Florida 88.27 151 P **P** **23 08 55.3 -0.2**
comp=Z,3.1nm,0.9s,baz=181,slow=6.2,SNR=6.0
CPUP LR LR 23 46 29.6
comp=Z,929nm,18.7s,baz=205,slow=34
comp=Z,3.1nm,0.9s
CPUP Villa Florida 88.27 151 P **P** **23 08 55.3 -0.2**
CPUP IAmb IAmb 23 09 13.3
comp=Z,27nm,1.5s
QIZ Qiongzhong 88.28 318 P **P** **23 08 55.3 -0.1**
QIZ PP **PP** **23 12 21.0 -2.1**
QIZ S **S** **23 19 42.8 +2.8**
QIZ SS **SS** **23 25 28.5 -1.4**
QIZ L L
comp=Z,1µm,22.0s
QIZ L L
comp=Z,2µm,24.7s
QIZ L L
comp=Z,1µm,34.3s
AF01 San Pedro de A 88.64 141 P **P** **23 08 57.3 -0.4**
PALK Pallekele 89.05 287 LR LR 23 41 48.6
comp=Z,2µm,19.7s,baz=146,slow=31
PALK Pallekele 89.05 287 IAMs_20 IAMs_20 23 41 57.0
comp=Z,2µm,19.0s
GRTLG Ghanzi 89.16 222 P **P** **23 08 59.5 -0.5**
GRTLG IAmb IAmb 23 09 22.2
comp=Z,38nm,1.4s
PB07 IPOC Station P 89.27 139 P **P** **23 08 59.9 -0.7**
PB07 IAmb IAmb 23 09 05.9
comp=Z,41nm,1.1s
PB07 IPOC Station P 89.27 139 P **P** **23 09 01.8 +1.3**
comp=Z,46nm,2.5s
WIN Windhoek 89.28 218 P **P** **23 08 59.9 -0.7**
WIN pmax pmax
comp=Z,23nm,1.1s
WIN MLR MLR
comp=Z,4µm,19.0s
WIN Windhoek 89.28 218 P **P** **23 08 59.9 -0.7**
WIN IAmb IAmb 23 09 15.3
comp=Z,23nm,1.1s
JCJ Chichijima 89.34 349 LR LR 23 43 18.7
comp=Z,860nm,22.0s,baz=156,slow=32
MSEY Mahe Island 90.35 259 IAMs_20 IAMs_20 23 40 29.0
comp=Z,2µm,19.0s
PB08 IPOC Station P 90.99 139 P **P** **23 09 08.9 +0.1**
PB08 IPOC Station P 90.99 139 P **P** **23 09 10.3 +1.5**
comp=Z,16nm,1.2s
JOW Kunigami 91.05 336 LR LR 23 48 08.7
comp=Z,1µm,20.9s,baz=165,slow=34
PB11 IPOC Station P 91.19 139 **P** **23 09 09.9 +0.5**
PB11 IAmb IAmb 23 09 27.5
comp=Z,31nm,1.0s
PB11 IPOC Station P 91.19 139 P **P** **23 09 11.9 +2.4**
comp=Z,32nm,1.0s
GO01 Chusmiza 91.42 139 P **P** **23 09 10.8 -0.1**
GO01 IAmb IAmb 23 09 17.7
comp=Z,22nm,1.1s
GO01 Chusmiza 91.42 139 P **P** **23 09 12.2 +1.3**
comp=Z,18nm,1.8s
CMAR Chiang Mai Arr 91.52 308 P **P** **23 09 09.5 -1.1**
comp=Z,0.7nm,0.3s,baz=163,slow=3.2,SNR=4.4
CMAR LR LR 23 48 13.0
comp=Z,522nm,19.2s,baz=170,slow=34
comp=Z,0.7nm,0.3s
CMAR Chiang Mai Arr 91.52 308 P **P** **23 09 10.7 +0.1**
CMAR Chiang Mai Arr 91.52 308 P **P** **23 09 10.7 +0.1**
CHTO Chiang Mai 91.84 308 P **P** **23 09 12.9 +0.8**
comp=Z,6.1nm,1.6s
CHTO Chiang Mai 91.84 308 P **P** **23 09 11.8 -0.3**
CHTO pmax pmax
comp=Z,15nm,1.3s
CHTO MLR MLR
comp=Z,800nm,19.0s
CHTO Chiang Mai 91.84 308 P **P** **23 09 11.8 -0.3**
CHTO Chiang Mai 91.84 308 P **P** **23 09 13.3 +1.2**
comp=Z,10nm,1.6s
HMDM Hanimaadhoo 92.06 280 IAMs_20 IAMs_20 23 41 28.8
comp=Z,2µm,20.0s
TSUM Tsumeb 92.31 220 LR LR 23 48 45.5
comp=Z,4µm,20.3s,baz=162,slow=34
LSZ Lusaka 92.41 231 LR LR 23 45 29.1
comp=Z,1µm,21.1s,baz=160,slow=32
LSZ Lusaka 92.41 231 IAMs_20 IAMs_20 23 49 21.2
comp=Z,2µm,19.0s
PB16 IPOC Station P 92.57 138 P **P** **23 09 16.3 -0.1**
PB16 IAmb IAmb 23 09 45.2
comp=Z,21nm,1.3s
PB16 IPOC Station P 92.57 138 P **P** **23 09 17.9 +1.6**
comp=Z,14nm,2.0s
LPAZ La Paz 94.93 139 P **P** **23 09 27.6 +0.3**
comp=Z,4.9nm,0.8s,baz=196,slow=3.8,SNR=15
LPAZ LR LR 23 44 27.7
comp=Z,610nm,20.9s,baz=158,slow=31
comp=Z,4.9nm,0.8s
LPAZ La Paz 94.93 139 P **P** **23 09 26.2 -1.1**
LPAZ IAmb IAmb 23 09 50.5
comp=Z,33nm,1.9s
LPAZ La Paz 94.93 139 P **P** **23 09 28.4 +1.1**
comp=Z,8.5nm,0.9s
JHJ Hachijo jima 2 95.54 347 LR LR 23 48 46.4
comp=Z,124nm,21.4s,baz=155,slow=33
NNA Nana 95.98 129 LR LR 23 43 34.0
comp=Z,2µm,20.8s,baz=202,slow=30
NNA Nana 95.98 129 IAMs_20 IAMs_20 23 43 12.2
comp=Z,2µm,22.0s
GYA Guiyang 96.23 318 ⇑P **P** **23 09 36.3 +4.1**
GYA PP **PP** **23 13 30.3 +4.4**
GYA S **S** **23 20 54.5 +3.0**
GYA L L
comp=Z,1µm,20.9s
GYA L L
comp=Z,360nm,10.7s
SSE Sheshan 96.66 331 P **P** **23 09 33.0 -0.8**
SSE S **S** **23 20 49.3 -5.3**
SSE SS **SS** **23 27 33.3 +3.3**
SSE pmax pmax
comp=Z,11nm,0.9s
SSE L L
comp=Z,320nm,17.8s
SIV San Ignacio 97.26 145 P **P** **23 09 36.9 -0.3**
comp=Z,0.5nm,0.4s,baz=244,slow=11,SNR=4.1
comp=Z,0.5nm,0.4s
TNCH TengChong 97.68 310 *e*P Pdif 23 09 41.3 +2.3
TNCH PP **PP** **23 13 36.5 -0.6**
TNCH SKS **SKSac** **23 20 20.0 +3.8**
TNCH S **S** **23 21 01.8 -2.4**
TNCH L L
comp=Z,640nm,21.1s
TNCH L L
comp=Z,740nm,24.0s
TNCH L L
comp=Z,3µm,36.0s
WHN Wuhan 97.82 325 P **P** **23 09 34.5 -4.6**
WHN LR LR
comp=Z,3µm,22.7s

NJ2 Nanjing 98.11 330 *e*P Pdif 23 09 42.0 +1.6
NJ2 pmax pmax
comp=Z,7.0nm,0.5s
BRDH Bariadhala 98.15 304 LR LR 23 53 36.0
comp=Z,653nm,18.9s,baz=166,slow=35
MJAR Matsushiro Arr 99.09 346 LR LR 23 51 04.3
comp=Z,660nm,21.8s,baz=160,slow=33
ATAH Atahualpa 99.86 126 LR LR 23 46 12.3
comp=Z,700nm,19.8s,baz=210,slow=30
PAYG Puerto Ayora 100.82 112 IAMs_20 IAMs_20 23 45 47.3
comp=Z,2µm,22.0s
CD2 Chengdu 101.30 317 P **Pdif** **23 09 56.8 +2.1**
CD2 S 23 21 32.8
CD2 SS **SS** **23 28 36.5 +1.3**
CD2 L L
comp=Z,1µm,18.6s
CD2 L L
comp=Z,1µm,20.1s
CD2 L L
comp=Z,2µm,23.0s
XAN Xi'an 102.62 322 *e*P **Pdif** **23 10 06.3 +5.8**
XAN SS SS 23 28 52.3 -1.2
XAN L L
comp=Z,1µm,20.6s
XAN L L
comp=Z,520nm,23.4s
XAN L L
comp=Z,2µm,20.6s
ERM Erimo 104.06 351 IAMs_20 IAMs_20 23 51 15.5
comp=Z,2µm,20.0s
MBAR Mbarara 104.86 239 IAMs_20 IAMs_20 23 55 07.4
comp=Z,1µm,20.0s
CN2 Changchun 108.06 338 Pdif **Pdif** **23 10 26.3 +1.9**
CN2 *e*PP **PP** **23 15 00.8 +6.3**
CN2 SS SS 23 30 10.0 +2.5
CN2 PPMZ
comp=Z,100nm,8.0s
CN2 L L
comp=Z,100nm,19.0s
CN2 L L
comp=Z,100nm,19.0s
CN2 L L
comp=Z,200nm,18.0s
BTO2 Baotou 108.62 325 Pdif **Pdif** **23 10 29.5 +2.3**
YSS Yuzhno-Sakhali 109.00 351 IAMs_20 IAMs_20 23 56 17.4
comp=Z,1µm,21.0s
FURI Furi 110.00 251 IAMs_20 IAMs_20 23 54 41.6
comp=Z,1µm,20.0s
RCBR Riachuelo 111.89 168 IAMs_20 IAMs_20 00 01 41.8
comp=Z,1µm,19.0s
KLR Kul'dur 112.38 344 *i* PKIKP **PKiKP** **23 14 38.9 -0.1**
JTS Las Juntas de 112.94 112 IAMs_20 IAMs_20 23 51 53.5
comp=Z,2µm,20.0s
HDC Heredia 113.04 113 IAMs_20 IAMs_20 23 51 31.9
comp=Z,2µm,20.0s
HIA Hailar 114.39 336 IAMs_20 IAMs_20 00 01 27.8
comp=Z,776nm,21.0s
BOAB BOACO BROADBAND 114.54 111 IAMs_20 IAMs_20 23 54 27.0
comp=Z,1µm,20.0s
NIL Nilore 115.41 294 IAMs_20 IAMs_20 23 58 29.5
comp=Z,1µm,20.0s
UOSS Minazif 115.77 275 IAMs_20 IAMs_20 23 52 47.9
comp=Z,1µm,21.0s
ULN Ulaanbaatar 115.99 326 *i* PKIKP **PKiKP** **23 14 46.8 +0.6**
SONM Songino Array 116.13 326 PKP **PKiKP** **23 14 47.2 +0.8**
comp=Z,0.3nm,0.8s,baz=102,slow=3.4,SNR=3.6
SDV Santo Domingo 117.52 127 IAMs_20 IAMs_20 23 56 38.7
comp=Z,1µm,20.0s
KBL Kabul 118.00 291 PKIKP **PKPdf** **23 14 50.2 -0.4**
KBL Kabul 118.00 291 PKPdf **PKPdf** **23 14 50.2 -0.4**
PASC Pasadena Art C 118.12 70 IAMs_20 IAMs_20 23 54 49.8
comp=Z,2µm,20.0s
WMQ Urumqi 118.41 311 PKP **PKiKP** **23 14 55.5 +4.6**
WMQ PP **PP** **23 16 07.5 -0.8**
WMQ PKS **PKSdf** **23 18 25.3 -2.1**
WMQ SKS **SKSdf** **23 22 01.0 -1.4**
WMQ SS **SS** **23 32 24.8 +0.1**
WMQ PPMZ
comp=Z,220nm,6.7s
WMQ L L
comp=Z,630nm,24.1s
WMQ L L
comp=Z,490nm,19.9s
WMQ L L
comp=Z,860nm,24.0s
GLA Glamis 118.69 73 IAMs_20 IAMs_20 00 02 57.7
comp=Z,1µm,19.0s
KSH2 Kashi 119.10 299 PKP **PKiKP** **23 14 56.5 +4.0**
KSH2 L L
comp=Z,470nm,15.1s
KSH2 L L
comp=Z,530nm,17.2s
KSH2 L L
comp=Z,1µm,21.3s
VES Vestal, Richgr 119.13 68 IAMs_20 IAMs_20 23 53 03.4
comp=Z,1µm,21.0s
KARE Kearney REC, C 119.58 67 IAMs_20 IAMs_20 00 04 51.9
comp=Z,1µm,19.0s
RAYN Ar Rayn 119.61 265 IAMs_20 IAMs_20 23 57 53.5
comp=Z,2µm,20.0s
HELL Mitchell Peak, 119.86 68 IAMs_20 IAMs_20 23 56 01.3
comp=Z,2µm,19.0s
MPMC Manual Prospec 120.02 69 IAMs_20 IAMs_20 00 02 30.9
comp=Z,1µm,19.0s
CWC Cottonwood Cre 120.08 69 IAMs_20 IAMs_20 23 55 44.4
comp=Z,2µm,19.0s
TARG Taragay, Kyrgy 120.37 302 PKIKP **PKPdf** **23 14 54.8 -0.3**
TARG Taragay, Kyrgy 120.37 302 **PKPdf** **23 14 54.8 -0.3**
SHOC Shoshone, Teco 120.42 70 IAMs_20 IAMs_20 23 55 16.6
comp=Z,1µm,22.0s
TIN Tinemaha, Big 120.52 68 IAMs_20 IAMs_20 23 57 58.2
comp=Z,2µm,20.0s
WELL Weller Preserv 120.60 65 IAMs_20 IAMs_20 23 54 16.2
comp=Z,1µm,19.0s
TXAR Lajitas Array 120.74 85 PKP **PKiKP** **23 14 57.8 +1.9**
comp=Z,0.8nm,1.0s,baz=186,slow=5.9,SNR=4.5
SHLS Shalkode 120.93 304 *e*PKIKP **PKiKP** **23 14 56.1 +0.2**
SHLS Shalkode 120.93 304 *e*PKP **PKiKP** **23 14 56.2 +0.2**
UZB Uzynbulak 121.09 304 *e*PKIKP **PKiKP** **23 14 56.8 +0.6**
UZB Uzynbulak 121.09 304 *e*PKP **PKiKP** **23 14 56.9 +0.6**
SATY Saty 121.26 304 *e*PKIKP **PKiKP** **23 14 57.1 +0.6**
SATY Saty 121.26 304 *e*PKP **PKiKP** **23 14 57.1 +0.6**
KPKS Kokpek 121.49 304 *e*PKIKP **PKiKP** **23 14 57.5 +0.5**
KPKS Kokpek 121.49 304 *e*PKP **PKiKP** **23 14 57.5 +0.5**
NVAR Mina Array Bea 121.64 67 PKP **PKiKP** **23 14 58.3 +0.7**
comp=Z,1.2nm,0.7s,baz=211,slow=6.4,SNR=4.1
NVAR Mina Array Bea 121.64 67 **PKPdf** **23 14 57.5 0.0**
TNSS Tian-Shan 121.82 302 *e*PKIKP **PKPdf** **23 14 58.1 +0.2**
TNSS Tian-Shan 121.82 302 *e*PKP **PKPdf** **23 14 58.1 +0.2**
BTK Batken 121.86 296 PKIKP **PKPdf** **23 14 57.8 +0.1**
BTK Batken 121.86 296 **PKPdf** **23 14 57.8 +0.1**
MDOK Medeo 121.88 303 *e*PKIKP **PKiKP** **23 14 58.2 +0.4**
MDOK Medeo 121.88 303 *e*PKP **PKiKP** **23 14 58.3 +0.4**
AAK Ala-Archa 122.47 300 *i* PKIKP **PKiKP** **23 15 00.5 +1.5**
ZSN Zaisan 122.54 311 *e*PKIKP **PKiKP** **23 14 59.5 +0.7**
ZSN *e* 23 16 35.9
ZSN Zaisan 122.54 311 *e*PKP **PKiKP** **23 14 59.6 +0.7**
ZSN *e*PP **PP** **23 16 35.9 -0.6**
KUU Kurty 122.78 303 *e*PKIKP **PKiKP** **23 15 00.0 +0.6**
KUU Kurty 122.78 303 *e*PKP **PKiKP** **23 15 00.0 +0.6**
TDK Taldyqorghan 122.89 305 *e*PKIKP **PKiKP** **23 15 00.2 +0.7**
TDK Taldyqorghan 122.89 305 *e*PKP **PKiKP** **23 15 00.3 +0.7**
MK31 Makanchi Array 122.92 309 *i* PKIKP **PKiKP** **23 15 00.7 +1.1**
MKAR Makanchi Array 122.92 309 PKP **PKPdf** **23 14 58.5 -0.9**
comp=Z,2.5nm,0.9s,baz=121,slow=3.2,SNR=5.9
MTDJ Mount Denham 123.20 116 IAMs_20 IAMs_20 23 57 28.6
comp=Z,1µm,21.0s
GRGR Grenville 123.72 136 IAMs_20 IAMs_20 00 01 55.7
comp=Z,1µm,21.0s
IUG luzhnay 123.92 297 *e*PKIKP **PKiKP** **23 15 02.0 +0.2**
IUG *e* 23 16 45.0
IUG luzhnay 123.92 297 *e*PKP **PKiKP** **23 15 02.1 +0.2**
IUG *e*PP **PP** **23 16 45.0 -0.9**
DZA Taraz 123.99 298 *e*PKIKP **PKiKP** **23 15 02.3 +0.5**
DZA Taraz 123.99 298 *e*PKP **PKiKP** **23 15 02.3 +0.5**
KK31 Karatay Array 124.50 298 PKIKP **PKPdf** **23 15 02.2 -0.3**
KK31 Karatay Array 124.50 298 **PKPdf** **23 15 02.2 -0.3**
KKAR Karatay Array 124.50 298 PKIKP **PKPdf** **23 15 02.3 -0.2**
KKAR Karatay Array 124.50 298 **PKPdf** **23 15 02.3 -0.2**
BRDY Brady 124.57 88 **PKPdf** **23 15 03.2 +0.2**
BRLS Borolday 124.72 297 *e*PKIKP **PKiKP** **23 15 03.4 +0.1**
BRLS Borolday 124.72 297 *e*PKP **PKiKP** **23 15 03.5 +0.1**
J08A Circle Bar Ran 125.62 64 **PKiKP** **23 15 05.5 +0.3**
SRU San Rafael Swe 125.65 73 PKIKP **PKPdf** **23 15 05.2 +0.1**
SRU San Rafael Swe 125.65 73 **PKPdf** **23 15 05.2 +0.1**

P16K Nushagak River 126.01 28 IAMs_20 IAMs_20 23 56 17.1
comp=Z,2µm,21.0s
MPOM Morne Pois Mar 126.14 135 IAMs_20 IAMs_20 00 03 07.4
comp=Z,1µm,21.0s
MFID Camas Ranch 126.80 65 PKPdf **PKiKP** **23 15 07.9 +0.4**
G08A Pilot Rock 126.98 62 **PKiKP** **23 15 08.0 +0.2**
KURBB Kurchatov Arra 127.49 309 PKP **PKiKP** **23 15 08.4 0.0**
comp=Z,3.2nm,0.7s,baz=159,slow=1.7,SNR=7.2
WMOK Wichita Mounta 127.52 85 PKIKP **PKPdf** **23 15 08.2 -0.4**
WMOK Wichita Mounta 127.52 85 **PKPdf** **23 15 08.2 -0.4**
KURK Kurchatov 127.53 309 PKIKP **PKiKP** **23 15 09.2 +0.7**
KURK Kurchatov 127.53 309 **PKiKP** **23 15 09.2 +0.7**
TORD Torodi Ar. Bea 127.60 214 PKP **PKPdf** **23 15 08.7 -0.6**
comp=Z,1.2nm,0.9s,baz=236,slow=0.5,SNR=5.8
ZALV Zalesovo Beam 128.01 315 PKP **PKiKP** **23 15 09.8 +0.4**
comp=Z,0.7nm,0.7s,baz=209,slow=2.7,SNR=4.9
AHID Auburn Hatcher 128.34 69 PKPdf **PKiKP** **23 15 11.0 +0.3**
PDAR Pinedale Array 129.02 71 PKP **PKiKP** **23 15 12.1 -0.1**
comp=Z,2.2nm,1.1s,baz=180,slow=1.5,SNR=7.0
PDAR Pinedale Array 129.02 71 **PKPdf** **23 15 11.5 0.0**
BILL Bilibino 129.97 6 *i* PKIKP **PKiKP** **23 15 14.6 +1.7**
BILL pmax pmax
comp=Z,9.0nm,1.3s
BILL Bilibino 129.97 6 IAMs_20 IAMs_20 00 03 36.5
comp=Z,1µm,22.0s
CUT Chulitna 130.77 30 IAMs_20 IAMs_20 00 03 16.2
comp=Z,2µm,21.0s
F15K North Star Dit 130.81 21 IAMs_20 IAMs_20 00 00 09.9
comp=Z,1µm,19.0s
GHAJ Ghor Haditha 130.85 260 IAMs_20 IAMs_20 00 25 26.9
comp=Z,1µm,19.0s
G16K Koyuk River 130.92 22 IAMs_20 IAMs_20 00 01 04.8
comp=Z,2µm,22.0s
DHY Denali Highway 132.04 31 IAMs_20 IAMs_20 00 01 30.8
comp=Z,1µm,19.0s
F17K Baldwin Pennin 132.06 22 IAMs_20 IAMs_20 00 03 56.1
comp=Z,1µm,21.0s
BVAR Borovoye Array 132.47 305 PKP **PKPdf** **23 15 16.9 -0.4**
comp=Z,3.3nm,0.8s,baz=116,slow=3.4,SNR=8.3
WRH Wood River Hil 133.05 30 IAMs_20 IAMs_20 00 01 30.4
comp=Z,2µm,21.0s
SACV Santiago Islan 133.06 182 IAMs_20 IAMs_20 00 10 53.8
comp=Z,1µm,19.0s
H22K Ishtalitna Cre 133.52 27 IAMs_20 IAMs_20 00 02 42.7
comp=Z,2µm,22.0s
ILAR Eielson Array 133.59 30 PKP **PKPdf** **23 15 19.1 0.0**
comp=Z,2.0nm,0.9s,baz=273,slow=2.4,SNR=10
ILAR Eielson Array 133.59 30 **PKPdf** **23 15 18.4 -0.7**
E19K Redstone River 133.70 23 IAMs_20 IAMs_20 00 09 00.3
comp=Z,2µm,22.0s
GNI Garni 133.71 276 IAMs_20 IAMs_20 00 09 15.0
comp=Z,1µm,21.0s
H24K Noodor Dome 134.25 29 IAMs_20 IAMs_20 00 07 32.0
comp=Z,2µm,21.0s
G23K Bananza Creek 134.51 27 IAMs_20 IAMs_20 00 04 57.8
comp=Z,2µm,22.0s
TIXI Tiksi 134.55 349 *i* PKIKP **PKiKP** **23 15 22.0 0.0**
TIXI pmax pmax
comp=Z,3.0nm,1.0s
TIXI Tiksi 134.55 349 IAMs_20 IAMs_20 00 11 28.4
comp=Z,818nm,19.0s
I27K Kandik River 135.56 32 IAMs_20 IAMs_20 00 06 49.7
comp=Z,1µm,18.0s
TAM Tamanrasset 135.63 222 IAMs_20 IAMs_20 00 12 22.4
comp=Z,2µm,20.0s
ECSD EROS Data Cent 135.69 80 IAMs_20 IAMs_20 00 07 27.5
comp=Z,1µm,19.0s
ARPR Arapgir-MALATY 135.90 269 IAMs_20 IAMs_20 00 06 59.9
comp=Z,1µm,20.0s
F25K Christian Rive 136.21 28 IAMs_20 IAMs_20 00 12 48.7
comp=Z,2µm,20.0s
WCI Wyandotte Cave 136.24 94 PKIKP **PKPdf** **23 15 24.7 -0.2**
WCI Wyandotte Cave 136.24 94 **PKPdf** **23 15 24.7 -0.2**
NEUR Neytrino 137.09 277 *i* PKIKP **PKPdf** **23 15 26.6 0.0**
KBZ Khabaz 137.36 277 PKP **PKPdf** **23 15 27.1 +0.4**
comp=Z,2.0nm,0.9s,baz=153,slow=4.5,SNR=2.8
KBZ Khabaz 137.36 277 *i* PKIKP **PKiKP** **23 15 27.9 -0.7**
SHA1 Shidzhatmaz 137.48 277 *i* PKIKP **PKPdf** **23 15 27.3 0.0**
KIV Kislovodsk 137.63 277 IAMs_20 IAMs_20 00 10 53.6
comp=Z,619nm,21.0s
KIRS Kirsehir-Merke 138.02 265 ⇓P **PKiKP** **23 15 30.6 +0.3**
E28M Babbage River 138.42 30 IAMs_20 IAMs_20 00 14 55.3
comp=Z,1µm,21.0s
D27M Malcolm River 138.57 29 IAMs_20 IAMs_20 00 14 27.4
comp=Z,971nm,20.0s
BRTR Keskin Array B 138.62 265 PKP **PKPdf** **23 15 28.5 -1.0**
comp=Z,2.5nm,1.0s,baz=171,slow=3.3,SNR=6.0
SOC Sochi 138.74 274 *i* PKIKP **PKiKP** **23 15 32.7 +1.2**
SOC *e* 23 18 21.1
SOC *e*PPP PPP 23 21 27.7
SOC *e*SS SS 23 36 40.0 +3.8
SOC *e*SSS SSS 23 41 42.8
NRIK Noril'sk 139.41 330 PKP **PKPdf** **23 15 27.5 -2.2**
comp=Z,0.8nm,0.5s,baz=57,slow=6.8,SNR=1.6
NRIK Noril'sk 139.41 330 *i* PKIKP **PKiKP** **23 15 32.3 +0.3**
ARTI Arti 139.68 301 *i* PKIKP **PKPdf** **23 15 31.4 +0.8**
ERBR Yeremizino-Bor 139.99 277 *e*PKIKP **PKPdf** **23 15 31.5 0.0**
ERBR pmax pmax
comp=Z,12nm,0.7s
ERBR MLR MLR
comp=Z,734nm,20.0s
ANN Anapa 140.74 274 *e*PKIKP **PKPdf** **23 15 33.6 +0.7**
ANN pmax pmax
comp=Z,70nm,1.0s
ULM Lac du Bonnet 140.84 74 PKhKP PKPpre 23 15 24.2
comp=Z,3.4nm,0.8s,baz=223,slow=3.1,SNR=4.1
YKA Yellowknife Ar 141.47 48 PKhKP PKPpre 23 15 26.9
comp=Z,0.8nm,0.6s,baz=234,slow=2.9,SNR=6.9
BELG Belogornoye 141.50 290 *i* PKIKP **PKPdf** **23 15 34.6 +0.6**
VRH Novokhopyorsk 143.34 284 *e*PKIKP **PKPdf** **23 15 36.7 -0.6**
VRH pmax pmax
comp=Z,6.0nm,0.8s
VORD Divnogorie 144.30 282 *e*PKHKP PKPpre 23 15 35.5
VORD pmax pmax
comp=Z,20nm,1.0s
MFTR Murfatlar 144.52 265 ⇑P **PKPab** **23 15 38.3 +0.2**
VSR Storozhevoye 144.53 283 *e*PKIKP **PKPab** **23 15 36.9 -1.0**
VSR pmax pmax
comp=Z,18nm,0.6s
TIRR Tirgusor 144.74 265 PKIKP **PKPab** **23 15 39.1 +0.2**
TIRR Tirgusor 144.74 265 **PKPab** **23 15 39.1 +0.2**
TIRR Tirgusor 144.74 265 ⇓P **PKPab** **23 15 38.8 -0.1**
JURR Jurilovca 144.75 266 ⇑P **PKPab** **23 15 39.0 +0.1**
LOZB Loznitsa 144.77 262 ⇓P **PKPab** **23 15 37.8 -1.3**
ICOR Ion Corvin 144.77 264 ⇑P **PKPab** **23 15 38.8 -0.2**
KIRV Kirov 144.78 299 *i* PKIKP **PKPdf** **23 15 39.8 +0.2**
VORR Voronezh 144.82 283 *e*PKIKP **PKPab** **23 15 38.3 -0.6**
VORR pmax pmax
comp=Z,38nm,0.5s
TLBR Topalu 144.98 265 ⇓P PKPbc 23 15 39.8 0.0
KEK Kerkira 145.01 252 ⇓P **PKPbc** **23 15 38.4 -1.6**
TPGR Topolog 145.04 266 ⇓P **PKPbc** **23 15 39.5 -0.5**
VAY Valandovo 145.04 256 *i* P **PKPbc** **23 15 40.3 +0.2**
BUKO Buck Lake 145.07 93 **PKPbc** **23 15 39.3 -0.8**
HARR Harsova 145.14 265 ⇓P **PKPbc** **23 15 39.8 -0.5**
PEHC Pehcevo 145.25 257 *i* P **PKPbc** **23 15 40.6 -0.3**
CFR Carcaliu 145.41 266 ⇓P **PKPbc** **23 15 40.8 -0.3**
CEL Celeste 145.53 246 **PKPdf** **23 15 41.5 -0.1**
CEL IAMs_20 IAMs_20 00 21 15.0
comp=Z,1µm,22.0s
LPSR Galich'ya Gora 145.57 284 *e*PKP2 **PKPdf** **23 15 40.6 -0.5**
LPSR pmax pmax
comp=Z,36nm,0.7s
OHR Ohrid 145.68 254 *i* P **PKPab** **23 15 44.4 +1.9**
PGOR Pogoanele 145.75 265 ⇑P **PKPbc** **23 15 42.6 +0.4**
SCTR Scanteiesti 145.84 266 ⇓P **PKPdf** **23 15 42.3 +0.5**
IZVR Izvoarele 145.85 266 ⇓P **PKPbc** **23 15 42.6 +0.1**
TIP Timpagrande 145.92 248 ⇓P **PKPbc** **23 15 43.4 +0.3**
VLDR Vladesti 145.93 267 ⇑P **PKPbc** **23 15 43.1 +0.4**
COPA Copaceanca 146.00 262 ⇓P **PKPab** **23 15 44.1 +0.6**
KEST Kesra 146.06 235 PKPbc **PKPab** **23 15 44.8 +0.6**
comp=Z,14nm,1.0s,baz=280,slow=2.6,SNR=9.8
VARL Varlezi 146.08 267 ⇓P **PKPdf** **23 15 42.3 +0.1**
ISR Istrita 146.12 264 ⇑P **PKPab** **23 15 44.6 +0.5**
VLAD Vladila 146.27 261 ⇓P **PKPdf** **23 15 42.6 0.0**
ODBI Odobesti 146.35 266 ⇓P **PKPbc** **23 15 44.6 +0.6**
BISRR Bisoca 146.36 265 ⇓P **PKPbc** **23 15 44.4 +0.2**
HUMR Humele 146.41 262 ⇑P **PKPbc** **23 15 43.9 -0.4**
GHRR 146.41 266 ⇓P **PKPdf** **23 15 43.6 +0.8**
NEHR Nehoiu 146.46 265 ⇑P **PKPbc** **23 15 44.6 +0.2**
SAHR Sahastru 146.50 265 ⇓P **PKPbc** **23 15 45.1 +0.6**
VRI Vrincioaia 146.58 266 ⇑P **PKPbc** **23 15 45.1 +0.4**
PLOR Plostina 146.61 265 ⇓P **PKPbc** **23 15 44.9 0.0**
VASR Vaslui 146.65 267 ⇓P **PKPdf** **23 15 42.8 -0.4**

MLR	**Muntele Rosu**	**146.67**	**264**	PKIKP	**PKPdf**	**23**	**15**	**44.1 +0.6**
MLR	**Muntele Rosu**	**146.67**	**264**		**PKPdf**	**23**	**15**	**44.1 +0.6**
MLR				IAMs_20	IAMs_20	00	33	19.3
	comp=Z,1µm,22.0s							
MLR	**Muntele Rosu**	**146.67**	**264**	⇑P	**PKPdf**	**23**	**15**	**44.1 +0.6**
BAIL	**Bailesti**	**146.78**	**260**	⇓P	**PKPbc**	**23**	**15**	**45.4 +0.1**
BLKB	**Belogradchik**	**146.79**	**259**	⇓P	**PKPdf**	**23**	**15**	**44.4 +0.8**
COVR	**Voineasa-Covas**	**146.81**	**265**	⇓P	**PKPbc**	**23**	**15**	**44.9 -0.5**
MNTR	**Muntenesti**	**146.86**	**267**	⇑P	**PKPbc**	**23**	**15**	**45.1 -0.3**
PDRR	**Padureni**	**146.92**	**267**	⇑P	**PKPdf**	**23**	**15**	**43.9 +0.2**
DMBR	**Dumbraveni**	**146.95**	**267**	⇓P	**PKPbc**	**23**	**15**	**45.4 -0.3**
VOIR		**147.06**	**263**	⇑P	**PKPbc**	**23**	**15**	**46.9 +0.7**
TURR	**Turia**	**147.06**	**265**	⇑P	**PKPbc**	**23**	**15**	**45.9 -0.2**
TESR	**Tescani**	**147.09**	**266**	⇑P	**PKPbc**	**23**	**15**	**45.9 -0.3**
MATE	**Matera**	**147.15**	**249**	⇓P	**PKPbc**	**23**	**15**	**45.9 -0.5**
PUNG	**Punghina**	**147.17**	**260**	⇑P	**PKPbc**	**23**	**15**	**46.1 -0.2**
FCC	**Fort Churchill**	**147.18**	**64**	PKIKP	**PKPdf**	**23**	**15**	**44.2 +0.6**
FCC	**Fort Churchill**	**147.18**	**64**		**PKPdf**	**23**	**15**	**44.2 +0.6**
OZUR		**147.20**	**265**	⇑P	**PKPbc**	**23**	**15**	**45.9 -0.6**
ARR	**Arges**	**147.20**	**263**	⇑P	**PKPbc**	**23**	**15**	**46.7 +0.1**
BOSR	**Bodos**	**147.24**	**265**	⇓P	**PKPbc**	**23**	**15**	**46.9 +0.3**
BOVS	**Bovan**	**147.25**	**258**	⇑P	**PKPbc**	**23**	**15**	**46.7 0.0**
DRME	**Dracevica, Mon**	**147.27**	**254**	*e*P	**PKiKP**	**23**	**15**	**49.6 +0.5**
DOPR	**Dopca**	**147.29**	**264**	⇓P	**PKPdf**	**23**	**15**	**45.6 +1.3**
SRE	**Strehaia**	**147.34**	**261**	⇑P	**PKPbc**	**23**	**15**	**47.4 +0.5**
PDG	**Podgorica**	**147.43**	**254**	⇑P	**PKPdf**	**23**	**15**	**45.6 +1.0**
PDG	**Podgorica**	**147.43**	**254**	*e*P	**PKPdf**	**23**	**15**	**44.5 -0.1**
SORM	**Soroca**	**147.46**	**270**	⇓P	**PKPbc**	**23**	**15**	**46.9 -0.1**
GIRR	**Girov**	**147.49**	**267**	⇑P	**PKPbc**	**23**	**15**	**47.2 0.0**
TNR	**Turnu Rosu**	**147.58**	**263**	⇑P	**PKPbc**	**23**	**15**	**48.2 +0.6**
LOT	**Lotru**	**147.66**	**262**	⇑P	**PKPbc**	**23**	**15**	**47.9 0.0**
BIZ	**Bicaz**	**147.66**	**266**	⇓P	**PKPbc**	**23**	**15**	**48.2 +0.5**
SJES	**Sjenica**	**147.75**	**256**	*e*P	**PKPbc**	**23**	**15**	**47.9 -0.3**
HCY	**Herceg Novi**	**147.79**	**253**	*e*P	**PKPdf**	**23**	**15**	**46.8 +1.5**
HERR	**Herculane**	**147.87**	**260**	⇓P	**PKPbc**	**23**	**15**	**47.9 -0.4**
MDB	**Medias**	**147.89**	**264**	⇓P	**PKPbc**	**23**	**15**	**49.4 +1.1**
PRAR	**RASCA**	**147.91**	**267**	⇓P	**PKPbc**	**23**	**15**	**48.7 +0.3**
GZR	**Gura Zlata**	**148.09**	**261**	⇑P	**PKPbc**	**23**	**15**	**48.2 -0.8**
MDVR	**Moldovita**	**148.12**	**259**	⇑P	**PKPbc**	**23**	**15**	**48.9 -0.1**
BRY	**Bratogost**	**148.13**	**254**	*e*P	**PKPbc**	**23**	**15**	**48.3 -0.9**
MOS	**Moscow**	**148.15**	**288**	*e*PKP2	**PKPbc**	**23**	**15**	**49.3 +0.6**
MOS				*e*		23	19	22.2
MOS				pmax	pmax			
	comp=Z,54nm,1.4s							
UPM	**Unac-Piva**	**148.20**	**254**	*e*P	**PKPbc**	**23**	**15**	**48.6 -0.9**
OBN	**Obninsk**	**148.25**	**286**	*i* PKIKP	**PKPdf**	**23**	**15**	**47.3 +1.8**
OBN				pmax	pmax			
	comp=Z,52nm,1.0s							
KLINJ	**Klinje**	**148.32**	**254**	*e*P	**PKPbc**	**23**	**15**	**49.1 -0.6**
DRBR	**Darabani**	**148.34**	**268**	⇓P	**PKPbc**	**23**	**15**	**49.2 -0.2**
BBLS	**Lazi&#263i**	**148.48**	**256**	*e*P	**PKPbc**	**23**	**15**	**50.3 +0.2**
BURAR	**Bucovina Array**	**148.57**	**266**	⇑P	**PKiKP**	**23**	**15**	**51.7 +0.1**
ARCR	**ARCALIA**	**148.59**	**265**	⇓P	**PKiKP**	**23**	**15**	**52.0 +0.4**
KMPD	**K-Podol'skiy**	**148.66**	**269**	PKP	**PKPdf**	**23**	**15**	**47.9 +1.5**
SURR	**Surduc**	**148.66**	**261**	⇓P	**PKPbc**	**23**	**15**	**50.2 -0.1**
AK07	**Malin Array Si**	**148.73**	**274**	PKP	**PKPdf**	**23**	**15**	**48.2 +1.7**
AK09	**Malin Array Si**	**148.74**	**274**	PKP	**PKPdf**	**23**	**15**	**48.2 +1.7**
AK10	**Malin Array Si**	**148.74**	**274**	PKP	**PKPdf**	**23**	**15**	**48.2 +1.7**
BZS	**Buzias**	**148.79**	**260**	⇓P	**PKPbc**	**23**	**15**	**50.5 -0.2**
AKASG	**Malin Array Be**	**148.82**	**274**	PKPbc	**PKPbc**	**23**	**15**	**50.3 -0.2**
	comp=Z,4.5nm,0.8s,baz=101,slow=2.3,SNR=9.2							
AKBB	**Malin Array Si**	**148.82**	**274**	*i* PKIKP	**PKPdf**	**23**	**15**	**47.0 +0.4**
KIEV	**Kiev**	**148.82**	**274**	IAMs_20	IAMs_20	00	17	18.9
	comp=Z,869nm,22.0s							
KIEV	**Kiev**	**148.82**	**274**	⇑P	**PKPbc**	**23**	**15**	**49.2 -1.4**
MARR	**Marisel-Cluj**	**148.88**	**263**	⇑P	**PKPbc**	**23**	**15**	**50.2 -0.8**
TEKS	**Tekeris**	**148.95**	**257**	*e*P	**PKPbc**	**23**	**15**	**50.0 -1.2**
LUBAR	**Lubar, Ukraine**	**148.99**	**272**	PKP	**PKPdf**	**23**	**15**	**48.3 +1.4**
DRGR		**149.15**	**263**	⇑P	**PKPbc**	**23**	**15**	**52.3 +0.6**
SIRR	**Siria**	**149.26**	**261**	⇓P	**PKPbc**	**23**	**15**	**51.5 -0.4**
MI29	**MI29, Kamyanyy**	**149.28**	**273**	PKP	**PKPbc**	**23**	**15**	**50.1 -1.6**
FRGS	**Fruska Gora**	**149.29**	**258**	*e*P	**PKPbc**	**23**	**15**	**50.3 -1.7**
VSL	**Villasalto**	**149.30**	**239**	IAMs_20	IAMs_20	00	27	25.7
	comp=Z,1µm,19.0s							
MESR	**Meseseni**	**149.30**	**264**	⇓P	**PKPbc**	**23**	**15**	**51.7 -0.2**
MI30	**MI30,Zelenitsa**	**149.34**	**273**	PKP	**PKPbc**	**23**	**15**	**50.0 -1.9**
BLKN	**Baker Lake**	**149.37**	**54**		**PKPbc**	**23**	**15**	**50.2 -1.3**
INTR	**Introdacqua**	**149.48**	**247**		**PKPbc**	**23**	**15**	**51.1 -1.5**
LTVH	**Ltavrtes, Hu**	**149.96**	**263**	⇓P	**PKPbc**	**23**	**15**	**53.5 0.0**
AQU	**L'Aquila**	**149.98**	**247**	*e*P	**PKPbc**	**23**	**15**	**52.9 -0.9**
BLY	**Banja Luka**	**150.18**	**254**		**PKPbc**	**23**	**15**	**53.3 -0.8**
BLY	**Banja Luka**	**150.18**	**254**	⇓P	**PKPbc**	**23**	**15**	**54.5 +0.4**
BLY	**Banja Luka**	**150.18**	**254**	*e*P	**PKPbc**	**23**	**15**	**54.0 -0.1**
KLMR	**Klimovskoe**	**150.20**	**297**	*e*PKIKP	**PKPdf**	**23**	**15**	**50.6 +2.1**
KLMR				pmax	pmax			
	comp=Z,122nm,1.3s							
MORH	**Mrgy, Hungar**	**150.62**	**258**	⇑P	**PKPbc**	**23**	**15**	**55.1 -0.1**
MORH	**Mrgy, Hungar**	**150.62**	**258**	*e*P	**PKPbc**	**23**	**15**	**54.7 -0.4**
BSZH	**Besenyszg**	**150.67**	**261**	⇓P	**PKPbc**	**23**	**15**	**55.1 -0.1**
KOLS	**Kolonicke sedl**	**150.89**	**265**	*e*PKIKP	**PKiKP**	**23**	**15**	**56.5 +0.2**
KOLS				*e*		23	16	05.0
KOLS	**Kolonicke sedl**	**150.89**	**265**	*e*PKP	**PKiKP**	**23**	**15**	**56.5 +0.2**
KOLS				*e*		23	16	05.0
KWP	**Kalwaria Pacla**	**151.17**	**267**	*e*PKP	**PKPbc**	**23**	**15**	**56.1 -0.2**
PSZ	**Piszkesteto**	**151.29**	**262**	IAMs_20	IAMs_20	00	39	34.0
	comp=Z,934nm,20.0s							
BEHE	**Becsehely**	**151.67**	**256**	*e*P	**PKiKP**	**23**	**16**	**01.3 +3.3**
MNK	**Minsk**	**151.88**	**279**	*i* PKIKP	**PKiKP**	**23**	**15**	**59.3 +1.2**
MNK				*i*		23	19	38.9
MNK				*i* PPP	PPP	23	23	03.2
MNK				*i* SS	SS	23	39	06.1 +0.1
MNK				pmax	pmax			
	comp=N,11nm,0.8s							
MNK				pmax	pmax			
	comp=Z,32nm,0.9s							
MNK				pmax	pmax			
	comp=E,11nm,1.0s							
MNK	**Minsk**	**151.88**	**279**	*i* LRM	MLR	00	20	07.0
	comp=E,447nm,20.3s							
MNK				*i* PKiKP	**PKiKP**	**23**	**15**	**59.3 +1.2**
	comp=E,11nm,1.0s							
MNK				*i* PKiKP	**PKiKP**	**23**	**15**	**59.3 +1.2**
	comp=N,11nm,0.8s							
MNK				*i* PKiKP	**PKiKP**	**23**	**15**	**59.3 +1.2**
	comp=Z,32nm,0.9s,baz=127							
MNK				*i* PP	**PP**	**23**	**19**	**38.9 -0.6**
MNK				*i* PPP	PPP	23	23	03.3
MNK				*i* SKS	SKSdf	23	23	35.2 +37
MNK				*i* SKKS		23	30	24.7
MNK				*i* SS	**SS**	**23**	**39**	**06.2 +0.2**
MNK				*i* SSS	SSS	23	44	44.4
MNK				*i* LRM	MLR	00	20	08.2
	comp=N,637nm,19.4s							
MNK				*i* LRM	MLR	00	20	12.1
	comp=Z,934nm,20.3s							
VYHS	**Vyhne**	**152.19**	**261**	*e*PKIKP	**PKiKP**	**23**	**16**	**02.5 +3.5**
VYHS	**Vyhne**	**152.19**	**261**	*e*PKP	**PKiKP**	**23**	**16**	**02.5 +3.5**
VYHS				*e*		23	16	12.4
LANS	**Liptovska Anna**	**152.36**	**263**	*e*PKIKP	**PKPbc**	**23**	**15**	**58.7 -0.4**
LANS				*e*		23	16	11.0
LANS	**Liptovska Anna**	**152.36**	**263**	*e*PKP	**PKPbc**	**23**	**15**	**58.7 -0.4**
LANS				*e*		23	16	11.0
SOKA	**Soboth**	**152.62**	**255**	*e*PKP	**PKPdf**	**23**	**15**	**53.5 +0.7**
	comp=Z,10nm,1.1s							
OBKA	**Obir**	**152.72**	**254**	*e*PKP	**PKiKP**	**23**	**16**	**01.1 +0.8**
	comp=Z,13nm,1.3s							
RONA	**Rosalia, Austr**	**152.80**	**258**	*e*pPKP	**PKPbc**	**23**	**15**	**59.3 -0.8**
	comp=Z,20nm,1.0s							
ARSA	**Arzberg**	**152.83**	**256**	*e*pPKP	**PKPdf**	**23**	**15**	**56.2 +3.2**
	comp=Z,13nm,1.0s							
MODS	**Modra-Piesok**	**152.84**	**260**	*e*PKP	**PKPab**	**23**	**16**	**07.8 -3.5**
OJC	**Ojcow**	**152.95**	**265**	*e*PKP	**PKPbc**	**23**	**16**	**00.3 0.0**
JAVC	**Velka Javorina**	**153.00**	**261**	*e*PKIKP	**PKiKP**	**23**	**16**	**01.2 +0.5**
SESA	**Seetaler Alpe,**	**153.16**	**255**	*e*PKiKP	**PKiKP**	**23**	**16**	**04.1 +2.8**
	comp=Z,13nm,1.4s							
CONA	**Conrad Observa**	**153.17**	**257**	*e*PKP	**PKPbc**	**23**	**16**	**00.3 -0.7**
	comp=Z,7.8nm,1.5s							
MYKA	**Terra Mystica**	**153.22**	**253**	*e*pPKP	**PKPbc**	**23**	**15**	**58.8 -2.3**
	comp=Z,17nm,1.5s							
MAUC	**Maruska**	**153.28**	**262**	AMS	AMS	00	33	20.0
	comp=Z,2µm,20.3s							
KBA	**Koelnbreinsper**	**153.69**	**253**	*e*PKiKP	**PKiKP**	**23**	**16**	**03.6 +1.3**
	comp=Z,8.5nm,0.9s							
MORC	**Moravsky Berou**	**153.70**	**262**	*e*PKIKP	**PKPbc**	**23**	**16**	**01.9 -0.1**
MORC	**Moravsky Berou**	**153.70**	**262**	⇓P	**PKPbc**	**23**	**16**	**01.7 -0.4**
STEB	**Steborice**	**153.70**	**263**	⇑*e*PKP	**PKiKP**	**23**	**16**	**06.1 +4.0**
KRUC	**Moravsky**	**153.74**	**260**	*e*PKIKP	**PKPbc**	**23**	**16**	**01.9 -0.2**
SUW	**Suwalki**	**153.79**	**275**	*e*PKP	**PKPbc**	**23**	**16**	**02.1 +0.1**
ABTA	**Abfaltersbach**	**153.82**	**252**	*e*pPKP	**PKiKP**	**23**	**16**	**06.9 +4.4**
	comp=Z,16nm,1.6s							
VRAC	**Vranov**	**153.82**	**260**	*e*PKIKP	**PKPbc**	**23**	**16**	**02.0 -0.3**
VRAC	**Vranov**	**153.82**	**260**	⇑P	**PKPdf**	**23**	**15**	**57.9 +3.5**
MOA	**Molln**	**153.84**	**256**	*e*pPKiKP	**PKiKP**	**23**	**16**	**09.2 +6.8**
	comp=Z,16nm,1.2s							
ABNA	**Allensteig Bun**	**153.90**	**258**	*e*PKP	**PKPdf**	**23**	**15**	**54.5 0.0**
	comp=Z,5.8nm,1.8s							
BIOA	**Bad Ischl, Aus**	**154.01**	**255**	*e*pPKP	**PKiKP**	**23**	**16**	**07.5 +4.7**
	comp=Z,11nm,1.2s							
ESDC	**Sonseca Array**	**154.24**	**220**	PKPbc	**PKPbc**	**23**	**16**	**03.2 -0.3**
	comp=Z,1.6nm,1.1s,baz=119,slow=0.6,SNR=4.9							
LESA	**Schwarzleotal**	**154.25**	**253**	*e*PKiKP	**PKiKP**	**23**	**16**	**05.7 +2.3**
	comp=Z,5.1nm,0.8s							
KRLC	**Kraliky**	**154.26**	**262**	AMS	AMS	00	42	10.0
	comp=Z,900nm,18.2s							
PABE	**Paberze**	**154.30**	**278**	IAMs_20	IAMs_20	00	35	57.1
	comp=Z,1µm,20.0s							
TREC	**Trest**	**154.32**	**259**	⇑*e*PKP	**PKPab**	**23**	**16**	**12.4 -5.2**
CKRC	**Cesky Krumlov**	**154.53**	**257**	⇑*e*PKP	**PKiKP**	**23**	**16**	**06.5 +2.7**
CKRC				*ex*	x	23	16	13.8
CKRC				AMS	AMS	00	34	00.0
	comp=Z,2µm,19.1s							
WTTA	**Wattenberg**	**154.60**	**252**	*e*PKiKP	**PKiKP**	**23**	**16**	**06.0 +1.7**
	comp=Z,12nm,1.3s							
DPC	**Dobruska-Polom**	**154.67**	**262**	⇑*e*PKP	**PKiKP**	**23**	**16**	**07.2 +3.1**
DPC				AMS	AMS	00	35	00.0
	comp=Z,900nm,21.3s							
WATA	**Walderalm**	**154.68**	**252**	*e*pPKP	**PKiKP**	**23**	**16**	**07.6 +3.2**
	comp=Z,10nm,1.5s							
FUORN	**Ofenpass-Fuorn**	**154.72**	**249**	IAMs_20	IAMs_20	00	31	20.9
	comp=Z,1µm,20.0s							
SQTA	**Sankt Quirin**	**154.76**	**251**	*e*PKiKP	**PKiKP**	**23**	**16**	**07.3 +2.8**
	comp=Z,7.8nm,1.1s							
FETA	**Feichten**	**154.82**	**250**	*e*PKP	**PKPbc**	**23**	**16**	**04.4 -0.3**
	comp=Z,14nm,1.1s							
GERES	**GERESS Array B**	**154.83**	**257**	PKP	**PKPdf**	**23**	**15**	**56.2 +0.3**
	comp=Z,0.2nm,0.3s,baz=174,slow=3.0,SNR=4.4							
GERES				PKPbc	**PKPbc**	**23**	**16**	**03.2 -1.3**
	comp=Z,2.6nm,1.0s,baz=180,slow=3.5,SNR=7.3							
GERES	**GERESS Array B**	**154.83**	**257**		**PKPdf**	**23**	**15**	**55.0 -0.9**
OSTC	**Ostas**	**154.86**	**262**	*e*PKPAB	**PKPab**	**23**	**16**	**21.1 +1.2**
OSTC				AMS	AMS	00	34	30.0
	comp=Z,1µm,18.9s							
MOTA	**Moosalm**	**154.90**	**251**	*e*pPKiKP	**PKiKP**	**23**	**16**	**10.1 +5.3**
	comp=Z,7.5nm,1.0s							
UPC	**Upice**	**154.92**	**262**	AMS	AMS	00	45	40.0
	comp=Z,1µm,20.3s							
CHVC	**Chvalec**	**154.96**	**262**	⇑*e*PKP	**PKiKP**	**23**	**16**	**07.4 +2.7**
CHVC				*ex*	x	23	16	21.0
KSP	**Ksiaz**	**155.01**	**263**	*e*PKP	**PKPdf**	**23**	**16**	**02.3 +6.3**
ZVC	**Zvikov**	**155.02**	**258**	AMS	AMS	00	34	30.0
	comp=Z,1µm,20.5s							
KHC	**Kasperske Hory**	**155.09**	**257**	⇑*e*PKP	**PKPdf**	**23**	**16**	**03.0 +6.8**
KHC				*e*PKPAB	**PKPab**	**23**	**16**	**20.2 -0.7**
KHC				*ex*	x	23	16	30.3
KHC				AMS	AMS	00	33	50.0
	comp=Z,2µm,20.2s							
RETA	**Reutte**	**155.16**	**251**	*e*pPKP	PKPab	23	16	09.2 -12
	comp=Z,6.0nm,1.4s							
DAVA	**Damuels**	**155.40**	**250**	*e*pPKP	**PKPdf**	**23**	**16**	**01.3 +4.4**
	comp=Z,9.8nm,1.5s							
BRG	**Berggiesshubel**	**156.13**	**260**	*e*PKP	PKPab	23	16	14.7 -11
BRG				Amp		23	16	15.7
	comp=Z,4.2nm,1.1s							
BRG	**Berggiesshubel**	**156.13**	**260**	P	PKPab	23	16	35.2 +10
BRG				Amp		23	16	37.4
	comp=Z,6.9nm,1.1s							
HSKC	**Hora Svate Kat**	**156.19**	**259**	AMS	AMS	00	36	30.0
	comp=Z,1µm,20.4s							
GRA1	**Grafenberg Arr**	**156.57**	**255**	IAMs_20	IAMs_20	00	33	49.8
	comp=Z,1µm,20.0s							
GRFO	**Grafenberg**	**156.57**	**255**	IAMs_20	IAMs_20	00	33	48.8
	comp=Z,1µm,20.0s							
CLL	**Collm**	**156.87**	**260**	*e*PKPdf	**PKPdf**	**23**	**16**	**01.0 +2.6**
CLL				*i* (PKPab)	**PKPab**	**23**	**16**	**26.4 -2.0**
CLL				*i* PKPmax		23	16	38.7
	comp=Z,18nm,1.2s							
CLL				LQ	LQ	00	02	00.0
CLL				L	L	00	12	00.0
CLL				AMS	AMS	00	31	00.0
	comp=Z,1µm,22.0s							
CLL				AMS	AMS	00	39	00.0
	comp=N,500nm,20.4s							
CLL				AMS	AMS	00	39	00.0
	comp=E,700nm,23.6s							
ECH	**Echery**	**157.30**	**248**	IAMs_20	IAMs_20	00	31	21.2
	comp=Z,1µm,20.0s							
KEV	**Kevo**	**158.02**	**313**	IAMs_20	IAMs_20	00	26	48.9
	comp=Z,1µm,21.0s							
ARCES	**ARCESS Array B**	**158.52**	**312**	PKPab	**PKPab**	**23**	**16**	**35.0 -0.1**
	comp=Z,2.2nm,0.6s,baz=96,slow=5.0,SNR=14							
WLF	**Walferdange**	**158.83**	**249**	*d*PKP	**PKPab**	**23**	**16**	**35.3 -1.7**
DOU	**Dourbes**	**159.83**	**248**	*d*PKP	**PKPab**	**23**	**16**	**42.4 +1.2**
BMRD	**Maredsous**	**159.90**	**248**	*d*PcP	**PKPab**	**23**	**16**	**39.9 -1.7**
NOR	**Nord**	**160.13**	**356**	*i* P	**PKPab**	**23**	**16**	**41.6 -0.3**
NOR				IAmb	IAmb	23	16	42.5
	comp=Z,12nm,1.2s							
HFS	**Hagfors**	**161.34**	**282**	PKPab	**PKPab**	**23**	**16**	**47.1 -0.5**
	comp=Z,3.0nm,0.8s,baz=95,slow=7.9,SNR=4.7							
NEEM	**North Greenlan**	**162.34**	**18**	*i* P	**PKPab**	**23**	**16**	**50.5 -1.5**
NEEM				IAmb	IAmb	23	16	55.4
	comp=Z,33nm,1.4s							
KULLO	**Kullorsuaq**	**162.98**	**29**	*i* P	**PKPab**	**23**	**16**	**52.6 -1.9**
KULLO				IAmb	IAmb	23	16	53.2
	comp=Z,28nm,0.8s							
DAG	**Danmarks Havn**	**164.97**	**354**	*i* P	**PKPab**	**23**	**17**	**02.0 -1.1**
DAG				IAmb	IAmb	23	17	04.8
	comp=Z,29nm,1.6s							
EKA	**Eskdalemuir Ar**	**166.85**	**250**	PKPab	**PKPab**	**23**	**17**	**12.5 +0.5**
	comp=Z,0.3nm,0.5s,baz=131,slow=2.2,SNR=3.5							
SUMG	**Summit**	**168.20**	**20**	*i* P	**PKPab**	**23**	**17**	**17.5 -0.5**

*IDC **25** 23:21:40.1±1.3, 61.98S×58.50W, h0km, mb4.1/4, mbtmp4.1/4, Error ellipse: s-maj=71.3km s-min=24.8km az=67.0*
*GUC **25** 23:21:41.0, 62.28S×58.08W, h10km, ML4.1, Presumed earthquake*
*NEIC **25** 23:21:42.1±0.2, 62.3S±0.1×58.1W±0.1, h10km±2km, mb4.3/3, Error ellipse: s-maj=24.8km s-min=4.8km az=19.0.*

ISC 25 23:21:41.8±0.9, 62.1S±0.1×58.3W±0.1, h10km, n25, σ1s69/20, mb4.3/6, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.41**	**156**		**Pn**	**23 22 04.9**	**-2.7**
PMSA	**Palmer Station**	**3.71**	**222**	Pn	**Pn**	**23 22 38.2**	**-0.8**
SMAI	**San Martin Ant**	**7.08**	**208**	Pn	**Pn**	**23 23 24.5**	**-0.8**
BELA	**Belgrano 2**	**17.50**	**164**	Pn	**Pn**	**23 25 43.4**	**-2.1**
BELA				IAmb	IAmb	23 25 49.4	
	comp=Z,7.8nm,1.1s						
VNA3	**Neumayer Olymp**	**20.66**	**137**	P	**P**	**23 26 23.1**	**+1.9**
	comp=Z,18nm,0.8s						
VNA1	**Neumayer--Stat**	**21.12**	**135**	P	**P**	**23 26 28.8**	**+2.6**
	comp=Z,24nm,0.9s						
VNA2	**Neumayer--Watz**	**21.40**	**136**	P	**P**	**23 26 31.7**	**+2.4**
	comp=Z,11nm,0.8s,baz=271,slow=11						
PLCA	**Paso Flores**	**22.66**	**335**	P	**P**	**23 26 41.2**	**-1.8**
	comp=Z,1.8nm,1.0s,baz=167,slow=11,SNR=4.5						
	comp=Z,1.8nm,1.0s						
SNAA	**Sanae**	**22.84**	**138**	P	**P**	**23 26 46.2**	**+1.6**
	comp=Z,187nm,0.7s						
SNAA	**Sanae**	**22.84**	**138**	P	**P**	**23 26 45.8**	**+1.2**
	comp=Z,12nm,1.0s,baz=270,slow=9.7,SNR=13						
	comp=Z,12nm,1.0s						
SNAA	**Sanae**	**22.84**	**138**	P	**P**	**23 26 43.0**	**-1.6**
SNAA				IAmb	IAmb	23 26 48.6	
	comp=Z,14nm,0.9s						
TROLL	**Troll, Antarti**	**24.48**	**139**	P	**P**	**23 27 02.4**	**+1.8**
	comp=Z,349nm,1.2s						
QSPA	**South Pole Qui**	**28.11**	**180**	P	**P**	**23 27 34.4**	**+1.0**
	comp=Z,2.2nm,0.7s,baz=149,slow=2.1,SNR=7.7						
	comp=Z,2.2nm,0.7s						
QSPA	**South Pole Qui**	**28.11**	**180**	P	**P**	**23 27 33.4**	**-0.1**
QSPA				IAmb	IAmb	23 28 00.9	
	comp=Z,6.7nm,1.1s						
MAW	**Mawson**	**43.78**	**152**	P	**P**	**23 29 48.8**	**+1.9**
	comp=Z,4.7nm,0.9s,baz=219,slow=13,SNR=2.6						
	comp=Z,4.7nm,0.9s						
H10S3	**ASCENSION HYDR**	**61.80**	**51**	T	T	00 39 17.7	
	baz=202,slow=74,SNR=10						
H10S2	**ASCENSION HYDR**	**61.80**	**51**	T	T	00 39 18.0	
	baz=18,slow=74,SNR=9.8						
H10N3	**ASCENSION HYDR**	**62.88**	**50**	T	T	00 40 32.1	
	baz=202,slow=74,SNR=14						
H10N1	**ASCENSION HYDR**	**62.89**	**50**	T	T	00 40 36.8	
	baz=202,slow=74,SNR=18						
H10N2	**ASCENSION HYDR**	**62.90**	**50**	T	T	00 40 34.9	
	baz=202,slow=74,SNR=18						
ARCES	**ARCESS Array B**	**143.94**	**36**	PKP	**PKPab**	**23 41 13.2**	**+0.4**
	comp=Z,1.8nm,0.7s,baz=235,slow=3.2,SNR=5.7						
ABKAR	**Akbulak array**	**144.34**	**82**	PKPdf	**PKPab**	**23 41 14.8**	**-0.1**
KKAR	**Karatay Array**	**144.76**	**98**	PKPdf	**PKPab**	**23 41 17.0**	**+0.3**
MKAR	**Makanchi Array**	**152.98**	**106**	PKPbc	**PKPbc**	**23 41 38.7**	**+0.5**
	comp=Z,0.7nm,0.6s,baz=227,slow=3.0,SNR=6.6						
MKAR	**Makanchi Array**	**152.98**	**106**	PKPbc	**PKPbc**	**23 41 37.2**	**-1.0**

*UPP **26** 00:00:36.6±0.2, 59.01N×18.19E, h0km, ML2.2, Suspected explosion*
*DNK **26** 00:00:36.6±1.6, 59.00N×18.27E, h0km, ML3.2, ML2.2(UPP), Explosion*
*HEL **26** 00:00:36.5±0.2, 59.03N×18.14E, h0km, ML1.7, Explosion*

ISC 26 00:00:36.3±0.8, 59.00N±0.02×18.24E±0.03, h0km, n50, σ0s82/69, Baltic Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NYNU	**Nynaeshamn**	**0.12**	**274**	P	**Pg**	**00 00 38.7**	**+0.1**
NYNU				S	**Sg**	**00 00 40.1**	**-0.1**
NYNU	**Nynaeshamn**	**0.12**	**274**	P	**Pg**	**00 00 38.7**	**+0.1**
NYNU				S	**Sg**	**00 00 40.1**	**-0.1**
NYNU	**Nynaeshamn**	**0.12**	**274**	P	**Pg**	**00 00 38.7**	**+0.1**
NYNU				S	**Sg**	**00 00 40.1**	**-0.1**
BOGU	**Bogesund**	**0.41**	**355**	P	**Pg**	**00 00 44.3**	**+0.2**
BOGU				S	**Sg**	**00 00 49.4**	**-0.1**
BOGU	**Bogesund**	**0.41**	**355**	P	**Pg**	**00 00 44.3**	**+0.2**
BOGU				S	**Sg**	**00 00 49.5**	**0.0**
BOGU	**Bogesund**	**0.41**	**355**	P	**Pg**	**00 00 44.3**	**+0.2**
BOGU				S	**Sg**	**00 00 49.5**	**0.0**
NRTU	**

RAJF				SG		**Sb**	**00 31 41.0**	**+0.4**
KEV	**Kevo**	**3.11**	**49**	PN		**Pn**	**00 30 57.7**	**+0.5**
KEV				SN		**Sn**	**00 31 35.8**	**+0.8**
RANF	**Ranua**	**3.17**	**123**	PB		**Pn**	**00 30 59.4**	**+1.4**
RANF				SG		**Sb**	**00 31 43.9**	**+0.7**
BURU	**Burvik**	**3.32**	**171**	PN		**Pn**	**00 31 01.4**	**+1.4**
BURU				SB		**Sn**	**00 31 42.0**	**+2.0**
VRF	**Varrio**	**3.56**	**87**	PN		**Pn**	**00 31 04.1**	**+0.8**
OUL	**Oulu**	**3.59**	**138**	PB		**Pb**	**00 31 08.9**	**-2.3**
OUL				SG		**Sb**	**00 31 56.0**	**+0.9**
OBF4	**Vikkela, Lumij**	**3.63**	**145**	PG		**Pb**	**00 31 13.3**	**+1.5**
OLKF	**Oulanka, Finla**	**3.90**	**109**	PN		**Pn**	**00 31 08.5**	**+0.6**
MSF	**Maaselka** baz=303	**3.98**	**115**	PN		**Pn**	**00 31 10.5**	**+1.4**
KU6	**Riekki**	**4.21**	**111**	PN		**Pn**	**00 31 13.3**	**+1.0**
KU1	**Kurvinen**	**4.35**	**117**	PN		**Pn**	**00 31 15.5**	**+1.3**
FINES	**FINESS Array B** comp=Z,0.1nm,0.3s,baz=343,slow=11,SNR=1.4	**6.90**	**156**	Pn		**Pn**	**00 31 49.5**	**+0.3**
FINES				Sn		**Sn**	**00 33 04.9**	**-3.4**
	comp=Z,0.2nm,0.3s,baz=346,slow=21,SNR=3.4							
FINES				Lg		Lg	00 33 39.3	
	comp=Z,0.4nm,0.3s,baz=345,slow=26,SNR=6.0							
	comp=Z,1.6nm,0.8s							
FINES				AML		AML		
NOA	**NORSAR Array B** baz=33,slow=23,SNR=1.1	**7.87**	**214**	Pn		**Pn**	**00 32 05.1**	**+2.7**
NOA				Sn		**Sn**	**00 33 33.3**	**+1.2**
	baz=32,slow=21,SNR=2.3							
NOA				Lg		Lg	00 34 12.5	
	comp=Z,0.1nm,0.3s,baz=34,slow=19,SNR=4.3							
	comp=Z,0.1nm,0.3s							

*NORS **26** 00:45:51.7,41.30N×43.98E,h12km,MPVA3.7*
*ISK **26** 00:45:52.5,41.40N×44.01E,h6km,ML2.4/9*
*AZER **26** 00:45:55.7,41.42N×44.30E,h10km,ml2.8*
*DRS **26** 00:45:58.2,41.27N×43.80E,h28km*

ISC 26 00:45:53.8±1.3,41°37N±0°02×43°99E±0°03,h1km±11km, n43,σ1°48/79,Turkey-Georgia-Armenia border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TBLG	**Delisi**	**0.67**	**57**	Pg	**Pg**	**00 46 05.0**	**-1.6**
TBLG				Sg	**Sg**	**00 46 14.7**	**-0.5**
TBLG				AML	AML		
KARS	**Kars**	**1.01**	**223**	Pg	**Pb**	**00 46 12.9**	**-1.3**
KARS				Sg	**Sg**	**00 46 27.8**	**+1.5**
KARS				AML	AML		
QZX	**Qazax, Azerbai**	**1.09**	**106**	P	**Pb**	**00 46 12.7**	**-2.6**
QZX				S	**Sb**	**00 46 28.1**	**-2.0**
GNI	**Garni**	**1.34**	**155**	*e*Pg	**Pn**	**00 46 19.2**	**-0.6**
GNI				*e*Sg	**Sb**	**00 46 37.9**	**+0.3**
GNI	**Garni**	**1.34**	**155**	Pn	**Pn**	**00 46 18.8**	**-1.0**
GNI				Sn	**Sb**	**00 46 37.9**	**+0.3**
GNI				AML	AML		
TASB	**TASBURUN-IGDIR**	**1.40**	**172**	Pn	**Pn**	**00 46 19.4**	**-1.0**
TASB				AML	AML		
LACR	**Lac**	**1.48**	**9**	*i* Pg	**Pn**	**00 46 20.5**	**-1.1**
LACR				*e*Sg	**Sn**	**00 46 40.1**	**-1.5**
GDB	**GEDABAY**	**1.48**	**115**	Pg	**Pn**	**00 46 19.2**	**-2.5**
GDB				Sg	**Sn**	**00 46 38.5**	**-3.3**
SENK	**Senkaya-Erzuru**	**1.48**	**238**	Pn	**Pn**	**00 46 21.3**	**-0.5**
SENK				AML	AML		
IGDI	**IGDIR**	**1.50**	**178**	Pg	**Pn**	**00 46 20.9**	**-0.9**
IGDI				Sg	**Sn**	**00 46 41.8**	**-0.3**
DIGR	**Digorskoe uzhe**	**1.56**	**349**	*e*Pg	**Pn**	**00 46 22.3**	**-0.5**
DIGR				*e*Sg	**Sb**	**00 46 43.9**	**0.0**
KORR	**Kora**	**1.72**	**2**	*e*Pg	**Pn**	**00 46 25.9**	**+1.0**
KORR				*e*Sg	**Sg**	**00 46 50.5**	**+1.6**
VLKR	**Vladikavkaz**	**1.75**	**17**	*e*Pg	**Pb**	**00 46 26.5**	**-0.2**
VLKR				*e*Sg	**Sg**	**00 46 52.0**	**+1.9**
HYR	**Heyderabad**	**1.77**	**158**	Pg	**Pn**	**00 46 27.1**	**+1.5**
HYR				Sg	**Sb**	**00 46 50.9**	**+1.0**
KMGR	**Komgaron**	**1.81**	**21**	*e*Pg	**Pb**	**00 46 27.4**	**-0.3**
KMGR				*e*Sg	**Sg**	**00 46 53.4**	**+1.5**
ARNR	**Ardon**	**1.82**	**7**	*e*Pg	**Pb**	**00 46 27.8**	**-0.1**
ARNR				*e*Sg	**Sg**	**00 46 54.2**	**+1.9**
GANJ	**Ganja**	**1.91**	**112**	Pg	**Pn**	**00 46 26.4**	**-1.0**
GANJ				Sg	**Sn**	**00 46 50.9**	**-1.2**
LSNR	**Lesken**	**1.91**	**356**	*e*Pg	**Pn**	**00 46 28.8**	**+1.2**
LSNR				*e*Sg	**Sg**	**00 46 55.5**	**+0.2**
AGRB	**Hanur-Agry**	**1.95**	**203**	Pn	**Pn**	**00 46 27.6**	**-0.5**
ZKTA	**Zakatala**	**1.99**	**81**	Pn	**Pn**	**00 46 28.3**	**-0.3**
ZKTA				Sn	**Sb**	**00 46 55.2**	**-0.9**
STDR	**Stavd-Durt**	**2.00**	**1**	*e*Pg	**Pb**	**00 46 31.1**	**+0.2**
STDR				*e*Sg	**Sg**	**00 46 59.1**	**+1.1**
BTLR	**Botlikh**	**2.11**	**51**	*e*Pg	**Pn**	**00 46 31.4**	**+1.2**
BTLR				*e*Sg	**Sb**	**00 46 58.6**	**-0.8**
KOPR	**Koprukoy-ERZUR**	**2.13**	**230**	Pn	**Pn**	**00 46 30.2**	**-0.4**
NCK	**Nalchik**	**2.15**	**352**	*e*Pg	**Pn**	**00 46 32.0**	**+1.3**
NCK				*e*Sg	**Sb**	**00 47 01.6**	**+1.0**
DVE	**Vedeno**	**2.24**	**44**	*e*Pn	**Pn**	**00 46 33.6**	**+1.5**
DVE				*e*Sn	**Sb**	**00 47 03.8**	**+0.3**
GROC	**Groznyy**	**2.27**	**36**	*e*Pn	**Pn**	**00 46 33.8**	**+1.4**
GROC				*e*Sn	**Sg**	**00 47 07.1**	**+0.5**
SBZ	**Shahbuz**	**2.30**	**148**	Pn	**Pb**	**00 46 36.9**	**+0.8**
SBZ				Sn	**Sb**	**00 47 06.8**	**+1.6**
XNZR	**Khunzakh**	**2.34**	**59**	*e*Pn	**Pn**	**00 46 35.4**	**+1.9**
XNZR				*e*Sn	**Sb**	**00 47 05.9**	**-0.3**
MNGR	**Mingechevir, A**	**2.41**	**103**	P	**Pn**	**00 46 36.0**	**+1.7**
MNGR				Sg	**Sb**	**00 47 08.8**	**+0.6**
SEKA	**Sheki**	**2.42**	**93**	Pg	**Pn**	**00 46 35.0**	**+0.4**
SEKA				S	**Sn**	**00 47 06.3**	**+1.5**
CHOM	**Cayeli-Rize**	**2.45**	**265**	Pn	**Pn**	**00 46 34.1**	**-0.8**
CHOM				AML	AML		
NAX	**Nakhchivan**	**2.48**	**152**	Pg	**Pb**	**00 46 39.9**	**+0.8**
NAX				Sg	**Sb**	**00 47 12.7**	**+2.6**
BRDA	**Brd**	**2.66**	**114**	Pg	**Pb**	**00 46 41.9**	**-0.2**
BRDA				Sg	**Sb**	**00 47 18.4**	**+3.1**
AGDM	**Agdam**	**2.68**	**117**	Pg	**Pn**	**00 46 40.6**	**+2.5**
AGDM				Sg	**Sb**	**00 47 16.5**	**+0.6**
ORD	**Ordubad**	**2.88**	**147**	Pg	**Pb**	**00 46 46.8**	**+0.8**
ORD				Sg	**Sb**	**00 47 23.9**	**+2.2**
QBL	**Gabala**	**2.93**	**97**	Pg	**Pn**	**00 46 44.2**	**+2.7**
QBL				Sg	**Sb**	**00 47 22.9**	**-0.3**
ZRD	**Zardab**	**3.00**	**110**	Pg	**Pb**	**00 46 48.2**	**+0.2**
ZRD				Sg	**Sg**	**00 47 30.2**	**-0.1**
BAYT	**Aydıntepe-Bayb**	**3.08**	**253**	Pn	**Pn**	**00 46 43.3**	**-0.4**
XNIQ	**Khinaliq**	**3.13**	**92**	Pg	**Pn**	**00 46 47.3**	**+2.8**
XNQ				Sg	**Sb**	**00 47 27.7**	**-1.4**
QRD	**Qoradiz**	**3.17**	**126**	Pg	**Pb**	**00 46 51.1**	**+0.1**
QRD				Sg	**Sg**	**00 47 36.9**	**+1.1**
IML	**Ismayilli**	**3.22**	**99**	Pg	**Pb**	**00 46 49.4**	**-2.4**
IML				Sg	**Sb**	**00 47 32.7**	**+1.3**
PQL	**Pirkuli**	**3.52**	**98**	Pg	**Pb**	**00 46 54.9**	**-2.1**
PQL				Sg	**Sb**	**00 47 42.5**	**+2.2**
YRD	**Yardimli**	**4.07**	**126**	Sg	**Sb**	**00 47 59.6**	**+3.4**

*SOME **26** 00:47:45.4,39.27N×76.00E,h5km*
*NNC **26** 00:47:47.2±1.4,39.29N×76.07E,h14km±9km,mb3.5, mpv3.1,Error ellipse: s-maj=9.5km s-min=9.2km az=30.0*

ISC 26 00:47:48.3±2.8,39.4N±0.1×76.07E±0.08,h10km,n18, σ2°33/27,3C-2D,Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AAK	**Ala-Archa** 0.4nm,0.3s	**3.48**	**340**	⇓Pn	**Pn**	**00 48 42.1**	**-0.6**
AAK				⇑Pg	**Pb**	**00 48 51.2**	**+1.1**
	2.2nm,0.4s						
AAK				⇑Lg	Lg	00 49 40.1	
	5.9nm,0.7s						
KST	**Kastek** 3.5nm,0.6s	**3.67**	**359**	Pg	**Pg**	**00 48 56.4**	**-2.3**
KST				Lg	Lg	00 49 47.3	
	18nm,0.8s						
KST	**Kastek** 3.5nm,0.6s	**3.67**	**359**	*e*P	**Pg**	**00 48 56.4**	**-2.3**
KST				*e*S	**Sg**	**00 49 47.3**	**+1.0**
	18nm,0.8s						
TNSS	**Tian-Shan** 2.3nm,0.6s	**3.73**	**10**	Pg	**Pb**	**00 48 56.8**	**+2.4**
TNSS				Lg	Lg	00 49 48.3	
	2.4nm,0.7s						
TNSS	**Tian-Shan** 2.3nm,0.6s	**3.73**	**10**	*e*P	**Pb**	**00 48 56.8**	**+2.4**
TNSS				*e*S	**Sg**	**00 49 48.3**	**+0.4**
	2.4nm,0.7s						
MDOK	**Medeo** 5.3nm,0.4s	**3.86**	**11**	Pg	**Pb**	**00 48 59.4**	**+2.8**
MDOK				Lg	Lg	00 49 52.6	
	20nm,0.6s						
MDOK	**Medeo** 5.3nm,0.4s	**3.86**	**11**	*e*P	**Pb**	**00 48 59.4**	**+2.8**
MDOK				*e*S	**Sg**	**00 49 52.6**	**+0.3**
	20nm,0.6s						
DGS	**Degeres** 2.9nm,0.5s	**3.88**	**357**	Pg	**Pb**	**00 48 59.9**	**+3.0**
DGS				Lg	Lg	00 49 53.0	
	8.0nm,0.8s						
DGS	**Degeres** 2.9nm,0.5s	**3.88**	**357**	*e*P	**Pb**	**00 48 59.9**	**+3.0**
DGS				*e*S	**Sg**	**00 49 53.0**	**+0.1**
	8.0nm,0.8s						
KOTS	**Kotyrbulak** 4.1nm,0.3s	**3.94**	**11**	Pg	**Pb**	**00 49 01.0**	**+3.1**
KOTS				Lg	Lg	00 49 55.4	
	23nm,0.9s						
KOTS	**Kotyrbulak** 4.1nm,0.3s	**3.94**	**11**	*e*P	**Pb**	**00 49 01.0**	**+3.1**
KOTS				*e*S	**Sg**	**00 49 55.4**	**+0.5**
	23nm,0.9s						
SATY	**Saty** 4.3nm,0.6s	**4.09**	**25**	Pg	**Pg**	**00 49 04.2**	**-2.4**
SATY				Lg	Lg	00 50 00.8	
	5.2nm,0.6s						
SATY	**Saty** 4.3nm,0.6s	**4.09**	**25**	*e*P	**Pg**	**00 49 04.2**	**-2.4**
SATY				*e*S	**Sg**	**00 50 00.8**	**+1.3**
	5.2nm,0.6s						
KRBS	**Karabastau** 1.7nm,0.4s	**4.34**	**356**	Pg	**Pb**	**00 49 07.3**	**+2.7**
KRBS				Lg	Lg	00 50 06.2	
	5.8nm,1.0s						
KRBS	**Karabastau** 1.7nm,0.4s	**4.34**	**356**	*e*P	**Pb**	**00 49 07.3**	**+2.7**
KRBS				*e*S	**Sg**	**00 50 06.2**	**-1.3**
	5.8nm,1.0s						
KPKS	**Kokpek** 0.2nm,0.1s	**4.54**	**25**	Pg	**Pb**	**00 49 10.5**	**+2.4**
KPKS				Lg	Lg	00 50 11.3	
	4.3nm,0.4s						
KPKS	**Kokpek** 0.2nm,0.1s	**4.54**	**25**	*e*P	**Pb**	**00 49 10.5**	**+2.4**
KPKS				*e*S	**Sg**	**00 50 11.3**	**-2.8**
	4.3nm,0.4s						
PDGK	**Podgornoye** 1.6nm,0.6s	**4.72**	**32**	⇑Pg	**Pb**	**00 49 13.3**	**+2.1**
PDGK				⇓Lg	Lg	00 50 18.4	
	9.1nm,0.8s						

*HEL **26** 00:55:39.5±0.1,59.03N×18.15E,h0km,ML1.5,Explosion*
*UPP **26** 00:55:39.5±0.1,59.00N×18.19E,h0km,ML2.3,Suspected explosion*
*DNK **26** 00:55:39.9±1.3,59.00N×18.20E,h0km,ML3.2, ML2.3(UPP),Explosion*
*IDC **26** 00:55:42.6±3.0,59.19N×18.10E,h0km,mbtmp2.9/3, ML1.5/2,Error ellipse: s-maj=37.8km s-min=11.4km az=178.0*

ISC 26 00:55:38.5±0.7,58.98N±0.02×18.17E±0.02,h0km,n54, σ1°73/73,Baltic Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NYNU	**Nynaeshamn** baz=91	**0.09**	**288**	P	**Pg**	**00 55 41.6**	**+1.4**
NYNU				S	**Sg**	**00 55 43.0**	**+1.7**
NYNU	**Nynaeshamn** baz=91	**0.09**	**288**	P	**Pg**	**00 55 41.6**	**+1.4**
NYNU				S	**Sg**	**00 55 43.0**	**+1.7**
BOGU	**Bogesund**	**0.43**	**360**	P	**Pg**	**00 55 47.3**	**+0.5**
BOGU				S	**Sg**	**00 55 52.5**	**+0.1**
BOGU	**Bogesund**	**0.43**	**360**	P	**Pg**	**00 55 47.3**	**+0.5**
BOGU				S	**Sg**	**00 55 52.5**	**+0.1**
NRTU	**Norrtaelje**	**0.74**	**19**	*e*P	**Pg**	**00 55 51.5**	**-1.2**
NRTU				*e*S	**Sg**	**00 56 00.9**	**-1.4**
NRTU				MSG		00 56 01.9	
	comp=Z,7.7nm,0.1s						
VIKU	**Vikbolandet**	**0.90**	**239**	P	**Pb**	**00 55 57.0**	**0.0**
VIKU	**Vikbolandet**	**0.90**	**239**	P	**Pb**	**00 55 57.0**	**0.0**
UPP	**Uppsala**	**0.93**	**343**	P	**Pg**	**00 55 56.5**	**+0.2**
UPP	**Uppsala**	**0.93**	**343**	P	**Pg**	**00 55 56.5**	**+0.2**
ESKU	**Eskilstuna**	**0.95**	**286**	P	**Pg**	**00 55 57.2**	**+0.5**
ESKU	**Eskilstuna**	**0.95**	**286**	P	**Pg**	**00 55 57.2**	**+0.5**
FIBU	**Brunna**	**1.02**	**336**	P	**Pg**	**00 55 58.2**	**+0.2**
FIBU	**Brunna**	**1.02**	**336**	P	**Pg**	**00 55 58.2**	**+0.2**
BACU	**Backbrunna**	**1.03**	**329**	P	**Pg**	**00 55 58.4**	**+0.1**
BACU	**Backbrunna**	**1.03**	**329**	P	**Pg**	**00 55 58.4**	**+0.1**
FLYU	**Flymyra**	**1.16**	**353**	P	**Pg**	**00 56 00.7**	**-0.1**
FLYU	**Flymyra**	**1.16**	**353**	P	**Pg**	**00 56 00.7**	**-0.1**
GOTU	**Gotland**	**1.31**	**171**	P	**Pg**	**00 56 03.8**	**+0.1**
GOTU	**Gotland**	**1.31**	**171**	P	**Pg**	**00 56 03.8**	**+0.1**
GOTU	**Gotland**	**1.31**	**171**	*e*P	**Pg**	**00 56 03.7**	**+0.1**
GOTU				*e*SB	**Sb**	**00 56 22.0**	**+0.7**
GOTU				MSG		00 56 26.2	
	comp=Z,3.0nm,0.1s						
OSTU	**Oestervaala**	**1.36**	**338**	P	**Pg**	**00 56 04.4**	**-0.3**
OSTU	**Oestervaala**	**1.36**	**338**	P	**Pg**	**00 56 04.4**	**-0.3**
GRAU	**Graesoe**	**1.38**	**8**	P	**Pg**	**00 56 04.5**	**-0.4**
GRAU	**Graesoe**	**1.38**	**8**	P	**Pg**	**00 56 04.5**	**-0.4**
FORU	**Forsmark**	**1.42**	**0**	P	**Pn**	**00 56 05.2**	**-0.3**
FORU	**Forsmark**	**1.42**	**0**	P	**Pn**	**00 56 05.2**	**-0.3**
VSTU	**Vaestervik**	**1.58**	**214**	P	**Pg**	**00 56 09.0**	**+0.3**
VSTU	**Vaestervik**	**1.58**	**214**	P	**Pg**	**00 56 09.0**	**+0.3**
LNKU	**Linkoeping**	**1.59**	**243**	P	**Pg**	**00 56 09.0**	**+0.2**
LNKU	**Linkoeping**	**1.59**	**243**	P	**Pg**	**00 56 09.0**	**+0.2**
NRAU	**Nora**	**1.71**	**292**	P	**Pb**	**00 56 10.9**	**0.0**
NRAU	**Nora**	**1.71**	**292**	P	**Pb**	**00 56 10.9**	**0.0**
ASKU	**Askersund**	**1.73**	**269**	P	**Pb**	**00 56 11.3**	**+0.2**
ASKU	**Askersund**	**1.73**	**269**	P	**Pb**	**00 56 11.3**	**+0.2**
BYXU	**Byxelkrok**	**1.80**	**200**	P	**Pb**	**00 56 12.8**	**+0.5**
BYXU	**Byxelkrok**	**1.80**	**200**	P	**Pb**	**00 56 12.8**	**+0.5**
EE06	**Soera, Palade,**	**2.42**	**88**	*e*PB	**Pb**	**00 56 21.5**	**-1.5**
EE06				*e*SG	**Sb**	**00 56 54.4**	**+1.1**
EE06				MSG		00 56 58.4	
	comp=Z,2.6nm,0.1s						
RAF	**Rauma**	**2.73**	**40**	*e*PB	**Pn**	**00 56 25.1**	**+1.5**
RAF				*e*SB	**Sn**	**00 56 59.1**	**+1.8**
TVF	**Tvarminne**	**2.74**	**69**	*e*PB	**Pb**	**00 56 27.2**	**-1.1**
TVF				*e*SG	**Sb**	**00 57 02.8**	**+0.4**
ARNU	**Arnoeviken**	**2.75**	**352**	*e*P	**Pn**	**00 56 24.4**	**+0.5**
ARNU				*e*SG	**Sb**	**00 57 02.4**	**-0.3**
MTSE	**Matsula**	**2.95**	**93**	*e*P	**Pn**	**00 56 28.1**	**+1.6**
MTSE				*e*S	**Sn**	**00 57 05.5**	**+2.9**
BLEU	**Blekinge**	**2.96**	**206**	*i* P	**Pn**	**00 56 28.9**	**+2.1**
BLEU				*i* S	**Sn**	**00 56 58.5**	**-4.5**
DEL	**Delary**	**3.41**	**224**	*i* P	**Pn**	**00 56 35.5**	**+2.6**
DEL				*e*S	**Sn**	**00 57 08.8**	**-5.1**
TJOU	**Tjoern**	**3.56**	**257**	*i* P	**Pn**	**00 56 37.0**	**+2.1**
TJOU				*i* S	**Sn**	**00 57 12.4**	**-5.3**
STRU	**Stroemstad**	**3.61**	**274**	*e*P	**Pn**	**00 56 38.0**	**+2.3**
STRU	**Stroemstad**	**3.61**	**274**	*i* P	**Pn**	**00 56 38.5**	**+2.8**
STRU				*i* S	**Sn**	**00 57 17.9**	**-1.1**
ONAU	**Onsala**	**3.67**	**247**	*i* P	**Pn**	**00 56 39.0**	**+2.6**
NOA	**NORSAR Array B** baz=114,slow=15,SNR=1.3	**4.06**	**304**	Pn	**Pn**	**00 56 42.3**	**+0.5**
NOA				Pg	**Pb**	**00 56 50.5**	**-0.3**
	baz=124,slow=13,SNR=4.0						
NOA				Lg	Lg	00 57 43.5	
	comp=Z,0.1nm,0.3s,baz=115,slow=20,SNR=6.7						
	comp=Z,0.2nm,0.4s						
NAO01	**NORSAR Array S**	**4.12**	**300**	*e*P	**Pn**	**00 56 43.2**	**+0.5**
NAO01	**NORSAR Array S**	**4.12**	**300**	*e*P	**Pn**	**00 56 43.3**	**+0.7**
LUNU	**Lund**	**4.22**	**219**	*i* P	**Pn**	**00 56 45.6**	**+1.6**
BSD	**Bornholm Skovb**	**4.26**	**206**	*i* P	**Pn**	**00 56 44.9**	**+0.3**
BSD				*i* S	**Sn**	**00 57 27.8**	**-7.1**
BSD				IAML		00 57 59.3	
	comp=Z,21nm,1.0s						
FINES	**FINESS Array B** comp=Z,0.1nm,0.3s,baz=249,slow=12,SNR=8.2	**4.66**	**55**	Pn	**Pn**	**00 56 51.7**	**+1.7**
FINES				Pg	**Pb**	**00 57 01.9**	**+1.0**
	comp=Z,0.2nm,0.3s,baz=242,slow=14,SNR=5.3						
FINES				Sn	**Sn**	**00 57 44.9**	**+0.2**
	comp=Z,0.5nm,0.3s,baz=247,slow=20,SNR=9.3						
FINES				Lg	Lg	00 58 01.6	
	comp=Z,0.6nm,0.3s,baz=244,slow=22,SNR=8.6						
	comp=Z,1.2nm,0.6s						
FINES				AML	AML		
ARCES	**ARCESS Array B** comp=Z,1.6nm,0.9s,baz=197,slow=12,SNR=4.9	**11.06**	**14**	Pn	**Pn**	**00 58 16.2**	**-1.5**

*IDC **26** 01:15:30.3±0.8,33.55N×88.15E,h0km,mb3.9/12,*

mbtmp3.9/16,ML3.6/4,Error ellipse: s-maj=30.4km s-min=14.7km az=56.0
*NEIC **26** 01:15:32.6±1.4,33.74N±0.05×88.56E±0.07,h10km±1km, mb4.2/16,Error ellipse: s-maj=12.7km s-min=4.7km az=132.0*

ISC 26 01:15:35.4±0.6,33°69N±0°07×88°49E±0°08,h35km,n46, σ0°95/46,mb4.0/14,Xizang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LSA	**Lhasa**	**4.58**	**150**	Pn	**Pn**	**01 16 42.9**	**+0.2**
EVN	**Everest**	**5.90**	**195**		**Pn**	**01 17 01.5**	**-0.7**
PDGK	**Podgornoye**	**11.92**	**326**		**Pn**	**01 18 22.9**	**0.0**
NIL	**Nilore**	**12.70**	**274**		**Pn**	**01 18 33.8**	**+0.4**
MKAR	**Makanchi Array** 0.1nm,0.3s,baz=140,slow=9.6,SNR=8.4	**13.91**	**342**	Pn	**Pn**	**01 18 48.9**	**-1.0**
	0.4nm,0.7s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**13.91**	**342**	Pn	**Pn**	**01 18 50.3**	**+0.4**
BTK	**Batken**	**15.49**	**299**	Pn	**Pn**	**01 19 11.0**	**-0.3**
BTK				IAmb	IAmb	01 19 21.0	
	comp=Z,6.0nm,0.9s						
CMAR	**Chiang Mai Arr** comp=Z,0.3nm,0.3s,baz=326,slow=12,SNR=7.6	**17.82**	**146**	P	**Pn**	**01 19 39.7**	**-1.0**
	comp=Z,1.1nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**17.82**	**146**	P	**Pn**	**01 19 38.9**	**-1.8**
ENH	**Enshi**	**18.13**	**95**		**Pn**	**01 19 44.1**	**-0.4**
ENH				IAmb	IAmb	01 20 16.5	
	comp=Z,17nm,1.3s						
KURBB	**Kurchatov Arra** baz=151,slow=12,SNR=16	**18.43**	**340**	P	**P**	**01 19 46.6**	**-1.0**
	comp=Z,1.9nm,0.7s						
KURK	**Kurchatov**	**18.48**	**340**		**P**	**01 19 47.4**	**-0.8**
SONM	**Songino Array** comp=Z,0.2nm,0.3s,baz=222,slow=11,SNR=15	**19.52**	**38**	P	**Pn**	**01 20 01.7**	**+0.6**
	comp=Z,3.3nm,0.7s						
SONM				AML	AML		
SONM	**Songino Array**	**19.52**	**38**		**P**	**01 19 59.2**	**-0.5**
ULN	**Ulaanbaatar**	**19.88**	**39**		**P**	**01 20 04.5**	**+0.8**
ULN				IAmb	IAmb	01 20 06.3	
	comp=Z,6.2nm,0.9s						
ZAA0	**Zalesovo Array**	**20.42**	**354**		**P**	**01 20 08.9**	**-0.3**
ZAA0				IAmb	IAmb	01 20 11.2	
	comp=Z,11nm,1.4s						
ZALV	**Zalesovo Beam** comp=Z,2.8nm,0.8s,baz=170,slow=11,SNR=16	**20.42**	**354**	P	**P**	**01 20 09.9**	**+0.6**
	comp=Z,2.8nm,0.8s						
ZALV	**Zalesovo Beam**	**20.42**	**354**		**P**	**01 20 08.8**	**-0.5**
BVAR	**Borovoye Array** comp=Z,1.5nm,0.8s,baz=209,slow=15,SNR=2.1	**23.26**	**332**	P	**P**	**01 20 39.3**	**-0.2**
	comp=Z,1.5nm,0.8s						
AB31	**Akbulak array**	**26.23**	**315**		**P**	**01 21 07.4**	**+0.5**
AB31				IAmb	IAmb	01 21 14.2	
	comp=Z,1.7nm,0.7s						
ABKAR	**Akbulak array**	**26.23**	**315**	P	**P**	**01 21 08.3**	**+1.4**
HIA	**Hailar**	**27.86**	**47**	P	**P**	**01 21 19.7**	**-1.9**
HIA				IAmb	IAmb	01 21 24.2	
	comp=Z,6.0nm,0.5s						
NACB	**Ninganchiao**	**30.38**	**99**	P	**P**	**01 21 44.1**	**0.0**
NRIK	**Noril'sk** comp=Z,6.4nm,0.8s,baz=162,slow=6.3,SNR=15	**35.70**	**359**	P	**P**	**01 22 31.1**	**+1.1**
	comp=Z,6.4nm,0.8s						
NRIK	**Noril'sk**	**35.70**	**359**		**P**	**01 22 30.4**	**+0.4**
NRIK				IAmb	IAmb	01 22 31.7	
	comp=Z,5.7nm,0.7s						
BRTR	**Keskin Array B** comp=Z,0.5nm,0.8s,baz=94,slow=9.0,SNR=2.6	**43.81**	**294**	P	**P**	**01 23 35.5**	**-2.5**
	comp=Z,0.5nm,0.8s						
BRTR	**Keskin Array B**	**43.81**	**294**	P	**P**	**01 23 39.0**	**+1.0**
FINES	**FINESS Array B** comp=Z,2.4nm,0.7s,baz=86,slow=6.3,SNR=6.9	**47.95**	**325**	P	**P**	**01 24 09.4**	**-0.7**
	comp=Z,2.4nm,0.7s						
FINES	**FINESS Array B**	**47.95**	**325**	P	**P**	**01 24 10.2**	**+0.1**
BURAR	**Bucovina Array**	**48.68**	**306**	P	**P**	**01 24 15.6**	**-0.6**
HFS	**Hagfors** comp=Z,3.1nm,0.9s,baz=80,slow=8.9,SNR=2.4	**54.02**	**323**	P	**P**	**01 24 54.9**	**-0.9**
	comp=Z,3.1nm,0.9s						
NB2	**NORSAR Subarra** comp=Z,0.6nm,0.6s,baz=82,slow=6.9	**55.13**	**325**	P	**P**	**01 25 03.5**	**-0.4**
NOA	**NORSAR Array B** comp=Z,0.8nm,0.5s,baz=82,slow=8.5,SNR=3.6	**55.13**	**325**	P	**P**	**01 25 03.8**	**0.0**
	comp=Z,0.8nm,0.5s						
GERES	**GERESS Array B** comp=Z,1.0nm,0.6s,baz=79,slow=6.9,SNR=13	**56.01**	**310**	P	**P**	**01 25 11.0**	**+0.5**
	comp=Z,1.0nm,0.6s						
GERES	**GERESS Array B**	**56.01**	**310**	P	**P**	**01 25 10.6**	**+0.1**
EKA	**Eskdalemuir Ar** comp=Z,0.6nm,0.6s,baz=66,slow=6.8,SNR=3.5	**63.93**	**321**	P	**P**	**01 26 03.8**	**-0.8**
	comp=Z,0.6nm,0.6s						
WB0	**Warramunga Arr**	**68.85**	**134**	P	**P**	**01 26 37.6**	**+1.1**
**D23

comp=Z,2.4nm,0.3s
AB31 Akbulak array 69.36 316 P P 01 30 16.1 +0.8
AB31 IAmb IAmb 01 30 20.7
comp=Z,3.6nm,1.4s
ABKAR Akbulak array 69.36 316 P P 01 30 16.0 +0.7
YKA Yellowknife Ar 76.47 28 P P 01 30 57.0 +0.5
comp=Z,1.3nm,0.6s,baz=293,slow=5.9,SNR=15
comp=Z,1.3nm,0.6s
YKA Yellowknife Ar 76.47 28 P P 01 30 56.6 +0.1
YKAW1 Yellowknife Wh 76.53 28 P P 01 30 57.2 +0.4
YKAW1 IAmb IAmb 01 31 32.7
comp=Z,3.4nm,0.9s
ARCES ARCESS Array B 78.78 341 P P 01 31 09.8 +0.6
comp=Z,1.7nm,0.5s,baz=70,slow=8.0,SNR=13
comp=Z,1.7nm,0.5s
ARCES ARCESS Array B 78.78 341 P P 01 31 10.2 +1.1
ARCES IAmb IAmb 01 31 21.2
comp=Z,29nm,1.5s
FINES FINESS Array B 83.02 334 P P 01 31 31.6 0.0
comp=Z,2.3nm,0.6s,baz=78,slow=4.7,SNR=24
comp=Z,2.3nm,0.6s
FINES FINESS Array B 83.02 334 P P 01 31 31.3 -0.3
NVAR Mina Array Bea 83.24 51 P P 01 31 33.7 +0.2
comp=Z,0.6nm,0.5s,baz=286,slow=5.2,SNR=4.5
comp=Z,0.6nm,0.5s
NVAR Mina Array Bea 83.24 51 P P 01 31 33.2 -0.3

*DJA **26** 01:50:47.0±0.5,5°S±6°×15°0E±°, h353km±6km, M4.4/15, mB5.2/6, mB5.2/6, mb4.6/15, mb4.6/15, MLv4.2/3, MLv4.2/3, Mw(mB)4.6/6, Mw(mB)4.6/6*
*NEIC **26** 01:50:48.6±1.0,5.01S±0.09°×150.09E±0.09, h340km±7km, mb4.4/23, Error ellipse: s-maj=16.0km s-min=9.1km az=46.0*
*GFZ **26** 01:50:49.7±0.8,5°S±6°×15°0E±°, h355km±6km, M4.4/17, mb4.4/17, Error ellipse: s-maj=16.4km s-min=7.9km az=46.4, confirmed*

ISC 26 01:50:49.8±0.5,5.08S±0.07°×149.94E±0.06, h350km, n104, σ1s02/102, mb4.5/24, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RABL	**Rabaul**	**2.39**	**68**		Pn	01 51 39.6	-4.5
MANU	**Manus Island**	**3.96**	**320**		**Pn**	**01 51 57.1**	**-1.4**
PMG	**Port Moresby**	**5.10**	**213**	P	Pn	01 52 16.2	+5.6
PMG	**Port Moresby**	**5.10**	**213**	P	Pn	01 52 16.4	+5.8
PMG	**Port Moresby**	**5.10**	**213**		**Pn**	**01 52 09.5**	**-1.1**
PMG	**Port Moresby**	**5.10**	**213**	P	**Pn**	**01 52 11.9**	**+1.3**
	0.4nm0.4nm52nm,0.8s						
PMG				AML	AML		
PMG				AML	AML		
PMG	**Port Moresby**	**5.10**	**213**	P	**Pn**	**01 52 10.8**	**+0.2**
	comp=Z,52nm,0.8s						
JAY	**Jayapura**	**9.56**	**285**	P	**Pn**	**01 53 02.0**	**-0.6**
JAY	**Jayapura**	**9.56**	**285**	P	**Pn**	**01 53 02.3**	**-0.3**
GENI	**Genyem**	**10.05**	**284**	P	**Pn**	**01 53 09.1**	**+0.6**
GENI	**Genyem**	**10.05**	**284**	P	**Pn**	**01 53 07.9**	**-0.6**
	comp=Z,3μmcomp=Z,3μmcomp=Z,156nm,0.9s,comp=Z,156nm,0.9s						
GENI	**Genyem**	**10.05**	**284**	P	**Pn**	**01 53 08.2**	**-0.3**
	comp=Z,156nm,1.0s						
TATA	**Tatamba Isabel**	**10.34**	**109**	S	**S**	**01 55 09.7**	**+1.3**
SAVO	**Savo Central**	**10.60**	**113**	P	**Pn**	**01 53 14.6**	**-0.4**
SAVO	**Savo Central**	**10.60**	**113**	S	**S**	**01 55 15.9**	**+1.6**
SMPI	**Sarmi**	**11.62**	**285**	P	**Pn**	**01 53 26.2**	**-0.9**
	comp=Z,9μmcomp=Z,9μmcomp=Z,155nm,0.6s,comp=Z,155nm,0.6s						
SMPI	**Sarmi**	**11.62**	**285**	P	**P**	**01 53 28.1**	**+0.8**
	comp=Z,144nm,0.7s						
MTSU	**Mount Surprise**	**14.09**	**202**	P	**Pn**	**01 53 57.1**	**+0.9**
MTSU	**Mount Surprise**	**14.09**	**202**	P	**Pn**	**01 53 57.2**	**+0.9**
	comp=Z,7.9nm,0.8s						
BAKI	**Biak**	**14.34**	**285**	P	**Pn**	**01 53 58.7**	**-0.4**
	comp=Z,1μmcomp=Z,1μmcomp=Z,182nm,0.9s,comp=Z,182nm,0.9s						
CTAO	**Charters Tower**	**15.34**	**193**	P	**Pn**	**01 54 10.9**	**+0.2**
CTAO	**Charters Tower**	**15.34**	**193**	P	P	**01 54 09.1**	**+0.9**
CTAO				IAmb	IAmb	01 54 13.8	
	comp=Z,8.2nm,0.7s						
CTAO	**Charters Tower**	**15.34**	**193**	P	**Pn**	**01 54 10.0**	**-0.7**
	comp=Z,14nm,0.9s						
FAKI	**Fak Fak**	**17.77**	**276**	P	**P**	**01 54 31.9**	**-2.7**
FAKI	**Fak Fak**	**17.77**	**276**	P	**P**	**01 54 36.8**	**+2.3**
	comp=Z,43nm,0.9s						
QIS	**Mount Isa**	**18.37**	**212**	P	**P**	**01 54 42.4**	**+1.6**
QIS	**Mount Isa**	**18.37**	**212**	P	**P**	**01 54 41.4**	**+0.6**
	comp=Z,33nm,0.8s						
SANVU	**Saraoutou**	**19.85**	**123**	P	**P**	**01 54 54.9**	**-1.5**
	comp=Z,28nm,0.8s						
MTN	**Manton Dam**	**20.10**	**246**		**P**	**01 54 59.2**	**+0.4**
MTN				IAmb	IAmb	01 55 02.5	
	comp=Z,12nm,0.5s						
DRS	**Darwin Rock St**	**20.17**	**248**	P	**P**	**01 55 00.0**	**+0.4**
EIDS	**Eidsvold**	**20.20**	**177**	P	**P**	**01 55 00.0**	**+0.2**
EIDS	**Eidsvold**	**20.20**	**177**		**P**	**01 54 59.5**	**-0.3**
EIDS				IAmb	IAmb	01 55 00.6	
	comp=Z,24nm,1.2s						
EIDS	**Eidsvold**	**20.20**	**177**	P	**P**	**01 54 59.9**	**+0.2**
	comp=Z,21nm,0.9s						
WB0	**Warramunga Arr**	**21.03**	**225**		**P**	**01 55 07.4**	**+0.1**
WR8	**Warramunga Arr**	**21.08**	**224**		**P**	**01 55 08.3**	**+0.5**
WRAB	**Tennant Creek**	**21.17**	**224**	P	**P**	**01 55 08.9**	**+0.3**
WRAB	**Tennant Creek**	**21.17**	**224**	P	**P**	**01 55 09.2**	**+0.6**
WRAB	**Tennant Creek**	**21.17**	**224**	P	**P**	**01 55 09.1**	**+0.5**
	comp=Z,123nm,0.5s						
WRA	**Warramunga Arr**	**21.18**	**224**		**P**	**01 55 08.8**	**+0.1**
WRA				IAmb	IAmb	01 55 10.3	
	comp=Z,7.6nm,0.6s						
QLP	**Quilpie**	**22.06**	**194**	P	**P**	**01 55 17.8**	**+1.1**
QLP	**Quilpie**	**22.06**	**194**	P	**P**	**01 55 17.7**	**+1.1**
	comp=Z,20nm,0.8s						
KNRA	**Kununurra**	**23.31**	**242**		**P**	**01 55 28.6**	**+0.5**
KNRA				IAmb	IAmb	01 55 31.1	
	comp=Z,17nm,0.6s						
YATNC	**Mamie plateau,**	**23.54**	**137**	P	**P**	**01 55 29.6**	**-0.6**
OUENC	**Ouen Island, N**	**23.76**	**138**	P	**P**	**01 55 31.0**	**-1.1**
AS01	**Alice Springs**	**24.06**	**218**	P	**P**	**01 55 35.2**	**+0.4**
AS31	**Alice Springs**	**24.09**	**218**		**P**	**01 55 35.4**	**+0.3**
AS31				IAmb	IAmb	01 55 35.9	
	comp=Z,5.3nm,0.4s						
ASAR	**Alice Springs**	**24.09**	**218**		**P**	**01 55 35.4**	**+0.2**
SANI	**Sanana**	**24.09**	**276**	P	**P**	**01 55 34.8**	**-0.4**
SANI	**Sanana**	**24.09**	**276**	P	**P**	**01 55 34.2**	**-1.0**
	comp=Z,26nm,0.8s,comp=Z,26nm,0.8s						
SANI	**Sanana**	**24.09**	**276**	P	**P**	**01 55 34.6**	**-0.6**
	comp=Z,27nm,0.8s						
ARMA	**Armidale**	**25.25**	**177**	P	**P**	**01 55 45.7**	**+0.2**
ARMA				IAmb	IAmb	01 55 49.2	
	comp=Z,6.6nm,0.5s						
ARMA	**Armidale**	**25.25**	**177**	P	**P**	**01 55 46.4**	**+0.8**
	comp=Z,9.9nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.04**	**239**	P	**P**	**01 56 01.2**	**-0.2**
TOLI2	**Toitoli**	**29.77**	**281**	P	**P**	**01 56 25.6**	**+0.1**
BBOO	**Buckleboo**	**30.48**	**203**	P	**P**	**01 56 31.2**	**-0.3**
BBOO				IAmb	IAmb	01 57 07.3	
	comp=Z,45nm,1.5s						
MBWA	**Marble Bar**	**33.37**	**239**	P	**P**	**01 56 55.9**	**-0.8**
MBWA				IAmb	IAmb	01 56 56.5	
	comp=Z,8.5nm,0.6s						
MBWA	**Marble Bar**	**33.37**	**239**	P	**P**	**01 56 56.1**	**-0.6**
	comp=Z,11nm,0.7s						
MEEK	**Meekatharra**	**36.79**	**231**	P	**P**	**01 57 25.0**	**-0.6**
	comp=Z,25nm,0.7s						
OUZ	**Omahuta**	**37.10**	**147**	P	**P**	**01 57 29.4**	**+1.4**
GIRL	**Giralia**	**38.65**	**240**	P	**P**	**01 57 41.2**	**+0.2**
MORW	**Morawa**	**39.97**	**229**	P	**P**	**01 57 51.2**	**-0.6**
MORW	**Morawa**	**39.97**	**229**	P	**P**	**01 57 51.1**	**-0.6**
	comp=Z,10nm,0.5s						
KLBR	**Kellerberrin**	**40.06**	**225**	P	**P**	**01 57 51.3**	**-1.3**
	comp=Z,22nm,0.7s						
OTVZ	**Oturere**	**41.15**	**149**	P	**P**	**01 58 03.6**	**+2.2**
SNVZ	**South Ngauruho**	**41.16**	**149**	P	**P**	**01 58 03.3**	**+1.8**
NWAO	**Narrogin (SRO)**	**41.19**	**224**	P	**P**	**01 58 00.2**	**-1.3**
NWAO				IAmb	IAmb	01 58 04.4	
	comp=Z,41nm,1.4s						
URZ	**Urewera**	**41.25**	**147**	P	**P**	**01 58 01.6**	**-0.3**
	comp=Z,22nm,1.6s						
HAZ	**Te Kaha**	**41.26**	**146**	P	**P**	**01 58 02.7**	**+0.6**
DSZ	**Denniston Nort**	**41.40**	**155**	P	**P**	**01 58 04.4**	**+1.2**
RTZ	**Ruatahuna**	**41.44**	**147**	P	**P**	**01 58 02.5**	**-1.1**
RTZ				IAmb	IAmb	01 58 05.0	
	comp=Z,25nm,0.5s						
RTZ	**Ruatahuna**	**41.44**	**147**	P	**P**	**01 58 04.8**	**+1.2**
MTHZ	**Maungataniwha**	**41.53**	**148**	P	**P**	**01 58 04.7**	**+0.4**
BKZ	**Black Stump Fm**	**41.58**	**148**	P	**P**	**01 58 04.9**	**+0.2**
BHHZ	**Black Hill Sta**	**41.60**	**149**	P	**P**	**01 58 05.3**	**+0.4**
NNZ	**Nelson**	**41.65**	**153**	P	**P**	**01 58 06.3**	**+1.1**
KRHZ	**Kereru**	**41.87**	**149**	P	**P**	**01 58 07.3**	**+0.3**
THZ	**Tophouse**	**41.88**	**154**	P	**P**	**01 58 09.6**	**+2.5**
TSZ	**Takapari Road**	**41.98**	**150**	P	**P**	**01 58 08.2**	**+0.3**
PNHZ	**Pukenui**	**41.99**	**149**	P	**P**	**01 58 08.4**	**+0.5**
CNGZ	**Carnagh Statio**	**42.01**	**146**	P	**P**	**01 58 08.6**	**+0.6**
BBJI	**Bungbulang**	**42.09**	**265**	P	**P**	**01 58 08.2**	**-1.0**
BBJI	**Bungbulang**	**42.09**	**265**	P	**P**	**01 58 07.2**	**-1.9**
	comp=Z,7.3nm,0.7s						
KNZ	**Kokohu**	**42.10**	**147**	P	**P**	**01 58 08.8**	**0.0**
KAHZ	**Kahuranaki**	**42.24**	**149**	P	**P**	**01 58 10.9**	**+0.9**
DVHZ	**Dannevirke**	**42.26**	**150**	P	**P**	**01 58 10.1**	**-0.1**
HOWZ	**Holdsworth Sta**	**42.40**	**151**	P	**P**	**01 58 11.2**	**0.0**
PXZ	**Pawanui**	**42.41**	**149**	P	**P**	**01 58 11.5**	**+0.2**
LTZ	**Lake Taylor**	**42.45**	**156**	P	**P**	**01 58 11.7**	**+0.1**
LTZ				IAmb	IAmb	01 58 55.0	
	comp=Z,44nm,1.5s						
BHW	**Baring Head**	**42.49**	**152**	P	**P**	**01 58 11.8**	**-0.1**
BFZ	**Birch Farm**	**42.59**	**150**	P	**P**	**01 58 11.4**	**-1.3**
BFZ				IAmb	IAmb	01 58 34.4	
	comp=Z,68nm,1.3s						
BFZ	**Birch Farm**	**42.59**	**150**	P	**P**	**01 58 12.5**	**-0.2**
MSWZ	**Moikau Station**	**42.67**	**152**	P	**P**	**01 58 12.5**	**-0.8**
PLWZ	**Palliser**	**42.79**	**152**	P	**P**	**01 58 13.3**	**-1.0**
MLZ	**Mavora Lakes**	**43.15**	**161**	P	**P**	**01 58 17.9**	**+0.8**
NJ2	**Nanjing**	**47.31**	**323**	*eP*	**P**	**01 58 50.0**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
CN2	**Changchun**	**53.44**	**338**	*eP*	**P**	**01 59 35.8**	**+0.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
XAN	**Xi'an**	**54.89**	**318**	P	**P**	**01 59 47.0**	**+1.5**
XAN				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HHC	**Hu-ho-hao-te**	**57.65**	**326**	*eP*	**P**	**02 00 04.5**	**-0.3**
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
BTO2	**Baotou**	**58.53**	**325**	*eP*	**P**	**02 00 11.8**	**+1.0**
BTO2				S	**S**	**02 07 48.3**	**+1.7**
BTO2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,190nm,4.1s						
BTO2				LR	LR		
	comp=N,310nm,6.8s						
BTO2				LR	LR		
	comp=E,340nm,5.0s						
BTO2				LR	LR		
	comp=Z,190nm,5.2s						
CASY	**Casey**	**66.93**	**196**	P	**P**	**02 01 05.0**	**-0.1**
WMQ	**Urumqi**	**74.03**	**318**	*eP*	**P**	**02 01 49.3**	**+1.1**
BTK	**Batken**	**84.95**	**311**	P	**P**	**02 02 46.8**	**+0.1**
	comp=Z,2.7nm,1.8s						
146A	**Union**	**118.70**	**56**		**PKPdf**	**02 08 54.7**	**-2.5**
JUD3	**Juan Diaz 3**	**124.84**	**81**		**PKPdf**	**02 09 06.5**	**-3.1**

*GUC **26** 02:00:08.0, 62.44S×58.60W, h10km, ML4.2, Presumed earthquake*

NEIC 26 02:00:07.9±1.4, 62.35S±0.09×58.2W±0.1, h10km±1km, mb4.4/11, Error ellipse: s-maj=18.2km s-min=4.1km az=29.0, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ESPZ	**Base Esperanza**	**1.20**	**152**		Pg	02 00 31.1	+0.2
PMSA	**Palmer Station**	**3.56**	**224**	Pn	Pn	02 01 03.5	+0.4
SMAI	**San Martin Ant**	**6.89**	**209**	Pn	Pn	02 01 48.2	-0.5
BELA	**Belgrano 2**	**17.28**	**163**	Pn	Pn	02 04 07.6	-1.2
LL02	**Futaleuf**	**20.79**	**331**	P	P	02 04 49.3	+0.4
LL02				IAmb	IAmb	02 04 55.0	
	comp=Z,7.1nm,0.9s						
LL07	**Hotel Espejo d**	**21.52**	**328**	P	P	02 04 55.9	-0.8
QSPA	**South Pole Qui**	**27.88**	**180**	P	P	02 05 56.6	-1.0
BO02	**Sierra Bellavi**	**28.69**	**338**	P	P	02 06 04.5	-0.3
BO02				IAmb	IAmb	02 06 12.5	
	comp=Z,6.0nm,1.0s						
VA03	**San Esteban**	**30.63**	**339**	P	P	02 06 21.3	-0.8
VA03				IAmb	IAmb	02 06 38.7	
	comp=Z,6.5nm,0.9s						
CO04	**Los Peladeros**	**31.41**	**339**	P	P	02 06 27.4	-1.7
SBA	**Scott Base**	**37.39**	**194**	P	P	02 07 21.1	+1.0
SBA				IAmb	IAmb	02 07 35.4	
	comp=Z,5.0nm,1.1s						
PB09	**IPOC Station P**	**41.22**	**344**	P	P	02 07 52.7	-0.2
PB09				IAmb	IAmb	02 08 03.5	
	comp=Z,6.0nm,0.9s						
MACA	**Manacapuru-AM**	**59.08**	**357**	P	P	02 10 08.1	0.0
MACA				IAmb	IAmb	02 10 13.2	
	comp=Z,7.9nm,0.8s						
BOAV	**Boa Vista**	**64.59**	**357**	P	P	02 10 44.8	-0.3
BOAV				IAmb	IAmb	02 10 53.8	
	comp=Z,3.2nm,1.0s						

*IDC **26** 02:00:29.5±1.0, 10.18N×93.60E, h0km, mb3.8/8, mbtmp3.8/9, ML4.2/1, MS3.2/3, Error ellipse: s-maj=27.2km s-min=16.3km az=71.0*
*NEIC **26** 02:00:31.3±0.8, 10.17N±0.06×93.6E±0.1, h10km±1km, mb4.3/12, Error ellipse: s-maj=20.6km s-min=3.0km az=240.0*

ISC 26 02:00:32.4±0.7, 10.10N±0.07×93.56E±0.10, h24km, n29, σ0s77/30, mb4.1/13, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PBA	**Port Blair**	**1.74**	**333**	Pn	**Pn**	**02 01 01.2**	**0.0**
PBA				Sg	**Sb**	**02 01 25.9**	**+0.7**
LHMI	**Lhok Sumawe**	**5.89**	**145**	Pn	**Pn**	**02 01 57.8**	**-0.5**
PSI	**Prapat**	**9.00**	**143**	LR	LR	02 06 24.7	
	comp=Z,92nm,19.3s,baz=313,slow=39						
CMAR	**Chiang Mai Arr**	**9.81**	**32**	Pn	**Pn**	**02 02 51.3**	**-0.8**
	0.6nm,0.3s,baz=214,slow=14,SNR=6.0						
CMAR				Sn	**Sn**	**02 04 43.6**	**+2.1**
	0.6nm,0.3s,baz=210,slow=27,SNR=2.9						
CMAR				LR	LR	02 06 32.7	
	comp=Z,59nm,20.0s,baz=205,slow=37						
	0.7nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**9.81**	**32**		**Pn**	**02 02 51.1**	**-1.0**
EVN	**Everest**	**18.86**	**341**	P	**Pn**	**02 04 52.0**	**-0.3**
EVN				IAmb	IAmb	02 04 57.5	
	comp=Z,8.6nm,0.9s						
DGAR	**Diego Garcia**	**27.29**	**231**	P	**P**	**02 06 16.1**	**+0.7**
KDJ	**Kajisay**	**34.99**	**339**	P	**P**	**02 07 23.0**	**-0.2**
ARSB	**Arslanbob**	**36.01**	**333**	P	**P**	**02 07 32.0**	**+0.1**
ARSB				IAmb	IAmb	02 07 47.4	
	comp=Z,6.0nm,1.1s						
BTK	**Batken**	**36.03**	**330**	P	**P**	**02 07 31.6**	**-0.4**
BTK				IAmb	IAmb	02 07 36.9	
	comp=Z,9.4nm,1.2s						
MKAR	**Makanchi Array**	**37.80**	**347**	P	**P**	**02 07 46.7**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=176,slow=6.8,SNR=5.4						
	comp=Z,0.7nm,0.6s						
MKAR	**Makanchi Array**	**37.80**	**347**	P	**P**	**02 07 46.8**	**-0.1**
MAKZ	**Makanchi**	**37.88**	**347**	P	**P**	**02 07 46.7**	**-0.9**
MAKZ				IAmb	IAmb	02 08 25.4	
	comp=Z,5.4nm,1.2s						
SONM	**Songino Array**	**39.14**	**14**	P	**P**	**02 07 56.6**	**-1.6**
KURBB	**Kurchatov Arra**	**42.26**	**346**	P	**P**	**02 08 24.0**	**+0.2**
	comp=Z,0.8nm,0.8s,baz=163,slow=7.4,SNR=5.6						
	comp=Z,0.8nm,0.8s						
FITZ	**Fitzroy Crossi**	**42.29**	**131**	P	**P**	**02 08 24.2**	**-0.2**
KNRA	**Kununurra**	**43.26**	**126**	P	**P**	**02 08 32.9**	**+0.6**
KNRA				IAmb	IAmb	02 08 58.4	
	comp=Z,12nm,1.5s						
ZALV	**Zalesovo Beam**	**44.29**	**353**	P	**P**	**02 08 40.4**	**+0.3**
	comp=Z,1.8nm,0.6s,baz=180,slow=9.2,SNR=6.9						
	comp=Z,1.8nm,0.6s						
ZALV	**Zalesovo Beam**	**44.29**	**353**	P	**P**	**02 08 39.8**	**-0.3**
BVAR	**Borovoye Array**	**46.71**	**341**	P	**P**	**02 08 59.7**	**+0.3**
	comp=Z,0.6nm,0.7s,baz=139,slow=9.0,SNR=2.4						
	comp=Z,0.6nm,0.7s						
AB31	**Akbulak array**	**48.02**	**331**	P	**P**	**02 09 09.1**	**-0.5**
AB31				IAmb	IAmb	02 09 14.2	
	comp=Z,1.7nm,0.9s						
WRA	**Warramunga Arr**	**50.03**	**127**	P	**P**	**02 09 26.2**	**+0.7**
	comp=Z,1.8nm,0.7s,baz=305,slow=8.7,SNR=21						
	comp=Z,1.8nm,0.7s						
WRA	**Warramunga Arr**	**50.03**	**127**	P	**P**	**02 09 25.2**	**-0.3**
ASAR	**Alice Springs**	**51.79**	**131**	P	**P**	**02 09 39.7**	**+1.0**
	comp=Z,0.7nm,0.5s,baz=302,slow=6.8,SNR=11						
	comp=Z,0.7nm,0.5s						
ASAR	**Alice Springs**	**51.79**	**131**	P	**P**	**02 09 39.1**	**+0.4**
BRTR	**Keskin Array B**	**60.56**	**310**	P	**P**	**02 10 42.0**	**+0.7**
	comp=Z,0.5nm,0.7s,baz=138,slow=9.4,SNR=3.7						
	comp=Z,0.5nm,0.7s						
BRTR	**Keskin Array B**	**60.56**	**310**	P	**P**	**02 10 41.1**	**-0.2**
STKA	**Stephens Creek**	**62.05**	**134**	P	**P**	**02 10 52.1**	**+0.8**
	comp=Z,1.1nm,0.5s,baz=307,slow=14,SNR=3.1						
STKA				LR	LR	02 39 31.5	
	comp=Z,67nm,18.3s,baz=202,slow=38						
	comp=Z,1.1nm,0.5s						
STKA	**Stephens Creek**	**62.05**	**134**	P	**P**	**02 10 52.2**	**+0.8**

*IDC **26** 02:51:04.5±0.6, 31.72S×71.46W, h0km, mb4.0/6, mbtmp4.0/11, ML4.2/5, MS3.1/4, Error ellipse: s-maj=15.3km s-min=13.1km az=114.0*
*SJA **26** 02:51:08.8±0.8, 31.73S×71.52W, h25km±2km, ML4.2, MW4.1*
*GUC **26** 02:51:11.0±0.7, 31.77S×71.20W, h49km±3km, ML4.2, Presumed earthquake*
*NEIC **26** 02:51:12.1±1.9, 31.75S±0.03×71.37W±0.07, h44km±5km, mb4.6/15, Mwr4.1/25, ML4.2(GUC), Error ellipse: s-maj=9.2km s-min=4.5km az=96.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.76; $M_{\theta\theta}$0.08; $M_{\phi\phi}$-1.84; $M_{r\theta}$-0.07; $M_{\theta\phi}$0.33; $M_{\phi r}$-1.04; Fault plane solution: $M_0$2.10000×10^{15} NP1:ϕ_s343.00000°, δ30.96000°, λ77.59000°. NP2:ϕ_s177.39000°, δ59.84000°, λ97.34000°. Principal axes: T 2.0472, Plg74.0000°, Azm107.0000°; N 0.1087, Plg6.0000°, Azm354.0000°; P -2.1560, Plg15.0000°, Azm262.0000°;*
*NEIC **26** 02:51:12.1, 31.74S×71.37W, h48km*

ISC 26 02:51:11.3±0.8, 31.74S±0.03×71.42W±0.04, h46km±7km, n155, σ1s60/173, mb4.5/13, MS3.6/3, 3C-13D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CO04	**Los Peladeros**	**0.48**	**129**		**Pn**	**02 51 22.3**	**-0.1**
CO04				Sn	**Sn**	**02 51 30.0**	**-0.3**
CO04	**Los Peladeros**	**0.48**	**129**	↓*iP*	**Pn**	**02 51 22.8**	**+0.3**
CO04				*eS*	**Sn**	**02 51 30.2**	**-0.1**
CO04				IAML		02 51 31.0	
	comp=E,92μm,0.2s						
CO02	**Combarbal**	**0.64**	**34**	*i* P	**Pn**	**02 51 24.7**	**+0.5**
CO02				*i* S	**Sn**	**02 51 32.9**	**-0.6**
CO02				IAML		02 51 35.0	
	comp=Z,23μm,0.2s						
CO02	**Combarbal**	**0.64**	**34**	Pn	**Pn**	**02 51 24.6**	**+0.3**
CO02				Sn	**Sn**	**02 51 33.8**	**+0.2**
CO02	**Combarbal**	**0.64**	**34**	↓*iP*	**Pn**	**02 51 24.8**	**+0.5**
CO02				*i* S	**Sn**	**02 51 34.2**	**+0.6**
CO06	**Fray Jorge**	**1.08**	**350**		**Pn**	**02 51 31.9**	**+1.9**
CO06	**Fray Jorge**	**1.08**	**350**	*eP*	**Pn**	**02 51 32.0**	**+2.0**
CO06				*i* S	**Sn**	**02 51 48.0**	**+4.1**
CO06				IAML		02 51 51.8	
	comp=E,10μm,0.4s						
CO03	**El Pedregal**	**1.09**	**35**	*i* P	**Pn**	**02 51 30.9**	**+0.6**
CO03				IAML		02 51 45.8	
	comp=Z,19μm,0.2s						
CO03				*i* S	**Sn**	**02 51 46.0**	**+1.8**
CO03	**El Pedregal**	**1.09**	**35**	Pn	**Pn**	**02 51 30.8**	**+0.6**
CO03	**El Pedregal**	**1.09**	**35**	*i* P	**Pn**	**02 51 30.9**	**+0.6**
CO03				*eS*	**Sn**	**02 51 44.7**	**+0.4**
CO03				IAML		02 51 45.9	
	comp=N,35μm,0.2s						
VA03	**San Esteban**	**1.26**	**145**	*i* P	**Pn**	**02 51 32.5**	**0.0**
VA03				IAML		02 51 51.5	
	comp=Z,2μm,0.8s						
VA03	**San Esteban**	**1.26**	**145**		**Pn**	**02 51 32.3**	**-0.2**
VA03	**San Esteban**	**1.26**	**145**	↓*iP*	**Pn**	**02 51 32.5**	**0.0**
VA03				*i* S	**Sn**	**02 51 48.1**	**-0.2**
VA03				IAML		02 51 49.9	
	comp=E,6μm,0.3s						
ROCH	**El Roble**	**1.28**	**165**	↓*iP*	**Pn**	**02 51 33.2**	**+0.3**
ROCH				*i* S	**Sn**	**02 51 50.2**	**+1.2**
ROCH				IAML		02 51 52.3	
	comp=N,10μm,0.3s						
VA01	**Torpederas**	**1.30**	**189**	*i* P	**Pn**	**02 51 35.1**	**+2.1**
VA01				IAML		02 51 57.1	
	comp=Z,2μm,0.3s						
VA01	**Torpederas**	**1.30**	**189**		**Pn**	**02 51 33.9**	**+0.9**
VA01	**Torpederas**	**1.30**	**189**	*eP*	**Pn**	**02 51 34.8**	**+1.8**
VA01				*eS*	**Sn**	**02 51 52.4**	**+3.3**
VA01				IAML		02 51 53.9	
	comp=E,3μm,0.4s						
PEL	**Peldehue**	**1.53**	**156**		**Pn**	**02 51 36.5**	**+0.3**
PEL	**Peldehue**	**1.53**	**156**	*eP*	**Pn**	**02 51 36.5**	**+0.3**
PEL				IAML		02 51 58.5	
	comp=N,3μm,0.3s						
MT02	**Curacav**	**1.53**	**171**	*i* P	**Pn**	**02 51 37.2**	**+0.9**
MT02				IAML		02 51 59.0	
	comp=Z,2μm,0.4s						
MT02	**Curacav**	**1.53**	**171**		**Pn**	**02 51 37.0**	**+0.7**
MT02	**Curacav**	**1.53**	**171**	*eP*	**Pn**	**02 51 37.0**	**+0.7**
MT02				*i* S	**Sn**	**02 51 55.3**	**+0.3**
MT02				IAML		02 51 57.0	
	comp=E,3μm,0.3s						
GO04	**Tololo Observa**	**1.65**	**19**	*i* P	**Pn**	**02 51 39.3

MT12 IAML 02 52 29.2
comp=E,3µm,0.2s
MT01 Popeta 2.12 176 *i* P **Pn** **02 51 45.2 +0.9**
MT01 *i* S **Sn** **02 52 12.4 +2.9**
MT01 IAML 02 52 18.9
comp=Z,1µm,0.8s
MT01 Popeta 2.12 176 **Pn** **02 51 45.7 +1.3**
MT01 Popeta 2.12 176‖ *eP* **Pn** **02 51 45.6 +1.3**
MT01 IAML 02 52 18.6
comp=E,2µm,0.3s
MT13 San Alfonso 2.21 155 *i* P **Pn** **02 51 47.0 +1.3**
MT13 *i* S **Sn** **02 52 16.2 +4.3**
MT13 IAML 02 52 22.1
comp=Z,994nm,0.5s
MT13 San Alfonso 2.21 155 **Pn** **02 51 46.6 +1.0**
MT13 San Alfonso 2.21 155 *eP* **Pn** **02 51 46.7 +1.0**
MT13 IAML 02 52 19.4
comp=N,2µm,0.3s
AROD Rodeo 2.29 47 *i* P **Pn** **02 51 49.3 +2.4**
AROD *i* S **Sn** **02 52 18.8 +4.8**
ACCO Cerro Coronel 2.32 61 *i* P **Pn** **02 51 50.1 +2.8**
ACCO *i* S **Sn** **02 52 20.0 +5.3**
ACCO IAML 02 52 22.2
comp=Z,2µm,0.3s
LMEL Las Melosas 2.34 154 *eP* **Pn** **02 51 48.6 +1.2**
ZON Zonda 2.34 86 *i* P **Pn** **02 51 49.4 +2.0**
ZON *i* S **Sn** **02 52 19.5 +4.6**
ZON IAML 02 52 25.6
comp=Z,719nm,0.4s
ZON Zonda 2.34 86 **Pn** **02 51 48.3 +0.9**
BO04 La Punta 2.34 163 **Pn** **02 51 48.0 +0.5**
BO04 La Punta 2.34 163‖ *eP* **Pn** **02 51 48.2 +0.8**
ARCO CERRO ARCO 2.37 118 *i* P **Pn** **02 51 49.8 +1.9**
ARCO IAML 02 52 28.7
comp=Z,1µm,0.7s
SJA San Juan 2.44 86 *i* P **Pn** **02 51 52.0 +3.2**
SJA IAML 02 52 31.7
comp=Z,526nm,0.4s
RTLL Cerro Villicun 2.54 82 *i* P **Pn** **02 51 52.7 +2.6**
RTLL IAML 02 52 32.1
comp=Z,1µm,0.3s
RTLL Cerro Villicun 2.54 82‖ *eP* **Pn** **02 51 51.2 +1.1**
AAGR Agrelo 2.57 122 *i* P **Pn** **02 51 52.5 +1.9**
AAGR *i* S **Sn** **02 52 25.3 +4.8**
AAGR IAML 02 52 30.2
comp=Z,869nm,0.4s
BO01 Tunca 2.66 174 *i* P **Pn** **02 51 53.1 +1.4**
BO01 IAML 02 52 37.1
comp=Z,510nm,0.3s
BO01 Tunca 2.66 174 **Pn** **02 51 51.7 0.0**
BO01 Tunca 2.66 174‖ *eP* **Pn** **02 51 52.9 +1.2**
BO01 IAML 02 52 30.3
comp=E,714nm,0.3s
CFA Coronel Fontan 2.71 88 Pn **Pn** **02 51 53.1 +0.7**
comp=E,85nm,0.3s,baz=255,slow=10,SNR=210
CFA Sn **Sn** **02 52 27.7 +3.6**
comp=E,90nm,0.3s,baz=51,slow=18,SNR=9.5
comp=E,306nm,0.4s
CFA AML AML
LCO Las Campanas 2.79 13 *i* P **Pn** **02 51 55.1 +1.4**
LCO IAML 02 52 41.5
comp=Z,2µm,0.5s
LCO Las Campanas 2.79 13 **Pn** **02 51 54.5 +0.8**
AC05 El Transito 3.06 19 *i* P **Pn** **02 51 59.1 +1.9**
AC05 IAML 02 52 57.0
comp=Z,870nm,0.6s
AC05 El Transito 3.06 19 **Pn** **02 51 58.8 +1.5**
AC05 El Transito 3.06 19‖ *eP* **Pn** **02 51 59.0 +1.7**
AC05 IAML 02 52 48.7
comp=E,1µm,0.3s
BO02 Sierra Bellavi 3.09 170 *i* P **Pn** **02 51 59.2 +1.5**
BO02 IAML 02 52 49.7
comp=Z,723nm,0.6s
BO02 Sierra Bellavi 3.09 170 **Pn** **02 51 58.7 +1.0**
BO02 Sierra Bellavi 3.09 170‖ *eP* **Pn** **02 51 58.9 +1.2**
GO05 Hualane 3.29 187 *i* P **Pn** **02 52 00.9 +0.6**
GO05 IAML 02 52 59.2
comp=Z,336nm,0.5s
GO05 Hualane 3.29 187 **Pn** **02 52 00.5 +0.1**
GO05 Hualane 3.29 187 *eP* **Pn** **02 52 00.6 +0.3**
AC04 Llanos de Chal 3.54 5 *i* P **Pn** **02 52 05.2 +1.5**
AC04 IAML 02 53 05.4
comp=Z,665nm,0.5s
AC04 Llanos de Chal 3.54 5 **Pn** **02 52 05.1 +1.4**
AC04 Llanos de Chal 3.54 5 *eP* **Pn** **02 52 05.1 +1.4**
ACAN Cantantal 3.63 100 *i* P **Pn** **02 52 05.6 +0.6**
ACAN IAML 02 53 14.3
comp=Z,958nm,0.7s
ML02 Panimavida 4.01 180 **Pn** **02 52 10.3 0.0**
ML02 Panimavida 4.01 180 *eP* **Pn** **02 52 10.8 +0.5**
GO03 Copiapo 4.26 14 **Pn** **02 52 14.7 +1.0**
BI02 San Fabin de 4.91 179 **Pn** **02 52 23.2 +0.5**
BI05 Punta Hualpn 5.21 196 Pn **Pn** **02 52 26.6 0.0**
AC02 Maricunga 5.28 23 **Pn** **02 52 28.7 +0.6**
TCA Tanti 5.83 88‖ *eP* **Pn** **02 52 34.2 -1.2**
CYA Choya 5.87 57 *eP* **Pn** **02 52 35.5 -0.3**
VA04 Juan Fernndez 6.53 251 **Pn** **02 52 47.0 +2.1**
VA04 Juan Fernndez 6.53 251 *eP* **Pn** **02 52 46.9 +2.1**
H03S3 Juan Fernandez 6.65 250 T T 02 59 35.1
baz=78,slow=74
H03S1 Juan Fernandez 6.65 250 T T 02 59 33.8
baz=78,slow=74
H03S2 Juan Fernandez 6.66 250 T T 02 59 35.0
baz=78,slow=74
PLCA Paso Flores 9.00 176 Pn **Pn** **02 53 19.2 +0.5**
comp=Z,0.5nm,0.3s,baz=341,slow=11,SNR=14
PLCA Sn **Sn** **02 55 01.1 +2.3**
baz=323,slow=15,SNR=1.8
PLCA LR LR 02 57 01.8
comp=Z,28nm,18.1s,baz=294,slow=40
comp=Z,1.4nm,0.4s
PLCA AML AML
CPUP Villa Florida 13.45 70 Pn **Pn** **02 54 18.0 -1.4**
comp=Z,0.2nm,0.3s,baz=227,slow=15,SNR=3.7
CPUP Sn **Sn** **02 56 49.0 +1.5**
comp=Z,0.3nm,0.3s,baz=282,slow=19,SNR=2.4
CPUP LR LR 02 59 42.6
comp=Z,56nm,21.9s,baz=256,slow=38
comp=Z,0.8nm,0.4s
CPUP AML AML
CPUP Villa Florida 13.45 70 Pn Pn 02 54 15.7 -3.8
LPAZ La Paz 15.67 12 Pn **Pn** **02 54 49.8 +0.1**
comp=Z,0.4nm,0.3s,baz=201,slow=8.8,SNR=13
comp=Z,2.0nm,0.7s
LPAZ AML AML
LPAZ La Paz 15.67 12 P **Pn** **02 54 49.6 0.0**
AQDB Aquidauana 18.00 55 **P** **02 55 16.7 -1.6**
SIV San Ignacio 18.29 33 P **P** **02 55 20.2 -1.3**
comp=Z,0.1nm,0.3s,baz=203,slow=9.0,SNR=27
comp=Z,4.5nm,0.6s
SIV AML AML
EFI East Falkland 22.21 158 P **P** **02 56 02.2 -1.4**
EFI IAmb IAmb 02 56 36.0
comp=Z,112nm,1.5s
VAO Valinhos 23.35 74 P **P** **02 56 15.2 -0.6**
VAO IAmb IAmb 02 56 27.6
comp=Z,32nm,1.4s
BDFB Brasilia 26.67 58 P **P** **02 56 43.6 -2.6**
comp=Z,11nm,0.9s,baz=233,slow=6.0,SNR=8.9
comp=Z,11nm,0.9s
BDFB Brasilia 26.67 58 P **P** **02 56 44.7 -1.5**
BDFB IAmb IAmb 02 56 45.6
comp=Z,15nm,1.1s
MACA Manacapuru-AM 30.17 22 P **P** **02 57 15.8 -1.3**
MACA IAmb IAmb 02 57 37.7
comp=Z,6.2nm,0.7s
SMTB Santa Maria do 31.75 49 P **P** **02 57 30.2 -1.0**
SMTB IAmb IAmb 02 57 50.9
comp=Z,12nm,0.9s
PMSA Palmer Station 33.37 174 LR LR 03 11 43.6
comp=Z,80nm,21.1s,baz=25,slow=37
BOAV Boa Vista 35.49 19 P **P** **02 58 02.9 -0.8**
BOAV IAmb IAmb 02 58 12.3
comp=Z,6.9nm,1.2s
RUSC La Rusia 37.45 357 P **P** **02 58 21.4 +0.5**
RUSC IAmb IAmb 02 58 36.9
comp=Z,6.2nm,0.7s
JUD3 Juan Diaz 3 43.81 340 P **P** **02 59 14.0 +1.1**
PODR Polo 49.62 0 P **P** **02 59 58.3 -0.1**
VNA3 Neumayer Olymp 51.26 159 P **P** **03 00 10.4 +0.4**
comp=Z,3.7nm,0.8s
SNAA Sanae 53.48 159 P **P** **03 00 26.8 +0.2**
comp=Z,96nm,0.7s
SNAA Sanae 53.48 159 P **P** **03 00 25.4 -1.1**
comp=Z,3.5nm,0.7s,baz=279,slow=5.9,SNR=6.4
comp=Z,3.5nm,0.7s
SNAA Sanae 53.48 159 P **P** **03 00 26.2 -0.4**
SNAA IAmb IAmb 03 00 50.0
comp=Z,4.2nm,0.8s
TEIG Tepich 54.14 340 P **P** **03 00 31.4 -0.4**
TROLL Troll, Antarti 55.19 159 P **P** **03 00 38.9 -0.2**
comp=Z,144nm,0.8s
QSPA South Pole Qui 58.49 180 P **P** **03 01 02.7 +0.2**
comp=Z,2.5nm,0.7s,baz=163,slow=3.7,SNR=8.3
comp=Z,2.5nm,0.7s
QSPA South Pole Qui 58.49 180 P **P** **03 01 02.5 0.0**
QSPA IAmb IAmb 03 01 27.2
comp=Z,7.3nm,1.1s
TXAR Lajitas Array 68.03 330 P **P** **03 02 06.7 +0.7**
comp=Z,0.5nm,0.7s,baz=150,slow=7.8,SNR=7.4
comp=Z,0.5nm,0.7s
TXAR Lajitas Array 68.03 330 P **P** **03 02 06.9 +0.9**
TSUM Tsumeb 79.33 106 LR LR 03 34 41.4
comp=Z,26nm,18.9s,baz=111,slow=33
PDAR Pinedale Array 81.99 333 P **P** **03 03 27.2 +0.8**
comp=Z,0.2nm,0.7s,baz=41,slow=3.3,SNR=2.5
comp=Z,0.2nm,0.7s
PDAR Pinedale Array 81.99 333 P **P** **03 03 27.1 +0.6**
NVAR Mina Array Bea 82.34 325 P **P** **03 03 29.1 +0.7**
comp=Z,0.5nm,0.7s,baz=184,slow=3.8,SNR=2.5
comp=Z,0.5nm,0.7s
NVAR Mina Array Bea 82.34 325 P **P** **03 03 29.6 +1.3**
ASAR Alice Springs 119.82 207 PKP **PKiKP** **03 09 55.8 -1.3**
comp=Z,0.3nm,0.4s,baz=110,slow=1.6,SNR=4.9
ASAR Alice Springs 119.82 207 **PKiKP** **03 09 55.7 -1.4**
BRTR Keskin Array B 120.26 60 PKP **PKiKP** **03 09 55.9 -1.6**
comp=Z,0.4nm,0.5s,baz=197,slow=4.4,SNR=3.0
BRTR Keskin Array B 120.26 60 **PKiKP** **03 09 58.5 +1.1**
WRA Warramunga Arr 122.99 209 PKP **PKiKP** **03 10 02.2 -1.2**
comp=Z,0.9nm,0.5s,baz=164,slow=1.6,SNR=19
WRA Warramunga Arr 122.99 209 **PKiKP** **03 10 01.6 -1.7**
H11S2 WAKE ISLAND Hyl 126.30 270 T T 05 29 15.0
baz=117,slow=75,SNR=55
H11S1 WAKE ISLAND Hyl 126.32 270 T T 05 29 12.6
baz=117,slow=75,SNR=49
H11S3 WAKE ISLAND Hyl 126.32 270 T T 05 29 08.4
baz=117,slow=75,SNR=59
H11N3 WAKE ISLAND Hyl 126.66 272 T T 05 29 41.4
baz=117,slow=75,SNR=53
H11N1 WAKE ISLAND Hyl 126.67 272 T T 05 29 39.7
baz=117,slow=75,SNR=16
H11N2 WAKE ISLAND Hyl 126.68 272 T T 05 29 42.6
baz=117,slow=75,SNR=77
BVAR Borovoye Array 145.25 41 PKPbc **PKiKP** **03 10 43.5 -3.9**
comp=Z,4.7nm,0.4s,baz=311,slow=2.1,SNR=14
KURBB Kurchatov Arra 150.84 41 PKPbc **PKiKP** **03 10 57.7 -1.2**
KURBB PKPab **PKPab** **03 11 05.3 -0.3**
comp=Z,0.2nm,0.5s,baz=293,slow=4.7,SNR=5.3
KURK Kurchatov 150.85 41 **PKPbc** **03 10 55.9 -2.3**
KURK **PKPab** **03 11 06.0 +0.4**
ZALV Zalesovo Beam 152.03 31 PKPbc **PKiKP** **03 11 00.6 -0.6**
comp=Z,5.3nm,0.4s,baz=304,slow=3.2,SNR=25
ZALV PKPab **pPKPdf** **03 11 10.7 +1.9**
comp=Z,1.4nm,0.5s,baz=304,slow=3.0,SNR=5.4
ZALV Zalesovo Beam 152.03 31 **PKiKP** **03 10 60.0 -1.2**
MKAR Makanchi Array 154.85 46 PKPbc **PKiKP** **03 11 06.6 -0.7**
comp=Z,0.7nm,0.7s,baz=325,slow=2.3,SNR=3.1
MKAR PKPab **PKPab** **03 11 21.9 -0.9**
comp=Z,1.1nm,0.8s,baz=290,slow=4.0,SNR=4.0
MKAR Makanchi Array 154.85 46 **PKPdf** **03 11 00.2 +1.5**
MKAR **PKPab** **03 11 19.5 -3.2**
WMQ Urumqi 159.62 48 PKP **PKPdf** **03 11 06.8 +2.0**
WMQ LR LR
comp=N,220nm,24.7s
WMQ LR LR
comp=E,310nm,20.7s
WMQ LR LR
comp=Z,270nm,21.7s
HHC Hu-ho-hao-te 170.60 346 *eP* **PKPdf** **03 11 16.3 +2.0**
NJ2 Nanjing 171.26 275 *eP* **PKPdf** **03 11 14.0 -0.7**
NJ2 pmax pmax
comp=Z,9.0nm,0.5s

*GCG **26** 03:12:45.3±1.0, 15°.56N×90°.18W, h9km±12km, MD3.9, Presumed earthquake*
*CATAC **26** 03:12:46.1, 15°.6N±0°.8×90°.2W±0°.8, h1km±1km, M3.1/12, MLv3.1/12, confirmed*
ISC 26 03:12:46.6±2.5, 15°.58N±0°.04×90°.15W±0°.04, h17km±20km, n20, σ0°77/33, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ESQI	**Esquipulas**	**1.28**	**142**	P	**Pn**	**03 13 08.9**	**-1.1**
ESQI				S	**Sb**	**03 13 26.6**	**-0.1**
HUEH	**Huehuetenango**	**1.33**	**259**	P	**Pn**	**03 13 10.6**	**0.0**
HUEH				S	**Sn**	**03 13 28.3**	**+0.2**
PETF	**Flores**	**1.36**	**12**	P	**Pn**	**03 13 11.3**	**+0.4**
PETF				S	**Sg**	**03 13 30.6**	**+0.1**
PETF	**Flores**	**1.36**	**12**	*i* P	**Pn**	**03 13 10.3**	**-0.5**
PETF				*i* S	**Sb**	**03 13 28.1**	**-0.6**
MTO3	**Montecristo**	**1.40**	**147**	P	**Pn**	**03 13 10.3**	**-1.4**
MTO3				S	**Sb**	**03 13 30.2**	**-0.1**
MTO3	**Montecristo**	**1.40**	**147**	*i* P	**Pn**	**03 13 10.2**	**-1.5**
IZABA	**Izabal, Puerto**	**1.52**	**84**	P	**Pn**	**03 13 13.5**	**+0.4**
IZABA				S	**Sb**	**03 13 33.8**	**+0.4**
SARH	**Santa Rosa de**	**1.56**	**121**	P	**Pn**	**03 13 13.3**	**-0.6**
SARH	**Santa Rosa de**	**1.56**	**121**	*i* P	**Pn**	**03 13 13.2**	**-0.6**
SARH				*i* S	**Sb**	**03 13 35.1**	**+0.3**
SLOZ	**Alcaldia de Sa**	**1.59**	**167**	P	**Pn**	**03 13 13.7**	**-0.3**
UNIC	**Universidad Ca**	**1.69**	**160**	P	**Pn**	**03 13 15.7**	**+0.2**
UNIC				S	**Sb**	**03 13 38.2**	**-0.3**
NUBE	**Las Nubes**	**1.71**	**168**	P	**Pn**	**03 13 15.8**	**0.0**
NUBE				S	**Sb**	**03 13 38.5**	**-0.5**
NUBE	**Las Nubes**	**1.71**	**168**	*i* P	**Pn**	**03 13 15.5**	**-0.3**
FAME	**Alcaldia de Sa**	**1.73**	**176**	P	**Pn**	**03 13 16.6**	**+0.5**
FAME				S	**Sb**	**03 13 39.3**	**-0.3**
CEVE	**Cerro Verde**	**1.82**	**164**	P	**Pn**	**03 13 17.8**	**+0.4**
RTAL	**Retalhuleu**	**1.82**	**235**	P	**Pn**	**03 13 17.7**	**+0.4**
RTAL				S	**Sb**	**03 13 41.4**	**-0.8**
PMON	**Piamonte**	**2.03**	**156**	P	**Pn**	**03 13 20.8**	**+0.6**
PMON				S	**Sb**	**03 13 49.1**	**+1.0**
PAVA	**Las Pavas**	**2.20**	**147**	P	**Pn**	**03 13 23.1**	**+0.6**
PAVA				S	**Sb**	**03 13 51.6**	**-1.5**
LALI	**Alcalda de L**	**2.23**	**159**	P	**Pn**	**03 13 24.0**	**+1.1**
COEG	**Centro de Oper**	**2.31**	**148**	P	**Pn**	**03 13 25.8**	**+1.8**

*NEIC **26** 03:30:05.1±1.0, 1°.57N±0°.05×99°.66E±0°.07, h174km±7km, mb4.4/10, Error ellipse: s-maj=10.1km s-min=6.7km az=92.0*
*IDC **26** 03:30:05.4±1.1, 1°.65N×99°.67E, h178km±6km, mb3.9/9, mbtmp4.3/11, Error ellipse: s-maj=34.9km s-min=16.1km az=50.0*
*DJA **26** 03:30:06.1±0.8, 2°.1N±7°×10°.0E±°, h167km±8km, M3.6/11, MLv3.6/10, MLv3.6/11*
ISC 26 03:30:03.8±0.6, 1°.61N±0°.06×99°.67E±0°.07, h166km, n35, σ1°40/38, mb4.0/13, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNSI	**Mandailing Nat**	**0.81**	**186**	P	**Pn**	**03 30 31.7**	**+2.9**
MNSI				AML	AML		
MNSI				AML	AML		
RPSI	**Rantau Prapat**	**1.31**	**325**		**Pn**	**03 30 34.8**	**+2.0**
PSI	**Prapat**	**1.40**	**328**	P	**Pn**	**03 30 35.8**	**+2.0**
	15nm,0.3s,baz=174,slow=9.2,SNR=15						
PSI				S	**Sn**	**03 30 58.3**	**+1.3**
	22nm,0.5s,baz=282,slow=21,SNR=22						
PSI	**Prapat**	**1.40**	**328**	P	**Pn**	**03 30 35.2**	**+1.4**
PSI				AML	AML		
BKNI	**Bangkinang**	**1.87**	**133**	Pn	**Pn**	**03 30 40.1**	**+1.6**
GSI	**Gunungsitoli**	**2.12**	**262**		**Pn**	**03 30 43.1**	**+1.9**
GSI	**Gunungsitoli**	**2.12**	**262**	P	**Pn**	**03 30 43.8**	**+2.6**
GSI				AML	AML		
GSI				AML	AML		
PPI	**Padang Panjang**	**2.17**	**160**	P	**Pn**	**03 30 44.3**	**+2.4**
PPI				AML	AML		
PPI				AML	AML		
IPM	**Ipoh**	**3.16**	**25**		**Pn**	**03 30 56.1**	**+2.3**
KULM	**Kulim**	**3.79**	**15**		**Pn**	**03 31 03.7**	**+1.9**
LHMI	**Lhok Sumawe**	**4.51**	**323**	Pn	**Pn**	**03 31 13.7**	**+2.6**
CMAR	**Chiang Mai Arr**	**16.76**	**358**	P	**P**	**03 33 48.7**	**+0.2**
	0.8nm,0.3s,baz=172,slow=10,SNR=5.7						
CMAR	**Chiang Mai Arr**	**16.76**	**358**	P	**Pn**	**03 33 49.7**	**+0.6**
PALK	**Pallekele**	**19.72**	**287**	P	**Pn**	**03 34 23.4**	**-0.7**
	10nm,0.9s,baz=122,slow=9.6,SNR=4.6						
PALK	**Pallekele**	**19.72**	**287**	P	**P**	**03 34 19.4**	**-1.4**
PALK				IAmb	IAmb	03 34 40.3	
	comp=Z,19nm,1.1s						
WRA	**Warramunga Arr**	**40.18**	**124**	P	**P**	**03 37 24.9**	**+0.7**
	comp=Z,1.7nm,0.4s,baz=302,slow=9.1,SNR=28						
	comp=Z,1.7nm,0.4s						
WRA	**Warramunga Arr**	**40.18**	**124**	P	**P**	**03 37 23.5**	**-0.7**
DRK	**Karamyk**	**45.45**	**329**	P	**P**	**03 38 07.4**	**+0.8**
DRK				IAmb	IAmb	03 38 09.0	
	comp=Z,9.9nm,0.6s						
SONM	**Songino Array**	**46.41**	**6**	P	**P**	**03 38 14.8**	**+1.0**
	comp=Z,1.5nm,0.4s,baz=189,slow=10,SNR=14						
SONM				PcP	**PcP**	**03 39 44.9**	**-0.9**
	comp=Z,0.6nm,0.5s,baz=191,slow=5.2,SNR=3.2						
	comp=Z,1.5nm,0.4s						
SONM	**Songino Array**	**46.41**	**6**	P	**P**	**03 38 13.9**	**+0.1**
SONM					**PcP**	**03 39 45.6**	**-0.3**
MKAR	**Makanchi Array**	**47.49**	**344**	P	**P**	**03 38 22.6**	**+0.5**
	comp=Z,1.6nm,0.4s,baz=158,slow=8.7,SNR=20						
	comp=Z,1.6nm,0.4s						
MKAR	**Makanchi Array**	**47.49**	**344**	P	**P**	**03 38 22.4**	**+0.3**
ZAA0	**Zalesovo Array**	**53.59**	**349**		**P**	**03 39 08.0**	**+0.5**
ZALV	**Zalesovo Beam**	**53.59**	**349**	P	**P**	**03 39 07.9**	**+0.3**
	comp=Z,4.4nm,0.4s,baz=174,slow=6.2,SNR=22						
	comp=Z,4.4nm,0.4s						
BVAR	**Borovoye Array**	**56.71**	**339**	P	**P**	**03 39 29.6**	**-0.4**
	comp=Z,1.9nm,0.6s,baz=143,slow=10.0,SNR=6.3						
	comp=Z,1.9nm,0.6s						
MARNC	**Mare, Loyalty**	**70.54**	**113**	P	**P**	**03 41 01.0**	**-0.2**
BOSA	**Boshof**	**77.12**	**240**	P	**P**	**03 41 39.2**	**-0.4**
BOSA				IAmb	IAmb	03 41 47.2	
	comp=Z,2.6nm,0.9s						
SHEM	**Shemya Is, Ala**	**79.32**	**37**	P	**P**	**03 41 50.4**	**-0.5**
FINES	**FINESS Array B**	**80.79**	**332**	P	**P**	**03 41 58.0**	**-0.7**
	comp=Z,1.0nm,0.4s,baz=122,slow=6.9,SNR=5.7						
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**80.79**	**332**	P	**P**	**03 41 57.4**	**-1.2**
ARCES	**ARCESS Array B**	**82.99**	**340**	P	**P**	**03 42 09.8**	**-0.2**
	comp=Z,0.6nm,0.5s,baz=91,slow=5.0,SNR=7.7						
	comp=Z,0.6nm,0.5s						
HFS	**Hagfors**	**86.60**	**330**	P	**P**	**03 42 27.3**	**-1.0**
	comp=Z,1.1nm,0.8s,baz=94,slow=8.7,SNR=1.2						
	comp=Z,1.1nm,0.8s						
SPITS	**Spitsbergen Ar**	**87.06**	**348**	P	**P**	**03 42 29.1**	**-1.0**
	comp=Z,10.0nm,0.9s,baz=110,slow=8.3,SNR=7.0						
	comp=Z,10.0nm,0.9s						
TEOL	**Teolo**	**87.46**	**315**	P	**P**	**03 42 30.9**	**-1.8**
TEOL				IAmb	IAmb	03 42 33.2	
	comp=Z,5.5nm,0.7s						
QSPA	**South Pole Qui**	**91.55**	**180**	P	**P**	**03 42 51.9**	**+0.4**
QSPA				IAmb	IAmb	03 43 27.4	
	comp=Z,1.3nm,1.1s						

*WEL **26** 03:33:55.5±0.6, 32°.5±8°×17°.9W±2°.0, h33km, mB4.7/3, ML4.5/10, MLv4.7/6, Mw(mB)3.9/2, Error ellipse: s-maj=27.2km s-min=4.1km az=110.2*
*NEIC **26** 03:34:01.2±0.8, 31°.48S±0°.05×179°.0W±0°.2, h106km±8km, mb4.4/14, Error ellipse: s-maj=23.3km s-min=7.7km az=86.0*
*IDC **26** 03:34:03.7±2.8, 31°.32S×179°.05W, h130km±34km, mb3.9/3, mbtmp4.3/4, Error ellipse: s-maj=36.2km s-min=28.1km az=37.0*
ISC 26 03:33:54.8±0.7, 31°.85S±0°.07×179°.0W±0°.1, h35km, n44, σ1°84/44, mb4.3/10, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**2.73**	**20**	P	**Pn**	**03 34 38.2**	**+2.1**
GLKZ				S	**Sn**	**03 35 09.1**	**+1.2**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**2.74**	**19**	P	**Pn**	**03 34 39.3**	**+3.0**
	137nm,0.3s,baz=55,slow=21,SNR=1.2						
RAO				S	**Sn**	**03 35 10.8**	**+2.6**
	388nm,0.2s,baz=287,slow=20,SNR=5.5						
RAO	**Raoul Island**	**2.74**	**19**		**Pn**	**03 34 39.1**	**+2.8**
RAO					**Sn**	**03 35 08.0**	**-0.2**
MXZ	**Matakaoa Point**	**6.13**	**201**	P	**Pn**	**03 35 24.5**	**+1.7**
MXZ				S	**Sn**	**03 36 33.1**	**+1.5**
MXZ				AML	AML		
HAZ	**Te Kaha**	**6.47**	**204**	P	**Pn**	**03 35 30.0**	**+2.5**
HAZ				S	**Sn**	**03 36 42.7**	**+2.6**
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**6.47**	**201**	P	**Pn**	**03 35 29.3**	**+1.7**
PKGZ				S	**Sn**	**03 36 41.7**	**+1.5**
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**6.61**	**199**	P	**Pn**	**03 35 30.3**	**+0.8**
PUZ				S	**Sn**	**03 36 43.1**	**-0.6**
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.70**	**203**	P	**Pn**	**03 35 32.3**	**+1.6**
RUGZ				S	**Sn**	**03 36 46.9**	**+1.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.79**	**201**	S	**Sn**	**03 36 49.9**	**+1.8**
CNGZ	**Carnagh Station**	**7.01**	**198**	P	**Pn**	**03 35 36.1**	**+1.2**
CNGZ				AML	AML		
MWZ	**Matawai**	**7.08**	**203**	P	**Pn**	**03 35 36.8**	**+0.9**
MWZ				S	**Sn**	**03 36 57.7**	**+2.6**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**7.16**	**206**	P	**Pn**	**03 35 38.4**	**+1.4**
URZ				S	**Sn**	**03 36 58.2**	**+1.2**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**7.26**	**203**	P	**Pn**	**03 35 39.9**	**+1.5**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**7.34**	**200**	P	**Pn**	**03 35 40.5**	**+0.9**
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**7.51**	**199**	S	**Sn**	**03 37 05.2**	**-0.5**
MHGZ	**Mahia Peninsul**	**7.72**	**198**	P	**Pn**	**03 35 45.2**	**+0.5**
MHGZ				AML	AML		
MHGZ				AML	AML		
MTHZ	**Maungataniwha**	**7.78**	**205**	S	**Sn**	**03 37 14.4**	**+2.0**
BKZ	**Black Stump Fm**	**8.19**	**206**	P	**Pn**	**03 35 50.9**	**-0.2**
KAHZ	**Kahuranaki**	**8.62**	**202**	P	**Pn**	**03 35 55.6**	**-1.4**
CTZ	**Chatham Island**	**12.01**	**172**	P	**Pn**	**03 36 41.7**	**-1.6**
OXZ	**Oxford**	**13.48**	**209**	Pn	**P**	**03 37 11.7**	**-0.6**
CTAO	**Charters Tower**	**33.25**	**282**	P	P	03 40 26.9	-2.0
CTAO				IAmb	IAmb	03 40 35.1	
	comp=Z,5.0nm,1.1s						
BBOO	**Buckleboo**	**37.80**	**256**	P	**P**	**03 41 06.5**	**-1.3**
BBOO				IAmb	IAmb	03 41 19.1	
	comp=Z,7.7nm,1.1s						
AS31	**Alice Springs**	**42.23**	**269**	P	**P**	**03 41 43.4**	**-1.3**
ASAR	**Alice Springs**	**42.23**	**269**	P	**P**	**03 41 43.6**	**-1.1**
	comp=Z,1.4nm,0.4s,baz=107,slow=7.6,SNR=19						
	comp=Z,1.4nm,0.4s						
WR8	**Warramunga Arr**	**43.21**	**274**	P	**P**	**03 41 51.2**	**-1.5**
WR8				IAmb	IAmb	03 41 51.6	
	comp=Z,2.9nm,0.8s						
WB2	**Warramunga Arr**	**43.34**	**274**	P	**P**	**03 41 52.4**	**-1.3**
WB2				IAmb	IAmb	03 41 53.1	
	comp=Z,5.5nm,0.9s						
WRAB	**Tennant Creek**	**43.35**	**274**	P	**P**	**03 41 52.4**	**-1.4**
WRAB				IAmb	IAmb	03 41 53.0	
	comp=Z,5.5nm,0.8s						
WRA	**Warramunga Arr**	**43.35**	**274**	P	**P**	**03 41 52.5**	**-1.4**
	comp=Z,2.2nm,0.2s,baz=111,slow=8.1,SNR=65						
	comp=Z,2.2nm,0.2s						
WRA	**Warramunga Arr**	**43.35**	**274**	P	P	03 41 51.6	-2.2
WB0	**Warramunga Arr**	**43.38**	**274**	P	**P**	**03 41 52.4**	**-1.6**
WB0				IAmb	IAmb	03 41 53.4	
	comp=Z,7.6nm,0.8s						
FITZ	**Fitzroy Crossi**	**51.55**	**272**	P	**P**	**03 42 55.7**	**-1.8**
GUMO	**Guam**	**56.95**	**317**	P	P	03 43 32.4	-4.4
QSPA	**South Pole Qui**	**58.27**	**180**	P	**P**	**03 43 48.3**	**+2.6**
	comp=Z,2.7nm,0.9s,baz=26,slow=1.0,SNR=8.9						
	comp=Z,2.7nm,0.9s						
QSPA	**South Pole Qui**	**58.27**	**180**	P	**P**	**03 43 47.9**	**+2.2**
QSPA				IAmb	IAmb	03 43 49.5	
	comp=Z,3.2nm,0.9

H03N2	**Juan Fernandez** baz=239,SNR=7.1	**80.56 123**	T	T	05 15 00.2	
H03N1	**Juan Fernandez** baz=239,SNR=18	**80.57 123**	T	T	05 14 60.0	
JTM	**Tenmabayashi**	**81.17 330**	P	P	03 46 03.0	-3.5
EFI	**East Falkland**	**82.02 147**	P	**P**	**03 46 09.4**	**-1.7**
EFI	comp=Z,21nm,1.1s		IAmb	IAmb	03 46 25.1	
FINES	**FINESS Array B** comp=Z,1.0nm,0.6s,baz=58,slow=3.9,SNR=6.2	**146.20 339**	PKPbc	**PKPdf**	**03 53 25.3**	**-4.3**

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*IDC **26** 03:47:38.7±0.4,4.˚58S×144.˚93E,h0km,mb5.1/28, mbtmp5.1/34,ML5.1/5,MS4.8/56,Error ellipse: s-maj=10.3km s-min=7.0km az=97.0*

*BJI **26** 03:47:41.5,4.˚90S×145.˚18E,h42km,mB5.3/26,mb5.0/74, Ms4.9/71,Ms7 4.8/69*

*GFZ **26** 03:47:42.0,4.˚59S×144.˚90E,h51km,Mw5.4/66,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}=0.26; $M_{\theta\theta}$=0.61; $M_{\phi\phi}$=0.87; $M_{r\theta}$=-0.95; $M_{\theta\phi}$=-0.25; $M_{r\phi}$=0.81; Fault plane solution: $M_0$1.48805×10^{17} NP1: ϕ_s132.02547°,δ83.91146°,λ-120.67231°. NP2: ϕ_s31.88639°,δ31.21294°,λ-11.81030°. Principal axes: T 1.5231, Plg31.9887°, Azm247.1948°; N -0.0728, Plg30.4808°, Azm135.6251°; P -1.4503, Plg42.8242°, Azm12.5659°;*

*MOS **26** 03:47:43.9±0.8,4.˚67S×144.˚84E,h41km,mb5.4/27 Error ellipse: s-maj=9.3km s-min=5.4km az=111.7*

*NEIC **26** 03:47:45.2±1.2,4.˚64S±0.˚06×144.˚92E±0.˚06,h35km±1km, mb5.5/223,Mwb5.4/35,Mww5.4/12,Error ellipse: s-maj=9.9km s-min=9.2km az=125.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}=0.39; $M_{\theta\theta}$=0.60; $M_{\phi\phi}$=0.21; $M_{r\theta}$=-1.05; $M_{\theta\phi}$=0.67; $M_{r\phi}$=1.21; Fault plane solution: $M_0$1.81000×10^{17} NP1:ϕ_s322.16000°, δ80.67000°,λ107.62000°. NP2:ϕ_s79.21000°,δ19.87000°, λ28.49000°. Principal axes: T 1.5702, Plg51.0000°, Azm252.0000°; N 0.4153, Plg17.0000°, Azm139.0000°; P -1.9855, Plg33.0000°, Azm37.0000°;*

*NEIC **26** 03:47:45,4.˚63S×144.˚89E,h33km*

*GFZ **26** 03:47:46.9±0.2,5.˚5S±2.˚14E±.˚1,h50km±1km,M5.2/61, mb5.4/61,Error ellipse: s-maj=5.3km s-min=3.8km az=61.1,confirmed*

*DJA **26** 03:47:48.5±0.3,5.˚5S±3.˚14˚5E±.˚1,h60km±3km,M5.5/78, mB5.9/67,mB5.9/55,mb5.6/78,mb5.6/91,MLv6.1/8, MLv6.2/6,Mw(mB)5.5/67,Mw(mB)5.5/55,MwMwp5.2/24, MwMwp5.2/31,Mwp5.4/24,Mwp5.4/31*

*GCMT **26** 03:47:48.6±0.1,4.˚72S±0.˚01×144.˚84E±0.˚01,h31km, MW5.6/148,Moment Tensor Solution. s109,c176; s148,c266; Duration: 1ł5 Moment tensor: Scale 10^{17} Nm; M_{rr}0.29±.03; $M_{\theta\theta}$-0.66±.02; $M_{\phi\phi}$0.36±.02; $M_{r\theta}$-1.93±.07; $M_{\theta\phi}$0.40±.01; $M_{r\phi}$2.01±.07; Best double couple: $M_0$2.86600×10^{17} NP1:ϕ_s67.00000°,δ12.00000°, λ21.00000°. NP2:ϕ_s317.00000°,δ86.00000°,λ101.00000°. Principal axes: T 2.7500, Plg48.0000°, Azm238.0000°; N 0.2310, Plg11.0000°, Azm136.0000°; P -2.9820, Plg40.0000°, Azm37.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*BGR **26** 03:48:05.5,2.˚83S×143.˚16E,h33km,Ms5.2*

ISC 26 03:47:46.2±0.3,4.˚65S±0.˚03×144.˚95E±0.˚03,h50km±2km, h50km:pP-P,n849,σ1ł68/797,mb5.4/289,MS4.8/75, 11C-3D,Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
MANU	**Manus Island**	**3.54**	**43**		**Pn**		**03 48 38.0**	**-0.8**
MANU				Sn	**Sn**		**03 49 18.1**	**-1.3**
JAY	**Jayapura** 31nm,0.3s,baz=109,slow=6.0,SNR=40	**4.74**	**297**	Pn	**Pn**		**03 48 54.5**	**-0.7**
JAY	44nm,0.3s,baz=10,slow=11,SNR=4.5			Sn	**Sn**		**03 49 47.6**	**-1.3**
JAY	comp=Z,18µm,19.9s,baz=42,slow=45 137nm,0.5s			LR	LR		03 51 08.7	
JAY				AML	AML			
JAY	**Jayapura**	**4.74**	**297**	P	**Pn**		**03 48 55.3**	**+0.1**
JAY				AML	AML			
GENI	**Genyem** 2µm,1.1s	**5.19**	**293**	P	**Pn**		**03 49 02.7**	**+1.3**
GENI				AML	AML			
GENI	**Genyem**	**5.19**	**293**	P	**Pn**		**03 49 02.4**	**+1.0**
GENI				AML	AML			
GENI				AML	AML			
GENI	**Genyem** comp=Z,2µm,1.1s	**5.19**	**293**	P	**Pn**		**03 49 02.0**	**+0.6**
PMG	**Port Moresby** comp=Z,1µm,0.8s,baz=344,slow=6.8,SNR=113	**5.21**	**155**	Pn	**Pn**		**03 49 02.1**	**+0.6**
PMG	comp=Z,171nm,0.3s,baz=317,slow=23,SNR=7.1			Sn	**Sn**		**03 50 01.7**	**+1.3**
PMG	comp=Z,26µm,18.6s,baz=341,slow=48			LR	LR		03 51 54.0	
PMG	**Port Moresby** comp=Z,2µm,1.0s	**5.21**	**155**	P	**Pn**		**03 49 03.9**	**+2.3**
PMG				AML	AML			
PMG	**Port Moresby** comp=Z,2µm,1.0s	**5.21**	**155**	P	**Pn**		**03 49 03.7**	**+2.1**
PMG				AML	AML			
PMG	**Port Moresby** comp=Z,2µm,1.0s	**5.21**	**155**	S	**Sn**		**03 50 04.6**	**+4.2**
PMG				AML	AML			
PMG	**Port Moresby**	**5.21**	**155**		**Pn**		**03 49 01.8**	**+0.2**
PMG	**Port Moresby** comp=Z,11nmcomp=Z,11nmcomp=Z,10µmcomp=Z,10µm comp=Z,17µmcomp=Z,17µmcomp=Z,2µm,1.0s,comp=Z,2µm,1.0s	**5.21**	**155**	P	**Pn**		**03 49 02.4**	**+0.8**
PMG				AML	AML			
PMG				AML	AML			
PMG	**Port Moresby** comp=Z,2µm,1.0s	**5.21**	**155**	P	**Pn**		**03 49 02.7**	**+1.1**
MMPI	**Merauke**	**5.91**	**230**	P	Pn		03 49 25.3	+14
SMPI	**Sarmi** comp=Z,6.1nmcomp=Z,6.1nmcomp=Z,7µmcomp=Z,7µm comp=Z,17µmcomp=Z,17µmcomp=Z,1µm,1.0s,comp=Z,1µm,1.0s	**6.77**	**293**	P	**Pn**		**03 49 24.9**	**+1.9**
SMPI				AML	AML			
SMPI				AML	AML			
KRVT	**Keravat (AS076** comp=Z,70nm,0.3s,baz=296,slow=13,SNR=11	**7.07**	**87**	Pn	**Pn**		**03 49 31.3**	**+4.2**
KRVT	comp=Z,4µm,21.4s,baz=242,slow=39			LR	LR		03 52 16.7	
RABL	**Rabaul**	**7.21**	**87**		**Pn**		**03 49 29.9**	**+0.8**
BAKI	**Biak** comp=Z,3µmcomp=Z,3µmcomp=Z,307nm,0.8s,comp=Z,307nm,0.8s	**9.47**	**291**	P	**Pn**		**03 50 02.2**	**+2.0**
KMPI	**Kaimana, Papua**	**11.26**	**275**	P	Pn		03 50 39.2	+15
MWPI	**Manokwari, Pap**	**11.51**	**288**	P	Pn		03 50 41.7	+14
FAKI	**Fak Fak** comp=Z,214nm,1.1s	**12.79**	**277**	P	**Pn**		**03 50 45.7**	**+0.2**
FAKI	**Fak Fak** comp=Z,214nm,1.1s	**12.79**	**277**	S	**Sn**		**03 53 06.5**	**0.0**
FAKI	**Fak Fak**	**12.79**	**277**		**Pn**		**03 50 43.0**	**-2.4**
FAKI	**Fak Fak** comp=Z,213nm,1.1s,comp=Z,213nm,1.1s	**12.79**	**277**	P	**Pn**		**03 50 45.1**	**-0.4**
FAKI	**Fak Fak** comp=Z,214nm,1.1s	**12.79**	**277**	P	**Pn**		**03 50 43.9**	**-1.6**
MTSU	**Mount Surprise** comp=Z,86nm,0.9s	**13.41**	**183**	P	**Pn**		**03 50 55.1**	**+1.1**
MTSU	**Mount Surprise** comp=Z,86nm,0.9s,comp=Z,0.0nm,0.1s	**13.41**	**183**	P	**Pn**		**03 50 54.4**	**+0.4**
MTSU	**Mount Surprise** comp=Z,86nm,0.9s	**13.41**	**183**	P	**Pn**		**03 50 55.9**	**+1.9**
SAUI	**Saumlaki** comp=Z,480nm,0.7s	**13.96**	**256**	P	**Pn**		**03 51 01.8**	**+0.3**
SAUI	**Saumlaki**	**13.96**	**256**		**Pn**		**03 51 02.4**	**+0.9**
SAUI	**Saumlaki**	**13.96**	**256**	P	**P**		**03 51 12.4**	**+4.2**
SAUI	**Saumlaki** comp=Z,480nm,0.7s	**13.96**	**256**	P	**Pn**		**03 50 58.7**	**-2.8**
SIJI	**Sorong** comp=Z,12nm,0.3s,baz=80,slow=9.2,SNR=18	**14.17**	**285**	Pn	**Pn**		**03 51 02.9**	**-1.5**
SIJI	comp=Z,1.2nm,0.3s,baz=28,slow=21,SNR=0.9			Sn	**Sn**		**03 53 44.6**	**+4.4**
SIJI	comp=Z,4µm,21.8s,baz=100,slow=41 comp=Z,38nm,0.6s			LR	LR		03 57 16.8	
SIJI				AML	AML			
KDU	**Kakadu** comp=Z,112nm,0.9s	**14.68**	**236**	P	**Pn**		**03 51 10.2**	**-0.9**
KDU	**Kakadu** comp=Z,112nm,0.9s,comp=Z,0.0nm,14.0s	**14.68**	**236**	P	**Pn**		**03 51 09.8**	**-1.2**
BNDI	**Bandanaira** comp=Z,804nm,1.2s	**15.00**	**270**	P	**Pn**		**03 51 15.5**	**+0.3**
BNDI	**Bandanaira**	**15.00**	**270**	P	P		03 51 25.4	+5.7
TATA	**Tatamba Isabel** comp=Z,335nm,0.8s	**15.22**	**105**	P	**P**		**03 51 22.9**	**+0.8**
CTA	**Charters Tower** comp=Z,52nm,0.9s	**15.39**	**175**	P	**P**		**03 51 22.4**	**-1.7**
CTA	**Charters Tower** comp=Z,52nm,0.9s	**15.39**	**175**	P	**P**		**03 51 22.5**	**-1.6**
CTA	**Charters Tower** comp=Z,52nm,0.9s	**15.39**	**175**	P	**Pn**		**03 51 21.5**	**+1.2**
CTA	**Charters Tower** comp=Z,3.7nm,0.3s,baz=359,slow=13,SNR=53	**15.39**	**175**	Pn	**Pn**		**03 51 20.6**	**+0.3**
CTA	comp=Z,3µm,19.8s,baz=354,slow=39 comp=Z,22nm,1.0s			LR	LR		03 57 37.1	
CTA				AML	AML			
CTA	**Charters Tower** comp=Z,3.8nm,0.9s	**15.39**	**175**	P	**Pn**		**03 51 22.2**	**+1.9**
SAVO	**Savo Central** comp=Z,156nm,1.2s	**15.41**	**108**	P	**P**		**03 51 25.4**	**+1.0**
HNR	**Honiara** comp=Z,15nm,0.3s,baz=265,slow=3.7,SNR=6.0	**15.62**	**109**	Pn	**Pn**		**03 51 23.0**	**-0.2**
HNR	comp=Z,782nm,22.0s,baz=358,slow=30 comp=Z,55nm,0.5s			LR	LR		03 55 29.5	
HNR				AML	AML			
HNR	**Honiara** comp=Z,599nm,1.3s	**15.62**	**109**	P	**P**		**03 51 27.4**	**+0.8**
HNR	**Honiara**	**15.62**	**109**		**Pn**		**03 51 22.7**	**-0.6**
HNR	comp=Z,364nm,1.2s			IAmb	IAmb		03 51 30.9	
HNR	**Honiara**	**15.62**	**109**	P	**Pn**		**03 51 22.6**	**-0.7**
HNR	**Honiara** comp=Z,807nm,1.3s	**15.62**	**109**	P	**Pn**		**03 51 24.8**	**+1.6**
MTN	**Manton Dam** comp=Z,88nm,0.7s,comp=Z,0.0nm	**15.89**	**238**	P	**Pn**		**03 51 25.9**	**-0.8**
MTN	**Manton Dam** comp=Z,88nm,0.7s,comp=Z,0.0nm,3.1s,comp=Z,0.0nm	**15.89**	**238**	P	**Pn**		**03 51 25.7**	**-0.9**
MTN	**Manton Dam**	**15.89**	**238**		**Pn**		**03 51 25.4**	**-1.3**
DRS	**Darwin Rock St** comp=Z,133nm,0.7s	**15.89**	**240**	P	**Pn**		**03 51 26.5**	**-0.2**
MSAI	**Masohi** comp=Z,10µmcomp=Z,10µmcomp=Z,345nm,0.9s,comp=Z,345nm,0.9s	**16.03**	**274**	P	**P**		**03 51 31.8**	**+0.6**
NGOA	**Tingoa Renbel** comp=Z,334nm,1.0s	**16.45**	**116**	P	**P**		**03 51 38.1**	**+2.3**
QIS	**Mount Isa** comp=Z,91nm,1.2s,comp=Z,0.0nm	**16.64**	**198**	P	**Pn**		**03 51 36.3**	**+0.2**
QIS	**Mount Isa** comp=Z,91nm,1.2s,comp=Z,0.0nm,19.9s,comp=Z,0.0nm	**16.64**	**198**	P	**Pn**		**03 51 36.2**	**0.0**
QIS	**Mount Isa** comp=Z,91nm,1.2s	**16.64**	**198**	P	**Pn**		**03 51 36.4**	**+0.2**
QIS	**Mount Isa** comp=Z,91nm,1.2s	**16.64**	**198**	P	**Pn**		**03 51 36.4**	**+0.2**
PATS	**Pohnpei**	**17.56**	**50**	P	**P**		**03 51 52.4**	**+4.3**
PATS	**Pohnpei** comp=Z,589nm,1.4s,comp=Z,0.0nm	**17.56**	**50**	P	**P**		**03 51 49.5**	**+1.4**
PATS	**Pohnpei** comp=Z,642nm,1.4s	**17.56**	**50**	P	**P**		**03 51 51.6**	**+3.5**
PATS	**Pohnpei** comp=Z,590nm,1.4s	**17.56**	**50**	P	**P**		**03 51 48.3**	**+0.2**
HURO	**Huro Makira** comp=Z,181nm,1.2s	**17.77**	**110**	P	**P**		**03 51 54.6**	**+4.2**
NLAI	**Namlea** comp=Z,5µmcomp=Z,5µmcomp=Z,4µmcomp=Z,4µm comp=Z,230nm,0.8s,comp=Z,230nm,0.8s	**17.86**	**274**	P	**P**		**03 51 52.3**	**+0.8**
GUMO	**Guam** comp=Z,3µm,18.4s,baz=186,slow=37	**18.12**	**360**	LR	LR		03 58 40.5	
WB0	**Warramunga Arr**	**18.20**	**214**	P	**P**		**03 51 54.4**	**-0.8**
WB0	comp=Z,1µm,1.8s			IAmb	IAmb		03 51 58.2	
WR8	**Warramunga Arr**	**18.30**	**213**		**P**		**03 51 55.2**	**-1.1**
GAMI	**Galela, Maluku** comp=Z,4µmcomp=Z,4µmcomp=Z,230nm,0.9s,comp=Z,230nm,0.9s	**18.32**	**290**	P	**Pn**		**03 52 00.6**	**+3.7**
WRAB	**Tennant Creek** comp=Z,167nm,1.2s	**18.36**	**213**	P	**P**		**03 51 57.0**	**0.0**
WRAB	**Tennant Creek**	**18.36**	**213**	*ce*P	**P**		**03 51 56.0**	**-1.0**
WRAB	comp=Z,507nm,1.6s			pmax	pmax			
WRAB	**Tennant Creek**	**18.36**	**213**	P	**P**		**03 51 55.8**	**-1.1**
WRAB	comp=Z,676nm,1.6s			IAmb	IAmb		03 52 00.0	
WRAB	**Tennant Creek** comp=Z,310nm,1.2s	**18.36**	**213**	P	**P**		**03 51 56.0**	**-1.0**
TNTI	**Ternate** comp=Z,126nm,1.5s	**18.37**	**287**	P	**Pn**		**03 51 58.2**	**+0.6**
TNTI	**Ternate** comp=Z,127nm,1.5s	**18.37**	**287**	P	**Pn**		**03 52 00.1**	**+2.5**
TNTI	**Ternate**	**18.37**	**287**	P	**Pn**		**03 51 58.5**	**+0.9**
WRA	**Warramunga Arr** comp=Z,9.5nm,0.3s,baz=38,slow=12,SNR=208	**18.38**	**213**	P	**P**		**03 51 55.9**	**-1.3**
WRA	comp=Z,50nm,1.2s,baz=33,slow=22,SNR=12			S	**Sn**		**03 55 22.9**	**+0.8**
WRA	comp=Z,7µm,18.4s,baz=90,slow=40 comp=Z,115nm,0.7s			LR	LR		03 59 53.2	
WRA				AML	AML			
WRA	**Warramunga Arr**	**18.38**	**213**	P	**P**		**03 51 54.4**	**-2.7**
SANI	**Sanana** comp=Z,166nm,1.2s	**19.10**	**277**	P	**P**		**03 52 04.8**	**-0.4**
SANI	**Sanana** comp=Z,3µmcomp=Z,167nm,1.1s,comp=Z,167nm,1.1s	**19.10**	**277**	P	**P**		**03 52 04.7**	**-0.4**
SANI	**Sanana** comp=Z,166nm,1.2s	**19.10**	**277**	P	**P**		**03 52 03.8**	**-1.4**
KNRA	**Kununurra** comp=Z,150nm,0.7s,comp=Z,0.0nm	**19.31**	**234**	P	**Pn**		**03 52 08.5**	**-0.3**
KNRA	**Kununurra** comp=Z,150nm,0.7s,comp=Z,0.0nm	**19.31**	**234**	P	**P**		**03 52 08.0**	**+0.6**
KNRA	**Kununurra** comp=Z,150nm,0.7s,comp=Z,0.0nm,2.6s,comp=Z,0.0nm	**19.31**	**234**	P	**P**		**03 52 05.9**	**-1.5**
KNRA	**Kununurra**	**19.31**	**234**		**P**		**03 52 06.5**	**-0.9**
KNRA	comp=Z,884nm,1.9s			IAmb	IAmb		03 52 11.5	
GD1S	**Gladstone Soft** comp=Z,75nm,0.8s	**20.00**	**163**	P	**Pn**		**03 52 16.5**	**-0.3**
SOEI	**Soe** comp=Z,2µm,1.0s	**21.13**	**255**	P	**P**		**03 52 27.1**	**-0.2**
SOEI	**Soe**	**21.13**	**255**		**P**		**03 52 26.0**	**-1.2**
SOEI	**Soe**	**21.13**	**255**	P	**P**		**03 52 28.0**	**+0.7**
SOEI	**Soe** comp=Z,2µm,1.0s	**21.13**	**255**	P	**P**		**03 52 27.9**	**+0.7**
EIDS	**Eidsvold** comp=Z,100nm,1.1s,comp=Z,0.0nm	**21.42**	**165**	P	**P**		**03 52 31.7**	**+1.6**
EIDS	**Eidsvold** comp=Z,100nm,1.1s,comp=Z,0.0nm,8.7s,comp=Z,0.0nm	**21.42**	**165**	P	**P**		**03 52 31.4**	**+1.2**
EIDS	**Eidsvold** comp=Z,107nm,1.2s	**21.42**	**165**	P	**P**		**03 52 31.8**	**+1.6**
EIDS	**Eidsvold**	**21.42**	**165**	P	**P**		**03 52 30.3**	**+0.2**
EIDS	**Eidsvold** comp=Z,100nm,1.1s	**21.42**	**165**	P	**P**		**03 52 31.7**	**+1.6**
KMSI	**Cibinong**	**21.58**	**283**	P	**P**		**03 52 34.6**	**+2.6**
AS17	**Alice Springs** comp=Z,320nm,1.3s	**21.65**	**208**	P	**P**		**03 52 32.2**	**-0.5**
AS17	**Alice Springs** comp=Z,320nm,1.3s	**21.65**	**208**	P	**P**		**03 52 32.1**	**-0.6**
AS17	**Alice Springs** comp=Z,320nm,1.3s,comp=Z,0.0nm,0.6s	**21.65**	**208**	P	**P**		**03 52 31.5**	**-1.2**
AS15	**Alice Springs** comp=Z,260nm,0.8s	**21.67**	**208**	P	**P**		**03 52 32.2**	**-0.6**
AS15	**Alice Springs**	**21.67**	**208**	P	**P**		**03 52 32.1**	**-0.8**
AS01	**Alice Springs** comp=Z,326nm,0.9s	**21.67**	**208**	P	**P**		**03 52 32.6**	**-0.3**
AS31	**Alice Springs** comp=Z,97nm,1.1s,comp=Z,0.0nm	**21.70**	**208**	P	**P**		**03 52 33.0**	**-0.2**
AS31	**Alice Springs** comp=Z,97nm,1.1s,comp=Z,0.0nm	**21.70**	**208**	P	**P**		**03 52 32.8**	**-0.3**
AS31	**Alice Springs** comp=Z,97nm,1.1s,comp=Z,0.0nm,1.6s,comp=Z,0.0nm	**21.70**	**208**	P	**P**		**03 52 32.5**	**-0.7**
AS31	**Alice Springs**	**21.70**	**208**	P	**P**		**03 52 32.5**	**-0.7**
ASAR	**Alice Springs** comp=Z,50nm,0.7s,baz=36,slow=9.0,SNR=146	**21.70**	**208**	P	**P**		**03 52 32.2**	**-1.0**
ASAR	comp=Z,3.9nm,0.8s,baz=33,slow=20,SNR=3.2			S	Sn		03 56 37.2	-4.8
ASAR	comp=Z,4µm,19.7s,baz=32,slow=38 comp=Z,50nm,0.7s			LR	LR		04 01 27.3	
ASAR	**Alice Springs**	**21.70**	**208**	P	**P**		**03 52 32.0**	**-1.2**
AS09	**Alice Springs** comp=Z,340nm,0.9s	**21.71**	**208**	P	**P**		**03 52 32.8**	**-0.5**
AS09	**Alice Springs** comp=Z,340nm,0.9s	**21.71**	**208**	P	**P**		**03 52 32.9**	**-0.4**
BATI	**Baumata** comp=Z,116nm,0.6s,baz=149,slow=2.0,SNR=12	**21.81**	**254**	P	**P**		**03 52 33.2**	**-1.2**
BATI	comp=Z,25nm,0.4s,baz=302,slow=20,SNR=1.9 comp=Z,116nm,0.6s			S	**S**		**03 56 35.3**	**+2.2**
BATI	**Baumata** comp=Z,6µmcomp=Z,545nm,0.9s	**21.81**	**254**	P	**P**		**03 52 35.1**	**+0.7**
QLP	**Quilpie** comp=Z,419nm,1.6s,comp=Z,0.0nm	**21.82**	**182**	P	**P**		**03 52 35.5**	**+1.1**
QLP	**Quilpie**	**21.82**	**182**	P	**P**		**03 52 35.2**	**+0.8**
	comp=Z,419nm,1.6s,comp=Z,0.0nm							
QLP	**Quilpie** comp=Z,419nm,1.6s,comp=Z,0.0nm,2.0s,comp=Z,0.0nm	**21.82**	**182**	P	**P**		**03 52 34.1**	**-0.2**
QLP	**Quilpie** comp=Z,419nm,1.6s	**21.82**	**182**	P	**P**		**03 52 35.2**	**+0.8**
QLP	**Quilpie** comp=Z,419nm,1.6s	**21.82**	**182**	P	**P**		**03 52 34.9**	**+0.6**
RMQ	**Roma**	**22.01**	**171**	P	**P**		**03 52 42.4**	**+6.0**
RMQ	**Roma** comp=Z,79nm,1.4s,comp=Z,0.0nm,1.7s	**22.01**	**171**	P	**P**		**03 52 38.2**	**+1.7**
RMQ	**Roma** comp=Z,79nm,1.4s	**22.01**	**171**	P	**P**		**03 52 37.9**	**+1.4**
RMQ	**Roma** comp=Z,79nm,1.4s	**22.01**	**171**	P	**P**		**03 52 39.6**	**+3.1**
KDI	**Kendari**	**22.28**	**271**	P	**P**		**03 52 43.8**	**+4.3**
BBSI	**Bau Bau** comp=Z,5µmcomp=Z,5µmcomp=Z,6µmcomp=Z,6µm comp=Z,309nm,1.1s,comp=Z,309nm,1.1s	**22.30**	**267**	P	**P**		**03 52 43.4**	**+3.6**
LUWI	**Luwuk** comp=Z,406nm,0.9s	**22.43**	**279**	P	**P**		**03 52 42.1**	**+0.9**
LUWI	**Luwuk**	**22.43**	**279**	P	**P**		**03 52 41.8**	**+0.6**
LUWI	**Luwuk** comp=Z,5µmcomp=Z,5µmcomp=Z,408nm,1.3s,comp=Z,408nm,1.3s	**22.43**	**279**	P	**P**		**03 52 43.8**	**+2.6**
LUWI	**Luwuk** comp=Z,412nm,1.3s	**22.43**	**279**	P	**P**		**03 52 43.1**	**+1.9**
GTOI	**Gorontalo** comp=Z,2µmcomp=Z,2µmcomp=Z,171nm,0.5s,comp=Z,171nm,0.5s	**22.54**	**283**	P	**P**		**03 52 43.4**	**+1.1**
MMRI	**Maumere** comp=Z,298nm,0.8s	**22.90**	**259**	P	**P**		**03 52 45.8**	**-0.2**
MMRI	**Maumere**	**22.90**	**259**	P	**P**		**03 52 43.8**	**-2.2**
MMRI	**Maumere** comp=Z,4µmcomp=Z,4µmcomp=Z,5µmcomp=Z,5µm comp=Z,302nm,0.8s,comp=Z,302nm,0.8s	**22.90**	**259**	P	**P**		**03 52 45.0**	**-1.0**
MMRI	**Maumere** comp=Z,298nm,0.8s	**22.90**	**259**	P	**P**		**03 52 44.1**	**-2.0**
FITZ	**Fitzroy Crossi** comp=Z,10µm,20.6s,baz=58,slow=39	**23.13**	**233**	LR	LR		04 02 47.1	
FITZ	**Fitzroy Crossi**	**23.13**	**233**	P	**P**		**03 52 47.5**	**-0.8**
FITZ	**Fitzroy Crossi** comp=Z,97nm,0.7s	**23.13**	**233**	P	**P**		**03 52 47.5**	**-0.8**
KKSI	**Kolaka, Sulawe** comp=Z,4µmcomp=Z,4µmcomp=Z,185nm,1.2s,comp=Z,185nm,1.2s	**23.23**	**270**	P	**P**		**03 52 51.5**	**+2.1**
INKA	**Innaminka**	**23.31**	**189**	P	**P**		**03 52 49.0**	**-0.9**
AUBSH	**Beerwah State** comp=Z,83nm,1.0s	**23.37**	**162**	P	**P**		**03 52 52.5**	**+2.0**
EDFI	**Ende, Flores** comp=Z,3µmcomp=Z,245nm,0.7s	**23.45**	**259**	P	**P**		**03 52 48.2**	**-3.4**
APSI	**Ampana** comp=Z,4µmcomp=Z,4µmcomp=Z,283nm,1.4s,comp=Z,283nm,1.4s	**23.56**	**278**	P	**P**		**03 52 54.2**	**+1.7**
TW1H	**Toowoomba 1 Ha** comp=Z,186nm,0.8s	**23.73**	**164**	P	**P**		**03 52 56.3**	**+2.3**
AUTOO	**Toowoomba Stat** comp=Z,153nm,0.9s	**23.73**	**164**	P	**P**		**03 52 55.2**	**+1.2**
SANVU	**Saraoutou** comp=Z,278nm,1.3s	**24.37**	**118**	P	**P**		**03 53 03.3**	**+3.4**
SANVU	**Saraoutou**	**24.37**	**118**	P	**P**		**03 52 58.8**	**-1.1**
SANVU	comp=Z,246nm,1.0s			IAmb	IAmb		03 53 16.1	
SANVU	**Saraoutou**	**24.37**	**118**	P	**P**		**03 53 01.8**	**+1.9**
SANVU	**Saraoutou** comp=Z,278nm,1.3s	**24.37**	**118**	P	**P**		**03 53 00.7**	**+0.8**
BSSI	**Bau Bau, Buton** comp=Z,4µmcomp=Z,4µmcomp=Z,6µmcomp=Z,6µm comp=Z,315nm,1.1s,comp=Z,315nm,1.1s	**24.39**	**265**	P	**P**		**03 53 03.1**	**+2.9**
KOUNC	**Koumac, New Ca** comp=Z,78nm,1.4s	**24.56**	**132**	P	**P**		**03 53 04.6**	**+3.0**
KOUNC	**Koumac, New Ca**	**24.56**	**132**	P	**P**		**03 53 02.0**	**+0.4**
BKSI	**Bulukumba** comp=Z,3µmcomp=Z,2µmcomp=Z,163nm,1.3s	**24.74**	**267**	P	**P**		**03 53 02.6**	**-0.7**
AULRC	**Lightning Ridg** comp=Z,559nm,1.1s	**24.81**	**174**	P	**P**		**03 53 03.9**	**+0.1**
TOLI2	**Tolitoli** comp=Z,193nm,0.7s	**24.82**	**283**	P	**P**		**03 53 04.0**	**0.0**
TOLI2	**Tolitoli**	**24.82**	**283**	P	**P**		**03 53 02.9**	**-1.1**
TOLI2	comp=Z,134nm,0.7s			IAmb	IAmb		03 53 15.6	
TOLI2	**Tolitoli** comp=Z,193nm,0.7s	**24.82**	**283**	P	**P**		**03 53 03.6**	**-0.4**
WSI	**Waingapu**	**24.95**	**257**	P	**P**		**03 53 04.4**	**-0.8**
KAPI	**Kappang** comp=Z,1µm,21.9s,baz=83,slow=42	**25.11**	**268**	LR	LR		04 05 19.1	
KAPI	**Kappang** comp=Z,52nm,1.2s	**25.11**	**268**	P	**P**		**03 53 06.3**	**-0.4**
KAPI	**Kappang** comp=Z,107nm,1.2s	**25.11**	**268**	P	**P**		**03 53 05.6**	**-1.1**
KAPI				pmax	pmax			
KAPI	**Kappang** comp=Z,107nm,1.1s	**25.11**	**268**	P	**P**		**03 53 05.6**	**-1.1**
KAPI				IAmb	IAmb		03 53 17.3	
KAPI	**Kappang** comp=Z,100nm,1.2s	**25.11**	**268**	P	**P**		**03 53 06.4**	**-0.3**
SPSI	**Sidrap Palu** comp=Z,97nm,1.1s,comp=Z,97nm,1.1s	**25.12**	**271**	P	**P**		**03 53 05.9**	**-0.9**
TTSI	**Tana Toraja** comp=Z,3µmcomp=Z,5µmcomp=Z,331nm,1.3s	**25.12**	**273**	P	**P**		**03 53 08.1**	**+1.3**
PCI	**Palu**	**25.35**	**278**	P	P		03 53 18.4	+9.5
MKS	**Makassar** comp=Z,3µmcomp=Z,3µmcomp=Z,136nm,1.2s,comp=Z,136nm,1.2s	**25.39**	**268**	P	**P**		**03 53 12.6**	**+3.4**
WRKA	**Warakurna** comp=Z,53nm,1.3s	**25.82**	**217**	P	**P**		**03 53 12.4**	**-0.6**
WRKA	**Warakurna**	**25.82**	**217**	P	**P**		**03 53 12.1**	**-1.0**
WRKA	**Warakurna** comp=Z,53nm,1.3s,comp=Z,0.0nm,8.5s	**25.82**	**217**	P	**P**		**03 53 10.7**	**-2.3**
PMSI	**Majene**	**25.99**	**272**	P	P		03 53 22.1	+7.4
MMSI	**Mamuju** comp=Z,1µmcomp=Z,143nm,0.9s,comp=Z,143nm,0.9s	**26.06**	**273**	P	**P**		**03 53 18.3**	**+3.0**
DVP	**Devils Point** comp=Z,800nm,1.3s	**26.19**	**122**	P	**P**		**03 53 19.5**	**+3.1**

HTT	**Hallett**	**29.18 190**	P	**P**	**03 53 44.5**	**+1.4**
	comp=Z,15nm,1.4s						
HTT	**Hallett**	**29.18 190**	P	**P**	**03 53 42.5**	**-0.5**
	comp=Z,15nm,1.4s,comp=Z,0.0nm,17.5s						
HTT	**Hallett**	**29.18 190**	P	**P**	**03 53 43.7**	**+0.7**
	comp=Z,38nm,1.4s						
BBOO	**Buckleboo**	**29.22 195**	P	**P**	**03 53 44.9**	**+1.5**
	comp=Z,48nm,1.3s						
BBOO	**Buckleboo**	**29.22 195**	P	**P**	**03 53 43.6**	**+0.2**
	comp=Z,48nm,1.3s						
BBOO	**Buckleboo**	**29.22 195**	P	**P**	03 53 43.1	-0.3
	comp=Z,48nm,1.3s,comp=Z,0.0nm,11.9s						
BBOO	**Buckleboo**	**29.22 195**	P	**P**	**03 53 43.8**	**+0.4**
	comp=Z,49nm,1.3s						
BBOO	**Buckleboo**	**29.22 195**	P	**P**	**03 53 43.4**	**0.0**
BBOO	**Buckleboo**	**29.22 195**	P	**P**	**03 53 44.4**	**+1.1**
	comp=Z,48nm,1.3s						
KHKI	**Kahang-Kahang**	**29.38 261**	P	**P**	**03 53 44.4**	**-0.6**
	comp=Z,801nmcomp=Z,48nm,0.9s						
RIV	**Riverview**	**29.60 169**	P	**P**	**03 53 49.4**	**+2.8**
RIV	**Riverview**	**29.60 169**	P	**P**	**03 53 47.4**	**+0.7**
	comp=Z,79nm,1.5s,comp=Z,0.0nm,0.1s						
BBKI	**Banjar Baru**	**30.05 271**	P	P	03 54 04.9	+14
FORT	**Forrest**	**30.47 210**	P	**P**	**03 53 55.6**	**+1.2**
	comp=Z,73nm,0.7s						
FORT	**Forrest**	**30.47 210**	P	**P**	**03 53 53.7**	**-0.8**
	comp=Z,73nm,0.7s,comp=Z,0.0nm,7.7s						
FORT	**Forrest**	**30.47 210**		**P**	**03 53 54.5**	**0.0**
FORT			IAmb	IAmb	03 54 02.7		
	comp=Z,44nm,0.6s						
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 59.4**	**+2.5**
	comp=Z,87nm,0.9s						
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 58.1**	**+1.2**
	comp=Z,87nm,0.9s						
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 57.3**	**+0.4**
	comp=Z,87nm,0.9s,comp=Z,0.0nm,5.2s						
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 58.3**	**+1.4**
	comp=Z,133nm,0.9s						
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 57.9**	**+1.0**
CAN			pmax	pmax			
	comp=Z,299nm,1.8s						
CAN	**Canberra**	**30.75 174**		**P**	**03 53 57.9**	**+1.0**
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 59.3**	**+2.4**
	comp=Z,87nm,0.9s						
CAN	**Canberra**	**30.75 174**	P	**P**	**03 53 58.8**	**+1.9**
CAN			pP	**pP**	**03 54 12.5**	**+2.7**
CNB	**Canberra Magne**	**30.78 173**	P	**P**	**03 53 60.0**	**+2.7**
	comp=Z,67nm,0.9s						
CNB	**Canberra Magne**	**30.78 173**	P	**P**	**03 53 59.3**	**+2.1**
	comp=Z,68nm,0.9s						
CNB	**Canberra Magne**	**30.78 173**	P	**P**	**03 53 58.3**	**+1.0**
	comp=Z,68nm,0.9s,comp=Z,0.0nm,3.9s						
JAGI	**Jajag, Banyuwa**	**30.82 261**	P	**P**	**03 53 58.3**	**+0.5**
	comp=Z,34nm,0.8s						
JAGI	**Jajag, Banyuwa**	**30.82 261**		**P**	**03 53 57.9**	**+0.1**
JAGI			IAmb	IAmb	03 54 13.2		
	comp=Z,75nm,1.3s						
JAGI	**Jajag, Banyuwa**	**30.82 261**	P	**P**	**03 53 59.1**	**+1.3**
	comp=Z,35nm,0.7s,comp=Z,35nm,0.7s						
JAGI	**Jajag, Banyuwa**	**30.82 261**	P	**P**	**03 53 58.6**	**+0.8**
	comp=Z,34nm,0.8s						
JCJ	**Chichijima**	**31.68 355**	LR	LR	04 06 46.2		
	comp=Z,620nm,18.7s,baz=170,slow=36						
JCJ	**Chichijima**	**31.68 355**	P	**P**	**03 54 05.7**	**+0.6**
	comp=Z,289nm,1.0s						
JCJ	**Chichijima**	**31.68 355**	P	**P**	**03 54 05.0**	**-0.1**
ARPS	**Mount Arapiles**	**32.09 185**	P	**P**	**03 54 10.2**	**+1.6**
	comp=Z,43nm,1.1s						
ARPS	**Mount Arapiles**	**32.09 185**	P	**P**	**03 54 09.6**	**+1.0**
	comp=Z,43nm,1.1s						
ARPS	**Mount Arapiles**	**32.09 185**	P	**P**	**03 54 09.0**	**+0.4**
	comp=Z,43nm,1.1s,comp=Z,0.0nm,1.1s						
MILA	**Mila**	**32.48 174**	P	**P**	**03 54 15.3**	**+3.2**
MILA	**Mila**	**32.48 174**	P	**P**	**03 54 13.6**	**+1.5**
	comp=Z,14nm,1.2s,comp=Z,0.0nm,7.2s						
MILA	**Mila**	**32.48 174**	P	**P**	**03 54 13.7**	**+1.5**
BRAT	**Ballarat**	**32.75 181**	P	**P**	**03 54 15.5**	**+1.1**
	comp=Z,53nm,0.8s						
TOO	**Toolangi**	**32.77 179**	P	**P**	**03 54 17.0**	**+2.4**
	comp=Z,24nm,1.2s						
TOO	**Toolangi**	**32.77 179**	P	**P**	**03 54 16.3**	**+1.7**
	comp=Z,24nm,1.2s						
TOO	**Toolangi**	**32.77 179**	P	**P**	**03 54 15.3**	**+0.7**
	comp=Z,24nm,1.2s,comp=Z,0.0nm,8.2s						
TOO	**Toolangi**	**32.77 179**	P	**P**	**03 54 14.4**	**-0.2**
TOO			pmax	pmax			
	comp=Z,30nm,1.2s						
TOO	**Toolangi**	**32.77 179**		**P**	**03 54 14.4**	**-0.2**
PWJI	**Pagerwojo**	**33.10 262**	P	**P**	**03 54 15.8**	**-2.0**
	comp=Z,40nm,0.8s,comp=Z,40nm,0.8s						
SJI	**Sawahan**	**33.12 263**	P	**P**	**03 54 21.3**	**+3.2**
	comp=Z,47nm,0.7s,comp=Z,47nm,0.7s						
SNJI	**Sawahan-Nganju**	**33.13 263**	P	**P**	**03 54 18.7**	**+0.4**
	comp=Z,37nm,1.1s,comp=Z,37nm,1.1s						
MEEK	**Meekatharra**	**33.33 226**	P	**P**	**03 54 19.9**	**+0.2**
	comp=Z,221nm,1.5s						
MEEK	**Meekatharra**	**33.33 226**	P	**P**	**03 54 19.2**	**-0.4**
	comp=Z,221nm,1.5s,comp=Z,0.0nm,17.8s						
MEEK	**Meekatharra**	**33.33 226**	P	**P**	**03 54 19.3**	**-0.4**
	comp=Z,221nm,1.5s						
MEEK	**Meekatharra**	**33.33 226**	P	**P**	**03 54 20.0**	**+0.2**
	comp=Z,221nm,1.5s						
PCJI	**Pacitan**	**33.73 262**	P	**P**	**03 54 22.2**	**-1.1**
WOJI	**Wonogiri, Jawa**	**33.96 263**	P	**P**	**03 54 25.9**	**+0.6**
	comp=Z,75nm,0.7s,comp=Z,75nm,0.7s						
KMBL	**Kambalda**	**34.29 217**	P	**P**	**03 54 28.1**	**+0.1**
	comp=Z,36nm,1.5s						
KMBL	**Kambalda**	**34.29 217**	P	**P**	**03 54 27.4**	**-0.5**
	comp=Z,36nm,1.5s,comp=Z,0.0nm,1.9s						
UGM	**Wanagama**	**34.36 263**	P	**P**	**03 54 28.6**	**-0.2**
	comp=Z,91nm,1.8s						
GIRL	**Giralia**	**34.66 236**	P	**P**	**03 54 31.9**	**+0.6**
	comp=Z,126nm,1.4s						
GIRL	**Giralia**	**34.66 236**	P	**P**	**03 54 31.2**	**-0.1**
	comp=Z,126nm,1.4s,comp=Z,0.0nm,6.8s						
GIRL	**Giralia**	**34.66 236**		**P**	**03 54 30.4**	**-0.8**
MSVF	**Nonsavu**	**34.90 115**	LR	LR	04 07 23.9		
	comp=Z,2µm,21.9s,baz=294,slow=34						
MSVF	**Nonsavu**	**34.90 115**	*i* P	**P**	**03 54 35.0**	**+1.6**
MSVF	**Nonsavu**	**34.90 115**	P	**P**	**03 54 34.9**	**+1.5**
	comp=Z,79nm,1.3s						
JOW	**Kunigami**	**35.21 334**	LR	LR	04 06 10.4		
	comp=Z,1µm,20.7s,baz=150,slow=32						
KPJI	**Karang Pucung**	**35.91 264**	P	**P**	**03 54 41.4**	**-0.7**
	comp=Z,1µmcomp=Z,1µmcomp=Z,56nm,1.4s,comp=Z,56nm,1.4s						
YULB	**Yu-li**	**36.19 321**	P	**P**	**03 54 45.1**	**+0.7**
	comp=Z,47nm,1.3s						
GLAD	**Gladstone**	**36.27 176**	P	**P**	**03 54 45.9**	**+1.1**
	comp=Z,30nm,0.8s						
NACB	**Ninganchiao**	**36.59 323**	P	**P**	**03 54 48.3**	**+0.6**
	comp=Z,146nm,1.4s						
NACB	**Ninganchiao**	**36.59 323**	P	**P**	**03 54 46.9**	**-0.8**
NACB	**Ninganchiao**	**36.59 323**	P	**P**	**03 54 46.9**	**-0.8**
	comp=Z,146nm,1.4s						
MORW	**Morawa**	**36.60 225**	P	**P**	**03 54 48.0**	**+0.2**
	comp=Z,144nm,1.6s						
MORW	**Morawa**	**36.60 225**	P	**P**	**03 54 47.3**	**-0.5**
	comp=Z,145nm,1.6s,comp=Z,0.0nm,8.3s						
MORW	**Morawa**	**36.60 225**	P	**P**	**03 54 48.1**	**+0.2**
	comp=Z,144nm,1.6s						
MORW	**Morawa**	**36.60 225**		**P**	**03 54 46.7**	**-1.1**
MORW	**Morawa**	**36.60 225**	P	**P**	**03 54 48.0**	**+0.2**
	comp=Z,144nm,1.6s						
SSLB	**Suanglung**	**36.70 321**	IAmb	IAmb	03 55 10.5		
	comp=Z,35nm,0.7s						
SSLB	**Suanglung**	**36.70 321**	P	**P**	**03 54 48.2**	**-0.5**
	comp=Z,68nm,1.0s						
KLBR	**Kellerberrin**	**37.00 220**	P	**P**	**03 54 51.0**	**-0.2**
	comp=Z,125nm,1.1s						
KLBR	**Kellerberrin**	**37.00 220**	P	**P**	**03 54 50.6**	**-0.6**
	comp=Z,125nm,1.1s,comp=Z,0.0nm,0.1s						
KLBR	**Kellerberrin**	**37.00 220**	P	**P**	**03 54 51.0**	**-0.2**
	comp=Z,125nm,1.1s						
KLBR	**Kellerberrin**	**37.00 220**	P	**P**	**03 54 50.9**	**-0.4**
	comp=Z,125nm,1.1s						
BLDU	**Ballidu**	**37.07 223**	P	**P**	**03 54 51.9**	**+0.1**
	comp=Z,99nm,1.0s						
BLDU	**Ballidu**	**37.07 223**	P	**P**	**03 54 51.2**	**-0.6**
	comp=Z,99nm,1.0s,comp=Z,0.0nm,10.4s						
BLDU	**Ballidu**	**37.07 223**	P	**P**	**03 54 52.0**	**+0.2**
	comp=Z,99nm,1.0s						
BLDU	**Ballidu**	**37.07 223**	P	**P**	**03 54 51.9**	**+0.1**
	comp=Z,99nm,1.0s						
YHNB	**Yeheng**	**37.09 323**	P	**P**	**03 54 52.9**	**+0.8**
	comp=Z,128nm,2.0s						
YHNB	**Yeheng**	**37.09 323**		**P**	**03 54 51.0**	**-1.0**
YHNB	**Yeheng**	**37.09 323**	P	**P**	**03 54 53.0**	**+0.9**
	comp=Z,127nm,2.0s						
BBJI	**Bungbulang**	**37.19 264**	P	**P**	**03 54 50.7**	**-2.4**
	comp=Z,58nm,0.8s						
BBJI	**Bungbulang**	**37.19 264**		**P**	**03 54 49.8**	**-3.2**
BBJI			IAmb	IAmb	03 55 01.0		
	comp=Z,40nm,0.7s						
BBJI	**Bungbulang**	**37.19 264**	P	**P**	**03 54 50.3**	**-2.7**
	comp=Z,666nmcomp=Z,59nm,0.8s,comp=Z,59nm,0.8s						
BBJI	**Bungbulang**	**37.19 264**	P	**P**	**03 54 50.4**	**-2.7**
	comp=Z,58nm,0.8s						
TATO	**Taipei**	**37.25 323**	P	**P**	**03 54 53.4**	**+0.1**
TATO	**Taipei**	**37.25 323**	P	**P**	**03 54 55.9**	**+2.6**
	comp=Z,250nm,1.4s						
TPI	**Tanjungpandan**	**37.26 272**	P	**P**	**03 54 55.5**	**+1.9**
	comp=Z,1µmcomp=Z,1µmcomp=Z,900nmcomp=Z,900nm						
	comp=Z,47nm,1.0s,comp=Z,47nm,1.0s						
MOO	**Moorlands**	**37.68 177**	P	**P**	**03 54 59.7**	**+3.0**
MOO	**Moorlands**	**37.68 177**	P	**P**	**03 54 57.7**	**+0.9**
	comp=Z,79nm,2.3s,comp=Z,0.0nm,5.7s						
MOO	**Moorlands**	**37.68 177**	P	**P**	**03 54 58.5**	**+1.7**
	comp=Z,78nm,2.3s						
MOO	**Moorlands**	**37.68 177**	P	**P**	**03 54 58.9**	**+2.1**
JHJ	**Hachijo jima 2**	**37.88 353**	LR	LR	04 08 55.8		
	comp=Z,188nm,18.6s,baz=142,slow=34						
TAU	**Tasmania Unive**	**38.15 177**	P	**P**	**03 55 01.0**	**+0.3**
	comp=Z,105nm,1.3s						
TAU	**Tasmania Unive**	**38.15 177**	P	**P**	**03 55 01.1**	**+0.3**
TAU			pmax	pmax			
	comp=Z,353nm,1.8s						
TAU	**Tasmania Unive**	**38.15 177**	P	**P**	**03 55 01.1**	**+0.3**
NWAO	**Narrogin (SRO)**	**38.21 219**	P	**P**	**03 55 03.3**	**+1.9**
	comp=Z,115nm,2.1s						
NWAO	**Narrogin (SRO)**	**38.21 219**	P	**P**	**03 55 03.9**	**+2.5**
NWAO	**Narrogin (SRO)**	**38.21 219**	P	**P**	**03 55 01.2**	**-0.1**
	comp=Z,115nm,2.1s						
NWAO	**Narrogin (SRO)**	**38.21 219**	LR	LR	04 11 20.7		
	comp=Z,4µm,20.1s,baz=68,slow=37						
NWAO	**Narrogin (SRO)**	**38.21 219**	P	**P**	**03 55 01.3**	**-0.1**
	comp=Z,54nm,2.1s						
NWAO	**Narrogin (SRO)**	**38.21 219**	P	**P**	**03 55 01.4**	**-0.1**
NWAO			pP	**pP**	**03 55 14.6**	**+0.1**
JSU	**Suzuyama**	**38.52 340**	P	**P**	**03 55 06.0**	**+1.9**
	comp=Z,44nm,1.3s						
CGJI	**Cibinong**	**39.11 265**	P	**P**	**03 55 11.3**	**+2.1**
	comp=Z,136nm,0.8s,comp=Z,136nm,0.8s						
JMN	**Monobe**	**39.59 345**		**P**	**03 55 11.8**	**-1.1**
JMN	**Monobe**	**39.59 345**	P	**P**	**03 55 14.7**	**+1.8**
	comp=Z,39nm,1.0s						
JNU	**Nakatsue**	**39.87 341**	LR	LR	04 08 54.5		
	comp=Z,2µm,21.6s,baz=82,slow=32						
OUZ	**Omahuta**	**40.32 143**	P	**P**	**03 55 20.6**	**+1.7**
	comp=Z,141nm,1.3s						
OUZ	**Omahuta**	**40.32 143**	P	**P**	**03 55 20.6**	**+1.7**
OUZ	**Omahuta**	**40.32 143**	P	**P**	**03 55 20.9**	**+2.0**
	comp=Z,141nm,1.3s						
OUZ			pP	**pP**	**03 55 34.3**	**+2.2**
INU	**Inuyama**	**40.48 350**		**P**	**03 55 20.9**	**+0.7**
INU	**Inuyama**	**40.48 350**	P	**P**	**03 55 20.6**	**+0.3**
	comp=Z,38nm,1.2s						
INU			pP	**sP**	**03 55 37.1**	**-2.1**
MDSI	**Maura Dua**	**40.64 269**	P	**P**	**03 55 20.1**	**-1.8**
	comp=Z,2µmcomp=Z,2µmcomp=Z,104nm,1.4s,comp=Z,104nm,1.4s						
JGF	**Kuroka**	**40.67 350**	P	**P**	**03 55 23.2**	**+1.3**
	comp=Z,46nm,1.0s						
JGF	**Kuroka**	**40.67 350**		**P**	**03 55 20.9**	**-0.9**
JGF	**Kuroka**	**40.67 350**	P	**P**	**03 55 20.9**	**-0.9**
	comp=Z,46nm,1.0s						
JGF			pP	**pP**	**03 55 34.9**	**-0.2**
MJAR	**Matsushiro Arr**	**41.46 352**	P	**P**	**03 55 26.1**	**-2.2**
	comp=Z,23nm,1.1s,baz=184,slow=10,SNR=22						
MJAR			LR	LR	04 12 41.7		
	comp=Z,884nm,18.9s,baz=166,slow=36						
	comp=Z,23nm,1.1s						
MJAR	**Matsushiro Arr**	**41.46 352**	P	**P**	**03 55 27.4**	**-0.9**
MJAR			pmax	pmax			
	comp=Z,49nm,1.4s						
MJAR	**Matsushiro Arr**	**41.46 352**		**P**	**03 55 27.4**	**-0.9**
MAJO	**Matsushiro**	**41.47 352**	P	**P**	**03 55 28.5**	**+0.2**
	comp=Z,56nm,1.3s						
MAJO	**Matsushiro**	**41.47 352**	*i* P	**P**	**03 55 28.5**	**+0.2**
MAJO			pmax	pmax			
	comp=Z,32nm,1.1s						
MAJO	**Matsushiro**	**41.47 352**		**P**	**03 55 27.4**	**-0.9**
MAJO			IAmb	IAmb	03 55 30.7		
	comp=Z,113nm,1.4s						
MAJO	**Matsushiro**	**41.47 352**	P	**P**	**03 55 26.8**	**-1.6**
	comp=Z,56nm,1.3s						
MAJO	**Matsushiro**	**41.47 352**	P	**P**	**03 55 26.9**	**-1.4**
MJB9	**Matsu-Tunnel**	**41.47 352**		**P**	**03 55 27.2**	**-1.1**
MJB9			IAmb	IAmb	03 55 32.0		
	comp=Z,113nm,1.4s						
JTU	**Tsushima**	**41.64 341**	P	**P**	**03 55 30.5**	**+0.8**
	comp=Z,40nm,1.2s						
QIZ	**Qiongzhong**	**41.81 305**	P	**P**	**03 55 31.8**	**+0.3**
QIZ			S	**S**	**04 01 47.5**	**+1.6**
QIZ			L	L			
	comp=Z,500nm,13.2s						
QIZ			L	L			
	comp=Z,320nm,11.8s						
QIZ			L	L			
	comp=Z,770nm,14.7s						
SSE	**Sheshan**	**42.17 329**	P	**P**	**03 55 35.0**	**+0.8**
SSE			S	**S**	**04 01 53.3**	**+2.5**
SSE			pmax	pmax			
	comp=Z,12nm,0.6s						
SSE			L	L			
	comp=Z,320nm,20.4s						
SSE			L	L			
	comp=Z,220nm,20.3s						
MASI	**Maura Aman, Be**	**42.63 270**	P	**P**	**03 55 38.6**	**+0.3**
RAO	**Raoul Island**	**42.81 129**	LR	LR	04 11 31.9		
	comp=Z,2µm,21.3s,baz=314,slow=33						
TOZ	**Tahuroa Road**	**43.14 144**		**P**	**03 55 42.7**	**+0.8**
HIZ	**Hauiti**	**43.30 145**	P	**P**	**03 55 45.3**	**+2.1**
	comp=Z,202nm,1.1s						
HIZ	**Hauiti**	**43.30 145**	P	**P**	**03 55 45.2**	**+1.9**
HIZ	**Hauiti**	**43.30 145**	P	**P**	**03 55 45.0**	**+1.7**
	comp=Z,203nm,1.1s						
KHEZ	**Kahui Hut**	**43.37 147**	P	**P**	**03 55 45.2**	**+1.3**
	comp=Z,354nm,1.6s						
KHEZ	**Kahui Hut**	**43.37 147**	P	**P**	**03 55 46.2**	**+2.2**
SDSI	**Sungai Dareh**	**43.62 274**	P	**P**	**03 55 44.6**	**-1.6**
	comp=Z,2µmcomp=Z,2µmcomp=Z,72nm,0.7s,comp=Z,72nm,0.7s						
AFI	**Afiamalu**	**43.62 105**	LR	LR	04 11 32.1		
	comp=Z,1µm,20.2s,baz=275,slow=33						
VRZ	**Vera Road**	**43.67 146**	P	**P**	**03 55 48.7**	**+2.6**
QRZ	**Quartz Range**	**43.70 149**	P	**P**	**03 55 47.7**	**+1.3**
	comp=Z,71nm,1.7s						
QRZ	**Quartz Range**	**43.70 149**	P	**P**	**03 55 47.5**	**+1.0**
QRZ	**Quartz Range**	**43.70 149**	P	**P**	**03 55 47.8**	**+1.3**
DSZ	**Denniston Nort**	**44.03 151**	P	**P**	**03 55 50.6**	**+1.4**
TKNZ	**Takaka Hill**	**44.08 149**	P	**P**	**03 55 49.3**	**-0.2**
BKNI	**Bangkinang**	**44.14 275**	P	P	03 55 57.0	+6.6
BKNI	**Bangkinang**	**44.14 275**	P	**P**	**03 55 52.3**	**+1.9**
	comp=Z,170nm,1.3s						
NJ2	**Nanjing**	**44.15 328**	*e*P	**P**	**03 55 50.8**	**+0.7**
NJ2			pP	**pP**	**03 56 06.0**	**+2.6**
NJ2			S	**S**	**04 02 25.0**	**+5.3**
NJ2			pmax	pmax			
	comp=Z,8.0nm,0.5s						
NJ2			pmax	pmax			
	comp=Z,990nm,6.7s						
NJ2			L	L			
	comp=Z,1µm,21.8s						
NJ2			L	L			
	comp=Z,680nm,20.6s						
NJ2			L	L			
	comp=Z,3µm,23.5s						
COVZ	**Chateau Observ**	**44.16 145**	P	**P**	**03 55 52.5**	**+2.2**
SNVZ	**South Ngauruho**	**44.20 145**	P	**P**	**03 55 53.1**	**+2.3**
MRNZ	**Matariki Terra**	**44.24 150**	P	**P**	**03 55 50.4**	**-0.5**
DUWZ	**D'Urville Isla**	**44.40 148**	P	**P**	**03 55 54.2**	**+2.1**
MOVZ	**Moawhango**	**44.42 145**	P	**P**	**03 55 53.7**	**+1.3**
NNZ	**Nelson**	**44.42 149**		**P**	**03 55 52.2**	**0.0**
NNZ			IAmb	IAmb	03 55 56.4		
	comp=Z,205nm,1.7s						
NNZ	**Nelson**	**44.42 149**	P	**P**	**03 55 52.7**	**+0.4**
URZ	**Urewera**	**44.44 143**	LR	LR	04 15 12.6		
	comp=Z,834nm,18.1s,baz=312,slow=37						
URZ	**Urewera**	**44.44 143**	P	**P**	**03 55 52.8**	**+0.4**
	comp=Z,34nm,1.0s						
URZ	**Urewera**	**44.44 143**	P	**P**	**03 55 52.8**	**+0.4**
URZ	**Urewera**	**44.44 143**	P	**P**	**03 55 52.8**	**+0.4**
	comp=Z,34nm,1.0s						
JCZ	**Jackson Bay**	**44.52 155**	P	**P**	**03 55 54.5**	**+1.4**
	comp=Z,728nm,1.0s						
JCZ	**Jackson Bay**	**44.52 155**	P	**P**	**03 55 54.2**	**+1.1**
HAZ	**Te Kaha**	**44.52 142**	P	**P**	**03 55 54.7**	**+1.7**
THZ	**Tophouse**	**44.59 150**	P	**P**	**03 55 53.8**	**+0.1**
THZ			IAmb	IAmb	03 56 08.4		
	comp=Z,52nm,0.8s						
THZ	**Tophouse**	**44.59 150**	P	**P**	**03 55 53.7**	**+0.1**
RUGZ	**Raukumara Rang**	**44.59 143**	P	**P**	**03 55 55.4**	**+1.6**
RTZ	**Ruatahuna**	**44.60 144**		**P**	**03 55 53.9**	**+0.1**
RTZ	**Ruatahuna**	**44.60 144**	P	**P**	**03 55 54.5**	**+0.7**
INZ	**Inchbonnie**	**44.62 152**	P	**P**	**03 55 52.5**	**-1.2**
INZ			IAmb	IAmb	03 56 13.2		
	comp=Z,184nm,1.6s						
BHHZ	**Black Hill Sta**	**44.65 145**	P	**P**	**03 55 54.8**	**+0.6**
MSZ	**Milford Sound**	**44.67 157**	P	**P**	**03 55 56.0**	**+1.9**
BKZ	**Black Stump Fm**	**44.68 145**	P	**P**	**03 55 55.4**	**+1.0**
	comp=Z,106nm,1.0s						
BKZ	**Black Stump Fm**	**44.68 145**	P	**P**	**03 55 54.9**	**+0.5**
PPI	**Padang Panjang**	**44.69 274**	P	**P**	**03 55 53.1**	**-1.7**
	comp=Z,2µmcomp=Z,2µmcomp=Z,175nm,0.8s,comp=Z,175nm,0.8s						
MXZ	**Matakaoa Point**	**44.72 142**	P	**P**	**03 55 56.2**	**+1.5**
	comp=Z,84nm,1.2s						
MXZ	**Matakaoa Point**	**44.72 142**	P	**P**	**03 55 56.5**	**+1.8**
MWZ	**Matawai**	**44.74 143**	P	**P**	**03 55 56.1**	**+1.2**
KSRS	**Korea Array**	**44.79 341**	P	**P**	**03 55 54.4**	**-0.8**
	comp=Z,19nm,0.9s,baz=158,slow=9.5,SNR=28						
KSRS			LR	LR	04 11 46.1		
	comp=Z,2µm,21.8s,baz=145,slow=32						
	comp=Z,19nm,0.9s						
KSAR	**Wonju Array Be**	**44.80 341**	P	**P**	**03 55 55.4**	**+0.2**
KSAR	**Wonju Array Be**	**44.80 341**		**P**	**03 55 55.4**	**+0.2**
IPM	**Ipoh**	**44.80 281**	P	**P**	**03 55 54.8**	**-0.9**
	comp=Z,32nm,1.3s						
KS19	**Wonju Array Si**	**44.86 341**	P	**P**	**03 55 54.8**	**-0.9**
KS19			IAmb	IAmb	03 56 11.7		
	comp=Z,68nm,1.2s						
TCW	**Tory Channel**	**44.88 148**		**P**	**03 55 55.1**	**-0.8**
TCW	**Tory Channel**	**44.88 148**	P	**P**	**03 55 56.2**	**+0.3**
TWGZ	**Tauwhareparae**	**44.91 143**	P	**P**	**03 55 57.6**	**+1.3**
WMGZ	**Waiomatatini S**	**44.95 142**	P	**P**	**03 55 57.3**	**+0.8**
TSZ	**Takapari Road**	**44.98 146**	P	**P**	**03 55 57.6**	**+0.9**
PUZ	**Puketiti**	**45.01 142**	P	**P**	**03 55 57.2**	**+0.1**
DCZ	**Deep Cove**	**45.03 158**	P	**P**	**03 55 57.3**	**+0.3**
DCZ	**Deep Cove**	**45.03 158**	P	**P**	**03 55 57.6**	**+0.7**
BSWZ	**Blackbirch Sta**	**45.04 149**	P	**P**	**03 55 57.1**	**0.0**
BSWZ	**Blackbirch Sta**	**45.04 149**	P	**P**	**03 55 57.6**	**+0.4**
LTZ	**Lake Taylor**	**45.05 151**		**P**	**03 55 57.0**	**-0.2**
LTZ	**Lake Taylor**	**45.05 151**	P	**P**	**03 55 57.6**	**+0.3**
SNZO	**South Karori**	**45.18 148**	P	**P**	**03 55 58.2**	**0.0**
	comp=Z,69nm,1.1s						
SNZO	**South Karori**	**45.18 148**	P	**P**	**03 55 57.8**	**-0.5**
SNZO	**South Karori**	**45.18 148**	P	**P**	**03 55 57.7**	**-0.5**
	comp=Z,119nm,1.1s						
SNZO			pP	**pP**	**03 56 12.6**	**+1.0**
SNZO	**South Karori**	**45.18 148**	P	**P**	**03 55 57.8**	**-0.5**
SNZO			pP	**pP**	**03 56 11.9**	**+0.3**
MRZ	**Mangatainoka R**	**45.19 147**		**P**	**03 55 57.5**	**-0.9**
MRZ	**Mangatainoka R**	**45.19 147**	P	**P**	**03 55 58.2**	**-0.1**
RPZ	**Rata Peaks**	**45.21 153**	LR	LR	04 15 26.0		
	comp=Z,412nm,18.4s,baz=24,slow=37						
RPZ	**Rata Peaks**	**45.21 153**	P	**P**	**03 55 59.3**	**+0.8**
	comp=Z,255nm,0.9s						
RPZ	**Rata Peaks**	**45.21 153**		**P**	**03 55 58.3**	**-0.2**
RPZ	**Rata Peaks**	**45.21 153**	P	**P**	**03 55 58.9**	**+0.4**
INCN	**Inchon**	**45.26 339**	P	**P**	**03 56 01.3**	**+2.3**
	comp=Z,57nm,1.1s						
KNZ	**Kokohu**	**45.27 144**	P	**P**	**03 55 59.2**	**+0.2**
MLZ	**Mavora Lakes**	**45.32 157**	P	**P**	**03 56 00.0**	**+0.7**
OXZ	**Oxford**	**45.36 152**	IAmb	IAmb	03 56 16.1		
	comp=Z,58nm,0.7s						
OXZ	**Oxford**	**45.36 152**	P	**P**	**03 55 58.6**	**-1.0**
JTM	**Tenmabayashi**	**45.36 356**	P	**P**	**03 56 00.0**	**+0.4**
	comp=Z,143nm,1.0s						
JTM	**Tenmabayashi**	**45.36 356**		**P**	**03 55 59.2**	**-0.4**
JTM			IAmb	IAmb	03 56 02.3		
	comp=Z,86nm,0.8s						
LBZ	**Lake Benmore**	**45.36 155**		**P**	**03 55 59.8**	**+0.1**
LBZ	**Lake Benmore**	**45.36 155**	P	**P**	**03 55 59.3**	**-0.4**
KHZ	**Kahutara**	**45.39 150**	P	**P**	**03 55 59.6**	**-0.3**
KHZ	**Kahutara**	**45.39 150**	P	**P**	**03 55 59.2**	**-0.7**
KHZ	**Kahutara**	**45.39 150**	P	**P**	**03 56 00.0**	**+0.1**
	comp=Z,103nm,1.2s						
ANWZ	**Angora Road**	**45.54 146**	P	**P**	**03 56 01.6**	**+0.5**
GVZ	**Greta Valley S**	**45.56 151**	P	**P**	**03 56 01.5**	**+0.3**
BFZ	**Birch Farm**	**45.57 146**	P	**P**	**03 56 01.3**	**-0.1**
	comp=Z,238nm,1.3s						
BFZ	**Birch Farm**

USA0B Ussuriysk Arra 50.01 348 IAmb IAmb 03 56 38.4
comp=Z,36nm,1.0s
HNS HongShan 50.43 329 ⇑P **P** **03 56 38.3 -0.6**
HNS pP **pP** **03 56 54.5 +2.0**
HNS S **S** **04 03 49.0 0.0**
HNS sS **sS** **04 04 12.0 +0.3**
HNS SS **SS** **04 07 21.5 -2.1**
HNS pmax pmax
comp=Z,30nm,1.0s
HNS L L
comp=Z,350nm,21.2s
HNS L L
comp=Z,440nm,21.4s
HNS L L
comp=Z,880nm,24.5s
KMI2 Kunming 50.57 308 P **P** **03 56 42.5 +2.0**
KMI2 S **S** **04 03 52.3 +0.5**
KMI2 sS sS 04 04 19.0 +4.4
KMI2 pmax pmax
comp=Z,9.0nm,1.4s
KMI2 L L
comp=Z,230nm,17.0s
KMI2 L L
comp=Z,460nm,23.5s
KMI2 L L
comp=Z,590nm,22.2s
CM31 Chiang Mai Arr 50.82 298 IAmb IAmb 03 57 00.2
comp=Z,34nm,0.8s
CMAR Chiang Mai Arr 50.82 298 P **P** **03 56 41.8 -0.5**
comp=Z,8.1nm,0.6s,baz=122,slow=5.9,SNR=19
CMAR LR LR 04 18 41.3
comp=Z,227nm,21.0s,baz=120,slow=37
comp=Z,8.1nm,0.6s
CMAR Chiang Mai Arr 50.82 298 *ce*P **P** **03 56 42.0 -0.2**
CMAR pmax pmax
comp=Z,7.0nm,0.5s
CMAR Chiang Mai Arr 50.82 298 **P** **03 56 41.5 -0.7**
CHTO Chiang Mai 50.95 299 P **P** **03 56 42.7 -0.5**
CHTO pmax pmax
comp=Z,27nm,0.9s
CHTO Chiang Mai 50.95 299 **P** **03 56 42.7 -0.5**
CHTO Chiang Mai 50.95 299 P **P** **03 56 42.8 -0.5**
comp=Z,33nm,0.9s
CHTO Chiang Mai 50.95 299 P **P** **03 56 43.1 -0.1**
CHTO pP **pP** **03 56 57.5 +0.7**
CN2 Changchun 51.34 342 *e*P **P** **03 56 49.0 +3.4**
CN2 *es*P sP 03 57 04.3 -0.7
CN2 *e*S **S** **04 04 02.5 +1.1**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
CN2 pmax pmax
comp=Z,100nm,5.0s
CN2 L L
comp=Z,400nm,21.0s
CN2 L L
comp=Z,300nm,21.0s
CN2 L L
comp=Z,600nm,22.0s
XAN Xi'an 51.36 321 P **P** **03 56 47.0 +1.0**
XAN pP pP 03 56 58.3 -1.3
XAN sP sP 03 57 04.8 -0.6
XAN S **S** **04 04 03.3 +1.2**
XAN pmax pmax
comp=Z,22nm,1.1s
XAN L L
comp=Z,400nm,17.9s
XAN L L
comp=Z,440nm,17.9s
XAN L L
comp=Z,480nm,19.9s
YSS Yuzhno-Sakhali 51.42 358 *e*P **P** **03 56 46.9 +0.7**
YSS *e*S **S** **04 04 01.5 -0.9**
YSS *es*S **SS** **04 07 30.3 -8.7**
YSS pmax pmax
comp=Z,40nm,1.4s
YSS pmax pmax
comp=Z,300nm,4.3s
YSS smax smax
comp=E,400nm,2.9s
YSS smax smax
comp=E,400nm,5.2s
YSS MLR MLR
comp=Z,700nm,16.0s
YSS MLR MLR
comp=N,700nm,17.0s
YSS MLR MLR
comp=E,1μm,17.0s
BJI2 Beijing 51.74 332 P **P** **03 56 48.3 -0.4**
BJI2 sP **sP** **03 57 06.0 -2.1**
BJI2 S **S** **04 04 06.3 -0.7**
BJI2 sS **sS** **04 04 32.3 +2.5**
BJI2 pmax pmax
comp=E,22nm,0.9s
BJI2 L L
comp=E,550nm,18.8s
BJI2 L L
comp=E,420nm,18.0s
BJI2 L L
comp=E,850nm,19.2s
BJT Baijiatuan 51.74 332 P **P** **03 56 48.4 -0.3**
comp=Z,28nm,1.6s
BNX BinXian 52.55 345 ⇑P **P** **03 56 53.8 -0.8**
BNX pP **pP** **03 57 05.5 -2.8**
BNX sP **sP** **03 57 10.5 -3.5**
BNX S **S** **04 04 16.3 -1.7**
BNX sS **pS** **04 04 36.0 +3.2**
BNX SS **SS** **04 07 57.0 +0.1**
BNX pmax pmax
comp=Z,26nm,1.3s
BNX pmax pmax
comp=Z,260nm,4.3s
BNX L L
comp=Z,750nm,25.5s
BNX L L
comp=Z,650nm,20.1s
BNX L L
comp=Z,1μm,22.6s
CD2 Chengdu 52.88 315 P **P** **03 56 57.0 -0.4**
CD2 sP sP 03 57 15.5 -1.3
CD2 S **S** **04 04 22.8 -0.3**
CD2 sS sS 04 04 49.8 +4.0
CD2 pmax pmax
comp=Z,40nm,0.5s
CD2 pmax pmax
comp=Z,310nm,5.2s
CD2 L L
comp=Z,520nm,12.8s
CD2 L L
comp=Z,730nm,18.8s
CD2 L L
comp=Z,750nm,16.3s
HHC Hu-ho-hao-te 54.63 329 ⇑*i*P **P** **03 57 11.8 +1.7**
HHC pP pP 03 57 23.0 -0.8
HHC sP sP 03 57 27.5 -2.1
HHC S **S** **04 04 48.0 +1.4**
HHC pmax pmax
comp=Z,13nm,0.8s
HHC pmax pmax
comp=Z,150nm,5.9s
HHC L L
comp=Z,410nm,21.9s
HHC L L
comp=Z,470nm,21.0s
HHC L L
comp=Z,850nm,23.8s
XLT XiLinHaoTe 54.88 335 *e*P **P** **03 57 12.8 +1.0**
XLT sP sP 03 57 28.5 -2.8
XLT S **S** **04 04 46.5 -3.3**
XLT pmax pmax
comp=Z,11nm,1.2s
XLT pmax pmax
comp=Z,110nm,4.6s
XLT L L
comp=Z,39nm,17.2s
XLT L L
comp=Z,280nm,15.8s
XLT L L
comp=Z,430nm,18.4s
KLR Kul'dur 54.88 349 P **P** **03 57 10.4 -1.2**
comp=Z,23nm,0.9s,baz=161,slow=8.2,SNR=19
comp=Z,23nm,0.9s
KLR Kul'dur 54.88 349 *i*P **P** **03 57 12.7 +1.1**
KLR pmax pmax
comp=Z,34nm,1.0s
TYV Tymovskoe 55.33 358 *e*P **P** **03 57 17.1 +2.3**
TYV *e*S **S** **04 05 01.0 +5.7**
TYV pmax pmax
comp=Z,200nm,2.5s
TYV pmax pmax
comp=Z,32nm,0.9s
TYV smax smax
comp=N,300nm,3.9s
TYV smax smax
comp=E,300nm,3.9s
BTO2 Baotou 55.43 328 *e*P **P** **03 57 12.5 -3.4**
BTO2 pP **pP** **03 57 28.8 -0.8**
BTO2 PP **PP** **03 59 23.8 +3.5**
BTO2 S **S** **04 04 54.0 -3.3**
BTO2 pmax pmax
comp=E,14nm,0.5s
BTO2 pmax pmax
comp=E,290nm,4.3s
BTO2 L L
comp=E,1μm,17.6s
BTO2 L L
comp=E,640nm,17.9s
BTO2 L L
comp=E,1μm,17.7s
LZH Lanzhou 55.87 320 *e*P **P** **03 57 17.0 -2.2**
LZH pP pP 03 57 30.8 -2.1
LZH S **S** **04 05 05.8 +2.4**
LZH sS sS 04 05 26.0 -0.3
LZH pmax pmax
comp=E,21nm,1.5s
LZH L L
comp=E,430nm,15.9s
LZH L L
comp=E,480nm,16.8s
LZH L L
comp=E,590nm,18.1s
LZDM Lanzhou Array 55.88 320 P **P** **03 57 18.3 -1.2**
comp=E,1.5nm,0.4s,baz=180,slow=15,SNR=4.1
LZDM LR LR 04 21 17.8
comp=E,238nm,19.9s,baz=50,slow=36
comp=E,1.5nm,0.4s
RAR Rarotonga 56.03 112 LR LR 04 20 33.0
comp=E,63nm,19.9s,baz=272,slow=35
HEH HeiHe 56.75 347 *e*P **P** **03 57 26.0 +1.0**
HEH pP **pP** **03 57 36.3 -2.4**
HEH sP **sP** **03 57 40.0 -4.4**
HEH S **S** **04 05 14.3 +0.1**
HEH pmax pmax
comp=E,16nm,1.2s
HEH L L
comp=E,970nm,22.4s
HEH L L
comp=E,870nm,19.6s
HEH L L
comp=E,2μm,24.3s
KOHI KOHIMA 57.79 304 *i*P **P** **03 57 32.1 -0.9**
KOHI IAmb IAmb 03 57 44.0
comp=Z,48nm,1.0s
HIA Hailar 58.01 341 P **P** **03 57 33.9 0.0**
comp=Z,18nm,1.0s
AZL Aizawl 58.21 302 *i*P **P** **03 57 34.7 -1.2**
AZL IAmb IAmb 03 57 50.9
comp=Z,42nm,1.2s
HILR Hailar Array B 58.25 341 P **P** **03 57 35.0 -0.6**
comp=Z,3.4nm,0.5s,baz=134,slow=11,SNR=9.6
HILR LR LR 04 21 02.8
comp=Z,616nm,21.4s,baz=210,slow=34
comp=Z,3.4nm,0.5s
PEA0B Petropavlovsk- 58.55 9 *i*P **P** **03 57 39.0 +1.4**
PEA0B Petropavlovsk- 58.55 9 **P** **03 57 37.7 +0.1**
PEA0B IAmb IAmb 03 57 40.8
comp=Z,60nm,0.9s
PETK Petropavlovsk- 58.55 9 P **P** **03 57 37.5 -0.1**
comp=Z,50nm,0.9s,baz=179,slow=6.3,SNR=19
PETK LR LR 04 18 41.0
comp=Z,1μm,21.7s,baz=191,slow=32
comp=Z,50nm,0.9s
PETK Petropavlovsk- 58.55 9 P **P** **03 57 38.0 +0.4**
PETK Petropavlovsk- 58.55 9 **P** **03 57 38.0 +0.4**
PET Petropavlovsk 58.62 10 *e*P **P** **03 57 42.3 +4.3**
PET *e*S **S** **04 05 46.0 +7.4**
PET pmax pmax
comp=Z,66nm,0.9s
PET MLR MLR
comp=Z,300nm,16.0s
BRDH Bariadhala 58.72 300 LR LR 04 25 22.9
comp=Z,129nm,20.0s,baz=145,slow=39
TEZP TEZPUR 59.23 305 *i*P **P** **03 57 42.2 -0.6**
TEZP IAmb IAmb 03 58 00.1
comp=Z,20nm,0.9s
SHL Shillong 59.58 303 P **P** **03 57 44.8 -0.7**
SHL Shillong 59.58 303 **P** **03 57 44.8 -0.7**
SHL Shillong 59.58 303 *i*P **P** **03 57 43.2 -2.2**
SHL IAmb IAmb 03 58 02.8
comp=Z,29nm,1.1s
ZEA Zeya 60.05 348 *e*P **P** **03 57 47.6 -0.3**
ZEA *e*S **S** **04 05 56.4 -0.6**
ZEA pmax pmax
comp=N,20nm,1.0s
ZEA pmax pmax
comp=Z,60nm,1.3s
ZEA smax smax
comp=E,200nm,7.8s
GTA2 Gaotai 60.49 321 *e*P **P** **03 57 51.3 -0.1**
GTA2 pP pP 03 58 07.0 +1.7
GTA2 S **S** **04 06 03.3 -0.2**
GTA2 sS sS 04 06 31.0 +4.3
GTA2 pmax pmax
comp=E,4.0nm,0.9s
GTA2 L L
comp=E,400nm,20.3s
GTA2 L L
comp=E,220nm,20.0s
GTA2 L L
comp=E,310nm,18.4s
KIP Kipapa 61.57 63 *ce*P **P** **03 58 00.0 +1.1**
KIP pmax pmax
comp=Z,63nm,1.0s
KIP Kipapa 61.57 63 P **P** **03 58 02.3 +3.4**
ULN Ulaanbaatar 61.96 332 *ce*P **P** **03 58 01.1 -0.2**
ULN pmax pmax
comp=Z,3.0nm,0.8s
ULN Ulaanbaatar 61.96 332 **P** **03 58 01.1 -0.2**
ULN Ulaanbaatar 61.96 332 P **P** **03 58 01.1 -0.2**
comp=Z,17nm,1.4s
DRV Dumont d'Urvil 62.00 182 P **P** **03 58 00.8 -0.1**
DRV pP **pP** **03 58 14.2 -0.6**
GOMU GeErMu 62.01 315 P **P** **03 58 02.0 0.0**
GOMU S **S** **04 06 29.8 +6.4**
GOMU pmax pmax
comp=Z,3.0nm,0.4s
GOMU L L
comp=Z,230nm,12.8s
GOMU L L
comp=Z,300nm,12.7s
GOMU L L
comp=Z,450nm,12.8s
SONM Songino Array 62.25 332 P **P** **03 58 02.7 -0.5**
comp=Z,4.0nm,0.6s,baz=161,slow=8.1,SNR=20
SONM LR LR 04 24 45.5
comp=Z,1μm,19.8s,baz=130,slow=36
comp=Z,4.0nm,0.6s
SONM Songino Array 62.25 332 **P** **03 58 02.6 -0.5**
SHEM Shemya Is, Ala 62.26 20 LR LR 04 20 14.2
comp=Z,2μm,21.9s,baz=271,slow=31
MA2 Magadan 64.20 3 P **P** **03 58 15.0 -0.6**
comp=Z,41nm,0.9s,baz=181,slow=5.3,SNR=11
comp=Z,41nm,0.9s
MA2 Magadan 64.20 3 *ce*P **P** **03 58 17.6 +2.0**
MA2 pmax pmax
comp=Z,60nm,1.1s
MA2 Magadan 64.20 3 **P** **03 58 15.7 +0.1**
MA2 Magadan 64.20 3 P **P** **03 58 16.0 +0.4**
comp=Z,84nm,1.1s
MA2 Magadan 64.20 3 P **P** **03 58 16.8 +1.2**
comp=Z,76nm,1.1s
MA2 Magadan 64.20 3 P **P** **03 58 17.5 +2.0**
MA2 pP **pP** **03 58 31.8 +2.2**
EVN Everest 64.66 304 **P** **03 58 19.1 -1.0**
EVN IAmb IAmb 03 59 03.2
comp=Z,39nm,0.9s
EVN Everest 64.66 304 P **P** **03 58 19.3 -0.8**
comp=Z,22nm,0.6s
KIWB Kanaga Island 64.88 25 P **P** **03 58 20.9 +0.7**
PALK Pallekele 65.20 280 LR LR 04 30 54.7
comp=Z,343nm,20.5s,baz=109,slow=40
PPT Papeete 65.24 107 LR LR 04 22 46.6
comp=Z,178nm,21.6s,baz=276,slow=32
PPT2 Papeete2 65.24 107 *e*P P 03 58 15.2 -8.1
comp=Z,107nm,27.2s
PPT2 *e*S **S** **04 06 58.6 -5.0**
comp=Z,220nm,27.0s
PPT2 *e*SS **SS** **04 11 18.7 +1.5**
comp=Z,195nm,29.0s
PPT2 *e*LQ LQ 04 14 55.3
comp=Z,1μm,29.8s
PPT2 *e*LR LR 04 17 56.2
comp=Z,789nm,24.2s
PPT2 *e*LR LR 04 17 56.8
comp=Z,632nm,33.2s
ZAK Zakamensk 65.50 332 *e*P **P** **03 58 23.6 -0.8**
ZAK pmax pmax
comp=Z,28nm,1.0s
TBI Tubuai 65.77 113 *e*S **S** **04 07 11.6 +1.7**
comp=Z,3μm,30.0s
TBI *e*SS **SS** **04 11 24.8 -0.4**
comp=Z,2μm,29.0s
TBI *e*LQ LQ 04 15 22.8
comp=Z,4μm,34.2s
TBI *e*LR LR 04 18 09.1
comp=Z,1μm,36.2s
TBI *e*LR LR 04 18 13.9
comp=Z,4μm,27.0s
CASY Casey 66.02 194 **P** **03 58 27.9 +0.5**
CASY IAmb IAmb 03 58 51.4
comp=Z,60nm,1.2s
CASY Casey 66.02 194 P **P** **03 58 26.5 -0.9**
comp=Z,40nm,0.7s
CASY Casey 66.02 194 P **P** **03 58 27.9 +0.5**
CASY PcP **PcP** **03 58 55.5 -2.1**
TLY Talaya 66.23 333 P **P** **03 58 29.5 +0.5**
comp=Z,111nm,1.0s,baz=134,slow=7.7,SNR=4.5
TLY LR LR 04 26 06.7
comp=Z,829nm,20.6s,baz=124,slow=35
comp=Z,11nm,1.0s
TLY Talaya 66.23 333 P **P** **03 58 29.4 +0.5**
TLY Talaya 66.23 333 P **P** **03 58 30.7 +1.7**
comp=Z,23nm,1.2s
TLY Talaya 66.23 333 P **P** **03 58 31.0 +2.1**
comp=Z,131nm,1.1s
BOD Bodaibo 67.08 343 *e*P **P** **03 58 33.0 -1.2**
BOD pmax pmax
comp=Z,27nm,1.4s
YAK Yakutsk 67.53 352 P **P** **03 58 37.5 +0.5**
comp=Z,11nm,0.3s,baz=189,slow=9.4,SNR=5.5
YAK LR LR 04 26 58.1
comp=Z,296nm,21.4s,baz=150,slow=35
comp=Z,11nm,0.3s
YAK Yakutsk 67.53 352 P **P** **03 58 37.2 +0.3**
YAK IAmb IAmb 03 58 53.0
comp=Z,40nm,0.8s
YAK Yakutsk 67.53 352 P **P** **03 58 37.7 +0.7**
comp=Z,54nm,1.4s
SEY Seymchan 67.64 4 P **P** **03 58 37.0 -0.7**
comp=Z,26nm,0.9s,baz=174,slow=5.8,SNR=22
comp=Z,26nm,0.9s
SEY Seymchan 67.64 4 *i*P **P** **03 58 39.6 +1.9**
SEY pmax pmax
comp=Z,33nm,1.0s
KNGR Kungurtug, Tuv 68.44 330 *i*P **P** **03 58 44.2 +1.1**
KNGR pmax pmax
comp=Z,14nm,1.0s
WMQ Urumqi 70.45 320 *e*P **P** **03 58 57.8 +2.2**
WMQ pP pP 03 59 10.0 +0.3
WMQ S **S** **04 08 06.8 +1.7**
WMQ ScS **SKKSac** **04 08 54.0 +0.5**
WMQ pmax pmax
comp=Z,20nm,0.7s
WMQ L L
comp=Z,270nm,24.1s
UNV Unalaska Valle 70.97 28 P **P** **03 59 00.0 +1.6**
comp=Z,50nm,2.1s
CCD Concordia, Ant 71.49 186 P **P** **03 59 01.6 -0.1**
CCD pP **pP** **03 59 16.3 +0.3**
HNLY HANLEY 72.64 306 *i*P P 03 59 18.8 +9.2
HNLY IAmb IAmb 03 59 31.4
comp=Z,14nm,0.9s
VNDA Vanda 73.37 176 P **P** **03 59 12.0 -0.5**
comp=Z,13nm,0.6s,baz=327,slow=6.7,SNR=123
VNDA LR LR 04 30 51.7
comp=Z,836nm,18.4s,baz=350,slow=35
comp=Z,13nm,0.6s
VNDA Vanda 73.37 176 P **P** **03 59 12.2 -0.3**
VNDA pmax pmax
comp=Z,62nm,1.2s
VNDA Vanda 73.37 176 **P** **03 59 12.2 -0.3**
VNDA IAmb IAmb 03 59 29.8
comp=Z,62nm,1.1s
VNDA Vanda 73.37 176 P **P** **03 59 11.9 -0.5**
comp=Z,56nm,1.2s
VNDA Vanda 73.37 176 P **P** **03 59 12.2 -0.3**
VNDA pP **pP** **03 59 26.9 +0.3**
ZSN Zaisan 73.85 322 *e*P **P** **03 59 16.7 +0.9**
ZSN Zaisan 73.85 322 *e*P **P** **03 59 16.8 +0.9**
SBA Scott Base 74.05 175 P **P** **03 59 17.3 +0.9**
SBA pmax pmax
comp=Z,92nm,1.4s
SBA Scott Base 74.05 175 **P** **03 59 17.3 +0.9**
SBA IAmb IAmb 03 59 46.9
comp=Z,92nm,1.4s
SBA Scott Base 74.05 175 P **P** **03 59 17.6 +1.2**
comp=Z,54nm,1.6s
SBA Scott Base 74.05 175 P **P** **03 59 17.2 +0.8**
SBA pP **PcP** **03 59 31.5 +0.1**
BILL Bilibino 74.06 8 *ce*P **P** **03 59 19.0 +2.4**
BILL pmax pmax
comp=Z,17nm,1.1s
BILL Bilibino 74.06 8 **P** **03 59 17.4 +0.8**
BILI Bilibino, Chuk 74.11 8 P **P** **03 59 18.1 +1.3**
comp=Z,26nm,1.2s
TAOE Nuku Hiva Isla 74.40 98 *e*S **SKiKP** **04 08 45.0 +2.3**
comp=Z,204nm,29.9s
TAOE *e*LR LR 04 22 09.6
comp=Z,937nm,22.4s
WUS Wushi 75.15 315 P **P** **03 59 24.6 +0.9**
comp=Z,16nm,1.0s
MK31 Makanchi Array 75.17 321 *i*P **P** **03 59 24.6 +1.1**
MKAR Makanchi Array 75.17 321 P **P** **03 59 22.7 -0.8**
comp=Z,8.5nm,0.8s,baz=115,slow=7.4,SNR=20
comp=Z,8.5nm,0.8s
MKAR Makanchi Array 75.17 321 **P** **03 59 22.5 -1.0**
MAKZ Makanchi 75.37 321 P **P** **03 59 25.0 +0.4**
MAKZ pmax pmax
comp=Z,27nm,1.1s
MAKZ Makanchi 75.37 321 **P** **03 59 25.0 +0.4**
MAKZ Makanchi 75.37 321 P **P** **03 59 23.3 -1.4**
comp=Z,25nm,1.0s
MAKZ pP **PcP** **03 59 38.1 +0.5**
SHLS Shalkode 75.66 317 *e*P **P** **03 59 25.4 -1.1**
SHLS Shalkode 75.66 317 *e*P **P** **03 59 25.5 -1.1**
PDGK Podgornoye 75.70 317 P **P** **03 59 26.2 -0.5**
PDGK Podgornoye 75.70 317 **P** **03 59 26.2 -0.5**
UZB Uzynbulak 75.96 316 *e*P **P** **03 59 28.8 +0.6**
UZB Uzynbulak 75.96 316 *e*P **P** **03 59 28.9 +0.6**
KPKS Kokpek 76.30 317 *e*P **P** **03 59 30.6 +0.5**
KPKS Kokpek 76.30 317 *e*P **P** **03 59 30.7 +0.5**
SATY Saty 76.35 316 *e*P **P** **03 59 31.0 +0.5**
SATY Saty 76.35 316 *e*P **P** **03 59 31.0 +0.5**
ZALV Zalesovo Beam 76.80 328 P **P** **03 59 30.8 -1.7**
comp=Z,12nm,0.7s,baz=109,slow=5.4,SNR=24
ZALV LR LR 04 32 02.2
comp=Z,561nm,21.8s,baz=114,slow=35
comp=Z,12nm,0.7s
ZALV Zalesovo Beam 76.80 328 **P** **03 59 30.6 -2.0**
TIXI Tiksi 76.89 355 P **P** **03 59 31.0 -1.7**
comp=Z,3.7nm,0.2s,baz=175,slow=3.8,SNR=9.1
TIXI LR LR 04 32 56.6
comp=Z,284nm,21.0s,baz=188,slow=35
comp=Z,3.7nm,0.2s
TIXI Tiksi 76.89 355 *i*P **P** **03 59 34.3 +1.6**
TIXI pmax pmax
comp=Z,8.0nm,0.9s
TIXI Tiksi 76.89 355 **P** **03 59 32.6 0.0**
TIXI Tiksi 76.89 355 P **P** **03 59 32.2 -0.5**
comp=Z,20nm,1.0s
ASAI AK-SAY(Kyrgyzs 76.99 314 P **P** **03 59 33.7 -0.7**
comp=Z,8.2nm,1.2s
TDK Taldyqorghan 77.02 318 *e*P **P** **03 59 34.7 +0.7**
TDK pmax pmax
comp=Z,5.0nm,0.5s
TDK Taldyqorghan 77.02 318 *e*P **P** **03 59 34.7 +0.7**
comp=Z,4.8nm,0.5s
L14K Kuka Creek 77.13 23 IAmb IAmb 03 59 51.9

comp=Z,44nm,0.9s
KSH2 Kashi 77.16 312 P **P** **03 59 36.5 +1.4**
KSH2 pP pP 03 59 48.5 -0.9
KSH2 pmax pmax
comp=Z,8.0nm,1.0s
MDOK Medeo 77.32 316 *e*P **P** **03 59 36.5 +0.5**
MDOK Medeo 77.32 316 *e*P **P** **03 59 36.5 +0.5**
TNSS Tian-Shan 77.35 316 *e*P **P** **03 59 36.6 +0.2**
TNSS Tian-Shan 77.35 316 *e*P **P** **03 59 36.7 +0.2**
AAA Alma-Ata 77.43 316 *e*P **P** **03 59 37.1 +0.6**
AAA pmax pmax
comp=Z,8.0nm,0.4s
AAA Alma-Ata 77.43 316 *e*P **P** **03 59 37.1 +0.6**
comp=Z,7.5nm,0.4s
NIL Nilore 77.49 306 P **P** **03 59 36.7 -0.3**
NIL pmax pmax
comp=Z,26nm,0.6s
NIL Nilore 77.49 306 P **P** **03 59 36.7 -0.3**
NIL IAmb IAmb 03 59 59.0
comp=Z,26nm,0.6s
NIL Nilore 77.49 306 P **P** **03 59 38.0 +1.1**
comp=Z,40nm,1.1s
N15K Kwethluk River 77.51 25 IAmb IAmb 03 59 54.1
comp=Z,50nm,0.9s
BOOM Boomskoye usch 77.89 315 P **P** **03 59 39.1 0.0**
O16K Kokwok River B 78.05 26 IAmb IAmb 03 59 56.8
comp=Z,49nm,1.0s
K15K Wolf Creek Mou 78.13 23 IAmb IAmb 04 00 02.4
comp=Z,50nm,1.1s
M16K Timber Creek 78.44 24 IAmb IAmb 03 59 59.5
comp=Z,82nm,1.2s
KURK Kurchatov 78.92 324 P **P** **03 59 43.8 -0.6**
KURK pmax pmax
comp=Z,44nm,1.4s
KURK Kurchatov 78.92 324 **P** **03 59 43.8 -0.6**
KURK Kurchatov 78.92 324 P **P** **03 59 43.5 -0.9**
comp=Z,23nm,1.3s
KURK pP **pP** **03 59 57.6 -1.2**
N17K Nushagak Hills 78.92 25 IAmb IAmb 04 00 01.7
comp=Z,39nm,1.0s
KURBB Kurchatov Arra 78.94 324 P **P** **03 59 43.4 -1.2**
comp=Z,4.9nm,0.9s,baz=110,slow=4.9,SNR=20
comp=Z,4.9nm,0.9s
AAK Ala-Archa 78.95 315 *ce*P **P** **03 59 45.2 +0.2**
AAK pmax pmax
comp=Z,5.0nm,0.7s
AAK Ala-Archa 78.95 315 **P** **03 59 44.7 -0.3**
AAK Ala-Archa 78.95 315 P **P** **03 59 45.8 +0.8**
comp=Z,21nm,1.1s
RKT Rikitea 79.07 113 *e*S **S** **04 09 36.3 -5.6**
comp=Z,2µm,29.5s
RKT *e*LQ LQ 04 21 05.8
comp=Z,3µm,34.8s
RKT *e*LR LR 04 24 19.9
comp=Z,14µm,40.0s
OHAK Old Harbor 79.11 29 P **P** **03 59 46.7 +1.4**
comp=Z,51nm,1.2s
M17K Holitna River 79.27 24 IAmb IAmb 04 00 04.3
comp=Z,59nm,0.9s
I17K Unalakleet 79.35 21 IAmb IAmb 04 00 07.5
comp=Z,107nm,1.5s
N18K Kilae Creek 79.55 25 IAmb IAmb 04 00 08.6
comp=Z,120nm,1.8s
G16K Koyuk River 79.65 20 IAmb IAmb 04 00 06.3
comp=Z,63nm,1.3s
ARSB Arslanbob 79.67 313 IAmb IAmb 04 00 24.2
comp=Z,53nm,1.4s
J17K VABM Dome 79.68 22 IAmb IAmb 04 00 10.9
comp=Z,62nm,1.2s
KDAK Kodiak Island 79.70 29 LR LR 04 30 04.0
comp=Z,619nm,21.9s,baz=245,slow=32
KDAK Kodiak Island 79.70 29 P **P** **03 59 50.9 +2.4**
KDAK pP **pP** **04 00 04.7 +1.7**
L18K Granite Mounta 79.99 24 IAmb IAmb 04 00 13.9
comp=Z,40nm,1.1s
DRK Karamyk 80.06 311 IAmb IAmb 04 00 49.6
comp=Z,36nm,0.7s
N19K Bonanza Creek 80.22 26 IAmb IAmb 04 00 08.8
comp=Z,56nm,1.1s
H17K Granite Mounta 80.23 21 IAmb IAmb 04 00 11.7
comp=Z,45nm,1.0s
F17K Baldwin Pennin 80.63 19 IAmb IAmb 04 00 10.8
comp=Z,51nm,1.1s
L19K White Mountain 80.72 24 IAmb IAmb 04 00 11.5
comp=Z,33nm,0.9s
RDOG Red Dog Mine 81.07 17 IAmb IAmb 04 00 15.4
comp=Z,51nm,0.9s
G18K Tagagawik 81.20 20 IAmb IAmb 04 00 16.2
comp=Z,34nm,0.9s
DZA Taraz 81.26 314 *e*P **P** **03 59 57.9 +0.6**
DZA Taraz 81.26 314 *e*P **P** **03 59 57.9 +0.6**
M20K Styx River 81.30 25 IAmb IAmb 04 00 17.3
comp=Z,64nm,1.1s
E18K Tukpahlearik C 81.41 19 IAmb IAmb 04 00 01.2
comp=Z,36nm,0.9s
K20K Telida 81.60 23 IAmb IAmb 04 00 16.2
comp=Z,44nm,1.1s
H19K Roundabout Mou 81.78 21 IAmb IAmb 04 00 19.1
comp=Z,40nm,0.8s
G19K Purcell Mounta 81.87 20 IAmb IAmb 04 00 19.6
comp=Z,54nm,1.0s
KKAR Karatay Array 81.89 315 P **P** **04 00 00.8 +0.2**
KKAR Karatay Array 81.89 315 **P** **04 00 00.8 +0.2**
J20K Nowinta River 81.96 23 IAmb IAmb 04 00 18.1
comp=Z,56nm,1.1s
IUG luznay 82.01 314 *e*P **P** **04 00 01.8 +0.5**
IUG luznay 82.01 314 *e*P **P** **04 00 01.9 +0.5**
I20K Naaghedeneel 82.14 22 IAmb IAmb 04 00 21.7
comp=Z,49nm,0.9s
E19K Redstone River 82.51 19 IAmb IAmb 04 00 20.2
comp=Z,53nm,0.8s
MAW Mawson 82.70 202 P **P** **04 00 03.1 -1.1**
comp=Z,12nm,0.8s,baz=92,slow=8.4,SNR=11
MAW LR LR 04 34 03.2
comp=Z,380nm,20.2s,baz=78,slow=34
comp=Z,12nm,0.8s
MAW Mawson 82.70 202 P **P** **04 00 03.6 -0.7**
MAW pmax pmax
comp=Z,10.0nm,1.4s
MAW Mawson 82.70 202 P **P** **04 00 03.6 -0.7**
D19K Kuna River 82.79 18 IAmb IAmb 04 00 29.9
comp=Z,86nm,1.5s
F20K Avaraart Lake 82.80 20 IAmb IAmb 04 00 24.5
comp=Z,33nm,1.0s
PMR Palmer 82.89 26 IAmb IAmb 04 00 22.1
comp=Z,32nm,1.1s
IMAR Indian Mountai 82.97 21 P **P** **04 00 05.6 -0.2**
BPAW Bear Paw Mtn. 83.16 23 IAmb IAmb 04 00 25.8
comp=Z,33nm,1.1s
G21K Allakaket 83.31 21 IAmb IAmb 04 00 27.5
comp=Z,66nm,1.8s
D20K Etivluk River 83.37 18 IAmb IAmb 04 00 27.6
comp=Z,26nm,0.8s
NRIK Noril'sk 83.38 342 P **P** **04 00 06.2 -1.5**
comp=Z,37nm,0.8s,baz=112,slow=5.5,SNR=29
NRIK LR LR 04 36 19.6
comp=Z,780nm,20.6s,baz=126,slow=35
comp=Z,37nm,0.8s
NRIK Noril'sk 83.38 342 *c i*P **P** **04 00 06.9 -0.8**
NRIK pmax pmax
comp=Z,41nm,0.9s
MLY Manley 83.66 23 IAmb IAmb 04 00 26.1
comp=Z,67nm,1.2s
E21K Killik River 84.07 19 IAmb IAmb 04 00 30.7
comp=Z,29nm,0.9s
NEA2 Nenana 84.13 23 IAmb IAmb 04 00 31.0
comp=Z,51nm,1.2s
KLU Klutina 84.28 27 IAmb IAmb 04 00 33.5
comp=Z,67nm,1.1s
WRH Wood River Hil 84.47 24 IAmb IAmb 04 00 31.3
comp=Z,62nm,1.1s
BVAR Borovoye Array 84.49 324 P **P** **04 00 12.2 -1.5**
comp=Z,21nm,0.8s,baz=114,slow=7.2,SNR=23
comp=Z,21nm,0.8s
BORK Borovoye 84.53 324 *i* P **P** **04 00 14.2 +0.2**
BORK pmax pmax
comp=Z,24nm,1.0s
BORK Borovoye 84.53 324 **P** **04 00 13.5 -0.5**
BORK IAmb IAmb 04 00 29.5
comp=Z,25nm,0.9s
G23K Bananza Creek 84.64 21 IAmb IAmb 04 00 33.6
comp=Z,31nm,1.0s
CCB Clear Creek Bu 84.65 24 IAmb IAmb 04 00 32.5
comp=Z,42nm,0.9s
D22K Ayikyak River 84.70 19 IAmb IAmb 04 00 34.3
comp=Z,26nm,0.8s
COLA College 84.72 23 *i* P **P** **04 00 15.6 +1.0**
COLA College 84.72 23 P **P** **04 00 14.2 -0.4**
COLA IAmb IAmb 04 00 32.8
comp=Z,65nm,1.1s
COLA College 84.72 23 P **P** **04 00 13.8 -0.8**
comp=Z,52nm,1.0s
COLA College 84.72 23 P **P** **04 00 13.3 -1.3**
COLA pP **pP** **04 00 27.7 -1.5**
IL31 85.06 24 IAmb IAmb 04 00 34.2
comp=Z,39nm,0.8s
ILAR Eielson Array 85.06 24 P **P** **04 00 14.4 -2.0**
comp=Z,34nm,0.9s,baz=253,slow=5.1,SNR=79
ILAR LR LR 04 33 24.1
comp=Z,681nm,21.8s,baz=258,slow=32
comp=Z,34nm,0.9s
ILAR Eielson Array 85.06 24 P **P** **04 00 14.6 -1.8**
ILAR Eielson Array 85.06 24 **P** **04 00 14.6 -1.8**
H24K Noodor Dome 85.08 22 IAmb IAmb 04 00 36.1
comp=Z,77nm,1.8s
K24K Donnelly Dome 85.16 25 IAmb IAmb 04 00 35.9
comp=Z,38nm,0.9s
QSPA South Pole Qui 85.30 180 P **P** **04 00 16.7 -1.1**
comp=Z,83nm,0.6s,baz=315,slow=0.7,SNR=176
QSPA LR LR 04 39 00.5
comp=Z,958nm,19.5s,baz=10.0,slow=36
comp=Z,83nm,0.6s
QSPA South Pole Qui 85.30 180 P **P** **04 00 16.8 -1.1**
QSPA South Pole Qui 85.30 180 P **P** **04 00 16.7 -1.1**
comp=Z,137nm,0.7s
QSPA pP **pP** **04 00 30.4 -1.9**
QSPA South Pole Qui 85.30 180 P **P** **04 00 16.8 -1.0**
QSPA pP **pP** **04 00 31.2 -1.1**
E23K Chandalar 85.35 20 IAmb IAmb 04 00 39.1
comp=Z,38nm,0.8s
D23K Nanushuk River 85.38 19 IAmb IAmb 04 00 22.4
comp=Z,43nm,0.9s
TOLK Toolik Lake Re 85.61 20 IAmb IAmb 04 00 38.6
comp=Z,34nm,1.2s
J25K Salcha River, 85.61 24 IAmb IAmb 04 00 38.0
comp=Z,52nm,0.9s
F24K Squaw Lake 85.74 21 IAmb IAmb 04 00 23.4
comp=Z,24nm,0.7s
MENT Mentasta 85.74 26 IAmb IAmb 04 00 38.8
comp=Z,19nm,0.8s
L26K Log Cabin Wild 85.93 26 IAmb IAmb 04 00 40.3
comp=Z,21nm,0.8s
D24K Happy Valley 86.07 19 IAmb IAmb 04 00 42.8
comp=Z,29nm,0.7s
C24K Franklin Bluff 86.34 19 IAmb IAmb 04 00 26.3
comp=Z,54nm,1.1s
L27K Beaver Creek, 86.60 26 IAmb IAmb 04 00 45.1
comp=Z,37nm,1.1s
BCAR Beaver Creek A 86.62 26 P **P** **04 00 24.9 +0.6**
BMAR Burnt Mountain 86.89 21 **P** **04 00 25.8 +0.4**
F26K Sheenjek River 87.14 21 IAmb IAmb 04 00 46.6
comp=Z,52nm,1.1s
O29M Mount Kennedy 87.35 29 IAmb IAmb 04 00 47.5
comp=Z,46nm,1.0s
I27K Kandik River 87.44 23 IAmb IAmb 04 00 52.7
comp=Z,41nm,1.1s
H27K Steamboat Moun 87.66 23 IAmb IAmb 04 00 48.8
comp=Z,51nm,1.2s
C27K Jago River 87.93 19 IAmb IAmb 04 00 50.1
comp=Z,30nm,1.0s
DAWY Dawson 87.93 25 IAmb IAmb 04 00 49.8
comp=Z,49nm,1.1s
M29M Somme Creek 87.93 27 IAmb IAmb 04 00 57.1
comp=Z,38nm,1.1s
I28M Mine-Creek 88.07 24 IAmb IAmb 04 00 51.2
comp=Z,81nm,1.8s
J29N Klondike Camp 88.52 25 IAmb IAmb 04 00 53.0
comp=Z,36nm,1.1s
O30N Mendenhall 88.66 29 IAmb IAmb 04 00 53.3
comp=Z,45nm,1.4s
F28M Old Crow 88.67 22 IAmb IAmb 04 00 53.2
comp=Z,40nm,1.4s
K29M Barlow Dome 88.67 26 IAmb IAmb 04 00 53.5
comp=Z,49nm,1.1s
M30M Minto, Yukon 88.71 27 IAmb IAmb 04 01 02.5
comp=Z,29nm,1.5s
H29M Whitestone 88.89 23 IAmb IAmb 04 01 13.1
comp=Z,34nm,1.1s
E28M Babbage River 89.06 21 IAmb IAmb 04 01 06.2
comp=Z,34nm,1.6s
G29M Pine Creek 89.19 23 IAmb IAmb 04 00 55.5
comp=Z,39nm,1.1s
J30M Hart River 89.34 25 IAmb IAmb 04 00 56.5
comp=Z,26nm,1.1s
I30M Mount Dempster 89.46 24 IAmb IAmb 04 00 56.6
comp=Z,24nm,1.1s
EPYK Eagle Plains 89.57 23 IAmb IAmb 04 00 57.0
comp=Z,52nm,1.1s
G30M tAoh Zraii Nji 89.89 23 IAmb IAmb 04 00 58.1
comp=Z,38nm,1.2s
N32M Quiet Lake 90.17 29 IAmb IAmb 04 01 09.1
comp=Z,28nm,1.1s
F30M Barrier River 90.19 22 IAmb IAmb 04 01 10.1
comp=Z,42nm,1.4s
ABKAR Akbulak array 90.23 319 **P** **04 00 39.5 -2.1**
H31M Peel River 90.41 24 IAmb IAmb 04 01 00.6
comp=Z,22nm,1.0s
INK Inuvik 91.16 22 LR LR 04 40 09.5
comp=Z,777nm,19.0s,baz=262,slow=35
INK Inuvik 91.16 22 IAmb IAmb 04 01 03.5
comp=Z,26nm,1.2s
INK Inuvik 91.16 22 P **P** **04 00 46.5 +1.1**
comp=Z,22nm,1.2s
DLBC Dease Lake 91.32 32 LR LR 04 36 38.4
comp=Z,428nm,19.3s,baz=264,slow=32
BBB Bella Bella 91.76 38 LR LR 04 33 36.2
comp=Z,1µm,21.9s,baz=245,slow=30
ARTI Arti 91.94 326 LR LR 04 42 36.3
comp=Z,357nm,21.5s,baz=101,slow=36
ARTI Arti 91.94 326 P **P** **04 00 48.3 -1.0**
ARTI 04 04 25.5
ARTI S **SKSac** **04 11 15.6 -2.5**
ARTI Arti 91.94 326 **P** **04 00 49.4 +0.1**
YBH Yreka Blue Hor 94.81 49 LR LR 04 34 59.0
comp=Z,2µm,21.7s,baz=316,slow=30
ELIB Princess Elisa 94.95 195 *d*P **P** **04 01 02.1 -1.0**
comp=Z,15nm,0.8s
ELIB *d*S **S** **04 12 13.4 0.0**
KIRV Kirov 96.83 328 LR LR 04 45 23.1
comp=Z,420nm,21.8s,baz=87,slow=36
BELA Belgrano 2 97.58 180 IAmb IAmb 04 01 30.9
comp=Z,32nm,1.3s
BELG Belogornoye 98.14 322 LR LR 04 46 44.9
comp=Z,497nm,21.7s,baz=121,slow=36
BELG Belogornoye 98.14 322 *i* P Pdif 04 01 18.1 +0.4
BELG pmax pmax
comp=Z,1.0nm,1.0s
NVAR Mina Array Bea 98.16 52 P **P** **04 01 17.9 -0.6**
comp=Z,0.5nm,0.5s,baz=257,slow=6.1,SNR=5.6
NVAR LR LR 04 37 00.2
comp=Z,1µm,21.8s,baz=268,slow=30
comp=Z,0.5nm,0.5s
NVAR Mina Array Bea 98.16 52 P **P** **04 01 16.8 -1.7**
NEW Newport 98.73 42 LR LR 04 38 36.9
comp=Z,564nm,21.0s,baz=284,slow=31
BMO Blue Mountains 98.75 45 P Pdif 04 01 21.1 +0.3
BMO pmax pmax
comp=Z,8.0nm,1.0s
BMO Blue Mountains 98.75 45 Pdif 04 01 21.1 +0.3
YKA Yellowknife Ar 98.93 28 P **P** **04 01 20.6 -0.5**
comp=Z,2.1nm,0.9s,baz=278,slow=5.1,SNR=10
YKA PP **PP** **04 05 21.1 -2.1**
comp=Z,4.4nm,1.1s,baz=275,slow=7.3,SNR=11
YKA PKKPbc **PKKPbc** **04 17 47.9 -2.4**
comp=Z,0.4nm,0.5s,baz=102,slow=3.0,SNR=8.3
YKA LR LR 04 41 44.2
comp=Z,585nm,21.2s,baz=280,slow=33
comp=Z,2.1nm,0.9s
YKA Yellowknife Ar 98.93 28 P **P** **04 01 20.1 -0.9**
PFO Pinyon Flats O 99.71 57 LR LR 04 38 01.8
comp=Z,956nm,21.6s,baz=258,slow=30
TROLL Troll, Antarti 99.72 191 Pdiff **Pdif** **04 01 23.1 -1.6**
comp=Z,252nm,0.5s
SNAA Sanae 100.97 190 P **Pdif** **04 01 29.4 -0.7**
comp=Z,1.6nm,0.5s,baz=166,slow=8.3,SNR=2.2
SNAA PP **PP** **04 05 35.5 -2.7**
comp=Z,4.4nm,0.8s,baz=122,slow=10,SNR=6.1
SNAA Sanae 100.97 190 *i* P **Pdif** **04 01 29.8 -0.3**
SNAA Sanae 100.97 190 Pdif **Pdif** **04 01 29.8 -0.3**
KLMR Klimovskoe 101.54 331 *e*P **Pdif** **04 01 30.0 -2.7**
KLMR *e* 04 05 41.5
KLMR pmax pmax
comp=Z,22nm,1.4s
KLMR MLR MLR
comp=Z,806nm,20.0s
KBZ Khabaz 101.91 314 *i* P **Pdif** **04 01 35.0 +0.3**
KBZ pmax pmax
comp=Z,2.0nm,1.0s
APA Apatity 102.41 339 *e*P **Pdif** **04 01 38.0 +1.6**
APA *e* 04 05 54.2
APA *e*S **Sdif** **04 13 13.0 -3.3**
APA *e*PS **PS** **04 15 02.4 +5.8**
APA *e*SS **SS** **04 20 24.5 +1.4**
APA pmax pmax
comp=Z,8.0nm,1.3s
VNA3 Neumayer Olymp 102.42 188 Pdiff **Pdif** **04 01 35.4 -1.1**
comp=Z,4.8nm,0.6s
ARCES ARCESS Array B 104.35 342 Pdiff **Pdif** **04 01 44.8 -0.3**
comp=Z,4.0nm,0.7s,baz=50,slow=8.0,SNR=7.1
PDAR Pinedale Array 104.51 47 Pdiff **Pdif** **04 01 46.5 -0.1**
comp=Z,0.3nm,0.7s,baz=245,slow=3.1,SNR=3.9
PDAR PP **PKiKP** **04 06 02.0 -0.6**
comp=Z,0.6nm,0.8s,baz=43,slow=9.8,SNR=4.9
FINES FINESS Array B 107.57 334 Pdiff **Pdif** **04 01 59.2 -0.3**
comp=Z,3.3nm,0.9s,baz=108,slow=7.5,SNR=4.9
FINES PP **PP** **04 06 23.6 -4.0**
comp=Z,5.7nm,1.0s,baz=86,slow=7.1,SNR=3.3
MNK Minsk 109.27 327 *i* P **Pdif** **04 02 07.5 +0.3**
MNK *i* 04 06 40.7
MNK *i* PPP PPP 04 08 58.9
MNK *i* SSS SSS 04 26 04.6
MNK pmax pmax
comp=Z,4.0nm,0.8s
MNK pmax pmax
comp=N,7.0nm,0.9s
MNK pmax pmax
comp=E,11nm,0.9s
MNK MLR MLR
comp=N,344nm,19.0s
MNK MLR MLR
comp=Z,394nm,18.0s
MNK MLR MLR
comp=E,272nm,19.0s
MNK Minsk 109.27 327 *i* P **Pdif** **04 02 07.5 +0.3**
comp=E,11nm,0.9s
MNK *i* P **Pdif** **04 02 07.5 +0.3**
comp=N,7.0nm,0.9s
MNK *i* P **Pdif** **04 02 07.5 +0.3**
comp=Z,4.0nm,0.8s,baz=70
MNK *i* pP **pPdif** **04 02 22.2 +0.3**
MNK *i* sP **sPdif** **04 02 26.9 -0.5**
MNK *i* PP **PP** **04 06 40.7 +0.5**
MNK *i* PPP PPP 04 08 59.0
MNK *i* SKS **SKSac** **04 12 51.6 +8.8**
MNK *i* PS PS 04 16 41.6 +34
MNK *i* SS SS 04 21 38.1 -19
MNK *i* SSS SSS 04 26 04.7
MNK *i* LRM MLR 04 53 27.9
comp=N,344nm,19.0s
MNK *i* LRM MLR 04 53 34.4
comp=Z,394nm,18.3s
MNK *i* LRM MLR 04 53 39.6
comp=E,272nm,19.2s
TXAR Lajitas Array 110.89 60 PKKPbc PKKPbc 04 17 12.3 -0.7
comp=E,1.1nm,0.7s,baz=120,slow=4.6,SNR=5.6
TXAR PKKPab **PKKPab** **04 17 22.4 -0.3**
comp=E,1.0nm,1.0s,baz=83,slow=5.0,SNR=5.1
STEB Steborice 116.79 325 *e*PKPDF **PKPdf** **04 06 23.9 -1.4**
MAUC Maruska 117.02 324 *e*PKPDF **PKPdf** **04 06 25.0 -0.8**
KRLC Kraliky 117.29 325 *e*PKIKP **PKPdf** **04 06 26.0 -0.3**
KRLC Kraliky 117.29 325 *e*PKPDF **PKPdf** **04 06 26.0 -0.3**
BRG Berggiesshubel 118.47 327 *e*PKP **pPKPdf** **04 06 39.1 -4.5**
BRG Amp 04 06 40.0
comp=Z,3.4nm,0.9s
BSEG Bad Segeberg 118.62 331 *e*PKPdf pPKPdf 04 06 45.5 +1.7
baz=57,slow=2.0
WINA Alland / Wiene 118.63 324 *ep*PKiKP pPKPdf 04 06 45.2 +1.2
comp=Z,9.3nm,1.2s
RONA Rosalia, Austr 118.68 323 *ep*PKiKP pPKPdf 04 06 45.6 +1.4
comp=Z,4.9nm,1.0s
ABNA Allensteig Bun 118.73 324 *i* pPKiKP pPKPdf 04 06 45.9 +1.7
comp=Z,4.3nm,0.9s
CLL Collm 118.75 328 *e*PKIKP **PKPdf** **04 06 29.0 0.0**
CLL *e* 04 06 45.0
CLL Collm 118.75 328 *e*PKPdf pPKPdf 04 06 45.4 +1.3
baz=57,slow=2.0
CLL Collm 118.75 328 *e*PKPdf **PKPdf** **04 06 29.0 0.0**
CLL *es*PKPdf **pPKPdf** **04 06 45.0 +0.9**
comp=Z,8.0nm,0.9s
CLL *e*PP **PP** **04 07 43.0 -4.2**
CLL *e*SS SS 04 24 12.0 +10
CLL LH 04 44 00.0
CLL LV 04 49 00.0
CLL AMS AMS 04 58 00.0
comp=N,700nm,22.8s
CLL AMS AMS 04 58 00.0
comp=E,300nm,23.2s
CLL AMS AMS 04 58 00.0
comp=Z,900nm,23.3s
CONA Conrad Observa 118.84 323 *ep*PKiKP pPKPdf 04 06 45.2 +0.7
comp=Z,3.8nm,0.8s
ZVC Zvikov 119.07 326 *e*PKPDF **PKPdf** **04 06 27.9 -1.8**
FLTG Flechtingen 119.10 329 *e*PKPdf pPKPdf 04 06 46.0 +1.3
baz=57,slow=2.0
CKRC Cesky Krumlov 119.31 325 *e*PKIKP **PKPdf** **04 06 29.1 -1.1**
CKRC Cesky Krumlov 119.31 325 *e*PKPDF **PKPdf** **04 06 29.1 -1.1**
KOOLE Kule 119.49 240 **PKPdf** **04 06 30.8 -0.7**
ASSE Asse, Remlinge 119.50 330 *e*PKPdf pPKPdf 04 06 46.8 +1.3
baz=57,slow=2.0
TANN Tannenbergstha 119.52 327 *e*PKPdf pPKPdf 04 06 46.8 +1.1
baz=57,slow=2.0
KHC Kasperske Hory 119.57 325 *e*PKIKP **PKiKP** **04 06 31.1 +0.3**
KHC *e* 04 06 45.0
KHC Kasperske Hory 119.57 325 *e*PKPDF **PKiKP** **04 06 31.1 +0.3**
KHC *ep*PKP **pPKPdf** **04 06 45.0 -0.8**
GEC2 GERESS Array S 119.64 325 *e*PKPdf pPKPdf 04 06 47.3 +1.3
baz=57,slow=2.0
GERES GERESS Array B 119.64 325 PKP **PKPdf** **04 06 29.8 -1.2**
comp=Z,0.9nm,0.6s,baz=70,slow=4.4,SNR=9.9
GERES GERESS Array B 119.64 325 PKIKP **PKPdf** **04 06 30.0 -1.0**
GERES GERESS Array B 119.64 325 **PKPdf** **04 06 29.9 -1.0**
MOA Molln 119.82 324 *ep*PKiKP pPKPdf 04 06 47.3 +1.0
comp=Z,4.1nm,0.8s
CLZ Clausthal 119.82 329 *e*PKPdf pPKPdf 04 06 47.4 +1.2
baz=57,slow=2.0
MOX Moxa 119.84 328 *e*PKPdf **pPKPdf** **04 06 47.4 +1.2**
baz=57,slow=2.0
MOX *e*L L 04 59 26.7
comp=Z,607nm,21.9s
SOKA Soboth 119.92 322 *e*PKiKP **PKiKP** **04 06 32.0 +0.4**
comp=Z,2.9nm,1.0s
SOKA *ep*PKiKP **pPKPdf** **04 06 46.4 -0.3**
comp=Z,7.6nm,0.9s
WET Wettzell 119.96 326 *e*PKPdf pPKPdf 04 06 47.9 +1.3
baz=57,slow=2.0
SESA Seetaler Alpe, 120.00 323 *ep*PKiKP pPKPdf 04 06 47.8 +0.9
comp=Z,9.5nm,0.8s
GTTG Gottingen 120.19 329 *e*PKPdf pPKPdf 04 06 48.2 +1.4
baz=57,slow=2.0
BIOA Bad Ischl, Aus 120.26 324 *e*PKiKP **PKiKP** **04 06 32.3 +0.1**
comp=Z,1.4nm,0.5s
BIOA *i* pPKiKP **pPKiKP** **04 06 48.1 +0.9**
comp=Z,6.8nm,0.9s
OBKA Obir 120.30 322 *i* PKiKP **PKiKP** **04 06 32.4 +0.1**
comp=Z,3.8nm,1.0s
OBKA *ep*PKiKP **pPKPdf** **04 06 46.2 -1.2**
comp=Z,5.3nm,1.0s
GRF Grafenberg Arr 120.58 327 *e*PKPdf **pPKPdf** **04 06 49.0 +1.3**
baz=57,slow=2.0
GRF *e*L L 04 59 32.8
comp=Z,589nm,21.7s
KBA Koelnbreinsper 120.74 324 *i* pPKiKP pPKPdf 04 06 49.0 +0.6
comp=Z,5.9nm,0.8s
MYKA Terra Mystica 120.78 323 *e*PKP **PKPdf** **04 06 32.6 -0.6**
comp=Z,2.0nm,0.7s
LESA Schwarzleotal 120.96 324 *i* PKiKP **PKiKP** **04 06 34.0 +0.4**
comp=Z,2.4nm,0.8s
LESA *i* pPKiKP **pPKiKP** **04 06 49.5 +0.8**
comp=Z,9.7nm,0.9s
KASTN Kahler Asten 121.18 330 *e*PKPdf pPKPdf 04 06 50.0 +1.1
baz=57,slow=2.0
FUR Furstenfeldbru 121.38 325 *e*PKPdf pPKPdf 04 06 50.3 +1.0
baz=57,slow=2.0
ABTA Abfaltersbach 121.40 324 *i* PKiKP **PKiKP** **04 06 34.6 +0.1**
comp=Z,3.6nm,0.7s
ABTA *i* pPKiKP **pPKiKP** **04 06 50.2 +0.6**
comp=Z,13nm,0.9s
STAL STALIGIAL 121.53 323 **PKPdf** **04 06 33.0 -1.6**
BUG Bochum-Univer 121.61 330 *e*PKPdf pPKPdf 04 06 51.0 +1.4
baz=57,slow=2.0

WATA	**Walderalm**	**121.64**	**324**	*e*PKiKP	pPKPdf	04 06 51.2	+1.2
	comp=Z,9.3nm,0.8s							
WTTA	**Wattenberg**	**121.65**	**324**	*i* pPKiKP	pPKPdf	04 06 50.8	+0.7
	comp=Z,21nm,0.9s							
TNS	**Taunus Mts**	**121.75**	**329**	*e*PKPdf	pPKPdf	04 06 51.5	+1.5
	baz=57,slow=2.0							
MOTA	**Moosalm**	**121.91**	**325**	*e*pPKiKP	pPKPdf	04 06 51.6	+1.0
	comp=Z,20nm,0.9s							
SQTA	**Sankt Quirin**	**121.92**	**325**	*e*PKP	**PKPdf**	**04 06 34.9**	**-0.5**
	comp=Z,4.3nm,1.2s							
SQTA				*i* pPKiKP	**pPKiKP**	**04 06 51.1**	**+0.4**
	comp=Z,14nm,0.8s							
RETA	**Reutte**	**122.03**	**325**	*e*pPKiKP	pPKPdf	04 06 51.2	+0.6
	comp=Z,5.7nm,1.1s							
STU	**Stuttgart**	**122.19**	**327**	*e*PKPdf	pPKPdf	04 06 52.3	+1.4
	baz=57,slow=2.0							
UBR	**Ueberruh**	**122.30**	**325**	*e*PKPdf	pPKPdf	04 06 52.0	+0.9
	baz=57,slow=2.0							
FETA	**Feichten**	**122.30**	**325**	*e*pPKiKP	pPKPdf	04 06 50.8	-0.5
	comp=Z,16nm,1.0s							
DAVA	**Damuels**	**122.64**	**325**	*e*PKiKP	**PKPdf**	**04 06 36.9**	**+0.1**
	comp=Z,3.3nm,0.6s							
DAVA				*i* pPKiKP	**pPKPdf**	**04 06 51.2**	**-0.7**
	comp=Z,21nm,1.0s							
BFO	**Black Forest**	**122.92**	**327**	*e*PKPdf	pPKPdf	04 06 53.5	+1.2
	baz=57,slow=2.0							
WLF	**Walferdange**	**123.27**	**329**	*e*PKPdf	pPKPdf	04 06 54.5	+1.6
	baz=57,slow=2.0							
EKA	**Eskdalemuir Ar**	**123.35**	**339**	PKP	**PKPdf**	**04 06 36.8**	**-1.0**
	comp=Z,1.4nm,0.5s,baz=39,slow=3.3,SNR=9.1							
EKA				PKKPbc	**PKKPab**	**04 16 26.7**	**-0.8**
	comp=Z,0.8nm,0.6s,baz=224,slow=3.4,SNR=4.6							
TUE	**Stuetta**	**123.40**	**325**		**PKPdf**	**04 06 37.8**	**-0.6**
SCHQ	**Schefferville**	**123.78**	**22**	PKP	**PKPdf**	**04 06 37.5**	**-1.1**
	comp=Z,4.8nm,0.8s,baz=252,slow=3.2,SNR=2.6							
SCHQ	**Schefferville**	**123.78**	**22**		**PKPdf**	**04 06 36.9**	**-1.7**
PLCA	**Paso Flores**	**124.35**	**148**	PKP	**PKPdf**	**04 06 40.0**	**-0.2**
	comp=Z,1.3nm,0.7s,baz=217,slow=5.4,SNR=4.1							
ANCO	**Parque Anchore**	**135.65**	**153**	*e*P	**PKPdf**	**04 06 58.9**	**-2.9**
PSAL	**Palomas, Salto**	**138.45**	**150**	*e*P	**PKPdf**	**04 07 05.0**	**-2.0**
CPSB	**Cacapava Do Su**	**140.95**	**154**	*e*P	**PKPdf**	**04 07 08.9**	**-2.7**
LPAZ	**La Paz**	**141.23**	**123**	PKP	**PKPdf**	**04 07 10.8**	**-2.3**
	comp=Z,1.9nm,0.5s,baz=298,slow=2.0,SNR=9.0							
LPAZ	**La Paz**	**141.23**	**123**	*e*P	**PKPdf**	**04 07 08.9**	**-4.3**
CPUP	**Villa Florida**	**142.39**	**146**	PKP	**PKPdf**	**04 07 12.7**	**-1.5**
	comp=Z,1.4nm,0.7s,baz=198,slow=3.2,SNR=3.4							
CPUP	**Villa Florida**	**142.39**	**146**	*e*P	**PKPdf**	**04 07 12.0**	**-2.2**
TORD	**Torodi Ar. Bea**	**142.77**	**286**	PKP	**PKPdf**	**04 07 14.1**	**-1.2**
	comp=Z,1.2nm,0.4s,baz=64,slow=3.4,SNR=1.7							
SJPY	**San Joaquin**	**144.12**	**146**	*e*P	**PKPab**	**04 07 15.2**	**+0.2**
SDV	**Santo Domingo**	**144.43**	**81**		**PKPab**	**04 07 16.3**	**-0.4**
MURT	**Porto Murtinho**	**145.76**	**141**	*e*P	**PKPdf**	**04 07 18.9**	**-1.4**
PTGB	**Pitanga**	**146.44**	**151**	*e*P	**PKPdf**	**04 07 19.1**	**-2.3**
BBSD	**Serra de San D**	**146.71**	**131**	*e*P	**PKPdf**	**04 07 19.5**	**-2.5**
COIM	**Forte Coimbra**	**146.90**	**138**	*e*P	**PKPdf**	**04 07 20.0**	**-2.2**
HUMP	**Col San Antoni**	**147.04**	**64**		**PKPdf**	**04 07 22.6**	**+0.1**
SIV	**San Ignacio**	**147.08**	**129**	PKPbc	**PKPbc**	**04 07 24.9**	**+0.1**
	comp=Z,14nm,0.7s,baz=246,slow=4.7,SNR=32							
BDQN	**Bodoquena, MS**	**147.19**	**140**	*e*P	**PKPdf**	**04 07 20.5**	**-2.2**
AQDB	**Aquidauana**	**147.83**	**142**	*e*P	**PKPdf**	**04 07 21.4**	**-2.4**
LDASE	**Londrina, Braz**	**148.01**	**151**	*e*P	**PKPdf**	**04 07 20.6**	**-3.5**
PTLB	**Pontes e Lacer**	**148.89**	**138**	*e*P	**PKPdf**	**04 07 23.3**	**-2.4**
PCMB	**Pacaembu**	**149.45**	**149**	*e*P	**PKPdf**	**04 07 23.6**	**-2.8**
VILB	**Vilhena**	**149.50**	**125**	PKPdf	**PKPdf**	**04 07 26.2**	**-0.5**
VILB	**Vilhena**	**149.50**	**125**	*e*P	**PKPdf**	**04 07 23.6**	**-3.0**
DBIC	**Dimbokro**	**149.89**	**275**	PKPbc	**PKPbc**	**04 07 30.7**	**-1.4**
	comp=Z,11nm,0.8s,baz=79,slow=3.4,SNR=9.0							
DBIC	**Dimbokro**	**149.89**	**275**	PKPdf	**PKPdf**	**04 07 27.2**	**-0.1**
VAO	**Valinhos**	**150.15**	**158**	*e*P	**PKPdf**	**04 07 25.5**	**-2.1**
PP1B	**Ponte de Pedra**	**150.47**	**139**	*e*P	**PKPdf**	**04 07 25.9**	**-2.2**
SALV	**Santo Antonio**	**151.11**	**135**	*e*P	**PKPdf**	**04 07 26.9**	**-2.2**
BB19B	**Bebedouro**	**151.22**	**153**	*e*P	**PKPdf**	**04 07 26.8**	**-2.5**
VAS01	**Vassouras-RJ**	**152.00**	**163**	*e*P	**PKPdf**	**04 07 26.8**	**-3.5**
CANS	**Sao Roque de M**	**152.82**	**156**	*e*P	**PKPdf**	**04 07 29.6**	**-2.1**
CAM01	**Campos-RJ**	**152.90**	**166**	*e*P	**PKPdf**	**04 07 27.8**	**-3.8**
PDRB	**Porto dos Gac**	**153.05**	**127**	*e*P	**PKPdf**	**04 07 29.8**	**-2.3**
MACA	**Manacapuru-AM**	**153.24**	**106**	*e*P	**PKPdf**	**04 07 31.0**	**-1.4**
ARAG	**Araguaiana, MT**	**153.84**	**141**	*e*P	**PKPdf**	**04 07 31.6**	**-1.5**
IPMB	**Ipameri, GO**	**154.03**	**150**	*e*P	**PKPdf**	**04 07 31.3**	**-2.2**
CLDB	**Colider**	**154.22**	**127**	*e*P	**PKPdf**	**04 07 30.3**	**-3.5**
DIAM	**Diamantina, MG**	**155.66**	**160**	*e*P	**PKPdf**	**04 07 33.8**	**-2.0**
BSFB	**Barra de Sao F**	**155.97**	**166**	*e*P	**PKPdf**	**04 07 32.6**	**-3.4**
SJMB	**Sao Joao De Ma**	**156.02**	**166**	*e*P	**PKPdf**	**04 07 33.3**	**-2.8**
BDFB	**Brasilia**	**156.10**	**148**	PKP	**PKPdf**	**04 07 35.7**	**-0.6**
	comp=Z,1.9nm,0.4s,baz=182,slow=5.5,SNR=3.5							
SNDB	**Serra Nova Dou**	**156.90**	**136**	*e*P	**PKPdf**	**04 07 33.8**	**-3.6**
ITTB	**Itaituba**	**157.48**	**113**	*e*P	**PKPdf**	**04 07 34.6**	**-3.5**
ARCA	**Araŧuai, MG**	**157.57**	**162**	*e*P	**PKPdf**	**04 07 34.8**	**-3.3**
GUA01	**Guaratinga, BA**	**158.38**	**168**	*e*P	**PKPdf**	**04 07 37.1**	**-2.0**
SDBA	**SAO DESIDERIO**	**160.42**	**150**	*e*P	**PKPdf**	**04 07 39.9**	**-1.7**
SMTB	**Santa Maria do**	**161.66**	**137**	*e*P	**PKPdf**	**04 07 41.1**	**-1.8**

TAP 26 03:54:47.0,24°.93N×121°.68E,h114km,ML2.9,D,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TIPB	**Shuangxi**	**0.14**	**71**	*i* P	Pn	03 55 03.1	+0.4
TIPB				S	Sn	03 55 13.5	-1.1
FUSB	**Fushanzhiwuyua**	**0.19**	**207**	*i* P	Pn	03 55 02.7	-0.3
FUSB				*i* S	Sn	03 55 14.3	-0.6
TWE	**Neicheng**	**0.20**	**183**	*e*P	Pn	03 55 02.9	0.0
TWE				*e*S	Sn	03 55 13.4	-1.4
NWLT	**Wulai**	**0.22**	**227**	P	Pn	03 55 02.6	-0.4
NWLT				*i* S	Sn	03 55 13.9	-1.0
NDS	**Dongshan**	**0.29**	**174**	*i* P	Pn	03 55 03.5	+0.3
NDS				*i* S	Sn	03 55 15.4	+0.1
TWC	**Suao**	**0.35**	**154**	*i* P	Pn	03 55 04.8	+1.4
TWC				S	Sn	03 55 17.5	+1.7
YHNB	**Yeheng**	**0.38**	**227**	P	Pn	03 55 03.5	-0.1
YHNB				S	Sn	03 55 15.1	-1.1
NFF	**Wufeng Townshi**	**0.59**	**240**	*i* P	Pn	03 55 04.8	-0.1
NFF				*i* S	Sn	03 55 17.7	-0.8
LIOB	**Emei**	**0.67**	**245**	*i* P	Pn	03 55 05.7	+0.2
LIOB				*e*S	Sn	03 55 19.2	-0.1
ETLH	**Xiulin Townshi**	**0.74**	**194**	P	Pn	03 55 06.1	0.0
ETLH				S	Sn	03 55 20.5	-0.1
NACB	**Ninganchiao**	**0.75**	**186**	P	Pn	03 55 05.9	-0.3
NACB				S	Sn	03 55 19.3	-1.4
WHF	**Hehuan Shan**	**0.86**	**206**	P	Pn	03 55 08.4	+0.7
WHF				*i* S	Sn	03 55 24.1	+0.9
LXIB	**Xiulin Townshi**	**0.93**	**195**	*e*P	Pn	03 55 08.8	+0.8
LXIB				*i* S	Sn	03 55 24.1	+0.2
WUSB	**Renai**	**1.06**	**209**	P	Pn	03 55 09.6	+0.3
WUSB				*e*S	Sn	03 55 26.0	-0.2

*RSNC **26** 03:59:22.8±0.0, 10°.N±2°.×2°.3W±°, h2km±4km, M2.8, mb3.3, ML2.5*
*FUNV **26** 03:59:25.1, 9°.68N×72°.77W, h5km, MW3.2, Presumed earthquake*

ISC 26 03:59:22.2±0.8,9°.69N±0°.02×72°.79W±0°.03,h10km,n24,
σ1s70/40,Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRJC	**Cerrejon, Guaj**	**1.33**	**356**	P	**Pb**	**03 59 47.1**	**-0.1**
CRJC				S	**Sg**	**04 00 04.7**	**-0.2**
ARGC	**Ariguani, Magd**	**1.45**	**277**	P	**Pb**	**03 59 49.1**	**-0.2**
ARGC				S	**Sb**	**04 00 07.9**	**+0.1**
OCAC	**Ocana**	**1.54**	**200**	P	**Pb**	**03 59 50.4**	**-0.4**
OCAC				S	**Sg**	**04 00 11.7**	**+0.1**
CAPV	**Capacho**	**1.87**	**166**	*e*P	**Pg**	**03 59 57.1**	**-1.0**
CAPV				*e*S	**Sg**	**04 00 21.2**	**-1.2**
SMRC	**Santa Marta, M**	**2.04**	**316**	P	**Pn**	**03 59 57.8**	**+1.2**
URIC	**Uribia, Colomb**	**2.15**	**21**	P	**Pn**	**03 59 57.6**	**-0.4**
URIC				S	**Sg**	**04 00 29.2**	**-2.0**
URIC	**Uribia, Colomb**	**2.15**	**21**	*e*P	**Pb**	**04 00 00.7**	**-0.5**
URIC				*e*S	**Sb**	**04 00 27.7**	**-0.1**
SDV	**Santo Domingo**	**2.27**	**110**	P	**Pb**	**04 00 03.7**	**+0.3**
SDV				S	**Sb**	**04 00 32.0**	**+0.7**
SDV	**Santo Domingo**	**2.27**	**110**	*e*P	**Pb**	**04 00 02.5**	**-0.8**
SDV				*e*S	**Sb**	**04 00 30.1**	**-1.5**
SJCC	**San Jacinto, C**	**2.37**	**275**	P	**Pb**	**04 00 03.4**	**-1.6**
SJCC				S	**Sb**	**04 00 34.0**	**-0.3**
SJCC	**San Jacinto, C**	**2.37**	**275**	*e*P	**Pb**	**04 00 03.4**	**-1.6**
SJCC				*e*S	**Sb**	**04 00 33.4**	**-1.0**
BRJC	**Barrancabermej**	**2.86**	**199**	P	**Pb**	**04 00 13.7**	**+0.3**
BRJC				S	**Sg**	**04 00 51.4**	**-2.8**
BARC	**Barichara**	**3.10**	**187**	P	**Pb**	**04 00 18.1**	**+0.5**
BARC				S	**Sg**	**04 01 00.2**	**-1.7**
UREC	**San Jos de Ur**	**3.33**	**235**	P	**Pn**	**04 00 14.9**	**+0.5**
UREC				S	**Sn**	**04 00 56.6**	**+2.6**
PTBC	**PUERTO BERRIO,**	**3.54**	**208**	P	**Pn**	**04 00 19.9**	**+2.6**
PTBC				S	**Sb**	**04 01 04.4**	**-3.6**
TEPV	**Terepaima**	**3.55**	**85**	*e*P	**Pn**	**04 00 19.8**	**+2.4**
TEPV				*e*S	**Sn**	**04 01 00.2**	**+0.7**
LCBC	**Los crdobas,**	**3.63**	**257**	P	**Pn**	**04 00 19.3**	**+0.8**
LCBC				S	**Sn**	**04 01 05.4**	**+3.9**
RUSC	**La Rusia**	**3.78**	**184**	*e*P	**Pn**	**04 00 22.9**	**+1.9**
SPBC	**San Pablo de B**	**4.21**	**198**	P	**Pb**	**04 00 35.6**	**-0.8**
MAPV	**Macapo**	**4.27**	**88**	*e*P	**Pn**	**04 00 29.8**	**+2.5**
MAPV				*e*S	**Sn**	**04 01 16.3**	**-0.9**
CBOC	**Ciudad Bolivar**	**4.97**	**220**	P	**Pn**	**04 00 40.6**	**+3.6**
CHIC	**Chingaza**	**5.11**	**191**	P	**Pn**	**04 00 39.4**	**+0.1**
	5.0nm,1.9s						
CHIC				AML	AML		
BENV	**Beln**	**5.12**	**87**	*e*P	**Pn**	**04 00 40.9**	**+1.8**
GUY2C	**Guyana, Caldas**	**5.12**	**210**	P	Pb	04 00 46.3	-5.9
	3.8nm,1.1s						
GUY2C				AML	AML		

*ISK **26** 04:23:09.9, 37°.85N×26°.94E, h6km, ML2.6/15*
*THE **26** 04:23:09.9, 38°N±1°×2°.7E±°, h12km±2km, M2.8/6, MLh2.8/6*
*AFAD **26** 04:23:09.9, 37°.83N×26°.92E, h7km±2km, ML2.6*

ISC 26 04:23:10.1±0.8,37°.83N±0°.02×26°.95E±0°.02,h14km±6km,
n41,σ0s65/64,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.15**	**216**	P	**Pg**	**04 23 13.4**	**-0.5**
SMG				S	**Sg**	**04 23 16.2**	**-0.3**
SMG				AML	AML		
DGB	**zmir**	**0.23**	**347**	P	**Pg**	**04 23 14.8**	**-0.3**
GMLD	**Gumuldur**	**0.25**	**354**	Pg	**Pg**	**04 23 15.2**	**-0.2**
GMLD				Sg	**Sg**	**04 23 18.9**	**-0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**120**	P	**Pg**	**04 23 16.0**	**+0.4**
GCAM	**G?zelcaml?**	**0.26**	**120**	Pg	**Pg**	**04 23 15.9**	**+0.3**
GCAM				Sg	**Sb**	**04 23 20.4**	**-0.4**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.27**	**84**	Pg	**Pg**	**04 23 15.8**	**0.0**
KUSD				Sg	**Sg**	**04 23 20.1**	**+0.4**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**357**	P	**Pg**	**04 23 17.4**	**-0.7**
BEYE				S	**Sg**	**04 23 23.2**	**-0.3**
BEYE				IAML		04 23 27.0	
	comp=E,552nm,0.6s						
DDIM	**Aydin, Didim**	**0.44**	**148**	P	**Pg**	**04 23 19.0**	**+0.2**
DDIM				S	**Sb**	**04 23 25.6**	**-0.3**
DDIM				IAML		04 23 26.0	
	comp=N,318nm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**0.54**	**319**	P	**Pg**	**04 23 19.9**	**-0.8**
ZEYE				IAML		04 23 28.0	
	comp=N,637nm,0.1s						
ZEYE				S	**Sg**	**04 23 28.2**	**+0.3**
DUVT	**Torbali**	**0.55**	**45**	P	**Pg**	**04 23 20.7**	**-0.3**
DUVT				S	**Sg**	**04 23 28.2**	**-0.2**
DUVT				IAML		04 23 32.0	
	comp=E,486nm,0.3s						
BLCB	**Balcova**	**0.56**	**7**	P	**Pg**	**04 23 20.9**	**-0.2**
BLCB				S	**Sg**	**04 23 28.8**	**+0.3**
BLCB	**Balcova**	**0.56**	**7**	Pg	**Pg**	**04 23 20.7**	**-0.4**
BLCB				Sg	**Sg**	**04 23 28.9**	**+0.3**
CESE	**eme**	**0.72**	**314**	Pg	**Pg**	**04 23 23.9**	**-0.1**
CESE				Sg	**Sb**	**04 23 34.1**	**+0.1**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.75**	**159**	Pg	**Pb**	**04 23 25.3**	**+0.4**
YKAV				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.75**	**81**	Pg	**Pb**	**04 23 25.4**	**+0.4**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.76**	**103**	P	**Pg**	**04 23 24.9**	**+0.1**
AYDN				S	**Sg**	**04 23 34.9**	**+0.1**
AYDN				IAML		04 23 39.0	
	comp=E,141nm,0.2s						
BODT	**Bodrum**	**0.82**	**159**	P	**Pg**	**04 23 25.4**	**-0.5**
BODT				S	**Sg**	**04 23 37.0**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**159**	Pg	**Pb**	**04 23 26.4**	**+0.4**
BODT				AML	AML		
KRBN	**Karaburun**	**0.82**	**338**	Pg	**Pg**	**04 23 25.9**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**355**	P	**Pg**	**04 23 25.9**	**-0.3**
BAGT				S	**Sb**	**04 23 37.4**	**+0.2**
BAGT				IAML		04 23 39.0	
	comp=E,211nm,0.7s						
BAGT				IAML		04 23 40.0	
	comp=N,573nm,0.7s						
MLSB	**Milas**	**0.85**	**129**	Pg	**Pb**	**04 23 26.9**	**+0.4**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.85**	**69**	P	**Pg**	**04 23 25.6**	**-1.0**
IZMR				P	**Pb**	**04 23 26.8**	**+0.2**
IZMR				S	**Sg**	**04 23 35.9**	**-1.8**
IZMR				S	**Sb**	**04 23 36.3**	**-1.5**
BDRM	**Kayabasi**	**0.86**	**153**	P	**Pg**	**04 23 26.7**	**0.0**
BDRM				S	**Sg**	**04 23 37.8**	**-0.2**
BDRM				IAML		04 23 42.0	
	comp=N,207nm,0.3s						
CHOS	**Chios island**	**0.90**	**308**	P	**Pb**	**04 23 27.5**	**+0.1**
CHOS				S	**Sb**	**04 23 40.2**	**+0.9**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**308**	Pg	**Pb**	**04 23 27.6**	**+0.1**
CHOS				AML	AML		
FOCM	**Foa**	**0.90**	**349**	Pg	**Pg**	**04 23 26.5**	**-1.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.93**	**333**	P	**Pg**	**04 23 27.7**	**-0.5**
KARB				S	**Sb**	**04 23 40.4**	**+0.2**
KARB				IAML		04 23 42.0	
	comp=E,244nm,0.6s						
KARB				IAML		04 23 43.0	
	comp=N,219nm,0.6s						
CAMT	**Merkez**	**0.96**	**17**	P	**Pg**	**04 23 28.4**	**-0.2**
CAMT				S	**Sb**	**04 23 42.2**	**+1.2**
CAMT				IAML		04 23 44.0	
	comp=N,174nm,0.3s						
CAMT				IAML		04 23 44.0	
	comp=E,170nm,0.6s						
NAZL	**Nazilli-Aydin**	**1.07**	**82**	Pg	**Pg**	**04 23 30.3**	**-0.4**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.11**	**91**	P	**Pg**	**04 23 30.9**	**-0.5**
ESEN				S	**Sg**	**04 23 44.9**	**-1.0**
ZEDA	**zmir-Bergama**	**1.14**	**5**	P	**Pb**	**04 23 31.9**	**+0.4**
ZEDA				S	**Sb**	**04 23 46.9**	**+0.8**
ZEDA				IAML		04 23 49.0	
	comp=N,112nm,0.4s						
GOMA	**Golmarmara-Man**	**1.16**	**41**	Pn	**Pg**	**04 23 32.2**	**-0.2**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.20**	**72**	P	**Pg**	**04 23 30.8**	**-2.4**
YAZI	**Mula-Dat§a-**	**1.22**	**161**	P	**Pb**	**04 23 32.6**	**-0.2**
MULA	**Mugla, Merkez-**	**1.23**	**117**	P	**Pn**	**04 23 34.2**	**+1.3**
DKL	**Dikili**	**1.24**	**358**	Pn	**Pg**	**04 23 33.7**	**-0.2**
DKL				AML	AML		
KTTT	**Salihli**	**1.24**	**46**	P	**Pb**	**04 23 33.3**	**0.0**
AKHS	**Akhisar**	**1.25**	**33**	P	**Pn**	**04 23 33.3**	**+0.3**
APE	**Apeiranthos**	**1.36**	**236**	P	**Pn**	**04 23 33.8**	**-0.8**
MANT	**Manisa**	**1.43**	**62**	P	**Pg**	**04 23 37.9**	**+0.3**
GORD	**Gordes-Manisa**	**1.45**	**41**	Pn	**Pb**	**04 23 37.2**	**+0.4**
GORD				AML	AML		

*IDC **26** 04:28:36.5±1.1, 22°.65N×144°.75E, h0km, mb3.7/8, mbtmp3.7/9, ML3.9/1, Error ellipse: s-maj=33.9km s-min=20.1km az=68.0*
*NEIC **26** 04:28:38.4±1.2, 22°.8N±0°.1×144°.6E±0°.2, h10km±1km, mb4.0/9, Error ellipse: s-maj=25.6km s-min=16.2km az=249.0*

ISC 26 04:28:38.0±0.7,22°.81N±0°.10×144°.6E±0°.1,h10km,n27,
σ1s02/29,mb3.8/13,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**4.79**	**333**	Pn	**Pn**	**04 29 50.0**	**-0.3**
	4.9nm,0.3s,baz=58,slow=23,SNR=1.2						
JCJ				Sn	**Sn**	**04 30 44.3**	**-1.6**
	8.0nm,0.3s,baz=106,slow=22,SNR=6.0						
	20nm,0.4s						
JCJ				AML	AML		
JCJ	**Chichijima**	**4.79**	**333**		**Pn**	**04 29 50.6**	**+0.3**
JCJ					**Sn**	**04 30 44.4**	**-1.6**
WB0	**Warramunga Arr**	**43.48**	**194**	P	**P**	**04 36 40.9**	**-0.7**
WR8	**Warramunga Arr**	**43.64**	**194**	P	**P**	**04 36 42.7**	**-0.2**
WR8				IAmb	IAmb	04 36 45.1	
	comp=Z,2.5nm,1.0s						
WRA	**Warramunga Arr**	**43.66**	**194**	P	**P**	**04 36 42.0**	**-1.1**
	comp=Z,0.6nm,0.6s,baz=17,slow=8.9,SNR=5.7						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	**43.66**	**194**	P	**P**	**04 36 42.4**	**-0.7**
ARMA	**Armidale**	**53.36**	**172**	P	**P**	**04 37 57.4**	**-0.4**
ARMA				IAmb	IAmb	04 38 03.4	
	comp=Z,0.9nm,0.8s						
KPA	**Kalaupapa**	**53.88**	**80**	P	**P**	**04 38 00.4**	**-1.3**
R16K	**Pilot Point**	**53.88**	**34**	P	**P**	**04 38 02.5**	**+1.3**
MKAR	**Makanchi Array**	**54.92**	**312**	P	**P**	**04 38 11.7**	**+2.6**
	comp=Z,0.2nm,0.6s,baz=90,slow=8.4,SNR=1.6						
	comp=Z,0.2nm,0.6s						
MKAR	**Makanchi Array**	**54.92**	**312**	P	**P**	**04 38 10.2**	**+1.1**
L18K	**Granite Mounta**	**55.59**	**29**	P	**P**	**04 38 14.1**	**+0.5**
L18K				IAmb	IAmb	04 38 31.8	
	comp=Z,5.8nm,1.2s						
KURK	**Kurchatov**	**57.56**	**317**	P	**P**	**04 38 28.3**	**+0.5**
KURK				IAmb	IAmb	04 38 44.2	
	comp=Z,0.8nm,0.8s						
KURBB	**Kurchatov Arra**	**57.62**	**316**	P	**P**	**04 38 29.3**	**+1.1**
	comp=Z,0.4nm,0.7s,baz=95,slow=7.5,SNR=2.8						
	comp=Z,0.4nm,0.7s						
ILAR	**Eielson Array**	**60.45**	**27**	P	**P**	**04 38 48.0**	**+0.3**
	comp=Z,0.3nm,0.7s,baz=262,slow=6.2,SNR=1.7						
	comp=Z,0.3nm,0.7s						
ILAR	**Eielson Array**	**60.45**	**27**	P	**P**	**04 38 47.3**	**-0.3**
BVAR	**Borovoye Array**	**62.69**	**319**	P	**P**	**04 39 04.1**	**+1.1**
	comp=Z,0.6nm,0.4s,baz=80,slow=7.9,SNR=2.7						
	comp=Z,0.6nm,0.4s						
BTK	**Batken**	**63.58**	**305**	P	**P**	**04 39 09.1**	**-0.1**
G29M	**Pine Creek**	**64.29**	**25**	P	**P**	**04 39 14.8**	**+1.5**
AB31	**Akbulak array**	**69.66**	**316**	P	**P**	**04 39 47.4**	**-0.4**
AB31				IAmb	IAmb	04 39 59.0	
	comp=Z,1.4nm,1.1s						
ABKAR	**Akbulak array**	**69.66**	**316**	P	**P**	**04 39 47.8**	**0.0**
YKA	**Yellowknife Ar**	**74.86**	**28**	P	**P**	**04 40 18.8**	**+0.2**
	comp=Z,0.4nm,0.6s,baz=293,slow=6.4,SNR=2.6						
	comp=Z,0.4nm,0.6s						
YKA	**Yellowknife Ar**	**74.86**	**28**	P	**P**	**04 40 18.2**	**-0.4**
NVAR	**Mina Array Bea**	**81.42**	**52**	P	**P**	**04 40 56.8**	**+1.1**
	comp=Z,0.6nm,0.6s,baz=314,slow=6.2,SNR=2.3						
	comp=Z,0.6nm,0.6s						
NVAR	**Mina Array Bea**	**81.42**	**52**	P	**P**	**04 40 55.4**	**-0.4**
FINES	**FINESS Array B**	**82.74**	**335**	P	**P**	**04 41 02.6**	**+0.7**
	comp=Z,1.8nm,0.8s,baz=64,slow=13,SNR=4.1						
	comp=Z,1.8nm,0.8s						
FINES	**FINESS Array B**	**82.74**	**335**	P	**P**	**04 41 02.1**	**+0.2**

*NOU **26** 04:41:35.5, 20°.07S×169°.26E, h52km, MLv4.9/12, Vanuatu Islands*
*NEIC **26** 04:41:35.8±1.5, 20°.04S±0°.05×169°.14E±0°.08, h78km±5km, mb5.1/23, Error ellipse: s-maj=11.4km s-min=6.5km az=74.0*
*IDC **26** 04:41:36.2±2.4, 20°.03S×169°.11E, h87km±20km, mb3.9/5, mbtmp4.3/8, Error ellipse: s-maj=25.1km s-min=17.4km az=152.0*

ISC 26 04:41:35.5±0.5,20°.05S±0°.04×169°.15E±0°.08,h78km,n75,
σ0s88/75,mb5.0/15,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**1.77**	**216**	P	**Pn**	**04 42 03.9**	**-0.4**
MARNC	**Mare, Loyalty**	**1.77**	**216**		**Pn**	**04 42 03.8**	**-0.5**
MARNC				Sn	**Sn**	**04 42 24.1**	**-2.0**
RTV	**Rentapao**	**2.35**	**343**	P	**Pn**	**04 42 13.0**	**+0.9**
DVP	**Devils Point**	**2.49**	**338**	P	**Pn**	**04 42 14.2**	**+0.3**
YATNC	**Mamie plateau,**	**2.91**	**226**	P	**

ZVC	**Zvikov**	**144.51 332**	*e*PKP	PKPbc	05 01 01.8	+0.2
WINA	**Alland / Wiene**	**144.57 328**	*e*PKP	**PKPdf**	**05 01 02.9**	**-0.1**
	comp=Z,0.4nm,0.2s					
NKC	**Novy Kostel**	**144.67 334**	*e*PKP	**PKPab**	**05 01 01.3**	**-0.6**
RONA	**Rosalia, Austr**	**144.73 328**	*e*PKP	PKPbc	05 01 03.0	+0.6
	comp=Z,12nm,0.9s					
CONA	**Conrad Observa**	**144.79 328**	*e*PKP	PKPbc	05 01 03.1	+0.4
	comp=Z,6.0nm,0.6s					
CKRC	**Cesky Krumlov**	**144.91 331**	*e*PKP	PKPbc	05 01 03.1	+0.2
KHC	**Kasperske Hory**	**145.01 332**	*e*PKP	PKPbc	05 01 03.4	+0.2
GERES	**GERESS Array B**	**145.16 331**	PKPbc	**PKPbc**	**05 01 03.8**	**0.0**
	comp=Z,6.3nm,0.6s,baz=29,slow=4.3,SNR=64					
ARSA	**Arzberg**	**145.42 328**	*e*PKP	**PKPab**	**05 01 05.4**	**+0.6**
	comp=Z,4.9nm,0.7s					
MOA	**Molln**	**145.62 330**	*i* PKP	**PKPbc**	**05 01 05.5**	**+0.3**
	comp=Z,9.2nm,0.7s					
SESA	**Seetaler Alpe,**	**145.99 328**	*e*PKP	**PKPdf**	**05 01 05.3**	**-0.4**
	comp=Z,9.4nm,1.2s					
BIOA	**Bad Ischl, Aus**	**146.03 330**	*e*PKP	**PKPdf**	**05 01 06.1**	**+0.6**
	comp=Z,1.5nm,0.5s					
SOKA	**Soboth**	**146.06 327**	*e*PKP	**PKPdf**	**05 01 06.2**	**+0.6**
	comp=Z,1.8nm,0.5s					
LESA	**Schwarzleotal**	**146.67 330**	*e*PKP	**PKPbc**	**05 01 08.2**	**-0.3**
	comp=Z,5.4nm,0.5s,SNR=7.2					
MYKA	**Terra Mystica**	**146.78 329**	*e*PKP	**PKPbc**	**05 01 08.1**	**-0.7**
	comp=Z,3.5nm,0.5s					
WATA	**Walderalm**	**147.24 331**	PKP	**PKPbc**	**05 01 09.8**	**-0.3**
	comp=Z,7.6nm,1.0s					
ABTA	**Abfaltersbach**	**147.24 330**	*i* PKP	**PKPbc**	**05 01 09.2**	**-0.9**
	comp=Z,4.6nm,0.6s					
MOTA	**Moosalm**	**147.45 332**	*e*PKP	**PKPbc**	**05 01 10.3**	**-0.4**
	comp=Z,5.7nm,0.6s,SNR=4.6					
RETA	**Reutte**	**147.49 332**	*e*PKP	**PKPbc**	**05 01 10.3**	**-0.4**
	comp=Z,2.3nm,0.5s					
SQTA	**Sankt Quirin**	**147.49 332**	*i* PKP	**PKPbc**	**05 01 10.6**	**-0.2**
	comp=Z,8.8nm,0.6s					
FETA	**Feichten**	**147.86 332**	*e*PKP	**PKPbc**	**05 01 11.8**	**-0.1**
	comp=Z,4.8nm,0.6s,SNR=6.4					
DAVA	**Damuels**	**148.02 333**	*e*PKP	**PKPbc**	**05 01 12.4**	**+0.1**
	comp=Z,4.1nm,0.6s					

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*BJI **26** 04:42:32.0, 4.°57S × 145.°14E, h28km, mB5.1/15, mb4.7/48, Ms4.7/20, Ms7 4.4/21*

*NEIC **26** 04:42:36.7±0.8, 4.°62S±0.°06 × 144.°83E±0.°07, h54km±2km, mb5.2/105, Mww5.1/10, Error ellipse: s-maj=9.8km s-min=8.8km az=54.0*

*IDC **26** 04:42:36.5±0.5, 4.°64S × 144.°89E, h52km±5km, mb4.4/21, mbtmp4.7/27, MS4.1/48, Error ellipse: s-maj=11.9km s-min=7.1km az=95.0*

*GFZ **26** 04:42:37.6±0.2, 5.°3S × 14.°5E±.°, h55km, M5.0/33, mb5.2/33, Mw5.0/28, confirmed*

*GCMT **26** 04:42:38.7±0.2, 4.°60S±0.°01 × 144.°77E±0.°01, h51km±2km, MW5.1/123, Moment Tensor Solution. s63,c78; s123,c175; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr=0.29±.21; Mθθ=-3.34±.16; Mϕϕ=3.62±.14; Mrθ=-2.26±.14; Mθϕ=3.19±.12; Mϕr=3.97±.15; Best double couple: M=6.56500×10^16^ NP1:ϕs=64.00000°, δ=46.00000°, λ=-3.00000°. NP2:ϕs=157.00000°, δ=88.00000°, λ=-136.00000°. Principal axes: T 6.3680, Plg27.0000°, Azm282.0000°; N 0.3880, Plg46.0000°, Azm159.0000°; P -6.7630, Plg31.0000°, Azm30.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **26** 04:42:39.0±0.4, 5.°5S × 14.°5E±.°, h97km±19km, M5.6/9, mB5.9/6, mb5.6/9, mB5.9/9, mb5.6/10, MLv5.8/7, MLv5.9/8, Mw(mB)5.5/6, Mw(mB)5.5/9, MwMwp4.8/4, MwMwp4.8/4, Mwp5.1/4, Mwp5.1/4*

ISC 26 04:42:36.9±0.4, **4.°64S**±0.°04 × **144.°89E**±0.°04, **h53**km±3km, **h54**km:**pP-P, n401**, σ1**33**/365, **mb5.1**/120, **MS4.2**/50, **2C-2D, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MANU	**Manus Island**	**3.57**	**44**		**Pn**	**04 43 29.9**	**0.0**
JAY	**Jayapura**	**4.67**	**297**	P	**Pn**	**04 43 45.1**	**+0.1**
	165nm,0.4s,baz=120,slow=5.4,SNR=77						
JAY				LR	LR	04 45 59.3	
	comp=Z,10μm,20.2s,baz=48,slow=43						
JAY	**Jayapura**	**4.67**	**297**	P	**Pn**	**04 43 46.2**	**+1.2**
JAY				AML	AML		
JAY				AML	AML		
GENI	**Genyem**	**5.13**	**293**	P	**Pn**	**04 43 53.5**	**+2.3**
GENI	**Genyem**	**5.13**	**293**	P	**Pn**	**04 43 52.2**	**+1.0**
	9.2nm9.2nm5μm5μm24μm24μm1μm,1.2s,1μm,1.2s						
GENI				AML	AML		
GENI				AML	AML		
GENI	**Genyem**	**5.13**	**293**	P	**Pn**	**04 43 52.6**	**+1.3**
	comp=Z,938nm,0.9s						
PMG	**Port Moresby**	**5.25**	**155**	P	**Pn**	**04 43 52.5**	**-0.3**
	comp=Z,300nm,0.5s,baz=30,slow=5.0,SNR=41						
PMG				S	**Sn**	**04 44 52.4**	**+0.3**
	comp=Z,564nm,0.5s,baz=131,slow=21,SNR=5.6						
PMG				LR	LR	04 46 42.6	
	comp=Z,5μm,18.1s,baz=340,slow=47						
PMG	**Port Moresby**	**5.25**	**155**	P	**Pn**	**04 43 54.0**	**+1.1**
PMG	**Port Moresby**	**5.25**	**155**	S	**Sn**	**04 44 54.1**	**+2.0**
PMG	**Port Moresby**	**5.25**	**155**		**Pn**	**04 43 52.7**	**-0.1**
PMG	**Port Moresby**	**5.25**	**155**	P	**Pn**	**04 43 53.5**	**+0.7**
	comp=Z,7.1nmcomp=Z,3μmcomp=Z,3μmcomp=Z,8μm comp=Z,8μmcomp=Z,705nm,1.1s,comp=Z,705nm,1.1s						
PMG				AML	AML		
PMG	**Port Moresby**	**5.25**	**155**	P	**Pn**	**04 43 53.6**	**+0.7**
	comp=Z,705nm,1.1s						
SMPI	**Sarmi**	**6.70**	**293**	P	**Pn**	**04 44 14.8**	**+2.0**
	comp=Z,3.8nmcomp=Z,4μmcomp=Z,4μmcomp=Z,12μm comp=Z,12μmcomp=Z,1μm,1.4s,comp=Z,1μm,1.4s						
SMPI				AML	AML		
KRVT	**Keravat (AS076**	**7.13**	**88**	P	**Pn**	**04 44 18.8**	**+0.1**
	comp=Z,160nm,0.3s,baz=264,slow=21,SNR=8.0						
RABL	**Rabaul**	**7.27**	**87**		**Pn**	**04 44 23.4**	**+2.7**
BAKI	**Biak**	**9.41**	**291**	P	**Pn**	**04 44 50.4**	**+0.5**
	comp=Z,2μmcomp=Z,203nm,0.7s,comp=Z,203nm,0.7s						
COEN	**Coen**	**9.41**	**190**	P	**Pn**	**04 44 51.8**	**+1.8**
	comp=Z,626nm,1.2s						
COEN	**Coen**	**9.41**	**190**	Pn	**Pn**	**04 44 49.7**	**-0.3**
MWPI	**Manokwari, Pap**	**11.44**	**288**	P	Pn	04 45 29.5	+12
FAKI	**Fak Fak**	**12.72**	**277**	P	**Pn**	**04 45 36.3**	**+1.0**
FAKI	**Fak Fak**	**12.72**	**277**	S	**Sn**	**04 47 55.9**	**+0.4**
FAKI	**Fak Fak**	**12.72**	**277**		**Pn**	**04 45 32.9**	**-2.3**
FAKI	**Fak Fak**	**12.72**	**277**	P	**Pn**	**04 45 36.1**	**+0.8**
FAKI	**Fak Fak**	**12.72**	**277**	P	**Pn**	**04 45 34.7**	**-0.5**
	comp=Z,162nm,1.3s						
MTSU	**Mount Surprise**	**13.43**	**182**	P	**Pn**	**04 45 46.7**	**+1.8**
	comp=Z,12nm,0.6s						
MTSU	**Mount Surprise**	**13.43**	**182**	P	**Pn**	**04 45 46.5**	**+1.7**
	comp=Z,12nm,0.6s						
MTSU	**Mount Surprise**	**13.43**	**182**	P	**Pn**	**04 45 47.2**	**+2.4**
MTSU	**Mount Surprise**	**13.43**	**182**	P	**Pn**	**04 45 46.6**	**+1.8**
	comp=Z,12nm,0.6s						
SAUI	**Saumlaki**	**13.90**	**255**	P	**Pn**	**04 45 50.4**	**-1.0**
SAUI	**Saumlaki**	**13.90**	**255**	Pn	**Pn**	**04 45 49.6**	**-1.7**
SAUI	**Saumlaki**	**13.90**	**255**	P	**P**	**04 45 56.5**	**-1.5**
SAUI	**Saumlaki**	**13.90**	**255**	P	**Pn**	**04 45 52.7**	**+1.4**
	comp=Z,420nm,1.1s						
SIJI	**Sorong**	**14.11**	**285**	P	**Pn**	**04 45 52.4**	**-1.7**
	comp=Z,16nm,0.5s,baz=86,slow=10.0,SNR=24						
SIJI				LR	LR	04 52 54.0	
	comp=Z,2μm,18.0s,baz=96,slow=44						
KDU	**Kakadu**	**14.64**	**236**	P	**Pn**	**04 46 00.9**	**-0.1**
	comp=Z,57nm,1.0s						
KDU	**Kakadu**	**14.64**	**236**	P	**Pn**	**04 45 59.5**	**-1.5**
	comp=Z,57nm,1.0s						
TATA	**Tatamba Isabel**	**15.28**	**105**	P	**P**	**04 46 12.2**	**-1.1**
CTA	**Charters Tower**	**15.42**	**175**	P	**Pn**	**04 46 12.7**	**+1.5**
	comp=Z,14nm,1.8s						
CTA	**Charters Tower**	**15.42**	**175**	P	**Pn**	**04 46 12.5**	**+1.4**
	comp=Z,14nm,1.8s						
CTA	**Charters Tower**	**15.42**	**175**	P	**Pn**	**04 46 09.3**	**-1.8**
	comp=Z,9.0nm,1.1s,baz=354,slow=14,SNR=12						
CTA				LR	LR	04 51 59.6	
	comp=Z,264nm,21.0s,baz=358,slow=36						
CTA	**Charters Tower**	**15.42**	**175**	P	**Pn**	**04 46 11.4**	**+0.3**
SAVO	**Savo Central**	**15.48**	**108**	P	**P**	**04 46 15.5**	**0.0**
HNR	**Honiara**	**15.69**	**108**	LR	LR	04 51 34.6	
	comp=Z,854nm,21.5s,baz=346,slow=34						
MTN	**Manton Dam**	**15.84**	**238**	P	**Pn**	**04 46 16.5**	**-0.1**
	comp=Z,41nm,0.6s						
MTN	**Manton Dam**	**15.84**	**238**	P	**Pn**	**04 46 16.4**	**-0.3**
	comp=Z,41nm,0.6s						
MTN	**Manton Dam**	**15.84**	**238**		**Pn**	**04 46 15.4**	**-1.2**
DRS	**Darwin Rock St**	**15.84**	**240**	P	**Pn**	**04 46 16.8**	**+0.2**
NGOA	**Tingoa Renbel**	**16.52**	**116**	P	**P**	**04 46 28.0**	**+1.0**
QIS	**Mount Isa**	**16.64**	**198**	P	**Pn**	**04 46 27.0**	**+0.3**
	comp=Z,35nm,1.1s						
QIS	**Mount Isa**	**16.64**	**198**	P	**Pn**	**04 46 26.2**	**-0.4**
	comp=Z,35nm,1.1s						
QIS	**Mount Isa**	**16.64**	**198**	P	**Pn**	**04 46 26.8**	**+0.2**
QIS	**Mount Isa**	**16.64**	**198**	P	**Pn**	**04 46 26.3**	**-0.4**
	comp=Z,35nm,1.1s						
PATS	**Pohnpei**	**17.59**	**50**	P	**P**	**04 46 39.2**	**+0.2**
	comp=Z,307nm,1.3s						
PATS	**Pohnpei**	**17.59**	**50**	P	**Pn**	**04 46 38.1**	**-0.4**
	comp=Z,304nm,1.3s						
HURO	**Huro Makira**	**17.83**	**110**	P	**P**	**04 46 45.1**	**+3.6**
GUMO	**Guam**	**18.11**	**360**	LR	LR	04 53 56.8	
	comp=Z,524nm,18.3s,baz=186,slow=38						
WB0	**Warramunga Arr**	**18.18**	**213**		**P**	**04 46 44.1**	**-1.3**
WB0				IAmb	IAmb	04 46 48.5	
	comp=Z,153nm,1.1s						
WR8	**Warramunga Arr**	**18.28**	**213**		**P**	**04 46 45.5**	**-1.0**
TNTI	**Ternate**	**18.31**	**287**	P	**Pn**	**04 46 48.7**	**+1.4**
TNTI	**Ternate**	**18.31**	**287**	P	**P**	**04 46 45.0**	**-1.9**
TNTI	**Ternate**	**18.31**	**287**	P	**Pn**	**04 46 49.5**	**+2.2**
	comp=Z,116nm,1.0s						
WRAB	**Tennant Creek**	**18.34**	**213**	P	**Pn**	**04 46 47.5**	**-0.1**
WRAB	**Tennant Creek**	**18.34**	**213**	P	**P**	**04 46 45.7**	**-1.4**
WRAB	**Tennant Creek**	**18.34**	**213**	P	**P**	**04 46 47.1**	**0.0**
	comp=Z,112nm,1.0s						
WRA	**Warramunga Arr**	**18.36**	**213**	P	**P**	**04 46 46.6**	**-0.7**
	comp=Z,55nm,0.8s,baz=35,slow=12,SNR=104						
WRA				S	**S**	**04 50 13.4**	**-1.0**
	comp=Z,72nm,1.4s,baz=31,slow=19,SNR=16						
WRA				LR	LR	04 54 42.6	
	comp=Z,1μm,18.1s,baz=92,slow=40						
WRA	**Warramunga Arr**	**18.36**	**213**		**P**	**04 46 46.2**	**-1.1**
SANI	**Sanana**	**19.04**	**277**	P	**P**	**04 46 55.2**	**+0.4**
SANI	**Sanana**	**19.04**	**277**	P	**P**	**04 46 55.1**	**+0.2**
	comp=Z,139nm,1.1s						
KNRA	**Kununurra**	**19.27**	**234**	P	**P**	**04 46 58.0**	**+0.7**
	comp=Z,109nm,1.7s						
KNRA	**Kununurra**	**19.27**	**234**	P	**P**	**04 46 57.8**	**+0.5**
	comp=Z,109nm,1.7s						
KNRA	**Kununurra**	**19.27**	**234**		**P**	**04 46 55.9**	**-1.5**
KNRA				IAmb	IAmb	04 47 00.9	
	comp=Z,229nm,1.5s						
SOEI	**Soe**	**21.07**	**255**	P	**P**	**04 47 18.4**	**+1.3**
SOEI	**Soe**	**21.07**	**255**		**P**	**04 47 14.7**	**-2.4**
SOEI	**Soe**	**21.07**	**255**	P	**P**	**04 47 18.4**	**+1.3**
	comp=Z,751nm,1.0s						
EIDS	**Eidsvold**	**21.45**	**165**	P	**P**	**04 47 23.8**	**+2.9**
	comp=Z,36nm,1.1s						
EIDS	**Eidsvold**	**21.45**	**165**	P	**P**	**04 47 23.6**	**+2.7**
	comp=Z,36nm,1.1s						
EIDS	**Eidsvold**	**21.45**	**165**	P	**P**	**04 47 22.8**	**+1.9**
EIDS	**Eidsvold**	**21.45**	**165**	P	**P**	**04 47 19.7**	**-1.2**
EIDS	**Eidsvold**	**21.45**	**165**	P	**P**	**04 47 23.7**	**+2.9**
	comp=Z,36nm,1.1s						
AS17	**Alice Springs**	**21.64**	**208**	P	**P**	**04 47 22.9**	**-0.1**
	comp=Z,120nm,0.9s						
AS17	**Alice Springs**	**21.64**	**208**	P	**P**	**04 47 22.7**	**-0.3**
	comp=Z,120nm,0.9s						
AS15	**Alice Springs**	**21.65**	**208**	P	**P**	**04 47 23.3**	**+0.2**
	comp=Z,85nm,1.0s						
AS15	**Alice Springs**	**21.65**	**208**	P	**P**	**04 47 22.9**	**-0.2**
	comp=Z,85nm,1.0s						
AS01	**Alice Springs**	**21.66**	**208**	P	**P**	**04 47 23.9**	**+0.8**
AS01	**Alice Springs**	**21.66**	**208**	P	**P**	**04 47 23.3**	**+0.1**
AS31	**Alice Springs**	**21.68**	**208**	P	**P**	**04 47 24.4**	**+1.0**
	comp=Z,24nm,0.8s						
AS31	**Alice Springs**	**21.68**	**208**	P	**P**	**04 47 24.2**	**+0.8**
	comp=Z,24nm,0.8s						
AS31	**Alice Springs**	**21.68**	**208**	P	**P**	**04 47 22.3**	**-1.1**
ASAR	**Alice Springs**	**21.68**	**208**	P	**P**	**04 47 23.0**	**-0.4**
	comp=Z,19nm,0.7s,baz=36,slow=9.8,SNR=99						
ASAR				S	**S**	**04 51 19.4**	**-1.3**
	comp=Z,11nm,1.0s,baz=29,slow=21,SNR=5.8						
ASAR				LR	LR	04 56 06.6	
	comp=Z,704nm,19.2s,baz=29,slow=37 comp=Z,19nm,0.7s						
ASAR	**Alice Springs**	**21.68**	**208**	P	**P**	**04 47 22.5**	**-1.0**
AS09	**Alice Springs**	**21.69**	**208**	P	**P**	**04 47 23.6**	**+0.1**
	comp=Z,89nm,0.9s						
AS09	**Alice Springs**	**21.69**	**208**	P	**P**	**04 47 23.4**	**-0.1**
	comp=Z,89nm,0.9s						
BATI	**Baumata**	**21.75**	**254**	P	**P**	**04 47 24.4**	**+0.1**
	comp=Z,100nm,0.6s,baz=122,slow=3.5,SNR=20 comp=Z,100nm,0.6s						
QLP	**Quilpie**	**21.83**	**182**	P	**P**	**04 47 26.3**	**+1.4**
	comp=Z,82nm,1.0s						
QLP	**Quilpie**	**21.83**	**182**	P	**P**	**04 47 25.4**	**+0.5**
	comp=Z,82nm,1.0s						
QLP	**Quilpie**	**21.83**	**182**	P	**P**	**04 47 25.8**	**+0.9**
QLP	**Quilpie**	**21.83**	**182**	P	**P**	**04 47 25.6**	**+0.7**
	comp=Z,82nm,1.0s						
RMQ	**Roma**	**22.04**	**171**	P	**P**	**04 47 28.9**	**+1.7**
	comp=Z,27nm,1.3s						
LUWI	**Luwuk**	**22.37**	**279**	P	**P**	**04 47 32.5**	**+1.6**
LUWI	**Luwuk**	**22.37**	**279**	P	**P**	**04 47 30.3**	**-0.5**
LUWI	**Luwuk**	**22.37**	**279**	P	**P**	**04 47 31.3**	**+0.4**
	comp=Z,230nm,1.1s						
DAV	**Davao City (W)**	**22.51**	**301**	LR	LR	04 56 53.0	
	comp=Z,309nm,19.9s,baz=102,slow=38						
MMRI	**Maumere**	**22.84**	**259**	P	**P**	**04 47 36.7**	**+0.9**
MMRI	**Maumere**	**22.84**	**259**	P	**P**	**04 47 33.8**	**-2.0**
MMRI	**Maumere**	**22.84**	**259**	P	**P**	**04 47 36.6**	**+0.7**
	comp=Z,151nm,0.7s						
FITZ	**Fitzroy Crossi**	**23.09**	**233**	P	**P**	**04 47 37.2**	**-1.1**
FITZ	**Fitzroy Crossi**	**23.09**	**233**	LR	LR	04 57 03.2	
	comp=Z,2μm,20.7s,baz=55,slow=38						
FITZ	**Fitzroy Crossi**	**23.09**	**233**	P	**P**	**04 47 37.1**	**-1.2**
FITZ				IAmb	IAmb	04 47 40.6	
	comp=Z,107nm,1.4s						
FITZ	**Fitzroy Crossi**	**23.09**	**233**	P	**P**	**04 47 37.4**	**-0.9**
	comp=Z,64nm,1.0s						
INKA	**Innaminka**	**23.31**	**189**	P	**P**	**04 47 40.0**	**-0.4**
AUBSH	**Beerwah State**	**23.40**	**162**	P	**P**	**04 47 41.7**	**+0.5**
TW1H	**Toowoomba 1 Ha**	**23.76**	**164**	P	**P**	**04 47 47.6**	**+3.0**
SANVU	**Saraoutou**	**24.43**	**118**	P	**P**	**04 47 51.2**	**+0.4**
SANVU	**Saraoutou**	**24.43**	**118**	P	**P**	**04 47 50.0**	**-0.8**
SANVU				IAmb	IAmb	04 48 20.8	
	comp=Z,53nm,0.9s						
SANVU	**Saraoutou**	**24.43**	**118**	P	**P**	**04 47 50.5**	**-0.3**
	comp=Z,62nm,0.8s						
TOLI2	**Tolitoli**	**24.75**	**283**	P	**P**	**04 47 54.9**	**+1.1**
TOLI2	**Tolitoli**	**24.75**	**283**	P	**P**	**04 47 52.9**	**-0.9**
TOLI2				IAmb	IAmb	04 47 57.3	
	comp=Z,71nm,0.8s						
TOLI2	**Tolitoli**	**24.75**	**283**	P	**P**	**04 47 54.9**	**+1.1**
	comp=Z,86nm,0.8s						
AULRC	**Lightning Ridg**	**24.83**	**174**	P	**P**	**04 47 54.5**	**+0.2**
KAPI	**Kappang**	**25.05**	**268**	LR	LR	04 59 59.3	
	comp=Z,467nm,21.8s,baz=88,slow=42						
KAPI	**Kappang**	**25.05**	**268**	P	**P**	**04 47 57.0**	**+0.5**
KAPI	**Kappang**	**25.05**	**268**	P	**P**	**04 47 54.0**	**-2.4**
KAPI				IAmb	IAmb	04 48 04.3	
	comp=Z,64nm,0.9s						
KAPI	**Kappang**	**25.05**	**268**	P	**P**	**04 47 57.2**	**+0.7**
	comp=Z,76nm,1.1s						
WRKA	**Warakurna**	**25.80**	**217**	P	**P**	**04 48 03.2**	**0.0**
	comp=Z,17nm,1.1s						
WRKA	**Warakurna**	**25.80**	**217**	P	**P**	**04 48 03.0**	**-0.2**
	comp=Z,17nm,1.1s						
ARMA	**Armidale**	**26.42**	**167**	P	**P**	**04 48 10.1**	**+1.3**
	comp=Z,30nm,1.2s						
ARMA	**Armidale**	**26.42**	**167**	P	**P**	**04 48 09.9**	**+1.1**
	comp=Z,30nm,1.2s						
ARMA	**Armidale**	**26.42**	**167**	P	**P**	**04 48 09.7**	**+0.8**
ARMA	**Armidale**	**26.42**	**167**	P	**P**	**04 48 07.5**	**-1.4**
ARMA	**Armidale**	**26.42**	**167**	P	**P**	**04 48 10.1**	**+1.3**
	comp=Z,30nm,1.2s						
CMSA	**Cobar Meteorol**	**26.77**	**178**	P	**P**	**04 48 14.0**	**+2.1**
	comp=Z,39nm,1.0s						
CMSA	**Cobar Meteorol**	**26.77**	**178**	P	**P**	**04 48 13.7**	**+1.9**
	comp=Z,39nm,1.0s						
CMSA	**Cobar Meteorol**	**26.77**	**178**	P	**P**	**04 48 13.9**	**+2.1**
CMSA	**Cobar Meteorol**	**26.77**	**178**	P	**P**	**04 48 13.9**	**+2.1**
	comp=Z,39nm,1.0s						
AUPHS	**Peel High Scho**	**26.92**	**169**	P	**P**	**04 48 14.7**	**+1.4**
DZM	**Mont Dzumac**	**27.14**	**132**	P	**P**	**04 48 15.0**	**-0.4**
	comp=Z,29nm,0.8s,baz=18,slow=11,SNR=7.1						
DZM				LR	LR	04 58 29.9	
	comp=Z,1μm,21.4s,baz=318,slow=35 comp=Z,29nm,0.8s						
PLAI	**Plampang**	**27.23**	**260**	P	**P**	**04 48 14.5**	**-1.7**
PLAI	**Plampang**	**27.23**	**260**	P	**P**	**04 48 13.5**	**-2.8**
	comp=Z,36nm,0.6s						
STKA	**Stephens Creek**	**27.27**	**186**	P	**P**	**04 48 16.2**	**-0.2**
STKA	**Stephens Creek**	**27.27**	**186**	P	**P**	**04 48 16.1**	**-0.2**
	comp=Z,12nm,0.7s,baz=357,slow=10,SNR=19						
STKA				LR	LR	05 00 32.6	
	comp=Z,820nm,18.0s,baz=350,slow=40 comp=Z,12nm,0.7s						
STKA	**Stephens Creek**	**27.27**	**186**	P	**P**	**04 48 16.1**	**-0.2**
STKA				IAmb	IAmb	04 48 43.4	
	comp=Z,93nm,1.1s						
STKA	**Stephens Creek**	**27.27**	**186**	P	**P**	**04 48 16.2**	**-0.2**
	comp=Z,77nm,0.8s						
YATNC	**Mamie plateau,**	**27.46**	**131**	P	**P**	**04 48 18.3**	**+0.1**
AUDCS	**Dubbo College**	**27.67**	**173**	P	**P**	**04 48 22.2**	**+2.3**
HTT	**Hallett**	**29.18**	**190**	P	**P**	**04 48 34.4**	**+0.9**
	comp=Z,10nm,1.2s						
HTT	**Hallett**	**29.18**	**190**	P	**P**	**04 48 34.2**	**+0.8**
BBOO	**Buckleboo**	**29.22**	**195**	P	**P**	**04 48 33.0**	**-0.7**
	comp=Z,24nm,1.4s						
YNG	**Young**	**29.69**	**174**	P	**P**	**04 48 40.1**	**+2.2**
	comp=Z,40nm,0.9s						
FORT	**Forrest**	**30.45**	**209**	P	**P**	**04 48 45.9**	**+1.2**
	comp=Z,25nm,0.6s						
FORT	**Forrest**	**30.45**	**209**	P	**P**	**04 48 45.0**	**+0.4**
FORT				IAmb	IAmb	04 48 53.4	
	comp=Z,15nm,0.6s						
FORT	**Forrest**	**30.45**	**209**	P	**P**	**04 48 45.7**	**+1.1**
JAGI	**Jajag, Banyuwa**	**30.76**	**261**	P	**P**	**04 48 45.6**	**-2.0**
JAGI	**Jajag, Banyuwa**	**30.76**	**261**	P	**P**	**04 48 47.5**	**-0.1**
JAGI				IAmb	IAmb	04 48 58.5	
	comp=Z,71nm,1.5s						
JAGI	**Jajag, Banyuwa**	**30.76**	**261**	P	**P**	**04 48 45.0**	**-2.6**
	comp=Z,33nm,1.3s						
AUMTS	**Mt Stromlo**	**30.77**	**173**	P	**P**	**04 48 50.1**	**+2.7**
CAN	**Canberra**	**30.77**	**173**	P	**P**	**04 48 50.2**	**+2.8**
CAN	**Canberra**	**30.77**	**173**	P	**P**	**04 48 47.9**	**+0.5**
	comp=Z,39nm,1.3s						
CAN	**Canberra**	**30.77**	**173**	P	**P**	**04 48 50.1**	**+2.7**
CAN	**Canberra**	**30.77**	**173**		**P**	**04 48 47.0**	**-0.5**
CAN				IAmb	IAmb	04 49 06.1	
	comp=Z,88nm,1.5s						
CAN	**Canberra**	**30.77**	**173**	P	**P**	**04 48 44.2**	**-3.2**
	comp=Z,40nm,1.3s						
CAN				pP	**pP**	**04 49 01.3**	**+0.2**
CAN	**Canberra**	**30.77**	**173**	P	**P**	**04 48 50.1**	**+2.7**
CAN				pP	**pP**	**04 49 02.9**	**+1.8**
CNB	**Canberra Magne**	**30.81**	**173**	P	**P**	**04 48 46.9**	**-1.0**
CNB	**Canberra Magne**	**30.81**	**173**	P	**P**	**04 48 46.8**	**-1.0**
JCJ	**Chichijima**	**31.65**	**355**	LR	LR	05 00 38.2	
	comp=Z,150nm,19.7s,baz=169,slow=34						
ARPS	**Mount Arapiles**	**32.10**	**185**	P	**P**	**04 49 00.0**	**+1.0**
	comp=Z,9.4nm,1.9s						
ARPS	**Mount Arapiles**	**32.10**	**185**	P	**P**	**04 48 59.5**	**+0.4**
	comp=Z,9.4nm,1.9s						
BRAT	**Ballarat**	**32.77**	**181**	P	**P**	**04 49 06.7**	**+1.8**
AUMTC	**Mt Clear Colle**	**32.83**	**181**	P	**P**	**04 49 07.9**	**+2.5**
MEEK	**Meekatharra**	**33.30**	**226**	P	**P**	**04 49 10.2**	**+0.4**
	comp=Z,87nm,1.4s						
MEEK	**Meekatharra**	**33.30**	**226**	P	**P**	**04 49 10.0**	**+0.2**
	comp=Z,87nm,1.4s						
MEEK	**Meekatharra**	**33.30**	**226**	P	**P**	**04 49 09.6**	**-0.1**
MEEK	**Meekatharra**	**33.30**	**226**	P	**P**	**04 49 10.3**	**+0.5**
	comp=Z,87nm,1.4s						
KMBL	**Kambalda**	**34.27**	**216**	P	**P**	**04 49 18.4**	**+0.3**
	comp=Z,16nm,2.6s						
KMBL	**Kambalda**	**34.27**	**216**	P	**P**	**04 49 18.2**	**+0.1**
	comp=Z,16nm,1.6s						
GIRL	**Giralia**	**34.62**	**236**	P	**P**	**04 49 21.4**	**+0.2**
	comp=Z,50nm,1.0s						
MSVF	**Nonsavu**	**34.96**	**115**	LR	LR	05 02 24.7	
	comp=Z,466nm,20.6s,baz=336,slow=34						
NACB	**Ninganchiao**	**36.53**	**323**	P	**P**	**04 49

KSAR Wonju Array Be 44.76 341 P 04 50 44.5 -0.7
TUWZ Tuamarina 44.92 149 P P 04 50 45.8 -0.6
TUWZ Tuamarina 44.92 149 P P 04 50 47.8 +1.4
TCW Tory Channel 44.93 148 P 04 50 46.2 -0.4
TCW Tory Channel 44.93 148 P P 04 50 47.2 +0.6
KIW Kapiti Island 45.02 148 P P 04 50 47.9 +0.6
TSZ Takapari Road 45.03 146 P P 04 50 47.8 +0.4
PUZ Puketiti 45.06 142 P P 04 50 48.5 +0.8
BSWZ Blackbirch Sta 45.09 149 P P 04 50 47.7 -0.1
BSWZ Blackbirch Sta 45.09 149 P P 04 50 48.3 +0.4
LTZ Lake Taylor 45.09 151 P 04 50 47.9 0.0
LTZ IAmb IAmb 04 50 50.6
comp=Z,64nm,1.2s
OGWZ Otaki Gorge 45.12 147 P P 04 50 48.9 +0.7
SNZO South Karori 45.23 148 P P 04 50 49.0 +0.1
SNZO South Karori 45.23 148 P P 04 50 48.3 -0.6
SNZO South Karori 45.23 148 P P 04 50 48.9 -0.1
SNZO pP pP 04 51 02.7 -0.4
MRZ Mangatainoka R 45.24 147 P 04 50 48.6 -0.4
MRZ Mangatainoka R 45.24 147 P P 04 50 49.2 +0.2
RPZ Rata Peaks 45.25 153 LR LR 05 09 36.2
comp=Z,101nm,18.1s,baz=356,slow=36
CAW Cannon Point 45.27 148 P P 04 50 49.6 +0.3
MLZ Mavora Lakes 45.36 157 P 04 50 49.1 -0.8
HOWZ Holdsworth Sta 45.37 147 P P 04 50 50.1 0.0
BHW Baring Head 45.38 148 P P 04 50 49.0 -1.2
BHW Baring Head 45.38 148 P P 04 50 49.7 -0.5
OXZ Oxford 45.40 152 P P 04 50 49.9 -0.4
OXZ IAmb IAmb 04 50 52.1
comp=Z,58nm,1.2s
LBZ Lake Benmore 45.40 155 P 04 50 49.6 -0.7
LBZ Lake Benmore 45.40 155 P P 04 50 50.5 +0.2
TIWZ Tintock 45.48 147 P P 04 50 51.8 +0.7
MTW Mount Morrison 45.54 147 P P 04 50 51.5 +0.1
WHN Wuhan 45.57 322 P P 04 50 49.0 -2.7
MSWZ Moikau Station 45.59 148 P P 04 50 50.6 -1.2
GVZ Greta Valley S 45.60 151 P P 04 50 51.5 -0.4
BFZ Birch Farm 45.62 146 P P 04 50 52.4 +0.3
PAWZ Paruwai Farm 45.66 148 P P 04 50 51.7 -0.7
PLWZ Palliser 45.70 148 P P 04 50 52.2 -0.5
TMWZ Te Maipa 45.72 147 P P 04 50 52.6 -0.3
TRWZ Traveller 45.81 148 P P 04 50 53.6 0.0
RPSI Rantau Prapat 46.50 278 P 04 50 58.0 -1.4
RPSI IAmb IAmb 04 51 14.9
comp=Z,25nm,0.8s
RPSI Rantau Prapat 46.50 278 P P 04 50 58.7 -0.7
comp=Z,38nm,1.0s
PSI Prapat 46.51 278 LR LR 05 14 16.3
comp=Z,179nm,19.4s,baz=108,slow=41
PSI Prapat 46.51 278 P P 04 50 59.4 -0.3
GSI Gunungsitoli 47.63 276 P P 04 51 10.5 +2.2
GSI Gunungsitoli 47.63 276 P P 04 51 08.6 +0.3
comp=Z,40nm,0.6s
SLVN Son La 47.74 304 P P 04 51 10.4 +1.3
comp=Z,12nm,1.4s
DL2 Dalian 48.37 336 eP P 04 51 20.5 +7.0
DL2 pmax pmax
comp=Z,29nm,1.1s
ASAJ Asahikawa 48.58 358 LR LR 05 09 14.5
comp=Z,110nm,21.8s,baz=262,slow=33
LYN LuoYang 49.52 324 P P 04 51 24.5 +2.1
LYN sP pP 04 51 36.5 -0.2
LYN PP PP 04 53 18.3 +1.1
USRK Ussuriysk Ar. 49.98 348 P P 04 51 25.7 0.0
comp=Z,5.9nm,0.7s,baz=158,slow=8.5,SNR=9.6
USRK LR LR 05 08 22.9
comp=Z,175nm,19.9s,baz=167,slow=31
comp=Z,5.9nm,0.7s
USRK Ussuriysk Ar. 49.98 348 P P 04 51 24.9 -0.8
HNS HongShan 50.38 329 ⇑P P 04 51 29.5 +0.6
HNS S S 04 58 38.8 +0.5
HNS SS SS 05 02 14.5 +1.6
HNS pmax pmax
comp=Z,11nm,0.6s
HNS L L
comp=Z,220nm,17.3s
HNS L L
comp=Z,200nm,17.0s
HNS L L
comp=Z,230nm,22.9s
CMAR Chiang Mai Arr 50.75 298 P P 04 51 32.1 +0.1
comp=Z,2.5nm,0.5s,baz=122,slow=6.4,SNR=12
CMAR LR LR 05 13 44.9
comp=Z,50nm,21.4s,baz=110,slow=37
comp=Z,2.5nm,0.5s
CMAR Chiang Mai Arr 50.75 298 P 04 51 30.1 -2.0
CHTO Chiang Mai 50.89 299 P P 04 51 35.9 +2.9
CHTO Chiang Mai 50.89 299 P P 04 51 33.5 +0.4
comp=Z,26nm,1.0s
CN2 Changchun 51.30 342 eP P 04 51 37.8 +2.1
CN2 pmax pmax
comp=Z,10.0nm,0.5s
XAN Xi'an 51.30 321 P P 04 51 36.5 +0.5
XAN pmax pmax
comp=Z,9.0nm,1.2s
XAN L L
comp=Z,200nm,13.1s
XAN L L
comp=Z,140nm,10.3s
XAN L L
comp=Z,340nm,18.5s
BJI2 Beijing 51.69 332 P P 04 51 39.3 +0.6
BJI2 pmax pmax
comp=Z,7.0nm,0.9s
BJI2 L L
comp=Z,170nm,19.2s
BJI2 L L
comp=Z,120nm,17.9s
BJI2 L L
comp=Z,270nm,22.0s
BNX BinXian 52.52 345 ⇑P P 04 51 44.8 +0.1
BNX pmax pmax
comp=Z,11nm,1.2s
CD2 Chengdu 52.82 315 P P 04 51 47.8 +0.5
CD2 S S 04 59 12.8 +0.5
CD2 pmax pmax
comp=Z,20nm,0.7s
CD2 pmax pmax
comp=Z,170nm,4.7s
CD2 L L
comp=Z,280nm,15.9s
CD2 L L
comp=Z,280nm,15.6s
CD2 L L
comp=Z,330nm,14.6s
HHC Hu-ho-hao-te 54.58 329 eP P 04 52 04.8 +4.7
HHC S S 04 59 40.3 +4.4
HHC pmax pmax
comp=Z,12nm,0.7s
HHC pmax pmax
comp=Z,82nm,6.7s
KLR Kul'dur 54.85 350 LR LR 05 14 21.6
comp=Z,72nm,21.1s,baz=213,slow=35
BTO2 Baotou 55.38 328 eP P 04 52 05.5 -0.4
BTO2 sP pP 04 52 21.0 +0.6
BTO2 PP PP 04 52 12.8 +2.6
BTO2 S S 04 59 50.8 +4.1
BTO2 pmax pmax
comp=Z,11nm,0.5s
BTO2 pmax pmax
comp=Z,110nm,5.0s
BTO2 L L
comp=Z,340nm,12.5s
BTO2 L L
comp=Z,260nm,12.2s
BTO2 L L
comp=Z,430nm,14.9s
LZH Lanzhou 55.81 320 eP P 04 52 14.8 +5.7
LZH pP pP 04 52 25.0 +1.3
LZH pmax pmax
comp=Z,17nm,1.5s
LZH L L
comp=Z,200nm,12.4s
LZH L L
comp=Z,200nm,16.5s
LZH L L
comp=Z,210nm,15.5s
RAR Rarotonga 56.10 112 LR LR 05 13 31.6
comp=Z,52nm,21.9s,baz=285,slow=33
HILR Hailar Array B 58.22 341 P P 04 52 25.0 -0.7
comp=Z,1.1nm,0.5s,baz=118,slow=8.3,SNR=1.8
HILR pP pP 04 52 39.8 -0.5
comp=Z,3.5nm,0.6s,baz=140,slow=9.5,SNR=2.7
comp=Z,1.1nm,0.5s
PETK Petropavlovsk- 58.54 9 P P 04 52 28.6 +0.8
comp=Z,4.9nm,0.5s,baz=174,slow=6.0,SNR=17
PETK pP pP 04 52 43.6 +1.1
comp=Z,7.6nm,0.9s,baz=163,slow=5.3,SNR=2.6
PETK LR LR 05 13 31.4
comp=Z,171nm,21.6s,baz=193,slow=32
comp=Z,4.9nm,0.5s
PETK Petropavlovsk- 58.54 9 P P 04 52 27.1 -0.8
BRDH Bariadhala 58.66 300 LR LR 05 20 33.1
comp=Z,54nm,19.0s,baz=130,slow=39
GTA2 Gaotai 60.44 321 eP P 04 52 42.5 +1.2
GTA2 pmax pmax
comp=Z,3.0nm,1.3s
GTA2 L L
comp=Z,190nm,15.2s
GTA2 L L
comp=Z,140nm,14.3s
GTA2 L L
comp=Z,100nm,13.6s
ULN Ulaanbaatar 61.92 332 P P 04 52 52.5 +1.3
comp=Z,6.1nm,1.2s
GOMU GeErMu 61.95 315 P P 04 52 53.0 +1.1
GOMU pmax pmax
comp=Z,3.0nm,0.7s
DRV Dumont d'Urvil 62.01 182 P P 04 52 52.0 +0.7
DRV pP pP 04 53 05.6 -0.4
DRV PcP PcP 04 53 32.0 +0.7
SONM Songino Array 62.21 332 P P 04 52 53.8 +0.6
comp=Z,1.1nm,0.7s,baz=160,slow=9.3,SNR=5.8
comp=Z,1.1nm,0.7s
SONM Songino Array 62.21 332 P P 04 52 52.5 -0.6
SHEM Shemya Is, Ala 62.27 20 LR LR 05 15 03.8
comp=Z,277nm,21.1s,baz=272,slow=31
MA2 Magadan 64.18 3 LR LR 05 17 59.2
comp=Z,79nm,21.7s,baz=189,slow=33
EVN Everest 64.60 304 P P 04 53 08.2 -1.8
EVN IAmb IAmb 04 53 34.0
comp=Z,25nm,1.2s
PALK Palkekele 65.13 280 LR LR 05 25 44.7
comp=Z,118nm,20.2s,baz=105,slow=40
PPT Papeete 65.30 107 LR LR 05 17 01.1
comp=Z,112nm,21.9s,baz=308,slow=32
PPT2 Papeete2 65.30 107 eLR LR 05 12 46.6
comp=Z,231nm,31.8s
PPT2 eLR LR 05 12 53.0
comp=Z,226nm,23.5s
TBI Tubuai 65.84 113 eLR LR 05 13 07.2
comp=Z,3µm,37.5s
TLY Taiya 66.18 333 LR LR 05 21 15.1
comp=Z,125nm,20.4s,baz=126,slow=35
YAK Yakutsk 67.50 352 LR LR 05 22 46.5
comp=Z,54nm,19.6s,baz=164,slow=36
WMQ Urumqi 70.39 320 eP P 04 53 45.8 +0.2
WMQ pmax pmax
comp=Z,11nm,0.7s
CCD Concordia, Ant 71.50 186 P P 04 53 53.2 +1.1
VNDA Vanda 73.39 176 P P 04 54 03.1 +0.3
comp=Z,14nm,0.8s,baz=328,slow=6.4,SNR=45
VNDA LR LR 05 24 10.1
comp=Z,187nm,20.0s,baz=346,slow=34
comp=Z,14nm,0.8s
VNDA Vanda 73.39 176 P 04 54 02.9 0.0
VNDA IAmb IAmb 04 54 04.2
comp=Z,26nm,1.1s
VNDA Vanda 73.39 176 P P 04 54 03.4 +0.5
comp=Z,25nm,1.3s
VNDA Vanda 73.39 176 P P 04 54 03.1 +0.3
VNDA pP pP 04 54 16.7 -1.2
SBA Scott Base 74.07 175 P 04 54 07.5 +0.7
SBA IAmb IAmb 04 54 23.1
comp=Z,49nm,1.6s
SBA Scott Base 74.07 175 P P 04 54 08.4 +1.6
comp=Z,18nm,1.4s
SBA pP PcP 04 54 21.4 -0.3
SBA Scott Base 74.07 175 P P 04 54 08.2 +1.4
SBA pP pP 04 54 21.9 -0.1
TAOE Nuku Hiva Isla 74.47 98 eLR LR 05 16 52.3
comp=Z,278nm,22.6s
MKAR Makanchi Array 75.12 321 P P 04 54 13.5 0.0
comp=Z,1.7nm,0.5s,baz=110,slow=6.8,SNR=13
comp=Z,1.7nm,0.5s
MKAR Makanchi Array 75.12 321 P 04 54 11.8 -1.7
MAKZ Makanchi 75.32 321 P P 04 54 15.2 +0.6
MAKZ PcP PcP 04 54 27.8 +0.1
ZAA0 Zalesovo Array 76.75 328 P 04 54 20.9 -1.7
ZALV Zalesovo Beam 76.75 328 P P 04 54 21.8 -0.7
comp=Z,2.3nm,0.7s,baz=107,slow=6.3,SNR=8.7
ZALV LR LR 05 28 20.7
comp=Z,100nm,20.4s,baz=122,slow=36
comp=Z,2.3nm,0.7s
ZALV Zalesovo Beam 76.75 328 P 04 54 21.7 -0.9
TIXI Tiksi 76.86 355 P 04 54 22.2 -0.6
TIXI Tiksi 76.86 355 P P 04 54 23.5 +0.7
comp=Z,6.4nm,1.4s
KSH2 Kashi 77.10 312 P P 04 54 27.8 +2.7
KSH2 pmax pmax
comp=Z,5.0nm,1.2s
KURK Kurchatov 78.87 324 P P 04 54 33.1 -1.3
KURBB Kurchatov Arra 78.89 324 P P 04 54 34.8 +0.3
comp=Z,0.6nm,0.6s,baz=113,slow=4.8,SNR=7.5
KURBB pP pP 04 54 49.3 -0.4
comp=Z,2.4nm,0.9s,baz=113,slow=4.9,SNR=6.8
K17K Iditarod 79.62 23 IAmb IAmb 04 54 58.4
comp=Z,29nm,1.1s
H17K Granite Mounta 80.23 21 IAmb IAmb 04 54 59.0
comp=Z,41nm,1.5s
N19K Bonanza Creek 80.23 26 IAmb IAmb 04 54 43.2
comp=Z,33nm,1.2s
L19K White Mountain 80.73 24 IAmb IAmb 04 55 01.8
comp=Z,69nm,1.9s
H19K Roundabout Mou 81.78 21 IAmb IAmb 04 54 51.8
comp=Z,25nm,1.1s
G19K Purcell Mounta 81.88 20 IAmb IAmb 04 54 52.3
comp=Z,22nm,1.1s
J20K Nowinta River 81.97 23 IAmb IAmb 04 55 08.2
comp=Z,20nm,1.0s
E19K Redstone River 82.52 19 IAmb IAmb 04 54 57.4
comp=Z,18nm,1.0s
MAW Mawson 82.69 202 P P 04 54 54.7 +0.2
comp=Z,5.8nm,0.9s,baz=102,slow=8.1,SNR=4.0
MAW LR LR 05 27 31.0
comp=Z,62nm,21.9s,baz=80,slow=33
comp=Z,5.8nm,0.9s
MAW Mawson 82.69 202 P P 04 54 53.2 -1.3
NRIK Noril'sk 83.35 342 P P 04 54 57.9 +0.1
comp=Z,9.9nm,0.8s,baz=117,slow=3.7,SNR=11
NRIK LR LR 05 31 08.9
comp=Z,181nm,21.4s,baz=132,slow=35
comp=Z,9.9nm,0.8s
NRIK Noril'sk 83.35 342 IAmb IAmb 04 55 17.2
comp=Z,26nm,1.1s
MLY Manley 83.67 23 IAmb IAmb 04 55 01.1
comp=Z,24nm,1.1s
RND Reindeer 83.75 24 IAmb IAmb 04 55 18.0
comp=Z,24nm,1.0s
MCK McKinley 83.85 24 P 04 54 60.0 -0.6
MCK IAmb IAmb 04 55 01.5
comp=Z,26nm,1.0s
NEA2 Nenana 84.14 23 IAmb IAmb 04 55 19.4
comp=Z,24nm,1.3s
BVAR Borovoye Array 84.44 324 P P 04 55 03.0 -0.7
comp=Z,3.3nm,0.6s,baz=110,slow=6.6,SNR=15
comp=Z,3.3nm,0.6s
WRH Wood River Hil 84.48 24 IAmb IAmb 04 55 03.9
comp=Z,23nm,1.2s
BORK Borovoye 84.48 324 P 04 55 03.3 -0.6
CCB Clear Creek Bu 84.66 24 P 04 55 04.0 -0.6
CCB IAmb IAmb 04 55 20.4
comp=Z,23nm,1.2s
D22K Ayikyak River 84.70 19 IAmb IAmb 04 55 27.5
comp=Z,26nm,1.1s
COLA College 84.73 23 P P 04 55 03.9 -1.0
COLA College 84.73 23 P P 04 55 04.3 -0.6
comp=Z,15nm,1.0s
COLA College 84.73 23 P P 04 55 03.9 -1.0
COLA pP pP 04 55 17.9 -2.4
ILAR Eielson Array 85.07 24 P P 04 55 05.2 -1.5
comp=Z,9.1nm,0.8s,baz=255,slow=4.8,SNR=51
ILAR pP pP 04 55 20.1 -2.0
comp=Z,7.1nm,0.8s,baz=254,slow=4.9,SNR=8.5
comp=Z,9.1nm,0.8s
ILAR Eielson Array 85.07 24 P 04 55 05.5 -1.2
QSPA South Pole Qui 85.32 180 P P 04 55 07.6 -0.5
comp=Z,49nm,0.8s,baz=172,slow=1.2,SNR=123
QSPA LR LR 05 33 19.3
comp=Z,203nm,19.2s,baz=9.0,slow=36
QSPA South Pole Qui 85.32 180 P P 04 55 07.2 -0.9
QSPA South Pole Qui 85.32 180 P P 04 55 07.8 -0.4
comp=Z,90nm,0.9s
QSPA South Pole Qui 85.32 180 P P 04 55 07.6 -0.5
E23K Chandalar 85.36 20 IAmb IAmb 04 55 32.6
comp=Z,27nm,1.2s
D23K Nanushuk River 85.39 19 IAmb IAmb 04 55 29.1
comp=Z,19nm,1.0s
DOT Dot Lake 85.84 25 IAmb IAmb 04 55 11.7
comp=Z,25nm,1.1s
D24K Happy Valley 86.07 19 IAmb IAmb 04 55 31.3
comp=Z,11nm,0.8s
K27K Chicken 86.80 25 IAmb IAmb 04 55 33.2
comp=Z,24nm,1.2s
D25K Kavik River 86.94 19 IAmb IAmb 04 55 17.9
comp=Z,18nm,1.0s
G26K Porcupine Rive 87.03 22 IAmb IAmb 04 55 38.5
comp=Z,15nm,1.1s
F26K Sheenjek River 87.14 21 IAmb IAmb 04 55 36.2
comp=Z,16nm,1.1s
H27K Steamboat Moun 87.67 23 IAmb IAmb 04 55 21.4
comp=Z,20nm,1.3s
C27K Jago River 87.93 19 IAmb IAmb 04 55 22.7
comp=Z,15nm,1.1s
DAWY Dawson 87.94 25 IAmb IAmb 04 55 23.0
comp=Z,16nm,1.1s
E27K Coleen River 88.21 21 IAmb IAmb 04 55 24.6
comp=Z,20nm,1.2s
K29M Barlow Dome 88.69 26 IAmb IAmb 04 55 26.6
comp=Z,19nm,1.1s
G29M Pine Creek 89.20 23 IAmb IAmb 04 55 28.8
comp=Z,20nm,1.3s
J30M Hart River 89.36 25 IAmb IAmb 04 55 29.2
comp=Z,9.9nm,1.1s
EPYK Eagle Plains 89.58 23 IAmb IAmb 04 55 30.3
comp=Z,20nm,1.2s
AB31 Akbulak array 90.18 319 P 04 55 30.4 -1.1
ABKAR Akbulak array 90.18 319 P 04 55 29.8 -1.8
INK Inuvik 91.17 22 IAmb IAmb 04 55 57.7
comp=Z,14nm,1.3s
INK Inuvik 91.17 22 P P 04 55 35.5 -0.2
comp=Z,7.9nm,1.1s
YBH Yreka Blue Hor 94.85 49 LR LR 05 31 42.1
comp=Z,336nm,19.6s,baz=307,slow=31
ELIB Princess Elisa 94.95 195 dP P 04 55 53.2 -0.2
comp=Z,10nm,1.0s
BELA Belgrano 2 97.60 180 P 04 56 04.1 -1.0
BELA IAmb IAmb 04 56 05.0
comp=Z,7.0nm,0.8s
NVAR Mina Array Bea 98.20 52 P P 04 56 07.5 -1.4
comp=Z,0.3nm,0.4s,baz=278,slow=7.1,SNR=2.3
NVAR LR LR 05 32 53.8
comp=Z,315nm,21.5s,baz=280,slow=31
comp=Z,0.3nm,0.4s
NVAR Mina Array Bea 98.20 52 P P 04 56 08.0 -0.9
BMO Blue Mountains 98.79 45 P P 04 56 10.6 -0.7
BMO IAmb IAmb 04 56 13.4
comp=Z,14nm,1.8s
YKA Yellowknife Ar 98.95 28 P P 04 56 10.4 -0.9
comp=Z,1.9nm,1.1s,baz=279,slow=5.0,SNR=6.5
YKA pP pP 04 56 26.4 -0.5
comp=Z,0.8nm,0.8s,baz=281,slow=5.0,SNR=3.5
YKA LR LR 05 35 13.1
comp=Z,140nm,20.4s,baz=74,slow=32
comp=Z,1.9nm,1.1s
YKA Yellowknife Ar 98.95 28 P P 04 56 09.2 -2.2
TROLL Troll, Antarti 99.73 191 ⇓Pdiff Pdif 04 56 14.0 -0.9
comp=Z,142nm,1.0s
PFO Pinyon Flats O 99.75 57 LR LR 05 34 52.0
comp=Z,218nm,18.9s,baz=253,slow=31
BRG Berggiesshubel 118.42 327 ePKP PKiKP 05 01 28.0 +9.4
BRG Amp 05 01 28.6
comp=Z,2.4nm,0.9s
CLL Collm 118.70 328 ePKPdf PKPdf 05 01 17.0 -2.1
CLL ex x 05 01 24.0
CLL LH 05 37 00.0
CLL AMS AMS 05 52 00.0
CLL AMS AMS 06 02 00.0
comp=Z,200nm,15.1s
EKA Eskdalemuir Ar 123.31 339 PKP PKPdf 05 01 25.2 -2.7
comp=Z,0.4nm,0.5s,baz=16,slow=2.2,SNR=5.1
EKA pPKP pPKPdf 05 01 42.2 -1.7
comp=Z,1.2nm,0.5s,baz=23,slow=2.8,SNR=4.7
PLCA Paso Flores 124.40 148 PKP PKiKP 05 01 31.4 +0.6
comp=Z,2.5nm,0.8s,baz=210,slow=3.0,SNR=3.6
LPAZ La Paz 141.29 123 PKP PKPdf 05 02 02.9 -0.6
comp=Z,0.7nm,0.5s,baz=22,slow=4.6,SNR=4.7
CPUP Villa Florida 142.44 146 PKP PKPdf 05 02 02.9 -1.7
comp=Z,2.4nm,0.9s,baz=224,slow=7.4,SNR=4.1
CPUP Villa Florida 142.44 146 PKPdf 05 02 04.4 -0.2
TORD Torodi Ar. Bea 142.71 286 PKP PKPdf 05 02 03.5 -1.8
comp=Z,0.8nm,0.5s,baz=60,slow=3.4,SNR=7.6
PTLB Pontes e Lacer 148.95 130 PKPdf PKPdf 05 02 14.2 -1.7
VILB Vilhena 149.56 125 PKPdf PKPdf 05 02 15.3 -1.7
DBIC Dimbokro 149.82 275 PKPbc PKPbc 05 02 21.3 -0.9
comp=Z,5.7nm,0.9s,baz=82,slow=5.4,SNR=4.6
BDFB Brasilia 156.15 148 PKPbc PKPbc 05 02 37.6
comp=Z,4.6nm,0.9s,baz=7.4,slow=5.5,SNR=4.2

SDD **26** *05:02:06.2±1.6, 17°.98N×71°.29W, h18km±5km, MD2.5, ML2.1, MW2.6, Presumed earthquake*
OSPL **26** *05:02:10.0±1.8, 18°.18N×71°.40W, h2km±14km, ML1.8, Presumed earthquake*
ISC 26 05:02:07.1±1.7, 18°.05N±0°.07×71°.45W±0°.05, h3km±14km, n10, σ0°.78/17, 6C-2D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.20**	**55**	⇑*i* P	**Pg**	**05 02 11.2**	**+0.3**
PODR				⇑*i* S	**Sg**	**05 02 14.4**	**+0.8**
PODR				IAML		05 02 16.3	
	comp=N,533nm,0.3s						
PODR	**Polo**	**0.20**	**55**	*i* P	**Pg**	**05 02 11.3**	**+0.3**
PODR				*e*S	**Sg**	**05 02 14.0**	**+0.4**
PODR				IAML		05 02 16.0	
	comp=Z,5µm,0.2s						
LOBH	**Bahia de las A**	**0.26**	**223**	*i* P	**Pn**	**05 02 17.4**	**-0.5**
LOBH				IAML		05 02 29.0	
	comp=Z,43nm,2.4s						
LOVI	**El Cajuil, Ovi**	**0.27**	**163**	*i* P	**Pn**	**05 02 17.1**	**-0.9**
LOVI				IAML		05 02 25.5	
	comp=Z,41nm,0.7s						
LODU1	**El Espartillar**	**0.30**	**356**	*i* P	**Pg**	**05 02 12.1**	**-0.8**
LODU1				*e*S	**Sg**	**05 02 15.5**	**-1.3**
LODU1				IAML		05 02 19.5	
	comp=Z,258nm,0.5s						
NEDR	**Neiba UASD**	**0.43**	**4**	⇑*i* P	**Pg**	**05 02 15.4**	**+0.1**
NEDR				⇑*i* S	**Sg**	**05 02 22.0**	**+1.0**
NEDR				IAML		05 02 22.4	
	comp=N,78nm,0.3s						
LONE3	**El Aguacate, B**	**0.55**	**359**	*i* P	**Pg**	**05 02 17.3**	**-0.3**
LONE3				*e*S	**Sg**	**05 02 24.6**	**-0.2**
LONE3				IAML		05 02 27.6	
	comp=Z,78nm,0.5s						
JIDR	**Jimani**	**0.58**	**319**	⇓*i* P	**Pg**	**05 02 19.2**	**+1.0**
JIDR				⇑*i* S	**Sb**	**05 02 29.6**	**+1.0**
JIDR				IAML		05 02 43.4	
	comp=N,63nm,2.4s						
SDDR	**Presa de Saban**	**0.94**	**9**	*i* P	**Pg**	**05 02 24.9**	**-0.2**
SDDR				IAML		05 02 39.6	
	comp=Z,18nm,1.9s						
REDR	**Restauracion**	**1.11**	**3**	⇑*i* P	**Pg**	**05 02 27.8**	**-0.6**
REDR				⇓*i* S	**Sn**	**05 02 45.7**	**+0.3**

IDC **26** *05:03:49.5±1.2, 57°.76S×25°.98W, h0km, mb3.7/3, mbtmp3.7/3, Error ellipse: s-maj=51.9km s-min=34.9km az=90.0*
ISC 26 05:03:57.7±1.0, 58°.0S±0°.2×26°.0W±0°.3, h64km, n8, σ1°53/8, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	**14.78**	**157**	P	**Pn**	**05 07 21.4**	**-1.4**
	comp=Z,0.7nm,0.2s						
VNA3	**Neumayer Olymp**	**14.97**	**159**	P	**Pn**	**05 07 23.6**	**-1.7**
	comp=Z,0.6nm,0.2s						
TROLL	**Troll, Antarti**	**18.25**	**152**	P	**Pn**	**05 08 08.2**	**+2.1**
	comp=Z,8.0nm,0.1s						
VNDA	**Vanda**	**44.70**	**182**	P	**P**	**05 12 05.1**	**+1.5**
	comp=Z,0.7nm,0.7s,baz=187,slow=5.7,SNR=3.8						
	comp=Z,0.7nm,0.7s						
LPAZ	**La Paz**	**52.02**	**305**	P	**P**	**05 13 00.8**	**-0.5**
	comp=Z,0.6nm,0.5s,baz=117,slow=4.5,SNR=4.8						
	comp=Z,0.6nm,0.5s						
TORD	**Torodi Ar. Bea**	**74.40**	**28**	P	**P**	**05 15 28.3**	**-0.2**
	comp=Z,0.6nm,0.6s,baz=198,slow=6.6,SNR=7.1						

comp=Z,0.6nm,0.6s
YKA Yellowknife Ar 138.02 316 PKP **PKPdf 05 23 13.6 +0.2**
comp=Z,0.2nm,0.3s,baz=137,slow=2.1,SNR=11
ILAR Eielson Array 151.86 309 PKPbc **PKPbc 05 23 43.6 +0.1**
comp=Z,2.3nm,0.8s,baz=106,slow=1.5,SNR=27

IDC 26 05:32:16.8±1.6, 4°.61S×145°.25E, h0km, mb3.8/4, mbtmp3.8/5, ML3.6/1, MS3.3/1, Error ellipse: s-maj=74.0km s-min=29.3km az=126.0, Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.59**	**214**	P	P	05 36 35.6	-0.1
	0.2nm,0.3s,baz=39,slow=12,SNR=10						
	0.7nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.89**	**209**	P	P	05 37 12.5	+0.9
	0.7nm,0.7s,baz=33,slow=12,SNR=20						
	0.7nm,0.7s						
FITZ	**Fitzroy Crossi**	**23.40**	**233**	P	P	05 37 27.3	-0.2
	2.5nm,0.6s,baz=47,slow=9.5,SNR=11						
	2.5nm,0.6s						
AFI	**Afiamalu**	**43.34**	**105**	LR	LR	05 57 55.5	
	comp=Z,34nm,19.3s,baz=41,slow=36						
ILAR	**Eielson Array**	**84.90**	**23**	P	P	05 44 53.8	+0.4
	0.4nm,0.8s,baz=239,slow=7.0,SNR=3.4						
	0.4nm,0.8s						
QSPA	**South Pole Qui**	**85.35**	**180**	P	P	05 44 55.3	-0.5
	1.3nm,0.5s,baz=6.3,slow=7.0,SNR=18						
	1.3nm,0.5s						

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*RSNC **26** 05:37:13.3±5.6, 12°.S±46°.×7°.7W±1°.8, h0km, M4.5, mB5.2, mb4.5, Mw(mB)4.6*
*IDC **26** 05:37:22.2±0.8, 11°.12S×78°.00W, h58km±7km, mb3.5/6, mbtmp3.8/9, Error ellipse: s-maj=22.0km s-min=5.8km az=52.0*
*NEIC **26** 05:37:22.1±0.6, 11°.03S±0°.06×77°.72W±0°.05, h66km±8km, mb4.3/14, Error ellipse: s-maj=9.3km s-min=6.7km az=182.0*
ISC 26 05:37:22.1±0.5, 11°.02S±0°.05×77°.68W±0°.08, h66km, n51, σ1§36/55, mb3.9/8, Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**1.27**	**140**	P	**Pn**	**05 37 45.9**	**+1.9**
	237nm,0.3s,baz=344,slow=9.6,SNR=179						
NNA				S	**Sn**	**05 38 03.8**	**+3.5**
	2µm,0.3s,baz=261,slow=9.7,SNR=28						
NNA	**Nana**	**1.27**	**140**		**Pn**	**05 37 44.4**	**+0.5**
NNA				Sn	**Sn**	**05 38 00.3**	**0.0**
ATAH	**Atahualpa**	**3.92**	**350**	P	**Pn**	**05 38 22.1**	**+1.8**
	124nm,0.3s,baz=120,slow=2.7,SNR=292						
ATAH				S	**Sn**	**05 39 09.5**	**+4.2**
	156nm,0.6s,baz=43,slow=20,SNR=9.4						
CZSB	**Cruzeiro do Su**	**5.90**	**57**		**Pn**	**05 38 47.4**	**+0.5**
CZSB				Sn	**Sn**	**05 39 53.7**	**+0.5**
PIAT	**Ana Tenorio**	**9.97**	**357**	P	**Pn**	**05 39 44.2**	**+1.1**
	38nm,0.5s						
SLOR	**San Lorenzo -**	**10.25**	**355**		**Pn**	**05 39 46.6**	**-0.4**
LPAZ	**La Paz**	**10.65**	**120**	P	**Pn**	**05 39 55.6**	**+3.0**
	0.7nm,0.6s,baz=110,slow=8.5,SNR=1.4						
LPAZ	**La Paz**	**10.65**	**120**		**Pn**	**05 39 52.6**	**0.0**
PB16	**IPOC Station P**	**10.74**	**134**	Pn	**Pn**	**05 39 53.3**	**-0.4**
CASC	**Dorado de Casc**	**11.09**	**2**	P	**Pn**	**05 39 57.2**	**-0.9**
	25nm,0.8s						
OTAV	**Otavalo**	**11.21**	**356**		**Pn**	**05 39 59.5**	**-0.5**
OTAV	**Otavalo**	**11.21**	**356**	P	**Pn**	**05 40 00.8**	**+0.8**
	14nm,1.0s						
PAC1	**Pacto, Paraso**	**11.27**	**354**	P	**Pn**	**05 40 01.9**	**+1.4**
PTLC	**Puerto Leguiza**	**11.48**	**15**	P	Pn	05 39 57.6	-5.7
	102nm,0.8s						
PB11	**IPOC Station P**	**11.63**	**139**	Pn	**Pn**	**05 40 05.3**	**-0.2**
TULM	**Tulcn-Chalpat**	**11.66**	**359**	P	**Pn**	**05 40 08.2**	**+2.0**
	408nm46nm,0.8s						
BBAC	**Balboa, Cauca**	**12.96**	**2**	P	**Pn**	**05 40 26.4**	**+2.7**
	11nm,0.7s						
GARC	**Garzon, Huila**	**13.30**	**10**	P	**Pn**	**05 40 26.9**	**-1.4**
POPC	**Popayan, Colom**	**13.51**	**4**	P	**Pn**	**05 40 30.3**	**-0.8**
	6.9nm,0.7s						
MACC	**Macarena, Meta**	**13.62**	**16**	P	**Pn**	**05 40 31.2**	**-1.2**
	24nm,0.5s						
JAMC	**Jamundi, Valle**	**14.18**	**4**	P	**P**	**05 40 43.7**	**-1.8**
	9.9nm,1.3s						
URMC	**La Uribe, Meta**	**14.55**	**13**	P	**Pn**	**05 40 44.3**	**-0.4**
	45nm,0.9s						
PRAC	**Prado**	**14.90**	**11**	P	P	05 41 00.1	+6.8
	11nm,0.5s						
YOTC	**Yotoco, Valle**	**14.96**	**5**	P	**P**	**05 40 55.6**	**+1.4**
	6.3nm,1.4s						
ORTC	**Ortega, Tolima**	**15.03**	**9**	P	**Pn**	**05 40 51.5**	**+0.7**
	15nm,1.1s						
PLMC	**San Jos del P**	**15.88**	**5**	P	**P**	**05 41 04.4**	**+0.1**
ROSC	**El Rosal**	**16.11**	**12**	P	**P**	**05 41 07.7**	**+0.5**
	1.7nm,0.4s,baz=108,slow=23,SNR=1.7						
ROSC	**El Rosal**	**16.11**	**12**		**Pn**	**05 41 04.0**	**-0.9**
SIV	**San Ignacio**	**16.89**	**109**	P	**P**	**05 41 16.7**	**+1.3**
	2.3nm,0.9s,baz=282,slow=11,SNR=10						
VILB	**Vilhena**	**17.21**	**98**	P	**Pn**	**05 41 16.8**	**-1.5**
VILB				IAmb	IAmb	05 41 48.1	
	comp=Z,22nm,1.5s						
RUSC	**La Rusia**	**17.41**	**15**	P	**Pn**	**05 41 20.8**	**-0.5**
RUSC				IAmb	IAmb	05 41 28.7	
	comp=Z,19nm,1.3s						
AC02	**Maricunga**	**17.68**	**154**		**Pn**	**05 41 23.2**	**-1.2**
AC02				IAmb	IAmb	05 42 06.2	
	comp=Z,22nm,1.4s						
MACA	**Manacapuru-AM**	**18.57**	**66**	P	**P**	**05 41 33.4**	**-0.6**
MACA				IAmb	IAmb	05 42 02.4	
	comp=Z,11nm,0.5s						
PTLB	**Pontes e Lacer**	**18.58**	**106**	P	**P**	**05 41 34.0**	**0.0**
CO01	**Juntas del Tor**	**20.14**	**161**	P	**P**	**05 41 51.0**	**-0.3**
CO01				IAmb	IAmb	05 42 00.8	
	comp=Z,31nm,1.4s						
SJCC	**San Jacinto, C**	**20.93**	**7**	P	**P**	**05 41 59.6**	**0.0**
CFA	**Coronel Fontan**	**22.27**	**158**	P	**P**	**05 42 14.6**	**+0.7**
	comp=Z,2.5nm,0.7s,baz=351,slow=7.8,SNR=7.3						
	comp=Z,2.5nm,0.7s						
BOAB	**BOACO BROADBAN**	**24.63**	**341**	P	**P**	**05 42 35.5**	**-1.0**
TXAR	**Lajitas Array**	**47.31**	**329**	P	**P**	**05 45 49.7**	**+0.3**
	comp=Z,0.3nm,0.9s,baz=129,slow=5.2,SNR=2.7						
TXAR				pP	**pP**	**05 46 05.5**	**-0.7**
	comp=Z,0.2nm,0.5s,baz=136,slow=6.8,SNR=3.3						
	comp=Z,0.3nm,0.9s						
GC02	**Grant County #**	**51.26**	**339**	P	**P**	**05 46 19.1**	**-0.2**
PDAR	**Pinedale Array**	**60.96**	**334**	P	**P**	**05 47 28.4**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=145,slow=7.5,SNR=1.9						
PDAR				pP	**pP**	**05 47 44.6**	**-1.6**
	comp=Z,0.2nm,0.6s,baz=144,slow=8.8,SNR=1.9						
	comp=Z,0.1nm,0.3s						
PDAR	**Pinedale Array**	**60.96**	**334**	P	**P**	**05 47 28.7**	**0.0**
ULM	**Lac du Bonnet**	**63.05**	**347**	P	**P**	**05 47 41.9**	**-0.4**
	comp=Z,2.1nm,0.5s,baz=157,slow=8.5,SNR=6.9						
	comp=Z,2.1nm,0.5s						
ULM	**Lac du Bonnet**	**63.05**	**347**	IAmb	IAmb	05 47 42.4	
	comp=Z,2.4nm,0.6s						
BELA	**Belgrano 2**	**70.29**	**171**	P	**P**	**05 48 27.9**	**-0.2**
BELA				IAmb	IAmb	05 49 00.9	
	comp=Z,4.6nm,1.4s						
SNAA	**Sanae**	**74.85**	**162**	P	**P**	**05 48 55.2**	**-0.1**
SNAA				IAmb	IAmb	05 49 31.9	
	comp=Z,5.7nm,1.3s						
YKA	**Yellowknife Ar**	**78.68**	**343**	P	**P**	**05 49 16.8**	**0.0**
	comp=Z,0.6nm,0.5s,baz=144,slow=5.7,SNR=13						
YKA				pP	**pP**	**05 49 32.8**	**-2.1**
	comp=Z,0.5nm,0.5s,baz=142,slow=5.7,SNR=3.8						
	comp=Z,0.6nm,0.5s						
QSPA	**South Pole Qui**	**79.11**	**180**	P	**P**	**05 49 21.8**	**+2.4**
	comp=Z,1.1nm,0.5s,baz=256,slow=0.7,SNR=13						
	comp=Z,1.1nm,0.5s						
QSPA	**South Pole Qui**	**79.11**	**180**	P	**P**	**05 49 19.3**	**-0.1**
ASAR	**Alice Springs**	**133.71**	**222**	PKP	**PKiKP**	**05 56 33.2**	**-0.4**
	comp=Z,0.3nm,0.4s,baz=124,slow=2.8,SNR=2.6						
WRA	**Warramunga Arr**	**135.95**	**226**	PKP	**PKiKP**	**05 56 37.0**	**-1.2**
	comp=Z,1.0nm,0.9s,baz=147,slow=1.8,SNR=5.9						

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*SKHL **26** 05:49:53.5±0.5, 42°.40N×144°.80E, h33km±2km, mb4.5/3*
*JMA **26** 05:49:54.4±0.1, 42°.4N±0°.3×144°.7E±0°.5, h33km±1km, MV3.5/39, SE OFF TOKACHI*
ISC 26 05:49:54.1±1.7, 42°.42N±0°.08×144°.71E±0°.05, h34km±3km, n13, σ0§49/22, 4D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.58**	**359**	*i* P	**Pb**	**05 50 05.5**	**-0.5**
JAK				S	**Sn**	**05 50 14.5**	**+0.4**
AKK	**Akkeshi**	**0.61**	**9**	*e*P	**Pn**	**05 50 05.9**	**-0.3**
AKK				*e*S	**Sn**	**05 50 15.0**	**+0.1**
JKHN	**Kushirohamanak**	**0.74**	**26**	⇓*i* P	**Pb**	**05 50 08.5**	**-0.2**
JKHN				⇓S	**Sb**	**05 50 19.6**	**+1.1**
JOB	**Onbets**	**0.81**	**307**	⇓P	**Pn**	**05 50 09.1**	**+0.1**
JOB				⇓S	**Sb**	**05 50 20.6**	**+0.3**
JCH	**Churui**	**1.01**	**282**	P	**Pn**	**05 50 12.3**	**+0.4**
JCH				*e*S	**Sb**	**05 50 26.4**	**+0.2**
JAR	**Ashorobuto**	**1.12**	**322**	P	**Pn**	**05 50 13.1**	**-0.2**
JAR				S	**Sn**	**05 50 27.6**	**+0.1**
JNK	**Nakash**	**1.17**	**0**	*i* P	**Pn**	**05 50 13.4**	**-0.6**
JNK				*e*S	**Sn**	**05 50 27.9**	**-0.9**
NMR	**Nemuro--Hokkai**	**1.21**	**38**	*i* P	**Pn**	**05 50 14.2**	**-0.4**
NMR				*i* S	**Sn**	**05 50 29.9**	**+0.1**
NEM2	**Nemuro 2**	**1.22**	**38**	P	**Pn**	**05 50 14.3**	**-0.3**
NEM2				S	**Sn**	**05 50 30.0**	**+0.1**
JEM	**Erimo**	**1.22**	**251**	P	**Pb**	**05 50 16.2**	**-0.4**
JNBK	**Urakawa-nobuka**	**1.46**	**265**	P	**Pn**	**05 50 17.9**	**-0.1**
YUK	**Yuzh-Kuril'sk**	**1.82**	**27**	*e*P	**Pn**	**05 50 23.1**	**+0.1**
YUK				AMB	AMB	05 50 24.4	
	250nm,0.2s						
YUK				*e*S	**Sn**	**05 50 45.7**	**+0.8**
YUK				A	A	05 50 51.5	
	810nm,0.4s						
YUK				A	A	05 50 51.5	
	250nm,0.4s						
SHO	**Shikotan**	**2.13**	**46**	*e*P	Pb	05 50 47.4	+15
SHO				AMB	AMB	05 50 48.5	
	30nm,0.2s						
SHO				*e*S	Sb	05 51 11.5	+14
SHO				A	A	05 51 15.5	
	230nm,0.3s						
SHO				A	A	05 51 15.5	
	410nm,0.3s						

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*ASRS **26** 06:00:30.0±0.6, 54°.36N×86°.91E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 26 06:00:34.7±4.3, 54°.29N×86°.69E, h0km, mbtmp2.9/2, ML2.4/2, Error ellipse: s-maj=35.4km s-min=18.0km az=64.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.16**	**254**	I	I	06 07 34.8	
	baz=71,slow=339,SNR=11						
ZALV	**Zalesovo Beam**	**1.16**	**253**	Pg	Pg	06 00 55.9	-0.9
	0.8nm,0.3s,baz=76,slow=17,SNR=5.7						
ZALV				Lg	Lg	06 01 14.4	
	1.2nm,0.3s,baz=71,slow=24,SNR=7.3						
KURBB	**Kurchatov Arra**	**6.20**	**237**	Pn	Pn	06 02 08.7	+1.4
	0.1nm,0.3s,baz=51,slow=14,SNR=5.9						
KURBB				Sn	Sn	06 03 18.0	-0.8
	baz=52,slow=26,SNR=1.5						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.01**	**202**	Pn	Pn	06 02 33.5	+1.2
	0.1nm,0.3s,baz=25,slow=14,SNR=2.9						
	0.5nm,0.7s						
MKAR				AML	AML		

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*GII **26** 06:10:39.2±0.0, 36°.429N±0°.004×26°.948E±0°.001, h0km, Mws3.6, confirmed*
*IDC **26** 06:10:40.4±4.4, 36°.13N×26°.73E, h77km±46km, mb3.4/2, mbtmp3.5/4, ML2.9/2, Error ellipse: s-maj=56.9km s-min=24.5km az=153.0*
*ISK **26** 06:10:44.9, 36°.34N×26°.72E, h106km±1km, ML2.9/11*
*ATH **26** 06:10:45.8, 36°.37N×26°.75E, h104km±2km, ML3.6/11, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **26** 06:10:45.5, 36°.10N×26°.81E, h50km±7km, ML3.0*
*THE **26** 06:10:46.6, 36°.N±2°.×2°.7E±°., h97km±7km, M3.2/9, ML3.2/9*
ISC 26 06:10:44.2±0.9, 36°.32N±0°.04×26°.78E±0°.04, h114km±6km, n91, σ1§22/124, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ASTA	**Astypalaia**	**0.41**	**303**	P	**Pn**	**06 11 01.3**	**+0.4**
ASTA				S	**Sn**	**06 11 13.0**	**-0.6**
YAZI	**Mula-Dat§a-**	**0.65**	**56**	P	**Pn**	**06 11 02.7**	**+0.1**
YAZI				S	**Sn**	**06 11 16.3**	**-0.2**
DAT	**Datca**	**0.76**	**57**	Pg	**Pn**	**06 11 04.7**	**+1.1**
KARP	**Karpathos**	**0.83**	**158**	P	**Pn**	**06 11 05.3**	**+1.2**
KARP				S	**Sn**	**06 11 19.9**	**+0.7**
KARP				AML	AML		
KARP	**Karpathos**	**0.83**	**158**	Pg	**Pn**	**06 11 04.9**	**+0.7**
KARP				Sg	**Sn**	**06 11 19.7**	**+0.5**
KARP				AML	AML		
KARP	**Karpathos**	**0.83**	**158**	P	**Pn**	**06 11 05.3**	**+1.2**
KARP				S	**Sn**	**06 11 19.7**	**+0.5**
KARP				AML	AML		
DATC	**Datca-Mugla**	**0.83**	**58**	Pg	**Pn**	**06 11 05.1**	**+1.0**
DATC				AML	AML		
BODT	**Bodrum**	**0.85**	**30**	P	**Pn**	**06 11 05.1**	**+0.8**
BODT				S	**Sn**	**06 11 19.8**	**+0.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**30**	Pg	**Pn**	**06 11 05.1**	**+0.8**
BODT				Sg	**Sn**	**06 11 19.8**	**+0.2**
BODT				AML	AML		
BDRM	**Kayabasi**	**0.92**	**36**	P	**Pn**	**06 11 05.5**	**+0.6**
BDRM				S	**Sn**	**06 11 20.9**	**+0.3**
BDRM				IAML		06 11 21.0	
	comp=N,243nm,0.6s						
THR8	**Santorini-Mono**	**1.05**	**275**	P	**Pn**	**06 11 06.8**	**+0.6**
THR8	**Santorini-Mono**	**1.05**	**275**	P	**Pn**	**06 11 06.8**	**+0.6**
THERA	**Ancient Thera,**	**1.05**	**273**	P	**Pn**	**06 11 06.9**	**+0.6**
THERA	**Ancient Thera,**	**1.05**	**273**	P	**Pn**	**06 11 06.7**	**+0.4**
THRA	**Thira**	**1.09**	**275**	P	**Pn**	**06 11 07.4**	**+0.8**
THRA	**Thira**	**1.09**	**275**	P	**Pn**	**06 11 06.9**	**+0.3**
THRA				AML	AML		
THR2	**Thira island,**	**1.09**	**277**	P	**Pn**	**06 11 07.5**	**+0.8**
THR2	**Thira island,**	**1.09**	**277**	P	**Pn**	**06 11 07.3**	**+0.7**
ARG	**Arkhangelos**	**1.09**	**95**	P	**Pn**	**06 11 08.3**	**+1.6**
ARG	**Arkhangelos**	**1.09**	**95**	P	**Pn**	**06 11 08.1**	**+1.5**
ARG				S	**Sn**	**06 11 24.8**	**+1.1**
SFIR	**Foira Santorin**	**1.09**	**276**	P	**Pn**	**06 11 07.5**	**+0.8**
THR3	**Thira Island,**	**1.11**	**275**	P	**Pn**	**06 11 07.7**	**+0.8**
THR3	**Thira Island,**	**1.11**	**275**	P	**Pn**	**06 11 07.5**	**+0.7**
THR6	**Thira Island,**	**1.11**	**272**	P	**Pn**	**06 11 07.8**	**+0.9**
THR6	**Thira Island,**	**1.11**	**272**	P	**Pn**	**06 11 07.7**	**+0.9**
CMBO	**Columbo, Santo**	**1.12**	**278**	P	**Pn**	**06 11 07.6**	**+0.7**
CMBO				S	**Sn**	**06 11 24.0**	**-0.1**
SNT5	**Nea Kammeni, S**	**1.12**	**275**	P	**Pn**	**06 11 07.7**	**+0.8**
SNT5	**Nea Kammeni, S**	**1.12**	**275**	P	**Pn**	**06 11 07.6**	**+0.7**
SNT5				S	**Sn**	**06 11 24.0**	**-0.2**
THR9	**Santorini-Faro**	**1.15**	**272**	P	**Pn**	**06 11 08.1**	**+0.9**
THR5	**Thira Island,**	**1.16**	**275**	P	**Pn**	**06 11 08.2**	**+0.8**
THR5	**Thira Island,**	**1.16**	**275**	P	**Pn**	**06 11 08.2**	**+0.8**
SAP3	**Santorini-Thir**	**1.16**	**276**	P	**Pn**	**06 11 08.1**	**+0.7**
SAP3				S	**Sn**	**06 11 25.2**	**+0.2**
RODB	**Rodos**	**1.17**	**83**	P	**Pn**	**06 11 08.3**	**+0.8**
RDI1	**Rhodes Town Ha**	**1.17**	**83**	P	**Pn**	**06 11 09.0**	**+1.5**
SIT2	**Siteia**	**1.24**	**206**	P	**Pn**	**06 11 09.3**	**+1.1**
APE	**Apeiranthos**	**1.25**	**307**	P	**Pn**	**06 11 08.9**	**+0.5**
APE	**Apeiranthos**	**1.25**	**307**	Pn	**Pn**	**06 11 08.7**	**+0.3**
APE				AML	AML		
APE	**Apeiranthos**	**1.25**	**307**	P	**Pn**	**06 11 08.8**	**+0.5**
MLSB	**Milas**	**1.26**	**39**	Pn	**Pn**	**06 11 09.7**	**+1.2**
MLSB				Sn	**Sn**	**06 11 27.3**	**+0.3**
MLSB				AML	AML		
TURN	**Turunc**	**1.27**	**69**	P	**Pn**	**06 11 09.5**	**+1.0**
TURN				S	**Sn**	**06 11 27.0**	**+0.1**
TURN	**Turunc**	**1.27**	**69**	Pn	**Pn**	**06 11 09.7**	**+1.2**
TURN				AML	AML		
ZKR	**Zakros**	**1.29**	**201**	P	**Pn**	**06 11 11.0**	**+2.1**
ZKR	**Zakros**	**1.29**	**201**	P	**Pn**	**06 11 10.8**	**+2.0**
SMG	**Samos**	**1.39**	**2**	P	**Pn**	**06 11 10.4**	**+0.4**
SMG	**Samos**	**1.39**	**2**	P	**Pn**	**06 11 10.3**	**+0.4**
NPS	**Neapolis**	**1.42**	**222**	P	**Pn**	**06 11 11.3**	**+1.0**
NPS				S	**Sn**	**06 11 30.1**	**0.0**
NPS				AML	AML		
NPS	**Neapolis**	**1.42**	**222**	P	**Pn**	**06 11 11.2**	**+0.8**
AGNA	**Agios Nikolaos**	**1.42**	**218**	P	**Pn**	**06 11 11.6**	**+1.3**
SAM2	**Drakei, Karlov**	**1.44**	**355**	P	**Pn**	**06 11 10.8**	**+0.2**
MULA	**Mugla, Merkez-**	**1.55**	**53**	P	**Pn**	**06 11 13.0**	**+1.0**
MULA				S	**Sn**	**06 11 34.5**	**+1.4**
DALY	**Dalyan (Mula)**	**1.59**	**71**	P	**Pn**	**06 11 14.1**	**+1.9**
DALY				S	**Sn**	**06 11 35.6**	**+2.0**
DALY				IAML		06 11 39.0	
	comp=N,154nm,0.4s						
DALY	**Dalyan (Mula)**	**1.59**	**71**	Pn	**Pn**	**06 11 14.4**	**+2.1**
DALY				AML	AML		
AYDN	**Tasoluk**	**1.60**	**33**	P	**Pn**	**06 11 13.5**	**+0.9**
IACM	**Heraklion**	**1.72**	**234**	P	**Pn**	**06 11 14.9**	**+1.0**
SABU	**Mula-Dalaman**	**1.83**	**73**	P	**Pn**	**06 11 16.9**	**+1.6**
SABU				S	**Sn**	**06 11 39.8**	**+0.7**
SABU				IAML		06 11 43.0	
	comp=N,135nm,0.3s						
SABU				IAML		06 11 44.0	
	comp=E,137nm,0.2s						
IDI	**Anoyia**	**1.85**	**237**	P	**Pn**	**06 11 16.0**	**+0.5**
IDI				S	**Sn**	**06 11 38.8**	**-0.7**
IDI				AML	AML		
IDI	**Anoyia**	**1.85**	**237**	P	**Pn**	**06 11 15.9**	**+0.4**
IDI				AML	AML		
FETY	**Fethiye**	**1.89**	**80**	Pn	**Pn**	**06 11 17.7**	**+1.8**
FETY				AML	AML		
ESEN	**Aydn-Nazilli**	**1.94**	**40**	P	**Pn**	**06 11 17.8**	**+1.2**
ESEN				S	**Sn**	**06 11 42.4**	**+1.1**
IZZE	**Mula-Seydike**	**1.98**	**86**	P	**Pn**	**06 11 17.8**	**+0.7**
IZZE				S	**Sn**	**06 11 41.4**	**-0.8**
IZZE				IAML		06 11 44.0	
	comp=E,176nm,0.3s						
IZZE				IAML		06 11 45.0	
	comp=N,235nm,0.2s						
TAVA	**DENIZLI_Tavas**	**2.06**	**56**	P	**Pn**	**06 11 19.2**	**+1.1**
TAVA				S	**Sn**	**06 11 44.1**	**-0.1**
SIVA	**Sivas**	**2.06**	**232**	P	**Pn**	**06 11 19.8**	**+1.6**
SIVA				AML	AML		
SIVA	**Sivas**	**2.06**	**232**	P	**Pn**	**06 11 19.7**	**+1.6**
SIVA				AML	AML		
CAME	**Cameli-Denizli**	**2.12**	**72**	Pn	**Pn**	**06 11 20.7**	**+1.6**
CAME				AML	AML		
CHOS	**Chios island**	**2.14**	**345**	P	**Pn**	**06 11 19.6**	**+0.4**
CAEL	**Denizli, Camel**	**2.19**	**68**	P	**Pn**	**06 11 21.4**	**+1.4**
CAEL				S	**Sn**	**06 11 47.5**	**+0.2**
CAEL				IAML		06 11 51.0	
	comp=N,66nm,0.3s						
CAEL				IAML		06 11 54.0	
	comp=E,116nm,0.3s						
DNIZ	**Denizli-Tavas-**	**2.23**	**54**	P	**Pn**	**06 11 21.7**	**+1.4**
DNIZ				S	**Sn**	**06 11 47.9**	**-0.2**
DNIZ				IAML		06 11 51.0	
	comp=N,100nm,0.3s						
DNIZ				IAML		06 11 51.0	
	comp=E,193nm,0.3s						
KSL	**Kastellorizon**	**2.27**	**93**	P	**Pn**	**06 11 22.5**	**+1.7**
KSL				S	**Sn**	**06 11 48.5**	**-0.4**
VAM	**Vamos**	**2.28**	**247**	P	**Pn**	**06 11 21.3**	**+0.3**
AKAS	**Kas**	**2.29**	**91**	P	**Pn**	**06 11 22.1**	**+0.9**
AKAS				S	**Sn**	**06 11 48.7**	**-0.7**
AKAS				IAML		06 11 51.0	
	comp=N,236nm,0.4s						
AKAS				IAML		06 11 51.0	
	comp=E,160nm,0.6s						
AKAS	**Kas**	**2.29**	**91**	Pn	**Pn**	**06 11 22.9**	**+1.8**
AKAS				AML	AML		
KNIK	**Mula-Seydike**	**2.31**	**76**	P	**Pn**	**06 11 23.0**	**+1.6**
KNIK				IAML		06 11 52.0	
	comp=N,87nm,0.3s						
KNIK				IAML		06 11 53.0	
	comp=E,70nm,0.5s						
APMY	**Acipayam-Deniz**	**2.33**	**60**	Pn	**Pn**	**06 11 23.2**	**+1.6**
APMY				AML	AML		
SULTU	**Buldan**	**2.35**	**42**	P	**Pn**	**06 11 22.9**	**+1.0**
SULTU				S	**Sn**	**06 11 50.7**	**-0.2**
SULTU				IAML		06 11 54.0	
	comp=N,36nm,0.6s						
SULTU				IAML		06 11 58.0	
	comp=E,32nm,0.7s						
GOLH	**Golhisar**	**2.41**	**67**	P	**Pn**	**06 11 24.4**	**+1.6**
GOLH				S	**Sn**	**06 11 52.8**	**+0.5**
GOLH				IAML		06 11 55.0	
	comp=E,48nm,0.3s						
GOLH				IAML		06 11 57.0	
	comp=N,40nm,0.5s						
IMMV	**Iera Moni Meta**	**2.43**	**250**	P	**Pn**	**06 11 24.6**	**+1.8**
IMMV				AML	AML		
ELL	**Elmali**	**2.56**	**79**	P	**Pn**	**06 11 26.8**	**+2.2**
RODP	**Rodopos**	**2.56**	**254**	P	**Pn**	**06 11 26.0**	**+1.4**
INCE	**Denizli-Bozkur**	**2.63**	**57**	P	**Pn**	**06 11 26.9**	**+1.3**
INCE				S	**Sn**	**06 11 58.3**	**+0.9**
INCE				IAML		06 11 59.0	
	comp=N,101nm,0.3s						
INCE				IAML		06 11 59.0	
	comp=E,75nm,0.3s						
GVD	**Gavdhos**	**2.64**	**237**	P	**Pn**	**06 11 27.8**	**+2.2**
GVDS	**Gavdos**	**2.66**	**237**	P	**Pn**	**06 11 28.3**	**+2.4**
GVDS				AML	AML		
KNDR	**Palaiochora Ch**	**2.78**	**248**	P	**Pn**	**06 11 29.6**	**+2.1**
BRTR	**Keskin Array B**	**6.39**	**56**	P	**Pn**	**06 12 14.7**	**-1.3**
	0.2nm,0.3s,baz=232,slow=16,SNR=6.8						
BRTR				S	**Sn**	**06 13 27.4**	**-0.2**
	0.5nm,0.6s,baz=238,slow=27,SNR=2.6						
	1.1nm,0.4s						
BRTR				AML	AML		
MMA0B	**Mount Meron ar**	**7.83**	**112**	P	**Pn**	**06 12 32.7**	**-2.7**
MMA0B				S	**Sn**	**06 14 00.9**	**-1.6**

JCH	**Churui**	0.41	43	*i*	P		**Pn**	07 00 15.3	-0.2
JCH					S		**Sn**	07 00 23.3	-0.3
JBT2	**Biratori 2**	0.66	316	⇓	P		**Pn**	07 00 18.1	0.0
JBT2				⇓	S		**Sn**	07 00 29.5	+1.3
JOB	**Onbets**	0.86	46	*i*	P		**Pn**	07 00 21.4	+0.8
JOB					S		**Sn**	07 00 34.1	+1.4
JFR	**Furan**	0.90	341	*i*	P		**Pn**	07 00 20.8	-0.4
JAR	**Ashorobuto**	1.14	30	*i*	P		**Pn**	07 00 24.4	+0.1
JAR					S		**Sn**	07 00 38.4	-0.7
H11N2	**WAKE ISLAND Hy 30.25**		131		T		T	07 37 43.2	
	baz=324,slow=75,SNR=30								
H11N1	**WAKE ISLAND Hy 30.26**		131		T		T	07 37 41.3	
	baz=324,slow=75,SNR=28								
H11N3	**WAKE ISLAND Hy 30.27**		131		T		T	07 37 42.0	
	baz=324,slow=75,SNR=21								
H11S1	**WAKE ISLAND Hy 31.12**		132		T		T	07 38 51.3	
	baz=326,slow=76,SNR=39								
H11S3	**WAKE ISLAND Hy 31.13**		132		T		T	07 38 46.2	
	baz=326,slow=76,SNR=24								
H11S2	**WAKE ISLAND Hy 31.14**		132		T		T	07 38 52.6	
	baz=326,slow=76,SNR=22								
ZALV	**Zalesovo Beam**	39.45	308		P		**P**	07 07 28.3	0.0
	0.7nm,0.4s,baz=81,slow=9.2,SNR=4.0								
	0.7nm,0.4s								
MKAR	**Makanchi Array**	42.54	298		P		**P**	07 07 53.9	+0.1
	0.5nm,0.6s,baz=78,slow=9.0,SNR=2.4								
	0.5nm,0.6s								
KURBB	**Kurchatov Arra**	43.88	304		P		**P**	07 08 04.6	0.0
	1.5nm,0.6s,baz=77,slow=8.9,SNR=6.0								
	1.5nm,0.6s								
BVAR	**Borovoye Array**	48.05	309		P		**P**	07 08 37.6	+0.2
	0.6nm,0.4s,baz=77,slow=6.2,SNR=2.7								
	0.6nm,0.4s								
FINES	**FINESS Array B**	64.73	332		P		**P**	07 10 35.1	-0.7
	1.3nm,0.8s,baz=42,slow=8.8,SNR=5.2								
	1.3nm,0.8s								

IDC ***26*** *07:02:31.7±1.2, 16°28S×177°87E, h0km, mb4.1/5, mbtmp4.1/5, MS3.4/17, Error ellipse: s-maj=30.7km s-min=20.3km az=80.0*

ISC 26 07:02:34.8±1.2, 16°3S±0°1×177°9E±0°2, h21km, n26, σ0s82/8, mb4.2/5, MS3.5/13, Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**1.41**	**174**	Pn	**Pn**	**07 02 58.4**	**-1.0**
	49nm,0.3s,baz=348,slow=9.3,SNR=135						
MSVF				Sn	**Sn**	**07 03 18.2**	**+0.7**
	174nm,0.3s,baz=162,slow=21,SNR=6.2						
AFI	**Afiamalu**	**10.26**	**78**	LR	LR	07 07 45.1	
	comp=Z,96nm,20.7s,baz=259,slow=30						
DZM	**Mont Dzumac**	**12.23**	**240**	LR	LR	07 09 22.4	
	comp=Z,135nm,19.5s,baz=49,slow=34						
RAO	**Raoul Island**	**13.43**	**164**	LR	LR	07 09 59.4	
	comp=Z,132nm,21.2s,baz=356,slow=33						
HNR	**Honiara**	**18.78**	**289**	LR	LR	07 13 04.5	
	comp=Z,112nm,18.8s,baz=292,slow=34						
RAR	**Rarotonga**	**21.69**	**106**	LR	LR	07 13 52.3	
	comp=Z,85nm,21.4s,baz=274,slow=31						
KRVT	**Keravat (AS076**	**28.07**	**292**	LR	LR	07 19 00.4	
	comp=Z,115nm,18.2s,baz=116,slow=35						
CTA	**Charters Tower**	**30.27**	**258**	LR	LR	07 18 19.0	
	comp=Z,113nm,20.3s,baz=108,slow=31						
PPT2	**Papeete2**	**31.12**	**97**	*e*LR	LR	07 17 04.8	
	169nm,29.8s						
PPT	**Papeete**	**31.12**	**97**	LR	LR	07 19 30.2	
	comp=Z,39nm,18.0s,baz=276,slow=33						
TBI	**Tubuai**	**31.44**	**108**	*e*LR	LR	07 17 02.5	
	1μm,30.0s						
STKA	**Stephens Creek**	**36.38**	**238**	P	**P**	**07 09 38.0**	**+0.3**
	3.6nm,0.7s,baz=73,slow=8.7,SNR=6.2						
	3.6nm,0.7s						
JAY	**Jayapura**	**39.07**	**287**	LR	LR	07 25 28.4	
	comp=Z,86nm,18.5s,baz=23,slow=35						
WRA	**Warramunga Arr**	**41.47**	**258**	P	**P**	**07 10 20.1**	**-0.5**
	1.2nm,1.0s,baz=91,slow=8.4,SNR=5.5						
	1.2nm,1.0s						
TAOE	**Nuku Hiva Isla**	**41.55**	**85**	*e*LR	LR	07 21 22.5	
	133nm,31.2s						
ASAR	**Alice Springs**	**41.85**	**253**	P	**P**	**07 10 23.6**	**-0.1**
	2.4nm,0.9s,baz=82,slow=8.7,SNR=21						
ASAR				LR	LR	07 29 06.4	
	comp=Z,87nm,18.1s,baz=117,slow=38						
	2.4nm,0.9s						
GUMO	**Guam**	**44.14**	**310**	LR	LR	07 28 04.0	
	comp=Z,30nm,18.4s,baz=122,slow=35						
SIJI	**Sorong**	**48.43**	**284**	LR	LR	07 30 27.1	
	comp=Z,59nm,21.0s,baz=326,slow=35						
FITZ	**Fitzroy Crossi**	**49.81**	**260**	LR	LR	07 31 13.7	
	comp=Z,113nm,18.4s,baz=157,slow=35						
JCJ	**Chichijima**	**55.35**	**321**	LR	LR	07 30 12.4	
	comp=Z,39nm,21.4s,baz=139,slow=30						
KAPI	**Kappang**	**58.05**	**274**	LR	LR	07 36 48.3	
	comp=Z,42nm,18.0s,baz=350,slow=35						
KSRS	**Korea Array**	**71.20**	**320**	LR	LR	07 39 47.2	
	comp=Z,20nm,21.9s,baz=40,slow=31						
QSPA	**South Pole Qui**	**73.72**	**180**	P	**P**	**07 14 07.6**	**+0.4**
	4.0nm,0.9s,baz=32,slow=6.2,SNR=18						
	4.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**85.02**	**291**	LR	LR	07 53 36.7	
	comp=Z,9.6nm,19.0s,baz=340,slow=36						
ILAR	**Eielson Array**	**85.19**	**14**	P	**P**	**07 15 08.8**	**-0.4**
	1.0nm,0.7s,baz=213,slow=4.5,SNR=10						
	1.0nm,0.7s						
HFS	**Hagfors**	**134.77**	**349**	PKP	**PKiKP**	**07 21 54.1**	**+1.0**
	0.9nm,0.4s,baz=38,slow=2.6,SNR=5.8						

IDC ***26*** *07:07:41.4±0.5, 19°49N×65°15W, h0km, mb4.2/18, mbtmp4.2/21, ML3.8/3, MS4.0/47, Error ellipse: s-maj=14.8km s-min=11.8km az=95.0*

RSNC ***26*** *07:07:44.2±0.8, 20°N±13°×6°5W±°, h58km±13km, M4.7, mB5.1, mb4.8, ML4.1, Mw(mB)4.4*

NEIC ***26*** *07:07:45.7±1.3, 19°26N±0°05×65°22W±0°05, h27km±2km, mb4.7/208, ML4.6/57, Md4.7/18(RSPR), Error ellipse: s-maj=7.6km s-min=6.4km az=199.0*

RSPR ***26*** *07:07:45.5, 19°29N×65°05W, h35km±23km, MD4.7/18*

GFZ ***26*** *07:07:47.9±0.2, 19°N±3°×6°5W±°, h44km±2km, M4.9/18, mb4.7/18, Mw4.7/18, Error ellipse: s-maj=8.9km s-min=4.7km az=43.3, confirmed*

ISC 26 07:07:45.0±0.6, 19°28N±0°03×65°20W±0°04, h29km±4km, n362, σ1s45/293, mb4.7/111, MS4.0/45, 6C-7D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCPR	**Guaynabo City**	**1.28**	**221**		**Pn**	**07 08 06.6**	**-0.3**
HUMP	**Col San Antoni**	**1.29**	**209**		**Pn**	**07 08 08.8**	**-0.2**
HUMP					**Sn**	**07 08 23.5**	**+0.1**
HUMP	**Col San Antoni**	**1.29**	**209**	⇓ *e*	**Pn**	**07 08 06.5**	**-0.5**
ECPR	**Experimental S**	**1.46**	**229**		**Pn**	**07 08 09.2**	**-0.3**
ECPR				Sn	**Sn**	**07 08 28.6**	**+0.9**
ECPR				IAML		07 08 29.5	
	11μm,0.5s						
ECPR				IAML		07 08 30.1	
	9μm,0.7s						
ECPR	**Experimental S**	**1.46**	**229**	⇓ *e*	**Pn**	**07 08 09.3**	**-0.1**
PDPR	**Patillas Dam,**	**1.48**	**212**		**Pn**	**07 08 09.3**	**-0.3**
PDPR					**Sn**	**07 08 28.3**	**+0.3**
PDPR	**Patillas Dam,**	**1.48**	**212**	⇑ *i*	**Pn**	**07 08 09.3**	**-0.3**
EMPR	**Esperanza - Ma**	**1.49**	**238**		**Pn**	**07 08 10.7**	**+0.9**
EMPR					**Sb**	**07 08 29.9**	**-0.8**
EMPR	**Esperanza - Ma**	**1.49**	**238**	⇓ *e*	**Pn**	**07 08 10.7**	**+0.9**
EMPR				*e*	**Sb**	**07 08 29.9**	**-0.8**
IGPR	**InterUniversit**	**1.57**	**214**		**Pn**	**07 08 10.6**	**-0.3**
IGPR					**Sn**	**07 08 30.6**	**+0.4**
IGPR	**InterUniversit**	**1.57**	**214**	⇑ *e*	**Pn**	**07 08 10.6**	**-0.3**
AOPR	**Arecibo Observ**	**1.74**	**238**		**Pn**	**07 08 13.7**	**+0.4**
AOPR				Sn	**Sn**	**07 08 35.8**	**+1.2**
AOPR				IAML		07 08 42.6	
	7μm,0.8s						
AOPR	**Arecibo Observ**	**1.74**	**238**	⇓ *e*	**Pn**	**07 08 13.2**	**-0.1**
CELP	**Cerrillos**	**1.78**	**228**		**Pn**	**07 08 14.2**	**+0.4**
CELP					**Sn**	**07 08 36.0**	**+0.6**
CELP	**Cerrillos**	**1.78**	**228**	⇓ *e*	**Pn**	**07 08 14.8**	**+1.0**
OBIP	**Obispado Ponce**	**1.82**	**228**		**Pn**	**07 08 14.8**	**+0.5**
OBIP				IAML		07 08 41.9	
	comp=N,4μm,1.0s						
OBIP	**Obispado Ponce**	**1.82**	**228**	⇑ *e*	**Pn**	**07 08 14.7**	**+0.4**
AGPR	**Aguadilla, PR**	**1.99**	**246**		**Pn**	**07 08 16.6**	**0.0**
GBPR	**Guanica, Bosqu**	**2.06**	**231**		**Pn**	**07 08 18.7**	**+1.1**
GBPR					**Sn**	**07 08 43.9**	**+1.6**
GBPR	**Guanica, Bosqu**	**2.06**	**231**	⇓ *e*	**Pn**	**07 08 18.7**	**+1.1**
GBPR				*e*	**Sn**	**07 08 43.9**	**+1.6**
PRSN	**Puerto Rico Se**	**2.13**	**241**		**Pn**	**07 08 18.9**	**+0.3**
PRSN				IAML		07 08 58.3	
	comp=N,4μm,0.9s						
PRSN				IAML		07 09 08.0	
	comp=N,4μm,0.7s						
PRSN	**Puerto Rico Se**	**2.13**	**241**	⇑ *e*	**Pn**	**07 08 18.8**	**+0.3**
MLPR	**Magueyes Islan**	**2.18**	**234**		**Pn**	**07 08 19.7**	**+0.3**
MLPR	**Magueyes Islan**	**2.18**	**234**	⇓ *e*	**Pn**	**07 08 20.4**	**+1.0**
CRPR	**Cabo Rojo, PR**	**2.21**	**235**		**Pn**	**07 08 20.1**	**+0.4**
CRPR					**Sn**	**07 08 45.8**	**-0.4**
CRPR				IAML		07 09 00.7	
	comp=N,2μm,1.2s						
CRPR				IAML		07 09 06.1	
	comp=N,2μm,0.8s						
CRPR	**Cabo Rojo, PR**	**2.21**	**235**	⇑ *e*	**Pn**	**07 08 20.7**	**+0.9**
IDE	**Isla Desecheo**	**2.33**	**248**		**Pn**	**07 08 22.0**	**+0.6**
IDE					**Sn**	**07 08 50.9**	**+1.7**
IDE	**Isla Desecheo**	**2.33**	**248**	⇓ *e*	**Pn**	**07 08 22.0**	**+0.6**
IDE				*e*	**Sn**	**07 08 50.9**	**+1.7**
SMRT	**St. Maarten**	**2.35**	**121**		**Pn**	**07 08 23.3**	**+1.5**
SMRT				IAML		07 09 01.8	
	comp=E,4μm,0.7s						
SMRT				IAML		07 09 09.9	
	comp=N,4μm,0.5s						
SMRT	**St. Maarten**	**2.35**	**121**	*e*	**Pn**	**07 08 22.8**	**+1.1**
SMRT	**St. Maarten**	**2.35**	**121**	P	**Pn**	**07 08 23.2**	**+1.5**
SABA	**Saba**	**2.48**	**131**	Pn	**Pn**	**07 08 24.5**	**+1.0**
SABA	**Saba**	**2.48**	**131**	*e*P	**Pn**	**07 08 25.7**	**+2.2**
SABA	**Saba**	**2.48**	**131**	P	**Pn**	**07 08 25.8**	**+2.2**
SEUS	**St. Eustatius**	**2.75**	**130**		**Pn**	**07 08 28.6**	**+1.3**
SEUS				IAML		07 09 16.4	
	comp=E,3μm,1.0s						
SEUS	**St. Eustatius**	**2.75**	**130**	*e*P	**Pn**	**07 08 30.3**	**+3.1**
SEUS	**St. Eustatius**	**2.75**	**130**	P	**Pb**	**07 08 31.1**	**-2.5**
SKI	**Saint Kitts**	**3.03**	**129**	*e*P	**Pn**	**07 08 33.0**	**+1.9**
PCDR	**Punta Cana, DR**	**3.11**	**256**		**Pn**	**07 08 32.4**	**+0.3**
PCDR				IAML		07 09 37.6	
	comp=N,1μm,1.4s						
PCDR	**Punta Cana, DR**	**3.11**	**256**	⇑ *i*P	**Pn**	**07 08 33.0**	**+0.9**
ANWB	**Willy Bob**	**3.61**	**116**		**Pn**	**07 08 39.5**	**+0.4**
ANWB				IAML		07 09 43.7	
	comp=N,929nm,1.0s						
ANWB				IAML		07 09 45.5	
	comp=N,715nm,1.2s						
ANWB	**Willy Bob**	**3.61**	**116**	P	**Pn**	**07 08 38.7**	**-0.3**
ANWB	**Willy Bob**	**3.61**	**116**	*e*P	**Pn**	**07 08 39.1**	**+0.1**
ANWB				x	x	07 09 29.2	
ANWB	**Willy Bob**	**3.61**	**116**	P	**Pb**	**07 08 44.4**	**-3.8**
DR12	**Loma Pena Alta**	**3.99**	**264**		**Pn**	**07 08 44.4**	**+0.1**
DHSZ	**Broadband at M**	**4.43**	**132**	*e*P	**Pn**	**07 08 52.2**	**+2.0**
GDHS	**Morne Mazeau,**	**4.43**	**132**	Pn	**Pn**	**07 08 50.7**	**+0.3**
GDHS	**Morne Mazeau,**	**4.43**	**132**	P	**Pn**	**07 08 52.8**	**+2.4**
ABD	**La Joyeuse, An**	**4.50**	**128**		**Pn**	**07 08 52.0**	**+0.8**
ABD	**La Joyeuse, An**	**4.50**	**128**	⇑ *e*P	**Pn**	**07 08 52.6**	**+1.3**
SDD	**Santo Domingo**	**4.54**	**260**		**Pn**	**07 08 51.2**	**-0.6**
SDD				IAML		07 10 22.2	
	comp=N,727nm,1.4s						
CBE	**Ff, Capester**	**4.68**	**132**		**Pn**	**07 08 54.1**	**+0.4**
CBE	**Ff, Capester**	**4.68**	**132**	P	**Pn**	**07 08 56.3**	**+2.6**
DSDZ	**La Diserade, G**	**4.92**	**126**	*e*P	**Pn**	**07 08 57.7**	**+0.7**
GDSD	**La Dsirade Is**	**4.92**	**126**		**Pn**	**07 08 57.1**	**+0.1**
GDSD				IAML		07 10 19.8	
	comp=N,311nm,1.3s						
GDSD				IAML		07 10 21.5	
	comp=E,327nm,1.4s						
GDSD	**La Dsirade Is**	**4.92**	**126**	P	**Pn**	**07 08 57.7**	**+0.7**
MAGL	**Barre de l'ile**	**4.99**	**131**	Pn	**Pn**	**07 08 59.1**	**+1.1**
MAGL				IAML		07 10 10.3	
	comp=E,549nm,0.8s						
MAGL	**Barre de l'ile**	**4.99**	**131**	*e*P	**Pn**	**07 09 02.1**	**+4.1**
MAGL	**Barre de l'ile**	**4.99**	**131**	P	Pn	07 09 02.8	+4.8
	comp=Z,1μm,0.6s						
SC01	**Santiago de lo**	**5.22**	**273**		**Pn**	**07 09 01.2**	**0.0**
DWS	**Wesley**	**5.23**	**134**	*e*P	**Pn**	**07 09 04.5**	**+3.2**
DSLB	**Salisbury**	**5.25**	**136**	*e*P	**Pn**	**07 09 03.5**	**+1.9**
SDDR	**Presa de Saban**	**5.77**	**268**		**Pn**	**07 09 08.9**	**+0.2**
SDDR	**Presa de Saban**	**5.77**	**268**	P	**Pn**	**07 09 09.6**	**+0.9**
	comp=Z,3μmcomp=Z,255nm,0.7s						
SDDR				AML	AML		
SDDR	**Presa de Saban**	**5.77**	**268**	*e*P	**Pn**	**07 09 09.7**	**+0.9**
SDDR	**Presa de Saban**	**5.77**	**268**	*e*P	**Pn**	**07 09 09.6**	**+0.9**
SDDR				*e*S	**Sn**	**07 10 10.4**	**-3.6**
SDDR				IAML		07 10 17.4	
	comp=Z,246nm,0.6s						
SDDR				IAML		07 10 19.0	
	comp=Z,336nm,0.5s						
SDDR	**Presa de Saban**	**5.77**	**268**	P	**Pn**	**07 09 10.2**	**+1.5**
	comp=Z,260nm,0.7s						
PODR	**Polo**	**5.87**	**260**		**Pn**	**07 09 09.3**	**-1.0**
CXM	**Morne La Croix**	**5.88**	**138**		**Pn**	**07 09 09.9**	**-0.5**
FDFM	**Morne la Roset**	**5.95**	**139**		**Pn**	**07 09 12.6**	**+1.5**
GRTK	**Grand Turk**	**5.99**	**293**	P	**Pn**	**07 09 09.0**	**-2.8**
	comp=Z,179nm,0.8s						
GRTK				AML	AML		
GRTK	**Grand Turk**	**5.99**	**293**	*e*P	Pn	07 09 02.8	-9.0
GRTK				*e*S	Sn	07 10 08.2	-11
ILAM	**Ilet Lapin Mar**	**6.10**	**137**	Pn	**Pn**	**07 09 14.4**	**+1.2**
ILAM	**Ilet Lapin Mar**	**6.10**	**137**	x	x	07 09 16.1	
LODA1	**ITESIL, Dajabo**	**6.15**	**274**		**Pn**	**07 09 13.3**	**-0.6**
BIM	**Bigot**	**6.17**	**140**		**Pn**	**07 09 14.9**	**+0.7**
BIM	**Bigot**	**6.17**	**140**	*e*P	**Pn**	**07 09 16.0**	**+1.8**
BIM	**Bigot**	**6.17**	**140**	P	**Pn**	**07 09 17.3**	**+3.1**
	comp=Z,191nm,0.6s						
MPOM	**Morne Pois Mar**	**6.35**	**139**	Pn	**Pn**	**07 09 17.2**	**+0.5**
SLBI	**Saint Lucia, B**	**6.61**	**142**	*e*P	**Pn**	**07 09 21.7**	**+1.5**
MCLT	**Moule a Chique**	**6.88**	**143**	*e*P	Pn	07 09 29.5	+5.6
GRGR	**Grenville**	**7.88**	**154**	Pn	**Pn**	**07 09 38.4**	**+0.7**
GRGR	**Grenville**	**7.88**	**154**	P	**Pn**	**07 09 40.8**	**+3.1**
	comp=Z,130nm,0.9s						
BBGH	**Gun Hill**	**8.16**	**138**	P	Pn	07 09 46.4	+4.9
	comp=Z,628nm,1.6s						
BBGH	**Gun Hill**	**8.16**	**138**	*e*P	Pn	07 09 47.2	+5.7
QMBU	**Quimbuelo**	**9.10**	**277**	*e*P	Pn	07 09 48.6	-5.9
QMBU				*e*S	Sn	07 11 26.0	-10
MOAC	**Moa**	**9.28**	**280**	*e*P	**Pn**	**07 09 52.9**	**-4.0**
MOAC				*e*S	Sn	07 11 29.3	-11
NMDO	**Nuevo Mundo**	**9.29**	**280**	*e*P	Pn	07 09 51.4	-5.7
TRN	**Trinidad (W)**	**9.33**	**156**	*e*P	**Pn**	**07 10 01.4**	**+3.8**
GTBY	**Guantanamo Bay**	**9.37**	**276**	P	**Pn**	**07 09 53.9**	**-4.2**
	comp=Z,68nm,1.2s						
GTBY	**Guantanamo Bay**	**9.37**	**276**	*e*P	**Pn**	**07 09 54.2**	**-3.9**
SABCS	**La Quijada**	**9.58**	**278**	*e*P	**Pn**	**07 09 57.5**	**-3.6**
URIC	**Uribia, Colomb**	**9.98**	**222**	Pn	**Pn**	**07 10 05.4**	**-1.2**
PINC	**Pinares de May**	**10.04**	**279**	*e*P	Pn	07 10 02.4	-4.9
MARVS	**Santiago de Cu**	**10.11**	**276**	*e*P	**Pn**	**07 10 04.5**	**-3.8**
HLGC	**Holguin**	**10.33**	**281**	*e*P	**Pn**	**07 10 08.9**	**-2.5**
LMGC	**Las Mercedes**	**11.15**	**275**	*e*P	Pn	07 10 17.8	-4.7
PILO	**Pilon**	**11.53**	**275**	*e*P	Pn	07 10 22.8	-4.9
SDV	**Santo Domingo**	**11.60**	**208**	Pn	**Pn**	**07 10 33.1**	**+4.3**
	comp=Z,4.8nm,0.3s,baz=40,slow=8.2,SNR=12						
SDV				Sn	**Sn**	**07 12 35.0**	**-2.6**
	comp=Z,1.3nm,0.3s,baz=298,slow=16,SNR=1.7						
SDV				LR	LR	07 15 15.5	
	comp=Z,1μm,20.4s,baz=7.5,slow=38						
	comp=Z,11nm,0.4s						
SDV				AML	AML		
SDV	**Santo Domingo**	**11.60**	**208**		**Pn**	**07 10 28.3**	**-0.6**
SDV	**Santo Domingo**	**11.60**	**208**	P	Pn	07 10 34.2	+5.3
	comp=Z,239nm,0.8s						
CCCC	**Cccc**	**11.95**	**281**	*e*P	Pn	07 10 23.7	-10
BBSR	**BB Station**	**13.04**	**2**	Pn	**Pn**	**07 10 44.5**	**-3.8**
SJCC	**San Jacinto, C**	**13.42**	**227**		**Pn**	**07 10 51.7**	**-2.0**
CAIB	**Caibarien**	**13.72**	**286**	Pn	**Pn**	**07 10 55.2**	**-2.4**
URCC	**San Jos de Ur**	**15.23**	**223**	P	**Pn**	**07 11 20.3**	**+2.1**
	comp=Z,454nmcomp=Z,35nm,1.3s						
APAC	**Apartado, Choc**	**15.81**	**226**	P	**Pn**	**07 11 23.8**	**-1.9**
	comp=Z,34nm,0.7s						
ROSC	**El Rosal**	**16.89**	**213**	P	**P**	**07 11 43.2**	**+1.6**
	comp=Z,4.1nm,0.3s,baz=16,slow=7.4,SNR=13						
ROSC				S	**Sn**	**07 14 48.3**	**+1.4**
	comp=Z,3.6nm,0.5s,baz=0.0,slow=20,SNR=1.8						
ROSC				LR	LR	07 18 41.8	
	comp=Z,625nm,20.3s,baz=31,slow=39						
	comp=Z,16nm,0.6s						
ROSC				AML	AML		
ROSC	**El Rosal**	**16.89**	**213**		**Pn**	**07 11 39.7**	**0.0**
ROSC				IAmb	IAmb	07 11 58.5	
	comp=Z,37nm,0.8s						
BOAV	**Boa Vista**	**17.39**	**164**		**Pn**	**07 11 46.0**	**+0.3**
BOAV	**Boa Vista**	**17.39**	**164**	*e*P	**Pn**	**07 11 44.6**	**-1.1**
ORTC	**Ortega, Tolima**	**18.16**	**214**	P	**P**	**07 11 56.1**	**+0.8**
	comp=Z,1μmcomp=Z,49nm,0.9s						
MDP	**Montagnes des**	**18.67**	**137**	P	**Pn**	**07 12 01.2**	**-0.1**
	comp=Z,0.9nm,0.3s,baz=330,slow=9.9,SNR=7.5						
MDP				S	Sn	07 15 16.2	-13
	comp=Z,4.5nm,0.7s,baz=18,slow=13,SNR=1.2						
MDP				LR	LR	07 20 35.1	
	comp=Z,118nm,21.3s,baz=328,slow=41						
	comp=Z,7.5nm,0.6s						
MDP				AML	AML		
656A	**Willston**	**18.70**	**306**	P	**Pn**	**07 12 01.4**	**-0.2**
656A				IAmb	IAmb	07 12 05.5	
	comp=Z,92nm,1.3s						
MACC	**Macarena, Meta**	**19.02**	**207**	P	**P**	**07 12 04.5**	**-0.2**
	comp=Z,25nm,1.3s						
POPC	**Popayan, Colom**	**20.07**	**215**	P	**P**	**07 12 14.9**	**-1.6**
	comp=Z,17nm,0.7s						
BBAC	**Balboa, Cauca**	**20.82**	**216**	P	**P**	**07 12 23.6**	**-0.9**
	comp=Z,39nm,1.1s						
154A	**Montrose**	**20.83**	**313**	P	**P**	**07 12 24.3**	**0.0**
JTS	**Las Juntas de**	**21.07**	**248**	P	**P**	**07 12 27.8**	**+0.7**
	comp=Z,9.3nm,0.8s,baz=43,slow=11,SNR=7.1						
	comp=Z,9.3nm,0.8s						
JTS	**Las Juntas de**	**21.07**	**248**	P	**P**	**07 12 26.0**	**-1.1**
JTS				IAmb	IAmb	07 12 40.4	
	comp=Z,23nm,0.9s						
JTS	**Las Juntas de**	**21.07**	**248**	P	**P**	**07 12 28.4**	**+1.3**
	comp=Z,32nm,1.1s						
HODGE	**Hodges**	**21.26**	**318**	P	**P**	**07 12 29.5**	**+0.6**
PAULI	**Pauline**	**21.37**	**320**	P	**P**	**07 12 30.2**	**+0.1**
352A	**Blakely**	**21.53**	**308**	P	**P**	**07 12 32.4**	**+0.5**
352A				IAmb	IAmb	07 12 57.5	
	comp=Z,34nm,1.2s						
GOGA	**Godfrey**	**21.54**	**314**	P	**P**	**07 12 31.8**	**-0.2**
U56A	**King**	**21.62**	**325**	P	**P**	**07 12 33.7**	**+0.9**
R58B	**Mineral**	**21.65**	**332**	P	**P**	**07 12 34.1**	**+1.0**
V55A	**Taylorsville**	**21.72**	**323**		**P**	**07 12 34.3**	**+0.4**
TEIG	**Tepich**	**21.74**	**276**	P	**P**	**07 12 34.0**	**-0.2**
TGUH	**Tegucigalpa,Un**	**21.77**	**260**	P	**P**	**07 12 34.1**	**-0.6**
P61A	**Hammonton**	**21.95**	**340**	P	**P**	**07 12 37.2**	**+1.1**
S57A	**Dark Hollow, R**	**21.98**	**330**	P	**P**	**07 12 36.9**	**+0.3**
152A	**Waverly Hall**	**21.99**	**311**	P	**P**	**07 12 37.8**	**+1.0**
BG3	**Lake Jocassee**	**22.17**	**318**		**P**	**07 12 39.4**	**+0.7**
BG3				IAmb	IAmb	07 13 00.7	
	comp=Z,23nm,1.0s						
TULM	**Tulcn-Chalpat**	**22.20**	**215**	P	**P**	**07 12 39.4**	**-0.3**
Y52A	**Lilburn**	**22.21**	**315**	P	**P**	**07 12 40.1**	**+0.9**
Y52A				IAmb	IAmb	07 12 58.2	
	comp=Z,14nm,0.4s						
BLA	**Blacksburg**	**22.28**	**326**		**P**	**07 12 40.4**	**+0.4**
PSUB	**Penn St. - Bra**	**22.39**	**339**	P	**P**	**07 12 41.1**	**+0.1**
U54A	**Nelsons Funny**	**22.54**	**323**	P	**P**	**07 12 43.3**	**+0.6**
U54A				IAmb	IAmb	07 13 07.0	
	comp=Z,22nm,0.9s						
MACA	**Manacapuru-AM**	**22.74**	**168**		**P**	**07 12 44.2**	**-0.7**
MACA				IAmb	IAmb	07 13 10.6	
	comp=Z,32nm,1.1s						
MACA	**Manacapuru-AM**	**22.74**	**168**	*e*P	**P**	**07 12 42.6**	**-2.3**
250A	**Grady**	**22.77**	**308**	P	**P**	**07 12 45.3**	**+0.2**
OTAV	**Otavalo**	**22.96**	**216**		**P**	**07 12 46.8**	**-0.9**
OTAV				IAmb	IAmb	07 13 06.5	
	comp=Z,15nm,0.8s						
OTAV	**Otavalo**	**22.96**	**216**	P	**P**	**07 12 50.4**	**+2.7**
	comp=Z,21nm,1.1s						
OTAV	**Otavalo**	**22.96**	**216**	*e*P	**P**	**07 12 48.3**	**+0.6**
TKL	**Tuckaleechee C**	**23.12**	**319**	LR	LR	07 23 47.1	
	comp=Z,173nm,18.3s,baz=138,slow=42						
**TK

comp=Z,9.9nm,0.8s
SMTB Santa Maria do 32.91 147 P **P** 07 14 17.9 +0.9
SMTB Santa Maria do 32.91 147 eP **P** 07 14 13.4 -3.6
NNA Nana 33.12 201 LR LR 07 30 25.6
comp=Z,273nm,19.2s,baz=338,slow=41
NBPS Pedro II - PI 33.16 133 eP **P** 07 14 16.4 -2.8
R32A Long Quarter, 34.74 310 P **P** 07 14 32.5 -0.3
R32A IAmb IAmb 07 14 34.4
comp=Z,14nm,1.0s
ZAIG Zacatecas 35.00 282 **P** 07 14 34.7 -0.7
ZAIG Zacatecas 35.00 282 P **P** 07 14 36.8 +1.4
comp=Z,5.5nm,0.9s
PTLB Pontes e Lacer 35.02 170 **P** 07 14 35.0 -0.2
PTLB Pontes e Lacer 35.02 170 eP **P** 07 14 34.2 -1.0
LPAZ La Paz 35.46 185 P **P** 07 14 41.0 +1.3
comp=Z,2.4nm,0.8s,baz=359,slow=8.2,SNR=9.3
LPAZ LR LR 07 30 20.9
comp=Z,262nm,18.8s,baz=356,slow=38
comp=Z,2.4nm,0.8s
LPAZ La Paz 35.46 185 P **P** 07 14 42.4 +2.7
comp=Z,7.8nm,1.4s
LPAZ La Paz 35.46 185 eP **P** 07 14 36.0 -3.8
SCHQ Schefferville 35.51 358 LR LR 07 29 16.5
comp=Z,195nm,18.9s,baz=175,slow=37
EYMN Ely 35.68 329 P **P** 07 14 41.0 +0.3
EYMN IAmb IAmb 07 14 44.0
comp=Z,12nm,1.1s
ECSD EROS Data Cent 35.86 320 IAmb IAmb 07 14 43.7
comp=Z,16nm,1.4s
ECSD EROS Data Cent 35.86 320 P **P** 07 14 43.0 +0.8
comp=Z,8.4nm,1.5s
SALV Santo Antonio 36.19 164 eP **P** 07 14 42.3 -2.9
TX31 Lajitas Ar. Si 36.32 293 **P** 07 14 46.9 +0.4
TXAR Lajitas Array 36.32 293 P **P** 07 14 46.9 +0.4
comp=Z,2.4nm,0.8s,baz=110,slow=10,SNR=33
TXAR PcP **PcP** 07 17 12.8 +1.8
comp=Z,0.8nm,1.0s,baz=94,slow=5.0,SNR=2.8
TXAR LR LR 07 34 22.0
comp=Z,71nm,18.2s,baz=71,slow=44
comp=Z,2.4nm,0.8s
TXAR Lajitas Array 36.32 293 P **P** 07 14 47.2 +0.7
TXAR **PcP** 07 17 11.3 +0.3
BBSD Serra de San D 36.52 173 eP **P** 07 14 46.1 -2.0
PB16 IPOC Station P 37.62 187 IAmb IAmb 07 15 10.8
comp=Z,8.3nm,0.9s
PB16 IPOC Station P 37.62 187 P **P** 07 14 56.2 -1.9
comp=Z,11nm,1.2s
AGMN Agassiz Nation 38.11 327 IAmb IAmb 07 15 01.6
comp=Z,7.2nm,0.6s
T25A Trinidad 38.54 306 IAmb IAmb 07 15 07.5
comp=Z,12nm,1.1s
BDFB Brasilia 38.60 153 P **P** 07 15 09.2 +3.3
comp=Z,2.8nm,0.6s,baz=329,slow=10,SNR=5.2
BDFB LR LR 07 32 08.5
comp=Z,369nm,19.0s,baz=324,slow=38
comp=Z,2.8nm,0.6s
NBPN Ponto Novo - B 38.77 138 eP **P** 07 15 04.8 -2.4
GO01 Chusmiza 38.91 186 P **P** 07 15 06.5 -2.3
comp=Z,19nm,1.2s
GO01 pP **sP** 07 15 18.9 -0.4
PB11 IPOC Station P 39.05 187 P **P** 07 15 10.4 +0.9
comp=Z,27nm,0.9s
ULM Lac du Bonnet 39.36 329 P **P** 07 15 10.9 -0.8
comp=Z,7.0nm,0.7s,baz=126,slow=8.6,SNR=12
ULM LR LR 07 30 44.8
comp=Z,250nm,21.2s,baz=187,slow=35
comp=Z,7.0nm,0.7s
ULM Lac du Bonnet 39.36 329 **P** 07 15 11.6 -0.2
ULM IAmb IAmb 07 15 12.1
comp=Z,9.2nm,0.8s
PB08 IPOC Station P 39.37 186 P **P** 07 15 12.1 -0.4
PB08 IAmb IAmb 07 15 17.0
comp=Z,12nm,0.7s
PB08 IPOC Station P 39.37 186 P **P** 07 15 10.2 -2.3
comp=Z,22nm,0.9s
SDCO Great Sand Dun 39.55 306 P **P** 07 15 14.5 +0.6
SDCO IAmb IAmb 07 15 16.3
comp=Z,10nm,0.8s
ANMO Albuquerque 39.60 302 LR LR 07 34 52.1
comp=Z,165nm,18.4s,baz=108,slow=41
COIM Forte Coimbra 39.62 169 eP **P** 07 15 12.2 -1.9
LENM Lemitar 39.87 300 P **P** 07 15 17.0 +0.6
ISCO Idaho Springs 40.24 309 **P** 07 15 20.2 +0.5
ISCO Idaho Springs 40.24 309 P **P** 07 15 21.0 +1.3
comp=Z,7.8nm,1.5s
ISCO pP **sP** 07 15 31.6 +2.4
BDQN Bodoquena, MS 40.34 168 eP **P** 07 15 18.8 -1.3
AQDB Aquidauana 40.59 166 **P** 07 15 22.3 0.0
AQDB IAmb IAmb 07 15 25.2
comp=Z,17nm,1.3s
AQDB Aquidauana 40.59 166 P **P** 07 15 23.5 +1.3
comp=Z,8.5nm,0.9s
AQDB Aquidauana 40.59 166 eP **P** 07 15 20.0 -2.3
IPMB Ipameri, GO 40.62 155 eP **P** 07 15 19.5 -3.0
PV15 Paradox Valley 41.97 306 P **P** 07 15 33.9 +0.1
PV15 IAmb IAmb 07 15 36.3
comp=Z,17nm,1.0s
PV07 Paradox Valley 42.12 306 IAmb IAmb 07 15 37.1
comp=Z,14nm,1.0s
PV12 Saucer Basin, 42.21 306 IAmb IAmb 07 15 38.2
comp=Z,19nm,1.0s
PV03 Paradox Valley 42.23 306 IAmb IAmb 07 15 38.1
comp=Z,19nm,1.0s
PV22 Blue Mesa, Par 42.25 306 IAmb IAmb 07 15 38.6
comp=Z,11nm,0.9s
PV11 David Mesa, Pa 42.26 306 IAmb IAmb 07 15 41.2
comp=Z,15nm,0.8s
PV18 Skein Mesa, Pa 42.27 306 IAmb IAmb 07 15 38.5
comp=Z,20nm,1.0s
PV16 Nyswonger Mesa 42.30 306 IAmb IAmb 07 15 39.1
comp=Z,19nm,1.0s
PV17 East Wray Mesa 42.32 306 IAmb IAmb 07 15 38.8
comp=Z,18nm,1.0s
PV20 West Nyswonger 42.34 306 IAmb IAmb 07 15 38.9
comp=Z,20nm,1.1s
PV05 Paradox Valley 42.38 306 IAmb IAmb 07 15 39.3
comp=Z,20nm,1.1s
PV14 Lion Creek, Pa 42.39 306 IAmb IAmb 07 15 39.3
comp=Z,20nm,1.0s
PV23 Carpenter Ridg 42.40 306 IAmb IAmb 07 15 39.4
comp=Z,20nm,1.2s
PV10 Paradox Valley 42.41 306 IAmb IAmb 07 15 39.4
comp=Z,18nm,1.1s
DIAM Diamantina, MG 42.91 149 eP **P** 07 15 39.9 -1.5
SALTA 43.26 182 P **P** 07 15 43.9 -0.6
comp=Z,9.6nm,1.1s
WUAZ Wupatki 43.66 302 **P** 07 15 47.2 -0.3
BW06 Boulder Array 44.00 312 IAmb IAmb 07 15 51.9
comp=Z,8.8nm,1.0s
PD31 Pinedale Array 44.00 312 **P** 07 15 50.5 +0.4
PD31 IAmb IAmb 07 15 51.9
comp=Z,8.8nm,1.0s
PDAR Pinedale Array 44.00 312 P **P** 07 15 50.9 +0.8
comp=Z,5.4nm,0.9s,baz=116,slow=9.7,SNR=30
PDAR PcP **PcP** 07 17 35.8 +0.3
comp=Z,0.6nm,0.6s,baz=90,slow=4.0,SNR=4.8
comp=Z,5.4nm,0.9s
PDAR Pinedale Array 44.00 312 **P** 07 15 49.9 -0.2
PDAR **PcP** 07 17 35.1 -0.5
BSUT Blindstream Ca 44.23 309 IAmb IAmb 07 15 54.3
comp=Z,8.6nm,0.9s
FRB Frobisher Bay 44.49 358 LR LR 07 32 48.8
comp=Z,266nm,21.4s,baz=128,slow=34
PIX Pinacate 44.95 296 IAmb IAmb 07 16 13.9
comp=Z,15nm,1.3s
CTU Camp Tracy 45.00 309 **P** 07 15 58.8 +0.7
SNOW Snow King Moun 45.05 313 IAmb IAmb 07 16 00.8
comp=Z,11nm,1.0s
AHID Auburn Hatcher 45.08 312 IAmb IAmb 07 16 00.5
comp=Z,12nm,1.0s
AHID Auburn Hatcher 45.08 312 P **P** 07 16 00.1 +1.3
AHID pP **sP** 07 16 11.3 +2.9
HWUT Hardware Ranch 45.10 310 IAmb IAmb 07 16 00.4
comp=Z,8.9nm,0.9s
HWUT Hardware Ranch 45.10 310 P **P** 07 15 59.9 +1.1
comp=Z,13nm,0.9s
YHB Horse Butte 45.75 314 IAmb IAmb 07 16 07.8
comp=Z,8.8nm,1.0s
YHL Hebgen Lake 45.77 314 IAmb IAmb 07 16 08.3
comp=Z,18nm,1.4s
CPUP Villa Florida 45.98 170 LR LR 07 36 00.6
comp=Z,94nm,18.1s,baz=72,slow=37
BGU Big Grassy Mou 46.00 309 IAmb IAmb 07 16 08.1
comp=Z,7.2nm,1.0s
BOZ Bozeman (W) 46.31 315 IAmb IAmb 07 16 10.5
comp=Z,8.6nm,1.2s
VTX Valle De La Tr 46.92 295 IAmb IAmb 07 16 30.4
comp=Z,9.2nm,1.1s
PFO Pinyon Flats O 47.62 298 LR LR 07 39 47.7
comp=Z,94nm,18.3s,baz=72,slow=40
HLID Hailey 47.63 312 IAmb IAmb 07 16 21.3
comp=Z,5.5nm,0.8s
HLID Hailey 47.63 312 P **P** 07 16 20.8 +2.1
comp=Z,8.9nm,1.1s
TPNV Topopah Spring 47.77 303 IAmb IAmb 07 16 24.1
comp=Z,5.3nm,0.9s
SFJD Kangerlussuaq 48.62 8 LR LR 07 36 36.2
comp=Z,201nm,19.6s,baz=172,slow=36
PLID Pearl Lake 49.11 313 **P** 07 16 30.5 +0.3
PLID IAmb IAmb 07 16 31.7
comp=Z,8.4nm,0.9s
NVAR Mina Array Bea 49.57 304 P **P** 07 16 34.3 +0.5
comp=Z,1.3nm,0.7s,baz=93,slow=14,SNR=9.7
NVAR LR LR 07 39 44.3
comp=Z,89nm,18.7s,baz=169,slow=39
comp=Z,1.3nm,0.7s
BMO Blue Mountains 49.96 313 **P** 07 16 36.9 +0.4
BMO IAmb IAmb 07 16 37.7
comp=Z,5.1nm,0.9s
CO06 Fray Jorge 50.05 187 P **P** 07 16 37.4 +0.3
WVOR Wild Horse Val 50.42 310 IAmb IAmb 07 16 43.5
comp=Z,11nm,1.5s
WVOR Wild Horse Val 50.42 310 P **P** 07 16 37.3 -2.7
J08A Circle Bar Ran 50.47 311 P **P** 07 16 41.0 +0.6
CFA Coronel Fontan 50.68 183 LR LR 07 41 39.3
comp=Z,160nm,19.1s,baz=170,slow=40
NEW Newport 50.70 317 LR LR 07 39 41.8
comp=Z,135nm,18.2s,baz=90,slow=38
NEW Newport 50.70 317 P **P** 07 16 43.0 +1.0
comp=Z,21nm,0.8s
LNOR Lincton Mounta 50.86 314 IAmb IAmb 07 16 45.4
comp=Z,7.6nm,0.9s
I07A Izee 51.34 311 IAmb IAmb 07 16 49.0
comp=Z,13nm,1.0s
EPH Ephrata 52.08 316 IAmb IAmb 07 16 58.2
comp=Z,12nm,1.3s
MXC Moxie City 52.38 314 IAmb IAmb 07 16 56.6
comp=Z,9.9nm,0.9s
BBOR Butler Butte 53.43 309 P **P** 07 17 03.0 +0.4
BBOR IAmb IAmb 07 17 21.9
comp=Z,11nm,1.3s
YKA Yellowknife Ar 54.83 334 P **P** 07 17 11.6 -0.6
comp=Z,1.6nm,0.6s,baz=113,slow=7.3,SNR=18
YKA PcP **PcP** 07 18 14.3 +0.2
comp=Z,1.3nm,0.8s,baz=112,slow=6.0,SNR=4.1
YKA LR LR 07 42 28.5
comp=Z,197nm,18.1s,baz=26,slow=38
comp=Z,1.6nm,0.6s
YKA Yellowknife Ar 54.83 334 **P** 07 17 11.8 -0.3
YKA **PcP** 07 18 14.8 +0.6
PGC Sidney 54.88 316 P **P** 07 17 13.1 +0.4
SUMG Summit 55.45 9 P **P** 07 17 18.2 +1.2
SUMG Summit 55.45 9 P **P** 07 17 17.9 +0.9
ESDC Sonseca Array 55.98 55 P **P** 07 17 22.0 +1.1
comp=Z,1.2nm,0.9s,baz=271,slow=6.4,SNR=3.2
ESDC LR LR 07 36 21.5
comp=Z,112nm,21.4s,baz=270,slow=31
comp=Z,1.2nm,0.9s
ESDC Sonseca Array 55.98 55 P **P** 07 17 21.8 +0.9
ESDC IAmb IAmb 07 17 25.6
comp=Z,8.7nm,1.4s
CBB Campbell River 56.37 318 P **P** 07 17 24.6 +1.2
RES Resolute Bay 57.69 351 LR LR 07 41 11.3
comp=Z,218nm,21.3s,baz=120,slow=35
EKA Eskdalemuir Ar 58.50 36 P **P** 07 17 38.1 -0.3
comp=Z,0.2nm,0.3s,baz=248,slow=5.8,SNR=3.6
EKA LR LR 07 37 28.9
comp=Z,107nm,21.3s,baz=258,slow=31
comp=Z,0.2nm,0.3s
DBIC Dimbokro 59.85 93 P **P** 07 17 49.4 +1.0
comp=Z,4.2nm,0.8s,baz=292,slow=8.1,SNR=3.1
DBIC LR LR 07 40 15.3
comp=Z,96nm,20.4s,baz=320,slow=33
comp=Z,4.2nm,0.8s
DBIC Dimbokro 59.85 93 P **P** 07 17 48.6 +0.2
PLCA Paso Flores 59.91 185 P **P** 07 17 50.8 +2.4
comp=Z,1.8nm,0.7s,baz=8.1,slow=7.0,SNR=4.6
PLCA LR LR 07 46 47.5
comp=Z,164nm,19.8s,baz=7.0,slow=39
comp=Z,1.8nm,0.7s
PLCA Paso Flores 59.91 185 P **P** 07 17 48.6 +0.3
PLCA IAmb IAmb 07 18 15.9
comp=Z,7.0nm,1.3s
DLBC Dease Lake 60.63 327 LR LR 07 43 25.3
comp=Z,135nm,22.0s,baz=91,slow=35
A36M Sachs Harbour 62.70 342 IAmb IAmb 07 18 07.2
comp=Z,7.8nm,1.0s
A36M P **P** 07 18 07.2 +0.5
SKAG Skagway 63.50 328 P **P** 07 18 13.0 +0.7
TORD Torodi Ar. Bea 64.19 84 P **P** 07 18 17.6 0.0
comp=Z,1.3nm,0.6s,baz=286,slow=7.6,SNR=7.6
comp=Z,1.3nm,0.6s
INK Inuvik 64.25 337 P **P** 07 18 16.5 -0.5
comp=Z,2.3nm,0.7s,baz=88,slow=5.6,SNR=6.5
INK LR LR 07 45 36.0
comp=Z,180nm,21.4s,baz=342,slow=36
comp=Z,2.3nm,0.7s
INK Inuvik 64.25 337 P **P** 07 18 17.1 +0.1
INK IAmb IAmb 07 18 17.7
comp=Z,5.5nm,1.0s
M30M Minto, Yukon 64.60 331 P **P** 07 18 20.7 +1.2
M30M IAmb IAmb 07 18 21.6
comp=Z,4.8nm,0.9s
DAWY Dawson 65.93 332 P **P** 07 18 29.4 +1.4
DAWY IAmb IAmb 07 18 30.1
comp=Z,4.0nm,0.9s
I28M Miner Creek 66.29 334 P **P** 07 18 31.1 +0.7
I28M IAmb IAmb 07 18 40.0
comp=Z,7.7nm,1.4s
F28M Old Crow 66.50 336 P **P** 07 18 31.7 0.0
NOA NORSAR Array B 66.75 31 P **P** 07 18 34.0 +0.6
comp=Z,1.5nm,0.8s,baz=269,slow=6.5,SNR=3.8
NOA LR LR 07 43 00.6
comp=Z,103nm,21.1s,baz=275,slow=32
comp=Z,1.5nm,0.8s
BCAR Beaver Creek A 66.92 331 P **P** 07 18 35.6 +1.1
MENT Mentasta 67.80 331 P **P** 07 18 41.7 +1.7
CLL Collm 67.87 42 LV 07 40 00.0
CLL AMS AMS 07 43 00.0
comp=Z,200nm,18.1s
SCRK Sand Creek 67.94 332 P **P** 07 18 42.6 +1.6
HFS Hagfors 67.96 32 LR LR 07 45 20.0
comp=Z,170nm,19.4s,baz=261,slow=33
C27K Jago River 68.08 338 P **P** 07 18 42.3 +0.6
C27K IAmb IAmb 07 19 07.5
comp=Z,8.0nm,1.4s
BMRM Bremner River 68.21 329 P **P** 07 18 42.9 +0.3
BMAR Burnt Mountain 68.29 336 P **P** 07 18 43.1 +0.1
ILAR Eielson Array 69.20 333 P **P** 07 18 48.4 -0.3
comp=Z,2.5nm,0.9s,baz=109,slow=4.4,SNR=24
comp=Z,2.5nm,0.9s
SPITS Spitsbergen Ar 69.53 13 LR LR 07 49 30.3
comp=Z,126nm,19.3s,baz=270,slow=36
NEA2 Nenana 70.15 333 P **P** 07 18 54.7 +0.2
TOLK Toolik Lake Re 70.17 337 P **P** 07 18 54.7 +0.1
TOLK IAmb IAmb 07 19 09.8
comp=Z,6.7nm,1.2s
VRAC Vranov 70.34 43 LR LR 07 45 22.5
comp=Z,60nm,21.0s,baz=306,slow=32
SUA Susitna One 71.15 330 P **P** 07 19 02.1 +1.2
D22K Ayikyak River 71.28 338 P **P** 07 19 02.0 +0.6
IMAR Indian Mountai 71.99 335 P **P** 07 19 05.9 +0.2
ARCES ARCESS Array B 72.35 22 P **P** 07 19 06.5 -1.3
comp=Z,4.2nm,0.9s,baz=286,slow=5.3,SNR=5.0
ARCES LR LR 07 46 46.8
comp=Z,57nm,20.4s,baz=278,slow=32
comp=Z,4.2nm,0.9s
ARCES ARCESS Array B 72.35 22 P **P** 07 19 07.9 +0.1
ARCES IAmb IAmb 07 19 10.0
comp=Z,12nm,1.4s
FINES FINESS Array B 73.87 30 P **P** 07 19 16.5 -0.4
comp=Z,1.7nm,0.7s,baz=270,slow=9.5,SNR=4.3
FINES LR LR 07 49 15.5
comp=Z,127nm,19.4s,baz=229,slow=34
comp=Z,1.7nm,0.7s
FINES FINESS Array B 73.87 30 P **P** 07 19 17.1 +0.2
AKASG Malin Array Be 78.05 40 LR LR 07 50 53.5
comp=Z,150nm,21.0s,baz=319,slow=33
PMSA Palmer Station 83.79 180 LR LR 08 02 08.9
comp=Z,97nm,18.0s,baz=300,slow=39
BELG Belogornoye 88.00 34 LR LR 07 56 58.7
comp=Z,125nm,20.6s,baz=307,slow=34
TIXI Tiksi 88.79 356 LR LR 08 00 38.2
comp=Z,116nm,20.0s,baz=9.5,slow=36
EIL Elat 89.04 59 LR LR 07 58 36.4
comp=Z,54nm,18.8s,baz=292,slow=34
KBZ Khabaz 89.23 44 LR LR 08 01 04.0
comp=Z,58nm,18.8s,baz=344,slow=36
NRIK Noril'sk 89.50 9 LR LR 08 03 14.0
comp=Z,51nm,19.0s,baz=344,slow=37
TSUM Tsumeb 89.72 110 LR LR 07 54 02.4
comp=Z,49nm,20.6s,baz=314,slow=31
ARTI Arti 91.02 28 LR LR 07 57 26.6
comp=Z,65nm,21.4s,baz=328,slow=33
GNI Garni 92.07 46 LR LR 08 00 06.1
comp=Z,39nm,19.3s,baz=318,slow=34
MBAR Mbarara 95.80 89 LR LR 08 00 37.4
comp=Z,37nm,21.7s,baz=219,slow=33
MA2 Magadan 96.12 343 LR LR 08 10 10.3
comp=Z,39nm,18.3s,baz=46,slow=39
YAK Yakutsk 98.10 353 LR LR 08 07 17.5
comp=Z,86nm,19.8s,baz=353,slow=36
HHC Hu-ho-hao-te 120.10 3 eP **PKPdf** 07 26 32.0 -1.5
NJ2 Nanjing 128.81 356 eP **PKPdf** 07 26 49.3 -0.9
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
CTA Charters Tower 150.40 263 PKPbc **PKiKP** 07 27 35.1 -0.1
comp=Z,2.3nm,0.6s,baz=62,slow=4.5,SNR=3.0
STKA Stephens Creek 152.86 237 PKPbc **PKiKP** 07 27 41.0 +1.1
comp=Z,1.6nm,0.8s,baz=131,slow=5.4,SNR=2.8
WRA Warramunga Arr 161.58 265 PKP **PKPdf** 07 27 44.0 +0.1
comp=Z,0.4nm,0.6s,baz=63,slow=1.8,SNR=4.8
ASAR Alice Springs 161.70 253 PKP **PKPdf** 07 27 44.0 0.0
comp=Z,0.5nm,0.9s,baz=113,slow=1.4,SNR=4.0
ASAR PKPab **PKPab** 07 28 29.7 +0.4
comp=Z,0.9nm,0.8s,baz=101,slow=4.4,SNR=6.4

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*IDC **26** 07:11:04.3±2.1,53.79N×166.65W,h0km,mb3.8/6, mbtmp3.8/8,ML3.6/2,Error ellipse: s-maj=36.4km s-min=31.1km az=5.0*
*AEIC **26** 07:11:16.5±1.9,53.89N±0.08×165.88W±0.09,h73km±3km, Error ellipse: s-maj=12.6km s-min=5.0km az=148.0*
*NEIC **26** 07:11:16.7±0.9,53.93N±0.07×165.88W±0.08,h78km±3km, mb3.8/34,ML3.9/20,ML3.8(AEIC),Error ellipse: s-maj=11.2km s-min=4.9km az=151.0*

ISC 26 07:11:15.9±0.8,**53.79N**±0.08×**165.78W**±0.05,**h76**km±6km, **n162**,σ1**s43**/174,**mb3.9**/8,**Fox Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AKBBA	**Akutan Broad B**	**0.32**	**344**		**Pn**	**07 11 28.0**	**+0.1**
AKBBA					**Sn**	**07 11 36.8**	**+0.2**
ZRO	**Akutan Zero**	**0.32**	**339**		**Pn**	**07 11 28.1**	**+0.2**
ZRO					**Sn**	**07 11 36.8**	**+0.1**
AHB	**Akutan Harbor**	**0.33**	**356**		**Pn**	**07 11 28.0**	**+0.1**
AHB					**Sn**	**07 11 37.0**	**+0.3**
AKUT	**Akutan**	**0.34**	**1**	P	**Pn**	**07 11 28.1**	**+0.2**
AKUT	**Akutan**	**0.34**	**1**	S	**Sn**	**07 11 37.1**	**+0.3**
AKUT	**Akutan**	**0.34**	**1**		**Pn**	**07 11 28.2**	**+0.3**
AKUT				Sn	**Sn**	**07 11 37.2**	**+0.3**
AKUT				IAML		07 11 38.1	
	comp=N,6μm,0.3s						
AKRB	**Akutan Reef Bi**	**0.38**	**333**		**Pn**	**07 11 28.6**	**+0.4**
AKV	**Akutan Long Va**	**0.39**	**344**		**Pn**	**07 11 28.3**	**0.0**
AKLV					**Sn**	**07 11 37.4**	**-0.1**
LVA	**Lava Point**	**0.40**	**338**		**Pn**	**07 11 28.6**	**+0.1**
LVA					**Sn**	**07 11 37.5**	**-0.2**
LVA				IAML		07 11 45.6	
	comp=E,3μm,0.4s						
LVA				IAML		07 11 52.2	
	comp=N,5μm,0.7s						
AKGG	**Akutan Green G**	**0.43**	**343**		**Pn**	**07 11 28.9**	**+0.3**
UNV	**Unalaska Valle**	**0.43**	**277**	P	**Pn**	**07 11 28.8**	**+0.2**
UNV	**Unalaska Valle**	**0.43**	**277**	S	**Sn**	**07 11 38.4**	**+0.4**
UNV	**Unalaska Valle**	**0.43**	**277**	Pn	**Pn**	**07 11 28.9**	**+0.2**
UNV					**Sn**	**07 11 38.2**	**+0.2**
MNAT	**Makushin Natee**	**0.54**	**280**		**Pn**	**07 11 29.8**	**+0.1**
MNAT					**Sn**	**07 11 40.3**	**+0.5**
MSW	**Makushin Switc**	**0.61**	**282**		**Pn**	**07 11 30.5**	**+0.3**
MSW					**Sn**	**07 11 41.3**	**+0.4**
MGOD	**Makushin Gods**	**0.65**	**271**		**Pn**	**07 11 31.0**	**+0.3**
MGOD					**Sn**	**07 11 42.3**	**+0.6**
MAPS	**Pakushin South**	**0.69**	**272**		**Pn**	**07 11 31.3**	**+0.2**
MAPS					**Sn**	**07 11 42.6**	**+0.3**
WESP	**Westdahl Peak**	**0.94**	**41**		**Pn**	**07 11 34.8**	**+0.8**
WESP					**Sn**	**07 11 48.9**	**+1.4**
WECS	**Westdahl Cape**	**0.95**	**38**		**Pn**	**07 11 34.5**	**+0.5**
WECS				Sn	**Sn**	**07 11 47.4**	**-0.2**
OKFG	**Magazine Ridge**	**1.33**	**254**		**Pn**	**07 11 39.5**	**+0.7**
WTUG	**Tugumak**	**1.34**	**37**		**Pn**	**07 11 39.3**	**+0.4**
WTUG					**Sn**	**07 11 56.9**	**+0.7**
SSBA	**Shishaldin**	**1.38**	**44**		**Pn**	**07 11 40.2**	**+0.7**
OKTU	**Okmok Mt. Tuli**	**1.41**	**254**		**Pn**	**07 11 40.6**	**+0.7**
OKNC	**Okmok New Cone**	**1.44**	**257**	Pn	**Pn**	**07 11 40.5**	**+0.3**
OKNC					**Sn**	**07 11 59.1**	**+0.6**
OKCE	**Okmok Cone E**	**1.47**	**257**		**Pn**	**07 11 41.3**	**+0.7**
ISLZ	**Isanotski Laza**	**1.53**	**52**		**Pn**	**07 11 42.5**	**+1.1**
ISLZ					**Sn**	**07 12 02.6**	**+1.8**
DT1	**Dutton Round H**	**2.43**	**56**		**Sn**	**07 12 23.7**	**+1.6**
CLCO	**Concord Point,**	**2.57**	**249**		**Pn**	**07 11 57.4**	**+2.1**
CLCO					**Sn**	**07 12 27.2**	**+1.6**
DOL	**Dolgoi Island**	**2.66**	**58**		**Pn**	**07 11 57.9**	**+1.4**
DOL					**Sn**	**07 12 29.4**	**+1.7**
PN7A	**Pavlof North-7**	**2.75**	**52**		**Pn**	**07 11 59.2**	**+1.5**
PS1A	**Pavlof South-1**	**2.86**	**54**		**Pn**	**07 12 00.6**	**+1.4**
S12K	**Black Hills**	**2.88**	**47**	Pn	**Pn**	**07 12 00.1**	**+0.5**
S12K				IAML		07 12 54.6	
	comp=N,253nm,0.7s						
SDPT	**Sand Point**	**3.46**	**61**	P	**Pn**	**07 12 08.2**	**+0.9**
SDPT	**Sand Point**	**3.46**	**61**	S	**Sn**	**07 12 48.0**	**+0.9**
SDPT	**Sand Point**	**3.46**	**61**		**Pn**	**07 12 08.1**	**+0.8**
SDPT				IAML		07 13 06.3	
	comp=N,291nm,0.6s						
SDPT				IAML		07 13 06.6	
	comp=E,249nm,0.8s						
SPIA	**Saint Paul Isl**	**4.24**	**325**	P	**Pn**	**07 12 19.7**	**+1.8**
SPIA	**Saint Paul Isl**	**4.24**	**325**	Pn	**Pn**	**07 12 16.6**	**-1.3**
SPIA				IAML		07 13 33.8	
	comp=N,180nm,1.0s						
SPIA				IAML		07 13 41.9	
	comp=E,144nm,1.0s						
VNWF	**Veniaminof 8**	**4.29**	**54**		**Pn**	**07 12 21.3**	**+2.5**
CHGN	**Chignik**	**4.93**	**56**		**Pn**	**07 12 26.9**	**-0.4**
CHGN				IAML		07 13 42.7	
	comp=N,50nm,0.6s						
CHGN				IAML		07 13 44.4	
	comp=E,89nm,0.8s						
ANPB	**Aniakchak Plen**	**5.24**	**52**		**Pn**	**07 12 33.0**	**+1.4**
ATKA	**Atka Island**	**5.33**	**256**	P	**Pn**	**07 12 34.3**	**+1.5**
ATKA	**Atka Island**	**5.33**	**256**	Pn	**Pn**	**07 12 33.3**	**+0.5**
O14K	**Tigyukauivet M**	**6.02**	**23**	Pn	**Pn**	**07 12 44.2**	**+2.0**
O15K	**Ungalikthiuk R**	**6.32**	**29**		**Pn**	**07 12 48.0**	**+1.7**
N14K	**Kuskokwak Cree**	**6.54**	**18**		**Pn**	**07 12 51.2**	**+1.8**
R17L	**Mt. Peulik Vol**	**6.57**	**50**		**Pn**	**07 12 52.0**	**+2.3**
M11K	**Mekoryuk**	**6.62**	**358**		**Pn**	**07 12 51.4**	**+1.1**
PLK3	**Peulik 3**	**6.64**	**50**		**Pn**	**07 12 52.9**	**+2.2**
P16K	**Nushagak River**	**6.80**	**36**	Pn	**Pn**	**07 12 55.3**	**+2.5**
N15K	**Kwethluk River**	**7.11**	**24**		**Pn**	**07 12 59.7**	**+2.6**
O16K	**Kokwok River B**	**7.19**	**33**		**Pn**	**07 13 00.3**	**+2.2**
M14K	**Bethel**	**7.28**	**15**		**Pn**	**07 13 01.0**	**+1.6**
M15K	**Kasigluk River**	**7.45**	**20**		**Pn**	**07 13 02.9**	**+1.2**
P17K	**Kvichak River**	**7.48**	**40**		**Pn**	**07 13 05.4**	**+3.3**
O17K	**Koliganek Bris**	**7.66**	**35**		**Pn**	**07 13 06.6**	**+2.0**
KAWH	**Katmai**	**7.67**	**49**		**Pn**	**07 13 06.3**	**+1.5**
N16K	**Nishlik Lake**	**7.71**	**27**		**Pn**	**07 13 07.6**	**+2.4**
L14K	**Kuka Creek**	**7.75**	**11**	Pn	**Pn**	**07 13 07.8**	**+2.0**
KARR	**Katmai Rainbow**	**7.78**	**48**		**Pn**	**07 13 08.2**	**+2.0**
OHAK	**Old Harbor**	**7.88**	**59**	P	**Pn**	**07 13 07.0**	**-0.6**
OHAK	**Old Harbor**	**7.88**	**59**	Pn	**Pn**	**07 13 07.4**	**-0.2**
P18K	**Big Mountain,**	**8.08**	**42**		**Pn**	**07 13 12.7**	**+2.3**
M16K	**Timber Creek**	**8.13**	**24**		**Pn**	**07 13 13.0**	**+2.0**
K13K	**Kusilvak Mount**	**8.19**	**4**		**Pn**	**07 13 13.8**	**+2.0**
N17K	**Nushagak Hills**	**8.20**	**31**		**Pn**	**07 13 14.3**	**+2.3**
KDAK	**Kodiak Island**	**8.44**	**56**	Pn	**Pn**	**07 13 14.4**	**-0.8**
	comp=E,1.6nm,0.3s,baz=239,slow=6.9,SNR=26						
KDAK				Sn	**Sn**	**07 14 43.0**	**-5.7**
	baz=359,slow=5.4 comp=E,5.5nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**8.44**	**56**	Pn	**Pn**	**07 13 14.5**	**-0.7**
L16K	**Owhat River**	**8.62**	**20**		**Pn**	**07 13 19.2**	**+1.6**
K15K	**Wolf Creek Mou**	**8.82**	**13**		**Pn**	**07 13 22.6**	**+2.3**
M17K	**Holitna River**	**8.84**	**27**		**Pn**	**07 13 22.3**	**+1.6**
L17K	**Donlin**	**9.26**	**22**		**Pn**	**07 13 28.0**	**+1.7**
ILSW	**Iliamna Southw**	**9.28**	**43**	Pn	**Pn**	**07 13 30.6**	**+3.7**

N19K	**Bonanza Creek**	**9.31**	**36**	Pn	**Pn**	07 13 29.9	+2.7
M18K	**Stony River**	**9.37**	**31**		**Pn**	07 13 29.9	+2.0
RDWB	**Redoubt West**	**9.71**	**41**		**Pn**	07 13 35.5	+2.8
L18K	**Granite Mounta**	**9.72**	**26**		**Pn**	07 13 34.6	+1.9
K17K	**Iditarod**	**9.77**	**21**		**Pn**	07 13 34.6	+1.3
CNPM	**China Poot**	**9.84**	**48**	Pn	**Pn**	07 13 35.8	+1.4
RDT	**Redoubt**	**9.93**	**41**		**Pn**	07 13 37.2	+1.6
L19K	**White Mountain**	**10.20**	**30**		**Pn**	07 13 41.3	+2.1
SPCG	**Spurr Capps Gl**	**10.53**	**39**		**Pn**	07 13 46.6	+2.8
M20K	**Styx River**	**10.53**	**35**	Pn	**Pn**	07 13 47.3	+3.5
STLK	**Strandline Lak**	**10.73**	**38**	Pn	**Pn**	07 13 49.5	+3.0
O22K	**Cooper Landing**	**10.98**	**46**		**Pn**	07 13 49.5	-0.3
SUA	**Susitna One**	**11.11**	**40**	Pn	**Pn**	07 13 52.5	+0.7
SKT	**Skwentna**	**11.15**	**37**	Pn	**Pn**	07 13 54.5	+2.4
PPLA	**Purkeypile**	**11.56**	**32**	Pn	**Pn**	07 14 01.3	+3.4
CAST	**Castle Rocks**	**11.97**	**31**	Pn	**Pn**	07 14 05.3	+2.0
J20K	**Nowinta River**	**11.99**	**25**		**Pn**	07 14 05.3	+1.7
KNK	**Knik Glacier**	**11.99**	**44**	Pn	**Pn**	07 14 02.2	-1.5
SML	**Sawmill**	**12.26**	**42**	Pn	**Pn**	07 14 06.4	-0.8
HIN	**Hinchinbrook I**	**12.36**	**50**	Pn	**Pn**	07 14 06.9	-1.8
SCM	**Sheep Creek Mo**	**12.67**	**43**	Pn	**Pn**	07 14 11.6	-1.4
KLU	**Klutina**	**13.09**	**46**		**Pn**	07 14 16.6	-2.0
ILAR	**Eielson Array**	**14.56**	**34**	Pn	Pn	07 14 33.4	-4.4
	comp=E,0.1nm,0.3s,baz=233,slow=13,SNR=10.0						
	comp=E,0.3nm,0.6s						
ILAR				AML	AML		
J25K	**Salcha River,**	**14.97**	**36**	Pn	**Pn**	07 14 41.4	-1.7
H24K	**Noodor Dome**	**14.98**	**29**	Pn	**Pn**	07 14 41.8	-1.4
LOGN	**Logan Glacier**	**15.06**	**52**	Pn	**Pn**	07 14 44.2	-0.1
G23K	**Bananza Creek**	**15.06**	**25**	Pn	**Pn**	07 14 44.1	0.0
SCRK	**Sand Creek**	**15.11**	**39**	Pn	**Pn**	07 14 44.5	-0.4
M27K	**Edge Creek, AK**	**15.19**	**46**	Pn	**Pn**	07 14 45.7	-0.3
M27K				IAmb	IAmb	07 14 49.9	
	comp=Z,8.3nm,1.0s						
PCA	**Pinnacle**	**15.22**	**55**	Pn	**Pn**	07 14 46.3	0.0
O28M	**Mount Upton**	**15.42**	**53**	Pn	**Pn**	07 14 49.7	+0.7
O28M				IAmb	IAmb	07 14 56.3	
	comp=Z,6.5nm,0.6s						
BCPM	**Bancas Point**	**15.50**	**56**	Pn	**Pn**	07 14 50.3	+0.6
L27K	**Beaver Creek,**	**15.51**	**44**	Pn	**Pn**	07 14 49.3	-0.6
BCAR	**Beaver Creek A**	**15.53**	**44**	Pn	**Pn**	07 14 49.8	-0.4
PNL	**Peninsula**	**15.56**	**57**	Pn	**Pn**	07 14 51.2	+0.7
G24K	**Hadweenzic Riv**	**15.72**	**27**	Pn	**Pn**	07 14 52.1	-0.3
G24K				IAmb	IAmb	07 14 56.6	
	comp=Z,1.6nm,0.7s						
K27K	**Chicken**	**15.86**	**40**	Pn	**Pn**	07 14 54.4	+0.1
I26K	**Coal Creek Min**	**16.14**	**36**	Pn	**Pn**	07 14 57.6	-0.2
I26K				IAmb	IAmb	07 15 14.2	
	comp=Z,2.1nm,0.7s						
F24K	**Squaw Lake**	**16.22**	**25**	Pn	**Pn**	07 14 58.5	-0.3
D22K	**Ayikyak River**	**16.32**	**17**		**Pn**	07 15 00.4	+0.3
P29M	**Windy Craggy**	**16.38**	**58**	Pn	**Pn**	07 15 00.9	0.0
E24K	**Your Creek**	**16.50**	**23**		**Pn**	07 15 02.5	+0.1
M29M	**Somme Creek**	**16.71**	**48**	Pn	**Pn**	07 15 04.7	-0.3
M29M				IAmb	IAmb	07 15 10.5	
	comp=Z,6.5nm,0.8s						
HYT	**Haines Junctio**	**16.72**	**54**		**Pn**	07 15 05.2	+0.1
HYT				IAmb	IAmb	07 15 18.9	
	comp=Z,8.0nm,0.9s						
F25K	**Christian Rive**	**16.86**	**27**		**Pn**	07 15 07.9	+1.1
DAWY	**Dawson**	**16.93**	**42**		**Pn**	07 15 07.9	+0.3
DAWY				IAmb	IAmb	07 15 26.7	
	comp=Z,5.1nm,1.1s						
BMAR	**Burnt Mountain**	**17.04**	**28**		**Pn**	07 15 08.2	-0.7
K29M	**Barlow Dome**	**17.60**	**44**		**P**	07 15 14.9	-0.9
K29M				IAmb	IAmb	07 15 18.1	
	comp=Z,5.5nm,1.1s						
N31M	**Braeburn, Yuko**	**17.67**	**52**		**Pn**	07 15 17.2	+0.5
N31M				IAmb	IAmb	07 15 32.1	
	comp=Z,7.7nm,0.8s						
H29M	**Whitestone**	**18.30**	**36**	P	**P**	07 15 23.0	-0.5
F28M	**Old Crow**	**18.56**	**32**	P	**P**	07 15 25.9	-0.4
I30M	**Mount Dempster**	**18.59**	**40**	P	**P**	07 15 26.5	-0.3
C27K	**Jago River**	**18.82**	**24**	P	**P**	07 15 29.2	+0.1
C27K				IAmb	IAmb	07 15 34.8	
	comp=Z,2.5nm,0.9s						
Q32M	**Nakina River**	**19.12**	**61**	P	**P**	07 15 32.2	-0.5
Q32M				IAmb	IAmb	07 15 36.6	
	comp=Z,10nm,0.9s						
H31M	**Peel River**	**19.60**	**40**	P	**P**	07 15 36.4	-1.3
R33M	**Jennings River**	**19.80**	**60**	P	**P**	07 15 39.8	-0.3
R33M				IAmb	IAmb	07 15 49.7	
	comp=Z,3.6nm,0.9s						
F30M	**Barrier River**	**19.88**	**34**	P	**P**	07 15 39.7	-1.0
F30M				IAmb	IAmb	07 15 43.2	
	comp=Z,5.0nm,0.8s						
MOBC	**Moresby Island**	**20.03**	**78**	P	**P**	07 15 42.4	-0.1
DLBC	**Dease Lake**	**20.30**	**62**	P	**P**	07 15 45.4	0.0
	comp=Z,1.8nm,0.9s,baz=274,slow=11,SNR=1.3						
	comp=Z,1.8nm,0.9s						
F31M	**Tsiigehtchic**	**20.50**	**36**	P	**P**	07 15 47.2	-0.1
INK	**Inuvik**	**20.96**	**34**	P	**P**	07 15 49.6	-2.6
	comp=Z,1.1nm,0.6s,baz=236,slow=9.3,SNR=14						
	comp=Z,1.1nm,0.6s						
INK	**Inuvik**	**20.96**	**34**	P	**P**	07 15 52.0	-0.3
INK				IAmb	IAmb	07 15 58.1	
	comp=Z,2.0nm,0.9s						
PETK	**Petropavlovsk-**	**21.61**	**283**	P	**P**	07 15 58.4	-1.0
C36M	**Paulatuk**	**24.53**	**35**	P	**P**	07 16 26.8	-1.1
A36M	**Sachs Harbour**	**25.13**	**28**	P	**P**	07 16 33.9	+0.6
A36M				IAmb	IAmb	07 16 38.2	
	comp=Z,3.5nm,0.9s						
A04D	**Lummi Island**	**27.11**	**83**	P	**P**	07 16 51.6	+0.3
YKAW3	**Yellowknife Wh**	**27.66**	**51**	P	**P**	07 16 56.7	+0.6
YKAW3				IAmb	IAmb	07 17 00.4	
	comp=Z,2.5nm,0.9s						
YKA	**Yellowknife Ar**	**27.67**	**51**	P	**P**	07 16 56.8	+0.6
	comp=Z,0.7nm,0.4s,baz=278,slow=9.1,SNR=26						
	comp=Z,0.7nm,0.4s						
YKA	**Yellowknife Ar**	**27.67**	**51**	P	**P**	07 16 56.3	+0.1
YKAW1	**Yellowknife Wh**	**27.73**	**51**	P	**P**	07 16 56.9	+0.2
YKAW1				IAmb	IAmb	07 17 11.7	
	comp=Z,3.0nm,0.8s						
LON	**Longmire**	**28.59**	**86**	P	**P**	07 17 04.3	-0.3
LON				IAmb	IAmb	07 17 10.1	
	comp=Z,3.8nm,1.0s						
J01E	**Myrtle Point**	**29.30**	**94**	P	**P**	07 17 11.0	+0.1
YBH	**Yreka Blue Hor**	**30.88**	**95**	P	**P**	07 17 26.1	+1.1
H11N2	**WAKE ISLAND Hy**	**39.94**	**222**	T	T	08 01 13.9	
	baz=25,slow=76,SNR=17						
H11N3	**WAKE ISLAND Hy**	**39.95**	**222**	T	T	08 01 06.5	
	baz=25,slow=76,SNR=25						
H11N1	**WAKE ISLAND Hy**	**39.96**	**222**	T	T	08 01 15.3	
	baz=25,slow=76,SNR=9.6						
H11S1	**WAKE ISLAND Hy**	**41.12**	**222**	T	T	08 02 40.6	
	baz=25,slow=76,SNR=18						
H11S2	**WAKE ISLAND Hy**	**41.14**	**222**	T	T	08 02 36.5	
	baz=25,slow=76,SNR=14						
H11S3	**WAKE ISLAND Hy**	**41.14**	**222**	T	T	08 02 41.7	
	baz=25,slow=76,SNR=11						
TXAR	**Lajitas Array**	**50.60**	**93**	P	**P**	07 20 08.9	+1.8
	comp=Z,0.5nm,0.5s,baz=300,slow=5.4,SNR=16						
	comp=Z,0.5nm,0.5s						
TXAR	**Lajitas Array**	**50.60**	**93**	P	**P**	07 20 08.4	+1.3
ARCES	**ARCESS Array B**	**56.71**	**355**	P	**P**	07 20 49.4	-1.5
	comp=Z,3.6nm,1.0s,baz=13,slow=8.4,SNR=2.1						
	comp=Z,3.6nm,1.0s						
ARCES	**ARCESS Array B**	**56.71**	**355**	P	**P**	07 20 50.0	-1.0
FIA1	**FINESS Array S**	**64.72**	**354**	P	**P**	07 21 46.0	+0.6
FINES	**FINESS Array B**	**64.73**	**354**	P	**P**	07 21 43.6	-1.8
	comp=Z,2.5nm,0.9s,baz=7.5,slow=6.4,SNR=1.8						
	comp=Z,2.5nm,0.9s						
FINES	**FINESS Array B**	**64.73**	**354**	P	**P**	07 21 44.6	-0.9
NC405	**NORSAR Array S**	**65.42**	**1**	P	**P**	07 21 49.5	-0.5
ABKAR	**Akbulak array**	**70.32**	**330**	P	**P**	07 22 21.3	+0.4
QSPA	**South Pole Qui**	**143.56**	**180**	PKP	**PKPdf**	07 30 37.6	-2.7
	comp=Z,0.7nm,0.7s,baz=48,slow=1.9,SNR=5.9						
TSUM	**Tsumeb**	**145.38**	**354**	PKPbc	**PKPab**	07 30 45.0	-0.3

*IDC **26** 07:15:14.1±2.8, 6.96S×129.88E, h117km±64km, mb3.7/1, mbtmp3.8/5, MS2.9/1, Error ellipse: s-maj=85.3km s-min=29.9km az=106.0*

*DJA **26** 07:15:16.4±0.9, 7.7S×13.0E±1.6, h171km±22km, M4.3/5, mb3.6/1, MLv4.3/5, MLv4.3/5*

ISC 26 07:15:15.2±1.2, **6.71S**±0.06×**129.9E**±0.2, **h200km, n9, σ2s85/11, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**1.88**	**132**	P	**Pn**	07 15 53.2	+0.6
SAUI				S	**Sn**	07 16 19.7	-1.9
FAKI	**Fak Fak**	**4.43**	**32**	P	**Pn**	07 16 22.8	+0.3
FAKI				AML	AML		
FAKI				AML	AML		
KMPI	**Kaimana, Papua**	**4.85**	**52**	P	**Pn**	07 16 30.5	+2.7
SIJI	**Sorong**	**5.96**	**13**	P	**Pn**	07 16 43.2	+1.2
	4.2nm,0.3s,baz=306,slow=23,SNR=7.9						
SIJI				S	**Sn**	07 17 47.0	-3.8
	29nm,0.2s,baz=225,slow=23,SNR=9.0						
FITZ	**Fitzroy Crossi**	**12.06**	**200**	P	**Pn**	07 17 59.5	-1.3
	1.0nm,0.5s,baz=25,slow=13,SNR=10.0						
FITZ				S	Sn	07 20 04.4	-11
	2.2nm,0.4s,baz=129,slow=12,SNR=6.2						
WRA	**Warramunga Arr**	**13.85**	**162**	P	**Pn**	07 18 21.4	-2.0
	0.5nm,0.6s,baz=339,slow=13,SNR=6.4						
WRA				S	S	07 20 46.6	-11
	0.9nm,0.5s,baz=342,slow=22,SNR=7.2						
ASAR	**Alice Springs**	**17.30**	**168**	P	**Pn**	07 19 07.2	+2.1
	1.9nm,0.6s,baz=348,slow=10.0,SNR=41						
ASAR				S	**S**	07 22 09.5	-3.7
	0.3nm,0.6s,baz=351,slow=26,SNR=3.1						
STKA	**Stephens Creek**	**27.32**	**158**	P	**P**	07 20 45.3	+3.7
	0.9nm,0.4s,baz=322,slow=12,SNR=1.7						
	0.9nm,0.4s						
JNU	**Nakatsue**	**39.62**	**1**	LR	LR	07 40 39.3	
	comp=Z,14nm,18.2s,baz=54,slow=38						

*IDC **26** 07:29:41.9±1.6, 49.80N×81.85E, h0km, Error ellipse: s-maj=15.9km s-min=11.2km az=87.0*

*NNC **26** 07:29:45.1±1.1, 49.68N×81.65E, h0km, mb2.7, mpv2.3, Error ellipse: s-maj=15.4km s-min=3.0km az=52.0, Suspected Mining explosion.*

ISC 26 07:29:42.1±1.4, **49.77N**±0.06×**81.92E**±0.08, **h0km, n7, σ0s76/6, 5C-1D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.32**	**295**	⇑Pg	**Pb**	07 30 25.2	+0.3
	0.4nm,0.3s						
KURK				⇑Lg	Lg	07 30 54.7	
	4.0nm,0.5s						
KURBB	**Kurchatov Arra**	**2.34**	**293**	Pg	**Pb**	07 30 25.4	+0.2
	0.3nm,0.3s,baz=112,slow=18,SNR=22						
KURBB				Lg	Lg	07 30 55.1	
	0.8nm,0.3s,baz=109,slow=31,SNR=22						
KURBB	**Kurchatov Arra**	**2.34**	**293**	⇑Pg	**Pb**	07 30 25.7	+0.5
	1.7nm,0.5s						
KURBB				⇑Lg	Lg	07 30 55.9	
	11nm,0.5s						
MK31	**Makanchi Array**	**2.98**	**175**	⇓Pg	**Pg**	07 30 38.5	-0.8
	0.6nm,0.5s,baz=354,slow=14,SNR=9.6						
MK31				⇑Lg	Lg	07 31 17.7	
	6.9nm,0.8s,baz=353,slow=26,SNR=8.6						
MKAR	**Makanchi Array**	**2.98**	**175**	Pg	**Pb**	07 30 37.0	+0.8
	0.8nm,0.3s,baz=353,slow=15,SNR=8.9						
MKAR				Lg	Lg	07 31 17.6	
	1.0nm,0.3s,baz=354,slow=23,SNR=12						
I46RU	**ZALESOVO INFRA**	**4.56**	**22**	I	I	07 56 50.0	
	baz=198,slow=329,SNR=1.4						
ZALV	**Zalesovo Beam**	**4.56**	**22**	Pg	**Pb**	07 31 03.2	+0.3
	0.2nm,0.3s,baz=206,slow=13,SNR=1.9						
ZALV				Lg	Lg	07 32 07.2	
	0.3nm,0.3s,baz=207,slow=24,SNR=12						

IDC 26 07:31:53.2±9.1, **18.13S×170.07E, h123km**±61km, **mb3.8/3, mbtmp4.1/4, Error ellipse: s-maj=133.1km s-min=68.7km az=120.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**5.20**	**220**	P	Pn	07 33 09.2	+0.3
	3.1nm,0.3s,baz=106,slow=20,SNR=13						
DZM				S	Sn	07 34 08.0	+0.1
	4.7nm,0.3s,baz=62,slow=14,SNR=3.1						
STKA	**Stephens Creek**	**29.11**	**236**	P	P	07 37 41.5	-0.9
	1.4nm,0.6s,baz=45,slow=7.7,SNR=4.9						
	1.4nm,0.6s						
WRA	**Warramunga Arr**	**33.79**	**261**	P	P	07 38 24.1	+0.4
	0.5nm,0.4s,baz=88,slow=8.3,SNR=8.2						
	0.5nm,0.4s						
ASAR	**Alice Springs**	**34.17**	**254**	P	P	07 38 27.0	+0.1
	5.3nm,0.5s,baz=83,slow=8.9,SNR=110						
	5.3nm,0.5s						

*KRNET **26** 07:32:46.3±0.1, 40.52N×80.08E, mb3.1*

*SOME **26** 07:32:46.8, 40.88N×79.97E, h5km*

ISC 26 07:32:47.9±3.5, **40.5N**±0.2×**79.9E**±0.1, **h10km, n12, σ0s53/24, 8C-8D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TARG	**Taragay, Kyrgy**	**1.97**	**308**	⇑*i*P	**Pn**	07 33 21.4	-0.3
TARG				⇑*i*S	**Sn**	07 33 47.1	+0.4
PRZ	**Przheval'sk**	**2.24**	**331**	⇑*i*P	**Pn**	07 33 24.9	-0.3
PRZ				⇑*e*S	**Sn**	07 33 52.8	-0.2
KDJ	**Kajisay**	**2.58**	**309**	⇓*e*P	**Pn**	07 33 29.7	-0.2
KDJ				⇓*i*S	**Sn**	07 34 01.4	-0.1
UZB	**Uzynbulak**	**2.68**	**346**	*e*P	**Pn**	07 33 31.5	+0.2
	10.0nm,0.3s						
UZB				*e*S	**Sn**	07 34 03.7	-0.2
	13nm,0.3s						
SATY	**Saty**	**2.75**	**337**	*e*P	**Pn**	07 33 33.1	+1.0
	4.0nm,0.5s						
SATY				*e*S	**Sn**	07 34 06.3	+0.8
	9.1nm,0.4s						
ANVS	**Anan'yevo**	**2.79**	**324**	⇑*i*P	**Pn**	07 33 32.5	-0.3
ANVS				⇑*e*S	**Sn**	07 34 06.2	-0.4
KTMS	**Ketmen**	**2.92**	**7**	*e*P	**Pn**	07 33 34.4	-0.1
	6.2nm,0.3s						
KTMS				*e*S	**Sn**	07 34 08.8	-0.9
	8.6nm,0.6s						
KPKS	**Kokpek**	**3.06**	**343**	*e*P	**Pn**	07 33 37.1	+0.8
	0.3nm,0.2s						
KPKS				*e*S	**Sn**	07 34 13.3	+0.3
	12nm,0.6s						
NRN	**Naryn**	**3.08**	**288**	⇓*e*P	**Pn**	07 33 37.0	+0.2
NRN				⇓*e*S	**Sn**	07 34 14.2	+0.4
ULHL	**Ulahol**	**3.23**	**303**	⇑*e*P	**Pn**	07 33 39.1	+0.3
ULHL				⇑*i*S	**Sn**	07 34 17.2	-0.2
TKM2	**Tokmak 2**	**4.00**	**308**	⇓*e*P	**Pn**	07 33 49.6	+0.2
TKM2				⇓*i*S	**Sn**	07 34 35.5	-0.8
KBK	**Karagaybulak**	**4.26**	**301**	⇓*e*P	**Pn**	07 33 53.4	+0.4
KBK				⇓*i*S	**Sn**	07 34 42.1	-0.8

*AEIC **26** 07:34:16.6±1.1, 54.55N±0.06×159.78W±0.08, h28km±5km, Error ellipse: s-maj=9.3km s-min=6.2km az=154.0*

NEIC 26 07:34:17.7±1.1, **54.61N**±0.04×**159.83W**±0.04, **h27km**±6km, **mb3.7/9, ML3.5/26, ML3.1**(AEIC), **Error ellipse: s-maj=7.0km s-min=1.1km az=204.0, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CNBA	**Chernabura Isl**	**0.25**	**33**		Pb	07 34 24.0	-0.2
CNBA					Sb	07 34 29.4	+0.8
SDPT	**Sand Point**	**0.83**	**334**		Pb	07 34 32.8	-0.7
SDPT					Sn	07 34 44.8	-0.2
SDPT				IAML		07 34 45.2	
	comp=E,1μm,0.6s						
SDPT				IAML		07 34 45.5	
	comp=N,2μm,0.7s						
DOL	**Dolgoi Island**	**1.29**	**296**		Pn	07 34 39.2	-0.8
DOL					Sn	07 34 56.4	-0.1
PVV	**Pavlof Volcano**	**1.37**	**305**		Pn	07 34 40.8	-0.1
PVV					Sb	07 34 59.2	-0.4
PS1A	**Pavlof South-1**	**1.37**	**307**		Pn	07 34 41.0	-0.1
PS1A					Pb	07 34 41.1	-1.5
PS4A	**Pavlof South-4**	**1.38**	**303**		Pn	07 34 41.2	0.0
PS4A					Sb	07 35 00.3	+0.2
HAG	**Hague Volcano**	**1.39**	**302**		Pn	07 34 41.4	0.0
PN7A	**Pavlof North-7**	**1.50**	**304**		Pn	07 34 43.2	+0.4
DTNA	**Dutton South F**	**1.50**	**292**		Pn	07 34 42.4	-0.5
DTNA					Sn	07 35 02.4	+0.8
DT1	**Dutton Round H**	**1.50**	**290**		Pn	07 34 42.1	-0.7
DT1					Sn	07 35 01.6	0.0
VNWF	**Veniaminof 8**	**1.55**	**5**		Pn	07 34 44.0	+0.3
VNWF					Pb	07 34 44.2	-1.6
S12K	**Black Hills**	**1.69**	**311**		Pn	07 34 45.6	+0.2
S12K				IAML		07 35 17.7	
	comp=N,406nm,0.5s						
S12K				IAML		07 35 17.7	
	comp=E,571nm,0.6s						
CHGN	**Chignik**	**1.88**	**25**	Pn	Pn	07 34 47.5	-0.4
CHGN				IAML		07 35 16.2	
	comp=E,363nm,0.1s						
BPBCA	**Veniaminof**	**2.13**	**21**		Pn	07 34 51.5	-0.1
ISLZ	**Isanotski Laza**	**2.26**	**275**		Pn	07 34 53.1	-0.2
ANPB	**Aniakchak Plen**	**2.37**	**21**		Pn	07 34 54.6	-0.1
SSLS	**Shishaldin Sou**	**2.42**	**274**		Pn	07 34 55.9	+0.3
AZAC	**Aniakchak**	**2.46**	**21**		Pn	07 34 56.3	+0.1
SSBA	**Shishaldin**	**2.50**	**276**		Pn	07 34 56.9	+0.3
WECS	**Westdahl Cape**	**2.88**	**270**	Pn	Pn	07 35 01.5	-0.4
WECS				IAML		07 36 15.9	
	comp=E,197nm,1.7s						
AKUT	**Akutan**	**3.51**	**265**	Pn	Pn	07 35 10.1	-0.3
AKUT				IAML		07 35 52.0	
	comp=E,131nm,4.7s						
AKUT				IAML		07 36 21.4	
	comp=N,136nm,3.5s						
PLBL	**Peulik Blue Cr**	**3.53**	**27**		Pn	07 35 10.6	-0.1
R17L	**Mt. Peulik Vol**	**3.60**	**31**		Pn	07 35 11.9	+0.2
PLK1	**Peulik 1**	**3.67**	**28**		Pn	07 35 12.8	+0.1
SII	**Sitkinak Islan**	**3.75**	**56**	Pn	Pn	07 35 13.0	-0.8
SII				IAML		07 36 26.7	
	comp=E,131nm,2.5s						
PLK5	**Peulik 5**	**3.77**	**25**		Pn	07 35 14.0	-0.1
UNV	**Unalaska Valle**	**3.99**	**262**	Pn	Pn	07 35 17.2	+0.1
UNV				IAML		07 36 16.8	
	comp=N,67nm,2.9s						
MNAT	**Makushin Natee**	**4.09**	**263**		Pn	07 35 18.1	-0.3
OHAK	**Old Harbor**	**4.52**	**52**		Pn	07 35 22.9	-1.3
OHAK				IAML		07 36 15.1	
	comp=E,46nm,2.7s						
OHAK				IAML		07 37 29.0	
	comp=N,52nm,4.1s						
P16K	**Nushagak River**	**4.55**	**12**		Pn	07 35 24.5	-0.1
O15K	**Ungalikthiuk R**	**4.58**	**0**		Pn	07 35 24.6	-0.5
KAWH	**Katmai**	**4.70**	**34**		Pn	07 35 25.8	-1.0
O14K	**Tigyukauivet M**	**4.72**	**351**	Pn	Pn	07 35 27.0	0.0
O14K				IAML		07 37 43.7	
	comp=E,36nm,3.5s						
O14K				IAML		07 38 36.9	
	comp=N,38nm,4.4s						
KDAK	**Kodiak Island**	**5.14**	**49**	Pn	Pn	07 35 31.4	-1.4
N14K	**Kuskokwak Cree**	**5.42**	**350**		Pn	07 35 35.3	-1.3
Q19K	**Cape Douglas,**	**5.50**	**36**	Pn	Pn	07 35 37.5	-0.4
N15K	**Kwethluk River**	**5.58**	**359**	Pn	Pn	07 35 38.6	-0.2
N16K	**Nishlik Lake**	**5.91**	**5**		Pn	07 35 43.4	0.0
N17K	**Nushagak Hills**	**6.10**	**12**	Pn	Pn	07 35 45.0	-0.9
M13K	**Dall Lake**	**6.12**	**343**	Pn	Pn	07 35 45.8	-0.4
N18K	**Kilae Creek**	**6.44**	**18**	Pn	Pn	07 35 49.9	-0.8
M16K	**Timber Creek**	**6.45**	**4**	Pn	Pn	07 35 50.8	+0.1
ILSW	**Iliamna Southw**	**6.49**	**31**	Pn	Pn	07 35 50.9	-0.5
N19K	**Bonanza Creek**	**6.85**	**23**	Pn	Pn	07 35 55.6	-0.7
M17K	**Holitna River**	**6.93**	**10**	Pn	Pn	07 35 57.4	+0.1
H29M	**Whitestone**	**15.62**	**33**	Pn	Pn	07 37 55.3	-0.5
H29M				IAmb	IAmb	07 38 11.6	
	comp=Z,10nm,1.4s						
I30M	**Mount Dempster**	**15.73**	**38**	Pn	Pn	07 37 56.5	-0.8
I30M				IAmb	IAmb	07 38 33.8	
	comp=Z,10.0nm,1.5s						
EPYK	**Eagle Plains**	**16.25**	**34**	P	P	07 38 07.2	+0.5
C27K	**Jago River**	**16.75**	**20**	P	P	07 38 12.6	+0.5
C27K				IAmb	IAmb	07 38 19.7	
	comp=Z,5.5nm,1.2s						
H31M	**Peel River**	**16.76**	**38**	P	P	07 38 12.9	+0.6
H31M				IAmb	IAmb	07 38 40.8	
	comp=Z,9.3nm,1.4s						
F30M	**Barrier River**	**17.28**	**32**	P	P	07 38 18.9	+0.9
F30M				IAmb	IAmb	07 39 02.7	
	comp=Z,6.8nm,1.2s						
INK	**Inuvik**	**18.38**	**31**	P	Pn	07 38 30.5	+0.2
PDAR	**Pinedale Array**	**34.50**	**89**	P	P	07 41 03.4	-0.1
TX31	**Lajitas Ar. Si**	**47.21**	**99**	P	P	07 42 48.2	0.0
TXAR	**Lajitas Array**	**47.21**	**99**	P	P	07 42 47.8	-0.3
MKAR	**Makanchi Array**	**66.17**	**318**	P	P	07 45 02.2	-0.3
AB31	**Akbulak array**	**71.25**	**334**	P	P	07 45 34.0	0.0
ABKAR	**Akbulak array**	**71.25**	**334**	P	P	07 45 33.5	-0.5

*IDC **26** 07:40:20.4±3.5, 53.60N×87.05E, h0km, mbtmp2.6/2, ML2.3/2, Error ellipse: s-maj=35.4km s-min=20.1km az=85.0*

ASRS 26 07:40:18.0±0.9, **53.58N×87.07E, h0km, M2.4**(MOS), **The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res

ICQ			Trac			07 59 38.1	
	comp=Z,262nm,1.4s						
SNFQ	**Sainte-Felicit**	**8.04 223**	PN	Pn	07 57 33.6	-1.6	
SNFQ			SN	Sn	07 58 59.1	-6.5	
SNFQ			LG	Lg	07 59 49.9		
SNFQ			Trac		07 59 54.2		
	comp=Z,354nm,1.4s						
CHEG	**Cheticamp, Nov**	**8.37 187**	PN	Pn	07 57 37.8	-1.9	
CHEG			SN	Sn	07 59 07.0	-6.7	
CHEG			LG	Lg	07 59 58.8		
CHEG			Trac		08 00 01.7		
	comp=Z,78nm,1.1s						
LG4Q	**La Grande 4**	**8.88 267**	PN	Pn	07 57 44.4	-2.3	
LG4Q			SN	Sn	07 59 19.2	-7.1	
LG4Q			Trac		08 00 17.1		
	comp=Z,1.1nm,0.1s						
HSNB	**Heath Steele M**	**8.97 212**	PN	Pn	07 57 45.8	-2.2	
HSNB			SN	Sn	07 59 20.7	-7.8	
HSNB			Trac		08 00 32.6		
	comp=Z,3μm,4.1s						
BSCQ	**Baie-Sainte-Ca**	**9.61 228**	PN	Pn	07 57 55.3	-1.4	
BSCQ			SN	Sn	07 59 36.3	-7.8	
BSCQ			Trac		08 00 41.8		
	comp=Z,740nm,3.1s						
CACQ	**Cacouna**	**9.66 226**	PN	Pn	07 57 55.2	-2.2	
CACQ			SN	Sn	07 59 37.2	-8.1	
CACQ			LG	Lg	08 00 41.2		
CACQ			Trac		08 00 47.0		
	comp=Z,50nm,1.0s						

*SNET **26** 07:59:34.9±2.8, 15°.49N×90°.82W, h2km, ML3.6, Presumed earthquake*
*GCG **26** 07:59:34.1±2.3, 15°.51N×90°.77W, h6km±13km, MD4.2, MW3.1, Presumed earthquake*
*CATAC **26** 07:59:35.7±0.2, 16°N±1°×9°1W±°, h1km, M3.6/22, MLv3.6/22, Error ellipse: s-maj=2.9km s-min=2.2km az=21.6, confirmed*

ISC 26 07:59:34.4±1.1, 15°.47N±0°.03×90°.74W±0°.02, h12km±10km, n34, σ1832/59, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AVCB	**Coban**	**0.32**	**90**	*i* P	**Pg**	**07 59 40.0**	**-1.0**
HUEH	**Huehuetenango**	**0.75**	**259**	P	**Pb**	**07 59 49.6**	**0.0**
HUEH				S	**Sb**	**08 00 00.5**	**+0.6**
HUEH	**Huehuetenango**	**0.75**	**259**	*i* P	**Pg**	**07 59 48.4**	**-0.7**
STG8	**El Palmar, Qui**	**1.17**	**210**	*i* P	**Pb**	**07 59 54.4**	**-2.4**
FG16	**Alotenango, Sa**	**1.21**	**169**	*i* P	**Pn**	**07 59 54.1**	**-3.2**
FG8	**Yepocapa, Chim**	**1.21**	**172**	*i* P	**Pn**	**07 59 54.6**	**-2.8**
FG8				*i* S	**Sb**	**08 00 08.8**	**-4.3**
RTAL	**Retalhuleu**	**1.32**	**225**	P	**Pg**	**08 00 00.9**	**+1.2**
RTAL				S	**Sg**	**08 00 19.6**	**+2.7**
JUAM	**Asuncion Mita**	**1.50**	**138**	*i* P	**Pb**	**08 00 02.7**	**+0.4**
JUAM				*i* S	**Sb**	**08 00 21.9**	**+0.5**
ESQI	**Esquipulas**	**1.62**	**124**	P	**Pg**	**08 00 05.3**	**-0.3**
ESQI	**Esquipulas**	**1.62**	**124**	*eP*	**Pb**	**08 00 04.7**	**+0.3**
ESQI				*eS*	**Sg**	**08 00 27.7**	**+1.0**
PETF	**Flores**	**1.67**	**30**	P	**Pb**	**08 00 04.1**	**-1.0**
PETF				S	**Sb**	**08 00 25.6**	**-0.4**
PETF	**Flores**	**1.67**	**30**	*i* P	**Pb**	**08 00 04.0**	**-1.0**
PETF				*i* S	**Sn**	**08 00 23.5**	**-1.3**
MTO3	**Montecristo**	**1.70**	**128**	P	**Pb**	**08 00 06.3**	**+0.5**
MTO3				S	**Sg**	**08 00 29.8**	**+0.5**
MTO3	**Montecristo**	**1.70**	**128**	*i* P	**Pb**	**08 00 05.3**	**-0.5**
SLOZ	**Alcaldia de Sa**	**1.71**	**147**	P	**Pb**	**08 00 06.7**	**+0.9**
LOAL	**Lomas de Alarc**	**1.73**	**148**	P	**Pb**	**08 00 07.0**	**+0.8**
LOAL				S	**Sg**	**08 00 30.8**	**+0.7**
FAME	**Alcaldia de Sa**	**1.76**	**156**	P	**Pg**	**08 00 07.9**	**-0.4**
FAME				S	**Sg**	**08 00 32.2**	**+1.1**
NUBE	**Las Nubes**	**1.81**	**149**	P	**Pb**	**08 00 08.4**	**+0.8**
NUBE				S	**Sg**	**08 00 33.4**	**+0.7**
NUBE	**Las Nubes**	**1.81**	**149**	*i* P	**Pb**	**08 00 07.9**	**+0.2**
NUBE				*i* S	**Sb**	**08 00 30.5**	**+0.1**
UNIC	**Universidad Ca**	**1.87**	**142**	P	**Pb**	**08 00 09.1**	**+0.5**
UNIC				S	**Sg**	**08 00 34.8**	**+0.1**
CEVE	**Cerro Verde**	**1.95**	**146**	P	**Pb**	**08 00 11.2**	**+1.0**
CEVE				S	**Sg**	**08 00 37.3**	**0.0**
CEVE	**Cerro Verde**	**1.95**	**146**	*eP*	**Pg**	**08 00 12.2**	**+0.2**
SARH	**Santa Rosa de**	**2.03**	**110**	P	**Pb**	**08 00 11.8**	**+0.5**
SARH	**Santa Rosa de**	**2.03**	**110**	*i* P	**Pn**	**08 00 09.7**	**+1.2**
SARH				*i* S	**Sb**	**08 00 37.7**	**+1.2**
IZABA	**Izabal, Puerto**	**2.09**	**83**	P	**Pb**	**08 00 12.1**	**-0.2**
IZABA				S	**Sg**	**08 00 39.8**	**-1.9**
CEDA	**San Andres**	**2.10**	**142**	P	**Pb**	**08 00 13.1**	**+0.5**
CEDA				S	**Sb**	**08 00 40.5**	**+1.8**
JAYA	**Jayaque - finc**	**2.19**	**145**	P	**Pb**	**08 00 15.0**	**+0.9**
JAYA				S	**Sb**	**08 00 43.4**	**+2.1**
PMON	**Piamonte**	**2.22**	**142**	P	**Pb**	**08 00 14.7**	**0.0**
PMON				S	**Sb**	**08 00 44.1**	**+1.9**
UEES	**Universidad Ev**	**2.27**	**140**	P	**Pb**	**08 00 15.4**	**0.0**
UEES				S	**Sb**	**08 00 45.4**	**+2.0**
UDBS	**Universidad Do**	**2.32**	**138**	P	**Pb**	**08 00 15.8**	**-0.3**
UDBS				S	**Sb**	**08 00 45.8**	**+0.8**
PAVA	**Las Pavas**	**2.47**	**135**	P	**Pb**	**08 00 18.0**	**-0.7**
PAVA				S	**Sb**	**08 00 49.5**	**+0.3**
COEG	**Centro de Oper**	**2.57**	**135**	P	**Pb**	**08 00 21.4**	**+0.8**
COEG				S	**Sb**	**08 00 52.7**	**+0.5**
TECO	**Alcaldia de Te**	**2.70**	**135**	P	**Pb**	**08 00 21.7**	**-0.9**
TECO				S	**Sb**	**08 00 55.6**	**-0.2**
SCIG	**Sabancuy**	**3.51**	**353**	P	**Pn**	**08 00 30.7**	**+1.9**
SCIG				S	**Sn**	**08 01 11.3**	**+1.1**

OTT 26 07:59:34.3±0.2, 55°.12N×59°.14W, h18km, MN3.5/7, Labrador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NINL	**Nain**	**2.02**	**316**	PN	Pn	08 00 07.2	-0.2
NINL				SN	Sn	08 00 32.0	-0.2
NINL				Trac		08 00 37.7	
	comp=Z,77nm,0.1s						
SCHQ	**Schefferville**	**4.44**	**269**	PN	Pn	08 00 40.8	+0.1
SCHQ				SN	Sn	08 01 29.7	-2.2
BJBQ	**Baie Johan-Bee**	**5.32**	**206**	PN	Pn	08 00 51.9	-0.9
BJBQ				SN	Sn	08 01 50.3	-3.2
BJBQ				LG	Lg	08 02 20.1	
BJBQ				Trac		08 02 23.0	
	comp=Z,25nm,0.4s						
PCAQ	**Pointe Carleto**	**5.87**	**205**	PN	Pn	08 00 59.5	-0.8
PCAQ				SN	Sn	08 02 02.4	-4.6
PCAQ				LG	Lg	08 02 36.9	
PCAQ				Trac		08 02 38.7	
	comp=Z,29nm,0.4s						
DRLN	**Deer Lake**	**5.95**	**170**	PN	Pn	08 01 00.5	-0.9
DRLN				SN	Sn	08 02 05.5	-3.6
DRLN				LG	Lg	08 02 39.0	
DRLN				Trac		08 02 43.4	
	comp=Z,46nm,0.6s						
PMAQ	**Port Menier**	**6.17**	**213**	PN	Pn	08 01 03.5	-0.8
PMAQ				SN	Sn	08 02 10.0	-4.3
PMAQ				LG	Lg	08 02 45.1	
PMAQ				Trac		08 02 47.2	
	comp=Z,29nm,0.4s						
ICQ	**Pointe Anglais**	**7.49**	**225**	PN	Pn	08 01 21.1	-1.4
ICQ				SN	Sn	08 02 41.4	-5.5
ICQ				LG	Lg	08 03 25.1	
ICQ				Trac		08 03 29.5	
	comp=Z,24nm,0.6s						
SNFQ	**Sainte-Felicit**	**8.03**	**222**	PN	Pn	08 01 29.2	-0.7
SNFQ				SN	Sn	08 02 54.3	-5.8
SNFQ				LG	Lg	08 03 43.5	
SNFQ				Trac		08 03 53.8	
	comp=Z,76nm,0.7s						
CHEG	**Cheticamp, Nov**	**8.37**	**187**	PN	Pn	08 01 33.5	-1.1
CHEG				SN	Sn	08 03 02.1	-6.5
CHEG				LG	Lg	08 03 56.2	
CHEG				Trac		08 04 03.8	
	comp=Z,3μm,4.3s						
LG4Q	**La Grande 4**	**8.86**	**266**	PN	Pn	08 01 41.5	+0.3
LG4Q				SN	Sn	08 03 14.0	-6.5
LG4Q				Trac		08 04 17.5	
	comp=Z,1.1nm,0.2s						
HSNB	**Heath Steele M**	**8.96**	**212**	PN	Pn	08 01 40.7	-2.1
HSNB				SN	Sn	08 03 15.7	-7.4
HSNB				Trac		08 04 19.4	
	comp=Z,162nm,1.6s						
BSCQ	**Baie-Sainte-Ca**	**9.60**	**228**	SN	Sn	08 03 30.9	-7.7
CACQ	**Cacouna**	**9.64**	**226**	PN	Pn	08 01 52.3	+0.3
CACQ				SN	Sn	08 03 31.7	-8.0
CACQ				Trac		08 04 46.7	
	comp=Z,4μm,6.2s						

*ASRS **26** 08:00:27.0±0.9, 54°.14N×87°.12E, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 26 08:00:32.5±4.5, 54°.18N×86°.83E, h0km, mbtmp2.7/2, ML2.2/1, Error ellipse: s-maj=40.0km s-min=19.6km az=67.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.21**	**260**	I	I	08 08 10.0	
	0.1nm,0.7s,baz=79,slow=340,SNR=14						
ZALV	**Zalesovo Beam**	**1.21**	**260**	Pg	Pg	08 00 54.5	-1.1
	1.4nm,0.3s,baz=77,slow=12,SNR=12						
ZALV				Lg	Lg	08 01 13.6	
	1.2nm,0.3s,baz=80,slow=24,SNR=5.3						
KURBB	**Kurchatov Arra**	**6.20**	**238**	Pn	Pn	08 02 06.0	+0.8
	0.2nm,0.4s,baz=55,slow=13,SNR=1.0						
MKAR	**Makanchi Array**	**7.94**	**203**	Pn	Pn	08 02 30.9	+1.8
	baz=23,slow=13,SNR=2.7						
	0.8nm,1.0s						

*NEIC **26** 08:40:42.5±0.6, 19°.28N±0°.04×65°.08W±0°.06, h35km±2km, ML3.2/39, Md3.6/11(RSPR), Error ellipse: s-maj=10.2km s-min=5.5km az=242.0*
*RSPR **26** 08:40:44.0, 19°.27N×65°.10W, h33km±18km, MD3.6/11*

ISC 26 08:40:38.5±2.2, 19°.3N±0°.1×65°.11W±0°.05, h6km±12km, n30, σ0880/45, 5C-7D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	**Col San Antoni**	**1.34**	**212**		**Pb**	**08 41 04.5**	**+0.5**
HUMP					**Sg**	**08 41 21.5**	**-0.2**
HUMP				IAML		08 41 25.5	
	321nm,0.3s						
HUMP				IAML		08 41 28.4	
	313nm,0.2s						
HUMP	**Col San Antoni**	**1.34**	**212**	*eP*	**Pb**	**08 41 04.7**	**+0.7**
GCPR	**Guaynabo City**	**1.34**	**224**		**Pg**	**08 41 03.9**	**-0.3**
ECPR	**Experimental S**	**1.53**	**231**		**Pb**	**08 41 07.1**	**-0.1**
ECPR					**Sn**	**08 41 25.9**	**-0.6**
ECPR	**Experimental S**	**1.53**	**231**	*eP*	**Pb**	**08 41 07.3**	**0.0**
PDPR	**Patillas Dam,**	**1.53**	**215**		**Pb**	**08 41 07.4**	**+0.1**
PDPR					**Sn**	**08 41 26.0**	**-0.6**
PDPR				IAML		08 41 26.3	
	203nm,0.4s						
PDPR	**Patillas Dam,**	**1.53**	**215**	*eP*	**Pb**	**08 41 07.3**	**+0.1**
EMPR	**Esperanza - Ma**	**1.57**	**239**		**Pg**	**08 41 08.6**	**0.0**
EMPR					**Sn**	**08 41 26.9**	**-0.6**
EMPR	**Esperanza - Ma**	**1.57**	**239**	*eP*	**Pg**	**08 41 08.6**	**0.0**
EMPR				*eS*	**Sn**	**08 41 26.9**	**-0.6**
IGPR	**InterUniversit**	**1.62**	**216**		**Pb**	**08 41 08.6**	**-0.2**
IGPR					**Sn**	**08 41 28.1**	**-0.7**
IGPR	**InterUniversit**	**1.62**	**216**	*eP*	**Pb**	**08 41 08.6**	**-0.2**
AOPR	**Arecibo Observ**	**1.82**	**239**		**Pn**	**08 41 11.2**	**+0.9**
AOPR					**Sn**	**08 41 33.0**	**-0.7**
AOPR	**Arecibo Observ**	**1.82**	**239**	*eP*	**Pn**	**08 41 11.1**	**+0.7**
CELP	**Cerrillos**	**1.85**	**229**		**Pn**	**08 41 11.5**	**+0.9**
CELP				Sn	**Sn**	**08 41 33.9**	**-0.4**
CELP				IAML		08 41 35.6	
	123nm,0.5s						
CELP	**Cerrillos**	**1.85**	**229**	*eP*	**Pn**	**08 41 11.6**	**+1.0**
OBIP	**Obispado Ponce**	**1.89**	**229**		**Pn**	**08 41 12.3**	**+1.1**
OBIP					**Sn**	**08 41 34.7**	**-0.6**
OBIP	**Obispado Ponce**	**1.89**	**229**	*eP*	**Pb**	**08 41 12.6**	**-0.7**
OBIP				*eS*	**Sn**	**08 41 34.7**	**-0.6**
GBPR	**Guanica, Bosqu**	**2.13**	**232**		**Pb**	**08 41 16.5**	**-1.0**
GBPR					**Sn**	**08 41 40.9**	**-0.4**
GBPR	**Guanica, Bosqu**	**2.13**	**232**	*eP*	**Pb**	**08 41 16.5**	**-1.0**
GBPR				*eS*	**Sn**	**08 41 40.9**	**-0.4**
PRSN	**Puerto Rico Se**	**2.21**	**241**		**Pn**	**08 41 16.6**	**+1.0**
PRSN					**Sn**	**08 41 42.9**	**-0.3**
PRSN	**Puerto Rico Se**	**2.21**	**241**	*eP*	**Pb**	**08 41 17.6**	**-1.1**
MLPR	**Magueyes Islan**	**2.26**	**235**		**Pn**	**08 41 17.7**	**+1.4**
MLPR					**Sn**	**08 41 43.6**	**-0.8**
MLPR	**Magueyes Islan**	**2.26**	**235**	*eP*	**Pn**	**08 41 17.8**	**+1.4**
SMRT	**St. Maarten**	**2.29**	**122**	Pn	**Pn**	**08 41 17.1**	**+0.4**
SMRT				IAML		08 42 05.1	
	comp=E,116nm,0.2s						
SMRT				IAML		08 42 07.7	
	comp=N,102nm,0.3s						
CRPR	**Cabo Rojo, PR**	**2.29**	**236**		**Pn**	**08 41 17.5**	**+0.8**
CRPR					**Sn**	**08 41 44.7**	**-0.5**
CRPR	**Cabo Rojo, PR**	**2.29**	**236**	*eP*	**Pn**	**08 41 18.3**	**+1.6**
SABA	**Saba**	**2.43**	**133**		**Pn**	**08 41 19.4**	**+0.7**
SABA				IAML		08 42 16.5	
	comp=N,147nm,0.7s						
SEUS	**St. Eustatius**	**2.70**	**131**	Pn	**Pn**	**08 41 22.9**	**+0.6**
SEUS				IAML		08 42 11.4	
	comp=N,129nm,0.9s						
SEUS				IAML		08 42 22.2	
	comp=E,110nm,1.2s						
PCDR	**Punta Cana, DR**	**3.19**	**257**	Pn	**Pn**	**08 41 30.6**	**+1.5**
DR12	**Loma Pena Alta**	**4.07**	**264**	Pn	**Pn**	**08 41 42.3**	**+0.9**

*NEIC **26** 09:01:14.8±1.7, 8°.92S±0°.05×124°.28E±0°.07, h118km±3km, mb4.4/18, Error ellipse: s-maj=10.3km s-min=6.2km az=72.0*
*IDC **26** 09:01:14.1±1.4, 8°.74S×124°.24E, h102km±14km, mb4.0/13, mbtmp4.4/16, MS3.0/6, Error ellipse: s-maj=20.0km s-min=11.4km az=65.0*
*DJA **26** 09:01:14.9±0.2, 9°S±2°×12°4E±°, h93km±3km, M4.6/18, mb4.7/19, mB5.2/10, mB5.2/12, mb4.7/18, MLv4.5/14, MLv4.5/13, Mw(mB)4.6/10, Mw(mB)4.5/12*
*GFZ **26** 09:01:15.7±0.2, 9°S±3°×12°4E±°, h102km±3km, M4.5/19, mb4.8/19, Mw4.2/20, Error ellipse: s-maj=8.4km s-min=4.6km az=32.7, confirmed*

ISC 26 09:01:13.8±0.4, 8°.93S±0°.04×124°.29E±0°.05, h100km, n151, σ2505/151, mb4.5/32, Timor region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEI	**Soe**	**0.82**	**181**	P	**Pn**	**09 01 35.1**	**+2.6**
SOEI	**Soe**	**0.82**	**181**	Pn	**Pn**	**09 01 35.2**	**+2.6**
SOEI				Sn	**Sn**	**09 01 50.3**	**+3.8**
SOEI	**Soe**	**0.82**	**181**	P	**Pn**	**09 01 35.4**	**+2.9**
SOEI				AML	AML		
SOEI	**Soe**	**0.82**	**181**	P	**Pn**	**09 01 35.3**	**+2.8**
SOEI				S	**Sn**	**09 01 49.5**	**+3.0**
SOEI				AML	AML		
SOEI	**Soe**	**0.82**	**181**	P	**Pn**	**09 01 35.4**	**+2.9**
BATI	**Baumata**	**1.41**	**206**	P	**Pn**	**09 01 41.9**	**+3.0**
	646nm,0.5s,baz=44,slow=2.4,SNR=75						
BATI				LR	LR	09 01 55.8	
	comp=Z,124nm,21.2s,baz=40,slow=27						
BATI				S	**Sn**	**09 02 02.0**	**+4.0**
	2μm,0.4s,baz=40,slow=9.1,SNR=40						
BATI	**Baumata**	**1.41**	**206**	P	**Pn**	**09 01 42.0**	**+3.0**
BATI				AML	AML		
BATI	**Baumata**	**1.41**	**206**	P	**Pn**	**09 01 42.0**	**+3.0**
MMRI	**Maumere**	**2.04**	**278**	P	**Pn**	**09 01 48.4**	**+1.4**
MMRI	**Maumere**	**2.04**	**278**	S	**Sn**	**09 02 14.4**	**+2.1**
MMRI	**Maumere**	**2.04**	**278**		**Pn**	**09 01 48.3**	**+1.3**
MMRI				Sn	**Sn**	**09 02 14.0**	**+1.7**
MMRI	**Maumere**	**2.04**	**278**	P	**Pn**	**09 01 48.2**	**+1.3**
MMRI				AML	AML		
MMRI	**Maumere**	**2.04**	**278**	P	**Pn**	**09 01 48.4**	**+1.4**
MMRI				AML	AML		
MMRI	**Maumere**	**2.04**	**278**	P	**Pn**	**09 01 48.3**	**+1.4**
EDFI	**Ende, Flores**	**2.57**	**274**	P	**Pn**	**09 01 55.5**	**+1.5**
EDFI				AML	AML		
EDFI	**Ende, Flores**	**2.57**	**274**	P	**Pn**	**09 01 55.3**	**+1.3**
EDFI				AML	AML		
EDFI				AML	AML		
EDFI	**Ende, Flores**	**2.57**	**274**	P	**Pn**	**09 01 55.6**	**+1.7**
BBSI	**Bau Bau**	**3.82**	**333**	P	**Pn**	**09 02 11.2**	**+0.6**
BBSI				AML	AML		
BBSI				AML	AML		
WSI	**Waingapu**	**4.00**	**259**	P	**Pn**	**09 02 14.0**	**+1.0**
WSI	**Waingapu**	**4.00**	**259**	P	**Pn**	**09 02 13.6**	**+0.6**
LBFI	**Labuhan Bajo,**	**4.37**	**276**	P	**Pn**	**09 02 20.2**	**+2.2**
LBFI	**Labuhan Bajo,**	**4.37**	**276**	P	**Pn**	**09 02 19.1**	**+1.1**
LBFI				AML	AML		
LBFI				AML	AML		
LBFI	**Labuhan Bajo,**	**4.37**	**276**	P	**Pn**	**09 02 20.1**	**+2.1**
BSSI	**Bau Bau, Buton**	**4.67**	**306**	P	**Pn**	**09 02 24.0**	**+1.8**
BSSI				AML	AML		
BSSI	**Bau Bau, Buton**	**4.67**	**306**	P	**Pn**	**09 02 23.1**	**+1.0**
BSSI				AML	AML		
BSSI	**Bau Bau, Buton**	**4.67**	**306**	P	**Pn**	**09 02 23.9**	**+1.8**
KDI	**Kendari**	**5.21**	**341**	P	**Pn**	**09 02 30.3**	**+0.9**
	0.1nm3μm28nm,1.2s						
KDI				AML	AML		
KDI	**Kendari**	**5.21**	**341**	P	**Pn**	**09 02 29.0**	**-0.4**
KDI				AML	AML		
KDI				AML	AML		
BKSI	**Bulukumba**	**5.47**	**311**	P	**Pn**	**09 02 34.0**	**+1.0**
	0.5nm1μm131nm,0.6s						
BKSI				AML	AML		
BKSI	**Bulukumba**	**5.47**	**311**	P	**Pn**	**09 02 33.9**	**+1.0**
	0.5nm1μm1μm131nm,0.6s						
BKSI				AML	AML		
BKSI	**Bulukumba**	**5.47**	**311**	P	**Pn**	**09 02 34.1**	**+1.2**
	comp=Z,126nm,0.5s						
DBNI	**Kabupaten Domp**	**5.92**	**274**	P	**Pn**	**09 02 40.1**	**+1.0**
	comp=Z,0.6nmcomp=Z,2μmcomp=Z,129nm,0.5s						
DBNI				AML	AML		
DBNI	**Kabupaten Domp**	**5.92**	**274**	P	**Pn**	**09 02 39.6**	**+0.5**
	comp=Z,2μmcomp=Z,2μmcomp=Z,129nm,0.5s,comp=Z,129nm,0.5s						
DBNI	**Kabupaten Domp**	**5.92**	**274**	P	**Pn**	**09 02 41.0**	**+1.9**
	comp=Z,106nm,1.0s						
KAPI	**Kappang**	**5.95**	**311**	P	**Pn**	**09 02 37.5**	**-2.0**
	comp=Z,20nm,0.5s,baz=148,slow=10.0,SNR=9.2						
KAPI				LR	LR	09 05 09.5	
	comp=Z,139nm,20.9s,baz=136,slow=41						
KAPI	**Kappang**	**5.95**	**311**	P	**Pn**	**09 02 42.0**	**+2.6**
KAPI	**Kappang**	**5.95**	**311**	S	**Sn**	**09 03 49.6**	**+3.3**
KAPI	**Kappang**	**5.95**	**311**		**Pn**	**09 02 40.9**	**+1.5**
KAPI	**Kappang**	**5.95**	**311**	P	**Pn**	**09 02 41.8**	**+2.3**
	comp=Z,0.1nmcomp=Z,20nm,0.8s						
KAPI				AML	AML		
KAPI	**Kappang**	**5.95**	**311**	P	**Pn**	**09 02 41.8**	**+2.3**
	comp=Z,38nm,0.8s						
PLAI	**Plampang**	**6.43**	**270**	P	**Pn**	**09 02 46.8**	**+0.8**
PLAI	**Plampang**	**6.43**	**270**	P	**Pn**	**09 02 46.8**	**+0.8**
	comp=Z,1.1nmcomp=Z,4μmcomp=Z,230nm,0.7s						
PLAI				AML	AML		
PLAI	**Plampang**	**6.43**	**270**	P	**Pn**	**09 02 46.5**	**+0.5**
PLAI	**Plampang**	**6.43**	**270**	P	**Pn**	**09 02 47.4**	**+1.4**
	comp=Z,230nm,0.7s						
SPSI	**Sidrap Palu**	**6.67**	**317**	P	**Pn**	**09 02 52.3**	**+3.1**
	comp=Z,0.1nmcomp=Z,2μmcomp=Z,24nm,1.1s						
SPSI				AML	AML		
SPSI	**Sidrap Palu**	**6.67**	**317**	P	**Pn**	**09 02 51.7**	**+2.5**
	comp=Z,22nm,0.6s						
SAUI	**Saumlaki**	**7.00**	**83**	Pn	**Pn**	**09 02 54.1**	**+0.4**
SANI	**Sanana**	**7.04**	**14**	P	**Pn**	**09 02 59.0**	**+4.7**
SANI	**Sanana**	**7.04**	**14**	P	Pn	09 02 59.9	+5.6
	comp=Z,0.1nmcomp=Z,39nm,0.7s						
SANI				AML	AML		
SANI	**Sanana**	**7.04**	**14**	P	**Pn**	**09 02 54.1**	**-0.2**
	comp=Z,0.1nmcomp=Z,39nm,0.7s						
SANI				AML	AML		
SANI	**Sanana**	**7.04**	**14**	P	**Pn**	**09 02 56.5**	**+2.2**
	comp=Z,40nm,0.7s						
TWSI	**Taliwang, Sumb**	**7.32**	**271**	P	**Pn**	**09 02 58.3**	**+0.2**
	comp=Z,3μmcomp=Z,3μmcomp=Z,116nm,0.7s,comp=Z,116nm,0.7s						
TWSI	**Taliwang, Sumb**	**7.32**	**271**	P	**Pn**	**09 02 59.0**	**+0.9**
	comp=Z,107nm,0.7s						
TTSI	**Tana Toraja**	**7.34**	**323**	P	Pn	09 03 03.6	+5.2
	comp=Z,0.2nmcomp=Z,24nm,0.7s						
TTSI				AML	AML		
TTSI	**Tana Toraja**	**7.34**	**323**	P	**Pn**	**09 03 02.8**	**+4.4**
	comp=Z,24nm,0.7s,comp=Z,24nm,0.7s						
DRS	**Darwin Rock St**	**7.37**	**119**	P	**Pn**	**09 03 00.0**	**+1.2**
MTN	**Manton Dam**	**7.77**	**121**		**Pn**	**09 03 04.9**	**+0.7**
LUWI	**Luwuk**	**7.98**	**349**	Pn	**Pn**	**09 03 08.4**	**+1.3**
LUWI	**Luwuk**	**7.98**	**349**	P	**Pn**	**09 03 09.6**	**+2.5**
	comp=Z,2μmcomp=Z,2μmcomp=Z,46nm,0.7s,comp=Z,46nm,0.7s						
KNRA	**Kununurra**	**8.00**	**147**		**Pn**	**09 03 07.6**	**+0.2**
KHKI	**Kahang-Kahang**	**8.60**	**273**	P	**Pn**	**09 03 15.2**	**-0.3**
	comp=Z,26nm,0.7s,comp=Z,26nm,0.7s						
SRBI	**Singaraja**	**9.01**	**275**	P	**Pn**	**09 03 23.9**	**+2.8**
	comp=Z,803nmcomp=Z,41nm,0.6s						
SRBI	**Singaraja**	**9.01**	**275**	P	**Pn**	**09 03 21.9**	**+0.8**
	comp=Z,803nmcomp=Z,803nmcomp=Z,41nm,0.6s,comp=Z,41nm,0.6s						
IGBI	**Denpasar**	**9.03**	**270**	P	**Pn**	**09 03 19.7**	**-1.7**
	comp=Z,3μmcomp=Z,116nm,0.7s,comp=Z,116nm,0.7s						
FITZ	**Fitzroy Crossi**	**9.21**	**172**	P	**Pn**	**09 03 22.4**	**-1.3**
	comp=Z,17nm,0.3s,baz=11,slow=9.7,SNR=93						
FITZ				S	**Sn**	**09 04 59.3**	**-6.3**
	comp=Z,163nm,0.4s,baz=176,slow=3.4,SNR=22						
FITZ	**Fitzroy Crossi**	**9.21**	**172**	Pn	**Pn**	**09 03 22.8**	**-1.0**
FITZ	**Fitzroy Crossi**	**9.21**	**172**	P	**Pn**	**09 03 22.8**	**-1.0**
	comp=Z,4.7nm,0.7s						
RTBI	**Rangdo, Negare**	**9.25**	**272**	P	**Pn**	**09 03 24.5**	**+0.1**
	comp=Z,52nm,1.2s						
JAGI	**Jajag, Banyuwa**	**10.03**	**272**		**Pn**	**09 03 32.0**	**-3.0**
GRJI	**Gresik**	**11.86**	**279**	P	**Pn**	**09 03 59.1**	**-0.6**
	comp=Z,39nm,0.5s						
SJI	**Sawahan**	**12.44**	**275**	P	**Pn**	**09 04 07.5**	**0.0**
SNJI	**Sawahan-Nganju**	**12.45**	**274**	P	**Pn**

	comp=Z,7.1nm,0.7s,baz=15,slow=6.6,SNR=6.0						
	comp=Z,7.1nm,0.7s						
QLP	**Quilpie**	**25.80**	**135**	P	**P**	09 06 38.5	**+2.8**
QLP	**Quilpie**	**25.80**	**135**	P	**P**	09 06 38.7	**+3.0**
	comp=Z,35nm,1.0s						
BBOO	**Buckleboo**	**26.14**	**157**	P	**P**	09 06 37.4	**-1.3**
BBOO	**Buckleboo**	**26.14**	**157**	P	**P**	09 06 40.4	**+1.7**
	comp=Z,23nm,0.6s						
PSI	**Prapat**	**27.84**	**294**	LR	LR	09 18 30.1	
	comp=Z,31nm,18.3s,baz=126,slow=37						
STKA	**Stephens Creek**	**27.92**	**147**	P	**P**	09 06 56.5	**+1.8**
	comp=Z,5.4nm,0.8s,baz=324,slow=8.2,SNR=8.7						
	comp=Z,5.4nm,0.8s						
STKA	**Stephens Creek**	**27.92**	**147**	P	**P**	09 06 53.7	**-1.0**
KRVT	**Keravat (AS076**	**27.93**	**82**	LR	LR	09 18 24.5	
	comp=Z,40nm,21.9s,baz=296,slow=37						
CMSA	**Cobar Meteorol**	**30.03**	**141**	P	**P**	09 07 16.2	**+2.8**
CMSA	**Cobar Meteorol**	**30.03**	**141**	P	**P**	09 07 16.4	**+3.0**
	comp=Z,23nm,0.8s						
AUDCS	**Dubbo College**	**32.35**	**139**	P	**P**	09 07 37.3	**+3.5**
ARMA	**Armidale**	**33.30**	**134**	P	**P**	09 07 41.4	**-0.8**
ARMA				IAmb	IAmb	09 07 46.9	
	comp=Z,9.1nm,0.8s						
ARMA	**Armidale**	**33.30**	**134**	P	**P**	09 07 46.0	**+3.8**
	comp=Z,14nm,2.0s						
TOO	**Toolangi**	**34.35**	**149**	P	**P**	09 07 50.6	**-0.5**
TOO				IAmb	IAmb	09 07 55.9	
	comp=Z,4.0nm,0.9s						
CAN	**Canberra**	**34.64**	**143**	P	**P**	09 07 50.8	**-2.8**
CMAR	**Chiang Mai Arr**	**36.96**	**317**	P	**P**	09 08 13.6	**-0.1**
	comp=Z,1.6nm,0.4s,baz=143,slow=6.6,SNR=9.4						
CMAR				LR	LR	09 26 05.4	
	comp=Z,11nm,20.6s,baz=105,slow=40						
	comp=Z,1.6nm,0.4s						
CHTO	**Chiang Mai**	**37.21**	**318**	P	**P**	09 08 15.8	**0.0**
	comp=Z,6.3nm,0.8s						
NJ2	**Nanjing**	**41.08**	**353**	*eP*	**P**	09 08 49.8	**+2.1**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
SANVU	**Saraoutou**	**42.39**	**103**	P	**P**	09 08 57.1	**-1.6**
SANVU	**Saraoutou**	**42.39**	**103**	P	**P**	09 09 01.1	**+2.4**
	comp=Z,35nm,1.0s						
MJAR	**Matsushiro Arr**	**47.09**	**15**	P	**P**	09 09 34.1	**-1.6**
	comp=Z,1.4nm,0.7s,baz=190,slow=9.6,SNR=4.7						
	comp=Z,1.4nm,0.7s						
LZH	**Lanzhou**	**48.74**	**338**	*eP*	**P**	09 09 48.8	**+0.2**
LZH				sP	pP	09 09 58.5	-14
LZH				pmax	pmax		
	comp=Z,15nm,1.7s						
HHC	**Hu-ho-hao-te**	**50.90**	**348**	*eP*	**P**	09 10 06.5	**+1.6**
HHC				pmax	pmax		
	comp=Z,15nm,0.7s						
USRK	**Ussuriysk Ar.**	**53.34**	**7**	P	**P**	09 10 21.6	**-1.1**
	comp=Z,2.0nm,0.7s,baz=193,slow=6.0,SNR=3.0						
	comp=Z,2.0nm,0.7s						
HILR	**Hailar Array B**	**58.38**	**357**	P	**P**	09 10 56.8	**-1.9**
	comp=Z,1.6nm,0.4s,baz=165,slow=12,SNR=3.9						
	comp=Z,1.6nm,0.4s						
SONM	**Songino Array**	**58.70**	**346**	P	**P**	09 10 59.4	**-1.6**
	comp=Z,0.7nm,0.5s,baz=152,slow=7.6,SNR=3.1						
	comp=Z,0.7nm,0.5s						
SONM	**Songino Array**	**58.70**	**346**	IAmb	IAmb	09 11 00.2	
	comp=Z,1.2nm,0.9s						
KSH2	**Kashi**	**65.80**	**320**	P	**P**	09 11 47.3	**-1.4**
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MKAR	**Makanchi Array**	**66.89**	**330**	P	**P**	09 11 54.1	**-1.2**
	comp=Z,1.5nm,0.6s,baz=134,slow=8.1,SNR=13						
	comp=Z,1.5nm,0.6s						
MKAR	**Makanchi Array**	**66.89**	**330**	P	**P**	09 11 52.6	**-2.8**
BOOM	**Boomskoye usch**	**67.55**	**323**	P	**P**	09 11 58.5	**-1.2**
BOOM				IAmb	IAmb	09 12 00.8	
	comp=Z,9.3nm,1.0s						
ARSB	**Arslanbob**	**68.67**	**321**	P	**P**	09 12 05.0	**-1.7**
ARSB				IAmb	IAmb	09 12 06.6	
	comp=Z,4.5nm,0.7s						
ZALV	**Zalesovo Beam**	**70.95**	**337**	P	**P**	09 12 18.0	**-2.2**
	comp=Z,1.6nm,0.7s,baz=143,slow=5.2,SNR=5.0						
	comp=Z,1.6nm,0.7s						
VNDA	**Vanda**	**71.28**	**172**	P	**P**	09 12 21.4	**-0.6**
KURBB	**Kurchatov Arra**	**71.32**	**331**	P	**P**	09 12 21.1	**-1.4**
	comp=Z,1.9nm,0.2s,baz=139,slow=5.2,SNR=6.1						
	comp=Z,1.9nm,0.2s						
KURK	**Kurchatov**	**71.34**	**331**	P	**P**	09 12 21.1	**-1.6**
KURK	**Kurchatov**	**71.34**	**331**	IAmb	IAmb	09 12 22.5	
	comp=Z,3.1nm,0.7s						
QSPA	**South Pole Qui**	**81.06**	**180**	P	**P**	09 13 18.8	**+1.2**
	comp=Z,1.0nm,0.5s,baz=341,slow=5.2,SNR=12						
	comp=Z,1.0nm,0.5s						
QSPA	**South Pole Qui**	**81.06**	**180**	P	**P**	09 13 16.2	**-1.5**
QSPA	**South Pole Qui**	**81.06**	**180**	P	**P**	09 13 19.8	**+2.1**
TROLL	**Troll, Antarti**	**90.86**	**195**	P	**P**	09 14 08.2	**+2.3**
	comp=Z,108nm,0.6s						
SNAA	**Sanae**	**92.43**	**195**	P	**P**	09 14 15.3	**+2.2**
TORD	**Toyodi Ar. Bea**	**123.59**	**280**	PKP	**PKPdf**	09 20 00.4	**-0.2**
	comp=Z,0.4nm,0.7s,baz=101,slow=2.1,SNR=2.5						
TXAR	**Lajitas Array**	**130.77**	**59**	SKPbc	**SKPbc**	09 23 27.6	**-1.7**
	comp=Z,0.3nm,0.5s,baz=267,slow=2.3,SNR=5.6						
CPUP	**Villa Florida**	**144.91**	**177**	PKPbc	**PKPdf**	09 20 40.8	**+0.7**
	comp=Z,3.9nm,0.6s,baz=180,slow=3.4,SNR=6.9						

*ASRS **26** 09:15:31.0±1.4, 53.98N×86.58E, h0km, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 26 09:15:34.9±3.7, 53.99N×86.53E, h0km, mbtmp2.9/2, ML2.5/2, Error ellipse: s-maj=31.5km s-min=14.3km az=78.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.01**	**268**	I	I	09 21 20.0	
	baz=87,slow=340,SNR=8.7						
ZALV	**Zalesovo Beam**	**1.01**	**268**	Pg	Pg	09 15 53.1	-1.1
	1.2nm,0.3s,baz=88,slow=16,SNR=14						
ZALV				Lg	Lg	09 16 09.3	
	0.7nm,0.3s,baz=88,slow=29,SNR=5.3						
KURBB	**Kurchatov Arra**	**5.95**	**239**	Pn	Pn	09 17 05.1	+1.0
	0.1nm,0.3s,baz=55,slow=13,SNR=5.2						
	0.6nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.69**	**202**	Pn	Pn	09 17 29.6	+1.4
	0.1nm,0.3s,baz=20,slow=14,SNR=2.7						
	0.7nm,0.9s						
MKAR				AML	AML		

*MDD **26** 09:18:05.9±1.0, 44.85N×12.99W, h0km, Mb4.3/13, M_mb3.6/13, Error ellipse: s-maj=8.1km s-min=4.6km az=99.0*
*INMG **26** 09:18:10.4±1.1, 44.94N×13.28W, h10km, ML2.7, Error ellipse: s-maj=9.5km s-min=5.5km az=82.0, #DIST_RANGE: REGIONAL #IPMA_REGION: North Atlantic Ocean*
ISC 26 09:18:06.2±3.1, 44.8N±0.1×12.9W±0.2, h10km, n32, σ2s19/47, 11C, North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMAZ	**Mazaricos**	**3.38**	**121**	Pn	**Pn**	09 19 01.7	**+2.7**
EMAZ				⇑IVmb_VC		09 19 01.8	
	819nm,SNR=2.2						
EMAZ				Sn	**Sn**	09 19 39.2	**+0.1**
STS	**Santiago**	**3.67**	**119**	Pn	**Pn**	09 19 05.8	**+2.8**
STS				Sn	Sn	09 19 47.1	**+0.7**
EAGO	**Agolada(Pontev**	**4.00**	**117**	Pn	**Pn**	09 19 09.9	**+2.3**
EAGO				⇑IVmb_VC		09 19 10.8	
	418nm,SNR=1.7						
EAGO				Sn	**Sn**	09 19 53.9	**-0.8**
EZAM	**Zamans**	**4.03**	**129**	Pn	**Pn**	09 19 10.3	**+2.3**
EZAM				⇑IVmb_VC		09 19 10.7	
	340nm,SNR=1.1						
EZAM				Sn	**Sn**	09 19 55.0	**-0.2**
PGAV	**Gavieira, Arco**	**4.39**	**128**	*eP*	**Pn**	09 19 15.6	**+2.7**
PGAV				*eS*	**Sn**	09 20 04.4	**+0.2**
PGAV				IAML		09 20 06.0	
PGAV				IAML		09 20 06.3	
PGAV				IAML		09 20 06.4	
EPON	**Pontenova**	**4.40**	**107**	Pn	**Pn**	09 19 14.9	**+1.8**
EPON				⇑IVmb_VC		09 19 15.9	
	145nm,SNR=0.4						
EPON				Sn	**Sn**	09 20 02.1	**-2.3**
ELOB	**Lobios**	**4.57**	**127**	Pn	**Pn**	09 19 17.6	**+2.1**
ELOB				⇑IVmb_VC		09 19 17.8	
	411nm,SNR=1.5						
ELOB				Sn	**Sn**	09 20 08.8	**+0.1**

PCAB	**Cabril**	**4.69**	**129**	*eP*	**Pn**	09 19 19.9	**+2.8**
PCAB				*eS*	**Sn**	09 20 12.1	**+0.5**
PCAB				IAML		09 20 13.7	
PCAB				IAML		09 20 14.2	
PCAB				IAML		09 20 14.7	
POLO	**Lamas de Olo**	**5.05**	**130**	*eP*	**Pn**	09 19 24.1	**+2.1**
POLO				*eS*	**Sn**	09 20 19.6	**-0.9**
POLO				IAML		09 20 21.7	
POLO				IAML		09 20 22.1	
POLO				IAML		09 20 22.1	
POLO	**Lamas de Olo**	**5.05**	**130**	Pn	**Pn**	09 19 24.0	**+1.9**
POLO				Sn	**Sn**	09 20 19.6	**-0.9**
PVRL	**Vila Real**	**5.16**	**130**	*eP*	**Pn**	09 19 25.3	**+1.8**
PVRL				*eS*	**Sn**	09 20 22.3	**-0.8**
PVRL				IAML		09 20 24.9	
PVRL				IAML		09 20 25.4	
PVRL				IAML		09 20 25.4	
ECAL	**Calabor**	**5.31**	**120**	Pn	**Pn**	09 19 28.2	**+2.5**
ECAL				⇑IVmb_VC		09 19 29.2	
	254nm,SNR=0.6						
ECAL				Sn	**Sn**	09 20 26.6	**-0.3**
PBRG	**Braganca**	**5.39**	**121**	*eS*	**Sn**	09 20 28.5	**-0.2**
PBRG				IAML		09 20 29.9	
PBRG				IAML		09 20 30.5	
PBRG				IAML		09 20 31.3	
PVIS	**Viseu**	**5.47**	**136**	*eS*	**Sn**	09 20 29.8	**-1.0**
EARI	**Arriondas**	**5.75**	**102**	Pn	**Pn**	09 19 33.7	**+2.1**
EARI				⇑IVmb_VC		09 19 34.2	
	206nm,SNR=0.6						
EARI				Sn	**Sn**	09 20 35.5	**-2.1**
PSARD	**Sardoal**	**6.24**	**144**	*eS*	**Sn**	09 20 47.8	**-1.9**
PSARD				IAML		09 20 51.1	
PSARD				IAML		09 20 52.2	
PSARD				IAML		09 20 52.8	
PCBR	**Castelo Branco**	**6.35**	**139**	*eS*	**Sn**	09 20 51.0	**-1.4**
PCBR				IAML		09 20 53.3	
PCBR				IAML		09 20 54.1	
PCBR				IAML		09 20 55.2	
PMTG	**Montargil**	**6.67**	**147**	*eP*	**Pn**	09 19 46.0	**+1.8**
PMTG				*eS*	**Sn**	09 20 58.5	**-1.7**
PMTG				IAML		09 20 59.3	
PMTG				IAML		09 21 00.4	
PMTG				IAML		09 21 03.3	
PMTG	**Montargil**	**6.67**	**147**	Pn	**Pn**	09 19 44.4	**+0.2**
PMTG				Sn	**Sn**	09 20 56.8	**-3.4**
PMRV	**Marv??o**	**6.72**	**140**	*eS*	**Sn**	09 20 59.5	**-2.0**
PMRV				IAML		09 21 02.4	
PMRV				IAML		09 21 02.6	
PMRV				IAML		09 21 03.0	
EPLA	**Plasencia**	**6.89**	**130**	Sn	Sn	09 20 59.9	-6.0
PARRA	**Arraiolos**	**6.96**	**147**	*eS*	**Sn**	09 21 05.0	**-2.3**
PARRA				IAML		09 21 05.8	
PARRA				IAML		09 21 08.2	
PARRA				IAML		09 21 10.2	
ELAN	**Lanestosa**	**7.01**	**99**	⇑IVmb_VC		09 19 53.6	
	123nm,SNR=0.6						
ELAN				Sn	**Sn**	09 21 04.5	**-4.3**
PESTR	**Estremoz**	**7.10**	**144**	*eS*	**Sn**	09 21 08.5	**-2.3**
MOE	**Montemor**	**7.10**	**150**	*eP*	**Pn**	09 19 52.3	**+2.2**
MOE				*eS*	**Sn**	09 21 07.9	**-2.9**
EBAD	**Badajoz**	**7.44**	**142**	⇑IVmb_VC		09 19 58.4	
	76nm,SNR=0.5						
EBAD				Sn	**Sn**	09 21 16.2	**-3.0**
PLOUS	**Minas do Lousa**	**7.51**	**152**	*eS*	**Sn**	09 21 18.7	**-2.3**
CIBOR	**Castaar de Ib**	**7.55**	**130**	Sn	**Sn**	09 21 20.9	**-1.2**
PAB	**San Pablo**	**8.22**	**126**	⇑IVmb_VC		09 20 08.9	
	110nm,SNR=0.8						
PAB				Sn	**Sn**	09 21 36.9	**-1.7**
PVAQ	**Vaqueiros**	**8.32**	**150**	*eS*	**Sn**	09 21 36.2	**-4.7**
PVAQ				IAML		09 21 41.1	
PVAQ				IAML		09 21 42.2	
PVAQ				IAML		09 21 42.3	
DYA	**Yadsworthy**	**8.33**	**44**	Pn	**Pn**	09 20 05.1	**-1.8**
EALK	**Alkurruntz**	**8.38**	**96**	⇑IVmb_VC		09 20 09.6	
	51nm,SNR=0.3						
EALK				Sn	**Sn**	09 21 38.6	**-3.7**

*IDC **26** 09:20:16.8±2.5, 53.47N×87.35E, h0km, mbtmp3.1/3, ML2.6/3, Error ellipse: s-maj=22.0km s-min=12.9km az=73.0*
ASRS 26 09:20:12.0±1.1, 53.53N×87.52E, h0km, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.66**	**286**	I	I	09 29 30.0	
	0.1nm,0.8s,baz=104,slow=340,SNR=17						
ZALV	**Zalesovo Beam**	**1.66**	**286**	Pg	Pg	09 20 45.2	+1.4
	1.1nm,0.3s,baz=106,slow=17,SNR=16						
ZALV				Lg	Lg	09 21 06.4	
	1.1nm,0.3s,baz=109,slow=30,SNR=6.1						
KURBB	**Kurchatov Arra**	**6.26**	**246**	Pn	Pn	09 21 49.5	+4.0
	0.1nm,0.3s,baz=61,slow=14,SNR=5.6						
KURBB				Sn	Sn	09 22 59.2	+1.5
	baz=64,slow=23,SNR=1.6						
KURBB				Lg	Lg	09 23 32.3	
	0.1nm,0.3s,baz=60,slow=32,SNR=5.1						
	1.0nm,0.6s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.53**	**209**	Pn	Pn	09 22 07.8	+4.8
	0.2nm,0.3s,baz=25,slow=12,SNR=6.4						
MKAR				Sn	Sn	09 23 30.9	+1.9
	0.1nm,0.3s,baz=26,slow=25,SNR=2.7						
MKAR				Lg	Lg	09 24 11.2	
	0.1nm,0.3s,baz=24,slow=32,SNR=3.6						
	0.7nm,0.6s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**10.28**	**274**	Pn	Pn	09 22 43.0	+2.4
	baz=78,slow=15,SNR=2.0						
	0.5nm,0.4s						

*UCC **26** 09:22:29.9, 50.07N×1.12E, h0km, ML2.6, Explosion. STR **26** 09:22:30.0±0.5, 50°N±6°×°±°, h0km, MLv3.0/15, LOCSAT earthModelID haslach_taup-2.4.5 preliminary*
ISC 26 09:22:28.4±1.1, 50.06N±0.06×1.07E±0.04, h0km, n26, σ0s49/30, 10D, France

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELSH	**Elham, Standar**	**1.09**	**2**	Pg	**Pb**	09 22 50.3	**+0.2**
BARI	**Barisis-aux-bo**	**1.54**	**108**	Pn	**Pn**	09 22 57.3	**+0.2**
BOST	**Ostende**	**1.68**	**45**	*dP*	**Pn**	09 22 58.7	**-0.3**
BOST				*dS*	**Sn**	09 23 21.0	**-0.1**
BESN	**Besneville**	**1.87**	**249**	Pn	**Pn**	09 23 02.3	**+0.7**
BSKQ	**Steenkerk**	**2.02**	**72**	*dP*	**Pn**	09 23 03.5	**-0.2**
BRQR	**Ronquire**	**2.10**	**74**	*dP*	**Pn**	09 23 05.4	**+0.6**
SNF	**Seneffe**	**2.11**	**77**	*dP*	**Pn**	09 23 05.4	**+0.4**
DOU	**Dourbes**	**2.27**	**88**	Pn	**Pn**	09 23 07.9	**+0.6**
DOU				Sg	**Sg**	09 23 41.3	**-0.1**
DOU	**Dourbes**	**2.27**	**88**	*dP*	**Pn**	09 23 08.0	**+0.8**
DOU				*dS*	**Sb**	09 23 38.3	**-0.6**
TSDF	**Thoir-sur-Di**	**2.35**	**190**	Pn	**Pn**	09 23 09.2	**+1.0**
RCHB	**Rochefort**	**2.68**	**86**	Pn	**Pn**	09 23 12.9	**+0.1**
RCHB	**Rochefort**	**2.68**	**86**	*dP*	**Pn**	09 23 13.4	**+0.6**
RCHB				*dS*	**Sn**	09 23 46.0	**+0.1**
GIZF	**Gizeux - Indre**	**2.72**	**193**	Pn	**Pn**	09 23 13.3	**0.0**
LKLB	**Kalborn**	**3.25**	**87**	*dP*	**Pn**	09 23 21.7	**+1.1**
BSCF	**Bossay-sur-Cla**	**3.26**	**181**	Pn	**Pn**	09 23 20.5	**-0.3**
GUEF	**Guhenno - 56**	**3.27**	**230**	Pn	**Pn**	09 23 20.8	**-0.1**
BEGF	**Beganne - 5601**	**3.29**	**223**	Pn	**Pn**	09 23 21.0	**-0.1**
LOCF	**Locquirec - 29**	**3.39**	**248**	Pn	**Pn**	09 23 22.4	**-0.1**
MANO	**Manonville**	**3.40**	**109**	Pn	**Pn**	09 23 23.0	**+0.3**
PLOF	**Ploemeur**	**3.76**	**234**	Pn	**Pn**	09 23 27.4	**-0.2**
CIEL	**Dossenheim-sur**	**4.29**	**104**	Pn	**Pn**	09 23 34.4	**-0.5**
RONF	**Ronchamp**	**4.37**	**120**	Pn	**Pn**	09 23 35.3	**-0.7**
KIZ	**Kirchzarten**	**4.98**	**112**	Pn	**Pn**	09 23 44.2	**-0.2**
TORNY	**Torny/Romont**	**5.12**	**128**	Pn	**Pn**	09 23 46.2	**+0.2**
RSL	**Roselend**	**5.75**	**137**	Pn	**Pn**	09 23 55.6	**+0.4**
DIX	**Grande Dixence**	**5.82**	**131**	Pn	**Pn**	09 23 56.5	**+0.3**

*IDC **26** 09:25:46.1±3.3, 54.16N×87.12E, h0km, mbtmp2.9/2, ML2.6/2, Error ellipse: s-maj=28.9km s-min=19.8km az=78.0*
ASRS 26 09:25:43.0±1.0, 54.19N×87.19E, h0km, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.42**	**261**	I	I	09 33 30.0	
	0.1nm,0.8s,baz=81,slow=338,SNR=16						
ZALV	**Zalesovo Beam**	**1.42**	**261**	Pg	Pb	09 26 11.0	+0.7
	2.4nm,0.3s,baz=82,slow=16,SNR=19						
ZALV				Lg	Lg	09 26 31.3	
	0.7nm,0.3s,baz=82,slow=30,SNR=4.7						
KURBB	**Kurchatov Arra**	**5.39**	**240**	Pn	Pn	09 27 21.9	+3.6
	0.1nm,0.3s,baz=53,slow=13,SNR=5.8						
KURBB				Lg	Lg	09 29 07.2	
	baz=49,slow=31,SNR=1.8						
	0.6nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.04**	**205**	Pn	Pn	09 27 44.8	+3.9
	0.1nm,0.3s,baz=25,slow=14,SNR=3.7						
	0.2nm,0.3s						
MKAR				AML	AML		

*IDC **26** 09:31:20.2±7.4, 36.38N×70.69E, h186km±66km, mb3.0/3, mbtmp3.7/6, MS3.1/1, Error ellipse: s-maj=61.4km s-min=43.7km az=42.0*
*NNC **26** 09:31:25.6±3.7, 36.93N×70.27E, h188km±52km, mb2.8, mpv3.7, Error ellipse: s-maj=37.0km s-min=29.5km az=9.0*
ISC 26 09:31:21.8±1.4, 36.6N±0.1×70.5E±0.1, h204km, n11, σ1s61/13, 5C-1D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.47**	**0**	⇑P	**Pn**	09 32 55.3	**+0.2**
	4.1nm,0.2s,baz=181,slow=11,SNR=144						
KK31				⇑S	**S**	09 34 05.2	**-3.7**
	3.3nm,0.4s,baz=201,slow=33,SNR=5.1						
AAK	**Ala-Archa**	**6.75**	**26**	P	**Pn**	09 33 00.1	**+1.1**
	4.3nm,0.3s,baz=192,slow=6.2,SNR=21						
AAK				S	**S**	09 34 15.7	**-0.2**
	4.8nm,0.4s,baz=332,slow=22,SNR=9.9						
AAK	**Ala-Archa**	**6.75**	**26**	⇑P	**Pn**	09 32 59.6	**+0.7**
	1.6nm,0.5s						
AAK				⇑S	**S**	09 34 15.6	**-0.3**
	5.6nm,0.6s						
MKAR	**Makanchi Array**	**13.44**	**37**	P	**P**	09 34 26.8	**-0.3**
	1.4nm,0.7s,baz=222,slow=11,SNR=13						
AB31	**Akbulak array**	**14.77**	**332**	⇑P	**Pn**	09 34 40.9	**0.0**
	0.9nm,0.4s,baz=150,slow=12,SNR=32						
AKTO	**Aktyubinsk**	**16.46**	**331**	P	**Pn**	09 35 03.0	**+1.7**
	2.3nm,0.7s,baz=147,slow=11,SNR=7.5						
AKTO	**Aktyubinsk**	**16.46**	**331**	⇓P	**P**	09 35 01.6	**+1.2**
	2.1nm,0.8s						
ZALV	**Zalesovo Beam**	**19.98**	**25**	P	**P**	09 35 40.2	**+1.8**
	1.0nm,0.3s,baz=214,slow=10.0,SNR=6.2						
	1.0nm,0.3s						
KBZ	**Khabaz**	**22.17**	**297**	LR	LR	09 48 47.9	
	comp=Z,48nm,18.9s,baz=351,slow=47						
WRA	**Warramunga Arr**	**82.41**	**122**	P	**P**	09 43 20.3	**-1.0**
	0.3nm,0.8s,baz=317,slow=4.9,SNR=1.7						
	0.3nm,0.8s						
ASAR	**Alice Springs**	**84.67**	**125**	P	**P**	09 43 31.4	**-1.4**
	0.2nm,0.5s,baz=308,slow=4.5,SNR=4.3						
	0.2nm,0.5s						

*NCEDC **26** 09:50:30.5±0.9, 38.05N±0.01×118.74W±0.02, h-1km±1km, Error ellipse: s-maj=2.4km s-min=1.1km az=121.0*
*REN **26** 09:50:31.1±1.0, 38.06N±0.01×118.75W±0.02, h7km±4km, Error ellipse: s-maj=2.5km s-min=0.8km az=122.0*
NEIC 26 09:50:30.6±0.9, 38.043N±0.004×118.74W±0.01, h4km±4km, ML3.3/96, ML3.6/16(REN), ML3.4/28(NCEDC), Error ellipse: s-maj=1.8km s-min=0.4km az=74.0, California-Nevada border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LHV	**Little Huntoon**	**0.28**	**41**		Pg	09 50 36.6	+0.6
LHV					Sg	09 50 41.4	+1.8
LHV	**Little Huntoon**	**0.28**	**41**	IAML		09 50 42.7	
	comp=N,7μm,0.6s						
LHV				IAML		09 50 43.7	
	comp=E,8μm,0.6s						
MLHM	**Little Hot Cre**	**0.37**	**190**		Pg	09 50 38.7	+0.9
MCSM	**Casa Diablo Ho**	**0.41**	**199**		Pg	09 50 39.2	+0.7
MEMM	**East Mammoth H**	**0.41**	**203**		Pg	09 50 39.3	+0.8
MDCM	**Deadman Creek**	**0.41**	**216**		Pg	09 50 39.0	+0.5
MRCM	**Red Rock Canyo**	**0.41**	**154**		Pg	09 50 39.1	+0.6
MDRNC	**Doe Ridge**	**0.41**	**191**		Pg	09 50 39.3	+0.8
MCBM	**Casa Benchmark**	**0.42**	**198**		Pg	09 50 39.4	+0.7
MCBM					Sb	09 50 46.1	-1.4
MLAC	**Mammoth, Mammo**	**0.42**	**191**		Pg	09 50 39.4	+0.7
MLAC	**Mammoth, Mammo**	**0.42**	**191**		Sb	09 50 46.2	-1.3
MMLB	**Mammoth Lakes**	**0.43**	**207**		Pg	09 50 39.6	+0.8
MDYM	**Dry Creek**	**0.44**	**210**		Pg	09 50 39.9	+0.7
MDYM	**Dry Creek**	**0.44**	**210**		Sb	09 50 46.7	-1.6
MCMM	**Convict Lake**	**0.45**	**194**		Pg	09 50 39.8	+0.6
MLCM	**Laurel Creek C**	**0.45**	**198**		Pg	09 50 40.0	+0.6
MCVM	**Convict Lake**	**0.46**	**189**		Pg	09 50 40.0	+0.6
MLIM	**Lincoln Peak**	**0.46**	**209**		Pg	09 50 40.1	+0.6
MLIM	**Lincoln Peak**	**0.46**	**209**		Pg	09 50 40.4	+0.8
MINS	**Minaret Summit**	**0.47**	**214**		Pg	09 50 40.0	+0.5
MMPM	**Mammoth Pass**	**0.49**	**208**		Pg	09 50 40.6	+0.6
MMPM	**Mammoth Pass**	**0.49**	**208**		Pg	09 50 40.5	+0.5
NV08	**Mina Array Sit**	**0.49**	**42**		Pg	09 50 40.4	+0.4
NV08	

PNTR	**Pine Nut**	**1.24**	**327**			Pg	09 50 53.9	-0.5
PNTR				IAML			09 51 18.2	
	comp=N,883nm,0.8s							
CMB	**Columbia Colle**	**1.30**	**270**			Pg	09 50 54.5	-1.0
HELL	**Mitchell Peak,**	**1.38**	**190**			Pn	09 50 56.5	-0.3
LEGD	**La Grand CA**	**1.39**	**234**			Pn	09 50 56.6	-0.2
VCNR	**Virginia City**	**1.44**	**331**			Pn	09 50 57.6	-0.1
Q09A	**Carvers**	**1.46**	**57**			Pg	09 50 58.6	+0.1
GRAC	**Grapevine Rang**	**1.51**	**133**			Pb	09 50 59.0	-0.2
GRAC				IAML			09 51 24.0	
	comp=E,629nm,0.5s							
GRAC				IAML			09 51 24.3	
	comp=N,521nm,0.9s							
MERC	**Merced, CA USA**	**1.51**	**245**			Pb	09 50 58.9	-0.3
KARE	**Kearney REC, C**	**1.57**	**203**			Pn	09 50 59.7	+0.4
KARE	**Kearney REC, C**	**1.57**	**203**			Pb	09 50 59.9	-0.2
KARE	**Kearney REC, C**	**1.57**	**203**	IAML			09 51 23.8	
	comp=E,418nm,0.7s							
KARE				IAML			09 51 26.5	
	comp=N,270nm,0.5s							
MPK	**Martis Peak**	**1.61**	**321**			Pb	09 51 01.1	0.0
MPK	**Martis Peak**	**1.61**	**321**	IAML			09 51 27.7	
	comp=E,500nm,1.3s							
WELL	**Weller Preserv**	**1.61**	**285**			Pn	09 51 00.4	+0.4
WELL	**Weller Preserv**	**1.61**	**285**	IAML			09 51 24.0	
	comp=E,460nm,0.3s							
WELL				IAML			09 51 24.9	
	comp=N,348nm,0.2s							
CGO	**Cerro Gordo**	**1.67**	**153**			Pb	09 51 01.9	-0.1
CWC	**Cottonwood Cre**	**1.68**	**162**			Pb	09 51 01.7	-0.5
SGV	**South Grapevin**	**1.72**	**128**			Pn	09 51 01.8	+0.3
PAHR	**Pah Rah Range**	**1.74**	**343**			Pn	09 51 02.4	+0.6
PAHR	**Pah Rah Range**	**1.74**	**343**	IAML			09 51 28.8	
	comp=E,199nm,0.5s							
PAHR				IAML			09 51 28.8	
	comp=N,279nm,0.8s							
VOG	**Valley Oaks Go**	**1.79**	**197**			Pb	09 51 04.1	0.0
DONR	**Donner Summit**	**1.80**	**317**			Pb	09 51 04.1	-0.2
PEAR	**Peavine Mounta**	**1.83**	**329**			Pb	09 51 05.0	+0.2
SPG2	**Springville 2**	**1.84**	**181**			Pb	09 51 04.6	-0.3
YUBA	**Cisco Grove, Y**	**1.91**	**313**			Pb	09 51 06.1	-0.2
AFDM	**Forest Hills D**	**1.97**	**298**			Pb	09 51 07.0	-0.1
AFDM	**Forest Hills D**	**1.97**	**298**	IAML			09 51 35.3	
	comp=E,218nm,0.4s							
NTA	**Nevada Test Si**	**1.98**	**112**			Pb	09 51 06.2	-1.1
WSRE	**Westside REC,**	**2.03**	**213**			Pb	09 51 07.9	-0.1
MFS	**McCloud Flat S**	**2.05**	**160**			Pb	09 51 08.8	+0.4
EHN	**Echo Peak**	**2.09**	**113**			Pn	09 51 07.9	+1.2
WCT	**Wildcat Mounta**	**2.09**	**126**			Pn	09 51 07.0	+0.4
WCT	**Wildcat Mounta**	**2.09**	**126**	IAML			09 51 41.0	
	comp=E,303nm,0.8s							
WCT				IAML			09 51 41.5	
	comp=N,311nm,0.5s							
MTOS	**Mt Oso, Westle**	**2.12**	**256**			Pb	09 51 09.3	-0.3
BMSM	**Mercy Hot Spri**	**2.14**	**230**			Pb	09 51 09.5	-0.6
VES	**Vestal, Richgr**	**2.21**	**187**			Pb	09 51 10.1	-1.1
VES				IAML			09 51 44.9	
	comp=N,179nm,0.6s							
VES				IAML			09 51 47.7	
	comp=E,216nm,0.7s							
BEKR	**Beckworth**	**2.22**	**326**			Pb	09 51 09.9	-1.5
BEKR	**Beckworth**	**2.22**	**326**	IAML			09 51 43.0	
	comp=E,145nm,0.6s							
MPMC	**Manual Prospec**	**2.22**	**153**	Pn		Pn	09 51 09.4	+1.0
CSTL	**Corral Hollow**	**2.22**	**260**			Pb	09 51 10.0	-1.4
TPNV	**Topopah Spring**	**2.26**	**118**			Pn	09 51 09.7	+0.7
TPNV				IAML			09 51 50.1	
	comp=E,206nm,0.6s							
PACP	**Pacheco Peak**	**2.27**	**244**			Pb	09 51 11.2	-1.1
WNMM	**Nine Mile Cany**	**2.29**	**163**			Pb	09 51 12.9	+0.4
WASM	**Alta Sierra Ca**	**2.31**	**176**			Pb	09 51 13.1	+0.2
CBSNC	**Byron Hot Spri**	**2.31**	**265**			Pb	09 51 12.5	-0.2
BBGB	**Big Mountain B**	**2.35**	**232**			Pb	09 51 12.1	-1.4
GHS	**Gilroy Hot Spr**	**2.35**	**247**			Pn	09 51 11.4	+1.4
SDH	**Striped Hills**	**2.37**	**125**			Pn	09 51 11.2	+0.8
AVNL	**Avenal, CA USA**	**2.38**	**212**			Pb	09 51 12.2	-1.7
ISA	**Isabella, Lake**	**2.38**	**175**			Pb	09 51 13.9	-0.2
ISA				IAML			09 51 46.4	
	comp=E,137nm,0.5s							
ISA				IAML			09 51 46.8	
	comp=N,152nm,0.6s							
S11A	**Rachel**	**2.40**	**99**			Pn	09 51 12.0	+1.2
CLC	**China Lake**	**2.40**	**157**			Pn	09 51 12.0	+1.2
CPY	**CP-1**	**2.40**	**117**			Pn	09 51 11.5	+0.6
CDC	**Canada Road**	**2.41**	**246**			Pb	09 51 13.3	-1.2
MHC	**Mount Hamilton**	**2.41**	**254**			Pn	09 51 12.2	+1.2
MHC				IAML			09 51 52.0	
	comp=E,196nm,0.7s							
LRV	**Little Rabbit**	**2.43**	**229**			Pb	09 51 14.5	-0.5
BDM	**Black Diamond**	**2.47**	**269**			Pb	09 51 14.9	-0.7
SRTC	**Snort**	**2.48**	**161**			Pg	09 51 16.9	-1.1
GWY	**Greenwater Val**	**2.48**	**138**			Pn	09 51 12.2	+0.2
GWY	**Greenwater Val**	**2.48**	**138**	IAML			09 52 00.3	
	comp=E,98nm,0.9s							
CVLM	**Vallecito**	**2.49**	**261**			Pb	09 51 15.1	-0.8
BJOM	**Mount Johnson**	**2.49**	**236**			Pb	09 51 15.1	-0.8
SAO	**San Andreas Ge**	**2.51**	**240**			Pb	09 51 14.9	-1.2
CSR	**Chase Ranch**	**2.51**	**245**			Pb	09 51 14.2	-2.0
TRC	**Taylor Ranch**	**2.51**	**214**			Pn	09 51 13.5	+1.2
AMDNV	**Amargosa**	**2.52**	**128**			Pn	09 51 13.5	+1.1
PHFM	**Heflinger Ranc**	**2.54**	**212**			Pb	09 51 15.4	-1.3
PSTM	**Stockdale Moun**	**2.54**	**214**			Pb	09 51 15.4	-1.4
PSTM	**Stockdale Moun**	**2.54**	**214**			Pb	09 51 15.1	-1.7
PKD	**Bear Valley Ra**	**2.54**	**215**			Pb	09 51 15.3	-1.5
GHIB	**Gold Hill**	**2.56**	**211**			Pn	09 51 14.5	+1.6
JSTM	**Santa Teresa H**	**2.57**	**252**			Pn	09 51 14.2	+1.2
HCBM	**Chamberlain**	**2.58**	**245**			Pb	09 51 15.7	-1.7
CNIC	**Niles Canyon**	**2.59**	**261**			Pb	09 51 15.7	-2.0
OSTM	**Stimpson Lane**	**2.60**	**302**			Pb	09 51 16.4	-1.3
PKLM	**Kerr Lake**	**2.60**	**210**			Pn	09 51 15.0	+1.5
THIS	**South End of C**	**2.60**	**208**			Pn	09 51 15.4	+1.9
ORV	**Oroville**	**2.63**	**306**			Pn	09 51 15.6	+1.6
ORV	**Oroville**	**2.63**	**306**	IAML			09 51 54.5	
	comp=N,88nm,0.4s							
BMN	**Battle Mountai**	**2.66**	**26**			Pn	09 51 14.2	-0.3
BMN	**Battle Mountai**	**2.66**	**26**	IAML			09 51 56.0	
	comp=E,116nm,0.5s							
BMN				IAML			09 51 58.0	
	comp=N,118nm,0.5s							
SUTB	**Sutter Butte**	**2.67**	**297**			Pn	09 51 16.5	+2.2
CCCA	**Chr Cany lake**	**2.74**	**156**	IAML			09 52 11.1	
	comp=N,73nm,1.6s							
CCCA				IAML			09 52 16.7	
	comp=E,67nm,1.0s							
HULI	**Fort Hunter Li**	**2.84**	**225**	Pn		Pn	09 51 18.6	+1.9
HULI				IAML			09 52 02.7	
	comp=E,116nm,0.8s							
CVS	**Carmenet Viney**	**2.95**	**277**	Pn		Pn	09 51 19.9	+1.7
CVS				IAML			09 52 03.9	
	comp=E,77nm,1.2s							
CVS				IAML			09 52 15.7	
	comp=N,65nm,1.9s							
SHPR	**Sheep Range**	**3.24**	**117**			Pn	09 51 23.7	+1.3
O03E	**Paynes Creek**	**3.28**	**314**			Pn	09 51 25.0	+2.2
O03E				IAML			09 52 14.1	
	comp=N,62nm,0.5s							
O03E				IAML			09 52 15.5	
	comp=E,115nm,0.5s							
ELK	**Elko**	**3.82**	**44**			Pn	09 51 30.7	+0.2
ELK	**Elko**	**3.82**	**44**	IAML			09 52 33.8	
	comp=E,30nm,0.6s							

MOS ***26*** *10:01:45.6±0.8, 36°.35N×71°.27E, h126km, mb4.6/10, Error ellipse: s-maj=8.9km s-min=4.3km az=80.2*

NEIC ***26*** *10:01:46.8±1.8, 36°.36N±0°.05×71°.31E±0°.09, h124km±5km, mb4.4/22, Error ellipse: s-maj=11.0km s-min=6.6km az=113.0*

IDC ***26*** *10:01:46.9±3.0, 36°.35N×71°.35E, h125km±26km, mb3.8/21, mbtmp4.3/26, Error ellipse: s-maj=18.5km s-min=11.4km az=21.0*

GFZ ***26*** *10:01:46.9±0.2, 36°N±2°×7°1E±°, h114km, M4.3/12, mb4.3/12, confirmed*

NNC ***26*** *10:01:48.3±1.9, 36°.56N×71°.13E, h118km±27km, mb3.9, mpv4.7, Error ellipse: s-maj=17.9km s-min=16.7km az=47.0*

ISC 26 10:01:46.0±0.4,**36°.35N**±0°.04×**71°.30E**±0°.04,**h114**km,**n172,** σ**25/09**/189,**mb4.3**/36,**3C-11D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
KBL	**Kabul**		**2.58**	**226**	PN		**Pn**	**10 02 27.2**	**+0.4**
KBL	**Kabul**		**2.58**	**226**			**Pn**	**10 02 27.2**	**+0.4**
KBL	**Kabul**		**2.58**	**226**	P		**Pn**	**10 02 27.0**	**+0.3**
KBL					S		**Sn**	**10 02 57.8**	**-0.2**
NIL	**Nilore**		**3.13**	**149**	PN		**Pn**	**10 02 35.1**	**+1.2**
NIL	**Nilore**		**3.13**	**149**			**Pn**	**10 02 35.1**	**+1.2**
NIL	**Nilore**		**3.13**	**149**	P		**Pn**	**10 02 35.2**	**+1.4**
NIL					S		**Sn**	**10 03 12.8**	**+2.0**
DRK	**Karamyk**		**3.15**	**7**	PN		**Pn**	**10 02 36.2**	**+1.8**
DRK	**Karamyk**		**3.15**	**7**			**Pn**	**10 02 36.2**	**+1.8**
DRK	**Karamyk**		**3.15**	**7**	P		**Pn**	**10 02 36.1**	**+1.8**
BTK	**Batken**		**3.73**	**354**	PN		**Pn**	**10 02 43.2**	**+1.4**
BTK	**Batken**		**3.73**	**354**			**Pn**	**10 02 43.2**	**+1.4**
BTK	**Batken**		**3.73**	**354**	P		**Pn**	**10 02 43.6**	**+1.8**
OHH	**Osh**		**4.33**	**15**	P		**Pn**	**10 02 50.0**	**+0.1**
KSH2	**Kashi**		**4.39**	**49**	Pn		**Pn**	**10 02 53.0**	**+2.3**
KSH2					Sn		**Sn**	**10 03 42.0**	**+1.0**
KSH2					smax		smax		
	comp=N,920nm,0.6s								
KSH2					smax		smax		
	comp=E,650nm,0.5s								
JMU	**Jammu**		**4.60**	**140**	*i* P		**Pn**	**10 02 51.9**	**-1.6**
ARSB	**Arslanbob**		**5.14**	**14**	PN		**Pn**	**10 03 00.9**	**0.0**
ARSB	**Arslanbob**		**5.14**	**14**			**Pn**	**10 03 00.9**	**0.0**
DHRM	**DHARAMSHALA**		**5.81**	**133**	*i* P		**Pn**	**10 03 09.0**	**-1.1**
DHRM					*i* S		Sn	10 04 01.8	-14
IUG	**luzhnay**		**5.88**	**351**	Pg		**Pn**	**10 03 10.8**	**0.0**
	comp=E,63nm,0.4s								
IUG	**luzhnay**		**5.88**	**351**	*e*PN		**Pn**	**10 03 10.7**	**0.0**
IUG	**luzhnay**		**5.88**	**351**	*e*P		**Pn**	**10 03 10.8**	**0.0**
ASAI	**AK-SAY(Kyrgyzs**		**6.13**	**40**	P		**Pn**	**10 03 15.5**	**+1.2**
	comp=Z,42nm,0.8s								
NRN	**Naryn**		**6.26**	**34**	PN		**Pn**	**10 03 16.4**	**+0.2**
NRN	**Naryn**		**6.26**	**34**			**Pn**	**10 03 16.4**	**+0.2**
UCH	**Uchtor**		**6.38**	**22**	P		**Pn**	**10 03 18.5**	**+0.6**
	SNR=39								
BHK	**Bhakra**		**6.50**	**138**	*i* P		**Pn**	**10 03 16.7**	**-2.5**
BHK					*i* S		Sn	10 04 16.1	-16
MRKS	**Merke**		**6.56**	**13**	Pg		**Pn**	**10 03 20.2**	**+0.2**
	comp=Z,41nm,0.4s								
MRKS					Lg		Lg	10 04 30.1	
	comp=Z,352nm,0.6s								
EKS2	**Erkin-Say**		**6.59**	**16**	P		**Pn**	**10 03 21.1**	**+0.7**
	SNR=26								
AAK	**Ala-Archa**		**6.75**	**20**	P		**Pn**	**10 03 23.5**	**+0.9**
	comp=Z,33nm,0.3s,baz=177,slow=6.5,SNR=119								
AAK					S		**Sn**	**10 04 36.2**	**-1.9**
	comp=Z,64nm,0.6s,baz=347,slow=21,SNR=15								
AAK	**Ala-Archa**		**6.75**	**20**	P		**Pn**	**10 03 23.2**	**+0.6**
	SNR=24								
AAK	**Ala-Archa**		**6.75**	**20**	⇓P		**Pn**	**10 03 22.7**	**+0.1**
	comp=Z,7.2nm,0.4s								
AAK					⇓S		**Sn**	**10 04 37.9**	**-0.2**
	comp=Z,28nm,0.6s								
AAK	**Ala-Archa**		**6.75**	**20**			**Pn**	**10 03 23.4**	**+0.7**
AAK	**Ala-Archa**		**6.75**	**20**	P		**Pn**	**10 03 23.6**	**+1.0**
	comp=Z,52nm,0.7s								
BRLS	**Borolday**		**6.77**	**351**	*e*P		**Pn**	**10 03 19.1**	**-3.6**
KK31	**Karatay Array**		**6.78**	**355**	P		**Pn**	**10 03 22.6**	**-0.2**
	comp=Z,20nm,0.2s,baz=179,slow=12,SNR=401								
KK31					⇓S		**Sn**	**10 04 34.6**	**-3.9**
	comp=Z,38nm,0.4s,baz=330,slow=79,SNR=4.0								
KK31	**Karatay Array**		**6.78**	**355**	PN		**Pn**	**10 03 22.7**	**-0.2**
KK31	**Karatay Array**		**6.78**	**355**			**Pn**	**10 03 22.7**	**-0.2**
KKAR	**Karatay Array**		**6.78**	**355**	PN		**Pn**	**10 03 22.6**	**-0.2**
KKAR	**Karatay Array**		**6.78**	**355**			**Pn**	**10 03 22.6**	**-0.2**
KBK	**Karagaybulak**		**6.90**	**23**	P		**Pn**	**10 03 25.7**	**+1.0**
	SNR=12								
BOOM	**Boomskoye usch**		**7.11**	**29**	PN		**Pn**	**10 03 27.9**	**+0.4**
BOOM	**Boomskoye usch**		**7.11**	**29**	Pn		**Pn**	**10 03 27.9**	**+0.4**
BOOM	**Boomskoye usch**		**7.11**	**29**	P		**Pn**	**10 03 28.2**	**+0.8**
	comp=Z,30nm,0.9s								
CHMS	**Chumysh**		**7.16**	**21**	P		**Pn**	**10 03 29.1**	**+1.1**
	SNR=29								
HNLY	**HANLEY**		**7.26**	**117**	*i* P		**Pn**	**10 03 29.8**	**-0.1**
HNLY					*i* S		Sn	10 04 38.2	-13
HNLY					IAML			10 05 04.5	
	comp=N,35nm,0.7s								
USP	**Ospenovka**		**7.34**	**19**	P		**Pn**	**10 03 31.0**	**+0.5**
	SNR=28								
TKM2	**Tokmak 2**		**7.36**	**25**	P		**Pn**	**10 03 31.6**	**+0.8**
	SNR=15								
KST	**Kastek**		**7.59**	**27**	P		**Pn**	**10 03 34.4**	**+0.4**
DGS	**Degeres**		**7.70**	**25**	P		**Pn**	**10 03 35.5**	**+0.1**
MTBS	**Maitube**		**7.84**	**29**	P		**Pn**	**10 03 38.0**	**+0.7**
WUS	**Wushi**		**7.86**	**50**			**Pn**	**10 03 37.4**	**-0.2**
WUS	**Wushi**		**7.86**	**50**	P		**Pn**	**10 03 39.0**	**+1.4**
	comp=Z,12nm,0.7s								
TNSS	**Tian-Shan**		**7.97**	**31**	*e*PN		**Pn**	**10 03 40.2**	**+0.8**
TNSS	**Tian-Shan**		**7.97**	**31**	*e*P		**Pn**	**10 03 40.3**	**+0.8**
AAA	**Alma-Ata**		**8.10**	**31**	*e*PN		**Pn**	**10 03 42.3**	**+1.5**
AAA	**Alma-Ata**		**8.10**	**31**	*e*P		**Pn**	**10 03 42.4**	**+1.5**
MDOK	**Medeo**		**8.12**	**31**	*e*PN		**Pn**	**10 03 42.4**	**+1.3**
MDOK	**Medeo**		**8.12**	**31**	*e*P		**Pn**	**10 03 42.4**	**+1.3**
KOTS	**Kotyrbulak**		**8.21**	**31**	P		**Pn**	**10 03 44.4**	**+2.1**
SATY	**Saty**		**8.65**	**37**	*e*PN		**Pn**	**10 03 49.7**	**+1.3**
SATY	**Saty**		**8.65**	**37**	*e*P		**Pn**	**10 03 49.7**	**+1.3**
KURS	**Kuram**		**8.87**	**34**	P		**Pn**	**10 03 51.3**	**+0.1**
UZB	**Uzynbulak**		**9.03**	**39**	*e*P		**Pn**	**10 03 54.8**	**+1.4**
UZB	**Uzynbulak**		**9.03**	**39**	*e*P		**Pn**	**10 03 54.8**	**+1.4**
KPKS	**Kokpek**		**9.09**	**36**	*e*P		**Pn**	**10 03 55.3**	**+1.0**
KPKS	**Kokpek**		**9.09**	**36**	*e*P		**Pn**	**10 03 55.3**	**+1.0**
SHLS	**Shalkode**		**9.26**	**40**	*e*P		**Pn**	**10 04 00.9**	**+4.4**
SHLS	**Shalkode**		**9.26**	**40**	*e*P		**Pn**	**10 04 00.9**	**+4.4**
PDGK	**Podgornoye**		**9.39**	**40**	P		**Pn**	**10 03 58.4**	**+0.1**
PDGK	**Podgornoye**		**9.39**	**40**			**Pn**	**10 03 58.4**	**+0.1**
TDK	**Taldyqorghan**		**10.19**	**30**	*e*P		**Pn**	**10 04 10.1**	**+1.1**
TDK	**Taldyqorghan**		**10.19**	**30**	*e*P		**Pn**	**10 04 10.1**	**+1.1**
AJM	**Ajmer**		**10.29**	**163**	*i* P		**Pn**	**10 04 07.6**	**-2.9**
AJM					*i* S		Sn	10 05 43.6	-20
GUNA	**GUNA**		**12.76**	**154**	IAML			10 06 56.5	
	comp=N,64nm,0.4s								
MAKZ	**Makanchi**		**13.14**	**34**	P		**Pn**	**10 04 47.5**	**-0.7**
MAKZ	**Makanchi**		**13.14**	**34**	Pn		**Pn**	**10 04 47.5**	**-0.7**
MAKZ	**Makanchi**		**13.14**	**34**	P		**Pn**	**10 04 47.6**	**-0.7**
	comp=Z,7.0nm,0.9s								
MK31	**Makanchi Array**		**13.28**	**35**	⇓*e*P		**Pn**	**10 04 50.0**	**+0.1**
MKAR	**Makanchi Array**		**13.28**	**35**	P		**Pn**	**10 04 49.2**	**-0.7**
	comp=Z,1.0nm,0.6s,baz=217,slow=14,SNR=6.7								
MKAR	**Makanchi Array**		**13.28**	**35**	P		**Pn**	**10 04 51.1**	**+1.2**
MKAR	**Makanchi Array**		**13.28**	**35**	Pn		**Pn**	**10 04 51.1**	**+1.2**
WMQ	**Urumqi**		**14.59**	**54**	*e*P		**Pn**	**10 05 08.3**	**+1.5**
ZSN	**Zaisan**		**14.98**	**38**	*e*P		**Pn**	**10 05 12.4**	**+0.7**
ZSN	**Zaisan**		**14.98**	**38**	*e*P		**Pn**	**10 05 12.4**	**+0.7**
KURBB	**Kurchatov Arra**		**15.19**	**18**	P		**Pn**	**10 05 10.7**	**-3.6**
	comp=Z,9.2nm,0.8s,baz=206,slow=10,SNR=14								
KURK	**Kurchatov**		**15.30**	**18**	*de*P		**P**	**10 05 17.7**	**-0.1**
KURK					pmax		pmax		
	comp=Z,9.0nm,0.8s								
KURK	**Kurchatov**		**15.30**	**18**			**Pn**	**10 05 13.4**	**-2.3**
KURK	**Kurchatov**		**15.30**	**18**	P		**P**	**10 05 17.6**	**-0.2**
AB31	**Akbulak array**		**15.34**	**331**	P		**Pn**	**10 05 14.8**	**-1.3**
	comp=Z,6.0nm,0.4s,baz=139,slow=13,SNR=241								
AB31	**Akbulak array**		**15.34**	**331**			**Pn**	**10 05 15.3**	**-0.8**
AB31					IAmb		IAmb	10 05 17.0	
	comp=Z,12nm,0.6s								
ABKAR	**Akbulak array**		**15.34**	**331**			**Pn**	**10 05 15.0**	**-1.1**
EVN	**Everest**		**15.56**	**118**	P		**Pn**	**10 05 16.5**	**-3.3**
EVN					IAmb		IAmb	10 05 23.3	
	comp=Z,20nm,0.7s								
BVA0	**Borovoye Array**		**16.69**	**358**	P		**Pn**	**10 05 31.5**	**-1.3**
	comp=Z,0.3nm,0.6s,baz=161,slow=7.3,SNR=29								
BVAR	**Borovoye Array**		**16.69**	**358**	P		**Pn**	**10 05 31.3**	**-1.5**
	comp=Z,8.3nm,0.7s,baz=171,slow=12,SNR=23								
BVAR					S		**Sn**	**10 08 27.8**	**-10**
	comp=Z,2.5nm,0.5s,baz=169,slow=26,SNR=5.1								
BVB5	**Borovoye Array**		**16.69**	**358**	⇑P		**Pn**	**10 05 32.7**	**-0.1**
	comp=Z,11nm,0.6s								
BORK	**Borovoye**		**16.71**	**358**	P		**P**	**10 05 33.3**	**-0.2**
BORK					pmax		pmax		
	comp=Z,9.0nm,0.8s								
BORK	**Borovoye**		**16.71**	**358**			**P**	**10 05 33.3**	**-0.2**
AKTO	**Aktyubinsk**		**17.03**	**330**	P		**P**	**10 05 37.0**	**0.0**
	comp=Z,37nm,0.7s,baz=144,slow=8.1,SNR=126								
AKTO					S		**Sn**	**10 08 36.3**	**-10**
	comp=Z,19nm,0.8s,baz=348,slow=14,SNR=7.5								
AKTO	**Aktyubinsk**		**17.03**	**330**	⇓P		**P**	**10 05 36.6**	**-0.4**
	comp=Z,25nm,0.8s								
AKTO	**Aktyubinsk**		**17.03**	**330**	P		**P**	**10 05 37.0**	**0.0**
LSA	**Lhasa**		**17.90**	**106**	P		**P**	**10 05 47.5**	**+0.3**
	comp=Z,7.5nm,0.5s								
ARKR	**Arakani**		**19.74**	**296**	pmax		pmax		
	comp=Z,11nm,0.3s								
ZAA0	**Zalesovo Array**		**19.96**	**24**			**P**	**10 06 08.7**	**-0.2**
ZAA0					IAmb		IAmb	10 06 09.6	
	comp=Z,16nm,0.6s								
ZALV	**Zalesovo Beam**		**19.96**	**24**	P		**P**	**10 06 08.6**	**-0.3**
	comp=Z,14nm,0.4s,baz=223,slow=11,SNR=68								
ZALV	**Zalesovo Beam**		**19.96**	**24**	P		**P**	**10 06 08.9**	**0.0**
ZALV	**Zalesovo Beam**		**19.96**	**24**			**P**	**10 06 08.9**	**0.0**
BTLR	**Botlikh**		**20.31**	**296**	pmax		pmax		
	comp=Z,24nm,0.5s								
GNI	**Garni**		**21.17**	**288**	P		**P**	**10 06 23.8**	**+1.5**
	comp=Z,16nm,0.3s,baz=156,slow=11,SNR=4.8								
	comp=Z,16nm,0.3s								
GNI	**Garni**		**21.17**	**288**	⇓*e*P		**P**	**10 06 24.6**	**+2.4**
GNI					pmax		pmax		
	comp=Z,28nm,1.3s								
GNI	**Garni**		**21.17**	**288**	P		**P**	**10 06 24.8**	**+2.6**
ARTI	**Arti**		**21.87**	**341**	P		**P**	**10 06 30.1**	**+0.8**
	comp=Z,14nm,0.6s,baz=135,slow=5.5,SNR=18								
	comp=Z,14nm,0.6s								
ARTI	**Arti**		**21.87**	**341**	*d i* P		**P**	**10 06 30.1**	**+0.8**
ARTI								10 07 01.5	
ARTI					S		**S**	**10 10 22.3**	**-1.4**
ARTI					SS		**SnSn**	**10 11 12.7**	**+12**
ARTI					pmax		pmax		
	comp=Z,19nm,0.7s								
ARTI	**Arti**		**21.87**	**341**			**P**	**10 06 30.0**	**+0.7**
GTA2	**Gaotai**		**22.63**	**73**	*e*P		**P**	**10 06 39.5**	**+2.0**
GTA2					pP		pP	10 07 04.3	+3.8
GTA2					pmax		pmax		
	comp=Z,6.0nm,1.1s								
KBZ	**Khabaz**		**22.89**	**298**	P		**P**	**10 06 40.2**	**+0.5**
	comp=Z,1.9nm,0.7s,baz=120,slow=1.4,SNR=4.3								
	comp=Z,1.9nm,0.7s								
SHA1	**Shidzhatmaz**		**23.06**	**297**	⇓*e*P		**P**	**10 06 43.5**	**+1.8**
BELG	**Belogornoye**		**23.16**	**321**	P		**P**	**10 06 41.9**	**-0.3**
	comp=Z,9.9nm,0.8s,baz=313,slow=13,SNR=6.2								
	comp=Z,9.9nm,0.8s								
BELG	**Belogornoye**		**23.16**	**321**	*de*P		**P**	**10 06 42.9**	**+0.7**
BELG					pmax		pmax		
	comp=Z,4.0nm,1.3s								
KNGR	**Kungurtug, Tuv**		**23.61**	**45**	⇑*e*P		**P**	**10 06 48.8**	**+2.2**
KNGR					pmax		pmax		
	comp=Z,18nm,0.7s								
SONM	**Songino Array**		**28.23**	**55**	P		**P**	**10 07 29.3**	**+1.2**
	comp=Z,1.5nm,0.5s,baz=255,slow=8.9,SNR=7.4								
	comp=Z,1.5nm,0.5s								
SONM	**Songino Array**		**28.23**	**55**	IAmb		IAmb	10 07 31.3	
	comp=Z,2.8nm,1.3s								
ULN	**Ulaanbaatar**		**28.67**	**55**	P		**P**	**10 07 32.8**	**+0.7**
	comp=Z,4.1nm,1.3s								
CMAR	**Chiang Mai Arr**		**30.17**	**119**	P		**P**	**10 07 46.9**	**+1.4**
	comp=Z,0.6nm,0.3s,baz=271,slow=7.9,SNR=4.5								
	comp=Z,0.6nm,0.3s		

PPLA	**Purkeypile**	**75.15**	**19**	P		**P**	**10 13 15.0**	**-0.5**
I28M	**Miner Creek**	**75.66**	**13**	P		**P**	**10 13 17.9**	**-0.4**
I28M				IAmb		IAmb	10 13 18.3	
	comp=Z,8.7nm,1.4s							
DHY	**Denali Highway**	**76.21**	**17**	P		**P**	**10 13 20.9**	**-0.6**
DHY				IAmb		IAmb	10 14 01.1	
	comp=Z,9.6nm,1.3s							
BOSA	**Boshof**	**77.78 220**		P		**P**	**10 13 30.3**	**-0.5**
	comp=Z,3.5nm,0.7s,baz=60,slow=7.2,SNR=5.1							
	comp=Z,3.5nm,0.7s							
BOSA	**Boshof**	**77.78 220**		IAmb		IAmb	10 14 03.4	
	comp=Z,14nm,1.4s							
BOSA	**Boshof**	**77.78 220**		P		**P**	**10 13 30.2**	**-0.5**
YKA	**Yellowknife Ar**	**81.39**	**3**	P		**P**	**10 13 49.2**	**-0.5**
	comp=Z,2.4nm,0.6s,baz=351,slow=5.3,SNR=33							
	comp=Z,2.4nm,0.6s							
WRA	**Warramunga Arr**	**81.70 122**		P		**P**	**10 13 49.8**	**-2.2**
	comp=Z,0.4nm,0.6s,baz=322,slow=4.8,SNR=6.6							
	comp=Z,0.4nm,0.6s							
WRA	**Warramunga Arr**	**81.70 122**	*i*	P		**P**	**10 13 51.9**	**-0.1**
ASAR	**Alice Springs**	**83.97 125**		P		**P**	**10 14 02.3**	**-1.3**
	comp=Z,0.6nm,0.8s,baz=308,slow=4.9,SNR=9.8							
	comp=Z,0.6nm,0.8s							
PLCA	**Paso Flores**	**150.00 250**		PKPbc		**PKPbc**	**10 21 21.2**	**-1.7**
	comp=Z,2.4nm,0.9s,baz=14,slow=4.2,SNR=3.2							

*NORS **26** 10:06:00.2, 43.°16N×46.°25E, h18km, MPVA3.4*

MOS 26 10:06:00.1, 43.°18N×46.°24E, h12km, MPVA3.3, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DVE	**Vedeno**	**0.23**	**201**	*e*Pg	Pb	10 06 06.5	+0.2
DVE				*e*Sg	Sg	10 06 11.0	+2.6
GROC	**Groznyy**	**0.33**	**275**	*e*Pg	Pb	10 06 08.3	+0.4
GROC				*e*Sg	Sb	10 06 14.4	+1.3
DBC	**Dubki**	**0.46**	**110**	*e*Pg	Pb	10 06 10.5	+0.3
DBC				*e*Sg	Sb	10 06 18.3	+1.2
DBC	**Dubki**	**0.46**	**110**	*e*P	Pb	10 06 10.5	+0.3
BTLR	**Botlikh**	**0.51**	**181**	*e*Pg	Pb	10 06 11.5	+0.4
BTLR				*e*Sg	Sb	10 06 19.8	+1.3
BTLR	**Botlikh**	**0.51**	**181**	*e*P	Pb	10 06 11.5	+0.4
KRNR	**Karanay**	**0.60**	**125**	*e*Pg	Pb	10 06 13.3	+0.7
KRNR				*e*Sg	Sn	10 06 22.9	-1.5
KRNR	**Karanay**	**0.60**	**125**	*e*P	Pb	10 06 13.3	+0.7
UNCR	**Uncukul**	**0.61**	**138**	*e*Pg	Pn	10 06 14.3	-0.4
UNCR				*e*Sg	Sn	10 06 24.1	-0.5
UNCR	**Uncukul**	**0.61**	**138**	*e*P	Pn	10 06 14.3	-0.4
HNZR	**Khunzah**	**0.71**	**150**	*e*P	Pb	10 06 15.3	+0.8
XNZR	**Khunzakh**	**0.72**	**151**	*e*Pg	Pb	10 06 15.4	+0.7
XNZR				*e*Sg	Sn	10 06 26.4	-1.0
BUJR	**Buynaksk**	**0.73**	**118**	*e*Pg	Pn	10 06 15.8	-0.4
BUJR				*e*Sg	Sn	10 06 27.1	-0.2
BUJR	**Buynaksk**	**0.73**	**118**	*e*P	Pn	10 06 15.8	-0.5
ARKR	**Arakani**	**0.80**	**136**	*e*Pg	Pn	10 06 17.1	-0.2
ARKR				*e*Sg	Sn	10 06 29.5	+0.4
ARKR	**Arakani**	**0.80**	**136**	*e*P	Pn	10 06 17.0	-0.2
TLTR	**Tlyarata**	**1.07**	**175**	*e*Pg	Pn	10 06 22.0	+0.9
TLTR				*e*Sg	Sn	10 06 37.9	+1.8
TLTR	**Tlyarata**	**1.07**	**175**	*e*P	Pn	10 06 22.0	+0.9
TLTR	**Tlyarata**	**1.07**	**175**	*e*S	Sn	10 06 37.8	+1.8
VLKR	**Vladikavkaz**	**1.15**	**264**	*e*Pg	Pg	10 06 23.8	+1.5
VLKR				*e*Sg	Sn	10 06 39.0	+1.2
KMKR	**Kumukh**	**1.22**	**148**	*e*Pg	Pg	10 06 25.0	+1.4
KMKR				*e*Sg	Sn	10 06 43.0	+3.2
LACR	**Lac**	**1.47**	**257**	*e*Pg	Pg	10 06 28.1	-0.2
LACR				*e*Sg	Sg	10 06 47.7	+0.4
DIGR	**Digorskoe uzhe**	**1.97**	**263**	*e*Pg	Pb	10 06 35.3	-0.7
DIGR				*e*Sg	Sb	10 07 02.0	+1.4

*IDC **26** 10:06:25.1±0.7, 16.°78S×173.°88W, h0km, mb4.1/9, mbtmp4.2/11, ML3.8/2, MS3.2/6, Error ellipse: s-maj=22.8km s-min=12.7km az=133.0*
*NEIC **26** 10:06:26.3±1.3, 16.°78S±0.°05×173.°53W±0.°08, h10km±1km, mb4.6/16, Error ellipse: s-maj=12.7km s-min=8.6km az=269.0*

ISC 26 10:06:25.5±0.6, 16.°81S±0.°06×173.°47W±0.°07, h10km, n35, σ1°46/30, mb4.4/15, MS3.1/5, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.31**	**30**	Pn	**Pn**	**10 07 18.1**	**+0.6**
	11nm,0.3s,baz=192,slow=3.5,SNR=20						
AFI				Sn	**Sn**	**10 07 54.8**	**-2.2**
	210nm,0.3s,baz=230,slow=23,SNR=17						
AFI				LR	LR	10 08 29.8	
	comp=Z,105nm,21.6s,baz=206,slow=36						
	25nm,0.2s						
AFI				AML	AML		
NIUE	**Niue**	**4.05**	**124**		**Pn**	**10 07 29.6**	**+1.9**
NIUE				Sn	**Sn**	**10 08 09.8**	**-5.5**
FUTU	**Fugatoga**	**5.13**	**298**	Pn	**Pn**	**10 07 42.1**	**-0.4**
RAR	**Rarotonga**	**13.67**	**111**	Pn	**Pn**	**10 09 40.0**	**+0.5**
	2.9nm,0.3s,baz=261,slow=8.5,SNR=11						
	11nm,0.3s						
RAR				AML	AML		
MARNC	**Mare, Loyalty**	**18.09**	**252**		**Pn**	**10 10 37.0**	**-0.1**
MARNC				IAmb	IAmb	10 10 43.0	
	comp=Z,51nm,0.8s						
KOUNC	**Koumac, New Ca**	**21.40**	**257**	P	**P**	**10 11 13.0**	**-0.6**
KOUNC				IAmb	IAmb	10 11 53.5	
	comp=Z,25nm,0.9s						
PPT	**Papeete**	**22.83**	**95**	LR	LR	10 18 30.4	
	comp=Z,27nm,18.1s,baz=40,slow=31						
URZ	**Urewera**	**22.92**	**199**	P	**P**	**10 11 28.3**	**-1.4**
	comp=Z,13nm,0.4s,baz=26,slow=2.5,SNR=22						
	comp=Z,13nm,0.4s						
RTZ	**Ruatahuna**	**23.28**	**199**	P	**P**	**10 11 34.3**	**+0.7**
BFZ	**Birch Farm**	**25.40**	**198**	P	**P**	**10 11 53.8**	**+0.6**
TCW	**Tory Channel**	**26.52**	**201**	P	**P**	**10 12 03.1**	**-0.2**
HNR	**Honiara**	**26.89**	**282**	LR	LR	10 21 03.1	
	comp=Z,86nm,21.3s,baz=205,slow=33						
THZ	**Tophouse**	**27.49**	**202**	P	**P**	**10 12 13.3**	**+1.2**
THZ				IAmb	IAmb	10 12 19.9	
	comp=Z,18nm,1.0s						
ARMA	**Armidale**	**34.58**	**241**	P	**P**	**10 13 14.1**	**-0.8**
ARMA				IAmb	IAmb	10 13 41.0	
	comp=Z,16nm,1.5s						
STKA	**Stephens Creek**	**43.29**	**241**	P	**P**	**10 14 27.2**	**-0.5**
	comp=Z,7.7nm,1.0s,baz=40,slow=6.9,SNR=6.5						
	comp=Z,7.7nm,1.0s						
STKA	**Stephens Creek**	**43.29**	**241**	IAmb	IAmb	10 14 28.7	
	comp=Z,43nm,1.1s						
BBOO	**Buckleboo**	**48.06**	**241**	P	**P**	**10 15 05.2**	**-0.2**
WR8	**Warramunga Arr**	**49.32**	**258**	P	**P**	**10 15 14.7**	**-0.6**
WR8				IAmb	IAmb	10 15 27.3	
	comp=Z,7.7nm,1.4s						
WB0	**Warramunga Arr**	**49.44**	**258**	P	**P**	**10 15 15.0**	**-1.3**
WRAB	**Tennant Creek**	**49.47**	**258**	P	**P**	**10 15 15.4**	**-1.1**
WRAB				IAmb	IAmb	10 15 39.3	
	comp=Z,4.5nm,1.0s						
WRA	**Warramunga Arr**	**49.48**	**258**	P	**P**	**10 15 14.9**	**-1.6**
	comp=Z,1.2nm,0.5s,baz=97,slow=7.1,SNR=36						
	comp=Z,1.2nm,0.5s						
AS31	**Alice Springs**	**49.63**	**253**		**P**	**10 15 16.8**	**-0.9**
AS31				IAmb	IAmb	10 15 17.8	
	comp=Z,5.2nm,0.5s						
ASAR	**Alice Springs**	**49.63**	**253**	P	**P**	**10 15 16.8**	**-0.9**
	comp=Z,13nm,0.6s,baz=87,slow=8.7,SNR=259						
	comp=Z,13nm,0.6s						
ASAR	**Alice Springs**	**49.63**	**253**		**P**	**10 15 16.9**	**-0.7**
VNDA	**Vanda**	**61.98**	**186**	P	**P**	**10 16 46.8**	**+1.5**
	comp=Z,1.5nm,0.9s,baz=10,slow=6.1,SNR=3.6						
	comp=Z,1.5nm,0.9s						
MJAR	**Matsushiro Arr**	**69.97**	**320**	LR	LR	10 43 44.6	
	comp=Z,12nm,21.4s,baz=41,slow=32						
QSPA	**South Pole Qui**	**73.24**	**180**	P	**P**	**10 17 57.6**	**+0.8**
	comp=Z,1.9nm,0.9s,baz=308,slow=0.1,SNR=5.7						
	comp=Z,1.9nm,0.9s						
QSPA	**South Pole Qui**	**73.24**	**180**	IAmb	IAmb	10 17 58.5	
	comp=Z,3.4nm,1.1s						
KSRS	**Korea Array**	**77.12**	**316**	LR	LR	10 50 19.3	
	comp=Z,7.7nm,18.4s,baz=55,slow=34						
ELK	**Elko**	**78.68**	**41**	LR	LR	10 46 13.6	
	comp=Z,82nm,20.1s,baz=218,slow=30						
TXAR	**Lajitas Array**	**81.45**	**56**	P	**P**	**10 18 44.3**	**+0.9**
	comp=Z,0.3nm,0.9s,baz=169,slow=7.1,SNR=3.5						
	comp=Z,0.3nm,0.9s						
PMSA	**Palmer Station**	**82.92**	**156**	P	**P**	**10 18 50.7**	**+0.3**
PDAR	**Pinedale Array**	**83.35**	**42**	P	**P**	**10 18 54.0**	**+0.8**
	comp=Z,0.7nm,0.7s,baz=210,slow=3.2,SNR=7.4						
	comp=Z,0.7nm,0.7s						
ILAR	**Eielson Array**	**83.83**	**11**	P	**P**	**10 18 55.1**	**+0.3**
	comp=Z,0.3nm,0.7s,baz=228,slow=7.4,SNR=7.4						
	comp=Z,0.3nm,0.7s						
BRTR	**Keskin Array B**	**147.19**	**320**	PKPbc	**PKPbc**	**10 26 09.1**	**-0.5**
	comp=Z,1.1nm,0.7s,baz=116,slow=2.9,SNR=6.0						

AUST 26 10:11:02.8±0.4, 32.°5S±4.°×12.°3E±.°, h10km, mb3.8/1, ML2.9/3, Error ellipse: s-maj=8.8km s-min=4.4km az=26.1, Western Australia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DNDOZ	**Balladonia**	**0.98**	**112**	P	Pb	10 11 22.2	+0.4
DNDOZ				S	Sg	10 11 34.6	+0.2
DNDOZ				AML	AML		
KMBL	**Kambalda**	**1.06**	**313**	P	Pn	10 11 23.9	+0.1
KMBL				S	Sb	10 11 37.8	+0.5
KMBL				AML	AML		
KANBL	**Kanowna Belle,**	**1.81**	**326**	S	Sn	10 11 56.9	-0.1
WATNG	**Wattoning, WA**	**4.16**	**288**	S	Sn	10 12 52.9	-2.0
KLBR	**Kellerberrin**	**4.32**	**275**	S	Sn	10 12 57.2	-1.7
FORT	**Forrest**	**4.69**	**75**	P	Pn	10 12 13.7	+0.1
FORT				AML	AML		
BLDU	**Ballidu**	**5.41**	**284**	P	Pn	10 12 22.9	-0.6
	comp=Z,27nm,2.9s,comp=Z,0.1nm						
BLDU				S	Sn	10 13 22.5	-3.4
BLDU				AML	AML		
RKGY	**Rocky Gully**	**5.47**	**241**	S	Sn	10 13 28.3	+0.9

*NNC **26** 10:35:60.0±0.6, 43.°46N×77.°93E, h0km, mb2.8, mpv2.7, Error ellipse: s-maj=4.0km s-min=3.5km az=28.0*
*KRNET **26** 10:36:01.0±0.1, 43.°43N×77.°80E, h13km, mb2.5*
*SOME **26** 10:36:00.7, 43.°45N×77.°90E, h10km*

ISC 26 10:36:00.2±0.9, 43.°48N±0.°03×77.°92E±0.°03, h12km±8km, n24, σ0°94/47, 14C-2D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURS	**Kuram**	**0.18**	**88**	P	**Pg**	**10 36 04.6**	**+0.3**
	15nm,0.1s						
KURS				S	**Sg**	**10 36 07.5**	**+0.5**
	15nm,0.2s						
KURS	**Kuram**	**0.18**	**88**	*e*P	**Pg**	**10 36 04.5**	**+0.3**
	15nm,0.1s						
KURS				*e*S	**Sg**	**10 36 07.5**	**+0.5**
	15nm,0.2s						
SATY	**Saty**	**0.55**	**140**	P	**Pg**	**10 36 10.6**	**-0.4**
	4.5nm,0.2s						
SATY				S	**Sg**	**10 36 17.5**	**-0.7**
	110nm,0.1s						
SATY	**Saty**	**0.55**	**140**	*e*P	**Pg**	**10 36 10.6**	**-0.4**
	4.5nm,0.2s						
SATY				*e*S	**Sg**	**10 36 17.5**	**-0.7**
	110nm,0.1s						
KPKS	**Kokpek**	**0.55**	**91**	P	**Pg**	**10 36 10.7**	**-0.3**
	0.3nm,0.1s						
KPKS				S	**Sg**	**10 36 17.9**	**-0.4**
	5.3nm,0.3s						
KPKS	**Kokpek**	**0.55**	**91**	*e*P	**Pg**	**10 36 10.7**	**-0.3**
	0.3nm,0.1s						
KPKS				*e*S	**Sg**	**10 36 17.9**	**-0.4**
	5.3nm,0.3s						
MDOK	**Medeo**	**0.71**	**244**	Pg	**Pb**	**10 36 14.2**	**-0.5**
	3.2nm,0.1s						
MDOK				Lg	Lg	10 36 23.8	
	12nm,0.4s						
MDOK	**Medeo**	**0.71**	**244**	*e*P	**Pb**	**10 36 14.2**	**-0.5**
	3.2nm,0.1s						
MDOK				*e*S	**Sb**	**10 36 23.8**	**-0.7**
	12nm,0.4s						
ANVS	**Anan'yevo**	**0.72**	**195**	⇑*i*P	**Pg**	**10 36 13.4**	**-0.8**
ANVS				⇑*i*S	**Sg**	**10 36 22.7**	**-1.0**
ARXS	**Arharly**	**0.73**	**355**	P	**Pb**	**10 36 14.8**	**-0.2**
	2.9nm,0.2s						
ARXS				S	**Sb**	**10 36 24.9**	**-0.2**
	16nm,0.2s						
ARXS	**Arharly**	**0.73**	**355**	*e*P	**Pb**	**10 36 14.8**	**-0.2**
	2.9nm,0.2s						
ARXS				*e*S	**Sb**	**10 36 24.9**	**-0.2**
	16nm,0.2s						
BLB	**Baldybastay**	**0.73**	**33**	P	**Pb**	**10 36 14.6**	**-0.5**
	4.7nm,0.1s						
BLB				S	**Sb**	**10 36 24.6**	**-0.6**
	15nm,0.4s						
UZB	**Uzynbulak**	**0.87**	**112**	P	**Pg**	**10 36 16.0**	**-0.9**
	1.6nm,0.1s						
UZB				S	**Sg**	**10 36 27.1**	**-1.2**
	8.5nm,0.2s						
UZB	**Uzynbulak**	**0.87**	**112**	*e*P	**Pg**	**10 36 16.0**	**-0.9**
	1.6nm,0.1s						
UZB				*e*S	**Sg**	**10 36 27.1**	**-1.2**
	8.5nm,0.2s						
PRZ	**Przheval'sk**	**1.06**	**161**	⇑*e*P	**Pb**	**10 36 20.7**	**+0.2**
PRZ				⇑*i*S	**Sg**	**10 36 35.0**	**+0.7**
KDJ	**Kajisay**	**1.46**	**202**	⇑*e*P	**Pn**	**10 36 27.1**	**+0.6**
KDJ				⇑*e*S	**Sn**	**10 36 45.8**	**+0.1**
DJR	**Jarkent**	**1.59**	**57**	P	**Pg**	**10 36 29.7**	**-1.1**
	1.9nm,0.2s						
DJR				S	**Sg**	**10 36 50.6**	**-0.9**
	7.4nm,0.3s						
DJR	**Jarkent**	**1.59**	**57**	*e*P	**Pg**	**10 36 29.7**	**-1.1**
	1.9nm,0.2s						
DJR				*e*S	**Sg**	**10 36 50.6**	**-0.9**
	7.4nm,0.3s						
ULHL	**Ulahol**	**1.75**	**226**	*e*P	**Pb**	**10 36 31.9**	**-0.4**
ULHL				*i* S	**Sn**	**10 36 54.2**	**+1.3**
BOOM	**Boomskoye usch**	**1.76**	**236**	⇑*i*P	**Pb**	**10 36 31.9**	**-0.6**
BOOM				⇑*i*S	**Sn**	**10 36 54.3**	**+1.1**
TKM2	**Tokmak 2**	**1.79**	**253**	⇑*i*P	**Pb**	**10 36 32.4**	**-0.7**
TKM2				⇑*i*S	**Sb**	**10 36 55.6**	**0.0**
CHMS	**Chumysh**	**2.37**	**259**	⇑*i*P	**Pb**	**10 36 41.5**	**-1.3**
CHMS				⇑*i*S	**Sb**	**10 37 11.3**	**-0.7**
USP	**Ospenovka**	**2.51**	**266**	⇓*i*P	**Pb**	**10 36 43.5**	**-1.7**
USP				⇓*i*S	**Sb**	**10 37 14.6**	**-1.4**
UCH	**Uchtor**	**2.80**	**245**	⇑*i*P	**Pn**	**10 36 47.7**	**+2.4**
UCH				⇑*i*S	**Sn**	**10 37 21.8**	**+2.5**

*UCC **26** 10:52:33.3, 49.°81N×0.°76E, h0km, ML2.9, Explosion.*
*STR **26** 10:52:34.7±0.5, 50.°NL7°×±.°, h0km, MLv2.8/11, LOCSAT earthModelID haslach_taup-2.4.5 preliminary*

ISC 26 10:52:33.4±1.1, 49.°89N±0.°07×0.°73E±0.°05, h0km, n19, σ0°45/25, 10D, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HELF	**Helfaut**	**1.27**	**49**	P	**Pg**	**10 52 57.9**	**+0.3**
HELF				S	**Sb**	**10 53 15.5**	**+0.6**
BESN	**Besneville**	**1.61**	**252**	P	**Pn**	**10 53 03.5**	**+0.4**
SOMF	**Saint-Ouen-de-**	**1.65**	**196**	P	**Pn**	**10 53 03.7**	**0.0**
BARI	**Barisis-aux-bo**	**1.71**	**100**	P	**Pb**	**10 53 05.2**	**-0.4**
LOUF	**Saint-Loup**	**1.79**	**228**	P	**Pn**	**10 53 05.9**	**+0.3**
BOST	**Ostende**	**1.95**	**45**	*d*P	**Pn**	**10 53 06.8**	**-0.9**
BOST				*d*S	**Sn**	**10 53 33.0**	**+0.1**
TSDF	**Thoir-sur-Di**	**2.15**	**185**	P	**Pn**	**10 53 10.8**	**+0.3**
BSKQ	**Steenkerk**	**2.28**	**69**	*d*P	**Pn**	**10 53 12.4**	**+0.1**
BSKQ				*d*S	**Sn**	**10 53 41.9**	**+0.9**
PLEF	**Pleven - 22200**	**2.45**	**236**	P	**Pn**	**10 53 15.0**	**+0.5**
DOU	**Dourbes**	**2.50**	**84**	P	**Pn**	**10 53 15.4**	**+0.1**
DOU	**Dourbes**	**2.50**	**84**	*d*P	**Pn**	**10 53 15.4**	**+0.1**
DOU				*d*S	**Sn**	**10 53 46.7**	**+0.2**
BGES	**Gesves**	**2.85**	**78**	*d*P	**Pn**	**10 53 20.0**	**0.0**
BGES				*d*S	**Sn**	**10 53 54.6**	**-0.4**
CRNF	**Coron - 49109**	**2.90**	**199**	P	**Pn**	**10 53 20.3**	**-0.6**
GUEF	**Guhenno - 56**	**2.99**	**229**	P	**Pn**	**10 53 21.7**	**-0.3**
BEGF	**Beganne - 5601**	**3.02**	**222**	P	**Pn**	**10 53 22.2**	**-0.1**
LOCF	**Locquirec - 29**	**3.13**	**249**	P	**Pn**	**10 53 23.6**	**-0.3**
LKLB	**Kalborn**	**3.48**	**84**	*d*P	**Pn**	**10 53 28.9**	**+0.1**
LKLB				*d*S	**Sn**	**10 54 10.0**	**-0.6**
PLOF	**Ploemeur**	**3.49**	**234**	P	**Pn**	**10 53 28.2**	**-0.7**
OLIV	**Plomelin**	**3.77**	**240**	P	**Pn**	**10 53 32.3**	**-0.4**

*IDC **26** 11:09:24.5±3.1, 3.°47S×152.°43E, h54km±18km, mb3.9/4, mbtmp4.3/7, ML1.3/1, MS3.0/4, Error ellipse: s-maj=34.0km s-min=25.1km az=165.0*

ISC 26 11:09:22.0±1.4, 3.°3S±0.°1×152.°4E±0.°1, h35km, n11, σ0°89/10, mb4.1/4, MS2.7/3, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.10**	**200**	P	**Pn**	**11 09 41.9**	**+1.0**
	663nm,0.3s,baz=34,slow=1.3,SNR=81						
KRVT				S	**Sn**	**11 09 54.4**	**-0.5**
	5µm,0.5s,baz=261,slow=22,SNR=19						
PMG	**Port Moresby**	**8.03**	**220**	P	**Pn**	**11 11 16.8**	**+0.6**
	0.3nm,0.3s,baz=43,slow=18,SNR=2.5						
PMG				S	**Sn**	**11 12 45.5**	**-0.3**
	12nm,0.5s,baz=164,slow=17,SNR=3.8						
	6.0nm,0.8s						
PMG				AML	AML		
HNR	**Honiara**	**9.67**	**130**	P	**Pn**	**11 11 39.7**	**+1.0**
	61nm,0.4s,baz=355,slow=2.4,SNR=7.5						
HNR				LR	LR	11 15 06.3	
	comp=Z,111nm,20.5s,baz=20,slow=36						
JAY	**Jayapura**	**11.72**	**273**	P	**Pn**	**11 12 07.5**	**+0.7**
	3.6nm,0.5s,baz=152,slow=10,SNR=4.9						
SIJI	**Sorong**	**21.26**	**276**	LR	LR	11 20 46.9	
	comp=Z,20nm,20.6s,baz=39,slow=32						
DZM	**Mont Dzumac**	**23.13**	**145**	LR	LR	11 21 14.2	
	comp=Z,84nm,18.9s,baz=17,slow=31						
WRA	**Warramunga Arr**	**24.20**	**225**	P	**P**	**11 14 35.3**	**-0.2**
	8.9nm,0.8s,baz=54,slow=9.5,SNR=60						
	8.9nm,0.8s						
ASAR	**Alice Springs**	**27.04**	**220**	P	**P**	**11 15 01.1**	**-0.1**
	1.0nm,0.6s,baz=55,slow=8.5,SNR=8.9						
	1.0nm,0.6s						
RPZ	**Rata Peaks**	**43.54**	**160**	LR	LR	11 32 19.2	
	comp=Z,11nm,20.9s,baz=266,slow=32						
VNDA	**Vanda**	**74.37**	**178**	P	**P**	**11 20 54.4**	**-1.3**
	0.6nm,0.6s,baz=350,slow=5.7,SNR=5.9						
	0.6nm,0.6s						
QSPA	**South Pole Qui**	**86.68**	**180**	P	**P**	**11 22 01.2**	**-0.8**
	2.3nm,0.7s,baz=24,slow=20,SNR=16						
	2.3nm,0.7s						

*IDC **26** 11:23:26.1±4.2, 19.°16N×146.°16E, h54km±38km, mb3.7/15, mbtmp3.9/17, ML3.6/2, Error ellipse: s-maj=23.3km s-min=15.5km az=86.0*
*NEIC **26** 11:23:26.8±1.5, 19.°18N±0.°09×146.°22E±0.°08, h52km±8km, mb4.6/22, Error ellipse: s-maj=13.3km s-min=10.7km az=196.0*

ISC 26 11:23:26.0±0.7, 19.°17N±0.°08×146.°2E±0.°2, h50km, n49, σ0°81/43, mb4.2/25, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DPSS	**Saipan**	**3.93**	**185**	Pn	**Pn**	**11 24 24.2**	**+0.4**
GUMO	**Guam**	**5.69**	**193**	P	**Pn**	**11 24 48.3**	**+0.3**
	4.6nm,0.3s,baz=102,slow=19,SNR=1.6						
	43nm,0.6s						
GUMO				AML	AML		
JGF	**Kuroka**	**18.13**	**336**		**P**	**11 27 34.8**	**+0.9**
JGF				IAmb	IAmb	11 27 57.3	
	comp=Z,25nm,1.4s						
MJAR	**Matsushiro Arr**	**18.67**	**340**	P	**P**	**11 27 39.3**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=139,slow=14,SNR=4.3						
	comp=Z,0.6nm,0.6s						
MJAR				AML	AML		
MAJO	**Matsushiro**	**18.67**	**340**	P	**P**	**11 27 40.1**	**+0.2**
H11S3	**WAKE ISLAND Hy**	**19.43**	**89**	T	T	11 48 44.5	
	baz=275,slow=74,SNR=13						
H11S1	**WAKE ISLAND Hy**	**19.44**	**89**	T	T	11 48 47.6	
	baz=275,slow=74,SNR=24						
H11S2	**WAKE ISLAND Hy**	**19.44**	**89**	T	T	11 48 45.9	
	baz=275,slow=74,SNR=19						
H11N1	**WAKE ISLAND Hy**	**19.54**	**85**	T	T	11 48 54.0	
	baz=270,slow=74,SNR=5.6						
H11N2	**WAKE ISLAND Hy**	**19.55**	**85**	T	T	11 48 57.3	
	baz=270,slow=74,SNR=4.2						
H11N3	**WAKE ISLAND Hy**	**19.56**	**85**	T	T	11 48 58.3	
	baz=270						
KSRS	**Korea Array**	**24.21**	**323**	P	**P**	**11 28 37.9**	**-0.1**
	comp=Z,2.7nm,0.8s,baz=144,slow=9.4,SNR=7.6						
	comp=Z,2.7nm,0.8s						
FAKI	**Fak Fak**	**25.88**	**213**	P	**P**	**11 28 53.8**	**+0.5**
FAKI				IAmb	IAmb	11 29 32.1	
	comp=Z,20nm,1.1s						
MTN	**Manton Dam**	**35.10**	**206**	P	**P**	**11 30 13.6**	**-1.1**
KNRA	**Kununurra**	**38.64**	**207**	P	**P**	**11 30 45.2**	**+0.5**
KNRA				IAmb	IAmb	11 31 11.7	
	comp=Z,25nm,1.5s						
WB0	**Warramunga Arr**	**40.39**	**197**	P	**P**	**11 30 59.2**	**-0.1**
WB0				IAmb	IAmb	11 31 03.1	
	comp=Z,7.3nm,1.2s						
WR8	**Warramunga Arr**	**40.54**	**197**	P	**P**	**11 31 00.1**	**-0.4**
WR8				IAmb	IAmb	11 31 38.4	
	comp=Z,7.7nm,1.3s						
WRA	**Warramunga Arr**	**40.57**	**197**	P	**P**	**11 30 59.0**	**-1.7**
	comp=Z,1.0nm,0.3s,baz=19,slow=8.4,SNR=26						
WRA				PcP	**PcP**	**11 33 01.3**	**-1.1**
	comp=Z,0.1nm,0.3s,baz=15,slow=3.1,SNR=4.8						
	comp=Z,1.0nm,0.3s						
WRA	**Warramunga Arr**	**40.57**	**197**	P	**P**	**11 31 00.2**	**-0.6**
FITZ	**Fitzroy Crossi**	**42.17**	**210**	P	**P**	**11 31 14.0**	**+0.1**
SONM	**Songino Array**	**43.06**	**321**	P	**P**	**11 31 20.3**	**-0.7**
	comp=Z,0.4

MV1.9/10, NW OFF ISHIGAKIJIMA IS

ISC 26 11:31:26.0±1.1, 24°03.N±0.04 × 122°67.E±0.02, h15km±8km, n40, σ0§53/65, Taiwan region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.34**	**285**	*i*	P		**Pg**	**11 31 33.0**	**+0.2**
EOS3	**EOS3**	**0.41**	**308**	*i*	P		**Pg**	**11 31 34.7**	**+0.4**
EOS3				*i*	S		**Sb**	**11 31 40.7**	**-0.2**
JYNG	**Yonaguni jima**	**0.48**	**31**	P			**Pg**	**11 31 35.8**	**+0.1**
JYNG				S			**Sg**	**11 31 41.9**	**-0.3**
YOJ	**Yonaguni jima**	**0.53**	**36**	*eP*			**Pg**	**11 31 36.5**	**+0.1**
YOJ				*eS*			**Sg**	**11 31 43.0**	**-0.5**
EOS2	**EOS2**	**0.56**	**314**	*i*	P		**Pb**	**11 31 37.7**	**+0.3**
EOS2				S			**Sb**	**11 31 46.1**	**+1.0**
ENA	**Nanau**	**0.94**	**295**	P			**Pb**	**11 31 43.2**	**-0.8**
ENA				*eS*			**Sg**	**11 31 56.5**	**+0.1**
TWC	**Suao**	**0.94**	**307**	P			**Pb**	**11 31 43.5**	**-0.6**
TWC				*eS*			**Sb**	**11 31 55.7**	**-0.7**
NACB	**Ninganchiao**	**0.99**	**278**	P			**Pb**	**11 31 45.0**	**+0.1**
NACB				S			**Sn**	**11 31 59.1**	**-0.1**
IRIF	**Iriomote-Funau**	**1.01**	**73**	P			**Pb**	**11 31 45.2**	**0.0**
IRIF				*eS*			**Sb**	**11 31 58.6**	**+0.3**
NDS	**Dongshan**	**1.06**	**305**	P			**Pb**	**11 31 46.1**	**+0.1**
NDS				*eS*			**Sb**	**11 31 59.0**	**-0.6**
ETLH	**Xiulin Townshi**	**1.10**	**279**	P			**Pb**	**11 31 46.8**	**-0.1**
ETLH				S			**Sn**	**11 32 02.3**	**+0.3**
TWE	**Neicheng**	**1.14**	**307**	*eP*			**Pb**	**11 31 47.0**	**-0.4**
LXIB	**Xiulin Townshi**	**1.15**	**270**	*eP*			**Pb**	**11 31 47.1**	**-0.6**
NDT	**Datong Townshi**	**1.20**	**298**	P			**Pn**	**11 31 48.4**	**+0.2**
TIPB	**Shuangxi**	**1.21**	**321**	*eP*			**Pb**	**11 31 49.1**	**+0.4**
TIPB				*eS*			**Sn**	**11 32 04.3**	**-0.3**
WARBT	**Fenglin Townsh**	**1.22**	**255**	*eP*			**Pn**	**11 31 47.5**	**-1.0**
WARBT				*eS*			**Sb**	**11 32 04.0**	**-0.3**
FUSB	**Fushanzhiwuyua**	**1.23**	**306**	P			**Pb**	**11 31 49.2**	**+0.2**
FUSB				S			**Sn**	**11 32 05.0**	**0.0**
JKRS	**Kuro-shima**	**1.24**	**80**	*eP*			**Pn**	**11 31 49.4**	**+0.6**
NNSB	**Datong**	**1.24**	**289**	*i*	P		**Pb**	**11 31 49.5**	**+0.3**
NNS	**Nan Shan**	**1.25**	**289**	*eP*			**Pb**	**11 31 48.8**	**-0.3**
HGSD	**Ruisui**	**1.27**	**245**	*eP*			**Pn**	**11 31 49.4**	**+0.2**
SXI1	**Grass Mountain**	**1.28**	**326**	*eP*			**Pn**	**11 31 49.5**	**0.0**
WHF	**Hehuan Shan**	**1.29**	**275**	*eP*			**Pn**	**11 31 49.7**	**-0.2**
WHF				*eS*			**Sb**	**11 32 06.9**	**0.0**
NWLT	**Wulai**	**1.30**	**305**	P			**Pb**	**11 31 50.2**	**0.0**
NWLT				*eS*			**Sn**	**11 32 06.5**	**-0.3**
FUSS	**Fushou**	**1.32**	**280**	P			**Pn**	**11 31 50.5**	**+0.3**
FUSS				S			**Sg**	**11 32 08.6**	**-0.2**
EHYH	**Wanrong**	**1.33**	**246**	P			**Pn**	**11 31 49.4**	**-0.7**
EHYH				S			**Sn**	**11 32 07.5**	**0.0**
YHNB	**Yeheng**	**1.34**	**298**	P			**Pb**	**11 31 50.9**	**0.0**
YHNB				*eS*			**Sg**	**11 32 09.1**	**-0.3**
OWD	**Renai**	**1.37**	**267**	*eP*			**Pn**	**11 31 50.9**	**+0.2**
JIJ	**Ishigaki jima**	**1.38**	**76**	P			**Pn**	**11 31 51.0**	**+0.2**
JIJ				S			**Sn**	**11 32 08.6**	**-0.2**
YULB	**Yu-li**	**1.41**	**243**	*eS*			**Sn**	**11 32 08.7**	**-0.8**
WUSB	**Renai**	**1.42**	**269**	*eP*			**Pn**	**11 31 51.6**	**+0.1**
WUSB				*eS*			**Sb**	**11 32 10.6**	**+0.2**
VWDT	**VWDT**	**1.43**	**259**	*eP*			**Pn**	**11 31 51.4**	**0.0**
VWDT				*eS*			**Sn**	**11 32 10.1**	**+0.2**
TWF1	**Yuli**	**1.43**	**242**	*eP*			**Pn**	**11 31 50.9**	**-0.6**
TWF1				*eS*			**Sn**	**11 32 09.6**	**-0.4**
SSLB	**Suanglung**	**1.59**	**261**	*eP*			**Pn**	**11 31 54.1**	**+0.4**
JISG	**Ishigakijimahi**	**1.59**	**69**	*eP*			**Pn**	**11 31 53.6**	**0.0**
JISG				*eS*			**Sn**	**11 32 13.4**	**-0.6**
LIOB	**Emei**	**1.63**	**292**	*eP*			**Pb**	**11 31 56.0**	**+0.2**
TYC	**Yuchr**	**1.67**	**266**	*eP*			**Pg**	**11 31 58.1**	**+0.1**
TPUB	**Ta-pu**	**2.01**	**249**	*eP*			**Pn**	**11 32 00.8**	**+1.3**
TPUB				*eS*			**Sb**	**11 32 26.4**	**-0.7**
WTP	**Ta-pu**	**2.04**	**248**	*eP*			**Pn**	**11 32 01.4**	**+1.5**
WTP				*eS*			**Sn**	**11 32 27.1**	**+1.9**
CHN1	**Nanshi**	**2.14**	**247**	*eP*			**Pb**	**11 32 04.3**	**-0.2**

IDC 26 11:45:59.6±631.0, 53°94N × 50°24E, h0km, Error ellipse: s-maj=345.7km s-min=154.1km az=113.0, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
I31KZ	**AKTYUBINSK INF**	**5.96**	**123**	I		I		12 20 30.0	
	baz=310,slow=323,SNR=1.7								
I46RU	**ZALESOVO INFRA**	**20.24**	**76**	I		I		13 53 17.3	
	baz=287,slow=339,SNR=1.1								
I45RU	**USSURIYSK INFR**	**51.58**	**65**	I		I		17 03 20.0	
	baz=312,slow=328,SNR=2.0								

*HEL **26** 11:51:17.6±0.1, 67°70N × 34°20E, h0km, ML1.9, Explosion*
*KOLA **26** 11:51:17.0±0.4, 67°67N±0°02 × 34°22E±0°07, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*IDC **26** 11:51:20.8±3.5, 67°66N × 33°62E, h0km, mbtmp2.8/2, ML2.1/2, Error ellipse: s-maj=35.7km s-min=13.3km az=82.0*

ISC 26 11:51:16.2±0.9, 67°68N±0°03 × 34°08E±0°04, h0km, n21, σ1§43/39, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
APA	**Apatity**	**0.28**	**247**	P			**Pb**	**11 51 23.3**	**-0.8**
APA				S			**Sb**	**11 51 27.6**	**-1.7**
LVZ	**Lovozero**	**0.31**	**44**	P			**Pg**	**11 51 22.1**	**-0.1**
LVZ				S			**Sg**	**11 51 25.9**	**-0.3**
APA0	**Apatity Array**	**0.42**	**261**	P			**Pb**	**11 51 25.2**	**-1.3**
APA0				S			**Sb**	**11 51 32.1**	**-1.3**
KVDA	**Kovda**	**1.10**	**206**	P			**Pg**	**11 51 37.3**	**+0.1**
KVDA				S			**Sg**	**11 51 52.0**	**+0.6**
TERR	**Teriberka**	**1.58**	**14**	P			**Pn**	**11 51 45.0**	**-0.4**
TERR				S			**Sn**	**11 52 05.6**	**-0.8**
VRF	**Varrio**	**1.71**	**274**	*eP*			**Pb**	**11 51 48.2**	**-0.2**
VRF				*eS*			**Sg**	**11 52 11.1**	**+0.2**
VRF					MSG			11 52 12.7	
	comp=Z,14nm,0.2s								
PRVG	**Vayda Guba**	**2.19**	**342**	P			**Pb**	**11 51 56.1**	**-0.5**
PRVG				S			**Sb**	**11 52 24.6**	**+0.3**
OLKF	**Oulanka, Finla**	**2.29**	**236**	*eP*			**Pb**	**11 51 57.0**	**-1.3**
OLKF				*eSB*			**Sb**	**11 52 28.1**	**+1.0**
OLKF					MSG			11 52 29.9	
	comp=Z,7.1nm,0.2s								
RAJF	**Raja-Jooseppi**	**2.31**	**293**	*eP*	B		**Pb**	**11 51 58.5**	**-0.2**
RAJF				*eS*	B		**Sg**	**11 52 28.3**	**-2.0**
KU6	**Riekki**	**2.34**	**227**	*eP*			**Pb**	**11 51 58.0**	**-1.3**
KU6				*eS*	B		**Sb**	**11 52 29.8**	**+1.1**
MSF	**Maaselka**	**2.67**	**231**	*eP*			**Pb**	**11 52 02.6**	**-2.2**
MSF				*eS*	B		**Sb**	**11 52 39.5**	**+1.4**
MSF					MSG			11 52 42.6	
	comp=Z,2.5nm,0.1s								
KU1	**Kurvinen**	**2.78**	**222**	*eP*			**Pn**	**11 52 04.3**	**+2.4**
KU1				*eS*			**Sb**	**11 52 39.9**	**-1.5**
SGF	**Sodankyl**	**2.91**	**269**	*ePG*			**Pb**	**11 52 09.6**	**+0.7**
VADS	**Vadso**	**2.99**	**327**	P			**Pn**	**11 52 05.9**	**+1.2**
VADS				S			**Sn**	**11 52 42.2**	**+1.0**
VADS	**Vadso**	**2.99**	**327**	*eP*			**Pn**	**11 52 05.6**	**+0.8**
VADS				*eS*			**Sn**	**11 52 41.9**	**+0.7**
KEV	**Kevo**	**3.32**	**312**	*eP*			**Pn**	**11 52 10.9**	**+1.6**
KEV				*eS*			**Sn**	**11 52 50.2**	**+0.9**
ARCES	**ARCESS Array B**	**3.65**	**305**	Pn			**Pn**	**11 52 15.0**	**+1.1**
	comp=Z,0.3nm,0.3s,baz=119,slow=14,SNR=28								
ARCES				Pg			**Pb**	**11 52 22.0**	**+0.5**
	comp=Z,0.4nm,0.3s,baz=122,slow=15,SNR=16								
ARCES				Sn			**Sn**	**11 52 57.4**	**-0.3**
	comp=Z,0.6nm,0.3s,baz=116,slow=26,SNR=10								
ARCES				Lg			Lg	11 53 07.7	
	comp=Z,1.2nm,0.3s,baz=116,slow=27,SNR=6.1								
	comp=Z,0.6nm,0.2s								
ARCES				AML			AML		
ARCES	**ARCESS Array B**	**3.65**	**305**	P			**Pn**	**11 52 15.0**	**+1.1**
ARCES				S			**Sn**	**11 52 57.7**	**0.0**
FINES	**FINESS Array B**	**7.14**	**213**	Pn			**Pn**	**11 53 05.1**	**+3.3**
	comp=Z,0.1nm,0.3s,baz=41,slow=13,SNR=0.8								
FINES				Sn			**Sn**	**11 54 21.1**	**-2.3**
	comp=Z,0.1nm,0.3s,baz=39,slow=20,SNR=3.0								
FINES				Lg			Lg	11 54 51.8	
	comp=Z,0.2nm,0.3s,baz=54,slow=24,SNR=2.6								
	comp=Z,0.7nm,0.7s								
FINES				AML			AML		
FAUS	**Fauske**	**7.20**	**276**	S			**Sn**	**11 54 21.2**	**-3.7**
I43RU	**DUBNA INFRASON**	**11.09**	**171**	I			I	13 00 30.0	
	baz=358,slow=316,SNR=9.7								

*IDC **26** 11:51:37.6±0.6, 11°95N × 86°63W, h0km, mb4.2/13, mbtmp4.2/16, ML3.6/3, MS3.7/23, Error ellipse: s-maj=28.4km s-min=11.0km az=52.0*
*UCR **26** 11:51:40.5±1.8, 11°69N × 86°92W, h0km±14km, MB4.7(NEIC), Presumed earthquake*
*CATAC **26** 11:51:42.1±0.3, 11°N±1° × 87°.1W±0°.9, h25km±2km, M4.8/61, mb4.9/6, mB5.0/1, MLv4.8/61, Mw(mB)4.4/1, Error ellipse: s-maj=2.7km s-min=1.5km az=28.1, confirmed*
*SNET **26** 11:51:42.7±3.4, 11°54N × 87°.03W, h29km, ML4.7, Presumed earthquake*
*GFZ **26** 11:51:43.4±0.3, 12°N±4° × 8°.7W±°, h42km, M4.7/18, mb4.7/18, confirmed*
*NEIC **26** 11:51:45.2±1.7, 11°.60N±0°.06 × 86°.93W±0°.07, h54km±6km, mb4.7/284, Error ellipse: s-maj=11.2km s-min=6.9km az=51.0*
*RSNC **26** 11:51:47.1±1.1, 12°N±7° × 8°.7W±1°.0, h31km±12km, M4.5, mB6.0, mb4.5, ML3.9, Mw(mB)5.6*

ISC 26 11:51:43.4±0.8, 11°54N±0°.03 × 87°02W±0°.03, h46km±7km, n361, σ1§23/297, mb4.6/141, MS3.7/19, 11C-20D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
AMTN	**Mateare**	**0.90**	**40**	⇓P			**Pn**	**11 52 00.2**	**+0.5**
AMTN				S			**Sn**	**11 52 13.6**	**+2.1**
ABCN	**Banco Central**	**0.90**	**50**	P			**Pn**	**11 52 00.3**	**+0.6**
ABCN				S			**Sn**	**11 52 13.3**	**+1.7**
APQ2	**Apoyeque**	**0.94**	**46**	⇓P			**Pn**	**11 52 00.1**	**-0.1**
APQ2				S			**Sn**	**11 52 14.4**	**+1.8**
LEVN	**Ruinas Leon Vi**	**0.94**	**25**	⇓P			**Pn**	**11 52 01.1**	**+0.9**
LEVN				S			**Sn**	**11 52 15.0**	**+2.4**
TISN	**Laguna Tiscapa**	**0.94**	**51**	⇓P			**Pn**	**11 51 59.8**	**-0.5**
APYN	**Apoyeque**	**0.95**	**43**	⇑P			**Pn**	**11 52 00.5**	**+0.2**
APYN				S			**Sn**	**11 52 14.5**	**+1.7**
MAS3	**Al N del Volca**	**0.95**	**60**	⇓P			**Pn**	**11 52 00.1**	**-0.3**
MAS3				S			**Sn**	**11 52 15.2**	**+2.2**
MASN	**Masaya**	**0.96**	**62**	⇑P			**Pn**	**11 52 00.3**	**-0.1**
NANN	**Nandasmo**	**0.96**	**66**	⇓P			**Pn**	**11 52 01.4**	**+0.9**
NANN				S			**Sn**	**11 52 14.5**	**+1.4**
MGAN	**Managua**	**0.96**	**51**	⇓P			**Pn**	**11 52 00.5**	**0.0**
MGAN				S			**Sn**	**11 52 14.5**	**+1.4**
MGAN	**Managua**	**0.96**	**51**	Pn			**Pn**	**11 52 00.3**	**-0.1**
MGAN	**Managua**	**0.96**	**51**	P			**Pn**	**11 52 00.4**	**-0.1**
MGAN	**Managua**	**0.96**	**51**	P			**Pn**	**11 52 00.5**	**0.0**
PACN	**Al O del Volca**	**0.98**	**13**	⇑P			**Pn**	**11 52 00.4**	**-0.4**
PACN				S			**Sn**	**11 52 15.6**	**+2.1**
MOMN	**Momotombo**	**0.98**	**28**	⇓P			**Pn**	**11 52 00.8**	**0.0**
MOMN				S			**Sn**	**11 52 15.2**	**+1.6**
NADN	**Granada**	**0.99**	**78**	⇑P			**Pn**	**11 51 59.9**	**-0.9**
NADN				S			**Sn**	**11 52 15.2**	**+1.5**
CNGA	**Al SSO del Vol**	**1.00**	**18**	⇓P			**Pn**	**11 52 01.1**	**+0.1**
CNGA				S			**Sn**	**11 52 15.9**	**+2.1**
CNGN	**Cerro Negro**	**1.00**	**18**	⇓P			**Pn**	**11 52 01.2**	**+0.1**
CNGN				S			**Sn**	**11 52 15.8**	**+1.6**
CNGN	**Cerro Negro**	**1.00**	**18**	P			**Pn**	**11 52 01.1**	**+0.1**
CNGN	**Cerro Negro**	**1.00**	**18**	P			**Pn**	**11 52 01.2**	**+0.1**
QUEN	**Al S del Volca**	**1.06**	**9**	⇓P			**Pn**	**11 52 02.1**	**+0.3**
QUEN				S			**Sn**	**11 52 17.3**	**+1.9**
PLRN	**Geotermica Pol**	**1.06**	**13**	⇑P			**Pn**	**11 52 02.0**	**0.0**
PLRN				S			**Sn**	**11 52 17.5**	**+1.9**
ILCN	**San Idelfonso**	**1.07**	**17**	⇑P			**Pn**	**11 52 02.2**	**+0.2**
ILCN				S			**Sn**	**11 52 17.8**	**+1.9**
HERN	**Volcan Telica**	**1.08**	**10**	⇓P			**Pn**	**11 52 02.0**	**-0.1**
HERN				S			**Sn**	**11 52 17.6**	**+1.6**
HERN	**Volcan Telica**	**1.08**	**10**	Pn			**Pn**	**11 52 02.5**	**+0.3**
MOM3	**MOM3**	**1.08**	**27**	⇑P			**Pn**	**11 52 02.2**	**+0.1**
MOM3				S			**Sn**	**11 52 18.1**	**+2.1**
PKGN	**Cerro Pekin**	**1.12**	**2**	⇑P			**Pn**	**11 52 04.0**	**+1.3**
PKGN				S			**Sn**	**11 52 18.6**	**+1.6**
CRIN	**San Cristobal**	**1.15**	**358**	⇓P			**Pn**	**11 52 03.3**	**+0.2**
CRIN				S			**Sn**	**11 52 19.3**	**+1.5**
CRIN	**San Cristobal**	**1.15**	**358**	Pn			**Pn**	**11 52 03.7**	**+0.5**
CRIN	**San Cristobal**	**1.15**	**358**	P			**Pn**	**11 52 03.2**	**0.0**
CRIN	**San Cristobal**	**1.15**	**358**	P			**Pn**	**11 52 03.3**	**+0.2**
MORN	**Al O del Volca**	**1.34**	**90**	⇓P			**Pn**	**11 52 05.4**	**-0.2**
MORN				S			**Sn**	**11 52 24.5**	**+2.1**
CONN	**Concepcion**	**1.36**	**89**	⇓P			**Pn**	**11 52 05.5**	**-0.5**
CONN				S			**Sn**	**11 52 24.0**	**+1.1**
LCRUZ	**La Cruz**	**1.44**	**109**	*eP*			**Pn**	**11 52 06.3**	**-0.7**
CARN	**Rivas**	**1.51**	**103**	P			**Pn**	**11 52 08.0**	**+0.1**
CARN				S			**Sn**	**11 52 28.0**	**+1.6**
CARN	**Rivas**	**1.51**	**103**				**Pn**	**11 52 08.4**	**+0.5**
CARN	**Rivas**	**1.51**	**103**	*eP*			**Pn**	**11 52 07.6**	**-0.3**
CARN				*eS*			**Sn**	**11 52 27.3**	**+0.9**
CSGN	**Cosiguina Volc**	**1.52**	**340**	⇑P			**Pn**	**11 52 08.2**	**0.0**
CSGN				S			**Sn**	**11 52 27.6**	**+0.7**
BOAB	**BOACO BROADBAN**	**1.60**	**56**	⇓P			**Pn**	**11 52 09.0**	**-0.2**
BOAB				S			**Sn**	**11 52 30.5**	**+1.8**
BOAB	**BOACO BROADBAN**	**1.60**	**56**				**Pn**	**11 52 09.2**	**0.0**
BOAB	**BOACO BROADBAN**	**1.60**	**56**	P			**Pn**	**11 52 09.0**	**-0.2**
ALIBA	**Liberia Airpor**	**1.72**	**123**	*eP*			**Pn**	**11 52 11.1**	**+0.2**
LAPC	**Finca la Perla**	**1.73**	**116**	*eP*			**Pn**	**11 52 10.9**	**-0.2**
BUAI	**Buenos Aires**	**1.78**	**112**	*eP*			**Pn**	**11 52 11.9**	**+0.2**
VRLE	**La Escondida,**	**1.78**	**115**	*eP*			**Pn**	**11 52 12.0**	**+0.1**
PEJA	**Penjamo Buenos**	**1.79**	**111**	*eP*			**Pn**	**11 52 11.8**	**0.0**
GPS3	**Bodega del ICE**	**1.80**	**116**	*eP*			**Pn**	**11 52 12.3**	**+0.3**
DELF	**Filadelfia**	**1.80**	**127**	*eP*			**Pn**	**11 52 12.1**	**+0.1**
DELF				*eS*			**Sn**	**11 52 40.5**	**+6.9**
GPS2	**Hotel Rincn d**	**1.81**	**115**	*eP*			**Pn**	**11 52 12.3**	**+0.1**
ACON	**Acoyapa**	**1.85**	**77**	P			**Pn**	**11 52 12.5**	**-0.2**
ACON				S			**Sn**	**11 52 37.0**	**+2.1**
CNCH	**Conchagua**	**1.90**	**335**	P			**Pn**	**11 52 13.3**	**-0.1**
CNCH				S			**Sn**	**11 52 38.3**	**+2.0**
CNCH	**Conchagua**	**1.90**	**335**	*eP*			**Pn**	**11 52 13.3**	**-0.1**
CNCH				*eS*			**Sn**	**11 52 38.1**	**+4.7**
INTP	**Intipuca**	**1.93**	**328**	*eP*			**Pn**	**11 52 13.9**	**+0.1**
LCND	**La Caada**	**1.95**	**334**	⇑P			**Pn**	**11 52 13.9**	**-0.2**
CLARA	**Aguas Claras**	**1.96**	**112**	*eP*			**Pn**	**11 52 14.6**	**+0.5**
MESS	**Mesas**	**1.96**	**114**	*eP*			**Pn**	**11 52 14.6**	**+0.4**
COLC	**Colonia**	**1.98**	**116**	*eP*			**Pn**	**11 52 14.7**	**+0.3**
HORNC	**Hornillas**	**1.98**	**114**	⇓*i*P			**Pn**	**11 52 15.2**	**+0.7**
VMAR	**Armenia, Volca**	**2.00**	**111**	⇓*i*P			**Pn**	**11 52 15.2**	**+0.4**
CUI	**Cuipilapa**	**2.02**	**116**	*eP*			**Pn**	**11 52 15.2**	**+0.2**
UPAL	**Upala**	**2.07**	**108**	*eP*			**Pn**	**11 52 15.7**	**+0.1**
JUCU	**Jucuar¡n**	**2.08**	**325**	*eP*			**Pn**	**11 52 14.3**	**-1.6**
OCON	**Estacion meteo**	**2.14**	**14**	P			**Pn**	**11 52 17.5**	**+0.8**
TENO	**El Achiote**	**2.17**	**112**	*eP*			**Pn**	**11 52 17.4**	**+0.4**
RCPN	**Sur Rio San Ju**	**2.17**	**24**	⇓P			**Pn**	**11 52 18.5**	**+1.4**
TIMP	**Tierras Morena**	**2.18**	**116**	*eP*			**Pn**	**11 52 17.8**	**+0.5**
RCVN	**Varillal2**	**2.18**	**21**	⇓P			**Pn**	**11 52 18.6**	**+1.2**
RCVN				S			**Sn**	**11 52 45.6**	**+2.3**
COTE	**Lago Cote**	**2.27**	**115**	*eP*			**Pn**	**11 52 18.8**	**+0.3**
TILA	**Tilaran**	**2.27**	**118**	*eP*			**Pn**	**11 52 19.8**	**+1.3**
ALJI	**Alcalda de J**	**2.34**	**320**	P			**Pn**	**11 52 18.6**	**-0.7**
ALJI				S			**Sn**	**11 52 48.5**	**+1.7**
ALJI	**Alcalda de J**	**2.34**	**320**	*eP*			**Pn**	**11 52 17.6**	**-1.7**
CHIK	**Chiripa**	**2.34**	**118**	*eP*			**Pn**	**11 52 21.2**	**+1.7**
JTS	**Las Juntas de**	**2.38**	**121**	Pn			**Pn**	**11 52 19.2**	**-0.7**
	15nm,0.3s,baz=127,slow=24,SNR=28								
JTS							**Sn**	**11 52 49.0**	**+1.2**
	84nm,0.3s,baz=214,slow=23,SNR=8.8								
JTS					LR		LR	11 53 03.0	
	comp=Z,316nm,18.5s,baz=306,slow=37								
	93nm,0.3s								
JTS					AML		AML		
JTS	**Las Juntas de**	**2.38**	**121**	P			**Pn**	**11 52 20.1**	**+0.2**
JTS				S			**Sn**	**11 52 47.8**	**-0.1**
JTS	**Las Juntas de**	**2.38**	**121**				**Pn**	**11 52 21.3**	**+1.4**
JTS	**Las Juntas de**	**2.38**	**121**	P			**Pn**	**11 52 19.6**	**-0.3**
JTS	**Las Juntas de**	**2.38**	**121**	P			**Pn**	**11 52 21.9**	**+2.0**
MTEVE	**Monteverde**	**2.47**	**119**	*eP*			**Pn**	**11 52 22.3**	**+1.0**
VARE2	**V. Arenal**	**2.50**	**115**	*eP*			**Pn**	**11 52 22.0**	**+0.4**
CEDE	**Laguna Cedeo**	**2.50**	**115**	*eP*			**Pn**	**11 52 22.0**	**+0.4**
TGUH	**Tegucigalpa,Un**	**2.51**	**354**	⇑P			**Pn**	**11 52 22.9**	**+1.0**
TGUH				S			**Sn**	**11 52 53.2**	**+1.8**
TGUH	**Tegucigalpa,Un**	**2.51**	**354**				**Pn**	**11 52 22.5**	**+0.7**
TGUH	**Tegucigalpa,Un**	**2.51**	**354**	P			**Pn**	**11 52 22.7**	**+0.8**
TGUH	**Tegucigalpa,Un**	**2.51**	**354**	P			**Pn**	**11 52 22.9**	**+1.0**
VACR	**Volcan Arenal**	**2.53**	**115**	*eP*			**Pn**	**11 52 22.3**	**+0.3**
TECO	**Alcaldia de Te**	**2.63**	**319**	P			**Pn**	**11 52 22.4**	**-0.9**
COVE	**Coope Vega, Sa**	**2.69**	**107**	P			**Pn**	**11 52 24.2**	**0.0**
COVE				S			**Sn**	**11 52 56.1**	**+0.5**
COEG	**Centro de Oper**	**2.75**	**319**	P			**Pn**	**11 52 24.5**	**-0.7**
COEG				S			**Sn**	**11 52 58.9**	**+1.7**
COEG	**Centro de Oper**	**2.75**	**319**	*eP*			**Pn**	**11 52 24.4**	**-0.7**
PAVA	**Las Pavas**	**2.86**	**319**	P			**Pn**	**11 52 26.9**	**+0.3**
PAVA				S			**Sn**	**11 53 00.8**	**+0.9**
PANCS	**Alcalda de**	**2.95**	**314**	S			**Sn**	**11 53 03.4**	**+1.4**
LALI	**Alcalda de L**	**2.97**	**311**	P			**Pn**	**11 52 28.2**	**+0.2**
UDBS	**Universidad Do**	**3.00**	**316**	P			**Pn**	**11 52 29.1**	**+0.6**
UDBS				S			**Sn**	**11 53 05.3**	**+1.9**
SEMO	**Seminario San**	**3.04**	**315**	S			**Sn**	**11 53 05.0**	**+0.6**
TCS1	**Tacares**	**3.06**	**119**	P			**Pn**	**11 52 30.1**	**+0.8**
UEES	**Universidad Ev**	**3.06**	**315**	P			**Pn**	**11 52 29.6**	**+0.2**
UEES				S			**Sn**	**11 53 05.1**	**+0.3**
SIUN	**Universidad Ur**	**3.08**	**45**	P			**Pn**	**11 52 31.1**	**+1.6**
SIUN	**Universidad Ur**	**3.08**	**45**				**Pn**	**11 52 31.1**	**+1.6**
BOQS	**Boqueron**	**3.10**	**315**	*eP*			**Pn**	**11 52 29.6**	**-0.4**
PMON	**Piamonte**	**3.11**	**314**	P			**Pn**	**11 52 30.2**	**+0.1**
PMON				S			**Sn**	**11 53 07.3**	**+1.2**
JAYA	**Jayaque - finc**	**3.17**	**312**	P			**Pn**	**11 52 30.7**	**-0.2**
JAYA				S			**Sn**	**11 53 08.5**	**+0.9**
BELE	**Belen**	**3.19**	**119**	*eP*			**Pn**	**11 52 32.0**	**+0.9**
BLUN	**Bluefields**	**3.21**	**81**	P			**Pn**	**11 52 31.8**	**+0.5**
BLUN	**Bluefields**	**3.21**	**81**	P			**Pn**	**11 52 31.7**	**+0.5**
CEDA	**San Andres**	**3.23**	**314**	P			**Pn**	**11 52 30.9**	**-0.8**
CEDA				S			**Sn**	**11 53 10.3**	**+1.3**
HDC	**Heredia**	**3.24**	**118**	P			**Pn**	**11 52 30.8**	**-1.0**
HDC				S			**Sn**	**11 53 09.6**	**+0.4**
HDC	**Heredia**	**3.24**	**118**				**Pn**	**11 52 33.5**	**+1.7**
ACOS	**Acosta**	**3.30**	**121**	*eP*			**Pn**	**11 52 34.9**	**+2.3**
CEVE	**Cerro Verde**	**3.41**	**312**	P			**Pn**	**11 52 33.5**	**-0.9**
CEVE				S			**Sn**	**11 53 15.2**	**+1.5**
LCR2	**La Lucha 2**	**3.46**	**121**	P			**Pn**	**11 52 35.2**	**+0.3**
LCR2	**La Lucha 2**	**3.46**	**121**				**Pn**	**11 52 36.6**	**+1.7**
UNIC	**Universidad Ca**	**3.46**	**315**	P			**Pn**	**11 52 33.8**	**-1.1**
UNIC				S			**Sn**	**11 53 15.7**	**+1.0**
RAFA	**San Farael, Vo**	**3.52**	**116**				**Pn**	**11 52 36.3**	**+0.5**
NUBE	**Las Nubes**	**3.58**	**311**	P			**Pn**	**11 52 36.6**	**+0.1**
NUBE				S			**Sn**	**11 53 18.5**	**+0.9**
SARH	**Santa Rosa de**	**3.64**	**332**	P			**Pn**	**11 52 38.4**	**+1.2**
SARH				S			**Sn**	**11

W50A	**Signal Mountai**	**23.60**	**3**	IAmb	IAmb	11 56 51.8	
	comp=Z,20nm,0.5s						
W52A	**Murphy**	**23.61**	**6**	IAmb	IAmb	11 57 06.4	
	comp=Z,15nm,0.8s						
UALR	**University of**	**23.63**	**349**	IAmb	IAmb	11 56 50.9	
	comp=Z,14nm,0.8s						
BG3	**Lake Jocassee**	**23.64**	**8**	IAmb	IAmb	11 57 07.1	
	comp=Z,13nm,0.7s						
MIAR	**Mount Ida**	**23.67**	**346**	IAmb	IAmb	11 56 52.9	
	comp=Z,24nm,0.7s						
MIAR	**Mount Ida**	**23.67**	**346**	P	**P**	**11 56 50.9**	**+0.2**
	comp=Z,37nm,0.8s						
BIRD	**Birdtown, Kers**	**23.76**	**14**	IAmb	IAmb	11 56 54.1	
	comp=Z,22nm,0.9s						
CZSB	**Cruzeiro do Su**	**23.86**	**143**	IAmb	IAmb	11 57 05.2	
	comp=Z,16nm,0.8s						
ABTX	**Abilene, Hawle**	**23.98**	**333**	IAmb	IAmb	11 57 02.6	
	comp=Z,16nm,0.9s						
KMSC	**Kings Mountain**	**24.06**	**11**	IAmb	IAmb	11 56 56.5	
	comp=Z,13nm,0.8s						
WHAR	**Wooly Hollow**	**24.12**	**349**	IAmb	IAmb	11 56 55.2	
	comp=Z,15nm,0.8s						
TKL	**Tuckaleechee C**	**24.19**	**6**	LR	LR	12 05 57.7	
	comp=Z,131nm,20.4s,baz=352,slow=36						
TKL	**Tuckaleechee C**	**24.19**	**6**	IAmb	IAmb	11 56 58.1	
	comp=Z,14nm,0.8s						
LOOK	**Love County**	**24.20**	**339**	P	**P**	**11 56 56.4**	**+0.7**
ALPN	**Alpine**	**24.27**	**323**	IAmb	IAmb	11 57 06.2	
	comp=Z,13nm,0.9s						
V53A	**Saluda**	**24.32**	**8**	IAmb	IAmb	11 56 59.2	
	comp=Z,14nm,0.7s						
CLTN	**Cedars of Leba**	**24.45**	**1**	IAmb	IAmb	11 56 59.9	
	comp=Z,12nm,0.6s						
WTFS	**Witchita Falls**	**24.48**	**336**	IAmb	IAmb	11 57 00.8	
	comp=Z,24nm,0.7s						
229A	**Bryant Ranch,**	**24.48**	**328**	IAmb	IAmb	11 57 00.2	
	comp=Z,14nm,0.6s						
WVT	**Waverly**	**24.49**	**358**		**P**	**11 56 57.5**	**-0.8**
WVT	**Waverly**	**24.49**	**358**	P	**P**	**11 56 57.5**	**-0.8**
	comp=Z,8.7nm,0.6s						
MNHN	**Monahans**	**24.50**	**326**	IAmb	IAmb	11 57 08.3	
	comp=Z,24nm,0.8s						
FCAR	**Ozark Folk Cen**	**24.68**	**350**	IAmb	IAmb	11 57 00.2	
	comp=Z,16nm,0.7s						
LCAR	**Lake Charles**	**24.71**	**352**	IAmb	IAmb	11 57 00.1	
	comp=Z,17nm,0.7s						
TPB01	**Permian Basin**	**24.77**	**324**	IAmb	IAmb	11 57 10.8	
	comp=Z,22nm,1.1s						
TPB06	**Permian Basin**	**24.98**	**326**	IAmb	IAmb	11 57 15.8	
	comp=Z,19nm,0.8s						
ODSA	**Odessa**	**24.99**	**327**	IAmb	IAmb	11 57 14.6	
	comp=Z,29nm,0.9s						
TZTN	**Tazewell**	**25.09**	**7**	IAmb	IAmb	11 57 07.4	
	comp=Z,12nm,0.7s						
TZTN	**Tazewell**	**25.09**	**7**	P	**P**	**11 57 04.3**	**+0.6**
	comp=Z,27nm,0.9s						
W35A	**Tecumseh**	**25.16**	**341**	P	**P**	**11 57 04.0**	**-0.4**
W35A				IAmb	IAmb	11 57 06.7	
	comp=Z,24nm,0.8s						
TPB07	**Mentone**	**25.18**	**325**	IAmb	IAmb	11 57 16.6	
	comp=Z,27nm,0.8s						
V58A	**Windy Hill, Pi**	**25.18**	**15**	IAmb	IAmb	11 57 06.5	
	comp=Z,20nm,0.6s						
U54A	**Nelsons Funny**	**25.31**	**10**	IAmb	IAmb	11 57 09.6	
	comp=Z,22nm,0.7s						
PBMO	**Poplar Bluff**	**25.32**	**354**	IAmb	IAmb	11 57 06.3	
	comp=Z,32nm,1.4s						
T47A	**Sharon Grove**	**25.34**	**360**	IAmb	IAmb	11 57 06.8	
	comp=Z,17nm,0.7s						
128A	**Castleberry Fa**	**25.35**	**328**	IAmb	IAmb	11 57 07.5	
	comp=Z,9.1nm,0.6s						
DKNS	**Dickens**	**25.43**	**332**	IAmb	IAmb	11 57 09.8	
	comp=Z,14nm,0.8s						
WMOK	**Wichita Mounta**	**25.45**	**337**	P	**P**	**11 57 07.7**	**+0.6**
	comp=Z,60nm,0.9s						
TUL3	**Leonard**	**25.53**	**343**	IAmb	IAmb	11 57 07.7	
	comp=Z,26nm,0.7s						
OKCSW	**OKLAHOMA CITY**	**25.57**	**340**	P	**P**	**11 57 08.1**	**0.0**
U38A	**Gravette**	**25.67**	**346**	IAmb	IAmb	11 57 09.5	
	comp=Z,15nm,0.9s						
DEOK	**Depew**	**25.67**	**342**	IAmb	IAmb	11 57 08.8	
	comp=Z,18nm,0.7s						
TPB28		**25.72**	**324**	IAmb	IAmb	11 57 21.4	
	comp=Z,9.3nm,0.9s						
S44A	**Carbondale**	**26.12**	**356**	IAmb	IAmb	11 57 13.3	
	comp=Z,11nm,0.7s						
S51A	**Beattyville**	**26.17**	**6**	IAmb	IAmb	11 57 17.6	
	comp=Z,8.8nm,0.6s						
MNTX	**Cornudas Mount**	**26.26**	**323**	P	**P**	**11 57 15.3**	**+0.9**
	comp=Z,8.5nm,1.0s						
SMWD	**Samnorwood**	**26.36**	**335**	IAmb	IAmb	11 57 18.8	
	comp=Z,26nm,0.9s						
MSTX	**Muleshoe**	**26.56**	**330**	IAmb	IAmb	11 57 29.2	
	comp=Z,27nm,0.8s						
WCI	**Wyandotte Cave**	**26.58**	**1**		**P**	**11 57 16.8**	**-0.4**
WCI				IAmb	IAmb	11 57 19.1	
	comp=Z,11nm,0.8s						
WCI	**Wyandotte Cave**	**26.58**	**1**	P	**P**	**11 57 16.9**	**-0.3**
	comp=Z,21nm,0.8s						
T35A	**Sooner Cattle**	**26.67**	**343**	IAmb	IAmb	11 57 19.1	
	comp=Z,9.7nm,0.6s						
R49A	**Shelbyville**	**26.69**	**3**	IAmb	IAmb	11 57 19.4	
	comp=Z,17nm,1.3s						
R50A	**Paris**	**26.74**	**5**	IAmb	IAmb	11 57 19.9	
	comp=Z,8.1nm,0.6s						
CROK	**Carrier**	**26.75**	**340**	IAmb	IAmb	11 57 21.6	
	comp=Z,24nm,0.7s						
AMTX	**Amarillo**	**26.79**	**333**	IAmb	IAmb	11 57 32.9	
	comp=Z,14nm,0.7s						
R40A	**Maddies Statio**	**27.05**	**351**	IAmb	IAmb	11 57 20.9	
	comp=Z,10nm,0.7s						
Q44A	**Meyer Farm, Va**	**27.31**	**357**	IAmb	IAmb	11 57 24.2	
	comp=Z,19nm,0.8s						
Q51A	**Peebles**	**27.57**	**6**		**P**	**11 57 26.2**	**+0.2**
P53A	**Whipple**	**28.28**	**9**		**P**	**11 57 32.6**	**+0.2**
P53A				IAmb	IAmb	11 57 34.1	
	comp=Z,11nm,0.7s						
121A	**Cookes Peak, D**	**28.30**	**321**	IAmb	IAmb	11 57 47.4	
	comp=Z,18nm,1.2s						
RTBA	**Rita Blanca**	**28.56**	**333**	IAmb	IAmb	11 57 40.2	
	comp=Z,11nm,1.0s						
R32A	**Long Quarter,**	**28.74**	**341**	IAmb	IAmb	11 57 37.2	
	comp=Z,12nm,0.8s						
KSU1	**Kansas State U**	**28.74**	**344**		**P**	**11 57 36.0**	**-0.6**
KSU1				IAmb	IAmb	11 57 36.6	
	comp=Z,23nm,0.9s						
ACSO	**Alum Creek Sta**	**28.80**	**6**		**P**	**11 57 37.1**	**+0.1**
ACSO				IAmb	IAmb	11 57 38.1	
	comp=Z,16nm,0.6s						
HDIL	**Hopedale**	**28.97**	**356**	IAmb	IAmb	11 57 39.3	
	comp=Z,18nm,0.8s						
ALQ	**Albuquerque**	**29.24**	**326**	IAmb	IAmb	11 57 54.3	
	comp=Z,3.8nm,0.9s						
ANMO	**Albuquerque**	**29.24**	**326**	LR	LR	12 10 18.9	
	comp=Z,55nm,19.7s,baz=106,slow=38						
ANMO	**Albuquerque**	**29.24**	**326**		**P**	**11 57 42.4**	**+1.1**
ANMO	**Albuquerque**	**29.24**	**326**	P	**P**	**11 57 42.2**	**+0.9**
	comp=Z,6.0nm,1.2s						
TASM	**ASL Pad, Albuq**	**29.25**	**326**	IAmb	IAmb	11 57 54.3	
	comp=Z,3.5nm,0.9s						
CBKS	**Cedar Bluff**	**29.43**	**340**	IAmb	IAmb	11 57 54.3	
	comp=Z,9.6nm,0.9s						
MACA	**Manacapuru-AM**	**29.99**	**118**		**P**	**11 57 47.5**	**-0.3**
SSPA	**Standing Stone**	**30.08**	**14**	P	**P**	**11 57 49.0**	**+0.7**
SSPA				IAmb	IAmb	11 57 50.0	
	comp=Z,8.9nm,0.7s						
SSPA	**Standing Stone**	**30.08**	**14**	P	**P**	**11 57 48.8**	**+0.5**
	comp=Z,13nm,0.7s						
X16A	**Lo Mia Camp, P**	**31.84**	**320**		**P**	**11 58 06.0**	**+1.8**
BINY	**Binghamton**	**32.03**	**16**	P	**P**	**11 58 05.5**	**+0.1**
BINY				IAmb	IAmb	11 58 21.9	
	comp=Z,12nm,0.9s						
BINY	**Binghamton**	**32.03**	**16**	P	**P**	**11 58 05.6**	**+0.1**
	comp=Z,22nm,0.8s						
MVCO	**Mesa Verde**	**32.03**	**327**	IAmb	IAmb	11 58 18.6	
	comp=Z,7.3nm,0.8s						
MVCO	**Mesa Verde**	**32.03**	**327**	P	**P**	**11 58 06.3**	**+0.5**
	comp=Z,11nm,0.8s						
MVCO				pP	**pP**	**11 58 14.6**	**-3.5**
WUAZ	**Wupatki**	**32.51**	**321**	IAmb	IAmb	11 58 21.5	
	comp=Z,9.0nm,1.0s						
ISCO	**Idaho Springs**	**32.61**	**333**	P	**P**	**11 58 12.1**	**+1.1**
	comp=Z,7.8nm,2.0s						
PV01	**Paradox Valley**	**32.75**	**328**	IAmb	IAmb	11 58 30.8	
	comp=Z,8.0nm,1.1s						
PV15	**Paradox Valley**	**32.86**	**328**	IAmb	IAmb	11 58 28.0	
	comp=Z,7.5nm,0.9s						
PV02	**Paradox Valley**	**32.89**	**328**	IAmb	IAmb	11 58 25.3	
	comp=Z,12nm,1.2s						
PV13	**Radium Mtn., P**	**32.90**	**327**	IAmb	IAmb	11 58 25.1	
	comp=Z,13nm,0.8s						
PV05	**Paradox Valley**	**32.99**	**327**	IAmb	IAmb	11 58 26.2	
	comp=Z,12nm,0.7s						
PV07	**Paradox Valley**	**33.02**	**328**	IAmb	IAmb	11 58 30.3	
	comp=Z,12nm,1.1s						
PV04	**Paradox Valley**	**33.12**	**328**	IAmb	IAmb	11 58 27.0	
	comp=Z,13nm,0.7s						
ECSD	**EROS Data Cent**	**33.13**	**347**		**P**	**11 58 13.7**	**-1.5**
ECSD	**EROS Data Cent**	**33.13**	**347**	P	**P**	**11 58 13.7**	**-1.5**
	comp=Z,27nm,0.9s						
PV22	**Blue Mesa, Par**	**33.16**	**328**	IAmb	IAmb	11 58 30.3	
	comp=Z,5.7nm,0.7s						
PV14	**Lion Creek, Pa**	**33.17**	**327**	IAmb	IAmb	11 58 27.1	
	comp=Z,13nm,0.7s						
PV23	**Carpenter Ridg**	**33.22**	**328**	IAmb	IAmb	11 58 32.8	
	comp=Z,13nm,0.7s						
LPAZ	**La Paz**	**33.37**	**146**	P	**P**	**11 58 19.9**	**+1.7**
	comp=Z,0.6nm,0.4s,baz=351,slow=8.5,SNR=3.0						
LPAZ				LR	LR	12 12 02.9	
	comp=Z,115nm,20.3s,baz=320,slow=37						
	comp=Z,0.6nm,0.4s						
G40A	**Rib Lake**	**33.72**	**356**	IAmb	IAmb	11 58 19.6	
	comp=Z,9.2nm,0.7s						
HMU	**Henry Mountain**	**33.79**	**325**	IAmb	IAmb	11 58 34.3	
	comp=Z,8.3nm,0.8s						
SADO	**Sadowa**	**33.80**	**10**	LR	LR	12 11 58.9	
	comp=Z,85nm,19.1s,baz=294,slow=37						
SPMN	**Marine on St.**	**33.93**	**353**		**P**	**11 58 21.0**	**-1.0**
O20A	**White River Ci**	**34.10**	**330**	IAmb	IAmb	11 58 36.8	
	comp=Z,8.7nm,0.8s						
PB16	**IPOC Station P**	**34.35**	**150**		**P**	**11 58 28.1**	**+1.5**
PKCU	**Pink Cliffs**	**34.35**	**323**	IAmb	IAmb	11 58 35.1	
	comp=Z,8.9nm,0.8s						
KNB	**Kanab**	**34.38**	**322**	IAmb	IAmb	11 58 38.5	
	comp=Z,6.6nm,1.1s						
MDP	**Montagnes des**	**34.59**	**98**	LR	LR	12 13 51.5	
	comp=Z,169nm,18.5s,baz=271,slow=39						
Q16A	**Castle Valley**	**34.72**	**326**	IAmb	IAmb	11 58 59.1	
	comp=Z,9.9nm,1.3s						
P18A	**Preston Nutter**	**34.73**	**328**	IAmb	IAmb	11 58 41.3	
	comp=Z,6.2nm,0.7s						
P17A	**Butcher Ranch,**	**34.88**	**327**	IAmb	IAmb	11 58 43.4	
	comp=Z,10.0nm,0.8s						
TMUT	**Trail Mountain**	**35.01**	**326**	IAmb	IAmb	11 58 46.4	
	comp=Z,5.4nm,0.9s						
F33A	**5 Mile Ranch,**	**35.09**	**349**		**P**	**11 58 30.5**	**-1.5**
RSSD	**Black Hills**	**35.63**	**339**	P	**P**	**11 58 37.8**	**+0.8**
RSSD				IAmb	IAmb	11 58 39.6	
	comp=Z,4.2nm,0.7s						
RSSD	**Black Hills**	**35.63**	**339**	P	**P**	**11 58 37.2**	**+0.2**
	comp=Z,6.2nm,0.6s						
BSUT	**Blindstream Ca**	**35.67**	**328**	IAmb	IAmb	11 58 49.5	
	comp=Z,5.8nm,0.8s						
VILB	**Vilhena**	**36.06**	**132**	P	**P**	**11 58 41.2**	**+0.4**
EYMN	**Ely**	**36.48**	**355**	P	**P**	**11 58 42.0**	**-2.0**
DUG	**Dugway, Tooele**	**36.52**	**326**	P	**P**	**11 58 45.8**	**+1.2**
	comp=Z,5.2nm,1.6s						
PDAR	**Pinedale Array**	**36.77**	**332**	P	**P**	**11 58 46.8**	**-0.1**
	comp=Z,4.1nm,0.5s,baz=128,slow=10,SNR=56						
PDAR				PcP	**PcP**	**12 01 09.1**	**+0.6**
	comp=Z,0.7nm,0.7s,baz=140,slow=4.8,SNR=3.6						
	comp=Z,4.1nm,0.5s						
HWUT	**Hardware Ranch**	**36.87**	**329**	IAmb	IAmb	11 58 60.0	
	comp=Z,17nm,0.8s						
HWUT	**Hardware Ranch**	**36.87**	**329**	P	**P**	**11 58 48.5**	**+0.9**
	comp=Z,17nm,0.9s						
AGMN	**Agassiz Nation**	**37.38**	**350**	P	**P**	**11 58 50.1**	**-1.5**
	comp=Z,19nm,0.9s						
AHID	**Auburn Hatcher**	**37.50**	**330**	IAmb	IAmb	11 59 04.9	
	comp=Z,9.3nm,0.8s						
AHID	**Auburn Hatcher**	**37.50**	**330**	P	**P**	**11 58 53.8**	**+0.8**
	comp=Z,16nm,0.8s						
AHID				pP	**pP**	**11 59 03.4**	**-2.0**
CLDB	**Colider**	**38.19**	**125**	P	**P**	**11 58 56.7**	**-2.2**
	comp=Z,4.8nm,1.1s						
PTLB	**Pontes e Lacer**	**38.48**	**134**		**P**	**11 59 01.7**	**+0.4**
PTLB				IAmb	IAmb	11 59 02.3	
	comp=Z,11nm,0.8s						
RLMT	**Red Lodge**	**38.50**	**334**	IAmb	IAmb	11 59 02.5	
	comp=Z,3.9nm,0.6s						
NVAR	**Mina Array Bea**	**38.66**	**319**	P	**P**	**11 59 03.6**	**+0.7**
	comp=Z,1.0nm,0.6s,baz=149,slow=7.0,SNR=5.9						
	comp=Z,1.0nm,0.6s						
YHL	**Hebgen Lake**	**39.13**	**333**	IAmb	IAmb	11 59 27.6	
	comp=Z,12nm,1.5s						
ULM	**Lac du Bonnet**	**39.28**	**351**	P	**P**	**11 59 05.3**	**-2.2**
	comp=Z,14nm,0.8s,baz=164,slow=9.8,SNR=24						
ULM				LR	LR	12 16 22.7	
	comp=Z,143nm,18.1s,baz=182,slow=38						
	comp=Z,14nm,0.8s						
ULM	**Lac du Bonnet**	**39.28**	**351**	IAmb	IAmb	11 59 06.2	
	comp=Z,17nm,0.9s						
HLID	**Hailey**	**39.73**	**328**	P	**P**	**11 59 12.7**	**+1.0**
	comp=Z,7.0nm,1.5s						
BOZ	**Bozeman (W)**	**39.91**	**333**	IAmb	IAmb	11 59 14.6	
	comp=Z,4.5nm,0.6s						
BMO	**Blue Mountains**	**42.13**	**328**		**P**	**11 59 31.3**	**0.0**
RPN	**Rapa Nui**	**44.12**	**209**	LR	LR	12 13 14.3	
	comp=Z,97nm,21.2s,baz=44,slow=29						
AQDB	**Aquidauana**	**44.28**	**136**	P	**P**	**11 59 48.9**	**0.0**
AQDB				IAmb	IAmb	11 59 49.8	
	comp=Z,12nm,1.0s						
AQDB	**Aquidauana**	**44.28**	**136**	P	**P**	**11 59 49.0**	**+0.2**
	comp=Z,14nm,0.9s						
NEW	**Newport**	**44.41**	**331**	LR	LR	12 23 50.4	
	comp=Z,116nm,18.8s,baz=56,slow=44						
NEW	**Newport**	**44.41**	**331**	P	**P**	**11 59 48.9**	**-0.6**
D08A	**Wollman Farm,**	**44.45**	**329**	P	**P**	**11 59 49.1**	**-0.7**
D08A				IAmb	IAmb	11 59 51.5	
	comp=Z,5.5nm,0.7s						
E07A	**Sunnyside**	**44.60**	**328**	IAmb	IAmb	12 00 03.1	
	comp=Z,9.9nm,0.8s						
FFC	**Flin Flon**	**44.67**	**348**	P	**P**	**11 59 50.6**	**-0.9**
MXC	**Moxie City**	**44.84**	**328**	IAmb	IAmb	12 00 05.7	
	comp=Z,7.9nm,0.9s						
SCHQ	**Schefferville**	**46.03**	**16**	P	**P**	**11 59 59.3**	**-3.0**
	comp=Z,3.6nm,0.5s,baz=203,slow=6.0,SNR=11						
SCHQ				LR	LR	12 18 49.9	
	comp=Z,160nm,21.4s,baz=180,slow=36						
	comp=Z,3.6nm,0.5s						
SCHQ	**Schefferville**	**46.03**	**16**	IAmb	IAmb	12 00 33.0	
	comp=Z,14nm,1.3s						
EDM	**Edmonton**	**46.61**	**338**	IAmb	IAmb	12 00 06.7	
	comp=Z,7.5nm,0.7s						
BDFB	**Brasilia**	**47.12**	**124**	P	**P**	**12 00 10.8**	**-0.6**
	comp=Z,9.3nm,0.6s,baz=301,slow=10,SNR=12						
	comp=Z,9.3nm,0.6s						
BDFB	**Brasilia**	**47.12**	**124**		**P**	**12 00 11.2**	**-0.2**
CPUP	**Villa Florida**	**47.44**	**143**	P	**P**	**12 00 13.2**	**-0.4**
	comp=Z,0.8nm,0.6s,baz=322,slow=10,SNR=3.2						
CPUP				LR	LR	12 20 49.4	
	comp=Z,54nm,21.4s,baz=253,slow=37						
	comp=Z,0.8nm,0.6s						
CPUP	**Villa Florida**	**47.44**	**143**	IAmb	IAmb	12 00 20.4	
	comp=Z,4.7nm,1.3s						
PCMB	**Pacaembu**	**48.14**	**133**	P	**P**	**12 00 19.0**	**-0.2**
BBB	**Bella Bella**	**52.31**	**329**	LR	LR	12 25 17.8	
	comp=Z,70nm,18.3s,baz=201,slow=39						
PLCA	**Paso Flores**	**54.20**	**165**	P	**P**	**12 01 07.0**	**+2.6**
	comp=Z,1.1nm,0.8s,baz=324,slow=9.2,SNR=4.8						
PLCA				LR	LR	12 19 08.2	
	comp=Z,28nm,18.2s,baz=6.0,slow=30						
	comp=Z,1.1nm,0.8s						
YKAW1	**Yellowknife Wh**	**54.55**	**345**	IAmb	IAmb	12 01 06.4	
	comp=Z,6.1nm,0.8s						
YKA	**Yellowknife Ar**	**54.59**	**345**	P	**P**	**12 01 05.5**	**-1.3**
	comp=Z,5.0nm,0.8s,baz=142,slow=7.5,SNR=58						
YKA				PcP	**PcP**	**12 02 09.2**	**-0.3**
	comp=Z,1.4nm,0.6s,baz=148,slow=4.0,SNR=17						
	comp=Z,5.0nm,0.8s						
YKAW3	**Yellowknife Wh**	**54.65**	**345**		**P**	**12 01 06.2**	**-1.1**
YKAW3				IAmb	IAmb	12 01 07.2	
	comp=Z,6.5nm,0.8s						
TAOE	**Nuku Hiva Isla**	**56.59**	**251**	*e*LR	LR	12 17 56.5	
	comp=Z,75nm,23.5s						
DLBC	**Dease Lake**	**56.91**	**335**	LR	LR	12 29 10.4	
	comp=Z,57nm,19.3s,baz=248,slow=40						
INK	**Inuvik**	**64.19**	**343**	LR	LR	12 31 42.3	
	comp=Z,49nm,19.2s,baz=350,slow=38						
INK	**Inuvik**	**64.19**	**343**	P	**P**	**12 02 12.3**	**-0.7**
	comp=Z,5.9nm,1.4s						
G29M	**Pine Creek**	**64.79**	**340**	IAmb	IAmb	12 02 55.0	
	comp=Z,19nm,1.5s						
DOT	**Dot Lake**	**65.43**	**336**	P	**P**	**12 02 21.5**	**+0.3**
DOT				IAmb	IAmb	12 02 21.8	
	comp=Z,4.0nm,0.8s						
H27K	**Steamboat Moun**	**65.65**	**339**	IAmb	IAmb	12 02 23.3	
	comp=Z,6.7nm,0.9s						
F28M	**Old Crow**	**65.78**	**340**		**P**	**12 02 23.5**	**+0.2**
F28M				IAmb	IAmb	12 02 25.4	
	comp=Z,5.7nm,0.8s						
IL31		**67.02**	**336**		**P**	**12 02 30.8**	**-0.5**
IL31				IAmb	IAmb	12 02 33.7	
	comp=Z,4.8nm,0.9s						
ILAR	**Eielson Array**	**67.02**	**336**	P	**P**	**12 02 30.4**	**-1.0**
	comp=Z,1.5nm,0.7s,baz=144,slow=4.5,SNR=34						
ILAR				PP	**PP**	**12 04 58.2**	**-1.0**
	comp=Z,0.4nm,0.8s,baz=109,slow=8.2,SNR=4.2						
ILAR				LR	LR	12 35 20.2	
	comp=Z,84nm,19.3s,baz=87,slow=39						
	comp=Z,1.5nm,0.7s						
RND	**Reindeer**	**67.31**	**335**	IAmb	IAmb	12 02 34.0	
	comp=Z,11nm,0.8s						
USHA	**Ushuaia**	**67.96**	**169**	LR	LR	12 28 04.6	
	comp=Z,352nm,21.0s,baz=20,slow=32						
PPT	**Papeete**	**68.21**	**246**	LR	LR	12 25 59.4	
	comp=Z,101nm,21.6s,baz=9.0,slow=30						
PPT2	**Papeete2**	**68.22**	**246**	*e*LR	LR	12 23 17.1	
	comp=Z,115nm,31.2s						
PPT2				*e*LR	LR	12 23 25.9	
	comp=Z,62nm,25.2s						
MLY	**Manley**	**68.64**	**336**	IAmb	IAmb	12 02 41.7	
	comp=Z,6.6nm,0.8s						
ESDC	**Sonseca Array**	**77.42**	**52**	P	**P**	**12 03 30.5**	**-3.5**
	comp=Z,1.0nm,0.7s,baz=286,slow=5.5,SNR=4.2						
	comp=Z,1.0nm,0.7s						
ESDC	**Sonseca Array**	**77.42**	**52**	IAmb	IAmb	12 03 37.2	
	comp=Z,12nm,1.5s						
AFI	**Afiamalu**	**87.74**	**255**	LR	LR	12 37 10.1	
	comp=Z,33nm,18.1s,baz=32,slow=31						
LANS	**Liptovska Anna**	**91.87**	**39**	*e*P	**P**	**12 04 47.7**	**+0.9**
LANS				*e*		12 26 43.8	
KOLS	**Kolonicke sedl**	**93.67**	**39**	*e*P	**P**	**12 04 55.5**	**+0.4**
KURK	**Kurchatov**	**116.75**	**10**		**PKPdf**	**12 10 22.2**	**-0.6**
KURBB	**Kurchatov Arra**	**116.83**	**10**	PKP	**PKPdf**	**12 10 22.2**	**-0.7**
	comp=Z,0.4nm,0.6s,baz=351,slow=2.1,SNR=4.3						
SONM	**Songino Array**	**119.70**	**350**	PKP	**PKPdf**	**12 10 28.8**	**+0.1**
	comp=Z,1.0nm,0.6s,baz=36,slow=0.5,SNR=8.9						
KSRS	**Korea Array**	**121.26**	**328**	PKP	**PKiKP**	**12 10 33.0**	**+1.1**
	comp=Z,1.9nm,0.6s,baz=3.7,slow=2.2,SNR=6.7						
HHC	**Hu-ho-hao-te**	**125.11**	**343**	*e*P	**PKiKP**	**12 10 41.8**	**+2.2**
KSH2	**Kashi**	**127.03**	**17**	PKP	**PKiKP**	**12 10 44.5**	**+1.0**
GTA2	**Gaotai**	**128.85**	**353**	*e*PKP	**PKiKP**	**12 10 47.0**	**-0.2**
NJ2	**Nanjing**	**130.08**	**331**	*e*P	**PKiKP**	**12 10 49.8**	**+0.2**
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ASAR	**Alice Springs**	**139.32**	**247**	PKP	**PKPdf**	**12 11 06.2**	**-0.1**
	comp=Z,0.8nm,0.6s,baz=110,slow=2.0,SNR=9.8						
WRA	**Warramunga Arr**	**139.42**	**253**	PKhKP	PKPpre	12 10 59.7	
	comp=Z,0.2nm,0.6s,baz=91,slow=3.8,SNR=5.0						
WRA				PKP	**PKPdf**	**12 11 07.1**	**+0.5**
	comp=Z,1.4nm,0.6s,baz=91,slow=2.4,SNR=23						
WRA	**Warramunga Arr**	**139.42**	**253**		**PKPdf**	**12 11 05.4**	**-1.1**
CMAR	**Chiang Mai Arr**	**149.62**	**349**	PKP	**PKPdf**	**12 11 25.4**	**+1.1**
	comp=Z,4.0nm,0.6s,baz=317,slow=2.7,SNR=9.4						
CMAR				PKPbc	**PKPbc**	**12 11 29.4**	**+0.6**
	comp=Z,3.7nm,0.6s,baz=349,slow=2.2,SNR=4.2						

IDC ***26*** *12:21:05.7±0.7,5˚.07N×62˚.15E,h0km,mb4.3/17, mbtmp4.3/17,MS3.9/55,Error ellipse: s-maj=19.5km s-min=15.3km az=5.0*

GFZ ***26*** *12:21:08.0,4˚.75N×62˚.19E,h14km,Mw4.8/12,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr-1.88; Mθθ0.87; Mφφ 1.01; Mrθ0.02; Mθφ-0.93; Mφr0.14; Fault plane solution: M₀1.87922×10¹⁶ NP1: φs140.56820°,δ46.52946°,λ-85.33398°. NP2: φs313.82260°,δ43.67048°,λ-94.90457°. Principal axes: T 1.8712, Plg1.4320°, Azm227.2896°; N 0.0160, Plg3.3845°, Azm317.3743°; P -1.8871, Plg86.3244°, Azm114.3888°;*

GFZ ***26*** *12:21:08.0±0.2,5˚N±5˚×6˚2E±˚,h10km,M4.6/19,mb4.5/19, confirmed*

NEIC ***26*** *12:21:08.1±1.8,4˚.9N±0˚.1×62˚.10E±0˚.07,h10km±1km, mb4.7/26,Error ellipse: s-maj=18.4km s-min=12.0km az=353.0*

GCMT ***26*** *12:21:10.1±0.3,4˚.89N±0˚.02×62˚.11E±0˚.03,h12km

comp=Z,3.2nm,0.9s
CMAR Chiang Mai Arr 38.41 66 P 12 28 29.2 0.0
GNI Garni 38.50 338 LR LR 12 44 27.3
comp=Z,66nm,18.8s,baz=116,slow=37
CHTO Chiang Mai 38.51 66 P 12 28 30.0 -0.1
CHTO Chiang Mai 38.51 66 P **P 12 28 31.6 +1.5**
comp=Z,8.0nm,1.7s
KKAR Karatay Array 38.83 10 P P 12 28 32.6 +0.1
LSZ Lusaka 39.11 239 LR LR 12 43 09.6
comp=Z,245nm,18.6s,baz=48,slow=34
AAK Ala-Archa 39.22 14 LR LR 12 45 02.2
comp=Z,238nm,21.3s,baz=211,slow=37
WUS Wushi 39.32 20 P **P 12 28 37.7 +1.0**
comp=Z,5.7nm,0.8s
KBZ Khabaz 42.30 339 LR LR 12 47 42.7
comp=Z,57nm,19.3s,baz=140,slow=38
MDSI Maura Dua 43.01 102 P **P 12 29 04.8 -2.5**
comp=Z,10.0nm,1.0s
BRTR Keskin Array B 43.23 328 P 12 29 07.9 -1.0
comp=Z,1.0nm,0.7s,baz=149,slow=9.9,SNR=6.1
BRTR LR LR 12 48 51.4
comp=Z,44nm,18.7s,baz=136,slow=39
comp=Z,1.0nm,0.7s
AB31 Akbulak array 44.31 358 P 12 29 17.8 +0.6
AB31 IAmb IAmb 12 29 25.9
comp=Z,14nm,1.3s
ABKAR Akbulak array 44.31 358 P 12 29 17.4 +0.2
WMQ Urumqi 44.90 26 *e*P **P 12 29 22.8 +0.7**
WMQ pmax pmax
comp=Z,10.0nm,0.9s
WMQ LR LR
comp=Z,220nm,23.9s
MKAR Makanchi Array 45.29 19 P **P 12 29 21.8 -3.4**
comp=Z,2.9nm,0.9s,baz=203,slow=7.7,SNR=10
MKAR LR LR 12 49 02.8
comp=Z,112nm,21.2s,baz=192,slow=37
comp=Z,2.9nm,0.9s
MKAR Makanchi Array 45.29 19 P 12 29 24.2 -0.9
AKTO Aktyubinsk 45.58 356 LR LR 12 49 00.8
comp=Z,137nm,20.8s,baz=158,slow=37
LEM Lembang 46.85 104 LR LR 12 47 28.2
comp=Z,62nm,18.7s,baz=166,slow=34
KURBB Kurchatov Arra 47.67 14 P **P 12 29 41.3 -2.4**
comp=Z,2.0nm,0.9s,baz=212,slow=8.1,SNR=9.6
KURBB LR LR 12 50 22.8
comp=Z,132nm,21.5s,baz=210,slow=37
comp=Z,2.0nm,0.9s
KURK Kurchatov 47.78 14 P P 12 29 41.3 -3.2
KURK Kurchatov 47.78 14 P P 12 29 44.7 +0.1
comp=Z,2.9nm,0.9s
KPJI Karang Pucung 48.23 104 P **P 12 29 49.7 +1.0**
comp=Z,9.5nm,1.6s
GTA2 Gaotai 48.42 39 *e*P **P 12 29 49.8 0.0**
GTA2 pmax pmax
comp=Z,6.0nm,1.3s
GTA2 LR LR
comp=N,250nm,19.0s
GTA2 LR LR
comp=E,280nm,21.3s
GTA2 LR LR
comp=Z,520nm,20.0s
BOSA Boshof 48.62 225 P **P 12 29 51.9 +0.3**
comp=Z,2.3nm,0.7s,baz=74,slow=4.4,SNR=5.8
BOSA LR LR 12 48 02.1
comp=Z,116nm,20.6s,baz=28,slow=33
comp=Z,2.3nm,0.7s
BOSA Boshof 48.62 225 IAmb IAmb 12 30 33.4
comp=Z,16nm,1.4s
TSUM Tsumeb 49.92 240 LR LR 12 48 39.8
comp=Z,125nm,21.9s,baz=141,slow=33
VRI Vrincioaia 51.15 329 P **P 12 30 12.1 +1.7**
comp=Z,11nm,2.4s
ENH Enshi 51.25 55 P **P 12 30 11.8 +0.4**
comp=Z,15nm,1.3s
ARTI Arti 51.50 357 LR LR 12 52 47.4
comp=Z,96nm,18.2s,baz=204,slow=37
ARTI Arti 51.50 357 P 12 30 12.4 -0.4
ARTI IAmb IAmb 12 30 19.8
comp=Z,7.0nm,0.8s
H04N1 CROZET ISLANDS 51.59 189 T T 13 26 03.6
baz=11,slow=74,SNR=9.3
H04N2 CROZET ISLANDS 51.59 189 T T 13 26 01.8
baz=11,slow=74,SNR=11
H04N3 CROZET ISLANDS 51.61 189 T T 13 26 03.8
baz=11,slow=74,SNR=8.8
EDA Edea 51.84 271 P 12 30 16.8 +0.7
ARR Arges 51.93 327 P **P 12 30 17.3 +1.0**
comp=Z,3.9nm,2.1s
XAN Xi'an 52.18 50 P **P 12 30 18.0 -0.4**
XAN pmax pmax
comp=Z,16nm,1.4s
ZAA0 Zalesovo Array 52.35 17 P 12 30 17.3 -1.8
ZAA0 IAmb IAmb 12 30 19.5
comp=Z,7.5nm,1.1s
ZALV Zalesovo Beam 52.35 17 P P 12 30 17.3 -1.8
comp=Z,4.9nm,1.0s,baz=224,slow=6.2,SNR=18
ZALV LR LR 12 52 51.1
comp=Z,110nm,20.9s,baz=226,slow=37
comp=Z,4.9nm,1.0s
ZALV Zalesovo Beam 52.35 17 P 12 30 18.1 -1.1
AKASG Malin Array Be 53.38 335 P **P 12 30 25.4 -1.4**
comp=Z,0.4nm,0.4s,baz=121,slow=6.7,SNR=4.7
comp=Z,0.4nm,0.4s
SUR Sutherland 53.94 224 LR LR 12 50 59.0
comp=Z,271nm,20.7s,baz=38,slow=33
KIRV Kirov 54.52 352 LR LR 12 56 04.6
comp=Z,100nm,18.3s,baz=178,slow=39
WHN Wuhan 55.32 56 P **P 12 30 41.5 +0.2**
MORH Mrgy, Hungar 55.80 325 P **P 12 30 44.0 -0.5**
comp=Z,4.5nm,2.0s
HHC Hu-ho-hao-te 56.90 43 *e*P **P 12 30 53.8 +1.2**
HHC pmax pmax
comp=Z,13nm,0.6s
SONM Songino Array 57.14 34 P **P 12 30 53.3 -1.0**
comp=Z,4.1nm,1.1s,baz=223,slow=7.9,SNR=20
SONM LR LR 12 55 46.6
comp=Z,201nm,19.1s,baz=236,slow=37
comp=Z,4.1nm,1.1s
SONM Songino Array 57.14 34 P 12 30 53.6 -0.6
SONM IAmb IAmb 12 30 55.1
comp=Z,7.8nm,1.2s
TAM Tamanrasset 57.43 294 P **P 12 30 55.5 -1.2**
TAM Tamanrasset 57.43 294 P **P 12 30 59.5 +2.8**
comp=Z,7.8nm,1.6s
ULN Ulaanbaatar 57.52 34 P **P 12 30 56.1 -0.9**
comp=Z,3.0nm,1.2s
HNS HongShan 57.80 48 ⇑P **P 12 30 59.5 +0.6**
HNS S **S 12 38 59.3 +1.6**
HNS pmax pmax
comp=Z,11nm,1.0s
HNS LR LR
comp=N,110nm,14.2s
HNS LR LR
comp=E,180nm,15.8s
HNS LR LR
comp=Z,280nm,18.6s
TLY Talaya 57.99 29 LR LR 12 56 01.3
comp=Z,112nm,19.6s,baz=234,slow=36
KAPI Kappang 58.37 99 LR LR 12 55 55.0
comp=Z,41nm,18.2s,baz=318,slow=36
NJ2 Nanjing 59.44 56 *e*P **P 12 31 10.3 -0.1**
NJ2 pmax pmax
comp=Z,8.0nm,0.5s
BJI2 Beijing 59.80 46 P **P 12 31 12.8 0.0**
BJI2 pmax pmax
comp=Z,5.0nm,1.0s
GEC2 GERESS Array S 60.03 325 P **P 12 31 13.2 -1.2**
comp=Z,51nm,0.8s
GERES GERESS Array B 60.03 325 P 12 31 12.7 -1.6
TORD Torodi Ar. Bea 60.15 282 P **P 12 31 16.2 +0.7**
comp=Z,4.7nm,1.1s,baz=89,slow=5.7,SNR=14
comp=Z,4.7nm,1.1s
DAVOX Davos/Dischmat 61.32 322 LR LR 13 00 12.4
comp=Z,70nm,19.0s,baz=257,slow=38
DAV Davao City (W) 63.10 85 LR LR 12 59 04.0
comp=Z,21nm,18.7s,baz=326,slow=36
HILR Hailar Array B 65.73 37 LR LR 13 01 06.9
comp=Z,311nm,20.1s,baz=25,slow=37
HFS Hagfors 66.22 336 LR LR 13 01 38.3
comp=Z,40nm,21.0s,baz=282,slow=37
JOW Kunigami 66.57 63 LR LR 13 00 56.7
comp=Z,116nm,21.5s,baz=320,slow=36
NRIK Noril'sk 66.57 10 LR LR 13 03 02.0
comp=Z,124nm,18.7s,baz=235,slow=38
DBIC Dimbokro 66.64 275 P **P 12 31 58.5 -0.1**
comp=Z,11nm,1.1s,baz=134,slow=11,SNR=3.5
DBIC LR LR 13 00 08.3
comp=Z,73nm,19.8s,baz=96,slow=35
comp=Z,11nm,1.1s
DBIC Dimbokro 66.64 275 IAmb IAmb 12 32 01.7
comp=Z,44nm,1.5s
NOA NORSAR Array B 67.74 336 LR LR 13 03 57.8
comp=Z,37nm,18.4s,baz=300,slow=38
KSRS Korea Array 67.92 52 P **P 12 32 04.8 -1.5**
comp=Z,2.2nm,0.8s,baz=273,slow=8.6,SNR=5.0
comp=Z,2.2nm,0.8s
ESDC Sonseca Array 68.61 311 P **P 12 32 09.8 -0.8**
comp=Z,1.7nm,0.9s,baz=89,slow=5.5,SNR=5.9
comp=Z,1.7nm,0.9s
ARCES ARCESS Array B 68.93 347 LR LR 13 04 55.1
comp=Z,61nm,18.2s,baz=194,slow=38
JNU Nakatsue 69.60 57 LR LR 13 03 33.3
comp=Z,82nm,21.0s,baz=314,slow=37
HEH HeiHe 70.63 38 *e*P P 12 32 16.0 -6.9
HEH pmax pmax
comp=Z,4.0nm,0.9s
USRK Ussuriysk Ar. 72.25 45 LR LR 13 05 30.1
comp=Z,103nm,19.9s,baz=239,slow=37
MAW Mawson 72.27 180 LR LR 13 00 19.0
comp=Z,113nm,18.1s,baz=12,slow=32
KLR Kul'dur 73.10 40 LR LR 13 05 53.2
comp=Z,167nm,19.6s,baz=243,slow=37
WRA Warramunga Arr 75.04 112 P **P 12 32 50.4 +0.8**
comp=Z,7.5nm,0.7s,baz=290,slow=4.9,SNR=80
comp=Z,7.5nm,0.7s
WRA Warramunga Arr 75.04 112 P 12 32 50.7 +1.0
WRAB Tennant Creek 75.05 112 P **P 12 32 50.8 +1.1**
WRAB Tennant Creek 75.05 112 P **P 12 32 50.7 +1.1**
comp=Z,26nm,1.2s
WR8 Warramunga Arr 75.19 112 P 12 32 51.6 +1.1
WR8 IAmb IAmb 12 32 51.8
comp=Z,9.0nm,0.8s
YAK Yakutsk 75.34 27 LR LR 13 06 55.6
comp=Z,107nm,20.9s,baz=244,slow=37
ASAR Alice Springs 75.38 116 P **P 12 32 52.4 +0.8**
comp=Z,7.3nm,1.0s,baz=287,slow=5.6,SNR=51
comp=Z,7.3nm,1.0s
ASAR Alice Springs 75.38 116 P 12 32 52.1 +0.5
MJAR Matsushiro Arr 75.95 54 P **P 12 32 53.6 -1.0**
comp=Z,3.0nm,1.0s,baz=272,slow=8.0,SNR=5.5
comp=Z,3.0nm,1.0s
MJAR Matsushiro Arr 75.95 54 IAmb IAmb 12 32 56.1
comp=Z,6.1nm,1.4s
SPITS Spitsbergen Ar 76.99 351 LR LR 13 09 06.1
comp=Z,54nm,20.1s,baz=210,slow=38
TIXI Tiksi 78.23 17 LR LR 13 09 27.7
comp=Z,52nm,19.0s,baz=218,slow=37
TIXI Tiksi 78.23 17 P 12 33 05.1 -1.5
TIXI IAmb IAmb 12 33 20.3
comp=Z,12nm,1.4s
TIXI Tiksi 78.23 17 P **P 12 33 05.3 -1.3**
comp=Z,7.5nm,2.0s
ASAJ Asahikawa 79.81 46 LR LR 13 10 05.2
comp=Z,80nm,18.1s,baz=82,slow=37
QIS Mount Isa 80.02 112 P 12 33 18.6 +1.2
comp=Z,13nm,1.3s
DAG Danmarks Havn 83.22 347 *i* P **P 12 33 32.4 -0.9**
STKA Stephens Creek 83.62 123 P **P 12 33 37.1 +0.9**
comp=Z,8.1nm,1.1s,baz=304,slow=6.6,SNR=4.7
STKA LR LR 13 06 24.4
comp=Z,97nm,20.7s,baz=207,slow=32
comp=Z,8.1nm,1.1s
STKA Stephens Creek 83.62 123 IAmb IAmb 12 33 37.4
comp=Z,55nm,1.2s
MA2 Magadan 85.18 31 LR LR 13 13 57.5
comp=Z,121nm,18.3s,baz=302,slow=37
CTA Charters Tower 86.14 110 LR LR 13 13 54.9
comp=Z,17nm,18.1s,baz=226,slow=37
SNAA Sanae 86.90 197 LR LR 13 07 32.3
comp=Z,61nm,18.9s,baz=50,slow=32
PETK Petropavlovsk- 89.52 37 LR LR 13 16 11.5
comp=Z,90nm,18.8s,baz=283,slow=37
QSPA South Pole Qui 94.79 180 LR LR 13 12 04.0
comp=Z,96nm,18.2s,baz=298,slow=32
VNDA Vanda 96.79 168 LR LR 13 12 35.6
comp=Z,84nm,19.7s,baz=328,slow=32
RCBR Riachuelo 98.45 265 LR LR 13 14 57.4
comp=Z,31nm,20.7s,baz=72,slow=33
SHEM Shemya Is, Ala 99.24 35 LR LR 13 21 15.6
comp=Z,99nm,20.7s,baz=286,slow=36
RES Resolute Bay 99.39 354 LR LR 13 24 21.2
comp=Z,69nm,19.4s,baz=31,slow=38
TXAR Lajitas Array 143.40 339 PKP PKPbc 12 40 40.8 +0.9
comp=Z,0.6nm,0.9s,baz=1.4,slow=5.0,SNR=5.3

VIE ***26*** *12:25:43.6±1.6,51°51′N×16°59′E,h0km,mb2.5/5,ml2.8/5, ml2.8/5, Error ellipse: s-maj=12.0km s-min=7.9km az=134.0 55 km NNW of Wroclaw Suspected Mining induced.*

PRU ***26*** *12:25:43.1,51°56′N×15°19′E,h0km*
ISC 26 12:25:40.4±1.3,51°69′N±0°.06×16°01′E±0°.03,h0km,n29, σ1§04/55,Poland

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m s	ISC
KSP	**Ksiaz**	**0.87**	**168**	*e*Pg		**Pg**	**12**	**25 56.7**	**-0.3**
KSP				*e*Sg		**Sg**	**12**	**26 07.1**	**-1.2**
CHVC	**Chvalec**	**1.11**	**178**	*e*PG		**Pg**	**12**	**26 01.2**	**-0.3**
CHVC				*e*SG		**Sg**	**12**	**26 15.0**	**-0.9**
	comp=Z,27nm,0.2s								
CHVC				AML		AML			
OSTC	**Ostas**	**1.15**	**173**	*e*PG		**Pg**	**12**	**26 02.2**	**-0.1**
OSTC				*e*SG		**Sg**	**12**	**26 16.1**	**-1.0**
	comp=Z,20nm,0.2s								
OSTC				AML		AML			
UPC	**Upice**	**1.19**	**180**	*e*PG		**Pg**	**12**	**26 02.5**	**-0.6**
UPC				*e*SG		**Sg**	**12**	**26 16.8**	**-1.7**
	comp=Z,73nm,0.4s								
UPC				AML		AML			
DPC	**Dobruska-Polom**	**1.36**	**171**	*e*PG		**Pg**	**12**	**26 05.3**	**-1.1**
DPC				*e*SG		**Sg**	**12**	**26 22.4**	**-1.6**
	comp=Z,20nm,0.2s								
DPC				AML		AML			
PVCC	**Panska Ves**	**1.48**	**218**	*e*PG		**Pn**	**12**	**26 08.4**	**+0.2**
PVCC				*e*SG		**Sg**	**12**	**26 26.6**	**-1.1**
	comp=Z,165nm,0.2s								
PVCC				AML		AML			
BRG	**Berggiesshubel**	**1.53**	**238**	Pg		**Pb**	**12**	**26 09.5**	**-0.1**
BRG				Sg		**Sn**	**12**	**26 29.5**	**-0.1**
BRG				Amp			12	26 30.1	
	comp=Z,47nm,0.5s								
KRLC	**Kraliky**	**1.69**	**163**	*e*PG		**Pn**	**12**	**26 10.6**	**-0.6**
KRLC				*e*SG		**Sn**	**12**	**26 31.7**	**-1.9**
	comp=Z,27nm,0.2s								
KRLC				AML		AML			
CLL	**Collm**	**1.92**	**260**	*e*Pn		**Pn**	**12**	**26 14.0**	**-0.2**
CLL				*e*Pg		**Pg**	**12**	**26 17.0**	**-0.1**
CLL				*e*Sg		**Sb**	**12**	**26 41.0**	**+0.4**
	comp=Z,21nm,0.5s								
HSKC	**Hora Svate Kat**	**1.95**	**237**	*e*PG		**Pb**	**12**	**26 15.9**	**-0.9**
HSKC				*e*SG		**Sb**	**12**	**26 41.9**	**+0.2**
	comp=Z,49nm,0.7s								
HSKC				AML		AML			
STEB	**Steborice**	**2.09**	**147**	*e*PG		**Pb**	**12**	**26 19.0**	**-0.1**
STEB				*e*SG		**Sb**	**12**	**26 45.5**	**0.0**
	comp=Z,41nm,0.3s								
STEB				AML		AML			
MORC	**Moravsky Berou**	**2.15**	**152**	*e*PN		**Pn**	**12**	**26 17.0**	**-0.5**
MORC				*e*SG		**Sn**	**12**	**26 45.8**	**+0.9**
OKC	**Ostrava-Krasne**	**2.30**	**143**	*e*SG		**Sb**	**12**	**26 51.4**	**-0.3**
VRAC	**Vranov**	**2.42**	**171**	*e*PN		**Pn**	**12**	**26 21.1**	**0.0**
VRAC				*e*SG		**Sb**	**12**	**26 54.6**	**-0.4**
TREC	**Trest**	**2.42**	**188**	*e*SG		**Sb**	**12**	**26 55.8**	**+0.6**
ZVC	**Zvikov**	**2.54**	**208**	*e*PG		**Pb**	**12**	**26 27.3**	**+0.6**
ZVC				*e*SG		**Sb**	**12**	**27 00.1**	**+1.7**
KRUC	**Moravsky**	**2.65**	**174**	*e*PN		**Pn**	**12**	**26 24.3**	**0.0**
KRUC				*e*SG		**Sb**	**12**	**27 01.7**	**+0.1**
NKC	**Novy Kostel**	**2.68**	**238**	*e*PN		**Pn**	**12**	**26 25.4**	**+0.6**
NKC				*e*PG		**Pg**	**12**	**26 31.1**	**-0.6**
NKC				*e*SG		**Sg**	**12**	**27 04.9**	**-1.6**
	comp=Z,43nm,0.4s								
NKC				AML		AML			
OJC	**Ojcow**	**2.82**	**120**	*e*Pg		**Pg**	**12**	**26 34.3**	**0.0**
OJC				*e*Sg		**Sg**	**12**	**27 11.1**	**+0.3**
KHC	**Kasperske Hory**	**3.00**	**212**	*e*PN		**Pn**	**12**	**26 29.5**	**+0.4**
KHC				*e*PG		**Pb**	**12**	**26 34.9**	**+0.3**
KHC				*e*SG		**Sb**	**12**	**27 12.9**	**+1.1**
	comp=Z,9.5nm,0.4s								
KHC				AML		AML			
JAVC	**Velka Javorina**	**3.03**	**159**	*e*PN		**Pn**	**12**	**26 29.2**	**-0.4**
ABNA	**Allensteig Bun**	**3.05**	**187**	*i* Pn		**Pn**	**12**	**26 29.8**	**0.0**
	comp=Z,1.0nm,0.1s								
ABNA				*i* Sn		**Sn**	**12**	**27 07.2**	**+0.2**
	comp=Z,26nm,0.1s								
CKRC	**Cesky Krumlov**	**3.08**	**201**	*e*PG		**Pb**	**12**	**26 36.5**	**+0.6**
CKRC				*e*SG		**Sb**	**12**	**27 15.2**	**+1.2**
	comp=Z,8.0nm,0.4s								
CKRC				AML		AML			
LANS	**Liptovska Anna**	**3.37**	**138**	*e*SG		**Sg**	**12**	**27 29.2**	**+0.5**
MODS	**Modra-Piesok**	**3.42**	**166**	*e*SG		**Sg**	**12**	**27 31.1**	**+0.8**
WINA	**Alland / Wiene**	**3.59**	**179**	*e*Pn		**Pn**	**12**	**26 37.7**	**+0.5**
	comp=Z,0.5nm,0.1s								
WINA				*e*Sn		**Sn**	**12**	**27 18.7**	**-1.7**
	comp=Z,4.0nm,0.2s								
CONA	**Conrad Observa**	**3.77**	**181**	*i* Pn		**Pn**	**12**	**26 40.3**	**+0.5**
	comp=Z,0.8nm,0.2s								
CONA				*e*Sn		**Sn**	**12**	**27 26.5**	**+1.6**
	comp=Z,1.9nm,0.2s								
RONA	**Rosalia, Austr**	**4.00**	**177**	*e*Sn		**Sn**	**12**	**27 33.8**	**+3.3**
	comp=Z,2.7nm,0.5s								
MOA	**Molln**	**4.01**	**197**	*i* Pn		**Pn**	**12**	**26 42.1**	**-0.9**
	comp=Z,1.3nm,0.2s								
MOA				*i* Sn		**Sn**	**12**	**27 33.8**	**+3.1**
	comp=Z,1.6nm,0.3s								

IDC ***26*** *12:50:31.0±2.6,4°61′S×144°96′E,h56km±23km,mb3.8/13, mbtmp4.2/17,ML4.3/3,MS3.5/5,Error ellipse: s-maj=24.3km s-min=13.3km az=61.0*

NEIC ***26*** *12:50:31.7±1.1,4°61′S±0°.05×144°92′E±0°.07,h55km±6km, mb4.4/26,Error ellipse: s-maj=10.6km s-min=7.8km az=77.0*

DJA ***26*** *12:50:32.7±0.5,5°S±5°×14°5E±°,h45km±7km,M4.7/14, mB5.2/7,mB5.2/7,mb4.9/14,mb4.8/14,MLv4.7/5,MLv4.7/5, Mw(mB)4.6/7,Mw(mB)4.6/7*

ISC 26 12:50:30.1±0.5,4°63S±0°.06×144°90E±0°.06,h38km,n76, σ1§61/68,mb4.5/24,MS3.4/3,Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h	m s	ISC
MANU	**Manus Island**	**3.55**	**44**			**Pn**	**12**	**51 23.9**	**+1.2**
JAY	**Jayapura**	**4.69**	**296**	P		**Pn**	**12**	**51 39.7**	**+1.3**
	10nm,0.3s,baz=143,slow=6.8,SNR=51								
JAY				LR		LR	12	53 51.9	
	comp=Z,614nm,20.4s,baz=74,slow=42								
	30nm,0.4s								
JAY				AML		AML			
JAY	**Jayapura**	**4.69**	**296**	P		**Pn**	**12**	**51 40.9**	**+2.5**
JAY				AML		AML			
JAY				AML		AML			
GENI	**Genyem**	**5.14**	**293**	P		**Pn**	**12**	**51 48.0**	**+3.4**
	1.2nm1.2nm2μm2μm167nm,0.6s,167nm,0.6s								
GENI				AML		AML			
GENI				AML		AML			
PMG	**Port Moresby**	**5.25**	**155**	P		**Pn**	**12**	**51 47.6**	**+1.4**
	18nm,0.3s,baz=294,slow=12,SNR=24								
PMG				S		**Sn**	**12**	**52 46.1**	**+0.7**
	90nm,0.6s,baz=102,slow=22,SNR=4.6								
PMG				LR		LR	12	54 45.2	
	comp=Z,300nm,18.6s,baz=339,slow=48								
PMG	**Port Moresby**	**5.25**	**155**	P		**Pn**	**12**	**51 47.5**	**+1.4**
PMG	**Port Moresby**	**5.25**	**155**	S		**Sn**	**12**	**52 45.8**	**+0.4**
PMG	**Port Moresby**	**5.25**	**155**	P		**Pn**	**12**	**51 49.4**	**+3.3**
	0.6nm0.6nm82nm,0.8s,82nm,0.8s								
PMG				AML		AML			
PMG				AML		AML			
SMPI	**Sarmi**	**6.71**	**293**	P		Pn	12	52 22.1	+16
RABL	**Rabaul**	**7.25**	**87**			**Pn**	**12**	**52 14.6**	**+0.9**
FAKI	**Fak Fak**	**12.74**	**277**	P		**Pn**	**12**	**53 29.8**	**+1.0**
FAKI	**Fak Fak**	**12.74**	**277**	S		**Sn**	**12**	**55 48.7**	**-0.8**
SAUI	**Saumlaki**	**13.93**	**255**	P		**Pn**	**12**	**53 44.2**	**-0.8**
SIJI	**Sorong**	**14.12**	**285**	P		**Pn**	**12**	**53 48.8**	**+1.1**
	1.2nm,0.3s,baz=73,slow=8.6,SNR=10								
	7.7nm,0.5s								
SIJI				AML		AML			
TATA	**Tatamba Isabel**	**15.27**	**105**	P		**P**	**12**	**54 09.1**	**+1.7**
CTAO	**Charters Tower**	**15.43**	**175**	P		**P**	**12**	**54 07.7**	**-1.5**
MTN	**Manton Dam**	**15.86**	**238**	Pn		**Pn**	**12**	**54 11.1**	**+0.4**
NLAI	**Namlea**	**17.82**	**274**	P		**P**	**12**	**54 39.3**	**+3.6**
	27nm,0.7s,27nm,0.7s								
WB0	**Warramunga Arr**	**18.20**	**213**			**P**	**12**	**54 39.8**	**-0.1**
WR0	**Warramunga Arr**	**18.28**	**213**	P		**Pn**	**12**	**54 40.6**	**-0.3**
WR0				IAmb		IAmb	12	54 43.2	
	comp=Z,14nm,0.7s								
WR8	**Warramunga Arr**	**18.30**	**213**			**Pn**	**12**	**54 41.0**	**-0.1**
WR8				IAmb		IAmb	12	54 43.4	
	comp=Z,12nm,0.6s								
WRAB	**Tennant Creek**	**18.36**	**213**	P		**P**	**12**	**54 40.4**	**-1.3**
WRAB	**Tennant Creek**	**18.36**	**213**	P		**Pn**	**12**	**54 41.9**	**-0.1**
WB2	**Warramunga Arr**	**18.37**	**213**	P		**P**	**12**	**54 40.8**	**-1.0**
WB2				IAmb		IAmb	12	54 44.4	
	comp=Z,9.2nm,0.7s								
WRA	**Warramunga Arr**	**18.38**	**213**	P		**P**	**12**	**54 40.9**	**-1.0**
	comp=Z,1.0nm,0.3s,baz=41,slow=11,SNR=31								
	comp=Z,7.5nm,0.8s								
WRA				AML		AML			
WRA	**Warramunga Arr**	**18.38**	**213**			**P**	**12**	**54 40.6**	**-1.2**
SANI	**Sanana**	**19.05**	**277**	P		Pn	12	54 59.0	+8.6
KNRA	**Kununurra**	**19.29**	**234**			**P**	**12**	**54 51.8**	**-0.1**
KNRA				IAmb		IAmb	12	54 59.7	
	comp=Z,14nm,0.8s								
SOEI	**Soe**	**21.09**	**255**	P		**P**	**12**	**55 11.4**	**-0.2**
SOEI	**Soe**	**21.09**	**255**			**P**	**12**	**55 12.8**	**+1.1**
SOEI	**Soe**	**21.09**	**255**	P		**P**	**12**	**55 12.7**	**+1.1**
KMSI	**Cibinong**	**21.53**	**283**	P		P	12	55 33.1	+17
AS01	**Alice Springs**	**21.68**	**208**	P		**P**	**12**	**55 17.3**	**-0.4**
AS31	**Alice Springs**	**21.70**	**208**			**P**	**12**	**55 18.3**	**+0.3**
ASAR	**Alice Springs**	**21.70**	**208**	P		**P**	**12**	**55 17.4**	**-0.5**
	comp=Z,2.5nm,0.9s,baz=42,slow=9.4,SNR=30								
	comp=Z,2.5nm,0.9s								
ASAR	**Alice Springs**	**21.70**	**208**	P		**P**	**12**	**55 17.3**	**-0.7**
BATI	**Baumata**	**21.77**	**254**	P		**P**	**12**	**55 18.8**	**0.0**
	comp=Z,30nm,0.5s,baz=117,slow=3.8,SNR=5.2								
	comp=Z,30nm,0.5s								
BATI	**Baumata**	**21.77**	**254**	P		**P**	**12**	**55 25.0**	**+6.2**
	comp=Z,83nm,0.8s,comp=Z,83nm,0.8s								
LUWI	**Luwuk**	**22.39**	**278**	P		**P**	**12**	**55 25.3**	**-0.1**
LUWI				IAmb		IAmb	12	55 52.2	
	comp=Z,28nm,0.8s								
GTOI	**Gorontalo**	**22.49**	**283**	P		**P**	**12**	**55 28.6**	**+2.1**
	comp=Z,390nmcomp=Z,390nmcomp=Z,29nm,0.6s,comp=Z,29nm,0.6s								
MMRI	**Maumere**	**22.86**	**259**			**P**	**12**	**55 28.0**	**-2.5**
MMRI	**Maumere**	**22.86**	**259**	P		**P**	**12**	**55 29.7**	**-0.7**
	comp=Z,49nm,0.8s,comp=Z,49nm,0.8s								
FITZ	**Fitzroy Crossi**	**23.11**	**233**	P		**P**	**12**	**55 33.1**	**+0.1**
	comp=Z,28nm,0.6s,baz=45,slow=8.4,SNR=88								
FITZ				LR		LR	13	05 31.6	
	comp=Z,155nm,21.1s,baz=40,slow=39								
	comp=Z,28nm,0.6s								
FITZ	**Fitzroy Crossi**	**23.11**	**233**	P		**P**	**12**	**55 31.8**	**-1.2**
FITZ	**Fitzroy Crossi**	**23.11**	**233**	P		**P**	**12**	**55 32.7**	**-0.2**
FITZ				IAmb		IAmb	12	55 33.9	
	comp=Z,6.2nm,0.7s								
EDFI	**Ende, Flores**	**23.41**	**259**	P		**P**	**12**	**55 33.2**	**-2.9**
	comp=Z,26nm,0.9s,comp=Z,26nm,0.9s								
TOLI2	**Tolitoli**	**24.77**	**283**	P		**P**	**12**	**55 50.1**	**+1.6**
TOLI2	**Tolitoli**	**24.77**	**283**	P		**P**	**12**	**55 47.7**	**-0.9**
KAPI	**Kappang**	**25.07**	**268**	LR		LR	13	08 13.5	
	comp=Z,50nm,19.7s,baz=76,slow=42								
TTSI	**Tana Toraja**	**25.08**	**273**	P		P	12	56 01.2	+10
ARMA	**Armidale**	**26.43**	**167**	P		**P**	**12**	**56 04.2**	**+0.6**
ARMA				IAmb		IAmb	12	56 07.1	
	comp=Z,22nm,1.5s								
STKA	**Stephens Creek**	**27.29**	**186**	P		**P**	**12**	**56 11.3**	**+0.2**
	comp=Z,2.2nm,0.7s,baz=324,slow=9.4,SNR=4.1								
	comp=Z,2.2nm,0.7s								
STKA	**Stephens Creek**	**27.29**	**186**	P		**P**	**12**	**56 10.7**	**-0.4**
CAN	**Canberra**	**30.78**	**173**	P		**P**	**12**	**56 42.3**	**+0.1**
CAN				IAmb		IAmb	12	57 17.2	
	comp=Z,14nm,1.0s								
BBJI	**Bungbulang**	**37.14**	**264**	P		**P**	**12**	**57 35.2**	**-2.5**
BBJI				IAmb		IAmb	12	57 36.2	
	comp=Z,6.9nm,0.6s								
SDSI	**Sungai Dareh**	**43.57**	**273**	P		P	12	58 37.7	+6.8
TKNZ	**Takaka Hill**	**44.12**	**149

comp=Z,2.5nm,1.3s
VNDA Vanda 73.40 176 P P 13 01 57.1 -0.7
comp=Z,2.2nm,0.8s,baz=327,slow=6.7,SNR=5.5
comp=Z,2.2nm,0.8s
VNDA Vanda 73.40 176 P P 13 01 57.5 -0.3
VNDA IAmb IAmb 13 01 58.5
comp=Z,5.2nm,1.3s
MKAR Makanchi Array 75.12 321 P P 13 02 07.5 -0.9
comp=Z,0.4nm,0.5s,baz=98,slow=9.9,SNR=5.7
comp=Z,0.4nm,0.5s
MAKZ Makanchi 75.32 321 P P 13 02 09.1 -0.5
MAKZ IAmb IAmb 13 02 28.1
comp=Z,6.3nm,1.3s
ZALV Zalesovo Beam 76.75 328 P P 13 02 15.8 -1.7
comp=Z,0.7nm,0.4s,baz=96,slow=6.0,SNR=5.0
comp=Z,0.7nm,0.4s
BOOM Boomskoye usch 77.83 315 P P 13 02 24.2 +0.1
KURK Kurchatov 78.87 324 P P 13 02 28.2 -1.1
KURK Kurchatov 78.87 324 IAmb IAmb 13 02 46.2
comp=Z,4.2nm,1.4s
KURBB Kurchatov Arra 78.89 324 P P 13 02 28.2 -1.2
comp=Z,0.3nm,0.6s,baz=84,slow=4.7,SNR=2.2
comp=Z,0.3nm,0.6s
G18K Tagagawik 81.19 20 P P 13 02 40.8 -0.8
G18K IAmb IAmb 13 03 16.7
comp=Z,6.9nm,1.2s
BVAR Borovoye Array 84.44 324 P P 13 02 57.7 -1.1
comp=Z,1.2nm,0.7s,baz=117,slow=7.5,SNR=5.9
comp=Z,1.2nm,0.7s
ILAR Eielson Array 85.06 24 P P 13 02 59.9 -1.7
comp=Z,0.9nm,0.8s,baz=258,slow=4.9,SNR=8.7
comp=Z,0.9nm,0.8s
QSPA South Pole Qui 85.33 180 P P 13 03 01.7 -1.5
comp=Z,3.6nm,0.7s,baz=210,slow=0.6,SNR=39
comp=Z,3.6nm,0.7s
QSPA South Pole Qui 85.33 180 P P 13 03 01.9 -1.2
NVAR Mina Array Bea 98.17 52 LR LR 13 41 57.9
comp=Z,53nm,18.3s,baz=16,slow=31

WEL 26 12:54:14.8±1.3, 36°S±16°×17°8E±1°3, h151km±23km, M3.6/26, ML2.9/12, MLv3.6/26, Error ellipse: s-maj=22.6km s-min=15.5km az=152.4, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**1.23**	**170**	P	Pn	12 54 41.6	0.0
MXZ				S	Sn	12 55 02.6	+0.4
MXZ				AML	AML		
HAZ	**Te Kaha**	**1.41**	**188**	P	Pn	12 54 43.2	-0.3
HAZ				AML	AML		
HAZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.49**	**168**	P	Pn	12 54 44.5	+0.2
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.51**	**179**	P	Pn	12 54 44.9	+0.4
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.63**	**190**	P	Pn	12 54 45.3	-0.6
RUGZ				AML	AML		
RUGZ				AML	AML		
PUZ	**Puketiti**	**1.72**	**174**	P	Pn	12 54 46.6	-0.2
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.82**	**181**	P	Pn	12 54 48.4	+0.5
TWGZ				S	Sn	12 55 14.8	+1.4
TWGZ				AML	AML		
TWGZ				AML	AML		
OPRZ	**Ohinepanea**	**1.90**	**218**	P	Pn	12 54 48.9	+0.1
OPRZ				AML	AML		
MWZ	**Matawai**	**2.02**	**191**	P	Pn	12 54 49.7	-0.5
MWZ				S	Sn	12 55 17.2	-0.3
MWZ				AML	AML		
URZ	**Urewera**	**2.04**	**201**	P	Pn	12 54 49.8	-0.6
URZ				S	Sn	12 55 18.0	+0.2
URZ				AML	AML		
TKGZ	**Te Karaka**	**2.09**	**184**	P	Pn	12 54 50.8	-0.1
TKGZ				S	Sn	12 55 19.1	+0.3
TKGZ				AML	AML		
TKGZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.13**	**176**	P	Pn	12 54 51.7	+0.3
CNGZ				AML	AML		
CNGZ				AML	AML		
RAGZ	**Rawiri**	**2.19**	**193**	P	Pn	12 54 52.6	+0.3
RAGZ				AML	AML		
RAGZ				AML	AML		
TARZ	**Mount Tarawera**	**2.24**	**213**	P	Pn	12 54 54.2	+1.4
TARZ				AML	AML		
RRRZ	**Republican Roa**	**2.32**	**211**	P	Pn	12 54 54.9	+1.1
RRRZ				AML	AML		
MUGZ	**Murupara**	**2.35**	**205**	P	Pn	12 54 54.0	-0.1
MUGZ				AML	AML		
RIGZ	**Rimuhau**	**2.36**	**185**	P	Pn	12 54 53.7	-0.5
RIGZ				AML	AML		
RTZ	**Ruatahuna**	**2.41**	**200**	P	Pn	12 54 54.2	-0.6
TOZ	**Tahuroa Road**	**2.45**	**235**	P	Pn	12 54 55.9	+0.6
TOZ				AML	AML		
HRRZ	**Handcock Road**	**2.46**	**214**	P	Pn	12 54 56.7	+1.2
HRRZ				AML	AML		
PRRZ	**Plateau Road**	**2.51**	**211**	P	Pn	12 54 56.3	+0.3
PRRZ				AML	AML		
PRGZ	**Paritu Road**	**2.57**	**183**	P	Pn	12 54 55.8	-1.0
ALRZ	**Allen Road**	**2.58**	**211**	P	Pn	12 54 57.1	+0.2
ALRZ				AML	AML		
RAHZ	**Arahi**	**2.67**	**196**	P	Pn	12 54 57.4	-0.6
RAHZ				AML	AML		
MTHZ	**Maungataniwha**	**2.67**	**200**	P	Pn	12 54 57.1	-0.9
MTHZ				AML	AML		
KNZ	**Kokohu**	**2.68**	**186**	P	Pn	12 54 56.8	-1.2
MRHZ	**Matea Rd**	**2.79**	**207**	P	Pn	12 54 58.8	-0.7
MRHZ				AML	AML		
WHHZ	**Waihua**	**2.79**	**193**	P	Pn	12 54 58.8	-0.7
WHHZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.79**	**182**	P	Pn	12 54 58.6	-1.0
NMHZ	**Naumai**	**2.91**	**199**	P	Pn	12 55 00.7	-0.3
NMHZ				AML	AML		
ARHZ	**Aropaoanui**	**3.02**	**196**	P	Pn	12 55 01.5	-0.9
ARHZ				AML	AML		
BKZ	**Black Stump Fm**	**3.06**	**203**	P	Pn	12 55 01.9	-1.1
MCHZ	**McNeill Hill**	**3.26**	**199**	P	Pn	12 55 04.3	-1.1
MCHZ				AML	AML		
NTVZ	**North Tongarir**	**3.32**	**214**	P	Pn	12 55 06.1	-0.1
KWHZ	**Kaweka Forest**	**3.32**	**202**	P	Pn	12 55 05.1	-1.2
KWHZ				AML	AML		
ETVZ	**East Tongariro**	**3.33**	**213**	P	Pn	12 55 06.0	-0.5
OTVZ	**Oturere**	**3.38**	**213**	P	Pn	12 55 06.6	-0.5
CKHZ	**Cape Kidnapper**	**3.38**	**193**	P	Pn	12 55 05.3	-1.7
NGZ	**Ngauruhoe**	**3.41**	**214**	P	Pn	12 55 07.3	-0.2
KRHZ	**Kereru**	**3.54**	**201**	P	Pn	12 55 06.8	-2.2
KRHZ				AML	AML		
WNVZ	**Wahianoa**	**3.54**	**212**	P	Pn	12 55 08.3	-0.9
WNVZ				AML	AML		
MOVZ	**Moawhango**	**3.54**	**210**	P	Pn	12 55 07.5	-1.6
KAHZ	**Kahuranaki**	**3.55**	**195**	P	Pn	12 55 07.5	-1.7
KAHZ				AML	AML		
PXZ	**Pawanui**	**3.79**	**194**	P	Pn	12 55 09.5	-2.7
PNHZ	**Pukenui**	**3.84**	**202**	P	Pn	12 55 10.4	-2.5
PNHZ				AML	AML		
WPHZ	**Waipukurau**	**3.91**	**198**	P	Pn	12 55 11.4	-2.5
WPHZ				AML	AML		
TSZ	**Takapari Road**	**4.04**	**203**	P	Pn	12 55 12.5	-3.1
PRHZ	**Porangahau**	**4.06**	**195**	P	Pn	12 55 13.0	-2.7
PRHZ				AML	AML		
DVHZ	**Dannevirke**	**4.20**	**200**	P	Pn	12 55 14.3	-3.3
DVHZ				AML	AML		
ANWZ	**Angora Road**	**4.28**	**196**	P	Pn	12 55 15.7	-2.9
ANWZ				AML	AML		
PRWZ	**Pori Road**	**4.50**	**200**	P	Pn	12 55 18.8	-2.6
PRWZ				AML	AML		
BFZ	**Birch Farm**	**4.54**	**197**	P	Pn	12 55 18.7	-3.4
MRZ	**Mangatainoka R**	**4.71**	**203**	P	Pn	12 55 20.5	-3.8
TIWZ	**Tintock**	**4.72**	**200**	P	Pn	12 55 21.1	-3.5
TIWZ				AML	AML		
OGWZ	**Otaki Gorge**	**4.99**	**206**	P	Pn	12 55 24.2	-3.8
OGWZ				AML	AML		
TMWZ	**Te Maipa**	**5.03**	**199**	P	Pn	12 55 24.7	-3.9
TMWZ				AML	AML		

IDC 26 12:55:12.8±3.1, 48°84S×125°01E, h0km, mb3.7/3, mbtmp3.8/3, MS3.5/8, Error ellipse: s-maj=79.4km s-min=53.5km az=158.0, Western Indian-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W1	**Cape Leeuwin H**	**16.09**	**326**	T	T	13 15 41.7	
	baz=152,slow=74,SNR=18						
H01W2	**Cape Leeuwin H**	**16.09**	**326**	T	T	13 15 47.3	
	baz=152,slow=74,SNR=20						
H01W3	**Cape Leeuwin H**	**16.10**	**326**	T	T	13 15 51.2	
	baz=152,slow=74,SNR=18						
STKA	**Stephens Creek**	**21.06**	**43**	P	P	12 59 59.4	+1.1
	2.8nm,0.9s,baz=191,slow=10,SNR=3.1						
	2.8nm,0.9s						
ASAR	**Alice Springs**	**26.09**	**19**	P	P	13 00 47.2	-0.8
	1.1nm,0.9s,baz=189,slow=8.5,SNR=6.2						
ASAR				LR	LR	13 09 47.8	
	comp=Z,83nm,21.3s,baz=200,slow=34						
	1.1nm,0.9s						
MAW	**Mawson**	**35.74**	**215**	LR	LR	13 13 21.5	
	comp=Z,65nm,19.4s,baz=98,slow=30						
URZ	**Urewera**	**38.52**	**94**	LR	LR	13 14 53.2	
	comp=Z,77nm,18.7s,baz=290,slow=31						
BATI	**Baumata**	**38.52**	**358**	LR	LR	13 17 15.5	
	comp=Z,80nm,20.2s,baz=176,slow=34						
JAY	**Jayapura**	**48.07**	**21**	LR	LR	13 24 04.3	
	comp=Z,56nm,18.4s,baz=306,slow=36						
SIJI	**Sorong**	**48.09**	**8**	LR	LR	13 24 45.3	
	comp=Z,33nm,18.2s,baz=19,slow=37						
CMAR	**Chiang Mai Arr**	**70.91**	**334**	P	P	13 06 32.0	+0.4
	0.4nm,0.3s,baz=191,slow=7.1,SNR=5.2						
	0.4nm,0.3s						
LSZ	**Lusaka**	**83.06**	**255**	LR	LR	13 38 51.9	
	comp=Z,30nm,19.4s,baz=158,slow=32						
RPN	**Rapa Nui**	**90.16**	**134**	LR	LR	13 40 24.7	
	comp=Z,35nm,18.9s,baz=52,slow=30						
YKA	**Yellowknife Ar**	**145.08**	**44**	PKPbc	PKPbc	13 14 49.2	-1.0
	1.8nm,0.7s,baz=268,slow=3.5,SNR=22						

JMA 26 13:02:03.7±0.2, 24°3N±0°5×123°8E±0°5, h15km±1km, MV0.3/6, NEAR ISHIGAKIJIMA ISLAND, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	**0.10**	**325**	P	Pg	13 02 07.0	0.0
IRIF				*e*S	Sg	13 02 09.1	0.0
HATJ	**Hateruma jima**	**0.20**	**176**	*e*S	Sg	13 02 11.0	-0.4
JKRS	**Kuro-shima**	**0.20**	**95**	P	Pg	13 02 08.4	0.0
JKRS				*e*S	Sg	13 02 12.0	+0.5
JIJ	**Ishigaki jima**	**0.34**	**71**	P	Pg	13 02 10.7	0.0
JIJ				*e*S	Sg	13 02 15.2	-0.3
JISG	**Ishigakijimahi**	**0.58**	**55**	*e*P	Pg	13 02 14.9	-0.2

TAP 26 13:02:56.2, 24°81N×122°01E, h4km, ML2.8, C, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EGS		**0.08**	**300**	*i* P	Pg	13 02 58.3	+0.4
EGS				S	Sg	13 02 59.5	+0.5
TWB1	**Santiao Chiao**	**0.20**	**355**	P	Pg	13 03 01.2	+1.0
TWB1				S	Sg	13 03 04.4	+1.5
TIPB	**Shuangxi**	**0.23**	**315**	P	Pg	13 03 01.9	+1.1
TIPB				S	Sg	13 03 05.4	+1.5
TWC	**Suao**	**0.24**	**216**	P	Pg	13 03 01.9	+0.9
TWC				S	Sg	13 03 05.2	+1.1
ESAO	**Su ao**	**0.27**	**213**	*e*P	Pb	13 03 02.6	-1.1
SXI1	**Grass Mountain**	**0.31**	**337**	P	Pb	13 03 03.5	-0.9
SXI1				S	Sb	13 03 08.6	-1.4
NDS	**Dongshan**	**0.32**	**237**	*i* P	Pg	13 03 03.3	+0.9
TWE	**Neicheng**	**0.32**	**255**	*i* P	Pg	13 03 03.3	+0.9
NWF	**Wu-fen Shan**	**0.33**	**322**	P	Pb	13 03 04.1	-0.7
NWF				S	Sb	13 03 09.7	-0.9
WFSB	**Wu-fen Shan**	**0.33**	**322**	P	Pb	13 03 04.3	-0.5
WFSB				S	Sb	13 03 09.6	-0.9
FUSB	**Fushanzhiwuyua**	**0.38**	**263**	*e*P	Pg	13 03 04.4	+0.8
FUSB				*e*S	Sg	13 03 09.7	+1.0
TNOU	**National Taiwa**	**0.40**	**328**	P	Pb	13 03 05.5	-0.5
TNOU				*e*S	Sg	13 03 10.5	+1.2
EWUT	**Wuta**	**0.41**	**210**	*e*P	Pg	13 03 04.0	-0.3
TWA	**Mucha**	**0.42**	**294**	*e*P	Pg	13 03 05.0	+0.6
TWA				S	Sb	13 03 11.6	-1.4
EOS2	**EOS2**	**0.44**	**152**	*e*P	Pb	13 03 06.5	+0.1
ENA	**Nanau**	**0.45**	**213**	*e*P	Pb	13 03 05.9	-0.8
NWLT	**Wulai**	**0.46**	**267**	*e*P	Pg	13 03 05.8	+0.7
NWLT				*e*S	Sg	13 03 11.1	0.0
NDT	**Datong Townshi**	**0.49**	**246**	*e*P	Pb	13 03 06.7	-0.8
YM01	**YM01**	**0.52**	**311**	*e*P	Pb	13 03 08.0	0.0
EAHA	**Aohua**	**0.53**	**207**	*e*P	Pb	13 03 08.3	+0.2
EAHA				*e*S	Sb	13 03 16.7	+0.5
YM08	**YM08**	**0.54**	**315**	*e*P	Pb	13 03 07.9	-0.4
ZUZH	**Zhuzihu**	**0.55**	**310**	*e*P	Pb	13 03 08.4	-0.1
ANP	**Anpu**	**0.58**	**311**	*e*P	Pg	13 03 07.9	+0.5
YHNB	**Yeheng**	**0.59**	**257**	P	Pg	13 03 08.1	+0.5
YHNB				S	Sg	13 03 15.9	+0.6
TWY	**Chenhua**	**0.60**	**322**	*e*P	Pb	13 03 08.6	-0.7
NSK	**Sanguang**	**0.60**	**258**	*e*P	Pg	13 03 08.4	+0.6
NSK				S	Sg	13 03 16.8	+1.1
NTST	**Danshui**	**0.62**	**305**	*e*P	Pb	13 03 10.3	+0.7
NNSB	**Datong**	**0.68**	**237**	*i* P	Pb	13 03 10.5	-0.3
NNSB				*e*S	Sb	13 03 19.5	-1.1
NNS	**Nan Shan**	**0.68**	**238**	*e*P	Pb	13 03 10.8	0.0
NNS				*e*S	Sb	13 03 19.8	-0.8
NACB	**Ninganchiao**	**0.73**	**211**	*e*P	Pb	13 03 11.5	-0.1
NACB				S	Sb	13 03 21.9	-0.1
EOS4	**EOS4**	**0.74**	**157**	*e*P	Pn	13 03 12.4	-0.7
KSHI	**Guanxi Townshi**	**0.76**	**268**	P	Pb	13 03 12.5	+0.5
KSHI				*e*S	Sb	13 03 23.8	+1.2
ETLH	**Xiulin Townshi**	**0.77**	**219**	*e*P	Pg	13 03 11.3	+0.4
ETLH				*e*S	Sb	13 03 23.1	+0.2
TWD	**Chiawan**	**0.81**	**207**	*e*P	Pb	13 03 12.6	-0.4
PCYT	**Pengchaiyu**	**0.82**	**4**	*e*P	Pb	13 03 13.0	-0.1
NFF	**Wufeng Townshi**	**0.83**	**258**	*e*P	Pn	13 03 14.8	+0.1
NFF				*e*S	Sn	13 03 26.2	-1.3
LIOB	**Emei**	**0.92**	**260**	*e*P	Pb	13 03 14.9	+0.2
NSTT	**Nanjuang**	**0.93**	**259**	*e*P	Pn	13 03 16.0	-0.2
NSTT				*e*S	Sn	13 03 29.8	-0.1
TWT	**Tachien**	**0.94**	**234**	*e*P	Pn	13 03 15.8	-0.5
WHF	**Hehuan Shan**	**0.94**	**226**	*e*P	Pg	13 03 14.4	0.0
TDCB	**Techi**	**0.95**	**235**	*e*P	Pb	13 03 15.7	+0.4
TDCB				*e*S	Sb	13 03 28.9	+0.6
LXIB	**Xiulin Townshi**	**0.95**	**215**	*e*P	Pg	13 03 14.6	+0.1
LXIB				*e*S	Sb	13 03 29.1	+0.7
ETM	**Tongmen**	**0.96**	**209**	*e*P	Pg	13 03 14.4	-0.3
YOJ	**Yonaguni jima**	**0.98**	**110**	*e*P	Pn	13 03 16.4	-0.3
YOJ				*e*S	Sn	13 03 30.0	-1.0
WHP	**Taichung City**	**1.10**	**242**	*e*P	Pn	13 03 20.4	+1.9
ESL	**Shilin**	**1.12**	**208**	*e*P	Pb	13 03 18.2	+0.1
OWD	**Renai**	**1.14**	**222**	*e*P	Pb	13 03 18.5	-0.1
WUSB	**Renai**	**1.15**	**225**	*e*P	Pg	13 03 18.1	-0.1
TWQ1	**Liyutan**	**1.21**	**248**	*e*P	Pn	13 03 19.9	-0.1
WARBT	**Fenglin Townsh**	**1.22**	**208**	*e*P	Pn	13 03 20.9	+0.7
WCS	**Beigang Elemen**	**1.25**	**233**	*e*P	Pn	13 03 21.5	+1.1
VWDT	**VWDT**	**1.31**	**217**	*e*P	Pn	13 03 21.3	0.0
SMLT	**Sun Moon Lake**	**1.36**	**228**	*e*P	Pb	13 03 24.7	+2.3
TYC	**Yuchr**	**1.38**	**230**	*e*P	Pg	13 03 24.1	+1.4
SSLB	**Suanglung**	**1.40**	**224**	*e*P	Pg	13 03 23.2	+0.2
HGSD	**Ruisui**	**1.41**	**202**	*e*P	Pg	13 03 24.1	+0.8
WJS	**Zhushan**	**1.52**	**230**	*e*P	Pg	13 03 25.6	+0.1
WHYT	**Xinyi Township**	**1.53**	**224**	*e*P	Pg	13 03 26.2	+0.7
YULB	**Yu-li**	**1.55**	**205**	*e*P	Pg	13 03 26.2	+0.2
TWF1	**Yuli**	**1.59**	**204**	*e*P	Pb	13 03 25.7	-0.4
ALS	**Alishan**	**1.69**	**221**	*e*P	Pg	13 03 30.4	+1.6
CHN5	**Tsauling**	**1.71**	**226**	*e*P	Pg	13 03 30.0	+1.0
ELDTW	**Lidau**	**1.85**	**210**	*e*P	Pg	13 03 31.5	-0.2
CHN4	**Tsaushan**	**1.94**	**222**	*e*P	Pg	13 03 33.2	-0.2
TPUB	**Ta-pu**	**1.96**	**220**	*e*P	Pg	13 03 34.1	+0.3
STYH	**Taoyuan**	**1.98**	**215**	*e*P	Pb	13 03 33.1	+0.3
WTP	**Ta-pu**	**2.01**	**220**	*e*P	Pg	13 03 34.9	+0.2
TWK	**Hsinying**	**2.07**	**222**	*e*P	Pg	13 03 36.2	+0.3
CHN1	**Nanshi**	**2.11**	**220**	*e*P	Pg	13 03 36.0	-0.6
SGST	**Jiashian**	**2.15**	**217**	*e*P	Pb	13 03 35.3	-0.6

AFAD 26 13:05:12.3, 38°09N×26°76E, h7km±5km, ML1.1, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC

DGB	**zmir**	**0.10**	**110**	P	Pg	13 05 13.8	-0.7
DGB				S	Sg	13 05 17.7	+1.6
DGB				IAML		13 05 18.0	
	comp=E,60nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.26**	**307**	P	Pg	13 05 16.8	-0.5
ZEYE				S	Sb	13 05 22.8	-1.1
ZEYE				IAML		13 05 23.0	
	comp=E,26nm,0.1s						
ZEYE				IAML		13 05 24.0	
	comp=N,45nm,0.5s						
DUVT	**Torbali**	**0.56**	**76**	P	Pg	13 05 22.6	-0.4

IDC 26 13:16:30.5±2.4, 24°25N×109°07W, h0km, mb3.4/2, mbtmp3.2/5, ML3.8/3, MS3.2/3, Error ellipse: s-maj=46.5km s-min=12.4km az=152.0
MEX 26 13:16:34.3±0.3, 24°30N×109°12W, h10km, MD4.1, Presumed earthquake
ISC 26 13:16:32.1±1.1, 24°28N±0°08×109°14W±0°07, h10km, n13, σ1s93/15, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPIG	**La Paz**	**1.08**	**261**	Pg	**Pb**	**13 16 52.2**	**-0.7**
	52nm,0.3s,baz=49,slow=2.2,SNR=17						
LPIG				Lg	Lg	13 17 06.5	
	234nm,0.3s,baz=310,slow=1.3,SNR=17						
LPIG	**La Paz**	**1.08**	**261**	*e*P	**Pb**	**13 16 52.0**	**-0.9**
LPIG				*e*S	**Sb**	**13 17 05.6**	**-1.4**
TSIG	**Topolobambo**	**1.32**	**4**	*e*P	**Pn**	**13 16 54.9**	**-1.7**
TSIG				*e*S	**Sb**	**13 17 10.8**	**-3.1**
CSIG	**Choix**	**2.63**	**15**	*e*P	**Pb**	**13 17 19.5**	**0.0**
CSIG				*e*S	**Sn**	**13 17 50.2**	**+3.4**
PDIG	**Papasquiaro**	**3.49**	**77**	*e*P	**Pn**	**13 17 25.9**	**-0.8**
TXAR	**Lajitas Array**	**7.02**	**43**	Pn	**Pn**	**13 18 14.6**	**-0.6**
	0.4nm,0.3s,baz=216,slow=14,SNR=24						
TXAR				Sn	**Sn**	**13 19 32.2**	**-2.9**
	0.5nm,0.3s,baz=218,slow=17,SNR=6.6						
TXAR				Lg	Lg	13 20 09.6	
	0.4nm,0.3s,baz=220,slow=28,SNR=3.6						
TXAR				LR	LR	13 21 10.4	
	comp=Z,134nm,18.5s,baz=221,slow=40						
	0.5nm,0.3s						
TXAR				AML	AML		
CMIG	**Matias Romero**	**15.13**	**116**	LR	LR	13 25 48.2	
	comp=Z,98nm,20.9s,baz=316,slow=37						
NVAR	**Mina Array Bea**	**16.12**	**333**	Pn	**Pn**	**13 20 20.5**	**+1.5**
	0.1nm,0.3s,baz=152,slow=9.6,SNR=1.5						
	0.1nm,0.3s						
NVAR				AML	AML		
PDAR	**Pinedale Array**	**18.44**	**359**	P	**Pn**	**13 20 49.3**	**+1.2**
	0.1nm,0.3s,baz=194,slow=5.9,SNR=2.1						
	0.2nm,0.6s						
PDAR				AML	AML		
TKL	**Tuckaleechee C**	**24.66**	**57**	LR	LR	13 31 14.7	
	comp=Z,57nm,18.0s,baz=359,slow=36						
YKA	**Yellowknife Ar**	**38.38**	**356**	P	**P**	**13 23 53.5**	**+0.3**
	0.3nm,0.7s,baz=174,slow=7.5,SNR=5.6						
	0.3nm,0.7s						
ILAR	**Eielson Array**	**47.26**	**339**	P	**P**	**13 25 07.2**	**+2.0**
	0.4nm,0.6s,baz=145,slow=7.4,SNR=7.1						
	0.4nm,0.6s						
WRA	**Warramunga Arr**	**121.46**	**261**	PKP	**PKPdf**	**13 35 26.9**	**+0.4**
	0.4nm,0.7s,baz=80,slow=3.7,SNR=2.9						

NEIC 26 13:17:24.6±2.1, 29°42S±0°10×60°6E±0°1, h10km±1km, mb4.7/8, Error ellipse: s-maj=18.4km s-min=16.0km az=68.0
IDC 26 13:17:24.3±0.6, 29°43S×60°92E, h0km, mb4.1/14, mbtmp4.1/14, MS3.5/11, Error ellipse: s-maj=26.5km s-min=18.2km az=73.0
ISC 26 13:17:25.1±0.6, 29°3S±0°1×60°5E±0°1, h10km, n58, σ1s79/39, mb4.2/16, MS3.6/11, Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OPO	**Ambohidratompo**	**16.17**	**308**	Pn	**P**	**13 21 18.1**	**+2.2**
	baz=125,slow=16,SNR=2.7						
OPO				Sn	**Sn**	**13 24 06.7**	**-5.6**
	0.2nm,0.3s,baz=309,slow=23,SNR=6.4						
H04N2	**CROZET ISLANDS**	**18.15**	**200**	T	T	13 40 29.3	
	baz=27,slow=74,SNR=335						
H04N1	**CROZET ISLANDS**	**18.15**	**200**	T	T	13 40 29.2	
	baz=27,slow=74,SNR=345						
H04N3	**CROZET ISLANDS**	**18.17**	**200**	T	T	13 40 20.3	
	baz=27,slow=74,SNR=358						
H08S1	**Diego Carcia H**	**24.33**	**30**	T	T	13 48 11.9	
	baz=206,slow=76,SNR=3.3						
H08S2	**Diego Garcia H**	**24.34**	**30**	T	T	13 48 10.9	
	baz=206						
H08S3	**Diego Garcia H**	**24.35**	**30**	T	T	13 48 14.0	
	baz=206,slow=76,SNR=3.9						
MSEY	**Mahe Island**	**24.96**	**348**	P	**P**	**13 22 46.0**	**-2.9**
MSEY				IAmb	IAmb	13 22 47.3	
	comp=Z,16nm,0.9s						
BOSA	**Boshof**	**30.76**	**263**	P	**P**	**13 23 40.8**	**-0.1**
KDWAN	**Kaudwane**	**32.55**	**272**	P	**P**	**13 23 56.2**	**-0.5**
KDWAN				IAmb	IAmb	13 24 11.5	
	comp=Z,12nm,0.8s						
MAW	**Mawson**	**38.35**	**179**	P	**P**	**13 24 45.5**	**-0.3**
	comp=Z,1.3nm,0.6s,baz=327,slow=17,SNR=1.9						
MAW				LR	LR	13 37 34.8	
	comp=Z,85nm,18.6s,baz=46,slow=32						
	comp=Z,1.3nm,0.6s						
TSUM	**Tsumeb**	**40.19**	**275**	LR	LR	13 39 23.1	
	comp=Z,36nm,21.7s,baz=152,slow=32						
PALK	**Pallekele**	**41.26**	**31**	LR	LR	13 38 09.1	
	comp=Z,54nm,18.8s,baz=204,slow=30						
ATD	**Arta Tunnel**	**44.03**	**335**	LR	LR	13 40 57.4	
	comp=Z,39nm,20.9s,baz=72,slow=32						
H01W2	**Cape Leeuwin H**	**45.34**	**111**	T	T	14 14 09.8	
	baz=260						
H01W3	**Cape Leeuwin H**	**45.34**	**111**	T	T	14 14 09.1	
	baz=260						
H01W1	**Cape Leeuwin H**	**45.36**	**111**	T	T	14 14 09.7	
	baz=260						
SNAA	**Sanae**	**54.12**	**200**	LR	LR	13 47 13.6	
	comp=Z,45nm,18.5s,baz=139,slow=33						
CMAR	**Chiang Mai Arr**	**60.27**	**43**	P	**P**	**13 27 33.6**	**-0.

MKAR Makanchi Array 78.28 15 P **P 13 29 26.1 +1.2**
comp=Z,1.6nm,0.8s,baz=193,slow=5.0,SNR=11
comp=Z,1.6nm,0.8s
MKAR Makanchi Array 78.28 15 P **P 13 29 25.3 +0.4**
KURBB Kurchatov Arra 81.17 12 P **P 13 29 41.9 +1.4**
comp=Z,1.5nm,0.8s,baz=205,slow=5.9,SNR=13
comp=Z,1.5nm,0.8s
KURK Kurchatov 81.28 12 P **P 13 29 41.8 +0.7**
BVAR Borovoye Array 82.44 6 P **P 13 29 48.8 +1.6**
comp=Z,2.3nm,0.8s,baz=176,slow=6.7,SNR=10
comp=Z,2.3nm,0.8s
AKASG Malin Array Be 84.33 341 P **P 13 29 58.9 +2.0**
comp=Z,1.6nm,0.5s,baz=164,slow=4.7,SNR=7.9
comp=Z,1.6nm,0.5s
ZALV Zalesovo Beam 85.55 14 P **P 13 30 04.0 +1.0**
comp=Z,1.5nm,0.5s,baz=216,slow=4.7,SNR=7.6
comp=Z,1.5nm,0.5s
ZALV Zalesovo Beam 85.55 14 P **P 13 30 02.1 -0.9**
TLY Talaya 89.11 25 LR LR 14 06 43.9
comp=Z,57nm,19.0s,baz=328,slow=33
ESDC Sonseca Array 91.09 316 P **P 13 30 30.6 +0.7**
comp=Z,1.3nm,0.9s,baz=96,slow=8.6,SNR=4.5
comp=Z,1.3nm,0.9s
INK Inuvik 140.10 8 PKP **PKiKP 13 36 55.3 -0.2**
comp=Z,1.9nm,0.8s,baz=352,slow=6.9,SNR=4.6
ILAR Eielson Array 140.58 18 PKP **PKiKP 13 36 56.0 -0.6**
comp=Z,1.1nm,0.9s,baz=317,slow=2.7,SNR=6.6
YKA Yellowknife Ar 146.66 356 PKPbc **PKPab 13 37 07.0 -0.5**
comp=Z,6.6nm,0.7s,baz=351,slow=3.2,SNR=97
YKA Yellowknife Ar 146.66 356 **PKPab 13 37 07.5 +0.1**
DLBC Dease Lake 149.99 11 PKPbc **PKiKP 13 37 16.4 +0.1**
comp=Z,3.4nm,1.1s,baz=320,slow=18,SNR=4.0
ULM Lac du Bonnet 152.51 326 PKPbc **PKiKP 13 37 21.5 -0.1**
comp=Z,1.9nm,0.5s,baz=66,slow=4.5,SNR=5.1
PDAR Pinedale Array 164.36 332 PKP **PKPdf 13 37 31.3 +2.1**
comp=Z,0.3nm,0.7s,baz=168,slow=2.2,SNR=2.6

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*UPA **26** 13:30:26.8±1.8, 6.°16N×82.°33W, h8km±33km, MW4.0, Presumed earthquake*
*UCR **26** 13:30:29.5±0.8, 6.°21N×82.°43W, h36km±999km, MW3.5, Presumed earthquake*
ISC 26 13:30:29.5±3.1, 6.°5N±0.°1×82.°31W±0.°06, h8km±14km, n26, σ1§38/37, 2C, South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GMAL	**Guarumal, Vera**	**1.64**	**41**	***i*** **P**	**Pn**	**13 30 59.1**	**+0.4**
GMAL				*i* S	**Sg**	**13 31 24.2**	**+1.9**
CACAO	**El Cacao, Vera**	**1.66**	**60⇑**	***i*** **P**	**Pn**	**13 30 58.4**	**-0.6**
	baz=204,slow=7.9						
CACAO				*i* S	**Sb**	**13 31 21.5**	**0.0**
PVID3	**Puerto Vidal,**	**1.68**	**25**	***eP***	**Pb**	**13 31 00.4**	**-0.3**
MARI3	**Mariato, Verag**	**1.73**	**49**	***eP***	**Pn**	**13 30 60.0**	**0.0**
REME3	**Remedios, Chir**	**1.77**	**16**	***eP***	**Pb**	**13 31 01.5**	**-0.7**
PTPM	**Petroterminale**	**1.77**	**342**	***eP***	**Pb**	**13 31 01.6**	**-0.6**
STIA3	**Santiago, Vera**	**2.06**	**40**	***eP***	**Pn**	**13 31 04.5**	**0.0**
CDITO	**Canoas**	**2.12**	**345**	***eP***	**Pb**	**13 31 07.9**	**-0.3**
BQTLY	**Boquete Panama**	**2.23**	**356**	***eP***	**Pb**	**13 31 09.4**	**-0.9**
BQTLY				*eS*	**Sg**	**13 31 42.7**	**+1.3**
CLLRA	**Cordillera,**	**2.24**	**352**	***eP***	**Pn**	**13 31 08.6**	**+1.6**
CLLRA	**Cordillera,**	**2.24**	**352**	***eP***	**Pb**	**13 31 09.3**	**-1.1**
CLLRA				*eS*	**Sb**	**13 31 38.4**	**+0.1**
LNBQ3	**Los Naranjos,**	**2.27**	**357**	***eP***	**Pn**	**13 31 07.4**	**-0.1**
BRU2	**Volcan**	**2.30**	**351**	***eP***	**Pn**	**13 31 09.4**	**+1.5**
BRU2				*eS*	**Sb**	**13 31 39.8**	**-0.2**
BRU2	**Volcan**	**2.30**	**351**	***eP***	**Pn**	**13 31 09.1**	**+1.2**
BRU2				*eP*	**Pb**	**13 31 09.6**	**-1.8**
BRU2				*i* S	**Sn**	**13 31 33.7**	**-2.7**
BRU2				*eS*	**Sg**	**13 31 42.2**	**-1.2**
SAFE3	**Santa Fe, Vera**	**2.34**	**32**	***eP***	**Pg**	**13 31 14.0**	**-0.3**
RBALA	**Bur**	**2.35**	**4**	***eP***	**Pn**	**13 31 10.4**	**+1.8**
CHIT3	**Chitre**	**2.36**	**53⇑**	***eP***	**Pn**	**13 31 09.1**	**+0.4**
CHIT3				*i* S	**Sb**	**13 31 40.6**	**-1.1**
CTCR	**Cotoan**	**2.41**	**349**	***i*** **P**	**Pn**	**13 31 11.1**	**+1.6**
CTCR				*i* S	**Sb**	**13 31 41.2**	**-2.0**
CHGR2	**Aguacate**	**2.41**	**4**	***eP***	**Pn**	**13 31 11.2**	**+1.8**
PNME	**Penonome**	**2.78**	**45**	***eP***	**Pn**	**13 31 16.4**	**+2.0**
EDPE	**Pejibaye, P**	**2.91**	**335**	***eP***	**Pn**	**13 31 16.9**	**+0.7**
EDPE				*eS*	**Sn**	**13 31 54.2**	**+2.8**
ZANG	**Zanguenga, Cho**	**3.43**	**45**	***eP***	**Pn**	**13 31 24.9**	**+1.5**
PIEC	**Cerro El Cedra**	**3.49**	**332**	***eP***	**Pn**	**13 31 24.9**	**+0.5**
BCIP	**Isla Barro Col**	**3.60**	**43**	***eP***	**Pn**	**13 31 27.6**	**+2.0**
LCR2	**La Lucha 2**	**3.62**	**333**	***eP***	**Pn**	**13 31 26.6**	**+0.4**
VICA	**Volcano Irazu**	**3.77**	**336**	***eP***	**Pn**	**13 31 29.8**	**+1.4**

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*IDC **26** 14:03:41.3±0.9, 5.°16S×151.°44E, h149km±7km, mb3.1/5, mbtmp3.5/6, Error ellipse: s-maj=55.4km s-min=11.6km az=126.0*
ISC 26 14:03:41.4±1.3, 5.°2S±0.°2×151.°5E±0.°3, h150km, n8, σ0.°96/11, mb3.3/5, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.02**	**34**	**P**	**Pn**	**14 04 06.8**	**+0.4**
	127nm,0.3s,baz=255,slow=24,SNR=5.7						
KRVT				S	**Sn**	**14 04 25.6**	**+0.1**
	213nm,0.3s,baz=237,slow=21,SNR=16						
PMG	**Port Moresby**	**6.00**	**225**	P	**Pn**	**14 05 09.3**	**+1.2**
	9.8nm,0.4s,baz=52,slow=6.4,SNR=13						
PMG				S	**Sn**	**14 06 14.8**	**-1.1**
	49nm,0.6s,baz=308,slow=13,SNR=13						
WRA	**Warramunga Arr**	**22.21**	**227**	P	**P**	**14 08 24.9**	**-1.0**
	0.1nm,0.3s,baz=49,slow=10,SNR=10						
WRA				PcP	**PcP**	**14 12 17.2**	**+0.4**
	0.3nm,0.6s,baz=44,slow=2.2,SNR=2.6						
	0.1nm,0.3s						
ASAR	**Alice Springs**	**24.99**	**221**	P	**P**	**14 08 52.0**	**+0.6**
	0.2nm,0.3s,baz=55,slow=9.3,SNR=14						
	0.2nm,0.3s						
SONM	**Songino Array**	**65.92**	**329**	P	**P**	**14 14 12.6**	**+1.2**
	0.6nm,0.7s,baz=139,slow=5.5,SNR=4.0						
	0.6nm,0.7s						
MKAR	**Makanchi Array**	**79.72**	**319**	P	**P**	**14 15 31.8**	**-0.8**
	0.6nm,1.0s,baz=119,slow=6.9,SNR=2.2						
	0.6nm,1.0s						
ILAR	**Eielson Array**	**83.00**	**22**	P	**P**	**14 15 48.8**	**-0.8**
	0.4nm,0.7s,baz=239,slow=4.5,SNR=6.4						
	0.4nm,0.7s						
TORD	**Torodi Ar. Bea**	**149.14**	**287**	PKPbc	**PKPbc**	**14 23 12.6**	**-0.5**
	0.2nm,0.4s,baz=90,slow=1.6,SNR=2.8						

IDC 26 14:18:24.7±3.4, 24.°84N×141.°05E, h170km±54km, mb3.1/3, mbtmp3.7/5, Error ellipse: s-maj=89.1km s-min=25.0km az=72.0, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JCJ	**Chichijima**	**2.47**	**24**	**P**	**Pn**	**14 19 08.0**	**+1.5**
	68nm,0.3s,baz=301,slow=18,SNR=38						
JCJ				S	Sn	14 19 39.0	+0.1
	58nm,0.3s,baz=124,slow=24,SNR=22						
JHJ	**Hachijo jima 2**	**8.33**	**353**	P	Pn	14 20 22.4	+0.2
	8.8nm,0.8s,baz=238,slow=16,SNR=1.6						
WRA	**Warramunga Arr**	**44.99**	**189**	P	P	14 26 23.0	-0.2
	1.3nm,0.3s,baz=7.8,slow=8.6,SNR=38						
	1.3nm,0.3s						
ASAR	**Alice Springs**	**48.71**	**189**	P	P	14 26 51.6	-0.4
	0.5nm,1.0s,baz=5.1,slow=6.0,SNR=5.5						
ASAR				PcP	PcP	14 28 14.4	-0.1
	0.3nm,1.0s,baz=1.4,slow=3.7,SNR=1.8						
	0.5nm,1.0s						
MKAR	**Makanchi Array**	**51.15**	**311**	P	P	14 27 10.1	-0.1
	0.1nm,0.4s,baz=86,slow=8.8,SNR=1.3						
	0.1nm,0.4s						

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*IDC **26** 15:03:15.0±2.0, 11.°73S×66.°17E, h0km, mb3.7/7, mbtmp3.7/7, Error ellipse: s-maj=66.4km s-min=27.5km az=59.0*
ISC 26 15:03:17.0±2.3, 11.°7S±0.°3×66.°2E±0.°4, h12km, n12, σ0.°74/9, mb3.7/7, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H08S1	**Diego Carcia H**	**7.40**	**57**	T	T	15 12 54.4	
	baz=237,slow=76,SNR=22						
H08S2	**Diego Garcia H**	**7.42**	**57**	T	T	15 12 59.9	
	baz=237,slow=76,SNR=26						
H08S3	**Diego Garcia H**	**7.42**	**57**	T	T	15 12 55.7	
	baz=237,slow=76,SNR=38						
CMAR	**Chiang Mai Arr**	**44.09**	**48**	P	**P**	**15 11 24.6**	**-0.7**
	0.4nm,0.3s,baz=242,slow=9.2,SNR=2.6						
	0.4nm,0.3s						

MKAR Makanchi Array 60.02 13 P **P 15 13 23.0 -0.5**
0.3nm,0.5s,baz=211,slow=7.8,SNR=2.8
0.3nm,0.5s
KURBB Kurchatov Arra 63.02 9 P **P 15 13 43.9 +0.2**
0.4nm,0.7s,baz=210,slow=6.9,SNR=2.5
0.4nm,0.7s
ASAR Alice Springs 65.08 111 P **P 15 13 58.0 -0.1**
0.8nm,0.7s,baz=267,slow=6.5,SNR=14
0.8nm,0.7s
WRA Warramunga Arr 65.70 107 P **P 15 14 02.4 +0.3**
0.8nm,0.7s,baz=270,slow=5.7,SNR=10
0.8nm,0.7s
ZALV Zalesovo Beam 67.32 12 P **P 15 14 11.2 -0.3**
0.3nm,0.3s,baz=220,slow=4.2,SNR=2.5
0.3nm,0.3s
SONM Songino Array 69.22 28 P **P 15 14 25.1 +1.3**
0.4nm,0.6s,baz=217,slow=7.1,SNR=2.8
0.4nm,0.6s
PDAR Pinedale Array 148.86 354 PKPbc **PKPbc 15 23 05.0 -0.2**
0.6nm,0.7s,baz=53,slow=1.3,SNR=7.7
NVAR Mina Array Bea 153.11 8 PKPbc **PKPbc 15 23 14.6 -0.7**
0.2nm,0.5s,baz=50,slow=8.3,SNR=1.5

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*KRSC **26** 15:20:44.1±1.0, 52.°99N×170.°26E, h45km±24km, Ml3.9*
*NEIC **26** 15:20:44.1±1.5, 52.°8N±0.°1×170.°38E±0.°04, h10km±1km, mb4.1/71, Error ellipse: s-maj=20.5km s-min=3.1km az=171.0*
*IDC **26** 15:20:44.5±1.1, 53.°15N×170.°46E, h0km, mb3.5/8, mbtmp3.6/10, ML3.2/2, MS3.2/1, Error ellipse: s-maj=35.5km s-min=13.3km az=177.0*
ISC 26 15:20:46.7±0.6, 52.°9N±0.°1×170.°33E±0.°05, h28km, n114, σ1§02/111, mb4.0/31, Near Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHEM	**Shemya Is, Ala**	**2.29**	**92**	Pn	**Pn**	**15 21 22.6**	**0.0**
	16nm,0.3s,baz=322,slow=19,SNR=9.9						
SHEM				Sn	**Sn**	**15 21 50.9**	**+1.0**
	41nm,0.3s,baz=209,slow=20,SNR=10.0						
	40nm,0.3s						
SHEM				AML	AML		
SHEM	**Shemya Is, Ala**	**2.29**	**92**		**Pn**	**15 21 21.5**	**-1.1**
SHEM				Sn	**Sn**	**15 21 47.3**	**-2.6**
SMY	**Shemya**	**2.29**	**92**	Pn	**Pn**	**15 21 21.4**	**-1.2**
SMY				Sn	**Sn**	**15 21 49.1**	**-0.8**
BKI	**Bering**	**3.47**	**314**	***eS***	**Sn**	**15 22 16.9**	**-1.9**
MKZ	**Mys Kozlova**	**5.38**	**292**	***eP***	**Pn**	**15 22 05.1**	**+0.2**
KBTR	**Krutoberegovo**	**5.50**	**310**	***eP***	**Pn**	**15 22 06.2**	**-0.4**
KZV	**Kizimen**	**6.33**	**295**	***eP***	**Pn**	**15 22 18.7**	**+0.5**
UGLR	**Uglovaya**	**6.95**	**277**	***eP***	**Pn**	**15 22 27.1**	**+0.4**
AVH	**Avacha**	**7.00**	**278**	***eP***	**Pn**	**15 22 28.8**	**+1.6**
DALK	**Dalny**	**7.00**	**276**	***eP***	**Pn**	**15 22 28.0**	**+0.8**
KRX	**Arik**	**7.05**	**279**	***eP***	**Pn**	**15 22 29.1**	**+1.1**
PET	**Petropavlovsk**	**7.06**	**276**	Pn	**Pn**	**15 22 27.9**	**-0.1**
PET				Sn	**Sn**	**15 23 44.5**	**-2.7**
PET	**Petropavlovsk**	**7.06**	**276**	***eP***	**Pn**	**15 22 28.3**	**+0.2**
GNL	**Ganaly**	**7.47**	**281**	***eP***	**Pn**	**15 22 33.9**	**+0.1**
PEA0B	**Petropavlovsk-**	**7.63**	**277**	Pn	**Pn**	**15 22 36.1**	**+0.2**
PETK	**Petropavlovsk-**	**7.63**	**277**	Pn	**Pn**	**15 22 38.2**	**+2.3**
	0.8nm,0.3s,baz=85,slow=19,SNR=18						
PETK				Sn	**Sn**	**15 23 57.9**	**-3.4**
	baz=100,slow=17						
	3.9nm,0.7s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**7.63**	**277**		**Pn**	**15 22 36.9**	**+1.0**
GSTR	**Great Sitkin T**	**8.35**	**90**	Pn	**Pn**	**15 22 44.8**	**-1.0**
ATKA	**Atka Island**	**9.46**	**88**	Pn	**Pn**	**15 23 01.0**	**0.0**
K15K	**Wolf Creek Mou**	**17.64**	**47**	P	**P**	**15 24 51.8**	**+0.8**
K15K				IAmb	IAmb	15 25 17.8	
	comp=Z,18nm,1.3s						
N15K	**Kwethluk River**	**17.75**	**54**	P	**P**	**15 24 53.0**	**+0.9**
N15K				IAmb	IAmb	15 25 03.0	
	comp=Z,23nm,1.4s						
J16K	**Anvik River**	**18.39**	**44**	P	**Pn**	**15 24 59.2**	**-0.1**
J16K				IAmb	IAmb	15 25 00.9	
	comp=Z,21nm,1.4s						
M16K	**Timber Creek**	**18.48**	**52**	P	**P**	**15 24 59.0**	**-1.1**
M16K				IAmb	IAmb	15 25 20.9	
	comp=Z,23nm,1.3s						
J17K	**VABM Dome**	**19.07**	**45**	P	**P**	**15 25 05.9**	**-0.7**
M17K	**Holitna River**	**19.27**	**51**	P	**P**	**15 25 06.8**	**-2.1**
M17K				IAmb	IAmb	15 25 15.2	
	comp=Z,11nm,1.1s						
F17K	**Baldwin Pennin**	**19.51**	**35**	P	**P**	**15 25 09.7**	**-1.7**
F17K				IAmb	IAmb	15 25 16.8	
	comp=Z,12nm,1.4s						
H18K	**Honhosa River**	**20.00**	**40**	P	**P**	**15 25 15.0**	**-1.7**
H18K				IAmb	IAmb	15 25 35.8	
	comp=Z,14nm,1.4s						
J18K	**Innoko River**	**20.10**	**45**	P	**P**	**15 25 16.5**	**-1.4**
J18K				IAmb	IAmb	15 25 33.8	
	comp=Z,9.9nm,1.5s						
G18K	**Tagagawik**	**20.19**	**38**	P	**P**	**15 25 17.5**	**-1.3**
G18K				IAmb	IAmb	15 25 43.7	
	comp=Z,10nm,1.4s						
L19K	**White Mountain**	**20.63**	**49**	P	**P**	**15 25 23.4**	**-0.2**
J19K	**Poorman**	**20.72**	**44**	P	**P**	**15 25 24.1**	**-0.5**
J19K				IAmb	IAmb	15 25 33.0	
	comp=Z,7.7nm,1.2s						
C18K	**Utukok River**	**20.73**	**30**	P	**P**	**15 25 24.6**	**-0.2**
C18K				IAmb	IAmb	15 25 39.2	
	comp=Z,22nm,1.5s						
G19K	**Purcell Mounta**	**20.88**	**38**	P	**P**	**15 25 26.3**	**+0.1**
H19K	**Roundabout Mou**	**20.88**	**40**	P	**P**	**15 25 26.4**	**+0.1**
H19K				IAmb	IAmb	15 25 36.1	
	comp=Z,11nm,1.4s						
F19K	**Shaleruckik Mo**	**20.92**	**36**	P	Pn	15 25 27.6	-1.7
OHAK	**Old Harbor**	**21.12**	**64**	P	**P**	**15 25 28.8**	**-0.1**
L20K	**Farewell, AK**	**21.13**	**49**	P	**P**	**15 25 28.7**	**-0.4**
L20K				IAmb	IAmb	15 25 53.3	
	comp=Z,17nm,1.5s						
ILSW	**Iliamna Southw**	**21.19**	**56**	P	**P**	**15 25 29.8**	**+0.1**
K20K	**Telida**	**21.23**	**46**	P	**P**	**15 25 30.7**	**+0.7**
K20K				IAmb	IAmb	15 25 44.0	
	comp=Z,10nm,1.5s						
J20K	**Nowinta River**	**21.39**	**44**	P	**P**	**15 25 32.2**	**+0.4**
RED	**Redoubt Volcan**	**21.40**	**55**	P	**P**	**15 25 32.4**	**+0.4**
RED				IAmb	IAmb	15 25 58.6	
	comp=Z,9.1nm,1.1s						
KDAK	**Kodiak Island**	**21.47**	**62**	P	**P**	**15 25 31.7**	**-0.8**
	comp=Z,2.3nm,0.4s,baz=254,slow=2.3,SNR=9.5						
	comp=Z,2.3nm,0.4s						
KDAK	**Kodiak Island**	**21.47**	**62**	P	**P**	**15 25 31.4**	**-1.2**
D19K	**Kuna River**	**21.60**	**32**	P	**P**	**15 25 33.8**	**-0.2**
D19K				IAmb	IAmb	15 26 01.3	
	comp=Z,22nm,1.5s						
PPLA	**Purkeypile**	**21.98**	**48**	P	**P**	**15 25 39.1**	**+0.9**
PPLA				IAmb	IAmb	15 25 58.1	
	comp=Z,17nm,1.4s						
IMAR	**Indian Mountai**	**22.09**	**40**	P	**P**	**15 25 39.4**	**+0.2**
CAST	**Castle Rocks**	**22.12**	**47**	P	**P**	**15 25 40.0**	**+0.4**
H21K	**Melozitna Rive**	**22.36**	**41**	P	**P**	**15 25 42.1**	**0.0**
H21K				IAmb	IAmb	15 26 01.1	
	comp=Z,12nm,1.5s						
G21K	**Allakaket**	**22.36**	**38**	P	**P**	**15 25 42.5**	**+0.4**
SUA	**Susitna One**	**22.47**	**52**	P	**P**	**15 25 43.4**	**0.0**
H22K	**Ishtalitna Cre**	**22.99**	**41**	P	**P**	**15 25 49.2**	**+0.4**
YAK	**Yakutsk**	**23.33**	**309**	P	**P**	**15 25 52.9**	**+0.7**
D22K	**Ayikyak River**	**23.54**	**33**	P	**P**	**15 25 55.1**	**+0.8**
KNK	**Knik Glacier**	**23.56**	**52**	P	**P**	**15 25 54.2**	**-0.3**
I23K	**Minto, Yukon-K**	**23.62**	**43**	P	**P**	**15 25 54.5**	**-0.6**
I23K				IAmb	IAmb	15 26 10.4	
	comp=Z,6.3nm,1.4s						
SML	**Sawmill**	**23.64**	**51**	P	**P**	**15 25 54.7**	**-0.6**
G23K	**Bananza Creek**	**23.74**	**39**	P	**P**	**15 25 55.8**	**-0.4**
CCB	**Clear Creek Bu**	**24.18**	**45**	P	**P**	**15 25 59.8**	**-0.5**
D23K	**Nanushuk River**	**24.24**	**34**	P	**P**	**15 26 00.6**	**-0.2**
D23K				IAmb	IAmb	15 26 22.2	
	comp=Z,7.2nm,1.5s						
TOLK	**Toolik Lake Re**	**24.50**	**35**	P	**P**	**15 26 03.1**	**-0.1**
TOLK				IAmb	IAmb	15 26 22.2	
	comp=Z,7.1nm,1.5s						
IL31		**24.59**	**44**	P	**P**	**15 26 03.4**	**-0.6**
ILAR	**Eielson Array**	**24.59**	**44**	P	**P**	**15 26 03.6**	**-0.4**
	comp=Z,0.4nm,0.6s,baz=251,slow=6.9,SNR=10						
	comp=Z,0.4nm,0.6s						
E24K	**Your Creek**	**24.70**	**36**	P	**P**	**15 26 06.5**	**+1.4**
E24K				IAmb	IAmb	15 26 22.1	
	comp=Z,4.6nm,1.1s						
J25K	**Salcha River,**	**25.22**	**45**	P	**P**	**15 26 08.6**	**-1.2**
RIDG	**Independent Ri**	**25.37**	**47**	P	**P**	**15 26 10.4**	**-0.7**
RIDG				IAmb	IAmb	15 26 11.7	
	comp=Z,9.6nm,1.3s						
FYU	**Fort Yukon**	**25.57**	**40**	P	**P**	**15 26 12.4**	**-0.4**
FYU				IAmb	IAmb	15 26 27.5	
	comp=Z,5.5nm,1.1s						
F25K	**Christian Rive**	**25.62**	**38**	P	**P**	**15 26 13.0**	**-0.4**
F25K				IAmb	IAmb	15 26 21.4	
	comp=Z,3.2nm,0.8s						
DOT	**Dot Lake**	**25.71**	**47**	P	**P**	**15 26 13.6**	**-0.6**
DOT				IAmb	IAmb	15 26 18.8	
	comp=Z,3.0nm,0.7s						
SCRK	**Sand Creek**	**25.76**	**47**	P	**P**	**15 26 14.2**	**-0.5**
SCRK				IAmb	IAmb	15 26 21.1	
	comp=Z,2.6nm,0.8s						
GLB	**Gilahina Butte**	**25.79**	**52**	P	**P**	**15 26 14.6**	**-0.4**
D25K	**Kavik River**	**25.81**	**34**	P	**P**	**15 26 14.7**	**-0.4**
D25K				IAmb	IAmb	15 26 31.3	
	comp=Z,7.6nm,1.4s						
VRDI	**Verde Repeater**	**25.97**	**53**	P	**P**	**15 26 17.1**	**+0.3**
BMAR	**Burnt Mountain**	**25.98**	**39**	P	**P**	**15 26 17.3**	**+0.6**
CRQM	**Cirque**	**26.15**	**54**	P	**P**	**15 26 19.3**	**+0.9**
G26K	**Porcupine Rive**	**26.20**	**40**	P	**P**	**15 26 20.2**	**+1.6**
G26K				IAmb	IAmb	15 26 26.3	
	comp=Z,3.5nm,1.0s						
F26K	**Sheenjek River**	**26.20**	**38**	P	**P**	**15 26 19.3**	**+0.7**
K27K	**Chicken**	**26.61**	**47**	P	**P**	**15 26 22.3**	**0.0**
M27K	**Edge Creek, AK**	**26.68**	**50**	P	**P**	**15 26 23.9**	**+0.8**
M27K				IAmb	IAmb	15 26 34.4	
	comp=Z,4.1nm,1.1s						
L27K	**Beaver Creek,**	**26.70**	**49**	P	**P**	**15 26 21.4**	**-1.8**
BCAR	**Beaver Creek A**	**26.72**	**49**	P	**P**	**15 26 21.7**	**-1.6**
C27K	**Jago River**	**26.80**	**34**	P	**P**	**15 26 23.6**	**-0.4**
C27K				IAmb	IAmb	15 26 39.9	
	comp=Z,6.7nm,1.5s						
GRNC	**Granite Creek**	**26.83**	**54**	P	**P**	**15 26 24.5**	**-0.1**
BARN	**Barnard Glacie**	**26.85**	**53**	P	**P**	**15 26 23.8**	**-0.9**
G27K	**Doyon Strip**	**27.01**	**40**	P	**P**	**15 26 25.4**	**-0.5**
F28M	**Old Crow**	**27.80**	**39**	P	**P**	**15 26 31.6**	**-1.4**
F28M				IAmb	IAmb	15 26 55.3	
	comp=Z,4.5nm,1.5s						
H29M	**Whitestone**	**28.27**	**42**	P	**P**	**15 26 37.2**	**0.0**
G29M	**Pine Creek**	**28.45**	**40**	P	**P**	**15 26 38.7**	**-0.1**
K29M	**Barlow Dome**	**28.62**	**47**	P	**P**	**15 26 40.6**	**+0.2**
E29M	**Blow River**	**28.63**	**37**	P	**P**	**15 26 41.0**	**+0.7**
E29M				IAmb	IAmb	15 26 58.4	
	comp=Z,4.2nm,1.4s						
H31M	**Peel River**	**29.91**	**43**	P	**P**	**15 26 51.6**	**-0.1**
H31M				IAmb	IAmb	15 27 18.9	
	comp=Z,5.8nm,1.4s						
DLBC	**Dease Lake**	**33.12**	**56**	LR	LR	15 39 59.4	
	comp=Z,41nm,18.4s,baz=278,slow=35						
H11N2	**WAKE ISLAND Hy**	**33.19**	**186**	T	T	16 02 36.2	
	baz=4.5,slow=76,SNR=33						
H11N3	**WAKE ISLAND Hy**	**33.20**	**186**	T	T	16 02 37.5	
	baz=4.5,slow=76,SNR=26						
H11N1	**WAKE ISLAND Hy**	**33.21**	**186**	T	T	16 02 39.0	
	baz=4.5,slow=76,SNR=30						
H11S1	**WAKE ISLAND Hy**	**34.42**	**186**	T	T	16 04 09.3	
	baz=4.4,slow=76,SNR=35						
H11S3	**WAKE ISLAND Hy**	**34.43**	**186**	T	T	16 04 09.2	
	baz=4.4,slow=76,SNR=17						
H11S2	**WAKE ISLAND Hy**	**34.43**	**186**	T	T	16 04 10.7	
	baz=4.4,slow=76,SNR=23						
YKAW3	**Yellowknife Wh**	**38.99**	**45**	P	**P**	**15 28 10.5**	**+0.4**
YKA	**Yellowknife Ar**	**39.02**	**45**	P	**P**	**15 28 10.9**	**+0.6**
	comp=Z,0.3nm,0.5s,baz=298,slow=9.0,SNR=4.2						
	comp=Z,0.3nm,0.5s						
YKA	**Yellowknife Ar**	**39.02**	**45**	P	**P**	**15 28 10.4**	**+0.1**
JOHN	**Johnston Islan**	**39.39**	**149**	P	**P**	**15 28 12.1**	**-1.8**
CLRS	**Cowichan Lake**	**40.29**	**68**	P	**P**	**15 28 20.0**	**-1.1**
BLKN	**Baker Lake**	**45.65**	**37**	P	**P**	**15 29 04.6**	**+0.4**
FCC	**Fort Churchill**	**49.60**	**43**	P	**P**	**15 29 35.2**	**+0.3**
PDAR	**Pinedale Array**	**52.07**	**67**	P	**P**	**15 29 54.8**	**+0.7**
	comp=Z,0.3nm,0.8s,baz=315,slow=7.7,SNR=3.0						
	comp=Z,0.3nm,0.8s						
PDAR	**Pinedale Array**	**52.07**	**67**	P	**P**	**15 29 54.1**	**+0.1**
MK31	**Makanchi Array**	**53.69**	**302**	P	**P**	**15 30 06.2**	**+0.5**
MK31				IAmb	IAmb	15 30 12.1	
	comp=Z,3.8nm,1.3s						
MKAR	**Makanchi Array**	**53.69**	**302**	P	**P**	**15 30 06.2**	**+0.5**
	comp=Z,0.2nm,0.6s,baz=50,slow=8.3,SNR=1.7						
	comp=Z,0.2nm,0.6s						
MKAR	**Makanchi Array**	**53.69**	**302**	P	**P**	**15 30 05.7**	**0.0**
TXAR	**Lajitas Array**	**64.88**	**74**	P	**P**	**15 31 24.5**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=302,slow=4.9,SNR=5.0						
	comp=Z,0.4nm,0.6s						
TXAR	**Lajitas Array**	**64.88**	**74**	P	**P**	**15 31 24.2**	**+0.8**
HFS	**Hagfors**	**65.79**	**347**	P	**P**	**15 31 28.9**	**+0.3**
	comp=

J18K	**Innoko River**	19.97	45	P		**Pn**	15 35 21.6	-2.1
G18K	**Tagagawik**	20.06	38	P		**Pn**	15 35 23.1	-1.6
E18K	**Tukpahlearik C**	20.11	33	P		Pn	15 35 23.6	-1.6
E18K				IAmb		IAmb	15 35 30.9	
	comp=Z,18nm,1.3s							
L19K	**White Mountain**	20.50	50	P		Pn	15 35 28.2	-1.7
J19K	**Poorman**	20.59	44	P		Pn	15 35 29.5	-1.4
C18K	**Utukok River**	20.60	30	P		Pn	15 35 29.2	-1.9
G19K	**Purcell Mounta**	20.74	38	P		**P**	15 35 29.6	-0.6
H19K	**Roundabout Mou**	20.75	40	P		Pn	15 35 31.1	-1.6
Q19K	**Cape Douglas,**	20.76	59	P		Pn	15 35 31.3	-1.7
F19K	**Shaleruckik Mo**	20.79	36	P		Pn	15 35 30.9	-2.2
F19K				IAmb		IAmb	15 35 57.6	
	comp=Z,18nm,1.4s							
OHAK	**Old Harbor**	21.00	64	P		**P**	15 35 32.7	-0.3
K20K	**Telida**	21.09	47	P		**P**	15 35 35.3	+1.3
K20K				IAmb		IAmb	15 35 39.8	
	comp=Z,8.8nm,1.0s							
M20K	**Styx River**	21.25	51	P		**P**	15 35 35.9	+0.1
E19K	**Redstone River**	21.26	35	P		**P**	15 35 36.5	+0.8
E19K				IAmb		IAmb	15 35 52.8	
	comp=Z,11nm,1.4s							
J20K	**Nowinta River**	21.26	44	P		**P**	15 35 36.1	+0.3
RED	**Redoubt Volcan**	21.27	55	P		**P**	15 35 36.1	+0.1
RED				IAmb		IAmb	15 36 01.4	
	comp=Z,13nm,1.2s							
KDAK	**Kodiak Island**	21.34	62	P		**P**	15 35 37.2	+0.6
	comp=Z,4.3nm,0.7s,baz=281,slow=10,SNR=9.1							
	comp=Z,4.3nm,0.7s							
KDAK	**Kodiak Island**	21.34	62	P		**P**	15 35 36.6	0.0
STLK	**Strandline Lak**	21.82	52	P		**P**	15 35 42.6	+0.8
STLK				IAmb		IAmb	15 36 02.9	
	comp=Z,10nm,1.4s							
PPLA	**Purkeypile**	21.84	48	P		**P**	15 35 42.5	+0.3
IMAR	**Indian Mountai**	21.95	40	P		**P**	15 35 43.5	+0.4
CNPM	**China Poot**	22.01	57	P		**P**	15 35 44.8	+1.0
D20K	**Etivluk River**	22.05	32	P		**P**	15 35 44.2	-0.1
D20K				IAmb		IAmb	15 36 02.8	
	comp=Z,12nm,1.4s							
H21K	**Melozitna River**	22.22	41	P		**P**	15 35 45.9	-0.2
G21K	**Allakaket**	22.23	39	P		**P**	15 35 46.3	+0.2
SUA	**Susitna One**	22.34	52	P		**P**	15 35 47.0	-0.5
F21K	**Alatna River**	22.48	37	P		**P**	15 35 49.9	+1.0
SLKM	**Skilak Lake**	22.54	55	P		**P**	15 35 49.9	+0.4
H22K	**Ishtalitna Cre**	22.86	41	P		**P**	15 35 52.9	0.0
H22K				IAmb		IAmb	15 36 00.6	
	comp=Z,8.6nm,1.2s							
D22K	**Ayikyak River**	23.41	33	P		**P**	15 35 59.9	+1.5
KNK	**Knik Glacier**	23.43	53	P		**P**	15 35 59.2	+0.6
PWL	**Port Wells**	23.47	54	P		**P**	15 35 59.5	+0.5
I23K	**Minto, Yukon-K**	23.49	43	P		**P**	15 35 59.8	+0.7
SML	**Sawmill**	23.51	52	P		**P**	15 36 00.1	+0.7
G23K	**Bananza Creek**	23.61	39	P		**P**	15 36 00.7	+0.3
G23K				IAmb		IAmb	15 36 15.1	
	comp=Z,6.6nm,1.2s							
WRH	**Wood River Hil**	23.90	45	P		**P**	15 36 03.3	+0.2
WRH				IAmb		IAmb	15 36 09.1	
	comp=Z,3.2nm,0.7s							
CCB	**Clear Creek Bu**	24.05	45	P		**P**	15 36 05.6	+1.1
CCB				IAmb		IAmb	15 36 23.3	
	comp=Z,7.1nm,1.3s							
COLA	**College**	24.07	44	P		**P**	15 36 05.5	+0.8
D23K	**Nanushuk River**	24.11	34	P		**P**	15 36 05.4	+0.4
D23K				IAmb		IAmb	15 36 13.1	
	comp=Z,5.4nm,1.1s							
E23K	**Chandalar**	24.16	36	P		**P**	15 36 07.0	+1.4
E23K				IAmb		IAmb	15 36 12.7	
	comp=Z,7.1nm,1.2s							
H24K	**Noodor Dome**	24.24	42	P		**P**	15 36 07.6	+1.3
TOLK	**Toolik Lake Re**	24.37	35	P		**P**	15 36 06.7	-0.7
TOLK				IAmb		IAmb	15 36 14.7	
	comp=Z,10nm,1.4s							
HDA	**Harding Lake**	24.38	45	P		**P**	15 36 07.4	-0.2
IL31		24.46	45	P		**P**	15 36 08.3	+0.1
ILAR	**Eielson Array**	24.46	45	P		**P**	15 36 08.6	+0.4
	comp=Z,0.5nm,0.6s,baz=246,slow=7.1,SNR=13							
	comp=Z,0.5nm,0.6s							
ILAR	**Eielson Array**	24.46	45	P		**P**	15 36 08.9	+0.7
E24K	**Your Creek**	24.57	36	P		**P**	15 36 10.6	+1.3
E24K				IAmb		IAmb	15 36 26.0	
	comp=Z,7.1nm,1.3s							
G24K	**Hadweenzic Riv**	24.59	40	P		**P**	15 36 10.2	+0.8
F24K	**Squaw Lake**	24.63	38	P		**P**	15 36 10.4	+0.6
F24K				IAmb		IAmb	15 36 36.1	
	comp=Z,8.8nm,1.5s							
KLU	**Klutina**	24.65	53	P		**P**	15 36 10.8	+0.7
D24K	**Happy Valley**	24.80	34	P		**P**	15 36 10.2	-1.1
D24K				IAmb		IAmb	15 36 18.6	
	comp=Z,5.3nm,0.9s							
J25K	**Salcha River,**	25.09	45	P		**P**	15 36 14.1	0.0
J25K				IAmb		IAmb	15 36 19.9	
	comp=Z,3.3nm,0.8s							
FYU	**Fort Yukon**	25.43	41	P		**P**	15 36 17.3	+0.3
FYU				IAmb		IAmb	15 36 22.8	
	comp=Z,4.7nm,0.8s							
F25K	**Christian Rive**	25.49	38	P		**P**	15 36 18.3	+0.7
F25K				IAmb		IAmb	15 36 27.5	
	comp=Z,8.2nm,1.2s							
DOT	**Dot Lake**	25.58	47	P		**P**	15 36 18.1	-0.3
SCRK	**Sand Creek**	25.63	47	P		**P**	15 36 18.9	-0.1
SCRK				IAmb		IAmb	15 36 25.4	
	comp=Z,5.0nm,1.0s							
D25K	**Kavik River**	25.68	34	P		**P**	15 36 20.2	+0.8
D25K				IAmb		IAmb	15 36 25.8	
	comp=Z,4.0nm,0.7s							
BMAR	**Burnt Mountain**	25.85	39	P		**P**	15 36 21.8	+0.9
F26K	**Sheenjek River**	26.07	38	P		**P**	15 36 24.2	+1.4
F26K				IAmb		IAmb	15 36 32.1	
	comp=Z,3.1nm,0.8s							
L27K	**Beaver Creek,**	26.57	49	P		**P**	15 36 26.8	-0.6
L27K				IAmb		IAmb	15 36 36.8	
	comp=Z,3.5nm,0.9s							
GRNC	**Granite Creek**	26.70	54	P		**P**	15 36 28.3	-0.6
I28M	**Miner Creek**	27.45	44	P		**P**	15 36 35.0	-0.4
F28M	**Old Crow**	27.67	39	P		**P**	15 36 38.4	+1.2
F28M				IAmb		IAmb	15 36 43.2	
	comp=Z,5.7nm,1.5s							
H29M	**Whitestone**	28.14	42	P		**P**	15 36 42.5	+1.1
E29M	**Blow River**	28.50	38	P		**P**	15 36 44.8	+0.3
E29M				IAmb		IAmb	15 37 07.9	
	comp=Z,4.5nm,1.4s							
INK	**Inuvik**	30.11	38	P		**P**	15 36 59.8	+1.0
	comp=Z,0.5nm,0.6s,baz=321,slow=6.7,SNR=1.8							
	comp=Z,0.5nm,0.6s							
INK	**Inuvik**	30.11	38	P		**P**	15 36 59.5	+0.8
INK				IAmb		IAmb	15 37 19.9	
	comp=Z,3.5nm,1.4s							
H11N2	**WAKE ISLAND Hy**	33.30	186	T		T	16 12 42.7	
	baz=4.6,slow=76,SNR=16							
H11N3	**WAKE ISLAND Hy**	33.31	186	T		T	16 12 45.7	
	baz=4.6,slow=76,SNR=20							
H11N1	**WAKE ISLAND Hy**	33.32	186	T		T	16 12 43.3	
	baz=4.6,slow=76,SNR=19							
H11S1	**WAKE ISLAND Hy**	34.53	186	T		T	16 14 17.3	
	baz=4.4,slow=76,SNR=20							
H11S3	**WAKE ISLAND Hy**	34.54	186	T		T	16 14 14.8	
	baz=4.4,slow=76,SNR=14							
H11S2	**WAKE ISLAND Hy**	34.55	186	T		T	16 14 14.7	
	baz=4.4,slow=76,SNR=15							
YKAW3	**Yellowknife Wh**	38.85	45	P		**P**	15 38 14.6	+0.2
YKA	**Yellowknife Ar**	38.88	46	P		**P**	15 38 16.2	+1.6
	comp=Z,0.7nm,0.6s,baz=294,slow=8.6,SNR=6.7							
	comp=Z,0.7nm,0.6s							
YKA	**Yellowknife Ar**	38.88	46	P		**P**	15 38 14.3	-0.3
SONM	**Songino Array**	39.94	289	P		**P**	15 38 24.9	+1.1
	comp=Z,0.2nm,0.5s,baz=30,slow=9.9,SNR=1.2							
	comp=Z,0.2nm,0.5s							
KRMB	**Red Mountain**	44.49	77	P		**P**	15 38 59.8	-1.1
BLKN	**Baker Lake**	45.52	38	P		**P**	15 39 08.9	+0.3
BLKN				IAmb		IAmb	15 39 33.3	
	comp=Z,2.2nm,1.0s							
FCC	**Fort Churchill**	49.47	43	P		**P**	15 39 40.6	+1.3
FCC				IAmb		IAmb	15 39 50.0	
	comp=Z,3.5nm,1.0s							
GCMT	**Greycliff**	49.95	64	P		**P**	15 39 42.5	-0.8
PDAR	**Pinedale Array**	51.95	67	P		**P**	15 39 59.4	+0.8
	comp=Z,0.2nm,0.6s,baz=304,slow=8.7,SNR=2.2							
	comp=Z,0.2nm,0.6s							
PDAR	**Pinedale Array**	51.95	67	P		**P**	15 39 58.3	-0.3
KURK	**Kurchatov**	52.96	307	P		**P**	15 40 05.9	+0.3
KURBB	**Kurchatov Arra**	53.06	307	P		**P**	15 40 07.1	+0.7
	comp=Z,0.7nm,0.7s,baz=53,slow=7.4,SNR=5.4							
	comp=Z,0.7nm,0.7s							
MK31	**Makanchi Array**	53.71	302	P		**P**	15 40 11.6	+0.4
MK31				IAmb		IAmb	15 40 19.9	
	comp=Z,4.2nm,1.4s							
MKAR	**Makanchi Array**	53.71	302	P		**P**	15 40 11.8	+0.5
	comp=Z,0.4nm,0.7s,baz=47,slow=7.1,SNR=3.8							
	comp=Z,0.4nm,0.7s							
PV13	**Radium Mtn., P**	55.46	71	P		**P**	15 40 23.8	-0.5
TX31	**Lajitas Ar. Si**	64.77	74	P		**P**	15 41 29.2	+1.2
TX31				IAmb		IAmb	15 41 34.9	
	comp=Z,2.5nm,1.2s							
TXAR	**Lajitas Array**	64.77	74	P		**P**	15 41 29.9	+1.9
	comp=Z,0.4nm,0.6s,baz=309,slow=4.7,SNR=8.7							
	comp=Z,0.4nm,0.6s							
TXAR	**Lajitas Array**	64.77	74	P		**P**	15 41 29.4	+1.4
M57A	**Sunshine Farm,**	69.48	48	P		**P**	15 41 59.0	+1.3
GERES	**GERESS Array B**	76.65	344	P		**P**	15 42 41.2	+1.1
	comp=Z,0.4nm,0.5s,baz=9.6,slow=4.8,SNR=2.5							
	comp=Z,0.4nm,0.5s							
ASAR	**Alice Springs**	82.68	213	P		**P**	15 43 16.0	+3.2
	comp=Z,0.3nm,0.9s,baz=23,slow=3.0,SNR=1.9							
	comp=Z,0.3nm,0.9s							

BJI ***26*** *15:43:56.6,22˚.16N×143˚.73E,h136km,mB4.9/9,mb4.8/53*
IDC ***26*** *15:43:57.6±1.7,22˚.35N×143˚.73E,h118km±14km,*
mb4.1/25,mbtmp4.4/30,MS3.0/8,Error ellipse:
s-maj=16.6km s-min=11.1km az=79.0
GFZ ***26*** *15:43:58.9±0.3,22˚.N±3˚×14˚.4E± ˚,h120km,M5.1/43,*
mb4.8/43,confirmed
NEIC ***26*** *15:44:02.8±1.8,22˚.51N±0˚.08×143˚.31E±0˚.08,*
h141km±5km,mb4.8/87,Error ellipse: s-maj=11.6km
s-min=9.9km az=150.0
JMA ***26*** *15:44:02.8±0.1,23˚.N±1˚×14˚.4E± ˚,h162km±2km,IOTO*
ISLANDS REGION

ISC 26 15:44:02.1±0.6, 22˚.52N±0˚.05×143˚.35E±0˚.07, h143km±4km, h143km:pP-P,n256,σ1°35/273,mb4.7/116,1C-2D,
Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**4.24**	**346**	*eP*		**Pn**		**15 45 05.3**	**+0.1**
JHH2					A	A		15 45 05.3	
	comp=N,10.0nm,0.4s,comp=E,10.0nm,0.4s								
JHH2					S	**Sn**		**15 45 53.8**	**-0.6**
CBIJ	**Chichi jima**	**4.68**	**347**	*eP*		**Pn**		**15 45 10.8**	**-0.4**
CBIJ				*eS*		**Sn**		**15 46 03.3**	**-1.7**
JCJ	**Chichijima**	**4.68**	**347**	P		**Pn**		**15 45 07.8**	**-3.4**
	comp=E,146nm,0.4s,baz=281,slow=22,SNR=43								
JCJ					S	**Sn**		**15 45 59.5**	**-5.4**
	comp=E,726nm,0.4s,baz=318,slow=23,SNR=26								
JCJ					LR	LR		15 46 27.2	
	comp=E,78nm,21.5s,baz=72,slow=30								
JCJ	**Chichijima**	**4.68**	**347**			**Pn**		**15 45 10.9**	**-0.3**
JCJ					Sn	**Sn**		**15 46 02.4**	**-2.6**
JCJ	**Chichijima**	**4.68**	**347**	P		**Pn**		**15 45 11.3**	**+0.1**
GUMO	**Guam**	**8.99**	**171**	LR		LR		15 48 28.0	
	comp=E,52nm,18.8s,baz=14,slow=31								
GUMO	**Guam**	**8.99**	**171**	Pn		**Pn**		**15 46 10.0**	**+1.1**
JHJ	**Hachijo jima 2**	**11.02**	**344**	P		**Pn**		**15 46 35.6**	**-0.2**
	comp=E,5.5nm,0.4s,baz=247,slow=14,SNR=3.6								
JOD2	**Odawara 2**	**13.24**	**345**	*eP*		**Pn**		**15 47 03.8**	**-0.8**
JNY	**Yasuok**	**13.66**	**341**	*eP*		**Pn**		**15 47 09.1**	**-1.0**
INU	**Inuyama**	**13.93**	**338**			**Pn**		**15 47 10.9**	**-2.5**
INU	**Inuyama**	**13.93**	**338**	P		**Pn**		**15 47 12.7**	**-0.7**
	comp=Z,19nm,0.9s								
JMN	**Monobe**	**13.94**	**325**	Pn		**Pn**		**15 47 12.1**	**-1.5**
JRY	**Ryogami san**	**14.00**	**345**	*eP*		**Pn**		**15 47 12.7**	**-1.6**
JAMN	**Amaminishikomi**	**14.02**	**297**	*eP*		**P**		**15 47 21.4**	**+3.5**
JGF	**Kuroka**	**14.05**	**339**			**Pn**		**15 47 14.0**	**-1.0**
JGF	**Kuroka**	**14.05**	**339**	P		**Pn**		**15 47 14.1**	**-0.8**
	comp=Z,20nm,0.9s								
JAG	**Ashikaga**	**14.27**	**347**	*eP*		**Pn**		**15 47 15.1**	**-2.6**
JOW	**Kunigami**	**14.36**	**290**	P		**P**		**15 47 20.9**	**-0.8**
	comp=Z,11nm,0.5s,baz=122,slow=15,SNR=5.5								
JOW	**Kunigami**	**14.36**	**290**	Pn		**Pn**		**15 47 17.0**	**-1.9**
JSU	**Suzuyama**	**14.56**	**311**			**Pn**		**15 47 18.7**	**-2.6**
MJAR	**Matsushiro Arr**	**14.67**	**343**	P		**Pn**		**15 47 21.2**	**-1.5**
	comp=Z,3.3nm,0.6s,baz=127,slow=12,SNR=14								
MJAR					S	**Sn**		**15 50 02.6**	**-2.8**
	comp=Z,0.9nm,0.4s,baz=101,slow=23,SNR=4.1								
MJAR	**Matsushiro Arr**	**14.67**	**343**			**Pn**		**15 47 20.5**	**-2.2**
MAJO	**Matsushiro**	**14.67**	**343**			**Pn**		**15 47 20.8**	**-1.9**
MAJO	**Matsushiro**	**14.67**	**343**	P		**Pn**		**15 47 23.0**	**+0.2**
	comp=Z,25nm,0.7s								
MJB9	**Matsu-Tunnel**	**14.68**	**343**			**Pn**		**15 47 20.5**	**-2.4**
JNU	**Nakatsue**	**15.26**	**316**	P		**Pn**		**15 47 31.4**	**+1.2**
	comp=Z,3.1nm,0.8s,baz=132,slow=3.8,SNR=8.7								
JNU					LR	LR		15 53 21.0	
	comp=E,28nm,18.1s,baz=146,slow=36								
JTU	**Tsushima**	**17.11**	**317**			**P**		**15 47 51.8**	**-0.3**
JTU					IAmb	IAmb		15 47 59.7	
	comp=Z,85nm,1.4s								
JTM	**Tenmabayashi**	**18.32**	**354**			**P**		**15 48 05.6**	**+0.3**
YOJ	**Yonaguni jima**	**18.76**	**280**			**P**		**15 48 10.3**	**+0.1**
ERM	**Erimo**	**19.45**	**360**	P		**Pn**		**15 48 19.7**	**-0.5**
KSRS	**Korea Array**	**19.96**	**322**	P		**P**		**15 48 23.9**	**+0.7**
	comp=Z,4.7nm,0.5s,baz=137,slow=10,SNR=56								
KSRS					LR	LR		15 55 48.6	
	comp=Z,23nm,18.2s,baz=345,slow=35								
	comp=Z,4.7nm,0.5s								
KSAR	**Wonju Array Be**	**19.98**	**322**			**Pn**		**15 48 25.5**	**-1.0**
KS19	**Wonju Array Si**	**20.03**	**322**	P		**P**		**15 48 25.5**	**+1.6**
KS19					IAmb	IAmb		15 48 29.6	
	comp=Z,27nm,0.8s								
NACB	**Ninganchiao**	**20.04**	**279**	P		**P**		**15 48 24.9**	**+0.7**
NACB					IAmb	IAmb		15 48 37.7	
	comp=Z,34nm,1.2s								
NACB	**Ninganchiao**	**20.04**	**279**	P		**P**		**15 48 25.6**	**+1.4**
	comp=Z,22nm,0.5s								
TATO	**Taipei**	**20.16**	**281**	P		**P**		**15 48 26.4**	**+1.1**
YHNB	**Yeheng**	**20.25**	**280**			**P**		**15 48 27.5**	**+1.1**
YHNB					IAmb	IAmb		15 48 31.0	
	comp=Z,41nm,0.8s								
YHNB	**Yeheng**	**20.25**	**280**	P		**P**		**15 48 27.9**	**+1.4**
	comp=Z,76nm,0.8s								
YULB	**Yu-li**	**20.32**	**277**			**P**		**15 48 28.5**	**+1.3**
YULB					IAmb	IAmb		15 48 30.2	
	comp=Z,34nm,0.6s								
YULB	**Yu-li**	**20.32**	**277**	P		**P**		**15 48 28.9**	**+1.7**
	comp=Z,60nm,0.8s								
TWG	**Pinlang**	**20.56**	**275**	P		**P**		**15 48 30.5**	**+0.8**
TWG					IAmb	IAmb		15 49 11.5	
	comp=Z,52nm,1.2s								
SSLB	**Suanglung**	**20.63**	**278**			Pn		15 48 33.2	-1.2
SSLB	**Suanglung**	**20.63**	**278**	P		Pn		15 48 33.4	-1.0
	comp=Z,145nm,1.0s								
TPUB	**Ta-pu**	**20.94**	**277**	P		**P**		**15 48 34.1**	**+0.3**
TPUB	**Ta-pu**	**20.94**	**277**	P		**P**		**15 48 35.1**	**+1.3**
JKA	**Kamikawa-asahi**	**21.55**	**359**	P		**P**		**15 48 41.0**	**+0.9**
ASAJ	**Asahikawa**	**21.55**	**359**	P		**P**		**15 48 43.2**	**+3.1**
	comp=Z,5.7nm,0.7s,baz=255,slow=16,SNR=6.2								
H11S3	**WAKE ISLAND Hy**	**22.22**	**96**	T		T		16 11 36.0	
	baz=283,slow=75,SNR=8.5								
H11S1	**WAKE ISLAND Hy**	**22.23**	**96**	T		T		16 11 31.6	
	baz=283,slow=75,SNR=3.6								
H11S2	**WAKE ISLAND Hy**	**22.23**	**96**	T		T		16 11 33.1	
	baz=283,slow=75,SNR=3.8								
KNMB	**Chin-men Tao**	**22.97**	**280**	P		**P**		**15 48 54.8**	**+0.4**
USA0B	**Ussuriysk Arra**	**23.57**	**339**			**P**		**15 49 00.7**	**+1.1**
USRK	**Ussuriysk Ar.**	**23.57**	**339**	P		**P**		**15 48 59.8**	**+0.1**
	comp=Z,12nm,0.7s,baz=150,slow=9.7,SNR=22								
	comp=Z,12nm,0.7s								
USRK	**Ussuriysk Ar.**	**23.57**	**339**			**P**		**15 49 00.8**	**+1.2**
NJ2	**Nanjing**	**23.71**	**299**	*eP*		**P**		**15 49 03.0**	**+2.0**
NJ2					pmax	pmax			
	comp=Z,16nm,0.8s								
DL2	**Dalian**	**24.72**	**316**	P		**P**		**15 49 12.5**	**+2.4**
DL2					pmax	pmax			
	comp=Z,100nm,0.8s								
MDJ	**Mudanjiang**	**24.78**	**336**	P		**P**		**15 49 12.8**	**+2.2**
MDJ					pmax	pmax			
	comp=Z,16nm,0.9s								
JAY	**Jayapura**	**25.01**	**186**	LR		LR		15 58 25.0	
	comp=Z,37nm,18.7s,baz=304,slow=35								
CN2	**Changchun**	**25.88**	**329**	*eP*		**P**		**15 49 21.3**	**+0.7**
CN2					pmax	pmax			
	comp=Z,10.0nm,0.5s								
TIA	**Tai'an**	**26.52**	**307**	P		**P**		**15 49 27.3**	**+0.9**
TIA					pmax	pmax			
	comp=Z,16nm,1.2s								
BNX	**BinXian**	**26.56**	**335**	⇑P		**P**		**15 49 28.3**	**+1.6**
BNX					pmax	pmax			
	comp=Z,21nm,0.6s								
HNS	**HongShan**	**28.77**	**308**	⇓P		**P**		**15 49 48.5**	**+2.1**
HNS					pmax	pmax			
	comp=Z,13nm,0.7s								
HEH	**HeiHe**	**30.38**	**340**	⇓P		**P**		**15 50 02.0**	**+1.5**
HEH					pmax	pmax			
	comp=Z,24nm,0.9s								
ENH	**Enshi**	**31.21**	**292**	P		**P**		**15 50 08.0**	**-0.1**
ENH					IAmb	IAmb		15 50 09.4	
	comp=Z,10nm,0.9s								
ENH	**Enshi**	**31.21**	**292**	P		**P**		**15 50 08.5**	**+0.4**
XAN	**Xi'an**	**32.27**	**298**	P		**P**		**15 50 17.0**	**-0.4**
XAN					pmax	pmax			
	comp=Z,4.0nm,1.0s								
HHC	**Hu-ho-hao-te**	**32.40**	**312**	*eP*		**P**		**15 50 20.5**	**+2.0**
HHC					pmax	pmax			
	comp=Z,16nm,0.7s								
HILR	**Hailar Array B**	**32.78**	**331**	P		**P**		**15 50 22.8**	**+1.2**
	comp=Z,5.4nm,0.4s,baz=138,slow=9.4,SNR=9.4								
	comp=Z,5.4nm,0.4s								
CD2	**Chengdu**	**36.19**	**292**	P		**P**		**15 50 51.5**	**+0.3**
CD2				S		**S**		**15 56 19.8**	**-1.0**
CD2					pmax	pmax			
	comp=Z,40nm,0.6s								
CD2					pmax	pmax			
	comp=Z,110nm,5.8s								
CD2					L	L			
	comp=Z,290nm,9.8s								
CD2					L	L			
	comp=Z,450nm,9.3s								
CD2					L	L			
	comp=Z,330nm,13.5s								
SLVN	**Son La**	**36.54**	**276**	P		**P**		**15 50 55.4**	**+1.1**
	comp=Z,6.1nm,0.7s								
LZDM	**Lanzhou Array**	**36.85**	**300**	P		**P**		**15 50 57.9**	**+0.8**
	comp=Z,3.8nm,0.4s,baz=176,slow=8.2,SNR=10								
	comp=Z,3.8nm,0.4s								
EDFI	**Ende, Flores**	**37.63**	**217**	P		**P**		**15 51 03.6**	**+0.1**
	comp=Z,3.7nm,0.9s								
BATI	**Baumata**	**37.81**	**213**	LR		LR		16 05 46.8	
	comp=Z,62nm,20.1s,baz=164,slow=35								
PZH	**PanZhiHua**	**37.95**	**285**	P		**P**		**15 51 07.3**	**+1.1**
PZH					pmax	pmax			
	comp=Z,30nm,0.7s								
ULN	**Ulaanbaatar**	**38.44**	**320**			**P**		**15 51 09.2**	**-0.8**
ULN	**Ulaanbaatar**	**38.44**	**320**	P		**P**		**15 51 11.6**	**+1.6**
	comp=Z,9.9nm,0.8s								
ULN	**Ulaanbaatar**	**38.44**	**320**	P		**P**		**15 51 11.1**	**+1.1**
ULN				pP		**pP**		**15 51 41.7**	**+1.3**
ULN				sP		**sP**		**15 51 58.0**	**+1.7**
SONM	**Songino Array**	**38.81**	**320**	P		**P**		**15 51 14.3**	**+1.1**
	comp=Z,5.4nm,0.7s,baz=135,slow=8.6,SNR=33								
SONM				PcP		**PcP**		**15 53 21.7**	**+0.2**
	comp=Z,0.8nm,0.7s,baz=103,slow=4.6,SNR=3.8								
	comp=Z,5.4nm,0.7s								
SONM	**Songino Array**	**38.81**	**320**			**P**		**15 51 12.6**	**-0.6**
GTA2	**Gaotai**	**40.59**	**305**	*eP*		**P**		**15 51 29.3**	**+1.3**
GTA2					pmax	pmax			
	comp=Z,7.0nm,0.9s								
YAK	**Yakutsk**	**40.59**	**350**			**P**		**15 51 27.6**	**+0.2**
YAK					IAmb	IAmb		15 51 29.1	
	comp=Z,27nm,0.7s								
YAK	**Yakutsk**	**40.59**	**350**	P		**P**		**15 51 28.5**	**+1.0**
	comp=Z,39nm,0.8s								
YAK	**Yakutsk**	**40.59**	**350**	P		**P**		**15 51 28.2**	**+0.7**
SEY	**Seymchan**	**40.86**	**6**	P		**P**		**15 51 30.9**	**+1.3**
	comp=Z,3.8nm,0.8s,baz=171,slow=6.0,SNR=7.2								
GANO	**Gareloi North**	**41.26**	**35**	P		**P**		**15 51 33.4**	**+0.3**
CHTO	**Chiang Mai**	**41.60**	**273**	P		**P**		**15 51 35.3**	**-1.1**
CHTO	**Chiang Mai**	**41.60**	**273**	P		**P**		**15 51 36.1**	**-0.3**
	comp=Z,3.6nm,2.3s								
CM31	**Chiang Mai Arr**	**41.68**	**273**	P		**P**		**15 51 36.5**	**-0.5**
CMAR	**Chiang Mai Arr**	**41.68**	**273**	P		**P**		**15 51 37.6**	**+0.6**
	comp=Z,1.1nm,0.4s,baz=58,slow=7.6,SNR=14								
	comp=Z,1.1nm,0.4s								
CMAR	**Chiang Mai Arr**	**41.68**	**273**	P		**P**		**15

MAKZ **Makanchi** 54.48 312 P P 15 53 16.3 +1.3
comp=Z,16nm,1.1s
MAKZ **Makanchi** 54.48 312 P P 15 53 16.2 +1.3
MAKZ PcP PcP 15 54 17.9 +1.3
K17K **Iditarod** 55.84 28 P P 15 53 26.1 +1.7
K17K IAmb IAmb 15 55 25.7
comp=Z,39nm,1.8s
H17K **Granite Mounta** 55.91 25 P P 15 53 26.0 +1.1
H17K IAmb IAmb 15 55 17.9
comp=Z,36nm,2.0s
PDGK **Podgornoye** 56.11 308 P 15 53 26.8 0.0
WUS **Wushi** 56.34 305 P 15 53 28.8 +0.3
WUS **Wushi** 56.34 305 P P 15 53 30.6 +2.1
comp=Z,6.7nm,0.7s
PRZ **Przheval'sk** 56.92 307 P P 15 53 34.5 +1.9
comp=Z,60nm,1.6s
KURK **Kurchatov** 56.99 317 P 15 53 32.8 +0.1
KURK **Kurchatov** 56.99 317 P P 15 53 33.5 +0.9
comp=Z,27nm,0.9s
KURK **Kurchatov** 56.99 317 P P 15 53 33.3 +0.6
KURK pP pP 15 54 05.8 +0.5
KURBB **Kurchatov Arra** 57.04 317 P P 15 53 33.9 +0.9
comp=Z,27nm,0.6s,baz=94,slow=7.8,SNR=4.3
comp=Z,27nm,0.6s
NRIK **Noril'sk** 57.29 340 P P 15 53 34.7 +0.2
comp=Z,2.1nm,0.3s,baz=154,slow=7.7,SNR=4.4
comp=Z,2.1nm,0.3s
NRIK **Noril'sk** 57.29 340 P P 15 53 34.5 0.0
TARG **Taragay, Kyrgy** 57.38 306 P P 15 53 38.9 +2.7
TARG IAmb IAmb 15 55 17.9
comp=Z,29nm,1.8s
G19K **Purcell Mounta** 57.43 25 P P 15 53 36.3 +0.7
G19K IAmb IAmb 15 54 30.2
comp=Z,10nm,1.4s
H19K **Roundabout Mou** 57.48 25 P P 15 53 36.7 +0.7
H19K IAmb IAmb 15 53 51.8
comp=Z,25nm,1.9s
KDJ **Kajisay** 57.83 307 P P 15 53 39.1 +0.1
D19K **Kuna River** 57.87 22 P P 15 53 39.9 +1.3
ASAI **AK-SAY(Kyrgyzs** 58.39 305 P P 15 53 45.3 +2.2
comp=Z,5.2nm,0.8s
D20K **Etivluk River** 58.46 22 P P 15 53 43.3 +0.5
NRN **Naryn** 58.75 306 P 15 53 45.2 -0.4
KSH2 **Kashi** 59.25 303 P P 15 53 50.8 +1.9
KSH2 pmax pmax
comp=Z,10.0nm,0.7s
AAK **Ala-Archa** 59.80 307 P P 15 53 52.9 +0.3
AAK **Ala-Archa** 59.80 307 P P 15 53 53.9 +1.4
comp=Z,4.8nm,0.7s
AAK **Ala-Archa** 59.80 307 P P 15 53 53.9 +1.4
D22K **Ayikyak River** 59.87 22 P P 15 53 53.9 +1.4
ARSB **Arslanbob** 61.02 306 P P 15 54 02.0 +1.1
ARSB IAmb IAmb 15 54 02.8
comp=Z,7.2nm,0.6s
ILAR **Eielson Array** 61.24 27 P P 15 54 00.4 -1.4
comp=Z,0.7nm,0.7s,baz=257,slow=5.5,SNR=5.7
comp=Z,0.7nm,0.7s
ILAR **Eielson Array** 61.24 27 P P 15 54 01.3 -0.5
OHH **Osh** 61.25 305 P P 15 54 02.2 -0.2
comp=Z,14nm,0.7s
ARK **Arkit** 61.74 306 P P 15 54 07.3 +1.6
comp=Z,8.7nm,1.0s
NIL **Nilore** 61.80 297 P 15 54 06.7 +0.6
NIL **Nilore** 61.80 297 P P 15 54 07.3 +1.2
comp=Z,30nm,1.1s
DRK **Karamyk** 62.12 304 P 15 54 09.6 +1.1
DRK IAmb IAmb 15 54 10.3
comp=Z,5.5nm,0.6s
DRK **Karamyk** 62.12 304 P P 15 54 10.0 +1.5
comp=Z,8.5nm,0.8s
BVAR **Borovoye Array** 62.15 319 P P 15 54 09.1 +1.0
comp=Z,36nm,0.6s,baz=90,slow=7.4,SNR=179
D25K **Kavik River** 62.18 22 P P 15 54 09.4 +1.4
D25K IAmb IAmb 15 54 12.7
comp=Z,23nm,1.7s
BORK **Borovoye** 62.20 319 P 15 54 09.3 +1.0
KK31 **Karatay Array** 62.67 308 P 15 54 12.0 +0.3
KK31 IAmb IAmb 15 54 13.6
comp=Z,6.7nm,0.8s
KKAR **Karatay Array** 62.67 308 P 15 54 12.2 +0.5
F26K **Sheenjek River** 62.74 24 P P 15 54 13.5 +1.7
F26K IAmb IAmb 15 55 20.2
comp=Z,19nm,1.9s
BTK **Batken** 62.80 305 P P 15 54 13.1 +0.4
BTK **Batken** 62.80 305 P P 15 54 13.6 +0.8
comp=Z,4.6nm,0.9s
I27K **Kandik River** 63.54 27 P P 15 54 17.9 +0.8
I27K IAmb IAmb 15 55 52.6
comp=Z,32nm,1.9s
H27K **Steamboat Moun** 63.62 26 P P 15 54 19.0 +1.4
H27K IAmb IAmb 15 55 14.8
comp=Z,27nm,1.9s
D27M **Malcolm River** 64.07 23 P P 15 54 21.8 +1.2
D27M IAmb IAmb 15 55 08.0
comp=Z,25nm,1.8s
KBL **Kabul** 65.08 299 P 15 54 27.8 -0.1
KBL IAmb IAmb 15 54 29.3
comp=Z,18nm,0.8s
KBL **Kabul** 65.08 299 P P 15 54 28.7 +0.8
comp=Z,24nm,0.9s
F30M **Barrier River** 65.92 24 P P 15 54 33.4 +1.0
F30M IAmb IAmb 15 54 35.0
comp=Z,21nm,1.5s
ARTI **Arti** 68.80 324 P 15 54 50.6 -0.1
ARTI IAmb IAmb 15 54 51.8
comp=Z,16nm,0.9s
ARTI **Arti** 68.80 324 P P 15 54 51.0 +0.2
AB31 **Akbulak array** 69.07 316 IAmb IAmb 15 54 53.8
comp=Z,12nm,0.8s
ABKAR **Akbulak array** 69.07 316 P 15 54 52.5 0.0
ALE **Alert** 74.45 3 P P 15 55 25.4 +1.3
ALE PcP PcP 15 55 38.1 +0.1
SPITS **Spitsbergen Ar** 75.06 350 P P 15 55 28.0 +0.3
comp=Z,18nm,1.1s,baz=347,slow=12,SNR=2.0
comp=Z,18nm,1.1s
YKA **Yellowknife Ar** 75.66 28 P P 15 55 29.2 -2.2
comp=Z,1.1nm,0.6s,baz=294,slow=6.1,SNR=10.0
comp=Z,1.1nm,0.6s
RES **Resolute Bay** 76.25 13 P P 15 55 34.8 +0.3
RES IAmb IAmb 15 56 59.2
comp=Z,23nm,1.8s
RES **Resolute Bay** 76.25 13 P P 15 55 35.6 +1.1
comp=Z,6.4nm,1.7s
KEV **Kevo** 77.64 341 P P 15 55 43.0 +0.7
comp=Z,19nm,1.1s
KEV **Kevo** 77.64 341 P P 15 55 42.8 +0.5
ARCES **ARCESS Array B** 78.20 341 P P 15 55 46.1 +0.6
comp=Z,10nm,0.6s,baz=72,slow=8.4,SNR=49
comp=Z,10nm,0.6s
ARCES **ARCESS Array B** 78.20 341 P 15 55 45.9 +0.4
ARCES IAmb IAmb 15 55 46.9
comp=Z,12nm,0.7s
PINE **Pine Mountain** 78.70 47 P P 15 55 49.6 +0.7
PINE IAmb IAmb 15 56 24.9
comp=Z,12nm,0.9s
MSF **Maaselka** 78.99 338 P P 15 55 50.1 +0.3
comp=Z,22nm,0.8s
SGF **Sodankyl** 79.03 339 P P 15 55 50.5 +0.5
comp=Z,37nm,0.9s
K05A **Summer Lake** 79.10 48 P P 15 55 52.4 +1.3
RNF **Rovaniemi** 79.66 339 P P 15 55 53.8 +0.4
comp=Z,18nm,0.8s
DAG **Danmarks Havn** 80.33 356 P P 15 55 57.0 +0.1
OUL **Oulu** 80.54 338 P P 15 55 58.4 +0.2
comp=Z,18nm,1.0s
POIN **Pond Inlet** 81.06 12 P P 15 56 01.3 +0.5
POIN IAmb IAmb 15 56 45.8
comp=Z,39nm,2.0s
KBZ **Khabaz** 81.91 314 P P 15 56 06.9 +1.1
comp=Z,16nm,0.8s,baz=102,slow=3.3,SNR=34
KIV **Kislovodsk** 81.97 314 P P 15 56 06.4 +0.1
comp=Z,15nm,1.1s
KIV **Kislovodsk** 81.97 314 P P 15 56 09.0 +2.7
comp=Z,20nm,1.1s
GNI **Garni** 82.04 310 P P 15 56 07.1 +0.3
comp=Z,9.2nm,1.0s
FIA1 **FINESS Array S** 82.51 334 P P 15 56 07.7 -0.9
FINES **FINESS Array B** 82.51 334 P P 15 56 08.1 -0.5
comp=Z,4.6nm,0.3s,baz=68,slow=4.9,SNR=74
comp=Z,4.6nm,0.3s
FINES **FINESS Array B** 82.51 334 P P 15 56 07.8 -0.8
NVAR **Mina Array Bea** 82.52 52 P P 15 56 06.5 -3.0
comp=Z,0.3nm,0.3s,baz=215,slow=9.2,SNR=2.1
comp=Z,0.3nm,0.3s
EPOS **Posof** 82.92 312 P P 15 56 12.8 +1.4
comp=Z,15nm,1.2s

ARBE **Arbavere** 83.68 333 P P 15 56 14.6 0.0
comp=Z,124nm,1.0s
HAKT **HAKKARI** 83.80 308 P P 15 56 16.6 +0.6
comp=Z,73nm,0.8s
VSU **Vasula** 83.91 332 P P 15 56 14.5 -1.3
comp=Z,28nm,1.2s
UPNV **Upernavik** 84.04 6 P P 15 56 17.1 +0.9
comp=Z,37nm,1.3s
SUMG **Summit** 85.15 1 P P 15 56 23.1 +0.7
SUMG IAmb IAmb 15 57 12.5
comp=Z,17nm,1.5s
DUG **Dugway, Tooele** 85.68 48 P P 15 56 24.0 -1.3
DUG pP pP 15 56 59.4 -0.4
RLMT **Red Lodge** 85.80 43 P P 15 56 25.4 -0.5
RLMT pP 15 57 00.4 -0.1
MARD **Mardin** 86.02 309 P P 15 56 25.9 -1.1
MARD IAmb IAmb 15 56 28.6
comp=Z,6.4nm,0.7s
PDAR **Pinedale Array** 86.71 45 P P 15 56 27.0 -3.4
comp=Z,0.1nm,0.4s,baz=300,slow=3.6,SNR=1.1
PDAR **Pinedale Array** 86.71 45 P P 15 56 29.1 -1.3
PABE **Paberze** 86.85 330 P P 15 56 30.0 -0.4
comp=Z,22nm,0.8s
AK03 **Malin Array Si** 86.92 324 P P 15 56 29.5 -1.4
AKASG **Malin Array Be** 86.93 324 P P 15 56 30.0 -1.0
comp=Z,1.7nm,0.5s,baz=52,slow=5.2,SNR=8.4
comp=Z,1.7nm,0.5s
AKBB **Malin Array Si** 86.93 324 P P 15 56 29.7 -1.3
AK01 **Malin Array Si** 86.94 324 P P 15 56 29.7 -1.3
KIEV **Kiev** 86.94 324 P P 15 56 29.7 -1.3
KIEV **Kiev** 86.94 324 P P 15 56 30.1 -0.9
AK04 **Malin Array Si** 86.95 325 P P 15 56 29.7 -1.4
AK19 **Malin Array Si** 87.04 325 P P 15 56 30.3 -1.2
KNB **Kanab** 87.06 51 P P 15 56 32.8 +0.7
KNB pP pP 15 57 06.5 -0.3
KNB IAmb IAmb 15 57 08.1
comp=Z,6.5nm,0.8s
Q16A **Castle Valley** 87.38 49 P P 15 56 33.4 -0.3
Q16A IAmb IAmb 15 56 50.6
comp=Z,16nm,1.9s
Q16A pP pP 15 57 08.2 -0.2
RAYN **Ar Rayn** 87.98 295 P P 15 56 35.1 -1.6
RAYN **Ar Rayn** 87.98 295 P P 15 56 36.4 -0.2
NC405 **NORSAR Array S** 88.02 339 P P 15 56 35.1 -0.9
HFS **Hagfors** 88.04 337 P P 15 56 34.8 -1.2
comp=Z,4.3nm,0.4s,baz=92,slow=3.6,SNR=33
comp=Z,4.3nm,0.4s
LUBAR **Lubar, Ukraine** 88.15 324 P P 15 56 35.7 -1.1
NB201 **NORSAR Array S** 88.21 339 P P 15 56 35.9 -1.0
NB2 **NORSAR Subarra** 88.24 339 P P 15 56 35.9 -1.2
comp=Z,1.8nm,0.6s,baz=55,slow=4.8
NOA **NORSAR Array B** 88.24 339 P P 15 56 36.2 -0.9
comp=Z,2.8nm,0.7s,baz=44,slow=4.5,SNR=13
comp=Z,2.8nm,0.7s
RNPP9 **Sopachiv** 88.29 326 P P 15 56 37.3 -0.1
RNPP8 **Varash** 88.35 326 P P 15 56 37.4 -0.3
SORM **Soroca** 88.80 323 P P 15 56 39.8 -0.1
comp=Z,2.9nm,1.9s
PV21 **Cone Mtn., Par** 89.07 48 P P 15 56 43.0 +1.3
PV21 IAmb IAmb 15 57 17.2
comp=Z,8.7nm,1.0s
PV23 **Carpenter Ridg** 89.10 48 P P 15 56 42.9 +1.0
PV23 IAmb IAmb 15 57 17.1
comp=Z,9.2nm,1.0s
KMPD **K-Podol'skiy** 89.61 324 P P 15 56 42.9 -0.8
BR131 **Keskin Array S** 89.89 313 P P 15 56 44.3 -1.1
BRTR **Keskin Array B** 89.89 313 P P 15 56 44.8 -0.7
comp=Z,2.1nm,0.8s,baz=76,slow=5.3,SNR=10
comp=Z,2.1nm,0.8s
BRTR **Keskin Array B** 89.89 313 P P 15 56 44.4 -1.0
BR104 **Keskin Array S** 89.90 313 P P 15 56 44.9 -0.5
comp=Z,2.9nm,1.0s
BR106 **Keskin Array S** 89.90 313 P P 15 56 45.0 -0.5
comp=Z,3.5nm,0.8s
BR105 **Keskin Array S** 89.91 313 P P 15 56 44.8 -0.7
comp=Z,3.8nm,0.8s
KSP **Ksiaz** 93.37 330 P P 15 57 00.6 -0.5
HRFI **Mount Harif** 93.57 304 P P 15 57 01.7 -0.8
comp=Z,13nm,2.3s
GERES **GERESS Array B** 95.97 329 P P 15 57 11.9 -1.2
comp=Z,0.4nm,0.6s,baz=17,slow=5.7,SNR=2.5
comp=Z,0.4nm,0.6s
TXAR **Lajitas Array** 97.45 54 P P 15 57 18.0 -2.3
comp=Z,0.1nm,0.3s,baz=305,slow=5.2,SNR=1.7
comp=Z,0.1nm,0.3s
TXAR **Lajitas Array** 97.45 54 P P 15 57 19.4 -0.9
PLCA **Paso Flores** 146.17 130 PKPbc PKPdf 16 03 23.6 -1.1
comp=Z,2.4nm,0.9s,baz=226,slow=5.0,SNR=8.4
LPAZ **La Paz** 149.71 84 PKPbc PKPdf 16 03 34.5 +2.7
comp=Z,1.1nm,0.3s,baz=285,slow=6.0,SNR=3.6

*NEIC **26** 15:48:01.9±1.6,52.7°N±0.1×170.3°E±0.0,09,h10km±1km, mb4.1/78, Error ellipse: s-maj=24.6km s-min=9.6km az=178.0*
*IDC **26** 15:48:02.5±1.3,53.1°N×170.4°E, h0km, mb3.7/10, mbtmp3.8/12, ML3.5/2, Error ellipse: s-maj=45.6km s-min=12.7km az=3.0*
*KRSC **26** 15:48:03.1±1.4, 52.9°N×170.2°E, h68km±68km, Ml3.9*

ISC 26 15:48:04.1±0.7, 52.8°N±0.1°×170.3°E±0.0°,04, h28km, n119, σ1°23/118, mb4.0/33, Near Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHEM	**Shemya Is, Ala**	**2.30**	**89**	Pn	**Pn**	**15 48 40.1**	**+0.1**
	26nm,0.3s,baz=294,slow=20,SNR=16						
SHEM				Sn	**Sb**	**15 49 09.7**	**-3.0**
	37nm,0.3s,baz=252,slow=20,SNR=9.9						
	51nm,0.3s						
SHEM				AML	AML		
SHEM	**Shemya Is, Ala**	**2.30**	**89**		**Pn**	**15 48 39.7**	**-0.4**
SHEM				Sn	**Sn**	**15 49 07.0**	**-0.3**
SMY	**Shemya**	**2.30**	**89**	Pn	**Pn**	**15 48 39.3**	**-0.7**
SMY				Sn	**Sn**	**15 49 07.2**	**-0.2**
MKZ	**Mys Kozlova**	**5.42**	**293**	*eP*	**Pn**	**15 49 23.5**	**+0.5**
KBTR	**Krutoberegovo**	**5.58**	**311**	*eP*	**Pn**	**15 49 24.3**	**-0.9**
SPN	**Mys Shipunski**	**6.24**	**277**	*eP*	**Pn**	**15 49 36.3**	**+2.1**
DALK	**Dalny**	**7.01**	**277**	*eP*	**Pn**	**15 49 46.5**	**+1.8**
DALK				*eS*	**Sn**	**15 51 01.2**	**-2.2**
AVH	**Avacha**	**7.01**	**279**	*eP*	**Pn**	**15 49 47.2**	**+2.3**
KRX	**Arik**	**7.06**	**280**	*eP*	**Pn**	**15 49 44.8**	**-0.9**
PET	**Petropavlovsk**	**7.07**	**277**	Pn	**Pn**	**15 49 43.8**	**-1.8**
PET				Sn	**Sn**	**15 51 00.5**	**-4.4**
PET	**Petropavlovsk**	**7.07**	**277**	*eP*	**Pn**	**15 49 47.5**	**+1.9**
KOK	**Koryaka**	**7.07**	**279**	*eP*	**Pn**	**15 49 47.7**	**+1.9**
MTVR	**Mutnovka**	**7.40**	**273**	*eP*	**Pn**	**15 49 52.5**	**+2.2**
GRL	**Gorelyy**	**7.46**	**273**	*eP*	**Pn**	**15 49 54.0**	**+2.9**
KDTR	**Khodutka, Kamc**	**7.57**	**268**	*eP*	**Pn**	**15 49 54.5**	**+2.0**
KDTR				*eS*	**Sn**	**15 51 12.9**	**-4.4**
PEA0B	**Petropavlovsk-**	**7.64**	**278**		**Pn**	**15 49 54.3**	**+0.9**
PETK	**Petropavlovsk-**	**7.64**	**278**	Pn	**Pn**	**15 49 56.0**	**+2.5**
	1.7nm,0.3s,baz=86,slow=19,SNR=44						
PETK				Sn	**Sn**	**15 51 17.0**	**-2.0**
	0.4nm,0.3s,baz=79,slow=12,SNR=2.0						
	4.3nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**7.64**	**278**		**Pn**	**15 49 54.2**	**+0.7**
WECS	**Westdahl Cape**	**14.85**	**73**	Pn	**Pn**	**15 51 31.5**	**-0.5**
K13K	**Kusilvak Mount**	**16.23**	**46**		**P**	**15 51 51.4**	**-1.3**
K13K				IAmb	IAmb	15 51 55.7	
	comp=Z,31nm,1.5s						
TNA	**Tin City**	**16.87**	**32**	P	**P**	**15 52 00.6**	**+0.8**
L14K	**Kuka Creek**	**16.90**	**49**		**P**	**15 52 01.7**	**+1.6**
L14K				IAmb	IAmb	15 52 20.1	
	comp=Z,15nm,1.3s						
J14K	**Nanvaranak Lak**	**17.03**	**44**		**P**	**15 52 02.2**	**+0.7**
J14K				IAmb	IAmb	15 52 20.6	
	comp=Z,30nm,1.4s						
K15K	**Wolf Creek Mou**	**17.73**	**46**		**P**	**15 52 10.9**	**+1.6**
K15K				IAmb	IAmb	15 52 29.9	
	comp=Z,18nm,1.4s						
J16K	**Anvik River**	**18.48**	**44**	P	**Pn**	**15 52 18.1**	**+0.3**
J16K				IAmb	IAmb	15 52 39.4	
	comp=Z,16nm,1.4s						
J17K	**VABM Dome**	**19.16**	**44**	P	**P**	**15 52 25.2**	**+0.2**
K17K	**Iditarod**	**19.29**	**47**	P	**Pn**	**15 52 27.6**	**0.0**
K17K				IAmb	IAmb	15 52 54.5	
	comp=Z,10nm,1.2s						
N17K	**Nushagak Hills**	**19.32**	**53**	P	**Pn**	**15 52 27.7**	**-0.2**
N17K				IAmb	IAmb	15 52 49.0	
	comp=Z,15nm,1.4s						
M17K	**Holitna River**	**19.36**	**51**	P	**P**	**15 52 27.6**	**+0.4**
M17K				IAmb	IAmb	15 52 33.0	
	comp=Z,25nm,1.4s						

H17K **Granite Mounta** 19.41 40 P P 15 52 28.4 +0.7
F17K **Baldwin Pennin** 19.62 35 P P 15 52 30.8 +0.9
L18K **Granite Mounta** 19.88 49 P P 15 52 33.2 +0.4
L18K IAmb IAmb 15 52 57.3
comp=Z,11nm,1.4s
N18K **Kilae Creek** 19.97 53 P P 15 52 34.5 +0.6
N18K IAmb IAmb 15 52 36.0
comp=Z,16nm,1.4s
H18K **Honhosa River** 20.10 40 P P 15 52 35.9 +0.7
H18K IAmb IAmb 15 52 57.0
comp=Z,11nm,1.3s
J18K **Innoko River** 20.20 45 P P 15 52 37.0 +0.7
G18K **Tagagawik** 20.29 38 P P 15 52 37.7 +0.4
E18K **Tukpahlearik C** 20.35 33 P P 15 52 39.0 +1.1
E18K IAmb IAmb 15 52 44.7
comp=Z,17nm,1.3s
L19K **White Mountain** 20.72 49 P P 15 52 42.4 +0.4
SII **Sitkinak Islan** 20.73 65 P P 15 52 42.1 0.0
J19K **Poorman** 20.81 44 P P 15 52 43.4 +0.4
J19K IAmb IAmb 15 52 50.4
comp=Z,6.8nm,1.1s
C18K **Utukok River** 20.84 29 P P 15 52 43.6 +0.3
M19K **Big River Lodg** 20.88 50 P P 15 52 43.6 -0.1
M19K IAmb IAmb 15 53 01.7
comp=Z,16nm,1.4s
Q19K **Cape Douglas,** 20.96 59 P P 15 52 45.0 +0.4
G19K **Purcell Mounta** 20.98 38 P P 15 52 45.1 +0.4
H19K **Roundabout Mou** 20.98 40 P P 15 52 45.1 +0.4
F19K **Shaleruckik Mo** 21.02 36 P P 15 52 45.9 +0.7
F19K IAmb IAmb 15 52 48.1
comp=Z,11nm,1.5s
OHAK **Old Harbor** 21.18 63 P P 15 52 46.2 -0.7
L20K **Farewell, AK** 21.22 49 P P 15 52 47.8 +0.4
ILSW **Iliamna Southw** 21.26 56 P P 15 52 48.8 +0.9
ILSW IAmb IAmb 15 53 18.0
comp=Z,12nm,1.1s
K20K **Telida** 21.32 46 P P 15 52 49.8 +1.4
J20K **Nowinta River** 21.49 44 P P 15 52 50.1 0.0
E19K **Redstone River** 21.50 34 P P 15 52 49.8 -0.5
KDAK **Kodiak Island** 21.53 62 P P 15 52 50.0 -0.6
D19K **Kuna River** 21.71 31 P P 15 52 52.4 -0.2
STLK **Strandline Lak** 22.03 52 P P 15 52 55.5 -0.6
IMAR **Indian Mountai** 22.19 39 P P 15 52 57.3 -0.4
CNPM **China Poot** 22.21 57 P P 15 52 57.9 -0.1
H21K **Melozitna Rive** 22.45 41 P P 15 53 00.4 -0.2
G21K **Allakaket** 22.46 38 P P 15 53 00.6 -0.1
SUA **Susitna One** 22.55 52 P P 15 53 01.7 0.0
SUA IAmb IAmb 15 53 08.7
comp=Z,13nm,1.2s
F21K **Alatna River** 22.72 37 P P 15 53 03.7 +0.3
F21K IAmb IAmb 15 53 29.5
comp=Z,5.5nm,1.3s
SLKM **Skilak Lake** 22.74 54 P P 15 53 03.1 -0.5
TRF **Thorofare Moun** 23.00 47 P P 15 53 06.3 -0.2
TRF IAmb IAmb 15 53 13.1
comp=Z,6.0nm,1.2s
H22K **Ishtalitna Cre** 23.09 40 P P 15 53 06.9 -0.3
H22K IAmb IAmb 15 53 31.3
comp=Z,6.0nm,1.4s
D22K **Ayikyak River** 23.65 33 P P 15 53 12.8 +0.1
D22K IAmb IAmb 15 53 23.0
comp=Z,7.5nm,1.2s
PWL **Port Wells** 23.68 54 P P 15 53 11.9 -1.1
I23K **Minto, Yukon-K** 23.72 43 P P 15 53 12.8 -0.5
I23K IAmb IAmb 15 53 15.7
comp=Z,8.8nm,1.5s
G23K **Bananza Creek** 23.84 39 P P 15 53 14.2 -0.4
CCB **Clear Creek Bu** 24.28 44 P P 15 53 17.9 -0.7
CCB IAmb IAmb 15 53 18.8
comp=Z,4.8nm,1.3s
D23K **Nanushuk River** 24.35 33 P P 15 53 19.1 -0.1
D23K IAmb IAmb 15 53 36.0
comp=Z,3.6nm,1.0s
H24K **Noodor Dome** 24.47 41 P P 15 53 20.0 -0.4
H24K IAmb IAmb 15 53 30.4
comp=Z,3.6nm,1.1s
TOLK **Toolik Lake Re** 24.61 35 P P 15 53 21.4 -0.2
TOLK IAmb IAmb 15 53 46.9
comp=Z,4.2nm,1.1s
IL31 24.69 44 P P 15 53 21.6 -0.7
ILAR **Eielson Array** 24.69 44 P P 15 53 21.4 -0.9
comp=Z,0.6nm,0.6s,baz=247,slow=7.2,SNR=15
comp=Z,0.6nm,0.6s
E24K **Your Creek** 24.81 36 P P 15 53 23.9 +0.5
E24K IAmb IAmb 15 53 46.8
comp=Z,6.5nm,1.3s
G24K **Hadweenzic Riv** 24.82 40 P P 15 53 23.6 +0.2
D24K **Happy Valley** 25.04 34 P P 15 53 23.8 -1.6
D24K IAmb IAmb 15 53 31.8
comp=Z,7.0nm,1.1s
FYU **Fort Yukon** 25.66 40 P P 15 53 29.8 -1.3
FYU IAmb IAmb 15 53 43.5
comp=Z,7.4nm,1.0s
F25K **Christian Rive** 25.72 38 P P 15 53 30.7 -1.0
F25K IAmb IAmb 15 53 38.6
comp=Z,4.0nm,0.8s
D25K **Kavik River** 25.92 34 P P 15 53 33.0 -0.5
D25K IAmb IAmb 15 53 58.2
comp=Z,6.8nm,1.4s
BMAR **Burnt Mountain** 26.09 38 P P 15 53 34.7 -0.3
CRQM **Cirque** 26.23 54 P P 15 53 36.2 -0.3
F26K **Sheenjek River** 26.30 38 P P 15 53 36.5 -0.4
F26K IAmb IAmb 15 53 43.7
comp=Z,4.7nm,0.9s
BARN **Barnard Glacie** 26.93 53 P P 15 53 42.9 0.0
H29M **Whitestone** 28.37 42 P P 15 53 53.8 -1.6
HYT **Haines Junctio** 28.97 53 P P 15 54 00.1 -0.9
H11N2 **WAKE ISLAND Hy** 33.06 186 T T 16 29 55.2
baz=4.5,slow=76,SNR=49
H11N3 **WAKE ISLAND Hy** 33.08 186 T T 16 29 54.4
baz=4.5,slow=76,SNR=49
H11N1 **WAKE ISLAND Hy** 33.08 186 T T 16 29 54.8
baz=4.5,slow=76,SNR=57
JCJ **Chichijima** 33.11 230 P P 15 54 35.9 -1.7
H11S1 **WAKE ISLAND Hy** 34.29 186 T T 16 31 27.3
baz=4.4,slow=76,SNR=57
H11S3 **WAKE ISLAND Hy** 34.30 186 T T 16 31 29.1
baz=4.4,slow=76,SNR=44
H11S2 **WAKE ISLAND Hy** 34.31 186 T T 16 31 28.0
baz=4.4,slow=76,SNR=51
YKAW3 **Yellowknife Wh** 39.08 45 P P 15 55 27.1 -1.1
YKAW3 IAmb IAmb 15 55 27.6
comp=Z,8.5nm,1.5s
YKA **Yellowknife Ar** 39.11 45 P P 15 55 27.7 -0.7
YKAW1 **Yellowknife Wh** 39.16 45 P P 15 55 28.3 -0.6
YKAW1 IAmb IAmb 15 55 34.9
comp=Z,3.5nm,0.9s
SONM **Songino Array** 39.94 289 P P 15 55 35.9 +0.2
comp=Z,0.4nm,0.8s,baz=56,slow=7.7,SNR=2.5
comp=Z,0.4nm,0.8s
BUCK **Buck Mountain** 43.56 73 P P 15 56 05.0 -0.4
EPH **Ephrata** 43.69 68 P P 15 56 06.2 -0.1
L04D **Klamath Falls** 45.15 75 P P 15 56 19.7 +1.6
YBH **Yreka Blue Hor** 45.20 76 P P 15 56 20.4 +1.9
comp=Z,2.2nm,0.6s,baz=354,slow=7.3,SNR=6.3
comp=Z,2.2nm,0.6s
YBH **Yreka Blue Hor** 45.20 76 IAmb IAmb 15 56 27.7
comp=Z,5.2nm,1.2s
M02C **Callahan** 45.33 77 P P 15 56 20.8 +1.3
K05A **Summer Lake** 45.66 74 P P 15 56 24.3 +2.0
MOD **Modoc Plateau** 46.51 74 P P 15 56 28.8 -0.1
MOD IAmb IAmb 15 56 29.8
comp=Z,2.2nm,0.8s
MCMT **McKenzie Canyo** 48.97 67 P P 15 56 47.8 -0.2
BCYI **Bear Canyon** 48.98 68 P P 15 56 47.2 -0.9
KURK **Kurchatov** 53.02 307 P P 15 57 19.0 +0.9
KURK **Kurchatov** 53.02 307 IAmb IAmb 15 57 20.3
comp=Z,2.1nm,1.0s
KURBB **Kurchatov Arra** 53.13 307 P P 15 57 19.0 +0.2
comp=Z,0.6nm,0.7s,baz=59,slow=7.6,SNR=3.0
comp=Z,0.6nm,0.7s
MKAR **Makanchi Array** 53.75 302 P P 15 57 24.7 +1.2
comp=Z,0.4nm,0.6s,baz=55,slow=4.3,SNR=4.1
comp=Z,0.4nm,0.6s
BVAR **Borovoye Array** 55.29 314 P P 15 57 36.3 +1.7
comp=Z,0.3nm,0.5s,baz=53,slow=7.6,SNR=1.5
comp=Z,0.3nm,0.5s
ARCES **ARCESS Array B** 55.35 346 P P 15 57 35.5 +0.7
SCHQ **Schefferville** 62.81 33 P P 15 58 25.5 -1.2
comp=Z,4.8nm,0.9s,baz=230,slow=17,SNR=2.5
comp=Z,4.8nm,0.9s
SCHQ **Schefferville** 62.81 33 P P 15 58 26.5 -0.2
TX31 **Lajitas Ar. Si** 64.92 74 P P 15 58 42.7 +1.7
TX31 IAmb IAmb 15 59 10.1
comp=Z,3.0nm,1.4s

TXAR	**Lajitas Array**	**64.92**	**74**	P		**P**	15 58 42.7	+1.7
	comp=Z,0.5nm,0.6s,baz=312,slow=5.0,SNR=7.3							
	comp=Z,0.5nm,0.6s							
NOA	**NORSAR Array B**	**65.34**	**349**	P		**P**	15 58 44.2	+1.1
	comp=Z,0.7nm,0.7s,baz=15,slow=6.5,SNR=2.0							
	comp=Z,0.7nm,0.7s							
GERES	**GERESS Array B**	**76.85**	**344**	P		**P**	15 59 54.7	+1.6
	comp=Z,0.3nm,0.4s,baz=28,slow=3.2,SNR=4.0							
	comp=Z,0.3nm,0.4s							

*JMA **26** 15:54:50.8±0.2,24.°7N±0.°5×121.°9E±0.°4, h82km±1km, MV3.7/17, TAIWAN REGION*
*TAP **26** 15:54:51.6,24.°69N×121.°92E, h78km, ML4.4, B*
*IDC **26** 15:54:53.1±3.2,24.°76N×122.°11E, h103km±31km, mb3.0/8, mbtmp3.4/10, Error ellipse: s-maj=20.8km s-min=20.4km az=96.0*

ISC 26 15:54:51.2±0.7, 24.°72N±0.°02×121.°93E±0.°02, h83km±4km, n206, σ1§10/376, mb3.1/8, 42C-7D, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
EGS		**0.13**	**360**	*i*	P		**Pn**	**15 55 03.4**	**+0.3**
TWC	**Suao**	**0.13**	**215**	⇑	*i*P		**Pn**	**15 55 03.5**	**+0.4**
TWC					*i* S		**Sn**	**15 55 11.7**	**-0.2**
ESAO	**Su ao**	**0.16**	**210**	⇑	*i*P		**Pn**	**15 55 03.7**	**+0.4**
ESAO					*i* S		**Sn**	**15 55 12.3**	**+0.2**
NTC	**Toucheng**	**0.17**	**325**		*i* P		**Pn**	**15 55 03.5**	**+0.3**
NTC					*i* S		**Sn**	**15 55 12.1**	**0.0**
ILA	**Ilan**	**0.17**	**286**		*i* P		**Pn**	**15 55 03.9**	**+0.7**
ILA					*i* S		**Sn**	**15 55 12.9**	**+0.8**
NDS	**Dongshan**	**0.21**	**247**	⇑	*i*P		**Pn**	**15 55 04.2**	**+0.7**
NDS					*i* S		**Sn**	**15 55 13.4**	**+1.0**
TWE	**Neicheng**	**0.24**	**271**	⇑	*i*P		**Pn**	**15 55 04.2**	**+0.7**
TWE					*i* S		**Sn**	**15 55 13.0**	**+0.5**
TIPB	**Shuangxi**	**0.27**	**339**	⇓	*i*P		**Pn**	**15 55 03.9**	**+0.2**
TIPB					*i* S		**Sn**	**15 55 12.4**	**-0.6**
TWB1	**Santiao Chiao**	**0.29**	**10**	⇓	*i*P		**Pn**	**15 55 03.8**	**0.0**
TWB1					*i* S		**Sn**	**15 55 12.6**	**-0.5**
EWT	**Wuta**	**0.31**	**207**	⇑	*i*P		**Pn**	**15 55 04.2**	**+0.3**
EWUT					*i* S		**Sn**	**15 55 13.4**	**+0.2**
FUSB	**Fushanzhiwuyua**	**0.32**	**278**	⇑	*i*P		**Pn**	**15 55 04.4**	**+0.4**
FUSB					*i* S		**Sn**	**15 55 13.4**	**-0.1**
ENA	**Nanau**	**0.34**	**211**	⇑	*i*P		**Pn**	**15 55 04.4**	**+0.4**
ENA					*i* S		**Sn**	**15 55 14.0**	**+0.5**
NWF	**Wu-fen Shan**	**0.38**	**339**		*i* P		**Pn**	**15 55 04.6**	**+0.2**
NWF					*i* S		**Sn**	**15 55 13.7**	**-0.5**
SXI1	**Grass Mountain**	**0.38**	**352**	⇓	*i*P		**Pn**	**15 55 04.3**	**-0.1**
SXI1					*e*S		**Sn**	**15 55 13.5**	**-0.7**
WFSB	**Wu-fen Shan**	**0.38**	**339**		*i* P		**Pn**	**15 55 04.6**	**+0.2**
WFSB					S		**Sn**	**15 55 13.8**	**-0.2**
NWLT	**Wulai**	**0.40**	**279**	⇑	*i*P		**Pn**	**15 55 04.7**	**+0.2**
NWLT					*i* S		**Sn**	**15 55 14.4**	**+0.1**
NDT	**Datong Townshi**	**0.40**	**253**	⇑	*i*P		**Pn**	**15 55 05.1**	**+0.6**
NDT					S		**Sn**	**15 55 14.6**	**+0.3**
EOS2	**EOS2**	**0.40**	**138**	⇓	*e*P		**Pn**	**15 55 05.3**	**+0.9**
TWA	**Mucha**	**0.41**	**310**	⇑	*i*P		**Pn**	**15 55 04.8**	**+0.3**
TWA					*i* S		**Sn**	**15 55 14.4**	**-0.1**
EAHA	**Aohua**	**0.42**	**205**		*i* P		**Pn**	**15 55 04.7**	**+0.1**
EAHA					*i* S		**Sn**	**15 55 15.2**	**+0.6**
EHP	**Heping Village**	**0.44**	**203**		*i* P		**Pn**	**15 55 05.3**	**+0.5**
EHP					S		**Sn**	**15 55 16.3**	**+1.4**
NHDH	**Xindian Distri**	**0.44**	**303**	⇑	*i*P		**Pn**	**15 55 05.3**	**+0.5**
NHDH					*i* S		**Sn**	**15 55 15.0**	**+0.2**
TNOU	**National Taiwa**	**0.45**	**341**		*i* P		**Pn**	**15 55 04.9**	**+0.1**
TNOU					*i* S		**Sn**	**15 55 14.2**	**-0.7**
NHY	**Taipei**	**0.46**	**314**		*i* P		**Pn**	**15 55 05.2**	**+0.3**
NHY					S		**Sn**	**15 55 15.3**	**+0.3**
TATO	**Taipei**	**0.48**	**302**	⇑	*i*P		**Pn**	**15 55 05.3**	**+0.2**
TATO					*i* S		**Sn**	**15 55 15.1**	**-0.2**
TAP	**Taipei**	**0.50**	**310**	⇑	*i*P		**Pn**	**15 55 05.6**	**+0.3**
TAP					*i* S		**Sn**	**15 55 15.6**	**0.0**
YHNB	**Yeheng**	**0.51**	**265**		P		**Pn**	**15 55 05.2**	**-0.2**
YHNB	**Yeheng**	**0.51**	**265**		S		**Sn**	**15 55 15.1**	**-0.8**
YHNB	**Yeheng**	**0.51**	**265**	⇑	*i*P		**Pn**	**15 55 05.5**	**+0.1**
YHNB					*i* S		**Sn**	**15 55 15.1**	**-0.5**
NSK	**Sanguang**	**0.53**	**266**	⇑	*i*P		**Pn**	**15 55 05.6**	**+0.1**
NSK					*i* S		**Sn**	**15 55 15.6**	**-0.6**
BACT	**New Taipei Cit**	**0.53**	**302**		*i* P		**Pn**	**15 55 06.0**	**+0.5**
BACT					*i* S		**Sn**	**15 55 16.7**	**+0.7**
YM01	**YM01**	**0.54**	**322**		*i* P		**Pn**	**15 55 05.8**	**+0.2**
YM01					*i* S		**Sn**	**15 55 16.0**	**-0.3**
NWRT	**Kuosheng**	**0.54**	**333**		*e*P		**Pn**	**15 55 06.4**	**+0.8**
NWRT					S		**Sn**	**15 55 16.1**	**-0.2**
EOS3	**EOS3**	**0.55**	**141**		*e*P		**Pn**	**15 55 06.6**	**+1.0**
YM08	**YM08**	**0.56**	**326**	⇑	*i*P		**Pn**	**15 55 05.8**	**0.0**
YM08					*i* S		**Sn**	**15 55 15.6**	**-1.0**
ZUZH	**Zhuzihu**	**0.56**	**322**		*i* P		**Pn**	**15 55 06.1**	**+0.3**
ZUZH					S		**Sn**	**15 55 16.2**	**-0.6**
NNSB	**Datong**	**0.58**	**240**	⇑	*i*P		**Pn**	**15 55 06.6**	**+0.5**
NNSB					*i* S		**Sn**	**15 55 16.8**	**-0.2**
NNSH	**Datong**	**0.58**	**240**	⇑	*i*P		**Pn**	**15 55 06.7**	**+0.6**
NNSH					S		**Sn**	**15 55 17.1**	**0.0**
NNS	**Nan Shan**	**0.58**	**242**	⇑	*i*P		**Pn**	**15 55 06.6**	**+0.5**
NNS					*i* S		**Sn**	**15 55 17.1**	**0.0**
ANP	**Anpu**	**0.60**	**321**		*i* P		**Pn**	**15 55 06.3**	**+0.1**
ANP					*i* S		**Sn**	**15 55 17.5**	**+0.1**
TWS1	**Kuangyinshan**	**0.60**	**309**	⇑	*i*P		**Pn**	**15 55 06.8**	**+0.6**
TWS1					*i* S		**Sn**	**15 55 17.7**	**+0.4**
NACB	**Ninganchiao**	**0.62**	**210**		P		**Pn**	**15 55 05.9**	**-0.4**
NACB	**Ninganchiao**	**0.62**	**210**		S		**Sn**	**15 55 13.1**	**-4.5**
NACB	**Ninganchiao**	**0.62**	**210**	⇑	*i*P		**Pn**	**15 55 06.0**	**-0.4**
NACB					S		**Sn**	**15 55 17.3**	**-0.3**
ETL	**Fush Village**	**0.62**	**207**		*i* P		**Pn**	**15 55 06.1**	**-0.3**
ETL					*i* S		**Sn**	**15 55 17.7**	**0.0**
NTST	**Danshui**	**0.62**	**315**		*i* P		**Pn**	**15 55 07.0**	**+0.7**
NTST					*i* S		**Sn**	**15 55 18.2**	**+0.6**
TWY	**Chenhua**	**0.63**	**331**		*i* P		**Pn**	**15 55 06.8**	**+0.4**
TWY					*i* S		**Sn**	**15 55 18.5**	**+0.8**
NTY	**Taoyuan**	**0.64**	**296**		*i* P		**Pn**	**15 55 07.1**	**+0.6**
NTY					*i* S		**Sn**	**15 55 18.8**	**+0.9**
ETLH	**Xiulin Townshi**	**0.65**	**219**		*i* P		**Pn**	**15 55 06.8**	**+0.0**
ETLH					*i* S		**Sn**	**15 55 17.8**	**-0.5**
EOS4	**EOS4**	**0.69**	**149**		*i* P		**Pn**	**15 55 07.0**	**+0.3**
EOS4					*e*S		**Sn**	**15 55 18.5**	**+0.4**
KSHI	**Guanxi Townshi**	**0.69**	**275**	⇑	*i*P		**Pn**	**15 55 07.6**	**+0.6**
KSHI					*i* S		**Sn**	**15 55 19.4**	**+0.7**
TWD	**Chiawan**	**0.71**	**206**	⇑	*i*P		**Pn**	**15 55 06.8**	**-0.4**
TWD					*i* S		**Sn**	**15 55 18.3**	**-0.7**
NCU	**National Centr**	**0.72**	**290**	⇑	*i*P		**Pn**	**15 55 07.9**	**+0.6**
NCU					*i* S		**Sn**	**15 55 20.0**	**+0.7**
NFF	**Wufeng Townshi**	**0.75**	**264**	⇑	*i*P		**Pn**	**15 55 07.8**	**+0.1**
NFF					S		**Sn**	**15 55 19.0**	**-0.9**
NJD	**Zhudong**	**0.77**	**272**		*i* P		**Pn**	**15 55 09.3**	**+1.5**
NJD					S		**Sn**	**15 55 21.1**	**+0.9**
FUSS	**Fushou**	**0.78**	**233**	⇑	*i*P		**Pn**	**15 55 08.9**	**+0.7**
FUSS					*i* S		**Sn**	**15 55 21.0**	**+0.1**
HWA	**Hwalien**	**0.80**	**202**	⇑	*i*P		**Pn**	**15 55 08.2**	**+0.1**
HWA					*e*S		**Sn**	**15 55 21.0**	**+0.3**
TWT	**Tachien**	**0.83**	**236**	⇑	*i*P		**Pn**	**15 55 09.7**	**+1.0**
TWT					*i* S		**Sn**	**15 55 22.5**	**+0.8**
HSN1	**Hsinchu**	**0.83**	**274**		*i* P		**Pn**	**15 55 09.0**	**+0.4**
HSN1					*i* S		**Sn**	**15 55 21.8**	**+0.3**
WHF	**Hehuan Shan**	**0.83**	**227**	⇑	*i*P		**Pn**	**15 55 09.3**	**+0.2**
WHF					*i* S		**Sn**	**15 55 22.2**	**0.0**
LIOB	**Emei**	**0.84**	**265**	⇑	*i*P		**Pn**	**15 55 08.9**	**+0.3**
LIOB					*e*S		**Sn**	**15 55 20.1**	**-1.4**
LXIB	**Xiulin Townshi**	**0.84**	**214**	⇑	*i*P		**Pn**	**15 55 08.2**	**-0.6**
LXIB					S		**Sn**	**15 55 21.3**	**-0.6**
TDCB	**Techi**	**0.84**	**237**	⇑	*i*P		**Pn**	**15 55 09.7**	**+0.8**
TDCB					*i* S		**Sn**	**15 55 22.4**	**+0.5**
ETM	**Tongmen**	**0.85**	**208**	⇑	*i*P		**Pn**	**15 55 08.0**	**-0.7**
ETM					S		**Sn**	**15 55 21.3**	**-0.5**
NSTT	**Nanjuang**	**0.85**	**264**	⇑	*i*P		**Pn**	**15 55 08.9**	**+0.2**
NSTT					S		**Sn**	**15 55 20.8**	**-1.0**
NHW	**Xinwu Township**	**0.85**	**290**		*i* P		**Pn**	**15 55 09.9**	**+1.1**
NHW					S		**Sn**	**15 55 22.3**	**+0.4**
SBCB	**Hsinchu**	**0.86**	**275**	⇑	*i*P		**Pn**	**15 55 09.3**	**+0.4**
SBCB					S		**Sn**	**15 55 21.6**	**-0.5**
HSN	**Hsinchu**	**0.88**	**276**		*i* P		**Pn**	**15 55 09.0**	**0.0**
HSN					*i* S		**Sn**	**15 55 21.9**	**-0.5**
TEYL	**Yanliau Villag**	**0.90**	**200**	⇓	*i*P		**Pn**	**15 55 09.3**	**0.0**
TEYL					*e*S		**Sn**	**15 55 23.6**	**+0.8**
PCYT	**Pengchaiyu**	**0.92**	**8**		*i* P		**Pn**	**15 55 09.8**	**+0.3**
PCYT					*e*S		**Sn**	**15 55 25.0**	**+1.9**
JYNG	**Yonagunijimaku**	**0.96**	**106**		*i* P		**Pn**	**15 55 10.2**	**+0.2**
JYNG					S		**Sn**	**15 55 23.8**	**-0.1**
NJN	**Zhunan**	**0.97**	**268**		*i* P		**Pn**	**15 55 10.5**	**+0.5**
NJN					*i* S		**Sn**	**15 55 24.4**	**+0.3**
SHUL	**Shoufeng**	**0.99**	**200**		*i* P		**Pn**	**15 55 10.5**	**+0.2**
SHUL					*i* S		**Sn**	**15 55 25.3**	**+0.8**
WHP	**Taichung City**	**1.00**	**244**		*i* P		**Pn**	**15 55 11.5**	**+1.0**
WHP					*i* S		**Sn**	**15 55 25.4**	**+0.4**
ESL	**Shilin**	**1.01**	**207**		*i* P		**Pn**	**15 55 09.5**	**-1.1**
ESL					*i* S		**Sn**	**15 55 24.1**	**-0.9**
YOJ	**Yonaguni jima**	**1.01**	**104**		P		**Pn**	**15 55 10.9**	**+0.3**
YOJ	**Yonaguni jima**	**1.01**	**104**		S		**Sn**	**15 55 23.9**	**-1.2**
YOJ	**Yonaguni jima**	**1.01**	**104**	⇓	*i*P		**Pn**	**15 55 10.7**	**+0.2**
YOJ					S		**Sn**	**15 55 24.2**	**-0.9**
YOJ	**Yonaguni jima**	**1.01**	**104**		*i* P		**Pn**	**15 55 10.8**	**+0.2**
YOJ					*e*S		**Sn**	**15 55 24.8**	**-0.3**
OWD	**Renai**	**1.03**	**222**		*i* P		**Pn**	**15 55 11.3**	**+0.4**
OWD					*i* S		**Sn**	**15 55 25.7**	**+0.1**
WUSB	**Renai**	**1.04**	**226**	⇑	*i*P		**Pn**	**15 55 11.7**	**+0.7**
WUSB					S		**Sn**	**15 55 26.4**	**+0.5**
NMLH	**Miaoli**	**1.05**	**260**		*i* P		**Pn**	**15 55 11.7**	**+0.6**
NMLH					S		**Sn**	**15 55 25.7**	**-0.3**
TEGC	**Jichi Village**	**1.07**	**200**		*i* P		**Pn**	**15 55 11.4**	**+0.1**
TEGC					*e*S		**Sn**	**15 55 27.8**	**+1.6**
NSY	**Sanyi**	**1.11**	**255**	⇑	*i*P		**Pn**	**15 55 12.4**	**+0.7**
NSY					*i* S		**Sn**	**15 55 26.8**	**-0.4**
WARBT	**Fenglin Townsh**	**1.11**	**207**	⇑	*i*P		**Pn**	**15 55 10.6**	**-1.3**
WARBT					*i* S		**Sn**	**15 55 25.3**	**-1.9**
TWQ1	**Liyutan**	**1.12**	**251**		*i* P		**Pn**	**15 55 12.4**	**+0.5**
TWQ1					*i* S		**Sn**	**15 55 27.5**	**+0.2**
WPL	**Puli Township**	**1.13**	**232**		*i* P		**Pn**	**15 55 13.3**	**+1.2**
WPL					*e*S		**Sn**	**15 55 29.7**	**+2.0**
WCS	**Beigang Elemen**	**1.14**	**235**	⇓	*i*P		**Pn**	**15 55 13.2**	**+1.0**
WCS					*i* S		**Sn**	**15 55 28.6**	**+0.8**
EGFH	**Guangfu**	**1.14**	**204**		*i* P		**Pn**	**15 55 11.1**	**-1.0**
EGFH					*e*S		**Sn**	**15 55 27.8**	**0.0**
DPDB	**Guoxing**	**1.14**	**234**		*i* P		**Pn**	**15 55 12.9**	**+1.0**
DPDB					*e*S		**Sn**	**15 55 30.2**	**+2.2**
VWDT	**VWDT**	**1.20**	**217**	⇑	*i*P		**Pn**	**15 55 13.4**	**+0.5**
VWDT					*i* S		**Sn**	**15 55 29.6**	**+0.5**
WDJ	**Dajia District**	**1.23**	**253**		*i* P		**Pn**	**15 55 14.0**	**+0.8**
WDJ					*i* S		**Sn**	**15 55 30.4**	**+0.5**
SMLT	**Sun Moon Lake**	**1.26**	**229**	⇑	*i*P		**Pn**	**15 55 14.5**	**+0.8**
SMLT					*i* S		**Sn**	**15 55 32.5**	**+2.0**
TYC	**Yuchr**	**1.27**	**231**		*i* P		**Pn**	**15 55 14.5**	**+0.7**
TYC					*i* S		**Sn**	**15 55 32.5**	**+1.8**
TCU	**Taichung**	**1.28**	**244**		*i* P		**Pn**	**15 55 14.3**	**+0.5**
TCU					*i* S		**Sn**	**15 55 30.0**	**-0.9**
SSLB	**Suanglung**	**1.29**	**224**		P		**Pn**	**15 55 15.3**	**+1.3**
SSLB	**Suanglung**	**1.29**	**224**		S		**Sn**	**15 55 32.0**	**+0.9**
SSLB	**Suanglung**	**1.29**	**224**		*i* P		**Pn**	**15 55 14.7**	**+0.7**
SSLB					*e*S		**Sn**	**15 55 32.4**	**+1.3**
HGSD	**Ruisui**	**1.31**	**201**		*i* P		**Pn**	**15 55 14.1**	**-0.1**
HGSD					*e*S		**Sn**	**15 55 33.9**	**+2.4**
WWF	**Wufeng**	**1.31**	**239**		*i* P		**Pn**	**15 55 14.1**	**+0.8**
WWF					S		**Sn**	**15 55 32.4**	**+0.8**
EHY	**Hungye**	**1.33**	**205**		*i* P		**Pn**	**15 55 13.4**	**-1.1**
EHY					*i* S		**Sn**	**15 55 30.9**	**-1.1**
EHYH	**Wanrong**	**1.33**	**204**		*i* P		**Pn**	**15 55 13.4**	**-1.2**
EHYH					*i* S		**Sn**	**15 55 30.7**	**-1.4**
WWCA	**Taichung City**	**1.36**	**251**		P		**Pn**	**15 55 14.3**	**-0.6**
WWCA					*e*S		**Sn**	**15 55 33.8**	**+1.1**
WNT1	**Nantou City**	**1.40**	**235**		*i* P		**Pn**	**15 55 16.2**	**+0.8**
WNT1					*i* S		**Sn**	**15 55 34.3**	**+0.7**
WCHH	**Zhanghua**	**1.41**	**243**		*i* P		**Pn**	**15 55 15.9**	**+0.5**
WCHH					*i* S		**Sn**	**15 55 34.4**	**+0.7**
WNT	**Mingjian**	**1.41**	**234**		*i* P		**Pn**	**15 55 16.4**	**+0.8**
WNT					*i* S		**Sn**	**15 55 34.9**	**+1.0**
WJS	**Zhushan**	**1.42**	**231**		*i* P		**Pn**	**15 55 16.2**	**+0.6**
WJS					*i* S		**Sn**	**15 55 34.8**	**+0.9**
WHYT	**Xinyi Township**	**1.42**	**224**		*i* P		**Pn**	**15 55 16.9**	**+1.3**
WHYT					*i* S		**Sn**	**15 55 35.7**	**+1.6**
WCH1	**Changhua City**	**1.42**	**243**		*i* P		**Pn**	**15 55 16.2**	**+0.6**
WCH1					*i* S		**Sn**	**15 55 34.1**	**+0.1**
YULB	**Yu-li**	**1.44**	**204**		P		**Pn**	**15 55 16.5**	**+0.5**
YULB	**Yu-li**	**1.44**	**204**		S		**Sn**	**15 55 32.8**	**-1.8**
YULB	**Yu-li**	**1.44**	**204**		*i* P		**Pn**	**15 55 14.7**	**-1.2**
YULB					S		**Sn**	**15 55 33.5**	**-1.0**
WYL	**Yuanlin Townsh**	**1.45**	**239**		*i* P		**Pn**	**15 55 15.5**	**-0.5**
WYL					*i* S		**Sn**	**15 55 35.0**	**+0.4**
ECBN	**Changbin**	**1.46**	**198**	⇑	*i*P		**Pn**	**15 55 16.0**	**-0.2**
ECBN					S		**Sn**	**15 55 34.5**	**-0.6**
EYUL	**Yuli**	**1.48**	**202**		*e*P		**Pn**	**15 55 17.0**	**+0.6**
TWF1	**Yuli**	**1.48**	**203**		*i* P		**Pn**	**15 55 15.1**	**-1.3**
TWF1					*e*S		**Sn**	**15 55 36.2**	**+0.8**
ALS	**Alishan**	**1.58**	**221**		*i* P		**Pn**	**15 55 19.1**	**+1.1**
ALS					*i* S		**Sn**	**15 55 40.1**	**+1.8**
CHKH	**Chenggong**	**1.60**	**198**		*i* P		**Pn**	**15 55 17.4**	**-0.5**
CHKH					*i* S		**Sn**	**15 55 37.7**	**-0.4**
CHN5	**Tsauling**	**1.60**	**226**		*i* P		**Pn**	**15 55 17.4**	**+0.9**
CHN5					*i* S		**Sn**	**15 55 39.9**	**+1.6**
WDL	**Douliou City**	**1.62**	**232**		*i* P		**Pn**	**15 55 19.1**	**+0.9**
WDL					*i* S		**Sn**	**15 55 40.0**	**+1.4**
WGK	**Gukeng**	**1.62**	**231**		*i* P		**Pn**	**15 55 19.1**	**+0.9**
WGK					*i* S		**Sn**	**15 55 39.9**	**+1.3**
FULB	**Fuli**	**1.62**	**201**		*i* P		**Pn**	**15 55 18.5**	**+0.2**
FULB					*i* S		**Sn**	**15 55 39.8**	**+1.1**
WDLH	**Douliu**	**1.64**	**231**		*i* P		**Pn**	**15 55 19.2**	**+0.8**
WDLH					*e*S		**Sn**	**15 55 39.0**	**+0.1**
WRL	**Guolierlin Hig**	**1.64**	**241**		*i* P		**Pn**	**15 55 18.6**	**+0.2**
WRL					*i* S		**Sn**	**15 55 38.4**	**-0.6**
RLNB	**Erlin**	**1.66**	**240**		*i* P		**Pn**	**15 55 19.0**	**+0.3**
RLNB					*i* S		**Sn**	**15 55 39.5**	**0.0**
IRIF	**Iriomote-Funau**	**1.68**	**103**		*i* P		**Pn**	**15 55 19.1**	**+0.2**
IRIF					*e*S		**Sn**	**15 55 40.2**	**+0.2**
CHKT	**Chengkung**	**1.69**	**198**		*i* P		**Pn**	**15 55 18.5**	**-0.7**
CHKT					*i* S		**Sn**	**15 55 38.9**	**-1.4**
WTCT	**Ta-ch'eng**	**1.73**	**241**		*i* P		**Pn**	**15 55 20.6**	**+1.0**
WTCT					*i* S		**Sn**	**15 55 41.8**	**+0.6**
ELDTW	**Lidau**	**1.74**	**209**		*i* P		**Pn**	**15 55 19.7**	**-0.2**
ELDTW					*i* S		**Sn**	**15 55 41.3**	**-0.3**
ECS	**Chishang**	**1.74**	**202**		*i* P		**Pn**	**15 55 19.6**	**-0.3**
ECS					*e*S		**Sn**	**15 55 43.2**	**+1.7**
WTK	**Tuku**	**1.74**	**234**		*i* P		**Pn**	**15 55 20.4**	**+0.6**
WTK					*i* S		**Sn**	**15 55 42.4**	**+0.8**
WCKO	**Fanlu**	**1.76**	**224**		*i* P		**Pn**	**15 55 21.3**	**+1.2**
WCKO					*i* S		**Sn**	**15 55 43.2**	**+1.2**
CHN2	**Minshiung**	**1.78**	**229**		*i* P		**Pn**	**15 55 21.8**	**+1.5**
CHN2					*i* S		**Sn**	**15 55 44.3**	**+1.9**
CHN4	**Tsaushan**	**1.83**	**222**		*i* P		**Pn**	**15 55 22.4**	**+1.4**
CHN4					*e*S		**Sn**	**15 55 46.1**	**+2.5**
EDH	**Donghe**	**1.83**	**198**		*i* P		**Pn**	**15 55 20.6**	**-0.4**
EDH					*i* S		**Sn**	**15 55 42.6**	**-1.0**
CHY	**Chiayi**	**1.84**	**229**		*i* P		**Pn**	**15 55 21.8**	**+0.7**
CHY					*i* S		**Sn**	**15 55 44.2**	**+0.5**
TPUB	**Ta-pu**	**1.85**	**220**		P		**Pn**	**15 55 22.9**	**+1.7**
TPUB	**Ta-pu**	**1.85**	**220**		*i* P		**Pn**	**15 55 22.3**	**+1.0**
TPUB					*e*S		**Sn**	**15 55 46.4**	**+2.4**
STYH	**Taoyuan**	**1.87**	**215**		*i* P		**Pn**	**15 55 23.0**	**+1.5**
STYH					*i* S		**Sn**	**15 55 46.9**	**+2.4**
STYT	**Tauyuan**	**1.89**	**215**		*i* P		**Pn**	**15 55 23.0**	**+1.3**
STYT					*i* S		**Sn**	**15 55 47.7**	**+2.7**
WSF	**Szhu**	**1.90**	**236**		*i* P		**Pn**	**15 55 22.0**	**+0.2**
WSF					*i* S		**Sn**	**15 55 45.2**	**+0.1**
WTP	**Ta-pu**	**1.90**	**220**		*i* P		**Pn**	**15 55 23.1**	**+1.2**
WTP					*e*S		**Sn**	**15 55 48.0**	**+2.8**
LONT	**Longtian**	**1.95**	**202**		*i* P		**Pn**	**15 55 21.8**	**-0.7**
LONT					*e*S		**Sn**	**15 55 46.5**	**+0.1**
JKRS	**Kuro-shima**	**1.95**	**104**		*e*P		**Pn**	**15 55 23.2**	**+0.7**
JKRS					*e*S		**Sn**	**15 55 47.3**	**+0.9**
TWK	**Hsinying**	**1.96**	**223**		*i* P		**Pn**	**15 55 23.5**	**+0.8**
TWK					*i* S		**Sn**	**15 55 48.5**	**+1.8**
WSL	**Shuilin Townsh**	**1.96**	**233**		*i* P		**Pn**	**15 55 23.2**	**+0.5**
WSL					*i* S		**Sn**	**15 55 47.2**	**+0.6**
CHN1	**Nanshi**	**2.00**	**220**		*i* P		**Pn**	**15 55 24.2**	**+1.0**
CHN1					*i* S		**Sn**	**15 55 48.8**	**+1.3**
ICHU	**Yijhu**	**2.03**	**229**		*i* P		**Pn**	**15 55 24.2**	**+0.6**
ICHU					*i* S		**Sn**	**15 55 49.5**	**+1.3**
JIJ	**Ishigaki jima**	**2.04**	**99**		P		**Pn**	**15 55 23.8**	**+0.1**
JIJ					*e*S		**Sn**	**15 55 48.4**	**-0.2**
SGST	**Jiashian**	**2.04**	**217**		*i* P		**Pn**	**15 55 24.2**	**+0.4**
SGST					S		**Sn**	**15 55 49.1**	**+0.5**
TWG	**Pinlang**	**2.05**	**203**		*i* P		**Pn**	**15 55 22.6**	**-1.2**
TWG					*e*S		**Sn**	**15 55 48.2**	**-0.5**
TWGBT	**Beinan**	**2.05**	**203**		P		**Pn**	**15 55 23.6**	**-0.3**
TWGBT	**Beinan**	**2.05**	**203**		S		**Sn**	**15 55 47.5**	**-1.2**
TWGBT	**Beinan**	**2.05**	**203**		*i* P		**Pn**	**15 55 22.4**	**-1.4**
TWGBT					S		**Sn**	**15 55 47.7**	**-1.0**
LDUT	**Ludao**	**2.08**	**192**		*i* P		**Pn**	**15 55 23.0**	**-1.3**
LDUT					*i* S		**Sn**	**15 55 47.3**	**-2.2**
SLGT	**Liugui**	**2.08**	**215**		*i* P		**Pn**	**15 55 26.2**	**+1.9**
SLGT					*e*S		**Sn**	**15 55 52.9**	**+3.3**
CHN8	**Yiju**	**2.08**	**229**		*i* P		**Pn**	**15 55 24.7**	**+0.4**
CHN8					*i* S		**Sn**	**15 55 50.8**	**+1.2**
JISG	**Ishigakijimahi**	**2.17**	**93**		*e*P		**Pn**	**15 55 25.9**	**+0.4**
JISG					*e*S		**Sn**	**15 55 52.8**	**+1.2**
CHN3	**Shinhua**	**2.17**	**222**		P		**Pn**	**15 55 25.8**	**+0.2**
CHN3					*e*S		**Sn**	**15 55 52.7**	**+0.9**
SSHA	**Shanhua**	**2.18**	**224**		*e*P		**Pn**	**15 55 26.2**	**+0.6**
SSHA					S		**Sn**	**15 55 53.1**	**+1.3**
SCLT	**Jiali**	**2.21**	**226**		*i* P		**Pn**	**15 55 26.8**	**+0.8**
SCLT					*i* S		**Sn**	**15 55 53.3**	**+0.7**
SCST	**Cishan**	**2.25**	**216**		*i* P		**Pn**	**15 55 28.5**	**+1.9**
SCST					*e*S		**Sn**	**15 55 54.4**	**+0.9**
VWUC	**VWUC**	**2.27**	**277**	⇓	*e*P		**Pn**	**15 55 26.4**	**-0.4**
ECL	**Taimali**	**2.29**	**203**		*i* P

CMAR	Chiang Mai Arr	22.13	355	P		P	16 09 53.3	-0.5
	0.9nm,0.3s,baz=164,slow=10.0,SNR=8.2								
	0.9nm,0.3s								
PALK	Pallekele	22.94	298	LR		LR	16 18 10.9		
	comp=Z,51nm,19.9s,baz=104,slow=34								
SOEI	Soe	23.94	106	P		P			
H08S2	Diego Garcia H	28.54	261	T		T	16 40 40.7		
	baz=84,slow=76,SNR=422								
H08S3	Diego Garcia H	28.55	261	T		T	16 40 41.2		
	baz=84,slow=76,SNR=727								
H08S1	Diego Carcia H	28.56	261	T		T	16 40 42.0		
	baz=84,slow=76,SNR=281								
H01W3	Cape Leeuwin H	33.34	160	T		T	16 46 22.8		
	baz=336,slow=76,SNR=7.0								
H01W2	Cape Leeuwin H	33.35	160	T		T	16 46 23.8		
	baz=336,slow=76,SNR=10								
H01W1	Cape Leeuwin H	33.35	160	T		T	16 46 24.3		
	baz=336,slow=76,SNR=6.8								
WRA	Warramunga Arr	36.35	119	P		P	16 12 01.4	-0.6	
	0.6nm,0.4s,baz=297,slow=7.9,SNR=17								
	0.6nm,0.4s								
WRAB	Tennant Creek	36.35	119	P		P	16 12 01.9	-0.2	
WRAB				IAmb		IAmb	16 12 17.5		
	comp=Z,8.1nm,1.5s								
WR8	Warramunga Arr	36.49	119	P		P	16 12 03.1	-0.2	
WR8				IAmb		IAmb	16 12 11.6		
	comp=Z,9.3nm,1.4s								
ASAR	Alice Springs	37.51	125	P		P	16 12 12.3	+0.4	
	comp=Z,0.4nm,0.4s,baz=300,slow=8.6,SNR=21								
	comp=Z,0.4nm,0.4s								
SONM	Songino Array	51.58	5	P		P	16 14 04.6	+0.7	
	comp=Z,0.6nm,0.7s,baz=183,slow=9.1,SNR=5.6								
	comp=Z,0.6nm,0.7s								
SONM	Songino Array	51.58	5	P		P	16 14 04.0	+0.1	
MK31	Makanchi Array	52.93	344	P		P	16 14 12.7	-1.1	
MK31				IAmb		IAmb	16 14 32.0		
	comp=Z,2.5nm,1.1s								
MKAR	Makanchi Array	52.93	344	P		P	16 14 14.0	+0.2	
	comp=Z,0.4nm,0.8s,baz=156,slow=9.3,SNR=2.9								
	comp=Z,0.4nm,0.8s								
MKAR	Makanchi Array	52.93	344	P		P	16 14 13.0	-0.9	
USA0B	Ussuriysk Arra	55.26	27	P		P	16 14 29.4	-1.5	
USRK	Ussuriysk Ar.	55.26	27	P		P	16 14 28.8	-2.0	
	comp=Z,0.8nm,0.6s,baz=191,slow=6.6,SNR=2.0								
	comp=Z,0.8nm,0.6s								
KURBB	Kurchatov Arra	57.46	343	P		P	16 14 47.3	+1.0	
	comp=Z,0.5nm,0.6s,baz=162,slow=7.3,SNR=2.2								
	comp=Z,0.5nm,0.6s								
KURK	Kurchatov	57.52	343	P		P	16 14 46.6	-0.1	
KURK				IAmb		IAmb	16 14 49.5		
	comp=Z,2.0nm,0.9s								
ZALV	Zalesovo Beam	59.03	349	P		P	16 14 57.8	+0.5	
	comp=Z,0.9nm,0.7s,baz=164,slow=5.7,SNR=5.0								
	comp=Z,0.9nm,0.7s								
ZALV	Zalesovo Beam	59.03	349	P		P	16 14 57.4	+0.1	
H04N2	CROZET ISLANDS	59.97	217	T		T	17 19 54.6		
	baz=59								
H04N1	CROZET ISLANDS	59.98	217	T		T	17 19 55.8		
	baz=59								
H04N3	CROZET ISLANDS	59.99	217	T		T	17 19 53.9		
	baz=59								
H04S1	CROZET ISLANDS	60.24	217	T		T	17 20 12.8		
	baz=58,slow=76,SNR=141								
H04S3	CROZET ISLANDS	60.25	217	T		T	17 20 12.2		
	baz=58,slow=76,SNR=261								
H04S2	CROZET ISLANDS	60.25	217	T		T	17 20 16.9		
	baz=58,slow=76,SNR=166								
BVAR	Borovoye Array	62.11	340	P		P	16 15 19.2	+0.8	
	comp=Z,0.9nm,0.6s,baz=147,slow=8.6,SNR=6.0								
	comp=Z,0.9nm,0.6s								
AB31	Akbulak array	63.59	331	P		P	16 15 28.6	+0.4	
AB31				IAmb		IAmb	16 15 30.2		
	comp=Z,3.5nm,1.2s								
ABKAR	Akbulak array	63.59	331	P		P	16 15 28.7	+0.5	
BRTR	Keskin Array B	75.16	313	P		P	16 16 41.3	+1.1	
	comp=Z,0.4nm,0.6s,baz=112,slow=6.4,SNR=2.2								
	comp=Z,0.4nm,0.6s								
HFS	Hagfors	91.82	330	LR		LR	17 02 43.2		
	comp=Z,82nm,18.2s,baz=262,slow=38								
TXAR	Lajitas Array	145.48	40	PKPbc		PKPab	16 24 38.7	+2.1	
	comp=Z,0.7nm,0.6s,baz=341,slow=3.8,SNR=12								

*NOU **26** 16:04:57.7, 14.°26S×176.°05W, h671km, mb4.7/27, Fiji Islands Region*

*NEIC **26** 16:05:28.3±2.1, 17.°80S±0.°09×178.°57W±0.°10, h554km±6km, mb4.4/145, Error ellipse: s-maj=14.1km s-min=12.8km az=137.0*

*GFZ **26** 16:05:28.9±0.4, 18°S±8°×17°9W±°, h557km±12km, M4.6/11, mb4.6/11, Error ellipse: s-maj=23.3km s-min=9.9km az=48.2, confirmed*

*IDC **26** 16:05:30.9±0.8, 17.°63S×178.°85W, h580km±8km, mb3.6/17, mbtmp4.5/19, Error ellipse: s-maj=13.5km s-min=9.8km az=149.0*

ISC 26 16:05:27.7±0.3, 17.°73S±0.°05×178.°62W±0.°05, h547km, n310, σ1$52/302, mb4.4/94, 1C-4D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MSVF	Nonsavu		3.17 269	P		P	16 06 47.8	+4.1
	429nm,0.7s,baz=121,slow=5.9,SNR=272							
MSVF				S		S	16 07 52.3	+6.7
	17nm,0.7s,baz=72,slow=20,SNR=5.7							
MSVF	Nonsavu		3.17 269	P		P	16 06 48.2	+4.5
MSVF	Nonsavu		3.17 269			P	16 06 47.4	+3.7
MSVF				S		S	16 07 52.1	+6.6
MSVF	Nonsavu		3.17 269	P		P	16 06 47.9	+4.2
MSVF				AML		AML		
FUTU	Fugatoga	3.44	8			P	16 06 48.5	+3.1
FUTU				S		S	16 07 53.6	+5.0
FUTU	Fugatoga	3.44	8	P		P	16 06 48.4	+2.9
FUTU				AML		AML		
FUTU	Fugatoga	3.44	8	P		P	16 06 48.6	+3.1
AFI	Afiamalu	7.60	61	P		P	16 07 20.7	-0.9
	91nm,0.6s,baz=297,slow=2.3,SNR=23							
AFI				S		S	16 08 51.3	-3.6
	18nm,0.6s,baz=270,slow=20,SNR=2.3							
NIUE	Niue		8.36 101	P		P	16 07 29.8	+0.8
NIUE	Niue		8.36 101	P		P	16 07 31.0	+2.0
NIUE				S		S	16 09 14.9	+6.5
NIUE	Niue		8.36 101	P		P	16 07 30.9	+1.9
	comp=Z,269nm,1.2s							
FUNA	Funafuti		9.39 347	P		P	16 07 41.1	+1.6
RAO	Raoul Island	11.49	177	P		P	16 08 02.1	+1.2
	comp=Z,184nm,0.3s,baz=34,slow=18,SNR=1.9							
RAO	Raoul Island	11.49	177	P		P	16 08 01.6	+0.7
RAO	Raoul Island	11.49	177	P		P	16 08 02.1	+1.2
	comp=Z,538nm,1.1s							
MARNC	Mare, Loyalty	13.12	251	P		P	16 08 20.9	+3.0
MARNC	Mare, Loyalty	13.12	251	S		S	16 11 06.2	+28
MARNC	Mare, Loyalty	13.12	251	P		P	16 08 17.1	-0.8
SANVU	Saraoutou	13.78	277	P		P	16 08 15.0	-10
SANVU	Saraoutou	13.78	277	S		S	16 09 56.9	+6.4
SANVU	Saraoutou	13.78	277			P	16 08 23.6	-1.1
SANVU	Saraoutou	13.78	277	P		P	16 08 23.7	-1.1
	comp=Z,27nm,0.6s							
PINNC	Pines Island,	13.95	247	P		P	16 08 27.8	+1.3
PINNC	Pines Island,	13.95	247	P		P	16 08 25.7	-0.7
YATNC	Mamie plateau,	14.29	250	P		P	16 08 31.0	+1.0
DZM	Mont Dzumac	14.70	250	P		P	16 08 33.4	-0.9
	comp=Z,11nm,0.6s,baz=72,slow=19,SNR=17							
ONTNC	Ouen Toro	14.75	250	P		P	16 08 33.5	-1.2
NOUC	Port Laguerre	14.83	250	P		P	16 08 35.9	+0.4
KOUNC	Koumac, New Ca	16.39	257	P		P	16 08 51.1	-0.1
OUZ	Omahuta	18.75	200	P		P	16 09 15.2	+2.8
OUZ	Omahuta	18.75	200	P		P	16 09 14.8	+2.4
GRZ	Great Barrier	19.18	195	P		P	16 09 16.9	+0.6
WCZ	Waipu Caves	19.18	198	P		P	16 09 19.0	+2.6
MBAZ	Motutapu North	19.81	196	P		P	16 09 24.4	+2.3
MXZ	Matakaoa Point	19.94	187	P		P	16 09 21.5	-1.8
ETAZ	East Tamaki Re	19.98	195	P		P	16 09 25.6	+2.0
WTAZ	Waiatarua	20.05	196	P		P	16 09 26.2	+1.9
MKAZ	Moumakai	20.07	195	P		P	16 09 26.1	+1.7
AWAZ	Awhitu Peninsu	20.16	196	P		P	16 09 27.1	+1.9
WMGZ	Waiomatatini S	20.18	187	P		P	16 09 25.3	-0.1
HAZ	Te Kaha	20.20	188	P		P	16 09 25.5	-0.1
RUGZ	Raukumara Rang	20.42	188	P		P	16 09 27.2	-0.6
TGRZ	Tauranga	20.43	192	P		P	16 09 29.4	+1.8
TOZ	Tahuroa Road	20.59	193	P		P	16 09 29.2	+0.1
TOZ	Tahuroa Road	20.59	193	P		P	16 09 31.2	+2.1
TWGZ	Tauwhareparae	20.59	188	P		P	16 09 29.3	+0.1
URZ	Urewera	20.79	190	P		P	16 09 27.9	-3.0
	comp=Z,24nm,0.6s,baz=350,slow=4.8,SNR=19							
URZ				S		S	16 12 43.1	-4.6
	comp=Z,14nm,0.9s,baz=6.0,slow=19,SNR=1.6							
URZ	Urewera	20.79	190	P		P	16 09 29.0	-2.0
URZ	Urewera	20.79	190	P		P	16 09 28.8	-2.1
URZ	Urewera	20.79	190	P		P	16 09 28.7	-2.3
	comp=Z,41nm,0.8s							
MWZ	Matawai	20.80	189	P		P	16 09 29.1	-2.0
MUGZ	Murupara	21.06	190	P		P	16 09 32.0	-1.4
TLZ	Tolley Road	21.15	193	P		P	16 09 35.9	+1.6
RTZ	Ruatahuna	21.16	190	P		P	16 09 32.8	-1.6
MTHZ	Maungataniwha	21.42	190	P		P	16 09 36.2	-0.5
RAHZ	Arahi	21.44	189	P		P	16 09 36.4	-0.4
BKZ	Black Stump Fm	21.78	190	P		P	16 09 38.2	-1.7
BKZ	Black Stump Fm	21.78	190	P		P	16 09 37.7	-2.2
VRZ	Vera Road	22.09	194	P		P	16 09 44.7	+2.1
BHHZ	Black Hill Sta	22.17	191	P		P	16 09 41.6	-1.8
KAHZ	Kahuranaki	22.33	189	P		P	16 09 43.5	-1.4
HNR	Honiara	22.39	289	P		P	16 09 43.1	-2.6
	comp=Z,6.8nm,0.5s,baz=107,slow=19,SNR=4.3							
	comp=Z,6.8nm,0.5s							
HNR	Honiara	22.39	289	P		P	16 09 45.3	-0.4
HNR	Honiara	22.39	289	P		P	16 09 45.4	-0.2
	comp=Z,29nm,0.8s							
PNHZ	Pukenui	22.56	190	P		P	16 09 45.3	-1.5
PXZ	Pawarui	22.57	189	P		P	16 09 45.3	-1.5
TSZ	Takapari Road	22.74	191	P		P	16 09 46.4	-2.0
BFZ	Birch Farm	23.30	190	P		P	16 09 53.0	-0.4
BFZ	Birch Farm	23.30	190	P		P	16 09 52.9	-0.4
BFZ	Birch Farm	23.30	190	P		P	16 09 52.9	-0.5
	comp=Z,39nm,1.2s							
MRZ	Mangatainoka R	23.39	191	P		P	16 09 52.2	-2.1
MRZ	Mangatainoka R	23.39	191	P		P	16 09 53.0	-1.3
OGWZ	Otaki Gorge	23.62	192	P		P	16 09 54.8	-1.5
DUWZ	D'Urville Isla	23.88	194	P		P	16 09 58.0	-0.6
CAW	Cannon Point	23.92	192	P		P	16 09 58.1	-0.8
PAWZ	Paruwai Farm	24.12	191	P		P	16 10 00.5	-0.2
TCW	Tory Channel	24.19	193	P		P	16 10 00.4	-0.8
MSWZ	Moikau Station	24.19	191	P		P	16 09 59.9	-1.4
SNZO	South Karori	24.19	192	P		P	16 10 00.3	-1.0
SNZO	South Karori	24.19	192	P		P	16 10 00.1	-1.2
	comp=Z,40nm,1.0s							
QRZ	Quartz Range	24.25	197	P		P	16 10 01.4	-0.4
QRZ	Quartz Range	24.25	197	P		P	16 10 02.2	+0.4
QRZ	Quartz Range	24.25	197	P		P	16 10 01.5	-0.4
BHW	Baring Head	24.25	192	P		P	16 10 00.4	-1.4
TKNZ	Takaka Hill	24.33	196	P		P	16 10 01.4	-1.2
TKNZ	Takaka Hill	24.33	196	P		P	16 10 01.7	-0.8
PLWZ	Palliser	24.34	191	P		P	16 10 01.2	-1.4
LHI	Lord Howe Isla	24.43	232	P		P	16 10 02.4	-1.2
LHI				IAmb		IAmb	16 10 06.0	
	comp=Z,9.5nm,0.9s							
THZ	Tophouse	25.03	195			P	16 10 07.6	-1.2
KHZ	Kahutara	25.50	194	P		P	16 10 11.8	-1.0
KHZ	Kahutara	25.50	194	P		P	16 10 11.2	-1.6
	comp=Z,30nm,0.7s							
LTZ	Lake Taylor	26.15	195			P	16 10 16.9	-1.7
OXZ	Oxford	26.72	195	P		P	16 10 22.0	-1.6
RPZ	Rata Peaks	27.34	196	P		P	16 10 27.6	-1.4
RPZ	Rata Peaks	27.34	196	P		P	16 10 27.8	-1.2
FOZ	Fox Glacier	27.52	198	P		P	16 10 29.3	-1.3
PPT	Papeete	27.67	94	P		P	16 10 33.8	+1.5
	comp=Z,22nm,0.7s,baz=252,slow=20,SNR=1.8							
	comp=Z,22nm,0.7s							
PPTF	Pamatai, Papee	27.68	94	P		P	16 10 29.9	-2.6
LBZ	Lake Benmore	28.20	197			P	16 10 34.5	-2.0
JCZ	Jackson Bay	28.33	199	P		P	16 10 37.5	-0.3
JCZ	Jackson Bay	28.33	199	P		P	16 10 37.0	-0.8
ODZ	Otahua Downs	28.68	196	P		P	16 10 39.2	-1.5
ODZ	Otahua Downs	28.68	196	P		P	16 10 39.3	-1.4
WKZ	Wanaka	28.94	198	P		P	16 10 41.7	-1.3
EIDS	Eidsvold	29.14	250	P		P	16 10 44.8	-0.2
EIDS				IAmb		IAmb	16 10 46.0	
	comp=Z,7.8nm,0.8s							
EIDS	Eidsvold	29.14	250	P		P	16 10 44.4	-0.6
	comp=Z,10nm,0.7s							
MLZ	Mavora Lakes	29.70	199			P	16 10 49.4	-0.2
ARMA	Armidale	29.86	239			P	16 10 51.8	+0.5
ARMA	Armidale	29.86	239	P		P	16 10 51.6	+0.3
	comp=Z,20nm,0.6s							
WHZ	Wether Hill Ro	30.23	199	P		P	16 10 53.9	-0.2
RABL	Rabaul	31.61	292	P		P	16 11 05.9	-0.5
RABL				IAmb		IAmb	16 11 13.1	
	comp=Z,9.6nm,0.7s							
CAN	Canberra	33.65	232	P		P	16 11 21.5	-2.0
CAN	Canberra	33.65	232	P		P	16 11 23.1	-0.4
CAN	Canberra	33.65	232	P		P	16 11 24.1	+0.6
	comp=Z,20nm,3.0s							
PMG	Port Moresby	34.23	279			P	16 11 29.5	+1.0
PMG	Port Moresby	34.23	279	P		P	16 11 29.7	+1.2
	comp=Z,31nm,1.0s							
MILA	Mila	34.25	229	P		P	16 11 29.2	+0.7
CMSA	Cobar Meteorol	35.06	240	P		P	16 11 35.1	-0.2
	comp=Z,27nm,1.8s							
TOO	Toolangi	37.13	231	P		P	16 11 52.9	+0.6
TOO				IAmb		IAmb	16 11 54.4	
	comp=Z,8.2nm,0.8s							
TAU	Tasmania Unive	38.24	222	P		P	16 11 59.3	-1.9
TAU	Tasmania Unive	38.24	222	P		P	16 12 01.0	-0.2
STKA	Stephens Creek	38.54	241	P		P	16 12 04.6	+0.8
	comp=Z,14nm,0.5s,baz=93,slow=11,SNR=46							
	comp=Z,14nm,0.5s							
STKA	Stephens Creek	38.54	241			P	16 12 04.5	+0.7
QIS	Mount Isa	39.49	259	P		P	16 12 00.0	-12
MGBR	Mount Gambier	40.85	232	P		P	16 12 21.0	-1.3
OVEH	Oceanview Est	42.98	33	P		P	16 12 40.3	+0.8
WOH	Wood Valley	43.20	33	P		P	16 12 42.3	+1.2
BBOO	Buckleboo	43.32	241	P		P	16 12 33.5	-8.3
BBOO	Buckleboo	43.32	241			P	16 12 41.8	0.0
JOKA	Jonika Flow	43.61	33	P		P	16 12 44.5	+0.3
WR0	Warramunga Arr	44.28	259	P		P	16 12 48.6	-0.8
WR0				IAmb		IAmb	16 13 26.1	
	comp=Z,8.9nm,1.3s							
WR8	Warramunga Arr	44.31	259	P		P	16 12 48.9	-0.8
WR8				IAmb		IAmb	16 13 27.8	
	comp=Z,11nm,1.3s							
WB0	Warramunga Arr	44.43	260	IAmb		IAmb	16 12 50.5	
	comp=Z,6.4nm,1.0s							
WB0				PcP		PcP	16 14 22.3	-0.1
WRAB	Tennant Creek	44.46	259	P		P	16 12 35.6	-15
WRA	Warramunga Arr	44.47	259	P		P	16 12 49.8	-1.1
	comp=Z,4.4nm,0.5s,baz=93,slow=7.4,SNR=81							
WRA				PcP		PcP	16 14 22.5	-0.1
	comp=Z,0.6nm,0.5s,baz=94,slow=3.0,SNR=3.0							
WRA				S		S	16 18 40.7	-5.9
	comp=Z,0.4nm,0.8s,baz=93,slow=13,SNR=2.4							
	comp=Z,4.4nm,0.5s							
WRA	Warramunga Arr	44.47	259			P	16 12 49.6	-1.3
AS31	Alice Springs	44.65	254			P	16 12 51.7	-0.5
AS31				IAmb		IAmb	16 12 53.0	
	comp=Z,13nm,0.7s							
ASAR	Alice Springs	44.65	254	P		P	16 12 52.0	-0.3
	comp=Z,49nm,0.4s,baz=92,slow=7.6,SNR=876							
ASAR				PcP		PcP	16 14 22.8	-0.3
	comp=Z,1.4nm,0.5s,baz=93,slow=4.1,SNR=3.3							
ASAR				ScP		ScP	16 17 21.3	-2.1
	comp=Z,0.5nm,0.8s,baz=100,slow=4.8,SNR=3.1							
ASAR				S		S	16 18 45.2	-3.9
	comp=Z,1.0nm,0.9s,baz=93,slow=14,SNR=8.0							
ASAR	Alice Springs	44.65	254			P	16 12 51.6	-0.6
MTN	Manton Dam	48.60	268	P		P	16 13 21.4	-0.8
MTN				IAmb		IAmb	16 14 00.4	
	comp=Z,17nm,1.4s							
FORT	Forrest	49.90	244	P		P	16 13 30.8	-0.8
FORT				IAmb		IAmb	16 13 31.6	
	comp=Z,9.5nm,0.7s							
FORT				PcP		PcP	16 14 37.6	-4.4
KNRA	Kununurra	50.31	264	P		P	16 13 34.3	-0.4
KNRA				IAmb		IAmb	16 13 36.7	
	comp=Z,24nm,1.4s							
FAKI	Fak Fak	50.35	281	P		P	16 13 34.9	-0.2
FAKI				IAmb		IAmb	16 13 41.4	
	comp=Z,13nm,1.0s							
FITZ	Fitzroy Crossi	52.86	260	P		P	16 13 52.7	-0.4
SOEI	Soe	55.87	270	P		P	16 14 14.7	+0.3
SOEI				IAmb		IAmb	16 14 25.4	
	comp=Z,10nm,0.7s							
MORW	Morawa	60.37	246	P		P	16 14 43.6	-0.9
MORW				IAmb		IAmb	16 14 44.1	
	comp=Z,35nm,1.5s							
SBA	Scott Base	60.59	184	P		P	16 14 46.9	+1.9
SBA				IAmb		IAmb	16 15 16.6	
	comp=Z,32nm,1.4s							
VNDA	Vanda	60.61	185	P		P	16 14 46.4	+1.2
	comp=Z,1.3nm,0.6s,baz=0.0,slow=7.1,SNR=10.0							
	comp=Z,1.3nm,0.6s							
VNDA	Vanda	60.61	185	P		P	16 14 45.8	+0.6
TOLI2	Tolitoli	62.48	281	P		P	16 14 58.7	+0.1
TOLI2				IAmb		IAmb	16 15 40.4	
	comp=Z,8.0nm,1.0s							
GIRL	Giralia	62.75	253	P		P	16 14 59.9	-0.3
CASY	Casey	66.22	205	P		P	16 15 20.8	-0.4
CASY				IAmb		IAmb	16 15 22.7	
	comp=Z,5.7nm,0.8s							
MJAR	Matsushiro Arr	67.64	323	P		P	16 15 30.1	-0.4
	comp=Z,2.0nm,0.6s,baz=145,slow=6.1,SNR=7.3							
	comp=Z,2.0nm,0.6s							
MJAR	Matsushiro Arr	67.64	323	P		P	16 15 30.1	-0.4
MAJO	Matsushiro	67.64	323	P		P	16 15 30.0	-0.5
MAJO				IAmb		IAmb	16 15 50.3	
	comp=Z,12nm,1.3s							
UGM	Wanagama	69.45	268	P		P	16 15 41.5	-0.4
SSLB	Suanglung	71.97	303	P		P	16 15 55.4	-1.2
TPUB	Ta-pu	71.99	302	P		P	16 15 55.1	-1.6
TPUB				IAmb		IAmb	16 16 14.8	
	comp=Z,19nm,1.1s							
BBJI	Bungbulang	72.31	268	P		P	16 15 57.7	-1.1
BBJI				IAmb		IAmb	16 16 02.2	
	comp=Z,15nm,1.4s							
QSPA	South Pole Qui	72.32	180	P		P	16 15 58.8	+0.8
	comp=Z,9.6nm,0.8s,baz=18,slow=2.1,SNR=70							
	comp=Z,9.6nm,0.8s							
QSPA	South Pole Qui	72.32	180			P	16 15 58.0	0.0
QSPA				IAmb		IAmb	16 15 59.4	
	comp=Z,8.2nm,0.8s							
PET	Petropavlovsk	73.15	346	P		P	16 16 02.2	-0.4
PET				IAmb		IAmb	16 16 20.6	
	comp=Z,29nm,1.2s							
PEA0B	Petropavlovsk-	73.46	345	P		P	16 16 04.5	+0.1
PETK	Petropavlovsk-	73.46	345	P		P	16 16 03.4	-1.0
	comp=Z,3.4nm,0.6s,baz=156,slow=6.0,SNR=11							
	comp=Z,3.4nm,0.6s							
PETK	Petropavlovsk-	73.46	345	P		P	16 16 04.6	+0.2
CHGN	Chignik	75.68	11	P		P	16 16 16.2	-0.5
USRK	Ussuriysk Ar.	76.35	326	P		P	16 16 21.9	+1.1
	comp=Z,0.5nm,0.5s,baz=132,slow=4.1,SNR=2.1							
	comp=Z,0.5nm,0.5s							
HKPS	Hong Kong Po S	76.85	299	P		P	16 16 23.9	-0.2
KMRM	Mail Ridge	77.01	40	P		P	16 16 24.4	-0.2
MWC	Mount Wilson	77.37	48	P		P	16 16 27.2	+0.4
MWC				IAmb		IAmb	16 16 28.0	
	comp=Z,5.3nm,0.6s							
VES	Vestal, Richgr	77.51	46	P		P	16 16 27.6	+0.2
VES				IAmb		IAmb	16 16 28.7	
	comp=Z,9.8nm,0.8s							
DPP	Dos Picos Cty	77.53	49	P		P	16 16 27.9	+0.3
TPO	Tropico Hills	77.59	47	P		P	16 16 28.0	+0.1
TPO				IAmb		IAmb	16 16 29.8	
	comp=Z,7.3nm,0.9s							
OHAK	Old Harbor	77.61	14	P		P	16 16 27.1	-0.2
OHAK				IAmb		IAmb	16 16 28.1	
	comp=Z,25nm,1.2s							
BFSC	Mount Baldy Ra	77.66	48	P		P	16 16 28.2	-0.2
BFSC				IAmb		IAmb	16 16 36.5	
	comp=Z,9.8nm,1.3s							
ESJX	Sierra Juarez	77.75	51	P		P	16 16 29.2	+0.2
CMB	Columbia Colle	77.85	43	P		P	16 16 29.9	+0.7
YUH	Yuha Desert	78.09	50	P		P	16 16 31.0	+0.5
O15K	Ungalikthiuk R	78.16	10	P		P	16 16 31.7	+1.4
O15K				IAmb		IAmb	16 17 04.0	
	comp=Z,28nm,1.2s							
M02C	Callahan	78.22	39	P		P	16 16 31.4	+0.2
M02C				IAmb		IAmb	16 17 04.6	
	comp=Z,12nm,1.4s							
KDAK	Kodiak Island	78.28	14	P		P	16 16 30.7	-0.2
KDAK				IAmb		IAmb	16 17 14.8	
	comp=Z,27nm,1.2s							
P16K	Nushagak River	78.33	11	P		P	16 16 30.3	-0.8
YBH	Yreka Blue Hor	78.51	39	P		P	16 16 33.6	+0.8
CWC	Cottonwood Cre	78.52	46	P		P	16 16 33.1	+0.1
CLC	China Lake	78.52	47	P		P	16 16 33.6	+0.8
N14K	Kuskokwak Cree	78.59	9	P		P	16 16 32.7	+0.2
P17K	Kvichak River	78.77	11	P		P	16 16 33.1	-0.4
P17K				IAmb		IAmb	16 16 33.8	
	comp=Z,25nm,0.8s							
MPK	Martis Peak	78.78	42	P		P	16 16 34.9	+0.4
O16K	Kokwok River B	78.85	10	P		P	16 16

RND	**Reindeer**	**84.14**	**13**	IAmb	IAmb	16 17 01.4			
	comp=Z,7.8nm,0.7s								
PLID	**Pearl Lake**	**84.44**	**39**	P	**P**	**16 17 03.5**	**+0.3**		
F17K	**Baldwin Pennin**	**84.92**	**7**	P	**P**	**16 17 04.4**	**-0.2**		
F17K				IAmb	IAmb	16 17 38.2			
	comp=Z,19nm,1.3s								
S34M	**Telegraph Cree**	**84.96**	**23**	P	**P**	**16 17 05.4**	**+0.3**		
S34M				IAmb	IAmb	16 17 41.0			
	comp=Z,27nm,1.4s								
Q32M	**Nakina River**	**85.29**	**22**	P	**P**	**16 17 07.2**	**+0.3**		
O30N	**Mendenhall**	**85.35**	**19**	P	**P**	**16 17 05.8**	**-1.1**		
O30N				IAmb	IAmb	16 17 28.2			
	comp=Z,13nm,1.2s								
BCAR	**Beaver Creek A**	**85.53**	**16**	P	**P**	**16 17 07.7**	**-0.1**		
BSUT	**Blindstream Ca**	**85.54**	**45**	P	**P**	**16 17 09.3**	**+0.6**		
VHRN	**Van Horn**	**85.59**	**56**	P	**P**	**16 17 09.7**	**+0.8**		
MNTX	**Cornudas Mount**	**85.64**	**55**	P	**P**	**16 17 09.5**	**+0.5**		
IL31		**85.76**	**13**	IAmb	IAmb	16 17 11.3			
	comp=Z,7.8nm,1.3s								
ILAR	**Eielson Array**	**85.76**	**13**	P	**P**	**16 17 07.5**	**-1.3**		
	comp=Z,1.2nm,0.5s,baz=211,slow=5.3,SNR=71								
	comp=Z,1.2nm,0.5s								
ILAR	**Eielson Array**	**85.76**	**13**	P	**P**	**16 17 07.8**	**-1.0**		
TX31	**Lajitas Ar. Si**	**86.07**	**58**		**P**	**16 17 12.4**	**+1.2**		
TX31				IAmb	IAmb	16 17 14.0			
	comp=Z,3.6nm,0.8s								
TXAR	**Lajitas Array**	**86.07**	**58**	P	**P**	**16 17 12.7**	**+1.5**		
	comp=Z,2.4nm,0.7s,baz=245,slow=4.4,SNR=35								
	comp=Z,2.4nm,0.7s								
TXAR	**Lajitas Array**	**86.07**	**58**	P	**P**	**16 17 12.4**	**+1.2**		
HHC	**Hu-ho-hao-te**	**87.00**	**315**	*e*P	**P**	**16 17 17.5**	**+2.1**		
HHC				pmax	pmax				
	comp=Z,15nm,0.6s								
YHL	**Hebgen Lake**	**87.28**	**41**	IAmb	IAmb	16 17 19.2			
	comp=Z,3.9nm,0.8s								
BW06	**Boulder Array**	**87.36**	**44**	IAmb	IAmb	16 17 18.1			
	comp=Z,7.8nm,1.4s								
PD31	**Pinedale Array**	**87.36**	**44**	IAmb	IAmb	16 17 18.1			
	comp=Z,7.5nm,1.4s								
PDAR	**Pinedale Array**	**87.36**	**44**	P	**P**	**16 17 17.6**	**+0.4**		
	comp=Z,1.5nm,0.6s,baz=243,slow=4.2,SNR=32								
	comp=Z,1.5nm,0.5s								
PDAR	**Pinedale Array**	**87.36**	**44**	P	**P**	**16 17 17.3**	**+0.1**		
ESPZ	**Base Esperanza**	**87.41**	**157**	P	**P**	**16 17 16.8**	**+0.1**		
YNE	**Yellowstone No**	**88.09**	**41**	IAmb	IAmb	16 17 27.6			
	comp=Z,4.6nm,0.9s								
CMAR	**Chiang Mai Arr**	**88.64**	**290**	P	**P**	**16 17 23.4**	**+0.1**		
	comp=Z,0.3nm,0.3s,baz=105,slow=4.6,SNR=4.5								
	comp=Z,0.3nm,0.3s								
ELIB	**Princess Elisa**	**89.31**	**187**	*d*P	**P**	**16 17 24.9**	**-0.8**		
	comp=Z,4.9nm,0.7s								
HNDO	**Hondo**	**89.70**	**59**	P	**P**	**16 17 28.1**	**0.0**		
HNDO				IAmb	IAmb	16 17 30.5			
	comp=Z,4.4nm,0.8s								
TROLL	**Troll, Antarti**	**90.48**	**180**	⇓P	**P**	**16 17 30.6**	**-0.5**		
	comp=Z,183nm,0.5s								
735A	**Kenedy**	**90.68**	**60**	P	**P**	**16 17 31.6**	**-1.0**		
SNAA	**Sanae**	**90.78**	**179**	P	**P**	**16 17 31.3**	**-1.0**		
	comp=Z,49nm,0.5s								
SNAA	**Sanae**	**90.78**	**179**	P	**P**	**16 17 32.1**	**-0.3**		
	comp=Z,1.4nm,0.4s,baz=194,slow=14,SNR=2.6								
	comp=Z,1.4nm,0.4s								
SNAA	**Sanae**	**90.78**	**179**	P	**P**	**16 17 31.4**	**-1.0**		
SNAA				IAmb	IAmb	16 18 06.2			
	comp=Z,3.5nm,1.1s								
VNA3	**Neumayer Olymp**	**90.93**	**176**	P	**P**	**16 17 32.6**	**-0.4**		
	comp=Z,9.6nm,0.7s								
VNA2	**Neumayer--Watz**	**91.37**	**177**	⇓P	**P**	**16 17 34.4**	**-0.6**		
	comp=Z,2.0nm,0.6s,baz=195,slow=4.3								
VNA1	**Neumayer--Stat**	**91.60**	**177**	P	**P**	**16 17 35.1**	**-0.9**		
	comp=Z,6.6nm,0.9s								
YKA	**Yellowknife Ar**	**94.25**	**25**	P	**P**	**16 17 47.8**	**-0.3**		
	comp=Z,0.7nm,0.7s,baz=240,slow=4.8,SNR=7.9								
	comp=Z,0.7nm,0.7s								
YKAW3	**Yellowknife Wh**	**94.29**	**25**	P	**P**	**16 17 47.0**	**-1.3**		
YKAW3				IAmb	IAmb	16 18 15.3			
	comp=Z,3.2nm,1.2s								
MKAR	**Makanchi Array**	**108.87**	**314**	PKiKP	**PKiKP**	**16 22 53.7**	**-1.4**		
	comp=Z,0.4nm,0.5s,baz=160,slow=1.4,SNR=7.0								
MKAR	**Makanchi Array**	**108.87**	**314**		**PKiKP**	**16 22 53.3**	**-1.8**		
KURBB	**Kurchatov Array**	**111.61**	**318**	PKiKP	**PKiKP**	**16 22 58.8**	**-1.4**		
	comp=Z,4.8nm,0.3s,baz=91,slow=1.6,SNR=11								
BVAR	**Borovoye Array**	**116.58**	**321**	PKP	**PKPdf**	**16 23 08.3**	**-1.3**		
	comp=Z,1.0nm,0.4s,baz=73,slow=1.7,SNR=6.9								
ARCES	**ARCESS Array B**	**126.10**	**350**	PKP	**PKPdf**	**16 23 26.2**	**-1.2**		
	comp=Z,1.2nm,0.7s,baz=27,slow=2.0,SNR=5.6								
FINES	**FINESS Array B**	**132.96**	**344**	PKP	**PKPdf**	**16 23 38.5**	**-2.1**		
	comp=Z,1.4nm,0.9s,baz=22,slow=4.9,SNR=4.1								
EKA	**Eskdalemuir Ar**	**142.30**	**4**	PKhKP	PKPpre	16 23 52.2			
	comp=Z,0.3nm,0.3s,baz=349,slow=3.2,SNR=4.6								
BNN	**Bunyan**	**143.38**	**312**		PKPab	16 23 56.0	-2.8		
BURAR	**Bucovina Array**	**144.36**	**332**		PKPbc	16 23 59.5	-2.3		
BRTR	**Keskin Array B**	**144.51**	**315**	PKP	PKPbc	16 24 02.1	-0.5		
	comp=Z,2.4nm,0.8s,baz=101,slow=1.1,SNR=14								
KOLS	**Kolonicke sedl**	**144.56**	**336**	*e*PKP	**PKPab**	**16 24 03.2**	**+0.4**		
OSTC	**Ostas**	**145.16**	**343**	*e*PKP	**PKPab**	**16 24 04.6**	**-0.5**		
CLL	**Collm**	**145.25**	**347**		**PKPdf**	**16 24 01.3**	**-1.9**		
CLL	**Collm**	**145.25**	**347**	⇓*i*PKPbc	**PKPbc**	**16 24 04.0**	**-0.2**		
	comp=Z,9.0nm,0.8s								
CLL				*e*PKiKP	**PKiKP**	**16 24 08.0**	**+0.7**		
STEB	**Steborice**	**145.27**	**341**	*e*PKP	**PKPbc**	**16 24 04.1**	**-0.2**		
DPC	**Dobruska-Polom**	**145.32**	**343**	*e*PKP	**PKPbc**	**16 24 04.5**	**0.0**		
LANS	**Liptovska Anna**	**145.40**	**339**	*e*PKP	**PKPab**	**16 24 06.0**	**-0.1**		
KRLC	**Kraliky**	**145.44**	**342**	*e*PKP	**PKPab**	**16 24 05.1**	**-1.1**		
BRG	**Berggiesshubel**	**145.44**	**346**	*e*PKP	**PKPbc**	**16 24 04.9**	**+0.1**		
BRG				Amp		16 24 06.4			
	comp=Z,4.1nm,0.7s								
PVCC	**Panska Ves**	**145.62**	**345**	*e*PKP	**PKPab**	**16 24 06.2**	**-0.6**		
VYHS	**Vyhne**	**146.18**	**339**	*e*PKP	**PKPbc**	**16 24 07.5**	**+0.5**		
ZVC	**Zvikov**	**146.72**	**345**	*e*PKP	**PKPbc**	**16 24 08.7**	**+0.3**		
ZVC				*ex*	x	16 24 11.6			
MODS	**Modra-Piesok**	**146.80**	**341**	*e*PKP	**PKiKP**	**16 24 09.8**	**-0.9**		
ABNA	**Allensteig Bun**	**147.09**	**343**	*i* PKiKP	**PKPbc**	**16 24 09.9**	**+0.4**		
	comp=Z,3.6nm,0.6s								
KHC	**Kasperske Hory**	**147.15**	**345**	*e*PKP	**PKPbc**	**16 24 08.9**	**-0.7**		
CKRC	**Cesky Krumlov**	**147.25**	**344**	*e*PKP	**PKPbc**	**16 24 09.8**	**-0.1**		
GERES	**GERESS Array B**	**147.39**	**345**	PKPbc	**PKPbc**	**16 24 10.0**	**-0.3**		
	comp=Z,2.8nm,0.5s,baz=25,slow=2.9,SNR=29								
WINA	**Alland / Wiene**	**147.41**	**342**	*i* PKiKP	**PKiKP**	**16 24 10.7**	**-1.2**		
	comp=Z,2.4nm,0.5s								
CONA	**Conrad Observa**	**147.63**	**342**	*i* PKiKP	**PKPbc**	**16 24 11.1**	**+0.2**		
	comp=Z,4.1nm,0.7s								
RONA	**Rosalia, Austr**	**147.70**	**341**	*i* PKiKP	**PKiKP**	**16 24 11.4**	**-1.2**		
	comp=Z,5.0nm,0.7s								
MOA	**Molln**	**148.16**	**343**	*e*PKiKP	**PKPbc**	**16 24 12.3**	**+0.1**		
	comp=Z,1.7nm,0.5s								
BIOA	**Bad Ischl, Aus**	**148.47**	**344**	*i* PKP	**PKPbc**	**16 24 12.7**	**-0.3**		
	comp=Z,1.7nm,0.4s								
SESA	**Seetaler Alpe,**	**148.75**	**343**	*i* PKP	**PKPbc**	**16 24 13.2**	**-0.8**		
	comp=Z,5.0nm,0.5s								
LESA	**Schwarzleotal**	**148.96**	**345**	*i* PKP	**PKPbc**	**16 24 14.0**	**-0.3**		
	comp=Z,2.0nm,0.4s								
SOKA	**Soboth**	**149.00**	**342**	*e*PKP	**PKPbc**	**16 24 13.7**	**-0.7**		
	comp=Z,0.9nm,0.4s								
KBA	**Koelnbreinsper**	**149.11**	**344**	*e*PKP	**PKPbc**	**16 24 13.9**	**-0.9**		
	comp=Z,2.5nm,0.4s								
OBKA	**Obir**	**149.30**	**342**	*e*PKP	**PKPbc**	**16 24 14.1**	**-1.0**		
	comp=Z,4.1nm,1.2s								
WATA	**Walderalm**	**149.30**	**346**	*i* PKP	**PKPbc**	**16 24 14.8**	**-0.4**		
	comp=Z,3.2nm,0.5s								
WTTA	**Wattenberg**	**149.36**	**346**	*i* PKiKP	**PKPbc**	**16 24 15.2**	**-0.2**		
	comp=Z,6.3nm,0.5s								
MOTA	**Moosalm**	**149.40**	**347**	*i* PKiKP	**PKiKP**	**16 24 15.6**	**-0.7**		
	comp=Z,8.6nm,1.3s								
MYKA	**Terra Mystica**	**149.45**	**343**	*i* PKP	**PKPbc**	**16 24 14.5**	**-0.9**		
	comp=Z,3.7nm,0.5s								
SQTA	**Sankt Quirin**	**149.50**	**347**	*i* PKiKP	**PKPbc**	**16 24 15.5**	**-0.2**		
	comp=Z,5.7nm,0.6s								
ABTA	**Abfaltersbach**	**149.63**	**345**	*i* PKP	**PKPbc**	**16 24 15.2**	**-0.7**		
	comp=Z,4.9nm,0.5s								
DAVA	**Damuels**	**149.70**	**348**	*e*PKiKP	**PKiKP**	**16 24 16.2**	**-0.7**		
	comp=Z,5.4nm,0.9s								
FETA	**Feichten**	**149.79**	**347**	*i* PKP	**PKPbc**	**16 24 16.0**	**-0.4**		
	comp=Z,4.5nm,0.9s								
STAL	**STALIGIAL**	**150.04**	**344**		**PKPdf**	**16 24 08.8**	**-2.4**		

IDC 26 16:07:32.0±2.2,17.14S×179.02W,h575km±21km, mb2.9/6,mbtmp3.8/7,Error ellipse: s-maj=105.2km s-min=22.0km az=150.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.86**	**258**	P	P	16 08 48.5	0.0
	21nm,0.7s,baz=102,slow=9.3,SNR=4.3						
STKA	**Stephens Creek**	**38.50**	**240**	P	P	16 14 05.5	-0.5
	2.1nm,0.8s,baz=54,slow=18,SNR=1.4						
	2.1nm,0.8s						
WRA	**Warramunga Arr**	**44.20**	**259**	P	P	16 14 51.0	-0.2
	1.2nm,0.7s,baz=92,slow=8.2,SNR=5.0						
	1.2nm,0.7s						
ASAR	**Alice Springs**	**44.44**	**254**	P	P	16 14 53.1	0.0
	5.4nm,0.5s,baz=87,slow=8.4,SNR=8.9						
	5.4nm,0.5s						
ILAR	**Eielson Array**	**85.27**	**13**	P	P	16 19 08.1	-0.1
	0.4nm,1.1s,baz=210,slow=5.1,SNR=1.4						
	0.4nm,1.1s						
TXAR	**Lajitas Array**	**86.08**	**58**	P	P	16 19 13.4	+0.4
	0.3nm,0.8s,baz=240,slow=5.1,SNR=2.5						
	0.3nm,0.8s						
PDAR	**Pinedale Array**	**87.20**	**44**	P	P	16 19 17.6	-0.5
	0.2nm,0.6s,baz=233,slow=4.3,SNR=2.3						
	0.2nm,0.6s						

*SJA **26** 16:22:49.1±0.6,20.10S×69.21W,h101km±3km,ML4.0, MW3.9*
*NEIC **26** 16:22:50.0±2.0,20.15S±0.01°×69.21W±0.07,h99km±6km, mb4.3/11,ML4.0(GUC),Error ellipse: s-maj=10.2km s-min=1.8km az=91.0*
*IDC **26** 16:22:51.9±2.6,20.10S×68.81W,h115km±24km,mb3.3/5, mbtmp3.8/8,MS2.5/1,Error ellipse: s-maj=31.6km s-min=16.4km az=74.0*
*GUC **26** 16:22:51.1±0.7,20.13S×69.18W,h92km±3km,ML4.0, Presumed earthquake*

ISC 26 16:22:49.4±0.6,20.09S±0.03×69.17W±0.05,h96km±5km, n96,σ1ᵒ52/122,mb4.1/10,5C-6D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GO01	**Chusmiza**	**0.42**	**357**	*e*P	**Pn**	**16 23 05.8**	**+1.0**
GO01				*e*S	**Sn**	**16 23 18.1**	**+1.9**
GO01				IAML		16 23 19.3	
	comp=Z,3μm,0.1s						
GO01	**Chusmiza**	**0.42**	**357**		**Pn**	**16 23 05.8**	**+1.0**
GO01				Sn	**Sn**	**16 23 17.4**	**+1.1**
GO01	**Chusmiza**	**0.42**	**357**	⇓*e*P	**Pn**	**16 23 05.8**	**+1.0**
GO01				*e*S	**Sn**	**16 23 17.4**	**+1.1**
GO01				IAML		16 23 19.9	
	comp=E,9μm,0.2s						
PB11	**IPOC Station P**	**0.56**	**305**	*e*P	**Pn**	**16 23 06.1**	**+0.7**
PB11				*e*S	**Sn**	**16 23 18.8**	**+1.3**
PB11				IAML		16 23 20.4	
	comp=Z,3μm,0.2s						
PB11	**IPOC Station P**	**0.56**	**305**		**Pn**	**16 23 06.0**	**+0.5**
PB11				Sn	**Sn**	**16 23 18.2**	**+0.8**
PB11	**IPOC Station P**	**0.56**	**305**	⇓*i*P	**Pn**	**16 23 06.2**	**+0.7**
PB11				*e*S	**Sn**	**16 23 18.6**	**+1.1**
PB11				IAML		16 23 19.2	
	comp=E,10μm,0.3s						
TA02	**Huaiquique**	**0.92**	**259**	*e*P	**Pn**	**16 23 09.2**	**+0.5**
TA02				*e*S	**Sn**	**16 23 24.0**	**+0.9**
TA02				IAML		16 23 24.6	
	comp=Z,5μm,0.1s						
TA02	**Huaiquique**	**0.92**	**259**	*i* P	**Pn**	**16 23 09.1**	**+0.5**
TA02				*e*S	**Sn**	**16 23 22.7**	**-0.4**
PSGCX	**Pisagua**	**1.02**	**298**	*e*P	**Pn**	**16 23 10.4**	**+0.5**
PSGCX				*e*S	**Sn**	**16 23 26.4**	**+1.1**
PSGCX				IAML		16 23 28.0	
	comp=Z,2μm,0.4s						
PSGCX	**Pisagua**	**1.02**	**298**		**Pn**	**16 23 10.0**	**+0.1**
PSGCX				Sn	**Sn**	**16 23 25.4**	**+0.1**
PSGCX	**Pisagua**	**1.02**	**298**	⇑*i*P	**Pn**	**16 23 10.4**	**+0.5**
PSGCX				*e*S	**Sn**	**16 23 25.7**	**+0.4**
TA01	**Diego Aracena**	**1.06**	**243**	*e*P	**Pn**	**16 23 10.3**	**0.0**
TA01				*e*S	**Sn**	**16 23 26.4**	**+0.6**
TA01				IAML		16 23 32.3	
	comp=Z,1μm,0.4s						
TA01	**Diego Aracena**	**1.06**	**243**		**Pn**	**16 23 10.2**	**0.0**
TA01				Sn	**Sn**	**16 23 25.1**	**-0.8**
TA01	**Diego Aracena**	**1.06**	**243**	⇑*e*P	**Pn**	**16 23 10.2**	**0.0**
TA01				*e*S	**Sn**	**16 23 25.2**	**-0.7**
TA01				IAML		16 23 29.1	
	comp=E,6μm,0.5s						
PB02	**IPOC Station P**	**1.40**	**209**	*e*P	**Pn**	**16 23 14.8**	**+0.4**
PB02				*e*S	**Sn**	**16 23 33.9**	**+0.7**
PB02				IAML		16 23 40.8	
	comp=Z,4μm,0.2s						
PB02	**IPOC Station P**	**1.40**	**209**		**Pn**	**16 23 14.7**	**+0.4**
PB02				Sn	**Sn**	**16 23 31.5**	**-1.7**
PB02	**IPOC Station P**	**1.40**	**209**	⇑*e*P	**Pn**	**16 23 14.8**	**+0.4**
PB02				IAML		16 23 40.8	
	comp=E,5μm,0.6s						
PB09	**IPOC Station P**	**1.70**	**182**	*e*P	**Pn**	**16 23 19.2**	**+1.1**
PB09				*e*S	**Sn**	**16 23 43.0**	**+3.1**
PB09				IAML		16 23 45.8	
	comp=Z,798nm,0.6s						
PB09	**IPOC Station P**	**1.70**	**182**		**Pn**	**16 23 19.3**	**+1.1**
PB09				Sn	**Sn**	**16 23 41.7**	**+1.8**
PB09	**IPOC Station P**	**1.70**	**182**	⇓*i*P	**Pn**	**16 23 19.3**	**+1.1**
PB09				*e*S	**Sn**	**16 23 42.7**	**+2.7**
PB07	**IPOC Station P**	**1.76**	**202**	*e*P	**Pn**	**16 23 19.7**	**+0.7**
PB07				*e*S	**Sn**	**16 23 42.6**	**+1.3**
PB07				IAML		16 23 48.2	
	comp=Z,2μm,0.2s						
PB07	**IPOC Station P**	**1.76**	**202**		**Pn**	**16 23 19.3**	**+0.4**
PB07				Sn	**Sn**	**16 23 41.3**	**-0.1**
PB07	**IPOC Station P**	**1.76**	**202**	⇓*i*P	**Pn**	**16 23 19.6**	**+0.7**
PB07				IAML		16 23 47.4	
	comp=E,2μm,0.4s						
PB16	**IPOC Station P**	**1.77**	**350**	*e*P	**Pn**	**16 23 22.2**	**+2.7**
PB16				*e*S	**Sn**	**16 23 42.8**	**+0.5**
PB16	**IPOC Station P**	**1.77**	**350**		**Pn**	**16 23 22.0**	**+2.5**
PB16				Sn	**Sn**	**16 23 46.7**	**+4.4**
PB16	**IPOC Station P**	**1.77**	**350**	⇑*e*P	**Pn**	**16 23 22.3**	**+2.7**
PB12	**IPOC Station P**	**1.83**	**323**	*e*P	**Pn**	**16 23 20.8**	**+1.0**
PB12				*e*S	**Sn**	**16 23 44.0**	**+1.2**
PB12				IAML		16 23 51.6	
	comp=Z,803nm,0.3s						
PB12	**IPOC Station P**	**1.83**	**323**		**Pn**	**16 23 20.6**	**+0.8**
PB12				Sn	**Sn**	**16 23 43.2**	**+0.3**
PB12	**IPOC Station P**	**1.83**	**323**	⇑*i*P	**Pn**	**16 23 20.7**	**+1.0**
PB12				IAML		16 23 49.3	
	comp=E,2μm,0.3s						
PB03	**IPOC Station P**	**2.02**	**196**	*e*P	**Pn**	**16 23 22.9**	**+0.6**
PB03				*e*S	**Sn**	**16 23 50.5**	**+3.1**
PB03				IAML		16 23 53.5	
	comp=Z,1μm,0.2s						
PB03	**IPOC Station P**	**2.02**	**196**		**Pn**	**16 23 22.4**	**+0.1**
PB03				Sn	**Sn**	**16 23 48.1**	**+0.8**
PB03	**IPOC Station P**	**2.02**	**196**	⇓*i*P	**Pn**	**16 23 23.0**	**+0.6**
PB03				IAML		16 23 55.3	
	comp=E,1μm,0.3s						
AP01	**Chacalluta**	**2.04**	**327**	*e*P	**Pn**	**16 23 24.4**	**+2.1**
AP01				*e*S	**Sn**	**16 23 47.2**	**-0.2**
AP01				IAML		16 23 52.8	
	comp=Z,1μm,0.2s						
AP01	**Chacalluta**	**2.04**	**327**	Pn	**Pn**	**16 23 22.9**	**+0.5**
AP01				Sn	**Sn**	**16 23 49.0**	**+1.6**
AP01	**Chacalluta**	**2.04**	**327**	*e*P	**Pn**	**16 23 23.5**	**+1.1**
PB18	**Visviri**	**2.50**	**353**		**Pn**	**16 23 32.6**	**+3.7**
PB18	**Visviri**	**2.50**	**353**	*e*P	**Pn**	**16 23 33.6**	**+4.7**
PB06	**IPOC Station P**	**2.63**	**188**	*e*P	**Pn**	**16 23 31.1**	**+0.8**
PB06				*e*S	**Sn**	**16 24 07.2**	**+5.6**
PB06				IAML		16 24 10.1	
	comp=Z,620nm,0.3s						
PB06	**IPOC Station P**	**2.63**	**188**		**Pn**	**16 23 30.7**	**+0.4**
PB06	**IPOC Station P**	**2.63**	**188**	⇓*i*P	**Pn**	**16 23 31.1**	**+0.8**
PB06				IAML		16 24 11.8	
	comp=N,701nm,0.5s						
PB05	**IPOC Station P**	**2.91**	**199**	*e*P	**Pn**	**16 23 34.7**	**+0.7**
PB05				*e*S	Sn	16 23 53.8	-15
PB05				IAML		16 24 20.7	
	comp=Z,291nm,0.8s						
PB05	**IPOC Station P**	**2.91**	**199**		**Pn**	**16 23 34.3**	**+0.3**
PB05	**IPOC Station P**	**2.91**	**199**	*i* P	**Pn**	**16 23 34.5**	**+0.4**
PB05				IAML		16 24 20.6	
	comp=E,520nm,0.6s						
AF01	**San Pedro de A**	**2.99**	**162**	Pn	**Pn**	**16 23 34.3**	**-1.0**
PB10	**IPOC Station P**	**3.64**	**200**		**Pn**	**16 23 43.5**	**-0.2**
LPAZ	**La Paz**	**3.91**	**15**	P	**Pn**	**16 23 51.6**	**+3.7**
	comp=E,16nm,0.6s,baz=192,slow=7.8,SNR=50						
LPAZ				S	**Sn**	**16 24 34.7**	**+1.6**
	comp=E,9.1nm,0.8s,baz=180,slow=4.0,SNR=4.4						
LPAZ				LR	LR	16 25 35.2	
	comp=E,70nm,21.8s,baz=36,slow=42						
LPAZ	**La Paz**	**3.91**	**15**		**Pn**	**16 23 50.2**	**+2.3**
PB14	**IPOC Station P**	**4.66**	**194**		**Pn**	**16 23 58.1**	**+0.4**
AC01	**Pan de Azucar**	**6.17**	**192**	Pn	**Pn**	**16 24 17.0**	**-1.0**
AC02	**Maricunga**	**6.71**	**180**	Pn	**Pn**	**16 24 25.4**	**-0.5**
AC06	**Mina Casimiro**	**7.32**	**188**	Pn	**Pn**	**16 24 33.5**	**-0.1**
GO03	**Copiapo**	**7.53**	**187**	Pn	**Pn**	**16 24 36.6**	**0.0**
AC04	**Llanos de Chal**	**8.26**	**192**	Pn	**Pn**	**16 24 45.5**	**-0.9**
SIV	**San Ignacio**	**8.71**	**63**	P	**Pn**	**16 24 52.0**	**-0.7**
	comp=E,9.1nm,0.5s,baz=255,slow=10,SNR=58						
SIV				S	**Sn**	**16 26 24.1**	**-5.2**
	comp=E,0.8nm,0.6s,baz=232,slow=17,SNR=1.0						
AC05	**El Transito**	**8.77**	**186**	Pn	**Pn**	**16 24 51.9**	**-1.5**
LCO	**Las Campanas**	**8.99**	**189**	Pn	**Pn**	**16 24 54.7**	**-1.9**
CO01	**Juntas del Tor**	**9.88**	**185**	Pn	**Pn**	**16 25 07.4**	**-1.3**
GO04	**Tololo Observa**	**10.15**	**188**	Pn	**Pn**	**16 25 10.3**	**-2.1**
CO06	**Fray Jorge**	**10.77**	**191**	Pn	**Pn**	**16 25 20.6**	**0.0**
VILB	**Vilhena**	**11.15**	**52**	Pn	**Pn**	**16 25 26.1**	**+0.3**
CO02	**Combarbal**	**11.19**	**188**	Pn	**Pn**	**16 25 24.9**	**-1.4**
CO04	**Los Peladeros**	**12.01**	**187**	Pn	**Pn**	**16 25 38.2**	**+0.6**
CPUP	**Villa Florida**	**12.53**	**122**	P	**Pn**	**16 25 42.5**	**-1.7**
	comp=E,1.8nm,0.8s,baz=295,slow=19,SNR=4.0						
CPUP	**Villa Florida**	**12.53**	**122**	Pn	**Pn**	**16 25 44.8**	**+0.6**
VA03	**San Esteban**	**12.68**	**185**	Pn	**Pn**	**16 25 45.7**	**-0.6**
BO04	**La Punta**	**13.90**	**185**	Pn	**Pn**	**16 26 00.8**	**-1.5**
CPSB	**Cacapava Do Su**	**17.53**	**129**	P	**P**	**16 26 46.7**	**-0.7**
PLCA	**Paso Flores**	**20.61**	**183**	P	**P**	**16 27 21.4**	**+0.4**
	comp=E,2.2nm,0.9s,baz=12,slow=11,SNR=3.4						
	comp=E,2.2nm,0.9s						
PLCA	**Paso Flores**	**20.61**	**183**	P	**P**	**16 27 19.4**	**-1.6**
BOAV	**Boa Vista**	**23.90**	**22**	P	**P**	**16 27 54.5**	**0.0**
BOAV				IAmb	IAmb	16 28 37.4	
	comp=Z,8.7nm,1.3s						
RUSC	**La Rusia**	**26.11**	**351**	P	**P**	**16 28 14.9**	**-0.1**
RUSC				IAmb	IAmb	16 28 16.5	
	comp=Z,4.8nm,0.6s						
SJCC	**San Jacinto, C**	**30.38**	**348**		**P**	**16 28 51.9**	**-0.6**
URIC	**Uribia, Colomb**	**31.71**	**355**	P	**P**	**16 29 04.0**	**-0.2**
URIC				IAmb	IAmb	16 29 19.8	
	comp=Z,20nm,1.3s						
CELP	**Cerrillos**	**38.01**	**4**	P	**P**	**16 29 58.5**	**+0.2**
TXAR	**Lajitas Array**	**59.34**	**325**	P	**P**	**16 32 42.7**	**+1.0**
	comp=Z,0.1nm,0.5s,baz=152,slow=4.8,SNR=2.0						
	comp=Z,0.1nm,0.5s						
TXAR	**Lajitas Array**	**59.34**	**325**	P	**P**	**16 32 41.6**	**-0.1**
S39A	**Bolivar**	**61.81**	**338**	P	**P**	**16 32 58.2**	**0.0**
S39A				IAmb	IAmb	16 32 58.8	
	comp=Z,2.3nm,0.6s						
R40A	**Maddies Statio**	**61.99**	**340**	P	**P**	**16 32 59.5**	**+0.2**
R40A				IAmb	IAmb	16 33 42.1	
	comp=Z,5.9nm,1.5s						
QSPA	**South Pole Qui**	**70.09**	**180**	P	**P**	**16 33 51.4**	**+0.3**
	comp=Z,1.6nm,1.2s,baz=127,slow=8.0,SNR=1.6						
	comp=Z,1.6nm,1.2s						
QSPA	**South Pole Qui**	**70.09**	**180**	P	**P**	**16 33 50.3**	**

ABPO Ambohimpanom 20.30 3 P Pn 17 08 24.8 +0.1
comp=Z,7nm,1.2s
ABPO Ambohimpanom 20.30 3 P Pn 17 08 24.9 +0.2
BOSA Boshof 20.34 295 P P **17 08 23.7 +0.7**
comp=Z,40nm,0.8s,baz=130,slow=13,SNR=27
BOSA S S 17 11 57.5 -13
comp=Z,2.8nm,0.7s,baz=86,slow=14,SNR=1.4
BOSA LR LR 17 15 05.2
comp=Z,855nm,19.6s,baz=125,slow=33
comp=Z,40nm,0.8s
BOSA Boshof 20.34 295 P P **17 08 21.4 -1.6**
BOSA pmax pmax
comp=Z,269nm,1.6s
BOSA Boshof 20.34 295 P 17 08 21.4 -1.6
BOSA IAmb IAmb 17 08 37.7
comp=Z,269nm,1.6s
BOSA Boshof 20.34 295 P Pn 17 08 24.3 -0.8
comp=Z,70nm,0.9s
BOSA Boshof 20.34 295 P P **17 08 24.0 +0.9**
OPO Ambohidratompo 20.74 3 P Pn 17 08 28.7 -1.2
comp=Z,23nm,0.9s,baz=180,slow=13,SNR=17
OPO LR LR 17 14 49.7
comp=Z,534nm,18.9s,baz=89,slow=32
comp=Z,23nm,0.9s
SUR Sutherland 21.66 281 LR LR 17 15 42.5
comp=Z,872nm,19.2s,baz=110,slow=33
SUR Sutherland 21.66 281 P P **17 08 36.0 -1.3**
SUR S **S** **17 12 31.5 -5.6**
SUR Sutherland 21.66 281 P 17 08 35.9 -1.3
SUR IAmb IAmb 17 08 39.5
comp=Z,108nm,0.9s
SUR Sutherland 21.66 281 P P **17 08 39.0 +1.7**
comp=Z,124nm,0.9s
SUR Sutherland 21.66 281 P P **17 08 38.3 +1.0**
ALKP Alkanpan, Nort 21.76 288 P 17 08 37.7 -0.6
ALKP IAmb IAmb 17 08 50.8
comp=Z,136nm,1.4s
MAKGR Makgori 22.44 301 P P **17 08 45.6 0.0**
MAKGR IAmb IAmb 17 08 57.6
comp=Z,233nm,1.6s
MAKGR Makgori 22.44 301 P P **17 08 46.7 +1.0**
LBTB Lobatse 22.46 303 P P **17 08 45.0 -0.9**
LBTB pmax pmax
comp=Z,71nm,1.1s
LBTB Lobatse 22.46 303 P P **17 08 45.0 -0.9**
CVNA Calvinia 22.86 282 P P **17 08 50.7 +0.7**
comp=Z,49nm,1.4s
SKOMA Sekoma 23.90 302 P P **17 09 00.4 0.0**
KDWAN Kaudwane 24.22 305 P 17 09 02.7 -0.8
KDWAN IAmb IAmb 17 09 21.1
comp=Z,58nm,0.9s
KDWAN Kaudwane 24.22 305 P P **17 09 03.2 -0.3**
MATP Matopo 24.23 316 LR LR 17 17 12.8
comp=Z,1µm,19.7s,baz=152,slow=33
SOOWA Sowa 25.39 312 P P **17 09 14.3 +0.2**
LKGWB Lokgwabe 25.99 298 P 17 09 15.3 -4.2
LKGWB Lokgwabe 25.99 298 P P **17 09 16.9 -2.6**
KOOLE Kule 27.43 299 P P **17 09 31.3 -1.3**
KOOLE IAmb IAmb 17 09 42.3
comp=Z,128nm,1.7s
GRTLG Ghanzi 27.89 303 P P **17 09 35.6 -1.1**
KSANE Kasane 28.19 314 P P **17 09 38.0 -1.4**
LSZ Lusaka 28.72 322 LR LR 17 20 24.9
comp=Z,559nm,18.5s,baz=158,slow=35
LSZ Lusaka 28.72 322 P P **17 09 43.6 -0.4**
LSZ Lusaka 28.72 322 P P **17 09 43.6 -0.4**
LSZ pmax pmax
comp=Z,26nm,1.1s
LSZ Lusaka 28.72 322 P 17 09 43.6 -0.4
MAW Mawson 29.77 167 P P **17 09 54.0 +1.2**
comp=Z,3.1nm,2.1s
MAW Mawson 29.77 167 P P **17 09 53.8 +1.0**
comp=Z,3.1nm,2.1s
MAW Mawson 29.77 167 P P **17 09 52.1 -0.6**
comp=Z,8.7nm,1.0s,baz=334,slow=8.6,SNR=7.2
MAW LR LR 17 18 56.8
comp=Z,412nm,20.3s,baz=330,slow=31
comp=Z,8.7nm,1.0s
MAW Mawson 29.77 167 P P **17 09 52.0 -0.7**
WIN Windhoek 29.85 296 P P **17 09 53.1 -1.1**
WIN pmax pmax
comp=Z,50nm,1.5s
WIN Windhoek 29.85 296 P P **17 09 53.1 -1.1**
TSUM Tsumeb 31.81 301 LR LR 17 22 32.3
comp=Z,772nm,18.5s,baz=149,slow=35
TSUM Tsumeb 31.81 301 P P **17 10 11.0 -0.4**
TSUM Tsumeb 31.81 301 P P **17 10 11.1 -0.4**
comp=Z,22nm,1.4s
TSUM Tsumeb 31.81 301 P P **17 10 12.1 +0.7**
ELIB Princess Elisa 34.61 192 *d*P **P** **17 10 35.9 +0.5**
comp=Z,21nm,1.0s
ELIB *d*PcP **PcP** **17 13 09.9 +0.5**
MSEY Mahe Island 35.55 16 P P **17 10 43.4 -0.5**
MSEY pmax pmax
comp=Z,158nm,2.0s
MSEY Mahe Island 35.55 16 P P **17 10 43.4 -0.5**
MSEY IAmb IAmb 17 11 04.7
comp=Z,158nm,2.0s
NVL N'lazarevskaya 36.08 199 *e*P **P** **17 10 50.5 +2.7**
NVL *e*S **S** **17 16 28.4 +1.9**
NVL pmax pmax
comp=Z,10.0nm,0.9s
NVL MLR MLR
comp=Z,318nm,17.0s
KIBK Kibwezi 37.59 347 P P **17 11 02.3 +1.0**
KIBK Kibwezi 37.59 347 P P **17 11 01.4 +0.1**
KIBK Kibwezi 37.59 347 P P **17 11 01.8 +0.5**
comp=Z,8.4nm,1.5s
KMBO Kilima Mbogo 38.92 346 P P **17 11 08.0 -4.7**
baz=170,slow=12
KMBO Kilima Mbogo 38.92 346 P P **17 11 14.2 +1.4**
KMBO Kilima Mbogo 38.92 346 P P **17 11 12.9 +0.2**
KMBO pmax pmax
comp=Z,11nm,1.3s
KMBO Kilima Mbogo 38.92 346 P P **17 11 12.9 +0.2**
KMBO Kilima Mbogo 38.92 346 P P **17 11 14.1 +1.4**
comp=Z,9.0nm,1.6s
TROLL Troll, Antarti 39.21 200 ⇑P **P** **17 11 14.9 +0.4**
comp=Z,477nm,0.9s
TROLL ⇓PcP **PcP** **17 13 24.1 +0.7**
comp=Z,783nm,1.0s
H08S1 Diego Carcia H 39.44 44 T T 17 53 07.8
baz=213,slow=76,SNR=32
H08S2 Diego Garcia H 39.45 44 T T 17 53 06.6
baz=213,slow=76,SNR=11
H08S3 Diego Garcia H 39.46 44 T T 17 53 09.3
baz=213,slow=76,SNR=31
DGAR Diego Garcia 39.62 44 P P **17 11 17.4 -0.9**
DGAR pmax pmax
comp=Z,32nm,0.9s
DGAR Diego Garcia 39.62 44 P P **17 11 17.4 -0.9**
SNAA Sanae 40.52 202 P P **17 11 24.2 -1.0**
comp=Z,10.0nm,0.7s,baz=62,slow=11,SNR=7.6
SNAA PcP **PcP** **17 13 26.9 -0.5**
comp=Z,6.3nm,0.5s,baz=124,slow=3.6,SNR=3.2
SNAA LR LR 17 25 36.3
comp=Z,361nm,18.4s,baz=43,slow=32
comp=Z,10.0nm,0.7s
SNAA Sanae 40.52 202 P P **17 11 24.3 -1.0**
SNAA **PcP** **17 13 26.4 -1.0**
SNAA Sanae 40.52 202 P P **17 11 26.2 +1.0**
comp=Z,23nm,1.8s
MBAR Mbarara 41.08 336 LR LR 17 27 53.3
comp=Z,181nm,18.0s,baz=161,slow=35
MBAR Mbarara 41.08 336 P P **17 11 30.2 -0.3**
MBAR pmax pmax
comp=Z,15nm,1.2s
MBAR Mbarara 41.08 336 P P **17 11 30.2 -0.3**
MBAR Mbarara 41.08 336 P P **17 11 32.4 +1.8**
comp=Z,13nm,1.8s
VNA2 Neumayer--Watz 41.58 203 ⇑P **P** **17 11 34.8 +0.9**
comp=Z,399nm,0.7s,baz=63,slow=7.3
VNA2 ⇓pP **pwP** **17 11 43.6 +2.6**
comp=Z,39nm,0.7s,baz=58,slow=9.1
VNA2 ⇓PcP **PcP** **17 13 31.0 +0.2**
comp=Z,15nm,0.7s,baz=38,slow=4.7
VNA2 Neumayer--Watz 41.58 203 P P **17 11 35.1 +1.2**
comp=Z,79nm,0.9s
VNA1 Neumayer--Stat 41.76 204 P P **17 11 36.2 +0.9**
comp=Z,19nm,1.0s
VNA1 ⇑pP **pwP** **17 11 45.4 +2.9**
comp=Z,20nm,1.1s
VNA3 Neumayer Olymp 42.39 203 ⇑P **P** **17 11 40.8 +0.3**
comp=Z,27nm,0.8s
VNA3 ⇓pP **pwP** **17 11 50.4 +2.8**
comp=Z,27nm,0.8s
VNA3 ⇓PcP **PcP** **17 13 33.7 +0.2**
comp=Z,18nm,0.8s
VNA3 Neumayer Olymp 42.39 203 P P **17 11 41.3 +0.8**
comp=Z,49nm,0.9s
LODK Lodwar 43.73 344 P P **17 11 53.4 +1.4**
SNR=5.1
LODK Lodwar 43.73 344 P P **17 11 51.8 -0.2**
LODK Lodwar 43.73 344 P P **17 11 54.1 +2.1**
comp=Z,7.4nm,1.9s
CASY Casey 44.49 149 P P **17 11 56.8 -0.6**
TRIS Tristan da Cun 45.31 254 P P **17 12 03.1 -1.3**
TRIS IAmb IAmb 17 12 14.3
comp=Z,77nm,1.1s
TRIS Tristan da Cun 45.31 254 P P **17 12 05.7 +1.3**
comp=Z,55nm,1.4s
BELA Belgrano 2 49.93 196 P P **17 12 39.0 -0.8**
BELA IAmb IAmb 17 12 41.0
comp=Z,46nm,1.6s
QSPA South Pole Qui 50.83 180 P P **17 12 45.9 -1.0**
comp=Z,11nm,1.0s,baz=262,slow=4.7,SNR=20
QSPA PcP **PcP** **17 14 02.5 -0.9**
comp=Z,10.0nm,1.1s,baz=264,slow=3.0,SNR=2.7
QSPA LR LR 17 32 17.6
comp=Z,584nm,19.8s,baz=264,slow=34
comp=Z,11nm,1.0s
QSPA South Pole Qui 50.83 180 P P **17 12 45.7 -1.2**
QSPA South Pole Qui 50.83 180 P P **17 12 46.3 -0.6**
comp=Z,23nm,1.1s
HMDM Hanimaadhoo 52.28 35 P P **17 12 57.3 -0.8**
H01W2 Cape Leeuwin H 53.21 108 T T 18 10 21.0
baz=244,slow=75,SNR=158
H01W3 Cape Leeuwin H 53.22 108 T T 18 10 17.7
baz=244,slow=75,SNR=22
H01W1 Cape Leeuwin H 53.23 108 T T 18 10 22.4
baz=244,slow=75,SNR=184
EDA Edea 54.25 314 P P **17 13 11.5 -1.1**
PALK Pallekele 56.35 42 LR LR 17 31 26.5
comp=Z,274nm,19.9s,baz=204,slow=30
PALK Pallekele 56.35 42 *i*P **P** **17 13 29.3 +1.4**
SNR=5.6
PALK Pallekele 56.35 42 P P **17 13 28.3 +0.5**
PALK Pallekele 56.35 42 P P **17 13 27.7 -0.1**
PALK pmax pmax
comp=Z,82nm,1.4s
PALK Pallekele 56.35 42 P **17 13 27.7 -0.1**
PALK IAmb IAmb 17 13 30.8
comp=Z,82nm,1.4s
PALK Pallekele 56.35 42 P P **17 13 29.3 +1.4**
comp=Z,43nm,1.3s
NWAO Narrogin (SRO) 56.40 107 LR LR 17 31 24.6
comp=Z,280nm,21.7s,baz=242,slow=29
ABTO Aybut 56.82 8 P P **17 13 32.1 +1.1**
VNDA Vanda 57.08 166 P P **17 13 31.3 -0.9**
comp=Z,2.2nm,0.6s,baz=235,slow=7.3,SNR=13
VNDA LR LR 17 36 36.1
comp=Z,203nm,18.7s,baz=260,slow=35
comp=Z,2.2nm,0.6s
VNDA Vanda 57.08 166 P **17 13 31.2 -0.9**
VNDA Vanda 57.08 166 P P **17 13 32.0 -0.2**
comp=Z,8.6nm,1.4s
BLDU Ballidu 57.13 105 P P **17 13 34.2 +1.0**
comp=Z,26nm,1.2s
BLDU Ballidu 57.13 105 P P **17 13 33.1 -0.1**
comp=Z,26nm,1.2s
MALK Mahakanadarawa 57.22 42 P P **17 13 33.7 -0.2**
comp=Z,44nm,1.3s
DMTO DMTO 57.38 10 P P **17 13 36.7 +1.8**
MORW Morawa 57.39 103 P P **17 13 36.4 +1.3**
comp=Z,49nm,1.3s
MORW Morawa 57.39 103 P P **17 13 36.1 +1.0**
comp=Z,49nm,1.3s
MORW Morawa 57.39 103 P **17 13 34.5 -0.6**
MORW IAmb IAmb 17 13 36.8
comp=Z,32nm,0.8s
MORW Morawa 57.39 103 P P **17 13 36.1 +1.0**
comp=Z,48nm,1.3s
WHFO Wadi Hawf 57.43 9 P P **17 13 35.4 0.0**
SBA Scott Base 57.73 168 P P **17 13 37.2 +0.4**
SBA pmax pmax
comp=Z,99nm,1.8s
SBA Scott Base 57.73 168 P P **17 13 37.2 +0.4**
SBA IAmb IAmb 17 14 02.1
comp=Z,99nm,1.8s
SHAO Shalim 57.77 11 P P **17 13 38.3 +0.6**
MEEK Meekatharra 60.59 102 P P **17 13 58.3 +0.9**
comp=Z,67nm,1.5s
MEEK Meekatharra 60.59 102 P P **17 13 58.8 +1.4**
comp=Z,66nm,1.5s
MEEK Meekatharra 60.59 102 P P **17 13 58.0 +0.6**
comp=Z,67nm,1.5s
KMBL Kambalda 60.60 108 P P **17 13 57.6 +0.2**
comp=Z,11nm,1.5s
KMBL Kambalda 60.60 108 P P **17 13 58.0 +0.6**
comp=Z,11nm,1.5s
MHTO MHTO 61.05 13 P P **17 14 01.0 +0.7**
SNR=15
SISI Saibi 61.20 66 P P **17 14 03.3 +1.7**
comp=Z,74nm,1.3s,comp=Z,74nm,1.3s
SMAI San Martin Ant 61.90 203 P P **17 14 05.9 +0.3**
UMZA Um Al Zommool 62.33 9 P P **17 14 09.0 +0.1**
MZR Muzera 62.42 8 *i*P **P** **17 14 10.7 +1.2**
SNR=14
MZR Muzera 62.42 8 P P **17 14 11.1 +1.6**
SNR=6.8
RAYN Ar Rayn 62.56 359 *i*P **P** **17 14 11.8 +1.3**
SNR=18
RAYN Ar Rayn 62.56 359 P P **17 14 10.2 -0.3**
RAYN pmax pmax
comp=Z,46nm,1.2s
RAYN Ar Rayn 62.56 359 P P **17 14 10.2 -0.3**
RAYN IAmb IAmb 17 14 12.9
comp=Z,46nm,1.2s
RAYN Ar Rayn 62.56 359 P P **17 14 11.4 +0.9**
comp=Z,37nm,1.4s
BSY Bisya 62.64 11 P P **17 14 13.0 +2.0**
SNR=5.9
PMSA Palmer Station 62.87 207 LR LR 17 37 26.6
comp=Z,170nm,18.1s,baz=130,slow=32
SMDO Samad 63.09 12 P P **17 14 14.0 -0.1**
ARQ Araqi 63.12 11 P P **17 14 17.0 +2.8**
SNR=6.0
MZWR Madinat Zayed 63.21 8 P P **17 14 15.4 +0.7**
BBJI Bungbulang 63.35 77 P P **17 14 17.8 +1.7**
BBJI Bungbulang 63.35 77 P P **17 14 15.9 -0.2**
BBJI IAmb IAmb 17 14 17.9
comp=Z,48nm,1.5s
BBJI Bungbulang 63.35 77 P P **17 14 17.0 +0.9**
comp=Z,24nm,1.3s
HOQ Hoquain 63.48 11 P P **17 14 16.1 -0.5**
ALNE Al Ain 63.73 10 *i*P **P** **17 14 19.2 +1.0**
SNR=9.9
ALNE Al Ain 63.73 10 P P **17 14 20.2 +2.0**
SNR=5.5
LEM Lembang 63.74 77 LR LR 17 34 31.4
comp=Z,93nm,21.4s,baz=220,slow=29
BKNI Bangkinang 63.74 66 P P **17 14 20.9 +2.4**
BKNI Bangkinang 63.74 66 P P **17 14 19.2 +0.7**
BKNI Bangkinang 63.74 66 P P **17 14 19.9 +1.3**
comp=Z,174nm,1.3s
SOHO SOHO 63.91 11 *i*P **P** **17 14 19.7 +0.3**
SNR=6.4
SOHO SOHO 63.91 11 P P **17 14 22.1 +2.7**
SNR=5.0
RPSI Rantau Prapat 63.95 62 P **17 14 20.1 +0.1**
RPSI Rantau Prapat 63.95 62 P P **17 14 22.0 +2.0**
comp=Z,51nm,1.2s
PSI Prapat 64.03 62 LR LR 17 38 44.4
comp=Z,81nm,18.4s,baz=216,slow=33
PSI Prapat 64.03 62 P P **17 14 21.8 +1.2**
PSI Prapat 64.03 62 P P **17 14 20.1 -0.5**
PSI pmax pmax
comp=Z,58nm,1.1s
ASUD Al Ashush, Dub 64.23 9 P P **17 14 22.7 +1.3**
FAQ Al Faqa, Dubai 64.39 10 P P **17 14 23.3 +0.8**
ASHO Ashiyiah 64.39 10 *i*P **P** **17 14 23.1 +0.5**
SNR=11
ASHO Ashiyiah 64.39 10 P P **17 14 24.0 +1.4**
SNR=5.2
LHMI Lhok Sumawe 64.47 59 P P **17 14 23.6 +0.3**
HATD Hatta, Dubai 64.53 10 *i*P **P** **17 14 24.1 +0.7**
SNR=7.9
HATD Hatta, Dubai 64.53 10 P P **17 14 22.4 -1.1**
NAZ Nazwa, Dubai 64.63 10 P P **17 14 24.9 +0.8**
NAZ Nazwa, Dubai 64.63 10 P P **17 14 24.2 +0.1**
UOSS Minazif 64.66 10 P P **17 14 24.4 +0.1**
UOSS Minazif 64.66 10 P P **17 14 24.6 +0.3**
MDH Madha 65.02 10 P P **17 14 26.3 -0.3**
MSFE Esma-Masafi 65.06 10 P P **17 14 27.1 +0.2**
MASF Masafi 65.08 10 P P **17 14 25.9 -1.1**
FORT Forrest 65.43 110 P P **17 14 30.4 +0.9**
comp=Z,29nm,0.8s
FORT Forrest 65.43 110 P **17 14 29.3 -0.2**
FORT IAmb IAmb 17 14 31.2
comp=Z,19nm,0.8s
DBIC Dimbokro 65.71 302 P P **17 14 30.6 -0.7**
comp=Z,4.3nm,0.8s,baz=152,slow=6.2,SNR=3.8
DBIC LR LR 17 41 50.7
comp=Z,396nm,18.0s,baz=156,slow=35
comp=Z,4.3nm,0.8s
DBIC Dimbokro 65.71 302 P P **17 14 31.3 0.0**
DBIC pmax pmax
comp=Z,23nm,1.2s
DBIC Dimbokro 65.71 302 P P **17 14 31.3 0.0**
DBIC IAmb IAmb 17 14 42.3
comp=Z,23nm,1.1s
SHME Shamm 65.74 10 P P **17 14 31.1 -0.2**
TORD Torodi Ar. Bea 66.67 312 P P **17 14 37.0 -0.5**
comp=Z,4.5nm,0.7s,baz=135,slow=6.5,SNR=12
comp=Z,4.5nm,0.7s
TORD Torodi Ar. Bea 66.67 312 IAmb IAmb 17 14 34.9
comp=Z,16nm,0.8s
TORD P **P** **17 14 37.5 +0.1**
IPM Ipoh 66.68 63 P P **17 14 39.0 +1.3**
IPM Ipoh 66.68 63 P P **17 14 38.0 +0.3**
IPM Ipoh 66.68 63 P P **17 14 38.4 +0.7**
comp=Z,93nm,1.4s
KULM Kulim 67.01 62 P P **17 14 41.1 +1.4**
KULM Kulim 67.01 62 P P **17 14 39.5 -0.2**
KULM Kulim 67.01 62 P P **17 14 39.8 +0.1**
comp=Z,64nm,1.6s
JAGI Jajag, Banyuwa 67.67 82 P P **17 14 45.0 +1.0**
JAGI Jajag, Banyuwa 67.67 82 P P **17 14 43.4 -0.6**
JAGI Jajag, Banyuwa 67.67 82 P P **17 14 44.5 +0.5**
comp=Z,57nm,1.2s
WRKA Warakurna 68.76 105 P P **17 14 51.9 +1.1**
comp=Z,31nm,1.1s
EIL Elat 69.47 350 LR LR 17 44 59.6
comp=Z,95nm,18.1s,baz=192,slow=36
EIL Elat 69.47 350 P P **17 14 56.1 +1.3**
comp=Z,20nm,1.6s
BBOO Buckleboo 70.00 116 P P **17 14 58.8 +0.4**
comp=Z,59nm,1.0s
BBOO Buckleboo 70.00 116 P P **17 14 58.7 +0.4**
BBOO Buckleboo 70.00 116 P P **17 14 57.5 -0.8**
BBOO Buckleboo 70.00 116 P P **17 14 58.8 +0.4**
comp=Z,59nm,1.0s
PLAI Plampang 70.24 85 P P **17 15 00.2 +0.2**
PLAI Plampang 70.24 85 P P **17 15 00.6 +0.6**
comp=Z,185nm,0.9s
MGBR Mount Gambier 70.26 123 P P **17 14 59.1 -0.7**
AUMAR Marden Senior 70.59 119 P P **17 15 02.1 +0.2**
FITZ Fitzroy Crossi 70.74 98 P P **17 15 04.0 +1.0**
comp=Z,16nm,1.3s
FITZ Fitzroy Crossi 70.74 98 LR LR 17 43 24.9
comp=Z,186nm,18.1s,baz=215,slow=34
FITZ Fitzroy Crossi 70.74 98 P P **17 15 03.3 +0.3**
FITZ Fitzroy Crossi 70.74 98 P P **17 15 03.1 +0.1**
FITZ Fitzroy Crossi 70.74 98 P P **17 15 04.0 +1.0**
comp=Z,16nm,1.3s
USHA Ushuaia 70.82 214 LR LR 17 42 44.3
comp=Z,389nm,18.3s,baz=352,slow=33
AUMBR Murray Bridge 70.89 120 P P **17 15 04.3 +0.7**
GHAJ Ghor Haditha 71.00 350 P P **17 15 04.7 +0.6**
GHAJ IAmb IAmb 17 15 07.4
comp=Z,44nm,1.4s
HTT Hallett 71.62 118 P P **17 15 09.2 +0.9**
comp=Z,12nm,1.8s
HTT Hallett 71.62 118 P P **17 15 08.8 +0.6**
ARPS Mount Arapiles 71.64 123 P P **17 15 09.4 +1.2**
comp=Z,13nm,1.6s
ASF Jabal al Asfar 71.70 352 LR LR 17 45 57.8
comp=Z,138nm,18.2s,baz=201,slow=35
BRAT Ballarat 72.53 124 P P **17 15 15.0 +1.5**
TAM Tamanrasset 72.58 321 P P **17 15 14.4 +0.4**
TAM pmax pmax
comp=Z,81nm,0.2s
TAM Tamanrasset 72.58 321 P P **17 15 14.4 +0.4**
TAM Tamanrasset 72.58 321 P P **17 15 15.3 +1.4**
comp=Z,11nm,1.3s
MMAI Mount Meron Ar 72.71 351 LR LR 17 47 15.6
comp=Z,52nm,18.3s,baz=181,slow=36
ASAR Alice Springs 73.72 107 P P **17 15 20.5 -0.3**
comp=Z,28nm,0.8s,baz=235,slow=5.8,SNR=46
ASAR LR LR 17 41 38.4
comp=Z,282nm,22.0s,baz=221,slow=31
comp=Z,28nm,0.8s
ASAR Alice Springs 73.72 107 P P **17 15 20.2 -0.6**
AS31 Alice Springs 73.73 107 P P **17 15 20.2 -0.4**
AS01 Alice Springs 73.76 107 P P **17 15 21.7 -0.6**
MMRI Maumere 73.81 88 P P **17 15 22.2 +0.8**
MMRI Maumere 73.81 88 P P **17 15 20.3 -1.1**
MMRI Maumere 73.81 88 P P **17 15 21.9 +0.5**
comp=Z,119nm,1.0s
AUMAG Moama Anglican 73.92 124 P P **17 15 23.2 +1.5**
BATI Baumata 73.95 90 LR LR 17 43 41.5
comp=Z,82nm,18.1s,baz=232,slow=32
KAPI Kappang 74.15 83 LR LR 17 42 01.7
comp=Z,128nm,21.5s,baz=238,slow=31
KAPI Kappang 74.15 83 P P **17 15 23.7 +0.3**
KAPI Kappang 74.15 83 P P **17 15 22.5 -0.8**
KAPI pmax pmax
comp=Z,31nm,1.0s
KAPI Kappang 74.15 83 P P **17 15 22.5 -0.8**
KAPI IAmb IAmb 17 15 24.1
comp=Z,30nm,1.0s
KAPI Kappang 74.15 83 P P **17 15 23.3 -0.1**
comp=Z,37nm,1.0s
STKA Stephens Creek 74.36 118 P P **17 15 24.9 +0.5**
STKA Stephens Creek 74.36 118 P P **17 15 23.9 -0.5**
comp=Z,34nm,0.7s,baz=226,slow=3.7,SNR=51
STKA LR LR 17 40 00.0
comp=Z,143nm,21.8s,baz=207,slow=29
comp=Z,34nm,0.7s
STKA Stephens Creek 74.36 118 P P **17 15 24.8 +0.5**
STKA Stephens Creek 74.36 118 P P **17 15 23.9 -0.5**
STKA Stephens Creek 74.36 118 P P **17 15 24.9 +0.5**
comp=Z,270nm,1.0s
KNRA Kununurra 74.58 98 P P **17 15 26.7 +0.8**
comp=Z,25nm,0.9s
KNRA Kununurra 74.58 98 P P **17 15 25.7 -0.2**
SOEI Soe 74.70 90 P P **17 15 28.8 +2.1**
SOEI Soe 74.70 90 P **17 15 26.7 0.0**
SOEI Soe 74.70 90 P P **17 15 27.7 +1.0**
comp=Z,53nm,1.1s
HRA Herat 74.88 14 P P **17 15 26.8 -0.5**
HRA IAmb IAmb 17 15 29.1
comp=Z,66nm,1.2s
CSS Mathiatis 74.91 349 P P **17 15 27.5 +0.3**
CSS IAmb IAmb 17 15 29.5
comp=Z,43nm,1.3s
BRDH Bariadhala 74.94 43 LR LR 17 42 44.8
comp=Z,335nm,21.0s,baz=198,slow=31
NPW Nayppyitaw 75.11 48 P P **17 15 29.5 +0.9**
comp=Z,96nm,1.0s
CM31 Chiang Mai Arr 75.74 51 P P **17 15 33.2 +0.8**
SNR=19
CM31 P **pP** **17 15 33.9 -1.2**
CM31 Chiang Mai Arr 75.74 51 P P **17 15 32.0 -0.3**
CM31 IAmb IAmb 17 15 34.0
comp=Z,52nm,1.1s
CMAR Chiang Mai Arr 75.74 51 P P **17 15 32.5 +0.1**
comp=Z,19nm,0.9s,baz=216,slow=6.4,SNR=120
CMAR LR LR 17 44 32.6
comp=Z,104nm,18.6s,baz=225,slow=32
comp=Z,19nm,0.9s
CMAR Chiang Mai Arr 75.74 51 P P **17 15 32.0 -0.3**
CHTO Chiang Mai 76.01 51 P P **17 15 34.3 +0.4**
CHTO Chiang Mai 76.01 51 P P **17 15 33.9 -0.1**
CHTO Chiang Mai 76.01 51 P P **17 15 33.7 -0.2**
CHTO pmax pmax
comp=Z,31nm,1.2s
CHTO Chiang Mai 76.01 51 P P **17 15 33.7 -0.2**
CHTO IAmb IAmb 17 15 35.3
comp=Z,31nm,1.1s
CHTO Chiang Mai 76.01 51 P P **17 15 34.4 +0.4**
comp=Z,29nm,1.4s
WRA Warramunga Arr 76.26 105 P P **17 15 35.7 +0.2**
comp=Z,31nm,0.9s,baz=230,slow=5.5,SNR=148
comp=Z,31nm,0.9s
WRA Warramunga Arr 76.26 105 P P **17 15 35.1 -0.4**

WRAB **Tennant Creek** 76.28 105 P P 17 15 36.2 +0.6
WRAB Tennant Creek 76.28 105 P P 17 15 35.3 -0.3
WRAB pmax pmax
comp=Z,50nm,1.0s
WRAB Tennant Creek 76.28 105 P P 17 15 35.3 -0.3
WRAB IAmb IAmb 17 15 37.3
comp=Z,50nm,1.0s
WRAB Tennant Creek 76.28 105 P P 17 15 36.3 +0.8
comp=Z,76nm,1.3s
WR8 Warramunga Arr 76.37 105 P P 17 15 35.1 -1.1
WB0 Warramunga Arr 76.41 104 P 17 15 35.8 -0.6
MARD Mardin 76.47 356 IAmb IAmb 17 15 38.7
comp=Z,25nm,1.1s
KBL Kabul 76.53 19 P P 17 15 38.4 +1.7
SNR=23
KBL Kabul 76.53 19 P P 17 15 37.2 +0.5
KBL pmax pmax
comp=Z,53nm,1.0s
KBL Kabul 76.53 19 P P 17 15 37.2 +0.5
KBL Kabul 76.53 19 P P 17 15 38.2 +1.5
comp=Z,66nm,1.1s
HAKT HAKKARI 76.58 358 P P 17 15 38.7 +1.6
comp=Z,178nm,1.3s
NIL Nilore 76.86 23 P P 17 15 39.0 +0.6
NIL pmax pmax
comp=Z,116nm,1.2s
NIL Nilore 76.86 23 P P 17 15 39.0 +0.6
NIL Nilore 76.86 23 P P 17 15 39.6 +1.2
comp=Z,113nm,1.2s
EVN Everest 76.96 36 IAmb IAmb 17 15 41.8
comp=Z,51nm,1.0s
EVN Everest 76.96 36 P P 17 15 40.7 +0.9
comp=Z,69nm,1.2s
ANDN Andirin 77.11 352 P P 17 15 40.9 +1.1
comp=Z,95nm,1.7s
CAN Canberra 77.12 125 P P 17 15 42.0 +1.7
comp=Z,39nm,1.6s
CAN Canberra 77.12 125 P P 17 15 41.9 +1.7
CAN Canberra 77.12 125 P P 17 15 40.4 +0.2
CAN pmax pmax
comp=Z,24nm,1.0s
CAN Canberra 77.12 125 P P 17 15 40.4 +0.2
CAN IAmb IAmb 17 15 45.5
comp=Z,24nm,1.0s
CMSA Cobar Meteorol 77.33 120 P P 17 15 42.3 +0.9
comp=Z,29nm,1.8s
CMSA Cobar Meteorol 77.33 120 P P 17 15 42.6 +1.2
CMSA Cobar Meteorol 77.33 120 P P 17 15 42.3 +0.9
comp=Z,29nm,1.8s
CNB Canberra Magne 77.36 125 P P 17 15 43.0 +1.5
comp=Z,42nm,1.8s
YNG Young 77.38 124 P P 17 15 43.2 +1.6
comp=Z,24nm,1.2s
SHL Shillong 77.42 41 P P 17 15 41.7 -0.2
SHL Shillong 77.42 41 P 17 15 41.7 -0.2
MORE Moreh 77.62 44 P 17 15 42.8 -0.1
MORE IAmb IAmb 17 15 44.4
comp=Z,33nm,0.8s
GURO Guroymak-BITLI 77.64 357 P P 17 15 43.5 +0.7
GURO IAmb IAmb 17 15 45.2
comp=Z,28nm,1.1s
OZAP Van, Ozalp-Mer 77.68 358 ⇑P P 17 15 44.7 +1.6
CPSB Cacapava Do Su 78.09 241 P P 17 15 45.8 +0.1
CPSB IAmb IAmb 17 15 56.5
comp=Z,28nm,1.2s
MTN Manton Dam 78.12 97 P P 17 15 47.0 +1.0
comp=Z,16nm,1.6s
BNN Bunyan 78.42 352 IAmb IAmb 17 15 49.6
comp=Z,66nm,1.6s
DIAM Diamantina, MG 78.51 256 *e*P P 17 15 49.0 +0.7
KEMA Kemaliye 78.58 354 P P 17 15 49.2 +1.3
comp=Z,79nm,1.2s
TOLI2 Tolitoli 78.84 79 P P 17 15 50.2 +0.3
TOLI2 Tolitoli 78.84 79 P 17 15 49.1 -0.9
TOLI2 Tolitoli 78.84 79 P P 17 15 49.7 -0.2
comp=Z,23nm,1.4s
KIRS Kirsehir-Merke 78.93 350 ⇓P P 17 15 50.5 +0.6
COYC Coyhaique 78.93 219 P 17 15 49.4 -0.6
COYC IAmb IAmb 17 15 52.0
comp=Z,49nm,1.2s
COYC Coyhaique 78.93 219 P P 17 15 51.4 +1.4
LUWI Luwuk 78.99 82 P P 17 15 52.4 +1.7
LUWI Luwuk 78.99 82 P P 17 15 50.4 -0.4
LUWI Luwuk 78.99 82 P P 17 15 52.2 +1.4
comp=Z,52nm,1.4s
KKUL Konya-Kulu 79.10 350 P P 17 15 51.6 +0.8
comp=Z,22nm,1.8s
HOMI Horasan 79.13 357 ⇓P P 17 15 52.6 +1.5
GNI Garni 79.15 359 LR LR 17 50 58.4
comp=Z,147nm,19.3s,baz=186,slow=36
GNI Garni 79.15 359 P P 17 15 51.7 +0.6
GNI Garni 79.15 359 P P 17 15 51.8 +0.6
GNI pmax pmax
comp=Z,74nm,1.2s
GNI Garni 79.15 359 P 17 15 51.8 +0.6
GNI IAmb IAmb 17 15 54.0
comp=Z,74nm,1.2s
GNI Garni 79.15 359 P P 17 15 51.4 +0.3
comp=Z,783nmcomp=Z,56nm,1.4s
GNI Garni 79.15 359 P P 17 15 52.6 +1.5
comp=Z,56nm,1.4s
KOPT Kop Dagi 79.18 356 IAmb IAmb 17 15 54.6
comp=Z,44nm,1.2s
KELT Kelkit 79.39 355 P P 17 15 54.1 +1.6
comp=Z,167nm,1.5s
QLP Quilpie 79.41 116 P P 17 15 53.7 +0.8
comp=Z,80nm,1.4s
QLP Quilpie 79.41 116 P P 17 15 53.2 +0.3
QLP Quilpie 79.41 116 P P 17 15 53.6 +0.7
comp=Z,80nm,1.4s
DIGO Kars 79.45 358 P P 17 15 54.1 +1.3
comp=Z,100nm,1.4s
BR104 Keskin Array S 79.53 350 P P 17 15 52.1 -1.1
comp=Z,115nmcomp=Z,13nm,1.1s
BR105 Keskin Array S 79.54 350 P P 17 15 52.4 -0.9
comp=Z,133nmcomp=Z,14nm,1.0s
BR131 Keskin Array S 79.55 350 P P 17 15 53.8 +0.5
SNR=8.8
BRTR Keskin Array B 79.55 350 P P 17 15 53.2 -0.1
comp=Z,8.1nm,0.9s,baz=173,slow=6.6,SNR=38
BRTR LR LR 17 53 17.6
comp=Z,50nm,18.1s,baz=122,slow=37
comp=Z,8.1nm,0.9s
BRTR Keskin Array B 79.55 350 P P 17 15 52.8 -0.5
BR106 Keskin Array S 79.56 350 P P 17 15 52.7 -0.6
comp=Z,115nmcomp=Z,13nm,1.0s
QIS Mount Isa 79.80 108 P P 17 15 56.2 +1.0
comp=Z,57nm,1.5s
QIS Mount Isa 79.80 108 P P 17 15 55.7 +0.5
QIS Mount Isa 79.80 108 P P 17 15 55.3 +0.1
comp=Z,57nm,1.5s
TOKA Tokat 79.81 352 IAmb IAmb 17 15 57.1
comp=Z,60nm,1.5s
AULRC Lightning Ridg 80.19 120 P P 17 15 57.5 +0.4
RCBR Riachuelo 80.21 270 LR LR 17 43 35.0
comp=Z,60nm,21.6s,baz=211,slow=30
WHZ Wether Hill Ro 80.38 143 P P 17 15 57.4 -0.5
BB19B Bebedouro 80.42 251 *e*P P 17 15 59.3 +0.8
LSA Lhasa 80.47 39 P P 17 16 00.5 +1.6
LSA Lhasa 80.47 39 P P 17 15 58.5 -0.4
LSA pmax pmax
comp=Z,110nm,0.8s
EPOS Posof 80.55 357 P P 17 16 00.2 +1.5
comp=Z,33nm,1.4s
TNCH TengChong 80.58 47⇑*i*P P 17 15 59.8 +0.5
TNCH S S 17 26 09.0 +2.8
TNCH pmax pmax
comp=Z,62nm,0.8s
TNCH L L
comp=Z,320nm,17.7s
MDUB Mudurnu 80.63 348 IAmb IAmb 17 16 01.1
comp=Z,23nm,0.8s
ITQB Itaqui 80.69 239 *e*P P 17 16 00.7 +0.9
SANI Sanana 80.83 85 P P 17 16 01.1 +0.4
SANI Sanana 80.83 85 P P 17 16 01.0 +0.2
comp=Z,20nm,1.0s
ILGA Ilgaz 80.84 350 P 17 16 00.6 +0.2
ILGA IAmb IAmb 17 16 02.1
comp=Z,29nm,1.3s
SLVN Son La 80.95 53 P P 17 16 02.1 +0.9
SLVN Son La 80.95 53 P 17 16 00.4 -0.8
SLVN IAmb IAmb 17 16 03.4
comp=Z,44nm,1.0s
SLVN Son La 80.95 53 P P 17 16 01.4 +0.2
comp=Z,52nm,1.2s
AGG Agios Georgios 81.02 341 IAmb IAmb 17 16 02.4
comp=Z,43nm,1.3s
AGG Agios Georgios 81.02 341 P P 17 16 01.9 +0.8
comp=Z,24nm,1.3s
PLCA Paso Flores 81.62 223 P P 17 16 04.9 +0.2
comp=Z,16nm,1.1s,baz=130,slow=5.5,SNR=13
PLCA LR LR 17 46 05.8
comp=Z,119nm,21.8s,baz=130,slow=31
comp=Z,16nm,1.1s
PLCA Paso Flores 81.62 223 P 17 16 03.6 -1.1
PLCA IAmb IAmb 17 16 06.3
comp=Z,38nm,1.2s
PLCA Paso Flores 81.62 223 P P 17 16 05.6 +0.9
comp=Z,36nm,2.9s
PLCA Paso Flores 81.62 223 *e*P P 17 16 05.4 +0.8
VAE Valguarnera 81.86 335 LR LR 17 53 50.5
comp=Z,249nm,18.2s,baz=154,slow=37
DRK Karamyk 81.90 20 P P 17 16 07.3 +1.2
comp=Z,71nm,1.2s
ARMA Armidale 81.97 123 P P 17 16 07.6 +0.9
comp=Z,21nm,1.6s
ARMA Armidale 81.97 123 P P 17 16 07.9 +1.2
ARMA Armidale 81.97 123 P 17 16 05.4 -1.3
ARMA IAmb IAmb 17 16 09.4
comp=Z,72nm,1.9s
ARMA Armidale 81.97 123 P P 17 16 06.4 -0.3
comp=Z,21nm,1.6s
LIT Litokhoron 82.00 342 P P 17 16 06.1 -0.1
LIT pmax pmax
comp=Z,28nm,1.4s
LIT Litokhoron 82.00 342 P 17 16 06.1 -0.1
LIT IAmb IAmb 17 16 07.8
comp=Z,27nm,1.4s
LIT Litokhoron 82.00 342 P P 17 16 05.7 -0.5
comp=Z,16nm,1.4s
PCMB Pacaembu 82.07 249 P P 17 16 09.9 +2.6
comp=Z,20nm,1.3s
PCMB Pacaembu 82.07 249 *e*P P 17 16 08.6 +1.3
KEST Kesra 82.09 331 P P 17 16 06.1 -0.9
comp=Z,3.9nm,1.0s,baz=157,slow=2.9,SNR=7.1
comp=Z,3.9nm,1.0s
KEST Kesra 82.09 331 P P 17 16 07.4 +0.5
KEST Kesra 82.09 331 P 17 16 06.6 -0.3
IPMB Ipameri, GO 82.10 253 *e*P P 17 16 08.9 +1.4
CEL Celeste 82.10 336 IAmb IAmb 17 16 11.1
comp=Z,32nm,1.2s
CEL Celeste 82.10 336 P P 17 16 08.6 +1.7
comp=Z,23nm,1.6s
BTK Batken 82.20 19 P P 17 16 07.7 +0.3
BTK pmax pmax
comp=Z,82nm,1.6s
BTK Batken 82.20 19 P P 17 16 07.7 +0.3
BTK IAmb IAmb 17 16 11.2
comp=Z,82nm,1.6s
BTK Batken 82.20 19 P P 17 16 08.9 +1.5
comp=Z,28nm,1.4s
KEK Kerkira 82.32 340 IAmb IAmb 17 16 08.1
comp=Z,20nm,1.1s
THE Thessaloniki 82.39 342 P P 17 16 08.9 +0.7
comp=Z,37nm,1.3s
SRN Sarande 82.42 340 P P 17 16 08.4 0.0
comp=Z,8.8nm,1.6s
KSH2 Kashi 82.65 23 P P 17 16 11.0 +1.2
KSH2 pmax pmax
comp=Z,62nm,1.0s
TIP Timpagrande 82.68 337 P P 17 16 10.7 +0.8
comp=Z,8.7nm,1.4s
TIP Timpagrande 82.68 337 P P 17 16 10.9 +1.0
comp=Z,111nm,1.4s
KBZ Khabaz 82.77 358 P P 17 16 10.3 +0.2
comp=Z,16nm,1.2s,baz=179,slow=4.6,SNR=17
KBZ LR LR 17 52 01.5
comp=Z,97nm,19.0s,baz=171,slow=35
comp=Z,16nm,1.2s
SOC Sochi 82.78 355 *e*P P 17 16 10.0 -0.2
SOC *e* 17 19 18.9
SOC *e*PPP PPP 17 21 14.7
SOC *e*S S 17 26 28.3 +0.6
SOC *e*SS SS 17 31 47.5 -3.8
SOC *e*SSS SSS 17 35 22.9
SOC pmax pmax
comp=Z,20nm,0.9s
SOC MLR MLR
comp=Z,82nm,20.0s
GRG Griva 82.83 342 P P 17 16 10.4 -0.1
comp=Z,35nm,1.7s
KNT Kendrikon 82.91 343 P P 17 16 12.1 +1.1
GO06 Curarrehue 82.93 224 P 17 16 10.9 -0.8
KIV Kislovodsk 83.00 357 *i*P P 17 16 12.5 +1.0
SNR=13
KIV Kislovodsk 83.00 357 P P 17 16 11.4 -0.1
KIV Kislovodsk 83.00 357 P 17 16 11.3 -0.1
KIV Kislovodsk 83.00 357 ⇑P P 17 16 11.9 +0.5
KIV Kislovodsk 83.00 357 P P 17 16 11.6 +0.1
comp=Z,593nmcomp=Z,57nm,1.3s
KIV Kislovodsk 83.00 357 P P 17 16 12.2 +0.7
comp=Z,73nm,1.3s
KMI2 Kunming 83.11 50 P P 17 16 13.0 +0.3
KMI2 pmax pmax
comp=Z,18nm,1.4s
KMI2 pmax pmax
comp=Z,180nm,5.4s
KMI2 L L
comp=Z,190nm,21.3s
KMI2 L L
comp=Z,100nm,20.4s
KMI2 L L
comp=Z,170nm,24.6s
VAY Valandovo 83.14 342 *i*P P 17 16 13.5 +1.4
OHH Osh 83.14 20 P P 17 16 12.4 +0.1
comp=Z,87nm,1.2s
CPUP Villa Florida 83.32 241 P P 17 16 12.4 -1.3
comp=Z,2.9nm,0.4s,baz=127,slow=5.2,SNR=7.5
CPUP LR LR 17 48 56.1
comp=Z,80nm,18.7s,baz=77,slow=33
comp=Z,2.9nm,0.4s
CPUP Villa Florida 83.32 241 P 17 16 12.2 -1.4
CPUP IAmb IAmb 17 16 18.3
comp=Z,33nm,1.5s
CPUP Villa Florida 83.32 241 P P 17 16 13.0 -0.7
comp=Z,16nm,2.1s
OHR Ohrid 83.37 341 *i*P P 17 16 15.4 +2.0
BDFB Brasilia 83.41 255 P P 17 16 14.0 -0.4
comp=Z,8.8nm,1.0s,baz=144,slow=8.1,SNR=5.2
BDFB LR LR 17 47 53.1
comp=Z,155nm,18.3s,baz=117,slow=32
comp=Z,8.8nm,1.0s
BDFB Brasilia 83.41 255 P P 17 16 14.6 +0.2
BDFB pmax pmax
comp=Z,19nm,1.2s
BDFB Brasilia 83.41 255 P 17 16 14.6 +0.2
BDFB IAmb IAmb 17 16 25.3
comp=Z,19nm,1.2s
LABN Labinsk 83.77 356 *e*P P 17 16 15.3 0.0
LABN pmax pmax
comp=Z,77nm,1.3s
IUG Iuzhnay 83.98 18*c i*P P 17 16 16.9 +0.3
IUG pmax pmax
comp=Z,13nm,1.0s
IUG Iuzhnay 83.98 18⇑*i*P P 17 16 17.0 +0.3
comp=Z,12nm,1.0s
AUTOO Toowoomba Stat 84.07 121 P P 17 16 19.1 +1.5
ARK Arkit 84.12 19 P P 17 16 18.8 +1.4
comp=Z,73nm,1.6s
ANN Anapa 84.16 354 *e*P P 17 16 16.8 -0.4
ANN *e*S S 17 26 46.1 +4.6
ANN pmax pmax
comp=Z,18nm,0.8s
ASAI AK-SAY(Kyrgyzs 84.56 23 P P 17 16 21.3 +1.4
comp=Z,46nm,1.2s
SIM Simferopol' 84.64 351 *e*P P 17 16 19.8 +0.1
SIM pmax pmax
comp=Z,51nm,1.5s
ICOR Ion Corvin 84.74 347 ⇓P P 17 16 21.6 +1.4
LTZ Lake Taylor 84.76 143 P 17 16 20.6 -0.2
MTSU Mount Surprise 84.78 109 P P 17 16 22.1 +0.8
comp=Z,9.9nm,1.0s
MTSU Mount Surprise 84.78 109 P P 17 16 21.9 +0.6
MTSU Mount Surprise 84.78 109 P P 17 16 22.1 +0.8
comp=Z,9.9nm,1.0s
ERBR Yeremizino-Bor 84.86 356 *e*P P 17 16 20.4 -0.4
ERBR pmax pmax
comp=Z,77nm,1.1s
NRN Naryn 84.89 22 P P 17 16 21.5 0.0
NRN pmax pmax
comp=Z,17nm,1.0s
NRN Naryn 84.89 22 P P 17 16 21.5 0.0
NRN IAmb IAmb 17 16 23.5
comp=Z,17nm,1.0s
EIDS Eidsvold 84.91 119 P P 17 16 22.6 +0.8
EIDS Eidsvold 84.91 119 P 17 16 20.9 -0.9
EIDS IAmb IAmb 17 16 23.0
comp=Z,26nm,1.0s
EIDS Eidsvold 84.91 119 P P 17 16 22.4 +0.6
comp=Z,30nm,1.6s
CTA Charters Tower 84.94 112 LR LR 17 49 10.5
comp=Z,106nm,19.4s,baz=228,slow=32
CTA Charters Tower 84.94 112 P P 17 16 22.8 +0.7
TIRR Tirgusor 84.97 347 IAmb IAmb 17 16 23.2
comp=Z,38nm,1.1s
TIRR Tirgusor 84.97 347 ⇑P P 17 16 21.9 +0.6
TIRR Tirgusor 84.97 347 P P 17 16 20.9 -0.4
comp=Z,602nmcomp=Z,35nm,1.3s
TIRR Tirgusor 84.97 347 P P 17 16 21.2 -0.1
comp=Z,35nm,1.3s
DZA Taraz 85.00 18 *e*P P 17 16 22.2 +0.6
DZA Taraz 85.00 18 *e*P P 17 16 22.2 +0.6
KKAR Karatay Array 85.00 18 P P 17 16 21.7 +0.1
KKAR Karatay Array 85.00 18 P 17 16 21.7 +0.1
TLBR Topalu 85.11 347 ⇓P P 17 16 22.6 +0.5
JURR Jurilovca 85.19 348 ⇓P P 17 16 23.3 +0.8
HARR Harsova 85.28 347 ⇓P P 17 16 23.3 +0.4
BLKB Belogradchik 85.30 343 ⇓P P 17 16 23.9 +0.8
TPGR Topolog 85.35 347 ⇓P P 17 16 23.3 0.0
NBPS Pedro II - PI 85.40 268 *e*P P 17 16 25.7 +1.3
BOVS Bovan 85.53 342 ⇓P P 17 16 25.1 +0.9
AAK Ala-Archa 85.58 21 LR LR 17 52 12.8
comp=Z,85nm,18.6s,baz=191,slow=34
AAK Ala-Archa 85.58 21 *i*P P 17 16 26.1 +1.5
SNR=7.7
AAK Ala-Archa 85.58 21 P P 17 16 25.4 +0.8
AAK Ala-Archa 85.58 21 P P 17 16 24.8 +0.1
AAK pmax pmax
comp=Z,90nm,1.7s
AAK Ala-Archa 85.58 21 P 17 16 24.8 +0.1
AAK Ala-Archa 85.58 21 P P 17 16 26.2 +1.5
comp=Z,28nm,1.5s
SIJI Sorong 85.65 88 LR LR 17 48 41.8
comp=Z,54nm,22.0s,baz=102,slow=32
WUS Wushi 85.65 24 IAmb IAmb 17 16 27.7
comp=Z,64nm,1.8s
TARG Taragay, Kyrgy 85.69 23 P P 17 16 26.3 +0.7
comp=Z,16nm,1.3s
CFR Carcaliu 85.72 347 ⇑P P 17 16 25.8 +0.8
TIO Tiouine 85.77 316 P P 17 16 27.6 +1.6
comp=Z,65nm,1.4s
MDT Midelt 85.87 319 LR LR 17 56 00.6
comp=Z,83nm,19.4s,baz=161,slow=36
ISR Istrita 85.94 346 P P 17 16 25.7 -0.6
comp=Z,19nm,1.9s
AQDB Aquidauana 85.97 247 P 17 16 26.6 -0.6
AQDB IAmb IAmb 17 16 29.8
comp=Z,21nm,1.0s
AQDB Aquidauana 85.97 247 P P 17 16 27.6 +0.5
comp=Z,28nm,1.0s
AQDB Aquidauana 85.97 247 *e*P P 17 16 28.3 +1.2
BO02 Sierra Bellavi 86.00 227 P P 17 16 26.3 -0.9
BO02 IAmb IAmb 17 16 28.4
comp=Z,59nm,1.3s
BO02 Sierra Bellavi 86.00 227 P P 17 16 26.5 -0.7
comp=Z,39nm,2.2s
INTR Introdacqua 86.14 337 P 17 16 27.4 -0.1
INTR IAmb IAmb 17 16 29.4
comp=Z,54nm,1.5s
NEHR Nehoiu 86.28 346 ⇓P P 17 16 29.4 +1.4
DAV Davao City (W) 86.32 78 LR LR 17 50 47.1
comp=Z,31nm,19.9s,baz=286,slow=33
BISRR Bisoca 86.32 346 P P 17 16 27.8 -0.4
comp=Z,4µmcomp=Z,53nm,1.0s
VLDR Vladesti 86.37 347 ⇓P P 17 16 29.0 +0.7
MLR Muntele Rosu 86.41 346 LR LR 17 57 45.7
comp=Z,93nm,18.6s,baz=132,slow=38
MLR Muntele Rosu 86.41 346 ⇑P P 17 16 29.5 +0.8
MLR Muntele Rosu 86.41 346 P P 17 16 28.5 -0.2
comp=Z,636nmcomp=Z,42nm,1.3s
MLR Muntele Rosu 86.41 346 P P 17 16 29.5 +0.8
comp=Z,42nm,1.3s
BO04 La Punta 86.48 228 P P 17 16 28.9 -0.6
BO04 IAmb IAmb 17 16 33.5
comp=Z,27nm,1.1s
SAHR Sahastru 86.50 346 ⇑P P 17 16 30.9 +1.9
MT08 Bocatoma Ro 86.53 229 P P 17 16 30.0 -0.1
MT08 IAmb IAmb 17 16 38.0
comp=Z,66nm,1.8s
VOIR 86.53 345 ⇓P P 17 16 29.9 +0.7
VOIR 86.53 345 P P 17 16 27.8 -1.4
comp=Z,364nmcomp=Z,23nm,1.3s
VOIR 86.53 345 P P 17 16 29.5 +0.3
comp=Z,23nm,1.3s
ARR Arges 86.55 345 ⇓P P 17 16 29.9 +0.6
ARR Arges 86.55 345 P P 17 16 29.9 +0.6
comp=Z,22nm,1.7s
HERR Herculane 86.55 343 ⇑P P 17 16 30.3 +1.1
MDVR Moldovita 86.62 343 ⇓P P 17 16 30.0 +0.4
PLOR Plostina 86.63 346 ⇓P P 17 16 30.7 +1.1
VRI Vrincioaia 86.63 347 ⇑P P 17 16 30.4 +0.8
VRI Vrincioaia 86.63 347 P P 17 16 28.7 -0.9
comp=Z,1µmcomp=Z,128nm,1.1s
VRI Vrincioaia 86.63 347 P P 17 16 30.4 +0.8
comp=Z,128nm,1.1s
TNSS Tian-Shan 86.64 22 *e*P P 17 16 30.0 -0.2
TNSS Tian-Shan 86.64 22 *e*P P 17 16 30.1 -0.2
GHRR 86.70 347 ⇓P P 17 16 31.6 +1.7
GHRR 86.70 347 P P 17 16 31.4 +1.5
comp=Z,177nm,1.0s
COVR Voineasa-Covas 86.70 346 ⇑P P 17 16 30.0 0.0
PURM Purcari 86.75 349 ⇓P P 17 16 30.9 +0.8
PURM Purcari 86.75 349 P P 17 16 29.6 -0.5
comp=Z,3µmcomp=Z,69nm,1.0s
MDOK Medeo 86.78 22 *e*P P 17 16 30.8 +0.2
MDOK Medeo 86.78 22 *e*P P 17 16 30.9 +0.3
AAA Alma-Ata 86.78 22 *e*P P 17 16 30.9 +0.4
AAA pmax pmax
comp=Z,15nm,1.0s
AAA Alma-Ata 86.78 22 *e*P P 17 16 30.9 +0.4
comp=Z,15nm,1.0s
LOT Lotru 86.80 344 P P 17 16 31.9 +1.3
comp=Z,7.2nm,1.0s
MT01 Popeta 86.94 228 P P 17 16 30.2 -1.5
MT01 IAmb IAmb 17 16 32.7
comp=Z,39nm,1.1s
GZR Gura Zlata 86.96 344 ⇑P P 17 16 32.2 +0.9
OZUR 87.02 346 ⇑P P 17 16 31.9 +0.3
SATY Saty 87.09 23*c i*P P 17 16 32.3 +0.3
SATY pmax pmax
comp=Z,17nm,1.8s
SATY Saty 87.09 23⇑*i*P P 17 16 32.4 +0.3
comp=Z,17nm,1.8s
ONER Baraj Valea Uz 87.14 346 ⇓P P 17 16 32.6 +0.5
KIJV Kijevo 87.24 339 P P 17 16 33.8 +1.2
comp=Z,54nm,1.3s
TESR Tescani 87.27 347 ⇓P P 17 16 33.1 +0.4
TESR Tescani 87.27 347 P P 17 16 31.7 -1.0
comp=Z,628nmcomp=Z,13nm,1.2s
TESR Tescani 87.27 347 P P 17 16 32.8 +0.1
comp=Z,13nm,1.2s
SMTB Santa Maria do 87.34 261 P 17 16 33.0 -0.9
SMTB IAmb IAmb 17 16 45.2
comp=Z,33nm,1.2s
SMTB Santa Maria do 87.34 261 *e*P P 17 16 35.0 +1.1
MNTR Muntenesti 87.35 347 ⇑P P 17 16 34.6 +1.5
UZB Uzynbulak 87.36 23*c i*P P 17 16 33.6 +0.2
UZB pmax pmax
comp=Z,9.0nm,0.9s
UZB Uzynbulak 87.36 23⇑*i*P P 17 16 33.7 +0.2
comp=Z,9.2nm,0.9s
DMBR Dumbraveni 87.39 347 ⇑P P 17 16 33.9 +0.7
PDRR Padureni 87.39 347 ⇓P P 17 16 34.4 +1.2
BZS Buzias 87.43 343 ⇓P P 17 16 34.8 +1.3
BZS Buzias 87.43 343 P P 17 16 34.6 +1.1
comp=Z,14nm,2.2s
NGRR Negresti 87.44 347 ⇓P P 17 16 34.0 +0.5
SURR Surduc 87.45 343 ⇑P P 17 16 34.6 +1.1
SHLS Shalkode 87.50 24 *e*P P 17 16 34.9 +0.8
SHLS pmax pmax
comp=Z,13nm,1.9s
SHLS Shalkode 87.50 24 *e*P P 17 16 34.9 +0.8
comp=Z,13nm,1.9s
KPKS Kokpek 87.54 23 *e*P P 17 16 34.4 +0.2
KPKS Kokpek 87.54 23 *e*P P 17 16 34.5 +0.2
GOMU GeErMu 87.55 37 P P 17 16 35.8 +1.0
GOMU pmax pmax

comp=Z,10.0nm,0.6s
BIZ Bicaz 87.78 346 ⇑P P 17 16 36.1 +1.0
SIRR Siria 88.04 343 ⇓P P 17 16 38.0 +1.6
CD2 Chengdu 88.04 47 P P 17 16 37.3 +0.4
CD2 S S 17 27 23.3 +2.9
CD2 pmax pmax
comp=Z,150nm,1.0s
CD2 pmax pmax
comp=Z,280nm,4.0s
CD2 L L
comp=Z,370nm,17.8s
CD2 L L
comp=Z,290nm,16.5s
CD2 L L
comp=Z,340nm,18.4s
MARR Marisel-Cluj 88.11 344 ⇑P P 17 16 37.7 +0.8
ARCR ARCALIA 88.25 345 ⇓P P 17 16 38.8 +1.5
DRGR 88.31 344 P P 17 16 39.5 +1.8
comp=Z,27nm,1.8s
AMBH Ambrzfalva 88.33 343 P P 17 16 37.2 -0.5
comp=Z,62nm,0.6s
SORM Soroca 88.55 348 P P 17 16 38.4 -0.3
BURAR Bucovina Array 88.59 346 P 17 16 38.9 -0.2
BURAR IAmb IAmb 17 16 41.8
comp=Z,15nm,0.9s
BURAR Bucovina Array 88.59 346 ⇑P P 17 16 40.5 +1.4
MORH Mrgy, Hungar 88.70 341 ⇑P P 17 16 40.4 +0.9
MORH Mrgy, Hungar 88.70 341 P P 17 16 39.2 -0.3
comp=Z,16nm,1.5s
MORH Mrgy, Hungar 88.70 341 P P 17 16 40.2 +0.8
comp=Z,18nm,1.5s
AB31 Akbulak array 89.08 9 P 17 16 40.8 -0.4
AB31 IAmb IAmb 17 16 44.0
comp=Z,46nm,2.0s
ABKAR Akbulak array 89.08 9 P 17 16 40.6 -0.6
CRES Cresnjevec Ost 89.18 339 *i* P P 17 16 43.1 +1.3
ZCCA Zocca 89.18 336 P P 17 16 42.1 +0.2
ZCCA IAmb IAmb 17 16 44.5
comp=Z,22nm,1.1s
KMPD K-Podol'skiy 89.28 347 P P 17 16 41.3 -0.8
BSZH Besenyszg 89.33 343 P P 17 16 43.8 +1.4
comp=Z,71nm,1.0s
SKDS Skadanscina 89.33 338 *eP* P 17 16 43.6 +1.1
TRPA Tarpa 89.61 344 P P 17 16 44.6 +0.9
comp=Z,30nm,1.5s
MSSA Maissana 89.62 335 IAmb IAmb 17 16 45.8
comp=Z,37nm,1.3s
GROS Grobnik 89.75 339 *i* P P 17 16 45.8 +1.3
SABO M.te Sabotino 89.84 338 P P 17 16 45.6 +0.6
SABO IAmb IAmb 17 16 47.5
comp=Z,49nm,1.3s
MPLH Magyarpolny 89.87 341 P P 17 16 44.6 -0.3
comp=Z,1umcomp=Z,80nm,1.2s
MPLH Magyarpolny 89.87 341 P P 17 16 46.0 +1.1
comp=Z,32nm,1.2s
PSZ Piszkesteto 90.00 343 IAmb IAmb 17 16 47.5
comp=Z,37nm,1.0s
PSZ Piszkesteto 90.00 343 ⇓P P 17 16 46.6 +1.0
PSZ Piszkesteto 90.00 343 P P 17 16 45.7 0.0
comp=Z,37nm,1.0s
DRE Drenchia 90.01 338 P P 17 16 46.8 +1.1
comp=Z,30nm,1.1s
AKTO Aktyubinsk 90.03 8 LR LR 17 58 36.9
comp=Z,68nm,18.2s,baz=313,slow=37
ABAH Abaujker 90.05 344 P P 17 16 46.7 +0.9
comp=Z,21nm,1.8s
OBKA Obir 90.06 339 *i* P P 17 16 48.0 +2.0
comp=Z,28nm,1.6s,SNR=8.8
OBKA Obir 90.06 339 P P 17 16 47.2 +1.2
comp=Z,28nm,1.6s
SOKA Soboth 90.08 339 *eP* P 17 16 47.8 +1.8
comp=Z,24nm,1.2s,SNR=16
UZHM Uzhgorod 90.14 344 P P 17 16 46.1 -0.1
SRO Srobarova 90.27 342 P P 17 16 48.6 +1.8
comp=Z,33nm,1.1s
VRH Novokhopyorsk 90.28 357 *eP* P 17 16 47.0 +0.3
VRH pmax pmax
comp=Z,77nm,1.4s
CGRP Cima Grappa 90.29 337 P P 17 16 48.9 +1.7
comp=Z,14nm,1.0s
STAL STALIGIAL 90.36 338 IAmb IAmb 17 16 49.8
comp=Z,20nm,1.2s
LUBAR Lubar, Ukraine 90.38 348 P P 17 16 46.5 -0.8
ACOM Acomizza, Ital 90.39 338 P P 17 16 49.1 +1.4
comp=Z,11nm,1.3s
KECS Kecovo 90.39 343 *eP* P 17 16 48.4 +1.0
KECS pmax pmax
comp=Z,21nm,1.2s
KECS Kecovo 90.39 343 *eP* P 17 16 48.4 +1.0
FUSE Fusea 90.41 338 P P 17 16 47.3 -0.3
comp=Z,13nm,1.4s
VSR Storozhevoye 90.42 356 *eP* P 17 16 47.6 +0.2
VSR pmax pmax
comp=Z,34nm,0.8s
MYKA Terra Mystica 90.42 338 *i* P P 17 16 49.9 +2.2
comp=Z,8.5nm,1.1s
KOLS Kolonicke sedl 90.43 345 *eP* P 17 16 48.7 +1.1
KOLS pmax pmax
comp=Z,23nm,1.2s
KOLS Kolonicke sedl 90.43 345 *eP* P 17 16 48.7 +1.1
KOLS Kolonicke sedl 90.43 345 P P 17 16 49.4 +1.8
comp=Z,11nm,0.9s
ARSA Arzberg 90.47 340 IAmb IAmb 17 16 50.6
comp=Z,35nm,1.5s
ARSA Arzberg 90.47 340 *i* P P 17 16 49.6 +1.8
comp=Z,16nm,1.2s,SNR=6.9
ARSA Arzberg 90.47 340 P P 17 16 49.4 +1.6
comp=Z,19nm,1.5s
SOP Sopron 90.59 340 P P 17 16 49.5 +1.2
comp=Z,18nm,1.5s
SESA Seetaler Alpe, 90.60 339 *i* P P 17 16 50.3 +1.7
comp=Z,11nm,1.1s,SNR=5.8
RONA Rosalia, Austr 90.68 340 *i* P P 17 16 50.4 +1.6
comp=Z,11nm,1.3s,SNR=6.1
SALTA 90.75 238 P P 17 16 52.0 +1.4
comp=Z,4.7nm,1.6s
AK07 Malin Array Si 90.78 349 P P 17 16 48.8 -0.3
VYHS Vyhne 90.78 342 *eP* P 17 16 50.1 +0.9
VYHS pmax pmax
comp=Z,24nm,1.2s
VYHS Vyhne 90.78 342 *eP* P 17 16 50.1 +0.9
VYHS Vyhne 90.78 342 P P 17 16 50.2 +0.9
comp=Z,7.0nm,1.4s
AK06 Malin Array Si 90.81 349 P P 17 16 49.2 0.0
AK09 Malin Array Si 90.83 349 P P 17 16 49.0 -0.3
AK05 Malin Array Si 90.84 349 P P 17 16 49.4 0.0
ABTA Abfaltersbach 90.86 338 *i* P P 17 16 51.9 +2.2
comp=Z,34nm,1.3s,SNR=12
VORR Voronezh 90.87 356 *eP* P 17 16 49.7 +0.2
VORR pmax pmax
comp=Z,27nm,0.4s
ENH Enshi 90.90 51 P P 17 16 51.3 +1.0
ENH Enshi 90.90 51 P P 17 16 50.3 +0.1
ENH IAmb IAmb 17 16 51.9
comp=Z,20nm,0.9s
WMQ Urumqi 90.91 29 *eP* P 17 16 49.0 -1.0
WMQ pmax pmax
comp=Z,14nm,0.7s
WMQ pmax pmax
comp=Z,140nm,6.1s
KIEV Kiev 90.91 349 P P 17 16 49.3 -0.4
comp=Z,50nm,1.6s
KIEV Kiev 90.91 349 P P 17 16 49.3 -0.4
comp=Z,13nm,1.6s
KBA Koelnbreinsper 90.92 338 *i* P P 17 16 52.2 +2.1
comp=Z,15nm,1.2s
KBA Koelnbreinsper 90.92 338 P P 17 16 51.9 +1.8
comp=Z,13nm,1.4s
AKASG Malin Array Be 90.92 349 P P 17 16 49.7 0.0
comp=Z,2.7nm,0.8s,baz=178,slow=4.0,SNR=19
comp=Z,2.7nm,0.8s
AKBB Malin Array Si 90.92 349 P P 17 16 49.5 -0.2
CONA Conrad Observa 91.00 340 *i* P P 17 16 51.6 +1.2
comp=Z,22nm,1.5s,SNR=12
KWP Kalwaria Pacla 91.01 345 *eP* P 17 16 51.4 +1.2
KWP Kalwaria Pacla 91.01 345 P P 17 16 50.1 -0.1
comp=Z,33nm,1.4s
AK21 Malin Array Si 91.02 349 P P 17 16 49.0 -1.2
ESDC Sonseca Array 91.04 324 P P 17 16 51.4 +0.7
comp=Z,3.2nm,1.1s,baz=145,slow=7.7,SNR=5.9
ESDC PP PP 17 20 26.0 -1.7
comp=Z,1.1nm,1.0s,baz=134,slow=5.5,SNR=3.1
ESDC LR LR 17 59 18.3
comp=Z,58nm,19.1s,baz=118,slow=37
comp=Z,3.2nm,1.1s
ESDC Sonseca Array 91.04 324 P P 17 16 51.1 +0.4
ESDC IAmb IAmb 17 17 22.1
comp=Z,43nm,1.6s
MODS Modra-Piesok 91.05 341 *eP* P 17 16 51.4 +0.9
MODS pmax pmax
comp=Z,52nm,1.3s
MODS Modra-Piesok 91.05 341 *eP* P 17 16 51.4 +0.9
MODS Modra-Piesok 91.05 341 P P 17 16 51.4 +0.9
comp=Z,34nm,1.4s
WINA Alland / Wiene 91.11 340 *i* P P 17 16 52.2 +1.5
comp=Z,14nm,1.2s,SNR=6.6
SMOL Smolenice 91.14 341 *eP* P 17 16 51.9 +1.0
SMOL pmax pmax
comp=Z,2.0nm,0.9s
LANS Liptovska Anna 91.25 343 *eP* P 17 16 53.3 +1.9
LANS pmax pmax
comp=Z,15nm,1.1s
LANS Liptovska Anna 91.25 343 *eP* P 17 16 53.3 +1.9
MOA Molln 91.36 339 *i* P P 17 16 53.6 +1.7
comp=Z,14nm,1.1s,SNR=7.3
MOA Molln 91.36 339 P P 17 16 53.8 +1.8
comp=Z,26nm,1.6s
BIOA Bad Ischl, Aus 91.39 339 *i* P P 17 16 53.4 +1.3
comp=Z,6.2nm,1.0s
JAVC Velka Javorina 91.40 342 *eP* P 17 16 53.2 +1.1
JAVC Velka Javorina 91.40 342 P P 17 16 54.4 +2.3
comp=Z,20nm,0.7s
LESA Schwarzleotal 91.42 338 *i* P P 17 16 53.2 +0.9
comp=Z,10nm,1.0s,SNR=7.8
FUORN Ofenpass-Fuorn 91.43 336 P 17 16 52.1 -0.5
MAKZ Makanchi 91.57 24 P P 17 16 52.7 -0.2
MAKZ pmax pmax
comp=Z,33nm,1.1s
MAKZ Makanchi 91.57 24 P P 17 16 52.7 -0.2
MAKZ Makanchi 91.57 24 P P 17 16 53.2 +0.3
comp=Z,36nm,1.3s
WTTA Wattenberg 91.58 337 *i* P P 17 16 54.8 +1.7
comp=Z,12nm,1.2s
WTTA Wattenberg 91.58 337 P P 17 16 54.5 +1.3
comp=Z,9.9nm,1.3s
TUE Stuetta 91.59 336 P P 17 16 54.5 +1.2
comp=Z,9.3nm,1.7s
BBSD Serra de San D 91.63 246 *eP* P 17 16 53.9 -0.2
FETA Feichten 91.64 337 *i* P P 17 16 54.6 +1.2
comp=Z,9.2nm,1.2s
MKAR Makanchi Array 91.65 24 P P 17 16 53.1 -0.2
comp=Z,9.6nm,0.8s,baz=211,slow=5.3,SNR=59
MKAR LR LR 17 54 20.6
comp=Z,40nm,20.7s,baz=176,slow=33
comp=Z,9.6nm,0.8s
MKAR Makanchi Array 91.65 24 P 17 16 52.7 -0.6
WATA Walderalm 91.67 337 *i* P P 17 16 54.4 +0.9
comp=Z,13nm,1.3s
RJOB Jochberg 91.67 338 P P 17 16 54.6 +1.1
SQTA Sankt Quirin 91.67 337 *i* P P 17 16 54.7 +1.1
comp=Z,12nm,1.1s
PTLB Pontes e Lacer 91.72 249 P 17 16 52.9 -1.6
PTLB IAmb IAmb 17 16 56.8
comp=Z,14nm,1.0s
PTLB Pontes e Lacer 91.72 249 *eP* P 17 16 55.4 +0.9
ABNA Allensteig Bun 91.80 340 *i* P P 17 16 54.5 +0.6
comp=Z,6.2nm,1.5s
LPSR Galich'ya Gora 91.81 356 *eP* P 17 16 54.1 +0.3
LPSR pmax pmax
comp=Z,23nm,0.9s
LZDM Lanzhou Array 91.81 43 P P 17 16 54.5 -0.2
comp=Z,1.0nm,0.3s,baz=194,slow=5.2,SNR=6.6
LZDM LR LR 17 54 23.3
comp=Z,52nm,21.8s,baz=355,slow=33
comp=Z,1.0nm,0.3s
MOTA Mosalm 91.82 337 *i* P P 17 16 55.2 +0.9
comp=Z,12nm,1.1s
KRUC Moravsky 91.91 341 *eP* P 17 16 54.5 +0.1
KRUC Moravsky 91.91 341 P P 17 16 55.4 +1.0
comp=Z,7.9nm,1.5s
JAY Jayapura 91.93 95 LR LR 17 52 23.1
comp=Z,55nm,21.7s,baz=213,slow=32
RNPP5 Staryi Chortor 91.95 347 P P 17 16 54.7 +0.2
RETA Reutte 92.05 337 *i* P P 17 16 56.4 +1.2
comp=Z,11nm,1.1s
RNPP8 Vanish 92.06 347 P P 17 16 55.4 +0.4
VRAC Vranov 92.09 341 LR LR 18 00 48.0
comp=Z,50nm,18.2s,baz=313,slow=37
VRAC Vranov 92.09 341 *eP* P 17 16 55.8 +0.6
RNPP9 Sopachiv 92.13 347 P P 17 16 54.8 -0.5
DAVA Damuels 92.14 336 *i* P P 17 16 56.5 +0.8
comp=Z,6.9nm,1.0s
SENIN Lac Senin/Sane 92.17 334 IAmb IAmb 17 17 06.5
comp=Z,36nm,1.8s
OJC Ojcow 92.18 343 *eP* P 17 16 56.2 +0.6
OJC Ojcow 92.18 343 P P 17 16 55.7 +0.1
comp=Z,19nm,1.2s
OJC Ojcow 92.18 343 P P 17 16 56.5 +0.8
comp=Z,19nm,1.2s
BNALP Bannalp 92.24 335 P P 17 16 57.6 +1.4
comp=Z,17nm,2.0s
CLDB Colider 92.26 254 P P 17 16 59.5 +2.5
comp=Z,16nm,1.7s
CLDB Colider 92.26 254 *eP* P 17 16 57.7 +0.6
MORC Moravsky Berou 92.29 342 *eP* P 17 16 56.2 0.0
MORC Moravsky Berou 92.29 342 ⇑P P 17 16 57.3 +1.1
MORC Moravsky Berou 92.29 342 P P 17 16 56.8 +0.5
comp=Z,7.4nm,1.2s
STEB Steborice 92.38 342 *eP* P 17 16 56.5 -0.1
GEC2 GERESS Array S 92.42 339 *eP* P 17 16 56.5 -0.4
comp=Z,1.0nm,0.9s,baz=146,slow=5.3
GERES GERESS Array B 92.42 339 P P 17 16 57.2 +0.3
comp=Z,0.6nm,0.7s,baz=156,slow=5.4,SNR=6.9
comp=Z,0.6nm,0.7s
GERES GERESS Array B 92.42 339 P P 17 16 57.0 +0.1
UBR Ueberruh 92.42 337 *eP* P 17 16 58.6 +1.6
comp=Z,8.0nm,0.9s,baz=146,slow=5.3
PDRB Porto dos Gac 92.48 253 *eP* P 17 16 58.0 0.0
PMG Port Moresby 92.48 104 LR LR 17 55 16.0
comp=Z,170nm,18.3s,baz=264,slow=33
FUR Furstenfeldbru 92.50 337 *eP* P 17 16 58.3 +1.1
comp=Z,12nm,0.6s,baz=146,slow=5.3
GTA2 Gaotai 92.53 39 P P 17 16 57.8 +0.1
GTA2 pmax pmax
comp=Z,34nm,0.8s
GTA2 L L
comp=Z,160nm,14.9s
GTA2 L L
comp=Z,73nm,15.2s
GTA2 L L
comp=Z,98nm,17.5s
KHC Kasperske Hory 92.72 339 *eP* P 17 17 01.4 +3.2
KHC Kasperske Hory 92.72 339 *eP* P 17 17 01.4 +3.2
ZVC Zvikov 92.83 340 *eP* P 17 16 58.8 +0.1
WET Wettzell 92.92 339 *eP* P 17 16 59.6 +0.5
comp=Z,2.4nm,1.0s,baz=146,slow=5.3
SLE Schleitheim 93.00 336 P P 17 17 00.7 +1.1
comp=Z,5.0nm,1.1s
ZSN Zaisan 93.06 25 *eP* P 17 17 00.3 +0.5
ZSN pmax pmax
comp=Z,6.0nm,1.3s
ZSN Zaisan 93.06 25 *eP* P 17 17 00.3 +0.5
comp=Z,6.3nm,1.3s
DPC Dobruska-Polom 93.12 341 *eP* P 17 17 01.7 +1.7
DPC Dobruska-Polom 93.12 341 *eP* P 17 17 01.7 +1.7
DPC Dobruska-Polom 93.12 341 P P 17 17 00.6 +0.6
comp=Z,7.8nm,1.9s
DPC Dobruska-Polom 93.12 341 P P 17 17 00.0 0.0
comp=Z,7.7nm,1.9s
XAN Xi'an 93.28 48 P P 17 17 01.0 -0.2
XAN pmax pmax
comp=Z,8.0nm,1.4s
BFO Black Forest 93.55 336 *eP* P 17 17 04.7 +2.6
baz=146,slow=5.3
KSP Ksiaz 93.58 342 *eP* P 17 17 00.8 -1.3
KSP Ksiaz 93.58 342 P P 17 17 03.2 +1.1
comp=Z,8.1nm,2.1s
KURBB Kurchatov Arra 94.01 20 P P 17 17 03.9 -0.1
comp=Z,6.3nm,1.0s,baz=214,slow=4.7,SNR=25
KURBB PP PP 17 20 50.0 -0.8
comp=Z,0.2nm,0.3s,baz=219,slow=9.1,SNR=4.8
comp=Z,6.3nm,1.0s
WHN Wuhan 94.06 53 P P 17 17 05.3 +0.5
KURK Kurchatov 94.12 20 P P 17 17 03.9 -0.6
KURK Kurchatov 94.12 20 P 17 17 03.6 -0.9
KURK IAmb IAmb 17 17 05.8
comp=Z,14nm,1.2s
KURK Kurchatov 94.12 20 P P 17 17 04.8 +0.3
comp=Z,10nm,1.3s
TANN Tannenbergstha 94.19 339 *eP* P 17 17 05.9 +1.0
baz=146,slow=5.3
TANN Tannenbergstha 94.19 339 P P 17 17 07.1 +2.1
comp=Z,13nm,1.3s
BRG Berggiesshubel 94.20 340 *eP* P 17 17 05.2 +0.3
baz=146,slow=5.3
SEM Semipalatinsk 94.28 21 *eP* P 17 17 05.7 +0.1
SEM pmax pmax
comp=Z,8.0nm,0.9s
SEM Semipalatinsk 94.28 21 *eP* P 17 17 05.7 +0.1
comp=Z,8.4nm,0.9s
BVAR Borovoye Array 94.39 14 P P 17 17 05.8 +0.1
comp=Z,13nm,0.9s,baz=192,slow=4.0,SNR=58
comp=Z,13nm,0.9s
BORK Borovoye 94.39 14 P P 17 17 05.4 -0.4
BORK pmax pmax
comp=Z,24nm,1.2s
BORK Borovoye 94.39 14 P 17 17 05.4 -0.4
BORK IAmb IAmb 17 17 07.2
comp=Z,24nm,1.1s
OBN Obninsk 94.47 354 *i* P P 17 17 06.0 0.0
OBN pmax pmax
comp=Z,12nm,1.0s
MOX Moxa 94.63 339 *eP* P 17 17 08.4 +1.5
comp=Z,3.3nm,1.1s,baz=146,slow=5.3
MNK Minsk 94.81 349 *i* P P 17 17 07.6 0.0
MNK *i* PPP PPP 17 22 59.7
MNK *i* S SKSac 17 27 42.9 +0.6
MNK pmax pmax
comp=E,10.0nm,0.8s
MNK pmax pmax
comp=Z,15nm,0.7s
MNK pmax pmax
comp=N,10.0nm,0.8s
MNK MLR MLR
comp=E,222nm,19.0s
MNK MLR MLR
comp=N,214nm,19.0s
MNK Minsk 94.81 349 *i* P P 17 17 07.7 0.0
comp=E,10.0nm,0.8s
MNK *i* P P 17 17 07.7 0.0
comp=N,10.0nm,0.8s
MNK *i* P P 17 17 07.7 0.0
comp=Z,15nm,0.7s,baz=166
MNK *i* PP PP 17 20 41.2 -16
MNK *i* PPP PPP 17 22 59.8
MNK *i* SKS 17 26 38.9
MNK *i* S SKSac 17 27 42.9 +0.6
MNK *i* SP ScS 17 28 29.5 +7.9
MNK *i* PS PS 17 28 55.9 -43
MNK *i* SS SS 17 33 56.0 -50
MNK *i* SSS SSS 17 37 51.5
MNK *i* LQ LQ 17 54 44.9
MNK *i* LRM MLR 18 01 11.3
comp=E,222nm,19.0s
MNK *i* LRM MLR 18 01 15.6
comp=N,214nm,18.6s
CLL Collm 94.85 340 *i* P P 17 17 08.9 +1.0
CLL pmax pmax
comp=Z,11nm,1.1s
CLL Collm 94.85 340 IAmb IAmb 17 17 10.6
comp=Z,15nm,1.3s
CLL Collm 94.85 340 *eP* P 17 17 08.9 +1.0
comp=Z,9.8nm,1.2s,baz=146,slow=5.3
CLL Collm 94.85 340 P P 17 17 08.6 +0.7
CLL Collm 94.85 340 P P 17 17 09.5 +1.6
comp=Z,9.0nm,1.3s
CLL Collm 94.85 340 *i* P P 17 17 08.9 +1.0
comp=Z,11nm,1.1s
MOS Moscow 95.02 355 *eP* P 17 17 04.1 -4.4
SUW Suwalki 95.10 347 *eP* P 17 17 09.2 +0.3
ARTI Arti 95.95 7 LR LR 18 04 30.7
comp=Z,55nm,18.1s,baz=258,slow=38
ARTI Arti 95.95 7*c i*P P 17 17 12.0 -0.8
ARTI S SKSac 17 27 47.8 -0.5
ARTI pmax pmax
comp=Z,22nm,1.7s
ARTI Arti 95.95 7 P 17 17 11.6 -1.2
ARTI IAmb IAmb 17 17 13.4
comp=Z,33nm,1.6s
CLZ Clausthal 96.05 339 *eP* P 17 17 16.1 +2.7
comp=Z,1.8nm,0.8s,baz=146,slow=5.3
PB11 IPOC Station P 96.07 238 P 17 17 12.7 -2.0
PB11 IAmb IAmb 17 17 22.4
comp=Z,16nm,1.0s
SVE Sverdlovsk 96.61 8 *eP* P 17 17 15.5 -0.3
SVE pmax pmax
comp=Z,19nm,1.6s
DZM Mont Dzumac 97.27 126 LR LR 17 50 39.2
comp=Z,126nm,20.2s,baz=326,slow=29
LPAZ La Paz 97.48 242 LR LR 17 57 42.0
comp=Z,155nm,18.8s,baz=118,slow=33
NJ2 Nanjing 97.92 55 *eP* Pdif 17 17 22.5 +0.1
NJ2 pmax pmax
comp=Z,11nm,0.8s
BTO2 Baotou 98.62 44 *eP* P 17 17 25.0 -0.5
BTO2 pmax pmax
comp=Z,23nm,0.7s
BTO2 pmax pmax
comp=Z,120nm,4.3s
ZAA0 Zalesovo Array 98.73 22 P P 17 17 24.1 -1.3
ZALV Zalesovo Beam 98.73 22 P P 17 17 24.6 -0.8
comp=Z,17nm,0.8s,baz=219,slow=4.0,SNR=76
ZALV LR LR 18 01 12.4
comp=Z,41nm,18.9s,baz=206,slow=35
ZALV Zalesovo Beam 98.73 22 P P 17 17 24.2 -1.2
HNS HongShan 98.99 49 ⇑P Pdif 17 17 27.3 +0.3
HNS pmax pmax
comp=Z,10.0nm,1.1s
KRVT Keravat (AS076 99.44 103 LR LR 18 00 01.5
comp=Z,65nm,18.5s,baz=181,slow=34
HHC Hu-ho-hao-te 99.60 44 *eP* **Pdif 17 17 31.0 +1.2**
HHC pmax pmax
comp=Z,8.0nm,0.7s
KLMR Klimovskoe 100.02 357 *eP* **Pdif 17 17 28.2 -2.8**
KLMR pmax pmax
comp=Z,17nm,1.7s
SONM Songino Array 101.97 37 P Pdif 17 17 39.3 -0.9
comp=Z,1.5nm,1.0s,baz=214,slow=3.1,SNR=7.7
SONM Songino Array 101.97 37 *i* P **Pdif 17 17 39.5 -0.7**
SONM Songino Array 101.97 37 Pdif 17 17 39.5 -0.7
PPT2 Papeete2 121.46 162 *e*LR LR 17 59 52.0
comp=Z,83nm,25.0s
PPT2 *e*LR LR 17 59 55.2
comp=Z,95nm,27.5s
DAG Danmarks Havn 122.60 346 *i* P **PKPdf 17 22 40.7 -0.1**
TIXI Tiksi 124.61 22 PKIKP **PKPdf 17 22 43.5 -1.2**
TIXI Tiksi 124.61 22 PKPdf 17 22 43.5 -1.2
NOR Nord 124.95 351 *i* P **PKPdf 17 22 45.2 0.0**
IVI Ivigtut 125.53 324 *i* P **PKiKP 17 22 52.0 +4.8**
NEEM North Greenlan 129.63 344 *i* P **PKiKP 17 22 56.0 +0.7**
SEY Seymchan 131.36 36 *e*PKIKP **PKiKP 17 22 58.7 -0.1**
SEY pmax pmax
comp=Z,25nm,1.8s
U49A Red Boiling Sp 142.35 281 PKPdf 17 23 15.4 -3.6
X48A Hartselle 142.60 277 PKPdf 17 23 16.6 -2.9
WCI Wyandotte Cave 143.27 284 PKIKP PKPbc 17 23 17.5 -0.2
WCI Wyandotte Cave 143.27 284 PKPbc 17 23 17.5 -0.2
WVT Waverly 143.78 280 PKIKP PKPab 17 23 18.7 +0.2
WVT Waverly 143.78 280 PKPab 17 23 18.7 +0.2
HALT Halls 144.87 279 PKPab 17 23 22.0 -0.5
Q44A Meyer Farm, Va 145.51 284 PKPdf 17 23 21.3 -3.2
X40A Basin Creek Fa 147.07 275 PKPdf 17 23 28.1 +0.8
L40A Anamosa 147.83 289 PKPdf 17 23 28.7 +0.4
P40A Paris 147.94 284 PKPbc 17 23 30.8 -0.8
FCC Fort Churchill 148.19 321 PKHKP **PKPdf 17 23 26.6 -1.7**
FCC Fort Churchill 148.19 321 PKPdf 17 23 26.6 -1.7
ANM Nome 148.77 26 PKIKP **PKPbc 17 23 32.1 -0.9**
ANM Nome 148.77 26 PKPbc 17 23 32.0 -0.9
F21K Alatna River 150.01 15 PKPdf 17 23 29.6 -1.5
IMAR Indian Mountai 151.01 17 PKPdf 17 23 31.4 -1.2
BMAR Burnt Mountain 151.25 9 PKiKP 17 23 39.5 0.0
ULM Lac du Bonnet 151.25 305 PKP **PKPdf 17 23 32.8 -0.7**
comp=Z,7.3nm,1.1s,baz=91,slow=3.7,SNR=5.1
ULM PKPbc **PKPbc 17 23 39.0 -0.4**
comp=Z,30nm,0.8s,baz=82,slow=3.5,SNR=26
H24K Noodor Dome 152.29 12 PKPdf 17 23 33.1 -1.6
COLA College 153.17 13 PKIKP **PKPbc 17 23 41.7 -1.6**
COLA College 153.17 13 PKPdf **PKPdf 17 23 34.0 -1.8**
COLA **PKPbc 17 23 41.7 -1.6**
TXAR Lajitas Array 153.27 257 PKP **PKPdf 17 23 38.1 +0.8**
comp=Z,4.5nm,1.1s,baz=82,slow=2.3,SNR=23
TXAR PKPbc **PKiKP 17 23 45.7 +0.7**
comp=Z,11nm,0.9s,baz=117,slow=2.5,SNR=28
TXAR Lajitas Array 153.27 257 PKPdf 17 23 36.8 -0.5
ILAR Eielson Array 153.44 13 PKP **PKPdf 17 23 35.0 -1.2**
comp=Z,1.5nm,1.0s,baz=323,slow=1.9,SNR=8.5
ILAR PKPbc **PKPbc 17 23 43.2 -0.7**

comp=Z,10nm,0.9s,baz=322,slow=3.4,SNR=43
ILAR PKPab **PKPab** **17 23 54.5 -1.7**
comp=Z,3.3nm,0.7s,baz=329,slow=3.7,SNR=16
ILAR Eielson Array 153.44 13 PKPdf 17 23 34.5 -1.7
ILAR **PKPbc 17 23 42.4 -1.5**
ILAR **PKPab 17 23 54.3 -1.9**
FFC Flin Flon 153.71 316 PKIKP **PKPbc 17 23 43.7 -1.1**
FFC Flin Flon 153.71 316 PKPbc 17 23 43.7 -1.1
YKA Yellowknife Ar 154.07 340 PKP **PKPdf 17 23 36.2 -1.0**
comp=Z,2.0nm,1.0s,baz=47,slow=1.6,SNR=9.5
YKA PKPbc **PKPbc 17 23 44.9 -0.4**
comp=Z,6.3nm,0.9s,baz=40,slow=1.8,SNR=26
YKA PKPab **PKPab 17 23 58.2 -0.8**
comp=Z,13nm,0.9s,baz=35,slow=4.8,SNR=27
YKA Yellowknife Ar 154.07 340 PKPdf 17 23 35.3 -1.9
YKA PKPbc **PKPbc 17 23 44.1 -1.2**
YKA **PKPab 17 23 57.9 -1.0**
BCAR Beaver Creek A 155.79 9 PKPdf **PKPdf 17 23 37.2 -2.5**
BCAR **PKPab 17 24 05.2 -1.2**
RSSD Black Hills 157.34 292 PKIKP **PKPdf 17 23 39.6 -2.9**
RSSD Black Hills 157.34 292 PKPdf 17 23 39.6 -2.9
PDAR Pinedale Array 161.40 288 PKP **PKPdf 17 23 46.4 -0.9**
comp=Z,3.6nm,0.9s,baz=121,slow=0.4,SNR=21
PDAR Pinedale Array 161.40 288 PKPdf 17 23 44.8 -2.5
BMO Blue Mountains 166.57 299 PKIKP **PKPdf 17 23 50.2 -1.5**
BMO Blue Mountains 166.57 299 PKPdf 17 23 50.2 -1.5
E07A Sunnyside 167.50 310 PKPdf 17 23 50.0 -2.3
NVAR Mina Array Bea 167.86 270 PKP **PKPdf 17 23 53.1 0.0**
comp=Z,1.6nm,0.8s,baz=77,slow=2.9,SNR=8.3
NVAR PKPab **PKPab 17 25 00.5 +0.3**
comp=Z,2.0nm,0.9s,baz=78,slow=4.6,SNR=6.4
NVAR Mina Array Bea 167.86 270 PKPdf 17 23 53.4 +0.4

IDC ***26*** *17:06:46.4±0.9, 31.°12S×177.°19W, h0km, mb4.3/5, mbtmp4.3/6, ML4.0/1, MS3.5/1, Error ellipse: s-maj=31.2km s-min=22.7km az=106.0*
NEIC ***26*** *17:06:49.6±1.8, 30.°68S±0.°08×177.°34W±0.°05, h10km±1km, mb4.5/7, Error ellipse: s-maj=13.4km s-min=7.4km az=177.0*
ISC 26 17:06:51.0±0.9, 30.°96S±0.°07×177.°5W±0.°2, h27km, n34, σ1§65/32, mb4.5/7, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
RAO	**Raoul Island**	**1.74**	**348**	Pn		**Pn**	**17 07 17.7**	**-1.7**
	263nm,0.3s,baz=156,slow=19,SNR=13							
RAO				Sn		**Sn**	**17 07 37.0**	**-3.7**
	667nm,0.3s,baz=108,slow=20,SNR=9.0							
URZ	**Urewera**	**8.52**	**210**	Pn		**Pn**	**17 08 51.2**	**-1.4**
	1.8nm,0.3s,baz=28,slow=19,SNR=8.6							
URZ				Sn		**Sn**	**17 10 24.0**	**-3.8**
	2.7nm,0.3s,baz=54,slow=19,SNR=6.9							
	5.5nm,0.8s							
URZ				AML		AML		
RTZ	**Ruatahuna**	**8.88**	**209**	Pn		**Pn**	**17 08 57.2**	**-0.3**
KHZ	**Kahutara**	**13.49**	**210**	Pn		**Pn**	**17 09 59.4**	**-1.1**
GVZ	**Greta Valley S**	**14.15**	**210**	Pn		**Pn**	**17 10 07.1**	**-2.5**
LTZ	**Lake Taylor**	**14.34**	**212**	Pn		**Pn**	**17 10 12.4**	**+0.2**
OXZ	**Oxford**	**14.87**	**211**	P		**P**	**17 10 25.8**	**+0.9**
OXZ				IAmb		IAmb	17 10 49.7	
	comp=Z,19nm,1.2s							
DZM	**Mont Dzumac**	**16.86**	**298**	LR		LR	17 15 39.6	
	comp=Z,149nm,18.2s,baz=156,slow=31							
ARMA	**Armidale**	**26.50**	**263**	P		**P**	**17 12 25.7**	**-0.7**
ARMA				IAmb		IAmb	17 12 36.2	
	comp=Z,25nm,1.5s							
PPT2	**Papeete2**	**28.64**	**69**	*e*LR		LR	17 19 53.2	
	comp=Z,52nm,23.5s							
CTAO	**Charters Tower**	**34.30**	**280**	P		**P**	**17 13 36.1**	**+0.7**
CTAO				IAmb		IAmb	17 13 46.6	
	comp=Z,7.8nm,0.9s							
STKA	**Stephens Creek**	**34.77**	**258**	P		**P**	**17 13 41.7**	**+2.5**
	comp=Z,4.0nm,0.7s,baz=97,slow=13,SNR=5.7							
	comp=Z,4.0nm,0.7s							
AS31	**Alice Springs**	**43.50**	**267**	P		**P**	**17 14 53.8**	**+1.4**
ASAR	**Alice Springs**	**43.50**	**267**	P		**P**	**17 14 53.7**	**+1.3**
	comp=Z,1.7nm,0.5s,baz=108,slow=7.9,SNR=32							
ASAR				PcP		**PcP**	**17 16 40.8**	**+0.7**
	comp=Z,0.7nm,0.8s,baz=123,slow=4.0,SNR=0.9							
ASAR				ScP		**ScP**	**17 20 32.1**	**+2.3**
	comp=Z,0.8nm,1.1s,baz=120,slow=3.3,SNR=3.2							
	comp=Z,1.7nm,0.5s							
WRA	**Warramunga Arr**	**44.54**	**272**	P		**P**	**17 15 01.4**	**+0.8**
	comp=Z,3.4nm,0.5s,baz=113,slow=8.2,SNR=44							
	comp=Z,3.4nm,0.5s							
WRA	**Warramunga Arr**	**44.54**	**272**	P		**P**	**17 15 02.0**	**+1.3**
QSPA	**South Pole Qui**	**59.15**	**180**	P		**P**	**17 16 47.4**	**-1.7**
	comp=Z,3.5nm,1.3s,baz=48,slow=4.5,SNR=1.6							
	comp=Z,3.5nm,1.3s							
QSPA	**South Pole Qui**	**59.15**	**180**	P		P	17 16 53.6	+4.5
H03S2	**Juan Fernandez**	**79.80**	**123**	T		T	18 48 16.6	
	baz=238,slow=74,SNR=5.5							
H03S1	**Juan Fernandez**	**79.82**	**123**	T		T	18 48 23.7	
	baz=238,slow=74,SNR=5.0							
H03S3	**Juan Fernandez**	**79.82**	**123**	T		T	18 48 17.1	
	baz=238,slow=74,SNR=5.6							
PETK	**Petropavlovsk-**	**86.46**	**345**	P		**P**	**17 19 32.4**	**+1.7**
	comp=Z,2.8nm,0.8s,baz=158,slow=5.4,SNR=1.7							
	comp=Z,2.8nm,0.8s							
MKAR	**Makanchi Array**	**118.45**	**310**	PKP		**PKiKP**	**17 25 36.2**	**+0.4**
	comp=Z,0.2nm,0.4s,baz=96,slow=1.1,SNR=4.7							
MKAR	**Makanchi Array**	**118.45**	**310**			**PKPdf**	**17 25 36.0**	**+0.2**
KURK	**Kurchatov**	**121.74**	**313**			**PKPdf**	**17 25 40.7**	**-1.3**
KURBB	**Kurchatov Arra**	**121.78**	**313**	PKP		**PKPdf**	**17 25 41.4**	**-0.7**
	comp=Z,0.9nm,0.9s,baz=114,slow=1.9,SNR=7.5							
BVAR	**Borovoye Array**	**127.10**	**315**	PKP		**PKPdf**	**17 25 51.9**	**-0.3**
	comp=Z,0.7nm,0.5s,baz=104,slow=4.6,SNR=4.2							
FINES	**FINESS Array B**	**145.82**	**340**	PKPbc		**PKPab**	**17 26 27.9**	**+0.5**
	comp=Z,6.4nm,0.6s,baz=48,slow=4.1,SNR=34							
NB2	**NORSAR Subarra**	**149.37**	**352**	PKP		**PKiKP**	**17 26 38.4**	**+0.5**
	comp=Z,2.8nm,1.2s,baz=17,slow=2.6							
NOA	**NORSAR Array B**	**149.37**	**352**	PKPbc		**PKPbc**	**17 26 35.1**	**-1.6**
	comp=Z,0.4nm,0.7s,baz=9.8,slow=2.4,SNR=1.8							
HFS	**Hagfors**	**149.88**	**349**	PKPbc		**PKPbc**	**17 26 38.4**	**+0.5**
	comp=Z,1.4nm,0.7s,baz=28,slow=6.5,SNR=4.2							
AKASG	**Malin Array Be**	**152.00**	**322**	PKPbc		**PKPbc**	**17 26 42.5**	**-0.8**
	comp=Z,1.4nm,0.6s,baz=51,slow=2.3,SNR=7.2							
MMAI	**Mount Meron Ar**	**152.07**	**283**	PKPbc		**PKiKP**	**17 26 46.8**	**+2.3**
	comp=Z,3.1nm,0.8s,baz=66,slow=5.4,SNR=4.3							
BRTR	**Keskin Array B**	**153.23**	**298**	PKPbc		**PKiKP**	**17 26 47.6**	**+0.8**
	comp=Z,0.8nm,0.5s,baz=108,slow=2.1,SNR=7.2							

BGR ***26*** *17:27:12.2, 33.°60N×73.°58E, h233km, mb4.8*
MOS ***26*** *17:27:34.3±1.0, 36.°53N×71.°30E, h226km, mb4.4/40, Error ellipse: s-maj=5.3km s-min=3.8km az=96.2*
BJI ***26*** *17:27:34.5, 36.°67N×71.°27E, h212km, mB4.8/4, mb4.6/35*
IDC ***26*** *17:27:36.0±0.5, 36.°53N×71.°25E, h229km±4km, mb3.9/29, mbtmp4.5/34, Error ellipse: s-maj=8.5km s-min=7.1km az=8.0*
GFZ ***26*** *17:27:35.9±0.1, 37.°N±2.°×7.°1E±.°, h211km, M4.7/49, mb4.7/49, confirmed*
NEIC ***26*** *17:27:36.0±1.1, 36.°53N±0.°06×71.°22E±0.°09, h227km±5km, mb4.4/155, Error ellipse: s-maj=10.0km s-min=8.7km az=94.0*
NNC ***26*** *17:27:37.8±4.6, 36.°85N×71.°12E, h230km±52km, mb4.4, mpv5.8, Error ellipse: s-maj=43.7km s-min=24.3km az=9.0*
ISC 26 17:27:35.2±0.3, 36.°51N±0.°03×71.°23E±0.°03, h222km±2km, h222km:pP-P, n644, σ1§24/716, mb4.4/201, 36C-26D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KBL	**Kabul**	**2.65**	**223**	P		**Pn**	**17 28 22.7**	**+0.2**
	SNR=96							
KBL	**Kabul**	**2.65**	**223**	PN		**Pn**	**17 28 22.5**	**0.0**
KBL							17 28 57.2	
KBL	**Kabul**	**2.65**	**223**			**Pn**	**17 28 22.5**	**0.0**
KBL				Sn		**S**	**17 28 57.2**	**-2.0**
KBL	**Kabul**	**2.65**	**223**	P		**Pn**	**17 28 22.7**	**+0.2**
DRK	**Karamyk**	**3.00**	**8**	PN		**Pn**	**17 28 26.3**	**0.0**
DRK							17 29 03.7	
DRK	**Karamyk**	**3.00**	**8**			**Pn**	**17 28 26.3**	**0.0**
DRK				Sn		**S**	**17 29 03.6**	**-2.6**
DRK	**Karamyk**	**3.00**	**8**	P		**Pn**	**17 28 26.6**	**+0.3**
NIL	**Nilore**	**3.30**	**149**	P		**Pn**	**17 28 30.5**	**+0.9**
NIL	**Nilore**	**3.30**	**149**	PN		**Pn**	**17 28 30.3**	**+0.7**
NIL							17 29 11.3	
NIL	**Nilore**	**3.30**	**149**			**Pn**	**17 28 30.3**	**+0.7**
NIL				Sn		**S**	**17 29 11.3**	**-0.8**
NIL	**Nilore**	**3.30**	**149**	P		**Pn**	**17 28 30.5**	**+0.9**
BTK	**Batken**	**3.56**	**355**			**Pn**	**17 28 33.1**	**+0.5**
BTK				Sn		**S**	**17 29 14.6**	**-3.0**
BTK	**Batken**	**3.56**	**355**	P		**Pn**	**17 28 33.3**	**+0.8**
OHH	**Osh**	**4.19**	**16**	P		**Pn**	**17 28 38.3**	**-1.8**
KSH2	**Kashi**	**4.33**	**51**	P		**Pn**	**17 28 42.5**	**+0.6**
KSH2				S		**S**	**17 29 34.5**	**+0.1**
KSH2				SMN				
	1μm,0.5s							
KSH2				SME				
	840nm,0.6s							
JMU	**Jammu**	**4.76**	**140**	IAML			17 29 45.5	
	comp=N,2μm,0.2s							
ARSB	**Arslanbob**	**5.00**	**15**	Pn		**Pn**	**17 28 49.4**	**-0.8**
ARSB				Sn		**S**	**17 29 44.3**	**-5.3**
ARK	**Arkit**	**5.31**	**6**	P		**Pn**	**17 28 53.4**	**-0.7**
	comp=Z,442nm,0.4s							
ALCI	**Alchi Leh**	**5.38**	**113**	IAML			17 30 11.7	
	comp=N,510nm,0.8s							
IUG	**luzhnay**	**5.71**	**351**	*e*PN		**Pn**	**17 28 59.0**	**-0.1**
IUG	**luzhnay**	**5.71**	**351**	*e*P		**Pn**	**17 28 59.0**	**-0.1**
ASAI	**AK-SAY(Kyrgyzs**	**6.04**	**42**	P		**Pn**	**17 29 02.6**	**-1.0**
	comp=Z,231nm,0.7s							
NRN	**Naryn**	**6.16**	**36**	PN		**Pn**	**17 29 03.1**	**-2.1**
NRN	**Naryn**	**6.16**	**36**			**Pn**	**17 29 03.0**	**-2.1**
NRN				Sn		**S**	**17 30 09.5**	**-7.0**
UCH	**Uchtor**	**6.25**	**23**	P		**Pn**	**17 29 06.0**	**-0.4**
	SNR=348							
DZA	**Taraz**	**6.38**	**1**	*e*PN		**Pn**	**17 29 07.6**	**+0.1**
DZA	**Taraz**	**6.38**	**1**	*e*P		**Pn**	**17 29 07.7**	**+0.1**
EKS2	**Erkin-Say**	**6.45**	**17**	P		**Pn**	**17 29 08.1**	**-0.5**
	SNR=431							
KK31	**Karatay Array**	**6.61**	**355**	⇓P		**Pn**	**17 29 09.8**	**-0.8**
	comp=Z,42nm,0.3s,baz=180,slow=12,SNR=947							
KK31				⇓S		**S**	**17 30 20.3**	**-6.1**
	comp=Z,432nm,0.5s,baz=181,slow=22,SNR=12							
KK31	**Karatay Array**	**6.61**	**355**	PN		**Pn**	**17 29 09.7**	**-0.8**
KK31	**Karatay Array**	**6.61**	**355**			**Pn**	**17 29 09.7**	**-0.8**
KK31				Sn		**S**	**17 30 19.2**	**-7.2**
KKAR	**Karatay Array**	**6.61**	**355**	PN		**Pn**	**17 29 09.7**	**-0.8**
KKAR	**Karatay Array**	**6.61**	**355**			**Pn**	**17 29 09.7**	**-0.8**
AAK	**Ala-Archa**	**6.62**	**21**	P		**Pn**	**17 29 10.6**	**-0.2**
	comp=Z,422nm,0.4s,baz=199,slow=9.5,SNR=432							
AAK				S		**S**	**17 30 24.1**	**-2.8**
	comp=Z,250nm,0.8s,baz=162,slow=20,SNR=23							
AAK	**Ala-Archa**	**6.62**	**21**	P		**Pn**	**17 29 10.7**	**-0.2**
	SNR=299							
AAK	**Ala-Archa**	**6.62**	**21**	⇑P		**Pn**	**17 29 10.6**	**-0.2**
	comp=Z,1μm,0.4s							
AAK				⇑S		**S**	**17 30 24.8**	**-2.1**
	comp=Z,3μm,0.8s							
AAK	**Ala-Archa**	**6.62**	**21**	P		**Pn**	**17 29 10.5**	**-0.2**
AAK	**Ala-Archa**	**6.62**	**21**	P		**Pn**	**17 29 10.8**	**0.0**
AAK				S		**S**	**17 30 24.3**	**-2.6**
AAK	**Ala-Archa**	**6.62**	**21**			**Pn**	**17 29 10.5**	**-0.2**
AAK				Sn		**S**	**17 30 23.3**	**-3.6**
AAK	**Ala-Archa**	**6.62**	**21**	P		**Pn**	**17 29 10.8**	**0.0**
	comp=Z,586nm,0.6s							
KBK	**Karagaybulak**	**6.78**	**24**	P		**Pn**	**17 29 12.7**	**-0.2**
	SNR=156							
FRU1	**Bishkek**	**6.82**	**22**	PN		**Pn**	**17 29 13.2**	**0.0**
FRU1							17 30 28.3	
FRU1	**Bishkek**	**6.82**	**22**			**Pn**	**17 29 13.2**	**0.0**
FRU1				Sn		**S**	**17 30 28.3**	**-3.0**
ULHL	**Ulahol**	**6.92**	**33**	P		**Pn**	**17 29 13.8**	**-0.9**
	SNR=292							
CHMS	**Chumysh**	**7.03**	**22**	P		**Pn**	**17 29 15.4**	**-0.5**
	SNR=75							
USP	**Ospenovka**	**7.20**	**19**	P		**Pn**	**17 29 17.5**	**-0.7**
	SNR=67							
TKM2	**Tokmak 2**	**7.23**	**26**	P		**Pn**	**17 29 18.3**	**-0.4**
	SNR=727							
KDJ	**Kajisay**	**7.26**	**38**	PN		**Pn**	**17 29 17.8**	**-1.3**
KDJ	**Kajisay**	**7.26**	**38**			**Pn**	**17 29 17.8**	**-1.3**
KDJ	**Kajisay**	**7.26**	**38**	P		**Pn**	**17 29 18.2**	**-0.9**
	comp=Z,305nm,0.5s							
TARG	**Taragay, Kyrgy**	**7.30**	**42**	PN		**Pn**	**17 29 18.0**	**-1.8**
TARG	**Taragay, Kyrgy**	**7.30**	**42**			**Pn**	**17 29 18.0**	**-1.8**
TARG	**Taragay, Kyrgy**	**7.30**	**42**	P		**Pn**	**17 29 18.5**	**-1.3**
	comp=Z,126nm,0.6s							
HRA	**Hera**	**7.63**	**257**			**Pn**	**17 29 23.5**	**-0.4**
WUS	**Wushi**	**7.79**	**51**			**Pn**	**17 29 24.8**	**-1.1**
TNSS	**Tian-Shan**	**7.87**	**32**	*e*PN		**Pn**	**17 29 26.2**	**-0.8**
TNSS				*e*S		**S**	**17 30 54.7**	**-1.7**
TNSS	**Tian-Shan**	**7.87**	**32**	*e*P		**Pn**	**17 29 26.3**	**-0.8**
TNSS				*e*S		**S**	**17 30 54.8**	**-1.7**
AAA	**Alma-Ata**	**7.99**	**31**	*e*PN		**Pn**	**17 29 28.3**	**0.0**
AAA	**Alma-Ata**	**7.99**	**31**	*e*P		**Pn**	**17 29 28.4**	**0.0**
MDOK	**Medeo**	**8.01**	**32**	*e*PN		**Pn**	**17 29 28.1**	**-0.5**
MDOK	**Medeo**	**8.01**	**32**	*e*P		**Pn**	**17 29 28.2**	**-0.5**
KNDC	**Almaty**	**8.02**	**32**	⇓P		**Pn**	**17 29 28.2**	**-0.5**
	comp=Z,809nm,0.7s							
KNDC				⇓S		**S**	**17 30 58.5**	**-1.0**
	comp=Z,66nm,0.6s							
PRZ	**Przheval'sk**	**8.14**	**41**	PN		**Pn**	**17 29 29.9**	**-0.5**
PRZ	**Przheval'sk**	**8.14**	**41**			**Pn**	**17 29 29.9**	**-0.5**
PRZ	**Przheval'sk**	**8.14**	**41**	P		**Pn**	**17 29 30.4**	**0.0**
	comp=Z,220nm,0.6s							
UTK	**UTTARKASHI**	**8.33**	**132**	*i* P		**Pn**	**17 29 30.5**	**-2.4**
UTK				*i* P			17 29 31.0	
SATY	**Saty**	**8.56**	**38**	*e*PN		**Pn**	**17 29 34.1**	**-1.5**
SATY	**Saty**	**8.56**	**38**	*e*P		**Pn**	**17 29 34.2**	**-1.5**
UZB	**Uzynbulak**	**8.93**	**40**	*e*PN		**Pn**	**17 29 38.9**	**-1.6**
UZB	**Uzynbulak**	**8.93**	**40**	*e*P		**Pn**	**17 29 39.0**	**-1.6**
KPKS	**Kokpek**	**9.00**	**37**	*e*PN		**Pn**	**17 29 39.5**	**-1.8**
KPKS	**Kokpek**	**9.00**	**37**	*e*P		**Pn**	**17 29 39.5**	**-1.8**
JOSI	**Joshimath**	**9.14**	**128**	*i* P		**Pn**	**17 29 43.6**	**+0.3**
JOSI				IAML			17 31 29.0	
	comp=N,719nm,0.2s							
SHLS	**Shalkode**	**9.17**	**41**	*e*P		**Pn**	**17 29 45.0**	**+1.5**
SHLS	**Shalkode**	**9.17**	**41**	*e*P		**Pn**	**17 29 45.1**	**+1.5**
NDI	**New Delhi**	**9.29**	**145**	*i* P		**Pn**	**17 29 43.1**	**-2.0**
PDGK	**Podgornoye**	**9.30**	**40**	⇑P		**Pn**	**17 29 43.4**	**-1.9**
	comp=N,72nm,0.7s							
PDGK	**Podgornoye**	**9.30**	**40**	P		**Pn**	**17 29 43.2**	**-2.1**
PDGK	**Podgornoye**	**9.30**	**40**			**Pn**	**17 29 43.2**	**-2.1**
NPLP	**NPLP New Delhi**	**9.31**	**146**	*i* P		**Pn**	**17 29 43.6**	**-1.7**
KUDL	**Kundal**	**9.45**	**150**	*i* P		**Pn**	**17 29 44.6**	**-2.6**
KUDL				*i* S		**S**	**17 31 30.2**	**-3.2**
SONA	**Sohna**	**9.60**	**147**	*i* P		**Pn**	**17 29 48.2**	**-0.9**
PTH	**Pithoragarh**	**10.21**	**130**	*i* P		**Pn**	**17 29 54.5**	**-2.5**
LGTI	**Lohaghat**	**10.27**	**131**	*i* P		**Pn**	**17 29 56.0**	**-1.9**
GUNA	**GUNA**	**12.93**	**154**	IAML			17 32 48.1	
	comp=N,61nm,0.6s							
MAKZ	**Makanchi**	**13.04**	**35**	⇑P		**Pn**	**17 30 30.0**	**-2.4**
	comp=N,80nm,0.5s							
MAKZ	**Makanchi**	**13.04**	**35**	P		**Pn**	**17 30 31.1**	**-1.3**
MAKZ	**Makanchi**	**13.04**	**35**			**Pn**	**17 30 31.1**	**-1.3**
MK31	**Makanchi Array**	**13.18**	**35**	P		**Pn**	**17 30 32.7**	**-1.4**
	comp=N,7.4nm,0.3s,baz=216,slow=13,SNR=936							
MK31	**Makanchi Array**	**13.18**	**35**	*c* P		**Pn**	**17 30 32.3**	**-1.8**
MKAR	**Makanchi Array**	**13.18**	**35**	P		**Pn**	**17 30 32.4**	**-1.7**
	comp=N,26nm,0.4s,baz=219,slow=13,SNR=271							
MKAR				S		**S**	**17 32 59.2**	**-0.6**
	comp=N,5.7nm,0.9s,baz=222,slow=20,SNR=1.8							
MKAR	**Makanchi Array**	**13.18**	**35**			**Pn**	**17 30 32.4**	**-1.7**
MKAR						**S**	**17 32 58.6**	**-1.2**
WMQ	**Urumqi**	**14.54**	**55**	⇑P		**Pn**	**17 30 50.3**	**-0.6**
WMQ				pmax		pmax		
	comp=N,26nm,0.7s							
ZSN	**Zaisan**	**14.89**	**39**	*e*P		**Pn**	**17 30 54.0**	**-1.0**
ZSN	**Zaisan**	**14.89**	**39**	*e*P		**Pn**	**17 30 54.1**	**-1.0**
KURBB	**Kurchatov Arra**	**15.06**	**18**	P		**Pn**	**17 30 55.1**	**-1.9**
	comp=N,11nm,0.6s,baz=206,slow=11,SNR=70							
KURBB				S		**S**	**17 33 39.8**	**-3.4**
	comp=N,1.7nm,0.7s,baz=204,slow=29,SNR=5.8							
KURBB	**Kurchatov Arra**	**15.06**	**18**	⇑P		**Pn**	**17 30 55.4**	**-1.5**
	comp=N,24nm,0.6s							
KURK	**Kurchatov**	**15.16**	**18**	P		**Pn**	**17 30 57.8**	**-0.5**
KURK	**Kurchatov**	**15.16**	**18**	*de*P		**Pn**	**17 30 57.1**	**-1.2**
KURK				pmax		pmax		
	comp=Z,30nm,1.7s							
KURK	**Kurchatov**	**15.16**	**18**			**Pn**	**17 30 56.5**	**-1.8**
KURK				IAmb		IAmb	17 30 58.3	
	comp=Z,14nm,0.9s							
KURK	**Kurchatov**	**15.16**	**18**	P		**Pn**	**17 30 56.8**	**-1.5**
	comp=Z,23nm,0.9s							
AB31	**Akbulak array**	**15.17**	**331**	P		**Pn**	**17 30 57.1**	**-1.2**
	comp=Z,27nm,0.5s,baz=144,slow=12,SNR=690							
AB31	**Akbulak array**	**15.17**	**331**			**Pn**	**17 30 56.6**	**-1.7**
ABKAR	**Akbulak array**	**15.17**	**331**			**Pn**	**17 30 56.6**	**-1.8**
EVN	**Everest**	**15.69**	**118**			**P**	**17 31 04.7**	**-0.3**
EVN	**Everest**	**15.69**	**118**	P		**Pn**	**17 31 05.4**	**-0.1**
	comp=Z,175nm,0.6s							
BVAR	**Borovoye Array**	**16.53**	**358**	P		**Pn**	**17 31 13.8**	**-0.7**
	comp=Z,10nm,0.5s,baz=174,slow=10,SNR=65							
BVAR				S		**S**	**17 34 14.1**	**-0.6**
	comp=Z,8.2nm,0.7s,baz=168,slow=22,SNR=4.2							
BANOM	**Banah**	**16.55**	**235**	P		**P**	**17 31 12.2**	**-1.6**
	SNR=5.9							
BORK	**Borovoye**	**16.55**	**358**	*ce*P		**Pn**	**17 31 14.6**	**-0.2**
BORK				pmax		pmax		
	comp=Z,7.0nm,0.5s							
BORK	**Borovoye**	**16.55**	**358**			**Pn**	**17 31 14.2**	**-0.7**
BORK				IAmb		IAmb	17 31 17.2	
	comp=Z,10nm,0.6s							
SHME	**Shamm**	**16.56**	**235**	*i* P		**P**	**17 31 14.4**	**+0.4**
	SNR=8.4							
SHME	**Shamm**	**16.56**	**235**	P		**P**	**17 31 13.9**	**0.0**
	SNR=8.5							
AKTO	**Aktyubinsk**	**16.87**	**330**	P		**Pn**	**17 31 18.3**	**-0.3**
	comp=Z,70nm,0.5s,baz=140,slow=9.9,SNR=141							
AKTO				S		**S**	**17 34 18.8**	**-2.6**
	comp=Z,11nm,0.7s,baz=135,slow=13,SNR=6.4							
AKTO	**Aktyubinsk**	**16.87**	**330**	⇓P		**Pn**	**17 31 17.8**	**-0.8**
	comp=Z,38nm,0.6s							
MDH	**Madha**	**16.98**	**233**	*i* P		**P**	**17 31 17.7**	**-0.9**
	SNR=6.5							
MDH	**Madha**	**16.98**	**233**	P		**P**	**17 31 17.6**	**-0.9**
	SNR=6.5							
MASF	**Masafi**	**17.02**	**233**	P		**P**	**17 31 19.7**	**+0.7**
MASF				S		**S**	**17 34 27.2**	**+2.2**
MSFE	**Esma-Masafi**	**17.02**	**233**	*i* P		**P**	**17 31 19.7**	**+0.7**
	SNR=7.9							
WSAR	**Wadi Sarin**	**17.13**	**223**	P		**Pn**	**17 31 22.5**	**+0.5**
BIDO	**Bidbid**	**17.19**	**225**	P		**Pn**	**17 31 22.7**	**0.0**
UOSS	**Minazif**	**17.29**	**232**	*i* P		**P**	**17 31 22.0**	**+0.1**
	SNR=11							
UOSS	**Minazif**	**17.29**	**232**	P		**P**	**17 31 21.7**	**-0.2**
UOSS	**Minazif**	**17.29**	**232**			**P**	**17 31 22.1**	**+0.1**
UOSS	**Minazif**	**17.29**	**232**	P		**P**	**17 31 22.8**	**+0.9**
	comp=Z,54nm,0.8s							
HATD	**Hatta, Dubai**	**17.42**	**232**	*i* P		**P**	**17 31 24.1**	**+0.7**
	SNR=12							
HATD	**Hatta, Dubai**	**17.42**	**232**	P		**P**	**17 31 23.4**	**+0.1**
WBK	**Wadi Bani Khal**	**17.46**	**221**	P		**P**	**17 31 23.2**	**-0.6**
ASHO	**Ashiyiah**	**17.57**	**232**	*i* P		**P**	**17 31 26.0**	**+1.1**
	SNR=36							
ASHO	**Ashiyiah**	**17.57**	**232**	P		**P**	**17 31 25.6**	**+0.6**
SMDO	**Samad**	**17.60**	**224**	P		**P**	**17 31 26.5**	**+1.2**
NAZ	**Nazwa, Dubai**	**17.61**	**234**	*i* P		**P**	**17 31 26.0**	**+0.7**
	SNR=13							
NAZ	**Nazwa, Dubai**	**17.61**	**234**	P		**P**	**17 31 25.9**	**+0.5**
JLN	**Jalan Bani Buh**	**17.61**	**219**	P		**P**	**17 31 26.8**	**+1.4**
JLN				S		**S**	**17 34 38.0**	**+1.3**
HOQ	**Hoqain**	**17.61**	**227**	P		**P**	**17 31 26.1**	**+0.6**
SOHO	**SOHO**	**17.67**	**230**	P		**P**	**17 31 25.0**	**-1.0**
SOHO	**SOHO**	**17.67**	**230**	P		**P**	**17 31 25.1**	**-0.9**
LSA	**Lhasa**	**18.00**	**106**	P		**Pn**	**17 31 33.1**	**+0.4**
LSA	**Lhasa**	**18.00**	**106**	P		**Pn**	**17 31 33.6**	**+0.9**
LSA	**Lhasa**	**18.00**	**106**	P		**Pn**	**17 31 31.3**	**-1.4**
LSA				pmax		pmax		
	comp=Z,50nm,0.7s							
LSA	**Lh

comp=Z,17nm,0.5s
ERBR Yeremizino-Bor 24.80 301 *e*P **P** **17 32 37.2 +0.4**
ERBR *e**PP **pP** **17 33 24.0 +4.4**
ERBR *eS **S** **17 36 41.4 -1.1**
ERBR pmax pmax
comp=Z,15nm,0.9s
ABTO Aybut 24.81 224 P **P** **17 32 37.8 +0.5**
SNR=14
KELT Kelkit 25.27 288 P **P** **17 32 44.7 +3.3**
comp=Z,36nm,1.3s
VRH Novokhopyorsk 25.64 314 *e*P **P** **17 32 44.2 -0.1**
VRH pmax pmax
comp=Z,5.0nm,0.9s
RAYN Ar Rayn 25.67 247 *i* P **P** **17 32 45.2 +0.2**
SNR=10
RAYN Ar Rayn 25.67 247 P **P** **17 32 45.0 +0.1**
RAYN Ar Rayn 25.67 247 P **P** **17 32 44.4 -0.6**
RAYN pmax pmax
comp=Z,12nm,0.9s
RAYN Ar Rayn 25.67 247 **P** **17 32 44.4 -0.6**
RAYN IAmb IAmb 17 32 46.0
comp=Z,12nm,0.8s
RAYN Ar Rayn 25.67 247 P **P** **17 32 45.7 +0.7**
comp=Z,15nm,0.6s
KEMA Kemaliye 25.91 286 P **P** **17 32 50.0 +3.0**
comp=Z,79nm,1.0s
ARPR Arapgir-MALATY 26.04 286 P **P** **17 32 48.2 -0.1**
VSR Storozhevoye 27.13 313 *e*P **P** **17 32 56.4 -1.2**
VSR pmax pmax
comp=Z,7.0nm,1.1s
GAZ Gaziantep 27.15 282 P **P** **17 32 58.0 -0.1**
VORR Voronezh 27.27 314 *e*P **P** **17 32 56.1 -2.7**
VORR pmax pmax
comp=Z,10.0nm,0.8s
NPW Naypyitaw 27.45 121 P **P** **17 33 01.4 +0.6**
comp=Z,56nm,0.7s
CD2 Chengdu 27.55 92 P **P** **17 33 03.5 +1.9**
CD2 pmax pmax
comp=Z,20nm,0.8s
ANDN Andirin 27.77 283 P **P** **17 33 04.7 +1.1**
comp=Z,40nm,0.8s
LPSR Galich'ya Gora 27.78 316 *e*P **P** **17 33 01.9 -1.4**
LPSR pmax pmax
comp=Z,7.0nm,1.1s
BNN Bunyan 28.00 286 P **P** **17 33 05.8 +0.2**
BNN IAmb IAmb 17 33 08.8
comp=Z,5.8nm,0.9s
SONM Songino Array 28.18 55 P **P** **17 33 08.2 +1.1**
comp=Z,1.0nm,0.5s,baz=262,slow=8.5,SNR=12
SONM pP **pP** **17 33 54.2 +1.3**
comp=Z,3.6nm,0.8s,baz=255,slow=9.5,SNR=8.9
comp=Z,1.0nm,0.5s
SONM Songino Array 28.18 55 P **P** **17 33 07.5 +0.4**
SONM **pP** **17 33 53.3 +0.4**
ULN Ulaanbaatar 28.62 55 P **P** **17 33 11.5 +0.5**
ULN **pP** **17 33 56.9 0.0**
KIRS Kirsehir-Merke 29.46 287 ⇑P **P** **17 33 20.1 +1.6**
MMAI Mount Meron Ar 29.53 274 P **P** **17 33 20.7 +1.5**
comp=Z,2.2nm,0.6s,baz=52,slow=16,SNR=1.9
comp=Z,2.2nm,0.6s
BR104 Keskin Array S 29.61 288 P **P** **17 33 20.8 +0.9**
comp=Z,46nmcomp=Z,5.6nm,1.0s
BR131 Keskin Array S 29.61 288 P **P** **17 33 20.8 +0.9**
SNR=7.8
BR131 Keskin Array S 29.61 288 P **P** **17 33 20.6 +0.7**
BR131 *PP **pP** **17 34 04.3 -0.3**
BR131 pmax pmax
comp=Z,10.0nm,1.1s
BR131 Keskin Array S 29.61 288 **P** **17 33 20.6 +0.7**
BR131 IAmb IAmb 17 33 21.9
comp=Z,9.8nm,1.1s
BR131 pP **pP** **17 34 04.3 -0.3**
BRTR Keskin Array B 29.61 288 P **P** **17 33 20.8 +0.9**
comp=Z,5.3nm,0.9s,baz=88,slow=7.6,SNR=22
comp=Z,5.3nm,0.9s
BRTR Keskin Array B 29.61 288*ce*P **P** **17 33 21.0 +1.1**
BRTR pmax pmax
comp=Z,5.0nm,0.9s
BRTR Keskin Array B 29.61 288 **P** **17 33 20.4 +0.5**
BRTR **pP** **17 34 04.4 -0.2**
BRTR PP **PnPn** **17 34 26.1 -0.2**
BR106 Keskin Array S 29.62 288 P **P** **17 33 21.1 +1.1**
comp=Z,52nmcomp=Z,6.0nm,0.9s
BR105 Keskin Array S 29.62 288 P **P** **17 33 20.9 +0.9**
comp=Z,5.3nm,0.7s
MOS Moscow 29.77 321 *e*P **P** **17 33 21.8 +0.9**
MOS *e* 17 34 05.9
OBN Obninsk 30.05 319 *i* P **P** **17 33 22.9 -0.5**
OBN *i **PP **pP** **17 34 09.0 +0.8**
OBN *i* 17 34 36.6
OBN pmax pmax
comp=Z,7.0nm,0.8s
CHTO Chiang Mai 30.06 118 P **P** **17 33 25.5 +1.6**
CHTO Chiang Mai 30.06 118 P **P** **17 33 25.3 +1.4**
CHTO Chiang Mai 30.06 118 P **P** **17 33 23.7 -0.2**
CHTO pmax pmax
comp=Z,6.0nm,0.5s
CHTO Chiang Mai 30.06 118 **P** **17 33 23.7 -0.2**
CHTO IAmb IAmb 17 33 26.7
comp=Z,5.7nm,0.5s
CHTO Chiang Mai 30.06 118 P **P** **17 33 25.3 +1.4**
comp=Z,10nm,0.7s
KKUL Konya-Kulu 30.23 287 P **P** **17 33 26.8 +1.5**
comp=Z,18nm,0.9s
CM31 Chiang Mai Arr 30.30 119 P **P** **17 33 26.6 +0.6**
SNR=6.2
CM31 Chiang Mai Arr 30.30 119 P **P** **17 33 25.9 -0.1**
CM31 IAmb IAmb 17 33 28.8
comp=Z,17nm,1.3s
CMAR Chiang Mai Arr 30.30 119 P **P** **17 33 26.9 +0.9**
comp=Z,6.4nm,0.8s,baz=306,slow=8.0,SNR=52
CMAR pP **pP** **17 34 12.5 +0.6**
comp=Z,1.5nm,0.8s,baz=313,slow=11,SNR=2.6
comp=Z,6.4nm,0.8s
CMAR Chiang Mai Arr 30.30 119 **P** **17 33 25.9 -0.1**
PALK Pallekele 30.36 161 P **P** **17 33 27.5 +1.0**
PALK Pallekele 30.36 161 P **P** **17 33 27.3 +0.7**
PALK pmax pmax
comp=Z,14nm,0.8s
PALK Pallekele 30.36 161 P **P** **17 33 27.3 +0.7**
CSS Mathiatis 30.68 279 P **P** **17 33 29.4 +0.2**
XAN Xi'an 30.74 83 P **P** **17 33 31.3 +1.5**
XAN pmax pmax
comp=Z,19nm,0.8s
KLMR Klimovskoe 31.56 331 *e*P **P** **17 33 34.8 -1.8**
KLMR *e**PP **pP** **17 34 20.8 -1.0**
KLMR pmax pmax
comp=Z,17nm,1.6s
HHC Hu-ho-hao-te 31.59 70 *e*P **P** **17 33 37.3 +0.1**
HHC pmax pmax
comp=Z,9.0nm,0.6s
SLVN Son La 32.17 109 P **P** **17 33 42.4 0.0**
SLVN IAmb IAmb 17 33 44.8
comp=Z,11nm,1.4s
ENH Enshi 32.39 90 **P** **17 33 44.4 +0.2**
ENH IAmb IAmb 17 33 46.6
comp=Z,13nm,0.9s
YLV Yalova 32.77 290 P **P** **17 33 48.3 +0.9**
comp=Z,17nm,0.9s
ELL Elmali 32.98 283 P **P** **17 33 49.7 +0.3**
ELL pmax pmax
comp=Z,37nm,0.6s
ELL Elmali 32.98 283 P **P** **17 33 49.7 +0.3**
AK09 Malin Array Si 33.03 309 P **P** **17 33 50.2 +0.7**
AK10 Malin Array Si 33.05 309 P **P** **17 33 50.6 +1.0**
AK08 Malin Array Si 33.05 309 P **P** **17 33 50.2 +0.5**
AK07 Malin Array Si 33.07 309 P **P** **17 33 50.4 +0.6**
AK06 Malin Array Si 33.08 309 P **P** **17 33 50.1 +0.2**
AKASG Malin Array Be 33.08 309 P **P** **17 33 50.1 +0.2**
comp=Z,1.4nm,0.3s,baz=85,slow=7.1,SNR=22
AKASG pP **pP** **17 34 35.7 +0.6**
comp=Z,2.3nm,0.6s,baz=85,slow=7.2,SNR=2.8
comp=Z,1.4nm,0.3s
AKBB Malin Array Si 33.08 309⇑*e*P **P** **17 33 50.2 +0.3**
AKBB Malin Array Si 33.08 309 P **P** **17 33 50.1 +0.2**
AK05 Malin Array Si 33.09 309 P **P** **17 33 50.3 +0.4**
AK02 Malin Array Si 33.09 309 P **P** **17 33 50.2 +0.2**
KIEV Kiev 33.09 309 P **P** **17 33 50.6 +0.6**
KIEV Kiev 33.09 309 P **P** **17 33 50.3 +0.3**
KIEV pmax pmax
comp=Z,9.0nm,1.1s
KIEV Kiev 33.09 309 **P** **17 33 50.3 +0.3**
KIEV IAmb IAmb 17 33 51.2
comp=Z,9.2nm,1.1s
KIEV Kiev 33.09 309 ⇓P **P** **17 33 50.7 +0.6**
KIEV Kiev 33.09 309 P **P** **17 33 50.3 +0.3**
comp=Z,36nm,0.9s
KIEV pP **pP** **17 34 35.6 +0.4**
comp=Z,36nm,0.9s
KIEV Kiev 33.09 309 P **P** **17 33 50.6 +0.6**
comp=Z,9.2nm,0.9s
AK04 Malin Array Si 33.12 309 P **P** **17 33 50.4 +0.1**
TPGR Topolog 33.20 298 ⇑P **P** **17 33 52.2 +1.2**
TIRR Tirgusor 33.21 297 P **P** **17 33 51.8 +0.7**
TIRR pmax pmax
comp=Z,4.0nm,1.0s
TIRR Tirgusor 33.21 297 P **P** **17 33 51.8 +0.7**
AK19 Malin Array Si 33.22 309 P **P** **17 33 51.4 +0.3**
AK20 Malin Array Si 33.23 309 P **P** **17 33 51.3 +0.2**
AKAS Kas 33.33 282 P **P** **17 33 52.2 -0.2**
SORM Soroca 33.35 304 ⇓P **P** **17 33 53.0 +0.8**
CFR Carcaliu 33.40 299 ⇑P **P** **17 33 53.2 +0.6**
LYN LuoYang 33.44 81 P **P** **17 33 55.3 +2.1**
LYN pmax pmax
comp=Z,25nm,1.1s
VLDR Vladesti 33.44 300 ⇓P **P** **17 33 54.5 +1.5**
ICOR Ion Corvin 33.66 297 ⇑P **P** **17 33 57.0 +2.0**
MI30 MI30,Zelenitsa 33.74 309 P **P** **17 33 55.6 0.0**
LUBAR Lubar, Ukraine 33.91 307 P **P** **17 33 56.9 -0.2**
NRIK Noril'sk 34.09 10 P **P** **17 33 58.4 +0.2**
comp=Z,1.7nm,0.3s,baz=207,slow=2.3,SNR=4.0
comp=Z,1.7nm,0.3s
NRIK Noril'sk 34.09 10 P **P** **17 33 58.5 +0.2**
NRIK pmax pmax
comp=Z,3.0nm,0.9s
NRIK Noril'sk 34.09 10 IAmb IAmb 17 34 07.1
comp=Z,3.0nm,0.8s
VRI Vrincioaia 34.38 300 ⇑P **P** **17 34 02.4 +1.2**
VRI Vrincioaia 34.38 300 P **P** **17 34 02.2 +1.0**
comp=Z,8.5nm,1.0s
VRI Vrincioaia 34.38 300 P **P** **17 34 02.8 +1.6**
comp=Z,8.6nm,1.0s
PLOR Plostina 34.44 300 ⇑P **P** **17 34 03.1 +1.4**
TESR Tescani 34.44 301 ⇑P **P** **17 34 02.9 +1.2**
TESR Tescani 34.44 301 P **P** **17 34 02.8 +1.1**
comp=Z,12nm,0.7s
TESR Tescani 34.44 301 P **P** **17 34 02.8 +1.1**
comp=Z,12nm,0.7s
ARG Arkhangelos 34.50 283 P **P** **17 34 03.0 +0.7**
ARG pmax pmax
comp=Z,30nm,1.0s
ARG Arkhangelos 34.50 283 P **P** **17 34 03.0 +0.7**
MNK Minsk 34.62 315 *i* P **P** **17 34 03.7 +0.6**
MNK *i **PP **pP** **17 34 48.7 0.0**
MNK *i *SP **sP** **17 35 13.0 -1.2**
MNK *i* 17 35 30.8
MNK *i* S **S** **17 39 17.3 +1.8**
MNK *i **SS **sS** **17 40 39.4 +1.3**
MNK pmax pmax
comp=Z,7.0nm,0.8s
MNK pmax pmax
comp=N,6.0nm,0.8s
MNK pmax pmax
comp=E,7.0nm,0.7s
MNK Minsk 34.62 315 *i* P **P** **17 34 03.8 +0.6**
comp=E,7.0nm,0.7s
MNK *i* P **P** **17 34 03.8 +0.6**
comp=N,6.0nm,0.8s
MNK *i* P **P** **17 34 03.8 +0.6**
comp=Z,7.0nm,0.8s,baz=103
MNK *i* pP **pP** **17 34 48.7 0.0**
MNK *i* sP **sP** **17 35 13.1 -1.2**
MNK *i* PP **PnPn** **17 35 30.9 +3.4**
MNK *i* S **S** **17 39 17.4 +1.8**
MNK *i* sS **sS** **17 40 39.5 +1.3**
MNK *i* SS **SS** **17 41 53.8 -1.0**
KMPD K-Podol'skiy 34.64 305 P **P** **17 34 03.4 +0.1**
BIZ Bicaz 34.82 302 ⇑P **P** **17 34 06.8 +1.9**
TURR Turia 34.88 300 ⇑P **P** **17 34 06.8 +1.3**
MLR Muntele Rosu 34.94 299 P **P** **17 34 07.3 +1.2**
MLR pmax pmax
comp=Z,21nm,0.8s
MLR Muntele Rosu 34.94 299 **P** **17 34 07.3 +1.2**
MLR Muntele Rosu 34.94 299 ⇓P **P** **17 34 07.5 +1.3**
MLR Muntele Rosu 34.94 299 P **P** **17 34 07.4 +1.3**
comp=Z,29nm,0.9s
MLR Muntele Rosu 34.94 299 P **P** **17 34 08.7 +2.6**
comp=Z,29nm,0.8s
RNPP5 Staryi Chortor 35.25 309 P **P** **17 34 09.2 +0.7**
RNPP9 Sopachiv 35.27 310 P **P** **17 34 09.5 +0.9**
RNPP8 Varash 35.28 309 P **P** **17 34 09.8 +1.1**
DOPR Dopca 35.32 300 ⇑P **P** **17 34 10.9 +1.7**
NACGM Naroch 35.34 316 *e*P **P** **17 34 11.1 +1.9**
comp=Z,26nm,0.9s,baz=103
KARP Karpathos 35.42 282 P **P** **17 34 10.2 0.0**
KARP Karpathos 35.42 282 P **P** **17 34 10.8 +0.6**
comp=Z,114nm,0.9s
KARP Karpathos 35.42 282 P **P** **17 34 11.3 +1.1**
comp=Z,114nm,0.9s
BURAR Bucovina Array 35.44 303 **P** **17 34 10.2 -0.1**
BURAR Bucovina Array 35.44 303 ⇑P **P** **17 34 12.2 +1.9**
BUR08 Bucovina Ar. S 35.45 303 **P** **17 34 10.1 -0.3**
COPA Copaceanca 35.52 297 ⇓P **P** **17 34 13.0 +2.1**
VOIR 35.57 299 ⇑P **P** **17 34 12.7 +1.3**
VOIR 35.57 299 P **P** **17 34 12.7 +1.3**
comp=Z,6.0nm,0.7s
VOIR 35.57 299 P **P** **17 34 12.6 +1.3**
comp=Z,6.0nm,0.7s
ARR Arges 35.87 299 ⇓P **P** **17 34 15.0 +1.0**
ARR Arges 35.87 299 P **P** **17 34 15.4 +1.5**
comp=Z,7.9nm,2.9s
WHN Wuhan 36.21 87 P **P** **17 34 18.5 +1.6**
LOT Lotru 36.47 299 ⇑P **P** **17 34 20.7 +1.6**
LOT Lotru 36.47 299 P **P** **17 34 20.5 +1.4**
comp=Z,8.5nm,0.9s
MARR Marisel-Cluj 36.87 301 ⇑P **P** **17 34 23.5 +1.0**
PABE Paberze 37.04 316 P **P** **17 34 24.4 +0.9**
TRPA Tarpa 37.24 304 P **P** **17 34 27.5 +2.1**
comp=Z,15nm,0.8s
SUW Suwalki 37.24 314 P **P** **17 34 24.7 -0.6**
SUW Suwalki 37.24 314 P **P** **17 34 24.7 -0.6**
IDI Anyuja 37.28 282 P **P** **17 34 25.8 -0.1**
BLKB Belogradchik 37.39 296 ⇓P **P** **17 34 27.5 +0.8**
KOLS Kolonicke sedl 37.42 305 *e*P **P** **17 34 28.4 +1.5**
KOLS pmax pmax
comp=Z,9.0nm,0.8s
KOLS Kolonicke sedl 37.42 305 *e*P **P** **17 34 28.3 +1.4**
KOLS Kolonicke sedl 37.42 305 P **P** **17 34 28.6 +1.7**
comp=Z,8.5nm,0.9s
FIA1 FINESS Array S 37.58 326 P **P** **17 34 28.6 +0.6**
FINES FINESS Array B 37.58 326 P **P** **17 34 28.9 +0.8**
comp=Z,4.3nm,0.4s,baz=112,slow=8.0,SNR=74
comp=Z,4.3nm,0.4s
FINES FINESS Array B 37.58 326 *i* P **P** **17 34 29.0 +1.0**
FINES pmax pmax
comp=Z,4.0nm,0.4s
FINES FINESS Array B 37.58 326 P **P** **17 34 28.7 +0.7**
SURR Surduc 37.60 300 ⇑P **P** **17 34 30.3 +1.9**
SIRR Siria 37.90 301 ⇑P **P** **17 34 32.9 +1.9**
BZS Buzias 37.97 300 ⇑P **P** **17 34 33.0 +1.5**
BZS Buzias 37.97 300 P **P** **17 34 33.0 +1.5**
comp=Z,6.6nm,0.8s
MDVR Moldovita 37.97 298 ⇑P **P** **17 34 32.5 +0.9**
LIT Litokhoron 38.04 291 P **P** **17 34 31.9 -0.3**
LIT pmax pmax
comp=Z,7.0nm,1.0s
LIT Litokhoron 38.04 291 P **P** **17 34 31.9 -0.3**
BOVS Bovan 38.09 296 ⇑P **P** **17 34 33.8 +1.3**
AGG Agios Georgios 38.37 289 P **P** **17 34 34.7 -0.3**
AGG pmax pmax
comp=Z,29nm,1.4s
AGG Agios Georgios 38.37 289 P **P** **17 34 34.7 -0.3**
AGG IAmb IAmb 17 34 36.2
comp=Z,29nm,1.4s
PSZ Piszkesteto 39.02 303 P **P** **17 34 39.6 -0.7**
PSZ pmax pmax
comp=Z,5.0nm,0.7s
PSZ Piszkesteto 39.02 303 **P** **17 34 39.6 -0.7**
PSZ IAmb IAmb 17 34 42.8
comp=Z,5.3nm,0.7s
OJC Ojcow 39.05 307 P **P** **17 34 40.0 -0.4**
OJC Ojcow 39.05 307 **P** **17 34 40.0 -0.4**
OJC Ojcow 39.05 307 P **P** **17 34 41.6 +1.2**
comp=Z,15nm,1.0s
OJC Ojcow 39.05 307 P **P** **17 34 41.8 +1.4**
comp=Z,15nm,1.0s
LHMI Lhok Sumawe 39.06 137 P **P** **17 34 40.6 -0.3**
LANS Liptovska Anna 39.27 305 *e*P **P** **17 34 44.4 +2.1**
LANS pmax pmax
comp=Z,2.0nm,0.8s
LANS Liptovska Anna 39.27 305 *e*P **P** **17 34 44.4 +2.1**
DL2 Dalian 39.54 71 P **P** **17 34 46.5 +1.9**
DL2 pmax pmax
comp=Z,40nm,0.7s
MORH Mrgy, Hungar 39.99 301 P **P** **17 34 49.7 +1.5**
comp=Z,5.1nm,2.8s
KEK Kerkira 40.14 291 P **P** **17 34 46.4 -3.2**
KEK IAmb IAmb 17 34 53.5
comp=Z,15nm,1.1s
STEB Steborice 40.35 307 *e*P **P** **17 34 52.5 +1.3**
VADS Vadso 40.37 339 *e*P **P** **17 34 52.4 +1.4**
JAVC Velka Javorina 40.46 305 *e*P **P** **17 34 54.1 +2.0**
MORC Moravsky Berou 40.51 306 P **P** **17 34 51.2 -1.3**
MORC pmax pmax
comp=Z,7.0nm,0.7s
MORC Moravsky Berou 40.51 306 **P** **17 34 51.2 -1.3**
MORC IAmb IAmb 17 34 54.8
comp=Z,7.2nm,0.7s
MORC Moravsky Berou 40.51 306 *e*P **P** **17 34 53.8 +1.3**
MORC Moravsky Berou 40.51 306 P **P** **17 34 53.5 +1.1**
comp=Z,10nm,0.9s
KEV Kevo 40.86 338 P **P** **17 34 55.6 +0.6**
KEV pmax pmax
comp=Z,32nm,1.5s
KEV Kevo 40.86 338 **P** **17 34 55.5 +0.6**
KEV IAmb IAmb 17 34 58.4
comp=Z,32nm,1.5s
KRLC Kraliky 40.99 307 P **P** **17 34 57.5 +1.1**
comp=Z,8.9nm,0.8s
KULM Kulim 41.14 132 P **P** **17 34 56.5 -1.4**
KULM IAmb IAmb 17 35 32.4
comp=Z,17nm,1.2s
VRAC Vranov 41.15 306 *e*P **P** **17 34 59.3 +1.6**
VRAC Vranov 41.15 306 ⇓P **P** **17 34 58.9 +1.3**
VRAC Vranov 41.15 306 P **P** **17 34 59.2 +1.6**
comp=Z,3.8nm,1.8s
ARA0 ARCESS Array S 41.21 338 *e*P **P** **17 34 58.9 +1.0**
ARCES ARCESS Array B 41.21 338 P **P** **17 34 58.7 +0.9**
comp=Z,3.4nm,0.5s,baz=118,slow=8.1,SNR=34
comp=Z,3.4nm,0.5s
ARCES ARCESS Array B 41.21 338 P **P** **17 34 58.7 +0.9**
ARCES IAmb IAmb 17 34 59.8
comp=Z,19nm,1.4s
DPC Dobruska-Polom 41.27 307 *e*P **P** **17 35 00.7 +2.0**
DPC pmax pmax
comp=Z,4.0nm,0.6s
DPC Dobruska-Polom 41.27 307 *e*P **P** **17 35 00.7 +2.0**
comp=Z,4.2nm,0.6s
DPC Dobruska-Polom 41.27 307 P **P** **17 35 00.3 +1.6**
comp=Z,11nm,1.9s
DPC Dobruska-Polom 41.27 307 P **P** **17 35 00.8 +2.1**
comp=Z,11nm,1.9s
KRUC Moravsky 41.29 305 *e*P **P** **17 34 59.9 +1.1**
CHVC Chvalec 41.44 308 *e*P **P** **17 35 01.4 +1.4**
CHVC Chvalec 41.44 308 *e*P **P** **17 35 01.4 +1.4**
CN2 Changchun 41.44 63 *e*P P 17 35 05.5 +5.4
CN2 pmax pmax
comp=Z,10.0nm,0.5s
RONA Rosalia, Austr 41.46 303 *i* P **P** **17 35 01.6 +1.4**
comp=Z,3.8nm,0.5s
UPC Upice 41.47 308 *e*P **P** **17 35 01.6 +1.4**
UPC Upice 41.47 308 *e*P **P** **17 35 01.6 +1.4**
UPC Upice 41.47 308 P **P** **17 35 02.2 +2.0**
comp=Z,14nm,1.2s
WINA Alland / Wiene 41.57 304 *i* P **P** **17 35 02.6 +1.5**
comp=Z,2.8nm,0.6s
KTK1 Kautokeino 41.68 336 *e*P **P** **17 35 02.5 +0.8**
BLEU Blekinge 41.69 316 *i* P **P** **17 35 02.4 +0.5**
CONA Conrad Observa 41.73 304 *i* P **P** **17 35 03.9 +1.4**
comp=Z,7.4nm,0.7s
TREC Trest 41.87 306 *e*P **P** **17 35 05.4 +1.9**
TREC Trest 41.87 306 *e*P **P** **17 35 05.4 +1.9**
TREC Trest 41.87 306 P **P** **17 35 04.8 +1.2**
comp=Z,7.9nm,0.8s
ABNA Allensteig Bun 41.95 305 *i* P **P** **17 35 05.8 +1.6**
comp=Z,5.3nm,0.8s
IPM Ipoh 42.01 132 P **P** **17 35 06.1 +1.1**
IPM Ipoh 42.01 132 P **P** **17 35 04.4 -0.6**
IPM IAmb IAmb 17 35 06.2
comp=Z,12nm,0.9s
ARSA Arzberg 42.02 303 P **P** **17 35 04.3 -0.5**
ARSA Arzberg 42.02 303 *e*P **P** **17 35 04.1 -0.7**
comp=Z,1.7nm,0.5s
HEH HeiHe 42.09 53 *e*P **P** **17 35 06.5 +1.2**
HEH pP **pP** **17 35 55.3 +1.8**
HEH pmax pmax
comp=Z,16nm,0.8s
GROS Grobnik 42.13 302 *i* P **P** **17 35 06.9 +1.2**
BSD Bornholm Skovb 42.13 315 *i* P **P** **17 35 06.0 +0.5**
BSD IAmb IAmb 17 35 06.3
comp=Z,50nm,1.0s
HAMF Hammerfest 42.29 339 *e*P **P** **17 35 07.7 +1.1**
PERS Pernice 42.37 302 *e*P **P** **17 35 09.1 +1.4**
SOKA Soboth 42.42 302 *i* P **P** **17 35 09.7 +1.6**
comp=Z,11nm,0.6s,SNR=13
TIP Timpagrande 42.56 291 P **P** **17 35 08.8 -0.5**
GSI Gunungsitoli 42.68 139 P **P** **17 35 10.6 +0.3**
GSI Gunungsitoli 42.68 139 P **P** **17 35 10.6 +0.3**
CKRC Cesky Krumlov 42.68 305 *e*P **P** **17 35 08.4 -1.6**
CKRC Cesky Krumlov 42.68 305 *e*P **P** **17 35 08.4 -1.6**
SESA Seetaler Alpe, 42.69 303 *i* P **P** **17 35 12.0 +1.6**
comp=Z,5.6nm,0.5s,SNR=11
ZVC Zvikov 42.70 306 *e*P **P** **17 35 11.9 +1.7**
BRG Berggiesshubel 42.76 308 *e*P **P** **17 35 12.2 +1.6**
comp=Z,7.1nm,0.8s,baz=85,slow=7.9
BRG Berggiesshubel 42.76 308 P **P** **17 35 12.5 +1.8**
comp=Z,13nm,1.0s
BRG Berggiesshubel 42.76 308 *i* P **P** **17 35 12.3 +1.7**
BRG Amp 17 35 13.0
comp=Z,9.6nm,0.7s
OBKA Obir 42.77 302 *i* P **P** **17 35 11.6 +0.7**
comp=Z,3.7nm,0.6s
DEL Delary 42.78 317 *i* P **P** **17 35 11.6 +0.9**
MOA Molln 42.80 304 *i* P **P** **17 35 11.9 +0.8**
comp=Z,8.8nm,0.9s,SNR=7.0
MOA Molln 42.80 304 P **P** **17 35 11.4 +0.3**
comp=Z,13nm,2.0s
JETT Jettan, Norway 42.83 336 *e*P **P** **17 35 12.1 +1.2**
MOZS Mozjanca 42.88 302 *i* P **P** **17 35 13.2 +1.5**
LUNU Lund 42.99 315 *i* P **P** **17 35 13.4 +1.1**
MARCO Tramutola 43.00 293 P **P** **17 35 14.3 +1.5**
comp=Z,10nm,1.5s
CUC Castrocucco 43.07 292 P **P** **17 35 13.2 -0.1**
CUC IAmb IAmb 17 35 15.6
comp=Z,9.3nm,0.7s
CUC Castrocucco 43.07 292 P **P** **17 35 14.6 +1.3**
comp=Z,15nm,0.8s
GERES GERESS Array B 43.08 305 P **P** **17 35 13.3 -0.1**
comp=Z,1.3nm,0.7s,baz=80,slow=6.9,SNR=14
GERES pP **pP** **17 36 01.7 +1.2**
comp=Z,0.5nm,0.6s,baz=76,slow=8.4,SNR=2.3
comp=Z,1.3nm,0.7s
GERES GERESS Array B 43.08 305 P **P** **17 35 13.6 +0.3**
KHC Kasperske Hory 43.13 306⇑*e*P **P** **17 35 14.3 +0.6**
KHC pmax pmax
comp=Z,3.0nm,0.9s
KHC Kasperske Hory 43.13 306 P **P** **17 35 13.8 +0.1**
KHC Kasperske Hory 43.13 306 *e*P **P** **17 35 14.0 +0.3**
comp=Z,1.9nm,0.6s
KHC Kasperske Hory 43.13 306 P **P** **17 35 14.5 +0.8**
comp=Z,6.4nm,0.9s
HFS Hagfors 43.17 322 P **P** **17 35 14.2 +0.4**
comp=Z,6.6nm,0.5s,baz=96,slow=12,SNR=23
HFS pP **pP** **17 36 02.5 +1.0**
comp=Z,1.7nm,0.4s,baz=83,slow=12,SNR=1.8
comp=Z,6.6nm,0.5s
BIOA Bad Ischl, Aus 43.24 304 *i* P **P** **17 35 15.5 +0.9**
comp=Z,4.0nm,0.4s
CLL Collm 43.33 309⇓*i*P **P** **17 35 16.2 +1.0**
CLL *e**PP **pP** **17 36 02.0 -0.5**
CLL pmax pmax
comp=Z,6.0nm,0.9s
CLL Collm 43.33 309 *e*P **P** **17 35 16.4 +1.2**
comp=Z,4.0nm,0.8s,baz=85,slow=7.9
CLL Collm 43.33 309 P **P** **17 35 16.1 +0.9**
comp=Z,8.0nm,0.9s
CLL Collm 43.33 309⇓*i*P **P** **17 35 16.2 +1.0**
comp=Z,6.0nm,0.9s
CLL *ep**P **pP** **17 36 02.0 -0.5**
TRO Tromso 43.34 336 *e*P **P** **17 35 15.5 +0.6**
MYKA Terra Mystica 43.38 302 *i* P **P** **17 35 16.4 +0.6**
comp=Z,5.0nm,0.8s
FABU Falkenberg 43.44 317 *i* P **P** **17 35 16.4 +0.5**
DRE Drenchia 43.44 301 P **P** **17 35 17.4 +1.2**

	comp=Z,18nm,0.8s							
PRED	**Cave del Predi**	**43.46**	**302**	P		**P**	**17 35 16.3**	**-0.1**
SABO	**M.te Sabotino**	**43.50**	**301**	P		**P**	**17 35 16.2**	**-0.5**
SABO				IAmb		IAmb	17 35 18.3	
	comp=Z,13nm,0.7s							
KBA	**Koelnbreinsper**	**43.52**	**303**	*i* P		**P**	**17 35 18.1**	**+1.1**
	comp=Z,3.1nm,0.5s							
MSEY	**Mahe Island**	**43.54**	**203**	P		**P**	**17 35 17.5**	**+0.2**
MSEY				pmax		pmax		
	comp=Z,27nm,1.1s							
MSEY	**Mahe Island**	**43.54**	**203**	P		**P**	**17 35 17.5**	**+0.2**
MSEY				IAmb		IAmb	17 35 30.2	
	comp=Z,27nm,1.1s							
TANN	**Tannenbergstha**	**43.74**	**308**	*eP*		**P**	**17 35 19.6**	**+1.1**
	comp=Z,2.8nm,0.8s,baz=85,slow=7.9							
RJOB	**Jochberg**	**43.80**	**304**	P		**P**	**17 35 20.2**	**+1.1**
	comp=Z,5.1nm,0.9s							
YAK	**Yakutsk**	**43.85**	**35**	P		**P**	**17 35 19.3**	**+0.2**
YAK						**pP**	**17 36 06.0**	**-1.5**
FAUS	**Fauske**	**43.88**	**332**	*eP*		**P**	**17 35 20.1**	**+0.8**
ONAU	**Onsala**	**43.89**	**318**	*i* P		**P**	**17 35 20.5**	**+1.0**
MOR8	**Moi Rana**	**43.90**	**331**	*eP*		**P**	**17 35 18.8**	**-0.7**
LESA	**Schwarzleotal**	**43.92**	**303**	*i* P		**P**	**17 35 21.1**	**+1.1**
	comp=Z,9.6nm,0.4s,SNR=12							
STEI	**Steigen**	**44.05**	**333**	*eP*		**P**	**17 35 21.9**	**+1.3**
STAL	**STALIGIAL**	**44.07**	**302**	P		**P**	**17 35 21.2**	**0.0**
STAL				IAmb		IAmb	17 35 22.2	
	comp=Z,7.8nm,0.6s							
NEUB	**Neuenburg**	**44.11**	**309**	*eP*		**P**	**17 35 22.6**	**+1.2**
	comp=Z,11nm,0.7s,baz=85,slow=7.9							
NEUB				epP		**pP**	**17 36 12.2**	**+3.4**
RAUS	**Rausandaksla**	**44.12**	**331**	*eP*		**P**	**17 35 21.9**	**+0.7**
ABTA	**Abfaltersbach**	**44.13**	**302**	*i* P		**P**	**17 35 21.8**	**+0.1**
	comp=Z,2.7nm,0.7s							
NC405	**NORSAR Array S**	**44.25**	**323**			**P**	**17 35 23.1**	**+0.8**
NC405				IAmb		IAmb	17 35 24.9	
	comp=Z,8.0nm,0.6s							
WIMM	**Wimmelburg**	**44.25**	**309**	P		**P**	**17 35 23.9**	**+1.5**
	comp=Z,70nm,0.9s							
MOX	**Moxa**	**44.25**	**308**	*eP*		**P**	**17 35 23.7**	**+1.1**
	comp=Z,4.0nm,0.8s,baz=85,slow=7.9							
NC602	**NORSAR Array S**	**44.30**	**323**	P		**P**	**17 35 22.8**	**+0.1**
NC602				IAmb		IAmb	17 36 03.1	
	comp=Z,20nm,1.4s							
NC602	**NORSAR Array S**	**44.30**	**323**	*eP*		**P**	**17 35 22.8**	**+0.1**
YHNB	**Yeheng**	**44.31**	**91**	P		**P**	**17 35 23.1**	**-0.3**
STRU	**Stroemstad**	**44.35**	**320**	*i* P		**P**	**17 35 23.6**	**+0.4**
FLTG	**Flechtingen**	**44.36**	**311**	*eP*		**P**	**17 35 24.6**	**+1.2**
	comp=Z,17nm,0.7s,baz=85,slow=7.9							
FLTG	**Flechtingen**	**44.36**	**311**	P		**P**	**17 35 24.5**	**+1.2**
	comp=Z,30nm,0.8s							
SSLB	**Suanglung**	**44.38**	**92**	P		**P**	**17 35 24.3**	**+0.4**
SSLB				IAmb		IAmb	17 35 27.0	
	comp=Z,13nm,0.7s							
FDMO	**Fiordimonte**	**44.39**	**297**	P		**P**	**17 35 23.6**	**-0.2**
LEIR	**Leirfjorden**	**44.41**	**330**	*eP*		**P**	**17 35 24.2**	**+0.7**
NRCA	**Norcia**	**44.41**	**297**	P		**P**	**17 35 24.5**	**+0.5**
NC303	**NORSAR Array S**	**44.43**	**323**			**P**	**17 35 24.2**	**+0.4**
NC303				IAmb		IAmb	17 35 25.5	
	comp=Z,14nm,0.8s							
NB201	**NORSAR Array S**	**44.45**	**323**	P		**P**	**17 35 23.7**	**-0.2**
NB201				IAmb		IAmb	17 35 33.9	
	comp=Z,13nm,1.1s							
NB2	**NORSAR Subarra**	**44.48**	**323**	P		**P**	**17 35 24.4**	**+0.1**
	comp=Z,3.1nm,0.5s,baz=96,slow=7.9							
NB2	**NORSAR Subarra**	**44.48**	**323**	AMP		**P**	**17 35 24.0**	**-0.3**
NB2				P		**P**	**17 35 24.0**	**-0.3**
NOA	**NORSAR Array B**	**44.48**	**323**	P		**P**	**17 35 23.8**	**-0.5**
	comp=Z,2.9nm,0.5s,baz=96,slow=7.9,SNR=32							
	comp=Z,2.9nm,0.5s							
VAGH	**Vaagaholmen**	**44.49**	**331**	*eP*		**P**	**17 35 25.6**	**+1.5**
KONS	**Konsvik**	**44.49**	**331**	*eP*		**P**	**17 35 25.0**	**+0.8**
STOK	**Stokkvaagen**	**44.50**	**331**	*eP*		**P**	**17 35 24.7**	**+0.5**
NSS	**Namsos**	**44.59**	**328**	*eP*		**P**	**17 35 25.8**	**+0.9**
GRA1	**Grafenberg Arr**	**44.60**	**307**	P		**P**	**17 35 25.5**	**+0.2**
GRF	**Grafenberg Arr**	**44.60**	**307**	P		**P**	**17 35 25.5**	**+0.2**
GRF				pmax		pmax		
	comp=Z,7.0nm,0.7s							
GRF	**Grafenberg Arr**	**44.60**	**307**	*eP*		**P**	**17 35 26.6**	**+1.2**
	comp=Z,5.7nm,0.7s,baz=85,slow=7.9							
NAO01	**NORSAR Array S**	**44.63**	**323**	P		**P**	**17 35 25.3**	**-0.1**
KS19	**Wonju Array Si**	**44.65**	**71**	P		**P**	**17 35 26.1**	**+0.3**
KS19				IAmb		IAmb	17 36 08.0	
	comp=Z,22nm,1.3s							
WTTA	**Wattenberg**	**44.65**	**303**	*i* P		**P**	**17 35 26.5**	**+0.6**
	comp=Z,9.7nm,1.0s							
WTTA	**Wattenberg**	**44.65**	**303**	P		**P**	**17 35 26.3**	**+0.4**
	comp=Z,11nm,1.5s							
KSAR	**Wonju Array Be**	**44.67**	**71**	P		**P**	**17 35 26.6**	**+0.5**
KSAR	**Wonju Array Be**	**44.67**	**71**	P		**P**	**17 35 26.6**	**+0.5**
WATA	**Walderalm**	**44.68**	**303**	*i* P		**P**	**17 35 26.7**	**+0.6**
	comp=Z,6.5nm,1.0s							
NBO00	**NORSAR Array S**	**44.70**	**323**	P		**P**	**17 35 26.1**	**+0.2**
NBO00				IAmb		IAmb	17 35 48.5	
	comp=Z,27nm,1.5s							
KSRS	**Korea Array**	**44.70**	**71**	P		**P**	**17 35 26.6**	**+0.4**
	comp=Z,1.5nm,0.5s,baz=275,slow=6.8,SNR=13							
	comp=Z,1.5nm,0.5s							
LOF	**Lofoten**	**44.72**	**333**	*eP*		**P**	**17 35 26.6**	**+0.7**
NC204	**NORSAR Array S**	**44.72**	**323**			**P**	**17 35 26.5**	**+0.4**
NC204				IAmb		IAmb	17 35 32.6	
	comp=Z,16nm,1.3s							
MURB	**Monte Urbino**	**44.74**	**298**	P		**P**	**17 35 26.8**	**+0.1**
MURB				IAmb		IAmb	17 35 29.8	
	comp=Z,20nm,0.9s							
CGRP	**Cima Grappa**	**44.76**	**301**	P		**P**	**17 35 27.4**	**+0.6**
	comp=Z,11nm,0.5s							
CTI	**Castel Tesino**	**44.83**	**302**	P		**P**	**17 35 27.8**	**+0.5**
CTI				pmax		pmax		
	comp=Z,10.0nm,0.6s							
CTI	**Castel Tesino**	**44.83**	**302**			**P**	**17 35 27.8**	**+0.5**
CTI				IAmb		IAmb	17 35 28.5	
	comp=Z,9.8nm,0.6s							
CESX	**Cesi**	**44.84**	**297**	P		**P**	**17 35 27.4**	**0.0**
RAFF	**Raffo Rosso**	**44.90**	**289**	P		**P**	**17 35 28.5**	**+0.6**
CLZ	**Clausthal**	**44.93**	**310**	*eP*		**P**	**17 35 29.1**	**+1.2**
	baz=85,slow=7.9							
CLZ	**Clausthal**	**44.93**	**310**	P		**P**	**17 35 29.6**	**+1.7**
	comp=Z,14nm,1.0s							
SQTA	**Sankt Quirin**	**44.94**	**303**	*i* P		**P**	**17 35 28.6**	**+0.4**
	comp=Z,3.7nm,0.5s							
MOTA	**Moosalm**	**44.99**	**303**	*i* P		**P**	**17 35 28.8**	**+0.2**
	comp=Z,2.7nm,0.4s							
KONO	**Kongsberg**	**45.20**	**321**	P		**P**	**17 35 30.1**	**+0.3**
KONO				pmax		pmax		
	comp=Z,22nm,1.3s							
KONO	**Kongsberg**	**45.20**	**321**	P		**P**	**17 35 30.1**	**+0.3**
KONO				IAmb		IAmb	17 36 10.0	
	comp=Z,22nm,1.3s							
KONO	**Kongsberg**	**45.20**	**321**	*eP*		**P**	**17 35 29.9**	**+0.1**
RETA	**Reutte**	**45.20**	**304**	*i* P		**P**	**17 35 30.6**	**+0.5**
	comp=Z,2.8nm,0.5s							
GTTG	**Gottingen**	**45.21**	**310**	*eP*		**P**	**17 35 31.2**	**+1.1**
	comp=Z,12nm,0.7s,baz=85,slow=7.9							
GTTG	**Gottingen**	**45.21**	**310**	P		**P**	**17 35 31.8**	**+1.7**
	comp=Z,32nm,1.0s							
FETA	**Feichten**	**45.30**	**303**	*i* P		**P**	**17 35 31.3**	**+0.2**
	comp=Z,3.2nm,0.4s							
UBR	**Ueberruh**	**45.61**	**304**	*eP*		**P**	**17 35 33.5**	**+0.2**
	comp=Z,7.5nm,0.7s,baz=85,slow=7.9							
FUORN	**Ofenpass-Fuorn**	**45.68**	**303**			**P**	**17 35 34.0**	**-0.2**
SALO	**Salr**	**45.68**	**301**	P		**P**	**17 35 33.6**	**-0.3**
SALO				IAmb		IAmb	17 35 35.7	
	comp=Z,18nm,0.6s							
TIXI	**Tiksi**	**45.70**	**22**	P		**P**	**17 35 33.7**	**+0.1**
TIXI				*PP		**pP**	**17 36 21.5**	**-0.7**
TIXI				pmax		pmax		
	comp=Z,3.0nm,0.8s							
TIXI	**Tiksi**	**45.70**	**22**	P		**P**	**17 35 33.7**	**+0.1**
TIXI				pP		**pP**	**17 36 21.5**	**-0.7**
YOJ	**Yonaguni jima**	**45.72**	**90**	P		**P**	**17 35 34.0**	**-0.4**
YOJ				pmax		pmax		
	comp=Z,165nm,1.3s							
YOJ	**Yonaguni jima**	**45.72**	**90**	P		**P**	**17 35 34.0**	**-0.4**
HOMB	**Homborsund**	**45.73**	**319**	*eP*		**P**	**17 35 33.7**	**-0.3**
HOMB	**Homborsund**	**45.73**	**319**	*i* P		**P**	**17 35 34.2**	**+0.2**
DAVA	**Damuels**	**45.82**	**304**	*i* P		**P**	**17 35 35.6**	**+0.5**
	comp=Z,21nm,0.5s,SNR=10							
DAVA	**Damuels**	**45.82**	**304**	P		**P**	**17 35 35.1**	**-0.1**
	comp=Z,50nm,0.8s							
USRK	**Ussuriysk Ar.**	**46.00**	**61**	P		**P**	**17 35 37.0**	**+0.7**
	comp=Z,1.0nm,0.5s,baz=256,slow=7.6,SNR=2.6							
	comp=Z,1.0nm,0.5s							
TNS	**Taunus Mts**	**46.31**	**308**	*eP*		**P**	**17 35 40.1**	**+1.3**
	comp=Z,4.6nm,0.7s,baz=85,slow=7.9							
TNS				*epP		**pP**	**17 36 29.6**	**+2.8**
TUE	**Stuetta**	**46.33**	**303**			**P**	**17 35 38.0**	**-1.1**
TUE	**Stuetta**	**46.33**	**303**	P		**P**	**17 35 39.1**	**0.0**
	comp=Z,20nm,0.6s							
MOL	**Molde**	**46.34**	**325**	*eP*		**P**	**17 35 40.6**	**+2.0**
IBBN	**Ibbenburen**	**46.49**	**311**	*eP*		**P**	**17 35 41.1**	**+1.1**
	comp=Z,13nm,0.7s,baz=85,slow=7.9							
IBBN	**Ibbenburen**	**46.49**	**311**	P		**P**	**17 35 41.7**	**+1.7**
	comp=Z,24nm,2.4s							
LODK	**Lodwar**	**46.62**	**234**	P		**P**	**17 35 43.3**	**+1.7**
	SNR=7.5							
LODK	**Lodwar**	**46.62**	**234**			**P**	**17 35 41.2**	**-0.4**
LODK	**Lodwar**	**46.62**	**234**	P		**P**	**17 35 43.4**	**+1.8**
	comp=Z,5.6nm,1.3s							
BFO	**Black Forest**	**46.68**	**305**	P		**P**	**17 35 41.4**	**-0.2**
BFO				pmax		pmax		
	comp=Z,11nm,1.4s							
BFO	**Black Forest**	**46.68**	**305**	P		**P**	**17 35 41.4**	**-0.2**
BFO	**Black Forest**	**46.68**	**305**	*eP*		**P**	**17 35 42.2**	**+0.7**
	baz=85,slow=7.9							
ECH	**Echery**	**47.47**	**305**	P		**P**	**17 35 47.6**	**-0.1**
ECH				pmax		pmax		
	comp=Z,10.0nm,1.4s							
ECH	**Echery**	**47.47**	**305**	P		**P**	**17 35 47.6**	**-0.1**
SPA0	**Spitsbergen Ar**	**47.53**	**347**	*eP*		**P**	**17 35 48.1**	**+0.4**
SPITS	**Spitsbergen Ar**	**47.53**	**347**	P		**P**	**17 35 48.0**	**+0.4**
	comp=Z,21nm,1.1s,baz=119,slow=12,SNR=1.7							
	comp=Z,21nm,1.1s							
SPITS	**Spitsbergen Ar**	**47.53**	**347**	P		**P**	**17 35 47.7**	**0.0**
SENIN	**Lac Senin/Sane**	**47.74**	**303**			**P**	**17 35 49.8**	**-0.3**
SENIN				IAmb		IAmb	17 35 51.0	
	comp=Z,9.2nm,0.7s							
MEM	**Membach**	**47.80**	**309**	*dP*		**P**	**17 35 49.9**	**-0.2**
	comp=Z,6.6nm,0.9s							
WLF	**Walferdange**	**47.87**	**307**	*dP*		**P**	**17 35 51.0**	**+0.3**
	comp=Z,10.0nm,0.9s							
WLF	**Walferdange**	**47.87**	**307**	*eP*		**P**	**17 35 52.3**	**+1.7**
	comp=Z,8.4nm,0.8s,baz=85,slow=7.9							
VSL	**Villasalto**	**47.98**	**293**	P		**P**	**17 35 51.7**	**-0.1**
VSL				IAmb		IAmb	17 36 19.3	
	comp=Z,30nm,1.3s							
GIMEL	**St. Georges /**	**48.40**	**303**	P		**P**	**17 35 56.0**	**+1.0**
	comp=Z,19nm,1.2s							
BNI	**Bardonecchia**	**48.45**	**301**	P		**P**	**17 35 55.1**	**-0.3**
BNI				pmax		pmax		
	comp=Z,24nm,1.5s							
BNI	**Bardonecchia**	**48.45**	**301**	P		**P**	**17 35 55.1**	**-0.3**
BNI				IAmb		IAmb	17 36 15.5	
	comp=Z,24nm,1.5s							
BMRD	**Maredsous**	**48.63**	**308**	*dP*		**P**	**17 35 57.9**	**+1.3**
	comp=Z,7.8nm,1.0s							
JSU	**Suzuyama**	**48.69**	**78**	P		**P**	**17 35 57.0**	**-0.2**
JSU				IAmb		IAmb	17 36 35.7	
	comp=Z,16nm,1.2s							
DOU	**Dourbes**	**48.78**	**308**	*dP*		**P**	**17 35 59.0**	**+1.4**
	comp=Z,5.4nm,1.1s							
DOU				*dPcP		**PcP**	**17 37 19.6**	**+0.7**
JOW	**Kunigami**	**48.88**	**84**	P		**P**	**17 35 58.9**	**+0.1**
JOW	**Kunigami**	**48.88**	**84**	P		**P**	**17 35 58.5**	**-0.2**
KMBO	**Kilima Mbogo**	**48.97**	**228**	P		P	17 35 54.5	-5.3
	baz=44,slow=16							
KMBO	**Kilima Mbogo**	**48.97**	**228**	P		**P**	**17 36 01.6**	**+1.8**
KMBO	**Kilima Mbogo**	**48.97**	**228**	P		**P**	**17 36 00.7**	**+0.9**
KMBO	**Kilima Mbogo**	**48.97**	**228**	P		**P**	**17 36 01.6**	**+1.8**
	comp=Z,6.1nm,1.2s							
KEST	**Kesra**	**49.21**	**289**	P		**P**	**17 36 01.8**	**+0.6**
	comp=Z,7.1nm,0.6s,baz=60,slow=3.6,SNR=26							
	comp=Z,7.1nm,0.6s							
KEST	**Kesra**	**49.21**	**289**	P		**P**	**17 35 58.7**	**-2.5**
	SNR=5.2							
KEST	**Kesra**	**49.21**	**289**			**P**	**17 36 01.9**	**+0.7**
KEST				IAmb		IAmb	17 36 03.0	
	comp=Z,24nm,1.4s							
KEST				pP		**pP**	**17 36 50.5**	**+0.8**
KIBK	**Kibwezi**	**49.48**	**226**	P		**P**	**17 36 03.7**	**+0.3**
	SNR=8.5							
KIBK	**Kibwezi**	**49.48**	**226**	P		**P**	**17 36 03.9**	**+0.5**
KIBK				IAmb		IAmb	17 36 06.0	
	comp=Z,10nm,0.8s							
KIBK	**Kibwezi**	**49.48**	**226**	P		**P**	**17 36 05.2**	**+1.8**
	comp=Z,15nm,0.9s							
SSB	**Saint Sauveur**	**49.86**	**302**	P		**P**	**17 36 06.5**	**+0.5**
SSB				pmax		pmax		
	comp=Z,8.0nm,0.5s							
SSB	**Saint Sauveur**	**49.86**	**302**	P		**P**	**17 36 06.5**	**+0.5**
SSB				IAmb		IAmb	17 36 07.2	
	comp=Z,7.7nm,0.5s							
JMN	**Monobe**	**50.52**	**74**	P		**P**	**17 36 11.4**	**+0.4**
KKM	**Kota Kinabalu**	**51.05**	**115**	P		**P**	**17 36 15.9**	**+0.7**
EKA	**Eskdalemuir Ar**	**52.41**	**316**	P		**P**	**17 36 24.1**	**-0.5**
	comp=Z,4.6nm,0.8s,baz=76,slow=7.1,SNR=9.4							
EKA				pP		**pP**	**17 37 14.5**	**+0.6**
	comp=Z,2.2nm,0.7s,baz=78,slow=7.3,SNR=3.8							
	comp=Z,4.6nm,0.8s							
EKA	**Eskdalemuir Ar**	**52.41**	**316**	P		**P**	**17 36 24.3**	**-0.3**
EKA				*PP		**pP**	**17 37 14.5**	**+0.6**
EKA				pmax		pmax		
	comp=Z,4.0nm,1.0s							
EKB	**Eskdalemuir**	**52.43**	**316**	P		**P**	**17 36 24.5**	**-0.2**
EKB				IAmb		IAmb	17 36 25.9	
	comp=Z,26nm,1.3s							
CORI	**Orista**	**52.54**	**299**	P		**P**	**17 36 25.7**	**-0.1**
MBAR	**Mbarara**	**52.66**	**235**	P		**P**	**17 36 26.7**	**-0.5**
MBAR	**Mbarara**	**52.66**	**235***c*	*i*P		**P**	**17 36 28.0**	**+0.8**
MBAR				pmax		pmax		
	comp=Z,6.0nm,0.8s							
MBAR	**Mbarara**	**52.66**	**235**	P		**P**	**17 36 26.3**	**-0.9**
MBAR				IAmb		IAmb	17 36 28.7	
	comp=Z,10.0nm,0.7s							
MBAR	**Mbarara**	**52.66**	**235**	P		**P**	**17 36 27.9**	**+0.7**
	comp=Z,13nm,0.7s							
YSS	**Yuzhno-Sakhali**	**52.67**	**55**	P		**P**	**17 36 26.3**	**-0.3**
CEST	**Esterri de Car**	**52.90**	**300**	P		**P**	**17 36 28.5**	**-0.1**
CEST				IAmb		IAmb	17 37 02.0	
	comp=Z,33nm,1.4s							
CART	**Cartagena**	**56.28**	**295**	P		**P**	**17 36 52.1**	**-0.6**
ESBB	**Sonseca Array**	**57.62**	**298**	P		**P**	**17 37 01.9**	**-0.2**
ESBB				IAmb		IAmb	17 37 02.8	
	comp=Z,5.7nm,0.8s							
ESDC	**Sonseca Array**	**57.62**	**298**	P		**P**	**17 37 01.6**	**-0.5**
	comp=Z,5.2nm,0.8s,baz=67,slow=7.2,SNR=32							
ESDC				pP		**PcP**	**17 37 53.6**	**+0.9**
	comp=Z,1.6nm,0.9s,baz=73,slow=7.9,SNR=4.0							
	comp=Z,5.2nm,0.8s							
ESDC	**Sonseca Array**	**57.62**	**298**	P		**P**	**17 37 01.8**	**-0.3**
TOLI2	**Tolitoli**	**57.72**	**116**	P		**P**	**17 37 03.8**	**+0.7**
TOLI2	**Tolitoli**	**57.72**	**116**	P		**P**	**17 37 02.8**	**-0.3**
TOLI2				IAmb		IAmb	17 37 06.5	
	comp=Z,6.6nm,1.0s							
PAB	**San Pablo**	**57.94**	**298**	P		**P**	**17 37 03.9**	**-0.6**
PAB				pmax		pmax		
	comp=Z,16nm,1.2s							
PAB	**San Pablo**	**57.94**	**298**	P		**P**	**17 37 03.9**	**-0.6**
PAB				IAmb		IAmb	17 37 47.3	
	comp=Z,16nm,1.2s							
PETK	**Petropavlovsk-**	**59.83**	**44**	P		**P**	**17 37 18.9**	**+1.8**
	comp=Z,3.9nm,0.9s,baz=270,slow=4.3,SNR=2.0							
	comp=Z,3.9nm,0.9s							
VOI	**Vohitsoka**	**62.52**	**206**	P		**P**	**17 37 35.2**	**-0.3**
VOI				IAmb		IAmb	17 37 37.9	
	comp=Z,9.5nm,0.9s							
SANI	**Sanana**	**63.67**	**114**	P		**P**	**17 37 43.3**	**+0.1**
EDA	**Edea**	**64.69**	**255**	P		**P**	**17 37 49.5**	**-0.3**
EDA				IAmb		IAmb	17 37 51.1	
	comp=Z,7.2nm,0.7s							
FOMA	**Nahampoana Res**	**65.30**	**204**	P		**P**	**17 37 53.2**	**-0.2**
LSZ	**Lusaka**	**65.59**	**226**	P		**P**	**17 37 55.1**	**-0.6**
LSZ				pmax		pmax		
	comp=Z,5.0nm,0.7s							
LSZ	**Lusaka**	**65.59**	**226**	P		**P**	**17 37 55.1**	**-0.6**
LSZ				IAmb		IAmb	17 37 56.9	
	comp=Z,5.1nm,0.7s							
TORD	**Torodi Ar. Bea**	**65.90**	**269**	P		**P**	**17 37 56.0**	**-1.6**
	comp=Z,2.6nm,0.4s,baz=53,slow=3.8,SNR=6.8							
	comp=Z,2.6nm,0.4s							
TORD	**Torodi Ar. Bea**	**65.90**	**269**	P		**P**	**17 37 55.9**	**-1.7**
SOEI	**Soe**	**67.80**	**122**	P		**P**	**17 38 08.8**	**-0.8**
FAKI	**Fak Fak**	**68.91**	**111**	P		**P**	**17 38 17.9**	**+1.5**
FAKI	**Fak Fak**	**68.91**	**111**	P		**P**	**17 38 15.8**	**-0.6**
D19K	**Kuna River**	**69.08**	**17**	P		**P**	**17 38 17.0**	**+0.3**
D19K				IAmb		IAmb	17 38 28.4	
	comp=Z,17nm,1.4s							
D22K	**Ayikyak River**	**70.02**	**16**	P		**P**	**17 38 21.6**	**-0.8**
D22K				IAmb		IAmb	17 38 25.8	
	comp=Z,11nm,1.4s							
F19K	**Shaleruckik Mo**	**70.43**	**18**	P		**P**	**17 38 24.5**	**-0.4**
TOLK	**Toolik Lake Re**	**70.87**	**15**	P		**P**	**17 38 28.4**	**+0.8**
TOLK				IAmb		IAmb	17 38 30.1	
	comp=Z,6.3nm,1.0s							
G19K	**Purcell Mounta**	**71.14**	**19**	P		**P**	**17 38 29.1**	**-0.1**
G19K				IAmb		IAmb	17 38 55.0	
	comp=Z,9.8nm,1.3s							
F21K	**Alatna River**	**71.17**	**17**	P		**P**	**17 38 28.9**	**-0.5**
F21K				IAmb		IAmb	17 38 59.3	
	comp=Z,8.1nm,1.3s							
H19K	**Roundabout Mou**	**71.79**	**19**	P		**P**	**17 38 33.2**	**+0.2**
H19K				IAmb		IAmb	17 38 37.3	
	comp=Z,9.0nm,1.4s							
J16K	**Anvik River**	**72.34**	**22**	P		**P**	**17 38 37.4**	**+1.1**
J16K				IAmb		IAmb	17 38 39.8	
	comp=Z,13nm,1.2s							
E27K	**Coleen River**	**72.76**	**12**	P		**P**	**17 38 38.9**	**+0.1**
BMAR	**Burnt Mountain**	**72.89**	**14**	P		**P**	**17 38 40.5**	**+0.9**
E29M	**Blow River**	**73.17**	**11**	P		**P**	**17 38 41.2**	**+0.1**
J19K	**Poorman**	**73.21**	**20**	P		**P**	**17 38 41.7**	**+0.3**
J19K				IAmb		IAmb	17 39 23.1	
	comp=Z,11nm,1.5s							
K17K	**Iditarod**	**73.46**	**21**	P		**P**	**17 38 43.0**	**+0.1**
K17K				IAmb		IAmb	17 39 21.8	
	comp=Z,11nm,1.3s							
J20K	**Nowinta River**	**73.46**	**19**	P		**P**	**17 38 43.1**	**+0.2**
J20K				IAmb		IAmb	17 38 49.9	
	comp=Z,9.1nm,1.5s							
C36M	**Paulatuk**	**73.85**	**6**			**P**	**17 38 44.9**	**-0.1**
C36M				IAmb		IAmb	17 38 45.8	
	comp=Z,8.7nm,1.1s							
INK	**Inuvik**	**73.87**	**9**	P		**P**	**17 38 45.4**	**+0.2**
INK				pmax		pmax		
	comp=Z,2.0nm,0.6s							
INK	**Inuvik**	**73.87**	**9**	P		**P**	**17 38 45.4**	**+0.2**
K20K	**Telida**	**74.14**	**19**	P		**P**	**17 38 47.0**	**+0.1**
K20K				IAmb		IAmb	17 39 26.6	
	comp=Z,7.8nm,1.4s							
CAST	**Castle Rocks**	**74.61**	**19**	P		**P**	**17 38 50.0**	**+0.3**
ILAR	**Eielson Array**	**74.72**	**16**	P		**P**	**17 38 49.9**	**-0.3**
	comp=Z,0.8nm,0.9s,baz=336,slow=5.2,SNR=7.5							
ILAR				pP		**pP**	**17 39 43.5**	**+0.1**
	comp=Z,1.2nm,1.0s,baz=325,slow=6.5,SNR=4.8							
	comp=Z,0.8nm,0.9s							
MTN	**Manton Dam**	**74.74**	**119**	P		**P**	**17 38 50.1**	**-0.8**
FITZ	**Fitzroy Crossi**	**74.75**	**127**	P		**P**	**17 38 50.6**	**-0.4**
DBIC	**Dimbokro**	**74.88**	**267**	P		**P**	**17 38 50.7**	**-1.2**
	comp=Z,3.6nm,0.5s,baz=50,slow=7.5,SNR=9.0							
	comp=Z,3.6nm,0.5s							
DBIC	**Dimbokro**	**74.88**	**267**	P		**P**	**17 38 50.5**	**-1.4**
DBIC				IAmb		IAmb	17 39 03.4	
	comp=Z,16nm,1.4s							
PPLA	**Purkeypile**	**75.02**	**19**	P		**P**	**17 38 50.6**	**-1.5**
KNRA	**Kununurra**	**75.08**	**123**	P		**P**	**17 38 52.4**	**-0.4**
KNRA				IAmb		IAmb	17 38 53.9	
	comp=Z,6.0nm,0.7s							
H29M	**Whitestone**	**75.08**	**12**	P		**P**	**17 38 52.3**	**0.0**
H31M	**Peel River**	**76.10**	**11**	P		**P**	**17 38 58.0**	**0.0**
I30M	**Mount Dempster**	**76.33**	**12**	P		**P**	**17 38 59.6**	**+0.1**
BCAR	**Beaver Creek A**	**77.31**	**15**	P		**P**	**17 39 05.6**	**+0.8**
BOSA	**Boshof**	**77.87**	**220**	P		**P**	**17 39 08.0**	**-0.5**
	comp=Z,1.7nm,0.5s,baz=31,slow=4.8,SNR=5.3							
	comp=Z,1.7nm,0.5s							
BOSA	**Boshof**	**77.87**	**220

*IDC **26** 17:52:55.4±2.4,6.17S×127.64E,h406km±32km,mb2.6/2, mbtmp3.5/6,Error ellipse: s-maj=54.6km s-min=14.5km az=74.0*

ISC 26 17:52:54.6±1.1,**6.10S**±0.09×**127.7E**±0.2,**h404**km,**n6,** σ2°**23**/8,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	**Sorong**	**6.28**	**34**	P	**P**	**17 54 32.0**	**+1.8**
	4.9nm,0.4s,baz=214,slow=22,SNR=14						
SIJI				S	**S**	**17 55 45.0**	**-3.6**
	2.4nm,0.3s,baz=233,slow=20,SNR=7.5						
FITZ	**Fitzroy Crossi**	**12.10**	**190**	P	**P**	**17 55 33.5**	**-1.9**
	2.1nm,0.9s,baz=23,slow=15,SNR=1.4						
WRA	**Warramunga Arr**	**15.18**	**156**	P	**P**	**17 56 10.5**	**+1.4**
	0.3nm,0.3s,baz=334,slow=11,SNR=20						
ASAR	**Alice Springs**	**18.45**	**162**	P	**P**	**17 56 45.0**	**+1.1**
	0.4nm,0.5s,baz=346,slow=12,SNR=9.7						
ASAR				S	**S**	**17 59 52.7**	**-0.1**
	0.4nm,0.7s,baz=338,slow=19,SNR=2.7						
MKAR	**Makanchi Array**	**66.26**	**328**	P	**P**	**18 03 02.3**	**+1.2**
	0.1nm,0.4s,baz=140,slow=5.1,SNR=1.3						
	0.1nm,0.4s						
KURBB	**Kurchatov Arra**	**70.58**	**329**	P	**P**	**18 03 27.3**	**0.0**
	0.3nm,0.6s,baz=128,slow=5.8,SNR=2.4						
	0.3nm,0.6s						

*IDC **26** 18:32:52.6±2.0,3.85S×101.65E,h0km,mb3.9/8, mbtmp3.9/8,MS2.8/2,Error ellipse: s-maj=82.6km s-min=17.9km az=56.0*

*NEIC **26** 18:32:59.0±0.5,3.85S±0.2×101.68E±0.08,h39km±11km, mb4.4/5,Error ellipse: s-maj=30.1km s-min=4.1km az=201.0*

*DJA **26** 18:33:03.5±0.6,4.5S±5°×10.2E±°,h21km±4km,M3.6/12, MLv3.6/12,MLv3.7/7*

ISC 26 18:32:57.0±0.9,**3.97S**±0.09×**101.62E**±0.09,**h34**km,**n38,** σ0°**98**/27,**mb4.1**/10,**Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UBSI	**University, Be**	**0.68**	**73**	P	**Pb**	**18 33 11.7**	**+1.1**
UBSI				AML	AML		
UBSI				AML	AML		
KSI	**Kapahiang**	**1.02**	**72**	P	**Pn**	**18 33 15.2**	**+0.2**
KSI				AML	AML		
KSI				AML	AML		
MASI	**Maura Aman, Be**	**1.02**	**37**	P	**Pn**	**18 33 15.5**	**+0.4**
MASI				AML	AML		
MNAI	**Manna**	**1.39**	**106**	Pn	**Pb**	**18 33 21.6**	**-0.8**
MNAI				Sn	**Sb**	**18 33 38.6**	**-1.4**
MNAI	**Manna**	**1.39**	**106**	P	**Sb**	**18 33 38.5**	**-1.4**
KRJI	**Kerinci**	**1.87**	**355**	P	**Pb**	**18 33 30.0**	**-0.7**
MDSI	**Maura Dua**	**2.60**	**102**	P	**Pb**	**18 33 41.8**	**-1.3**
SDSI	**Sungai Dareh**	**3.02**	**356**	P	**Pb**	**18 33 47.9**	**-2.2**
RGRI	**Rengat**	**3.66**	**11**	P	**Pn**	**18 33 53.0**	**+1.7**
BBJI	**Bungbulang**	**6.93**	**120**	Pn	**Pn**	**18 34 36.6**	**+0.2**
PSI	**Prapat**	**7.24**	**338**	LR	LR	18 37 51.0	
	comp=Z,33nm,19.6s,baz=178,slow=42						
H08S2	**Diego Garcia H**	**29.20**	**261**	T	T	19 08 56.5	
	baz=84,slow=75,SNR=6.1						
H08S3	**Diego Garcia H**	**29.21**	**262**	T	T	19 09 04.7	
	baz=84,slow=75,SNR=12						
H08S1	**Diego Carcia H**	**29.22**	**261**	T	T	19 09 00.7	
	baz=84,slow=75,SNR=9.5						
WRA	**Warramunga Arr**	**35.62**	**119**	P	**P**	**18 39 52.3**	**+0.4**
	0.3nm,0.4s,baz=302,slow=9.0,SNR=6.2						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**36.80**	**125**	P	**P**	**18 40 03.0**	**+0.9**
	0.3nm,0.3s,baz=299,slow=8.1,SNR=15						
	0.3nm,0.3s						
STKA	**Stephens Creek**	**46.64**	**131**	P	**P**	**18 41 23.3**	**+0.9**
	2.2nm,0.8s,baz=309,slow=13,SNR=3.2						
	2.2nm,0.8s						
STKA	**Stephens Creek**	**46.64**	**131**	IAmb	IAmb	18 41 25.5	
	comp=Z,30nm,1.1s						
JWT	**Wachi**	**50.29**	**36**	P	**P**	**18 41 51.3**	**+0.9**
JWT				IAmb	IAmb	18 42 11.7	
	comp=Z,11nm,0.6s						
SONM	**Songino Array**	**51.75**	**4**	P	**P**	**18 42 01.9**	**+0.6**
	comp=Z,1.1nm,0.7s,baz=173,slow=11,SNR=9.2						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**51.75**	**4**	P	**P**	**18 42 01.2**	**-0.1**
SONM				IAmb	IAmb	18 42 02.6	
	comp=Z,1.3nm,0.9s						
MKAR	**Makanchi Array**	**53.35**	**344**	P	**P**	**18 42 13.5**	**+0.4**
	comp=Z,0.9nm,0.5s,baz=155,slow=9.2,SNR=16						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**53.35**	**344**	P	**P**	**18 42 13.3**	**+0.2**
MAKZ	**Makanchi**	**53.45**	**343**	P	**P**	**18 42 14.0**	**+0.2**
MAKZ				IAmb	IAmb	18 42 56.6	
	comp=Z,4.3nm,1.4s						
USRK	**Ussuriysk Ar.**	**55.15**	**26**	P	**P**	**18 42 25.3**	**-0.9**
	comp=Z,1.3nm,0.5s,baz=224,slow=4.7,SNR=5.1						
	comp=Z,1.3nm,0.5s						
USRK	**Ussuriysk Ar.**	**55.15**	**26**	P	**P**	**18 42 24.6**	**-1.6**
ZALV	**Zalesovo Beam**	**59.39**	**349**	P	**P**	**18 42 55.2**	**-0.7**
	comp=Z,1.8nm,0.4s,baz=172,slow=5.5,SNR=11						
	comp=Z,1.8nm,0.4s						
ZALV	**Zalesovo Beam**	**59.39**	**349**	P	**P**	**18 42 55.7**	**-0.2**
H04N2	**CROZET ISLANDS**	**60.21**	**218**	T	T	19 48 05.9	
	baz=60,slow=75,SNR=23						
H04N1	**CROZET ISLANDS**	**60.23**	**218**	T	T	19 48 06.4	
	baz=60,slow=75,SNR=23						
H04N3	**CROZET ISLANDS**	**60.23**	**218**	T	T	19 48 05.0	
	baz=60,slow=75,SNR=24						
H04S1	**CROZET ISLANDS**	**60.47**	**217**	T	T	19 48 24.3	
	baz=60						
H04S3	**CROZET ISLANDS**	**60.49**	**217**	T	T	19 48 23.1	
	baz=60						
H04S2	**CROZET ISLANDS**	**60.49**	**217**	T	T	19 48 21.1	
	baz=60						
BVAR	**Borovoye Array**	**62.58**	**339**	P	**P**	**18 43 17.0**	**-0.6**
	comp=Z,0.4nm,0.5s,baz=139,slow=9.0,SNR=3.3						
	comp=Z,0.4nm,0.5s						
RPZ	**Rata Peaks**	**72.46**	**135**	LR	LR	19 17 17.7	
	comp=Z,11nm,18.1s,baz=190,slow=37						
TXAR	**Lajitas Array**	**145.20**	**41**	PKPbc	**PKPdf**	**18 52 31.9**	**-0.1**
	comp=Z,0.4nm,0.5s,baz=282,slow=0.7,SNR=11						
TXAR	**Lajitas Array**	**145.20**	**41**		**PKPab**	**18 52 31.8**	**+0.1**

*IDC **26** 18:33:21.4±9.9,32.20S×179.68W,h159km±99km,mb3.4/2, mbtmp4.0/3,Error ellipse: s-maj=90.6km s-min=51.9km az=179.0*

*WEL **26** 18:33:35.1±1.1,33.5S±20.2×18.0W±3.8,h312km±25km, M4.3/8,mB4.8/8,ML4.2/12,MLv4.5/8,Mw(mB)4.0/8,Error ellipse: s-maj=54.3km s-min=16.2km az=113.7*

*NOU **26** 18:34:02.3,35.50S×179.55E,h283km,mb4.1/10,Off E. Coast of N. Island, N.Z.*

ISC 26 18:33:29.7±2.0,**32.9S**±0.1×**179.6W**±0.2,**h250**km,**n65,** σ1°**82**/76,**South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**5.01**	**200**	P	**Pn**	**18 34 49.7**	**+4.2**
MXZ	**Matakaoa Point**	**5.01**	**200**	P	**Pn**	**18 34 48.4**	**+2.8**
MXZ				S	**S**	**18 35 47.9**	**+1.9**
WMGZ	**Waiomatatini S**	**5.22**	**198**	P	**Pn**	**18 34 48.7**	**+0.6**
WMGZ				S	**S**	**18 35 51.0**	**+0.2**
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**5.35**	**203**	P	**Pn**	**18 34 50.4**	**+0.7**
HAZ				S	**S**	**18 35 55.1**	**+1.5**
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**5.36**	**200**	P	**Pn**	**18 34 52.4**	**+2.6**
PKGZ				S	**S**	**18 35 54.9**	**+1.0**
PUZ	**Puketiti**	**5.50**	**198**	P	**Pn**	**18 34 54.5**	**+2.9**
PUZ				S	**S**	**18 35 57.6**	**+0.6**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.58**	**203**	P	**Pn**	**18 34 52.9**	**+0.3**
RUGZ				S	**S**	**18 35 59.4**	**+0.5**
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.91**	**197**	P	**Pn**	**18 34 56.3**	**-0.2**
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	**5.96**	**203**	P	**Pn**	**18 34 56.5**	**-0.8**
MWZ				S	**S**	**18 36 05.0**	**-2.4**
MWZ				AML	AML		
URZ	**Urewera**	**6.04**	**206**	P	**Pn**	**18 34 57.5**	**-0.6**
	16nm,0.3s,baz=248,slow=4.4,SNR=63						
URZ				S	**S**	**18 36 08.7**	**-0.3**
	5.6nm,0.3s,baz=229,slow=20,SNR=6.0						
URZ	**Urewera**	**6.04**	**206**	P	**Pn**	**18 35 00.6**	**+2.4**
URZ	**Urewera**	**6.04**	**206**	P	**Pn**	**18 34 57.9**	**-0.3**
URZ				S	**S**	**18 36 07.6**	**-1.4**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**6.14**	**203**	P	**Pn**	**18 35 02.8**	**+3.2**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**6.23**	**200**	P	**Pn**	**18 35 02.0**	**+1.3**
RIGZ				S	**S**	**18 36 13.6**	**0.0**
RIGZ				AML	AML		
RIGZ				AML	AML		
RTZ	**Ruatahuna**	**6.40**	**205**	P	**Pn**	**18 35 04.6**	**+1.7**
RTZ				AML	AML		
PRGZ	**Paritu Road**	**6.40**	**198**	P	**Pn**	**18 35 06.2**	**+3.5**
PRGZ				AML	AML		
PRRZ	**Plateau Road**	**6.53**	**209**	P	**Pn**	**18 35 07.4**	**+3.1**
PRRZ				AML	AML		
PRRZ				AML	AML		
KNZ	**Kokohu**	**6.55**	**199**	P	**Pn**	**18 35 06.7**	**+2.1**
KNZ				S	**S**	**18 36 18.5**	**-2.2**
KNZ				AML	AML		
ALRZ	**Allen Road**	**6.60**	**209**	P	**Pn**	**18 35 08.3**	**+3.1**
MHGZ	**Mahia Peninsul**	**6.61**	**197**	P	**Pn**	**18 35 08.0**	**+2.6**
MHGZ				S	**S**	**18 36 21.1**	**-1.1**
MHGZ				AML	AML		
MHGZ				AML	AML		
RAHZ	**Arahi**	**6.63**	**203**	P	**Pn**	**18 35 08.1**	**+2.4**
MTHZ	**Maungataniwha**	**6.66**	**205**	P	**Pn**	**18 35 05.6**	**-0.5**
WHHZ	**Waihua**	**6.73**	**202**	P	**Pn**	**18 35 09.4**	**+2.5**
MRHZ	**Matea Rd**	**6.80**	**207**	P	**Pn**	**18 35 10.1**	**+2.2**
NMHZ	**Naumai**	**6.89**	**204**	P	**Pn**	**18 35 11.3**	**+2.3**
ARHZ	**Aropaoanui**	**6.98**	**203**	P	**Pn**	**18 35 11.6**	**+1.6**
BKZ	**Black Stump Fm**	**7.06**	**206**	P	**Pn**	**18 35 11.3**	**+0.2**
BKZ	**Black Stump Fm**	**7.06**	**206**	P	**Pn**	**18 35 13.0**	**+1.8**
HIZ	**Hauiti**	**7.25**	**217**	P	Pn	18 35 18.2	+4.8
HIZ	**Hauiti**	**7.25**	**217**	P	Pn	18 35 18.2	+4.8
CKHZ	**Cape Kidnapper**	**7.31**	**201**	P	**Pn**	**18 35 16.3**	**+2.1**
TMVZ	**Te Maari**	**7.33**	**210**	P	**Pn**	**18 35 16.7**	**+2.1**
ETVZ	**East Tongariro**	**7.35**	**210**	P	**Pn**	**18 35 16.8**	**+2.1**
TWVZ	**Taurewa**	**7.41**	**212**	P	**Pn**	**18 35 18.0**	**+2.4**
SNVZ	**South Ngauruho**	**7.42**	**210**	P	**Pn**	**18 35 17.8**	**+2.1**
NGZ	**Ngauruhoe**	**7.43**	**210**	P	**Pn**	**18 35 18.1**	**+2.3**
COVZ	**Chateau Observ**	**7.47**	**211**	P	**Pn**	**18 35 18.9**	**+2.6**
TUVZ	**Tukino**	**7.48**	**210**	P	**Pn**	**18 35 18.3**	**+1.9**
KAHZ	**Kahuranaki**	**7.50**	**201**	P	**Pn**	**18 35 17.6**	**+1.0**
BHHZ	**Black Hill Sta**	**7.51**	**207**	P	**Pn**	**18 35 17.8**	**+1.1**
FWVZ	**Far West T-bar**	**7.51**	**210**	P	**Pn**	**18 35 18.8**	**+1.8**
KRHZ	**Kereru**	**7.53**	**205**	P	**Pn**	**18 35 17.0**	**0.0**
WNVZ	**Wahianoa**	**7.55**	**210**	P	**Pn**	**18 35 19.0**	**+1.6**
MOVZ	**Moawhango**	**7.56**	**209**	P	**Pn**	**18 35 17.8**	**+0.4**
PKVZ	**Pokaka**	**7.63**	**211**	P	**Pn**	**18 35 20.5**	**+2.2**
PXZ	**Pawanui**	**7.72**	**201**	P	**Pn**	**18 35 20.0**	**+0.7**
VRZ	**Vera Road**	**7.77**	**215**	P	**Pn**	**18 35 23.4**	**+3.4**
PNHZ	**Pukenui**	**7.83**	**205**	P	**Pn**	**18 35 21.3**	**+0.5**
PRHZ	**Porangahau**	**8.01**	**201**	P	**Pn**	**18 35 24.4**	**+1.4**
TSZ	**Takapari Road**	**8.04**	**205**	P	**Pn**	**18 35 23.9**	**+0.4**
DVHZ	**Dannevirke**	**8.19**	**204**	P	**Pn**	**18 35 25.4**	**+0.2**
POWZ	**Post Office Ro**	**8.41**	**205**	P	**Pn**	**18 35 28.8**	**+0.8**
PRWZ	**Pori Road**	**8.48**	**204**	P	**Pn**	**18 35 29.9**	**+1.0**
BFZ	**Birch Farm**	**8.51**	**202**	P	**Pn**	**18 35 29.6**	**+0.3**
BFZ	**Birch Farm**	**8.51**	**202**	P	**Pn**	**18 35 29.4**	**+0.1**
BFZ				S	**S**	**18 37 01.9**	**-3.9**
MRZ	**Mangatainoka R**	**8.71**	**205**	P	**Pn**	**18 35 31.0**	**-0.9**
HOWZ	**Holdsworth Sta**	**8.94**	**205**	P	**Pn**	**18 35 34.4**	**-0.5**
SNZO	**South Karori**	**9.60**	**207**	P	**Pn**	**18 35 42.3**	**-0.8**
QRZ	**Quartz Range**	**10.17**	**216**	P	**Pn**	**18 35 50.3**	**0.0**
KHZ	**Kahutara**	**11.00**	**208**	P	**Pn**	**18 35 59.4**	**-1.2**
ODZ	**Otahua Downs**	**14.35**	**209**	P	**Pn**	**18 36 41.9**	**0.0**
JCZ	**Jackson Bay**	**14.43**	**216**	P	**P**	**18 36 43.6**	**+0.4**
ASAR	**Alice Springs**	**41.71**	**270**	P	**P**	**18 40 54.3**	**-0.2**
	0.5nm,0.6s,baz=106,slow=7.7,SNR=8.8						
	0.5nm,0.6s						
WRA	**Warramunga Arr**	**42.93**	**276**	P	**P**	**18 41 03.3**	**-1.0**
	1.0nm,0.4s,baz=113,slow=8.0,SNR=17						
	1.0nm,0.4s						
FINES	**FINESS Array B**	**146.94**	**338**	PKPbc	**PKPbc**	**18 52 41.4**	**-0.6**
	5.0nm,1.1s,baz=35,slow=5.8,SNR=4.9						

IDC 26 18:34:57.0±5.6,**30.22S**×**178.13W**,**h82**km±42km,**mb3.4**/3, **mbtmp3.7**/3,**Error ellipse: s-maj=98.3km s-min=47.7km az=149.0,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**0.98**	**11**	P	Pn	18 35 15.3	-0.6
	276nm,0.3s,baz=38,slow=22,SNR=2.5						
RAO				S	Sn	18 35 30.6	+0.6
	501nm,0.3s,baz=260,slow=22,SNR=6.4						
STKA	**Stephens Creek**	**34.41**	**257**	P	P	18 41 37.7	+1.2
	0.9nm,0.5s,baz=79,slow=10,SNR=3.0						
	0.9nm,0.5s						
ASAR	**Alice Springs**	**43.01**	**267**	P	P	18 42 48.0	-0.6
	0.2nm,0.4s,baz=105,slow=7.2,SNR=5.8						
	0.2nm,0.4s						
WRA	**Warramunga Arr**	**43.98**	**272**	P	P	18 42 55.9	-0.5
	0.6nm,0.4s,baz=111,slow=8.1,SNR=15						
	0.6nm,0.4s						
FINES	**FINESS Array B**	**144.94**	**340**	PKP	PKPab	18 54 23.5	+0.2
	1.0nm,0.6s,baz=49,slow=2.1,SNR=7.1						

*AFAD **26** 18:38:18.1,37.85N×26.80E,h5km±1km,ML2.4*
*ISK **26** 18:38:18.1,37.85N×26.82E,h8km,ML2.5/22*
*THE **26** 18:38:18.2,38°N±1°×2°7E±°,h12km±1km,M2.6/6, MLh2.6/6*

ISC 26 18:38:18.5±0.8,**37.84N**±0.02×**26.79E**±0.03,**h11**km±6km, **n40,** σ0°**50**/63,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**163**	P	**Pg**	**18 38 21.8**	**-0.1**
SMG				S	**Sg**	**18 38 24.4**	**+0.2**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**20**	P	**Pg**	**18 38 22.8**	**-0.4**
DGB				S	**Sg**	**18 38 25.6**	**-0.8**
GMLD	**Gumuldur**	**0.26**	**24**	Pg	**Pg**	**18 38 23.4**	**-0.4**
GMLD				Sg	**Sg**	**18 38 27.1**	**-0.2**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.38**	**112**	P	**Pg**	**18 38 26.1**	**0.0**
GCAM				S	**Sg**	**18 38 31.7**	**+0.5**
GCAM				IAML		18 38 32.0	
	comp=N,539nm,0.2s						
GCAM				IAML		18 38 32.0	
	comp=E,573nm,0.4s						
GCAM	**G?zelcaml?**	**0.38**	**112**	Pg	**Pg**	**18 38 25.8**	**-0.3**
GCAM				Sg	**Sg**	**18 38 31.4**	**+0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.40**	**87**	Pg	**Pg**	**18 38 25.9**	**-0.5**
KUSD				Sg	**Sg**	**18 38 31.6**	**-0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.40**	**16**	P	**Pg**	**18 38 26.2**	**-0.3**
BEYE				S	**Sg**	**18 38 31.5**	**-0.3**
ZEYE	**Izmir, Urla-Ze**	**0.46**	**331**	P	**Pg**	**18 38 27.1**	**-0.3**
ZEYE				IAML		18 38 34.0	
	comp=N,701nm,0.4s						
ZEYE				IAML	**S**	**18 38 34.0**	**+0.5**
	comp=E,417nm,0.2s						
ZEYE				S	**S**	**18 38 34.0**	**+0.5**
DDIM	**Aydin, Didim**	**0.53**	**137**	P	**Pg**	**18 38 28.5**	**-0.4**
DDIM				S	**Sg**	**18 38 36.3**	**+0.5**
DDIM				IAML		18 38 37.0	
	comp=N,297nm,0.6s						
DDIM				IAML		18 38 37.0	
	comp=E,214nm,0.7s						
BLCB	**Balcova**	**0.58**	**20**	P	**Pg**	**18 38 29.3**	**-0.5**
BLCB				S	**Sg**	**18 38 36.8**	**-0.7**
BLCB	**Balcova**	**0.58**	**20**	Pg	**Pg**	**18 38 29.3**	**-0.5**
BLCB				Sg	**Sg**	**18 38 37.2**	**-0.2**
DUVT	**Torbali**	**0.65**	**54**	P	**Pg**	**18 38 30.4**	**-0.6**
DUVT				S	**Sg**	**18 38 38.2**	**-1.3**
DUVT				IAML		18 38 42.0	
	comp=E,159nm,0.2s						
KRBN	**Karaburun**	**0.77**	**346**	Pg	**Pg**	**18 38 33.4**	**-0.1**
KRBN				Sg	**Sb**	**18 38 44.6**	**+0.1**
KRBN				AML	AML		
CHOS	**Chios island**	**0.79**	**314**	P	**Pg**	**18 38 33.5**	**-0.4**
CHOS				S	**Sb**	**18 38 45.1**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.79**	**314**	Pg	**Pg**	**18 38 34.0**	**+0.1**
CHOS				Sg	**Sb**	**18 38 45.7**	**+0.6**
CHOS				AML	AML		
BAGT	**Foa**	**0.81**	**4**	P	**Pb**	**18 38 35.1**	**+0.4**
BAGT				S	**Sg**	**18 38 45.1**	**+0.2**
BAGT				IAML		18 38 48.0	
	comp=N,114nm,0.8s						
BAGT				IAML		18 38 50.0	
	comp=E,133nm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.82**	**151**	Pg	**Pg**	**18 38 34.0**	**-0.3**
YKAV				Sg	**Sb**	**18 38 45.9**	**+0.2**
YKAV				AML	AML		
FOCM	**Foa**	**0.87**	**357**	Pg	**Pg**	**18 38 35.2**	**-0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.87**	**340**	P	**Pb**	**18 38 35.6**	**-0.1**
KARB				S	**Sb**	**18 38 47.2**	**-0.1**
KARB				IAML		18 38 49.0	
	comp=N,138nm,0.5s						
KARB				IAML		18 38 50.0	
	comp=E,91nm,0.6s						
AYDB	**Zeytinkoy-Aydi**	**0.88**	**83**	Pg	**Pg**	**18 38 35.1**	**-0.4**
AYDB				AML	AML		
BODT	**Bodrum**	**0.88**	**152**	P	**Pg**	**18 38 34.9**	**-0.6**
BODT				S	**Sb**	**18 38 48.1**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.88**	**152**	Pg	**Pg**	**18 38 35.5**	**-0.1**
BODT				AML	AML		
MLSB	**Milas**	**0.96**	**124**	Pg	**Pg**	**18 38 36.1**	**-0.9**
MLSB				AML	AML		
CAMT	**Merkez**	**0.99**	**24**	P	**Pn**	**18 38 38.3**	**-0.1**
CAMT				S	**Sb**	**18 38 50.8**	**-0.1**
CAMT				IAML		18 38 53.0	
	comp=E,215nm,0.4s						
CAMT				IAML		18 38 54.0	
	comp=N,162nm,0.5s						
ZEDA	**zmir-Bergama**	**1.15**	**11**	P	**Pg**	**18 38 40.8**	**+0.3**
ZEDA				S	**Sn**	**18 38 56.0**	**-0.2**
ZEDA				IAML		18 39 00.0	
	comp=E,50nm,0.8s						
NAZL	**Nazilli-Aydin**	**1.20**	**84**	Pn	**Pn**	**18 38 40.1**	**-1.1**
NAZL				AML	AML		
DKL	**Dikili**	**1.23**	**4**	Pn	**Pg**	**18 38 41.9**	**-0.3**
DKL				AML	AML		
GOMA	**Golmarmara-Man**	**1.24**	**46**	Pn	**Pb**	**18 38 41.9**	**-0.1**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.26**	**233**	P	**Pn**	**18 38 41.0**	**-1.1**
APE				S	**Sn**	**18 38 59.1**	**0.0**
APE	**Apeiranthos**	**1.26**	**233**	Pn	**Pn**	**18 38 41.1**	**-1.1**
APE				AML	AML		
DAT	**Datca**	**1.28**	**150**	Pn	**Pn**	**18 38 42.2**	**-0.2**
GORD	**Gordes-Manisa**	**1.53**	**45**	Pn	**Pn**	**18 38 46.0**	**+0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.58**	**132**	Pn	**Pn**	**18 38 46.7**	**+0.3**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.62**	**65**	Pn	**Pn**	**18 38 47.4**	**+0.3**
YAYO	**Edremit-Balk**	**1.78**	**7**	Pn	**Pn**	**18 38 49.7**	**+0.5**
YAYO				AML	AML		
DALY	**Dalyan (Mula)**	**1.81**	**124**	Pn	**Pn**	**18 38 50.1**	**+0.5**
BALB	**Balikesir**	**1.99**	**25**	Pn	**Pn**	**18 38 52.8**	**+0.7**
BALB				AML	AML		
EZN	**Ezine**	**2.01**	**350**	Pn	**Pn**	**18 38 53.2**	**+0.8**
EZN				AML	AML		
APMY	**Acipayam-Deniz**	**2.03**	**100**	Pn	**Pn**	**18 38 53.2**	**+0.5**
CAME	**Cameli-Denizli**	**2.19**	**113**	Pn	**Pn**	**18 38 55.6**	**+0.5**

*UPP **26** 18:45:06.1±0.1,67.07N×20.92E,h0km,ML2.4,Suspected explosion*

*IDC **26** 18:45:07.8±1.6,67.11N×20.98E,h0km,mbtmp2.8/4, ML1.9/4,Error ellipse: s-maj=28.7km s-min=16.1km az=108.0*

ISC 26 18:45:05.7±0.8,**67.09N**±0.03×**20.96E**±0.04,**h0**km,**n18,** σ0°**86**/21,**Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DUNU	**Dundret**	**0.16**	**283**	P	**Pg**	**18 45 09.2**	**+0.5**
DUNU				S	**Sg**	**18 45 11.4**	**+0.6**
MASU	**Masugnsbyn**	**0.55**	**47**	P	**Pb**	**18 45 17.2**	**-1.0**
ERTU	**Ertsjaerv**	**0.72**	**137**	P	**Pg**	**18 45 19.6**	**+0.1**
KUA	**Kurravaara**	**0.90**	**345**	P	**Pg**	**18 45 23.0**	**0.0**
RATU	**Laukkuluspa**	**0.91**	**325**	P	**Pg**	**18 45 23.0**	**-0.1**
RATU				S	**Sb**	**18 45 36.4**	**-0.6**
HARU	**Harads**	**0.93**	**180**	P	**Pg**	**18 45 23.1**	**-0.3**
SALU	**Saltoluokta**	**1.00**	**288**	P	**Pg**	**18 45 24.5**	**-0.3**
SALU	**Saltoluokta**	**1.00**	**288**	eP	**Pg**	**18 45 24.1**	**-0.7**
LANU	**Lannavaara**	**1.04**	**22**	P	**Pg**	**18 45 25.5**	**-0.1**
NIKU	**Nikkaluokta**	**1.08**	**317**	P	**Pg**	**18 45 26.1**	**-0.3**
KOVU	**Salmi**	**1.18**	**345**	P	**Pg**	**18 45 28.0**	**-0.3**
SJUU	**Sjulsmark**	**1.61**	**170**	P	**Pb**	**18 45 35.3**	**-0.9**
HEF	**Hetta**	**1.68**	**37**	eP	**Pb**	**18 45 36.5**	**-0.9**
LILU	**Lilltraesk**	**1.86**	**195**	P	**Pb**	**18 45 39.3**	**-1.2**
ARCES	**ARCESS Array B**	**2.98**	**32**	Pn	**Pn**	**18 45 55.4**	**+1.2**
	0.2nm,0.3s,baz=216,slow=13,SNR=25						
	0.6nm,0.2s						
ARCES				AML	AML		
FINES	**FINESS Array B**	**6.09**	**156**	Pn	**Pn**	**18 46 38.4**	**+1.6**
	0.1nm,0.3s,baz=342,slow=13,SNR=8.7						
FINES				Sn	**Sn**	**18 47 46.0**	**-1.0**
	0.1nm,0.3s,baz=339,slow=31,SNR=1.1						
	0.5nm,0.4s						
FINES				AML	AML		
NOA	**NORSAR Array B**	**7.41**	**220**	Pn	**Pn**

EIBI				Sn	Sn	19 01 48.5	-2.1	
EIBI	**Ibiza**	**2.86**	**338**	Pn	Pn	19 01 18.3	+1.7	
EIBI				⇑IVmb_VC		19 01 18.4		
	442nm,SNR=1.0							
EIBI				Sn	Sn	19 01 49.6	-1.1	
CART	**Cartagena**	**3.19**	**293**	Sn	Sn	19 01 58.8	-0.2	
ETOS	**Mallorca**	**3.39**	**2**	Pn	Pn	19 01 24.9	+0.9	
ETOS				Sn	Sn	19 02 01.6	-2.3	
ETOS	**Mallorca**	**3.39**	**2**	Pn	Pn	19 01 24.9	+0.9	
ETOS				⇑IVmb_VC		19 01 25.6		
	538nm,SNR=1.4							
ETOS				Sn	Sn	19 02 02.9	-1.0	
AFON	**Font Roja**	**3.44**	**313**	⇑IVmb_VC		19 01 27.0		
	280nm,SNR=1.0							
AFON				Sn	Sn	19 02 05.4	+0.2	
MAHO	**Mahon**	**3.73**	**19**	Sn	Sn	19 02 11.9	-0.3	
EZAR	**Zarzadilla de**	**3.81**	**294**	Pn	Pn	19 01 30.2	+0.3	
EZAR				⇑IVmb_VC		19 01 36.5		
	249nm,SNR=1.1							
EZAR				Sn	Sn	19 02 14.3	-0.1	
ETOB	**Tobarra**	**4.06**	**305**	Pn	Pn	19 01 34.9	+1.6	
ETOB				Sn	Sn	19 02 20.8	+0.3	
ETOB	**Tobarra**	**4.06**	**305**	Pn	Pn	19 01 35.2	+2.0	
ETOB				⇑IVmb_VC		19 01 39.2		
	267nm,SNR=1.1							
ETOB				Sn	Sn	19 02 20.6	+0.1	
EBER	**Berja**	**4.52**	**278**	Pn	Pn	19 01 39.5	-0.2	
EBER	**Berja**	**4.52**	**278**	Pn	Pn	19 01 41.6	+1.9	
EBER				⇑IVmb_VC		19 01 44.0		
	233nm,SNR=0.9							
EBER				Sn	Sn	19 02 32.4	+0.5	
EMOS	**Mosqueruela**	**4.70**	**329**	Pn	Pn	19 01 43.3	+1.3	
EMOS				⇑IVmb_VC		19 01 45.8		
	329nm,SNR=1.1							
EMOS				Sn	Sn	19 02 34.5	-1.8	
EQES	**Quesada**	**4.82**	**289**	Pn	Pn	19 01 44.5	+0.8	
EQES				⇑IVmb_VC		19 01 47.8		
	167nm,SNR=1.3							
EQES				Sn	Sn	19 02 39.0	-0.3	
ERTA	**Horta de San J**	**4.94**	**339**	⇑IVmb_VC		19 01 50.5		
	121nm,SNR=0.5							
ERTA				Sn	Sn	19 02 40.4	-1.6	
EQUE	**Quentar**	**4.99**	**281**	Pn	Pn	19 01 47.5	+1.4	
EQUE				⇑IVmb_VC		19 01 51.2		
	90nm,SNR=0.8							
EQUE				Sn	Sn	19 02 43.2	-0.2	
EQTA	**Presa de Quent**	**4.99**	**281**	Pn	Pn	19 01 47.7	+1.6	
E0901	**Celadas (Terue**	**5.08**	**325**	Pn	Pn	19 01 48.9	+1.6	
E0901				⇑IVmb_VC		19 01 49.9		
	248nm,SNR=1.4							
ELGU	**Los Guajares,**	**5.11**	**277**	Pn	Pn	19 01 48.4	+0.8	
ELGU				Sn	Sn	19 02 45.4	-0.8	
ELGU	**Los Guajares,**	**5.11**	**277**	Pn	Pn	19 01 48.5	+0.9	
ELGU				⇑IVmb_VC		19 01 49.2		
	134nm,SNR=1.3							
ELGU				Sn	Sn	19 02 45.6	-0.6	
EPOB	**Poblet**	**5.13**	**346**	⇑IVmb_VC		19 01 51.7		
	139nm,SNR=0.9							
EPOB				Sn	Sn	19 02 45.0	-1.8	
ETOR	**Torete**	**5.79**	**322**	Pn	Pn	19 01 58.7	+1.6	
ETOR				⇑IVmb_VC		19 01 58.8		
	63nm,SNR=0.4							
EMIJ	**Mijas**	**6.02**	**274**	Pn	Pn	19 02 00.2	+0.1	
PAB	**San Pablo**	**6.40**	**302**	Pn	Pn	19 02 07.3	+1.9	
PAB				⇑IVmb_VC		19 02 13.4		
	87nm,SNR=0.7							
EALK	**Alkurruntz**	**7.56**	**336**	Pn	Pn	19 02 22.1	+0.8	
EALK				⇑IVmb_VC		19 02 27.8		
	155nm,SNR=1.3							
EALK				Sn	Sn	19 03 43.1	-3.6	
EARI	**Arriondas**	**9.21**	**321**	Pn	Pn	19 02 45.2	+1.3	
EARI				⇑IVmb_VC		19 02 48.9		
	320nm,SNR=1.2							

KRSC 26 19:08:50.6±1.4, 50°00N×157°26E, h60km±24km, MI3.5, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.00**	**313**	*eP*	Pn	19 09 09.5	+1.0
SKR				*eS*	Sn	19 09 22.8	+0.9
PAU	**Pauzhetka**	**1.49**	**349**	*eP*	Pn	19 09 17.2	+2.1
PAU				*eS*	Sn	19 09 37.2	+3.6
KDTR	**Khodutka, Kamc**	**1.88**	**16**	*eP*	Pn	19 09 22.3	+1.9
KDTR				*eS*	Sn	19 09 45.7	+2.7
MTVR	**Mutnovka**	**2.55**	**13**	*eP*	Pn	19 09 32.2	+2.6
MTVR				*eS*	Sn	19 10 02.2	+2.6
RUS	**Russkaya**	**2.56**	**18**	*eP*	Pn	19 09 32.2	+2.7
RUS				*eS*	Sn	19 10 01.8	+2.3
GRL	**Gorelyy**	**2.60**	**11**	*eP*	Pn	19 09 33.3	+2.9
DALK	**Dalny**	**3.17**	**17**	*eP*	Pn	19 09 40.2	+2.2
AVH	**Avacha**	**3.40**	**15**	*eP*	Pn	19 09 45.3	+4.2
KOK	**Koryaka**	**3.41**	**14**	*eP*	Pn	19 09 45.1	+3.9
KRX	**Arik**	**3.47**	**14**	*eP*	Pn	19 09 46.1	+3.9
SPN	**Mys Shipunski**	**3.55**	**28**	*eP*	Pn	19 09 46.0	+2.9
SPN				*eS*	Sn	19 10 27.2	+3.4
KZV	**Kizimen**	**5.44**	**19**	*eP*	Pn	19 10 13.7	+4.5
KBTR	**Krutoberegovo**	**7.06**	**26**	*eP*	Pn	19 10 33.6	+2.5

*NNC **26** 19:18:15.2±5.9, 37°56N×71°04E, h83km±112km, mb3.2, mpv3.4, Error ellipse: s-maj=61.9km s-min=39.8km az=142.0*

ISC 26 19:18:12.3±3.3, 37°4N±0°2×71°0E±0°1, h68km, n10, σ0s97/12, 4C, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UCH	**Uchtor**	**5.52**	**28**	P	Pn	19 19 33.4	+1.1
	SNR=7.5						
EKS2	**Erkin-Say**	**5.66**	**21**	P	Pn	19 19 34.9	+1.0
	SNR=6.6						
KK31	**Karatay Array**	**5.70**	**356**	P	Pn	19 19 35.8	+1.5
	2.1nm,0.2s,baz=182,slow=13,SNR=64						
KK31				⇑S	Sn	19 20 38.0	-0.3
	1.7nm,0.3s,baz=175,slow=20,SNR=4.6						
AAK	**Ala-Archa**	**5.87**	**26**	P	Pn	19 19 37.7	+0.9
	SNR=6.0						
AAK	**Ala-Archa**	**5.87**	**26**	⇑P	Pn	19 19 37.2	+0.4
	1.1nm,0.4s						
AAK				⇑S	Sn	19 20 42.5	-0.3
	1.5nm,0.5s						
CHMS	**Chumysh**	**6.28**	**26**	P	Pn	19 19 42.7	+0.4
	SNR=11						
USP	**Ospenovka**	**6.43**	**24**	P	Pn	19 19 44.2	-0.2
	SNR=6.3						
TKM2	**Tokmak 2**	**6.53**	**31**	P	Pn	19 19 46.0	0.0
	SNR=12						
AB31	**Akbulak array**	**14.29**	**329**	P	Pn	19 21 29.6	-1.5
	0.2nm,0.3s,baz=139,slow=13,SNR=27						
AKTO	**Aktyubinsk**	**15.99**	**329**	⇑P	P	19 21 56.0	+0.8
	1.2nm,0.5s						

*IDC **26** 19:31:32.0±0.6, 35°.68N×140°.98E, h0km, mb3.8/13, mbtmp3.9/19, ML3.1/6, MS3.1/10, Error ellipse: s-maj=13.9km s-min=9.2km az=89.0*

*MOS **26** 19:31:34.5±1.3, 35°.71N×141°.06E, h33km, mb4.6/3, Error ellipse: s-maj=12.2km s-min=8.0km az=91.5*

*NEIC **26** 19:31:36.4±1.8, 35°.65N±0°.05×141°.02E±0°.09, h33km±5km, mb4.5/11, Error ellipse: s-maj=10.2km s-min=7.2km az=79.0*

*NIED **26** 19:31:37.5, 35°.67N×140°.77E, h46km, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}=0.53; $M_{\theta\theta}$=1.30; $M_{\phi\phi}$=-0.76; $M_{r\theta}$=0.02; $M_{\theta\phi}$=0.62; $M_{\phi r}$=1.58; Fault plane solution: M_0=1.95000×10^{15} NP1: ϕ_s=108.00000°, δ=46.00000°, λ=-20.00000°. NP2: ϕ_s=212.00000°, δ=76.00000°, λ=-134.00000°.*

*JMA **26** 19:31:37.5±0.1, 35°.7N±0°.5×140°.8E±0°.5, h46km±1km, MV3.4/34, NEAR CHOSHI CITY*

JMA Felt I J1 at NEAR CHOSHI CITY .

ISC 26 19:31:35.9±0.5, 35°.68N±0°.04×141°.08E±0°.05, h33km, n80, σ1s89/76, mb4.1/19, MS3.0/7, 3D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSMT	**Sammumatsuo**	**0.52**	**266**	⇓*i*P	Pb	19 31 46.0	-0.7
JSMT				⇓*e*S	Sb	19 31 53.5	-0.8
JIHU	**Itakohorinouch**	**0.53**	**302**	P	Pn	19 31 47.3	+0.1
JCCN	**Chibachonan**	**0.75**	**247**	⇓*i*P	Pn	19 31 49.2	-1.0
JYT	**Yasato**	**0.90**	**307**	Pn	Pn	19 31 52.5	+0.2
JYT	**Yasato**	**0.90**	**307**	P	Pn	19 31 51.1	-1.2
JYT				*e*S	Sn	19 32 01.4	-2.8
BSO4	**Boso 4**	**0.92**	**222**	*e*P	Pn	19 31 52.1	-0.3
BSO3	**Boso 3**	**1.00**	**208**	*e*P	Pb	19 31 54.1	-0.5
BSO1	**Boso 1**	**1.03**	**185**	*e*P	Pb	19 31 54.8	-0.1
MJAR	**Matsushiro Arr**	**2.48**	**291**	Pn	Pn	19 32 13.2	-0.8
	1.5nm,0.3s,baz=95,slow=11,SNR=61						
MJAR				LR	LR	19 32 40.8	
	comp=Z,28nm,19.8s,baz=92,slow=29						
MJAR				Sn	Sn	19 32 41.7	-1.4
	2.2nm,0.3s,baz=141,slow=28,SNR=3.2						
	9.0nm,0.3s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**2.48**	**291**	P	Pn	19 32 14.1	+0.1
MJAR						19 32 41.7	
MJAR	**Matsushiro Arr**	**2.48**	**291**		Pn	19 32 14.1	+0.1
MAJO	**Matsushiro**	**2.48**	**291**	P	Pn	19 32 13.9	-0.2
MAJO	**Matsushiro**	**2.48**	**291**		Pn	19 32 13.8	-0.2
MJB9	**Matsu-Tunnel**	**2.48**	**291**		Pn	19 32 15.3	+1.2
JSG	**Sagara**	**2.58**	**248**		Pn	19 32 15.0	-0.3
JHJ2	**Mitsune**	**2.77**	**203**	Pn	Pn	19 32 17.7	-0.3
JHJ	**Hachijo jima 2**	**2.77**	**203**	Pn	Pn	19 32 18.1	0.0
	4.0nm,0.3s,baz=275,slow=22,SNR=15						
JHJ				Sn	Sn	19 32 47.8	-2.6
	8.4nm,0.3s,baz=256,slow=24,SNR=9.4						
JHJ				AML	AML		
JGF	**Kuroka**	**3.04**	**270**		Pn	19 32 20.7	-1.0
INU	**Inuyama**	**3.33**	**265**		Pn	19 32 24.3	-1.4
JTM	**Tenmabayashi**	**5.09**	**360**	Pn	Pn	19 32 53.0	+3.1
JMN	**Monobe**	**6.25**	**254**	Pn	Pn	19 33 05.4	-0.4
ERM	**Erimo**	**6.53**	**14**	P	Pn	19 33 10.4	+0.9
ERM	**Erimo**	**6.53**	**14**	Pn	Pn	19 33 10.4	+0.9
NMR	**Nemuro--Hokkai**	**8.47**	**24**	*e*P	Pn	19 33 36.3	+0.1
NMR				*i* S	Sn	19 35 05.2	-5.4
ASAJ	**Asahikawa**	**8.50**	**7**	Pn	Pn	19 33 37.3	+0.6
	1.5nm,0.3s,baz=325,slow=29,SNR=8.8						
ASAJ				Sn	Sn	19 35 06.4	-5.0
	0.2nm,0.3s,baz=203,slow=29,SNR=1.3						
	4.9nm,0.4s						
ASAJ				AML	AML		
JKA	**Kamikawa-asahi**	**8.50**	**7**		Pn	19 33 37.3	+0.6
JKA					Sn	19 35 06.4	-5.0
JCJ	**Chichijima**	**8.61**	**173**	Pn	Pn	19 33 34.1	-4.2
	64nm,0.5s,baz=299,slow=22,SNR=12						
JCJ				Sn	Sn	19 35 02.4	-12
	12nm,0.3s,baz=282,slow=23,SNR=5.7						
JCJ	**Chichijima**	**8.61**	**173**		Pn	19 33 37.0	-1.3
JNU	**Nakatsue**	**8.81**	**256**	Pn	Pn	19 33 42.9	+1.9
	0.1nm,0.3s,baz=21,slow=10,SNR=1.8						
JNU				LR	LR	19 37 21.7	
	comp=Z,216nm,19.8s,baz=54,slow=40						
	4.0nm,0.9s						
JNU				AML	AML		
RUSJ	**Misakicho**	**9.00**	**20**	P	Pn	19 33 44.2	+0.8
RUSJ				*i* S	Sn	19 35 20.1	-3.4
YUK	**Yuzh-Kuril'sk**	**9.11**	**22**	P	Pn	19 33 46.2	+1.2
YUK				*i* S	Sn	19 35 22.0	-4.3
YUK				pmax	pmax		
	comp=Z,44nm,0.4s						
YUK				pmax	pmax		
	comp=N,25nm,0.3s						
YUK				pmax	pmax		
	comp=E,22nm,0.4s						
KSRS	**Korea Array**	**10.73**	**283**	Pn	Pn	19 34 10.2	+2.9
	baz=94,slow=14,SNR=2.3						
KSRS				LR	LR	19 38 15.0	
	comp=E,88nm,20.6s,baz=100,slow=38						
	comp=E,1.4nm,0.8s						
USRK	**Ussuriysk Ar.**	**10.99**	**323**	Pn	Pn	19 34 11.2	+0.4
	comp=E,0.1nm,0.3s,baz=137,slow=13,SNR=1.8						
USRK				LR	LR	19 38 26.0	
	comp=E,51nm,19.7s,baz=165,slow=38						
	comp=E,1.5nm,0.7s						
USRK				AML	AML		
USRK	**Ussuriysk Ar.**	**10.99**	**323**		Pn	19 34 09.4	-1.4
PETK	**Petropavlovsk-**	**20.99**	**29**	P	P	19 36 17.4	+1.2
	comp=E,5.1nm,1.0s,baz=220,slow=8.8,SNR=2.1						
	comp=E,6.5nm,1.0s						
H11N2	**WAKE ISLAND Hy**	**27.72**	**118**	T	T	20 06 30.7	
	baz=310,slow=75,SNR=33						
H11N1	**WAKE ISLAND Hy**	**27.73**	**118**	T	T	20 06 31.1	
	baz=310,slow=75,SNR=23						
H11N3	**WAKE ISLAND Hy**	**27.74**	**118**	T	T	20 06 29.2	
	baz=310,slow=75,SNR=43						
SONM	**Songino Array**	**28.34**	**306**	P	P	19 37 27.4	+0.6
	comp=E,0.7nm,0.7s,baz=117,slow=9.7,SNR=2.3						
	comp=E,0.7nm,0.7s						
SONM	**Songino Array**	**28.34**	**306**	P	P	19 37 26.9	+0.1
H11S1	**WAKE ISLAND Hy**	**28.38**	**120**	T	T	20 07 20.7	
	baz=312,slow=75,SNR=91						
H11S3	**WAKE ISLAND Hy**	**28.38**	**120**	T	T	20 07 20.6	
	baz=312,slow=75,SNR=65						
H11S2	**WAKE ISLAND Hy**	**28.40**	**120**	T	T	20 07 24.1	
	baz=312,slow=75,SNR=59						
TLY	**Talaya**	**31.03**	**313**	LR	LR	19 51 58.2	
	comp=E,24nm,18.1s,baz=22,slow=40						
CMAR	**Chiang Mai Arr**	**40.91**	**257**	LR	LR	19 56 41.9	
	comp=E,28nm,18.2s,baz=35,slow=37						
KRVT	**Keravat (AS076**	**41.08**	**163**	LR	LR	20 02 21.3	
	comp=E,8.1nm,18.2s,baz=244,slow=45						
ZALV	**Zalesovo Beam**	**42.64**	**313**	P	P	19 39 28.4	-0.5
	comp=E,2.2nm,0.8s,baz=84,slow=6.8,SNR=8.1						
ZALV				LR	LR	19 56 50.0	
	comp=E,18nm,18.1s,baz=26,slow=36						
	comp=E,2.2nm,0.8s						
ZALV	**Zalesovo Beam**	**42.64**	**313**	P	P	19 39 28.3	-0.6
MKAR	**Makanchi Array**	**44.62**	**303**	P	P	19 39 44.5	-0.6
	comp=E,0.6nm,0.7s,baz=92,slow=11,SNR=6.7						
	comp=E,0.6nm,0.7s						
MKAR	**Makanchi Array**	**44.62**	**303**	P	P	19 39 44.1	-1.0
MAKZ	**Makanchi**	**44.83**	**303**	P	P	19 39 45.1	-1.7
MAKZ				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MAKZ	**Makanchi**	**44.83**	**303**	P	P	19 39 45.1	-1.7
MAKZ				lAmb	lAmb	19 39 58.1	
	comp=Z,5.8nm,1.1s						
KURK	**Kurchatov**	**46.56**	**309**	P	P	19 40 00.1	-0.2
KURK	**Kurchatov**	**46.56**	**309**	P	P	19 39 59.0	-1.3
KURK				lAmb	lAmb	19 40 09.5	
	comp=Z,4.5nm,0.9s						
KURBB	**Kurchatov Arra**	**46.63**	**309**	P	P	19 40 00.1	-0.7
	comp=Z,3.2nm,1.0s,baz=84,slow=8.1,SNR=17						
	comp=Z,3.2nm,1.0s						
HNR	**Honiara**	**48.28**	**155**	LR	LR	19 57 44.3	
	comp=Z,9.0nm,19.8s,baz=91,slow=32						
ILAR	**Eielson Array**	**50.78**	**32**	P	P	19 40 35.0	+2.5
	comp=Z,1.1nm,0.8s,baz=267,slow=6.3,SNR=12						
	comp=Z,1.1nm,0.8s						
ILAR	**Eielson Array**	**50.78**	**32**	P	P	19 40 35.0	+2.5
LEM	**Lembang**	**52.71**	**223**	P	P	19 40 48.7	+1.0
	comp=Z,11nm,0.3s,baz=309,slow=21,SNR=1.9						
FITZ	**Fitzroy Crossi**	**55.45**	**198**	P	P	19 41 06.6	-0.8
	comp=Z,3.7nm,0.9s,baz=9.5,slow=6.1,SNR=2.9						
	comp=Z,3.7nm,0.9s						
FITZ	**Fitzroy Crossi**	**55.45**	**198**	lAmb	lAmb	19 41 29.9	
	comp=Z,5.2nm,1.4s						
M30M	**Minto, Yukon**	**55.50**	**34**	P	P	19 41 09.7	+2.4
M30M				lAmb	lAmb	19 41 33.9	
	comp=Z,4.4nm,1.2s						
WRAB	**Tennant Creek**	**55.68**	**188**	P	P	19 41 08.6	-0.4
WRAB				pmax	pmax		
	comp=Z,13nm,1.5s						
WRAB	**Tennant Creek**	**55.68**	**188**	P	P	19 41 08.6	-0.4
WRAB				lAmb	lAmb	19 41 14.4	
	comp=Z,13nm,1.4s						
WR8	**Warramunga Arr**	**55.69**	**188**	P	P	19 41 08.3	-0.7
WR8				lAmb	lAmb	19 41 37.9	
	comp=Z,15nm,1.4s						
WRA	**Warramunga Arr**	**55.69**	**188**	P	P	19 41 09.0	0.0
	comp=Z,2.1nm,1.0s,baz=22,slow=7.2,SNR=12						
	comp=Z,2.1nm,1.0s						
WRA	**Warramunga Arr**	**55.69**	**188**	P	P	19 41 05.6	-3.5
INK	**Inuvik**	**55.71**	**27**	P	P	19 41 10.9	+2.2
INK				pmax	pmax		
	comp=Z,2.0nm,1.2s						
INK	**Inuvik**	**55.71**	**27**	P	P	19 41 10.9	+2.2
INK				lAmb	lAmb	19 41 29.1	
	comp=Z,2.3nm,1.1s						
ASAR	**Alice Springs**	**59.42**	**188**	P	P	19 41 37.2	+1.9
	comp=Z,0.2nm,0.3s,baz=17,slow=12,SNR=5.6						
	comp=Z,0.2nm,0.3s						
BELG	**Belogorsk**	**64.61**	**317**	LR	LR	20 13 37.0	
	comp=Z,86nm,18.3s,baz=299,slow=39						
FINES	**FINESS Array B**	**69.88**	**332**	LR	LR	20 18 10.3	
	comp=Z,51nm,18.1s,baz=272,slow=40						
NOA	**NORSAR Array B**	**75.33**	**337**	P	P	19 43 16.3	+0.7
	comp=Z,0.9nm,0.8s,baz=39,slow=5.8,SNR=3.0						
	comp=Z,0.9nm,0.8s						
CWC	**Cottonwood Cre**	**77.29**	**54**	P	P	19 43 25.4	-1.9
PDAR	**Pinedale Array**	**78.80**	**45**	P	P	19 43 38.0	+2.3
	comp=Z,0.4nm,0.6s,baz=254,slow=1.6,SNR=5.5						
	comp=Z,0.4nm,0.6s						
PDAR	**Pinedale Array**	**78.80**	**45**	P	P	19 43 36.5	+0.8
BRTR	**Keskin Array B**	**79.55**	**312**	P	P	19 43 41.4	+1.6
	comp=Z,0.4nm,0.7s,baz=67,slow=5.9,SNR=2.4						
	comp=Z,0.4nm,0.7s						
BRTR	**Keskin Array B**	**79.55**	**312**	P	P	19 43 39.5	-0.2
TXAR	**Lajitas Array**	**91.16**	**52**	P	P	19 44 39.9	+2.1
	comp=Z,0.4nm,0.8s,baz=284,slow=2.6,SNR=4.5						
	comp=Z,0.4nm,0.8s						
TXAR	**Lajitas Array**	**91.16**	**52**	P	P	19 44 39.6	+1.7

*NOU **26** 19:45:12.4, 10°.50S×161°.50E, h0km, MLv4.8/11, Solomon Islands*

*NEIC **26** 19:45:16.4±0.9, 10°.4S±0°.1×161°.59E±0°.10, h70km±11km, mb4.1/6, Error ellipse: s-maj=20.0km s-min=11.3km az=208.0*

*IDC **26** 19:45:16.6±3.1, 10°.42S×161°.54E, h77km±21km, mb3.4/6, mbtmp3.8/8, Error ellipse: s-maj=36.1km s-min=19.6km az=61.0*

ISC 26 19:45:14.9±0.9, 10°.50S±0°.09×161°.6E±0°.1, h61km, n32, σ1s48/27, mb3.8/8, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NGOA	**Tingoa Renbel**	**1.83**	**235**	P	Pn	19 45 44.1	0.0
NGOA	**Tingoa Renbel**	**1.83**	**235**	S	Sn	19 46 06.0	-0.2
HNR	**Honiara**	**1.94**	**303**	P	Pn	19 45 46.2	+0.5
	127nm,0.3s,baz=230,slow=23,SNR=31						
HNR				S	Sn	19 46 09.4	+0.6
	204nm,0.4s,baz=43,slow=18,SNR=8.0						
HNR	**Honiara**	**1.94**	**303**	P	Pn	19 45 46.1	+0.5
HNR	**Honiara**	**1.94**	**303**		Pn	19 45 46.0	+0.5
SAVO	**Savo Central**	**2.21**	**307**	P	Pn	19 45 49.8	+0.5
TATA	**Tatamba Isabel**	**2.74**	**320**	P	Pn	19 45 55.9	-0.7
SANVU	**Saraoutou**	**7.35**	**133**	P	Pn	19 47 01.7	+2.0
SANVU	**Saraoutou**	**7.35**	**133**		Pn	19 47 01.5	+1.7
NOUC	**Port Laguerre**	**12.39**	**159**	P	Pn	19 48 10.6	+2.1
DZM	**Mont Dzumac**	**12.41**	**159**	P	Pn	19 48 11.8	+2.9
	1.9nm,0.3s,baz=39,slow=9.6,SNR=17						
DZM				S	Sn	19 50 21.8	-3.8
	1.9nm,0.3s,baz=98,slow=22,SNR=1.7						
OUENC	**Ouen Island, N**	**12.87**	**158**	Pn	Pn	19 48 17.7	+2.5
PINNC	**Pines Island,**	**13.28**	**156**	Pn	Pn	19 48 22.9	+2.2
CTA	**Charters Tower**	**17.58**	**235**	P	P	19 49 17.1	+0.9
	2.7nm,0.8s,baz=47,slow=18,SNR=1.8						
WR8	**Warramunga Arr**	**27.74**	**247**	P	P	19 50 58.0	0.0
WR8				lAmb	lAmb	19 51 15.5	
	comp=Z,7.0nm,1.2s						
WB0	**Warramunga Arr**	**27.78**	**247**	P	P	19 50 58.3	-0.2
WRAB	**Tennant Creek**	**27.87**	**247**	P	P	19 50 59.3	+0.1
WRAB				lAmb	lAmb	19 51 32.1	
	comp=Z,10nm,1.4s						
WRA	**Warramunga Arr**	**27.88**	**247**	P	P	19 50 59.4	+0.1
	comp=Z,0.4nm,0.5s,baz=77,slow=9.0,SNR=3.1						
	comp=Z,0.4nm,0.5s						
H11S2	**WAKE ISLAND Hy**	**29.25**	**10**	T	T	20 21 51.2	
	baz=194,slow=76						
H11S3	**WAKE ISLAND Hy**	**29.25**	**10**	T	T	20 21 51.0	
	baz=194,slow=76						
H11S1	**WAKE ISLAND Hy**	**29.27**	**10**	T	T	20 21 52.3	
	baz=194,slow=76						
ASAR	**Alice Springs**	**29.45**	**240**	P	P	19 51 12.9	-0.4
	comp=Z,0.3nm,0.8s,baz=64,slow=9.7,SNR=4.4						
	comp=Z,0.3nm,0.8s						
H11N1	**WAKE ISLAND Hy**	**30.48**	**10**	T	T	20 23 15.0	
	baz=193,slow=76						
H11N3	**WAKE ISLAND Hy**	**30.48**	**10**	T	T	20 23 18.4	
	baz=193,slow=76						
H11N2	**WAKE ISLAND Hy**	**30.50**	**10**	T	T	20 23 17.3	
	baz=193,slow=76						
FITZ	**Fitzroy Crossi**	**35.59**	**254**	P	P	19 52 06.9	0.0
	comp=Z,2.6nm,0.8s,baz=70,slow=10,SNR=2.0						
	comp=Z,2.6nm,0.8s						
FITZ	**Fitzroy Crossi**	**35.59**	**254**	P	P	19 52 06.6	-0.3
FITZ				lAmb	lAmb	19 52 09.3	
	comp=Z,3.6nm,1.4s						
CMAR	**Chiang Mai Arr**	**68.17**	**295**	P	P	19 56 09.0	-0.3
	comp=Z,0.2nm,0.2s,baz=114,slow=5.9,SNR=2.9						
	comp=Z,0.2nm,0.2s						
SONM	**Songino Array**	**75.86**	**325**	P	P	19 56 54.7	-0.2
	comp=Z,0.5nm,0.7s,baz=123,slow=5.5,SNR=3.9						
	comp=Z,0.5nm,0.7s						
SONM	**Songino Array**	**75.86**	**325**	lAmb	lAmb	19 57 10.0	
	comp=Z,1.4nm,0.7s						
MKAR	**Makanchi Array**	**90.35**	**318**	P	P	19 58 08.0	-1.6
	comp=Z,0.4nm,0.7s,baz=86,slow=6.2,SNR=3.7						
	comp=Z,0.4nm,0.7s						
MKAR	**Makanchi Array**	**90.35**	**318**	P	P	19 58 08.3	-1.2

*NEIC **26** 19:56:06.0±1.1, 17°.77N±0°.04×66°.92W±0°.01, h17km±3km,

ECPR	**Experimental S**	**0.78**	**42**	⇑*e*P		**Pg**	**19 56 20.8**	**+0.3**
IGPR	**InterUniversit**	**0.80**	**74**			**Pn**	**19 56 22.4**	**+0.7**
IGPR						**Sn**	**19 56 34.0**	**+0.8**
IGPR	**InterUniversit**	**0.80**	**74**	⇑*e*P		**Pn**	**19 56 22.4**	**+0.7**
SJG	**San Juan**	**0.81**	**63**	Pg		**Pn**	**19 56 21.8**	**-0.2**
SJG				Sg		**Sb**	**19 56 31.6**	**0.0**
SJG	**San Juan**	**0.81**	**63**	IAML			19 56 35.5	
	comp=Z,3μm,0.5s							
SJG				IAML			19 56 35.5	
	comp=Z,4μm,0.5s							
SJG	**San Juan**	**0.81**	**63**	*i* P		**Pn**	**19 56 21.9**	**0.0**
SJG				*e*S		**Sn**	**19 56 33.2**	**-0.4**
EMPR	**Esperanza - Ma**	**0.82**	**26**			**Pn**	**19 56 22.0**	**0.0**
EMPR						**Sg**	**19 56 32.1**	**-0.1**
EMPR	**Esperanza - Ma**	**0.82**	**26**	⇓*e*P		**Pn**	**19 56 22.0**	**0.0**
EMPR				*e*S		**Sg**	**19 56 32.1**	**-0.1**
IDE	**Isla Desecheo**	**0.84**	**320**			**Pn**	**19 56 22.1**	**-0.2**
IDE						**Sg**	**19 56 32.8**	**+0.1**
IDE	**Isla Desecheo**	**0.84**	**320**	⇑*e*P		**Pn**	**19 56 22.1**	**-0.2**
IDE				*e*S		**Sg**	**19 56 32.8**	**+0.1**
PDPR	**Patillas Dam,**	**0.89**	**72**			**Pn**	**19 56 23.3**	**+0.3**
PDPR						**Sg**	**19 56 34.2**	**-0.2**
PDPR				IAML			19 56 38.3	
	comp=Z,2μm,0.7s							
PDPR	**Patillas Dam,**	**0.89**	**72**	⇓*e*P		**Pn**	**19 56 23.7**	**+0.7**
GCPR	**Guaynabo City**	**0.97**	**54**			**Pn**	**19 56 23.9**	**-0.2**
HUMP	**Col San Antoni**	**1.09**	**68**			**Pg**	**19 56 26.3**	**-0.1**
HUMP				Sn		**Sg**	**19 56 40.9**	**+0.3**
HUMP				IAML			19 56 43.6	
	comp=Z,1μm,0.3s							
HUMP	**Col San Antoni**	**1.09**	**68**	⇓*e*P		**Pg**	**19 56 26.4**	**+0.1**
PCDR	**Punta Cana, DR**	**1.60**	**299**	Pn		**Pn**	**19 56 32.9**	**+0.2**
PCDR	**Punta Cana, DR**	**1.60**	**299**	*i* P		**Pg**	**19 56 36.0**	**0.0**
PCDR				IAML			19 57 01.2	
	comp=Z,149nm,0.9s							
SDD	**Santo Domingo**	**2.94**	**285**	Pn		**Pn**	**19 56 51.2**	**0.0**
SDD				IAML			19 57 46.0	
	comp=N,186nm,1.5s							
SABA	**Saba**	**3.50**	**91**	Pn		**Pn**	**19 57 00.4**	**+1.5**
SABA				IAML			19 57 53.6	
	comp=N,179nm,0.8s							
SMRT	**St. Maarten**	**3.67**	**85**			**Pn**	**19 57 02.7**	**+1.5**
SMRT				IAML			19 57 46.0	
	comp=N,149nm,0.4s							
SMRT				IAML			19 57 54.1	
	comp=E,192nm,0.5s							
PODR	**Polo**	**4.18**	**277**	Pn		**Pn**	**19 57 08.7**	**+0.3**
SDDR	**Presa de Saban**	**4.34**	**287**	Pn		**Pn**	**19 57 10.9**	**+0.4**
SDDR				IAML			19 58 26.7	
	comp=E,68nm,0.7s							
SDDR				IAML			19 58 34.1	
	comp=E,108nm,0.8s							
GDHS	**Morne Mazeau,**	**5.14**	**106**	Pn		**Pn**	**19 57 21.7**	**+0.2**
ABD	**La Joyeuse, An**	**5.34**	**103**	Pn		**Pn**	**19 57 24.2**	**0.0**
MAGL	**Barre de l'ile**	**5.68**	**107**	Pn		**Pn**	**19 57 29.5**	**+0.6**
GDSD	**La Dsirade Is**	**5.77**	**103**	Pn		**Pn**	**19 57 30.6**	**+0.5**
CXM	**Morne La Croix**	**6.24**	**117**	Pn		**Pn**	**19 57 36.6**	**0.0**
FDFM	**Morne la Roset**	**6.28**	**118**	Pn		**Pn**	**19 57 36.7**	**-0.4**
BIM	**Bigot**	**6.46**	**119**	Pn		**Pn**	**19 57 40.4**	**+0.7**
ILAM	**Ilet Lapin Mar**	**6.50**	**116**	Pn		**Pn**	**19 57 40.8**	**+0.6**
MPOM	**Morne Pois Mar**	**6.68**	**119**	Pn		**Pn**	**19 57 42.7**	**+0.1**
URIC	**Uribia, Colomb**	**7.76**	**220**	Pn		**Pn**	**19 57 57.7**	**+0.3**
BBGH	**Gun Hill**	**8.43**	**122**	Pn		**Pn**	**19 58 07.1**	**+0.4**
SDV	**Santo Domingo**	**9.52**	**203**	Pn		**Pn**	**19 58 20.8**	**-0.9**
RUSC	**La Rusia**	**13.23**	**208**	Pn		**Pn**	**19 59 10.6**	**-2.3**

IDC ***26*** *19:58:36.5±0.7,25°.76S×69°.42E, h0km, mb4.2/16, mbtmp4.2/16, MS3.6/20, Error ellipse: s-maj=24.3km s-min=15.6km az=66.0*

NEIC ***26*** *19:58:38.0±0.8,25°.8S±0°.1×69°.34E±0°.10, h10km±1km, mb4.6/25, Error ellipse: s-maj=24.5km s-min=4.8km az=216.0*

ISC 26 19:58:37.8±0.6,25°.8S±0°.1×69°.4E±0°.1, h10km, n73, σ0s59/46, mb4.5/27, MS3.6/20, Indian Ocean Triple Junction

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROCAM	**Rodrigues Isla**	**8.15**	**316**	Pn	**Pn**	**20 00 34.7**	**-1.5**
H08S1	**Diego Garcia H**	**18.26**	**10**	T	T	20 21 24.9	
	baz=189,slow=76,SNR=153						
H08S2	**Diego Garcia H**	**18.26**	**10**	T	T	20 21 31.4	
	baz=189,slow=76,SNR=262						
H08S3	**Diego Garcia H**	**18.27**	**10**	T	T	20 21 27.1	
	baz=189,slow=76,SNR=275						
OPO	**Ambohidratompo**	**21.74**	**285**	P	**P**	**20 03 30.3**	**+0.6**
	3.1nm,0.8s,baz=273,slow=7.6,SNR=3.5 3.1nm,0.8s						
H04N2	**CROZET ISLANDS**	**24.73**	**210**	T	T	20 29 48.0	
	baz=42,slow=74,SNR=2293						
H04N1	**CROZET ISLANDS**	**24.74**	**210**	T	T	20 29 47.5	
	baz=42,slow=74,SNR=2356						
H04N3	**CROZET ISLANDS**	**24.75**	**210**	T	T	20 29 47.4	
	baz=42,slow=74,SNR=2847						
PALK	**Pallekele**	**34.63**	**20**	LR	LR	20 16 17.4	
	comp=Z,151nm,19.5s,baz=196,slow=31						
MATP	**Matopo**	**37.87**	**269**	LR	LR	20 21 19.1	
	comp=Z,155nm,18.2s,baz=332,slow=36						
BOSA	**Boshof**	**39.19**	**256**	LR	LR	20 18 54.9	
	comp=Z,70nm,19.9s,baz=92,slow=31						
H01W2	**Cape Leeuwin H**	**39.42**	**114**	T	T	20 47 53.1	
	baz=272,slow=75,SNR=105						
H01W3	**Cape Leeuwin H**	**39.42**	**114**	T	T	20 47 53.2	
	baz=272,slow=75,SNR=47						
H01W1	**Cape Leeuwin H**	**39.44**	**114**	T	T	20 47 54.3	
	baz=272,slow=75,SNR=83						
LSZ	**Lusaka**	**39.82**	**277**	LR	LR	20 20 32.0	
	comp=Z,43nm,19.3s,baz=127,slow=33						
PSI	**Prapat**	**40.31**	**50**	LR	LR	20 19 00.3	
	comp=Z,20nm,21.1s,baz=176,slow=30						
MAW	**Mawson**	**42.05**	**184**	LR	LR	20 19 47.7	
	comp=Z,92nm,20.4s,baz=3.5,slow=30						
SUR	**Sutherland**	**42.67**	**249**	LR	LR	20 21 46.7	
	comp=Z,76nm,19.3s,baz=126,slow=33						
MBAR	**Mbarara**	**44.86**	**298**	LR	LR	20 22 18.1	
	comp=Z,52nm,19.7s,baz=103,slow=32						
FITZ	**Fitzroy Crossi**	**52.42**	**94**	P	**P**	**20 07 50.1**	**-0.8**
CM31	**Chiang Mai Arr**	**52.52**	**36**	P	**P**	**20 07 51.8**	**+0.4**
CM31				IAmb	IAmb	20 07 53.2	
	comp=Z,5.2nm,0.8s						
CMAR	**Chiang Mai Arr**	**52.52**	**36**	P	**P**	**20 07 52.5**	**+1.1**
	comp=Z,2.8nm,0.8s,baz=228,slow=7.1,SNR=22						
CMAR				LR	LR	20 25 57.7	
	comp=Z,30nm,21.4s,baz=240,slow=31 comp=Z,2.8nm,0.8s						
CMAR	**Chiang Mai Arr**	**52.52**	**36**		**P**	**20 07 51.1**	**-0.3**
BRDH	**Bariadhala**	**52.77**	**26**	LR	LR	20 27 60.0	
	comp=Z,66nm,20.0s,baz=188,slow=33						
MORE	**Moreh**	**55.24**	**28**		**P**	**20 08 11.8**	**+0.5**
MORE				IAmb	IAmb	20 08 12.5	
	comp=Z,8.1nm,0.9s						
SHL	**Shillong**	**55.46**	**25**	P	**P**	**20 08 13.4**	**+0.4**
ASAR	**Alice Springs**	**58.12**	**103**	P	**P**	**20 08 31.8**	**-0.2**
	comp=Z,4.4nm,0.7s,baz=250,slow=6.3,SNR=46						
ASAR				PcP	**PcP**	**20 09 23.9**	**+0.2**
	comp=Z,0.2nm,0.5s,baz=289,slow=2.8,SNR=2.7 comp=Z,4.4nm,0.7s						
ASAR	**Alice Springs**	**58.12**	**103**	P	**P**	**20 08 31.6**	**-0.4**
AS31	**Alice Springs**	**58.12**	**103**		**P**	**20 08 31.6**	**-0.5**
WRA	**Warramunga Arr**	**59.63**	**99**	P	**P**	**20 08 42.4**	**-0.1**
	comp=Z,3.8nm,0.7s,baz=254,slow=6.9,SNR=16						
WRA				PcP	**PcP**	**20 09 29.2**	**-0.4**
	comp=Z,1.2nm,0.9s,baz=253,slow=2.6,SNR=5.0 comp=Z,3.8nm,0.7s						
WRA	**Warramunga Arr**	**59.63**	**99**	IAmb	IAmb	20 08 43.2	
	comp=Z,0.2nm,1.2s						
WRAB	**Tennant Creek**	**59.64**	**99**	P	**P**	**20 08 42.3**	**-0.2**
WRAB				IAmb	IAmb	20 08 43.2	
	comp=Z,5.9nm,0.8s						
WB0	**Warramunga Arr**	**59.73**	**99**	P	**P**	**20 08 42.3**	**-0.9**
STKA	**Stephens Creek**	**62.52**	**114**	P	**P**	**20 09 01.5**	**-0.4**
	comp=Z,2.7nm,0.9s,baz=294,slow=8.8,SNR=4.3 comp=Z,2.7nm,0.9s						
STKA	**Stephens Creek**	**62.52**	**114**	P	**P**	**20 09 00.6**	**-1.3**
EIL	**Elat**	**64.25**	**327**	LR	LR	20 33 24.0	
	comp=Z,56nm,19.8s,baz=116,slow=32						
QSPA	**South Pole Qui**	**64.37**	**180**	P	**P**	**20 09 14.3**	**+0.5**
QSPA				LR	LR	20 33 11.2	
	comp=Z,72nm,20.7s,baz=340,slow=32 comp=Z,8.4nm,1.0s						
QSPA	**South Pole Qui**	**64.37**	**180**	P	**P**	**20 09 13.8**	**0.0**
ASF	**Jabal al Asfar**	**65.41**	**330**	LR	LR	20 34 48.0	
	comp=Z,38nm,19.7s,baz=202,slow=33						
VNDA	**Vanda**	**65.58**	**166**	P	**P**	**20 09 21.7**	**+0.4**
	comp=Z,4.0nm,0.9s,baz=259,slow=6.2,SNR=8.9 comp=Z,4.0nm,0.9s						
VNDA	**Vanda**	**65.58**	**166**		**P**	**20 09 21.4**	**+0.1**
VNDA				IAmb	IAmb	20 09 22.9	
	comp=Z,5.3nm,1.0s						
ARSB	**Arslanbob**	**66.83**	**3**	P	**P**	**20 09 29.6**	**-0.3**
ARSB				IAmb	IAmb	20 09 31.0	
	comp=Z,3.6nm,0.9s						
NRN	**Naryn**	**67.13**	**5**	P	**P**	**20 09 32.6**	**+0.6**
NRN				IAmb	IAmb	20 09 34.2	
	comp=Z,4.0nm,1.3s						
AAK	**Ala-Archa**	**68.22**	**4**	LR	LR	20 37 09.5	
	comp=Z,34nm,19.1s,baz=229,slow=34						
AAK	**Ala-Archa**	**68.22**	**4**	P	**P**	**20 09 38.7**	**+0.1**
AAK				IAmb	IAmb	20 09 42.0	
	comp=Z,3.0nm,0.8s						
KK31	**Karatay Array**	**68.53**	**1**	P	**P**	**20 09 40.8**	**+0.4**
KK31				IAmb	IAmb	20 09 42.2	
	comp=Z,4.2nm,0.9s						
KKAR	**Karatay Array**	**68.53**	**1**		**P**	**20 09 40.9**	**+0.5**
PDGK	**Podgornoye**	**69.37**	**8**		**P**	**20 09 46.0**	**+0.2**
GNI	**Garni**	**69.47**	**340**	LR	LR	20 37 19.4	
	comp=Z,53nm,21.8s,baz=146,slow=33						
MKAR	**Makanchi Array**	**73.15**	**9**	P	**P**	**20 10 08.2**	**-0.2**
	comp=Z,2.1nm,0.7s,baz=190,slow=6.0,SNR=19 comp=Z,2.1nm,0.7s						
BRTR	**Keskin Array B**	**73.18**	**332**	P	**P**	**20 10 10.0**	**+1.1**
	comp=Z,0.7nm,0.9s,baz=141,slow=8.0,SNR=4.3						
BRTR				LR	LR	20 40 27.9	
	comp=Z,28nm,20.2s,baz=105,slow=34 comp=Z,0.7nm,0.9s						
BRTR	**Keskin Array B**	**73.18**	**332**	P	**P**	**20 10 08.8**	**-0.1**
KBZ	**Khabaz**	**73.30**	**340**	LR	LR	20 40 33.7	
	comp=Z,34nm,19.4s,baz=33,slow=34						
KIV	**Kislovodsk**	**73.57**	**340**	P	**P**	**20 10 11.1**	**+0.1**
AB31	**Akbulak array**	**75.15**	**354**	IAmb	IAmb	20 10 23.0	
	comp=Z,8.0nm,1.2s						
ABKAR	**Akbulak array**	**75.15**	**354**		**P**	**20 10 19.8**	**-0.2**
KURBB	**Kurchatov Arra**	**76.47**	**6**	P	**P**	**20 10 27.9**	**+0.4**
	comp=Z,1.7nm,0.8s,baz=199,slow=6.6,SNR=6.1 comp=Z,1.7nm,0.8s						
AKTO	**Aktyubinsk**	**76.52**	**353**	P	**P**	**20 10 27.1**	**-0.7**
	comp=Z,3.1nm,0.8s,baz=189,slow=4.1,SNR=8.6 comp=Z,3.1nm,0.8s						
KURK	**Kurchatov**	**76.58**	**6**	P	**P**	**20 10 27.3**	**-0.8**
KURK				IAmb	IAmb	20 10 29.6	
	comp=Z,7.8nm,1.1s						
BVAR	**Borovoye Array**	**78.45**	**1**	P	**P**	**20 10 38.9**	**+0.3**
	comp=Z,1.4nm,0.8s,baz=159,slow=5.7,SNR=5.1 comp=Z,1.4nm,0.8s						
SONM	**Songino Array**	**80.46**	**24**	P	**P**	**20 10 50.6**	**+0.8**
	comp=Z,2.7nm,0.8s,baz=206,slow=5.0,SNR=18 comp=Z,2.7nm,0.8s						
SONM	**Songino Array**	**80.46**	**24**	P	**P**	**20 10 50.3**	**+0.5**
ZALV	**Zalesovo Beam**	**80.49**	**9**	P	**P**	**20 10 49.7**	**+0.1**
	comp=Z,1.9nm,0.7s,baz=193,slow=5.1,SNR=9.9 comp=Z,1.9nm,0.7s						
ZALV	**Zalesovo Beam**	**80.49**	**9**		**P**	**20 10 49.4**	**-0.3**
ULN	**Ulaanbaatar**	**80.73**	**25**		**P**	**20 10 51.5**	**+0.3**
MLR	**Muntele Rosu**	**81.18**	**331**	IAmb	IAmb	20 10 57.3	
	comp=Z,12nm,1.4s						
KRVT	**Keravat (AS076**	**81.53**	**91**	LR	LR	20 44 40.4	
	comp=Z,33nm,21.5s,baz=86,slow=34						
ARTI	**Arti**	**82.35**	**354**	P	**P**	**20 11 00.5**	**+1.0**
	comp=Z,3.0nm,0.8s,baz=196,slow=6.9,SNR=5.2 comp=Z,3.0nm,0.8s						
ARTI	**Arti**	**82.35**	**354**		**P**	**20 10 59.8**	**+0.3**
ARTI				IAmb	IAmb	20 11 01.0	
	comp=Z,4.4nm,0.7s						
AKASG	**Malin Array Be**	**83.99**	**336**	P	**P**	**20 11 08.0**	**0.0**
	comp=Z,0.3nm,0.2s,baz=126,slow=4.1,SNR=5.4 comp=Z,0.3nm,0.2s						
KIEV	**Kiev**	**83.99**	**336**	P	**P**	**20 11 08.3**	**+0.3**
KIEV				IAmb	IAmb	20 11 10.3	
	comp=Z,6.2nm,1.2s						
VRAC	**Vranov**	**88.27**	**329**	LR	LR	20 52 32.3	
	comp=Z,34nm,18.3s,baz=322,slow=37						
DAVOX	**Davos/Dischmat**	**89.47**	**324**	LR	LR	20 49 38.7	
	comp=Z,58nm,20.3s,baz=284,slow=34						

IDC 26 20:06:45.5±14.0, 5°.68S×110°.95E, h447km±163km, mb2.9/6, mbtmp3.8/6, Error ellipse: s-maj=91.7km s-min=22.2km az=75.0, Java Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**26.80**	**124**	P	P	20 11 48.1	-0.1
	0.3nm,0.5s,baz=303,slow=7.9,SNR=7.7 0.3nm,0.5s						
ASAR	**Alice Springs**	**28.43**	**131**	P	P	20 12 02.6	0.0
	0.6nm,0.4s,baz=300,slow=8.4,SNR=7.1 0.6nm,0.4s						
STKA	**Stephens Creek**	**38.73**	**136**	P	P	20 13 29.7	-0.2
	0.8nm,0.3s,baz=329,slow=11,SNR=3.3 0.8nm,0.3s						
KLR	**Kul'dur**	**57.61**	**16**	P	P	20 15 51.0	-0.3
	0.7nm,0.6s,baz=299,slow=20,SNR=1.7 0.7nm,0.6s						
MKAR	**Makanchi Array**	**58.09**	**337**	P	P	20 15 54.8	+0.2
	0.2nm,0.7s,baz=145,slow=8.5,SNR=1.5 0.2nm,0.7s						
QSPA	**South Pole Qui**	**84.30**	**180**	P	P	20 18 29.0	0.0
	1.1nm,0.4s,baz=272,slow=16,SNR=9.9 1.1nm,0.4s						

IDC ***26*** *20:14:17.4±1.7,3°.08N×124°.56E, h0km, mb3.4/4, mbtmp3.4/4, MS2.4/1, Error ellipse: s-maj=203.2km s-min=23.4km az=64.0*

MAN ***26*** *20:14:27.0, 3°.99N×126°.47E, h96km, MS3.3*

ISC 26 20:14:16.3±1.3, 4°.2N±0°.1×127°.2E±0°.3, h10km, n7, σ1s82/7, mb3.6/4, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**3.30**	**331**	LR	LR	20 17 09.7	
	comp=Z,51nm,19.7s,baz=140,slow=42						
KCP	**Kidapawan**	**3.51**	**324**	*e*P	**Pg**	**20 15 24.2**	**+0.6**
BIPH	**Bislig**	**4.08**	**349**	*e*P	**Pb**	**20 15 29.9**	**+1.7**
BIPH				*e*S	**Sn**	**20 16 04.5**	**-2.1**
WRA	**Warramunga Arr**	**24.97**	**164**	P	**P**	**20 19 41.7**	**+1.5**
	0.7nm,0.6s,baz=336,slow=11,SNR=9.8 0.7nm,0.6s						
ASAR	**Alice Springs**	**28.43**	**167**	P	**P**	**20 20 10.9**	**-0.5**
	0.1nm,0.3s,baz=340,slow=8.1,SNR=1.1 0.1nm,0.3s						
MKAR	**Makanchi Array**	**57.46**	**325**	P	**P**	**20 24 03.7**	**-1.8**
	0.2nm,0.3s,baz=125,slow=6.2,SNR=5.0 0.2nm,0.3s						
KURBB	**Kurchatov Arra**	**61.62**	**327**	P	**P**	**20 24 33.9**	**-0.2**
	0.2nm,0.5s,baz=132,slow=5.0,SNR=1.5 0.2nm,0.5s						

RSPR ***26*** *20:18:00.2, 19°.36N×64°.95W, h11km±13km, MD3.2/3*

NEIC 26 20:17:56.8±1.1, 19°.35N±0°.09×64°.98W±0°.02, h10km±2km, ML2.9/41, Md3.2/3(RSPR), 8C-2D, Error ellipse: s-maj=15.8km s-min=3.0km az=5.0, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUMP	**Col San Antoni**	**1.46**	**215**		Pb	20 18 23.8	-0.3
HUMP					Sn	20 18 40.5	-1.9
HUMP	**Col San Antoni**	**1.46**	**215**	⇑*e*P	Pb	20 18 23.9	-0.2
GCPR	**Guaynabo City**	**1.48**	**225**	Pn	Pn	20 18 22.9	-0.5
GCPR				Sn	Sn	20 18 40.6	-2.2
PDPR	**Patillas Dam,**	**1.66**	**217**		Pn	20 18 26.3	+0.3
PDPR					Sn	20 18 45.5	-1.8
PDPR	**Patillas Dam,**	**1.66**	**217**	⇑*e*P	Pn	20 18 26.6	+0.7
SJG	**San Juan**	**1.66**	**222**	Pn	Pn	20 18 25.8	-0.2
SJG				Sn	Sn	20 18 45.1	-2.3
ECPR	**Experimental S**	**1.67**	**232**		Pn	20 18 26.3	+0.2
ECPR				IAML		20 18 50.2	
	144nm,0.2s						
ECPR				IAML		20 18 50.4	
	127nm,0.2s						
ECPR	**Experimental S**	**1.67**	**232**	⇑*e*P	Pn	20 18 26.4	+0.3
IGPR	**InterUniversit**	**1.75**	**218**		Pb	20 18 28.1	-0.9
IGPR					Sn	20 18 48.7	-0.8
IGPR	**InterUniversit**	**1.75**	**218**	⇑*e*P	Pb	20 18 28.1	-0.9
AOPR	**Arecibo Observ**	**1.96**	**240**	Pn	Pn	20 18 30.1	0.0
AOPR				IAML		20 19 02.0	
	70nm,0.8s						
AOPR				IAML		20 19 03.8	
	120nm,0.3s						
CELP	**Cerrillos**	**1.98**	**230**		Pn	20 18 30.7	+0.3
OBIP	**Obispado Ponce**	**2.02**	**230**		Pn	20 18 31.4	+0.5
OBIP					Sn	20 18 56.1	-0.2
OBIP				IAML		20 19 10.4	
	comp=N,44nm,3.9s						
OBIP	**Obispado Ponce**	**2.02**	**230**	⇑*e*P	Pn	20 18 31.8	+0.8
OBIP				*e*S	Sn	20 18 56.6	+0.3
AGPR	**Aguadilla, PR**	**2.21**	**247**	Pn	Pn	20 18 33.5	0.0
SMRT	**St. Maarten**	**2.22**	**125**	Pn	Pn	20 18 33.4	-0.3
SMRT				IAML		20 18 52.2	
	comp=N,67nm,0.1s						
GBPR	**Guanica, Bosqu**	**2.27**	**233**		Sb	20 19 05.8	-0.1
GBPR					Lg	20 19 08.4	
GBPR	**Guanica, Bosqu**	**2.27**	**233**	*e*S	Sg	20 19 08.4	-1.2
GBPR				⇑*e*P	Sb	20 19 05.8	-0.1
PRSN	**Puerto Rico Se**	**2.34**	**242**	Pn	Pn	20 18 35.0	-0.4
PRSN				IAML		20 19 07.9	
	comp=N,61nm,0.2s						
PRSN				IAML		20 20 02.3	
	comp=N,71nm,2.2s						
SABA	**Saba**	**2.38**	**136**	Pn	Pn	20 18 35.4	-0.5
MLPR	**Magueyes Islan**	**2.40**	**235**		Pn	20 18 35.0	-1.1
MLPR				IAML		20 19 00.2	
	comp=N,52nm,2.9s						
MLPR					Sn	20 19 05.4	-0.2
MLPR				IAML		20 19 10.1	
	comp=N,55nm,0.4s						
MLPR	**Magueyes Islan**	**2.40**	**235**	⇑*e*P	Pn	20 18 37.2	+1.1
MLPR	**Magueyes Islan**	**2.40**	**235**	⇓*e*P	Sn	20 19 06.5	+1.0
CRPR	**Cabo Rojo, PR**	**2.43**	**237**		Pn	20 18 36.2	-0.4
CRPR					Sn	20 19 05.4	-0.9
CRPR				IAML		20 19 14.0	
	comp=N,50nm,2.6s						
CRPR				IAML		20 19 18.6	
	comp=N,61nm,2.9s						
CRPR	**Cabo Rojo, PR**	**2.43**	**237**	⇑*e*P	Pn	20 18 37.6	+1.0
CRPR	**Cabo Rojo, PR**	**2.43**	**237**	⇓*e*P	Sn	20 19 07.8	+1.5
SEUS	**St. Eustatius**	**2.65**	**134**	Pn	Pn	20 18 39.0	-0.5

AFAD ***26*** *20:20:22.5, 38°.46N×39°.29E, h7km±1km, ML1.7*

ISK 26 20:20:06.8, 38°.04N×38°.12E, h4km, ML1.7/8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DARE	**Darende-Malaty**	**0.73**	**317**	Pg	Pb	20 20 21.5	-0.6
DARE				Sg	Sb	20 20 31.9	-0.6
URFA	**Urfa**	**0.82**	**136**	Pg	Pg	20 20 22.2	-0.3
URFA				Sg	Sb	20 20 35.2	+0.2
URFA				AML	AML		
ELZG	**Elazig**	**0.82**	**56**	P	Pn	20 20 27.9	+2.6
ELZG				IAML		20 20 34.0	
	comp=N,135nm,0.3s						
ELZG				IAML		20 20 38.0	
	comp=E,113nm,0.4s						
CNGT	**ngs**	**0.95**	**79**	P	Pn	20 20 28.5	+1.5
CNGT				S	Sg	20 20 32.0	-5.4
ARPR	**Arapgir-MALATY**	**1.07**	**9**	Pg	Pb	20 20 28.2	+0.2
ARPR				AML	AML		
ELZ	**Elazig**	**1.08**	**52**	P	Pg	20 20 27.8	+0.3
ELZ				S	Sg	20 20 31.5	-10
ELZ				IAML		20 20 32.0	
	comp=N,126nm,0.3s						
ELZ				IAML		20 20 32.0	
	comp=E,298nm,0.3s						
KMRS	**Kahramanmaras**	**1.10**	**242**	Pn	Pb	20 20 28.2	-0.2
KMRS				Sn	Sn	20 20 44.6	0.0
KMRS				AML	AML		
GAZ	**Gaziantep**	**1.12**	**220**	Pn	Pb	20 20 28.8	0.0
GAZ				Sn	Sn	20 20 44.8	-0.4
MDNT	**Maden**	**1.28**	**73**	P	Pb	20 20 29.0	-2.5
SARI	**SarD1z-Kayseri**	**1.39**	**286**	Pn	Pg	20 20 33.4	0.0
KOVA	**Elazig, Kovanc**	**1.49**	**63**	P	Pn	20 20 31.8	-2.7
KOVA				S	Sn	20 20 39.0	-15
DYBB	**Diyarbakir**	**1.60**	**92**	Pn	Pb	20 20 36.9	-0.1
DYBB				AML	AML		
KOZT	**Kozan**	**1.90**	**254**	Pn	Pn	20 20 40.9	+1.0
BNN	**Bunyan**	**1.96**	**295**	Pn	Pb	20 20 42.2	-0.9

IDC ***26*** *20:24:16.3±0.7, 16°.38S×173°.38W, h0km, mb4.0/8, mbtmp4.2/11, ML3.8/3, MS3.6/16, Error ellipse: s-maj=25.7km s-min=15.2km az=146.0*

ISC 26 20:24:26.0±0.8, 16°.6S±0°.2×173°.5W±0°.2, h66km, n36, σ1s41/21, mb4.0/8, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**3.12**	**32**	Pn	Pn	20 24 58.5	-14
	32nm,0.3s,baz=193,slow=5.4,SNR=9.5						
AFI				Sn	Sn	20 25 28.0	-21
	62nm,0.3s,baz=232,slow=24,SNR=12						
AFI				LR	LR	20 25 57.2	
	comp=Z,398nm,21.2s,baz=204,slow=35 74nm,0.3s						
AFI				AML	AML		
MSVF	**Nonsavu**	**8.19**	**261**	Pn	**Pn**	**20 26 21.6**	**-0.6**
	0.8nm,0.3s,baz=137,slow=14,SNR=5.6						
MSVF				LR	LR	20 29 20.2	
	comp=Z,789nm,18.7s,baz=57,slow=37						
RAR	**Rarotonga**	**13.76**	**112**	Pn	Pn	20 27 26.3	-12
	2.0nm,0.3s,

0.4nm,0.7s,baz=198,slow=3.0,SNR=6.2
0.4nm,0.7s
ILAR Eielson Array 83.61 11 P **P** **20 36 44.3 -2.4**
0.4nm,0.6s,baz=231,slow=6.1,SNR=14
0.4nm,0.6s
CMIG Matias Romero 84.34 70 LR LR 21 05 08.9
comp=Z,59nm,21.8s,baz=359,slow=29
CMAR Chiang Mai Arr 92.92 288 P **P** **20 37 33.6 +1.1**
0.3nm,0.3s,baz=109,slow=3.9,SNR=5.2
0.3nm,0.3s
BRTR Keskin Array B 147.02 320 PKPbc **PKPdf** **20 44 00.7 +1.0**
1.6nm,0.9s,baz=132,slow=37,SNR=4.9
ABNA Allensteig Bun 147.18 349 *e*PKiKP **PKiKP** **20 44 05.6 +1.5**
3.3nm,1.1s
GERES GERESS Array B 147.29 351 PKPbc **PKPdf** **20 44 00.9 +1.2**
0.3nm,0.5s,baz=352,slow=2.7,SNR=4.2
CONA Conrad Observa 147.81 348 *e*PKiKP **PKPab** **20 44 07.7 +1.6**
3.5nm,1.2s
RONA Rosalia, Austr 147.94 348 *e*PKiKP **PKPab** **20 44 07.6 +1.1**
2.8nm,1.0s
SESA Seetaler Alpe, 148.84 349 *e*PKiKP **PKiKP** **20 44 09.1 +1.3**
4.0nm,1.0s
MOTA Moosalm 149.09 354 *e*PKiKP **PKPab** **20 44 11.1 -0.3**
4.0nm,1.2s
SOKA Soboth 149.17 349 *e*PKiKP **PKiKP** **20 44 11.1 +2.7**
3.0nm,1.2s
FETA Feichten 149.45 354 *e*PKiKP **PKPab** **20 44 13.8 +1.0**
6.1nm,1.6s
ABTA Abfaltersbach 149.51 352 *i* PKiKP **PKiKP** **20 44 11.2 +2.2**
5.0nm,1.5s

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*NOU **26** 20:40:02.8, 10.°45S×161.°37E, h9km, mb4.6/15, Solomon Islands*
*NEIC **26** 20:40:04.3±1.1, 10.°2S±0.°1×161.°6E±0.°1, h84km±10km, mb4.4/10, Error ellipse: s-maj=17.8km s-min=11.2km az=222.0*
*IDC **26** 20:40:05.9±2.4, 10.°31S×161.°42E, h95km±17km, mb3.5/7, mbtmp3.9/8, MS3.3/1, Error ellipse: s-maj=29.1km s-min=19.3km az=69.0*
ISC 26 20:40:05.8±0.7, 10.°46S±0.°06×161.°37E±0.°09, h100km, n38, σ1$48/40, mb4.1/13, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
NGOA	**Tingoa Renbel**	**1.68 230**		P		**Pn**	**20 40 32.3**	**-2.0**
NGOA	**Tingoa Renbel**	**1.68 230**		S		**Sn**	**20 40 53.6**	**-2.4**
HNR	**Honiara**	**1.73 306**		P		**Pn**	**20 40 33.8**	**-1.1**
HNR	196nm,0.5s,baz=219,slow=20,SNR=15			S		**Sn**	**20 40 56.0**	**-1.1**
	255nm,0.3s,baz=87,slow=11,SNR=6.7							
HNR	**Honiara**	**1.73 306**		P		**Pn**	**20 40 33.0**	**-2.0**
HNR	**Honiara**	**1.73 306**		S		**Sn**	**20 40 57.0**	**-0.2**
HNR	**Honiara**	**1.73 306**				**Pn**	**20 40 33.2**	**-1.7**
ALEG	**Aligegeo Malai**	**1.82 339**		P		**Pn**	**20 40 34.0**	**-2.1**
ALEG	**Aligegeo Malai**	**1.82 339**		S		**Sn**	**20 40 57.2**	**-2.0**
SAVO	**Savo Central**	**2.01 310**		P		**Pn**	**20 40 36.4**	**-2.2**
SAVO	**Savo Central**	**2.01 310**		S		**Sn**	**20 41 03.7**	**+0.1**
TATA	**Tatamba Isabel**	**2.58 323**		P		**Pn**	**20 40 44.0**	**-1.9**
TATA	**Tatamba Isabel**	**2.58 323**		S		**Sn**	**20 41 16.5**	**-0.2**
SANVU	**Saraoutou**	**7.54 132**		P		**Pn**	**20 41 52.8**	**-0.3**
SANVU	**Saraoutou**	**7.54 132**				**Pn**	**20 41 51.8**	**-1.3**
KOUNC	**Koumac, New Ca**	**10.42 165**		Pn		**Pn**	**20 42 33.0**	**+0.7**
DZM	**Mont Dzumac**	**12.53 158**		P		**Pn**	**20 43 02.4**	**+1.8**
DZM	3.0nm,0.3s,baz=21,slow=9.5,SNR=19			S		**Sn**	**20 45 15.5**	**-3.0**
	baz=248,slow=19							
MARNC	**Mare, Loyalty**	**12.69 151**		Pn		**Pn**	**20 43 02.2**	**-0.4**
YATNC	**Mamie plateau,**	**12.69 156**		P		**Pn**	**20 43 03.9**	**+1.2**
OUENC	**Ouen Island, N**	**12.99 157**		P		**Pn**	**20 43 08.2**	**+1.6**
OUENC	**Ouen Island, N**	**12.99 157**		Pn		**Pn**	**20 43 09.3**	**+2.7**
PATS	**Pohnpei**	**17.45 350**		P		**Pn**	**20 44 03.5**	**+0.5**
WR8	**Warramunga Arr**	**27.55 247**		P		**P**	**20 45 45.0**	**+1.5**
WR8	comp=Z,7.2nm,1.1s			IAmb		IAmb	20 46 12.4	
WB0	**Warramunga Arr**	**27.60 247**		P		**P**	**20 45 45.4**	**+1.5**
WB0	comp=Z,11nm,1.2s			IAmb		IAmb	20 45 58.6	
WRAB	**Tennant Creek**	**27.68 247**		P		**P**	**20 45 45.9**	**+1.2**
WRAB	comp=Z,9.6nm,1.4s			IAmb		IAmb	20 46 24.7	
WRA	**Warramunga Arr**	**27.70 247**		P		**P**	**20 45 46.0**	**+1.2**
WRA	comp=Z,0.5nm,0.4s,baz=77,slow=9.0,SNR=9.6			PcP		**PcP**	**20 49 00.3**	**+0.7**
	comp=Z,0.1nm,0.6s,baz=69,slow=2.7,SNR=1.6 comp=Z,0.5nm,0.4s							
STKA	**Stephens Creek**	**28.08 218**		LR		LR	20 58 36.0	
	comp=Z,57nm,18.4s,baz=205,slow=39							
ASAR	**Alice Springs**	**29.28 240**		P		**P**	**20 46 00.8**	**+1.9**
	comp=Z,0.2nm,0.4s,baz=62,slow=9.3,SNR=4.1 comp=Z,0.2nm,0.4s							
KNRA	**Kununurra**	**32.16 257**		P		**P**	**20 46 25.3**	**+1.1**
KNRA	comp=Z,22nm,1.5s			IAmb		IAmb	20 47 03.6	
FITZ	**Fitzroy Crossi**	**35.40 254**		P		**P**	**20 46 53.3**	**+1.0**
FITZ	comp=Z,7.2nm,1.5s			IAmb		IAmb	20 46 54.8	
TOLI2	**Tolitoli**	**41.98 283**		P		**P**	**20 47 46.7**	**-0.7**
TOLI2	comp=Z,8.6nm,1.0s			IAmb		IAmb	20 48 03.4	
UGM	**Wanagama**	**50.22 268**		P		**P**	**20 48 52.6**	**+0.5**
CMAR	**Chiang Mai Arr**	**67.95 295**		P		**P**	**20 50 55.0**	**+0.5**
	comp=Z,0.3nm,0.5s,baz=137,slow=5.6,SNR=4.0 comp=Z,0.3nm,0.5s							
SONM	**Songino Array**	**75.70 325**		P		**P**	**20 51 41.0**	**+0.6**
	comp=Z,1.5nm,0.7s,baz=140,slow=6.5,SNR=12 comp=Z,1.5nm,0.7s							
SONM	**Songino Array**	**75.70 325**		P		**P**	**20 51 40.5**	**+0.1**
QSPA	**South Pole Qui**	**79.54 180**		P		**P**	**20 52 03.3**	**+1.8**
	comp=Z,0.8nm,0.2s,baz=104,slow=4.0,SNR=6.3 comp=Z,0.8nm,0.2s							
ILAR	**Eielson Array**	**84.38 20**		P		**P**	**20 52 26.4**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=245,slow=4.9,SNR=6.3 comp=Z,0.5nm,0.7s							
MKAR	**Makanchi Array**	**90.17 318**		P		**P**	**20 52 54.6**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=90,slow=6.3,SNR=5.1 comp=Z,0.3nm,0.6s							
MKAR	**Makanchi Array**	**90.17 318**		P		**P**	**20 52 54.2**	**-0.8**

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*NEIC **26** 20:54:26.9±1.6, 39.°68N±0.°06×142.°3E±0.°1, h52km±6km, mb4.5/44, Error ellipse: s-maj=11.9km s-min=8.2km az=98.0*
*NIED **26** 20:54:30.7, 39.°76N×141.°83E, h59km, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr1.27; Mθθ-0.06; Mϕϕ-1.21; Mrθ0.37; Mθϕ-0.19; Mϕr1.18; Fault plane solution: M₀1.76000×10¹⁵ NP1: ϕs184.00000°, δ23.00000°, λ80.00000°. NP2:ϕs15.00000°, δ67.00000°, λ94.00000°.*
*JMA **26** 20:54:30.7±0.1, 39.°8N±0.°2×141.°8E±0.°4, h59km, MD4.0/38, MV3.9/38, NORTHERN IWATE PREF*
JMA Felt II J1 at NORTHERN IWATE PREF .
*IDC **26** 20:54:32.0±2.0, 39.°75N×141.°77E, h74km±16km, mb3.8/17, mbtmp4.0/23, MS2.9/6, Error ellipse: s-maj=18.5km s-min=13.5km az=123.0*
ISC 26 20:54:28.3±0.7, 39.°72N±0.°04×142.°12E±0.°05, h66km±6km, n128, σ1$48/125, mb4.4/36, 1C-16D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
MIYJ	**Miyakonagasawa**	**0.27 239**		*i* P		**Pn**	**20 54 40.1**	**+1.3**
MIYJ	comp=N,13nm,0.7s,comp=E,22nm,1.1s			A		A	20 54 40.1	
MIYJ				S		**Sn**	**20 54 46.5**	**0.0**
JTH	**Tanohata**	**0.30 318**		*i* P		**Pn**	**20 54 40.1**	**+1.1**
JTH	comp=N,33nm,0.3s,comp=E,61nm,0.3s			A		A	20 54 40.1	
JTH				*i* S		**Sn**	**20 54 46.6**	**-0.2**
JKEN	**Kujiedanarisaw**	**0.58 327**		⇓*i* P		**Pn**	**20 54 42.1**	**+0.6**
JKEN	comp=N,44nm,1.1s,comp=E,51nm,1.0s			A		A	20 54 42.1	
JKEN				⇓S		**Sn**	**20 54 50.3**	**-1.0**
JKZ	**Kuzumaki**	**0.67 294**		⇓*i* P		**Pn**	**20 54 42.3**	**-0.3**
JKZ	comp=N,12nm,0.7s,comp=E,29nm,0.6s			A		A	20 54 42.3	
JKZ				⇓S		**Sn**	**20 54 50.3**	**-2.8**
JOM	**Ohasama**	**0.69 249**		⇓*i* P		**Pn**	**20 54 42.6**	**-0.2**
JOM	comp=N,10.0nm,0.2s,comp=E,30nm,1.3s			A		A	20 54 42.6	
JOM				⇓S		**Sn**	**20 54 51.2**	**-2.2**
OFUJ	**Ofunato**	**0.73 209**		*i* P		**Pn**	**20 54 44.8**	**+1.5**
OFUJ	comp=N,14nm,0.3s,comp=E,18nm,0.3s			A		A	20 54 44.8	
OFUJ				S		**Sn**	**20 54 54.8**	**+0.6**
JANG	**Nango**	**0.80 325**		⇓*i* P		**Pn**	**20 54 44.2**	**+0.1**
JANG	comp=N,16nm,0.5s,comp=E,12nm,0.9s			A		A	20 54 44.2	
JANG				⇓S		**Sn**	**20 54 53.9**	**-2.0**
JSZI	**Iwateshizukuis**	**0.90 272**		A		A	20 54 44.7	
	comp=N,10.0nm,1.1s,comp=E,11nm,2.6s							
JMK	**Ichinoseki**	**1.04 223**		⇓*i* P		**Pn**	**20 54 47.8**	**+0.7**
JMK				⇓S		**Sn**	**20 55 00.2**	**-0.8**
JRG	**Rokugo**	**1.20 255**		⇓*i* P		**Pn**	**20 54 48.5**	**-0.6**
JRG	comp=N,11nm,0.6s,comp=E,11nm,0.5s			A		A	20 54 48.5	
JAH	**Hinai**	**1.24 293**		⇓*i* P		**Pn**	**20 54 49.0**	**-0.6**
JAH				⇓S		**Sn**	**20 55 02.4**	**-3.1**
JTM	**Tenmabayashi**	**1.34 323**				**Pn**	**20 54 50.9**	**-0.1**
JTM				Sn		**Sn**	**20 55 05.0**	**-3.0**
JTM	**Tenmabayashi**	**1.34 323**		⇓*i* P		**Pn**	**20 54 51.0**	**+0.1**
JTM				⇓S		**Sn**	**20 55 05.7**	**-2.3**
JIO	**Ouri**	**1.40 206**		*i* P		**Pn**	**20 54 53.3**	**+1.5**
JYK	**Kaneyama**	**1.58 240**		⇓*i* P		**Pn**	**20 54 54.3**	**+0.1**
JAHD	**Aomorihigashid**	**1.66 339**		A		A	20 54 56.5	
	comp=N,4.0nm,0.4s,comp=E,5.0nm,0.5s							
JIW	**Iwasaki**	**1.84 299**		A		A	20 54 57.7	
	comp=N,4.0nm,0.8s,comp=E,3.0nm,0.6s							
JYA	**Atsumi**	**2.19 240**		A		A	20 55 03.2	
	comp=N,3.0nm,0.8s,comp=E,3.0nm,0.7s							
ERM	**Erimo**	**2.42 19**		Pn		**Pn**	**20 55 07.5**	**+2.0**
ERM				Sn		**Sn**	**20 55 33.9**	**-0.2**
JKA	**Kamikawa-asahi**	**4.41 4**		Pn		**Pn**	**20 55 31.4**	**-1.3**
JKA				Sn		**Sn**	**20 56 23.3**	**+0.7**
ASAJ	**Asahikawa**	**4.41 4**		P		**Pn**	**20 55 35.2**	**+2.5**
	comp=E,8.8nm,0.3s,baz=239,slow=12,SNR=18							
ASAJ				S		**Sn**	**20 56 26.4**	**+3.7**
	comp=E,24nm,0.6s,baz=319,slow=28,SNR=3.8							
ASAJ				LR		LR	20 57 49.6	
	comp=E,64nm,19.4s,baz=68,slow=45							
MAJO	**Matsushiro**	**4.42 225**				**Pn**	**20 55 32.6**	**-0.4**
MJAR	**Matsushiro Arr**	**4.42 225**		P		**Pn**	**20 55 35.5**	**+2.6**
	comp=E,8.5nm,0.6s,baz=33,slow=14,SNR=26							
MJAR	**Matsushiro Arr**	**4.42 225**				**Pn**	**20 55 33.5**	**+0.6**
MJB9	**Matsu-Tunnel**	**4.42 226**				**Pn**	**20 55 33.8**	**+0.8**
JGF	**Kuroka**	**5.58 224**				**Pn**	**20 55 49.9**	**+1.1**
JSG	**Sagara**	**5.94 213**		Pn		**Pn**	**20 55 52.1**	**-1.4**
INU	**Inuyama**	**5.96 225**		Pn		**Pn**	**20 55 53.3**	**-0.5**
JHJ2	**Mitsune**	**6.85 196**		Pn		**Pn**	**20 56 04.9**	**-1.2**
USA0B	**Ussuriysk Arra**	**8.78 304**				**Pn**	**20 56 33.0**	**+0.7**
USRK	**Ussuriysk Ar.**	**8.78 304**		P		**Pn**	**20 56 34.5**	**+2.1**
	comp=E,7.5nm,0.8s,baz=111,slow=13,SNR=8.6							
USRK	**Ussuriysk Ar.**	**8.78 304**				**Pn**	**20 56 32.7**	**+0.3**
JMN	**Monobe**	**8.92 230**		Pn		**Pn**	**20 56 34.1**	**-0.2**
MDJ	**Mudanjiang**	**10.51 302**		P		**Pn**	**20 56 59.5**	**+3.5**
MDJ	comp=Z,28nm,1.0s			pmax		pmax		
KSRS	**Korea Array**	**11.34 263**		P		**Pn**	**20 57 08.2**	**+0.7**
	comp=Z,2.6nm,0.8s,baz=72,slow=14,SNR=5.5							
KSRS				LR		LR	21 01 02.5	
	comp=Z,48nm,19.9s,baz=80,slow=35							
KS19	**Wonju Array Si**	**11.37 263**		Pn		**Pn**	**20 57 08.8**	**+0.9**
KLR	**Kul'dur**	**12.04 326**		P		**Pn**	**20 57 18.7**	**+1.8**
	comp=Z,1.5nm,0.7s,baz=259,slow=23,SNR=1.2							
BNX	**BinXian**	**12.38 304**		⇑P		**Pn**	**20 57 20.0**	**-1.5**
BNX	comp=Z,7.0nm,1.2s			pmax		pmax		
JCJ	**Chichijima**	**12.59 180**		LR		LR	21 03 28.2	
	comp=Z,28nm,20.9s,baz=118,slow=42							
CN2	**Changchun**	**13.10 294**		*e*P		**Pn**	**20 57 34.3**	**+3.0**
CN2	comp=Z,10.0nm,0.5s			pmax		pmax		
HEH	**HeiHe**	**14.78 320**		*e*P		**P**	**20 57 58.8**	**+1.0**
JMZ	**Minamidaito 2**	**16.60 217**				**Pn**	**20 58 16.6**	**-0.1**
PEA0B	**Petropavlovsk-**	**17.11 33**		Pn		**Pn**	**20 58 19.5**	**-3.4**
PEA0B	comp=Z,90nm,1.5s			IAmb		IAmb	20 58 48.5	
PETK	**Petropavlovsk-**	**17.11 33**		Pn		**Pn**	**20 58 20.4**	**-2.4**
HILR	**Hailar Array B**	**18.65 309**		P		**P**	**20 58 39.6**	**-1.0**
	comp=Z,3.8nm,0.6s,baz=108,slow=12,SNR=4.6							
TIA	**Tai'an**	**20.00 268**		P		**P**	**20 58 55.5**	**+0.1**
TIA	comp=Z,19nm,1.1s			pmax		pmax		
NJ2	**Nanjing**	**20.31 255**		*e*P		Pn	20 59 00.5	-0.8
NJ2	comp=Z,7.0nm,0.5s			pmax		pmax		
MA2	**Magadan**	**20.62 13**		P		Pn	20 59 05.0	+0.3
	comp=Z,8.5nm,0.7s,baz=194,slow=8.9,SNR=5.2							
MA2				LR		LR	21 06 51.0	
	comp=Z,34nm,19.9s,baz=114,slow=36 comp=Z,8.5nm,0.7s							
MA2	**Magadan**	**20.62 13**		P		**P**	**20 59 01.8**	**-0.1**
MA2	comp=Z,30nm,1.1s			IAmb		IAmb	20 59 27.8	
NACB	**Ninganchiao**	**23.23 234**				**P**	**20 59 29.4**	**-0.4**
HHC	**Hu-ho-hao-te**	**23.29 283**		*e*P		**P**	**20 59 31.3**	**+1.0**
HHC	comp=Z,4.0nm,0.6s			pmax		pmax		
YAK	**Yakutsk**	**23.60 345**				**P**	**20 59 32.3**	**-0.5**
YAK	comp=Z,15nm,0.8s			IAmb		IAmb	20 59 34.8	
SONM	**Songino Array**	**26.85 299**		P		**P**	**21 00 01.8**	**-0.8**
	comp=Z,1.0nm,0.8s,baz=101,slow=8.9,SNR=6.5 comp=Z,1.0nm,0.8s							
SONM	**Songino Array**	**26.85 299**		P		**P**	**21 00 02.2**	**-0.4**
ENH	**Enshi**	**28.22 261**		P		**P**	**21 00 14.2**	**-0.6**
ENH	comp=Z,8.7nm,1.0s			IAmb		IAmb	21 00 16.1	
TLY	**Talaya**	**29.07 307**		LR		LR	21 12 25.0	
	comp=Z,39nm,20.8s,baz=58,slow=37							
H11N2	**WAKE ISLAND Hy**	**29.16 126**		T		T	21 31 06.0	
	baz=318,slow=75,SNR=576							
H11N1	**WAKE ISLAND Hy**	**29.16 126**		T		T	21 31 07.3	
	baz=318,slow=75,SNR=767							
H11N3	**WAKE ISLAND Hy**	**29.17 126**		T		T	21 31 08.0	
	baz=318,slow=75,SNR=568							
H11S1	**WAKE ISLAND Hy**	**29.95 128**		T		T	21 32 04.9	
	baz=320,slow=76,SNR=81							
H11S3	**WAKE ISLAND Hy**	**29.96 128**		T		T	21 32 05.1	
	baz=320,slow=76,SNR=77							
H11S2	**WAKE ISLAND Hy**	**29.97 128**		T		T	21 32 06.2	
	baz=320,slow=76,SNR=63							
SPIA	**Saint Paul Isl**	**35.23 44**		P		**P**	**21 01 13.9**	**-2.0**
WMQ	**Urumqi**	**40.19 294**		*e*P		**P**	**21 02 00.0**	**+1.9**
WMQ	comp=Z,6.0nm,0.7s			pmax		pmax		
ZAA0	**Zalesovo Array**	**40.57 310**				**P**	**21 02 01.4**	**+0.5**
ZAA0	comp=Z,6.3nm,0.7s			IAmb		IAmb	21 02 02.8	
ZALV	**Zalesovo Beam**	**40.57 310**		P		**P**	**21 02 02.3**	**+1.3**
	comp=Z,5.8nm,0.5s,baz=92,slow=8.0,SNR=34							
ZALV				PcP		**PcP**	**21 04 04.0**	**+2.0**
	comp=Z,0.4nm,0.3s,baz=66,slow=3.5,SNR=2.6 comp=Z,5.8nm,0.5s							
ZALV	**Zalesovo Beam**	**40.57 310**				**P**	**21 02 01.4**	**+0.5**
G18K	**Tagagawik**	**42.06 32**		P		**P**	**21 02 13.6**	**+0.5**
D19K	**Kuna River**	**42.70 28**		P		**P**	**21 02 18.3**	**0.0**
D19K	comp=Z,19nm,1.4s			IAmb		IAmb	21 02 38.4	
E19K	**Redstone River**	**42.86 30**		P		**P**	**21 02 18.9**	**-0.6**
H19K	**Roundabout Mou**	**42.92 32**		P		**P**	**21 02 20.0**	**0.0**
H19K	comp=Z,9.8nm,1.4s			IAmb		IAmb	21 02 55.4	
MKAR	**Makanchi Array**	**43.22 300**		P		**P**	**21 02 23.7**	**+1.0**
	comp=Z,3.2nm,0.7s,baz=85,slow=9.5,SNR=34							
MKAR				LR		LR	21 19 43.0	
	comp=Z,39nm,20.4s,baz=50,slow=35 comp=Z,3.2nm,0.7s							
MKAR	**Makanchi Array**	**43.22 300**				**P**	**21 02 23.4**	**+0.7**
MAKZ	**Makanchi**	**43.42 300**				**P**	**21 02 24.6**	**+0.2**
D22K	**Ayikyak River**	**44.73 28**		P		**P**	**21 02 34.3**	**-0.2**
D22K	comp=Z,11nm,1.4s			IAmb		IAmb	21 02 42.1	
KURK	**Kurchatov**	**44.76 306**				**P**	**21 02 35.5**	**+0.6**
KURK	comp=Z,9.0nm,0.9s			IAmb		IAmb	21 02 36.7	
KURK	**Kurchatov**	**44.76 306**				**PcP**	**21 04 18.3**	**+2.3**
KURBB	**Kurchatov Arra**	**44.83 306**		P		**P**	**21 02 36.5**	**+1.0**
	comp=Z,7.8nm,0.7s,baz=82,slow=8.4,SNR=63							
KURBB				PcP		**PcP**	**21 04 18.3**	**+2.0**
	comp=Z,0.2nm,0.4s,baz=61,slow=5.7,SNR=2.9 comp=Z,7.8nm,0.7s							
SUA	**Susitna One**	**45.39 38**		P		**P**	**21 02 38.9**	**-1.1**
PDGK	**Podgornoye**	**46.06 296**		P		**P**	**21 02 45.7**	**+0.2**
EVN	**Everest**	**46.75 273**				**P**	**21 02 52.7**	**+1.0**
EVN	comp=Z,4.3nm,0.6s			IAmb		IAmb	21 02 55.4	
ILAR	**Eielson Array**	**46.94 34**		P		P	21 02 56.6	+4.7
	comp=Z,0.5nm,0.6s,baz=264,slow=5.9,SNR=10.0 comp=Z,0.5nm,0.6s							
ILAR	**Eielson Array**	**46.94 34**		P		P	21 02 56.1	+4.1
WUS	**Wushi**	**46.94 293**				**P**	**21 02 53.8**	**+1.3**
WUS	comp=Z,8.8nm,1.4s			IAmb		IAmb	21 02 56.5	
P23K	**Montague Islan**	**47.17 40**		P		**P**	**21 02 53.4**	**-0.4**
TARG	**Taragay, Kyrgy**	**47.76 294**				**P**	**21 02 59.8**	**+0.7**
TARG				IAmb		IAmb	21 03 02.9	
	comp=Z,3.1nm,0.7s							
SCRK	**Sand Creek**	**48.27 35**		P		**P**	**21 03 02.2**	**-0.2**
KAIM	**Kayak Island**	**48.66 40**		P		**P**	**21 03 05.4**	**+0.1**
D27M	**Malcolm River**	**48.93 27**		IAmb		IAmb	21 03 06.1	
	comp=Z,4.9nm,1.3s							
BVAR	**Borovoye Array**	**49.21 311**		P		**P**	**21 03 10.9**	**+1.3**
	comp=Z,1.1nm,0.5s,baz=60,slow=8.6,SNR=8.0							
BVAR				PcP		**PcP**	**21 04 34.4**	**+2.6**
	comp=Z,1.2nm,0.6s,baz=79,slow=3.2,SNR=4.2 comp=Z,1.1nm,0.5s							
BORK	**Borovoye**	**49.25 311**		P		**P**	**21 03 09.8**	**0.0**
L27K	**Beaver Creek,**	**49.36 36**		P		**P**	**21 03 10.6**	**0.0**
L27K				IAmb		IAmb	21 03 28.8	
	comp=Z,5.2nm,1.3s							
BCAR	**Beaver Creek A**	**49.38 36**		P		**P**	**21 03 10.2**	**-0.6**
F28M	**Old Crow**	**49.51 30**		P		**P**	**21 03 10.1**	**-1.6**
E28M	**Babbage River**	**49.51 28**		P		**P**	**21 03 10.4**	**-1.4**
E28M				IAmb		IAmb	21 03 29.0	
	comp=Z,5.2nm,1.4s							
F30M	**Barrier River**	**51.05 29**		P		**P**	**21 03 23.3**	**0.0**
F30M				IAmb		IAmb	21 03 30.5	
	comp=Z,4.5nm,1.1s							
ARSB	**Arslanbob**	**51.28 296**		P		**P**	**21 03 25.8**	**+0.2**
ARSB				IAmb		IAmb	21 03 32.8	
	comp=Z,3.7nm,0.9s							
KKAR	**Karatay Array**	**52.30 299**		P		**P**	**21 03 33.6**	**+0.6**
S31K	**Pelican**	**53.26 41**		P		**P**	**21 03 39.3**	**-0.5**
ARTI	**Arti**	**54.85 317**				**P**	**21 03 52.4**	**+1.0**
AB31	**Akbulak array**	**56.66 309**				**P**	**21 04 05.1**	**+0.6**
AB31				IAmb		IAmb	21 04 06.5	
	comp=Z,4.2nm,0.6s							
ABKAR	**Akbulak array**	**56.66 309**		P		**P**	**21 04 05.2**	**+0.7**
SPT	**South Point**	**56.90 92**		P		**P**	**21 04 03.9**	**-2.7**
WRA	**Warramunga Arr**	**59.79 188**		P		**P**	**21 04 28.4**	**+1.9**
	comp=Z,1.7nm,0.8s,baz=7.0,slow=7.0,SNR=7.4 comp=Z,1.7nm,0.8s							
WRA	**Warramunga Arr**	**59.79 188**		IAmb		IAmb	21 04 29.7	
	comp=Z,0.2nm,0.9s							
RES	**Resolute Bay**	**59.87 15**		P		**P**	**21 04 25.5**	**-1.0**
RES				IAmb		IAmb	21 04 37.1	
	comp=Z,4.6nm,1.2s							
SHUK	**Shuksan-Mt. Ba**	**64.98 46**		P		**P**	**21 04 59.0**	**-2.2**
OUENC	**Ouen Island, N**	**65.99 155**		P		**P**	**21 05 05.0**	**-2.6**
FINES	**FINESS Array B**	**66.71 332**		P		**P**	**21 05 13.7**	**+1.9**
	comp=Z,3.4nm,0.7s,baz=50,slow=10,SNR=11 comp=Z,3.4nm,0.7s							
I03D	**Drain, OR**	**66.80 52**		P		**P**	**21 05 10.9**	**-1.8**
GIRL	**Giralia**	**67.28 208**		P		**P**	**21 05 15.0**	**-0.9**
KIV	**Kislovodsk**	**69.58 311**				**P**	**21 05 31.1**	**+0.9**
KBZ	**Khabaz**	**69.59 310**		P		**P**	**21 05 32.6**	**+2.5**
	comp=Z,3.1nm,0.9s,baz=56,slow=5.2,SNR=5.6 comp=Z,3.1nm,0.9s							
FORT	**Forrest**	**71.35 193**		P		**P**	**21 05 39.1**	**-1.8**
FORT				IAmb		IAmb	21 05 46.1	
	comp=Z,8.7nm,1.1s							
NC405	**NORSAR Array S**	**71.72 337**		P		**P**	**21 05 43.8**	**+0.9**
HFS	**Hagfors**	**71.88 336**		P		**P**	**21 05 45.5**	**+1.7**
	comp=Z,1.6nm,0.6s,baz=104,slow=0.6,SNR=4.7 comp=Z,1.6nm,0.6s							
NB201	**NORSAR Array S**	**71.90 337**		P		**P**	**21 05 44.7**	**+0.7**
NB2	**NORSAR Subarra**	**71.93 337**		P		**P**	**21 05 46.3**	**+2.1**
	comp=Z,2.1nm,0.8s,baz=38,slow=6.2							
NOA	**NORSAR Array B**	**71.93 337**		P		**P**	**21 05 45.7**	**+1.6**
	comp=Z,1.2nm,0.6s,baz=39,slow=6.1,SNR=6.5 comp=Z,1.2nm,0.6s							
AKASG	**Malin Array Be**	**72.52 322**		P		**P**	**21 05 49.2**	**+1.5**
	comp=Z,1.5nm,0.5s,baz=47,slow=5.7,SNR=8.5 comp=Z,1.5nm,0.5s							
PMPB	**Monarch Peak**	**72.69 57**		P		**P**	**21 05 47.0**	**-2.2**
PDAR	**Pinedale Array**	**75.40 46**		P		P	21 06 09.8	+4.8
	comp=Z,0.4nm,0.6s,baz=274,slow=0.8,SNR=5.4 comp=Z,0.4nm,0.6s							
BUR08	**Bucovina Ar. S**	**76.54 322**				**P**	**21 06 12.0**	**+0.6**
BRTR	**Keskin Array B**	**77.49 311**		P		**P**	**21 06 18.9**	**+2.0**
	comp=Z,0.4nm,0.5s,baz=88,slow=6.4,SNR=2.3 comp=Z,0.4nm,0.5s							
CLL	**Collm**	**79.05 330**		*i* P		**P**	**21 06 27.5**	**+2.5**
GERES	**GERESS Array B**	**80.72 328**		P		**P**	**21 06 36.3**

KSRS	Korea Array	25.93	326	P		P	21 08 10.5	-2.5
	comp=Z,1.8nm,0.7s,baz=152,slow=9.1,SNR=6.1							
	comp=Z,1.8nm,0.7s							
KSAR	Wonju Array Be	25.94	326	P		P	21 08 12.0	-1.1
KS19	Wonju Array Si	25.99	326	P		P	21 08 11.4	-2.2
KS19				IAmb		IAmb	21 08 14.2	
	comp=Z,19nm,1.2s							
WB0	Warramunga Arr	37.99	198	P		P	21 09 59.4	+1.7
WB0				IAmb		IAmb	21 10 09.1	
	comp=Z,9.3nm,1.4s							
WR8	Warramunga Arr	38.13	197	P		P	21 10 00.4	+1.4
WR8				IAmb		IAmb	21 10 00.8	
	comp=Z,9.9nm,1.1s							
WRAB	Tennant Creek	38.16	198	P		P	21 10 00.7	+1.5
WRAB				IAmb		IAmb	21 10 01.0	
	comp=Z,14nm,1.4s							
WRA	Warramunga Arr	38.17	198	P		P	21 10 00.9	+1.7
	comp=Z,2.8nm,0.8s,baz=28,slow=8.8,SNR=22							
	comp=Z,2.8nm,0.8s							
WRA	Warramunga Arr	38.17	198	P		P	21 09 59.8	+0.5
FITZ	Fitzroy Crossi	39.91	211	P		P	21 10 15.3	+1.6
ASAR	Alice Springs	41.82	196	P		P	21 10 32.3	+3.1
	comp=Z,0.3nm,0.5s,baz=20,slow=13,SNR=7.1							
	comp=Z,0.3nm,0.5s							
ASAR	Alice Springs	41.82	196	P		P	21 10 30.9	+1.6
LZDM	Lanzhou Array	41.88	305	P		P	21 10 30.8	+0.9
	comp=Z,3.0nm,0.3s,baz=144,slow=8.6,SNR=6.0							
	comp=Z,3.0nm,0.3s							
CMAR	Chiang Mai Arr	44.57	279	P		P	21 10 51.8	+0.6
	comp=Z,0.3nm,0.3s,baz=89,slow=8.1,SNR=2.0							
	comp=Z,0.3nm,0.3s							
SONM	Songino Array	44.70	323	P		P	21 10 51.8	-0.3
	comp=Z,0.4nm,0.6s,baz=138,slow=8.8,SNR=3.7							
	comp=Z,0.4nm,0.6s							
SONM	Songino Array	44.70	323	P		P	21 10 51.7	-0.3
ZALV	Zalesovo Beam	59.59	323	P		P	21 12 42.8	+1.9
	comp=Z,0.4nm,0.5s,baz=91,slow=8.6,SNR=2.1							
	comp=Z,0.4nm,0.5s							
MKAR	Makanchi Array	59.85	315	P		P	21 12 43.2	+0.2
	comp=Z,0.2nm,0.3s,baz=95,slow=8.4,SNR=7.2							
	comp=Z,0.2nm,0.3s							
MKAR	Makanchi Array	59.85	315	P		P	21 12 42.8	-0.2
F17K	Baldwin Pennin	60.37	22	P		P	21 12 47.6	+1.5
F17K				IAmb		IAmb	21 13 16.5	
	comp=Z,12nm,1.2s							
PDGK	Podgornoye	61.49	311	P		P	21 12 54.6	+0.4
KURK	Kurchatov	62.75	319	P		P	21 13 01.7	-0.6
KURK				IAmb		IAmb	21 13 03.6	
	comp=Z,2.3nm,1.1s							
KURBB	Kurchatov Arra	62.80	319	P		P	21 13 02.5	0.0
	comp=Z,2.1nm,0.7s,baz=98,slow=6.9,SNR=17							
	comp=Z,2.1nm,0.7s							
BCPM	Bancas Point	67.93	32	P		P	21 13 35.4	+0.2
BTK	Batken	67.99	307	P		P	21 13 35.3	-0.8
BTK				IAmb		IAmb	21 13 46.0	
	comp=Z,3.9nm,1.4s							
BVAR	Borovoye Array	68.00	321	P		P	21 13 35.9	+0.1
	comp=Z,1.5nm,0.5s,baz=94,slow=7.2,SNR=9.8							
	comp=Z,1.5nm,0.5s							
BORK	Borovoye	68.05	321	P		P	21 13 35.8	-0.3
KKAR	Karatay Array	68.05	310	P		P	21 13 34.3	-2.0
I28M	Miner Creek	68.36	26	P		P	21 13 34.0	-3.9
AB31	Akbulak array	74.79	317	P		P	21 14 16.0	-0.4
AB31				IAmb		IAmb	21 14 16.4	
	comp=Z,3.2nm,1.3s							
ABKAR	Akbulak array	74.79	317	P		P	21 14 15.9	-0.4
NVAR	Mina Array Bea	84.28	52	P		P	21 15 07.8	-0.1
	comp=Z,0.2nm,0.3s,baz=310,slow=5.7,SNR=5.5							
	comp=Z,0.2nm,0.3s							

*BJI **26** 21:12:06.0,62˚.00N×150˚.00W,h50km,mb4.7/37*
*IDC **26** 21:12:09.1±1.2,62˚.08N×150˚.23W,h49km±12km,mb4.2/27, mbtmp4.5/30,ML4.2/5,MS3.6/54,Error ellipse: s-maj=11.5km s-min=8.8km az=107.0*
*NEIC **26** 21:12:10.2±1.0,62˚.02N±0˚.02×150˚.02W±0˚.05,h47km±5km, mb4.7/43,ML4.7/230,Mwr4.6/170,ML4.6(AEIC),Error ellipse: s-maj=3.9km s-min=2.6km az=46.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr=0.95; Mθθ0.25; Mφφ0.70; Mrθ=0.03; Mθφ-0.57; Mφr-0.43; Fault plane solution: M0 1.11000×10¹⁶ NP1: ϕs338.29000°,δ56.27000°,λ-74.81000°. NP2: ϕs132.22000°,δ36.62000°,λ-111.43000°. Principal axes: T 1.1538, Plg10.0000°, Azm57.0000°; N -0.0863, Plg13.0000°, Azm150.0000°; P -1.0675, Plg74.0000°, Azm290.0000°;*
*AEIC **26** 21:12:10.8±0.9,62˚.01N±0˚.02×150˚.01W±0˚.05,h42km±7km Error ellipse: s-maj=3.8km s-min=2.6km az=47.0*
*NEIC **26** 21:12:10.2,62˚.02N×150˚.01W,h45km*
*GFZ **26** 21:12:10.0±0.2,62˚N±3˚×15˚0W±˚,h54km,M4.8/53, mb4.8/53*

ISC 26 21:12:09.7±0.4,62˚.02N±0˚.03×150˚.03W±0˚.03,h55km±3km, h54km:pP-P,n622,σ1§96/549,mb4.7/142,MS3.5/48, 22C-18D,Central Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
M22K	Willow	0.27	189		Pn	21 12 18.3	-0.7
M22K				Sn	Sn	21 12 25.7	+0.1
CUT	Chulitna	0.40	344		Pn	21 12 20.0	-0.1
CUT				Sn	Sn	21 12 27.9	+0.2
GHO	Glory Hole Cre	0.58	115		Pn	21 12 21.9	-0.4
GHO	Glory Hole Cre	0.58	115		Sn	21 12 30.8	-0.5
GHO	Glory Hole Cre	0.58	115	IAML		21 12 33.1	
	comp=N,24μm,0.5s						
GHO				IAML		21 12 34.5	
	comp=E,26μm,0.8s						
PMR	Palmer	0.61	135	P	Pn	21 12 21.7	-0.7
PMR	Palmer	0.61	135	S	Sn	21 12 30.8	-0.8
PMR	Palmer	0.61	135		Pn	21 12 21.7	-0.7
PMR				Sn	Sn	21 12 31.8	+0.1
L22K	Petersville	0.61	326		Pn	21 12 22.5	-0.1
L22K					Sn	21 12 32.2	+0.2
L22K	Petersville	0.61	326	IAML		21 12 32.9	
	comp=N,35μm,0.6s						
SUA	Susitna One	0.66	212		Pn	21 12 23.2	0.0
SUA					Sn	21 12 33.4	+0.4
SUA	Susitna One	0.66	212	IAML		21 12 34.8	
	comp=N,31μm,0.6s						
SKT	Skwentna	0.71	267		Pn	21 12 23.3	-0.4
SKT				IAML		21 12 34.9	
	comp=N,39μm,0.2s						
SKT				IAML		21 12 35.4	
	comp=E,30μm,0.3s						
SKT	Skwentna	0.71	267		Sn	21 12 34.2	+0.2
SML	Sawmill	0.83	104		Pn	21 12 24.8	-0.5
SML	Sawmill	0.83	104		Sn	21 12 38.0	+1.2
SML	Sawmill	0.83	104	IAML		21 12 38.9	
	comp=E,25μm,0.9s						
SML				IAML		21 12 40.0	
	comp=N,30μm,0.7s						
FIS	Fire Island	0.89	186		Pn	21 12 26.4	+0.5
FIS				IAML		21 12 52.3	
	comp=N,20μm,0.5s						
FIS				IAML		21 12 53.8	
	comp=E,25μm,0.5s						
RC01	Rabbit Creek A	0.95	171		Pn	21 12 26.2	-0.6
RC01				IAML		21 12 41.9	
	comp=N,19μm,0.4s						
RC01	Rabbit Creek A	0.95	171		Sn	21 12 39.3	0.0
KNK	Knik Glacier	0.96	129		Pn	21 12 26.7	-0.3
KNK	Knik Glacier	0.96	129		Sn	21 12 40.9	+1.0
KNK	Knik Glacier	0.96	129	IAML		21 12 43.3	
	comp=E,22μm,0.7s						
KNK				IAML		21 12 43.4	
	comp=N,11μm,0.5s						
WAT7	Susitna Watana	0.98	33		Sn	21 12 40.8	+0.4
STLK	Strandline Lak	1.01	239		Pn	21 12 27.6	0.0
STLK				IAML		21 12 43.2	
	comp=N,19μm,0.3s						
STLK	Strandline Lak	1.01	239		Sn	21 12 41.4	+0.4
WAT1	Susitna Watana	1.06	40		Pn	21 12 28.3	-0.1
WAT1					Sn	21 12 42.8	+0.6
M23K	Glacier View	1.11	101		Sn	21 12 44.6	+1.2
WAT6	Susitna Watana	1.21	61		Pn	21 12 30.4	0.0
WAT6					Sn	21 12 46.9	+1.1
SPU	Mount Spurr	1.28	230		Pn	21 12 31.4	+0.1
SPU	Mount Spurr	1.28	230		Sn	21 12 49.7	+2.2
SPU	Mount Spurr	1.28	230	IAML		21 12 51.1	
	comp=E,6μm,0.5s						
SPU				IAML		21 12 51.3	
	comp=N,10μm,0.3s						
SCM	Sheep Creek Mo	1.29	97		Pn	21 12 32.0	+0.6
SCM	Sheep Creek Mo	1.29	97		Sn	21 12 49.3	+1.6
SCM	Sheep Creek Mo	1.29	97	IAML		21 12 51.1	
	comp=N,22μm,1.0s						
SCM				IAML		21 12 51.7	
	comp=E,37μm,0.9s						
SPCR	Spurr Chakacha	1.33	233		Sn	21 12 50.8	+2.2
PPLA	Purkeypile	1.33	312		Pn	21 12 32.6	+0.5
PPLA				IAML		21 12 53.1	
	comp=E,10μm,0.7s						
PPLA				IAML		21 12 53.1	
	comp=N,15μm,0.9s						
CAPN	Captain Cook N	1.37	204		Pn	21 12 34.6	+2.2
PWL	Port Wells	1.42	144		Pn	21 12 33.4	+0.3
PWL				IAML		21 12 56.4	
	comp=N,7μm,0.4s						
PWL				IAML		21 12 58.4	
	comp=E,8μm,1.0s						
PWL	Port Wells	1.42	144		Sn	21 12 52.1	+1.3
SPNN	North Nagishla	1.43	244		Pn	21 12 33.5	0.0
TRF	Thorofare Moun	1.44	355		Sn	21 12 52.9	+1.4
TRF	Thorofare Moun	1.44	355		Pn	21 12 34.1	+0.6
TRF	Thorofare Moun	1.44	355	IAML		21 12 55.9	
	comp=E,8μm,0.6s						
TRF				IAML		21 12 56.1	
	comp=N,12μm,0.5s						
M20K	Styx River	1.47	266		Pn	21 12 34.8	+0.9
M20K					Sn	21 12 53.7	+1.5
M20K	Styx River	1.47	266	IAML		21 12 53.9	
	comp=N,7μm,1.0s						
M20K				IAML		21 12 54.1	
	comp=E,9μm,0.3s						
RND	Reindeer	1.49	21		Pn	21 12 34.7	+0.6
RND				IAML		21 13 06.7	
	comp=E,9μm,0.9s						
SLKM	Skilak Lake	1.52	184		Pn	21 12 34.7	+0.1
SLKM				IAML		21 12 59.7	
	comp=E,13μm,0.4s						
O22K	Cooper Landing	1.55	174		Pn	21 12 35.3	+0.4
DHY	Denali Highway	1.62	48		Pn	21 12 36.2	+0.2
CAST	Castle Rocks	1.69	327		Sn	21 12 58.8	+1.4
CAST	Castle Rocks	1.69	327		Pn	21 12 37.6	+0.8
MCK	McKinley	1.79	16		Pn	21 12 39.0	+0.8
MCK				IAML		21 13 05.5	
	comp=E,9μm,0.4s						
GLI	Glacier Island	1.81	128		Pn	21 12 38.8	+0.3
GLI				IAML		21 13 09.3	
	comp=N,5μm,1.0s						
GLI				IAML		21 13 12.7	
	comp=E,5μm,0.5s						
RDT	Redoubt	1.85	219		Pn	21 12 39.8	+0.8
L20K	Farewell, AK	1.86	286		Pn	21 12 39.5	+0.3
L20K				IAML		21 13 04.2	
	comp=E,9μm,0.8s						
L20K				IAML		21 13 05.1	
	comp=N,10μm,0.8s						
SEW	Seward	1.94	171		Pn	21 12 40.7	+0.5
VMT	TAPS Tl Valdez	1.99	117		Pn	21 12 41.2	+0.4
KLU	Klutina	2.02	103		Pn	21 12 41.9	+0.5
KLU				IAML		21 13 13.2	
	comp=N,5μm,0.5s						
KLU				IAML		21 13 13.4	
	comp=E,4μm,0.8s						
RED	Redoubt Volcan	2.09	221		Sn	21 13 10.1	+3.0
RED	Redoubt Volcan	2.09	221		Pn	21 12 43.2	+0.9
RED	Redoubt Volcan	2.09	221	IAML		21 13 12.3	
	comp=N,4μm,0.4s						
RED				IAML		21 13 13.0	
	comp=E,5μm,1.0s						
FID	Port Fidalgo	2.13	125		Pn	21 12 42.8	0.0
FID				IAML		21 13 17.1	
	comp=N,4μm,0.9s						
FID				IAML		21 13 17.7	
	comp=E,6μm,0.4s						
BPAW	Bear Paw Mtn.	2.13	349		Pn	21 12 43.3	+0.5
CHUM	Lake Minchumin	2.14	332		Pn	21 12 43.9	+0.9
PS11	TAPS Pump St11	2.15	86		Pn	21 12 44.3	+1.3
DIV	Divide	2.22	112		Pn	21 12 44.1	0.0
DIV				IAML		21 13 17.6	
	comp=N,4μm,0.5s						
L19K	White Mountain	2.28	276		Pn	21 12 45.5	+0.7
L19K	White Mountain	2.28	276	IAML		21 13 14.3	
	comp=E,3μm,0.7s						
L19K				IAML		21 13 17.2	
	comp=N,3μm,0.9s						
K20K	Telida	2.30	307		Pn	21 12 45.6	+0.5
BRLK	Bradley Lake	2.30	191		Pn	21 12 47.0	+1.8
BRLK				IAML		21 13 21.4	
	comp=E,3μm,0.5s						
HARP	HAARP	2.31	78		Pn	21 12 46.7	+1.4
BRSE	Bradley Lake S	2.31	189		Pn	21 12 45.2	-0.1
PAX	Paxson	2.32	64		Pn	21 12 46.8	+1.3
PAX				IAML		21 13 20.9	
	comp=E,3μm,0.7s						
HIN	Hinchinbrook I	2.36	132		Pn	21 12 46.3	+0.4
HIN				IAML		21 13 24.2	
	comp=E,7μm,0.9s						
HIN				IAML		21 13 24.4	
	comp=N,4μm,0.7s						
PS12	TAPS Pump St12	2.39	101		Pn	21 12 46.7	+0.4
P23K	Montague Islan	2.40	147		Pn	21 12 46.1	-0.3
P23K				IAML		21 13 32.7	
	comp=N,3μm,0.9s						
P23K				IAML		21 13 32.7	
	comp=E,4μm,1.0s						
N19K	Bonanza Creek	2.46	242		Pn	21 12 48.4	+1.0
N19K				IAML		21 13 35.4	
	comp=N,2μm,0.9s						
HOM	Homer	2.50	199		Pn	21 12 47.6	-0.2
EYAK	Cordova Ski Ar	2.54	124	P	Pn	21 12 49.0	+0.7
EYAK	Cordova Ski Ar	2.54	124	S	Sn	21 13 19.7	+1.7
EYAK	Cordova Ski Ar	2.54	124		Pn	21 12 48.3	0.0
EYAK	Cordova Ski Ar	2.54	124	IAML		21 13 29.9	
	comp=N,3μm,0.8s						
ILSW	Iliamna Southw	2.55	218		Pn	21 12 50.0	+1.5
CNPM	China Poot	2.57	194		Pn	21 12 49.1	+0.2
CNPM				IAML		21 13 25.6	
	comp=E,2μm,0.5s						
CNPM				IAML		21 13 27.6	
	comp=N,2μm,0.5s						
WRH	Wood River Hil	2.61	19		Pn	21 12 50.0	+0.7
WRH				IAML		21 13 36.2	
	comp=E,2μm,1.1s						
NEA2	Nenana	2.62	9	IAML		21 13 21.3	
	comp=E,3μm,0.7s						
K24K	Donnelly Dome	2.64	46		Pn	21 12 51.6	+1.8
PS09	TAPS Pump Stn9	2.73	44		Pn	21 12 53.3	+2.3
HDA	Harding Lake	2.77	29		Pn	21 12 52.1	+0.5
HDA				IAML		21 13 41.6	
	comp=E,4μm,0.8s						
O19K	Port Alsworth	2.77	231		Pn	21 12 52.6	+1.1
O19K				IAML		21 13 35.2	
	comp=E,3μm,0.4s						
BMRM	Bremner River	2.81	110		Pn	21 12 51.8	-0.2
BMRM				IAML		21 13 35.0	
	comp=E,3μm,0.4s						
BMRM				IAML		21 13 35.0	
	comp=N,3μm,0.8s						
M18K	Stony River	2.81	262		Pn	21 12 53.0	+0.9
CCB	Clear Creek Bu	2.82	20		Pn	21 12 52.6	+0.5
P19K	Oil Pt	2.85	215		Pn	21 12 53.8	+1.1
J20K	Nowinta River	2.86	321		Pn	21 12 53.5	+0.8
J20K	Nowinta River	2.86	321	IAML		21 13 27.8	
	comp=N,4μm,0.5s						
J20K				IAML		21 13 28.2	
	comp=E,2μm,0.6s						
RIDG	Independent Ri	2.93	52		Pn	21 12 55.0	+1.2
GOAT	Goat Mountain	2.94	117		Pn	21 12 54.8	+1.0
GLB	Gilahina Butte	3.02	98		Pn	21 12 55.2	+0.2
GLB				IAML		21 13 44.0	
	comp=N,3μm,0.9s						
GLB				IAML		21 13 47.3	
	comp=E,2μm,1.2s						
COLA	College	3.03	18	P	Pn	21 12 55.9	+0.9
COLA	College	3.03	18	S	Sn	21 13 31.0	+1.1
COLA	College	3.03	18		Pn	21 12 55.3	+0.3
COLA	College	3.03	18	P	Pn	21 12 55.8	+0.9
MLY	Manley	3.04	354		Pn	21 12 55.8	+0.5
MENT	Mentasta	3.07	70	P	Pn	21 12 56.4	+0.8
MENT	Mentasta	3.07	70	S	Sn	21 13 31.7	+0.6
MENT	Mentasta	3.07	70		Pn	21 12 56.3	+0.6
MENT	Mentasta	3.07	70	IAML		21 13 43.0	
	comp=E,3μm,1.0s						
ILAR	Eielson Array	3.10	26	P	Pn	21 12 56.5	+0.5
	comp=E,138nm,0.3s,baz=209,slow=14,SNR=2576						
ILAR				S	Sn	21 13 31.4	-0.4
	comp=E,209nm,0.4s,baz=7.8,slow=14,SNR=3.4						
ILAR				LR	LR	21 13 51.1	
	comp=E,267nm,21.7s,baz=148,slow=33						
ILAR				AML	AML		
AU22	Augustine Moun	3.12	213		Pn	21 12 57.7	+1.4
N18K	Kilae Creek	3.13	247	IAML		21 14 01.7	
	comp=N,2μm,1.0s						
AUW	Augustine West	3.15	214		Pn	21 12 58.2	+1.5
I23K	Minto, Yukon-K	3.15	5	IAML		21 13 36.4	
	comp=E,2μm,0.9s						
I23K				IAML		21 13 36.8	
	comp=N,3μm,0.7s						
AUJK	Augustine Jueg	3.15	213		Pn	21 12 58.1	+1.3
AUI	Augustine Isla	3.17	213		Pn	21 12 58.4	+1.4
DOT	Dot Lake	3.19	57	IAML		21 13 53.5	
	comp=N,3μm,0.8s						
DOT				IAML		21 13 54.0	
	comp=E,3μm,1.1s						
J19K	Poorman	3.23	310		Pn	21 12 58.5	+0.7
J19K	Poorman	3.23	310	IAML		21 13 36.9	
	comp=E,1μm,0.6s						
VRDI	Verde Repeater	3.24	101		Pn	21 12 57.9	-0.2
VRDI	Verde Repeater	3.24	101	IAML		21 13 47.8	
	comp=N,2μm,1.0s						
VRDI				IAML		21 13 50.1	
	comp=E,1μm,1.0s						
L26K	Log Cabin Wild	3.26	69		Pn	21 12 59.6	+1.4
L26K	Log Cabin Wild	3.26	69	IAML		21 13 57.2	
	comp=N,2μm,0.6s						
L26K				IAML		21 13 57.9	
	comp=E,2μm,0.7s						
I21K	Tanana	3.29	345		Pn	21 12 59.6	+1.0
M26K	Nabesna, AK	3.31	80		Pn	21 12 59.5	+0.5
M26K	Nabesna, AK	3.31	80	IAML		21 13 52.3	
	comp=N,1μm,1.0s						
M26K				IAML		21 13 57.7	
	comp=E,2μm,1.1s						
POKR	Poker Plat Res	3.32	19	IAML		21 13 40.0	
	comp=N,2μm,1.1s						
POKR				IAML		21 13 51.1	
	comp=E,1μm,1.0s						
SCRK	Sand Creek	3.38	52	IAML		21 13 44.8	
	comp=E,2μm,1.1s						
SCRK				IAML		21 13 44.9	
	comp=N,3μm,1.2s						
PS07	TAPS Pump Stn7	3.39	12		Pn	21 13 00.6	+0.5
J18K	Innoko River	3.40	298	IAML		21 13 40.8	
	comp=N,1μm,0.6s						
I20K	Naaghedeneel	3.43	326		Pn	21 13 01.5	+1.0
KAIM	Kayak Island	3.45	125		Pn	21 13 00.9	+0.1
BERG	Berg Lake	3.47	115		Pn	21 13 01.1	0.0
Q19K	Cape Douglas,	3.58	212		Pn	21 13 03.4	+0.7
M17K	Holitna River	3.58	263	IAML		21 14 26.3	
	comp=N,2μm,1.1s						
P18K	Big Mountain,	3.67	226		Pn	21 13 04.3	+0.4
N17K	Nushagak Hills	3.77	250		Pn	21 13 05.9	+0.7
N17K	Nushagak Hills	3.77	250	IAML		21 14 24.1	
	comp=N,1μm,0.9s						
M27K	Edge Creek, AK	3.83	81		Pn	21 13 07.3	+1.1
M27K	Edge Creek, AK	3.83	81	IAML		21 14 16.1	
	comp=E,857nm,1.1s						
M27K				IAML		21 14 17.7	
	comp=N,1μm,1.2s						
PS06	TAPS Pump Stn6	3.85	2		Pn	21 13 07.0	+0.7
H21K	Melozitna Rive	3.85	343		Pn	21 13 07.0	+0.7
L17K	Donlin	3.89	275		Pn	21 13 07.2	+0.3
K17K	Iditarod	3.92	284	IAML		21 14 17.9	
	comp=N,965nm,1.1s						
K17K				IAML		21 14 29.9	
	comp=E,1μm,0.9s						
L27K	Beaver Creek,	3.94	71		Pn	21 13 08.2	+0.6
H24K	Noodor Dome	3.95	13		Pn	21 13 08.5	+0.8
H24K	Noodor Dome	3.95	13	IAML		21 14 04.0	
	comp=N,799nm,1.1s						
H24K				IAML		21 14 22.0	
	comp=E,1μm,1.1s						
BARK	Barkley Ridge	3.99	111		Pn	21 13 08.4	+0.1
PRP	Porcupine Dome	4.04	28	IAML		21 14 04.6	
	comp=E,1μm,0.7s						
BARN	Barnard Glacie	4.12	100	IAML		21 14 16.1	
	comp=N,1μm,1.0s						
BARN				IAML		21 14 26.7	
	comp=E,1μm,1.1s						
GCSA	Galena City Sc	4.12	315		Pn	21 13 10.8	+0.9
K27K	Chicken	4.14	57		Pn	21 13 10.8	+0.5
K27K	Chicken	4.14	57	IAML		21 14 26.1	
	comp=N,898nm,1.1s						
GRNC	Granite Creek	4.18	104		Pn	21 13 11.1	0.0
GRNC	Granite Creek	4.18	104	IAML		21 14 18.2	
	comp=E,985nm,0.8s						
Q18K	Katmai Hardscr	4.19	218		Pn	21 13 11.6	+0.5
KAHG	Katmai Hook Gl	4.19	214		Pn	21 13 11.9	+0.9
KARR	Katmai Rainbow	4.23	215		Pn	21 13 12.5	+0.9
P17K	Kvichak River	4.25	231		Pn	21 13 13.0	+1.3
BVCY	Beaver Creek	4.31	81		Pn	21 13 13.4	+0.8
YAH	Yahtse	4.34	109		Pn	21 13 13.1	-0.1
KAWH	Katmai	4.36	215		Pn	21 13 13.8	+0.5
J17K	VABM Dome	4.39	292		Pn	21 13 14.2	+0.5
J17K	VABM Dome	4.39	292	IAML		21 14 29.3	
	comp=N,495nm,1.1s						
M16K	Timber Creek	4.39	261	IAML		21 14 39.8	
	comp=N,902nm,1.1s						
KDAK	Kodiak Island	4.44	198	P	Pn	21 13 13.8	-0.6
	comp=N,12nm,0.3s,baz=51,slow=3.5,SNR=112						
KDAK				S	Sn	21 14 04.5	-0.3
	comp=N,120nm,0.4s,baz=48,slow=15,SNR=1.3						
KDAK				LR	LR	21 15 19.7	
	comp=N,2μm,21.0s,baz=37,slow=43						
	comp=N,27nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	4.44	198	IAML		21 14 22.1	
	comp=N,872nm,0.8s						
KDAK				IAML		21 14 23.9	
	comp=N,576nm,0.5s						
KDAK	Kodiak Island	4.44	198	P	Pn	21 13 14.0	-0.4
L16K	Owhat River	4.49	270		Pn	21 13 15.4	+0.4
I26K	Coal Creek Min	4.50	40		Pn	21 13 16.3	+1.2
LOGN	Logan Glacier	4.50	101	IAML		21 14 26.9	
	comp=E,1μm,1.0s						
N16K	Nishlik Lake	4.50	254		Pn	21 13 15.9	+0.7
O16K	Kokwok River B	4.64	242	IAML		21 14 52.8	
	comp=N,633nm,1.1s						
H25L	Birch Creek	4.64	22		Pn	21 13 18.5	+1.4
ANCK	Angle Creek	4.71	218		Pn	21 13 18.9	+0.7
G23K	Bananza Creek	4.71	0		Pn	21 13 19.0	+0.9
G23K	Bananza Creek	4.71	0	IAML		21 14 14.8	
	comp=N,405nm,0.9s						
CHX	Chaix Hills	4.76	110		Pn	21 13 19.4	+0.7
G21K	Allakaket	4.76	343		Pn	21 13 19.9	+1.2
G21K	Allakaket	4.76	343	IAML		21 14 14.4	

OHAK IAML 21 14 45.5
comp=N,415nm,1.1s

G19K Purcell Mounta 5.17 326 Pn 21 13 24.9 +0.6
I27K Kandik River 5.17 42 Pn 21 13 25.3 +0.8
I17K Unalakleet 5.22 296 Pn 21 13 26.0 +1.0
I17K Unalakleet 5.22 296 IAML 21 14 25.6
comp=E,323nm,0.7s
N15K Kwethluk River 5.22 254 IAML 21 15 00.1
comp=E,519nm,0.9s
N15K IAML 21 15 00.9
comp=N,668nm,1.1s
DAWY Dawson 5.26 62 Pn 21 13 26.1 +0.6
DAWY Dawson 5.26 62 IAML 21 15 00.8
comp=E,519nm,1.1s
DAWY IAML 21 15 04.3
comp=N,583nm,1.1s
BRWY Burwash Landin 5.27 92 Pn 21 13 26.2 +0.4
H17K Granite Mounta 5.31 308 IAML 21 14 28.0
comp=N,378nm,0.8s
H17K IAML 21 14 29.5
comp=E,527nm,0.7s
PLK3 Peulik 3 5.36 219 Pn 21 13 28.6 +1.5
PLK1 Peulik 1 5.37 221 Pn 21 13 27.7 +0.6
G18K Tagagawik 5.43 319 Pn 21 13 29.1 +1.1
R17L Mt. Peulik Vol 5.44 219 Pn 21 13 28.6 +0.5
BCPM Bancas Point 5.47 108 Pn 21 13 28.3 -0.2
PLBL Peulik Blue Cr 5.52 221 Pn 21 13 30.9 +1.7
F22K John River 5.58 351 Pn 21 13 31.4 +1.3
O15K Ungalikthiuk R 5.61 244 Pn 21 13 31.4 +1.1
F20K Avaraart Lake 5.61 337 Pn 21 13 32.0 +1.6
H27K Steamboat Moun 5.63 38 Pn 21 13 31.3 +0.7
I28M Miner Creek 5.65 48 Pn 21 13 31.6 +0.7
PNL Peninsula 5.71 110 P **Pn 21 13 32.3 +0.5**
PNL Peninsula 5.71 110 Pn 21 13 32.2 +0.5
O29M Mount Kennedy 5.80 102 Pn 21 13 33.6 +0.4
G17K Kiwalik Mounta 5.86 311 Pn 21 13 35.0 +1.1
M14K Bethel 5.88 263 Pn 21 13 34.7 +0.7
SII Sitkinak Islan 5.88 203 P **Pn 21 13 35.4 +1.3**
YUK5 Granite Creek 5.88 93 Pn 21 13 34.0 -0.2
F25K Christian Rive 5.90 17 Pn 21 13 35.4 +1.0
YUK7 Dusty Glacier 5.92 99 Pn 21 13 34.9 0.0
K29M Barlow Dome 6.00 67 Pn 21 13 36.2 +0.5
N14K Kuskokwak Cree 6.05 255 Pn 21 13 37.3 +0.9
L14K Kuka Creek 6.06 269 Pn 21 13 37.5 +0.9
E23K Chandalar 6.07 1 Pn 21 13 37.3 +0.6
H16K Elim 6.09 301 Pn 21 13 38.1 +1.2
HYT Haines Junctio 6.13 96 Pn 21 13 37.3 -0.4
O14K Tigyukauivet M 6.18 248 Pn 21 13 39.5 +1.2
I29M Ogilvie Camp, 6.19 52 Pn 21 13 40.0 +1.7
M30M Minto, Yukon 6.20 79 Pn 21 13 39.0 +0.5
F18K Selawik 6.21 322 Pn 21 13 39.7 +1.2
J14K Nanvaranak Lak 6.33 283 Pn 21 13 41.2 +1.0
G16K Koyuk River 6.43 307 Pn 21 13 42.4 +0.8
P29M Windy Craggy 6.47 106 Pn 21 13 42.3 +0.1
F17K Baldwin Pennin 6.60 317 Pn 21 13 45.2 +1.3
H29M Whitestone 6.61 45 Pn 21 13 44.8 +0.7
P30M Million Dollar 6.62 101 Pn 21 13 44.1 -0.1
M13K Dall Lake 6.63 262 Pn 21 13 45.9 +1.5
TOLK Toolik Lake Re 6.65 1 Pn 21 13 45.8 +1.1
J30M Hart River 6.68 61 Pn 21 13 46.4 +1.2
E20K Nigu River 6.78 340 Pn 21 13 48.7 +2.4
N31M Braeburn, Yuko 6.79 88 Pn 21 13 46.4 -0.1
O30N Mendenhall 6.81 94 Pn 21 13 46.1 -0.7
CHIR Chirikof Islan 6.86 207 P **Pn 21 13 49.5 +2.0**
I30M Mount Dempster 6.87 56 Pn 21 13 48.7 +0.9
G15K Niukluk 6.94 302 Pn 21 13 49.2 +0.7
D22K Ayikyak River 6.98 352 Pn 21 13 50.9 +1.9
D23K Nanushuk River 6.98 358 Pn 21 13 51.0 +1.9
E18K Tukpahlearik C 7.05 325 Pn 21 13 52.1 +1.9
F28M Old Crow 7.08 33 Pn 21 13 51.2 +0.7
E27K Coleen River 7.13 26 Pn 21 13 52.0 +0.7
CHGN Chignik 7.17 221 Pn 21 13 52.6 +0.9
PLBC Pleasant Camp 7.17 105 Pn 21 13 52.4 +0.6
E17K Hotham Inlet 7.18 320 Pn 21 13 52.9 +1.1
D24K Happy Valley 7.18 3 Pn 21 13 53.4 +1.6
D20K Etivluk River 7.26 341 Pn 21 13 54.4 +1.5
EPYK Eagle Plains 7.26 47 Pn 21 13 54.2 +1.2
D19K Kuna River 7.33 336 Pn 21 13 55.3 +1.5
ANM Nome 7.37 297 Pn 21 13 55.0 +0.5
WHY Whitehorse 7.41 94 Pn 21 13 54.5 -0.7
C21K Knifeblade Rid 7.43 347 Pn 21 13 56.4 +1.2
F15K North Star Dit 7.43 306 Pn 21 13 56.5 +1.2
D25K Kavik River 7.48 10 Pn 21 13 58.1 +2.0
SKAG Skagway 7.64 103 P **Pn 21 13 58.9 +0.7**
G30M tAoh Zraii Nji 7.75 44 Pn 21 14 00.3 +0.6
C24K Franklin Bluff 7.75 3 Pn 21 14 01.2 +1.6
C23K Itkillik River 7.85 359 Pn 21 14 02.1 +1.1
E28M Babbage River 7.92 29 Pn 21 14 02.5 +0.5
D17K Noatak River 7.95 321 Pn 21 14 04.3 +2.0
M11K Mekoryuk 7.98 265 Pn 21 14 04.2 +1.4
F14K Arctic Creek 8.01 303 Pn 21 14 04.5 +1.4
C27K Jago River 8.06 16 Pn 21 14 06.1 +2.3
C18K Utukok River 8.11 330 Pn 21 14 05.8 +1.1
RDOG Red Dog Mine 8.13 324 Pn 21 14 07.2 +2.4
C19K Lookout Ridge 8.13 335 Pn 21 14 05.9 +1.0
D27M Malcolm River 8.15 23 Pn 21 14 06.4 +1.3
E29M Blow River 8.16 33 Pn 21 14 06.4 +1.1
C26K Camden Bay 8.20 12 Pn 21 14 06.9 +1.2
F30M Barrier River 8.25 41 Pn 21 14 07.4 +0.9
BESE Bessie Mountai 8.28 108 Pn 21 14 06.7 -0.3
P32M Atlin 8.34 100 Pn 21 14 07.2 -0.5
B22K Teshekpuk Lake 8.47 352 Pn 21 14 10.2 +0.9
B20K Meade River 8.52 343 Pn 21 14 10.9 +0.8
P33M Teslin, Yukon 8.52 95 Pn 21 14 09.7 -0.6
R32K Eaglecrest 8.59 109 Pn 21 14 11.7 +0.4
SDPT Sand Point 8.62 224 P **Pn 21 14 13.0 +1.5**
SDPT Sand Point 8.62 224 Pn 21 14 12.0 +0.5
JIS Juneau Island 8.65 109 P **Pn 21 14 12.2 +0.2**
JIS Juneau Island 8.65 109 Pn 21 14 12.2 +0.2
TNA Tin City 8.67 302 Pn 21 14 12.8 +0.7
D28M Stokes Point 8.67 27 Pn 21 14 14.1 +1.9
B18K Kokolik River 8.81 332 Pn 21 14 14.6 +0.5
F31M Tsiigehtchic 8.81 45 Pn 21 14 16.0 +1.9
SIT Sitka 8.96 117 P **Pn 21 14 16.0 -0.2**
SIT Sitka 8.96 117 Pn 21 14 16.1 -0.2
C16K Lisburne Hills 8.97 321 Pn 21 14 18.9 +2.5
PN7A Pavlof North-7 9.07 229 Pn 21 14 18.6 +0.9
A22K Sinclair Lake 9.23 350 Pn 21 14 20.5 +0.6
Q32M Nakina River 9.28 101 Pn 21 14 20.4 -0.3
A19K Wainwright 9.34 336 Pn 21 14 21.2 -0.1
INK Inuvik 9.35 41 P **Pn 21 14 21.4 -0.1**
comp=E,3.1nm,0.3s,baz=234,slow=16,SNR=174
INK S **Sn 21 16 05.4 +0.5**
comp=E,71nm,0.8s,baz=252,slow=12,SNR=5.8
INK LR LR 21 18 25.9
comp=E,737nm,18.7s,baz=241,slow=40
INK AML AML
INK Inuvik 9.35 41 Pn 21 14 21.6 +0.2
INK Inuvik 9.35 41 P **Pn 21 14 22.2 +0.7**
comp=Z,187nm,1.4s
R33M Jennings River 9.70 97 Pn 21 14 26.7 +0.2
S34M Telegraph Cree 10.31 105 Pn 21 14 34.5 -0.2
DLBC Dease Lake 10.56 101 P **Pn 21 14 37.7 -0.4**
comp=Z,0.6nm,0.3s,baz=305,slow=16,SNR=5.6
DLBC LR LR 21 18 38.7
comp=Z,868nm,21.9s,baz=274,slow=36
comp=Z,2.5nm,0.5s
DLBC AML AML
CRAG Craig 10.94 119 P **Pn 21 14 44.1 +0.9**
UNV Unalaska Valle 11.96 234 P **Pn 21 14 57.2 +0.1**
A36M Sachs Harbour 13.77 33 Pn 21 15 20.9 -0.8
BBB Bella Bella 15.37 120 LR LR 21 21 40.9
comp=Z,244nm,18.9s,baz=343,slow=37
ATKA Atka Island 16.30 244 P **P 21 15 56.9 +0.2**
YKA Yellowknife Ar 16.38 73 P **Pn 21 15 54.9 -0.6**
comp=Z,0.6nm,0.3s,baz=282,slow=10,SNR=27
YKA LR LR 21 22 27.8
comp=Z,373nm,19.7s,baz=354,slow=38
comp=Z,5.3nm,0.8s
YKA AML AML
ADK Adak 17.59 247 P **P 21 16 12.4 +1.4**
RES Resolute Bay 22.82 34 LR LR 21 27 12.1
comp=Z,102nm,20.3s,baz=236,slow=40
RES Resolute Bay 22.82 34 P 21 17 08.0 +0.7
RES Resolute Bay 22.82 34 P **P 21 17 07.6 +0.3**
comp=Z,20nm,0.9s
NEW Newport 22.98 112 LR LR 21 26 28.3
comp=Z,368nm,20.8s,baz=318,slow=37
NEW Newport 22.98 112 P P 21 17 11.9 +2.5
comp=Z,18nm,2.1s
BLKN Baker Lake 23.88 61 IAmb IAmb 21 17 39.5
comp=Z,22nm,0.9s

PLID Pearl Lake 25.94 115 P P 21 17 37.9 +1.1
YBH Yreka Blue Hor 26.05 129 LR LR 21 26 17.5
comp=Z,76nm,21.4s,baz=1.5,slow=32
WVOR Wild Horse Val 27.02 122 P P 21 17 48.4 +1.9
comp=Z,6.2nm,1.0s
ILON Igloolik, Nuna 27.55 45 P P 21 17 51.0 +0.2
ILON IAmb IAmb 21 18 17.0
comp=Z,45nm,1.1s
MA2 Magadan 28.12 292 LR LR 21 30 11.2
comp=Z,74nm,19.1s,baz=108,slow=39
PETK Petropavlovsk- 28.66 276 LR LR 21 29 28.4
comp=Z,97nm,19.6s,baz=48,slow=36
NVAR Mina Array Bea 30.58 126 P P 21 18 20.1 +1.8
comp=Z,0.7nm,0.5s,baz=310,slow=8.1,SNR=5.7
NVAR PcP **PcP 21 21 16.0 +0.5**
comp=Z,1.5nm,0.8s,baz=283,slow=1.7,SNR=4.3
NVAR LR LR 21 29 20.7
comp=Z,63nm,18.1s,baz=348,slow=34
comp=Z,0.7nm,0.5s
PDAR Pinedale Array 30.59 110 P P 21 18 20.1 +1.7
comp=Z,1.0nm,0.8s,baz=314,slow=5.4,SNR=9.3
PDAR PcP **PcP 21 21 14.6 -0.9**
comp=Z,0.4nm,0.5s,baz=324,slow=0.7,SNR=3.0
PDAR LR LR 21 30 42.7
comp=Z,300nm,19.6s,baz=330,slow=36
comp=Z,1.0nm,0.8s
PDAR Pinedale Array 30.59 110 P **P 21 18 18.2 -0.1**
PDAR pP **pP 21 18 30.9 -1.5**
TIXI Tiksi 30.74 322 LR LR 21 31 31.8
comp=Z,69nm,18.7s,baz=24,slow=38
TIXI Tiksi 30.74 322 P P 21 18 18.0 -1.0
TIXI Tiksi 30.74 322 P **P 21 18 18.5 -0.5**
comp=Z,11nm,1.0s
ULM Lac du Bonnet 31.41 87 P P 21 18 27.3 +2.1
comp=Z,2.7nm,0.9s,baz=319,slow=14,SNR=3.2
ULM LR LR 21 31 40.0
comp=Z,271nm,20.3s,baz=8.0,slow=37
comp=Z,2.7nm,0.9s
ULM Lac du Bonnet 31.41 87 IAmb IAmb 21 18 41.0
comp=Z,13nm,1.1s
RSSD Black Hills 32.03 102 P P 21 18 32.2 +1.3
comp=Z,22nm,1.2s
NEEM North Greenlan 32.40 24 *i* P **P 21 18 34.1 +0.3**
NEEM IAmb IAmb 21 18 34.8
comp=Z,14nm,0.8s
AGMN Agassiz Nation 32.78 89 P P 21 18 38.4 +1.3
comp=Z,18nm,1.1s
FRB Frobisher Bay 34.83 50 LR LR 21 33 21.3
comp=Z,245nm,19.2s,baz=298,slow=36
YAK Yakutsk 35.40 307 LR LR 21 34 22.3
comp=Z,92nm,19.1s,baz=48,slow=38
YAK Yakutsk 35.40 307 P P 21 18 59.1 -0.6
comp=Z,26nm,1.1s
PFO Pinyon Flats O 35.53 127 P P 21 19 02.1 +0.9
comp=Z,10.0nm,1.4s
PFO pP **pP 21 19 16.7 +1.3**
MVCO Mesa Verde 35.62 115 P P 21 19 03.3 +1.2
comp=Z,5.7nm,0.9s
ECSD EROS Data Cent 35.78 96 P P 21 19 02.9 -0.3
ECSD IAmb IAmb 21 19 32.2
comp=Z,6.9nm,1.0s
ECSD EROS Data Cent 35.78 96 P P 21 19 04.5 +1.3
comp=Z,11nm,2.5s
SUMG Summit 37.95 27 P 21 19 22.1 +0.4
SUMG IAmb IAmb 21 19 42.8
comp=Z,16nm,0.9s
SUMG Summit 37.95 27 *i* P **P 21 19 22.4 +0.7**
SUMG IAmb IAmb 21 19 23.4
comp=Z,9.5nm,0.9s
DAG Danmarks Havn 38.16 16 P P 21 19 23.1 +0.2
comp=Z,15nm,1.5s
DAG Danmarks Havn 38.16 16 *i* P **P 21 19 22.8 -0.1**
DAG IAmb IAmb 21 19 24.4
comp=Z,20nm,1.2s
ANMO Albuquerque 38.42 114 P P 21 19 26.2 +0.4
comp=Z,6.1nm,1.4s
TUC Tucson 38.89 121 P P 21 19 31.1 +1.5
comp=Z,6.7nm,1.3s
TUC pP **pP 21 19 45.5 +1.4**
SPA0 Spitsbergen Ar 39.79 4 *e*P **P 21 19 36.7 +0.1**
SPITS Spitsbergen Ar 39.79 4 P P 21 19 36.1 -0.5
comp=Z,23nm,0.3s,baz=10,slow=5.9,SNR=34
SPITS PcP **PcP 21 21 41.2 -0.3**
comp=Z,3.9nm,0.5s,baz=76,slow=3.5,SNR=4.5
comp=Z,2.3nm,0.3s
DBG Daneborg 39.97 19 *i* P **P 21 19 37.1 -1.0**
DBG IAmb IAmb 21 19 38.6
comp=Z,74nm,1.9s
MNTX Cornudas Mount 41.66 116 P P 21 19 54.0 +1.5
MNTX pP **pP 21 20 08.4 +1.5**
WMOK Wichita Mounta 41.98 106 P P 21 19 55.8 +0.7
comp=Z,10nm,1.1s
ASAJ Asahikawa 42.06 277 LR LR 21 38 39.0
comp=Z,79nm,19.2s,baz=62,slow=38
NRIK Noril'sk 42.72 334 P P 21 20 00.6 0.0
comp=Z,3.1nm,0.3s,baz=58,slow=5.7,SNR=9.8
NRIK LR LR 21 39 34.4
comp=Z,55nm,20.7s,baz=28,slow=39
comp=Z,3.1nm,0.3s
NRIK Noril'sk 42.72 334 P P 21 19 59.6 -1.0
KLR Kul'dur 43.20 290 LR LR 21 37 48.6
comp=Z,45nm,21.0s,baz=51,slow=36
SADO Sadowa 43.20 79 LR LR 21 38 52.9
comp=Z,130nm,18.7s,baz=326,slow=37
HEH HeiHe 44.33 294 *e*P **P 21 20 12.5 -1.3**
HEH pmax pmax
comp=Z,15nm,1.2s
TXAR Lajitas Array 44.44 116 P P 21 20 16.7 +1.6
comp=Z,0.6nm,0.6s,baz=329,slow=5.5,SNR=7.4
TXAR PcP **PP 21 21 58.2 -1.2**
comp=Z,0.3nm,0.4s,baz=360,slow=4.9,SNR=4.4
comp=Z,0.6nm,0.6s
JMIC Jan Mayen 44.59 17 LR LR 21 39 57.4
comp=Z,50nm,19.8s,baz=172,slow=37
JMIC Jan Mayen 44.59 17 *e*P P 21 20 20.5 +4.8
USRK Ussuriysk Ar. 46.90 286 LR LR 21 42 13.2
comp=Z,58nm,19.5s,baz=24,slow=39
HAMF Hammerfest 47.54 3 *e*P **P 21 20 38.0 -0.8**
BNX BinXian 47.77 290 ⇑P **P 21 20 40.0 -0.9**
BNX pmax pmax
comp=Z,8.0nm,1.3s
HILR Hailar Array B 48.09 299 P P 21 20 43.3 -0.1
comp=Z,2.8nm,0.3s,baz=64,slow=6.8,SNR=12
comp=Z,2.8nm,0.3s
VADS Vaso 48.14 0 *e*P **P 21 20 43.4 0.0**
TKL Tuckaleechee C 48.21 91 LR LR 21 41 48.0
comp=Z,328nm,19.1s,baz=344,slow=37
TRO Tromso 48.40 5 *e*P **P 21 20 45.1 -0.3**
JETT Jettan, Norway 48.53 4 *e*P **P 21 20 46.5 -0.1**
ARA0 ARCESS Array S 48.69 2 *e*P **P 21 20 46.9 -0.8**
ARCES ARCESS Array B 48.69 2 P P 21 20 46.8 -0.9
comp=Z,5.0nm,0.7s,baz=352,slow=6.5,SNR=15
ARCES PcP **PcP 21 22 11.8 -0.2**
comp=Z,10nm,1.0s,baz=350,slow=3.7,SNR=7.4
comp=Z,5.0nm,0.7s
ARCES ARCESS Array B 48.69 2 IAmb IAmb 21 20 47.5
comp=Z,8.4nm,0.9s
KTK1 Kautokeino 49.17 3 *e*P **P 21 20 50.0 -1.3**
STEI Steigen 49.91 7 *e*P **P 21 20 57.1 +0.1**
MJAR Matsushiro Arr 50.09 274 P P 21 20 58.3 -0.5
comp=Z,5.6nm,1.1s,baz=8.8,slow=7.2,SNR=8.2
MJAR LR LR 21 42 32.6
comp=Z,40nm,21.2s,baz=32,slow=36
comp=Z,5.6nm,1.1s
LEIR Leirfjorden 51.57 9 *e*P **P 21 21 05.2 -4.3**
TLY Talaya 52.59 311 LR LR 21 46 16.0
comp=Z,42nm,18.5s,baz=24,slow=39
KSRS Korea Array 54.13 283 P P 21 21 29.1 +0.3
comp=Z,6.5nm,0.8s,baz=29,slow=6.4,SNR=15
KSRS LR LR 21 44 20.4
comp=Z,48nm,22.0s,baz=40,slow=36
comp=Z,6.5nm,0.8s
ULN Ulaanbaatar 54.48 306 P P 21 21 31.7 +0.3
ULN Ulaanbaatar 54.48 306 P **P 21 21 31.3 -0.1**
comp=Z,20nm,0.9s
SONM Songino Array 54.76 307 P P 21 21 34.0 +0.7
comp=Z,13nm,0.8s,baz=43,slow=6.8,SNR=86
SONM LR LR 21 46 01.1
comp=Z,60nm,18.6s,baz=25,slow=37
comp=Z,13nm,0.8s
SONM Songino Array 54.76 307 P P 21 21 33.9 +0.5
JCJ Chichijima 56.05 264 LR LR 21 41 21.1
comp=Z,41nm,21.8s,baz=80,slow=31
JNU Nakatsue 56.33 278 LR LR 21 47 04.4
comp=Z,32nm,18.7s,baz=58,slow=37
NB2 NORSAR Subarra 56.43 11 P P 21 21 44.2 -0.8
comp=Z,0.7nm,0.6s,baz=348,slow=7.4

NB2 NORSAR Subarra 56.43 11 P P 21 21 44.0 -1.0
NB2 AMP 21 21 44.0
NOA NORSAR Array B 56.43 11 P P 21 21 44.1 -0.8
comp=Z,2.5nm,0.9s,baz=350,slow=7.0,SNR=5.5
NOA PcP **PcP 21 22 40.8 -0.5**
comp=Z,0.9nm,0.5s,baz=353,slow=4.7,SNR=5.3
NOA LR LR 21 47 31.9
comp=Z,32nm,19.0s,baz=305,slow=38
comp=Z,2.5nm,0.9s
ZALV Zalesovo Beam 56.58 325 P P 21 21 45.0 -1.2
comp=Z,8.7nm,0.9s,baz=28,slow=6.7,SNR=28
ZALV LR LR 21 51 55.6
comp=Z,20nm,18.2s,baz=38,slow=42
comp=Z,8.7nm,0.9s
FINES FINESS Array B 56.82 2 P P 21 21 46.8 -0.9
comp=Z,11nm,0.9s,baz=4.6,slow=6.7,SNR=18
comp=Z,11nm,0.9s
BJI2 Beijing 57.26 294 P P 21 21 51.0 -0.2
BJI2 pmax pmax
comp=Z,6.0nm,0.9s
HFS Hagfors 57.53 10 P P 21 21 51.6 -1.1
comp=Z,2.1nm,0.6s,baz=345,slow=3.5,SNR=8.6
comp=Z,2.1nm,0.6s
HHC Hu-ho-hao-te 58.52 298 *e*P **P 21 22 02.0 +1.9**
HHC pmax pmax
comp=Z,10.0nm,0.6s
HOMB Homborsund 58.89 13 *i* P **P 21 22 01.6 -0.6**
CMIG Matias Romero 58.98 114 LR LR 21 51 00.1
comp=Z,46nm,21.3s,baz=4.0,slow=39
ARTI Arti 59.86 342 LR LR 21 49 59.7
comp=Z,68nm,18.8s,baz=6.0,slow=38
HNS HongShan 60.08 294 ⇓P **P 21 22 10.8 +0.1**
HNS pmax pmax
comp=Z,17nm,1.1s
ONAU Onsala 60.09 11 *i* P **P 21 22 09.4 -1.1**
EKA Eskdalemuir Ar 60.13 21 P P 21 22 10.5 -0.4
comp=Z,1.8nm,0.3s,baz=329,slow=5.7,SNR=62
comp=Z,1.8nm,0.3s
FABU Falkenberg 60.55 11 *i* P **P 21 22 12.8 -0.8**
BVAR Borovoye Array 60.93 333 P P 21 22 15.5 -0.9
comp=Z,7.4nm,0.4s,baz=36,slow=7.4,SNR=65
BVAR PcP **PcP 21 22 59.1 -0.2**
comp=Z,2.0nm,0.4s,baz=22,slow=4.2,SNR=4.8
comp=Z,7.4nm,0.4s
SEM Semipalatinsk 61.00 326 *e*P **P 21 22 16.1 -1.0**
KURK Kurchatov 61.14 327 IAmb IAmb 21 22 17.6
comp=Z,10nm,0.9s
KURK Kurchatov 61.14 327 P P 21 22 16.5 -1.3
comp=Z,16nm,1.1s
KURBB Kurchatov Arra 61.25 327 P P 21 22 17.3 -1.2
comp=Z,3.8nm,0.4s,baz=23,slow=6.5,SNR=33
KURBB PcP **PcP 21 23 00.6 -0.1**
comp=Z,2.1nm,0.6s,baz=29,slow=4.1,SNR=6.1
comp=Z,3.8nm,0.4s
BLEU Blekinge 61.49 9 *i* P **P 21 22 19.0 -1.1**
COP Copenhagen 61.83 11 *i* P **P 21 22 22.3 0.0**
COP IAmb IAmb 21 22 25.6
comp=Z,65nm,0.7s
ZSN Zaisan 62.38 321 ⇓ *i*P **P 21 22 25.6 -0.7**
comp=Z,9.9nm,1.0s
NJ2 Nanjing 62.75 287 *e*P **P 21 22 28.5 -0.3**
NJ2 pmax pmax
comp=Z,14nm,0.6s
LYN LuoYang 63.45 294 P P 21 22 33.8 +0.3
LYN pmax pmax
comp=Z,41nm,1.1s
MKAR Makanchi Array 63.73 323 P P 21 22 33.5 -1.6
comp=Z,3.0nm,0.4s,baz=30,slow=6.8,SNR=97
MKAR LR LR 21 51 27.5
comp=Z,49nm,21.4s,baz=12,slow=37
comp=Z,3.0nm,0.4s
MAKZ Makanchi 63.80 323 P P 21 22 34.8 -0.9
comp=Z,10nm,1.3s
MNK Minsk 63.81 1 *i* P **P 21 22 35.1 -0.4**
comp=E,12nm,0.9s
MNK *i* P **P 21 22 35.1 -0.4**
comp=N,5.0nm,0.9s
MNK *i* P **P 21 22 35.1 -0.4**
comp=Z,25nm,0.8s,baz=359
MNK *i* pP **pP 21 22 50.0 -0.5**
MNK *i* sP **sP 21 22 54.0 -2.6**
MNK *i* PP **PP 21 24 59.2 +3.6**
MNK *i* PPP PPP 21 26 35.2
MNK *i* S **S 21 31 06.7 +0.7**
MNK *i* sS **pS 21 31 23.8 -0.1**
MNK *i* PS **PnS 21 31 41.1 +12**
MNK *i* SS SS 21 34 14.2 -59
MNK *i* SSS SSS 21 36 52.3
GTA2 Gaotai 64.38 306 P P 21 22 39.0 -0.7
GTA2 pmax pmax
comp=Z,14nm,1.2s
CLL Collm 66.21 12 *i* P **P 21 22 51.6 +0.4**
comp=Z,6.0nm,1.1s
CLL *i* pP **pP 21 23 05.8 -0.4**
GUMO Guam 66.49 254 LR LR 21 51 07.4
comp=Z,28nm,19.5s,baz=80,slow=35
BRG Berggiesshubel 66.73 11 *e*P **P 21 22 54.4 -0.1**
BRG Amp 21 22 56.1
comp=Z,8.7nm,1.2s
BRG pP **pP 21 23 10.0 +0.4**
BRG Amp 21 23 10.9
comp=Z,9.8nm,1.4s
RNPP9 Sopachiv 66.87 3 P P 21 22 54.3 -1.0
RNPP8 Varash 66.94 3 P P 21 22 55.2 -0.6
HSKC Hora Svate Kat 66.95 11 P P 21 22 55.9 -0.1
comp=Z,9.9nm,1.2s
KSP Ksiaz 66.96 9 P P 21 22 55.0 -0.9
comp=Z,10nm,1.1s
RNPP5 Staryi Chortor 67.05 3 P P 21 22 55.1 -1.4
PVCC Panska Ves 67.13 11 P P 21 22 57.5 +0.5
comp=Z,10nm,1.3s
OSTC Ostas 67.24 9 *e*P **P 21 22 58.5 +0.8**
UPC Upice 67.27 10 P P 21 22 57.8 -0.1
comp=Z,9.9nm,1.0s
DPC Dobruska-Polom 67.45 9 *e*P **P 21 22 59.3 +0.2**
comp=Z,11nm,0.9s
DPC Dobruska-Polom 67.45 9 P P 21 22 59.4 +0.3
comp=Z,15nm,1.1s
DPC Dobruska-Polom 67.45 9 P P 21 22 59.9 +0.8
comp=Z,15nm,1.1s
AK21 Malin Array Si 67.55 1 P P 21 22 58.8 -0.8
AKASG Malin Array Be 67.62 1 P P 21 22 59.2 -0.9
comp=Z,4.1nm,0.4s,baz=358,slow=6.0,SNR=24
comp=Z,4.1nm,0.4s
AKBB Malin Array Si 67.62 1 P P 21 22 58.8 -1.3
KIEV Kiev 67.63 1 ⇑P **P 21 22 59.5 -0.7**
KIEV Kiev 67.63 1 P P 21 22 58.5 -1.7
comp=Z,87nm,1.1s
KIEV Kiev 67.63 1 P P 21 22 59.4 -0.8
comp=Z,22nm,1.1s
KRLC Kraliky 67.76 9 *e*P **P 21 23 00.9 -0.2**
KRLC Kraliky 67.76 9 P P 21 23 01.1 +0.1
comp=Z,16nm,1.0s
KPKS Kokpek 67.80 324 *e*P **P 21 23 01.1 -0.4**
SHLS Shalkode 67.86 323 ⇓ *i*P **P 21 23 00.6 -1.3**
comp=Z,7.4nm,0.7s
STEB Steborice 67.97 8 *e*P **P 21 23 02.4 +0.1**
UZB Uzynbulak 68.00 323 *e*P **P 21 23 02.1 -0.8**
comp=Z,4.5nm,0.8s
OKC Ostrava-Krasne 68.09 8 P P 21 23 02.8 -0.3
comp=Z,16nm,1.1s
MORC Moravsky Berou 68.11 9 *e*P **P 21 23 03.0 -0.3**
MORC Moravsky Berou 68.11 9 ⇑P **P 21 23 03.6 +0.4**
MORC Moravsky Berou 68.11 9 P P 21 23 01.9 -1.4
comp=Z,6.3nm,1.0s
ZVC Zvikov 68.17 11 *e*P **P 21 23 03.8 +0.2**
SATY Saty 68.25 324 *e*P **P 21 23 03.7 -0.7**
WET Wettzell 68.34 12 P P 21 23 04.9 +0.1
comp=Z,5.2nm,1.8s
LUBAR Lubar, Ukraine 68.39 2 P P 21 23 03.0 -2.0
KHC Kasperske Hory 68.42 12 *e*P **P 21 23 05.8 +0.6**
KHC Kasperske Hory 68.42 12 P P 21 23 02.6 -2.6
KHC Kasperske Hory 68.42 12 P P 21 23 05.8 +0.6
TREC Trest 68.43 10 P P 21 23 05.6 +0.3
comp=Z,9.3nm,2.0s
VRAC Vranov 68.50 9 *e*P **P 21 23 06.0 +0.3**
VRAC Vranov 68.50 9 ⇑P **P 21 23 06.2 +0.5**
VRAC Vranov 68.50 9 P P 21 23 06.4 +0.6
AAA Alma-Ata 68.52 325 *e*P **P 21 23 05.3 -0.6**
comp=Z,13nm,1.1s
MDOK Medeo 68.53 325 *e*P **P 21 23 05.3 -0.8**
TNSS Tian-Shan 68.67 325 *e*P **P 21 23 06.3 -1.1**
GEC2 GERESS Array S 68.72 11 IAmb IAmb 21 23 08.1
comp=Z,8.9nm,1.4s
GERES GERESS Array B 68.72 11 P P 21 23 06.7 -0.5
comp=Z,1.5nm,0.7s,baz=0.0,slow=5.3,SNR=12

	comp=Z,1.5nm,0.7s								
KRUC	**Moravsky**	**68.73**	**10**	*e*P	**P**	**21 23 07.3 +0.2**			
KRUC	**Moravsky**	**68.73**	**10**	P	**P**	**21 23 07.6 +0.5**			
	comp=Z,13nm,1.1s								
CKRC	**Cesky Krumlov**	**68.80**	**11**	*e*P	**P**	**21 23 08.0 +0.4**			
LANS	**Liptovska Anna**	**68.86**	**7**	*e*P	**P**	**21 23 08.8 +0.8**			
JAVC	**Velka Javorina**	**69.03**	**9**	*e*P	**P**	**21 23 09.2 +0.1**			
ABNA	**Allensteig Bun**	**69.05**	**10**	*i* P	**P**	**21 23 09.4 +0.3**			
	comp=Z,14nm,1.1s								
USP	**Ospenovka**	**69.11**	**327**	P	**P**	**21 23 09.6 0.0**			
	SNR=8.9								
GOMU	**GeErMu**	**69.12**	**308**	P	**P**	**21 23 10.5 +0.3**			
GOMU				pmax	pmax				
	comp=Z,5.0nm,0.7s								
TKM2	**Tokmak 2**	**69.14**	**326**	P	**P**	**21 23 09.7 -0.3**			
	SNR=14								
KOLS	**Kolonicke sedl**	**69.22**	**5**	*e*P	**P**	**21 23 10.8 +0.6**			
CHMS	**Chumysh**	**69.29**	**326**	P	**P**	**21 23 10.4 -0.3**			
	SNR=16								
JTS	**Las Juntas de**	**69.38**	**108**	LR	LR	21 56 57.0			
	comp=Z,58nm,18.9s,baz=344,slow=39								
BOOM	**Boomskoye usch**	**69.45**	**325**	IAmb	IAmb	21 23 12.4			
	comp=Z,6.8nm,0.8s								
VYHS	**Vyhne**	**69.47**	**8**	*e*P	**P**	**21 23 12.0 +0.3**			
VYHS	**Vyhne**	**69.47**	**8**	P	**P**	**21 23 12.0 +0.3**			
	comp=Z,3.0nm,1.1s								
MODS	**Modra-Piesok**	**69.49**	**9**	*e*P	**P**	**21 23 12.5 +0.7**			
MODS	**Modra-Piesok**	**69.49**	**9**	P	**P**	**21 23 12.9 +1.1**			
	comp=Z,24nm,2.1s								
MODS				pP	**pP**	**21 23 27.2 +0.2**			
KBK	**Karagaybulak**	**69.56**	**326**	P	**P**	**21 23 12.1 -0.5**			
	SNR=13								
TARG	**Taragay, Kyrgy**	**69.65**	**324**	IAmb	IAmb	21 23 15.9			
	comp=Z,6.0nm,1.0s								
TARG	**Taragay, Kyrgy**	**69.65**	**324**	P	**P**	**21 23 14.3 +0.9**			
	comp=Z,6.4nm,1.0s								
WINA	**Alland / Wiene**	**69.66**	**10**	*i* P	**P**	**21 23 13.1 +0.2**			
	comp=Z,12nm,1.4s								
AAK	**Ala-Archa**	**69.70**	**327**	LR	LR	21 57 51.6			
	comp=Z,50nm,18.0s,baz=10.0,slow=39								
AAK	**Ala-Archa**	**69.70**	**327**	P	**P**	**21 23 13.0 -0.3**			
	SNR=11								
AAK	**Ala-Archa**	**69.70**	**327**	P	**P**	**21 23 13.1 -0.3**			
	comp=Z,15nm,1.0s								
KMPD	**K-Podol'skiy**	**69.73**	**2**	P	**P**	**21 23 11.7 -1.6**			
MOA	**Molln**	**69.76**	**11**	*i* P	**P**	**21 23 13.5 0.0**			
	comp=Z,3.7nm,1.1s								
RETA	**Reutte**	**69.76**	**14**	*i* P	**P**	**21 23 14.1 +0.5**			
	comp=Z,8.5nm,1.3s								
ABAH	**Abaujker**	**69.81**	**6**	P	**P**	**21 23 14.1 +0.3**			
	comp=Z,12nm,1.5s								
CONA	**Conrad Observa**	**69.82**	**10**	*i* P	**P**	**21 23 14.2 +0.2**			
	comp=Z,13nm,1.5s								
BIOA	**Bad Ischl, Aus**	**69.86**	**12**	*i* P	**P**	**21 23 14.3 +0.2**			
	comp=Z,2.8nm,1.0s								
EKS2	**Erkin-Say**	**69.86**	**327**	P	**P**	**21 23 14.2 -0.1**			
	SNR=22								
MOTA	**Moosalm**	**69.94**	**14**	*i* P	**P**	**21 23 15.0 +0.2**			
	comp=Z,5.2nm,1.0s								
WATA	**Walderalm**	**70.00**	**13**	*i* P	**P**	**21 23 15.6 +0.5**			
	comp=Z,14nm,1.6s								
LESA	**Schwarzleotal**	**70.03**	**12**	*i* P	**P**	**21 23 15.4 +0.2**			
	comp=Z,6.0nm,1.4s								
TRPA	**Tarpa**	**70.04**	**5**	P	**P**	**21 23 15.3 +0.2**			
	comp=Z,20nm,1.0s								
SQTA	**Sankt Quirin**	**70.07**	**13**	*i* P	**P**	**21 23 16.0 +0.4**			
	comp=Z,18nm,1.6s								
WTTA	**Wattenberg**	**70.08**	**13**	*i* P	**P**	**21 23 16.1 +0.5**			
	comp=Z,5.2nm,0.6s								
WTTA	**Wattenberg**	**70.08**	**13**	P	**P**	**21 23 15.9 +0.2**			
	comp=Z,11nm,1.6s								
RONA	**Rosalia, Austr**	**70.08**	**10**	*e*P	**P**	**21 23 15.8 +0.3**			
	comp=Z,4.6nm,1.0s								
PSZ	**Piszkesteto**	**70.11**	**7**	IAmb	IAmb	21 23 17.8			
	comp=Z,11nm,0.9s								
PSZ	**Piszkesteto**	**70.11**	**7**	⇑P	**P**	**21 23 16.0 +0.2**			
PSZ	**Piszkesteto**	**70.11**	**7**	P	**P**	**21 23 16.2 +0.4**			
	comp=Z,15nm,1.1s								
SORM	**Soroca**	**70.19**	**1**	⇓P	**P**	**21 23 15.1 -0.9**			
SORM	**Soroca**	**70.19**	**1**	P	**P**	**21 23 13.9 -2.2**			
	comp=Z,17nm,1.2s								
FETA	**Feichten**	**70.22**	**14**	*i* P	**P**	**21 23 17.1 +0.6**			
	comp=Z,9.2nm,1.3s								
DZA	**Taraz**	**70.25**	**329**	*e*P	**P**	**21 23 16.1 -0.5**			
NRN	**Naryn**	**70.42**	**325**	IAmb	IAmb	21 23 18.9			
	comp=Z,9.0nm,0.9s								
KBA	**Koelnbreinsper**	**70.43**	**12**	*i* P	**P**	**21 23 18.6 +0.8**			
	comp=Z,9.6nm,0.8s								
KBA	**Koelnbreinsper**	**70.43**	**12**	P	**P**	**21 23 18.1 +0.3**			
	comp=Z,16nm,1.2s								
ARSA	**Arzberg**	**70.46**	**10**	*i* P	**P**	**21 23 17.9 +0.1**			
	comp=Z,8.4nm,1.4s								
SESA	**Seetaler Alpe,**	**70.52**	**11**	*i* P	**P**	**21 23 18.7 +0.3**			
	comp=Z,5.1nm,0.8s								
FUORN	**Ofenpass-Fuorn**	**70.56**	**14**	P	**P**	**21 23 19.2 +0.5**			
	comp=Z,9.5nm,2.3s								
TUE	**Stuetta**	**70.59**	**15**	IAmb	IAmb	21 23 19.9			
	comp=Z,5.9nm,1.0s								
TUE	**Stuetta**	**70.59**	**15**	P	**P**	**21 23 18.6 -0.3**			
	comp=Z,31nm,1.3s								
BURAR	**Bucovina Array**	**70.65**	**3**	⇑P	**P**	**21 23 18.5 -0.5**			
ABTA	**Abfaltersbach**	**70.68**	**13**	*i* P	**P**	**21 23 19.3 +0.1**			
	comp=Z,4.4nm,1.2s								
MPLH	**Magyarpolny**	**70.70**	**9**	P	**P**	**21 23 19.3 +0.1**			
	comp=Z,28nm,1.2s								
ASAI	**AK-SAY(Kyrgyzs**	**70.76**	**324**	P	**P**	**21 23 20.4 +0.3**			
	comp=Z,5.7nm,0.9s								
MYKA	**Terra Mystica**	**70.91**	**12**	*e*P	**P**	**21 23 21.1 +0.5**			
	comp=Z,4.2nm,1.2s								
SOKA	**Soboth**	**70.99**	**11**	*i* P	**P**	**21 23 21.8 +0.7**			
	comp=Z,5.5nm,1.2s								
OBKA	**Obir**	**71.11**	**11**	*i* P	**P**	**21 23 22.4 +0.5**			
	comp=Z,11nm,0.8s								
OBKA	**Obir**	**71.11**	**11**	P	**P**	**21 23 22.4 +0.5**			
	comp=Z,17nm,1.0s								
ARK	**Arkit**	**71.13**	**328**	P	**P**	**21 23 21.6 -0.5**			
	comp=Z,9.0nm,0.7s								
IUG	**Iuzhnay**	**71.27**	**330**	⇓*i*P	**P**	**21 23 22.3 -0.7**			
	comp=Z,19nm,0.9s								
BIZ	**Bicaz**	**71.35**	**3**	⇑P	**P**	**21 23 23.4 +0.3**			
DRGR		**71.38**	**5**	⇑P	**P**	**21 23 22.9 -0.5**			
DRGR		**71.38**	**5**	P	**P**	**21 23 23.6 +0.1**			
	comp=Z,5.7nm,2.6s								
MARR	**Marisel-Cluj**	**71.51**	**5**	⇓P	**P**	**21 23 24.4 +0.1**			
MORH	**Mrgy, Hungar**	**71.73**	**8**	⇓P	**P**	**21 23 25.3 -0.2**			
MORH	**Mrgy, Hungar**	**71.73**	**8**	P	**P**	**21 23 24.2 -1.2**			
	comp=Z,3.8nm,1.3s								
MORH	**Mrgy, Hungar**	**71.73**	**8**	P	**P**	**21 23 25.2 -0.2**			
	comp=Z,4.2nm,1.4s								
SIRR	**Siria**	**71.86**	**6**	⇑P	**P**	**21 23 26.3 +0.1**			
OHH	**Osh**	**72.12**	**327**	P	**P**	**21 23 26.5 -1.5**			
	comp=Z,34nm,0.8s								
OZUR		**72.18**	**3**	⇓P	**P**	**21 23 27.8 -0.4**			
DOPR	**Dopca**	**72.30**	**3**	⇑P	**P**	**21 23 29.0 +0.1**			
SURR	**Surduc**	**72.39**	**6**	⇓P	**P**	**21 23 29.4 -0.1**			
VRI	**Vrincioaia**	**72.43**	**2**	⇑P	**P**	**21 23 29.9 +0.1**			
VRI	**Vrincioaia**	**72.43**	**2**	P	**P**	**21 23 29.2 -0.5**			
	comp=Z,7.6nm,1.1s								
VRI	**Vrincioaia**	**72.43**	**2**	P	**P**	**21 23 30.1 +0.3**			
	comp=Z,7.6nm,1.1s								
COVR	**Voineasa-Covas**	**72.44**	**3**	⇑P	**P**	**21 23 29.6 -0.2**			
PLOR	**Plostina**	**72.45**	**2**	⇓P	**P**	**21 23 29.7 -0.1**			
BZS	**Buzias**	**72.50**	**6**	⇑P	**P**	**21 23 30.0 -0.1**			
BZS	**Buzias**	**72.50**	**6**	P	**P**	**21 23 29.6 -0.5**			
	comp=Z,6.7nm,1.1s								
SAHR	**Sahastru**	**72.57**	**2**	⇓P	**P**	**21 23 30.1 -0.5**			
KSH2	**Kashi**	**72.67**	**324**	P	**P**	**21 23 31.0 -0.4**			
KSH2				pP	PcP	21 23 45.5 -3.1			
KSH2				pmax	pmax				
	comp=Z,14nm,1.0s								
BISRR	**Bisoca**	**72.75**	**2**	⇑P	**P**	**21 23 31.2 -0.4**			
BISRR	**Bisoca**	**72.75**	**2**	P	**P**	**21 23 31.4 -0.3**			
	comp=Z,28nm,1.6s								
GZR	**Gura Zlata**	**72.78**	**5**	⇓P	**P**	**21 23 31.2 -0.6**			
MLR	**Muntele Rosu**	**72.79**	**3**	IAmb	IAmb	21 23 35.0			
	comp=Z,5.8nm,1.0s								
MLR	**Muntele Rosu**	**72.79**	**3**	⇑P	**P**	**21 23 32.7 +0.8**			
MLR	**Muntele Rosu**	**72.79**	**3**	P	**P**	**21 23 31.5 -0.5**			
	comp=Z,8.2nm,1.8s								
MLR	**Muntele Rosu**	**72.79**	**3**	P	**P**	**21 23 32.8 +0.8**			
	comp=Z,7.5nm,1.4s								
VOIR		**72.82**	**4**	⇑P	**P**	**21 23 32.1 0.0**			
VOIR		**72.82**	**4**	P	**P**	**21 23 31.6 -0.5**			
	comp=Z,4.7nm,1.1s								
ARR	**Arges**	**72.88**	**4**	P	**P**	**21 23 32.9 +0.5**			
	comp=Z,9.6nm,1.2s								
BTK	**Batken**	**73.06**	**328**	P	**P**	**21 23 33.1 -0.5**			
	comp=Z,17nm,0.9s								
TLCR		**73.14**	**1**	⇓P	**P**	**21 23 33.1 -0.8**			
CFR	**Carcaliu**	**73.14**	**1**	⇓P	**P**	**21 23 33.2 -0.6**			
MDVR	**Moldovita**	**73.34**	**6**	⇑P	**P**	**21 23 35.1 0.0**			
DRK	**Karamyk**	**73.36**	**327**	P	**P**	**21 23 35.6 -0.1**			
	comp=Z,35nm,0.9s								
TPGR	**Topolog**	**73.47**	**1**	⇓P	**P**	**21 23 35.8 -0.1**			
HARR	**Harsova**	**73.63**	**2**	⇑P	**P**	**21 23 35.6 -1.1**			
TIRR	**Tirgusor**	**73.86**	**1**	⇑P	**P**	**21 23 38.1 0.0**			
TIRR	**Tirgusor**	**73.86**	**1**	P	**P**	**21 23 37.4 -0.7**			
	comp=Z,10nm,1.2s								
KIV	**Kislovodsk**	**73.88**	**350**	P	**P**	**21 23 37.9 -0.5**			
KIV	**Kislovodsk**	**73.88**	**350**	⇑P	**P**	**21 23 38.1 -0.2**			
KIV	**Kislovodsk**	**73.88**	**350**	P	**P**	**21 23 37.4 -1.0**			
	comp=Z,20nm,0.9s								
KIV	**Kislovodsk**	**73.88**	**350**	P	**P**	**21 23 38.0 -0.3**			
	comp=Z,26nm,0.9s								
KBZ	**Khabaz**	**74.09**	**350**	P	**P**	**21 23 39.4 0.0**			
	comp=Z,11nm,0.9s,baz=336,slow=4.4,SNR=20								
	comp=Z,11nm,0.9s								
ICOR	**Ion Corvin**	**74.20**	**2**	⇓P	**P**	**21 23 39.7 -0.4**			
BOVS	**Bovan**	**74.48**	**6**	⇓P	**P**	**21 23 41.5 -0.2**			
BLKB	**Belogradchik**	**74.54**	**5**	⇑P	**P**	**21 23 41.5 -0.7**			
NRCA	**Norcia**	**74.61**	**13**	P	**P**	**21 23 41.8 -0.8**			
ESDC	**Sonseca Array**	**75.00**	**26**	P	**P**	**21 23 45.1 +0.1**			
	comp=Z,6.2nm,0.9s,baz=341,slow=6.0,SNR=24								
ESDC				LR	LR	21 59 25.2			
	comp=Z,41nm,19.0s,baz=312,slow=38								
	comp=Z,6.2nm,0.9s								
PDG	**Podgorica**	**75.54**	**8**	⇑P	**P**	**21 23 47.3 -0.5**			
PDG	**Podgorica**	**75.54**	**8**	P	**P**	**21 23 47.6 -0.3**			
	comp=Z,15nm,1.1s								
KNT	**Kendrikon**	**77.01**	**5**	P	**P**	**21 23 56.5 +0.3**			
	comp=Z,14nm,1.2s								
GRG	**Griva**	**77.19**	**6**	P	**P**	**21 23 58.0 +0.7**			
	comp=Z,79nm,1.5s								
SDV	**Santo Domingo**	**77.23**	**95**	LR	LR	21 59 28.9			
	comp=Z,49nm,18.7s,baz=328,slow=37								
ILGA	**Ilgaz**	**77.23**	**357**	IAmb	IAmb	21 24 01.6			
	comp=Z,5.3nm,0.9s								
SOH	**Sokhos**	**77.37**	**5**	P	**P**	**21 23 58.5 +0.2**			
	comp=Z,31nm,1.0s								
MARCO	**Tramutola**	**77.39**	**11**	P	**P**	**21 23 59.5 +1.0**			
	comp=Z,15nm,1.0s								
NIL	**Nilore**	**78.47**	**324**	P	**P**	**21 24 04.0 -0.5**			
	comp=Z,18nm,1.0s								
BR106	**Keskin Array S**	**78.55**	**357**	P	**P**	**21 24 04.8 -0.2**			
BR131	**Keskin Array S**	**78.56**	**357**	IAmb	IAmb	21 24 05.9			
	comp=Z,12nm,0.9s								
BRTR	**Keskin Array B**	**78.56**	**357**	P	**P**	**21 24 04.8 -0.2**			
	comp=Z,6.9nm,0.9s,baz=32,slow=3.6,SNR=26								
	comp=Z,6.9nm,0.9s								
SLVN	**Son La**	**78.62**	**294**	IAmb	IAmb	21 24 06.5			
	comp=Z,9.7nm,0.9s								
SLVN	**Son La**	**78.62**	**294**	P	**P**	**21 24 05.8 +0.2**			
	comp=Z,15nm,1.3s								
KEMA	**Kemaliye**	**78.82**	**353**	P	**P**	**21 24 07.0 +0.6**			
	comp=Z,48nm,0.8s								
ROSC	**El Rosal**	**79.05**	**100**	LR	LR	22 04 51.4			
	comp=Z,43nm,18.2s,baz=47,slow=40								
KKUL	**Konya-Kulu**	**79.13**	**358**	P	**P**	**21 24 08.9 +0.8**			
	comp=Z,16nm,1.1s								
KIRS	**Kirsehir-Merke**	**79.14**	**357**	⇓P	**P**	**21 24 07.9 -0.3**			
PPT	**Papeete**	**79.32**	**180**	LR	LR	21 56 32.0			
	comp=Z,15nm,18.2s,baz=334,slow=34								
PPT2	**Papeete2**	**79.34**	**180**	*e*LR	LR	21 48 46.6			
	comp=Z,100nm,29.2s								
KRVT	**Keravat (AS076**	**79.41**	**239**	LR	LR	21 57 42.5			
	comp=Z,18nm,20.0s,baz=155,slow=34								
EVN	**Everest**	**79.45**	**311**	IAmb	IAmb	21 24 11.8			
	comp=Z,6.5nm,0.9s								
EVN	**Everest**	**79.45**	**311**	P	**P**	**21 24 09.6 -1.1**			
	comp=Z,8.2nm,0.6s								
HRA	**Herat**	**80.45**	**333**	IAmb	IAmb	21 24 16.6			
	comp=Z,5.5nm,0.7s								
GAZ	**Gaziantep**	**80.98**	**354**	IAmb	IAmb	21 24 19.5			
	comp=Z,9.4nm,0.9s								
HNR	**Honiara**	**81.06**	**230**	LR	LR	22 04 45.7			
	comp=Z,13nm,18.1s,baz=110,slow=39								
KEST	**Kesra**	**81.17**	**17**	P	**P**	**21 24 19.1 0.0**			
	comp=Z,7.5nm,0.8s,baz=336,slow=8.1,SNR=18								
	comp=Z,7.5nm,0.8s								
KEST	**Kesra**	**81.17**	**17**	IAmb	IAmb	21 24 20.4			
	comp=Z,12nm,0.9s								
DAV	**Davao City (W)**	**81.17**	**268**	LR	LR	21 57 43.7			
	comp=Z,17nm,19.4s,baz=332,slow=34								
MDT	**Midelt**	**81.45**	**29**	LR	LR	22 02 56.9			
	comp=Z,34nm,18.1s,baz=316,slow=37								
BRDH	**Bariadhala**	**82.45**	**305**	LR	LR	22 04 53.5			
	comp=Z,78nm,19.1s,baz=307,slow=38								
NPW	**Naypyitaw**	**83.27**	**300**	P	**P**	**21 24 29.8 -0.4**			
	comp=Z,15nm,1.3s								
CMAR	**Chiang Mai Arr**	**83.29**	**297**	P	**P**	**21 24 29.9 -0.4**			
	comp=Z,2.2nm,0.4s,baz=5.6,slow=6.0,SNR=35								
CMAR				LR	LR	22 06 39.4			
	comp=Z,15nm,18.4s,baz=35,slow=39								
	comp=Z,2.2nm,0.4s								
RAR	**Rarotonga**	**83.31**	**189**	LR	LR	21 54 51.3			
	comp=Z,29nm,20.9s,baz=340,slow=31								
MSVF	**Nonsavu**	**83.42**	**210**	LR	LR	21 53 10.4			
	comp=Z,64nm,21.8s,baz=9.4,slow=30								
SIJI	**Sorong**	**85.47**	**260**	P	**P**	**21 24 40.3 -1.0**			
	comp=Z,1.7nm,0.4s,baz=343,slow=16,SNR=3.6								
SIJI				LR	LR	21 59 37.2			
	comp=Z,17nm,19.2s,baz=106,slow=33								
	comp=Z,1.7nm,0.4s								
ATAH	**Atahualpa**	**87.78**	**110**	LR	LR	22 06 13.8			
	comp=Z,44nm,20.8s,baz=345,slow=37								
HRFI	**Mount Harif**	**88.18**	**356**	P	**P**	**21 24 53.1 -1.3**			
	comp=Z,24nm,1.8s								
MDP	**Montagnes des**	**89.00**	**81**	LR	LR	22 02 30.6			
	comp=Z,16nm,21.8s,baz=0.0,slow=34								
CTA	**Charters Tower**	**96.02**	**238**	LR	LR	22 04 05.3			
	comp=Z,25nm,19.7s,baz=40,slow=32								
BOSA	**Boshof**	**146.44**	**8**	PKPbc	**PKPab**	**21 31 44.0 -1.2**			
	comp=Z,14nm,0.6s,baz=338,slow=3.8,SNR=38								
QSPA	**South Pole Qui**	**151.83**	**180**	PKPbc	**PKPbc**	**21 31 55.6 -0.9**			
	comp=Z,3.4nm,0.3s,baz=186,slow=0.7,SNR=30								
MAW	**Mawson**	**165.07**	**234**	PKP	**PKPdf**	**21 32 02.8 -2.9**			
	comp=Z,2.5nm,0.7s,baz=239,slow=12,SNR=7.1								

*THE **26** 21:17:38.6,37.8N±1.0×26.9E±0.9, h9km±2km, M2.5/6, MLh2.5/6*

*AFAD **26** 21:17:38.7,37.81N×26.86E, h7km±4km, ML2.6*

*ISK **26** 21:17:38.1,37.81N×26.83E, h6km, ML2.4/26*

ISC 26 21:17:38.7±0.9,37.81N±0.02×26.83E±0.02, h10km±7km, n45, σ0s50/63, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.10**	**179**	P	**Pg**	**21 17 41.4**	**0.0**
SMG				S	**Sg**	**21 17 43.2**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.24**	**9**	P	**Pg**	**21 17 43.4**	**-0.3**
DGB				S	**Sg**	**21 17 46.9**	**-0.3**
GMLD	**Gumuldur**	**0.27**	**14**	Pg	**Pg**	**21 17 43.9**	**-0.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**109**	P	**Pg**	**21 17 45.1**	**-0.3**
GCAM				S	**Sg**	**21 17 50.6**	**+0.7**
GCAM				IAML		21 17 51.0	
	comp=N,651nm,0.5s						
GCAM				IAML		21 17 51.0	
	comp=E,688nm,0.2s						
GCAM	**G?zelcaml?**	**0.34**	**109**	Pg	**Pg**	**21 17 45.1**	**-0.3**
GCAM				Sg	**Sg**	**21 17 50.4**	**+0.5**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**82**	Pg	**Pg**	**21 17 45.5**	**-0.4**
KUSD				Sg	**Sg**	**21 17 50.6**	**-0.1**
KUSD				AML	AML		
BEYE	**izmir**	**0.42**	**10**	P	**Pg**	**21 17 47.1**	**0.0**
BEYE				S	**Sg**	**21 17 52.6**	**0.0**
ZEYE	**Izmir, Urla-Ze**	**0.50**	**329**	P	**Pg**	**21 17 48.1**	**-0.4**
ZEYE				S	**Sb**	**21 17 56.8**	**-0.2**
ZEYE				IAML		21 18 00.0	
	comp=N,740nm,0.2s						
ZEYE				IAML		21 18 00.0	
	comp=E,345nm,0.2s						
DIDI	**Didim-Aydin**	**0.54**	**143**	Pg	**Pg**	**21 17 49.3**	**+0.1**
DIDI				AML	AML		
BLCB	**Balcova**	**0.60**	**16**	P	**Pg**	**21 17 49.8**	**-0.5**
BLCB				S	**Sg**	**21 17 57.9**	**-0.3**
BLCB	**Balcova**	**0.60**	**16**	Pg	**Pg**	**21 17 49.9**	**-0.5**
BLCB				Sg	**Sg**	**21 17 58.5**	**+0.3**
DUVT	**Torbali**	**0.64**	**50**	P	**Pg**	**21 17 50.8**	**-0.3**
DUVT				S	**Sg**	**21 17 58.2**	**-1.2**
DUVT				IAML		21 18 03.0	
	comp=E,377nm,0.4s						
CESE	**eme**	**0.67**	**321**	Pg	**Pb**	**21 17 52.4**	**-0.1**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.77**	**152**	Pg	**Pg**	**21 17 53.7**	**+0.1**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.81**	**344**	Pg	**Pg**	**21 17 54.3**	**-0.1**
KRBN				AML	AML		
BODT	**Bodrum**	**0.84**	**153**	P	**Pg**	**21 17 54.3**	**-0.6**
BODT				S	**Sb**	**21 18 07.2**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**153**	Pg	**Pg**	**21 17 54.3**	**-0.6**
BODT				AML	AML		
CHOS	**Chios island**	**0.84**	**313**	P	**Pg**	**21 17 54.9**	**-0.1**
CHOS				S	**Sb**	**21 18 07.2**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**313**	Pg	**Pg**	**21 17 54.8**	**-0.2**
CHOS				Sg	**Sb**	**21 18 07.6**	**+0.7**
CHOS				AML	AML		
BAGT	**Foa**	**0.84**	**1**	P	**Pg**	**21 17 54.8**	**-0.3**
BAGT				S	**Sb**	**21 18 08.0**	**+1.1**
BAGT				IAML		21 18 09.0	
	comp=N,225nm,0.6s						
BAGT				IAML		21 18 09.0	
	comp=E,234nm,0.9s						
AYDB	**Zeytinkoy-Aydi**	**0.85**	**80**	Pg	**Pg**	**21 17 55.0**	**-0.1**
AYDB				Sg	**Sb**	**21 18 07.1**	**0.0**
AYDB				AML	AML		
FOCM	**Foa**	**0.91**	**355**	Pg	**Pg**	**21 17 55.4**	**-0.8**
FOCM				AML	AML		
BODA	**Bodrum-Mula**	**0.91**	**148**	Pg	**Pg**	**21 17 56.0**	**-0.2**
MLSB	**Milas**	**0.91**	**124**	Pg	**Pg**	**21 17 55.5**	**-0.7**
MLSB				AML	AML		
KARB	**zmir-Karabur**	**0.92**	**339**	P	**Pg**	**21 17 55.7**	**-0.7**
KARB				S	**Sn**	**21 18 10.1**	**-0.8**
KARB				IAML		21 18 11.0	
	comp=E,270nm,0.2s						
KARB				IAML		21 18 12.0	
	comp=N,221nm,0.5s						
CAMT	**Merkez**	**1.01**	**22**	P	**Pb**	**21 17 58.4**	**+0.1**
CAMT				S	**Sb**	**21 18 11.9**	**+0.2**
CAMT				IAML		21 18 15.0	
	comp=N,194nm,0.4s						
CAMT				IAML		21 18 15.0	
	comp=E,163nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.16**	**82**	Pn	**Pb**	**21 18 00.6**	**-0.3**
NAZL				AML	AML		
DAT	**Datca**	**1.23**	**151**	Pn	**Pn**	**21 18 01.7**	**-0.4**
GOMA	**Golmarmara-Man**	**1.24**	**43**	Pn	**Pb**	**21 18 02.2**	**0.0**
DKL	**Dikili**	**1.26**	**3**	Pn	**Pg**	**21 18 02.8**	**-0.1**
DKL				AML	AML		
APE	**Apeiranthos**	**1.27**	**235**	P	**Pn**	**21 18 02.2**	**-0.4**
APE				S	**Sg**	**21 18 20.1**	**+0.4**
APE	**Apeiranthos**	**1.27**	**235**	Pn	**Pn**	**21 18 02.5**	**-0.1**
APE				AML	AML		
AKS	**Akhisar**	**1.32**	**35**	Pn	**Pb**	**21 18 03.6**	**+0.1**
AKS				AML	AML		
SOMA	**Soma-Manisa**	**1.45**	**22**	Pn	**Pb**	**21 18 05.7**	**-0.2**
GORD	**Gordes-Manisa**	**1.52**	**43**	Pn	**Pb**	**21 18 06.6**	**-0.5**
GORD				AML	AML		
TURN	**Turunc**	**1.53**	**132**	Pn	**Pn**	**21 18 06.1**	**+0.1**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.60**	**63**	Pn	**Pb**	**21 18 07.8**	**-0.7**
DALY	**Dalyan (Mula)**	**1.76**	**124**	Pn	**Pn**	**21 18 09.9**	**+0.7**
DALY				AML	AML		

ADK	**Adak**	**0.47**	**337**			**Pn**	**22 00 32.6**	**+0.1**
ADK					IAML		22 00 41.1	
	13µm,0.3s							
ADK					IAML		22 00 41.1	
	13µm,0.2s							
ADK	**Adak**	**0.47**	**337**			**Sn**	**22 00 40.6**	**+0.8**
ADAG	**Mount Adagdak**	**0.54**	**346**			**Pn**	**22 00 34.1**	**+0.6**
ADAG						**Sn**	**22 00 43.4**	**+1.8**
GSCK	**Great Sitkin C**	**0.58**	**14**			**Pn**	**22 00 34.2**	**+0.2**
GSCK						**Sn**	**22 00 43.5**	**+1.1**
GSIG	**Igitkin Island**	**0.61**	**28**			**Pn**	**22 00 34.3**	**-0.1**
GSIG						**Sn**	**22 00 43.5**	**+0.4**
KIMD	**Kanaga Island**	**0.61**	**301**			**Pn**	**22 00 34.4**	**0.0**
KIMD						**Sn**	**22 00 43.6**	**+0.5**
KIWB	**Kanaga Island**	**0.62**	**310**			**Pn**	**22 00 34.8**	**+0.2**
KIWB						**Sn**	**22 00 44.4**	**+1.1**
KIWB					IAML		22 00 45.4	
	comp=N,5µm,0.7s							
GSTD	**Great Sitkin T**	**0.62**	**14**			**Pn**	**22 00 35.0**	**+0.3**
GSTD						**Sn**	**22 00 44.5**	**+1.0**
GSMY	**Great Sitkin M**	**0.62**	**19**			**Pn**	**22 00 34.9**	**+0.3**
GSMY						**Sn**	**22 00 44.7**	**+1.1**
KIKV	**Kanaga Island**	**0.64**	**312**			**Pn**	**22 00 35.3**	**+0.4**
KIKV						**Sn**	**22 00 45.2**	**+1.2**
GSSP	**Great Sitkin S**	**0.65**	**12**			**Sn**	**22 00 46.1**	**+1.9**
GSTR	**Great Sitkin T**	**0.67**	**18**			**Pn**	**22 00 35.8**	**+0.5**
GSTR						**Sn**	**22 00 46.5**	**+1.7**
GSTR	**Great Sitkin T**	**0.67**	**18**	IAML			22 00 54.3	
	comp=E,6µm,0.5s							
GSTR					IAML		22 00 58.3	
	comp=N,8µm,0.4s							
KICM	**Kanaga Island**	**0.68**	**313**			**Pn**	**22 00 35.5**	**+0.1**
TAFL	**Tanaga Flats**	**0.99**	**288**			**Sn**	**22 00 55.6**	**+3.4**
TAFP	**Tanaga Falls P**	**1.09**	**295**			**Pn**	**22 00 41.4**	**+0.5**
TAFP						**Sn**	**22 00 58.9**	**+4.2**
TANO	**Tanaga North**	**1.17**	**294**			**Sn**	**22 01 00.1**	**+3.3**
GAEA	**Gareloi East**	**1.50**	**284**			**Pn**	**22 00 48.0**	**+1.4**
GAKI	**Gareloi-Kavalg**	**1.52**	**275**			**Pn**	**22 00 47.1**	**+0.3**
GALAA	**Gareloi Lava P**	**1.52**	**283**			**Pn**	**22 00 48.2**	**+1.5**
GANE	**Gareloi Northe**	**1.53**	**285**			**Pn**	**22 00 48.5**	**+1.5**
GANO	**Gareloi North**	**1.55**	**285**			**Pn**	**22 00 48.2**	**+1.0**
ATKA	**Atka Island**	**1.56**	**60**			**Pn**	**22 00 47.0**	**-0.3**
ATKA	**Atka Island**	**1.56**	**60**			**Sn**	**22 01 06.9**	**+0.7**
ATKA	**Atka Island**	**1.56**	**60**	IAML			22 01 10.6	
	comp=N,2µm,0.6s							
ATKA					IAML		22 01 13.2	
	comp=E,1µm,0.4s							
KOKL	**Mount Kliuchef**	**1.61**	**57**			**Pn**	**22 00 49.3**	**+1.1**
KOKL						**Sn**	**22 01 10.8**	**+3.0**
KOFP	**Korovin Flat P**	**1.64**	**59**			**Pn**	**22 00 49.7**	**+1.1**
OKNC	**Okmok New Cone**	**5.44**	**65**	Pn		**Pn**	**22 01 43.3**	**+2.7**
SHEM	**Shemya Is, Ala**	**6.00**	**286**	Pn		**Pn**	**22 01 44.3**	**-3.9**
	comp=E,1.0nm,0.3s,baz=268,slow=16,SNR=1.2							
	comp=E,58nm,0.8s							
SHEM					AML	AML		
SHEM	**Shemya Is, Ala**	**6.00**	**286**			**Pn**	**22 01 48.6**	**+0.4**
UNV	**Unalaska Valle**	**6.48**	**64**	Pn		**Pn**	**22 01 56.4**	**+1.6**
KDAK	**Kodiak Island**	**15.13**	**56**	Pn		**Pn**	**22 03 50.8**	**-1.9**
	comp=E,0.7nm,0.3s,baz=239,slow=5.5,SNR=13							
KDAK					Sn	**Sn**	**22 06 37.6**	**-1.2**
	comp=E,0.2nm,0.3s,baz=123,slow=4.5,SNR=1.4							
	comp=E,3.5nm,0.4s							
KDAK					AML	AML		
L18K	**Granite Mounta**	**15.17**	**37**	P		**P**	**22 03 58.5**	**+0.8**
N19K	**Bonanza Creek**	**15.32**	**44**	P		**P**	**22 03 59.8**	**+0.3**
N19K					IAmb	IAmb	22 04 31.1	
	comp=Z,13nm,1.3s							
G16K	**Koyuk River**	**15.73**	**22**	P		**P**	**22 04 05.6**	**+1.8**
G16K					IAmb	IAmb	22 04 20.9	
	comp=Z,9.8nm,1.1s							
PETK	**Petropavlovsk-**	**15.91**	**286**	Pn		**Pn**	**22 04 00.0**	**-2.9**
	comp=Z,0.1nm,0.3s,baz=102,slow=13,SNR=1.5							
	comp=Z,2.8nm,0.9s							
PETK					AML	AML		
H17K	**Granite Mounta**	**15.98**	**26**	P		**P**	**22 04 08.4**	**+1.8**
CNPM	**China Poot**	**16.30**	**51**	Pn		**Pn**	**22 04 07.3**	**-0.5**
BRLK	**Bradley Lake**	**16.55**	**50**	Pn		**Pn**	**22 04 10.5**	**-0.4**
H18K	**Honhosa River**	**16.58**	**27**			**P**	**22 04 13.9**	**+0.6**
J19K	**Poorman**	**16.65**	**33**	Pn		**Pn**	**22 04 13.2**	**+1.1**
F17K	**Baldwin Pennin**	**16.86**	**21**			**Pn**	**22 04 16.3**	**+1.7**
F17K					IAmb	IAmb	22 04 51.5	
	comp=Z,14nm,1.3s							
CAST	**Castle Rocks**	**17.60**	**38**	P		**P**	**22 04 27.3**	**+2.8**
G19K	**Purcell Mounta**	**17.67**	**26**			**P**	**22 04 26.6**	**+1.2**
MLY	**Manley**	**18.96**	**34**	P		**P**	**22 04 39.9**	**+0.3**
MCK	**McKinley**	**18.98**	**39**	P		**P**	**22 04 40.6**	**+0.9**
MCK					IAmb	IAmb	22 05 16.8	
	comp=Z,11nm,1.4s							
D19K	**Kuna River**	**19.23**	**21**	P		**Pn**	**22 04 44.2**	**+0.5**
D19K					IAmb	IAmb	22 04 50.4	
	comp=Z,24nm,1.4s							
H22K	**Ishtalitna Cre**	**19.25**	**32**	P		**Pn**	**22 04 44.7**	**+0.8**
DHY	**Denali Highway**	**19.33**	**42**			**P**	**22 04 45.2**	**+1.5**
DHY					IAmb	IAmb	22 04 49.2	
	comp=Z,11nm,1.1s							
NEA2	**Nenana**	**19.34**	**37**	P		**P**	**22 04 45.6**	**+1.9**
NEA2					IAmb	IAmb	22 04 48.6	
	comp=Z,4.5nm,0.5s							
I23K	**Minto, Yukon-K**	**19.52**	**35**	P		**P**	**22 04 47.5**	**+1.9**
I23K					IAmb	IAmb	22 04 51.8	
	comp=Z,7.1nm,0.6s							
WRH	**Wood River Hil**	**19.65**	**38**	P		**P**	**22 04 49.0**	**+1.9**
WRH					IAmb	IAmb	22 04 55.6	
	comp=Z,7.1nm,1.3s							
D20K	**Etivluk River**	**19.75**	**21**	P		**Pn**	**22 04 50.3**	**+0.5**
D20K					IAmb	IAmb	22 05 25.6	
	comp=Z,17nm,1.4s							
CCB	**Clear Creek Bu**	**19.84**	**37**			**P**	**22 04 50.4**	**+1.3**
HARP	**HAARP**	**20.04**	**45**	P		**P**	**22 04 52.8**	**+1.6**
HDA	**Harding Lake**	**20.07**	**38**	P		**P**	**22 04 53.0**	**+1.5**
HDA					IAmb	IAmb	22 05 11.0	
	comp=Z,7.8nm,1.3s							
PAX	**Paxson**	**20.09**	**43**	P		**P**	**22 04 53.5**	**+1.6**
PAX					IAmb	IAmb	22 05 09.7	
	comp=Z,8.4nm,1.4s							
SEY	**Seymchan**	**20.21**	**317**	P		**P**	**22 04 52.2**	**-0.9**
	comp=Z,1.4nm,0.6s,baz=91,slow=11,SNR=1.8							
	comp=Z,1.4nm,0.6s							
IL31		**20.25**	**38**			**P**	**22 04 54.9**	**+1.4**
IL31					IAmb	IAmb	22 05 16.3	
	comp=Z,8.4nm,1.4s							
ILAR	**Eielson Array**	**20.25**	**38**	P		**P**	**22 04 51.8**	**-1.8**
	comp=Z,0.4nm,0.4s,baz=242,slow=9.9,SNR=24							
	comp=Z,0.4nm,0.4s							
ILAR	**Eielson Array**	**20.25**	**38**	P		**P**	**22 04 55.2**	**+1.7**
K24K	**Donnelly Dome**	**20.28**	**41**			**P**	**22 04 54.6**	**+0.7**
GLB	**Gilahina Butte**	**20.37**	**48**	P		**P**	**22 04 54.3**	**-0.6**
GLB					IAmb	IAmb	22 05 03.4	
	comp=Z,16nm,1.4s							
RIDG	**Independent Ri**	**20.64**	**41**	P		**P**	**22 04 58.8**	**+1.1**
SCRK	**Sand Creek**	**21.08**	**41**			**P**	**22 05 03.3**	**+0.7**
SCRK					IAmb	IAmb	22 05 03.8	
	comp=Z,6.1nm,1.0s							
J30M	**Hart River**	**24.44**	**42**	P		**P**	**22 05 37.6**	**+0.9**
J30M					IAmb	IAmb	22 05 43.0	
	comp=Z,7.7nm,1.3s							
I30M	**Mount Dempster**	**24.58**	**41**	P		**P**	**22 05 39.1**	**+1.2**
YAK	**Yakutsk**	**30.50**	**311**	LR		LR	22 18 26.6	
	comp=Z,32nm,19.0s,baz=35,slow=36							
TIXI	**Tiksi**	**31.32**	**330**	LR		LR	22 19 38.4	
	comp=Z,31nm,19.0s,baz=131,slow=37							
YKA	**Yellowknife Ar**	**34.08**	**47**	P		**P**	**22 07 02.2**	**0.0**
	comp=Z,0.4nm,0.4s,baz=280,slow=9.5,SNR=2.4							
	comp=Z,0.4nm,0.4s							
H11N2	**WAKE ISLAND Hy**	**34.28**	**209**	T		T	22 43 25.0	
	baz=18,slow=76,SNR=96							
H11N3	**WAKE ISLAND Hy**	**34.29**	**209**	T		T	22 43 25.6	
	baz=18,slow=76,SNR=106							
H11N1	**WAKE ISLAND Hy**	**34.30**	**209**	T		T	22 43 26.3	
	baz=18,slow=76,SNR=103							
H11S1	**WAKE ISLAND Hy**	**35.49**	**208**	T		T	22 45 03.7	
	baz=17,slow=76,SNR=42							
H11S2	**WAKE ISLAND Hy**	**35.51**	**208**	T		T	22 45 01.5	
	baz=17,slow=76,SNR=36							
H11S3	**WAKE ISLAND Hy**	**35.51**	**208**	T		T	22 45 09.7	
	baz=17,slow=76,SNR=34							
NEW	**Newport**	**37.44**	**71**	P		**P**	**22 07 31.5**	**+0.4**
	comp=Z,0.5nm,0.4s,baz=339,slow=14,SNR=1.4							
	comp=Z,0.5nm,0.4s							
NEW	**Newport**	**37.44**	**71**	P		**P**	**22 07 31.8**	**+0.7**
JCJ	**Chichijima**	**39.50**	**248**	LR		LR	22 21 08.8	
	comp=Z,73nm,20.0s,baz=88,slow=32							
KSRS	**Korea Array**	**41.14**	**273**	LR		LR	22 24 24.9	
	comp=Z,5.0nm,21.5s,baz=355,slow=35							

MDPB	**Devils Postpil**	**42.05**	**86**	P		**P**	**22 08 09.0**	**-0.8**
YHH	**Holmes Hill**	**42.93**	**72**			**P**	**22 08 18.1**	**+1.2**
YHH					IAmb	IAmb	22 08 24.1	
	comp=Z,6.0nm,1.3s							
PDAR	**Pinedale Array**	**44.84**	**74**	P		**P**	**22 08 33.0**	**+0.8**
	comp=Z,0.4nm,0.4s,baz=311,slow=3.4,SNR=14							
	comp=Z,0.4nm,0.4s							
SONM	**Songino Array**	**47.95**	**298**	P		**P**	**22 08 54.6**	**-1.8**
	comp=Z,0.2nm,0.4s,baz=68,slow=7.5,SNR=1.9							
	comp=Z,0.2nm,0.4s							
SONM	**Songino Array**	**47.95**	**298**	P		**P**	**22 08 55.2**	**-1.2**
SONM					IAmb	IAmb	22 09 37.3	
	comp=Z,1.3nm,1.3s							
HHC	**Hu-ho-hao-te**	**49.11**	**287**	*eP*		**P**	**22 09 06.5**	**+1.1**
HHC					pmax	pmax		
	comp=Z,7.0nm,0.7s							
TXAR	**Lajitas Array**	**57.15**	**83**	P		**P**	**22 10 05.2**	**+0.5**
	comp=Z,0.2nm,0.5s,baz=304,slow=5.6,SNR=3.8							
	comp=Z,0.2nm,0.5s							
TXAR	**Lajitas Array**	**57.15**	**83**	P		**P**	**22 10 04.8**	**+0.2**
P40A	**Paris**	**57.17**	**66**	P		**P**	**22 10 04.6**	**+0.1**
KURK	**Kurchatov**	**60.05**	**315**	P		**P**	**22 10 24.3**	**0.0**
KURK					IAmb	IAmb	22 10 24.6	
	comp=Z,1.3nm,0.6s							
KURBB	**Kurchatov Arra**	**60.15**	**315**	P		**P**	**22 10 24.6**	**-0.4**
	comp=Z,1.0nm,0.5s,baz=43,slow=6.4,SNR=26							
	comp=Z,1.0nm,0.5s							
MKAR	**Makanchi Array**	**61.16**	**310**	P		**P**	**22 10 30.9**	**-1.1**
	comp=Z,0.3nm,0.4s,baz=51,slow=6.2,SNR=2.3							
	comp=Z,0.3nm,0.4s							
BVAR	**Borovoye Array**	**61.79**	**321**	P		**P**	**22 10 36.4**	**+0.3**
	comp=Z,1.4nm,0.3s,baz=48,slow=7.1,SNR=9.5							
	comp=Z,1.4nm,0.3s							
CMAR	**Chiang Mai Arr**	**72.50**	**278**	P		**P**	**22 11 43.8**	**-0.8**
	comp=Z,0.9nm,0.3s,baz=37,slow=6.6,SNR=5.0							
	comp=Z,0.9nm,0.3s							
WRA	**Warramunga Arr**	**83.13**	**226**	P		**P**	**22 12 42.9**	**-0.6**
	comp=Z,0.3nm,0.7s,baz=26,slow=5.4,SNR=2.2							
	comp=Z,0.3nm,0.7s							
BOSA	**Boshof**	**152.00**	**316**	PKPbc		**PKPbc**	**22 20 12.4**	**-0.2**
	comp=Z,2.1nm,0.9s,baz=40,slow=2.3,SNR=6.3							
BOSA	**Boshof**	**152.00**	**316**	PKPdf		**PKPdf**	**22 20 04.8**	**-1.2**
BOSA				PKPbc		**PKPbc**	**22 20 12.6**	**0.0**

UPA ***26*** *22:01:33.3±2.7, 8.˚29N×83.˚19W, h15km±10km, MW3.2, Presumed earthquake*
UCR ***26*** *22:01:34.7±1.4,* **8.˚31N±0.˚06×83.˚06W±0.˚05, h17km±9km, n21, σ0s65/27, 1D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTPA	**Petro Terminal**	**0.22**	**120**	*eP*	**Pg**	**22 01 40.2**	**+0.4**
PTPA				*eS*	**Sb**	**22 01 44.0**	**+0.1**
LPPC	**Paso Canoas**	**0.31**	**44**	*eP*	**Pg**	**22 01 41.3**	**-0.1**
FITO	**Golfito**	**0.33**	**343**	*eP*	**Pg**	**22 01 40.9**	**-0.7**
FITO	**Golfito**	**0.33**	**343**	*eP*	**Pg**	**22 01 41.1**	**-0.6**
FITO				*eS*	**Sb**	**22 01 46.6**	**-0.5**
NELY	**Ciudad Neily**	**0.36**	**18**	*eP*	**Pg**	**22 01 42.1**	**-0.1**
NELY	**Ciudad Neily**	**0.36**	**18**	*eP*	**Pb**	**22 01 42.3**	**-0.3**
NELY				*eS*	**Sb**	**22 01 48.5**	**+0.6**
VITO	**San Vito**	**0.51**	**10**	*eP*	**Pb**	**22 01 45.4**	**0.0**
VITO				*eS*	**Sb**	**22 01 54.6**	**+2.0**
BRU2	**Volcan**	**0.60**	**37**	*eP*	**Pg**	**22 01 46.5**	**-0.2**
BRU2	**Volcan**	**0.60**	**37**	*iP*	**Pg**	**22 01 46.8**	**0.0**
BRU2				*eS*	**Sn**	**22 01 57.3**	**-0.8**
CLLRA	**Cordillera,**	**0.62**	**45**	*eP*	**Pg**	**22 01 46.9**	**-0.1**
CLLRA	**Cordillera,**	**0.62**	**45**	*eP*	**Pg**	**22 01 47.0**	**0.0**
EDP2	**Potrero Grande**	**0.71**	**351**	*eP*	**Pb**	**22 01 48.7**	**0.0**
BQTLY	**Boquete Panama**	**0.74**	**53**	*eP*	**Pg**	**22 01 48.7**	**-0.5**
BQTLY	**Boquete Panama**	**0.74**	**53**	*eP*	**Pg**	**22 01 48.7**	**-0.5**
BGUAL	**Bijagual, Pana**	**0.74**	**75**	*eP*	**Pg**	**22 01 48.7**	**-0.5**
BGUAL	**Bijagual, Pana**	**0.74**	**75**	*eP*	**Pg**	**22 01 48.9**	**-0.4**
BGUAL				*eS*	**Sg**	**22 01 59.0**	**-0.2**
RBALA	**Bur**	**1.06**	**58**	*eP*	**Pb**	**22 01 53.8**	**-0.7**
RBALA	**Bur**	**1.06**	**58**	*eP*	**Pb**	**22 01 53.8**	**-0.7**
SAJE	**San Jernim**	**1.12**	**337**	*eP*	**Pb**	**22 01 55.1**	**-0.7**
LAES	**El Progreso Va**	**1.44**	**0**	*eP*	**Pb**	**22 02 01.1**	**-0.1**
VERH	**Veragua Rainfo**	**1.61**	**355**	*eP*	**Pn**	**22 02 03.3**	**+0.8**

GII ***26*** *22:08:23.9±0.0, 33.˚969N±0.˚001×36.˚725E±0.˚001, h0km, Mws4.1, confirmed*
AFAD ***26*** *22:08:23.4, 33.˚48N×36.˚62E, h8km±5km, MW4.4*
GRAL ***26*** *22:08:24.4±1.1, 33.˚74N×36.˚95E, h0km±17km, MD4.4*
IDC ***26*** *22:08:25.5±0.5, 33.˚77N×36.˚70E, h0km, mb3.8/18, mbtmp3.8/24, ML3.1/6, MS3.4/22, Error ellipse: s-maj=10.3km s-min=7.7km az=113.0*
NEIC ***26*** *22:08:26.0±2.1, 33.˚68N±0.˚02×36.˚75E±0.˚07, h10km±1km, mb4.1/11, Error ellipse: s-maj=10.4km s-min=3.6km az=273.0*
JSO ***26*** *22:08:26.6±0.9, 34.˚N±7.˚×3.˚7E±.˚, h10km, M4.8/19, mb4.1/1, MLv5.2/19*
ISK ***26*** *22:08:26.1, 33.˚83N×36.˚62E, h6km, ML4.5/15*
GFZ ***26*** *22:08:27.6±0.2, 34.˚N±2.˚×3.˚7E±.˚, h10km, M4.4/25, mb4.2/25, confirmed*
ISC 26 22:08:27.3±1.1, 33.˚78N±0.˚02×36.˚69E±0.˚03, h14km±7km, n266, σ1s25/291, mb3.9/52, MS3.4/20, 9C, Jordan-Syria region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAHL	**Zahle**	**0.68**	**277**	*eP*	**Pg**	**22 08 40.3**	**-0.3**
ZAHL				*eS*	**Sb**	**22 08 51.8**	**+1.5**
RCY	**Rachaya**	**0.77**	**249**	*eP*	**Pg**	**22 08 41.5**	**-0.9**
RCY				*eS*	**Sn**	**22 08 55.4**	**+0.1**
HWQ	**Hawqa**	**0.80**	**309**	*eP*	**Pg**	**22 08 42.3**	**-0.6**
HWQ				*eS*	**Sb**	**22 08 55.1**	**+1.4**
BEIL	**Beino**	**0.87**	**331**	*eP*	**Pg**	**22 08 43.2**	**-1.1**
BEIL				*eS*	**Sb**	**22 08 56.6**	**+0.8**
BHL	**Bhannes**	**0.87**	**279**	*eP*	**Pg**	**22 08 44.0**	**-0.3**
QRWL	**Qaraoun**	**0.87**	**255**	*eP*	**Pg**	**22 08 43.4**	**-0.9**
DQRL	**Deir Qamar**	**0.94**	**266**	*eP*	**Pg**	**22 08 44.6**	**-0.9**
NATI	**Neve Ativ**	**0.95**	**238**	*iP*	**Pg**	**22 08 44.7**	**-1.1**
NATI				*S*	**Sn**	**22 09 01.2**	**+1.6**
BEYL	**Beirut**	**1.00**	**276**	*eP*	**Pb**	**22 08 46.3**	**-0.1**
GEM	**Giv'at Ha'Em**	**1.03**	**237**	*P*	**Pg**	**22 08 46.0**	**-1.2**
GEM	**Giv'at Ha'Em**	**1.03**	**237**	*iP*	**Pg**	**22 08 46.0**	**-1.2**
GEM				*S*	**Sn**	**22 09 04.0**	**+2.5**
KSHT	**Keshet**	**1.08**	**223**	*iP*	**Pb**	**22 08 47.1**	**-0.8**
KSHT				*S*	**Sn**	**22 09 03.9**	**+1.0**
KIRY	**Kiryat Shemona**	**1.10**	**239**	*iP*	**Pb**	**22 08 47.4**	**-0.7**
HULT	**Hulata**	**1.16**	**232**	*iP*	**Pb**	**22 08 48.3**	**-0.8**
HULT				*S*	**Sn**	**22 09 07.7**	**+2.9**
RMOT	**Ramot**	**1.26**	**223**	*iP*	**Pn**	**22 08 50.0**	**-0.5**
RMOT				*S*	**Sg**	**22 09 09.7**	**+1.6**
ZEFT	**Zefat**	**1.29**	**232**	*P*	**Pn**	**22 08 50.4**	**-0.5**
ZEFT				*S*	**Sg**	**22 09 10.2**	**+1.3**
KNHM	**Kefar Nahum**	**1.29**	**227**	*iP*	**Pn**	**22 08 50.3**	**-0.6**
KNHM				*S*	**Sg**	**22 09 10.0**	**+1.0**
MMA0B	**Mount Meron ar**	**1.32**	**235**	*P*	**Pn**	**22 08 50.9**	**-0.5**
MMA0B				*S*	**Sg**	**22 09 11.2**	**+1.3**
MMAI	**Mount Meron Ar**	**1.32**	**235**	*Pg*	**Pn**	**22 08 50.9**	**-0.5**
	1µm,0.3s,baz=49,slow=17,SNR=1310						
MMAI				*Lg*	Lg	22 09 12.9	
	1µm,0.3s,baz=56,slow=34,SNR=17						
ZRT	**Zar'it**	**1.35**	**241**	*iP*	**Pn**	**22 08 51.6**	**-0.2**
ZRT				*S*	**Sg**	**22 09 12.1**	**+1.1**
TVER	**Teveria**	**1.39**	**225**	*iP*	**Pn**	**22 08 51.9**	**-0.3**
TVER				*S*	**Sg**	**22 09 13.3**	**+1.3**
HNTI	**Hanita**	**1.45**	**242**	*P*	**Pn**	**22 08 52.6**	**-0.5**
HNTI				*S*	**Sg**	**22 09 14.4**	**+0.4**
ASF	**Jabal al Asfar**	**1.60**	**175**	*Pg*	**Pn**	**22 08 55.1**	**-0.3**
	563nm,0.3s,baz=354,slow=9.9,SNR=3752						
ASF				*Lg*	Lg	22 09 17.6	
	102nm,0.3s,baz=163,slow=6.7,SNR=5.0						
ASF				*LR*	LR	22 09 49.2	
	comp=Z,2µm,19.8s,baz=347,slow=52						
ASF	**Jabal al Asfar**	**1.60**	**175**	*P*	**Pn**	**22 08 55.1**	**-0.3**
ASF				AML	AML		
BLGI	**Bet Lehem HaGe**	**1.63**	**231**	*P*	**Pn**	**22 08 55.9**	**+0.3**
BLGI				*S*	**Sg**	**22 09 20.0**	**+0.1**
MMLI	**Mount Malkishu**	**1.71**	**219**	*P*	**Pn**	**22 08 57.4**	**+0.6**
MMLI	**Mount Malkishu**	**1.71**	**219**	*P*	**Pn**	**22 08 57.0**	**+0.3**
MMLI				*S*	**Sg**	**22 09 22.3**	**-0.1**
QRNJ	**Al-Qirein**	**1.72**	**213**	*P*	**Pn**	**22 08 57.3**	**+0.6**
QRNJ				AML	AML		
HSUJ	**Al Zarqa**	**1.72**	**194**	*P*	**Pn**	**22 08 56.8**	**-0.1**
HSUJ				AML	AML		

ROII	**Roi**	**1.83**	**214**	P		**Pn**	**22 08 58.6**	**+0.3**
ROII				S		**Sg**	**22 09 24.8**	**-1.5**
OFRI	**`Ofer**	**1.84**	**232**	P		**Pn**	**22 08 58.0**	**-0.5**
OFRI				S		**Sg**	**22 09 24.9**	**-1.6**
RGMN	**Argaman**	**1.88**	**212**	P		**Pn**	**22 08 59.5**	**+0.5**
RGMN				S		**Sg**	**22 09 26.5**	**-1.4**
CY604	**RAF Akrotiri,**	**1.90**	**288**			**Pn**	**22 08 58.1**	**-0.9**
SLTI	**Sal'it**	**2.07**	**223**	P		**Pn**	**22 09 02.3**	**+0.7**
SLTI				S		**Sb**	**22 09 31.2**	**+1.0**
ARIL	**Ariel Universi**	**2.08**	**217**	P		**Pn**	**22 09 02.7**	**+0.8**
ARIL				S		**Sb**	**22 09 32.1**	**+1.4**
UJAP	**Al Uja**	**2.09**	**210**	P		**Pn**	**22 09 03.1**	**+1.2**
UJAP	**Al Uja**	**2.09**	**210**	Pn		**Pn**	**22 09 03.1**	**+1.2**
UJAP				Sn		**Sb**	**22 09 29.8**	**-1.1**
UJAP	**Al Uja**	**2.09**	**210**	P		**Pn**	**22 09 02.1**	**+0.2**
YITV	**Yitav**	**2.12**	**211**	P		**Pn**	**22 09 03.0**	**+0.8**
YITV				S		**Sb**	**22 09 32.6**	**+1.1**
SALP	**Salfit**	**2.12**	**217**	P		**Pn**	**22 09 03.7**	**+1.3**
SALP				AML	AML			
ALMO	**Almog**	**2.24**	**208**	P		**Pn**	**22 09 04.9**	**+1.0**
ALMO				S		**Sb**	**22 09 35.3**	**+0.3**
YAYL	**Yayladag**	**2.30**	**348**	P		**Pn**	**22 09 05.8**	**+0.8**
YAYL				S		**Sb**	**22 09 37.5**	**+0.4**
JER	**Jerusalem**	**2.36**	**213**	P		**Pn**	**22 09 06.8**	**+1.0**
SWQJ	**Karak**	**2.42**	**192**	P		**Pn**	**22 09 08.7**	**-0.1**
SWQJ				AML	AML			
RHAN	**Hatay/Reyhanl**	**2.48**	**358**	P		**Pn**	**22 09 09.0**	**+1.8**
RHAN				S		**Sb**	**22 09 41.3**	**-0.7**
TAHT	**Tahtakopru-Hat**	**2.63**	**351**	Pn		**Pn**	**22 09 09.5**	**+0.2**
TAHT				Sn		**Sn**	**22 09 41.3**	**+0.3**
TAHT				AML	AML			
GHAJ	**Ghor Haditha**	**2.64**	**201**			**Pn**	**22 09 08.0**	**-1.5**
GHAJ	**Ghor Haditha**	**2.64**	**201**	P		**Pn**	**22 09 09.8**	**+0.3**
GHAJ				AML	AML			
GHAJ	**Ghor Haditha**	**2.64**	**201**	P		**Pn**	**22 09 10.2**	**+0.7**
AMAZ	**Amatzia**	**2.69**	**214**	P		**Pn**	**22 09 12.3**	**+2.0**
AMAZ				AML	AML			
AMAZ	**Amatzia**	**2.69**	**214**	P		**Pn**	**22 09 10.9**	**+0.6**
AMAZ				S		**Sb**	**22 09 46.9**	**-1.3**
MSBI	**Mazada**	**2.70**	**205**	P		**Pn**	**22 09 12.6**	**+2.3**
MSBI				AML	AML			
MSBI	**Mazada**	**2.70**	**205**	P		**Pn**	**22 09 11.0**	**+0.7**
EREN	**Erenkoy**	**2.72**	**311**	P		**Pn**	**22 09 09.8**	**-0.7**
EREN	**Erenkoy**	**2.72**	**311**	Pn		**Pn**	**22 09 10.6**	**+0.1**
EREN				Sn		**Sn**	**22 09 42.8**	**-0.4**
LISJ	**El Lisan**	**2.73**	**202**	P		**Pn**	**22 09 12.1**	**+1.5**
LISJ				AML	AML			
HASA	**Hatay-Hassa-Ha**	**2.97**	**357**	P		**Pn**	**22 09 14.0**	**-0.1**
HASA				S		**Sb**	**22 09 54.5**	**-1.8**
KRTS	**Karatas**	**2.99**	**339**	Pn		**Pn**	**22 09 15.2**	**+0.9**
KRTS				AML	AML			
KUZU	**Kuzuini**	**3.01**	**6**	P		**Pb**	**22 09 21.8**	**+1.1**
KUZU				S		**Sb**	**22 09 57.1**	**-0.2**
LFK	**Lefkose**	**3.01**	**301**	Pn		**Pn**	**22 09 15.2**	**+0.6**
LFK				Sn		**Sn**	**22 09 50.0**	**-0.5

ISP	Isparta	6.44	311	Pn		Pn		22 10 03.1	+1.4
TOKA	Tokat	6.54	359			Pn		22 10 03.7	+0.6
KELT	Kelkit	6.68	17	P		Pn		22 10 05.9	+0.7
	comp=Z,55nm,0.7s								
HAKT	HAKKARI	6.84	55	P		Pn		22 10 06.2	-1.3
	comp=Z,164nm,1.6s								
GEVA	Gevas	6.86	47			Pn		22 10 07.3	-0.4
KOPT	Kop Dagi	6.93	25			Pn		22 10 09.4	+0.6
ARG	Arkhangelos	7.44	292			Pn		22 10 14.7	-0.7
ARG	Arkhangelos	7.44	292	P		Pn		22 10 15.5	0.0
	comp=Z,23nm,0.6s								
ILGA	Ilgaz	7.64	343			Pn		22 10 19.0	+0.6
KARP	Karpathos	8.05	285	Pn		Pn		22 10 24.0	+0.1
KARP	Karpathos	8.05	285	Pn		Pn		22 10 22.0	-1.8
	comp=Z,28nm,1.0s								
KARP	Karpathos	8.05	285	P		Pn		22 10 23.4	-0.5
	comp=Z,28nm,1.0s								
MANT	Manisa	8.09	308			Pn		22 10 24.9	+0.3
AYDN	Tasoluk	8.15	301	P		Pn		22 10 25.0	-0.2
	comp=Z,100nm,0.9s								
ZKR	Zakros	8.76	282	P		Pn		22 10 35.2	+1.7
	comp=Z,62nm,1.9s								
YLV	Yalova	8.94	321	Pn		Pn		22 10 35.8	-0.3
	comp=Z,11nm,0.8s								
GNI	Garni	9.05	43	Pn		Pn		22 10 37.8	+0.1
	comp=Z,0.3nm,0.3s,baz=220,slow=7.7,SNR=3.6								
GNI				Lg		Lg		22 13 20.2	
	comp=Z,0.2nm,0.3s,baz=0.9,slow=21,SNR=1.7								
	comp=Z,2.7nm,0.7s								
GNI				AML		AML			
GNI	Garni	9.05	43	Pn		Pn		22 10 36.7	-1.0
	comp=Z,11nm,1.3s								
KLYT	Kilyos	9.62	323	Pn		Pn		22 10 45.0	-0.3
	comp=Z,27nm,1.5s								
IDI	Anoyia	9.85	282	Pn		Pn		22 10 47.9	-0.7
	comp=Z,2.3nm,0.3s,baz=91,slow=16,SNR=10								
IDI				Sn		Sn		22 12 34.4	-4.6
	comp=Z,2.7nm,0.3s,baz=306,slow=22,SNR=6.1								
	comp=Z,6.2nm,0.4s								
IDI				AML		AML			
IDI	Anoyia	9.85	282			Pn		22 10 47.4	-1.2
CTYL	Yalikoy Yolu	10.17	322	Pn		Pn		22 10 52.5	-0.3
	comp=Z,39nm,0.9s								
KBZ	Khabaz	11.05	24	Pn		Pn		22 11 05.3	+0.5
	baz=242,slow=6.6,SNR=3.8								
	comp=Z,0.5nm,0.5s								
KIV	Kislovodsk	11.18	23	Pn		Pn		22 11 06.3	-0.5
	comp=Z,6.9nm,1.2s								
TIRR	Tirgusor	12.45	331	Pn		Pn		22 11 24.2	+0.3
	comp=Z,5.2nm,0.9s								
ITM	Ithomi	12.51	290	Pn		Pn		22 11 24.6	-0.2
RAYN	Ar Rayn	12.81	141	P		Pn		22 11 28.7	-0.4
	comp=Z,3.6nm,1.7s								
MLR	Muntele Rosu	14.32	328	LR		LR		22 18 52.1	
	comp=Z,388nm,18.0s,baz=180,slow=44								
TESR	Tescani	14.84	332	P		Pn		22 11 56.7	0.0
	comp=Z,6.4nm,2.0s								
SORM	Soroca	15.65	339	P		Pn		22 12 07.3	0.0
	comp=Z,6.8nm,1.0s								
KMPD	K-Podol'skiy	16.64	336	P		Pn		22 12 20.1	+0.2
TIP	Timpagrande	16.91	294			Pn		22 12 21.5	-2.0
TIP				IAmb		IAmb		22 12 30.0	
	comp=Z,15nm,1.0s								
TIP	Timpagrande	16.91	294	P		Pn		22 12 22.6	-0.9
	comp=Z,13nm,1.2s								
TIP	Timpagrande	16.91	294	P		Pn		22 12 24.0	+0.5
	comp=Z,16nm,1.2s								
CEL	Celeste	17.40	291	Pn		Pn		22 12 28.9	-0.9
CEL				IAmb		IAmb		22 12 35.1	
	comp=Z,16nm,1.0s								
CEL	Celeste	17.40	291	P		Pn		22 12 29.0	-0.7
	comp=Z,16nm,1.2s								
CEL	Celeste	17.40	291	P		P		22 12 30.7	-0.3
	comp=Z,16nm,1.2s								
LUBAR	Lubar, Ukraine	17.43	340	P		P		22 12 30.9	-0.2
AK07	Malin Array Si	17.64	344	P		Pn		22 12 32.7	+0.2
AK10	Malin Array Si	17.68	344	P		Pn		22 12 32.7	-0.2
AK09	Malin Array Si	17.68	344	P		Pn		22 12 32.6	-0.4
AK12	Malin Array Si	17.74	344	P		Pn		22 12 33.5	-0.2
KIEV	Kiev	17.77	344	P		Pn		22 12 34.1	-0.1
	comp=Z,34nm,1.0s								
KIEV	Kiev	17.77	344	P		P		22 12 35.5	+0.6
	comp=Z,8.6nm,1.0s								
AKASG	Malin Array Be	17.78	344	P		Pn		22 12 33.7	-0.5
	comp=Z,0.4nm,0.3s,baz=155,slow=12,SNR=4.4								
	comp=Z,0.5nm,0.4s								
AKASG				AML		AML			
AKBB	Malin Array Si	17.78	344	P		Pn		22 12 34.1	-0.1
CUC	Castrocucco	17.80	296	P		Pn		22 12 34.0	-0.6
CUC	Castrocucco	17.80	296	P		Pn		22 12 34.7	+0.1
	comp=Z,21nm,0.9s								
AK19	Malin Array Si	17.84	344	P		Pn		22 12 34.9	-0.1
MARCO	Tramutola	17.88	297	P		P		22 12 36.4	+0.1
	comp=Z,12nm,1.3s								
ACER	Acerenza	17.91	299			Pn		22 12 34.8	-1.3
ACER				IAmb		IAmb		22 12 47.1	
	comp=Z,20nm,1.1s								
RAFF	Raffo Rosso	18.50	287	P		P		22 12 42.2	-0.8
RAFF				IAmb		IAmb		22 12 49.0	
	comp=Z,14nm,0.8s								
MORH	Mrgy, Hungar	18.54	317	P		P		22 12 42.5	-0.8
	comp=Z,5.1nm,1.1s								
MORH	Mrgy, Hungar	18.54	317	P		Pn		22 12 45.8	+2.3
	comp=Z,5.6nm,1.1s								
UOSS	Minazif	19.12	112	P		Pn		22 12 50.2	-0.7
	comp=Z,22nm,1.3s								
RNPP5	Staryi Chortor	19.14	339	P		P		22 12 49.6	-0.3
MPLH	Magyarpolny	19.71	318	P		P		22 12 55.3	-0.9
	comp=Z,21nm,1.1s								
NRCA	Norcia	20.54	303	P		P		22 13 06.0	+0.7
MODS	Modra-Piesok	20.58	321	*e*PN		Pn		22 13 07.7	-0.2
JAVC	Velka Javorina	20.68	322	*e*P		Pn		22 13 10.3	+1.1
RONA	Rosalia, Austr	20.71	318	*e*Pn		Pn		22 13 08.8	-0.6
	comp=Z,5.3nm,1.2s								
SOKA	Soboth	20.88	315	*e*Pn		Pn		22 13 11.1	-0.5
	comp=Z,3.5nm,1.1s								
ARSA	Arzberg	20.89	316	*i* Pn		Pn		22 13 11.1	-0.6
	comp=Z,5.5nm,1.2s								
WINA	Alland / Wiene	21.06	319	*e*P		P		22 13 14.5	+3.6
	comp=Z,3.1nm,1.1s								
CONA	Conrad Observa	21.08	318	*e*P		P		22 13 11.8	+0.6
	comp=Z,4.1nm,1.1s								
OBKA	Obir	21.09	314	*e*Pn		P		22 13 12.7	+1.4
	comp=Z,4.4nm,1.0s								
OBN	Obninsk	21.33	360	P		P		22 13 14.8	+1.1
	comp=Z,18nm,0.9s,baz=8.0,slow=20,SNR=5.6								
	comp=Z,18nm,0.9s								
MORC	Moravsky Berou	21.34	324	*e*P		P		22 13 17.4	+3.5
MORC	Moravsky Berou	21.34	324	P		P		22 13 15.9	+2.0
	comp=Z,4.5nm,2.9s								
SESA	Seetaler Alpe	21.38	315	*i* pP		P		22 13 16.9	+2.4
	comp=Z,4.0nm,1.1s								
KRUC	Moravsky	21.46	321	*e*P		P		22 13 18.1	+2.9
DRE	Drenchia	21.48	312	P		P		22 13 17.8	+2.3
	comp=Z,5.7nm,1.1s								
VRAC	Vranov	21.51	322	P		P		22 13 16.4	+0.6
	comp=Z,1.3nm,0.5s,baz=144,slow=8.4,SNR=5.1								
VRAC				LR		LR		22 22 51.6	
	comp=Z,120nm,18.6s,baz=137,slow=40								
	comp=Z,1.3nm,0.5s								
VRAC	Vranov	21.51	322	*e*P		P		22 13 17.7	+2.0
VRAC	Vranov	21.51	322	P		P		22 13 17.8	+2.1
	comp=Z,2.4nm,1.1s								
MYKA	Terra Mystica	21.70	313	*e*P		P		22 13 19.8	+2.0
	comp=Z,5.6nm,1.0s								
ACOM	Acomizza, Ital	21.73	313	P		P		22 13 20.4	+2.0
	comp=Z,12nm,1.2s								
ABNA	Allensteig Bun	21.74	320	*i* P		P		22 13 20.3	+2.1
	comp=Z,5.1nm,1.5s								
MOA	Molln	21.93	317	*i* P		P		22 13 19.4	-0.8
	comp=Z,6.4nm,1.3s								
TREC	Trest	22.08	321	P		P		22 13 23.8	+2.0
	comp=Z,5.3nm,2.0s								
KBA	Koelnbreinsper	22.09	314	*e*P		P		22 13 23.5	+1.4
	comp=Z,2.6nm,0.9s								
BIOA	Bad Ischl, Aus	22.21	316	*i* P		P		22 13 24.6	+1.3
	comp=Z,1.2nm,0.5s								
ABTA	Abfaltersbach	22.44	312	*i* P		P		22 13 24.4	-1.4
	comp=Z,3.2nm,1.4s								
KEST	Kesra	22.53	283	P		P		22 13 27.5	+0.7
	comp=Z,5.4nm,1.2s,baz=79,slow=16,SNR=2.2								
	comp=Z,5.4nm,1.2s								
KSP	Ksiaz	22.65	325	P		P		22 13 27.1	-0.7
	comp=Z,6.2nm,1.6s								
LESA	Schwarzleotal	22.65	314	*e*P		P		22 13 28.5	+0.4
	comp=Z,3.4nm,1.3s								
GEC2	GERESS Array S	22.79	318	P		P		22 13 28.2	-1.3
GEC2				IAmb		IAmb		22 13 42.4	
	comp=Z,5.8nm,1.1s								
GEC2	GERESS Array S	22.79	318	P		P		22 13 30.8	+1.4
	comp=Z,5.8nm,0.9s								
GERES	GERESS Array B	22.79	318	P		P		22 13 28.6	-0.9
	comp=Z,1.9nm,0.8s,baz=116,slow=9.1,SNR=13								
GERES				LR		LR		22 24 08.7	
	comp=Z,90nm,19.5s,baz=86,slow=41								
	comp=Z,1.9nm,0.8s								
GERES	GERESS Array B	22.79	318	P		P		22 13 29.8	+0.3
AKTO	Aktyubinsk	22.84	37	LR		LR		22 23 06.6	
	comp=Z,39nm,20.2s,baz=108,slow=39								
ZVC	Zvikov	22.85	320	*e*P		P		22 13 32.3	+2.3
KHC	Kasperske Hory	23.01	319	*e*P		P		22 13 30.1	-1.6
KHC	Kasperske Hory	23.01	319	P		P		22 13 30.9	-0.8
AB31	Akbulak array	23.15	41	P		P		22 13 32.5	-0.6
WTTA	Wattenberg	23.21	313	*e*P		P		22 13 33.1	-0.8
	comp=Z,2.0nm,0.7s								
WATA	Walderalm	23.27	313	*i* P		P		22 13 34.9	+0.3
	comp=Z,7.6nm,1.2s								
SQTA	Sankt Quirin	23.45	313	*e*P		P		22 13 36.3	+0.1
	comp=Z,3.3nm,1.1s								
MOTA	Moosalm	23.57	313	*e*P		P		22 13 37.2	-0.2
	comp=Z,3.9nm,1.4s								
FETA	Feichten	23.66	312	*e*P		P		22 13 38.5	+0.1
	comp=Z,5.2nm,1.1s								
RETA	Reutte	23.84	313	*e*P		P		22 13 41.2	+1.1
	comp=Z,1.2nm,0.6s								
DAVOX	Davos/Dischmat	24.10	311	LR		LR		22 23 40.8	
	comp=Z,103nm,19.3s,baz=101,slow=38								
DAVA	Damuels	24.30	312	*e*pP		P		22 13 45.9	+1.5
	comp=Z,4.5nm,0.8s								
CLL	Collm	24.56	323	P		P		22 13 45.2	-1.3
	comp=Z,7.2nm,1.6s								
CLL	Collm	24.56	323	*e*P		P		22 13 45.0	-1.5
CLL				*e*S		S		22 18 00.0	-6.7
CLL				L		L		22 21 00.0	
FINES	FINESS Array B	28.52	349	P		P		22 14 21.1	-0.9
	comp=Z,4.0nm,0.9s,baz=173,slow=7.7,SNR=5.5								
FINES				LR		LR		22 27 08.5	
	comp=Z,71nm,20.7s,baz=154,slow=39								
	comp=Z,4.0nm,0.9s								
ARK	Arkit	28.84	64	P		P		22 14 25.6	+0.2
	comp=Z,2.9nm,1.5s								
HFS	Hagfors	30.36	337	LR		LR		22 28 22.4	
	comp=Z,99nm,20.0s,baz=232,slow=39								
BVAR	Borovoye Array	30.73	41	P		P		22 14 42.2	+0.5
	comp=Z,0.5nm,0.6s,baz=252,slow=7.4,SNR=2.3								
	comp=Z,0.5nm,0.6s								
AAK	Ala-Archa	30.78	62	LR		LR		22 29 01.8	
	comp=Z,46nm,19.7s,baz=273,slow=40								
NRN	Naryn	31.85	65	P		P		22 14 49.5	-2.7
NOA	NORSAR Array B	31.86	337	P		P		22 14 52.0	+0.3
	comp=Z,0.9nm,0.9s,baz=149,slow=6.8,SNR=3.0								
NOA				LR		LR		22 29 26.8	
	comp=Z,93nm,19.2s,baz=150,slow=40								
	comp=Z,0.9nm,0.9s								
ASAI	AK-SAY(Kyrgyzs	32.24	65	P		P		22 14 57.0	+1.4
	comp=Z,1.7nm,1.2s								
ESDC	Sonseca Array	32.91	292	P		P		22 15 01.5	+0.4
	comp=Z,0.9nm,0.9s,baz=98,slow=11,SNR=4.1								
	comp=Z,0.9nm,0.9s								
TARG	Taragay, Kyrgy	33.21	64	P		P		22 15 04.5	+0.3
	comp=Z,4.4nm,1.2s								
WUS	Wushi	34.28	65	P		P		22 15 14.8	+1.7
	comp=Z,5.5nm,0.9s								
PDGK	Podgornoye	34.48	61	P		P		22 15 12.6	-2.3
KURBB	Kurchatov Arra	34.73	48	P		P		22 15 16.9	+0.2
	comp=Z,1.3nm,0.5s,baz=261,slow=8.9,SNR=17								
KURBB				PcP		PcP		22 17 52.2	+2.0
	comp=Z,0.7nm,0.7s,baz=262,slow=3.7,SNR=6.9								
	comp=Z,1.3nm,0.5s								
KURK	Kurchatov	34.80	48	P		P		22 15 16.6	-0.8
KURK				IAmb		IAmb		22 15 35.3	
	comp=Z,2.4nm,1.0s								
KURK	Kurchatov	34.80	48	P		P		22 15 17.0	-0.4
	comp=Z,3.3nm,2.7s								
EKA	Eskdalemuir Ar	34.96	320	P		P		22 15 20.4	+1.7
	comp=Z,2.8nm,1.1s,baz=110,slow=10.0,SNR=2.5								
	comp=Z,2.8nm,1.1s								
MKAR	Makanchi Array	36.63	55	P		P		22 15 33.3	+0.1
	comp=Z,0.8nm,0.6s,baz=262,slow=6.7,SNR=14								
MKAR				PcP		PcP		22 17 56.5	+0.5
	comp=Z,0.4nm,0.7s,baz=272,slow=4.0,SNR=2.3								
MKAR				LR		LR		22 33 17.2	
	comp=Z,79nm,18.1s,baz=230,slow=41								
	comp=Z,0.8nm,0.6s								
MKAR	Makanchi Array	36.63	55	P		P		22 15 33.1	-0.1
TORD	Torodi Ar. Bea	37.84	246	P		P		22 15 42.0	-1.7
	comp=Z,0.3nm,0.3s,baz=116,slow=5.0,SNR=2.2								
	comp=Z,0.3nm,0.3s								
ZALV	Zalesovo Beam	39.20	44	P		P		22 15 54.8	+0.1
	comp=Z,1.2nm,0.6s,baz=264,slow=9.5,SNR=5.6								
	comp=Z,1.2nm,0.6s								
ZALV	Zalesovo Beam	39.20	44	P		P		22 15 52.4	-2.3
EVN	Everest	43.08	84	P		P		22 16 25.8	-1.9
EVN				IAmb		IAmb		22 16 37.2	
	comp=Z,3.8nm,0.9s								
EVN	Everest	43.08	84	P		P		22 16 28.8	+1.0
DBIC	Dimbokro	46.92	244	LR		LR		22 39 05.5	
	comp=Z,46nm,20.2s,baz=70,slow=39								
GTA2	Gaotai	50.02	64	*e*P		P		22 17 23.3	+1.8
GTA2				pmax		pmax			
	comp=Z,3.0nm,1.0s								
TLY	Talaya	50.50	48	LR		LR		22 41 00.1	
	comp=Z,45nm,18.8s,baz=302,slow=39								
SONM	Songino Array	52.87	52	P		P		22 17 44.2	+1.5
	comp=Z,0.6nm,0.8s,baz=310,slow=5.6,SNR=4.7								
SONM				LR		LR		22 43 39.9	
	comp=Z,38nm,19.5s,baz=282,slow=40								
	comp=Z,0.6nm,0.8s								
ABPO	Amboihimpanom	53.45	168	P		P		22 17 48.5	+1.3
	comp=Z,9.5nm,2.0s								
LZDM	Lanzhou Array	54.02	67	P		P		22 17 52.8	+1.2
	comp=Z,0.9nm,0.3s,baz=270,slow=6.6,SNR=1.6								
	comp=Z,0.9nm,0.3s								
CMAR	Chiang Mai Arr	57.16	89	P		P		22 18 13.4	-0.6
	comp=Z,0.4nm,0.3s,baz=306,slow=8.5,SNR=4.1								
CMAR				LR		LR		22 47 42.1	
	comp=Z,16nm,20.7s,baz=305,slow=41								
	comp=Z,0.4nm,0.3s								
HHC	Hu-ho-hao-te	58.30	59	*e*P		P		22 18 20.0	-1.8
HHC				pmax		pmax			
	comp=Z,6.0nm,0.6s								
TIXI	Tiksi	59.01	22	LR		LR		22 47 35.2	
	comp=Z,29nm,19.1s,baz=227,slow=40								
ENH	Enshi	60.61	72	P		P		22 18 38.0	+0.1
	comp=Z,10.0nm,1.7s								
YAK	Yakutsk	62.12	32	LR		LR		22 49 16.3	
	comp=Z,29nm,18.8s,baz=297,slow=39								
KLR	Kul'dur	68.30	45	LR		LR		22 52 35.0	
	comp=Z,44nm,19.1s,baz=296,slow=39								
KSRS	Korea Array	71.28	57	LR		LR		22 54 44.9	
	comp=Z,21nm,18.2s,baz=335,slow=39								
MA2	Magadan	72.34	29	LR		LR		22 56 04.4	
	comp=Z,24nm,21.1s,baz=336,slow=40								
MJAR	Matsushiro Arr	78.81	54	LR		LR		22 59 14.2	
	comp=Z,31nm,18.1s,baz=334,slow=39								
YKA	Yellowknife Ar	81.32	347	P		P		22 20 43.2	+0.4
	comp=Z,0.6nm,0.6s,baz=34,slow=6.6,SNR=2.7								
	comp=Z,0.6nm,0.6s								
ILAR	Eielson Array	81.74	2	P		P		22 20 46.3	+1.2
	comp=Z,0.7nm,1.0s,baz=328,slow=6.2,SNR=4.8								
	comp=Z,0.7nm,1.0s								
BKB	Balikpapan	82.55	97	P		P		22 20 50.2	0.0
	comp=Z,363nm,0.9s								
DLBC	Dease Lake	87.46	353	LR		LR		23 07 39.2	
	comp=Z,21nm,18.9s,baz=77,slow=41								

ATH 26 22:08:56.6±0.2, 38.76N×21.04E, h5km, ML2.2/24,
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km, Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PDO	Prodromos	0.20	144	P	Pg	22 09 00.7	+0.2
PDO				AML	AML		
AMPL	Ampelaki	0.21	40	P	Pg	22 09 00.6	-0.2
NYDR	Nydri-Lefkada	0.27	260	P	Pg	22 09 02.2	+0.4
LKD2	Lefkada island	0.30	276	P	Pg	22 09 03.2	+0.8
LKD2				AML	AML		
TSLK	Tsoukalades, L	0.31	283	P	Pb	22 09 03.7	-0.8
TSLK				AML	AML		
EVGI	Lefkada island	0.33	245	P	Pg	22 09 03.6	+0.6
EVGI				AML	AML		
DRAG	Dragano-Lefkad	0.37	258	P	Pg	22 09 04.4	+0.7
ART2	Arta	0.39	355	P	Pg	22 09 04.2	+0.1
ART2				S	Sg	22 09 09.6	+0.3
PVO	Paravola	0.41	110	P	Pg	22 09 04.7	+0.2
PVO				AML	AML		
PLEV	Plevrona-Mesol	0.45	140	P	Pg	22 09 05.5	+0.3
MSL1	Messolongi	0.49	142	P	Pg	22 09 06.5	+0.5
TETR	Tetrakomo, Epi	0.61	17	P	Pg	22 09 07.8	-0.6
AXS	Araxos	0.62	155	P	Pg	22 09 09.0	+0.5
AXS				AML	AML		
EVR	Evrytania	0.62	75	P	Pg	22 09 07.8	-0.7
AGRP	Agrapidokambos	0.65	124	P	Pg	22 09 09.2	+0.1
AGRP				AML	AML		
VLS	Valsamata	0.68	211	P	Pg	22 09 09.5	-0.1
VLS				AML	AML		
VVK	Vomvokou	0.69	119	P	Pg	22 09 10.3	+0.4
YRMI	Loutra Irminis	0.70	159	P	Pb	22 09 11.2	-0.1
ANX	Ano Chora	0.71	103	P	Pg	22 09 09.8	-0.5
ANX				AML	AML		
RTZL	Ratzakli, Kefa	0.71	197	P	Pg	22 09 10.7	+0.4
PRGA	Parga	0.72	317	P	Pg	22 09 11.1	+0.6
PRGA				AML	AML		
DMLN	Damoulianata-K	0.74	225	P	Pg	22 09 10.7	0.0
PSDA	Pessada-Kefalo	0.74	209	P	Pg	22 09 10.5	-0.2
PSDA				AML	AML		
EFP	Efpalio	0.76	116	P	Pg	22 09 11.3	+0.2
EFP				AML	AML		
PRMD	Pramanda	0.77	3	P	Pg	22 09 11.1	-0.3
RLS	Riolos of Patr	0.78	154	P	Pg	22 09 11.7	+0.2
RLS				AML	AML		
MG00	Magoula, Dorid	0.79	115	P	Pb	22 09 12.9	+0.1
KRT2	Ano Kourtesi L	0.82	164	P	Pg	22 09 12.0	-0.4
CLEM	Kyllini,Ilia,G	0.87	175	P	Pb	22 09 14.0	-0.2
SERG	Sergoula	0.87	113	P	Pg	22 09 13.5	+0.2
SERG				AML	AML		
LAKA	Lakka	0.90	125	P	Pg	22 09 13.9	0.0
LAKA				AML	AML		
JAN	Janina	0.91	351	P	Pg	22 09 14.4	+0.4
JAN				AML	AML		
KALE	Kalithea	0.94	113	P	Pg	22 09 15.0	+0.4
KALE				AML	AML		
AGEO	AgiosGiorgios,	0.94	121	P	Pg	22 09 14.9	+0.2
IGT	Igoumenitsa	0.95	325	P	Pg	22 09 14.6	-0.2
DRO	Drossia	0.96	146	P	Pg	22 09 15.1	+0.1
AIOA	Agios Ioannis,	0.98	125	P	Pg	22 09 15.6	+0.2
AGG	Agios Georgios	1.04	75	P	Pg	22 09 16.4	-0.2
AGG				AML	AML		
THL	Klokotos Trika	1.11	43	P	Pg	22 09 17.6	-0.2
KPRO	Kipourio	1.22	12	P	Pg	22 09 19.7	-0.3
TYRN	Tyrnavos	1.33	44	P	Pn	22 09 21.4	-0.5
KEK	Kerkira	1.35	315	P	Pn	22 09 20.9	-1.3
KEK				AML	AML		
PENT	Pentalofos	1.44	3	P	Pn	22 09 23.7	+0.2
LKR	Lokris	1.54	93	P	Pb	22 09 25.2	-0.4
KZN	Kozani	1.65	20	P	Pn	22 09 26.8	+0.6
KZN				AML	AML		
NEST	Nestorio	1.65	0	P	Pn	22 09 26.2	-0.2
NEST				AML	AML		
LIT	Litokhoron	1.75	40	P	Pb	22 09 28.5	-0.7
LIT				AML	AML		
XOR	Xorichti	1.78	69	P	Pn	22 09 28.8	+0.7

IDC 26 22:22:33.2±7.4, 12.17N×140.55E, h0km, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=333.2km s-min=25.0km az=79.0, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	32.49	191	P	P	22 29 05.4	-0.2
	0.4nm,0.6s,baz=11,slow=9.1,SNR=2.4						
	0.4nm,0.6s						
ASAR	Alice Springs	36.20	190	P	P	22 29 38.0	+0.1
	0.3nm,0.9s,baz=7.3,slow=8.2,SNR=2.0						
	0.3nm,0.9s						
MKAR	Makanchi Array	59.63	317	P	P	22 32 40.6	+1.4
	1.0nm,1.0s,baz=97,slow=7.4,SNR=3.9						
	1.0nm,1.0s						
KURBB	Kurchatov Arra	63.02	321	P	P	22 33 01.9	-0.1
	0.9nm,0.8s,baz=102,slow=7.0,SNR=9.3						
	0.9nm,0.8s						
BVAR	Borovoye Array	68.45	322	P	P	22 33 36.0	-1.1
	0.7nm,0.7s,baz=101,slow=7.5,SNR=4.4						
	0.7nm,0.7s						

AZER 26 22:49:40.4, 40.30N×45.78E, h12km, ml3.6
TIF 26 22:49:41.5, 40.29N×45.84E, h7km±1km
DRS 26 22:49:42.9, 40.23N×45.90E, h15km
*MOS 26 22:49:42.7±0.5, 40.21N×45.82E, h11km, mb4.2/1, Error ellipse:

IMRD	**Marand**	**1.56**	**184**	Pg	**Pg**	22 50 11.7	-0.3		comp=Z,61nm,0.2s		
KZRT	**Kazreti**	**1.56**	**316**	P	Pn	22 50 04.0	-6.0	**BUJR**	**Buynaksk**	**2.73**	**20**
KZRT				S	**Sn**	**22 50 24.2**	**-6.0**		comp=Z,42nm,0.4s		
KZRT	**Kazreti**	**1.56**	**316**	PG	Pn	22 50 04.0	-6.0	BUJR			
LGD	**Lagodekhi**	**1.59**	**11**	P	**Pb**	**22 50 11.2**	**-0.5**		comp=Z,335nm,0.6s		
LGD				S	**Sg**	**22 50 33.4**	**-0.1**	**BUJR**	**Buynaksk**	**2.73**	**20**
LGD	**Lagodekhi**	**1.59**	**11**	PN	**Pb**	**22 50 11.2**	**-0.5**	BUJR			
LGD				S	**Sg**	**22 50 33.4**	**-0.1**	BUJR			
BTNK	**Botanikuri**	**1.61**	**331**	PN	**Pb**	**22 50 11.0**	**-1.1**		comp=Z,42nm,0.4s		
QBL	**Gabala**	**1.67**	**65**	Pn	**Pb**	**22 50 12.5**	**-0.6**	**LKRN**	**Lenkeran, Azer**	**2.76**	**123**
QBL				Sn	**Sg**	**22 50 35.8**	**-0.1**	LKRN			
TBLG	**Delisi**	**1.68**	**331**	P	**Pb**	**22 50 11.8**	**-1.3**	**DBC**	**Dubki**	**2.85**	**15**
TBLG				S	**Sb**	**22 50 34.0**	**-0.4**		comp=Z,24nm,0.5s		
TBLG	**Delisi**	**1.68**	**331**	PN	**Pb**	**22 50 11.8**	**-1.3**	DBC			
TBLG	**Delisi**	**1.68**	**331**	Pn	**Pb**	**22 50 11.8**	**-1.3**		comp=Z,70nm,0.4s		
TBLG				AML	AML			**DBC**	**Dubki**	**2.85**	**15**
SEAG	**Tbilisi Sea**	**1.68**	**333**	P	**Pb**	**22 50 12.2**	**-1.0**	DBC			
SEAG				S	**Sb**	**22 50 34.4**	**-0.2**	DBC			
SEAG	**Tbilisi Sea**	**1.68**	**333**	PN	**Pb**	**22 50 12.2**	**-1.0**		comp=Z,24nm,0.5s		
KDMR	**Kurdemir**	**1.80**	**86**	Pn	**Pg**	**22 50 15.4**	**-1.4**	**ASTR**	**Astara**	**2.86**	**126**
KDMR				Sn	**Sg**	**22 50 41.5**	**+1.4**	ASTR			
TRLG	**Trialeti**	**1.82**	**315**	P	**Pb**	**22 50 14.6**	**-1.1**	**GROC**	**Groznyy**	**2.93**	**360**
TRLG				S	**Sb**	**22 50 38.2**	**-0.4**	GROC			
TRLG	**Trialeti**	**1.82**	**315**	PN	**Pb**	**22 50 14.6**	**-1.1**	**TKB**	**Tkibuli**	**2.98**	**315**
CLDR	**Caldiran**	**1.85**	**233**	Pn	**Pg**	**22 50 17.4**	**-0.3**	TKB			
CLDR				AML	AML			**TKB**	**Tkibuli**	**2.98**	**315**
IML	**Ismayilli**	**1.87**	**73**	Pn	**Pb**	**22 50 15.1**	**-1.3**	TKB			
IML				Sn	**Sg**	**22 50 41.9**	**-0.4**	**GAS1**	**Astara - Iran**	**3.00**	**128**
TLTR	**Tlyarata**	**1.88**	**12**	*e*Pg	**Pb**	**22 50 16.1**	**-0.5**	**KOPR**	**Koprukoy-ERZUR**	**3.06**	**266**
	comp=Z,159nm,0.3s							**NEUR**	**Neytrino**	**3.80**	**323**
TLTR				*e*Sg	**Sg**	**22 50 41.4**	**-1.1**	**KBZ**	**Khabaz**	**4.09**	**329**
	comp=Z,601nm,0.3s							**SHA1**	**Shidzhatmaz**	**4.20**	**327**
TLTR	**Tlyarata**	**1.88**	**12**	*e*PN	**Pb**	**22 50 16.1**	**-0.5**	**SOC**	**Sochi**	**5.63**	**308**
TLTR				pmax	pmax			SOC			
	comp=Z,159nm,0.3s							SOC			
AKT	**Akhty**	**1.88**	**49**	*e*Pg	**Pb**	**22 50 15.9**	**-0.8**		comp=Z,48nm,14.0s		
	comp=Z,101nm,0.2s							**KURK**	**Kurchatov**	**25.05**	**54**
AKT				*e*Sg	**Sg**	**22 50 40.8**	**-1.9**	KURK			
	comp=Z,1µm,0.4s								comp=Z,1.0nm,1.0s		
AKT	**Akhty**	**1.88**	**49**	*e*PN	**Pb**	**22 50 15.9**	**-0.8**				
AKT				pmax	pmax						
	comp=Z,101nm,0.2s										
BGD	**Bogdanovka**	**1.96**	**301**	P	**Pg**	**22 50 18.8**	**-1.0**				
BGD				S	**Sg**	**22 50 45.2**	**-0.1**				
BGD	**Bogdanovka**	**1.96**	**301**	PN	**Pg**	**22 50 18.8**	**-1.0**				
BGD				S	**Sg**	**22 50 45.2**	**-0.1**				
XNQ	**Khinaliq**	**1.98**	**62**	Pn	**Pb**	**22 50 17.0**	**-1.3**				
XNQ				Sn	**Sb**	**22 50 42.2**	**-0.9**				
SAAT	**Saatly**	**2.03**	**101**	Pn	**Pb**	**22 50 17.1**	**-2.0**				
SAAT				Sn	**Sb**	**22 50 45.0**	**+0.6**				
ITBZ	**Tabriz**	**2.05**	**173**	Pg	**Pb**	**22 50 19.6**	**0.0**				
KMKR	**Kumukh**	**2.09**	**27**	*e*PN	**Pb**	**22 50 19.6**	**-0.7**				
KMKR				*e*S	**Sg**	**22 50 47.3**	**-2.1**				
KMKR				pmax	pmax						
	comp=Z,112nm,0.5s										
AKH	**Akhalkalaki**	**2.11**	**304**	P	**Pb**	**22 50 20.4**	**-0.1**				
AKH				S	**Sg**	**22 50 48.4**	**-1.5**				
AKH	**Akhalkalaki**	**2.11**	**304**	PN	**Pb**	**22 50 20.4**	**-0.1**				
AKH				S	**Sg**	**22 50 48.4**	**-1.5**				
KARS	**Kars**	**2.13**	**281**	Pn	**Pb**	**22 50 18.9**	**-2.0**				
KARS				AML	AML						
GRMI	**Germi**	**2.16**	**132**	Pg	**Pb**	**22 50 21.6**	**+0.1**				
IHRS	**Heris**	**2.16**	**154**	Pg	**Pb**	**22 50 20.9**	**-0.6**				
CHRG	**Chargali**	**2.17**	**342**	P	**Pb**	**22 50 20.0**	**-1.6**				
CHRG				S	**Sb**	**22 50 49.1**	**+0.5**				
PQL	**Pirkuli**	**2.17**	**75**	Pn	**Pb**	**22 50 20.1**	**-1.5**				
PQL				Sn	**Sg**	**22 50 51.3**	**-0.6**				
KSMR	**Kasumkent**	**2.19**	**52**	*e*Pg	**Pb**	**22 50 21.2**	**-0.7**				
	comp=Z,102nm,0.4s										
KSMR				*e*Sg	**Sg**	**22 50 50.2**	**-2.4**				
	comp=Z,1µm,0.4s										
KSMR	**Kasumkent**	**2.19**	**52**	*e*PN	**Pb**	**22 50 21.2**	**-0.7**				
KSMR				*e*S	**Sg**	**22 50 50.2**	**-2.4**				
KSMR				pmax	pmax						
	comp=Z,102nm,0.4s										
QSAR	**Qusar**	**2.23**	**55**	Pn	**Pb**	**22 50 22.3**	**-0.2**				
QSAR				Sn	**Sg**	**22 50 52.4**	**-1.3**				
GLBA	**Clilabad**	**2.23**	**117**	Pn	**Pb**	**22 50 21.6**	**-0.9**				
GLBA				Sn	**Sg**	**22 50 53.2**	**-0.5**				
AGRB	**Hanur-Agry**	**2.29**	**253**	Pn	**Pb**	**22 50 22.9**	**-0.7**				
AGRB				AML	AML						
QUBA	**Quba, Azerbaij**	**2.29**	**61**	Pn	**Pb**	**22 50 23.2**	**-0.4**				
QUBA				Sn	**Sg**	**22 50 54.5**	**-1.4**				
YRD	**Yardimli**	**2.30**	**125**	Pn	**Pb**	**22 50 23.2**	**-0.7**				
YRD				Sn	**Sg**	**22 50 54.6**	**-1.5**				
URKR	**Urkarakh**	**2.33**	**35**	*e*Pn	**Pb**	**22 50 23.6**	**-0.8**				
	comp=Z,44nm,0.6s										
URKR				*e*Sn	**Sg**	**22 50 54.3**	**-2.9**				
	comp=Z,238nm,0.5s										
URKR	**Urkarakh**	**2.33**	**35**	*e*PN	**Pb**	**22 50 23.5**	**-0.8**				
URKR				*e*S	**Sg**	**22 50 54.2**	**-2.9**				
URKR				pmax	pmax						
	comp=Z,44nm,0.6s										
XNZR	**Khunzakh**	**2.37**	**16**	*e*Pn	**Pb**	**22 50 23.9**	**-1.1**				
	comp=Z,34nm,0.6s										
XNZR				*e*Sn	**Sg**	**22 50 55.2**	**-2.9**				
	comp=Z,135nm,0.6s										
HNZR	**Khunzah**	**2.38**	**16**	*e*PN	**Pb**	**22 50 23.8**	**-1.5**				
HNZR				*e*S	**Sb**	**22 50 55.2**	**+0.4**				
HNZR				pmax	pmax						
	comp=Z,34nm,0.6s										
GBS	**Qobustan**	**2.39**	**83**	Pg	**Pb**	**22 50 25.7**	**+0.4**				
GBS				Sg	**Sg**	**22 50 59.0**	**0.0**				
BTLR	**Botlikh**	**2.41**	**7**	*e*Pn	**Pb**	**22 50 25.1**	**-0.6**				
	comp=Z,54nm,0.6s										
BTLR				*e*Sn	**Sg**	**22 50 56.6**	**-3.0**				
	comp=Z,178nm,0.3s										
BTLR	**Botlikh**	**2.41**	**7**	*c i*PN	**Pb**	**22 50 25.1**	**-0.6**				
BTLR				*e*S	**Sb**	**22 50 56.0**	**+0.5**				
BTLR				pmax	pmax						
	comp=Z,47nm,0.5s										
BTLR				smax	smax						
	comp=E,142nm,0.2s										
ATGJ	**Altiaghaj**	**2.44**	**75**	Pg	**Pb**	**22 50 25.0**	**-1.2**				
ATGJ				Sg	**Sg**	**22 51 01.2**	**+0.5**				
ALIB	**&Aumlli-Bayram**	**2.46**	**96**	Pg	**Pb**	**22 50 26.5**	**+0.1**				
ALIB				Sg	**Sg**	**22 51 01.8**	**+0.7**				
SIZA	**Siyzn**	**2.47**	**70**	Pg	**Pb**	**22 50 25.4**	**-1.2**				
SIZA				Sg	**Sg**	**22 51 00.9**	**-0.7**				
ARKR	**Arakani**	**2.49**	**20**	*e*Pn	**Pb**	**22 50 25.2**	**-1.8**				
	comp=E,41nm,0.3s										
ARKR				*e*Sn	**Sb**	**22 50 57.6**	**-0.2**				
	comp=E,164nm,0.4s										
ARKR	**Arakani**	**2.49**	**20**	*e*PN	**Pb**	**22 50 25.2**	**-1.8**				
ARKR				*e*S	**Sb**	**22 50 57.6**	**-0.2**				
ARKR				pmax	pmax						
	comp=Z,41nm,0.3s										
LRK	**Lerik**	**2.53**	**129**	Pg	**Pb**	**22 50 27.0**	**-0.8**				
LRK				Sg	**Sg**	**22 51 01.0**	**-2.5**				
UNCR	**Uncukul**	**2.55**	**16**	*e*Pn	**Pb**	**22 50 26.6**	**-1.5**				
	comp=Z,50nm,0.4s										
UNCR				*e*Sn	**Sb**	**22 50 59.5**	**+0.1**				
	comp=Z,285nm,0.5s										
UNCR	**Uncukul**	**2.55**	**16**	*e*PN	**Pb**	**22 50 26.5**	**-1.5**				
UNCR				*e*S	**Sb**	**22 50 59.5**	**+0.1**				
UNCR				pmax	pmax						
	comp=Z,50nm,0.4s										
DRN	**Derbent**	**2.58**	**46**	*e*PN	**Pb**	**22 50 26.4**	**-2.1**				
DRN				*e*S	**Sb**	**22 50 59.3**	**-1.0**				
DRN				pmax	pmax						
	comp=Z,63nm,0.6s										
SGKR	**Sergokala**	**2.59**	**32**	*e*Pn	**Pb**	**22 50 26.8**	**-1.9**				
	comp=Z,44nm,0.4s										
SGKR				*e*Sn	**Sb**	**22 50 59.9**	**-0.6**				
	comp=Z,271nm,0.6s										
SGKR	**Sergokala**	**2.59**	**32**	*e*PN	**Pb**	**22 50 26.7**	**-1.9**				
SGKR				*e*S	**Sb**	**22 50 59.8**	**-0.6**				
SGKR				pmax	pmax						
	comp=Z,44nm,0.4s										
IAZR	**Azarshahr**	**2.59**	**177**	Pn	**Pb**	**22 50 27.4**	**-1.4**				
SENK	**Senkaya-Erzuru**	**2.67**	**277**	Pn	**Pb**	**22 50 27.3**	**-2.9**				
SENK				AML	AML						
KRNR	**Karanay**	**2.68**	**17**	*e*Pn	**Pb**	**22 50 28.4**	**-1.9**				
	comp=Z,19nm,0.4s										
KRNR				*e*Sn	**Sb**	**22 51 02.4**	**-0.9**				
	comp=Z,80nm,0.4s										
KRNR	**Karanay**	**2.68**	**17**	*e*PN	**Pb**	**22 50 28.4**	**-1.9**				
KRNR				*e*S	**Sb**	**22 51 02.4**	**-0.9**				
KRNR				pmax	pmax						
	comp=Z,19nm,0.4s										
DVE	**Vedeno**	**2.69**	**5**	*c i*PN	**Pb**	**22 50 28.8**	**-1.7**				
DVE				*e*S	**Sb**	**22 51 03.1**	**-0.5**				
DVE				pmax	pmax						

*NEIC **26** 22:59:57.0±1.6,33.°16N±0.°01×115.°61W±0.°02,h14km±2km, ML3.4/52,ML3.6/160(PAS),Error ellipse: s-maj=2.1km s-min=1.6km az=113.0*
*PAS **26** 22:59:57.6±1.8,33.°17N±0.°01×115.°61W±0.°02,h10km±3km, Error ellipse: s-maj=2.1km s-min=1.5km az=116.0*
*IDC **26** 22:59:57.7±1.7,33.°19N×115.°61W,h0km,mbtmp2.9/3, ML3.2/3,Error ellipse: s-maj=17.3km s-min=10.0km az=25.0*

ISC 26 22:59:57.6±0.8,33.°17N±0.°01×115.°61W±0.°02,h16km±4km, n81,σ1°18/96,Southern California

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
OBB	**Obsidian Butte**	**0.02**	**275**		**Pg**	**22 59 59.3**	**-1.1**
CLI2	**Calipatria 2**	**0.05**	**147**		**Sg**	**22 59 59.3**	**-1.2**
CLI2					**Sg**	**23 00 01.7**	**-0.7**
WIS	**Wister**	**0.11**	**9**		**Pg**	**23 00 03.1**	**+2.1**
WEMD	**Westmorland, C**	**0.13**	**168**		**Pg**	**23 00 01.1**	**-0.2**
WEMD					**Sb**	**23 00 04.3**	**0.0**
ERRC	**Elmore Ranch**	**0.18**	**255**		**Pb**	**23 00 06.2**	**+3.7**
5271	**Bombay Beach**	**0.21**	**332**		**Pb**	**23 00 06.4**	**+3.3**
BOMB	**Bombay Beach**	**0.22**	**334**		**Pb**	**23 00 06.8**	**+3.6**
FRK	**Frink**	**0.24**	**355**		**Pg**	**23 00 02.2**	**-0.7**
FRK					**Sg**	**23 00 05.8**	**-0.7**
IMPE	**Imperial**	**0.27**	**170**		**Pb**	**23 00 03.8**	**-0.2**
IMPE					**Sb**	**23 00 08.8**	**+0.5**
SLVP	**Salvation Pass**	**0.27**	**74**		**Pg**	**23 00 02.6**	**-0.8**
SLVP					**Sg**	**23 00 06.4**	**-1.0**
SWSC	**Sam W. Stewart**	**0.27**	**215**		**Pg**	**23 00 03.3**	**-0.1**
SWSC					**Sg**	**23 00 07.3**	**-0.1**
SUP	**Superstition M**	**0.27**	**220**		**Pg**	**23 00 03.4**	**-0.1**
SUP					**Sg**	**23 00 07.5**	**0.0**
COK2	**Cook Ranch 2**	**0.33**	**197**		**Sb**	**23 00 10.5**	**+0.4**
SNR	**Schaffner Ranc**	**0.34**	**154**		**Pg**	**23 00 04.8**	**+0.2**
DREC	**Desert Rsrch C**	**0.39**	**159**		**Pb**	**23 00 05.9**	**-0.1**
DREC					**Sb**	**23 00 13.2**	**+1.4**
CRR	**Carrizo Plain**	**0.41**	**227**		**Pg**	**23 00 05.8**	**0.0**
CRR					**Sg**	**23 00 11.9**	**+0.5**
BRGC	**Borrego Mounta**	**0.47**	**271**		**Pb**	**23 00 06.9**	**-0.6**
BC3	**Big Chuckawall**	**0.51**	**15**		**Pg**	**23 00 07.1**	**-0.6**
BC3					**Sg**	**23 00 13.9**	**-0.6**
BC3				IAML		23 00 14.7	
	comp=E,2µm,0.7s						
BC3				IAML		23 00 16.7	
	comp=N,2µm,0.4s						
COA	**Coachella**	**0.51**	**126**		**Pg**	**23 00 07.7**	**-0.1**
COA					**Sb**	**23 00 15.8**	**+0.4**
SGL	**Mount Signal**	**0.52**	**190**		**Pg**	**23 00 07.7**	**-0.3**
SGL					**Sg**	**23 00 15.1**	**+0.2**
HAY	**Hayfield**	**0.54**	**354**		**Pb**	**23 00 08.0**	**-0.8**
HAY					**Sb**	**23 00 15.6**	**-0.8**
CTW	**Cottonwood Mou**	**0.55**	**337**		**Sb**	**23 00 16.4**	**-0.3**
YUH	**Yuha Desert**	**0.58**	**207**		**Pg**	**23 00 08.6**	**-0.4**
YUH	**Yuha Desert**	**0.58**	**207**		**Sg**	**23 00 16.6**	**-0.1**
CTCC	**Cactus City**	**0.58**	**327**		**Pb**	**23 00 08.7**	**-0.7**
CTCC					**Sb**	**23 00 17.5**	**0.0**
COY	**Coyote Mountai**	**0.62**	**289**		**Sb**	**23 00 18.0**	**-0.4**
GLA	**Glamis**	**0.67**	**100**		**Pg**	**23 00 10.1**	**-0.7**
GLA				IAML		23 00 21.3	
	comp=N,4µm,0.5s						
GLA	**Glamis**	**0.67**	**100**		**Sg**	**23 00 19.3**	**-0.3**
BORC	**Borrego Spring**	**0.68**	**279**	Pg	**Pg**	**23 00 10.2**	**-0.8**
RMX	**La Rumorosa**	**0.68**	**215**		**Pg**	**23 00 10.9**	**-0.1**
RMX					**Sg**	**23 00 20.4**	**+0.3**
CPBX	**Cerro Prieto**	**0.79**	**161**		**Pg**	**23 00 11.7**	**-1.2**
CPBX				IAML		23 00 37.4	
	comp=N,3µm,0.5s						
CPBX	**Cerro Prieto**	**0.79**	**161**		Pn	23 00 23.0	+9.0
JUEM	**Julian Eagle M**	**0.83**	**264**		**Sg**	**23 00 24.4**	**-0.3**
PFO	**Pinyon Flats O**	**0.84**	**302**	Pg	**Pg**	**23 00 12.3**	**-1.6**
	comp=N,127nm,0.3s,baz=119,slow=13,SNR=374						
PFO				Lg	Lg	23 00 24.4	
	comp=N,283nm,0.3s,baz=246,slow=15,SNR=18						
PFO	**Pinyon Flats O**	**0.84**	**302**		**Pg**	**23 00 12.8**	**-1.1**
PFO				Sg	**Sg**	**23 00 24.3**	**-0.6**
PFO				IAML		23 00 25.5	
	comp=N,952nm,1.0s						
PFO				IAML		23 00 25.6	
	comp=N,1µm,0.9s						
PFO	**Pinyon Flats O**	**0.84**	**302**		**Sg**	**23 00 24.3**	**-0.6**
FRD	**Ford Ranch, An**	**0.89**	**292**		**Sb**	**23 00 26.6**	**+0.2**
FRD	**Ford Ranch, An**	**0.89**	**292**		**Sb**	**23 00 26.6**	**+0.2**
BELC	**Belle Mtn. Jos**	**0.89**	**339**		**Pg**	**23 00 13.9**	**-1.0**
BELC					**Sb**	**23 00 26.2**	**-0.4**
SNDA	**J Saunders Pla**	**0.92**	**295**		**Sb**	**23 00 27.8**	**+0.4**
DNR	**Dunn Ranch,Anz**	**0.94**	**295**		**Pg**	**23 00 14.9**	**-1.0**
BAR	**Barrett**	**1.01**	**242**		**Pb**	**23 00 15.6**	**-1.1**
BAR				IAML		23 00 30.4	
	comp=N,2µm,0.2s						
BAR				IAML		23 00 30.9	
	comp=E,782nm,0.3s						
EW2	**E Wide Canyon**	**1.02**	**320**		**Pb**	**23 00 15.6**	**-1.3**
EW2					**Sb**	**23 00 29.7**	**-0.4**
GVDA	**Garner Valley**	**1.02**	**300**		**Pb**	**23 00 15.7**	**-1.3**
TKX	**Tecate**	**1.03**	**235**		**Pb**	**23 00 15.9**	**-1.1**
SLRCX	**San Luis Rio C**	**1.04**	**132**		**Pb**	**23 00 16.6**	**-0.6**
IRM	**Iron Mountain**	**1.06**	**21**		**Pb**	**23 00 17.1**	**-0.6**
IRM					**Sn**	**23 00 32.4**	**0.0**
IRM				IAML		23 00 32.9	
	comp=E,1µm,0.8s						
IRM				IAML		23 00 33.0	
	comp=N,2µm,0.7s						
BLYC	**Blythe**	**1.08**	**57**		**Pg**	**23 00 18.1**	**-0.4**
BLYC	**Blythe**	**1.08**	**57**	Pg	**Pb**	**23 00 17.3**	**-0.6**
DPP	**Dos Picos Cty**	**1.13**	**262**		**Pb**	**23 00 17.2**	**-1.5**
DPP				IAML		23 00 22.0	
	comp=E,670nm,0.8s						
DPP				IAML		23 00 33.0	
	comp=N,730nm,0.4s						
ESJX	**Sierra Juarez**	**1.19**	**194**		**Pn**	**23 00 18.5**	**-1.3**
ESJX				IAML		23 00 35.4	
	comp=E,557nm,0.7s						
ESJX	**Sierra Juarez**	**1.19**	**194**		**Sb**	**23 00 34.0**	**-1.1**
CBX	**Cerro Bola**	**1.23**	**226**		**Pn**	**23 00 19.2**	**-1.0**
OLP	**Otay Lakes Par**	**1.24**	**244**		**Pn**	**23 00 19.1**	**-1.1**
TJX	**Tijuana**	**1.38**	**242**		**Pn**	**23 00 22.1**	**-0.1**
DANC	**Danby, Needles**	**1.48**	**7**		**Pn**	**23 00 23.2**	**-0.4**
DANC				IAML		23 00 47.1	
	comp=E,555nm,0.8s						
DANC				IAML		23 00 58.7	
	comp=N,487nm,0.7s						

CCX	**Cicese**	**1.57**	**215**		**Pn**	**23 00 24.6**	**-0.1**
ELS	**Elsinore Mount**	**1.59**	**288**		**Pn**	**23 00 23.9**	**-1.3**
113A	**Mohawk Valley,**	**1.60**	**104**		**Pn**	**23 00 24.6**	**-0.7**
GMRC	**Granite Mounta**	**1.61**	**359**		**Pn**	**23 00 24.5**	**-1.0**
VTX	**Valle De La Tr**	**1.77**	**185**		**Pn**	**23 00 26.4**	**-1.3**
BFSC	**Mount Baldy Ra**	**2.01**	**303**		**Pn**	**23 00 30.4**	**-0.6**
SFX	**San Felipe**	**2.22**	**163**		**Pn**	**23 00 33.0**	**-0.7**
MWC	**Mount Wilson**	**2.29**	**298**		**Pn**	**23 00 34.7**	**-0.2**
MWC				IAML		23 01 09.3	
	comp=E,256nm,0.6s						
MWC				IAML		23 01 13.2	
	comp=N,296nm,0.6s						
MTPC	**Mountain Pass**	**2.31**	**1**		**Pn**	**23 00 36.4**	**+1.2**
GSC	**Goldstone, Bar**	**2.35**	**335**		**Pn**	**23 00 37.0**	**+1.4**
GSC				IAML		23 01 28.6	
	comp=E,172nm,0.9s						
PASC	**Pasadena Art C**	**2.37**	**296**		**Pn**	**23 00 36.3**	**+0.5**
W13A	**Hualapai Mount**	**2.40**	**36**		**Pn**	**23 00 37.7**	**+1.2**
PIX	**Pinacate**	**2.43**	**131**		**Pn**	**23 00 36.1**	**-0.5**
CCCA	**Chr Cany lake**	**2.76**	**329**		**Pg**	**23 00 50.2**	**-0.3**
TPO	**Tropico Hills**	**2.76**	**309**		**Pn**	**23 00 41.5**	**+0.2**
SHOC	**Shoshone, Teco**	**2.78**	**349**		**Pg**	**23 00 49.0**	**-1.9**
OSI	**Osito Audit: C**	**2.96**	**300**		**Pn**	**23 00 44.0**	**0.0**
OSI				IAML		23 01 33.4	
	comp=N,120nm,0.6s						
OSI				IAML		23 01 54.4	
	comp=E,158nm,1.1s						
CLC	**China Lake**	**3.11**	**329**	Pg	**Pg**	**23 00 57.3**	**+0.1**
TPNV	**Topopah Spring**	**3.81**	**352**	IAML		23 02 07.5	
	comp=E,43nm,1.1s						
TPNV				IAML		23 02 24.0	
	comp=E,56nm,1.2s						
TUC	**Tucson**	**4.16**	**101**	IAML		23 02 17.8	
	comp=E,42nm,1.1s						
NVAR	**Mina Arroyo Bea**	**5.69**	**338**	Pg	**Pg**	**23 01 43.3**	**-3.2**
	comp=E,1.2nm,0.3s,baz=159,slow=16,SNR=26						
NVAR				Lg	Lg	23 02 55.5	
	baz=132,slow=23						
ELK	**Elko**	**7.57**	**2**	Pg		23 02 19.0	
	comp=E,0.3nm,0.3s,baz=192,slow=8.1,SNR=8.9						
ELK				Lg	Lg	23 03 54.5	
	comp=E,0.1nm,0.3s,baz=270,slow=20,SNR=3.6						
ANMO	**Albuquerque**	**7.80**	**74**	Pn	**Pn**	**23 01 53.6**	**+2.9**
	comp=E,0.1nm,0.3s,baz=279,slow=14,SNR=2.0						
ANMO				Pg		23 02 23.1	
	comp=E,0.2nm,0.3s,baz=286,slow=9.8,SNR=7.9						
ANMO				Lg	Lg	23 04 01.2	
	comp=E,0.1nm,0.3s,baz=143,slow=23,SNR=5.6						
	comp=E,0.2nm,0.3s						
ANMO				AML	AML		
PDAR	**Pinedale Array**	**10.71**	**25**	Pn	**Pn**	**23 02 34.4**	**+3.9**
	baz=228,slow=14,SNR=6.0						
PDAR				Lg	Lg	23 05 35.5	
	comp=E,0.1nm,0.3s,baz=202,slow=25,SNR=1.4						
	comp=E,0.8nm,0.9s						
TXAR	**Lajitas Array**	**10.91**	**107**	Pn	**Pn**	**23 02 33.7**	**+0.5**
	comp=E,0.1nm,0.3s,baz=292,slow=15,SNR=1.4						
TXAR				Lg	Lg	23 05 39.2	
	baz=291,slow=36,SNR=2.2						
	comp=E,0.1nm,0.3s						
TXAR				AML	AML		

*ISK **26** 23:21:49.7,37.°80N×26.°95E,h2km,ML3.0/31*
*ATH **26** 23:21:50.9,37.°77N×26.°92E,h14km,ML3.1/6,Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **26** 23:21:50.8,37.°84N×26.°97E,h7km±3km,ML3.1*
*THE **26** 23:21:50.7,38.°N±1.°×2.°7E±.°,h3km±3km,M3.1/8,MLh3.1/8*

ISC 26 23:21:50.1±0.8,37.°80N±0.°02×26.°97E±0.°02,h13km±5km, n62,σ0°42/94,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.14**	**229**	P	**Pg**	**23 21 53.7**	**+0.1**
SMG				S	**Sg**	**23 21 56.1**	**-0.1**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**229**	P	**Pg**	**23 21 53.8**	**+0.1**
SMG				S	**Sg**	**23 21 56.2**	**-0.1**
KRL1	**Karlovasi Samo**	**0.21**	**268**	P	**Pg**	**23 21 54.9**	**+0.2**
KRL1				S	**Sg**	**23 21 57.8**	**-0.2**
KRL1				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**116**	P	**Pb**	**23 21 56.3**	**+0.2**
GCAM				S	**Sb**	**23 21 59.9**	**-0.2**
GCAM				IAML		23 22 00.0	
	comp=N,7µm,0.2s						
GCAM				IAML		23 22 00.0	
	comp=E,3µm,0.4s						
GCAM	**G?zelcaml?**	**0.23**	**116**	Pg	**Pb**	**23 21 56.0**	**-0.1**
GCAM				Sg	**Sb**	**23 22 00.0**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**76**	Pg	**Pg**	**23 21 56.0**	**+0.4**
KUSD				Sg	**Sg**	**23 21 59.8**	**+0.6**
KUSD				AML	AML		
DGB	**zmir**	**0.26**	**344**	P	**Pg**	**23 21 55.6**	**0.0**
DGB				S	**Sg**	**23 21 58.7**	**-0.6**
GMLD	**Gumuldur**	**0

CAMT				S	Sn	23 22 24.0	+0.6	
CAMT				IAML		23 22 28.0		
	comp=N,575nm,0.5s							
CAMT				IAML		23 22 30.0		
	comp=E,718nm,0.7s							
EAG2	**Marmaro, Chios**	**1.01**	**318**	P	**Pn**	**23 22 10.2**	**+0.3**	
EAG2				S	**Sn**	**23 22 23.4**	**-0.5**	
NAZL	**Nazilli-Aydin**	**1.06**	**81**	Pg	**Pn**	**23 22 11.2**	**+0.6**	
NAZL				AML	AML			
ZEDA	**zmir-Bergama**	**1.17**	**4**	P	**Pg**	**23 22 12.4**	**-0.2**	
ZEDA				S	**Sn**	**23 22 28.2**	**+0.4**	
ZEDA				IAML		23 22 32.0		
	comp=E,375nm,0.6s							
GOMA	**Golmarmara-Man**	**1.17**	**39**	Pn	**Pg**	**23 22 13.3**	**+0.6**	
GOMA				AML	AML			
DAT	**Datca**	**1.17**	**156**	Pn	**Pg**	**23 22 13.1**	**+0.4**	
DATC	**Datca-Mugla**	**1.18**	**152**	Pn	**Pg**	**23 22 13.2**	**+0.5**	
DATC				AML	AML			
AKS	**Akhisar**	**1.26**	**31**	Pn	**Pg**	**23 22 14.6**	**+0.2**	
AKS				AML	AML			
DKL	**Dikili**	**1.27**	**358**	Pn	**Pg**	**23 22 14.9**	**+0.4**	
DKL				AML	AML			
APE	**Apeiranthos**	**1.36**	**238**	P	**Pn**	**23 22 14.5**	**-0.3**	
APE				S	**Sg**	**23 22 34.6**	**+0.6**	
APE				AML	AML			
APE	**Apeiranthos**	**1.36**	**238**	Pn	**Pg**	**23 22 16.2**	**-0.1**	
APE				AML	AML			
APE	**Apeiranthos**	**1.36**	**238**	P	**Pn**	**23 22 14.2**	**-0.6**	
APE				S	**Sn**	**23 22 32.4**	**-0.3**	
APE				AML	AML			
SOMA	**Soma-Manisa**	**1.42**	**18**	Pn	**Pg**	**23 22 17.6**	**+0.1**	
SOMA				AML	AML			
TURN	**Turunc**	**1.44**	**135**	Pn	**Pg**	**23 22 17.8**	**0.0**	
TURN				AML	AML			
GORD	**Gordes-Manisa**	**1.46**	**40**	Pn	**Pg**	**23 22 18.1**	**0.0**	
GORD				AML	AML			
KULA	**Kula-Manisa**	**1.51**	**61**	Pn	**Pg**	**23 22 19.0**	**-0.1**	
KULA				AML	AML			
PRK	**Paraskevi**	**1.54**	**339**	P	**Pb**	**23 22 18.6**	**+0.1**	
PRK				S	**Sg**	**23 22 40.5**	**+0.7**	
PRK				AML	AML			
PRK	**Paraskevi**	**1.54**	**339**	P	**Pb**	**23 22 18.6**	**+0.1**	
PRK				S	**Sb**	**23 22 38.4**	**+0.5**	
PRK				AML	AML			
DALY	**Dalyan (Mula)**	**1.66**	**126**	Pn	**Pb**	**23 22 21.1**	**+0.6**	
DALY				AML	AML			
YAYO	**Edremit-Balk**	**1.81**	**2**	Pn	**Pb**	**23 22 23.2**	**+0.1**	
YAYO				AML	AML			
ARG	**Arkhangelos**	**1.83**	**149**	Pn	**Pb**	**23 22 23.5**	**+0.1**	
ARG				AML	AML			
THERA	**Ancient Thera,**	**1.87**	**220**	P	**Pn**	**23 22 21.4**	**-0.3**	
THERA				S	**Sn**	**23 22 44.6**	**-0.5**	
THERA	**Ancient Thera,**	**1.87**	**220**	P	**Pn**	**23 22 21.5**	**-0.3**	
THERA				S	**Sn**	**23 22 45.3**	**+0.2**	
THERA				AML	AML			
APMY	**Acipayam-Deniz**	**1.88**	**99**	Pn	**Pb**	**23 22 24.2**	**-0.1**	
APMY				AML	AML			
BALB	**Balikesir**	**1.97**	**21**	Pn	**Pb**	**23 22 25.5**	**-0.3**	
BALB				AML	AML			
SIMA	**Simav-Kutahya**	**2.03**	**50**	Pn	**Pb**	**23 22 26.5**	**-0.4**	
SIMA				AML	AML			
CAME	**Cameli-Denizli**	**2.04**	**114**	Pn	**Pb**	**23 22 26.4**	**-0.7**	
CAME				AML	AML			
FETY	**Fethiye**	**2.05**	**124**	Pn	**Pb**	**23 22 26.5**	**-0.6**	
FETY				AML	AML			
SHAP	**Saphane-Kutahy**	**2.15**	**55**	Pn	**Pb**	**23 22 28.0**	**-0.9**	
SHAP				AML	AML			
KARP	**Karpathos**	**2.25**	**176**	P	**Pn**	**23 22 27.7**	**+0.6**	
DION	**Dionisos Attik**	**2.42**	**277**	P	**Pn**	**23 22 29.2**	**-0.1**	
VLY	**Voula,Athens**	**2.52**	**272**	P	**Pn**	**23 22 30.7**	**+0.1**	

*MAN **26** 23:26:34.0, 14°.03N×120°.51E, h258km, MS3.5*
*NEIC **26** 23:26:35.9±1.0, 13°.94N±0°.09×120°.9E±0°.1, h292km±7km, mb4.0/25, Error ellipse: s-maj=16.5km s-min=11.9km az=71.0*
*IDC **26** 23:26:37.3±3.1, 13°.93N×120°.87E, h311km±33km, mb3.5/25, mbtmp4.2/27, Error ellipse: s-maj=17.9km s-min=8.3km az=63.0*

ISC 26 23:26:32.3±0.4, **13°.96N**±0°.05×**120°.57E**±0°.09, **h250**km, **n69,** σ1°.**82**/65, **mb4.0**/35, **Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PGP	**Puerto Galera**	**0.58**	**140**	*eP*	**Pn**	**23 27 08.7**	**+3.1**
PGP				*eS*	**S**	**23 27 30.9**	**-0.7**
LQP	**Lukban**	**0.95**	**80**	*eP*	**Pn**	**23 27 10.7**	**+3.4**
LQP				*eS*	**S**	**23 27 40.4**	**+5.6**
GQP	**Guinayangan**	**1.82**	**91**	*eP*	**Pn**	**23 27 15.8**	**+2.6**
GQP				*i S*	**S**	**23 27 48.5**	**+3.0**
SZP	**Santa**	**3.58**	**358**	Pn	Pn	23 27 37.3	+6.0
PIP	**Pasuquin**	**4.35**	**1**	*eP*	**Pn**	**23 27 42.5**	**+2.2**
PIP				*eS*	**S**	**23 28 28.6**	**-5.7**
TPUB	**Ta-pu**	**9.30**	**0**	Pn	**Pn**	**23 28 45.1**	**+3.0**
YULB	**Yu-li**	**9.41**	**4**		**Pn**	**23 28 45.8**	**+2.3**
SSLB	**Suanglung**	**9.79**	**2**		**Pn**	**23 28 51.4**	**+3.1**
NACB	**Ninganchiao**	**10.21**	**5**		**P**	**23 28 60.0**	**+0.9**
YHNB	**Yeheng**	**10.69**	**4**		**Pn**	**23 29 01.8**	**+2.1**
TOLI2	**Tolitoli**	**12.76**	**179**		**Pn**	**23 29 27.4**	**+1.9**
JOW	**Kunigami**	**14.70**	**28**	P	**P**	**23 29 48.1**	**-0.7**
	12nm,0.7s,baz=233,slow=15,SNR=1.9						
JOW	**Kunigami**	**14.70**	**28**	P	**P**	**23 29 47.5**	**-1.3**
SIJI	**Sorong**	**18.14**	**143**	P	**P**	**23 30 26.4**	**-0.3**
	8.8nm,0.6s,baz=321,slow=6.0,SNR=5.8						
KAPI	**Kappang**	**18.86**	**183**	P	**P**	**23 30 35.2**	**+0.8**
KAPI				IAmb	IAmb	23 30 41.7	
	comp=Z,13nm,1.1s						
ENH	**Enshi**	**19.19**	**330**	P	**P**	**23 30 40.1**	**+2.3**
CMAR	**Chiang Mai Arr**	**21.24**	**285**	P	**P**	**23 31 01.8**	**+2.3**
	comp=Z,1.7nm,0.3s,baz=92,slow=7.6,SNR=13						
	comp=Z,1.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**21.24**	**285**	P	**P**	**23 31 00.4**	**+1.0**
JNU	**Nakatsue**	**21.27**	**24**	P	**P**	**23 30 58.1**	**-1.4**
	comp=Z,3.5nm,0.7s,baz=196,slow=17,SNR=1.9						
	comp=Z,3.5nm,0.7s						
JTU	**Tsushima**	**21.98**	**20**	P	**P**	**23 31 06.0**	**-0.1**
KSRS	**Korea Array**	**24.30**	**14**	P	**P**	**23 31 26.2**	**-1.0**
	comp=Z,0.8nm,0.4s,baz=202,slow=9.6,SNR=2.2						
	comp=Z,0.8nm,0.4s						
LZDM	**Lanzhou Array**	**26.64**	**328**	P	**P**	**23 31 49.8**	**+1.2**
	comp=Z,0.6nm,0.3s,baz=116,slow=6.6,SNR=1.4						
	comp=Z,0.6nm,0.3s						
USRK	**Ussuriysk Ar.**	**31.68**	**16**	P	**P**	**23 32 32.6**	**0.0**
	comp=Z,2.3nm,0.6s,baz=220,slow=9.7,SNR=5.6						
	comp=Z,2.3nm,0.6s						
USRK	**Ussuriysk Ar.**	**31.68**	**16**	P	**P**	**23 32 32.8**	**+0.2**
FITZ	**Fitzroy Crossi**	**32.24**	**171**	P	**P**	**23 32 36.2**	**-1.4**
EVN	**Everest**	**34.33**	**299**	P	**P**	**23 32 57.9**	**+1.4**
MBWA	**Marble Bar**	**34.90**	**181**	P	**P**	**23 32 59.6**	**-1.0**
HILR	**Hailar Array B**	**35.51**	**359**	P	**P**	**23 33 05.2**	**-0.3**
	comp=Z,1.5nm,0.4s,baz=167,slow=8.9,SNR=2.0						
	comp=Z,1.5nm,0.4s						
ULN	**Ulaanbaatar**	**35.63**	**344**		**P**	**23 33 07.3**	**+0.6**
ULN				IAmb	IAmb	23 33 07.6	
	comp=Z,2.9nm,0.6s						
SONM	**Songino Array**	**35.78**	**344**	P	**P**	**23 33 08.3**	**+0.4**
	comp=Z,4.0nm,0.5s,baz=164,slow=10,SNR=37						
	comp=Z,4.0nm,0.5s						
SONM	**Songino Array**	**35.78**	**344**	IAmb	IAmb	23 33 09.2	
	comp=Z,2.7nm,0.6s						
WB0	**Warramunga Arr**	**36.17**	**158**	P	P	23 33 08.9	-2.4
WB0				IAmb	IAmb	23 33 09.8	
	comp=Z,4.7nm,1.0s						
WRA	**Warramunga Arr**	**36.31**	**158**	P	**P**	**23 33 10.4**	**-2.1**
	comp=Z,1.2nm,0.5s,baz=340,slow=9.3,SNR=15						
	comp=Z,1.2nm,0.5s						
WRA	**Warramunga Arr**	**36.31**	**158**	IAmb	IAmb	23 33 11.5	
	comp=Z,0.1nm,1.1s						
WR8	**Warramunga Arr**	**36.38**	**158**	P	P	23 33 10.7	-2.4
AS31	**Alice Springs**	**39.60**	**161**	P	**P**	**23 33 38.5**	**-1.5**
ASAR	**Alice Springs**	**39.60**	**161**	P	**P**	**23 33 38.5**	**-1.5**
	comp=Z,0.8nm,0.4s,baz=339,slow=7.0,SNR=12						
	comp=Z,0.8nm,0.4s						
CTAO	**Charters Tower**	**42.22**	**143**	P	**P**	**23 34 00.5**	**-0.8**
CTAO				IAmb	IAmb	23 34 09.1	
	comp=Z,6.1nm,1.0s						
PDGK	**Podgornoye**	**45.74**	**318**		**P**	**23 34 30.3**	**+1.2**
MKAR	**Makanchi Array**	**45.75**	**324**	P	**P**	**23 34 30.2**	**+1.2**
	comp=Z,1.5nm,0.7s,baz=118,slow=9.1,SNR=15						
	comp=Z,1.5nm,0.7s						
MKAR	**Makanchi Array**	**45.75**	**324**	P	**P**	**23 34 30.1**	**+1.1**
MAKZ	**Makanchi**	**45.94**	**323**	P	**P**	**23 34 31.1**	**+0.6**
TARG	**Taragay, Kyrgy**	**46.18**	**315**	P	**P**	**23 34 33.8**	**+0.9**
NWAO	**Narrogin (SRO)**	**46.73**	**184**	P	**P**	**23 34 35.5**	**-1.1**
NWAO				IAmb	IAmb	23 34 40.6	
	comp=Z,8.8nm,1.1s						
ZAA0	**Zalesovo Array**	**48.77**	**333**	P	**P**	**23 34 52.0**	**0.0**
ZAA0				IAmb	IAmb	23 34 52.4	
	comp=Z,2.8nm,0.4s						
ZALV	**Zalesovo Beam**	**48.77**	**333**	P	**P**	**23 34 52.1**	**0.0**
	comp=Z,2.8nm,0.3s,baz=120,slow=7.2,SNR=22						
	comp=Z,2.8nm,0.3s						
BBOO	**Buckleboo**	**48.80**	**163**	P	**P**	**23 34 50.6**	**-2.0**
BBOO				IAmb	IAmb	23 34 59.4	
	comp=Z,7.8nm,1.1s						
STKA	**Stephens Creek**	**49.83**	**156**	P	**P**	**23 34 59.6**	**-0.7**
	comp=Z,0.6nm,0.4s,baz=25,slow=3.9,SNR=3.0						
	comp=Z,0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**49.91**	**326**	P	**P**	**23 35 01.9**	**+1.3**
	comp=Z,1.3nm,0.3s,baz=114,slow=9.5,SNR=14						
	comp=Z,1.3nm,0.3s						
KURK	**Kurchatov**	**49.91**	**326**		**P**	**23 35 01.4**	**+0.7**
BTK	**Batken**	**50.58**	**311**	P	**P**	**23 35 07.5**	**+1.5**
BTK				IAmb	IAmb	23 35 09.8	
	comp=Z,2.2nm,0.5s						
BVAR	**Borovoye Array**	**55.49**	**326**	P	**P**	**23 35 41.8**	**+0.4**
	comp=Z,1.6nm,0.6s,baz=112,slow=6.7,SNR=10						
	comp=Z,1.6nm,0.6s						
BORK	**Borovoye**	**55.54**	**326**		**P**	**23 35 42.3**	**+0.6**
BORK				IAmb	IAmb	23 35 43.0	
	comp=Z,4.0nm,0.8s						
DZM	**Mont Dzumac**	**57.49**	**128**	P	**P**	**23 35 54.6**	**-1.4**
	comp=Z,4.4nm,0.7s,baz=220,slow=14,SNR=6.3						
	comp=Z,4.4nm,0.7s						
NRIK	**Noril'sk**	**59.14**	**347**	P	**P**	**23 36 05.9**	**-0.6**
	comp=Z,2.9nm,0.5s,baz=155,slow=6.5,SNR=6.0						
	comp=Z,2.9nm,0.5s						
NRIK	**Noril'sk**	**59.14**	**347**	IAmb	IAmb	23 36 07.1	
	comp=Z,5.6nm,1.0s						
AB31	**Akbulak array**	**60.46**	**319**		**P**	**23 36 16.1**	**+0.3**
AB31				IAmb	IAmb	23 36 16.8	
	comp=Z,3.0nm,0.8s						
ABKAR	**Akbulak array**	**60.46**	**319**	P	**P**	**23 36 16.0**	**+0.2**
MSVF	**Nonsavu**	**64.86**	**117**	P	P	23 36 40.6	-4.8
	comp=Z,2.0nm,0.4s,baz=224,slow=2.6,SNR=4.4						
	comp=Z,2.0nm,0.4s						
MSVF	**Nonsavu**	**64.86**	**117**	IAmb	IAmb	23 36 46.0	
	comp=Z,5.5nm,0.9s						
ILAR	**Eielson Array**	**78.58**	**26**	P	**P**	**23 38 04.1**	**-1.9**
	comp=Z,0.2nm,0.7s,baz=197,slow=9.1,SNR=1.4						
	comp=Z,0.2nm,0.7s						
DHY	**Denali Highway**	**78.61**	**28**	P	**P**	**23 38 05.2**	**-1.2**
DHY				IAmb	IAmb	23 38 06.7	
	comp=Z,4.5nm,1.1s						
ARCES	**ARCESS Array B**	**78.80**	**339**	P	**P**	**23 38 06.5**	**-0.7**
	comp=Z,1.7nm,0.5s,baz=78,slow=6.7,SNR=21						
	comp=Z,1.7nm,0.5s						
BRTR	**Keskin Array B**	**78.89**	**308**	P	**P**	**23 38 07.3**	**-1.2**
	comp=Z,0.5nm,0.8s,baz=96,slow=2.9,SNR=2.8						
	comp=Z,0.5nm,0.8s						
SPITS	**Spitsbergen Ar**	**79.32**	**348**	P	**P**	**23 38 08.5**	**-1.4**
	comp=Z,15nm,1.0s,baz=62,slow=16,SNR=1.5						
	comp=Z,15nm,1.0s						
FINES	**FINESS Array B**	**80.00**	**331**	P	**P**	**23 38 12.9**	**-0.8**
	comp=Z,0.9nm,0.5s,baz=49,slow=6.6,SNR=13						
	comp=Z,0.9nm,0.5s						
HFS	**Hagfors**	**86.19**	**331**	P	**P**	**23 38 44.2**	**-1.2**
	comp=Z,1.3nm,0.5s,baz=94,slow=4.5,SNR=8.5						
	comp=Z,1.3nm,0.5s						
NOA	**NORSAR Array B**	**86.98**	**333**	P	**P**	**23 38 47.9**	**-1.4**
	comp=Z,0.7nm,0.6s,baz=69,slow=9.3,SNR=4.0						
	comp=Z,0.7nm,0.6s						
GERES	**GERESS Array B**	**90.36**	**321**	P	**P**	**23 39 04.8**	**-0.6**
	comp=Z,0.2nm,0.4s,baz=48,slow=1.5,SNR=3.5						
	comp=Z,0.2nm,0.4s						

*IDC **26** 23:41:01.6±0.9, 16°.68S×174°.00W, h0km, mb4.2/5, mbtmp4.3/7, ML3.7/2, MS3.0/4, Error ellipse: s-maj=28.6km s-min=14.1km az=138.0*
*NEIC **26** 23:41:03.1±1.2, 16°.76S±0°.08×173°.54W±0°.09, h19km±3km, mb4.6/16, Error ellipse: s-maj=15.0km s-min=8.6km az=131.0*

ISC 26 23:41:01.3±0.6, **16°.75S**±0°.08×**173°.56W**±0°.08, **h10**km, **n31,** σ0°.**98**/29, **mb4.5**/12, **MS3.3**/3, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.30**	**32**	Pn	**Pn**	**23 41 54.4**	**+1.2**
	9.8nm,0.3s,baz=198,slow=6.4,SNR=8.1						
AFI				Sn	**Sn**	**23 42 30.5**	**-2.1**
	110nm,0.3s,baz=43,slow=23,SNR=34						
AFI				LR	LR	23 42 42.3	
	comp=Z,68nm,19.7s,baz=29,slow=29						
	26nm,0.4s						
AFI				AML	AML		
NIUE	**Niue**	**4.16**	**124**		**Pn**	**23 42 05.2**	**+0.4**
RAR	**Rarotonga**	**13.77**	**111**	Pn	**Pn**	**23 44 16.6**	**0.0**
	2.8nm,0.3s,baz=287,slow=11,SNR=2.3						
	13nm,0.5s						
RAR				AML	AML		
MARNC	**Mare, Loyalty**	**18.02**	**252**		**Pn**	**23 45 12.2**	**+0.2**
OUENC	**Ouen Island, N**	**19.30**	**250**	P	**P**	**23 45 26.7**	**+0.1**
PPT	**Papeete**	**22.93**	**96**	LR	LR	23 53 48.5	
	comp=Z,15nm,18.9s,baz=330,slow=33						
URZ	**Urewera**	**22.95**	**199**	P	**P**	**23 46 06.3**	**+0.6**
	14nm,0.4s,baz=346,slow=1.5,SNR=21						
	14nm,0.4s						
TOZ	**Tahuroa Road**	**23.02**	**203**	P	**P**	**23 46 07.2**	**+0.7**
STKA	**Stephens Creek**	**43.25**	**241**	P	**P**	**23 49 03.2**	**+0.2**
	2.5nm,0.6s,baz=67,slow=8.7,SNR=4.7						
	2.5nm,0.6s						
STKA	**Stephens Creek**	**43.25**	**241**	P	**P**	**23 49 03.2**	**+0.2**
STKA				IAmb	IAmb	23 49 03.7	
	comp=Z,18nm,1.1s						
BBOO	**Buckleboo**	**48.02**	**241**	P	**P**	**23 49 39.8**	**-1.1**
BBOO				IAmb	IAmb	23 49 44.1	
	comp=Z,5.2nm,1.0s						
WR8	**Warramunga Arr**	**49.25**	**258**	P	**P**	**23 49 49.2**	**-1.3**
WB0	**Warramunga Arr**	**49.37**	**258**	P	**P**	**23 49 50.9**	**-0.6**
WB0				IAmb	IAmb	23 49 53.7	
	comp=Z,4.9nm,1.1s						
WRA	**Warramunga Arr**	**49.40**	**258**	P	**P**	**23 49 50.8**	**-0.9**
	comp=Z,0.7nm,0.5s,baz=96,slow=7.0,SNR=16						
	comp=Z,0.7nm,0.5s						
WRA	**Warramunga Arr**	**49.40**	**258**	P	**P**	**23 49 50.7**	**-1.0**
AS31	**Alice Springs**	**49.56**	**253**	P	**P**	**23 49 52.4**	**-0.5**
AS31				IAmb	IAmb	23 49 53.2	
	comp=Z,3.2nm,0.5s						
ASAR	**Alice Springs**	**49.56**	**253**	P	**P**	**23 49 52.4**	**-0.6**
	comp=Z,8.0nm,0.6s,baz=87,slow=8.7,SNR=138						
	comp=Z,8.0nm,0.6s						
ASAR	**Alice Springs**	**49.56**	**253**	P	**P**	**23 49 52.2**	**-0.7**
MTN	**Manton Dam**	**53.48**	**266**	P	**P**	**23 50 21.7**	**-0.6**
MTN				IAmb	IAmb	23 50 38.6	
	comp=Z,4.8nm,0.9s						
FORT	**Forrest**	**54.68**	**244**	P	**P**	**23 50 30.0**	**-0.9**
FORT				IAmb	IAmb	23 50 36.9	
	comp=Z,6.2nm,1.1s						
FITZ	**Fitzroy Crossi**	**57.79**	**259**	P	**P**	**23 50 52.3**	**-1.0**
GSTR	**Great Sitkin T**	**68.58**	**358**	P	**P**	**23 52 05.7**	**+1.6**
NLWA	**Neilton Lookou**	**77.82**	**32**	P	**P**	**23 52 58.4**	**-0.5**
NLWA				IAmb	IAmb	23 53 16.1	
	comp=Z,8.7nm,1.1s						
DLBC	**Dease Lake**	**83.00**	**21**	LR	LR	00 25 46.9	
	comp=Z,58nm,19.0s,baz=250,slow=32						
ILAR	**Eielson Array**	**83.79**	**11**	P	**P**	**23 53 30.6**	**+0.3**
	comp=Z,0.3nm,0.7s,baz=206,slow=4.9,SNR=5.4						
	comp=Z,0.3nm,0.7s						
ILAR	**Eielson Array**	**83.79**	**11**	P	**P**	**23 53 30.1**	**-0.3**
J25K	**Salcha River,**	**83.94**	**12**	P	**P**	**23 53 31.8**	**+0.6**
J25K				IAmb	IAmb	23 53 39.4	
	comp=Z,2.5nm,1.2s						
YAK	**Yakutsk**	**90.29**	**337**	LR	LR	00 36 13.0	
	comp=Z,9.7nm,18.5s,baz=288,slow=37						
BURAR	**Bucovina Array**	**145.55**	**337**	PKPdf	**PKPdf**	**00 00 38.2**	**-1.8**
BRTR	**Keskin Array B**	**147.09**	**320**	PKPbc	**PKPdf**	**00 00 43.5**	**+0.6**
	comp=Z,0.7nm,0.7s,baz=148,slow=1.1,SNR=5.0						
BRTR	**Keskin Array B**	**147.09**	**320**		**PKPdf**	**00 00 44.7**	**+1.8**

*SNET **26** 23:41:07.5±1.2, 12°.84N×89°.13W, h31km, ML3.4, Presumed earthquake*
*CATAC **26** 23:41:08.9±0.6, 13°.N±5°.×8°.9W±°., h33km±5km, M3.4/14, mB6.1/1, MLv3.4/14, Mw(mB)5.8/1, Error ellipse: s-maj=11.1km s-min=3.5km az=26.0, confirmed*

ISC 26 23:41:09.3±1.8, **12°.93N**±0°.07×**89°.10W**±0°.04, **h34**km±3km,

n26, σ0°.**91**/40, **Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALJI	**Alcalda de J**	**0.65**	**52**	P	**Pb**	**23 41 22.9**	**+0.5**
TECO	**Alcaldia de Te**	**0.68**	**27**	P	**Pb**	**23 41 22.3**	**-0.7**
TECO	**Alcaldia de Te**	**0.68**	**27**	*i* P	**Pb**	**23 41 22.8**	**-0.2**
TECO				*eS*	**Sn**	**23 41 33.7**	**+1.7**
PANCS	**Alcalda de**	**0.68**	**354**	P	**Pb**	**23 41 22.6**	**-0.5**
SJTE	**Alcalda de S**	**0.69**	**8**	*i* P	**Pn**	**23 41 21.7**	**-1.1**
SJTE				*eS*	**Sn**	**23 41 33.5**	**+1.2**
LFRS	**El Faro**	**0.69**	**3**	*i* P	**Pb**	**23 41 22.6**	**-0.6**
LOMA	**Loma Larga**	**0.72**	**355**	P	**Pb**	**23 41 23.1**	**-0.5**
COEG	**Centro de Oper**	**0.72**	**17**	P	**Pn**	**23 41 22.7**	**-0.5**
COEG	**Centro de Oper**	**0.72**	**17**	*i* P	**Pb**	**23 41 23.5**	**-0.1**
COEG				*eS*	**Sb**	**23 41 34.3**	**+0.9**
UEES	**Universidad Ev**	**0.80**	**350**	P	**Pb**	**23 41 24.5**	**-0.4**
PAVA	**Las Pavas**	**0.80**	**12**	P	**Pb**	**23 41 24.3**	**-0.7**
PAVA	**Las Pavas**	**0.80**	**12**	*i* P	**Pb**	**23 41 24.3**	**-0.7**
PAVA				*eS*	**Sb**	**23 41 36.6**	**+1.0**
JAYA	**Jayaque - finc**	**0.80**	**335**	P	**Pn**	**23 41 23.9**	**-0.4**
JAYA				S	**Sb**	**23 41 35.9**	**+0.3**
PMON	**Piamonte**	**0.81**	**345**	P	**Pn**	**23 41 24.2**	**-0.2**
TECA	**Tecapa**	**0.81**	**46**	*i* P	**Pb**	**23 41 24.7**	**-0.5**
TECA				*eS*	**Sb**	**23 41 36.9**	**+0.9**
LFU	**La Fuente**	**0.82**	**359**	*i* P	**Pb**	**23 41 24.6**	**-0.7**
LFU				*eS*	**Sb**	**23 41 37.7**	**+1.6**
RANC	**El Ranchito**	**0.94**	**57**	S	**Sb**	**23 41 39.7**	**+0.1**
CEVE	**Cerro Verde**	**1.03**	**330**	P	**Pn**	**23 41 27.2**	**-0.4**
CEVE				S	**Sb**	**23 41 43.3**	**+1.0**
INTP	**Intipuca**	**1.05**	**75**	*i* P	**Pn**	**23 41 27.3**	**-0.4**
INTP				*eS*	**Sn**	**23 41 41.1**	**-0.2**
NUBE	**Las Nubes**	**1.17**	**326**	*i* P	**Pn**	**23 41 29.1**	**-0.3**
NUBE				*eS*	**Sn**	**23 41 44.5**	**+0.1**
LCND	**La Caada**	**1.24**	**72**	*i* P	**Pn**	**23 41 30.1**	**-0.2**
LCND				*eS*	**Sb**	**23 41 46.4**	**-1.6**
FAME	**Alcaldia de Sa**	**1.27**	**316**	P	**Pn**	**23 41 29.8**	**-0.9**
FAME				S	**Sn**	**23 41 45.6**	**-1.0**
CNCH	**Conchagua**	**1.28**	**74**	P	**Pn**	**23 41 30.4**	**-0.6**
CNCH				S	**Sb**	**23 41 47.5**	**-1.8**
MTO3	**Montecristo**	**1.48**	**350**	P	**Pn**	**23 41 33.5**	**-0.3**
LIMN	**Finca el Limon**	**2.67**	**87**	P	**Pn**	**23 41 50.5**	**+0.5**
LIMN				S	**Sn**	**23 42 20.0**	**-1.2**
CDITO	**Canoas**	**7.50**	**125**	P	**Pn**	**23 42 58.1**	**+1.8**

*CNRM **26** 23:57:20.3, 35°.64N×3°.59W, h12km, ML2.2*
*MDD **26** 23:57:24.0±0.7, 35°.45N×3°.63W, h8km±7km, mb_Lg2.5/15, Error ellipse: s-maj=7.2km s-min=4.0km az=162.0*

ISC 26 23:57:22.3±1.2, **35°.50N**±0°.02×**3°.66W**±0°.03, **h10**km±10km, **n23,** σ1°.**42**/43, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.36**	**219**	P	**Pb**	**23 57 31.0**	**+0.1**
PALE				S	**Sb**	**23 57 37.0**	**+0.5**
EMEL	**Melilla**	**0.61**	**109**	Pg	**Pg**	**23 57 34.2**	**0.0**
EMEL				Sg	**Sg**	**23 57 42.2**	**0.0**
EALB	**Alboran**	**0.68**	**49**	Pg	**Pn**	**23 57 36.9**	**-1.0**
EALB				Sg	**Sb**	**23 57 46.0**	**+0.4**
EALB				IVmb_Lg		23 57 46.6	
ELGU	**Los Guajares,**	**1.36**	**1**	Pn	**Pn**	**23 57 47.4**	**-0.2**
ELGU				Sn	**Sb**	**23 58 04.6**	**-1.0**
ELGU				IVmb_Lg		23 58 09.6	
EMIJ	**Mijas**	**1.39**	**320**	Pn	**Pb**	**23 57 48.3**	**-0.1**
EMIJ				Sn	**Sb**	**23 58 04.7**	**-1.6**
EMIJ				IVmb_Lg		23 58 07.3	
SMIR	**Smir Dam**	**1.41**	**278**	P	**Pn**	**23 57 46.8**	**-1.3**
SMIR				S	**Sn**	**23 58 06.0**	**-0.7**
CHEFC	**Chefchaouen**	**1.43**	**255**	P	**Pn**	**23 57 47.3**	**-1.1**
CHEFC				S	**Sg**	**23 58 09.4**	**+1.2**
ECEU	**Ceuta**	**1.45**	**286**	Pn	**Pg**	**23 57 50.0**	**-0.1**
ECEU				Sg	**Sn**	**23 58 04.4**	**-3.3**
ECEU				Sn	**Sb**	**23 58 06.2**	**-1.7**
ECEU				IVmb_Lg		23 58 07.2	
JBK	**JBK**	**1.47**	**142**	P	**Pn**	**23 57 47.2**	**-1.9**
JBK			

baz=154,slow=76,SNR=27
H08S1 Diego Carcia H 46.87 319 T T 01 12 43.5
baz=154,slow=76,SNR=15
H08S3 Diego Garcia H 46.89 319 T T 01 12 44.4
baz=154,slow=76,SNR=54
SNAA Sanae 49.59 204 LR LR 00 43 27.2
comp=Z,77nm,19.9s,baz=128,slow=34
PSI Prapat 50.40 357 LR LR 00 40 40.3
comp=Z,15nm,20.6s,baz=238,slow=30
PALK Pallekele 57.74 336 LR LR 00 44 30.2
comp=Z,30nm,18.2s,baz=152,slow=30
MATP Matopo 63.67 268 LR LR 00 47 59.4
comp=Z,214nm,19.1s,baz=112,slow=31
CMAR Chiang Mai Arr 65.95 358 P **P** **00 26 11.3 +0.4**
0.8nm,0.3s,baz=201,slow=6.4,SNR=5.3
CMAR LR LR 00 51 40.0
comp=Z,34nm,19.6s,baz=210,slow=33
0.8nm,0.3s
PMSA Palmer Station 67.21 187 LR LR 00 56 17.2
comp=Z,106nm,18.7s,baz=278,slow=36
MBAR Mbarara 76.55 284 LR LR 00 56 21.5
comp=Z,17nm,18.7s,baz=179,slow=32
LZDM Lanzhou Array 83.38 2 LR LR 01 06 22.9
comp=Z,38nm,18.4s,baz=340,slow=37
PLCA Paso Flores 91.58 186 LR LR 01 08 25.2
comp=Z,41nm,19.1s,baz=190,slow=35
MKAR Makanchi Array 95.63 347 LR LR 01 10 07.8
comp=Z,29nm,18.4s,baz=268,slow=34
NVAR Mina Array Bea 149.92 93 PKPbc **PKPbc** **00 35 14.0 -1.1**
1.5nm,0.8s,baz=204,slow=4.4,SNR=5.3

NNC ***27*** *00:15:58.7±0.6, 43.08N×78.21E, h0km, mpv2.6, Error ellipse: s-maj=7.1km s-min=2.8km az=178.0*
SOME ***27*** *00:16:00.1, 43.08N×78.15E, h15km*
KRNET ***27*** *00:16:01.4±0.1, 42.98N×78.10E, h23km, mb2.3*
ISC 27 00:15:59.5±0.9, 43.10N±0.02×78.14E±0.02, h13km±7km, n34, σ1s67/67, 14C-2D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SATY	**Saty** 14nm,0.1s	**0.20**	**101**	P		**Pb**	**00 16 03.7**	**-1.5**
SATY	257nm,0.1s			S		**Sg**	**00 16 06.8**	**-0.3**
SATY	**Saty** 14nm,0.1s	**0.20**	**101**	*e*P		**Pb**	**00 16 03.7**	**-1.5**
SATY	257nm,0.1s			*e*S		**Sg**	**00 16 06.8**	**-0.3**
KURS	**Kuram** 5.5nm,0.1s	**0.39**	**3**	P		**Pb**	**00 16 08.0**	**-0.4**
KURS	35nm,0.3s			S		**Sb**	**00 16 13.7**	**-0.7**
KURS	**Kuram** 5.5nm,0.1s	**0.39**	**3**	*e*P		**Pb**	**00 16 08.0**	**-0.4**
KURS	35nm,0.3s			*e*S		**Sb**	**00 16 13.7**	**-0.7**
ANVS	**Anan'yevo**	**0.47**	**228**	⇓*e*P		**Pb**	**00 16 09.4**	**-0.3**
ANVS				⇓*e*S		**Sg**	**00 16 15.4**	**+0.4**
KPKS	**Kokpek** 0.2nm,0.1s	**0.54**	**47**	P		**Pg**	**00 16 09.9**	**-0.3**
KPKS	44nm,0.1s			S		**Sb**	**00 16 17.2**	**-1.6**
KPKS	**Kokpek** 0.2nm,0.1s	**0.54**	**47**	*e*P		**Pg**	**00 16 09.9**	**-0.3**
KPKS	44nm,0.1s			*e*S		**Sb**	**00 16 17.2**	**-1.6**
PRZ	**Przheval'sk**	**0.64**	**162**	⇑*e*P		**Pb**	**00 16 12.0**	**-0.7**
PRZ				⇑*e*S		**Sb**	**00 16 19.5**	**-2.2**
UZB	**Uzynbulak** 7.5nm,0.1s	**0.65**	**85**	P		**Pb**	**00 16 10.9**	**-1.9**
UZB	38nm,0.1s			S		**Sb**	**00 16 19.0**	**-2.8**
UZB	**Uzynbulak** 7.5nm,0.1s	**0.65**	**85**	*e*P		**Pb**	**00 16 10.8**	**-1.9**
UZB	38nm,0.1s			*e*S		**Sb**	**00 16 19.1**	**-2.8**
KOTS	**Kotyrbulak** 2.3nm,0.1s	**0.76**	**281**	P		**Pg**	**00 16 14.9**	**+0.5**
KOTS	8.4nm,0.1s			S		**Sn**	**00 16 26.4**	**-1.2**
KOTS	**Kotyrbulak** 2.3nm,0.1s	**0.76**	**281**	*e*P		**Pg**	**00 16 14.8**	**+0.5**
KOTS	8.4nm,0.1s			*e*S		**Sn**	**00 16 26.4**	**-1.2**
MDOK	**Medeo** 1.4nm,0.1s	**0.80**	**275**	Pg		**Pb**	**00 16 14.8**	**-0.6**
MDOK	6.0nm,0.3s			Lg	Lg		00 16 26.0	
MDOK	**Medeo** 1.4nm,0.1s	**0.80**	**275**	*e*P		**Pb**	**00 16 14.8**	**-0.6**
MDOK	6.0nm,0.3s			*e*S		**Sb**	**00 16 26.0**	**-0.2**
TNSS	**Tian-Shan** 0.7nm,0.2s	**0.88**	**266**	P		**Pb**	**00 16 16.5**	**-0.3**
TNSS	2.0nm,0.1s			S		**Sg**	**00 16 28.9**	**+0.9**
TNSS	**Tian-Shan** 0.7nm,0.2s	**0.88**	**266**	*e*P		**Pb**	**00 16 16.5**	**-0.3**
TNSS	2.0nm,0.1s			*e*S		**Sg**	**00 16 28.9**	**+0.9**
SHLS	**Shalkode** 2.2nm,0.1s	**0.97**	**86**	P		**Pg**	**00 16 22.3**	**+4.0**
SHLS	6.5nm,0.2s			S		**Sn**	**00 16 38.6**	**+5.9**
SHLS	**Shalkode** 2.2nm,0.1s	**0.97**	**86**	*e*P		**Pg**	**00 16 22.3**	**+4.0**
SHLS	6.5nm,0.2s			*e*S		**Sn**	**00 16 38.6**	**+5.9**
PDGK	**Podgornoye** 1.1nm,0.3s	**1.01**	**76**	⇑P		**Pb**	**00 16 16.8**	**-2.2**
PDGK	5.0nm,0.5s			⇑S		**Sb**	**00 16 29.7**	**-2.7**
ARXS	**Arharly** 4.5nm,0.1s	**1.14**	**349**	P		**Pg**	**00 16 21.3**	**-0.1**
ARXS	15nm,0.2s			S		**Sg**	**00 16 36.7**	**+0.5**
ARXS	**Arharly** 4.5nm,0.1s	**1.14**	**349**	*e*P		**Pg**	**00 16 21.3**	**-0.1**
ARXS	15nm,0.2s			*e*S		**Sg**	**00 16 36.7**	**+0.5**
KDJ	**Kajisay**	**1.20**	**217**	⇑*e*P		**Pn**	**00 16 21.6**	**-0.6**
KDJ				⇑*e*S		**Sb**	**00 16 36.2**	**-1.4**
TARG	**Taragay, Kyrgy**	**1.39**	**190**	⇑*e*P		**Pb**	**00 16 25.0**	**-0.6**
TARG				⇑*e*S		**Sn**	**00 16 42.0**	**-1.4**
KST	**Kastek** 0.4nm,0.1s	**1.59**	**269**	P		**Pg**	**00 16 29.8**	**-0.3**
KST	3.7nm,0.3s			S		**Sg**	**00 16 51.0**	**+0.2**
KST	**Kastek** 0.4nm,0.1s	**1.59**	**269**	*e*P		**Pg**	**00 16 29.8**	**-0.3**
KST	3.7nm,0.3s			*e*S		**Sg**	**00 16 51.0**	**+0.2**
ULHL	**Ulahol**	**1.64**	**239**	⇑*e*P		**Pb**	**00 16 29.7**	**0.0**
ULHL				⇑*e*S		**Sb**	**00 16 50.2**	**-0.1**
DJR	**Jarkent** 1.0nm,0.1s	**1.72**	**44**	P		**Pb**	**00 16 29.9**	**-1.1**
DJR	3.8nm,0.2s			S		**Sb**	**00 16 52.5**	**-0.1**
DJR	**Jarkent** 1.0nm,0.1s	**1.72**	**44**	*e*P		**Pb**	**00 16 29.9**	**-1.1**
DJR	3.8nm,0.2s			*e*S		**Sb**	**00 16 51.9**	**-0.7**
BOOM	**Boomskoye usch**	**1.73**	**250**	⇑*e*P		**Pb**	**00 16 31.4**	**+0.2**
BOOM				⇑*e*S		**Sb**	**00 16 53.2**	**+0.3**
DGS	**Degeres** 0.7nm,0.1s	**1.74**	**276**	P		**Pb**	**00 16 31.3**	**0.0**
DGS	3.9nm,0.3s			S		**Sb**	**00 16 53.7**	**+0.6**
DGS	**Degeres** 0.7nm,0.1s	**1.74**	**276**	*e*P		**Pb**	**00 16 31.4**	**0.0**
DGS	3.9nm,0.3s			*e*S		**Sb**	**00 16 53.7**	**+0.6**
KRBS	**Karabastau** 0.6nm,0.2s	**1.89**	**289**	P		**Pb**	**00 16 34.6**	**+0.6**
KRBS	7.7nm,0.3s			S		**Sg**	**00 16 59.3**	**-1.1**
KRBS	**Karabastau** 0.6nm,0.2s	**1.89**	**289**	*e*P		**Pb**	**00 16 34.6**	**+0.6**
KRBS	7.7nm,0.3s			*e*S		**Sg**	**00 16 59.3**	**-1.1**
NRN	**Naryn**	**2.30**	**224**	⇑*e*P		**Pb**	**00 16 39.3**	**-1.7**
NRN				⇑*e*S		**Sn**	**00 17 06.8**	**+1.1**

KRNET ***27*** *00:25:11.4±0.1, 41.82N×79.55E, h18km, mb2.5*
SOME ***27*** *00:25:11.4, 41.83N×79.53E, h15km*

NNC ***27*** *00:25:12.2±1.6, 41.91N×79.60E, h0km, mb2.5, mpv2.9, Error ellipse: s-maj=10.3km s-min=9.7km az=122.0*
ISC 27 00:25:11.0±2.6, 41.80N±0.07×79.50E±0.07, h9km±15km, n20, σ1s08/38, 11C-5D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
PRZ	**Przheval'sk**	**1.07**	**310**	⇑*e*P		**Pb**	**00 25 31.6**	**-0.1**
PRZ				⇑*e*S		**Sn**	**00 25 46.4**	**-0.9**
TARG	**Taragay, Kyrgy**	**1.27**	**268**	⇓*e*P		**Pb**	**00 25 35.6**	**+0.3**
TARG				⇓*e*S		**Sg**	**00 25 53.2**	**+1.3**
SHLS	**Shalkode** 7.0nm,0.1s	**1.36**	**359**	P		**Pb**	**00 25 36.4**	**-0.3**
SHLS	15nm,0.2s			S		**Sg**	**00 25 54.4**	**-0.4**
SHLS	**Shalkode** 7.0nm,0.1s	**1.36**	**359**	*e*P		**Pb**	**00 25 36.4**	**-0.3**
SHLS	15nm,0.2s			*e*S		**Sg**	**00 25 54.4**	**-0.4**
UZB	**Uzynbulak** 3.5nm,0.1s	**1.40**	**345**	P		**Pb**	**00 25 36.4**	**-0.9**
UZB	3.8nm,0.3s			S		**Sb**	**00 25 54.7**	**-0.5**
UZB	**Uzynbulak** 3.5nm,0.1s	**1.40**	**345**	*e*P		**Pb**	**00 25 36.4**	**-0.9**
UZB	3.8nm,0.3s			*e*S		**Sb**	**00 25 54.2**	**-1.0**
SATY	**Saty** 1.5nm,0.1s	**1.50**	**328**	P		**Pb**	**00 25 38.6**	**-0.4**
SATY	13nm,0.1s			S		**Sb**	**00 25 58.2**	**-0.1**
SATY	**Saty** 1.5nm,0.1s	**1.50**	**328**	*e*P		**Pb**	**00 25 38.6**	**-0.4**
SATY	13nm,0.1s			*e*S		**Sb**	**00 25 58.2**	**-0.1**
PDGK	**Podgornoye** 1.1nm,0.3s	**1.53**	**360**	⇓P		**Pb**	**00 25 38.3**	**-1.2**
PDGK	5.7nm,0.5s			⇑S		**Sb**	**00 25 57.9**	**-1.2**
ANVS	**Anan'yevo**	**1.68**	**307**	⇑*e*P		**Pb**	**00 25 42.2**	**+0.1**
ANVS				⇑*e*S		**Sg**	**00 26 05.3**	**+0.3**
KDJ	**Kajisay**	**1.76**	**282**	⇑*e*P		**Pb**	**00 25 43.9**	**+0.4**
KDJ				⇑*e*S		**Sb**	**00 26 07.4**	**+1.6**
KPKS	**Kokpek** 0.7nm,0.4s	**1.77**	**340**	P		**Pb**	**00 25 43.6**	**-0.1**
KPKS	13nm,0.1s			S		**Sg**	**00 26 07.2**	**-0.8**
KPKS	**Kokpek** 0.7nm,0.4s	**1.77**	**340**	*e*P		**Pb**	**00 25 43.6**	**-0.1**
KPKS	13nm,0.1s			*e*S		**Sb**	**00 26 06.7**	**+0.6**
KURS	**Kuram** 1.5nm,0.2s	**1.96**	**330**	Pg		**Pb**	**00 25 47.4**	**+0.7**
KURS	3.8nm,0.2s			Lg	Lg		00 26 13.2	
KURS	**Kuram** 1.5nm,0.2s	**1.96**	**330**	*e*P		**Pb**	**00 25 47.4**	**+0.7**
KURS	3.8nm,0.2s			*e*S		**Sg**	**00 26 13.2**	**-0.6**
ULHL	**Ulahol**	**2.47**	**282**	⇑*e*P		**Pb**	**00 25 53.9**	**-1.7**
ULHL				⇑*e*S		**Sb**	**00 26 24.7**	**-1.5**
DJR	**Jarkent** 1.3nm,0.2s	**2.54**	**5**	Pg		**Pb**	**00 25 56.5**	**-0.3**
DJR	3.5nm,0.3s			Lg	Lg		00 26 28.1	
DJR	**Jarkent** 1.3nm,0.2s	**2.54**	**5**	*e*P		**Pb**	**00 25 56.5**	**-0.3**
DJR	3.5nm,0.3s			*e*S		**Sb**	**00 26 29.1**	**+0.9**
NRN	**Naryn**	**2.65**	**263**	⇑*e*P		**Pb**	**00 25 56.8**	**-1.9**
NRN				⇑*e*S		**Sb**	**00 26 29.8**	**-1.7**
BOOM	**Boomskoye usch**	**2.74**	**286**	⇓*e*P		**Pn**	**00 25 57.4**	**+2.2**
BOOM				⇓*e*S		**Sb**	**00 26 31.1**	**-2.8**

IDC ***27*** *00:27:24.8±2.8, 39.26N×72.72E, h0km, mb3.6/4, mbtmp3.5/7, ML2.6/3, Error ellipse: s-maj=50.0km s-min=25.3km az=167.0*
KRNET ***27*** *00:27:25.9±0.1, 39.47N×72.67E, h14km, mb3.6*
NNC ***27*** *00:27:26.1±4.3, 39.46N×72.80E, h0km, mb4.0, mpv3.6, Error ellipse: s-maj=31.2km s-min=17.3km az=179.0*
SOME ***27*** *00:27:38.4, 40.10N×72.47E, h10km*
ISC 27 00:27:27.4±1.3, 39.60N±0.05×72.61E±0.03, h1km±9km, n48, σ2s14/82, mb3.5/4, 27C-16D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**0.64**	**260**	⇓*e*P		**Pg**	**00 27 38.9**	**-0.7**
DRK				⇓*i*S		**Sg**	**00 27 48.4**	**+0.5**
SFK	**Sufi-Kurgan**	**0.80**	**59**	⇓*e*P		**Pg**	**00 27 42.2**	**-0.6**
SFK				⇓*i*S		**Sb**	**00 27 54.1**	**-1.6**
OHH	**Osh**	**0.94**	**8**	⇓*i*P		**Pb**	**00 27 46.0**	**-0.5**
OHH				⇓*i*S		**Sn**	**00 28 00.8**	**-1.0**
BTK	**Batken**	**1.46**	**289**	⇑*i*P		**Pg**	**00 27 55.0**	**-0.3**
BTK				⇑*i*S		**Sg**	**00 28 16.1**	**+2.0**
SALK	**Salom-Alik**	**1.58**	**35**	⇑*i*P		**Pg**	**00 27 57.2**	**-0.5**
SALK				⇑*i*S		**Sg**	**00 28 19.9**	**+1.6**
ARSB	**Arslanbob**	**1.75**	**9**	⇓*i*P		**Pb**	**00 28 00.7**	**+0.4**
ARSB				⇓*i*S		**Sg**	**00 28 26.0**	**+2.5**
TRKS	**Terek-Say**	**2.23**	**330**	⇑*i*P		**Pb**	**00 28 07.1**	**-1.5**
TRKS				⇑*i*S		**Sb**	**00 28 37.3**	**+0.5**
ARK	**Arkit**	**2.25**	**348**	⇓*e*P		**Pb**	**00 28 08.3**	**-0.6**
ARK				⇑*i*S		**Sb**	**00 28 39.2**	**+1.9**
MNAS	**Manas**	**2.89**	**358**	⇓*e*P		**Pb**	**00 28 17.2**	**-2.6**
MNAS				⇓*e*S		**Sb**	**00 28 54.3**	**-1.3**
NRN	**Naryn**	**3.17**	**54**	⇓*e*P		**Pn**	**00 28 19.4**	**+0.7**
NRN				⇓*i*S		**Sb**	**00 28 58.6**	**-5.3**
MRKS	**Merke** 3.4nm,0.2s	**3.18**	**8**	Pg		**Pb**	**00 28 23.5**	**-1.2**
MRKS	20nm,0.4s			Lg	Lg		00 29 07.1	
MRKS	**Merke** 40nm,0.4s	**3.18**	**8**	*e*P		**Pg**	**00 28 28.9**	**+0.6**
MRKS	115nm,0.1s			*e*S		**Sb**	**00 29 05.8**	**+1.8**
EKS2	**Erkin-Say**	**3.19**	**16**	⇓*i*P		**Pb**	**00 28 21.0**	**-3.8**
EKS2				⇓*i*S		**Sb**	**00 29 01.2**	**-3.0**
IUG	**Iuzhnay** 62nm,0.5s	**3.21**	**323**	*e*P		**Pg**	**00 28 29.2**	**+0.3**
IUG	102nm,0.4s			*e*S		**Sb**	**00 29 06.7**	**+1.8**
AAK	**Ala-Archa** 4.4nm,0.5s	**3.35**	**24**	⇑Pg		**Pb**	**00 28 26.4**	**-1.3**
AAK	34nm,0.9s			⇑Lg	Lg		00 29 15.0	
AAK	**Ala-Archa**	**3.35**	**24**	⇑*i*P		**Pn**	**00 28 23.1**	**+2.0**
AAK				⇑*i*S		**Sb**	**00 29 05.1**	**-4.0**
DZA	**Taraz** 75nm,0.2s	**3.43**	**344**	Pg		**Pb**	**00 28 25.9**	**-3.0**
DZA	66nm,0.3s			Lg	Lg		00 29 11.0	
DZA	**Taraz** 43nm,0.1s	**3.43**	**344**	*e*P		**Pg**	**00 28 32.2**	**-0.9**
DZA	59nm,0.3s			*e*S		**Sb**	**00 29 10.9**	**-0.2**
KBK	**Karagaybulak**	**3.53**	**29**	⇑*e*P		**Pn**	**00 28 25.5**	**+2.0**
KBK				⇑*i*S		**Sb**	**00 29 09.0**	**-5.1**
FRU1	**Bishkek**	**3.55**	**25**	⇑*e*P		**Pn**	**00 28 26.0**	**+2.3**
FRU1				⇑*i*S		**Sb**	**00 29 10.0**	**-4.7**
CHMS	**Chumysh**	**3.76**	**25**	⇑*i*P		**Pn**	**00 28 28.7**	**+2.2**
CHMS				⇑*e*S		**Sn**	**00 29 14.6**	**+3.1**
ULHL	**Ulahol**	**3.82**	**45**	⇑*e*P		**Pn**	**00 28 29.0**	**+1.5**
ULHL				⇑*i*S		**Sn**	**00 29 15.1**	**+2.0**
BOOM	**Boomskoye usch**	**3.83**	**40**	⇓*i*P		**Pn**	**00 28 29.4**	**+1.7**
BOOM				⇓*i*S		**Sn**	**00 29 15.8**	**+2.4**
KK31	**Karatay Array** 3.0nm,0.2s,baz=151,slow=13,SNR=66	**3.84**	**336**	Pn		**Pn**	**00 28 30.6**	**+3.0**
KK31	12nm,0.3s,baz=154,slow=26,SNR=9.2			⇑Sn		**Sb**	**00 29 19.8**	**-3.2**
USP	**Ospenovka**	**3.93**	**21**	⇑*i*P		**Pn**	**00 28 31.1**	**+2.2**
USP				⇑*i*S		**Sn**	**00 29 18.7**	**+3.0**
TKM2	**Tokmak 2**	**4.01**	**33**	⇑*i*P		**Pn**	**00 28 32.0**	**+1.9**
TKM2				⇑*i*S		**Sn**	**00 29 20.4**	**+2.5**
KST	**Kastek** 2.1nm,0.2s	**4.27**	**35**	Pg		**Pg**	**00 28 46.2**	**-3.0**
KST	23nm,1.0s			Lg	Lg		00 29 47.6	
KST	**Kastek** 3.1nm,0.5s	**4.27**	**35**	*e*P		**Pg**	**00 28 51.0**	**+1.8**
KST	19nm,0.6s			*e*S		**Sg**	**00 29 43.2**	**-1.3**
KDJ	**Kajisay**	**4.29**	**52**	⇑*i*P		**Pn**	**00 28 35.6**	**+1.6**
KDJ				⇑*i*S		**Sn**	**00 29 26.3**	**+1.6**
DGS	**Degeres** 2.4nm,0.3s	**4.35**	**32**	Pg		**Pb**	**00 28 46.6**	**+2.0**
DGS	16nm,0.3s			Lg	Lg		00 29 48.5	
DGS	**Degeres** 5.6nm,0.6s	**4.35**	**32**	*e*P		**Pg**	**00 28 51.4**	**+0.7**
DGS	17nm,0.6s			*e*S		**Sg**	**00 29 43.8**	**-3.2**
IZV	**Izvestkoviy** 1.4nm,0.2s	**4.57**	**40**	*e*P		**Pg**	**00 28 58.0**	**+3.0**
IZV	29nm,0.6s			*e*S		**Sg**	**00 29 55.0**	**+0.9**
KRBS	**Karabastau** 2.9nm,0.4s	**4.69**	**28**	Pg		**Pb**	**00 28 52.7**	**+2.2**
KRBS	19nm,0.5s			Lg	Lg		00 29 58.9	
KRBS	**Karabastau** 3.7nm,0.4s	**4.69**	**28**	*e*P		**Pg**	**00 28 57.6**	**+0.3**
KRBS	20nm,0.7s			*e*S		**Sg**	**00 29 54.7**	**-3.5**
TNSS	**Tian-Shan** 1.5nm,0.5s	**4.74**	**42**	*e*P		**Pg**	**00 29 00.1**	**+1.9**
TNSS	4.2nm,0.8s			*e*S		**Sg**	**00 29 59.6**	**-0.1**
MDOK	**Medeo** 3.0nm,0.4s	**4.88**	**42**	Pg		**Pb**	**00 28 54.5**	**+0.8**
MDOK	13nm,0.6s			Lg	Lg		00 30 02.5	
KOTS	**Kotyrbulak** 5.1nm,0.5s	**4.96**	**42**	*e*P		**Pg**	**00 29 04.8**	**+2.3**
KOTS	31nm,0.7s			*e*S		**Sg**	**00 30 06.7**	**-0.2**
SATY	**Saty** 4.4nm,0.5s	**5.57**	**50**	*e*P		**Pg**	**00 29 15.5**	**+1.5**
SATY	8.4nm,0.7s			*e*S		**Sg**	**00 30 25.0**	**-1.2**
KPKS	**Kokpek** 0.4nm,0.2s	**5.97**	**48**	*e*P		**Pg**	**00 29 24.5**	**+2.7**
KPKS	3.9nm,0.6s			*e*S		**Sg**	**00 30 40.4**	**+1.1**
UZB	**Uzynbulak** 3.0nm,0.3s	**5.99**	**52**	*e*P		**Pg**	**00 29 24.6**	**+2.5**
UZB	5.8nm,0.6s			*e*S		**Sg**	**00 30 40.5**	**+0.8**
ARXS	**Arharly** 4.2nm,0.8s	**6.03**	**38**	*e*P		**Pg**	**00 29 24.0**	**+1.0**
ARXS	11nm,0.6s			*e*S		**Sg**	**00 30 40.2**	**-0.9**
MKAR	**Makanchi Array** 0.1nm,0.3s,baz=228,slow=15,SNR=1.8	**10.08**	**41**	Pn		**Pn**	**00 29 55.0**	**+1.8**
MKAR	0.4nm,0.8s			AML	AML			
BVAR	**Borovoye Array** baz=168,slow=10,SNR=3.1	**13.52**	**354**	Pn		**Pn**	**00 30 40.6**	**+0.4**
ZALV	0.5nm,0.5s			AML	AML			
ZALV	**Zalesovo Beam** 0.1nm,0.3s,baz=220,slow=11,SNR=4.3	**16.57**	**26**	Pn		**P**	**00 31 20.9**	**-2.6**
ZALV	0.9nm,0.6s			AML	AML			
SONM	**Songino Array** 0.4nm,0.5s,baz=267,slow=8.8,SNR=4.8	**25.61**	**60**	P		**P**	**00 32 56.8**	**-1.4**
BRTR	**Keskin Array B** 0.2nm,0.5s,baz=85,slow=10,SNR=1.5	**29.84**	**283**	P		**P**	**00 33 35.4**	**-0.8**
FINES	**FINESS Array B** 1.2nm,0.8s,baz=102,slow=8.4,SNR=3.4	**35.69**	**323**	P		**P**	**00 34 26.9**	**0.0**
ARCES	**ARCESS Array B** 1.1nm,0.8s,baz=116,slow=8.2,SNR=3.8	**38.81**	**336**	P		**P**	**00 34 53.4**	**+0.1**
	1.1nm,0.8s							

IDC 27 01:05:10.9±2.8, 6.52S×129.48E, h94km±37km, mb3.6/1, mbtmp3.8/5, MS2.9/1, Error ellipse: s-maj=60.4km s-min=20.4km az=95.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SIJI	**Sorong** 11nm,0.2s,baz=200,slow=22,SNR=6.7	**5.88**	**18**	P		Pn	01 06 35.5	-0.2
SIJI	11nm,0.2s,baz=312,slow=24,SNR=2.2			S		Sn	01 07 34.8	-7.0
FITZ	**Fitzroy Crossi** 3.3nm,1.0s,baz=25,slow=14,SNR=17	**12.11**	**198**	P		Pn	01 08 01.7	+1.5
FITZ	1.3nm,0.6s,baz=339,slow=15,SNR=1.3			S		Sn	01 10 12.6	-0.8
WRA	**Warramunga Arr** 0.3nm,0.3s,baz=341,slow=12,SNR=18	**14.15**	**161**	P		Pn	01 08 25.3	-1.9
WRA	0.9nm,0.4s,baz=337,slow=22,SNR=9.2			S		Sn	01 10 54.7	-8.4
ASAR	**Alice Springs** 0.9nm,0.5s,baz=352,slow=12,SNR=8.9	**17.57**	**166**	P		Pn	01 09 10.3	+0.3
PALK	**Pallekele** comp=Z,13nm,20.1s,baz=67,slow=36	**50.55**	**285**	LR		LR	01 35 41.1	
MKAR	**Makanchi Array** 0.7nm,0.5s,baz=112,slow=7.3,SNR=9.3	**67.54**	**327**	P		P	01 15 57.3	0.0
	0.7nm,0.5s							

IDC 27 01:07:33.5±7.2, 12.34N×141.67E, h0km, mb3.5/5, mbtmp3.5/5, Error ellipse: s-maj=311.9km s-min=32.2km az=81.0, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr** 0.5nm,0.8s,baz=13,slow=8.9,SNR=2.7	**32.88**	**193**	P		P	01 14 09.5	0.0
SONM	**Songino Array** 0.4nm,0.7s,baz=116,slow=9.8,SNR=1.9	**46.02**	**327**	P		P	01 15 59.7	+0.8
MKAR	**Makanchi Array** 0.1nm,0.7s,baz=97,slow=6.9,SNR=2.2	**60.25**	**317**	P		P	01 17 44.5	+0.8
KURBB	**Kurchatov Arra** 0.6nm,0.7s,baz=105,slow=6.4,SNR=6.3	**63.58**	**321**	P		P	01 18 05.4	-0.6
BVAR	**Borovoye Array** 0.8nm,0.7s,baz=102,slow=6.2,SNR=4.9	**68.98**	**322**	P		P	01 18 40.0	-0.6
	0.8nm,0.7s							

CATAC ***27*** *01:15:03.2±0.3, 14°N±2°×8°8W±°, h3km±1km, M2.9/14, MLv2.9/14, Error ellipse: s-maj=3.6km s-min=2.8km az=29.0, confirmed*
GCG ***27*** *01:15:04.6±0.9, 14°55N×88°49W, h29km±5km, MD3.7, Presumed earthquake*
ISC 27 01:15:01.3±1.3, 14.53N±0.05×88.42W±0.03, h16km±10km, n26, σ0s58/42, Honduras

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time h m s	Res ISC
SARH	**Santa Rosa de**	**0.41**	**307**	P		**Pn**	**01 15 12.6**	**0.0**
SARH				S		**Sn**	**01 15 19.2**	**-0.8**
SARH	**Santa Rosa de**	**0.41**	**307**	*i* P		**Pn**	**01 15 12.7**	**0.0**
SARH				*i* S		**Sn**	**01 15 19.0**	**-1.0**
ESQI	**Esquipulas**	**0.90**	**272**	P		**Pn**	**01 15 20.7**	**+1.4**
ESQI				S		**Sn**	**01 15 32.9**	**+0.9**
MTO3	**Montecristo**	**0.92**	**262**	P		**Pn**	**01 15 20.4**	**+0.7**
MTO3				S		**Sn**	**01 15 33.4**	**+0.6**
MTO3	**Montecristo**	**0.92**	**262**	*i* P		**Pn**	**01 15 20.5**	**+0.7**
PAVA	**Las Pavas**	**0.95**	**212**	P		**Pg**	**01 15 19.8**	**0.0**
PAVA				S		**Sg**	**01 15 32.2**	**-0.1**
COEG	**Centro de Oper**	**1.01**	**206**	S		**Sb**	**01 15 33.3**	**-0.1**
TECO	**Alcaldia de Te**	**1.05**	**200**	P		**Pb**	**01 15 20.8**	**-0.2**
TECO				S		**Sb**	**01 15 34.1**	**-0.3**
RANC	**El Ranchito**	**1.09**	**173**	P		**Pg**	**01 15 22.6**	**+0.1**
RANC				S		**Sb**	**01 15 34.5**	**-1.5**
UEES	**Universidad Ev**	**1.13**	**225**	P		**Pg**	**01 15 23.1**	**-0.1**
UEES				S		**Sg**	**01 15 37.8**	**-0.2**
LOMA	**Loma Larga**	**1.14**	**220**	P		**Pg**	**01 15 23.3**	**-0.1**
LOMA				S		**Sg**	**01 15 38.0**	**-0.4**
PANCS	**Alcalda de**	**1.17**	**219**	S		**Sb**	**01 15 38.0**	**-0.2**
PMON	**Piamonte**	**1.19**	**227**	P		**Pg**	**01 15 24.5**	**+0.2**
PMON				S		**Sg**	**01 15 40.0**	**+0.2**
TGUH	**Tegucigalpa,Un**	**1.20**	**113**	P		**Pg**	**01 15 24.9**	**+0.3**
TGUH				S		**Sg**	**01 15 41.3**	**+1.0**
UNIC	**Universidad Ca**	**1.22**	**244**	P		**Pg**	**01 15 25.1**	**+0.2**
UNIC				S		**Sg**	**01 15 41.3**	**+0.4**
JAYA	**Jayaque - finc**	**1.32**	**229**	P		**Pb**	**01 15 26.1**	**+0.3**
JAYA				S		**Sg**	**01 15 43.5**	**-0.7**
JAYA	**Jayaque - finc**	**1.32**	**229**

SLOZ	**Alcaldia de Sa**	**1.42**	**250**	P	**Pg**	**01 15 28.5**	**-0.1**
LOAL	**Lomas de Alarc**	**1.42**	**248**	S	**Sg**	**01 15 47.9**	**+0.6**
NUBE	**Las Nubes**	**1.46**	**245**	P	**Pg**	**01 15 28.8**	**-0.6**
NUBE				S	**Sg**	**01 15 48.3**	**-0.2**
NUBE	**Las Nubes**	**1.46**	**245**	*i* P	**Pg**	**01 15 29.0**	**-0.4**
NUBE				*i* S	**Sg**	**01 15 47.6**	**-0.9**
FAME	**Alcaldia de Sa**	**1.69**	**246**	P	**Pb**	**01 15 32.3**	**+0.3**
OCON	**Estacion meteo**	**2.08**	**115**	P	**Pb**	**01 15 38.3**	**-0.4**
LIMN	**Finca el Limon**	**2.47**	**126**	S	**Sb**	**01 16 15.1**	**-0.4**

*IDC **27** 01:20:01.0±4.3,2.67S×101.59E, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=179.9km s-min=25.4km az=57.0*

*DJA **27** 01:20:24.7±0.5,2.5S×7.1×10.2E±, h182km±6km, M3.5/15, MLv3.5/15*

ISC 27 01:20:24.1±0.9, 2.5S±0.1×102.1E±0.1, h200km, n13, σ0§68/12, mb3.2/4, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRJI	**Kerinci**	**0.74**	**302**	P	**Pn**	**01 20 51.9**	**-0.5**
KRJI				AML	AML		
KSI	**Kapahiang**	**1.26**	**156**	P	**Pn**	**01 20 56.0**	**+0.1**
KSI				S	**Sn**	**01 21 20.6**	**0.0**
KSI				AML	AML		
LHSI	**Lahat**	**1.95**	**133**	P	**Pn**	**01 21 02.0**	**-0.2**
LHSI				AML	AML		
MNAI	**Manna**	**2.05**	**155**	P	**Pn**	**01 21 03.3**	**+0.1**
MNAI				S	**Sn**	**01 21 33.0**	**-0.7**
MNAI				AML	AML		
MDSI	**Maura Dua**	**2.88**	**134**	P	**Pn**	**01 21 11.9**	**-0.4**
MDSI				AML	AML		
SISI	**Saibi**	**3.21**	**291**	P	**Pn**	**01 21 16.4**	**+0.1**
H08S2	**Diego Garcia H**	**29.91**	**259**	T	T	01 55 53.8	
	baz=86						
H08S3	**Diego Garcia H**	**29.92**	**259**	T	T	01 55 53.2	
	baz=86						
H08S1	**Diego Garcia H**	**29.93**	**259**	T	T	01 55 53.8	
	baz=86						
WRA	**Warramunga Arr**	**35.95**	**121**	P	**P**	**01 27 06.0**	**+0.1**
	0.2nm,0.3s,baz=298,slow=9.5,SNR=2.4						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**37.29**	**127**	P	**P**	**01 27 17.9**	**+0.7**
	0.6nm,0.5s,baz=305,slow=8.6,SNR=6.9						
	0.6nm,0.5s						
SONM	**Songino Array**	**50.26**	**4**	P	**P**	**01 29 01.3**	**+1.2**
	0.4nm,0.5s,baz=182,slow=7.7,SNR=4.0						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**52.09**	**343**	P	**P**	**01 29 12.4**	**-1.2**
	0.3nm,0.5s,baz=159,slow=8.7,SNR=5.1						
	0.3nm,0.5s						

NEIC 27 01:34:36.2±1.2, 15.27S±0.10×72.99W±0.09, h101km±18km, mb4.0/7, Error ellipse: s-maj=18.0km s-min=4.8km az=221.0, Southern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB18	**Visviri**	**4.08**	**125**		Pn	01 35 37.3	+0.3
PB12	**IPOC Station P**	**4.19**	**143**		Pn	01 35 38.3	+0.2
PB12				Sn	Sn	01 36 23.8	-2.2
PB16	**IPOC Station P**	**4.52**	**133**		Pn	01 35 44.2	+1.3
PB16				Sn	Sn	01 36 34.4	-0.4
LPAZ	**La Paz**	**4.79**	**103**		Pn	01 35 46.6	0.0
NNA	**Nana**	**4.96**	**311**		Pn	01 35 48.7	+0.2
PSGCX	**Pisagua**	**5.10**	**148**		Pn	01 35 50.0	-0.4
PB11	**IPOC Station P**	**5.49**	**145**		Pn	01 35 55.4	-0.2
GO01	**Chusmiza**	**5.68**	**141**		Pn	01 35 59.0	+0.4
TA01	**Diego Aracena**	**5.91**	**153**	Pn	Pn	01 36 00.7	-0.5
PB08	**IPOC Station P**	**6.07**	**143**		Pn	01 36 03.5	-0.3
PB01	**IPOC Station P**	**6.64**	**150**		Pn	01 36 10.8	-0.5
PB02	**IPOC Station P**	**6.70**	**154**		Pn	01 36 11.4	-0.7
CZSB	**Cruzeiro do Su**	**7.50**	**2**		Pn	01 36 17.0	-5.9
PB05	**IPOC Station P**	**7.99**	**161**	Pn	Pn	01 36 28.1	-1.6
PB14	**IPOC Station P**	**9.62**	**166**	Pn	Pn	01 36 49.9	-2.1
AC02	**Maricunga**	**12.06**	**163**	Pn	Pn	01 37 25.0	-0.1
BOAV	**Boa Vista**	**21.46**	**36**	P	P	01 39 10.5	-6.1
ITAB	**Concordia**	**22.76**	**125**	P	P	01 39 29.4	-0.6
ITAB				IAmb	IAmb	01 39 37.8	
	comp=Z,6.8nm,1.0s						
GO06	**Curarrehue**	**24.26**	**177**	P	P	01 39 44.2	+0.2
GO06				IAmb	IAmb	01 39 49.4	
	comp=Z,5.3nm,0.8s						
LR05	**Currie**	**24.88**	**178**	P	P	01 39 50.2	+0.8
LR05				IAmb	IAmb	01 39 58.3	
	comp=Z,10nm,1.1s						
PLCA	**Paso Flores**	**25.46**	**176**	P	P	01 39 55.1	+0.4
PLCA				IAmb	IAmb	01 39 58.8	
	comp=Z,3.2nm,1.1s						
SMTB	**Santa Maria do**	**25.63**	**79**	P	P	01 39 55.5	-1.0
SMTB				IAmb	IAmb	01 40 22.8	
	comp=Z,5.8nm,1.2s						
LL05	**Los Muermos**	**26.05**	**181**	P	P	01 39 59.0	-1.0

*NEIC **27** 01:47:19.4±1.7, 19.3S±0.1×65.49E±0.10, h10km±1km, mb4.7/30, Error ellipse: s-maj=21.7km s-min=14.7km az=164.0*

*IDC **27** 01:47:20.5±0.5, 18.82S×65.44E, h0km, mb4.3/25, mbtmp4.3/26, ML4.0/1, MS3.9/44, Error ellipse: s-maj=18.8km s-min=13.1km az=64.0*

*GFZ **27** 01:47:21.1±0.2, 19.2S±6.6×6.6E±, h10km, M4.8/18, mb4.8/18*

*GCMT **27** 01:47:23.4±0.3, 18.75S±0.04×65.34E±0.03, h16km±1km, MW4.8/79, Moment Tensor Solution. s18,c18; s79,c103; Duration: 0 Moment tensor: Scale 10¹⁶Nm; M_{rr}=2.31±.17; $M_{\theta\theta}$=1.00±.12; $M_{\phi\phi}$=1.31±.11; $M_{r\theta}$=-0.60±.41; $M_{r\phi}$=-0.37±.07; $M_{\theta\phi}$=0.66±.32; Best double couple: M_o=2.12800×10¹⁶ NP1:ϕs=327.00000°,δ33.00000°,λ-86.00000°. NP2: ϕs=143.00000°,δ57.00000°,λ-92.00000°. Principal axes: T 1.7470, Plg12.0000°, Azm235.0000°; N 0.7590, Plg2.0000°, Azm144.0000°; P -2.5090, Plg77.0000°, Azm45.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 27 01:47:19.9±0.4, 19.19S±0.09×65.50E±0.07, h10km, n226, σ1§20/182, mb4.6/100, MS3.9/43, 19C-15D, Mauritius-Reunion region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROCAM	**Rodrigues Isla**	**2.09**	**254**		**Pn**	**01 47 53.6**	**-1.3**
RER	**Riviere de l'E**	**9.37**	**256**		**Pn**	**01 49 33.9**	**-1.3**
RER	**Riviere de l'E**	**9.37**	**256**	P	**Pn**	**01 49 37.2**	**+2.1**
	comp=Z,83nm,0.8s						
H08S1	**Diego Garcia H**	**13.33**	**31**	T	T	02 03 44.8	
	baz=211,slow=75,SNR=206						
H08S2	**Diego Garcia H**	**13.34**	**32**	T	T	02 03 46.0	
	baz=211,slow=75,SNR=97						
H08S3	**Diego Garcia H**	**13.35**	**31**	T	T	02 03 48.4	
	baz=211,slow=75,SNR=202						
ABPO	**Ambohimpanom**	**17.27**	**268**		**Pn**	**01 51 20.4**	**-1.1**
ABPO	**Ambohimpanom**	**17.27**	**268**	P	**P**	**01 51 23.4**	**+0.4**
	comp=Z,14nm,0.9s						
OPO	**Ambohidratompo**	**17.34**	**269**	P	**P**	**01 51 23.1**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=60,slow=18,SNR=4.6						
OPO				LR	LR	01 55 38.9	
	comp=Z,180nm,19.9s,baz=264,slow=29						
	comp=Z,4.7nm,0.8s						
OPO				AML	AML		
VOI	**Vohitsoka**	**17.73**	**258**	P	**Pn**	**01 51 25.4**	**-1.7**
H04N2	**CROZET ISLANDS**	**29.18**	**200**	T	T	02 24 30.3	
	baz=28,slow=74,SNR=1537						
H04N1	**CROZET ISLANDS**	**29.18**	**200**	T	T	02 24 31.7	
	baz=28,slow=74,SNR=888						
H04N3	**CROZET ISLANDS**	**29.20**	**200**	T	T	02 24 30.0	
	baz=28,slow=74,SNR=774						
PALK	**Pallekele**	**30.27**	**31**	LR	LR	02 03 14.5	
	comp=Z,185nm,18.2s,baz=214,slow=32						
COCO	**West Island**	**30.92**	**82**	P	**P**	**01 53 35.4**	**-1.7**
	comp=Z,193nm,2.5s						
KMBO	**Kilima Mbogo**	**32.99**	**300**	LR	LR	02 05 25.2	
	comp=Z,224nm,19.2s,baz=84,slow=33						
MATP	**Matopo**	**34.79**	**262**	LR	LR	02 06 53.6	
	comp=Z,1μm,18.9s,baz=106,slow=34						
SNSI	**Sinabang, Aceh**	**37.13**	**58**	P	**P**	**01 54 29.2**	**-1.8**
	comp=Z,35nm,1.1s						
LODK	**Lodwar**	**37.20**	**304**	P	**P**	**01 54 30.5**	**-1.2**
	comp=Z,3.0nm,2.0s						
PBSI	**Pulau Batu**	**37.35**	**63**	P	**P**	**01 54 32.7**	**-0.2**
	comp=Z,102nm,1.1s						
SISI	**Saibi**	**37.38**	**66**	P	**P**	**01 54 30.6**	**-2.6**
	comp=Z,42nm,1.3s						
BOSA	**Boshof**	**37.82**	**248**	LR	LR	02 07 27.4	
	comp=Z,164nm,20.9s,baz=72,slow=32						
MBAR	**Mbarara**	**38.76**	**294**	LR	LR	02 08 16.3	
	comp=Z,132nm,21.5s,baz=116,slow=33						
SDSI	**Sungai Dareh**	**39.60**	**67**	P	**P**	**01 54 51.7**	**-0.2**
	comp=Z,9.2nm,0.8s						
SUR	**Sutherland**	**42.04**	**243**	LR	LR	02 09 53.3	
	comp=Z,207nm,18.4s,baz=100,slow=32						
LEM	**Lembang**	**42.71**	**79**	LR	LR	02 09 13.2	
	comp=Z,248nm,21.5s,baz=260,slow=31						
KPJI	**Karang Pucung**	**43.76**	**80**	P	**P**	**01 55 25.6**	**-0.3**
	comp=Z,6.5nm,1.2s						
YOGI	**Yogyakarta**	**44.87**	**82**	P	**P**	**01 55 33.6**	**-1.2**
	comp=Z,3μm,1.5s						
TSUM	**Tsumeb**	**45.14**	**262**	LR	LR	02 13 51.7	
	comp=Z,207nm,18.1s,baz=85,slow=35						
NWAO	**Narrogin (SRO)**	**48.00**	**117**	LR	LR	02 11 40.8	
	comp=Z,120nm,21.1s,baz=232,slow=30						
MAW	**Mawson**	**48.42**	**181**	P	P	01 56 08.0	+6.1
	comp=Z,7.0nm,0.8s,baz=353,slow=9.0,SNR=14						
MAW				LR	LR	02 12 59.1	
	comp=Z,66nm,18.4s,baz=6.5,slow=32						
	comp=Z,7.0nm,0.8s						
MAW	**Mawson**	**48.42**	**181**		**P**	**01 55 57.4**	**-4.5**
BRDH	**Bariadhala**	**48.83**	**33**	LR	LR	02 16 50.2	
	comp=Z,147nm,18.4s,baz=292,slow=36						
CMAR	**Chiang Mai Arr**	**49.78**	**43**	P	**P**	**01 56 14.0**	**+1.0**
	comp=Z,1.1nm,0.3s,baz=237,slow=8.0,SNR=11						
CMAR				LR	LR	02 13 44.7	
	comp=Z,124nm,21.8s,baz=225,slow=32						
	comp=Z,1.1nm,0.3s						
CMAR	**Chiang Mai Arr**	**49.78**	**43**	P	**P**	**01 56 12.1**	**-0.9**
EVN	**Everest**	**51.21**	**24**	P	**P**	**01 56 22.8**	**-1.6**
EVN				IAmb	IAmb	01 56 37.3	
	comp=Z,8.5nm,1.1s						
SHL	**Shillong**	**51.36**	**31**	P	**P**	**01 56 23.6**	**-1.4**
MORE	**Moreh**	**51.49**	**34**	P	**P**	**01 56 26.0**	**+0.3**
KBL	**Kabul**	**53.54**	**4**	P	**P**	**01 56 41.1**	**0.0**
KBL				IAmb	IAmb	01 56 42.5	
	comp=Z,7.2nm,1.1s						
KBL	**Kabul**	**53.54**	**4**	P	**P**	**01 56 40.9**	**-0.2**
	comp=Z,6.2nm,1.0s						
KAPI	**Kappang**	**54.66**	**82**	LR	LR	02 17 59.0	
	comp=Z,52nm,20.1s,baz=264,slow=34						
FITZ	**Fitzroy Crossi**	**56.74**	**99**	P	P	01 57 08.8	+4.4
	comp=Z,3.0nm,1.0s,baz=251,slow=13,SNR=1.9						
FITZ				LR	LR	02 20 13.6	
	comp=Z,108nm,18.6s,baz=260,slow=35						
	comp=Z,3.0nm,1.0s						
BATI	**Baumata**	**56.75**	**90**	LR	LR	02 17 01.4	
	comp=Z,88nm,21.9s,baz=253,slow=31						
EIL	**Elat**	**56.81**	**328**	LR	LR	02 18 10.3	
	comp=Z,75nm,19.6s,baz=130,slow=33						
TOLI2	**Tolitoli**	**57.87**	**76**	P	**P**	**01 57 09.9**	**-2.5**
TOLI2				IAmb	IAmb	01 57 23.0	
	comp=Z,7.0nm,0.9s						
ASF	**Jabal al Asfar**	**57.96**	**331**	LR	LR	02 19 06.7	
	comp=Z,60nm,20.5s,baz=205,slow=33						
KSH2	**Kashi**	**58.79**	**9**	P	**P**	**01 57 18.0**	**-0.5**
KSH2				pP	sP	01 57 23.0	+1.3
KSH2				pmax	pmax		
	comp=Z,9.0nm,1.0s						
LUWI	**Luwuk**	**58.88**	**79**	P	**P**	**01 57 16.8**	**-2.6**
ARSB	**Arslanbob**	**60.60**	**6**	P	**P**	**01 57 30.4**	**-0.6**
ARSB				IAmb	IAmb	01 57 38.1	
	comp=Z,12nm,1.3s						
AAK	**Ala-Archa**	**62.08**	**8**	LR	LR	02 23 07.4	
	comp=Z,80nm,20.3s,baz=198,slow=35						
GNI	**Garni**	**62.13**	**342**	LR	LR	02 21 47.3	
	comp=Z,49nm,21.3s,baz=54,slow=34						
GNI	**Garni**	**62.13**	**342**		**P**	**01 57 41.7**	**+0.4**
GNI	**Garni**	**62.13**	**342**	P	**P**	**01 57 40.7**	**-0.6**
	comp=Z,12nm,0.9s						
KK31	**Karatay Array**	**62.16**	**4**	P	**P**	**01 57 40.9**	**-0.3**
KKAR	**Karatay Array**	**62.16**	**4**	P	**P**	**01 57 41.1**	**-0.2**
ASAR	**Alice Springs**	**63.29**	**107**	P	**P**	**01 57 52.0**	**+2.6**
	comp=Z,1.8nm,0.8s,baz=263,slow=6.1,SNR=13						
ASAR				LR	LR	02 21 36.6	
	comp=Z,366nm,21.1s,baz=277,slow=32						
	comp=Z,1.8nm,0.8s						
ASAR	**Alice Springs**	**63.29**	**107**	P	**P**	**01 57 48.2**	**-1.2**
PDGK	**Podgornoye**	**63.53**	**11**		**P**	**01 57 50.2**	**-0.3**
WRA	**Warramunga Arr**	**64.42**	**103**	P	**P**	**01 57 59.9**	**+3.1**
	comp=Z,4.4nm,0.9s,baz=257,slow=5.5,SNR=8.5						
	comp=Z,2.4nm,0.9s						
WR8	**Warramunga Arr**	**64.56**	**103**	P	**P**	**01 57 57.8**	**0.0**
WR8				IAmb	IAmb	01 58 06.5	
	comp=Z,12nm,1.5s						
DAV	**Davao City (W)**	**64.66**	**72**	LR	LR	02 23 51.4	
	comp=Z,104nm,21.2s,baz=320,slow=34						
KARP	**Karpathos**	**65.46**	**326**	P	**P**	**01 58 02.8**	**-0.4**
	comp=Z,27nm,1.4s						
BR104	**Kesin Array S**	**65.72**	**333**	P	**P**	**01 58 04.1**	**-0.8**
	comp=Z,1.6nm,1.1s						
BRTR	**Keskin Array B**	**65.73**	**333**	P	**P**	**01 58 05.8**	**+0.8**
	comp=Z,1.3nm,0.8s,baz=155,slow=9.0,SNR=7.7						
BRTR				LR	LR	02 27 01.0	
	comp=Z,44nm,18.1s,baz=70,slow=36						
	comp=Z,1.3nm,0.8s						
BR105	**Keskin Array S**	**65.73**	**333**	P	**P**	**01 58 04.1**	**-0.9**
	comp=Z,2.1nm,1.1s						
BR106	**Keskin Array S**	**65.75**	**333**	P	**P**	**01 58 04.4**	**-0.7**
	comp=Z,1.9nm,1.0s						
LZH	**Lanzhou**	**65.87**	**33**	*e*P	P	01 58 12.0	+6.0
LZH				sP	pwP	01 58 18.0	+6.4
LZH				pmax	pmax		
	comp=Z,21nm,1.1s						
KBZ	**Khabaz**	**65.96**	**342**	P	**P**	**01 58 07.0**	**+0.9**
	comp=Z,1.1nm,0.8s,baz=173,slow=3.8,SNR=5.2						
KBZ				LR	LR	02 27 24.2	
	comp=Z,51nm,18.5s,baz=310,slow=37						
	comp=Z,1.1nm,0.8s						
KIV	**Kislovodsk**	**66.23**	**342**		**P**	**01 58 08.2**	**+0.2**
KIV	**Kislovodsk**	**66.23**	**342**	P	**P**	**01 58 07.3**	**-0.7**
	comp=Z,7.0nm,1.1s						
KIV	**Kislovodsk**	**66.23**	**342**	P	**P**	**01 58 09.4**	**+1.4**
	comp=Z,9.0nm,1.1s						
VNA2	**Neumayer--Watz**	**66.42**	**200**	⇑P	P	01 58 14.8	+5.9
	comp=Z,4.5nm,0.7s,baz=76,slow=7.2						
VNA2	**Neumayer--Watz**	**66.42**	**200**	P	P	01 58 13.0	+4.1
	comp=Z,8.5nm,0.9s						
GTA2	**Gaotai**	**66.58**	**28**	*e*P	**P**	**01 58 10.5**	**+0.1**
GTA2				pP	pwP	01 58 15.5	-0.9
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.4s						
VNA1	**Neumayer--Stat**	**66.66**	**200**	⇑P	P	01 58 14.5	+4.1
	comp=Z,3.6nm,0.8s						
XAN	**Xi'an**	**67.17**	**38**	P	**P**	**01 58 15.0**	**+0.8**
XAN				pP	pwP	01 58 20.0	+0.2
XAN				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VNA3	**Neumayer Olymp**	**67.20**	**200**	⇑P	P	01 58 20.1	+6.2
	comp=Z,5.0nm,0.8s						
VNA3	**Neumayer Olymp**	**67.20**	**200**	P	**P**	**01 58 17.6**	**+3.7**
	comp=Z,10nm,0.9s						
MAKZ	**Makanchi**	**67.35**	**12**	P	**P**	**01 58 14.6**	**-0.5**
MAKZ				IAmb	IAmb	01 58 17.8	
	comp=Z,10nm,1.4s						
MKAR	**Makanchi Array**	**67.40**	**12**	P	**P**	**01 58 15.2**	**-0.1**
	comp=Z,1.6nm,0.9s,baz=208,slow=6.9,SNR=7.6						
MKAR				LR	LR	02 25 51.7	
	comp=Z,55nm,18.8s,baz=202,slow=34						
	comp=Z,1.6nm,0.9s						
MKAR	**Makanchi Array**	**67.40**	**12**	P	**P**	**01 58 14.5**	**-0.8**
AB31	**Akbulak array**	**68.32**	**356**		**P**	**01 58 20.4**	**-0.6**
ABKAR	**Akbulak array**	**68.32**	**356**	P	**P**	**01 58 20.7**	**-0.3**
STKA	**Stephens Creek**	**68.59**	**117**	P	**P**	**01 58 26.4**	**+3.1**
	comp=Z,1.4nm,0.6s,baz=305,slow=7.8,SNR=3.5						
STKA				LR	LR	02 23 50.0	
	comp=Z,121nm,21.4s,baz=210,slow=32						
	comp=Z,1.4nm,0.6s						
KLYT	**Kilyos**	**68.99**	**331**	P	**P**	**01 58 24.7**	**-0.7**
	comp=Z,25nm,1.1s						
KURBB	**Kurchatov Arra**	**70.45**	**9**	P	**P**	**01 58 33.8**	**-0.4**
	comp=Z,1.5nm,0.2s,baz=204,slow=6.8,SNR=10						
KURBB				LR	LR	02 26 10.6	
	comp=Z,123nm,21.4s,baz=178,slow=33						
	comp=Z,1.5nm,0.2s						
KURK	**Kurchatov**	**70.56**	**9**	P	**P**	**01 58 33.3**	**-1.5**
KURK				IAmb	IAmb	01 58 41.1	
	comp=Z,5.3nm,0.9s						
KURK	**Kurchatov**	**70.56**	**9**	P	**P**	**01 58 34.1**	**-0.8**
	comp=Z,7.4nm,0.9s						
QSPA	**South Pole Qui**	**70.91**	**180**	P	P	01 58 41.3	+4.2
	comp=Z,7.6nm,0.8s,baz=249,slow=2.2,SNR=21						
	comp=Z,7.6nm,0.8s						
QSPA	**South Pole Qui**	**70.91**	**180**	P	**P**	**01 58 38.5**	**+1.3**
TIRR	**Tirgusor**	**71.83**	**333**	⇓P	**P**	**01 58 43.9**	**+1.1**
TIRR	**Tirgusor**	**71.83**	**333**	P	**P**	**01 58 42.6**	**-0.1**
	comp=Z,9.1nm,0.9s						
BVAR	**Borovoye Array**	**72.04**	**3**	P	**P**	**01 58 43.9**	**+0.1**
	comp=Z,4.1nm,0.8s,baz=167,slow=6.3,SNR=16						
	comp=Z,4.1nm,0.8s						
BORK	**Borovoye**	**72.06**	**3**		**P**	**01 58 43.5**	**-0.3**
BORK				IAmb	IAmb	01 58 50.4	
	comp=Z,5.5nm,0.8s						
NJ2	**Nanjing**	**72.15**	**46**	*e*P	**P**	**01 58 46.5**	**+1.6**
NJ2				pmax	pmax		
	comp=Z,11nm,1.2s						
CFR	**Carcaliu**	**72.53**	**333**	⇓P	**P**	**01 58 48.1**	**+1.3**
PLVB	**Pleven**	**72.71**	**330**	⇑P	**P**	**01 58 49.2**	**+1.2**
VNDA	**Vanda**	**72.77**	**167**	P	P	01 58 52.7	+4.7
	comp=Z,2.2nm,0.9s,baz=268,slow=6.4,SNR=9.4						
VNDA				LR	LR	02 27 14.2	
	comp=Z,63nm,18.5s,baz=330,slow=33						
	comp=Z,2.2nm,0.9s						
VNDA	**Vanda**	**72.77**	**167**	P	**P**	**01 58 46.8**	**-1.1**
VNDA	**Vanda**	**72.77**	**167**	P	P	01 58 52.1	+4.1
	comp=Z,5.2nm,1.1s						
HNS	**HongShan**	**72.89**	**39**	⇑P	**P**	**01 58 51.0**	**+1.8**
HNS				pmax	pmax		
	comp=Z,9.0nm,1.2s						
BELG	**Belogornoye**	**72.96**	**349**	P	**P**	**01 58 49.5**	**+0.2**
	comp=Z,9.6nm,1.0s,baz=218,slow=12,SNR=4.9						
	comp=Z,9.6nm,1.0s						
ISR	**Istrita**	**73.17**	**332**	⇑P	**P**	**01 58 52.8**	**+2.1**
ISR	**Istrita**	**73.17**	**332**	P	**P**	**01 58 50.1**	**-0.7**
	comp=Z,13nm,1.1s						
HHC	**Hu-ho-hao-te**	**73.47**	**35**	*e*P	**P**	**01 58 53.5**	**+0.8**
HHC				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,110nm,4.2s						
NEHR	**Nehoiu**	**73.52**	**332**	⇑P	**P**	**01 58 54.0**	**+1.2**
GHRR		**73.54**	**333**	P	**P**	**01 58 52.1**	**-0.7**
VRI	**Vrincioaia**	**73.67**	**333**	⇑P	**P**	**01 58 55.6**	**+1.9**
VRI	**Vrincioaia**	**73.67**	**333**	P	**P**	**01 58 53.9**	**+0.2**
	comp=Z,19nm,1.1s						
VRI	**Vrincioaia**	**73.67**	**333**	P	**P**	**01 58 55.3**	**+1.6**
	comp=Z,19nm,1.1s						
PLOR	**Plostina**	**73.70**	**333**	⇑P	**P**	**01 58 55.0**	**+1.2**
MLR	**Muntele Rosu**	**73.72**	**332**	P	**P**	**01 58 53.9**	**-0.3**
	comp=Z,4.5nm,0.8s,baz=198,slow=6.4,SNR=8.0						
	comp=Z,4.5nm,0.8s						
MLR	**Muntele Rosu**	**73.72**	**332**	P	**P**	**01 58 54.3**	**+0.1**
MLR				IAmb	IAmb	01 58 56.9	
	comp=Z,8.8nm,1.1s						
MLR	**Muntele Rosu**	**73.72**	**332**	⇑P	**P**	**01 58 56.1**	**+2.0**
MLR	**Muntele Rosu**	**73.72**	**332**	P	**P**	**01 58 53.5**	**-0.6**
	comp=Z,8.6nm,1.2s						
MLR	**Muntele Rosu**	**73.72**	**332**	P	**P**	**01 58 55.9**	**+1.8**
	comp=Z,8.6nm,1.2s						
TIP	**Timpagrande**	**73.81**	**323**	P	**P**	**01 58 53.8**	**-0.9**
	comp=Z,5.3nm,2.3s						
BLKB	**Belogradchik**	**73.82**	**329**	⇑P	**P**	**01 58 54.9**	**+0.2**
DBIC	**Dimbokro**	**73.87**	**283**	P	**P**	**01 58 56.2**	**+0.7**
	comp=Z,4.3nm,0.9s,baz=112,slow=10,SNR=3.2						
DBIC				LR	LR	02 28 54.6	
	comp=Z,107nm,20.7s,baz=134,slow=34						
	comp=Z,4.3nm,0.9s						
DBIC	**Dimbokro**	**73.87**	**283**	IAmb	IAmb	01 59 18.8	
	comp=Z,17nm,1.5s						
COVR	**Voineasa-Covas**	**73.89**	**333**	⇑P	**P**	**01 58 56.0**	**+1.1**
MNTR	**Muntenesti**	**74.04**	**334**	⇓P	**P**	**01 58 56.5**	**+0.7**
VOIR		**74.08**	**332**	⇓P	**P**	**01 58 57.6**	**+1.4**
VOIR		**74.08**	**332**	P	**P**	**01 58 55.8**	**-0.4**
	comp=Z,7.5nm,1.1s						
VOIR				pP	**pP**	**01 58 58.7**	**0.0**
	comp=Z,7.5nm,1.1s						
VOIR		**74.08**	**332**	P	**P**	**01 58 56.7**	**+0.5**
	comp=Z,7.5nm,1.1s						
DMBR	**Dumbraveni**	**74.12**	**334**	⇓P	**P**	**01 58 57.4**	**+1.1**
TURR	**Turia**	**74.13**	**333**	⇓P	**P**	**01 58 58.1**	**+1.7**
ARR	**Arges**	**74.21**	**331**	⇑P	**P**	**01 58 57.4**	**+0.5**
ARR	**Arges**	**74.21**	**331**	P	**P**	**01 58 57.8**	**+0.8**
	comp=Z,4.4nm,1.1s						
BOVS	**Bovan**	**74.30**	**329**	⇑P	**P**	**01 58 58.0**	**+0.6**
BOSR	**Bodos**	**74.30**	**332**	⇓P	**P**	**01 58 58.7**	**+1.4**
DOPR	**Dopca**	**74.34**	**332**	⇓P	**P**	**01 58 57.7**	**+0.2**
ZAA0	**Zalesovo Array**	**74.71**	**12**	P	**P**	**01 58 58.0**	**-1.5**
ZAA0				IAmb	IAmb	01 59 05.8	
	comp=Z,6.8nm,0.8s						
ZALV	**Zalesovo Beam**	**74.71**	**12**	P	**P**	**01 58 59.1**	**-0.4**
	comp=Z,4.2nm,0.9s,baz=210,slow=5.0,SNR=12						
	comp=Z,4.2nm,0.9s						
ZALV	**Zalesovo Beam**	**74.71**	**12**	P	**P**	**01 58 58.5**	**-1.0**
BIZ

OJC	Ojcow	80.01	332	P		P	01 59 28.7	-0.6
	comp=Z,5.3nm,1.3s							
DRE	Drenchia	80.18	326	P		P	01 59 30.7	+0.3
	comp=Z,6.5nm,0.9s							
CONA	Conrad Observa	80.22	329	*i* P		P	01 59 32.1	+1.4
	comp=Z,8.0nm,1.0s							
WINA	Alland / Wiene	80.24	329	*i* P		P	01 59 32.0	+1.4
	comp=Z,5.1nm,1.0s							
SESA	Seetaler Alpe,	80.32	327	*i* P		P	01 59 32.9	+1.6
	comp=Z,5.5nm,1.0s							
MYKA	Terra Mystica	80.48	327	*e*P		P	01 59 34.0	+2.0
	comp=Z,1.1nm,0.5s							
KBA	Koelnbreinsper	80.93	327	*e*P		P	01 59 35.2	+0.6
	comp=Z,3.2nm,1.1s							
ABNA	Allensteig Bun	80.94	329	*i* P		P	01 59 35.3	+0.9
	comp=Z,1.4nm,0.7s							
MOA	Molln	80.97	328	*e*P		P	01 59 36.0	+1.5
	comp=Z,6.1nm,1.0s							
ABTA	Abfaltersbach	81.14	326	*i* P		P	01 59 37.0	+1.4
	comp=Z,7.1nm,1.1s							
BIOA	Bad Ischl, Aus	81.18	327	*i* P		P	01 59 36.5	+0.8
	comp=Z,7.6nm,1.4s							
JNU	Nakatsue	81.21	51	LR		LR	02 35 47.8	
	comp=Z,51nm,19.1s,baz=198,slow=36							
KSRS	Korea Array	81.35	46	P		P	01 59 38.0	+1.2
	comp=Z,2.4nm,0.8s,baz=235,slow=8.6,SNR=4.6							
KSRS				LR		LR	02 36 35.6	
	comp=Z,29nm,18.1s,baz=240,slow=36							
	comp=Z,2.4nm,0.8s							
LESA	Schwarzleotal	81.50	327	*e*P		P	01 59 37.8	+0.3
	comp=Z,2.7nm,1.0s							
GERES	GERESS Array B	81.91	328	P		P	01 59 39.5	-0.2
	comp=Z,0.1nm,0.3s,baz=134,slow=4.2,SNR=4.1							
	comp=Z,0.1nm,0.3s							
WTTA	Wattenberg	81.94	326	*e*P		P	01 59 40.8	+0.9
	comp=Z,3.0nm,0.8s							
WATA	Walderalm	82.01	326	*e*P		P	01 59 41.2	+0.9
	comp=Z,2.0nm,0.6s							
SQTA	Sankt Quirin	82.13	326	*e*P		P	01 59 41.7	+0.8
	comp=Z,3.1nm,1.0s							
KHC	Kasperske Hory	82.16	329	P		P	01 59 40.5	-0.3
	comp=Z,3.7nm,1.5s							
FETA	Feichten	82.26	326	*e*P		P	01 59 42.6	+1.0
	comp=Z,2.6nm,1.1s							
MOTA	Moosalm	82.27	326	*i* P		P	01 59 42.6	+1.0
	comp=Z,3.3nm,1.0s							
RETA	Reutte	82.54	326	*e*P		P	01 59 44.1	+1.2
	comp=Z,2.3nm,1.1s							
DAVOX	Davos/Dischmat	82.57	325	P		P	01 59 43.6	+0.3
	comp=Z,1.5nm,0.7s,baz=108,slow=14,SNR=4.3							
	comp=Z,1.5nm,0.7s							
TUE	Stuetta	82.67	325	P		P	01 59 42.9	-0.9
	comp=Z,23nm,1.1s							
DAVA	Damuels	82.88	326	*i* P		P	01 59 46.2	+1.4
	comp=Z,6.9nm,1.1s							
CLL	Collm	83.87	330	P		P	01 59 49.0	-0.6
	comp=Z,4.4nm,1.6s							
CLL	Collm	83.87	330	*e*P		P	01 59 50.0	+0.4
	comp=Z,36nm,2.4s							
MDT	Midelt	84.58	307	LR		LR	02 38 56.5	
	comp=Z,80nm,18.4s,baz=91,slow=37							
FINES	FINESS Array B	86.32	342	P		P	02 00 02.0	+0.4
	comp=Z,2.8nm,0.7s,baz=126,slow=7.1,SNR=5.1							
	comp=Z,2.8nm,0.7s							
FINES	FINESS Array B	86.32	342	P		P	02 00 01.4	-0.3
ESDC	Sonseca Array	87.25	314	P		P	02 00 08.0	+1.2
	comp=Z,1.9nm,0.9s,baz=113,slow=4.0,SNR=7.7							
ESDC				LR		LR	02 38 58.0	
	comp=Z,66nm,19.8s,baz=2.5,slow=36							
	comp=Z,1.9nm,0.9s							
USRK	Ussurijsk Ar.	87.47	41	LR		LR	02 41 04.5	
	comp=Z,48nm,18.0s,baz=237,slow=37							
PMSA	Palmer Station	87.86	199	LR		LR	02 33 41.9	
	comp=Z,46nm,18.2s,baz=129,slow=32							
MJAR	Matsushiro Arr	88.14	50	P		P	02 00 13.2	+2.1
	comp=Z,1.0nm,0.3s,baz=218,slow=3.5,SNR=6.7							
	comp=Z,1.0nm,0.3s							
MJAR	Matsushiro Arr	88.14	50	P		P	02 00 11.7	+0.6
KLR	Kul'dur	89.84	37	LR		LR	02 40 56.2	
	comp=Z,68nm,20.2s,baz=265,slow=36							
HNR	Honiara	91.09	100	LR		LR	02 39 10.1	
	comp=Z,45nm,20.3s,baz=307,slow=34							
ASAJ	Asahikawa	94.28	45	LR		LR	02 43 56.3	
	comp=Z,22nm,18.2s,baz=85,slow=36							
YAK	Yakutsk	95.40	25	LR		LR	02 43 33.0	
	comp=Z,59nm,18.4s,baz=259,slow=36							
TIXI	Tiksi	100.12	17	LR		LR	02 46 34.7	
	comp=Z,78nm,19.8s,baz=199,slow=36							
ILAR	Eielson Array	129.59	17	PKP		PKiKP	02 06 30.6	+1.2
	comp=Z,0.6nm,1.0s,baz=297,slow=2.5,SNR=4.1							
ULM	Lac du Bonnet	145.64	339	PKPbc		PKPab	02 06 58.8	-0.1
	comp=Z,10nm,0.7s,baz=36,slow=4.4,SNR=20							
PDAR	Pinedale Array	156.13	351	PKPbc		PKPbc	02 07 26.1	
	comp=Z,0.9nm,1.0s,baz=340,slow=1.3,SNR=5.1							
PDAR				PKPab		PKPab	02 07 42.1	-0.5
	comp=Z,0.2nm,0.7s,baz=37,slow=3.7,SNR=1.7							
NVAR	Mina Array Bea	160.55	9	PKPab		PKPab	02 08 03.2	+1.5
	comp=Z,0.8nm,0.9s,baz=27,slow=4.7,SNR=4.7							
TXAR	Lajitas Array	165.89	318	PKPab		PKPab	02 08 27.4	+2.0
	comp=Z,1.4nm,0.8s,baz=74,slow=4.1,SNR=15							
TXAR	Lajitas Array	165.89	318			PKPab	02 08 27.1	+1.7

DJA ***27*** *01:49:00.7±2.7,2°S±6°×12°6E±2°,2,h10km,M3.4/5, MLv3.4/5*

IDC ***27*** *01:49:15.3±13.0,3°95S×126°75E,h0km,mb3.5/2, mbtmp3.5/3,ML3.3/1, Error ellipse: s-maj=339.1km s-min=188.7km az=76.0*

ISC 27 01:48:58.6±2.1,2°32S±0°08×125°8E±0°2,h10km,n6, σ2s41/8,Ceram Sea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
SANI	Sanana	0.35	38	P		Pg	01 49 05.5	0.0
SANI				S		Sg	01 49 08.8	-1.3
NLAI	Namlea	1.61	125	P		Pn	01 49 27.7	+0.6
NLAI				S		Sn	01 49 46.6	-1.3
NLAI				AML		AML		
MSAI	Masohi	3.31	108	P		Pn	01 49 53.4	+2.9
WRA	Warramunga Arr	19.41	155	P		P	01 53 21.9	-3.3
	0.1nm,0.3s,baz=334,slow=13,SNR=6.7							
	0.5nm,0.8s							
WRA				AML		AML		
ASAR	Alice Springs	22.63	160	P		P	01 53 58.0	-1.9
	0.3nm,0.3s,baz=342,slow=12,SNR=4.3							
	0.3nm,0.3s							
STKA	Stephens Creek	32.96	155	P		P	01 55 35.4	+1.7
	0.7nm,0.3s,baz=326,slow=7.3,SNR=3.2							
	0.7nm,0.3s							

IDC ***27*** *02:00:11.0±1.7,8°64N×82°12W,h0km,mb3.9/7, mbtmp4.0/10,ML3.5/3,MS3.3/8, Error ellipse: s-maj=56.9km s-min=13.3km az=24.0*

UCR ***27*** *02:00:12.7±0.7,7°89N×82°46W,h36km±10km,MW4.4, Presumed earthquake*

CATAC ***27*** *02:00:12.2±0.7,8°N±4°×8°3W±°,h10km±3km,M4.7/13, mb5.0/1,mB4.9/1,MLv4.6/13,Mw(mB)4.1/1, Error ellipse: s-maj=9.6km s-min=3.4km az=13.3, confirmed*

UPA ***27*** *02:00:13.2±1.1,7°94N×82°45W,h31km±4km,MW4.5, Presumed earthquake*

NEIC ***27*** *02:00:15.3±2.1,8°04N±0°06×82°47W±0°08,h46km±10km, mb4.2/7, Error ellipse: s-maj=13.3km s-min=7.8km az=60.0*

RSNC ***27*** *02:00:18.0±1.1,8°N±4°×8°2W±°,h10km±5km,M4.3,mB4.8, mb4.4,ML3.5,Mw(mB)4.0*

ISC 27 02:00:10.9±1.1,7°89N±0°03×82°41W±0°02,h18km±7km, n215,σ1s49/265,mb4.1/11,MS3.5/5,31C-16D,South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
ISECA	Islas Secas	0.39	77	*e*P		Pn	02 00 21.9	+0.3
ISECA	Islas Secas	0.39	77	*e*P		Pn	02 00 21.6	0.0
ISECA				*e*S		Sn	02 00 28.3	-0.2
LIMO3	Limones	0.49	295	*i*P		Pn	02 00 23.0	0.0
LIMO3				*e*S		Sb	02 00 29.7	+1.8
CHIR3	Chiriqui UPA,	0.51	9	*i*P		Pn	02 00 22.9	-0.3
CHIR3				*e*S		Sn	02 00 31.1	-0.3
LOMA3	Las Lomas, Chi	0.54	2	*e*P		Pn	02 00 23.4	-0.2
LOMA3				*e*S		Sb	02 00 30.8	+1.7
DVD	David	0.54	356	*i*P		Pn	02 00 23.4	-0.3
DVD				*e*S		Sb	02 00 30.4	+1.2
PTPA	Petro Terminal	0.55	304	*e*P		Pn	02 00 23.7	0.0
PTPA				*e*S		Sn	02 00 32.4	0.0
PTPM	Petroterminale	0.56	304	*i*P		Pb	02 00 23.7	+1.7
PTPM				*e*S		Sb	02 00 30.4	+0.8
BAGA3	Bagala, Chiriq	0.58	349	*i*P		Pn	02 00 24.4	+0.1
BAGA3				*e*S		Sb	02 00 32.4	+2.0
ARIEL	Armuelles	0.58	312	*i*P		Pn	02 00 28.4	+4.1
BGUAL	Bijagual, Pana	0.62	7	*e*P		Pn	02 00 24.6	-0.1
BGUAL	Bijagual, Pana	0.62	7	*i*P		Pn	02 00 24.6	-0.1
BGUAL				*e*S		Sn	02 00 34.2	0.0
REME3	Remedios, Chir	0.66	60	*e*P		Pn	02 00 25.9	+0.5
REME3				*e*S		Sn	02 00 35.6	+0.2
NANC3	Nancito, Chiri	0.76	63	*e*P		Pn	02 00 26.9	+0.2
NANC3				*e*S		Sn	02 00 37.0	-0.7
LPPC	Paso Canoas	0.76	326	*e*P		Pn	02 00 26.3	+0.7
LPPC				*e*S		Sb	02 00 36.9	+1.2
PSOM3	Paja de Sombre	0.79	7	*e*P		Pb	02 00 26.8	+0.6
PSOM3				*e*S		Sb	02 00 37.5	+1.0
PTAR3	Potrerillos Ar	0.80	354	*i*P		Pn	02 00 27.3	-0.1
PTAR3				*i*S		Sg	02 00 36.2	-1.0
PDCAN	Manzana , Fuen	0.81	61	*e*P		Pn	02 00 27.8	+0.3
PDCAN	Manzana , Fuen	0.81	61	*i*P		Pn	02 00 27.8	+0.3
PVID3	Puerto Vidal,	0.81	79	*e*P		Pn	02 00 27.6	+0.2
PVID3				*e*S		Sn	02 00 39.6	+0.6
CDITO	Canoas	0.81	326	*i*P		Pb	02 00 26.9	+0.4
CDITO				*e*S		Sg	02 00 37.4	-0.2
BQSF3	Alto Boquete,	0.84	359	*i*P		Pb	02 00 27.6	+0.5
BQSF3				*e*S		Sb	02 00 38.9	+0.8
BQTLY	Boquete Panama	0.86	357	*e*P		Pb	02 00 28.1	+0.7
BQTLY	Boquete Panama	0.86	357	*i*P		Pb	02 00 28.1	+0.7
CLLRA	Cordillera,	0.87	347	*e*P		Pb	02 00 28.2	+0.6
CLLRA	Cordillera,	0.87	347	*i*P		Pb	02 00 28.2	+0.6
CLLRA				*e*S		Sn	02 00 40.5	-0.2
LNBQ3	Los Naranjos,	0.89	358	*i*P		Pb	02 00 28.3	+0.4
LNBQ3				*e*S		Sb	02 00 39.8	+0.2
NELY	Ciudad Neily	0.92	325	*e*P		Pg	02 00 28.3	-0.5
NELY				*e*S		Sb	02 00 40.8	+0.7
NELY	Ciudad Neily	0.92	325	*i*P		Pg	02 00 28.2	-0.6
NELY				*e*S		Sb	02 00 41.2	+1.0
BRU2	Volcan	0.94	343	P		Pg	02 00 29.0	-0.2
BRU2				S		Sb	02 00 41.8	+0.9
BRU2	Volcan	0.94	343			Pb	02 00 29.1	+0.4
BRU2					Sn	Sg	02 00 40.9	-0.7
BRU2	Volcan	0.94	343	*e*P		Pb	02 00 29.1	+0.4
BRU2				*e*S		Sb	02 00 41.7	+0.9
BRU2	Volcan	0.94	343	*i*P		Pb	02 00 29.1	+0.4
BRU2				*e*S		Sb	02 00 41.5	+0.7
SCLRA	Santa Clara, W	1.00	339	*e*P		Pb	02 00 30.1	+0.3
SCLRA	Santa Clara, W	1.00	339	*i*P		Pb	02 00 30.2	+0.3
SCLRA				*e*S		Sn	02 00 45.0	+1.0
RBALA	Bur	1.01	15	*e*P		Pg	02 00 30.4	-0.2
RBALA	Bur	1.01	15	*i*P		Pg	02 00 30.5	-0.2
RBALA				*e*S		Sg	02 00 43.5	-0.4
FITO	Golfito	1.03	315	*e*P		Pb	02 00 29.6	-0.6
FITO	Golfito	1.03	315	*e*P		Pb	02 00 29.7	-0.6
FITO				*e*S		Sb	02 00 43.1	-0.4
CTCR	Cotoan	1.05	341	*e*P		Pb	02 00 30.5	-0.2
CTCR				*e*S		Sb	02 00 44.8	+0.5
CHGR2	Aguacate	1.07	14	*e*P		Pb	02 00 30.8	-0.1
CHGR2				*e*S		Sb	02 00 44.2	-0.4
VITO	San Vito	1.07	329	*e*P		Pb	02 00 31.3	+0.3
VITO				*e*S		Sn	02 00 46.7	+1.1
GMAL	Guarumal, Vera	1.18	96	P		Pb	02 00 32.6	-0.1
GMAL	Guarumal, Vera	1.18	96	*e*P		Pb	02 00 32.8	+0.1
GMAL	Guarumal, Vera	1.18	96	*i*P		Pb	02 00 32.7	+0.1
GMAL				*e*S		Sn	02 00 49.1	+1.1
RSUS3	Rio de Jesus,	1.25	86	*i*P		Pg	02 00 34.6	-0.4
RSUS3				*e*S		Sg	02 00 51.2	-0.1
MARI3	Mariato, Verag	1.43	100	*i*P		Pb	02 00 37.5	+0.4
MARI3				*e*S		Sb	02 00 55.5	+0.6
FIMO	Fila Mora	1.43	320	*e*P		Pn	02 00 36.7	+0.6
STIA3	Santiago, Vera	1.44	82	*i*P		Pb	02 00 37.7	+0.4
STIA3				*e*S		Sn	02 00 55.3	+0.7
SAFE3	Santa Fe, Vera	1.46	65	*i*P		Pb	02 00 37.5	-0.1
SAFE3				*i*S		Sb	02 00 56.2	+0.4
PANP	Palmar Norte	1.48	316	*e*P		Pn	02 00 37.0	+0.3
CNI2	El Empalme, Bo	1.52	358	*i*P		Pb	02 00 38.4	-0.2
CNI2				*e*S		Sn	02 00 55.3	-1.2
DRK0	Durika	1.59	329	*e*P		Pn	02 00 22.6	-16
DRK0				*e*S		Sn	02 00 41.2	-17
CACAO	El Cacao, Vera	1.63	109	P		Pn	02 00 39.4	+0.7
CACAO	El Cacao, Vera	1.63	109	*e*P		Pn	02 00 39.2	+0.5
CACAO				*i*P		Pb	02 00 39.5	-0.9
CACAO				*e*S		Sn	02 00 59.0	-0.3
CACAO				*e*S		Sb	02 01 01.0	+0.3
EDPE	Pejibaye, P	1.70	318	*e*P		Pn	02 00 45.1	+0.4
BRIBI	Bribri	1.76	347	*e*P		Pb	02 00 43.3	+0.4
CRIS3	El Cristo, Coc	1.81	78	*i*P		Pb	02 00 43.0	-0.6
CRIS3				*e*S		Sb	02 01 05.8	-0.2
LAES	El Progreso Va	1.96	341	*e*P		Pn	02 00 45.2	+1.9
CHIT3	Chitre	1.98	88	*i*P		Pn	02 00 45.2	+1.7
CHIT3				*e*S		Sn	02 01 09.2	+1.3
TOSI3	Tonosi	2.01	104	*i*P		Pb	02 00 46.1	-0.8
PNME	Penonome	2.15	74	P		Pb	02 00 48.5	-0.8
PNME	Penonome	2.15	74	*i*P		Pb	02 00 49.2	0.0
PNME				*e*S		Sn	02 01 12.7	+0.7
VERH	Veragua Rainfo	2.16	339	*e*P		Pn	02 00 46.8	+0.8
ACHO3	Achotines, Los	2.27	102	*i*P		Pn	02 00 48.8	+1.3
ACHO3				*i*S		Sb	02 01 21.4	+2.2
PCRI3	Pocri, Los San	2.29	96	*i*P		Pn	02 00 49.6	+1.8
PCRI3				*e*S		Sn	02 01 16.9	+1.4
PIEC	Cerro El Cedra	2.30	318	*e*P		Pn	02 00 48.9	+0.8
TURIB	Turrialba	2.36	328	*e*P		Pn	02 00 49.5	+0.7
RAZU	San Marcos de	2.37	318	*e*P		Pn	02 00 49.2	+0.7
VINA	Juan Vinas	2.38	327	*e*P		Pn	02 00 50.0	+0.7
PEDA3	Pedasi	2.40	99	*i*P		Pn	02 00 51.1	+1.9
PEDA3				*e*S		Sn	02 01 18.7	+0.5
REPA	Paraso	2.40	323	*e*P		Pn	02 00 50.0	+0.5
LCR2	La Lucha 2	2.42	320	P		Pn	02 00 50.5	+0.7
LCR2				S		Sn	02 01 19.6	+0.5
LCR2	La Lucha 2	2.42	320			Pn	02 00 50.4	+0.6
LCR2	La Lucha 2	2.42	320	*e*P		Pn	02 00 50.0	+0.2
LCR2	La Lucha 2	2.42	320	*i*P		Pn	02 00 50.4	+0.7
PCAYA	Pacayas	2.44	326	*e*P		Pn	02 00 50.7	+0.7
RESJ	San Isidro (Tu	2.45	330	*e*P		Pn	02 00 51.5	+1.5
VTCV	VTCV, Calle Va	2.45	328	*e*P		Pn	02 00 51.4	+1.2
LCOCO	El Coco	2.45	333	*e*P		Pn	02 00 51.7	+1.7
ABRB	Las Abras (San	2.46	329	*e*P		Pn	02 00 51.6	+1.2
PICV	PH. Pirrs	2.46	315	*e*P		Pn	02 00 50.9	+0.7
RAFA	San Farael, Vo	2.47	326	Pn		Pn	02 00 51.9	+1.3
CVTJ	Tajo	2.48	328	*e*P		Pn	02 00 51.8	+1.3
CVTQ	Turrialba Volc	2.49	328	*e*P		Pn	02 00 52.4	+1.5
RVLA	Villa Bonita	2.49	332	*e*P		Pn	02 00 52.9	+2.3
VTR0	Volcan Turrial	2.50	328	*e*P		Pn	02 00 52.5	+1.5
CVTR	Volcan Turrial	2.50	328	*e*P		Pn	02 00 52.1	+1.1
VICA	Volcano Irazu	2.51	326	*e*P		Pn	02 00 52.4	+1.2
TRIO	Tres Rios	2.54	322	*e*P		Pn	02 00 52.1	+0.8
ACOS	Acosta	2.56	318	*e*P		Pn	02 00 51.9	+0.2
CORON	Coronado	2.59	323	*e*P		Pn	02 00 53.2	+1.0
SJS3	Mercedes San J	2.60	322	*e*P		Pn	02 00 53.0	+0.9
SJS	Escuela Geolog	2.60	322	*e*P		Pn	02 00 52.9	+0.8
LUJA	Lujan	2.60	321	*e*P		Pn	02 00 53.3	+1.1
LUPE	Guadalupe	2.61	322	*e*P		Pn	02 00 53.6	+1.3
CVTG	V. Turrialba,	2.61	329	*e*P		Pn	02 00 54.0	+1.8
DOMI	Santo Domingo	2.66	322	*e*P		Pn	02 00 54.3	+1.4
PILE	Guapiles	2.68	330	*e*P		Pn	02 00 54.8	+1.6
SANTA	Santa Ana	2.68	319	*e*P		Pn	02 00 54.1	+0.8
HDC	Heredia	2.69	321			Pn	02 00 54.7	+1.4
HEME	Heredia, Merce	2.69	321	*e*P		Pn	02 00 55.1	+1.6
BELE	Belen	2.71	320	*e*P		Pn	02 00 54.8	+1.1
ZANG	Zanguenga, Cho	2.73	67	*e*P		Pn	02 00 55.9	+2.0
ZANG	Zanguenga, Cho	2.73	67	*e*P		Pn	02 00 56.5	+2.7
ZANG				*e*P		Pb	02 00 57.6	-1.6
VBV1	V. Barva	2.76	323	*e*P		Pn	02 00 56.0	+1.4
TCS1	Tacares	2.83	319	P		Pn	02 00 57.4	+2.0
TRB2	Turrubares	2.84	315	P		Pn	02 00 56.1	+0.7
TRB2				S		Sn	02 01 29.5	+0.3
BCIP	Isla Barro Col	2.84	63	P		Pn	02 00 58.4	+3.0
BCIP				S		Sb	02 01 37.1	+1.4
BCIP	Isla Barro Col	2.84	63	P		Pn	02 00 57.8	+2.4
BCIP	Isla Barro Col	2.84	63	*e*P		Pn	02 00 57.6	+2.2
BCIP	Isla Barro Col	2.84	63	*i*P		Pn	02 00 57.9	+2.4
BCIP				*e*S		Sn	02 01 31.8	+2.6
VPS8	V Poas	2.90	322	*e*P		Pn	02 00 58.2	+1.7
VPS5	V. Poas	2.90	322	*e*P		Pn	02 00 57.5	+0.9
ARRA3	Arraijan, Pana	2.93	68	*e*P		Pn	02 00 57.9	+1.4
ARRA3				*e*S		Sn	02 01 31.9	+0.6
GAMB1	Gamboa	2.94	65	*e*P		Pb	02 01 01.4	-1.4
GAMB1				*e*S		Sn	02 01 31.6	0.0
TRT2	Tortugero	2.95	334	*e*P		Pn	02 00 56.9	0.0
FRIJ	El Hiral	2.97	63	*e*P		Pn	02 00 59.2	+2.1
FRIJ				*e*S		Sn	02 01 32.4	+0.1
TABO3	Taboga, Panama	2.97	72	*e*P		Pn	02 00 59.2	+2.1
FLAM	Flamenco Islan	3.02	70	*e*P		Pn	02 00 59.9	+2.0
FLAM				*e*S		Sn	02 01 34.2	+0.6
VPL1	V. Platanar	3.04	321	*e*P		Pn	02 00 59.6	+1.3
UPA	Univ. de Panam	3.05	69	P		Pn	02 01 01.6	+3.4
UPA	Univ. de Panam	3.05	69	*e*P		Pn	02 01 01.0	+2.8
UPA				*e*P		Pb	02 01 01.4	-3.2
UPA				*e*S		Sn	02 01 34.1	-0.1
ITAL	Pital	3.13	324	*e*P		Pn	02 01 00.7	+1.3
VARE2	V. Arenal	3.42	318	*e*P		Pn	02 01 04.8	+1.4
COVE	Coope Vega, Sa	3.43	325	P		Pn	02 01 04.6	+1.1
CEDE	Laguna Cedeo	3.43	319	*e*P		Pn	02 01 04.5	+1.0
JTS	Las Juntas de	3.46	314	Pn		Pn	02 01 03.8	-0.1
	29nm,0.3s,baz=229,slow=9.5,SNR=120							
JTS				LR		LR	02 01 50.0	
	comp=Z,82nm,21.2s,baz=42,slow=31							
JTS				Lg		Lg	02 01 54.1	
	6.8nm,0.3s,baz=307,slow=14,SNR=5.1							
	117nm,0.4s							
JTS				AML		AML		
JTS	Las Juntas de	3.46	314	P		Pn	02 01 04.0	+0.1
JTS				S		Sn	02 01 44.8	+0.4
JTS	Las Juntas de	3.46	314			Pn	02 01 03.7	-0.2
JTS	Las Juntas de	3.46	314	*e*P		Pn	02 01 03.8	-0.1
JTS	Las Juntas de	3.46	314	*i*P		Pn	02 01 05.1	+1.2
JTS				*i*S		Sn	02 01 47.5	+3.0
TABAC	Tabacon	3.48	318	*e*P		Pn	02 01 05.5	+1.2
CHPO	Chepo, Panama	3.50	69	*i*P		Pn	02 01 07.7	+3.2
CHPO				*e*S		Sn	02 01 45.4	0.0
TILA	Tilaran	3.59	316	*e*P		Pn	02 01 07.0	+1.2
QUEB	Quebradon, Cot	3.66	318	*e*P		Pn	02 01 07.5	+0.9
TIMP	Tierras Morena	3.71	316	*e*P		Pn	02 01 09.1	+1.7
CNTA3	Canitas, Panam	3.73	69	*e*P		Pb	02 01 15.9	-0.3
NICO	Nicoya	3.73	307	*e*P		Pn	02 01 08.0	+0.3
CUI	Cuipilapa	3.86	316	*e*P		Pn	02 01 10.9	+1.5
HORNC	Hornillas	3.91	316	*e*P		Pn	02 01 11.1	+0.9
VMAR	Armenia, Volca	3.94	318	*e*P		Pn	02 01 11.9	+1.4
MESS	Mesas	3.94	316	*e*P		Pn	02 01 11.6	+1.0
GPS2	Hotel Rincn d	4.06	315	*e*P		Pn	02 01 13.9	+1.6
ALIBA	Liberia Airpor	4.09	311	*e*P		Pn	02 01 14.2	+1.6
LAPC	Finca la Perla	4.13	314	*e*P		Pn	02 01 14.1	+1.0
BLUN	Bluefields	4.30	342	P		Pn	02 01 16.1	+0.7
BLUN				S		Sn	02 02 05.8	+0.7
UPD2	Meteti	4.40	81	P		Pn	02 01 18.7	+1.9
UPD2	Meteti	4.40	81	*e*P		Pn	02 01 19.1	+2.2
UPD2				*e*S		Sn	02 02 08.6	+0.9
LCRUZ	La Cruz	4.48	315	*e*P		Pn	02 01 19.4	+1.4
CARN	Rivas	4.49	317	Pn		Pn	02 01 19.1	+1.1
PTAC	Punta Ardita,	4.63	99	P		Pn	02 01 19.9	0.0
PTAC	Punta Ardita,	4.63	99	*e*P		Pn	02 01 19.9	0.0
ACON	Acoyapa	4.88	326	P		Pn	02 01 24.0	+0.6
SOLC	Bahia Solano	5.24	108	P		Pn	02 01 28.6	+0.3
BOAB	BOACO BROADBAN	5.54	325	P		Pn	02 01 33.4	+0.8
BOAB	BOACO BROADBAN	5.54	325			Pn	02

ESDC	**Sonseca Array**	**76.12**	**51**	P		**P**	**02 11 58.4**	**+0.4**
	comp=Z,2.9nm,0.7s,baz=277,slow=5.1,SNR=21							
	comp=Z,2.9nm,0.7s							
ESDC	**Sonseca Array**	**76.12**	**51**	P		**P**	**02 11 58.8**	**+0.8**
EKA	**Eskdalemuir Ar**	**77.44**	**35**	P		**P**	**02 12 03.1**	**-1.9**
	comp=Z,0.3nm,0.6s,baz=247,slow=6.0,SNR=3.7							
	comp=Z,0.3nm,0.6s							
WRA	**Warramunga Arr**	**142.47**	**248**	PKP		**PKiKP**	**02 19 49.3**	**+2.6**
	comp=Z,0.5nm,0.9s,baz=108,slow=2.2,SNR=5.0							

*IDC **27** 02:06:00.6±1.1,4.°91S×130.°52E,h0km,mb3.8/2, mbtmp4.1/6,ML4.2/4,MS2.6/1,Error ellipse: s-maj=42.6km s-min=12.5km az=96.0*

*DJA **27** 02:06:07.6±0.4,5.°5S×3.°3×13.°1E±.°,h87km±10km,M4.3/9, mB5.3/2,mB5.3/2,mb4.2/3,mb4.2/3,MLv4.3/9,MLv4.3/9, Mw(mB)4.8/2,Mw(mB)4.8/2*

ISC 27 02:06:05.1±1.0,**5.°06S**±0.°05×**131.°35E**±0.°08,**h100**km,**n12,** σ3§**86/14**,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**1.53**	**290**	P	**Pn**	**02 06 32.2**	**+0.4**
BNDI				S	**Sn**	**02 06 48.5**	**-3.5**
BNDI				AML	AML		
BNDI				AML	AML		
FAKI	**Fak Fak**	**2.31**	**23**	P	**Pn**	**02 06 43.6**	**+1.9**
FAKI				AML	AML		
FAKI				AML	AML		
SAUI	**Saumlaki**	**2.91**	**181**	P	**Pn**	**02 06 52.7**	**+3.1**
SAUI				AML	AML		
SAUI				AML	AML		
SIJI	**Sorong**	**4.16**	**359**	Pn	**Pn**	**02 07 06.0**	**-0.5**
	19nm,0.3s,baz=211,slow=22,SNR=18						
SIJI				Sn	**Sn**	**02 07 49.6**	**-4.5**
	13nm,0.3s,baz=90,slow=20,SNR=4.2						
	49nm,0.2s						
SIJI				AML	AML		
NLAI	**Namlea**	**4.61**	**293**	P	**Pn**	**02 07 15.1**	**+2.6**
NLAI				AML	AML		
NLAI				AML	AML		
SANI	**Sanana**	**6.13**	**299**	P	**Pn**	**02 07 33.4**	**+0.2**
	0.1nm0.1nm11nm,0.9s,11nm,0.9s						
SANI				AML	AML		
SANI				AML	AML		
JAY	**Jayapura**	**9.67**	**75**	LR	LR	02 13 05.4	
	comp=Z,38nm,21.8s,baz=218,slow=41						
FITZ	**Fitzroy Crossi**	**14.11**	**203**	Pn	Pn	02 09 16.5	-4.0
	1.0nm,0.3s,baz=18,slow=8.5,SNR=30						
FITZ				Sn	Sn	02 11 42.9	-13
	1.0nm,0.3s,baz=278,slow=23,SNR=6.6						
	2.2nm,0.2s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**15.08**	**169**	Pn	**Pn**	**02 09 31.0**	**-2.0**
	1.0nm,0.3s,baz=344,slow=10,SNR=19						
WRA				Sn	**Sn**	**02 12 11.8**	**-7.7**
	0.9nm,0.3s,baz=343,slow=20,SNR=5.5						
	1.1nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**18.67**	**173**	Pn	**Pn**	**02 10 19.4**	**+2.5**
	1.1nm,0.3s,baz=350,slow=9.6,SNR=44						
ASAR				Sn	**S**	**02 13 39.6**	**-3.3**
	0.3nm,0.3s,baz=355,slow=27,SNR=4.6						
	4.4nm,0.6s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.36**	**326**	P	**P**	**02 16 53.4**	**+3.8**
	0.6nm,0.3s,baz=111,slow=7.9,SNR=10						
	0.6nm,0.3s						
KURBB	**Kurchatov Arra**	**71.58**	**328**	P	**P**	**02 17 19.5**	**+4.1**
	0.4nm,0.6s,baz=123,slow=5.2,SNR=3.2						
	0.4nm,0.6s						

*ISK **27** 02:08:43.1,37.°84N×26.°40E,h10km, ML2.3/9*
*THE **27** 02:08:44.3,38.°N±2.°×2.°6E±.°,h13km±4km,M2.1/6, MLh2.1/6*

AFAD 27 02:08:44.0,37.°89N×26.°43E,h7km±3km,**ML1.8, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ZEYE	**Izmir, Urla-Ze**	**0.36**	**9**	P	Pg	02 08 51.3	+0.4
ZEYE				IAML		02 08 57.0	
	comp=E,125nm,0.3s						
ZEYE				S	Sb	02 08 57.2	-1.3
ZEYE				IAML		02 08 59.0	
	comp=N,101nm,0.4s						
SMG	**Samos**	**0.37**	**119**	P	Pg	02 08 51.8	+0.6
SMG				S	Sg	02 08 57.2	+1.1
SMG				AML	AML		
DGB	**zmir**	**0.40**	**65**	P	Pg	02 08 52.2	+0.5
DGB				S	Sg	02 08 57.2	+0.4
DGB				IAML		02 08 58.0	
	comp=N,92nm,0.2s						
DGB				IAML		02 08 58.0	
	comp=E,104nm,0.2s						
GMLD	**Gumuldur**	**0.43**	**64**	Pg	Pg	02 08 52.3	0.0
GMLD				Sg	Sg	02 08 59.0	+1.1
GMLD				AML	AML		
BEYE	**izmir**	**0.52**	**49**	P	Pg	02 08 54.3	+0.3
BEYE				S	Sg	02 09 02.0	+1.1
BEYE				IAML		02 09 03.0	
	comp=N,54nm,0.4s						
BEYE				IAML		02 09 03.0	
	comp=E,57nm,0.5s						
CHOS	**Chios island**	**0.58**	**330**	P	Pg	02 08 55.6	+0.4
CHOS				S	Sb	02 09 05.2	+0.2
CHOS				AML	AML		
CHOS	**Chios island**	**0.58**	**330**	Pg	Pg	02 08 55.5	+0.3
CHOS				Sg	Sb	02 09 04.4	-0.6
CHOS				AML	AML		
GCAM	**G?zelcaml?**	**0.66**	**106**	Pg	Pg	02 08 56.7	-0.1
GCAM				Sg	Sb	02 09 06.6	-0.7
GCAM				AML	AML		
BLCB	**Balcova**	**0.69**	**44**	P	Pb	02 08 58.5	+0.1
BLCB				S	Sb	02 09 08.4	+0.2
BLCB				AML	AML		
BLCB	**Balcova**	**0.69**	**44**	Pg	Pb	02 08 58.0	-0.4
BLCB				Sg	Sb	02 09 08.8	+0.6
BLCB				AML	AML		
KRBN	**Karaburun**	**0.71**	**8**	Pg	Pb	02 08 58.3	-0.4
KRBN				AML	AML		
KARB	**zmir-Karabur**	**0.78**	**359**	P	Pg	02 08 58.5	-0.5
KARB				S	Sg	02 09 09.4	+0.4
KARB				IAML		02 09 12.0	
	comp=E,51nm,0.2s						
KARB				IAML		02 09 13.0	
	comp=N,37nm,0.7s						
BAGT	**Foa**	**0.84**	**23**	P	Pg	02 08 59.6	-0.4
BAGT				S	Sg	02 09 10.3	-0.6
BAGT				IAML		02 09 19.0	
	comp=N,26nm,0.4s						
DUVT	**Torbali**	**0.87**	**67**	P	Pg	02 09 00.7	-0.1
DUVT				S	Sg	02 09 12.7	+0.6
BODT	**Bodrum**	**1.08**	**139**	P	Pg	02 09 04.0	-0.7
BODT	**Bodrum**	**1.08**	**139**	Pg	Pg	02 09 03.9	-0.9
BODT				AML	AML		
APE	**Apeiranthos**	**1.08**	**221**	P	Pg	02 09 03.2	-1.6
APE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**1.16**	**87**	Pn	Pg	02 09 06.3	+0.1
AYDB				AML	AML		
MLSB	**Milas**	**1.22**	**118**	Pn	Pg	02 09 06.8	-0.7
MLSB				AML	AML		
DAT	**Datca**	**1.48**	**141**	Pn	Pn	02 09 09.9	-1.2
NAZL	**Nazilli-Aydin**	**1.48**	**86**	Pn	Pn	02 09 10.8	-0.2
NAZL				AML	AML		

*SKO **27** 02:09:28.9,40.°97N×19.°74E,h8km,ML2.2*
*TIR **27** 02:09:30.4,41.°13N×19.°92E,h25km±3km, ML2.5,ML2.5, Presumed earthquake*
*BEO **27** 02:09:30.7±0.3,41.°09N×19.°76E,h16km±3km, ML2.3/9*
*PDG **27** 02:09:30.3±0.3,41.°08N×19.°66E,h10km,ML2.6/13,Error ellipse: s-maj=1.0km s-min=2.2km az=0.0*

ISC 27 02:09:30.5±0.9,**41.°12N**±0.°01×**19.°81E**±0.°02,**h15**km±8km, **n98,** σ1§**01**/139,**2D,Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TIR	**Tirane**	**0.24**	**10**	Pg	**Pg**	**02 09 35.7**	**0.0**
TIR				Sg	**Sb**	**02 09 40.8**	**+0.3**
TIR				IAML		02 09 41.0	
	786nm,0.2s						

BERA	**Berati**	**0.43**	**166**	Pg		**Pg**	**02 09 38.3**	**-0.7**
BERA				Sg		**Sb**	**02 09 45.4**	**-0.5**
BERA				IAML			02 09 49.8	
	464nm,0.4s							
VLO	**Vlora**	**0.69**	**200**	P		**Pn**	**02 09 45.0**	**-0.6**
VLO				S		**Sn**	**02 10 00.4**	**+4.3**
VLO	**Vlora**	**0.69**	**200**	Pg		**Pn**	**02 09 45.1**	**-0.6**
VLO				Sg		**Sn**	**02 09 55.0**	**-1.1**
VLO				IAML			02 10 01.7	
	821nm,0.3s							
PHP	**Peshkopia**	**0.74**	**40**	Pg		**Pg**	**02 09 43.0**	**-2.0**
PHP				Sg		**Sg**	**02 09 53.9**	**-0.9**
PHP				IAML			02 10 00.4	
	250nm,0.3s							
OHR	**Ohrid**	**0.75**	**90**	*i* Pg		**Pg**	**02 09 43.7**	**-1.4**
OHR				*i* Sg		**Sb**	**02 09 55.4**	**+0.1**
OHR				*e*Lg		Lg	02 09 55.6	
	comp=N,36nm,0.4s							
OHR				*e*Lg		Lg	02 09 60.0	
	comp=E,119nm,0.5s							
ULC	**Ulcinj**	**0.95**	**334**	*e*Pg		**Pb**	**02 09 48.0**	**-0.6**
ULC				*i* Sg		**Sn**	**02 10 02.7**	**+0.1**
SDA	**Shkodra**	**0.96**	**346**	Pg		**Pg**	**02 09 49.1**	**-0.1**
SDA				Sg		**Sn**	**02 10 02.7**	**-0.2**
SDA				IAML			02 10 06.8	
	comp=E,214nm,0.3s							
LSK	**Leskovik**	**1.14**	**148**	Pg		**Pb**	**02 09 51.6**	**-0.2**
DRME	**Dracevica, Mon**	**1.17**	**337**	*e*Pn		**Pg**	**02 09 52.5**	**-0.5**
DRME	**Dracevica, Mon**	**1.17**	**337**	*e*Pg		**Pb**	**02 09 52.3**	**-0.1**
DRME				*i* Sg		**Sg**	**02 10 09.9**	**+1.6**
NEST	**Nestorio**	**1.17**	**126**	P		**Pn**	**02 09 52.0**	**-0.4**
NEST	**Nestorio**	**1.17**	**126**	Pg		**Pn**	**02 09 52.2**	**-0.3**
NEST				IAML			02 10 13.8	
	comp=E,107nm,0.5s							
SRN	**Sarande**	**1.24**	**173**	P		**Pg**	**02 09 54.2**	**-0.2**
SRN				S		**Sg**	**02 10 13.0**	**+2.4**
SRN	**Sarande**	**1.24**	**173**	Pg		**Pb**	**02 09 53.9**	**+0.3**
SRN				Sg		**Sg**	**02 10 11.7**	**+1.1**
SRN				IAML			02 10 15.6	
	comp=E,143nm,0.6s							
PENT	**Pentalofos**	**1.37**	**132**	S		**Sg**	**02 10 16.9**	**+2.3**
PENT	**Pentalofos**	**1.37**	**132**	P		**Pb**	**02 09 56.2**	**+0.4**
BUM	**Brajici-Budva**	**1.37**	**330**	*e*Pg		**Pb**	**02 09 55.4**	**-0.4**
BUM				*i* Sg		**Sg**	**02 10 17.0**	**+2.3**
PDG	**Podgorica**	**1.38**	**343**	*e*Pg		**Pb**	**02 09 55.7**	**-0.2**
PDG				*e*Sg		**Sg**	**02 10 15.5**	**+0.6**
PDG	**Podgorica**	**1.38**	**343**	*e*Pn		**Pb**	**02 09 55.7**	**-0.2**
PDG	**Podgorica**	**1.38**	**343**	Pg		**Pb**	**02 09 55.9**	**-0.1**
PDG				Sg		**Sg**	**02 10 15.7**	**+0.8**
PDG	**Podgorica**	**1.38**	**343**	*e*Pg		**Pb**	**02 09 55.6**	**-0.3**
PDG				*i* Sg		**Sg**	**02 10 16.9**	**+2.0**
KEK	**Kerkira**	**1.40**	**180**	P		**Pn**	**02 09 53.5**	**-2.0**
KEK				S		**Sg**	**02 10 15.0**	**-0.7**
KEK	**Kerkira**	**1.40**	**180**	Pg		**Pn**	**02 09 53.8**	**-1.7**
KEK				Sg		**Sb**	**02 10 14.7**	**+0.7**
PVY	**Plav**	**1.48**	**4**	*e*Pg		**Pb**	**02 09 58.2**	**+0.4**
PVY				*e*Sg		**Sg**	**02 10 20.4**	**+2.1**
SKO	**Skopje**	**1.49**	**54**	*i* Pg		**Pb**	**02 09 57.7**	**-0.2**
CEME	**Cevo**	**1.58**	**335**	*e*Pg		**Pn**	**02 09 58.4**	**+0.4**
CEME				*i* Sg		**Sg**	**02 10 21.8**	**+0.5**
IGT	**Igoumenitsa**	**1.63**	**166**	S		**Sg**	**02 10 22.2**	**-0.9**
IGT	**Igoumenitsa**	**1.63**	**166**	*e*Pg		**Pb**	**02 09 59.4**	**-0.8**
IGT				*e*Sg		**Sg**	**02 10 22.1**	**-0.9**
IGT	**Igoumenitsa**	**1.63**	**166**	Pg		**Pb**	**02 10 00.0**	**-0.2**
IGT				Sg		**Sg**	**02 10 22.6**	**-0.4**
IGT	**Igoumenitsa**	**1.63**	**166**	P		**Pb**	**02 09 59.4**	**-0.8**
HCY	**Herceg Novi**	**1.66**	**324**	*e*Pn		**Pn**	**02 09 57.7**	**-1.3**
HCY	**Herceg Novi**	**1.66**	**324**	*e*Pn		**Pn**	**02 09 58.8**	**-0.2**
HCY				*i* Sn		**Sg**	**02 10 23.6**	**-0.2**
KPRO	**Kipourio**	**1.66**	**134**	P		**Pb**	**02 10 00.9**	**+0.2**
KPRO				S		**Sg**	**02 10 23.7**	**-0.1**
JAN	**Janina**	**1.66**	**151**	P		**Pb**	**02 10 00.4**	**-0.4**
JAN				S		**Sg**	**02 10 25.2**	**+1.3**
KZN	**Kozani**	**1.70**	**118**	S		**Sb**	**02 10 23.8**	**+1.2**
KZN	**Kozani**	**1.70**	**118**	P		**Pb**	**02 10 00.8**	**-0.6**
KOME	**Kolasin**	**1.75**	**353**	*e*Pn		**Pb**	**02 10 02.0**	**-0.3**
KOME				*i* Sn		**Sg**	**02 10 27.1**	**+0.3**
IVA	**Berane**	**1.76**	**2**	⇓*i*Pn		**Pb**	**02 10 02.4**	**0.0**
IVA				*e*Sn		**Sg**	**02 10 28.2**	**+1.2**
NKME	**Niksic**	**1.77**	**339**	*e*Pn		**Pb**	**02 10 02.0**	**-0.6**
NKME				*i* Sn		**Sg**	**02 10 26.6**	**-0.9**
PRMD	**Pramanda**	**1.86**	**148**	P		**Pb**	**02 10 03.9**	**-0.4**
PRMD				S		**Sg**	**02 10 29.6**	**-0.9**
TREB	**Trebinje**	**1.94**	**326**	*e*Pn		**Pn**	**02 10 02.5**	**-0.4**
TREB				*e*Sn		**Sn**	**02 10 26.7**	**-0.2**
TREB	**Trebinje**	**1.94**	**326**	*e*Pn		**Pn**	**02 10 02.4**	**-0.4**
GRG	**Griva**	**1.97**	**94**	P		**Pn**	**02 10 03.1**	**-0.2**
BRY	**Bratogost**	**2.02**	**332**	*e*Pn		**Pb**	**02 10 04.7**	**-1.3**
BRY	**Bratogost**	**2.02**	**332**	*e*Pn		**Pb**	**02 10 05.4**	**-1.6**
BRY				*e*Sn		**Sb**	**02 10 32.8**	**+0.8**
VAY	**Valandovo**	**2.09**	**83**	*e*Lg		Lg	02 10 34.5	
	comp=N,15nm,0.5s							
VAY	**Valandovo**	**2.09**	**83**	*i* Pn		**Pn**	**02 10 05.2**	**+0.2**
VAY	**Valandovo**	**2.09**	**83**	*i* Sn		**Sn**	**02 10 31.9**	**+1.2**
VAY	**Valandovo**	**2.09**	**83**	*e*Lg		Lg	02 10 32.1	
	comp=E,7.9nm,0.5s							
NOCI	**Noci**	**2.10**	**262**	Pn		**Pb**	**02 10 09.0**	**+0.7**
NOCI				IAML			02 10 45.8	
	comp=E,107nm,0.3s							
SJES	**Sjenica**	**2.15**	**3**	*e*Pn		**Pb**	**02 10 07.5**	**-1.6**
SJES				*e*Sg		**Sg**	**02 10 39.0**	**-0.6**
SJES	**Sjenica**	**2.15**	**3**	*e*Pn		**Pn**	**02 10 07.1**	**+1.2**
UPM	**Unac-Piva**	**2.19**	**342**	*e*Pn		**Pn**	**02 10 07.8**	**+1.3**
UPM	**Unac-Piva**	**2.19**	**342**	*e*Pn		**Pb**	**02 10 08.1**	**-1.8**
UPM				*e*Sn		**Sb**	**02 10 37.8**	**+0.8**
PLE	**Pljevlja**	**2.23**	**352**	⇓*i*Pn		**Pb**	**02 10 09.0**	**-1.6**
PLE				*e*Sn		**Sb**	**02 10 38.4**	**+0.3**
KLINJ	**Klinje**	**2.25**	**336**	*e*Pn		**Pb**	**02 10 10.4**	**-0.4**
BARS	**Barje**	**2.26**	**41**	*e*Pn		**Pn**	**02 10 08.2**	**+0.8**
THL	**Klokotos Trika**	**2.29**	**132**	P		**Pn**	**02 10 09.1**	**+1.5**
SELS	**Selova**	**2.32**	**24**	*e*Pn		**Pn**	**02 10 09.4**	**+1.3**
SELS				*e*Sn		**Sb**	**02 10 38.5**	**-1.9**
TYRN	**Tyrnavos**	**2.32**	**126**	P		**Pn**	**02 10 09.3**	**+1.2**
KNT	**Kendrikon**	**2.33**	**88**	P		**Pn**	**02 10 08.4**	**+0.1**
STON	**Ston**	**2.36**	**319**	*e*Pn		**Pn**	**02 10 08.0**	**-0.6**
STON				*e*Sn		**Sn**	**02 10 36.4**	**-0.8**
TSLK	**Tsoukalades, L**	**2.38**	**164**	P		**Pn**	**02 10 09.3**	**+0.4**
LKD2	**Lefkada island**	**2.41**	**164**	P		**Pn**	**02 10 09.4**	**0.0**
BOSS	**Bosilegrad**	**2.43**	**54**	*e*Pn		**Pn**	**02 10 09.8**	**+0.2**
AMPL	**Ampelaki**	**2.44**	**153**	P		**Pn**	**02 10 10.8**	**+1.1**
IVAS	**Ivanjica**	**2.47**	**6**	*e*Pn		**Pn**	**02 10 10.4**	**+0.1**
NYDR	**Nydri-Lefkada**	**2.50**	**164**	P		**Pn**	**02 10 10.2**	**-0.3**
DRAG	**Dragano-Lefkad**	**2.50**	**166**	P		**Pn**	**02 10 10.2**	**-0.4**
EVGl	**Lefkada island**	**2.58**	**165**	P		**Pn**	**02 10 11.2**	**-0.5**
KKB	**Krupnik**	**2.60**	**73**	P		**Pn**	**02 10 11.7**	**-0.3**
SOH	**Sokhos**	**2.70**	**95**	P		**Pn**	**02 10 13.8**	**+0.4**
PDO	**Prodromos**	**2.73**	**157**	P		**Pn**	**02 10 13.9**	**+0.2**
MRVN	**Minervino Murg**	**2.73**	**270**	Pn		**Pn**	**02 10 13.5**	**-0.3**
BBLS	**Lazi&#263i**	**2.77**	**354**	*e*Pn		**Pn**	**02 10 15.5**	**+1.2**
BBLS	**Lazi&#263i**	**2.77**	**354**	*e*Pn		**Pn**	**02 10 14.2**	**-0.1**
PVO	**Paravola**	**2.82**	**152**	P		**Pn**	**02 10 16.3**	**+1.2**
GRUS	**Gruza**	**2.85**	**13**	*e*Pn		**Pn**	**02 10 16.0**	**+0.6**
SRS	**Serrai**	**2.86**	**89**	*e*Pn		**Pn**	**02 10 15.8**	**+0.3**
SRS				*e*Sn		**Sn**	**02 10 49.8**	**+0.1**
BOVS	**Bovan**	**2.88**	**29**	*e*Pn		**Pn**	**02 10 16.4**	**+0.5**
DMLN	**Damoulianata-K**	**2.91**	**171**	P		**Pn**	**02 10 15.2**	**-0.9**
VTS	**Vitosha**	**2.97**	**58**	*e*Pn		**Pn**	**02 10 17.2**	**+0.1**
VTS				*e*Sn		**Sn**	**02 10 52.1**	**-0.4**
DIVS	**Divibare**	**2.98**	**3**	*e*Pn		**Pn**	**02 10 18.2**	**+0.9**
ZAPS	**Zavoj**	**3.01**	**43**	*e*Pn		**Pn**	**02 10 18.7**	**+1.1**
ZAPS				*e*Sn		**Sn**	**02 10 54.3**	**+0.9**
TRUS	**Trudelj**	**3.14**	**8**	*e*Pn		**Pn**	**02 10 19.8**	**+0.4**
TRUS				*e*Sn		**Sn**	**02 10 56.7**	**+0.2**
ZAGS	**Zajecar**	**3.24**	**33**	*e*Pn		**Pn**	**02 10 21.8**	**+1.1**
ZAGS				*e*Sn		**Sn**	**02 10 59.8**	**+0.8**
BLKB	**Belogradchik**	**3.28**	**39**	*e*Pn		**Pn**	**02 10 22.2**	**+0.8**
BLKB				*e*Sn		**Sn**	**02 11 00.4**	**+0.2**
TEKS	**Tekeris**	**3.44**	**357**	*e*Pn		**Pn**	**02 10 23.2**	**-0.3**
TEKS				*e*Sn		**Sn**	**02 11 03.7**	**-0.3**
TEKS	**Tekeris**	**3.44**	**357**	*e*Pn		**Pn**	**02 10 22.8**	**-0.7**
AVAS	**Avala Beograd**	**3.62**	**8**	*e*Pn		**Pn**	**02 10 25.5**	**-0.4**
PLD	**Plovdiv**	**3.84**	**73**	*e*Pn		**Pn**	**02 10 30.2**	**+1.2**
MDVR	**Moldovita**	**3.92**	**20**	*e*Pn		**Pn**	**02 10 30.1**	**-0.1**
BLY	**Banja Luka**	**4.11**	**333**	*e*Pn		**Pn**	**02 10 35.8**	**+3.1**
VRSS	**Vrsac**	**4.16**	**15**	*e*Pn		**Pn**	**02 10 33.7**	**+0.3**
BZS	**Buzias**	**4.69**	**16**	*e*Pn		**Pn**	**02 10 40.3**	**-0.3**
BZS				*e*Sn		**Sn**	**02 11 33.4**	**-1.3**
MORH	**Mrgy, Hungar**	**5.17**	**351**	*e*Pn		**Pn**	**02 10 46.8**	**-0.4**
SIRR	**Siria**	**5.32**	**14**	*e*Pn		**Pn**	**02 10 50.3**	**+0.9**

*CRAAG **27** 02:12:38.4,36.°37N×2.°67E,Ml3.4,Algrie 06km NW Tamesguida*
*MDD **27** 02:12:43.9±2.8,36.°52N×2.°79E,h34km±8km,Mb4.3/4, Error ellipse: s-maj=48.0km s-min=12.3km az=149.0*

ISC 27 02:12:37.7±1.6,**36.°29N**±0.°09×**2.°79E**±0.°08,**h27**km±12km, **n17,** σ2§**09/25,4C,Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ACHR	**Chrea**	**0.15**	**27**	P	**Pb**	**02 12 43.1**	**-0.3**
ADOR	**Douera**	**0.39**	**15**	P	**Pn**	**02 12 49.4**	**+1.6**
ABKD	**Sidi Amar**	**0.46**	**303**	P	**Pb**	**02 12 45.9**	**-1.5**
EDDR	**Deurdeur**	**0.55**	**239**	P	**Pb**	**02 12 48.9**	**+0.1**
ABA	**Alger-Bouzarea**	**0.55**	**21**	P	**Pn**	**02 12 49.7**	**-0.1**
EHRZ	**Djelida**	**0.56**	**261**	P	**Pb**	**02 12 48.2**	**-0.9**
EBNH	**Beni Haoua**	**1.02**	**284**	P	**Pb**	**02 12 56.7**	**-0.1**
ECHA	**Ech Chlef**	**1.16**	**264**	P	**Pn**	**02 12 56.3**	**-1.8**
EIBI	**Ibiza**	**2.97**	**338**	P	**Pn**	**02 13 25.1**	**+2.0**
EIBI				S	**Sn**	**02 13 56.3**	**-1.4**
EIBI	**Ibiza**	**2.97**	**338**	Pn	**Pn**	**02 13 25.1**	**+2.0**
EIBI				⇑IVmb_VC		02 13 28.2	
	654nm,SNR=1.2						
EIBI				Sn	**Sn**	**02 13 55.4**	**-2.4**
ETOS	**Mallorca**	**3.48**	**0**	P	**Pn**	**02 13 31.6**	**+1.6**
ETOS				S	**Sn**	**02 14 08.8**	**-1.5**
ETOS	**Mallorca**	**3.48**	**0**	Pn	**Pn**	**02 13 32.0**	**+2.0**
ETOS				⇑IVmb_VC		02 13 40.6	
	282nm,SNR=0.6						
ETOS				Sn	**Sn**	**02 14 07.3**	**-3.0**
ETOB	**Tobarra**	**4.18**	**306**	P	**Pn**	**02 13 42.4**	**+2.6**
ETOB				S	**Sn**	**02 14 27.5**	**-0.2**
ETOB	**Tobarra**	**4.18**	**306**	Pn	**Pn**	**02 13 42.1**	**+2.4**
ETOB				⇑IVmb_VC		02 13 49.9	
	166nm,SNR=0.8						
ETOB				Sn	**Sn**	**02 14 26.3**	**-1.4**
EMOS	**Mosqueruela**	**4.81**	**329**	Pn	**Pn**	**02 13 51.5**	**+3.0**
EMOS				⇑IVmb_VC		02 13 55.3	
	245nm,SNR=1.1						
EMOS				Sn	**Sn**	**02 14 40.4**	**-3.0**
EQTA	**Presa de Quent**	**5.09**	**282**	P	**Pn**	**02 13 52.7**	**+0.5**
EQTA				S	**Sn**	**02 14 50.8**	**+0.5**
ECAB	**El Cabril**	**6.79**	**288**	P	**Pn**	**02 14 19.6**	**+3.9**

IDC 27 02:20:14.3±2.8,**23.°18S**×**148.°36E,h0**km,**mbtmp3.4**/4, **ML3.1**/4,**Error ellipse: s-maj=29.7km s-min=12.3km az=92.0,Queensland**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**3.65**	**327**	Pn	Pn	02 21 11.3	-0.7
	1.2nm,0.3s,baz=143,slow=16,SNR=10						
CTA				Pg	Pb	02 21 20.6	+0.9
	4.6nm,0.3s,baz=140,slow=17,SNR=31						
CTA				Sn	Sn	02 21 54.5	-1.4
	1.6nm,0.3s,baz=256,slow=18,SNR=5.1						
CTA				Lg	Lg	02 22 09.3	
	6.1nm,0.3s,baz=43,slow=20,SNR=12						
	2.6nm,0.3s						
CTA				AML	AML		
STKA	**Stephens Creek**	**10.54**	**213**	Pn	Pn	02 22 45.2	-1.4
	0.1nm,0.3s,baz=25,slow=17,SNR=3.5						
STKA				Sn	Sn	02 24 40.5	-4.9
	0.2nm,0.3s,baz=290,slow=18,SNR=4.0						
STKA				Lg	Lg	02 25 45.9	
	0.2nm,0.3s,baz=295,slow=16,SNR=3.6						
	1.3nm,0.5s						
STKA				AML	AML		
ASAR	**Alice Springs**	**13.28**	**265**	Pn	Pn	02 23 22.8	-1.5
	0.1nm,0.3s,baz=90,slow=14,SNR=9.0						
ASAR				Sn	Sn	02 25 41.5	-11
	baz=91,slow=20,SNR=2.5						
ASAR				Lg	Lg	02 27 13.6	
	0.1nm,0.3s,baz=86,slow=26,SNR=4.9						
	0.6nm,0.5s						
ASAR				AML	AML		
WRA	**Warramunga Arr**	**13.44**	**281**	Pn	Pn	02 23 25.2	-1.2
	0.1nm,0.3s,baz=101,slow=13,SNR=1.7						
WRA				Lg	Lg	02 27 19.2	
	0.1nm,0.3s,baz=109,slow=28,SNR=5.1						
	1.0nm,1.2s						
WRA				AML	AML		

*MAN **27** 02:37:51.0,14.°08N×120.°43E,h117km,MS4.0*
*NEIC **27** 02:37:53.3±1.4,14.°05N±0.°09×120.°

comp=Z,34nm,1.6s,comp=Z,34nm,1.6s
SMPI Sarmi 23.90 130 P **P 02 42 56.6 +3.5**
comp=Z,74nm,1.3s,comp=Z,74nm,1.3s
HNS HongShan 23.91 348 ⇑P **P 02 42 53.0 +0.1**
HNS pmax pmax
comp=Z,25nm,0.7s
JCJ Chichijima 23.93 54 P **P 02 42 51.3 -2.0**
comp=Z,64nm,0.4s,baz=256,slow=17,SNR=9.2
JCJ Chichijima 23.93 54 P **P 02 42 52.9 -0.3**
UGM Wanagama 23.99 205 P **P 02 42 55.0 +1.1**
SDSI Sungai Dareh 24.16 234 P **P 02 42 55.4 0.0**
comp=Z,41nm,0.9s,comp=Z,41nm,0.9s
KPJI Karang Pucung 24.19 210 P **P 02 42 56.8 +1.2**
comp=Z,23nm,0.6s,comp=Z,23nm,0.6s
PSI Prapat 24.20 245 P **P 02 42 56.3 +0.4**
comp=Z,24nm,0.9s,comp=Z,24nm,0.9s
BATI Baumata 24.22 173 P **P 02 42 57.8 +1.8**
comp=Z,93nm,0.6s,comp=Z,93nm,0.6s
KSRS Korea Array 24.24 14 P **P 02 42 55.0 -0.8**
comp=Z,1.4nm,0.5s,baz=199,slow=9.2,SNR=2.9
KSRS LR LR 02 52 48.2
comp=Z,17nm,19.0s,baz=180,slow=37
comp=Z,1.4nm,0.5s
RPSI Rantau Prapat 24.25 244 P 02 42 55.9 -0.4
RPSI IAmb IAmb 02 42 57.4
comp=Z,22nm,0.9s
MDSI Maura Dua 24.60 223 P **P 02 43 01.9 +2.5**
comp=Z,27nm,0.8s,comp=Z,27nm,0.8s
PPI Padang Panjang 24.69 236 P **P 02 43 02.9 +2.6**
BBJI Bungbulang 24.93 212 P **P 02 43 02.6 +0.1**
BBJI IAmb IAmb 02 43 06.2
comp=Z,10nm,0.8s
MNAI Manna 25.34 225 P **P 02 43 06.7 +0.6**
BJI2 Beijing 26.23 352 P **P 02 43 13.3 -0.6**
BJI2 pP **pP 02 43 42.0 +2.3**
BJI2 pmax pmax
comp=Z,11nm,1.1s
BJI2 pmax pmax
comp=Z,81nm,4.2s
BJT Baijiatuau 26.23 352 P **P 02 43 12.8 -1.1**
BJT IAmb IAmb 02 43 14.8
comp=Z,21nm,1.2s
LZH Lanzhou 26.69 329 *eP* **P 02 43 19.8 +1.5**
LZH pP sP 02 43 51.0 -7.1
LZH pmax pmax
comp=Z,13nm,1.0s
MJAR Matsushiro Arr 27.39 32 LR LR 02 56 12.2
comp=Z,12nm,18.6s,baz=198,slow=40
HHC Hu-ho-hao-te 27.92 345 *eP* **P 02 43 32.8 +3.7**
HHC pmax pmax
comp=Z,9.0nm,0.6s
HHC pmax pmax
comp=Z,21nm,4.5s
XLT XiLinHaoTe 30.07 353 *eP* **P 02 43 48.0 -0.1**
XLT pmax pmax
comp=Z,11nm,0.9s
KNRA Kununurra 30.54 165 P **P 02 43 53.3 +0.9**
KNRA IAmb IAmb 02 44 18.9
comp=Z,13nm,1.4s
GTA2 Gaotai 31.37 328 *eP* **P 02 44 00.5 +0.8**
GTA2 pmax pmax
comp=Z,10.0nm,0.7s
USRK Ussuriysk Ar. 31.62 16 P **P 02 44 01.9 +0.3**
comp=Z,2.6nm,0.6s,baz=205,slow=6.5,SNR=7.7
comp=Z,2.6nm,0.6s
USRK Ussuriysk Ar. 31.62 16 P **P 02 44 01.5 -0.1**
BNX BinXian 32.15 9 ⇑P **P 02 44 06.5 +0.2**
BNX pmax pmax
comp=Z,9.0nm,1.0s
FITZ Fitzroy Crossi 32.26 171 P **P 02 44 06.7 -0.7**
FITZ Fitzroy Crossi 32.26 171 P **P 02 44 07.4 -0.1**
EVN Everest 34.41 299 P 02 44 27.3 +0.3
EVN IAmb IAmb 02 44 28.2
comp=Z,6.9nm,0.5s
PMG Port Moresby 35.08 130 P 02 44 32.2 +0.2
HILR Hailar Array B 35.47 359 P **P 02 44 34.6 -0.5**
comp=Z,2.4nm,0.5s,baz=182,slow=10,SNR=3.7
comp=Z,2.4nm,0.5s
ULN Ulaanbaatar 35.62 344 P 02 44 36.0 -0.5
ULN IAmb IAmb 02 44 37.7
comp=Z,7.0nm,0.6s
SONM Songino Array 35.77 343 P **P 02 44 37.6 -0.1**
comp=Z,5.9nm,0.5s,baz=164,slow=10,SNR=42
comp=Z,5.9nm,0.5s
SONM Songino Array 35.77 343 P 02 44 37.2 -0.6
SONM IAmb IAmb 02 44 38.9
comp=Z,6.3nm,0.6s
WB0 Warramunga Arr 36.16 158 P 02 44 40.5 -0.7
KLR Kul'dur 36.30 12 P **P 02 44 42.5 +0.5**
comp=Z,5.7nm,0.6s,baz=228,slow=8.4,SNR=14
KLR LR LR 03 00 40.1
comp=Z,20nm,19.4s,baz=335,slow=38
comp=Z,5.7nm,0.6s
WRA Warramunga Arr 36.30 158 P **P 02 44 41.8 -0.6**
comp=Z,4.9nm,0.5s,baz=337,slow=9.4,SNR=78
WRA S **S 02 50 07.3 -7.2**
comp=Z,1.2nm,0.8s,baz=336,slow=14,SNR=5.0
comp=Z,4.9nm,0.5s
WRA Warramunga Arr 36.30 158 P 02 44 41.1 -1.3
HEH HeiHe 36.58 7 *eP* **P 02 44 44.8 +0.4**
HEH pmax pmax
comp=Z,10.0nm,0.9s
QIS Mount Isa 39.05 151 P **P 02 45 04.6 -0.9**
comp=Z,8.4nm,0.7s
WRKA Warakurna 39.50 169 P **P 02 45 09.9 +0.7**
comp=Z,14nm,0.6s
AS31 Alice Springs 39.60 161 P 02 45 10.0 -0.1
ASAR Alice Springs 39.60 161 P **P 02 45 10.1 0.0**
comp=Z,7.7nm,0.4s,baz=337,slow=6.7,SNR=125
ASAR S **S 02 50 57.8 -6.5**
comp=Z,2.8nm,1.0s,baz=350,slow=22,SNR=12
comp=Z,7.7nm,0.4s
ASAR Alice Springs 39.60 161 P **P 02 45 10.4 +0.3**
TLY Talaya 40.02 344 P **P 02 45 12.6 -0.6**
TLY IAmb IAmb 02 45 13.9
comp=Z,7.0nm,0.9s
MORW Morawa 43.04 186 P **P 02 45 37.5 -0.6**
MORW IAmb IAmb 02 46 01.2
comp=Z,20nm,1.4s
FORT Forrest 45.07 171 P **P 02 45 54.4 +0.1**
FORT Forrest 45.07 171 P 02 45 54.1 -0.2
KMBL Kambalda 45.11 179 P **P 02 45 55.2 +0.6**
comp=Z,12nm,1.5s
KLBR Kellerberrin 45.41 184 P **P 02 45 56.7 -0.2**
comp=Z,19nm,0.6s
MKAR Makanchi Array 45.79 323 P **P 02 46 00.1 +0.2**
comp=Z,1.0nm,0.3s,baz=108,slow=8.2,SNR=32
MKAR PcP **PcP 02 47 33.3 -2.2**
comp=Z,1.7nm,0.9s,baz=82,slow=4.6,SNR=3.8
comp=Z,1.0nm,0.3s
PDGK Podgornoye 45.79 318 P 02 45 60.0 -0.1
MAKZ Makanchi 45.98 323 P **P 02 46 01.0 -0.3**
KSH2 Kashi 46.87 311 P **P 02 46 09.5 +0.9**
NRN Naryn 47.36 314 P 02 46 12.5 -0.1
BOOM Boomskoye usch 47.81 315 P **P 02 46 16.1 +0.3**
PETK Petropavlovsk- 48.78 29 P **P 02 46 22.5 -0.3**
comp=Z,6.7nm,0.8s,baz=254,slow=5.5,SNR=4.0
comp=Z,6.7nm,0.8s
ZALV Zalesovo Beam 48.79 333 P **P 02 46 22.1 -0.8**
comp=Z,2.5nm,0.4s,baz=117,slow=5.7,SNR=12
comp=Z,2.5nm,0.4s
ZALV Zalesovo Beam 48.79 333 P 02 46 21.5 -1.4
BBOO Buckleboo 48.80 163 P **P 02 46 23.2 -0.1**
comp=Z,41nm,1.1s
BBOO Buckleboo 48.80 163 P 02 46 23.0 -0.3
AAK Ala-Archa 48.85 315 P 02 46 23.5 -0.3
STKA Stephens Creek 49.82 157 P **P 02 46 31.5 +0.5**
comp=Z,2.2nm,0.3s,baz=334,slow=7.7,SNR=7.8
comp=Z,2.2nm,0.3s
STKA Stephens Creek 49.82 157 P 02 46 31.1 +0.1
KURBB Kurchatov Arra 49.94 326 P **P 02 46 31.8 +0.1**
comp=Z,9.4nm,0.9s,baz=123,slow=7.7,SNR=49
comp=Z,9.4nm,0.9s
KURK Kurchatov 49.94 326 P 02 46 31.6 -0.1
HTT Hallett 50.27 160 P **P 02 46 34.6 +0.2**
MA2 Magadan 50.63 19 LR LR 03 09 52.3
comp=Z,11nm,18.6s,baz=53,slow=38
KK31 Karatay Array 51.76 314 P 02 46 44.8 -0.8
KKAR Karatay Array 51.76 314 P 02 46 45.0 -0.5
KKAR PcP **PcP 02 47 56.5 -0.7**
BVAR Borovoye Array 55.52 326 P **P 02 47 12.7 -0.1**
comp=Z,6.1nm,0.5s,baz=111,slow=8.2,SNR=43
comp=Z,6.1nm,0.5s
BORK Borovoye 55.57 326 P 02 47 12.7 -0.4
NRIK Noril'sk 59.13 347 P **P 02 47 37.1 -0.6**
comp=Z,3.5nm,0.4s,baz=119,slow=4.2,SNR=4.4
comp=Z,3.5nm,0.4s

NRIK Noril'sk 59.13 347 P **P 02 47 36.7 -1.0**
NRIK IAmb IAmb 02 47 37.9
comp=Z,10nm,1.1s
AB31 Akbulak array 60.50 319 P 02 47 46.7 -0.8
AB31 IAmb IAmb 02 47 47.9
comp=Z,6.7nm,1.2s
ABKAR Akbulak array 60.50 319 P 02 47 46.9 -0.7
ARTI Arti 63.22 327 P **P 02 48 04.0 -1.6**
ARTI IAmb IAmb 02 48 05.6
comp=Z,4.3nm,0.9s
F15K North Star Dit 71.04 25 P **P 02 48 54.8 0.0**
F15K IAmb IAmb 02 49 14.5
comp=Z,13nm,1.2s
L14K Kuka Creek 71.42 30 P **P 02 48 57.9 +0.8**
L14K IAmb IAmb 02 48 59.1
comp=Z,13nm,1.1s
K15K Wolf Creek Mou 72.04 29 P **P 02 49 01.1 +0.3**
K15K IAmb IAmb 02 49 30.2
comp=Z,14nm,1.3s
N15K Kwethluk River 72.61 31 P **P 02 49 04.7 +0.3**
N15K IAmb IAmb 02 49 06.3
comp=Z,12nm,0.8s
C18K Utukok River 72.74 22 P **P 02 49 05.0 -0.1**
H17K Granite Mounta 72.94 26 P **P 02 49 06.5 +0.3**
H17K IAmb IAmb 02 49 07.9
comp=Z,10nm,1.1s
J17K VABM Dome 73.22 28 IAmb IAmb 02 49 09.8
comp=Z,12nm,0.9s
K17K Iditarod 73.55 28 IAmb IAmb 02 49 11.8
comp=Z,8.9nm,0.8s
H19K Roundabout Mou 74.42 25 IAmb IAmb 02 49 16.6
comp=Z,11nm,1.1s
L19K White Mountain 75.16 29 IAmb IAmb 02 49 20.9
comp=Z,6.2nm,0.8s
G21K Allakaket 75.61 24 IAmb IAmb 02 49 22.7
comp=Z,5.5nm,0.7s
CAST Castle Rocks 76.37 28 P 02 49 26.4 +0.4
MLY Manley 76.83 26 IAmb IAmb 02 49 30.0
comp=Z,9.4nm,0.6s
E23K Chandalar 77.02 23 IAmb IAmb 02 49 31.0
comp=Z,5.0nm,0.5s
I23K Minto, Yukon-K 77.40 26 IAmb IAmb 02 49 34.4
comp=Z,6.1nm,0.8s
NEA2 Nenana 77.59 26 IAmb IAmb 02 49 34.2
comp=Z,5.8nm,0.7s
F24K Squaw Lake 77.73 23 IAmb IAmb 02 49 35.3
comp=Z,4.3nm,0.6s
WRH Wood River Hil 78.02 26 IAmb IAmb 02 49 36.0
comp=Z,5.3nm,0.6s
C26K Camden Bay 78.48 21 IAmb IAmb 02 49 39.8
comp=Z,12nm,1.2s
ILAR Eielson Array 78.50 26 P **P 02 49 36.4 -1.4**
comp=Z,1.3nm,0.7s,baz=270,slow=3.7,SNR=13
comp=Z,1.3nm,0.7s
HDA Harding Lake 78.52 26 IAmb IAmb 02 49 37.5
comp=Z,5.2nm,0.5s
DHY Denali Highway 78.52 28 IAmb IAmb 02 49 41.1
comp=Z,5.3nm,0.7s
ARCES ARCESS Array B 78.81 339 P **P 02 49 38.7 -0.8**
comp=Z,1.6nm,0.6s,baz=77,slow=6.8,SNR=8.3
comp=Z,1.6nm,0.6s
ARCES ARCESS Array B 78.81 339 IAmb IAmb 02 49 59.4
comp=Z,21nm,1.5s
BRTR Keskin Array B 78.96 308 P **P 02 49 40.0 -1.0**
comp=Z,0.9nm,0.7s,baz=111,slow=3.1,SNR=6.9
comp=Z,0.9nm,0.7s
BRTR Keskin Array B 78.96 308 P **P 02 49 40.2 -0.9**
BR104 Keskin Array S 78.96 308 P **P 02 49 40.2 -0.8**
comp=Z,2.3nm,0.9s
BMAR Burnt Mountain 79.01 23 P 02 49 41.6 +1.0
EIL Elat 79.56 298 LR LR 03 28 42.1
comp=Z,20nm,18.3s,baz=311,slow=38
D27M Malcolm River 79.97 21 IAmb IAmb 02 49 47.1
comp=Z,7.8nm,0.9s
FINES FINESS Array B 80.02 331 P **P 02 49 45.2 -0.9**
comp=Z,1.6nm,0.5s,baz=35,slow=5.7,SNR=15
comp=Z,1.6nm,0.5s
AKASG Malin Array Be 80.23 320 P **P 02 49 45.9 -1.6**
comp=Z,0.4nm,0.3s,baz=72,slow=3.5,SNR=4.4
AKASG LR LR 03 29 59.5
comp=Z,48nm,18.3s,baz=334,slow=39
comp=Z,0.4nm,0.3s
AK04 Malin Array Si 80.26 320 P **P 02 49 45.7 -2.0**
AK06 Malin Array Si 80.27 320 P **P 02 49 45.7 -2.0**
I27K Kandik River 80.53 25 IAmb IAmb 02 49 50.6
comp=Z,7.5nm,0.8s
K27K Chicken 80.69 26 IAmb IAmb 02 49 51.5
comp=Z,6.2nm,0.7s
F28M Old Crow 80.74 23 IAmb IAmb 02 49 51.1
comp=Z,7.2nm,0.7s
I28M Miner Creek 81.25 25 IAmb IAmb 02 49 54.4
comp=Z,9.8nm,0.7s
SORM Soroca 81.26 317 ⇓P **P 02 49 50.9 -2.2**
SORM Soroca 81.26 317 P **P 02 49 50.8 -2.2**
comp=Z,7.5nm,0.9s
LUBAR Lubar, Ukraine 81.30 319 P **P 02 49 51.4 -1.8**
TLCR 81.52 314 ⇑P **P 02 49 53.6 -0.9**
TPGR Topolog 81.86 314 ⇓P **P 02 49 55.8 -0.5**
VLDR Vladesti 81.89 315 ⇑P **P 02 49 55.9 -0.5**
SCTR Scanteiesti 81.99 315 ⇓P P 02 49 45.1 -12
MNTR Muntenesti 82.08 316 ⇑P **P 02 49 56.4 -0.9**
RNPP9 Sopachiv 82.15 321 P **P 02 49 55.6 -2.0**
DMBR Dumbraveni 82.20 316 ⇓P **P 02 49 57.3 -0.7**
F30M Barrier River 82.25 22 IAmb IAmb 02 49 59.2
comp=Z,9.8nm,0.8s
KMPD K-Podol'skiy 82.41 318 P **P 02 49 56.4 -2.6**
ODBI Odobesti 82.61 315 ⇓P **P 02 50 00.7 +0.5**
TESR Tescani 82.73 316 ⇑P **P 02 49 59.8 -0.9**
I30M Mount Dempster 82.74 24 IAmb IAmb 02 50 02.5
comp=Z,14nm,1.0s
VRI Vrincioaia 82.81 315 ⇑P **P 02 50 00.5 -0.7**
INK Inuvik 82.83 21 P 02 50 00.3 -0.5
INK IAmb IAmb 02 50 01.3
comp=Z,5.1nm,0.7s
PLOR Plostina 82.87 315 ⇓P **P 02 50 01.0 -0.6**
SAHR Sahastru 82.87 315 ⇓P **P 02 50 01.9 +0.2**
COVR Voineasa-Covas 83.18 315 ⇑P **P 02 50 02.3 -0.8**
TURR Turia 83.26 316 ⇑P **P 02 50 02.9 -0.7**
MLR Muntele Rosu 83.43 315 P 02 50 03.9 -0.7
MLR IAmb IAmb 02 50 04.8
comp=Z,4.2nm,0.6s
MLR Muntele Rosu 83.43 315 ⇓P **P 02 50 04.4 -0.2**
MLR Muntele Rosu 83.43 315 P **P 02 50 03.6 -1.0**
BURAR Bucovina Array 83.43 317 P 02 50 03.8 -0.7
BURAR IAmb IAmb 02 50 05.0
comp=Z,5.8nm,0.8s
BURAR Bucovina Array 83.43 317 ⇓P **P 02 50 04.1 -0.4**
BUR08 Bucovina Ar. S 83.44 317 P 02 50 04.0 -0.5
BUR08 IAmb IAmb 02 50 04.7
comp=Z,3.9nm,0.6s
A36M Sachs Harbour 83.96 17 P 02 50 05.9 -0.7
A36M IAmb IAmb 02 50 06.6
comp=Z,7.5nm,0.7s
VOIR 84.06 315 ⇑P **P 02 50 06.4 -1.3**
KARP Karpathos 84.81 305 P **P 02 50 10.5 -1.2**
WHY Whitehorse 84.84 29 P **P 02 50 11.9 +0.6**
MARR Marisel-Cluj 85.05 317 ⇑P **P 02 50 12.2 -0.5**
DRGR 85.29 317 ⇑P **P 02 50 12.7 -1.2**
BLKB Belogradchik 86.16 314 ⇓P **P 02 50 17.1 -1.1**
OJC Ojcow 86.19 321 P **P 02 50 17.3 -0.9**
HFS Hagfors 86.21 331 P **P 02 50 15.6 -2.5**
comp=Z,1.1nm,0.5s,baz=134,slow=4.3,SNR=6.8
comp=Z,1.1nm,0.5s
MDVR Moldovita 86.51 315 ⇓P **P 02 50 15.4 -4.5**
NC405 NORSAR Array S 86.74 333 P **P 02 50 19.1 -1.5**
NB2 NORSAR Subarra 87.00 333 P **P 02 50 19.9 -2.0**
comp=Z,4.3nm,0.9s,baz=67,slow=4.6
NOA NORSAR Array B 87.00 333 P **P 02 50 20.2 -1.7**
comp=Z,2.8nm,0.8s,baz=67,slow=4.6,SNR=9.8
comp=Z,2.8nm,0.8s
RES Resolute Bay 88.75 9 P **P 02 50 29.5 -0.4**
RES IAmb IAmb 02 50 36.2
comp=Z,11nm,1.4s
CKRC Cesky Krumlov 90.03 321 *eP* **P 02 50 33.7 -2.8**
KHC Kasperske Hory 90.36 321 *eP* **P 02 50 37.5 -0.5**
GERES GERESS Array B 90.40 321 P **P 02 50 36.7 -1.5**
comp=Z,0.9nm,0.7s,baz=36,slow=5.0,SNR=7.4
comp=Z,0.9nm,0.7s
SESA Seetaler Alpe, 90.49 319 *eP* **P 02 50 37.9 -0.9**
comp=Z,0.5nm,0.3s
OBKA Obir 90.72 318 *eP* **P 02 50 38.8 -1.0**
comp=Z,0.4nm,0.4s
LESA Schwarzleotal 91.57 320 *eP* **P 02 50 42.4 -1.3**
comp=Z,0.3nm,0.3s
ABTA Abfaltersbach 91.93 319 *eP* **P 02 50 44.0 -1.4**
comp=Z,0.4nm,0.2s

YKA Yellowknife Ar 92.51 22 P **P 02 50 47.6 0.0**
comp=Z,2.7nm,0.5s,baz=309,slow=4.5,SNR=36
comp=Z,2.7nm,0.5s
SQTA Sankt Quirin 92.57 320 *eP* **P 02 50 47.0 -1.3**
comp=Z,4.6nm,1.0s
FETA Feichten 92.95 320 *eP* **P 02 50 49.0 -1.2**
comp=Z,0.2nm,0.2s
TXAR Lajitas Array 119.27 44 PKP **PKPdf 02 56 25.6 -0.4**
comp=Z,0.2nm,0.3s,baz=191,slow=1.1,SNR=9.8
TKL Tuckaleechee C 125.46 24 PKP **PKPdf 02 56 37.1 -0.5**
comp=Z,3.3nm,1.1s,baz=44,slow=5.3,SNR=4.2
PLCA Paso Flores 151.61 162 PKPbc **PKPbc 02 57 29.3 -1.4**
comp=Z,1.9nm,0.7s,baz=212,slow=1.4,SNR=6.0

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*RSNC **27** 02:54:39.8±0.0, 7˚N±3˚×7˚3W±˚, h149km±7km, M2.8, mB4.7, mb3.6, ML2.5, Mw(mB)3.9*
*FUNV **27** 02:54:39.6, 7.00N×73.01W, h170km, MW3.6, Presumed earthquake*
ISC 27 02:54:37.2±1.4, 6˚99N±0˚03×73˚03W±0˚04, h175km±9km, n32, σ1$61/62, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.42**	**201**	P	**Pn**	**02 55 01.8**	**+0.4**
BARC				S	**Sn**	**02 55 18.5**	**-1.6**
RUSC	**La Rusia**	**1.09**	**183**	P	**Pn**	**02 55 06.0**	**+0.3**
RUSC				S	**Sn**	**02 55 26.2**	**-1.5**
RUSC	**La Rusia**	**1.09**	**183**	*eP*	**Pn**	**02 55 06.4**	**+0.6**
RUSC				*eS*	**Sn**	**02 55 26.6**	**-1.1**
CAPV	**Capacho**	**1.12**	**39**	*eP*	**Pn**	**02 55 07.5**	**+1.9**
CAPV				*eS*	**Sn**	**02 55 26.3**	**-1.3**
OCAC	**Ocana**	**1.27**	**347**	P	**Pn**	**02 55 08.0**	**+1.2**
OCAC				S	**Sn**	**02 55 29.6**	**-0.2**
TAMC	**Tame, Arauca**	**1.35**	**114**	P	**Pn**	**02 55 08.9**	**+1.5**
TAMC				S	**Sn**	**02 55 31.1**	**+0.5**
PTBC	**PUERTO BERRIO,**	**1.49**	**252**	P	**Pn**	**02 55 08.8**	**+0.2**
PTBC				S	**Sn**	**02 55 31.5**	**-1.4**
SPBC	**San Pablo de B**	**1.69**	**218**	P	**Pn**	**02 55 11.3**	**+0.6**
SPBC				S	**Sn**	**02 55 35.7**	**-1.0**
CHIC	**Chingaza**	**2.45**	**197**	P	**Pn**	**02 55 20.4**	**+0.9**
CHIC				S	**Sn**	**02 55 50.7**	**-1.6**
ROSC	**El Rosal**	**2.49**	**211**	P	**Pn**	**02 55 22.0**	**+2.0**
ROSC				S	**Sn**	**02 55 51.1**	**-2.0**
UREC	**San Jos de Ur**	**2.59**	**287**	P	**Pn**	**02 55 20.9**	**+0.1**
URE C				S	**Sn**	**02 55 52.9**	**-1.7**
CVER	**Cruz Verde, Cu**	**2.67**	**203**	P	**Pn**	**02 55 24.5**	**+2.4**
CVER				S	**Sn**	**02 55 55.9**	**-1.0**
GUY2C	**Guyana, Caldas**	**2.91**	**233**	P	**Pn**	**02 55 26.5**	**+1.5**
GUY2C				S	**Sn**	**02 56 01.7**	**-0.5**
PTGC	**Puerto Gaitan,**	**2.91**	**162**	P	**Pn**	**02 55 24.7**	**+0.1**
PTGC				S	**Sn**	**02 55 58.6**	**-3.0**
SDV	**Santo Domingo**	**3.03**	**51**	P	**Pn**	**02 55 28.0**	**+1.8**
SDV				S	**Sn**	**02 56 05.1**	**+0.8**
SDV	**Santo Domingo**	**3.03**	**51**	*eP*	**Pn**	**02 55 27.6**	**+1.4**
SDV				*eS*	**Sn**	**02 56 02.0**	**-2.3**
ARGC	**Ariguani, Magd**	**3.09**	**337**	P	**Pn**	**02 55 30.2**	**+3.4**
ARGC				S	**Sn**	**02 56 07.1**	**+1.6**
CBOC	**Ciudad Bolivar**	**3.17**	**249**	P	**Pn**	**02 55 29.8**	**+1.9**
CBOC				S	**Sn**	**02 56 05.9**	**-1.4**
SJCC	**San Jacinto, C**	**3.58**	**324**	P	**Pn**	**02 55 33.7**	**+0.7**
SJCC				S	**Sn**	**02 56 15.0**	**-1.5**
SJCC	**San Jacinto, C**	**3.58**	**324**	*eP*	**Pn**	**02 55 34.1**	**+1.1**
SJCC				*eS*	**Sn**	**02 56 14.4**	**-2.1**
APAC	**Apartado, Choc**	**3.63**	**285**	P	**Pn**	**02 55 34.9**	**+1.4**
APAC				S	**Sn**	**02 56 17.4**	**-0.1**
PRAC	**Prado**	**3.75**	**210**	P	**Pn**	**02 55 36.6**	**+1.6**
PRAC				S	**Sn**	**02 56 19.4**	**-0.7**
ORTC	**Ortega, Tolima**	**3.77**	**216**	P	**Pn**	**02 55 36.3**	**+0.9**
ORTC				S	**Sn**	**02 56 19.6**	**-1.2**
LCBC	**Los crdobas,**	**3.79**	**299**	P	**Pn**	**02 55 36.7**	**+1.2**
LCBC				S	**Sn**	**02 56 18.6**	**-2.4**
PLMC	**San Jos del P**	**3.84**	**238**	P	**Pn**	**02 55 37.7**	**+1.4**
PLMC				S	**Sn**	**02 56 20.6**	**-1.8**
URMC	**La Uribe, Meta**	**3.96**	**200**	P	**Pn**	**02 55 39.4**	**+1.7**
URMC				S	**Sn**	**02 56 24.5**	**-0.5**
CRJC	**Cerrejon, Guaj**	**4.00**	**2**	P	**Pn**	**02 55 39.6**	**+1.3**
CRJC				S	**Sn**	**02 56 25.2**	**-1.0**
SMRC	**Santa Marta, M**	**4.31**	**344**	P	**Pn**	**02 55 44.5**	**+2.3**
SMRC				S	**Sn**	**02 56 31.5**	**-1.6**
YOTC	**Yotoco, Valle**	**4.45**	**228**	P	**Pn**	**02 55 45.7**	**+1.6**
YOTC				S	**Sn**	**02 56 36.2**	**-0.3**
URIC	**Uribia, Colomb**	**4.79**	**12**	*eP*	**Pn**	**02 55 48.0**	**-0.4**
URIC				*eS*	**Sn**	**02 56 40.0**	**-4.2**
BENV	**Beln**	**6.13**	**61**	*eP*	**Pn**	**02 56 05.9**	**-0.1**
PTLC	**Puerto Leguiza**	**7.00**	**195**	P	**Pn**	**02 56 19.8**	**+2.4**

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*AFAD **27** 03:01:53.8, 37˚86N×26˚94E, h7km±2km, ML2.3*
*ISK **27** 03:01:53.5, 37.87N×26˚94E, h8km, ML2.7/17*
*THE **27** 03:01:54.1, 37˚9N±0˚8×2˚7E±˚, h3km±1km, M2.4/8, MLh2.4/8*
ISC 27 03:01:54.0±0.9, 37˚86N±0˚02×26˚94E±0˚02, h11km±7km, n36, σ0$40/53, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**208**	P	**Pg**	**03 01 57.8**	**0.0**
SMG				S	**Sg**	**03 02 00.4**	**0.0**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**347**	P	**Pg**	**03 01 58.1**	**-0.2**
DGB				S	**Sg**	**03 02 00.6**	**-0.5**
GMLD	**Gumuldur**	**0.22**	**355**	Pg	**Pg**	**03 01 58.4**	**-0.2**
GMLD				Sg	**Sg**	**03 02 01.8**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.28**	**124**	P	**Pg**	**03 01 59.9**	**+0.2**
GCAM				S	**Sg**	**03 02 04.0**	**+0.3**
GCAM				IAML		03 02 04.0	
	comp=E,421nm,0.2s						
GCAM				IAML		03 02 05.0	
	comp=N,778nm,0.2s						
GCAM	**G?zelcaml?**	**0.28**	**124**	Pg	**Pg**	**03 01 59.8**	**0.0**
GCAM				Sg	**Sg**	**03 02 04.3**	**+0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.37**	**359**	P	**Pg**	**03 02 01.2**	**-0.1**
BEYE				S	**Sg**	**03 02 06.2**	**0.0**
ZEYE	**Izmir, Urla-Ze**	**0.51**	**318**	P	**Pg**	**03 02 03.8**	**-0.2**
ZEYE				IAML		03 02 11.0	
	comp=N,512nm,0.3s						
ZEYE				S	**Sg**	**03 02 11.4**	**+0.6**
ZEYE				IAML		03 02 15.0	
	comp=E,223nm,0.2s						
BLCB	**Balcova**	**0.53**	**9**	P	**Pg**	**03 02 04.1**	**-0.3**
BLCB				S	**Sg**	**03 02 11.5**	**+0.1**
BLCB	**Balcova**	**0.53**	**9**	Pg	**Pg**	**03 02 03.9**	**-0.5**
BLCB				AML	AML		
DUVT	**Torbali**	**0.54**	**48**	P	**Pg**	**03 02 04.2**	**-0.4**
DUVT				IAML		03 02 16.0	
	comp=E,143nm,0.3s						
CESE	**eme**	**0.69**	**313**	Pg	**Pg**	**03 02 07.2**	**-0.2**
CESE				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.76**	**83**	Pg	**Pg**	**03 02 08.7**	**0.0**
AYDB				Sg	**Sb**	**03 02 19.5**	**-0.2**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**160**	Pg	**Pg**	**03 02 08.9**	**-0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**338**	Pg	**Pg**	**03 02 09.3**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.80**	**355**	P	**Pg**	**03 02 09.2**	**-0.2**
BAGT				S	**Sb**	**03 02 21.0**	**+0.3**
BAGT				IAML		03 02 21.0	
	comp=E,108nm,0.3s						
BAGT				IAML		03 02 28.0	
	comp=N,133nm,0.9s						
BODT	**Bodrum**	**0.85**	**160**	P	**Pg**	**03 02 10.1**	**-0.4**
BODT				S	**Sb**	**03 02 22.7**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**160**	Pg	**Pg**	**03 02 10.2**	**-0.2**
BODT				AML	AML		
FOCM	**Foa**	**0.87**	**349**	Pg	**Pg**	**03 02 10.3**	**-0.4**
CHOS	**Chios island**	**0.87**	**307**	P	**Pg**	**03 02 10.8**	**-0.1**
CHOS				S	**Sb**	**03 02 23.4**	**+0.5**
CHOS				AML	AML		
CHOS	**Chios island**	**0.87**	**307**	Pg	**Pg**	**03 02 10.8**	**-0.1**
CHOS				AML	AML		
MLSB	**Milas**	**0.87**	**130**	Pg	**Pg**	**03 02 10.5**	**-0.3**
MLSB				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**333**	P	**Pb**	**03 02 11.5**	**-0.3**
KARB				S	**Sb**	**03 02 23.8**	**+0.1**
KARB				IAML		03 02 26.0	
	comp=N,139nm,0.3s						

KARB					IAML		03 02 27.0	
	comp=E,78nm,0.8s							
BODA	**Bodrum-Mula**	**0.91**	**154**	Pg	**Pg**	**03 02 11.5**	**-0.1**	
CAMT	**Merkez**	**0.93**	**18**	P	**Pn**	**03 02 13.0**	**-0.1**	
CAMT				S	**Sn**	**03 02 26.3**	**-0.2**	
CAMT				IAML		03 02 28.0		
	comp=N,165nm,0.5s							
CAMT				IAML		03 02 28.0		
	comp=E,193nm,0.3s							
NAZL	**Nazilli-Aydin**	**1.07**	**84**	Pg	**Pg**	**03 02 14.4**	**-0.3**	
NAZL				AML	AML			
ZEDA	**zmir-Bergama**	**1.11**	**6**	P	**Pb**	**03 02 15.4**	**+0.2**	
ZEDA				S	**Sb**	**03 02 30.0**	**+0.3**	
ZEDA				IAML		03 02 32.0		
	comp=N,77nm,0.3s							
ZEDA				IAML		03 02 34.0		
	comp=E,85nm,0.4s							
GOMA	**Golmarmara-Man**	**1.14**	**42**	Pn	**Pg**	**03 02 15.5**	**-0.5**	
GOMA				AML	AML			
DKL	**Dikili**	**1.21**	**359**	Pn	**Pb**	**03 02 16.9**	**0.0**	
DKL				AML	AML			
AKS	**Akhisar**	**1.23**	**34**	Pn	**Pb**	**03 02 17.2**	**-0.1**	
DAT	**Datca**	**1.24**	**156**	P	**Pb**	**03 02 16.8**	**-0.7**	
DAT				AML	AML			
APE	**Apeiranthos**	**1.37**	**235**	P	**Pn**	**03 02 17.7**	**-1.5**	
APE				S	**Sg**	**03 02 38.9**	**+0.7**	
SOMA	**Soma-Manisa**	**1.38**	**20**	Pn	**Pn**	**03 02 19.5**	**+0.3**	
SOMA				AML	AML			
GORD	**Gordes-Manisa**	**1.43**	**43**	Pn	**Pn**	**03 02 20.2**	**+0.2**	
GORD				AML	AML			
PRK	**Paraskevi**	**1.48**	**339**	P	**Pn**	**03 02 20.8**	**+0.2**	
PRK				S	**Sg**	**03 02 42.2**	**+0.6**	
PRK				AML	AML			
THERA	**Ancient Thera,**	**1.90**	**219**	P	**Pn**	**03 02 27.1**	**+0.7**	
ARG	**Arkhangelos**	**1.90**	**150**	P	**Pn**	**03 02 26.7**	**+0.3**	

IDC 27 03:28:42.0±5.3, 6°39S×149°10E, h75km±52km, mb3.5/2, mbtmp3.9/4, ML3.3/2, MS3.0/3, Error ellipse: s-maj=118.3km s-min=35.0km az=127.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.56**	**212**	P	Pn	03 29 35.3	+0.5
	24nm,0.3s,baz=14,slow=5.0,SNR=27						
PMG				S	Sn	03 30 16.3	+0.5
	80nm,0.3s,baz=282,slow=20,SNR=9.4						
	56nm,0.3s						
PMG				AML	AML		
KRVT	**Keravat (AS076**	**3.58**	**55**	LR	LR	03 31 08.2	
	comp=Z,196nm,18.0s,baz=276,slow=41						
HNR	**Honiara**	**11.16**	**106**	LR	LR	03 34 32.7	
	comp=Z,41nm,20.7s,baz=352,slow=31						
WRA	**Warramunga Arr**	**19.67**	**225**	P	P	03 33 04.7	-0.5
	0.4nm,0.3s,baz=50,slow=11,SNR=13						
	1.0nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**22.55**	**219**	P	P	03 33 36.2	+0.1
	3.6nm,1.0s,baz=57,slow=9.6,SNR=23						
	3.6nm,1.0s						
JOW	**Kunigami**	**38.70**	**329**	LR	LR	03 49 24.8	
	comp=Z,31nm,19.4s,baz=58,slow=32						
ILAR	**Eielson Array**	**85.03**	**23**	P	P	03 41 09.2	+0.2
	0.4nm,0.6s,baz=245,slow=5.5,SNR=7.1						
	0.4nm,0.6s						

IDC 27 03:44:27.2±8.4, 23°15S×178°93E, h619km±83km, mb3.0/3, mbtmp3.9/4, Error ellipse: s-maj=215.0km s-min=25.4km az=157.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.45**	**351**	P	P	03 46 04.9	-0.1
	3.2nm,0.3s,baz=140,slow=17,SNR=8.0						
ASAR	**Alice Springs**	**41.19**	**260**	P	P	03 51 19.4	-0.6
	0.5nm,0.3s,baz=94,slow=7.4,SNR=5.7						
	0.5nm,0.3s						
WRA	**Warramunga Arr**	**41.48**	**266**	P	P	03 51 22.6	+0.3
	1.6nm,0.3s,baz=102,slow=8.1,SNR=21						
	1.6nm,0.3s						
TXAR	**Lajitas Array**	**90.88**	**58**	P	P	03 56 26.5	-0.1
	0.4nm,0.8s,baz=210,slow=4.8,SNR=4.5						
	0.4nm,0.8s						
HFS	**Hagfors**	**141.61**	**348**	PKP	PKPdf	04 02 48.8	+0.1
	1.1nm,0.4s,baz=0.0,slow=1.4,SNR=11						

IDC 27 03:56:32.0±1.9, 34°.48N×140°.38E, h91km±13km, mb3.4/3, mbtmp3.8/6, Error ellipse: s-maj=33.4km s-min=7.7km az=78.0
NIED 27 03:56:32.3, 34°.48N×140°.24E, h85km, MW3.9, Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁴Nm; Mrr=4.47; Mθθ=4.65; Mϕϕ 9.12; Mrθ 1.22; Mrϕ -1.00; Mθϕ 4.07; Fault plane solution: M₀ 8.46000×10¹⁴ NP1: ϕs=319.00000°, δ=43.00000°, λ=-148.00000°. NP2: ϕs=204.00000°, δ=69.00000°, λ=-52.00000°.
JMA 27 03:56:32.3±0.1, 34°.5N±0°.4×140°.2E±0°.5, h85km±1km, MW3.8/21, FAR S OFF BOSO PENINSULA
ISC 27 03:56:32.1±1.0, 34°.50N±0°.06×140°.27E±0°.08, h100km, n14, σ1s39/17, mb3.7/3, 3D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BSO3	**Boso 3**	**0.36**	**33**	⇓*iP*	**Pn**	**03 56 45.9**	**-0.7**
BSO4	**Boso 4**	**0.50**	**6**	⇓P	**Pn**	**03 56 47.1**	**-0.6**
BSO1	**Boso 1**	**0.60**	**75**	P	**Pn**	**03 56 47.4**	**-0.6**
TATJ	**Tateyama 2**	**0.62**	**330**	⇓*iP*	**Pn**	**03 56 48.4**	**-0.4**
JIM2	**Oshima 3**	**0.73**	**288**	*eP*	**Pn**	**03 56 48.4**	**-1.3**
JIM2				*eS*	**Sn**	**03 57 00.1**	**-3.0**
JMYK	**Miyake Tsubota**	**0.74**	**234**	P	**Pn**	**03 56 49.0**	**-0.9**
JMYK				*eS*	**Sn**	**03 57 01.7**	**-1.5**
JHJ	**Hachijo jima 2**	**1.43**	**197**	P	**Pn**	**03 56 57.1**	**-0.4**
	38nm,0.3s,baz=53,slow=20,SNR=72						
JHJ				S	**Sn**	**03 57 15.9**	**-0.9**
	94nm,0.3s,baz=270,slow=20,SNR=29						
MJAR	**Matsushiro Arr**	**2.65**	**321**	P	**Pn**	**03 57 13.2**	**+0.1**
	11nm,0.3s,baz=130,slow=16,SNR=82						
MJAR				S	**Sn**	**03 57 45.9**	**+1.2**
	5.6nm,0.3s,baz=148,slow=22,SNR=4.7						
JCJ	**Chichijima**	**7.56**	**167**	P	Pn	03 58 13.5	-6.1
	105nm,0.4s,baz=349,slow=24,SNR=46						
JCJ				S	Sn	03 59 33.1	-11
	90nm,1.0s,baz=256,slow=22,SNR=2.0						
JNU	**Nakatsue**	**7.94**	**263**	P	**Pn**	**03 58 25.1**	**+0.4**
	4.0nm,0.4s,baz=58,slow=7.5,SNR=5.3						
ASAJ	**Asahikawa**	**9.77**	**10**	P	**Pn**	**03 58 47.6**	**-1.9**
	11nm,1.0s,baz=151,slow=10,SNR=2.1						
MKAR	**Makanchi Array**	**44.73**	**304**	P	**P**	**04 04 36.8**	**+1.5**
	0.4nm,0.7s,baz=86,slow=9.4,SNR=2.1						
	0.4nm,0.7s						
WRA	**Warramunga Arr**	**54.43**	**187**	P	**P**	**04 05 49.1**	**+0.1**
	2.4nm,0.7s,baz=2.7,slow=7.7,SNR=27						
	2.4nm,0.7s						
ASAR	**Alice Springs**	**58.16**	**187**	P	**P**	**04 06 17.2**	**+1.8**
	0.6nm,0.8s,baz=1.8,slow=6.7,SNR=6.6						
	0.6nm,0.8s						

IDC 27 03:58:40.7±1.0, 27°.73S×71°.93W, h0km, mb3.7/2, mbtmp3.7/6, ML3.8/4, MS3.1/8, Error ellipse: s-maj=26.6km s-min=17.4km az=81.0
NEIC 27 03:58:41.4±1.5, 27°.72S±0°.03×71°.55W±0°.05, h10km±1km, mb4.3/6, ML4.0(GUC), Error ellipse: s-maj=7.6km s-min=5.4km az=245.0
GUC 27 03:58:44.2±0.8, 27°.83S×71°.29W, h33km±4km, ML4.0, Presumed earthquake
SJA 27 03:58:47.0±0.7, 28°.05S×71°.31W, h14km±3km, ML4.0, MW3.9
ISC 27 03:58:39.9±1.9, 27°.72S±0°.03×71°.53W±0°.05, h5km±12km, n101, σ1s42/99, mb4.2/5, MS3.0/4, 9C-5D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.63**	**140**		**Pb**	**03 58 54.2**	**+0.9**
AC04				Sg	**Sg**	**03 59 01.1**	**+1.0**
AC04	**Llanos de Chal**	**0.63**	**140**	⇓*iP*	**Pb**	**03 58 54.2**	**+0.9**
AC04				*i* S	**Sg**	**03 59 01.1**	**+1.0**
AC04				IAML		03 59 01.9	
	comp=N,15μm,0.5s						
AC06	**Mina Casimiro**	**1.10**	**71**		**Pn**	**03 59 02.6**	**+0.6**
AC06	**Mina Casimiro**	**1.10**	**71**	⇓*iP*	**Pn**	**03 59 02.6**	**+0.6**
AC06				*i* S	**Sn**	**03 59 16.0**	**-1.6**
AC06				IAML		03 59 18.3	
	comp=E,5μm,0.4s						
GO03	**Copiapo**	**1.16**	**84**	*i* P	**Pn**	**03 59 03.2**	**+0.4**
GO03				IAML		03 59 18.8	
	comp=Z,2μm,0.8s						
GO03				*i* S	**Sn**	**03 59 22.5**	**+3.6**
GO03				IAML		03 59 30.7	
	comp=Z,1μm,0.6s						
GO03	**Copiapo**	**1.16**	**84**		**Pn**	**03 59 03.2**	**+0.4**
GO03	**Copiapo**	**1.16**	**84**	⇓*iP*	**Pn**	**03 59 03.2**	**+0.4**
GO03				*eS*	**Sb**	**03 59 16.6**	**-1.0**
LCO	**Las Campanas**	**1.48**	**151**	*i* P	**Pb**	**03 59 08.6**	**+0.6**
LCO				*i* S	**Sn**	**03 59 23.8**	**-3.4**
LCO				IAML		03 59 27.3	
	comp=Z,5μm,0.4s						
LCO				IAML		03 59 27.3	
	comp=Z,5μm,0.4s						
LCO	**Las Campanas**	**1.48**	**151**		**Pb**	**03 59 08.2**	**+0.2**
LCO	**Las Campanas**	**1.48**	**151**	⇑*iP*	**Pn**	**03 59 08.0**	**+0.6**
LCO				*eS*	**Sn**	**03 59 25.4**	**-1.9**
AC05	**El Transito**	**1.57**	**135**	⇓*iP*	**Pb**	**03 59 09.8**	**+0.3**
AC05				*i* S	**Sn**	**03 59 27.0**	**-2.3**
AC05				IAML		03 59 35.5	
	comp=Z,1μm,0.8s						
AC05				IAML		03 59 35.5	
	comp=Z,1μm,0.8s						
AC05	**El Transito**	**1.57**	**135**		**Pb**	**03 59 09.7**	**+0.3**
AC05	**El Transito**	**1.57**	**135**	⇑*iP*	**Pb**	**03 59 09.7**	**+0.3**
AC05				*eS*	**Sn**	**03 59 27.1**	**-2.2**
AC05				IAML		03 59 32.4	
	comp=N,6μm,0.8s						
AC01	**Pan de Azucar**	**1.77**	**28**	*i* P	Pn	03 59 04.6	-6.6
AC01				IAML		03 59 47.8	
	comp=Z,529nm,0.3s						
AC01				IAML		03 59 52.0	
	comp=Z,387nm,1.0s						
AC01	**Pan de Azucar**	**1.77**	**28**		**Pb**	**03 59 12.7**	**-0.3**
AC01	**Pan de Azucar**	**1.77**	**28**	⇑*iP*	**Pb**	**03 59 12.7**	**-0.3**
AC01				IAML		03 59 47.0	
	comp=E,2μm,0.4s						
AC02	**Maricunga**	**2.31**	**68**	IAML		03 59 54.8	
	comp=Z,798nm,0.5s						
AC02	**Maricunga**	**2.31**	**68**		**Pb**	**03 59 21.3**	**-1.0**
AC02	**Maricunga**	**2.31**	**68**	⇑*iP*	**Pn**	**03 59 22.1**	**-0.3**
AC02				IAML		03 59 56.1	
	comp=N,3μm,0.3s						
GO04	**Tololo Observa**	**2.52**	**166**	*i* P	**Pn**	**03 59 22.4**	**+0.6**
GO04				*i* S	**Sn**	**03 59 53.7**	**+0.7**
GO04				IAML		04 00 06.1	
	comp=Z,892nm,0.6s						
GO04				IAML		04 00 06.1	
	comp=Z,892nm,0.6s						
GO04	**Tololo Observa**	**2.52**	**166**		**Pn**	**03 59 22.8**	**+1.0**
GO04	**Tololo Observa**	**2.52**	**166**	⇑*iP*	**Pn**	**03 59 22.8**	**+1.0**
CO01	**Juntas del Tor**	**2.58**	**151**	⇓*iP*	**Pb**	**03 59 25.1**	**-1.6**
CO01				*i* S	**Sn**	**03 59 54.7**	**+0.4**
CO01				IAML		04 00 02.1	
	comp=Z,760nm,0.8s						
CO01				IAML		04 00 02.1	
	comp=Z,760nm,0.8s						
CO01	**Juntas del Tor**	**2.58**	**151**		**Pn**	**03 59 24.2**	**+1.8**
CO01	**Juntas del Tor**	**2.58**	**151**	*eP*	**Pn**	**03 59 24.5**	**+2.0**
CO01				*eS*	**Sn**	**03 59 53.7**	**-0.6**
CO06	**Fray Jorge**	**2.94**	**182**		**Pn**	**03 59 27.1**	**-0.2**
CO06	**Fray Jorge**	**2.94**	**182**	⇑*eP*	**Pn**	**03 59 27.2**	**-0.1**
CO06				IAML		04 00 28.5	
	comp=N,273nm,0.4s						
AROD	**Rodeo**	**3.03**	**144**	*i* P	**Pb**	**03 59 32.5**	**-2.0**
VCA	**Vinchina**	**3.10**	**110**	*i* P	**Pb**	**03 59 34.5**	**-1.2**
VCA				*i* S	**Sb**	**04 00 09.4**	**-4.4**
VCA				IAML		04 00 20.6	
	comp=Z,982nm,0.8s						
CO03	**El Pedregal**	**3.19**	**167**	IAML		04 00 26.0	
	comp=Z,551nm,0.9s						
CO03	**El Pedregal**	**3.19**	**167**		**Pn**	**03 59 32.1**	**+1.3**
CO03	**El Pedregal**	**3.19**	**167**	*eP*	**Pn**	**03 59 32.0**	**+1.3**
CO03				IAML		04 00 27.9	
	comp=N,772nm,0.3s						
PB14	**IPOC Station P**	**3.25**	**18**	IAML		04 00 31.4	
	comp=Z,210nm,0.5s						
PB14	**IPOC Station P**	**3.25**	**18**		**Pn**	**03 59 32.5**	**+0.8**
CO02	**Combarbal**	**3.50**	**173**	*i* P	**Pn**	**03 59 34.5**	**-0.6**
CO02				IAML		04 00 34.9	
	comp=Z,780nm,0.5s						
CO02				IAML		04 00 34.9	
	comp=Z,780nm,0.5s						
CO02	**Combarbal**	**3.50**	**173**		**Pn**	**03 59 35.6**	**+0.5**
CO02	**Combarbal**	**3.50**	**173**	*eP*	**Pn**	**03 59 35.5**	**+0.5**
PB10	**IPOC Station P**	**4.28**	**12**	Pn	**Pn**	**03 59 46.7**	**+1.0**
CO04	**Los Peladeros**	**4.33**	**174**		**Pn**	**03 59 47.4**	**+0.8**
RTLL	**Cerro Villicun**	**4.47**	**144**	IAML		04 01 04.5	
	comp=Z,276nm,0.4s						
RTLS	**Leoncito**	**4.50**	**155**	*i* P	**Pn**	**03 59 53.1**	**+4.1**
RTLS				IAML		04 01 04.9	
	comp=Z,656nm,0.8s						
ZON	**Zonda**	**4.55**	**148**		**Pn**	**03 59 51.1**	**+1.7**
CFA	**Coronel Fontan**	**4.81**	**144**	Pn	**Pn**	**03 59 56.4**	**+3.4**
	comp=Z,5.0nm,0.3s,baz=320,slow=14,SNR=30						
CFA				Sn	**Sn**	**04 00 52.5**	**+3.2**
	comp=Z,3.6nm,0.3s,baz=43,slow=9.2,SNR=3.7						
CFA				LR	LR	04 02 01.5	
	comp=Z,264nm,21.4s,baz=134,slow=40						
	comp=Z,9.7nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.81**	**144**	IAML		04 01 18.9	
	comp=Z,88nm,1.4s						
PB05	**IPOC Station P**	**5.00**	**14**	IAML		04 01 39.5	
	comp=Z,58nm,0.8s						
PB05	**IPOC Station P**	**5.00**	**14**		**Pn**	**03 59 55.7**	**0.0**
VA03	**San Esteban**	**5.09**	**171**	IAML		04 01 23.6	
	comp=Z,176nm,0.7s						
VA03	**San Esteban**	**5.09**	**171**		**Pn**	**03 59 58.3**	**+1.3**
VA01	**Torpederas**	**5.28**	**181**	Pn	**Pn**	**03 59 58.9**	**-0.6**
PB06	**IPOC Station P**	**5.30**	**20**		**Pn**	**04 00 00.5**	**+0.6**
PEL	**Peldehue**	**5.45**	**173**		**Pn**	**04 00 02.7**	**+0.9**
MT02	**Curacav**	**5.53**	**177**		**Pn**	**04 00 03.0**	**+0.2**
AF01	**San Pedro de A**	**5.63**	**33**	Pn	**Pn**	**04 00 04.3**	**-0.3**
MT05	**Renca**	**5.69**	**173**	Pn	**Pn**	**04 00 05.5**	**+0.3**
MT16	**CCHEN**	**5.75**	**172**		**Pn**	**04 00 05.2**	**-0.8**
MT03	**Universidad Ad**	**5.82**	**172**		**Pn**	**04 00 07.3**	**+0.3**
MT08	**Bocatoma Ro**	**5.85**	**168**		**Pn**	**04 00 07.0**	**-0.5**
MT13	**San Alfonso**	**6.10**	**170**		**Pn**	**04 00 11.2**	**+0.4**
MT01	**Popeta**	**6.13**	**178**		**Pn**	**04 00 10.3**	**-0.7**
PB09	**IPOC Station P**	**6.25**	**20**		**Pn**	**04 00 13.6**	**+0.5**
BO04	**La Punta**	**6.30**	**173**		**Pn**	**04 00 13.5**	**+0.1**
BO01	**Tunca**	**6.66**	**177**		**Pn**	**04 00 17.8**	**-0.6**
PB01	**IPOC Station P**	**6.91**	**16**		**Pn**	**04 00 20.0**	**+0.1**
BO02	**Sierra Bellavi**	**7.08**	**175**	Pn	**Pn**	**04 00 24.2**	**0.0**
GO05	**Hualane**	**7.27**	**183**	Pn	**Pn**	**04 00 25.2**	**-1.6**
ML02	**Panimavida**	**8.02**	**179**	Pn	**Pn**	**04 00 37.8**	**+0.8**
GO01	**Chusmiza**	**8.30**	**15**	Pn	**Pn**	**04 00 40.8**	**-0.5**
H03N1	**Juan Fernandez**	**8.54**	**226**	T	T	04 09 40.8	
	baz=55,slow=74,SNR=161						
H03N2	**Juan Fernandez**	**8.55**	**226**	T	T	04 09 40.5	
	baz=207,slow=74,SNR=160						
VA04	**Juan Fernndez**	**8.62**	**225**	Pn	**Pn**	**04 00 44.6**	**-0.7**
BI02	**San Fabin de**	**8.92**	**179**	Pn	**Pn**	**04 00 48.2**	**-1.3**
PB16	**IPOC Station P**	**9.53**	**12**	Pn	**Pn**	**04 00 57.5**	**-0.8**
LPAZ	**La Paz**	**11.81**	**16**	Pn	**Pn**	**04 01 30.7**	**+1.1**
	comp=Z,0.5nm,0.3s,baz=194,slow=6.8,SNR=10						
LPAZ				LR	LR	04 06 40.6	
	comp=Z,85nm,20.4s,baz=191,slow=40						
	comp=Z,0.7nm,0.6s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.81**	**16**	Pn	**Pn**	**04 01 28.9**	**-0.6**
CPUP	**Villa Florida**	**12.73**	**87**	Pn	Pn	04 01 47.9	+6.3
	comp=Z,0.1nm,0.3s,baz=218,slow=10,SNR=4.2						
CPUP				LR	LR	04 07 01.8	
	comp=Z,77nm,21.5s,baz=274,slow=38						
	comp=Z,0.7nm,0.6s						
CPUP				AML	AML		
PLCA	**Paso Flores**	**13.00**	**177**	LR	LR	04 07 45.4	
	comp=Z,40nm,19.2s,baz=344,slow=42						
LL06	**Loncomilla**	**14.56**	**186**	Pn	**Pn**	**04 02 06.1**	**-0.4**
SIV	**San Ignacio**	**15.17**	**42**	Pn	**P**	**04 02 17.9**	**-2.3**
	baz=235,slow=12,SNR=7.0						
	comp=Z,1.4nm,0.7s						
CZSB	**Cruzeiro do Su**	**19.92**	**357**	P	**P**	**04 03 13.2**	**+0.6**
CZSB				IAmb	IAmb	04 03 33.2	
	comp=Z,14nm,1.2s						
GO08	**Villa O'Higgin**	**20.73**	**182**	P	**P**	**04 03 21.8**	**+0.7**
GO08				IAmb	IAmb	04 03 34.8	
	comp=Z,16nm,1.1s						
ATAH	**Atahualpa**	**21.49**	**341**	LR	LR	04 11 13.5	
	comp=Z,45nm,18.8s,baz=185,slow=35						
VAO	**Valinhos**	**22.67**	**84**	P	**P**	**04 03 42.1**	**-0.3**
VAO				IAmb	IAmb	04 04 09.2	
	comp=Z,9.4nm,1.1s						
BDFB	**Brasilia**	**24.89**	**66**	LR	LR	04 15 23.5	
	comp=Z,50nm,18.4s,baz=134,slow=40						
BDFB	**Brasilia**	**24.89**	**66**	P	**P**	**04 04 04.2**	**+0.3**
RUSC	**La Rusia**	**33.45**	**357**	P	**P**	**04 05 21.2**	**+0.8**
RPN	**Rapa Nui**	**33.48**	**262**	LR	LR	04 14 09.5	
	comp=Z,30nm,20.0s,baz=122,slow=28						
VNA3	**Neumayer Olymp**	**55.03**	**160**	⇑P	**P**	**04 08 13.1**	**+1.0**
	comp=Z,1.9nm,0.7s						
VNA2	**Neumayer--Watz**	**55.66**	**159**	⇑P	**P**	**04 08 17.5**	**+1.0**
	comp=Z,2.8nm,0.6s,baz=286,slow=7.9						
TROLL	**Troll, Antarti**	**58.97**	**160**	⇑P	**P**	**04 08 41.1**	**+1.1**
	comp=Z,176nm,1.1s						
QSPA	**South Pole Qui**	**62.49**	**180**	P	**P**	**04 09 05.7**	**+1.5**
	comp=Z,1.8nm,0.7s,baz=143,slow=1.5,SNR=10						
	comp=Z,1.8nm,0.7s						
QSPA	**South Pole Qui**	**62.49**	**180**	P	**P**	**04 09 06.0**	**+1.8**
QSPA				IAmb	IAmb	04 09 06.6	
	comp=Z,4.2nm,1.0s						
TXAR	**Lajitas Array**	**64.54**	**329**	P	**P**	**04 09 19.7**	**+1.7**
	comp=Z,0.1nm,0.3s,baz=150,slow=6.9,SNR=3.1						
	comp=Z,0.1nm,0.3s						
MAW	**Mawson**	**79.06**	**164**	LR	LR	04 45 35.3	
	comp=Z,46nm,18.3s,baz=94,slow=36						
KKAR	**Karatay Array**	**145.79**	**53**	PKPdf	**PKPab**	**04 18 21.2**	**+0.7**
KURBB	**Kurchatov Arra**	**147.78**	**37**	PKPbc	**PKiKP**	**04 18 27.3**	**-0.2**
	comp=Z,0.6nm,0.7s,baz=303,slow=3.5,SNR=6.7						
ZALV	**Zalesovo Beam**	**148.56**	**27**	PKPbc	**PKiKP**	**04 18 29.7**	**+0.7**
	comp=Z,2.6nm,0.7s,baz=309,slow=3.1,SNR=12						
ZALV	**Zalesovo Beam**	**148.56**	**27**		**PKiKP**	**04 18 29.3**	**+0.3**
KSH2	**Kashi**	**150.42**	**59**	PKPbc	**PKiKP**	**04 18 33.5**	**0.0**
MKAR	**Makanchi Array**	**151.98**	**40**	PKPbc	**PKiKP**	**04 18 37.2**	**+0.9**
	comp=Z,0.8nm,0.7s,baz=306,slow=2.9,SNR=5.1						
MKAR	**Makanchi Array**	**151.98**	**40**		**PKPbc**	**04 18 36.1**	**+0.1**
HHC	**Hu-ho-hao-te**	**166.66**	**350**	*eP*	**PKPdf**	**04 18 41.8**	**-4.9**

ATH 27 04:08:10.2, 38°.68N×26°.40E, h14km±1km, ML2.8/6, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km
THE 27 04:08:10.7, 38°.7N±0°.9×2°.6E±°, h11km±2km, M2.7/14, MLh2.7/14
ISK 27 04:08:10.1, 38°.70N×26°.38E, h7km, ML3.0/16
AFAD 27 04:08:11.3, 38°.64N×26°.44E, h7km±2km, ML2.6
ISC 27 04:08:10.5±0.8, 38°.68N±0°.02×26°.39E±0°.02, h15km±6km, n47, σ0s47/75, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRBN	**Karaburun**	**0.16**	**123**	Pg	**Pg**	**04 08 14.1**	**-0.4**
KRBN				Sg	**Sg**	**04 08 16.9**	**-0.2**
KRBN				AML	AML		
EAG2	**Marmaro, Chios**	**0.26**	**238**	P	**Pg**	**04 08 16.2**	**+0.2**
EAG2				S	**Sg**	**04 08 19.7**	**0.0**
FOCM	**Foa**	**0.27**	**83**	Pg	**Pg**	**04 08 16.1**	**-0.2**
FOCM				Sg	**Sg**	**04 08 20.3**	**+0.1**
FOCM				AML	AML		
CESE	**eme**	**0.36**	**191**	Pg	**Pg**	**04 08 17.9**	**+0.2**
CESE				Sg	**Sb**	**04 08 23.8**	**-0.1**
CESE				AML	AML		
CHOS	**Chios island**	**0.39**	**222**	P	**Pg**	**04 08 18.9**	**+0.4**
CHOS				S	**Sg**	**04 08 24.1**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.39**	**222**	Pg	**Pg**	**04 08 18.6**	**+0.2**
CHOS				Sg	**Sg**	**04 08 24.5**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.39**	**222**	P	**Pg**	**04 08 18.6**	**+0.2**
CHOS				S	**Sg**	**04 08 23.7**	**-0.1**
CHOS				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.45**	**168**	P	**Pn**	**04 08 22.1**	**-0.3**
ZEYE				S	**Sg**	**04 08 25.8**	**+0.2**
ZEYE				IAML		04 08 31.0	
	comp=E,627nm,0.5s						
ZEYE				IAML		04 08 34.0	
	comp=N,474nm,0.4s						
DKL	**Dikili**	**0.56**	**46**	Pg	**Pg**	**04 08 21.2**	**-0.4**
DKL				Sg	**Sb**	**04 08 29.7**	**-0.2**
DKL				AML	AML		
DKL	**Dikili**	**0.56**	**46**	P	**Pg**	**04 08 21.1**	**-0.5**
DKL				S	**Sg**	**04 08 28.0**	**-1.1**
PRK	**Paraskevi**	**0.57**	**351**	P	**Pg**	**04 08 21.8**	**0.0**
PRK				S	**Sg**	**04 08 30.1**	**+0.7**
PRK				AML	AML		
PRK	**Paraskevi**	**0.57**	**351**	P	**Pg**	**04 08 21.8**	**0.0**
PRK				S	**Sg**	**04 08 30.0**	**+0.6**
PRK				AML	AML		
BLCB	**Balcova**	**0.59**	**120**	P	**Pg**	**04 08 21.9**	**-0.2**
BLCB				S	**Sb**	**04 08 30.6**	**-0.1**
BLCB	**Balcova**	**0.59**	**120**	Pg	**Pg**	**04 08 21.7**	**-0.4**
BLCB				AML	AML		
BEYE	**izmir**	**0.62**	**137**	P	**Pg**	**04 08 22.5**	**-0.2**
BEYE				S	**Sb**	**04 08 31.3**	**-0.3**
BEYE				IAML		04 08 34.0	
	comp=N,217nm,0.4s						
BEYE				IAML		04 08 35.0	
	comp=E,472nm,0.3s						
CAMT	**Merkez**	**0.73**	**84**

GADA				S	Sn	04 08 58.2	+0.6
GADA				AML	AML		
KARY	**Karystos**	**1.66**	**248**	P	Pn	04 08 39.1	0.0
KARY				AML	AML		
APE	**Apeiranthos**	**1.75**	**203**	P	Pn	04 08 39.7	-0.6
APE				S	Sn	04 09 02.9	+0.6
APE	**Apeiranthos**	**1.75**	**203**	P	Pn	04 08 39.3	-1.0
BODT	**Bodrum**	**1.77**	**155**	P	Pn	04 08 40.9	+0.2
BODT				AML	AML		
SMTH	**Samothraki Isl**	**1.91**	**340**	P	Pn	04 08 42.5	0.0
SMTH				S	Sb	04 09 08.4	-0.2
SMTH				AML	AML		
DION	**Dionisos Attik**	**2.02**	**253**	P	Pn	04 08 44.2	+0.2
DION				S	Sn	04 09 07.5	-1.5
DION				AML	AML		
ENEZ	**Enez**	**2.06**	**355**	P	Pb	04 08 46.8	-0.8
DAT	**Datca**	**2.17**	**154**	P	Pn	04 08 46.6	+0.5
DAT				AML	AML		
ALN	**Alexandroupoli**	**2.23**	**353**	P	Pn	04 08 47.5	+0.7

*IDC **27** 04:41:42.9±0.9,22.°97N×126.°17E,h0km,mb4.0/10, mbtmp4.1/14,ML4.3/3,MS3.2/15,Error ellipse: s-maj=21.1km s-min=14.0km az=99.0*

*NEIC **27** 04:41:44.2±2.5,23.0°N±0.°1×126.°20E±0.°08,h10km±2km, mb4.3/5,Error ellipse: s-maj=18.2km s-min=12.1km az=163.0*

*NIED **27** 04:41:46.7,23.°32N×126.°06E,h119km,MW4.2,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr=0.19; Mθθ1.90; Mϕϕ-1.70; Mrθ1.02; Mθϕ1.32; Mϕr-0.44; Fault plane solution: M₀2.50000×10¹⁵ NP1:θ₀27.00000°, δ63.00000°,λ-178.00000°. NP2:ϕ₀296.00000°, δ88.00000°,λ-27.00000°.*

*JMA **27** 04:41:46.7±0.2,23.°3N±0.°9×126.°1E±0.°7,h119km, MV4.0/26,FAR S OFF OKINAWAJIMA*

ISC 27 04:41:46.6±0.8,23°07N±0.°07×126°24E±0.°04,h35km,n70, σ2s00/74,mb4.0/13,MS3.1/12,Southeast of Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOGS	**Gusukube**	**1.85**	**336**	P	**Pn**	**04 42 15.0**	**-0.9**
JOGS				*eS*	**Sn**	**04 42 36.5**	**-1.6**
JMJ2	**Miyako jima3**	**1.86**	**334**	*eP*	**Pn**	**04 42 14.8**	**-1.3**
JMJ2				*eS*	**Sn**	**04 42 37.0**	**-1.4**
JMJ	**Miyako jima 2**	**1.94**	**334**	P	**Pn**	**04 42 15.0**	**-2.2**
JIRJ	**Irabujima**	**2.00**	**332**	*eP*	**Pn**	**04 42 16.9**	**-1.1**
JIRJ				*eS*	**Sn**	**04 42 39.9**	**-1.9**
JIKM	**Ikemajima**	**2.06**	**334**	P	**Pn**	**04 42 17.7**	**-1.1**
JTJ	**Tarama**	**2.11**	**318**	*eP*	**Pn**	**04 42 18.1**	**-1.3**
JTJ				*eS*	**Sn**	**04 42 41.5**	**-2.9**
JIJ	**Ishigaki jima**	**2.31**	**304**	*eP*	**Pn**	**04 42 20.8**	**-1.4**
JISG	**Ishigakijimahi**	**2.33**	**311**	P	**Pn**	**04 42 21.2**	**-1.2**
JISG				*eS*	**Sn**	**04 42 46.5**	**-3.3**
JKRS	**Kuro-shima**	**2.35**	**300**	*eP*	**Pn**	**04 42 21.7**	**-1.1**
JKRS				*eS*	**Sn**	**04 42 46.9**	**-3.6**
HATJ	**Hateruma jima**	**2.44**	**294**	*eP*	**Pn**	**04 42 22.7**	**-1.3**
IRIF	**Iriomote-Funau**	**2.62**	**299**	*eP*	**Pn**	**04 42 25.2**	**-1.3**
IRIF				*eS*	**Sn**	**04 42 53.4**	**-3.7**
YOJ	**Yonaguni jima**	**3.27**	**296**	P	**Pn**	**04 42 34.2**	**-1.2**
YOJ	**Yonaguni jima**	**3.27**	**296**		**Pn**	**04 42 34.1**	**-1.3**
YOJ	**Yonaguni jima**	**3.27**	**296**	*eP*	**Pn**	**04 42 34.1**	**-1.3**
JKE	**Kume jima 2**	**3.29**	**9**	*eP*	**Pn**	**04 42 34.3**	**-1.3**
JKE				*eS*	**Sn**	**04 43 10.4**	**-3.1**
JYNG	**Yonagunijimaku**	**3.32**	**295**	*eP*	**Pn**	**04 42 34.8**	**-1.3**
JJT3	**Tamagusuku3**	**3.37**	**24**	*eP*	**Pn**	**04 42 36.4**	**-0.4**
JJT3				*eS*	**Sn**	**04 43 15.1**	**-0.5**
JAGN	**Aguni-jima**	**3.62**	**14**	*eP*	**Pn**	**04 42 39.3**	**-1.0**
JAGN				*eS*	**Sn**	**04 43 19.8**	**-2.1**
JNTH	**Nagotoyohara**	**3.80**	**25**	*eP*	**Pn**	**04 42 41.7**	**-1.0**
JNTH				*eS*	**Sn**	**04 43 25.0**	**-1.2**
JOW	**Kunigami**	**4.18**	**26**	Pn	**Pn**	**04 42 47.5**	**-0.5**
	45nm,0.3s,baz=175,slow=12,SNR=47						
JOW				Sn	**Sn**	**04 43 32.7**	**-2.9**
	16nm,0.3s,baz=285,slow=29,SNR=7.0 134nm,0.4s						
JOW				AML	AML		
JOW	**Kunigami**	**4.18**	**26**		**Pn**	**04 42 47.3**	**-0.7**
JOW	**Kunigami**	**4.18**	**26**	*eP*	**Pn**	**04 42 47.1**	**-0.8**
JIH	**Iheya**	**4.25**	**21**	*eP*	**Pn**	**04 42 48.3**	**-0.6**
NACB	**Ninganchiao**	**4.40**	**285**	P	**Pn**	**04 42 49.0**	**-2.0**
NACB	**Ninganchiao**	**4.40**	**285**		**Pn**	**04 42 48.2**	**-2.7**
JYRO	**Yoronjima**	**4.42**	**27**	*eP*	**Pn**	**04 42 50.4**	**-0.9**
YULB	**Yu-li**	**4.56**	**275**	P	**Pn**	**04 42 49.3**	**-3.8**
YULB	**Yu-li**	**4.56**	**275**		**Pn**	**04 42 49.0**	**-4.1**
YHNB	**Yeheng**	**4.73**	**291**	P	**Pn**	**04 42 53.8**	**-1.8**
YHNB	**Yeheng**	**4.73**	**291**		**Pn**	**04 42 54.3**	**-1.3**
TATO	**Taipei**	**4.74**	**295**	P	**Pn**	**04 42 54.9**	**-0.7**
TWGBT	**Beinan**	**4.76**	**268**	P	**Pn**	**04 42 53.9**	**-2.0**
JOKE	**Okinoerabujima**	**4.77**	**26**	*eP*	**Pn**	**04 42 55.6**	**-0.5**
SSLB	**Suanglung**	**4.91**	**279**	P	**Pn**	**04 42 55.9**	**-2.1**
SSLB	**Suanglung**	**4.91**	**279**		**Pn**	**04 42 55.4**	**-2.6**
TPUB	**Ta-pu**	**5.17**	**274**		**Pn**	**04 42 59.4**	**-2.1**
JMZ	**Minamidaito 2**	**5.31**	**58**	P	**Pn**	**04 43 01.1**	**-2.3**
JMZ				*eS*	**Sn**	**04 43 57.5**	**-5.8**
JKDJ	**Kitadaitoujima**	**5.43**	**57**	P	**Pn**	**04 43 02.7**	**-2.4**
JKDJ				*eS*	**Sn**	**04 44 01.2**	**-5.1**
JNU	**Nakatsue**	**10.82**	**21**	Pn	**Pn**	**04 44 19.2**	**+0.1**
	3.4nm,0.3s,baz=299,slow=2.8,SNR=13						
JNU				LR	LR	04 48 45.7	
	comp=Z,77nm,21.7s,baz=192,slow=39 7.3nm,0.4s						
JNU				AML	AML		
JMN	**Monobe**	**12.57**	**31**	Pn	**Pn**	**04 44 40.8**	**-2.2**
KSRS	**Korea Array**	**14.41**	**5**	Pn	**Pn**	**04 45 07.7**	**-0.5**
	0.3nm,0.3s,baz=181,slow=14,SNR=3.6						
KSRS				LR	LR	04 50 51.0	
	comp=Z,38nm,21.9s,baz=185,slow=38 2.0nm,0.7s						
KSRS				AML	AML		
DAV	**Davao City (W)**	**15.92**	**182**	LR	LR	04 51 04.9	
	comp=Z,50nm,21.6s,baz=343,slow=36						
MJAR	**Matsushiro Arr**	**16.96**	**35**	Pn	**Pn**	**04 45 42.3**	**+1.1**
	1.2nm,0.3s,baz=213,slow=9.0,SNR=4.3						
USRK	**Ussuriysk Ar.**	**21.61**	**11**	P	**P**	**04 46 34.7**	**+1.2**
	3.2nm,0.7s,baz=203,slow=10,SNR=7.2						
USRK				LR	LR	04 54 34.8	
	comp=Z,36nm,20.4s,baz=206,slow=36 3.2nm,0.7s						
USRK	**Ussuriysk Ar.**	**21.61**	**11**	P	**P**	**04 46 34.5**	**+1.1**
LZDM	**Lanzhou Array**	**23.38**	**308**	P	**P**	**04 46 54.6**	**+2.0**
	0.8nm,0.3s,baz=148,slow=14,SNR=3.6 0.8nm,0.3s						
SIJI	**Sorong**	**24.29**	**168**	LR	LR	04 55 04.4	
	comp=Z,48nm,20.8s,baz=8.5,slow=33						
CMAR	**Chiang Mai Arr**	**25.91**	**265**	P	**P**	**04 47 16.6**	**+0.9**
	1.2nm,0.3s,baz=63,slow=8.6,SNR=5.5						
CMAR				LR	LR	04 57 59.0	
	comp=Z,27nm,19.4s,baz=75,slow=38 1.2nm,0.3s						
KLR	**Kul'dur**	**26.47**	**8**	LR	LR	04 56 57.6	
	comp=Z,41nm,21.5s,baz=25,slow=34						
KAPI	**Kappang**	**28.62**	**194**	LR	LR	04 58 34.9	
	comp=Z,38nm,21.1s,baz=40,slow=36						
SONM	**Songino Array**	**29.36**	**332**	P	**P**	**04 47 47.4**	**+1.0**
	0.7nm,0.9s,baz=152,slow=9.5,SNR=5.0						
SONM				LR	LR	05 00 57.2	
	comp=Z,63nm,18.2s,baz=57,slow=39 0.7nm,0.9s						
SONM	**Songino Array**	**29.36**	**332**	P	**P**	**04 47 47.2**	**+0.8**
TLY	**Talaya**	**33.46**	**334**	LR	LR	05 02 23.0	
	comp=Z,32nm,18.3s,baz=142,slow=37						
YAK	**Yakutsk**	**39.02**	**3**	LR	LR	05 07 19.9	
	comp=Z,50nm,18.6s,baz=202,slow=39						
FITZ	**Fitzroy Crossi**	**40.92**	**181**	P	**P**	**04 49 24.9**	**-0.9**
FITZ				IAmb	IAmb	04 49 50.9	
	comp=Z,3.8nm,1.4s						
MKAR	**Makanchi Array**	**42.38**	**315**	P	**P**	**04 49 39.5**	**+1.8**
	comp=Z,1.4nm,0.4s,baz=102,slow=10,SNR=18 comp=Z,1.4nm,0.4s						
MKAR	**Makanchi Array**	**42.38**	**315**	P	**P**	**04 49 38.5**	**+0.8**
MAKZ	**Makanchi**	**42.59**	**315**	P	**P**	**04 49 40.5**	**+1.2**
MAKZ				IAmb	IAmb	04 50 16.6	
	comp=Z,13nm,1.5s						
WRA	**Warramunga Arr**	**43.47**	**169**	P	**P**	**04 49 47.1**	**+0.6**
	comp=Z,2.4nm,0.7s,baz=348,slow=8.7,SNR=13 comp=Z,2.4nm,0.7s						
WR8	**Warramunga Arr**	**43.51**	**169**	P	**P**	**04 49 47.5**	**+0.6**
ZALV	**Zalesovo Beam**	**43.74**	**326**	P	**P**	**04 49 49.8**	**+1.3**
	comp=Z,1.3nm,0.4s,baz=112,slow=10.0,SNR=6.3 comp=Z,1.3nm,0.4s						
KURK	**Kurchatov**	**45.94**	**319**	P	**P**	**04 50 07.1**	**+1.1**
KURK				IAmb	IAmb	04 50 08.8	
	comp=Z,2.9nm,0.6s						
KURBB	**Kurchatov Arra**	**45.97**	**319**	P	**P**	**04 50 07.8**	**+1.6**
	comp=Z,2.7nm,0.7s,baz=109,slow=8.3,SNR=16 comp=Z,2.7nm,0.7s						
ASAR	**Alice Springs**	**47.05**	**170**	P	**P**	**04 50 15.5**	**+0.6**
	comp=Z,1.3nm,0.5s,baz=353,slow=13,SNR=18 comp=Z,1.3nm,0.5s						
CTA	**Charters Tower**	**47.13**	**154**	LR	LR	05 12 16.0	
	comp=Z,20nm,18.0s,baz=224,slow=39						
TIXI	**Tiksi**	**48.63**	**1**	LR	LR	05 12 43.7	
	comp=Z,48nm,19.1s,baz=360,slow=38						
BVAR	**Borovoye Array**	**51.48**	**320**	P	**P**	**04 50 50.3**	**+1.8**
	comp=Z,1.0nm,0.5s,baz=86,slow=8.5,SNR=3.9 comp=Z,1.0nm,0.5s						
ABKAR	**Akbulak array**	**57.53**	**315**	P	**P**	**04 51 33.6**	**+1.1**
AKTO	**Aktyubinsk**	**58.80**	**316**	LR	LR	05 17 28.2	
	comp=Z,69nm,19.7s,baz=227,slow=36						
AKASG	**Malin Array Be**	**76.75**	**320**	LR	LR	05 31 19.5	
	comp=Z,86nm,18.3s,baz=248,slow=39						

WEL 27 04:48:52.3±1.1,33°S±14.°1×17°9E±1°9,h384km±31km, M3.9/7,mB4.3/4,ML3.9/9,MLv4.0/7,Mw(mB)3.4/4,Error ellipse: s-maj=25.5km s-min=18.3km az=101.2,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**4.68**	**191**	P	Pn	04 50 11.1	+1.1
WMGZ	**Waiomatatini S**	**4.91**	**190**	P	Pn	04 50 13.9	+1.5
WMGZ				S	S	04 51 18.5	+0.9
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**4.97**	**196**	P	Pn	04 50 13.0	0.0
HAZ				S	S	04 51 19.2	+0.5
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**5.01**	**193**	P	Pn	04 50 14.7	+1.1
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**5.18**	**191**	P	Pn	04 50 14.2	-1.2
PUZ				S	S	04 51 21.0	-1.9
RUGZ	**Raukumara Rang**	**5.19**	**196**	P	Pn	04 50 14.6	-1.0
RUGZ				S	S	04 51 24.6	+1.3
RUGZ				AML	AML		
RUGZ				AML	AML		
OUZ	**Omahuta**	**5.37**	**244**	P	Pn	04 50 17.1	-0.2
MWZ	**Matawai**	**5.58**	**196**	P	Pn	04 50 19.7	+0.1
MWZ				S	S	04 51 31.6	+0.9
MWZ				AML	AML		
URZ	**Urewera**	**5.62**	**199**	P	Pn	04 50 18.4	-1.6
URZ				S	S	04 51 30.3	-1.0
URZ				AML	AML		
RAGZ	**Rawiri**	**5.76**	**196**	P	Pn	04 50 21.8	+0.2
RAGZ				AML	AML		
RAGZ				AML	AML		
MUGZ	**Murupara**	**5.92**	**201**	P	Pn	04 50 23.7	+0.4
MUGZ				S	S	04 51 38.6	+1.2
MUGZ				AML	AML		
MUGZ				AML	AML		
KNZ	**Kokohu**	**6.21**	**193**	P	Pn	04 50 25.7	-0.8
KNZ				S	S	04 51 43.6	+0.4
KNZ				AML	AML		
KNZ				AML	AML		
MTHZ	**Maungataniwha**	**6.25**	**199**	P	Pn	04 50 27.2	+0.2
MTHZ				S	S	04 51 45.1	+0.9
MTHZ				AML	AML		
MTHZ				AML	AML		
NMHZ	**Naumai**	**6.48**	**199**	P	Pn	04 50 30.2	+0.5
NMHZ				S	S	04 51 49.4	+0.3
NMHZ				AML	AML		

*GFZ **27** 04:52:07.6±0.2,26.°S±3.°×18.°0E±.°, h473km,M4.6/39, mb4.7/39*

*IDC **27** 04:52:08.6±0.8,25.°41S×179.°75E,h482km±8km,mb4.1/16, mbtmp4.9/20,Error ellipse: s-maj=11.9km s-min=9.4km az=170.0*

*NEIC **27** 04:52:08.5±1.9,25.°42S±0.°09×179.°9E±0.°1,h479km±6km, mb4.6/125,Error ellipse: s-maj=15.2km s-min=11.6km az=130.0*

*NOU **27** 04:52:10.2,25.°54S×179.°85E,h498km,mb5.1/47,South of Fiji Islands*

ISC 27 04:52:08.8±0.3,25°50S±0.°05×179°90E±0.°05,h493km, n265,σ1s32/233,mb4.6/109,2C-4D,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**4.21**	**153**	P	**P**	**04 53 30.1**	**+1.7**
	272nm,0.2s,baz=128,slow=22,SNR=6.3						
RAO				S	**S**	**04 54 34.4**	**+1.0**
	290nm,0.3s,baz=107,slow=23,SNR=7.7						
RAO	**Raoul Island**	**4.21**	**153**	P	**P**	**04 53 26.4**	**-2.0**
RAO	**Raoul Island**	**4.21**	**153**	P	**P**	**04 53 26.4**	**-2.0**
GLKZ	**Green Lake**	**4.22**	**153**	P	**P**	**04 53 29.5**	**+1.1**
GLKZ				S	**S**	**04 54 33.3**	**-0.1**
GLKZ				AML	AML		
MSVF	**Nonsavu**	**7.92**	**347**	P	**P**	**04 54 03.1**	**-1.3**
	21nm,0.6s,baz=206,slow=21,SNR=22						
MSVF	**Nonsavu**	**7.92**	**347**		**P**	**04 54 02.9**	**-1.5**
MSVF	**Nonsavu**	**7.92**	**347**	P	**P**	**04 54 03.7**	**-0.7**
	comp=Z,40nm,0.8s						
OUZ	**Omahuta**	**11.11**	**208**	P	**P**	**04 54 37.9**	**+0.1**
	comp=Z,39nm,1.2s						
FUTU	**Fugatoga**	**11.29**	**10**	P	**P**	**04 54 38.2**	**-1.7**
GRZ	**Great Barrier**	**11.38**	**199**	P	**P**	**04 54 41.5**	**+0.9**
NIUE	**Niue**	**11.38**	**58**	P	**P**	**04 54 39.2**	**-1.6**
NIUE	**Niue**	**11.38**	**58**	P	**P**	**04 54 39.2**	**-1.6**
NIUE				S	**S**	**04 56 48.1**	**+2.1**
NIUE	**Niue**	**11.38**	**58**	P	**P**	**04 54 39.0**	**-1.8**
	comp=Z,297nm,0.7s						
WCZ	**Waipu Caves**	**11.45**	**203**	P	**P**	**04 54 43.4**	**+2.1**
MARNC	**Mare, Loyalty**	**11.60**	**288**	P	**P**	**04 54 42.9**	**-0.4**
PINNC	**Pines Island,**	**11.74**	**282**	P	**P**	**04 54 45.6**	**+1.0**
PINNC	**Pines Island,**	**11.74**	**282**		**P**	**04 54 45.1**	**+0.5**
MXZ	**Matakaoa Point**	**12.10**	**186**	P	**P**	**04 54 46.7**	**-1.6**
MXZ				S	**S**	**04 56 59.1**	**-0.7**
MKAZ	**Moumakai**	**12.26**	**198**	P	**P**	**04 54 51.1**	**+1.2**
OUENC	**Ouen Island, N**	**12.33**	**282**	P	**P**	**04 54 51.5**	**+0.5**
OUENC	**Ouen Island, N**	**12.33**	**282**		**P**	**04 54 51.2**	**+0.3**
WMGZ	**Waiomatatini S**	**12.35**	**186**	P	**P**	**04 54 49.4**	**-1.5**
WMGZ				S	**S**	**04 57 04.5**	**0.0**
HAZ	**Te Kaha**	**12.35**	**188**	P	**P**	**04 54 50.6**	**-0.3**
HAZ				S	**S**	**04 57 03.3**	**-1.4**
YATNC	**Mamie plateau,**	**12.39**	**283**	P	**P**	**04 54 52.6**	**+0.9**
RUGZ	**Raukumara Rang**	**12.57**	**188**	P	**P**	**04 54 55.6**	**+2.2**
RUGZ				S	**S**	**04 57 05.8**	**-3.4**
PUZ	**Puketiti**	**12.61**	**186**	P	**P**	**04 54 54.2**	**+0.5**
PUZ				S	**S**	**04 57 06.2**	**-3.6**
TWGZ	**Tauwhareparae**	**12.75**	**187**	P	**P**	**04 54 54.1**	**-1.0**
TWGZ				S	**S**	**04 57 10.5**	**-1.9**
TOZ	**Tahuroa Road**	**12.76**	**196**		**P**	**04 54 55.5**	**+0.3**
TOZ	**Tahuroa Road**	**12.76**	**196**	P	**P**	**04 54 56.1**	**+0.9**
DZM	**Mont Dzumac**	**12.79**	**283**	P	**P**	**04 54 55.6**	**-0.3**
	comp=Z,60nm,0.8s,baz=98,slow=15,SNR=29						
NOUC	**Port Laguerre**	**12.90**	**282**	P	**P**	**04 54 58.0**	**+1.0**
URZ	**Urewera**	**12.94**	**190**	P	P	04 54 53.6	-3.6
	comp=Z,34nm,0.6s,baz=21,slow=2.9,SNR=26						
URZ				S	**S**	**04 57 15.4**	**-0.7**
	comp=Z,41nm,0.9s,baz=107,slow=22,SNR=9.7						
URZ	**Urewera**	**12.94**	**190**	P	**P**	**04 54 56.5**	**-0.7**
URZ	**Urewera**	**12.94**	**190**	S	**S**	**04 57 17.0**	**+0.9**
URZ	**Urewera**	**12.94**	**190**	P	P	04 54 52.4	-4.8
URZ				S	**S**	**04 57 14.1**	**-2.0**
URZ	**Urewera**	**12.94**	**190**	P	**P**	**04 54 54.5**	**-2.7**
	comp=Z,53nm,0.6s						
MWZ	**Matawai**	**12.96**	**188**	P	**P**	**04 54 57.4**	**0.0**
MWZ				S	**S**	**04 57 15.0**	**-1.4**
RAGZ	**Rawiri**	**13.13**	**189**	P	P	04 54 56.0	-3.3
RAGZ				S	**S**	**04 57 15.6**	**-4.3**
MUGZ	**Murupara**	**13.21**	**191**	P	**P**	**04 55 00.4**	**+0.3**
RIGZ	**Rimuhau**	**13.29**	**187**	P	**P**	**04 55 00.9**	**0.0**
RAHZ	**Arahi**	**13.59**	**189**	P	**P**	**04 55 02.0**	**-2.1**
HIZ	**Hauiti**	**13.66**	**197**	P	**P**	**04 55 05.0**	**+0.2**
HIZ	**Hauiti**	**13.66**	**197**	P	**P**	**04 55 04.6**	**-0.2**
	comp=Z,102nm,1.1s						
AFI	**Afiamalu**	**13.93**	**36**	P	P	04 55 02.8	-5.3
	comp=Z,33nm,0.3s,baz=94,slow=1.6,SNR=12						
AFI				S	S	04 57 26.5	-9.5
	comp=Z,18nm,0.5s,baz=350,slow=21,SNR=3.5						
BFZ	**Birch Farm**	**15.45**	**190**	P	**P**	**04 55 21.0**	**-2.6**
	comp=Z,72nm,0.8s						
SNZO	**South Karori**	**16.35**	**194**	P	**P**	**04 55 30.8**	**-2.3**
	comp=Z,157nm,1.6s						
QRZ	**Quartz Range**	**16.47**	**200**	P	**P**	**04 55 32.7**	**-1.7**
KHZ	**Kahutara**	**17.67**	**196**	P	**P**	**04 55 43.3**	**-2.9**
	comp=Z,91nm,0.8s						
LHI	**Lord Howe Isla**	**19.26**	**247**		**P**	**04 56 02.7**	**+1.7**
RPZ	**Rata Peaks**	**19.56**	**199**	P	**P**	**04 56 03.3**	**-0.3**
	comp=Z,5.9nm,0.4s,baz=250,slow=1.0,SNR=14						
RPZ	**Rata Peaks**	**19.56**	**199**	P	**P**	**04 56 02.5**	**-1.0**
GC1S	**Gold Coast 1 S**	**23.68**	**258**	P	**P**	**04 56 41.8**	**+0.8**
AUBSH	**Beerwah State**	**24.21**	**261**	P	**P**	**04 56 46.5**	**+0.8**
TW1H	**Toowoomba 1 Ha**	**25.06**	**259**	P	**P**	**04 56 54.7**	**+1.4**
ARMA	**Armidale**	**25.42**	**252**	P	**P**	**04 56 57.6**	**+1.0**
ARMA	**Armidale**	**25.42**	**252**	P	**P**	**04 56 57.5**	**+1.0**
ARMA	**Armidale**	**25.42**	**252**	P	**P**	**04 56 58.0**	**+1.5**
	comp=Z,80nm,1.0s						
AUKHS	**Kincumber High**	**26.01**	**246**	P	**P**	**04 57 03.0**	**+1.4**
EIDS	**Eidsvold**	**26.01**	**264**	P	**P**	**04 57 02.2**	**+0.5**
EIDS	**Eidsvold**	**26.01**	**264**	P	**P**	**04 57 02.0**	**+0.2**
EIDS	**Eidsvold**	**26.01**	**264**	P	**P**	**04 57 02.1**	**+0.4**
	comp=Z,92nm,0.9s						
AUPHS	**Peel High Scho**	**26.11**	**251**	P	**P**	**04 57 03.8**	**+1.3**
RIV	**Riverview**	**26.26**	**245**	P	**P**	**04 57 03.5**	**-0.3**
	comp=Z,60nm,0.9s						
SYDH	**Sydney Hard Ro**	**26.59**	**245**	P	**P**	**04 57 08.0**	**+1.3**
WOLH	**Wollongong Har**	**26.60**	**244**	P	**P**	**04 57 08.3**	**+1.5**
AUUHS	**Ulladulla High**	**27.13**	**242**	P	**P**	**04 57 12.6**	**+1.2**
AUDCS	**Dubbo College**	**28.13**	**249**	P	**P**	**04 57 21.0**	**+0.7**
AUMTS	**Mt Stromlo**	**28.29**	**242**	P	**P**	**04 57 22.7**	**+1.0**
CAN	**Canberra**	**28.30**	**242**	P	**P**	**04 57 22.6**	**+0.8**
CAN	**Canberra**	**28.30**	**242**	P	**P**	**04 57 22.6**	**+0.8**
CAN	**Canberra**	**28.30**	**242**	P	**P**	**04 57 21.9**	**+0.1**
	comp=Z,65nm,0.7s						
MILA	**Mila**	**28.57**	**239**	P	**P**	**04 57 24.6**	**+0.5**
	comp=Z,44nm,0.8s						
PPT2	**Papeete2**	**29.41**	**81**	*eS*	**S**	**05 01 43.7**	**-6.8**
	comp=Z,30nm,25.8s						
PPT2				*es*S	sS	05 04 17.8	-8.3
	comp=Z,84nm,25.8s						
AUSSC	**Sale College,**	**30.43**	**238**	P	**P**	**04 57 41.5**	**+1.3**
CMSA	**Cobar Meteorol**	**30.57**	**251**	P	**P**	**04 57 41.6**	**0.0**
CMSA	**Cobar Meteorol**	**30.57**	**251**	P	**P**	**04 57 41.9**	**+0.3**
	comp=Z,101nm,0.7s						
CTA	**Charters Tower**	**31.43**	**273**	P	**P**	**04 57 49.4**	**+0.3**
	comp=Z,80nm,0.7s,baz=95,slow=10,SNR=96 comp=Z,80nm,0.7s						
CTA	**Charters Tower**	**31.43**	**273**	P	**P**	**04 57 49.4**	**+0.3**
TOO	**Toolangi**	**31.53**	**239**	P	**P**	**04 57 50.5**	**+0.7**
TOO				IAmb	IAmb	04 57 51.3	
	comp=Z,22nm,0.8s						
TAU	**Tasmania Unive**	**31.80**	**229**	P	**P**	**04 57 52.2**	**+0.3**
AUMAG	**Moama Anglican**	**31.84**	**242**	P	**P**	**04 57 53.3**	**+1.0**
QLP	**Quilpie**	**32.00**	**260**	P	**P**	**04 57 54.7**	**+0.8**
QLP	**Quilpie**	**32.00**	**260**	P	**P**	**04 57 52.6**	**-1.3**
	comp=Z,82nm,0.9s						
BRAT	**Ballarat**	**32.74**	**240**	P	**P**	**04 58 01.2**	**+1.2**
MTSU	**Mount Surprise**	**33.76**	**275**	P	**P**	**04 58 09.3**	**+0.3**
MTSU	**Mount Surprise**	**33.76**	**275**	P	**P**	**04 58 09.6**	**+0.6**
	comp=Z,121nm,0.7s						
STKA	**Stephens Creek**	**34.07**	**250**	P	**P**	**04 58 11.8**	**+0.4**
	comp=Z,47nm,0.6s,baz=95,slow=9.8,SNR=119						
STKA				ScP	**ScP**	**05 03 35.9**	**+2.9**
	comp=Z,5.6nm,0.8s,baz=92,slow=4.2,SNR=7.1 comp=Z,47nm,0.6s						
STKA	**Stephens Creek**	**34.07**	**250**	P	**P**	**04 58 11.5**	**+0.1**
STKA	**Stephens Creek**	**34.07**	**250**	P	**P**	**04 58 11.6**	**+0.1**
STKA	**Stephens Creek**	**34.07**	**250**	P	**P**	**04 58 11.8**	**+0.4**
	comp=Z,99nm,0.7s						
PMG	**Port Moresby**	**34.96**	**291**	P	**P**	**04 58 18.9**	**-0.1**
PMG	**Port Moresby**	**34.96**	**291**	P	**P**	**04 58 18.6**	**-0.5**
PMG	**Port Moresby**	**34.96**	**291**	P	**P**	**04 58 18.9**	**-0.1**
	comp=Z,59nm,0.8s						
INKA	**Innaminka**	**34.98**	**257**	IAmb	IAmb	04 58 20.8	
	comp=Z,28nm,0.8s						
MGBR	**Mount Gambier**	**35.40**	**240**	P	**P**	**04 58 22.8**	**+0.4**
MGBR				IAmb	IAmb	04 58 51.1	
	comp=Z,21nm,1.1s						
AUMBR	**Murray Bridge**	**36.15**	**245**	P	**P**	**04 58 28.7**	**+0.1**
HTT	**Hallett**	**36.36**	**248**	P	**P**	**04 58 30.3**	**-0.3**
PTPS	**Port Pirie**	**37.13**	**248**	P	**P**	**04 58 37.4**	**+0.6**
QIS	**Mount Isa**	**37.31**	**269**	P	**P**	**04 58 37.9**	**-0.6**
QIS	**Mount Isa**	**37.31**	**269**	P	**P**	**04 58 38.2**	**-0.3**
	comp=Z,33nm,1.2

BKSI	**Bulukumba**	60.50	279	P		**P**	05 01 29.9	-1.0	
	comp=Z,23nm,0.8s								
DBNI	**Kabupaten Domp**	60.78	275	P		**P**	05 01 31.4	-1.4	
	comp=Z,16nm,0.7s								
PLAI	**Plampang**	61.13	274	P		**P**	05 01 34.2	-0.9	
	comp=Z,45nm,0.8s								
TWSI	**Taliwang, Sumb**	61.97	274	P		**P**	05 01 39.7	-0.9	
	comp=Z,16nm,0.9s								
TOLI2	**Tolitoli**	62.90	285	P		**P**	05 01 45.5	-1.1	
TOLI2	**Tolitoli**	62.90	285	P		**P**	05 01 45.2	-1.4	
	comp=Z,11nm,0.7s								
MPSI	**Mapaga**	63.30	284	P		**P**	05 01 48.3	-0.9	
	comp=Z,8.5nm,0.9s								
QSPA	**South Pole Qui**	64.59	180	P		**P**	05 01 58.3	+1.6	
	comp=Z,5.2nm,0.7s,baz=25,slow=1.1,SNR=30								
	comp=Z,5.2nm,0.7s								
QSPA	**South Pole Qui**	64.59	180	P		**P**	05 01 58.3	+1.6	
UGM	**Wanagama**	68.05	272	P		**P**	05 02 18.4	-0.6	
BBJI	**Bungbulang**	70.83	271	P		**P**	05 02 34.3	-1.4	
PETK	**Petropavlovsk-**	80.63	347	P		**P**	05 03 29.5	+0.3	
	comp=Z,3.7nm,0.6s,baz=249,slow=12,SNR=7.9								
	comp=Z,3.7nm,0.6s								
ELIB	**Princess Elisa**	81.47	187	*d*P		**P**	05 03 34.1	+0.4	
NJ2	**Nanjing**	81.64	311	*e*P		**P**	05 03 36.5	+1.6	
NJ2				pmax		pmax			
	comp=Z,11nm,1.4s								
TROLL	**Troll, Antarti**	82.74	181	⇓P		**P**	05 03 40.7	+0.5	
	comp=Z,219nm,0.5s								
VNA3	**Neumayer Olymp**	83.29	177	⇓P		**P**	05 03 43.0	+0.3	
	comp=Z,4.8nm,0.6s								
VNA3	**Neumayer Olymp**	83.29	177	P		**P**	05 03 43.0	+0.3	
	comp=Z,8.6nm,0.8s								
DPP	**Dos Picos Cty**	83.63	49	IAmb		IAmb	05 03 47.6		
	comp=Z,15nm,0.8s								
VNA2	**Neumayer--Watz**	83.71	178	⇓P		**P**	05 03 45.2	+0.4	
	comp=Z,2.4nm,0.6s,baz=175,slow=4.1								
ESJX	**Sierra Juarez**	83.74	50	IAmb		IAmb	05 03 49.1		
	comp=Z,11nm,1.0s								
TPO	**Tropico Hills**	83.88	47	IAmb		IAmb	05 03 49.6		
	comp=Z,27nm,1.2s								
YUH	**Yuha Desert**	84.13	50	IAmb		IAmb	05 03 50.4		
	comp=Z,9.3nm,0.9s								
BORC	**Borrego Spring**	84.15	49	IAmb		IAmb	05 03 50.5		
	comp=Z,19nm,0.9s								
ISA	**Isabella, Lake**	84.19	46	IAmb		IAmb	05 03 50.5		
	comp=Z,16nm,0.8s								
SUTB	**Sutter Butte**	84.31	42	IAmb		IAmb	05 03 50.5		
	comp=Z,18nm,1.3s								
PFO	**Pinyon Flats O**	84.32	49			**P**	05 03 49.9	+1.3	
AFDM	**Forest Hills D**	84.63	42			**P**	05 03 50.8	+1.0	
CCCA	**Chr Cany lake**	84.83	47	IAmb		IAmb	05 03 55.4		
	comp=Z,15nm,0.9s								
CLC	**China Lake**	84.85	46	IAmb		IAmb	05 03 53.5		
	comp=Z,10nm,0.8s								
BELC	**Belle Mtn. Jos**	84.86	49	IAmb		IAmb	05 03 54.1		
	comp=Z,14nm,0.9s								
O03E	**Paynes Creek**	84.98	41	IAmb		IAmb	05 03 54.0		
	comp=Z,12nm,0.9s								
BC3	**Big Chuckawall**	85.03	49	IAmb		IAmb	05 03 55.2		
	comp=Z,12nm,1.2s								
GSC	**Goldstone, Bar**	85.07	47	IAmb		IAmb	05 03 54.8		
	comp=Z,16nm,1.1s								
M02C	**Callahan**	85.07	39	P		**P**	05 03 54.1	+2.1	
M02C				IAmb		IAmb	05 03 54.8		
	comp=Z,8.1nm,0.8s								
YBH	**Yreka Blue Hor**	85.37	39			**P**	05 03 55.3	+1.8	
YBH				IAmb		IAmb	05 03 56.5		
	comp=Z,18nm,1.3s								
M03C	**McCloud**	85.42	40	P		**P**	05 03 54.8	+1.1	
M03C				IAmb		IAmb	05 03 56.2		
	comp=Z,11nm,0.8s								
IRM	**Iron Mountain**	85.53	49	IAmb		IAmb	05 03 57.5		
	comp=Z,14nm,1.1s								
PNTR	**Pine Nut**	85.56	43			**P**	05 03 56.0	+1.4	
PNTR				IAmb		IAmb	05 03 57.0		
	comp=Z,11nm,0.8s								
HSIG		85.69	55	IAmb		IAmb	05 03 57.5		
	comp=Z,11nm,0.7s								
GRAC	**Grapevine Rang**	85.70	46	IAmb		IAmb	05 03 57.7		
	comp=Z,7.5nm,0.8s								
LHV	**Little Huntoon**	85.73	44	IAmb		IAmb	05 03 57.8		
	comp=Z,6.5nm,0.8s								
NVAR	**Mina Array Bea**	85.96	44	P		**P**	05 03 57.8	+1.3	
	comp=Z,4.6nm,0.7s,baz=221,slow=8.2,SNR=25								
	comp=Z,4.6nm,0.7s								
NVAR	**Mina Array Bea**	85.96	44	P		**P**	05 03 57.4	+0.8	
TPNV	**Topopah Spring**	86.40	46	IAmb		IAmb	05 04 00.7		
	comp=Z,8.0nm,0.7s								
TPH	**Tonopah**	86.43	45	IAmb		IAmb	05 04 01.1		
	comp=Z,10nm,0.8s								
KVN	**Kaiserville**	86.46	44	P		**P**	05 03 59.5	+0.6	
KVN				IAmb		IAmb	05 04 00.9		
	comp=Z,6.8nm,0.7s								
I04A	**Tendick Farm,**	86.87	38	IAmb		IAmb	05 04 02.3		
	comp=Z,10nm,0.9s								
MOD	**Modoc Plateau**	86.87	40	IAmb		IAmb	05 04 03.2		
	comp=Z,8.9nm,0.9s								
N15K	**Kwethluk River**	86.92	10	P		**P**	05 04 01.2	+1.0	
N15K				IAmb		IAmb	05 04 02.3		
	comp=Z,9.2nm,0.8s								
K05A	**Summer Lake**	87.05	39	IAmb		IAmb	05 04 04.0		
	comp=Z,9.6nm,0.8s								
PLCA	**Paso Flores**	87.22	134	P		**P**	05 04 04.2	+1.8	
	comp=Z,1.8nm,0.5s,baz=251,slow=6.6,SNR=8.6								
	comp=Z,1.8nm,0.5s								
PRN	**Pahroc Range**	87.44	46	IAmb		IAmb	05 04 06.5		
	comp=Z,9.8nm,1.1s								
TUC	**Tucson**	87.56	52			**P**	05 04 05.1	+1.0	
TUC				IAmb		IAmb	05 04 07.7		
	comp=Z,12nm,0.9s								
TUC	**Tucson**	87.56	52	P		**P**	05 04 06.8	+2.7	
	comp=Z,16nm,1.0s								
BMN	**Battle Mountai**	87.83	43	IAmb		IAmb	05 04 07.1		
	comp=Z,6.2nm,0.8s								
319A	**Douglas**	88.16	54	P		**P**	05 04 07.9	+1.0	
WVOR	**Wild Horse Val**	88.18	41	P		**P**	05 04 08.2	+1.5	
	comp=Z,12nm,1.0s								
HPIG		88.65	59	IAmb		IAmb	05 04 11.7		
	comp=Z,8.9nm,0.8s								
HPIG		88.65	59	P		**P**	05 04 11.1	+1.7	
	comp=Z,14nm,0.8s								
G06A	**Carlson Farm,**	88.77	37	IAmb		IAmb	05 04 11.7		
	comp=Z,14nm,1.0s								
SZCU	**Shurtz Canyon**	88.84	47	IAmb		IAmb	05 04 13.0		
	comp=Z,7.3nm,1.1s								
WUAZ	**Wupatki**	88.86	49	IAmb		IAmb	05 04 13.1		
	comp=Z,7.5nm,0.9s								
LON	**Longmire**	89.09	36	IAmb		IAmb	05 04 12.3		
	comp=Z,5.0nm,0.8s								
ZAIG	**Zacatecas**	89.12	64	IAmb		IAmb	05 04 14.9		
	comp=Z,6.6nm,1.0s								
ZAIG	**Zacatecas**	89.12	64	P		**P**	05 04 14.1	+2.3	
	comp=Z,7.2nm,1.2s								
G08A	**Pilot Rock**	89.73	38	IAmb		IAmb	05 04 16.5		
	comp=Z,15nm,1.4s								
MXC	**Moxie City**	89.80	37	IAmb		IAmb	05 04 42.8		
	comp=Z,10nm,1.4s								
CMAR	**Chiang Mai Arr**	90.00	290	P		**P**	05 04 17.4	+1.8	
	comp=Z,0.6nm,0.3s,baz=153,slow=3.2,SNR=8.3								
	comp=Z,0.6nm,0.3s								
E07A	**Sunnyside**	90.02	37	IAmb		IAmb	05 04 17.8		
	comp=Z,6.5nm,0.8s								
HAWA	**Hanford**	90.09	37	IAmb		IAmb	05 04 17.9		
	comp=Z,12nm,1.4s								
MFID	**Camas Ranch**	90.42	41	IAmb		IAmb	05 04 19.5		
	comp=Z,8.9nm,0.9s								
Q16A	**Castle Valley**	90.82	47	IAmb		IAmb	05 04 23.0		
	comp=Z,6.0nm,0.9s								
D08A	**Wollman Farm,**	90.83	37	IAmb		IAmb	05 04 21.6		
	comp=Z,4.2nm,0.8s								
F10A	**Beach Ranch, E**	91.11	38	P		**P**	05 04 20.7	+0.4	
F10A				IAmb		IAmb	05 04 21.8		
	comp=Z,6.7nm,0.8s								
MNTX	**Cornudas Mount**	91.19	55	IAmb		IAmb	05 04 23.5		
	comp=Z,6.7nm,1.1s								
MNTX	**Cornudas Mount**	91.19	55	P		**P**	05 04 22.9	+2.1	
	comp=Z,7.1nm,1.7s								
PLID	**Pearl Lake**	91.29	40	IAmb		IAmb	05 04 23.1		
	comp=Z,7.7nm,1.4s								
HLID	**Hailey**	91.35	42	P		**P**	05 04 21.4	-0.1	
TX31	**Lajitas Ar. Si**	91.35	58	IAmb		IAmb	05 04 24.6		
	comp=Z,5.4nm,0.8s								
TXAR	**Lajitas Array**	91.35	58	P		**P**	05 04 23.7	+1.9	
	comp=Z,4.4nm,0.8s,baz=213,slow=6.6,SNR=57								
TXAR				pP		**pP**	05 06 11.9	+0.6	
	comp=Z,0.4nm,0.9s,baz=210,slow=6.7,SNR=3.6								
	comp=Z,4.4nm,0.8s								
TXAR	**Lajitas Array**	91.35	58	P		**P**	05 04 23.2	+1.5	
P17A	**Butcher Ranch,**	91.40	46	IAmb		IAmb	05 04 24.5		
	comp=Z,6.0nm,1.0s								
HHC	**Hu-ho-hao-te**	91.48	315	*e*P		**P**	05 04 23.8	+1.7	
HHC				pmax		pmax			
	comp=Z,6.0nm,0.7s								
HHC				pmax		pmax			
	comp=Z,110nm,4.6s								
ALPN	**Alpine**	91.86	57	IAmb		IAmb	05 04 26.5		
	comp=Z,7.1nm,0.7s								
ANMO	**Albuquerque**	92.01	52			**P**	05 04 25.4	+0.7	
SAND	**Sanderson**	92.82	58	IAmb		IAmb	05 04 30.3		
	comp=Z,4.5nm,0.8s								
AHID	**Auburn Hatcher**	92.93	44	IAmb		IAmb	05 04 31.3		
	comp=Z,6.5nm,1.2s								
MLY	**Manley**	93.06	12	P		**P**	05 04 27.6	-1.1	
ILAR	**Eielson Array**	93.60	14	P		**P**	05 04 30.7	-0.4	
	comp=Z,1.0nm,0.7s,baz=222,slow=5.3,SNR=21								
	comp=Z,1.0nm,0.7s								
PD31	**Pinedale Array**	93.89	44	IAmb		IAmb	05 04 34.8		
	comp=Z,4.7nm,1.4s								
PDAR	**Pinedale Array**	93.89	44	P		**P**	05 04 34.0	+0.6	
	comp=Z,0.7nm,0.6s,baz=196,slow=1.9,SNR=9.7								
	comp=Z,0.7nm,0.6s								
OZNA	**Ozona**	94.03	58	IAmb		IAmb	05 04 36.4		
	comp=Z,3.1nm,0.9s								
SDCO	**Great Sand Dun**	94.05	50			**P**	05 04 35.9	+1.6	
LZH	**Lanzhou**	94.28	308	*e*P		**P**	05 04 32.3	-2.9	
KURK	**Kurchatov**	116.29	316			**PKPdf**	05 09 54.7	-0.7	
KURBB	**Kurchatov Arra**	116.33	316	PKP		**PKPdf**	05 09 54.7	-0.8	
	comp=Z,0.2nm,0.4s,baz=84,slow=2.2,SNR=4.8								
BVAR	**Borovoye Array**	121.57	318	PKP		**PKPdf**	05 10 05.4	-0.1	
	comp=Z,1.1nm,0.5s,baz=159,slow=1.3,SNR=5.0								
ARCES	**ARCESS Array B**	133.43	348	PKhKP		PKPpre	05 10 14.9		
	comp=Z,1.2nm,0.6s,baz=340,slow=1.4,SNR=3.6								
ARCES				PKP		**PKPdf**	05 10 27.5	-0.2	
	comp=Z,3.5nm,0.8s,baz=5.7,slow=1.2,SNR=6.3								
ARCES				SKPbc		**SKPbc**	05 13 11.5	+1.9	
	comp=Z,6.8nm,1.0s,baz=42,slow=3.8,SNR=4.7								
FINES	**FINESS Array B**	139.92	341	PKhKP		PKPpre	05 10 31.4		
	comp=Z,3.2nm,0.9s,baz=51,slow=7.6,SNR=6.6								
FINES				PKP		**PKPdf**	05 10 41.6	+1.8	
	comp=Z,2.7nm,0.9s,baz=222,slow=2.6,SNR=4.0								
FINES				SKPbc		**SKPbc**	05 13 30.8	+1.8	
	comp=Z,4.3nm,0.7s,baz=36,slow=3.6,SNR=8.7								
NB201	**NORSAR Array S**	143.62	351			PKPab	05 10 45.1	+0.1	
NB2	**NORSAR Subarra**	143.64	351	PKP		PKPab	05 10 45.1	0.0	
	comp=Z,4.3nm,0.7s,baz=16,slow=3.3								
NOA	**NORSAR Array B**	143.64	351	PKP		PKPab	05 10 44.9	-0.3	
	comp=Z,7.9nm,0.8s,baz=21,slow=3.8,SNR=28								
HFS	**Hagfors**	144.09	348	PKP		PKPbc	05 10 46.3	-0.3	
	comp=Z,7.9nm,0.5s,baz=40,slow=2.5,SNR=35								
AK03	**Malin Array Si**	146.24	326	PKP		**PKPdf**	05 10 51.5	+0.3	
AKASG	**Malin Array Be**	146.25	326	PKPbc		**PKPdf**	05 10 52.8	+1.5	
	comp=Z,2.1nm,0.5s,baz=45,slow=4.2,SNR=7.3								
AKBB	**Malin Array Si**	146.25	326	PKP		**PKPdf**	05 10 51.7	+0.5	
AK02	**Malin Array Si**	146.29	326	PKP		**PKPdf**	05 10 50.9	-0.4	
AK07	**Malin Array Si**	146.35	326	PKP		**PKPdf**	05 10 51.0	-0.4	
KPL	**Plockton**	147.94	6	*e*P		**PKPbc**	05 10 56.7	-0.9	
MMAI	**Mount Meron Ar**	148.25	292	PKPbc		**PKPbc**	05 10 59.0	-0.3	
	comp=Z,2.7nm,0.5s,baz=61,slow=6.8,SNR=4.2								
BRTR	**Keskin Array B**	148.44	305	PKPbc		**PKPbc**	05 10 59.6	0.0	
	comp=Z,0.7nm,0.5s,baz=135,slow=3.4,SNR=6.9								
BRTR				PKPab		**PKPab**	05 11 05.6	+0.7	
	comp=Z,1.5nm,0.7s,baz=122,slow=3.4,SNR=6.5								
INVG	**Invergeldie, C**	148.97	4	*e*P		**PKPbc**	05 11 00.1	-0.1	
EAB	**Aberfoyle**	149.18	5	*e*P		**PKPbc**	05 11 00.3	-0.4	
EKA	**Eskdalemuir Ar**	150.11	4	PKPbc		**PKPbc**	05 11 02.6	-0.4	
	comp=Z,1.7nm,0.5s,baz=346,slow=2.7,SNR=30								
EDMD	**Edmundbyers**	150.67	2	*e*P		**PKPbc**	05 11 03.9	-0.4	
IOMK	**Kirk Michael**	151.08	5	*e*P		**PKPbc**	05 11 04.7	-0.5	
OSTC	**Ostas**	152.00	338⇑	*e*PKP		**PKPbc**	05 11 08.1	+0.6	
KRLC	**Kraliky**	152.20	336⇑	*e*PKP		**PKPbc**	05 11 08.4	+0.4	
CLL	**Collm**	152.35	342			**PKPbc**	05 11 08.9	+0.7	
CLL	**Collm**	152.35	342	*i* PKPbc		**PKPbc**	05 11 08.5	+0.3	
	comp=Z,7.0nm,0.8s								
CLL				*i* PKPab		**PKPab**	05 11 20.7	+0.1	
KHC	**Kasperske Hory**	154.10	339	*e*PKPDF		**PKPdf**	05 11 04.1	+0.6	
GERES	**GERESS Array B**	154.31	339	PKPbc		**PKPbc**	05 11 12.0	-0.6	
	comp=Z,0.1nm,0.3s,baz=340,slow=1.6,SNR=3.6								
ESDC	**Sonseca Array**	165.50	12	PKPab		**PKPab**	05 12 18.3	+0.2	
	comp=Z,1.8nm,0.9s,baz=340,slow=4.1,SNR=7.4								

SDD ***27*** *04:56:34.1±1.3, 18°.05N×71°.48W, h12km±10km, MD2.5, ML2.2, MW2.5, Presumed earthquake*
OSPL ***27*** *04:56:36.0±1.1, 18°.20N×71°.40W, h3km±5km, ML2.1, Presumed earthquake*
ISC 27 04:56:34.7±1.0, 18°.15N±0°.04×71°.44W±0°.04, h10km±9km, n10, σ0°64/19, 4C-5D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PODR	**Polo**	0.15	84⇑	*e*Pg		**Pg**		04 56 38.0	-0.2
PODR				⇓*e*Sg		**Sg**		04 56 42.0	+1.4
PODR				IAML				04 56 43.5	
	comp=N,578nm,0.2s								
PODR	**Polo**	0.15	84	*i* P		**Pg**		04 56 37.9	-0.3
PODR				*e*S		**Sg**		04 56 40.2	-0.5
PODR				IAML				04 56 41.7	
	comp=Z,4μm,0.1s								
LODU1	**El Espartillar**	0.20	351	*i* P		**Pg**		04 56 38.4	-0.5
LODU1				*e*S		**Sg**		04 56 41.7	-0.1
LODU1				IAML				04 56 42.3	
	comp=Z,453nm,0.3s								
NEDR	**Neiba UASD**	0.33	4⇑	*e*Pg		**Pg**		04 56 41.7	+0.4
NEDR				⇓*e*Sg		**Sb**		04 56 48.2	0.0
NEDR				IAML				04 56 48.8	
	comp=N,225nm,0.3s								
LOBH	**Bahia de las A**	0.34	213	*i* P		**Pb**		04 56 42.9	-0.1
LOBH				*e*S		**Sb**		04 56 49.5	+0.9
LOBH				IAML				04 56 51.2	
	comp=Z,99nm,0.4s								
LOVI	**El Cajuil, Ovi**	0.36	169	*i* P		**Pb**		04 56 42.8	-0.4
LOVI				*e*S		**Sb**		04 56 48.7	-0.2
LOVI				IAML				04 56 54.6	
	comp=Z,83nm,1.2s								
LONE3	**El Aguacate, B**	0.45	358	*i* P		**Pg**		04 56 43.3	-0.3
LONE3				IAML				04 56 52.5	
	comp=Z,78nm,0.3s								
JIDR	**Jimani**	0.52	311	*e*Pg		**Pg**		04 56 44.2	-0.6
JIDR				⇓*e*Sg		**Sg**		04 56 52.3	+0.7
SDDR	**Presa de Saban**	0.84	10⇑	*e*Pg		**Pg**		04 56 51.1	+0.2
SDDR				⇓*e*Sg		**Sg**		04 57 01.7	-0.1
ABDR	**Alto Bandera**	1.01	49⇑	*e*Pg		**Pg**		04 56 53.6	-0.6
ABDR				⇓*e*Sg		**Sg**		04 57 08.4	+0.9
ABDR				IAML				04 57 16.3	
	comp=N,31nm,1.5s								

IPEC ***27*** *05:06:09.0±0.2, 51°.61N×16°.19E, h1km, ML2.1/8, Error ellipse: s-maj=1.9km s-min=1.1km az=67.0*
VIE ***27*** *05:06:09.9±1.3, 51°.45N×15°.63E, h0km, mb2.4/5, ml2.5/6, ml2.5/6, Error ellipse: s-maj=10.9km s-min=7.3km az=29.0*
82 km NNE of Liberec Suspected Mining induced.
PRU ***27*** *05:06:11.4, 51°.53N×16°.09E, h0km*
ISC 27 05:06:08.9±1.2, 51°.55N±0°.05×16°.11E±0°.03, h0km, n29, σ0°97/59, Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KSP	**Ksiaz**	0.72	171	*e*Pg		**Pb**		05 06 24.1	-0.2
KSP				*e*Sg		**Sb**		05 06 34.6	0.0
CHVC	**Chvalec**	0.96	182	*e*PG		**Pn**		05 06 29.1	-0.6
CHVC				*e*SG		**Sb**		05 06 42.4	+0.7
	comp=Z,15nm,0.4s								
CHVC				AML		AML			
OSTC	**Ostas**	1.00	176	*e*PG		**Pn**		05 06 29.7	-0.4
OSTC				*e*SG		**Sb**		05 06 43.5	+0.8
	comp=Z,25nm,0.3s								
OSTC				AML		AML			
UPC	**Upice**	1.04	183	*e*PG		**Pb**		05 06 30.1	+0.3
UPC				*e*SG		**Sb**		05 06 44.0	0.0
	comp=Z,45nm,0.5s								
UPC				AML		AML			
DPC	**Dobruska-Polom**	1.21	173	*e*PG		**Pn**		05 06 32.9	-0.2
DPC				*e*SG		**Sb**		05 06 49.5	+0.7
	comp=Z,13nm,0.3s								
DPC				AML		AML			
PIVO	**Bartosovice**	1.39	168	*e*Pg		**Pb**		05 06 35.8	0.0
	baz=351								
PIVO				*e*Sg		**Sb**		05 06 54.0	-0.1
	26nm,0.3s,baz=351								
PIVO				AML		AML			
PVCC	**Panska Ves**	1.41	224	*e*PG		**Pb**		05 06 36.7	+0.7
PVCC				*e*SG		**Sn**		05 06 56.4	+1.3
	comp=Z,57nm,0.3s								
PVCC				AML		AML			
BRG	**Berggiesshubel**	1.52	244	Pg		**Pg**		05 06 38.2	+0.2
BRG				Sg		**Sn**		05 06 58.3	+0.5
BRG				Amp				05 06 59.9	
	comp=Z,38nm,0.4s								
KRLC	**Kraliky**	1.54	164	*e*PG		**Pb**		05 06 38.1	-0.1
KRLC				*e*SG		**Sb**		05 06 59.4	+1.2
	comp=Z,17nm,0.4s								
KRLC				AML		AML			
ANAC	**Anensky vrch**	1.68	151	*e*Pn		**Pn**		05 06 39.7	+0.1
	baz=334								
ANAC				*e*Sg		**Sb**		05 07 02.5	+0.1
	comp=Z,13nm,0.3s,baz=334								
ANAC				AML		AML			
RYBC	**Ceska Rybna**	1.74	181	*e*Pn		**Pn**		05 06 40.9	+0.5
	baz=2.5								
RYBC				*e*Sg		**Sg**		05 07 05.4	+0.6
	comp=Z,16nm,0.3s,baz=2.5								
RYBC				AML		AML			
STEB	**Steborice**	1.93	146	*e*PG		**Pg**		05 06 46.1	+0.2
STEB				*e*SG		**Sg**		05 07 11.9	+1.0
	comp=Z,10.0nm,0.3s								
STEB				AML		AML			
CLL	**Collm**	1.96	264	*i* Pn		**Pn**		05 06 42.3	-1.0
CLL				*i* Pg		**Pb**		05 06 45.5	+0.1
CLL				*i* x		x		05 06 49.4	
	comp=Z,20nm,0.4s								
CLL				*i* Sg		**Sg**		05 07 11.4	-0.4
	comp=Z,13nm,0.7s								
MORC	**Moravsky Berou**	2.00	152	*e*Pn		**Pn**		05 06 44.1	+0.2
	baz=335								
MORC				*e*Sg		**Sg**		05 07 12.5	-0.4
	comp=Z,14nm,0.5s,baz=335								
MORC				AML		AML			
VRAC	**Vranov**	2.27	172	*e*Pn		**Pn**		05 06 48.3	+0.8
	baz=354								
VRAC				*e*Sg		**Sg**		05 07 21.3	-0.3
	comp=Z,7.4nm,0.4s,baz=354								
VRAC				AML		AML			
TREC	**Trest**	2.29	190	*e*PG		**Pg**		05 06 52.5	-0.3
TREC				*e*SG		**Sg**		05 07 23.2	+0.8
ZVC	**Zvikov**	2.44	211	*e*PN		**Pn**		05 06 51.4	+1.4
ZVC				*e*PG		**Pg**		05 06 55.0	-0.6
ZVC				*e*SG		**Sg**		05 07 28.2	+1.0
	comp=Z,4.7nm,0.4s								
ZVC				AML		AML			
KRUC	**Moravsky**	2.50	176	*e*Pn		**Pn**		05 06 51.5	+0.8
	baz=357								
KRUC				*e*Sg		**Sg**		05 07 28.9	-0.1
	comp=Z,9.2nm,0.5s,baz=357								
KRUC				AML		AML			
STAC	**Stalkov**	2.58	192	*e*Pn		**Pn**		05 06 52.8	+1.0
	baz=12								
STAC				*e*Sg		**Sg**		05 07 31.7	+0.2
	comp=Z,10.0nm,0.4s,baz=12								
STAC				AML		AML			
OJC	**Ojcow**	2.69	118	*e*Pg		**Pg**		05 06 59.8	-0.5
OJC				*e*Sg		**Sg**		05 07 35.5	+0.2
JAVC	**Velka Javorina**	2.87	159	*e*Pn		**Pn**		05 06 56.2	+0.2
	baz=342								
KHC	**Kasperske Hory**	2.91	215	*e*PN		**Pn**		05 06 58.8	+2.3
KHC				*e*PG		**Pb**		05 07 03.0	+1.3
KHC				*e*SG		**Sg**		05 07 43.3	+0.9
	comp=Z,5.9nm,0.3s								
KHC				AML		AML			
ABNA	**Allensteig Bun**	2.91	189	*e*Pn		**Pn**		05 06 55.9	-0.6
	comp=Z,0.9nm,0.1s								
ABNA				*e*Sn		**Sn**		05 07 30.9	-1.3
	comp=Z,3.4nm,0.2s								
LANS	**Liptovska Anna**	3.22	137	*e*SG		**Sg**		05 07 53.4

DUVT	**Torbali**	**0.62**	**50**	P	**Pg**	**05 18 57.1**	**-0.3**
DUVT				S	**Sg**	**05 19 04.7**	**-0.8**
DUVT				IAML		05 19 09.0	
	comp=E,512nm,0.4s						
CESE	**eme**	**0.66**	**320**	Pg	**Pg**	**05 18 58.2**	**0.0**
CESE				Sg	**Sb**	**05 19 08.2**	**+0.2**
CESE				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.78**	**154**	Pg	**Pg**	**05 19 00.2**	**-0.2**
KRBN	**Karaburun**	**0.80**	**343**	Pg	**Pb**	**05 19 00.9**	**-0.2**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**0**	P	**Pb**	**05 19 01.5**	**-0.1**
BAGT				S	**Sn**	**05 19 14.7**	**-0.2**
BAGT				IAML		05 19 15.0	
	comp=E,216nm,0.8s						
BAGT				IAML		05 19 16.0	
	comp=N,438nm,0.6s						
AYDB	**Zeytinkoy-Aydi**	**0.84**	**81**	Pg	**Pb**	**05 19 01.5**	**-0.3**
AYDB				AML	AML		
CHOS	**Chios island**	**0.84**	**312**	P	**Pg**	**05 19 01.2**	**-0.3**
CHOS				S	**Sb**	**05 19 13.4**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.84**	**312**	Pg	**Pg**	**05 19 01.4**	**-0.1**
CHOS				AML	AML		
BODT	**Bodrum**	**0.85**	**154**	P	**Pg**	**05 19 01.0**	**-0.6**
BODT				S	**Sb**	**05 19 13.9**	**+0.7**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**154**	Pg	**Pg**	**05 19 01.5**	**-0.1**
BODT				Sg	**Sb**	**05 19 14.0**	**+0.7**
BODT				AML	AML		
FOCM	**Foa**	**0.89**	**354**	Pg	**Pb**	**05 19 02.7**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**338**	P	**Pn**	**05 19 03.7**	**-0.1**
KARB				S	**Sb**	**05 19 16.0**	**+1.1**
KARB				IAML		05 19 17.0	
	comp=N,193nm,0.5s						
KARB				IAML		05 19 18.0	
	comp=E,243nm,0.5s						
MLSB	**Milas**	**0.91**	**125**	Pg	**Pg**	**05 19 02.7**	**-0.1**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.93**	**70**	P	**Pn**	**05 19 04.0**	**-0.2**
IZMR				S	**Sg**	**05 19 13.9**	**-1.4**
CAMT	**Merkez**	**0.99**	**22**	P	**Pb**	**05 19 04.7**	**+0.3**
CAMT				S	**Sb**	**05 19 17.7**	**+0.2**
CAMT				IAML		05 19 24.0	
	comp=N,232nm,0.6s						
CAMT				IAML		05 19 24.0	
	comp=E,207nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.15**	**83**	Pn	**Pb**	**05 19 07.2**	**+0.1**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.15**	**9**	P	**Pn**	**05 19 08.3**	**+1.0**
ZEDA				S	**Sn**	**05 19 23.3**	**+0.4**
ZEDA				IAML		05 19 25.0	
	comp=E,101nm,0.7s						
ZEDA				IAML		05 19 29.0	
	comp=N,71nm,0.5s						
GOMA	**Golmarmara-Man**	**1.22**	**43**	Pn	**Pn**	**05 19 08.9**	**+0.8**
GOMA				AML	AML		
DAT	**Datca**	**1.24**	**152**	P	**Pn**	**05 19 09.3**	**+0.7**
DAT				S	**Sn**	**05 19 25.8**	**+0.6**
DAT	**Datca**	**1.24**	**152**	Pn	**Pb**	**05 19 08.9**	**+0.2**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.25**	**148**	Pn	**Pg**	**05 19 09.3**	**0.0**
DATC				AML	AML		
APE	**Apeiranthos**	**1.29**	**235**	P	**Pn**	**05 19 08.5**	**-0.7**
APE				S	**Sb**	**05 19 26.0**	**-0.1**
AKS	**Akhisar**	**1.30**	**36**	Pn	**Pg**	**05 19 10.3**	**+0.1**
AKS				AML	AML		
PRK	**Paraskevi**	**1.49**	**343**	P	**Pg**	**05 19 13.5**	**-0.4**
PRK				S	**Sn**	**05 19 30.3**	**-0.9**
TURN	**Turunc**	**1.53**	**133**	Pn	**Pb**	**05 19 13.5**	**-0.1**
TURN				AML	AML		

IDC 27 05:33:21.0±1.9, **6°34S**×**143°11E**, **h0**km, **mb3.7**/2, **mbtmp3.6/5, ML3.2/3, Error ellipse: s-maj=47.8km s-min=23.0km az=99.0, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAY	**Jayapura**	**4.50**	**328**	Pn	Pn	05 34 32.7	+2.2
	1.0nm,0.3s,baz=139,slow=11,SNR=1.3 4.5nm,0.4s						
JAY				AML	AML		
WRA	**Warramunga Arr**	**15.98**	**211**	Pn	Pn	05 37 05.4	-2.0
	0.1nm,0.3s,baz=38,slow=14,SNR=7.6 0.4nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.37**	**206**	P	P	05 37 48.3	-0.2
	0.1nm,0.3s,baz=32,slow=9.5,SNR=16 1.2nm,0.6s						
ASAR				AML	AML		
FITZ	**Fitzroy Crossi**	**20.67**	**234**	P	P	05 38 01.9	-0.7
	1.6nm,0.6s,baz=68,slow=13,SNR=1.7 1.6nm,0.6s						
ILAR	**Eielson Array**	**87.33**	**24**	P	P	05 46 09.4	-0.2
	0.6nm,0.9s,baz=242,slow=6.2,SNR=5.1 0.6nm,0.9s						

AFAD **27** *05:39:51.2, 37°.83N×26°.98E, h7*km*, 2*km*, ML2.7*
ISK **27** *05:39:51.0, 37°.84N×27°.02E, h8*km*, ML2.5/33*
THE **27** *05:39:51.2, 38°.1N±1°×27°.7E±°, h12*km*±3*km*, M2.7/7, ML2.7/7*

ISC 27 05:39:51.4±0.8, **37°.83N**±0°.02×**27°.00E**±0°.02, **h12**km±6km, **n52**, **σ0°53/72, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.17**	**227**	P	**Pg**	**05 39 55.3**	**-0.1**
SMG				S	**Sg**	**05 39 58.5**	**+0.4**
SMG				AML	AML		
GCAM	**G?zelcaml?**	**0.23**	**123**	P	**Pg**	**05 39 56.5**	**+0.2**
GCAM				S	**Sg**	**05 39 59.9**	**+0.4**
GCAM				IAML		05 40 00.0	
	comp=N,3μm,0.2s						
GCAM				IAML		05 40 00.0	
	comp=E,2μm,0.1s						
GCAM	**G?zelcaml?**	**0.23**	**123**	Pg	**Pg**	**05 39 56.2**	**-0.1**
GCAM				Sg	**Sg**	**05 39 59.4**	**-0.1**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.23**	**81**	Pg	**Pg**	**05 39 55.7**	**-0.7**
KUSD				Sg	**Sg**	**05 39 59.2**	**-0.6**
KUSD				AML	AML		
DGB	**zmir**	**0.24**	**339**	P	**Pg**	**05 39 56.3**	**-0.3**
DGB				S	**Sg**	**05 39 59.4**	**-0.7**
GMLD	**Gumuldur**	**0.26**	**346**	Pg	**Pg**	**05 39 56.7**	**-0.1**
GMLD				AML	AML		
BEYE	**izmir**	**0.41**	**352**	P	**Pg**	**05 39 59.4**	**-0.1**
BEYE				IAML		05 40 05.0	
	comp=N,680nm,0.3s						
BEYE				IAML		05 40 05.0	
	comp=E,804nm,0.1s						
BEYE				S	**Sg**	**05 40 05.0**	**+0.1**
DIDI	**Didim-Aydin**	**0.49**	**156**	Pg	**Pg**	**05 40 00.8**	**-0.2**
DIDI				Sg	**Sb**	**05 40 08.5**	**-0.5**
DIDI				AML	AML		
DUVT	**Torbali**	**0.53**	**42**	P	**Pg**	**05 40 01.6**	**-0.3**
DUVT				S	**Sg**	**05 40 07.9**	**-1.0**
DUVT				IAML		05 40 09.0	
	comp=E,496nm,0.2s						
BLCB	**Balcova**	**0.56**	**4**	P	**Pg**	**05 40 01.9**	**-0.5**
BLCB				S	**Sg**	**05 40 09.5**	**-0.3**
BLCB	**Balcova**	**0.56**	**4**	Pg	**Pg**	**05 40 01.9**	**-0.5**
BLCB				Sg	**Sg**	**05 40 10.1**	**+0.3**
BLCB				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.57**	**317**	P	**Pg**	**05 40 02.0**	**-0.5**
ZEYE				IAML		05 40 10.0	
	comp=N,955nm,0.4s						
ZEYE				S	**Sg**	**05 40 10.0**	**0.0**
ZEYE				IAML		05 40 11.0	
	comp=E,462nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.72**	**80**	Pg	**Pg**	**05 40 04.8**	**-0.6**
AYDB				Sg	**Sb**	**05 40 15.3**	**-0.5**
AYDB				AML	AML		
YKAV	**Yalikavak-Bodr**	**0.73**	**162**	Pg	**Pg**	**05 40 05.8**	**+0.1**
YKAV				Sg	**Sb**	**05 40 16.4**	**+0.3**
YKAV				AML	AML		
CESE	**eme**	**0.74**	**313**	Pg	**Pb**	**05 40 06.3**	**0.0**
CESE				AML	AML		
BODT	**Bodrum**	**0.80**	**162**	P	**Pg**	**05 40 06.6**	**-0.4**
BODT				S	**Sb**	**05 40 19.1**	**+1.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.80**	**162**	Pg	**Pb**	**05 40 07.3**	**0.0**
BODT				AML	AML		
MLSB	**Milas**	**0.82**	**130**	Pg	**Pg**	**05 40 07.1**	**-0.1**
MLSB				AML	AML		
BAGT	**Foa**	**0.84**	**352**	P	**Pb**	**05 40 07.5**	**-0.3**
BAGT				S	**Sb**	**05 40 19.1**	**0.0**
BAGT				IAML		05 40 21.0	
	comp=N,207nm,0.3s						
BAGT				IAML		05 40 21.0	
	comp=E,313nm,0.4s						
KRBN	**Karaburun**	**0.84**	**336**	Pg	**Pb**	**05 40 07.9**	**0.0**
KRBN				AML	AML		
BODA	**Bodrum-Mula**	**0.86**	**156**	Pg	**Pg**	**05 40 07.6**	**-0.5**
FOCM	**Foa**	**0.91**	**347**	Pg	**Pb**	**05 40 08.9**	**-0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.93**	**307**	P	**Pg**	**05 40 09.0**	**-0.4**
CHOS				S	**Sb**	**05 40 22.0**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.93**	**307**	Pg	**Pb**	**05 40 09.7**	**+0.2**
CHOS				AML	AML		
CAMT	**Merkez**	**0.95**	**15**	P	**Pg**	**05 40 09.5**	**-0.4**
CAMT				S	**Sb**	**05 40 22.9**	**+0.4**
CAMT				IAML		05 40 26.0	
	comp=E,264nm,0.3s						
CAMT				IAML		05 40 32.0	
	comp=N,252nm,0.4s						
KARB	**zmir-Karabur**	**0.95**	**331**	P	**Pg**	**05 40 09.6**	**-0.2**
KARB				S	**Sb**	**05 40 23.3**	**+0.9**
NAZL	**Nazilli-Aydin**	**1.04**	**82**	Pg	**Pg**	**05 40 10.9**	**-0.5**
NAZL				AML	AML		
ZEDA	**zmir-Bergama**	**1.14**	**3**	P	**Pg**	**05 40 12.8**	**-0.6**
ZEDA				S	**Sb**	**05 40 28.4**	**+0.6**
ZEDA				IAML		05 40 30.0	
	comp=N,120nm,0.5s						
ZEDA				IAML		05 40 30.0	
	comp=E,182nm,0.5s						
GOMA	**Golmarmara-Man**	**1.14**	**39**	Pn	**Pb**	**05 40 13.1**	**+0.1**
GOMA				AML	AML		
DAT	**Datca**	**1.19**	**157**	S	**Sg**	**05 40 29.4**	**-0.4**
DAT				AML	AML		
DAT	**Datca**	**1.19**	**157**	Pn	**Pg**	**05 40 13.4**	**-0.9**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.19**	**153**	Pn	**Pb**	**05 40 13.4**	**-0.4**
DATC				AML	AML		
AKS	**Akhisar**	**1.23**	**31**	Pn	**Pb**	**05 40 14.3**	**-0.3**
AKS				AML	AML		
DKL	**Dikili**	**1.25**	**357**	Pn	**Pg**	**05 40 14.9**	**-0.5**
DKL				AML	AML		
APE	**Apeiranthos**	**1.39**	**238**	P	**Pn**	**05 40 15.4**	**-1.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.39**	**238**	Pn	**Pg**	**05 40 17.8**	**-0.3**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.40**	**17**	Pn	**Pb**	**05 40 17.3**	**-0.1**
SOMA				AML	AML		
GORD	**Gordes-Manisa**	**1.43**	**40**	Pn	**Pn**	**05 40 17.5**	**+0.4**
GORD				AML	AML		
TURN	**Turunc**	**1.45**	**136**	Pn	**Pn**	**05 40 17.5**	**+0.2**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.48**	**62**	Pn	**Pn**	**05 40 18.5**	**+0.6**
KULA				AML	AML		
PRK	**Paraskevi**	**1.53**	**338**	P	**Pg**	**05 40 20.1**	**-0.7**
PRK				S	**Sg**	**05 40 40.1**	**-0.5**
DALY	**Dalyan (Mula)**	**1.66**	**127**	Pn	**Pn**	**05 40 20.7**	**+0.4**
DALY				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**2**	Pn	**Pn**	**05 40 22.9**	**+0.9**
YAYO				AML	AML		
ARG	**Arkhangelos**	**1.84**	**150**	Pn	**Pn**	**05 40 23.3**	**+0.5**
ARG				AML	AML		
APMY	**Acipayam-Deniz**	**1.86**	**100**	Pn	**Pn**	**05 40 23.7**	**+0.5**
BALB	**Balikesir**	**1.94**	**21**	Pn	**Pn**	**05 40 25.1**	**+1.0**
BALB				AML	AML		
SIMA	**Simav-Kutahya**	**2.00**	**51**	Pn	**Pn**	**05 40 25.9**	**+0.8**
SIMA				AML	AML		
CAME	**Cameli-Denizli**	**2.04**	**115**	Pn	**Pn**	**05 40 26.5**	**+0.9**
FETY	**Fethiye**	**2.05**	**125**	Pn	**Pn**	**05 40 26.6**	**+1.0**
FETY				AML	AML		
EZN	**Ezine**	**2.06**	**346**	Pn	**Pn**	**05 40 27.0**	**+1.2**
EZN				AML	AML		
KARP	**Karpathos**	**2.28**	**177**	P	**Pn**	**05 40 29.2**	**+0.4**
SMTH	**Samothraki Isl**	**2.88**	**337**	P	**Pn**	**05 40 37.3**	**+0.2**

NEIC **27** *05:42:25.9±1.4, 18°.1S±0°.1×173°.54W±0°.10, h35*km*±2*km*, mb4.3/13, Error ellipse: s-maj=22.1km s-min=10.5km az=36.0*
IDC **27** *05:42:52.6±3.0, 19°.06S×174°.88W, h199*km*±30*km*, mb3.5/4, mbtmp4.1/6, MS3.2/6, Error ellipse: s-maj=44.9km s-min=19.1km az=156.0*

ISC 27 05:42:25.4±0.8, **18°.05S**±0°.2×**173°.53W**±0°.07, **h35**km, **n33, σ1°15/22, mb4.3/8, MS3.2/4, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**3.59**	**108**		**Pn**	**05 43 18.7**	**+0.1**
NIUE				Sn	**Sn**	**05 43 58.0**	**-1.7**
AFI	**Afiamalu**	**4.39**	**23**	P	Pn	05 44 19.9	+50
	27nm,0.4s,baz=74,slow=18,SNR=6.8						
FUTU	**Fugatoga**	**5.73**	**309**	Pn	**Pn**	**05 43 48.8**	**+0.7**
MSVF	**Nonsavu**	**8.02**	**270**	P	Pn	05 44 29.6	+10
	19nm,0.8s,baz=116,slow=15,SNR=8.9						
MSVF				LR	LR	05 47 08.0	
	comp=Z,227nm,20.6s,baz=317,slow=37						
MSVF	**Nonsavu**	**8.02**	**270**		Pn	05 44 30.2	+11
RAR	**Rarotonga**	**13.36**	**106**	Pn	**Pn**	**05 45 32.7**	**+0.2**
PINNC	**Pines Island,**	**18.43**	**252**	P	**P**	**05 46 36.9**	**-0.9**
PINNC				IAmb	IAmb	05 47 09.4	
	comp=Z,41nm,1.0s						
SANVU	**Saraoutou**	**18.63**	**275**	P	**P**	**05 46 39.1**	**-1.0**
SANVU				IAmb	IAmb	05 46 40.3	
	comp=Z,16nm,0.8s						
DZM	**Mont Dzumac**	**19.25**	**254**	LR	LR	05 52 09.8	
	comp=Z,42nm,18.1s,baz=293,slow=31						
RTZ	**Ruatahuna**	**22.16**	**200**	P	**P**	**05 47 18.3**	**-0.1**
RTZ				IAmb	IAmb	05 47 24.4	
	comp=Z,15nm,1.1s						
HNR	**Honiara**	**27.11**	**285**	LR	LR	05 57 16.4	
	comp=Z,47nm,18.7s,baz=240,slow=33						
CTA	**Charters Tower**	**38.01**	**260**	LR	LR	06 04 17.5	
	comp=Z,38nm,18.6s,baz=113,slow=35						
CTAO	**Charters Tower**	**38.01**	**260**	P	**P**	**05 49 39.9**	**-0.7**
CTAO				IAmb	IAmb	05 49 40.9	
	comp=Z,4.3nm,0.9s						
TOO	**Toolangi**	**40.78**	**233**	P	**P**	**05 50 03.5**	**+0.1**
WR8	**Warramunga Arr**	**49.03**	**259**	P	**P**	**05 51 08.6**	**-0.7**
WR8				IAmb	IAmb	05 51 25.1	
	comp=Z,2.5nm,1.1s						
WB0	**Warramunga Arr**	**49.15**	**259**	P	**P**	**05 51 09.5**	**-0.7**
WB0				IAmb	IAmb	05 51 10.2	
	comp=Z,3.0nm,0.6s						
WRA	**Warramunga Arr**	**49.18**	**259**	P	**P**	**05 51 09.5**	**-0.9**
	comp=Z,1.5nm,0.6s,baz=97,slow=8.4,SNR=19 comp=Z,1.5nm,0.6s						
WRA	**Warramunga Arr**	**49.18**	**259**	P	**P**	**05 51 09.0**	**-1.4**
AS31	**Alice Springs**	**49.24**	**254**	P	**P**	**05 51 10.7**	**-0.1**
ASAR	**Alice Springs**	**49.24**	**254**	P	**P**	**05 51 10.4**	**-0.5**
	comp=Z,4.0nm,0.7s,baz=88,slow=8.7,SNR=49 comp=Z,4.0nm,0.7s						
ASAR	**Alice Springs**	**49.24**	**254**	P	**P**	**05 51 09.8**	**-1.1**
RPN	**Rapa Nui**	**59.44**	**111**	LR	LR	06 15 44.4	
	comp=Z,6.1nm,18.2s,baz=236,slow=33						
SBA	**Scott Base**	**60.68**	**185**	P	**P**	**05 52 32.1**	**-0.6**
SOEI	**Soe**	**60.72**	**269**	P	**P**	**05 52 32.8**	**-1.2**
NWAO	**Narrogin (SRO)**	**63.27**	**242**	P	**P**	**05 52 52.4**	**+1.6**
QSPA	**South Pole Qui**	**72.07**	**180**	P	**P**	**05 53 48.4**	**+2.5**
	comp=Z,1.0nm,0.8s,baz=53,slow=5.0,SNR=3.9 comp=Z,1.0nm,0.8s						
QSPA	**South Pole Qui**	**72.07**	**180**	P	**P**	**05 53 47.8**	**+1.9**
QSPA				IAmb	IAmb	05 54 07.0	
	comp=Z,2.5nm,1.1s						
NVAR	**Mina Array Bea**	**76.33**	**42**	P	P	05 54 28.6	+17
	comp=Z,0.4nm,0.5s,baz=236,slow=8.6,SNR=3.6 comp=Z,0.4nm,0.5s						
KDAK	**Kodiak Island**	**77.47**	**11**	LR	LR	06 23 19.0	
	comp=Z,59nm,20.3s,baz=84,slow=31						
H03S2	**Juan Fernandez**	**83.89**	**123**	T	T	07 27 38.3	
	baz=250,slow=75,SNR=6.9						
H03S1	**Juan Fernandez**	**83.90**	**123**	T	T	07 27 40.7	
	baz=250,slow=75,SNR=6.2						
H03S3	**Juan Fernandez**	**83.90**	**123**	T	T	07 27 35.6	
	baz=250,slow=75,SNR=6.5						
CLL	**Collm**	**146.35**	**353**	*e*PKiKP	**PKiKP**	**06 02 06.0**	**+0.6**

IDC **27** *05:48:59.6±1.0, 5°.84S×122°.56E, h0*km*, mb3.9/4, mbtmp3.9/8, ML3.7/4, MS2.8/3, Error ellipse: s-maj=29.2km s-min=13.0km az=53.0*
DJA **27** *05:49:05.5±0.4, 6°.S±4°×12°.2E±°, h10*km*, M3.8/10, ML3.7/9, MLv3.8/10, MLv3.8/9*

ISC 27 05:49:00.5±2.3, **6.0S**±0°.1×**122°.5E**±0°.1, **h10**km, **n15, σ0°73/13, mb4.2/3, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBSI	**Bau Bau**	**0.55**	**6**	P	**Pg**	**05 49 11.4**	**+0.2**
BBSI				S	**Sb**	**05 49 19.4**	**-0.7**
BSSI	**Bau Bau, Buton**	**2.01**	**267**	P	**Pn**	**05 49 34.6**	**0.0**
BSSI				S	**Sn**	**05 50 00.9**	**+1.1**
BSSI				AML	AML		
BSSI				AML	AML		
BSSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**2.04**	**335**	P	**Pn**	**05 49 35.6**	**+0.7**
KKSI				AML	AML		
KKSI				AML	AML		
KKSI				AML	AML		
BKSI	**Bulukumba**	**2.48**	**287**	P	**Pn**	**05 49 41.0**	**0.0**
BKSI				S	**Sn**	**05 50 11.2**	**-0.2**
BKSI				AML	AML		
BKSI				AML	AML		
BKSI				AML	AML		
EDFI	**Ende, Flores**	**2.82**	**197**	P	Pn	05 49 45.8	+0.1
KAPI	**Kappang**	**2.93**	**290**	Pn	**Pn**	**05 49 48.0**	**+0.9**
	4.7nm,0.3s,baz=128,slow=8.8,SNR=21						
KAPI				Sn	**Sn**	**05 50 23.0**	**+0.6**
	5.0nm,0.3s,baz=200,slow=24,SNR=7.5 21nm,0.5s						
KAPI				AML	AML		
MKS	**Makassar**	**3.14**	**285**	P	**Pb**	**05 49 55.4**	**-1.0**
MKS				AML	AML		
MKS				AML	AML		
MKS				AML	AML		
BATI	**Baumata**	**4.30**	**165**	Pn	Pn	05 50 09.4	+3.5
	12nm,0.3s,baz=299,slow=2.0,SNR=7.1						
BATI				LR	LR	05 52 14.3	
	comp=Z,175nm,19.1s,baz=138,slow=44 25nm,0.5s						
BATI				AML	AML		
FITZ	**Fitzroy Crossi**	**12.37**	**166**	Pn	Pn	05 51 59.6	+2.8
	0.3nm,0.3s,baz=347,slow=7.7,SNR=8.4						
FITZ				LR	LR	05 57 59.4	
	comp=Z,23nm,18.5s,baz=9.5,slow=43 1.8nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**17.98**	**141**	Pn	Pn	05 53 08.5	-2.2
	0.2nm,0.3s,baz=315,slow=12,SNR=9.7 0.7nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.67**	**149**	P	P	05 53 41.5	+0.7
	1.2nm,0.6s,baz=326,slow=12,SNR=13 1.2nm,0.6s						
CMAR	**Chiang Mai Arr**	**33.66**	**317**	LR	LR	06 11 26.9	
	comp=Z,14nm,18.5s,baz=130,slow=40						
MKAR	**Makanchi Array**	**63.52**	**330**	P	**P**	**05 59 31.9**	**+0.8**
	1.5nm,0.8s,baz=142,slow=8.3,SNR=6.8 1.5nm,0.8s						
ZALV	**Zalesovo Beam**	**67.61**	**337**	P	**P**	**05 59 57.2**	**-0.1**
	2.0nm,0.8s,baz=123,slow=5.5,SNR=8.4 2.0nm,0.8s						
KURBB	**Kurchatov Arra**	**67.96**	**331**	P	**P**	**05 59 58.9**	**-0.7**
	1.0nm,0.8s,baz=132,slow=5.5,SNR=7.5 1.0nm,0.8s						

KRNET **27** *05:59:07.5±0.1, 41°.38N×72°.83E, h20*km*, mb3.4*
SOME **27** *05:59:08.8, 41°.40N×72°.77E, h15*km*
NNC* **27** *05:59:09.5±1.2, 41°.47N×72°.77E, h0*km*, mb3.9, mpv3.6, Error ellipse: s-maj=10.8km s-min=4.2km az=174.0*
KNET **27** *05:59:10.9±0.7, 41°.53N×72°.92E, h9*km*, 3*km*, ml2.7, Error ellipse: s-maj=8.1km s-min=5.1km az=118.0*
ISU **27** *05:59:30, 41°.35N×72°.69E, h11*km*

ISC 27 05:59:08.5±1.1, **41°.35N**±0°.02×**72°.87E**±0°.02, **h27**km±13km, **n57, σ2°27/90, 41C-13D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARK	**Arkit**	**0.81**	**304**	⇓*i*P	**Pb**	**05 59 22.0**	**-2.1**
ARK				⇓*i*S	**Sb**	**05 59 32.6**	**-2.2**
TSTA	**Tashata**	**0.83**	**201**	P	**Pn**	**05 59 24.7**	**+0.3**
TSTA				S	**Sn**	**05 59 36.5**	**+0.8**
OHH	**Osh**	**0.83**	**184**	⇓*i*P	**Pb**	**05 59 23.5**	**-0.9**
OHH				⇓*i*S	**Sb**	**05 59 35.3**	**+0.1**
SALK	**Salom-Alik**	**0.86**	**123**	⇑*i*P	**Pn**	**05 59 24.4**	**-0.6**
SALK				⇑*i*S	**Sn**	**05 59 36.6**	**-0.1**
MNAS	**Manas**	**1.17**	**347**	⇑*i*P	**Pb**	**05 59 28.4**	**-1.7**
MNAS				⇑*i*S	**Sb**	**05 59 43.8**	**-1.1**
FRG	**Fergana**	**1.27**	**220**	P	**Pb**	**05 59 34.0**	**+2.1**
FRG				S	**Sb**	**05 59 51.3**	**+3.4**
TRKS	**Terek-Say**	**1.31**	**278**	⇓*i*P	**Pn**	**05 59 30.6**	**-0.6**
TRKS				⇓*i*S	**Sn**	**05 59 47.3**	**-0.6**
MRKS	**Merke**	**1.42**	**11**	P	**Pb**	**05 59 34.2**	**-0.2**
	7.6nm,0.2s						
MRKS				S	**Sb**	**05 59 52.5**	**+0.4**
	87nm,0.2s						
MRKS	**Merke**	**1.42**	**11**	*e*P	**Pb**	**05 59 34.2**	**-0.2**
	7.6nm,0.2s						
MRKS				*e*S	**Sb**	**05 59 52.5**	**+0.4**
	87nm,0.2s						
SFK	**Sufi-Kurgan**	**1.42**	**160**	⇑*i*P	**Pb**	**05 59 34.4**	**-0.1**
SFK				⇑*i*S	**Sb**	**05 59 53.8**	**+1.5**
EKS2	**Erkin-Say**	**1.48**	**27**	⇑P	**Pb**	**05 59 35.3**	**-0.1**
	6.4nm,0.1s,SNR=9.8						
EKS2				⇓S	**Sb**	**05 59 54.4**	**+0.7**
	22nm,0.2s						
EKS2	**Erkin-Say**	**1.48**	**27**	⇑*i*P	**Pb**	**05 59 34.4**	**-1.0**
EKS2				⇑*i*S	**Sb**	**05 59 53.9**	**+0.2**
UCH	**Uchtor**	**1.51**	**54**	⇑P	**Pb**	**05 59 36.7**	**+0.5**
	24nm,0.1s,SNR=44						
UCH				⇑S	**Sb**	**05 59 56.8**	**+1.7**
	48nm,0.2s						
UCH	**Uchtor**	**1.51**	**54**	⇑*i*P	**Pb**	**05 59 35.4**	**-0.8**
UCH				⇑*i*S	**Sb**	**05 59 55.8**	**+0.7**
CHDK	**Chadak**	**1.64**	**257**	P	**Pn**	**05 59 30.9**	**-4.7**
CHDK				S	**Sn**	**05 59 52.5**	**-3.4**
AAK	**Ala-Archa**	**1.77**	**43**	⇑P	**Pb**	**05 59 41.2**	**+0.8**
	16nm,0.2s,SNR=24						
AAK				⇓S	**Sb**	**06 00 04.6**	**+2.4**
	34nm,0.2s						
AAK	**Ala-Archa**	**1.77**	**43**	⇑P	**Pb**	**05 59 41.7**	**+1.3**
	5.4nm,0.5s						
AAK				⇑S	**Sb**	**06 00 05.1**	**+2.9**
	4.4nm,0.4s						
AAK	**Ala-Archa**	**1.77**	**43**	⇑*i*P	**Pb**	**05 59 39.6**	**-0.8**

	57nm,0.3s								
USP	**Ospenovka**	**2.27**	**32**	⇑*i*P		**Pb**	**05 59 46.4**	**-2.4**
USP				⇑*i*S		**Sb**	**06 00 14.9**	**-1.5**
NRN	**Naryn**	**2.36**	**87**	⇑*i*P		**Pb**	**05 59 48.3**	**-2.2**
NRN				⇑*i*S		**Sb**	**06 00 18.0**	**-1.3**
TVKS	**Tavaksay**	**2.42**	**276**	P		**Pb**	**05 59 52.7**	**+1.2**
TVKS				S		**Sb**	**06 00 23.7**	**+2.7**
KK31	**Karatay Array**	**2.47**	**316**	⇑Pg		**Pb**	**05 59 51.6**	**-0.7**
	6.9nm,0.2s,baz=128,slow=16,SNR=67								
KK31				⇑Lg		Lg	06 00 24.8		
	31nm,0.3s,baz=137,slow=26,SNR=18								
TKM2	**Tokmak 2**	**2.57**	**51**	⇓P		**Pb**	**05 59 54.1**	**+0.1**
	22nm,0.2s,SNR=15								
TKM2				⇑S		**Sb**	**06 00 27.2**	**+2.1**
	20nm,0.2s								
TKM2	**Tokmak 2**	**2.57**	**51**	⇓*i*P		**Pb**	**05 59 51.2**	**-2.8**
TKM2				⇓*i*S		**Sb**	**06 00 22.8**	**-2.4**
ULHL	**Ulahol**	**2.68**	**69**	⇑*i*P		**Pb**	**05 59 52.8**	**-3.1**
ULHL				⇑*i*S		**Sb**	**06 00 26.0**	**-2.4**
NZBK	**Nazarbek**	**2.83**	**269**	S		**Sb**	**06 00 38.4**	**+5.9**
KST	**Kastek**	**2.85**	**53**	Pg		**Pb**	**06 00 00.8**	**+2.0**
	8.8nm,0.3s								
KST				Lg		Lg	06 00 38.2		
	47nm,0.5s								
KST	**Kastek**	**2.85**	**53**	*e*P		**Pb**	**06 00 00.8**	**+2.0**
	8.8nm,0.3s								
KST				*e*S		**Sb**	**06 00 38.2**	**+4.8**
	47nm,0.5s								
DGS	**Degeres**	**2.87**	**48**	Pg		**Pb**	**06 00 01.4**	**+2.3**
	16nm,0.3s								
DGS				Lg		Lg	06 00 38.6		
	27nm,0.4s								
DGS	**Degeres**	**2.87**	**48**	*e*P		**Pb**	**06 00 01.4**	**+2.3**
	16nm,0.3s								
DGS				*e*S		**Sb**	**06 00 38.6**	**+4.9**
	27nm,0.4s								
KRBS	**Karabastau**	**3.13**	**41**	Pg		**Pb**	**06 00 04.8**	**+1.3**
	5.0nm,0.3s								
KRBS				Lg		Lg	06 00 44.5		
	17nm,0.3s								
KRBS	**Karabastau**	**3.13**	**41**	*e*P		**Pb**	**06 00 04.8**	**+1.3**
	5.0nm,0.3s								
KRBS				*e*S		**Sb**	**06 00 44.5**	**+3.3**
	17nm,0.3s								
MTBS	**Maitube**	**3.19**	**55**	Pg		**Pb**	**06 00 06.7**	**+2.3**
	7.1nm,0.3s								
MTBS				Lg		Lg	06 00 48.3		
	27nm,0.3s								
MTBS	**Maitube**	**3.19**	**55**	*e*P		**Pb**	**06 00 06.7**	**+2.3**
	7.1nm,0.3s								
MTBS				*e*S		**Sb**	**06 00 48.2**	**+5.4**
	27nm,0.3s								
KDJ	**Kajisay**	**3.32**	**75**	⇑*i*P		Pb	06 00 01.9	-4.9
KDJ				⇑*i*S		**Sb**	**06 00 41.7**	**-5.1**
TNSS	**Tian-Shan**	**3.47**	**60**	Pg		Pb	06 00 12.5	+3.0
	2.0nm,0.3s								
TNSS				Lg		Lg	06 00 58.1		
	8.2nm,0.3s								
TNSS	**Tian-Shan**	**3.47**	**60**	*e*P		Pb	06 00 12.5	+3.0
	2.0nm,0.3s								
TNSS				*e*S		Sb	06 00 58.0	+6.7
	8.2nm,0.3s								
MDOK	**Medeo**	**3.59**	**58**	Pg		**Pb**	**06 00 13.9**	**+2.4**
	11nm,0.5s								
MDOK				Lg		Lg	06 01 00.4		
	24nm,0.6s								
MDOK	**Medeo**	**3.59**	**58**	*e*P		**Pb**	**06 00 13.8**	**+2.4**
	11nm,0.5s								
MDOK				*e*S		**Sb**	**06 01 00.4**	**+5.8**
	24nm,0.6s								
KOTS	**Kotyrbulak**	**3.67**	**58**	Pg		Pb	06 00 15.8	+3.1
	7.4nm,0.3s								
KOTS				Lg		Lg	06 01 05.3		
	23nm,0.7s								
KOTS	**Kotyrbulak**	**3.67**	**58**	*e*P		Pb	06 00 15.8	+3.1
	7.4nm,0.3s								
KOTS				*e*S		Sb	06 01 05.3	+8.5
	23nm,0.7s								
SATY	**Saty**	**4.46**	**66**	*e*P		Pb	06 00 31.8	+5.7
	3.9nm,0.4s								
SATY				*e*S		Sb	06 01 30.9	+12
	11nm,0.3s								
ARXS	**Arharly**	**4.64**	**50**	*e*P		Pb	06 00 33.4	+4.2
	5.0nm,0.3s								
ARXS				*e*S		Sb	06 01 33.8	+9.2
	18nm,0.5s								
KPKS	**Kokpek**	**4.80**	**62**	*e*P		Pb	06 00 37.5	+5.6
	0.3nm,0.2s								
KPKS				*e*S		Sb	06 01 40.8	+12
	5.3nm,0.4s								
UZB	**Uzynbulak**	**4.91**	**67**	*e*P		Pb	06 00 38.0	+4.2
	4.4nm,0.4s								
UZB				*e*S		Sb	06 01 41.8	+9.3
	5.6nm,0.4s								

AZER ***27*** *06:04:59.5, 38˚.56N×44˚.22E, h23km, ml3.1*
AFAD ***27*** *06:04:59.3, 38˚.59N×44˚.33E, h7km±4km, ML2.9*
TEH ***27*** *06:05:00.6, 38˚.59N×44˚.19E, h11km±117km, ML2.9, Presumed earthquake*
ISK ***27*** *06:05:02.6, 38˚.69N×43˚.96E, h16km, ML2.7/10*
NSSP ***27*** *06:05:58.2, 38˚.55N×44˚.25E, h10km, Ms3.1*

ISC 27 06:05:00.7±0.9, 38˚.56N±0˚.02×44˚.21E±0˚.02, h15km±7km, n45, σ1$45/80, 10C-4D, Turkey-Iran border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OZAP	**Van, Ozalp-Mer**	**0.20**	**301**	P	**Pg**	**06 05 05.5**	**0.0**
OZAP				S	**Sg**	**06 05 10.0**	**+1.3**
OZAP				IAML		06 05 11.0	
	comp=E,4μm,0.4s						
OZAP				IAML		06 05 11.0	
	comp=N,3μm,0.6s						
CLDR	**Caldiran**	**0.62**	**339**	P	**Pg**	**06 05 12.2**	**-0.8**
CLDR				S	**Sg**	**06 05 20.5**	**-0.8**
CLDR				IAML		06 05 22.0	
	comp=N,3μm,0.4s						
CLDR				IAML		06 05 24.0	
	comp=E,3μm,0.3s						
CLDR	**Caldiran**	**0.62**	**339**	Pg	**Pg**	**06 05 12.3**	**-0.7**
CLDR				Sg	**Sg**	**06 05 19.2**	**-2.2**
CLDR				AML	AML		
TVAN	**Van**	**0.63**	**267**	P	**Pg**	**06 05 13.0**	**-0.1**
TVAN				S	**Sn**	**06 05 25.7**	**+0.6**
TVAN				IAML		06 05 30.0	
	comp=N,425nm,0.6s						
TVAN				IAML		06 05 39.0	
	comp=E,462nm,1.0s						
VMUR	**Van-Muradiye**	**0.66**	**311**	P	**Pg**	**06 05 13.4**	**-0.2**
VMUR				S	**Sb**	**06 05 23.7**	**+0.7**
VMUR				IAML		06 05 28.0	
	comp=N,528nm,0.5s						
GEVA	**Gevas**	**0.94**	**255**	P	**Pg**	**06 05 17.5**	**-1.4**
GEVA				S	**Sn**	**06 05 32.9**	**+0.2**
GEVA				IAML		06 05 39.0	
	comp=E,249nm,0.8s						
GEVA				IAML		06 05 40.0	
	comp=N,260nm,0.7s						
AKDM	**Akdamar-Van**	**0.99**	**257**	Pg	**Pg**	**06 05 19.6**	**-0.3**
AKDM				Sg	**Sg**	**06 05 31.8**	**-1.1**
AKDM				AML	AML		
DYDN	**Diyadin**	**1.06**	**338**	P	**Pg**	**06 05 19.4**	**-1.9**
DYDN				S	**Sb**	**06 05 34.6**	**-0.1**
DYDN				IAML		06 05 39.0	
	comp=E,258nm,0.3s						
DYDN				IAML		06 05 41.0	
	comp=N,346nm,0.9s						
HAKT	**HAKKARI**	**1.08**	**202**	P	**Pg**	**06 05 21.4**	**-0.1**
HAKT				S	**Sn**	**06 05 39.9**	**+3.7**
ISHB	**Shabestar**	**1.14**	**104**	Pg	**Pn**	**06 05 23.3**	**+1.0**
NAX	**Nakhchivan**	**1.18**	**58**	P	**Pn**	**06 05 23.3**	**+0.6**
NAX				S	**Sn**	**06 05 40.0**	**+1.6**
IMRD	**Marand**	**1.18**	**82**	Pg	**Pb**	**06 05 22.8**	**0.0**
IMRD				Sg	**Sn**	**06 05 39.8**	**+1.1**
HYR	**Heyderabad**	**1.26**	**23**	P	**Pg**	**06 05 24.4**	**-0.6**
HYR				S	**Sn**	**06 05 44.5**	**+4.0**
IGDI	**IGDIR**	**1.31**	**356**	P	**Pn**	**06 05 24.6**	**+0.1**
IGDI				S	**Sg**	**06 05 45.2**	**+2.3**
IGDI				IAML		06 05 50.0	
	comp=E,176nm,0.7s						
IGDI	**IGDIR**	**1.31**	**356**	P	**Pg**	**06 05 25.3**	**-0.6**
IGDI				S	**Sg**	**06 05 46.1**	**+3.1**
SBZ	**Shahbuz**	**1.34**	**51**	P	**Pg**	**06 05 25.9**	**-0.6**
SBZ				S	**Sg**	**06 05 45.0**	**+1.0**
DORK	**Agr/Tutak/Do**	**1.39**	**307**	P	**Pn**	**06 05 23.8**	**-1.8**
DORK				S	**Sg**	**06 05 46.0**	**+0.6**
DORK				IAML		06 05 50.0	
	comp=N,157nm,0.8s						
AGRB	**Hanur-Agry**	**1.39**	**317**	Pn	**Pn**	**06 05 25.1**	**-0.6**
AGRB				Sn	**Sb**	**06 05 40.9**	**-3.1**
AGRB				AML	AML		
TASB	**TASBURUN-IGDIR**	**1.42**	**1**	Pn	**Pb**	**06 05 26.9**	**0.0**
TASB				Sn	**Sn**	**06 05 44.6**	**+0.1**
TASB				AML	AML		
ORD	**Ordubad**	**1.44**	**75**	Pn	**Pb**	**06 05 27.5**	**+0.2**
ORD				Sn	**Sg**	**06 05 48.4**	**+1.1**
KOTA	**Agri, Merkez-K**	**1.46**	**328**	P	**Pb**	**06 05 27.5**	**-0.2**
VNNZ	**Vanand**	**1.57**	**349**	*e*P	**Pg**	**06 05 31.1**	**+0.2**
VNNZ				*e*S	**Sg**	**06 05 54.1**	**+2.9**
GNI	**Garni**	**1.64**	**14**	⇓*i*P	**Pg**	**06 05 31.9**	**-0.3**
GNI				⇓*i*S	**Sg**	**06 05 55.4**	**+1.9**
GNI	**Garni**	**1.64**	**14**	Pn	**Pb**	**06 05 30.8**	**+0.1**
GNI				AML	AML		
IAZR	**Azarshahr**	**1.65**	**122**	Pg	**Pb**	**06 05 31.7**	**+0.8**
GURO	**Guroymak-BITLI**	**1.71**	**270**	Pn	**Pn**	**06 05 29.8**	**-0.2**
GURO				AML	AML		
ALVK	**Alvank**	**1.72**	**77**	⇑*i*P	**Pb**	**06 05 32.1**	**+0.2**
ALVK				⇑*i*S	**Sg**	**06 05 54.8**	**-1.1**
ARUZ	**Aruch**	**1.72**	**357**	⇑*i*P	**Pg**	**06 05 33.0**	**-0.7**
ARUZ				⇑*i*S	**Sg**	**06 05 56.9**	**+0.7**
KAPZ	**Kaputan**	**1.80**	**12**	*e*P	**Pg**	**06 05 34.0**	**-1.2**
KAPZ				*e*S	**Sg**	**06 05 59.2**	**+0.5**
AMBZ	**Amberd**	**1.82**	**1**	⇑*i*P	**Pg**	**06 05 34.9**	**-0.9**
AMBZ				⇑*i*S	**Sg**	**06 06 00.9**	**+1.4**
EGVZ	**Egvard**	**1.94**	**69**	⇑*i*P	**Pb**	**06 05 35.7**	**-0.1**
EGVZ				⇑*i*S	**Sg**	**06 06 01.5**	**-1.6**
AYRK	**Ayrk**	**1.98**	**38**	⇓*i*P	**Pb**	**06 05 36.6**	**+0.1**
AYRK				⇑*i*S	**Sg**	**06 06 03.6**	**-0.7**
VRTB	**Varto-Mus**	**2.23**	**286**	Pn	**Pn**	**06 05 36.8**	**-0.4**
VRTB				AML	AML		
KOPR	**Koprukoy-ERZUR**	**2.32**	**309**	Pn	**Pn**	**06 05 37.8**	**-0.7**
KOPR				AML	AML		
SVAN	**Silvan-Diyarba**	**2.40**	**261**	Pn	**Pn**	**06 05 39.5**	**0.0**
SVAN				AML	AML		
SENK	**Senkaya-Erzuru**	**2.46**	**325**	Pn	**Pn**	**06 05 40.1**	**-0.3**
SENK				AML	AML		
GDB	**GEDABAY**	**2.46**	**28**	Pg	**Pb**	**06 05 44.9**	**+0.1**
GDB				Sg	**Sg**	**06 06 19.6**	**-0.3**
LSVT	**Lusahovit**	**2.47**	**18**	⇓*i*P	**Pb**	**06 05 43.7**	**-1.1**
LSVT				⇑*i*S	**Sb**	**06 06 15.3**	**+0.2**
GANJ	**Ganja**	**2.65**	**37**	Pg	**Pg**	**06 05 49.3**	**-2.1**
GANJ				Sg	**Sg**	**06 06 25.9**	**+0.2**
QZX	**Qazax, Azerbai**	**2.65**	**19**	Pg	**Pb**	**06 05 48.5**	**+0.6**
QZX				Sg	**Sg**	**06 06 24.1**	**-1.8**
GRMI	**Germi**	**2.89**	**84**	Pn	**Pn**	**06 05 49.0**	**+2.7**
YRD	**Yardimli**	**3.17**	**82**	Pg	**Pb**	**06 05 54.4**	**-2.4**
YRD				Sg	**Sg**	**06 06 40.5**	**-2.1**
LRK	**Lerik**	**3.24**	**87**	Pg	**Pb**	**06 05 55.2**	**-2.7**
LRK				Sg	**Sg**	**06 06 41.4**	**-3.2**
GLBA	**Clilabad**	**3.33**	**77**	Pg	**Pg**	**06 06 03.1**	**-1.5**
GLBA				Sg	**Sg**	**06 06 45.8**	**-1.9**
ASTR	**Astara**	**3.59**	**89**	Pg	**Pb**	**06 06 04.2**	**+0.3**
ASTR				Sg	**Sg**	**06 06 58.1**	**+2.1**

NEIC ***27*** *06:15:47.7, 44˚.40N×115˚.05W, h2km*
BUT ***27*** *06:15:49.2±1.8, 44˚.34N±0˚.03×115˚.02W±0˚.03, h9km±8km, Error ellipse: s-maj=3.9km s-min=2.9km az=192.0*

NEIC 27 06:15:48.0±1.4, 44˚.39N±0˚.04×115˚.06W±0˚.03, h6km±2km, ML3.5/118, Mwr3.5/10, ML3.9/33(BUT), Error ellipse: s-maj=5.6km s-min=2.8km az=179.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}=0.67; $M_{\theta\theta}$=1.73; $M_{\phi\phi}$=1.07; $M_{r\theta}$=0.77; $M_{r\phi}$=-1.17; $M_{\theta\phi}$=-1.06; Fault plane solution: $M_0$2.32000×10^{14} NP1:ϕ_s=70.33000°, δ=71.68000°, λ=-146.70000°. NP2:ϕ_s=328.67000°, δ=58.58000°, λ=-21.61000°. Principal axes: T 2.2067, Plg8.0000°, Azm197.0000°; N 0.2033, Plg53.0000°, Azm96.0000°; P -2.4100, Plg36.0000°, Azm293.0000°;
Western Idaho

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HLID	**Hailey**	**0.95**	**150**	Pg	Pg	06 16 06.2	-0.1
HLID				Sg		06 16 17.8	-0.8
HLID				IAML		06 16 18.7	
	2μm,0.3s						
HLID				IAML		06 16 19.6	
	1μm,0.3s						
PLID	**Pearl Lake**	**0.97**	**316**	Pg	Pn	06 16 08.0	-0.4
PLID				IAML		06 16 26.4	
	2μm,0.3s						
PLID				IAML		06 16 27.4	
	1μm,0.4s						
MFID	**Camas Ranch**	**1.12**	**210**	Pg	Pb	06 16 09.8	-0.1
MFID				Sg	Sb	06 16 24.9	0.0
CNCI	**Crows Nest Can**	**1.25**	**111**		Pg	06 16 11.5	-0.4
MCMT	**McKenzie Canyo**	**1.64**	**74**		Pb	06 16 18.3	-0.5
BMO	**Blue Mountains**	**1.67**	**287**		Pb	06 16 18.7	-0.6
MOMT	**Monida**	**1.92**	**83**		Pb	06 16 24.0	+0.4
DLMT	**Dillon**	**2.00**	**60**		Pg	06 16 25.7	-0.7
VCMT	**Victor**	**2.14**	**16**		Pn	06 16 25.8	+1.3
F10A	**Beach Ranch, E**	**2.20**	**317**	Pn	Pb	06 16 26.9	-1.5
HBMT	**Mount Humbug**	**2.23**	**50**		Pn	06 16 27.0	+1.2
LRM	**Limekiln Ridge**	**2.34**	**51**		Pn	06 16 28.4	+1.2
BUT	**Butte**	**2.40**	**47**		Pn	06 16 27.9	-0.1
BUT				IAML		06 17 06.8	
	comp=N,252nm,0.7s						
BUT				IAML		06 17 13.3	
	comp=E,264nm,0.5s						
MSO	**Missoula**	**2.56**	**17**		Pn	06 16 30.9	+0.7
MSO				IAML		06 17 12.6	
	comp=E,331nm,0.5s						
MSO				IAML		06 17 14.1	
	comp=E,321nm,0.5s						
QLMT	**Earthquake Lak**	**2.63**	**79**		Pb	06 16 34.0	-1.6
J08A	**Circle Bar Ran**	**2.68**	**248**		Pn	06 16 32.5	+0.6
BOZ	**Bozeman (W)**	**2.71**	**62**		Pn	06 16 33.7	+1.3
LNOR	**Lincton Mounta**	**2.72**	**304**		Pn	06 16 33.7	+1.3
YHB	**Horse Butte**	**2.78**	**81**	Pn	Pn	06 16 34.5	+1.1
YHB				IAML		06 17 18.9	
	comp=E,169nm,0.7s						
YHB				IAML		06 17 19.3	
	comp=N,194nm,0.7s						
YHL	**Hebgen Lake**	**2.81**	**79**		Pn	06 16 34.5	+0.8
G08A	**Pilot Rock**	**2.92**	**289**		Pn	06 16 35.9	+0.8
YMR	**Madison River**	**2.94**	**83**		Pn	06 16 36.4	+0.8
YHH	**Holmes Hill**	**3.03**	**81**		Pn	06 16 37.5	+0.7
YHH				IAML		06 17 24.4	
	comp=E,269nm,0.5s						
E09A	**Wood Farm, Sta**	**3.04**	**315**		Pn	06 16 37.5	+0.9
E09A				IAML		06 17 25.8	
	comp=E,136nm,0.8s						
E09A				IAML		06 17 31.2	
	comp=N,119nm,0.7s						
YPP	**Pitchstone Pla**	**3.06**	**91**		Pn	06 16 39.2	+2.1
YPP				IAML		06 17 29.9	
	comp=E,113nm,0.7s						
GBMT	**Granite Butte,**	**3.07**	**36**		Pn	06 16 37.9	+0.6
GBMT				IAML		06 17 26.9	
	comp=N,170nm,0.6s						
GBMT				IAML		06 17 38.8	
	comp=E,139nm,0.7s						
YNM	**Yellowstone No**	**3.13**	**82**	Pn	Pn	06 16 38.3	+0.1
YNM				IAML		06 17 30.7	
	comp=E,187nm,0.4s						
YNM				IAML		06 17 31.0	
	comp=N,152nm,0.8s						
YNR	**Norris Junctio**	**3.15**	**83**	Pn	Pn	06 16 38.4	0.0
YNR				IAML		06 17 29.0	
	comp=E,142nm,0.5s						
YNR				IAML		06 17 31.6	
	comp=N,187nm,0.8s						
H17A	**Grant Village**	**3.21**	**88**	Pn	Pn	06 16 40.1	+0.8
YPT	**Yellepit**	**3.22**	**302**		Pn	06 16 40.7	+1.6
SNOW	**Snow King Moun**	**3.25**	**105**		Pn	06 16 40.5	+0.8
SNOW				IAML		06 17 37.8	
	comp=N,91nm,0.8s						
SNOW				IAML		06 17 41.3	
	comp=N,95nm,0.7s						
WVOR	**Wild Horse Val**	**3.26**	**234**		Pn	06 16 40.2	+0.4
WVOR				IAML		06 17 35.1	
	comp=N,87nm,0.8s						
WVOR				IAML		06 17 45.6	
	comp=N,85nm,0.8s						
AHID	**Auburn Hatcher**	**3.30**	**118**		Pn	06 16 41.6	+1.1
AHID				IAML		06 17 38.4	
	comp=N,113nm,0.5s						
JTMT	**Jette**	**3.40**	**9**		Pn	06 16 43.3	+1.5
E08A	**Dider Farm, El**	**3.51**	**308**		Pn	06 16 44.7	+1.5
E08A				IAML		06 17 47.8	
	comp=N,67nm,1.1s						
SPUT	**South Promonto**	**3.63**	**147**		Pn	06 16 46.9	+1.9
SPUT				IAML		06 17 45.2	
	comp=E,119nm,0.7s						
SPUT				IAML		06 17 46.5	
	comp=N,105nm,0.6s						
YNE	**Yellowstone No**	**3.65**	**79**	Pn	Pn	06 16 46.6	+1.3
YNE				IAML		06 17 42.1	
	comp=N,120nm,0.5s						
YNE				IAML		06 17 48.2	
	comp=E,91nm,0.5s						
HAWA	**Hanford**	**3.73**	**304**		Pn	06 16 47.5	+1.3
F07A	**Phinny Hill Vi**	**3.76**	**295**		Pn	06 16 48.5	+2.0
F07A				IAML		06 17 54.4	
	comp=E,75nm,1.0s						
F07A				IAML		06 17 56.4	
	comp=N,80nm,0.9s						
BGU	**Big Grassy Mou**	**3.77**	**156**		Pn	06 16 48.6	+1.6
BGU				IAML		06 17 48.4	
	comp=N,65nm,0.8s						
BGU				IAML		06 17 49.1	
	comp=E,93nm,1.2s						
HWUT	**Hardware Ranch**	**3.78**	**136**		Pn	06 16 48.8	+1.7
HWUT				IAML		06 17 53.0	
	comp=E,61nm,1.2s						
HWUT				IAML		06 17 57.0	
	comp=E,57nm,0.9s						
D08A	**Wollman Farm,**	**3.80**	**316**		Pn	06 16 48.2	+1.1
D08A				IAML		06 17 57.4	
	comp=E,88nm,1.1s						
D08A				IAML		06 17 58.0	
	comp=N,77nm,1.2s						
WAH2	**Wahluke Slope**	**3.95**	**308**		Pn	06 16 50.8	+1.6
E07A	**Sunnyside**	**4.01**	**304**		Pn	06 16 51.9	+1.8
E07A				IAML		06 18 11.6	
	comp=E,80nm,0.7s						
E07A				IAML		06 18 14.8	
	comp=N,88nm,0.6s						
G06A	**Carlson Farm,**	**4.06**	**284**		Pn	06 16 52.2	+1.5
LDM	**Libby Dam**	**4.07**	**358**		Pn	06 16 53.6	+2.7
C09A	**Chrisman Ranch**	**4.08**	**328**		Pn	06 16 53.0	+2.0
NEW	**Newport**	**4.13**	**340**		Pn	06 16 53.9	+2.2
TCUT	**Toone Canyon**	**4.23**	**139**		Pn	06 16 53.7	+0.4
BMN	**Battle Mountai**	**4.27**	**203**		Pn	06 16 54.8	+1.0
BMN				IAML		06 17 59.7	
	comp=E,89nm,0.8s						
BMN				IAML		06 18 00.6	
	comp=N,89nm,0.8s						
PINE	**Pine Mountain**	**4.28**	**264**		Pn	06 16 55.3	+1.4
BW06	**Boulder Array**	**4.31**	**110**		Pn	06 16 56.1	+1.7
PD31	**Pinedale Array**	**4.31**	**110**		Pn	06 16 55.2	+0.8
EPH	**Ephrata**	**4.34**	**315**		Pn	06 16 55.7	+1.1
EPH				IAML		06 18 11.2	
	comp=E,50nm,0.6s						
EPH				IAML		06 18 22.4	
	comp=N,85nm,0.7s						
CTU	**Camp Tracy**	**4.43**	**145**		Pn	06 16 56.2	+0.2
I05D	**Terrebonne, OR**	**4.50**	**272**		Pn	06 16 57.8	+0.9
I05D				IAML		06 18 03.8	
	comp=E,39nm,4.8s						
I05D				IAML		06 18 35.2	
	comp=N,45nm,4.5s						
G05A	**Wamic**	**4.53**	**283**		Pn	06 16 58.5	+1.3
G05A				IAML		06 18 38.6	
	comp=N,54nm,4.4s						
G05A				IAML		06 18 42.6	
	comp=E,52nm,4.4s						
K05A	**Summer Lake**	**4.56**	**251**		Pn	06 16 58.7	+1.0
MOD	**Modoc Plateau**	**4.57**	**239**		Pn	06 16 59.3	+1.4
MOD				IAML		06 18 15.7	
	comp=E,38nm,0.9s						
MOD				IAML		06 18 20.2	
	comp=N,36nm,1.1s						
HOOD	**Mount Hood Mea**	**4.78**	**284**		Pn	06 17 01.9	+1.1
HOOD				IAML		06 18 28.5	
	comp=N,33nm,1.3s						
HOOD				IAML		06 18 31.7	
	comp=E,38nm,1.4s						
WIFE	**Three Sisters-**	**4.87**	**268**		Pn	06 17 02.5	+0.4
WIFE				IAML		06 18 21.2	
	comp=E,28nm,4.8s						
WIFE				IAML		06 19 09.1	
	comp=N,25nm,4.3s						
B08A	**Colville Reser**	**4.95**	**325**	Pn	Pn	06 17 04.3	+1.3
NLU	**North Lily Min**	**4.96**	**152**		Pn	06 17 04.8	+1.5
NLU				IAML		06 18 26.6	
	comp=E,24nm,1.0s						
MPU	**Maple Canyon**	**5.06**	**149**	Pn	Pn	06 17 06.0	+1.3
EGMT	**Eagleton**	**5.17**	**44**		Pn	06 17 07.4	+1.3
I04A	**Tendick Farm,**	**5.33**	**266**	Pn	Pn	06 17 09.3	+1.1
I04A				IAML		06 19 32.9	
	comp=E,18nm,3.6s						
JRO	**Jston Ridge Ob**	**5.39**	**293**	Pn	Pn	06 17 09.2	+0.1
JRO				IAML		06 19 03.3	
	comp=E,23nm,1.5s						
JRO				IAML		06 19 12.0	
	comp=N,22nm,1.1s						
PSUT	**Pine Spring**	**5.92**	**171**		Pn	06 17 17.9	+1.4
I03D	**Drain, OR**	**6.02**	**266**	Pn	Pn	06 17 19.6	+2.1
PV23	**Carpenter Ridg**	**7.47**	**141**		Pn	06 17 40.4	+2.5

NOU ***27*** *06:19:05.7, 40˚.63S×174˚.17E, h62km, MLv4.1/15, Cook Strait, New Zealand*
WEL ***27*** *06:19:06.2±0.6, 41˚.3S×174˚.4E±˚, h76km±6km, M3.8/31, ML3.8/30, MLv3.8/31, Error ellipse: s-maj=4.2km s-min=3.8km az=165.3*

ISC 27 06:19:04.4±1.3, 40˚.62S±0˚.03×174˚.16E±0˚.03, h101km±8km, n124, σ1$06/138, Cook Strait

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DUWZ	**D'Urville Isla**	**0.26**	**225**	P	**Pn**	**06 19 18.8**	**-0.1**
DUWZ				S	**Sn**	**06 19 28.9**	**-0.9**
DUWZ				AML	AML		
DUWZ				AML	AML		
TCW	**Tory Channel**	**0.60**	**172**	P	**Pn**	**06 19 21.8**	**+0.8**
TCW				S	**Sn**	**06 19 33.2**	**-0.3**
TCW				AML	AML		
TCW				AML	AML		
KIW	**Kapiti Island**	**0.62**	**113**	P	**Pn**	**06 19 21.6**	**+0.4**
KIW				S

HOWZ				AML	AML			
WAZ	**Wanganui**	**1.07**	**36**	P	**Pn**	**06 19 26.7**	**+1.0**	
WAZ				S	**Sn**	**06 19 42.7**	**+1.0**	
WAZ				AML	AML			
WAZ				AML	AML			
MRZ	**Mangatainoka R**	**1.08**	**93**	P	**Pn**	**06 19 26.1**	**+0.4**	
MRZ				S	**Sn**	**06 19 40.7**	**-1.2**	
MRZ				AML	AML			
MRZ				AML	AML			
BSWZ	**Blackbirch Sta**	**1.11**	**191**	P	**Pn**	**06 19 27.1**	**+1.0**	
BSWZ				AML	AML			
BSWZ				AML	AML			
CMWZ	**Cape Campbell**	**1.13**	**178**	P	**Pn**	**06 19 28.0**	**+1.7**	
CMWZ				AML	AML			
CMWZ				AML	AML			
MSWZ	**Moikau Station**	**1.15**	**134**	P	**Pn**	**06 19 27.2**	**+0.7**	
MSWZ				AML	AML			
MSWZ				AML	AML			
MTW	**Mount Morrison**	**1.15**	**118**	P	**Pn**	**06 19 27.2**	**+0.7**	
MTW				AML	AML			
MTW				AML	AML			
LREZ	**Lake Rotokare**	**1.17**	**9**	P	**Pn**	**06 19 27.7**	**+0.9**	
LREZ				AML	AML			
LREZ				AML	AML			
PAWZ	**Paruwai Farm**	**1.22**	**129**	P	**Pn**	**06 19 28.2**	**+0.8**	
PAWZ				AML	AML			
PAWZ				AML	AML			
NMEZ	**Namu Road**	**1.23**	**350**	P	**Pn**	**06 19 27.8**	**+0.4**	
NMEZ				AML	AML			
NMEZ				AML	AML			
POWZ	**Post Office Ro**	**1.25**	**80**	P	**Pn**	**06 19 27.9**	**+0.3**	
POWZ				AML	AML			
POWZ				AML	AML			
QRZ	**Quartz Range**	**1.26**	**260**	P	**Pn**	**06 19 27.1**	**-0.6**	
QRZ	**Quartz Range**	**1.26**	**260**	S	**Sn**	**06 19 43.4**	**-2.0**	
QRZ	**Quartz Range**	**1.26**	**260**	P	**Pn**	**06 19 27.3**	**-0.5**	
QRZ				AML	AML			
QRZ				AML	AML			
PLWZ	**Palliser**	**1.26**	**139**	P	**Pn**	**06 19 28.5**	**+0.7**	
PLWZ				AML	AML			
PLWZ				AML	AML			
PREZ	**Palmer Road**	**1.28**	**360**	P	**Pn**	**06 19 28.7**	**+0.6**	
PREZ				AML	AML			
PREZ				AML	AML			
MRNZ	**Matariki Terra**	**1.32**	**233**	P	**Pn**	**06 19 29.0**	**+0.6**	
MRNZ				AML	AML			
MRNZ				AML	AML			
TIWZ	**Tintock**	**1.32**	**97**	P	**Pn**	**06 19 29.0**	**+0.4**	
TIWZ				AML	AML			
TIWZ				AML	AML			
KHEZ	**Kahui Hut**	**1.33**	**355**	P	**Pn**	**06 19 29.0**	**+0.3**	
KHEZ	**Kahui Hut**	**1.33**	**355**	S	**Sn**	**06 19 45.7**	**-1.4**	
KHEZ	**Kahui Hut**	**1.33**	**355**	P	**Pn**	**06 19 29.1**	**+0.4**	
KHEZ				AML	AML			
KHEZ				AML	AML			
NEZ	**North Egmont**	**1.35**	**358**	P	**Pn**	**06 19 29.3**	**+0.3**	
NEZ				AML	AML			
NEZ				AML	AML			
NBEZ	**Newall Road No**	**1.37**	**350**	P	**Pn**	**06 19 29.6**	**+0.5**	
NBEZ				AML	AML			
NBEZ				AML	AML			
PRWZ	**Pori Road**	**1.38**	**88**	P	**Pn**	**06 19 29.8**	**+0.6**	
PRWZ				AML	AML			
PRWZ				AML	AML			
TRWZ	**Traveller**	**1.39**	**124**	P	**Pn**	**06 19 30.2**	**+0.8**	
TRWZ				AML	AML			
TRWZ				AML	AML			
TMWZ	**Te Maipa**	**1.40**	**111**	P	**Pn**	**06 19 30.0**	**+0.5**	
TMWZ				AML	AML			
TMWZ				AML	AML			
DREZ	**Durham Road**	**1.43**	**1**	P	**Pn**	**06 19 30.5**	**+0.6**	
DREZ				AML	AML			
DREZ				AML	AML			
PKE	**Pukeiti**	**1.43**	**355**	P	**Pn**	**06 19 30.4**	**+0.5**	
PKE				AML	AML			
PKE				AML	AML			
THZ	**Tophouse**	**1.48**	**219**	P	**Pn**	**06 19 31.2**	**+0.7**	
TSZ	**Takapari Road**	**1.49**	**68**	P	**Pn**	**06 19 30.6**	**+0.1**	
TSZ				AML	AML			
TSZ				AML	AML			
VRZ	**Vera Road**	**1.56**	**17**	P	**Pn**	**06 19 32.1**	**+0.7**	
VRZ				AML	AML			
VRZ				AML	AML			
DVHZ	**Dannevirke**	**1.56**	**79**	P	**Pn**	**06 19 31.3**	**-0.2**	
DVHZ				AML	AML			
DVHZ				AML	AML			
CPWZ	**Castlepoint**	**1.58**	**101**	P	**Pn**	**06 19 32.6**	**+1.0**	
BFZ	**Birch Farm**	**1.59**	**93**	P	**Pn**	**06 19 31.8**	**+0.1**	
BFZ	**Birch Farm**	**1.59**	**93**	S	**Sn**	**06 19 51.0**	**-1.6**	
BFZ	**Birch Farm**	**1.59**	**93**	P	**Pn**	**06 19 31.9**	**+0.1**	
BFZ				AML	AML			
BFZ				AML	AML			
MTVZ	**Mangateitei**	**1.59**	**40**	P	**Pn**	**06 19 32.6**	**+0.7**	
MTVZ				AML	AML			
MTVZ				AML	AML			
PKVZ	**Pokaka**	**1.61**	**35**	P	**Pn**	**06 19 32.7**	**+0.5**	
TRVZ	**Turoa**	**1.70**	**39**	P	**Pn**	**06 19 33.6**	**+0.2**	
WNVZ	**Wahianoa**	**1.70**	**41**	P	**Pn**	**06 19 33.5**	**+0.2**	
PNHZ	**Pukenui**	**1.71**	**66**	P	**Pn**	**06 19 33.2**	**-0.1**	
PNHZ				AML	AML			
PNHZ				AML	AML			
MOVZ	**Moawhango**	**1.72**	**46**	P	**Pn**	**06 19 33.5**	**0.0**	
MAVZ	**Matarangi**	**1.73**	**39**	P	**Pn**	**06 19 36.2**	**+2.4**	
WHVZ	**Whangaehu Hut**	**1.73**	**40**	P	**Pn**	**06 19 34.3**	**+0.6**	
FWVZ	**Far West T-bar**	**1.73**	**39**	P	**Pn**	**06 19 34.9**	**+1.1**	
TUVZ	**Tukino**	**1.77**	**41**	P	**Pn**	**06 19 34.9**	**+0.6**	
NGZ	**Ngauruhoe**	**1.82**	**38**	P	**Pn**	**06 19 35.3**	**+0.5**	
WPHZ	**Waipukurau**	**1.83**	**73**	P	**Pn**	**06 19 34.7**	**-0.1**	
SNVZ	**South Ngauruho**	**1.83**	**39**	P	**Pn**	**06 19 38.5**	**+3.5**	
TWVZ	**Taurewa**	**1.83**	**33**	P	**Pn**	**06 19 35.8**	**+0.8**	
KHZ	**Kahutara**	**1.85**	**194**	P	**Pn**	**06 19 35.9**	**+0.8**	
KHZ	**Kahutara**	**1.85**	**194**	S	**Sn**	**06 19 57.3**	**-1.2**	
KHZ	**Kahutara**	**1.85**	**194**	P	**Pn**	**06 19 36.1**	**+1.0**	
OTVZ	**Oturere**	**1.86**	**39**	P	**Pn**	**06 19 36.1**	**+0.8**	
WTVZ	**West Tongariro**	**1.86**	**37**	P	**Pn**	**06 19 35.8**	**+0.4**	
ETVZ	**East Tongariro**	**1.90**	**39**	P	**Pn**	**06 19 36.5**	**+0.6**	
KRVZ	**Karewarewa**	**1.90**	**37**	P	**Pn**	**06 19 38.0**	**+2.2**	
NTVZ	**North Tongarir**	**1.92**	**38**	P	**Pn**	**06 19 37.1**	**+1.1**	
TMVZ	**Te Maari**	**1.92**	**39**	P	**Pn**	**06 19 37.0**	**+1.0**	
KRHZ	**Kereru**	**1.96**	**61**	P	**Pn**	**06 19 36.0**	**-0.5**	
DSC	**Denniston Nort**	**2.10**	**237**	P	**Pn**	**06 19 38.4**	**0.0**	
KWHZ	**Kaweka Forest**	**2.11**	**56**	P	**Pn**	**06 19 39.3**	**+0.8**	
PXZ	**Pawanui**	**2.15**	**75**	P	**Pn**	**06 19 38.5**	**-0.4**	
HIZ	**Hauiti**	**2.17**	**15**	P	**Pn**	**06 19 39.6**	**+0.4**	
HIZ	**Hauiti**	**2.17**	**15**	S	**Sn**	**06 20 05.7**	**-0.2**	
HIZ	**Hauiti**	**2.17**	**15**	P	**Pn**	**06 19 39.6**	**+0.4**	
KAHZ	**Kahuranaki**	**2.24**	**69**	P	**Pn**	**06 19 39.8**	**-0.3**	
MCHZ	**McNeill Hill**	**2.27**	**60**	P	**Pn**	**06 19 40.4**	**-0.2**	
BKZ	**Black Stump Fm**	**2.31**	**52**	P	**Pn**	**06 19 40.6**	**-0.5**	
CKHZ	**Cape Kidnapper**	**2.43**	**68**	P	**Pn**	**06 19 42.4**	**-0.2**	
GVZ	**Greta Valley S**	**2.49**	**199**	P	**Pn**	**06 19 43.6**	**+0.2**	
TLZ	**Tolley Road**	**2.52**	**25**	P	**Pn**	**06 19 45.1**	**+1.2**	
NMHZ	**Naumai**	**2.54**	**54**	P	**Pn**	**06 19 43.6**	**-0.5**	
ARHZ	**Aropaoanui**	**2.57**	**59**	P	**Pn**	**06 19 45.8**	**+1.4**	
LTZ	**Lake Taylor**	**2.58**	**213**	P	**Pn**	**06 19 44.6**	**-0.1**	
MTHZ	**Maungataniwha**	**2.72**	**50**	P	**Pn**	**06 19 45.8**	**-0.7**	
RAHZ	**Arahi**	**2.83**	**54**	P	**Pn**	**06 19 50.8**	**+2.9**	
INZ	**Inchbonnie**	**2.93**	**223**	P	**Pn**	**06 19 50.9**	**+1.8**	
MUGZ	**Murupara**	**2.94**	**44**	P	**Pn**	**06 19 52.2**	**+2.9**	
RTZ	**Ruatahuna**	**2.96**	**48**	P	**Pn**	**06 19 51.3**	**+1.7**	
TOZ	**Tahuroa Road**	**3.07**	**20**	P	**Pn**	**06 19 50.9**	**-0.1**	
OXZ	**Oxford**	**3.13**	**210**	P	**Pn**	**06 19 51.3**	**-0.6**	
KNZ	**Kokohu**	**3.14**	**61**	P	**Pn**	**06 19 50.2**	**-1.8**	
MHGZ	**Mahia Peninsul**	**3.23**	**64**	P	**Pn**	**06 19 52.0**	**-1.3**	
MQZ	**McQueen's Vall**	**3.28**	**199**	P	**Pn**	**06 19 52.5**	**-1.3**	
PRGZ	**Paritu Road**	**3.33**	**61**	P	**Pn**	**06 19 52.7**	**-1.9**	
RIGZ	**Rimuhau**	**3.37**	**57**	P	**Pn**	**06 19 53.7**	**-1.5**	
MWZ	**Matawai**	**3.46**	**50**	P	**Pn**	**06 19 57.0**	**+0.6**	
WVZ	**Waitaha Valley**	**3.54**	**225**	P	**Pn**	**06 19 58.7**	**+1.3**	
AWAZ	**Awhitu Peninsu**	**3.57**	**6**	P	**Pn**	**06 19 58.3**	**+0.6**	
MKAZ	**Moumakai**	**3.60**	**13**	P	**Pn**	**06 19 58.2**	**+0.1**	
WTAZ	**Waiatarua**	**3.70**	**5**	P	**Pn**	**06 20 00.5**	**+1.0**	
ETAZ	**East Tamaki Re**	**3.71**	**10**	P	**Pn**	**06 20 00.2**	**+0.6**	
RUGZ	**Raukumara Rang**	**3.81**	**47**	P	**Pn**	**06 20 00.9**	**-0.2**	
TWGZ	**Tauwhareparae**	**3.84**	**52**	P	**Pn**	**06 20 00.2**	**-1.2**	
RVAZ	**Riverhead Bore**	**3.86**	**5**	P	**Pn**	**06 20 02.4**	**+0.7**	
RPZ	**Rata Peaks**	**3.86**	**216**	P	**Pn**	**06 20 05.3**	**+3.6**	
MBAZ	**Motutapu North**	**3.89**	**9**	P	**Pn**	**06 20 02.9**	**+0.9**	
WIAZ	**Waiheke Island**	**3.90**	**12**	P	**Pn**	**06 20 02.7**	**+0.5**	
HAZ	**Te Kaha**	**4.01**	**46**	P	**Pn**	**06 20 04.1**	**+0.4**	
ABAZ	**Army Bay**	**4.05**	**8**	P	**Pn**	**06 20 05.1**	**+0.9**	
FOZ	**Fox Glacier**	**4.35**	**227**	P	**Pn**	**06 20 09.7**	**+1.5**	
TMZ	**Timaru**	**4.42**	**211**	P	**Pn**	**06 20 09.1**	**-0.2**	
WCZ	**Waipu Caves**	**4.68**	**2**	P	**Pn**	**06 20 13.9**	**+1.2**	
ODZ	**Otahua Downs**	**5.12**	**209**	P	**Pn**	**06 20 18.9**	**+0.2**	
ODZ	**Otahua Downs**	**5.12**	**209**	P	**Pn**	**06 20 18.5**	**-0.2**	
JCZ	**Jackson Bay**	**5.27**	**227**	P	**Pn**	**06 20 22.9**	**+2.1**	
JCZ	**Jackson Bay**	**5.27**	**227**	P	**Pn**	**06 20 22.7**	**+1.9**	
OUZ	**Omahuta**	**5.41**	**355**	P	**Pn**	**06 20 24.2**	**+1.6**	
OUZ	**Omahuta**	**5.41**	**355**	P	**Pn**	**06 20 24.5**	**+1.8**	
CTZ	**Chatham Island**	**7.52**	**117**	P	**Pn**	**06 20 51.9**	**+0.6**	
CTZ	**Chatham Island**	**7.52**	**117**	P	**Pn**	**06 20 51.5**	**+0.2**	

*BJI **27** 06:48:46.2, 12°.81N×50°.14E, h23km, mB4.7/3, mb4.8/28, Ms4.4/7, Ms7 4.2/9*

*GCMT **27** 06:48:47.4±0.2, 13°.28N±0°.01×50°.11E±0°.02, h13km±1km, MW5.0/103, Moment Tensor Solution. s33,c43; s103,c151; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-2.60±.16; Mθθ3.62±.12; Mϕϕ-1.01±. 11; Mrθ-0.09±.22; Mθϕ-0.41±.08; Mϕr0.94±.35; Best double couple: M₀3.34800×10¹⁶ NP1:ϕs252.00000°,δ49.00000°, λ-124.00000°. NP2:ϕs118.00000°,δ52.00000°, λ-57.00000°. Principal axes: T 3.6620, Plg2.0000°, Azm185.0000°; N -0.6180, Plg25.0000°, Azm276.0000°; P -3.0340, Plg65.0000°, Azm92.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*OMAN **27** 06:48:48.0±1.5, 13°.17N×50°.55E, h13km±9km, mb4.3/11, ml4.2/1, ms4.2/6 Error ellipse: s-maj=15.1km s-min=4.7km az=129.0*

*IDC **27** 06:48:47.0±0.8, 13°.19N×50°.27E, h0km, mb4.2/23, mbtmp4.2/23, MS4.0/64, Error ellipse: s-maj=19.1km s-min=16.1km az=34.0*

*GFZ **27** 06:48:48.5±0.3, 13°.N±4°×5°0E±°, h10km, M4.4/28, mb4.5/28, confirmed*

*GFZ **27** 06:48:48.5, 13°.11N×50°.25E, h18km, Mw5.0/18, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr-3.38; Mθθ3.26; Mϕϕ0.12; Mrθ0.82; Mθϕ-0.12; Mϕr0.38; Fault plane solution: M₀3.44638×10¹⁶ NP1:ϕs98.43375°, δ38.55315°,λ-80.04106°. NP2:ϕs265.77908°,δ52.13164°, λ-97.84745°. Principal axes: T 3.3628, Plg6.8299°, Azm1.3591°; N 0.1616, Plg6.1876°, Azm270.6151°; P -3.5243, Plg80.7641°, Azm138.7993°;*

*NEIC **27** 06:48:49.4±1.1, 13°.19N±0°.09×50°.33E±0°.04, h10km±1km, mb4.5/39 Error ellipse: s-maj=17.1km s-min=3.1km az=156.0*

ISC 27 06:48:48.9±0.4,**13°.17N**±0°.05×**50°.39E**±0°.06,**h15**km,**n191,**
σt**1**§**28**/160,**mb4.5**/71,**MS4.1**/68,**2D**,**Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABTO	**Aybut**	**5.02**	**34**	P	**Pn**	**06 50 01.6**	**-2.2**
	SNR=8.2						
ABTO				S	**Sn**	**06 50 58.0**	**-3.5**
RBK	**Rabkut**	**5.67**	**40**	P	**Pn**	**06 50 10.8**	**-1.9**
	SNR=11						
RBK				S	**Sn**	**06 51 15.2**	**-2.4**
WHFO	**Wadi Hawf**	**5.74**	**34**	P	**Pn**	**06 50 11.7**	**-1.9**
WHFO				S	**Sn**	**06 51 17.3**	**-2.0**
DMTO	**DMTO**	**6.30**	**44**	P	**Pn**	**06 50 19.3**	**-2.1**
	SNR=8.8						
DMTO				S	**Sn**	**06 51 32.9**	**-0.3**
DOK	**Doka**	**6.50**	**33**	P	**Pn**	**06 50 22.3**	**-1.8**
MHTO	**MHTO**	**10.62**	**42**	P	**Pn**	**06 51 18.2**	**-2.4**
RAYN	**Ar Rayn**	**11.29**	**336**	P	**Pn**	**06 51 29.7**	**-0.2**
RAYN	**Ar Rayn**	**11.29**	**336**		**Pn**	**06 51 28.7**	**-1.2**
RAYN	**Ar Rayn**	**11.29**	**336**	P	**Pn**	**06 51 28.9**	**-1.0**
	comp=Z,9.1nm,1.5s						
BSY	**Bisya**	**11.51**	**33**	P	**Pn**	**06 51 31.2**	**-1.7**
ARQ	**Araqi**	**11.66**	**29**	P	**Pn**	**06 51 33.5**	**-1.4**
ARQ				S	**Sn**	**06 53 43.0**	**-2.0**
SMDO	**Samad**	**12.23**	**35**	P	**Pn**	**06 51 42.0**	**-0.8**
HOQ	**Hoqain**	**12.26**	**31**	P	**Pn**	**06 51 43.3**	**+0.2**
SOHO	**SOHO**	**12.36**	**27**	P	**Pn**	**06 51 43.3**	**-1.1**
SOHO				S	**Sn**	**06 54 03.4**	**+1.5**
BIDO	**Bidbid**	**12.64**	**34**	P	**Pn**	**06 51 45.7**	**-2.6**
ASHO	**Ashiyiah**	**12.64**	**24**	P	**Pn**	**06 51 47.1**	**-1.2**
WSAR	**Wadi Sarin**	**12.71**	**37**	LR	LR	06 56 32.6	
	comp=Z,6.4nm,19.3s,baz=236,slow=36						
NAZ	**Nazwa, Dubai**	**12.77**	**22**	P	**Pn**	**06 51 49.7**	**-0.2**
UOSS	**Minazif**	**12.93**	**24**	P	**Pn**	**06 51 52.5**	**+0.2**
UOSS				S	**Sn**	**06 54 18.0**	**+1.9**
UOSS	**Minazif**	**12.93**	**24**	Pn	**Pn**	**06 51 52.4**	**+0.1**
UOSS	**Minazif**	**12.93**	**24**	P	**Pn**	**06 51 52.8**	**+0.5**
	comp=Z,19nm,1.6s						
BANOM	**Banah**	**13.85**	**23**	P	**Pn**	**06 52 04.7**	**-0.2**
KBD	**Kabd**	**16.12**	**351**	P	**P**	**06 52 37.4**	**-0.9**
LODK	**Lodwar**	**17.73**	**238**	P	**P**	**06 52 55.5**	**-1.0**
LODK	**Lodwar**	**17.73**	**238**		**P**	**06 52 55.5**	**-0.9**
LODK	**Lodwar**	**17.73**	**238**	P	**Pn**	**06 52 53.8**	**-1.8**
	comp=Z,6.3nm,2.0s						
MSEY	**Mahe Island**	**18.43**	**164**	P	**Pn**	**06 53 04.9**	**+0.7**
MSEY				IAmb	IAmb	06 53 09.7	
	comp=Z,59nm,1.4s						
KMBO	**Kilima Mbogo**	**19.28**	**224**	S	**S**	**06 56 55.2**	**+3.5**
KMBO	**Kilima Mbogo**	**19.28**	**224**		**Pn**	**06 53 13.1**	**-1.5**
KMBO	**Kilima Mbogo**	**19.28**	**224**	P	**Pn**	**06 53 12.6**	**-2.0**
	comp=Z,11nm,1.9s						
KIBK	**Kibwezi**	**19.69**	**219**	P	**Pn**	**06 53 18.1**	**-1.2**
	SNR=5.4						
KIBK	**Kibwezi**	**19.69**	**219**	P	**Pn**	**06 53 17.4**	**-1.8**
KIBK				IAmb	IAmb	06 53 31.0	
	comp=Z,25nm,1.5s						
KIBK	**Kibwezi**	**19.69**	**219**	P	**P**	**06 53 16.2**	**-1.7**
	comp=Z,11nm,1.9s						
EIL	**Elat**	**21.78**	**321**	P	**P**	**06 53 40.5**	**+0.2**
	comp=Z,12nm,1.0s,baz=40,slow=7.5,SNR=4.5						
EIL				LR	LR	07 02 01.7	
	comp=Z,1μm,18.2s,baz=144,slow=37						
	comp=Z,12nm,1.0s						
EIL	**Elat**	**21.78**	**321**	P	**P**	**06 53 40.8**	**+0.5**
	comp=Z,12nm,1.1s						
HRFI	**Mount Harif**	**21.99**	**322**	P	**P**	**06 53 42.8**	**+0.2**
	comp=Z,21nm,1.1s						
KRMI	**Paran Flat**	**22.23**	**322**	P	**P**	**06 53 46.3**	**+1.1**
	comp=Z,24nm,1.1s						
PRNI	**Paran**	**22.24**	**323**	P	**P**	**06 53 44.3**	**-0.9**
	comp=Z,62nm,1.1s						
GHAJ	**Ghor Haditha**	**22.62**	**325**	P	**P**	**06 53 50.7**	**+1.4**
GHAJ	**Ghor Haditha**	**22.62**	**325**	P	**P**	**06 53 50.7**	**+1.4**
	comp=Z,20nm,0.8s						
ASF	**Jabal al Asfar**	**22.63**	**329**	LR	LR	07 02 19.9	
	comp=Z,489nm,18.7s,baz=146,slow=36						
KZIT	**Kziot**	**23.00**	**323**	P	**P**	**06 53 52.9**	**-0.4**
	comp=Z,19nm,0.9s						
HRA	**Herat**	**23.70**	**25**		**P**	**06 54 01.6**	**+1.1**
HRA				IAmb	IAmb	06 54 10.1	
	comp=Z,14nm,1.1s						
MBAR	**Mbarara**	**23.81**	**236**	LR	LR	07 02 38.1	
	comp=Z,148nm,20.6s,baz=60,slow=35						
MMAI	**Mount Meron Ar**	**24.03**	**328**	P	**P**	**06 54 04.0**	**+0.4**
	comp=Z,8.2nm,0.9s,baz=104,slow=15,SNR=4.9						
MMAI				LR	LR	07 04 11.7	
	comp=Z,451nm,20.7s,baz=140,slow=39						
	comp=Z,8.2nm,0.9s						
MMA1	**Mount Meron ar**	**24.03**	**328**	P	**P**	**06 54 03.3**	**-0.2**
	comp=Z,3.1nm,1.2s						
HAKT	**HAKKARI**	**25.01**	**347**	P	**P**	**06 54 13.3**	**+0.7**
	comp=Z,41nm,1.4s						
MARD	**Mardin**	**25.53**	**342**		**P**	**06 54 17.8**	**+0.6**
MARD				IAmb	IAmb	06 54 21.2	
	comp=Z,19nm,1.0s						
GEVA	**Gevas**	**25.88**	**347**	P	**P**	**06 54 20.2**	**-0.2**
GURO	**Guroymak-BITLI**	**26.35**	**345**	P	**P**	**06 54 25.0**	**+0.5**
GURO				IAmb	IAmb	06 54 32.5	
	comp=Z,6.3nm,0.8s						
KBL	**Kabul**	**27.18**	**35**	P	**P**	**06 54 29.1**	**-3.0**
KBL	**Kabul**	**27.18**	**35**	P	**P**	**06 54 32.1**	**-0.1**
KBL				IAmb	IAmb	06 54 46.8	
	comp=Z,10nm,1.1s						
KBL	**Kabul**	**27.18**	**35**	P	**P**	**06 54 33.1**	**+0.9**
	comp=Z,8.5nm,1.3s						
GNI	**Garni**	**27.33**	**351**	LR	LR	07 07 14.2	
	comp=Z,1μm,19.1s,baz=174,slow=41						
GNI	**Garni**	**27.33**	**351**	P	**P**	**06 54 33.8**	**+0.3**
GNI	**Garni**	**27.33**	**351**	P	**P**	**06 54 33.4**	**0.0**
GNI				IAmb	IAmb	06 54 39.0	
	comp=Z,19nm,0.8s						
GNI	**Garni**	**27.33**	**351**	P	**P**	**06 54 33.9**	**+0.5**
	comp=Z,20nm,0.8s						
ANDN	**Andirin**	**27.35**	**335**	P	**P**	**06 54 34.1**	**+0.5**
	comp=Z,28nm,1.7s						
ARPR	**Arapgir-MALATY**	**27.94**	**340**	P	**P**	**06 54 39.4**	**+0.5**
	comp=Z,9.1nm,1.1s						
KEMA	**Kemaliye**	**28.04**	**340**	P	**P**	**06 54 40.2**	**+0.4**
	comp=Z,16nm,1.4s						
BNN	**Bunyan**	**28.64**	**336**	P	**P**	**06 54 46.0**	**+0.8**
KKUL	**Konya-Kulu**	**30.16**	**332**	P	**P**	**06 54 57.8**	**-0.7**
	comp=Z,11nm,1.3s						
BR131	**Keskin Array S**	**30.30**	**334**	P	**P**	**06 55 00.4**	**+0.6**
BRTR	**Keskin Array B**	**30.30**	**334**	P	**P**	**06 55 00.0**	**+0.2**
	comp=Z,1.5nm,0.9s,baz=153,slow=11,SNR=5.6						
BRTR				LR	LR	07 07 25.2	
	comp=Z,302nm,21.7s,baz=134,slow=37						
	comp=Z,1.5nm,0.9s						
BRTR	**Keskin Array B**	**30.30**	**334**	P	**P**	**06 54 59.4**	**-0.4**
PALK	**Pallekele**	**30.38**	**98**	LR	LR	07 04 35.1	
	comp=Z,93nm,21.0s,baz=292,slow=31						
KBZ	**Khabaz**	**31.13**	**349**	P	**P**	**06 55 08.6**	**+1.7**
	comp=Z,3.8nm,0.9s,baz=169,slow=7.6,SNR=7.7						
KBZ				LR	LR	07 09 51.5	
	comp=Z,650nm,19.3s,baz=166,slow=41						
	comp=Z,3.8nm,0.9s						
OPO	**Ambohidratompo**	**31.70**	**186**	LR	LR	07 06 02.7	
	comp=Z,257nm,21.4s,baz=91,slow=33						
MANT	**Manisa**	**31.80**	**326**	P	**P**	**06 55 13.3**	**+0.1**
MANT				IAmb	IAmb	06 55 17.5	
	comp=Z,10nm,1.1s						
BTK	**Batken**	**32.25**	**30**	P	**P**	**06 55 19.8**	**+2.8**
	comp=Z,11nm,0.9s						
DRK	**Karamyk**	**32.31**	**32**	P	**P**	**06 55 19.0**	**+1.3**
ARK	**Arkit**	**34.15**	**29**	P	**P**	**06 55 34.7**	**+1.2**
	comp=Z,7.6nm,1.5s						
KK31	**Karatay Array**	**34.51**	**26**	P	**P**	**06 55 37.2**	**+0.6**
KKAR	**Karatay Array**	**34.51**	**26**	P	**P**	**06 55 37.0**	**+0.4**
ASAI	**AK-SAY(Kyrgyzs**	**35.86**	**35**	P	**P**	**06 55 49.5**	**+0.8**
	comp=Z,3.4nm,1.6s						
NRN	**Naryn**	**35.93**	**34**	P	**P**	**06 55 49.9**	**+0.7**
NRN				IAmb	IAmb	06 55 58.2	
	comp=Z,12nm,0.9s						
AAK	**Ala-Archa**	**36.01**	**31**	P	**P**	**06 55 51.5**	**+1.8**
	comp=Z,2.1nm,0.8s,baz=230,slow=7.1,SNR=5.4						
AAK				LR	LR	07 13 37.2	
	comp=Z,174nm,18.1s,baz=230,slow=41						
	comp=Z,2.1nm,0.8s						
AB31	**Akbulak array**	**36.83**	**10**		**P**	**06 55 57.4**	**+1.0**
AB31				IAmb	IAmb	06 56 01.7	
	comp=Z,8.9nm,1.3s						
ABKAR	**Akbulak array**	**36.83**	**10**		**P**	**06 55 57.4**	**+1.0**
EVN	**Everest**	**36.98**	**61**		**P**	**06 55 59.3**	**+0.6**
EVN				IAmb	IAmb	06 56 00.9	
	comp=Z,21nm,1.0s						
EVN	**Everest**	**36.98**	**61**	P	**P**	**06 56 00.3**	**+1.7**
	comp=Z,24nm,1.2s						
TARG	**Taragay, Kyrgy**	**37.12**	**35**		**P**	**06 55 59.8**	**+0.3**
TARG				IAmb	IAmb	06 56 19.9	
	comp=Z,6.7nm,0.9s						
TARG	**Taragay, Kyrgy**	**37.12**	**35**	P	**P**	**06 56 01.4**	**+1.9**
	comp=Z,10nm,1.6s						
WUS	**Wushi**	**37.58**	**37**	P	**P**	**06 56 04.6**	**+1.5**
	comp=Z,12nm,1.4s						
AKTO	**Aktyubinsk**	**37.68**	**8**	P	**P**	**06 56 04.5**	**+0.9**
	comp=Z,2.1nm,0.7s,baz=188,slow=8.3,SNR=4.3						
AKTO				LR	LR	07 15 00.2	
	comp=Z,371nm,18.1s,baz=230,slow=42						
	comp=Z,2.1nm,0.7s						
PRZ	**Przheval'sk**	**37.96**	**34**	P	**P**	**06 56 08.2**	**+2.0**
PRZ				IAmb	IAmb	06 56 09.5	
	comp=Z,11nm,0.8s						
MLR	**Muntele Rosu**	**38.31**	**332**	LR	LR	07 13 50.1	
	comp=Z,297nm,19.0s,baz=180,slow=39						
VOIR		**38.69**	**331**	P	**P**	**06 56 11.7**	**-0.5**
	comp=Z,5.8nm,1.1s						
ARR	**Arges**	**38.83**	**331**	P	**P**	**06 56 12.8**	**-0.6**
	comp=Z,6.9nm,0.9s						
BELG	**Belogornoye**	**39.19**	**357**	LR	LR	07 17 20.2	
	comp=Z,519nm,18.7s,baz=192,slow=44						
MATP	**Matopo**	**39.73**	**213**	LR	LR	07 12 31.5	
	comp=Z

VRAC Vranov 45.50 329 LR LR 07 17 07.2
comp=Z,132nm,18.8s,baz=130,slow=37
TSUM Tsumeb 45.60 226 LR LR 07 17 53.9
comp=Z,366nm,18.2s,baz=356,slow=38
STAL STALIGIAL 45.74 324 P **P** **06 57 10.1 +0.4**
STAL IAmb IAmb 06 57 17.3
comp=Z,5.5nm,0.9s
GERES GERESS Array B 46.69 327 P **P** **06 57 17.2 0.0**
comp=Z,0.5nm,0.4s,baz=156,slow=6.9,SNR=4.6
GERES PcP **PcP** **06 58 50.2 -0.5**
comp=Z,0.3nm,0.4s,baz=157,slow=4.4,SNR=3.7
GERES LR LR 07 21 11.1
comp=Z,195nm,18.2s,baz=48,slow=42
comp=Z,0.5nm,0.4s
LKGWB Lokgwabe 46.75 218 P **P** **06 57 15.9 -2.1**
CM31 Chiang Mai Arr 46.90 77 P **P** **06 57 18.3 -0.9**
CM31 Chiang Mai Arr 46.90 77 P **P** **06 57 19.6 +0.3**
CMAR Chiang Mai Arr 46.90 77 P **P** **06 57 20.9 +1.7**
comp=Z,4.1nm,0.4s,baz=273,slow=8.7,SNR=36
CMAR LR LR 07 18 02.1
comp=Z,27nm,18.2s,baz=270,slow=37
comp=Z,4.1nm,0.4s
CMAR Chiang Mai Arr 46.90 77 **P** **06 57 19.8 +0.6**
TORD Torodi Ar. Bea 47.35 276 P **P** **06 57 22.9 +0.1**
comp=Z,1.5nm,0.9s,baz=107,slow=6.3,SNR=3.9
comp=Z,1.5nm,0.9s
TORD Torodi Ar. Bea 47.35 276 P **P** **06 57 22.5 -0.3**
TORD IAmb IAmb 06 57 27.0
comp=Z,5.2nm,1.5s
BOSA Boshof 48.13 210 P **P** **06 57 28.4 -0.2**
comp=Z,4.0nm,1.0s,baz=129,slow=8.7,SNR=3.5
BOSA LR LR 07 18 39.8
comp=Z,292nm,18.1s,baz=42,slow=37
comp=Z,4.0nm,1.0s
BOSA Boshof 48.13 210 P **P** **06 57 28.8 +0.1**
CLL Collm 48.55 329 *eS* **S** **07 04 36.0 +3.6**
CLL LH 07 10 00.0
CLL LV 07 12 00.0
CLL AMS AMS 07 14 00.0
comp=N,200nm,15.9s
CLL AMS AMS 07 14 00.0
comp=E,100nm,25.7s
CLL AMS AMS 07 14 00.0
comp=Z,200nm,18.0s
ZAA0 Zalesovo Array 48.89 26 P **P** **06 57 34.6 +0.5**
ZALV Zalesovo Beam 48.89 26 P **P** **06 57 33.7 -0.3**
comp=Z,3.5nm,0.8s,baz=229,slow=8.6,SNR=7.2
ZALV LR LR 07 20 46.6
comp=Z,108nm,18.5s,baz=252,slow=39
comp=Z,3.5nm,0.8s
ZALV Zalesovo Beam 48.89 26 **P** **06 57 33.5 -0.5**
PSI Prapat 49.06 98 LR LR 07 16 33.4
comp=Z,34nm,20.2s,baz=244,slow=34
GTA2 Gaotai 50.64 49 *eP* **P** **06 57 49.5 +1.7**
GTA2 pP pwP 06 57 56.0 +0.8
GTA2 pmax pmax
comp=Z,5.0nm,1.1s
WLF Walferdange 51.28 324 *dP* **P** **06 57 53.5 +1.2**
FINES FINESS Array B 51.31 345 P **P** **06 57 51.2 -1.1**
comp=Z,5.4nm,0.6s,baz=144,slow=10,SNR=16
FINES LR LR 07 23 06.7
comp=Z,199nm,18.2s,baz=178,slow=40
comp=Z,5.4nm,0.6s
DOU Dourbes 52.37 324 *dP* **P** **06 58 00.6 +0.2**
LZH Lanzhou 52.95 55 *eP* **P** **06 58 01.0 -4.1**
LZH sP pwP 06 58 11.5 -1.0
LZH pmax pmax
comp=Z,18nm,0.9s
LZH LR LR
comp=N,170nm,15.1s
LZH LR LR
comp=E,210nm,16.0s
LZH LR LR
comp=Z,170nm,17.5s
SUR Sutherland 53.41 211 LR LR 07 22 16.2
comp=Z,294nm,18.5s,baz=28,slow=38
MDT Midelt 53.66 301 LR LR 07 22 33.7
comp=Z,195nm,19.0s,baz=95,slow=38
HFS Hagfors 54.06 338 P **P** **06 58 12.3 -0.4**
comp=Z,3.2nm,0.7s,baz=136,slow=9.5,SNR=6.2
HFS LR LR 07 24 36.7
comp=Z,178nm,20.3s,baz=113,slow=40
comp=Z,3.2nm,0.7s
ESDC Sonseca Array 54.40 310 P **P** **06 58 14.4 -1.2**
comp=Z,2.7nm,1.0s,baz=97,slow=6.3,SNR=7.2
ESDC LR LR 07 21 48.3
comp=Z,50nm,20.7s,baz=88,slow=36
comp=Z,2.7nm,1.0s
DBIC Dimbokro 54.71 269 LR LR 07 20 15.6
comp=Z,77nm,18.3s,baz=60,slow=35
NOA NORSAR Array B 55.58 338 P **P** **06 58 22.5 -1.2**
comp=Z,1.0nm,0.7s,baz=130,slow=7.3,SNR=4.4
NOA LR LR 07 25 33.0
comp=Z,181nm,19.6s,baz=140,slow=40
comp=Z,1.0nm,0.7s
XAN Xi'an 56.74 58 P **P** **06 58 33.5 +1.0**
XAN pmax pmax
comp=Z,11nm,0.9s
TLY Talaya 57.32 36 LR LR 07 26 06.2
comp=Z,182nm,20.8s,baz=254,slow=39
SONM Songino Array 57.71 41 P **P** **06 58 40.2 +1.0**
comp=Z,2.8nm,0.8s,baz=239,slow=6.5,SNR=10
SONM LR LR 07 26 50.1
comp=Z,125nm,20.1s,baz=266,slow=40
comp=Z,2.8nm,0.8s
SONM Songino Array 57.71 41 **P** **06 58 40.5 +1.3**
SONM IAmb IAmb 06 58 44.2
comp=Z,3.7nm,0.9s
ULN Ulaanbaatar 58.14 41 P **P** **06 58 42.9 +0.6**
ULN IAmb IAmb 06 58 46.7
comp=Z,3.1nm,0.7s
ARCES ARCESS Array B 58.49 350 P **P** **06 58 44.7 +0.6**
comp=Z,5.7nm,1.0s,baz=126,slow=7.6,SNR=5.3
ARCES LR LR 07 26 28.1
comp=Z,254nm,20.8s,baz=161,slow=39
comp=Z,5.7nm,1.0s
HHC Hu-ho-hao-te 59.75 50 *eP* **P** **06 58 56.0 +2.5**
HHC pmax pmax
comp=Z,14nm,0.6s
HHC pmax pmax
comp=Z,38nm,4.5s
LEM Lembang 60.21 106 LR LR 07 21 09.8
comp=Z,75nm,19.6s,baz=141,slow=32
NRIK Nord'sk 60.85 14 LR LR 07 30 28.6
comp=Z,400nm,18.5s,baz=228,slow=41
BJI2 Beijing 63.14 52 P **P** **06 59 17.0 +0.7**
BJI2 pmax pmax
comp=Z,5.0nm,0.8s
BJI2 pmax pmax
comp=Z,84nm,5.4s
XLT XiLinHaoTe 63.49 47 *eP* **P** **06 59 21.0 +2.3**
XLT PcP **PcP** **06 59 53.5 -1.9**
XLT pmax pmax
comp=Z,10.0nm,0.7s
NJ2 Nanjing 64.96 61 *eP* **P** **06 59 29.8 +1.4**
NJ2 pmax pmax
comp=Z,15nm,0.9s
HILR Hailar Array B 66.71 42 LR LR 07 33 57.8
comp=Z,49nm,18.1s,baz=170,slow=41
SPITS Spitsbergen Ar 67.17 353 LR LR 07 32 59.3
comp=Z,160nm,18.1s,baz=154,slow=40
BORG Borgarnes 70.39 334 LR LR 07 33 48.2
comp=Z,191nm,18.3s,baz=142,slow=38
KAPI Kappang 71.19 100 LR LR 07 27 42.5
comp=Z,35nm,21.5s,baz=265,slow=33
YAK Yakutsk 73.44 29 LR LR 07 36 03.9
comp=Z,104nm,18.2s,baz=260,slow=39
JOW Kunigami 73.48 66 LR LR 07 32 17.1
comp=Z,44nm,20.4s,baz=190,slow=36
TIXI Tiksi 73.96 19 LR LR 07 37 48.3
comp=Z,133nm,18.4s,baz=310,slow=40
KLR Kul'dur 74.52 42 LR LR 07 37 18.5
comp=Z,118nm,20.4s,baz=254,slow=39
USRK Ussuriysk Ar. 74.95 47 LR LR 07 38 24.0
comp=Z,81nm,21.0s,baz=289,slow=40
JNU Nakatsue 75.04 59 LR LR 07 33 29.3
comp=Z,57nm,19.1s,baz=292,slow=36
NWAO Narrogin (SRO) 78.48 128 LR LR 07 31 12.6
comp=Z,106nm,18.0s,baz=330,slow=32
FITZ Fitzroy Crossi 80.45 111 LR LR 07 31 31.7
comp=Z,48nm,18.3s,baz=286,slow=32
MAW Mawson 81.06 175 LR LR 07 31 50.8
comp=Z,150nm,19.3s,baz=342,slow=32
ASAJ Asahikawa 82.53 47 LR LR 07 43 24.4
comp=Z,72nm,19.0s,baz=258,slow=40
MA2 Magadan 83.94 30 LR LR 07 41 56.1
comp=Z,51nm,18.2s,baz=304,slow=38
WRA Warramunga Arr 88.86 111 P **P** **07 01 44.4 +1.2**
comp=Z,6.3nm,1.0s,baz=298,slow=3.8,SNR=26
comp=Z,6.3nm,1.0s
WRA Warramunga Arr 88.86 111 P **P** **07 01 44.0 +0.8**
WRAB Tennant Creek 88.87 111 P **P** **07 01 43.5 +0.3**
WRAB Tennant Creek 88.87 111 P **P** **07 01 43.3 0.0**
comp=Z,12nm,1.3s
ASAR Alice Springs 89.40 114 P **P** **07 01 46.6 +0.9**
comp=Z,2.2nm,0.8s,baz=288,slow=4.6,SNR=29
ASAR LR LR 07 36 28.6
comp=Z,46nm,19.4s,baz=288,slow=32
comp=Z,2.2nm,0.8s
ASAR Alice Springs 89.40 114 **P** **07 01 46.1 +0.4**
AS31 Alice Springs 89.40 114 **P** **07 01 45.9 +0.2**
PETK Petropavlovsk- 89.66 35 LR LR 07 45 50.8
comp=Z,64nm,18.1s,baz=300,slow=38
RES Resolute Bay 89.69 351 LR LR 07 44 21.0
comp=Z,47nm,20.6s,baz=11,slow=37
SNAA Sanae 91.74 195 LR LR 07 37 58.1
comp=Z,112nm,19.5s,baz=10,slow=32
SCHQ Schefferville 94.19 329 LR LR 07 47 10.5
comp=Z,46nm,18.4s,baz=356,slow=37
STKA Stephens Creek 97.84 121 LR LR 07 43 16.2
comp=Z,83nm,20.4s,baz=208,slow=33
INK Inuvik 98.69 1 LR LR 07 56 52.9
comp=Z,56nm,18.7s,baz=348,slow=41
NVAR Mina Array Bea 127.59 349 PKP **PKiKP** **07 07 56.1 +1.3**
comp=Z,1.0nm,0.8s,baz=231,slow=2.0,SNR=6.2
TXAR Lajitas Array 130.88 330 PKP **PKiKP** **07 08 00.9 -0.6**
comp=Z,0.2nm,0.6s,baz=144,slow=2.3,SNR=4.5
PPT2 Papeete2 160.26 105 *e*LR LR 08 03 01.7
comp=Z,56nm,23.2s
PPT2 *e*LR LR 08 03 04.3
comp=Z,124nm,26.2s
TAOE Nuku Hiva Isla 168.80 69 *e*LR LR 08 06 57.1
comp=Z,336nm,27.7s

*ASRS **27** 07:04:20.0±0.9, 54.°10N×86.°48E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 27 07:04:23.4±3.9, 54.°15N×86.°45E, h0km, mbtmp3.2/2, ML2.7/2, Error ellipse: s-maj=32.6km s-min=14.5km az=70.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.98**	**259**	I	I	07 09 58.2	
	baz=79,slow=341,SNR=5.9						
ZALV	**Zalesovo Beam**	**0.98**	**259**	Pg	Pg	07 04 41.0	-1.2
	0.7nm,0.3s,baz=77,slow=17,SNR=8.6						
ZALV				Lg	Lg	07 04 56.2	
	0.9nm,0.3s,baz=76,slow=29,SNR=5.7						
KURBB	**Kurchatov Arra**	**6.00**	**237**	Pn	Pn	07 05 54.7	+1.4
	0.1nm,0.3s,baz=54,slow=13,SNR=2.3						
	1.8nm,0.2s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.83**	**201**	Pn	Pn	07 06 19.4	+1.0
	0.2nm,0.3s,baz=24,slow=15,SNR=4.6						
	0.2nm,0.3s						
MKAR				AML	AML		

*GCG **27** 07:08:23.5±1.2, 15.°71N×90.°06W, h13km±7km, MD4.2, MW3.2, Presumed earthquake*
*CATAC **27** 07:08:23.8±0.3, 16.°N±2.°×90.°0W±.°, h1km, M3.4/9, MLv3.4/9, Error ellipse: s-maj=4.6km s-min=3.6km az=56.7, confirmed*
ISC 27 07:08:22.3±1.1, 15.°70N±0.°03×90.°06W±0.°03, h17km±20km, n20, σ0s79/34, Guatemala

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PETF	**Flores**	**1.23**	**8**	P	**Pg**	**07 08 45.9**	**-0.1**
PETF				S	**Sg**	**07 09 03.4**	**+1.4**
PETF	**Flores**	**1.23**	**8**	*i* P	**Pg**	**07 08 45.7**	**-0.2**
PETF				*i* S	**Sg**	**07 09 00.7**	**-1.4**
ESQI	**Esquipulas**	**1.32**	**149**	P	**Pg**	**07 08 47.3**	**-0.6**
ESQI				S	**Sg**	**07 09 07.7**	**+2.5**
JUAM	**Asuncion Mita**	**1.40**	**166**	*i* P	**Pb**	**07 08 47.9**	**0.0**
JUAM				*i* S	**Sg**	**07 09 07.9**	**+0.4**
HUEH	**Huehuetenango**	**1.45**	**255**	P	**Pg**	**07 08 49.9**	**-0.3**
HUEH				S	**Sg**	**07 09 10.1**	**+1.0**
HUEH	**Huehuetenango**	**1.45**	**255**	*i* P	**Pg**	**07 08 49.9**	**-0.3**
HUEH				*i* S	**Sg**	**07 09 08.9**	**-0.2**
MTO3	**Montecristo**	**1.46**	**152**	P	**Pb**	**07 08 49.5**	**+0.4**
MTO3				S	**Sg**	**07 09 09.9**	**+0.5**
MTO3	**Montecristo**	**1.46**	**152**	*i* P	**Pb**	**07 08 49.4**	**+0.4**
FG16	**Alotenango, Sa**	**1.48**	**197**	*i* P	**Pb**	**07 08 49.8**	**+0.3**
SARH	**Santa Rosa de**	**1.55**	**126**	P	**Pg**	**07 08 51.3**	**-0.9**
SARH				S	**Sg**	**07 09 13.3**	**+0.9**
SARH	**Santa Rosa de**	**1.55**	**126**	*i* P	**Pg**	**07 08 51.3**	**-0.9**
SARH				*i* S	**Sg**	**07 09 12.0**	**-0.4**
QUEO	**Labor Ovalle**	**1.63**	**240**	*i* P	**Pb**	**07 08 52.1**	**0.0**
STG8	**El Palmar, Qui**	**1.76**	**225**	*i* P	**Pb**	**07 08 54.0**	**-0.2**
UNIC	**Universidad Ca**	**1.77**	**164**	P	**Pb**	**07 08 54.7**	**+0.3**
UNIC				S	**Sg**	**07 09 19.8**	**+0.3**
NUBE	**Las Nubes**	**1.81**	**171**	P	**Pb**	**07 08 54.7**	**-0.2**
NUBE				S	**Sg**	**07 09 20.9**	**+0.3**
NUBE	**Las Nubes**	**1.81**	**171**	*i* P	**Pb**	**07 08 54.5**	**-0.5**
FAME	**Alcaldia de Sa**	**1.84**	**179**	P	**Pb**	**07 08 56.2**	**+0.7**
FAME				S	**Sg**	**07 09 22.2**	**+0.4**
PMON	**Piamonte**	**2.10**	**160**	P	**Pb**	**07 09 00.8**	**+0.8**
PMON				S	**Sg**	**07 09 29.0**	**-0.9**
PAVA	**Las Pavas**	**2.25**	**151**	P	**Pb**	**07 09 03.0**	**+0.4**
COEG	**Centro de Oper**	**2.36**	**151**	P	**Pb**	**07 09 04.7**	**+0.3**
COEG				S	**Sg**	**07 09 37.3**	**-0.9**

*NEIC **27** 07:09:58.2±1.1, 56.°34N±0.°08×148.°9W±0.°1, h10km±2km, ML3.7/72, ML3.5(AEIC), Error ellipse: s-maj=14.5km s-min=9.8km az=161.0*
*IDC **27** 07:09:59.4±1.2, 56.°40N×148.°95W, h0km, mb3.3/5, mbtmp3.4/10, ML3.3/5, MS3.0/1, Error ellipse: s-maj=21.4km s-min=13.4km az=33.0*
*AEIC **27** 07:10:01.6±1.6, 56.°24N±0.°09×148.°8W±0.°1, h12km±8km, Error ellipse: s-maj=13.9km s-min=8.7km az=159.0*
ISC 27 07:09:59.6±0.8, 56.°43N±0.°07×148.°93W±0.°06, h10km, n144, σ0s89/140, mb3.1/5, Gulf of Alaska

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KDAK	**Kodiak Island**	**2.41**	**306**	Pn	**Pn**	**07 10 38.2**	**-0.8**
	4.1nm,0.3s,baz=5.3,slow=4.1,SNR=85						
KDAK				Sn	**Sn**	**07 11 07.4**	**-1.2**
	4.0nm,0.3s,baz=35,slow=5.9,SNR=6.6						
KDAK				LR	LR	07 11 43.5	
	comp=Z,305nm,21.5s,baz=117,slow=43						
	13nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**2.41**	**306**		**Pn**	**07 10 38.3**	**-0.8**
OHAK	**Old Harbor**	**2.52**	**290**	P	**Pn**	**07 10 39.1**	**-1.5**
OHAK	**Old Harbor**	**2.52**	**290**		**Pn**	**07 10 39.3**	**-1.3**
OHAK	**Old Harbor**	**2.52**	**290**		**Sn**	**07 11 08.6**	**-2.9**
SII	**Sitkinak Islan**	**2.92**	**275**	P	**Pn**	**07 10 45.5**	**-0.6**
SII	**Sitkinak Islan**	**2.92**	**275**	Pn	**Pn**	**07 10 45.3**	**-0.8**
SII				IAML		07 11 24.3	
	comp=N,221nm,0.6s						
SII				IAML		07 11 32.0	
	comp=E,190nm,0.7s						
MID	**Middleton Isla**	**3.31**	**24**		**Pn**	**07 10 50.4**	**-0.9**
MID	**Middleton Isla**	**3.31**	**24**	IAML		07 12 00.2	
	comp=E,191nm,1.4s						
MID				IAML		07 12 57.0	
	comp=N,208nm,1.3s						
CNPM	**China Poot**	**3.34**	**339**		**Pn**	**07 10 51.6**	**-0.2**
CNPM	**China Poot**	**3.34**	**339**		**Sn**	**07 11 30.5**	**-1.0**
BRSE	**Bradley Lake S**	**3.46**	**345**		**Pn**	**07 10 53.1**	**-0.3**
BRSE					**Sn**	**07 11 33.4**	**-1.1**
BRLK	**Bradley Lake**	**3.50**	**344**		**Pn**	**07 10 53.6**	**-0.5**
BRLK				IAML		07 11 39.2	
	comp=N,83nm,0.9s						
BRLK	**Bradley Lake**	**3.50**	**344**		**Sn**	**07 11 34.9**	**-0.7**
HOM	**Homer**	**3.54**	**337**		**Pn**	**07 10 54.9**	**+0.3**
Q19K	**Cape Douglas,**	**3.56**	**317**		**Pn**	**07 10 55.2**	**+0.3**
Q19K				IAML		07 11 53.3	
	comp=N,187nm,0.9s						
P23K	**Montague Islan**	**3.67**	**12**	Pn	**Pn**	**07 10 55.7**	**-0.6**
P23K				IAML		07 11 38.6	
	comp=E,164nm,0.3s						
P23K				IAML		07 11 39.6	
	comp=N,164nm,1.1s						
KAHG	**Katmai Hook Gl**	**3.67**	**307**		**Pn**	**07 10 57.4**	**+0.9**
SEW	**Seward**	**3.69**	**356**		**Pn**	**07 10 56.4**	**-0.3**
KARR	**Katmai Rainbow**	**3.75**	**306**		**Pn**	**07 10 58.6**	**+1.1**

AUI Augustine Isla 3.77 322 **Pn** **07 10 58.3 +0.5**
AUJK Augustine Jueg 3.78 323 **Pn** **07 10 58.4 +0.5**
CHIR Chirikof Islan 3.80 264 P **Pn** **07 10 56.7 -1.4**
CHIR Chirikof Islan 3.80 264 Pn **Pn** **07 10 55.8 -2.3**
CHIR IAML 07 11 50.2
comp=N,90nm,1.5s
CHIR IAML 07 12 02.1
comp=E,97nm,1.3s
P19K Oil Pt 3.96 326 **Pn** **07 11 00.6 +0.2**
Q18K Katmai Hardscr 3.96 307 **Pn** **07 11 00.9 +0.4**
Q22K Cooper Landing 4.08 354 **Pn** **07 11 01.1 -0.9**
SLKM Skilak Lake 4.14 351 **Pn** **07 11 02.7 -0.2**
SLKM IAML 07 11 52.5
comp=E,113nm,0.6s
O20K Slope Mountain 4.15 333 **Pn** **07 11 02.9 -0.1**
ILS Iliamna Low So 4.16 330 **Pn** **07 11 03.0 -0.2**
HIN Hinchinbrook I 4.17 17 Pn **Pn** **07 11 02.9 -0.5**
HIN IAML 07 11 54.0
comp=E,117nm,1.2s
IVE Iliamna Volcan 4.19 331 **Pn** **07 11 03.3 -0.4**
Q17K Contact Creek 4.19 299 **Pn** **07 11 03.7 +0.1**
ILSW Iliamna Southw 4.20 330 **Pn** **07 11 03.5 -0.3**
ILSW IAML 07 11 58.9
comp=E,61nm,1.0s
PLK3 Peulik 3 4.20 290 **Pn** **07 11 03.7 0.0**
R17L Mt. Peulik Vol 4.24 290 **Pn** **07 11 04.0 -0.2**
KAIM Kayak Island 4.24 32 **Pn** **07 11 03.0 -1.2**
PLK2 Peulik 2 4.25 291 **Pn** **07 11 04.4 0.0**
PWL Port Wells 4.45 4 Pn **Pn** **07 11 07.1 -0.1**
PWL IAML 07 11 58.0
comp=E,97nm,0.6s
PWL IAML 07 12 01.3
comp=N,83nm,1.1s
EYAK Cordova Ski Ar 4.45 21 P **Pn** **07 11 06.3 -0.8**
EYAK Cordova Ski Ar 4.45 21 **Pn** **07 11 06.9 -0.2**
EYAK IAML 07 12 02.0
comp=E,82nm,1.3s
EYAK IAML 07 12 05.7
comp=N,85nm,0.7s
RED Redoubt Volcan 4.48 335 **Pn** **07 11 07.0 -0.6**
P18K Big Mountain, 4.48 314 **Pn** **07 11 07.1 -0.5**
RDSO Redoubt South 4.50 335 **Pn** **07 11 07.4 -0.5**
FID Port Fidalgo 4.51 15 Pn **Pn** **07 11 07.0 -1.0**
FID IAML 07 11 57.7
comp=E,76nm,0.6s
FID IAML 07 12 15.8
comp=N,50nm,1.3s
RDT Redoubt 4.54 338 **Pn** **07 11 07.5 -0.8**
GLI Glacier Island 4.56 11 Pn **Pn** **07 11 06.9 -1.7**
GLI IAML 07 12 00.8
comp=N,65nm,0.7s
DFR Drift River 4.61 336 **Pn** **07 11 08.8 -0.7**
NCT North Crescent 4.64 335 **Pn** **07 11 09.3 -0.5**
RC01 Rabbit Creek A 4.69 355 Pn **Pn** **07 11 10.0 -0.4**
RC01 IAML 07 12 05.8
comp=E,78nm,0.8s
RC01 IAML 07 12 05.8
comp=N,50nm,0.9s
GOAT Goat Mountain 4.71 26 **Pn** **07 11 10.1 -0.6**
O19K Port Alsworth 4.72 325 **Pn** **07 11 10.5 -0.3**
BERG Berg Lake 4.83 32 **Pn** **07 11 11.2 -1.0**
P17K Kvichak River 4.88 308 **Pn** **07 11 12.8 -0.1**
DIV Divide 4.99 18 **Pn** **07 11 13.8 -0.7**
DIV IAML 07 12 15.5
comp=N,31nm,1.5s
KNK Knik Glacier 5.00 3 **Pn** **07 11 14.7 0.0**
KNK IAML 07 12 20.3
comp=N,32nm,0.9s
KNK IAML 07 12 21.1
comp=E,39nm,1.1s
SPU Mount Spurr 5.03 342 Pn **Pn** **07 11 15.0 -0.1**
BMRM Bremner River 5.07 25 **Pn** **07 11 15.0 -0.7**
BMRM IAML 07 12 15.7
comp=E,40nm,0.7s
BMRM IAML 07 12 16.1
comp=N,40nm,1.0s
SPCR Spurr Chakacha 5.08 342 **Pn** **07 11 15.2 -0.5**
CKL Chakachamna La 5.10 341 **Pn** **07 11 15.6 -0.5**
SPCG Spurr Capps Gl 5.13 343 **Pn** **07 11 15.6 -0.9**
SUA Susitna One 5.13 350 Pn **Pn** **07 11 16.4 -0.2**
SUA IAML 07 12 17.8
comp=N,40nm,1.2s
SUA IAML 07 12 18.3
comp=E,41nm,1.1s
SPBG Spurr Blockage 5.16 341 **Pn** **07 11 16.1 -0.8**
PMR Palmer 5.18 359 P **Pn** **07 11 17.0 0.0**
PMR Palmer 5.18 359 **Pn** **07 11 17.2 +0.1**
PMR IAML 07 12 21.8
comp=E,31nm,0.8s
SPWE Spurr West 5.21 340 **Pn** **07 11 17.2 -0.4**
N19K Bonanza Creek 5.26 329 **Pn** **07 11 18.2 -0.1**
CHGN Chignik 5.28 273 Pn **Pn** **07 11 17.8 -0.7**
CHGN IAML 07 12 22.3
comp=N,38nm,0.7s
CHGN IAML 07 12 23.6
comp=E,34nm,0.3s
CRQM Cirque 5.29 32 **Pn** **07 11 17.6 -1.2**
STLK Strandline Lak 5.30 345 **Pn** **07 11 18.4 -0.4**
STLK IAML 07 12 21.4
comp=E,26nm,0.6s
STLK IAML 07 12 25.2
comp=N,31nm,0.6s
KLU Klutina 5.31 16 **Pn** **07 11 19.1 +0.2**
KLU IAML 07 12 20.4
comp=E,44nm,0.5s
KLU IAML 07 12 22.2
comp=N,41nm,0.5s
SPNN North Nagishla 5.32 340 **Pn** **07 11 19.1 -0.1**
GHO Glory Hole Cre 5.36 0 **Pn** **07 11 20.6 +0.9**
TGL Tana Glacier 5.38 34 **Pn** **07 11 19.0 -0.9**
SML Sawmill 5.40 3 **Pn** **07 11 20.8 +0.6**
O17K Koliganek Bris 5.47 311 **Pn** **07 11 21.1 0.0**
SCM Sheep Creek Mo 5.48 8 Pn **Pn** **07 11 22.2 +1.0**
CHX Chaix Hills 5.50 45 **Pn** **07 11 19.8 -1.8**
P16K Nushagak River 5.51 302 **Pn** **07 11 22.1 +0.5**
VRDI Verde Repeater 5.58 28 **Pn** **07 11 21.9 -1.0**
N18K Kilae Creek 5.61 322 **Pn** **07 11 22.2 -0.8**
N25K Chitina, Valde 5.65 21 **Pn** **07 11 23.4 -0.2**
KIAG Kiagna River 5.66 35 **Pn** **07 11 22.8 -1.0**
GLB Gilahina Butte 5.68 26 **Pn** **07 11 23.4 -0.6**
GRNC Granite Creek 5.71 38 **Pn** **07 11 23.4 -1.2**
SKT Skwentna 5.72 348 **Pn** **07 11 24.1 -0.4**
BALM Baldy 5.75 34 **Pn** **07 11 24.1 -0.9**
O16K Kokwok River B 5.81 307 **Pn** **07 11 25.5 -0.3**
MCARA McCarthy VSAT 5.83 29 **Pn** **07 11 25.8 -0.2**
PTPK Patty Peak 5.83 32 **Pn** **07 11 25.7 -0.5**
PCA Pinnacle 5.87 48 Pn **Pn** **07 11 25.8 -0.7**
N17K Nushagak Hills 5.97 317 **Pn** **07 11 27.3 -0.6**
PNL Peninsula 6.01 53 P **Pn** **07 11 27.7 -0.8**
PNL Peninsula 6.01 53 **Pn** **07 11 27.3 -1.2**
WASW Wrangell South 6.03 22 **Pn** **07 11 28.7 -0.2**
LOGN Logan Glacier 6.04 40 **Pn** **07 11 28.1 -0.9**
WACK Wrangell Chich 6.05 21 **Pn** **07 11 29.2 -0.1**
M18K Stony River 6.20 328 **Pn** **07 11 30.4 -0.7**
HARP HAARP 6.29 16 **Pn** **07 11 32.7 +0.4**
O28M Mount Upton 6.30 43 **Pn** **07 11 32.7 -0.1**
O15K Ungalikthiuk R 6.44 300 **Pn** **07 11 34.4 0.0**
L19K White Mountain 6.51 335 **Pn** **07 11 34.8 -0.6**
N16K Nishlik Lake 6.56 312 **Pn** **07 11 36.2 +0.1**
SDPT Sand Point 6.59 265 P **Pn** **07 11 36.0 -0.4**
DHY Denali Highway 6.71 6 **Pn** **07 11 38.4 +0.1**
P29M Windy Craggy 6.75 57 **Pn** **07 11 37.3 -1.3**
PAX Paxson 6.79 13 **Pn** **07 11 39.5 +0.3**
M27K Edge Creek, AK 6.94 28 **Pn** **07 11 41.1 -0.4**
M16K Timber Creek 6.96 316 **Pn** **07 11 41.5 0.0**
YUK6 Outpost Mounta 7.12 46 **Pn** **07 11 43.8 -0.1**
PS1A Pavlof South-1 7.27 267 **Pn** **07 11 45.1 -0.8**
P30M Million Dollar 7.31 55 **Pn** **07 11 46.2 -0.2**
PLBC Pleasant Camp 7.34 60 **Pn** **07 11 45.5 -1.2**
DOL Dolgoi Island 7.41 265 **Pn** **07 11 47.0 -0.8**
PN7A Pavlof North-7 7.41 268 **Pn** **07 11 46.6 -1.3**
YUK5 Granite Creek 7.43 46 **Pn** **07 11 47.1 -1.0**
BC01 Beaver Creek A 7.55 25 **Pn** **07 11 49.5 -0.1**
DTNA Dutton South F 7.62 266 **Pn** **07 11 49.6 -1.0**
DT1 Dutton Round H 7.65 266 **Pn** **07 11 49.9 -1.1**
SKAG Skagway 7.84 62 **Pn** **07 11 51.8 -1.8**
N30M Aishikik Lake 7.92 46 **Pn** **07 11 54.0 -0.8**
JIS Juneau Island 8.08 71 P **Pn** **07 11 54.4 -2.4**
ILAR Eielson Array 8.43 6 Pn **Pn** **07 12 01.6 0.0**
comp=N,0.3nm,0.3s,baz=194,slow=13,SNR=14
ILAR Sn **Sn** **07 13 34.2 -2.4**
comp=N,0.4nm,0.3s,baz=186,slow=21,SNR=5.3
comp=N,0.6nm,0.4s

ILAR					AML	AML		
N31M	**Braeburn, Yuko**	**8.46**	**48**		**Pn**	**Pn**	**07 12 01.7**	**-0.5**
COLA	**College**	**8.49**	**3**	P	**Pn**	**Pn**	**07 12 03.0**	**+0.6**
L29M	**L29M**	**8.62**	**35**		**Pn**	**Pn**	**07 12 03.9**	**-0.5**
P33M	**Teslin, Yukon**	**9.28**	**59**		**Pn**	**Pn**	**07 12 11.5**	**-1.8**
K29M	**Barlow Dome**	**9.34**	**33**		**Pn**	**Pn**	**07 12 14.2**	**-0.1**
R33M	**Jennings River**	**10.00**	**65**		**Pn**	**Pn**	**07 12 22.0**	**-1.3**
DLBC	**Dease Lake**	**10.38**	**71**	Pn	**Pn**	**Pn**	**07 12 27.1**	**-1.3**
	comp=N,0.4nm,0.3s,baz=252,slow=7.7,SNR=9.0 comp=N,1.2nm,0.4s							
DLBC					AML	AML		
UNV	**Unalaska Valle**	**10.39**	**263**	P	**Pn**	**Pn**	**07 12 27.2**	**-1.3**
INK	**Inuvik**	**13.83**	**24**	Pn	**Pn**	**Pn**	**07 13 15.8**	**+0.5**
	comp=N,0.1nm,0.3s,baz=199,slow=14,SNR=7.5 comp=N,2.6nm,1.0s							
INK					AML	AML		
YKA	**Yellowknife Ar**	**18.29**	**57**	P	**P**	**P**	**07 14 13.5**	**+0.2**
	baz=265,slow=12,SNR=4.6 comp=N,1.6nm,0.8s							
NVAR	**Mina Array Bea**	**27.11**	**119**	P	**P**	**P**	**07 15 43.7**	**+1.0**
	comp=N,0.1nm,0.4s,baz=314,slow=8.9,SNR=4.9 comp=N,0.1nm,0.4s							
PDAR	**Pinedale Array**	**28.50**	**102**	P	**P**	**P**	**07 15 55.8**	**+0.7**
	comp=N,0.3nm,0.9s,baz=304,slow=5.0,SNR=4.2 comp=N,0.3nm,0.9s							
TXAR	**Lajitas Array**	**41.69**	**111**	P	**P**	**P**	**07 17 50.1**	**+1.7**
	comp=N,0.1nm,0.3s,baz=296,slow=9.3,SNR=4.1 comp=N,0.1nm,0.3s							
H11N2	**WAKE ISLAND Hy**	**49.13**	**240**	T	T	T	08 11 43.2	
	baz=31,slow=76,SNR=13							
H11N3	**WAKE ISLAND Hy**	**49.14**	**240**	T	T	T	08 11 39.9	
	baz=31,slow=76,SNR=13							
H11N1	**WAKE ISLAND Hy**	**49.15**	**240**	T	T	T	08 11 44.3	
	baz=31,slow=76,SNR=13							
H11S1	**WAKE ISLAND Hy**	**50.27**	**240**	T	T	T	08 13 06.5	
	baz=28,slow=76,SNR=18							
H11S2	**WAKE ISLAND Hy**	**50.28**	**240**	T	T	T	08 13 06.5	
	baz=28,slow=76,SNR=14							
H11S3	**WAKE ISLAND Hy**	**50.29**	**240**	T	T	T	08 13 06.5	
	baz=28,slow=76,SNR=11							
SONM	**Songino Array**	**58.69**	**310**	P	**P**	**P**	**07 19 59.1**	**+2.0**
	comp=N,0.3nm,0.4s,baz=55,slow=5.6,SNR=3.6 comp=N,0.3nm,0.4s							
MKAR	**Makanchi Array**	**68.59**	**325**	P	**P**	**P**	**07 21 02.4**	**+0.2**
	comp=N,0.2nm,0.5s,baz=30,slow=5.3,SNR=2.5 comp=N,0.2nm,0.5s							

IDC 27 07:19:23.9±999.0, 50.53N×55.97E, h0km, Error ellipse: s-maj=641.7km s-min=31.5km az=94.0, Western Kazakhstan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I31KZ	**AKTYUBINSK INF**	**1.32**	**95**	I	I	07 26 50.0	
	0.4nm,0.7s,baz=276,slow=308,SNR=3.3						
I46RU	**ZALESOVO INFRA**	**17.93**	**68**	I	I	09 09 00.5	
	0.1nm,1.2s,baz=272,slow=319,SNR=0.8						
I45RU	**USSURIYSK INFR**	**49.77**	**66**	I	I	12 27 04.5	
	baz=307,slow=330,SNR=1.1						

*ASRS **27** 07:26:04.0±1.1, 54.70N×83.65E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 27 07:26:06.5±3.2, 54.70N×83.84E, h0km, mbtmp2.9/2, ML2.6/2, Error ellipse: s-maj=27.5km s-min=13.1km az=159.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.95**	**142**	I	I	07 31 50.0	
	0.1nm,0.7s,baz=319,slow=319,SNR=2.0						
ZALV	**Zalesovo Beam**	**0.95**	**142**	Pg	Pg	07 26 23.1	-1.6
	4.3nm,0.3s,baz=324,slow=18,SNR=22						
ZALV				Lg	Lg	07 26 39.4	
	11nm,0.3s,baz=322,slow=27,SNR=23						
KURBB	**Kurchatov Arra**	**5.21**	**220**	Pn	Pn	07 27 26.1	+0.6
	0.1nm,0.3s,baz=42,slow=14,SNR=3.0						
KURBB				Lg	Lg	07 28 53.7	
	0.2nm,0.3s,baz=39,slow=32,SNR=7.0 0.5nm,0.2s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.98**	**188**	Pn	Pn	07 28 04.6	+1.0
	0.1nm,0.3s,baz=13,slow=13,SNR=2.4 0.3nm,0.4s						
MKAR				AML	AML		

NOU 27 07:26:20.7, 16.75S×167.05E, h21km, mb3.9/10, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**1.30**	**7**	P	Pn	07 26 43.4	-0.3
SANVU	**Saraoutou**	**1.30**	**7**	S	Sn	07 27 00.6	+0.1
DVP	**Devils Point**	**1.46**	**132**	P	Pb	07 26 47.0	-0.1
YATNC	**Mamie plateau,**	**5.28**	**182**	P	Pn	07 27 38.2	-0.3
NOUC	**Port Laguerre**	**5.37**	**187**	P	Pn	07 27 40.8	+1.2
NOUC	**Port Laguerre**	**5.37**	**187**	S	Sn	07 28 40.9	+0.1

*ASRS **27** 07:55:18.0±1.0, 54.31N×86.14E, h0km, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 27 07:55:21.3±3.9, 54.31N×86.07E, h0km, mbtmp3.3/2, ML3.1/2, Error ellipse: s-maj=32.9km s-min=12.8km az=60.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.82**	**244**	I	I	07 59 50.0	
	baz=65,slow=340,SNR=3.5						
ZALV	**Zalesovo Beam**	**0.82**	**244**	Pg	Pg	07 55 35.8	-1.3
	2.2nm,0.3s,baz=61,slow=17,SNR=23						
ZALV				Lg	Lg	07 55 48.9	
	7.4nm,0.3s,baz=62,slow=24,SNR=23						
KURBB	**Kurchatov Arra**	**5.91**	**234**	Pn	Pn	07 56 51.7	+1.7
	0.3nm,0.3s,baz=50,slow=13,SNR=4.3 1.2nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.90**	**199**	Pn	Pn	07 57 18.1	+0.8
	0.5nm,0.3s,baz=23,slow=13,SNR=16 0.5nm,0.3s						
MKAR				AML	AML		

*NNC **27** 08:18:06.9±0.3, 43.27N×78.30E, h8km±2km, mb3.1, mpv3.3, Error ellipse: s-maj=3.6km s-min=2.0km az=0.0*
*SOME **27** 08:18:07.9, 43.27N×78.28E, h20km*
*KRNET **27** 08:18:07.4±0.1, 43.27N×78.27E, h25km, mb3.2*

ISC 27 08:18:08.3±0.8, 43.27N±0.02×78.26E±0.02, h15km±6km, n50, σ1°30/96, 18C-14D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KURS	**Kuram**	**0.23**	**344**	P	**Pg**	**08 18 13.4**	**-0.1**
	70nm,0.1s						
KURS				S	**Sg**	**08 18 17.4**	**+0.4**
	707nm,0.3s						
KURS	**Kuram**	**0.23**	**344**	*eP*	**Pg**	**08 18 13.4**	**-0.1**
	70nm,0.1s						
KURS				*eS*	**Sg**	**08 18 17.4**	**+0.4**
	707nm,0.3s						
SATY	**Saty**	**0.23**	**152**	P	**Pg**	**08 18 13.4**	**-0.2**
	76nm,0.1s						
SATY				S	**Sg**	**08 18 17.5**	**+0.4**
	10µm,0.1s						
SATY	**Saty**	**0.23**	**152**	*eP*	**Pg**	**08 18 13.4**	**-0.2**
	76nm,0.1s						
SATY				*eS*	**Sg**	**08 18 17.5**	**+0.4**
	10µm,0.1s						
KPKS	**Kokpek**	**0.37**	**57**	P	**Pg**	**08 18 15.3**	**-0.6**
	0.2nm,0.1s						
KPKS				S	**Sg**	**08 18 20.7**	**-0.3**
	700nm,0.2s						
KPKS	**Kokpek**	**0.37**	**57**	*eP*	**Pg**	**08 18 15.3**	**-0.6**
	0.2nm,0.1s						
KPKS				*eS*	**Sg**	**08 18 20.8**	**-0.3**
	700nm,0.2s						
UZB	**Uzynbulak**	**0.57**	**102**	P	**Pg**	**08 18 18.6**	**-1.1**
	50nm,0.1s						
UZB				S	**Sg**	**08 18 26.1**	**-1.2**
	379nm,0.1s						
UZB	**Uzynbulak**	**0.57**	**102**	*eP*	**Pg**	**08 18 18.6**	**-1.1**
UZB				*eS*	**Sg**	**08 18 26.1**	**-1.2**
UZB	**Uzynbulak**	**0.57**	**102**	*eP*	**Pg**	**08 18 18.6**	**-1.1**
	50nm,0.1s						
UZB				*eS*	**Sg**	**08 18 26.1**	**-1.2**
	379nm,0.1s						
ANVS	**Anan'yevo**	**0.65**	**222**	⇓*eP*	**Pg**	**08 18 20.3**	**-0.8**
ANVS				⇓*eS*	**Sg**	**08 18 29.4**	**-0.3**
PRZ	**Przheval'sk**	**0.79**	**172**	⇓*eP*	**Pg**	**08 18 22.4**	**-1.3**
PRZ				⇓*eS*	**Sg**	**08 18 32.9**	**-1.2**
KOTS	**Kotyrbulak**	**0.84**	**268**	P	**Pg**	**08 18 23.7**	**-0.9**
	41nm,0.2s						
KOTS				S	**Sg**	**08 18 35.5**	**-0.2**
	529nm,0.2s						
KOTS	**Kotyrbulak**	**0.84**	**268**	*eP*	**Pg**	**08 18 23.7**	**-0.9**
	41nm,0.2s						
KOTS				*eS*	**Sg**	**08 18 35.5**	**-0.2**
	529nm,0.2s						
SHLS	**Shalkode**	**0.89**	**97**	P	**Pn**	**08 18 29.3**	**+2.9**
	18nm,0.1s						
SHLS				S	**Sn**	**08 18 44.8**	**+5.7**
	104nm,0.2s						
SHLS	**Shalkode**	**0.89**	**97**	*eP*	**Pn**	**08 18 29.3**	**+2.9**
	18nm,0.1s						
SHLS				*eS*	**Sn**	**08 18 44.8**	**+5.7**
	104nm,0.2s						
PDGK	**Podgornoye**	**0.90**	**86**	⇑P	**Pb**	**08 18 23.7**	**-2.1**
	4.9nm,0.3s						
PDGK				⇑S	**Sb**	**08 18 35.6**	**-2.1**
	37nm,0.4s						
TNSS	**Tian-Shan**	**0.98**	**257**	P	**Pb**	**08 18 26.1**	**-1.3**
	2.5nm,0.1s						
TNSS				S	**Sb**	**08 18 39.0**	**-1.3**
	17nm,0.1s						
TNSS	**Tian-Shan**	**0.98**	**257**	*eP*	**Pb**	**08 18 26.1**	**-1.3**
	2.5nm,0.1s						
TNSS				*eS*	**Sb**	**08 18 39.0**	**-1.3**
	17nm,0.1s						
ARXS	**Arharly**	**1.00**	**342**	P	**Pb**	**08 18 26.2**	**-1.2**
	13nm,0.2s						
ARXS				S	**Sb**	**08 18 39.5**	**-0.8**
	121nm,0.2s						
ARXS	**Arharly**	**1.00**	**342**	*eP*	**Pb**	**08 18 26.2**	**-1.2**
	13nm,0.2s						
ARXS				*eS*	**Sb**	**08 18 39.5**	**-0.8**
	121nm,0.2s						
IZV	**Izvestkoviy**	**1.23**	**260**	*eP*	**Pn**	**08 18 30.3**	**-0.8**
	14nm,0.1s						
IZV				*eS*	**Sb**	**08 18 46.4**	**-0.6**
	78nm,0.2s						
MTBS	**Maitube**	**1.34**	**265**	P	**Pn**	**08 18 32.7**	**0.0**
	19nm,0.1s						
MTBS				S	**Sn**	**08 18 50.3**	**0.0**
	87nm,0.1s						
MTBS	**Maitube**	**1.34**	**265**	*eP*	**Pn**	**08 18 32.7**	**0.0**
	19nm,0.1s						
MTBS				*eS*	**Sn**	**08 18 50.3**	**0.0**
	87nm,0.1s						
KDJ	**Kajisay**	**1.39**	**215**	⇓*eP*	**Pn**	**08 18 32.5**	**-0.8**
KDJ				⇓*eS*	**Sn**	**08 18 51.3**	**-0.2**
KUU	**Kurty**	**1.53**	**295**	P	**Pn**	**08 18 35.5**	**+0.3**
	6.9nm,0.1s						
KUU				S	**Sn**	**08 18 55.2**	**+0.5**
	74nm,0.3s						
KUU	**Kurty**	**1.53**	**295**	*eP*	**Pn**	**08 18 35.5**	**+0.3**
	6.9nm,0.1s						
KUU				*eS*	**Sn**	**08 18 55.2**	**+0.5**
	74nm,0.3s						
DJR	**Jarkent**	**1.54**	**46**	P	**Pn**	**08 18 35.5**	**+0.2**
	16nm,0.2s						
DJR				S	**Sn**	**08 18 55.6**	**+0.4**
	142nm,0.3s						
DJR	**Jarkent**	**1.54**	**46**	*eP*	**Pn**	**08 18 35.5**	**+0.2**
	16nm,0.2s						
DJR				*eS*	**Sn**	**08 18 55.6**	**+0.4**
	142nm,0.3s						
KTMS	**Ketmen**	**1.54**	**83**	*eP*	**Pn**	**08 18 34.7**	**-0.7**
	7.9nm,0.1s						
KTMS				*eS*	**Sn**	**08 18 53.9**	**-1.3**
	46nm,0.2s						
TARG	**Taragay, Kyrgy**	**1.57**	**192**	⇓*eP*	**Pn**	**08 18 36.7**	**+0.6**
TARG				⇓*eS*	**Sb**	**08 18 57.3**	**+0.1**
KST	**Kastek**	**1.69**	**263**	P	**Pn**	**08 18 38.4**	**+0.8**
	5.3nm,0.2s						
KST				S	**Sb**	**08 19 00.6**	**+0.1**
	32nm,0.3s						
KST	**Kastek**	**1.69**	**263**	*eP*	**Pn**	**08 18 38.4**	**+0.8**
	5.3nm,0.2s						
KST				*eS*	**Sb**	**08 19 00.6**	**+0.1**
	32nm,0.3s						
ULHL	**Ulahol**	**1.80**	**236**	⇑*eP*	**Pn**	**08 18 39.4**	**+0.3**
ULHL				⇑*eS*	**Sn**	**08 19 02.7**	**+0.9**
DGS	**Degeres**	**1.81**	**270**	P	**Pn**	**08 18 40.6**	**+1.4**
	3.3nm,0.1s						
DGS				S	**Sb**	**08 19 04.0**	**+0.1**
	148nm,0.2s						
DGS	**Degeres**	**1.81**	**270**	*eP*	**Pn**	**08 18 40.6**	**+1.4**
	3.3nm,0.1s						
DGS				*eS*	**Sb**	**08 19 04.0**	**+0.1**
	148nm,0.2s						
KRBS	**Karabastau**	**1.93**	**284**	P	**Pb**	**08 18 42.5**	**-0.7**
	6.2nm,0.2s						
KRBS				S	**Sb**	**08 19 07.3**	**+0.1**
	109nm,0.3s						
KRBS	**Karabastau**	**1.93**	**284**	*eP*	**Pb**	**08 18 42.5**	**-0.7**
	6.2nm,0.2s						
KRBS				*eS*	**Sb**	**08 19 07.3**	**+0.1**
	109nm,0.3s						
TKM2	**Tokmak 2**	**1.98**	**261**	⇑*eP*	**Pn**	**08 18 42.2**	**+0.7**
TKM2				⇑*eS*	**Sn**	**08 19 06.6**	**+0.4**
KAPS	**Kapalarasan**	**2.17**	**21**	*eP*	**Pb**	**08 18 47.0**	**-0.3**
	15nm,0.2s						
KAPS				*eS*	**Sb**	**08 19 15.0**	**+1.0**
	185nm,0.2s						
NRN	**Naryn**	**2.48**	**223**	⇑*eP*	**Pn**	**08 18 49.9**	**+1.4**
NRN				⇑*eS*	**Sn**	**08 19 20.1**	**+1.4**
CHMS	**Chumysh**	**2.58**	**265**	⇑*eP*	**Pn**	**08 18 50.4**	**+0.8**
CHMS				⇑*eS*	**Sn**	**08 19 21.5**	**+0.8**
AAK	**Ala-Archa**	**2.83**	**258**	⇓Pg	**Pb**	**08 18 58.2**	**-0.5**
	0.6nm,0.4s						
AAK				⇑Lg	Lg	08 19 37.1	
	2.1nm,0.4s						
AAK	**Ala-Archa**	**2.83**	**258**	⇑*eP*	**Pn**	**08 18 54.1**	**+0.9**
AAK				⇑*eS*	**Sn**	**08 19 27.6**	**+0.4**
UCH	**Uchtor**	**2.95**	**251**	⇓*eP*	**Pn**	**08 18 55.9**	**+0.9**
UCH				⇓*eS*	**Sn**	**08 19 30.2**	**-0.2**
EKS2	**Erkin-Say**	**3.34**	**261**	⇑*eP*	**Pn**	**08 19 01.1**	**+0.9**
EKS2				⇑*eS*	**Sn**	**08 19 39.8**	**+0.1**
MRKS	**Merke**	**3.73**	**264**	*eP*	**Pb**	**08 19 14.4**	**+0.5**
	1.3nm,0.4s						
MRKS				*eS*	**Sb**	**08 20 01.9**	**+3.0**
	6.6nm,0.3s						
MNAS	**Manas**	**4.30**	**262**	⇑*eP*	**Pn**	**08 19 14.4**	**+1.1**
MNAS				⇑*eS*	**Sn**	**08 20 02.8**	**-0.5**
MAKZ	**Makanchi**	**4.42**	**35**	⇓Lg	Lg	08 20 24.4	
	3.8nm,0.6s						
MK31	**Makanchi Array**	**4.54**	**38**	Pn	**Pn**	**08 19 16.0**	**-0.5**
	0.1nm,0.3s,baz=208,slow=15,SNR=12						
MK31				⇓Sn	**Sn**	**08 20 09.7**	**+0.6**
	0.2nm,0.3s,baz=216,slow=20,SNR=4.5						
MK31				⇑Lg	Lg	08 20 29.4	
	1.5nm,0.5s,baz=218,slow=28,SNR=8.7						
KK31	**Karatay Array**	**5.67**	**271**	⇓Pg	**Pb**	**08 19 49.4**	**+2.6**
	0.3nm,0.3s,baz=84,slow=16,SNR=5.4						
KK31				Lg	Lg	08 21 06.7	
	3.4nm,0.6s,baz=84,slow=27,SNR=10						

*TIF **27** 08:27:53.5, 38.20N×38.58E, h10km±2km*
*IDC **27** 08:27:54.0±0.4, 38.12N×38.50E, h0km, mb4.3/26, mbtmp4.3/39, ML3.9/11, MS3.8/55, Error ellipse: s-maj=9.0km s-min=6.8km az=124.0*
*GII **27** 08:27:53.9±0.0, 38.327N±0.001×38.589E±0.001, h0km, Mwa4.7, confirmed*
*ISK **27** 08:27:53.8, 38.20N×38.62E, h2km, ML4.9/39*
*AFAD **27** 08:27:54.6, 38.21N×38.61E, h7km±2km, MW4.7*
*MOS **27** 08:27:54.3±1.0, 38.20N×38.58E, h10km, mb4.8/20, Error ellipse: s-maj=5.4km s-min=3.8km az=105.6*
*BJI **27** 08:27:55.0, 38.20N×38.60E, h8km, mB4.7/2, mb4.7/21, Ms4.4/13, Ms7 4.2/13*
*CFUSG **27** 08:27:55.2, 37.82N×38.21E, h5km, MD3.3/3, MSH3.1/3*
*NEIC **27** 08:27:55.2, 38.15N×38.65E, h1km*
*MED_RC **27** 08:27:55.0, 38.18N×38.58E, h17km, Mw4.7, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr~0.28±.06; Mθθ-0.72±.04; Mϕϕ0.00±.06; Mrθ0.46±.13; Mθϕ0.81±.06; Mrϕ0.02±.11; Fault plane solution: M₀1.28000×10¹⁶ NP1:ϕs339.00000°, δ68.00000°, λ-167.00000°. NP2:ϕs244.00000°, δ78.00000°, λ-22.00000°. Principal axes: T 1.3400, Plg7.0000°, Azm293.0000°; N -0.1100, Plg65.0000°, Azm38.0000°; P -1.2300, Plg24.0000°, Azm200.0000°;*
*NEIC **27** 08:27:56.6±1.3, 38.18N±0.04×38.64E±0.04, h10km±1km, mb4.6/50, Mwr4.6/14 Error ellipse: s-maj=6.6km s-min=5.9km az=24.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr-1.53; Mθθ-5.78; Mϕϕ7.32; Mrθ2.87; Mθϕ4.30; Mrϕ-2.85; Fault plane solution: M₀8.92000×10¹⁵ NP1:ϕs334.36000°, δ79.63000°, λ-152.58000°. NP2:ϕs239.02000°, δ63.07000°, λ-11.65000°. Principal axes: T 8.9790, Plg11.0000°, Azm104.0000°; N -0.1240, Plg61.0000°, Azm354.0000°; P -8.8550, Plg27.0000°, Azm200.0000°;*
*DSN **27** 08:27:56.6±0.3, 38.20N×38.58E, h15km, mb4.6/9 Error ellipse: s-maj=6.1km s-min=3.7km az=50.0*
*GFZ **27** 08:27:56.6±0.2, 38°N±2°×3°9E±°, h10km, M4.6/42, mb4.5/42*
*GFZ **27** 08:27:57.3, 38.17N×38.62E, h21km, Mw4.7/60, Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr0.04; Mθθ-0.31; Mϕϕ0.27; Mrθ0.07; Mθϕ1.24; Mrϕ0.24; Fault plane solution: M₀1.29942×10¹⁶ NP1:ϕs353.05070°, δ85.65616°, λ169.65822°. NP2:ϕs83.84258°, δ79.68825°, λ4.41530°. Principal axes: T 1.2981, Plg10.3775°, Azm308.0572°; N 0.0027, Plg78.7921°, Azm150.5094°; P -1.3008, Plg4.1873°, Azm38.8254°;*
*MCSM **27** 08:27:58.6±0.6, 38°N±5°×3°9E±°, h12km±4km, mb4.7, mB5.0, MLv5.0, Mw(mB)4.3*

ISC 27 08:27:54.7±1.0, 38.21N±0.02×38.61E±0.02, h4km±6km, n552, σ1°36/549, mb4.6/78, MS3.8/52, 28C-16D, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MAYA	**Malatya/Merkez**	**0.18**	**307**	P	**Pg**	**08 27 59.0**	**+0.6**
MAYA				S	**Sg**	**08 28 01.6**	**+0.8**
ELZG	**Elazig**	**0.41**	**46**	P	**Pg**	**08 28 03.0**	**+0.4**
ELZG				S	**Sg**	**08 28 08.9**	**+0.9**
CNGT	**ngs**	**0.54**	**90**	P	**Pg**	**08 28 04.9**	**-0.3**
CNGT				S	**Sg**	**08 28 12.7**	**+0.5**
SVRC	**Sivrice-ELAZID**	**0.57**	**73**	Pg	**Pg**	**08 28 05.6**	**-0.1**
SVRC				Sg	**Sg**	**08 28 14.6**	**+1.5**
SVRC				AML	AML		
URFA	**Urfa**	**0.79**	**168**	Pg	**Pg**	**08 28 09.8**	**-0.1**
URFA				Sg	**Sb**	**08 28 21.1**	**-1.1**
URFA				AML	AML		
MDNT	**Maden**	**0.86**	**78**	P	**Pg**	**08 28 11.0**	**-0.2**
MDNT				S	**Sn**	**08 28 27.1**	**+0.2**
ARPR	**Arapgir-MALATY**	**0.91**	**346**	Pg	**Pg**	**08 28 12.0**	**-0.1**
ARPR				Sg	**Sb**	**08 28 25.2**	**-0.4**
ARPR	**Arapgir-MALATY**	**0.91**	**346**	P	**Pg**	**08 28 12.0**	**-0.1**
ARPR	**Arapgir-MALATY**	**0.91**	**346**	Pg	**Pg**	**08 28 11.7**	**-0.4**
ARPR				Sg	**Sb**	**08 28 25.9**	**+0.2**
DARE	**Darende-Malaty**	**0.96**	**292**	Pg	**Pg**	**08 28 11.4**	**-1.7**
DARE				AML	AML		
KOVA	**Elazig, Kovanc**	**1.06**	**62**	P	**Pg**	**08 28 15.5**	**+0.4**
KOVA				S	**Sn**	**08 28 32.6**	**+0.7**
GZT	**Gaziantep**	**1.19**	**224**	P	**Pn**	**08 28 18.1**	**-0.3**
GZT				S	**Sn**	**08 28 35.0**	**-0.2**
DYBB	**Diyarbakir**	**1.23**	**102**	Pn	**Pn**	**08 28 18.2**	**-0.7**
DYBB				Sn	**Sn**	**08 28 35.8**	**-0.2**
DYBB				AML	AML		
ILIC	**ilic-Erzincan**	**1.24**	**358**	Pn	**Pn**	**08 28 18.2**	**-0.8**
ILIC				Sn	**Sn**	**08 28 36.5**	**+0.2**
ILIC				AML	AML		
KHMN	**Narli-Kahraman**	**1.42**	**235**	P	**Pn**	**08 28 20.5**	**-0.9**
KHMN				S	**Sg**	**08 28 40.4**	**+0.2**
KHMN	**Narli-Kahraman**	**1.42**	**235**	Pn	**Pb**	**08 28 21.1**	**-0.7**
KHMN				Sn	**Sg**	**08 28 41.2**	**+1.0**
KHMN				AML	AML		
KAHM	**Kahramanmaras,**	**1.46**	**242**	P	**Pb**	**08 28 21.9**	**-0.7**
KAHM				S	**Sg**	**08 28 41.3**	**-0.4**
GAZ	**Gaziantep**	**1.52**	**227**		**Pn**	**08 28 21.8**	**-1.1**
GAZ				Sn	**Sg**	**08 28 43.6**	**0.0**
GAZ	**Gaziantep**	**1.52**	**227**	Pn	**Pb**	**08 28 23.2**	**-0.4**
GAZ				AML	AML		
KMRS	**Kahramanmaras**	**1.53**	**243**	Pn	**Pb**	**08 28 22.7**	**-1.0**
KMRS				Sn	**Sg**	**08 28 44.1**	**+0.2**
KMRS				AML	AML		
KHMR	**Kahramanmara**	**1.60**	**238**	P	**Pn**	**08 28 22.9**	**-1.1**
KHMR				S	**Sg**	**08 28 45.2**	**-1.1**
ERZN	**Erzincan**	**1.62**	**32**	Pn	**Pn**	**08 28 24.5**	**+0.2**
ERZN				AML	AML		
TUNC	**Hafik-SIVAS**	**1.70**	**331**	Pn	**Pb**	**08 28 26.2**	**-0.5**
SARI	**SarD1z-Kayseri**	**1.74**	**277**	Pn	**Pn**	**08 28 25.9**	**0.0**
SARI				AML	AML		
BNGB	**Bingl**	**1.80**	**64**	Pn	**Pn**	**08 28 26.9**	**+0.2**
BNGB				AML	AML		
MARD	**Mardin**	**1.94**	**117**		**Pn**	**08 28 28.1**	**-0.6**
MARD				Sn	**Sn**	**08 28 52.8**	**-0.7**
YEDI	**Yedisu-Bingol**	**1.94**	**50**	Pn	**Pn**	**08 28 28.9**	**+0.2**
YEDI				AML	AML		
KELT	**Kelkit**	**2.00**	**14**	P	**Pb**	**08 28 30.7**	**-1.1**
SVAN	**Silvan-Diyarba**	**2.04**	**91**	Pn	**Pn**	**08 28 29.6**	**-0.3**
SVAN				AML	AML		
SVSK	**Karacayir**	**2.12**	**324**	Pn	**Pb**	**08 28 32.4**	**-1.3**
SVSK				AML	AML		
KARO	**Karliova-Bingo**	**2.20**	**59**	Pn	**Pn**	**08 28 32.0**	**-0.3**
KARO				AML	AML		
BNN	**Bunyan**	**2.26**	**287**		**Pb**	**08 28 34.5**	**-1.8**
BNN	**Bunyan**	**2.26**	**287**	Pn	**Pn**	**08 28 33.6**	**+0.5**
BNN				AML	AML		
KOPT	**Kop Dagi**	**2.32**	**39**		**Pb**	**08 28 35.9**	**-1.6**
KOZT	**Kozan**	**2.32**	**253**	Pn	**Pn**	**08 28 34.0**	**+0.2**
KOZT				AML	AML		
RSDY	**Resadiye-TOKAT**	**2.40**	**336**	Pn	**Pn**	**08 28 35.9**	**+1.0**
RSDY				AML	AML		
VRTB	**Varto-Mus**	**2.42**	**66**	Pn	**Pn**	**08 28 36.1**	**+0.8**
VRTB				AML	AML		
BAYT	**Aydıntepe-Bayb**	**2.48**	**28**	Pn	**Pn**	**08 28 37.0**	**+0.9**
BAYT				AML	AML		
CEYT	**Ceyhan**	**2.57**	**243**	Pn	**Pn**	**08 28 37.5**	**+0.3**
CEYT				AML	AML		
TOKT	**Tokat**	**2.65**	**323**	Pn	**Pn**	**08 28 39.3**	**+1.0**
TOKT				AML	AML		
TAHT	**Tahtakopru-Hat**	**2.67**	**227**	Pn	**Pn**	**08 28 39.6**	**+1.1**
TAHT				AML	AML		
TOKA	**Tokat**	**2.68**	**322**		**Pn**	**08 28 40.5**	**+1.

BRTR Lg Lg 08 30 05.2
13nm,0.3s,baz=122,slow=31,SNR=5.8
BRTR LR LR 08 30 52.6
comp=Z,3µm,19.4s,baz=108,slow=43
50nm,0.5s
BRTR AML AML
BRTR Keskin Array B 4.16 293 Pn 08 28 59.7 +0.5
SILI Silifke-Mersin 4.17 245 Pn 08 29 00.6 +1.4
SILI AML AML
BR105 Keskin Array S 4.17 293 P Pn 08 29 00.4 +1.0
BR105 AML AML
BR106 Keskin Array S 4.18 293 P Pn 08 29 00.6 +1.1
BR106 AML AML
OZAP Van, Ozalp-Mer 4.25 82 ⇑P Pn 08 29 03.3 +2.8
DIGO Kars 4.30 58 P Pn 08 29 02.7 +1.5
KULU Kulu 4.47 282 Pn Pn 08 29 05.3 +1.9
KULU AML AML
HWQ Hawqa 4.48 210 *eP* **Pn 08 29 02.7 -0.8**
AFSR Afar-Bala (An 4.50 288 Pn Pn 08 29 05.3 +1.5
AFSR AML AML
KKUL Konya-Kulu 4.56 284 P Pn 08 29 06.7 +2.0
EPOS Posof 4.56 43 P Pn 08 29 07.3 +2.5
SNOP Sinop 4.61 327 Pn 08 29 07.4 +2.1
ILGA Ilgaz 4.72 308 Pn 08 29 08.3 +1.3
ZAHL Zahle 4.88 208 *eP* **Pn 08 29 09.3 +0.3**
BHL Bhannes 4.92 210 *eP* **Pn 08 29 08.4 -1.2**
CY604 RAF Akrotiri, 5.09 222 Pn 08 29 11.0 -0.6
DQRL Deir Qamar 5.13 210 *eP* **Pn 08 29 12.8 +0.3**
GNI Garni 5.14 66 Pn Pn 08 29 16.4 +3.8
5.2nm,0.3s,baz=329,slow=5.2,SNR=3.0
12nm,0.3s
GNI AML AML
GNI Garni 5.14 66 Pn Pn 08 29 13.2 +0.5
BZK Bozkurt 5.15 318 Pn 08 29 14.3 +1.7
BZK Bozkurt 5.15 318 ⇑P Pn 08 29 14.5 +1.9
BZK Bozkurt 5.15 318 P Pn 08 29 15.0 +2.4
1.4nm4µm413nm,1.0s
BZK AML AML
QRWL Qaraoun 5.23 208 *eP* **Pn 08 29 13.8 0.0**
CSS Mathiatis 5.35 234 Pn 08 29 15.4 0.0
CSS Mathiatis 5.35 234 P Pn 08 29 16.0 +0.6
0.6nm1µm120nm,0.6s
CSS AML AML
CSS Mathiatis 5.35 234 P Pn 08 29 16.6 +1.3
comp=Z,120nm,0.6s
CSS Mathiatis 5.35 234 P Pn 08 29 15.3 -0.1
CSS S Sn 08 30 18.1 +0.6
VSLR Vesyoloye 5.35 11 *i* **P Pn 08 29 16.1 +0.7**
NATI Neve Ativ 5.47 206 P Pn 08 29 17.7 +0.7
NATI S Sn 08 30 22.4 +2.1
GEM Giv'at Ha'Em 5.54 207 P Pn 08 29 18.9 +0.9
GEM Giv'at Ha'Em 5.54 207 P Pn 08 29 18.6 +0.5
GEM S Sn 08 30 24.2 +2.0
KIRY Kiryat Shemona 5.57 207 P Pn 08 29 18.9 +0.4
KIRY S Sn 08 30 24.4 +1.4
CIDE Kastamonu/Cide 5.69 312 ⇑P Pn 08 29 21.7 +1.7
KSHT Keshet 5.70 204 P Pn 08 29 20.7 +0.4
KSHT S Sn 08 30 28.2 +2.1
KEPZ Antalya-Kepez 5.72 259 ⇓P Pn 08 29 22.2 +1.6
ZRT Zar'it 5.77 209 P Pn 08 29 21.5 +0.2
ZRT S Sn 08 30 29.5 +1.5
MMA0B Mount Meron ar 5.81 208 P Pn 08 29 22.4 +0.6
MMA0B S Sn 08 30 30.8 +1.8
MMAI Mount Meron Ar 5.81 208 Pn Pn 08 29 22.1 +0.4
comp=Z,32nm,0.5s,baz=43,slow=22,SNR=65
MMAI Lg Lg 08 30 55.1
comp=Z,73nm,0.3s,baz=12,slow=32,SNR=5.2
ZEFT Zefat 5.82 207 P Pn 08 29 22.6 +0.7
ZEFT S Sn 08 30 31.0 +1.9
HNTI Hanita 5.83 210 P Pn 08 29 22.0 -0.1
HNTI S Sn 08 30 30.5 +1.0
KNHM Kefar Nahum 5.86 206 P Pn 08 29 23.2 +0.7
KNHM S Sn 08 30 31.5 +1.3
RMOT Ramot 5.86 205 P Pn 08 29 23.2 +0.7
RMOT S Sn 08 30 32.0 +1.9
NEUR Neytrino 5.92 30 *i* **P Pn 08 29 23.1 -0.4**
TVER Teveria 5.97 206 P Pn 08 29 24.5 +0.6
TVER S Sn 08 30 34.8 +2.0
BLGI Bet Lehem HaGe 6.14 208 P Pn 08 29 26.8 +0.5
BLGI S Sn 08 30 38.6 +1.7
MDUB Mudurnu 6.17 294 Pn 08 29 28.5 +1.7
ASF Jabal al Asfar 6.20 194 Pn Pn 08 29 26.8 -0.3
comp=Z,7.3nm,0.3s,baz=14,slow=8.1,SNR=91
ASF Lg Lg 08 31 08.0
comp=Z,37nm,0.3s,baz=6.3,slow=19,SNR=4.8
comp=Z,98nm,0.9s
ASF AML AML
ASF Jabal al Asfar 6.20 194 P Pn 08 29 27.1 +0.1
comp=Z,16nmcomp=Z,32µmcomp=Z,2µm,0.7s
ASF AML AML
SHA1 Shidzhatmaz 6.31 28 *i* **P Pn 08 29 30.1 +1.3**
OFRI `Ofer 6.32 209 P Pn 08 29 29.1 +0.3
OFRI S Sn 08 30 43.2 +1.8
MMLI Mount Malkishu 6.32 205 P Pn 08 29 30.5 +1.6
comp=Z,427nm,1.1s
MMLI Mount Malkishu 6.32 205 P Pn 08 29 29.5 +0.7
MMLI S Sn 08 30 43.7 +2.1
CHRG Chargali 6.34 48 P Pn 08 29 31.3 +2.1
QRNJ Al-Qirein 6.37 204 P Pn 08 29 30.7 +1.3
comp=Z,261nmcomp=Z,12µmcomp=Z,485µmcomp=Z,45µm,0.7s
QRNJ AML AML
KBZ Khabaz 6.39 29 Pn Pn 08 29 33.1 +3.4
comp=Z,0.5nm,0.3s,baz=228,slow=8.9,SNR=8.4
comp=Z,2.9nm,0.5s
KBZ AML AML
ISP Isparta 6.40 269 *i* **P Pn 08 29 32.2 +2.3**
ISP Isparta 6.40 269 Pn Pn 08 29 30.5 +0.6
HSUJ Al Zarqa 6.41 199 P Pn 08 29 30.4 +0.4
comp=Z,3.3nmcomp=Z,8µmcomp=Z,555nm,0.9s
HSUJ AML AML
ROII Roi 6.48 204 P Pn 08 29 31.3 +0.4
ROII S Sn 08 30 46.7 +1.4
NCK Nalchik 6.49 34 *i* **P Pn 08 29 32.3 +1.2**
KIV Kislovodsk 6.51 27 Pn Pn 08 29 33.6 +2.2
KVAR Kislovodsk Arr 6.51 27 Pn Pn 08 29 34.0 +2.5
baz=217,slow=14
comp=Z,4.1nm,0.3s
RGMN Argaman 6.54 204 P Pn 08 29 32.5 +0.7
RGMN S Sn 08 30 48.2 +1.4
SAHE Sakarya_HENDEK 6.55 296 ⇑P Pn 08 29 34.2 +2.3
LABN Labinsk 6.62 13 *eP* **Pn 08 29 32.3 -0.5**
LABN *eS* **Sn 08 30 48.3 -0.3**
LABN pmax pmax
comp=Z,10.0nm,0.4s
SLTI Sal'it 6.64 207 P Pn 08 29 33.8 +0.7
SLTI S Sn 08 30 51.5 +2.3
ANN Anapa 6.64 353 *eP* **Pn 08 29 31.5 -1.6**
ANN *eS* **Sn 08 30 48.5 -0.7**
ANN pmax pmax
comp=Z,13nm,0.8s
ANN MLR MLR
comp=Z,261nm,11.0s
ARIL Ariel Universi 6.70 206 P Pn 08 29 34.8 +0.8
ARIL S Sn 08 30 52.3 +1.3
SALP Salfit 6.74 206 P Pn 08 29 36.0 +1.4
comp=Z,2.7nmcomp=Z,5µmcomp=Z,422nm,0.9s
SALP AML AML
UJAP Al Uja 6.76 203 P Pn 08 29 35.6 +0.8
UJAP S Sn 08 30 53.8 +1.6
YITV Yitav 6.78 204 P Pn 08 29 35.6 +0.7
YITV S Sn 08 30 54.5 +1.9
JER Jerusalem 7.01 205 P Pn 08 29 39.2 +0.9
JER S Sn 08 31 00.4 +1.8
ELL Elmali 7.07 261 P Pn 08 29 40.3 +1.1
ELL Elmali 7.07 261 Pn Pn 08 29 40.3 +1.1
SWQJ Karak 7.10 198 P Pn 08 29 40.8 -1.0
comp=Z,0.7nmcomp=Z,632nmcomp=Z,43nm,0.6s
SWQJ AML AML
YAL Yalta 7.11 333 *eP* **Pn 08 29 43.1 +3.6**
YAL pmax pmax 08 29 48.7
comp=Z,6.0nm,0.3s
YAL *ex* x 08 31 08.6
YAL smax smax 08 31 10.2
comp=N,7.0nm,0.3s
YAL smax smax 08 31 10.2
comp=E,9.0nm,0.2s
MZS Mizpe Shalem 7.13 203 P Pn 08 29 40.4 +0.5
MZS S Sn 08 31 03.6 +2.2
SUDU Sudak 7.20 339 *eP* Pn 08 29 45.9 +5.1
SUDU pmax pmax 08 29 47.1
comp=Z,3.0nm,0.3s
SUDU *ex* x 08 31 12.5

SUDU smax smax 08 31 13.2
comp=N,8.0nm,0.2s
SUDU smax smax 08 31 13.2
comp=E,4.0nm,0.3s
AMAZ Amatzia 7.32 206 P Pn 08 29 45.7 +3.1
comp=E,2.7nmcomp=E,7µmcomp=E,239nm,0.7s
AMAZ AML AML
AMAZ Amatzia 7.32 206 P Pn 08 29 43.3 +0.7
AMAZ S Sn 08 31 08.2 +2.0
GHAJ Ghor Haditha 7.33 201 Pn Pn 08 29 42.7 +0.1
GHAJ Ghor Haditha 7.33 201 P Pn 08 29 43.1 +0.4
comp=E,2.1nmcomp=E,3µmcomp=E,229nm,0.5s
GHAJ AML AML
GHAJ Ghor Haditha 7.33 201 P Pn 08 29 42.9 +0.3
comp=Z,230nm,0.5s
GHAJ Ghor Haditha 7.33 201 P Pn 08 29 43.0 +0.4
GHAJ S Sn 08 31 08.2 +1.8
SEV Sevastopol' 7.34 331 *eP* **Pn 08 29 46.5 +3.9**
SEV pmax pmax 08 29 50.9
comp=Z,4.0nm,0.4s
SEV *ex* x 08 31 14.3
SEV smax smax 08 31 18.5
comp=N,3.0nm,0.4s
SEV smax smax 08 31 18.5
comp=E,2.0nm,0.5s
MSBI Mazada 7.39 202 P Pn 08 29 44.4 +1.1
comp=E,0.2nmcomp=E,424nmcomp=E,13nm,0.6s
MSBI AML AML
MSBI Mazada 7.39 202 P Pn 08 29 44.0 +0.7
comp=Z,52nm,0.6s
MSBI Mazada 7.39 202 P Pn 08 29 44.0 +0.7
MSBI S Sn 08 31 09.0 +1.4
LISJ El Lisan 7.42 201 P Pn 08 29 44.8 +1.0
comp=Z,1.2nmcomp=Z,2µmcomp=Z,163nm,0.7s
LISJ AML AML
AKAS Kas 7.45 257 Pn 08 29 44.5 +0.1
SILT Sile 7.51 296 ⇑P Pn 08 29 47.4 +2.3
SIM Simferopol' 7.53 335 P Pb 08 29 56.8 -9.0
SIM pmax pmax
comp=Z,26nm,1.0s
YLV Yalova 7.53 291 P Pn 08 29 46.9 +1.5
comp=Z,0.3nmcomp=Z,721nmcomp=Z,72nm,1.0s
YLV AML AML
ERBR Yeremizino-Bor 7.62 10 *eP* **Pn 08 29 47.0 +0.4**
ERBR *eS* **Sn 08 31 14.7 +1.2**
ERBR pmax pmax
comp=Z,8.0nm,0.6s
TAVA DENIZLI_Tavas 7.71 267 ⇑P Pn 08 29 50.4 +2.5
MANT Manisa 7.91 275 Pn 08 29 52.4 +1.7
KLYT Kilyos 7.97 295 ⇑P Pn 08 29 52.6 +1.2
KLYT Kilyos 7.97 295 P Pn 08 29 53.1 +1.7
comp=Z,0.3nmcomp=Z,795nmcomp=Z,59nm,0.8s
KLYT AML AML
KZIT Kziot 8.07 207 P Pn 08 29 55.2 +2.4
comp=Z,1.1nmcomp=Z,3µmcomp=Z,94nm,1.0s
KZIT AML AML
KZIT Kziot 8.07 207 P Pn 08 29 54.0 +1.1
comp=Z,94nm,1.0s
KZIT Kziot 8.07 207 P Pn 08 29 53.6 +0.7
KZIT S Sn 08 31 26.4 +1.8
ZFRI Zfri 8.15 201 P Pn 08 29 54.3 +0.5
ZFRI S Sn 08 31 28.7 +2.3
RMNI Mount Ramon 8.24 204 P Pn 08 29 56.1 +1.0
RMNI S Sn 08 31 30.7 +2.0
HSNJ Maan 8.30 198 P Pn 08 29 56.9 +0.9
comp=Z,15µmcomp=Z,701nm,0.7s
PRNI Paran 8.39 202 P Pn 08 29 58.0 +0.8
comp=Z,2.1nmcomp=Z,5µmcomp=Z,352nm,0.7s
PRNI AML AML
BAND Balkesir-Ban 8.43 288 ⇓P Pn 08 29 58.6 +0.9
BALB Balikesir 8.49 283 Pn Pn 08 30 01.2 +2.7
CTYL Yalikoy Yolu 8.58 296 ⇓P Pn 08 30 01.5 +1.7
CTYL Yalikoy Yolu 8.58 296 P Pn 08 30 01.5 +1.7
comp=Z,42nm,0.5s
HRFI Mount Harif 8.68 201 P Pn 08 30 02.4 +1.3
comp=Z,0.4nmcomp=Z,1µmcomp=Z,71nm,0.8s
HRFI AML AML
HRFI Mount Harif 8.68 201 P Pn 08 30 00.4 -0.7
comp=Z,71nm,0.8s
HRFI Mount Harif 8.68 201 P Pn 08 30 01.7 +0.5
HRFI S Sn 08 31 41.1 +1.6
BDRM Kayabasi 8.93 266 ⇓P Pn 08 30 06.7 +2.1
AQBJ Aqaba 8.96 200 P Pn 08 30 06.2 +1.1
comp=Z,1.3nmcomp=Z,5µmcomp=Z,155nm,0.9s
AQBJ AML AML
EIL Elat 9.05 201 Pn Pn 08 30 06.2 +0.1
comp=Z,1.1nm,0.3s,baz=2.1,slow=14,SNR=14
EIL Lg Lg 08 32 35.4
comp=Z,1.9nm,0.3s,baz=106,slow=7.9,SNR=1.0
comp=Z,13nm,0.7s
EIL AML AML
EIL Elat 9.05 201 P Pn 08 30 07.0 +0.8
comp=Z,0.4nmcomp=Z,1µmcomp=Z,58nm,0.8s
EIL AML AML
EIL Elat 9.05 201 P Pn 08 30 06.8 +0.7
comp=Z,58nm,0.8s
EIL Elat 9.05 201 P Pn 08 30 06.4 +0.2
EIL S Sn 08 31 49.9 +1.4
EFOR EFORIE 9.54 311 ⇑P Pn 08 30 13.6 +0.7
KARP Karpathos 9.55 257 Pn 08 30 12.3 -0.9
KARP Karpathos 9.55 257 P Pn 08 30 13.5 +0.4
comp=Z,74nm,0.9s
KARP Karpathos 9.55 257 P Pn 08 30 12.9 -0.2
comp=Z,74nm,0.9s
EZN Ezine 9.70 283 P Pn 08 30 16.4 +1.4
EZN Ezine 9.70 283 ⇑P Pn 08 30 16.5 +1.4
MFTR Murfatlar 9.72 311 ⇑P Pn 08 30 16.3 +1.0
TIRR Tirgusor 9.88 312 P Pn 08 30 19.6 +2.1
TIRR Tirgusor 9.88 312 Pn 08 30 18.2 +0.7
TIRR Tirgusor 9.88 312 ⇑P Pn 08 30 19.7 +2.1
TLCR 10.10 317 P Pn 08 30 22.4 +1.8
TLCR 10.10 317 ⇑P Pn 08 30 22.5 +1.8
TPGR Topolog 10.12 314 ⇓P Pn 08 30 21.3 +0.5
TLBR Topalu 10.15 312 ⇑P Pn 08 30 22.5 +1.3
CFR Carcaliu 10.47 315 P Pn 08 30 26.4 +0.8
CFR Carcaliu 10.47 315 ⇑P Pn 08 30 26.4 +0.8
ISR Istrita 11.36 311 P Pn 08 30 39.8 +2.0
ISR Istrita 11.36 311 ⇓P Pn 08 30 39.8 +2.0
IDI Anoyia 11.39 259 Pn Pn 08 30 36.8 -1.5
comp=Z,4.9nm,0.3s,baz=89,slow=14,SNR=33
comp=Z,38nm,0.6s
IDI AML AML
IDI Anoyia 11.39 259 Pn 08 30 37.6 -0.8
BISRR Bisoca 11.50 313 P Pn 08 30 40.9 +1.1
comp=Z,36nm,0.7s
VRI Vrincioaia 11.68 315 P Pn 08 30 42.8 +0.7
VRI Vrincioaia 11.68 315 ⇑P Pn 08 30 42.8 +0.7
PLOR Plostina 11.71 314 P Pn 08 30 44.7 +2.1
PLOR Plostina 11.71 314 ⇑P Pn 08 30 44.8 +2.1
PDRR Padureni 11.88 320 ⇑P Pn 08 30 45.3 +0.5
MLR Muntele Rosu 11.91 312 Pn Pn 08 30 45.5 0.0
comp=Z,5.8nm,0.9s,baz=90,slow=23,SNR=6.2
MLR LR LR 08 36 01.5
comp=Z,496nm,21.0s,baz=354,slow=41
MLR Muntele Rosu 11.91 312 P Pn 08 30 47.5 +2.0
MLR Muntele Rosu 11.91 312 Pn 08 30 46.4 +0.9
MLR Muntele Rosu 11.91 312 ⇑P Pn 08 30 47.6 +2.0
MLR Muntele Rosu 11.91 312 P Pn 08 30 47.4 +2.0
comp=Z,15nm,1.3s
MLR Muntele Rosu 11.91 312 P Pn 08 30 47.7 +2.3
comp=Z,18nm,1.6s
COVR Voineasa-Covas 11.96 314 ⇓P Pn 08 30 48.1 +2.0
TESR Tescani 12.12 317 ⇑P Pn 08 30 48.7 +0.6
TESR Tescani 12.12 317 P Pn 08 30 48.1 0.0
comp=Z,18nm,0.7s
TESR Tescani 12.12 317 P Pn 08 30 48.1 0.0
comp=Z,25nm,1.0s
ONER Baraj Valea Uz 12.14 316 ⇓P Pn 08 30 50.2 +1.6
TURR Turia 12.19 314 ⇑P Pn 08 30 51.4 +2.2
OZUR 12.34 314 ⇓P Pn 08 30 52.5 +1.2
SORM Soroca 12.41 326 P Pn 08 30 53.8 +1.6
SORM Soroca 12.41 326 ⇑P Pn 08 30 53.9 +1.6
VOIR 12.42 310 P Pn 08 30 54.2 +1.9
VOIR 12.42 310 ⇑P Pn 08 30 54.2 +1.9
VOIR 12.42 310 P Pn 08 30 54.2 +1.9
comp=Z,15nm,1.1s
VOIR 12.42 310 P Pn 08 30 54.6 +2.3
comp=Z,15nm,1.3s
ARR Arges 12.64 309 ⇓P Pn 08 30 57.6 +2.2
BIZ Bicaz 12.68 317 ⇓P Pn 08 30 56.4 +0.6
VORD Divnogorie 12.76 2 *eP* Pn 08 31 09.6 +13
VORD pmax pmax
comp=Z,10.0nm,1.0s
VSR Storozhevoye 13.01 2 *eP* **P 08 31 10.3 -0.7**

VSR pmax pmax
comp=Z,10.0nm,1.0s
VRH Novokhopyorsk 13.17 9 *eP* **P 08 31 10.7 -2.1**
VRH pmax pmax
comp=Z,13nm,0.4s
LOT Lotru 13.21 308 ⇑P Pn 08 31 05.4 +2.2
LOT Lotru 13.21 308 P Pn 08 31 05.4 +2.2
comp=Z,27nm,1.3s
ITM Ithomi 13.26 271 Pn 08 31 03.1 -0.7
VORR Voronezh 13.46 2 *eP* **P 08 31 13.1 -2.9**
VORR pmax pmax
comp=Z,91nm,0.4s
BURAR Bucovina Array 13.57 318 P Pn 08 31 08.8 +0.7
BURAR Bucovina Array 13.57 318 Pn 08 31 07.8 -0.3
BURAR Bucovina Array 13.57 318 ⇑P Pn 08 31 08.9 +0.7
BOVS Bovan 13.88 298 ⇓P Pn 08 31 14.1 +1.9
AK07 Malin Array Si 14.03 335 P Pn 08 31 15.9 +1.6
LUBAR Lubar, Ukraine 14.05 330 P Pn 08 31 15.6 +1.1
AK10 Malin Array Si 14.06 335 P Pn 08 31 15.3 +0.7
AK09 Malin Array Si 14.06 335 P Pn 08 31 15.3 +0.6
AK06 Malin Array Si 14.07 335 P Pn 08 31 15.2 +0.5
AK08 Malin Array Si 14.09 335 P Pn 08 31 15.6 +0.6
AK02 Malin Array Si 14.12 335 P Pn 08 31 15.9 +0.4
AK01 Malin Array Si 14.15 335 P Pn 08 31 16.7 +0.8
AK11 Malin Array Si 14.15 335 P Pn 08 31 16.7 +0.8
AKASG Malin Array Be 14.15 335 Pn Pn 08 31 15.6 -0.3
comp=Z,0.5nm,0.3s,baz=152,slow=13,SNR=6.1
comp=Z,2.2nm,0.7s
AKASG AML AML
AKBB Malin Array Si 14.15 335 *i* **P Pn 08 31 15.8 -0.1**
AKBB pmax pmax
comp=Z,9.0nm,1.0s
AKBB Malin Array Si 14.15 335 P Pn 08 31 16.8 +0.9
KIEV Kiev 14.15 335 P Pn 08 31 16.5 +0.5
KIEV Kiev 14.15 335 P Pn 08 31 16.7 +0.8
KIEV Kiev 14.15 335 Pn 08 31 16.7 +0.8
KIEV Kiev 14.15 335 P Pn 08 31 16.5 +0.5
comp=Z,10nm,0.8s
AK16 Malin Array Si 14.17 335 P Pn 08 31 16.8 +0.7
AK04 Malin Array Si 14.19 335 P Pn 08 31 16.8 +0.3
AK17 Malin Array Si 14.20 334 P Pn 08 31 17.0 +0.5
MARR Marisel-Cluj 14.21 311 ⇓P Pn 08 31 17.7 +0.9
AK18 Malin Array Si 14.22 335 P Pn 08 31 17.2 +0.3
AK21 Malin Array Si 14.28 335 P Pn 08 31 18.0 +0.3
LPSR Galich'ya Gora 14.39 1 *eP* **Pn 08 31 18.8 -0.4**
LPSR pmax pmax
comp=Z,20nm,1.0s
MI30 MI30,Zelenitsa 14.55 333 P Pn 08 31 21.3 -0.1
comp=Z,16nm,1.3s
BZS Buzias 14.64 306 P Pn 08 31 24.7 +2.0
comp=Z,6.4nm,1.2s
PDG Podgorica 15.35 292 Pn Pn 08 31 31.8 -0.4
PDG IAmb IAmb 08 31 58.3
comp=Z,20nm,0.9s
PDG Podgorica 15.35 292 P P 08 31 35.2 -1.8
comp=Z,24nm,1.2s
BELG Belogornoye 15.51 21 Pn Pn 08 31 35.1 +0.9
comp=Z,1.6nm,0.3s,baz=194,slow=19,SNR=4.3
BELG LR LR 08 38 12.8
comp=Z,252nm,18.2s,baz=221,slow=40
comp=Z,12nm,0.5s
BELG AML AML
RNPP8 Varash 15.91 330 P Pn 08 31 38.9 -0.5
PSZ Piszkesteto 16.73 311 P P 08 31 51.4 -1.0
PSZ pmax pmax
comp=Z,25nm,1.2s
PSZ Piszkesteto 16.73 311 Pn P 08 31 51.4 -1.0
PSZ Piszkesteto 16.73 311 P P 08 31 51.9 -0.4
comp=Z,18nm,1.1s
MORH Mrgy, Hungar 16.79 305 P P 08 31 52.6 -0.3
comp=Z,16nm,1.2s
MORH Mrgy, Hungar 16.79 305 P P 08 31 52.7 -0.3
comp=Z,18nm,1.1s
OBN Obninsk 16.96 356 LR LR 08 39 02.6
comp=Z,276nm,21.1s,baz=172,slow=39
OBN Obninsk 16.96 356 ⇓ *eP* **P 08 31 54.7 -0.1**
OBN S Sn 08 35 02.0 +0.4
OBN pmax pmax
comp=Z,4.0nm,0.4s
OBN MLR MLR
comp=Z,240nm,18.0s
TIP Timpagrande 17.09 280 ⇓P P 08 31 55.9 -0.5
TIP Timpagrande 17.09 280 P P 08 31 58.1 +1.7
comp=Z,91nm,1.5s
MATE Matera 17.10 285 P P 08 31 57.4 +1.0
BLY Banja Luka 17.31 299 P P 08 32 00.9 +2.1
comp=Z,9.6nm,1.0s
MOS Moscow 17.55 358 *eP* **P 08 32 06.2 +5.0**
MOS pmax pmax
comp=Z,43nm,1.1s
LANS Liptovska Anna 17.59 315 *eP* **P 08 32 05.2 +3.3**
LANS Liptovska Anna 17.59 315 *eP* **P 08 32 05.2 +3.3**
VYHS Vyhne 17.63 312 *eP* **P 08 32 06.5 +4.3**
VYHS pmax pmax
comp=Z,21nm,1.8s
VYHS Vyhne 17.63 312 *eP* **P 08 32 06.5 +4.3**
VYHS Vyhne 17.63 312 P P 08 32 03.3 +1.1
comp=Z,4.2nm,1.5s
ACER Acerenza 17.68 285 Pn P 08 32 01.9 -1.0
KIJV Kijevo 17.69 296 P P 08 32 03.7 +0.8
comp=Z,54nm,0.9s
CUC Castrocucco 17.78 283 P P 08 32 04.0 0.0
CUC IAmb IAmb 08 32 11.4
comp=Z,55nm,1.0s
CUC Castrocucco 17.78 283 P P 08 32 06.7 +2.7
comp=Z,59nm,1.0s
MARCO Tramutola 17.78 284 P P 08 32 07.2 +3.1
comp=Z,35nm,0.9s
CEL Celeste 17.85 277 P P 08 32 05.2 +0.4
CEL IAmb IAmb 08 32 09.9
comp=Z,30nm,0.9s
CEL Celeste 17.85 277 P P 08 32 05.9 +1.1
comp=Z,37nm,1.0s
MPLH Magyarpolny 17.85 307 P P 08 32 06.1 +1.4
comp=Z,17nm,1.2s
MNK Minsk 17.86 339 *i* **P Pn 08 32 02.7 -1.3**
MNK *i* **S Sn 08 35 23.2 -0.2**
MNK pmax pmax
comp=E,24nm,0.7s
MNK pmax pmax
comp=N,21nm,0.8s
MNK pmax pmax
comp=Z,21nm,0.8s
MNK MLR MLR
comp=E,178nm,14.0s
MNK MLR MLR
comp=N,221nm,19.0s
MNK MLR MLR
comp=Z,150nm,15.0s
MNK Minsk 17.86 339 *i* **P Pn 08 32 02.8 -1.3**
comp=E,24nm,0.7s
MNK *i* **P Pn 08 32 02.8 -1.3**
comp=N,21nm,0.8s
MNK *i* **P Pn 08 32 02.8 -1.3**
comp=Z,21nm,0.8s,baz=151
MNK *i* PP **PnPn 08 32 13.4 -1.2**
MNK *i* PPP PPP 08 32 21.0
MNK *i* S **Sn 08 35 23.2 -0.2**
MNK *i* SS **SnSn 08 35 37.0 +0.2**
MNK *i* SSS SSS 08 35 51.0
MNK *i* LQ LQ 08 37 05.5
MNK *i* LR LR 08 38 27.2
MNK *i* LRM MLR 08 41 04.4
comp=E,178nm,14.0s
MNK *i* LRM MLR 08 41 15.2
comp=N,221nm,18.7s
MNK *i* LRM MLR 08 41 22.1
comp=Z,150nm,14.6s
AKTO Aktyubinsk 18.43 42 P P 08 32 10.6 -0.5
comp=Z,0.2nm,0.3s,baz=222,slow=11,SNR=16
AKTO LR LR 08 41 13.9
comp=Z,622nm,19.1s,baz=210,slow=43
comp=Z,8.4nm,1.0s
AKTO AML AML
JAVC Velka Javorina 18.48 312 *eP* **Pn 08 32 12.3 +0.6**
JAVC Velka Javorina 18.48 312 P Pn 08 32 14.8 +3.1
comp=Z,10nm,1.2s
MODS Modra-Piesok 18.50 310 *eP* **Pn 08 32 12.6 +0.6**
MODS pmax pmax
comp=Z,3.0nm,0.6s
MODS Modra-Piesok 18.50 310 *eP* **Pn 08 32 12.5 +0.6**
MODS Modra-Piesok 18.50 310 P Pn 08 32 13.8 +1.9
comp=Z,27nm,1.0s
NACGM Naroch 18.53 338 *eP* **Pn 08 32 12.1 -0.1**
comp=N,20nm,0.9s

SOP Sopron 18.66 308 P **Pn** **08 32 15.8 +2.0**
comp=Z,13nm,1.0s
PAOL Paolisi 18.72 286 P **Pn** **08 32 15.6 +0.9**
RONA Rosalia, Austr 18.83 307 *i* Pn **Pn** **08 32 17.1 +1.2**
comp=Z,11nm,1.7s
AB31 Akbulak array 18.89 47 P **P** **08 32 15.7 -0.4**
MORC Moravsky Berou 18.99 314 P **Pn** **08 32 18.7 +0.8**
MORC Moravsky Berou 18.99 314 **Pn** **08 32 18.4 +0.5**
MORC Moravsky Berou 18.99 314 *e*P **Pn** **08 32 17.9 0.0**
MORC Moravsky Berou 18.99 314 ||P **Pn** **08 32 18.8 +0.8**
MORC Moravsky Berou 18.99 314 P **Pn** **08 32 19.3 +1.4**
comp=Z,14nm,0.8s
SUW Suwalki 19.01 331 *e*P **Pn** **08 32 18.9 +0.8**
SUW Suwalki 19.01 331 P **Pn** **08 32 18.4 +0.3**
SUW Suwalki 19.01 331 P **Pn** **08 32 18.4 +0.3**
VAE Valguarnera 19.12 275 LR LR 08 41 17.7
comp=Z,271nm,19.1s,baz=124,slow=42
WINA Alland / Wiene 19.12 308 *i* P **Pn** **08 32 23.0 +3.5**
comp=Z,22nm,1.3s
ARSA Arzberg 19.16 306 *i* pP **Pn** **08 32 21.8 +1.8**
comp=Z,1.1nm,0.4s
CONA Conrad Observa 19.19 308 *e*Pn **Pn** **08 32 21.1 +0.7**
comp=Z,12nm,1.3s
INTR Introdacqua 19.25 289 P **Pn** **08 32 21.4 +0.2**
INTR IAmb IAmb 08 32 28.2
comp=Z,35nm,1.0s
SOKA Soboth 19.30 304 *i* Pn **Pn** **08 32 22.9 +1.2**
comp=Z,6.6nm,1.2s
VRAC Vranov 19.32 312 P **Pn** **08 32 21.8 0.0**
comp=Z,0.6nm,0.3s,baz=108,slow=13,SNR=5.9
VRAC LR LR 08 39 34.0
comp=Z,206nm,21.3s,baz=105,slow=36
comp=Z,1.5nm,0.3s
VRAC AML AML
VRAC Vranov 19.32 312 *e*P **Pn** **08 32 21.5 -0.3**
VRAC Vranov 19.32 312 P **Pn** **08 32 24.2 +2.4**
comp=Z,3.4nm,1.1s
BANOM Banah 19.32 124 P **Pn** **08 32 22.5 +0.5**
KRUC Moravsky 19.32 311 *e*P **Pn** **08 32 21.8 -0.1**
KRUC Moravsky 19.32 311 P **Pn** **08 32 22.5 +0.6**
comp=Z,15nm,1.1s
HRA Herat 19.41 94 P **Pn** **08 32 23.1 -0.2**
OBKA Obir 19.57 303 *i* pP **Pn** **08 32 26.7 +1.8**
comp=Z,10nm,1.0s
OBKA Obir 19.57 303 P **Pn** **08 32 26.8 +1.9**
comp=Z,20nm,1.0s
KRLC Kraliky 19.57 314 P **Pn** **08 32 25.6 +0.8**
comp=Z,16nm,1.0s
NAZ Nazwa, Dubai 19.57 127 P **Pn** **08 32 24.0 -1.0**
MSFE Esma-Masafi 19.62 126 P **Pn** **08 32 24.7 -1.0**
ASUD Al Ashush, Dub 19.63 129 P **Pn** **08 32 24.8 -0.9**
AQU L'Aquila 19.65 290 P **Pn** **08 32 25.2 -0.7**
AQU pmax pmax
comp=Z,70nm,1.0s
AQU L'Aquila 19.65 290 P **Pn** **08 32 25.2 -0.7**
AQU L'Aquila 19.65 290 P **Pn** **08 32 27.0 +1.1**
comp=Z,666nmcomp=Z,58nm,1.0s
AQU L'Aquila 19.65 290 P **Pn** **08 32 26.9 +1.0**
comp=Z,72nm,1.0s
SESA Seetaler Alpe, 19.73 304 *i* Pn **Pn** **08 32 27.7 +0.7**
comp=Z,13nm,1.9s
ABNA Allensteig Bun 19.74 309 *i* Pn **Pn** **08 32 27.7 +0.8**
comp=Z,3.6nm,0.7s
MDH Madha 19.75 126 P **Pn** **08 32 26.3 -0.9**
GUMA Gualdo di Mace 19.75 292 P **Pn** **08 32 26.7 -0.5**
GUMA IAmb IAmb 08 32 41.4
comp=Z,34nm,0.9s
NRCA Norcia 19.89 291 **Pn** **08 32 27.8 -1.0**
NRCA IAmb IAmb 08 32 44.9
comp=Z,25nm,1.0s
FDMO Fiordimonte 19.93 292 P **Pn** **08 32 28.3 -1.0**
FDMO IAmb IAmb 08 32 34.0
comp=Z,32nm,0.9s
UOSS Minazif 19.94 126 P **Pn** **08 32 28.3 -1.1**
UOSS Minazif 19.94 126 P **P** **08 32 28.0 +0.2**
UOSS IAmb IAmb 08 32 40.3
comp=Z,24nm,0.8s
DPC Dobruska-Polom 19.96 315 *e*P **Pn** **08 32 29.3 -0.2**
DPC Dobruska-Polom 19.96 315 *e*P **Pn** **08 32 29.3 -0.2**
DPC Dobruska-Polom 19.96 315 P **Pn** **08 32 29.6 +0.1**
comp=Z,9.3nm,0.8s
TREC Trest 19.96 311 P **Pn** **08 32 29.7 +0.2**
comp=Z,18nm,1.1s
ASHO Ashiyiah 20.04 127 P **P** **08 32 29.0 +0.1**
CLTB Caltabellotta 20.04 276 P Pn 08 32 32.2 +1.6
comp=Z,156nm,1.6s
SABO M.te Sabotino 20.06 301 P Pn 08 32 30.6 -0.1
SABO IAmb IAmb 08 32 44.7
comp=Z,24nm,1.1s
DRE Drenchia 20.08 301 P Pn 08 32 31.3 +0.4
comp=Z,32nm,1.2s
MOA Molln 20.16 306 *i* Pn Pn 08 32 32.3 +0.4
comp=Z,7.5nm,1.0s,SNR=12
MOA Molln 20.16 306 P Pn 08 32 32.4 +0.5
comp=Z,26nm,0.8s
MYKA Terra Mystica 20.20 303 *i* Pn Pn 08 32 33.2 +0.8
comp=Z,12nm,0.7s
PRED Cave del Predi 20.20 302 P Pn 08 32 31.8 -0.6
PRED IAmb IAmb 08 32 39.2
comp=Z,34nm,1.5s
UPC Upice 20.21 315 *e*P Pn 08 32 32.3 -0.1
UPC Upice 20.21 315 *e*P Pn 08 32 32.3 -0.1
UPC Upice 20.21 315 P Pn 08 32 31.8 -0.6
comp=Z,17nm,0.9s
KSP Ksiaz 20.22 316 P Pn 08 32 32.1 -0.4
comp=Z,12nm,0.9s
CHVC Chvalec 20.22 315 *e*P Pn 08 32 32.5 -0.1
CHVC Chvalec 20.22 315 *e*P Pn 08 32 32.5 -0.1
ACOM Acomizza, Ital 20.26 302 P Pn 08 32 34.3 +1.0
comp=Z,63nm,1.3s
CESX Cesi 20.27 291 P Pn 08 32 31.6 -1.6
CESX IAmb IAmb 08 32 43.1
comp=Z,39nm,1.1s
ALNE Al Ain 20.31 129 P **P** **08 32 32.0 +0.3**
MURB Monte Urbino 20.36 293 P Pn 08 32 33.2 -1.2
MURB IAmb IAmb 08 32 43.8
comp=Z,51nm,1.1s
CKRC Cesky Krumlov 20.48 309 *e*P Pn 08 32 35.0 -0.6
CKRC Cesky Krumlov 20.48 309 *e*P Pn 08 32 35.0 -0.6
BIOA Bad Ischl, Aus 20.51 306 *e*P Pn 08 32 35.6 -0.4
comp=Z,5.4nm,0.5s
KBA Koelnbreinsper 20.52 304 *i* Pn Pn 08 32 36.1 -0.2
comp=Z,14nm,1.0s,SNR=11
KBA Koelnbreinsper 20.52 304 P Pn 08 32 36.2 -0.1
comp=Z,32nm,1.1s
FUSE Fusea 20.57 302 P Pn 08 32 36.4 -0.3
comp=Z,55nm,0.9s
STAL STALIGIAL 20.73 301 P Pn 08 32 37.1 -1.5
STAL IAmb IAmb 08 32 44.2
comp=Z,32nm,1.1s
SOHO SOHO 20.73 127 P **P** **08 32 36.5 +0.1**
ZVC Zvikov 20.79 311 *e*P Pn 08 32 38.2 -1.1
GEC2 GERESS Array S 20.86 309 P Pn 08 32 38.5 -1.7
GEC2 IAmb IAmb 08 32 43.8
comp=Z,25nm,1.2s
GEC2 GERESS Array S 20.86 309 *e*P Pn 08 32 38.5 -1.7
comp=Z,13nm,0.8s,baz=103,slow=10
GERES GERESS Array B 20.86 309 P Pn 08 32 38.4 -1.8
comp=Z,10nm,0.7s,baz=115,slow=9.6,SNR=66
GERES LR LR 08 41 46.8
comp=Z,188nm,18.7s,baz=236,slow=40
comp=Z,10nm,0.7s
GERES GERESS Array B 20.86 309 P Pn 08 32 38.5 -1.7
GERES GERESS Array B 20.86 309 Pn 08 32 38.5 -1.7
ABTA Abfaltersbach 20.98 302 *i* P Pn 08 32 40.8 -0.8
comp=Z,18nm,1.4s
PVCC Panska Ves 21.03 314 P **P** **08 32 41.1 +1.7**
comp=Z,38nm,0.8s
KHC Kasperske Hory 21.05 309 P **P** **08 32 40.7 +1.0**
KHC pmax pmax
comp=Z,14nm,0.9s
KHC Kasperske Hory 21.05 309 **P** **08 32 40.7 +1.0**
KHC Kasperske Hory 21.05 309 *e*P **P** **08 32 40.6 +0.9**
comp=Z,8.2nm,0.7s
KHC Kasperske Hory 21.05 309 P **P** **08 32 40.5 +0.9**
comp=Z,17nm,0.8s
KHC Kasperske Hory 21.05 309 P **P** **08 32 40.9 +1.3**
comp=Z,17nm,0.8s
LESA Schwarzleotal 21.05 304 *e*P **P** **08 32 41.7 +1.9**
comp=Z,8.1nm,0.8s
TEOL Teolo 21.26 298 P **P** **08 32 42.8 +0.9**
CGRP Cima Grappa 21.27 300 P **P** **08 32 43.7 +1.5**
comp=Z,33nm,0.9s
KW1 Garching a.d. 21.31 306 *e*P **P** **08 32 42.7 +0.2**
baz=103,slow=10
CTI Castel Tesino 21.40 300 P **P** **08 32 44.2 +0.6**
CTI pmax pmax
comp=Z,32nm,0.9s
CTI Castel Tesino 21.40 300 P **P** **08 32 44.2 +0.6**
CTI IAmb IAmb 08 32 48.8
comp=Z,32nm,0.9s
WET Wettzell 21.48 309 *e*P **P** **08 32 44.8 +0.5**
baz=103,slow=10
BRG Berggiesshubel 21.54 314 P **P** **08 32 46.5 +1.5**
comp=Z,2nm,1.9s
BRG Berggiesshubel 21.54 314 *e*P **P** **08 32 46.4 +1.5**
BRG Amp 08 32 48.0
comp=Z,4.2nm,0.8s
BRG Berggiesshubel 21.54 314 P P 08 32 52.6 +7.6
BRG Amp 08 32 53.6
comp=Z,11nm,1.1s
KIRV Kirov 21.56 15 P **P** **08 32 44.9 0.0**
comp=Z,12nm,0.6s,baz=201,slow=6.0,SNR=7.0
KIRV LR LR 08 42 11.0
comp=Z,198nm,19.7s,baz=227,slow=40
comp=Z,12nm,0.6s
VSU Vasula 21.68 343 *ce*P **P** **08 32 47.8 +1.5**
VSU pmax pmax
comp=Z,43nm,1.0s
WTTA Wattenberg 21.69 303 *i* P **P** **08 32 49.4 +2.6**
comp=Z,24nm,1.1s
WTTA Wattenberg 21.69 303 P **P** **08 32 49.4 +2.6**
comp=Z,42nm,1.2s
WATA Walderalm 21.75 303 *e*pP **P** **08 32 51.0 +3.6**
comp=Z,16nm,0.7s
SQTA Sankt Quirin 21.96 303 *i* P **P** **08 32 51.1 +1.5**
comp=Z,9.0nm,0.6s
MOTA Moosalm 22.06 303 *i* P **P** **08 32 51.4 +0.6**
comp=Z,14nm,1.0s
SALO Salr 22.10 299 P **P** **08 32 51.5 +0.6**
SALO IAmb IAmb 08 32 58.1
comp=Z,40nm,0.9s
ROTZ Rotzenmuhle 22.11 310 *e*P **P** **08 32 52.7 +1.6**
comp=Z,18nm,1.5s,baz=103,slow=10
BE1 Monatshausen 22.13 305 *e*P **P** **08 32 53.1 +1.8**
baz=103,slow=10
TANN Tannenbergstha 22.21 312 P **P** **08 32 54.8 +2.7**
comp=Z,36nm,1.2s
PUL Pulkovo 22.22 349 P **P** **08 32 48.8 -3.2**
comp=Z,488µm,0.8s
FETA Feichten 22.23 302 *i* P **P** **08 32 54.1 +1.5**
comp=Z,28nm,1.2s
CLL Collm 22.27 314 *i* P **P** **08 32 53.6 +0.9**
CLL *e*S **S** **08 37 00.0 +1.9**
CLL pmax pmax
comp=Z,19nm,1.2s
CLL Collm 22.27 314 P **P** **08 32 54.4 +1.7**
CLL Collm 22.27 314 P **P** **08 32 53.6 +0.9**
comp=Z,11nm,1.4s
CLL Collm 22.27 314 *i* P **P** **08 32 53.6 +0.9**
comp=Z,19nm,1.2s
CLL *ex* x 08 33 05.0
CLL *e*PPP PPP 08 33 20.0
CLL *i* PPP PPP 08 33 23.7
CLL *e*S **S** **08 37 00.0 +1.9**
CLL LH 08 38 00.0
CLL LV 08 39 00.0
CLL AMS AMS 08 41 00.0
comp=N,200nm,17.5s
CLL AMS AMS 08 41 00.0
comp=E,300nm,21.8s
CLL AMS AMS 08 41 00.0
comp=Z,200nm,24.3s
RETA Reutte 22.32 303 *i* P **P** **08 32 54.2 +0.8**
comp=Z,40nm,1.6s
ARTI Arti 22.45 30 LR LR 08 42 36.7
comp=Z,119nm,19.7s,baz=228,slow=39
ARTI Arti 22.45 30 P **P** **08 32 53.0 -1.6**
ARTI S **S** **08 36 57.6 -3.9**
ARTI Arti 22.45 30 P **P** **08 32 54.9 +0.3**
FUORN Ofenpass-Fuorn 22.46 301 P **P** **08 32 56.0 +0.9**
FUORN IAmb IAmb 08 33 05.8
comp=Z,30nm,1.1s
FUORN Ofenpass-Fuorn 22.46 301 P **P** **08 32 56.8 +1.7**
comp=Z,30nm,1.2s
GRA1 Grafenberg Arr 22.68 309 **P** **08 32 57.6 +0.4**
GRF Grafenberg Arr 22.68 309 P **P** **08 32 57.6 +0.4**
GRF pmax pmax
comp=Z,70nm,1.4s
MOX Moxa 22.79 312 P **P** **08 32 59.4 +1.0**
comp=Z,12nm,1.4s
UBR Ueberruh 22.80 304 *e*P **P** **08 33 00.3 +1.8**
baz=103,slow=10
DAVA Damuels 22.86 303 *i* P **P** **08 32 59.8 +0.6**
comp=Z,30nm,0.8s,SNR=12
NEUB Neuenburg 22.92 313 P **P** **08 33 01.0 +1.4**
comp=Z,25nm,1.1s
TUE Stuetta 23.05 300 **P** **08 33 02.1 +0.8**
TUE IAmb IAmb 08 33 08.8
comp=Z,16nm,1.1s
TUE Stuetta 23.05 300 P **P** **08 33 02.4 +1.1**
comp=Z,66nm,1.1s
TUE Stuetta 23.05 300 P **P** **08 33 02.9 +1.6**
comp=Z,17nm,1.1s
KEST Kesra 23.47 273 P **P** **08 33 03.3 -2.2**
comp=Z,10nm,0.7s,baz=34,slow=1.8,SNR=15
KEST LR LR 08 44 36.6
comp=Z,175nm,18.0s,baz=47,slow=43
comp=Z,10nm,0.7s
KEST Kesra 23.47 273 P **P** **08 33 06.2 +0.7**
SVE Sverdlovsk 23.65 31 *e*P **P** **08 33 08.5 +1.6**
SVE pmax pmax
comp=Z,44nm,1.3s
BNALP Bannalp 23.75 301 P **P** **08 33 08.6 +0.3**
comp=Z,35nm,1.3s
BFO Black Forest 24.11 305 *e*P **P** **08 33 12.9 +1.4**
comp=Z,36nm,1.3s,baz=103,slow=10
SENIN Lac Senin/Sane 24.43 300 **P** **08 33 14.8 0.0**
FINES FINESS Array B 24.53 345 P **P** **08 33 15.1 0.0**
comp=Z,7.0nm,0.8s,baz=141,slow=12,SNR=8.2
comp=Z,7.0nm,0.8s
KK31 Karatay Array 24.60 68 P **P** **08 33 16.7 +0.7**
KK31 pmax pmax
comp=Z,36nm,1.0s
KK31 Karatay Array 24.60 68 P **P** **08 33 16.7 +0.7**
KKAR Karatay Array 24.60 68 P **P** **08 33 17.0 +0.9**
KKAR Karatay Array 24.60 68 P **P** **08 33 16.9 +0.9**
BNI Bardonecchia 24.72 296 P **P** **08 33 17.7 +0.5**
BNI pmax pmax
comp=Z,35nm,1.1s
BNI Bardonecchia 24.72 296 **P** **08 33 17.6 +0.5**
ECH Echery 24.85 304 P **P** **08 33 18.6 +0.3**
ECH pmax pmax
comp=Z,30nm,1.0s
ECH Echery 24.85 304 **P** **08 33 18.6 +0.3**
BTK Batken 24.98 76 P **P** **08 33 20.7 +1.1**
BTK pmax pmax
comp=Z,7.0nm,0.8s
BTK Batken 24.98 76 **P** **08 33 20.7 +1.1**
BVAR Borovoye Array 26.43 46 P **P** **08 33 34.1 +1.6**
comp=Z,3.4nm,0.7s,baz=251,slow=7.7,SNR=7.2
comp=Z,3.4nm,0.7s
HFS Hagfors 27.02 332 P **P** **08 33 38.4 +0.7**
comp=Z,1.2nm,0.5s,baz=119,slow=15,SNR=6.7
HFS LR LR 08 45 58.6
comp=Z,141nm,21.8s,baz=214,slow=40
comp=Z,1.2nm,0.5s
AAK Ala-Archa 27.54 69 LR LR 08 45 16.9
comp=Z,192nm,21.8s,baz=288,slow=38
AAK Ala-Archa 27.54 69 P **P** **08 33 43.3 +0.5**
AAK pmax pmax
comp=Z,7.0nm,1.1s
AAK Ala-Archa 27.54 69 P **P** **08 33 43.3 +0.5**
NOA NORSAR Array B 28.54 332 P **P** **08 33 51.1 -0.2**
comp=Z,1.4nm,0.8s,baz=131,slow=8.8,SNR=3.2
NOA LR LR 08 46 44.0
comp=Z,146nm,19.5s,baz=140,slow=40
comp=Z,1.4nm,0.8s
BOOM Boomskoye usch 28.61 69 P **P** **08 33 53.9 +1.5**
BOOM pmax pmax
comp=Z,8.0nm,0.8s
BOOM Boomskoye usch 28.61 69 P **P** **08 33 53.9 +1.5**
BOOM IAmb IAmb 08 33 55.7
comp=Z,8.3nm,0.8s
KSH2 Kashi 28.74 76 P **P** **08 33 55.0 +1.5**
KSH2 sP sP 08 34 03.3 +7.7
KSH2 pmax pmax
comp=Z,3.0nm,1.0s
NRN Naryn 28.75 72 P **P** **08 33 54.8 +1.0**
NRN pmax pmax
comp=Z,10.0nm,0.9s
NRN Naryn 28.75 72 **P** **08 33 54.8 +1.0**
NRN IAmb IAmb 08 33 56.8
comp=Z,10nm,0.9s
KDJ Kajisay 29.56 70 P **P** **08 34 01.5 +0.7**
KDJ pmax pmax
comp=Z,6.0nm,0.8s
KDJ Kajisay 29.56 70 P **P** **08 34 01.4 +0.7**
TARG Taragay, Kyrgy 30.06 71 P **P** **08 34 07.0 +1.5**
TARG pmax pmax
comp=Z,8.0nm,1.0s
TARG Taragay, Kyrgy 30.06 71 **P** **08 34 07.0 +1.5**
TARG IAmb IAmb 08 34 09.1
comp=Z,8.3nm,1.0s
KURBB Kurchatov Arra 30.71 53 P **P** **08 34 12.3 +1.6**
comp=Z,3.0nm,0.7s,baz=271,slow=9.4,SNR=12
KURBB LR LR 08 48 40.3
comp=Z,562nm,19.0s,baz=242,slow=40
comp=Z,3.0nm,0.7s
KURK Kurchatov 30.79 53 P **P** **08 34 12.3 +1.0**
KURK Kurchatov 30.79 53 P **P** **08 34 12.1 +0.8**
KURK IAmb IAmb 08 34 21.9
comp=Z,8.8nm,0.9s
PDGK Podgornoye 31.15 67 P **P** **08 34 15.4 +0.6**
PDGK Podgornoye 31.15 67 **P** **08 34 15.4 +0.6**
WUS Wushi 31.18 72 P **P** **08 34 16.3 +1.2**
ARCES ARCESS Array B 32.17 351 P **P** **08 34 23.5 +0.2**
comp=Z,1.4nm,0.6s,baz=162,slow=10,SNR=4.9
ARCES LR LR 08 48 11.9
comp=Z,146nm,18.9s,baz=158,slow=38
comp=Z,1.4nm,0.6s
TAM Tamanrasset 32.19 251 P **P** **08 34 24.5 +0.4**
TAM pmax pmax
comp=Z,103nm,0.2s
TAM Tamanrasset 32.19 251 P **P** **08 34 24.5 +0.4**
EKA Eskdalemuir Ar 32.73 315 P **P** **08 34 28.4 0.0**
comp=Z,2.0nm,0.6s,baz=106,slow=9.0,SNR=9.6
comp=Z,2.0nm,0.6s
ESDC Sonseca Array 32.92 286 P **P** **08 34 29.4 -0.9**
comp=Z,2.2nm,0.6s,baz=68,slow=8.8,SNR=13
ESDC LR LR 08 50 41.1
comp=Z,82nm,18.2s,baz=66,slow=42
comp=Z,2.2nm,0.6s
MK31 Makanchi Array 32.96 61 *i* P **P** **08 34 29.2 -1.3**
MKAR Makanchi Array 32.96 61 P **P** **08 34 31.3 +0.8**
comp=Z,4.7nm,0.7s,baz=272,slow=6.3,SNR=24
MKAR LR LR 08 50 27.4
comp=Z,164nm,18.9s,baz=270,slow=41
comp=Z,4.7nm,0.7s
MKAR Makanchi Array 32.96 61 P **P** **08 34 31.4 +0.9**
PBRG Braganca 34.62 291 *e*P **P** **08 34 48.6 +3.6**
ZALV Zalesovo Beam 35.00 48 P **P** **08 34 48.2 +0.1**
comp=Z,1.5nm,0.6s,baz=258,slow=10,SNR=4.5
ZALV LR LR 08 51 11.0
comp=Z,228nm,19.6s,baz=258,slow=40
comp=Z,1.5nm,0.6s
ZALV Zalesovo Beam 35.00 48 P **P** **08 34 49.0 +0.9**
ZALV Zalesovo Beam 35.00 48 P **P** **08 34 49.0 +0.9**
MDT Midelt 35.35 275 LR LR 08 51 03.2
comp=Z,79nm,19.3s,baz=89,slow=39
MD31 MD31 35.45 275 P **P** **08 34 53.4 +1.1**
MD31 IAmb IAmb 08 34 57.9
comp=Z,10nm,1.2s
MTE Manteigas 35.47 288 *e*P **P** **08 34 54.3 +1.9**
PCBR Castelo Branco 35.54 287 *e*P **P** **08 34 55.0 +2.1**
PCBR IAmb IAmb 08 34 55.7
comp=Z,33nm,1.7s
PMRV Marv??o 35.56 287 *e*P **P** **08 34 54.6 +1.4**
PBAR Barrancos 35.60 284 *e*P **P** **08 34 55.3 +1.9**
PVIS Viseu 35.67 289 *e*P P 08 34 58.1 +4.0
PGAV Gavieira, Arco 35.72 291 *e*P **P** **08 34 56.3 +1.8**
PESTR Estremoz 35.85 286 *e*P **P** **08 34 57.7 +2.2**
PESTR IAmb IAmb 08 34 59.5
comp=Z,40nm,1.6s
PCVE Castro Verde 36.50 284 *e*P **P** **08 35 02.6 +1.4**
PLOUS Minas do Lousa 36.69 285 *e*P **P** **08 35 04.0 +1.3**
WMQ Urumqi 37.01 65 *e*P **P** **08 35 08.5 +2.9**
WMQ L L
comp=Z,300nm,16.7s
WMQ L L
comp=Z,250nm,22.5s
WMQ L L
comp=Z,130nm,14.3s
MBAR Mbarara 39.30 192 LR LR 08 50 13.9
comp=Z,73nm,19.2s,baz=13,slow=34
NRIK Noril'sk 40.58 24 P **P** **08 35 36.5 +1.5**
comp=Z,6.1nm,0.8s,baz=242,slow=7.3,SNR=7.7
NRIK LR LR 08 54 12.8
comp=Z,104nm,22.0s,baz=231,slow=39
comp=Z,6.1nm,0.8s
NRIK Noril'sk 40.58 24 P **P** **08 35 36.3 +1.3**
NRIK IAmb IAmb 08 35 40.2
comp=Z,7.5nm,0.8s
SPITS Spitsbergen Ar 41.14 353 P **P** **08 35 40.7 +1.1**
comp=Z,23nm,0.9s,baz=148,slow=14,SNR=1.8
comp=Z,23nm,0.9s
TORD Torodi Ar. Bea 41.17 243 P **P** **08 35 39.7 -0.9**
comp=Z,4.6nm,0.9s,baz=44,slow=8.0,SNR=24
comp=Z,4.6nm,0.9s
TORD Torodi Ar. Bea 41.17 243 P **P** **08 35 39.6 -0.9**
KNGR Kungurtug, Tuv 42.78 53 *i* P **P** **08 35 52.9 -0.5**
KNGR pmax pmax
comp=Z,17nm,1.3s
BORG Borgarnes 43.47 327 LR LR 08 53 50.4
comp=Z,128nm,18.2s,baz=133,slow=36
TLY Talaya 46.44 51 LR LR 08 57 38.8
comp=Z,67nm,18.2s,baz=280,slow=38
TLY Talaya 46.44 51 *i* P **P** **08 36 18.7 -3.9**
TLY pmax pmax
comp=Z,5.0nm,1.5s
BRDH Bariadhala 47.65 93 LR LR 08 58 40.8
comp=Z,86nm,19.1s,baz=316,slow=39
PALK Pallekele 48.90 118 LR LR 08 57 41.2
comp=Z,87nm,22.0s,baz=318,slow=36
SONM Songino Array 49.01 56 P **P** **08 36 43.8 +1.1**
comp=Z,0.9nm,0.7s,baz=277,slow=7.3,SNR=5.8
SONM LR LR 08 59 59.8
comp=Z,941nm,18.2s,baz=289,slow=39
comp=Z,0.9nm,0.7s
SONM Songino Array 49.01 56 P **P** **08 36 44.1 +1.4**
SONM pmax pmax
comp=Z,1.0nm,0.8s
SONM Songino Array 49.01 56 P **P** **08 36 44.1 +1.4**
ULN Ulaanbaatar 49.43 56 P **P** **08 36 46.7 +0.8**
ULN pmax pmax
comp=Z,6.0nm,1.0s
ULN Ulaanbaatar 49.43 56 P **P** **08 36 46.7 +0.8**
ULN IAmb IAmb 08 36 48.2
comp=Z,5.5nm,0.9s
DBIC Dimbokro 50.29 243 P **P** **08 36 51.2 -1.4**
comp=Z,5.0nm,0.6s,baz=48,slow=7.4,SNR=8.5
DBIC LR LR 09 00 15.9
comp=Z,49nm,20.5s,baz=16,slow=39
comp=Z,5.0nm,0.6s
LZH Lanzhou 51.05 71 *e*P **P** **08 36 59.5 +1.1**
LZH sP sP 08 37 08.5 +7.9
LZH pmax pmax
comp=Z,19nm,1.0s
LZH L L
comp=Z,240nm,13.6s
LZH L L
comp=Z,230nm,14.1s
LZH L L
comp=Z,350nm,15.3s
TIXI Tiksi 54.32 23 *ce*P **P** **08 37 22.6 +0.7**
TIXI pmax pmax
comp=Z,6.0nm,1.0s
HHC Hu-ho-hao-te 54.79 63 *e*P **P** **08 37 26.8 +0.9**
HHC pmax pmax
comp=Z,7.0nm,0.6s
HHC pmax pmax
comp=Z,53nm,4.4s
HHC L L
comp=Z,180nm,19.3s
HHC L L
comp=Z,190nm,16.0s
HHC L L
comp=Z,240nm,17.7s
CMAR Chiang Mai Arr 55.67 93 P **P** **08 37 31.2 -1.1**
comp=Z,1.4nm,0.3s,baz=296,slow=6.9,SNR=7.6
CMAR LR LR 09 06 45.6
comp=Z,38nm,20.0s,baz=315,slow=42
comp=Z,1.4nm,0.3s
YAK Yakutsk 57.56 34 LR LR 09 04 41.4
comp=Z,71nm,19.9s,baz=290,slow=38
BJI2 Beijing 58.34 62 P **P** **08 37 50.5 -0.5**
BJI2 pmax pmax
comp=Z,5.0nm,0.5s
MATP Matopo 59.10 191 LR LR 09 03 59.0

comp=Z,460nm,18.7s,baz=39,slow=37
TSUM Tsumeb 60.43 203 LR LR 09 05 13.6
comp=Z,212nm,18.5s,baz=340,slow=37
DL2 Dalian 62.61 61 *eP* **P 08 38 18.5 -1.7**
DL2 pmax pmax
comp=Z,50nm,1.0s
NJ2 Nanjing 63.98 69 *eP* **P 08 38 28.5 -0.9**
NJ2 pmax pmax
comp=Z,7.0nm,0.7s
KLR Kul'dur 64.09 47 LR LR 09 09 22.8
comp=Z,103nm,18.0s,baz=302,slow=39
KLR Kul'dur 64.09 47 *i* P **P 08 38 29.1 -0.8**
KLR pmax pmax
comp=Z,19nm,2.5s
PSI Prapat 65.19 107 LR LR 09 09 02.8
comp=Z,65nm,20.5s,baz=298,slow=38
SEY Seymchan 66.26 27 *eP* **P 08 38 43.5 -0.2**
SEY pmax pmax
comp=Z,29nm,2.3s
BILL Bilibino 67.06 19 *i* P **P 08 38 47.7 -1.0**
BILL pmax pmax
comp=Z,17nm,1.5s
SCHQ Schefferville 67.60 323 P **P 08 38 51.0 -1.4**
comp=Z,3.6nm,0.7s,baz=7.0,slow=2.7,SNR=6.1
comp=Z,3.6nm,0.7s
KSRS Korea Array 67.63 59 P **P 08 38 52.6 -0.2**
KSRS LR LR 09 12 07.2
comp=Z,3.3nm,0.8s,baz=289,slow=5.8,SNR=7.3
comp=Z,299nm,18.2s,baz=300,slow=39
comp=Z,3.3nm,0.8s
BOSA Boshof 67.64 193 P **P 08 38 51.4 -1.6**
BOSA LR LR 09 08 20.5
comp=Z,4.1nm,0.8s,baz=282,slow=6.6,SNR=5.9
comp=Z,73nm,21.7s,baz=23,slow=36
comp=Z,4.1nm,0.8s
MA2 Magadan 67.72 31 LR LR 09 12 52.7
comp=Z,105nm,18.9s,baz=310,slow=40
JNU Nakatsue 72.01 62 LR LR 09 15 08.3
comp=Z,126nm,18.8s,baz=338,slow=39
SUR Sutherland 72.16 196 LR LR 09 11 46.5
comp=Z,127nm,18.7s,baz=358,slow=36
ASAJ Asahikawa 73.13 47 LR LR 09 13 31.5
comp=Z,90nm,19.8s,baz=286,slow=37
JOW Kunigami 73.70 69 LR LR 09 16 08.0
comp=Z,75nm,19.6s,baz=310,slow=39
PETK Petropavlovsk- 74.89 33 LR LR 09 16 55.1
comp=Z,87nm,19.0s,baz=28,slow=39
MJAR Matsushiro Arr 74.96 55 P **P 08 39 38.3 +1.0**
comp=Z,1.2nm,0.8s,baz=297,slow=5.4,SNR=2.0
MJAR LR LR 09 15 53.3
comp=Z,145nm,18.4s,baz=322,slow=38
comp=Z,1.2nm,0.8s
ILAR Eielson Array 77.26 2 P **P 08 39 50.9 +1.1**
comp=Z,0.3nm,0.8s,baz=356,slow=6.3,SNR=5.5
ILAR LR LR 09 20 34.2
comp=Z,36nm,18.6s,baz=57,slow=41
comp=Z,0.3nm,0.8s
YKA Yellowknife Ar 77.34 348 P **P 08 39 50.1 -0.2**
comp=Z,2.1nm,0.7s,baz=20,slow=5.1,SNR=7.8
comp=Z,2.1nm,0.7s
JHJ Hachijo jima 2 78.06 57 LR LR 09 17 59.1
comp=Z,15nm,18.9s,baz=320,slow=38
SADO Sadowa 80.15 320 LR LR 09 18 37.8
comp=Z,108nm,18.0s,baz=74,slow=38
ULM Lac du Bonnet 83.23 333 P **P 08 40 22.1 -0.1**
comp=Z,2.7nm,0.7s,baz=36,slow=8.7,SNR=4.6
comp=Z,2.7nm,0.7s
DAV Davao City (W) 83.30 86 LR LR 09 20 33.1
comp=Z,45nm,21.0s,baz=322,slow=38
JCJ Chichijima 83.44 61 LR LR 09 20 44.0
comp=Z,123nm,20.3s,baz=98,slow=38
KDAK Kodiak Island 83.90 6 LR LR 09 24 37.0
comp=Z,34nm,18.4s,baz=17,slow=40
KAPI Kappang 86.14 99 LR LR 09 25 02.6
comp=Z,15nm,18.1s,baz=304,slow=40
MDP Montagnes des 87.87 275 LR LR 09 14 50.5
comp=Z,20nm,21.9s,baz=36,slow=32
NEW Newport 91.23 344 LR LR 09 24 42.8
comp=Z,66nm,18.1s,baz=24,slow=37
BATI Baumata 92.38 101 LR LR 09 25 55.1
comp=Z,27nm,21.9s,baz=276,slow=38
PDAR Pinedale Array 94.36 337 LR LR 09 27 51.0
comp=Z,56nm,18.3s,baz=24,slow=38
SDV Santo Domingo 99.33 289 LR LR 09 22 34.5
comp=Z,27nm,21.0s,baz=126,slow=33
QSPA South Pole Qui 128.05 180 PKP **PKPdf 08 47 00.5 -0.6**
comp=Z,2.4nm,1.1s,baz=255,slow=1.6,SNR=3.7

*HEL **27** 08:31:29.9±0.1, 63.°96N×28.°04E, h0km, ML1.5, Suspected explosion*
*IDC **27** 08:31:31.3±2.7, 63.°87N×28.°73E, h0km, mbtmp2.9/2, ML1.7/2, Error ellipse: s-maj=53.8km s-min=17.8km az=100.0*
ISC 27 08:31:30.0±0.8, **63.°95N**±0.°02×**28.°16E**±0.°03, **h0km**, **n29**, σ1**s20/44**, **Finland**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
NIF	**Nilsia**	**0.59**	**195**	PG	**Pg**		**08 31 40.5**	**-0.6**
NIF				SG	**Sg**		**08 31 48.2**	**-0.5**
NIF				MSG			08 31 48.6	
	comp=Z,8.1nm,0.2s							
RMF	**Romuvaara**	**0.82**	**70**	PG	**Pg**		**08 31 45.6**	**-0.1**
RMF				MSG			08 31 56.9	
	comp=Z,4.9nm,0.2s							
RMF				SG	**Sb**		**08 31 57.4**	**-1.3**
OUL	**Oulu**	**1.50**	**320**	PN	**Pn**		**08 31 56.6**	**-1.5**
OUL				SN	**Sg**		**08 32 17.4**	**-0.6**
SUF	**Sumiainen** baz=36	**1.54**	**217**	PN	**Pn**		**08 31 57.8**	**-0.8**
SUF				MSG			08 32 15.3	
	comp=Z,1.5nm,0.2s							
SUF				SN	**Sg**		**08 32 20.6**	**+1.4**
OUF	**Merijarvi**	**1.56**	**287**	PN	**Pn**		**08 31 57.4**	**-1.5**
OUF				MSG			08 32 15.0	
	comp=Z,4.0nm,0.2s							
OUF				SN	**Sn**		**08 32 18.9**	**-0.8**
OBF4	**Vikkela, Lumij**	**1.58**	**304**	PN	**Pn**		**08 31 58.3**	**-0.9**
OBF4				MSG			08 32 15.8	
	comp=Z,4.0nm,0.2s							
OBF4				SN	**Sn**		**08 32 20.8**	**+0.5**
KU1	**Kurvinen**	**1.73**	**20**	PG	**Pn**		**08 32 01.1**	**-0.1**
KU1				SN	**Sg**		**08 32 25.2**	**-0.1**
JOF	**Joensuu** baz=306	**1.76**	**125**	PG	**Pn**		**08 32 02.2**	**+0.6**
JOF				SG	**Sg**		**08 32 26.2**	**-0.2**
KU2	**Taivalkoski**	**1.76**	**1**	PG	**Pn**		**08 32 01.7**	**0.0**
MSF	**Maaselka** baz=192	**2.00**	**10**	PG	**Pn**		**08 32 06.3**	**+1.3**
KAF	**Kangasniemi**	**2.03**	**205**	PG	**Pn**		**08 32 06.2**	**+0.8**
KAF				MSG			08 32 29.8	
	comp=Z,6.2nm,0.2s							
OBF8	**Ulkokalla**	**2.10**	**282**	PG	**Pn**		**08 32 07.1**	**+0.9**
OBF8				MSG			08 32 30.5	
	comp=Z,3.1nm,0.2s							
RANF	**Ranua**	**2.15**	**345**	PG	**Pn**		**08 32 08.2**	**+1.2**
RANF				SG	**Sb**		**08 32 36.2**	**-0.7**
KU6	**Riekki**	**2.21**	**19**	PG	**Pn**		**08 32 08.9**	**+1.1**
KU6				MSG			08 32 35.5	
	comp=Z,1.7nm,0.2s							
KU6				SG	**Sb**		**08 32 39.6**	**+1.0**
OLKF	**Oulanka, Finla**	**2.43**	**12**	PG	**Pb**		**08 32 13.2**	**-1.4**
OLKF				MSG			08 32 41.9	
	comp=Z,2.1nm,0.2s							
OLKF				SG	**Sb**		**08 32 44.6**	**-0.4**
RUF	**Ruokolahti**	**2.57**	**171**	PG	**Pb**		**08 32 16.2**	**-0.6**
RUF				MSG			08 32 46.1	
	comp=Z,3.3nm,0.2s							
RUF				SG	**Sb**		**08 32 49.5**	**+0.7**
VAF	**Ylistaro**	**2.62**	**252**	PG	**Pn**		**08 32 15.7**	**+2.2**
VAF				MSG			08 32 45.8	
	comp=Z,2.7nm,0.2s							
VAF				SG	**Sb**		**08 32 50.0**	**-0.4**
TOF	**Tornio**	**2.68**	**324**	PB	**Pn**		**08 32 15.6**	**+1.3**
TOF				MSG			08 32 47.6	
	comp=Z,1.0nm,0.2s							
TOF				SB	**Sn**		**08 32 49.1**	**+1.7**
FIA0	**FINESS Array S**	**2.70**	**202**	PG	**Pb**		**08 32 17.1**	**-1.9**
FIA0				MSG			08 32 48.9	
	comp=Z,1.2nm,0.2s							
FIA0				SG	**Sb**		**08 32 52.2**	**-0.4**
FINES	**FINESS Array B**	**2.70**	**202**	Pn	**Pn**		**08 32 16.5**	**+2.0**
	comp=Z,0.2nm,0.3s,baz=24,slow=15,SNR=8.7							
FINES				Sn	**Sb**		**08 32 52.9**	**+0.4**
	comp=Z,1.4nm,0.3s,baz=25,slow=25,SNR=26							
	comp=Z,3.8nm,0.9s							
FINES				AML	AML			
RNF	**Rovaniemi**	**2.81**	**342**	SG	**Sb**		**08 32 55.4**	**-0.6**
UMAU	**Umeaa**	**3.30**	**272**	PN	**Pn**		**08 32 22.8**	**-0.1**
ERTU	**Ertsjaerv** baz=131	**3.62**	**319**	PB	**Pn**		**08 32 28.8**	**+1.6**
ERTU				SG	**Sb**		**08 33 18.9**	**-0.2**
KLF	**Kolari** baz=154	**3.73**	**334**	PB	**Pn**		**08 32 31.5**	**+2.9**
ARBE	**Arbetsvare**	**4.65**	**194**	PB	Pn		08 32 46.9	+5.6
HEMU	**Hemsoen**	**4.74**	**259**	SG	**Sb**		**08 33 53.1**	**+1.8**
LANU	**Lannavaara**	**4.82**	**331**	SG	**Sb**		**08 33 54.4**	**+0.9**
ARCES	**ARCESS Array B**	**5.70**	**351**	Pn	**Pn**		**08 32 57.8**	**+2.0**
	comp=Z,0.1nm,0.3s,baz=165,slow=11,SNR=4.3							
	comp=Z,2.4nm,0.8s							
ARCES				AML	AML			
I43RU	**DUBNA INFRASON** baz=334,slow=325,SNR=1.4	**8.53**	**144**	I	I		09 23 10.0	

*IDC **27** 08:43:37.2±1.1, 36.°64N×140.°74E, h0km, mb3.5/5, mbtmp3.5/6, ML2.8/1, Error ellipse: s-maj=32.4km s-min=19.3km az=176.0*
*JMA **27** 08:43:39.1±0.0, 36.°8N±0.°1×140.°6E±0.°2, h9km, MV3.4/20, NORTHERN IBARAKI PREF*
JMA Felt I J1 at NORTHERN IBARAKI PREF .
ISC 27 08:43:38.9±0.9, **36.°75N**±0.°03×**140.°58E**±0.°04, **h10**km±6km, **n21**, σ0**s80/24**, **mb3.4/5**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
JHO	**Hitachi**	**0.14**	**183**	P	**Pg**		**08 43 42.3**	**+0.2**
JHO				S	**Sg**		**08 43 44.7**	**+0.4**
JFFD	**Fukushimafurud**	**0.34**	**358**	*i* P	**Pg**		**08 43 45.6**	**-0.1**
JFFD				S	**Sg**		**08 43 50.1**	**-0.1**
ONAJ	**Iwakimizuishiy**	**0.39**	**27**	*i* P	**Pg**		**08 43 46.7**	**0.0**
ONAJ				S	**Sg**		**08 43 52.4**	**+0.5**
JSB	**Shiboa**	**0.57**	**293**	*i* P	**Pg**		**08 43 50.5**	**+0.5**
JYT	**Yasato**	**0.61**	**211**	*i* P	**Pb**		**08 43 50.6**	**-0.9**
JYT				S	**Sg**		**08 43 58.7**	**+0.1**
JFK	**Kawauchi**	**0.66**	**21**	*i* P	**Pg**		**08 43 51.2**	**-0.4**
JFK				S	**Sg**		**08 44 00.2**	**-0.2**
JOTO	**OTAMA OYAMA**	**0.83**	**347**	*i* P	**Pg**		**08 43 54.7**	**-0.3**
JOTO				S	**Sg**		**08 44 05.6**	**-0.3**
JFY	**Yanaizu**	**0.96**	**313**	*i* P	**Pg**		**08 43 56.7**	**-0.6**
JFY				S	**Sg**		**08 44 09.4**	**-0.4**
JAG	**Ashikaga**	**0.96**	**251**	*i* P	**Pg**		**08 43 56.6**	**-0.8**
JAG				S	**Sg**		**08 44 09.2**	**-0.7**
MJAR	**Matsushiro Arr**	**1.92**	**264**	Pn	**Pn**		**08 44 12.0**	**+0.4**
	3.8nm,0.3s,baz=83,slow=15,SNR=172							
MJAR				Sn	**Sn**		**08 44 37.3**	**+1.6**
	3.6nm,0.3s,baz=103,slow=26,SNR=13							
	35nm,0.3s							
MJAR				AML	AML			
SONM	**Songino Array**	**27.39**	**305**	P	**P**		**08 49 26.4**	**+2.0**
	0.3nm,0.5s,baz=110,slow=9.8,SNR=2.0							
	0.3nm,0.5s							
H11N2	**WAKE ISLAND Hy**	**28.59**	**119**	T	T		09 19 20.7	
	baz=312,slow=75,SNR=28							
H11N1	**WAKE ISLAND Hy**	**28.59**	**119**	T	T		09 19 21.3	
	baz=312,slow=75,SNR=23							
H11N3	**WAKE ISLAND Hy**	**28.60**	**119**	T	T		09 19 21.8	
	baz=312,slow=75,SNR=17							
H11S1	**WAKE ISLAND Hy**	**29.28**	**121**	T	T		09 20 11.4	
	baz=314,slow=75,SNR=54							
H11S3	**WAKE ISLAND Hy**	**29.28**	**121**	T	T		09 20 09.5	
	baz=314,slow=75,SNR=50							
H11S2	**WAKE ISLAND Hy**	**29.29**	**121**	T	T		09 20 10.8	
	baz=314,slow=75,SNR=46							
WRA	**Warramunga Arr**	**56.69**	**187**	P	**P**		**08 53 21.3**	**-1.2**
	0.2nm,0.5s,baz=4.9,slow=7.2,SNR=2.1							
	0.2nm,0.5s							
ASAR	**Alice Springs**	**60.42**	**187**	P	**P**		**08 53 48.4**	**-0.1**
	0.2nm,0.8s,baz=0.9,slow=7.6,SNR=2.5							
	0.2nm,0.8s							
NVAR	**Mina Array Bea**	**75.69**	**53**	P	**P**		**08 55 23.8**	**-1.0**
	0.5nm,0.6s,baz=306,slow=4.9,SNR=3.7							
	0.5nm,0.6s							
TXAR	**Lajitas Array**	**90.82**	**52**	P	**P**		**08 56 43.3**	**+0.5**
	0.2nm,0.8s,baz=313,slow=3.9,SNR=4.2							
	0.2nm,0.8s							

IDC 27 08:48:05.8±3.0, **29.°98S**×**178.°15W**, **h0km**, **mb3.8**/4, **mbtmp3.8**/4, **Error ellipse: s-maj=80.9km s-min=40.1km az=33.0**, **Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
STKA	**Stephens Creek**	**34.45**	**256**	P	P		08 54 55.2	-0.1
	1.7nm,0.9s,baz=104,slow=8.3,SNR=2.8							
	1.7nm,0.9s							
ASAR	**Alice Springs**	**43.00**	**267**	P	P		08 56 07.0	-0.2
	0.4nm,0.5s,baz=104,slow=7.2,SNR=11							
	0.4nm,0.5s							
WRA	**Warramunga Arr**	**43.95**	**272**	P	P		08 56 14.8	-0.1
	0.6nm,0.3s,baz=111,slow=8.2,SNR=14							
	0.6nm,0.3s							
QSPA	**South Pole Qui**	**60.12**	**180**	P	P		08 58 14.9	0.0
	1.2nm,1.0s,baz=37,slow=7.1,SNR=3.1							
	1.2nm,1.0s							
H03S2	**Juan Fernandez** baz=237	**80.80**	**124**	T	T		10 29 26.9	
H03S1	**Juan Fernandez** baz=237,slow=74	**80.81**	**124**	T	T		10 29 32.3	
H03S3	**Juan Fernandez** baz=237,slow=74	**80.82**	**124**	T	T		10 29 29.4	
H10S3	**ASCENSION HYDR** baz=16,slow=74,SNR=3.3	**138.15**	**155**	T	T		11 41 45.0	
H10S2	**ASCENSION HYDR** baz=204,slow=74,SNR=3.2	**138.16**	**155**	T	T		11 41 44.4	
H10N3	**ASCENSION HYDR** baz=203,slow=75,SNR=6.5	**139.24**	**155**	T	T		11 43 04.6	
H10N1	**ASCENSION HYDR** baz=203,slow=75,SNR=5.9	**139.24**	**155**	T	T		11 43 04.5	
H10N2	**ASCENSION HYDR** baz=203,slow=75,SNR=5.7	**139.26**	**155**	T	T		11 43 05.2	
FINES	**FINESS Array B** 2.5nm,0.9s,baz=35,slow=3.4,SNR=4.1	**144.71**	**340**	PKP	PKPbc		09 07 43.2	+0.5

IDC 27 09:00:17.5±8.7, **52.°76N**×**36.°22E**, **h0km**, **mbtmp3.5**/1, **ML2.0**/1, **Error ellipse: s-maj=106.5km s-min=64.5km az=42.0**, **Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
I43RU	**DUBNA INFRASON** baz=186,slow=325,SNR=0.4	**4.01**	**8**	I	I		09 28 00.0	
FINES	**FINESS Array B** baz=152,slow=14,SNR=1.4	**10.29**	**332**	Pn	Pn		09 02 44.7	-1.6
FINES				Sn	Sn		09 04 34.8	-7.4
	0.1nm,0.3s,baz=150,slow=26,SNR=1.7							
	1.5nm,0.8s							
I31KZ	**AKTYUBINSK INF** baz=285,slow=304,SNR=1.1	**13.76**	**91**	I	I		10 24 10.0	

*KRNET **27** 09:43:01.8±0.1, 39.°62N×74.°57E, h24km, mb3.4*
*SOME **27** 09:43:01.4, 39.°83N×74.°18E, h5km*
*NNC **27** 09:43:06.0±3.5, 39.°90N×74.°72E, h0km, mb3.8, mpv3.5, Error ellipse: s-maj=25.6km s-min=15.1km az=167.0*
ISC 27 09:43:01.2±2.2, **39.°58N**±0.°07×**74.°52E**±0.°04, **h6km**±14km, **n33**, σ1**s62/58**, **26C-17D**, **Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
SFK	**Sufi-Kurgan**	**0.89**	**299**	↑*i* P	**Pb**		**09 43 18.9**	**-0.3**
SFK				↑*i* S	**Sg**		**09 43 31.7**	**+1.8**
SALK	**Salom-Alik**	**1.40**	**338**	↑*i* P	**Pn**		**09 43 27.2**	**-0.3**
SALK				↑*i* S	**Sn**		**09 43 45.8**	**-0.6**
OHH	**Osh**	**1.63**	**306**	↓*i* P	**Pb**		**09 43 31.3**	**-0.3**
OHH				↓*i* S	**Sb**		**09 43 52.9**	**+0.4**
DRK	**Karamyk**	**2.10**	**268**	↓*i* P	**Pb**		**09 43 38.6**	**-1.3**
DRK				↓*i* S	**Sb**		**09 44 05.5**	**-0.9**
NRN	**Naryn**	**2.17**	**31**	↓*i* P	**Pn**		**09 43 37.8**	**-0.3**
NRN				↓*i* S	**Sn**		**09 44 04.2**	**-1.2**
UCH	**Uchtor**	**2.64**	**360**	↑*i* P	**Pn**		**09 43 45.0**	**+0.3**
UCH				↑*i* S	**Sn**		**09 44 16.6**	**-0.7**
ARK	**Arkit**	**2.94**	**320**	↑*e* P	**Pn**		**09 43 49.7**	**+1.1**
ARK				↑*e* S	**Sn**		**09 44 24.5**	**+0.2**
ULHL	**Ulahol**	**2.96**	**26**	↑*i* P	**Pn**		**09 43 49.2**	**+0.3**
ULHL				↑*i* S	**Sn**		**09 44 23.8**	**-1.1**
AAK	**Ala-Archa**	**3.05**	**360**	↓Pg	**Pb**		**09 43 54.5**	**-1.5**
	20nm,1.1s							
AAK				↓Lg	Lg		09 44 34.8	
	13nm,0.8s							
AAK	**Ala-Archa**	**3.05**	**360**	↑*e* P	**Pn**		**09 43 50.7**	**+0.6**
AAK				↑*i* S	**Sn**		**09 44 26.3**	**-0.7**
KBK	**Karagaybulak**	**3.09**	**6**	↓*i* P	**Pn**		**09 43 51.0**	**+0.4**
KBK				↓*i* S	**Sn**		**09 44 27.0**	**-0.9**
BOOM	**Boomskoye usch**	**3.10**	**20**	↑*i* P	**Pn**		**09 43 51.2**	**+0.5**
BOOM				↑*i* S	**Sn**		**09 44 27.3**	**-0.9**
EKS2	**Erkin-Say**	**3.12**	**350**	↑*i* P	**Pn**		**09 43 51.9**	**+0.8**
EKS2				↑*i* S	**Sn**		**09 44 28.2**	**-0.6**
TRKS	**Terek-Say**	**3.22**	**308**	↑*i* P	**Pn**		**09 43 52.7**	**+0.2**
TRKS				↑*i* S	**Sn**		**09 44 30.1**	**-1.2**
KDJ	**Kajisay**	**3.25**	**38**	↓*i* P	**Pn**		**09 43 53.2**	**+0.4**
KDJ				↓*i* S	**Sn**		**09 44 30.7**	**-1.2**
MNAS	**Manas**	**3.27**	**333**	↑*e* P	**Pn**		**09 43 54.1**	**+0.9**
MNAS				↑*i* S	**Sn**		**09 44 32.2**	**-0.3**
TARG	**Taragay, Kyrgy**	**3.29**	**48**	↑*e* P	**Pn**		**09 43 53.7**	**0.0**
TARG				↑*i* S	**Sn**		**09 44 31.9**	**-1.4**
MRKS	**Merke** 5.9nm,0.4s	**3.31**	**343**	Pg	**Pb**		**09 43 59.8**	**-0.4**
MRKS				Lg	Lg		09 44 41.0	
	16nm,0.4s							
MRKS	**Merke** 5.9nm,0.4s	**3.31**	**343**	*e* P	**Pb**		**09 43 59.5**	**-0.8**
MRKS				*e* S	**Sb**		**09 44 41.0**	**+0.2**
	16nm,0.4s							
CHMS	**Chumysh**	**3.42**	**3**	↑*i* P	**Pn**		**09 43 55.4**	**+0.4**
CHMS				↑*i* S	**Sn**		**09 44 34.9**	**-0.9**
TKM2	**Tokmak 2**	**3.43**	**13**	↓*i* P	**Pn**		**09 43 55.8**	**+0.4**
TKM2				↓*i* S	**Sn**		**09 44 35.4**	**-1.1**
KST	**Kastek** 5.2nm,0.7s	**3.62**	**17**	Pg	**Pb**		**09 44 04.0**	**-1.7**
KST				Lg	Lg		09 44 49.7	
	86nm,0.6s							
KST	**Kastek** 5.2nm,0.7s	**3.62**	**17**	*e* P	**Pb**		**09 44 04.6**	**-1.1**
KST				*e* S	**Sb**		**09 44 49.7**	**-0.2**
	86nm,0.6s							
USP	**Ospenovka**	**3.68**	**360**	↓*e* P	**Pn**		**09 43 59.3**	**+0.7**
USP				↓*i* S	**Sn**		**09 44 41.2**	**-1.2**
DGS	**Degeres** 12nm,0.5s	**3.77**	**14**	Pg	**Pb**		**09 44 06.2**	**-2.0**
DGS				Lg	Lg		09 44 52.6	
	20nm,0.6s							
DGS	**Degeres** 12nm,0.5s	**3.77**	**14**	*e* P	**Pb**		**09 44 06.2**	**-2.0**
DGS				*e* S	**Sb**		**09 44 52.6**	**-1.7**
	20nm,0.6s							
TNSS	**Tian-Shan** 2.9nm,0.3s	**3.91**	**27**	Pg	**Pb**		**09 44 11.8**	**+1.1**
TNSS				Lg	Lg		09 45 02.9	
	4.8nm,1.1s							
TNSS	**Tian-Shan** 2.9nm,0.3s	**3.91**	**27**	*e* P	**Pb**		**09 44 12.3**	**+1.6**
TNSS				*e* S	**Sb**		**09 45 02.9**	**+4.6**
	4.8nm,1.1s							
KOTS	**Kotyrbulak** 12nm,0.3s	**4.14**	**27**	Pg	**Pb**		**09 44 17.8**	**+3.4**
KOTS				Lg	Lg		09 45 13.0	
	33nm,0.6s							
KOTS	**Kotyrbulak** 12nm,0.3s	**4.14**	**27**	*e* P	**Pb**		**09 44 18.2**	**+3.7**
KOTS				*e* S	**Sg**		**09 45 13.0**	**-1.0**
	33nm,0.6s							
KRBS	**Karabastau** 6.4nm,0.3s	**4.20**	**12**	Pg	**Pb**		**09 44 17.8**	**+2.3**
KRBS				Lg	Lg		09 45 12.9	
	11nm,0.6s							
KRBS	**Karabastau** 6.4nm,0.3s	**4.20**	**12**	*e* P	**Pb**		**09 44 18.1**	**+2.6**
KRBS				*e* S	**Sg**		**09 45 12.9**	**-3.1**
	11nm,0.6s							
KK31	**Karatay Array**	**4.63**	**321**	↓Pn	Pn		09 44 16.5	+4.8
	2.5nm,0.5s,baz=128,slow=12,SNR=14							
KK31				↑Sn	**Sn**		**09 45 10.8**	**+5.0**
	2.9nm,0.5s,baz=139,slow=22,SNR=4.0							
KK31				↑Lg	Lg		09 45 28.9	
	7.1nm,0.6s,baz=134,slow=28,SNR=3.9							

*DJA **27** 09:47:07.4±0.3, 3.°N±2.°×9.°6E±.°, h10km, M4.7/12, ML4.7/12, MLv4.6/12, MLv4.6/10*
*BKK **27** 09:47:07.3±1.9, 3.°N±13.°×9.°6E±.°, h10km, M4.5/10, mB5.1/4, mb4.6/9, Mjma4.1/10, ML4.7/6, MLv4.5/4, Mw(mB)4.5/4*
*GFZ **27** 09:47:07.8±0.7, 3.°N±4.°×9.°6E±.°, h25km±5km, M4.6/8, mb4.5/8, Error ellipse: s-maj=8.1km s-min=7.6km az=27.4, confirmed*
*IDC **27** 09:47:10.6±3.1, 2.°93N×96.°30E, h52km±28km, mb3.9/18, mbtmp4.2/21, ML4.0/3, MS3.5/19, Error ellipse: s-maj=24.7km s-min=12.6km az=50.0*
*NEIC **27** 09:47:10.2±1.1, 2.°80N±0.°07×96.°29E±0.°08, h48km±8km, mb4.5/33, Error ellipse: s-maj=12.5km s-min=8.6km az=60.0*
ISC 27 09:47:08.6±0.4, **2.°82N**±0.°04×**96.°24E**±0.°05, **h35**km, **n135**, σ1**s01/113**, **mb4.4/47**, **MS3.5/15**, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op	ISC		h m s	ISC
SNSI	**Sinabang, Aceh**	**0.41**	**168**	P	P		**09 47 17.3**	**-0.8**
SNSI				AML	AML			
SNSI				AML	AML			
SNSI				AML	AML			
SNSI	**Sinabang, Aceh**	**0.41**	**168**	P	**Pn**		**09 47 17.7**	**-0.3**
TPTI		**1.03**	**65**	P	**Pn**		**09 47 24.9**	**-1.7**
TPTI				S	**Sn**		**09 47 37.3**	**-2.6**
TPTI				AML	AML			
TPTI				AML	AML			
TPTI				AML	AML			
TPTI		**1.03**	**65**	P	**Pn**		**09 47 24.9**	**-1.7**
MLSI	**Meulaboh, Aceh**	**1.45**	**6**	P	**Pn**		**09 47 31.9**	**-0.5**
MLSI				AML	AML			
MLSI				AML	AML			
MLSI	**Meulaboh, Aceh**	**1.45**	**6**	P	**Pn**		**09 47 32.3**	**0.0**
KCSI	**Kotacane, Aceh**	**1.68**	**65**	P	**Pn**		**09 47 35.7**	**+0.2**
KCSI				AML	AML			
KCSI				AML	AML			
KCSI				AML	AML			
KCSI	**Kotacane, Aceh**	**1.68**	**65**	P	**Pn**		**09 47 35.4**	**-0.1**
GSI	**Gunungsitoli**	**2.01**	**138**		**Pn**		**09 47 40.5**	**+0.5**
GSI				Sn	**Sn**		**09 48 05.2**	**+1.2**
GSI	**Gunungsitoli**	**2.01**	**138**	P	**Pn**		**09 47 41.8**	**+1.8**
GSI	**Gunungsitoli**	**2.01**	**138**	P	**Pn**		**09 47 41.3**	**+1.2**
TSI	**Tuntungan**	**2.42**	**74**	P	**Pn**		**09 47 47.9**	**+2.3**
TSI				AML	AML			
LHMI	**Lhok Sumawe**	**2.50**	**16**		**Pn**		**09 47 48.9**	**+2.2**
LHMI	**Lhok Sumawe**	**2.50**	**16**	P	**Pn**		**09 47 49.2**	**+2.4**
PSI	**Prapat** 17nm,0.3s,baz=283,slow=14,SNR=21	**2.68**	**90**	P	**Pn**		**09 47 50.2**	**+0.8**
PSI				S	**Sn**		**09 48 22.3**	**+1.7**
	57nm,0.3s,baz=145,slow=22,SNR=4.1							
PSI				LR	LR		09 48 29.4	
	comp=Z,90nm,20.4s,baz=268,slow=30							
	31nm,0.3s							
PSI				AML

CMAR				AML	AML		
PALK	**Pallekele**	**16.10**	**287**	P	**P**	**09 50 54.6**	**-0.8**
	comp=Z,0.6nm,0.3s,baz=95,slow=9.5,SNR=8.8						
PALK				LR	LR	09 56 40.1	
	comp=Z,160nm,19.4s,baz=105,slow=35 comp=Z,23nm,1.0s						
PALK				AML	AML		
PALK	**Pallekele**	**16.10**	**287**		**Pn**	**09 50 53.0**	**+0.5**
PALK				IAmb	IAmb	09 50 59.5	
	comp=Z,30nm,1.0s						
KKM	**Kota Kinabalu**	**20.16**	**80**	P	**P**	**09 51 39.9**	**-0.5**
KKM				IAmb	IAmb	09 52 05.0	
	comp=Z,36nm,1.2s						
TOLI2	**Tolitoli**	**24.58**	**93**	P	**P**	**09 52 23.8**	**-1.8**
KAPI	**Kappang**	**24.74**	**108**	LR	LR	10 03 17.2	
	comp=Z,158nm,18.6s,baz=291,slow=39						
KAPI	**Kappang**	**24.74**	**108**	P	**P**	**09 52 26.8**	**-0.3**
	comp=Z,14nm,1.1s						
H08S2	**Diego Garcia H**	**25.88**	**246**	T	T	10 19 02.1	
	baz=67,slow=76,SNR=320						
H08S3	**Diego Garcia H**	**25.88**	**246**	T	T	10 19 02.3	
	baz=67,slow=76,SNR=228						
H08S1	**Diego Carcia H**	**25.89**	**246**	T	T	10 18 55.4	
	baz=67,slow=76,SNR=191						
WHN	**Wuhan**	**32.47**	**30**	P	**P**	**09 53 36.5**	**+0.7**
FITZ	**Fitzroy Crossi**	**35.65**	**127**	P	**P**	**09 54 02.2**	**-1.4**
NJ2	**Nanjing**	**36.03**	**34**	*eP*	**P**	**09 54 08.5**	**+1.8**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GTA2	**Gaotai**	**36.64**	**5**	*eP*	**P**	**09 54 11.0**	**-1.0**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KNRA	**Kununurra**	**37.04**	**121**	P	**P**	**09 54 14.5**	**-1.0**
KNRA				IAmb	IAmb	09 54 24.6	
	comp=Z,8.7nm,1.2s						
NIL	**Nilore**	**37.45**	**328**	P	**P**	**09 54 18.0**	**-0.8**
NIL	**Nilore**	**37.45**	**328**	P	**P**	**09 54 17.8**	**-1.0**
MTN	**Manton Dam**	**37.98**	**115**	P	**P**	**09 54 22.1**	**-1.4**
MTN				IAmb	IAmb	09 54 32.5	
	comp=Z,5.9nm,0.9s						
HHC	**Hu-ho-hac-te**	**40.31**	**18**	*eP*	**P**	**09 54 44.3**	**+1.5**
HHC				pmax	pmax		
	comp=Z,17nm,0.5s						
HHC				pmax	pmax		
	comp=Z,100nm,3.8s						
NWAO	**Narrogin (SRO)**	**40.72**	**152**	LR	LR	10 09 28.8	
	comp=Z,36nm,21.3s,baz=286,slow=33						
KSH2	**Kashi**	**40.77**	**335**	P	**P**	**09 54 46.0**	**-0.7**
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
H01W3	**Cape Leeuwin H**	**41.09**	**157**	T	T	10 38 05.1	
	baz=333,slow=76,SNR=51						
H01W2	**Cape Leeuwin H**	**41.11**	**157**	T	T	10 38 08.7	
	baz=333,slow=76,SNR=43						
H01W1	**Cape Leeuwin H**	**41.11**	**157**	T	T	10 38 06.2	
	baz=333,slow=76,SNR=44						
WUS	**Wushi**	**41.17**	**340**	P	**P**	**09 54 49.5**	**-0.4**
	comp=Z,5.5nm,0.9s						
MSEY	**Mahe Island**	**41.40**	**260**	P	**P**	**09 54 52.2**	**+0.1**
WMQ	**Urumqi**	**41.53**	**351**	*eP*	**P**	**09 54 53.5**	**+0.8**
WMQ				pP	sP	09 55 05.5	-1.3
WMQ				pmax	pmax		
	comp=Z,14nm,0.9s						
TARG	**Taragay, Kyrgy**	**42.13**	**339**		**P**	**09 54 58.6**	**+0.5**
TARG				IAmb	IAmb	09 54 59.5	
	comp=Z,5.5nm,0.8s						
TARG	**Taragay, Kyrgy**	**42.13**	**339**	P	**P**	**09 54 58.8**	**+0.7**
	comp=Z,8.3nm,0.9s						
NRN	**Naryn**	**42.54**	**337**	P	**P**	**09 55 01.4**	**+0.1**
KDJ	**Kajisay**	**42.71**	**339**		**P**	**09 55 02.6**	**+0.1**
PDGK	**Podgornoye**	**43.01**	**342**	P	**P**	**09 55 04.9**	**+0.1**
OHH	**Osh**	**43.11**	**334**	P	**P**	**09 55 05.0**	**-0.7**
BOOM	**Boomskoye usch**	**43.47**	**338**	P	**P**	**09 55 08.0**	**-0.7**
BOOM				IAmb	IAmb	09 55 09.6	
	comp=Z,4.3nm,0.6s						
BOOM	**Boomskoye usch**	**43.47**	**338**	P	**P**	**09 55 08.0**	**-0.7**
	comp=Z,6.3nm,0.8s						
BTK	**Batken**	**43.64**	**331**	P	**P**	**09 55 11.2**	**+1.2**
	comp=Z,7.1nm,1.7s						
WB0	**Warramunga Arr**	**43.67**	**123**	P	**P**	**09 55 09.8**	**-0.6**
WB0				IAmb	IAmb	09 55 20.5	
	comp=Z,11nm,1.0s						
WRA	**Warramunga Arr**	**43.70**	**123**	P	**P**	**09 55 10.4**	**-0.3**
	comp=Z,1.6nm,0.7s,baz=302,slow=9.1,SNR=28 comp=Z,1.6nm,0.7s						
WRA	**Warramunga Arr**	**43.70**	**123**	P	**P**	**09 55 09.0**	**-1.7**
WRAB	**Tennant Creek**	**43.71**	**123**	P	**P**	**09 55 09.9**	**-0.8**
WRAB				IAmb	IAmb	09 55 21.6	
	comp=Z,12nm,1.1s						
WB2	**Warramunga Arr**	**43.71**	**123**	P	**P**	**09 55 10.0**	**-0.7**
WB2				IAmb	IAmb	09 55 21.1	
	comp=Z,11nm,1.1s						
WR8	**Warramunga Arr**	**43.84**	**123**		**P**	**09 55 10.4**	**-1.4**
WR8				IAmb	IAmb	09 55 22.2	
	comp=Z,11nm,0.9s						
WR0	**Warramunga Arr**	**43.88**	**123**	P	**P**	**09 55 11.3**	**-0.8**
AAK	**Ala-Archa**	**44.15**	**337**	P	**P**	**09 55 14.5**	**+0.4**
AAK				LR	LR	10 15 27.8	
	comp=Z,81nm,18.8s,baz=319,slow=38 comp=Z,2.8nm,0.7s						
AAK	**Ala-Archa**	**44.15**	**337**	IAmb	IAmb	09 55 23.0	
	comp=Z,2.9nm,0.6s						
JNU	**Nakatsue**	**44.26**	**43**	LR	LR	10 17 13.4	
	comp=Z,46nm,18.4s,baz=136,slow=41						
KSRS	**Korea Array**	**45.09**	**36**	LR	LR	10 16 23.8	
	comp=Z,67nm,18.4s,baz=220,slow=39						
ASAR	**Alice Springs**	**45.13**	**128**	P	**P**	**09 55 21.9**	**-0.1**
	comp=Z,0.5nm,0.4s,baz=299,slow=7.8,SNR=16						
ASAR				LR	LR	10 17 28.0	
	comp=Z,33nm,18.7s,baz=256,slow=40 comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**45.46**	**347**	P	**P**	**09 55 23.7**	**-0.6**
	comp=Z,4.8nm,0.7s,baz=163,slow=8.9,SNR=11 comp=Z,4.8nm,0.7s						
MKAR	**Makanchi Array**	**45.46**	**347**	P	**P**	**09 55 24.5**	**+0.2**
MAKZ	**Makanchi**	**45.54**	**346**	P	**P**	**09 55 25.3**	**+0.3**
MAKZ				IAmb	IAmb	09 55 25.4	
	comp=Z,8.2nm,1.1s						
SONM	**Songino Array**	**45.70**	**10**	P	**P**	**09 55 25.8**	**-0.5**
	comp=Z,1.6nm,0.6s,baz=183,slow=8.8,SNR=10 comp=Z,1.6nm,0.6s						
SONM	**Songino Array**	**45.70**	**10**	P	**P**	**09 55 26.4**	**+0.1**
KKAR	**Karatay Array**	**46.19**	**334**	P	**P**	**09 55 30.5**	**+0.3**
TLY	**Talaya**	**49.09**	**6**	P	**P**	**09 55 51.8**	**-0.6**
	comp=Z,1.4nm,0.6s,baz=198,slow=13,SNR=3.2						
TLY				LR	LR	10 19 57.8	
	comp=Z,39nm,19.0s,baz=190,slow=40 comp=Z,1.4nm,0.6s						
KURBB	**Kurchatov Arra**	**49.93**	**345**	P	**P**	**09 55 58.5**	**-0.4**
	comp=Z,2.5nm,0.8s,baz=166,slow=7.2,SNR=21 comp=Z,2.5nm,0.8s						
KURK	**Kurchatov**	**50.00**	**345**	P	**P**	**09 55 59.1**	**-0.2**
KURK				IAmb	IAmb	09 55 59.9	
	comp=Z,3.0nm,0.8s						
KURK	**Kurchatov**	**50.00**	**345**	P	**P**	**09 55 58.9**	**-0.5**
	comp=Z,5.4nm,1.1s						
MJAR	**Matsushiro Arr**	**51.17**	**44**	LR	LR	10 20 54.0	
	comp=Z,29nm,18.9s,baz=201,slow=40						
BBOO	**Buckleboo**	**51.70**	**137**	P	**P**	**09 56 11.6**	**-0.9**
ZAA0	**Zalesovo Array**	**51.83**	**351**	P	**P**	**09 56 12.6**	**-0.5**
ZAA0				IAmb	IAmb	09 56 24.8	
	comp=Z,3.1nm,0.6s						
ZALV	**Zalesovo Beam**	**51.83**	**351**	P	**P**	**09 56 12.4**	**-0.6**
	comp=Z,1.4nm,0.4s,baz=176,slow=5.9,SNR=8.2 comp=Z,1.4nm,0.4s						
ZALV	**Zalesovo Beam**	**51.83**	**351**		**P**	**09 56 12.5**	**-0.5**
RAYN	**Ar Rayn**	**53.16**	**297**	P	**P**	**09 56 23.8**	**+0.2**
RAYN	**Ar Rayn**	**53.16**	**297**	P	**P**	**09 56 24.7**	**+1.1**
	comp=Z,12nm,0.9s						
CTA	**Charters Tower**	**54.08**	**117**	LR	LR	10 21 40.2	
	comp=Z,35nm,21.9s,baz=218,slow=38						
BVAR	**Borovoye Array**	**54.42**	**341**	P	**P**	**09 56 31.6**	**-0.6**
	comp=Z,2.8nm,0.7s,baz=143,slow=8.0,SNR=8.6 comp=Z,2.8nm,0.7s						
STKA	**Stephens Creek**	**55.14**	**132**	P	**P**	**09 56 39.5**	**+1.7**
	comp=Z,1.6nm,0.6s,baz=284,slow=3.9,SNR=4.0						
STKA				LR	LR	10 24 57.4	
	comp=Z,27nm,18.1s,baz=207,slow=41 comp=Z,1.6nm,0.6s						
STKA	**Stephens Creek**	**55.14**	**132**	P	**P**	**09 56 36.9**	**-0.9**
AB31	**Akbulak array**	**55.65**	**332**		**P**	**09 56 41.1**	**-0.1**
AB31				IAmb	IAmb	09 56 54.5	
	comp=Z,4.5nm,1.1s						
ABKAR	**Akbulak array**	**55.65**	**332**		**P**	**09 56 40.7**	**-0.4**
KMBO	**Kilima Mbogo**	**59.10**	**267**	P	**P**	**09 57 08.8**	**+2.4**
	comp=Z,4.9nm,0.7s						
KBZ	**Khabaz**	**62.23**	**319**	P	**P**	**09 57 26.5**	**-0.4**
	comp=Z,3.0nm,0.8s,baz=116,slow=9.9,SNR=8.2 comp=Z,3.0nm,0.8s						
H04N2	**CROZET ISLANDS**	**62.58**	**213**	T	T	11 04 59.7	
	baz=53,slow=75,SNR=1144						
H04N1	**CROZET ISLANDS**	**62.59**	**213**	T	T	11 05 00.3	
	baz=53,slow=75,SNR=1238						
H04N3	**CROZET ISLANDS**	**62.60**	**213**	T	T	11 04 57.6	
	baz=53,slow=75,SNR=902						
ASF	**Jabal al Asfar**	**62.76**	**305**	LR	LR	10 26 36.9	
	comp=Z,45nm,18.2s,baz=213,slow=38						
H04S1	**CROZET ISLANDS**	**62.94**	**213**	T	T	11 05 26.3	
	baz=50,slow=76,SNR=100						
H04S3	**CROZET ISLANDS**	**62.95**	**213**	T	T	11 05 26.2	
	baz=50,slow=76,SNR=141						
H04S2	**CROZET ISLANDS**	**62.96**	**213**	T	T	11 05 27.6	
	baz=50,slow=76,SNR=110						
EIL	**Elat**	**63.80**	**302**	LR	LR	10 25 53.6	
	comp=Z,53nm,18.4s,baz=109,slow=36						
MMAI	**Mount Meron Ar**	**64.19**	**305**	P	**P**	**09 57 40.4**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=104,slow=7.0,SNR=10 comp=Z,0.5nm,0.4s						
NRIK	**Noril'sk**	**66.67**	**357**	LR	LR	10 30 31.2	
	comp=Z,58nm,18.3s,baz=314,slow=39						
BRTR	**Keskin Array B**	**67.33**	**312**	P	**P**	**09 57 59.6**	**-0.8**
	comp=Z,1.6nm,0.8s,baz=135,slow=6.3,SNR=9.6 comp=Z,1.6nm,0.8s						
BRTR	**Keskin Array B**	**67.33**	**312**	P	**P**	**09 58 00.3**	**-0.1**
ILGA	**Ilgaz**	**67.64**	**313**	P	**P**	**09 58 01.9**	**-0.6**
ILGA				IAmb	IAmb	09 58 20.4	
	comp=Z,6.5nm,1.1s						
LSZ	**Lusaka**	**69.67**	**253**	LR	LR	10 26 07.6	
	comp=Z,38nm,18.4s,baz=107,slow=34						
AYDN	**Tasoluk**	**71.22**	**309**	P	**P**	**09 58 24.2**	**-0.3**
	comp=Z,34nm,1.2s						
KARP	**Karpathos**	**71.39**	**307**	P	**P**	**09 58 26.3**	**+0.8**
	comp=Z,40nm,1.4s						
AKASG	**Malin Array Be**	**73.40**	**322**	P	**P**	**09 58 35.9**	**-1.3**
	comp=Z,0.6nm,0.5s,baz=96,slow=4.5,SNR=5.1 comp=Z,0.6nm,0.5s						
KIEV	**Kiev**	**73.41**	**322**	P	**P**	**09 58 36.4**	**-0.8**
	comp=Z,4.8nm,1.7s						
BOSA	**Boshof**	**74.76**	**239**	P	**P**	**09 58 46.5**	**+0.8**
	comp=Z,3.4nm,0.8s,baz=45,slow=13,SNR=3.2 comp=Z,3.4nm,0.8s						
BOSA	**Boshof**	**74.76**	**239**	P	**P**	**09 58 45.9**	**+0.2**
BOSA				IAmb	IAmb	09 58 48.0	
	comp=Z,7.7nm,1.1s						
LIT	**Litokhoron**	**75.78**	**311**	P	**P**	**09 58 50.1**	**-1.1**
	comp=Z,10nm,0.9s						
TRPA	**Tarpa**	**77.06**	**319**	P	**P**	**09 58 59.0**	**+0.8**
	comp=Z,5.7nm,0.9s						
FIA1	**FINESS Array S**	**78.13**	**332**	P	**P**	**09 59 04.1**	**+0.1**
FINES	**FINESS Array B**	**78.13**	**332**	P	**P**	**09 59 03.3**	**-0.7**
	comp=Z,1.9nm,0.8s,baz=104,slow=5.9,SNR=4.4 comp=Z,1.9nm,0.8s						
FINES	**FINESS Array B**	**78.13**	**332**	P	**P**	**09 59 04.1**	**+0.1**
ARCES	**ARCESS Array B**	**80.70**	**340**	P	**P**	**09 59 17.4**	**-0.5**
	comp=Z,3.6nm,0.9s,baz=90,slow=6.1,SNR=4.8 comp=Z,3.6nm,0.9s						
ARCES	**ARCESS Array B**	**80.70**	**340**	IAmb	IAmb	09 59 42.1	
	comp=Z,9.3nm,1.2s						
KRLC	**Kraliky**	**81.08**	**320**	P	**P**	**09 59 21.2**	**+0.9**
	comp=Z,4.7nm,2.7s						
GERES	**GERESS Array B**	**82.98**	**319**	P	**P**	**09 59 30.9**	**+0.5**
	comp=Z,0.7nm,0.8s,baz=112,slow=5.9,SNR=5.2 comp=Z,0.7nm,0.8s						
GERES	**GERESS Array B**	**82.98**	**319**	P	**P**	**09 59 30.6**	**+0.3**
URZ	**Urewera**	**84.56**	**129**	LR	LR	10 40 45.6	
	comp=Z,58nm,18.1s,baz=226,slow=38						
TXAR	**Lajitas Array**	**142.77**	**29**	PKP	**PKPdf**	**10 06 36.4**	**-2.8**
CPUP	**Villa Florida**	**145.51**	**225**	PKPbc	**PKPab**	**10 06 44.5**	**+0.3**
	comp=Z,2.1nm,0.7s,baz=118,slow=4.1,SNR=7.7						

NNC 27 09:56:22.2±0.5, 44.73N×81.98E, h0km, mb3.2, mpv2.7, 2C-3D, Error ellipse: s-maj=7.8km s-min=1.1km az=117.0, Suspected Mining explosion., Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DJR	**Jarkent**	**1.61**	**257**	P	Pn	09 56 51.3	-0.7
	3.7nm,0.2s						
DJR				S	Sg	09 57 14.3	+0.3
	3.5nm,0.2s						
MK31	**Makanchi Array**	**2.08**	**6**	⇓Pn	Pn	09 56 58.4	+0.1
	1.8nm,0.3s,baz=188,slow=14,SNR=128						
MK31				Sn	Sn	09 57 25.9	+1.0
	0.6nm,0.2s,baz=177,slow=26,SNR=9.0						
MAKZ	**Makanchi**	**2.08**	**360**	⇑Pn	Pn	09 56 58.3	-0.1
	2.0nm,0.2s						
MAKZ				⇑Sn	Sn	09 57 26.0	+1.0
	5.0nm,0.3s						
PDGK	**Podgornoye**	**2.28**	**233**	⇓Pn	Pn	09 57 01.1	-0.1
	2.6nm,0.5s						
PDGK				⇓Sn	Sn	09 57 31.1	+1.2
	4.6nm,0.6s						
UZB	**Uzynbulak**	**2.66**	**234**	Pg	Pn	09 57 07.5	+1.1
	3.6nm,0.1s						
UZB				Lg	Lg	09 57 41.7	
	2.8nm,0.2s						
KPKS	**Kokpek**	**2.69**	**243**	Pg	Pn	09 57 08.5	+1.7
	0.4nm,0.1s						
KPKS				Lg	Lg	09 57 43.3	
	10nm,0.3s						
ARXS	**Arharly**	**3.02**	**262**	Pg	Pb	09 57 15.9	-0.9
	1.5nm,0.2s						
ARXS				Lg	Lg	09 57 55.3	
	7.6nm,0.3s						
SATY	**Saty**	**3.08**	**238**	Pg	Pn	09 57 14.0	+1.9
	1.6nm,0.1s						
SATY				Lg	Lg	09 57 52.7	
	2.9nm,0.2s						

ASRS 27 09:56:57.0±1.7, 54.17N×87.17E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

IDC 27 09:56:58.6±3.4, 54.14N×87.06E, h0km, mbtmp2.8/2, ML2.1/1, Error ellipse: s-maj=27.7km s-min=19.1km az=81.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.34**	**262**	I	I	10 04 20.0	
	baz=80,slow=342,SNR=12						
ZALV	**Zalesovo Beam**	**1.34**	**262**	Pg	Pg	09 57 23.9	-0.3
	2.1nm,0.3s,baz=82,slow=16,SNR=16						
ZALV				Lg	Lg	09 57 43.5	
	1.5nm,0.3s,baz=81,slow=26,SNR=6.4						
KURBB	**Kurchatov Arra**	**6.30**	**239**	Pn	Pn	09 58 32.8	+0.1
	baz=56,slow=14,SNR=3.3						
KURBB				Sn	Sn	09 59 44.1	-1.3
	baz=53,slow=26,SNR=1.5						
KURBB				Lg	Lg	10 00 19.2	
	baz=56,slow=31,SNR=1.4 0.5nm,0.4s						
MKAR	**Makanchi Array**	**7.96**	**204**	Pn	Pn	09 58 57.2	+1.7
	0.3nm,0.6s,baz=22,slow=14,SNR=3.0						

HEL 27 10:00:31.9±0.2, 64.74N×30.80E, h0km, ML2.0, Suspected explosion

KOLA 27 10:00:34.7, 64.71N×30.69E, h0km, ML2.3, Error ellipse: s-maj=25.7km s-min=10.5km az=160.0, Kostomuksha, Karelia

IGKR 27 10:00:34.0±0.9, 64.63N±0.04×31.0E±0.4, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

IDC 27 10:00:35.0±2.8, 64.69N×30.19E, h0km, mbtmp2.9/3, ML2.0/3, Error ellipse: s-maj=41.2km s-min=11.7km az=97.0

ISC 27 10:00:31.7±0.8, 64.69N±0.02×30.41E±0.03, h0km, n46, σ1 72/63, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RMF	**Romuvaara**	**0.52**	**204**	PG	**Pb**	**10 00 43.7**	**+0.1**
	baz=32						
RMF				MSG		10 00 52.4	
	comp=Z,23nm,0.2s						
RMF				SG	**Sb**	**10 00 52.8**	**+1.2**
KU1	**Kurvinen**	**0.95**	**338**	PB	**Pb**	**10 00 50.9**	**-0.1**
	baz=149						
MSF	**Maaselka**	**1.36**	**335**	PN	**Pn**	**10 00 58.0**	**+0.2**
MSF				SN	**Sn**	**10 01 16.5**	**0.0**
KU6	**Riekki**	**1.36**	**351**	PN	**Pb**	**10 00 57.6**	**-0.3**
	baz=165						
KU6				MSG		10 01 12.3	
	comp=Z,13nm,0.2s						
KU6				SN	**Sn**	**10 01 15.8**	**-0.7**
KU2	**Taivalkoski**	**1.38**	**319**	PN	**Pb**	**10 00 59.0**	**+0.7**
	baz=135						
OLKF	**Oulanka, Finla**	**1.69**	**346**	PN	**Pg**	**10 01 03.7**	**-0.3**
OLKF				MSG		10 01 22.4	
	comp=Z,9.5nm,0.2s						
OLKF				SN	**Sg**	**10 01 26.8**	**+0.9**
NIF	**Nilsia**	**1.73**	**222**	PG	**Pg**	**10 01 05.7**	**+0.8**
	baz=41						
NIF				MSG		10 01 28.1	
	comp=Z,7.7nm,0.2s						
JOF	**Joensuu**	**1.82**	**167**	*eP*	**Pb**	**10 01 05.8**	**0.0**
JOF	**Joensuu**	**1.82**	**167**	PG	**Pn**	**10 01 04.8**	**+0.6**
JOF				SN	**Sg**	**10 01 30.0**	**-0.1**
OUL	**Oulu**	**1.97**	**284**	PG	**Pg**	**10 01 09.6**	**+0.3**
	baz=100						
OUL				SG	**Sg**	**10 01 36.3**	**+1.6**
RANF	**Ranua**	**2.02**	**313**	PG	**Pg**	**10 01 09.7**	**-0.6**
	baz=121						
RANF				SG	**Sg**	**10 01 37.7**	**+1.3**
KVDA	**Kovda**	**2.25**	**26**	P	**Pb**	**10 01 11.8**	**-1.4**
KVDA				S	**Sn**	**10 01 39.6**	**+1.0**
OBF4	**Vikkela, Lumij**	**2.28**	**276**	PG	**Pg**	**10 01 14.9**	**-0.4**
	baz=90						
OBF4				MSG		10 01 43.9	
	comp=Z,8.9nm,0.2s						
OBF4				SG	**Sg**	**10 01 47.0**	**+2.2**
OUF	**Merijarvi**	**2.48**	**265**	PB	**Pg**	**10 01 17.1**	**-2.0**
	baz=80						
OUF				MSG		10 01 49.9	
	comp=Z,10nm,0.2s						
OUF				SG	**Sg**	**10 01 52.1**	**+1.0**
RNF	**Rovaniemi**	**2.65**	**319**	PG	**Pb**	**10 01 19.8**	**-0.2**
	baz=134						
RNF				SG	**Sg**	**10 01 57.2**	**+0.4**
SUF	**Sumiainen**	**2.74**	**226**	*eP*	**Pg**	**10 01 22.0**	**-2.1**
SUF	**Sumiainen**	**2.74**	**226**	PB	**Pb**	**10 01 21.3**	**-0.1**
SUF				MSG		10 01 57.1	
	comp=Z,3.5nm,0.2s						
TOF	**Tornio**	**2.91**	**301**	PB	**Pb**	**10 01 23.2**	**-1.1**
TOF				MSG		10 02 00.5	
	comp=Z,3.5nm,0.2s						
TOF				SG	**Sg**	**10 02 04.2**	**-0.7**
OBF8	**Ulkokalla**	**3.03**	**266**	PG	**Pg**	**10 01 27.7**	**-2.1**
	baz=78						
VRF	**Varrio**	**3.09**	**354**	PB	**Pn**	**10 01 23.4**	**+1.8**
VRF				MSG		10 02 01.8	
	comp=Z,2.5nm,0.2s						
APA0	**Apatity Array**	**3.11**	**19**	P	**Pn**	**10 01 24.3**	**+2.4**
APA0				S	**Sn**	**10 02 00.2**	**+0.5**
KAF	**Kangasniemi**	**3.18**	**217**	PB	**Pb**	**10 01 27.9**	**-1.0**
RUF	**Ruokolahti**	**3.34**	**192**	PN	**Pn**	**10 01 27.6**	**+2.5**
	baz=12						
KEF	**Keuruu**	**3.55**	**227**	*eP*	**Pb**	**10 01 33.2**	**-2.0**
KEF	**Keuruu**	**3.55**	**227**	PB	**Pb**	**10 01 33.9**	**-1.3**
	baz=45						
KLF	**Kolari**	**3.67**	**317**	PG	**Pg**	**10 01 39.6**	**-2.3**
	baz=130						
VAF	**Ylistaro**	**3.80**	**248**	*eP*	**Pb**	**10 01 36.6**	**-2.9**
VAF	**Ylistaro**	**3.80**	**248**	PG	**Pg**	**10 01 44.5**	**+0.1**
VAF				SG	**Sg**	**10 02 35.9**	**+2.3**
FIA0	**FINESS Array S**	**3.81**	**213**	PB	**Pb**	**10 01 37.9**	**-1.7**
	baz=29						
FIA0				SG	**Sg**	**10 02 34.0**	**+0.2**
FINES	**FINESS Array B**	**3.81**	**213**	Pn	**Pn**	**10 01 34.1**	**+2.7**
	comp=Z,0.2nm,0.3s,baz=27,slow=14,SNR=6.5						
FINES				Lg	Lg	10 02 32.2	
	comp=Z,0.9nm,0.3s,baz=28,slow=33,SNR=3.6 comp=Z,1.9nm,0.8s						
FINES				AML	AML		
SJUU	**Sjulsmark**	**3.81**	**286**	*eP*	**Pb**	**10 01 35.3**	**-4.5**
ERTU	**Ertsjaerv**	**3.89**	**302**	PG	**Pg**	**10 01 43.9**	**-2.2**
BURU	**Burvik**	**3.89**	**273**	PN	Pb	10 01 35.9	-5.1
RAJF	**Raja-Jooseppi**	**3.89**	**349**	PN	**Pn**	**10 01 34.1**	**+1.5**
UMAU	**Umeaa**	**4.32**	**264**	PN	**Pn**	**10 01 41.2**	**+2.8**
UMAU				SG	**Sg**	**10 02 50.5**	**+0.3**
VJF	**Virojoki**	**4.37**	**199**	SG	**Sg**	**10 02 48.5**	**-3.3**
HEF	**Hetta**	**4.61**	**327**	PG	**Pg**	**10 01 56.6**	**-3.2**
LANU	**Lannavaara**	**4.78**	**319**	*eP*	**Pn**	**10 01 47.0**	**+2.2**
TERR	**Teriberka**	**4.89**	**20**	S	**Sn**	**10 02 42.0**	**-1.5**
ARCES	**ARCESS Array B**	**5.23**	**341**	Pn	**Pn**	**10 01 52.1**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=158,slow=15,SNR=16						
ARCES				Sn	**Sn**	**10 02 49.8**	**-2.1**
	comp=Z,0.1nm,0.3s,baz=162,slow=25,SNR=1.6						
ARCES				Lg	Lg	10 03 14.3	
	comp=Z,0.2nm,0.3s,baz=158,slow=35,SNR=1.7 comp=Z,0.4nm,0.3s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.23**	**341**	P	**Pn**	**10 01 52.2**	**+1.2**
ARCES				S	**Sn**	**10 02 51.8**	**-0.1**
RAF	**Rauma**	**5.40**	**231**	*eP*	**Pn**	**10 01 57.3**	**+4.0**
VADS	**Vadso**	**5.47**	**356**	S	**Sn**	**10 02 56.8**	**-1.0**
FAUS	**Fauske**	**6.72**	**300**	P	**Pn**	**10 02 13.8**	**+2.4**
FAUS				S	**Sn**	**10 03 28.8**	**+0.3**
I43RU	**DUBNA INFRASON**	**8.66**	**154**	I	I	10 50 20.0	
	baz=344,slow=329,SNR=2.0						
HFS	**Hagfors**	**8.99**	**247**	Pn	**Pn**	**10 02 41.7**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=50,slow=16,SNR=1.1 comp=Z,0.9nm,0.6s						
HFS				AML	AML		

NOU 27 10:16:32.6, 32.87S×178.39W, h374km, mb4.0/6, South of Kermadec Islands

WEL 27 10:17:12.2±1.4, 35.5S±20.17.9E±1.8, h242km±29km, M3.9/9, ML3.9/13, MLv3.9/9, Error ellipse: s-maj=31.9km s-min=14.1km az=40.0

**ISC 27 10:17:06.0±3.3, 34.9S±0.2×178.8E±0.2,

MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**3.94**	**201**	P	**Pn**	**10 18 13.5**	**+1.9**
RTZ				AML	AML		
PRGZ	**Paritu Road**	**4.04**	**190**	P	**Pn**	**10 18 14.9**	**+2.3**
KNZ	**Kokohu**	**4.17**	**192**	P	**Pn**	**10 18 15.1**	**+1.2**
RAHZ	**Arahi**	**4.20**	**199**	P	**Pn**	**10 18 16.2**	**+1.9**
MTHZ	**Maungataniwha**	**4.20**	**201**	P	**Pn**	**10 18 16.6**	**+2.2**
MHGZ	**Mahia Peninsul**	**4.26**	**189**	P	**Pn**	**10 18 17.0**	**+2.0**
OUZ	**Omahuta**	**4.27**	**265**	P	**Pn**	**10 18 16.0**	**+0.8**
OUZ	**Omahuta**	**4.27**	**265**	P	**Pn**	**10 18 16.0**	**+0.8**
WHHZ	**Waihua**	**4.31**	**196**	P	**Pn**	**10 18 18.7**	**+3.1**
MRHZ	**Matea Rd**	**4.33**	**205**	P	**Pn**	**10 18 18.5**	**+2.7**
NMHZ	**Naumai**	**4.44**	**200**	P	**Pn**	**10 18 19.3**	**+2.2**
ARHZ	**Aropaoanui**	**4.55**	**198**	P	**Pn**	**10 18 21.2**	**+3.0**
BKZ	**Black Stump Fm**	**4.60**	**203**	P	**Pn**	**10 18 20.9**	**+2.0**
BKZ	**Black Stump Fm**	**4.60**	**203**	P	**Pn**	**10 18 21.3**	**+2.4**
HIZ	**Hauiti**	**4.76**	**220**	P	Pn	10 18 26.4	+5.7
MCHZ	**McNeill Hill**	**4.79**	**200**	P	**Pn**	**10 18 24.4**	**+3.3**
NTVZ	**North Tongarir**	**4.84**	**210**	P	**Pn**	**10 18 25.3**	**+3.6**
KWHZ	**Kaweka Forest**	**4.86**	**202**	P	**Pn**	**10 18 24.3**	**+2.4**
BHHZ	**Black Hill Sta**	**5.03**	**205**	P	**Pn**	**10 18 26.1**	**+2.2**
KRHZ	**Kereru**	**5.07**	**202**	P	**Pn**	**10 18 26.3**	**+2.0**
PNHZ	**Pukenui**	**5.37**	**202**	P	**Pn**	**10 18 28.9**	**+1.1**
TSZ	**Takapari Road**	**5.58**	**203**	P	**Pn**	**10 18 32.4**	**+2.1**
DVHZ	**Dannevirke**	**5.74**	**201**	P	**Pn**	**10 18 33.9**	**+1.8**
BFZ	**Birch Farm**	**6.07**	**199**	P	**Pn**	**10 18 37.8**	**+1.7**
BFZ	**Birch Farm**	**6.07**	**199**	P	**Pn**	**10 18 38.2**	**+2.1**
MRZ	**Mangatainoka R**	**6.25**	**203**	P	**Pn**	**10 18 39.6**	**+1.4**
TIWZ	**Tintock**	**6.26**	**201**	P	**Pn**	**10 18 40.0**	**+1.6**
HOWZ	**Holdsworth Sta**	**6.49**	**203**	P	**Pn**	**10 18 42.6**	**+1.5**
TMWZ	**Te Maipa**	**6.57**	**200**	P	**Pn**	**10 18 44.0**	**+1.9**

*IDC **27** 10:24:05.2±2.8, 50°.42N×73°.48E, h0km, mbtmp2.9/1, Error ellipse: s-maj=33.6km s-min=11.0km az=34.0*
*NNC **27** 10:24:07.3±2.1, 50°.48N×73°.47E, h0km, mb3.0, mpv2.7, Error ellipse: s-maj=26.5km s-min=6.8km az=25.0, Suspected Mining explosion.*
ISC 27 10:24:10.1±4.8, 50°.7N±0°.4×73°.7E±0°.3, h0km, n9, σ0s98/7, 5C-1D, Central Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURBB	**Kurchatov Arra**	**3.06**	**90**	Pg	**Pb**	**10 25 06.2**	**+0.8**
	0.1nm,0.3s,baz=268,slow=16,SNR=17						
KURBB				Lg	Lg	10 25 48.5	
	0.2nm,0.3s,baz=269,slow=29,SNR=13						
KURBB	**Kurchatov Arra**	**3.06**	**90**	⇑Pg	**Pb**	**10 25 06.3**	**+0.8**
	4.1nm,0.7s,baz=271,slow=17						
KURBB				⇓Lg	Lg	10 25 51.2	
	33nm,0.8s						
BVA2	**Borovoye Array**	**3.08**	**319**	⇑Pg	**Pb**	**10 25 04.9**	**-0.8**
	1.2nm,0.6s						
BVA2				⇑Lg	Lg	10 25 50.3	
	10nm,1.0s						
BVAR	**Borovoye Array**	**3.08**	**319**	Pg	**Pb**	**10 25 05.5**	**-0.3**
	0.1nm,0.3s,baz=140,slow=16,SNR=7.5						
BVAR				Lg	Lg	10 25 48.4	
	0.1nm,0.3s,baz=142,slow=26,SNR=12						
KURK	**Kurchatov**	**3.11**	**89**	⇑Pg	**Pb**	**10 25 06.8**	**+0.5**
	1.2nm,1.0s						
KURK				⇑Lg	Lg	10 25 51.7	
	8.6nm,0.9s						
MK31	**Makanchi Array**	**6.90**	**122**	Lg	Lg	10 27 47.5	
	3.0nm,0.8s,baz=298,slow=25,SNR=6.8						
MKAR	**Makanchi Array**	**6.90**	**122**	Pg	**Pb**	**10 26 09.7**	**-1.2**
	0.1nm,0.3s,baz=302,slow=13,SNR=4.1						
MKAR				Lg	Lg	10 27 37.0	
	0.1nm,0.3s,baz=306,slow=29,SNR=3.7						
ZALV	**Zalesovo Beam**	**7.52**	**60**	Pn	**Pn**	**10 26 00.8**	**-0.1**
	0.3nm,0.3s,baz=248,slow=14,SNR=1.2						
I46RU	**ZALESOVO INFRA**	**7.52**	**60**	I	I	11 12 10.0	
	baz=242,slow=329,SNR=1.7						

*IDC **27** 10:45:30.9±1.0, 3°.17S×151°.59E, h0km, mb3.9/7, mbtmp4.0/8, ML1.5/1, MS3.1/4, Error ellipse: s-maj=25.3km s-min=15.6km az=92.0*
ISC 27 10:45:35.9±0.9, 3°.19S±0°.09×151°.7E±0°.1, h35km, n18, σ1s26/10, mb3.8/6, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.17**	**162**	Pn	**Pn**	**10 45 55.3**	**-0.5**
	17nm,0.3s,baz=339,slow=12,SNR=6.4						
KRVT				Sn	**Sn**	**10 46 11.6**	**+1.1**
	36nm,0.3s,baz=335,slow=12,SNR=7.5						
PMG	**Port Moresby**	**7.63**	**216**	Pn	**Pn**	**10 47 24.3**	**-0.4**
	0.4nm,0.3s,baz=26,slow=5.2,SNR=6.4						
PMG				LR	LR	10 49 55.9	
	comp=Z,54nm,20.0s,baz=294,slow=35						
	6.8nm,0.7s						
PMG				AML	AML		
JAY	**Jayapura**	**10.97**	**273**	LR	LR	10 51 24.0	
	comp=Z,55nm,19.4s,baz=118,slow=32						
CTA	**Charters Tower**	**17.61**	**197**	LR	LR	10 55 24.2	
	comp=Z,47nm,19.1s,baz=64,slow=34						
SIJI	**Sorong**	**20.52**	**276**	P	**P**	**10 50 11.9**	**+0.5**
	6.6nm,0.7s,baz=97,slow=11,SNR=3.6						
	6.6nm,0.7s						
WRA	**Warramunga Arr**	**23.73**	**224**	P	**P**	**10 50 43.0**	**-2.2**
	2.2nm,0.8s,baz=49,slow=10,SNR=18						
	2.2nm,0.8s						
H11S3	**WAKE ISLAND Hy**	**26.14**	**34**	T	T	11 18 24.5	
	baz=218,slow=75						
H11S2	**WAKE ISLAND Hy**	**26.14**	**34**	T	T	11 18 21.3	
	baz=218,slow=75						
H11S1	**WAKE ISLAND Hy**	**26.15**	**34**	T	T	11 18 24.3	
	baz=218,slow=75						
ASAR	**Alice Springs**	**26.63**	**219**	P	**P**	**10 51 11.9**	**+0.4**
	2.3nm,0.8s,baz=55,slow=8.4,SNR=25						
	2.3nm,0.8s						
H11N1	**WAKE ISLAND Hy**	**27.24**	**33**	T	T	11 19 46.4	
	baz=220,slow=75						
H11N3	**WAKE ISLAND Hy**	**27.25**	**33**	T	T	11 19 46.7	
	baz=220,slow=75						
H11N2	**WAKE ISLAND Hy**	**27.25**	**33**	T	T	11 19 48.3	
	baz=220,slow=75						
CMAR	**Chiang Mai Arr**	**56.18**	**295**	P	**P**	**10 55 13.2**	**+0.4**
	0.6nm,0.4s,baz=119,slow=4.6,SNR=5.2						
	0.6nm,0.4s						
PETK	**Petropavlovsk-**	**56.32**	**4**	P	**P**	**10 55 11.7**	**-1.5**
	6.7nm,0.9s,baz=185,slow=6.8,SNR=3.6						
	6.7nm,0.9s						
SONM	**Songino Array**	**64.37**	**328**	P	**P**	**10 56 09.9**	**+1.4**
	0.2nm,0.3s,baz=110,slow=7.8,SNR=2.1						
	0.2nm,0.3s						
ZALV	**Zalesovo Beam**	**79.19**	**326**	LR	LR	11 33 60.0	
	comp=Z,60nm,18.6s,baz=318,slow=37						
ILAR	**Eielson Array**	**81.11**	**22**	P	**P**	**10 57 47.6**	**+0.2**
	0.5nm,0.7s,baz=242,slow=5.8,SNR=12						
	0.5nm,0.7s						

*NEIC **27** 11:13:03.8±1.4, 10°.9S±0°.1×66°.78E±0°.08, h10km±1km, mb4.4/19, Error ellipse: s-maj=23.0km s-min=5.1km az=149.0*
*IDC **27** 11:13:04.2±0.8, 10°.72S×66°.69E, h0km, mb3.9/11, mbtmp3.9/11, MS3.4/17, Error ellipse: s-maj=27.4km s-min=20.2km az=60.0*
ISC 27 11:13:04.0±0.7, 10°.9S±0°.1×66°.8E±0°.1, h10km, n61, σ1s30/43, mb4.3/19, MS3.5/17, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H08S1	**Diego Carcia H**	**6.47**	**61**	Pn	**Pn**	**11 14 39.5**	**+0.3**
	baz=265,slow=13						
H08S2	**Diego Garcia H**	**6.49**	**61**	Pn	**Pn**	**11 14 39.7**	**+0.3**
	baz=265,slow=13						
H08S3	**Diego Garcia H**	**6.49**	**61**	Pn	**Pn**	**11 14 39.6**	**+0.2**
	baz=265,slow=13						
DGAR	**Diego Garcia**	**6.57**	**59**	Pn	**Pn**	**11 14 40.8**	**0.0**
ATD	**Arta Tunnel**	**32.57**	**312**	LR	LR	11 31 13.8	
	comp=Z,21nm,18.6s,baz=55,slow=34						
PSI	**Prapat**	**34.75**	**69**	LR	LR	11 31 19.9	
	comp=Z,86nm,19.9s,baz=236,slow=32						
MBAR	**Mbarara**	**37.23**	**283**	LR	LR	11 33 43.4	
	comp=Z,33nm,19.3s,baz=98,slow=33						
LSZ	**Lusaka**	**37.81**	**259**	LR	LR	11 33 38.4	
	comp=Z,77nm,21.1s,baz=103,slow=33						
LSZ	**Lusaka**	**37.81**	**259**	P	**P**	**11 20 19.9**	**-1.2**
LSZ				IAmb	IAmb	11 20 30.1	
	comp=Z,6.0nm,0.8s						
MATP	**Matopo**	**37.98**	**251**	LR	LR	11 34 28.4	
	comp=Z,280nm,18.1s,baz=68,slow=34						
LEM	**Lembang**	**40.53**	**88**	LR	LR	11 33 49.7	
	comp=Z,64nm,19.5s,baz=240,slow=31						
BRDH	**Bariadhala**	**41.29**	**36**	LR	LR	11 39 50.8	
	comp=Z,54nm,19.1s,baz=154,slow=39						
BOSA	**Boshof**	**42.62**	**239**	LR	LR	11 35 29.2	
	comp=Z,48nm,20.1s,baz=20,slow=32						
CM31	**Chiang Mai Arr**	**43.09**	**48**	P	**P**	**11 21 03.4**	**-1.2**
CM31				IAmb	IAmb	11 21 20.9	
	comp=Z,7.6nm,1.2s						
CMAR	**Chiang Mai Arr**	**43.09**	**48**	P	**P**	**11 21 07.5**	**+2.9**
	comp=Z,0.6nm,0.3s,baz=240,slow=10,SNR=6.1						
CMAR				LR	LR	11 38 49.0	
	comp=Z,21nm,18.4s,baz=240,slow=36						
	comp=Z,0.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**43.09**	**48**	P	**P**	**11 21 03.8**	**-0.8**
EVN	**Everest**	**43.20**	**26**	P	**P**	**11 21 05.2**	**-0.9**
JAGI	**Jajag, Banyuwa**	**46.73**	**91**	P	**P**	**11 21 31.9**	**-1.8**
SUR	**Sutherland**	**47.34**	**236**	LR	LR	11 38 32.5	
	comp=Z,52nm,19.1s,baz=32,slow=32						
H01W3	**Cape Leeuwin H**	**49.18**	**127**	T	T	12 14 46.0	
	baz=288						
H01W2	**Cape Leeuwin H**	**49.18**	**127**	T	T	12 14 52.3	
	baz=288						
H01W1	**Cape Leeuwin H**	**49.20**	**127**	T	T	12 14 59.0	
	baz=288						
MBWA	**Marble Bar**	**51.71**	**108**	P	**P**	**11 22 11.9**	**0.0**
MBWA				IAmb	IAmb	11 22 48.5	
	comp=Z,7.8nm,0.9s						
KAPI	**Kappang**	**52.73**	**88**	LR	LR	11 42 09.1	
	comp=Z,27nm,21.0s,baz=258,slow=33						
BATI	**Baumata**	**55.86**	**95**	LR	LR	11 43 38.1	
	comp=Z,37nm,19.2s,baz=287,slow=33						
FITZ	**Fitzroy Crossi**	**57.25**	**105**	LR	LR	11 43 00.3	
	comp=Z,44nm,21.7s,baz=244,slow=31						
MAKZ	**Makanchi**	**59.01**	**12**	P	**P**	**11 23 03.0**	**-0.8**
MKAR	**Makanchi Array**	**59.06**	**12**	P	**P**	**11 23 05.0**	**+0.8**
	comp=Z,0.5nm,0.7s,baz=208,slow=6.2,SNR=3.4						
	comp=Z,0.5nm,0.7s						
MKAR	**Makanchi Array**	**59.06**	**12**	P	**P**	**11 23 03.5**	**-0.8**
AB31	**Akbulak array**	**60.16**	**355**	P	**P**	**11 23 12.0**	**+0.2**
AB31				IAmb	IAmb	11 23 15.0	
	comp=Z,2.4nm,0.9s						
ABKAR	**Akbulak array**	**60.16**	**355**	P	**P**	**11 23 11.8**	**0.0**
KURBB	**Kurchatov Arra**	**62.09**	**8**	P	**P**	**11 23 25.7**	**+0.9**
	comp=Z,1.0nm,0.9s,baz=210,slow=7.1,SNR=5.5						
	comp=Z,1.0nm,0.9s						
KURK	**Kurchatov**	**62.19**	**8**	P	**P**	**11 23 26.0**	**+0.6**
KURK				IAmb	IAmb	11 23 36.3	
	comp=Z,4.8nm,1.2s						
BVAR	**Borovoye Array**	**63.71**	**2**	P	**P**	**11 23 36.0**	**+0.4**
	comp=Z,0.4nm,0.5s,baz=180,slow=6.2,SNR=3.6						
	comp=Z,0.4nm,0.5s						
BORK	**Borovoye**	**63.73**	**2**	P	**P**	**11 23 35.8**	**+0.1**
ASAR	**Alice Springs**	**64.86**	**111**	P	**P**	**11 23 45.8**	**+1.9**
	comp=Z,1.1nm,0.7s,baz=268,slow=6.6,SNR=18						
ASAR				LR	LR	11 48 45.3	
	comp=Z,16nm,19.7s,baz=326,slow=33						
	comp=Z,1.1nm,0.7s						
ASAR	**Alice Springs**	**64.86**	**111**	P	**P**	**11 23 43.4**	**-0.4**
WRA	**Warramunga Arr**	**65.40**	**107**	P	**P**	**11 23 50.0**	**+2.6**
	comp=Z,1.6nm,0.7s,baz=271,slow=6.4,SNR=19						
	comp=Z,1.6nm,0.7s						
WRA	**Warramunga Arr**	**65.40**	**107**	P	**P**	**11 23 47.5**	**0.0**
WB0	**Warramunga Arr**	**65.46**	**107**	P	**P**	**11 23 45.5**	**-2.3**
WR8	**Warramunga Arr**	**65.55**	**107**	P	**P**	**11 23 46.0**	**-2.3**
ZAA0	**Zalesovo Array**	**66.36**	**12**	P	**P**	**11 23 51.5**	**-1.2**
ZAA0				IAmb	IAmb	11 24 08.0	
	comp=Z,1.8nm,0.9s						
ZALV	**Zalesovo Beam**	**66.36**	**12**	P	**P**	**11 23 53.0**	**+0.2**
	comp=Z,0.5nm,0.6s,baz=199,slow=6.0,SNR=3.6						
	comp=Z,0.5nm,0.6s						
ZALV	**Zalesovo Beam**	**66.36**	**12**	P	**P**	**11 23 52.3**	**-0.5**
SONM	**Songino Array**	**68.20**	**28**	P	**P**	**11 24 06.6**	**+1.8**
	comp=Z,2.2nm,0.8s,baz=219,slow=6.8,SNR=13						
	comp=Z,2.2nm,0.8s						
SONM	**Songino Array**	**68.20**	**28**	P	**P**	**11 24 05.8**	**+1.0**
SONM				IAmb	IAmb	11 24 08.3	
	comp=Z,2.2nm,0.9s						
BURAR	**Bucovina Array**	**68.94**	**331**	P	**P**	**11 24 08.7**	**-0.7**
BUR08	**Bucovina Ar. S**	**68.97**	**331**	P	**P**	**11 24 09.6**	**+0.1**
BUR08				IAmb	IAmb	11 24 52.1	
	comp=Z,4.8nm,1.4s						
AKASG	**Malin Array Be**	**69.47**	**336**	P	**P**	**11 24 11.8**	**-0.7**
	comp=Z,0.4nm,0.5s,baz=137,slow=6.3,SNR=1.3						
	comp=Z,0.4nm,0.5s						
TLY	**Talaya**	**69.96**	**23**	P	**P**	**11 24 15.0**	**-0.4**
TLY				IAmb	IAmb	11 24 35.0	
	comp=Z,2.6nm,0.8s						
DBIC	**Dimbokro**	**73.39**	**280**	LR	LR	11 55 06.1	
	comp=Z,60nm,19.4s,baz=44,slow=34						
KSRS	**Korea Array**	**74.70**	**46**	LR	LR	11 59 10.3	
	comp=Z,25nm,18.4s,baz=265,slow=37						
GERES	**GERESS Array B**	**75.57**	**327**	P	**P**	**11 24 48.0**	**-1.0**
CTA	**Charters Tower**	**76.55**	**108**	LR	LR	11 56 21.8	
	comp=Z,3nm,20.9s,baz=179,slow=34						
QSPA	**South Pole Qui**	**79.19**	**180**	P	**P**	**11 25 12.2**	**+3.2**
	comp=Z,1.4nm,0.9s,baz=291,slow=1.0,SNR=6.4						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	**79.19**	**180**	P	**P**	**11 25 07.8**	**-1.2**
QSPA				IAmb	IAmb	11 25 16.4	
	comp=Z,6.5nm,1.4s						
ESDC	**Sonseca Array**	**82.48**	**313**	P	**P**	**11 25 28.1**	**+1.1**
	comp=Z,2.0nm,1.0s,baz=98,slow=5.0,SNR=6.5						
	comp=Z,2.0nm,1.0s						
ESDC	**Sonseca Array**	**82.48**	**313**	P	**P**	**11 25 27.1**	**+0.1**
ESDC				IAmb	IAmb	11 25 33.6	
	comp=Z,3.8nm,1.1s						
PDAR	**Pinedale Array**	**148.06**	**355**	PKPbc	**PKiKP**	**11 32 52.0**	**-0.3**
	comp=Z,1.4nm,1.0s,baz=17,slow=3.1,SNR=7.3						
NVAR	**Mina Array Bea**	**152.18**	**9**	PKPbc	**PKiKP**	**11 33 02.8**	**+1.9**
	comp=Z,0.7nm,0.8s,baz=350,slow=2.7,SNR=5.3						
TXAR	**Lajitas Array**	**159.57**	**335**	PKPab	**PKPab**	**11 33 42.8**	**+0.9**
	comp=Z,0.5nm,0.9s,baz=29,slow=5.1,SNR=4.3						

*LDG **27** 11:16:01.8±0.1, 45°.97N×2°.71E, h17km, Ml2.0/7, Error ellipse: s-maj=1.2km s-min=0.9km az=100.0*
STR 27 11:16:02.5±0.0, 45°.96N±0°.07×2°.70E±0°.09, h9km, MLv1.4/11, LOCSAT earthModelID auvergne_taup-2.11 preliminary, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VERF	**Verneugheol**	**0.26**	**216**	Pg	Pb	11 16 08.5	-0.8
VERF				Sg	Sg	11 16 12.4	+1.3
VERF	**Verneugheol**	**0.26**	**216**	Pg	Pg	11 16 07.7	0.0
VERF				Sg	Sg	11 16 11.6	+0.4
AGO	**Saint Agoulin**	**0.32**	**72**	Pg	Pg	11 16 09.3	+0.5
AGO				Sg	Sg	11 16 13.5	+0.5
AGO	**Saint Agoulin**	**0.32**	**72**	Pg	Pg	11 16 08.4	-0.4
AGO				Sg	Sg	11 16 12.7	-0.4
TCF	**Toulx Ste Croi**	**0.47**	**314**	*e*Pg	Pg	11 16 11.3	-0.5
TCF				*e*Sg	Sg	11 16 17.2	-0.8
	1.9nm,0.2s						
FRNF	**Fournols**	**0.58**	**190**	Pg	Pb	11 16 14.6	-0.2
FRNF				Sg	Sg	11 16 22.0	+0.7
FRNF	**Fournols**	**0.58**	**190**	Pg	Pg	11 16 13.4	-0.3
FRNF				Sg	Sg	11 16 21.2	-0.1
BGF	**Bois d'Agland**	**0.61**	**10**	*e*Pg	Pg	11 16 13.2	-1.1
BGF				*e*Sg	Sg	11 16 21.9	-0.4
	15nm,0.3s						
PLDF	**La Plantade**	**0.64**	**89**	Pg	Pg	11 16 15.3	+0.3
PLDF				Sg	Sg	11 16 23.7	+0.3
PLDF	**La Plantade**	**0.64**	**89**	Pg	Pg	11 16 14.6	-0.3
PLDF				Sg	Sg	11 16 22.8	-0.6
LBL	**Lubilhac**	**0.82**	**152**	Pg	Pb	11 16 18.7	-0.3
LBL				Sg	Sg	11 16 28.4	-0.6
LBL	**Lubilhac**	**0.82**	**152**	Pg	Pg	11 16 17.7	-0.6
COLF	**Collangettes**	**0.82**	**122**	Pg	Pg	11 16 18.7	+0.3
COLF				Sg	Sb	11 16 29.7	-0.5
COLF	**Collangettes**	**0.82**	**122**	Pg	Pg	11 16 17.7	-0.7
COLF				Sg	Sg	11 16 28.5	-0.6
AVF	**Avril sur Loir**	**0.95**	**28**	*e*Pg	Pg	11 16 19.5	-1.3
AVF				*e*Sg	Sg	11 16 31.3	-1.8
	3.9nm,0.2s						
AVF				AML	AML		
SMF	**Signal de Mont**	**1.05**	**49**	*e*Pg	Pg	11 16 21.3	-1.4
SMF				*e*Sg	Sg	11 16 35.7	-0.6
	2.8nm,0.2s						
SMF				AML	AML		
RJF	**Les Rejaudoux**	**1.06**	**232**	*e*Sg	Sg	11 16 36.4	-0.1
	4.0nm,0.3s						
RJF				AML	AML		
CAF	**Calviac**	**1.12**	**204**	*e*Pg	Pb	11 16 24.2	+0.1
CAF				*e*Sg	Sg	11 16 38.0	-0.7
	1.4nm,0.2s						
CAF				AML	AML		
LEUC	**Leucamp**	**1.20**	**185**	Pg	Pg	11 16 25.7	+0.1
LEUC				Sg	Sg	11 16 41.5	+0.3
LEUC	**Leucamp**	**1.20**	**185**	Pg	Pb	11 16 24.9	-0.5
SSF	**Saint Saulge**	**1.24**	**26**	*e*Pg	Pn	11 16 25.1	-0.9
SSF				*e*Sg	Sb	11 16 40.5	-1.6
	2.6nm,0.2s						
SSF				AML	AML		
HYF	**Humbligny**	**1.31**	**358**	*e*Pg	Pn	11 16 26.2	-0.8
HYF				*e*Sg	Sb	11 16 43.5	-0.8
	26nm,0.3s						
HYF				AML	AML		
SSB	**Saint Sauveur**	**1.46**	**117**	Pn	Pn	11 16 27.9	-1.2
SSB				Sn	Sn	11 16 47.5	-0.9
LOR	**Lormes**	**1.54**	**31**	*e*Pg	Pn	11 16 30.0	-0.1
LOR				*e*Sg	Sn	11 16 49.3	-0.9
	3.3nm,0.2s						
LOR				AML	AML		
LOR	**Lormes**	**1.54**	**31**	Pg	Pb	11 16 30.9	-0.2
PLYF	**Puligny Montra**	**1.73**	**54**	Pg	Pb	11 16 35.0	+0.5
SLVF	**La Salvetat-Pe**	**1.81**	**192**	Pg	Pg	11 16 37.1	-0.1
SLVF				Sg	Sg	11 17 00.7	+0.2
MFF	**Saint Martin d**	**2.08**	**289**	*e*Sg	Sb	11 17 07.2	+1.0

*UPP **27** 11:29:40.4±3.2, 62°.88N×28°.03E, h0km, ML1.8, Presumed earthquake*
*HEL **27** 11:29:43.4±0.1, 63°.12N×27°.73E, h0km, ML1.9, Explosion*
*IDC **27** 11:29:44.1±2.1, 63°.14N×27°.68E, h0km, mbtmp3.3/2, ML1.5/2, Error ellipse: s-maj=31.0km s-min=13.0km az=101.0*
ISC 27 11:29:42.1±0.8, 63°.12N±0°.02×27°.72E±0°.03, h0km, n41, σ1s63/60, Finland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIF	**Nilsia**	**0.27**	**9**	PG	**Pg**	**11 29 46.4**	**-0.9**
NIF				SG	**Sg**	**11 29 52.3**	**+1.5**
NIF				MSG		11 29 53.0	
	comp=Z,87nm,0.2s						
SUF	**Sumiainen**	**0.82**	**241**	*e*P	**Pg**	**11 29 58.4**	**+0.6**
SUF	**Sumiainen**	**0.82**	**241**	PG	**Pg**	**11 29 58.5**	**+0.6**
	baz=59						
SUF				MSG		11 30 09.1	
	comp=Z,5.9nm,0.2s						
SUF				SB	**Sb**	**11 30 11.8**	**+0.9**
KAF	**Kangasniemi**	**1.21**	**213**	PG	**Pg**	**11 30 05.2**	**0.0**
KAF				MSG		11 30 20.0	
	comp=Z,14nm,0.2s						
KAF				SN	**Sb**	**11 30 22.3**	**+0.5**
RMF	**Romuvaara**	**1.48**	**41**	PG	**Pn**	**11 30 10.2**	**+0.3**
	baz=226						
RMF				MSG		11 30 27.7	
	comp=Z,9.8nm,0.2s						
JOF	**Joensuu**	**1.65**	**96**	*e*P	**Pb**	**11 30 13.2**	**-0.1**
JOF	**Joensuu**	**1.65**	**96**	PG	**Pb**	**11 30 13.0**	**-0.4**
JOF				SN	**Sg**	**11 30 35.1**	**0.0**
RUF	**Ruokolahti**	**1.80**	**161**	PG	**Pb**	**11 30 15.3**	**-0.5**
RUF				MSG		11 30 36.8	
	comp=Z,7.3nm,0.2s						
OUF	**Merijarvi**	**1.82**	**315**	PG	**Pb**	**11 30 16.1**	**-0.2**
	baz=128						
OUF				MSG		11 30 37.8	
	comp=Z,9.9nm,0.2s						
OUF				SN	**Sg**	**11 30 41.8**	**+1.2**
FIA0	**FINESS Array S**	**1.85**	**205**	PG	**Pb**	**11 30 16.7**	**0.0**
FIA0				MSG		11 30 38.6	
	comp=Z,7.3nm,0.2s						
FIA0				SG	**Sg**	**11 30 41.1**	**-0.4**
FINES	**FINESS Array B**	**1.85**	**205**	Pg	**Pb**	**11 30 16.6**	**-0.1**
	comp=Z,0.3nm,0.3s,baz=23,slow=17,SNR=19						
FINES				Lg	Lg	11 30 41.0	
	comp=Z,0.6nm,0.3s,baz=26,slow=29,SNR=13						
OBF4	**Vikkela, Lumij**	**2.05**	**327**	PG	**Pb**	**11 30 20.2**	**0.0**
	baz=142						
OBF4				MSG		11 30 44.6	
	comp=Z,5.6nm,0.2s						
OUL	**Oulu**	**2.13**	**339**	PG	**Pb**	**11 30 21.1**	**-0.4**
	baz=154						
OUL				SG	**Sg**	**11 30 50.2**	**-0.1**
OBF8	**Ulkokalla**	**2.26**	**304**	PG	**Pb**	**11 30 23.7**	**+0.1**
OBF8				MSG		11 30 50.3	
	comp=Z,4.8nm,0.2s						
OBF8				SG	**Sg**	**11 30 54.7**	**+0.2**
VAF	**Ylistaro**	**2.30**	**270**	*e*P	**Pb**	**11 30 24.2**	**-0.2**
VAF	**Ylistaro**	**2.30**	**270**	PG	**Pb**	**11 30 24.1**	**-0.2**
	baz=84						
VAF				MSG		11 30 51.5	
	comp=Z,9.6nm,0.2s						
VAF				SG	**Sb**	**11 30 54.9**	**+1.6**
KU1	**Kurvinen**	**2.58**	**17**	PB	**Pb**	**11 30 27.9**	**-1.3**
	ba

0.1nm,0.3s,baz=150,slow=25,SNR=4.4
0.2nm,0.4s

ASAR				AML	AML	
WRA	**Warramunga Arr**	**11.10**	**341**	Pn	Pn	11 33 32.6 -3.1
	0.1nm,0.3s,baz=162,slow=12,SNR=7.1					
WRA				Sn	Sn	11 35 33.0 -7.6
	baz=161,slow=24,SNR=2.2					
	0.4nm,0.5s					
WRA				AML	AML	

IDC 27 11:40:55.7±1.6, 6°83S×128°85E, h0km, mb3.4/2, mbtmp3.5/5, ML3.5/3, Error ellipse: s-maj=62.9km s-min=19.9km az=76.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.63**	**195**	Pn	Pn	11 43 38.1	-5.0
	0.2nm,0.3s,baz=16,slow=10,SNR=14						
FITZ				Sn	Sn	11 45 32.5	-21
	1.0nm,0.3s,baz=226,slow=18,SNR=8.6						
	3.4nm,1.1s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.09**	**158**	Pn	Pn	11 44 10.4	-6.3
	0.3nm,0.3s,baz=337,slow=14,SNR=20						
WRA				Sn	Sn	11 46 29.6	-24
	0.9nm,0.3s,baz=340,slow=22,SNR=11						
	0.5nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.43**	**164**	Pn	Pn	11 44 54.1	-6.5
	0.1nm,0.3s,baz=345,slow=13,SNR=8.1						
ASAR				Sn	Sn	11 47 48.9	-27
	0.3nm,0.3s,baz=345,slow=24,SNR=6.7						
	0.3nm,0.3s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.46**	**327**	P	P	11 51 53.3	-0.2
	0.2nm,0.5s,baz=129,slow=5.9,SNR=1.7						
	0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**71.77**	**329**	P	P	11 52 20.1	+0.2
	0.2nm,0.6s,baz=129,slow=4.9,SNR=2.9						
	0.2nm,0.6s						

IDC 27 11:41:16.5±3.6, 67°80N×33°30E, h0km, mbtmp3.2/2, ML2.1/2, Error ellipse: s-maj=38.3km s-min=15.5km az=81.0
HEL 27 11:41:17.7±0.4, 68°14N×33°40E, h0km, ML1.6, Suspected explosion
BER 27 11:41:17.1±0.8, 67°85N×33°63E, h0km, ML1.7, Suspected explosion
KOLA 27 11:41:18.0±0.5, 68°05N±0°01×33°43E±0°04, h0km, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

ISC 27 11:41:17.7±0.8, 68°07N±0°02×33°31E±0°03, h0km, n34, σ1s32/60, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
APA0	**Apatity Array**	**0.48**	**195**	P	**Pg**	**11 41 26.8**	**-0.1**
APA0				S	**Sg**	**11 41 33.4**	**+0.4**
APA	**Apatity**	**0.50**	**176**	P	**Pg**	**11 41 27.5**	**+0.2**
APA				S	**Sg**	**11 41 34.3**	**+0.6**
LVZ	**Lovozero**	**0.53**	**108**	P	**Pg**	**11 41 27.5**	**-0.4**
LVZ				S	**Sg**	**11 41 34.0**	**-0.9**
TERR	**Teriberka**	**1.32**	**29**	P	**Pg**	**11 41 41.8**	**-1.2**
TERR				S	**Sg**	**11 41 59.1**	**-0.9**
KVDA	**Kovda**	**1.39**	**187**	P	**Pn**	**11 41 43.8**	**-0.5**
KVDA				S	**Sb**	**11 42 02.6**	**-0.2**
VRF	**Varrio**	**1.44**	**259**	PG	**Pn**	**11 41 44.4**	**-0.6**
	baz=73						
VRF				MSG		11 42 02.3	
	comp=Z,4.9nm,0.2s						
VRF				SN	**Sb**	**11 42 04.2**	**+0.1**
PRVG	**Vayda Guba**	**1.74**	**347**	P	**Pg**	**11 41 50.8**	**-0.2**
PRVG				S	**Sg**	**11 42 13.4**	**-0.1**
RAJF	**Raja-Jooseppi**	**1.91**	**285**	PG	**Pn**	**11 41 52.2**	**+0.8**
RAJF				SG	**Sn**	**11 42 16.8**	**+0.7**
OLKF	**Oulanka, Finla**	**2.32**	**223**	PB	**Pn**	**11 41 58.4**	**+1.3**
OLKF				MSG		11 42 28.4	
	comp=Z,2.5nm,0.2s						
OLKF				SG	**Sb**	**11 42 30.5**	**+1.0**
KU6	**Riekki**	**2.45**	**215**	PB	**Pn**	**11 42 00.4**	**+1.6**
	baz=36						
KU6				MSG		11 42 32.3	
	comp=Z,2.2nm,0.2s						
KU6				SG	**Sb**	**11 42 34.4**	**+1.2**
VADS	**Vadso**	**2.50**	**327**	*e*P	**Pn**	**11 42 00.1**	**+0.5**
VADS				*e*S	**Sn**	**11 42 32.6**	**+1.9**
VADS				IAML		11 42 37.1	
	comp=Z,9.6nm,0.5s						
VADS	**Vadso**	**2.50**	**327**	P	**Pn**	**11 42 00.2**	**+0.5**
VADS				S	**Sb**	**11 42 33.3**	**-1.5**
MSF	**Maaselka**	**2.74**	**220**	PB	**Pb**	**11 42 06.4**	**-1.1**
MSF				SG	**Sg**	**11 42 45.4**	**-0.1**
KEV	**Kevo**	**2.84**	**310**	PB	**Pn**	**11 42 05.9**	**+1.6**
KEV				SB	**Sn**	**11 42 41.0**	**+1.9**
KU1	**Kurvinen**	**2.92**	**212**	PG	**Pb**	**11 42 09.9**	**-0.6**
KU2	**Taivalkoski**	**3.10**	**223**	PB	**Pn**	**11 42 10.2**	**+2.4**
	baz=33						
RNF	**Rovaniemi**	**3.18**	**246**	PN	**Pn**	**11 42 10.0**	**+1.1**
RNF				SN	**Sn**	**11 42 49.2**	**+1.8**
ARA0	**ARCESS Array S**	**3.20**	**301**	*e*P	**Pn**	**11 42 09.5**	**+0.4**
ARA0				*e*S	**Sn**	**11 42 49.6**	**+1.7**
ARA0				IAML		11 43 01.8	
	comp=Z,3.7nm,0.4s						
ARA0	**ARCESS Array S**	**3.20**	**301**	PB	**Pn**	**11 42 10.0**	**+0.9**
	baz=115						
ARA0				SG	**Sb**	**11 42 55.9**	**+1.1**
ARCES	**ARCESS Array B**	**3.20**	**301**	Pn	**Pn**	**11 42 09.4**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=116,slow=15,SNR=13						
ARCES				Pg	**Pb**	**11 42 15.7**	**+0.4**
	comp=Z,0.3nm,0.3s,baz=115,slow=16,SNR=7.7						
ARCES				Lg	Lg	11 42 55.5	
	comp=Z,0.7nm,0.3s,baz=118,slow=32,SNR=2.6						
	comp=Z,3.6nm,0.7s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**3.20**	**301**	P	**Pn**	**11 42 09.8**	**+0.7**
ARCES				S	**Sn**	**11 42 48.7**	**+0.8**
RANF	**Ranua**	**3.28**	**234**	PN	**Pn**	**11 42 11.0**	**+0.7**
	baz=51						
RANF				SB	**Sb**	**11 42 57.5**	**+0.3**
HEF	**Hetta**	**3.61**	**280**	*e*P	**Pn**	**11 42 14.7**	**-0.2**
HEF				*e*S	**Sn**	**11 42 56.7**	**-1.4**
HEF	**Hetta**	**3.61**	**280**	PN	**Pn**	**11 42 15.1**	**+0.3**
	baz=93						
HEF				SN	**Sn**	**11 42 57.2**	**-0.9**
KLF	**Kolari**	**3.67**	**261**	PN	**Pn**	**11 42 16.0**	**+0.4**
KLF				SG	**Sg**	**11 43 12.0**	**-3.3**
KTK1	**Kautokeino**	**3.82**	**289**	*e*P	**Pn**	**11 42 18.2**	**+0.5**
KTK1				IAML		11 43 17.8	
	comp=Z,4.1nm,0.4s						
KTK1	**Kautokeino**	**3.82**	**289**	PN	**Pn**	**11 42 19.0**	**+1.3**
KTK1				SG	**Sb**	**11 43 15.5**	**+2.8**
TOF	**Tornio**	**4.04**	**245**	PN	**Pn**	**11 42 21.3**	**+0.6**
TOF				SN	**Sn**	**11 43 07.6**	**-1.0**
OUL	**Oulu**	**4.21**	**228**	PN	**Pn**	**11 42 25.0**	**+2.0**
OUL				SG	**Sg**	**11 43 29.9**	**-2.8**
LANU	**Lannavaara**	**4.25**	**275**	PN	**Pn**	**11 42 23.9**	**+0.4**
LANU				SG	**Sb**	**11 43 27.0**	**+2.1**
ERTU	**Ertsjaerv**	**4.56**	**256**	PN	**Pn**	**11 42 28.4**	**+0.4**
ERTU				SN	**Sn**	**11 43 20.8**	**-0.8**
FAUS	**Fauske**	**6.88**	**273**	S	**Sn**	**11 44 14.7**	**-3.8**
FINES	**FINESS Array B**	**7.33**	**208**	Pn	Pn	11 42 58.4	-7.4
	comp=Z,0.1nm,0.3s,baz=8.7,slow=10,SNR=2.0						
FINES				Lg	Lg	11 44 54.0	
	comp=Z,0.1nm,0.3s,baz=17,slow=29,SNR=1.2						
	comp=Z,3.4nm,1.0s						
FINES				AML	AML		
I43RU	**DUBNA INFRASON**	**1.53**	**169**	I	I	12 51 40.0	
	baz=356,slow=334,SNR=1.4						

IDC 27 11:49:57.4±1.1, 3°81S×81°71W, h0km, mb3.7/6, mbtmp3.7/8, ML3.3/2, MS3.3/5, Error ellipse: s-maj=70.6km s-min=14.4km az=51.0

ISC 27 11:50:02.9±0.9, 3°9S±0°3×81°7W±0°3, h40km, n18, σ0s48/16, mb3.7/6, MS3.3/3, Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ATAH	**Atahualpa**	**4.61**	**134**	Pn	**Pn**	**11 51 10.6**	**+0.1**
	1.1nm,0.3s,baz=309,slow=12,SNR=8.1						
ATAH				Sn	**Sn**	**11 52 03.5**	**+0.4**
	2.9nm,0.3s,baz=28,slow=9.5,SNR=4.3						
	8.0nm,0.6s						
ATAH				AML	AML		
SDV	**Santo Domingo**	**16.83**	**41**	LR	LR	12 01 09.6	
	comp=Z,54nm,21.1s,baz=265,slow=40						
LPAZ	**La Paz**	**18.16**	**134**	P	**P**	**11 54 12.6**	**-0.2**
	0.1nm,0.3s,baz=322,slow=8.3,SNR=8.3						
LPAZ				LR	LR	12 01 37.2	
	comp=Z,39nm,21.7s,baz=306,slow=38						
	1.6nm,0.9s						
LPAZ				AML	AML		
MDP	**Montagnes des**	**30.38**	**73**	LR	LR	12 09 40.5	
	comp=Z,61nm,19.5s,baz=330,slow=39						
CPUP	**Villa Florida**	**32.30**	**136**	LR	LR	12 11 28.9	
	comp=Z,57nm,18.2s,baz=293,slow=40						
TXAR	**Lajitas Array**	**39.18**	**329**	P	**P**	**11 57 28.2**	**+0.9**
	0.3nm,0.9s,baz=139,slow=8.2,SNR=2.5						
	0.3nm,0.9s						
PDAR	**Pinedale Array**	**52.84**	**334**	P	**P**	**11 59 14.4**	**-0.4**
	0.8nm,0.8s,baz=137,slow=9.1,SNR=6.1						
	0.8nm,0.8s						
NVAR	**Mina Array Bea**	**54.03**	**325**	P	**P**	**11 59 24.3**	**+0.7**
	0.6nm,0.7s,baz=130,slow=8.0,SNR=4.7						
	0.6nm,0.7s						
ULM	**Lac du Bonnet**	**55.30**	**349**	P	**P**	**11 59 31.9**	**-0.3**
	2.6nm,0.9s,baz=162,slow=8.3,SNR=3.2						
ULM				LR	LR	12 21 54.8	
	comp=Z,96nm,18.1s,baz=24,slow=35						
	2.6nm,0.9s						
ESDC	**Sonseca Array**	**83.08**	**49**	P	**P**	**12 02 24.9**	**+0.2**
	0.7nm,0.6s,baz=248,slow=4.1,SNR=3.4						
	0.7nm,0.6s						
ILAR	**Eielson Array**	**83.19**	**337**	P	**P**	**12 02 24.7**	**0.0**
	0.5nm,0.9s,baz=113,slow=5.3,SNR=4.2						
	0.5nm,0.9s						
ZALV	**Zalesovo Beam**	**128.90**	**10**	PKP	**PKPdf**	**12 09 06.0**	**-0.2**
	0.6nm,0.4s,baz=344,slow=2.1,SNR=4.4						
KURBB	**Kurchatov Arra**	**130.55**	**16**	PKP	**PKPdf**	**12 09 09.7**	**+0.2**
	0.8nm,0.7s,baz=321,slow=2.7,SNR=7.7						
MKAR	**Makanchi Array**	**135.07**	**16**	PKP	**PKPdf**	**12 09 17.4**	**-0.8**
	0.4nm,0.6s,baz=339,slow=3.7,SNR=2.5						
SONM	**Songino Array**	**135.67**	**352**	PKP	**PKPdf**	**12 09 19.1**	**-0.3**
	0.3nm,0.6s,baz=14,slow=2.3,SNR=2.3						
ASAR	**Alice Springs**	**135.79**	**230**	PKhKP	PKPpre	12 09 14.8	
	0.5nm,0.8s,baz=128,slow=4.2,SNR=5.5						
ASAR				PKP	**PKPdf**	**12 09 19.8**	**-0.4**
	0.7nm,0.9s,baz=102,slow=1.7,SNR=5.9						
WRA	**Warramunga Arr**	**137.39**	**235**	PKP	**PKPdf**	**12 09 22.9**	**-0.4**
	0.8nm,0.7s,baz=116,slow=2.2,SNR=9.7						
LZDM	**Lanzhou Array**	**147.71**	**352**	PKPbc	**PKPbc**	**12 09 43.8**	**-0.4**
	1.6nm,0.3s,baz=18,slow=3.6,SNR=1.4						

NEIC 27 11:52:01.5±1.1, 31°06N±0°07×139°3E±0°1, h279km±8km, mb4.0/30, Error ellipse: s-maj=14.6km s-min=10.1km az=69.0
IDC 27 11:52:02.0±0.8, 31°15N×139°00E, h275km±6km, mb3.5/21, mbtmp4.1/28, Error ellipse: s-maj=15.3km s-min=10.2km az=77.0
GFZ 27 11:52:02.9±0.7, 31°N±8°×13°9E±°, h284km±4km, M4.0/12, mb4.0/12, Error ellipse: s-maj=18.4km s-min=16.1km az=88.4, confirmed
JMA 27 11:52:03.7±0.3, 31°N±2°×13°9E±°, h288km, MV4.0/35, NEAR TORISHIMA IS

ISC 27 11:52:02.1±0.5, 31°07N±0°05×139°23E±0°07, h284km, n142, σ1s28/154, mb3.9/51, 1C-1D, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHCJ	**Hachijojimakas**	**2.06**	**13**	P	**Pn**	**11 52 48.1**	**+0.3**
JHJ	**Hachijo jima 2**	**2.10**	**13**	P	**Pn**	**11 52 48.1**	**-0.1**
	63nm,0.3s,baz=87,slow=5.4,SNR=63						
JHJ				S	**S**	**11 53 23.2**	**-1.6**
	29nm,0.3s,baz=226,slow=23,SNR=13						
JHJ2	**Mitsune**	**2.10**	**13**	P	**Pn**	**11 52 48.4**	**+0.2**
JHJ2	**Mitsune**	**2.10**	**13**		**Pn**	**11 52 48.2**	**+0.1**
JHJ2	**Mitsune**	**2.10**	**13**	P	**Pn**	**11 52 48.4**	**+0.2**
JHJ2	**Mitsune**	**2.10**	**13**	P	**Pn**	**11 52 48.3**	**+0.1**
JHJ2				S	**S**	**11 53 22.8**	**-2.1**
JMKN	**Mikurajimanish**	**2.83**	**6**	P	**Pn**	**11 52 54.4**	**-0.6**
JMYK	**Miyake Tsubota**	**3.00**	**5**	P	**Pn**	**11 52 56.3**	**-0.3**
JKO	**Kozu shima**	**3.11**	**359**	*e*P	**Pn**	**11 52 57.8**	**0.0**
TTO1	**TONANKAI O.B.S**	**3.28**	**321**	P	**Pn**	**11 52 59.7**	**+0.4**
JSG	**Sagara**	**3.70**	**346**		**Pn**	**11 53 03.8**	**-0.3**
JSG	**Sagara**	**3.70**	**346**	P	**Pn**	**11 53 04.9**	**+0.8**
BSO1	**Boso 1**	**3.87**	**22**	P	**Pn**	**11 53 04.2**	**-1.1**
BSO1				*e*S	**S**	**11 53 52.4**	**-3.6**
BSO3	**Boso 3**	**3.88**	**16**	P	**Pn**	**11 53 04.2**	**-1.5**
BSO3				S	**S**	**11 53 53.1**	**-3.6**
JIE	**Ise**	**3.94**	**328**	P	**Pn**	**11 53 06.7**	**0.0**
HMMJ	**Hamamatsu 2**	**3.98**	**342**	P	**Pn**	**11 53 07.3**	**+0.1**
BSO4	**Boso 4**	**4.02**	**13**	P	**Pn**	**11 53 06.1**	**-1.4**
INU	**Inuyama**	**4.66**	**337**	P	**Pn**	**11 53 15.0**	**+0.1**
INU	**Inuyama**	**4.66**	**337**	Pn	**Pn**	**11 53 14.5**	**-0.4**
INU	**Inuyama**	**4.66**	**337**	P	**Pn**	**11 53 16.3**	**+0.4**
JCJ	**Chichijima**	**4.73**	**146**	P	Pn	11 53 11.1	-4.8
	70nm,0.4s,baz=5.4,slow=22,SNR=69						
JCJ				S	**S**	**11 54 08.8**	**-6.2**
	272nm,0.4s,baz=308,slow=22,SNR=20						
JCJ	**Chichijima**	**4.73**	**146**	P	**Pn**	**11 53 14.4**	**-1.5**
JCJ	**Chichijima**	**4.73**	**146**	S	**S**	**11 54 13.4**	**-1.6**
JCJ	**Chichijima**	**4.73**	**146**	Pn	**Pn**	**11 53 14.3**	**-1.6**
JCJ				Sn	**S**	**11 54 12.3**	**-2.7**
JGF	**Kuroka**	**4.79**	**341**	P	**Pn**	**11 53 16.2**	**-0.3**
JGF	**Kuroka**	**4.79**	**341**		**Pn**	**11 53 16.5**	**+0.1**
JGF	**Kuroka**	**4.79**	**341**	P	**Pn**	**11 53 16.6**	**+0.2**
JMN	**Monobe**	**5.25**	**302**	P	**Pn**	**11 53 22.2**	**+0.3**
JMN	**Monobe**	**5.25**	**302**	Pn	**Pn**	**11 53 21.6**	**-0.4**
MJAR	**Matsshiro Arr**	**5.53**	**351**	P	**Pn**	**11 53 22.9**	**-2.2**
	4.2nm,0.4s,baz=136,slow=5.5,SNR=27						
MJAR				S	**S**	**11 54 28.9**	**-3.1**
	2.0nm,0.3s,baz=292,slow=29,SNR=4.7						
MJAR	**Matsushiro Arr**	**5.53**	**351**		**Pn**	**11 53 23.5**	**-1.7**
MAJO	**Matsushiro**	**5.53**	**351**	P	**Pn**	**11 53 24.3**	**-0.9**
MAJO	**Matsushiro**	**5.53**	**351**		**Pn**	**11 53 24.1**	**-1.2**
MAJO	**Matsushiro**	**5.53**	**351**	P	**Pn**	**11 53 23.9**	**-1.3**
	comp=Z,17nm,0.8s						
MJB9	**Matsu-Tunnel**	**5.53**	**351**		**Pn**	**11 53 25.6**	**+0.3**
JNU	**Nakatsue**	**7.38**	**288**	P	**Pn**	**11 53 46.0**	**-1.9**
	comp=Z,8.9nm,1.0s,baz=98,slow=7.1,SNR=2.6						
JTM	**Tenmabayashi**	**9.81**	**8**	P	**Pn**	**11 54 16.9**	**-0.9**
JTM	**Tenmabayashi**	**9.81**	**8**	Pn	**Pn**	**11 54 16.2**	**-1.6**
JTM	**Tenmabayashi**	**9.81**	**8**	P	**Pn**	**11 54 17.0**	**-0.9**
	comp=Z,32nm,1.2s						
JOW	**Kunigami**	**10.48**	**249**	P	**Pn**	**11 54 27.3**	**+0.9**
	comp=Z,7.7nm,0.8s,baz=108,slow=24,SNR=3.9						
KSRS	**Korea Array**	**11.31**	**307**	P	**Pn**	**11 54 35.8**	**-0.6**
	comp=Z,4.4nm,0.8s,baz=119,slow=13,SNR=9.6						
ERM	**Erimo**	**11.37**	**15**	Pn	**Pn**	**11 54 36.4**	**-0.6**
JER	**Erimo**	**11.37**	**15**	P	**Pn**	**11 54 36.7**	**-0.3**
KS19	**Wonju Array Si**	**11.38**	**307**	Pn	**Pn**	**11 54 36.7**	**-0.5**
ASAJ	**Asahikawa**	**13.29**	**11**	P	**Pn**	**11 55 00.6**	**+0.1**
	comp=Z,2.6nm,0.3s,baz=204,slow=17,SNR=13						
JKA	**Kamikawa-asahi**	**13.29**	**11**		**Pn**	**11 54 59.9**	**-0.6**
USA0B	**Ussuriysk Arra**	**14.30**	**338**	P	**P**	**11 55 11.6**	**-0.6**
USRK	**Ussuriysk Ar.**	**14.30**	**338**	P	**P**	**11 55 10.8**	**-1.3**
	comp=Z,7.9nm,0.7s,baz=161,slow=11,SNR=11						
USRK	**Ussuriysk Ar.**	**14.30**	**338**	P	**P**	**11 55 11.0**	**-1.1**
YSS	**Yuzhno-Sakhali**	**16.09**	**9**	P	**P**	**11 55 30.9**	**-0.9**
BNX	**BinXian**	**17.31**	**331**	⇑P	**P**	**11 55 43.8**	**-1.2**
BNX				pmax	pmax		
	comp=Z,9.0nm,0.9s						
YULB	**Yu-li**	**17.68**	**249**	P	**P**	**11 55 48.3**	**-1.0**
TPUB	**Ta-pu**	**18.26**	**249**	P	**P**	**11 55 54.3**	**-1.2**
KLR	**Kul'dur**	**19.00**	**345**	P	**P**	**11 56 02.1**	**-1.1**
	comp=Z,6.0nm,0.6s,baz=166,slow=6.9,SNR=8.6						
WHN	**Wuhan**	**21.37**	**275**	⇓P	**P**	**11 56 27.5**	**-0.1**
HILR	**Hailar Array B**	**23.58**	**327**	P	**P**	**11 56 47.1**	**-0.5**
	comp=Z,2.6nm,0.4s,baz=118,slow=10,SNR=5.2						
	comp=Z,2.6nm,0.4s						
HHC	**Hu-ho-hao-te**	**24.34**	**301**	*e*P	**P**	**11 56 55.0**	**+0.3**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,23nm,4.4s						
MA2	**Magadan**	**29.55**	**12**	P	**P**	**11 57 39.3**	**-1.2**
ULN	**Ulaanbaatar**	**29.70**	**314**		**P**	**11 57 41.9**	**-0.2**
ULN				IAmb	IAmb	11 57 42.6	
	comp=Z,5.7nm,1.1s						
ULN	**Ulaanbaatar**	**29.70**	**314**	P	**P**	**11 57 41.9**	**-0.2**
	comp=Z,7.0nm,0.8s						
SONM	**Songino Array**	**30.09**	**313**	P	**P**	**11 57 44.9**	**-0.7**
	comp=Z,1.9nm,0.5s,baz=124,slow=8.8,SNR=14						
SONM				ScP	**ScP**	**12 03 54.7**	**+0.4**
	comp=Z,0.5nm,0.8s,baz=103,slow=3.8,SNR=2.1						
	comp=Z,1.9nm,0.5s						
SONM	**Songino Array**	**30.09**	**313**	P	**P**	**11 57 45.2**	**-0.4**
GTA2	**Gaotai**	**33.09**	**296**	*e*P	**P**	**11 58 11.3**	**-0.5**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TIXI	**Tiksi**	**41.02**	**355**		**P**	**11 59 17.6**	**+0.1**
TIXI				IAmb	IAmb	11 59 17.8	
	comp=Z,14nm,1.5s						
TIXI	**Tiksi**	**41.02**	**355**	P	**P**	**11 59 17.5**	**-0.1**
	comp=Z,8.1nm,1.1s						
ZAA0	**Zalesovo Array**	**44.82**	**317**	P	**P**	**11 59 47.8**	**-0.2**
ZALV	**Zalesovo Beam**	**44.82**	**317**	P	**P**	**11 59 46.7**	**-1.4**
	comp=Z,1.1nm,0.3s,baz=97,slow=7.0,SNR=5.3						
ZALV				PcP	**PcP**	**12 01 24.4**	**-0.1**
	comp=Z,1.0nm,0.6s,baz=111,slow=3.3,SNR=3.6						
ZALV				ScP	**ScP**	**12 04 49.6**	**+0.3**
	comp=Z,0.5nm,0.3s,baz=98,slow=4.0,SNR=2.5						
	comp=Z,1.1nm,0.3s						
ZALV	**Zalesovo Beam**	**44.82**	**317**	P	**P**	**11 59 47.9**	**-0.1**
MK31	**Makanchi Array**	**46.00**	**307**	P	**P**	**11 59 57.1**	**-0.3**
MKAR	**Makanchi Array**	**46.00**	**307**	P	**P**	**11 59 56.3**	**-1.1**
	comp=Z,1.4nm,0.7s,baz=84,slow=9.8,SNR=9.1						
MKAR				PcP	**PcP**	**12 01 29.1**	**+0.2**
	comp=Z,0.8nm,0.4s,baz=72,slow=5.1,SNR=8.2						
MKAR				ScP	**ScP**	**12 04 54.2**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=237,slow=24,SNR=2.7						
	comp=Z,1.4nm,0.7s						
MKAR	**Makanchi Array**	**46.00**	**307**	P	**P**	**11 59 57.0**	**-0.4**
NRIK	**Noril'sk**	**48.02**	**338**	P	**P**	**12 00 11.8**	**-0.8**
	comp=Z,3.8nm,0.4s,baz=99,slow=6.7,SNR=5.8						
	comp=Z,3.8nm,0.4s						
NRIK	**Noril'sk**	**48.02**	**338**	P	**P**	**12 00 12.0**	**-0.6**
NRIK				IAmb	IAmb	12 00 12.6	
	comp=Z,8.7nm,1.2s						
PDGK	**Podgornoye**	**48.19**	**302**	P	**P**	**12 00 14.0**	**-0.5**
KURK	**Kurchatov**	**48.39**	**312**		**P**	**12 00 14.9**	**-0.8**
KURK	**Kurchatov**	**48.39**	**312**	P	**P**	**12 00 14.6**	**-1.1**
	comp=Z,4.0nm,0.7s						
KURBB	**Kurchatov Arra**	**48.45**	**312**	P	**P**	**12 00 14.7**	**-1.4**
	comp=Z,2.2nm,0.5s,baz=89,slow=7.7,SNR=37						
KURBB				PcP	**PcP**	**12 01 37.4**	**-0.1**
	comp=Z,0.5nm,0.5s,baz=95,slow=4.3,SNR=4.2						
	comp=Z,2.2nm,0.5s						
TARG	**Taragay, Kyrgy**	**49.63**	**300**	P	**P**	**12 00 25.9**	**+0.2**
	comp=Z,5.8nm,0.8s						
FITZ	**Fitzroy Crossi**	**50.60**	**197**	P	**P**	**12 00 33.9**	**+1.4**
ASAI	**AK-SAY(Kyrgyzs**	**50.72**	**300**	P	**P**	**12 00 33.7**	**-0.1**
	comp=Z,3.9nm,1.1s						
WB0	**Warramunga Arr**	**50.76**	**186**	P	**P**	**12 00 35.0**	**+1.2**
WB0				IAmb	IAmb	12 00 47.9	
	comp=Z,10nm,1.5s						
BOOM	**Boomskoye usch**	**50.89**	**302**	P	**P**	**12 00 35.3**	**+0.5**
BOOM	**Boomskoye usch**	**50.89**	**302**	P	**P**	**12 00 34.5**	**-0.3**
	comp=Z,2.9nm,1.2s						
WRAB	**Tennant Creek**	**50.92**	**186**	P	**P**	**12 00 35.5**	**+0.5**
WRAB				IAmb	IAmb	12 01 00.1	
	comp=Z,9.1nm,1.4s						
WRAB	**Tennant Creek**	**50.92**	**186**	P	**P**	**12 00 35.9**	**+0.9**
	comp=Z,6.5nm,2.5s						
WR8	**Warramunga Arr**	**50.93**	**186**	P	**P**	**12 00 35.8**	**+0.7**
WR8				IAmb	IAmb	12 00 36.8	
	comp=Z,3.1nm,0.8s						
WRA	**Warramunga Arr**	**50.94**	**186**	P	**P**	**12 00 35.7**	**+0.6**
	comp=Z,2.2nm,0.7s,baz=2.2,slow=7.8,SNR=40						
	comp=Z,2.2nm,0.7s						
WRA	**Warramunga Arr**	**50.94**	**186**	P	**P**	**12 00 35.2**	**+0.1**
D19K	**Kuna River**	**51.49**	**25**	P	**P**	**12 00 40.6**	**+2.0**
D19K				IAmb	IAmb	12 00 44.5	
	comp=Z,15nm,1.4s						
E19K	**Redstone River**	**51.59**	**26**	P	**P**	**12 00 41.8**	**+2.4**
E19K				IAmb	IAmb	12 00 42.6	
	comp=Z,2.6nm,0.6s						
KSH2	**Kashi**	**51.77**	**297**	P	**P**	**12 00 41.8**	**+0.5**
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
D20K	**Etivluk River**	**52.07**	**25**	P	**P**	**12 00 45.4**	**+2.5**
D20K				IAmb	IAmb	12 00 56.0	
	comp=Z,17nm,1.5s						
F20K	**Avaraart Lake**	**52.09**	**27**	P	**P**	**12 00 45.1**	**+2.1**
F20K				IAmb	IAmb	12 01 05.9	
	comp=Z,6.0nm,1.4s						
L20K	**Farewell, AK**	**52.32**	**33**	P	**P**	**12 00 48.0**	**+3.2**
L20K				IAmb	IAmb	12 01 11.8	
	comp=Z,6.8nm,1.3s						
IMAR	**Indian Mountai**	**52.72**	**28**	P	**P**	**12

ARR	**Arges**	**83.55**	**320**	P	**P**	**12 03 58.2**	**-0.4**
	comp=Z,6.1nm,1.4s							
MMAI	**Mount Meron Ar**	**83.91**	**305**	P	**P**	**12 04 01.3**	**+0.6**
	comp=Z,0.8nm,0.4s,baz=68,slow=6.1,SNR=3.3							
	comp=Z,0.8nm,0.4s							
GERES	**GERESS Array B**	**86.78**	**327**	P	**P**	**12 04 13.3**	**-1.2**
	comp=Z,0.2nm,0.3s,baz=44,slow=3.3,SNR=1.7							
	comp=Z,0.2nm,0.3s							
TXAR	**Lajitas Array**	**95.22**	**51**	P	**P**	**12 04 56.5**	**+2.4**
	comp=Z,0.2nm,0.7s,baz=309,slow=2.4,SNR=3.4							
	comp=Z,0.2nm,0.7s							

SSNC ***27*** *12:15:12.5±1.4, 18°.77N×70°.58W, h7km, MD3.8, ML3.8, Presumed earthquake*

NEIC ***27*** *12:15:13.3±1.3, 18°.69N±0°.02×70°.78W±0°.02, h10km±1km, mb4.1/3, Error ellipse: s-maj=3.2km s-min=3.1km az=137.0*

CATAC ***27*** *12:15:13.0±0.4, 19°N±4°×7°1W±°, h4km±2km, M4.9/6, mb5.9/1, MLv4.4/6, Error ellipse: s-maj=8.8km s-min=4.3km az=23.2, confirmed*

OSPL ***27*** *12:15:14.4±1.1, 18°.69N×70°.78W, h0km±10km, ML3.9, Presumed earthquake*

SDD ***27*** *12:15:15.0±2.6, 18°.67N×70°.74W, h20km±25km, MD3.7, ML4.1, MW4.3, Presumed earthquake*

IDC ***27*** *12:15:17.0±1.1, 18°.57N×70°.65W, h0km, mb3.6/5, mbtmp3.8/7, ML3.5/2, MS2.7/1, Error ellipse: s-maj=27.3km s-min=16.3km az=21.0*

ISC 27 12:15:12.0±1.0, 18°.67N±0°.02×70°.70W±0°.02, h13km±8km, n90, σ1s55/107, mb3.7/3, 19C-11D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
ABDR	**Alto Bandera**	**0.15**	**25**	*e*P		**Pb**	**12 15 18.0**	**+1.1**
ABDR				IAML			12 15 22.1	
	comp=N,89µm,0.4s							
BAN1	**Bani Escuela**	**0.52**	**139**	⇓*e*Pg		**Pn**	**12 15 25.3**	**+0.2**
BAN1				IAML			12 15 40.0	
	comp=N,5µm,0.5s							
LOSC1	**San Cristbal**	**0.62**	**115**	*i* P		**Pn**	**12 15 26.9**	**+0.5**
LOSC1				IAML			12 15 40.6	
	comp=Z,13µm,0.5s							
SDDR	**Presa de Saban**	**0.64**	**299**	P		**Pg**	**12 15 24.2**	**-0.3**
SDDR				S		**Sg**	**12 15 33.0**	**0.0**
SDDR	**Presa de Saban**	**0.64**	**299**			**Pg**	**12 15 24.4**	**-0.1**
SDDR	**Presa de Saban**	**0.64**	**299**	⇓*e*Pg		**Pb**	**12 15 24.8**	**-0.2**
SDDR				IAML			12 15 36.5	
	comp=N,8µm,0.8s							
SDDR	**Presa de Saban**	**0.64**	**299**	*e*P		**Pg**	**12 15 24.2**	**-0.3**
SDDR				*e*S		**Sg**	**12 15 32.8**	**-0.2**
SDDR				*e*S		**Sn**	**12 15 36.0**	**-0.8**
SDDR				IAML			12 15 36.6	
	comp=N,4µm,0.3s							
SDDR				IAML			12 15 37.1	
	comp=N,6µm,0.3s							
SDDR	**Presa de Saban**	**0.64**	**299**	*i* P		**Pg**	**12 15 24.4**	**-0.1**
SDDR				*e*S		**Sg**	**12 15 32.1**	**-0.9**
SDDR				IAML			12 15 37.9	
	comp=Z,4µm,0.3s							
NEDR	**Neiba UASD**	**0.71**	**255**	⇑*e*Pg		**Pg**	**12 15 25.9**	**+0.1**
NEDR				⇓*e*Sg		**Sb**	**12 15 36.7**	**+0.9**
NEDR				IAML			12 15 44.4	
	comp=N,2µm,0.3s							
LONE3	**El Aguacate, B**	**0.73**	**265**	*i* P		**Pg**	**12 15 25.8**	**-0.3**
LONE3				*e*S		**Sg**	**12 15 34.8**	**-0.9**
LONE3				IAML			12 15 39.8	
	comp=Z,3µm,0.4s							
SFDR	**San Fco. de Ma**	**0.75**	**35**	⇑*e*Pg		**Pn**	**12 15 28.6**	**+0.4**
SFDR				⇓*e*Sg		**Sn**	**12 15 39.5**	**+0.2**
SFDR				IAML			12 15 40.9	
	comp=N,6µm,0.4s							
PODR	**Polo**	**0.75**	**228**			**Pg**	**12 15 27.1**	**+0.5**
PODR				Sg		**Sg**	**12 15 36.7**	**+0.2**
PODR	**Polo**	**0.75**	**228**	⇑*e*Pg		**Pb**	**12 15 27.3**	**+0.3**
PODR				⇑*e*Sg		**Sb**	**12 15 37.5**	**+0.3**
PODR				IAML			12 15 41.0	
	comp=N,8µm,0.6s							
PODR	**Polo**	**0.75**	**228**	*i* P		**Pg**	**12 15 27.1**	**+0.5**
PODR				*e*S		**Sg**	**12 15 36.8**	**+0.2**
PODR				IAML			12 15 44.5	
	comp=Z,38µm,0.2s							
SC01	**Santiago de lo**	**0.75**	**358**	P		**Pn**	**12 15 27.8**	**-0.3**
SC01				S		**Sn**	**12 15 39.4**	**-0.1**
SC01	**Santiago de lo**	**0.75**	**358**			**Pn**	**12 15 28.0**	**-0.3**
SC01	**Santiago de lo**	**0.75**	**358**	⇑*e*Pg		**Pn**	**12 15 28.3**	**0.0**
SC01				⇓*e*Sg		**Sn**	**12 15 39.7**	**+0.2**
SC01				IAML			12 15 44.5	
	comp=N,11µm,0.8s							
SC01	**Santiago de lo**	**0.75**	**358**	*i* P		**Pn**	**12 15 27.9**	**-0.3**
SC01				*e*S		**Sb**	**12 15 37.4**	**+0.4**
SC01				IAML			12 15 44.9	
	comp=Z,6µm,0.8s							
SD01	**Santo Domingo**	**0.77**	**106**	⇓*e*Pg		**Pn**	**12 15 29.6**	**+1.2**
SDD	**Santo Domingo**	**0.77**	**106**	P		**Pn**	**12 15 28.9**	**+0.4**
SDD	**Santo Domingo**	**0.77**	**106**			**Pn**	**12 15 29.4**	**+0.9**
SDD						**Sn**	**12 15 41.3**	**+1.3**
SDD	**Santo Domingo**	**0.77**	**106**	⇑*e*Pg		**Pn**	**12 15 29.5**	**+0.9**
SDD				IAML			12 15 43.2	
	comp=N,6µm,0.8s							
SDD	**Santo Domingo**	**0.77**	**106**	*i* P		**Pn**	**12 15 29.1**	**+0.6**
SDD				*e*S		**Sn**	**12 15 41.4**	**+1.5**
SDD				IAML			12 15 42.8	
	comp=Z,4µm,0.6s							
LODU1	**El Espartillar**	**0.81**	**247**	*i* P		**Pb**	**12 15 28.2**	**+0.4**
LODU1				IAML			12 15 45.5	
	comp=Z,5µm,0.3s							
REDR	**Restauracion**	**0.82**	**307**	⇑*e*Pg		**Pn**	**12 15 33.1**	**+3.9**
REDR				⇓*e*Sg		**Sn**	**12 15 46.6**	**+5.4**
REDR				IAML			12 15 49.6	
	comp=N,6µm,0.2s							
MADR	**Mao Valverde**	**0.97**	**337**	⇑*e*Pg		**Pn**	**12 15 32.8**	**+1.6**
MADR				IAML			12 15 48.9	
	comp=N,10µm,0.7s							
NAG1	**Nagua**	**1.04**	**49**	⇑*e*Pg		**Pn**	**12 15 33.4**	**+1.2**
NADR	**Nagua**	**1.04**	**49**	*e*Pg		**Pn**	**12 15 33.1**	**+0.9**
NADR				IAML			12 15 50.5	
	comp=N,6µm,0.3s							
LOVI	**El Cajuil, Ovi**	**1.08**	**216**	*i* P		**Pb**	**12 15 32.3**	**-0.1**
LOVI				IAML			12 15 59.5	
	comp=Z,935nm,0.8s							
SODR	**Sosua Marina B**	**1.08**	**6**	⇑*e*Pg		**Pn**	**12 15 34.7**	**+2.0**
SODR				IAML			12 15 58.3	
	comp=N,5µm,0.7s							
JIDR	**Jimani**	**1.11**	**261**	⇓*e*Pg		**Pb**	**12 15 33.0**	**0.0**
JIDR				⇓*e*Sg		**Sn**	**12 15 48.6**	**+0.3**
JIDR				IAML			12 15 53.9	
	comp=N,2µm,0.4s							
LOBH	**Bahia de las A**	**1.21**	**228**	*i* P		**Pn**	**12 15 35.0**	**+0.5**
LOBH				*e*S		**Sg**	**12 15 51.0**	**0.0**
LOBH				IAML			12 16 04.2	
	comp=Z,1µm,1.1s							
CADR	**Cabrera**	**1.22**	**36**	*e*Pg		**Pn**	**12 15 35.0**	**+0.3**
CADR				⇓*e*Sg		**Sn**	**12 15 53.0**	**+2.0**
CADR				IAML			12 16 03.9	
	comp=N,3µm,1.1s							
LUDR	**Luperon**	**1.24**	**349**	⇑*e*Pg		**Pg**	**12 15 36.7**	**+0.9**
DR12	**Loma Pena Alta**	**1.25**	**85**			**Pg**	**12 15 36.7**	**+0.7**
HATOM	**Hato Mayor del**	**1.25**	**85**	⇑*e*Pg		**Pg**	**12 15 37.5**	**+1.4**
HATOM				⇓*e*Sg		**Sg**	**12 15 54.8**	**+2.4**
HATOM				IAML			12 15 55.9	
	comp=N,8µm,0.5s							
LOPP1	**Punta Rusia, P**	**1.27**	**338**	*i* P		**Pg**	**12 15 36.4**	**0.0**
LOPP1				*e*S		**Sn**	**12 15 52.3**	**+0.1**
LOPP1				IAML			12 16 01.2	
	comp=Z,2µm,0.8s							
LODA1	**ITESIL, Dajabo**	**1.29**	**312**			**Pn**	**12 15 35.6**	**-0.1**
LODA1				Sn		**Sb**	**12 15 52.4**	**-0.2**
MCDR	**Montecristi**	**1.52**	**323**	⇑*e*Pg		**Pg**	**12 15 40.5**	**-0.6**
MCDR				IAML			12 16 05.7	
	comp=N,3µm,0.9s							
SMDR	**Samana, DR**	**1.55**	**66**	⇑*e*Pg		**Pg**	**12 15 42.0**	**+0.2**
SMDR				IAML			12 16 08.7	
	comp=N,2µm,0.7s							
LGNH	**Logne**	**1.82**	**265**	P		**Pn**	**12 15 43.6**	**+0.7**
HGY1	**Higuey**	**1.88**	**92**	⇑*e*Pg		**Pg**	**12 15 47.7**	**-0.3**
HGY1				IAML			12 16 18.1	
	comp=N,934nm,0.6s							
HIDR	**Higuey Centro**	**1.88**	**92**	*e*Pg		**Pb**	**12 15 47.4**	**+1.3**
HIDR				IAML			12 16 18.2	
	comp=N,2µm,0.6s							
SADR	**Isla Saona**	**1.88**	**104**	⇓*e*Pg		**Pg**	**12 15 48.8**	**+0.7**
SADR				IAML			12 16 35.7	
	comp=N,3µm,0.8s							
PCDR	**Punta Cana, DR**	**2.20**	**94**			**Pb**	**12 15 52.9**	**+1.3**
PCDR	**Punta Cana, DR**	**2.20**	**94**	⇑*e*Pg		**Pb**	**12 15 52.6**	**+1.0**
PCDR				IAML			12 16 29.8	
	comp=N,2µm,0.7s							
PCDR	**Punta Cana, DR**	**2.20**	**94**	*i* P		**Pb**	**12 15 52.3**	**+0.7**
PCDR				IAML			12 16 30.2	
	comp=Z,911nm,0.8s							
GRTK	**Grand Turk**	**2.85**	**352**	P		**Pb**	**12 16 00.6**	**-2.1**
PRSN	**Puerto Rico Se**	**3.40**	**97**			**Pb**	**12 16 11.6**	**-0.4**
PRSN	**Puerto Rico Se**	**3.40**	**97**	⇑*e*Pg		**Pb**	**12 16 11.4**	**-0.7**
PRSN				IAML			12 17 12.1	
	comp=N,363nm,0.4s							
CRPR	**Cabo Rojo, PR**	**3.47**	**100**			**Pb**	**12 16 11.4**	**-1.8**
MLPR	**Magueyes Islan**	**3.54**	**101**			**Pb**	**12 16 12.4**	**-2.0**
MLPR	**Magueyes Islan**	**3.54**	**101**	⇑*e*Pg		**Pb**	**12 16 12.4**	**-2.0**
MLPR				IAML			12 17 13.2	
	comp=N,72nm,0.9s							
AOPR	**Arecibo Observ**	**3.75**	**94**			**Pb**	**12 16 16.5**	**-1.6**
AOPR	**Arecibo Observ**	**3.75**	**94**	⇑*e*Pg		**Pb**	**12 16 17.2**	**-0.9**
AOPR				IAML			12 17 17.0	
	comp=N,465nm,0.5s							
OBIP	**Obispado Ponce**	**3.93**	**99**			**Pb**	**12 16 17.8**	**-3.4**
CELP	**Cerrillos**	**3.95**	**98**			**Pb**	**12 16 19.1**	**-2.4**
CELP	**Cerrillos**	**3.95**	**98**	IAML			12 17 27.5	
	comp=N,108nm,0.9s							
ECPR	**Experimental S**	**4.13**	**94**			**Pb**	**12 16 21.4**	**-3.1**
QMBU	**Quimbuelo**	**4.17**	**292**	P		**Pn**	**12 16 17.5**	**+2.2**
QMBU	**Quimbuelo**	**4.17**	**292**	*e*P		**Pn**	**12 16 14.8**	**-0.6**
QMBU				*e*S		**Sn**	**12 17 02.7**	**-1.3**
SJG	**San Juan**	**4.35**	**97**	Pn		Pn	12 16 23.4	+5.6
	comp=N,9.5nm,0.3s,baz=296,slow=10,SNR=8.5							
SJG				Sn		**Sb**	**12 17 16.6**	**-4.1**
	comp=N,11nm,0.3s,baz=254,slow=18,SNR=6.7							
	comp=N,24nm,0.4s							
SJG				AML		AML		
SJG	**San Juan**	**4.35**	**97**			**Pb**	**12 16 24.2**	**-4.1**
GTBY	**Guantanamo Bay**	**4.35**	**287**	*e*P		**Pn**	**12 16 18.5**	**+0.7**
GCPR	**Guaynabo City**	**4.39**	**94**			**Pb**	**12 16 25.0**	**-4.0**
NMDO	**Nuevo Mundo**	**4.46**	**296**	P		**Pn**	**12 16 19.1**	**-0.2**
NMDO				S		**Sn**	**12 17 14.3**	**+3.4**
NMDO	**Nuevo Mundo**	**4.46**	**296**	Pn		**Pn**	**12 16 19.0**	**-0.2**
NMDO	**Nuevo Mundo**	**4.46**	**296**	*e*P		**Pn**	**12 16 19.8**	**+0.5**
MOAC	**Moa**	**4.48**	**297**	*e*P		**Pn**	**12 16 19.3**	**-0.2**
PDPR	**Patillas Dam,**	**4.49**	**98**			**Pb**	**12 16 26.9**	**-3.7**
HUMP	**Col San Antoni**	**4.63**	**96**			Pb	12 16 28.0	-5.0
SABCS	**La Quijada**	**4.67**	**292**	*e*P		**Pn**	**12 16 23.9**	**+1.7**
RCC	**Rio Carpintero**	**4.90**	**286**	*e*P		**Pn**	**12 16 25.6**	**+0.3**
RCC				*e*S		**Sn**	**12 17 20.4**	**-1.5**
PINC	**Pinares de May**	**5.13**	**291**	*e*P		**Pn**	**12 16 27.9**	**-0.6**
HLGC	**Holguin**	**5.51**	**294**	*e*P		**Pn**	**12 16 35.6**	**+1.8**
PILO	**Pilon**	**6.46**	**282**	P		**Pn**	**12 16 46.7**	**-0.1**
URIC	**Uribia, Colomb**	**7.04**	**190**	Pn		**Pn**	**12 16 56.2**	**+1.4**
ABD	**La Joyeuse, An**	**9.05**	**103**	Pn		**Pn**	**12 17 24.5**	**+2.2**
SDV	**Santo Domingo**	**9.73**	**180**	Pn		Pn	12 17 38.4	+6.5
	comp=N,1.4nm,0.3s,baz=2.0,slow=11,SNR=3.0							
SDV				Sn		**Sn**	**12 19 17.8**	**-3.4**
	comp=N,0.7nm,0.3s,baz=348,slow=21,SNR=1.7							
	comp=N,6.6nm,0.6s							
SDV				AML		AML		
RUSC	**La Rusia**	**12.91**	**191**	Pn		**Pn**	**12 18 17.4**	**+1.6**
SIUN	**Universidad Ur**	**14.39**	**252**	Pn		**Pn**	**12 18 34.8**	**-0.7**
LCR2	**La Lucha 2**	**15.65**	**237**	Pn		**Pn**	**12 18 52.5**	**-0.1**
LCR2				IAmb		IAmb	12 19 10.8	
	comp=Z,14nm,1.4s							
BOAB	**BOACO BROADBAN**	**16.69**	**249**	Pn		**Pn**	**12 18 51.9**	**-1.0**
BOAB				IAmb		IAmb	12 19 15.7	
	comp=Z,34nm,1.2s							
BOAV	**Boa Vista**	**19.00**	**147**	P		**P**	**12 19 34.6**	**+1.1**
BOAV				IAmb		IAmb	12 19 53.5	
	comp=Z,5.9nm,1.0s							
TKL	**Tuckaleechee C**	**20.50**	**328**	P		Pn	12 19 58.2	+6.3
	comp=Z,3.3nm,0.8s,baz=171,slow=13,SNR=4.1							
	comp=Z,3.3nm,0.8s							
TXAR	**Lajitas Array**	**31.84**	**296**	P		P	12 21 44.8	+8.0
	comp=Z,0.1nm,0.8s,baz=99,slow=8.2,SNR=2.6							
	comp=Z,0.1nm,0.8s							
BBTS	**Babate**	**51.88**	**86**	LR		LR	12 43 18.5	
	comp=Z,9.0nm,21.4s,baz=252,slow=32							
ESDC	**Sonseca Array**	**60.57**	**54**	P		P	12 25 29.9	+7.5
	comp=Z,1.2nm,0.8s,baz=272,slow=8.8,SNR=6.0							
	comp=Z,1.2nm,0.8s							
ILAR	**Eielson Array**	**67.39**	**333**	P		P	12 26 14.2	+7.5
	comp=Z,0.4nm,0.7s,baz=94,slow=5.2,SNR=5.8							
	comp=Z,0.4nm,0.7s							
TORD	**Torodi Ar. Bea**	**69.43**	**83**	P		P	12 26 27.7	+7.3
	comp=Z,0.8nm,0.3s,baz=292,slow=6.1,SNR=3.9							
	comp=Z,0.8nm,0.3s							

IDC 27 12:18:31.1±7.8, 13°.50S×166°.97E, h183km±70km, mb3.4/4, mbtmp3.9/5, Error ellipse: s-maj=58.9km s-min=45.8km az=174.0, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
DZM	**Mont Dzumac**	**8.54**	**183**	P		Pn	12 20 32.1	+0.5
	7.6nm,1.0s,baz=4.5,slow=12,SNR=1.9							
DZM				S		Sn	12 22 06.6	-0.7
	8.5nm,1.0s,baz=116,slow=18,SNR=1.8							
STKA	**Stephens Creek**	**29.59**	**228**	P		P	12 24 20.0	+1.0
	1.0nm,0.4s,baz=63,slow=9.0,SNR=2.9							
	1.0nm,0.4s							
WRA	**Warramunga Arr**	**31.87**	**254**	P		P	12 24 38.6	-0.6
	0.3nm,0.6s,baz=86,slow=9.0,SNR=5.0							
	0.3nm,0.6s							
ASAR	**Alice Springs**	**32.86**	**247**	P		P	12 24 47.8	-0.1
	1.1nm,0.5s,baz=74,slow=9.2,SNR=42							
ASAR				PcP		PcP	12 27 27.7	-0.5
	0.2nm,0.9s,baz=100,slow=3.4,SNR=3.4							
	1.1nm,0.5s							
MKAR	**Makanchi Array**	**96.12**	**317**	P		P	12 31 37.9	-0.1
	0.2nm,0.4s,baz=100,slow=4.1,SNR=2.8							
	0.2nm,0.4s							

SSNC ***27*** *12:19:40.4±1.2, 18°.40N×70°.56W, h7km±9km, MD4.3, MW4.0, Presumed earthquake*

CATAC ***27*** *12:19:41.7±0.4, 19°N±2°×7°1W±°, h11km±3km, M4.8/8, mb4.9/3, mB5.9/1, MLv4.7/8, Mw(mB)5.5/1, Error ellipse: s-maj=6.1km s-min=3.7km az=44.1, confirmed*

NEIC ***27*** *12:19:42.8±1.9, 18°.66N±0°.02×70°.78W±0°.02, h10km±1km, mb4.2/14, Error ellipse: s-maj=3.2km s-min=2.9km az=38.0*

PTWC ***27*** *12:19:42, 18°.70N×70°.80W, MI4.6/14*

IDC ***27*** *12:19:43.2±0.8, 18°.35N×70°.91W, h0km, mb3.7/9, mbtmp3.8/12, ML3.6/3, MS3.2/6, Error ellipse: s-maj=16.9km s-min=13.4km az=32.0*

SDD ***27*** *12:19:43.9±2.4, 18°.63N×70°.77W, h12km±39km, MD3.8, ML4.3, MW4.1, Presumed earthquake*

OSPL ***27*** *12:19:44.3±1.7, 18°.69N×70°.78W, h6km±7km, ML4.1, Presumed earthquake*

ISC 27 12:19:42.1±1.0, 18°.62N±0°.02×70.75W±0°.02, h12km±7km, n104, σ1s43/126, mb3.9/11, MS3.2/4, 14C-14D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
ABDR	**Alto Bandera**	**0.23**	**31**	⇓*e*Pg		**Pg**	**12 19 47.5**	**+0.3**
ABDR				IAML			12 19 51.2	
	comp=N,53µm,0.5s							
BAN1	**Bani Escuela**	**0.52**	**130**	⇓*e*Pg		**Pn**	**12 19 54.8**	**-0.6**
BAN1				IAML			12 20 07.3	
	comp=N,12µm,0.3s							
SDDR	**Presa de Saban**	**0.62**	**306**	P		**Pg**	**12 19 54.2**	**-0.2**
SDDR				S		**Sb**	**12 20 03.4**	**-0.3**
SDDR	**Presa de Saban**	**0.62**	**306**			**Pg**	**12 19 54.0**	**-0.3**
SDDR	**Presa de Saban**	**0.62**	**306**	P		**Pg**	**12 19 54.1**	**-0.2**
SDDR	**Presa de Saban**	**0.62**	**306**	⇑*e*Pg		**Pg**	**12 19 54.2**	**-0.2**
SDDR				IAML			12 20 09.8	
	comp=N,14µm,0.5s							
SDDR	**Presa de Saban**	**0.62**	**306**	⇑*i*P		**Pg**	**12 19 54.3**	**0.0**
SDDR				*e*S		**Sg**	**12 20 01.9**	**-0.7**
LOSC1	**San Cristbal**	**0.65**	**109**	*i* P		**Pn**	**12 19 56.5**	**-0.6**
LOSC1				*e*S		**Sn**	**12 20 07.4**	**+0.1**
NEDR	**Neiba UASD**	**0.65**	**258**	*e*Pg		**Pb**	**12 19 55.7**	**+0.4**
NEDR				IAML			12 20 06.7	
	comp=N,3µm,0.8s							
LONE3	**El Aguacate, B**	**0.67**	**269**	⇑*i*P		**Pb**	**12 19 55.5**	**-0.3**
LONE3				*e*S		**Sb**	**12 20 05.6**	**+0.4**
PODR	**Polo**	**0.67**	**228**			**Pn**	**12 19 56.8**	**-0.8**
PODR	**Polo**	**0.67**	**228**	P		**Pn**	**12 19 56.8**	**-0.8**
PODR	**Polo**	**0.67**	**228**	⇓*e*Pg		**Pn**	**12 19 56.9**	**-0.8**
PODR				IAML			12 20 10.0	
	comp=N,13µm,0.8s							
PODR	**Polo**	**0.67**	**228**	⇓*i*P		**Pn**	**12 19 56.8**	**-0.8**
LODU1	**El Espartillar**	**0.73**	**249**	⇓*i*P		**Pn**	**12 19 57.8**	**-0.5**
SC01	**Santiago de lo**	**0.81**	**2**	P		**Pn**	**12 19 57.2**	**-0.9**
SC01	**Santiago de lo**	**0.81**	**2**			**Pb**	**12 19 57.6**	**-0.6**
SC01				Sg		**Sg**	**12 20 08.4**	**+0.1**
SC01	**Santiago de lo**	**0.81**	**2**	P		**Pb**	**12 19 57.5**	**-0.6**
SC01	**Santiago de lo**	**0.81**	**2**	⇓*e*Pg		**Pb**	**12 19 57.4**	**-0.7**
SC01				⇑*e*Sg		**Sg**	**12 20 08.6**	**+0.3**
SC01				IAML			12 20 14.4	
	comp=N,19µm,0.8s							
SC01	**Santiago de lo**	**0.81**	**2**	⇓*i*P		**Pb**	**12 19 57.5**	**-0.6**
SC01				*e*S		**Sg**	**12 20 08.1**	**-0.3**
SDD	**Santo Domingo**	**0.81**	**101**	P		**Pg**	**12 19 58.6**	**+0.8**
SDD				S		**Sn**	**12 20 10.8**	**-0.6**
SDD	**Santo Domingo**	**0.81**	**101**			**Pg**	**12 19 58.7**	**+0.8**
SDD				Sg		**Sn**	**12 20 10.7**	**-0.6**
SDD	**Santo Domingo**	**0.81**	**101**	P		**Pg**	**12 19 58.7**	**+0.8**
SDD	**Santo Domingo**	**0.81**	**101**	⇑*e*Pg		**Pg**	**12 19 58.6**	**+0.8**
SDD				*e*Sg		**Sn**	**12 20 11.4**	**+0.1**
SDD				IAML			12 20 12.6	
	comp=N,8µm,0.8s							
SDD	**Santo Domingo**	**0.81**	**101**	⇑*i*P		**Pg**	**12 19 58.7**	**+0.8**
SDD				*e*S		**Sn**	**12 20 10.8**	**-0.6**
REDR	**Restauracion**	**0.82**	**312**	⇑*e*Pg		**Pn**	**12 20 02.4**	**+2.9**
REDR				IAML			12 20 20.2	
	comp=N,17µm,0.1s							
SFDR	**San Fco. de Ma**	**0.82**	**36**	P		**Pb**	**12 19 57.7**	**-0.7**
SFDR	**San Fco. de Ma**	**0.82**	**36**	⇓*e*Pg		**Pb**	**12 19 57.7**	**-0.7**
SFDR				IAML			12 20 10.8	
	comp=N,7µm,0.3s							
MADR	**Mao Valverde**	**1.00**	**341**	⇑*e*Pg		**Pb**	**12 20 00.4**	**-1.0**
MADR				*e*Sg		**Sb**	**12 20 13.4**	**-1.2**
MADR				IAML			12 20 16.8	
	comp=N,29µm,0.6s							
LOVI	**El Cajuil, Ovi**	**1.00**	**216**	⇓*i*P		**Pg**	**12 20 02.1**	**+0.6**
JIDR	**Jimani**	**1.05**	**263**	P		**Pg**	**12 20 02.6**	**+0.3**
JIDR	**Jimani**	**1.05**	**263**	⇑*e*Pg		**Pg**	**12 20 02.6**	**+0.3**
JIDR				IAML			12 20 23.7	
	comp=N,5µm,1.1s							
NADR	**Nagua**	**1.12**	**49**	P		**Pb**	**12 20 02.6**	**-0.9**
NADR	**Nagua**	**1.12**	**49**	⇓*e*Pg		**Pb**	**12 20 02.5**	**-0.9**
NADR				⇓*e*Sg		**Sg**	**12 20 19.7**	**+1.4**
	comp=N,5µm,0.4s							
NADR				IAML			12 20 33.6	
	comp=N,5µm,0.4s							
LOBH	**Bahia de las A**	**1.13**	**228**	⇓*i*P		**Pg**	**12 20 04.7**	**+0.8**
LOBH				*e*S		**Sg**	**12 20 20.2**	**+1.7**
SODR	**Sosua Marina B**	**1.14**	**8**	⇓*e*Pg		**Pg**	**12 20 03.9**	**-0.2**
SODR				IAML			12 20 24.3	
	comp=N,9µm,1.4s							
LUDR	**Luperon**	**1.28**	**352**	⇑*e*Pg		**Pb**	**12 20 06.0**	**-0.3**
LUDR				⇑*e*Sg		**Sg**	**12 20 23.9**	**+0.4**
LODA1	**ITESIL, Dajabo**	**1.29**	**316**			**Pb**	**12 20 05.5**	**-0.9**
LODA1				Sg		**Sb**	**12 20 21.6**	**-1.3**
CADR	**Cabrera**	**1.30**	**36**	*e*Pg		**Pb**	**12 20 06.1**	**-0.4**
CADR				IAML			12 20 33.6	
	comp=N,4µm,0.5s							
LOPP1	**Punta Rusia, P**	**1.30**	**341**	*i* P		**Pb**	**12 20 06.3**	**-0.2**
LOPP1				*e*S		**Sg**	**12 20 23.1**	**-1.0**
HATOM	**Hato Mayor del**	**1.31**	**82**	⇑*e*Pg		**Pb**	**12 20 06.3**	**-0.4**
HATOM				*e*Sg		**Sg**	**12 20 24.6**	**+0.2**
HATOM				IAML			12 20 25.0	
	comp=N,9µm,0.5s							
DR12	**Loma Pena Alta**	**1.31**	**82**			**Pb**	**12 20 06.3**	**-0.4**
MCDR	**Montecristi**	**1.53**	**326**	P		**Pb**	**12 20 09.3**	**-1.1**
MCDR	**Montecristi**	**1.53**	**326**	⇑*e*Pg		**Pb**	**12 20 09.6**	**-0.9**
MCDR				*e*Sg		**Sg**	**12 20 30.2**	**-1.2**
MCDR				IAML			12 20 33.4	
	comp=N,6µm,0.5s							
SMDR	**Samana, DR**	**1.62**	**65**	P		**Pb**	**12

HELC	**Santa Helena**	**13.20**	**201**		**Pn**		**12 22 49.5**	**-0.4**
656A	**Willston**	**15.17**	**317**	Pn	**Pn**		**12 23 14.5**	**-1.8**
JTS	**Las Juntas de**	**16.04**	**241**	Pn	**Pn**		**12 23 26.5**	**-1.2**
	comp=E,0.7nm,0.3s,baz=29,slow=18,SNR=1.3							
	comp=E,1.9nm,0.3s							
JTS				AML	AML			
BOAV	**Boa Vista**	**18.98**	**147**	P	**Pn**		**12 24 04.5**	**+0.1**
S61A	**Accomac**	**19.48**	**348**	P	**P**		**12 24 08.5**	**-0.4**
TKL	**Tuckaleechee C**	**20.52**	**328**	P	Pn		12 24 24.7	+2.2
	comp=E,6.7nm,0.9s,baz=181,slow=16,SNR=4.6							
	comp=E,6.7nm,0.9s							
TKL	**Tuckaleechee C**	**20.52**	**328**	P	**P**		**12 24 19.6**	**-0.7**
TKL				IAmb	IAmb		12 24 25.5	
	comp=Z,11nm,1.1s							
CPCT	**Cooper Cave**	**20.73**	**327**	IAmb	IAmb		12 24 29.3	
	comp=Z,11nm,1.1s							
W50A	**Signal Mountai**	**20.97**	**325**	IAmb	IAmb		12 24 32.3	
	comp=Z,14nm,1.1s							
S54A	**Dingess, Beckl**	**21.23**	**336**	P	**P**		**12 24 27.6**	**-0.4**
S54A				IAmb	IAmb		12 24 40.6	
	comp=Z,9.3nm,1.0s							
CMIG	**Matias Romero**	**23.02**	**270**	LR	LR		12 35 21.8	
	comp=Z,52nm,18.8s,baz=16,slow=41							
WVT	**Waverly**	**23.05**	**323**	IAmb	IAmb		12 24 53.5	
	comp=Z,7.5nm,0.9s							
FCAR	**Ozark Folk Cen**	**25.54**	**317**	P	**P**		**12 25 09.3**	**-1.4**
FCAR				IAmb	IAmb		12 25 18.5	
	comp=Z,6.6nm,1.1s							
TXAR	**Lajitas Array**	**31.81**	**296**	P	**P**		**12 26 10.2**	**+3.2**
	comp=Z,0.1nm,0.5s,baz=98,slow=8.8,SNR=3.5							
	comp=Z,0.1nm,0.5s							
LPIG	**La Paz**	**37.15**	**286**	LR	LR		12 43 46.4	
	comp=Z,39nm,19.3s,baz=32,slow=39							
ULM	**Lac du Bonnet**	**37.39**	**333**	P	**P**		**12 26 57.8**	**+3.0**
	comp=Z,2.0nm,0.8s,baz=136,slow=11,SNR=3.6							
	comp=Z,2.0nm,0.8s							
ULM	**Lac du Bonnet**	**37.39**	**333**	IAmb	IAmb		12 27 01.2	
	comp=Z,2nm,1.5s							
PDAR	**Pinedale Array**	**40.63**	**315**	P	**P**		**12 27 24.7**	**+2.4**
	comp=Z,0.1nm,0.4s,baz=110,slow=9.0,SNR=3.0							
PDAR				LR	LR		12 45 38.4	
	comp=Z,81nm,18.4s,baz=64,slow=38							
	comp=Z,0.1nm,0.4s							
NVAR	**Mina Array Bea**	**45.65**	**306**	P	**P**		**12 28 06.5**	**+3.5**
	comp=Z,0.9nm,1.1s,baz=100,slow=8.2,SNR=4.9							
	comp=Z,0.9nm,1.1s							
YBH	**Yreka Blue Hor**	**49.62**	**309**	LR	LR		12 51 57.1	
	comp=Z,28nm,18.7s,baz=79,slow=39							
YKA	**Yellowknife Ar**	**53.23**	**336**	P	P		12 29 04.9	+4.7
	comp=Z,1.2nm,0.8s,baz=117,slow=7.0,SNR=3.9							
	comp=Z,1.2nm,0.8s							
ESDC	**Sonseca Array**	**60.64**	**54**	P	P		12 29 59.4	+6.1
	comp=Z,1.8nm,0.8s,baz=276,slow=6.7,SNR=7.9							
	comp=Z,1.8nm,0.8s							
ILAR	**Eielson Array**	**67.41**	**333**	P	P		12 30 41.9	+4.7
	comp=Z,0.6nm,0.7s,baz=100,slow=4.3,SNR=9.3							
	comp=Z,0.6nm,0.7s							
GERES	**GERESS Array B**	**72.62**	**44**	P	P		12 31 14.0	+4.4
	comp=Z,0.9nm,0.8s,baz=267,slow=2.3,SNR=4.4							
	comp=Z,0.9nm,0.8s							

*IDC **27** 12:21:06.6±1.2, 42°.05S×88°.10E, h0km, mb4.0/8, mbtmp4.0/8, MS3.9/36, Error ellipse: s-maj=35.5km s-min=23.1km az=100.0*
*NEIC **27** 12:21:07.1±1.2, 42°.0S±0°.1×88°.0E±0°.2, h10km±1km, mb4.6/13, Error ellipse: s-maj=23.5km s-min=14.9km az=311.0*
ISC 27 12:21:08.4±0.6, **41°.9S**±0°.1×**88°.0E**±0°.1, **h17**km, **n68,** σ1§**10**/28, **mb4.2**/17, **MS4.0**/36, **3C, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**21.57**	**80**	T	T	12 48 18.4	
	baz=243,slow=74,SNR=70						
H01W3	**Cape Leeuwin H**	**21.58**	**80**	T	T	12 48 02.4	
	baz=243,slow=74,SNR=100						
H01W1	**Cape Leeuwin H**	**21.59**	**80**	T	T	12 48 14.5	
	baz=243,slow=74,SNR=89						
NWAO	**Narrogin (SRO)**	**24.77**	**78**	LR	LR	12 34 12.4	
	comp=Z,205nm,19.4s,baz=286,slow=32						
NWAO	**Narrogin (SRO)**	**24.77**	**78**	P	**P**	**12 26 26.8**	**-2.4**
H04S1	**CROZET ISLANDS**	**26.12**	**247**	T	T	12 54 16.1	
	baz=90,slow=76,SNR=36						
H04S2	**CROZET ISLANDS**	**26.14**	**247**	T	T	12 54 18.1	
	baz=90,slow=76,SNR=35						
H04S3	**CROZET ISLANDS**	**26.14**	**247**	T	T	12 54 22.6	
	baz=90,slow=76,SNR=36						
H04N2	**CROZET ISLANDS**	**26.24**	**248**	T	T	12 54 28.7	
	baz=94,slow=76,SNR=162						
H04N3	**CROZET ISLANDS**	**26.25**	**248**	T	T	12 54 26.7	
	baz=94,slow=76,SNR=182						
H04N1	**CROZET ISLANDS**	**26.25**	**248**	T	T	12 54 37.1	
	baz=94,slow=76,SNR=101						
MAW	**Mawson**	**29.10**	**200**	LR	LR	12 36 10.6	
	comp=Z,434nm,20.5s,baz=34,slow=31						
H08S2	**Diego Garcia H**	**36.83**	**334**	T	T	13 07 23.8	
	baz=160,slow=76,SNR=137						
H08S1	**Diego Garcia H**	**36.83**	**334**	T	T	13 07 25.1	
	baz=160,slow=76,SNR=123						
H08S3	**Diego Garcia H**	**36.84**	**334**	T	T	13 07 28.4	
	baz=160,slow=76,SNR=163						
LEM	**Lembang**	**39.04**	**32**	LR	LR	12 41 12.9	
	comp=Z,97nm,21.7s,baz=210,slow=31						
VOI	**Vohitsoka**	**39.83**	**287**	P	**P**	**12 28 39.3**	**-1.8**
VOI				IAmb	IAmb	12 28 58.5	
	comp=Z,36nm,1.5s						
FITZ	**Fitzroy Crossi**	**39.84**	**65**	LR	LR	12 42 40.2	
	comp=Z,100nm,21.4s,baz=228,slow=32						
ASAR	**Alice Springs**	**42.09**	**79**	P	**P**	**12 29 00.0**	**+0.5**
	comp=Z,2.1nm,0.7s,baz=224,slow=7.4,SNR=36						
ASAR				PcP	**PcP**	**12 30 54.1**	**0.0**
	comp=Z,2.0nm,0.7s,baz=221,slow=2.5,SNR=11						
ASAR				LR	LR	12 44 19.4	
	comp=Z,265nm,21.3s,baz=231,slow=33						
	comp=Z,2.1nm,0.7s						
ASAR	**Alice Springs**	**42.09**	**79**	P	**P**	**12 28 58.8**	**-0.7**
AS31	**Alice Springs**	**42.09**	**79**	P	**P**	**12 28 58.3**	**-1.2**
STKA	**Stephens Creek**	**43.36**	**95**	P	**P**	**12 29 10.9**	**+1.1**
	comp=Z,1.3nm,0.8s,baz=240,slow=7.7,SNR=3.7						
STKA				LR	LR	12 43 13.2	
	comp=Z,155nm,21.5s,baz=208,slow=31						
	comp=Z,1.3nm,0.8s						
WRA	**Warramunga Arr**	**44.71**	**75**	P	**P**	**12 29 20.9**	**+0.2**
	comp=Z,1.9nm,0.9s,baz=230,slow=8.3,SNR=11						
WRA				PcP	**PP**	**12 31 04.6**	**-0.5**
	comp=Z,0.4nm,0.6s,baz=223,slow=2.7,SNR=4.6						
	comp=Z,1.9nm,0.9s						
WRA	**Warramunga Arr**	**44.71**	**75**	P	**P**	**12 29 21.9**	**+1.2**
INKA	**Innaminka**	**44.85**	**89**		**P**	**12 29 21.4**	**-0.3**
INKA				IAmb	IAmb	12 29 29.0	
	comp=Z,3.6nm,1.0s						
WB0	**Warramunga Arr**	**44.86**	**75**	P	**P**	**12 29 21.7**	**-0.2**
WB0				IAmb	IAmb	12 29 33.4	
	comp=Z,7.2nm,1.1s						
PSI	**Prapat**	**45.62**	**15**	LR	LR	12 44 16.4	
	comp=Z,278nm,21.3s,baz=199,slow=30						
VNDA	**Vanda**	**45.96**	**163**	P	**P**	**12 29 29.8**	**-0.1**
	comp=Z,0.7nm,0.7s,baz=292,slow=8.5,SNR=8.1						
VNDA				LR	LR	12 46 48.6	
	comp=Z,121nm,18.1s,baz=280,slow=34						
	comp=Z,0.7nm,0.7s						
VNDA	**Vanda**	**45.96**	**163**	P	**P**	**12 29 29.5**	**-0.4**
QSPA	**South Pole Qui**	**48.21**	**180**	P	**P**	**12 29 47.6**	**-0.2**
	comp=Z,11nm,1.1s,baz=288,slow=1.5,SNR=29						
QSPA				LR	LR	12 48 27.9	
	comp=Z,206nm,18.5s,baz=302,slow=34						
	comp=Z,11nm,1.1s						
QSPA	**South Pole Qui**	**48.21**	**180**	P	**P**	**12 29 47.5**	**-0.3**
QSPA				IAmb	IAmb	12 29 54.1	
	comp=Z,7.9nm,0.9s						
PALK	**Pallekele**	**49.43**	**350**	LR	LR	12 47 57.9	
	comp=Z,152nm,18.1s,baz=155,slow=32						
SAUI	**Saumlaki**	**50.95**	**61**	P	**P**	**12 30 08.0**	**-1.0**
BOSA	**Boshof**	**51.89**	**264**	LR	LR	12 48 01.4	
	comp=Z,127nm,19.3s,baz=181,slow=31						
VNA2	**Neumayer--Watz**	**52.73**	**204**	⇑P	**P**	**12 30 23.9**	**+2.3**
	comp=Z,1.2nm,0.6s,baz=116,slow=11						
VNA1	**Neumayer--Stat**	**53.10**	**204**	⇑P	P	12 30 29.4	+5.1
	comp=Z,2.8nm,0.6s						
SUR	**Sutherland**	**53.19**	**257**	LR	LR	12 48 51.6	
	comp=Z,32nm,18.9s,baz=164,slow=31						
VNA3	**Neumayer Olymp**	**53.30**	**204**	⇑P	**P**	**12 30 26.6**	**+0.8**
	comp=Z,4.2nm,0.8s						
MATP	**Matopo**	**54.15**	**274**	LR	LR	12 49 27.8	
	comp=Z,428nm,21.4s,baz=86,slow=31						

BELA	**Belgrano 2**	**55.55**	**192**	P	**P**		**12 30 41.8**	**-0.4**
BELA				IAmb	IAmb		12 30 47.4	
	comp=Z,11nm,1.4s							
LSZ	**Lusaka**	**57.59**	**279**	LR	LR		12 51 18.4	
	comp=Z,103nm,20.3s,baz=130,slow=31							
DAV	**Davao City (W)**	**59.62**	**45**	LR	LR		12 57 24.6	
	comp=Z,28nm,18.2s,baz=234,slow=36							
PMG	**Port Moresby**	**60.92**	**76**	LR	LR		12 56 47.1	
	comp=Z,202nm,18.1s,baz=122,slow=35							
CMAR	**Chiang Mai Arr**	**60.93**	**12**	P	**P**		**12 31 22.1**	**+1.8**
	comp=Z,0.6nm,0.3s,baz=204,slow=7.4,SNR=4.7							
CMAR				LR	LR		12 53 14.0	
	comp=Z,46nm,21.9s,baz=170,slow=32							
	comp=Z,0.6nm,0.3s							
CMAR	**Chiang Mai Arr**	**60.93**	**12**	P	**P**		**12 31 20.2**	**-0.2**
JAY	**Jayapura**	**61.24**	**65**	LR	LR		12 58 44.8	
	comp=Z,52nm,18.5s,baz=289,slow=37							
WIN	**Windhoek**	**61.36**	**265**	P	**P**		**12 31 22.5**	**-1.2**
BRDH	**Bariadhala**	**64.38**	**4**	LR	LR		12 57 30.3	
	comp=Z,236nm,18.1s,baz=182,slow=34							
MBAR	**Mbarara**	**65.80**	**293**	LR	LR		12 55 19.7	
	comp=Z,33nm,21.6s,baz=260,slow=31							
KRVT	**Keravat (AS076**	**67.91**	**75**	LR	LR		12 59 57.3	
	comp=Z,75nm,20.3s,baz=174,slow=34							
SMAI	**San Martin Ant**	**68.67**	**190**	P	**P**		**12 32 10.5**	**+0.3**
SMAI				IAmb	IAmb		12 32 19.4	
	comp=Z,14nm,1.4s							
PMSA	**Palmer Station**	**71.39**	**192**	LR	LR		13 02 36.1	
	comp=Z,111nm,18.2s,baz=82,slow=35							
JNU	**Nakatsue**	**84.43**	**35**	LR	LR		13 12 24.7	
	comp=Z,9.3nm,18.1s,baz=12,slow=36							
AAK	**Ala-Archa**	**85.08**	**350**	LR	LR		13 09 20.5	
	comp=Z,85nm,18.4s,baz=312,slow=34							
KK31	**Karatay Array**	**86.12**	**347**	P	**P**		**12 33 47.9**	**0.0**
KK31				IAmb	IAmb		12 33 52.2	
	comp=Z,4.6nm,1.4s							
KKAR	**Karatay Array**	**86.12**	**347**	P	**P**		**12 33 47.9**	**0.0**
EIL	**Elat**	**86.44**	**316**	LR	LR		13 05 32.2	
	comp=Z,55nm,21.7s,baz=99,slow=31							
KSRS	**Korea Array**	**87.00**	**31**	LR	LR		13 13 20.3	
	comp=Z,15nm,19.1s,baz=355,slow=36							
ASF	**Jabal al Asfar**	**87.47**	**319**	LR	LR		13 09 45.9	
	comp=Z,44nm,18.3s,baz=317,slow=33							
MKAR	**Makanchi Array**	**88.50**	**356**	LR	LR		13 13 09.3	
	comp=Z,61nm,20.0s,baz=295,slow=35							
SONM	**Songino Array**	**90.86**	**12**	P	**P**		**12 34 11.3**	**+0.8**
	comp=Z,0.2nm,0.4s,baz=180,slow=5.8,SNR=2.7							
SONM				LR	LR		13 13 18.3	
	comp=Z,56nm,20.5s,baz=195,slow=34							
	comp=Z,0.2nm,0.4s							
KURBB	**Kurchatov Arra**	**92.56**	**354**	P	**P**		**12 34 20.1**	**+2.0**
	comp=Z,0.4nm,0.8s,baz=188,slow=4.9,SNR=2.5							
KURBB				LR	LR		13 13 10.4	
	comp=Z,63nm,21.6s,baz=180,slow=34							
	comp=Z,0.4nm,0.8s							
TLY	**Talaya**	**94.22**	**10**	LR	LR		13 15 51.8	
	comp=Z,62nm,21.2s,baz=168,slow=35							
KBZ	**Khabaz**	**94.43**	**329**	LR	LR		13 11 29.2	
	comp=Z,108nm,18.4s,baz=322,slow=32							
PLCA	**Paso Flores**	**95.45**	**196**	LR	LR		13 18 25.7	
	comp=Z,101nm,18.0s,baz=181,slow=36							
ZALV	**Zalesovo Beam**	**95.55**	**358**	LR	LR		13 18 04.9	
	comp=Z,43nm,18.2s,baz=296,slow=36							
DBIC	**Dimbokro**	**96.56**	**273**	LR	LR		13 11 18.4	
	comp=Z,52nm,21.1s,baz=104,slow=31							
KLR	**Kul'dur**	**98.59**	**27**	LR	LR		13 21 21.1	
	comp=Z,36nm,18.0s,baz=272,slow=37							

*BUC **27** 12:30:16.2±0.2, 45°.59N×26°.54E, h125km±1km, ml3.8/67, Error ellipse: s-maj=1.3km s-min=1.2km az=159.0*
*CFUSG **27** 12:30:17.1, 45°.51N×26°.66E, h113km, Mb2.8/3, MD3.2/2, MSH2.8/3*
*SOF **27** 12:30:18.2, 45°.45N±0°.02×26°.47E±0°.03, h100km±2km, MD3.4/4*
*BEO **27** 12:30:18.7±0.7, 45°.54N×26°.06E, h16km±3km, ML3.1/18*
ISC 27 12:30:14.1±1.3, **45°.59N**±0°.03×**26°.48E**±0°.02, **h142**km±6km, **n101,** σ1§**43**/159, **64C-50D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BISRR	**Bisoca**	**0.17**	**103**	⇑P	**Pn**	**12 30 34.0**	**+0.6**
BISRR				⇓S	**Sn**	**12 30 47.0**	**-1.1**
BISRR				AML	AML		
BISRR				AML	AML		
SAHR	**Sahastru**	**0.20**	**46**	⇑P	**Pn**	**12 30 34.1**	**+0.6**
SAHR				⇑S	**Sn**	**12 30 47.3**	**-1.0**
SAHR				AML	AML		
SAHR				AML	AML		
NEHR	**Nehoiu**	**0.20**	**219**	⇑P	**Pn**	**12 30 34.1**	**+0.7**
NEHR				⇑S	**Sn**	**12 30 47.3**	**-0.9**
NEHR				AML	AML		
NEHR				AML	AML		
PLOR	**Plostina**	**0.29**	**25**	⇑P	**Pn**	**12 30 34.0**	**+0.3**
PLOR				⇑S	**Sn**	**12 30 47.4**	**-1.3**
PLOR				AML	AML		
PLOR				AML	AML		
COVR	**Voineasa-Covas**	**0.32**	**324**	⇑P	**Pn**	**12 30 34.2**	**+0.4**
COVR				⇑S	**Sn**	**12 30 47.3**	**-1.5**
VRI	**Vrincioaia**	**0.33**	**32**	⇑P	**Pn**	**12 30 34.2**	**+0.4**
VRI				⇑S	**Sn**	**12 30 47.6**	**-1.3**
VRI				AML	AML		
VRI				AML	AML		
MLR	**Muntele Rosu**	**0.39**	**256**	⇑P	**Pn**	**12 30 34.7**	**+0.6**
MLR				⇑S	**Sn**	**12 30 49.2**	**-0.1**
GRER		**0.41**	**120**	⇓S	**Sn**	**12 30 48.1**	**-1.2**
GRER				AML	AML		
ODBI	**Odobesti**	**0.44**	**66**	⇑S	**Sn**	**12 30 48.9**	**-0.7**
ISR	**Istrita**	**0.47**	**174**	⇑P	**Pn**	**12 30 35.3**	**+0.8**
ISR				⇑S	**Sn**	**12 30 49.6**	**-0.3**
ISR				AML	AML		
ISR				AML	AML		
PANC	**Panciu**	**0.55**	**58**	⇑P	**Pn**	**12 30 35.5**	**+0.8**
PANC				⇑S	**Sn**	**12 30 49.6**	**-0.9**
TURR	**Turia**	**0.57**	**326**	⇑P	**Pn**	**12 30 35.6**	**+0.6**
TURR				⇓S	**Sn**	**12 30 49.8**	**-1.0**
TURR				AML	AML		
TURR				AML	AML		
COSR	**Cosmesti PH**	**0.64**	**65**	⇓S	**Sn**	**12 30 49.7**	**-1.8**
COSR				AML	AML		
OZUR		**0.70**	**317**	⇑P	**Pn**	**12 30 36.2**	**+0.4**
OZUR				AML	AML		
PLAR	**PLOIESTI**	**0.74**	**205**	⇑P	**Pn**	**12 30 37.2**	**+1.2**
PLAR				AML	AML		
ONER	**Baraj Valea Uz**	**0.75**	**356**	⇑P	**Pn**	**12 30 36.9**	**+0.8**
ONER				⇓S	**Sn**	**12 30 52.1**	**-0.9**
BOSR	**Bodos**	**0.75**	**311**	⇓P	**Pn**	**12 30 36.7**	**+0.6**
BOSR				⇑S	**Sn**	**12 30 51.9**	**-1.0**
BOSR				AML	AML		
BOSR				AML	AML		
PGOR	**Pogoanele**	**0.77**	**152**	⇑S	**Sn**	**12 30 52.3**	**-0.7**
PGOR				AML	AML		
GHRR		**0.81**	**54**	⇑P	**Pn**	**12 30 37.3**	**+0.9**
GHRR				⇑S	**Sn**	**12 30 52.9**	**-0.6**
TUDR		**0.84**	**89**	⇓P	**Pn**	**12 30 37.2**	**+0.5**
TUDR				⇓S	**Sn**	**12 30 52.2**	**-1.7**
TUDR				AML	AML		
TUDR				AML	AML		
DOPR	**Dopca**	**0.85**	**297**	⇑P	**Pn**	**12 30 37.6**	**+0.8**
DOPR				⇓S	**Sn**	**12 30 53.6**	**-0.7**
DOPR				AML	AML		
DOPR				AML	AML		
IZVR	**Izvoarele**	**0.91**	**92**	⇓P	**Pn**	**12 30 37.3**	**0.0**
IZVR				⇓S	**Sn**	**12 30 52.6**	**-2.3**
IZVR				AML	AML		
IZVR				AML	AML		
SULR		**0.92**	**190**	⇑P	**Pn**	**12 30 38.5**	**+1.1**
SULR				⇓S	**Sn**	**12 30 55.6**	**+0.4**
SULR				AML	AML		
SULR				AML	AML		
TESR	**Tescani**	**0.93**	**7**	⇑P	**Pn**	**12 30 37.9**	**+0.4**
SCHL	**Schela**	**0.95**	**95**	⇑P	**Pn**	**12 30 38.3**	**+0.7**
SCHL				⇓S	**Sn**	**12 30 54.6**	**-1.0**
SCHL				AML	AML		
SCHL				AML	AML		
SCHLR	**Schela**	**0.96**	**97**	⇑P	**Pn**	**12 30 37.9**	**+0.2**
SCHLR				⇓S	**Sn**	**12 30 53.7**	**-1.9**
SCHLR				AML	AML		
SCHLR				AML	AML		
NEGRR	**Negrea**	**0.98**	**92**	⇓P	**Pn**	**12 30 38.4**	**+0.5**
NEGRR				⇑S	**Sn**	**12 30 54.6**	**-1.5**
NEGRR				AML	AML		

NEGRR				AML	AML			
VARL	**Varlezi**	**1.01**	**71**	⇓P	**Pn**		**12 30 38.6**	**+0.5**
VARL				⇓S	**Sn**		**12 30 55.5**	**-1.0**
VARL				AML	AML			
VARL				AML	AML			
VOIR		**1.01**	**262**	⇑P	**Pn**		**12 30 39.2**	**+0.9**
VOIR				AML	AML			
BIR	**Birlad**	**1.05**	**49**	⇑S	**Sn**		**12 30 56.1**	**-1.1**
BIR				AML	AML			
MTUR	**Matau**	**1.06**	**251**	⇑P	**Pn**		**12 30 39.8**	**+1.1**
SCTR	**Scanteiesti**	**1.07**	**85**	⇓P	**Pn**		**12 30 39.4**	**+0.7**
SCTR				⇑S	**Sn**		**12 30 56.4**	**-1.1**
SCTR				AML	AML			
SCTR				AML	AML			
TATR	**Tatarca**	**1.10**	**89**	⇓P	**Pn**		**12 30 39.7**	**+0.7**
TATR				⇑S	**Sn**		**12 30 57.1**	**-0.9**
TATR				AML	AML			
TATR				AML	AML			
GISR	**Galati**	**1.12**	**97**	⇑S	**Sn**		**12 30 57.1**	**-1.1**
GISR				AML	AML			
LEHL	**Lehliu**	**1.14**	**168**	⇓P	**Pn**		**12 30 40.1**	**+0.8**
LEHL				⇑S	**Sn**		**12 30 58.6**	**0.0**
LEHL				AML	AML			
LEHL				AML	AML			
AMRR	**Amara**	**1.15**	**148**	⇑P	**Pn**		**12 30 40.3**	**+0.8**
AMRR				⇓S	**Sn**		**12 30 58.1**	**-0.6**
AMRR				AML	AML			
AMRR				AML	AML			
VLDR	**Vladesti**	**1.15**	**77**	⇓P	**Pn**		**12 30 40.2**	**+0.7**
VLDR				⇑S	**Sn**		**12 30 57.6**	**-1.2**
VLDR				AML	AML			
VLDR				AML	AML			
INCR	**INCERC-Sediu C**	**1.17**	**191**	⇑S	**Sn**		**12 30 58.8**	**-0.3**
INCR				AML	AML			
CFR	**Carcaliu**	**1.24**	**109**	⇓P	**Pn**		**12 30 40.5**	**+0.3**
CFR				AML	AML			
BUC1	**Bucharest**	**1.28**	**195**	⇓S	**Sn**		**12 31 01.0**	**0.0**
BUC1				AML	AML			
STFAR	**Stefanesti-Arg**	**1.29**	**236**	⇓P	**Pn**		**12 30 42.5**	**+1.6**
STFAR				⇑S	**Sn**		**12 31 02.7**	**+1.4**
STFAR				AML	AML			
STFAR				AML	AML			
ARR	**Arges**	**1.31**	**261**	⇑P	**Pn**		**12 30 42.5**	**+1.4**
ARR				⇑S	**Sn**		**12 31 01.7**	**-0.1**
ARR				AML	AML			
ARR				AML	AML			
DMBR	**Dumbraveni**	**1.32**	**27**	⇑P	**Pn**		**12 30 41.8**	**+0.7**
DMBR				⇑S	**Sn**		**12 31 00.3**	**-1.5**
DMBR				AML	AML			
DMBR				AML	AML			
HARR	**Harsova**	**1.36**	**131**	⇑P	**Pn**		**12 30 42.1**	**+0.5**
HARR				AML	AML			
PDRR	**Padureni**	**1.37**	**29**	⇓S	**Sn**		**12 31 01.3**	**-1.4**
PDRR				AML	AML			
BIZ	**Bicaz**	**1.38**	**349**	⇑P	**Pn**		**12 30 43.4**	**+1.7**
BIZ				⇓S	**Sn**		**12 31 03.7**	**+0.8**
BIZ				AML	AML			
BIZ				AML	AML			
MNTR	**Muntenesti**	**1.38**	**32**	⇑P	**Pn**		**12 30 42.8**	**+1.1**
MNTR				⇑S	**Sn**		**12 31 01.7**	**-1.3**
MNTR				AML	AML			
MNTR				AML	AML			
VASR	**Vaslui**	**1.40**	**40**	⇓P	**Pn**		**12 30 42.8**	**+0.9**
VASR				⇑S	**Sn**		**12 31 02.2**	**-1.0**
VASR				AML	AML			
VASR				AML	AML			
SGRR	**Singureni**	**1.41**	**195**	⇑P	**Pn**		**12 30 43.1**	**+1.0**
SGRR				⇑S	**Sn**		**12 31 03.7**	**+0.3**
SGRR				AML	AML			
SGRR				AML	AML			
CICN	**Ciocanesti**	**1.44**	**164**	⇓P	**Pn**		**12 30 43.2**	**+0.8**
CICN				⇓S	**Sn**		**12 31 03.5**	**-0.5**
CICN				AML	AML			
CICN				AML	AML			
HUMR	**Humele**	**1.50**	**226**	⇓P	**Pn**		**12 30 44.0**	**+1.0**
HUMR				⇓S	**Sn**		**12 31 04.9**	**-0.2**
HUMR				AML	AML			
HUMR				AML	AML			
TLBR	**Topalu**	**1.52**	**133**	⇓P	**Pn**		**12 30 44.0**	**+0.7**
TLBR				⇑S	**Sn**		**12 31 04.0**	**-1.6**
TLBR				AML	AML			
TLBR				AML	AML			
TNR	**Turnu Rosu**	**1.55**	**273**	⇓P	**Pn**		**12 30 44.8**	**+1.3**
TNR				AML	AML			
TPGR	**Topolog**	**1.56**	**117**	⇓P	**Pn**		**12 30 43.9**	**+0.2**
TPGR				AML	AML			
RMVG	**GOVORA**	**1.64**	**251**	⇓S	**Sn**		**12 31 09.3**	**+1.4**
RMVG				AML	AML			
CVDA	**Cernavoda**	**1.67**	**138**	⇑P	**Pn**		**12 30 45.8**	**+0.9**
CVDA				⇓S	**Sn**		**12 31 07.6**	**-0.9**
CVDA				AML	AML			
CVDA				AML	AML			
TLCR		**1.70**	**103**	⇓P	**Pn**		**12 30 45.8**	**+0.7**
TLCR				⇓S	**Sn**		**12 31 08.2**	**-0.7**
TLCR				AML	AML			
TLCR				AML	AML			
COPA	**Copaceanca**	**1.71**	**212**	⇑P	**Pn**		**12 30 46.4**	**+1.1**
COPA				AML	AML			
ICOR	**Ion Corvin**	**1.75**	**147**	⇑P	**Pn**		**12 30 46.9**	**+1.1**
ICOR				AML	AML			
IASR	**Iasi**	**1.76**	**25**	⇓S	**Sn**		**12 31 09.5**	**-0.8**
IASR				AML	AML			
TIRR

BARS				*e*Sn	**Sn**	12 32 06.7	**-2.2**		
GRUS	**Gruza**	**4.44**	**250**	*e*Sn	**Sn**	12 32 08.6	**-2.5**		
GOCS	**Kraljevo Serbi**	**4.49**	**245**	*e*Pn	**Pn**	12 31 21.9	**+1.3**		
GOCS				*e*Sn	**Sn**	12 32 09.3	**-3.0**		
SELS	**Selova**	**4.51**	**240**	*e*Pn	**Pn**	12 31 22.5	**+1.7**		
SELS				*e*Sn	**Sn**	12 32 10.5	**-2.2**		
TRUS	**Trudelj**	**4.52**	**255**	*e*Pn	**Pn**	12 31 22.0	**+1.0**		
TRUS				*e*Sn	**Sn**	12 32 10.0	**-3.0**		
DNZ2	**Donuzlav2**	**4.74**	**90**	*e*P	**Pn**	12 31 24.6	**+0.8**		
DNZ2				pmax	pmax	12 31 25.0			
	comp=Z,12nm,0.2s								
DNZ2				*ex*	x	12 32 17.2			
DNZ2				smax	smax	12 32 18.7			
	comp=N,13nm,0.4s								
DNZ2				smax	smax	12 32 18.7			
	comp=E,10.0nm,0.4s								
DIVS	**Divibare**	**4.85**	**254**	*e*Pn	**Pn**	12 31 27.3	**+2.0**		
DIVS				*e*Sn	**Sn**	12 32 18.1	**-2.7**		
IVAS	**Ivanjica**	**4.95**	**248**	*e*Sn	**Sn**	12 32 20.8	**-2.3**		
SEV	**Sevastopol'**	**5.20**	**99**	⇓*i*P	**Pn**	12 31 31.5	**+1.6**		
SEV				pmax	pmax	12 31 32.2			
	comp=Z,4.0nm,0.3s								
SEV				*e*S	**Sn**	12 32 29.8	**+0.8**		
SEV				smax	smax	12 32 32.2			
	comp=N,3.0nm,0.3s								
SEV				smax	smax	12 32 32.2			
	comp=E,2.0nm,0.4s								
YAL	**Yalta**	**5.55**	**99**	*e*P	**Pn**	12 31 35.0	**+0.4**		
YAL				pmax	pmax	12 31 39.1			
	comp=Z,5.0nm,0.3s								
YAL				*ex*	x	12 32 36.2			
YAL				smax	smax	12 32 38.3			
	comp=N,3.0nm,0.2s								
YAL				smax	smax	12 32 38.3			
	comp=E,8.0nm,0.2s								

SDD 27 12:33:31.8±1.9,**18°90N**×**70°74W**,**h2**km±22km,**MD1.6, ML1.8,MW2.1,Presumed earthquake,Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABDR	**Alto Bandera**	**0.14**	**130**	*i* P	Pg	12 33 33.1	-1.6
ABDR				*i* S	Sg	12 33 37.3	+0.8
SDDR	**Presa de Saban**	**0.52**	**279**	*i* P	Pg	12 33 41.3	-0.5
SDDR				*i* S	Sg	12 33 47.8	-0.8
SDDR				IAML		12 34 26.2	
	comp=N,21nm,1.8s						
REDR	**Restauracion**	**0.67**	**293**	*i* P	Pn	12 33 49.2	+0.9
REDR				*i* S	Sn	12 34 02.9	+3.5
JIDR	**Jimani**	**1.13**	**249**	*i* P	Pg	12 33 52.3	-1.1
JIDR				IAML		12 34 11.6	
	comp=N,33nm,2.5s						
HATOM	**Hato Mayor del**	**1.29**	**95**	*i* P	Pg	12 33 56.1	-0.5
HATOM				*i* S	Sg	12 34 11.3	-2.1

IDC ***27*** *13:11:03.5±2.2,27°13S×177°41W,h0km,mb3.8/3, mbtmp4.0/4,ML4.4/1,MS3.4/9,Error ellipse: s-maj=54.6km s-min=21.0km az=91.0*

ISC 27 13:11:06.7±2.5,**27°5S**±0°2×**176°8W**±0°4,**h55**km,**n13, σ0§92/6,mb3.7/3,MS3.6/8,Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**2.05**	**209**	Pn	**Pn**	**13 11 38.5**	**-0.2**
	114nm,0.3s,baz=89,slow=9.3,SNR=5.8						
RAO				Sn	**Sn**	**13 12 03.8**	**+0.6**
	129nm,0.3s,baz=37,slow=20,SNR=2.4						
RAO				LR	LR	13 12 05.3	
	comp=Z,114nm,19.2s,baz=130,slow=29 360nm,0.3s						
RAO				AML	AML		
PPT	**Papeete**	**26.93**	**74**	LR	LR	13 27 28.0	
	comp=Z,35nm,18.3s,baz=238,slow=36						
HNR	**Honiara**	**28.35**	**305**	LR	LR	13 27 26.8	
	comp=Z,82nm,18.0s,baz=218,slow=36						
CTA	**Charters Tower**	**34.52**	**274**	LR	LR	13 31 25.7	
	comp=Z,118nm,18.0s,baz=52,slow=36						
STKA	**Stephens Creek**	**36.28**	**253**	LR	LR	13 32 13.6	
	comp=Z,74nm,18.2s,baz=28,slow=35						
ASAR	**Alice Springs**	**44.42**	**263**	P	**P**	**13 19 11.9**	**-0.5**
	0.6nm,0.8s,baz=91,slow=7.2,SNR=8.4						
	0.6nm,0.8s						
WRA	**Warramunga Arr**	**45.15**	**269**	P	**P**	**13 19 17.6**	**-0.6**
	0.8nm,0.6s,baz=108,slow=7.6,SNR=8.4						
	0.8nm,0.6s						
NWAO	**Narrogin (SRO)**	**56.48**	**247**	LR	LR	13 43 04.7	
	comp=Z,65nm,18.2s,baz=280,slow=34						
RPN	**Rapa Nui**	**59.21**	**107**	LR	LR	13 40 02.3	
	comp=Z,11nm,20.6s,baz=202,slow=29						
DAV	**Davao City (W)**	**65.42**	**293**	LR	LR	13 47 15.9	
	comp=Z,147nm,19.5s,baz=170,slow=34						
MJAR	**Matsushiro Arr**	**76.47**	**324**	P	**P**	**13 22 51.7**	**+1.0**
	1.7nm,0.6s,baz=145,slow=6.4,SNR=4.7						
	1.7nm,0.6s						
PSI	**Prapat**	**86.22**	**275**	LR	LR	14 02 56.8	
	comp=Z,30nm,20.2s,baz=106,slow=36						
NOA	**NORSAR Array B**	**146.00**	**353**	PKPbc	**PKiKP**	**13 30 42.5**	**-0.7**
	0.9nm,0.8s,baz=23,slow=3.3,SNR=3.3						

NOU ***27*** *13:27:50.8,36°80S×177°40E,h0km,MLv3.6/8,Off E. Coast of N. Island, N.Z.*

WEL ***27*** *13:27:51.9±0.6,37°S±4°×17°7E±°,h5km,M3.3/19, ML3.2/19,MLv3.3/19,Error ellipse: s-maj=6.5km s-min=2.7km az=41.2*

ISC 27 13:27:51.5±1.4,**36°77S**±0°05×**177°37E**±0°04,**h14**km±10km, **n56,σ1§41/69,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.77**	**192**	P	**Pb**	**13 28 06.7**	**+0.1**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.77**	**191**	P	**Pb**	**13 28 06.6**	**0.0**
WIZ				S	**Sb**	**13 28 16.5**	**-0.5**
WIZ				AML	AML		
WIZ				AML	AML		
MXZ	**Matakaoa Point**	**1.09**	**137**	P	**Pb**	**13 28 10.7**	**-1.4**
MXZ	**Matakaoa Point**	**1.09**	**137**	S	**Sg**	**13 28 24.7**	**-2.1**
MXZ	**Matakaoa Point**	**1.09**	**137**	P	**Pb**	**13 28 10.7**	**-1.4**
MXZ				S	**Sg**	**13 28 23.7**	**-3.1**
MXZ				AML	AML		
MXZ				AML	AML		
WHRZ	**Whale Island**	**1.13**	**196**	P	**Pn**	**13 28 13.5**	**+0.6**
WHRZ				AML	AML		
WHRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.22**	**169**	P	**Pb**	**13 28 13.3**	**-1.1**
RUGZ				S	**Sb**	**13 28 29.3**	**-0.8**
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.23**	**153**	P	**Pn**	**13 28 14.3**	**0.0**
PKGZ				S	**Sb**	**13 28 31.6**	**+1.2**
PKGZ				AML	AML		
PKGZ				AML	AML		
OPRZ	**Ohinepanea**	**1.26**	**211**	P	**Pb**	**13 28 14.0**	**-0.9**
OPRZ				AML	AML		
OPRZ				AML	AML		
TGRZ	**Tauranga**	**1.31**	**222**	P	**Pn**	**13 28 15.2**	**-0.1**
TGRZ				AML	AML		
TGRZ				AML	AML		
MARZ	**Manawahe**	**1.34**	**204**	P	**Pn**	**13 28 15.7**	**-0.1**
MARZ				AML	AML		
MARZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.34**	**142**	P	**Pn**	**13 28 16.2**	**+0.5**
WMGZ				S	**Sg**	**13 28 39.5**	**+4.7**
WMGZ				AML	AML		
WMGZ				AML	AML		
PUZ	**Puketiti**	**1.48**	**152**	P	**Pn**	**13 28 19.1**	**+1.4**
PUZ				S	**Sg**	**13 28 41.8**	**+2.6**
TWGZ	**Tauwhareparae**	**1.49**	**161**	P	**Pb**	**13 28 19.9**	**+1.0**
TWGZ				S	**Sg**	**13 28 44.0**	**+4.5**
URZ	**Urewera**	**1.50**	**188**	P	**Pn**	**13 28 17.7**	**-0.3**
URZ	**Urewera**	**1.50**	**188**	S	**Sn**	**13 28 37.0**	**-0.4**
URZ	**Urewera**	**1.50**	**188**	P	**Pn**	**13 28 17.7**	**-0.3**
URZ				S	**Sn**	**13 28 36.7**	**-0.7**
URZ				AML	AML		
URZ				AML	AML		
KARZ	**Kaharoa**	**1.54**	**215**	P	**Pn**	**13 28 18.5**	**0.0**
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	**Kaimai**	**1.57**	**226**	P	**Pn**	**13 28 19.3**	**+0.3**
KMRZ				AML	AML		
KMRZ				AML	AML		
MWZ	**Matawai**	**1.57**	**176**	P	**Pn**	**13 28 18.5**	**-0.4**
MWZ				S	**Sn**	**13 28 38.6**	**-0.5**
MWZ				AML	AML		
MWZ				AML	AML		
GRZ	**Great Barrier**	**1.63**	**288**	P	**Pb**	**13 28 20.8**	**-0.4**
GRZ				S	**Sn**	**13 28 39.7**	**-0.6**
GRZ				AML	AML		
GRZ				AML	AML		
TKGZ	**Te Karaka**	**1.71**	**167**	P	**Pn**	**13 28 22.4**	**+1.5**
TKGZ				S	**Sb**	**13 28 44.1**	**+0.1**
RAGZ	**Rawiri**	**1.73**	**179**	P	**Pg**	**13 28 24.5**	**-0.2**
MUGZ	**Murupara**	**1.77**	**195**	P	**Pn**	**13 28 21.8**	**+0.1**
MUGZ				AML	AML		
MUGZ				AML	AML		
TOZ	**Tahuroa Road**	**1.78**	**237**	P	**Pn**	**13 28 22.1**	**+0.4**
TOZ				S	**Sn**	**13 28 43.5**	**-0.6**
TOZ				AML	AML		
TOZ				AML	AML		
WIAZ	**Waiheke Island**	**1.80**	**268**	P	**Pn**	**13 28 21.3**	**-0.7**
WIAZ				AML	AML		
WIAZ				AML	AML		
MKAZ	**Moumakai**	**1.80**	**259**	P	**Pn**	**13 28 22.7**	**+0.6**
MKAZ				AML	AML		
MKAZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.84**	**159**	P	**Pb**	**13 28 25.3**	**+0.5**
RTZ	**Ruatahuna**	**1.87**	**189**	P	**Pn**	**13 28 23.4**	**+0.3**
RIGZ	**Rimuhau**	**1.96**	**171**	P	**Pb**	**13 28 26.4**	**-0.5**
ETAZ	**East Tamaki Re**	**1.97**	**264**	P	**Pn**	**13 28 25.3**	**+0.9**
ETAZ				AML	AML		
ETAZ				AML	AML		
MBAZ	**Motutapu North**	**1.99**	**269**	P	**Pb**	**13 28 26.2**	**-1.2**
MBAZ				AML	AML		
MBAZ				AML	AML		
MTHZ	**Maungataniwha**	**2.12**	**191**	P	**Pn**	**13 28 27.0**	**+0.4**
RAHZ	**Arahi**	**2.16**	**186**	P	**Pn**	**13 28 28.1**	**+1.1**
AWAZ	**Awhitu Peninsu**	**2.21**	**261**	P	**Pn**	**13 28 29.2**	**+1.6**
AWAZ				AML	AML		
AWAZ				AML	AML		
RVAZ	**Riverhead Bore**	**2.24**	**269**	P	**Pn**	**13 28 29.8**	**+1.7**
BKZ	**Black Stump Fm**	**2.50**	**196**	P	**Pn**	**13 28 32.1**	**+0.5**
BKZ	**Black Stump Fm**	**2.50**	**196**	P	**Pn**	**13 28 32.4**	**+0.8**
WCZ	**Waipu Caves**	**2.58**	**288**	P	**Pn**	**13 28 33.9**	**+1.2**
WCZ				AML	AML		
HIZ	**Hauiti**	**2.65**	**228**	P	**Pn**	**13 28 34.4**	**+0.7**
HIZ	**Hauiti**	**2.65**	**228**	P	**Pn**	**13 28 34.9**	**+1.1**
NTVZ	**North Tongarir**	**2.69**	**209**	P	**Pb**	**13 28 38.3**	**-1.1**
WTVZ	**West Tongariro**	**2.74**	**210**	P	**Pb**	**13 28 40.4**	**+0.2**
OTVZ	**Oturere**	**2.75**	**209**	P	**Pb**	**13 28 38.3**	**-2.1**
KWHZ	**Kaweka Forest**	**2.76**	**195**	P	**Pb**	**13 28 38.2**	**-2.4**
NGZ	**Ngauruhoe**	**2.78**	**210**	P	**Pb**	**13 28 41.2**	**+0.2**
COVZ	**Chateau Observ**	**2.83**	**210**	P	**Pb**	**13 28 41.8**	**+0.1**
FWVZ	**Far West T-bar**	**2.87**	**209**	P	**Pb**	**13 28 42.2**	**-0.4**
BHHZ	**Black Hill Sta**	**2.91**	**200**	P	**Pb**	**13 28 40.4**	**-2.7**
TRVZ	**Turoa**	**2.91**	**209**	P	**Pb**	**13 28 42.3**	**-1.0**
WNVZ	**Wahianoa**	**2.92**	**208**	P	**Pb**	**13 28 41.9**	**-1.4**
MOVZ	**Moawhango**	**2.93**	**205**	P	**Pn**	**13 28 40.0**	**+2.4**
OUZ	**Omahuta**	**3.43**	**296**	P	**Pn**	**13 28 45.5**	**+1.1**
OUZ	**Omahuta**	**3.43**	**296**	P	**Pn**	**13 28 45.7**	**+1.3**
OUZ				AML	AML		
BFZ	**Birch Farm**	**4.01**	**192**	P	**Pn**	**13 28 54.1**	**+1.7**

KRNET ***27*** *13:31:58.7±0.1,39°03N×76°18E,mb3.5*

SOME ***27*** *13:32:07.0,39°28N×76°02E,h5km*

NNC ***27*** *13:32:09.5±1.3,39°37N×76°06E,h16km±7km,mb3.8, mpv3.4,Error ellipse: s-maj=9.2km s-min=7.3km az=3.0*

ISC 27 13:32:02.9±1.6,**39°19N**±0°07×**76°06E**±0°04,**h10**km,**n47, σ1§81/78,22C-16D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**2.14**	**294**	⇓*e*P	**Pb**	**13 32 39.9**	**-1.9**
SFK				⇓*e*S	**Sg**	**13 33 10.0**	**-1.6**
NRN	**Naryn**	**2.25**	**359**	⇑*e*P	**Pn**	**13 32 41.2**	**+0.8**
NRN				⇑*e*S	**Sb**	**13 33 12.4**	**+0.7**
SALK	**Salom-Alik**	**2.41**	**315**	⇓*e*P	**Pn**	**13 32 43.9**	**+1.4**
SALK				⇓*e*S	**Sb**	**13 33 17.1**	**+0.8**
OHH	**Osh**	**2.85**	**299**	⇑*e*P	**Pn**	**13 32 49.6**	**+1.1**
OHH				⇑*e*S	**Sb**	**13 33 27.0**	**-1.8**
TARG	**Taragay, Kyrgy**	**2.87**	**27**	⇑*e*P	**Pn**	**13 32 49.3**	**+0.2**
TARG				⇑*e*S	**Sn**	**13 33 26.2**	**+2.4**
ULHL	**Ulahol**	**3.06**	**3**	⇓*e*P	**Pn**	**13 32 52.7**	**+1.2**
ULHL				⇓*e*S	**Sb**	**13 33 32.0**	**-3.0**
KDJ	**Kajisay**	**3.06**	**16**	⇑*e*P	**Pn**	**13 32 52.3**	**+0.8**
KDJ				⇑*e*S	**Sn**	**13 33 31.4**	**+3.1**
ARSB	**Arslanbob**	**3.18**	**313**	⇓*e*P	**Pn**	**13 32 54.6**	**+1.6**
ARSB				⇓*e*S	**Sb**	**13 33 35.4**	**-2.9**
UCH	**Uchtor**	**3.26**	**339**	⇓*e*P	**Pn**	**13 32 55.9**	**+1.5**
UCH				⇓*e*S	**Sb**	**13 33 37.7**	**-3.2**
BOOM	**Boomskoye usch**	**3.30**	**359**	⇑*e*P	**Pn**	**13 32 56.1**	**+1.3**
BOOM				⇑*e*S	**Sb**	**13 33 38.0**	**-3.9**
DRK	**Karamyk**	**3.31**	**276**	⇑*e*P	**Pn**	**13 32 55.7**	**+0.7**
DRK				⇑*e*S	**Sn**	**13 33 37.2**	**+2.6**
KBK	**Karagaybulak**	**3.57**	**347**	⇓*e*P	**Pn**	**13 33 00.0**	**+1.6**
KBK				⇓*e*S	**Sn**	**13 33 44.6**	**+3.9**
AAK	**Ala-Archa**	**3.65**	**342**	⇑Pn	**Pn**	**13 33 02.6**	**+3.1**
	5.9nm,1.0s						
AAK				⇑Pg	**Pg**	**13 33 13.8**	**+1.1**
	4.3nm,0.5s						
AAK				⇓Lg	Lg	13 34 01.4	
	14nm,0.8s						
AAK	**Ala-Archa**	**3.65**	**342**	*e*P	**Pn**	**13 33 01.1**	**+1.6**
AAK				*e*S	**Sn**	**13 33 46.7**	**+4.1**
PRZ	**Przheval'sk**	**3.74**	**28**	⇑*e*P	**Pn**	**13 33 01.7**	**+0.8**
PRZ				⇑*e*S	**Sn**	**13 33 47.1**	**+2.0**
TKM2	**Tokmak 2**	**3.75**	**355**	⇓*e*P	**Pn**	**13 33 02.3**	**+1.4**
TKM2				⇓*e*S	**Sn**	**13 33 48.8**	**+3.6**
ANVS	**Anan'yevo**	**3.79**	**18**	⇑*e*P	**Pn**	**13 33 02.4**	**+0.8**
ANVS				⇑*e*S	**Sn**	**13 33 48.9**	**+2.5**
KST	**Kastek**	**3.85**	**359**	Pg	**Pg**	**13 33 16.9**	**+0.2**
	3.9nm,0.6s						
KST				Lg	Lg	13 34 07.2	
	18nm,0.6s						
KST	**Kastek**	**3.85**	**359**	*e*P	**Pg**	**13 33 16.9**	**+0.2**
	3.9nm,0.6s						
KST				*e*S	**Sg**	**13 34 07.2**	**+0.6**
	18nm,0.6s						
IZV	**Izvestkoviy**	**3.87**	**6**	Pg	**Pg**	**13 33 15.2**	**-1.8**
	6.5nm,0.3s						
IZV				Lg	Lg	13 34 04.3	
	13nm,0.2s						
IZV	**Izvestkoviy**	**3.87**	**6**	*e*P	**Pg**	**13 33 15.2**	**-1.8**
	6.5nm,0.3s						
IZV				*e*S	**Sg**	**13 34 04.3**	**-2.8**
	13nm,0.2s						
TNSS	**Tian-Shan**	**3.91**	**10**	Pg	**Pg**	**13 33 16.6**	**-1.1**
	2.6nm,0.4s						
TNSS				Lg	Lg	13 34 06.9	
	6.2nm,0.7s						
TNSS	**Tian-Shan**	**3.91**	**10**	*e*P	**Pg**	**13 33 16.6**	**-1.1**
	2.6nm,0.4s						
TNSS				*e*S	**Sg**	**13 34 06.9**	**-1.4**
	6.2nm,0.7s						
MDOK	**Medeo**	**4.04**	**10**	Pg	**Pg**	**13 33 19.6**	**-0.7**
	12nm,0.4s						
MDOK				Lg	Lg	13 34 12.4	
	32nm,0.6s						
MDOK	**Medeo**	**4.04**	**10**	*e*P	**Pg**	**13 33 19.6**	**-0.7**
	12nm,0.4s						
MDOK				*e*S	**Sg**	**13 34 12.4**	**-0.3**
	32nm,0.6s						
DGS	**Degeres**	**4.06**	**357**	Pg	**Pg**	**13 33 20.1**	**-0.5**
	11nm,0.7s						
DGS				Lg	Lg	13 34 13.0	
	12nm,0.6s						
DGS	**Degeres**	**4.06**	**357**	*e*P	**Pg**	**13 33 20.1**	**-0.5**
	11nm,0.7s						
DGS				*e*S	**Sg**	**13 34 13.0**	**-0.2**
	12nm,0.6s						
KOTS	**Kotyrbulak**	**4.12**	**11**	Pg	**Pg**	**13 33 21.7**	**-0.1**
	7.5nm,0.3s						
KOTS				Lg	Lg	13 34 15.7	
	55nm,0.6s						
KOTS	**Kotyrbulak**	**4.12**	**11**	*e*P	**Pg**	**13 33 21.7**	**-0.1**
	7.5nm,0.3s						
KOTS				*e*S	**Sg**	**13 34 15.7**	**+0.5**
	55nm,0.6s						
MRKS	**Merke**	**4.15**	**330**	Pg	**Pg**	**13 33 21.4**	**-1.0**
	12nm,0.5s						
MRKS				Lg	Lg	13 34 15.1	
	7.7nm,0.6s						
MRKS	**Merke**	**4.15**	**330**	*e*P	**Pg**	**13 33 21.4**	**-1.0**
	12nm,0.5s						
MRKS				*e*S	**Sg**	**13 34 15.1**	**-1.0**
	7.7nm,0.6s						
MNAS	**Manas**	**4.26**	**322**	⇑*e*P	**Pn**	**13 33 09.1**	**+1.2**
MNAS				⇑*e*S	**Sn**	**13 34 01.2**	**+3.5**
SATY	**Saty**	**4.26**	**24**	Pg	**Pg**	**13 33 24.0**	**-0.4**
	5.8nm,0.4s						
SATY				Lg	Lg	13 34 19.6	
	13nm,0.6s						
SATY	**Saty**	**4.26**	**24**	*e*P	**Pg**	**13 33 24.0**	**-0.4**
	5.8nm,0.4s						
SATY				*e*S	**Sg**	**13 34 19.6**	**0.0**
	13nm,0.6s						
KRBS	**Karabastau**	**4.51**	**356**	Pg	**Pg**	**13 33 27.9**	**-1.4**
	5.8nm,0.4s						
KRBS				Lg	Lg	13 34 26.4	
	9.1nm,0.7s						
KRBS	**Karabastau**	**4.51**	**356**	*e*P	**Pg**	**13 33 27.9**	**-1.4**
	5.8nm,0.4s						
KRBS				*e*S	**Sg**	**13 34 26.4**	**-1.4**
	9.1nm,0.7s						
UZB	**Uzynbulak**	**4.55**	**29**	Pg	**Pg**	**13 33 28.7**	**-1.2**
	2.1nm,0.4s						
UZB				Lg	Lg	13 34 27.5	
	7.3nm,0.6s						
UZB	**Uzynbulak**	**4.55**	**29**	*e*P	**Pg**	**13 33 28.7**	**-1.2**
	2.1nm,0.4s						
UZB				*e*S	**Sg**	**13 34 27.6**	**-1.3**
	7.3nm,0.6s						
KPKS	**Kokpek**	**4.71**	**24**	Pg	**Pg**	**13 33 31.9**	**-1.2**
	0.4nm,0.2s						
KPKS				Lg	Lg	13 34 32.9	
	7.0nm,0.6s						
KPKS	**Kokpek**	**4.71**	**24**	*e*P	**Pg**	**13 33 31.9**	**-1.2**
	0.4nm,0.2s						
KPKS				*e*S	**Sg**	**13 34 32.9**	**-1.2**
	7.0nm,0.6s						
SHLS	**Shalkode**	**4.73**	**32**	Pg	**Pg**	**13 33 36.6**	**+3.2**
	4.4nm,0.4s						
SHLS				Lg	Lg	13 34 41.0	
	6.9nm,0.6s						
ARXS	**Arharly**	**5.19**	**14**	Pg	**Pg**	**13 33 41.1**	**-1.3**
	3.2nm,0.6s						
ARXS				Lg	Lg	13 34 48.9	
	8.9nm,0.5s						
ARXS	**Arharly**	**5.19**	**14**	*e*P	**Pg**	**13 33 41.1**	**-1.3**
	3.2nm,0.6s						
ARXS				*e*S	**Sg**	**13 34 48.9**	**-0.7**
	8.9nm,0.5s						
KNOS	**Konyrlen**	**5.67**	**23**	Pg	**Pg**	**13 33 52.8**	**+1.4**
	3.0nm,0.6s						
KNOS				Lg	Lg	13 35 08.5	
	4.0nm,0.6s						
KK31	**Karatay Array**	**5.73**	**315**	⇑Pn	Pn	13 33 32.4	+4.5
	0.5nm,0.3s,baz=141,slow=13,SNR=5.4						
KK31				⇓Sn	**Sn**	**13 34 37.1**	**+3.3**
	0.6nm,0.3s						
KK31				⇑Lg	Lg	13 35 09.2	
	3.1nm,0.7s,baz=186,slow=31						
DJR	**Jarkent**	**5.85**	**27**	Pg	**Pg**	**13 33 53.4**	**-1.4**
	1.6nm,0.5s						
DJR				Lg	Lg	13 35 09.9	
	3.8nm,1.0s						
DJR	**Jarkent**	**5.85**	**27**	*e*P	**Pg**	**13 33 53.5**	**-1.4**
	1.6nm,0.5s						
DJR				*e*S	**Sg**	**13 35 09.9**	**-0.7**
	3.8nm,1.0s						

IDC ***27*** *13:37:41.5±0.5,2°69S×127°68E,h0km,mb4.3/19, mbtmp4.4/23,ML4.3/4,MS3.4/20,Error ellipse: s-maj=13.0km s-min=9.4km az=67.0*

NEIC ***27*** *13:37:45.0±1.3,2°64S±0°06×127°52E±0°07,h10km±1km, mb4.8/47,Error ellipse: s-maj=12.3km s-min=10.2km az=240.0*

DJA ***27*** *13:37:45.7±0.3,3°S±3°×12°8E±°,h10km,M4.9/7,mb5.2/6, mbB5.2/4,mB5.2/4,mb5.2/6,MLv4.7/4,MLv4.8/7, Mw(mB)4.6/4,Mw(mB)4.6/4*

GFZ ***27*** *13:37:45.2±0.2,3°S±3°×12°8E±°,h10km,M4.8/26, mb4.8/26,confirmed*

ISC 27 13:37:44.9±1.5,**2°62S**±0°04×**127°59E**±0°04,**h15**km±9km, **n175,σ1§31/168,mb4.7/71,MS3.5/17,Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NLAI	**Namlea**	**0.79**	**219**	P	**Pb**	**13 38 00.5**	**+0.3**
NLAI				AML	AML		
NLAI				AML	AML		
SANI	**Sanana**	**1.70**	**290**	P	**Pn**	**13 38 11.2**	**-2.8**
SANI				AML	AML		
SANI	**Sanana**	**1.70**	**290**	P	**Pn**	**13 38 11.1**	**-3.0**
BNDI	**Bandanaira**	**2.98**	**129**	P	**Pn**	**13 38 34.2**	**+2.6**
BNDI				AML	AML		
BNDI				AML	AML		
BNDI	**Bandanaira**	**2.98**	**129**	P	**Pb**	**13 38 35.9**	**-1.8**
TNTI	**Ternate**	**3.38**	**356**		**Pn**	**13 38 38.1**	**+0.9**
TNTI	**Ternate**	**3.38**	**356**	P	**Pn**	**13 38 38.1**	**+0.9**
TNTI	**Ternate**	**3.38**	**356**	P	**Pn**	**13 38 39.2**	**+2.0**
SIJI	**Sorong**	**4.06**	**65**	Pn	**Pn**	**13 38 43.3**	**-3.3**
	7.0nm,0.3s,baz=240,slow=14,SNR=34						
SIJI				Sn	**Sn**	**13 39 31.5**	**-2.4**
	32nm,0.3s,baz=104,slow=23,SNR=8.6						
	22nm,0.3s						
SIJI				AML	AML		
GAMI	**Galela, Maluku**	**4.44**	**3**	P	**Pg**	**13 39 08.7**	**-1.2**
FAKI	**Fak Fak**	**4.66**	**94**		**Pn**	**13 38 56.2**	**+1.4**
FAKI	**Fak Fak**	**4.66**	**94**	P	**Pn**	**13 38 55.5**	**+0.7**
FAKI	**Fak Fak**	**4.66**	**94**	P	**Pn**	**13 38 55.2**	**+0.4**
KMSI	**Cibinong**	**4.81**	**311**	P	**Pb**	**13 39 05.4**	**-3.5**
MNI	**Manado**	**4.89**	**326**	P	**Pb**	**13 39 09.4**	**-0.9**
LUWI	**Luwuk**	**5.07**	**288**		**Pn**	**13 38 60.0**	**-0.4**
LUWI	**Luwuk**	**5.07**	**288**	P	**Pn**	**13 38 58.4**	**-2.0**
LUWI	**Luwuk**	**5.07**	**288**	P	**Pn**	**13 39 00.2**	**-0.2**
SAUI	**Saumlaki**	**6.48**	**145**	Pn	**Pn**	**13 39 21.6**	**+1.9**
SAUI	**Saumlaki**	**6.48**	**145**	P	Pb	13 39 30.3	-7.1
SAUI	**Sa

WRA	Warramunga Arr	18.43	160			P	13 41 58.5	-1.5
WR8	Warramunga Arr	18.50	159			P	13 42 00.8	+0.1
BBJI	Bungbulang	20.43	256			P	13 42 22.1	+0.1
BBJI	Bungbulang	20.43	256	P		P	13 42 23.3	+1.3
	comp=Z,31nm,0.7s							
PMG	Port Moresby	20.58	110	P		P	13 42 22.9	-0.6
	comp=Z,4.9nm,0.9s,baz=342,slow=4.9,SNR=10							
PMG				LR		LR	13 52 55.9	
	comp=Z,162nm,18.7s,baz=288,slow=45							
	comp=Z,4.9nm,0.9s							
PMG	Port Moresby	20.58	110			P	13 42 24.9	+1.4
PMG	Port Moresby	20.58	110	P		Pn	13 42 27.1	+1.3
	comp=Z,27nm,0.8s							
QIS	Mount Isa	21.33	148	P		P	13 42 31.7	+0.1
	comp=Z,29nm,0.9s							
AS31	Alice Springs	21.79	164			P	13 42 36.3	-0.2
ASAR	Alice Springs	21.79	164	P		P	13 42 35.9	-0.7
	comp=Z,9.7nm,0.6s,baz=347,slow=11,SNR=8.5							
ASAR				S		S	13 46 32.1	-5.1
	comp=Z,16nm,1.0s,baz=347,slow=20,SNR=21							
ASAR				ScP		ScP	13 50 13.4	-0.3
	comp=Z,0.3nm,0.7s,baz=336,slow=2.7,SNR=4.4							
	comp=Z,9.7nm,0.6s							
ASAR	Alice Springs	21.79	164			P	13 42 36.4	-0.1
GUMO	Guam	23.52	46	LR		LR	13 52 32.6	
	comp=Z,28nm,18.6s,baz=143,slow=38							
KRVT	Keravat (AS076	24.45	95	LR		LR	13 52 48.4	
	comp=Z,53nm,19.7s,baz=308,slow=37							
RABL	Rabaul	24.58	94	P		P	13 43 06.5	+1.9
MEEK	Meekatharra	25.38	199	P		P	13 43 10.8	-1.0
	comp=Z,27nm,1.6s							
TWG	Pinlang	26.08	346	P		P	13 43 17.4	-0.7
	comp=Z,44nm,1.1s							
YULB	Yu-li	26.58	347	P		P	13 43 22.6	0.0
	comp=Z,37nm,1.7s							
TPUB	Ta-pu	26.65	346	P		P	13 43 24.2	+1.0
	comp=Z,89nm,1.1s							
SSLB	Suanglung	27.04	347	P		P	13 43 27.9	+1.2
IPM	Ipoh	27.47	285	P		P	13 43 29.9	-0.9
IPM	Ipoh	27.47	285	P		P	13 43 33.4	+2.6
	comp=Z,44nm,1.4s							
INKA	Innaminka	27.96	155			P	13 43 35.9	+0.9
FORT	Forrest	28.01	179			P	13 43 34.3	-1.1
FORT				IAmb		IAmb	13 44 01.5	
	comp=Z,12nm,0.9s							
MORW	Morawa	28.50	202	P		P	13 43 39.7	-0.1
MORW				IAmb		IAmb	13 43 46.6	
	comp=Z,32nm,1.4s							
BBOO	Buckleboo	31.06	166	P		P	13 44 01.7	-0.8
BBOO				IAmb		IAmb	13 45 00.5	
	comp=Z,42nm,1.6s							
STKA	Stephens Creek	31.95	157	P		P	13 44 09.6	-0.7
	comp=Z,1.7nm,0.5s,baz=341,slow=9.2,SNR=6.6							
STKA				LR		LR	13 58 13.1	
	comp=Z,92nm,18.1s,baz=2.7,slow=39							
	comp=Z,1.7nm,0.5s							
STKA	Stephens Creek	31.95	157	P		P	13 44 10.1	-0.2
STKA	Stephens Creek	31.95	157	P		P	13 44 09.9	-0.4
	comp=Z,34nm,1.6s							
CMSA	Cobar Meteorol	33.44	151	P		P	13 44 23.5	+0.1
	comp=Z,7.6nm,1.2s							
CMAR	Chiang Mai Arr	35.13	308	P		P	13 44 39.4	+1.2
	comp=Z,1.7nm,0.7s,baz=136,slow=7.4,SNR=16							
CMAR				PcP		PcP	13 47 10.0	+0.3
	comp=Z,0.6nm,0.3s,baz=186,slow=2.5,SNR=5.2							
CMAR				LR		LR	14 01 07.1	
	comp=Z,25nm,20.6s,baz=135,slow=40							
	comp=Z,1.7nm,0.7s							
CMAR	Chiang Mai Arr	35.13	308			P	13 44 38.8	+0.5
WHN	Wuhan	35.32	340	P		P	13 44 39.5	-0.1
CHTO	Chiang Mai	35.33	308			P	13 44 40.6	+0.7
CHTO				IAmb		IAmb	13 44 50.9	
	comp=Z,14nm,1.1s							
CHTO	Chiang Mai	35.33	308	P		P	13 44 41.8	+1.9
	comp=Z,12nm,0.9s							
NJ2	Nanjing	35.47	347	*e*P		P	13 44 43.3	+2.4
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.5s							
JNU	Nakatsue	35.69	5	LR		LR	14 01 18.6	
	comp=Z,26nm,18.1s,baz=94,slow=40							
KMI2	Kunming	36.65	320	P		P	13 44 53.8	+2.5
KMI2				sP		pwP	13 45 02.8	+2.7
KMI2				pmax		pmax		
	comp=Z,14nm,0.8s							
NPW	Naypyitaw	38.07	307	P		P	13 45 05.2	+2.0
	comp=Z,16nm,0.8s							
INU	Inuyama	38.79	12	P		P	13 45 09.1	+0.1
INU				IAmb		IAmb	13 45 51.3	
	comp=Z,53nm,1.6s							
INU	Inuyama	38.79	12	P		P	13 45 09.5	+0.4
	comp=Z,16nm,0.9s							
JGF	Kuroka	39.11	13	P		P	13 45 12.3	+0.6
JGF	Kuroka	39.11	13	P		P	13 45 11.9	+0.1
	comp=Z,24nm,2.0s							
KSRS	Korea Array	39.88	0	P		P	13 45 17.6	-0.5
	comp=Z,1.7nm,0.9s,baz=186,slow=8.7,SNR=2.6							
	comp=Z,1.7nm,0.9s							
MAJO	Matsushiro	40.20	13	P		P	13 45 20.9	0.0
MAJO				IAmb		IAmb	13 45 23.1	
	comp=Z,28nm,1.4s							
MJAR	Matsushiro Arr	40.20	13	P		P	13 45 20.0	-0.9
	comp=Z,6.6nm,0.8s,baz=190,slow=9.0,SNR=18							
MJAR				LR		LR	14 00 12.9	
	comp=Z,48nm,21.1s,baz=154,slow=34							
	comp=Z,6.6nm,0.8s							
MJB9	Matsu-Tunnel	40.20	13	P		P	13 45 22.3	+1.4
MJB9				IAmb		IAmb	13 45 24.4	
	comp=Z,26nm,1.4s							
CD2	Chengdu	40.35	328	P		P	13 45 23.0	+0.8
CD2				pmax		pmax		
	comp=Z,20nm,0.7s							
XAN	Xi'an	40.49	336	P		P	13 45 23.5	+0.2
XAN				pmax		pmax		
	comp=Z,9.0nm,1.0s							
SANVU	Saraoutou	41.05	111	P		P	13 45 28.9	+0.8
SANVU	Saraoutou	41.05	111	P		P	13 45 31.2	+3.1
	comp=Z,44nm,0.9s							
MORE	Moreh	41.95	311	P		P	13 45 35.0	-0.4
MORE				IAmb		IAmb	13 45 46.5	
	comp=Z,12nm,1.1s							
BRDH	Bariadhala	43.16	308	LR		LR	14 07 52.4	
	comp=Z,54nm,18.1s,baz=182,slow=42							
LZDM	Lanzhou Array	44.40	332	P		P	13 45 55.4	-0.1
	comp=Z,0.9nm,0.3s,baz=141,slow=7.7,SNR=1.6							
	comp=Z,0.9nm,0.3s							
LZH	Lanzhou	44.44	332	*e*P		P	13 45 56.5	+0.9
LZH				sP		pwP	13 46 05.5	+1.0
LZH				pmax		pmax		
	comp=Z,17nm,1.0s							
SHL	Shillong	44.51	311	P		P	13 45 56.8	+0.4
HHC	Hu-ho-hao-te	45.67	343	*e*P		P	13 46 08.0	+2.7
HHC				pmax		pmax		
	comp=Z,5.0nm,0.6s							
HHC				pmax		pmax		
	comp=Z,74nm,5.0s							
USRK	Ussuriysk Ar.	46.78	4	P		P	13 46 13.8	+0.1
	comp=Z,3.0nm,0.5s,baz=186,slow=6.6,SNR=9.3							
	comp=Z,3.0nm,0.5s							
LSA	Lhasa	47.41	315	P		P	13 46 19.3	-0.2
LSA				pmax		pmax		
	comp=Z,29nm,0.7s							
PALK	Pallekele	47.81	282	LR		LR	14 06 46.8	
	comp=Z,48nm,20.6s,baz=54,slow=36							
ASAJ	Asahikawa	48.44	14	LR		LR	14 05 53.5	
	comp=Z,55nm,20.2s,baz=219,slow=35							
JKA	Kamikawa-asahi	48.44	14	P		P	13 46 27.7	+1.0
GTA2	Gaotai	49.09	331	*e*P		P	13 46 33.0	+1.0
GTA2				PcP		PcP	13 47 57.5	+2.0
GTA2				pmax		pmax		
	comp=Z,8.0nm,0.8s							
GOMU	GeErMu	49.26	325	P		P	13 46 34.0	+0.4
GOMU				pP		pwP	13 46 37.5	-5.0
GOMU				sP		pP	13 46 41.5	+4.5
GOMU				pmax		pmax		
	comp=Z,3.0nm,0.4s							
EVN	Everest	49.61	311			P	13 46 36.6	-0.1
EVN	Everest	49.61	311	P		P	13 46 38.3	+1.6
	comp=Z,46nm,1.1s							
HILR	Hailar Array B	52.41	354	P		P	13 46 54.8	-1.9
	comp=Z,2.3nm,0.5s,baz=165,slow=6.7,SNR=2.0							
	comp=Z,2.3nm,0.5s							
HEH	HeiHe	52.67	360	*e*P		P	13 46 58.5	0.0
HEH				pmax		pmax		
	comp=Z,10.0nm,1.1s							
ULN	Ulaanbaatar	53.40	343			P	13 47 03.8	-0.4
ULN	Ulaanbaatar	53.40	343	P		P	13 47 04.6	+0.5
	comp=Z,7.1nm,1.1s							
SONM	Songino Array	53.56	342	P		P	13 47 05.0	-0.4
	comp=Z,3.8nm,1.1s,baz=158,slow=8.6,SNR=12							
SONM				PcP		PcP	13 48 12.4	+0.4
	comp=Z,1.9nm,0.7s,baz=155,slow=4.1,SNR=5.8							
	comp=Z,3.8nm,1.1s							
SONM	Songino Array	53.56	342	P		P	13 47 05.5	+0.2
RPZ	Rata Peaks	56.15	143	LR		LR	14 11 57.2	
	comp=Z,20nm,19.0s,baz=256,slow=37							
URZ	Urewera	57.41	135	LR		LR	14 13 04.0	
	comp=Z,53nm,20.9s,baz=309,slow=37							
TLY	Talaya	57.80	343	LR		LR	14 15 19.8	
	comp=Z,35nm,18.2s,baz=355,slow=39							
WMQ	Urumqi	58.44	327	*e*P		P	13 47 43.0	+2.7
PETK	Petropavlovsk-	61.00	20	P		P	13 47 56.8	-0.9
	comp=Z,5.3nm,0.9s,baz=215,slow=5.7,SNR=4.3							
	comp=Z,5.3nm,0.9s							
ZSN	Zaisan	62.31	329	*e*P		P	13 48 07.5	+0.9
NIL	Nilore	62.57	310	P		P	13 48 08.8	+0.1
	comp=Z,15nm,0.7s							
SHLS	Shalkode	62.81	322	*e*P		P	13 48 09.1	-1.1
PDGK	Podgornoye	62.89	322	P		P	13 48 10.6	-0.1
UZB	Uzynbulak	63.08	322	*e*P		P	13 48 12.6	+0.6
	comp=Z,5.5nm,1.0s							
TARG	Taragay, Kyrgy	63.09	320	P		P	13 48 11.7	-0.7
TARG				IAmb		IAmb	13 48 24.1	
	comp=Z,7.5nm,1.2s							
TARG	Taragay, Kyrgy	63.09	320	P		P	13 48 12.8	+0.4
	comp=Z,5.5nm,1.4s							
MK31	Makanchi Array	63.27	327	P		P	13 48 13.5	+0.5
MK31				IAmb		IAmb	13 48 14.2	
	comp=Z,6.3nm,0.9s							
MKAR	Makanchi Array	63.27	327	P		P	13 48 12.8	-0.3
	comp=Z,4.9nm,0.8s,baz=126,slow=8.0,SNR=29							
MKAR				LR		LR	14 18 01.5	
	comp=Z,37nm,18.2s,baz=285,slow=38							
	comp=Z,4.9nm,0.8s							
MKAR	Makanchi Array	63.27	327	P		P	13 48 13.0	-0.1
MKAR				PcP		PcP	13 48 50.8	+0.5
KSH2	Kashi	63.30	317	P		P	13 48 14.3	+0.8
KSH2				PcP		PcP	13 48 52.5	+1.8
KSH2				pmax		pmax		
	comp=Z,6.0nm,0.8s							
SATY	Saty	63.41	322	*e*P		P	13 48 14.9	+0.8
	comp=Z,5.0nm,0.7s							
KPKS	Kokpek	63.46	322	*e*P		P	13 48 15.2	+0.8
ASAI	AK-SAY(Kyrgyzs	63.51	319	P		P	13 48 16.5	+1.3
	comp=Z,4.7nm,1.2s							
KDJ	Kajisay	63.70	320	IAmb		IAmb	13 48 17.6	
	comp=Z,4.8nm,0.6s							
KDJ	Kajisay	63.70	320	P		P	13 48 17.3	+1.2
	comp=Z,8.0nm,1.1s							
NRN	Naryn	64.11	319	P		P	13 48 19.1	0.0
NRN				IAmb		IAmb	13 48 28.9	
	comp=Z,4.4nm,1.0s							
TNSS	Tian-Shan	64.31	321	*e*P		P	13 48 20.9	+0.5
MDOK	Medeo	64.31	321	*e*P		P	13 48 20.8	+0.7
AAA	Alma-Ata	64.42	321	*e*P		P	13 48 21.6	+0.9
TDK	Taldyqorghan	64.46	323	*e*P		P	13 48 21.7	+0.8
YAK	Yakutsk	64.50	1			P	13 48 21.0	+0.3
YAK	Yakutsk	64.50	1	P		P	13 48 21.5	+0.7
	comp=Z,61nm,0.8s							
BOOM	Boomskoye usch	64.67	320	P		P	13 48 22.6	0.0
BOOM				IAmb		IAmb	13 48 24.3	
	comp=Z,6.7nm,1.1s							
BOOM	Boomskoye usch	64.67	320	P		P	13 48 23.7	+1.2
	comp=Z,6.8nm,1.1s							
KUU	Kurty	65.13	322	*e*P		P	13 48 26.1	+0.8
AAK	Ala-Archa	65.67	320	P		P	13 48 29.1	0.0
AAK				IAmb		IAmb	13 48 30.9	
	comp=Z,3.8nm,0.8s							
DRK	Karamyk	66.06	316	P		P	13 48 31.7	0.0
DRK				IAmb		IAmb	13 48 33.0	
	comp=Z,7.7nm,0.6s							
KBL	Kabul	66.13	310			P	13 48 31.3	-0.9
KBL				IAmb		IAmb	13 48 41.7	
	comp=Z,9.0nm,1.2s							
ZAA0	Zalesovo Array	66.62	334	P		P	13 48 33.8	-0.8
ZAA0				IAmb		IAmb	13 48 34.3	
	comp=Z,4.2nm,1.0s							
ZALV	Zalesovo Beam	66.62	334	P		P	13 48 33.6	-1.0
	comp=Z,1.8nm,0.8s,baz=128,slow=6.5,SNR=7.7							
	comp=Z,1.8nm,0.8s							
ZALV	Zalesovo Beam	66.62	334	P		P	13 48 33.8	-0.8
BTK	Batken	66.99	316	IAmb		IAmb	13 48 47.4	
	comp=Z,11nm,1.3s							
KURBB	Kurchatov Arra	67.55	329	P		P	13 48 39.8	-0.8
	comp=Z,5.0nm,0.6s,baz=128,slow=5.8,SNR=57							
	comp=Z,5.0nm,0.6s							
KURK	Kurchatov	67.56	329			P	13 48 40.5	-0.2
KURK				IAmb		IAmb	13 48 41.4	
	comp=Z,13nm,1.0s							
KURK	Kurchatov	67.56	329	P		P	13 48 40.8	+0.2
	comp=Z,17nm,1.4s							
KK31	Karatay Array	68.49	319	P		P	13 48 46.4	-0.3
KK31				IAmb		IAmb	13 48 47.9	
	comp=Z,5.5nm,1.0s							
KKAR	Karatay Array	68.49	319	P		P	13 48 46.5	-0.2
CHM	Chimkent	68.76	318	*e*P		P	13 48 49.3	+0.8
BVAR	Borovoye Array	73.11	328	P		P	13 49 14.0	-0.6
	comp=Z,4.6nm,0.8s,baz=138,slow=7.6,SNR=22							
	comp=Z,4.6nm,0.8s							
BORK	Borovoye	73.15	328	P		P	13 49 14.6	-0.2
BORK				IAmb		IAmb	13 49 15.7	
	comp=Z,8.0nm,0.9s							
TIXI	Tiksi	74.14	0	P		P	13 49 20.2	-0.1
TIXI				IAmb		IAmb	13 49 21.7	
	comp=Z,16nm,1.4s							
TIXI	Tiksi	74.14	0	P		P	13 49 20.5	+0.2
	comp=Z,6.6nm,0.7s							
VNDA	Vanda	77.06	173	P		P	13 49 35.1	-1.9
	comp=Z,0.8nm,0.6s,baz=320,slow=6.5,SNR=8.8							
VNDA				LR		LR	14 21 13.3	
	comp=Z,30nm,21.9s,baz=329,slow=34							
	comp=Z,0.8nm,0.6s							
VNDA	Vanda	77.06	173	P		P	13 49 35.2	-1.7
VNDA				IAmb		IAmb	13 52 27.8	
	comp=Z,9.9nm,1.7s							
VNDA	Vanda	77.06	173	P		P	13 49 36.3	-0.7
	comp=Z,2.9nm,1.8s							
AB31	Akbulak array	77.61	322	P		P	13 49 40.3	-0.2
ABKAR	Akbulak array	77.61	322	P		P	13 49 40.1	-0.5
RAYN	Ar Rayn	83.79	294	P		P	13 50 14.7	+0.4
	comp=Z,4.4nm,0.9s							
E18K	Tukpahlearik C	85.50	22	P		P	13 50 23.3	+1.4
E18K				IAmb		IAmb	13 51 27.5	
	comp=Z,11nm,1.2s							
QSPA	South Pole Qui	87.33	180	P		P	13 50 29.4	-1.7
	comp=Z,1.0nm,0.6s,baz=348,slow=4.6,SNR=14							
	comp=Z,1.0nm,0.6s							
QSPA	South Pole Qui	87.33	180	P		P	13 50 30.0	-1.1
QSPA				IAmb		IAmb	13 50 47.9	
	comp=Z,12nm,1.4s							
IMAR	Indian Mountai	87.77	24	P		P	13 50 34.4	+1.3
ILAR	Eielson Array	90.44	25	P		P	13 50 44.7	-0.9
	comp=Z,1.3nm,1.0s,baz=272,slow=3.3,SNR=5.6							
	comp=Z,1.3nm,1.0s							
BMAR	Burnt Mountain	91.56	23	P		P	13 50 52.3	+1.4
BCAR	Beaver Creek A	92.60	27	P		P	13 50 56.5	+0.7
BRTR	Keskin Array B	94.71	309	LR		LR	14 39 03.1	
	comp=Z,27nm,21.0s,baz=356,slow=39							
INK	Inuvik	95.71	22	P		P	13 51 10.1	+0.2
	comp=Z,3.3nm,2.8s							
ARCES	ARCESS Array B	96.67	340	P		P	13 51 13.3	-0.9
	comp=Z,4.9nm,0.9s,baz=71,slow=5.3,SNR=5.0							
	comp=Z,4.9nm,0.9s							
SNAA	Sanae	99.31	194	LR		LR	14 34 11.7	
	comp=Z,39nm,21.8s,baz=194,slow=34							

WEL 27 13:57:14.5±1.3, 35°S±15′×18°0W±1°5, h162km±40km, M3.8/5, ML3.8/7, MLv3.8/5, Error ellipse: s-maj=21.3km s-min=18.5km az=131.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.21	207	P	Pn	13 58 03.3	-1.6
MXZ				S	Sn	13 58 44.8	+0.8
MXZ				AML	AML		
PKGZ	Pakihiroa	3.56	207	P	Pn	13 58 09.1	-0.2
PKGZ				S	Sn	13 58 53.9	+1.8
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	3.58	212	P	Pn	13 58 09.7	+0.1
HAZ				AML	AML		
PUZ	Puketiti	3.68	204	P	Pn	13 58 09.7	-1.2
PUZ				S	Sn	13 58 55.7	+0.8
PUZ				AML	AML		
RUGZ	Raukumara Rang	3.81	211	P	Pn	13 58 13.0	+0.3
RUGZ				S	Sn	13 58 58.1	+0.2
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	Carnagh Statio	4.07	202	P	Pn	13 58 15.5	-0.4
CNGZ				AML	AML		
MWZ	Matawai	4.18	210	P	Pn	13 58 16.5	-0.9
MWZ				S	Sn	13 59 07.5	+1.0
MWZ				AML	AML		
URZ	Urewera	4.30	214	P	Pn	13 58 18.6	-0.3
URZ				S	Sn	13 59 08.8	-0.4
URZ				AML	AML		
MUGZ	Murupara	4.63	215	P	Pn	13 58 24.0	+0.7
MUGZ				S	Sn	13 59 15.4	-1.6
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	4.65	212	P	Pn	13 58 23.9	+0.4
RTZ				AML	AML		
TOZ	Tahuroa Road	4.81	230	P	Pn	13 58 26.9	+1.3
RAHZ	Arahi	4.86	210	P	Pn	13 58 27.0	+0.8
RAHZ				S	Sn	13 59 23.4	+1.1
MTHZ	Maungataniwha	4.91	212	P	Pn	13 58 27.7	+0.8
MTHZ				S	Sn	13 59 22.9	-0.6
MTHZ				AML	AML		
BKZ	Black Stump Fm	5.32	212	P	Pn	13 58 32.1	-0.2
OUZ	Omahuta	5.41	263	P	Pn	13 58 33.3	-0.1

*UCR **27** 13:59:46.0±1.1, 10°.78N×85°.10W, h153km±4km, MW4.1, Presumed earthquake*
*CATAC **27** 13:59:47.5±0.6, 11°N±2°×8°5W±°, h137km±4km, M3.3/12, MLv3.3/12, Error ellipse: s-maj=6.2km s-min=3.4km az=51.5, confirmed*
ISC 27 13:59:47.0±1.6, 10°.75N±0°.05×85°.02W±0°.05, h150km±9km, n63, σ0961/83, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TENO	El Achiote	0.06	140	*e*P	Pn	14 00 07.5	+0.3
CLARA	Aguas Claras	0.16	282	*e*P	Pn	14 00 07.3	+0.1
HORNC	Hornillas	0.16	256	*e*P	Pn	14 00 07.5	+0.1
TIMP	Tierras Morena	0.17	180	*e*P	Pn	14 00 07.2	-0.1
TIMP				*e*S	Sn	14 00 23.1	+0.2
MESS	Mesas	0.17	266	*e*P	Pn	14 00 07.4	+0.1
COLC	Colonia	0.20	245	*e*P	Pn	14 00 07.2	-0.2
COLC				*e*S	Sn	14 00 23.8	+0.9
TILA	Tilaran	0.28	170	*e*P	Pn	14 00 07.0	-0.7
PEJA	Penjamo Buenos	0.32	296	*e*P	Pn	14 00 07.6	-0.1
CHIK	Chiripa	0.33	160	*e*P	Pn	14 00 08.1	+0.4
GPS2	Hotel Rincn d	0.33	270	*e*P	Pn	14 00 07.6	-0.1
GPS2				*e*S	Sn	14 00 24.1	+0.7
VORI	VORI	0.33	282	*e*P	Pn	14 00 08.3	+0.4
VRLE	La Escondida,	0.34	276	*e*P	Pn	14 00 07.7	-0.2
TABAC	Tabacon	0.35	135	*e*P	Pn	14 00 08.3	+0.4
TABAC				*e*S	Sn	14 00 25.1	+1.3
LAPC	Finca la Perla	0.41	272	*e*P	Pn	14 00 07.4	-0.6
LAPC				*e*S	Sn	14 00 23.9	0.0
LAPC				*e*S		14 00 23.9	
ARE1	Arenal 1	0.41	134	*e*P	Pn	14 00 09.0	+0.9
VARE2	V. Arenal	0.41	134	*e*P	Pn	14 00 08.5	+0.4
CASO	Castillo	0.42	138	*e*P	Pn	14 00 08.3	+0.2
CASO				*e*S	Sn	14 00 24.9	+0.8
VACR	Volcan Arenal	0.43	130	*e*P	Pn	14 00 08.6	+0.5
VACR				*e*S	Sn	14 00 24.9	+0.7
JTS	Las Juntas de	0.46	172	P	Pn	14 00 07.8	-0.5
JTS				S	Sn	14 00 24.0	-0.4
JTS	Las Juntas de	0.46	172	*e*P	Pn	14 00 07.8	-0.5
PLVR	Palo Verde	0.52	219	*e*P	Pn	14 00 08.0	-0.7
PLVR				*e*S	Sn	14 00 25.4	+0.2
PLVR				*e*S		14 00 25.8	
ALIBA	Liberia Airpor	0.54	253	*e*P	Pn	14 00 08.3	-0.3
ALIBA				*e*S	Sn	14 00 25.6	+0.6
DELF	Filadelfia	0.61	240	*e*P	Pn	14 00 08.8	-0.1
COVE	Coope Vega, Sa	0.61	93	S	Sn	14 00 24.9	-0.7
CARN	Rivas	0.66	311	P	Pn	14 00 09.3	0.0
LCRUZ	La Cruz	0.68	298	*e*P	Pn	14 00 09.0	-0.4
LCRUZ				*e*S	Sn	14 00 26.5	0.0
NICO	Nicoya	0.74	215	*e*P	Pn	14 00 09.1	-0.7
INDI	Punta indio, G	1.00	208	P	Pn	14 00 10.6	-1.2
INDI				S	Sn	14 00 29.8	-0.9
CONN	Concepcion	1.00	324	P	Pn	14 00 11.0	-0.9
MORN	Al O del Volca	1.00	322	P	Pn	14 00 11.6	-0.3
TRB2	Turrubares	1.00	146	P	Pn	14 00 11.7	-0.2
TRB2				S	Sn	14 00 29.5	-1.3
JAPN	Al SSO del Vol	1.00	320	*e*P	Pn	14 00 12.1	+0.3
HDC	Heredia	1.16	130	S	Sn	14 00 32.6	-0.9
ACON	Acoyapa	1.22	353	P	Pn	14 00 13.4	-0.3
ACON				S	Sn	14 00 33.9	-0.4
TRT2	Tortugero	1.28	99	*e*P	Pn	14 00 14.2	-0.1
CVTG	V. Turrialba,	1.36	116	*e*P	Pn	14 00 15.9	+0.6
PICV	PH. Pirrs	1.38	144	*e*P	Pn	14 00 15.8	+0.4
VICA	Volcano Irazu	1.38	123	*e*P	Pn	14 00 16.0	+0.2
ABE2	San Pablo	1.41	138	*e*P	Pn	14 00 16.2	+0.2
LCR2	La Lucha 2	1.42	135	P	Pn	14 00 16.0	+0.1
LCR2				S	Sn	14 00 37.4	-0.6
LCR2	La Lucha 2	1.42	135	*e*P	Pn	14 00 16.1	+0.1
CVTQ	Turrialba Volc	1.44	121	*e*P	Pn	14 00 16.6	+0.2
CVTV	Tajo	1.45	121	*e*P	Pn	14 00 17.3	+0.9
ABRB	Las Ab

REDR	**Restauracion**	**0.84**	**310**	⇑*i*P		**Pn**	**14 04 34.5**	**+1.2**
REDR				⇑*i*S		**Sn**	**14 04 51.1**	**+5.4**
REDR				IAML			14 04 53.0	
	comp=N,59nm,0.1s							
HATOM	**Hato Mayor del**	**1.27**	**83**	⇑*i*P		**Pn**	**14 04 38.8**	**-0.5**
HATOM				⇑*i*S		**Sb**	**14 04 55.6**	**-0.2**
HATOM				IAML			14 04 56.9	
	comp=N,36nm,0.3s							

*KRNET **27** 14:17:52.6±0.1,41°.66N×71°.57E,h25km,mb2.5*
*SOME **27** 14:17:53.2,41°.63N×71°.62E,h10km*
*USA **27** 14:17:54,41°.65N×71°.59E,h3km*
*NNC **27** 14:17:55.4±2.8,41°.72N×71°.56E,h0km±27km,mb2.9, mpv2.6,Error ellipse: s-maj=33.4km s-min=9.1km az=6.0*
ISC 27 14:17:54.0±1.1,**41°.68N**±0°.03×**71°.58E**±0°.03,**h10**km±9km, **n20,**σ1§**51**/35,**10C-12D,Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ARK	**Arkit**	**0.31**	**68**	⇓*e*P	**Pg**	**14 17 59.7**	**-0.6**
ARK				⇓*e*S	**Sg**	**14 18 04.9**	**+0.4**
TRKS	**Terek-Say**	**0.36**	**245**	⇑*e*P	**Pg**	**14 18 00.1**	**-1.1**
TRKS				⇑*e*S	**Sg**	**14 18 05.4**	**-0.6**
MNAS	**Manas**	**1.06**	**40**	⇓*e*P	**Pg**	**14 18 12.8**	**-1.6**
MNAS				⇓*e*S	**Sg**	**14 18 27.5**	**-0.7**
FRG	**Fergana**	**1.32**	**173**	S	**Sg**	**14 18 40.1**	**+3.8**
OHH	**Osh**	**1.47**	**141**	⇑*e*P	**Pn**	**14 18 19.3**	**-1.4**
OHH				⇑*e*S	**Sn**	**14 18 38.7**	**-1.3**
MRKS	**Merke**	**1.62**	**49**	P	**Pg**	**14 18 26.2**	**+1.2**
	2.0nm,0.2s						
MRKS				S	**Sg**	**14 18 46.1**	**-0.1**
	6.2nm,0.1s						
MRKS	**Merke**	**1.62**	**49**	*e*P	**Pg**	**14 18 26.2**	**+1.2**
	2.0nm,0.2s						
MRKS				*e*S	**Sg**	**14 18 49.4**	**+3.2**
	16nm,0.3s						
KK31	**Karatay Array**	**1.62**	**331**	⇑P	**Pn**	**14 18 23.0**	**+0.3**
	1.2nm,0.2s,baz=169,slow=19,SNR=20						
KK31				⇓S	**Sg**	**14 18 46.4**	**+0.1**
	9.7nm,0.3s,baz=156,slow=29,SNR=22						
SALK	**Salom-Alik**	**1.87**	**115**	⇑*e*P	**Pn**	**14 18 25.8**	**-0.4**
SALK				⇑*e*S	**Sn**	**14 18 49.8**	**-0.1**
EKS2	**Erkin-Say**	**1.91**	**58**	⇓*e*P	**Pn**	**14 18 26.6**	**-0.1**
EKS2				⇓*e*S	**Sn**	**14 18 51.1**	**+0.3**
DRK	**Karamyk**	**2.21**	**176**	⇓*e*P	**Pn**	**14 18 30.3**	**-0.6**
DRK				⇓*e*S	**Sn**	**14 18 57.6**	**-0.8**
SFK	**Sufi-Kurgan**	**2.22**	**138**	⇓*e*P	**Pn**	**14 18 30.5**	**-0.5**
SFK				⇓*e*S	**Sn**	**14 18 57.9**	**-0.7**
UCH	**Uchtor**	**2.26**	**75**	⇑*e*P	**Pn**	**14 18 31.5**	**-0.3**
UCH				⇑*e*S	**Sn**	**14 18 59.8**	**-0.1**
AAK	**Ala-Archa**	**2.37**	**65**	⇓Pg	**Pg**	**14 18 39.3**	**-0.1**
	1.9nm,0.8s						
AAK				⇑Lg	Lg	14 19 09.8	
	1.8nm,0.7s						
DGS	**Degeres**	**3.47**	**62**	Pg	**Pg**	**14 18 59.6**	**-0.9**
	1.0nm,0.4s						
DGS				Lg	Lg	14 19 43.1	
	3.1nm,0.4s						
DGS	**Degeres**	**3.47**	**62**	*e*P	**Pb**	**14 18 57.8**	**+2.2**
	1.0nm,0.4s						
DGS				*e*S	**Sg**	**14 19 43.1**	**-2.4**
	3.1nm,0.4s						
KST	**Kastek**	**3.52**	**66**	Pg	**Pg**	**14 19 01.0**	**-0.5**
	0.7nm,0.3s						
KST				Lg	Lg	14 19 45.3	
	2.7nm,0.4s						
KST	**Kastek**	**3.52**	**66**	*e*P	**Pb**	**14 18 58.6**	**+2.1**
	0.7nm,0.3s						
KST				*e*S	**Sg**	**14 19 45.3**	**-1.8**
	2.7nm,0.4s						
KRBS	**Karabastau**	**3.63**	**55**	Pg	**Pg**	**14 19 02.2**	**-1.3**
	0.4nm,0.2s						
KRBS				Lg	Lg	14 19 47.2	
	2.8nm,0.3s						
KRBS	**Karabastau**	**3.63**	**55**	*e*P	**Pb**	**14 18 59.1**	**+0.9**
	0.4nm,0.2s						
KRBS				*e*S	**Sg**	**14 19 47.2**	**-3.3**
	2.8nm,0.3s						

*IDC **27** 14:43:53.6±1.2,24°.62N×127°.76E,h0km,mb3.4/4, mbtmp3.4/5,ML3.3/1,Error ellipse: s-maj=43.0km s-min=16.4km az=91.0*
*JMA **27** 14:43:54.8±0.3,25°.N±1°.×12°.8E±°,h67km,MV3.1/14,FAR S OFF OKINAWAJIMA*
ISC 27 14:43:56.0±1.0,**24°.81N**±0°.06×**128°.00E**±0°.05,**h29**km,**n17,** σ1§**46**/21,**mb3.3/4,Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JJT3	**Tamagusuku3**	**1.34**	**352**	*e*P	**Pb**	**14 44 20.6**	**+0.1**
JJT3				*e*S	**Sb**	**14 44 38.0**	**+0.7**
JNTH	**Nagotoyohara**	**1.70**	**1**	*e*P	**Pb**	**14 44 25.0**	**-1.6**
JKE	**Kume jima 2**	**1.87**	**324**	*e*P	**Pb**	**14 44 27.3**	**-2.2**
JKE				*e*S	**Sn**	**14 44 49.0**	**+0.5**
JAGN	**Aguni-jima**	**1.90**	**339**	*e*P	**Pb**	**14 44 28.2**	**-1.8**
JAGN				*e*S	**Sb**	**14 44 51.2**	**-2.1**
JOW	**Kunigami**	**2.03**	**7**	Pn	**Pb**	**14 44 29.9**	**-2.3**
	14nm,0.3s,baz=145,slow=14,SNR=113						
JOW				Sn	**Sn**	**14 44 53.1**	**+0.5**
	14nm,0.3s,baz=80,slow=24,SNR=11						
	41nm,0.3s						
JOW				AML	AML		
JOW	**Kunigami**	**2.03**	**7**	*e*P	**Pb**	**14 44 29.9**	**-2.3**
JYRO	**Yoronjima**	**2.24**	**10**	*e*P	**Pn**	**14 44 32.8**	**+1.6**
JMJ2	**Miyako jima3**	**2.43**	**269**	*e*P	**Pn**	**14 44 33.6**	**-0.2**
JIKM	**Ikemajima**	**2.50**	**273**	*e*P	**Pn**	**14 44 34.7**	**0.0**
JIRJ	**Irabujima**	**2.55**	**271**	*e*P	**Pn**	**14 44 35.0**	**-0.3**
JTJ	**Tarama**	**3.00**	**267**	*e*P	**Pn**	**14 44 41.0**	**-0.6**
JMZ	**Minamidaito 2**	**3.08**	**70**	*e*P	**Pn**	**14 44 41.8**	**-0.9**
JKDJ	**Kitadaitoujima**	**3.19**	**68**	*e*P	**Pn**	**14 44 43.7**	**-0.5**
MKAR	**Makanchi Array**	**42.34**	**313**	P	**P**	**14 51 48.7**	**+1.3**
	0.4nm,0.7s,baz=91,slow=9.1,SNR=4.2						
	0.4nm,0.7s						
WRA	**Warramunga Arr**	**44.91**	**172**	P	**P**	**14 52 09.0**	**+0.7**
	1.1nm,0.6s,baz=350,slow=8.1,SNR=7.2						
	1.1nm,0.6s						
KURBB	**Kurchatov Arra**	**45.75**	**317**	P	**P**	**14 52 16.8**	**+2.2**
	0.1nm,0.5s,baz=106,slow=9.7,SNR=2.2						
	0.1nm,0.5s						
ASAR	**Alice Springs**	**48.53**	**173**	P	**P**	**14 52 36.8**	**+0.2**
	0.3nm,0.8s,baz=350,slow=8.8,SNR=4.4						
	0.3nm,0.8s						

*IDC **27** 14:50:03.2±0.7,32°.77S×178°.62W,h0km,mb4.4/12, mbtmp4.4/15,ML4.3/3,MS4.0/40,Error ellipse: s-maj=20.7km s-min=16.9km az=100.0*
*NEIC **27** 14:50:04.7±1.0,32°.70S±0°.08×178°.5W±0°.1,h10km±1km, mb4.8/20,Error ellipse: s-maj=20.3km s-min=5.9km az=131.0*
*WEL **27** 14:50:05.9±0.7,33°.S±6°.×17°.8W±1°.3,h62km±35km, M4.8/20,mB5.3/12,ML4.9/22,MLv5.0/20,Mw(mB)4.7/12, Error ellipse: s-maj=17.6km s-min=3.5km az=111.6*
*NOU **27** 14:50:11.5,33°.58S×178°.27W,h72km,mb4.7/18,South of Kermadec Islands*
ISC 27 14:50:06.8±0.4,**32°.97S**±0°.05×**178°.31W**±0°.06,**h32**km, **n178,**σ2§**34**/186,**mb4.8**/23,**MS4.0**/38,**4C,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.71**	**5**	P	**Pn**	**14 50 59.6**	**-2.2**
GLKZ				S	**Sn**	**14 51 41.6**	**-2.9**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**3.72**	**5**	Pn	Pn	14 50 57.2	-4.9
	65nm,0.3s,baz=76,slow=23,SNR=1.8						
RAO				Sn	**Sn**	**14 51 43.2**	**-1.5**
	98nm,0.3s,baz=274,slow=22,SNR=1.9						
	146nm,0.3s						
RAO				AML	AML		
RAO	**Raoul Island**	**3.72**	**5**	Pn	**Pn**	**14 50 58.8**	**-3.3**
MXZ	**Matakaoa Point**	**5.36**	**210**	P	**Pn**	**14 51 22.8**	**-1.7**
MXZ				S	**Sn**	**14 52 24.0**	**-1.1**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.53**	**208**	P	**Pn**	**14 51 26.3**	**-0.6**
WMGZ				S	**Sn**	**14 52 28.6**	**-0.8**
WMGZ				AML	AML		
WMGZ				AML	AML		

PKGZ	**Pakihiroa**	**5.71**	**210**	P		**Pn**	**14 51 28.2**	**-1.2**
PKGZ				S		**Sn**	**14 52 32.7**	**-1.1**
PKGZ				AML		AML		
PKGZ				AML		AML		
HAZ	**Te Kaha**	**5.75**	**213**	P		**Pn**	**14 51 29.0**	**-0.9**
HAZ				S		**Sn**	**14 52 35.2**	**+0.6**
HAZ				AML		AML		
HAZ				AML		AML		
PUZ	**Puketiti**	**5.81**	**208**	P		**Pn**	**14 51 29.2**	**-1.6**
PUZ				S		**Sn**	**14 52 34.6**	**-1.8**
PUZ				AML		AML		
PUZ				AML		AML		
WIZ	**White Island**	**5.85**	**218**	P		**Pn**	**14 51 31.8**	**+0.5**
WIZ				AML		AML		
WIZ				AML		AML		
RUGZ	**Raukumara Rang**	**5.97**	**212**	P		**Pn**	**14 51 31.4**	**-1.6**
RUGZ				S		**Sn**	**14 52 40.4**	**+0.1**
RUGZ				AML		AML		
RUGZ				AML		AML		
TWGZ	**Tauwhareparae**	**6.01**	**209**	P		**Pn**	**14 51 32.3**	**-1.3**
TWGZ				S		**Sn**	**14 52 40.7**	**-0.7**
TWGZ				AML		AML		
TWGZ				AML		AML		
CNGZ	**Carnagh Statio**	**6.19**	**206**	P		**Pn**	**14 51 34.5**	**-1.4**
CNGZ				S		**Sn**	**14 52 46.3**	**+0.7**
CNGZ				AML		AML		
CNGZ				AML		AML		
WHRZ	**Whale Island**	**6.21**	**217**	P		**Pn**	**14 51 39.0**	**+2.6**
WHRZ				AML		AML		
WHRZ				AML		AML		
TKGZ	**Te Karaka**	**6.29**	**209**	P		**Pn**	**14 51 37.3**	**0.0**
TKGZ				S		**Sn**	**14 52 46.2**	**-1.9**
TKGZ				AML		AML		
TKGZ				AML		AML		
MWZ	**Matawai**	**6.34**	**211**	P		**Pn**	**14 51 37.7**	**-0.4**
MWZ				S		**Sn**	**14 52 47.4**	**-2.0**
MWZ				AML		AML		
MWZ				AML		AML		
OPRZ	**Ohinepanea**	**6.42**	**219**	P		**Pn**	**14 51 40.3**	**+1.1**
OPRZ				AML		AML		
OPRZ				AML		AML		
URZ	**Urewera**	**6.46**	**214**	Pn		**Pn**	**14 51 37.9**	**-1.9**
	15nm,0.3s,baz=270,slow=4.1,SNR=70							
URZ				Sn		**Sn**	**14 52 51.0**	**-1.4**
	14nm,0.3s,baz=132,slow=21,SNR=7.1							
	40nm,0.4s							
URZ				AML		AML		
URZ	**Urewera**	**6.46**	**214**	P		**Pn**	**14 51 38.2**	**-1.5**
URZ				S		**Sn**	**14 52 50.5**	**-1.9**
URZ				AML		AML		
URZ				AML		AML		
MARZ	**Manawahe**	**6.46**	**218**	P		**Pn**	**14 51 41.1**	**+1.3**
MARZ				AML		AML		
MARZ				AML		AML		
TGRZ	**Tauranga**	**6.50**	**221**	P		**Pn**	**14 51 42.5**	**+2.3**
TGRZ				AML		AML		
TGRZ				AML		AML		
RIGZ	**Rimuhau**	**6.55**	**208**	P		**Pn**	**14 51 40.0**	**-1.1**
RIGZ				S		**Sn**	**14 52 54.2**	**-0.5**
RIGZ				AML		AML		
RIGZ				AML		AML		
PRGZ	**Paritu Road**	**6.70**	**206**	P		**Pn**	**14 51 43.5**	**+0.5**
PRGZ				S		**Sn**	**14 52 57.7**	**-0.4**
PRGZ				AML		AML		
PRGZ				AML		AML		
KARZ	**Kaharoa**	**6.72**	**220**	P		**Pn**	**14 51 43.1**	**-0.2**
KARZ				AML		AML		
KARZ				AML		AML		
WCZ	**Waipu Caves**	**6.75**	**242**	P		**Pn**	**14 51 45.7**	**+2.0**
WCZ				AML		AML		
WCZ				AML		AML		
MKAZ	**Moumakai**	**6.76**	**231**	P		**Pn**	**14 51 46.2**	**+2.4**
MKAZ				AML		AML		
MKAZ				AML		AML		
MUGZ	**Murupara**	**6.80**	**215**	P		**Pn**	**14 51 42.6**	**-1.7**
MUGZ				S		**Sn**	**14 52 59.3**	**-1.4**
MUGZ				AML		AML		
MUGZ				AML		AML		
RTZ	**Ruatahuna**	**6.81**	**213**	P		**Pn**	**14 51 43.6**	**-1.0**
RTZ	**Ruatahuna**	**6.81**	**213**	P		**Pn**	**14 51 44.2**	**-0.4**
RTZ				S		**Sn**	**14 53 00.8**	**-0.3**
RTZ				AML		AML		
RTZ				AML		AML		
RRRZ	**Republican Roa**	**6.82**	**217**	P		**Pn**	**14 51 44.0**	**-0.6**
RRRZ				AML		AML		
RRRZ				AML		AML		
HLRZ	**Highlands Stat**	**6.83**	**218**	P		**Pn**	**14 51 47.3**	**+2.5**
HLRZ				AML		AML		
HLRZ				AML		AML		
KNZ	**Kokohu**	**6.86**	**207**	P		**Pn**	**14 51 45.3**	**+0.1**
KNZ				S		**Sn**	**14 52 59.5**	**-2.7**
KNZ				AML		AML		
MHGZ	**Mahia Peninsul**	**6.89**	**205**	P		**Pn**	**14 51 44.5**	**-1.2**
MHGZ				AML		AML		
TOZ	**Tahuroa Road**	**6.94**	**225**			**Pn**	**14 51 47.5**	**+1.2**
TOZ	**Tahuroa Road**	**6.94**	**225**	P		**Pn**	**14 51 46.6**	**+0.4**
PRRZ	**Plateau Road**	**7.00**	**216**	P		**Pn**	**14 51 47.2**	**+0.1**
RAHZ	**Arahi**	**7.01**	**211**	P		**Pn**	**14 51 47.1**	**-0.2**
RAHZ				S		**Sn**	**14 53 04.1**	**-1.8**
MTHZ	**Maungataniwha**	**7.07**	**212**	P		**Pn**	**14 51 48.7**	**+0.6**
MTHZ				S		**Sn**	**14 53 06.3**	**-1.1**
ALRZ	**Allen Road**	**7.07**	**216**	P		**Pn**	**14 51 48.6**	**+0.4**
OUZ	**Omahuta**	**7.08**	**249**	P		**Pn**	**14 51 48.6**	**+0.4**
OUZ	**Omahuta**	**7.08**	**249**	P		**Pn**	**14 51 50.7**	**+2.5**
WHHZ	**Waihua**	**7.08**	**209**	P		**Pn**	**14 51 48.8**	**+0.5**
WHHZ				S		**Sn**	**14 53 06.1**	**-1.6**
ARHZ	**Aropaoanui**	**7.34**	**210**	P		**Pn**	**14 51 50.5**	**-1.3**
ARHZ				S		**Sn**	**14 53 11.2**	**-2.8**
BKZ	**Black Stump Fm**	**7.48**	**213**	P		**Pn**	**14 51 52.4**	**-1.4**
BKZ	**Black Stump Fm**	**7.48**	**213**	P		**Pn**	**14 51 53.3**	**-0.5**
BKZ				S		**Sn**	**14 53 15.1**	**-2.3**
MCHZ	**McNeill Hill**	**7.62**	**211**	P		**Pn**	**14 51 53.2**	**-2.4**
MCHZ				S		**Sn**	**14 53 18.7**	**-2.1**
CKHZ	**Cape Kidnapper**	**7.64**	**208**	P		**Pn**	**14 51 54.0**	**-2.0**
CKHZ				S		**Sn**	**14 53 17.6**	**-3.8**
KWHZ	**Kaweka Forest**	**7.72**	**212**	P		**Pn**	**14 51 56.2**	**-0.9**
KWHZ				S		**Sn**	**14 53 19.3**	**-4.2**
HIZ	**Hauiti**	**7.84**	**223**	P		**Pn**	**14 51 59.7**	**+1.0**
KAHZ	**Kahuranaki**	**7.84**	**208**	P		**Pn**	**14 51 54.9**	**-3.8**
KAHZ				S		**Sn**	**14 53 23.1**	**-3.2**
OTVZ	**Oturere**	**7.87**	**217**	P		**Pn**	**14 52 00.4**	**+1.1**
KRHZ	**Kereru**	**7.92**	**211**	P		**Pn**	**14 51 58.5**	**-1.3**
KRHZ				S		**Sn**	**14 53 22.8**	**-5.6**
BHHZ	**Black Hill Sta**	**7.94**	**213**	P		**Pn**	**14 51 58.8**	**-1.2**
BHHZ				S		**Sn**	**14 53 24.0**	**-4.8**
COVZ	**Chateau Observ**	**7.96**	**217**	P		**Pn**	**14 52 01.1**	**+0.7**
MOVZ	**Moawhango**	**8.02**	**215**	P		**Pn**	**14 52 00.2**	**-0.9**
MOVZ				S		**Sn**	**14 53 25.5**	**-5.3**
WNVZ	**Wahianoa**	**8.03**	**216**	P		**Pn**	**14 52 01.7**	**+0.2**
WNVZ				S		**Sn**	**14 53 29.9**	**-1.3**
PXZ	**Pawanui**	**8.05**	**207**	P		**Pn**	**14 52 00.4**	**-1.1**
PXZ				S		**Sn**	**14 53 25.9**	**-5.5**
PNHZ	**Pukenui**	**8.22**	**211**	P		**Pn**	**14 52 00.6**	**-3.3**
PNHZ				S		**Sn**	**14 53 30.4**	**-5.3**
WPHZ	**Waipukurau**	**8.25**	**209**	P		**Pn**	**14 52 01.5**	**-2.7**
VRZ	**Vera Road**	**8.32**	**220**	P		**Pn**	**14 52 08.3**	**+3.1**
TSZ	**Takapari Road**	**8.45**	**211**	P		**Pn**	**14 52 05.4**	**-1.6**
TSZ				S		**Sn**	**14 53 36.8**	**-4.3**
DVHZ	**Dannevirke**	**8.56**	**210**	P		**Pn**	**14 52 05.4**	**-3.1**
DVHZ				S		**Sn**	**14 53 37.0**	**-6.9**
ANWZ	**Angora Road**	**8.57**	**208**	P		**Pn**	**14 52 07.4**	**-1.2**
ANWZ				S		**Sn**	**14 53 39.6**	**-4.5**
WAZ	**Wanganui**	**8.66**	**217**	P		**Pn**	**14 52 09.1**	**-0.9**
PRWZ	**Pori Road**	**8.85**	**210**	P		**Pn**	**14 52 10.3**	**-2.3**
PRWZ				S		**Sn**	**14 53 44.9**	**-6.2**
TMWZ	**Te Maipa**	**9.35**	**208**	P		**Pn**	**14 52 15.7**	**-3.7**
TMWZ				S		**Sn**	**14 53 56.4**	**-7.0**
OGWZ	**Otaki Gorge**	**9.41**	**212**	P		**Pn**	**14 52 16.7**	**-3.4**
OGWZ				S		**Sn**	**14 53 57.5**	**-7.4**
QRZ	**Quartz Range**	**10.73**	**220**	P		**Pn**	**14 52 35.5**	**-2.8**
KHZ	**Kahutara**	**11.42**	**212**	P		**Pn**	**14 52 44.9**	**-2.8**
RPZ	**Rata Peaks**	**13.58**	**215**	Pn		**Pn**	**14 53 12.9**	**-4.3**
	0.2nm,0.3s,baz=321,slow=19,SNR=1.9							
RPZ				Sn		Sn	14 55 31.4	-16
	0.4nm,0.3s,baz=334,slow=22,SNR=5.5							
ODZ	**Otahua Downs**	**14.79**	**212**	P		**Pn**	**14 53 30.5**	**-3.1**
MSVF	**Nonsavu**	**15.52**	**347**	LR		LR	14 58 48.6	
	comp=Z,854nm,18.7s,baz=139,slow=34							
NIUE	**Niue**	**15.74**	**31**	P		**Pn**	**14 53 43.8**	**-2.4**
YATNC	**Mamie plateau,**	**17.02**	**306**	P		**P**	**14 54 09.4**	**+5.3**
YATNC	**Mamie plateau,**	**17.02**	**306**	S		**S**	**14 57 24.2**	**+4.3**
DZM	**Mont Dzumac**	**17.32**	**305**	Pn		**Pn**	**14 54 01.9**	**-4.4**
	0.2nm,0.3s,baz=84,slow=15,SNR=4.4							
DZM				LR		LR	14 59 39.1	
	comp=Z,2μm,18.4s,baz=182,slow=34							
	9.5nm,1.1s							
DZM				AML		AML		
TW1H	**Toowoomba 1 Ha**	**26.18**	**274**	P		**P**	**14 55 41.3**	**+2.7**
TBI	**Tubuai**	**27.11**	**77**	*e*LR		LR	15 02 37.7	
	1μm,23.5s							
EIDS	**Eidsvold**	**27.71**	**278**	P		**P**	**14 55 54.2**	**+1.9**
EIDS	**Eidsvold**	**27.71**	**278**	P		**P**	**14 55 49.8**	**-2.5**
EIDS				IAmb		IAmb	14 55 54.5	
	comp=Z,16nm,1.1s							
AULRC	**Lightning Ridg**	**28.98**	**268**	P		**P**	**14 56 05.3**	**+1.7**
PPT2	**Papeete2**	**30.03**	**66**	*e*P		**P**	**14 56 13.4**	**+0.3**
	comp=Z,26nm,23.5s							
PPT2				*e*S		**S**	**15 01 05.6**	**-3.7**
	comp=Z,48nm,26.0s							
PPT2				*e*LR		LR	15 03 48.3	
	comp=Z,299nm,26.0s							
PPT2				*e*LR		LR	15 03 55.8	
	comp=Z,325nm,24.2s							
PPT	**Papeete**	**30.04**	**66**	LR		LR	15 05 21.8	
	comp=Z,148nm,20.3s,baz=242,slow=30							
CMSA	**Cobar Meteorol**	**30.39**	**263**	P		**P**	**14 56 17.7**	**+1.7**
QLP	**Quilpie**	**33.00**	**271**	P		**P**	**14 56 40.2**	**+1.1**
STKA	**Stephens Creek**	**33.72**	**261**	P		**P**	**14 56 43.0**	**-2.3**
	comp=Z,1.7nm,0.8s,baz=80,slow=8.4,SNR=3.3							
STKA				LR		LR	15 09 43.6	
	comp=Z,674nm,18.0s,baz=56,slow=35							
	comp=Z,1.7nm,0.8s							
CTA	**Charters Tower**	**34.03**	**283**	P		**P**	**14 56 46.2**	**-2.0**
	comp=Z,4.6nm,0.4s,baz=97,slow=12,SNR=5.9							
CTA				LR		LR	15 09 08.4	
	comp=Z,224nm,18.5s,baz=66,slow=34							
	comp=Z,4.6nm,0.4s							
MTSU	**Mount Surprise**	**36.60**	**284**	P		**P**	**14 57 12.0**	**+1.8**
BBOO	**Buckleboo**	**38.08**	**257**	P		**P**	**14 57 22.0**	**-0.7**
BBOO				IAmb		IAmb	14 57 52.7	
	comp=Z,30nm,1.4s							
RKT	**Rikitea**	**39.26**	**87**	*e*LR		LR	15 08 24.3	
	comp=Z,1μm,29.0s							
QIS	**Mount Isa**	**39.31**	**278**	P		**P**	**14 57 33.9**	**+0.8**
PMG	**Port Moresby**	**39.53**	**299**	P		**P**	**14 57 33.9**	**-1.0**
	comp=Z,4.9nm,0.8s,baz=257,slow=13,SNR=11							
PMG				LR		LR	15 11 18.0	
	comp=Z,220nm,19.3s,baz=134,slow=32							
	comp=Z,4.9nm,0.8s							
PMG	**Port Moresby**	**39.53**	**299**	P		**P**	**14 57 31.9**	**-3.0**
RABL	**Rabaul**	**39.75**	**310**	P		**P**	**14 57 33.5**	**-3.3**
RABL				IAmb		IAmb	14 57 46.3	
	comp=Z,40nm,1.1s							
TAOE	**Nuku Hiva Isla**	**42.61**	**64**	*e*LR		LR	15 09 43.4	
	comp=Z,203nm,24.6s							
AS01	**Alice Springs**	**42.73**	**270**	P		**P**	**14 58 01.3**	**0.0**
AS31	**Alice Springs**	**42.77**	**270**			**P**	**14 58 00.4**	**-1.2**
ASAR	**Alice Springs**	**42.77**	**270**	P		**P**	**14 58 01.1**	**-0.5**
	comp=Z,4.4nm,0.8s,baz=112,slow=7.7,SNR=25							
ASAR				S		**S**	**15 04 19.6**	**-4.0**
	comp=Z,0.8nm,0.9s,baz=117,slow=16,SNR=5.3							
ASAR				LR		LR	15 15 17.2	
	comp=Z,154nm,18.5s,baz=126,slow=36							
	comp=Z,4.4nm,0.8s							
ASAR	**Alice Springs**	**42.77**	**270**			**P**	**14 57 59.5**	**-2.1**
AUALC	**St Philip's Co**	**42.78**	**270**	P		**P**	**14 58 01.5**	**-0.1**
WR8	**Warramunga Arr**	**43.85**	**275**			**P**	**14 58 09.2**	**-1.1**
WR8				IAmb		IAmb	14 58 11.6	
	comp=Z,22nm,1.1s							
WRAB	**Tennant Creek**	**43.99**	**275**	P		**P**	**14 58 11.0**	**-0.4**
WRAB	**Tennant Creek**	**43.99**	**275**	P		**P**	**14 58 10.2**	**-1.1**
WRAB				IAmb		IAmb	14 58 12.6	
	comp=Z,28nm,1.4s							
WRA	**Warramunga Arr**	**43.99**	**275**	P		**P**	**14 58 10.7**	**-0.7**
	comp=Z,6.6nm,0.4s,baz=117,slow=7.6,SNR=21							
WRA				S		**S**	**15 04 37.2**	**-4.3**
	comp=Z,0.9nm,0.7s,baz=114,slow=14,SNR=4.1							
	comp=Z,6.6nm,0.4s							
WRA	**Warramunga Arr**	**43.99**	**275**			**P**	**14 58 09.7**	**-1.8**
WB0	**Warramunga Arr**	**44.02**	**275**	P		**P**	**14 58 10.4**	**-1.3**
FORT	**Forrest**	**45.19**	**258**	P		**P**	**14 58 20.0**	**-0.8**
VNDA	**Vanda**	**45.52**	**186**	P		**P**	**14 58 25.9**	**+3.1**
	comp=Z,1.5nm,1.2s,baz=16,slow=8.3,SNR=3.0							
VNDA				LR		LR	15 14 49.1	
	comp=Z,74nm,18.3s,baz=12,slow=32							
	comp=Z,1.5nm,1.2s							
VNDA	**Vanda**	**45.52**	**186**	P		**P**	**14 58 25.8**	**+2.9**
JAY	**Jayapura**	**48.88**	**300**	LR		LR	15 19 13.3	
	comp=Z,103nm,18.0s,baz=162,slow=36							
KNRA	**Kununurra**	**50.68**	**277**	P		**P**	**14 59 03.0**	**-0.6**
KNRA				IAmb		IAmb	14 59 26.1	
	comp=Z,17nm,1.4s							
FITZ	**Fitzroy Crossi**	**52.14**	**272**	P		**P**	**14 59 13.7**	**-0.7**
	comp=Z,5.6nm,0.8s,baz=183,slow=8.1,SNR=7.4							
FITZ				LR		LR	15 21 03.5	
	comp=Z,380n

PETK	**Petropavlovsk-**	**88.22**	**346**	P	**P**	**15 02 54.9**	**+0.6**
	comp=Z,4.0nm,0.8s,baz=161,slow=5.4,SNR=4.3						
	comp=Z,4.0nm,0.8s						
USRK	**Ussuriysk Ar.**	**89.15**	**327**	LR	LR	15 36 04.9	
	comp=Z,44nm,21.0s,baz=83,slow=31						
YBH	**Yreka Blue Hor**	**90.21**	**38**	LR	LR	15 38 58.6	
	comp=Z,76nm,18.4s,baz=213,slow=32						
NVAR	**Mina Array Bea**	**90.30**	**43**	P	**P**	**15 03 06.9**	**+2.2**
	comp=Z,0.5nm,0.8s,baz=250,slow=6.3,SNR=2.8						
	comp=Z,0.5nm,0.8s						
NVAR	**Mina Array Bea**	**90.30**	**43**	P	**P**	**15 03 05.4**	**+0.7**
PB07	**IPOC Station P**	**92.74**	**118**	P	**P**	**15 03 17.6**	**+1.2**
KLR	**Kul'dur**	**93.11**	**330**	LR	LR	15 38 26.8	
	comp=Z,61nm,20.9s,baz=176,slow=31						
CMIG	**Matias Romero**	**93.79**	**72**	LR	LR	15 40 49.7	
	comp=Z,48nm,18.0s,baz=272,slow=32						
CMAR	**Chiang Mai Arr**	**94.00**	**289**	LR	LR	15 49 50.1	
	comp=Z,27nm,18.3s,baz=165,slow=38						
LPAZ	**La Paz**	**97.33**	**115**	LR	LR	15 37 47.6	
	comp=Z,46nm,21.9s,baz=208,slow=29						
NEW	**Newport**	**97.60**	**36**	LR	LR	15 41 43.2	
	comp=Z,150nm,19.3s,baz=246,slow=32						
PDAR	**Pinedale Array**	**98.17**	**44**	LR	LR	15 44 02.4	
	comp=Z,116nm,18.6s,baz=302,slow=33						
JTS	**Las Juntas de**	**98.31**	**83**	LR	LR	15 38 42.3	
	comp=Z,44nm,19.8s,baz=36,slow=30						
CPUP	**Villa Florida**	**98.59**	**129**	LR	LR	15 43 16.2	
	comp=Z,58nm,18.9s,baz=252,slow=32						
DLBC	**Dease Lake**	**99.58**	**23**	LR	LR	15 46 51.6	
	comp=Z,36nm,18.1s,baz=264,slow=34						
MKAR	**Makanchi Array**	**119.20**	**309**	PKP	**PKiKP**	**15 08 52.9**	**+0.5**
	comp=Z,1.1nm,1.0s,baz=126,slow=2.0,SNR=2.3						
KURBB	**Kurchatov Arra**	**122.64**	**313**	PKP	**PKPdf**	**15 08 58.6**	**-0.2**
	comp=Z,1.5nm,0.9s,baz=104,slow=2.1,SNR=7.5						
BVAR	**Borovoye Array**	**128.03**	**314**	PKP	**PKPdf**	**15 09 09.6**	**+0.6**
	comp=Z,0.5nm,0.3s,baz=113,slow=3.3,SNR=2.9						
ARCES	**ARCESS Array B**	**141.03**	**347**	PKhKP	PKPpre	15 09 29.4	
	comp=Z,6.0nm,1.1s,baz=43,slow=1.6,SNR=5.1						
KBZ	**Khabaz**	**146.25**	**301**	PKPbc	**PKPdf**	**15 09 43.5**	**+0.8**
	comp=Z,3.2nm,0.9s,baz=166,slow=4.2,SNR=5.4						
FINES	**FINESS Array B**	**147.44**	**338**	PKPbc	**PKPbc**	**15 09 47.0**	**+0.4**
	comp=Z,12nm,0.7s,baz=44,slow=4.6,SNR=35						
NB2	**NORSAR Subarra**	**151.23**	**350**	PKP	**PKiKP**	**15 09 57.4**	**+0.6**
	comp=Z,2.0nm,0.7s,baz=18,slow=2.6						
NOA	**NORSAR Array B**	**151.24**	**350**	PKPbc	**PKPbc**	**15 09 56.6**	**+0.3**
	comp=Z,1.5nm,0.7s,baz=19,slow=4.7,SNR=13						
HFS	**Hagfors**	**151.69**	**347**	PKPbc	**PKPbc**	**15 09 57.2**	**0.0**
	comp=Z,3.5nm,0.7s,baz=222,slow=2.0,SNR=7.0						
MMAI	**Mount Meron Ar**	**151.79**	**279**	PKPbc	**PKiKP**	**15 09 59.8**	**+0.9**
	comp=Z,4.3nm,0.6s,baz=63,slow=3.8,SNR=7.7						
AKASG	**Malin Array Be**	**153.12**	**319**	PKPbc	**PKPbc**	**15 10 01.2**	**+0.5**
	comp=Z,1.3nm,0.6s,baz=50,slow=2.0,SNR=10.0						
AK16	**Malin Array Si**	**153.21**	**319**	PKP	**PKiKP**	**15 10 01.5**	**+0.4**
AK20	**Malin Array Si**	**153.22**	**320**	PKP	**PKiKP**	**15 10 01.7**	**+0.6**
AK17	**Malin Array Si**	**153.22**	**320**	PKP	**PKPbc**	**15 10 01.2**	**+0.2**
AK19	**Malin Array Si**	**153.23**	**320**	PKP	**PKiKP**	**15 10 02.0**	**+0.9**
BR104	**Keskin Array S**	**153.49**	**294**	PKP	**PKPbc**	**15 10 02.1**	**0.0**
BRTR	**Keskin Array B**	**153.49**	**294**	PKPbc	**PKPbc**	**15 10 02.3**	**+0.2**
	comp=Z,2.3nm,0.8s,baz=127,slow=3.8,SNR=9.9						
BR106	**Keskin Array S**	**153.50**	**294**	PKP	**PKPbc**	**15 10 02.4**	**+0.2**
BR105	**Keskin Array S**	**153.51**	**294**	PKP	**PKPbc**	**15 10 01.2**	**-1.0**
LUBAR	**Lubar, Ukraine**	**154.33**	**319**	PKP	**PKPbc**	**15 10 03.6**	**+0.2**
CLL	**Collm**	**159.89**	**339**	*i* PKPab	**PKPab**	**15 10 41.2**	**-0.2**
	comp=Z,5.0nm,1.1s						
GERES	**GERESS Array B**	**161.76**	**334**	PKPab	**PKPab**	**15 10 48.0**	**-1.8**
	comp=Z,1.8nm,1.1s,baz=35,slow=4.9,SNR=5.5						

*IDC **27** 14:58:04.1±1.2,32.82S×178.40W, h0km, mb4.0/4, mbtmp4.0/5, ML3.9/1, Error ellipse: s-maj=33.9km s-min=31.7km az=129.0*

ISC 27 14:58:09.4±1.3, 32.9S±0.1×178.5W±0.2, h32km, n9, σ0s71/11, mb4.0/4, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
URZ	**Urewera**	**6.38**	**213**	Pn		**Pn**	**14 59 41.3**	**+0.1**
	2.6nm,0.3s,baz=272,slow=4.1,SNR=22							
URZ				Sn		**Sn**	**15 00 52.1**	**-0.7**
	3.7nm,0.3s,baz=216,slow=16,SNR=6.8							
	6.9nm,0.3s							
URZ				AML		AML		
STKA	**Stephens Creek**	**33.54**	**261**	P		**P**	**15 04 46.2**	**0.0**
	0.9nm,0.6s,baz=190,slow=18,SNR=1.7							
	0.9nm,0.6s							
ASAR	**Alice Springs**	**42.58**	**270**	P		**P**	**15 06 03.0**	**+0.4**
	1.3nm,0.6s,baz=112,slow=7.4,SNR=22							
ASAR				PcP		**PcP**	**15 07 54.7**	**+0.1**
	0.3nm,0.7s,baz=108,slow=4.6,SNR=1.5							
	1.3nm,0.6s							
WRA	**Warramunga Arr**	**43.80**	**275**	P		**P**	**15 06 13.1**	**+0.7**
	2.6nm,0.6s,baz=116,slow=7.6,SNR=23							
	2.6nm,0.6s							
QSPA	**South Pole Qui**	**57.17**	**180**	P		**P**	**15 07 53.7**	**+0.8**
	2.2nm,0.9s,baz=24,slow=1.1,SNR=6.0							
	2.2nm,0.9s							
FINES	**FINESS Array B**	**147.35**	**338**	PKPbc		**PKPbc**	**15 17 48.9**	**-0.1**
	3.4nm,0.7s,baz=47,slow=4.2,SNR=14							
NOA	**NORSAR Array B**	**151.18**	**350**	PKPbc		**PKPbc**	**15 17 57.7**	**-0.9**
	0.6nm,0.7s,baz=16,slow=4.3,SNR=3.7							
HFS	**Hagfors**	**151.63**	**347**	PKPbc		**PKPbc**	**15 17 58.8**	**-0.8**
	2.4nm,0.8s,baz=76,slow=12,SNR=3.0							
BRTR	**Keskin Array B**	**153.31**	**294**	PKPbc		**PKPbc**	**15 18 03.5**	**-0.8**
	0.3nm,0.3s,baz=61,slow=2.4,SNR=4.1							

*UCR **27** 16:14:37.8±0.8, 7.88N×82.42W, h25km±9km, MW3.6, Presumed earthquake*
*UPA **27** 16:14:38.1±1.8, 7.90N×82.45W, h17km±9km, MW3.4, Presumed earthquake*

ISC 27 16:14:38.3±1.3, 7.92N±0.06×82.40W±0.04, h29km±11km, n34, σ1s04/42, 5C-1D, South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
ISECA	**Islas Secas**	**0.37**	**80**	*e*S		**Sb**	**16 14 53.3**	**+0.8**
CHIR3	**Chiriqui UPA,**	**0.48**	**9**	⇑*i*P		**Pn**	**16 14 49.9**	**+0.7**
CHIR3				*e*S		**Sn**	**16 14 57.0**	**+0.2**
DVD	**David**	**0.52**	**355**	⇑*i*P		**Pb**	**16 14 49.7**	**0.0**
DVD				*e*S		**Sb**	**16 14 57.0**	**+0.7**
PTPA	**Petro Terminal**	**0.54**	**301**	*e*P		**Pb**	**16 14 49.2**	**-0.2**
PTPM	**Petroterminale**	**0.55**	**301**	*i* P		**Pb**	**16 14 49.2**	**-0.3**
PTPM				*e*S		**Sb**	**16 14 57.1**	**-0.1**
BGUAL	**Bijagual, Pana**	**0.59**	**7**	*e*P		**Pb**	**16 14 50.1**	**-0.1**
BGUAL	**Bijagual, Pana**	**0.59**	**7**	⇑*i*P		**Pb**	**16 14 50.1**	**-0.1**
BGUAL				*e*S		**Sb**	**16 14 59.1**	**+0.7**
PDCAN	**Manzana , Fuen**	**0.79**	**62**	*e*S		**Sn**	**16 15 05.7**	**+1.2**
BQTLY	**Boquete Panama**	**0.84**	**356**	*i* P		**Pb**	**16 14 53.6**	**-0.8**
BQTLY				*e*S		**Sb**	**16 15 06.0**	**+0.5**
CLLRA	**Cordillera,**	**0.85**	**346**	*e*P		**Pb**	**16 14 53.6**	**-1.0**
CLLRA	**Cordillera,**	**0.85**	**346**	⇓*i*P		**Pb**	**16 14 53.9**	**-0.7**
CLLRA				*e*S		**Sb**	**16 15 05.7**	**-0.1**
NELY	**Ciudad Neily**	**0.91**	**324**	*e*S		**Sb**	**16 15 06.1**	**-1.0**
BRU2	**Volcan**	**0.92**	**342**	*e*P		**Pb**	**16 14 54.6**	**-1.1**
BRU2				*e*S		**Sb**	**16 15 08.0**	**+0.3**
BRU2	**Volcan**	**0.92**	**342**	⇑*i*P		**Pb**	**16 14 54.6**	**-1.1**
BRU2				*e*S		**Sb**	**16 15 07.8**	**+0.1**
SCLRA	**Santa Clara, W**	**0.99**	**338**	*e*S		**Sb**	**16 15 09.7**	**+0.1**
RBALA	**Bur**	**0.99**	**14**	*e*P		**Pb**	**16 14 55.9**	**-1.0**
RBALA	**Bur**	**0.99**	**14**	⇑*i*P		**Pb**	**16 14 55.9**	**-1.0**
RBALA				*e*S		**Sb**	**16 15 05.7**	**-3.9**
FITO	**Golfito**	**1.02**	**314**	*e*S		**Sb**	**16 15 08.7**	**-1.8**
GMAL	**Guarumal, Vera**	**1.17**	**97**	*e*P		**Pn**	**16 14 58.1**	**-0.6**
FIMO	**Fila Mora**	**1.42**	**319**	*e*P		**Pn**	**16 15 02.2**	**-0.1**
DRK0	**Durika**	**1.58**	**328**	*e*P		Pn	16 14 48.7	-16
CACAO	**El Cacao, Vera**	**1.63**	**110**	*e*P		**Pn**	**16 15 05.4**	**+0.4**
BRIBI	**Bribri**	**1.74**	**346**	*e*P		**Pb**	**16 15 09.2**	**-0.5**
CEUA	**Cerro Uatsi, L**	**1.78**	**343**	*e*P		**Pb**	**16 15 09.0**	**-1.2**
LAES	**El Progreso Va**	**1.94**	**341**	*e*P		**Pn**	**16 15 10.6**	**+1.2**
VERH	**Veragua Rainfo**	**2.14**	**339**	*e*P		**Pn**	**16 15 13.2**	**+1.0**
PIEC	**Cerro El Cedra**	**2.29**	**318**	*e*P		**Pn**	**16 15 14.7**	**+0.4**
LCR2	**La Lucha 2**	**2.41**	**319**	*e*P		**Pn**	**16 15 16.1**	**+0.2**
ABE2	**San Pablo**	**2.41**	**318**	*e*P		**Pn**	**16 15 16.0**	**0.0**
VTCV	**VTCV, Calle Va**	**2.44**	**328**	*e*P		**Pn**	**16 15 17.0**	**+0.7**
ABRB	**Las Abras (San**	**2.45**	**328**	*e*P		**Pn**	**16 15 16.8**	**+0.3**
CVTG	**V. Turrialba,**	**2.60**	**329**	*e*P		**Pn**	**16 15 19.7**	**+1.3**
VBV1	**V. Barva**	**2.75**	**323**	*e*P		**Pn**	**16 15 21.5**	**+0.7**
ARE1	**Arenal 1**	**3.41**	**318**	*e*P		**Pn**	**16 15 31.3**	**+1.7**

*SDD **27** 16:22:08.0±2.0, 18.09N×71.40W, h11km±7km, MD2.6, ML2.2, MW2.6, Presumed earthquake*
*OSPL **27** 16:22:09.6±0.6, 18.20N×71.33W, h8km±4km, ML2.2, Presumed earthquake*

ISC 27 16:22:08.7±1.0, 18.15N±0.04×71.39W±0.05, h7km±9km, n11, σ0s59/18, 8C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
PODR	**Polo**	**0.10**	**82**	⇑*i*P		**Pg**	**16 22 11.1**	**-0.1**
PODR				⇑*i*S		**Sg**	**16 22 13.4**	**+0.5**
PODR				IAML			16 22 14.5	
	comp=N,2μm,0.2s							
PODR	**Polo**	**0.10**	**82**	*i* P		**Pg**	**16 22 11.2**	**-0.1**
PODR				*e*S		**Sg**	**16 22 13.2**	**+0.2**
PODR				IAML			16 22 14.3	
	comp=Z,22μm,0.2s							
LODU1	**El Espartillar**	**0.22**	**338**	*i* P		**Pg**	**16 22 13.3**	**+0.2**
LODU1				*e*S		**Sg**	**16 22 16.3**	**+0.3**
LODU1				IAML			16 22 21.0	
	comp=Z,294nm,0.5s							
NEDR	**Neiba UASD**	**0.33**	**355**	⇑*i*P		**Pg**	**16 22 14.3**	**-0.9**
NEDR				⇑*i*S		**Sb**	**16 22 21.9**	**-0.6**
NEDR				IAML			16 22 22.4	
	comp=N,165nm,0.3s							
LOVI	**El Cajuil, Ovi**	**0.35**	**177**	*i* P		**Pb**	**16 22 17.1**	**-0.3**
LOVI				*e*S		**Sb**	**16 22 22.6**	**-0.5**
LOVI				IAML			16 22 24.9	
	comp=Z,72nm,0.3s							
LOBH	**Bahia de las A**	**0.38**	**220**	*i* P		**Pb**	**16 22 17.5**	**-0.2**
LOBH				*e*S		**Sb**	**16 22 23.9**	**+0.2**
LOBH				IAML			16 22 26.5	
	comp=Z,91nm,0.3s							
LONE3	**El Aguacate, B**	**0.46**	**351**	*i* P		**Pg**	**16 22 17.6**	**0.0**
LONE3				IAML			16 22 27.2	
	comp=Z,173nm,0.4s							
JIDR	**Jimani**	**0.55**	**308**	⇑*i*P		**Pg**	**16 22 19.3**	**-0.2**
JIDR				IAML			16 22 32.1	
	comp=N,84nm,0.8s							
SDDR	**Presa de Saban**	**0.83**	**7**	⇑*i*S		**Sg**	**16 22 34.8**	**-0.8**
ABDR	**Alto Bandera**	**0.98**	**48**	⇑*i*P		**Pg**	**16 22 27.3**	**-0.2**
REDR	**Restauracion**	**1.01**	**360**	⇑*i*P		**Pg**	**16 22 28.4**	**+0.3**
REDR				*i* S		**Sn**	**16 22 45.2**	**+1.4**
REDR				IAML			16 22 45.8	
	comp=N,46nm,0.2s							

*BJI **27** 16:43:26.0, 1.89N×129.00E, h234km, mB4.4/3, mb4.3/30*
*NEIC **27** 16:43:30.8±2.6, 2.46N±0.07×128.7E±0.1, h221km±7km, mb4.6/29, Error ellipse: s-maj=16.3km s-min=10.5km az=77.0*
*IDC **27** 16:43:31.8±1.6, 2.40N×128.65E, h232km±16km, mb3.9/24, mbtmp4.5/26, Error ellipse: s-maj=16.6km s-min=7.0km az=74.0*
*DJA **27** 16:43:31.4±1.0, 2.7N±7.9E±1.0, h219km±5km, M4.5/6, mB4.8/2, mB4.8/2, mb4.9/2, mb4.9/2, MLv4.4/6, MLv4.4/6, Mw(mB)4.0/2, Mw(mB)4.0/2*
*GFZ **27** 16:43:31.1±0.4, 2.7N±3.3×129.9E±*, h223km±4km, M4.4/23, mb4.5/23, Error ellipse: s-maj=9.3km s-min=5.4km az=60.3, confirmed*

ISC 27 16:43:31.5±0.6, 2.42N±0.05×128.62E±0.07, h230km±5km, n115, σ1s07/123, mb4.4/56, 1C, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
					Op		h m s	ISC
GAMI	**Galela, Maluku**	**1.01**	**235**	P		**Pn**	**16 44 04.9**	**+0.5**
GAMI				S		**S**	**16 44 29.4**	**-0.8**
GAMI				AML		AML		
GAMI				AML		AML		
GAMI	**Galela, Maluku**	**1.01**	**235**	P		**Pn**	**16 44 04.6**	**+0.1**
TNTI	**Ternate**	**2.06**	**217**			**Pn**	**16 44 13.1**	**+0.2**
TNTI				Sn		**S**	**16 44 45.4**	**+0.2**
TNTI	**Ternate**	**2.06**	**217**	P		**Pn**	**16 44 13.1**	**+0.2**
TNTI				S		**S**	**16 44 45.0**	**-0.2**
TNTI				AML		AML		
TNTI				AML		AML		
TNTI	**Ternate**	**2.06**	**217**	P		**Pn**	**16 44 13.6**	**+0.7**
MNI	**Manado**	**3.90**	**256**	P		**Pn**	**16 44 32.3**	**-0.9**
MNI				AML		AML		
MNI				AML		AML		
KMSI	**Cibinong**	**4.98**	**249**	P		**Pn**	**16 44 46.5**	**0.0**
	3μm3μm253nm,0.6s,253nm,0.6s							
KMSI	**Cibinong**	**4.98**	**249**	P		**Pn**	**16 44 46.5**	**0.0**
	comp=Z,250nm,0.6s							
SANI	**Sanana**	**5.16**	**211**	P		**Pn**	**16 44 47.5**	**-1.1**
	comp=Z,0.3nmcomp=Z,0.3nmcomp=Z,1μmcomp=Z,1μm comp=Z,76nm,0.5s							
SANI				AML		AML		
SANI				AML		AML		
GSPH	**General Santos**	**5.16**	**315**	*i* P		**Pn**	**16 44 47.2**	**-1.7**
DAV	**Davao City (W)**	**5.53**	**327**	Pn		**Pn**	**16 44 51.9**	**-1.3**
NLAI	**Namlea**	**5.82**	**195**	P		**Pn**	**16 44 57.8**	**+0.9**
	comp=Z,37nm,0.8s							
BIPH	**Bislig**	**6.15**	**339**	*e*P		**Pn**	**16 45 00.2**	**-1.0**
BIPH				*e*S		S	16 46 00.9	-12
FAKI	**Fak Fak**	**6.42**	**146**	Pn		**Pn**	**16 45 03.2**	**-1.5**
LUWI	**Luwuk**	**6.78**	**240**	Pn		**Pn**	**16 45 09.1**	**0.0**
TOLI2	**Tolitoli**	**7.94**	**261**	Pn		**Pn**	**16 45 22.0**	**-2.0**
SOEI	**Soe**	**12.84**	**200**	P		**Pn**	**16 46 26.0**	**-0.3**
JAY	**Jayapura**	**13.04**	**112**	P		**Pn**	**16 46 29.1**	**+0.5**
	comp=Z,28nm,0.9s,baz=279,slow=5.1,SNR=7.9							
BATI	**Baumata**	**13.47**	**201**	P		**P**	**16 46 35.6**	**-0.1**
	comp=Z,20nm,0.4s,baz=6.9,slow=6.3,SNR=6.3							
DBNI	**Kabupaten Domp**	**14.94**	**223**	P		**P**	**16 46 52.1**	**+0.1**
	comp=Z,6.7nm,0.8s							
MTN	**Manton Dam**	**15.37**	**171**			**P**	**16 46 56.3**	**-0.3**
MTN				IAmb		IAmb	16 47 04.3	
	comp=Z,6.5nm,0.4s							
KNRA	**Kununurra**	**17.98**	**180**			**P**	**16 47 25.2**	**0.0**
KNRA				IAmb		IAmb	16 47 27.5	
	comp=Z,9.0nm,0.7s							
SJI	**Sawahan**	**19.60**	**239**	P		**P**	**16 47 43.2**	**+0.4**
	comp=Z,31nm,0.9s							
FITZ	**Fitzroy Crossi**	**20.59**	**188**	P		**P**	**16 47 52.2**	**-1.1**
	comp=Z,3.1nm,0.5s,baz=5.9,slow=8.1,SNR=28							
	comp=Z,3.1nm,0.5s							
FITZ	**Fitzroy Crossi**	**20.59**	**188**	P		**P**	**16 47 52.9**	**-0.4**
FITZ	**Fitzroy Crossi**	**20.59**	**188**	P		**P**	**16 47 53.0**	**-0.3**
	comp=Z,2.0nm,2.1s							
TWG	**Pinlang**	**21.56**	**341**	P		**P**	**16 48 01.2**	**-1.9**
	comp=Z,42nm,0.7s							
PMG	**Port Moresby**	**21.89**	**123**	P		**P**	**16 48 05.1**	**-1.2**
	comp=Z,3.9nm,0.8s,baz=129,slow=4.8,SNR=3.3							
	comp=Z,3.9nm,0.8s							
PMG	**Port Moresby**	**21.89**	**123**	P		**P**	**16 48 05.5**	**-0.8**
	comp=Z,6.8nm,1.0s							
YULB	**Yu-li**	**22.02**	**342**	P		**P**	**16 48 05.1**	**-2.4**
YULB				IAmb		IAmb	16 48 33.6	
	comp=Z,29nm,1.1s							
TPUB	**Ta-pu**	**22.16**	**340**	P		**P**	**16 48 07.7**	**-1.0**
TPUB	**Ta-pu**	**22.16**	**340**	P		**P**	**16 48 07.7**	**-1.0**
	comp=Z,65nm,2.0s							
SSLB	**Suanglung**	**22.50**	**341**	P		**P**	**16 48 10.8**	**-1.1**
SSLB	**Suanglung**	**22.50**	**341**	P		**P**	**16 48 10.2**	**-1.6**
	comp=Z,46nm,2.6s							
NACB	**Ninganchiao**	**22.67**	**343**	P		**P**	**16 48 11.7**	**-1.7**
WB0	**Warramunga Arr**	**22.76**	**166**			**P**	**16 48 13.0**	**-1.2**
WB0				IAmb		IAmb	16 48 16.3	
	comp=Z,20nm,0.6s							
WRAB	**Tennant Creek**	**22.91**	**166**	P		**P**	**16 48 13.3**	**-2.3**
WRAB				IAmb		IAmb	16 48 17.9	
	comp=Z,15nm,0.7s							
WRAB	**Tennant Creek**	**22.91**	**166**	P		**P**	**16 48 15.7**	**+0.1**
	comp=Z,30nm,0.6s							
WRA	**Warramunga Arr**	**22.92**	**166**	P		**P**	**16 48 15.2**	**-0.4**
	comp=Z,8.8nm,0.4s,baz=345,slow=9.9,SNR=93							
WRA					PcP	**PcP**	**16 51 58.8**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=348,slow=2.3,SNR=2.0							
WRA					ScP	**ScP**	**16 55 14.3**	**-0.5**
	comp=Z,1.0nm,0.6s,baz=341,slow=3.1,SNR=8.9							
	comp=Z,8.8nm,0.4s							
WRA	**Warramunga Arr**	**22.92**	**166**			**P**	**16 48 14.0**	**-1.6**
WR8	**Warramunga Arr**	**22.97**	**166**			**P**	**16 48 14.2**	**-1.9**
WR8				IAmb		IAmb	16 48 17.8	
	comp=Z,20nm,1.0s							
YHNB	**Yeheng**	**23.20**	**343**	P		**P**	**16 48 14.9**	**-3.3**
QIS	**Mount Isa**	**25.25**	**155**	P		**P**	**16 48 36.7**	**0.0**
	comp=Z,19nm,1.0s							
MTSU	**Mount Surprise**	**25.62**	**143**	P		**P**	**16 48 40.4**	**+0.2**
	comp=Z,4.7nm,1.1s							
AS31	**Alice Springs**	**26.43**	**169**			**P**	**16 48 47.0**	**-0.4**
ASAR	**Alice Springs**	**26.43**	**169**	P		**P**	**16 48 47.1**	**-0.2**
	comp=Z,4.6nm,0.6s,baz=356,slow=7.9,SNR=119							
ASAR					PcP	**PcP**	**16 52 07.1**	**+0.6**
	comp=Z,1.3nm,0.5s,baz=350,slow=2.1,SNR=8.4							
ASAR					ScP	**ScP**	**16 55 24.0**	**-0.6**
	comp=Z,1.7nm,0.7s,baz=344,slow=2.2,SNR=13							
	comp=Z,4.6nm,0.6s							

ASAR	**Alice Springs**	**26.43**	**169**			**P**	**16 48 45.9**	**-1.5**
ASAR				PcP		**PcP**	**16 52 07.1**	**+0.6**
ASAR				ScP		**ScP**	**16 55 24.5**	**-0.1**
CTA	**Charters Tower**	**28.28**	**143**	P		**P**	**16 49 04.5**	**+0.7**
	comp=Z,5.8nm,0.8s,baz=336,slow=7.3,SNR=5.9							
	comp=Z,5.8nm,0.8s							
RPSI	**Rantau Prapat**	**29.66**	**271**	P		**P**	**16 49 16.8**	**+0.6**
	comp=Z,3.6nm,0.7s							
RPSI	**Rantau Prapat**	**29.66**	**271**	P		**P**	**16 49 17.4**	**+1.2**
	comp=Z,5.8nm,0.9s							
NJ2	**Nanjing**	**30.88**	**344**	*e*P		**P**	**16 49 28.3**	**+1.8**
NJ2				pmax		pmax		
	comp=Z,11nm,0.8s							
QLP	**Quilpie**	**32.54**	**153**	P		**P**	**16 49 40.5**	**-0.6**
	comp=Z,14nm,2.0s							
FORT	**Forrest**	**33.01**	**181**	P		**P**	**16 49 43.1**	**-2.1**
FORT				IAmb		IAmb	16 49 49.0	
	comp=Z,19nm,1.4s							
ENH	**Enshi**	**33.11**	**329**	P		**P**	**16 49 47.2**	**+1.2**
	comp=Z,19nm,1.1s							
CM31	**Chiang Mai Arr**	**33.16**	**301**	P		**P**	**16 49 44.0**	**-2.7**
CMAR	**Chiang Mai Arr**	**33.16**	**301**	P		**P**	**16 49 48.0**	**+1.4**
	comp=Z,3.9nm,0.8s,baz=118,slow=7.2,SNR=36							
	comp=Z,3.9nm,0.8s							
CHTO	**Chiang Mai**	**33.31**	**301**			**P**	**16 49 46.1**	**-1.8**
CHTO				IAmb		IAmb	16 49 50.3	
	comp=Z,6.6nm,0.7s							
CHTO	**Chiang Mai**	**33.31**	**301**	P		**P**	**16 49 49.3**	**+1.4**
	comp=Z,12nm,0.8s							
INU	**Inuyama**	**33.68**	**12**	P		**P**	**16 49 50.7**	**-0.2**
KSRS	**Korea Array**	**34.87**	**359**	P		**P**	**16 50 01.9**	**+0.8**
	comp=Z,4.0nm,0.5s,baz=176,slow=9.9,SNR=22							
	comp=Z,4.0nm,0.5s							
MJAR	**Matsushiro Arr**	**35.09**	**13**	P		**P**	**16 50 02.2**	**-0.8**
	comp=Z,4.5nm,0.7s,baz=185,slow=9.4,SNR=12							
	comp=Z,4.5nm,0.7s							
MJAR	**Matsushiro Arr**	**35.09**	**13**	P		**P**	**16 50 00.6**	**-2.4**
MAJO	**Matsushiro**	**35.10**	**13**	P		**P**	**16 50 01.1**	**-2.0**
MAJO				IAmb		IAmb	16 50 04.2	
	comp=Z,10.0nm,0.8s							
MAJO	**Matsushiro**	**35.10**	**13**	P		**P**	**16 50 02.8**	**-0.2**
	comp=Z,16nm,2.0s							
MJB9	**Matsu-Tunnel**	**35.10**	**13**	P		**P**	**16 50 02.4**	**-0.6**
MJB9				IAmb		IAmb	16 50 05.5	
	comp=Z,9.9nm,0.8s							
BBOO	**Buckleboo**	**35.74**	**169**			**P**	**16 50 08.9**	**+0.4**
BBOO	**Buckleboo**	**35.74**	**169**	P		**P**	**16 50 08.9**	**+0.4**
	comp=Z,36nm,0.6s							
NPW	**Naypyitaw**	**36.12**	**301**	P		**P**	**16 50 11.6**	**-0.3**
	comp=Z,10nm,1.0s							
STKA	**Stephens Creek**	**36.26**	**161**	P		**P**	**16 50 13.6**	**+0.6**
	comp=Z,6.4nm,0.3s,baz=342,slow=7.4,SNR=47							
STKA				PcP		**PcP**	**16 52 33.2**	**+0.3**
	comp=Z,1.3nm,0.5s,baz=315,slow=4.1,SNR=2.8							
	comp=Z,6.4nm,0.3s							
STKA	**Stephens Creek**	**36.26**	**161**			**P**	**16 50 13.0**	**0.0**
STKA				PcP		**PcP**	**16 52 33.3**	**+0.5**
STKA	**Stephens Creek**

QSPA	**South Pole Qui**	**92.33**	**180**	P	**P**	**16 56 16.2**	**+0.7**
QSPA				IAmb	IAmb	16 56 26.9	
	comp=Z,4.9nm,1.5s						
FINES	**FINESS Array B**	**93.87**	**332**	P	**P**	**16 56 21.0**	**-1.6**
	comp=Z,1.8nm,0.8s,baz=139,slow=9.9,SNR=4.1						
	comp=Z,1.8nm,0.8s						

IDC 27 16:54:05.7±1.7,**2°35N**×**128°09E, h0**km**, mb3.5**/5, **mbtmp3.5**/5**, Error ellipse: s-maj=134.8km s-min=21.5km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**22.99**	**165**	P	P	16 59 13.1	+0.9
	0.7nm,0.3s,baz=344,slow=10,SNR=11						
	0.7nm,0.3s						
ASAR	**Alice Springs**	**26.48**	**168**	P	P	16 59 44.4	-0.4
	0.2nm,0.4s,baz=349,slow=7.5,SNR=8.7						
	0.2nm,0.4s						
STKA	**Stephens Creek**	**36.38**	**160**	P	P	17 01 10.6	-1.3
	1.7nm,0.9s,baz=350,slow=6.1,SNR=1.3						
	1.7nm,0.9s						
MKAR	**Makanchi Array**	**59.45**	**325**	P	P	17 04 11.0	+0.6
	0.2nm,0.4s,baz=117,slow=8.4,SNR=1.8						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**63.62**	**327**	P	P	17 04 38.5	0.0
	0.2nm,0.4s,baz=124,slow=5.7,SNR=2.0						
	0.2nm,0.4s						

*RSPR **27** 16:55:12.7, 17°.56N×64°.25W, h56km±17km, MD3.6/5*
*NEIC **27** 16:55:12.2±0.8, 17°.5N±0°.2×64°.26W±0°.05, h35km±2km, ML2.8/24, Md3.6/5(RSPR), Error ellipse: s-maj=31.1km s-min=8.0km az=175.0*

ISC 27 16:55:13.1±2.2,**17°.7N**±0°.3×**64°28W**±0°.06**, h35**km**, n21, σ0$79/24, 7C, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMRT	**St. Maarten**	**1.20**	**73**	Pn	**Pn**	**16 55 33.2**	**-0.2**
SMRT				IAML		16 55 52.2	
	comp=E,221nm,0.2s						
HUMP	**Col San Antoni**	**1.56**	**287**		**Pn**	**16 55 37.6**	**-0.8**
HUMP					**Sn**	**16 55 58.2**	**+0.7**
HUMP	**Col San Antoni**	**1.56**	**287**	IAML		16 55 60.0	
	comp=E,99nm,0.2s						
HUMP	**Col San Antoni**	**1.56**	**287**	*e*P	**Pn**	**16 55 37.6**	**-0.8**
PDPR	**Patillas Dam,**	**1.69**	**281**		**Pn**	**16 55 39.8**	**-0.4**
PDPR					**Sn**	**16 56 01.8**	**+1.1**
PDPR	**Patillas Dam,**	**1.69**	**281**	*e*P	**Pn**	**16 55 39.8**	**-0.4**
GCPR	**Guaynabo City**	**1.83**	**290**	Pn	**Pn**	**16 55 41.0**	**-1.0**
SJG	**San Juan**	**1.83**	**283**	Pn	**Pn**	**16 55 41.3**	**-0.8**
SJG				IAML		16 56 08.5	
	comp=E,74nm,0.3s						
SJG				IAML		16 56 08.8	
	comp=E,59nm,0.2s						
ECPR	**Experimental S**	**2.08**	**288**		**Pn**	**16 55 45.6**	**0.0**
ECPR					**Sn**	**16 56 10.4**	**+0.1**
ECPR	**Experimental S**	**2.08**	**288**	*e*P	**Pn**	**16 55 45.6**	**0.0**
CELP	**Cerrillos**	**2.23**	**280**		**Pn**	**16 55 47.2**	**-0.3**
CELP					**Sn**	**16 56 15.1**	**+1.2**
CELP	**Cerrillos**	**2.23**	**280**	*e*P	**Pn**	**16 55 47.2**	**-0.3**
AOPR	**Arecibo Observ**	**2.45**	**286**		**Pn**	**16 55 51.1**	**+0.5**
AOPR					**Sn**	**16 56 20.2**	**+0.9**
AOPR	**Arecibo Observ**	**2.45**	**286**	*e*P	**Pn**	**16 55 51.1**	**+0.5**
MLPR	**Magueyes Islan**	**2.65**	**276**		**Pn**	**16 55 53.1**	**-0.3**
MLPR	**Magueyes Islan**	**2.65**	**276**	IAML		16 56 36.2	
	comp=E,32nm,3.6s						
MLPR				IAML		16 56 37.0	
	comp=E,29nm,3.6s						
MLPR	**Magueyes Islan**	**2.65**	**276**	*e*P	**Pn**	**16 55 53.1**	**-0.3**
CRPR	**Cabo Rojo, PR**	**2.72**	**277**		**Pn**	**16 55 53.8**	**-0.5**
CRPR					**Sn**	**16 56 25.8**	**-0.2**
CRPR	**Cabo Rojo, PR**	**2.72**	**277**	IAML		16 56 58.1	
	comp=E,36nm,2.8s						
CRPR				IAML		16 57 28.6	
	comp=E,40nm,2.3s						
CRPR	**Cabo Rojo, PR**	**2.72**	**277**	*e*P	**Pn**	**16 55 53.8**	**-0.5**
AGPR	**Aguadilla, PR**	**2.81**	**286**	Pn	**Pn**	**16 55 53.5**	**-2.1**

*IDC **27** 17:30:34.1±1.3, 72°.54N×2°.48E, h0km, mb3.5/4, mbtmp3.6/9, ML2.9/5, Error ellipse: s-maj=27.3km s-min=16.2km az=81.0*
*NAO **27** 17:30:35.4±0.7, 72°.40N×2°.47E, h10km, ML2.9*
*BER **27** 17:30:36.3±2.8, 72°.49N×2°.60E, h10km, Mw4.0, ML2.9(NAO), Confirmed Earthquake*
*DNK **27** 17:30:39.9±0.6, 72°.83N×1°.85E, h15km±17km, ML2.1, Presumed earthquake*

ISC 27 17:30:34.3±0.8,**72°.43N**±0°.07×**2°.95E**±0°.07**, h10**km**, n47, σ1$97/55, mb3.6/4, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LOF	**Lofoten**	**5.61**	**135**	*e*P	**Pn**	**17 59.5**	**+1.9**
TRO	**Tromso**	**5.91**	**111**	Pn	**Pn**	**17 32 01.9**	**+0.1**
TRO	**Tromso**	**5.91**	**111**	*e*P	**Pn**	**17 32 01.8**	**+0.1**
TRO				*e*S	**Sn**	**17 33 06.2**	**-3.1**
TRO				IAML		17 33 07.8	
	comp=Z,4.0nm,0.6s						
STEI	**Steigen**	**6.14**	**131**	Pn	**Pn**	**17 32 06.3**	**+1.3**
STEI	**Steigen**	**6.14**	**131**	*e*P	**Pn**	**17 32 06.2**	**+1.3**
STEI				*e*S	**Sn**	**17 33 11.0**	**-4.2**
STEI				IAML		17 33 18.3	
	comp=Z,2.5nm,1.0s						
BRBB	**Barentsburg B**	**6.36**	**21**	Pn	**Pn**	**17 32 10.5**	**+2.6**
BRBB	**Barentsburg B**	**6.36**	**21**	Pn	**Pn**	**17 32 10.5**	**+2.6**
JETT	**Jettan, Norway**	**6.38**	**108**	Pn	**Pn**	**17 32 09.1**	**+0.9**
JETT				Sn	**Sn**	**17 33 17.2**	**-3.8**
JETT	**Jettan, Norway**	**6.38**	**108**	Pn	**Pn**	**17 32 09.1**	**+0.9**
JETT				Sn	**Sn**	**17 33 17.2**	**-3.8**
JETT				IAML		17 33 19.6	
	comp=Z,5.6nm,0.5s						
FAUS	**Fauske**	**6.60**	**134**	Pn	**Pn**	**17 32 13.4**	**+2.1**
FAUS				Sn	**Sn**	**17 33 22.5**	**-3.9**
FAUS	**Fauske**	**6.60**	**134**	*e*P	**Pn**	**17 32 12.2**	**+1.0**
FAUS				*e*S	**Sn**	**17 33 22.5**	**-3.9**
FAUS				IAML		17 33 27.8	
	comp=Z,3.1nm,0.5s						
SPA0	**Spitsbergen Ar**	**6.68**	**24**	Pn	**Pn**	**17 32 13.5**	**+1.1**
	baz=214,slow=14						
SPA0	**Spitsbergen Ar**	**6.68**	**24**	Pn	**Pn**	**17 32 13.5**	**+1.1**
SPITS	**Spitsbergen Ar**	**6.68**	**24**	Pn	**Pn**	**17 32 12.5**	**+0.2**
	baz=214,slow=15						
	comp=Z,13nm,0.9s						
VAGH	**Vaagaholmen**	**6.76**	**143**	Pn	**Pn**	**17 32 14.2**	**+0.8**
VAGH				Sn	Sn	17 33 24.6	-5.7
VAGH	**Vaagaholmen**	**6.76**	**143**	*e*P	**Pn**	**17 32 14.2**	**+0.8**
VAGH				*e*S	Sn	17 33 24.2	-6.0
VAGH				IAML		17 33 27.7	
	comp=Z,4.8nm,0.7s						
DBG	**Daneborg**	**6.88**	**297**	Pn	**Pn**	**17 32 12.5**	**-2.6**
DBG	**Daneborg**	**6.88**	**297**	*i* P	**Pn**	**17 32 12.4**	**-2.7**
DBG	**Daneborg**	**6.88**	**297**	*i* P	**Pn**	**17 32 12.4**	**-2.7**
KBS	**Kingsbay**	**6.89**	**15**	Pn	**Pn**	**17 32 15.1**	**0.0**
KBS	**Kingsbay**	**6.89**	**15**	*i* P	**Pn**	**17 32 14.9**	**-0.2**
KBS	**Kingsbay**	**6.89**	**15**	*i* P	**Pn**	**17 32 14.9**	**-0.2**
KONS	**Konsvik**	**6.94**	**144**	*e*P	**Pn**	**17 32 16.5**	**+0.6**
KONS				*e*S	Sn	17 33 28.7	-5.9
KONS				IAML		17 33 39.7	
	comp=Z,6.4nm,0.8s						
STOK	**Stokkvaagen**	**7.07**	**145**	*e*P	**Pn**	**17 32 18.8**	**+1.1**
RAUS	**Rausandaksla**	**7.16**	**142**	*e*P	**Pn**	**17 32 20.4**	**+1.4**
RAUS				IAML		17 33 41.5	
	comp=Z,4.6nm,0.8s						
DAG	**Danmarks Havn**	**7.17**	**317**	*i* P	**Pn**	**17 32 16.2**	**-2.8**
DAG				*i* S	Sn	17 33 26.9	-13
DAG				IAML		17 33 29.3	
	comp=Z,6.4nm,0.7s						
DAG	**Danmarks Havn**	**7.17**	**317**	*i* P	**Pn**	**17 32 16.2**	**-2.8**
DAG				*i* S	Sn	17 33 26.9	-13
DAG				IAML		17 33 29.3	
	comp=Z,6.4nm,0.7s						
LEIR	**Leirfjorden**	**7.29**	**146**	Pn	**Pn**	**17 32 22.3**	**+1.6**
LEIR	**Leirfjorden**	**7.29**	**146**	*e*P	**Pn**	**17 32 21.8**	**+1.1**
SALU	**Saltoluokta**	**7.35**	**126**	*e*P	**Pn**	**17 32 23.0**	**+1.4**
KTK1	**Kautokeino**	**7.51**	**107**	*e*P	**Pn**	**17 32 25.8**	**+2.1**
ARA0	**ARCESS Array S**	**7.89**	**101**	Pn	**Pn**	**17 32 31.0**	**+2.1**
	baz=294,slow=14						
ARA0				Sn	**Sn**	**17 33 56.8**	**-1.2**
	baz=295,slow=22						
ARA0	**ARCESS Array S**	**7.89**	**101**	Pn	**Pn**	**17 32 31.0**	**+2.1**
ARA0				Sn	**Sn**	**17 33 56.8**	**-1.2**
ARCES	**ARCESS Array B**	**7.89**	**101**	Pn	**Pn**	**17 32 29.1**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=296,slow=12,SNR=12						
	comp=Z,5.1nm,0.9s						
ARCES				AML	AML		
HEF	**Hetta**	**8.01**	**110**	*e*P	**Pn**	**17 32 31.0**	**+0.4**
SCO	**Scoresbysund**	**8.14**	**268**	*i* P	**Pn**	**17 32 31.4**	**-0.9**
SCO	**Scoresbysund**	**8.14**	**268**	*i* P	**Pn**	**17 32 31.4**	**-0.9**
VADS	**Vadso**	**8.76**	**92**	*e*P	**Pn**	**17 32 40.2**	**-0.5**
NOA	**NORSAR Array B**	**11.88**	**160**	Pn	**Pn**	**17 33 24.4**	**+0.9**
	baz=352,slow=14,SNR=1.6						
	comp=Z,0.3nm,0.6s						
NRA0	**NORESS Array S**	**12.21**	**160**	P	**Pn**	**17 33 29.1**	**+1.0**
	baz=346,slow=14						
NRA0	**NORESS Array S**	**12.21**	**160**	P	**Pn**	**17 33 29.1**	**+1.0**
HFS	**Hagfors**	**13.05**	**156**	Pn	**Pn**	**17 33 40.9**	**+1.4**
	comp=Z,0.2nm,0.3s,baz=348,slow=6.1,SNR=5.7						
	comp=Z,2.3nm,0.9s						
HFS				AML	AML		
FINES	**FINESS Array B**	**14.12**	**129**	Pn	**Pn**	**17 33 54.1**	**0.0**
	comp=Z,0.1nm,0.3s,baz=315,slow=14,SNR=5.0						
	comp=Z,2.3nm,0.8s						
FINES				AML	AML		
GERES	**GERESS Array B**	**24.16**	**162**	P	**P**	**17 35 53.0**	**+2.6**
	comp=Z,0.2nm,0.4s,baz=356,slow=10,SNR=4.3						
	comp=Z,0.2nm,0.4s						
ESDC	**Sonseca Array**	**33.02**	**190**	P	**P**	**17 37 11.2**	**+1.9**
	comp=Z,0.9nm,0.9s,baz=12,slow=7.6,SNR=4.0						
	comp=Z,0.9nm,0.9s						
BRTR	**Keskin Array B**	**36.11**	**138**	P	**P**	**17 37 37.5**	**+1.3**
	comp=Z,0.8nm,0.9s,baz=347,slow=11,SNR=4.1						
	comp=Z,0.8nm,0.9s						
INK	**Inuvik**	**36.62**	**335**	P	**P**	**17 37 39.1**	**-0.9**
	comp=Z,0.7nm,0.7s,baz=350,slow=6.1,SNR=1.4						
	comp=Z,0.7nm,0.7s						

*SDD **27** 17:33:30.0±21.0, 18°.61N×70°.10W, h119km±123km, MD2.9, ML2.8, MW2.7, Presumed earthquake*

OSPL 27 17:33:34.1±1.0,**19°.28N×69°.70W, h19**km±4km**, ML2.3, 16C-1D, Presumed earthquake, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NADR	**Nagua**	**0.17**	**295**	⇑*i* P	Pg	17 33 38.1	-0.6
NADR				IAML		17 33 42.0	
	comp=N,2µm,0.3s						
SMDR	**Samana, DR**	**0.48**	**89**	⇑*i* P	Pn	17 33 47.9	+2.0
SMDR				⇑*i* S	Sn	17 33 59.5	+5.6
SMDR				IAML		17 34 06.1	
	comp=N,135nm,0.5s						
HATOM	**Hato Mayor del**	**0.58**	**149**	⇓*i* P	Pn	17 33 47.7	+0.4
HATOM				⇑*i* S	Sn	17 33 57.6	+1.4
HATOM				IAML		17 33 58.3	
	comp=N,41nm,0.2s						
SDD	**Santo Domingo**	**0.85**	**194**	⇑*i* S	Sg	17 34 01.6	-0.3
ABDR	**Alto Bandera**	**1.00**	**242**	⇑*i* P	Pb	17 33 49.0	-4.0
ABDR				⇑*i* S	Sb	17 34 00.0	-5.8
ABDR				IAML		17 34 02.0	
	comp=N,98nm,0.2s						
BANI	**BANI**	**1.09**	**215**	⇑*i* P	Pb	17 33 52.5	-1.9
BANI				IAML		17 34 08.3	
	comp=N,174nm,0.1s						
HIDR	**Higuey Centro**	**1.16**	**126**	⇑*i* P	Pg	17 33 59.5	+3.0
HIDR				⇑*i* S	Sg	17 34 17.9	+6.2
HIDR				IAML		17 34 23.2	
	comp=N,92nm,0.2s						
LUDR	**Luperon**	**1.33**	**297**	*i* P	Pn	17 33 56.4	-1.3
LUDR				⇑*i* S	Sn	17 34 14.0	-0.9
LOPP1	**Punta Rusia, P**	**1.53**	**292**	*i* P	Pn	17 33 59.0	-1.3
LOPP1				*e*S	Sn	17 34 17.1	-2.6
LOPP1				IAML		17 34 24.2	
	comp=Z,106nm,1.4s						
SDDR	**Presa de Saban**	**1.53**	**259**	⇑*i* P	Pn	17 33 58.1	-2.4
SDDR				⇑*i* S	Sn	17 34 16.4	-3.5
SDDR				IAML		17 34 19.1	
	comp=N,26nm,0.3s						
SDDR	**Presa de Saban**	**1.53**	**259**	*i* P	Pn	17 33 58.7	-1.8
SDDR				*e*S	Sn	17 34 16.6	-3.3
SDDR				IAML		17 34 19.5	
	comp=Z,19nm,0.2s						
REDR	**Restauracion**	**1.61**	**266**	⇑*i* P	Pb	17 34 03.7	+0.6
REDR				⇑*i* S	Sg	17 34 25.1	-0.9
REDR				IAML		17 34 27.7	
	comp=N,303nm,0.1s						
LONE3	**El Aguacate, B**	**1.80**	**248**	*i* P	Pn	17 34 02.8	-1.4
LONE3				*e*S	Sn	17 34 24.4	-2.2
PODR	**Polo**	**1.87**	**234**	⇑*i* P	Pn	17 34 06.2	+1.0
PODR				IAML		17 34 32.9	
	comp=N,52nm,1.4s						

*IDC **27** 18:05:27.1±1.8, 4°.16S×142°.32E, h116km±16km, mb3.4/4, mbtmp4.0/8, Error ellipse: s-maj=24.5km s-min=14.9km az=75.0*

ISC 27 18:05:27.2±1.0,**4°2S**±0°.1×**142°3E**±0°.1**, h115**km**, n8, σ0$67/9, mb3.6/4, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**2.31**	**315**	P	**Pn**	**18 06 04.5**	**+0.1**
	21nm,0.3s,baz=151,slow=10,SNR=49						
JAY				S	**Sn**	**18 06 33.0**	**+0.2**
	20nm,0.3s,baz=296,slow=20,SNR=8.2						
PMG	**Port Moresby**	**7.08**	**138**	P	**Pn**	**18 07 08.9**	**+0.6**
	9.5nm,0.5s,baz=314,slow=9.5,SNR=10						
WRA	**Warramunga Arr**	**17.51**	**206**	P	**P**	**18 09 23.2**	**-0.5**
	3.9nm,0.6s,baz=24,slow=12,SNR=25						
BATI	**Baumata**	**19.46**	**251**	P	**P**	**18 09 45.6**	**+0.5**
	5.1nm,0.4s,baz=58,slow=9.5,SNR=4.9						
ASAR	**Alice Springs**	**21.02**	**202**	P	**P**	**18 10 01.4**	**-0.6**
	0.9nm,0.6s,baz=36,slow=13,SNR=16						
	0.9nm,0.6s						
FITZ	**Fitzroy Crossi**	**21.41**	**228**	P	**P**	**18 10 05.7**	**-0.4**
	2.9nm,1.1s,baz=53,slow=15,SNR=1.7						
	2.9nm,1.1s						
BVAR	**Borovoye Array**	**82.57**	**325**	P	**P**	**18 17 38.0**	**+0.6**
	0.6nm,0.5s,baz=107,slow=6.8,SNR=6.0						
	0.6nm,0.5s						
ILAR	**Eielson Array**	**85.67**	**24**	P	**P**	**18 17 51.9**	**-1.0**
	0.8nm,0.6s,baz=254,slow=4.7,SNR=15						
	0.8nm,0.6s						

*JMA **27** 18:19:27.4±0.2, 44°.0N±0°.8×14°.8E±°, h66km, MV4.0/30, SE OFF ETOROFU*
*SKHL **27** 18:19:28.3±0.3, 44°.40N×148°.00E, h33km±2km, mb4.6/4*

ISC 27 18:19:24.8±3.0,**44°24N**±0°.09×**148°4E**±0°.2**, h35**km**, n17, σ1$50/30, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
REI	**Reidovoe**	**1.07**	**344**	*e*P	Pn	18 19 21.1	-22
REI				AMB	AMB	18 19 21.5	
	120nm,0.3s						
REI				*e*S	Sn	18 19 32.8	-24
REI				A	A	18 19 33.4	
	800nm,0.2s						
REI				A	A	18 19 33.4	
	600nm,0.2s						
KUR	**Kuril'sk**	**1.07**	**338**	*e*P	**Pn**	**18 19 43.6**	**+0.4**
KUR				AMB	AMB	18 19 43.9	
	350nm,0.4s						
KUR				*e*S	**Sn**	**18 19 55.3**	**-1.6**
KUR				A	A	18 19 55.5	
	820nm,0.3s						
KUR				A	A	18 19 55.5	
	970nm,0.3s						
YUK	**Yuzh-Kuril'sk**	**1.86**	**265**	*e*P	**Pn**	**18 19 54.4**	**+0.4**
YUK				AMB	AMB	18 19 56.2	
	380nm,0.2s						
YUK				*e*S	**Sn**	**18 20 12.8**	**-3.4**
YUK				A	A	18 20 18.7	
	660nm,0.4s						
YUK				A	A	18 20 18.7	
	580nm,0.4s						
NEM2	**Nemuro 2**	**2.13**	**247**	P	**Pn**	**18 19 58.2**	**+0.4**
NEM2				*e*S	**Sn**	**18 20 21.6**	**-1.4**
NMR	**Nemuro--Hokkai**	**2.14**	**247**	*i* P	**Pn**	**18 19 58.1**	**+0.2**
NMR				*e*S	**Sn**	**18 20 21.1**	**-2.0**
JRA	**Rausu**	**2.40**	**264**	P	**Pn**	**18 20 03.1**	**+1.6**
JRA				*e*S	**Sn**	**18 20 29.3**	**-0.3**
JNSB	**Nemuroshibetsu**	**2.51**	**261**	P	**Pn**	**18 20 04.5**	**+1.5**
JNSB				*e*S	**Sn**	**18 20 31.6**	**-0.8**
JKHN	**Kushirohamanak**	**2.63**	**245**	P	**Pn**	**18 20 05.6**	**+0.9**
JKHN				*e*S	**Sn**	**18 20 34.2**	**-1.2**
JNK	**Nakash**	**2.75**	**258**	P	**Pn**	**18 20 07.7**	**+1.3**
JNK				*e*S	**Sn**	**18 20 37.4**	**-1.1**
JAK	**Akkeshi**	**2.98**	**247**	P	**Pn**	**18 20 10.3**	**+0.9**
JAK				*e*S	**Sn**	**18 20 42.6**	**-1.3**
JTKR	**Abashiri--Toko**	**3.26**	**267**	*e*P	**Pn**	**18 20 14.7**	**+1.4**
JTKR				*e*S	**Sn**	**18 20 50.9**	**0.0**
JAR	**Ashorobuto**	**3.50**	**256**	P	**Pn**	**18 20 18.7**	**+2.0**
JAR				*e*S	**Sn**	**18 20 56.9**	**+0.1**
JOB	**Onbets**	**3.59**	**250**	P	**Pn**	**18 20 19.2**	**+1.3**
JOB				*e*S	**Sn**	**18 20 57.8**	**-1.2**
JMP	**Maruseppu**	**3.65**	**268**	P	**Pn**	**18 20 20.4**	**+1.6**
JCH	**Churui**	**4.03**	**248**	P	**Pn**	**18 20 24.9**	**+1.0**
JCH				S	**Sn**	**18 21 07.8**	**-2.0**
JKK2	**Kamakawa 2**	**4.11**	**267**	*e*P	**Pn**	**18 20 27.6**	**+2.6**
JNBK	**Urakawa-nobuka**	**4.58**	**247**	P	**Pn**	**18 20 32.7**	**+1.2**
JNBK				*e*S	**Sn**	**18 21 22.1**	**-1.4**

*TRN **27** 18:35:06.5, 18°.24N×64°.42W, h56km, MD0.0, South-east of the British V.I.*
*SDD **27** 18:35:06.6±2.5, 17°.60N×64°.18W, h5km±243km, MD3.9, ML3.8, MW3.7, Presumed earthquake*
*RSPR **27** 18:35:09.3, 17°.64N×64°.26W, h6km±25km, MD4.0/12*
*NEIC **27** 18:35:10.4±1.3, 18°.06N±0°.10×64°.29W±0°.04, h59km±16km, mb4.2/10, ML3.8/57, Md4.0/12(RSPR), Error ellipse: s-maj=14.8km s-min=1.0km az=200.0*

ISC 27 18:35:10.5±0.8,**18°05N**±0°.09×**64°30W**±0°.03**, h65**km±13km**, n73, σ1$11/100, mb4.1/4, 27C-1D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SABA	**Saba**	**1.10**	**113**		**Pn**	**18 35 29.7**	**-0.3**
SABA				Sn	**Sn**	**18 35 44.8**	**+0.3**
SABA				IAML		18 35 50.5	
	comp=N,2µm,0.3s						
SABA	**Saba**	**1.10**	**113**	*e*P	**Pn**	**18 35 30.1**	**0.0**
SABA				*e*S	**Sn**	**18 35 46.6**	**+2.0**
SMRT	**St. Maarten**	**1.17**	**90**		**Pn**	**18 35 30.0**	**-1.0**
SMRT				Sn	**Sn**	**18 35 45.5**	**-0.7**
SMRT				IAML		18 35 49.5	
	comp=E,2µm,0.3s						
SMRT				IAML		18 35 49.5	
	comp=N,2µm,0.4s						
SMRT	**St. Maarten**	**1.17**	**90**	*e*P	**Pn**	**18 35 30.1**	**-0.9**
SMRT				*e*S	**Sn**	**18 35 46.5**	**+0.2**
SEUS	**St. Eustatius**	**1.38**	**113**		**Pn**	**18 35 34.0**	**+0.3**
SEUS				Sn	**Sn**	**18 35 50.5**	**-0.5**
SEUS				IAML		18 36 05.3	
	comp=N,1µm,0.5s						
SEUS	**St. Eustatius**	**1.38**	**113**	*e*P	**Pn**	**18 35 33.6**	**0.0**
SEUS				*e*S	**Sn**	**18 35 53.0**	**+1.9**
HUMP	**Col San Antoni**	**1.47**	**274**		**Pn**	**18 35 33.8**	**-1.2**
HUMP					**Sn**	**18 35 52.4**	**-1.1**
HUMP				IAML		18 35 55.9	
	comp=N,2µm,0.6s						
HUMP				IAML		18 35 57.1	
	comp=N,2µm,0.2s						
HUMP	**Col San Antoni**	**1.47**	**274**	*e*P	**Pn**	**18 35 34.5**	**-0.5**
PDPR	**Patillas Dam,**	**1.64**	**269**		**Pn**	**18 35 36.2**	**-0.9**
PDPR					**Sn**	**18 35 57.4**	**+0.1**
PDPR				IAML		18 36 04.6	
	comp=N,737nm,0.2s						
PDPR	**Patillas Dam,**	**1.64**	**269**	*e*P	**Pn**	**18 35 36.6**	**-0.5**
SKI	**Saint Kitts**	**1.65**	**115**	*e*P	**Pn**	**18 35 37.4**	**0.0**
SKI				*e*S	**Sn**	**18 36 01.3**	**+3.6**
GCPR	**Guaynabo City**	**1.71**	**279**		**Pn**	**18 35 37.9**	**-0.3**
GCPR				Sn	**Sn**	**18 35 58.6**	**-0.6**
GCPR				IAML		18 36 01.2	
	comp=N,726nm,0.8s						
SJG	**San Juan**	**1.76**	**272**		**Pn**	**18 35 38.3**	**-0.5**
SJG				IAML		18 36 05.6	
	comp=N,1µm,0.4s						
SJG				IAML		18 36 06.0	
	comp=N,850nm,0.3s						
SJG	**San Juan**	**1.76**	**272**	Sn	**Sn**	**18 36 00.7**	**+0.5**
SJG	**San Juan**	**1.76**	**272**	⇑*i* P	**Pn**	**18 35 38.0**	**-0.8**
SJG				⇑*i* S	**Sn**	**18 36 00.7**	**+0.5**
ECPR	**Experimental S**	**1.98**	**278**		**Pn**	**18 35 41.9**	**+0.1**
ECPR					**Sn**	**18 36 05.9**	**+0.3**
ECPR	**Experimental S**	**1.98**	**278**	*e*P	**Pn**	**18 35 42.6**	**+0.8**
EMPR	**Esperanza - Ma**	**2.16**	**282**		**Pn**	**18 35 45.0**	**+0.8**
EMPR					**Sn**	**18 36 12.7**	**+2.7**
EMPR	**Esperanza - Ma**	**2.16**	**282**	*e*P	**Pn**	**18 35 45.0**	**+0.8**
EMPR				*e*S	**Sn**	**18 36 12.7**	**+2.7**
CELP	**Cerrillos**	**2.17**	**271**		**Pn**	**18 35 44.0**	**-0.3**
CELP					**Sn**	**18 36 09.1**	**-1.0**
CELP				IAML		18 36 17.4	
	comp=N,478nm,0.4s						
CELP				IAML		18 36 21.1	
	comp=N,573nm,0.5s						
CELP	**Cerrillos**	**2.17**	**271**	⇓*i* P	**Pn**	**18 35 44.0**	**-0.3**
CELP				⇑*i* S	**Sn**	**18 36 11.5**	**+1.3**
CELP				IAML		18 36 16.0	
	comp=N,193nm,0.4s						
CELP	**Cerrillos**	**2.17**	**271**	*e*P	**Pn**	**18 35 44.7**	**+0.3**
OBIP	**Obispado Ponce**	**2.19**	**270**		**Pn**	**18 35 43.4**	**-1.3**
OBIP					**Sn**	**18 36 11.8**	**+1.0**
OBIP				IAML		18 36 16.5	
	comp=N,497nm,0.6s						
OBIP	**Obispado Ponce**	**2.19**	**270**	*e*P	**Pn**	**18 35 44.2**	**-0.5**
OBIP				*e*S	**Sn**	**18 36 12.7**	**+2.0**
AOPR	**Arecibo Observ**	**2.35**	**278**		**Pn**	**18 35 46.7**	**-0.1**
AOPR	**Arecibo Observ**	**2.35**	**278**	⇑*i* P	**Pn**	**18 35 47.7**	**+0.8**
AOPR				⇑*i* S	**Sn**	**18 36 17.6**	**+2.9**
AOPR				IAML		18 36 25.8	
	comp=N,

GDSD	**La Dsirade Is**	**3.54**	**119**	Pn		**Pn**	**18 36 02.9**	**-0.2**
MAGL	**Barre de l'ile**	**3.56**	**125**	Pn		**Pn**	**18 36 03.3**	**-0.1**
MAGL	**Barre de l'ile**	**3.56**	**125**	*e*P		Pn	18 36 04.7	+1.3
DSLB	**Salisbury**	**3.79**	**133**	*e*P		**Pn**	**18 36 07.0**	**+0.5**
PCDR	**Punta Cana, DR**	**3.90**	**277**	Pn		**Pn**	**18 36 07.8**	**-0.3**
PCDR				IAML			18 37 21.0	
	comp=E,117nm,2.5s							
BIM	**Bigot**	**4.69**	**138**	Pn		**Pn**	**18 36 17.6**	**-1.2**
BIM				IAML			18 38 56.7	
	comp=N,77nm,0.5s							
BIM				IAML			18 39 01.8	
	comp=E,116nm,0.3s							
BIM	**Bigot**	**4.69**	**138**	*e*P		**Pn**	**18 36 18.7**	**-0.1**
MPOM	**Morne Pois Mar**	**4.88**	**137**	Pn		**Pn**	**18 36 22.0**	**+0.7**
DR12	**Loma Pena Alta**	**4.88**	**279**			**Pn**	**18 36 21.3**	**-0.1**
BANI	**BANI**	**5.76**	**274**	Pn		**Pn**	**18 36 34.2**	**+0.6**
ABDR	**Alto Bandera**	**6.05**	**278**	⇑*i*P		**Pn**	**18 36 35.3**	**-2.4**
ABDR				IAML			18 38 29.3	
	comp=N,83nm,4.2s							
SC01	**Santiago de lo**	**6.24**	**284**	Pn		**Pn**	**18 36 40.1**	**+0.1**
PODR	**Polo**	**6.64**	**272**	Pn		**Pn**	**18 36 46.3**	**+0.6**
SDDR	**Presa de Saban**	**6.69**	**279**			**Pn**	**18 36 46.9**	**+0.7**
URIC	**Uribia, Colomb**	**9.75**	**231**	Pn		Pn	18 37 23.7	-4.4
RUSC	**La Rusia**	**14.81**	**216**	Pn		**Pn**	**18 38 36.3**	**-0.6**
T59A	**Double "B" Far**	**22.17**	**331**	P		**P**	**18 40 03.6**	**+2.5**
TEIG	**Tepich**	**22.75**	**279**	P		**P**	**18 40 07.6**	**+0.1**
R55A	**Marlinton**	**24.44**	**329**	P		**P**	**18 40 22.0**	**-1.2**
R55A				IAmb		IAmb	18 40 26.7	
	comp=Z,8.2nm,1.3s							
Q56A	**Snyder Ridge,**	**24.60**	**331**	P		**P**	**18 40 24.8**	**+0.2**
Q56A				IAmb		IAmb	18 40 50.2	
	comp=Z,5.8nm,1.0s							
TKL	**Tuckaleechee C**	**24.61**	**319**	P		**P**	**18 40 24.5**	**-0.2**
X51A	**Calhoun**	**24.62**	**316**	P		**P**	**18 40 23.9**	**-1.0**
W50A	**Signal Mountai**	**25.30**	**317**	P		**P**	**18 40 30.8**	**-0.3**
W50A				IAmb		IAmb	18 40 52.1	
	comp=Z,9.7nm,1.3s							
J59A	**Piesco**	**26.77**	**343**	P		**P**	**18 40 45.7**	**+1.5**
J59A				IAmb		IAmb	18 41 00.6	
	comp=Z,12nm,1.4s							

IDC ***27*** *18:39:58.6±0.9, 47.36S×100.34E, h0km, mb4.3/8, mbtmp4.3/8, MS4.2/12, Error ellipse: s-maj=33.4km s-min=16.8km az=117.0*

NEIC ***27*** *18:39:58.1±1.8, 47.4S±0.1×100.10E±0.10, h10km±1km, mb4.5/29, Error ellipse: s-maj=18.2km s-min=10.3km az=14.0*

GCMT ***27*** *18:40:02.1±0.4, 47.29S×0.02×99.96E±0.03, h15km, MW4.8/69, Moment Tension Solution. s10,c10; s69,c91; Duration: 0 Moment tensor: Scale 1016Nm; Mrr0.00±.09; Mθθ 1.71±.08; Mϕϕ -1.71±.07; Mrθ 0.50±.31; Mθϕ 0.48±.07; Mϕr -0.49±.29; Best double couple: M0 1.90900×1016 NP1:ϕs38.00000°, δ69.00000°, λ-178.00000°. NP2: ϕs307.00000°, δ88.00000°, λ-21.00000°. Principal axes: T 1.8780, Plg13.0000°, Azm354.0000°; N 0.0630, Plg69.0000°, Azm122.0000°; P -1.9390, Plg16.0000°, Azm260.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 27 18:39:58.6±0.5, 47.36S±0.08×100.2E±0.1, h10km, n60, σ1.9s37/48, mb4.5/22, MS4.2/12, 3C, Southeast Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**16.24**	**45**	T	T	19 00 25.7	
	baz=215,slow=73,SNR=139						
H01W3	**Cape Leeuwin H**	**16.25**	**45**	T	T	19 00 23.1	
	baz=215,slow=73,SNR=145						
H01W1	**Cape Leeuwin H**	**16.25**	**45**	T	T	19 00 24.9	
	baz=215,slow=73,SNR=130						
AIS	**Amsterdam Isla**	**19.17**	**292**	P	**P**	**18 44 18.9**	**-3.2**
NWAO	**Narrogin (SRO)**	**19.35**	**48**	LR	LR	18 50 10.5	
	comp=Z,300nm,20.0s,baz=218,slow=32						
CASY	**Casey**	**19.73**	**168**	P	**P**	**18 44 26.2**	**-1.9**
CASY				IAmb	IAmb	18 44 42.7	
	comp=Z,26nm,1.3s						
MORW	**Morawa**	**22.01**	**40**	P	**P**	**18 44 51.5**	**-1.4**
MORW				IAmb	IAmb	18 45 09.4	
	comp=Z,46nm,1.5s						
FORT	**Forrest**	**27.02**	**62**	P	**P**	**18 45 39.3**	**-1.4**
FORT				IAmb	IAmb	18 45 40.9	
	comp=Z,16nm,1.4s						
MAW	**Mawson**	**27.82**	**210**	P	**P**	**18 45 50.4**	**+2.9**
	comp=Z,3.8nm,1.0s,baz=38,slow=10,SNR=4.3						
	comp=Z,3.8nm,1.0s						
MAW	**Mawson**	**27.82**	**210**	P	**P**	**18 45 46.1**	**-1.3**
BBOO	**Buckleboo**	**30.72**	**75**	P	**P**	**18 46 11.9**	**-1.8**
BBOO				IAmb	IAmb	18 46 18.1	
	comp=Z,11nm,1.0s						
TAU	**Tasmania Unive**	**33.12**	**100**	P	**P**	**18 46 34.2**	**-0.4**
STKA	**Stephens Creek**	**34.97**	**79**	P	**P**	**18 46 52.3**	**+1.6**
	comp=Z,5.2nm,0.7s,baz=224,slow=9.2,SNR=11						
STKA				LR	LR	18 58 23.2	
	comp=Z,383nm,21.0s,baz=210,slow=32						
	comp=Z,5.2nm,0.7s						
STKA	**Stephens Creek**	**34.97**	**79**		**P**	**18 46 50.0**	**-0.8**
ASAR	**Alice Springs**	**35.76**	**60**	P	**P**	**18 46 58.9**	**+1.2**
	comp=Z,3.2nm,0.9s,baz=218,slow=7.8,SNR=25						
ASAR				PcP	**PcP**	**18 49 25.6**	**+0.1**
	comp=Z,0.5nm,0.6s,baz=208,slow=1.8,SNR=7.2						
ASAR				LR	LR	18 59 60.0	
	comp=Z,216nm,18.1s,baz=228,slow=34						
	comp=Z,3.2nm,0.9s						
ASAR	**Alice Springs**	**35.76**	**60**		**P**	**18 46 58.1**	**+0.4**
ASAR					**PcP**	**18 49 24.9**	**-0.6**
AS31	**Alice Springs**	**35.76**	**60**		**P**	**18 46 56.6**	**-1.1**
FITZ	**Fitzroy Crossi**	**35.86**	**44**	P	**P**	**18 46 58.0**	**-0.4**
INKA	**Innaminka**	**37.09**	**73**	P	**P**	**18 47 08.6**	**-0.4**
VNDA	**Vanda**	**38.18**	**162**	P	**P**	**18 47 18.0**	**+0.4**
	comp=Z,3.6nm,0.8s,baz=290,slow=8.9,SNR=19						
VNDA				LR	LR	19 01 50.7	
	comp=Z,360nm,18.4s,baz=292,slow=34						
	comp=Z,3.6nm,0.8s						
VNDA	**Vanda**	**38.18**	**162**		**P**	**18 47 17.2**	**-0.4**
VNDA				IAmb	IAmb	18 47 21.8	
	comp=Z,16nm,1.4s						
WRA	**Warramunga Arr**	**38.91**	**57**	P	**P**	**18 47 25.7**	**+1.4**
	comp=Z,3.5nm,0.8s,baz=220,slow=9.0,SNR=30						
	comp=Z,3.5nm,0.8s						
WRA	**Warramunga Arr**	**38.91**	**57**		**P**	**18 47 24.6**	**+0.3**
WRAB	**Tennant Creek**	**38.92**	**57**	P	**P**	**18 47 24.4**	**-0.1**
WRAB				IAmb	IAmb	18 47 34.9	
	comp=Z,12nm,1.2s						
WR8	**Warramunga Arr**	**38.99**	**57**	P	**P**	**18 47 23.8**	**-1.3**
WR8				IAmb	IAmb	18 47 37.1	
	comp=Z,13nm,1.4s						
SBA	**Scott Base**	**39.28**	**162**		**P**	**18 47 28.0**	**+1.1**
SBA				IAmb	IAmb	18 47 42.7	
	comp=Z,8.3nm,1.1s						
LEM	**Lembang**	**40.88**	**11**	LR	LR	19 01 37.7	
	comp=Z,224nm,19.8s,baz=190,slow=32						
QSPA	**South Pole Qui**	**42.78**	**180**	P	**P**	**18 47 56.7**	**+0.7**
	comp=Z,6.3nm,0.9s,baz=302,slow=2.1,SNR=16						
QSPA				LR	LR	19 04 43.2	
	comp=Z,328nm,18.3s,baz=308,slow=35						
	comp=Z,6.3nm,0.9s						
QSPA	**South Pole Qui**	**42.78**	**180**		**P**	**18 47 56.2**	**+0.2**
QSPA				IAmb	IAmb	18 47 59.7	
	comp=Z,21nm,1.4s						
MTN	**Manton Dam**	**43.04**	**47**	P	**P**	**18 47 57.8**	**-0.6**
MTN				IAmb	IAmb	18 48 28.4	
	comp=Z,6.2nm,1.2s						
H08S2	**Diego Garcia H**	**46.10**	**320**	T	T	19 37 20.6	
	baz=154,slow=76,SNR=19						
H08S1	**Diego Carcia H**	**46.11**	**320**	T	T	19 37 23.2	
	baz=154,slow=76,SNR=12						
H08S3	**Diego Garcia H**	**46.12**	**320**	T	T	19 37 22.0	
	baz=154,slow=76,SNR=38						
RPZ	**Rata Peaks**	**48.17**	**113**	LR	LR	19 03 52.0	
	comp=Z,11nm,20.2s,baz=200,slow=30						
MQZ	**McQueen's Vall**	**49.17**	**114**	P	**P**	**18 48 45.0**	**-1.4**
LTZ	**Lake Taylor**	**49.41**	**113**	P	**P**	**18 48 47.1**	**-1.3**
SNAA	**Sanae**	**49.68**	**204**	P	**P**	**18 48 50.7**	**+0.6**
	comp=Z,2.3nm,0.3s,baz=118,slow=10,SNR=3.3						
SNAA				LR	LR	19 07 02.9	
	comp=Z,197nm,21.6s,baz=147,slow=33						
	comp=Z,2.3nm,0.3s						
SNAA	**Sanae**	**49.68**	**204**	P	**P**	**18 48 48.6**	**-1.4**
SNAA				IAmb	IAmb	18 48 57.0	
	comp=Z,8.6nm,0.9s						
VNA2	**Neumayer--Watz**	**51.32**	**204**	⇑P	**P**	**18 49 03.1**	**+0.7**
	comp=Z,6.0nm,0.7s,baz=119,slow=7.0						
VNA1	**Neumayer--Stat**	**51.72**	**204**	⇑P	**P**	**18 49 08.2**	**+2.9**
	comp=Z,11nm,1.1s						
VNA3	**Neumayer Olymp**	**51.75**	**203**	⇑P	**P**	**18 49 06.2**	**+0.6**
	comp=Z,4.4nm,0.8s						
BOSA	**Boshof**	**59.71**	**260**	LR	LR	19 10 45.1	
	comp=Z,164nm,19.3s,baz=144,slow=31						
SUR	**Sutherland**	**60.23**	**253**	LR	LR	19 09 58.3	
	comp=Z,181nm,21.1s,baz=140,slow=30						
MATP	**Matopo**	**62.98**	**269**	LR	LR	19 12 26.6	
	comp=Z,715nm,20.4s,baz=164,slow=31						
SMAI	**San Martin Ant**	**64.44**	**185**	P	**P**	**18 50 34.8**	**+0.4**
SMAI				IAmb	IAmb	18 50 56.0	
	comp=Z,6.3nm,1.3s						
CM31	**Chiang Mai Arr**	**65.52**	**359**	P	**P**	**18 50 41.3**	**-0.7**
CMAR	**Chiang Mai Arr**	**65.52**	**359**	P	**P**	**18 50 44.0**	**+2.0**
	comp=Z,1.5nm,0.7s,baz=194,slow=5.5,SNR=14						
	comp=Z,1.5nm,0.7s						
CMAR	**Chiang Mai Arr**	**65.52**	**359**		**P**	**18 50 41.8**	**-0.2**
LSZ	**Lusaka**	**66.78**	**273**	LR	LR	19 16 09.6	
	comp=Z,81nm,18.1s,baz=153,slow=32						
PMSA	**Palmer Station**	**67.53**	**187**	LR	LR	19 20 22.1	
	comp=Z,278nm,18.6s,baz=132,slow=36						
PMSA	**Palmer Station**	**67.53**	**187**	P	**P**	**18 50 54.3**	**0.0**
KMBO	**Kilima Mbogo**	**71.15**	**290**	P	**P**	**18 51 16.2**	**-1.5**
KMBO				IAmb	IAmb	18 51 26.8	
	comp=Z,5.3nm,1.3s						
MORE	**Moreh**	**71.46**	**354**		**P**	**18 51 18.6**	**-0.4**
NJ2	**Nanjing**	**80.81**	**16**	*e*P	**P**	**18 52 14.3**	**+2.3**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
NIL	**Nilore**	**84.21**	**338**	P	**P**	**18 52 29.3**	**-0.5**
KBL	**Kabul**	**86.21**	**335**	P	**P**	**18 52 40.1**	**+0.1**
HHC	**Hu-ho-hao-te**	**88.41**	**9**	*e*P	**P**	**18 52 52.5**	**+2.1**
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,4.1s						
WMQ	**Urumqi**	**91.47**	**351**	*e*P	**P**	**18 53 06.0**	**+1.4**
LL03	**Petrohue**	**91.64**	**186**	P	**P**	**18 53 05.0**	**-0.8**
NVAR	**Mina Aarray Bea**	**150.65**	**93**	PKPbc	**PKPbc**	**18 59 52.9**	**+2.2**
	comp=Z,1.4nm,0.7s,baz=251,slow=3.7,SNR=3.8						

BGR ***27*** *18:45:04.8±0.4, 50.02N×156.11E, h22km±1km, mb5.2, Error ellipse: s-maj=8.9km s-min=5.6km az=129.0*

KRSC ***27*** *18:45:05.6±2.5, 49.75N×156.76E, h45km±26km, Mc5.3, Ml6.0, Felt [V] at Podgornay; [IV-V] at Severo-Kurilsk; [III-IV] at lighthouse Kurbatova, kordon Pribrejnyi, Paujetka.*

BJI ***27*** *18:45:07.7, 50.02N×156.62E, h67km, mB5.1/28, mb4.9/66, Ms5.1/67, Ms7 4.9/66*

GFZ ***27*** *18:45:09.7, 49.94N×156.38E, h44km, Mw5.3/66, Moment Tensor Solution. Moment tensor: Scale 1016Nm; Mrr8.84; Mθθ -2.66; Mϕϕ -6.18; Mrθ 2.75; Mθϕ -4.34; Mϕr 2.15; Fault plane solution: Mo9.62805×1016 NP1: ϕs207.31025°, δ35.21839°, λ79.13303°. NP2:ϕs40.53389°, δ55.50370°, λ97.58058°. Principal axes: T 9.5542, Plg78.0006°, Azm337.1932°; N 0.1460, Plg6.2418°, Azm216.2235°; P -9.7002, Plg10.2070°, Azm125.0951°;*

MOS ***27*** *18:45:09.2±1.0, 49.97N×156.29E, h58km, mb5.5/53, MS5.0/17 Error ellipse: s-maj=5.7km s-min=2.7km az=82.4*

MOS Felt (IV) at Severo-Kuril'sk.

NEIC ***27*** *18:45:09.5, 50.00N×156.36E, h45km*

NEIC ***27*** *18:45:09.9, 49.60N×156.98E, h46km, Moment Tensor Solution. Duration: 2s1 Moment tensor: Scale 1017Nm; Mrr1.06; Mθθ -0.27; Mϕϕ -0.79; Mrθ 0.03; Mθϕ -0.55; Mϕr 0.23; Fault plane solution: M0 1.13000×1017 NP1: ϕs217.78000°, δ39.97000°, λ98.37000°. NP2:ϕs26.92000°, δ50.54000°, λ83.04000°. Principal axes: T 1.0891, Plg82.0000°, Azm256.0000°; N 0.0717, Plg5.0000°, Azm31.0000°; P -1.1608, Plg5.0000°, Azm122.0000°;*

NEIC ***27*** *18:45:10.2±1.4, 50.00N±0.07×156.4E±0.1, h52km±4km, mb5.3/792, Mww5.3/18 Error ellipse: s-maj=11.7km s-min=8.3km az=136.0*

GFZ ***27*** *18:45:10.4±0.1, 50.1N×2.1×15.6E±., h52km, M5.4/160, mb5.4/160, confirmed*

GCMT ***27*** *18:45:11.2±0.1, 49.79N±0.01×156.77E±0.01, h42km, MW5.3/135, Moment Tensor Solution. s131,c231; s135,c260; Duration: 1s1 Moment tensor: Scale 1017 Nm; Mrr1.14±.02; Mθθ -0.35±.01; Mϕϕ -0.78±.01; Mrθ 0.09±.01; Mθϕ -0.58±.01; Mϕr 0.27±.01; Best double couple: Mo1.20000×1017 NP1:ϕs219.00000°, δ39.00000°, λ96.00000°. NP2:ϕs31.00000°, δ52.00000°, λ85.00000°. Principal axes: T 1.1770, Plg82.0000°, Azm273.0000°; N 0.0480, Plg4.0000°, Azm34.0000°; P -1.2230, Plg7.0000°, Azm125.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

IDC ***27*** *18:45:13.9±1.4, 50.04N×156.27E, h85km±12km, mb4.7/44, mbtmp5.1/52, MS4.6/87 Error ellipse: s-maj=9.2km s-min=6.5km az=150.0*

ISC 27 18:45:09.9±0.3, 49.91N±0.03×156.49E±0.03, h53km±2km, h53km:pP-P, n1651, σ1.934/1492, mb5.3/687, MS4.7/117, 73C-44D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**0.81**	**343**	⇓*i*PN	**Pn**	**18 45 25.1**	**-0.1**
SKR				*i* S	**Sn**	**18 45 36.5**	**+0.2**
SKR				pmax	pmax		
	comp=Z,284μm,0.5s						
SKR				smax	smax		
	comp=E,479μm,0.7s						
SKR				smax	smax		
	comp=N,477μm,0.5s						
SKR	**Severo-Kuril's**	**0.81**	**343**	*e*P	**Pn**	**18 45 25.5**	**+0.3**
SKR				*e*S	**Sn**	**18 45 37.4**	**+1.1**
PAU	**Pauzhetka**	**1.57**	**7**	PN	**Pn**	**18 45 35.6**	**+0.2**
PAU				S	**Sn**	**18 45 56.0**	**+1.4**
PAU	**Pauzhetka**	**1.57**	**7**	*e*P	**Pn**	**18 45 35.6**	**+0.2**
PAU				*e*S	**Sn**	**18 45 56.1**	**+1.4**
KDTR	**Khodutka, Kamc**	**2.15**	**27**	PN	**Pn**	**18 45 42.0**	**-1.3**
KDTR				S	**Sn**	**18 46 07.4**	**-1.3**
KDTR	**Khodutka, Kamc**	**2.15**	**27**	*e*P	**Pn**	**18 45 42.0**	**-1.3**
KDTR				*e*S	**Sn**	**18 46 07.4**	**-1.3**
MTVR	**Mutnovka**	**2.79**	**22**	PN	**Pn**	**18 45 52.1**	**-0.1**
MTVR				S	**Sn**	**18 46 25.9**	**+1.3**
MTVR	**Mutnovka**	**2.79**	**22**	*e*P	**Pn**	**18 45 52.1**	**-0.1**
MTVR				*e*S	**Sn**	**18 46 25.9**	**+1.3**
GRL	**Gorelyy**	**2.82**	**20**	PN	**Pn**	**18 45 53.1**	**+0.5**
GRL				S	**Sn**	**18 46 28.4**	**+2.9**
GRL	**Gorelyy**	**2.82**	**20**	*e*P	**Pn**	**18 45 53.2**	**+0.5**
GRL				*e*S	**Sn**	**18 46 28.4**	**+2.9**
RUS	**Russkaya**	**2.83**	**26**	PN	**Pn**	**18 45 52.0**	**-0.5**
RUS				S	**Sn**	**18 46 24.4**	**-0.9**
RUS	**Russkaya**	**2.83**	**26**	*e*P	**Pn**	**18 45 52.1**	**-0.5**
RUS				*e*S	**Sn**	**18 46 24.5**	**-0.9**
APC	**Apacha**	**3.05**	**8**	PN	**Pn**	**18 45 57.1**	**+1.5**
APC	**Apacha**	**3.05**	**8**	*e*P	**Pn**	**18 45 57.1**	**+1.5**
KRMR	**Karymshinskiy**	**3.10**	**19**	PN	**Pn**	**18 45 57.3**	**+1.1**
KRMR				S	**Sn**	**18 46 37.0**	**+5.0**
KRMR	**Karymshinskiy**	**3.10**	**19**	*e*P	**Pn**	**18 45 57.3**	**+1.1**
KRMR				*e*S	**Sn**	**18 46 37.0**	**+5.0**
PEA0B	**Petropavlovsk-**	**3.29**	**13**	PN	**Pn**	**18 46 00.4**	**+1.5**
PEA0B				S	**Sn**	**18 46 39.6**	**+2.9**
PEA0B	**Petropavlovsk-**	**3.29**	**13**		**Pn**	**18 45 59.8**	**+0.9**
PETK	**Petropavlovsk-**	**3.29**	**13**	P	**Pn**	**18 46 00.3**	**+1.4**
	comp=N,575nm,0.5s,baz=170,slow=12,SNR=286						
PETK				S	**Sn**	**18 46 41.9**	**+5.2**
	comp=N,450nm,0.7s,baz=316,slow=25,SNR=4.4						
PETK				LR	LR	18 47 39.9	
	comp=N,18μm,18.7s,baz=192,slow=46						
PETK	**Petropavlovsk-**	**3.29**	**13**		**Pn**	**18 45 59.8**	**+0.9**
PET	**Petropavlovsk**	**3.40**	**23**	P	**Pn**	**18 46 01.4**	**+1.0**
PET	**Petropavlovsk**	**3.40**	**23**	S	**Sn**	**18 46 41.6**	**+2.3**
PET	**Petropavlovsk**	**3.40**	**23**	*d*iPN	**Pn**	**18 46 00.7**	**+0.3**
PET				*i* S	**Sn**	**18 46 40.8**	**+1.5**
PET				smax	smax		
	comp=E,14μm,0.7s						
PET				smax	smax		
	comp=N,10μm,0.6s						
PET				MLR	MLR		
	comp=Z,10μm,13.0s						
PET	**Petropavlovsk**	**3.40**	**23**		**Pn**	**18 46 00.3**	**0.0**
PET	**Petropavlovsk**	**3.40**	**23**	*e*P	**Pn**	**18 46 01.1**	**+0.8**
PET				*e*S	**Sn**	**18 46 40.4**	**+1.0**
PET	**Petropavlovsk**	**3.40**	**23**	P	**Pn**	**18 46 01.4**	**+1.0**
PET				S	**Sn**	**18 46 40.1**	**+0.8**
INSR	**Institute**	**3.42**	**22**	PN	**Pn**	**18 46 01.8**	**+1.1**
INSR				S	**Sn**	**18 46 44.4**	**+4.4**
INSR	**Institute**	**3.42**	**22**	*e*P	**Pn**	**18 46 01.8**	**+1.1**
INSR				*e*S	**Sn**	**18 46 44.4**	**+4.4**
DALK	**Dalny**	**3.43**	**24**	PN	**Pn**	**18 46 00.9**	**+0.1**
DALK				S	**Sn**	**18 46 42.0**	**+1.9**
DALK	**Dalny**	**3.43**	**24**	*e*P	**Pn**	**18 46 00.9**	**+0.1**
DALK				*e*S	**Sn**	**18 46 42.0**	**+1.9**
UGLR	**Uglovaya**	**3.61**	**23**	PN	**Pn**	**18 46 05.0**	**+1.6**
UGLR	**Uglovaya**	**3.61**	**23**	*e*P	**Pn**	**18 46 05.0**	**+1.6**
AVH	**Avacha**	**3.64**	**22**	PN	**Pn**	**18 46 05.8**	**+2.0**
AVH	**Avacha**	**3.64**	**22**	*e*P	**Pn**	**18 46 05.8**	**+2.0**
KOK	**Koryaka**	**3.64**	**21**	PN	**Pn**	**18 46 05.7**	**+1.9**
KOK	**Koryaka**	**3.64**	**21**	*e*P	**Pn**	**18 46 05.8**	**+1.9**
KRER	**Koryakskii**	**3.68**	**22**	PN	**Pn**	**18 46 06.2**	**+1.8**
KRER	**Koryakskii**	**3.68**	**22**	*e*P	**Pn**	**18 46 06.3**	**+1.8**
SDLR	**Sedlovina**	**3.69**	**23**	PN	**Pn**	**18 46 05.3**	**+0.9**
SDLR	**Sedlovina**	**3.69**	**23**	*e*P	**Pn**	**18 46 05.3**	**+0.9**
KRX	**Arik**	**3.70**	**20**	PN	**Pn**	**18 46 06.4**	**+1.7**
KRX				S	**Sn**	**18 46 49.7**	**+2.6**
KRX	**Arik**	**3.70**	**20**	*e*P	**Pn**	**18 46 06.4**	**+1.7**
KRX				*e*S	**Sn**	**18 46 49.7**	**+2.6**
NLC	**Nalytchevo**	**3.72**	**28**	PN	**Pn**	**18 46 04.1**	**-0.6**
NLC	**Nalytchevo**	**3.72**	**28**	*e*P	**Pn**	**18 46 04.1**	**-0.6**
SPN	**Mys Shipunski**	**3.88**	**33**	PN	**Pn**	**18 46 07.3**	**+0.4**
SPN				S	**Sn**	**18 46 52.2**	**+1.0**
SPN	**Mys Shipunski**	**3.88**	**33**	*e*P	**Pn**	**18 46 07.4**	**+0.4**
SPN				*e*S	**Sn**	**18 46 52.3**	**+1.0**
KII	**Karymskiy**	**4.52**	**23**	PN	**Pn**	**18 46 18.2**	**+2.5**
KII	**Karymskiy**	**4.52**	**23**	*e*P	**Pn**	**18 46 18.3**	**+2.5**
MKZ	**Mys Kozlova**	**5.66**	**33**	PN	**Pn**	**18 46 30.4**	**-0.9**
MKZ	**Mys Kozlova**	**5.66**	**33**	*e*P	**Pn**	**18 46 30.4**	**-0.9**
KZV	**Kizimen**	**5.70**	**23**	PN	**Pn**	**18 46 33.3**	**+1.2**
KZV	**Kizimen**	**5.70**	**23**	*e*P	**Pn**	**18 46 33.4**	**+1.2**
TUMD	**Tumrok D**	**5.81**	**23**	PN	**Pn**	**18 46 34.3**	**+0.9**
TUMD	**Tumrok D**	**5.81**	**23**	*e*P	**Pn**	**18 46 34.4**	**+0.9**
TUMR	**Tumrok**	**5.82**	**21**	PN	**Pn**	**18 46 35.7**	**+2.1**
TUMR	**Tumrok**	**5.82**	**21**	*e*P	**Pn**	**18 46 35.8**	**+2.1**
ESO	**Esso**	**6.17**	**12**	PN	**Pn**	**18 46 40.4**	**+2.0**
ESO	**Esso**	**6.17**	**12**	*e*P	**Pn**	**18 46 40.4**	**+2.0**
KMNR	**Kamenistaya**	**6.28**	**20**	PN	**Pn**	**18 46 42.0**	**+2.1**
KMNR	**Kamenistaya**	**6.28**	**20**	*e*P	**Pn**	**18 46 42.1**	**+2.1**
KPT	**Kopyto**	**6.47**	**19**	PN	Pn	18 46 47.4	+4.9
KPT	**Kopyto**	**6.47**	**19**	*e*P	Pn	18 46 47.4	+4.9
KIRR	**Kirishev**	**6.48**	**20**	PN	Pn	18 46 47.7	+4.9
KIRR	**Kirishev**	**6.48**	**20**	*e*P	Pn	18 46 47.8	+5.0
KOZ	**Kozyrevsk**	**6.49**	**17**	PN	**Pn**	**18 46 43.9**	**+1.3**
KOZ	**Kozyrevsk**	**6.49**	**17**	*e*P	**Pn**	**18 46 44.0**	**+1.3**
BZMR	**Bezymyannaya**	**6.50**	**20**	PN	**Pn**	**18 46 46.9**	**+3.9**
BZMR	**Bezymyannaya**	**6.50**	**20**	*e*P	**Pn**	**18 46 47.0**	**+3.9**
SRDR	**Sredinnyy**	**6.70**	**16**	PN	**Pn**	**18 46 49.7**	**+4.0**
SRDR	**Sredinnyy**	**6.70**	**16**	*e*P	**Pn**	**18 46 49.7**	**+4.0**
KLY	**Klyuchi**	**6.88**	**20**	PN	**Pn**	**18 46 50.9**	**+2.8**
KLY	**Klyuchi**	**6.88**	**20**	*e*P	**Pn**	**18 46 51.0**	**+2.8**
BDR	**Baidarnaya**	**7.24**	**21**	PN	**Pn**	**18 46 54.7**	**+1.6**
BDR	**Baidarnaya**	**7.24**	**21**	*e*P	**Pn**	**18 46 54.8**	**+1.6**
SRKR	**Sorokina**	**7.31**	**21**	PN	**Pn**	**18 46 54.9**	**+0.9**
SRKR	**Sorokina**	**7.31**	**21**	*e*P	**Pn**	**18 46 55.0**	**+0.9**
SMKR	**Semkarok**	**7.32**	**22**	PN	**Pn**	**18 46 55.8**	**+1.7**
SMKR	**Semkarok**	**7.32**	**22**	*e*P	**Pn**	**18 46 55.8**	**+1.7**
SMKR				*e*S	**Sn**	**18 48 15.7**	**0.0**
KBTR	**Krutoberegovo**	**7.37**	**29**	PN	**Pn**	**18 46 54.6**	**-0.1**
KBTR	**Krutoberegovo**	**7.37**	**29**	*e*P	**Pn**	**18 46 54.7**	**-0.1**
KBG	**Krutoberegovo**	**7.37**	**28**	PN	**Pn**	**18 46 54.5**	**-0.2**
KBG	**Krutoberegovo**	**7.37**	**28**	*e*P	**Pn**	**18 46 54.6**	**-0.2**
KUR	**Kuril'sk**	**7.48**	**235**	*e*PN	**Pn**	**18 46 57.7**	**+1.4**
KUR				*e*S	**Sn**	**18 48 22.3**	**+2.7**
KUR				pmax	pmax		
	comp=Z,1μm,0.6s						
KUR				pmax	pmax		
	comp=E,383nm,0.4s						
KUR				pmax	pmax		
	comp=N,250nm,0.7s						
KUR				smax	smax		
	comp=N,8μm,2.0s						
KUR				smax	smax		
	comp=E,5μm,1.9s						
KUR				smax	smax		
	comp=N,662nm,0.6s						
KUR	

MA2	**Magadan**	**10.23**	**343**			**Pn**	**18 47 34.4**	**+0.6**
MA2	**Magadan**	**10.23**	**343**		P	**Pn**	**18 47 34.9**	**+1.1**
	comp=Z,171nm,0.6s							
NKL	**Nikolayevsk**	**10.37**	**294**	*e*	PN	**Pn**	**18 47 38.4**	**+2.6**
NKL					pmax	pmax		
	comp=N,359nm,1.0s							
NKL					pmax	pmax		
	comp=E,662nm,1.0s							
NKL					pmax	pmax		
	comp=Z,1µm,1.0s							
NKL					MLR	MLR		
	comp=E,10µm,20.0s							
NKL					MLR	MLR		
	comp=N,8µm,24.0s							
NKL					MLR	MLR		
	comp=Z,22µm,22.0s							
JKA	**Kamikawa-asahi**	**11.11**	**244**			**Sn**	**18 49 55.5**	**+6.9**
JKA	**Kamikawa-asahi**	**11.11**	**244**			**Pn**	**18 47 47.7**	**+1.8**
JKA	**Kamikawa-asahi**	**11.11**	**244**		P	**Pn**	**18 47 49.0**	**+3.0**
	comp=Z,1µm,1.0s							
ASAJ	**Asahikawa**	**11.11**	**244**		P	**Pn**	**18 47 48.7**	**+2.7**
	comp=Z,840nm,0.8s,baz=65,slow=11,SNR=203							
ASAJ					S	**Sn**	**18 49 55.5**	**+6.9**
	comp=Z,70nm,0.9s,baz=325,slow=33,SNR=5.7							
ASAJ					LR	LR	18 51 56.6	
	comp=Z,4µm,18.2s,baz=56,slow=36							
SHEM	**Shemya Is, Ala**	**11.37**	**69**		P	**Pn**	**18 47 47.3**	**-2.1**
	comp=Z,155nm,0.7s,baz=291,slow=4.2,SNR=7.1							
SHEM					S	Sn	18 49 44.5	-10
	comp=Z,88nm,0.5s,baz=264,slow=20,SNR=5.8							
SHEM					LR	LR	18 51 53.7	
	comp=Z,3µm,21.4s,baz=280,slow=35							
SMY	**Shemya**	**11.37**	**69**		PN	**Pn**	**18 47 46.9**	**-2.6**
SMY	**Shemya**	**11.37**	**69**		Pn	**Pn**	**18 47 46.9**	**-2.6**
ERM	**Erimo**	**12.17**	**235**		P	**Pn**	**18 47 59.6**	**-0.8**
ERM	**Erimo**	**12.17**	**235**	*ce*	PN	**Pn**	**18 47 59.0**	**-1.4**
ERM					pmax	pmax		
	comp=Z,246nm,0.6s							
ERM	**Erimo**	**12.17**	**235**			**Pn**	**18 47 58.4**	**-2.1**
ERM	**Erimo**	**12.17**	**235**		P	**Pn**	**18 48 01.0**	**+0.5**
	comp=Z,772nm,0.7s							
JEM	**Erimo**	**12.17**	**235**		P	**Pn**	**18 47 59.6**	**-0.8**
GRNR	**Gornyy**	**12.85**	**282**	⇓ *i*	PN	**Pn**	**18 48 13.7**	**+4.0**
GRNR					pmax	pmax		
	comp=E,40nm,0.9s							
GRNR					pmax	pmax		
	comp=Z,40nm,0.9s							
GRNR					MLR	MLR		
	comp=E,2µm,16.0s							
SEY	**Seymchan**	**13.24**	**352**		P	**Pn**	**18 48 16.4**	**+1.5**
	comp=E,103nm,1.0s,baz=180,slow=13,SNR=36							
SEY					LR	LR	18 54 12.2	
	comp=E,3µm,18.6s,baz=160,slow=41							
JTM	**Tenmabayashi**	**14.15**	**236**			Pn	18 48 21.6	-5.8
TEY	**Ternei**	**14.29**	**258**	⇑ *e*	P	**Pn**	**18 48 28.2**	**-1.0**
TEY					pmax	pmax		
	comp=Z,40nm,1.1s							
TEY					pmax	pmax		
	comp=E,30nm,1.0s							
TEY					pmax	pmax		
	comp=N,20nm,1.1s							
KLR	**Kul'dur**	**16.05**	**277**		P	**P**	**18 48 53.9**	**-0.6**
	comp=N,12nm,0.6s,baz=82,slow=12,SNR=34							
KLR					LR	LR	18 55 39.0	
	comp=N,3µm,18.7s,baz=82,slow=39							
USA0B	**Ussuriysk Arra**	**17.61**	**260**	*i*	P	**Pn**	**18 49 10.0**	**-1.3**
USRK	**Ussuriysk Ar.**	**17.61**	**260**		P	**Pn**	**18 49 10.7**	**-0.6**
	comp=N,12nm,0.5s,baz=68,slow=12,SNR=47							
USRK					LR	LR	18 55 50.3	
	comp=N,2µm,20.6s,baz=62,slow=36							
USRK	**Ussuriysk Ar.**	**17.61**	**260**		P	**Pn**	**18 49 10.5**	**-0.8**
VLA	**Vladivostok**	**18.20**	**257**	*i*	P	**P**	**18 49 16.4**	**-1.8**
ZEA	**Zeya**	**18.41**	**293**	*e*	P	**Pn**	**18 49 21.3**	**+0.3**
ZEA				*e*	S	**Sn**	**18 52 35.5**	**-10**
ZEA					pmax	pmax		
	comp=N,70nm,0.5s							
ZEA					pmax	pmax		
	comp=E,60nm,0.6s							
ZEA					pmax	pmax		
	comp=Z,170nm,0.6s							
ZEA					smax	smax		
	comp=N,200nm,4.6s							
ZEA					MLR	MLR		
	comp=Z,2µm,18.0s							
HEH	**HeiHe**	**18.62**	**282**	*e*	P	**P**	**18 49 22.5**	**-0.3**
HEH					pP	**pP**	**18 49 32.3**	**-2.3**
HEH					S	**S**	**18 52 52.0**	**+0.1**
HEH					pmax	pmax		
	comp=Z,180nm,0.9s							
HEH					pmax	pmax		
	comp=Z,870nm,6.9s							
HEH					L	L		
	comp=Z,1µm,14.2s							
HEH					L	L		
	comp=Z,3µm,16.0s							
HEH					L	L		
	comp=Z,4µm,17.1s							
MJB9	**Matsu-Tunnel**	**18.80**	**232**		P	**P**	**18 49 25.1**	**+0.2**
MJB9					IAmb	IAmb	18 49 34.4	
	comp=Z,145nm,0.6s							
MAJO	**Matsushiro**	**18.80**	**232**		P	**P**	**18 49 24.8**	**-0.1**
MAJO	**Matsushiro**	**18.80**	**232**		P	**P**	**18 49 24.3**	**-0.6**
MAJO					pmax	pmax		
	comp=Z,158nm,0.5s							
MAJO	**Matsushiro**	**18.80**	**232**			**P**	**18 49 24.3**	**-0.6**
MAJO					IAmb	IAmb	18 49 33.0	
	comp=Z,158nm,0.5s							
MAJO	**Matsushiro**	**18.80**	**232**		P	**P**	**18 49 25.2**	**+0.3**
	comp=Z,214nm,0.7s							
MJAR	**Matsushiro Arr**	**18.80**	**232**		P	**P**	**18 49 25.0**	**+0.1**
	comp=Z,40nm,0.8s,baz=28,slow=10,SNR=81							
MJAR					PcP	**PcP**	**18 53 49.7**	**-0.3**
	comp=Z,4.3nm,0.7s,baz=56,slow=0.6,SNR=4.5							
MJAR					LR	LR	18 57 09.7	
	comp=Z,2µm,20.9s,baz=40,slow=38							
MJAR	**Matsushiro Arr**	**18.80**	**232**		P	**P**	**18 49 24.4**	**-0.5**
BILL	**Bilibino**	**18.82**	**11**	*ce*	P	**P**	**18 49 24.9**	**0.0**
BILL					pmax	pmax		
	comp=Z,77nm,0.5s							
BILL	**Bilibino**	**18.82**	**11**			**P**	**18 49 24.8**	**-0.1**
BILL					IAmb	IAmb	18 49 27.2	
	comp=Z,122nm,0.5s							
BILI	**Bilibino, Chuk**	**18.86**	**12**		P	**P**	**18 49 24.8**	**-0.5**
	comp=Z,148nm,0.6s							
MDJ	**Mudanjiang**	**18.95**	**264**		P	**P**	**18 49 27.0**	**+0.5**
MDJ					S	**S**	**18 52 57.5**	**-1.4**
MDJ					pmax	pmax		
	comp=Z,63nm,1.0s							
MDJ					L	L		
	comp=Z,2µm,18.5s							
MDJ					L	L		
	comp=Z,3µm,18.5s							
MDJ					L	L		
	comp=Z,4µm,23.0s							
YAK	**Yakutsk**	**19.12**	**320**		P	**P**	**18 49 27.8**	**-0.4**
	comp=Z,398nm,0.7s,baz=94,slow=1.2,SNR=77							
YAK					S	**S**	**18 53 00.1**	**-1.7**
	comp=Z,7.4nm,0.5s,baz=22,slow=21,SNR=1.4							
YAK					LR	LR	18 57 05.0	
	comp=Z,4µm,20.4s,baz=126,slow=38							
YAK	**Yakutsk**	**19.12**	**320**	*e*	P	**P**	**18 49 27.6**	**-0.5**
YAK				*e*	S	**S**	**18 53 00.9**	**-0.9**
YAK					pmax	pmax		
	comp=Z,458nm,0.8s							
YAK					pmax	pmax		
	comp=E,208nm,1.3s							
YAK					pmax	pmax		
	comp=N,63nm,1.1s							
YAK					smax	smax		
	comp=N,200nm,2.8s							
YAK					smax	smax		
	comp=E,164nm,2.2s							
YAK	**Yakutsk**	**19.12**	**320**			**P**	**18 49 27.7**	**-0.5**
YAK	**Yakutsk**	**19.12**	**320**		P	**P**	**18 49 27.9**	**-0.2**
	comp=Z,562nm,1.0s							
BNX	**BinXian**	**19.91**	**269**	⇓	P	**P**	**18 49 35.8**	**-1.1**
BNX					S	**S**	**18 53 16.0**	**-1.9**
BNX					sS	**sS**	**18 53 32.5**	**-4.6**
BNX					pmax	pmax		
	comp=Z,80nm,0.7s							
BNX					pmax	pmax		
	comp=Z,370nm,6.2s							
BNX					L	L		
	comp=Z,3µm,20.6s							
BNX					L	L		
	comp=Z,3µm,16.2s							
BNX					L	L		
	comp=Z,5µm,15.3s							
JGF	**Kuroka**	**19.97**	**231**		P	**Pn**	**18 49 38.9**	**-0.8**
JGF	**Kuroka**	**19.97**	**231**		P	**P**	**18 49 37.2**	**-0.5**
JGF	**Kuroka**	**19.97**	**231**		P	**P**	**18 49 38.2**	**+0.5**
	comp=Z,101nm,0.9s							
JSG	**Sagara**	**20.29**	**228**		P	Pn	18 49 43.3	-0.2
JSG	**Sagara**	**20.29**	**228**		P	**P**	**18 49 41.1**	**-0.1**
JSG	**Sagara**	**20.29**	**228**		P	Pn	18 49 42.7	-0.9
	comp=Z,316nm,0.8s							
INU	**Inuyama**	**20.34**	**232**		P	**P**	**18 49 41.1**	**-0.5**
INU	**Inuyama**	**20.34**	**232**		P	**P**	**18 49 40.5**	**-1.1**
INU					IAmb	IAmb	18 49 50.4	
	comp=Z,76nm,0.7s							
INU	**Inuyama**	**20.34**	**232**		P	**P**	**18 49 41.9**	**+0.3**
	comp=Z,108nm,0.9s							
JHJ2	**Mitsune**	**20.84**	**223**		P	**P**	**18 49 48.0**	**+0.9**
JHJ2	**Mitsune**	**20.84**	**223**		P	**P**	**18 49 47.8**	**+0.7**
JHJ	**Hachijo jima 2**	**20.85**	**223**		P	**P**	**18 49 47.3**	**+0.2**
	comp=Z,51nm,0.9s,baz=113,slow=10.0,SNR=4.6							
JHJ					LR	LR	18 57 53.4	
	comp=Z,85nm,21.6s,baz=3.5,slow=36							
	comp=Z,51nm,0.9s							
SPIA	**Saint Paul Isl**	**20.89**	**57**		P	**P**	**18 49 48.8**	**+1.3**
CN2	**Changchun**	**21.99**	**266**		P	**P**	**18 49 56.5**	**-2.8**
CN2					S	**S**	**18 53 58.5**	**-0.3**
CN2					pmax	pmax		
	comp=Z,10.0nm,0.5s							
CN2					pmax	pmax		
	comp=Z,200nm,4.0s							
CN2					L	L		
	comp=Z,1µm,20.0s							
CN2					L	L		
	comp=Z,1µm,20.0s							
CN2					L	L		
	comp=Z,1µm,22.0s							
UNV	**Unalaska Valle**	**23.00**	**66**		P	**P**	**18 50 11.7**	**+1.8**
JMN	**Monobe**	**23.22**	**234**		P	**P**	**18 50 13.3**	**+1.0**
JMN	**Monobe**	**23.22**	**234**		P	**P**	**18 50 11.7**	**-0.6**
JMN					IAmb	IAmb	18 50 30.8	
	comp=Z,133nm,1.3s							
HILR	**Hailar Array B**	**23.60**	**283**		P	**P**	**18 50 14.0**	**-1.8**
	comp=Z,18nm,0.4s,baz=74,slow=11,SNR=28							
HILR					LR	LR	19 00 33.2	
	comp=Z,2µm,18.4s,baz=50,slow=39							
	comp=Z,18nm,0.4s							
HIA	**Hailar**	**23.68**	**283**		P	**P**	**18 50 17.6**	**+1.1**
WECS	**Westdahl Cape**	**23.95**	**64**		P	**P**	**18 50 18.0**	**-1.0**
KSRS	**Korea Array**	**23.96**	**250**		P	**P**	**18 50 19.4**	**+0.4**
	comp=Z,38nm,0.9s,baz=49,slow=9.5,SNR=30							
KSRS					PcP	**PcP**	**18 53 59.0**	**-1.0**
	comp=Z,4.1nm,0.8s,baz=6.9,slow=1.7,SNR=5.8							
KSRS					LR	LR	18 59 01.7	
	comp=Z,2µm,19.8s,baz=50,slow=35							
	comp=Z,38nm,0.9s							
KS19	**Wonju Array Si**	**23.96**	**250**		P	**P**	**18 50 19.1**	**-0.1**
KS19					IAmb	IAmb	18 50 25.6	
	comp=Z,53nm,0.8s							
KSAR	**Wonju Array Be**	**23.99**	**250**		P	**P**	**18 50 19.0**	**-0.4**
KSAR	**Wonju Array Be**	**23.99**	**250**		P	**P**	**18 50 19.0**	**-0.4**
TNA	**Tin City**	**24.15**	**36**		P	**P**	**18 50 21.3**	**+0.7**
TNA					IAmb	IAmb	18 50 22.7	
	comp=Z,92nm,0.7s							
K13K	**Kusilvak Mount**	**24.45**	**46**		P	**P**	**18 50 24.2**	**+0.8**
K13K					IAmb	IAmb	18 50 25.4	
	comp=Z,95nm,1.3s							
ANM	**Nome**	**24.81**	**39**		P	**P**	**18 50 27.7**	**+1.1**
ANM					pmax	pmax		
	comp=Z,119nm,1.2s							
ANM	**Nome**	**24.81**	**39**		P	**P**	**18 50 27.7**	**+1.1**
ANM					IAmb	IAmb	18 50 29.7	
	comp=Z,119nm,1.2s							
M13K	**Dall Lake**	**24.83**	**50**		IAmb	IAmb	18 50 28.9	
	comp=Z,67nm,0.8s							
TJN	**Taejon**	**25.00**	**248**		P	**P**	**18 50 29.9**	**+1.3**
TJN	**Taejon**	**25.00**	**248**		P	**P**	**18 50 27.9**	**-0.7**
TJN					pmax	pmax		
	comp=Z,141nm,0.8s							
TJN	**Taejon**	**25.00**	**248**		P	**P**	**18 50 27.9**	**-0.7**
JTU	**Tsushima**	**25.09**	**242**		P	**P**	**18 50 29.2**	**-0.2**
J14K	**Nanvaranak Lak**	**25.12**	**44**		IAmb	IAmb	18 50 46.2	
	comp=Z,64nm,0.9s							
TIXI	**Tiksi**	**25.17**	**340**		LR	LR	19 01 41.0	
	comp=Z,2µm,18.2s,baz=149,slow=40							
TIXI	**Tiksi**	**25.17**	**340**		P	**P**	**18 50 28.5**	**-1.3**
TIXI					pmax	pmax		
	comp=Z,63nm,0.6s							
TIXI	**Tiksi**	**25.17**	**340**		P	**P**	**18 50 28.5**	**-1.3**
TIXI					IAmb	IAmb	18 50 34.0	
	comp=Z,63nm,0.6s							
TIXI	**Tiksi**	**25.17**	**340**		P	**P**	**18 50 28.0**	**-1.8**
	comp=Z,101nm,0.7s							
L14K	**Kuka Creek**	**25.28**	**48**		P	**P**	**18 50 32.0**	**+1.1**
L14K					IAmb	IAmb	18 50 33.5	
	comp=Z,71nm,1.0s							
JNU	**Nakatsue**	**25.29**	**238**		P	**P**	**18 50 32.1**	**+0.8**
	comp=Z,98nm,0.9s,baz=35,slow=1.7,SNR=28							
JNU					LR	LR	19 01 05.8	
	comp=Z,600nm,21.0s,baz=46,slow=38							
	comp=Z,98nm,0.9s							
JCJ	**Chichijima**	**25.30**	**211**		LR	LR	19 01 00.3	
	comp=Z,203nm,20.1s,baz=354,slow=37							
JCJ	**Chichijima**	**25.30**	**211**		P	**P**	**18 50 31.2**	**-0.1**
S12K	**Black Hills**	**25.41**	**61**		P	**P**	**18 50 33.6**	**+1.4**
BOD	**Bodaibo**	**25.89**	**304**	*e*	P	**P**	**18 50 39.2**	**+2.7**
BOD					pmax	pmax		
	comp=Z,57nm,1.2s							
K15K	**Wolf Creek Mou**	**25.96**	**46**		IAmb	IAmb	18 50 53.9	
	comp=Z,76nm,1.0s							
N15K	**Kwethluk River**	**26.43**	**51**		IAmb	IAmb	18 50 55.9	
	comp=Z,61nm,0.8s							
JSU	**Suzuyama**	**26.76**	**236**		P	**P**	**18 50 45.8**	**+1.2**
JSU	**Suzuyama**	**26.76**	**236**		P	**P**	**18 50 44.2**	**-0.3**
JSU	**Suzuyama**	**26.76**	**236**		P	**P**	**18 50 43.9**	**-0.7**
	comp=Z,140nm,0.7s							
CIT	**Chita**	**26.84**	**291**	*e*	P	**P**	**18 50 43.0**	**-2.1**
CIT				*e*			18 50 57.4	
CIT				*e*			18 51 07.6	
CIT				*e*			18 51 24.6	
CIT				*e*			18 54 09.8	
CIT				*e*			18 55 09.6	
CIT				*e*			18 56 53.8	
RDOG	**Red Dog Mine**	**26.94**	**33**		P	**P**	**18 50 46.4**	**+0.6**
RDOG					IAmb	IAmb	18 50 47.3	
	comp=Z,72nm,0.7s							
DL2	**Dalian**	**26.99**	**259**		P	**P**	**18 50 48.5**	**+2.0**
DL2					pP	**pP**	**18 51 02.5**	**+2.6**
DL2					S	**S**	**18 55 25.8**	**+5.7**
DL2					pmax	pmax		
	comp=Z,31nm,0.9s							
DL2					pmax	pmax		
	comp=Z,760nm,5.8s							
DL2					L	L		
	comp=Z,2µm,17.5s							
DL2					L	L		
	comp=Z,1µm,16.1s							
DL2					L	L		
	comp=Z,1µm,12.6s							
CHGN	**Chignik**	**27.40**	**59**		P	**P**	**18 50 51.4**	**+1.4**
P16K	**Nushagak River**	**27.47**	**53**		P	**P**	**18 50 51.5**	**+0.8**
P16K					IAmb	IAmb	18 50 52.2	
	comp=Z,82nm,0.9s							
C18K	**Utukok River**	**27.75**	**32**		IAmb	IAmb	18 50 54.4	
	comp=Z,85nm,0.7s							
XLT	**XiLinHaoTe**	**27.99**	**273**	*e*	P	**P**	**18 50 57.5**	**+1.9**
XLT					pP	pP	18 51 09.8	+0.8
XLT					sP	sP	18 51 15.8	+0.5
XLT					PcP	**PcP**	**18 54 09.8**	**+0.5**
XLT					S	**S**	**18 55 41.3**	**+5.3**
XLT					sS	sS	18 56 00.0	+1.3
XLT					pmax	pmax		
	comp=Z,33nm,1.1s							
XLT					L	L		
	comp=Z,4µm,17.0s							
XLT					L	L		
	comp=Z,5µm,14.5s							
P17K	**Kvichak River**	**28.27**	**53**		IAmb	IAmb	18 51 22.9	
	comp=Z,40nm,0.7s							
D19K	**Kuna River**	**28.77**	**33**		IAmb	IAmb	18 51 03.6	
	comp=Z,61nm,0.8s							
E19K	**Redstone River**	**28.81**	**35**		P	**P**	**18 51 02.7**	**+0.1**
D20K	**Etivluk River**	**29.36**	**33**		IAmb	IAmb	18 51 09.0	
	comp=Z,135nm,1.1s							
BJI2	**Beijing**	**29.87**	**266**		P	**P**	**18 51 10.8**	**-1.3**
BJI2					PcP	**PcP**	**18 54 14.3**	**+0.3**
BJI2					S	**S**	**18 56 01.3**	**-4.0**
BJI2					pmax	pmax		
	comp=Z,7.0nm,0.8s							
BJI2					pmax	pmax		
	comp=Z,150nm,4.1s							
BJI2					L	L		
	comp=Z,1µm,20.2s							
BJI2					L	L		
	comp=Z,1µm,20.5s							
BJI2					L	L		
	comp=Z,2µm,23.3s							
IMAR	**Indian Mountai**	**29.89**	**39**		P	**P**	**18 51 11.5**	**-0.5**
OHAK	**Old Harbor**	**30.10**	**56**		P	**P**	**18 51 13.4**	**-0.6**
OHAK	**Old Harbor**	**30.10**	**56**		P	**P**	**18 51 13.1**	**-0.8**
PPLA	**Purkeypile**	**30.32**	**45**		P	**P**	**18 51 16.5**	**+0.4**
KDAK	**Kodiak Island**	**30.40**	**55**	*i*	P	**P**	**18 51 13.8**	**-2.8**
KDAK					pmax	pmax		
	comp=Z,102nm,1.9s							
KDAK	**Kodiak Island**	**30.40**	**55**		P	**P**	**18 51 15.7**	**-1.0**
KDAK					PcP	**PcP**	**18 54 15.8**	**+0.8**
D22K	**Ayikyak River**	**30.79**	**33**		P	**P**	**18 51 20.2**	**+0.2**
H11N2	**WAKE ISLAND Hy**	**31.24**	**161**		T	T	19 24 21.8	
	baz=348,slow=76,SNR=1908							
H11N1	**WAKE ISLAND Hy**	**31.25**	**161**		T	T	19 24 25.8	
	baz=348,slow=76,SNR=1866							
H11N3	**WAKE ISLAND Hy**	**31.25**	**161**		T	T	19 24 23.0	
	baz=348,slow=76,SNR=2884							
SLKM	**Skilak Lake**	**31.33**	**50**		IAmb	IAmb	18 51 26.0	
	comp=Z,45nm,1.1s							
TIA	**Tai'an**	**31.47**	**259**		P	**P**	**18 51 24.5**	**-1.8**
TIA					S	**S**	**18 56 29.5**	**-0.9**
TIA					pmax	pmax		
	comp=Z,14nm,2.4s							
TIA					L	L		
	comp=Z,1µm,16.7s							
TIA					L	L		
	comp=Z,1µm,17.5s							
JOW	**Kunigami**	**31.62**	**234**		P	**P**	**18 51 27.5**	**-0.2**
	comp=Z,50nm,0.7s,baz=42,slow=9.2,SNR=5.4							
JOW					LR	LR	19 05 35.1	
	comp=Z,645nm,21.1s,baz=25,slow=39							
	comp=Z,50nm,0.7s							
JOW	**Kunigami**	**31.62**	**234**		P	**P**	**18 51 26.9**	**-0.9**
JOW					IAmb	IAmb	18 51 29.3	
	comp=Z,83nm,1.0s							
NEA2	**Nenana**	**31.74**	**42**		IAmb	IAmb	18 51 44.5	
	comp=Z,26nm,0.7s							
SEW	**Seward**	**31.75**	**50**		P	**P**	**18 51 27.9**	**-0.5**
SEW					IAmb	IAmb	18 51 46.9	
	comp=Z,50nm,0.9s							
E23K	**Chandalar**	**31.77**	**35**		IAmb	IAmb	18 51 30.6	
	comp=Z,108nm,1.2s							
MCK	**McKinley**	**31.79**	**43**		IAmb	IAmb	18 51 30.6	
	comp=Z,33nm,0.9s							
RND	**Reindeer**	**31.83**	**44**		IAmb	IAmb	18 51 30.2	
	comp=Z,42nm,1.0s							
TOLK	**Toolik Lake Re**	**31.86**	**34**		IAmb	IAmb	18 51 30.6	
	comp=Z,36nm,0.6s							
GHO	**Glory Hole Cre**	**31.86**	**47**		IAmb	IAmb	18 51 50.0	
	comp=Z,49nm,1.1s							
ULN	**Ulaanbaatar**	**32.10**	**286**		P	**P**	**18 51 30.6**	**-1.3**
ULN	**Ulaanbaatar**	**32.10**	**286**		P	**P**	**18 51 33.7**	**+1.8**
ULN	**Ulaanbaatar**	**32.10**	**286**		P	**P**	**18 51 30.6**	**-1.3**
ULN	**Ulaanbaatar**	**32.10**	**286**		P	**P**	**18 51 31.0**	**-0.9**
ULN	**Ulaanbaatar**	**32.10**	**286**		P	**P**	**18 51 31.3**	**-0.7**
	comp=Z,13nm,1.3s							
WRH	**Wood River Hil**	**32.16**	**42**		IAmb	IAmb	18 51 36.4	
	comp=Z,32nm,1.0s							
COLA	**College**	**32.26**	**41**		P	**P**	**18 51 33.7**	**+0.8**
COLA	**College**	**32.26**	**41**		P	**P**	**18 51 33.6**	**+0.7**
COLA	**College**	**32.26**	**41**		P	**P**	**18 51 33.1**	**+0.2**
COLA					IAmb	IAmb	18 51 47.6	
	comp=Z,45nm,0.8s							
COLA	**College**	**32.26**	**41**		P	**P**	**18 51 33.8**	**+0.8**
	comp=Z,52nm,0.8s							
COLA	**College**	**32.26**	**41**		P	**P**	**18 51 33.5**	**+0.5**
COLA					pP	**pP**	**18 51 46.1**	**0.0**
COLA					sP	**sP**	**18 51 52.6**	**+0.3**
HNS	**HongShan**	**32.29**	**263**	⇑	P	**P**	**18 51 33.8**	**+0.3**
HNS					S	**S**	**18 56 46.5**	**+3.3**
HNS					pmax	pmax		
	comp=Z,21nm,0.9s							
HNS					L	L		
	comp=Z,550nm,16.4s							
HNS					L	L		
	comp=Z,1µm,18.6s							
HNS					L	L		
	comp=Z,1µm,23.3s							
C24K	**Franklin Bluff**	**32.33**	**32**		IAmb	IAmb	18 51 35.2	
	comp=Z,40nm,0.8s							
SSE	**Sheshan**	**32.36**	**248**		P	**P**	**18 51 31.8**	**-2.4**
SSE					S	**S**	**18 56 42.0**	**-2.4**
SSE					pmax	pmax		
	comp=Z,7.0nm,1.0s							
SSE					pmax	pmax		
	comp=Z,100nm,3.8s							
SSE					L	L		
	comp=Z,420nm,18.5s							
SSE					L	L		
	comp=Z,320nm,19.9s							
F24K	**Squaw Lake**	**32.37**	**36**		IAmb	IAmb	18 51 36.6	
	comp=Z,28nm,0.7s							
H11S1	**WAKE ISLAND Hy**	**32.38**	**162**		T	T	19 25 50.9	
	baz=348,slow=76,SNR=7532							
H11S3	**WAKE ISLAND Hy**	**32.40**	**162**		T	T	19 25 48.6	
	baz=348,slow=76							
HHC	**Hu-ho-hao-te**	**32.40**	**271**	*e*	P	**P**	**18 51 33.5**	**-1.1**
HHC					S	**S**	**18 56 45.0**	**-0.1**
HHC					pmax	pmax		
	comp=Z,11nm,0.5s							
HHC					pmax	pmax		
	comp=Z,130nm,3.9s							
HHC					L	L		
	comp=Z,1µm,17.2s							
HHC					L	L		
	comp=Z,2µm,17.2s							
HHC					L	L		
	comp=Z,2µm,17.2s							
H11S2	**WAKE ISLAND Hy**	**32.40**	**162**		T	T	19 25 49.2	
	baz=348,slow=76,SNR=8325							
POKR	**Poker Plat Res**	**32.44**	**41**		IAmb	IAmb	18 51 37.6	
	comp=Z,29nm,0.6s							
G24K	**Hadweenzic Riv**	**32.47**	**38**		IAmb	IAmb	18 51 38.3	
	comp=Z,77nm,0.9s							
SONM	**Songino Array**	**32.52**	**286**		P	**P**	**18 51 35.2**	**-0.4**
	comp=Z,3.1nm,0.5s,baz=74,slow=7.9,SNR=20							
SONM					PcP	**PcP**	**18 54 21.3**	**+0.2**
	comp=Z,6.8nm,0.6s,baz=120,slow=2.7,SNR=12							
SONM					LR	LR	19 05 33.9	
	comp=Z,1µm,20.4s,baz=73,slow=38							
	comp=Z,3.1nm,0.5s							
**SONM

PRP Porcupine Dome 33.24 40 IAmb IAmb 18 51 43.4
comp=Z,43nm,1.1s
KLU Klutina 33.32 48 IAmb IAmb 18 51 43.3
comp=Z,48nm,1.2s
ZAK Zakamensk 33.49 292 eP P 18 51 43.5 -0.5
ZAK pmax pmax
comp=Z,12nm,1.0s
BTO2 Baotou 33.55 272 eP P 18 51 44.0 -0.6
BTO2 pP pP 18 51 56.0 -2.2
BTO2 S S 18 57 03.0 +0.1
BTO2 SS SnSn 18 59 06.3 -3.1
BTO2 pmax pmax
comp=Z,17nm,0.8s
BTO2 pmax pmax
comp=Z,410nm,10.1s
BTO2 L L
comp=Z,4µm,20.6s
BTO2 L L
comp=Z,5µm,16.6s
BTO2 L L
comp=Z,8µm,17.1s
HARP HAARP 33.58 46 IAmb IAmb 18 51 45.9
comp=Z,36nm,0.8s
RIDG Independent Ri 33.61 43 IAmb IAmb 18 51 45.5
comp=Z,43nm,1.0s
BMAR Burnt Mountain 33.63 37 P P 18 51 45.7 +0.7
G26K Porcupine Rive 33.94 38 IAmb IAmb 18 51 50.8
comp=Z,40nm,0.8s
MENT Mentasta 34.19 45 P P 18 51 50.6 +0.8
VRDI Verde Repeater 34.53 48 IAmb IAmb 18 51 54.9
comp=Z,55nm,1.4s
M26K Nabesna, AK 34.58 46 IAmb IAmb 18 51 55.7
comp=Z,44nm,1.0s
E27K Coleen River 34.78 35 IAmb IAmb 18 51 57.1
comp=Z,42nm,1.1s
H27K Steamboat Moun 34.86 39 IAmb IAmb 18 52 10.0
BCAR Beaver Creek A 35.05 44 P P 18 51 58.3 +1.0
M27K Edge Creek, AK 35.10 46 IAmb IAmb 18 52 00.4
comp=Z,55nm,1.0s
LOGN Logan Glacier 35.78 48 IAmb IAmb 18 52 18.5
comp=Z,41nm,0.7s
I29M Ogilvie Camp, 36.26 40 IAmb IAmb 18 52 10.0
comp=Z,19nm,0.6s
YOJ Yonaguni jima 36.34 238 P P 18 52 07.3 -1.3
YOJ pmax pmax
comp=Z,993nm,2.0s
YOJ Yonaguni jima 36.34 238 P P 18 52 07.3 -1.3
M29M Somme Creek 36.66 45 IAmb IAmb 18 52 13.5
comp=Z,39nm,0.8s
TATO Taipei 36.78 240 P P 18 52 11.7 -0.7
KNGR Kungurtug, Tuv 36.84 294 i P P 18 52 10.3 -2.5
KNGR pmax pmax
comp=Z,12nm,1.2s
G30M tAoh Zraii Nji 36.91 37 IAmb IAmb 18 52 14.5
comp=Z,24nm,0.7s
WHN Wuhan 36.93 254 ⇑P P 18 52 13.8 +0.2
F30M Barrier River 37.00 36 IAmb IAmb 18 52 17.8
comp=Z,56nm,0.8s
YHNB Yeheng 37.08 240 P P 18 52 13.9 -1.1
NRIK Noril'sk 37.28 327 P P 18 52 14.4 -1.7
comp=Z,4.6nm,0.6s,baz=102,slow=9.8,SNR=11
NRIK PcP PcP 18 54 35.5 +1.1
comp=Z,13nm,0.8s,baz=260,slow=3.9,SNR=4.5
NRIK LR LR 19 09 03.3
comp=Z,1µm,18.2s,baz=75,slow=38
comp=Z,4.6nm,0.6s
NRIK Noril'sk 37.28 327 P P 18 52 14.6 -1.5
NRIK PcP 18 54 35.2 +0.8
NACB Ninganchiao 37.35 239 P P 18 52 15.4 -1.8
GUMO Guam 37.45 199 LR LR 19 04 44.8
comp=Z,408nm,21.0s,baz=34,slow=31
INK Inuvik 37.77 35 LR LR 19 08 52.0
comp=Z,869nm,21.9s,baz=280,slow=38
INK Inuvik 37.77 35 P P 18 52 21.5 +1.3
comp=Z,88nm,0.8s
F31M Tsiigehtchic 37.80 36 IAmb IAmb 18 52 22.6
comp=Z,53nm,0.9s
SSLB Suanglung 38.01 240 P P 18 52 21.3 -1.5
XAN Xi'an 38.07 264 P P 18 52 24.5 +1.2
XAN pP sP 18 52 40.8 -2.4
XAN sP pP 18 52 47.3 +10
XAN PcP PcP 18 54 38.3 +0.8
XAN pmax pmax
comp=Z,10.0nm,1.0s
XAN L L
comp=Z,760nm,16.5s
XAN L L
comp=Z,2µm,19.2s
XAN L L
comp=Z,2µm,20.6s
YULB Yu-li 38.13 239 P P 18 52 22.8 -1.0
TPUB Ta-pu 38.58 240 P P 18 52 28.1 +0.5
TPUB Ta-pu 38.58 240 P P 18 52 27.5 -0.1
TWG Pinlang 38.71 239 P P 18 52 28.0 -0.7
SKAG Skagway 38.86 49 P P 18 52 31.5 +2.0
SKAG Skagway 38.86 49 IAmb IAmb 18 52 32.8
comp=Z,42nm,0.9s
BESE Bessie Mountai 39.36 50 IAmb IAmb 18 52 36.2
comp=Z,27nm,0.8s
N32M Quiet Lake 39.45 46 IAmb IAmb 18 52 36.8
comp=Z,43nm,0.9s
R32K Eaglecrest 39.63 51 IAmb IAmb 18 52 51.7
comp=Z,32nm,0.8s
JIS Juneau Island 39.70 51 P P 18 52 38.1 +1.6
P33M Teslin, Yukon 39.85 47 IAmb IAmb 18 52 41.4
comp=Z,65nm,1.0s
A36M Sachs Harbour 40.01 28 P P 18 52 40.1 +1.2
LZH Lanzhou 40.08 270 eP P 18 52 39.5 -0.7
LZH pmax pmax
comp=Z,59nm,1.1s
LZH pmax pmax
comp=Z,230nm,4.8s
LZH L L
comp=Z,2µm,19.9s
LZH L L
comp=Z,2µm,19.9s
LZH L L
comp=Z,2µm,20.5s
ENH Enshi 40.17 259 P P 18 52 41.3 +0.4
ENH Enshi 40.17 259 P P 18 52 41.3 +0.4
ENH PcP PcP 18 54 44.5 +0.3
LZDM Lanzhou Array 40.26 270 P P 18 52 42.1 +0.3
comp=Z,6.3nm,0.4s,baz=52,slow=2.4,SNR=16
LZDM PcP PcP 18 54 46.0 +1.3
comp=Z,5.4nm,0.5s,baz=75,slow=1.7,SNR=4.0
LZDM LR LR 19 09 51.7
comp=Z,1µm,21.9s,baz=50,slow=37
comp=Z,6.3nm,0.4s
GTA2 Gaotai 40.74 278 P P 18 52 44.5 -1.1
GTA2 PcP PcP 18 54 47.0 +1.0
GTA2 PcS PcS 18 58 37.5 +0.5
GTA2 pmax pmax
comp=Z,16nm,1.1s
GTA2 L L
comp=Z,1µm,16.8s
GTA2 L L
comp=Z,3µm,16.8s
GTA2 L L
comp=Z,4µm,17.5s
WRAK Wrangell Islan 41.38 53 P P 18 52 50.8 +0.3
WRAK IAmb IAmb 18 53 06.8
comp=Z,38nm,0.8s
DLBC Dease Lake 41.80 49 P P 18 52 56.3 +2.4
comp=Z,27nm,0.8s,baz=269,slow=7.0,SNR=45
DLBC LR LR 19 12 30.2
comp=Z,533nm,19.5s,baz=288,slow=39
comp=Z,27nm,0.8s
T35M Bob Quinn 42.24 51 IAmb IAmb 18 53 01.6
comp=Z,67nm,1.1s
ZAA0 Zalesovo Array 42.65 304 P P 18 52 58.9 -1.9
ZAA0 PcP PcP 18 54 50.1 -1.8
ZALV Zalesovo Beam 42.65 304 P P 18 52 59.0 -1.7
comp=Z,6.1nm,0.4s,baz=58,slow=6.7,SNR=35
ZALV PcP PcP 18 54 51.0 -0.9
comp=Z,29nm,0.9s,baz=64,slow=3.4,SNR=20
ZALV LR LR 19 11 21.6
comp=Z,481nm,18.7s,baz=47,slow=37
comp=Z,6.1nm,0.4s
ZALV Zalesovo Beam 42.65 304 P P 18 52 58.6 -2.1
ZALV PcP PcP 18 54 50.7 -1.2
SZP Santa 43.33 235 P P 18 53 08.8 +2.1
CD2 Chengdu 43.41 264 P P 18 53 08.3 +1.0
CD2 S S 18 59 31.8 +0.2
CD2 pmax pmax
comp=Z,20nm,0.4s
CD2 L L
comp=Z,1µm,14.6s
CD2 L L
comp=Z,1µm,15.9s
CD2 L L
comp=Z,1µm,18.4s
HG4B Hotspring 43.72 58 P P 18 53 10.1 +0.6
GYA Guiyang 44.61 257 ⇓P P 18 53 17.5 +0.5
GYA pP pP 18 53 30.5 -0.5
GYA S S 18 59 49.5 +0.3
GYA pmax pmax
comp=Z,34nm,1.0s
GYA pmax pmax
comp=Z,250nm,3.7s
GYA L L
comp=Z,720nm,14.5s
GYA L L
comp=Z,890nm,18.4s
GYA L L
comp=Z,990nm,16.5s
GQP Guinayangan 45.38 230 i P P 18 53 23.7 +0.7
BBB Bella Bella 45.45 57 LR LR 19 12 40.1
comp=Z,362nm,18.1s,baz=298,slow=36
ZSN Zaisan 45.68 296 eP P 18 53 25.1 -0.1
ZSN Zaisan 45.68 296 eP P 18 53 25.1 -0.1
GOMU GeErMu 45.84 277 P P 18 53 24.8 -2.2
GOMU pmax pmax
comp=Z,7.0nm,0.7s
GOMU L L
comp=Z,790nm,13.6s
GOMU L L
comp=Z,330nm,13.8s
GOMU L L
comp=Z,660nm,13.2s
WMQ Urumqi 45.92 290 eP P 18 53 27.8 +0.6
WMQ PcP PcP 18 55 04.3 +1.0
WMQ pmax pmax
comp=Z,20nm,1.1s
WMQ L L
comp=Z,1µm,12.1s
WMQ L L
comp=Z,830nm,19.5s
WMQ L L
comp=Z,1µm,24.1s
ALE Alert 46.35 7 P P 18 53 30.1 +0.1
ALE PcP PcP 18 55 05.4 +1.2
YKAW3 Yellowknife Wh 47.01 39 P P 18 53 36.0 +0.7
YKA Yellowknife Ar 47.04 39 P P 18 53 36.5 +0.9
comp=Z,36nm,0.8s,baz=297,slow=7.2,SNR=91
YKA PcP PcP 18 55 07.6 +0.8
comp=Z,6.6nm,0.8s,baz=299,slow=3.5,SNR=5.8
YKA LR LR 19 17 05.0
comp=Z,534nm,19.1s,baz=280,slow=41
comp=Z,36nm,0.8s
YKA Yellowknife Ar 47.04 39 P P 18 53 36.2 +0.6
YKAW1 Yellowknife Wh 47.10 39 IAmb IAmb 18 53 38.2
comp=Z,66nm,1.1s
RES Resolute Bay 47.10 20 LR LR 19 15 04.0
comp=Z,487nm,20.6s,baz=345,slow=38
RES Resolute Bay 47.10 20 P P 18 53 36.9 +1.0
RES pmax pmax
comp=Z,56nm,0.7s
RES Resolute Bay 47.10 20 P P 18 53 36.9 +1.0
RES Resolute Bay 47.10 20 P P 18 53 36.8 +0.9
comp=Z,91nm,0.9s
KURK Kurchatov 47.52 303 P P 18 53 38.2 -1.3
KURK Kurchatov 47.52 303 P P 18 53 39.4 -0.1
KURK 18 55 09.3
KURK Kurchatov 47.52 303 P P 18 53 38.5 -1.0
KURK PcP PcP 18 55 08.4 -0.3
KURK Kurchatov 47.52 303 P P 18 53 38.4 -1.0
comp=Z,66nm,0.5s
KURK Kurchatov 47.52 303 P P 18 53 38.6 -1.0
KURK pP pP 18 53 51.6 -2.0
KURK PcP PcP 18 55 08.8 +0.1
MK31 Makanchi Array 47.52 296 eP P 18 53 39.1 -0.5
MK31 pmax pmax
comp=Z,8.0nm,0.6s
MKAR Makanchi Array 47.52 296 P P 18 53 38.9 -0.7
comp=Z,12nm,0.5s,baz=44,slow=5.5,SNR=179
MKAR PcP PcP 18 55 09.0 +0.1
comp=Z,9.3nm,0.7s,baz=52,slow=4.8,SNR=5.0
MKAR LR LR 19 14 55.1
comp=Z,3µm,19.7s,baz=44,slow=38
comp=Z,12nm,0.5s
MKAR Makanchi Array 47.52 296 P P 18 53 39.0 -0.7
MKAR PcP PcP 18 55 08.1 -0.8
KURBB Kurchatov Arra 47.62 303 P P 18 53 39.4 -0.9
comp=Z,24nm,0.5s,baz=67,slow=8.3,SNR=155
KURBB PcP PcP 18 55 09.3 +0.2
comp=Z,33nm,0.9s,baz=62,slow=3.4,SNR=15
KURBB LR LR 19 15 12.9
comp=Z,881nm,19.9s,baz=120,slow=38
comp=Z,24nm,0.5s
KURBB Kurchatov Arra 47.62 303 P P 18 53 38.9 -1.4
KURBB pmax pmax
comp=Z,39nm,0.8s
MAKZ Makanchi 47.70 296 P P 18 53 40.2 -0.8
MAKZ Makanchi 47.70 296 P P 18 53 40.0 -1.0
MAKZ IAmb IAmb 18 53 41.2
comp=Z,76nm,1.6s
MAKZ PcP PcP 18 55 09.2 -0.3
MAKZ Makanchi 47.70 296 P P 18 53 40.1 -0.8
comp=Z,33nm,1.4s
MAKZ Makanchi 47.70 296 P P 18 53 39.9 -1.1
MAKZ pP pP 18 53 53.1 -2.0
MAKZ PcP PcP 18 55 10.6 +1.1
PZH PanZhiHua 47.70 262 P P 18 53 41.5 +0.2
PZH S S 19 00 29.8 -3.8
PZH pmax pmax
comp=Z,10.0nm,0.8s
PZH L L
comp=Z,660nm,19.2s
PZH L L
comp=Z,730nm,18.6s
PZH L L
comp=Z,490nm,17.5s
KMI2 Kunming 48.01 259 ⇑P P 18 53 44.8 +0.9
KMI2 pP pP 18 53 59.3 +1.3
KMI2 pmax pmax
comp=Z,16nm,0.8s
KMI2 pmax pmax
comp=Z,280nm,4.6s
KMI2 L L
comp=Z,1µm,19.6s
KMI2 L L
comp=Z,650nm,17.8s
KMI2 L L
comp=Z,720nm,14.2s
QIZ Qiongzhong 48.16 247 P P 18 53 44.5 -0.3
QIZ S S 19 00 41.0 +1.1
QIZ pmax pmax
comp=Z,560nm,4.8s
QIZ L L
comp=Z,660nm,16.6s
QIZ L L
comp=Z,700nm,15.2s
QIZ L L
comp=Z,740nm,17.1s
POHA Pohakuloa 48.40 111 P P 18 53 47.2 +0.4
MLOA Mauna Loa Obse 48.54 111 P P 18 53 48.7 +0.5
HMH Humu'ula Sheep 48.54 111 P P 18 53 48.3 +0.2
NOR Nord 48.68 359 i P P 18 53 47.5 -0.6
NOR IAmb IAmb 18 53 49.2
comp=Z,4.8nm,0.7s
MLH Mauna Loa 48.69 111 P P 18 53 49.5 +0.4
LLLB Lillooet 49.61 56 P P 18 53 55.5 -0.1
SPA0 Spitsbergen Ar 49.89 350 eP P 18 53 56.4 -1.0
SPITS Spitsbergen Ar 49.89 350 P P 18 53 56.1 -1.3
comp=Z,7.7nm,0.4s,baz=64,slow=7.7,SNR=15
SPITS LR LR 19 16 42.3
comp=Z,343nm,18.3s,baz=30,slow=38
comp=Z,7.7nm,0.4s
SPB2 Spitsbergen Ar 49.89 350 P P 18 53 56.1 -1.2
SPB2 PcP PcP 18 55 17.1 +0.2
SLVN Son La 50.05 255 P P 18 54 00.9 +1.6
SLVN Son La 50.05 255 P P 18 54 00.5 +1.2
SLVN PcP PcP 18 55 18.3 -0.1
SLVN Son La 50.05 255 P P 18 54 00.5 +1.2
comp=Z,69nm,1.1s
NLWA Neilton Lookou 50.30 60 P P 18 54 01.6 +0.8
NLWA IAmb IAmb 18 54 19.7
comp=Z,32nm,1.0s
TULEG Thule 50.57 12 P P 18 54 01.9 -0.5
TULEG IAmb IAmb 18 54 02.8
comp=Z,22nm,0.7s
TULEG Thule 50.57 12 i P P 18 54 01.9 -0.5
TULEG IAmb IAmb 18 54 02.9
comp=Z,21nm,0.7s
BVAR Borovoye Array 50.61 309 P P 18 54 02.1 -1.0
comp=Z,22nm,0.6s,baz=58,slow=8.3,SNR=183
BVAR PcP PcP 18 55 19.1 -0.9
comp=Z,53nm,1.0s,baz=62,slow=3.5,SNR=9.1
comp=Z,22nm,0.6s
BORK Borovoye 50.64 309 P P 18 54 01.7 -1.5
BORK IAmb IAmb 18 54 03.2
comp=Z,23nm,0.7s
BORK PcP PcP 18 55 19.1 -0.9
TNCH TengChong 50.80 263 ⇑P P 18 54 06.3 +1.2
TNCH S S 19 01 19.0 +1.8
TNCH pmax pmax
comp=Z,37nm,1.0s
TNCH pmax pmax
comp=Z,200nm,3.1s
TNCH L L
comp=Z,360nm,16.0s
TNCH L L
comp=Z,570nm,15.3s
TNCH L L
comp=Z,1µm,18.1s
PDGK Podgornoye 51.12 294 P P 18 54 06.5 -0.7
PDGK Podgornoye 51.12 294 P P 18 54 06.5 -0.7
PDGK PcP PcP 18 55 20.6 -1.6
SHLS Shalkode 51.23 294 eP P 18 54 05.9 -2.2
SHLS pmax pmax
comp=Z,12nm,0.5s
SHLS Shalkode 51.23 294 eP P 18 54 05.1 -3.0
comp=Z,12nm,0.5s
D05A Enumclaw 51.47 60 IAmb IAmb 18 54 25.6
comp=Z,30nm,0.8s
UZB Uzynbulak 51.50 294 eP P 18 54 09.8 -0.3
UZB Uzynbulak 51.50 294 eP P 18 54 09.9 -0.3
KPKS Kokpek 51.51 295 eP P 18 54 10.2 +0.1
KPKS Kokpek 51.51 295 eP P 18 54 10.3 +0.1
NEEM North Greenlan 51.75 7 i P P 18 54 11.4 -0.3
NEEM IAmb IAmb 18 54 12.6
comp=Z,70nm,0.7s
JRO Jston Ridge Ob 51.87 61 IAmb IAmb 18 54 32.0
comp=Z,54nm,1.1s
SATY Saty 51.91 294 eP P 18 54 13.2 0.0
SATY Saty 51.91 294 eP P 18 54 13.2 0.0
POIN Pond Inlet 52.01 18 P P 18 54 13.1 -0.1
POIN IAmb IAmb 18 54 14.3
comp=Z,35nm,0.9s
LTY Liberty 52.16 59 IAmb IAmb 18 54 29.0
comp=Z,40nm,1.7s
COR Corvallis 52.24 63 P P 18 54 17.2 +1.8
COR pP pwP 18 54 30.3 -1.0
PRZ Przheval'sk 52.26 294 P P 18 54 15.0 -0.8
PRZ pmax pmax
comp=Z,36nm,0.7s
PRZ Przheval'sk 52.26 294 P P 18 54 15.0 -0.8
PRZ PcP PcP 18 55 26.9 +0.3
PRZ IAmb IAmb 18 55 28.6
comp=Z,36nm,0.7s
MANU Manus Island 52.35 192 P P 18 54 16.6 +0.2
MANU IAmb IAmb 18 54 18.0
comp=Z,29nm,1.1s
H04D Lebanon 52.61 63 IAmb IAmb 18 54 36.9
comp=Z,22nm,1.0s
KUU Kurty 52.62 296 eP P 18 54 18.3 +0.1
KUU Kurty 52.62 296 eP P 18 54 18.4 +0.1
MDOK Medeo 52.65 295 eP P 18 54 18.5 -0.1
MDOK Medeo 52.65 295 eP P 18 54 18.6 -0.1
AAA Alma-Ata 52.70 295 eP P 18 54 18.7 -0.2
AAA pmax pmax
comp=Z,7.0nm,0.4s
AAA Alma-Ata 52.70 295 eP P 18 54 18.8 -0.2
comp=Z,7.2nm,0.4s
I03D Drain, OR 52.75 64 IAmb IAmb 18 54 35.6
comp=Z,23nm,1.0s
HOOD Mount Hood Mea 52.75 61 IAmb IAmb 18 54 38.6
comp=Z,47nm,0.9s
TNSS Tian-Shan 52.78 295 eP P 18 54 19.8 -0.1
TNSS Tian-Shan 52.78 295 eP P 18 54 19.8 -0.1
E07A Sunnyside 53.02 59 IAmb IAmb 18 54 39.6
comp=Z,27nm,1.1s
SVE Sverdlovsk 53.05 317 eP P 18 54 20.5 -0.7
SVE pmax pmax
comp=Z,15nm,0.7s
SVE MLR MLR
comp=Z,1µm,18.0s
TARG Taragay, Kyrgy 53.07 293 P P 18 54 21.4 -0.7
TARG pmax pmax
comp=Z,32nm,0.7s
TARG Taragay, Kyrgy 53.07 293 P P 18 54 21.4 -0.7
TARG PcP PcP 18 55 30.1 +0.2
TARG IAmb IAmb 18 55 31.9
comp=Z,32nm,0.7s
TARG Taragay, Kyrgy 53.07 293 P P 18 54 22.6 +0.5
comp=Z,27nm,0.6s
K02D Willamette Mer 53.17 65 P P 18 54 23.4 +1.1
K02D IAmb IAmb 18 54 47.0
comp=Z,33nm,1.5s
KDJ Kajisay 53.20 294 P P 18 54 22.0 -0.7
KDJ pmax pmax
comp=Z,28nm,0.6s
KDJ Kajisay 53.20 294 P P 18 54 22.0 -0.7
KDJ IAmb IAmb 18 54 23.4
comp=Z,28nm,0.6s
KDJ Kajisay 53.20 294 P P 18 54 22.4 -0.3
comp=Z,39nm,1.0s
I04A Tendick Farm, 53.23 63 IAmb IAmb 18 54 38.7
comp=Z,26nm,1.0s
D08A Wollman Farm, 53.24 58 IAmb IAmb 18 54 39.2
comp=Z,37nm,1.7s
HAWA Hanford 53.30 59 IAmb IAmb 18 54 37.8
comp=Z,42nm,1.6s
F07A Phinny Hill Vi 53.38 60 IAmb IAmb 18 54 39.9
comp=Z,28nm,0.7s
NEW Newport 53.50 56 P P 18 54 25.1 +0.4
comp=Z,6.6nm,1.0s,baz=304,slow=8.5,SNR=9.2
NEW PcP PcP 18 55 31.4 +0.4
comp=Z,4.8nm,0.7s,baz=266,slow=6.8,SNR=4.3
NEW LR LR 19 15 33.9
comp=Z,335nm,21.6s,baz=320,slow=34
comp=Z,6.6nm,1.0s
NEW Newport 53.50 56 P P 18 54 25.3 +0.6
comp=Z,14nm,1.3s
E08A Dider Farm, El 53.51 59 IAmb IAmb 18 54 42.7
comp=Z,35nm,1.5s
I05D Terrebonne, OR 53.52 62 IAmb IAmb 18 54 39.9
comp=Z,77nm,1.8s
DAG Danmarks Havn 53.55 359 P P 18 54 23.9 -0.6
comp=Z,35nm,1.2s
DAG Danmarks Havn 53.55 359 i P P 18 54 24.0 -0.6
DAG IAmb IAmb 18 54 24.7
comp=Z,20nm,1.0s
L02F Cave Junction 53.57 66 P P 18 54 26.3 +1.1
L02F IAmb IAmb 18 54 42.2
comp=Z,24nm,1.1s
ILON Igloolik, Nuna 53.62 22 P P 18 54 25.3 +0.1
ILON PcP PcP 18 55 31.4 +0.5
TKM2 Tokmak 2 53.64 296 P P 18 54 25.6 -0.4
SNR=20
ULHL Ulahol 53.68 295 P P 18 54 26.1 -0.2
SNR=8.6
BOOM Boomskoye usch 53.70 295 P P 18 54 25.7 -0.7
BOOM Boomskoye usch 53.70 295 P P 18 54 25.7 -0.7
BOOM PcP PcP 18 55 31.0 -1.0
BOOM IAmb IAmb 18 55 33.5
comp=Z,34nm,0.7s
KULLO Kullorsuaq 53.76 11 P P 18 54 26.0 -0.1
comp=Z,96nm,1.1s
KULLO Kullorsuaq 53.76 11 i P P 18 54 25.8 -0.3
KULLO IAmb IAmb 18 54 26.5
comp=Z,105nm,1.1s
SMPI Sarmi 53.92 202 P P 18 54 29.4 +1.4
comp=Z,1µmcomp=Z,1µmcomp=Z,99nm,1.1s,comp=Z,99nm,1.1s
E09A Wood Farm, Sta 53.99 58 IAmb IAmb 18 54 43.9
comp=Z,23nm,0.8s
RABL Rabaul 54.02 185 P P 18 54 28.8 +0.1
USP Ospenovka 54.07 297 P P 18 54 29.2 +0.3
SNR=5.1
MORE Moreh 54.07 266 P P 18 54 27.7 -1.4
PINE Pine Mountain 54.08 62 IAmb IAmb 18 54 44.7
comp=Z,23nm,1.1s
CHMS Chumysh 54.09 296 P P 18 54 29.7 +0.6
SNR=6.0
GENI Genyem 54.16 200 P P 18 54 31.1 +1.4
GENI Genyem 54.16 200 P P 18 54 30.8 +1.1
GENI Genyem 54.16 200 P P 18 54 31.2 +1.5

comp=Z,131nm,1.0s
KBK Karagaybulak 54.18 296 P P 18 54 30.0 +0.1
SNR=8.1
J05D Fort Rock, OR 54.22 63 IAmb IAmb 18 54 32.5
comp=Z,26nm,0.8s
KHMM Horse Mountain 54.24 67 IAmb IAmb 18 54 32.9
comp=Z,24nm,0.8s
KMPM Mount Pierce 54.30 68 IAmb IAmb 18 54 33.7
comp=Z,47nm,1.0s
VADS Vadso 54.31 340 *eP* P 18 54 29.7 -0.4
ARTI Arti 54.31 317 LR LR 19 20 33.3
comp=Z,1μm,19.7s,baz=51,slow=39
ARTI Arti 54.31 317 *c i*P P 18 54 29.0 -1.4
ARTI *PP pP 18 54 45.8 +1.0
ARTI 18 55 33.4
ARTI 18 56 27.6
ARTI S S 19 02 01.5 -2.5
ARTI SS SKiKP 19 05 40.0 +4.5
ARTI pmax pmax
comp=Z,18nm,0.8s
ARTI MLR MLR
comp=Z,1μm,20.0s
ARTI Arti 54.31 317 P P 18 54 28.4 -2.0
ARTI PcP PcP 18 55 33.1 -0.7
YBH Yreka Blue Hor 54.32 65 P P 18 54 32.6 +1.8
comp=Z,13nm,0.6s,baz=344,slow=5.0,SNR=46
YBH LR LR 19 13 33.6
comp=Z,397nm,21.9s,baz=310,slow=31
comp=Z,13nm,0.6s
YBH Yreka Blue Hor 54.32 65 IAmb IAmb 18 54 46.6
comp=Z,20nm,0.8s
NRN Naryn 54.32 294 P P 18 54 30.9 -0.2
NRN pmax pmax
comp=Z,37nm,0.7s
NRN Naryn 54.32 294 P P 18 54 30.9 -0.2
NRN PcP 18 55 34.1 -0.4
ASAI AK-SAY(Kyrgyzs 54.33 293 P P 18 54 31.4 +0.2
comp=Z,37nm,1.1s
AAK Ala-Archa 54.46 296 LR LR 19 19 15.7
comp=Z,2μm,19.0s,baz=54,slow=38
AAK Ala-Archa 54.46 296 P P 18 54 31.4 -0.4
SNR=9.3
AAK Ala-Archa 54.46 296 *i*P P 18 54 31.6 -0.3
SNR=11
AAK Ala-Archa 54.46 296 P P 18 54 31.3 -0.5
AAK Ala-Archa 54.46 296 *ce*P P 18 54 31.8 -0.1
AAK pmax pmax
comp=Z,15nm,0.8s
AAK Ala-Archa 54.46 296 P P 18 54 31.1 -0.8
AAK PcP PcP 18 55 34.1 -0.8
AAK Ala-Archa 54.46 296 P P 18 54 31.5 -0.4
comp=Z,22nm,1.2s
AAK Ala-Archa 54.46 296 P P 18 54 31.5 -0.4
AAK pP pP 18 54 45.1 -1.2
AAK PcP PcP 18 55 34.9 +0.1
KMRM Mail Ridge 54.66 67 IAmb IAmb 18 54 35.8
comp=Z,21nm,0.8s
UCH Uchtor 54.70 296 P PcP 18 55 37.1 +1.0
SNR=9.7
K05A Summer Lake 54.76 63 P P 18 54 35.3 +1.2
K05A IAmb IAmb 18 54 49.9
comp=Z,38nm,1.0s
K05A PcP PcP 18 55 36.3 +0.2
F10A Beach Ranch, E 54.83 58 IAmb IAmb 18 55 06.0
comp=Z,45nm,1.9s
EKS2 Erkin-Say 54.86 297 P P 18 54 34.4 -0.4
SNR=20
M03C McCloud 54.95 66 IAmb IAmb 18 54 50.8
comp=Z,31nm,0.9s
CHTO Chiang Mai 55.03 257 P P 18 54 36.7 +0.7
CHTO Chiang Mai 55.03 257 P P 18 54 37.4 +1.3
CHTO Chiang Mai 55.03 257 P P 18 54 36.9 +0.8
CHTO pmax pmax
comp=Z,113nm,0.9s
CHTO Chiang Mai 55.03 257 P P 18 54 36.9 +0.8
CHTO Chiang Mai 55.03 257 P P 18 54 36.8 +0.7
CHTO Chiang Mai 55.03 257 P P 18 54 37.5 +1.4
comp=Z,150nm,1.0s
KCPM Cahto Peak 55.08 68 IAmb IAmb 18 54 51.8
comp=Z,30nm,1.0s
O02D Mt. Diablo Mer 55.24 67 IAmb IAmb 18 54 58.7
comp=Z,21nm,1.0s
CM31 Chiang Mai Arr 55.29 257 P P 18 54 40.0 +2.0
SNR=24
CMAR Chiang Mai Arr 55.29 257 P P 18 54 39.5 +1.5
comp=Z,67nm,0.9s,baz=29,slow=7.1,SNR=345
comp=Z,67nm,0.9s
CMAR Chiang Mai Arr 55.29 257 P P 18 54 39.3 +1.3
APA Apatity 55.31 337 *eP* P 18 54 34.7 -2.8
APA pmax pmax
comp=Z,10.0nm,0.9s
UPNV Upernavik 55.52 11 *i*P P 18 54 37.3 -1.5
UPNV IAmb IAmb 18 54 39.1
comp=Z,36nm,0.8s
ARA0 ARCESS Array S 55.59 341 *eP* P 18 54 38.8 -0.7
ARCES ARCESS Array B 55.59 341 P P 18 54 37.4 -2.1
comp=Z,20nm,0.9s,baz=40,slow=8.1,SNR=20
ARCES PcP PcP 18 55 37.9 -0.7
comp=Z,10nm,0.8s,baz=40,slow=6.3,SNR=4.5
ARCES LR LR 19 23 22.3
comp=Z,1μm,20.2s,baz=40,slow=41
comp=Z,20nm,0.9s
ARCES ARCESS Array B 55.59 341 P P 18 54 38.4 -1.1
ARCES IAmb IAmb 18 54 40.3
comp=Z,19nm,0.9s
ARCES PcP PcP 18 55 38.7 +0.1
MOD Modoc Plateau 55.62 64 IAmb IAmb 18 54 56.6
comp=Z,35nm,0.7s
J08A Circle Bar Ran 55.76 62 IAmb IAmb 18 55 00.9
comp=Z,24nm,1.1s
KSH2 Kashi 56.02 292 P P 18 54 43.0 -0.1
KSH2 pP pP 18 54 55.8 -1.7
KSH2 pmax pmax
comp=Z,13nm,1.0s
KSH2 L L
comp=Z,900nm,18.2s
KSH2 L L
comp=Z,830nm,18.9s
KSH2 L L
comp=Z,2μm,18.6s
DBG Daneborg 56.05 359 *i*P P 18 54 42.1 -0.5
DBG IAmb IAmb 18 54 42.5
comp=Z,18nm,0.8s
PLID Pearl Lake 56.06 59 P P 18 54 43.9 +0.5
PLID IAmb IAmb 18 54 59.5
comp=Z,21nm,0.8s
MSO Missoula 56.08 56 IAmb IAmb 18 54 45.5
comp=Z,34nm,1.2s
DZA Taraz 56.12 298 *eP* P 18 54 43.7 +0.1
DZA Taraz 56.12 298 *eP* P 18 54 43.8 +0.1
ARSB Arslanbob 56.16 296 P P 18 54 43.2 -0.9
ARSB IAmb IAmb 18 54 46.5
comp=Z,35nm,1.2s
ARSB PcP PcP 18 55 40.3 -1.2
WVOR Wild Horse Val 56.24 62 IAmb IAmb 18 54 47.2
comp=Z,27nm,0.9s
WVOR Wild Horse Val 56.24 62 P P 18 54 46.2 +1.5
comp=Z,33nm,1.3s
EVN Everest 56.33 275 P P 18 54 46.1 0.0
EVN IAmb IAmb 18 54 49.1
comp=Z,22nm,0.7s
EVN Everest 56.33 275 P P 18 54 46.6 +0.5
comp=Z,30nm,0.9s
ORV Oroville 56.40 67 IAmb IAmb 18 55 00.1
comp=Z,15nm,0.8s
KK31 Karatay Array 56.45 299 *eP* P 18 54 45.1 -0.9
KK31 pmax pmax
comp=Z,9.0nm,0.7s
KK31 Karatay Array 56.45 299 P P 18 54 45.0 -1.0
KKAR Karatay Array 56.45 299 P P 18 54 45.0 -1.0
KKAR Karatay Array 56.45 299 P P 18 54 45.0 -1.0
KKAR PcP PcP 18 55 39.2 -3.1
KTK1 Kautokeino 56.49 342 *eP* P 18 54 44.2 -1.7
JETT Jettan, Norway 56.59 343 *eP* P 18 54 44.8 -1.8
KIRV Kirov 56.60 323 LR LR 19 21 28.6
comp=Z,1μm,20.5s,baz=39,slow=38
KIRV Kirov 56.60 323 *i*P P 18 54 46.0 -0.8
OHH Osh 56.78 295 P P 18 54 47.2 -1.3
comp=Z,26nm,0.7s
TRO Tromso 56.80 344 *eP* P 18 54 46.1 -1.9
FFC Flin Flon 56.87 43 P P 18 54 48.8 0.0
FFC 18 55 44.5
FFC pmax pmax
comp=Z,42nm,0.9s
FFC Flin Flon 56.87 43 P P 18 54 48.8 0.0
FFC IAmb IAmb 18 54 50.9
comp=Z,42nm,0.9s
FFC PcP PcP 18 55 44.5 +0.7
FFC Flin Flon 56.87 43 P P 18 54 49.9 +1.1
comp=Z,60nm,1.0s
FFC Flin Flon 56.87 43 P P 18 54 49.6 +0.8
FFC pP pP 18 55 03.1 0.0
FFC sP sP 18 55 08.4 -0.7
FFC PcP PcP 18 55 44.2 +0.4
BRDH Bariadhala 56.89 266 LR LR 19 21 38.8
comp=Z,273nm,20.1s,baz=32,slow=38
MFID Camas Ranch 57.21 60 IAmb IAmb 18 55 10.3
comp=Z,28nm,1.2s
SUMG Summit 57.36 5 P P 18 54 52.6 +0.1
SUMG pmax pmax
comp=Z,137nm,1.3s
SUMG Summit 57.36 5 P P 18 54 52.6 +0.1
SUMG Summit 57.36 5 P P 18 54 53.1 +0.6
comp=Z,87nm,1.1s
SUMG Summit 57.36 5 *i*P P 18 54 53.0 +0.5
SUMG IAmb IAmb 18 54 53.6
comp=Z,56nm,0.5s
FCC Fort Churchill 57.38 36 P P 18 54 52.6 +0.4
FCC pmax pmax
comp=Z,136nm,1.3s
FCC Fort Churchill 57.38 36 P P 18 54 52.6 +0.4
CHM Chimkent 57.47 299 *eP* P 18 54 53.4 +0.2
CHM pmax pmax
comp=Z,9.0nm,0.6s
CHM Chimkent 57.47 299 *eP* P 18 54 53.5 +0.2
comp=Z,8.8nm,0.6s
PAHR Pah Rah Range 57.55 65 IAmb IAmb 18 55 09.0
comp=Z,77nm,1.9s
NIAQ Niaqornat 57.66 11 *i*P P 18 54 54.9 +0.7
NIAQ IAmb IAmb 18 54 58.7
comp=Z,55nm,0.9s
DLMT Dillon 57.74 56 IAmb IAmb 18 55 10.9
comp=Z,46nm,1.5s
SAATT Saattut 57.89 11 *i*P P 18 54 55.7 0.0
SAATT IAmb IAmb 18 54 56.2
comp=Z,94nm,1.1s
HLID Hailey 57.91 59 P P 18 54 57.8 +1.3
comp=Z,18nm,1.4s
HLID pP pP 18 55 11.3 +0.7
SANI Sanana 58.02 217 P P 18 54 56.1 -1.3
SANI Sanana 58.02 217 P P 18 54 56.0 -1.3
comp=Z,704nmcomp=Z,704nmcomp=Z,81nm,0.8s,comp=Z,81nm,0.8s
SANI Sanana 58.02 217 P P 18 54 56.6 -0.7
comp=Z,82nm,0.9s
DRK Karamyk 58.03 295 P P 18 54 56.8 -0.8
DRK 18 55 49.0
DRK pmax pmax
comp=Z,30nm,1.1s
DRK Karamyk 58.03 295 P P 18 54 56.8 -0.8
DRK IAmb IAmb 18 54 59.8
comp=Z,30nm,1.1s
DRK PcP PcP 18 55 49.0 -0.1
BOZ Bozeman (W) 58.10 56 IAmb IAmb 18 54 59.6
comp=Z,24nm,0.9s
AB31 Akbulak array 58.13 310 *i*P P 18 54 56.5 -1.2
AB31 pmax pmax
comp=Z,15nm,0.6s
AB31 Akbulak array 58.13 310 P P 18 54 56.3 -1.4
AB31 IAmb IAmb 18 54 59.8
comp=Z,21nm,0.8s
ABKAR Akbulak array 58.13 310 P P 18 54 56.8 -0.9
BTK Batken 58.23 296 P P 18 54 57.9 -0.8
BTK pmax pmax
comp=Z,24nm,0.6s
BTK Batken 58.23 296 P P 18 54 57.9 -0.8
AKTO Aktyubinsk 58.29 312 LR LR 19 21 55.0
comp=Z,495nm,18.2s,baz=97,slow=38
AKTO Aktyubinsk 58.29 312 P P 18 54 56.5 -2.3
AKTO pmax pmax
comp=Z,10.0nm,0.7s
BMN Battle Mountai 58.34 63 IAmb IAmb 18 55 15.9
comp=Z,19nm,0.7s
SAQQ Saqqaq 58.61 11 *i*P P 18 54 59.1 -1.6
SAQQ IAmb IAmb 18 54 59.2
comp=Z,48nm,1.1s
BBGB Big Mountain B 58.61 69 IAmb IAmb 18 55 03.6
comp=Z,48nm,1.1s
YHB Horse Butte 58.89 56 IAmb IAmb 18 55 19.4
comp=Z,64nm,1.5s
JMIC Jan Mayen 58.93 354 LR LR 19 18 19.3
comp=Z,158nm,20.6s,baz=16,slow=34
STEI Steigen 58.95 344 *eP* P 18 55 01.1 -2.0
LHV Little Huntoon 59.02 66 IAmb IAmb 18 55 19.9
comp=Z,25nm,0.9s
NVAR Mina Array Bea 59.02 66 P P 18 55 05.5 +1.2
comp=Z,10nm,0.7s,baz=298,slow=7.2,SNR=71
NVAR LR LR 19 18 45.3
comp=Z,223nm,20.3s,baz=314,slow=34
comp=Z,10nm,0.7s
NVAR Mina Array Bea 59.02 66 P P 18 55 04.9 +0.5
LOF Lofoten 59.06 345 *eP* P 18 55 02.5 -1.4
YMR Madison River 59.07 56 IAmb IAmb 18 55 20.8
comp=Z,45nm,1.6s
NV11 Mina Array Sit 59.11 66 P P 18 55 05.7 +0.8
YNR Norris Junctio 59.19 56 IAmb IAmb 18 55 22.7
comp=Z,24nm,0.9s
ELK Elko 59.28 62 P P 18 55 07.5 +1.3
comp=Z,3.4nm,0.6s,baz=307,slow=8.1,SNR=18
ELK LR LR 19 17 08.4
comp=Z,371nm,21.8s,baz=312,slow=32
comp=Z,3.4nm,0.6s
YFT Old Faithful 59.28 56 IAmb IAmb 18 55 24.2
comp=Z,31nm,0.7s
PKD Bear Valley Ra 59.33 69 P P 18 55 07.0 +0.7
PKD IAmb IAmb 18 55 11.5
comp=Z,21nm,1.2s
YNE Yellowstone No 59.35 55 IAmb IAmb 18 55 09.2
comp=Z,31nm,1.0s
FAUS Fauske 59.42 344 *eP* P 18 55 04.5 -1.9
ILULI Ilulissat 59.46 11 P P 18 55 06.2 -0.4
ILULI pmax pmax
comp=Z,84nm,1.1s
ILULI Ilulissat 59.46 11 P P 18 55 06.2 -0.4
ILULI Ilulissat 59.46 11 *i*P P 18 55 06.2 -0.4
ILULI IAmb IAmb 18 55 06.8
comp=Z,52nm,0.5s
PMG Port Moresby 59.63 191 LR LR 19 17 57.9
comp=Z,271nm,20.9s,baz=207,slow=33
PMG Port Moresby 59.63 191 P P 18 55 08.9 +0.5
PMG Port Moresby 59.63 191 P P 18 55 08.5 +0.1
PMG pmax pmax
comp=Z,58nm,1.3s
PMG Port Moresby 59.63 191 P P 18 55 08.5 +0.1
PMG Port Moresby 59.63 191 P P 18 55 08.8 +0.4
comp=Z,507nmcomp=Z,507nmcomp=Z,33nm,1.3s
PMG Port Moresby 59.63 191 P P 18 55 09.0 +0.5
comp=Z,33nm,1.3s
PMG Port Moresby 59.63 191 P P 18 55 08.5 +0.1
PMG pP pP 18 55 22.6 -0.1
TPH Tonopah 59.90 66 IAmb IAmb 18 55 11.9
comp=Z,16nm,0.8s
SCO Scoresbysund 59.91 359 P P 18 55 10.0 +0.3
SCO IAmb IAmb 18 55 10.9
comp=Z,56nm,1.3s
SCO PcP PcP 18 55 56.0 +0.6
SCO Scoresbysund 59.91 359 P P 18 55 08.1 -1.6
comp=Z,48nm,0.9s
SCO Scoresbysund 59.91 359 *i*P P 18 55 09.8 +0.2
SCO IAmb IAmb 18 55 10.7
comp=Z,18nm,0.6s
AHID Auburn Hatcher 60.26 58 IAmb IAmb 18 55 28.9
comp=Z,20nm,1.0s
AHID Auburn Hatcher 60.26 58 P P 18 55 14.2 +1.4
comp=Z,23nm,1.1s
AHID pP pP 18 55 27.5 +0.6
SPUT South Promonto 60.48 60 IAmb IAmb 18 55 34.1
comp=Z,33nm,1.1s
RAUS Rausandaksla 60.49 344 *eP* P 18 55 13.1 -0.7
MOR8 Moi Rana 60.66 343 *eP* P 18 55 13.6 -1.3
HWUT Hardware Ranch 60.77 59 IAmb IAmb 18 55 32.6
comp=Z,16nm,0.8s
HWUT Hardware Ranch 60.77 59 P P 18 55 17.8 +1.5
comp=Z,23nm,1.0s
LEIR Leirfjorden 60.95 344 *eP* P 18 55 14.7 -2.2
DUG Dugway, Tooele 61.02 61 IAmb IAmb 18 55 37.8
comp=Z,31nm,1.2s
DUG Dugway, Tooele 61.02 61 P P 18 55 19.4 +1.4
comp=Z,16nm,1.5s
NIL Nilore 61.03 289 P P 18 55 18.3 +0.3
NIL Nilore 61.03 289 P P 18 55 17.6 -0.4
NIL IAmb IAmb 18 55 22.2
comp=Z,35nm,0.8s
NIL PcP PcP 18 55 59.7 -1.1
NIL Nilore 61.03 289 P P 18 55 17.9 -0.1
comp=Z,51nm,0.9s
S11A Rachel 61.05 65 IAmb IAmb 18 55 41.4
comp=Z,24nm,0.9s
BW06 Boulder Array 61.09 57 IAmb IAmb 18 55 34.8
comp=Z,27nm,1.0s
PD31 Pinedale Array 61.09 57 IAmb IAmb 18 55 34.8
comp=Z,27nm,1.0s
PDAR Pinedale Array 61.09 57 P P 18 55 19.4 +0.9
comp=Z,20nm,0.9s,baz=307,slow=3.0,SNR=82
PDAR LR LR 19 24 41.2
comp=Z,144nm,18.2s,baz=332,slow=39
comp=Z,20nm,0.9s
PDAR Pinedale Array 61.09 57 P P 18 55 19.2 +0.7
CLC China Lake 61.19 68 IAmb IAmb 18 55 33.8
comp=Z,14nm,0.9s
TCUT Toone Canyon 61.19 60 IAmb IAmb 18 55 35.4
comp=Z,16nm,0.7s
TPNV Topopah Spring 61.22 66 IAmb IAmb 18 55 39.8
comp=Z,22nm,0.9s
BKB Balikpapan 61.23 227 P P 18 55 20.8 +1.4
BKB Balikpapan 61.23 227 P P 18 55 18.9 -0.5
BKB Balikpapan 61.23 227 P P 18 55 21.1 +1.8
comp=Z,73nm,1.1s
BKB Balikpapan 61.23 227 P P 18 55 19.8 +0.5
comp=Z,124nm,1.0s
OSI Osito Audit: C 61.32 69 IAmb IAmb 18 55 24.2
comp=Z,27nm,1.0s
MMSI Mamuju 61.56 224 P P 18 55 21.9 +0.3
comp=Z,653nmcomp=Z,653nmcomp=Z,43nm,1.5s
SFJD Kangerlussuaq 61.62 12 LR LR 19 26 15.6
comp=Z,759nm,18.1s,baz=340,slow=40
SFJD Kangerlussuaq 61.62 12 P P 18 55 21.2 -0.1
SFJD pmax pmax
comp=Z,41nm,0.6s
SFJD Kangerlussuaq 61.62 12 P P 18 55 21.2 -0.1
SFJD Kangerlussuaq 61.62 12 P P 18 55 21.4 +0.1
comp=Z,63nm,1.7s
SFJD Kangerlussuaq 61.62 12 *i*P P 18 55 21.1 -0.3
SFJD IAmb IAmb 18 55 21.7
comp=Z,48nm,0.4s
PRN Pahroc Range 61.62 65 IAmb IAmb 18 55 38.2
comp=Z,53nm,1.8s
BELG Belogornoye 61.66 319 LR LR 19 23 45.7
comp=Z,765nm,21.8s,baz=59,slow=38
BELG Belogornoye 61.66 319 *i*P P 18 55 19.3 -2.5
BELG pmax pmax
comp=Z,4.0nm,0.7s
SAUI Saumlaki 61.70 209 P P 18 55 23.8 +1.3
SAUI Saumlaki 61.70 209 P P 18 55 23.7 +1.3
SAUI Saumlaki 61.70 209 P P 18 55 24.0 +1.5
SAUI Saumlaki 61.70 209 P P 18 55 23.9 +1.5
comp=Z,198nm,1.0s
MWC Mount Wilson 61.99 69 IAmb IAmb 18 55 39.2
comp=Z,24nm,1.1s
FINES FINESS Array B 62.12 336 P P 18 55 23.0 -1.8
comp=Z,12nm,0.5s,baz=34,slow=7.4,SNR=76
FINES LR LR 19 25 24.0
comp=Z,1μm,19.9s,baz=18,slow=39
comp=Z,12nm,0.5s
FINES FINESS Array B 62.12 336 P P 18 55 23.0 -1.8
FINES FINESS Array B 62.12 336 P P 18 55 22.7 -2.1
TMUT Trail Mountain 62.54 61 IAmb IAmb 18 55 47.9
comp=Z,19nm,0.9s
NSS Namsos 62.59 344 *eP* P 18 55 26.9 -1.0
ULM Lac du Bonnet 62.66 44 P P 18 55 29.1 +0.5
comp=Z,21nm,0.8s,baz=308,slow=6.8,SNR=24
ULM LR LR 19 23 27.1
comp=Z,437nm,21.3s,baz=3.5,slow=37
comp=Z,21nm,0.8s
ULM Lac du Bonnet 62.66 44 IAmb IAmb 18 55 30.1
comp=Z,39nm,1.1s
P17A Butcher Ranch, 62.69 60 IAmb IAmb 18 55 48.8
comp=Z,32nm,1.3s
STKI Sintang 62.75 233 P P 18 55 31.5 +1.9
comp=Z,28nm,0.4s,comp=Z,28nm,0.4s
P18A Preston Nutter 62.86 60 IAmb IAmb 18 55 47.4
comp=Z,19nm,1.1s
KBL Kabul 62.98 292 P P 18 55 30.3 -0.9
SNR=7.1
KBL Kabul 62.98 292 P P 18 55 29.6 -1.6
KBL pmax pmax
comp=Z,20nm,1.2s
KBL Kabul 62.98 292 P P 18 55 29.6 -1.6
KBL IAmb IAmb 18 55 33.8
comp=Z,20nm,1.1s
KBL Kabul 62.98 292 P P 18 55 29.6 -1.6
comp=Z,18nm,1.1s
SRU San Rafael Swe 63.06 61 IAmb IAmb 18 55 51.0
comp=Z,33nm,0.9s
MOS Moscow 63.08 326 *eP* P 18 55 34.7 +3.4
MOS *e*PP *sP* 18 55 50.9 -1.0
MOS *e* 18 56 11.8
MOS *e* 18 57 53.4
MOS *e*PPP PPP 18 59 23.4
MOS *e*S S 19 04 01.6 +3.8
MOS *e*SS sS 19 04 29.5 +6.9
MOS *e* 19 05 22.2
MOS MLR MLR
comp=Z,700nm,20.0s
MOS MLR MLR
comp=N,2μm,21.0s
RSSD Black Hills 63.09 53 P P 18 55 32.5 +0.7
RSSD pmax pmax
comp=Z,61nm,0.9s
RSSD Black Hills 63.09 53 P P 18 55 32.5 +0.7
RSSD Black Hills 63.09 53 P P 18 55 32.8 +1.0
comp=Z,90nm,1.2s
RSSD pP pP 18 55 45.9 -0.1
RSSD Black Hills 63.09 53 P P 18 55 32.5 +0.7
RSSD pP pP 18 55 46.0 -0.1
PKCU Pink Cliffs 63.18 63 IAmb IAmb 18 55 52.7
comp=Z,57nm,1.9s
KAPI Kappang 63.26 222 LR LR 19 23 23.2
comp=Z,72nm,22.0s,baz=34,slow=36
PFO Pinyon Flats O 63.38 69 P P 18 55 33.7 -0.1
comp=Z,3.0nm,0.7s,baz=308,slow=4.0,SNR=4.7
PFO LR LR 19 18 26.5
comp=Z,483nm,21.2s,baz=316,slow=31
comp=Z,3.0nm,0.7s
O20A White River Ci 63.62 58 IAmb IAmb 18 55 53.8
comp=Z,19nm,1.0s
HMU Henry Mountain 63.74 62 IAmb IAmb 18 56 10.0
comp=Z,22nm,0.7s
HAYD Hayden 63.89 58 IAmb IAmb 18 55 57.1
comp=Z,44nm,1.5s
U15A North Rim 63.90 64 IAmb IAmb 18 55 53.6
comp=Z,42nm,1.7s
OBN Obninsk 63.95 326 LR LR 19 25 02.2
comp=Z,731nm,21.8s,baz=8.0,slow=38
OBN Obninsk 63.95 326 *i*P P 18 55 36.9 -0.1
OBN *e*PP pP 18 55 53.9 +2.3
OBN *i* *SP sP 18 55 59.6 +2.0
OBN *i* 18 56 12.0
OBN *e*S S 19 03 58.4 -10
OBN 19 05 23.0
OBN pmax pmax
comp=Z,44nm,2.2s
OBN MLR MLR
comp=Z,520nm,21.0s
AGMN Agassiz Nation 64.08 45 IAmb IAmb 18 55 39.6
comp=Z,45nm,1.1s
AGMN Agassiz Nation 64.08 45 P P 18 55 38.5 +0.4
comp=Z,44nm,1.0s
BBKI Banjar Baru 64.12 228 P P 18 55 39.1 +0.4
ISOG Isortoq, Green 64.26 7 *i*P P 18 55 38.5 -0.4
ISOG IAmb IAmb 18 55 39.5
comp=Z,78nm,0.7s
ANGG Ammassalik, Gr 64.29 6 *i*P P 18 55 38.9 -0.2
ANGG IAmb IAmb 18 55 39.6
comp=Z,44nm,0.5s
PV21 Cone Mtn., Par 64.31 60 IAmb IAmb 18 55 59.3
comp=Z,38nm,1.0s
PBA Port Blair 64.32 257 P P 18 55 42.6 +2.6
PV14 Lion Creek, Pa 64.41 60 P P 18 55 41.4 +0.7
VSU Vasula 64.42 333 *ce*P P 18 55 40.2 +0.2
VSU pmax pmax
comp=Z,22nm,0.7s
VSU Vasula 64.42 333 P P 18 55 39.4 -0.7
comp=Z,66nm,0.7s
KULM Kulim 64.45 246 P P 18 55 42.5 +1.7
KULM Kulim 64.45 246 P P 18 55 41.7 +0.9
KULM IAmb IAmb 18 55 43.5
comp=Z,38nm,1.1s
KULM Kulim 64.45 246 P P 18 55 40.9 +0.1

comp=Z,33nm,1.2s
PV04 Paradox Valley 64.46 60 IAmb IAmb 18 56 00.3
comp=Z,41nm,0.9s
PV12 Saucer Basin, 64.57 60 P **P** **18 55 42.5 +0.8**
PV12 IAmb IAmb 18 55 58.9
comp=Z,39nm,1.0s
PV07 Paradox Valley 64.58 60 IAmb IAmb 18 56 00.9
comp=Z,46nm,1.1s
PV03 Paradox Valley 64.59 60 IAmb IAmb 18 56 01.1
comp=Z,52nm,1.0s
PV02 Paradox Valley 64.69 60 IAmb IAmb 18 55 58.3
comp=Z,51nm,1.2s
PV15 Paradox Valley 64.74 60 IAmb IAmb 18 56 02.0
comp=Z,39nm,1.0s
PV01 Paradox Valley 64.83 60 IAmb IAmb 18 55 59.1
comp=Z,54nm,1.4s
IPM Ipoh 64.88 245 P **P** **18 55 45.0 +1.4**
IPM Ipoh 64.88 245 P **P** **18 55 44.1 +0.5**
IPM IAmb IAmb 18 55 45.5
comp=Z,46nm,1.3s
VRH Novokhopyorsk 65.00 321 *e*P **P** **18 55 41.6 -2.3**
VRH *i* pmax pmax
comp=Z,26nm,0.6s
LPSR Galich'ya Gora 65.03 323 *e*P **P** **18 55 42.1 -2.0**
LPSR pmax pmax
comp=Z,24nm,0.6s
WUAZ Wupatki 65.06 64 IAmb IAmb 18 56 01.0
comp=Z,42nm,1.6s
MOL Molde 65.18 345 *e*P **P** **18 55 44.0 -0.9**
ISCO Idaho Springs 65.29 57 IAmb IAmb 18 56 03.2
comp=Z,22nm,0.9s
ISCO Idaho Springs 65.29 57 P **P** **18 55 48.0 +1.5**
comp=Z,29nm,0.8s
ISCO pP **pP** **18 56 00.8 +0.1**
DOMB Dombas 65.41 344 *e*P **P** **18 55 44.9 -1.6**
MMRI Maumere 65.51 218 P **P** **18 55 48.9 +1.3**
MMRI Maumere 65.51 218 P **P** **18 55 47.6 0.0**
MMRI Maumere 65.51 218 P **P** **18 55 48.2 +0.6**
comp=Z,1µmcomp=Z,1µmcomp=Z,53nm,0.8s,comp=Z,53nm,0.8s
MMRI Maumere 65.51 218 P **P** **18 55 47.9 +0.2**
comp=Z,54nm,0.8s
MVCO Mesa Verde 65.52 61 P **P** **18 55 48.9 +1.0**
comp=Z,18nm,1.6s
113A Mohawk Valley, 65.58 68 IAmb IAmb 18 56 02.5
comp=Z,42nm,1.9s
AKN Aaknes 65.64 345 *e*P **P** **18 55 48.0 0.0**
VORR Voronezh 65.64 323 *e*P **P** **18 55 45.7 -2.4**
VORR pmax pmax
comp=Z,6.0nm,0.8s
BORG Borgarnes 65.67 359 LR LR 19 25 32.1
comp=Z,362nm,19.2s,baz=350,slow=37
F33A 5 Mile Ranch, 65.68 47 IAmb IAmb 18 55 49.5
comp=Z,39nm,0.8s
NC303 NORSAR Array S 65.73 342 P **P** **18 55 46.9 -1.6**
NC303 IAmb IAmb 18 55 49.0
comp=Z,23nm,0.6s
SOEI Soe 65.75 215 P **P** **18 55 49.3 0.0**
SOEI Soe 65.75 215 P **P** **18 55 48.9 -0.5**
SOEI IAmb IAmb 18 56 16.9
comp=Z,47nm,0.9s
SOEI Soe 65.75 215 P **P** **18 55 52.6 +3.3**
comp=Z,59nm,1.0s,comp=Z,59nm,1.0s
SOEI Soe 65.75 215 P **P** **18 55 48.9 -0.5**
comp=Z,59nm,1.0s
SANVU Saraoutou 65.76 169 P **P** **18 55 48.5 -0.6**
SANVU Saraoutou 65.76 169 P **P** **18 55 49.4 +0.2**
SANVU IAmb IAmb 18 55 49.5
comp=Z,39nm,0.9s
NC405 NORSAR Array S 65.76 342 IAmb IAmb 18 55 50.7
comp=Z,30nm,0.8s
NC204 NORSAR Array S 65.80 343 P **P** **18 55 47.6 -1.4**
NC204 IAmb IAmb 18 55 50.1
comp=Z,54nm,1.1s
KDU Kakadu 65.81 206 P **P** **18 55 49.7 +0.2**
comp=Z,25nm,0.8s
EDFI Ende, Flores 65.83 218 P **P** **18 55 48.9 -0.9**
comp=Z,27nm,1.5s,comp=Z,27nm,1.5s
NB201 NORSAR Array S 65.91 342 IAmb IAmb 18 55 50.2
comp=Z,32nm,0.7s
NB2 NORSAR Subarra 65.93 342 P **P** **18 55 48.3 -1.6**
comp=Z,7.3nm,0.5s,baz=24,slow=6.5
NB2 NORSAR Subarra 65.93 342 P **P** **18 55 48.0 -1.9**
NB2 AMP 18 55 48.0
NOA NORSAR Array B 65.93 342 P **P** **18 55 48.2 -1.6**
comp=Z,111nm,0.6s,baz=24,slow=6.4,SNR=61
NOA LR LR 19 30 32.6
comp=Z,632nm,18.4s,baz=20,slow=41
comp=Z,11nm,0.6s
VSR Storozhevoye 66.02 322 *e*P **P** **18 55 48.6 -1.9**
VSR pmax pmax
comp=Z,8.0nm,0.4s
NBO00 NORSAR Array S 66.02 343 P **P** **18 55 49.0 -1.4**
NC602 NORSAR Array S 66.14 342 IAmb IAmb 18 57 02.1
comp=Z,90nm,1.9s
NC602 NORSAR Array S 66.14 342 *e*P **P** **18 55 50.5 -0.7**
VORD Divnogorie 66.16 322 *e*P **P** **18 55 49.3 -2.1**
VORD pmax pmax
comp=Z,6.0nm,0.8s
NAO01 NORSAR Array S 66.17 342 P **P** **18 55 50.5 -0.9**
NAO01 IAmb IAmb 18 55 52.1
comp=Z,31nm,1.1s
NAO01 NORSAR Array S 66.17 342 P **P** **18 55 51.3 -0.1**
comp=Z,13nm,1.0s
HFS Hagfors 66.25 341 P **P** **18 55 50.1 -1.7**
comp=Z,5.2nm,0.4s,baz=61,slow=12,SNR=24
HFS LR LR 19 31 01.5
comp=Z,569nm,18.3s,baz=21,slow=42
comp=Z,5.2nm,0.4s
EYMN Ely 66.31 43 P **P** **18 55 52.9 +0.4**
comp=Z,72nm,1.1s
EYMN pP **pP** **18 56 05.6 -1.3**
MTN Manton Dam 66.34 207 P **P** **18 55 53.3 +0.4**
comp=Z,17nm,1.2s
MTN Manton Dam 66.34 207 P **P** **18 55 52.9 0.0**
BATI Baumata 66.39 216 LR LR 19 24 21.2
comp=Z,38nm,22.0s,baz=359,slow=35
BATI Baumata 66.39 216 P **P** **18 55 55.5 +2.2**
comp=Z,28nm,1.5s,comp=Z,28nm,1.5s
HYA Hoyanger 66.73 345 *e*P **P** **18 55 54.9 0.0**
SKAR Skarslia 66.81 344 *e*P **P** **18 55 55.4 -0.1**
DSRI Dabo 66.89 239 P **P** **18 55 58.8 +2.2**
comp=Z,568nmcomp=Z,568nmcomp=Z,37nm,0.9s,comp=Z,37nm,0.9s
OSL Oslo 67.04 342 *e*P **P** **18 55 56.7 -0.1**
SUE Sulen 67.07 346 *e*P **P** **18 55 57.1 +0.1**
ECSD EROS Data Cent 67.08 49 IAmb IAmb 18 55 58.8
comp=Z,50nm,0.9s
ECSD EROS Data Cent 67.08 49 P **P** **18 55 57.8 +0.3**
comp=Z,73nm,1.0s
HRA Herat 67.09 296 P **P** **18 55 56.7 -1.2**
MNK Minsk 67.39 330 *i* P **P** **18 55 58.8 -0.4**
MNK *i* *PP **pP** **18 56 15.2 +1.3**
MNK *i* *SP **sP** **18 56 22.1 +2.2**
MNK *i* 18 56 25.8
MNK *i* 18 58 26.9
MNK *i* PPP PPP 19 00 06.1
MNK *i* S **S** **19 04 50.3 -0.2**
MNK *i* *SS **sS** **19 05 18.7 +3.2**
MNK *i* SS **SS** **19 09 11.3 +1.2**
MNK pmax pmax
comp=Z,58nm,0.9s
MNK pmax pmax
comp=E,23nm,0.9s
MNK pmax pmax
comp=N,15nm,0.9s
MNK MLR MLR
comp=N,905nm,22.0s
MNK MLR MLR
comp=E,1µm,25.0s
MNK MLR MLR
comp=Z,1µm,23.0s
MNK Minsk 67.39 330 *i* P **P** **18 55 58.8 -0.4**
comp=E,23nm,0.9s
MNK *i* P **P** **18 55 58.8 -0.4**
comp=N,15nm,0.9s
MNK *i* P **P** **18 55 58.8 -0.4**
comp=Z,58nm,0.9s,baz=33
MNK *i* pP **pP** **18 56 15.2 +1.3**
MNK *i* sP **sP** **18 56 22.1 +2.2**
MNK *i* PP **PP** **18 58 26.9 -0.6**
MNK *i* PPP PPP 19 00 06.1
MNK *i* S **S** **19 04 50.4 -0.2**
MNK *i* sS **sS** **19 05 18.7 +3.2**
MNK *i* SS **SS** **19 09 11.4 +1.2**
MNK *i* SSS SSS 19 12 26.4
MNK *i* LQ LQ 19 19 54.9
MNK *i* LRM MLR 19 26 57.6
comp=E,1µm,25.0s
MNK *i* LRM MLR 19 27 24.3
comp=Z,1µm,22.6s
NACGM Naroch 67.40 331 *e*P **P** **18 55 59.3 0.0**
PSI Prapat 67.46 246 LR LR 19 26 36.1
comp=Z,294nm,20.3s,baz=11,slow=37
PSI Prapat 67.46 246 P **P** **18 56 01.9 +1.6**
KSCO Kaye Shedlock' 67.47 56 IAmb IAmb 18 56 01.9
comp=Z,22nm,1.0s
IVI Ivigtut 67.47 13 P **P** **18 56 00.0 +0.4**
IVI Ivigtut 67.47 13 *i* P **P** **18 56 00.2 +0.6**
IVI IAmb IAmb 18 56 00.8
comp=Z,92nm,0.7s
IVI Ivigtut 67.47 13 P **P** **18 56 00.0 +0.4**
KONO Kongsberg 67.53 343 P **P** **18 55 59.6 -0.4**
KONO pmax pmax
comp=Z,20nm,0.9s
KONO Kongsberg 67.53 343 P **P** **18 55 59.6 -0.4**
KONO IAmb IAmb 18 56 01.3
comp=Z,20nm,0.8s
KONO Kongsberg 67.53 343 *e*P **P** **18 56 00.2 +0.2**
KONO Kongsberg 67.53 343 P **P** **18 55 60.0 0.0**
comp=Z,26nm,0.9s
KONO Kongsberg 67.53 343 P **P** **18 56 00.2 +0.2**
KONO pP **pP** **18 56 13.8 -0.9**
PLAI Plampang 67.53 222 P **P** **18 55 59.8 -0.7**
PLAI Plampang 67.53 222 P **P** **18 55 59.1 -1.4**
comp=Z,572nmcomp=Z,572nmcomp=Z,46nm,1.1s,comp=Z,46nm,1.1s
PLAI Plampang 67.53 222 P **P** **18 55 59.2 -1.4**
comp=Z,46nm,1.1s
ASK Askoy 67.54 345 *e*P **P** **18 55 59.1 -0.9**
BER Bergen 67.61 345 *e*P **P** **18 56 00.1 -0.4**
TUC Tucson 67.68 66 P **P** **18 56 01.9 +0.4**
TUC pmax pmax
comp=Z,6.0nm,1.0s
TUC Tucson 67.68 66 P **P** **18 56 01.9 +0.4**
TUC Tucson 67.68 66 P **P** **18 56 02.5 +1.0**
comp=Z,8.1nm,1.4s
PABE Paberze 67.74 333 P **P** **18 56 01.2 -0.2**
comp=Z,84nm,0.9s
SPMN Marine on St. 67.78 46 IAmb IAmb 18 56 03.1
comp=Z,40nm,0.8s
STRU Stroemstad 67.78 341 *i* P **P** **18 56 01.6 0.0**
ODD1 Odda 67.83 344 *e*P **P** **18 56 02.0 0.0**
NRS Narsarsuaq 67.89 11 P **P** **18 56 02.1 -0.1**
NRS pmax pmax
comp=Z,194nm,1.8s
NRS Narsarsuaq 67.89 11 P **P** **18 56 02.1 -0.1**
NRS Narsarsuaq 67.89 11 *i* P **P** **18 56 02.7 +0.5**
NRS IAmb IAmb 18 56 03.0
comp=Z,45nm,1.0s
SRBI Singaraja 68.01 225 P **P** **18 56 06.0 +2.5**
comp=Z,41nm,0.7s,comp=Z,41nm,0.7s
KHKI Kahang-Kahang 68.08 224 P **P** **18 56 04.3 +0.4**
comp=Z,38nm,1.1s,comp=Z,38nm,1.1s
ANMO Albuquerque 68.30 61 P **P** **18 56 06.4 +1.0**
comp=Z,3.7nm,0.7s,baz=313,slow=6.4,SNR=9.9
ANMO LR LR 19 22 27.9
comp=Z,185nm,21.7s,baz=322,slow=33
comp=Z,3.7nm,0.7s
ANMO Albuquerque 68.30 61 P **P** **18 56 05.9 +0.4**
ANMO Albuquerque 68.30 61 P **P** **18 56 06.6 +1.1**
comp=Z,8.4nm,1.6s
ANMO Albuquerque 68.30 61 P **P** **18 56 06.2 +0.7**
ANMO pP **pP** **18 56 19.9 +0.1**
ANMO PcP **PcP** **18 56 31.6 +0.8**
ALQ Albuquerque 68.30 61 IAmb IAmb 18 56 24.3
comp=Z,9.2nm,1.0s
BLS5 Blasjo 68.32 344 *e*P **P** **18 56 04.8 -0.3**
DUN6 Lazy B Ranch 68.50 65 IAmb IAmb 18 56 08.3
comp=Z,26nm,0.8s
L34A Svendsen Farm, 68.52 50 IAmb IAmb 18 56 07.3
comp=Z,60nm,1.0s
MTSU Mount Surprise 68.60 192 P **P** **18 56 07.9 +0.8**
comp=Z,23nm,0.8s
MTSU Mount Surprise 68.60 192 P **P** **18 56 08.2 +1.1**
MTSU Mount Surprise 68.60 192 P **P** **18 56 07.9 +0.8**
comp=Z,23nm,0.8s
TJOU Tjoern 68.61 341 *i* P **P** **18 56 05.7 -1.0**
KMY Karmoy 68.73 345 *e*P **P** **18 56 07.8 +0.3**
G40A Rib Lake 68.93 44 IAmb IAmb 18 56 10.1
comp=Z,29nm,1.0s
HOMB Homborsund 69.02 343 *e*P **P** **18 56 09.3 0.0**
HOMB Homborsund 69.02 343 *i* P **P** **18 56 09.3 0.0**
SDSI Sungai Dareh 69.03 241 P **P** **18 56 11.4 +1.4**
ONAU Onsala 69.13 340 *i* P **P** **18 56 08.7 -1.3**
CBKS Cedar Bluff 69.14 54 IAmb IAmb 18 56 11.3
comp=Z,36nm,0.9s
HYB Hyderabad 69.15 272 IVmB_BB 18 56 11.3
comp=Z,788nm,0.4s
HYB *e*P **P** **18 56 11.5 +0.7**
HYB *e*S **S** **19 05 11.0 -1.5**
HYB IVMs_BB IVMs_BB 19 34 10.7
comp=Z,587nm,3.6s
SNART Snartemo 69.20 343 *e*P **P** **18 56 10.1 -0.4**
SNART Snartemo 69.20 343 *i* P **P** **18 56 10.1 -0.4**
BLEU Blekinge 69.23 338 *i* P **P** **18 56 08.7 -2.0**
319A Douglas 69.24 66 IAmb IAmb 18 56 13.4
comp=Z,27nm,1.0s
SUW Suwalki 69.26 333 *e*P **P** **18 56 10.4 -0.4**
FABU Falkenberg 69.32 340 *i* P **P** **18 56 10.2 -1.0**
SNJI Sawahan-Nganju 69.36 228 P **P** **18 56 15.5 +3.3**
comp=Z,27nm,1.5s,comp=Z,27nm,1.5s
F42A Maple Grove Fa 69.46 42 IAmb IAmb 18 56 13.6
comp=Z,52nm,1.1s
SCHQ Schefferville 69.50 25 P **P** **18 56 12.8 +0.4**
comp=Z,40nm,0.9s,baz=339,slow=5.4,SNR=21
SCHQ LR LR 19 29 26.2
comp=Z,418nm,21.2s,baz=344,slow=38
comp=Z,40nm,0.9s
SCHQ Schefferville 69.50 25 IAmb IAmb 18 56 14.3
comp=Z,32nm,0.9s
DEL Delary 69.54 339 *i* P **P** **18 56 11.6 -0.9**
PWJI Pagerwojo 69.55 228 P **P** **18 56 12.4 -0.7**
OVD Ostervraa, Den 69.57 341 *i* P **P** **18 56 13.0 +0.3**
OVD IAmb IAmb 18 56 13.5
comp=Z,54nm,0.7s
KNRA Kununurra 69.73 209 P **P** **18 56 11.8 -2.3**
comp=Z,16nm,0.9s
KNRA Kununurra 69.73 209 P **P** **18 56 14.2 0.0**
ERBR Yeremizino-Bor 69.77 318 *e*P **P** **18 56 14.0 -0.2**
ERBR *e*PP **pP** **18 56 28.1 -0.9**
ERBR *e*S **S** **19 05 22.5 +3.4**
ERBR pmax pmax
comp=Z,24nm,1.2s
ERBR MLR MLR
comp=Z,813nm,18.0s
I40A Norwalk 69.80 45 IAmb IAmb 18 56 15.4
comp=Z,63nm,1.1s
KRJI Kerinci 69.96 241 P **P** **18 56 17.0 +1.1**
GOET G??ttrup 70.03 342 *i* P **P** **18 56 15.8 +0.3**
GOET *i* P pP 18 56 16.6 -14
GOET IAmb IAmb 18 56 16.9
comp=Z,62nm,0.8s
AK03 Malin Array Si 70.11 327 P **P** **18 56 14.4 -1.8**
AKASG Malin Array Be 70.13 327 P **P** **18 56 14.4 -1.9**
comp=Z,12nm,0.5s,baz=34,slow=6.4,SNR=35
AKASG LR LR 19 29 19.9
comp=Z,1µm,20.7s,baz=38,slow=38
comp=Z,12nm,0.5s
AKBB Malin Array Si 70.13 327 *i* P **P** **18 56 14.7 -1.6**
AKBB pmax pmax
comp=Z,21nm,0.7s
AKBB Malin Array Si 70.13 327 P **P** **18 56 14.6 -1.7**
AK21 Malin Array Si 70.13 328 P **P** **18 56 14.5 -1.8**
AK22 Malin Array Si 70.14 328 P **P** **18 56 14.6 -1.7**
KIEV Kiev 70.14 327 *i* P **P** **18 56 14.7 -1.7**
SNR=9.3
KIEV Kiev 70.14 327 P **P** **18 56 14.8 -1.5**
KIEV Kiev 70.14 327 P **P** **18 56 14.2 -2.1**
KIEV IAmb IAmb 18 56 16.2
comp=Z,19nm,0.7s
KIEV Kiev 70.14 327 ⇓P **P** **18 56 14.8 -1.5**
KIEV Kiev 70.14 327 P **P** **18 56 14.7 -1.7**
comp=Z,126nm,0.9s
KIEV Kiev 70.14 327 P **P** **18 56 14.9 -1.5**
comp=Z,32nm,0.9s
KIV Kislovodsk 70.17 315 P **P** **18 56 15.6 -1.2**
KIV Kislovodsk 70.17 315 P **P** **18 56 15.7 -1.1**
KIV Kislovodsk 70.17 315 P **P** **18 56 17.1 +0.3**
KIV IAmb IAmb 18 56 24.6
comp=Z,24nm,0.5s
KIV Kislovodsk 70.17 315 P **P** **18 56 16.5 -0.3**
comp=Z,18nm,0.6s
AK20 Malin Array Si 70.17 328 P **P** **18 56 14.7 -1.8**
AK09 Malin Array Si 70.18 327 P **P** **18 56 14.9 -1.7**
AK17 Malin Array Si 70.20 328 P **P** **18 56 15.0 -1.7**
AK12 Malin Array Si 70.20 327 P **P** **18 56 15.0 -1.8**
KBZ Khabaz 70.25 315 P **P** **18 56 16.9 -0.2**
comp=Z,20nm,0.8s,baz=119,slow=1.8,SNR=38
KBZ LR LR 19 31 02.7
comp=Z,695nm,20.1s,baz=24,slow=39
comp=Z,20nm,0.8s
CTA Charters Tower 70.28 190 LR LR 19 28 40.0
comp=Z,911nm,18.3s,baz=11,slow=37
SHA1 Shidzhatmaz 70.35 315 *i* P **P** **18 56 17.5 -0.6**
MASI Maura Aman, Be 70.39 239 P **P** **18 56 19.6 +1.2**
LUNU Lund 70.40 339 *i* P **P** **18 56 17.7 -0.1**
MDSI Maura Dua 70.44 237 P **P** **18 56 18.1 -0.5**
BSD Bornholm Skovb 70.52 338 *i* P **P** **18 56 18.6 0.0**
BSD IAmb IAmb 18 56 20.8
comp=Z,21nm,0.8s
KSU1 Kansas State U 70.55 52 IAmb IAmb 18 56 19.2
comp=Z,29nm,0.8s
I42A Draeger Farm, 70.58 44 IAmb IAmb 18 56 20.2
comp=Z,53nm,1.0s
MUD Monsted U'grnd 70.58 341 *i* P **P** **18 56 19.6 +0.7**
MUD IAmb IAmb 18 56 20.0
comp=Z,16nm,0.7s
LEM Lembang 70.60 232 LR LR 19 28 30.5
comp=Z,108nm,21.4s,baz=25,slow=37
E46A Sault Ste Mari 70.61 40 IAmb IAmb 18 56 19.8
comp=Z,34nm,1.0s
H43A Windswept, Lux 70.63 43 IAmb IAmb 18 56 20.6
comp=Z,60nm,0.9s
RNPP9 Sopachiv 70.65 330 P **P** **18 56 19.1 -0.4**
RNPP8 Varash 70.73 330 P **P** **18 56 19.0 -0.9**
RNPP5 Staryi Chortor 70.81 330 P **P** **18 56 19.2 -1.2**
L40A Anamosa 70.94 47 IAmb IAmb 18 56 22.0
comp=Z,61nm,1.1s
N38A Joes South For 70.95 49 IAmb IAmb 18 56 22.4
comp=Z,45nm,0.7s
LLD Lille Linde 70.96 339 *i* P **P** **18 56 21.4 +0.1**
LLD IAmb IAmb 18 56 22.2
comp=Z,42nm,0.9s
AMTX Amarillo 71.01 58 IAmb IAmb 18 56 37.4
comp=Z,104nm,2.0s
MNTX Cornudas Mount 71.28 63 P **P** **18 56 24.6 +1.0**
comp=Z,12nm,1.1s
LUBAR Lubar, Ukraine 71.30 328 P **P** **18 56 22.2 -1.2**
SSRD Sdr. Stenderup 71.39 341 *i* P **P** **18 56 24.6 +0.7**
SSRD IAmb IAmb 18 56 25.0
comp=Z,31nm,0.7s
OK038 West end E0370 71.41 55 IAmb IAmb 18 56 25.6
comp=Z,63nm,1.2s
CGJI Cibinong 71.42 234 P **P** **18 56 22.9 -1.6**
comp=Z,111nm,1.0s,comp=Z,111nm,1.0s
MCD Coleburn Disti 71.57 349 *e*P **P** **18 56 24.8 -0.2**
MCD IAmb IAmb 18 56 26.1
comp=Z,29nm,0.7s
SMWD Samnorwood 71.63 57 IAmb IAmb 18 56 27.7
comp=Z,53nm,1.0s
P38A Dawn 71.70 50 IAmb IAmb 18 56 27.0
comp=Z,46nm,0.9s
L42A Oliver, Polo 71.71 46 IAmb IAmb 18 56 26.4
comp=Z,52nm,1.1s
QIS Mount Isa 71.74 197 P **P** **18 56 26.1 -0.2**
comp=Z,24nm,2.0s
QIS Mount Isa 71.74 197 P **P** **18 56 26.3 0.0**
QIS Mount Isa 71.74 197 P **P** **18 56 26.0 -0.3**
comp=Z,24nm,2.0s
K43A Burlington 71.77 45 IAmb IAmb 18 56 27.1
comp=Z,57nm,1.0s
SOC Sochi 71.79 317 *e*P **P** **18 56 25.6 -0.9**
SOC *e* 18 59 04.4
SOC *e*PPP PPP 19 00 45.5
SOC *e*S **S** **19 05 41.7 -0.9**
SOC *e*SS **SS** **19 10 24.7 +6.4**
SOC *e*SSS SSS 19 13 30.5
SOC MLR MLR
comp=Z,664nm,17.0s
CROK Carrier 71.79 55 IAmb IAmb 18 56 27.7
comp=Z,37nm,1.2s
TPB28 71.80 62 IAmb IAmb 18 56 42.3
comp=Z,11nm,1.0s
VLDQ Val d'Or 71.86 35 IAmb IAmb 18 56 26.6
comp=Z,57nm,0.9s
KPL Plockton 72.10 350 *e*P **P** **18 56 28.2 +0.1**
KPL IAmb IAmb 18 56 29.2
comp=Z,15nm,0.8s
DRUM Mains of Drumt 72.12 348 *e*P **P** **18 56 27.9 -0.4**
DRUM IAmb IAmb 18 56 29.1
comp=Z,37nm,0.5s
GNI Garni 72.16 312 LR LR 19 31 21.6
comp=Z,756nm,21.7s,baz=11,slow=38
GNI Garni 72.16 312 P **P** **18 56 29.0 0.0**
GNI Garni 72.16 312 *i* P **P** **18 56 30.1 +1.1**
GNI pmax pmax
comp=Z,29nm,1.2s
GNI Garni 72.16 312 P **P** **18 56 28.7 -0.3**
GNI Garni 72.16 312 P **P** **18 56 30.3 +1.3**
comp=Z,29nm,1.1s
NOUC Port Laguerre 72.22 170 P **P** **18 56 31.1 +2.0**
NOUC Port Laguerre 72.22 170 P **P** **18 56 30.5 +1.4**
NOUC pP **pP** **18 56 43.9 +0.2**
WR8 Warramunga Arr 72.24 202 P **P** **18 56 29.1 -0.2**
WR8 IAmb IAmb 18 56 30.4
comp=Z,56nm,0.9s
WRAB Tennant Creek 72.25 202 P **P** **18 56 28.9 -0.5**
WRAB Tennant Creek 72.25 202 P **P** **18 56 29.1 -0.3**
WRAB pmax pmax
comp=Z,63nm,1.0s
WRAB Tennant Creek 72.25 202 P **P** **18 56 29.1 -0.3**
WRAB IAmb IAmb 18 56 30.5
comp=Z,63nm,1.0s
WRAB Tennant Creek 72.25 202 P **P** **18 56 29.5 +0.1**
comp=Z,68nm,1.2s
WRAB Tennant Creek 72.25 202 P **P** **18 56 29.2 -0.3**
WRAB PcP **PcP** **18 56 48.1 +0.8**
WRA Warramunga Arr 72.26 202 P **P** **18 56 29.4 0.0**
comp=Z,44nm,0.9s,baz=20,slow=6.4,SNR=131
comp=Z,44nm,0.9s
WRA Warramunga Arr 72.26 202 P **P** **18 56 28.3 -1.2**
SORM Soroca 72.60 326 P **P** **18 56 31.8 +0.6**
SORM Soroca 72.60 326 ⇓P **P** **18 56 29.8 -1.5**
DIGO Kars 72.61 313 P **P** **18 56 32.5 +0.8**
comp=Z,73nm,1.1s
WMOK Wichita Mounta 72.70 57 P **P** **18 56 32.6 +0.5**
comp=Z,26nm,1.3s
INVG Invergeldie, C 72.80 349 *e*P **P** **18 56 31.9 -0.4**
INVG IAmb IAmb 18 56 33.1
comp=Z,25nm,0.6s
OK052 Battle Ridge R 72.80 54 IAmb IAmb 18 56 33.9
comp=Z,54nm,1.1s
KMPD K-Podol'skiy 72.90 328 P **P** **18 56 31.2 -1.8**
M44A Midewin, Midew 72.94 45 IAmb IAmb 18 56 33.8
comp=Z,35nm,0.8s
FITZ Fitzroy Crossi 73.00 211 P **P** **18 56 34.9 +1.1**
comp=Z,16nm,0.9s
FITZ Fitzroy Crossi 73.00 211 P **P** **18 56 34.2 +0.4**
FITZ Fitzroy Crossi 73.00 211 P **P** **18 56 34.6 +0.7**
FITZ Fitzroy Crossi 73.00 211 P **P** **18 56 34.9 +1.1**
comp=Z,16nm,0.9s
APMT Aspermont 73.03 58 IAmb IAmb 18 56 49.8
comp=Z,20nm,0.7s
FNO Franklin 73.05 55 IAmb IAmb 18 56 35.9
comp=Z,69nm,1.0s
SIM Simferopol' 73.06 321 *e*P **P** **18 56 32.3 -1.7**
SIM pmax pmax
comp=Z,33nm,1.3s
SIM MLR MLR
comp=Z,337nm,17.0s
EAB Aberfoyle 73.07 349 *e*P **P** **18 56 33.9 0.0**
EAB IAmb IAmb 18 56 34.8
comp=Z,32nm,0.6s
DEOK Depew 73.08 54 IAmb IAmb 18 56 35.5
comp=Z,46nm,1.0s
LAWE Loch Awe, Argy 73.13 350 *e*P **P** **18 56 34.0 -0.3**
LAWE IAmb IAmb 18 56 35.0
comp=Z,59nm,0.6s
S39A Bolivar 73.29 51 IAmb IAmb 18 56 35.8
comp=Z,38nm,1.2s
X34A Smith Ranch, M 73.31 56 IAmb IAmb 18 56 37.6
comp=Z,26nm,1.0s
GORT1 Trebel 73.33 339 *e*P **P** **18 56 35.9 +0.6**
comp=Z,23nm,1.1s,baz=22,slow=5.7
R40A Maddies Statio 73.35 50 IAmb IAmb 18 56 36.6
comp=Z,47nm,0.8s
TUL3 Leonard 73.39 54 IAmb IAmb 18 56 36.9
comp=Z,24nm,0.8s
PURM Purcari 73.40 325 ⇓P **P** **18 56 34.8 -1.2**

W35A Tecumseh 73.40 55 lAmb lAmb 18 56 37.7
comp=Z,40nm,1.0s
PGBU Glenifferbraes 73.46 349 *eP* **P** **18 56 36.0 -0.1**
OJC Ojcow 73.59 333 *eP* **P** **18 56 36.9 -0.2**
OJC Ojcow 73.59 333 P **P** **18 56 36.4 -0.7**
OJC Ojcow 73.59 333 P **P** **18 56 36.4 -0.7**
OJC Ojcow 73.59 333 P **P** **18 56 37.5 +0.5**
comp=Z,51nm,0.8s
HOMI Horasan 73.59 313 ⇑P **P** **18 56 37.8 +0.2**
P43A Skaggs, Pawnee 73.63 47 lAmb lAmb 18 56 38.0
comp=Z,36nm,0.7s
OZAP Van, Ozalp-Mer 73.68 311 ⇑P **P** **18 56 38.3 +0.2**
EKA Eskdalemuir Ar 73.75 348 P **P** **18 56 37.5 -0.4**
comp=Z,13nm,0.4s,baz=20,slow=5.2,SNR=170
EKA LR LR 19 28 51.5
comp=Z,207nm,20.8s,baz=16,slow=36
comp=Z,13nm,0.4s
ESK Eskdalemuir 73.78 348 P **P** **18 56 37.9 -0.1**
ESK pmax pmax
comp=Z,25nm,0.7s
ESK Eskdalemuir 73.78 348 P **P** **18 56 37.9 -0.1**
ESK lAmb lAmb 18 56 38.9
comp=Z,25nm,0.7s
ESK Eskdalemuir 73.78 348 P **P** **18 56 38.6 +0.5**
comp=Z,47nm,0.8s
ABTX Abilene, Hawle 73.82 59 lAmb lAmb 18 56 40.4
comp=Z,39nm,1.3s
LPIG La Paz 73.93 72 LR LR 19 24 00.1
comp=Z,122nm,19.2s,baz=229,slow=31
FLTG Flechtingen 73.95 339 P **P** **18 56 39.3 +0.2**
comp=Z,23nm,1.1s
KOLS Kolonicke sedl 73.97 331 *eP* **P** **18 56 39.7 +0.4**
KOLS pmax pmax
comp=Z,8.0nm,0.4s
KOLS Kolonicke sedl 73.97 331 *eP* **P** **18 56 39.7 +0.4**
KOLS Kolonicke sedl 73.97 331 P **P** **18 56 39.0 -0.3**
comp=Z,22nm,0.8s
RETH Rethem/Aller, 74.01 340 *eP* **P** **18 56 39.7 +0.3**
comp=Z,7.7nm,0.8s,baz=22,slow=5.7
SADO Sadowa 74.01 38 P **P** **18 56 38.8 -0.8**
comp=Z,8.7nm,0.9s,baz=22,slow=6.8,SNR=4.8
SADO LR LR 19 32 52.3
comp=Z,293nm,18.4s,baz=350,slow=39
comp=Z,8.7nm,0.9s
TX31 Lajitas Ar. Si 74.02 63 lAmb lAmb 18 56 41.4
comp=Z,18nm,0.7s
TXAR Lajitas Array 74.02 63 P **P** **18 56 40.6 +0.6**
comp=Z,13nm,0.6s,baz=299,slow=4.6,SNR=236
comp=Z,13nm,0.6s
TXAR Lajitas Array 74.02 63 P **P** **18 56 40.2 +0.1**
KSP Ksiaz 74.03 335 *eP* **P** **18 56 39.5 -0.2**
HHAR Hobbs 74.07 52 lAmb lAmb 18 56 40.4
comp=Z,21nm,0.8s
EDMD Edmundbyers 74.08 347 *eP* **P** **18 56 39.3 -0.6**
EDMD lAmb lAmb 18 56 41.2
comp=Z,13nm,0.8s
NEWG New Galloway 74.10 349 *eP* **P** **18 56 40.0 0.0**
NEWG lAmb lAmb 18 56 40.7
comp=Z,20nm,0.7s
BUR08 Bucovina Ar. S 74.12 328 P **P** **18 56 38.9 -1.5**
LOOK Love County 74.12 56 lAmb lAmb 18 56 42.0
comp=Z,35nm,1.1s
DMBR Dumbraveni 74.13 326 ⇑P **P** **18 56 39.0 -1.3**
BURAR Bucovina Array 74.14 328 P **P** **18 56 40.0 -0.5**
BURAR Bucovina Array 74.14 328 P **P** **18 56 39.2 -1.2**
BURAR Bucovina Array 74.14 328 ⇑P **P** **18 56 39.3 -1.2**
LDAQ Lac Daran 74.17 31 lAmb lAmb 18 56 42.0
comp=Z,69nm,1.1s
SFIN Lafayette 74.18 45 lAmb lAmb 18 56 41.1
comp=Z,29nm,0.7s
GIRR Girov 74.26 327 ⇓P **P** **18 56 40.0 -1.0**
KOPT Kop Dagi 74.27 314 P **P** **18 56 41.9 +0.3**
OSTC Ostas 74.31 335 *eP* **P** **18 56 41.4 +0.1**
OSTC MLR MLR
comp=Z,2μm,18.0s
OSTC Ostas 74.31 335 *eP* **P** **18 56 41.4 +0.1**
OSTC AMS AMS 19 32 30.0
comp=Z,2μm,18.0s
CHVC Chvalec 74.33 335 *eP* **P** **18 56 41.1 -0.3**
CHVC MLR MLR
comp=Z,2μm,21.8s
CHVC Chvalec 74.33 335 *eP* **P** **18 56 41.1 -0.3**
CHVC AMS AMS 19 32 30.0
comp=Z,2μm,21.8s
CLGH Cloghs, Cushen 74.37 350 *eP* **P** **18 56 41.4 -0.1**
CLGH lAmb lAmb 18 56 42.7
comp=Z,47nm,0.6s
PLPT Palo Pinto 74.41 58 lAmb lAmb 18 56 43.6
comp=Z,33nm,1.1s
GAL1 Galloway 74.41 349 *eP* **P** **18 56 41.4 -0.4**
GAL1 lAmb lAmb 18 56 42.5
comp=Z,30nm,0.6s
UPC Upice 74.41 335 *eP* **P** **18 56 42.4 +0.5**
UPC MLR MLR
comp=Z,2μm,23.4s
UPC Upice 74.41 335 *eP* **P** **18 56 42.4 +0.5**
UPC AMS AMS 19 32 10.0
comp=Z,2μm,23.4s
UPC Upice 74.41 335 P **P** **18 56 42.6 +0.7**
comp=Z,20nm,0.9s
N47A Urbana 74.42 44 lAmb lAmb 18 56 42.6
comp=Z,78nm,1.3s
OKC Ostrava-Krasne 74.42 333 *eP* **P** **18 56 42.3 +0.4**
OKC MLR MLR
comp=Z,2μm,25.2s
OKC Ostrava-Krasne 74.42 333 *eP* **P** **18 56 42.3 +0.4**
OKC AMS AMS 19 32 20.0
comp=Z,2μm,25.2s
OKC Ostrava-Krasne 74.42 333 P **P** **18 56 42.7 +0.8**
comp=Z,36nm,0.9s
BIZ Bicaz 74.42 327 ⇑P **P** **18 56 40.5 -1.4**
STEB Steborice 74.44 334 *eP* **P** **18 56 41.8 -0.2**
SAND Sanderson 74.44 62 lAmb lAmb 18 56 58.0
comp=Z,50nm,1.8s
CLL Collm 74.47 337 *i* P **P** **18 56 41.4 -0.8**
CLL pmax pmax
comp=Z,34nm,0.7s
CLL MLR MLR
comp=Z,1μm,21.1s
CLL Collm 74.47 337 *i* P **P** **18 56 41.4 -0.8**
comp=Z,34nm,0.7s
CLL *i* x x 18 56 48.2
CLL *e*SS SS 19 11 24.0 +25
CLL LH 19 20 00.0
CLL L L 19 25 00.0
CLL AMS AMS 19 31 00.0
comp=N,800nm,22.6s
CLL AMS AMS 19 31 00.0
comp=E,600nm,16.6s
CLL AMS AMS 19 31 00.0
comp=Z,1μm,21.1s
DPC Dobruska-Polom 74.47 335 *eP* **P** **18 56 41.9 -0.4**
DPC pmax pmax
comp=Z,6.0nm,0.5s
DPC MLR MLR
comp=Z,1μm,21.5s
DPC Dobruska-Polom 74.47 335 *eP* **P** **18 56 41.9 -0.4**
comp=Z,5.9nm,0.5s
DPC AMS AMS 19 32 20.0
comp=Z,1μm,21.5s
DPC Dobruska-Polom 74.47 335 P **P** **18 56 43.3 +1.0**
comp=Z,25nm,1.1s
KESW Keswick, Cumbr 74.47 348 *eP* **P** **18 56 42.4 +0.3**
KESW lAmb lAmb 18 56 44.1
comp=Z,49nm,0.9s
KESW Keswick, Cumbr 74.47 348 P **P** **18 56 41.7 -0.5**
comp=Z,84nm,1.0s
FVM French Village 74.50 49 lAmb lAmb 18 56 43.6
comp=Z,36nm,0.6s
TRQ Mont Tremblant 74.52 34 lAmb lAmb 18 56 43.5
comp=Z,59nm,1.0s
IDGL Inch Island, C 74.53 351 P **P** **18 56 42.7 +0.3**
IDGL Inch Island, C 74.53 351 *eP* **P** **18 56 42.5 0.0**
IDGL lAmb lAmb 18 56 43.8
comp=Z,83nm,1.0s
MALK Mahakanadarawa 74.57 265 P **P** **18 56 44.3 +1.0**
comp=Z,36nm,1.6s
TRPA Tarpa 74.58 330 P **P** **18 56 42.6 -0.2**
comp=Z,80nm,0.7s
KRLC Kraliky 74.59 334 *eP* **P** **18 56 42.6 -0.4**
KRLC MLR MLR
comp=Z,2μm,22.9s
KRLC Kraliky 74.59 334 *eP* **P** **18 56 42.6 -0.4**
KRLC AMS AMS 19 33 00.0
comp=Z,2μm,22.9s
KRLC Kraliky 74.59 334 P **P** **18 56 43.8 +0.8**
comp=Z,31nm,0.9s
TESR Tescani 74.59 327 ⇓P **P** **18 56 41.6 -1.4**
TESR Tescani 74.59 327 P **P** **18 56 42.3 -0.7**
comp=Z,34nm,1.0s
CLZ Clausthal 74.61 339 *eP* **P** **18 56 43.5 +0.5**
comp=Z,27nm,0.9s,baz=22,slow=5.7
BRG Berggiesshubel 74.63 336 *eP* **P** **18 56 42.8 -0.3**
comp=Z,16nm,1.2s,baz=22,slow=5.7
BRG Berggiesshubel 74.63 336 *eP* **P** **18 56 43.2 +0.1**
BRG Amp 18 56 43.9
comp=Z,7.7nm,0.7s
BRG Berggiesshubel 74.63 336 P P 18 56 49.6 +6.5
BRG Amp 18 56 50.9
comp=Z,7.1nm,0.8s
HPIG 74.63 67 P **P** **18 56 44.4 +0.6**
comp=Z,18nm,0.7s
LANS Liptovska Anna 74.64 332 *eP* **P** **18 56 44.5 +1.2**
LANS pmax pmax
comp=Z,4.0nm,0.6s
LANS Liptovska Anna 74.64 332 *eP* **P** **18 56 44.5 +1.2**
WIMM Wimmelburg 74.64 338 *eP* **P** **18 56 42.9 -0.2**
comp=Z,15nm,0.7s,baz=22,slow=5.7
WIMM epP **PcP** **18 56 49.6 -7.6**
MORC Moravsky Berou 74.64 334 P **P** **18 56 43.3 0.0**
MORC Moravsky Berou 74.64 334 P **P** **18 56 42.6 -0.7**
MORC lAmb lAmb 18 56 44.6
comp=Z,32nm,0.8s
MORC Moravsky Berou 74.64 334 *eP* **P** **18 56 42.8 -0.5**
MORC Moravsky Berou 74.64 334 P **P** **18 56 43.4 +0.1**
comp=Z,44nm,0.8s
BMR Baia Mare 74.67 329 P **P** **18 56 43.5 +0.1**
BMR Baia Mare 74.67 329 ⇓P **P** **18 56 43.6 +0.1**
BMR Baia Mare 74.67 329 P **P** **18 56 43.8 +0.4**
comp=Z,25nm,0.8s
HAKT HAKKARI 74.69 311 P **P** **18 56 44.2 +0.2**
comp=Z,97nm,0.8s
GURO Guroymak-BITLI 74.71 312 P **P** **18 56 44.1 +0.1**
GURO lAmb lAmb 18 56 47.2
comp=Z,27nm,1.0s
CHRS Christianenhau 74.72 339 *eP* **P** **18 56 43.9 +0.3**
comp=Z,25nm,0.7s,baz=22,slow=5.7
FBE Freiberg 74.73 337 *eP* **P** **18 56 43.3 -0.4**
comp=Z,18nm,1.0s,baz=22,slow=5.7
KELT Kelkit 74.74 315 P **P** **18 56 45.5 +1.3**
comp=Z,66nm,0.8s
IBBN Ibbenburen 74.76 341 P **P** **18 56 44.5 +0.7**
comp=Z,38nm,1.0s
PVCC Panska Ves 74.78 336 *eP* **P** **18 56 44.6 +0.6**
PVCC Panska Ves 74.78 336 *eP* **P** **18 56 44.6 +0.6**
PVCC Panska Ves 74.78 336 P **P** **18 56 44.6 +0.6**
comp=Z,32nm,0.9s
DELO Deniro Mine 74.81 37 lAmb lAmb 18 56 45.0
comp=Z,28nm,1.0s
SCTR Scanteiesti 74.82 325 ⇓P **P** **18 56 44.1 -0.2**
ONER Baraj Valea Uz 74.83 327 ⇑P **P** **18 56 43.8 -0.6**
LMQ La Malbaie 74.84 31 lAmb lAmb 18 56 45.9
comp=Z,78nm,1.2s
ABAH Abaujker 74.85 331 P **P** **18 56 45.3 +0.8**
comp=Z,27nm,0.9s
NEUB Neuenburg 74.86 338 *eP* **P** **18 56 44.4 -0.1**
comp=Z,17nm,0.7s,baz=22,slow=5.7
NEUB epP **PcP** **18 56 50.9 -7.2**
HPK Haverah Park 74.87 347 *eP* **P** **18 56 44.8 +0.3**
HPK lAmb lAmb 18 56 45.6
comp=Z,48nm,0.6s
MAUC Maruska 74.93 333 *eP* **P** **18 56 45.2 +0.3**
TLCR 74.93 325 P **P** **18 56 44.8 -0.1**
TLCR 74.93 325 ⇓P **P** **18 56 44.9 -0.1**
POSS Possen 74.97 338 *eP* **P** **18 56 45.1 0.0**
comp=Z,28nm,0.7s,baz=22,slow=5.7
GTTG Gottingen 74.98 339 *eP* **P** **18 56 45.2 0.0**
comp=Z,12nm,0.7s,baz=22,slow=5.7
GTTG epP **PcP** **18 56 51.3 -7.4**
NEGRR Negrea 74.98 325 ⇑P **P** **18 56 45.2 0.0**
IOMK Kirk Michael 74.98 349 *eP* **P** **18 56 44.9 -0.2**
IOMK lAmb lAmb 18 56 46.7
comp=Z,13nm,0.8s
IOMK Kirk Michael 74.98 349 P **P** **18 56 45.5 +0.4**
comp=Z,68nm,1.1s
HSKC Hora Svate Kat 75.00 337 *eP* **P** **18 56 45.0 -0.3**
HSKC Hora Svate Kat 75.00 337 P **P** **18 56 44.8 -0.6**
comp=Z,28nm,0.8s
N49A Columbus Grove 75.06 43 lAmb lAmb 18 56 46.3
comp=Z,28nm,0.7s
ODBI Odobesti 75.09 326 ⇑P **P** **18 56 45.9 +0.1**
EIDS Eidsvold 75.10 185 P **P** **18 56 47.1 +1.2**
comp=Z,19nm,2.1s
EIDS Eidsvold 75.10 185 P **P** **18 56 46.8 +0.8**
EIDS lAmb lAmb 18 56 48.1
comp=Z,39nm,1.5s
VRI Vrincioaia 75.12 326 P **P** **18 56 46.4 +0.4**
VRI Vrincioaia 75.12 326 ⇑P **P** **18 56 46.5 +0.4**
PLOR Plostina 75.16 326 P **P** **18 56 45.9 -0.4**
PLOR Plostina 75.16 326 ⇑P **P** **18 56 45.9 -0.4**
M50A Fremont 75.16 42 lAmb lAmb 18 56 47.4
comp=Z,36nm,0.8s
CFR Carcaliu 75.19 325 P **P** **18 56 45.6 -0.8**
CFR Carcaliu 75.19 325 ⇓P **P** **18 56 45.6 -0.8**
SCHF Schoenfels 75.20 337 *eP* **P** **18 56 46.5 +0.1**
comp=Z,20nm,0.9s,baz=22,slow=5.7
SCHF epP **PcP** **18 56 52.8 -6.9**
TURR Turia 75.21 327 ⇑P **P** **18 56 46.5 -0.1**
SAHR Sahastru 75.25 326 ⇑P **P** **18 56 47.5 +0.7**
OZUR 75.25 327 ⇑P **P** **18 56 47.6 +0.7**
WTSB Winterswijk 75.28 341 P **P** **18 56 46.7 -0.1**
comp=Z,39nm,0.9s
FCAR Ozark Folk Cen 75.29 51 lAmb lAmb 18 56 47.8
comp=Z,30nm,0.8s
S44A Carbondale 75.30 48 lAmb lAmb 18 56 47.9
comp=Z,38nm,0.7s
WBO Williamsburg 75.30 35 lAmb lAmb 18 56 47.6
comp=Z,36nm,0.8s
PALK Pallekele 75.32 264 LR LR 19 32 04.0
comp=Z,264nm,21.3s,baz=29,slow=37
PALK Pallekele 75.32 264 *i* P **P** **18 56 48.8 +1.1**
SNR=9.2
PALK Pallekele 75.32 264 P **P** **18 56 48.7 +1.1**
PALK Pallekele 75.32 264 P **P** **18 56 48.1 +0.4**
PALK pmax pmax
comp=Z,48nm,0.9s
PALK Pallekele 75.32 264 P **P** **18 56 48.1 +0.4**
PALK lAmb lAmb 18 56 49.7
comp=Z,48nm,0.9s
PALK Pallekele 75.32 264 P **P** **18 56 48.4 +0.8**
comp=Z,67nm,0.9s
PALK Pallekele 75.32 264 P **P** **18 56 48.5 +0.8**
COVR Voineasa-Covas 75.32 327 ⇑P **P** **18 56 47.6 +0.4**
VRAC Vranov 75.33 334 LR LR 19 34 22.8
comp=Z,1μm,18.1s,baz=16,slow=39
VRAC Vranov 75.33 334 P **P** **18 56 47.5 +0.3**
VRAC Vranov 75.33 334 *eP* **P** **18 56 47.0 -0.2**
VRAC Vranov 75.33 334 ⇑P **P** **18 56 47.2 0.0**
VRAC Vranov 75.33 334 P **P** **18 56 47.3 +0.1**
comp=Z,16nm,0.8s
TPGR Topolog 75.36 325 ⇓P **P** **18 56 46.9 -0.5**
BISRR Bisoca 75.40 326 ⇓P **P** **18 56 46.6 -1.2**
BLO Bloomington 75.41 46 lAmb lAmb 18 56 48.3
comp=Z,18nm,0.7s
CGM3 Cape Girardeau 75.41 49 lAmb lAmb 18 56 49.0
comp=Z,44nm,1.6s
VYHS Vyhne 75.42 332 *eP* **P** **18 56 47.8 +0.1**
VYHS pmax pmax
comp=Z,3.0nm,0.5s
VYHS Vyhne 75.42 332 *eP* **P** **18 56 47.8 +0.1**
VYHS Vyhne 75.42 332 P **P** **18 56 47.9 +0.1**
comp=Z,10nm,1.0s
TANN Tannenbergstha 75.43 337 *eP* **P** **18 56 47.9 +0.1**
comp=Z,17nm,1.3s,baz=22,slow=5.7
ILTH Belurgan, Co L 75.43 350 P **P** **18 56 47.3 -0.3**
LBWR Ladybower, Pea 75.43 347 *eP* **P** **18 56 47.9 +0.2**
LBWR lAmb lAmb 18 56 48.6
comp=Z,30nm,0.5s
JAVC Velka Javorina 75.43 333 *eP* **P** **18 56 48.3 +0.4**
JAVC Velka Javorina 75.43 333 P **P** **18 56 48.5 +0.7**
comp=Z,40nm,1.2s
WERD Werda 75.44 337 *eP* **P** **18 56 47.9 +0.1**
comp=Z,17nm,1.0s,baz=22,slow=5.7
WERD epP **PcP** **18 56 54.1 -6.7**
MULD Muldenberg 75.44 337 *eP* **P** **18 56 47.9 +0.1**
comp=Z,10.0nm,0.7s,baz=22,slow=5.7
MULD epP **PcP** **18 56 54.1 -6.7**
CJR Cluj-Napoca 75.47 329 P **P** **18 56 46.4 -1.7**
CJR Cluj-Napoca 75.47 329 ⇑P **P** **18 56 46.5 -1.7**
MNTQ Montreal, Queb 75.48 34 lAmb lAmb 18 56 49.0
comp=Z,37nm,0.9s
DOPR Dopca 75.50 327 ⇑P **P** **18 56 48.9 +0.6**
GUNZ Gunzen 75.51 337 *eP* **P** **18 56 48.4 +0.2**
comp=Z,14nm,0.8s,baz=22,slow=5.7
GUNZ epP **PcP** **18 56 54.5 -6.5**
PECO Prince Edward 75.55 37 lAmb lAmb 18 56 49.2
comp=Z,52nm,0.8s
VITZ Vitzeroda 75.56 339 *eP* **P** **18 56 48.6 +0.1**
comp=Z,40nm,1.1s,baz=22,slow=5.7
WERN Wernitzgrun 75.56 337 *eP* **P** **18 56 48.8 +0.2**
comp=Z,24nm,0.6s,baz=22,slow=5.7
O49A Covington 75.58 44 lAmb lAmb 18 56 49.8
comp=Z,36nm,1.1s
NKC Novy Kostel 75.60 337 *eP* **P** **18 56 49.3 +0.5**
NKC Novy Kostel 75.60 337 *eP* **P** **18 56 49.3 +0.5**
NKC Novy Kostel 75.60 337 P **P** **18 56 49.2 +0.5**
comp=Z,26nm,0.8s
MIAR Mount Ida 75.60 53 lAmb lAmb 18 56 50.3
comp=Z,39nm,0.9s
MIAR Mount Ida 75.60 53 P **P** **18 56 48.5 -0.4**
comp=Z,56nm,0.9s
PSZ Piszkesteto 75.61 331 P **P** **18 56 49.1 +0.2**
PSZ Piszkesteto 75.61 331 ⇑P **P** **18 56 49.2 +0.2**
PSZ Piszkesteto 75.61 331 P **P** **18 56 49.8 +0.9**
comp=Z,25nm,1.1s
KRUC Moravsky 75.61 334 *eP* **P** **18 56 48.5 -0.3**
KRUC Moravsky 75.61 334 P **P** **18 56 49.6 +0.8**
comp=Z,35nm,1.2s
TREC Trest 75.66 335 P **P** **18 56 49.5 +0.4**
comp=Z,29nm,0.9s
MARR Marisel-Cluj 75.67 329 ⇑P **P** **18 56 49.0 -0.3**
BUG Bochum--Univer 75.68 341 *eP* **P** **18 56 49.1 +0.1**
comp=Z,16nm,0.8s,baz=22,slow=5.7
WHAR Wooly Hollow 75.68 52 lAmb lAmb 18 56 50.5
comp=Z,53nm,1.2s
P48A Milroy 75.68 45 lAmb lAmb 18 56 50.2
comp=Z,45nm,0.9s
HARR Harsova 75.68 325 P **P** **18 56 48.6 -0.6**
HARR Harsova 75.68 325 ⇓P **P** **18 56 48.6 -0.6**
TIRR Tirgusor 75.70 324 P **P** **18 56 48.3 -1.1**
TIRR pmax pmax
comp=Z,13nm,0.9s
TIRR Tirgusor 75.70 324 P **P** **18 56 48.2 -1.1**
MDB Medias 75.70 328 P **P** **18 56 49.7 +0.3**
MDB Medias 75.70 328 ⇑P **P** **18 56 49.8 +0.3**
WACR West Acre 75.71 345 *eP* **P** **18 56 49.3 0.0**
WACR lAmb lAmb 18 56 51.5
comp=Z,80nm,1.0s
MLR Muntele Rosu 75.72 327 LR LR 19 33 16.4
comp=Z,931nm,19.7s,baz=0.0,slow=38
MLR Muntele Rosu 75.72 327 P **P** **18 56 50.0 +0.3**
MLR Muntele Rosu 75.72 327 P **P** **18 56 48.7 -0.9**
MLR lAmb lAmb 18 56 51.6
comp=Z,53nm,1.4s
MLR Muntele Rosu 75.72 327 ⇑P **P** **18 56 50.1 +0.3**
MLR Muntele Rosu 75.72 327 P **P** **18 56 49.9 +0.3**
comp=Z,27nm,1.4s
KEMA Kemaliye 75.80 315 P **P** **18 56 50.8 +0.7**
comp=Z,42nm,0.9s
SMOL Smolenice 75.81 333 *eP* **P** **18 56 51.1 +1.1**
SMOL pmax pmax
comp=Z,2.0nm,0.6s
ISR Istrita 75.83 326 P **P** **18 56 50.6 +0.5**
ISR Istrita 75.83 326 ⇑P **P** **18 56 50.7 +0.5**
TOKA Tokat 75.85 317 P **P** **18 56 50.4 0.0**
Z38A Mt. Pleasant 75.86 55 lAmb lAmb 18 56 51.7
comp=Z,31nm,0.9s
ZVC Zvikov 75.87 336 *eP* **P** **18 56 50.0 -0.3**
LONY Lake Ozonia 75.88 35 lAmb lAmb 18 56 49.8
comp=Z,20nm,0.8s
AS01 Alice Springs 75.94 201 P **P** **18 56 51.3 +0.5**
ASAR Alice Springs 75.95 201 P **P** **18 56 51.8 +0.8**
comp=Z,22nm,0.7s,baz=15,slow=5.3,SNR=334
ASAR LR LR 19 27 47.0
comp=Z,228nm,21.8s,baz=20,slow=34
comp=Z,22nm,0.7s
ASAR Alice Springs 75.95 201 P **P** **18 56 51.4 +0.4**
AUALC St Philip's Co 75.98 201 P **P** **18 56 51.6 +0.5**
MODS Modra-Piesok 75.98 333 P **P** **18 56 52.1 +1.2**
comp=Z,50nm,1.0s
WCNY West Carthage 76.02 36 lAmb lAmb 18 56 52.5
comp=Z,38nm,1.0s
X40A Basin Creek Fa 76.03 53 lAmb lAmb 18 56 52.7
comp=Z,35nm,1.3s
VOIR 76.08 327 P **P** **18 56 51.4 -0.2**
VOIR 76.08 327 ⇑P **P** **18 56 51.5 -0.2**
VOIR 76.08 327 P **P** **18 56 51.4 -0.2**
comp=Z,36nm,0.9s
CFNY Clifton-Fine, 76.09 35 lAmb lAmb 18 56 52.4
comp=Z,82nm,1.4s
FOEL Foel Wylfa 76.14 347 *eP* **P** **18 56 51.7 -0.1**
FOEL lAmb lAmb 18 56 53.6
comp=Z,37nm,0.7s
FOEL Foel Wylfa 76.14 347 P **P** **18 56 52.5 +0.7**
comp=Z,33nm,0.9s
ACSO Alum Creek Sta 76.15 43 lAmb lAmb 18 56 53.3
comp=Z,71nm,1.2s
SRO Srobarova 76.18 332 P **P** **18 56 52.8 +0.8**
comp=Z,52nm,1.0s
DSB Dublin 76.20 349 P **P** **18 56 52.3 +0.2**
DSB Dublin 76.20 349 P **P** **18 56 51.7 -0.3**
DSB Dublin 76.20 349 *eP* **P** **18 56 52.0 0.0**
DSB Dublin 76.20 349 P **P** **18 56 52.7 +0.6**
comp=Z,101nm,1.1s
ICOR Ion Corvin 76.22 325 ⇑P **P** **18 56 52.7 +0.4**
ABNA Allensteig Bun 76.24 335 *eP* **P** **18 56 52.4 0.0**
comp=Z,14nm,0.6s
BUD Budapest 76.26 332 P **P** **18 56 53.4 +0.9**
comp=Z,39nm,0.9s
ELMS Elmsett, Ipswi 76.26 345 *eP* **P** **18 56 51.9 -0.5**
ELMS lAmb lAmb 18 56 53.6
comp=Z,66nm,0.5s
WCI Wyandotte Cave 76.27 46 P **P** **18 56 52.7 -0.1**
WCI pmax pmax
comp=Z,81nm,0.9s
WCI Wyandotte Cave 76.27 46 P **P** **18 56 52.7 -0.1**
WCI Wyandotte Cave 76.27 46 P **P** **18 56 53.3 +0.5**
comp=Z,111nm,0.9s
WCI Wyandotte Cave 76.27 46 P **P** **18 56 53.0 +0.2**
WCI pP **pP** **18 57 06.6 -0.8**
WCI sP **sP** **18 57 11.9 -1.3**
ARR Arges 76.29 327 ⇑P **P** **18 56 53.6 +0.8**
ARR Arges 76.29 327 P **P** **18 56 54.1 +1.2**
comp=Z,52nm,1.0s
MARD Mardin 76.30 312 P **P** **18 56 53.0 -0.1**
MARD lAmb lAmb 18 56 55.0
comp=Z,77nm,1.2s
SULR 76.31 326 P **P** **18 56 52.3 -0.5**
comp=Z,75nm,1.1s
KHC Kasperske Hory 76.32 336 *eP* **P** **18 56 52.8 -0.1**
KHC *e* 18 56 58.9
KHC pmax pmax
comp=Z,18nm,0.7s
KHC MLR MLR
comp=Z,1μm,19.8s
KHC Kasperske Hory 76.32 336 lAmb lAmb 18 56 54.5
comp=Z,27nm,0.8s
KHC Kasperske Hory 76.32 336 *eP* **P** **18 56 52.8 -0.1**
comp=Z,18nm,0.7s
KHC *ex* x 18 56 58.9
KHC AMS AMS 19 34 10.0
comp=Z,1μm,19.8s
KHC Kasperske Hory 76.32 336 P **P** **18 56 53.3 +0.4**
comp=Z,42nm,1.2s
BOPT Opiter 76.33 342 *dP* **P** **18 56 53.2 +0.4**
BMOL Mol 76.34 342 *dP* **P** **18 56 53.1 +0.2**
IGLA Glengowla, Co 76.35 351 P **P** **18 56 52.7 -0.2**
J57A Williamstown 76.38 36 lAmb lAmb 18 56 54.6
comp=Z,28nm,0.8s
GRFO Grafenberg 76.40 338 P **P** **18 56 53.5 +0.2**
GRFO pmax pmax
comp=Z,41nm,0.6s
GRFO Grafenberg 76.40 338 P **P** **18 56 53.5 +0.2**
GRFO Grafenberg 76.40 338 P **P** **18 56 53.8 +0.5**
CKRC Cesky Krumlov 76.41 335 *eP* **P** **18 56 53.1 -0.3**
CKRC MLR MLR
comp=Z,1μm,23.3s
CKRC Cesky Krumlov 76.41 335 *eP* **P** **18 56 53.1 -0.3**
CKRC AMS AMS 19 34 10.0
comp=Z,1μm,23.3s
ILGA Ilgaz 76.44 319 P **P** **18 56 54.1 +0.2**
ILGA lAmb lAmb 18 56 56.0
comp=Z,51nm,1.0s
BATG Bathurst New B 76.44 28 P **P** **18 56 54.1 +0.5**
BATG lAmb lAmb 18 56 55.1
comp=Z,40nm,0.7s

WLAR **White Oak Lake** 76.51 53 lAmb lAmb 18 56 55.7
comp=Z,47nm,0.9s
SIRR **Siria** 76.51 330 ⇓P P 18 56 53.7 -0.2
LOT **Lotru** 76.52 328 ⇑P P 18 56 54.2 0.0
GEC2 **GERESS Array S** 76.55 336 *e*P P 18 56 54.3 0.0
comp=Z,14nm,0.6s,baz=22,slow=5.7
GERES **GERESS Array B** 76.55 336 P P 18 56 53.9 -0.4
comp=Z,12nm,0.5s,baz=32,slow=5.6,SNR=134
GERES LR LR 19 34 53.2
comp=Z,908nm,18.6s,baz=12,slow=39
comp=Z,12nm,0.5s
WINA **Alland / Wiene** 76.57 334 *i* P P 18 56 54.8 +0.5
comp=Z,15nm,0.5s,SNR=12
HGN **Heimansgroeve** 76.60 341 P P 18 56 55.0 +0.7
comp=Z,46nm,0.9s
N53A **Lisbon** 76.60 41 lAmb lAmb 18 56 55.9
comp=Z,60nm,1.0s
MEM **Membach** 76.73 341 *d*P P 18 56 54.1 -1.0
comp=Z,36nm,1.0s
MEM **Membach** 76.73 341 P P 18 56 55.6 +0.5
comp=Z,69nm,1.1s
BOST **Ostende** 76.73 343 *d*P P 18 56 54.7 -0.4
R49A **Shelbyville** 76.74 45 lAmb lAmb 18 56 56.4
comp=Z,24nm,1.0s
K57A **Scipio Center** 76.75 37 lAmb lAmb 18 56 56.1
comp=Z,42nm,1.0s
SHME **Shamm** 76.78 295 *i* P P 18 56 55.7 -0.1
SNR=7.8
SHME **Shamm** 76.78 295 P P 18 56 55.6 -0.1
BANOM **Banah** 76.78 294 P P 18 56 56.3 +0.5
BANOM **Banah** 76.78 294 P P 18 56 56.0 +0.1
CONA **Conrad Observa** 76.79 334 *i* P P 18 56 55.8 +0.2
comp=Z,18nm,0.6s,SNR=22
VT1 **Waterbury** 76.80 34 lAmb lAmb 18 56 57.0
comp=Z,44nm,0.8s
G62A **West of Eustis** 76.81 32 lAmb lAmb 18 56 57.6
comp=Z,50nm,0.9s
SURR **Surduc** 76.81 329 ⇑P P 18 56 56.3 +0.6
SOP **Sopron** 76.81 333 P P 18 56 57.1 +1.5
comp=Z,31nm,0.8s
RONA **Rosalia, Austr** 76.87 334 *i* P P 18 56 56.4 +0.4
comp=Z,26nm,1.2s,SNR=18
UCC **Uccle** 76.88 342 lAmb lAmb 18 56 56.8
comp=Z,18nm,0.7s
UCC **Uccle** 76.88 342 *d*P P 18 56 55.9 0.0
comp=Z,19nm,0.8s
UCC **Uccle** 76.88 342 P P 18 56 56.0 +0.1
comp=Z,5.3nm,0.8s
J59A **Piesco** 76.90 36 lAmb lAmb 18 56 56.8
comp=Z,34nm,0.8s
O53A **New Philadelph** 76.90 42 lAmb lAmb 18 56 57.4
comp=Z,47nm,0.8s
QLP **Quilpie** 76.93 191 P P 18 56 57.2 +0.9
comp=Z,86nm,1.0s
QLP **Quilpie** 76.93 191 P P 18 56 56.5 +0.2
QLP **Quilpie** 76.93 191 P P 18 56 57.1 +0.8
comp=Z,86nm,1.0s
MPLH **Magyarpolny** 76.99 333 P P 18 56 56.9 +0.3
comp=Z,59nm,1.1s
P52A **Corning** 77.01 43 lAmb lAmb 18 56 57.6
comp=Z,26nm,0.9s
BCLA **Clavier** 77.05 342 *d*P P 18 56 56.6 -0.3
STRD **Stroud** 77.07 347 *e*P P 18 56 57.2 +0.2
STRD lAmb lAmb 18 56 59.4
comp=Z,62nm,0.8s
BSKQ **Steenkerk** 77.08 342 *d*P P 18 56 56.6 -0.4
comp=Z,21nm,0.7s
BSKQ *d*PcP PcP 18 57 07.6 -0.1
BZS **Buzias** 77.10 329 P P 18 56 56.7 -0.6
BZS **Buzias** 77.10 329 ⇑P P 18 56 56.1 -1.2
BZS **Buzias** 77.10 329 P P 18 56 56.9 -0.4
comp=Z,31nm,1.1s
IWEX **Carrickbyrne,** 77.10 350 P P 18 56 57.5 +0.3
IWEX **Carrickbyrne,** 77.10 350 *e*P P 18 56 57.0 -0.1
IWEX lAmb lAmb 18 56 58.3
comp=Z,42nm,0.8s
IWEX **Carrickbyrne,** 77.10 350 P P 18 56 57.6 +0.5
comp=Z,93nm,0.9s
MONM **Monmouth** 77.11 347 *e*P P 18 56 57.2 0.0
MONM lAmb lAmb 18 56 58.6
comp=Z,35nm,0.9s
R50A **Paris** 77.14 45 lAmb lAmb 18 56 59.1
comp=Z,24nm,0.9s
COPA **Copaceanca** 77.15 326 ⇑P P 18 56 56.9 -0.7
LBNH **Lisbon** 77.17 33 lAmb lAmb 18 56 59.4
comp=Z,31nm,0.9s
PKME **Peaks-Kenny Pk** 77.19 31 lAmb lAmb 18 56 59.9
comp=Z,32nm,0.9s
WVT **Waverly** 77.23 48 P P 18 56 58.0 -0.1
WVT pmax pmax
comp=Z,17nm,0.7s
WVT **Waverly** 77.23 48 P P 18 56 58.0 -0.1
WVT lAmb lAmb 18 56 59.0
comp=Z,17nm,0.7s
WVT **Waverly** 77.23 48 P P 18 56 58.1 0.0
comp=Z,29nm,1.0s
WVT **Waverly** 77.23 48 P P 18 56 58.2 0.0
WVT pP pP 18 57 11.4 -1.5
MDH **Madha** 77.25 294 P P 18 56 58.3 -0.2
MDH **Madha** 77.25 294 P P 18 56 57.2 -1.3
BMRD **Maredsous** 77.27 342 *d*P P 18 56 58.2 +0.1
comp=Z,32nm,0.9s
MASF **Masafi** 77.28 294 P P 18 56 58.2 -0.5
MSFE **Esma-Masafi** 77.29 294 P P 18 56 58.3 -0.4
MOA **Molln** 77.31 335 *i* P P 18 56 58.2 -0.2
comp=Z,10nm,0.6s,SNR=7.0
MOA **Molln** 77.31 335 P P 18 56 59.0 +0.6
comp=Z,27nm,1.1s
O54A **Avella** 77.31 41 lAmb lAmb 18 56 60.0
comp=Z,44nm,1.0s
RCHB **Rochefort** 77.32 342 *d*P P 18 56 58.6 +0.1
comp=Z,19nm,1.1s
RCHB **Rochefort** 77.32 342 P P 18 56 58.8 +0.3
comp=Z,36nm,2.3s
BNN **Bunyan** 77.33 316 P P 18 56 58.9 0.0
BNN lAmb lAmb 18 57 00.8
comp=Z,33nm,0.8s
WOL **Wolverton** 77.38 346 *e*P P 18 56 58.3 -0.4
WOL lAmb lAmb 18 56 59.6
comp=Z,58nm,0.6s
WSAR **Wadi Sarin** 77.41 291 P P 18 56 59.9 +0.5
BINY **Binghamton** 77.41 37 lAmb lAmb 18 56 59.5
comp=Z,24nm,1.0s
BINY **Binghamton** 77.41 37 P P 18 56 59.1 0.0
comp=Z,31nm,2.2s
MLDN **Muldoon** 77.41 59 lAmb lAmb 18 57 01.1
comp=Z,60nm,1.2s
P53A **Whipple** 77.45 42 lAmb lAmb 18 57 00.6
comp=Z,30nm,1.1s
HERR **Herculane** 77.48 328 ⇑P P 18 56 58.4 -1.0
BIDO **Bidbid** 77.50 292 P P 18 57 00.7 +0.9
ARSA **Arzberg** 77.50 334 lAmb lAmb 18 57 01.4
comp=Z,37nm,1.2s
ARSA **Arzberg** 77.50 334 *i* P P 18 56 59.7 +0.1
comp=Z,18nm,0.7s,SNR=11
ARSA **Arzberg** 77.50 334 P P 18 57 00.4 +0.8
comp=Z,33nm,1.0s
DOU **Dourbes** 77.50 342 *d*P P 18 56 59.6 +0.1
Q52A **Bidwell** 77.50 43 lAmb lAmb 18 57 00.7
comp=Z,50nm,1.1s
HNH **Hanover** 77.51 34 lAmb lAmb 18 57 00.7
comp=Z,29nm,0.8s
MORH **Mrgy, Hungar** 77.51 331 ⇑P P 18 56 58.9 -0.6
MORH **Mrgy, Hungar** 77.51 331 *e*P P 18 56 58.7 -0.9
MORH **Mrgy, Hungar** 77.51 331 P P 18 56 59.2 -0.4
comp=Z,16nm,1.1s
BR131 **Keskin Array S** 77.57 318 P P 18 57 00.7 +0.5
SNR=18
BR131 **Keskin Array S** 77.57 318 P P 18 56 59.7 -0.5
BR131 pmax pmax
comp=Z,20nm,0.9s
BR131 **Keskin Array S** 77.57 318 P P 18 56 59.7 -0.5
BR131 lAmb lAmb 18 57 01.9
comp=Z,20nm,0.8s
UOSS **Minazif** 77.57 294 *i* P P 18 56 59.9 -0.4
SNR=9.6
UOSS **Minazif** 77.57 294 P P 18 57 00.1 -0.2
UOSS **Minazif** 77.57 294 P P 18 56 59.8 -0.5
UOSS **Minazif** 77.57 294 P P 18 56 59.9 -0.4
comp=Z,84nm,1.1s
BRTR **Keskin Array B** 77.57 318 P P 18 57 00.0 -0.2
comp=Z,17nm,0.9s,baz=56,slow=3.1,SNR=55
BRTR LR LR 19 36 36.4
comp=Z,220nm,18.8s,baz=341,slow=40
comp=Z,17nm,0.9s
BRTR **Keskin Array B** 77.57 318 P P 18 56 59.4 -0.8

WLF **Walferdange** 77.59 341 P P 18 57 00.0 0.0
WLF pmax pmax
comp=Z,32nm,1.3s
WLF **Walferdange** 77.59 341 P P 18 56 60.0 0.0
WLF lAmb lAmb 18 57 02.8
comp=Z,32nm,1.3s
WLF **Walferdange** 77.59 341 *d*P P 18 57 00.2 +0.3
WLF **Walferdange** 77.59 341 P P 18 57 00.6 +0.6
comp=Z,14nm,0.9s
BIOA **Bad Ischl, Aus** 77.62 335 *i* P P 18 57 00.5 +0.3
comp=Z,10nm,0.4s,SNR=16
WVL **Waterville** 77.68 32 lAmb lAmb 18 57 02.3
comp=Z,55nm,1.1s
M57A **Sunshine Farm,** 77.69 38 lAmb lAmb 18 57 01.4
comp=Z,32nm,0.8s
I62A **Tamworth** 77.70 33 lAmb lAmb 18 57 17.1
comp=Z,34nm,1.3s
HATD **Hatta, Dubai** 77.71 294 *i* P P 18 57 01.0 0.0
SNR=25
HATD **Hatta, Dubai** 77.71 294 P P 18 57 01.3 +0.2
SNR=6.0
J61A **Chester** 77.72 34 lAmb lAmb 18 57 02.3
comp=Z,30nm,0.9s
STU **Stuttgart** 77.75 339 P P 18 57 00.8 0.0
STU pmax pmax
comp=Z,33nm,1.1s
STU **Stuttgart** 77.75 339 P P 18 57 00.8 0.0
STU lAmb lAmb 18 57 02.0
comp=Z,33nm,1.1s
STU **Stuttgart** 77.75 339 P P 18 57 01.3 +0.4
comp=Z,30nm,1.1s
JLN **Jalan Bani Buh** 77.75 290 P P 18 57 01.9 +0.6
MDVR **Moldovita** 77.80 329 ⇓P P 18 57 01.0 -0.3
FUR **Furstenfeldbru** 77.80 337 *e*P P 18 57 01.6 +0.4
comp=Z,44nm,0.9s,baz=22,slow=5.7
RJOB **Jochberg** 77.81 336 P P 18 57 02.1 +0.8
comp=Z,11nm,0.8s
PUNG **Punghina** 77.83 328 ⇓P P 18 57 02.0 +0.7
BEHE **Becsehely** 77.85 333 P P 18 57 01.5 0.0
BEHE **Becsehely** 77.85 333 *e*P P 18 57 00.6 -0.8
BEHE **Becsehely** 77.85 333 P P 18 57 02.4 +0.9
comp=Z,17nm,1.0s
ASHO **Ashiyiah** 77.86 294 *i* P P 18 57 02.0 0.0
SNR=14
ASHO **Ashiyiah** 77.86 294 P P 18 57 01.9 0.0
NAZ **Nazwa, Dubai** 77.86 294 *i* P P 18 57 02.0 +0.2
SNR=8.9
NAZ **Nazwa, Dubai** 77.86 294 P P 18 57 01.9 0.0
SMDO **Samad** 77.89 291 P P 18 57 02.5 +0.3
SESA **Seetaler Alpe,** 77.90 334 *i* P P 18 57 02.2 +0.2
comp=Z,24nm,0.6s,SNR=72
U49A **Red Boiling Sp** 77.90 47 lAmb lAmb 18 57 03.2
comp=Z,56nm,1.3s
VAL **Valentia** 77.90 352 P P 18 57 02.0 +0.4
VAL **Valentia** 77.90 352 P P 18 57 02.2 +0.6
comp=Z,163nm,0.8s
T50A **Nancy** 77.93 46 lAmb lAmb 18 57 02.9
comp=Z,38nm,0.7s
HOQ **Hoqain** 77.94 292 P P 18 57 02.5 +0.2
KIRS **Kirsehir-Merke** 77.94 318 ⇓P P 18 57 02.5 +0.3
HKT **Hockley** 77.96 58 P P 18 57 02.5 +0.3
HKT pmax pmax
comp=Z,25nm,1.6s
HKT **Hockley** 77.96 58 P P 18 57 02.5 +0.3
SSPA **Standing Stone** 77.97 39 P P 18 57 02.1 -0.2
SSPA lAmb lAmb 18 57 03.6
comp=Z,51nm,1.2s
SSPA **Standing Stone** 77.97 39 P P 18 57 02.6 +0.3
comp=Z,42nm,1.4s
SSPA **Standing Stone** 77.97 39 P P 18 57 02.2 -0.1
SSPA pP pP 18 57 15.6 -1.5
MCWV **Mont Chateau** 77.98 41 lAmb lAmb 18 57 04.0
comp=Z,60nm,1.1s
MDUB **Mudurnu** 77.98 320 P P 18 57 02.4 0.0
MDUB lAmb lAmb 18 57 04.0
comp=Z,43nm,0.9s
CLTN **Cedars of Leba** 77.98 47 lAmb lAmb 18 57 03.3
comp=Z,17nm,0.7s
SOHO **SOHO** 77.99 293 *i* P P 18 57 03.0 +0.4
SNR=12
SOHO **SOHO** 77.99 293 P P 18 57 02.6 0.0
S51A **Beattyville** 78.00 45 lAmb lAmb 18 57 03.1
comp=Z,24nm,0.8s
PLVB **Pleven** 78.02 326 ⇑P P 18 57 02.8 +0.4
KOGS **Kog** 78.02 333 *i* P P 18 57 02.1 -0.3
V48A **Smith Brothers** 78.03 48 lAmb lAmb 18 57 03.3
comp=Z,23nm,0.7s
SILT **Sile** 78.03 322 ⇑P P 18 57 03.2 +0.6
KSPA **Keystone Colle** 78.04 37 lAmb lAmb 18 57 03.4
comp=Z,17nm,0.8s
GAZ **Gaziantep** 78.08 315 P P 18 57 03.4 +0.3
GAZ lAmb lAmb 18 57 05.0
comp=Z,52nm,1.2s
FAQ **Al Faqa, Dubai** 78.09 294 *i* P P 18 57 02.7 -0.4
SNR=9.4
FAQ **Al Faqa, Dubai** 78.09 294 P P 18 57 02.9 -0.2
FRGS **Fruska Gora** 78.09 330 *e*P P 18 57 02.7 -0.2
LMN **Caledonia Moun** 78.10 28 P P 18 57 03.2 +0.4
Q54A **Coxs Mills** 78.11 42 lAmb lAmb 18 57 04.7
comp=Z,47nm,1.2s
LESA **Schwarzleotal** 78.12 336 *i* P P 18 57 03.7 +0.6
comp=Z,19nm,0.5s,SNR=27
ANDN **Andirin** 78.15 315 P P 18 57 04.6 +1.2
comp=Z,126nm,1.1s
143A **Socs Landing,** 78.16 53 lAmb lAmb 18 57 05.4
comp=Z,43nm,1.0s
SOKA **Soboth** 78.16 334 *e*P P 18 57 03.3 0.0
comp=Z,25nm,0.7s,SNR=30
HTL **Hartland** 78.17 348 *e*P P 18 57 03.0 -0.1
HTL lAmb lAmb 18 57 05.0
comp=Z,50nm,0.8s
HTL **Hartland** 78.17 348 P P 18 57 03.6 +0.5
comp=Z,26nm,0.9s
KBA **Koelnbreinsper** 78.27 335 *i* P P 18 57 04.4 +0.5
comp=Z,55nm,0.6s,SNR=66
KBA **Koelnbreinsper** 78.27 335 P P 18 57 04.4 +0.5
comp=Z,184nm,1.0s
N58A **Sunbury** 78.28 38 lAmb lAmb 18 57 05.0
comp=Z,32nm,1.0s
ASUD **Al Ashush, Dub** 78.33 294 *i* P P 18 57 04.5 +0.1
SNR=8.0
ASUD **Al Ashush, Dub** 78.33 294 P P 18 57 04.8 +0.4
KKUL **Konya-Kulu** 78.34 319 P P 18 57 05.1 +0.7
comp=Z,40nm,1.0s
BFO **Black Forest** 78.36 339 P P 18 57 04.0 -0.3
BFO pmax pmax
comp=Z,23nm,0.8s
BFO **Black Forest** 78.36 339 P P 18 57 04.0 -0.3
BFO lAmb lAmb 18 57 05.2
comp=Z,23nm,0.8s
BFO **Black Forest** 78.36 339 *e*P P 18 57 04.4 +0.1
comp=Z,22nm,0.9s,baz=22,slow=5.7
JMDO **Jabal Madar** 78.38 291 P P 18 57 04.9 +0.1
K62A **Royalston** 78.43 34 lAmb lAmb 18 57 24.5
comp=Z,38nm,1.4s
OBKA **Obir** 78.45 334 *i* P P 18 57 04.9 0.0
comp=Z,26nm,0.7s,SNR=18
OBKA **Obir** 78.45 334 P P 18 57 05.0 0.0
comp=Z,48nm,0.9s
BLKB **Belogradchik** 78.50 328 ⇓P P 18 57 04.0 -1.1
WATA **Walderalm** 78.50 336 *i* P P 18 57 05.5 +0.3
comp=Z,71nm,1.2s,SNR=15
NPNY **Mohonk Preserv** 78.50 36 lAmb lAmb 18 57 05.5
comp=Z,25nm,0.8s
ALNE **Al Ain** 78.51 294 *i* P P 18 57 05.4 -0.1
SNR=25
ALNE **Al Ain** 78.51 294 P P 18 57 05.6 +0.1
SNR=8.1
UBR **Ueberruh** 78.55 338 *e*P P 18 57 05.6 +0.3
comp=Z,55nm,1.4s,baz=22,slow=5.7
WTTA **Wattenberg** 78.55 336 *i* P P 18 57 05.8 +0.2
comp=Z,107nm,1.3s,SNR=26
WTTA **Wattenberg** 78.55 336 P P 18 57 06.6 +1.0
comp=Z,80nm,1.1s
UNH **University of** 78.55 33 lAmb lAmb 18 57 06.9
comp=Z,45nm,0.9s
RETA **Reutte** 78.56 337 *i* P P 18 57 05.8 +0.3
comp=Z,19nm,0.7s,SNR=8.0
INKA **Innaminka** 78.56 194 P P 18 57 06.0 +0.6
AJN **Ajban** 78.58 294 *i* P P 18 57 05.4 -0.4
SNR=10
AJN **Ajban** 78.58 294 P P 18 57 05.5 -0.3
MYKA **Terra Mystica** 78.59 335 *i* P P 18 57 05.3 -0.3
comp=Z,17nm,0.8s,SNR=11
ARQ **Araqi** 78.60 293 P P 18 57 06.3 +0.3
MOTA **Moosalm** 78.61 337 *i* P P 18 57 05.8 0.0

comp=Z,85nm,1.2s,SNR=28
BSY **Bisya** 78.64 292 P P 18 57 07.0 +0.7
SNR=5.6
ZAG **Zagreb** 78.66 333 P P 18 57 06.6 +0.7
comp=Z,157nm,0.9s
SQTA **Sankt Quirin** 78.70 337 *i* P P 18 57 06.7 +0.4
comp=Z,37nm,0.8s,SNR=24
ACOM **Acomizza, Ital** 78.71 335 P P 18 57 06.5 +0.1
comp=Z,69nm,0.9s
WRKA **Warakurna** 78.71 206 P P 18 57 07.3 +1.0
comp=Z,33nm,1.0s
TEKS **Tekeris** 78.72 330 *e*P P 18 57 05.2 -1.2
ECH **Echery** 78.74 340 lAmb lAmb 18 57 07.5
comp=Z,40nm,1.0s
ECH **Echery** 78.74 340 P P 18 57 06.7 +0.3
comp=Z,41nm,1.6s
441A **DeRidder** 78.76 55 lAmb lAmb 18 57 09.2
comp=Z,44nm,0.9s
Q56A **Snyder Ridge,** 78.77 41 lAmb lAmb 18 57 08.2
comp=Z,33nm,1.1s
PRED **Cave del Predi** 78.79 335 lAmb lAmb 18 57 07.9
comp=Z,34nm,0.7s
PAGS **Pennsylvania G** 78.79 39 lAmb lAmb 18 57 07.7
comp=Z,36nm,0.9s
ABTA **Abfaltersbach** 78.79 336 *i* P P 18 57 06.8 0.0
comp=Z,59nm,1.2s,SNR=23
HRV **Adam Dziewonsk** 78.81 34 P P 18 57 07.3 +0.4
HRV pmax pmax
comp=Z,36nm,1.0s
HRV **Adam Dziewonsk** 78.81 34 P P 18 57 07.2 +0.4
HRV lAmb lAmb 18 57 08.3
comp=Z,35nm,0.9s
HRV **Adam Dziewonsk** 78.81 34 P P 18 57 07.4 +0.6
comp=Z,47nm,0.9s
HRV **Adam Dziewonsk** 78.81 34 P P 18 57 07.1 +0.3
HRV pP pP 18 57 20.7 -1.0
BOVS **Bovan** 78.82 328 ⇑P P 18 57 06.2 -0.6
SLE **Schleitheim** 78.86 339 P P 18 57 06.4 -0.6
comp=Z,29nm,0.8s
SWET **Sewanee** 78.88 48 lAmb lAmb 18 57 08.2
comp=Z,41nm,0.7s
LJU **Ljubljana** 78.89 334 *i* P P 18 57 06.8 -0.3
S54A **Dingess, Beckl** 78.89 43 lAmb lAmb 18 57 08.6
comp=Z,25nm,0.8s
TZTN **Tazewell** 78.91 45 lAmb lAmb 18 57 09.1
comp=Z,54nm,1.3s
TZTN **Tazewell** 78.91 45 P P 18 57 08.1 +0.5
comp=Z,32nm,0.9s
DAVA **Damuels** 78.97 338 *i* P P 18 57 08.1 +0.3
comp=Z,49nm,1.1s,SNR=24
DAVA **Damuels** 78.97 338 P P 18 57 08.2 +0.3
comp=Z,67nm,0.9s
FUSE **Fusea** 78.97 335 P P 18 57 07.1 -0.6
comp=Z,29nm,1.2s
FETA **Feichten** 79.00 337 *i* P P 18 57 08.3 +0.3
comp=Z,36nm,1.0s,SNR=19
WES **Weston** 79.00 34 lAmb lAmb 18 57 09.3
comp=Z,46nm,0.9s
R55A **Marlinton** 79.01 42 lAmb lAmb 18 57 09.6
comp=Z,63nm,1.0s
DRE **Drenchia** 79.01 335 P P 18 57 07.2 -0.8
comp=Z,16nm,0.7s
BCX **Boston College** 79.10 34 lAmb lAmb 18 57 09.7
comp=Z,31nm,0.9s
MVL **Millersville** 79.14 39 lAmb lAmb 18 57 09.8
comp=Z,21nm,0.8s
BOJS **Bojanci** 79.17 333 *i* P P 18 57 08.6 -0.2
W50A **Signal Mountai** 79.19 47 lAmb lAmb 18 57 10.1
comp=Z,23nm,0.8s
STAL **STALIGIAL** 79.19 335 lAmb lAmb 18 57 09.1
comp=Z,30nm,1.0s
PAL **Palisades** 79.23 36 lAmb lAmb 18 57 10.2
comp=Z,33nm,0.8s
BLY **Banja Luka** 79.28 332 ⇑P P 18 57 08.8 -0.6
BLY **Banja Luka** 79.28 332 *e*P P 18 57 08.7 -0.6
BLY **Banja Luka** 79.28 332 P P 18 57 09.0 -0.3
comp=Z,14nm,1.1s
WSPT **Westport, CT** 79.31 36 lAmb lAmb 18 57 09.8
comp=Z,22nm,0.8s
BAND **Balkesir-Ban** 79.32 322 ⇑P P 18 57 09.3 -0.4
CPCT **Cooper Cave** 79.36 47 lAmb lAmb 18 57 10.6
comp=Z,17nm,0.7s
BBLS **Lazi&#263i** 79.37 330 *e*P P 18 57 09.6 -0.4
TRI **Trieste** 79.41 334 lAmb lAmb 18 57 10.1
comp=Z,60nm,1.2s
DAVOX **Davos/Dischmat** 79.44 337 LR LR 19 37 23.3
comp=Z,671nm,18.4s,baz=20,slow=40
Z47A **Carrollton** 79.46 50 lAmb lAmb 18 57 11.7
comp=Z,43nm,0.8s
FUORN **Ofenpass-Fuorn** 79.49 337 P P 18 57 11.5 +0.7
FUORN lAmb lAmb 18 57 12.8
comp=Z,64nm,1.1s
FUORN **Ofenpass-Fuorn** 79.49 337 P P 18 57 11.9 +1.0
comp=Z,66nm,0.9s
BOURR **Bourrignon** 79.50 339 P P 18 57 11.3 +0.7
comp=Z,55nm,1.2s
MHTO **MHTO** 79.51 290 P P 18 57 12.0 +1.0
SNR=10
TKL **Tuckaleechee C** 79.53 46 P P 18 57 11.1 +0.2
comp=Z,8.7nm,0.6s,baz=178,slow=4.4,SNR=20
TKL LR LR 19 32 22.2
comp=Z,542nm,22.0s,baz=328,slow=36
comp=Z,8.7nm,0.6s
TKL **Tuckaleechee C** 79.53 46 lAmb lAmb 18 57 12.3
comp=Z,53nm,1.4s
JRN **Qarnain Island** 79.54 296 P P 18 57 10.7 -0.4
JSA **Saint Aubin** 79.59 346 *e*P P 18 57 11.1 +0.1
JSA lAmb lAmb 18 57 12.9
comp=Z,50nm,0.9s
M63A **Gales Ferry** 79.59 35 lAmb lAmb 18 57 12.0
comp=Z,45nm,1.0s
ALN **Alexandroupoli** 79.65 324 P P 18 57 10.8 -0.6
ALN pmax pmax
comp=Z,30nm,1.0s
ALN **Alexandroupoli** 79.65 324 P P 18 57 10.8 -0.6
ALN lAmb lAmb 18 57 12.2
comp=Z,30nm,1.0s
ALN **Alexandroupoli** 79.65 324 P P 18 57 10.9 -0.5
comp=Z,38nm,1.1s
CTI **Castel Tesino** 79.67 336 lAmb lAmb 18 57 12.2
comp=Z,37nm,0.8s
BNALP **Bannalp** 79.71 338 P P 18 57 12.4 +0.5
comp=Z,38nm,0.8s
U54A **Nelsons Funny** 79.72 44 lAmb lAmb 18 57 13.4
comp=Z,56nm,1.2s
SJES **Sjenica** 79.73 329 *e*P P 18 57 12.0 0.0
BLA **Blacksburg** 79.77 43 lAmb lAmb 18 57 13.6
comp=Z,51nm,1.0s
CGRP **Cima Grappa** 79.78 336 P P 18 57 12.2 -0.1
comp=Z,62nm,1.3s
MZWR **Madinat Zayed** 79.84 295 P P 18 57 12.2 -0.5
PLE **Pljevlja** 79.86 330 ⇑*i*P P 18 57 13.0 +0.3
TUE **Stuetta** 79.86 338 P P 18 57 13.0 +0.2
TUE **Stuetta** 79.86 338 P P 18 57 13.6 +0.9
comp=Z,95nm,0.9s
UMZA **Um Al Zommool** 79.88 293 P P 18 57 12.8 -0.2
S57A **Dark Hollow, R** 79.94 42 lAmb lAmb 18 57 14.8
comp=Z,66nm,1.3s
BALB **Balikesir** 80.02 322 P P 18 57 12.4 -1.0
BALB lAmb lAmb 18 57 14.2
comp=Z,50nm,0.9s
BALY **Balya** 80.04 322 P P 18 57 13.3 -0.4
comp=Z,210nm,1.0s
SAKB **Bahrain** 80.07 299 P P 18 57 13.5 -0.4
ARMA **Armidale** 80.09 184 P P 18 57 13.8 0.0
comp=Z,26nm,1.0s
ARMA **Armidale** 80.09 184 P P 18 57 15.2 +1.4
ARMA **Armidale** 80.09 184 P P 18 57 14.7 +0.9
ARMA **Armidale** 80.09 184 P P 18 57 15.3 +1.4
comp=Z,26nm,1.0s
IVA **Berane** 80.10 329 ⇑*i*P P 18 57 13.4 -0.6
UPM **Unac-Piva** 80.13 330 *e*P P 18 57 13.4 -0.8
UPM **Unac-Piva** 80.13 330 ⇑*i*P P 18 57 13.3 -0.9
KIJV **Kijevo** 80.19 332 P P 18 57 14.2 -0.1
comp=Z,164nm,0.9s
TAOE **Nuku Hiva Isla** 80.22 116 *e*LR LR 19 22 25.0
comp=Z,1µm,23.7s
R58B **Mineral** 80.23 41 lAmb lAmb 18 57 16.1
comp=Z,30nm,1.0s
CBN **Corbin Frederi** 80.24 40 lAmb lAmb 18 57 16.1
comp=Z,58nm,1.0s
KOME **Kolasin** 80.25 329 ⇑*i*P P 18 57 13.9 -0.9
TEOL **Teolo** 80.30 336 P P 18 57 14.4 -0.4
PVY **Plav** 80.33 329 ⇑*i*P P 18 57 14.4 -0.8
LOR **Lormes** 80.35 341 P P 18 57 15.3 +0.2
comp=Z,72nm,1.3s
SRS **Serrai** 80.37 326 P P 18 57 14.9 -0.4

	comp=Z,38nm,0.9s						
SENIN	**Lac Senin/Sane**	80.45	339	IAmb	IAmb	18 57 18.9	
	comp=Z,23nm,0.8s						
EZN	**Ezine**	80.47	323	P	P	18 57 15.4	-0.4
EZN	**Ezine**	80.47	323	⇓P	P	18 57 15.4	-0.4
NKME	**Niksic**	80.50	330	⇑*i*P	P	18 57 15.2	-0.9
U56A	**King**	80.50	43	IAmb	IAmb	18 57 17.6	
	comp=Z,37nm,1.2s						
BRY	**Bratogost**	80.52	330	*e*P	P	18 57 15.2	-1.1
BRY	**Bratogost**	80.52	330	⇑*i*P	P	18 57 14.9	-1.4
GIMEL	**St. Georges /**	80.53	340	P	P	18 57 17.0	+0.8
	comp=Z,25nm,1.9s						
HMDM	**Hanimaadhoo**	80.55	269	P	P	18 57 15.7	-1.0
KNT	**Kendrikon**	80.58	326	P	P	18 57 16.3	-0.2
	comp=Z,44nm,1.1s						
ROSF	**Rostrenen**	80.59	346	P	P	18 57 17.1	+0.8
	comp=Z,143nm,0.9s						
MZR	**Muzera**	80.66	295	*i* P	P	18 57 16.9	-0.2
	SNR=28						
MZR	**Muzera**	80.66	295	P	P	18 57 17.3	+0.1
	SNR=6.3						
PDG	**Podgorica**	80.71	329	P	P	18 57 16.2	-0.8
PDG	**Podgorica**	80.71	329	⇓P	P	18 57 16.5	-0.7
PDG	**Podgorica**	80.71	329	*e*P	P	18 57 16.0	-1.1
PDG	**Podgorica**	80.71	329	P	P	18 57 16.4	-0.7
	comp=Z,76nm,0.9s						
PDG	**Podgorica**	80.71	329	⇑*i*P	P	18 57 16.1	-1.0
RAR	**Rarotonga**	80.71	139	LR	LR	19 25 05.1	
	comp=Z,272nm,20.0s,baz=296,slow=30						
CEME	**Cevo**	80.71	330	⇑*i*P	P	18 57 15.9	-1.3
SOH	**Sokhos**	80.72	326	P	P	18 57 16.6	-0.6
	comp=Z,17nm,0.8s						
MANT	**Manisa**	80.73	321	P	P	18 57 16.4	-1.2
TREB	**Trebinje**	80.75	330	*e*P	P	18 57 15.9	-1.4
KEPZ	**Antalya-Kepez**	80.81	318	⇑P	P	18 57 16.9	-0.9
SLWR	**Sila**	80.88	296	P	P	18 57 18.0	-0.3
GRG	**Griva**	80.94	327	P	P	18 57 18.0	-0.4
	comp=Z,61nm,0.8s						
HCY	**Herceg Novi**	80.94	330	*e*P	P	18 57 17.1	-1.3
HCY	**Herceg Novi**	80.94	330	⇑*i*P	P	18 57 17.2	-1.2
BUM	**Brajici-Budva**	80.94	330	⇑*i*P	P	18 57 17.5	-1.0
DRME	**Dracevica, Mon**	80.95	329	*e*P	P	18 57 18.0	-0.4
DRME	**Dracevica, Mon**	80.95	329	⇑*i*P	P	18 57 17.7	-0.7
ULC	**Ulcinj**	81.13	329	⇑*i*P	P	18 57 18.3	-1.1
T59A	**Double "B" Far**	81.21	41	IAmb	IAmb	18 57 21.4	
	comp=Z,28nm,1.0s						
OHR	**Ohrid**	81.36	328	*i* P	P	18 57 20.2	-0.4
PAIG	**Paliouri**	81.38	325	P	P	18 57 19.7	-1.1
	comp=Z,18nm,1.0s						
ZCCA	**Zocca**	81.42	336	P	P	18 57 21.9	+0.9
TAVA	**DENIZLI_Tavas**	81.47	320	⇓P	P	18 57 21.6	+0.2
V58A	**Windy Hill, Pi**	81.53	43	IAmb	IAmb	18 57 23.0	
	comp=Z,43nm,1.0s						
CMSA	**Cobar Meteorol**	81.66	189	P	P	18 57 23.2	+1.2
	comp=Z,33nm,0.9s						
CMSA	**Cobar Meteorol**	81.66	189	P	P	18 57 22.9	+0.9
CMSA	**Cobar Meteorol**	81.66	189	P	P	18 57 23.1	+1.2
	comp=Z,33nm,0.9s						
LIT	**Litokhoron**	81.66	326	P	P	18 57 20.7	-1.5
LIT				pmax	pmax		
	comp=Z,26nm,0.9s						
LIT	**Litokhoron**	81.66	326	P	P	18 57 20.7	-1.5
LIT				IAmb	IAmb	18 57 23.8	
	comp=Z,26nm,0.9s						
LIT	**Litokhoron**	81.66	326	P	P	18 57 20.9	-1.3
	comp=Z,36nm,0.9s						
CSS	**Mathiatis**	81.68	316	P	P	18 57 22.0	-0.4
CSS	**Mathiatis**	81.68	316	P	P	18 57 22.4	0.0
	comp=Z,98nm,1.0s						
AYDN	**Tasoluk**	81.72	321	P	P	18 57 22.9	+0.2
	comp=Z,561nm,0.9s						
BNI	**Bardonecchia**	81.83	339	IAmb	IAmb	18 57 25.1	
	comp=Z,41nm,0.9s						
BNI	**Bardonecchia**	81.83	339	P	P	18 57 24.4	+1.1
	comp=Z,58nm,1.1s						
BIRD	**Birdtown, Kers**	81.89	44	IAmb	IAmb	18 57 24.8	
	comp=Z,27nm,1.1s						
MURB	**Monte Urbino**	82.00	334	P	P	18 57 24.8	+0.8
RAO	**Raoul Island**	82.03	158	LR	LR	19 29 04.4	
	comp=Z,369nm,19.4s,baz=3.0,slow=32						
XOR	**Xorichti**	82.05	325	P	P	18 57 23.2	-1.1
	comp=Z,42nm,1.0s						
FDMO	**Fiordimonte**	82.05	334	P	P	18 57 23.9	-0.4
GEM	**Giv'at Ha'Em**	82.06	313	P	P	18 57 25.4	+1.0
GEM				AML	AML		
AUDCS	**Dubbo College**	82.08	187	P	P	18 57 25.5	+1.3
SSB	**Saint Sauveur**	82.10	340	P	P	18 57 24.8	+0.3
SSB				pmax	pmax		
	comp=Z,53nm,0.8s						
SSB	**Saint Sauveur**	82.10	340	P	P	18 57 24.8	+0.3
SSB	**Saint Sauveur**	82.10	340	P	P	18 57 25.2	+0.8
	comp=Z,74nm,0.9s						
SSB	**Saint Sauveur**	82.10	340	P	P	18 57 25.1	+0.6
ORIF	**Oris-en-Rattie**	82.14	339	P	P	18 57 25.9	+1.1
	comp=Z,61nm,0.8s						
NRCA	**Norcia**	82.23	334	P	P	18 57 25.6	+0.3
PPT2	**Papeete2**	82.31	129	*e*P	P	18 57 24.9	-0.9
	comp=Z,108nm,27.0s						
PPT2				*e*S	S	19 07 32.4	-5.0
	comp=Z,134nm,28.8s						
PPT2				*e*LR	LR	19 23 13.5	
	comp=Z,549nm,22.0s						
PPT2				*e*LR	LR	19 23 23.4	
	comp=Z,505nm,23.8s						
ASF	**Jabal al Asfar**	82.33	312	LR	LR	19 37 43.5	
	comp=Z,513nm,21.2s,baz=25,slow=38						
ASF	**Jabal al Asfar**	82.33	312	P	P	18 57 26.6	+0.6
ASF				AML	AML		
MMAI	**Mount Meron Ar**	82.34	313	P	P	18 57 26.5	+0.5
	comp=Z,38nm,0.5s,baz=25,slow=12,SNR=182						
MMAI				LR	LR	19 40 15.8	
	comp=Z,274nm,18.1s,baz=5.5,slow=40						
	comp=Z,38nm,0.5s						
VLO	**Vlora**	82.38	328	P	P	18 57 25.9	-0.1
	comp=Z,69nm,0.9s						
BDRM	**Kayabasi**	82.41	321	⇑P	P	18 57 25.5	-0.7
X58A	**Rowland**	82.47	44	IAmb	IAmb	18 57 27.9	
	comp=Z,49nm,1.0s						
STKA	**Stephens Creek**	82.50	193	P	P	18 57 27.1	+0.6
	comp=Z,68nm,2.5s						
STKA	**Stephens Creek**	82.50	193	P	P	18 57 26.9	+0.5
	comp=Z,5.3nm,0.7s,baz=349,slow=5.1,SNR=7.4						
STKA				LR	LR	19 32 52.9	
	comp=Z,191nm,20.6s,baz=24,slow=35						
	comp=Z,5.3nm,0.7s						
STKA	**Stephens Creek**	82.50	193	P	P	18 57 27.0	+0.6
STKA	**Stephens Creek**	82.50	193	P	P	18 57 26.6	+0.2
STKA				IAmb	IAmb	18 57 27.3	
	comp=Z,51nm,0.9s						
STKA	**Stephens Creek**	82.50	193	P	P	18 57 27.0	+0.6
	comp=Z,68nm,2.5s						
ISO	**Isola**	82.57	338	P	P	18 57 27.7	+0.7
	comp=Z,48nm,1.0s						
AQU	**L'Aquila**	82.59	333	*e*P	P	18 57 28.4	+1.3
AQU	**L'Aquila**	82.59	333	P	P	18 57 28.1	+0.9
	comp=Z,63nm,0.7s						
CESX	**Cesi**	82.59	334	IAmb	IAmb	18 57 28.0	
	comp=Z,31nm,1.0s						
AGG	**Agios Georgios**	82.67	326	P	P	18 57 25.3	-2.3
AGG				pmax	pmax		
	comp=Z,18nm,0.9s						
AGG	**Agios Georgios**	82.67	326	P	P	18 57 25.3	-2.3
HSUJ	**Al Zarqa**	82.72	312	P	P	18 57 28.8	+0.9
HSUJ				AML	AML		
SRN	**Sarande**	82.74	328	P	P	18 57 27.1	-0.7
	comp=Z,23nm,0.8s						
MMLI	**Mount Malkishu**	82.81	313	P	P	18 57 29.2	+0.8
	comp=Z,173nm,1.1s						
ESCA	**l'Escarene**	82.82	338	P	P	18 57 28.4	+0.2
	comp=Z,96nm,0.9s						
QRNJ	**Al-Qirein**	82.82	313	P	P	18 57 29.3	+0.9
QRNJ				AML	AML		
ARG	**Arkhangelos**	82.86	320	P	P	18 57 27.8	-0.7
ARG				pmax	pmax		
	comp=Z,227nm,1.5s						
ARG	**Arkhangelos**	82.86	320	P	P	18 57 27.8	-0.7
ARG	**Arkhangelos**	82.86	320	P	P	18 57 28.2	-0.3
	comp=Z,112nm,1.1s						
Y58A	**Scranton**	82.87	44	IAmb	IAmb	18 57 29.9	
	comp=Z,36nm,0.9s						
SCTE	**Santa Cesarea**	83.08	329	P	P	18 57 29.0	-0.6
MATE	**Matera**	83.14	330	⇑P	P	18 57 29.7	-0.2
MATE	**Matera**	83.14	330	P	P	18 57 29.6	-0.3
	comp=Z,63nm,1.1s						
RUSF	**Rustrel**	83.16	339	P	P	18 57 31.3	+1.3
	comp=Z,69nm,1.1s						
UJAP	**Al Uja**	83.19	313	P	P	18 57 30.8	+0.5
	comp=Z,127nm,1.0s						
SALP	**Salfit**	83.22	313	P	P	18 57 31.0	+0.5
SALP				AML	AML		
MEEK	**Meekatharra**	83.31	214	P	P	18 57 30.9	+0.1
	comp=Z,23nm,1.1s						
SWQJ	**Karak**	83.34	312	P	P	18 57 33.0	+1.0
SWQJ				AML	AML		
PAOL	**Paolisi**	83.46	332	IAmb	IAmb	18 57 32.1	
	comp=Z,26nm,1.1s						
DOK	**Doka**	83.64	291	P	P	18 57 32.5	-0.3
GHAJ	**Ghor Haditha**	83.68	312	P	P	18 57 32.5	-0.3
GHAJ	**Ghor Haditha**	83.68	312	P	P	18 57 33.4	+0.6
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	83.68	312	P	P	18 57 33.2	+0.4
	comp=Z,79nm,1.0s						
MARCO	**Tramutola**	83.75	331	P	P	18 57 33.1	0.0
	comp=Z,36nm,0.9s						
MSBI	**Mazada**	83.77	313	P	P	18 57 34.0	+0.8
MSBI	**Mazada**	83.77	313	P	P	18 57 33.8	+0.6
	comp=Z,112nm,1.0s						
LISJ	**El Lisan**	83.77	312	P	P	18 57 34.5	+1.3
LISJ				AML	AML		
AMAZ	**Amatzia**	83.80	313	P	P	18 57 34.1	+0.6
AMAZ				AML	AML		
DMTO	**DMTO**	83.83	290	P	P	18 57 33.4	-0.4
KARP	**Karpathos**	83.83	321	P	P	18 57 31.6	-2.0
KARP	**Karpathos**	83.83	321	P	P	18 57 32.1	-1.5
	comp=Z,120nm,0.9s						
CUC	**Castrocucco**	84.02	331	IAmb	IAmb	18 57 35.4	
	comp=Z,25nm,0.9s						
CUC	**Castrocucco**	84.02	331	P	P	18 57 33.4	-1.1
	comp=Z,29nm,0.9s						
YNG	**Young**	84.15	187	P	P	18 57 36.2	+1.4
	comp=Z,24nm,2.6s						
FORT	**Forrest**	84.21	204	P	P	18 57 36.1	+0.9
	comp=Z,82nm,0.8s						
FORT	**Forrest**	84.21	204	P	P	18 57 35.7	+0.5
BBOO	**Buckleboo**	84.33	197	P	P	18 57 36.2	+0.4
	comp=Z,54nm,1.2s						
BBOO	**Buckleboo**	84.33	197	P	P	18 57 36.2	+0.4
BBOO	**Buckleboo**	84.33	197	P	P	18 57 36.2	+0.4
	comp=Z,54nm,1.2s						
WHFO	**Wadi Hawf**	84.39	291	P	P	18 57 36.2	-0.5
HTT	**Hallett**	84.43	195	P	P	18 57 36.4	+0.1
	comp=Z,9.8nm,1.9s						
HTT	**Hallett**	84.43	195	P	P	18 57 37.1	+0.8
MTLF	**Montolieu**	84.44	341	P	P	18 57 37.7	+1.2
	comp=Z,55nm,0.9s						
RBK	**Rabkut**	84.45	290	P	P	18 57 36.3	-0.7
TIP	**Timpagrande**	84.46	330	⇑P	P	18 57 36.5	-0.3
TIP	**Timpagrande**	84.46	330	P	P	18 57 36.8	+0.1
	comp=Z,55nm,1.1s						
HSNJ	**Maan**	84.49	312	P	P	18 57 38.4	+1.3
HSNJ				AML	AML		
ZKR	**Zakros**	84.59	321	P	P	18 57 36.8	-0.6
	comp=Z,146nm,0.8s						
PRNI	**Paran**	84.74	312	P	P	18 57 38.7	+0.4
PRNI				AML	AML		
RAYN	**Ar Rayn**	84.82	301	*i* P	P	18 57 38.9	+0.1
	SNR=45						
RAYN	**Ar Rayn**	84.82	301	P	P	18 57 39.1	+0.3
RAYN	**Ar Rayn**	84.82	301	P	P	18 57 38.7	-0.1
RAYN	**Ar Rayn**	84.82	301	P	P	18 57 38.7	-0.1
RAYN	**Ar Rayn**	84.82	301	P	P	18 57 39.0	+0.1
	comp=Z,71nm,0.8s						
IDI	**Anoyia**	84.97	322	P	P	18 57 37.3	-2.2
ABTO	**Aybut**	85.11	291	P	P	18 57 39.5	-0.9
IMMV	**Iera Moni Meta**	85.18	323	P	P	18 57 38.5	-1.9
	comp=Z,170nm,1.0s						
AQBJ	**Aqaba**	85.23	312	P	P	18 57 41.5	+0.8
AQBJ				AML	AML		
EIL	**Elat**	85.33	312	LR	LR	19 39 57.9	
	comp=Z,457nm,20.7s,baz=44,slow=39						
EIL	**Elat**	85.33	312	P	P	18 57 41.7	+0.5
EIL				AML	AML		
EIL	**Elat**	85.33	312	P	P	18 57 41.4	+0.2
	comp=Z,83nm,1.0s						
CEST	**Esterri de Car**	85.35	342	P	P	18 57 40.8	-0.4
CEL	**Celeste**	85.57	330	P	P	18 57 41.1	-1.3
	comp=Z,34nm,1.0s						
MORW	**Morawa**	86.45	215	P	P	18 57 47.0	+0.5
	comp=Z,44nm,1.9s						
MORW	**Morawa**	86.45	215	P	P	18 57 46.4	-0.1
MORW				IAmb	IAmb	18 57 47.0	
	comp=Z,22nm,0.8s						
VAE	**Valguarnera**	86.76	331	LR	LR	19 43 21.2	
	comp=Z,689nm,18.4s,baz=43,slow=40						
DWPF	**Disney Wildern**	86.89	49	P	P	18 57 49.7	+0.8
DWPF				pP	pP	18 58 03.7	-0.1
TBI	**Tubuai**	87.24	132	*e*S	S	19 08 23.6	-2.4
	comp=Z,1µm,26.5s						
TBI				*e*LR	LR	19 25 34.7	
	comp=Z,3µm,27.0s						
ARPS	**Mount Arapiles**	87.28	192	P	P	18 57 51.0	+0.7
	comp=Z,6.8nm,1.0s						
PBRG	**Braganca**	87.48	348	*e*P	P	18 57 50.9	-0.7
PBRG				IAmb	IAmb	18 58 02.3	
	comp=Z,29nm,1.9s						
PGAV	**Gavieira, Arco**	87.53	349	*e*P	P	18 57 51.7	-0.2
PGAV				IAmb	IAmb	18 58 19.0	
	comp=Z,32nm,2.1s						
BLDU	**Ballidu**	87.61	214	P	P	18 57 51.9	-0.1
	comp=Z,26nm,1.2s						
BLDU	**Ballidu**	87.61	214	P	P	18 57 52.0	-0.1
POLO	**Lamas de Olo**	88.05	348	*e*P	P	18 57 54.2	-0.2
POLO				IAmb	IAmb	18 58 03.8	
	comp=Z,11nm,1.2s						
KLBR	**Kellerberrin**	88.13	212	P	P	18 57 54.7	+0.2
	comp=Z,76nm,0.8s						
KLBR	**Kellerberrin**	88.13	212	P	P	18 57 54.4	-0.1
PVRL	**Vila Real**	88.14	348	*e*P	P	18 57 54.2	-0.5
PVRL				IAmb	IAmb	18 57 55.2	
	comp=Z,38nm,0.9s						
PVIS	**Viseu**	88.71	348	*e*P	P	18 57 57.0	-0.5
MTE	**Manteigas**	88.98	348	*e*P	P	18 57 58.7	-0.1
MTE				IAmb	IAmb	18 57 59.1	
	comp=Z,60nm,1.4s						
ESBB	**Sonseca Array**	89.14	345	P	P	18 57 58.5	-1.0
ESBB				IAmb	IAmb	18 57 59.9	
	comp=Z,15nm,0.9s						
ESDC	**Sonseca Array**	89.14	345	P	P	18 57 58.8	-0.8
	comp=Z,9.2nm,0.8s,baz=360,slow=3.5,SNR=56						
ESDC				LR	LR	19 44 23.5	
	comp=Z,641nm,19.6s,baz=22,slow=40						
	comp=Z,9.2nm,0.8s						
ESDC	**Sonseca Array**	89.14	345	P	P	18 57 58.4	-1.2
PCAS	**Casmilo, Conde**	89.44	349	*e*P	P	18 58 00.3	-0.5
PCAS				IAmb	IAmb	18 58 01.1	
	comp=Z,39nm,1.1s						
PCBR	**Castelo Branco**	89.52	348	*e*P	P	18 58 00.7	-0.5
NWAO	**Narrogin (SRO)**	89.53	212	LR	LR	19 42 58.5	
	comp=Z,80nm,18.5s,baz=42,slow=39						
URZ	**Urewera**	89.66	164	LR	LR	19 30 11.6	
	comp=Z,317nm,21.5s,baz=24,slow=30						
PSARD	**Sardoal**	89.84	348	*e*P	P	18 58 02.7	0.0
PSARD				IAmb	IAmb	18 58 18.8	
	comp=Z,42nm,1.8s						
KEST	**Kesra**	89.90	334	P	P	18 58 03.1	-0.1
	comp=Z,25nm,0.6s,baz=202,slow=0.2,SNR=40						
KEST				LR	LR	19 43 21.4	
	comp=Z,1µm,19.6s,baz=36,slow=39						
	comp=Z,25nm,0.6s						
KEST	**Kesra**	89.90	334	P	P	18 58 03.6	+0.4
PMRV	**Marv??o**	89.91	348	*e*P	P	18 58 03.8	+0.7
PMRV				IAmb	IAmb	18 58 21.3	
	comp=Z,28nm,2.2s						
PSBE	**So Bento**	90.01	349	*e*P	P	18 58 04.0	+0.5
PMTG	**Montargil**	90.38	348	*e*P	P	18 58 04.8	-0.4
PESTR	**Estremoz**	90.49	348	*e*P	P	18 58 05.6	-0.2
PARRA	**Arraiolos**	90.60	348	*e*P	P	18 58 05.6	-0.6
EVO	**Evora**	90.88	348	*e*P	P	18 58 07.7	+0.1
MOE	**Montemor**	90.93	348	*e*P	P	18 58 07.6	-0.2
PBAR	**Barrancos**	91.09	347	*e*P	P	18 58 07.8	-0.8
MESJ	**Messejana**	91.58	348	*e*P	P	18 58 11.6	+0.8
PCVE	**Castro Verde**	91.77	348	*e*P	P	18 58 11.7	0.0
PVAQ	**Vaqueiros**	91.94	347	*e*P	P	18 58 12.0	-0.5
PVAQ				IAmb	IAmb	18 58 14.2	
	comp=Z,60nm,1.8s						
PBDV	**Barranco-do-Ve**	92.13	348	*e*P	P	18 58 13.1	-0.4
RPZ	**Rata Peaks**	94.11	169	LR	LR	19 35 04.5	
	comp=Z,150nm,21.2s,baz=326,slow=32						
RKT	**Rikitea**	94.59	121	*e*LR	LR	19 29 04.8	
	comp=Z,3µm,36.2s						
ATD	**Arta Tunnel**	95.89	296	LR	LR	19 47 42.5	
	comp=Z,345nm,18.3s,baz=24,slow=39						
MDT	**Midelt**	95.94	344	LR	LR	19 47 23.6	
	comp=Z,163nm,18.7s,baz=44,slow=39						
JTS	**Las Juntas de**	99.71	61	LR	LR	19 46 29.5	
	comp=Z,80nm,20.6s,baz=329,slow=37						
TORD	**Torodi Ar. Bea**	113.41	333	PP	PP	19 04 29.4	-3.2
	comp=Z,1.0nm,0.8s,baz=13,slow=8.1,SNR=4.1						
DBIC	**Dimbokro**	121.36	338	PKP	PKPdf	19 03 57.2	-0.1
	comp=Z,5.7nm,0.6s,baz=67,slow=4.2,SNR=9.8						
LSZ	**Lusaka**	125.91	291	PKIKP	PKPdf	19 04 04.9	-1.2
LSZ	**Lusaka**	125.91	291		PKPdf	19 04 04.9	-1.2
ITTB	**Itaituba**	127.09	42	*e*P	PKPdf	19 04 08.5	+0.2
VNDA	**Vanda**	127.20	179	PKP	PKiKP	19 04 06.9	-0.2
	comp=Z,3.2nm,0.8s,baz=317,slow=4.0,SNR=23						
SBA	**Scott Base**	127.65	177	PKIKP	PKiKP	19 04 08.1	+0.1
SBA	**Scott Base**	127.65	177		PKiKP	19 04 08.1	+0.1
NPGB	**Novo Progresso**	129.65	43	*e*P	PKPdf	19 04 13.3	+0.1
LPAZ	**La Paz**	130.89	63	PKP	PKiKP	19 04 16.8	-0.3
	comp=Z,11nm,0.8s,baz=12,slow=5.2,SNR=29						
LPAZ	**La Paz**	130.89	63	PKIKP	PKiKP	19 04 17.1	0.0
LPAZ	**La Paz**	130.89	63		PKiKP	19 04 17.1	0.0
LPAZ	**La Paz**	130.89	63	*e*P	PKPdf	19 04 16.5	+0.3
VILB	**Vilhena**	132.48	52	*e*P	PKiKP	19 04 19.6	0.0
CLDB	**Colider**	132.83	46	*e*P	PKPdf	19 04 19.7	+0.5
PDRB	**Porto dos Gac**	133.04	47	*e*P	PKPdf	19 04 20.0	+0.5
SMTB	**Santa Maria do**	134.43	34	*e*P	PKPdf	19 04 21.1	-1.1
PTLB	**Pontes e Lacer**	135.13	53		PKPdf	19 04 23.6	+0.3
PTLB	**Pontes e Lacer**	135.13	53	*e*P	PKPdf	19 04 24.1	+0.7
MAW	**Mawson**	136.08	213	PKP	PKPdf	19 04 23.1	-0.4
	comp=Z,6.1nm,0.6s,baz=80,slow=2.1,SNR=16						
MAW	**Mawson**	136.08	213	PKIKP	PKPdf	19 04 23.5	0.0
MAW	**Mawson**	136.08	213		PKPdf	19 04 23.5	0.0
H03N2	**Juan Fernandez**	136.49	89	T	T	21 36 28.4	
	baz=313,slow=76,SNR=630						
H03N1	**Juan Fernandez**	136.50	89	T	T	21 36 29.7	
	baz=309,slow=76,SNR=984						
SALV	**Santo Antonio**	137.24	49	*e*P	PKPdf	19 04 28.1	+0.8
BOSA	**Boshof**	137.57	281	PKhKP	PKPpre	19 04 16.4	
	comp=Z,3.2nm,1.0s,baz=40,slow=12,SNR=2.0						
BOSA				PKP	PKPdf	19 04 26.4	-1.4
	comp=Z,5.9nm,0.8s,baz=100,slow=1.9,SNR=7.4						
ARAG	**Araguaiana, MT**	138.89	44	*e*P	PKPdf	19 04 31.2	+0.8
COIM	**Forte Coimbra**	139.54	55	*e*P	PKPdf	19 04 32.4	+0.9
QSPA	**South Pole Qui**	139.65	180	PKhKP	PKPpre	19 04 21.8	
	comp=Z,6.2nm,0.6s,baz=318,slow=1.5,SNR=36						
QSPA				PKP	PKPdf	19 04 31.3	+1.0
	comp=Z,7.0nm,0.7s,baz=308,slow=3.3,SNR=6.8						
QSPA	**South Pole Qui**	139.65	180		PKPpre	19 04 22.1	
QSPA					PKPdf	19 04 30.4	+0.2
BDFB	**Brasilia**	140.46	39	PKhKP	PKPpre	19 04 16.1	
	comp=Z,12nm,1.0s,baz=105,slow=7.3,SNR=10						
BDFB				PKP	PKPdf	19 04 33.7	+0.4
	comp=Z,10.0nm,0.9s,baz=50,slow=4.7,SNR=5.3						
BDFB	**Brasilia**	140.46	39	PKIKP	PKPdf	19 04 34.6	+1.3
BDFB	**Brasilia**	140.46	39		PKPdf	19 04 34.6	+1.3
BDQN	**Bodoquena, MS**	140.54	54	*e*P	PKPdf	19 04 32.5	-0.7
AQDB	**Aquidauana**	141.10	53		PKPdf	19 04 35.2	+1.0
AQDB	**Aquidauana**	141.10	53	*e*P	PKPdf	19 04 34.8	+0.6
IPMB	**Ipameri, GO**	142.48	41	*e*P	PKPdf	19 04 32.9	-4.0
CMC01	**Camacan, BA**	143.16	26	*e*P	PKPdf	19 04 37.1	-0.9
GUA01	**Guaratinga, BA**	144.24	27	*e*P	PKPbc	19 04 38.9	+0.7
PCMB	**Pacaembu**	144.26	48	*e*P	PKPbc	19 04 38.9	+0.7
SYO	**Syowa Base**	144.79	214	⇑*i*P	PKPbc	19 04 38.4	0.0
SYO	**Syowa Base**	144.79	214	⇑*e*P	PKiKP	19 04 46.0	+3.0
CPUP	**Villa Florida**	144.94	60	PKPbc	PKPbc	19 04 40.3	+0.1
	comp=Z,24nm,0.8s,baz=325,slow=3.7,SNR=52						
CPUP	**Villa Florida**	144.94	60		PKPab	19 04 39.8	-0.4
BB19B	**Bebedouro**	145.06	44	*e*P	PKPdf	19 04 41.2	-0.1
CANS	**Sao Roque de M**	145.29	40	*e*P	PKPdf	19 04 42.0	+0.3
SJMB	**Sao Joao De Ma**	145.79	31	*e*P	PKPdf	19 04 42.8	+0.3
LDASE	**Londrina, Braz**	145.85	49	*e*P	PKPbc	19 04 43.0	-0.2
PLCA	**Paso Flores**	146.17	93	PKPbc	PKPbc	19 04 43.6	-0.2
	comp=Z,21nm,0.9s,baz=281,slow=3.4,SNR=34						
PLCA	**Paso Flores**	146.17	93		PKPdf	19 04 43.1	+0.5
ITQB	**Itaqui**	147.89	63	*e*P	PKPdf	19 04 45.9	+0.2
PSAL	**Palomas, Salto**	148.35	66	*e*P	PKPdf	19 04 47.5

AC05				*e*S		**Sn**	19 15 47.9	+0.3
AC05				IAML			19 15 48.7	
	comp=Z,1μm,0.6s							
AC05	**El Transito**	**1.17**	**241**	*i* P		**Pn**	19 15 29.7	+0.1
AC05				IAML			19 15 50.0	
	comp=E,2μm,0.5s							
AC05	**El Transito**	**1.17**	**241**	⇑P		**Pn**	19 15 29.7	+0.1
GO03	**Copiapo**	**1.20**	**304**	*e*P		**Pn**	19 15 30.0	+0.2
GO03				*e*S		**Sn**	19 15 48.1	+0.1
GO03				*e*S			19 15 48.1	
GO03				IAML			19 15 48.2	
	comp=Z,1μm,0.1s							
GO03	**Copiapo**	**1.20**	**304**	⇓*i*P		**Pn**	19 15 29.9	+0.2
GO03				*e*S		**Sn**	19 15 47.6	-0.4
GO03				IAML			19 15 48.1	
	comp=N,4μm,0.3s							
GO03	**Copiapo**	**1.20**	**304**	⇓P		**Pn**	19 15 30.0	+0.2
TINO	**Tinogasta**	**1.37**	**82**	*e*P		**Pn**	19 15 30.9	-0.9
TINO				*e*S		**Sn**	19 15 52.2	+0.7
AC02	**Maricunga**	**1.42**	**359**	*e*P		**Pn**	19 15 34.1	+1.3
AC02				*e*S		**Sn**	19 15 55.4	+2.3
AC02				IAML			19 15 58.6	
	comp=Z,418nm,0.7s							
AC02	**Maricunga**	**1.42**	**359**	⇓*i*P		**Pn**	19 15 34.0	+1.3
AC02				IAML			19 15 58.4	
	comp=N,1μm,0.1s							
AC02	**Maricunga**	**1.42**	**359**	⇓P		**Pn**	19 15 34.1	+1.3
AC06	**Mina Casimiro**	**1.43**	**309**	⇓*i*P		**Pn**	19 15 32.4	+0.1
AC06				*e*S		**Sn**	19 15 51.5	-0.9
AC06				IAML			19 15 53.6	
	comp=N,777nm,0.2s							
LCO	**Las Campanas**	**1.59**	**242**	⇑*i*P		**Pn**	19 15 34.2	-0.2
LCO				*e*S		**Sn**	19 15 55.1	-1.0
LCO				IAML			19 15 57.0	
	comp=N,10μm,0.3s							
AC04	**Llanos de Chal**	**1.74**	**271**	*e*P		**Pn**	19 15 35.8	-0.2
AC04				*e*S		**Sn**	19 15 58.7	-0.1
AC04				IAML			19 15 59.4	
	comp=Z,433nm,0.2s							
AC04	**Llanos de Chal**	**1.74**	**271**	*e*P		**Pn**	19 15 35.6	-0.2
AC04				*e*			19 15 51.6	
AC04				*e*S		**Sn**	19 15 57.6	-1.3
AC04				IAML			19 15 58.9	
	comp=E,1μm,0.1s							
AC04	**Llanos de Chal**	**1.74**	**271**	⇑P		**Pn**	19 15 35.7	-0.2
CO01	**Juntas del Tor**	**1.91**	**207**	*e*P		**Pn**	19 15 39.0	+0.6
CO01				*e*S		**Sn**	19 16 07.0	+3.8
CO01	**Juntas del Tor**	**1.91**	**207**	⇑*i*P		**Pn**	19 15 38.9	+0.5
CO01				IAML			19 16 09.8	
	comp=N,128nm,0.2s							
CO01	**Juntas del Tor**	**1.91**	**207**	⇑P		**Pn**	19 15 39.0	+0.6
AROD	**Rodeo**	**1.92**	**189**	*e*P		**Pn**	19 15 39.0	+0.5
AROD				*e*S		**Sn**	19 16 04.8	+1.3
ACLC	**CERRO LA CRUZ**	**2.22**	**122**	*e*P		**Pn**	19 15 41.6	-0.5
ACCO	**Cerro Coronel**	**2.32**	**179**	*e*P		**Pn**	19 15 43.8	+0.2
ACCO				*e*S		**Sn**	19 16 12.7	+0.3
ACCO				IAML			19 16 18.0	
	comp=Z,229nm,0.5s							
GO04	**Tololo Observa**	**2.41**	**217**	*e*P		**Pn**	19 15 44.5	-0.2
GO04				*e*S		**Sn**	19 16 15.3	+1.0
GO04				IAML			19 16 16.9	
	comp=Z,289nm,0.2s							
GO04	**Tololo Observa**	**2.41**	**217**	⇑*i*P		**Pn**	19 15 43.7	-1.0
GO04	**Tololo Observa**	**2.41**	**217**	⇑P		**Pn**	19 15 44.0	-0.6
CO05	**La Serena**	**2.49**	**228**	*e*P		**Pn**	19 15 44.3	-1.1
CO05				IAML			19 16 21.7	
	comp=N,341nm,0.4s							
AC01	**Pan de Azucar**	**2.49**	**327**	*e*P		**Pn**	19 15 46.0	+0.5
AC01				*e*S		**Sn**	19 16 14.6	-1.3
AC01	**Pan de Azucar**	**2.49**	**327**	*e*P		**Pn**	19 15 45.8	+0.3
AC01				*i* S		**Sn**	19 16 12.3	-3.6
AC01	**Pan de Azucar**	**2.49**	**327**	⇓P		**Pn**	19 15 45.8	+0.3
DOCA	**Reserva Natura**	**2.68**	**180**	*e*P		**Pn**	19 15 48.1	-0.1
DOCA				*e*S		Sn	19 16 09.6	-11
CO03	**El Pedregal**	**2.91**	**208**	*e*P		**Pn**	19 15 50.7	-0.3
CO03				*e*S		**Sn**	19 16 25.5	-0.3
CO03	**El Pedregal**	**2.91**	**208**	⇑P		**Pn**	19 15 50.5	-0.5
CYA	**Choya**	**2.92**	**94**	*e*P		**Pn**	19 15 50.6	-0.4
CYA				*e*S		**Sn**	19 16 23.2	-2.7
CYA				IAML			19 16 23.6	
	comp=Z,309nm,0.9s							
RTLL	**Cerro Villicun**	**3.10**	**170**	*e*P		**Pn**	19 15 53.4	-0.1
RTLL				*e*S		**Sn**	19 16 29.8	-0.4
RTLL				IAML			19 16 31.0	
	comp=Z,1μm,0.4s							
CO06	**Fray Jorge**	**3.26**	**222**	*e*P		**Pn**	19 15 53.5	-2.0
CO06				IAML			19 16 45.5	
	comp=N,106nm,0.5s							
ZON	**Zonda**	**3.29**	**174**	⇑P		**Pn**	19 15 56.1	+0.1
CO02	**Combarbal**	**3.36**	**209**	*i* P		**Pn**	19 15 55.6	-1.3
CO02	**Combarbal**	**3.36**	**209**	⇑P		**Pn**	19 15 55.7	-1.3
CFA	**Coronel Fontan**	**3.42**	**167**	*e*P		**Pn**	19 15 57.2	-0.4
CFA				*e*S		**Sn**	19 16 35.5	-2.0
CFA				IAML			19 16 37.5	
	comp=Z,173nm,0.7s							
FSA	**Cafayete**	**3.52**	**53**	*e*P		**Pn**	19 16 00.3	+1.2
RTLS	**Leoncito**	**3.53**	**183**	*e*P		**Pn**	19 15 59.7	+0.3
RTLS				IAML			19 16 43.8	
	comp=Z,238nm,0.6s							
PB14	**IPOC Station P**	**3.81**	**342**	*e*P		**Pn**	19 16 03.6	+0.6
PB14	**IPOC Station P**	**3.81**	**342**	P		**Pn**	19 16 03.7	+0.6
CO04	**Los Peladeros**	**4.10**	**203**	P		**Pn**	19 16 05.1	-1.9
VA03	**San Esteban**	**4.66**	**195**	P		**Pn**	19 16 13.0	-1.2
SALTA		**4.73**	**32**	⇑P		**Pn**	19 16 17.1	+1.4
PB10	**IPOC Station P**	**4.91**	**344**	P		**Pn**	19 16 17.6	0.0
VA01	**Torpederas**	**5.22**	**204**	P		**Pn**	19 16 18.0	-3.8
	comp=Z,60nm,0.9s							
PB05	**IPOC Station P**	**5.48**	**349**	P		**Pn**	19 16 24.0	-1.4
	comp=Z,35nm,0.7s							
PB06	**IPOC Station P**	**5.55**	**356**	P		**Pn**	19 16 25.9	-0.5
	comp=Z,25nm,0.9s							
VA05	**Santo Domingo**	**5.79**	**201**	P		**Pn**	19 16 25.4	-4.0
	comp=Z,31nm,0.5s							
PB03	**IPOC Station P**	**6.22**	**354**	P		**Pn**	19 16 33.8	-1.6
	comp=Z,24nm,0.6s							
BO01	**Tunca**	**6.34**	**195**	P		**Pn**	19 16 33.2	-3.6
PB09	**IPOC Station P**	**6.44**	**359**	P		**Pn**	19 16 38.4	0.0
PB07	**IPOC Station P**	**6.55**	**354**	P		**Pn**	19 16 38.2	-1.6
	comp=Z,20nm,0.6s							
BO02	**Sierra Bellavi**	**6.66**	**192**	P		**Pn**	19 16 39.3	-2.0
	comp=Z,10nm,1.4s							
PB02	**IPOC Station P**	**6.95**	**354**	P		**Pn**	19 16 43.4	-1.9
	comp=Z,23nm,0.9s							
GO05	**Hualane**	**7.14**	**199**	P		**Pn**	19 16 46.1	-1.6
	comp=Z,17nm,2.4s							
PB01	**IPOC Station P**	**7.20**	**357**	P		**Pn**	19 16 47.0	-1.6
	comp=Z,16nm,1.7s							
VNA3	**Neumayer Olymp**	**53.78**	**160**	⇑P		**P**	19 24 17.3	+1.5
	comp=Z,1.8nm,0.7s							
VNA3	**Neumayer Olymp**	**53.78**	**160**	P		**P**	19 24 17.1	+1.3
	comp=Z,4.0nm,1.0s							
VNA2	**Neumayer--Watz**	**54.39**	**159**	⇑P		**P**	19 24 21.6	+1.3
	comp=Z,1.8nm,0.6s,baz=288,slow=7.6							
VNA2	**Neumayer--Watz**	**54.39**	**159**	P		**P**	19 24 21.5	+1.3
	comp=Z,3.4nm,0.6s							

*IDC **27** 19:25:01.5±1.0, 1°.28N×101°.43W, h0km, mb3.8/6, mbtmp3.8/6, MS3.6/1, Error ellipse: s-maj=54.2km s-min=25.0km az=70.0*
*NEIC **27** 19:25:03.7±1.4, 1°.4N±0°.2×101°.4W±0°.2, h10km±2km, mb4.3/26, Error ellipse: s-maj=37.1km s-min=22.8km az=237.0*
ISC 27 19:25:02.9±1.0, **1°.4N**±0°.2×**101°.4W**±0°.2, **h10**km, **n40, σ0s77/39, mb4.2/17, Galapagos Triple Junction region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
OTAV	**Otavalo**	**22.96**	**93**	P		**P**	**19 30 08.9**	**+0.5**
OTAV				IAmb	IAmb		19 30 11.5	
	comp=Z,17nm,1.2s							
LPIG	**La Paz**	**24.19**	**340**	LR		LR	19 37 41.3	
	comp=Z,132nm,18.2s,baz=230,slow=31							
TXAR	**Lajitas Array**	**27.89**	**356**	P		**P**	**19 30 54.6**	**+1.3**
	comp=Z,1.2nm,0.9s,baz=173,slow=11,SNR=8.2							
	comp=Z,1.2nm,0.9s							
TXAR	**Lajitas Array**	**27.89**	**356**	P		**P**	**19 30 51.0**	**-2.3**
TX31	**Lajitas Ar. Si**	**27.89**	**356**	P		**P**	**19 30 51.4**	**-1.9**
SAND	**Sanderson**	**28.43**	**359**	P		**P**	**19 30 58.7**	**+0.6**
SAND				IAmb	IAmb		19 31 01.3	
	comp=Z,5.9nm,1.4s							
ALPN	**Alpine**	**28.92**	**356**	P		**P**	**19 31 03.2**	**+0.7**
ALPN				IAmb	IAmb		19 31 05.2	
	comp=Z,3.5nm,1.0s							
GDL2	**Guadalupe Moun**	**30.79**	**355**	P		**P**	**19 31 18.4**	**-0.6**
MSTX	**Muleshoe**	**32.45**	**358**	P		**P**	**19 31 33.4**	**-0.2**
MIAR	**Mount Ida**	**33.80**	**12**	P		**P**	**19 31 45.6**	**+0.4**
W35A	**Tecumseh**	**33.87**	**7**	P		**P**	**19 31 46.4**	**+0.5**
WVT	**Waverly**	**36.80**	**18**	P		**P**	**19 32 10.5**	**-0.5**
WVT				IAmb	IAmb		19 32 26.2	
	comp=Z,4.7nm,1.1s							
S39A	**Bolivar**	**36.90**	**11**	P		**P**	**19 32 12.0**	**+0.1**
S39A				IAmb	IAmb		19 32 25.3	
	comp=Z,5.7nm,1.0s							
PV05	**Paradox Valley**	**37.21**	**350**	P		**P**	**19 32 15.2**	**+0.4**
PV05				IAmb	IAmb		19 32 35.8	
	comp=Z,5.9nm,1.1s							
LPAZ	**La Paz**	**37.23**	**119**	P		**P**	**19 32 15.7**	**0.0**
	comp=Z,0.4nm,0.3s,baz=346,slow=11,SNR=2.3							
	comp=Z,0.4nm,0.3s							
LPAZ	**La Paz**	**37.23**	**119**	P		**P**	**19 32 15.2**	**-0.5**
PV13	**Radium Mtn., P**	**37.24**	**350**	P		**P**	**19 32 15.6**	**+0.5**
PV13				IAmb	IAmb		19 32 29.9	
	comp=Z,8.0nm,1.1s							
P38A	**Dawn**	**38.74**	**10**	P		**P**	**19 32 26.9**	**-0.5**
P38A				IAmb	IAmb		19 32 35.5	
	comp=Z,13nm,1.5s							
NVAR	**Mina Array Bea**	**40.01**	**339**	P		**P**	**19 32 39.0**	**+0.7**
	comp=Z,0.4nm,0.6s,baz=166,slow=8.7,SNR=3.5							
	comp=Z,0.4nm,0.6s							
NVAR	**Mina Array Bea**	**40.01**	**339**	P		**P**	**19 32 38.5**	**+0.2**
HWUT	**Hardware Ranch**	**41.09**	**348**	P		**P**	**19 32 47.8**	**+0.6**
BW06	**Boulder Array**	**41.86**	**351**	P		**P**	**19 32 54.1**	**+0.6**
PD31	**Pinedale Array**	**41.86**	**351**	P		**P**	**19 32 54.5**	**+0.9**
PDAR	**Pinedale Array**	**41.86**	**351**	P		**P**	**19 32 54.5**	**+0.9**
	comp=Z,1.0nm,0.7s,baz=152,slow=8.0,SNR=10							
	comp=Z,1.0nm,0.7s							
PDAR	**Pinedale Array**	**41.86**	**351**	P		**P**	**19 32 54.1**	**+0.6**
YHL	**Hebgen Lake**	**44.15**	**350**	P		**P**	**19 33 12.6**	**+0.4**
YHL				IAmb	IAmb		19 33 16.1	
	comp=Z,4.8nm,1.3s							
SPMN	**Marine on St.**	**44.32**	**9**	P		**P**	**19 33 12.5**	**-0.7**
SPMN				IAmb	IAmb		19 33 13.7	
	comp=Z,6.3nm,1.0s							
MCMT	**McKenzie Canyo**	**44.44**	**348**	P		**P**	**19 33 15.2**	**+0.7**
YKA	**Yellowknife Ar**	**61.77**	**353**	P		**P**	**19 35 21.7**	**+0.2**
	comp=Z,2.7nm,1.0s,baz=163,slow=6.5,SNR=10							
	comp=Z,2.7nm,1.0s							
YKA	**Yellowknife Ar**	**61.77**	**353**	P		**P**	**19 35 22.4**	**+0.8**
R33M	**Jennings River**	**62.27**	**343**	P		**P**	**19 35 24.2**	**-0.9**
ILAR	**Eielson Array**	**71.23**	**341**	P		**P**	**19 36 22.6**	**+0.5**
	comp=Z,1.6nm,0.9s,baz=148,slow=5.4,SNR=17							
	comp=Z,1.6nm,0.9s							
ILAR	**Eielson Array**	**71.23**	**341**	P		**P**	**19 36 21.9**	**-0.1**
J18K	**Innoko River**	**73.94**	**337**	P		**P**	**19 36 38.6**	**+0.4**
G21K	**Allakaket**	**74.47**	**341**	P		**P**	**19 36 42.1**	**+0.9**
G21K				IAmb	IAmb		19 36 49.6	
	comp=Z,7.6nm,1.5s							
G19K	**Purcell Mounta**	**75.47**	**340**	P		**P**	**19 36 47.7**	**+0.7**
ASAR	**Alice Springs**	**122.10**	**243**	PKP		**PKPdf**	**19 43 58.5**	**-0.3**
	comp=Z,0.6nm,0.7s,baz=111,slow=1.7,SNR=8.6							
WRA	**Warramunga Arr**	**122.53**	**247**	PKP		**PKiKP**	**19 43 59.6**	**-0.3**
	comp=Z,0.8nm,0.7s,baz=103,slow=2.0,SNR=8.1							
CMAR	**Chiang Mai Arr**	**151.92**	**316**	PKPbc		**PKiKP**	**19 45 00.1**	**+0.4**
	comp=Z,1.0nm,0.5s,baz=355,slow=1.5,SNR=8.9							
CMAR	**Chiang Mai Arr**	**151.92**	**316**			**PKPdf**	**19 44 52.9**	**0.0**

*CATAC **27** 19:35:17.3±0.8, 19°N±4°×7°9W±°, h26km±9km, M3.7/6, MLv3.7/6, Error ellipse: s-maj=9.1km s-min=5.6km az=37.2, confirmed*
*SSNC **27** 19:35:19.0±1.3, 19°.26N×79°.06W, h25km±13km, MD3.2, ML3.1, MW3.0, Presumed earthquake*
ISC 27 19:35:16.0±1.5, **19°.23N**±0°.05×**79°.07W**±0°.03, **h19**km±6km, **n25, σ1s53/41, 1D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
CBCY	**The Bluff, Cay**	**0.82**	**308**	P		**Pg**	**19 35 32.7**	**+0.6**
CBCY				S		**Sg**	**19 35 42.1**	**-1.1**
CBCY	**The Bluff, Cay**	**0.82**	**308**	*e*P		**Pg**	**19 35 32.6**	**+0.5**
CBCY				*e*S		**Sg**	**19 35 42.0**	**-1.1**
CBCY				IAML			19 35 43.1	
	comp=E,272nm,0.2s							
CBCY				IAML			19 35 43.2	
	comp=N,147nm,0.1s							
LCCY	**Blossom Villag**	**1.05**	**294**	*e*P		**Pg**	**19 35 36.3**	**-0.1**
LCCY				*e*S		**Sg**	**19 35 48.7**	**-1.6**
LCCY				IAML			19 35 49.8	
	comp=E,329nm,0.1s							
LCCY				IAML			19 35 49.8	
	comp=N,228nm,0.1s							
PILO	**Pilon**	**1.70**	**67**	P		**Pn**	**19 35 44.5**	**-0.2**
PILO				S		**Sn**	**19 36 04.1**	**-1.9**
PILO	**Pilon**	**1.70**	**67**	*e*P		**Pn**	**19 35 45.0**	**+0.3**
PILO				*e*S		**Sn**	**19 36 03.6**	**-2.4**
PILO				IAML			19 36 06.7	
	comp=N,287nm,0.2s							
PILO				IAML			19 36 06.8	
	comp=E,462nm,0.2s							
MTDJ	**Mount Denham**	**1.76**	**124**	P		**Pn**	**19 35 47.0**	**+1.4**
MTDJ				S		**Sn**	**19 36 08.3**	**+0.7**
MTDJ	**Mount Denham**	**1.76**	**124**	*e*P		**Pn**	**19 35 46.9**	**+1.4**
MTDJ				*e*S		**Sn**	**19 36 06.4**	**-1.1**
MTDJ				IAML			19 36 09.3	
	comp=E,74nm,0.2s							
MTDJ				IAML			19 36 09.8	
	comp=E,89nm,0.2s							
FSCY	**Frank Sound, G**	**2.00**	**273**	P		**Pn**	**19 35 49.9**	**+1.2**
FSCY				S		**Sn**	**19 36 11.7**	**-1.5**
FSCY	**Frank Sound, G**	**2.00**	**273**	*e*P		**Pn**	**19 35 49.9**	**+1.2**
FSCY				*e*S		**Sn**	**19 36 11.8**	**-1.5**
FSCY				IAML			19 36 14.2	
	comp=E,769nm,0.3s							
FSCY				IAML			19 36 14.3	
	comp=N,1μm,0.2s							
LMGC	**Las Mercedes**	**2.11**	**67**	*e*P		**Pn**	**19 35 50.4**	**+0.1**
LMGC				*e*S		**Sn**	**19 36 13.6**	**-2.3**
LMGC				*e*Sg		Sg	19 36 15.7	-8.4
LMGC				IAML			19 36 17.1	
	comp=N,215nm,0.1s							
LMGC				IAML			19 36 17.2	
	comp=E,166nm,0.1s							
CCCC	**Cccc**	**2.31**	**32**	*e*P		**Pn**	**19 35 56.2**	**+3.3**
YAR	**Yar**	**2.79**	**66**	*e*P		**Pn**	**19 36 01.0**	**+1.4**
YAR				*e*S		**Sn**	**19 36 30.7**	**-2.0**
YAR				IAML			19 36 36.0	
	comp=N,37nm,0.3s							
YAR				IAML			19 36 36.0	
	comp=E,15nm,0.1s							
MARVS	**Santiago de Cu**	**3.08**	**75**	*e*P		**Pn**	**19 36 03.4**	**-0.2**
CAIB	**Caibarien**	**3.27**	**353**	S		**Sn**	**19 36 45.8**	**+1.4**
CAIB	**Caibarien**	**3.27**	**353**	*e*S		**Sn**	**19 36 42.5**	**-1.9**
HLGC	**Holguin**	**3.27**	**59**	⇓*e*P		**Pn**	**19 36 08.4**	**+2.1**
HLGC				*e*S		**Sn**	**19 36 44.3**	**-0.4**
PINC	**Pinares de May**	**3.33**	**67**	*e*P		**Pn**	**19 36 08.3**	**+1.3**
PINC				*e*S		**Sn**	**19 36 44.1**	**-1.9**
SABCS	**La Quijada**	**3.71**	**72**	*e*S		**Sn**	**19 36 55.2**	**-0.3**
GTBY	**Guantanamo Bay**	**3.79**	**79**	P		**Pn**	**19 36 15.2**	**+1.8**
GTBY				S		**Sn**	**19 36 57.2**	**-0.3**
GTBY	**Guantanamo Bay**	**3.79**	**79**	*e*P		**Pn**	**19 36 15.1**	**+1.7**
NMDO	**Nuevo Mundo**	**4.06**	**70**	P		**Pn**	**19 36 19.0**	**+1.9**
NMDO				S		**Sn**	**19 37 04.3**	**+0.1**
NMDO	**Nuevo Mundo**	**4.06**	**70**	*e*P		**Pn**	**19 36 18.6**	**+1.5**
QMBU	**Quimbuelo**	**4.12**	**76**	P		**Pn**	**19 36 19.8**	**+1.9**
QMBU				S		**Sn**	**19 37 04.1**	**-1.6**
QMBU	**Quimbuelo**	**4.12**	**76**	*e*P		**Pn**	**19 36 19.1**	**+1.1**
QMBU				*e*S		Sn	19 37 00.5	-5.1
QMBU				IAML			19 37 08.0	
	comp=N,27nm,0.2s							
QMBU				IAML			19 37 08.3	
	comp=E,33nm,0.3s							
SOR	**Soroa**	**5.11**	**315**	*e*P		**Pn**	**19 36 33.0**	**+1.5**

*SOME **27** 19:51:02.8, 40°.88N×78°.73E, h20km*
*NNC **27** 19:51:05.1±1.5, 41°.04N×78°.68E, h0km, mb5.1, mpv4.6, Error ellipse: s-maj=10.2km s-min=6.2km az=165.0*
*IDC **27** 19:51:05.4±0.8, 41°.01N×78°.83E, h0km, mb3.8/14, mbtmp3.8/20, ML3.3/6, MS3.2/1, Error ellipse: s-maj=12.2km s-min=12.0km az=97.0*
*BJI **27** 19:51:06.3, 41°.10N×78°.83E, h6km, mb3.8/2, ML3.9/8*
*KRNET **27** 19:51:07.0±0.1, 41°.18N×78°.81E, h20km, mb4.3*
ISC 27 19:51:06.2±1.9, **41°.13N**±0°.04×**78°.84E**±0°.03, **h2**km±11km, **n96, σ1s42/141, mb3.9/13, 34C-22D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time	Res
				Op			h m s	ISC
TARG	**Taragay, Kyrgy**	**0.98**	**308**	⇑*i*P		**Pb**	**19 51 24.7**	**-1.5**
TARG				⇑*i*S		**Sb**	**19 51 37.7**	**-2.1**
PRZ	**Przheval'sk**	**1.39**	**346**	⇑*i*P		**Pn**	**19 51 32.2**	**-0.6**
PRZ				⇑*i*S		**Sn**	**19 51 50.1**	**-1.8**
KDJ	**Kajisay**	**1.60**	**309**	⇑*i*P		**Pn**	**19 51 35.3**	**-0.4**
KDJ				⇑*i*S		**Sn**	**19 51 55.7**	**-1.3**
ANVS	**Anan'yevo**	**1.87**	**332**	⇓*i*P		**Pn**	**19 51 40.2**	**+0.8**
ANVS				⇓*i*S		**Sb**	**19 52 04.4**	**-0.7**
SATY	**Saty**	**1.95**	**351**	Pg		**Pb**	**19 51 42.6**	**0.0**
	291nm,0.5s							
SATY				Lg		Lg	19 52 11.3	
	2μm,0.6s							
SATY	**Saty**	**1.95**	**351**	*e*P		**Pb**	**19 51 42.6**	**0.0**
	291nm,0.5s							
SATY				*e*S		**Sg**	**19 52 11.3**	**+2.3**
	2μm,0.6s							
UZB	**Uzynbulak**	**2.02**	**4**	Pg		**Pn**	**19 51 42.6**	**+1.1**
	267nm,0.3s							
UZB				Lg		Lg	19 52 11.7	
	2μm,0.7s							
UZB	**Uzynbulak**	**2.02**	**4**	*e*P		**Pn**	**19 51 42.6**	**+1.1**
	267nm,0.3s							
UZB				*e*S		**Sg**	**19 52 11.7**	**+0.6**
	2μm,0.7s							
SHLS	**Shalkode**	**2.08**	**13**	Pg		**Pb**	**19 51 45.9**	**+1.2**
	1μm,0.4s							
SHLS				Lg		Lg	19 52 17.1	
	1μm,0.4s							
NRN	**Naryn**	**2.16**	**279**	⇑*i*P		**Pn**	**19 51 45.2**	**+1.6**
NRN				⇑*i*S		**Sn**	**19 52 12.9**	**+1.8**
ULHL	**Ulahol**	**2.24**	**301**	P		**Pn**	**19 51 47.1**	**+2.5**
	SNR=83							
ULHL	**Ulahol**	**2.24**	**301**	⇑*i*P		**Pn**	**19 51 45.9**	**+1.3**
ULHL				⇑*i*S		**Sn**	**19 52 13.9**	**+0.9**
PDGK	**Podgornoye**	**2.25**	**12**	⇑Pn		**Pb**	**19 51 47.3**	**-0.3**
	178nm,0.3s							
PDGK				⇑Sn		**Sg**	**19 52 18.2**	**-0.2**
	1μm,0.8s							
KPKS	**Kokpek**	**2.34**	**357**	Pg		**Pb**	**19 51 48.3**	**-0.8**
	0.3nm,0.1s							
KPKS				Lg		Lg	19 52 21.2	
	603nm,0.3s							
KPKS	**Kokpek**	**2.34**	**357**	*e*P		**Pb**	**19 51 48.3**	**-0.8**
	0.3nm,0.1s							
KPKS				*e*S		**Sg**	**19 52 21.1**	**-0.1**
	603nm,0.3s							
TNSS	**Tian-Shan**	**2.37**	**324**	Pg		**Pb**	**19 51 48.7**	**-1.1**
	148nm,0.4s							
TNSS				Lg		Lg	19 52 21.9	
	365nm,0.3s							
TNSS	**Tian-Shan**	**2.37**	**324**	*e*P		**Pb**	**19 51 48.7**	**-1.1**
	148nm,0.4s							
TNSS				*e*S		**Sg**	**19 52 21.9**	**-0.4**
	365nm,0.3s							
KURS	**Kuram**	**2.41**	**348**	Pg		**Pb**	**19 51 49.7**	**-0.6**
	299nm,0.6s							
KURS				Lg		Lg	19 52 23.6	
	546nm,0.4s							
KURS	**Kuram**	**2.41**	**348**	*e*P		**Pb**	**19 51 49.7**	**-0.6**
	299nm,0.6s							
KURS				*e*S		**Sg**	**19 52 23.6**	**+0.1**
	546nm,0.4s							
MDOK	**Medeo**	**2.43**	**327**	Pg		**Pb**	**19 51 49.4**	**-1.3**
	959nm,0.4s							
MDOK				Lg		Lg	19 52 23.4	
	2μm,0.6s							
MDOK	**Medeo**	**2.43**	**327**	*e*P		**Pb**	**19 51 49.4**	**-1.3**
	959nm,0.4s							
MDOK				*e*S		**Sg**	**19 52 23.4**	**-0.9**
	2μm,0.6s							
KOTS	**Kotyrbulak**	**2.46**	**329**	Pg		**Pb**	**19 51 50.5**	**-0.8**
	840nm,0.6s							
KOTS				Lg		Lg	19 52 24.9	
	2μm,0.5s							
KOTS	**Kotyrbulak**	**2.46**	**329**	*e*P		**Pb**	**19 51 50.5**	**-0.8**
	840nm,0.6s							
KOTS				*e*S		**Sg**	**19 52 24.9**	**-0.4**
	2μm,0.5s							
KNDC	**Almaty**	**2.51**	**327**	⇓Pg		**Pb**	**19 51 52.0**	**0.0**
	408nm,0.5s							
KNDC				⇑Lg		Lg	19 52 25.9	
	3μm,0.8s							
AAA	**Alma-Ata**	**2.52**	**326**	Pg		**Pb**	**19 51 51.6**	**-0.6**
	1μm,0.

UCH	**Uchtor**	**3.42**	**290**	⇓*iP*	**Pn**	**19 52 02.3 +1.3**
UCH				⇓*iS*	**Sn**	**19 52 42.8 +0.4**
KRBS	**Karabastau** 46nm,0.4s	**3.47**	**319**	Pg	**Pb**	**19 52 08.0 -0.5**
KRBS				Lg	Lg	19 52 55.0
	63nm,0.5s					
KRBS	**Karabastau** 46nm,0.4s	**3.47**	**319**	*eP*	**Pb**	**19 52 08.0 -0.5**
KRBS				*eS*	**Sg**	**19 52 55.0 -2.8**
	63nm,0.5s					
FRU1	**Bishkek**	**3.56**	**299**	⇓*iP*	**Pn**	**19 52 04.1 +1.6**
FRU1				⇓*iS*	**Sn**	**19 52 45.8 +0.6**
CHMS	**Chumysh** SNR=6.2	**3.57**	**303**	P	**Pb**	**19 52 10.0 -0.1**
CHMS	**Chumysh**	**3.57**	**303**	⇑*iP*	**Pn**	**19 52 04.0 +1.3**
CHMS				⇑*iS*	**Sn**	**19 52 45.5 0.0**
AAK	**Ala-Archa** 9.3nm,0.3s,baz=125,slow=9.2,SNR=29	**3.58**	**296**	Pn	**Pn**	**19 52 06.5 +3.6**
AAK				Lg	Lg	19 52 58.3
	16nm,0.3s,baz=232,slow=19,SNR=11 12nm,0.3s					
AAK				AML	AML	
AAK	**Ala-Archa** SNR=8.3	**3.58**	**296**	P	**Pb**	**19 52 11.9 +1.6**
AAK	**Ala-Archa** 25nm,0.6s	**3.58**	**296**	⇑Pg	**Pb**	**19 52 11.1 +0.8**
AAK				⇑Lg	Lg	19 52 58.7
	84nm,0.7s					
AAK	**Ala-Archa**	**3.58**	**296**	⇓*iP*	**Pn**	**19 52 04.2 +1.3**
AAK				⇓*iS*	**Sn**	**19 52 46.0 +0.2**
SALK	**Salom-Alik**	**3.81**	**268**	⇓*iP*	**Pn**	**19 52 07.7 +1.7**
SALK				⇓*iS*	**Sn**	**19 52 52.0 +0.5**
USP	**Ospenovka** SNR=14	**3.87**	**305**	P	**Pb**	**19 52 13.8 -1.4**
USP	**Ospenovka**	**3.87**	**305**	⇑*iP*	**Pn**	**19 52 07.9 +1.2**
USP				⇑*iS*	**Sn**	**19 52 52.7 -0.1**
EKS2	**Erkin-Say** SNR=14	**4.08**	**294**	P	**Pb**	**19 52 21.2 +2.4**
EKS2	**Erkin-Say**	**4.08**	**294**	⇓*eP*	**Pn**	**19 52 11.2 +1.5**
EKS2				⇓*iS*	**Sn**	**19 52 58.0 -0.1**
SFK	**Sufi-Kurgan**	**4.22**	**256**	⇓*iP*	**Pn**	**19 52 13.6 +1.9**
SFK				⇓*iS*	**Sn**	**19 53 02.2 +0.5**
ARSB	**Arslanbob**	**4.42**	**274**	⇓*iP*	**Pn**	**19 52 16.0 +1.5**
ARSB				⇓*iS*	**Sn**	**19 53 06.7 0.0**
MRKS	**Merke** 26nm,0.6s	**4.49**	**293**	Pg	**Pb**	**19 52 24.6 -1.2**
MRKS				Lg	Lg	19 53 23.1
	69nm,0.5s					
MRKS	**Merke** 26nm,0.6s	**4.49**	**293**	*eP*	**Pb**	**19 52 24.6 -1.2**
MRKS				*eS*	**Sb**	**19 53 23.1 +2.7**
	69nm,0.5s					
OHH	**Osh**	**4.64**	**264**	⇑*iP*	**Pn**	**19 52 19.1 +1.8**
OHH				⇑*iS*	**Sn**	**19 53 11.7 -0.1**
MNAS	**Manas**	**4.93**	**288**	⇑*iP*	**Pn**	**19 52 22.9 +1.5**
MNAS				⇑*iS*	**Sn**	**19 53 18.4 -0.7**
ARK	**Arkit**	**5.21**	**280**	⇑*eP*	**Pn**	**19 52 26.7 +1.4**
ARK				⇑*eS*	**Sn**	**19 53 25.0 -1.0**
DRK	**Karamyk**	**5.63**	**255**	⇓*iP*	**Pn**	**19 52 33.0 +1.8**
DRK				⇓*iS*	**Sn**	**19 53 35.8 -0.8**
TRKS	**Terek-Say**	**5.81**	**276**	⇑*eP*	**Pn**	**19 52 34.5 +0.9**
TRKS				⇑*iS*	**Sn**	**19 53 38.9 -2.0**
MK31	**Makanchi Array** 5.6nm,0.5s,baz=204,slow=12,SNR=164	**6.18**	**23**	Pn	**Pn**	**19 52 39.9 +1.4**
MK31				⇑Sn	**Sn**	**19 53 53.0 +3.2**
	23nm,0.9s,baz=194,slow=28,SNR=3.5					
MK31				⇑Lg	Lg	19 54 26.7
	9.3nm,0.5s					
MKAR	**Makanchi Array** 2.1nm,0.3s,baz=206,slow=14,SNR=89	**6.18**	**23**	Pn	**Pn**	**19 52 40.1 +1.7**
MKAR				Sn	**Sn**	**19 53 52.9 +3.1**
	4.2nm,0.3s,baz=204,slow=20,SNR=5.3					
MKAR				Lg	Lg	19 54 22.8
	3.7nm,0.3s,baz=201,slow=23,SNR=4.1 3.1nm,0.3s					
MKAR				AML	AML	
KK31	**Karatay Array** 16nm,0.7s,baz=106,slow=15,SNR=60	**6.50**	**290**	⇓Pg	**Pb**	**19 53 01.6 +1.6**
KK31				⇑Lg	Lg	19 54 31.2
	28nm,0.7s,baz=96,slow=27,SNR=7.3					
WMQ	**Urumqi**	**7.07**	**65**	Pn	**Pn**	**19 52 54.0 +3.2**
WMQ				Sn	**Sn**	**19 54 13.8 +2.0**
WMQ				AML	AML	
	36nm,1.7s					
WMQ				AML	AML	
	54nm,0.9s					
KURBB	**Kurchatov Arra** 0.1nm,0.3s,baz=186,slow=12,SNR=9.7	**9.49**	**359**	Pn	**Pn**	**19 53 26.1 +2.3**
KURBB				Sn	**Sn**	**19 55 14.0 +2.9**
	0.2nm,0.3s,baz=80,slow=25,SNR=4.6					
KURBB				Lg	Lg	19 56 06.6
	0.4nm,0.3s,baz=194,slow=30,SNR=6.5					
KURBB				LR	LR	19 57 34.7
	comp=Z,146nm,20.6s,baz=288,slow=40 0.9nm,0.7s					
KURBB				AML	AML	
BVAR	**Borovoye Array** 0.1nm,0.3s,baz=150,slow=14,SNR=15	**13.21**	**337**	Pn	**Pn**	**19 54 14.8 +0.2**
BVAR				Lg	Lg	19 57 56.1
	baz=160,slow=18,SNR=3.9 2.6nm,0.7s					
BVAR				AML	AML	
ZALV	**Zalesovo Beam** 0.2nm,0.3s,baz=200,slow=14,SNR=9.6 1.8nm,0.7s	**13.44**	**15**	Pn	**Pn**	**19 54 17.3 -0.5**
ZALV				AML	AML	
GTA2	**Gaotai**	**16.04**	**89**	*eP*	**Pn**	**19 54 55.0 +2.1**
GTA2				pmax	pmax	
	comp=Z,2.0nm,0.6s					
AKTO	**Aktyubinsk** 0.2nm,0.3s,baz=121,slow=12,SNR=5.5 0.7nm,0.4s	**17.20**	**310**	P	**P**	**19 55 09.4 +0.3**
AKTO				AML	AML	
ARTI	**Arti** 3.0nm,0.8s,baz=143,slow=4.7,SNR=6.5 3.0nm,0.8s	**20.25**	**326**	P	**P**	**19 55 43.1 +0.6**
SONM	**Songino Array** 4.8nm,0.7s,baz=254,slow=11,SNR=18 4.8nm,0.7s	**20.70**	**62**	P	**P**	**19 55 49.0 +1.4**
BJI2	**Beijing**	**28.24**	**80**	P	**P**	**19 56 56.8 -3.7**
BJI2				pmax	pmax	
	comp=Z,5.0nm,0.8s					
BRTR	**Keskin Array B** comp=Z,0.7nm,0.8s,baz=97,slow=8.7,SNR=4.9 comp=Z,0.7nm,0.8s	**34.15**	**283**	P	**P**	**19 57 52.9 +0.1**
AKASG	**Malin Array Be** comp=Z,0.3nm,0.3s,baz=72,slow=8.8,SNR=2.7 comp=Z,0.3nm,0.3s	**35.22**	**303**	P	**P**	**19 58 01.1 -0.6**
FINES	**FINESS Array B** comp=Z,2.5nm,0.7s,baz=100,slow=9.9,SNR=11 comp=Z,2.5nm,0.7s	**37.41**	**321**	P	**P**	**19 58 20.4 +0.2**
ARCES	**ARCESS Array B** comp=Z,3.9nm,0.6s,baz=93,slow=8.5,SNR=16 comp=Z,3.9nm,0.6s	**39.46**	**334**	P	**P**	**19 58 37.4 0.0**
HFS	**Hagfors** comp=Z,0.8nm,0.4s,baz=126,slow=7.5,SNR=6.9 comp=Z,0.8nm,0.4s	**43.43**	**319**	P	**P**	**19 59 10.3 +0.2**
NB2	**NORSAR Subarra** comp=Z,0.7nm,0.5s,baz=85,slow=8.6	**44.57**	**320**	P	**P**	**19 59 19.1 -0.2**
NOA	**NORSAR Array B** comp=Z,0.8nm,0.6s,baz=86,slow=7.9,SNR=4.6 comp=Z,0.8nm,0.6s	**44.57**	**320**	P	**P**	**19 59 18.9 -0.4**
GERES	**GERESS Array B** comp=Z,0.2nm,0.4s,baz=64,slow=6.1,SNR=5.1 comp=Z,0.2nm,0.4s	**45.44**	**303**	P	**P**	**19 59 26.6 +0.1**
EKA	**Eskdalemuir Ar** comp=Z,0.6nm,0.6s,baz=95,slow=9.0,SNR=5.7 comp=Z,0.6nm,0.6s	**53.29**	**315**	P	**P**	**20 00 25.5 -0.7**
ILAR	**Eielson Array** comp=Z,0.7nm,0.9s,baz=322,slow=5.1,SNR=5.5 comp=Z,0.7nm,0.9s	**68.53**	**19**	P	**P**	**20 02 09.2 -0.5**
YKA	**Yellowknife Ar** comp=Z,1.1nm,0.9s,baz=342,slow=6.0,SNR=3.7 comp=Z,1.1nm,0.9s	**76.16**	**6**	P	**P**	**20 02 55.5 +0.2**
WRA	**Warramunga Ar** comp=Z,0.7nm,0.8s,baz=323,slow=5.0,SNR=5.5 comp=Z,0.7nm,0.8s	**79.61**	**128**	P	**P**	**20 03 14.3 -0.8**
ASAR	**Alice Springs** comp=Z,0.9nm,0.8s,baz=330,slow=6.7,SNR=7.3 comp=Z,0.9nm,0.8s	**82.23**	**131**	P	**P**	**20 03 27.9 -1.1**

*NEIC **27** 19:53:41.7±2.3, 4.°94S±0.°07×129.°8E±0.°1, h200km±13km, mb4.1/6, Error ellipse: s-maj=21.2km s-min=10.2km az=95.0*
*IDC **27** 19:53:43.2±4.4, 5.°08S×129.°83E, h206km±37km, mb3.2/2, mbtmp3.8/6, MS2.6/1, Error ellipse: s-maj=56.8km s-min=12.9km az=69.0*

ISC 27 19:53:41.1±0.7, 5.°05S±0.°06×129.°91E±0.°09, h200km, n21, σ2.940/23, mb3.8/4, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**3.15**	**48**		**Pn**	**Pn**	**19 54 34.4**	**+1.8**
FAKI					Sn	**Sn**	**19 55 11.3**	**-1.6**
SAUI	**Saumlaki**	**3.22**	**155**		Pn	**Pn**	**19 54 36.7**	**+3.3**
SAUI					Sn	**Sn**	**19 55 17.4**	**+2.9**
SOEI	**Soe**	**7.29**	**230**		Pn	**Pn**	**19 55 23.9**	**-1.5**
MTN	**Manton Dam**	**7.84**	**171**			**Pn**	**19 55 32.5**	**+0.2**
BATI	**Baumata** 22nm,0.4s,baz=56,slow=3.9,SNR=12	**8.03**	**230**	P		**Pn**	**19 55 35.7**	**+0.8**
KAPI	**Kappang** comp=Z,30nm,19.1s,baz=328,slow=36	**10.12**	**270**	LR	LR		19 59 46.1	
KNRA	**Kununurra**	**10.62**	**186**	Pn		**Pn**	**19 56 07.8**	**-0.7**
FITZ	**Fitzroy Crossi** 1.9nm,0.7s,baz=21,slow=11,SNR=9.9	**13.62**	**197**	P		**Pn**	**19 56 47.1**	**+0.6**
FITZ				S		S	19 59 11.5	-6.8
	0.7nm,0.3s,baz=93,slow=18,SNR=2.0							
FITZ	**Fitzroy Crossi**	**13.62**	**197**			Pn	19 56 43.1	-3.4
WB0	**Warramunga Arr** comp=Z,9.9nm,1.4s	**15.27**	**164**			**Pn**	**19 57 02.7**	**-4.0**
WB0					IAmb	IAmb	19 57 20.7	
WRA	**Warramunga Arr** comp=Z,0.6nm,0.8s,baz=350,slow=11,SNR=7.5	**15.42**	**164**	P		**Pn**	**19 57 09.3**	**+0.8**
WRA				S		**S**	**19 59 54.2**	**-5.5**
	comp=Z,0.9nm,0.5s,baz=345,slow=22,SNR=7.0							
WB2	**Warramunga Arr**	**15.42**	**164**			**Pn**	**19 57 05.1**	**-3.5**
WR8	**Warramunga Arr** comp=Z,9.6nm,1.4s	**15.47**	**164**			**P**	**19 57 06.1**	**-3.3**
WR8					IAmb	IAmb	19 57 16.2	
KKM	**Kota Kinabalu**	**17.56**	**309**	P		**P**	**19 57 30.7**	**-1.8**
ASAR	**Alice Springs** comp=Z,0.7nm,0.4s,baz=347,slow=10,SNR=19	**18.90**	**169**	P		**P**	**19 57 49.1**	**+2.3**
ASAR				S		**S**	**20 01 12.8**	**+1.7**
	comp=Z,0.6nm,0.7s,baz=349,slow=20,SNR=5.0							
ASAR	**Alice Springs**	**18.90**	**169**	P		**P**	**19 57 48.3**	**+1.4**
CMAR	**Chiang Mai Arr** comp=Z,0.7nm,0.5s,baz=124,slow=7.1,SNR=4.1 comp=Z,0.7nm,0.5s	**38.44**	**308**	P		**P**	**20 00 44.9**	**+1.0**
EVN	**Everest**	**52.94**	**311**	P		**P**	**20 02 37.3**	**-0.6**
EVN					IAmb	IAmb	20 02 47.8	
	comp=Z,9.8nm,1.5s							
MK31	**Makanchi Array**	**66.56**	**326**	P		**P**	**20 04 09.4**	**-0.3**
MK31					IAmb	IAmb	20 04 12.1	
	comp=Z,5.6nm,1.2s							
MKAR	**Makanchi Array** comp=Z,0.4nm,0.4s,baz=111,slow=8.2,SNR=9.8 comp=Z,0.4nm,0.4s	**66.56**	**326**	P		**P**	**20 04 11.0**	**+1.3**
MKAR	**Makanchi Array**	**66.56**	**326**	P		**P**	**20 04 09.7**	**-0.1**

IDC 27 20:20:18.6±9.1, 3.°30S×106.°30W, h0km, mb3.3/4, mbtmp3.3/4, Error ellipse: s-maj=263.8km s-min=174.3km az=104.0, Central East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
NVAR	**Mina Array Bea** 0.1nm,0.3s,baz=121,slow=4.2,SNR=1.6 0.1nm,0.3s	**42.98**	**346**	P		P	20 28 19.4	-0.5
PDAR	**Pinedale Array** 0.2nm,0.7s,baz=212,slow=5.7,SNR=1.9 0.2nm,0.7s	**45.95**	**357**	P		P	20 28 44.3	+0.6
YKA	**Yellowknife Ar** 0.9nm,0.8s,baz=167,slow=6.8,SNR=5.2 0.9nm,0.8s	**65.92**	**356**	P		P	20 31 06.2	0.0
ILAR	**Eielson Array** 0.3nm,0.9s,baz=144,slow=5.7,SNR=7.3 0.3nm,0.9s	**74.14**	**343**	P		P	20 31 56.5	-0.2
H11N3	**WAKE ISLAND Hy** baz=96,slow=74,SNR=21	**88.08**	**290**	T		T	22 11 26.4	
H11N2	**WAKE ISLAND Hy** baz=96,slow=74,SNR=25	**88.09**	**290**	T		T	22 11 22.5	
H11N1	**WAKE ISLAND Hy** baz=96,slow=74,SNR=16	**88.09**	**290**	T		T	22 11 25.0	
H11S2	**WAKE ISLAND Hy** baz=95,slow=75,SNR=16	**88.18**	**289**	T		T	22 11 31.1	
H11S1	**WAKE ISLAND Hy** baz=95,slow=75,SNR=19	**88.19**	**289**	T		T	22 11 23.8	
H11S3	**WAKE ISLAND Hy** baz=95,slow=75,SNR=20	**88.20**	**289**	T		T	22 11 31.1	

*GCMT **27** 20:31:51.0±0.6, 4.°50S±0.°03×106.°02W±0.°03, h15km, MW4.8/78, Moment Tensor Solution. s11,c12; s78,c91; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}=0.04±.08; $M_{\theta\theta}$=0.46±.07; $M_{\phi\phi}$=-0.41±.07; $M_{r\theta}$=0.83±.26; $M_{r\phi}$=1.45±.05; $M_{\theta\phi}$=0.09±.25; Best double couple: M_o=1.72100×10^{16} NP1:ϕ_s=7.00000°, δ62.00000°, λ176.00000°. NP2: ϕ_s=99.00000°, δ87.00000°, λ28.00000°. Principal axes: T 1.8200, Plg22.0000°, Azm326.0000°; N -0.1960, Plg62.0000°, Azm105.0000°; P -1.6230, Plg17.0000°, Azm230.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*

IDC 27 20:31:47.7±8.7, 4.°22S×105.°21W, h0km, mb3.4/5, mbtmp3.4/5, MS3.9/19 Error ellipse: s-maj=241.9km s-min=126.6km az=119.0, Central East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
RPN	**Rapa Nui** comp=Z,214nm,18.6s,baz=82,slow=30	**23.12**	**189**	LR		LR	20 43 21.6	
CMIG	**Matias Romero** comp=Z,30nm,19.4s,baz=195,slow=28	**23.50**	**25**	LR		LR	20 42 49.9	
JTS	**Las Juntas de** comp=Z,494nm,21.4s,baz=234,slow=31	**24.79**	**54**	LR		LR	20 44 43.4	
LPIG	**La Paz** comp=Z,306nm,18.4s,baz=178,slow=30	**28.58**	**350**	LR		LR	20 46 07.2	
NNA	**Nana** comp=Z,101nm,18.4s,baz=274,slow=31	**29.10**	**107**	LR		LR	20 46 40.3	
TXAR	**Lajitas Array** 0.1nm,0.4s,baz=178,slow=12,SNR=4.2	**33.39**	**2**	P		P	20 38 28.4	+0.3
TXAR				LR		LR	20 49 49.4	
	comp=Z,153nm,18.9s,baz=176,slow=32 0.1nm,0.4s							
TAOE	**Nuku Hiva Isla** 327nm,25.0s	**35.00**	**261**	*e*LR		LR	20 47 19.9	
SDV	**Santo Domingo** comp=Z,221nm,20.5s,baz=245,slow=33	**36.84**	**69**	LR		LR	20 51 53.2	
ANMO	**Albuquerque** comp=Z,106nm,19.4s,baz=178,slow=32	**38.97**	**358**	LR		LR	20 52 55.2	
PFO	**Pinyon Flats O** comp=Z,286nm,20.1s,baz=163,slow=30	**39.10**	**345**	LR		LR	20 51 35.0	
NVAR	**Mina Array Bea** 0.2nm,0.5s,baz=141,slow=5.3,SNR=2.2	**44.13**	**345**	P		P	20 39 56.8	-1.5
NVAR				LR		LR	20 54 23.4	
	comp=Z,147nm,21.9s,baz=178,slow=31 0.2nm,0.5s							
PPT	**Papeete** comp=Z,114nm,19.3s,baz=66,slow=29	**45.41**	**249**	LR		LR	20 53 50.4	
PPT2	**Papeete2** 352nm,26.2s	**45.41**	**249**	*e*LR		LR	20 52 27.2	
PPT2				*e*LR		LR	20 52 34.8	
	246nm,25.5s							
TBI	**Tubuai** 2μm,35.0s	**46.74**	**242**	*e*LR		LR	20 53 12.4	
PDAR	**Pinedale Array** 0.3nm,0.6s,baz=194,slow=5.9,SNR=3.9 0.3nm,0.6s	**46.93**	**356**	P		P	20 40 21.9	+1.6
PLCA	**Paso Flores** comp=Z,258nm,21.9s,baz=341,slow=30	**47.87**	**144**	LR		LR	20 55 25.5	
YBH	**Yreka Blue Hor** comp=Z,155nm,21.7s,baz=149,slow=30	**48.43**	**342**	LR		LR	20 56 19.7	
NEW	**Newport** comp=Z,188nm,19.1s,baz=168,slow=33	**53.29**	**350**	LR		LR	21 00 47.5	
MDP	**Montagnes des** comp=Z,101nm,18.4s,baz=318,slow=35	**53.32**	**81**	LR		LR	21 02 39.3	
ULM	**Lac du Bonnet** comp=Z,181nm,19.3s,baz=189,slow=34	**54.84**	**7**	LR		LR	21 03 22.1	
RAR	**Rarotonga** comp=Z,44nm,19.9s,baz=100,slow=29	**55.54**	**247**	LR		LR	20 58 29.8	
DLBC	**Dease Lake** comp=Z,64nm,18.1s,baz=86,slow=33	**65.54**	**346**	LR		LR	21 08 12.1	
AFI	**Afiamalu** comp=Z,103nm,20.6s,baz=30,slow=28	**66.26**	**257**	LR		LR	21 02 44.7	
YKA	**Yellowknife Ar** 1.0nm,0.8s,baz=167,slow=6.4,SNR=4.4 1.0nm,0.8s	**66.91**	**355**	P		P	20 42 40.0	-1.5
ILAR	**Eielson Array** 0.5nm,0.8s,baz=125,slow=6.7,SNR=4.8 0.5nm,0.8s	**75.33**	**343**	P		P	20 43 33.5	+0.9
H11N3	**WAKE ISLAND Hy** baz=96,slow=74,SNR=34	**89.41**	**290**	T		T	22 22 55.2	
H11N2	**WAKE ISLAND Hy** baz=96,slow=74,SNR=30	**89.43**	**290**	T		T	22 22 53.3	
H11N1	**WAKE ISLAND Hy** baz=96,slow=74,SNR=28	**89.43**	**290**	T		T	22 22 55.5	
H11S2	**WAKE ISLAND Hy** baz=95,slow=75,SNR=22	**89.51**	**288**	T		T	22 23 02.6	
H11S1	**WAKE ISLAND Hy** baz=95,slow=75,SNR=24	**89.51**	**288**	T		T	22 23 05.6	
H11S3	**WAKE ISLAND Hy** baz=95,slow=75,SNR=24	**89.53**	**288**	T		T	22 23 06.4	

KRSC 27 20:42:41.0±1.4, 55.°28N×164.°98E, h60km±17km, Ml4.0, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
BKI	**Bering**	**0.58**	**97**	*eP*		Pn	20 42 54.1	+0.3
BKI				*eS*		Sn	20 43 02.1	-1.0
KBTR	**Krutoberegovo**	**1.53**	**308**	*eP*		Pn	20 43 07.5	+1.4
KBTR				*eS*		Sn	20 43 26.4	+1.4
KBG	**Krutoberegovo**	**1.61**	**308**	*eP*		Pn	20 43 08.7	+1.6
KBG				*eS*		Sn	20 43 28.6	+1.8
MKZ	**Mys Kozlova**	**2.01**	**250**	*eP*		Pn	20 43 15.5	+3.0
MKZ				*eS*		Sn	20 43 39.1	+2.6
BDR	**Baidarnaya**	**2.48**	**303**	*eS*		Sn	20 43 54.0	+5.8
TUMD	**Tumrok D**	**2.62**	**270**	*eP*		Pn	20 43 25.3	+4.4
TUMD				*eS*		Sn	20 43 55.8	+4.3
KZV	**Kizimen**	**2.69**	**268**	*eP*		Pn	20 43 25.9	+4.0
KII	**Karymskiy**	**3.44**	**251**	*eP*		Pn	20 43 37.0	+4.8
KII				*eS*		Sn	20 44 15.5	+3.7
SPN	**Mys Shipunski**	**3.64**	**235**	*eP*		Pn	20 43 38.5	+3.7
SPN				*eS*		Sn	20 44 17.6	+1.1
NLC	**Nalytchevo**	**3.92**	**240**	*eP*		Pn	20 43 42.5	+3.8
NLC				*eS*		Sn	20 44 25.4	+2.1
SDLR	**Sedlovina**	**4.09**	**243**	*eP*		Pn	20 43 44.9	+3.8
SDLR				*eS*		Sn	20 44 29.3	+1.5
OSSR	**Ossora**	**4.11**	**346**	*eP*		Pn	20 43 44.7	+3.5
OSSR				*eS*		Sn	20 44 29.5	+1.5
KRER	**Koryakskii**	**4.15**	**244**	*eP*		Pn	20 43 46.7	+4.7
UGLR	**Uglovaya**	**4.16**	**243**	*eP*		Pn	20 43 46.7	+4.7
KRX	**Arik**	**4.17**	**245**	*eP*		Pn	20 43 46.8	+4.5
AVH	**Avacha**	**4.18**	**244**	*eP*		Pn	20 43 46.8	+4.5
AVH				*eS*		Sn	20 44 31.8	+2.1
KOK	**Koryaka**	**4.21**	**244**	*eP*		Pn	20 43 47.5	+4.7
DALK	**Dalny**	**4.30**	**241**	*eP*		Pn	20 43 47.8	+4.1
KRMR	**Karymshinskiy**	**4.72**	**241**	*eP*		Pn	20 43 53.9	+4.3
KRMR				*eS*		Sn	20 44 46.7	+3.8
RUS	**Russkaya**	**4.77**	**236**	*eS*		Sn	20 44 45.9	+1.7
MTVR	**Mutnovka**	**4.90**	**238**	*eP*		Pn	20 43 56.2	+4.0
MTVR				*eS*		Sn	20 44 48.8	+1.2
GRL	**Gorelyy**	**4.91**	**239**	*eP*		Pn	20 43 57.1	+4.8
KDTR	**Khodutka, Kamc**	**5.39**	**233**	*eP*		Pn	20 44 02.5	+3.9
KDTR				*eS*		Sn	20 44 58.9	-0.4

IDC 27 20:43:19.3±1.6, 5.°66S×152.°55E, h0km, mb3.7/3, mbtmp3.7/4, ML1.8/1, MS3.9/1, Error ellipse: s-maj=32.7km s-min=15.4km az=113.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076** 301nm,0.3s,baz=314,slow=0.5,SNR=63	**1.44**	**339**	Pn		Pg	20 43 47.0	0.0
KRVT				Sn		Sg	20 44 04.3	-1.4
	181nm,0.3s,baz=88,slow=18,SNR=8.0							
KRVT				LR		LR	20 44 15.0	
	comp=Z,103nm,21.8s,baz=90,slow=39							
PMG	**Port Moresby** 1.3nm,0.3s,baz=61,slow=10,SNR=6.2	**6.51**	**235**	Pn		Pn	20 44 56.8	+0.5
PMG				Sn		Sn	20 46 08.2	-3.2
	2.9nm,0.3s,baz=0.2,slow=15,SNR=7.0 3.4nm,0.4s							
PMG				AML	AML			
WRA	**Warramunga Arr** 0.5nm,0.5s,baz=54,slow=9.9,SNR=9.0 0.5nm,0.5s	**22.69**	**230**	P		P	20 48 23.4	+0.6
ASAR	**Alice Springs** 1.5nm,0.8s,baz=58,slow=9.1,SNR=22 1.5nm,0.8s	**25.35**	**223**	P		P	20 48 49.2	+1.0
SHEM	**Shemya Is, Ala** comp=Z,90nm,19.4s,baz=18,slow=32	**60.98**	**15**	LR		LR	21 15 32.7	
ILAR	**Eielson Array** 1.1nm,0.7s,baz=247,slow=5.5,SNR=14 1.1nm,0.7s	**83.05**	**22**	P		P	20 55 45.6	-0.8

*WEL **27** 20:45:39.0±0.8, 32.°5S±14.°×18.°0W±3.°0, h12km, M4.4/7, mB5.1/2, ML4.3/13, MLv4.4/7, Mw(mB)4.5/2, Error ellipse: s-maj=43.1km s-min=4.3km az=113.6*
*IDC **27** 20:45:43.3±8.8, 32.°31S×179.°70W, h282km±95km, mb3.2/2, mbtmp3.8/3, Error ellipse: s-maj=99.8km s-min=40.1km az=2.0*

ISC 27 20:45:42.3±2.1, 32.°0S±0.°1×179.°9E±0.°3, h250km, n29, σ1.937/36, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.31**	**34**	P		Pn	20 46 29.8	-8.5
GLKZ				S		S	20 47 03.6	-19
GLKZ				AML	AML			
WMGZ	**Waiomatatini S**	**5.92**	**192**	P		**Pn**	**20 47 09.5**	**+0.2**
WMGZ				S		**S**	**20 48 20.1**	**+1.1**
WMGZ				AML	AML			
WMGZ				AML	AML			
HAZ	**Te Kaha**	**5.99**	**197**	P		**Pn**	**20 47 10.3**	**+0.2**
HAZ				S		**S**	**20 48 22.1**	**+1.6**
HAZ				AML	AML			
PKGZ	**Pakihiroa**	**6.03**	**194**	P		**Pn**	**20 47 09.0**	**-1.7**
PKGZ				S		**S**	**20 48 22.2**	**+0.7**
PKGZ				AML	AML			
PKGZ				AML	AML			
RUGZ	**Raukumara Rang**	**6.21**	**197**	P		**Pn**	**20 47 13.4**	**+0.2**
RUGZ				S		**S**	**20 48 24.6**	**-1.2**
RUGZ				AML	AML			
RUGZ				AML	AML			
MWZ	**Matawai**	**6.60**	**197**	P		**Pn**	**20 47 16.3**	**-1.6**
MWZ				S		**S**	**20 48 33.2**	**-1.3**
CNGZ	**Carnagh Statio**	**6.60**	**192**	P		**Pn**	**20 47 20.2**	**+2.4**
CNGZ				AML	AML			
TKGZ	**Te Karaka**	**6.63**	**194**	P		**Pn**	**20 47 20.2**	**+2.0**
TKGZ				S		**S**	**20 48 34.3**	**-0.8**
TKGZ				AML	AML			
TKGZ				AML	AML			
URZ	**Urewera** 6.6nm,0.7s,baz=251,slow=5.7,SNR=13	**6.64**	**200**	P		**Pn**	**20 47 18.8**	**+0.5**
URZ				S		**S**	**20 48 33.6**	**-1.7**
	14nm,0.4s,baz=110,slow=23,SNR=15							
URZ	**Urewera**	**6.64**	**200**	P		**Pn**	**20 47 18.9**	**+0.6**
URZ				AML	AML			
RIGZ	**Rimuhau**	**6.90**	**194**	P		**Pn**	**20 47 23.9**	**+2.2**
RIGZ			

0.5nm,0.4s
WRA Warramunga Arr 42.43 275 P **P 20 53 13.4 +0.4**
1.1nm,0.6s,baz=113,slow=8.0,SNR=8.8
1.1nm,0.6s
FINES FINESS Array B 146.01 338 PKPbc **PKPdf 21 04 49.4 -1.2**
6.3nm,1.1s,baz=60,slow=4.6,SNR=12

IDC ***27*** *21:00:53.9±0.5,22˚.47S×12˚.66W,h0km,mb4.3/20, mbtmp4.3/20,MS4.4/51,Error ellipse: s-maj=21.3km s-min=14.0km az=124.0*
NEIC ***27*** *21:00:55.5±1.8,22˚.46S±0˚.09×12˚.72W±0˚.10,h10km±1km, mb5.0/83,Mww5.1/10,Error ellipse: s-maj=16.2km s-min=13.0km az=130.0*
GFZ ***27*** *21:00:56.3±0.2,22˚S±5˚×1˚3W±˚,h10km,M4.8/25, mb4.8/25*
GCMT ***27*** *21:00:57.5±0.2,22˚.43S±0˚.01×12˚.76W±0˚.01,h13km±1km, MW5.2/136,Moment Tensor Solution. s71,c100; s136,c220; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-0.43±.12; Mθθ-2.71±.13; Mϕϕ3.14±.14; Mrθ-2.51±.38; Mθϕ5.59±.12; Mϕr1.36±.30; Best double couple: Mo6.90400×10¹⁶ NP1ϕs169.00000°,δ73.00000°, λ-164.00000°. NP2ϕs74.00000°,δ75.00000°, λ-17.00000°. Principal axes: T 6.5270, Plg1.0000°, Azm121.0000°; N 0.7540, Plg67.0000°, Azm214.0000°; P -7.2810, Plg23.0000°, Azm31.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 27 21:00:55.0±0.3,22˚.43S±0˚.06×12˚.72W±0˚.06,h9km,n251, σ1s28/211,mb4.8/103,MS4.5/51,3C-2D,Southern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHEL	**Horse Pasture**	**9.21**	**47**	Pn	**Pn**	**21 03 08.7**	**+0.5**
H10S2	**ASCENSION HYDR**	**13.52**	**352**	T	T	21 17 56.8	
	baz=171,slow=74						
H10S3	**ASCENSION HYDR**	**13.53**	**352**	T	T	21 17 57.7	
	baz=49,slow=74						
ASCN	**Ascension**	**14.50**	**353**	Pn	**Pn**	**21 04 19.0**	**-1.6**
H09N1	**TRISTAN DA CUN**	**14.59**	**179**	T	T	21 19 20.2	
	SNR=19						
TRIS	**Tristan da Cun**	**14.59**	**179**	Pn	**Pn**	**21 04 20.6**	**-1.1**
H10N1	**ASCENSION HYDR**	**14.60**	**353**	T	T	21 19 17.2	
	baz=180,slow=76						
H10N3	**ASCENSION HYDR**	**14.61**	**353**	T	T	21 19 25.4	
	baz=180,slow=76						
H10N2	**ASCENSION HYDR**	**14.62**	**353**	T	T	21 19 21.8	
	baz=180,slow=76						
H09W1	**TRISTAN DA CUN**	**14.62**	**179**	T	T	21 19 20.8	
	SNR=44						
CMC01	**Camacan, BA**	**26.29**	**281**	*e*P	**P**	**21 06 32.1**	**+1.0**
BSFB	**Barra de Sao F**	**26.55**	**273**	P	**P**	**21 06 34.1**	**+0.6**
	comp=Z,18nm,0.9s						
BSFB	**Barra de Sao F**	**26.55**	**273**	*e*P	**P**	**21 06 34.4**	**+1.0**
SJMB	**Sao Joao De Ma**	**26.89**	**273**	*e*P	**P**	**21 06 37.2**	**+0.7**
WIN	**Windhoek**	**27.53**	**96**	P	**P**	**21 06 41.2**	**-1.3**
WIN				IAmb	IAmb	21 06 50.6	
	comp=Z,34nm,1.1s						
WIN	**Windhoek**	**27.53**	**96**	P	**P**	**21 06 42.8**	**+0.3**
	comp=Z,35nm,1.1s						
NBTA	**Tacaratu-PE**	**27.69**	**295**	*e*P	**P**	**21 06 43.7**	**0.0**
RCBR	**Riachuelo**	**27.82**	**303**	LR	LR	21 14 48.2	
	comp=Z,542nm,22.0s,baz=152,slow=30						
RCBR	**Riachuelo**	**27.82**	**303**	P	**P**	**21 06 44.6**	**-0.3**
TSUM	**Tsumeb**	**28.48**	**89**	LR	LR	21 15 53.2	
	comp=Z,442nm,20.7s,baz=260,slow=32						
TSUM	**Tsumeb**	**28.48**	**89**		**P**	**21 06 51.2**	**+0.2**
TSUM	**Tsumeb**	**28.48**	**89**	P	**P**	**21 06 52.7**	**+1.7**
	comp=Z,20nm,1.1s						
DBIC	**Dimbokro**	**29.93**	**16**	P	**P**	**21 07 03.0**	**-0.6**
	comp=Z,3.2nm,0.6s,baz=181,slow=14,SNR=3.7						
DBIC				LR	LR	21 16 11.8	
	comp=Z,948nm,19.6s,baz=196,slow=31						
	comp=Z,3.2nm,0.6s						
DBIC	**Dimbokro**	**29.93**	**16**	P	**P**	**21 07 03.5**	**-0.1**
DBIC				IAmb	IAmb	21 07 06.5	
	comp=Z,54nm,1.9s						
KOOLE	**Kule**	**30.33**	**97**		**P**	**21 07 06.3**	**-1.1**
KOOLE				IAmb	IAmb	21 07 15.4	
	comp=Z,32nm,1.1s						
SUR	**Sutherland**	**31.26**	**116**	LR	LR	21 17 14.0	
	comp=Z,701nm,20.0s,baz=280,slow=31						
GRTLG	**Ghanzi**	**31.47**	**95**		**P**	**21 07 15.2**	**-2.2**
VAO	**Valinhos**	**31.55**	**262**	P	**P**	**21 07 16.9**	**-1.2**
ALKP	**Alkanpan, Nort**	**32.16**	**111**	P	**P**	**21 07 22.6**	**-0.8**
SDBA	**SAO DESIDERIO**	**32.22**	**283**	*e*P	**P**	**21 07 23.4**	**-0.6**
BDFB	**Brasilia**	**33.98**	**275**	P	**P**	**21 07 39.0**	**-0.4**
	comp=Z,2.1nm,0.4s,baz=109,slow=5.3,SNR=4.6						
BDFB				LR	LR	21 18 59.7	
	comp=Z,744nm,21.2s,baz=109,slow=32						
	comp=Z,2.1nm,0.4s						
BDFB	**Brasilia**	**33.98**	**275**	P	**P**	**21 07 38.4**	**-1.0**
EDA	**Edea**	**34.33**	**43**	P	**P**	**21 07 41.9**	**-0.4**
EDA				IAmb	IAmb	21 07 45.6	
	comp=Z,20nm,1.3s						
MAKGR	**Makgori**	**34.34**	**103**	P	**P**	**21 07 41.7**	**-0.7**
MAKGR				IAmb	IAmb	21 08 02.1	
	comp=Z,43nm,1.6s						
KDWAN	**Kaudwane**	**34.38**	**99**	P	**P**	**21 07 42.0**	**-0.8**
KDWAN				IAmb	IAmb	21 07 51.9	
	comp=Z,27nm,1.1s						
BOSA	**Boshof**	**34.72**	**108**	P	**P**	**21 07 44.2**	**-1.5**
	comp=Z,4.4nm,0.7s,baz=263,slow=7.7,SNR=7.1						
BOSA				LR	LR	21 19 24.0	
	comp=Z,684nm,20.3s,baz=274,slow=32						
	comp=Z,4.4nm,0.7s						
BOSA	**Boshof**	**34.72**	**108**	P	**P**	**21 07 45.1**	**-0.6**
BOSA				IAmb	IAmb	21 09 00.9	
	comp=Z,22nm,1.4s						
PCMB	**Pacaembu**	**35.68**	**264**	P	**P**	**21 07 50.5**	**-3.4**
	comp=Z,30nm,1.1s						
PCMB	**Pacaembu**	**35.68**	**264**	*e*P	**P**	**21 07 55.3**	**+1.4**
KSANE	**Kasane**	**35.80**	**90**	P	**P**	**21 07 54.4**	**-0.8**
SMTB	**Santa Maria do**	**36.08**	**286**		**P**	**21 07 57.5**	**+0.2**
SMTB	**Santa Maria do**	**36.08**	**286**	*e*P	**P**	**21 07 58.0**	**+0.7**
HOPE	**Hope Point**	**36.50**	**203**	P	**P**	**21 08 01.4**	**+0.9**
ARAG	**Araguaiana, MT**	**37.47**	**273**	*e*P	**P**	**21 08 11.9**	**+2.7**
TORD	**Torodi Ar. Bea**	**38.08**	**23**	P	**P**	**21 08 13.5**	**-0.8**
	comp=Z,12nm,0.8s,baz=200,slow=8.6,SNR=36						
TORD				LR	LR	21 21 16.0	
	comp=Z,994nm,20.4s,baz=168,slow=32						
	comp=Z,12nm,0.8s						
TORD	**Torodi Ar. Bea**	**38.08**	**23**	P	**P**	**21 08 13.1**	**-1.2**
TORD				IAmb	IAmb	21 08 17.1	
	comp=Z,64nm,1.8s						
MATP	**Matopo**	**38.34**	**95**	LR	LR	21 21 46.2	
	comp=Z,3μm,19.7s,baz=263,slow=33						
LSZ	**Lusaka**	**39.27**	**87**		**P**	**21 08 23.7**	**-0.8**
PP1B	**Ponte de Pedra**	**39.81**	**269**	*e*P	**P**	**21 08 31.3**	**+2.3**
ITQB	**Itaqui**	**39.91**	**250**	*e*P	**P**	**21 08 31.3**	**+1.6**
AQDB	**Aquidauana**	**39.95**	**265**		**P**	**21 08 29.4**	**-0.6**
AQDB	**Aquidauana**	**39.95**	**265**	P	**P**	**21 08 31.3**	**+1.3**
	comp=Z,27nm,1.0s						
AQDB	**Aquidauana**	**39.95**	**265**	*e*P	**P**	**21 08 31.7**	**+1.6**
CPUP	**Villa Florida**	**40.67**	**255**	P	**P**	**21 08 36.0**	**+0.1**
	comp=Z,3.1nm,0.8s,baz=97,slow=9.5,SNR=9.1						
CPUP				LR	LR	21 23 02.6	
	comp=Z,381nm,19.2s,baz=100,slow=33						
	comp=Z,3.1nm,0.8s						
CPUP	**Villa Florida**	**40.67**	**255**		**P**	**21 08 35.5**	**-0.4**
BDQN	**Bodoquena, MS**	**40.92**	**264**	*e*P	**P**	**21 08 39.1**	**+1.0**
SALV	**Santo Antonio**	**41.00**	**271**	*e*P	**P**	**21 08 40.6**	**+1.9**
COIM	**Forte Coimbra**	**41.99**	**265**	*e*P	**P**	**21 08 48.6**	**+1.8**
CLDB	**Colider**	**42.70**	**278**	P	**P**	**21 08 55.1**	**+2.4**
	comp=Z,12nm,1.6s						
CLDB	**Colider**	**42.70**	**278**	*e*P	**P**	**21 08 53.5**	**+0.8**
PDRB	**Porto dos Gac**	**43.29**	**277**	*e*P	**P**	**21 08 59.7**	**+2.2**
NPGB	**Novo Progresso**	**43.80**	**284**	*e*P	**P**	**21 09 02.1**	**+0.5**
PTLB	**Pontes e Lacer**	**44.31**	**271**		**P**	**21 09 05.7**	**0.0**
PTLB	**Pontes e Lacer**	**44.31**	**271**	*e*P	**P**	**21 09 07.6**	**+2.0**
BBSD	**Serra de San D**	**45.21**	**268**	*e*P	**P**	**21 09 14.3**	**+1.4**
ITTB	**Itaituba**	**45.31**	**287**	*e*P	**P**	**21 09 14.4**	**+0.7**
VILB	**Vilhena**	**46.04**	**273**	P	**P**	**21 09 19.4**	**-0.2**
VILB				IAmb	IAmb	21 09 30.1	
	comp=Z,28nm,1.1s						
VILB	**Vilhena**	**46.04**	**273**	*e*P	**P**	**21 09 22.6**	**+3.1**
MBAR	**Mbarara**	**47.50**	**69**	LR	LR	21 26 30.7	
	comp=Z,197nm,21.2s,baz=233,slow=32						
MBAR	**Mbarara**	**47.50**	**69**	P	**P**	**21 09 31.4**	**+0.2**
MBAR	**Mbarara**	**47.50**	**69**	P	**P**	**21 09 32.5**	**+1.4**
	comp=Z,7.6nm,1.9s						
MDP	**Montagnes des**	**47.68**	**300**	LR	LR	21 26 51.0	
	comp=Z,426nm,21.5s,baz=124,slow=33						
VNA1	**Neumayer--Stat**	**48.30**	**178**	P	**P**	**21 09 37.8**	**+1.5**
	comp=Z,6.8nm,0.8s						
TAM	**Tamanrasset**	**48.33**	**23**	P	**P**	**21 09 36.9**	**-0.4**
TAM				IAmb	IAmb	21 09 48.2	
	comp=Z,15nm,0.7s						
TAM	**Tamanrasset**	**48.33**	**23**	P	**P**	**21 09 38.9**	**+1.6**
	comp=Z,9.6nm,1.5s						
VNA2	**Neumayer--Watz**	**48.61**	**178**	⇑P	**P**	**21 09 40.3**	**+1.6**
	comp=Z,12nm,0.8s,baz=345,slow=8.4						
VNA2	**Neumayer--Watz**	**48.61**	**178**	P	**P**	**21 09 39.1**	**+0.4**
	comp=Z,20nm,1.0s						
VNA3	**Neumayer Olymp**	**48.86**	**179**	⇑P	**P**	**21 09 43.1**	**+2.5**
VNA3				⇓pP	**pwP**	**21 09 48.7**	**+1.4**
	comp=Z,4.2nm,1.0s						
VNA3	**Neumayer Olymp**	**48.86**	**179**	P	**P**	**21 09 40.7**	**0.0**
	comp=Z,7.5nm,1.3s						
TROLL	**Troll, Antarti**	**50.36**	**174**	⇑P	**P**	**21 09 52.4**	**+0.2**
	comp=Z,342nm,1.4s						
AC02	**Maricunga**	**51.12**	**253**	P	**P**	**21 09 58.5**	**-0.5**
AC02				IAmb	IAmb	21 10 09.5	
	comp=Z,22nm,1.1s						
AC02	**Maricunga**	**51.12**	**253**	P	**P**	**21 10 00.3**	**+1.2**
	comp=Z,27nm,2.1s						
MT08	**Bocatoma Ro**	**51.24**	**244**	P	**P**	**21 09 59.8**	**+0.3**
MT08				IAmb	IAmb	21 10 12.6	
	comp=Z,15nm,1.1s						
CO01	**Juntas del Tor**	**51.58**	**249**	P	**P**	**21 10 02.5**	**+0.3**
CO01				IAmb	IAmb	21 10 15.2	
	comp=Z,18nm,1.1s						
CO01	**Juntas del Tor**	**51.58**	**249**	P	**P**	**21 10 04.4**	**+2.2**
	comp=Z,19nm,1.1s						
PLCA	**Paso Flores**	**51.61**	**235**	P	**P**	**21 10 02.2**	**+0.1**
	comp=Z,6.9nm,1.0s,baz=84,slow=8.9,SNR=5.3						
PLCA				LR	LR	21 28 47.0	
	comp=Z,431nm,20.5s,baz=84,slow=32						
	comp=Z,6.9nm,1.0s						
PLCA	**Paso Flores**	**51.61**	**235**	P	**P**	**21 10 02.2**	**+0.1**
VA03	**San Esteban**	**51.73**	**245**	P	**P**	**21 10 03.4**	**+0.3**
BO02	**Sierra Bellavi**	**51.81**	**243**	P	**P**	**21 10 02.8**	**-0.9**
BO02				IAmb	IAmb	21 10 12.9	
	comp=Z,19nm,1.1s						
AC05	**El Transito**	**51.86**	**250**	P	**P**	**21 10 03.4**	**-0.8**
AC05				IAmb	IAmb	21 10 14.6	
	comp=Z,24nm,1.1s						
GO03	**Copiapo**	**51.99**	**252**	P	**P**	**21 10 04.6**	**-0.5**
GO03				IAmb	IAmb	21 10 22.3	
	comp=Z,55nm,1.9s						
MT09	**Talagante**	**52.03**	**244**	P	**P**	**21 10 05.1**	**-0.2**
MT09				IAmb	IAmb	21 10 20.6	
	comp=Z,18nm,0.9s						
BO01	**Tunca**	**52.08**	**243**	P	**P**	**21 10 05.0**	**-0.5**
BO01				IAmb	IAmb	21 10 06.2	
	comp=Z,24nm,1.1s						
AC06	**Mina Casimiro**	**52.12**	**252**	P	**P**	**21 10 06.3**	**+0.3**
AC06				IAmb	IAmb	21 11 02.4	
	comp=Z,45nm,1.7s						
CO04	**Los Peladeros**	**52.14**	**246**	P	**P**	**21 10 06.5**	**+0.2**
BI02	**San Fabin de**	**52.14**	**240**	P	**P**	**21 10 06.2**	**+0.1**
GO06	**Curarrehue**	**52.29**	**237**	P	**P**	**21 10 05.2**	**-1.9**
GO06				IAmb	IAmb	21 11 33.5	
	comp=Z,29nm,1.6s						
ML02	**Panimavida**	**52.29**	**241**	P	**P**	**21 10 04.8**	**-2.2**
PB08	**IPOC Station P**	**52.37**	**261**	P	**P**	**21 10 04.7**	**-3.6**
PB08				IAmb	IAmb	21 10 13.6	
	comp=Z,58nm,2.0s						
LPAZ	**La Paz**	**52.40**	**266**	P	**P**	**21 10 09.8**	**+0.9**
	comp=Z,1.5nm,0.7s,baz=116,slow=4.3,SNR=5.8						
LPAZ				LR	LR	21 32 11.1	
	comp=Z,336nm,18.7s,baz=104,slow=36						
	comp=Z,1.5nm,0.7s						
LPAZ	**La Paz**	**52.40**	**266**	P	**P**	**21 10 09.0**	**+0.1**
	comp=Z,4.4nm,1.6s						
LPAZ	**La Paz**	**52.40**	**266**	*e*P	**P**	**21 10 08.9**	**+0.1**
PB01	**IPOC Station P**	**52.48**	**260**	P	**P**	**21 10 06.7**	**-2.1**
PB01				IAmb	IAmb	21 10 17.4	
	comp=Z,31nm,1.6s						
PB03	**IPOC Station P**	**52.51**	**259**	P	**P**	**21 10 06.2**	**-2.9**
PB03				IAmb	IAmb	21 10 25.1	
	comp=Z,19nm,1.2s						
PB14	**IPOC Station P**	**52.60**	**256**	P	**P**	**21 10 08.1**	**-1.8**
PB14				IAmb	IAmb	21 10 19.8	
	comp=Z,24nm,1.0s						
PB14	**IPOC Station P**	**52.60**	**256**	P	**P**	**21 10 10.1**	**+0.2**
	comp=Z,32nm,1.1s						
PB07	**IPOC Station P**	**52.69**	**259**	P	**P**	**21 10 08.1**	**-2.4**
PB07				IAmb	IAmb	21 10 19.5	
	comp=Z,14nm,0.8s						
BOAV	**Boa Vista**	**52.76**	**292**	P	**P**	**21 10 08.8**	**-2.1**
BOAV	**Boa Vista**	**52.76**	**292**	*e*P	**P**	**21 10 11.7**	**+0.9**
KMBO	**Kilima Mbogo**	**52.96**	**74**	P	**P**	**21 10 10.5**	**-2.1**
PB16	**IPOC Station P**	**53.13**	**263**	P	**P**	**21 10 10.6**	**-3.6**
PB16				IAmb	IAmb	21 10 16.9	
	comp=Z,27nm,1.7s						
PB16	**IPOC Station P**	**53.13**	**263**	P	**P**	**21 10 15.5**	**+1.3**
	comp=Z,10nm,1.5s						
PSGCX	**Pisagua**	**53.39**	**262**	P	**P**	**21 10 12.6**	**-3.0**
PSGCX				IAmb	IAmb	21 10 24.4	
	comp=Z,26nm,1.1s						
ELIB	**Princess Elisa**	**53.58**	**167**	*d*P	**P**	**21 10 17.0**	**+0.7**
PMSA	**Palmer Station**	**53.80**	**204**	LR	LR	21 28 48.8	
	comp=Z,378nm,19.5s,baz=94,slow=31						
MDT	**Midelt**	**55.48**	**8**	LR	LR	21 31 40.6	
	comp=Z,460nm,21.1s,baz=196,slow=33						
BELA	**Belgrano 2**	**56.48**	**185**	P	**P**	**21 10 36.2**	**-0.7**
BELA				IAmb	IAmb	21 10 46.8	
	comp=Z,13nm,1.0s						
EVO	**Evora**	**60.80**	**4**	*e*P	**P**	**21 11 09.2**	**+1.8**
EVO				IAmb	IAmb	21 11 20.1	
	comp=Z,35nm,1.8s						
PARRA	**Arraiolos**	**61.08**	**4**	*e*P	**P**	**21 11 10.7**	**+1.4**
KEST	**Kesra**	**61.51**	**20**	P	**P**	**21 11 12.2**	**-0.2**
	comp=Z,9.9nm,1.1s,baz=234,slow=7.4,SNR=5.9						
KEST				LR	LR	21 35 47.1	
	comp=Z,403nm,20.8s,baz=217,slow=34						
	comp=Z,9.9nm,1.1s						
NNA	**Nana**	**61.74**	**268**	LR	LR	21 36 10.0	
	comp=Z,194nm,20.2s,baz=110,slow=34						
ESDC	**Sonseca Array**	**62.32**	**8**	P	**P**	**21 11 18.4**	**+0.6**
	comp=Z,1.1nm,0.9s,baz=191,slow=6.4,SNR=7.8						
ESDC				LR	LR	21 38 05.2	
	comp=Z,159nm,18.0s,baz=176,slow=36						
	comp=Z,1.1nm,0.9s						
PVIS	**Viseu**	**62.98**	**4**	*e*P	**P**	**21 11 23.6**	**+1.5**
MAW	**Mawson**	**63.98**	**156**	LR	LR	21 32 46.6	
	comp=Z,275nm,22.0s,baz=283,slow=30						
MAW	**Mawson**	**63.98**	**156**	P	**P**	**21 11 27.3**	**-1.1**
MAW				IAmb	IAmb	21 11 44.1	
	comp=Z,3.5nm,0.3s						
MAW	**Mawson**	**63.98**	**156**	P	**P**	**21 11 31.9**	**+3.5**
	comp=Z,2.7nm,0.7s						
ATD	**Arta Tunnel**	**64.06**	**64**	LR	LR	21 37 23.2	
	comp=Z,57nm,18.1s,baz=238,slow=34						
SDV	**Santo Domingo**	**64.69**	**292**	LR	LR	21 38 05.0	
	comp=Z,504nm,18.6s,baz=116,slow=34						
SDV	**Santo Domingo**	**64.69**	**292**	P	**P**	**21 11 31.7**	**-2.5**
SDV				IAmb	IAmb	21 11 43.2	
	comp=Z,8.8nm,0.9s						
SDV	**Santo Domingo**	**64.69**	**292**	P	**P**	**21 11 35.5**	**+1.3**
	comp=Z,74nm,1.1s						
VAE	**Valguarnera**	**64.84**	**24**	LR	LR	21 38 38.4	
	comp=Z,504nm,19.0s,baz=176,slow=35						
ATAH	**Atahualpa**	**64.85**	**273**	LR	LR	21 38 35.9	
	comp=Z,1μm,19.8s,baz=109,slow=35						
ROSC	**El Rosal**	**66.00**	**286**	LR	LR	21 39 39.5	
	comp=Z,801nm,19.0s,baz=145,slow=35						
TIP	**Timpagrande**	**67.21**	**25**	P	**P**	**21 11 48.6**	**-1.1**
TIP				IAmb	IAmb	21 11 59.1	
	comp=Z,8.0nm,0.6s						
QSPA	**South Pole Qui**	**67.77**	**180**	P	**P**	**21 11 53.3**	**+0.3**
	comp=Z,15nm,1.0s,baz=210,slow=4.8,SNR=14						
QSPA				LR	LR	21 36 45.6	
	comp=Z,330nm,21.5s,baz=202,slow=32						
	comp=Z,15nm,1.0s						
QSPA	**South Pole Qui**	**67.77**	**180**	P	**P**	**21 11 52.8**	**-0.2**
QSPA				IAmb	IAmb	21 11 58.9	
	comp=Z,14nm,0.9s						
EIL	**Elat**	**69.18**	**44**	LR	LR	21 40 22.1	
	comp=Z,207nm,20.1s,baz=254,slow=34						
EIL	**Elat**	**69.18**	**44**	P	**P**	**21 12 04.9**	**+2.7**
	comp=Z,15nm,1.7s						
HRFI	**Mount Harif**	**69.49**	**43**	P	**P**	**21 12 05.4**	**+1.3**
	comp=Z,18nm,1.5s						
KZIT	**Kziot**	**69.68**	**42**	P	**P**	**21 12 07.0**	**+1.8**
	comp=Z,14nm,2.1s						
XOR	**Xorichti**	**70.05**	**29**	P	**P**	**21 12 08.2**	**+0.8**
	comp=Z,23nm,0.7s						
LIT	**Litokhoron**	**70.34**	**28**	P	**P**	**21 12 07.5**	**-1.6**
LIT	**Litokhoron**	**70.34**	**28**	P	**P**	**21 12 10.1**	**+1.0**
GRG	**Griva**	**71.01**	**27**	P	**P**	**21 12 13.6**	**+0.4**
	comp=Z,12nm,1.0s						
UJAP	**Al Uja**	**71.06**	**42**	P	**P**	**21 12 15.3**	**+1.8**
	comp=Z,14nm,1.7s						
KNT	**Kendrikon**	**71.39**	**28**	P	**P**	**21 12 17.4**	**+2.0**
	comp=Z,7.1nm,1.6s						
MMAI	**Mount Meron Ar**	**71.75**	**41**	P	**P**	**21 12 18.2**	**+0.3**
	comp=Z,2.5nm,0.8s,baz=354,slow=4.2,SNR=5.2						
MMAI				LR	LR	21 41 06.1	
	comp=Z,153nm,21.0s,baz=216,slow=34						
	comp=Z,2.5nm,0.8s						
DAVOX	**Davos/Dischmat**	**71.86**	**16**	LR	LR	21 42 46.5	
	comp=Z,380nm,18.1s,baz=234,slow=35						
MANT	**Manisa**	**71.91**	**33**	P	**P**	**21 12 18.5**	**-0.4**
MANT				IAmb	IAmb	21 12 22.7	
	comp=Z,35nm,1.8s						
ASF	**Jabal al Asfar**	**72.10**	**43**	LR	LR	21 40 48.7	
	comp=Z,163nm,21.3s,baz=211,slow=33						
FETA	**Feichten**	**72.30**	**17**	*i* P	**P**	**21 12 22.0**	**+1.1**
	comp=Z,5.8nm,1.1s						
DAVA	**Damuels**	**72.33**	**16**	*i* P	**P**	**21 12 21.3**	**+0.2**
	comp=Z,6.1nm,1.0s						
SLE	**Schleitheim**	**72.43**	**15**	P	**P**	**21 12 22.4**	**+0.8**
	comp=Z,4.7nm,0.8s						
ABTA	**Abfaltersbach**	**72.54**	**18**	*i* P	**P**	**21 12 23.2**	**+0.9**
	comp=Z,6.3nm,1.6s						
ALN	**Alexandroupoli**	**72.58**	**30**	P	**P**	**21 12 20.0**	**-2.6**
	comp=Z,7.8nm,1.4s						
SQTA	**Sankt Quirin**	**72.61**	**17**	*i* P	**P**	**21 12 23.0**	**+0.2**
	comp=Z,4.7nm,1.3s						
MOTA	**Moosalm**	**72.70**	**17**	*i* P	**P**	**21 12 22.7**	**-0.7**
	comp=Z,3.5nm,1.5s						
RETA	**Reutte**	**72.74**	**16**	*i* P	**P**	**21 12 24.4**	**+1.0**
	comp=Z,6.4nm,1.3s						
MYKA	**Terra Mystica**	**72.76**	**19**	*i* P	**P**	**21 12 24.6**	**+1.0**
	comp=Z,1.5nm,0.5s						
WTTA	**Wattenberg**	**72.77**	**17**	*i* P	**P**	**21 12 23.7**	**0.0**
	comp=Z,5.3nm,1.0s						
WATA	**Walderalm**	**72.81**	**17**	*i* P	**P**	**21 12 24.1**	**+0.1**
	comp=Z,2.8nm,0.9s						
OBKA	**Obir**	**72.92**	**19**	*i* P	**P**	**21 12 24.7**	**0.0**
	comp=Z,6.1nm,1.6s						
KBA	**Koelnbreinsper**	**73.08**	**18**	*i* P	**P**	**21 12 25.3**	**-0.3**
	comp=Z,2.8nm,0.8s						
LESA	**Schwarzleotal**	**73.20**	**18**	*i* P	**P**	**21 12 26.5**	**+0.3**
	comp=Z,4.2nm,0.6s						
SOKA	**Soboth**	**73.22**	**20**	*i* P	**P**	**21 12 26.2**	**-0.2**
	comp=Z,3.0nm,0.9s						
SESA	**Seetaler Alpe,**	**73.47**	**19**	*i* P	**P**	**21 12 27.5**	**-0.5**
	comp=Z,4.4nm,1.1s						
RJOB	**Jochberg**	**73.52**	**18**	P	**P**	**21 12 27.7**	**-0.4**
	comp=Z,5.2nm,0.6s						
BIOA	**Bad Ischl, Aus**	**73.72**	**18**	*i* P	**P**	**21 12 28.9**	**-0.3**
	comp=Z,4.2nm,0.9s						
ARSA	**Arzberg**	**73.89**	**20**		**P**	**21 12 30.0**	**-0.2**
ARSA	**Arzberg**	**73.89**	**20**	*i* P	**P**	**21 12 30.4**	**+0.2**
	comp=Z,6.6nm,1.3s						
MORH	**Mrgy, Hungar**	**74.00**	**22**	P	**P**	**21 12 32.6**	**+1.8**
	comp=Z,6.2nm,1.8s						
MORH	**Mrgy, Hungar**	**74.00**	**22**	P	**P**	**21 12 31.4**	**+0.5**
	comp=Z,6.9nm,1.7s						
MOA	**Molln**	**74.04**	**19**	*i* P	**P**	**21 12 31.2**	**+0.1**
	comp=Z,5.1nm,0.9s						
GTBY	**Guantanamo Bay**	**74.05**	**300**	P	**P**	**21 12 31.6**	**-0.1**
MPLH	**Magyarpolny**	**74.46**	**21**	P	**P**	**21 12 34.9**	**+1.4**
	comp=Z,13nm,1.6s						
MPLH	**Magyarpolny**	**74.46**	**21**	P	**P**	**21 12 31.9**	**-1.6**
	comp=Z,5.1nm,1.6s						
RONA	**Rosalia, Austr**	**74.53**	**20**	*i* P	**P**	**21 12 34.4**	**+0.5**
	comp=Z,4.4nm,1.4s						
CONA	**Conrad Observa**	**74.59**	**19**	*i* P	**P**	**21 12 34.4**	**0.0**
	comp=Z,5.8nm,1.1s						
GERES	**GERESS Array B**	**74.78**	**18**	P	**P**	**21 12 35.9**	**+0.4**
	comp=Z,1.2nm,0.7s,baz=190,slow=5.4,SNR=8.6						
GERES				LR	LR	21 44 12.9	
	comp=Z,180nm,18.6s,baz=40,slow=35						
	comp=Z,1.2nm,0.7s						
ABNA	**Allensteig Bun**	**75.12**	**19**	*i* P	**P**	**21 12 37.9**	**+0.5**
	comp=Z,4.0nm,1.1s						
MODS	**Modra-Piesok**	**75.43**	**20**	P	**P**	**21 12 39.7**	**+0.5**
	comp=Z,13nm,1.4s						
BR105	**Keskin Array S**

TKL	**Tuckaleechee C**	**88.60**	**310**	LR	LR	21 45 57.7		
	comp=Z,216nm,20.6s,baz=111,slow=30							
250A	**Grady**	**88.70**	**305**	P	**P**	**21 13 49.5**	**+0.4**	
PAOC	**Oil Creek Stat**	**88.77**	**316**	P	**P**	**21 13 49.6**	**+0.3**	
FINES	**FINESS Array B**	**89.21**	**18**	P	**P**	**21 13 51.5**	**+0.8**	
	comp=Z,3.9nm,0.9s,baz=177,slow=7.0,SNR=4.8							
FINES				LR	LR	21 52 24.5		
	comp=Z,233nm,20.2s,baz=272,slow=35							
	comp=Z,3.9nm,0.9s							
FINES	**FINESS Array B**	**89.21**	**18**	P	**P**	**21 13 51.3**	**+0.5**	
CMIG	**Matias Romero**	**89.44**	**289**	LR	LR	21 52 41.7		
	comp=Z,327nm,21.9s,baz=107,slow=35							
SCHQ	**Schefferville**	**89.75**	**332**	LR	LR	21 48 18.0		
	comp=Z,384nm,18.0s,baz=161,slow=32							
SADO	**Sadowa**	**90.15**	**319**	LR	LR	21 47 55.2		
	comp=Z,186nm,18.6s,baz=122,slow=31							
X48A	**Hartselle**	**90.41**	**307**	P	**P**	**21 13 56.5**	**-0.6**	
X48A				IAmb	IAmb	21 14 13.7		
	comp=Z,9.8nm,1.1s							
V48A	**Smith Brothers**	**90.83**	**309**	P	**P**	**21 13 59.7**	**+0.7**	
WCI	**Wyandotte Cave**	**91.59**	**311**	P	**P**	**21 14 00.6**	**-1.8**	
WCI				IAmb	IAmb	21 14 05.2		
	comp=Z,7.5nm,0.8s							
WVT	**Waverly**	**91.73**	**308**	P	**P**	**21 14 03.7**	**+0.5**	
WVT				IAmb	IAmb	21 14 07.7		
	comp=Z,7.0nm,1.1s							
SFJD	**Kangerlussuaq**	**93.55**	**346**	LR	LR	21 48 41.9		
	comp=Z,169nm,18.1s,baz=124,slow=31							
AKTO	**Aktyubinsk**	**95.54**	**37**	LR	LR	22 02 17.9		
	comp=Z,152nm,18.2s,baz=247,slow=39							
ARCES	**ARCESS Array B**	**95.71**	**13**	LR	LR	21 57 09.6		
	comp=Z,222nm,19.5s,baz=239,slow=35							
PALK	**Pallekele**	**95.88**	**85**	LR	LR	21 52 34.1		
	comp=Z,109nm,19.4s,baz=252,slow=32							
FRB	**Frobisher Bay**	**96.24**	**338**	LR	LR	21 54 18.9		
	comp=Z,53nm,18.1s,baz=96,slow=33							
ARTI	**Arti**	**98.55**	**32**	LR	LR	22 01 54.1		
	comp=Z,146nm,18.2s,baz=297,slow=37							
WMQ	**Urumqi**	**112.51**	**50**	ePKP	**PKiKP**	**21 19 31.5**	**-0.4**	
TBI	**Tubuai**	**118.02**	**226**	eLR	LR	21 55 39.5		
	comp=Z,1μm,38.2s							
PPT2	**Papeete2**	**122.00**	**230**	eLR	LR	21 57 25.1		
	comp=Z,100nm,22.2s							
ASAR	**Alice Springs**	**123.85**	**143**	PKP	**PKiKP**	**21 19 55.6**	**+1.1**	
	comp=Z,1.2nm,0.9s,baz=212,slow=2.2,SNR=8.4							
ASAR	**Alice Springs**	**123.85**	**143**		**PKPdf**	**21 19 54.4**	**+0.1**	
SONM	**Songino Array**	**125.71**	**46**	PKP	**PKPdf**	**21 19 56.9**	**-0.3**	
	comp=Z,0.7nm,0.9s,baz=233,slow=1.5,SNR=5.5							
WRA	**Warramunga Arr**	**127.00**	**140**	PKP	**PKPdf**	**21 20 00.4**	**0.0**	
	comp=Z,0.2nm,0.3s,baz=246,slow=2.2,SNR=5.9							
ILAR	**Eielson Array**	**128.25**	**337**	PKP	**PKiKP**	**21 20 02.6**	**+0.7**	
	comp=Z,1.2nm,0.8s,baz=2.4,slow=1.0,SNR=12							
HHC	**Hu-ho-hao-te**	**129.98**	**55**	*e*P	**PKPdf**	**21 20 01.5**	**-4.0**	
NJ2	**Nanjing**	**136.20**	**67**	*e*P	**PKPdf**	**21 20 16.3**	**-1.0**	
NJ2				pmax	pmax			
	comp=Z,4.0nm,0.6s							
MJAR	**Matsushiro Arr**	**151.18**	**54**	PKPbc	**PKPbc**	**21 20 49.3**	**+0.2**	
	comp=Z,6.3nm,0.9s,baz=292,slow=1.6,SNR=9.6							
MJAR	**Matsushiro Arr**	**151.18**	**54**	PKPdf	**PKPdf**	**21 20 41.2**	**-2.0**	
MJAR					**PKPbc**	**21 20 48.3**	**-0.8**	

IDC 27 21:41:30.0±4.6, 4°37S×142°38E, h180km±27km, mb3.1/3, mbtmp3.6/5, Error ellipse: s-maj=75.7km s-min=20.9km az=90.0, New Guinea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**2.49**	**318**	P		Pn	21 42 12.6	-0.1
	4.2nm,0.3s,baz=194,slow=6.3,SNR=7.3							
JAY				S		Sn	21 42 46.3	+0.5
	4.9nm,0.4s,baz=132,slow=11,SNR=2.2							
WRA	**Warramunga Arr**	**17.35**	**206**	P		Pn	21 45 21.0	-0.6
	2.3nm,0.6s,baz=29,slow=12,SNR=17							
ASAR	**Alice Springs**	**20.86**	**202**	P		P	21 45 57.8	-0.3
	0.8nm,0.6s,baz=29,slow=10,SNR=9.9							
	0.8nm,0.6s							
FITZ	**Fitzroy Crossi**	**21.32**	**229**	P		P	21 46 02.9	-0.1
	1.2nm,0.5s,baz=48,slow=14,SNR=8.9							
	1.2nm,0.5s							
MKAR	**Makanchi Array**	**73.35**	**322**	P		P	21 52 42.2	+0.1
	0.9nm,1.0s,baz=97,slow=8.1,SNR=4.1							
	0.9nm,1.0s							

*NNC **27** 21:54:10.7±0.9, 41°.70N×72°.83E, h5km±5km, mb3.5, mpv3.2, Error ellipse: s-maj=7.9km s-min=3.3km az=173.0*
*KRNET **27** 21:54:10.0±0.1, 41°.67N×72°.82E, h21km, mb3.1*
*SOME **27** 21:54:10.9, 41°.68N×72°.92E, h5km*
*ISU **27** 21:54:11, 41°.62N×72°.77E, h12km*

ISC 27 21:54:09.8±0.9, 41°.69N±0°.02×72°.94E±0°.02, h17km±8km, n63, σ1°948/100, 28C-14D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
ARSB	**Arslanbob**	**0.37**	**175**	↑*e*P		**Pg**	**21 54 17.5**	**0.0**
ARSB				↑*e*S		**Sg**	**21 54 22.6**	**-0.1**
ARK	**Arkit**	**0.74**	**279**	↑*e*P		**Pg**	**21 54 22.6**	**-1.7**
ARK				↑*e*S		**Sg**	**21 54 31.7**	**-2.4**
MNAS	**Manas**	**0.86**	**338**	↓*e*P		**Pn**	**21 54 26.2**	**-1.1**
MNAS				↓*e*S		**Sn**	**21 54 37.8**	**-1.8**
SALK	**Salom-Alik**	**1.04**	**140**	↓*e*P		**Pg**	**21 54 30.3**	**+0.2**
SALK				↓*e*S		**Sn**	**21 54 44.9**	**+0.8**
MRKS	**Merke**	**1.08**	**11**	P		**Pg**	**21 54 31.5**	**+0.8**
	9.1nm,0.2s							
MRKS				S		**Sn**	**21 54 46.4**	**+1.5**
	32nm,0.2s							
MRKS	**Merke**	**1.08**	**11**	*e*P		**Pg**	**21 54 31.5**	**+0.8**
	9.1nm,0.2s							
MRKS				*e*S		**Sn**	**21 54 46.4**	**+1.5**
	32nm,0.2s							
EKS2	**Erkin-Say**	**1.16**	**32**	P		**Pg**	**21 54 33.1**	**+0.9**
	SNR=18							
EKS2	**Erkin-Say**	**1.16**	**32**	↑*e*P		**Pg**	**21 54 32.7**	**+0.5**
EKS2				↑*e*S		**Sn**	**21 54 48.9**	**+2.1**
OHH	**Osh**	**1.17**	**186**	↓*e*P		**Pn**	**21 54 31.1**	**-0.4**
OHH				↓*e*S		**Sb**	**21 54 46.5**	**0.0**
TRKS	**Terek-Say**	**1.36**	**264**	↑*e*P		**Pn**	**21 54 33.2**	**-1.0**
TRKS				↑*e*S		**Sn**	**21 54 50.0**	**-1.9**
AAK	**Ala-Archa**	**1.50**	**50**	P		**Pg**	**21 54 40.1**	**+1.4**
	SNR=20							
AAK	**Ala-Archa**	**1.50**	**50**	↑P		**Pg**	**21 54 39.9**	**+1.2**
	3.1nm,0.3s							
AAK				↑S		**Sg**	**21 54 59.7**	**+1.6**
	4.2nm,0.5s							
AAK	**Ala-Archa**	**1.50**	**50**	↑*e*P		**Pg**	**21 54 38.9**	**+0.3**
AAK				↑*e*S		**Sg**	**21 54 59.9**	**+1.8**
FRG	**Fergana**	**1.58**	**214**	S		**Sn**	**21 54 58.1**	**+1.0**
FRU1	**Bishkek**	**1.68**	**48**	↑*e*P		**Pg**	**21 54 42.1**	**-0.1**
FRU1				↑*e*S		**Sg**	**21 55 05.4**	**+1.3**
DZA	**Taraz**	**1.69**	**316**	P		**Pg**	**21 54 43.7**	**+1.3**
	20nm,0.1s							
DZA				S		**Sg**	**21 55 06.8**	**+2.4**
	81nm,0.2s							
DZA	**Taraz**	**1.69**	**316**	*e*P		**Pg**	**21 54 43.7**	**+1.3**
	20nm,0.1s							
DZA				*e*S		**Sg**	**21 55 06.8**	**+2.4**
	81nm,0.2s							
SFK	**Sufi-Kurgan**	**1.73**	**165**	↑*e*P		**Pb**	**21 54 41.6**	**+0.3**
SFK				↑*e*S		**Sb**	**21 55 04.4**	**+1.6**
KBK	**Karagaybulak**	**1.78**	**56**	P		**Pg**	**21 54 44.8**	**+0.8**
	SNR=27							
KBK	**Karagaybulak**	**1.78**	**56**	↑*e*P		**Pg**	**21 54 43.6**	**-0.4**
KBK				↑*e*S		**Sg**	**21 55 07.8**	**+0.6**
CHDK	**Chadak**	**1.80**	**247**	P		Pn	21 54 33.7	-6.4
CHDK				S		**Sn**	**21 54 56.4**	**-6.2**
CHMS	**Chumysh**	**1.88**	**45**	P		**Pg**	**21 54 46.2**	**+0.4**
	SNR=9.2							
CHMS	**Chumysh**	**1.88**	**45**	↓*e*P		**Pg**	**21 54 44.6**	**-1.3**
CHMS				↓*e*S		**Sg**	**21 55 09.7**	**-0.5**
PSK	**Pskem**	**1.93**	**278**	S		**Sg**	**21 55 10.3**	**-1.8**
USP	**Ospenovka**	**1.95**	**36**	P		**Pg**	**21 54 46.9**	**-0.4**
	SNR=29							
USP	**Ospenovka**	**1.95**	**36**	↑*e*P		**Pg**	**21 54 45.5**	**-1.9**
USP				↑*e*S		**Sg**	**21 55 11.4**	**-1.4**
CHRV	**Charvak**	**2.24**	**270**	S		**Sg**	**21 55 20.9**	**-1.0**
KK31	**Karatay Array**	**2.29**	**309**	↓Pg		**Pb**	**21 54 51.1**	**+0.5**
	4.2nm,0.3s,baz=133,slow=15,SNR=99							
KK31				↓Lg		Lg	21 55 21.9	
	9.3nm,0.4s,baz=133,slow=27,SNR=12							
BTK	**Batken**	**2.29**	**225**	↑*e*P		**Pn**	**21 54 48.2**	**+1.3**
BTK				↑*e*S		**Sn**	**21 55 16.0**	**+1.3**
NRN	**Naryn**	**2.31**	**95**	↓*e*P		**Pb**	**21 54 50.7**	**-0.5**
NRN				↓*e*S		**Sb**	**21 55 20.2**	**+0.6**
TKM2	**Tokmak 2**	**2.32**	**57**	P		**Pg**	**21 54 53.0**	**-1.5**
	SNR=14							
TKM2	**Tokmak 2**	**2.32**	**57**	↓*e*P		**Pb**	**21 54 51.1**	**-0.3**
TKM2				↓*e*S		**Sb**	**21 55 20.9**	**+1.0**
DRK	**Karamyk**	**2.37**	**202**	↑*e*P		**Pn**	**21 54 49.8**	**+1.6**
DRK				↑*e*S		**Sn**	**21 55 18.7**	**+1.7**
TVKS	**Tavaksay**	**2.47**	**268**	P		**Pb**	**21 54 54.7**	**+1.0**
TVKS				S		**Sb**	**21 55 26.2**	**+2.4**
ULHL	**Ulahol**	**2.52**	**76**	P		**Pg**	**21 54 59.1**	**+0.8**
	SNR=6.3							
ULHL	**Ulahol**	**2.52**	**76**	↑*e*P		**Pb**	**21 54 54.0**	**-0.8**
ULHL				↑*e*S		**Sb**	**21 55 25.9**	**+0.2**
DGS	**Degeres**	**2.61**	**53**	Pg		**Pg**	**21 54 59.1**	**-0.8**
	7.2nm,0.5s							
DGS				Lg		Lg	21 55 33.4	
	14nm,0.6s							
DGS	**Degeres**	**2.61**	**53**	*e*P		**Pg**	**21 54 59.1**	**-0.8**
	7.2nm,0.5s							
DGS				*e*S		**Sg**	**21 55 33.4**	**-0.3**
	14nm,0.6s							
KST	**Kastek**	**2.62**	**58**	Pg		**Pg**	**21 54 59.6**	**-0.5**
	3.2nm,0.3s							
KST				Lg		Lg	21 55 34.3	
	31nm,0.6s							
KST	**Kastek**	**2.62**	**58**	*e*P		**Pg**	**21 54 59.6**	**-0.5**
	3.2nm,0.3s							
KST				*e*S		**Sg**	**21 55 34.3**	**+0.4**
	31nm,0.6s							
KRBS	**Karabastau**	**2.84**	**44**	Pg		**Pg**	**21 55 04.0**	**-0.4**
	3.2nm,0.2s							
KRBS				Lg		Lg	21 55 41.5	
	12nm,0.5s							
KRBS	**Karabastau**	**2.84**	**44**	*e*P		**Pg**	**21 55 04.0**	**-0.4**
	3.2nm,0.2s							
KRBS				*e*S		**Sg**	**21 55 41.5**	**+0.3**
	12nm,0.5s							
IZV	**Izvestkoviy**	**3.04**	**62**	Pg		**Pg**	**21 55 07.0**	**-1.0**
	2.4nm,0.2s							
IZV				Lg		Lg	21 55 46.8	
	11nm,0.3s							
IZV	**Izvestkoviy**	**3.04**	**62**	*e*P		**Pg**	**21 55 07.0**	**-1.0**
	2.4nm,0.2s							
IZV				*e*S		**Sg**	**21 55 46.8**	**-0.6**
	11nm,0.3s							
KDJ	**Kajisay**	**3.20**	**81**	↑*e*P		**Pb**	**21 55 02.9**	**-3.3**
KDJ				↑*e*S		**Sb**	**21 55 41.8**	**-3.2**
TNSS	**Tian-Shan**	**3.26**	**64**	Pg		**Pg**	**21 55 11.7**	**-0.6**
	0.8nm,0.3s							
TNSS				Lg		Lg	21 55 54.6	
	2.4nm,0.7s							
TNSS	**Tian-Shan**	**3.26**	**64**	*e*P		**Pg**	**21 55 11.7**	**-0.6**
	0.8nm,0.3s							
TNSS				*e*S		**Sg**	**21 55 54.6**	**0.0**
	2.4nm,0.7s							
MDOK	**Medeo**	**3.38**	**63**	Pg		**Pg**	**21 55 13.6**	**-1.0**
	4.8nm,0.4s							
MDOK				Lg		Lg	21 55 58.3	
	12nm,0.6s							
MDOK	**Medeo**	**3.38**	**63**	*e*P		**Pg**	**21 55 13.6**	**-1.0**
	4.8nm,0.4s							
MDOK				*e*S		**Sg**	**21 55 58.3**	**-0.1**
	12nm,0.6s							
KOTS	**Kotyrbulak**	**3.45**	**62**	Pg		**Pg**	**21 55 16.1**	**+0.1**
	2.5nm,0.3s							
KOTS				Lg		Lg	21 56 02.5	
	15nm,0.8s							
KOTS	**Kotyrbulak**	**3.45**	**62**	*e*P		**Pg**	**21 55 16.1**	**+0.1**
	2.5nm,0.3s							
KOTS				*e*S		**Sg**	**21 56 02.5**	**+1.8**
	15nm,0.8s							
KURS	**Kuram**	**4.26**	**63**	Pg		**Pg**	**21 55 30.7**	**-0.7**
	1.7nm,0.6s							
KURS				Lg		Lg	21 56 27.4	
	3.3nm,0.6s							
KURS	**Kuram**	**4.26**	**63**	*e*P		**Pg**	**21 55 30.7**	**-0.7**
	1.7nm,0.6s							
KURS				*e*S		**Sg**	**21 56 27.4**	**+0.8**
	3.3nm,0.6s							
SATY	**Saty**	**4.28**	**70**	Pg		**Pg**	**21 55 30.6**	**-1.1**
	2.8nm,0.4s							
SATY				Lg		Lg	21 56 27.2	
	7.3nm,0.7s							
SATY	**Saty**	**4.28**	**70**	*e*P		**Pg**	**21 55 30.6**	**-1.1**
	2.8nm,0.4s							
SATY				*e*S		**Sg**	**21 56 27.2**	**+0.1**
	7.3nm,0.7s							
ARXS	**Arharly**	**4.39**	**53**	Pg		**Pg**	**21 55 32.1**	**-1.7**
	2.9nm,0.4s							
ARXS				Lg		Lg	21 56 29.8	
	7.6nm,0.3s							
ARXS	**Arharly**	**4.39**	**53**	*e*P		**Pg**	**21 55 32.1**	**-1.7**
	2.9nm,0.4s							
ARXS				*e*S		**Sg**	**21 56 29.8**	**-0.8**
	7.6nm,0.3s							
KPKS	**Kokpek**	**4.60**	**65**	Pg		**Pg**	**21 55 36.2**	**-1.7**
	0.6nm,0.2s							
KPKS				Lg		Lg	21 56 36.7	
	8.7nm,0.6s							
KPKS	**Kokpek**	**4.60**	**65**	*e*P		**Pg**	**21 55 36.2**	**-1.7**
	0.6nm,0.2s							
KPKS				*e*S		**Sg**	**21 56 36.7**	**-0.8**
	8.7nm,0.6s							
UZB	**Uzynbulak**	**4.73**	**70**	Pg		**Pg**	**21 55 38.7**	**-1.8**
	2.9nm,0.4s							
UZB				Lg		Lg	21 56 41.3	
	2.6nm,0.4s							
UZB	**Uzynbulak**	**4.73**	**70**	*e*P		**Pg**	**21 55 38.7**	**-1.8**
	2.9nm,0.4s							
UZB				*e*S		**Sg**	**21 56 41.3**	**-0.4**
	2.6nm,0.4s							
SHLS	**Shalkode**	**5.05**	**71**	Pg		**Pg**	**21 55 50.0**	**+3.5**
	2.3nm,0.6s							
SHLS				Lg		Lg	21 57 00.4	
	5.6nm,0.7s							
SHLS	**Shalkode**	**5.05**	**71**	*e*P		**Pg**	**21 55 50.0**	**+3.5**
	2.3nm,0.6s							
SHLS				*e*S		Sg	21 57 00.4	+8.6
	5.6nm,0.7s							

DJA 27 22:14:33.3±1.1, 1°N±11°×126°0E±°, h10km, M3.7/5, MLv3.7/5, MLv3.7/5, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
APSI	**Ampana**	**1.95**	**136**	P		Pn	22 15 05.4	-1.1
APSI				AML		AML		
APSI				AML		AML		
LUWI	**Luwuk**	**2.92**	**122**	P		Pn	22 15 20.4	+0.6
SMKI	**Samarinda**	**3.22**	**253**	P		Pb	22 15 31.1	+0.4
TTSI	**Tana Toraja**	**3.55**	**188**	P		Sn	22 16 05.9	-4.7
KDI	**Kendari**	**5.00**	**152**	P		Pg	22 16 21.9	+13
SKJI	**Sukabumi**	**15.60**	**241**	P		Pn	22 18 14.7	+1.2

*IDC **27** 22:41:45.5±0.7, 18°.03N×40°.01E, h0km, mb4.2/18, mbtmp4.2/21, ML3.5/3, MS3.8/31, Error ellipse: s-maj=16.0km s-min=12.1km az=77.0*
*SGS **27** 22:41:45.3, 17°.82N×40°.45E, h6km, Ml3.1*
*GCMT **27** 22:41:45.1±0.4, 17°.91N±0°.04×40°.07E±0°.04, h12km, MW4.7/70, Moment Tensor Solution. s12,c12; s70,c95; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-1.25±.06; Mθθ 0.51±.05; Mϕϕ 0.73±.07; Mrθ 0.24±.27; Mϕθ-0.59±.04; Mϕr-0.57±.25; Best double couple: Mo1.37900×10^16 NP1: ϕs 134.00000°, δ33.00000°, λ-102.00000°. NP2: ϕs 328.00000°, δ58.00000°, λ-82.00000°. Principal axes: T 1.3540, Plg13.0000°, Azm52.0000°; N 0.0450, Plg6.0000°, Azm144.0000°; P -1.4030, Plg76.0000°, Azm260.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **27** 22:41:46.5±1.3, 18°.05N±0°.07×40°.05E±0°.07, h10km±1km, mb4.5/36 Error ellipse: s-maj=14.1km s-min=8.1km az=318.0*
*GFZ **27** 22:41:47.1±0.3, 18°N±3°×4°0E±°, h10km, M4.6/30, mb4.4/30*

ISC 27 22:41:45.5±0.4, 17°91N±0°.04×40°35E±0°.04, h10km, n174, σ1°91/153, mb4.3/62, MS3.9/27, 1D, Red Sea

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
BRK01	**Al Birk**	**1.21**	**73**	P		**Pb**	**22 42 07.2**	**-1.2**
AMGES	**AMGES**	**1.26**	**64**	P		**Pn**	**22 42 07.2**	**-2.0**
AMGES				S		**Sb**	**22 42 19.3**	**-6.3**
BRK02	**Al Birk**	**1.41**	**88**	P		**Pg**	**22 42 10.6**	**-1.9**
BRK02				S		**Sg**	**22 42 28.3**	**-2.5**
BRK04	**Al Birk**	**1.57**	**63**	P		**Pn**	**22 42 12.5**	**-0.9**
BRK04				S		**Sn**	**22 42 27.2**	**-6.6**
QNF02	**Al Qunfudhah**	**1.57**	**43**	P		**Pg**	**22 42 15.2**	**-0.5**
QNF01	**Al Qunfudhah**	**1.72**	**31**	P		**Pn**	**22 42 13.8**	**-1.7**
FRSS2	**Sair Farasan I**	**1.73**	**127**	P		**Pb**	**22 42 14.7**	**-2.8**
DRBS	**Ad Darb**	**1.86**	**92**	P		**Pb**	**22 42 17.2**	**-2.4**
DRBS				S		**Sb**	**22 42 41.1**	**-1.9**
QNFDS	**Al Qunfudhah**	**1.96**	**17**	P		**Pn**	**22 42 15.4**	**-3.4**
FRSS	**Farasan al Kab**	**2.05**	**124**	P		**Pb**	**22 42 19.4**	**-3.5**
FRSS				S		**Sb**	**22 42 45.2**	**-3.2**
ASIR3	**ASIR3**	**2.08**	**67**	P		**Pn**	**22 42 20.7**	**+0.1**
NAMS	**An Nimas**	**2.16**	**54**	P		**Pn**	**22 42 21.7**	**-0.1**
MKHL	**Mahalah**	**2.29**	**103**	P		**Pn**	**22 42 22.5**	**-0.8**
BESHS	**BESHS**	**2.44**	**102**	P		**Pn**	**22 42 25.2**	**-0.2**
JAZS	**Jizan**	**2.59**	**108**	P		**Pn**	**22 42 26.9**	**-0.5**
KNGHS	**KNGHS**	**3.02**	**82**	P		**Pn**	**22 42 35.0**	**+1.5**
DJNS	**Zahran al Janu**	**3.05**	**93**	P		**Pn**	**22 42 34.9**	**+0.8**
ATD	**Arta Tunnel**	**6.79**	**159**	Pn		Pn	22 43 29.5	+4.3
	0.5nm,0.3s,baz=92,slow=5.6,SNR=7.9							
ATD				Sn		Sn	22 44 50.2	+7.5
	baz=281,slow=18,SNR=1.0							
ATD				LR		LR	22 45 47.5	
	comp=Z,210nm,20.1s,baz=2.0,slow=34							
	2.0nm,0.3s							
ATD				AML		AML		
ATD	**Arta Tunnel**	**6.79**	**159**	Pn		Pn	22 43 28.9	+3.7
RAYN	**Ar Rayn**	**7.38**	**40**	P		**Pn**	**22 43 35.7**	**+2.3**
RAYN				S		**Sb**	**22 45 27.8**	**+5.9**
RAYN	**Ar Rayn**	**7.38**	**40**	Pn		**Pn**	**22 43 34.7**	**+1.3**
RAYN	**Ar Rayn**	**7.38**	**40**	P		**Pn**	**22 43 34.7**	**+1.3**
	comp=Z,8.1nm,2.0s							
FURI	**Furi**	**9.10**	**190**	Pn		**Pn**	**22 43 58.8**	**+1.5**
EIL	**Elat**	**12.70**	**338**	Sn		Sn	22 47 00.6	-7.2
	comp=Z,0.2nm,0.3s,baz=33,slow=20,SNR=2.2							
EIL				LR		LR	22 48 44.0	
	comp=Z,533nm,18.6s,baz=128,slow=34							
HRFI	**Mount Harif**	**13.01**	**339**	P		**Pn**	**22 44 51.6**	**+1.2**
	comp=Z,7.0nm,1.7s							
DOK	**Doka**	**13.11**	**85**	P		**P**	**22 45 01.4**	**-0.7**
KRMI	**Paran Flat**	**13.19**	**338**	P		**Pn**	**22 44 53.4**	**+0.4**
	comp=Z,11nm,1.6s							
MZR	**Muzera**	**13.31**	**65**	P		**Pn**	**22 44 58.4**	**+3.8**
PRNI	**Paran**	**13.31**	**340**	P		**Pn**	**22 44 55.5**	**+0.9**
	comp=Z,33nm,2.4s							
GHAJ	**Ghor Haditha**	**14.02**	**343**	Pn		**Pn**	**22 45 01.4**	**-2.8**
GHAJ	**Ghor Haditha**	**14.02**	**343**	P		**Pn**	**22 45 04.8**	**+0.5**
	comp=Z,16nm,1.1s							
KZIT	**Kziot**	**14.03**	**338**	P		**Pn**	**22 45 04.2**	**-0.1**
	comp=Z,16nm,1.4s							
ASF	**Jabal al Asfar**	**14.55**	**348**	Pn		**Pn**	**22 45 12.0**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=315,slow=7.4,SNR=3.9							
ASF				Sn		**Sn**	**22 47 46.4**	**-6.4**
	comp=Z,0.1nm,0.3s,baz=96,slow=15,SNR=1.4							
ASF				LR		LR	22 50 12.7	
	comp=Z,207nm,19.8s,baz=193,slow=35							
	comp=Z,1.0nm,0.4s							
ASF				AML		AML		
UMZA	**Um Al Zommool**	**14.69**	**69**	P		**P**	**22 45 17.9**	**-1.8**
LODK	**Lodwar**	**15.20**	**199**	Pn		**Pn**	**22 45 22.0**	**+1.5**
LODK	**Lodwar**	**15.20**	**199**	P		**Pn**	**22 45 20.0**	**-0.5**
	comp=Z,5.2nm,1.9s							
ALNE	**Al Ain**	**15.63**	**64**	P		**P**	**22 45 29.8**	**-0.4**
	SNR=9.7							
MMA0	**Mount Meron ar**	**15.69**	**344**	P		**Pn**	**22 45 26.4**	**-0.4**
	comp=Z,1.8nm,1.1s							
MMA0B	**Mount Meron ar**	**15.69**	**344**	P		**Pn**	**22 45 26.1**	**-0.6**
	comp=Z,3.6nm,1.9s							
MMAI	**Mount Meron Ar**	**15.69**	**344**	Pn		**Pn**	**22 45 27.2**	**+0.5**
	comp=Z,0.4nm,0.3s,baz=139,slow=9.6,SNR=1.8							
MMAI				LR		LR	22 50 55.0	
	comp=Z,269nm,18.2s,baz=161,slow=36							
	comp=Z,0.5nm,0.5s							
MMAI				AML		AML		
NAZ	**Nazwa, Dubai**	**15.89**	**61**	P		**P**	**22 45 31.1**	**-2.0**
ASHO	**Ashiyiah**	**16.11**	**63**	P		**P**	**22 45 35.4**	**-0.2**
	SNR=6.5							
HATD	**Hatta, Dubai**	**16.23**	**62**	P		**P**	**22 45 35.5**	**-1.3**
SOHO	**SOHO**	**16.33**	**65**	P		**P**	**22 45 40.1**	**+2.2**
UOSS	**Minazif**	**16.33**	**62**	P		**P**	**22 45 37.3**	**-0.7**
UOSS	**Minazif**	**16.33**	**62**	Pn		**P**	**22 45 37.5**	**-0.4**
UOSS				IAmb	IAmb		22 45 44.5	
	comp=Z,43nm,1.1s							
UOSS	**Minazif**	**16.33**	**62**	P		**P**	**22 45 39.2**	**+1.3**
	comp=Z,49nm,1.1s							
MASF	**Masafi**	**16.46**	**60**	P		**P**	**22 45 39.7**	**+0.3**
BSY	**Bisya**	**16.52**	**70**	P		**P**	**22 45 40.7

EPOS	**Posof**		**23.61**	**4**	P		**P**	**22 46 59.4**	**+2.7**
	comp=Z,18nm,1.9s								
CHOS	**Chios island**		**23.92**	**331**	P		**P**	**22 46 59.7**	**-0.1**
	comp=Z,19nm,1.6s								
KBZ	**Khabaz**		**25.83**	**4**	P		**P**	**22 47 19.1**	**+2.2**
	comp=Z,6.3nm,1.0s,baz=144,slow=4.1,SNR=9.3								
KBZ					LR		LR	22 57 53.0	
	comp=Z,215nm,18.4s,baz=220,slow=38								
	comp=Z,6.3nm,1.0s								
KIV	**Kislovodsk**		**26.04**	**4**	P		**P**	**22 47 21.0**	**+2.0**
	comp=Z,21nm,1.1s								
GRG	**Griva**		**27.67**	**330**	P		**P**	**22 47 32.6**	**-1.1**
	comp=Z,14nm,1.5s								
VAE	**Valguarnera**		**29.96**	**316**	LR		LR	22 59 13.7	
	comp=Z,200nm,19.1s,baz=194,slow=35								
PDG	**Podgorica**		**30.33**	**328**	P		**P**	**22 47 56.3**	**-0.8**
	comp=Z,6.6nm,0.8s								
TAM	**Tamanrasset**		**32.96**	**284**	P		**P**	**22 48 20.4**	**-0.3**
	comp=Z,8.8nm,1.1s								
BLY	**Banja Luka**		**33.05**	**329**	P		**P**	**22 48 21.8**	**+0.7**
	comp=Z,8.2nm,1.4s								
AKASG	**Malin Array Be**		**33.90**	**347**	P		**P**	**22 48 28.4**	**0.0**
	comp=Z,0.4nm,0.5s,baz=166,slow=7.7,SNR=6.1								
	comp=Z,0.4nm,0.5s								
BTK	**Batken**		**34.33**	**44**	P		**P**	**22 48 35.7**	**+3.2**
	comp=Z,6.0nm,1.4s								
AKTO	**Aktyubinsk**		**35.40**	**20**	LR		LR	23 04 50.4	
	comp=Z,192nm,18.5s,baz=264,slow=39								
SOKA	**Soboth**		**35.48**	**330**	*i* P		**P**	**22 48 43.0**	**+0.7**
	comp=Z,6.7nm,1.8s								
OBKA	**Obir**		**35.60**	**329**	*i* P		**P**	**22 48 44.6**	**+1.3**
	comp=Z,5.8nm,1.7s								
RONA	**Rosalia, Austr**		**35.64**	**332**	*i* P		**P**	**22 48 44.2**	**+0.6**
	comp=Z,4.8nm,1.2s								
ARSA	**Arzberg**		**35.66**	**331**	*e*P		**P**	**22 48 44.4**	**+0.6**
	comp=Z,3.6nm,0.9s								
DRE	**Drenchia**		**35.82**	**328**	P		**P**	**22 48 45.3**	**+0.1**
	comp=Z,11nm,1.0s								
CONA	**Conrad Observa**		**36.01**	**332**	*i* P		**P**	**22 48 47.1**	**+0.3**
	comp=Z,6.4nm,1.4s								
SESA	**Seetaler Alpe,**		**36.02**	**330**	*i* P		**P**	**22 48 47.5**	**+0.4**
	comp=Z,5.2nm,1.3s								
WINA	**Alland / Wiene**		**36.05**	**332**	*e*P		**P**	**22 48 47.3**	**+0.3**
	comp=Z,5.5nm,1.6s								
KBA	**Koelnbreinsper**		**36.59**	**329**	*i* P		**P**	**22 48 53.0**	**+1.1**
	comp=Z,4.7nm,1.3s								
KRUC	**Moravsky**		**36.62**	**333**	P		**P**	**22 48 52.1**	**+0.2**
VRAC	**Vranov**		**36.73**	**334**	P		**P**	**22 48 53.8**	**+0.9**
	comp=Z,2.6nm,2.6s								
ABNA	**Allensteig Bun**		**36.75**	**332**	*i* P		**P**	**22 48 53.3**	**+0.2**
	comp=Z,7.3nm,1.7s								
ABTA	**Abfaltersbach**		**36.78**	**328**	*i* P		**P**	**22 48 54.0**	**+0.5**
	comp=Z,3.9nm,1.2s								
OPO	**Ambohidratompo**		**36.87**	**169**	LR		LR	23 02 41.8	
	comp=Z,55nm,19.6s,baz=89,slow=34								
BIOA	**Bad Ischl, Aus**		**36.87**	**330**	*e*P		**P**	**22 48 54.0**	**-0.1**
	comp=Z,4.5nm,1.1s								
TORD	**Torodi Ar. Bea**		**37.49**	**268**	P		**P**	**22 48 58.4**	**-1.4**
	comp=Z,4.3nm,1.1s,baz=81,slow=7.7,SNR=13								
	comp=Z,4.3nm,1.1s								
TORD	**Torodi Ar. Bea**		**37.49**	**268**	P		**P**	**22 48 58.3**	**-1.4**
TORD					IAmb		IAmb	22 49 03.1	
	comp=Z,17nm,1.5s								
GEC2	**GERESS Array S**		**37.66**	**331**	P		**P**	**22 48 59.4**	**-1.5**
GEC2					IAmb		IAmb	22 49 02.4	
	comp=Z,8.3nm,1.3s								
GERES	**GERESS Array B**		**37.66**	**331**	P		**P**	**22 49 00.6**	**-0.3**
	comp=Z,2.2nm,1.0s,baz=149,slow=6.2,SNR=12								
	comp=Z,2.2nm,1.0s								
SQTA	**Sankt Quirin**		**37.77**	**327**	*i* P		**P**	**22 49 03.0**	**+1.2**
	comp=Z,3.3nm,1.1s								
FUORN	**Ofenpass-Fuorn**		**37.88**	**326**	P		**P**	**22 49 01.2**	**-1.7**
FUORN					IAmb		IAmb	22 49 37.6	
	comp=Z,7.0nm,1.3s								
MOTA	**Moosalm**		**37.90**	**327**	*i* P		**P**	**22 49 03.6**	**+0.6**
	comp=Z,3.0nm,1.1s								
KHC	**Kasperske Hory**		**37.92**	**331**	P		**P**	**22 49 00.9**	**-2.1**
AAK	**Ala-Archa**		**38.02**	**42**	LR		LR	23 06 36.9	
	comp=Z,197nm,19.7s,baz=245,slow=39								
DAVA	**Damuels**		**38.50**	**326**	*e*P		**P**	**22 49 08.7**	**+0.6**
	comp=Z,7.1nm,1.1s								
ASAI	**AK-SAY(Kyrgyzs**		**38.57**	**46**	P		**P**	**22 49 11.9**	**+3.0**
	comp=Z,6.4nm,1.6s								
KDJ	**Kajisay**		**39.54**	**44**	P		**P**	**22 49 20.0**	**+3.1**
	comp=Z,5.6nm,1.0s								
CLL	**Collm**		**39.75**	**333**	*i* Px		Px	22 49 20.2	
MATP	**Matopo**		**39.83**	**197**	LR		LR	23 05 10.7	
	comp=Z,584nm,19.3s,baz=53,slow=35								
PALK	**Pallekele**		**40.69**	**100**	LR		LR	23 03 28.7	
	comp=Z,80nm,21.5s,baz=310,slow=32								
ARTI	**Arti**		**40.76**	**15**	LR		LR	23 09 10.3	
	comp=Z,214nm,18.1s,baz=248,slow=40								
BVAR	**Borovoye Array**		**42.15**	**27**	P		**P**	**22 49 39.3**	**+1.4**
	comp=Z,3.9nm,0.9s,baz=214,slow=1.6,SNR=13								
	comp=Z,3.9nm,0.9s								
MDT	**Midelt**		**42.92**	**299**	LR		LR	23 10 17.1	
	comp=Z,155nm,21.5s,baz=54,slow=40								
MD01	**Midelt array s**		**43.06**	**299**	P		**P**	**22 49 43.6**	**-2.3**
TSUM	**Tsumeb**		**43.13**	**212**	LR		LR	23 07 38.9	
	comp=Z,99nm,18.4s,baz=36,slow=36								
EVN	**Evenset**		**43.73**	**68**	P		**P**	**22 49 54.5**	**+2.6**
	comp=Z,6.5nm,1.1s								
ESDC	**Sonseca Array**		**43.93**	**309**	P		**P**	**22 49 51.8**	**-0.9**
	comp=Z,1.8nm,1.0s,baz=109,slow=8.5,SNR=6.1								
	comp=Z,1.8nm,1.0s								
ESDC	**Sonseca Array**		**43.93**	**309**	P		**P**	**22 49 51.2**	**-1.5**
KURBB	**Kurchatov Arra**		**44.58**	**34**	P		**P**	**22 49 59.6**	**+2.0**
	comp=Z,4.6nm,1.0s,baz=237,slow=8.1,SNR=18								
KURBB					LR		LR	23 12 38.5	
	comp=Z,101nm,18.9s,baz=178,slow=42								
	comp=Z,4.6nm,1.0s								
FINES	**FINESS Array B**		**44.65**	**350**	P		**P**	**22 49 56.3**	**-1.7**
FIA1	**FINESS Array S**		**44.65**	**350**	P		**P**	**22 49 56.5**	**-1.5**
KURK	**Kurchatov**		**44.67**	**34**	P		**P**	**22 49 59.8**	**+1.4**
KURK					IAmb		IAmb	22 50 02.9	
	comp=Z,6.5nm,1.0s								
KURK	**Kurchatov**		**44.67**	**34**	P		**P**	**22 50 01.4**	**+3.0**
	comp=Z,8.0nm,1.3s								
SFS	**San Fernando**		**44.87**	**304**	P		P	22 49 56.3	-3.9
MKAR	**Makanchi Array**		**44.88**	**41**	P		**P**	**22 50 02.3**	**+2.1**
	comp=Z,3.4nm,1.0s,baz=248,slow=6.4,SNR=8.8								
MKAR					LR		LR	23 11 07.9	
	comp=Z,307nm,18.5s,baz=250,slow=39								
	comp=Z,3.4nm,1.0s								
DBIC	**Dimbokro**		**45.44**	**262**	P		**P**	**22 50 02.7**	**-2.3**
	comp=Z,9.8nm,1.1s,baz=78,slow=6.8,SNR=3.7								
DBIC					LR		LR	23 08 56.9	
	comp=Z,271nm,19.6s,baz=74,slow=36								
	comp=Z,9.8nm,1.1s								
HFS	**Hagfors**		**46.33**	**342**	P		**P**	**22 50 10.2**	**-1.2**
	comp=Z,4.2nm,1.1s,baz=170,slow=9.6,SNR=2.8								
	comp=Z,4.2nm,1.1s								
NOA	**NORSAR Array B**		**47.80**	**341**	P		**P**	**22 50 21.8**	**-1.1**
	comp=Z,3.6nm,1.1s,baz=137,slow=8.3,SNR=3.7								
	comp=Z,3.6nm,1.1s								
BRDH	**Bariadhala**		**48.16**	**75**	LR		LR	23 13 21.7	
	comp=Z,124nm,19.3s,baz=327,slow=39								
SHL	**Shillong**		**48.23**	**71**	P		**P**	**22 50 28.1**	**+1.1**
BOSA	**Boshof**		**48.50**	**198**	P		**P**	**22 50 29.9**	**+1.2**
ZALV	**Zalesovo Beam**		**49.60**	**33**	P		**P**	**22 50 39.0**	**+2.2**
	comp=Z,10.0nm,0.9s,baz=248,slow=7.8,SNR=31								
	comp=Z,10.0nm,0.9s								
EKA	**Eskdalemuir Ar**		**49.80**	**329**	P		**P**	**22 50 37.4**	**-0.9**
	comp=Z,0.8nm,0.8s,baz=121,slow=9.6,SNR=2.5								
	comp=Z,0.8nm,0.8s								
NPW	**Naypyitaw**		**52.63**	**78**	P		**P**	**22 51 03.0**	**+2.9**
	comp=Z,18nm,1.1s								
SUR	**Sutherland**		**53.39**	**201**	LR		LR	23 11 55.5	
	comp=Z,87nm,20.2s,baz=28,slow=34								
GTA2	**Gaotai**		**55.35**	**54**	*e*P		**P**	**22 51 23.0**	**+3.1**
GTA2					pmax		pmax		
	comp=Z,11nm,0.9s								
CMAR	**Chiang Mai Arr**		**55.45**	**80**	P		**P**	**22 51 23.4**	**+2.7**
	comp=Z,1.0nm,0.3s,baz=289,slow=7.6,SNR=10								
CMAR					LR		LR	23 16 31.8	
	comp=Z,28nm,21.1s,baz=55,slow=37								
	comp=Z,1.0nm,0.3s								
NRIK	**Noril'sk**		**58.98**	**18**	P		**P**	**22 51 47.0**	**+2.1**
	comp=Z,3.2nm,0.6s,baz=229,slow=4.8,SNR=4.4								
	comp=Z,3.2nm,0.6s								
PSI	**Prapat**		**59.29**	**98**	LR		LR	23 15 38.3	
	comp=Z,52nm,19.1s,baz=286,slow=34								
SONM	**Songino Array**		**60.90**	**45**	P		**P**	**22 52 01.1**	**+2.5**
	comp=Z,3.8nm,1.0s,baz=257,slow=3.3,SNR=17								
	comp=Z,3.8nm,1.0s								
SONM	**Songino Array**		**60.90**	**45**	P		**P**	**22 52 00.7**	**+2.1**
SONM					IAmb		IAmb	22 52 02.9	
	comp=Z,5.2nm,1.1s								

HKPS	**Hong Kong Po S**		**68.82**	**73**	P		**P**	**22 52 50.6**	**+0.1**
SUMG	**Summit**		**69.69**	**342**	P		**P**	**22 52 54.3**	**-1.2**
SUMG					IAmb		IAmb	22 53 05.9	
	comp=Z,10nm,1.4s								
HIA	**Hailar**		**69.78**	**43**	P		**P**	**22 52 57.1**	**+1.1**
BNX	**BinXian**		**75.38**	**46**	⇓P		**P**	**22 53 32.3**	**+2.9**
BNX					pmax		pmax		
	comp=Z,6.0nm,0.9s								
KSRS	**Korea Array**		**77.46**	**55**	LR		LR	23 32 19.2	
	comp=Z,99nm,18.3s,baz=45,slow=39								
JOW	**Kunigami**		**80.33**	**65**	P		**P**	**22 53 58.3**	**+1.0**
DAV	**Davao City (W)**		**83.34**	**85**	LR		LR	23 32 51.1	
	comp=Z,184nm,20.4s,baz=143,slow=37								
ASAJ	**Asahikawa**		**86.19**	**45**	LR		LR	23 36 59.8	
	comp=Z,150nm,18.9s,baz=269,slow=38								
MAW	**Mawson**		**86.86**	**172**	LR		LR	23 25 46.6	
	comp=Z,37nm,21.5s,baz=334,slow=30								
PETK	**Petropavlovsk-**		**91.14**	**32**	LR		LR	23 39 47.9	
	comp=Z,92nm,18.0s,baz=303,slow=38								
PETK	**Petropavlovsk-**		**91.14**	**32**	P		**P**	**22 54 50.2**	**-0.3**
MDP	**Montagnes des**		**91.29**	**276**	LR		LR	23 37 08.4	
	comp=Z,55nm,18.0s,baz=37,slow=36								
PET	**Petropavlovsk**		**91.67**	**32**	P		**P**	**22 54 53.6**	**+0.6**
I63A	**Otisfield**		**91.92**	**318**	P		**P**	**22 54 52.7**	**-1.6**
SNAA	**Sanae**		**94.03**	**193**	LR		LR	23 34 43.5	
	comp=Z,51nm,20.1s,baz=14,slow=34								

*KRSC **27** 22:57:13.1±1.4, 52˚.04N×159˚.98E, h40^{km}±20^{km}, Ml5.2, Felt [II] at HMS Vodopadnaya, Petropavlovsk, Viluchinsk.*
*BJI **27** 22:57:14.8, 52˚.53N×159˚.59E, h43^{km}, mB4.8/12, mb4.7/42, Ms4.7/37, Ms7 4.5/36*
*MOS **27** 22:57:15.0±1.0, 52˚.04N×159˚.80E, h45^{km}, mb4.8/21, MS3.9/5, Error ellipse: s-maj=7.3km s-min=3.2km az=96.4*
MOS Felt (II) at Petropavlovsk.
*NEIC **27** 22:57:16.3±1.9, 52˚.2N±0˚.1×159˚.8E±0˚.1, h35^{km}±2^{km}, mb4.5/58, Error ellipse: s-maj=17.8km s-min=11.2km az=193.0*
*GFZ **27** 22:57:20.1±0.7, 52˚N±6˚×16˚0E±˚, h59^{km}±6^{km}, M5.1/23, mb5.1/23*
*IDC **27** 22:57:21.1±0.4, 52˚.24N×159˚.47E, h77^{km}±2^{km}, mb4.1/33, mbtmp4.4/38, MS4.3/50, Error ellipse: s-maj=9.0km s-min=6.8km az=20.0*
ISC 27 22:57:17.4±0.4, 52˚.11N±0˚.04×159˚.84E±0˚.03, h52^{km}±2^{km}, h53^{km}:pP-P, n477, σ1%29/485, mb4.7/140, MS4.4/57, 34C-26D, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
RUS	**Russkaya**	**0.88**	**292**	PN		**Pn**	**22 57 31.1**	**-2.4**
RUS				S		**Sn**	**22 57 43.4**	**-1.9**
RUS	**Russkaya**	**0.88**	**292**	*e*P		**Pn**	**22 57 31.2**	**-2.4**
RUS				*e*S		**Sn**	**22 57 43.4**	**-1.9**
SPN	**Mys Shipunski**	**1.00**	**6**	PN		**Pn**	**22 57 34.0**	**-1.1**
SPN				S		**Sn**	**22 57 48.5**	**+0.3**
SPN	**Mys Shipunski**	**1.00**	**6**	*e*P		**Pn**	**22 57 34.1**	**-1.1**
SPN				*e*S		**Sn**	**22 57 48.5**	**+0.3**
MTVR	**Mutnovka**	**1.08**	**291**	PN		**Pn**	**22 57 34.8**	**-1.6**
MTVR	**Mutnovka**	**1.08**	**291**	*e*P		**Pn**	**22 57 34.8**	**-1.6**
NLC	**Nalytchevo**	**1.11**	**344**	PN		**Pn**	**22 57 34.5**	**-2.1**
NLC	**Nalytchevo**	**1.11**	**344**	*e*P		**Pn**	**22 57 34.5**	**-2.1**
KDTR	**Khodutka, Kamc**	**1.13**	**255**	PN		**Pn**	**22 57 35.1**	**-1.8**
KDTR				S		**Sn**	**22 57 49.8**	**-1.5**
KDTR	**Khodutka, Kamc**	**1.13**	**255**	*e*P		**Pn**	**22 57 35.1**	**-1.8**
KDTR				*e*S		**Sn**	**22 57 49.9**	**-1.5**
DALK	**Dalny**	**1.14**	**325**	PN		**Pn**	**22 57 35.2**	**-1.8**
DALK				S		**Sn**	**22 57 50.6**	**-0.9**
DALK	**Dalny**	**1.14**	**325**	*e*P		**Pn**	**22 57 35.3**	**-1.8**
DALK				*e*S		**Sn**	**22 57 50.6**	**-0.9**
PET	**Petropavlovsk**	**1.17**	**322**	k *i*PN		**Pn**	**22 57 35.9**	**-1.5**
PET				*e*S		**Sn**	**22 57 51.2**	**-1.1**
PET				pmax	pmax			
	comp=Z,3μm,0.9s							
PET				smax	smax			
	comp=E,14μm,0.8s							
PET				smax	smax			
	comp=N,11μm,0.6s							
PET	**Petropavlovsk**	**1.17**	**322**			**Pn**	**22 57 35.4**	**-2.0**
PET	**Petropavlovsk**	**1.17**	**322**	*e*P		**Pn**	**22 57 35.9**	**-1.5**
PET				*e*S		**Sn**	**22 57 51.7**	**-0.5**
PET	**Petropavlovsk**	**1.17**	**322**	P		**Pn**	**22 57 36.0**	**-1.4**
GRL	**Gorelyy**	**1.17**	**293**	PN		**Pn**	**22 57 36.5**	**-1.0**
GRL	**Gorelyy**	**1.17**	**293**	*e*P		**Pn**	**22 57 36.6**	**-1.6**
INSR	**Institute**	**1.22**	**322**	PN		**Pn**	**22 57 36.5**	**-1.6**
INSR				S		**Sn**	**22 57 52.8**	**-0.7**
INSR	**Institute**	**1.22**	**322**	*e*P		**Pn**	**22 57 36.6**	**-1.6**
INSR				*e*S		**Sn**	**22 57 52.8**	**-0.7**
UGLR	**Uglovaya**	**1.26**	**331**	PN		**Pn**	**22 57 37.6**	**-1.2**
UGLR	**Uglovaya**	**1.26**	**331**	*e*P		**Pn**	**22 57 37.6**	**-1.2**
KRMR	**Karymshinskiy**	**1.27**	**305**	PN		**Pn**	**22 57 37.3**	**-1.5**
KRMR				S		**Sn**	**22 57 54.0**	**-0.7**
KRMR	**Karymshinskiy**	**1.27**	**305**	*e*P		**Pn**	**22 57 37.3**	**-1.5**
KRMR				*e*S		**Sn**	**22 57 54.0**	**-0.7**
SDLR	**Sedlovina**	**1.31**	**334**	PN		**Pn**	**22 57 37.8**	**-1.6**
SDLR	**Sedlovina**	**1.31**	**334**	*e*P		**Pn**	**22 57 37.9**	**-1.6**
AVH	**Avacha**	**1.34**	**330**	PN		**Pn**	**22 57 38.6**	**-1.2**
AVH	**Avacha**	**1.34**	**330**	*e*P		**Pn**	**22 57 38.7**	**-1.2**
KRER	**Koryakskii**	**1.37**	**331**	PN		**Pn**	**22 57 39.1**	**-1.2**
KRER	**Koryakskii**	**1.37**	**331**	*e*P		**Pn**	**22 57 39.1**	**-1.2**
KOK	**Koryaka**	**1.39**	**329**	PN		**Pn**	**22 57 39.4**	**-1.1**
KOK	**Koryaka**	**1.39**	**329**	*e*P		**Pn**	**22 57 39.4**	**-1.1**
KRX	**Arik**	**1.45**	**330**	PN		**Pn**	**22 57 40.0**	**-1.3**
KRX	**Arik**	**1.45**	**330**	*e*P		**Pn**	**22 57 40.0**	**-1.3**
PEA0B	**Petropavlovsk-**	**1.65**	**308**	PN		**Pn**	**22 57 43.1**	**-0.8**
PEA0B				S		**Sn**	**22 58 04.9**	**+1.0**
PEA0B	**Petropavlovsk-**	**1.65**	**308**			**Pn**	**22 57 42.7**	**-1.2**
PETK	**Petropavlovsk-**	**1.65**	**308**	P		**Pn**	**22 57 43.2**	**-0.7**
	comp=N,3μm,0.8s,baz=108,slow=20,SNR=1630							
PETK				S		**Sn**	**22 58 02.7**	**-1.2**
	comp=N,2μm,0.7s,baz=118,slow=17,SNR=10.0							
PETK				LR		LR	22 58 35.2	
	comp=N,9μm,18.9s,baz=51,slow=54							
PETK	**Petropavlovsk-**	**1.65**	**308**			**Pn**	**22 57 43.1**	**-0.8**
APC	**Apacha**	**1.83**	**298**	PN		**Pn**	**22 57 46.6**	**+0.2**
APC				S		**Sn**	**22 58 11.1**	**+2.7**
APC	**Apacha**	**1.83**	**298**	*e*P		**Pn**	**22 57 46.7**	**+0.2**
APC				*e*S		**Sn**	**22 58 11.2**	**+2.7**
KII	**Karymskiy**	**1.94**	**353**	PN		**Pn**	**22 57 47.7**	**-0.3**
KII	**Karymskiy**	**1.94**	**353**	*e*P		**Pn**	**22 57 47.7**	**-0.3**
GNL	**Ganaly**	**1.96**	**325**	PN		**Pn**	**22 57 48.1**	**-0.2**
GNL	**Ganaly**	**1.96**	**325**	*e*P		**Pn**	**22 57 48.1**	**-0.2**
PAU	**Pauzhetka**	**1.99**	**252**	PN		**Pn**	**22 57 47.9**	**-0.6**
PAU	**Pauzhetka**	**1.99**	**252**	*e*P		**Pn**	**22 57 48.0**	**-0.6**
MKZ	**Mys Kozlova**	**2.70**	**24**	PN		**Pn**	**22 57 56.4**	**-1.9**
MKZ				S		**Sn**	**22 58 27.8**	**-1.9**
MKZ	**Mys Kozlova**	**2.70**	**24**	*e*P		**Pn**	**22 57 56.4**	**-1.9**
MKZ				*e*S		**Sn**	**22 58 27.8**	**-1.9**
SKR	**Severo-Kuril's**	**2.73**	**240**	*e*PN		**Pn**	**22 57 57.2**	**-1.5**
SKR				*e*S		**Sn**	**22 58 28.9**	**-1.6**
SKR				pmax	pmax			
	comp=Z,368nm,0.5s							
SKR				smax	smax			
	comp=N,5μm,0.9s							
SKR				smax	smax			
	comp=E,5μm,0.9s							
SKR				MLR	MLR			
	comp=Z,3μm,13.0s							
SKR	**Severo-Kuril's**	**2.73**	**240**	*e*P		**Pn**	**22 57 57.9**	**-0.8**
SKR				*e*S		**Sn**	**22 58 30.2**	**-0.3**
KZV	**Kizimen**	**3.02**	**5**	PN		**Pn**	**22 58 02.7**	**-0.2**
KZV	**Kizimen**	**3.02**	**5**	*e*P		**Pn**	**22 58 02.7**	**-0.2**
TUMD	**Tumrok D**	**3.12**	**6**	PN		**Pn**	**22 58 03.5**	**-0.5**
TUMD	**Tumrok D**	**3.12**	**6**	*e*P		**Pn**	**22 58 03.5**	**-0.5**
TUMR	**Tumrok**	**3.19**	**3**	PN		**Pn**	**22 58 05.5**	**+0.5**
TUMR	**Tumrok**	**3.19**	**3**	*e*P		**Pn**	**22 58 05.6**	**+0.5**
KMNR	**Kamenistaya**	**3.66**	**4**	PN		**Pn**	**22 58 10.5**	**-1.0**
KMNR	**Kamenistaya**	**3.66**	**4**	*e*P		**Pn**	**22 58 10.6**	**-1.0**
ESO	**Esso**	**3.88**	**350**	PN		**Pn**	**22 58 14.9**	**+0.4**
ESO	**Esso**	**3.88**	**350**	*e*P		**Pn**	**22 58 15.0**	**+0.4**
KOZ	**Kozyrevsk**	**3.96**	**0**	PN		Pn	22 58 17.6	+2.1
KOZ	**Kozyrevsk**	**3.96**	**0**	*e*P		Pn	22 58 17.7	+2.2
SRDR	**Sredinnyy**	**4.22**	**359**	PN		Pn	22 58 21.4	+2.3
SRDR	**Sredinnyy**	**4.22**	**359**	*e*P		Pn	22 58 21.5	+2.3
KLY	**Klyuchi**	**4.24**	**6**	PN		Pn	22 58 21.8	+2.4
KLY	**Klyuchi**	**4.24**	**6**	*e*P		Pn	22 58 21.9	+2.5
KBTR	**Krutoberegovo**	**4.46**	**22**	PN		**Pn**	**22 58 22.1**	**-0.3**
KBTR	**Krutoberegovo**	**4.46**	**22**	*e*P		**Pn**	**22 58 22.1**	**-0.3**
KBG	**Krutoberegovo**	**4.48**	**21**	PN		**Pn**	**22 58 22.4**	**-0.3**
KBG	**Krutoberegovo**	**4.48**	**21**	*e*P		**Pn**	**22 58 22.4**	**-0.3**
BDR	**Baidarnaya**	**4.54**	**10**	PN		Pn	22 58 24.9	+1.3
BDR	**Baidarnaya**	**4.54**	**10**	*e*P		Pn	22 58 24.9	+1.3
SMKR	**Semkarok**	**4.58**	**11**	PN		Pn	22 58 27.2	+3.0
SMKR	**Semkarok**	**4.58**	**11**	*e*P		Pn	22 58 27.2	+3.1
SRKR	**Sorokina**	**4.62**	**9**	PN		Pn	22 58 26.9	+2.2
SRKR	**Sorokina**	**4.62**	**9**	*e*P		Pn	22 58 26.9	+2.3
BKI	**Bering**	**4.79**	**47**	PN		**Pn**	**22 58 25.1**	**-1.7**
BKI	**Bering**	**4.79**	**47**	*e*P		**Pn**	**22 58 25.1**	**-1.7**
TIGL	**Tigil**	**5.71**	**354**	PN		**Pn**	**22 58 39.9**	**+0.5**
TIGL	**Tigil**	**5.71**	**354**	*e*P		**Pn**	**22 58 40.0**	**+0.5**
OSSR	**Ossora**	**7.38**	**13**	PN		Pn	22 59 06.0	+3.6
OSSR	**Ossora**	**7.38**	**13**	*e*P		Pn	22 59 06.0	+3.6
SHEM	**Shemya Is, Ala**	**8.74**	**80**	P		Pn	22 59 20.8	-0.2
	comp=Z,114nm,0.5s,baz=309,slow=2.5,SNR=12							
SHEM				S		**Sn**	**23 00 51.0**	**-7.0**
	comp=Z,62nm,0.3s,baz=294,slow=21,SNR=6.0							
SHEM				LR		LR	23 02 44.1	
	comp=Z,1μm,21.9s,baz=291,slow=36							
MA2	**Magadan**	**9.05**	**329**	LR		LR	23 03 40.4	
	comp=Z,2μm,18.9s,baz=152,slow=43							
TYV	**Tymovskoe**	**10.79**	**270**	*e*PN		Pn	22 59 52.8	+3.8
TYV				*e*S		Sn	23 01 56.1	+7.9
TYV				pmax	pmax			
	comp=Z,200nm,2.7s							
TYV				pmax	pmax			
	comp=Z,15nm,1.1s							
TYV				smax	smax			
	comp=N,17nm,1.3s							
TYV				smax	smax			
	comp=E,21nm,1.3s							
TYV				smax	smax			
	comp=N,400nm,4.3s							
TYV				smax	smax			
	comp=E,300nm,4.3s							
TYV				MLR	MLR			
	comp=N,1μm,17.0s							
TYV				MLR	MLR			
	comp=Z,2μm,17.0s							
SEY	**Seymchan**	**11.56**	**343**	P		**Pn**	**23 00 00.9**	**+1.5**
	comp=Z,4.5nm,0.9s,baz=158,slow=12,SNR=5.1							
SEY				LR		LR	23 05 11.1	
	comp=Z,3μm,18.9s,baz=145,slow=41							
YSS	**Yuzhno-Sakhali**	**12.23**	**252**	*e*PN		**Pn**	**23 00 08.9**	**+0.2**
YSS				pmax	pmax			
	comp=Z,20nm,0.9s							
YSS				MLR	MLR			
	comp=Z,1μm,18.0s							
YSS				MLR	MLR			
	comp=N,1μm,15.0s							
YSS				MLR	MLR			
	comp=E,1μm,17.0s							
JKA	**Kamikawa-asahi**	**13.99**	**242**	P		**P**	**23 00 36.9**	**-2.4**
	comp=Z,98nm,0.8s							
ASAJ	**Asahikawa**	**14.00**	**242**	P		**

HILR Hailar Array B 25.23 280 P **P** **23 02 37.5 -0.7**
comp=Z,5.2nm,0.5s,baz=72,slow=9.5,SNR=6.1
HILR LR LR 23 13 50.9
comp=Z,782nm,18.5s,baz=65,slow=40
comp=Z,5.2nm,0.5s
HIA Hailar 25.34 280 P **P** **23 02 37.9 -1.2**
HIA pmax pmax
comp=Z,37nm,0.7s
HIA Hailar 25.34 280 **P** **23 02 37.9 -1.2**
F19K Shaleruckik Mo 25.42 38 **P** **23 02 40.3 +0.7**
F19K IAmb IAmb 23 02 58.5
comp=Z,9.8nm,0.9s
N18K Kilae Creek 25.50 53 P **P** **23 02 41.8 +1.3**
G19K Purcell Mounta 25.53 40 **P** **23 02 41.7 +1.0**
H19K Roundabout Mou 25.67 42 P **P** **23 02 42.6 +0.8**
H19K IAmb IAmb 23 02 58.2
comp=Z,9.2nm,0.8s
D19K Kuna River 25.77 35 P **P** **23 02 42.9 +0.1**
D19K IAmb IAmb 23 03 00.1
comp=Z,23nm,1.1s
E19K Redstone River 25.79 37 **P** **23 02 44.0 +1.0**
E19K IAmb IAmb 23 03 00.9
comp=Z,11nm,1.1s
J19K Poorman 25.80 45 P **P** **23 02 43.3 +0.2**
N19K Bonanza Creek 26.19 53 P **P** **23 02 46.4 -0.4**
N19K IAmb IAmb 23 02 59.1
comp=Z,13nm,1.2s
D20K Etivluk River 26.36 35 P **P** **23 02 47.8 -0.3**
D20K IAmb IAmb 23 03 03.7
comp=Z,8.6nm,0.8s
KSRS Korea Array 26.71 249 P **P** **23 02 51.2 -0.4**
comp=Z,1.9nm,0.6s,baz=38,slow=13,SNR=4.8
KSRS LR LR 23 12 27.7
comp=Z,243nm,21.1s,baz=50,slow=34
comp=Z,1.9nm,0.6s
IMAR Indian Mountai 26.84 41 P **P** **23 02 53.8 +1.3**
ILSW Iliamna Southw 26.89 54 P **P** **23 02 54.9 +1.7**
G21K Allakaket 27.02 40 P **P** **23 02 55.2 +1.1**
JTU Tsushima 27.98 243 P **P** **23 03 04.3 +1.3**
JNU Nakatsue 28.25 239 LR LR 23 16 22.0
comp=Z,209nm,19.0s,baz=30,slow=41
D23K Nanushuk River 28.51 35 P **P** **23 03 08.2 +0.8**
TOLK Toolik Lake Re 28.85 36 **P** **23 03 11.1 +0.6**
KNK Knik Glacier 29.08 51 P P 23 03 15.0 +2.5
KNK IAmb IAmb 23 03 26.9
comp=Z,10nm,0.9s
CCB Clear Creek Bu 29.23 44 P **P** **23 03 14.3 +0.5**
G24K Hadweenzic Riv 29.43 40 P **P** **23 03 17.1 +1.5**
G24K IAmb IAmb 23 03 33.6
comp=Z,9.7nm,1.0s
DL2 Dalian 29.49 259 P P 23 03 18.8 +2.5
DL2 *e*P pwP 23 03 32.0 -1.0
DL2 *e*S **S** **23 08 08.5 +1.6**
DL2 pmax pmax
comp=Z,11nm,0.8s
DL2 pmax pmax
comp=Z,290nm,4.4s
DL2 L L
comp=Z,780nm,11.8s
DL2 L L
comp=Z,740nm,15.2s
DL2 L L
comp=Z,880nm,14.7s
ILAR Eielson Array 29.63 44 P **P** **23 03 17.6 +0.3**
comp=Z,0.6nm,0.8s,baz=269,slow=5.2,SNR=8.9
ILAR LR LR 23 17 10.2
comp=Z,420nm,18.3s,baz=263,slow=40
comp=Z,0.6nm,0.8s
ILAR Eielson Array 29.63 44 P **P** **23 03 18.4 +1.1**
ILAR Eielson Array 29.63 44 P **P** **23 03 18.4 +1.1**
XLT XiLinHaoTe 30.01 272 *e*P **P** **23 03 19.8 -1.2**
XLT sP sP 23 03 40.0 +0.8
XLT pmax pmax
comp=Z,12nm,0.8s
XLT L L
comp=Z,720nm,19.1s
XLT L L
comp=Z,920nm,17.9s
C26K Camden Bay 30.67 34 **P** **23 03 27.5 +1.1**
C26K IAmb IAmb 23 03 41.6
comp=Z,6.3nm,0.8s
BJI2 Beijing 32.14 265 P **P** **23 03 40.3 +0.7**
BJI2 PP **PnPn** **23 04 45.0 -1.8**
BJI2 S **S** **23 08 47.5 -0.9**
BJI2 pmax pmax
comp=Z,5.0nm,0.9s
BJI2 pmax pmax
comp=Z,79nm,4.9s
BJI2 L L
comp=Z,400nm,19.2s
BJI2 L L
comp=Z,560nm,19.1s
BJI2 L L
comp=Z,870nm,21.1s
H11N2 WAKE ISLAND Hy 32.78 168 T T 23 38 58.0
baz=353,slow=76
H11N3 WAKE ISLAND Hy 32.80 168 T T 23 39 02.0
baz=353,slow=76
H11N1 WAKE ISLAND Hy 32.80 168 T T 23 38 57.5
baz=353,slow=76
ULN Ulaanbaatar 33.58 284*ce*P **P** **23 03 51.4 -1.0**
ULN pmax pmax
comp=Z,10.0nm,2.5s
TLY Talaya 33.94 292 P **P** **23 03 54.0 -1.3**
comp=Z,6.8nm,0.8s,baz=46,slow=9.6,SNR=3.2
comp=Z,6.8nm,0.8s
TLY Talaya 33.94 292*ce*P **P** **23 03 56.1 +0.8**
TLY pmax pmax
comp=Z,10.0nm,1.0s
H11S1 WAKE ISLAND Hy 33.96 168 T T 23 40 24.7
baz=353,slow=76
H11S3 WAKE ISLAND Hy 33.97 168 T T 23 40 28.4
baz=353,slow=76
H11S2 WAKE ISLAND Hy 33.98 168 T T 23 40 27.5
baz=353,slow=76
SONM Songino Array 33.99 284 P **P** **23 03 53.8 -2.1**
comp=Z,0.6nm,0.3s,baz=62,slow=7.7,SNR=5.2
SONM PcP **PcP** **23 06 34.0 +1.3**
comp=Z,1.4nm,0.7s,baz=126,slow=2.5,SNR=4.1
SONM LR LR 23 19 25.8
comp=Z,2µm,18.2s,baz=56,slow=39
comp=Z,0.6nm,0.3s
SONM Songino Array 33.99 284 P **P** **23 03 55.0 -0.9**
HHC Hu-ho-hao-te 34.49 270 *e*P **P** **23 04 01.5 +1.3**
HHC pmax pmax
comp=Z,3.0nm,0.7s
HHC pmax pmax
comp=Z,100nm,4.5s
HHC L L
comp=Z,380nm,17.6s
HHC L L
comp=Z,580nm,20.2s
HHC L L
comp=Z,640nm,18.5s
HNS HongShan 34.66 263 ⇑P **P** **23 04 02.0 +0.4**
HNS sP sP 23 04 21.5 +1.7
HNS S **S** **23 09 27.0 -0.4**
HNS SS **SnSn** **23 11 42.0 -1.6**
HNS pmax pmax
comp=Z,21nm,1.1s
HNS L L
comp=Z,580nm,19.4s
HNS L L
comp=Z,680nm,19.1s
HNS L L
comp=Z,800nm,19.0s
INK Inuvik 34.75 37 P **P** **23 04 03.1 +1.1**
INK pmax pmax
comp=Z,4.0nm,0.7s
INK Inuvik 34.75 37 **P** **23 04 03.0 +1.1**
INK IAmb IAmb 23 04 03.5
comp=Z,4.4nm,0.7s
INK Inuvik 34.75 37 P **P** **23 04 02.7 +0.7**
comp=Z,12nm,2.4s
NJ2 Nanjing 35.80 252 *e*P **P** **23 04 13.5 +2.0**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
NRIK Noril'sk 36.63 325 P **P** **23 04 16.4 -1.7**
comp=Z,1.1nm,0.3s,baz=111,slow=9.2,SNR=2.1
comp=Z,1.1nm,0.3s
NRIK Noril'sk 36.63 325 *i* P **P** **23 04 19.3 +1.2**
NRIK pmax pmax
comp=Z,12nm,2.1s
LYN LuoYang 37.89 261 P **P** **23 04 29.5 +0.3**
LYN pP sP 23 04 44.8 -2.7
LYN pmax pmax
comp=Z,17nm,1.0s
LYN L L
comp=Z,1µm,20.3s
LYN L L
comp=Z,900nm,19.2s
LYN L L
comp=Z,1µm,21.2s
DLBC Dease Lake 38.77 52 LR LR 23 21 31.6
comp=Z,199nm,21.3s,baz=288,slow=37
WHN Wuhan 39.55 255 P **P** **23 04 43.8 +0.7**
LZH Lanzhou 42.18 270 *e*P **P** **23 05 04.5 -0.5**
LZH pP pP 23 05 12.3 -5.4
LZH pmax pmax
comp=Z,46nm,1.1s
LZH L L
comp=Z,650nm,13.9s
LZH L L
comp=Z,540nm,14.6s
LZH L L
comp=Z,820nm,17.4s
LZDM Lanzhou Array 42.36 270 P **P** **23 05 05.4 -1.2**
comp=Z,1.0nm,0.3s,baz=48,slow=2.2,SNR=7.8
LZDM pP **sP** **23 05 26.2 +1.2**
comp=Z,8.3nm,0.6s,baz=50,slow=2.3,SNR=5.0
comp=Z,1.0nm,0.3s
BBB Bella Bella 42.50 60 LR LR 23 21 30.4
comp=Z,201nm,20.9s,baz=294,slow=34
GTA2 Gaotai 42.56 277 P **P** **23 05 07.0 -0.9**
GTA2 sP sP 23 05 27.5 +1.1
GTA2 pmax pmax
comp=Z,14nm,1.1s
GTA2 L L
comp=Z,560nm,17.5s
GTA2 L L
comp=Z,560nm,19.4s
GTA2 L L
comp=Z,900nm,18.1s
ZALV Zalesovo Beam 43.18 303 P **P** **23 05 10.2 -2.4**
comp=Z,0.8nm,0.4s,baz=57,slow=5.5,SNR=4.8
ZALV pP **sP** **23 05 30.3 -0.8**
comp=Z,1.3nm,0.5s,baz=58,slow=7.6,SNR=4.4
ZALV PcP **PcP** **23 07 02.1 +1.0**
comp=Z,1.9nm,0.6s,baz=81,slow=4.7,SNR=4.5
ZALV LR LR 23 24 37.3
comp=Z,947nm,18.1s,baz=68,slow=38
comp=Z,0.8nm,0.4s
YKA Yellowknife Ar 44.00 42 P **P** **23 05 19.9 +0.9**
comp=Z,2.6nm,0.7s,baz=299,slow=8.1,SNR=9.2
YKA pP sP 23 05 39.4 +1.3
comp=Z,3.3nm,0.7s,baz=299,slow=6.7,SNR=10
comp=Z,2.6nm,0.7s
RES Resolute Bay 44.30 22 LR LR 23 26 17.6
comp=Z,146nm,18.2s,baz=359,slow=39
WMQ Urumqi 47.16 290 *e*P **P** **23 05 44.5 +0.1**
WMQ pP pwP 23 05 56.0 -5.9
WMQ sP sP 23 06 03.8 +1.0
WMQ pmax pmax
comp=Z,24nm,1.1s
WMQ L L
comp=Z,410nm,19.1s
WMQ L L
comp=Z,550nm,17.9s
WMQ L L
comp=Z,480nm,21.7s
SPA0 Spitsbergen Ar 48.08 351 *e*P **P** **23 05 51.5 +0.4**
SPITS Spitsbergen Ar 48.08 351 P **P** **23 05 51.4 +0.4**
comp=Z,8.8nm,0.3s,baz=57,slow=9.2,SNR=39
SPITS pP **sP** **23 06 09.5 -0.3**
comp=Z,17nm,0.5s,baz=57,slow=9.1,SNR=4.7
SPITS LR LR 23 29 01.4
comp=Z,273nm,18.0s,baz=3.0,slow=40
comp=Z,8.8nm,0.3s
SPB2 Spitsbergen Ar 48.08 350 P **P** **23 05 51.3 +0.3**
KURK Kurchatov 48.13 302 P **P** **23 05 50.2 -1.5**
KURK *PP **sP** **23 06 10.4 +0.2**
KURK 23 07 19.2
KURK Kurchatov 48.13 302 P **P** **23 05 49.7 -1.9**
comp=Z,16nm,1.0s
KURBB Kurchatov Arra 48.23 302 P **P** **23 05 50.2 -2.3**
comp=Z,2.1nm,0.4s,baz=61,slow=7.8,SNR=20
KURBB pP **sP** **23 06 10.4 -0.6**
comp=Z,9.2nm,0.9s,baz=60,slow=7.7,SNR=11
KURBB PcP **PcP** **23 07 19.1 +0.4**
comp=Z,0.6nm,0.2s,baz=51,slow=2.9,SNR=4.2
KURBB PP **PP** **23 07 39.5 -5.4**
comp=Z,2.7nm,0.6s,baz=53,slow=3.2,SNR=6.9
KURBB LR LR 23 27 47.9
comp=Z,922nm,18.7s,baz=162,slow=38
comp=Z,2.1nm,0.4s
MK31 Makanchi Array 48.45 296 *i* P **P** **23 05 52.8 -1.5**
MK31 Makanchi Array 48.45 296 P **P** **23 05 52.5 -1.8**
MK31 IAmb IAmb 23 05 54.7
comp=Z,5.0nm,1.1s
MKAR Makanchi Array 48.45 296 P **P** **23 05 52.2 -2.1**
comp=Z,1.9nm,0.5s,baz=53,slow=6.8,SNR=38
MKAR pP **sP** **23 06 11.6 -1.2**
comp=Z,2.6nm,0.5s,baz=55,slow=6.9,SNR=6.7
MKAR LR LR 23 27 27.3
comp=Z,596nm,19.5s,baz=55,slow=38
comp=Z,1.9nm,0.5s
NEEM North Greenlan 49.28 9 *i* P **P** **23 06 00.5 -0.1**
NEEM IAmb IAmb 23 06 02.7
comp=Z,13nm,0.5s
BLKN Baker Lake 50.00 33 **P** **23 06 06.6 +0.8**
BVAR Borovoye Array 50.88 309 P **P** **23 06 10.5 -2.2**
comp=Z,5.2nm,0.6s,baz=54,slow=7.5,SNR=18
BVAR pP **sP** **23 06 30.8 -0.5**
comp=Z,12nm,0.7s,baz=53,slow=7.8,SNR=12
comp=Z,5.2nm,0.6s
KULLO Kullorsuaq 51.19 12 *i* P **P** **23 06 14.3 -0.3**
KULLO IAmb IAmb 23 06 18.3
comp=Z,15nm,0.7s
DAG Danmarks Havn 51.39 360 P **P** **23 06 16.9 +0.8**
comp=Z,26nm,1.4s
DAG Danmarks Havn 51.39 360 *i* P **P** **23 06 16.0 -0.1**
DAG IAmb IAmb 23 06 17.7
comp=Z,20nm,1.1s
YBH Yreka Blue Hor 51.51 69 LR LR 23 26 41.8
comp=Z,110nm,19.6s,baz=322,slow=34
VADS Vadso 52.93 341 *e*P **P** **23 06 27.2 -0.5**
DBG Daneborg 53.87 0 *i* P **P** **23 06 34.5 0.0**
DBG IAmb IAmb 23 06 43.2
comp=Z,48nm,1.7s
ARTI Arti 54.12 318 LR LR 23 32 10.4
comp=Z,328nm,18.7s,baz=23,slow=39
ARTI Arti 54.12 318*d* iP **P** **23 06 35.5 -1.0**
ARTI 23 07 35.1
ARTI S **S** **23 14 11.6 +2.6**
ARTI SS **SS** **23 17 46.0 -4.3**
ARTI pmax pmax
comp=Z,6.0nm,1.1s
ARA0 ARCESS Array S 54.18 342 *e*P **P** **23 06 35.9 -0.9**
ARCES ARCESS Array B 54.18 342 P **P** **23 06 36.1 -0.6**
comp=Z,3.5nm,0.7s,baz=42,slow=7.5,SNR=18
ARCES pP **sP** **23 06 55.8 0.0**
comp=Z,9.1nm,0.8s,baz=47,slow=7.8,SNR=3.8
ARCES sP pwP 23 07 04.7 +11
comp=Z,2.1nm,0.5s,baz=22,slow=6.8,SNR=1.5
ARCES LR LR 23 32 46.5
comp=Z,298nm,19.8s,baz=283,slow=39
comp=Z,3.5nm,0.7s
ARCES ARCESS Array B 54.18 342 IAmb IAmb 23 06 42.2
comp=Z,12nm,1.1s
SUMG Summit 54.96 7 P **P** **23 06 44.5 +1.7**
comp=Z,41nm,1.0s
SUMG Summit 54.96 7 *i* P **P** **23 06 43.0 +0.1**
SUMG IAmb IAmb 23 06 47.0
comp=Z,29nm,1.1s
KTK1 Kautokeino 55.05 342 *e*P **P** **23 06 43.4 +0.3**
JETT Jettan, Norway 55.08 344 *e*P **P** **23 06 43.6 +0.2**
TRO Tromso 55.27 344 *e*P **P** **23 06 44.9 +0.3**
KIRV Kirov 56.09 324 LR LR 23 34 05.4
comp=Z,656nm,19.4s,baz=32,slow=40
NVAR Mina Array Bea 56.23 69 P P 23 06 54.4 +2.1
comp=Z,1.4nm,0.4s,baz=251,slow=4.5,SNR=5.2
comp=Z,1.4nm,0.4s
MSF Maaselka 56.47 338 P **P** **23 06 53.7 +0.4**
comp=Z,47nm,1.0s
KRVT Keravat (AS076 56.59 189 LR LR 23 26 24.3
comp=Z,65nm,20.1s,baz=155,slow=31
AHID Auburn Hatcher 57.32 61 P P 23 07 02.5 +2.6
comp=Z,6.8nm,1.0s
STEI Steigen 57.40 345 *e*P **P** **23 06 59.5 -0.3**
LOF Lofoten 57.48 346 *e*P **P** **23 06 60.0 -0.4**
CHTO Chiang Mai 57.55 259 P **P** **23 07 02.9 +1.3**
comp=Z,29nm,0.8s
CMAR Chiang Mai Arr 57.83 258 P **P** **23 07 04.9 +1.4**
comp=Z,5.5nm,0.7s,baz=25,slow=6.6,SNR=26
CMAR pP sP 23 07 24.1 +1.8
comp=Z,12nm,0.8s,baz=25,slow=6.9,SNR=9.5
comp=Z,5.5nm,0.7s
OUL Oulu 57.88 339 P **P** **23 07 03.5 +0.3**
comp=Z,65nm,1.0s
FAUS Fauske 57.89 345 *e*P **P** **23 07 01.4 -1.8**
PDAR Pinedale Array 58.14 60 P P 23 07 08.0 +2.2
comp=Z,1.0nm,0.7s,baz=334,slow=2.2,SNR=10
PDAR pP sP 23 07 27.8 +2.7
comp=Z,4.0nm,0.8s,baz=317,slow=2.1,SNR=12
PDAR sP PcP 23 07 35.8 -21
comp=Z,2.9nm,0.8s,baz=313,slow=3.2,SNR=6.0
comp=Z,1.0nm,0.7s
PDAR Pinedale Array 58.14 60 **P** 23 07 07.8 +2.1
AKTO Aktyubinsk 58.38 313 LR LR 23 35 00.0
comp=Z,752nm,18.4s,baz=46,slow=39
NPW Naypyitaw 58.53 262 P **P** **23 07 09.8 +1.4**
comp=Z,32nm,1.0s
VAGH Vaagaholmen 58.81 345 *e*P **P** **23 07 09.2 -0.5**
RAUS Rausandaksla 58.96 345 *e*P **P** **23 07 10.3 -0.4**
KONS Konsvik 59.05 345 *e*P **P** **23 07 10.3 -1.0**
MOR8 Moi Rana 59.13 344 *e*P **P** **23 07 10.7 -1.3**
STOK Stokkvaagen 59.22 345 *e*P **P** **23 07 12.3 -0.2**
LEIR Leirfjorden 59.41 345 *e*P **P** **23 07 13.2 -0.5**
ULM Lac du Bonnet 59.61 46 P **P** **23 07 16.6 +1.1**
comp=Z,2.3nm,0.5s,baz=303,slow=6.4,SNR=12
ULM pP sP 23 07 36.5 +1.6
comp=Z,3.8nm,0.6s,baz=306,slow=8.2,SNR=4.5
comp=Z,2.3nm,0.5s
RSSD Black Hills 60.09 56 P P 23 07 21.5 +2.3
comp=Z,18nm,1.0s
FINES FINESS Array B 60.96 337 P **P** **23 07 24.0 -0.5**
comp=Z,6.6nm,0.6s,baz=40,slow=6.8,SNR=43
FINES pP **sP** **23 07 44.3 +0.7**
comp=Z,20nm,0.9s,baz=44,slow=9.0,SNR=9.1
comp=Z,6.6nm,0.6s
NSS Namsos 61.06 345 *e*P **P** **23 07 25.0 -0.1**
HNR Honiara 61.29 180 LR LR 23 31 30.9
comp=Z,150nm,20.3s,baz=78,slow=33
PMG Port Moresby 62.23 194 LR LR 23 31 12.2
comp=Z,76nm,21.2s,baz=324,slow=33
ISCO Idaho Springs 62.34 60 P **P** **23 07 35.9 +1.3**
comp=Z,7.0nm,1.1s
MOS Moscow 62.40 327 *e*P **P** **23 07 33.6 -0.7**
MOS *e* 23 08 15.3
OBN Obninsk 63.26 327⇑*i*P **P** **23 07 39.8 -0.2**
OBN SSS SSS 23 23 00.0
OBN pmax pmax
comp=Z,15nm,1.7s
OBN MLR MLR
comp=Z,340nm,16.0s
VSU Vasula 63.38 335*ce*P **P** **23 07 40.8 +0.1**
VSU pmax pmax
comp=Z,53nm,2.5s
MOL Molde 63.59 346 *e*P **P** **23 07 42.6 +0.6**
DOMB Dombas 63.86 345 *e*P **P** **23 07 44.0 +0.1**
AKN Aaknes 64.04 346 *e*P **P** **23 07 45.8 +0.7**
ECSD EROS Data Cent 64.05 52 P **P** **23 07 43.3 -2.2**
comp=Z,8.5nm,1.0s
NB2 NORSAR Subarra 64.44 344 P **P** **23 07 48.2 +0.4**
comp=Z,2.3nm,0.5s,baz=22,slow=6.9
NB2 NORSAR Subarra 64.44 344 P **P** **23 07 48.0 +0.2**
NB2 AMP 23 07 48.0
NOA NORSAR Array B 64.44 344 P **P** **23 07 48.2 +0.4**
comp=Z,2.9nm,0.5s,baz=30,slow=8.5,SNR=26
NOA pP **sP** **23 08 08.2 +1.4**
comp=Z,4.6nm,0.6s,baz=20,slow=6.7,SNR=8.1
comp=Z,2.9nm,0.5s
NBO00 NORSAR Array S 64.53 344 P **P** **23 07 48.2 -0.1**
NBO00 IAmb IAmb 23 08 02.0
comp=Z,4.2nm,0.8s
NC602 NORSAR Array S 64.67 343 *e*P **P** **23 07 49.4 +0.2**
HFS Hagfors 64.84 342 P **P** **23 07 50.5 +0.2**
comp=Z,5.7nm,0.5s,baz=35,slow=3.6,SNR=20
HFS pP **sP** **23 08 10.6 +1.2**
comp=Z,8.7nm,0.5s,baz=330,slow=2.1,SNR=8.3
HFS LR LR 23 41 18.2
comp=Z,554nm,18.7s,baz=356,slow=41
comp=Z,5.7nm,0.5s
HYA Hoyanger 65.13 346 *e*P **P** **23 07 52.8 +0.7**
SKAR Skarslia 65.27 345 *e*P **P** **23 07 54.0 +0.9**
ANMO Albuquerque 65.41 64 *i* P **P** **23 07 55.7 +1.0**
ANMO pmax pmax
comp=Z,2.0nm,1.0s
KONO Kongsberg 66.03 344 *e*P **P** **23 07 59.1 +1.2**
MNK Minsk 66.49 332 *i* P **P** **23 08 01.4 +0.5**
MNK *i* 23 08 30.3
MNK *i* 23 10 27.3
MNK *i* PPP PPP 23 12 01.0
MNK *i* S **S** **23 16 48.8 +1.6**
MNK *i* SS **SS** **23 21 06.3 +2.6**
MNK pmax pmax
comp=Z,24nm,0.6s
MNK pmax pmax
comp=E,31nm,1.1s
MNK pmax pmax
comp=N,36nm,1.4s
MNK MLR MLR
comp=N,299nm,18.0s
MNK MLR MLR
comp=Z,468nm,16.0s
MNK MLR MLR
comp=E,523nm,20.0s
MNK Minsk 66.49 332 *i* P **P** **23 08 01.5 +0.5**
comp=E,31nm,1.1s
MNK *i* P **P** **23 08 01.5 +0.5**
comp=N,36nm,1.4s
MNK *i* P **P** **23 08 01.5 +0.5**
comp=Z,24nm,0.6s,baz=30
MNK *i* PcP **PcP** **23 08 30.3 +0.1**
MNK *i* PP **PP** **23 10 27.4 +0.1**
MNK *i* PPP PPP 23 12 01.0
MNK *i* S **S** **23 16 48.9 +1.6**
MNK *i* SS **SS** **23 21 06.3 +2.6**
MNK *i* SSS SSS 23 24 16.2
MNK *i* LR LR 23 36 58.1
MNK *i* LRM MLR 23 40 48.1
comp=N,299nm,17.9s
MNK *i* LRM MLR 23 41 08.4
comp=Z,468nm,16.2s
MNK *i* LRM MLR 23 41 10.3
comp=E,523nm,20.5s
SCHQ Schefferville 66.60 27 LR LR 23 39 40.9
comp=E,101nm,19.6s,baz=334,slow=38
PABE Paberze 66.70 334 P **P** **23 08 02.1 -0.2**
comp=Z,87nm,0.9s
TJOU Tjoern 67.19 342 *i* P **P** **23 08 06.2 +0.8**
ONAU Onsala 67.73 342 *i* P **P** **23 08 09.2 +0.4**
FABU Falkenberg 67.95 341 *i* P **P** **23 08 10.4 +0.3**
BLEU Blekinge 67.95 339 *i* P **P** **23 08 09.8 -0.4**
DEL Delary 68.21 340 *i* P **P** **23 08 11.9 +0.1**
LUNU Lund 69.08 340 *i* P **P** **23 08 17.8 +0.5**
COP Copenhagen 69.24 341 *i* P **P** **23 08 18.9 +0.7**
COP IAmb IAmb 23 08 19.6
comp=Z,27nm,0.7s
BSD Bornholm Skovb 69.25 339 *i* P **P** **23 08 18.4 +0.1**
BSD IAmb IAmb 23 08 19.0
comp=Z,17nm,0.7s
AK03 Malin Array Si 69.36 329 P **P** **23 08 17.0 -2.1**
AKASG Malin Array Be 69.38 329 P **P** **23 08 18.4 -0.8**
comp=Z,15nm,0.6s,baz=32,slow=6.2,SNR=38
AKASG pP **PcP** **23 08 38.7 -3.7**
comp=Z,14nm,0.5s,baz=31,slow=6.2,SNR=15
AKASG LR LR 23 43 28.6
comp=Z,416nm,18.1s,baz=8.5,slow=40
comp=Z,15nm,0.6s
AKBB Malin Array Si 69.38 329 *i* P **P** **23 08 17.3 -1.9**
AKBB pmax pmax
comp=Z,35nm,1.1s
AKBB Malin Array Si 69.38 329 P **P** **23 08 17.2 -1.9**
KIEV Kiev 69.39 329 P **P** **23 08 18.7 -0.5**
KIEV pmax pmax
comp=Z,25nm,1.0s
KIEV Kiev 69.39 329 P **P** **23 08 18.7 -0.5**
KIEV Kiev 69.39 329 ⇑P **P** **23 08 18.3 -0.9**
KIEV Kiev 69.39 329 P **P** **23 08 17.2 -2.0**
comp=Z,144nm,0.9s
RNPP9 Sopachiv 69.78 331 P **P** **23 08 20.6 -1.1**
KBZ Khabaz 70.14 317 P **P** **23 08 23.2 -0.8**
comp=Z,4.8nm,0.8s,baz=107,slow=5.3,SNR=10
KBZ LR LR 23 44 19.6
comp=Z,288nm,18.7s,baz=21,slow=40
comp=Z,4.8nm,0.8s
KBZ Khabaz 70.14 317 *i* P **P** **23 08 24.1 +0.1**

KBZ pmax pmax
comp=Z,8.0nm,1.1s
HHAR Hobbs 71.06 55 P **P** **23 08 29.0 -0.8**
TXAR Lajitas Array 71.17 66 P P 23 08 32.3 +1.7
comp=Z,1.2nm,0.6s,baz=298,slow=5.3,SNR=10
comp=Z,1.2nm,0.6s
SOC Sochi 71.59 319 *e*P P 23 08 37.6 +4.8
SOC *e* 23 11 16.9
SOC *e*PPP PPP 23 12 56.0
SOC eS SKiKP 23 17 56.6 -10
SOC *e*SS **SS** **23 22 28.9 +6.2**
SOC MLR MLR
comp=Z,388nm,15.0s
SORM Soroca 71.89 328 P **P** **23 08 33.9 -0.7**
SORM Soroca 71.89 328 ⇑P **P** **23 08 33.9 -0.7**
SORM Soroca 71.89 328 P **P** **23 08 33.1 -1.4**
comp=Z,44nm,0.9s
EKA Eskdalemuir Ar 72.00 350 P **P** **23 08 35.5 +0.4**
comp=Z,1.2nm,0.4s,baz=18,slow=5.3,SNR=18
comp=Z,1.2nm,0.4s
KMPD K-Podol'skiy 72.12 330 P **P** **23 08 33.8 -2.1**
GNI Garni 72.24 313 LR LR 23 45 06.6
comp=Z,427nm,18.5s,baz=4.5,slow=40
FCAR Ozark Folk Cen 72.28 54 P **P** **23 08 37.6 +0.6**
KWP Kalwaria Pacla 72.29 332 *e*P **P** **23 08 37.5 +0.6**
KWP Kalwaria Pacla 72.29 332 P **P** **23 08 37.1 +0.2**
OJC Ojcow 72.57 334 *e*P **P** **23 08 38.9 +0.4**
OJC Ojcow 72.57 334 P **P** **23 08 38.7 +0.1**
OJC Ojcow 72.57 334 **P** **23 08 38.6 +0.1**
P48A Milroy 72.63 47 P **P** **23 08 39.0 -0.1**
P48A IAmb IAmb 23 08 40.1
comp=Z,5.2nm,0.7s
WHAR Wooly Hollow 72.67 55 P **P** **23 08 39.7 +0.3**
CTA Charters Tower 72.86 193 LR LR 23 38 22.3
comp=Z,44nm,19.1s,baz=46,slow=34
KSP Ksiaz 72.89 337 *e*P **P** **23 08 40.8 +0.4**
KOLS Kolonicke sedl 73.05 332 *e*P **P** **23 08 41.3 -0.1**
KOLS pmax pmax
comp=Z,2.0nm,0.5s
KOLS Kolonicke sedl 73.05 332 *e*P **P** **23 08 41.3 -0.1**
CHVC Chvalec 73.18 337 *e*P **P** **23 08 42.7 +0.5**
CHVC Chvalec 73.18 337 *e*P **P** **23 08 42.7 +0.5**
CLL Collm 73.22 339 ⇑*i*P **P** **23 08 42.5 +0.1**
CLL *i* *SP **PcP** **23 09 01.1 +2.4**
CLL pmax pmax
comp=Z,13nm,1.3s
CLL Collm 73.22 339 ⇑*i*P **P** **23 08 42.5 +0.1**
comp=Z,13nm,1.3s
CLL *i* PcP **PcP** **23 09 01.1 +2.4**
comp=Z,13nm,1.0s
CLL LH 23 36 00.0
CLL L L 23 40 00.0
DPC Dobruska-Polom 73.34 337 *e*P **P** **23 08 43.8 +0.6**
DPC *e**PP **PcP** **23 09 04.2 +4.9**
DPC Dobruska-Polom 73.34 337 *e*P **P** **23 08 43.8 +0.6**
DPC *ex* x 23 09 04.2
BURAR Bucovina Array 73.35 330 P **P** **23 08 43.4 +0.1**
BURAR Bucovina Array 73.35 330 ⇑P **P** **23 08 43.5 +0.1**
STEB Steborice 73.36 336 *e*P **P** **23 08 43.7 +0.5**
MNTR Muntenesti 73.37 328 ⇓P **P** **23 08 43.3 0.0**
KRLC Kraliky 73.48 336 *e*P **P** **23 08 44.4 +0.4**
KRLC Kraliky 73.48 336 *e*P **P** **23 08 44.4 +0.4**
GIRR Girov 73.53 329 ⇑P **P** **23 08 45.5 +1.3**
MORC Moravsky Berou 73.56 336 P **P** **23 08 45.5 +1.0**
MORC Moravsky Berou 73.56 336 *e*P **P** **23 08 45.0 +0.5**
MORC *e* 23 09 05.1
MORC Moravsky Berou 73.56 336 ⇓P **P** **23 08 45.5 +1.0**
MORC Moravsky Berou 73.56 336 P **P** **23 08 45.5 +1.0**
comp=Z,13nm,1.2s
LANS Liptovska Anna 73.63 334 *e*P **P** **23 08 45.9 +1.0**
LANS pmax pmax
comp=Z,4.0nm,1.8s
LANS Liptovska Anna 73.63 334 *e*P **P** **23 08 45.9 +1.0**
BIZ Bicaz 73.67 329 ⇓P **P** **23 08 46.2 +1.1**
TRPA Tarpa 73.69 332 P **P** **23 08 46.0 +0.8**
comp=Z,53nm,0.8s
BMR Baia Mare 73.82 331 P **P** **23 08 46.1 +0.1**
comp=Z,17nm,1.3s
TESR Tescani 73.87 328 ⇑P **P** **23 08 46.0 -0.3**
TESR Tescani 73.87 328 P **P** **23 08 46.3 0.0**
comp=Z,38nm,0.9s
ABAH Abaujker 73.92 333 P **P** **23 08 47.3 +0.8**
comp=Z,17nm,1.3s
VLDR Vladesti 73.99 327 ⇓P **P** **23 08 47.6 +0.6**
DZM Mont Dzumac 74.08 174 LR LR 23 37 10.1
comp=Z,145nm,20.0s,baz=36,slow=32
ONER Baraj Valea Uz 74.11 328 ⇓P **P** **23 08 48.3 +0.5**
WVT Waverly 74.19 51 P **P** **23 08 47.5 -0.8**
WVT pmax pmax
comp=Z,6.0nm,1.0s
WVT Waverly 74.19 51 **P** **23 08 47.5 -0.8**
WVT IAmb IAmb 23 08 50.3
comp=Z,5.8nm,1.0s
VRAC Vranov 74.23 336 LR LR 23 45 46.6
comp=Z,352nm,19.6s,baz=312,slow=39
VRAC Vranov 74.23 336 P **P** **23 08 49.3 +0.9**
VRAC Vranov 74.23 336 *e*P **P** **23 08 49.0 +0.6**
VRAC *e* 23 09 09.2
VRAC Vranov 74.23 336 ⇑P **P** **23 08 49.3 +0.9**
TLCR 74.32 326 P **P** **23 08 49.0 +0.1**
TLCR 74.32 326 ⇑P **P** **23 08 49.0 +0.1**
NEGRR Negrea 74.33 327 ⇓P **P** **23 08 49.6 +0.7**
JAVC Velka Javorina 74.37 335 *e*P **P** **23 08 50.8 +1.5**
JAVC *e* 23 09 10.8
VYHS Vyhne 74.40 334 *e*P **P** **23 08 49.7 +0.3**
VYHS pmax pmax
comp=Z,4.0nm,1.0s
VYHS Vyhne 74.40 334 *e*P **P** **23 08 49.7 +0.3**
ODBI Odobesti 74.40 328 ⇑P **P** **23 08 50.7 +1.4**
VRI Vrincioaia 74.42 328 P **P** **23 08 49.9 +0.4**
VRI Vrincioaia 74.42 328 ⇓P **P** **23 08 49.9 +0.4**
TURR Turia 74.48 329 ⇓P **P** **23 08 51.1 +1.2**
KRUC Moravsky 74.51 336 *e*P **P** **23 08 50.6 +0.6**
KRUC *e* 23 09 10.7
CFR Carcaliu 74.56 327 P **P** **23 08 51.5 +1.2**
CFR Carcaliu 74.56 327 ⇑P **P** **23 08 51.5 +1.2**
COVR Voineasa-Covas 74.61 328 ⇑P **P** **23 08 51.8 +1.2**
PSZ Piszkesteto 74.64 333 P **P** **23 08 51.2 +0.4**
PSZ pmax pmax
comp=Z,5.0nm,1.0s
PSZ Piszkesteto 74.64 333 **P** **23 08 51.2 +0.4**
PSZ IAmb IAmb 23 08 52.2
comp=Z,5.4nm,1.0s
CJR Cluj-Napoca 74.65 330 P **P** **23 08 51.8 +0.9**
CJR Cluj-Napoca 74.65 330 ⇓P **P** **23 08 51.9 +0.9**
ZVC Zvikov 74.69 338 *e*P **P** **23 08 51.8 +0.8**
TPGR Topolog 74.74 326 ⇑P **P** **23 08 51.7 +0.2**
SMOL Smolenice 74.75 335 *e*P **P** **23 08 52.6 +1.2**
SMOL pmax pmax
comp=Z,1.0nm,0.8s
GURO Guroymak-BITLI 74.75 314 **P** **23 08 52.1 +0.3**
GURO IAmb IAmb 23 08 54.0
comp=Z,9.1nm,1.1s
DOPR Dopca 74.76 329 ⇑P **P** **23 08 52.3 +0.8**
GRER 74.77 328 ⇓P **P** **23 08 51.5 0.0**
MARR Marisel-Cluj 74.83 331 ⇑P **P** **23 08 52.2 +0.2**
DRGR 74.85 331 P **P** **23 08 52.3 +0.2**
DRGR 74.85 331 ⇑P **P** **23 08 52.2 +0.2**
DRGR 74.85 331 P **P** **23 08 52.4 +0.3**
comp=Z,10nm,1.1s
MODS Modra-Piesok 74.92 335 *e*P **P** **23 08 53.7 +1.3**
MODS pmax pmax
comp=Z,6.0nm,1.2s
MODS Modra-Piesok 74.92 335 *e*P **P** **23 08 53.7 +1.3**
SSPA Standing Stone 74.93 42 P **P** **23 08 52.9 +0.3**
WB0 Warramunga Arr 74.94 205 P **P** **23 08 53.1 +0.5**
WB0 IAmb IAmb 23 08 54.1
comp=Z,6.2nm,1.0s
NEHR Nehoiu 74.95 328 ⇓P **P** **23 08 52.8 +0.2**
MLR Muntele Rosu 75.01 328 LR LR 23 46 49.9
comp=Z,552nm,18.7s,baz=0.0,slow=40
MLR Muntele Rosu 75.01 328 P **P** **23 08 53.5 +0.4**
MLR Muntele Rosu 75.01 328 **P** **23 08 53.3 +0.3**
MLR Muntele Rosu 75.01 328 ⇑P **P** **23 08 53.5 +0.4**
WR8 Warramunga Arr 75.09 205 P **P** **23 08 53.8 +0.3**
WR8 IAmb IAmb 23 08 54.9
comp=Z,6.6nm,1.1s
TIRR Tirgusor 75.09 326 P **P** **23 08 53.4 0.0**
TIRR Tirgusor 75.09 326 ⇑P **P** **23 08 53.4 0.0**
ABNA Allensteig Bun 75.11 336 *i* P **P** **23 08 54.0 +0.5**
comp=Z,4.2nm,0.6s
ABNA *i* PcP **sP** **23 09 14.3 +1.6**
comp=Z,5.8nm,0.6s

WRA Warramunga Arr 75.12 205 P **P** **23 08 54.4 +0.7**
comp=Z,3.2nm,1.0s,baz=14,slow=5.8,SNR=9.4
WRA pP sP 23 09 13.8 +0.9
comp=Z,5.5nm,0.9s,baz=18,slow=6.0,SNR=9.7
comp=Z,3.2nm,1.0s
WRA Warramunga Arr 75.12 205 **P** **23 08 54.4 +0.7**
KHC Kasperske Hory 75.13 338 *e*P **P** **23 08 54.5 +0.9**
KHC *e**PP sP 23 09 14.8 +1.9
KHC Kasperske Hory 75.13 338 **P** **23 08 54.2 +0.6**
KHC IAmb IAmb 23 08 55.1
comp=Z,6.4nm,1.1s
KHC Kasperske Hory 75.13 338 *e*P **P** **23 08 54.5 +0.9**
KHC *ex* x 23 09 14.8
ISR Istrita 75.14 328 P **P** **23 08 54.9 +1.2**
ISR Istrita 75.14 328 ⇑P **P** **23 08 54.9 +1.2**
CKRC Cesky Krumlov 75.25 337 *e*P **P** **23 08 54.6 +0.3**
CKRC *e**PP **sP** **23 09 14.5 +1.0**
CKRC Cesky Krumlov 75.25 337 *e*P **P** **23 08 54.6 +0.3**
CKRC *ex* x 23 09 14.5
MEM Membach 75.28 343 *d*P **P** **23 08 55.5 +1.1**
comp=Z,17nm,0.9s
MEM Membach 75.28 343 P **P** **23 08 55.8 +1.4**
comp=Z,28nm,0.9s
VOIR 75.34 329 P **P** **23 08 55.4 +0.5**
VOIR 75.34 329 ⇓P **P** **23 08 55.4 +0.5**
GEC2 GERESS Array S 75.37 338 P **P** **23 08 55.3 +0.2**
GEC2 IAmb IAmb 23 08 56.1
comp=Z,3.0nm,0.7s
GERES GERESS Array B 75.37 338 P **P** **23 08 55.6 +0.6**
comp=Z,1.6nm,0.5s,baz=38,slow=5.4,SNR=21
GERES pP **sP** **23 09 14.2 -0.1**
comp=Z,3.1nm,0.6s,baz=36,slow=5.4,SNR=9.4
GERES LR LR 23 47 10.6
comp=Z,398nm,18.8s,baz=24,slow=40
comp=Z,1.6nm,0.5s
WINA Alland / Wiene 75.47 336 *i* P **P** **23 08 56.6 +1.0**
comp=Z,2.9nm,0.5s
WINA *i* PcP sP 23 09 16.6 +1.7
comp=Z,9.1nm,1.2s
ARR Arges 75.53 329 P **P** **23 08 57.3 +1.3**
comp=Z,29nm,1.2s
BCLA Clavier 75.59 344 *d*P **P** **23 08 56.9 +0.8**
comp=Z,4.6nm,1.2s
BCLA *d*PP **PP** **23 11 44.8 -0.5**
ICOR Ion Corvin 75.61 326 ⇑P **P** **23 08 57.5 +1.2**
SIRR Siria 75.63 331 ⇓P **P** **23 08 57.2 +0.7**
CONA Conrad Observa 75.69 336 *i* P **P** **23 08 58.1 +1.2**
comp=Z,5.4nm,0.6s
CONA *i* pP sP 23 09 18.2 +2.0
comp=Z,6.7nm,0.6s
RONA Rosalia, Austr 75.80 336 *i* P **P** **23 08 58.8 +1.3**
comp=Z,14nm,1.6s,SNR=5.1
RONA *i* pP sP 23 09 18.6 +1.9
comp=Z,12nm,1.4s
BMRD Maredsous 75.80 344 *d*P **P** **23 08 58.1 +0.8**
comp=Z,6.3nm,1.1s
RCHB Rochefort 75.86 343 *d*P **P** **23 08 58.1 +0.4**
comp=Z,3.8nm,1.0s
SURR Surduc 75.96 331 ⇑P **P** **23 08 58.6 +0.2**
MPLH Magyarpolny 75.96 335 P **P** **23 08 59.6 +1.2**
comp=Z,25nm,1.1s
DOU Dourbes 76.03 344 *d*P **P** **23 08 59.3 +0.7**
comp=Z,4.8nm,1.0s
MOA Molln 76.16 337 *i* P **P** **23 09 00.4 +0.9**
comp=Z,3.9nm,1.0s
MOA *i* pP **sP** **23 09 20.3 +1.5**
comp=Z,3.5nm,0.7s
BZS Buzias 76.24 331 P **P** **23 09 00.2 +0.3**
BZS Buzias 76.24 331 ⇓P **P** **23 09 00.2 +0.3**
BZS Buzias 76.24 331 P **P** **23 09 00.1 +0.3**
comp=Z,13nm,1.1s
ARSA Arzberg 76.41 336 *i* P **P** **23 09 02.2 +1.3**
comp=Z,2.4nm,0.5s
ARSA *i* pP sP 23 09 22.2 +2.0
comp=Z,5.2nm,0.6s
BIOA Bad Ischl, Aus 76.46 337 *i* P **P** **23 09 02.2 +1.0**
comp=Z,2.7nm,0.5s
BIOA *i* pP sP 23 09 22.2 +1.7
comp=Z,5.3nm,0.7s
TKL Tuckaleechee C 76.49 49 LR LR 23 44 26.3
comp=Z,175nm,19.8s,baz=334,slow=37
FPAL Fort Paine 76.54 51 P **P** **23 09 02.4 +0.5**
FPAL IAmb IAmb 23 09 18.3
comp=Z,3.6nm,0.9s
MORH Mrgy, Hungar 76.54 333 ⇑P **P** **23 09 01.6 0.0**
BLA Blacksburg 76.72 45 P **P** **23 09 01.2 -1.6**
BLA pmax pmax
comp=Z,6.0nm,1.1s
BLA Blacksburg 76.72 45 P **P** **23 09 01.2 -1.6**
BLA IAmb IAmb 23 09 03.2
comp=Z,5.5nm,1.1s
SESA Seetaler Alpe, 76.78 336 *i* P **P** **23 09 04.6 +1.4**
comp=Z,5.3nm,0.6s
SESA *i* pP sP 23 09 24.5 +2.0
comp=Z,6.9nm,0.6s
LESA Schwarzleotal 76.94 338 *i* P **P** **23 09 05.2 +1.2**
comp=Z,3.6nm,1.0s
LESA *i* pP **sP** **23 09 24.8 +1.5**
comp=Z,6.6nm,0.8s
MDVR Moldovita 76.96 331 ⇑P **P** **23 09 03.9 -0.2**
BFO Black Forest 77.03 341 P **P** **23 09 04.1 -0.3**
BFO pmax pmax
comp=Z,7.0nm,1.1s
BFO Black Forest 77.03 341 P **P** **23 09 04.1 -0.3**
BFO IAmb IAmb 23 09 05.9
comp=Z,7.2nm,1.1s
SOKA Soboth 77.07 336 *i* P **P** **23 09 05.7 +1.0**
comp=Z,12nm,1.2s,SNR=7.3
SOKA *i* pP **sP** **23 09 25.7 +1.7**
comp=Z,5.9nm,0.8s
PERS Pernice 77.08 336 *i* P **P** **23 09 05.6 +0.9**
PERS *i* pP **sP** **23 09 25.6 +1.6**
KBA Koelnbreinsper 77.11 337 *i* P **P** **23 09 06.6 +1.6**
comp=Z,18nm,0.7s,SNR=9.5
KBA *i* pP sP 23 09 26.5 +2.2
comp=Z,17nm,0.6s
BNN Bunyan 77.14 318 P **P** **23 09 04.9 -0.5**
WATA Walderalm 77.27 338 *i* P **P** **23 09 06.7 +0.8**
comp=Z,5.3nm,0.9s
WATA *i* pP **sP** **23 09 26.5 +1.2**
comp=Z,15nm,1.3s
BR131 Keskin Array S 77.28 320 P **P** **23 09 06.5 +0.4**
BR131 pmax pmax
comp=Z,7.0nm,0.8s
BR131 Keskin Array S 77.28 320 **P** **23 09 06.5 +0.4**
BRTR Keskin Array B 77.28 320 P **P** **23 09 06.2 +0.1**
comp=Z,6.6nm,0.9s,baz=60,slow=3.0,SNR=27
BRTR pP **sP** **23 09 25.4 +0.1**
comp=Z,9.0nm,0.9s,baz=36,slow=3.8,SNR=11
BRTR LR LR 23 49 38.1
comp=Z,175nm,18.4s,baz=20,slow=41
comp=Z,6.6nm,0.9s
PLVB Pleven 77.31 328 ⇓P **P** **23 09 06.9 +0.9**
RETA Reutte 77.31 339 *i* P **P** **23 09 07.2 +1.1**
comp=Z,3.9nm,0.7s
RETA *ep*P **sP** **23 09 26.9 +1.6**
comp=Z,4.9nm,0.8s
WTTA Wattenberg 77.33 338 *i* P **P** **23 09 07.6 +1.3**
comp=Z,9.4nm,1.2s
WTTA *ep*P sP 23 09 27.5 +1.9
comp=Z,11nm,1.0s
OBKA Obir 77.34 336 *i* P **P** **23 09 07.2 +0.9**
comp=Z,13nm,1.3s,SNR=5.9
OBKA *i* pP **sP** **23 09 26.8 +1.2**
comp=Z,6.0nm,0.7s
ECH Echery 77.36 342 P **P** **23 09 06.9 +0.6**
ECH pmax pmax
comp=Z,8.0nm,1.0s
ECH Echery 77.36 342 **P** **23 09 06.9 +0.6**
MOTA Moosalm 77.37 339 *e*P **P** **23 09 07.5 +1.0**
comp=Z,6.9nm,1.1s,SNR=4.1
MOTA *i* pP **sP** **23 09 26.9 +1.1**
comp=Z,12nm,0.9s
SAHE Sakarya_HENDEK 77.37 323 ⇑P **P** **23 09 07.4 +0.9**
SQTA Sankt Quirin 77.47 339 *i* P **P** **23 09 08.3 +1.3**
comp=Z,11nm,1.0s,SNR=5.2
SQTA *i* pP **sP** **23 09 26.6 +0.3**
comp=Z,13nm,0.9s
ABTA Abfaltersbach 77.61 338 *i* P **P** **23 09 08.5 +0.7**
comp=Z,5.6nm,0.7s
ABTA *i* pP **sP** **23 09 27.8 +0.7**
comp=Z,8.8nm,0.8s
KIRS Kirsehir-Merke 77.68 320 ⇑P **P** **23 09 08.6 +0.3**
DAVA Damuels 77.69 340 *i* P **P** **23 09 09.1 +0.8**
comp=Z,3.9nm,0.7s
DAVA *i* pP sP 23 09 29.8 +2.2
comp=Z,9.4nm,1.2s
BLKB Belogradchik 77.72 330 ⇑P **P** **23 09 08.2 -0.1**
FETA Feichten 77.76 339 *i* P **P** **23 09 09.8 +1.1**
comp=Z,9.7nm,1.1s
FETA *i* pP **sP** **23 09 29.4 +1.4**
comp=Z,9.6nm,1.0s
BOVS Bovan 78.01 330 ⇓P **P** **23 09 09.8 0.0**
BOJS Bojanci 78.10 335 *i* P **P** **23 09 10.7 +0.3**
BOJS *i* pP **sP** **23 09 30.7 +1.0**
ASAR Alice Springs 78.80 204 P P 23 09 16.1 +1.8
comp=Z,1.2nm,0.5s,baz=16,slow=5.2,SNR=23
ASAR pP sP 23 09 35.5 +1.9
comp=Z,2.9nm,0.7s,baz=14,slow=5.1,SNR=10
comp=Z,1.2nm,0.5s
TAOE Nuku Hiva Isla 79.38 119 *e*LR LR 23 34 09.0
comp=Z,379nm,25.9s
PDG Podgorica 79.84 331 ⇑P **P** **23 09 19.9 0.0**
RAR Rarotonga 81.08 142 LR LR 23 44 19.3
comp=Z,120nm,18.0s,baz=302,slow=35
GEM Giv'at Ha'Em 82.03 316 P **P** **23 09 32.9 +1.1**
GEM AML AML
PPT Papeete 82.10 132 LR LR 23 38 15.1
comp=Z,135nm,19.8s,baz=338,slow=30
PPT2 Papeete2 82.12 132 *e*LR LR 23 35 11.8
comp=Z,234nm,23.5s
PPT2 *e*LR LR 23 35 18.6
comp=Z,276nm,22.6s
MMAI Mount Meron Ar 82.31 316 P **P** **23 09 33.7 +0.3**
comp=Z,5.1nm,0.5s,baz=26,slow=14,SNR=30
MMAI pP **sP** **23 09 53.8 +1.2**
comp=Z,11nm,0.6s,baz=22,slow=14,SNR=10
MMAI LR LR 23 50 59.6
comp=Z,188nm,20.6s,baz=24,slow=39
comp=Z,5.1nm,0.5s
ASF Jabal al Asfar 82.37 314 P **P** **23 09 34.7 +1.0**
ASF AML AML
HSUJ Al Zarqa 82.74 315 P **P** **23 09 37.0 +1.4**
HSUJ AML AML
QRNJ Al-Qirein 82.81 315 P **P** **23 09 37.0 +1.2**
QRNJ AML AML
SALP Salfit 83.21 315 P **P** **23 09 38.9 +0.9**
SALP AML AML
TIP Timpagrande 83.57 332 ⇓P **P** **23 09 40.7 +1.0**
AMAZ Amatzia 83.79 315 P **P** **23 09 42.5 +1.6**
AMAZ AML AML
KZIT Kziot 84.55 315 P **P** **23 09 45.9 +1.1**
KZIT AML AML
PRNI Paran 84.76 315 P **P** **23 09 46.8 +0.9**
PRNI AML AML
HRFI Mount Harif 85.02 314 P **P** **23 09 48.3 +1.1**
HRFI AML AML
STKA Stephens Creek 85.14 196 LR LR 23 45 32.2
comp=Z,40nm,22.0s,baz=21,slow=34
AQBJ Aqaba 85.28 314 P **P** **23 09 50.5 +2.0**
AQBJ AML AML
EIL Elat 85.37 314 P **P** **23 09 50.3 +1.4**
RAYN Ar Rayn 85.46 303 P **P** **23 09 49.4 -0.1**
CMIG Matias Romero 85.73 68 LR LR 23 45 19.9
comp=Z,47nm,21.9s,baz=324,slow=34
POLO Lamas de Olo 86.28 351 *e*P **P** **23 09 53.2 -0.2**
PVRL Vila Real 86.37 351 *e*P **P** **23 09 55.4 +1.7**
PVIS Viseu 86.94 351 *e*P **P** **23 09 58.0 +1.4**
TBI Tubuai 87.20 135 *e*LR LR 23 37 31.5
comp=Z,1μm,25.8s
TBI *e*LR LR 23 37 39.5
comp=Z,880nm,25.8s
MTE Manteigas 87.22 350 *e*P **P** **23 09 59.3 +1.4**
MTE IAmb IAmb 23 10 00.2
comp=Z,21nm,1.3s
ESDC Sonseca Array 87.51 348 P **P** **23 09 59.6 +0.3**
comp=Z,4.4nm,1.0s,baz=4.9,slow=4.2,SNR=20
ESDC pP **sP** **23 10 19.9 +1.0**
comp=Z,5.2nm,0.8s,baz=359,slow=5.7,SNR=9.2
ESDC sP pwP 23 10 28.9 +11
comp=Z,2.6nm,0.8s,baz=358,slow=4.6,SNR=3.1
ESDC LR LR 23 53 50.4
comp=Z,186nm,18.6s,baz=15,slow=39
comp=Z,4.4nm,1.0s
PCAS Casmilo, Conde 87.66 351 *e*P **P** **23 10 02.0 +2.0**
KEST Kesra 88.80 336 P **P** **23 10 05.7 +0.1**
comp=Z,5.7nm,0.9s,baz=349,slow=3.7,SNR=8.5
KEST pP **sP** **23 10 26.1 +1.0**
comp=Z,10nm,0.9s,baz=1.4,slow=3.4,SNR=3.6
comp=Z,5.7nm,0.9s
RKT Rikitea 93.96 123 *e*LR LR 23 40 43.7
comp=Z,1μm,25.2s
MDT Midelt 94.35 347 LR LR 23 57 39.1
comp=Z,128nm,20.3s,baz=34,slow=38
RPZ Rata Peaks 95.94 172 LR LR 23 54 30.4
comp=Z,22nm,18.0s,baz=70,slow=36
ATD Arta Tunnel 96.78 298 LR LR 00 00 01.6
comp=Z,134nm,18.7s,baz=11,slow=39
H03N2 Juan Fernandez 134.36 90 T T 01 47 04.6
baz=323,slow=79,SNR=96
H03N1 Juan Fernandez 134.37 90 T T 01 47 05.8
baz=323,slow=79,SNR=175
H03N3 Juan Fernandez 134.37 90 T T 01 47 13.3
baz=323,slow=79,SNR=1680
QSPA South Pole Qui 141.85 180 PKhKP PKPpre 23 16 37.0
comp=Z,0.6nm,0.3s,baz=116,slow=1.1,SNR=3.2
PLCA Paso Flores 144.14 92 PKP **PKiKP** **23 16 46.2 -4.0**
comp=Z,2.4nm,0.9s,baz=309,slow=6.5,SNR=2.6

IDC 27 23:02:06.0±0.8, 33.48N×88.09E, h0km, mb4.0/12, mbtmp3.9/15, ML3.4/2, MS3.5/4, Error ellipse: s-maj=29.0km s-min=15.7km az=58.0, Xizang

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
					Op	ISC h m s	ISC
MKAR	**Makanchi Array**	**14.01**	**343**	Pn	Pn	23 05 26.6	+0.9
	0.1nm,0.3s,baz=168,slow=9.4,SNR=8.0						
	0.6nm,0.8s						
MKAR					AML	AML	
CMAR	**Chiang Mai Arr**	**17.84**	**144**	P	P	23 06 16.9	+0.5
	1.3nm,0.7s,baz=327,slow=13,SNR=7.3						
SONM	**Songino Array**	**19.89**	**38**	P	P	23 06 39.1	+0.1
	0.2nm,0.3s,baz=222,slow=14,SNR=12						
	3.0nm,0.7s						
SONM					AML	AML	
ZALV	**Zalesovo Beam**	**20.59**	**354**	P	P	23 06 46.7	+0.3
	3.5nm,0.8s,baz=170,slow=9.0,SNR=8.2						
	3.5nm,0.8s						
PALK	**Pallekele**	**26.96**	**196**	LR	LR	23 18 12.1	
	comp=Z,53nm,20.1s,baz=14,slow=36						
NRIK	**Noril'sk**	**35.91**	**360**	P	P	23 09 06.9	-0.6
	5.2nm,0.7s,baz=149,slow=6.1,SNR=6.7						
	5.2nm,0.7s						
KVAR	**Kislovodsk Arr**	**36.52**	**300**	LR	LR	23 27 34.0	
	comp=Z,98nm,20.0s,baz=124,slow=42						
ASF	**Jabal al Asfar**	**42.68**	**283**	LR	LR	23 31 59.0	
	comp=Z,74nm,19.1s,baz=226,slow=42						
EIL	**Elat**	**45.03**	**280**	LR	LR	23 33 32.3	
	comp=Z,73nm,18.5s,baz=228,slow=42						
FINES	**FINESS Array B**	**47.94**	**325**	P	P	23 10 45.5	-0.3
	4.6nm,1.0s,baz=114,slow=8.5,SNR=3.5						
	4.6nm,1.0s						
HFS	**Hagfors**	**53.99**	**323**	P	P	23 11 30.2	-1.3
	2.8nm,1.0s,baz=98,slow=8.9,SNR=1.6						
	2.8nm,1.0s						
NB2	**NORSAR Subarra**	**55.11**	**325**	P	P	23 11 39.3	-0.3
	comp=Z,0.8nm,0.6s,baz=82,slow=7.4						
NOA	**NORSAR Array B**	**55.11**	**325**	P	P	23 11 39.4	-0.3
	comp=Z,1.1nm,0.6s,baz=82,slow=7.2,SNR=7.8						
	comp=Z,1.1nm,0.6s						
GERES	**GERESS Array B**	**55.89**	**310**	P	P	23 11 46.4	+0.8
	comp=Z,1.3nm,0.7s,baz=72,slow=5.7,SNR=7.1						
	comp=Z,1.3nm,0.7s						
EKA	**Eskdalemuir Ar**	**63.88**	**320**	P	P	23 12 39.0	-1.3
	comp=Z,0.7nm,0.6s,baz=59,slow=5.9,SNR=2.5						
	comp=Z,0.7nm,0.6s						
WRA	**Warramunga Arr**	**69.05**	**133**	P	P	23 13 14.2	+0.5
	comp=Z,1.3nm,0.7s,baz=324,slow=6.3,SNR=7.1						
	comp=Z,1.3nm,0.7s						
ESDC	**Sonseca Array**	**70.97**	**305**	P	P	23 13 25.4	-0.1
	comp=Z,0.8nm,0.9s,baz=49,slow=4.8,SNR=3.6						
	comp=Z,0.8nm,0.9s						
ASAR	**Alice Springs**	**71.64**	**136**	P	P	23 13 29.2	-0.4
	comp=Z,1.1nm,0.7s,baz=325,slow=6.3,SNR=9.2						
	comp=Z,1.1nm,0.7s						
ILAR	**Eielson Array**	**73.11**	**22**	P	P	23 13 37.7	-0.2
	comp=Z,0.5nm,0.9s,baz=313,slow=5.9,SNR=2.8						
	comp=Z,0.5nm,0.9s						
TORD	**Torodi Ar. Bea**	**79.91**	**279**	P	P	23 14 18.4	+1.3
	comp=Z,1.0nm,0.6s,baz=48,slow=4.7,SNR=2.0						
	comp=Z,1.0nm,0.6s						
CPUP	**Villa Florida**	**149.29**	**274**	PKPbc	PKPbc	23 21 55.6	-1.4
	comp=Z,0.8nm,0.6s,baz=275,slow=1.3,SNR=3.0						

NEIC 27 23:03:13.9±1.2, 36°26N±0°05 × 71°2E±0°1, h157km±23km, mb3.8/3, 3C, Error ellipse: s-maj=15.9km s-min=6.9km az=94.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.47**	**227**		**Pn**	23 03 54.7	**-0.5**
NIL	**Nilore**	**3.10**	**147**		**Pn**	23 04 02.8	**+0.1**
DRK	**Karamyk**	**3.25**	**8**		**Pn**	23 04 05.8	**+0.9**
BTK	**Batken**	**3.80**	**355**		**Pn**	23 04 11.8	**0.0**
JMU	**Jammu**	**4.58**	**138**	*i* P	**Pn**	23 04 22.4	**+0.5**
ARSB	**Arslanbob**	**5.24**	**15**		**Pn**	23 04 29.0	**-1.6**
ALCI	**Alchi Leh**	**5.29**	**111**	*i* S	**Sn**	23 05 29.9	**-2.4**
NRN	**Naryn**	**6.37**	**34**		**Pn**	23 04 45.2	**-0.6**
UCH	**Uchtor** SNR=9.2	**6.48**	**22**	P	**Pn**	23 04 48.8	**+1.4**
EKS2	**Erkin-Say** SNR=23	**6.69**	**16**	P	**Pn**	23 04 50.9	**+1.0**
AAK	**Ala-Archa** SNR=8.3	**6.85**	**21**	P	**Pn**	23 04 54.0	**+1.9**
AAK	**Ala-Archa** 13nm,1.0s	**6.85**	**21**	⇑P	**Pn**	23 04 52.4	**+0.4**
AAK	7.3nm,0.8s			⇑S	Sn	23 06 07.9	-1.2
AAK	**Ala-Archa**	**6.85**	**21**		**Pn**	23 04 52.9	**+0.8**
KK31	**Karatay Array** 14nm,0.4s,baz=182,slow=13,SNR=188	**6.86**	**356**	⇑P	**Pn**	23 04 51.0	**-0.9**
KK31	11nm,0.5s,baz=189,slow=24,SNR=9.2			S	Sn	23 06 04.0	-4.9
KK31	**Karatay Array**	**6.86**	**356**		**Pn**	23 04 51.4	**-0.5**
KKAR	**Karatay Array**	**6.86**	**356**		**Pn**	23 04 51.5	**-0.4**
KBK	**Karagaybulak** SNR=5.6	**7.01**	**23**	P	**Pn**	23 04 56.1	**+2.0**
CHMS	**Chumysh** SNR=7.2	**7.26**	**21**	P	**Pn**	23 04 58.4	**+1.1**
USP	**Ospenovka** SNR=5.4	**7.44**	**19**	P	**Pn**	23 05 01.2	**+1.5**
TKM2	**Tokmak 2** SNR=14	**7.46**	**26**	P	**Pn**	23 05 01.4	**+1.2**
KDJ	**Kajisay**	**7.47**	**36**	Pn	**Pn**	23 05 00.4	**+0.1**
TARG	**Taragay, Kyrgy**	**7.49**	**41**		**Pn**	23 04 59.8	**-1.0**
KLP	**Kalpa**	**7.51**	**127**	*i* P	**Pn**	23 05 05.2	**+4.1**
WUS	**Wushi**	**7.96**	**49**	Pn	**Pn**	23 05 05.8	**-1.0**
UTK	**UTTARKASHI**	**8.18**	**130**	*i* P	**Pn**	23 05 12.7	**+2.9**
UTK				*i* S	Sn	23 06 29.6	-11
AB31	**Akbulak array**	**15.38**	**331**		P	23 06 43.3	**-0.3**
AB31	comp=Z,4.0nm,1.1s			IAmb	IAmb	23 06 46.3	
ABKAR	**Akbulak array**	**15.38**	**331**		P	23 06 43.3	**-0.2**
EVN	**Everest**	**15.59**	**118**		Pn	23 06 44.9	**-1.0**
EVN	comp=Z,4.0nm,1.0s			IAmb	IAmb	23 06 58.6	
ZAA0	**Zalesovo Array**	**20.06**	**24**	P	Pn	23 07 37.3	**-0.9**
ZAA0	comp=Z,4.2nm,0.6s			IAmb	IAmb	23 07 40.4	
ZALV	**Zalesovo Beam**	**20.06**	**24**	P	P	23 07 35.3	**+0.6**

IDC 27 23:09:08.9±4.7, 8°13S × 155°86E, h0km, mb3.6/4, mbtmp3.6/4, MS3.3/1, Error ellipse: s-maj=137.5km s-min=32.7km az=115.0, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower** comp=Z,96nm,18.1s,baz=336,slow=36	**15.09**	**217**	LR	LR	23 18 05.6	
WRA	**Warramunga Arr** 1.2nm,0.7s,baz=66,slow=9.9,SNR=5.2 1.2nm,0.7s	**23.92**	**238**	P	P	23 14 25.4	**+0.6**
ASAR	**Alice Springs** 0.2nm,0.5s,baz=66,slow=7.2,SNR=3.2 0.2nm,0.5s	**26.10**	**231**	P	P	23 14 44.4	**-0.2**
SONM	**Songino Array** 0.7nm,0.8s,baz=108,slow=4.7,SNR=3.7 0.7nm,0.8s	**70.74**	**327**	P	P	23 20 26.5	**-0.7**
MKAR	**Makanchi Array** 0.8nm,0.7s,baz=96,slow=4.9,SNR=4.2 0.8nm,0.7s	**84.81**	**319**	P	P	23 21 45.9	**+0.5**

RSNC 27 23:13:54.5±0.0, 6°N±2°, 7°9W±°, h31km±7km, M3.1, mb3.5, ML2.7
CATAC 27 23:13:55.1±0.8, 6°N±4°, 7°9W±°, h34km±15km, M3.6/12, mb3.5/2, MLv3.6/12, Error ellipse: s-maj=11.5km s-min=3.3km az=43.5, confirmed

ISC 27 23:13:50.2±1.0, 5°88N±0°03 × 78°61W±0°04, h10km, n28, σ2§64/51, South of Panama

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SOLC	**Bahia Solano**	**1.25**	**74**	P	**Pn**	**23 14 13.6**	**-0.1**
SOLC				S	**Sb**	**23 14 27.1**	**-2.8**
PTAC	**Punta Ardita,**	**1.49**	**32**	P	**Pn**	**23 14 17.2**	**+0.2**
PTAC				S	**Sn**	**23 14 30.4**	**-6.2**
PIZC	**Pizarro, Choco**	**1.54**	**126**	P	**Pn**	**23 14 18.6**	**+0.8**
PIZC				S	**Sn**	**23 14 36.4**	**-1.5**
PLMC	**San Jos del P**	**2.51**	**113**	P	**Pn**	**23 14 32.2**	**+1.0**
PLMC				S	**Sn**	**23 14 58.9**	**-3.1**
CBOC	**Ciudad Bolivar**	**2.59**	**90**	P	**Pn**	**23 14 32.4**	**+0.1**
CBOC				S	**Sn**	**23 14 59.0**	**-4.9**
CACAO	**El Cacao, Vera**	**2.67**	**303**	P	**Pn**	**23 14 34.2**	**+1.0**
CACAO				S	**Sn**	**23 15 03.8**	**-1.8**
UPD2	**Meteti**	**2.72**	**13**	P	**Pn**	**23 14 35.8**	**+1.9**
UPD2				S	**Sn**	**23 15 06.6**	**-0.2**
APAC	**Apartado, Choc**	**2.85**	**45**	P	**Pb**	**23 14 40.0**	**-1.1**
APAC				S	**Sn**	**23 15 12.1**	**+2.0**
YOTC	**Yotoco, Valle**	**2.94**	**130**	P	**Pn**	**23 14 38.6**	**+1.5**
YOTC				S	**Sn**	**23 15 10.8**	**-1.8**
HELC	**Santa Helena**	**3.08**	**84**	P	**Pn**	**23 14 41.6**	**+2.3**
HELC				S	**Sn**	**23 15 16.6**	**+0.2**
HELC	**Santa Helena**	**3.08**	**84**	P	**Pn**	**23 14 41.6**	**+2.3**
HELC				S	**Sn**	**23 15 15.7**	**-0.7**
GMAL	**Guarumal, Vera**	**3.20**	**306**	P	**Pn**	**23 14 43.9**	**+3.3**
UPA	**Univ. de Panam**	**3.21**	**344**	P	**Pn**	**23 14 42.2**	**+1.5**
UPA				S	**Sn**	**23 15 21.0**	**+1.9**
JAMC	**Jamundi, Valle**	**3.28**	**144**	P	**Pn**	**23 14 43.8**	**+1.9**
JAMC				S	**Sn**	**23 15 20.3**	**-0.8**
GUY2C	**Guyana, Caldas**	**3.30**	**101**	P	**Pn**	**23 14 44.2**	**+1.9**
BCIP	**Isla Barro Col**	**3.48**	**340**	P	**Pn**	**23 14 45.9**	**+1.5**
BCIP				S	**Sn**	**23 15 27.0**	**+1.2**
BCIP	**Isla Barro Col**	**3.48**	**340**	P	**Pn**	**23 14 45.7**	**+1.2**
BCIP				S	**Sn**	**23 15 27.0**	**+1.2**
POPC	**Popayan, Colom**	**3.84**	**150**	P	**Pn**	**23 14 51.5**	**+1.9**
POPC				S	**Sn**	**23 15 34.6**	**-0.3**
ORTC	**Ortega, Tolima**	**3.88**	**120**	P	**Pn**	**23 14 54.0**	**+4.0**
ORTC				S	**Sn**	**23 15 37.4**	**+1.6**
PTBC	**PUERTO BERRIO,**	**4.18**	**81**	P	**Pn**	**23 14 58.1**	**+4.0**
PTBC				S	**Sn**	**23 15 45.7**	**+2.6**
PRAC	**Prado**	**4.29**	**120**	P	**Pn**	**23 14 59.8**	**+4.1**
PRAC				S	**Sn**	**23 15 48.1**	**+2.3**
PRAC	**Prado**	**4.29**	**120**	P	**Pn**	**23 14 59.5**	**+3.9**
PRAC				S	**Sn**	**23 15 47.6**	**+1.8**
BETC	**Betania**	**4.48**	**135**	P	Pn	23 15 03.2	+4.9
BETC				S	**Sn**	**23 15 55.1**	**+4.5**
CRUC	**La Cruz**	**4.59**	**159**	P	**Pb**	**23 15 07.5**	**-3.6**
SJCC	**San Jacinto, C**	**5.24**	**40**	P	**Pn**	**23 15 12.9**	**+4.2**
SJCC				S	**Sn**	**23 16 09.0**	**-0.3**
SJCC	**San Jacinto, C**	**5.24**	**40**	P	**Pn**	**23 15 11.8**	**+3.1**
SJCC				S	**Sn**	**23 16 08.8**	**-0.5**
RUSC	**La Rusia**	**5.50**	**90**	P	**Pn**	**23 15 16.2**	**+3.6**
RUSC				S	**Sn**	**23 16 19.5**	**+3.2**
RUSC	**La Rusia**	**5.50**	**90**	P	**Pn**	**23 15 17.4**	**+4.7**

IDC 27 23:19:38.5±1.1, 50°69N × 157°87E, h0km, mb3.6/8, mbtmp3.6/9, ML3.1/1, MS2.6/1, Error ellipse: s-maj=24.4km s-min=20.8km az=93.0
MOS 27 23:19:42.4±0.5, 50°72N × 158°32E, h47km, mb4.1/1, Error ellipse: s-maj=24.2km s-min=4.5km az=87.9
KRSC 27 23:19:44.6±1.3, 50°99N × 158°35E, h50km±21km, Ml4.4, Felt [II] at HMS Vodopadnaya.

ISC 27 23:19:46.5±1.5, 50°99N±0°08 × 158°24E±0°07, h50km±14km, n65, σ1§25/80, mb3.6/8, 1C, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KDTR	**Khodutka, Kamc**	**0.83**	**353**	PN	**Pn**	**23 20 01.1**	**-0.8**
KDTR				S	**Sn**	**23 20 12.0**	**-1.2**
KDTR	**Khodutka, Kamc**	**0.83**	**353**	*e*P	**Pn**	**23 20 01.2**	**-0.8**
KDTR				*e*S	**Sn**	**23 20 12.1**	**-1.2**
PAU	**Pauzhetka**	**1.02**	**299**	PN	**Pn**	**23 20 04.6**	**+0.2**
PAU				S	**Sn**	**23 20 18.7**	**+1.1**
PAU	**Pauzhetka**	**1.02**	**299**	*e*P	**Pn**	**23 20 04.7**	**+0.2**
PAU				*e*S	**Sn**	**23 20 18.8**	**+1.1**
SKR	**Severo-Kuril's**	**1.38**	**258**	*e*PN	**Pn**	**23 20 11.0**	**+1.7**
SKR				*e*S	**Sn**	**23 20 27.3**	**+0.9**
SKR				pmax	pmax		
	comp=Z,49nm,0.3s						
SKR				smax	smax		
	comp=E,694nm,0.5s						
SKR				smax	smax		
	comp=N,1µm,0.6s						
SKR	**Severo-Kuril's**	**1.38**	**258**	*e*P	**Pn**	**23 20 09.9**	**+0.6**
SKR				*e*S	**Sn**	**23 20 27.4**	**+1.0**
RUS	**Russkaya**	**1.46**	**7**	PN	**Pn**	**23 20 09.5**	**-0.9**
RUS				S	**Sn**	**23 20 27.4**	**-0.9**
RUS	**Russkaya**	**1.46**	**7**	*e*P	**Pn**	**23 20 09.5**	**-0.9**
RUS				*e*S	**Sn**	**23 20 27.5**	**-0.9**
MTVR	**Mutnovka**	**1.50**	**359**	PN	**Pn**	**23 20 10.9**	**-0.2**
MTVR				S	**Sn**	**23 20 29.9**	**+0.3**
MTVR	**Mutnovka**	**1.50**	**359**	*e*P	**Pn**	**23 20 11.0**	**-0.2**
MTVR				*e*S	**Sn**	**23 20 29.9**	**+0.3**
GRL	**Gorelyy**	**1.57**	**356**	PN	**Pn**	**23 20 12.2**	**+0.2**
GRL				S	**Sn**	**23 20 31.4**	**+0.1**
GRL	**Gorelyy**	**1.57**	**356**	*e*P	**Pn**	**23 20 12.3**	**+0.2**
GRL				*e*S	**Sn**	**23 20 31.4**	**+0.1**
KRMR	**Karymshinskiy**	**1.85**	**358**	PN	**Pn**	**23 20 16.1**	**+0.4**
KRMR				S	**Sn**	**23 20 40.8**	**+2.9**
KRMR	**Karymshinskiy**	**1.85**	**358**	*e*P	**Pn**	**23 20 16.1**	**+0.4**
KRMR				*e*S	**Sn**	**23 20 40.8**	**+2.9**
APC	**Apacha**	**2.05**	**341**	PN	**Pn**	**23 20 19.3**	**+0.8**
APC	**Apacha**	**2.05**	**341**	*e*P	**Pn**	**23 20 19.4**	**+0.8**
PET	**Petropavlovsk**	**2.06**	**7**	⇑*i*PN	**Pn**	**23 20 18.7**	**+0.1**
PET				*e*S	**Sn**	**23 20 43.4**	**+0.4**
PET				pmax	pmax		
	comp=Z,178nm,0.5s						
PET				smax	smax		
	comp=N,731nm,0.5s						
PET				smax	smax		
	comp=E,614nm,0.6s						
PET	**Petropavlovsk**	**2.06**	**7**	*e*P	**Pn**	**23 20 18.8**	**+0.3**
PET				*e*S	**Sn**	**23 20 43.7**	**+0.7**
DALK	**Dalny**	**2.07**	**9**	PN	**Pn**	**23 20 18.8**	**0.0**
DALK				S	**Sn**	**23 20 43.0**	**-0.4**
DALK	**Dalny**	**2.07**	**9**	*e*P	**Pn**	**23 20 18.9**	**0.0**
DALK				*e*S	**Sn**	**23 20 43.0**	**-0.4**
INSR	**Institute**	**2.10**	**6**	PN	**Pn**	**23 20 19.7**	**+0.6**
INSR				S	**Sn**	**23 20 45.0**	**+1.1**
INSR	**Institute**	**2.10**	**6**	*e*P	**Pn**	**23 20 19.7**	**+0.6**
INSR				*e*S	**Sn**	**23 20 45.1**	**+1.1**
PEA0B	**Petropavlovsk-**	**2.15**	**351**	PN	**Pn**	**23 20 20.7**	**+0.8**
PETK	**Petropavlovsk-** comp=E,19nm,0.3s,baz=154,slow=17,SNR=157	**2.15**	**351**	Pn	**Pn**	**23 20 20.0**	**+0.1**
PETK				Sn	**Sn**	**23 20 48.1**	**+2.7**
	comp=E,12nm,0.3s,baz=142,slow=17,SNR=6.6						
PETK				LR	LR	23 21 18.6	
	comp=E,137nm,20.8s,baz=105,slow=41 comp=E,50nm,0.5s						
PETK				AML	AML		
UGLR	**Uglovaya**	**2.25**	**9**	PN	**Pn**	**23 20 22.3**	**+0.9**
UGLR	**Uglovaya**	**2.25**	**9**	*e*P	**Pn**	**23 20 22.4**	**+0.9**
NLC	**Nalytchevo**	**2.29**	**17**	PN	**Pn**	**23 20 21.1**	**-0.7**
NLC	**Nalytchevo**	**2.29**	**17**	*e*P	**Pn**	**23 20 21.2**	**-0.7**
AVH	**Avacha**	**2.30**	**8**	PN	**Pn**	**23 20 23.7**	**+1.7**
AVH	**Avacha**	**2.30**	**8**	*e*P	**Pn**	**23 20 23.7**	**+1.7**
KOK	**Koryaka**	**2.32**	**6**	PN	**Pn**	**23 20 23.8**	**+1.5**
KOK	**Koryaka**	**2.32**	**6**	*e*P	**Pn**	**23 20 23.8**	**+1.5**
SDLR	**Sedlovina**	**2.33**	**10**	PN	**Pn**	**23 20 22.7**	**+0.3**
SDLR	**Sedlovina**	**2.33**	**10**	*e*P	**Pn**	**23 20 22.8**	**+0.3**
KRER	**Koryakskii**	**2.34**	**8**	PN	**Pn**	**23 20 24.2**	**+1.5**
KRER	**Koryakskii**	**2.34**	**8**	*e*P	**Pn**	**23 20 24.2**	**+1.5**
SPN	**Mys Shipunski**	**2.38**	**27**	PN	**Pn**	**23 20 24.4**	**+1.4**
SPN				S	**Sn**	**23 20 52.8**	**+1.8**
SPN	**Mys Shipunski**	**2.38**	**27**	*e*P	**Pn**	**23 20 24.4**	**+1.4**
SPN				*e*S	**Sn**	**23 20 52.9**	**+1.8**
KRX	**Arik**	**2.39**	**6**	PN	**Pn**	**23 20 24.0**	**+0.7**
KRX	**Arik**	**2.39**	**6**	*e*P	**Pn**	**23 20 24.0**	**+0.7**
KII	**Karymskiy**	**3.14**	**13**	PN	**Pn**	**23 20 35.6**	**+2.1**
KII	**Karymskiy**	**3.14**	**13**	*e*P	**Pn**	**23 20 35.6**	**+2.1**
MKZ	**Mys Kozlova**	**4.16**	**29**	PN	**Pn**	**23 20 46.8**	**-0.5**
MKZ	**Mys Kozlova**	**4.16**	**29**	*e*P	**Pn**	**23 20 46.8**	**-0.5**
KZV	**Kizimen**	**4.32**	**16**	PN	**Pn**	**23 20 51.9**	**+2.3**
KZV	**Kizimen**	**4.32**	**16**	*e*P	**Pn**	**23 20 52.0**	**+2.3**
KBTR	**Krutoberegovo**	**5.90**	**26**	PN	**Pn**	**23 21 11.6**	**+0.4**
KBTR	**Krutoberegovo**	**5.90**	**26**	*e*P	**Pn**	**23 21 11.7**	**+0.4**
ILAR	**Eielson Array** comp=E,0.4nm,0.8s,baz=268,slow=8.6,SNR=2.5 comp=E,0.4nm,0.8s	**31.13**	**43**	P	**P**	**23 26 00.3**	**+0.4**
H11N2	**WAKE ISLAND Hy** baz=350,slow=76,SNR=67	**31.93**	**164**	T	T	00 00 01.5	
H11N3	**WAKE ISLAND Hy** baz=350,slow=76,SNR=49	**31.95**	**164**	T	T	00 00 00.4	
H11N1	**WAKE ISLAND Hy** baz=350,slow=76,SNR=48	**31.95**	**164**	T	T	00 00 07.1	
H11S1	**WAKE ISLAND Hy** baz=351,slow=76,SNR=29	**33.10**	**165**	T	T	00 01 32.8	
H11S3	**WAKE ISLAND Hy** baz=351,slow=76,SNR=28	**33.11**	**165**	T	T	00 01 31.7	
H11S2	**WAKE ISLAND Hy** baz=351,slow=76,SNR=30	**33.12**	**165**	T	T	00 01 34.4	
KURK	**Kurchatov**	**47.89**	**303**	P	**P**	**23 28 18.5**	**-0.6**
KURBB	**Kurchatov Arra** comp=E,0.4nm,0.3s,baz=61,slow=7.1,SNR=2.2 comp=E,0.4nm,0.3s	**47.98**	**302**	P	**P**	**23 28 18.5**	**-1.4**
MKAR	**Makanchi Array** comp=E,0.4nm,0.8s,baz=59,slow=6.4,SNR=2.0 comp=E,0.4nm,0.8s	**48.05**	**296**	P	**P**	**23 28 18.5**	**-2.1**
BVAR	**Borovoye Array** comp=E,0.6nm,0.4s,baz=68,slow=6.8,SNR=4.6 comp=E,0.6nm,0.4s	**50.81**	**309**	P	**P**	**23 28 40.7**	**-0.8**
PDAR	**Pinedale Array** comp=E,0.4nm,0.8s,baz=243,slow=1.0,SNR=4.4 comp=E,0.4nm,0.8s	**59.58**	**59**	P	**P**	**23 29 46.5**	**+1.5**
TXAR	**Lajitas Array** comp=E,0.9nm,0.7s,baz=293,slow=4.3,SNR=6.9 comp=E,0.9nm,0.7s	**72.54**	**65**	P	**P**	**23 31 10.2**	**+2.0**
EKA	**Eskdalemuir Ar** comp=E,0.3nm,0.4s,baz=5.3,slow=5.6,SNR=4.5 comp=E,0.3nm,0.4s	**72.92**	**349**	P	**P**	**23 31 09.4**	**-0.4**
WRA	**Warramunga Arr** comp=E,0.2nm,0.3s,baz=19,slow=6.1,SNR=1.5 comp=E,0.2nm,0.3s	**73.69**	**203**	P	**P**	**23 31 11.7**	**-3.1**
H03N2	**Juan Fernandez** baz=313,slow=76,SNR=22	**135.36**	**90**	T	T	02 09 33.3	
H03N1	**Juan Fernandez** baz=309,slow=76,SNR=35	**135.38**	**90**	T	T	02 09 34.5	

KRNET 27 23:25:14.2±0.1, 41°45N × 79°57E, h20km, mb2.2
NNC 27 23:25:25.7±2.1, 41°51N × 79°11E, h0km, mb2.4, mpv2.6, Error ellipse: s-maj=14.2km s-min=12.6km az=156.0
SOME 27 23:25:25.8, 41°50N × 79°18E, h15km

ISC 27 23:25:22.7±2.4, 41°43N±0°09 × 79°07E±0°07, h15km±13km, n15, σ1§14/27, 9C-3D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TARG	**Taragay, Kyrgy**	**0.99**	**288**	⇓*e*P	**Pb**	**23 25 40.0**	**-1.9**
TARG				*e*S	**Sn**	**23 25 58.9**	**+2.4**
PRZ	**Przheval'sk**	**1.16**	**335**	*e*P	Pb	23 25 40.1	-4.5
PRZ				⇑*e*S	**Sb**	**23 25 59.1**	**-0.5**
KDJ	**Kajisay**	**1.57**	**297**	*e*P	**Pn**	**23 25 49.5**	**-0.8**
KDJ				⇑*e*S	**Sg**	**23 26 15.3**	**+1.8**
SATY	**Saty** 1.2nm,0.1s	**1.70**	**343**	P	**Pg**	**23 25 55.7**	**+0.3**
SATY	3.7nm,0.1s			S	**Sg**	**23 26 17.2**	**-0.2**
SATY	**Saty** 1.2nm,0.1s	**1.70**	**343**	*e*P	**Pg**	**23 25 55.7**	**+0.3**
SATY	3.7nm,0.1s			*e*S	**Sg**	**23 26 17.2**	**-0.2**
ANVS	**Anan'yevo**	**1.70**	**323**	⇓*e*P	**Pn**	**23 25 50.4**	**-1.7**
ANVS				⇑*e*S	**Sg**	**23 26 16.8**	**-0.9**
UZB	**Uzynbulak** 2.4nm,0.2s	**1.71**	**359**	P	**Pg**	**23 25 55.6**	**0.0**
UZB	2.0nm,0.2s			S	**Sg**	**23 26 17.1**	**-0.8**
UZB	**Uzynbulak** 2.4nm,0.2s	**1.71**	**359**	*e*P	**Pg**	**23 25 55.6**	**0.0**
UZB	2.0nm,0.2s			*e*S	**Sg**	**23 26 17.1**	**-0.8**
SHLS	**Shalkode** 0.9nm,0.1s	**1.75**	**10**	P	**Pg**	**23 25 57.5**	**+1.2**
SHLS				S	**Sg**	**23 26 20.5**	**+1.5**
	3.8nm,0.3s						
PDGK	**Podgornoye** 0.8nm,0.5s	**1.92**	**9**	⇓P	**Pb**	**23 25 57.6**	**+0.1**
PDGK	3.7nm,0.5s			⇑S	**Sg**	**23 26 25.0**	**+0.5**
KPKS	**Kokpek** 0.4nm,0.1s	**2.05**	**352**	Pg	**Pg**	**23 26 02.3**	**+0.2**
KPKS	2.8nm,0.5s			Lg	Lg	23 26 28.5	
KPKS	**Kokpek** 0.4nm,0.1s	**2.05**	**352**	*e*P	**Pg**	**23 26 02.3**	**+0.2**
KPKS	2.8nm,0.5s			*e*S	**Sg**	**23 26 28.5**	**-0.2**
TNSS	**Tian-Shan** 0.4nm,0.1s	**2.25**	**316**	Pg	**Pg**	**23 26 07.0**	**+1.2**
TNSS	0.8nm,0.2s			Lg	Lg	23 26 36.4	
TNSS	**Tian-Shan** 0.4nm,0.1s	**2.25**	**316**	*e*P	**Pg**	**23 26 07.0**	**+1.2**
TNSS	0.8nm,0.2s			*e*S	**Sg**	**23 26 36.4**	**+1.4**
NRN	**Naryn**	**2.31**	**271**	⇑*e*P	**Pn**	**23 26 01.1**	**+0.6**
NRN				⇑*e*S	**Sg**	**23 26 35.4**	**-1.5**

MDD 27 23:25:25.2±0.9, 43°58N × 16°59W, h28km, Mb4.2/16, M_mb3.6/16, Error ellipse: s-maj=7.9km s-min=6.1km az=69.0
INMG 27 23:25:31.1±2.0, 43°61N × 16°39W, h10km, ML2.6, Error ellipse: s-maj=11.0km s-min=6.2km az=73.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Abissal Iberica

ISC 27 23:25:31.9±3.8, 43°28N±0°09 × 15°7W±0°2, h10km, n46, σ1§14/84, 14C, North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
EMAZ	**Mazaricos**	**4.93**	**92**	Pn	**Pn**	**23 26 46.1**	**+0.1**
EMAZ	133nm,SNR=0.9			⇑IVmb_VC		23 26 46.7	
EMAZ				Sn	**Sn**	**23 27 43.3**	**+0.2**
STS	**Santiago**	**5.25**	**92**	Pn	**Pn**	**23 26 50.5**	**+0.2**
STS				Sn	**Sn**	**23 27 52.9**	**+2.0**
EAGO	**Agolada(Pontev**	**5.60**	**92**	Pn	**Pn**	**23 26 54.8**	**-0.4**
EAGO	216nm,SNR=1.6			⇑IVmb_VC		23 26 56.1	
EAGO				Sn	**Sn**	**23 27 59.6**	**+0.1**
PGAV	**Gavieira, Arco**	**5.64**	**101**	*e*P	**Pn**	**23 26 57.1**	**+1.4**
PGAV				*e*S	**Sn**	**23 28 01.4**	**+0.8**
PGAV				IAML		23 28 02.4	
PGAV				IAML		23 28 03.3	
PGAV				IAML		23 28 03.5	
ELOB	**Lobios**	**5.81**	**101**	Pn	**Pn**	**23 26 59.0**	**+0.8**
ELOB	116nm,SNR=1.1			⇑IVmb_VC		23 27 00.9	
ELOB				Sn	**Sn**	**23 28 06.3**	**+1.4**
POLO	**Lamas de Olo**	**6.16**	**105**	*e*P	**Pn**	**23 27 04.1**	**+1.1**
POLO				*e*S	**Sn**	**23 28 13.8**	**+0.4**
POLO				IAML		23 28 17.7	
POLO				IAML		23 28 18.5	
POLO				IAML		23 28 22.2	
EPON	**Pontenova**	**6.24**	**87**	Pn	**Pn**	**23 27 03.4**	**-0.6**
EPON	118nm,SNR=0.9			⇑IVmb_VC		23 27 04.1	
EPON				Sn	**Sn**	**23 28 13.4**	**-1.9**
PCAS	**Casmilo, Conde**	**6.28**	**118**	*e*S	**Sn**	**23 28 17.1**	**+0.8**
PCAS				IAML		23 28 21.8	
PCAS				IAML		23 28 23.1	
PCAS				IAML		23 28 23.2	
PVIS	**Viseu**	**6.35**	**111**	*e*P	**Pn**	**23 27 06.8**	**+1.2**
PVIS				*e*S	**Sn**	**23 28 18.1**	**0.0**
PSBE	**So Bento**	**6.41**	**124**	*e*P	**Pn**	**23 27 07.4**	**+1.1**
PSBE				*e*S	**Sn**	**23 28 19.5**	**0.0**
PMAFR	**Mafra**	**6.49**	**130**	Pn	**Pn**	**23 27 08.1**	**+0.7**
PMAFR				Sn	**Sn**	**23 28 20.3**	**-1.1**
PMAFR	**Mafra**	**6.49**	**130**	*e*P	**Pn**	**23 27 08.4**	**+1.0**
PMAFR				*e*S	**Sn**	**23 28 21.6**	**+0.1**
PMAFR				IAML		23 28 24.5	
PMAFR				IAML		23 28 25.7	
PMAFR				IAML		23 28 25.8	
MTE	**Manteigas**	**6.73**	**113**	*e*P	**Pn**	**23 27 11.8**	**+1.0**
MTE				*e*S	**Sn**	**23 28 27.4**	**-0.1**
MTE				IAML		23 28 33.1	
MTE				IAML		23 28 33.8	
MTE				IAML		23 28 37.8	
ECAL	**Calabor**	**6.75**	**98**	Pn	**Pn**	**23 27 12.2**	**+1.2**
ECAL				Sn	**Sn**	**23 28 29.6**	**+1.7**
ECAL	**Calabor**	**6.75**	**98**	Pn	**Pn**	**23 27 10.6**	**-0.4**
ECAL	115nm,SNR=0.6			⇑IVmb_VC		23 27 12.9	
ECAL				Sn	**Sn**	**23 28 29.7**	**+1.7**
PSARD	**Sardoal**	**6.75**	**120**	*e*P	**Pn**	**23 27 12.0**	**+1.0**
PSARD				*e*S	**Sn**	**23 28 28.3**	**+0.4**
PSARD				IAML		23 28 31.1	
PSARD				IAML		23 28 31.5	
PSARD				IAML		23 28 33.8	
PMTG	**Montargil**	**7.03**	**124**	*e*P	**Pn**	**23 27 15.7**	**+0.9**
PMTG				*e*S	**Sn**	**23 28 33.5**	**-1.2**
PMTG				IAML		23 28 37.7	
PMTG				IAML		23 28 37.7	
PMTG				IAML		23 28 39.0	
PCBR	**Castelo Branco**	**7.06**	**116**	*e*S	**Sn**	**23 28 34.9**	**-0.5**
PCBR				IAML		23 28 40.0	
PCBR				IAML		23 28 40.3	
PCBR				IAML		23 28 40.9	
PARRA	**Arraiolos**	**7.30**	**125**	*e*P	**Pn**	**23 27 19.1**	**+0.6**
PARRA				*e*S	**Sn**	**23 28 40.7**	**-0.9**
PARRA				IAML		23 28 44.0	
PARRA				IAML		23 28 45.7	
PARRA				IAML		23 28 51.1	
MOE	**Montemor**	**7.32**	**128**	*e*P	**Pn**	**23 27 19.4**	**+0.6**
MOE				*e*S	**Sn

PBAR				IAML			23 29 09.6	
PBAR				IAML			23 29 10.5	
PBAR				IAML			23 29 12.6	
PVAQ	**Vaqueiros**	**8.46**	**131**	*eP*		**Pn**	**23 27 35.7**	**+1.3**
PVAQ				*eS*		**Sn**	**23 29 08.2**	**-1.7**
PVAQ				IAML			23 29 10.2	
PVAQ				IAML			23 29 14.2	
PVAQ				IAML			23 29 16.3	
PBDV	**Barranco-do-Ve**	**8.46**	**133**	Sn		**Sn**	**23 29 08.9**	**-1.1**
PBDV	**Barranco-do-Ve**	**8.46**	**133**	*eS*		**Sn**	**23 29 09.2**	**-0.7**
PBDV				IAML			23 29 14.1	
PBDV				IAML			23 29 14.2	
PBDV				IAML			23 29 15.2	
EGRO	**El Granado**	**8.49**	**130**	⇑IVmb_VC			23 27 38.1	
	104nm,SNR=1.0							
EGRO				Sn		**Sn**	**23 29 10.1**	**-0.6**
CIBOR	**Castaar de Ib**	**8.53**	**112**	Pn		**Pn**	**23 27 35.7**	**+0.3**
CIBOR				Sn		**Sn**	**23 29 11.4**	**-0.3**
ELAN	**Lanestosa**	**8.95**	**86**	Pn		**Pn**	**23 27 40.8**	**-0.4**
ELAN				⇑IVmb_VC			23 27 43.6	
	44nm,SNR=0.4							
ELAN				Sn		**Sn**	**23 29 20.9**	**-1.1**
PAB	**San Pablo**	**9.31**	**110**	Pn		**Pn**	**23 27 46.0**	**-0.1**
PAB				⇑IVmb_VC			23 27 48.1	
	82nm,SNR=1.0							
PAB				Sn		**Sn**	**23 29 29.6**	**-1.3**
ECAB	**El Cabril**	**9.38**	**120**	Pn		**Pn**	**23 27 47.9**	**+0.8**
ECAB				Sn		**Sn**	**23 29 29.6**	**-3.0**
ECAB	**El Cabril**	**9.38**	**120**	Pn		**Pn**	**23 27 47.2**	**+0.1**
ECAB				⇑IVmb_VC			23 27 48.2	
	41nm,SNR=0.5							
ECAB				Sn		**Sn**	**23 29 31.6**	**-0.9**
ESDC	**Sonseca Array**	**9.51**	**108**	Pn		**Pn**	**23 27 48.8**	**-0.1**
ESDC				⇑IVmb_VC			23 27 50.5	
	107nm,SNR=1.3							
EADA	**Adamuz**	**9.86**	**117**	Pn		**Pn**	**23 27 54.6**	**+0.9**
EADA				Sn		**Sn**	**23 29 46.1**	**+1.6**
EADA	**Adamuz**	**9.86**	**117**	Pn		**Pn**	**23 27 53.5**	**-0.2**
EADA				⇑IVmb_VC			23 27 54.9	
	85nm,SNR=1.0							
EADA				Sn		**Sn**	**23 29 43.6**	**-0.9**

*IDC **27** 23:27:15.6±0.8, 33°.60N×88°.21E, h0km, mb4.0/12, mbtmp3.9/16, ML3.5/4, Error ellipse: s-maj=29.1km s-min=15.6km az=59.0*

ISC 27 23:27:20.7±0.8, 33.7N±0°.1×88.4E±0°.2, h35km, n18, σ0.75/18, mb4.1/10, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**13.87**	**342**	Pn	**Pn**	**23 30 34.0**	**-0.6**
	0.1nm,0.3s,baz=162,slow=13,SNR=2.5 0.8nm,1.0s						
MKAR				AML	AML		
CMAR	**Chiang Mai Arr**	**17.88**	**146**	P	**Pn**	**23 31 25.9**	**-0.8**
	0.2nm,0.3s,baz=325,slow=13,SNR=8.4 0.7nm,0.3s						
CMAR				AML	AML		
KURBB	**Kurchatov Arra**	**18.39**	**340**	P	**P**	**23 31 32.0**	**-0.4**
	baz=154,slow=12,SNR=11 1.9nm,0.8s						
SONM	**Songino Array**	**19.56**	**38**	P	**Pn**	**23 31 46.0**	**-0.9**
	0.2nm,0.3s,baz=224,slow=11,SNR=16 2.1nm,0.8s						
SONM				AML	AML		
ZALV	**Zalesovo Beam**	**20.39**	**354**	P	**P**	**23 31 54.5**	**+0.1**
	4.2nm,0.9s,baz=169,slow=12,SNR=14 4.2nm,0.9s						
BVAR	**Borovoye Array**	**23.20**	**332**	P	**P**	**23 32 24.6**	**+0.3**
	1.2nm,0.7s,baz=148,slow=10,SNR=5.5 1.2nm,0.7s						
NRIK	**Noril'sk**	**35.69**	**359**	P	**P**	**23 34 16.4**	**+1.2**
	5.1nm,0.6s,baz=162,slow=6.1,SNR=10 5.1nm,0.6s						
FINES	**FINESS Array B**	**47.89**	**325**	P	**P**	**23 35 55.0**	**0.0**
	7.0nm,1.1s,baz=101,slow=6.0,SNR=9.7 7.0nm,1.1s						
HFS	**Hagfors**	**53.96**	**323**	P	**P**	**23 36 40.7**	**+0.1**
	1.0nm,0.6s,baz=87,slow=10,SNR=5.4 1.0nm,0.6s						
NB2	**NORSAR Subarra**	**55.07**	**325**	P	**P**	**23 36 48.9**	**+0.1**
	comp=Z,0.8nm,0.5s,baz=82,slow=7.4						
NOA	**NORSAR Array B**	**55.07**	**325**	P	**P**	**23 36 48.7**	**-0.1**
	comp=Z,1.3nm,0.6s,baz=83,slow=7.2,SNR=6.2 comp=Z,1.3nm,0.6s						
GERES	**GERESS Array B**	**55.94**	**310**	P	**P**	**23 36 55.8**	**+0.6**
	comp=Z,1.6nm,0.6s,baz=72,slow=5.4,SNR=18 comp=Z,1.6nm,0.6s						
EKA	**Eskdalemuir Ar**	**63.87**	**320**	P	**P**	**23 37 49.8**	**+0.4**
	comp=Z,0.9nm,0.5s,baz=64,slow=6.6,SNR=5.6 comp=Z,0.9nm,0.5s						
WRA	**Warramunga Arr**	**69.03**	**134**	P	**P**	**23 38 23.7**	**+0.8**
	comp=Z,1.8nm,0.8s,baz=332,slow=6.2,SNR=5.3 comp=Z,1.8nm,0.8s						
ESDC	**Sonseca Array**	**71.04**	**305**	P	**P**	**23 38 35.0**	**-0.3**
	comp=Z,0.8nm,0.9s,baz=64,slow=5.3,SNR=5.0 comp=Z,0.8nm,0.9s						
ASAR	**Alice Springs**	**71.63**	**136**	P	**P**	**23 38 39.8**	**+0.9**
	comp=Z,1.1nm,0.8s,baz=311,slow=6.0,SNR=5.3 comp=Z,1.1nm,0.8s						
TORD	**Torodi Ar. Bea**	**80.11**	**279**	P	**P**	**23 39 27.1**	**-0.4**
	comp=Z,1.0nm,0.6s,baz=47,slow=4.8,SNR=7.5 comp=Z,1.0nm,0.6s						
CPUP	**Villa Florida**	**149.52**	**275**	PKPbc	**PKPbc**	**23 47 04.9**	**-1.6**
	comp=Z,1.2nm,0.7s,baz=0.0,slow=4.0,SNR=3.0						

*MAN **27** 23:31:09.0, 5°.82N×126°.63E, h42km, MS3.5*
*IDC **27** 23:31:11.7±2.9, 5°.92N×126°.80E, h68km±24km, mb3.8/14, mbtmp4.1/15, Error ellipse: s-maj=51.5km s-min=11.0km az=68.0*
*NEIC **27** 23:31:13.2±1.7, 5°.83N±0°.09×126°.5E±0°.2, h76km±8km, mb4.4/11, Error ellipse: s-maj=27.7km s-min=9.5km az=69.0*
*DJA **27** 23:31:19.6±3.4, 5°.N±.30°×12°.7E±°, h110km±39km, M4.1/8, mB4.6/7, mB4.6/7, mb4.4/6, mb4.4/6, MLv4.4/7, MLv4.3/8, Mw(mB)3.8/7, Mw(mB)3.8/7*

ISC 27 23:31:12.1±1.1, 5.87N±0°.05×126.55E±0°.09, h73km±11km, n50, σ1§79/49, mb4.0/19, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**1.53**	**321**	P	**Pn**	**23 31 37.5**	**-0.2**
	499nm,0.4s,baz=56,slow=1.5,SNR=12						
DAV				S	**Sn**	**23 31 59.5**	**+2.6**
	708nm,0.4s,baz=257,slow=12,SNR=5.4						
DAV	**Davao City (W)**	**1.53**	**321**		**Pn**	**23 31 38.2**	**+0.5**
DMPH	**Davao City--Mi**	**1.59**	**319**	*i* P	**Pn**	**23 31 38.4**	**0.0**
DMPH				*i* S	**Sn**	**23 31 59.7**	**+1.4**
GSPH	**General Santos**	**1.61**	**278**	*i* P	**Pn**	**23 31 35.8**	**-2.9**
GSPH				*i* S	**Sn**	**23 31 55.8**	**-3.1**
KCP	**Kidapawan**	**1.84**	**308**	*i* P	**Pn**	**23 31 41.1**	**-0.7**
KCP				*i* S	**Sn**	**23 32 04.4**	**+0.1**
BIPH	**Bislig**	**2.31**	**355**	*i* P	**Pn**	**23 31 45.6**	**-2.4**
BIPH				*i* S	**Sn**	**23 32 14.1**	**-1.3**
CGP	**Cagayan de Oro**	**3.16**	**324**	*eP*	Pn	23 32 05.2	+5.6
CGP				*eS*	**Sn**	**23 32 40.1**	**+4.0**
GAMI	**Galela, Maluku**	**4.19**	**163**	P	**Pn**	**23 32 14.9**	**+1.3**
GAMI				AML	AML		
GAMI				AML	AML		
LLP	**Lapu-Lapu**	**5.11**	**330**	*eP*	Pn	23 32 31.2	+5.1
LLP				*i* S	Sn	23 33 35.3	+11
TNTI	**Ternate**	**5.13**	**171**		**Pn**	**23 32 26.4**	**0.0**
TNTI	**Ternate**	**5.13**	**171**	P	**Pn**	**23 32 26.2**	**-0.2**
TNTI				AML	AML		
TNTI				AML	AML		
PLP	**Palo**	**5.49**	**344**	*eP*	**Pn**	**23 32 34.6**	**+3.3**
PLP				*eS*	**Sn**	**23 33 25.2**	**-7.9**
GTOI	**Gorontalo**	**6.29**	**214**	P	**Pn**	**23 32 41.7**	**-0.5**
	640nm640nm55nm,1.0s,55nm,1.0s						
TOLI2	**Tolitoli**	**7.45**	**231**		**Pn**	**23 32 57.3**	**-0.9**
LUWI	**Luwuk**	**7.83**	**209**	Pn	**Pn**	**23 33 04.0**	**+0.5**
SANI	**Sanana**	**7.89**	**184**	P	**Pn**	**23 33 03.0**	**-1.1**
	725nm725nm26nm,0.5s						
BATI	**Baumata**	**16.23**	**190**	P	**P**	**23 34 57.7**	**+0.2**
	22nm,0.5s,baz=273,slow=4.2,SNR=4.2						
FITZ	**Fitzroy Crossi**	**23.83**	**182**	P	**P**	**23 36 19.6**	**+1.0**
	1.4nm,0.4s,baz=14,slow=7.8,SNR=11 1.4nm,0.4s						
FITZ	**Fitzroy Crossi**	**23.83**	**182**	P	**P**	**23 36 19.2**	**+0.6**
WRA	**Warramunga Arr**	**26.77**	**164**	P	**P**	**23 36 44.9**	**-0.4**
	1.5nm,0.7s,baz=343,slow=10,SNR=7.5 1.5nm,0.7s						
WR8	**Warramunga Arr**	**26.83**	**163**	P	**P**	**23 36 46.5**	**+0.7**
WR8				IAmb	IAmb	23 37 23.9	
	comp=Z,5.0nm,0.9s						
ASAR	**Alice Springs**	**30.22**	**167**	P	**P**	**23 37 15.3**	**-0.6**
	comp=Z,0.4nm,0.4s,baz=339,slow=7.1,SNR=10						
ASAR				PcP	**PcP**	**23 40 15.8**	**+0.3**
	comp=Z,0.8nm,0.6s,baz=341,slow=2.2,SNR=6.7 comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	**30.22**	**167**	P	**P**	**23 37 15.9**	**-0.1**
STKA	**Stephens Creek**	**40.18**	**160**	P	**P**	**23 38 42.5**	**+1.1**
	comp=Z,3.6nm,0.7s,baz=336,slow=9.6,SNR=4.0 comp=Z,3.6nm,0.7s						
STKA	**Stephens Creek**	**40.18**	**160**	P	**P**	**23 38 42.4**	**+1.0**
H11S3	**WAKE ISLAND Hy**	**41.08**	**69**	T	T	00 22 54.8	
	baz=258,slow=70,SNR=9.3						
H11S1	**WAKE ISLAND Hy**	**41.09**	**69**	T	T	00 22 48.3	
	baz=258,slow=70,SNR=6.7						
H11S2	**WAKE ISLAND Hy**	**41.10**	**69**	T	T	00 22 45.2	
	baz=258,slow=70,SNR=15						
H11N1	**WAKE ISLAND Hy**	**41.55**	**67**	T	T	00 23 24.5	
	baz=255,slow=75						
H11N2	**WAKE ISLAND Hy**	**41.55**	**67**	T	T	00 23 27.8	
	baz=255						
H11N3	**WAKE ISLAND Hy**	**41.56**	**67**	T	T	00 23 26.3	
	baz=255,slow=75						
SONM	**Songino Array**	**45.23**	**341**	P	**P**	**23 39 22.7**	**+0.5**
	comp=Z,0.2nm,0.5s,baz=132,slow=6.4,SNR=1.6 comp=Z,0.2nm,0.5s						
SONM	**Songino Array**	**45.23**	**341**	P	**P**	**23 39 22.9**	**+0.8**
MKAR	**Makanchi Array**	**55.71**	**325**	P	**P**	**23 40 42.2**	**+1.1**
	comp=Z,1.0nm,0.5s,baz=117,slow=7.6,SNR=14 comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	**55.71**	**325**	P	**P**	**23 40 41.8**	**+0.6**
MAKZ	**Makanchi**	**55.90**	**324**	P	**P**	**23 40 42.5**	**0.0**
MAKZ				IAmb	IAmb	23 41 20.1	
	comp=Z,4.8nm,0.8s						
ZALV	**Zalesovo Beam**	**58.62**	**333**	P	**P**	**23 41 01.6**	**+0.2**
	comp=Z,0.4nm,0.4s,baz=134,slow=8.6,SNR=3.6 comp=Z,0.4nm,0.4s						
KURBB	**Kurchatov Arra**	**59.86**	**327**	P	**P**	**23 41 11.5**	**+1.4**
	comp=Z,1.9nm,0.3s,baz=126,slow=6.2,SNR=9.4 comp=Z,1.9nm,0.3s						
KURK	**Kurchatov**	**59.86**	**327**	P	**P**	**23 41 10.4**	**+0.4**
KURK				IAmb	IAmb	23 41 12.2	
	comp=Z,4.4nm,0.5s						
BVAR	**Borovoye Array**	**65.44**	**327**	P	**P**	**23 41 48.9**	**+1.7**
	comp=Z,2.5nm,0.5s,baz=129,slow=7.0,SNR=12 comp=Z,2.5nm,0.5s						
BORK	**Borovoye**	**65.49**	**327**	P	**P**	**23 41 48.3**	**+0.8**
BORK				IAmb	IAmb	23 41 49.8	
	comp=Z,3.9nm,0.7s						
AB31	**Akbulak array**	**70.39**	**320**	IAmb	IAmb	23 42 22.4	
	comp=Z,1.6nm,0.9s						
ILAR	**Eielson Array**	**83.26**	**26**	P	**P**	**23 43 30.2**	**-0.2**
	comp=Z,0.4nm,0.6s,baz=228,slow=5.2,SNR=6.2 comp=Z,0.4nm,0.6s						
VNDA	**Vanda**	**85.56**	**173**	P	**P**	**23 43 40.8**	**-0.9**
	comp=Z,0.5nm,0.6s,baz=345,slow=5.7,SNR=3.5 comp=Z,0.5nm,0.6s						
VNDA	**Vanda**	**85.56**	**173**	P	**P**	**23 43 41.2**	**-0.5**
VNDA				IAmb	IAmb	23 43 57.1	
	comp=Z,2.0nm,1.2s						
BCAR	**Beaver Creek A**	**85.57**	**27**	P	**P**	**23 43 42.8**	**+0.6**
ARCES	**ARCESS Array B**	**88.39**	**340**	P	**P**	**23 43 54.8**	**-0.9**
	comp=Z,6.9nm,1.1s,baz=46,slow=3.7,SNR=3.9 comp=Z,6.9nm,1.1s						
ARCES	**ARCESS Array B**	**88.39**	**340**	P	**P**	**23 43 55.1**	**-0.6**
BRTR	**Keskin Array B**	**88.53**	**310**	P	**P**	**23 43 56.9**	**-0.3**
	comp=Z,0.7nm,0.7s,baz=120,slow=7.3,SNR=4.6 comp=Z,0.7nm,0.7s						
FINES	**FINESS Array B**	**89.87**	**332**	P	**P**	**23 44 01.9**	**-0.9**
	comp=Z,2.3nm,0.9s,baz=72,slow=6.2,SNR=6.6 comp=Z,2.3nm,0.9s						

*IDC **27** 23°.37:48.0±0.5, 33°.58N×88°.41E, h0km, mb4.3/22, mbtmp4.3/27, ML3.9/4, MS3.6/15, Error ellipse: s-maj=18.3km s-min=11.3km az=47.0*
*MOS **27** 23°.37:48.4±0.9, 33°.70N×88°.51E, h10km, mb4.6/10, Error ellipse: s-maj=10.1km s-min=4.1km az=117.7*
*GFZ **27** 23°.37:50.0±0.1, 34°.N±4°×.8°.9E±°, h10km, M5.0/32, mb4.6/32, Error ellipse: s-maj=10.4km s-min=3.4km az=46.8, confirmed*
*BJI **27** 23°.37:50.6, 33°.58N×88°.71E, h7km, mb4.2/13, Ms3.9/16, Ms7 3.8/14*
*NEIC **27** 23°.37:50.4±1.7, 33°.71N±0°.08×88°.50E±0°.09, h10km±1km, mb4.4/35, Error ellipse: s-maj=14.7km s-min=11.2km az=228.0*

ISC 27 23:37:49.9±0.4, 33°.64N±0°.05×88°.46E±0°.05, h10km, n237, σ1§15/229, mb4.5/69, MS3.7/12, 3C-1D, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LSA	**Lhasa**	**4.55**	**149**	Pn	**Pn**	**23 39 00.0**	**+0.8**
LSA				L	L		
	comp=E,2µm,6.1s						
LSA	**Lhasa**	**4.55**	**149**	P	**Pn**	**23 39 02.0**	**+2.8**
LSA	**Lhasa**	**4.55**	**149**	Pn	**Pn**	**23 39 02.0**	**+2.8**
GOMU	**GeErMu**	**5.81**	**62**	Pn	**Pn**	**23 39 19.3**	**+2.9**
GOMU				Sn	**Sn**	**23 40 28.5**	**+5.3**
GOMU				L	L		
	comp=E,1µm,8.7s						
GOMU				L	L		
	comp=Z,380nm,8.2s						
EVN	**Everest**	**5.84**	**194**	Pn	**Pn**	**23 39 19.5**	**+2.4**
DHUB	**DHUBRI**	**7.71**	**170**	*i* P	Pn	23 39 47.5	+5.3
TEZP	**TEZPUR**	**7.94**	**151**	*i* P	**Pn**	**23 39 46.0**	**+0.6**
SHL	**Shillong**	**8.58**	**159**	P	**Pn**	**23 39 54.0**	**-0.3**
SHL	**Shillong**	**8.58**	**159**		**Pn**	**23 39 54.0**	**-0.3**
MOKO	**MOKOCHONG**	**8.98**	**143**	*i* P	**Pn**	**23 39 59.7**	**-0.2**
KOHI	**KOHIMA**	**9.29**	**147**	*i* P	**Pn**	**23 40 03.6**	**-0.5**
IMP	**Imphal**	**10.00**	**150**	*i* P	**Pn**	**23 40 13.1**	**-0.6**
WMQ	**Urumqi**	**10.18**	**357**	*eP*	**Pn**	**23 40 16.8**	**+0.7**
WMQ				pP		23 40 21.3	
WMQ				S	**Sn**	**23 42 07.8**	**-2.6**
WMQ				pmax	pmax		
	comp=Z,9.0nm,1.1s						
WMQ				L	L		
	comp=N,460nm,11.5s						
WMQ				L	L		
	comp=Z,250nm,15.1s						
WUS	**Wushi**	**10.53**	**318**		**Pn**	**23 40 19.5**	**-1.4**
WUS	**Wushi**	**10.53**	**318**	P	**Pn**	**23 40 21.4**	**+0.5**
	comp=Z,17nm,1.1s						
AZL	**Aizawl**	**10.54**	**158**	*i* P	**Pn**	**23 40 20.6**	**-0.5**
MORE	**Moreh**	**10.67**	**150**		**Pn**	**23 40 24.2**	**+1.3**
TARG	**Taragay, Kyrgy**	**11.67**	**317**	P	**Pn**	**23 40 37.2**	**+0.3**
TARG	**Taragay, Kyrgy**	**11.67**	**317**		**Pn**	**23 40 37.2**	**+0.3**
TARG	**Taragay, Kyrgy**	**11.67**	**317**	P	**Pn**	**23 40 37.4**	**+0.5**
	comp=Z,17nm,1.0s						
KSH2	**Kashi**	**11.75**	**302**	P	**Pn**	**23 40 39.8**	**+2.1**
KSH2				LR	LR		
	comp=N,410nm,9.8s						
KSH2				LR	LR		
	comp=E,480nm,10.1s						
KSH2				LR	LR		
	comp=Z,800nm,10.9s						
SHLS	**Shalkode**	**11.83**	**326**	*eP*	**Pn**	**23 40 37.6**	**-1.1**
SHLS	**Shalkode**	**11.83**	**326**	*eP*	**Pn**	**23 40 37.6**	**-1.1**
PRZ	**Przheval'sk**	**11.86**	**321**	P	**Pn**	**23 40 39.4**	**+0.2**
PRZ	**Przheval'sk**	**11.86**	**321**		**Pn**	**23 40 39.4**	**+0.2**
PRZ	**Przheval'sk**	**11.86**	**321**	P	**Pn**	**23 40 41.5**	**+2.3**
	comp=Z,12nm,0.8s						
PDGK	**Podgornoye**	**11.95**	**327**	P	**Pn**	**23 40 39.9**	**-0.5**
PDGK	**Podgornoye**	**11.95**	**327**		**Pn**	**23 40 39.9**	**-0.5**
ASAI	**AK-SAY(Kyrgyzs**	**11.96**	**311**	P	**Pn**	**23 40 42.5**	**+1.8**
	comp=Z,4.2nm,0.8s						
UZB	**Uzynbulak**	**12.03**	**325**	*eP*	**Pn**	**23 40 42.3**	**+0.8**
UZB	**Uzynbulak**	**12.03**	**325**	*eP*	**Pn**	**23 40 42.4**	**+0.9**
SATY	**Saty**	**12.27**	**323**	*eP*	**Pn**	**23 40 45.9**	**+1.2**
SATY	**Saty**	**12.27**	**323**	*eP*	**Pn**	**23 40 46.0**	**+1.2**
TNCH	**TengChong**	**12.27**	**132**	P	Pn	23 40 38.0	-6.8
TNCH				sP		23 40 44.5	
TNCH				S	Sn	23 42 45.5	-16
TNCH				SS	**SnSn**	**23 43 11.5**	**-2.3**
TNCH				pmax	pmax		
	comp=Z,31nm,1.0s						
TNCH				pmax	pmax		
	comp=Z,130nm,3.6s						
TNCH				LR	LR		
	comp=N,530nm,9.3s						
TNCH				LR	LR		
	comp=E,560nm,10.4s						
TNCH				LR	LR		
	comp=Z,430nm,10.7s						
KDJ	**Kajisay**	**12.29**	**317**	P	**Pn**	**23 40 44.5**	**-0.5**
KDJ	**Kajisay**	**12.29**	**317**	Pn	**Pn**	**23 40 44.5**	**-0.5**
KDJ	**Kajisay**	**12.29**	**317**	P	**Pn**	**23 40 47.1**	**+2.1**
	comp=Z,9.9nm,0.8s						
KDJ	**Kajisay**	**12.29**	**317**		**Pn**	**23 40 47.6**	**+2.5**
KPKS	**Kokpek**	**12.43**	**325**	*eP*	**Pn**	**23 40 47.8**	**+0.9**
KPKS	**Kokpek**	**12.43**	**325**	*eP*	**Pn**	**23 40 47.9**	**+1.0**
NRN	**Naryn**	**12.57**	**312**	P	**Pn**	**23 40 48.4**	**-0.7**
NRN	**Naryn**	**12.57**	**312**		**Pn**	**23 40 48.4**	**-0.7**
NIL	**Nilore**	**12.68**	**274**	P	**Pn**	**23 40 48.8**	**-1.5**
NIL	**Nilore**	**12.68**	**274**		**Pn**	**23 40 48.8**	**-1.5**
LZDM	**Lanzhou Array**	**12.73**	**75**	Pn	**Pn**	**23 40 52.6**	**+1.3**
	baz=246,slow=17 comp=Z,0.8nm,0.3s						
TNSS	**Tian-Shan**	**13.01**	**319**	*eP*	**Pn**	**23 40 56.6**	**+1.4**
TNSS	**Tian-Shan**	**13.01**	**319**	*eP*	**Pn**	**23 40 56.7**	**+1.5**
MDOK	**Medeo**	**13.04**	**320**	*eP*	**Pn**	**23 40 56.8**	**+1.5**
MDOK	**Medeo**	**13.04**	**320**	*eP*	**Pn**	**23 40 56.9**	**+1.5**
AAA	**Alma-Ata**	**13.15**	**320**	*eP*	**Pn**	**23 40 58.2**	**+1.5**
AAA	**Alma-Ata**	**13.15**	**320**	*eP*	**Pn**	**23 40 58.3**	**+1.5**
PZH	**PanZhiHua**	**13.51**	**118**	P	**Pn**	**23 41 02.0**	**+0.2**
PZH				pmax	pmax		
	comp=Z,10.0nm,1.1s						
KUU	**Kurty**	**13.92**	**321**	*eP*	**Pn**	**23 41 08.5**	**+1.3**
KUU	**Kurty**	**13.92**	**321**	*eP*	**Pn**	**23 41 08.5**	**+1.3**
MK31	**Makanchi Array**	**13.95**	**342**	*i* P	**Pn**	**23 41 07.4**	**-0.2**
MKAR	**Makanchi Array**	**13.95**	**342**	Pn	**Pn**	**23 41 07.7**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=147,slow=14,SNR=4.1						
MKAR				LR	LR	23 47 20.5	
	comp=Z,158nm,18.7s,baz=158,slow=41 comp=Z,1.1nm,0.7s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**13.95**	**342**		**Pn**	**23 41 06.2**	**-1.3**
ZSN	**Zaisan**	**14.06**	**350**	*eP*	**Pn**	**23 41 09.6**	**+0.6**
ZSN	**Zaisan**	**14.06**	**350**	*eP*	**Pn**	**23 41 09.7**	**+0.6**
AAK	**Ala-Archa**	**14.18**	**313**	LR	LR	23 46 24.7	
	comp=Z,127nm,18.2s,baz=200,slow=36						
AAK	**Ala-Archa**	**14.18**	**313**	*i* P	**Pn**	**23 41 12.4**	**+1.5**
OHH	**Osh**	**14.27**	**303**	P	**Pn**	**23 41 12.2**	**+0.2**
	comp=Z,9.7nm,1.0s						
ARSB	**Arslanbob**	**14.47**	**306**	P	**P**	**23 41 21.6**	**-0.1**
ARSB	**Arslanbob**	**14.47**	**306**	P	**P**	**23 41 21.6**	**-0.1**
DRK	**Karamyk**	**14.60**	**298**	P	**Pn**	**23 41 16.0**	**-0.8**
KMI2	**Kunming**	**15.04**	**121**	P	**P**	**23 41 26.5**	**-1.7**
KMI2				L	L		
	comp=Z,480nm,11.4s						
KMI2				L	L		
	comp=Z,470nm,11.7s						
ARK	**Arkit**	**15.37**	**307**	P	**Pn**	**23 41 29.1**	**+2.1**
	comp=Z,6.4nm,0.9s						
NPW	**Naypyitaw**	**15.41**	**152**	P	**Pn**	**23 41 26.6**	**-0.8**
	comp=Z,30nm,1.3s						
BTK	**Batken**	**15.50**	**299**	P	**Pn**	**23 41 29.6**	**+1.0**
BTK				pmax	pmax		
	comp=Z,18nm,0.8s						
BTK	**Batken**	**15.50**	**299**		**Pn**	**23 41 29.6**	**+1.0**
BTK				IAmb	IAmb	23 41 39.1	
	comp=Z,18nm,0.8s						
BTK	**Batken**	**15.50**	**299**	P	**Pn**	**23 41 30.0**	**+1.4**
	comp=Z,25nm,1.1s						
KBL	**Kabul**	**16.12**	**279**	P	**Pn**	**23 41 34.1**	**-2.6**
KBL				pmax	pmax		
	comp=Z,12nm,0.8s						
KBL	**Kabul**	**16.12**	**279**		**Pn**	**23 41 34.1**	**-2.6**
DZA	**Taraz**	**16.29**	**309**	*eP*	**P**	**23 41 40.7**	**-1.1**
DZA	**Taraz**	**16.29**	**309**	*eP*	**P**	**23 41 40.8**	**-1.1**
KKAR	**Karatay Array**	**16.92**	**309**	P	**Pn**	**23 41 46.9**	**+0.1**
KKAR	**Karatay Array**	**16.92**	**309**		**Pn**	**23 41 46.9**	**+0.1**
CHTO	**Chiang Mai**	**17.49**	**145**	P	**Pn**	**23 41 52.9**	**-1.1**
	comp=Z,8.3nm,1.3s						
CMAR	**Chiang Mai Arr**	**17.79**	**146**	P	**Pn**	**23 41 56.6**	**-1.1**
	comp=Z,1.6nm,0.5s,baz=324,slow=13,SNR=9.5						
CMAR				LR	LR	23 49 36.9	
	comp=Z,136nm,18.8s,baz=30,slow=40						
CMAR	**Chiang Mai Arr**	**17.79**	**146**	P	**Pn**	**23 41 58.7**	**+1.0**
CMAR	**Chiang Mai Arr**	**17.79**	**146**	P	**Pn**	**23 41 58.7**	**+1.0**
SEM	**Semipalatinsk**	**17.81**	**343**	*eP*	**P**	**23 41 58.6**	**-0.1**
SEM	**Semipalatinsk**	**17.81**	**343**	*eP*	**P**	**23 41 58.7**	**-0.1**
ENH	**Enshi**	**18.15**	**95**	P	**Pn**	**23 41 59.8**	**-2.4**
	comp=Z,9.6nm,0.7s						
KNGR	**Kungurtug, Tuv**	**18.21**	**19**	*i* P	Pn	23 42 02.3	-0.4
SLVN	**Son La**	**18.36**	**128**	P	**Pn**	**23 42 03.5**	**-1.2**
	comp=Z,11nm,1.4s						
KURBB	**Kurchatov Arra**	**18.47**	**340**	P	**P**	**23 42 05.0**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=157,slow=11,SNR=15 comp=Z,2.7nm,0.3s						
KURBB				AML	AML		
KURK	**Kurchatov**	**18.52**	**340**	*i* P	**P**	**23 42 05.4**	**-0.9**
KURK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
KURK	**Kurchatov**	**18.52**	**340**		**P**	**23 42 04.8**	**-1.5**
KURK	**Kurchatov**	**18.52**	**340**	P	**P**	**23 42 04.9**	**-1.4**
	comp=Z,11nm,1.3s						
SONM	**Songino Array**

AB31 IAmb IAmb 23 43 31.9
comp=Z,5.1nm,0.9s
ABKAR Akbulak array 26.25 315 P **P** **23 43 26.5 +1.4**
KNMB Chin-men Tao 27.63 101 P **P** **23 43 36.5 -1.2**
comp=Z,92nm,1.3s
ARTI Arti 30.71 327 LR LR 23 57 36.8
comp=Z,182nm,18.6s,baz=302,slow=39
KSRS Korea Array 32.17 72 P **P** **23 44 17.0 -0.7**
comp=Z,1.8nm,0.8s,baz=270,slow=7.2,SNR=2.8
comp=Z,1.8nm,0.8s
USRK Ussuriysk Ar. 35.10 59 P **P** **23 44 43.1 -0.1**
comp=Z,2.9nm,0.8s,baz=206,slow=13,SNR=4.4
comp=Z,2.9nm,0.8s
USRK Ussuriysk Ar. 35.10 59 P **P** **23 44 42.1 -1.1**
JNU Nakatsue 35.24 79 LR LR 00 00 50.9
comp=Z,114nm,18.3s,baz=296,slow=39
NRIK Noril'sk 35.75 359 P **P** **23 44 49.2 +0.7**
comp=Z,17nm,0.7s,baz=166,slow=6.8,SNR=29
comp=Z,17nm,0.7s
NRIK Noril'sk 35.75 359 P **P** **23 44 48.8 +0.2**
DIGO Kars 36.31 294 P **P** **23 44 53.5 -0.6**
comp=Z,15nm,1.0s
JMM Marumori 42.22 69 P **P** **23 45 43.0 -0.1**
comp=Z,220nm,1.0s
ASAJ Asahikawa 42.73 59 LR LR 00 03 55.6
comp=Z,81nm,18.4s,baz=272,slow=37
DAV Davao City (W) 43.31 119 LR LR 00 06 17.7
comp=Z,80nm,18.2s,baz=288,slow=40
TIXI Tiksi 43.59 17 LR LR 00 04 38.8
comp=Z,94nm,18.6s,baz=288,slow=37
TIXI Tiksi 43.59 17 *ce*P **P** **23 45 53.9 +0.2**
TIXI pmax pmax
comp=Z,10.0nm,1.0s
TIXI Tiksi 43.59 17 P **P** **23 45 53.2 -0.5**
TIXI IAmb IAmb 23 45 54.8
comp=Z,8.0nm,0.8s
TIXI Tiksi 43.59 17 P **P** **23 45 53.6 -0.2**
comp=Z,12nm,0.9s
BR131 Keskin Array S 43.81 294 P **P** **23 45 57.4 +1.3**
BR131 pmax pmax
comp=Z,3.0nm,0.9s
BR131 Keskin Array S 43.81 294 P **P** **23 45 57.4 +1.3**
BRTR Keskin Array B 43.81 294 P **P** **23 45 56.3 +0.1**
comp=Z,1.8nm,0.8s,baz=94,slow=7.4,SNR=8.6
comp=Z,1.8nm,0.8s
BRTR Keskin Array B 43.81 294 P **P** **23 45 55.1 -1.1**
KKUL Konya-Kulu 44.46 294 P **P** **23 46 01.9 +0.6**
comp=Z,12nm,0.8s
BBJI Bungbulang 44.75 152 P **P** **23 46 02.0 -1.7**
comp=Z,10nm,1.4s
AK11 Malin Array Si 45.86 310 P **P** **23 46 11.8 -0.3**
AK17 Malin Array Si 45.93 310 P **P** **23 46 12.4 -0.2**
AK19 Malin Array Si 45.96 310 P **P** **23 46 12.5 -0.4**
VSU Vasula 47.41 321 P **P** **23 46 23.3 -0.8**
comp=Z,20nm,1.6s
TESR Tescani 47.86 305 P **P** **23 46 27.9 0.0**
comp=Z,9.1nm,1.2s
FINES FINESS Array B 47.98 325 P **P** **23 46 28.5 0.0**
comp=Z,3.8nm,0.6s,baz=104,slow=9.8,SNR=17
comp=Z,3.8nm,0.6s
FINES FINESS Array B 47.98 325 P **P** **23 46 27.5 -1.0**
MLR Muntele Rosu 48.49 304 P **P** **23 46 33.6 +0.7**
MLR pmax pmax
comp=Z,9.0nm,0.9s
MLR Muntele Rosu 48.49 304 P **P** **23 46 33.6 +0.7**
MLR Muntele Rosu 48.49 304 P **P** **23 46 33.9 +1.0**
comp=Z,13nm,1.1s
KAPI Kappang 48.52 136 LR LR 00 09 05.5
comp=Z,28nm,18.3s,baz=307,slow=39
BURAR Bucovina Array 48.69 306 P **P** **23 46 33.2 -1.2**
BURAR IAmb IAmb 23 46 34.9
comp=Z,1.6nm,0.8s
PABE Paberze 48.86 317 P **P** **23 46 34.7 -0.7**
comp=Z,24nm,1.1s
SUW Suwalki 49.38 315 P **P** **23 46 39.3 -0.1**
SUW Suwalki 49.38 315 P **P** **23 46 39.2 -0.1**
ARCES ARCESS Array B 49.49 336 P **P** **23 46 39.9 -0.1**
comp=Z,8.1nm,1.0s,baz=72,slow=4.0,SNR=4.2
comp=Z,8.1nm,1.0s
ARCES ARCESS Array B 49.49 336 IAmb IAmb 23 46 41.3
comp=Z,11nm,1.0s
TRPA Tarpa 50.40 307 P **P** **23 46 47.1 -0.2**
comp=Z,5.8nm,1.2s
DRGR 50.50 306 P **P** **23 46 48.4 +0.2**
comp=Z,5.1nm,1.4s
GRG Griva 51.94 298 P **P** **23 46 58.7 -0.3**
comp=Z,8.0nm,1.0s
AGG Agios Georgios 52.50 296 P **P** **23 47 04.1 +0.9**
AGG Agios Georgios 52.50 296 P **P** **23 47 04.1 +0.9**
FRGS Fruska Gora 52.80 304 P **P** **23 47 05.5 +0.1**
comp=Z,4.5nm,1.1s
STEB Steborice 53.20 310 *eP* P 23 47 13.1 +5.0
MORH Mrgy, Hungar 53.37 306 P **P** **23 47 09.3 -0.1**
comp=Z,3.1nm,1.1s
MORH Mrgy, Hungar 53.37 306 P **P** **23 47 09.3 -0.1**
comp=Z,3.5nm,1.1s
MORC Moravsky Berou 53.37 310 P **P** **23 47 11.2 +1.7**
MORC pmax pmax
comp=Z,1.0nm,0.9s
MORC Moravsky Berou 53.37 310 P **P** **23 47 11.2 +1.7**
MORC Moravsky Berou 53.37 310 *eP* **P** **23 47 09.6 +0.1**
JAVC Velka Javorina 53.47 309 *eP* **P** **23 47 11.5 +1.3**
KRLC Kraliky 53.80 311 *eP* **P** **23 47 12.6 0.0**
KRLC Kraliky 53.80 311 *eP* **P** **23 47 12.6 0.0**
MPLH Magyarpolny 53.90 307 P **P** **23 47 13.9 +0.6**
comp=Z,45nm,0.5s
MPLH Magyarpolny 53.90 307 P **P** **23 47 14.1 +0.8**
comp=Z,18nm,0.6s
DPC Dobruska-Polom 54.03 311 *eP* **P** **23 47 14.9 +0.6**
DPC pmax pmax
comp=Z,3.0nm,0.5s
DPC Dobruska-Polom 54.03 311 *eP* **P** **23 47 14.9 +0.6**
comp=Z,2.6nm,0.5s
DPC Dobruska-Polom 54.03 311 P **P** **23 47 14.8 +0.5**
comp=Z,5.5nm,0.7s
DPC Dobruska-Polom 54.03 311 P **P** **23 47 13.1 -1.3**
comp=Z,5.5nm,1.4s
HFS Hagfors 54.05 323 P **P** **23 47 14.1 -0.1**
comp=Z,3.5nm,0.7s,baz=100,slow=7.7,SNR=8.5
comp=Z,3.5nm,0.7s
OSTC Ostas 54.06 311 *eP* **P** **23 47 15.0 +0.5**
OSTC Ostas 54.06 311 *eP* **P** **23 47 15.0 +0.5**
VRAC Vranov 54.07 310 *eP* **P** **23 47 15.2 +0.7**
CHVC Chvalec 54.16 311 *eP* **P** **23 47 15.8 +0.6**
CHVC Chvalec 54.16 311 *eP* **P** **23 47 15.8 +0.6**
UPC Upice 54.20 311 *eP* **P** **23 47 15.8 +0.3**
UPC Upice 54.20 311 *eP* **P** **23 47 15.8 +0.3**
KRUC Moravsky 54.25 310 *eP* **P** **23 47 15.9 +0.1**
RONA Rosalia, Austr 54.61 308 *i* P **P** **23 47 18.7 +0.2**
comp=Z,2.5nm,1.1s
WINA Alland / Wiene 54.66 308 *i* P **P** **23 47 19.2 +0.3**
comp=Z,2.8nm,1.0s
CONA Conrad Observa 54.84 308 *i* P **P** **23 47 20.8 +0.5**
comp=Z,3.6nm,0.8s
NC405 NORSAR Array S 54.91 325 P **P** **23 47 20.9 +0.5**
ABNA Allensteig Bun 54.95 309 *i* P **P** **23 47 21.6 +0.6**
comp=Z,3.0nm,1.2s
SOEI Soe 54.96 135 P **P** **23 47 21.9 +0.4**
NB2 NORSAR Subarra 55.16 325 P **P** **23 47 21.9 -0.4**
comp=Z,2.1nm,0.6s,baz=82,slow=7.4
NOA NORSAR Array B 55.16 325 P **P** **23 47 21.7 -0.6**
comp=Z,3.0nm,0.6s,baz=83,slow=7.2,SNR=16
NOA LR LR 00 13 35.2
comp=Z,101nm,18.5s,baz=310,slow=39
comp=Z,3.0nm,0.6s
ARSA Arzberg 55.22 308 *i* P **P** **23 47 23.1 +0.1**
comp=Z,1.6nm,0.9s
NC204 NORSAR Array S 55.34 325 P **P** **23 47 23.6 0.0**
CKRC Cesky Krumlov 55.64 310 *eP* **P** **23 47 26.7 +0.7**
CKRC Cesky Krumlov 55.64 310 *eP* **P** **23 47 26.7 +0.7**
SOKA Soboth 55.69 307 *i* P **P** **23 47 26.7 +0.3**
comp=Z,4.3nm,0.8s
CLL Collm 55.89 313 *eP* **P** **23 47 27.0 -0.7**
GEC2 GERESS Array S 56.03 310 P **P** **23 47 29.1 +0.3**
GEC2 IAmb IAmb 23 47 30.1
comp=Z,5.0nm,0.8s
GERES GERESS Array B 56.03 310 P **P** **23 47 29.1 +0.2**
comp=Z,3.5nm,0.6s,baz=76,slow=5.8,SNR=44
GERES LR LR 00 14 20.1
comp=Z,160nm,18.6s,baz=27,slow=39
comp=Z,3.5nm,0.6s
KHC Kasperske Hory 56.04 310 *eP* **P** **23 47 29.1 +0.3**
KHC pmax pmax
comp=Z,1.0nm,0.6s
KHC Kasperske Hory 56.04 310 P **P** **23 47 29.1 +0.3**
KHC Kasperske Hory 56.04 310 *eP* **P** **23 47 29.1 +0.3**
comp=Z,1.3nm,0.6s
BIOA Bad Ischl, Aus 56.35 308 *i* P **P** **23 47 31.1 0.0**
comp=Z,2.9nm,1.2s
KBA Koelnbreinsper 56.70 308 *i* P **P** **23 47 33.5 -0.3**
comp=Z,2.3nm,1.1s
LESA Schwarzleotal 57.05 308 *i* P **P** **23 47 36.2 +0.1**
comp=Z,8.3nm,1.5s
WTTA Wattenberg 57.77 308 *i* P **P** **23 47 40.9 -0.4**
comp=Z,6.5nm,1.2s
WATA Walderalm 57.79 308 *i* P **P** **23 47 40.7 -0.8**
comp=Z,3.8nm,1.0s
SQTA Sankt Quirin 58.07 308 *i* P **P** **23 47 42.7 -0.7**
comp=Z,2.5nm,0.8s
MOTA Moosalm 58.10 309 *i* P **P** **23 47 42.9 -0.6**
comp=Z,5.2nm,1.1s
RETA Reutte 58.28 309 *i* P **P** **23 47 44.0 -0.8**
comp=Z,7.0nm,1.4s
FETA Feichten 58.44 308 *i* P **P** **23 47 45.4 -0.6**
comp=Z,2.4nm,1.0s
DAVA Damuels 58.91 309 *i* P **P** **23 47 49.0 -0.3**
comp=Z,4.1nm,0.7s
SENIN Lac Senin/Sane 60.89 308 P **P** **23 48 02.2 -0.7**
SENIN IAmb IAmb 23 48 08.1
comp=Z,5.7nm,0.8s
MBAR Mbarara 63.92 250 *ce*P **P** **23 48 26.2 +2.7**
MBAR pmax pmax
comp=Z,5.0nm,1.0s
EKA Eskdalemuir Ar 63.96 321 P **P** **23 48 22.6 -0.4**
comp=Z,2.7nm,0.6s,baz=68,slow=6.8,SNR=11
comp=Z,2.7nm,0.6s
WB0 Warramunga Arr 68.83 133 P **P** **23 48 54.7 +0.1**
WB0 IAmb IAmb 23 48 57.0
comp=Z,5.3nm,0.8s
WRA Warramunga Arr 68.94 134 P **P** **23 48 55.3 0.0**
comp=Z,3.4nm,0.7s,baz=329,slow=6.1,SNR=16
comp=Z,3.4nm,0.7s
TOLK Toolik Lake Re 69.43 19 P **P** **23 48 57.4 -0.4**
PMG Port Moresby 70.23 116 P **P** **23 49 03.9 +0.5**
comp=Z,4.0nm,0.3s,baz=73,slow=5.6,SNR=4.7
comp=Z,4.0nm,0.3s
ESDC Sonseca Array 71.13 305 P **P** **23 49 08.3 -0.4**
comp=Z,1.6nm,0.8s,baz=52,slow=5.3,SNR=10
comp=Z,1.6nm,0.8s
F25K Christian Rive 71.23 19 P **P** **23 49 09.6 +0.8**
F25K IAmb IAmb 23 49 13.0
comp=Z,2.5nm,1.0s
D27M Malcolm River 71.23 17 P **P** **23 49 09.3 +0.5**
ASAR Alice Springs 71.54 136 P **P** **23 49 11.4 +0.2**
comp=Z,2.7nm,0.8s,baz=323,slow=6.2,SNR=24
comp=Z,2.7nm,0.8s
A36M Sachs Harbour 72.05 10 P **P** **23 49 13.5 -0.1**
E28M Babbage River 72.05 17 P **P** **23 49 14.1 +0.4**
E28M IAmb IAmb 23 49 18.3
comp=Z,2.9nm,0.9s
CAST Castle Rocks 72.06 24 P **P** **23 49 14.5 +0.7**
CAST IAmb IAmb 23 49 15.1
comp=Z,3.4nm,0.9s
E29M Blow River 72.61 16 P **P** **23 49 17.1 +0.1**
E29M IAmb IAmb 23 49 21.7
comp=Z,4.2nm,0.8s
ILAR Eielson Array 72.84 22 P **P** **23 49 17.8 -0.7**
comp=Z,0.6nm,0.8s,baz=324,slow=6.1,SNR=6.0
comp=Z,0.6nm,0.8s
I30M Mount Dempster 75.47 18 **P** **23 49 33.6 -0.4**
I30M IAmb IAmb 23 49 34.1
comp=Z,3.9nm,0.8s
H31M Peel River 75.51 17 P **P** **23 49 33.5 -0.6**
H31M IAmb IAmb 23 49 45.3
comp=Z,2.9nm,1.1s
CTA Charters Tower 76.72 125 P **P** **23 49 40.8 -0.8**
comp=Z,2.5nm,0.6s,baz=248,slow=5.4,SNR=1.8
comp=Z,2.5nm,0.6s
TORD Torodi Ar. Bea 80.19 279 P **P** **23 49 59.8 -1.1**
comp=Z,2.3nm,0.7s,baz=48,slow=4.4,SNR=15
comp=Z,2.3nm,0.7s
TORD Torodi Ar. Bea 80.19 279 P **P** **23 50 00.1 -0.8**
STKA Stephens Creek 82.18 137 P **P** **23 50 10.7 -0.4**
comp=Z,2.4nm,0.6s,baz=300,slow=10,SNR=3.8
STKA LR LR 00 34 56.2
comp=Z,47nm,18.0s,baz=18,slow=42
comp=Z,2.4nm,0.6s
YKA Yellowknife Ar 82.41 11 P **P** **23 50 11.2 -0.7**
comp=Z,1.0nm,0.8s,baz=337,slow=5.9,SNR=4.1
comp=Z,1.0nm,0.8s
BOSA Boshof 86.11 232 P **P** **23 50 31.8 +0.5**
comp=Z,3.8nm,0.9s,baz=22,slow=2.3,SNR=5.5
comp=Z,3.8nm,0.9s
BOSA Boshof 86.11 232 P **P** **23 50 32.0 +0.7**
BOSA pmax pmax
comp=Z,7.0nm,1.1s
BOSA Boshof 86.11 232 P **P** **23 50 32.0 +0.7**
BOSA IAmb IAmb 23 50 33.2
comp=Z,6.5nm,1.1s
CPUP Villa Florida 149.59 275 PKPbc **PKPdf** **23 57 38.1 +2.8**
comp=Z,1.5nm,0.7s,baz=86,slow=4.9,SNR=5.5

*NNC **28** 00:09:27.2±4.0, 36.°61N×71.°25E, h120km±60km, mb3.9, mpv4.7, Error ellipse: s-maj=33.7km s-min=24.1km az=17.0*
*IDC **28** 00:09:29.8±3.9, 36.°56N×71.°51E, h171km±34km, mb3.4/15, mbtmp3.9/21, Error ellipse: s-maj=26.8km s-min=13.9km az=20.0*
*NEIC **28** 00:09:30.5±1.6, 36.°68N±0.°03×71.°5E±0.°1, h173km±8km, mb4.1/9, Error ellipse: s-maj=12.4km s-min=4.6km az=98.0*

ISC 28 00:09:31.6±0.6, 36.°73N±0.°05×71.°38E±0.°06, h200km, n95, σ1§95/86, mb3.6/16, 5C-2D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DRK	**Karamyk**	**2.76**	**7**			**Pn**	**00 10 17.5**	**-1.2**
DRK				Sn		**Sn**	**00 10 51.9**	**-3.8**
KBL	**Kabul**	**2.90**	**222**			**Pn**	**00 10 52.8**	**-2.6**
KBL				Sn		**Sn**	**00 10 52.8**	**-5.5**
BTK	**Batken**	**3.35**	**353**	Pn		**Pn**	**00 10 25.0**	**-0.4**
NIL	**Nilore**	**3.44**	**153**			**Pn**	**00 10 25.1**	**-1.3**
SRNI	**Srinagar**	**3.87**	**133**	*i* S		Sn	00 11 05.9	-13
SRNI				IAML			00 11 15.7	
	comp=N,717nm,0.4s							
KSH2	**Kashi**	**4.09**	**53**	Pn		**Pn**	**00 10 35.0**	**+0.4**
KSH2				Sn		**Sn**	**00 11 22.5**	**-1.6**
KSH2				smax	smax			
	comp=N,370nm,0.5s							
KSH2				smax	smax			
	comp=E,210nm,0.5s							
ARSB	**Arianbob**	**4.75**	**15**			**Pn**	**00 10 41.1**	**-1.7**
JMU	**Jammu**	**4.86**	**143**	*i* S		Sn	00 11 21.3	-20
NRN	**Naryn**	**5.91**	**36**			**Pn**	**00 10 54.9**	**-3.0**
UCH	**Uchtor**	**6.00**	**23**	P		**Pn**	**00 10 58.2**	**-0.9**
SNR=20								
DZA	**Taraz**	**6.15**	**360**	Pg		**Pn**	**00 11 00.6**	**-0.1**
	comp=E,413nm,0.3s							
DZA				Lg		Lg	00 12 08.6	
	comp=E,150nm,0.6s							
DZA	**Taraz**	**6.15**	**360**	*eP*		**Pn**	**00 11 00.2**	**-0.5**
MRKS	**Merke**	**6.17**	**13**	Pg		**Pn**	**00 11 00.0**	**-1.0**
	comp=E,44nm,0.4s							
MRKS				Lg		Lg	00 12 10.2	
	comp=E,167nm,0.9s							
EKS2	**Erkin-Say**	**6.20**	**17**	P		**Pn**	**00 11 00.7**	**-0.7**
SNR=47								
AAK	**Ala-Archa**	**6.37**	**21**	P		**Pn**	**00 11 03.0**	**-0.6**
	comp=E,42nm,0.3s,baz=193,slow=8.0,SNR=98							
AAK				S		**Sn**	**00 12 13.7**	**-2.9**
	comp=E,15nm,0.5s,baz=337,slow=18,SNR=6.8							
AAK	**Ala-Archa**	**6.37**	**21**	P		**Pn**	**00 11 03.1**	**-0.5**
SNR=38								
AAK	**Ala-Archa**	**6.37**	**21**	⇑P		**Pn**	**00 11 00.3**	**-3.4**
	comp=E,8.7nm,0.4s							
AAK				⇓S		**Sn**	**00 12 14.0**	**-2.6**
	comp=E,15nm,0.6s							
AAK	**Ala-Archa**	**6.37**	**21**			**Pn**	**00 11 02.5**	**-1.1**
KK31	**Karatay Array**	**6.40**	**354**	⇓P		**Pn**	**00 11 01.5**	**-2.4**
	comp=E,9.8nm,0.2s,baz=175,slow=13,SNR=620							
KK31				⇑S		**Sn**	**00 12 13.8**	**-3.4**
	comp=E,36nm,0.5s,baz=178,slow=22,SNR=13							
KK31	**Karatay Array**	**6.40**	**354**			**Pn**	**00 11 02.9**	**-1.0**
KKAR	**Karatay Array**	**6.40**	**354**			**Pn**	**00 11 03.1**	**-0.8**
KBK	**Karagaybulak**	**6.52**	**24**	P		**Pn**	**00 11 05.4**	**-0.3**
SNR=14								
FRU1	**Bishkek**	**6.56**	**21**	Pn		**Pn**	**00 11 05.7**	**-0.4**
ULHL	**Ulahol**	**6.66**	**33**	P		**Pn**	**00 11 06.6**	**-1.0**
SNR=7.8								
BHK	**Bhakra**	**6.75**	**141**	*i* S		Sn	00 12 02.5	-23
CHMS	**Chumysh**	**6.77**	**21**	P		**Pn**	**00 11 07.9**	**-0.9**
SNR=21								
USP	**Ospenovka**	**6.95**	**19**	P		**Pn**	**00 11 09.9**	**-1.2**
SNR=24								
TKM2	**Tokmak 2**	**6.98**	**26**	P		**Pn**	**00 11 10.9**	**-0.7**
SNR=28								
KDJ	**Kajisay**	**7.01**	**38**			**Pn**	**00 11 10.8**	**-1.3**
TARG	**Taragay, Kyrgy**	**7.05**	**43**			**Pn**	**00 11 11.5**	**-1.2**
KST	**Kastek**	**7.22**	**28**	Pg		**Pn**	**00 11 14.0**	**-0.7**
	comp=E,4.6nm,0.6s							
KST				Lg		Lg	00 12 34.2	
	comp=E,14nm,1.3s							
DGS	**Degeres**	**7.32**	**26**	P		**Pn**	**00 11 14.8**	**-1.2**
SMLA	**Simla**	**7.37**	**138**	*i* P		Pn	00 11 09.1	-7.5
SMLA				*i* S		Sn	00 12 16.6	-23
WUS	**Wushi**	**7.56**	**51**			**Pn**	**00 11 18.0**	**-1.1**
TNSS	**Tian-Shan**	**7.61**	**32**	*e*P		**Pn**	**00 11 19.8**	**-0.3**
KLP	**Kalpa**	**7.70**	**130**	*i* S		Sn	00 12 28.8	-20
KLP				IAML			00 12 45.0	
	comp=N,52nm,0.3s							
AAA	**Alma-Ata**	**7.74**	**32**	*e*P		**Pn**	**00 11 21.4**	**+0.1**
MDOK	**Medeo**	**7.76**	**32**	*e*P		**Pn**	**00 11 21.6**	**-0.1**
HRA	**Herat**	**7.81**	**255**			**Pn**	**00 11 20.7**	**-1.8**
PRZ	**Przheval'sk**	**7.89**	**41**			**Pn**	**00 11 23.2**	**-0.3**
KUU	**Kurty**	**8.09**	**26**	*e*P		**Pn**	**00 11 25.9**	**0.0**
UTK	**UTTARKASHI**	**8.39**	**133**	*i* P		Pn	00 11 23.9	-6.2
UTK				*i* S		Sn	00 12 42.4	-22
UZB	**Uzynbulak**	**8.68**	**40**	*e*P		**Pn**	**00 11 34.0**	**+0.3**
SHLS	**Shalkode**	**8.92**	**42**	*e*P		Pn	00 11 40.3	+3.5
PDGK	**Podgornoye**	**9.05**	**41**	⇑P		**Pn**	**00 11 35.7**	**-2.8**
	comp=N,14nm,0.6s							
PDGK	**Podgornoye**	**9.05**	**41**			**Pn**	**00 11 37.5**	**-1.0**
JOSI	**Joshimath**	**9.18**	**130**	*i* S		Sn	00 13 02.9	-21
KUDL	**Kundal**	**9.59**	**152**	*i* P		Pn	00 11 34.9	-11
KUDL				*i* S		Sn	00 13 02.3	-30
TDK	**Taldyqorghan**	**9.82**	**31**	*e*P		**Pn**	**00 11 48.6**	**+0.2**
AJM	**Ajmer**	**10.64**	**164**	*i* S		Sn	00 13 20.6	-37
MAKZ	**Makanchi**	**12.79**	**35**	Pn		**P**	**00 12 26.5**	**-3.3**
MK31	**Makanchi Array**	**12.92**	**36**	⇑P		**P**	**00 12 27.1**	**-4.2**
	comp=N,2.0nm,0.8s,baz=178,slow=22,SNR=16							
MKAR	**Makanchi Array**	**12.92**	**36**	P		**P**	**00 12 28.7**	**-2.6**
	comp=N,1.2nm,0.7s,baz=220,slow=12,SNR=8.3							
MKAR	**Makanchi Array**	**12.92**	**36**	P		**P**	**00 12 27.3**	**-4.0**
WMQ	**Urumqi**	**14.31**	**55**	*e*P		**P**	**00 12 46.5**	**-0.3**
ZSN	**Zaisan**	**14.63**	**39**	*e*P		**P**	**00 12 50.3**	**0.0**
KURBB	**Kurchatov Arra**	**14.80**	**18**	P		**P**	**00 12 50.9**	**-1.1**
	comp=N,1.7nm,0.6s,baz=208,slow=11,SNR=9.3							
KURK	**Kurchatov**	**14.91**	**18**			**P**	**00 12 52.2**	**-1.1**
AB31	**Akbulak array**	**15.03**	**330**	P		**P**	**00 12 53.9**	**-0.7**
	comp=N,1.7nm,0.3s,baz=140,slow=12,SNR=118							
AB31				S		**S**	**00 15 35.3**	**-5.5**
	comp=N,1.1nm,0.4s,baz=148,slow=24,SNR=6.0							
AB31	**Akbulak array**	**15.03**	**330**	P		**P**	**00 12 54.6**	**0.0**
AB31				IAmb	IAmb		00 12 57.4	
	comp=Z,5.0nm,0.5s							
ABKAR	**Akbulak array**	**15.03**	**330**	P		**P**	**00 12 53.6**	**-1.0**
SEM	**Semipalatinsk**	**15.09**	**22**	*e*P		**P**	**00 12 55.5**	**0.0**
EVN	**Everest**	**15.69**	**119**	P		**P**	**00 13 01.2**	**-1.6**
EVN				IAmb	IAmb		00 13 09.0	
	comp=Z,3.7nm,0.6s							
BVAR	**Borovoye Array**	**16.31**	**358**	P		**Pn**	**00 13 09.1**	**-0.3**
	comp=Z,2.6nm,0.6s,baz=165,slow=12,SNR=12							
BORK	**Borovoye**	**16.33**	**358**	P		**Pn**	**00 13 09.5**	**-0.1**
AKTO	**Aktyubinsk**	**16.74**	**329**	P		**Pn**	**00 13 16.0**	**+1.5**
	comp=Z,3.0nm,0.4s,baz=128,slow=7.4,SNR=11							
AKTO				S		**S**	**00 16 15.8**	**-2.0**
	comp=Z,1.1nm,0.5s,baz=191,slow=14,SNR=2.3							
AKTO	**Aktyubinsk**	**16.74**	**329**	⇑P		**Pn**	**00 13 16.0**	**+1.5**
	comp=Z,2.0nm,0.6s							
UOSS	**Minazif**	**17.52**	**232**	P		**Pn**	**00 13 22.1**	**-1.9**
UOSS				IAmb	IAmb		00 13 49.0	
	comp=Z,19nm,1.2s							
ZAA0	**Zalesovo Array**	**19.58**	**24**	P		**Pn**	**00 13 45.3**	**-2.6**
ZAA0				IAmb	IAmb		00 13 52.3	
	comp=Z,3.2nm,0.6s							
ZALV	**Zalesovo Beam**	**19.58**	**24**	P		**Pn**	**00 13 46.2**	**-1.7**
	comp=Z,2.9nm,0.3s,baz=213,slow=9.9,SNR=18							
ZALV	**Zalesovo Beam**	**19.58**	**24**	P		**Pn**	**00 13 45.5**	**-2.5**
ARTI	**Arti**	**21.53**	**340**	P		**P**	**00 14 07.4**	**+2.7**
	comp=Z,1.4nm,0.4s,baz=172,slow=17,SNR=4.9							
	comp=Z,1.4nm,0.4s							
ARTI	**Arti**	**21.53**	**340**	P		**P**	**00 14 06.3**	**+1.6**
KBZ	**Khabaz**	**22.77**	**297**	P		**P**	**00 14 18.8**	**+2.2**
	comp=Z,1.1nm,0.7s,baz=74,slow=7.4,SNR=1.9							
	comp=Z,1.1nm,0.7s							
SONM	**Songino Array**	**27.95**	**56**	P		**P**	**00 15 04.5**	**+1.1**
	comp=Z,0.6nm,0.7s,baz=278,slow=9.1,SNR=4.4							
	comp=Z,0.6nm,0.7s							
BRTR	**Keskin Array B**	**29.66**	**287**	P		P	00 15 21.4	+2.8
	comp=Z,0.3nm,0.5s,baz=102,slow=5.0,SNR=2.3							
	comp=Z,0.3nm,0.5s							
HHC	**Hu-ho-hao-te**	**31.39**	**70**	*e*P		P	00 15 36.3	+2.5
HHC				pmax	pmax			
	comp=Z,6.0nm,0.6s							
HHC				pmax	pmax			
	comp=Z,140nm,6.3s							
NRIK	**Noril'sk**	**33.84**	**10**	P		**P**	**00 15 56.7**	**+2.2**
	comp=Z,2.4nm,0.6s,baz=202,slow=1.5,SNR=4.8							
	comp=Z,2.4nm,0.6s							
NRIK	**Noril'sk**	**33.84**	**10**	P		**P**	**00 15 56.0**	**+1.4**
NRIK				IAmb	IAmb		00 15 58.1	
	comp=Z,3.0nm,0.8s							
FINES	**FINESS Array B**	**37.46**	**326**	P		P	00 16 28.1	+2.7
	comp=Z,0.9nm,0.4s,baz=117,slow=10.0,SNR=14							
	comp=Z,0.9nm,0.4s							
FINES	**FINESS Array B**	**37.46**	**326**	P		**P**	**00 16 27.6**	**+2.2**
ARCES	**ARCESS Array B**	**41.05**	**337**	P		**P**	**00 16 57.2**	**+2.2**
	comp=Z,4.2nm,0.9s,baz=106,slow=7.7,SNR=7.5							
	comp=Z,4.2nm,0.9s							
ARCES	**ARCESS Array B**	**41.05**	**337**	P		**P**	**00 16 57.1**	**+2.2**
GERES	**GERESS Array B**	**43.05**	**305**	P		P	00 17 14.0	+2.4
	comp=Z,0.1nm,0.3s,baz=96,slow=6.9,SNR=2.4							
	comp=Z,0.1nm,0.3s							
HFS	**Hagfors**	**43.07**	**322**	P		P	00 17 14.0	+2.6
	comp=Z,3.1nm,0.5s,baz=99,slow=9.3,SNR=20							
	comp=Z,3.1nm,0.5s							
NB2	**NORSAR Subarra**	**44.38**	**323**	P		**P**	**00 17 24.0**	**+2.1**
	comp=Z,0.9nm,0.4s,baz=97,slow=7.9							
NOA	**NORSAR Array B**	**44.38**	**323**	P		**P**	**00 17 24.1**	**+2.3**
	comp=Z,1.0nm,0.4s,baz=84,slow=7.5,SNR=11							
	comp=Z,1.0nm,0.4s							
EKA	**Eskdalemuir Ar**	**52.33**	**316**	P		**P**	**00 18 24.6**	**+2.0**
	comp=Z,0.7nm,0.7s,baz=85,slow=9.3,SNR=3.6							
	comp=Z,0.7nm,0.7s							
ESDC	**Sonseca Array**	**57.62**	**298**	P		P	00 19 03.0	+2.2
	comp=Z,0.6nm,0.8s,baz=68,slow=5.6,SNR=6.4							
	comp=Z,0.6nm,0.8s							
ESDC	**Sonseca Array**	**57.62**	**298**	P		**P**	**00 19 02.9**	**+2.1**
YKA	**Yellowknife Ar**	**81.00**	**3**	P		P	00 21 25.7	+2.3
	comp=Z,0.8nm,0.6s,baz=352,slow=5.4,SNR=6.4							
	comp=Z,0.8nm,0.6s							
YKA	**Yellowknife Ar**	**81.00**	**3**	P		**P**	**00 21 25.3**	**+1.9**
WRA	**Warramunga Arr**	**81.85**	**122**	P		**P**	**00 21 28.7**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=318,slow=4.8,SNR=5.1							
	comp=Z,0.5nm,0.4s							
ASAR	**Alice Springs**	**84.14**	**125**	P

PTAV	**Tavira**	**0.90**	**19**	*eP*	**Pn**	**02 01 47.5 +1.8**
PTAV				*eS*	**Sn**	**02 01 58.6 +0.6**
PTAV				IAML		02 01 59.1
PTAV				IAML		02 01 59.4
PTAV				IAML		02 02 00.6
PPOR	**Portimao**	**0.95**	**335**	*eP*	**Pn**	**02 01 47.4 +1.1**
PPOR				*eS*	**Sn**	**02 01 59.3 0.0**
PPOR				IAML		02 02 00.1
PPOR				IAML		02 02 00.4
PPOR				IAML		02 02 01.1
PBDV	**Barranco-do-Ve**	**0.97**	**4**	Pn	**Pn**	**02 01 48.2 +1.5**
PBDV	**Barranco-do-Ve**	**0.97**	**4**	⇓*iP*	**Pn**	**02 01 48.2 +1.5**
PBDV				*eS*	**Sb**	**02 02 00.0 +1.3**
PBDV				IAML		02 02 00.7
PBDV				IAML		02 01.4
PBDV				IAML		02 02 04.5
PLAGO	**Lagos**	**0.98**	**327**	*eP*	**Pn**	**02 01 47.8 +1.0**
PLAGO				*eS*	**Sn**	**02 02 00.5 +0.5**
PLAGO				IAML		02 02 02.5
PLAGO				IAML		02 02 05.0
PLAGO				IAML		02 02 05.9
PFVI	**Vila Bisbo**	**1.08**	**323**	Pn	**Pb**	**02 01 48.8 +0.8**
PFVI	**Vila Bisbo**	**1.08**	**323**	P	**Pb**	**02 01 48.9 +0.8**
PFVI				S	**Sn**	**02 02 05.6 +3.2**
PFVI	**Vila Bisbo**	**1.08**	**323**	⇓*iP*	**Pb**	**02 01 48.8 +0.8**
PFVI				*eS*	**Sb**	**02 02 01.4 -0.3**
PFVI				IAML		02 02 06.3
PFVI				IAML		02 02 06.6
PFVI				IAML		02 02 06.6
PSVI	**Cabo S. Vicent**	**1.08**	**314**	*eP*	**Pb**	**02 01 48.5 +0.3**
PSVI				*eS*	**Sb**	**02 02 01.2 -0.6**
PSVI				IAML		02 02 01.3
PSVI				IAML		02 02 01.9
PSVI				IAML		02 02 02.6
PMONC	**Monchique**	**1.12**	**338**	⇓*eP*	**Pb**	**02 01 49.6 +0.8**
PMONC				*eS*	**Sb**	**02 02 02.9 -0.1**
PMONC				IAML		02 02 05.1
PMONC				IAML		02 02 05.1
PMONC				IAML		02 02 05.5
MORF	**Marmelete**	**1.15**	**334**	*eP*	**Pb**	**02 01 50.1 +0.8**
MORF				*eS*	**Sb**	**02 02 03.4 -0.4**
MORF				IAML		02 02 05.1
	comp=E,363nm,0.2s					
MORF	**Marmelete**	**1.15**	**334**	⇓*iP*	**Pb**	**02 01 50.1 +0.8**
MORF				*eS*	**Sb**	**02 02 03.5 -0.4**
MORF				IAML		02 02 03.9
MORF				IAML		02 02 05.1
MORF				IAML		02 02 05.4
PVAQ	**Vaqueiros**	**1.16**	**12**	P	**Pb**	**02 01 50.7 +1.3**
PVAQ				S	**Sn**	**02 02 08.8 +4.5**
PVAQ	**Vaqueiros**	**1.16**	**12**	⇓*eP*	**Pb**	**02 01 50.7 +1.3**
PVAQ				*eS*	**Sb**	**02 02 04.4 +0.5**
PVAQ				IAML		02 02 05.1
PVAQ				IAML		02 02 05.5
PVAQ				IAML		02 02 07.2
PALJ	**Aljezur**	**1.22**	**329**	⇓*eP*	**Pb**	**02 01 51.0 +0.6**
PALJ				*eS*	**Sn**	**02 02 05.3 -0.5**
PALJ				IAML		02 02 05.8
PALJ				IAML		02 02 09.8
PALJ				IAML		02 02 10.8
EGRO	**El Granado**	**1.33**	**19**	Pn	**Pb**	**02 01 53.4 +1.0**
EGRO	**El Granado**	**1.33**	**19**	⇓Pn	**Pb**	**02 01 53.4 +1.0**
EGRO				Pn	**Pb**	**02 01 53.4 +1.0**
EGRO				Sn	**Sn**	**02 02 08.9 +0.3**
EGRO				Sn	**Sb**	**02 02 09.1 +0.1**
EGRO				IVmb_Lg		02 02 09.7
PCVE	**Castro Verde**	**1.36**	**359**	Pn	**Pb**	**02 01 53.6 +0.8**
PCVE	**Castro Verde**	**1.36**	**359**	⇓*iP*	**Pb**	**02 01 53.6 +0.8**
PCVE				*eS*	**Sn**	**02 02 09.6 +0.3**
PCVE				IAML		02 02 09.7
PCVE				IAML		02 02 10.2
PCVE				IAML		02 02 10.7
PTEO	**Sao Teotonio**	**1.39**	**336**	⇓*iP*	**Pb**	**02 01 53.6 +0.2**
PTEO				*eS*	**Sn**	**02 02 09.5 -0.6**
PTEO				IAML		02 02 11.3
PTEO				IAML		02 02 11.4
PTEO				IAML		02 02 13.7
MESJ	**Messejana**	**1.57**	**354**	*eP*	**Pb**	**02 01 56.4 -0.2**
MESJ				*eS*	**Sn**	**02 02 13.8 -0.8**
MESJ	**Messejana**	**1.57**	**354**	⇓*iP*	**Pb**	**02 01 56.4 -0.2**
MESJ				*eS*	**Sn**	**02 02 14.5 -0.1**
PLOUS	**Minas do Lousa**	**1.79**	**350**	⇓*iP*	**Pn**	**02 01 58.9 +1.2**
PLOUS				*eS*	**Sn**	**02 02 19.0 -0.9**
PLOUS				IAML		02 02 19.6
PLOUS				IAML		02 02 19.9
PLOUS				IAML		02 02 21.6
PSINE	**Sines**	**1.81**	**339**	*eS*	**Sn**	**02 02 20.1 -0.5**
PSINE				IAML		02 02 20.2
PSINE				IAML		02 02 22.3
PSINE				IAML		02 02 23.7
EMIN	**Mina Concepcio**	**1.84**	**35**	Pn	**Pn**	**02 02 00.3 +1.6**
EMIN	**Mina Concepcio**	**1.84**	**35**	Pn	**Pn**	**02 02 00.2 +1.6**
EMIN				Sn	**Sn**	**02 02 20.5 -0.8**
ESPR	**Espera**	**1.84**	**70**	Pn	**Pb**	**02 02 01.3 +0.2**
ESPR	**Espera**	**1.84**	**70**	Pn	**Pb**	**02 02 01.2 +0.1**
ESPR				Sn	**Sn**	**02 02 23.5 +2.2**
ESPR				IVmb_Lg		02 02 24.8
PBAR	**Barrancos**	**2.06**	**22**	Pn	**Pn**	**02 02 03.1 +1.6**
PBAR	**Barrancos**	**2.06**	**22**	*eP*	**Pn**	**02 02 03.1 +1.6**
PBAR				*eS*	**Sn**	**02 02 25.9 -0.6**
PBAR				IAML		02 02 27.2
PBAR				IAML		02 02 27.4
PBAR				IAML		02 02 30.5
EJIF	**Jimena Fronter**	**2.07**	**84**	Pn	**Pb**	**02 02 04.8 -0.1**
EJIF				Sn	**Sn**	**02 02 29.1 +2.2**
ECEU	**Ceuta**	**2.17**	**99**	Pn	**Pb**	**02 02 06.7 -0.1**
ECEU	**Ceuta**	**2.17**	**99**	Pn	**Pb**	**02 02 05.9 -0.8**
ECEU				Sn	**Sb**	**02 02 32.4 -0.9**
SMIR	**Smir Dam**	**2.22**	**105**	P	**Pb**	**02 02 06.0 -1.5**
SMIR				S	**Sn**	**02 02 32.0 +1.4**
EVO	**Evora**	**2.26**	**0**	Pn	**Pn**	**02 02 05.6 +1.4**
EVO				Sn	**Sn**	**02 02 30.1 -1.4**
EVO	**Evora**	**2.26**	**0**	⇓*eP*	**Pn**	**02 02 05.6 +1.4**
EVO				*eS*	**Sn**	**02 02 30.3 -1.2**
EVO				IAML		02 02 32.7
EVO				IAML		02 02 33.1
EVO				IAML		02 02 33.1
MOE	**Montemor**	**2.26**	**353**	⇓*eP*	**Pn**	**02 02 05.8 +1.5**
MOE				*eS*	**Sn**	**02 02 30.7 -0.9**
MOE				IAML		02 02 32.0
MOE				IAML		02 02 32.2
MOE				IAML		02 02 32.3
PSETU	**Setºbal**	**2.36**	**344**	*eS*	**Sn**	**02 02 34.1 +0.1**
CHEFC	**Chefchaouen**	**2.47**	**117**	P	**Pn**	**02 02 09.1 +1.8**
CHEFC				S	**Sn**	**02 02 38.2 +1.2**
PARRA	**Arraiolos**	**2.54**	**360**	⇓*iP*	**Pn**	**02 02 09.5 +1.3**
PARRA				*eS*	**Sn**	**02 02 37.5 -1.0**
PARRA				IAML		02 02 38.5
PARRA				IAML		02 02 38.7
PARRA				IAML		02 02 40.7
AML04	**Campo deTiro d**	**2.59**	**345**	*eP*	**Pn**	**02 02 10.7 +1.8**
AML04				*eS*	**Sn**	**02 02 39.1 -0.7**
AML04				IAML		02 02 40.1
AML04				IAML		02 02 41.1
AML04				IAML		02 02 41.2
LIS	**Lisbon**	**2.60**	**340**	*eP*	**Pn**	**02 02 10.5 +1.5**
LIS				*eS*	**Sn**	**02 02 38.3 -1.7**
LIS				IAML		02 02 42.9
	comp=N,110nm,0.2s					
LIS	**Lisbon**	**2.60**	**340**	*eP*	**Pn**	**02 02 10.8 +1.8**
LIS				*eS*	**Sn**	**02 02 39.6 -0.4**
LIS				IAML		02 02 41.6
LIS				IAML		02 02 42.2
LIS				IAML		02 02 43.2
EBAD	**Badajoz**	**2.61**	**18**	Pn	**Pn**	**02 02 10.4 +1.3**
EBAD				Sn	**Sn**	**02 02 39.8 -0.3**
EBAD				IVmb_Lg		02 02 41.2
PESTR	**Estremoz**	**2.61**	**7**	Pn	**Pn**	**02 02 10.5 +1.3**
PESTR	**Estremoz**	**2.61**	**7**	P	**Pn**	**02 02 10.6 +1.4**
PESTR				S	**Sb**	**02 02 45.3 -0.6**
PESTR	**Estremoz**	**2.61**	**7**	*eP*	**Pn**	**02 02 10.5 +1.3**
PESTR				*eS*	**Sn**	**02 02 39.0 -1.4**
PESTR				IAML		02 02 41.3
PESTR				IAML		02 02 41.4
PESTR				IAML		02 02 55.4
AML01	**Serafina, Lisb**	**2.62**	**340**	*eP*	**Pn**	**02 02 11.1 +1.7**
AML01				*eS*	**Sn**	**02 02 39.9 -0.7**
AML01				IAML		02 02 44.3
AML01				IAML		02 02 44.6
AML01				IAML		02 02 45.3
EMIJ	**Mijas**	**2.64**	**83**	Pn	**Pn**	**02 02 11.7 +2.1**
EMIJ				Sn	**Sn**	**02 02 41.6 +0.7**
EMIJ	**Mijas**	**2.64**	**83**	Pn	**Pn**	**02 02 11.6 +2.1**
EMIJ				Pn	**Pn**	**02 02 11.6 +2.1**
EMIJ				Sn	**Sn**	**02 02 42.9 +2.0**
EMIJ				Sn	**Sb**	**02 02 43.1 -3.6**
EMIJ				IVmb_Lg		02 02 44.3
PBEN	**Benavente**	**2.75**	**347**	*eP*	**Pn**	**02 02 12.6 +1.6**
PBEN				*eS*	**Sn**	**02 02 42.6 -1.0**
PBEN				IAML		02 02 45.3
PBEN				IAML		02 02 45.4
PBEN				IAML		02 02 47.9
ECAB	**El Cabril**	**2.75**	**48**	Pn	**Pn**	**02 02 13.3 +2.2**
ECAB				Sn	**Sn**	**02 02 42.3 -1.4**
ECAB	**El Cabril**	**2.75**	**48**	Pn	**Pn**	**02 02 13.2 +2.1**
ECAB				Sn	**Sn**	**02 02 43.8 0.0**
ECAB				IVmb_Lg		02 02 46.0
EXCBR	**El Cabril**	**2.75**	**48**	Pn	**Pn**	**02 02 13.1 +1.9**
EXCBR				Sn	**Sn**	**02 02 44.0 +0.2**
AML03	**Fanhoes/Loures**	**2.76**	**341**	*eP*	**Pn**	**02 02 13.0 +1.9**
AML03				*eS*	**Sn**	**02 02 42.5 -1.3**
AML03				IAML		02 02 44.6
AML03				IAML		02 02 44.9
AML03				IAML		02 02 44.9
PMTG	**Montargil**	**2.80**	**357**	⇓*eP*	**Pn**	**02 02 12.9 +1.2**
PMTG				*eS*	**Sn**	**02 02 42.9 -2.0**
PMTG				IAML		02 02 45.0
PMTG				IAML		02 02 45.3
PMTG				IAML		02 02 45.7
PMAFR	**Mafra**	**2.86**	**340**	Pn	**Pn**	**02 02 14.1 +1.5**
PMAFR	**Mafra**	**2.86**	**340**	*eP*	**Pn**	**02 02 14.1 +1.5**
PMAFR				*eS*	**Sn**	**02 02 45.8 -0.6**
PMAFR				IAML		02 02 47.1
PMAFR				IAML		02 02 47.7
PMAFR				IAML		02 02 50.4
EMAL	**Malaga-Limoner**	**2.94**	**79**	Pn	**Pn**	**02 02 16.6 +3.0**
EMAL				Sn	**Sn**	**02 02 50.0 +1.8**
AVE	**Averroes**	**3.01**	**170**	Pn	**Pn**	**02 02 16.6 +2.0**
AVE				Sn	**Sn**	**02 02 49.2 -0.8**
AVE	**Averroes**	**3.01**	**170**	P	**Pn**	**02 02 13.3 -1.3**
AVE				Sn	**Sn**	**02 02 47.8 -2.3**
AML05	**Montejunto**	**3.02**	**345**	*eP*	**Pn**	**02 02 16.1 +1.3**
AML05				*eS*	**Sn**	**02 02 48.2 -2.1**
AML05				IAML		02 02 50.8
AML05				IAML		02 02 51.4
AML05				IAML		02 02 53.8
ZHG	**ZHG**	**3.04**	**158**	P	**Pn**	**02 02 14.8 -0.3**
ZHG				Sn	**Sn**	**02 02 52.0 +1.0**
SICH	**Sidi Chahed**	**3.10**	**134**	P	**Pn**	**02 02 15.1 -1.6**
SICH				Sn	**Sn**	**02 02 52.8 +0.6**
PMRV	**Marv??o**	**3.19**	**9**	⇓*iP*	**Pn**	**02 02 18.6 +1.4**
PMRV				*eS*	**Sn**	**02 02 53.2 -1.4**
PMRV				IAML		02 02 55.0
PMRV				IAML		02 02 55.6
PMRV				IAML		02 02 55.7
EGOR	**Sierra Gorda,**	**3.25**	**74**	Pn	**Pn**	**02 02 21.5 +3.4**
EGOR				Sn	**Sn**	**02 02 57.9 +1.6**
EGOR	**Sierra Gorda,**	**3.25**	**74**	Pn	**Pn**	**02 02 21.2 +3.0**
EGOR				Sn	**Sn**	**02 02 57.3 +0.9**
EGOR				IVmb_Lg		02 03 03.1
PSBE	**So Bento**	**3.29**	**350**	⇓*eP*	**Pn**	**02 02 20.1 +1.5**
PSBE				*eS*	**Sn**	**02 02 55.1 -2.1**
PSBE				IAML		02 02 56.8
PSBE				IAML		02 02 57.8
PSBE				IAML		02 02 58.1
PSARD	**Sardoal**	**3.33**	**358**	⇓*eP*	**Pn**	**02 02 21.8 +1.4**
PSARD				*eS*	**Sn**	**02 02 56.4 -1.5**
PSARD				IAML		02 02 58.2
PSARD				IAML		02 02 58.9
PSARD				IAML		02 02 59.1
PALE	**Palemas**	**3.48**	**106**	P	**Pn**	**02 02 21.6 +0.4**
PALE				Sn	**Sn**	**02 03 02.8 +0.9**
ELGU	**Los Guajares,**	**3.59**	**79**	Pn	**Pn**	**02 02 24.7 +2.1**
ELGU	**Los Guajares,**	**3.59**	**79**	Pn	**Pn**	**02 02 24.5 +1.9**
ELGU				Sn	**Sn**	**02 03 05.1 +0.6**
ELGU				IVmb_Lg		02 03 14.0
PCBR	**Castelo Branco**	**3.59**	**7**	⇓*iP*	**Pn**	**02 02 24.1 +1.5**
PCBR				*eS*	**Sn**	**02 03 02.2 -2.1**
PCBR				IAML		02 03 04.2
PCBR				IAML		02 03 04.6
PCBR				IAML		02 03 05.0
IFR	**Ifrane**	**3.63**	**138**	Pn	**Pn**	**02 02 25.5 +2.1**
IFR				Sn	**Sn**	**02 03 03.4 -2.3**
LCRM	**LCR**	**3.66**	**134**	P	**Pn**	**02 03 23.3 -0.5**
LCRM				Sn	**Sn**	**02 03 05.9 -0.5**
EXCAB	**Granada**	**3.67**	**74**	Pn	**Pn**	**02 02 26.5 +2.7**
SRHM	**Skhour des Reh**	**3.79**	**178**	P	**Pn**	**02 02 25.9 +0.4**
SRHM				Sn	**Sn**	**02 03 11.0 +1.5**
PCAS	**Casmilo, Conde**	**3.79**	**354**	⇑*eP*	**Pn**	**02 02 26.9 +1.5**
PCAS				*eS*	**Sn**	**02 03 07.1 -2.3**
PCAS				IAML		02 03 08.4
PCAS				IAML		02 03 08.6
PCAS				IAML		02 03 10.0
EQTA	**Presa de Quent**	**3.79**	**74**	Pn	**Pn**	**02 02 28.8 +3.2**
EQTA				Sn	**Sn**	**02 03 11.2 +1.6**
EQUE	**Quentar**	**3.80**	**74**	Pn	**Pn**	**02 02 28.5 +2.9**
EQUE				Sn	**Sn**	**02 03 10.2 +0.6**
EQUE				IVmb_Lg		02 03 15.0
AKLM	**AKL**	**3.83**	**116**	P	**Pn**	**02 02 25.9 0.0**
AKLM				Sn	**Sn**	**02 03 08.6 -1.7**
CIBOR	**Castaar de Ib**	**3.94**	**31**	Pn	**Pn**	**02 02 28.7 +1.3**
CIBOR				Sn	**Sn**	**02 03 11.7 -1.3**
CZD	**Col de Zad**	**4.06**	**142**	P	**Pn**	**02 02 27.7 -1.6**
CZD				Sn	**Sn**	**02 03 15.6 -0.8**
EPLA	**Plasencia**	**4.08**	**21**	Pn	**Pn**	**02 02 30.6 +1.2**
EPLA				Sn	**Sn**	**02 03 15.2 -1.5**
EPLA				IVmb_Lg		02 03 17.3
E0802	**Ubeda,Jaen**	**4.10**	**63**	Pn	**Pn**	**02 02 32.5 +2.7**
E0802				Sn	**Sn**	**02 03 17.4 +0.2**
MTE	**Manteigas**	**4.14**	**5**	⇓*iP*	**Pn**	**02 02 31.5 +1.2**
MTE				*eS*	**Sn**	**02 03 15.6 -2.4**
MTE				IAML		02 03 17.3
MTE				IAML		02 03 18.2
MTE				IAML		02 03 18.6
EBER	**Berja**	**4.18**	**80**	Pn	**Pn**	**02 02 33.5 +2.6**
EBER	**Berja**	**4.18**	**80**	Pn	**Pn**	**02 02 33.0 +2.1**
EBER				IVmb_Lg		02 03 28.9
EMEL	**Melilla**	**4.23**	**102**	Pn	**Pn**	**02 02 33.6 +2.2**
EMEL				Pn	Pb	02 03 33.6 -8.2
EMEL				Sn	**Sn**	**02 02 20.0 -0.2**
EMEL				IVmb_Lg		02 03 25.2
EQES	**Quesada**	**4.25**	**67**	Pn	**Pn**	**02 02 34.3 +2.6**
EQES				Sn	**Sn**	**02 03 21.0 +0.2**
EQES				IVmb_Lg		02 03 24.6
MD31	**MD31**	**4.33**	**141**	P	**Pn**	**02 02 32.8 -0.1**
MD31				Sn	**Sn**	**02 03 22.5 -0.4**
PAB	**San Pablo**	**4.37**	**41**	Pn	**Pn**	**02 02 35.5 +2.1**
PAB				Sn	**Sn**	**02 03 20.1 -3.7**
PAB				IVmb_Lg		02 03 22.2
PVIS	**Viseu**	**4.44**	**1**	*eP*	**Pn**	**02 02 35.4 +1.1**
PVIS				*eS*	**Sn**	**02 03 22.8 -2.6**
MDT	**Midelt**	**4.45**	**140**	P	**Pn**	**02 02 33.1 -1.5**
MDT				Sn	**Sn**	**02 03 24.2 -1.7**
ESDC	**Sonseca Array**	**4.67**	**42**	Pn	**Pn**	**02 02 39.4 +1.8**
ESDC				Sn	**Sn**	**02 03 27.4 -3.8**
ESDC				IVmb_Lg		02 03 30.4
TISM	**Timmit**	**4.72**	**163**	P	**Pn**	**02 02 36.6 -1.6**
TISM				Sn	**Sn**	**02 02 28.7 -3.6**
JBK	**JBK**	**4.86**	**112**	P	**Pn**	**02 02 39.2 -1.1**
JBK				Sn	**Sn**	**02 03 34.9 -1.2**
PTO	**Porto**	**4.88**	**355**	*eP*	**Pn**	**02 02 41.7 +1.3**
PTO				*eS*	**Sn**	**02 02 32.0 -4.2**
PTO				IAML		02 03 35.6
PTO				IAML		02 03 36.0
PTO				IAML		02 03 36.1
PVRL	**Vila Real**	**5.00**	**3**	*eP*	**Pn**	**02 02 43.1 +1.0**
PVRL				*eS*	**Sn**	**02 03 36.4 -2.9**
PVRL				IAML		02 03 38.2
PVRL				IAML		02 03 38.7
PVRL				IAML		02 03 39.3
OUK	**Oukaimeden**	**5.05**	**178**	P	**Pn**	**02 02 41.1 -2.0**
OUK				Sn	**Sn**	**02 03 38.2 -2.8**
EJUZ	**Juzbado, Salam**	**5.09**	**18**	Pn	**Pn**	**02 02 44.3 +1.1**
EJUZ				Sn	**Sn**	**02 03 39.6 -1.8**
POLO	**Lamas de Olo**	**5.10**	**2**	*eP*	**Pn**	**02 02 44.6 +1.2**
POLO				*eS*	**Sn**	**02 03 38.0 -3.7**
POLO				IAML		02 03 40.7
POLO				IAML		02 03 40.8
POLO				IAML		02 03 40.9
GUD	**Guadarrama**	**5.32**	**34**	Pn	**Pn**	**02 02 48.3 +1.8**
GUD				IVmb_Lg		02 03 01.1
GUD				Sn	**Sn**	**02 03 45.5 -1.6**
TIO	**Tiouine**	**5.37**	**173**	Pn	**Pn**	**02 02 48.5 +1.3**
TIO				Sn	**Sn**	**02 03 45.2 -3.2**
TIO	**Tiouine**	**5.37**	**173**	P	**Pn**	**02 02 45.4 -1.8**
TIO				Sn	**Sn**	**02 03 45.8 -2.7**
EXBUL	**Bullas, Murcia**	**5.38**	**69**	Pn	**Pn**	**02 02 49.8 +2.5**
EXBUL				Sn	**Sn**	**02 03 47.8 -0.8**
PCAB	**Cabril**	**5.43**	**360**	⇑*eP*	**Pn**	**02 02 49.2 +1.3**
PCAB				*eS*	**Sn**	**02 03 45.8 -4.0**
PCAB				IAML		02 03 47.3
PCAB				IAML		02 03 49.3
PCAB				IAML		02 03 49.4
OUZM	**OUZ**	**5.45**	**169**	P	**Pn**	**02 02 47.2 -1.1**
OUZM				Sn	**Sn**	**02 03 49.1 -1.4**
UCM	**Universidad Co**	**5.51**	**42**	Pn	**Pn**	**02 02 51.7 +2.6**
UCM				Sn	**Sn**	**02 03 48.5 -3.3**
ELOB	**Lobios**	**5.59**	**360**	Pn	**Pn**	**02 02 51.2 +1.1**
ELOB				Sn	**Sn**	**02 03 50.1 -3.6**
ELOB				IVmb_Lg		02 03 52.6
PBRG	**Braganca**	**5.62**	**10**	*eP*	**Pn**	**02 02 51.5 +1.0**
PBRG				*eS*	**Sn**	**02 03 50.8 -3.6**
PBRG				IAML		02 03 53.0
PBRG				IAML		02 03 53.0
PBRG				IAML		02 03 53.5
ETOB	**Tobarra**	**5.67**	**63**	Pn	**Pn**	**02 02 53.8 +2.5**
ETOB				Sn	**Sn**	**02 03 53.2 -2.5**
ETOB	**Tobarra**	**5.67**	**63**	Pn	**Pn**	**02 02 53.2 +1.9**
ETOB				Sn	**Sn**	**02 03 54.1 -1.6**
ETOB				IVmb_Lg		02 03 56.0
PGAV	**Gavieira, Arco**	**5.69**	**358**	*eP*	**Pn**	**02 02 52.6 +1.0**
PGAV				*eS*	**Sn**	**02 03 52.3 -3.9**
PGAV				IAML		02 03 53.0
PGAV				IAML		02 03 55.5
PGAV				IAML		02 03 55.8
TTIG	**Tnine Tigouga,**	**5.72**	**184**	P	**Pn**	**02 02 48.5 -3.5**
TTIG				Sn	**Sn**	**02 03 53.9 -3.2**
YEBES	**Yebes (Guadala**	**5.75**	**41**	Pn	**Pn**	**02 02 54.1 +1.8**
YEBES				Sn	**Sn**	**02 03 56.0 -1.7**
YEBES				IVmb_Lg		02 05 20.6
ECAL	**Calabor**	**5.75**	**10**	Pn	**Pn**	**02 02 53.5 +1.2**
ECAL				Sn	**Sn**	**02 03 54.6 -3.2**
ECAL				IVmb_Lg		02 03 57.4
ARF	**Arif**	**5.77**	**146**	P	**Pn**	**02 02 51.0 -1.7**
ARF				Sn	**Sn**	**02 03 58.8 +0.5**
CART	**Cartagena**	**5.78**	**75**	Pn	**Pn**	**02 02 54.7 +2.1**
CART				Sn	**Sn**	**02 03 54.8 -3.5**
TZRR	**Tazzarine**	**5.84**	**159**	P	**Pn**	**02 02 51.1 -1.6**
TZRR				Sn	**Sn**	**02 03 58.7 -1.4**
EZAM	**Zamans**	**5.89**	**355**	Pn	**Pn**	**02 02 55.3 +1.1**
EZAM				Sn	**Sn**	**02 03 57.4 -3.7**
EZAM				IVmb_Lg		02 04 01.5
ETRV	**Los Montesinos**	**6.06**	**71**	Pn	**Pn**	**02 02 58.5 +2.1**
ETRV				IVmb_Lg		02 04 08.8
EVIV	**Cofrentes, Val**	**6.23**	**59**	Pn	**Pn**	**02 03 01.0 +2.0**
EVIV				Sn	**Sn**	**02 04 07.1 -2.5**
EVIV				IVmb_Lg		02 04 14.8
AFON	**Font Roja**	**6.41**	**66**	Pn	**Pn**	**02 03 03.6 +2.1**
AFON				Sn	**Sn**	**02 04 11.8 -2.3**
AFON				IVmb_Lg		02 04 16.2
ZGR	**Zagora**	**6.46**	**161**	P	**Pn**	**02 03 00.7 -1.4**
ZGR				Sn	**Sn**	**02 04 11.6 -3.7**
ECHE	**Chera**	**6.49**	**57**	Pn	**Pn**	**02 03 05.1 +2.7**
ECHE				Sn	**Sn**	**02 04 13.7 -2.1**
ECHE	**Chera**	**6.49**	**57**	Pn	**Pn**	**02 03 04.7 +2.3**
ECHE				Sn	**Sn**	**02 04 13.2 -2.6**
ECHE				IVmb_Lg		02 04 17.0
ETOR	**Torete**	**6.52**	**44**	Pn	**Pn**	**02 03 04.9 +2.0**
ETOR				Sn	**Sn**	**02 04 14.0 -2.7**
ETOR				IVmb_Lg		02 04 18.3
EAGO	**Agolada(Pontev**	**6.52**	**360**	Pn	**Pn**	**02 03 03.9 +1.0**
EAGO				Sn	**Sn**	**02 04 12.0 -4.7**
EAGO				IVmb_Lg		02 04 15.9
STS	**Santiago**	**6.62**	**357**	Pn	**Pn**	**02 03 05.4 +1.2**
STS				Sn	**Sn**	**02 04 13.8 -5.3**
EMAZ	**Mazaricos**	**6.71**	**354**	Pn	**Pn**	**02 03 06.3 +0.8**
EMAZ				Sn	**Sn**	**02 04 15.9 -5.3**
EMAZ				IVmb_Lg		02 04 19.8
E0901	**Celadas (Terue**	**6.85**	**50**	Pn	**Pn**	**02 03 10.0 +2.5**
E0901				Sn	**Sn**	**02 04 22.9 -2.1**
E0901				IVmb_Lg		02 04 29.1
FIGM	**Figuig**	**6.96**	**124**	P	**Pn**	**02 03 07.8 -1.2**
FIGM				Sn	**Sn**	**02 04 27.0 0.0**
EPON	**Pontenova**	**7.08**	**5**	Pn	**Pn**	**02 03 11.8 +1.3**
EPON				IVmb_Lg		02 04 07.1
EPON				Sn	**Sn**	**02 04 26.2 -4.2**
EARI	**Arriondas**	**7.35**	**16**	Pn	**Pn**	**02 03 15.5 +1.3**
EARI				IVmb_Lg		02 03 37.2
EARI				Sn	**Sn**	**02 04 32.7 -4.3**
ELAN	**Lanestosa**	**7.80**	**26**	Pn	**Pn**	**02 03 21.6 +1.2**
ELAN				Sn	**Sn**	**02 04 43.8 -4.3**
ELAN				IVmb_Lg		02 04 47.6
EIBI	**Ibiza**	**7.92**	**67**	Pn	**Pn**	**02 03 24.0 +2.0**
EIBI				Sn	**Sn**	**02 04 47.3 -3.9**
EIBI	**Ibiza**	**7.92**	**67**	Pn	**Pn**	**02 03 24.1 +2.0**
EIBI				IVmb_Lg		02 04 42.7
EIBI				Sn	**Sn**	**02 04 47.5 -3.7**
EORO	**Oroz-Betelu**	**8.40**	**36**	Pn	**Pn**	**02 03 30.4 +1.7**
EORO				Sn	**Sn**	**02 04 58.3 -4.6**
EORO				IVmb_Lg		02 05 05.3
EALK	**Alkurruntz**	**8.56**	**34**	Pn	**Pn**	**02 03 32.5 +1.6**
EALK				Sn	**Sn**	**02 05 01.9 -5.0**
EALK				IVmb_Lg		02 05

ANVS	**Anan'yevo**	**2.47**	**10**	⇑*eP*	**Pn**	**02 34 49.3**	**+0.4**
ANVS				⇑*eS*	**Sn**	**02 35 19.4**	**-0.3**
SALK	**Salom-Alik**	**2.53**	**283**	⇑*iP*	**Pn**	**02 34 49.9**	**+0.2**
SALK				⇑*iS*	**Sn**	**02 35 21.3**	**0.0**
TNSS	**Tian-Shan**	**2.68**	**358**	Pg	**Pb**	**02 34 54.8**	**-1.6**
	29nm,0.8s						
TNSS				Lg	Lg	02 35 29.9	
	30nm,0.5s						
TNSS	**Tian-Shan**	**2.68**	**358**	*eP*	**Pb**	**02 34 54.8**	**-1.6**
	29nm,0.8s						
TNSS				*eS*	**Sb**	**02 35 29.9**	**0.0**
	30nm,0.5s						
UCH	**Uchtor**	**2.69**	**315**	P	**Pn**	**02 34 53.3**	**+1.2**
	SNR=12						
IZV	**Izvestkoviy**	**2.70**	**353**	Pg	**Pb**	**02 34 55.7**	**-0.8**
	49nm,0.4s						
IZV				Lg	Lg	02 35 31.5	
	137nm,0.5s						
IZV	**Izvestkoviy**	**2.70**	**353**	*eP*	**Pb**	**02 34 55.7**	**-0.8**
	49nm,0.4s						
IZV				*eS*	**Sb**	**02 35 31.5**	**+1.3**
	137nm,0.5s						
SFK	**Sufi-Kurgan**	**2.75**	**264**	⇑*iP*	**Pn**	**02 34 53.5**	**+0.6**
SFK				⇑*iS*	**Sb**	**02 35 27.6**	**-4.3**
TKM2	**Tokmak 2**	**2.79**	**337**	P	**Pn**	**02 34 55.5**	**+2.1**
	SNR=9.2						
TKM2	**Tokmak 2**	**2.79**	**337**	⇑*iP*	**Pn**	**02 34 53.2**	**-0.2**
TKM2				⇑*iS*	**Sn**	**02 35 27.1**	**-0.7**
KBK	**Karagaybulak**	**2.80**	**326**	P	**Pb**	**02 34 57.4**	**-0.8**
	SNR=12						
MDOK	**Medeo**	**2.81**	**360**	Pg	**Pb**	**02 34 57.5**	**-0.8**
	105nm,0.6s						
MDOK				Lg	Lg	02 35 34.6	
	127nm,0.8s						
MDOK	**Medeo**	**2.81**	**360**	*eP*	**Pb**	**02 34 57.5**	**-0.8**
	105nm,0.6s						
MDOK				*eS*	**Sb**	**02 35 34.6**	**+1.3**
	127nm,0.8s						
KST	**Kastek**	**2.81**	**343**	Pg	**Pb**	**02 34 57.3**	**-1.1**
	18nm,0.6s						
KST				Lg	Lg	02 35 34.0	
	133nm,0.7s						
KST	**Kastek**	**2.81**	**343**	*eP*	**Pb**	**02 34 57.3**	**-1.1**
	18nm,0.6s						
KST				*eS*	**Sb**	**02 35 34.0**	**+0.6**
	133nm,0.7s						
MTBS	**Maitube**	**2.81**	**350**	Pg	**Pb**	**02 34 57.7**	**-0.8**
	31nm,0.4s						
MTBS				Lg	Lg	02 35 34.5	
	75nm,0.7s						
MTBS	**Maitube**	**2.81**	**350**	*eP*	**Pb**	**02 34 57.7**	**-0.8**
	31nm,0.4s						
MTBS				*eS*	**Sb**	**02 35 34.5**	**+1.1**
	75nm,0.7s						
KNDC	**Almaty**	**2.86**	**358**	⇑Pn	**Pn**	**02 34 55.0**	**+0.8**
	136nm,0.6s						
KNDC				⇑Lg	Lg	02 35 37.0	
	380nm,0.5s						
KOTS	**Kotyrbulak**	**2.88**	**1**	Pg	**Pb**	**02 34 59.3**	**-0.3**
	95nm,0.5s						
KOTS				Lg	Lg	02 35 37.3	
	424nm,0.8s						
KOTS	**Kotyrbulak**	**2.88**	**1**	*eP*	**Pb**	**02 34 59.3**	**-0.3**
	95nm,0.5s						
KOTS				*eS*	**Sb**	**02 35 37.3**	**+2.0**
	424nm,0.8s						
AAK	**Ala-Archa**	**2.99**	**320**	P	**Pn**	**02 34 58.4**	**+2.3**
	SNR=6.0						
AAK	**Ala-Archa**	**2.99**	**320**	⇑Pn	**Pn**	**02 34 56.9**	**+0.9**
	56nm,0.9s						
AAK				⇑Lg	Lg	02 35 40.1	
	61nm,0.8s						
AAK	**Ala-Archa**	**2.99**	**320**	⇑*eP*	**Pn**	**02 34 55.8**	**-0.2**
AAK				⇑*iS*	**Sn**	**02 35 31.7**	**-0.9**
DGS	**Degeres**	**3.04**	**342**	Pg	**Pb**	**02 35 01.7**	**-0.6**
	68nm,0.7s						
DGS				Lg	Lg	02 35 41.6	
	132nm,0.8s						
DGS	**Degeres**	**3.04**	**342**	*eP*	**Pb**	**02 35 01.7**	**-0.6**
	68nm,0.7s						
DGS				*eS*	**Sb**	**02 35 41.6**	**+1.6**
	132nm,0.8s						
FRU1	**Bishkek**	**3.06**	**324**	⇑*eP*	**Pn**	**02 34 57.1**	**+0.2**
FRU1				⇑*eS*	**Sn**	**02 35 34.0**	**-0.2**
UZB	**Uzynbulak**	**3.15**	**27**	Pg	**Pb**	**02 35 03.5**	**-0.6**
	16nm,0.8s						
UZB				Lg	Lg	02 35 44.4	
	83nm,0.7s						
UZB	**Uzynbulak**	**3.15**	**27**	*eP*	**Pb**	**02 35 03.5**	**-0.6**
	16nm,0.8s						
UZB				*eS*	**Sb**	**02 35 44.4**	**+1.3**
	83nm,0.7s						
CHMS	**Chumysh**	**3.16**	**327**	P	**Pn**	**02 35 00.3**	**+2.0**
	SNR=5.1						
CHMS	**Chumysh**	**3.16**	**327**	⇓*eP*	**Pn**	**02 34 58.0**	**-0.3**
CHMS				⇓*iS*	**Sn**	**02 35 35.6**	**-1.0**
SHLS	**Shalkode**	**3.32**	**32**	Pg	**Pg**	**02 35 10.5**	**-0.6**
	49nm,0.8s						
SHLS				Lg	Lg	02 35 56.6	
	106nm,0.7s						
EKS2	**Erkin-Say**	**3.38**	**314**	P	**Pn**	**02 35 03.5**	**+2.1**
	SNR=19						
EKS2	**Erkin-Say**	**3.38**	**314**	⇓*iP*	**Pn**	**02 35 01.2**	**-0.2**
EKS2				⇓*iS*	**Sn**	**02 35 41.1**	**-1.1**
PDGK	**Podgornoye**	**3.48**	**31**	⇑Pn	**Pn**	**02 35 03.3**	**+0.6**
	21nm,0.5s						
PDGK				⇓Lg	Lg	02 35 54.9	
	85nm,0.8s						
USP	**Ospenovka**	**3.49**	**327**	P	**Pn**	**02 35 05.0**	**+2.2**
	SNR=6.5						
USP	**Ospenovka**	**3.49**	**327**	⇑*iP*	**Pn**	**02 35 02.5**	**-0.3**
USP				⇑*iS*	**Sn**	**02 35 43.4**	**-1.3**
KRBS	**Karabastau**	**3.50**	**343**	Pg	**Pb**	**02 35 09.8**	**-0.2**
	38nm,0.7s						
KRBS				Lg	Lg	02 35 55.5	
	66nm,0.6s						
KRBS	**Karabastau**	**3.50**	**343**	*eP*	**Pb**	**02 35 09.8**	**-0.2**
	38nm,0.7s						
KRBS				*eS*	**Sb**	**02 35 55.5**	**+2.5**
	66nm,0.6s						
KUU	**Kurty**	**3.58**	**351**	Pg	**Pb**	**02 35 11.1**	**-0.3**
	6.3nm,0.2s						
KUU				Lg	Lg	02 35 57.5	
	25nm,0.8s						
KUU	**Kurty**	**3.58**	**351**	*eP*	**Pb**	**02 35 11.1**	**-0.3**
	6.3nm,0.2s						
KUU				*eS*	**Sb**	**02 35 57.5**	**+2.1**
	25nm,0.8s						
MRKS	**Merke**	**3.75**	**311**	Pg	**Pb**	**02 35 13.9**	**-0.4**
	6.1nm,0.7s						
MRKS				Lg	Lg	02 36 02.5	
	50nm,0.7s						
MRKS	**Merke**	**3.75**	**311**	*eP*	**Pb**	**02 35 13.9**	**-0.4**
	6.1nm,0.7s						
MRKS				*eS*	**Sb**	**02 36 02.5**	**+2.3**
	50nm,0.7s						
ARXS	**Arharly**	**3.90**	**8**	Pg	**Pb**	**02 35 17.1**	**+0.2**
	16nm,0.8s						
ARXS				Lg	Lg	02 36 07.8	
	54nm,0.6s						
ARXS	**Arharly**	**3.90**	**8**	*eP*	**Pb**	**02 35 17.1**	**+0.2**
	16nm,0.8s						
ARXS				*eS*	**Sb**	**02 36 07.8**	**+3.3**
	54nm,0.6s						
MNAS	**Manas**	**4.04**	**303**	⇓*iP*	**Pn**	**02 35 10.5**	**0.0**
MNAS				⇓*iS*	**Sn**	**02 35 57.0**	**-1.5**
KNOS	**Konyrlen**	**4.29**	**21**	Pg	**Pb**	**02 35 24.9**	**+1.2**
	23nm,1.0s						
KNOS				Lg	Lg	02 36 21.1	
	11nm,0.7s						
DJR	**Jarkent**	**4.46**	**26**	Pg	**Pb**	**02 35 27.4**	**+0.9**
	8.7nm,0.6s						
DJR				Lg	Lg	02 36 25.4	
	11nm,0.4s						
DJR	**Jarkent**	**4.46**	**26**	*eP*	**Pb**	**02 35 27.4**	**+0.9**
	8.7nm,0.6s						
DJR				*eS*	**Sb**	**02 36 25.4**	**+4.8**
	11nm,0.4s						
TRKS	**Terek-Say**	**4.64**	**287**	⇑*iP*	**Pn**	**02 35 18.5**	**-0.3**
TRKS				⇑*iS*	**Sn**	**02 36 11.0**	**-2.4**
KK31	**Karatay Array**	**5.62**	**301**	Pn	**Pn**	**02 35 32.8**	**+0.7**
	0.3nm,0.3s,baz=120,slow=13,SNR=4.8						
KK31				Pg	**Pb**	**02 35 50.7**	**+4.4**
	2.5nm,0.5s,baz=120,slow=16,SNR=15						
KK31				⇑Lg	Lg	02 37 05.4	
	6.2nm,0.5s,baz=119,slow=27,SNR=6.1						
MK31	**Makanchi Array**	**7.47**	**29**	Pn	**Pn**	**02 35 56.9**	**-0.5**
	2.7nm,0.9s,baz=204,slow=12,SNR=7.9						
MK31				⇓Lg	Lg	02 38 02.2	
	1.6nm,0.7s						
MKAR	**Makanchi Array**	**7.47**	**29**	Pn	**Pn**	**02 35 57.1**	**-0.3**
	0.3nm,0.3s,baz=207,slow=16,SNR=9.1						
MKAR				Sn	**Sn**	**02 37 22.2**	**-0.5**
	0.2nm,0.3s,baz=208,slow=23,SNR=2.5						
MKAR				Lg	Lg	02 37 59.5	
	0.2nm,0.3s,baz=214,slow=26,SNR=3.1						
	0.4nm,0.3s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**10.32**	**5**	Pn	**Pn**	**02 36 35.7**	**-0.7**
	baz=192,slow=12,SNR=5.2						
KURBB				Lg	Lg	02 39 29.1	
	baz=192,slow=29,SNR=4.7						
	0.5nm,0.6s						
BVAR	**Borovoye Array**	**13.47**	**342**	Pn	**Pn**	**02 37 17.9**	**-1.5**
	0.1nm,0.3s,baz=154,slow=14,SNR=6.0						
BVAR				Lg	Lg	02 41 09.1	
	baz=160,slow=29,SNR=4.7						
	1.5nm,0.7s						
BVAR				AML	AML		
ZALV	**Zalesovo Beam**	**14.57**	**18**	Pn	**Pn**	**02 37 33.2**	**-1.2**
	0.2nm,0.3s,baz=230,slow=13,SNR=2.1						
	0.3nm,0.3s						
ZALV				AML	AML		
BRTR	**Keskin Array B**	**33.01**	**283**	P	**P**	**02 40 46.5**	**+2.4**
	0.6nm,0.7s,baz=77,slow=9.9,SNR=3.0						
	0.6nm,0.7s						
PALK	**Pallekele**	**33.10**	**173**	LR	LR	02 54 37.8	
	comp=Z,53nm,18.0s,baz=330,slow=37						

KRSC 28 02:51:23.6±1.8, 54.78N×167.41E, h30km±18km, MI3.9, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BKI	**Bering**	**0.93**	**298**	*eP*	Pb	02 51 41.7	+0.5
BKI				*eS*	Sb	02 51 54.6	+1.4
KBTR	**Krutoberegovo**	**2.98**	**301**	*eP*	Pn	02 52 10.8	+2.0
MKZ	**Mys Kozlova**	**3.31**	**268**	*eP*	Pn	02 52 16.5	+3.3
MKZ				*eS*	Sn	02 52 54.0	+2.6
TUMD	**Tumrok D**	**4.06**	**279**	*eP*	Pn	02 52 28.2	+4.6
TUMD				*eS*	Sb	02 53 16.7	-6.3
KZV	**Kizimen**	**4.12**	**278**	*eP*	Pn	02 52 29.2	+4.6
SDLR	**Sedlovina**	**5.25**	**257**	*eP*	Pn	02 52 44.6	+4.5
KRX	**Arik**	**5.35**	**258**	*eP*	Pn	02 52 46.5	+5.0

*KRSC **28** 02:54:00.9±1.2, 52.°07N×159.°91E, h60km±19km, MI4.6*
*MOS **28** 02:54:03.6±1.0, 52.°18N×159.°72E, h59km, mb4.6/10, Error ellipse: s-maj=8.4km s-min=4.2km az=98.0*
*NEIC **28** 02:54:04.8±1.9, 52.°27N±0.°06×159.°76E±0.°09, h43km±6km, mb4.5/24, Error ellipse: s-maj=9.4km s-min=7.0km az=136.0*
*IDC **28** 02:54:06.6±2.3, 52.°25N×159.°49E, h59km±19km, mb3.7/30, mbtmp4.0/32, ML3.7/2, MS3.5/10, Error ellipse: s-maj=16.4km s-min=12.2km az=144.0*

ISC 28 02:54:04.0±0.7, 52.°11N±0.°04×159.°84E±0.°04, h46km±6km, n205, σ1°19/217, mb4.2/66, MS3.8/8, 4C-5D, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RUS	**Russkaya**	**0.88**	**292**	PN	**Pn**	**02 54 18.4**	**-1.5**
RUS				S	**Sn**	**02 54 30.7**	**-1.0**
RUS	**Russkaya**	**0.88**	**292**	*eP*	**Pn**	**02 54 18.5**	**-1.5**
RUS				*eS*	**Sn**	**02 54 30.7**	**-1.0**
SPN	**Mys Shipunski**	**1.00**	**6**	PN	**Pn**	**02 54 21.2**	**-0.4**
SPN				S	**Sn**	**02 54 36.4**	**+1.9**
SPN	**Mys Shipunski**	**1.00**	**6**	*eP*	**Pn**	**02 54 21.2**	**-0.4**
SPN				*eS*	**Sn**	**02 54 36.4**	**+1.9**
MTVR	**Mutnovka**	**1.09**	**291**	PN	**Pn**	**02 54 22.0**	**-0.9**
MTVR	**Mutnovka**	**1.09**	**291**	*eP*	**Pn**	**02 54 22.0**	**-0.9**
NLC	**Nalytchevo**	**1.11**	**344**	PN	**Pn**	**02 54 21.8**	**-1.3**
NLC	**Nalytchevo**	**1.11**	**344**	*eP*	**Pn**	**02 54 21.8**	**-1.3**
KDTR	**Khodutka, Kamc**	**1.13**	**255**	PN	**Pn**	**02 54 22.2**	**-1.2**
KDTR				S	**Sn**	**02 54 37.3**	**-0.5**
KDTR	**Khodutka, Kamc**	**1.13**	**255**	*eP*	**Pn**	**02 54 22.3**	**-1.2**
KDTR				*eS*	**Sn**	**02 54 37.3**	**-0.5**
DALK	**Dalny**	**1.14**	**325**	PN	**Pn**	**02 54 22.6**	**-0.9**
DALK				S	**Sn**	**02 54 37.9**	**0.0**
DALK	**Dalny**	**1.14**	**325**	*eP*	**Pn**	**02 54 22.6**	**-0.9**
DALK				*eS*	**Sn**	**02 54 38.0**	**0.0**
PET	**Petropavlovsk**	**1.17**	**322**	*k iP*	**Pn**	**02 54 23.2**	**-0.7**
PET				*eS*	**Sn**	**02 54 39.8**	**+1.1**
PET				pmax	pmax		
	comp=Z,942nm,1.0s						
PET				smax	smax		
	comp=E,3μm,0.6s						
PET				smax	smax		
	comp=N,2μm,0.6s						
PET	**Petropavlovsk**	**1.17**	**322**		**Pn**	**02 54 23.1**	**-0.8**
PET				Sn	**Sn**	**02 54 35.8**	**-2.9**
PET	**Petropavlovsk**	**1.17**	**322**	*eP*	**Pn**	**02 54 23.2**	**-0.7**
PET				*eS*	**Sn**	**02 54 38.9**	**+0.2**
PET	**Petropavlovsk**	**1.17**	**322**	P	**Pn**	**02 54 23.1**	**-0.8**
PET				AML	AML		
GRL	**Gorelyy**	**1.17**	**293**	PN	**Pn**	**02 54 23.9**	**-0.2**
GRL	**Gorelyy**	**1.17**	**293**	*eP*	**Pn**	**02 54 23.9**	**-0.2**
INSR	**Institute**	**1.22**	**322**	PN	**Pn**	**02 54 23.8**	**-0.8**
INSR				S	**Sn**	**02 54 41.1**	**+1.1**
INSR	**Institute**	**1.22**	**322**	*eP*	**Pn**	**02 54 23.8**	**-0.8**
INSR				*eS*	**Sn**	**02 54 41.2**	**+1.1**
UGLR	**Uglovaya**	**1.27**	**331**	PN	**Pn**	**02 54 25.0**	**-0.3**
UGLR	**Uglovaya**	**1.27**	**331**	*eP*	**Pn**	**02 54 25.0**	**-0.3**
KRMR	**Karymshinskiy**	**1.27**	**305**	PN	**Pn**	**02 54 24.6**	**-0.7**
KRMR				S	**Sn**	**02 54 42.3**	**+1.1**
KRMR	**Karymshinskiy**	**1.27**	**305**	*eP*	**Pn**	**02 54 24.6**	**-0.7**
KRMR				*eS*	**Sn**	**02 54 42.3**	**+1.1**
SDLR	**Sedlovina**	**1.31**	**334**	PN	**Pn**	**02 54 25.1**	**-0.8**
SDLR	**Sedlovina**	**1.31**	**334**	*eP*	**Pn**	**02 54 25.2**	**-0.8**
AVH	**Avacha**	**1.34**	**330**	PN	**Pn**	**02 54 26.2**	**-0.1**
AVH	**Avacha**	**1.34**	**330**	*eP*	**Pn**	**02 54 26.2**	**-0.1**
KRER	**Koryakskii**	**1.37**	**331**	PN	**Pn**	**02 54 27.3**	**+0.4**
KRER	**Koryakskii**	**1.37**	**331**	*eP*	**Pn**	**02 54 27.3**	**+0.4**
KOK	**Koryaka**	**1.40**	**329**	PN	**Pn**	**02 54 26.9**	**-0.2**
KOK	**Koryaka**	**1.40**	**329**	*eP*	**Pn**	**02 54 26.9**	**-0.2**
KRX	**Arik**	**1.45**	**330**	PN	**Pn**	**02 54 27.2**	**-0.7**
KRX	**Arik**	**1.45**	**330**	*eP*	**Pn**	**02 54 27.3**	**-0.7**
PEA0B	**Petropavlovsk-**	**1.65**	**308**	PN	**Pn**	**02 54 30.4**	**-0.1**
PEA0B						02 54 48.3	
PEA0B	**Petropavlovsk-**	**1.65**	**308**		**Pn**	**02 54 30.4**	**-0.1**
PEA0B				Sn	**Sn**	**02 54 48.3**	**-2.2**
PETK	**Petropavlovsk-**	**1.65**	**308**	P	**Pn**	**02 54 30.5**	**0.0**
	comp=N,472nm,0.6s,baz=112,slow=19,SNR=367						
PETK				S	**Sn**	**02 54 51.5**	**+1.1**
	comp=N,169nm,0.4s,baz=128,slow=19,SNR=2.7						
PETK				LR	LR	02 55 22.4	
	comp=N,1μm,18.4s,baz=78,slow=55						
PETK	**Petropavlovsk-**	**1.65**	**308**		**Pn**	**02 54 30.3**	**-0.2**
APC	**Apacha**	**1.83**	**298**	PN	**Pn**	**02 54 33.9**	**+0.9**
APC	**Apacha**	**1.83**	**298**	*eP*	**Pn**	**02 54 33.9**	**+0.9**
APC				*eS*	**Sn**	**02 54 58.5**	**+3.5**
KII	**Karymskiy**	**1.95**	**353**	PN	**Pn**	**02 54 34.9**	**+0.3**
KII	**Karymskiy**	**1.95**	**353**	*eP*	**Pn**	**02 54 34.9**	**+0.3**
PAU	**Pauzhetka**	**1.99**	**252**	PN	**Pn**	**02 54 35.4**	**+0.3**
PAU	**Pauzhetka**	**1.99**	**252**	*eP*	**Pn**	**02 54 35.4**	**+0.3**
MKZ	**Mys Kozlova**	**2.70**	**24**	PN	**Pn**	**02 54 43.7**	**-1.1**
MKZ				S	**Sn**	**02 55 14.3**	**-2.0**
MKZ	**Mys Kozlova**	**2.70**	**24**	*eP*	**Pn**	**02 54 43.8**	**-1.1**
MKZ				*eS*	**Sn**	**02 55 14.4**	**-2.0**
SKR	**Severo-Kuril's**	**2.73**	**240**	*ePN*	**Pn**	**02 54 44.8**	**-0.5**
SKR				*eS*	**Sn**	**02 55 16.8**	**-0.3**
SKR				pmax	pmax		
	comp=Z,186nm,0.5s						
SKR				smax	smax		
	comp=E,967nm,0.6s						
SKR				smax	smax		
	comp=N,1μm,0.6s						
SKR				MLR	MLR		
	comp=Z,1μm,11.0s						
SKR	**Severo-Kuril's**	**2.73**	**240**	*eP*	**Pn**	**02 54 45.1**	**-0.3**
SKR				*eS*	**Sn**	**02 55 16.8**	**-0.3**
KZV	**Kizimen**	**3.02**	**5**	PN	**Pn**	**02 54 50.1**	**+0.6**
KZV	**Kizimen**	**3.02**	**5**	*eP*	**Pn**	**02 54 50.1**	**+0.6**
TUMD	**Tumrok D**	**3.12**	**6**	PN	**Pn**	**02 54 50.3**	**-0.3**
TUMD	**Tumrok D**	**3.12**	**6**	*eP*	**Pn**	**02 54 50.4**	**-0.3**
ESO	**Esso**	**3.88**	**350**	PN	**Pn**	**02 55 02.4**	**+1.3**
ESO	**Esso**	**3.88**	**350**	*eP*	**Pn**	**02 55 02.4**	**+1.3**
KBTR	**Krutoberegovo**	**4.47**	**22**	PN	**Pn**	**02 55 09.3**	**+0.2**
KBTR	**Krutoberegovo**	**4.47**	**22**	*eP*	**Pn**	**02 55 09.3**	**+0.2**
SMKR	**Semkarok**	**4.58**	**11**	PN	**Pn**	**02 55 13.1**	**+2.3**
SMKR	**Semkarok**	**4.58**	**11**	*eP*	**Pn**	**02 55 13.1**	**+2.3**
SRKR	**Sorokina**	**4.62**	**9**	PN	**Pn**	**02 55 12.8**	**+1.5**
SRKR	**Sorokina**	**4.62**	**9**	*eP*	**Pn**	**02 55 12.8**	**+1.5**
BKI	**Bering**	**4.79**	**47**	PN	**Pn**	**02 55 12.4**	**-1.1**
BKI	**Bering**	**4.79**	**47**	*eP*	**Pn**	**02 55 12.4**	**-1.1**
SHEM	**Shemya Is, Ala**	**8.74**	**80**	P	**Pn**	**02 56 07.6**	**0.0**
	comp=Z,59nm,0.8s,baz=273,slow=19,SNR=4.2						
SHEM				S	**Sn**	**02 57 39.7**	**-5.0**
	comp=Z,23nm,0.3s,baz=277,slow=17,SNR=1.5						
SHEM				LR	LR	02 59 09.3	
	comp=Z,122nm,21.1s,baz=312,slow=34						
SMY	**Shemya**	**8.74**	**80**	PN	**Pn**	**02 56 07.3**	**-0.3**
SMY	**Shemya**	**8.74**	**80**	Pn	**Pn**	**02 56 07.3**	**-0.3**
MA2	**Magadan**	**9.05**	**329**	LR	LR	03 00 18.1	
	comp=Z,178nm,19.1s,baz=162,slow=42						
SEY	**Seymchan**	**11.56**	**343**	*i* PN	**Pn**	**02 56 44.4**	**-1.8**
JKA	**Kamikawa-asahi**	**14.00**	**242**		**Pn**	**02 57 19.9**	**+0.4**
ASAJ	**Asahikawa**	**14.00**	**242**	P	**Pn**	**02 57 19.4**	**-0.2**
	comp=Z,0.5nm,0.3s,baz=57,slow=13,SNR=9.0						
	comp=Z,2.5nm,0.6s						
ASAJ				AML	AML		
ASAJ	**Asahikawa**	**14.00**	**242**	P	**Pn**	**02 57 19.9**	**+0.4**
ERM	**Erimo**	**15.17**	**235**	*i* P	**Pn**	**02 57 34.5**	**-0.5**
ERM	**Erimo**	**15.17**	**235**	Pn	**Pn**	**02 57 30.9**	**-4.1**
ERM				IAmb	IAmb	02 58 03.6	
	comp=Z,47nm,1.2s						
BILL	**Bilibino**	**16.29**	**9**	*i* P	**P**	**02 57 49.2**	**-2.4**
KLR	**Kul'dur**	**17.99**	**272**	P	**Pn**	**02 58 12.1**	**+1.6**
	comp=Z,3.1nm,0.7s,baz=65,slow=9.9,SNR=6.3						
KLR				LR	LR	03 05 33.6	
	comp=Z,109nm,18.1s,baz=30,slow=39						
USRK	**Ussuriysk Ar.**	**20.10**	**258**	P	**P**	**02 58 32.1**	**-1.6**
	comp=Z,0.2nm,0.3s,baz=55,slow=12,SNR=2.3						
	comp=Z,1.1nm,0.5s						
USRK				AML	AML		
MJB9	**Matsu-Tunnel**	**21.82**	**233**		**P**	**02 58 54.3**	**+2.1**
MJB9				IAmb	IAmb	02 59 07.4	
	comp=Z,15nm,0.9s						
MAJO	**Matsushiro**	**21.82**	**233**	P	**P**	**02 58 53.2**	**+0.9**
MAJO				pmax	pmax		
	comp=Z,14nm,0.8s						
MAJO	**Matsushiro**	**21.82**	**233**		**P**	**02 58 53.1**	**+0.9**
MAJO				IAmb	IAmb	02 59 06.1	
	comp=Z,14nm,0.8s						
MJAR	**Matsushiro Arr**	**21.82**	**233**	P	**P**	**02 58 53.5**	**+1.3**
	comp=Z,4.3nm,0.6s,baz=33,slow=7.8,SNR=9.8						
	comp=Z,4.3nm,0.6s						
MJAR	**Matsushiro Arr**	**21.82**	**233**	P	**P**	**02 58 52.9**	**+0.7**
BNX	**BinXian**	**22.12**	**266**	⇓P	**P**	**02 58 55.5**	**+0.2**
BNX				pmax	pmax		
	comp=Z,11nm,0.6s						
JGF	**Kuroka**	**22.99**	**233**	P	**P**	**02 59 05.0**	**+0.4**
TIXI	**Tiksi**	**23.92**	**336**	P	**P**	**02 59 12.1**	**-1.1**
	comp=Z,13nm,0.7s,baz=134,slow=8.5,SNR=56						
TIXI				LR	LR	03 09 02.8	
	comp=Z,119nm,19.7s,baz=168,slow=38						
	comp=Z,13nm,0.7s						
TIXI	**Tiksi**	**23.92**	**336**	*i* P	**P**	**02 59 12.3**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,15nm,0.7s						
TIXI	**Tiksi**	**23.92**	**336**		**P**	**02 59 11.8**	**-1.4**
TIXI				IAmb	IAmb	02 59 13.2	
	comp=Z,15nm,0.7s						
H17K	**Granite Mounta**	**24.12**	**42**	P	**P**	**02 59 14.2**	**-0.9**
H17K				IAmb	IAmb	02 59 57.3	
	comp=Z,15nm,1.4s						
CN2	**Changchun**	**24.30**	**264**	P	**P**	**02 59 14.5**	**-2.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
HILR	**Hailar Array B**	**25.23**	**280**	P	**P**	**02 59 25.0**	**-0.4**
	comp=Z,2.0nm,0.5s,baz=55,slow=7.6,SNR=1.3						
	comp=Z,2.0nm,0.5s						
KSRS	**Korea Array**	**26.71**	**249**	P	**P**	**02 59 39.7**	**+0.9**
	comp=Z,1.2nm,0.6s,baz=44,slow=6.9,SNR=2.0						
KSRS				LR	LR	03 09 14.0	
	comp=Z,35nm,19.4s,baz=335,slow=34						
	comp=Z,1.2nm,0.6s						
D22K	**Ayikyak River**	**27.78**	**35**	P	**P**	**02 59 48.0**	**-0.2**
D22K				IAmb	IAmb	03 00 07.4	
	comp=Z,8.9nm,1.5s						
SLKM	**Skilak Lake**	**28.30**	**53**	P	**P**	**02 59 52.7**	**-0.2**
SLKM				IAmb	IAmb	03 00 29.1	
	comp=Z,20nm,1.4s						
ILAR	**Eielson Array**	**29.63**	**44**	P	**P**	**03 00 05.3**	**+0.7**
	comp=Z,0.4nm,0.8s,baz=279,slow=7.0,SNR=2.4						
ILAR				LR	LR	03 11 13.9	
	comp=Z,30nm,20.8s,baz=246,slow=35						
	comp=Z,0.4nm,0.8s						
D25K	**Kavik River**	**30.09**	**35**	P	**P**	**03 00 08.9**	**+0.2**
BCAR	**Beaver Creek A**	**32.00**	**47**	P	**P**	**03 00 26.5**	**+1.0**
H11N2	**WAKE ISLAND Hy**	**32.78**	**168**	T	T	03 35 17.4	
	baz=351,slow=76						
H11N3	**WAK

KULLO IAmb IAmb 03 03 05.7
comp=Z,20nm,0.8s
DAG Danmarks Havn 51.39 360 *i* P **P** **03 03 03.6 +0.2**
DAG IAmb IAmb 03 03 04.8
comp=Z,3.0nm,0.8s
ARCES ARCESS Array B 54.18 342 P **P** **03 03 23.1 -1.0**
comp=Z,3.9nm,1.0s,baz=20,slow=8.6,SNR=4.0
comp=Z,3.9nm,1.0s
ARCES ARCESS Array B 54.18 342 IAmb IAmb 03 03 31.5
comp=Z,29nm,1.5s
SUMG Summit 54.96 7 P **P** **03 03 30.9 +0.7**
SUMG pmax pmax
comp=Z,11nm,1.1s
SUMG Summit 54.96 7 P **P** **03 03 30.9 +0.7**
SUMG Summit 54.96 7 *i* P **P** **03 03 32.5 +2.3**
SUMG IAmb IAmb 03 03 38.8
comp=Z,12nm,1.2s
NVAR Mina Array Bea 56.23 69 P **P** **03 03 42.4 +2.8**
comp=Z,0.2nm,0.5s,baz=316,slow=8.0,SNR=2.8
comp=Z,0.2nm,0.5s
KK31 Karatay Array 57.23 299 P **P** **03 03 44.0 -2.4**
KK31 pmax pmax
comp=Z,2.0nm,0.7s
KK31 Karatay Array 57.23 299 **P** **03 03 44.0 -2.4**
KKAR Karatay Array 57.23 299 P **P** **03 03 44.2 -2.2**
KKAR Karatay Array 57.23 299 P **P** **03 03 44.2 -2.2**
CHTO Chiang Mai 57.56 259 P **P** **03 03 49.5 +0.6**
CHTO pmax pmax
comp=Z,4.0nm,0.6s
CHTO Chiang Mai 57.56 259 P **P** **03 03 49.5 +0.6**
CMAR Chiang Mai Arr 57.83 258 P **P** **03 03 51.8 +1.0**
comp=Z,1.9nm,0.3s,baz=40,slow=6.3,SNR=6.8
comp=Z,1.9nm,0.3s
PDAR Pinedale Array 58.14 60 P **P** **03 03 55.0 +1.9**
comp=Z,0.3nm,0.5s,baz=320,slow=7.3,SNR=4.7
comp=Z,0.3nm,0.5s
PDAR Pinedale Array 58.14 60 P **P** **03 03 54.2 +1.1**
AB31 Akbulak array 58.32 311 **P** **03 03 52.1 -1.8**
AB31 IAmb IAmb 03 03 55.4
comp=Z,2.4nm,1.1s
ABKAR Akbulak array 58.32 311 P **P** **03 03 52.5 -1.4**
AKTO Aktyubinsk 58.38 313 LR LR 03 33 23.3
comp=Z,100nm,18.4s,baz=114,slow=40
ULM Lac du Bonnet 59.61 46 P **P** **03 04 04.1 +1.3**
comp=Z,1.1nm,0.4s,baz=325,slow=8.2,SNR=4.6
comp=Z,1.1nm,0.4s
ULM Lac du Bonnet 59.61 46 IAmb IAmb 03 04 11.8
comp=Z,6.5nm,1.4s
FINES FINESS Array B 60.97 337 P **P** **03 04 11.7 -0.2**
comp=Z,1.9nm,0.6s,baz=37,slow=7.4,SNR=15
FINES LR LR 03 36 00.4
comp=Z,311nm,18.9s,baz=294,slow=41
comp=Z,1.9nm,0.6s
FINES FINESS Array B 60.97 337 P **P** **03 04 11.2 -0.7**
OBN Obninsk 63.27 327 *e*P **P** **03 04 25.9 -1.5**
OBN *e**PP **pwP** **03 04 44.4 +0.9**
OBN *e* 03 05 02.4
OBN *e* 03 06 43.9
OBN pmax pmax
comp=Z,3.0nm,1.0s
NB2 NORSAR Subarra 64.45 344 P **P** **03 04 35.2 +0.1**
comp=Z,0.9nm,0.5s,baz=23,slow=6.9
NOA NORSAR Array B 64.45 344 P **P** **03 04 35.5 +0.4**
comp=Z,1.1nm,0.6s,baz=20,slow=6.7,SNR=8.2
comp=Z,1.1nm,0.6s
HFS Hagfors 64.84 342 P **P** **03 04 37.9 +0.2**
comp=Z,2.0nm,0.5s,baz=46,slow=6.4,SNR=17
comp=Z,2.0nm,0.5s
AK03 Malin Array Si 69.36 329 P **P** **03 05 05.8 -0.6**
AK21 Malin Array Si 69.37 329 P **P** **03 05 05.8 -0.7**
AK22 Malin Array Si 69.38 329 P **P** **03 05 05.9 -0.6**
AK04 Malin Array Si 69.38 329 P **P** **03 05 05.9 -0.7**
AKASG Malin Array Be 69.38 329 P **P** **03 05 06.0 -0.6**
comp=Z,2.4nm,0.4s,baz=32,slow=6.2,SNR=15
comp=Z,2.4nm,0.4s
AKASG Malin Array Be 69.38 329 P **P** **03 05 06.0 -0.6**
AKBB Malin Array Si 69.38 329 P **P** **03 05 05.5 -1.1**
KIEV Kiev 69.39 329 P **P** **03 05 05.4 -1.3**
KIEV pmax pmax
comp=Z,7.0nm,1.0s
KIEV Kiev 69.39 329 P **P** **03 05 05.3 -1.3**
KIEV IAmb IAmb 03 05 06.5
comp=Z,7.0nm,0.9s
KIEV Kiev 69.39 329 P **P** **03 05 05.8 -0.8**
comp=Z,31nm,1.0s
AK18 Malin Array Si 69.41 329 P **P** **03 05 06.1 -0.7**
AK20 Malin Array Si 69.41 329 P **P** **03 05 06.0 -0.8**
AK02 Malin Array Si 69.42 329 P **P** **03 05 06.1 -0.7**
AK08 Malin Array Si 69.43 329 P **P** **03 05 06.1 -0.8**
AK09 Malin Array Si 69.44 329 P **P** **03 05 06.0 -0.9**
AK16 Malin Array Si 69.44 329 P **P** **03 05 06.3 -0.7**
AK12 Malin Array Si 69.45 329 P **P** **03 05 06.3 -0.7**
AK10 Malin Array Si 69.46 329 P **P** **03 05 06.5 -0.6**
AK14 Malin Array Si 69.48 329 P **P** **03 05 06.4 -0.8**
RNPP5 Staryi Chortor 69.95 331 P **P** **03 05 09.8 -0.2**
KBZ Khabaz 70.15 317 P **P** **03 05 11.4 0.0**
comp=Z,1.8nm,0.8s,baz=35,slow=12,SNR=4.6
comp=Z,1.8nm,0.8s
LUBAR Lubar, Ukraine 70.52 329 P **P** **03 05 13.1 -0.5**
TXAR Lajitas Array 71.17 66 P **P** **03 05 19.9 +1.9**
comp=Z,0.4nm,0.5s,baz=326,slow=4.2,SNR=8.2
comp=Z,0.4nm,0.5s
SORM Soroca 71.90 328 ⇑P **P** **03 05 20.9 -1.1**
SORM Soroca 71.90 328 P **P** **03 05 21.1 -0.8**
comp=Z,11nm,0.8s
EKA Eskdalemuir Ar 72.00 350 P **P** **03 05 23.6 +1.2**
comp=Z,0.4nm,0.5s,baz=18,slow=6.2,SNR=5.2
comp=Z,0.4nm,0.5s
KMPD K-Podol'skiy 72.12 330 P **P** **03 05 22.4 -0.9**
CLL Collm 73.22 339 *i* P **P** **03 05 29.6 -0.2**
CLL *i* *PP **pwP** **03 05 46.3 +0.3**
CLL Collm 73.22 339 *i* P **P** **03 05 29.6 -0.2**
CLL *i* PcP **pwP** **03 05 46.3 +0.3**
comp=Z,17nm,1.6s
BUR08 Bucovina Ar. S 73.33 330 P **P** **03 05 30.3 -0.4**
BUR08 IAmb IAmb 03 05 31.4
comp=Z,4.0nm,0.7s
BURAR Bucovina Array 73.35 330 ⇑P **P** **03 05 30.8 0.0**
ABNA Allensteig Bun 75.11 336 *e*P **P** **03 05 41.0 +0.1**
comp=Z,1.2nm,0.5s
WRA Warramunga Arr 75.12 205 P **P** **03 05 41.7 +0.6**
comp=Z,1.3nm,0.9s,baz=13,slow=6.0,SNR=4.9
comp=Z,1.3nm,0.9s
TSCT Constanta Port 75.28 326 ⇑P P 03 05 46.6 +4.8
VOIR 75.34 329 ⇓P **P** **03 05 43.0 +0.7**
VOIR 75.34 329 P **P** **03 05 42.3 0.0**
comp=Z,4.5nm,0.8s
GERES GERESS Array B 75.37 338 P **P** **03 05 42.8 +0.4**
comp=Z,0.6nm,0.5s,baz=38,slow=6.2,SNR=8.2
comp=Z,0.6nm,0.5s
ICOR Ion Corvin 75.61 326 ⇓P P 03 05 29.6 -14
SIRR Siria 75.64 331 ⇑P **P** **03 05 46.0 +2.1**
CONA Conrad Observa 75.70 336 *e*P **P** **03 05 45.5 +1.2**
comp=Z,0.7nm,0.5s
RONA Rosalia, Austr 75.80 336 *e*P **P** **03 05 46.0 +1.2**
comp=Z,0.1nm,0.3s
FITZ Fitzroy Crossi 75.99 213 P **P** **03 05 46.3 +0.3**
ILGA Ilgaz 76.11 321 P **P** **03 05 47.0 0.0**
MOA Molln 76.17 337 *e*P **P** **03 05 47.7 +0.8**
comp=Z,0.8nm,0.4s
SESA Seetaler Alpe, 76.78 336 *e*P **P** **03 05 51.1 +0.5**
comp=Z,1.5nm,0.6s
SOKA Soboth 77.07 336 *e*P **P** **03 05 52.6 +0.5**
comp=Z,1.5nm,0.6s
KBA Koelnbreinsper 77.11 337 *e*P **P** **03 05 54.0 +1.6**
comp=Z,2.0nm,0.6s
WATA Walderalm 77.28 338 *i* P **P** **03 05 52.3 -1.1**
comp=Z,1.3nm,0.7s
BRTR Keskin Array B 77.28 320 P **P** **03 05 53.4 -0.1**
comp=Z,1.1nm,0.6s,baz=38,slow=3.3,SNR=6.8
comp=Z,1.1nm,0.6s
BR104 Keskin Array S 77.30 320 P **P** **03 05 53.6 0.0**
WTTA Wattenberg 77.33 338 *e*P **P** **03 05 52.9 -0.8**
comp=Z,0.7nm,0.6s
OBKA Obir 77.35 336 *e*P **P** **03 05 53.7 +0.1**
comp=Z,3.9nm,1.4s
ABTA Abfaltersbach 77.61 338 *e*P **P** **03 05 55.9 +0.8**
comp=Z,0.1nm,0.1s
ASAR Alice Springs 78.79 204 P **P** **03 06 03.3 +1.5**
comp=Z,0.6nm,0.5s,baz=16,slow=5.6,SNR=7.5
comp=Z,0.6nm,0.5s
ASAR Alice Springs 78.79 204 P **P** **03 06 02.3 +0.6**
MMAI Mount Meron Ar 82.31 316 P **P** **03 06 21.3 +0.5**
comp=Z,3.5nm,0.7s,baz=24,slow=12,SNR=11
comp=Z,3.5nm,0.7s
ESDC Sonseca Array 87.51 348 P **P** **03 06 47.0 +0.3**
comp=Z,1.1nm,0.8s,baz=10,slow=5.0,SNR=8.1
comp=Z,1.1nm,0.8s
ESDC Sonseca Array 87.51 348 P **P** **03 06 47.0 +0.3**
ESDC Sonseca Array 87.51 348 IAmb IAmb 03 06 49.4
comp=Z,13nm,1.5s

*IDC **28** 03:24:49.4±1.2, 0°.59S×146°.53E, h0km, mb3.8/10, mbtmp3.9/10, MS3.1/10, Error ellipse: s-maj=53.3km s-min=18.1km az=95.0*
ISC 28 03:24:55.1±1.0, **0°.6S**±0°.1×**146°.3E**±0°.2, **h35**km, **n25,** σ0s**84/11, mb3.8/10, MS2.9/5, Admiralty Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**5.88**	**251**			Sn	**Sn**	**03 27 25.7**	**-0.4**
	1.6nm,0.3s,baz=184,slow=19,SNR=4.4								
JAY					LR	LR		03 28 34.7	
	comp=Z,273nm,18.8s,baz=353,slow=37								
PMG	**Port Moresby**	**8.79**	**174**		LR	LR		03 30 36.0	
	comp=Z,56nn,20.8s,baz=54,slow=40								
GUMO	**Guam**	**14.17**	**354**		LR	LR		03 32 33.4	
	comp=Z,62nn,19.5s,baz=169,slow=33								
HNR	**Honiara**	**16.18**	**123**		LR	LR		03 34 25.4	
	comp=Z,59nn,21.2s,baz=4.5,slow=36								
CTA	**Charters Tower**	**19.36**	**180**		LR	LR		03 36 54.1	
	comp=Z,53nn,18.1s,baz=50,slow=37								
DAV	**Davao City (W)**	**22.01**	**291**		LR	LR		03 39 23.9	
	comp=Z,44nn,18.1s,baz=118,slow=39								
WRA	**Warramunga Arr**	**22.49**	**211**	P		**P**		**03 29 52.1**	**+0.4**
	1.4nn,0.6s,baz=32,slow=11,SNR=15								
	1.4nn,0.6s								
ASAR	**Alice Springs**	**25.88**	**207**	P		**P**		**03 30 25.1**	**+1.3**
	1.4nn,0.6s,baz=27,slow=11,SNR=18								
ASAR					LR	LR		03 40 02.0	
	comp=Z,54nn,18.3s,baz=63,slow=35								
	1.4nn,0.6s								
FITZ	**Fitzroy Crossi**	**26.71**	**228**		LR	LR		03 42 41.6	
	comp=Z,26nn,21.1s,baz=336,slow=40								
H11S3	**WAKE ISLAND Hy**	**27.62**	**46**	T		T		03 59 29.5	
	baz=228,slow=76,SNR=32								
H11S2	**WAKE ISLAND Hy**	**27.63**	**46**	T		T		03 59 28.9	
	baz=228,slow=76,SNR=6.7								
H11S1	**WAKE ISLAND Hy**	**27.64**	**46**	T		T		03 59 28.4	
	baz=228,slow=76,SNR=8.1								
H11N1	**WAKE ISLAND Hy**	**28.57**	**44**	T		T		04 00 35.2	
	baz=226,slow=76								
H11N2	**WAKE ISLAND Hy**	**28.59**	**44**	T		T		04 00 33.0	
	baz=226,slow=76								
H11N3	**WAKE ISLAND Hy**	**28.59**	**44**	T		T		04 00 33.5	
	baz=226,slow=76								
STKA	**Stephens Creek**	**31.41**	**188**		LR	LR		03 43 18.7	
	comp=Z,56nn,20.7s,baz=23,slow=35								
KSRS	**Korea Array**	**41.50**	**338**		LR	LR		03 48 57.7	
	comp=Z,15nn,19.3s,baz=345,slow=35								
USRK	**Usurisk Ar.**	**46.40**	**346**	P		**P**		**03 33 19.1**	**+1.0**
	1.9nn,0.7s,baz=165,slow=6.0,SNR=4.4								
	1.9nn,0.7s								
KLR	**Kul'dur**	**51.20**	**348**	P		**P**		**03 33 54.9**	**0.0**
	0.9nn,0.5s,baz=156,slow=20,SNR=2.6								
	0.9nn,0.5s								
SONM	**Songino Array**	**59.39**	**330**	P		**P**		**03 34 53.4**	**-0.7**
	0.5nn,0.8s,baz=136,slow=8.2,SNR=2.2								
	0.5nn,0.8s								
ZALV	**Zalesovo Beam**	**74.10**	**327**	P		**P**		**03 36 27.1**	**-0.5**
	0.7nn,0.6s,baz=128,slow=9.3,SNR=2.2								
	0.7nn,0.6s								
KURBB	**Kurchatov Arra**	**76.52**	**323**	P		**P**		**03 36 42.3**	**+0.7**
	0.8nn,0.8s,baz=108,slow=5.4,SNR=4.8								
	0.8nn,0.8s								
VNDA	**Vanda**	**77.30**	**177**	P		**P**		**03 36 44.7**	**-0.8**
	1.2nn,0.6s,baz=329,slow=7.3,SNR=7.5								
	1.2nn,0.6s								
ILAR	**Eielson Array**	**80.85**	**24**	P		**P**		**03 37 04.8**	**-0.4**
	0.5nn,0.8s,baz=248,slow=5.6,SNR=4.1								
	0.5nn,0.8s								
BVAR	**Borovoye Array**	**82.02**	**324**	P		**P**		**03 37 12.5**	**+0.9**
	0.6nn,0.4s,baz=96,slow=6.4,SNR=2.5								
	0.6nn,0.4s								

*SJA **28** 03:27:21.1±0.8, 30°.65S×71°.78W, h9km±2km, ML3.6, MW3.4*
*GUC **28** 03:27:24.2±0.8, 30°.67S×71°.57W, h27km±3km, ML3.9, Presumed earthquake*
ISC 28 03:27:23.5±1.2, **30°.68S**±0°.03×**71°.76W**±0°.05, **h33**km, **n51,** σ2s**06/72, 2C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.11**	**88**	⇓	*i*	P	**Pb**	**03 27 29.2**	**-0.1**
CO06					*i*	S	**Sb**	**03 27 32.8**	**-0.5**
CO06						IAML		03 27 33.3	
	comp=E,44μm,0.3s								
CO02	**Combarbal**	**0.84**	**129**	*i*	P		**Pn**	**03 27 38.3**	**-0.7**
CO02					*i*	S	**Sb**	**03 27 50.4**	**-0.3**
CO02						IAML		03 27 51.2	
	comp=Z,3μm,0.2s								
CO02	**Combarbal**	**0.84**	**129**	⇓	*i*	P	**Pn**	**03 27 38.8**	**-0.2**
CO02					*e*	S	**Sn**	**03 27 49.7**	**-0.6**
CO05	**La Serena**	**0.88**	**31**	*e*	P		**Pb**	**03 27 40.0**	**-0.4**
CO05					*e*	S	**Sb**	**03 27 51.1**	**-0.7**
CO03	**El Pedregal**	**0.93**	**100**	⇓	*i*	P	**Pn**	**03 27 40.2**	**-0.2**
CO03					*e*	S	**Sn**	**03 27 51.3**	**-1.3**
CO03						IAML		03 27 52.3	
	comp=E,7μm,0.2s								
GO04	**Tololo Observa**	**0.97**	**59**	*i*	P		**Pn**	**03 27 40.0**	**-1.0**
GO04					*i*	S	**Sb**	**03 27 54.2**	**-0.3**
GO04						IAML		03 27 55.4	
	comp=Z,6μm,0.3s								
GO04	**Tololo Observa**	**0.97**	**59**	⇓	*i*	P	**Pb**	**03 27 41.3**	**-0.6**
GO04					*e*	S	**Sn**	**03 27 52.5**	**-1.2**
GO04						IAML		03 27 57.4	
	comp=E,18μm,0.5s								
CO04	**Los Peladeros**	**1.52**	**154**	*e*	P		**Pn**	**03 27 49.4**	**+0.8**
CO04					*e*	S	**Sn**	**03 28 08.9**	**+1.6**
CO04						IAML		03 28 12.2	
	comp=E,2μm,0.2s								
CO01	**Juntas del Tor**	**1.60**	**65**	*i*	P		**Pb**	**03 27 51.7**	**-0.9**
CO01					*i*	S	**Sb**	**03 28 13.6**	**+1.0**
CO01						IAML		03 28 14.7	
	comp=Z,493nm,0.2s								
CO01	**Juntas del Tor**	**1.60**	**65**	*e*	P		**Pb**	**03 27 51.3**	**-1.2**
CO01					*e*	S	**Sb**	**03 28 11.6**	**-0.9**
LCO	**Las Campanas**	**1.90**	**29**	⇓	*i*	P	**Pb**	**03 27 55.8**	**-1.9**
LCO					*i*	S	**Sb**	**03 28 21.2**	**+0.1**
LCO						IAML		03 28 24.6	
	comp=Z,622nm,0.6s								
LCO	**Las Campanas**	**1.90**	**29**	*e*	P		**Pn**	**03 27 55.1**	**+1.3**
AROD	**Rodeo**	**2.04**	**76**	*i*	P		**Pb**	**03 27 59.3**	**-0.8**
AROD					*i*	S	**Sb**	**03 28 26.6**	**+1.5**
AC05	**El Transito**	**2.24**	**35**	*i*	P		**Pn**	**03 28 00.0**	**+2.1**
AC05					*i*	S	**Sb**	**03 28 30.4**	**-0.4**
AC05						IAML		03 28 37.4	
	comp=Z,201nm,0.8s								
AC05	**El Transito**	**2.24**	**35**	⇑	*e*	P	**Pb**	**03 28 00.8**	**-2.6**
VA03	**San Esteban**	**2.32**	**154**	*i*	P		**Pn**	**03 28 02.5**	**+3.1**
VA03					*i*	S	**Sb**	**03 28 32.8**	**-0.3**
VA03						IAML		03 28 38.8	
	comp=Z,348nm,0.3s								
VA03	**San Esteban**	**2.32**	**154**	*e*	P		**Pn**	**03 28 01.7**	**+2.2**
ACCO	**Cerro Coronel**	**2.32**	**88**	*i*	P		**Pb**	**03 28 03.5**	**-1.4**
ACCO					*i*	S	**Sb**	**03 28 33.9**	**+0.6**
ACCO						IAML		03 28 43.5	
	comp=Z,190nm,0.3s								
ACDV	**Cuesta del Vie**	**2.33**	**78**	*i*	P		**Pb**	**03 28 04.8**	**-0.2**
ACDV					*i*	S	**Sb**	**03 28 33.3**	**-0.2**
ACDV						IAML		03 28 36.6	
	comp=Z,151nm,0.3s								
ROCH	**El Roble**	**2.37**	**165**	*e*	P		**Pn**	**03 28 01.8**	**+1.4**
ROCH						IAML		03 28 40.3	
	comp=N,652nm,0.3s								
AC04	**Llanos de Chal**	**2.54**	**14**	*e*	P		**Pn**	**03 28 03.3**	**+0.9**
PEL	**Peldehue**	**2.62**	**160**	*e*	P		**Pn**	**03 28 05.5**	**+2.0**
PEL						IAML		03 28 46.8	
	comp=N,352nm,0.5s								
MT02	**Curacav**	**2.63**	**169**	*i*	P		**Pn**	**03 28 06.4**	**+2.8**
MT02					*i*	S	**Sb**	**03 28 40.3**	**-1.4**
MT02						IAML		03 28 47.4	
	comp=Z,218nm,0.3s								
MT02	**Curacav**	**2.63**	**169**	*e*	P		**Pn**	**03 28 06.4**	**+2.8**
ZON	**Zonda**	**2.78**	**109**	*i*	P		**Pn**	**03 28 08.6**	**+2.9**
ZON					*i*	S	**Sb**	**03 28 44.4**	**-1.8**
ZON						IAML		03 28 51.9	
	comp=Z,140nm,0.6s								
MT10	**Hacienda Santa**	**2.79**	**158**	*e*	P		**Pn**	**03 28 08.2**	**+2.3**
MT10						IAML		03 28 51.6	
	comp=E,1μm,0.5s								
MT05	**Renca**	**2.84**	**163**	*i*	P		**Pn**	**03 28 09.6**	**+3.0**
MT05						IAML		03 28 53.6	
	comp=Z,278nm,0.6s								
MT05	**Renca**	**2.84**	**163**	*e*	P		**Pn**	**03 28 10.2**	**+3.6**
MT05						IAML		03 28 51.7	
	comp=E,580nm,0.3s								
RTLL	**Cerro Villicun**	**2.89**	**104**	*i*	P		**Pn**	**03 28 10.3**	**+3.0**
RTLL						IAML		03 28 54.3	
	comp=Z,241nm,0.4s								
MT14	**Cerro Cal¡n**	**2.90**	**159**	*e*	P		**Pn**	**03 28 09.9**	**+2.5**
MT14						IAML		03 28 56.8	
	comp=N,530nm,0.6s								
FCH	**Farellones**	**2.92**	**155**	*e*	P		**Pn**	**03 28 11.0**	**+3.1**
MT16	**CCHEN**	**2.94**	**159**	*e*	P		**Pn**	**03 28 10.2**	**+2.3**
MT16						IAML		03 28 55.2	
	comp=N,287nm,0.7s								
MT03	**Universidad Ad**	**3.00**	**160**	⇓	*i*	P	**Pn**	**03 28 12.0**	**+3.1**
MT03					*i*	S	**Sb**	**03 28 50.0**	**-2.6**
MT03						IAML		03 28 59.2	
	comp=Z,236nm,0.7s								
MT03	**Universidad Ad**	**3.00**	**160**	*e*	P		**Pn**	**03 28 10.9**	**+2.0**
MT03						IAML		03 29 00.8	
	comp=E,572nm,0.3s								
MT04	**Ro Olivares**	**3.05**	**154**	*e*	P		**Pn**	**03 28 13.4**	**+3.8**
MT04						IAML		03 28 59.8	
	comp=N,214nm,0.5s								
MT15	**Las Vizcachas**	**3.10**	**160**	*e*	P		**Pn**	**03 28 11.5**	**+1.3**
MT15						IAML		03 29 01.0	
	comp=N,565nm,0.5s								
MT08	**Bocatoma Ro**	**3.13**	**152**	*i*	P		**Pn**	**03 28 14.2**	**+3.5**
MT08					*i*	S	**Sb**	**03 28 53.7**	**-2.8**
MT08						IAML		03 29 06.0	
	comp=Z,147nm,0.4s								
MT08	**Bocatoma Ro**	**3.13**	**152**	*e*	P		**Pn**	**03 28 15.0**	**+4.3**
MT08						IAML		03 29 01.5	
	comp=E,224nm,0.6s								
MT09	**Talagante**	**3.16**	**168**	*e*	P		**Pn**	**03 28 12.8**	**+1.8**
MT09						IAML		03 29 07.5	
	comp=E,293nm,0.4s								
MT01	**Popeta**	**3.21**	**172**	*e*	P		**Pn**	**03 28 12.6**	**+1.0**
MT12	**Pirque**	**3.21**	**162**	*e*	P		**Pn**	**03 28 13.7**	**+2.0**
MT12						IAML		03 29 06.5	
	comp=N,424nm,0.4s								
MT13	**San Alfonso**	**3.30**	**158**	*i*	P		**Pn**	**03 28 16.3**	**+3.3**
MT13					*i*	S	**Sb**	**03 28 57.6**	**-3.7**
MT13						IAML		03 29 08.9	
	comp=Z,102nm,0.3s								
MT13	**San Alfonso**	**3.30**	**158**	*e*	P		**Pn**	**03 28 16.0**	**+3.0**
MT13						IAML		03 29 08.5	
	comp=E,251nm,0.3s								
GO03	**Copiapo**	**3.35**	**24**	*e*	P		**Pn**	**03 28 15.2**	**+1.6**
BO04	**La Punta**	**3.44**	**164**	*e*	P		**Pn**	**03 28 16.6**	**+1.7**
AC06	**Mina Casimiro**	**3.53**	**21**	*e*	P		**Pn**	**03 28 16.1**	**+0.6**
VCA	**Vinchina**	**3.65**	**59**	*i*	P		**Pn**	**03 28 21.4**	**+3.7**
VCA						IAML		03 29 20.4	
	comp=Z,273nm,0.4s								
BO01	**Tunca**	**3.75**	**171**	*e*	P		**Pn**	**03 28 20.4**	**+1.4**
AC02	**Maricunga**	**4.47**	**32**	*e*	P		**Pn**	**03 28 31.3**	**+1.9**
CYA	**Choya**	**5.65**	**68**	⇑	*e*	P	**Pn**	**03 28 47.7**	**+2.6**
TCA	**Tanti**	**6.18**	**98**	*e*	P		**Pn**	**03 28 53.9**	**+1.3**

*RHSSO **28** 03:46:27.7±0.7, 41°.60N×20°.51E, h5km±3km, ML2.4/4*
*SKO **28** 03:46:28.5, 41°.77N×20°.34E, h8km, ML2.2*
*TIR **28** 03:46:29.4, 41°.77N×20°.40E, h9km±1km, ML2.2, ML2.2, Presumed earthquake*
*PDG **28** 03:46:29.5±0.2, 41°.75N×20°.38E, h4km, ML2.6/13, Error ellipse: s-maj=0.6km s-min=0.8km az=0.0*
*BEO **28** 03:46:31.0±0.3, 41°.79N×20°.45E, h0km, ML1.9/10*
ISC 28 03:46:29.4±1.0, **41°.76N**±0°.02×**20°.40E**±0°.02, **h3**km±9km, **n50,** σ1s**00/97, 11C-10D, Albania**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PHP	**Peshkopia**	**0.09**	**160**	⇑		Pg	**Pg**	**03 46 31.2**	**+0.1**
PHP						Sg	**Sg**	**03 46 32.8**	**+0.5**
PHP						IAML		03 46 33.1	
	6μm,0.3s								
TIR	**Tirane**	**0.58**	**224**			Pg	**Pg**	**03 46 40.5**	**+0.1**
TIR						Sg	**Sg**	**03 46 48.1**	**+0.1**
TIR						IAML		03 46 53.5	
	143nm,0.4s								
OHR	**Ohrid**	**0.72**	**155**	⇓	*i*	Pg	**Pg**	**03 46 42.8**	**-0.3**
OHR					*i*	Sg	**Sb**	**03 46 54.3**	**-0.5**
OHR					*e*	Lg	Lg	03 46 55.0	
	comp=N,88nm,0.3s								
OHR					*e*	Lg	Lg	03 46 55.4	
	comp=E,91nm,0.4s								
SDA	**Shkodra**	**0.73**	**293**	⇑		Pg	**Pg**	**03 46 43.4**	**-0.1**
SDA						Sg	**Sb**	**03 46 54.5**	**-0.6**
SDA						IAML		03 46 57.5	
	comp=E,357nm,0.1s								
SKO	**Skopje**	**0.80**	**75**	*e*		Pg	**Pg**	**03 46 44.7**	**0.0**
SKO					*i*	Sg	**Sb**	**03 46 57.1**	**0.0**
ULC	**Ulcinj**	**0.89**	**283**	⇓	*i*	Pg	**Pg**	**03 46 45.8**	**-0.6**
ULC					*i*	Sg	**Sb**	**03 46 59.6**	**0.0**
PVY	**Plav**	**0.89**	**339**	⇑	*i*	Pg	**Pg**	**03 46 46.3**	**-0.2**
PVY					*i*	Sg	**Sb**	**03 47 00.5**	**+0.6**
DRME	**Dracevica, Mon**	**1.00**	**295**			Pg	**Pg**	**03 46 47.6**	**-1.0**
DRME					*e*	Sg	**Sn**	**03 47 04.1**	**-0.8**
DRME	**Dracevica, Mon**	**1.00**	**295**	⇑	*i*	Pg	**Pg**	**03 46 47.6**	**-1.0**
DRME					*i*	Sg	**Sb**	**03 47 03.6**	**+0.7**
PDG	**Podgorica**	**1.08**	**308**		*e*	Pg	**Pg**	**03 46 49.3**	**-0.9**
PDG					*e*	Sg	**Sn**	**03 47 06.7**	**-0.1**
PDG	**Podgorica**	**1.08**	**308**	⇑	*i*	Pg	**Pg**	**03 46 49.2**	**-0.9**
PDG					*e*	Sg	**Sn**	**03 47 07.9**	**+1.1**
PDG	**Podgorica**	**1.08**	**308**			Pg	**Pg**	**03 46 48.7**	**-1.4**
PDG						Sg	**Sn**	**03 47 06.3**	**-0.5**
PDG	**Podgorica**	**1.08**	**308**	⇑	*i*	Pg	**Pg**	**03 46 49.2**	**-0.9**
PDG					*i*	Sg	**Sn**	**03 47 06.4**	**-0.5**
BERA	**Berati**	**1.11**	**198**			Pg	**Pg**	**03 46 49.8**	**-0.9**
BERA						Sg	**Sn**	**03 47 07.4**	**-0.2**
BERA						IAML		03 47 16.9	
	comp=E,71nm,0.5s								
IVA	**Berane**	**1.17**	**341**	⇓	*i*	Pg	**Pg**	**03 46 51.9**	**+0.1**
IVA					*i*	Sg	**Sn**	**03 47 09.7**	**+0.5**
BUM	**Brajici-Budva**	**1.

IVAS	**Ivanjica**	**1.82**	**354**	*e*Pg		**Pn**	**03 47 01.7**	**+0.1**
IVAS				*e*Sg		**Sg**	**03 47 27.4**	**-0.5**
GOCS	**Kraljevo Serbi**	**1.83**	**11**	*e*Pg		**Pn**	**03 47 01.8**	**0.0**
GOCS				*e*Sg		**Sg**	**03 47 27.4**	**-0.8**
KLINJ	**Klinje**	**1.94**	**317**	*e*Pn		**Pn**	**03 47 03.4**	**+0.1**
KLINJ				*e*Sn		**Sb**	**03 47 30.2**	**+0.1**
BBLS	**Lazi&#263i**	**2.23**	**341**	*e*Pn		**Pb**	**03 47 08.8**	**-1.4**
BBLS				*e*Sn		**Sb**	**03 47 37.3**	**-0.9**
BBLS	**Lazi&#263i**	**2.23**	**341**	*e*Pn		**Pn**	**03 47 08.1**	**+0.9**
BBLS				*e*Sn		**Sb**	**03 47 37.7**	**-0.5**
IGT	**Igoumenitsa**	**2.23**	**181**	*e*Pn		**Pb**	**03 47 09.6**	**-0.7**
IGT				*e*Sn		**Sb**	**03 47 39.0**	**+0.7**
ZAPS	**Zavoj**	**2.24**	**47**	*e*Pn		**Pn**	**03 47 08.4**	**+1.1**
ZAPS				*e*Sn		**Sb**	**03 47 36.9**	**-1.6**
DIVS	**Divibare**	**2.35**	**353**	*e*Pn		**Pn**	**03 47 10.3**	**+1.4**
DIVS				*e*Sn		**Sb**	**03 47 40.5**	**-1.4**
ZAGS	**Zajecar**	**2.45**	**33**	*e*Pn		**Pb**	**03 47 12.7**	**-1.3**
ZAGS				*e*Sn		**Sb**	**03 47 43.4**	**-1.2**
TRUS	**Trudelj**	**2.46**	**0**	*e*Pn		**Pb**	**03 47 12.7**	**-1.5**
TEKS	**Tekeris**	**2.86**	**347**	*e*Pn		**Pb**	**03 47 18.5**	**-2.5**
TEKS	**Tekeris**	**2.86**	**347**	*e*Pn		**Pn**	**03 47 16.8**	**+1.0**
TEKS				*e*Sn		**Sn**	**03 47 53.2**	**+2.5**
FRGS	**Fruska Gora**	**3.42**	**353**	*e*Pn		**Pn**	**03 47 23.8**	**+0.3**
FRGS				*e*Sn		**Sn**	**03 48 05.6**	**+1.0**
VRSS	**Vrsac**	**3.42**	**11**	*e*Pn		**Pn**	**03 47 23.9**	**+0.3**
BLY	**Banja Luka**	**3.80**	**323**	*e*Pn		**Pn**	**03 47 29.2**	**+0.5**
BLY				*e*Sn		**Sn**	**03 48 15.0**	**+1.2**
MORH	**Mrgy, Hungar**	**4.63**	**345**	*e*Pn		**Pn**	**03 47 40.1**	**0.0**
MORH				*e*Sn		**Sn**	**03 48 35.0**	**+0.8**

IDC ***28*** *03:49:02.3±1.5,20˚.21S×177˚.69W,h489km±16km, mb3.4/13, mbtmp4.3/17, Error ellipse: s-maj=17.3km s-min=12.7km az=134.0*
NOU ***28*** *03:49:04.4,20˚.30S×177˚.55W,h503km,mb4.5/9, Fiji Islands Region*
NEIC ***28*** *03:49:04.8±1.4,20˚.3S±0˚.1×177˚.8W±0˚.1,h510km±8km, mb4.1/15, Error ellipse: s-maj=19.9km s-min=16.0km az=150.0*

ISC 28 03:49:03.2±0.4,20˚.27S±0˚.07×177˚.73W±0˚.07,h500km, n112,σ1§00/115,mb3.9/24,4C-6D,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.72**	**302**	P	**P**	**03 50 27.7**	**-0.2**
	12nm,0.4s,baz=265,slow=24,SNR=8.3						
MSVF	**Nonsavu**	**4.72**	**302**	P	**P**	**03 50 30.7**	**+2.8**
MSVF	**Nonsavu**	**4.72**	**302**	P	**P**	**03 50 30.7**	**+2.8**
FUTU	**Fugatoga**	**5.95**	**356**	P	**P**	**03 50 40.1**	**+0.9**
FUTU	**Fugatoga**	**5.95**	**356**	P	**P**	**03 50 40.0**	**+0.8**
FUTU	**Fugatoga**	**5.95**	**356**	P	**P**	**03 50 39.6**	**+0.4**
FUTU				AML	AML		
NIUE	**Niue**	**7.45**	**82**	P	**P**	**03 50 53.9**	**-0.1**
NIUE	**Niue**	**7.45**	**82**	P	**P**	**03 50 54.1**	**0.0**
NIUE	**Niue**	**7.45**	**82**	P	**P**	**03 50 53.5**	**-0.6**
NIUE				S	**S**	**03 52 29.0**	**+4.2**
AFI	**Afiamalu**	**8.51**	**43**	P	**P**	**03 51 02.1**	**-3.1**
	42nm,0.5s,baz=199,slow=2.2,SNR=9.2						
AFI				S	S	03 52 34.9	-10
	79nm,0.6s,baz=26,slow=23,SNR=8.6						
GLKZ	**Green Lake**	**8.95**	**181**	P	**P**	**03 51 08.8**	**-0.6**
GLKZ				S	**S**	**03 52 52.2**	**-0.9**
MARNC	**Mare, Loyalty**	**13.36**	**262**	P	**P**	**03 51 57.6**	**+1.3**
PINNC	**Pines Island,**	**14.00**	**258**	P	**P**	**03 52 03.6**	**+0.6**
DZM	**Mont Dzumac**	**14.87**	**260**	P	**P**	**03 52 11.4**	**-0.8**
	5.3nm,0.7s,baz=119,slow=20,SNR=6.9						
SANVU	**Saraoutou**	**15.12**	**286**	P	**P**	**03 52 16.0**	**+1.2**
OUZ	**Omahuta**	**16.74**	**205**	P	**P**	**03 52 34.3**	**+2.9**
MXZ	**Matakaoa Point**	**17.57**	**190**	P	**P**	**03 52 40.3**	**+0.8**
RUGZ	**Raukumara Rang**	**18.07**	**192**	P	**P**	**03 52 44.9**	**+0.7**
TOZ	**Tahuroa Road**	**18.36**	**197**	P	**P**	**03 52 48.8**	**+2.1**
URZ	**Urewera**	**18.47**	**193**	P	**P**	**03 52 46.8**	**-0.9**
	15nm,0.4s,baz=340,slow=3.5,SNR=12						
URZ	**Urewera**	**18.47**	**193**	P	**P**	**03 52 47.8**	**0.0**
CNGZ	**Carnagh Statio**	**18.48**	**190**	P	**P**	**03 52 48.9**	**+1.0**
RAGZ	**Rawiri**	**18.64**	**192**	P	**P**	**03 52 49.4**	**0.0**
RIGZ	**Rimuhau**	**18.78**	**191**	P	**P**	**03 52 49.5**	**-1.1**
TMVZ	**Te Maari**	**19.61**	**195**	P	**P**	**03 52 57.8**	**-0.5**
OTVZ	**Oturere**	**19.67**	**195**	P	**P**	**03 52 58.8**	**-0.1**
SNVZ	**South Ngauruho**	**19.70**	**195**	P	**P**	**03 52 58.8**	**-0.3**
BHHZ	**Black Hill Sta**	**19.88**	**194**	P	**P**	**03 52 59.8**	**-0.9**
BFZ	**Birch Farm**	**20.98**	**193**	P	**P**	**03 53 09.8**	**-0.8**
MRZ	**Mangatainoka R**	**21.11**	**194**	P	**P**	**03 53 10.4**	**-1.4**
HOWZ	**Holdsworth Sta**	**21.35**	**194**	P	**P**	**03 53 12.7**	**-1.2**
OGWZ	**Otaki Gorge**	**21.35**	**195**	P	**P**	**03 53 14.4**	**+0.4**
QRZ	**Quartz Range**	**22.11**	**200**	P	**P**	**03 53 21.3**	**+0.6**
TKNZ	**Takaka Hill**	**22.16**	**199**	P	**P**	**03 53 21.0**	**-0.3**
NNZ	**Nelson**	**22.20**	**198**	P	**P**	**03 53 21.8**	**+0.2**
THZ	**Tophouse**	**22.84**	**198**	P	**P**	**03 53 27.7**	**+0.3**
DSZ	**Denniston Nort**	**23.17**	**200**	P	**P**	**03 53 30.9**	**+0.6**
KHZ	**Kahutara**	**23.27**	**197**	P	**P**	**03 53 31.0**	**-0.1**
GVZ	**Greta Valley S**	**23.92**	**197**	P	**P**	**03 53 36.3**	**-0.7**
LTZ	**Lake Taylor**	**23.97**	**198**	P	**P**	**03 53 35.9**	**-1.6**
CTA	**Charters Tower**	**33.76**	**264**	P	**P**	**03 55 03.4**	**+0.4**
	7.3nm,0.4s,baz=87,slow=9.9,SNR=12 7.3nm,0.4s						
CTAO	**Charters Tower**	**33.76**	**264**	P	**P**	**03 55 03.4**	**+0.4**
STKA	**Stephens Creek**	**38.11**	**244**	P	**P**	**03 55 38.9**	**0.0**
	1.9nm,0.7s,baz=3.1,slow=2.8,SNR=3.0 1.9nm,0.7s						
BBOO	**Buckleboo**	**42.87**	**243**	P	**P**	**03 56 17.1**	**+0.1**
BBOO				IAmb	IAmb	03 56 18.3	
	comp=Z,13nm,1.2s						
WR8	**Warramunga Arr**	**44.73**	**262**	P	**P**	**03 56 31.1**	**-0.6**
WR8				IAmb	IAmb	03 56 32.0	
	comp=Z,22nm,1.5s						
AS31	**Alice Springs**	**44.81**	**256**	P	**P**	**03 56 32.2**	**-0.1**
AS31				IAmb	IAmb	03 56 33.5	
	comp=Z,4.8nm,1.2s						
ASAR	**Alice Springs**	**44.81**	**256**	P	**P**	**03 56 32.3**	**0.0**
	comp=Z,6.8nm,0.6s,baz=99,slow=7.7,SNR=91						
ASAR				PcP	**PcP**	**03 58 03.8**	**0.0**
	comp=Z,1.0nm,0.4s,baz=97,slow=3.4,SNR=9.8 comp=Z,6.8nm,0.6s						
ASAR	**Alice Springs**	**44.81**	**256**	P	**P**	**03 56 31.5**	**-0.8**
WRA	**Warramunga Arr**	**44.88**	**262**	P	**P**	**03 56 32.2**	**-0.7**
	comp=Z,1.9nm,0.3s,baz=98,slow=8.7,SNR=30						
WRA				PcP	**PcP**	**03 58 03.8**	**-0.2**
	comp=Z,0.5nm,0.6s,baz=99,slow=3.1,SNR=3.0 comp=Z,1.9nm,0.3s						
WRA	**Warramunga Arr**	**44.88**	**262**	P	**P**	**03 56 31.9**	**-1.0**
MTN	**Manton Dam**	**49.41**	**270**	P	**P**	**03 57 06.5**	**-0.5**
MTN				IAmb	IAmb	03 57 07.4	
	comp=Z,3.9nm,0.8s						
KNRA	**Kununurra**	**50.92**	**266**	P	**P**	**03 57 18.1**	**-0.1**
KNRA				IAmb	IAmb	03 57 59.7	
	comp=Z,23nm,1.4s						
FITZ	**Fitzroy Crossi**	**53.31**	**262**	P	**P**	**03 57 35.4**	**+0.1**
VNDA	**Vanda**	**58.16**	**185**	P	**P**	**03 58 08.1**	**+0.1**
	comp=Z,0.6nm,0.7s,baz=7.1,slow=7.8,SNR=2.5 comp=Z,0.6nm,0.7s						
QSPA	**South Pole Qui**	**69.79**	**180**	P	**P**	**03 59 23.7**	**+1.1**
	comp=Z,2.4nm,0.6s,baz=359,slow=0.5,SNR=23 comp=Z,2.4nm,0.6s						
QSPA	**South Pole Qui**	**69.79**	**180**	P	**P**	**03 59 23.9**	**+1.3**
QSPA				IAmb	IAmb	03 59 24.7	
	comp=Z,2.6nm,0.7s						
PETK	**Petropavlovsk-**	**76.12**	**345**	P	**P**	**03 59 58.6**	**-0.3**
	comp=Z,2.4nm,0.7s,baz=182,slow=6.4,SNR=2.2 comp=Z,2.4nm,0.7s						
PETK	**Petropavlovsk-**	**76.12**	**345**	P	**P**	**03 59 58.8**	**-0.1**
USRK	**Ussuriysk Ar.**	**78.92**	**326**	P	**P**	**04 00 14.3**	**0.0**
	comp=Z,2.7nm,0.7s,baz=108,slow=4.7,SNR=3.0 comp=Z,2.7nm,0.7s						
USRK	**Ussuriysk Ar.**	**78.92**	**326**	P	**P**	**04 00 14.0**	**-0.3**
O03E	**Paynes Creek**	**79.61**	**40**	P	**P**	**04 00 18.6**	**+0.4**
O03E				IAmb	IAmb	04 00 45.8	
	comp=Z,3.4nm,1.1s						
NVAR	**Mina Array Bea**	**80.69**	**43**	P	**P**	**04 00 24.1**	**+0.1**
	comp=Z,0.6nm,0.6s,baz=234,slow=9.2,SNR=5.8 comp=Z,0.6nm,0.6s						
NVAR	**Mina Array Bea**	**80.69**	**43**	P	**P**	**04 00 24.7**	**+0.6**
MOD	**Modoc Plateau**	**81.48**	**40**	P	**P**	**04 00 28.5**	**+0.4**
K05A	**Summer Lake**	**81.63**	**39**	P	**P**	**04 00 29.8**	**+0.9**
K05A				IAmb	IAmb	04 00 30.8	
	comp=Z,5.8nm,1.0s						
M16K	**Timber Creek**	**82.42**	**9**	P	**P**	**04 00 32.6**	**+0.5**
M16K				IAmb	IAmb	04 00 53.0	
	comp=Z,34nm,1.4s						
TXAR	**Lajitas Array**	**86.72**	**57**	P	**P**	**04 00 54.1**	**0.0**
	comp=Z,0.7nm,0.7s,baz=234,slow=4.2,SNR=4.3 comp=Z,0.7nm,0.7s						
TXAR	**Lajitas Array**	**86.72**	**57**	P	**P**	**04 00 54.5**	**+0.4**
ELIB	**Princess Elisa**	**86.89**	**186**	*d*P	**P**	**04 00 54.2**	**0.0**
	comp=Z,1.5nm,0.8s						
TROLL	**Troll, Antarti**	**87.96**	**180**	⇑P	**P**	**04 00 59.8**	**+0.6**
	comp=Z,42nm,0.7s						
ILAR	**Eielson Array**	**88.04**	**13**	P	**P**	**04 00 58.0**	**-1.3**
	comp=Z,0.8nm,0.6s,baz=215,slow=5.4,SNR=15 comp=Z,0.8nm,0.6s						
VNA3	**Neumayer Olymp**	**88.35**	**176**	⇑P	**P**	**04 01 00.7**	**-0.2**
	comp=Z,3.2nm,0.6s						
PDAR	**Pinedale Array**	**88.63**	**43**	P	**P**	**04 01 02.8**	**-0.1**
	comp=Z,0.6nm,0.6s,baz=201,slow=3.6,SNR=6.8 comp=Z,0.6nm,0.6s						
PDAR	**Pinedale Array**	**88.63**	**43**	P	**P**	**04 01 02.9**	**0.0**
VNA2	**Neumayer--Watz**	**88.79**	**177**	⇑P	**P**	**04 01 03.3**	**+0.4**
	comp=Z,1.7nm,0.6s,baz=191,slow=4.2						
CMAR	**Chiang Mai Arr**	**90.28**	**289**	P	**P**	**04 01 11.8**	**+1.0**
	comp=Z,1.4nm,0.3s,baz=96,slow=2.9,SNR=7.8 comp=Z,1.4nm,0.3s						
ZALV	**Zalesovo Beam**	**110.47**	**321**	PKiKP	**PKiKP**	**04 06 35.1**	**-3.0**
	comp=Z,0.5nm,0.4s,baz=114,slow=3.6,SNR=2.5						
KURBB	**Kurchatov Arra**	**114.05**	**317**	PKP	PKPdf	04 06 43.5	-1.4
	comp=Z,0.5nm,0.6s,baz=89,slow=2.3,SNR=4.1						
BVAR	**Borovoye Array**	**119.07**	**320**	PKP	**PKPdf**	**04 06 53.4**	**-1.2**
	comp=Z,0.7nm,0.4s,baz=270,slow=1.4,SNR=4.6						
SPITS	**Spitsbergen Ar**	**121.66**	**357**	PKP	**PKPdf**	**04 06 58.7**	**-0.2**
	comp=Z,1.2nm,0.3s,baz=34,slow=15,SNR=7.5						
FINES	**FINESS Array B**	**135.63**	**344**	PKP	**PKPdf**	**04 07 26.4**	**+0.6**
	comp=Z,2.4nm,0.9s,baz=109,slow=4.6,SNR=6.8						
HFS	**Hagfors**	**139.36**	**351**	PKhKP	PKPpre	04 07 23.9	
	comp=Z,2.6nm,1.0s,baz=240,slow=7.8,SNR=4.3						
AKASG	**Malin Array Be**	**142.94**	**331**	PKhKP	PKPpre	04 07 34.6	
	comp=Z,3.1nm,0.4s,baz=43,slow=4.2,SNR=20						
EKA	**Eskdalemuir Ar**	**144.76**	**5**	PKP	**PKPdf**	**04 07 41.7**	**-0.7**
	comp=Z,0.6nm,0.5s,baz=326,slow=3.0,SNR=4.9						
SORM	**Soroca**	**145.14**	**329**	⇓P	**PKPdf**	**04 07 43.7**	**+0.4**
BR131	**Keskin Array S**	**146.87**	**313**		**PKPbc**	**04 07 48.5**	**-1.0**
BRTR	**Keskin Array B**	**146.87**	**313**	PKPbc	**PKPbc**	**04 07 48.9**	**-0.6**
	comp=Z,1.8nm,0.6s,baz=134,slow=4.2,SNR=12						
BURAR	**Bucovina Array**	**146.99**	**331**	⇓P	**PKPbc**	**04 07 49.9**	**+0.4**
BIZ	**Bicaz**	**147.07**	**329**	⇑P	**PKPbc**	**04 07 50.1**	**+0.5**
OSTC	**Ostas**	**147.83**	**343**	*e*PKP	**PKPbc**	**04 07 51.7**	**+0.2**
CLL	**Collm**	**147.90**	**347**	*i* PKPbc	**PKPbc**	**04 07 51.2**	**-0.4**
	comp=Z,8.0nm,1.0s						
CLL				*i* PKPab	**PKPab**	**04 07 55.1**	**-0.8**
	comp=Z,5.0nm,1.0s						
MMAI	**Mount Meron Ar**	**147.92**	**300**	PKPbc	**PKPbc**	**04 07 52.8**	**+0.4**
	comp=Z,1.4nm,0.4s,baz=60,slow=8.7,SNR=13						
UPC	**Upice**	**147.93**	**343**	*e*PKP	**PKPbc**	**04 07 51.7**	**0.0**
STEB	**Steborice**	**147.94**	**341**	*e*PKP	**PKPbc**	**04 07 51.3**	**-0.4**
DPC	**Dobruska-Polom**	**147.99**	**343**	*e*PKP	**PKPbc**	**04 07 52.0**	**+0.1**
KRLC	**Kraliky**	**148.10**	**342**	*e*PKP	**PKPbc**	**04 07 51.7**	**-0.5**
ZVC	**Zvikov**	**149.38**	**345**	*e*PKP	**PKPbc**	**04 07 55.5**	**+0.2**
ABNA	**Allensteig Bun**	**149.75**	**343**	*e*PKP	**PKPbc**	**04 07 56.3**	**0.0**
	comp=Z,1.9nm,0.9s						
KHC	**Kasperske Hory**	**149.81**	**345**		**PKPbc**	**04 07 56.2**	**-0.2**
KHC	**Kasperske Hory**	**149.81**	**345**	*e*PKP	**PKPbc**	**04 07 55.6**	**-0.8**
KHC				*ex*	x	04 08 03.6	
CKRC	**Cesky Krumlov**	**149.92**	**344**	*e*PKP	**PKPbc**	**04 07 56.2**	**-0.4**
BMRD	**Maredsous**	**149.97**	**357**	*d*PKP	**PKPbc**	**04 07 56.5**	**-0.1**
GERES	**GERESS Array B**	**150.05**	**345**	PKPbc	**PKPbc**	**04 07 56.8**	**-0.3**
	comp=Z,1.8nm,0.8s,baz=10,slow=1.5,SNR=16						
DOU	**Dourbes**	**150.19**	**357**	*d*PKP	**PKPbc**	**04 07 57.0**	**-0.1**
CONA	**Conrad Observa**	**150.30**	**341**	*e*PKP	**PKPbc**	**04 07 57.4**	**-0.2**
	comp=Z,1.5nm,0.5s						
RONA	**Rosalia, Austr**	**150.37**	**341**	*e*PKP	**PKPbc**	**04 07 57.6**	**-0.2**
	comp=Z,2.0nm,0.5s						
WLF	**Walferdange**	**150.51**	**355**	*d*PKPdf	**PKPdf**	**04 07 51.3**	**-0.7**
BIOA	**Bad Ischl, Aus**	**151.13**	**344**	*e*PKP	**PKPab**	**04 08 08.1**	**-1.4**
	comp=Z,0.4nm,0.4s						
SESA	**Seetaler Alpe,**	**151.41**	**342**	*i* PKP	**PKPbc**	**04 07 59.3**	**-1.1**
	comp=Z,2.2nm,0.5s						
SESA				*e*PKP	**PKPab**	**04 08 09.2**	**-1.6**
	comp=Z,4.8nm,1.4s						
WATA	**Walderalm**	**151.96**	**346**	*e*PKP	**PKPbc**	**04 08 00.6**	**-0.9**
	comp=Z,0.2nm,0.4s						
MYKA	**Terra Mystica**	**152.11**	**343**	*i* PKP	**PKPbc**	**04 08 01.0**	**-0.8**
	comp=Z,0.3nm,0.2s						
ABTA	**Abfaltersbach**	**152.30**	**345**	*e*PKP	**PKPbc**	**04 08 00.9**	**-1.3**
	comp=Z,5.1nm,1.4s						

IDC ***28*** *04:05:03.0±0.6,55˚.43S×29˚.61W,h0km,mb4.6/8, mbtmp4.6/9, ML4.6/1, MS3.7/20, Error ellipse: s-maj=25.9km s-min=15.6km az=63.0*
NEIC ***28*** *04:05:04.6±1.2,55˚.53S±0˚.02×29˚.8W±0˚.2,h10km±1km, mb5.0/42, Error ellipse: s-maj=16.5km s-min=3.0km az=91.0*
GFZ ***28*** *04:05:04.4±0.2,55˚S±4˚×3˚0W±˚,h10km,M4.9/33, mb4.9/33*

ISC 28 04:05:06.7±0.4,55˚.43S±0˚.08×29˚.68W±0˚.08,h28km,n144, σ1§03/128,mb4.9/52,MS3.6/18,5C,South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**4.10**	**283**		**Pn**	**04 06 07.8**	**+0.4**
HOPE	**Hope Point**	**4.10**	**283**	P	**Pn**	**04 06 08.4**	**+1.0**
EFI	**East Falkland**	**17.22**	**271**	P	**P**	**04 09 06.3**	**0.0**
	comp=Z,61nm,1.7s						
VNA1	**Neumayer--Stat**	**17.91**	**157**	⇑P	**P**	**04 09 15.0**	**+1.3**
	comp=Z,29nm,1.0s						
VNA3	**Neumayer Olymp**	**18.06**	**159**	⇑P	**P**	**04 09 16.1**	**+0.7**
	comp=Z,33nm,0.9s						
VNA3	**Neumayer Olymp**	**18.06**	**159**	P	**P**	**04 09 15.9**	**+0.5**
	comp=Z,59nm,0.9s						
VNA2	**Neumayer--Watz**	**18.31**	**157**	⇑P	**Pn**	**04 09 18.7**	**+0.5**
	comp=Z,12nm,0.7s,baz=315,slow=12						
VNA2	**Neumayer--Watz**	**18.31**	**157**	P	**Pn**	**04 09 18.0**	**-0.2**
	comp=Z,26nm,0.9s						
PMSA	**Palmer Station**	**19.27**	**227**	LR	LR	04 15 23.3	
	comp=Z,64nm,21.0s,baz=104,slow=32						
SNAA	**Sanae**	**19.89**	**155**	⇑P	**Pn**	**04 09 36.2**	**-1.0**
	comp=Z,312nm,0.6s						
SNAA	**Sanae**	**19.89**	**155**	P	**Pn**	**04 09 36.2**	**-1.0**
	comp=Z,1.6nm,0.3s,baz=310,slow=13,SNR=6.2						
SNAA				LR	LR	04 15 52.2	
	comp=Z,202nm,20.9s,baz=330,slow=33 comp=Z,18nm,0.8s						
SNAA				AML	AML		
SNAA	**Sanae**	**19.89**	**155**	P	**P**	**04 09 35.1**	**-0.4**
SNAA	**Sanae**	**19.89**	**155**	P	**P**	**04 09 35.5**	**0.0**
	comp=Z,29nm,0.9s						
TROLL	**Troll, Antarti**	**21.43**	**153**	⇑P	**P**	**04 09 52.4**	**+0.2**
	comp=Z,632nm,0.7s						
BELA	**Belgrano 2**	**22.61**	**183**		**P**	**04 10 04.5**	**-0.2**
BELA				IAmb	IAmb	04 10 07.6	
	comp=Z,44nm,0.9s						
GO08	**Villa O'Higgin**	**26.97**	**267**	P	**P**	**04 10 46.0**	**+0.3**
	comp=Z,14nm,0.4s						
CPSB	**Cacapava Do Su**	**30.18**	**316**	P	**P**	**04 11 13.5**	**-0.8**
PLCA	**Paso Flores**	**30.50**	**282**	LR	LR	04 22 45.6	
	comp=Z,93nm,21.9s,baz=130,slow=35						
LL07	**Hotel Espejo d**	**30.77**	**276**	P	**P**	**04 11 19.1**	**-0.4**
	comp=Z,386nm,2.0s						
LL05	**Los Muermos**	**31.70**	**278**	P	**P**	**04 11 29.3**	**+1.6**
ITAB	**Concordia**	**32.54**	**321**	P	**P**	**04 11 35.0**	**-0.1**
	comp=Z,37nm,0.6s						
SPB	**Sao Paulo**	**34.41**	**330**	P	**P**	**04 11 52.0**	**+0.6**
	comp=Z,26nm,1.6s						
QSPA	**South Pole Qui**	**34.82**	**180**	P	**P**	**04 11 56.0**	**+1.1**
	comp=Z,16nm,1.0s,baz=202,slow=4.6,SNR=29						
QSPA				LR	LR	04 25 01.3	
	comp=Z,220nm,21.4s,baz=195,slow=34 comp=Z,16nm,1.0s						
QSPA	**South Pole Qui**	**34.82**	**180**	P	**P**	**04 11 56.0**	**+1.1**
QSPA	**South Pole Qui**	**34.82**	**180**	P	**P**	**04 11 56.2**	**+1.4**
	comp=Z,27nm,1.1s						
CPUP	**Villa Florida**	**35.36**	**314**	P	**P**	**04 12 00.1**	**+0.5**
	comp=Z,6.6nm,0.9s,baz=169,slow=10,SNR=13						
CPUP				LR	LR	04 25 05.9	
	comp=Z,77nm,19.3s,baz=158,slow=34 comp=Z,6.6nm,0.9s						
CPUP	**Villa Florida**	**35.36**	**314**	P	**P**	**04 11 59.7**	**+0.1**
	comp=Z,8.8nm,1.0s						
BO04	**La Punta**	**35.41**	**290**	P	**P**	**04 11 58.1**	**-2.0**
BO04				IAmb	IAmb	04 12 50.9	
	comp=Z,31nm,1.6s						
MT09	**Talagante**	**35.78**	**290**	P	**P**	**04 12 01.5**	**-1.9**
MT09				IAmb	IAmb	04 12 59.4	
	comp=Z,33nm,1.4s						
MT01	**Popeta**	**35.85**	**289**	P	**P**	**04 12 02.2**	**-1.6**
MT01				IAmb	IAmb	04 12 34.8	
	comp=Z,27nm,1.4s						
PEL	**Peldehue**	**36.10**	**291**	P	**P**	**04 12 05.6**	**-0.5**
	comp=Z,15nm,0.9s						
VA05	**Santo Domingo**	**36.21**	**289**	P	**P**	**04 12 07.0**	**+0.2**
	comp=Z,37nm,2.3s						
MT02	**Curacav**	**36.26**	**290**	P	**P**	**04 12 05.8**	**-1.5**
ZON	**Zonda**	**36.30**	**295**		**P**	**04 12 07.3**	**-0.4**
ZON				IAmb	IAmb	04 12 08.1	
	comp=Z,13nm,0.7s						
ZON	**Zonda**	**36.30**	**295**	P	**P**	**04 12 07.8**	**+0.1**
	comp=E,20nm,0.9s						
CO04	**Los Peladeros**	**37.11**	**292**	P	**P**	**04 12 15.9**	**+1.1**
	comp=Z,17nm,1.3s						
CO02	**Combarbal**	**37.78**	**293**	P	**P**	**04 12 19.8**	**-0.6**
CO02				IAmb	IAmb	04 12 31.6	
	comp=Z,42nm,1.3s						
CO03	**El Pedregal**	**37.91**	**293**	P	**P**	**04 12 20.9**	**-0.5**
	comp=Z,14nm,1.8s						
CO01	**Juntas del Tor**	**38.28**	**295**	P	**P**	**04 12 25.1**	**+0.4**
CO01	**Juntas del Tor**	**38.28**	**295**	P	**P**	**04 12 25.3**	**+0.5**
	comp=Z,19nm,1.7s						
GO04	**Tololo Observa**	**38.49**	**294**	P	**P**	**04 12 26.3**	**-0.2**
	comp=Z,20nm,1.1s						
AC05	**El Transito**	**39.29**	**296**		**P**	**04 12 32.7**	**-0.3**
AC05				IAmb	IAmb	04 12 34.7	
	comp=Z,18nm,0.8s						
AC05	**El Transito**	**39.29**	**296**	P	**P**	**04 12 32.6**	**-0.5**
	comp=Z,30nm,1.2s						
LCO	**Las Campanas**	**39.37**	**295**	P	**P**	**04 12 33.8**	**-0.1**
	comp=Z,25nm,1.1s						
AQDB	**Aquidauana**	**40.01**	**320**		**P**	**04 12 38.6**	**-0.3**
AQDB	**Aquidauana**	**40.01**	**320**	P	**P**	**04 12 38.6**	**-0.3**
	comp=Z,14nm,1.6s						
AC04	**Llanos de Chal**	**40.21**	**295**	P	**P**	**04 12 40.5**	**-0.1**
AC04				IAmb	IAmb	04 12 42.0	
	comp=Z,27nm,0.8s						
AC04	**Llanos de Chal**	**40.21**	**295**	P	**P**	**04 12 40.1**	**-0.5**
	comp=Z,43nm,1.0s						
GO03	**Copiapo**	**40.28**	**297**	P	**P**	**04 12 40.7**	**-0.6**
GO03	**Copiapo**	**40.28**	**297**	P	**P**	**04 12 40.4**	**-0.9**
	comp=Z,26nm,1.5s						
AC02	**Maricunga**	**40.34**	**299**		**P**	**04 12 42.4**	**+0.1**
AC02				IAmb	IAmb	04 12 44.7	
	comp=Z,28nm,1.2s						
AC02	**Maricunga**	**40.34**	**299**	P	**P**	**04 12 43.2**	**+0.9**
	comp=Z,25nm,1.2s						
AC06	**Mina Casimiro**	**40.53**	**297**		**P**	**04 12 43.0**	**-0.3**
MAW	**Mawson**	**41.48**	**145**	P	**P**	**04 12 50.6**	**+0.1**
	comp=Z,7.6nm,0.7s,baz=229,slow=9.0,SNR=10						
MAW				LR	LR	04 27 50.9	
	comp=Z,105nm,20.7s,baz=251,slow=33 comp=Z,7.6nm,0.7s						
MAW	**Mawson**	**41.48**	**145**		**P**	**04 12 49.8**	**-0.7**
MAW	**Mawson**	**41.48**	**145**	P	**P**	**04 12 50.3**	**-0.2**
	comp=Z,2.3nm,0.8s						
AC01	**Pan de Azucar**	**41.65**	**298**	P	**P**	**04 12 52.8**	**+0.3**
	comp=Z,34nm,1.1s						
SUR	**Sutherland**	**41.86**	**78**	LR	LR	04 25 51.7	
	comp=Z,61nm,21.8s,baz=200,slow=30						
SUR	**Sutherland**	**41.86**	**78**	P	**P**	**

OTAV	**Otavalo**	**68.15**	**306**	P	**P**		**04 16 04.4**	**-0.3**
OTAV				IAmb	IAmb		04 16 21.8	
	comp=Z,8.2nm,1.2s							
OTAV	**Otavalo**	**68.15**	**306**	P	**P**		**04 16 05.6**	**+0.8**
	comp=Z,6.1nm,1.4s							
ROSC	**El Rosal**	**70.41**	**312**	LR	LR		04 49 18.1	
	comp=Z,56nm,19.7s,baz=183,slow=38							
SDV	**Santo Domingo**	**72.59**	**317**	LR	LR		04 49 35.3	
	comp=Z,134nm,19.7s,baz=230,slow=37							
TORD	**Torodi Ar. Bea**	**73.24**	**32**	P	**P**		**04 16 36.1**	**+1.1**
	comp=Z,1.9nm,0.8s,baz=188,slow=5.9,SNR=6.8							
	comp=Z,1.9nm,0.8s							
TORD	**Torodi Ar. Bea**	**73.24**	**32**	P	**P**		**04 16 36.7**	**+1.7**
SJG	**San Juan**	**79.51**	**325**	LR	LR		04 53 56.6	
	comp=Z,26nm,19.7s,baz=154,slow=37							
JTS	**Las Juntas de**	**80.00**	**305**	LR	LR		04 54 25.4	
	comp=Z,23nm,20.8s,baz=48,slow=37							
MDT	**Midelt**	**90.48**	**21**	LR	LR		04 53 24.9	
	comp=Z,99nm,18.4s,baz=44,slow=32							
STKA	**Stephens Creek**	**92.72**	**173**	LR	LR		04 56 37.4	
	comp=Z,86nm,21.9s,baz=197,slow=33							
ASAR	**Alice Springs**	**99.98**	**165**	LR	LR		05 00 59.6	
	comp=Z,80nm,20.1s,baz=206,slow=34							
PDAR	**Pinedale Array**	**118.83**	**304**	PKP	**PKPdf**		**04 23 50.6**	**-1.1**
	comp=Z,0.2nm,0.4s,baz=148,slow=2.4,SNR=2.5							
FINES	**FINESS Array B**	**124.50**	**29**	PKP	**PKPdf**		**04 24 01.2**	**-0.5**
	comp=Z,4.5nm,1.0s,baz=212,slow=5.8,SNR=8.5							
CMAR	**Chiang Mai Arr**	**126.60**	**113**	PKP	**PKPdf**		**04 24 06.2**	**-0.9**
	comp=Z,1.4nm,0.3s,baz=219,slow=2.6,SNR=1.9							
YKA	**Yellowknife Ar**	**134.78**	**319**	PKP	**PKPdf**		**04 24 20.9**	**-0.3**
	comp=Z,1.0nm,0.6s,baz=134,slow=2.0,SNR=17							
BVAR	**Borovoye Array**	**135.64**	**58**	PKP	**PKiKP**		**04 24 23.6**	**-1.1**
	comp=Z,1.3nm,0.8s,baz=252,slow=3.0,SNR=6.2							
WMQ	**Urumqi**	**139.16**	**79**	*e*PKP	**PKiKP**		**04 24 35.0**	**+2.7**
LZH	**Lanzhou**	**143.11**	**102**	*e*PKP	**PKiKP**		**04 24 40.8**	**+0.1**
LZH				sPKP			04 24 56.5	
ZALV	**Zalesovo Beam**	**143.36**	**64**	PKhKP	PKPpre		04 24 34.1	
	comp=Z,1.9nm,0.6s,baz=235,slow=1.2,SNR=10							
XAN	**Xi'an**	**144.37**	**109**	PKP	**PKPdf**		**04 24 38.3**	**-1.3**
E29M	**Blow River**	**146.02**	**321**		**PKPbc**		**04 24 41.9**	**-0.3**
NJ2	**Nanjing**	**147.86**	**124**	*e*P	**PKPdf**		**04 24 46.3**	**+0.8**
NJ2				pmax	pmax			
	comp=Z,14nm,0.5s							
F26K	**Sheenjek River**	**148.16**	**319**		**PKiKP**		**04 24 49.0**	**-1.0**
C27K	**Jago River**	**148.31**	**322**		**PKiKP**		**04 24 49.2**	**-1.0**
ILAR	**Eielson Array**	**148.66**	**313**	PKPbc	**PKPbc**		**04 24 49.4**	**-0.2**
	comp=Z,6.7nm,0.6s,baz=123,slow=1.8,SNR=91							
ILAR	**Eielson Array**	**148.66**	**313**		**PKPbc**		**04 24 49.3**	**-0.3**
C26K	**Camden Bay**	**148.76**	**323**		**PKiKP**		**04 24 50.7**	**-0.4**
NRIK	**Norilʹsk**	**149.40**	**38**	PKPbc	**PKiKP**		**04 24 51.9**	**-0.5**
	comp=Z,2.6nm,0.5s,baz=289,slow=2.3,SNR=3.7							
BTO2	**Baotou**	**149.74**	**102**	*e*P	**PKPbc**		**04 24 53.0**	**-0.2**
BTO2				pmax	pmax			
	comp=Z,40nm,1.1s							
BTO2				pmax	pmax			
	comp=Z,260nm,5.4s							
SKT	**Skwentna**	**150.04**	**307**		**PKiKP**		**04 24 53.3**	**-0.7**
HHC	**Hu-ho-hao-te**	**150.75**	**104**	*e*P	**PKPdf**		**04 24 47.3**	**-2.7**
SONM	**Songino Array**	**152.10**	**87**	PKPbc	**PKPbc**		**04 24 58.0**	**-0.5**
	comp=Z,2.3nm,0.7s,baz=196,slow=4.2,SNR=10							
SONM	**Songino Array**	**152.10**	**87**		**PKPbc**		**04 24 57.9**	**-0.6**
CN2	**Changchun**	**160.24**	**116**	PKP	**PKPdf**		**04 24 57.3**	**-5.2**

*SJA **28** 04:19:21.9±0.8,27.°68S×71.°37W,h11km±3km,ML3.8, MW3.6*
*GUC **28** 04:19:27.0±0.8,27.°80S×71.°08W,h33km±2km,ML3.9, Presumed earthquake*
ISC 28 04:19:23.4±1.6,**27.°71S**±0.°03×**71.°25W**±0.°06,**h5**km±11km, **n35,σ1§53/56,5C-4D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.52**	**162**	*i* P	**Pb**	**04 19 34.6**	**-0.4**
AC04				IAML		04 19 44.9	
	comp=Z,2μm,0.3s						
AC04	**Llanos de Chal**	**0.52**	**162⇑**	*i* P	**Pb**	**04 19 35.3**	**+0.2**
AC04				*i* S	**Sg**	**04 19 41.3**	**+1.1**
AC04				IAML		04 19 42.1	
	comp=E,10μm,0.1s						
AC06	**Mina Casimiro**	**0.87**	**67⇓**	*i* P	**Pg**	**04 19 41.2**	**+1.0**
AC06				*i* S	**Sg**	**04 19 51.3**	**-0.1**
AC06				IAML		04 19 55.0	
	comp=E,6μm,0.3s						
GO03	**Copiapo**	**0.91**	**83**	*i* P	**Pg**	**04 19 41.4**	**+0.5**
GO03				*i* S	**Sn**	**04 19 55.3**	**-1.3**
GO03				IAML		04 19 55.4	
	comp=Z,2μm,0.3s						
GO03	**Copiapo**	**0.91**	**83⇓**	*i* P	**Pg**	**04 19 41.4**	**+0.5**
GO03				*i* S	**Sg**	**04 19 51.4**	**-1.3**
GO03				IAML		04 19 55.0	
	comp=E,4μm,0.2s						
LCO	**Las Campanas**	**1.39**	**160**	*i* P	**Pn**	**04 19 49.4**	**-0.4**
LCO				*i* S	**Sn**	**04 20 07.8**	**-0.9**
LCO				IAML		04 20 08.0	
	comp=Z,4μm,0.4s						
LCO	**Las Campanas**	**1.39**	**160**	*e*P	**Pn**	**04 19 49.2**	**-0.6**
LCO				*i* S	**Sb**	**04 20 05.2**	**-3.0**
LCO				IAML		04 20 08.0	
	comp=Z,18μm,0.5s						
AC05	**El Transito**	**1.42**	**143**	*i* P	**Pn**	**04 19 49.8**	**-0.3**
AC05				IAML		04 20 13.3	
	comp=Z,905nm,0.3s						
AC05	**El Transito**	**1.42**	**143⇓**	*i* P	**Pn**	**04 19 49.3**	**-0.7**
AC05				*i* S	**Sb**	**04 20 05.7**	**-3.2**
AC05				IAML		04 20 10.1	
	comp=N,2μm,0.6s						
AC01	**Pan de Azucar**	**1.66**	**21**	*i* P	**Pn**	**04 19 53.2**	**0.0**
AC01				*i* S	**Sb**	**04 20 16.6**	**+0.9**
AC01				IAML		04 20 26.5	
	comp=Z,524nm,0.6s						
AC01	**Pan de Azucar**	**1.66**	**21⇑**	*i* P	**Pn**	**04 19 54.3**	**+1.0**
AC02	**Maricunga**	**2.08**	**66**	*i* P	**Pb**	**04 20 01.0**	**-1.0**
AC02				*i* S	**Sb**	**04 20 28.3**	**-0.1**
AC02				IAML		04 20 30.8	
	comp=Z,787nm,0.2s						
AC02	**Maricunga**	**2.08**	**66⇑**	*i* P	**Pb**	**04 20 01.4**	**-0.6**
AC02				*e*S	**Sn**	**04 20 26.4**	**+0.3**
AC02				IAML		04 20 28.7	
	comp=N,3μm,0.4s						
CO05	**La Serena**	**2.20**	**180**	*e*P	**Pn**	**04 20 00.8**	**+0.1**
CO05				*e*S	**Sn**	**04 20 28.4**	**0.0**
CO05				IAML		04 20 32.0	
	comp=E,2μm,0.3s						
CO01	**Juntas del Tor**	**2.48**	**156**	*i* P	**Pn**	**04 20 05.9**	**+1.2**
CO01				*i* S	**Sb**	**04 20 38.3**	**-1.3**
CO01				IAML		04 20 45.1	
	comp=Z,419nm,0.7s						
CO01	**Juntas del Tor**	**2.48**	**156**	*e*P	**Pn**	**04 20 05.6**	**+0.8**
CO01				*e*S	**Sn**	**04 20 34.5**	**-1.1**
CO01				IAML		04 20 39.5	
	comp=N,485nm,0.3s						
GO04	**Tololo Observa**	**2.49**	**171**	*i* P	**Pn**	**04 20 06.0**	**+1.1**
GO04				*i* S	**Sb**	**04 20 38.0**	**-1.8**
GO04				IAML		04 20 43.0	
	comp=Z,550nm,0.6s						
GO04	**Tololo Observa**	**2.49**	**171**	*e*P	**Pn**	**04 20 05.2**	**+0.4**
GO04				*i* S	**Sn**	**04 20 35.9**	**+0.1**
GO04				IAML		04 20 47.2	
	comp=N,2μm,0.5s						
VCA	**Vinchina**	**2.88**	**112**	*i* P	**Pn**	**04 20 12.0**	**+1.9**
VCA				*i* S	**Sb**	**04 20 49.2**	**-1.7**
VCA				IAML		04 20 58.8	
	comp=Z,406nm,0.3s						
VCA	**Vinchina**	**2.88**	**112⇑**	*e*P	**Pb**	**04 20 13.7**	**-1.7**
AROD	**Rodeo**	**2.90**	**148**	*i* P	**Pn**	**04 20 13.1**	**+2.4**
AROD				*i* S	**Sb**	**04 20 50.1**	**-1.9**
CO06	**Fray Jorge**	**2.98**	**186⇓**	*e*P	**Pn**	**04 20 10.3**	**-1.1**
CO06				IAML		04 21 01.9	
	comp=N,280nm,0.3s						
CO03	**El Pedregal**	**3.16**	**171**	*i* P	**Pn**	**04 20 15.0**	**+1.0**
CO03				*i* S	**Sn**	**04 20 54.2**	**+2.1**
CO03				IAML		04 21 07.5	
	comp=Z,311nm,0.7s						
CO03	**El Pedregal**	**3.16**	**171**	*e*P	**Pn**	**04 20 14.4**	**+0.4**
CO03				IAML		04 21 06.1	
	comp=E,622nm,0.4s						
PB14	**IPOC Station P**	**3.16**	**14**	*i* P	**Pn**	**04 20 13.8**	**-0.4**
PB14				IAML		04 21 06.4	
	comp=Z,159nm,0.6s						
PB14	**IPOC Station P**	**3.16**	**14**	*e*P	**Pn**	**04 20 14.4**	**+0.2**
PB14				IAML		04 21 10.8	
	comp=E,127nm,0.6s						
TINO	**Tinogasta**	**3.28**	**97**	*i* P	**Pn**	**04 20 17.7**	**+2.1**
TINO				IAML		04 21 14.0	
	comp=Z,120nm,0.6s						
CO02	**Combarbal**	**3.49**	**176**	*i* P	**Pn**	**04 20 20.0**	**+1.4**
CO02				*i* S	**Sn**	**04 21 02.4**	**+2.0**
CO02				IAML		04 21 13.8	
	comp=Z,636nm,0.4s						
CO02	**Combarbal**	**3.49**	**176**	*e*P	**Pn**	**04 20 18.2**	**-0.4**
RTLL	**Cerro Villicun**	**4.34**	**147**	*i* P	**Pn**	**04 20 32.4**	**+2.2**
RTLL				*i* S	**Sn**	**04 21 24.9**	**+3.5**
RTLL				IAML		04 21 33.4	
	comp=Z,172nm,0.8s						
RTLL	**Cerro Villicun**	**4.34**	**147**	*e*P	**Pn**	**04 20 32.5**	**+2.2**
RTLS	**Leoncito**	**4.42**	**158**	*i* P	**Pn**	**04 20 34.0**	**+2.6**
RTLS				*i* S	**Sn**	**04 21 27.0**	**+3.5**
RTLS				IAML		04 21 41.9	
	comp=Z,264nm,0.4s						
CYA	**Choya**	**4.87**	**100⇑**	*e*P	**Pn**	**04 20 38.3**	**+0.8**
PB05	**IPOC Station P**	**4.93**	**11**	*i* P	**Pn**	**04 20 36.4**	**-2.0**
PB05				IAML		04 22 11.8	
	comp=Z,53nm,0.5s						
TCA	**Tanti**	**6.83**	**124**	*e*P	**Pn**	**04 21 04.2**	**-0.3**

*IDC **28** 04:39:55.8±0.7,7.°38S×127.°22E,h0km,mb4.1/6, mbtmp4.2/11,ML4.3/5,MS3.2/8,Error ellipse: s-maj=19.0km s-min=11.3km az=92.0*
*NEIC **28** 04:39:57.1±1.8,7.°46S±0.°08×127.°20E±0.°04,h10km±1km, mb4.5/7,Error ellipse: s-maj=13.6km s-min=6.4km az=3.0*
ISC 28 04:39:56.8±0.7,**7.°54S**±0.°07×**127.°24E**±0.°08,**h10**km,**n32, σ1§38/27,mb4.4/10,MS3.5/3,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SOEI	**Soe**	**3.67**	**233**		**Pn**	**04 40 53.5**	**-0.3**
BATI	**Baumata**	**4.42**	**233**	Pn	**Pn**	**04 41 04.9**	**+0.9**
	25nm,0.3s,baz=100,slow=12,SNR=10						
BATI				Sn	**Sn**	**04 41 57.2**	**+1.6**
	14nm,0.3s,baz=344,slow=23,SNR=2						
BATI				LR	LR	04 42 47.9	
	comp=Z,210nm,19.0s,baz=7.0,slow=38						
	122nm,0.5s						
BATI				AML	AML		
MTN	**Manton Dam**	**6.52**	**144**		**Pn**	**04 41 34.7**	**+1.9**
MTN					**Sn**	**04 42 50.0**	**+2.7**
SIJI	**Sorong**	**7.74**	**31**	Pn	**Pn**	**04 41 49.1**	**-0.5**
	1.4nm,0.3s,baz=217,slow=20,SNR=4.5						
SIJI				LR	LR	04 45 09.5	
	comp=Z,85nm,20.5s,baz=237,slow=41						
	11nm,0.6s						
SIJI				AML	AML		
KAPI	**Kappang**	**7.85**	**288**	LR	LR	04 44 57.3	
	comp=Z,124nm,18.3s,baz=118,slow=39						
KNRA	**Kununurra**	**8.23**	**170**		**Pn**	**04 41 57.0**	**+0.7**
FITZ	**Fitzroy Crossi**	**10.61**	**188**	Pn	**Pn**	**04 42 27.5**	**-1.5**
	2.0nm,0.3s,baz=17,slow=14,SNR=41						
FITZ				Sn	Sn	04 44 18.4	-10
	4.7nm,0.3s,baz=169,slow=22,SNR=12						
FITZ				LR	LR	04 47 28.0	
	comp=Z,193nm,18.4s,baz=358,slow=42						
	5.6nm,0.4s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.12**	**152**	Pn	Pn	04 43 12.8	-4.3
	1.6nm,0.3s,baz=322,slow=14,SNR=27						
WRA				Sn	Sn	04 45 42.8	-11
	2.3nm,0.3s,baz=327,slow=23,SNR=9.8						
	4.1nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**14.12**	**152**		Pn	04 43 13.5	-3.6
WR8	**Warramunga Arr**	**14.21**	**151**		**Pn**	**04 43 15.6**	**-2.7**
DAV	**Davao City (W)**	**14.60**	**353**	LR	LR	04 49 39.2	
	comp=Z,35nm,21.0s,baz=164,slow=40						
MBWA	**Marble Bar**	**15.37**	**207**	Pn	**Pn**	**04 43 32.8**	**-1.1**
MBWA				IAmb	IAmb	04 43 39.9	
	comp=Z,13nm,0.8s						
AS31	**Alice Springs**	**17.27**	**159**		**Pn**	**04 43 55.8**	**-2.4**
ASAR	**Alice Springs**	**17.27**	**159**	Pn	**Pn**	**04 43 55.5**	**-2.7**
	comp=Z,0.9nm,0.3s,baz=327,slow=9.3,SNR=51						
ASAR				Sn	Sn	04 46 58.4	-12
	comp=Z,0.9nm,0.3s,baz=316,slow=18,SNR=8.4						
	comp=Z,5.0nm,0.8s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**17.27**	**159**		**Pn**	**04 43 57.3**	**-0.9**
FORT	**Forrest**	**23.14**	**178**	P	**P**	**04 45 03.2**	**-0.1**
FORT				IAmb	IAmb	04 45 10.8	
	comp=Z,13nm,0.9s						
MORW	**Morawa**	**23.88**	**205**	P	**P**	**04 45 10.2**	**-0.4**
MORW				IAmb	IAmb	04 45 28.5	
	comp=Z,41nm,1.5s						
BBOO	**Buckleboo**	**26.45**	**163**	P	**P**	**04 45 34.4**	**+0.3**
STKA	**Stephens Creek**	**27.67**	**153**	P	**P**	**04 45 45.9**	**+0.8**
	comp=Z,2.0nm,0.3s,baz=325,slow=12,SNR=3.1						
	comp=Z,2.0nm,0.3s						
BRDH	**Bariadhala**	**46.00**	**312**	LR	LR	05 12 31.4	
	comp=Z,54nm,18.4s,baz=233,slow=43						
EVN	**Everest**	**52.63**	**314**	P	**P**	**04 49 12.7**	**+0.6**
EVN				IAmb	IAmb	04 49 13.3	
	comp=Z,4.2nm,0.8s						
SONM	**Songino Array**	**58.13**	**344**	P	**P**	**04 49 51.6**	**+0.9**
	comp=Z,0.8nm,1.0s,baz=149,slow=6.1,SNR=3.8						
	comp=Z,0.8nm,1.0s						
MKAR	**Makanchi Array**	**67.20**	**328**	P	**P**	**04 50 51.1**	**-0.1**
	comp=Z,1.3nm,0.8s,baz=127,slow=7.8,SNR=3.7						
	comp=Z,1.3nm,0.8s						
MKAR	**Makanchi Array**	**67.20**	**328**	P	**P**	**04 50 51.0**	**-0.3**
ZAA0	**Zalesovo Array**	**70.88**	**335**	P	**P**	**04 51 13.1**	**-0.8**
ZAA0				IAmb	IAmb	04 51 20.6	
	comp=Z,4.1nm,1.1s						
ZALV	**Zalesovo Beam**	**70.88**	**335**	P	**P**	**04 51 13.1**	**-0.8**
	comp=Z,1.2nm,0.5s,baz=142,slow=7.3,SNR=6.1						
	comp=Z,1.2nm,0.5s						
ZALV	**Zalesovo Beam**	**70.88**	**335**	P	**P**	**04 51 12.7**	**-1.1**
KURBB	**Kurchatov Arra**	**71.56**	**330**	P	**P**	**04 51 17.5**	**-0.5**
	comp=Z,0.9nm,0.2s,baz=137,slow=5.0,SNR=4.4						
	comp=Z,0.9nm,0.2s						
VNDA	**Vanda**	**72.26**	**173**	LR	LR	05 22 32.9	
	comp=Z,22nm,19.0s,baz=330,slow=35						
MAW	**Mawson**	**73.46**	**201**	LR	LR	05 20 56.3	
	comp=Z,28nm,18.5s,baz=82,slow=33						
BVAR	**Borovoye Array**	**77.08**	**329**	P	**P**	**04 51 49.7**	**-0.5**
	comp=Z,1.1nm,0.5s,baz=134,slow=6.4,SNR=6.6						
	comp=Z,1.1nm,0.5s						
LPAZ	**La Paz**	**151.86**	**147**	PKPbc	**PKiKP**	**04 59 55.2**	**+1.1**
	comp=Z,1.1nm,1.0s,baz=156,slow=3.4,SNR=3.9						

*SFS **28** 04:57:39.3,35.°42N×3.°65W,h18km,ML2.1/9,ML2.4/9, MLv2.5/6*
*MDD **28** 04:57:39.5±0.7,35.°42N×3.°65W,h16km±7km,mb_Lg2.3/12, Error ellipse: s-maj=6.5km s-min=4.7km az=162.0*
*CNRM **28** 04:57:40.5,35.°55N×3.°99W,h7km,ML1.9*
ISC 28 04:57:37.6±1.4,**35.°48N**±0.°03×**3.°67W**±0.°02,**h13**km±11km, **n27,σ1§07/56,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PALE	**Palemas**	**0.35**	**220**	P	**Pb**	**04 57 46.6**	**+0.9**
PALE				S	**Sb**	**04 57 52.1**	**+1.0**
WMELI	**Melilla**	**0.61**	**106**	Pg	**Pb**	**04 57 50.4**	**+0.3**
WMELI				Sg	**Sg**	**04 57 57.5**	**0.0**
EMEL	**Melilla**	**0.61**	**107**	Pg	**Pb**	**04 57 50.3**	**+0.2**
EMEL				Pg	**Pb**	**04 57 50.3**	**+0.2**
EMEL				Sg	**Sb**	**04 57 57.8**	**-0.9**
EMEL				Sg	**Sg**	**04 57 58.3**	**+0.7**
EMLI	**Melilla**	**0.61**	**107**	Pg	**Pg**	**04 57 50.4**	**+0.2**
EMLI				Sg	**Sg**	**04 57 57.3**	**-0.4**
EALB	**Alboran**	**0.69**	**48**	Pg	**Pn**	**04 57 53.0**	**0.0**
EALB				Sg	**Sn**	**04 58 02.1**	**-1.6**
EALB	**Alboran**	**0.69**	**48**	Pg	**Pn**	**04 57 52.7**	**-0.4**
EALB				Pg	**Pb**	**04 57 52.8**	**+1.3**
EALB				Sg	**Sn**	**04 58 02.5**	**-1.2**
EALB				Sg	**Sb**	**04 58 02.8**	**+1.9**
ELGU	**Los Guajares,**	**1.38**	**1**	Pn	**Pb**	**04 58 02.8**	**-0.6**
ELGU				Sn	**Sn**	**04 58 19.8**	**-1.1**
ELGU	**Los Guajares,**	**1.38**	**1**	Pn	**Pb**	**04 58 03.4**	**0.0**
ELGU				Sn	**Sb**	**04 58 20.8**	**-0.2**
ELGU				IVmb_Lg		04 58 23.3	
EMIJ	**Mijas**	**1.40**	**321**	Pn	**Pb**	**04 58 03.3**	**-0.4**
EMIJ				Sn	**Sn**	**04 58 20.7**	**-0.6**
EMIJ	**Mijas**	**1.40**	**321**	Pn	**Pb**	**04 58 03.3**	**-0.4**
EMIJ				Pn	**Pn**	**04 58 03.8**	**+0.8**
EMIJ				Sn	**Sb**	**04 58 21.4**	**-0.1**
EMIJ				Sn	**Sn**	**04 58 21.5**	**+0.2**
EMIJ				IVmb_Lg		04 58 22.1	
SMIR	**Smir Dam**	**1.41**	**279**	P	**Pn**	**04 58 03.0**	**0.0**
SMIR				S	**Sn**	**04 58 19.7**	**-1.8**
EMAL	**Malaga-Limoner**	**1.42**	**334**	Pn	**Pb**	**04 58 04.1**	**+0.1**
EMAL				Sn	**Sg**	**04 58 22.8**	**-0.4**
CHEFC	**Chefchaouen**	**1.42**	**255**	P	**Pn**	**04 58 03.6**	**+0.4**
CHEFC				S	**Sn**	**04 58 19.7**	**-2.1**
EBER	**Berja**	**1.54**	**24**	Pn	**Pb**	**04 58 06.4**	**+0.1**
EBER				Sn	**Sg**	**04 58 26.3**	**-1.2**
EBER	**Berja**	**1.54**	**24**	Pn	**Pb**	**04 58 05.9**	**-0.3**
EBER				Sn	**Sg**	**04 58 26.4**	**-1.1**
EBER				IVmb_Lg		04 58 27.8	
EGOR	**Sierra Gorda,**	**1.66**	**348**	Pn	**Pb**	**04 58 08.2**	**0.0**
EGOR				Sn	**Sb**	**04 58 29.2**	**+0.1**
EGOR	**Sierra Gorda,**	**1.66**	**348**	Pn	**Pb**	**04 58 08.3**	**0.0**
EGOR				Sn	**Sb**	**04 58 29.2**	**+0.1**
EGOR				IVmb_Lg		04 58 30.7	
EQUE	**Quentar**	**1.73**	**6**	Pn	**Pb**	**04 58 09.5**	**+0.2**
EQUE				Sn	**Sb**	**04 58 30.2**	**-0.8**
EQUE				IVmb_Lg		04 58 37.6	
EQTA	**Presa de Quent**	**1.73**	**6**	Sn	**Sb**	**04 58 29.7**	**-1.3**
EQES	**Quesada**	**2.36**	**12**	Pn	**Pb**	**04 58 18.3**	**-1.8**
EQES				Sn	**Sn**	**04 58 45.9**	**+0.7**
EQES				IVmb_Lg		04 58 53.0	
MD31	**MD31**	**2.76**	**199**	P	**Pb**	**04 58 25.3**	**-1.6**
ECAB	**El Cabril**	**2.94**	**332**	Pn	**Pn**	**04 58 26.2**	**+2.0**
ECAB				Sn	**Sn**	**04 58 59.6**	**+0.2**
ECAB				IVmb_Lg		04 59 08.4	
ETOB	**Tobarra**	**3.58**	**28**	Pn	**Pn**	**04 58 35.1**	**+2.2**
ETOB				Sn	**Sn**	**04 59 14.4**	**-0.8**
ETOB				IVmb_Lg		04 59 20.6	
EGRO	**El Granado**	**3.69**	**305**	Pn	**Pn**	**04 58 36.5**	**+2.1**
EGRO				Sn	**Sn**	**04 59 16.7**	**-1.1**
EGRO				IVmb_Lg		04 59 24.9	
PVAQ	**Vaqueiros**	**3.79**	**302**	*e*P	**Pn**	**04 58 38.5**	**+2.9**
PVAQ				*e*S	**Sn**	**04 59 20.1**	**-0.1**
PVAQ				IAML		04 59 24.4	
PVAQ				IAML		04 59 25.6	
PVAQ				IAML		04 59 27.8	
PBAR	**Barrancos**	**3.81**	**316**	*e*S	**Sn**	**04 59 21.2**	**+0.4**
EBAD	**Badajoz**	**4.22**	**322**	Sn	**Sn**	**04 59 30.0**	**-0.8**
EBAD				IVmb_Lg		04 59 32.3	

*MEX **28** 04:59:36.3±1.0,15.°03N×94.°42W,h16km±12km,MD4.3, Presumed earthquake*
*CATAC **28** 04:59:38.2±0.6,15.°N±3.°×9.°4W±.°,h6km±3km,M4.4/20, mb4.6/7,mB5.4/4,MLv4.2/20,Mw(mB)4.9/4,Error ellipse: s-maj=6.6km s-min=3.5km az=32.5,confirmed*
*GCG **28** 04:59:43.6±1.3,15.°03N×93.°76W,h24km,MD5.0, Presumed earthquake*
ISC 28 04:59:23.8±1.2,**14.°90N**±0.°04×**94.°53W**±0.°02,**h1**km±10km, **n58,σ2§48/86,Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCIG		**1.50**	**58**	*e*P	**Pg**	**04 59 56.6**	**+4.1**
PCIG				*e*S	**Sg**	**05 00 12.0**	**+0.1**
HUIG	**Huatulco**	**1.75**	**300**	*e*P	Pg	05 00 03.5	+6.2
HUIG				*e*S	**Sg**	**05 00 22.9**	**+2.8**
THIG		**2.19**	**90**	*e*P	**Pg**	**05 00 08.0**	**+2.2**
THIG				*e*S	**Sb**	**05 00 31.1**	**-0.8**
CMIG	**Matias Romero**	**2.20**	**351**	*e*P	**Pg**	**05 00 08.0**	**+2.0**
CMIG				*e*S	**Sb**	**05 00 32.2**	**-0.1**
PATR	**El Naranjo**	**2.23**	**84**	*e*P	**Pg**	**05 00 07.9**	**+1.3**
PATR				*e*S	**Sb**	**05 00 32.8**	**-0.5**
PAVE	**Pavencul**	**2.29**	**82**	*e*P	**Pg**	**05 00 09.4**	**+1.6**
PAVE				*e*S	**Sb**	**05 00 34.8**	**-0.3**
TGIG		**2.30**	**36**	*e*P	**Pg**	**05 00 09.2**	**+1.2**
TGIG				*e*S	**Sb**	**05 00 33.7**	**-1.5**
CHUJ	**Union Juarez**	**2.35**	**85**	*e*P	**Pg**	**05 00 09.6**	**+0.7**
CHUJ				*e*S	**Sb**	**05 00 35.2**	**-1.5**
UXUV	**UXUV**	**2.43**	**9**	*e*P	**Pg**	**05 00 11.7**	**+1.2**
UXUV				*e*S	**Sb**	**05 00 38.7**	**-0.1**
CCIG	**Comitan**	**2.68**	**59**	P	**Pg**	**05 00 16.3**	**+1.0**
CCIG	**Comitan**	**2.68**	**59**	*e*P	**Pg**	**05 00 16.2**	**+0.9**
CCIG				*e*S	**Sb**	**05 00 45.6**	**-0.7**
PEIG	**Puerto Escondi**	**2.75**	**294**	*e*P	**Pg**	**05 00 17.8**	**+1.3**
PEIG				*e*S	**Sb**	**05 00 46.8**	**-1.2**
RTAL	**Retalhuleu**	**2.77**	**97**	P	Pg	05 00 21.3	+4.3
HUEH	**Huehuetenango**	**2.95**	**82**	P	**Pg**	**05 00 20.6**	**+0.1**
HUEH				S	**Sb**	**05 00 54.1**	**0.0**
HUEH	**Huehuetenango**	**2.95**	**82**	*e*P	**Pg**	**05 00 18.6**	**-1.9**
HUEH	**Huehuetenango**	**2.95**	**82**

SMG				S	**Sg**	**05 00 37.6**	**-0.1**		
SMG				AML	AML				
DGB	**zmir**	**0.19**	**344**	P	**Pg**	**05 00 34.9**	**-0.1**		
DGB				S	**Sg**	**05 00 37.5**	**-0.3**		
DGB				IAML		05 00 38.0			
	comp=N,559nm,0.1s								
DGB				IAML		05 00 38.0			
	comp=E,429nm,0.1s								
GMLD	**Gumuldur**	**0.21**	**353**	Pg	**Pg**	**05 00 35.3**	**0.0**		
GMLD				Sg	**Sg**	**05 00 38.7**	**+0.4**		
GMLD				AML	AML				
KUSD	**Kusadasi-Aydin**	**0.27**	**92**	Pg	**Pg**	**05 00 36.3**	**-0.1**		
KUSD				AML	AML				
GCAM	**G?zelcaml?**	**0.28**	**127**	P	**Pg**	**05 00 36.8**	**+0.2**		
GCAM				IAML		05 00 41.0			
	comp=E,604nm,0.4s								
GCAM				S	**Sb**	**05 00 41.8**	**-0.8**		
GCAM				IAML		05 00 42.0			
	comp=N,535nm,0.5s								
GCAM	**G?zelcaml?**	**0.28**	**127**	Pg	**Pg**	**05 00 37.1**	**+0.5**		
GCAM				Sg	**Sb**	**05 00 41.6**	**-0.9**		
GCAM				AML	AML				
BEYE	**izmir**	**0.35**	**358**	P	**Pg**	**05 00 37.9**	**0.0**		
BEYE				S	**Sg**	**05 00 42.7**	**0.0**		
BEYE				IAML		05 00 43.0			
	comp=N,336nm,0.3s								
BEYE				IAML		05 00 43.0			
	comp=E,366nm,0.2s								
DDIM	**Aydin, Didim**	**0.47**	**150**	P	**Pb**	**05 00 40.7**	**-0.4**		
DDIM				S	**Sb**	**05 00 48.0**	**0.0**		
DDIM				IAML		05 00 49.0			
	comp=N,188nm,0.2s								
DDIM				IAML		05 00 52.0			
	comp=E,212nm,0.4s								
ZEYE	**Izmir, Urla-Ze**	**0.51**	**316**	P	**Pg**	**05 00 40.3**	**-0.4**		
ZEYE				IAML		05 00 47.0			
	comp=E,612nm,0.2s								
ZEYE				S	**Sg**	**05 00 47.8**	**+0.3**		
BLCB	**Balcova**	**0.52**	**8**	P	**Pg**	**05 00 40.9**	**-0.1**		
BLCB				S	**Sg**	**05 00 47.9**	**0.0**		
BLCB				AML	AML				
BLCB	**Balcova**	**0.52**	**8**	Pg	**Pg**	**05 00 40.9**	**-0.1**		
BLCB				Sg	**Sg**	**05 00 48.1**	**+0.2**		
BLCB				AML	AML				
DUVT	**Torbali**	**0.53**	**49**	P	**Pb**	**05 00 41.4**	**-0.6**		
DUVT				S	**Sg**	**05 00 48.2**	**+0.1**		
DUVT				IAML		05 00 49.0			
	comp=E,222nm,0.1s								
DIDI	**Didim-Aydin**	**0.55**	**155**	Pg	**Pg**	**05 00 41.6**	**+0.1**		
DIDI				AML	AML				
AYDB	**Zeytinkoy-Aydi**	**0.75**	**84**	Pg	**Pb**	**05 00 45.6**	**-0.3**		
AYDB				AML	AML				
KRBN	**Karaburun**	**0.78**	**337**	Pg	**Pb**	**05 00 46.4**	**0.0**		
KRBN				AML	AML				
YKAV	**Yalikavak-Bodr**	**0.79**	**160**	Pg	**Pg**	**05 00 45.9**	**-0.2**		
IZMR	**zmir-demi**	**0.84**	**71**	P	**Pb**	**05 00 47.0**	**-0.2**		
FOCM	**Foa**	**0.86**	**349**	Pg	**Pb**	**05 00 47.8**	**+0.2**		
FOCM				AML	AML				
BODT	**Bodrum**	**0.86**	**160**	P	**Pg**	**05 00 47.2**	**-0.1**		
BODT				S	**Sb**	**05 00 59.3**	**+0.2**		
BODT				AML	AML				
BODT	**Bodrum**	**0.86**	**160**	Pg	**Pg**	**05 00 47.4**	**0.0**		
BODT				AML	AML				
CHOS	**Chios island**	**0.87**	**306**	P	**Pb**	**05 00 48.0**	**+0.2**		
CHOS				S	**Sb**	**05 00 59.7**	**+0.1**		
CHOS				AML	AML				
CHOS	**Chios island**	**0.87**	**306**	Pg	**Pb**	**05 00 48.4**	**+0.5**		
CHOS				AML	AML				
MLSB	**Milas**	**0.88**	**131**	Pg	**Pb**	**05 00 47.9**	**0.0**		
MLSB				AML	AML				
KARB	**zmir-Karabur**	**0.90**	**332**	P	**Pg**	**05 00 46.9**	**-1.2**		
KARB				S	**Sb**	**05 01 00.4**	**+0.2**		
KARB				IAML		05 01 02.0			
	comp=N,126nm,0.5s								
KARB				IAML		05 01 03.0			
	comp=E,167nm,0.4s								
BODA	**Bodrum-Mula**	**0.92**	**155**	Pg	**Pg**	**05 00 48.4**	**-0.1**		
CAMT	**Merkez**	**0.92**	**18**	P	**Pb**	**05 00 48.6**	**-0.2**		
CAMT				S	**Sb**	**05 01 02.1**	**+1.1**		
CAMT				IAML		05 01 06.0			
	comp=N,227nm,0.3s								
CAMT				IAML		05 01 07.0			
	comp=E,175nm,0.3s								
NAZL	**Nazilli-Aydin**	**1.07**	**85**	Pg	**Pb**	**05 00 51.5**	**+0.3**		
NAZL				AML	AML				
ZEDA	**zmir-Bergama**	**1.10**	**5**	P	**Pn**	**05 00 51.9**	**0.0**		
ZEDA				S	**Sb**	**05 01 06.7**	**+0.7**		
ZEDA				IAML		05 01 09.0			
	comp=E,76nm,0.2s								
ZEDA				IAML		05 01 10.0			
	comp=N,83nm,0.2s								
GOMA	**Golmarmara-Man**	**1.13**	**42**	Pn	**Pn**	**05 00 52.7**	**+0.3**		
AKS	**Akhisar**	**1.22**	**34**	Pn	**Pg**	**05 00 53.7**	**-0.5**		
AKS				AML	AML				
DAT	**Datca**	**1.25**	**156**	Pn	**Pn**	**05 00 54.3**	**+0.2**		
DAT				AML	AML				
APE	**Apeiranthos**	**1.38**	**235**	P	**Pn**	**05 00 56.5**	**+0.6**		
APE				AML	AML				
PRK	**Paraskevi**	**1.47**	**339**	P	**Pn**	**05 00 56.4**	**-0.7**		
PRK				S	**Sb**	**05 01 16.7**	**0.0**		
TURN	**Turunc**	**1.51**	**136**	Pn	**Pn**	**05 00 57.9**	**+0.3**		
TURN				AML	AML				

*IDC **28** 05:12:42.8±1.0, 18°.06N×40°.13E, h0km, mb3.8/12, mbtmp3.8/13, ML3.4/1, MS3.6/18, Error ellipse: s-maj=22.7km s-min=20.1km az=39.0*
*NEIC **28** 05:12:45.2±2.6, 18°.07N±0°.07×40°.3E±0°.2, h10km±1km, mb4.1/10, Error ellipse: s-maj=26.8km s-min=12.1km az=272.0*

ISC 28 05:12:46.9±0.7,**18°.02N**±0°.09×**40°.2E**±0°.1,**h28**km,**n41,**
σ1$10/28,mb4.0/14,**MS3.8**/15,**Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATD	**Arta Tunnel**	**6.93**	**158**	Pn	**Pn**	**05 14 27.7**	**+0.9**
	0.7nm,0.3s,baz=343,slow=17,SNR=2.0						
ATD				LR	LR	05 16 43.9	
	comp=Z,80nm,18.9s,baz=32,slow=34						
	1.8nm,0.3s						
ATD				AML	AML		
ATD	**Arta Tunnel**	**6.93**	**158**		**Pn**	**05 14 26.9**	**+0.2**
EIL	**Elat**	**12.56**	**338**	LR	LR	05 19 41.0	
	comp=Z,181nm,18.1s,baz=144,slow=34						
ASF	**Jabal al Asfar**	**14.42**	**348**	LR	LR	05 20 29.4	
	comp=Z,84nm,20.6s,baz=202,slow=32						
LODK	**Lodwar**	**15.26**	**199**	Pn	**Pn**	**05 16 21.3**	**+0.6**
UOSS	**Minazif**	**16.40**	**62**	Pn	**Pn**	**05 16 33.5**	**-1.7**
UOSS				IAmb	IAmb	05 16 40.9	
	comp=Z,22nm,1.2s						
KOPT	**Kop Dagi**	**21.93**	**1**	P	**P**	**05 17 38.9**	**+0.5**
KOPT				IAmb	IAmb	05 18 02.4	
	comp=Z,9.2nm,1.2s						
IDI	**Anoyia**	**21.94**	**325**	LR	LR	05 26 04.0	
	comp=Z,105nm,20.2s,baz=292,slow=37						
BRTR	**Keskin Array B**	**22.37**	**347**	P	**P**	**05 17 42.6**	**-0.4**
	comp=Z,1.4nm,1.0s,baz=163,slow=10,SNR=12						
BRTR				LR	LR	05 27 21.9	
	comp=Z,68nm,18.0s,baz=322,slow=39						
	comp=Z,1.4nm,1.0s						
BRTR	**Keskin Array B**	**22.37**	**347**	P	**P**	**05 17 43.8**	**+0.8**
BR131	**Keskin Array S**	**22.37**	**347**	P	**P**	**05 17 43.5**	**+0.5**
BR131				IAmb	IAmb	05 17 49.0	
	comp=Z,11nm,1.3s						
MANT	**Manisa**	**22.80**	**336**	P	**P**	**05 17 49.6**	**+2.0**
BALB	**Balikesir**	**24.05**	**336**	P	**P**	**05 18 02.4**	**+2.7**
HRA	**Herat**	**25.54**	**46**	P	**P**	**05 18 13.9**	**+0.4**
AB31	**Akbulak array**	**35.01**	**23**	P	**P**	**05 19 36.5**	**-0.4**
AB31				IAmb	IAmb	05 19 36.5	
	comp=Z,2.8nm,1.1s						
ABKAR	**Akbulak array**	**35.01**	**23**	P	**P**	**05 19 36.1**	**-0.8**
KK31	**Karatay Array**	**35.80**	**39**	P	**P**	**05 19 44.2**	**+0.3**
KK31				IAmb	IAmb	05 19 55.0	
	comp=Z,4.7nm,1.3s						
KKAR	**Karatay Array**	**35.80**	**39**	P	**P**	**05 19 44.3**	**+0.4**
TORD	**Torodi Ar. Bea**	**37.37**	**268**	P	**P**	**05 19 55.2**	**-2.3**
	comp=Z,0.9nm,0.7s,baz=84,slow=7.1,SNR=5.1						
	comp=Z,0.9nm,0.7s						
GERES	**GERESS Array B**	**37.51**	**331**	P	**P**	**05 19 57.3**	**-1.0**
	comp=Z,0.5nm,0.7s,baz=155,slow=6.9,SNR=2.6						
	comp=Z,0.5nm,0.7s						
AAK	**Ala-Archa**	**38.03**	**42**	LR	LR	05 37 21.0	
	comp=Z,119nm,19.7s,baz=300,slow=39						
MATP	**Matopo**	**39.89**	**197**	LR	LR	05 35 17.8	
	comp=Z,205nm,19.1s,baz=324,slow=34						
PALK	**Pallekele**	**40.83**	**100**	LR	LR	05 35 51.4	
	comp=Z,48nm,18.1s,baz=314,slow=34						
BVAR	**Borovoye Array**	**42.11**	**27**	P	**P**	**05 20 37.2**	**+0.7**
	comp=Z,1.2nm,0.8s,baz=226,slow=3.8,SNR=4.2						
	comp=Z,1.2nm,0.8s						
ESDC	**Sonseca Array**	**43.76**	**309**	P	**P**	**05 20 50.8**	**+0.7**
	comp=Z,0.6nm,0.9s,baz=96,slow=9.2,SNR=2.4						
	comp=Z,0.6nm,0.9s						
KURBB	**Kurchatov Arra**	**44.56**	**34**	P	**P**	**05 20 57.3**	**+1.0**
	comp=Z,0.6nm,0.3s,baz=238,slow=8.3,SNR=6.8						
	comp=Z,0.6nm,0.3s						
MKAR	**Makanchi Array**	**44.88**	**41**	P	**P**	**05 20 59.1**	**+0.2**
	comp=Z,1.1nm,0.9s,baz=245,slow=6.2,SNR=2.8						
MKAR				LR	LR	05 43 34.4	
	comp=Z,103nm,18.1s,baz=295,slow=41						
	comp=Z,1.1nm,0.9s						
DBIC	**Dimbokro**	**45.33**	**261**	LR	LR	05 39 24.6	
	comp=Z,110nm,19.7s,baz=64,slow=35						
NOA	**NORSAR Array B**	**47.65**	**341**	P	**P**	**05 21 20.6**	**0.0**
	comp=Z,1.3nm,0.9s,baz=141,slow=8.7,SNR=3.5						
	comp=Z,1.3nm,0.9s						
BRDH	**Bariadhala**	**48.26**	**75**	LR	LR	05 42 35.3	
	comp=Z,97nm,18.4s,baz=201,slow=37						
BOSA	**Boshof**	**48.56**	**198**	LR	LR	05 42 03.0	
	comp=Z,62nm,20.4s,baz=29,slow=36						
ZALV	**Zalesovo Beam**	**49.58**	**33**	P	**P**	**05 21 35.2**	**-0.2**
	comp=Z,0.8nm,0.4s,baz=254,slow=6.9,SNR=7.3						
	comp=Z,0.8nm,0.4s						
ZALV	**Zalesovo Beam**	**49.58**	**33**	P	**P**	**05 21 34.8**	**-0.6**
SUR	**Sutherland**	**53.44**	**200**	LR	LR	05 44 53.8	
	comp=Z,90nm,18.9s,baz=350,slow=36						
CMAR	**Chiang Mai Arr**	**55.56**	**80**	P	**P**	**05 22 19.5**	**-0.7**
	comp=Z,0.8nm,0.3s,baz=288,slow=7.9,SNR=5.7						
CMAR				LR	LR	05 48 21.8	
	comp=Z,13nm,19.0s,baz=0.0,slow=38						
	comp=Z,0.8nm,0.3s						
TLY	**Talaya**	**59.63**	**40**	LR	LR	05 49 42.7	
	comp=Z,98nm,18.5s,baz=301,slow=37						
SONM	**Songino Array**	**60.92**	**45**	P	**P**	**05 22 56.3**	**-1.1**
	comp=Z,1.3nm,1.0s,baz=256,slow=5.8,SNR=4.8						
SONM				LR	LR	05 52 15.7	
	comp=Z,83nm,18.7s,baz=336,slow=39						
	comp=Z,1.3nm,1.0s						
SONM	**Songino Array**	**60.92**	**45**	P	**P**	**05 22 57.1**	**-0.3**
SONM				IAmb	IAmb	05 23 01.8	
	comp=Z,2.2nm,1.2s						
HILR	**Hailar Array B**	**69.77**	**43**	P	**P**	**05 23 56.1**	**+1.5**
	comp=Z,0.7nm,0.3s,baz=270,slow=0.9,SNR=1.6						
	comp=Z,0.7nm,0.3s						
KSRS	**Korea Array**	**77.50**	**55**	LR	LR	06 02 19.6	
	comp=Z,52nm,18.8s,baz=340,slow=38						
MDP	**Montagnes des**	**91.15**	**276**	LR	LR	06 06 13.9	
	comp=Z,27nm,19.0s,baz=81,slow=35						

*IDC **28** 05:22:43.0±6.2, 9°.18S×110°.70E, h0km, mb3.5/3, mbtmp3.5/3, Error ellipse: s-maj=363.2km s-min=30.2km az=48.0*
*DJA **28** 05:22:49.3±0.3, 9°.5S±3°×11°.1E±°, h10km, M3.7/30, ML3.7/30, MLv3.8/30, MLv3.7/30*

ISC 28 05:22:50.3±1.3,**9°.02S**±0°.09×**110°.57E**±0°.05,**h51**km,**n20,**
σ1$90/22,mb3.3/3,South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCJI	**Pacitan**	**1.01**	**36**	P	**Pn**	**05 23 07.8**	**-0.4**
PCJI				S	**Sn**	**05 23 20.7**	**-0.7**
PCJI				AML	AML		
PCJI				AML	AML		
PCJI				AML	AML		
UGM	**Wanagama**	**1.10**	**357**	P	**Pn**	**05 23 07.2**	**-2.2**
UGM				AML	AML		
WOJI	**Wonogiri, Jawa**	**1.22**	**16**	P	**Pn**	**05 23 11.4**	**+0.4**
WOJI				AML	AML		
WOJI				AML	AML		
WOJI				AML	AML		
YOGI	**Yogyakarta**	**1.23**	**347**	P	**Pn**	**05 23 09.8**	**-1.3**
YOGI				S	**Sn**	**05 23 26.9**	**+0.3**
YOGI				AML	AML		
YOGI				AML	AML		
PWJI	**Pagerwojo**	**1.57**	**51**	P	**Pn**	**05 23 16.1**	**+0.4**
PWJI				AML	AML		
PWJI				AML	AML		
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**1.70**	**44**	P	**Pn**	**05 23 19.9**	**+2.2**
SNJI				AML	AML		
SNJI				AML	AML		
SJI	**Sawahan**	**1.74**	**43**	P	**Pn**	**05 23 19.1**	**+1.0**
NGJI	**Ngawi**	**1.86**	**28**	P	**Pn**	**05 23 23.4**	**+3.7**
NGJI				AML	AML		
SCJI	**Gunung Srandil**	**1.92**	**314**	P	**Pn**	**05 23 20.7**	**+0.1**
SMRI	**Semarang**	**1.96**	**356**	P	**Pn**	**05 23 22.7**	**+1.6**
SMRI				AML	AML		
SMRI				AML	AML		
SMRI				AML	AML		
KPJI	**Karang Pucung**	**2.33**	**316**	P	**Pn**	**05 23 24.9**	**-1.3**
KPJI				AML	AML		
KPJI				AML	AML		
KPJI				AML	AML		
CMJI	**Cimerak**	**2.43**	**300**	P	**Pn**	**05 23 29.7**	**+2.1**
CMJI				AML	AML		
CMJI				AML	AML		
CMJI				AML	AML		
TBJI	**Tambak Boyo**	**2.52**	**30**	P	**Pn**	**05 23 28.8**	**0.0**
TBJI				AML	AML		
TBJI				AML	AML		
TBJI				AML	AML		
GRJI	**Gresik**	**2.82**	**42**	P	**Pn**	**05 23 35.8**	**+3.0**
GRJI				AML	AML		
GRJI				AML	AML		
GRJI				AML	AML		
BLJI	**Banyuglugur**	**3.25**	**67**	P	**Pn**	**05 23 40.3**	**+1.6**
BLJI				AML	AML		
BLJI				AML	AML		
BLJI				AML	AML		
BBJI	**Bungbulang**	**3.28**	**298**	P	**Pn**	**05 23 42.0**	**+2.7**
BBJI				AML	AML		
BBJI				AML	AML		
BBJI				AML	AML		
JAGI	**Jajag, Banyuwa**	**3.58**	**82**	P	**Pn**	**05 23 43.5**	**+0.2**
JAGI				AML	AML		
JAGI				AML	AML		
JAGI				AML	AML		
WRA	**Warramunga Arr**	**25.41**	**118**	P	**P**	**05 28 10.8**	**-2.5**
	0.8nm,0.9s,baz=292,slow=9.3,SNR=4.9						
	0.8nm,0.9s						
ASAR	**Alice Springs**	**26.64**	**126**	P	**P**	**05 28 21.9**	**-2.6**
	0.6nm,0.7s,baz=300,slow=10,SNR=10.0						
	0.6nm,0.7s						
MKAR	**Makanchi Array**	**61.02**	**338**	P	**P**	**05 32 59.7**	**+1.1**
	0.8nm,0.9s,baz=148,slow=8.4,SNR=2.0						
	0.8nm,0.9s						

*IDC **28** 05:26:03.5±0.8, 13°.04N×143°.38E, h206km±8km, mb3.7/18, mbtmp4.2/18, Error ellipse: s-maj=17.1km s-min=10.6km az=92.0*
*NEIC **28** 05:26:03.9±1.4, 13°.04N±0°.09×143°.3E±0°.1, h202km±3km, mb4.3/29, Error ellipse: s-maj=20.1km s-min=13.4km az=94.0*

ISC 28 05:26:03.2±0.5,**13°.05N**±0°.07×**143°.29E**±0°.09,**h200**km,**n55,**
σ0$79/57,mb4.1/30,South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.63**	**71**	P	**Pn**	**05 26 39.1**	**+1.0**
	146nm,0.5s,baz=225,slow=1.4,SNR=12						
GUMO				S	**Sn**	**05 27 05.0**	**-0.1**
	276nm,0.4s,baz=197,slow=19,SNR=17						
GUMO	**Guam**	**1.63**	**71**		**Pn**	**05 26 38.6**	**+0.5**
DPSS	**Saipan**	**3.26**	**48**	Pn	**Pn**	**05 26 56.4**	**+0.4**
JCJ	**Chichijima**	**14.02**	**356**	Pn	**Pn**	**05 29 13.8**	**+0.5**
MANU	**Manus Island**	**15.53**	**165**	P	**P**	**05 29 33.2**	**+1.1**
MANU				IAmb	IAmb	05 29 35.1	
	comp=Z,7.8nm,0.9s						
FAKI	**Fak Fak**	**19.28**	**215**	P	**P**	**05 30 14.5**	**+1.5**
FAKI				IAmb	IAmb	05 30 41.9	
	comp=Z,13nm,1.0s						
JGF	**Kuroka**	**23.09**	**348**	P	**P**	**05 30 50.8**	**-0.5**
JGF				IAmb	IAmb	05 30 58.5	
	comp=Z,11nm,1.1s						
YULB	**Yu-li**	**23.25**	**299**	P	**P**	**05 30 53.4**	**+0.5**
SSLB	**Suanglung**	**23.69**	**300**	P	**P**	**05 30 57.8**	**+0.8**
TPUB	**Ta-pu**	**23.79**	**299**	P	**P**	**05 30 56.9**	**-1.0**
MJAR	**Matsushiro Arr**	**23.84**	**350**	P	**P**	**05 30 57.3**	**-0.8**
	comp=Z,1.3nm,0.5s,baz=168,slow=8.8,SNR=2.6						
	comp=Z,1.3nm,0.5s						
MJAR	**Matsushiro Arr**	**23.84**	**350**	P	**P**	**05 30 56.9**	**-1.2**
MJB9	**Matsu-Tunnel**	**23.84**	**350**	P	**P**	**05 30 57.3**	**-0.9**
MJB9				IAmb	IAmb	05 31 13.8	
	comp=Z,7.5nm,1.1s						
KSRS	**Korea Array**	**27.91**	**333**	P	**P**	**05 31 34.4**	**-0.3**
	comp=Z,0.6nm,0.4s,baz=139,slow=9.6,SNR=1.9						
	comp=Z,0.6nm,0.4s						
WRA	**Warramunga Arr**	**33.95**	**195**	P	**P**	**05 32 27.2**	**-0.5**
	comp=Z,6.4nm,0.7s,baz=14,slow=8.6,SNR=23						
	comp=Z,6.4nm,0.7s						
ASAR	**Alice Springs**	**37.62**	**194**	P	**P**	**05 32 58.7**	**-0.2**
	comp=Z,1.7nm,0.4s,baz=13,slow=8.3,SNR=83						
ASAR				PP	**PP**	**05 34 28.2**	**-1.3**
	comp=Z,0.3nm,0.7s,baz=14,slow=12,SNR=4.1						
	comp=Z,1.7nm,0.4s						
EIDS	**Eidsvold**	**38.93**	**169**	P	**P**	**05 33 09.4**	**-0.4**
EIDS				IAmb	IAmb	05 33 10.3	
	comp=Z,7.0nm,1.1s						
INKA	**Innaminka**	**40.62**	**183**	P	**P**	**05 33 22.9**	**-0.8**
CMAR	**Chiang Mai Arr**	**42.94**	**283**	P	**P**	**05 33 43.3**	**+0.6**
	comp=Z,1.1nm,0.5s,baz=89,slow=7.7,SNR=5.1						
	comp=Z,1.1nm,0.5s						
STKA	**Stephens Creek**	**44.70**	**182**	P	**P**	**05 33 55.7**	**-0.7**
	comp=Z,2.7nm,0.4s,baz=2.2,slow=11,SNR=6.2						
	comp=Z,2.7nm,0.4s						
STKA	**Stephens Creek**	**44.70**	**182**	P	**P**	**05 33 55.6**	**-0.8**
STKA				IAmb	IAmb	05 33 56.7	
	comp=Z,15nm,0.8s						
BBOO	**Buckleboo**	**46.12**	**188**	P	**P**	**05 34 06.7**	**-0.9**
BBOO				IAmb	IAmb	05 34 24.3	
	comp=Z,8.9nm,1.1s						
SONM	**Songino Array**	**46.30**	**326**	P	**P**	**05 34 08.3**	**-0.8**
	comp=Z,1.0nm,0.6s,baz=141,slow=9.3,SNR=8.1						
	comp=Z,1.0nm,0.6s						
SONM	**Songino Array**	**46.30**	**326**	P	**P**	**05 34 10.2**	**+1.2**
MORW	**Morawa**	**49.46**	**212**	P	**P**	**05 34 33.0**	**-0.2**
MORW				IAmb	IAmb	05 34 37.7	
	comp=Z,8.6nm,1.1s						
TOO	**Toolangi**	**50.39**	**178**	P	**P**	**05 34 41.1**	**+1.0**
MKAR	**Makanchi Array**	**60.81**	**317**	P	**P**	**05 35 55.4**	**+1.0**
	comp=Z,0.6nm,0.5s,baz=98,slow=5.9,SNR=7.1						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**60.81**	**317**	P	**P**	**05 35 54.9**	**+0.6**
MAKZ	**Makanchi**	**61.03**	**316**	P	**P**	**05 35 55.4**	**-0.3**
MAKZ				IAmb	IAmb	05 36 16.0	
	comp=Z,10nm,1.1s						
ZALV	**Zalesovo Beam**	**61.17**	**325**	P	**P**	**05 35 56.9**	**+0.4**
	comp=Z,1.0nm,0.3s,baz=108,slow=12,SNR=3.9						
	comp=Z,1.0nm,0.3s						
ZALV	**Zalesovo Beam**	**61.17**	**325**	P	**P**	**05 35 56.6**	**+0.1**
K13K	**Kusilvak Mount**	**61.25**	**25**	P	**P**	**05 35 56.9**	**+0.1**
K13K				IAmb	IAmb	05 36 14.2	
	comp=Z,11nm,1.1s						
N14K	**Kuskokwak Cree**	**61.63**	**28**	P	**P**	**05 35 59.6**	**+0.1**
O15K	**Ungalikthiuk R**	**62.20**	**29**	P	**P**	**05 36 03.0**	**-0.3**
K15K	**Wolf Creek Mou**	**62.72**	**26**	P	**P**	**05 36 07.3**	**+0.6**
K15K				IAmb	IAmb	05 36 16.6	
	comp=Z,5.5nm,1.1s						
J16K	**Anvik River**	**63.53**	**25**	P	**P**	**05 36 12.4**	**+0.4**
KURK	**Kurchatov**	**64.01**	**320**	P	**P**	**05 36 15.6**	**+0.3**
KURK				IAmb	IAmb	05 36 17.3	
	comp=Z,2.1nm,0.8s						
KURBB	**Kurchatov Arra**	**64.05**	**320**	P	**P**	**05 36 16.1**	**+0.5**
	comp=Z,1.2nm,0.5s,baz=105,slow=6.7,SNR=11						
	comp=Z,1.2nm,0.5s						
M17K	**Holitna River**	**64.14**	**27**	P	**P**	**05 36 16.4**	**+0.5**
BVAR	**Borovoye Array**	**69.40**	**322**	P	**P**	**05 36 49.6**	**+0.2**
	comp=Z,4.2nm,0.3s,baz=100,slow=7.0,SNR=20						
	comp=Z,4.2nm,0.3s						
E23K	**Chandalar**	**69.49**	**22**	P	**P**	**05 36 50.8**	**+1.1**
E23K				IAmb	IAmb	05 36 52.3	
	comp=Z,11nm,1.0s						
IL31		**69.71**	**25**	P	**P**	**05 36 49.9**	**-1.1**
ILAR	**Eielson Array**	**69.71**	**25**	P	**P**	**05 36 50.1**	**-1.0**
	comp=Z,2.1nm,0.4s,baz=258,slow=5.7,SNR=55						
	comp=Z,2.1nm,0.4s						
E24K	**Your Creek**	**69.90**	**22**	P	**P**	**05 36 53.3**	**+1.1**
E24K				IAmb	IAmb	05 36 54.3	
	comp=Z,2.8nm,0.6s						
C24K	**Franklin Bluff**	**70.28**	**20**	P	**P**	**05 36 55.6**	**+1.3**
H27K	**Steamboat Moun**	**72.18**	**24**	P	**P**	**05 37 06.7**	**+0.7**
YKA	**Yellowknife Ar**	**84.04**	**27**	P	**P**	**05 38 11.0**	**-0.1**
	comp=Z,1.6nm,0.5s,baz=286,slow=5.3,SNR=18						
	comp=Z,1.6nm,0.5s						
ARCES	**ARCESS Array B**	**87.12**	**342**	P	**P**	**05 38 25.6**	**-0.6**
	comp=Z,1.3nm,0.5s,baz=59,slow=7.4,SNR=9.4						
	comp=Z,1.3nm,0.5s						
BMO	**Blue Mountains**	**87.46**	**45**	P	**P**	**05 38 28.5**	**+0.2**
BMO				IAmb	IAmb	05 38 29.9	
	comp=Z,4.8nm,0.9s						
NVAR	**Mina Array Bea**	**88.46**	**51**	P	**P**	**05 38 33.3**	**-0.1**
	comp=Z,1.8nm,0.7s,baz=286,slow=6.3,SNR=16						
	comp=Z,1.8nm,0.7s						
FINES	**FINESS Array B**	**91.00**	**335**	P	**P**	**05 38 43.3**	**-1.1**
	comp=Z,1.9nm,0.3s,baz=65,slow=5.2,SNR=44						
	comp=Z,1.9nm,0.3s						
FINES	**FINESS Array B**	**91.00**	**335**	P	**P**	**05 38 43.4**	**-1.0**
PDAR	**Pinedale Array**	**93.44**	**45**	P	**P**	**05 38 55.5**	**-0.9**
	comp=Z,0.3nm,0.7s,baz=314,slow=2.1,SNR=4.2						
	comp=Z,0.3nm,0.7s						
NOA	**NORSAR Array B**	**97.00**	**339**	P	**P**	**05 39 10.5**	**-1.5**
	comp=Z,0.6nm,0.7s,baz=47,slow=8.6,SNR=1.5						
	comp=Z,0.6nm,0.7s						
LPAZ	**La Paz**	**149.45**	**100**	PKPbc	**PKP

EMRE					IAML		05 47 40.0	
	comp=N,2μm,0.4s							
EMRE					IAML		05 47 41.0	
	comp=E,2μm,0.6s							
HOMI	**Horasan**	**0.37**	**84**	P	**Pg**		**05 47 31.0**	**-0.5**
HOMI				IAML			05 47 40.0	
	comp=N,9μm,0.4s							
HOMI				IAML			05 47 46.0	
	comp=E,8μm,0.4s							
KRIK	**Erzurum-spir**	**0.50**	**311**	P	**Pg**		**05 47 33.8**	**-0.1**
KRIK				S	**Sb**		**05 47 41.9**	**+0.3**
KRIK				IAML			05 47 42.0	
	comp=N,2μm,0.4s							
KRIK				IAML			05 47 45.0	
	comp=E,2μm,0.6s							
ECAT	**Cat-ERZURUM**	**0.53**	**221**	P	**Pg**		**05 47 34.0**	**-0.5**
ECAT				S	**Sb**		**05 47 42.9**	**+0.5**
ECAT				IAML			05 47 43.0	
	comp=E,1μm,0.4s							
ECAT				IAML			05 47 44.0	
	comp=N,8μm,0.5s							
EOLT	**Oltu**	**0.68**	**38**	P	**Pg**		**05 47 36.9**	**-0.3**
EOLT				IAML			05 47 52.0	
	comp=E,3μm,0.5s							
EOLT				IAML			05 47 53.0	
	comp=N,2μm,0.4s							
KOPT	**Kop Dagi**	**0.71**	**271**	P	**Pg**		**05 47 37.6**	**-0.3**
KOPT				IAML			05 47 54.0	
	comp=E,2μm,0.5s							
KOPT				IAML			05 47 56.0	
	comp=N,2μm,0.6s							
KARO	**Karliova-Bingo**	**0.76**	**203**	Pg	**Pb**		**05 47 38.2**	**-0.5**
KARO				Sg	**Sg**		**05 47 49.2**	**+0.4**
KARO				AML	AML			
EATA	**Eleskirt**	**0.83**	**100**	P	**Pg**		**05 47 39.8**	**-0.3**
EATA				IAML			05 47 54.0	
	comp=N,623nm,0.4s							
EATA				IAML			05 47 59.0	
	comp=E,652nm,0.5s							
VRTB	**Varto-Mus**	**0.85**	**179**	P	**Pg**		**05 47 40.1**	**-0.3**
VRTB				IAML			05 48 06.0	
	comp=N,1μm,0.7s							
VRTB				IAML			05 48 09.0	
	comp=E,660nm,0.8s							
VRTB	**Varto-Mus**	**0.85**	**179**	Pg	**Pb**		**05 47 39.9**	**-0.3**
VRTB				AML	AML			
YEDI	**Yedisu-Bingol**	**0.89**	**230**	Pg	**Pb**		**05 47 40.0**	**-0.9**
YEDI				Sg	**Sg**		**05 47 53.2**	**+0.3**
YEDI				AML	AML			
SENK	**Senkaya-Erzuru**	**0.90**	**52**	Pg	**Pb**		**05 47 40.9**	**-0.2**
SENK				AML	AML			
DDEM	**Demirkent**	**0.92**	**16**	P	**Pg**		**05 47 41.4**	**-0.2**
DDEM				IAML			05 47 57.0	
	comp=N,5μm,0.7s							
DDEM				IAML			05 47 57.0	
	comp=E,3μm,0.7s							
BAYB	**BAYBURT**	**0.93**	**286**	P	**Pn**		**05 47 42.1**	**-0.3**
BAYB				IAML			05 47 57.0	
	comp=E,265nm,0.3s							
BAYB				IAML			05 48 01.0	
	comp=N,1μm,0.8s							
IZDR	**Rize**	**1.02**	**320**	P	**Pb**		**05 47 42.7**	**-0.4**
IZDR				S	**Sn**		**05 47 57.6**	**+0.2**
IZDR				IAML			05 47 58.0	
	comp=N,551nm,0.4s							
IZDR				IAML			05 47 58.0	
	comp=E,766nm,0.3s							
DBAD	**Bademkaya**	**1.03**	**11**	P	**Pn**		**05 47 43.4**	**-0.3**
DBAD				S	**Sn**		**05 47 58.2**	**+0.5**
DBAD				IAML			05 47 59.0	
	comp=E,2μm,0.7s							
DBAD				IAML			05 48 00.0	
	comp=N,912nm,0.5s							
BAYT	**Aydıntepe-Bayb**	**1.06**	**292**	Pg	**Pn**		**05 47 43.9**	**-0.2**
BAYT				Sg	**Sn**		**05 47 58.8**	**+0.3**
BAYT				AML	AML			
BNGB	**Bingl**	**1.17**	**210**	Pn	**Pn**		**05 47 44.9**	**-0.7**
BNGB				Sn	**Sg**		**05 48 02.2**	**+0.4**
BNGB				AML	AML			
CHOM	**Cayeli-Rize**	**1.20**	**335**	Pn	**Pb**		**05 47 46.3**	**+0.2**
CHOM				AML	AML			
MLAZ	**Malazgirt-MUS**	**1.23**	**135**	Pn	**Pb**		**05 47 46.5**	**-0.2**
MLAZ				AML	AML			
AGRB	**Hanur-Agry**	**1.28**	**109**	Pn	**Pg**		**05 47 48.3**	**-0.3**
AGRB				AML	AML			
HOPA	**Hopa-Artvin**	**1.38**	**1**	Pn	**Pb**		**05 47 49.4**	**+0.3**
HOPA				AML	AML			
ERZN	**Erzincan**	**1.38**	**253**	Pn	**Pb**		**05 47 49.0**	**-0.3**
ERZN				AML	AML			
KARS	**Kars**	**1.41**	**63**	Pn	**Pg**		**05 47 50.3**	**-0.6**
KARS				AML	AML			
GURO	**Guroymak-BITLI**	**1.53**	**162**	Pn	**Pb**		**05 47 51.8**	**-0.1**
GURO				AML	AML			
SVAN	**Silvan-Diyarba**	**1.86**	**186**	Pn	**Pb**		**05 47 56.8**	**-0.7**
SVAN				AML	AML			
AKDM	**Akdamar-Van**	**2.07**	**144**	Pn	**Pb**		**05 47 59.6**	**-1.4**
AKDM				AML	AML			
BGD	**Bogdanovka**	**2.07**	**52**	P	**Pb**		**05 48 02.0**	**+0.9**
AKH	**Akhalkalaki**	**2.10**	**48**	P	**Pb**		**05 48 02.5**	**+0.9**
CLDR	**Caldiran**	**2.11**	**113**	Pn	**Pb**		**05 48 00.4**	**-1.4**
CLDR				AML	AML			
TASB	**TASBURUN-IGDIR**	**2.16**	**90**	Pn	**Pb**		**05 48 01.0**	**-1.5**
TASB				AML	AML			
TRLG	**Trialeti**	**2.54**	**52**	P	**Pn**		**05 48 06.3**	**+1.8**
GNI	**Garni**	**2.55**	**86**	Pn	**Pb**		**05 48 06.5**	**-2.7**
GNI				AML	AML			
TKB	**Tkibuli**	**2.62**	**26**	P	**Pb**		**05 48 09.5**	**-0.9**
TKB				S	**Sg**		**05 48 47.5**	**-0.6**
CHRG	**Chargali**	**3.51**	**48**	P	**Pn**		**05 48 19.9**	**+2.1**
KBZ	**Khabaz**	**3.87**	**16**	Pn	**Pb**		**05 48 27.2**	**-4.5**
	0.2nm,0.3s,baz=195,slow=12,SNR=1.7							
KBZ				Pg	**Pg**		**05 48 35.6**	**-2.4**
	0.5nm,0.3s,baz=198,slow=14,SNR=8.6							
KBZ				Lg	Lg		05 49 24.3	
	baz=233,slow=5.1							
	0.6nm,0.3s							
KBZ				AML	AML			
VSHL	**Vashlovani**	**3.98**	**71**	P	**Pb**		**05 48 35.0**	**+1.5**
BRTR	**Keskin Array B**	**6.00**	**270**	Pn	Pb		05 49 00.7	-7.3
	0.1nm,0.3s,baz=88,slow=18,SNR=1.9							
BRTR				Lg	Lg		05 50 38.9	
	0.1nm,0.3s,baz=89,slow=12,SNR=0.9							
	0.4nm,0.6s							
BRTR				AML	AML			
AKASG	**Malin Array Be**	**13.69**	**325**	Pn	**Pn**		**05 50 38.0**	**+1.0**
	0.4nm,0.4s,baz=134,slow=13,SNR=1.1							

*IDC **28** 06:05:08.4±0.8, 15°.21S×173°.97W, h0km, mb3.9/6, mbtmp3.9/7, ML4.8/1, MS2.7/2, Error ellipse: s-maj=45.5km s-min=18.2km az=148.0*

ISC 28 06:05:17.8±0.9, 15°.2S±0°.3×174°.0W±0°.2, h73km, n17, σ0s81/9, mb3.6/6, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**2.45**	**60**	Pn	Pn	06 05 47.3	-8.4
	223nm,0.3s,baz=212,slow=9.5,SNR=114						
AFI				Sn	Sn	06 06 08.7	-16
	59nm,0.3s,baz=287,slow=19,SNR=4.8						
AFI				LR	LR	06 06 32.9	
	comp=Z,172nm,20.8s,baz=278,slow=34						
	450nm,0.3s						
AFI				AML	AML		
MSVF	**Nonsavu**	**8.09**	**250**	LR	LR	06 09 48.3	
	comp=Z,53nm,18.6s,baz=347,slow=35						
H11S2	**WAKE ISLAND Hy**	**38.49**	**330**	T	T	06 52 59.7	
	baz=146,slow=76,SNR=9.0						
H11S3	**WAKE ISLAND Hy**	**38.50**	**330**	T	T	06 53 01.6	
	baz=146,slow=76,SNR=8.5						
H11S1	**WAKE ISLAND Hy**	**38.51**	**330**	T	T	06 53 01.6	
	baz=146,slow=76,SNR=8.5						
H11N3	**WAKE ISLAND Hy**	**39.44**	**331**	T	T	06 54 11.3	
	baz=150,slow=80,SNR=3.6						
H11N1	**WAKE ISLAND Hy**	**39.45**	**331**	T	T	06 54 10.3	
	baz=150,slow=80,SNR=4.4						
H11N2	**WAKE ISLAND Hy**	**39.46**	**331**	T	T	06 54 14.5	
	baz=150,slow=80,SNR=3.4						
WRA	**Warramunga Arr**	**49.38**	**257**	P	**P**	**06 14 00.3**	**-0.1**
	0.8nm,0.6s,baz=97,slow=7.4,SNR=5.1						
	0.8nm,0.6s						
ASAR	**Alice Springs**	**49.68**	**252**	P	**P**	**06 14 01.9**	**-0.8**
	5.3nm,0.7s,baz=93,slow=7.5,SNR=42						
	5.3nm,0.7s						
NVAR	**Mina Array Bea**	**74.51**	**42**	P	**P**	**06 16 48.7**	**-0.2**
	0.5nm,0.8s,baz=243,slow=4.9,SNR=5.6						
	0.5nm,0.8s						
QSPA	**South Pole Qui**	**74.88**	**180**	P	**P**	**06 16 50.8**	**+0.2**
	1.0nm,0.8s,baz=85,slow=5.8,SNR=7.1						
	1.0nm,0.8s						
TXAR	**Lajitas Array**	**80.92**	**56**	P	**P**	**06 17 24.5**	**-0.2**
	0.4nm,0.7s,baz=237,slow=5.7,SNR=2.9						
	0.4nm,0.7s						
PDAR	**Pinedale Array**	**82.45**	**42**	P	**P**	**06 17 31.7**	**-0.9**
	0.5nm,0.8s,baz=265,slow=2.7,SNR=4.1						
	0.5nm,0.8s						
ARCES	**ARCESS Array B**	**124.30**	**352**	PKP	**PKiKP**	**06 24 09.5**	**+1.5**
	8.3nm,1.1s,baz=38,slow=4.8,SNR=2.7						
BRTR	**Keskin Array B**	**145.64**	**321**	PKPbc	**PKPab**	**06 24 49.5**	**+0.5**
	0.7nm,0.8s,baz=31,slow=1.2,SNR=4.2						
GERES	**GERESS Array B**	**145.83**	**351**	PKPbc	**PKPab**	**06 24 49.5**	**+0.1**
	0.6nm,0.7s,baz=19,slow=3.5,SNR=5.2						

*IDC **28** 06:06:27.3±2.0, 6°.72S×130°.84E, h38km±24km, mb3.6/3, mbtmp3.8/8, ML3.8/5, Error ellipse: s-maj=27.5km s-min=11.9km az=90.0*

*DJA **28** 06:06:27.9±0.4, 7°.S±4°.×13°.1E±°, h10km, M3.9/6, ML3.8/7, MLv3.9/7, MLv4.0/5*

ISC 28 06:06:27.5±0.9, 6°.65S±0°.06×130°.7E±0°.1, h35km, n12, σ3s50/12, mb3.8/3, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**1.45**	**156**	P	**Pn**	**06 06 52.7**	**+1.4**
SAUI				S	**Sn**	**06 07 14.5**	**+5.5**
SAUI				AML	AML		
SAUI				AML	AML		
SAUI				AML	AML		
BNDI	**Bandanaira**	**2.26**	**339**	P	**Pn**	**06 07 04.5**	**+2.1**
BNDI				AML	AML		
BNDI				AML	AML		
FAKI	**Fak Fak**	**4.01**	**23**	P	**Pn**	**06 07 30.1**	**+3.5**
FAKI				AML	AML		
FAKI				AML	AML		
FAKI				AML	AML		
NLAI	**Namlea**	**4.94**	**313**	P	**Pn**	**06 07 41.3**	**+2.0**
SIJI	**Sorong**	**5.77**	**6**	Pn	**Pn**	**06 07 50.0**	**-0.7**
	2.6nm,0.3s,baz=180,slow=20,SNR=1.9						
SIJI				Sn	**Sn**	**06 08 55.1**	**-0.7**
	1.6nm,0.3s,baz=229,slow=19,SNR=1.6						
	6.8nm,0.4s						
SIJI				AML	AML		
BATI	**Baumata**	**7.81**	**243**	Pn	**Pn**	**06 08 20.9**	**+2.1**
	6.7nm,0.3s,baz=72,slow=3.2,SNR=1.7						
	18nm,0.4s						
BATI				AML	AML		
FITZ	**Fitzroy Crossi**	**12.40**	**203**	Pn	Pn	06 09 15.8	-5.9
	0.4nm,0.3s,baz=29,slow=12,SNR=10						
FITZ				Sn	Sn	06 11 22.6	-16
	0.5nm,0.3s,baz=322,slow=18,SNR=8.1						
	0.9nm,0.4s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.68**	**165**	Pn	Pn	06 09 32.9	-6.2
	0.3nm,0.3s,baz=351,slow=13,SNR=6.5						
WRA				Sn	Sn	06 11 51.7	-18
	0.4nm,0.3s,baz=344,slow=23,SNR=7.8						
	0.4nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.20**	**170**	Pn	**Pn**	**06 10 18.8**	**-6.4**
	0.4nm,0.3s,baz=355,slow=11,SNR=16						
ASAR				Sn	Sn	06 13 17.1	-18
	0.1nm,0.3s,baz=350,slow=15,SNR=5.0						
	0.5nm,0.8s						
ASAR				AML	AML		
STKA	**Stephens Creek**	**27.08**	**159**	P	**P**	**06 12 03.8**	**-3.2**
	1.5nm,0.6s,baz=336,slow=10.0,SNR=3.1						
	1.5nm,0.6s						
SONM	**Songino Array**	**58.34**	**341**	P	**P**	**06 16 20.6**	**+1.3**
	0.1nm,0.4s,baz=147,slow=5.7,SNR=2.1						
	0.1nm,0.4s						
MKAR	**Makanchi Array**	**68.32**	**326**	P	**P**	**06 17 25.2**	**0.0**
	0.9nm,0.5s,baz=115,slow=6.8,SNR=5.0						
	0.9nm,0.5s						

*IDC **28** 06:27:57.0±0.6, 2°.66S×127°.47E, h0km, mb4.0/12, mbtmp4.1/15, ML4.0/3, MS3.1/6, Error ellipse: s-maj=16.4km s-min=13.6km az=71.0*

*NEIC **28** 06:27:59.4±1.7, 2°.71S±0°.06×127°.51E±0°.06, h10km±1km, mb4.5/25, Error ellipse: s-maj=11.5km s-min=9.2km az=235.0*

*DJA **28** 06:28:02.2±0.9, 3°.S±6°.×12°.7E±°, h32km±19km, M4.2/5, ML4.2/5, MLv4.1/5, MLv4.1/5*

ISC 28 06:28:01.4±0.4, 2°.70S±0°.05×127°.48E±0°.05, h29km, n73, σ1s31/78, mb4.3/21, MS3.0/4, Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLAI	**Namlea**	**0.66**	**216**	P	**Pn**	**06 28 15.4**	**+0.7**
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
MSAI	**Masohi**	**1.58**	**114**	P	**Pb**	**06 28 30.7**	**+0.8**
MSAI				AML	AML		
MSAI				AML	AML		
MSAI				AML	AML		
SANI	**Sanana**	**1.63**	**293**	P	**Pn**	**06 28 25.7**	**-2.3**
SANI	**Sanana**	**1.63**	**293**	P	**Pn**	**06 28 25.8**	**-2.3**
SANI				AML	AML		
SANI				AML	AML		
SANI				AML	AML		
BNDI	**Bandanaira**	**3.02**	**127**	P	**Pn**	**06 28 49.3**	**+2.1**
BNDI	**Bandanaira**	**3.02**	**127**	S	**Sb**	**06 29 27.4**	**-3.5**
BNDI	**Bandanaira**	**3.02**	**127**	P	**Pn**	**06 28 49.9**	**+2.7**
TNTI	**Ternate**	**3.45**	**358**	Pn	**Pn**	**06 28 54.4**	**+1.1**
TNTI				Sn	**Sn**	**06 29 32.5**	**-0.7**
SIJI	**Sorong**	**4.20**	**64**	Pn	**Pn**	**06 29 03.3**	**-0.2**
	18nm,0.3s,baz=249,slow=8.6,SNR=19						
SIJI				Sn	**Sn**	**06 29 50.6**	**-1.0**
	18nm,0.3s,baz=197,slow=19,SNR=9.8						
SIJI				LR	LR	06 31 10.6	
	comp=Z,227nm,19.5s,baz=106,slow=46						
	57nm,0.3s						
SIJI				AML	AML		
FAKI	**Fak Fak**	**4.76**	**93**	P	**Pn**	**06 29 11.5**	**+0.2**
FAKI	**Fak Fak**	**4.76**	**93**		**Pn**	**06 29 11.4**	**+0.2**
FAKI				Sn	**Sn**	**06 30 03.9**	**-1.7**
LUWI	**Luwuk**	**4.99**	**289**	Pn	**Pn**	**06 29 14.7**	**+0.4**
LUWI				Sn	**Sn**	**06 30 10.5**	**-0.7**
SAUI	**Saumlaki**	**6.48**	**144**	P	**Pn**	**06 29 36.9**	**+2.1**
TOLI2	**Tolitoli**	**7.70**	**299**	P	**Pn**	**06 29 50.7**	**-0.9**
TOLI2	**Tolitoli**	**7.70**	**299**		**Pn**	**06 29 52.8**	**+1.3**
SOEI	**Soe**	**7.70**	**204**	Pn	**Pn**	**06 29 53.0**	**+1.3**
KAPI	**Kappang**	**8.05**	**253**	LR	LR	06 34 11.1	
	comp=Z,57nm,18.0s,baz=54,slow=46						
MTN	**Manton Dam**	**10.71**	**160**	Pn	**Pn**	**06 30 33.9**	**+1.0**
KNRA	**Kununurra**	**12.96**	**174**	Pn	**Pn**	**06 31 03.2**	**-0.4**
FITZ	**Fitzroy Crossi**	**15.41**	**187**	Pn	**Pn**	**06 31 34.0**	**-2.8**
	baz=5.4,slow=11,SNR=1.9						
	2.1nm,1.0s						
FITZ	**Fitzroy Crossi**	**15.41**	**187**		**Pn**	**06 31 36.2**	**-0.6**
WB0	**Warramunga Arr**	**18.26**	**159**		**P**	**06 32 12.5**	**-0.3**
WRAB	**Tennant Creek**	**18.39**	**159**	P	**Pn**	**06 32 14.8**	**+0.4**
WRA	**Warramunga Arr**	**18.40**	**159**	P	**P**	**06 32 13.5**	**-0.8**
	1.6nm,0.3s,baz=340,slow=12,SNR=39						
WRA				S	**Sn**	**06 35 36.7**	**-2.6**
	1.3nm,0.5s,baz=338,slow=22,SNR=5.7						
	5.8nm,0.7s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**18.40**	**159**	P	**P**	**06 32 12.9**	**-1.4**
PMG	**Port Moresby**	**20.66**	**110**	P	**P**	**06 32 39.0**	**0.0**
	2.6nm,0.5s,baz=302,slow=19,SNR=3.6						
PMG				LR	LR	06 41 42.5	
	comp=Z,58nm,18.9s,baz=256,slow=40						
	2.6nm,0.5s						
PMG	**Port Moresby**	**20.66**	**110**	P	**P**	**06 32 38.4**	**-0.6**
PMG				IAmb	IAmb	06 32 52.6	
	comp=Z,11nm,0.8s						
QIS	**Mount Isa**	**21.32**	**147**	P	**P**	**06 32 48.1**	**+1.9**
AS31	**Alice Springs**	**21.75**	**164**		**P**	**06 32 51.0**	**+0.3**
ASAR	**Alice Springs**	**21.75**	**164**	P	**P**	**06 32 51.8**	**+1.1**
	comp=Z,4.2nm,0.5s,baz=344,slow=11,SNR=77						
ASAR				S	**S**	**06 36 46.4**	**-3.6**
	comp=Z,8.0nm,0.9s,baz=347,slow=20,SNR=21						
ASAR				ScP	**ScP**	**06 40 30.1**	**+3.8**
	comp=Z,0.6nm,0.4s,baz=343,slow=4.0,SNR=9.4						
	comp=Z,4.2nm,0.5s						
ASAR	**Alice Springs**	**21.75**	**164**		**P**	**06 32 50.9**	**+0.2**
AS01	**Alice Springs**	**21.76**	**164**	P	**P**	**06 32 51.4**	**+0.6**
GUMO	**Guam**	**23.65**	**46**	LR	LR	06 41 42.7	
	comp=Z,19nm,21.8s,baz=201,slow=35						
MEEK	**Meekatharra**	**25.28**	**199**	P	**P**	**06 33 25.8**	**+0.4**
TPUB	**Ta-pu**	**26.69**	**346**	P	**P**	**06 33 37.9**	**-0.3**
FORT	**Forrest**	**27.93**	**179**	P	**P**	**06 33 47.8**	**-1.4**
FORT				IAmb	IAmb	06 34 24.6	
	comp=Z,7.7nm,0.8s						
BBOO	**Buckleboo**	**31.01**	**166**	P	**P**	**06 34 16.5**	**-0.1**
STKA	**Stephens Creek**	**31.92**	**157**	P	**P**	**06 34 24.4**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=331,slow=10,SNR=4.1						
STKA				LR	LR	06 48 35.4	
	comp=Z,34nm,18.6s,baz=335,slow=39						
	comp=Z,1.0nm,0.5s						
CMSA	**Cobar Meteorol**	**33.43**	**151**	P	**P**	**06 34 39.1**	**+1.3**
CMAR	**Chiang Mai Arr**	**35.09**	**308**	P	**P**	**06 34 53.0**	**+0.6**
	comp=Z,1.3nm,0.3s,baz=122,slow=6.8,SNR=4.6						
	comp=Z,1.3nm,0.3s						
CMAR	**Chiang Mai Arr**	**35.09**	**308**	P	**P**	**06 34 51.8**	**-0.6**
CHTO	**Chiang Mai**	**35.29**	**308**	P	**P**	**06 34 54.8**	**+0.7**
CHTO				IAmb	IAmb	06 35 05.5	
	comp=Z,4.0nm,0.8s						
NTLH	**Newcastle Hard**	**37.65**	**146**	P	**P**	**06 35 16.9**	**+2.9**
CAN	**Canberra**	**38.10**	**151**	P	**P**	**06 35 19.8**	**+1.9**
CAN	**Canberra**	**38.10**	**151**	P	**P**	**06 35 18.7**	**+0.8**
KS19	**Wonju Array Si**	**40.00**	**0**	P	**P**	**06 35 33.8**	**+0.1**
KS19				IAmb	IAmb	06 35 39.8	
	comp=Z,30nm,1.4s						
MJAR	**Matsushiro Arr**	**40.30**	**13**	P	**P**	**06 35 34.8**	**-1.4**
	comp=Z,2.3nm,0.6s,baz=195,slow=9.4,SNR=4.9						
	comp=Z,2.3nm,0.6s						
MJAR	**Matsushiro Arr**	**40.30**	**13**	P	**P**	**06 35 35.7**	**-0.5**
MAJO	**Matsushiro**	**40.30**	**13**	P	**P**	**06 35 36.7**	**+0.6**
MAJO				IAmb	IAmb	06 35 42.6	
	comp=Z,13nm,0.9s						
EVN	**Everest**	**49.58**	**311**	P	**P**	**06 36 52.0**	**+1.1**
SONM	**Songino Array**	**53.61**	**342**	P	**P**	**06 37 20.0**	**-0.1**
	comp=Z,0.9nm,0.8s,baz=152,slow=10.0,SNR=3.6						
SONM				PcP	**PcP**	**06 38 26.9**	**+0.5**
	comp=Z,1.0nm,0.7s,baz=148,slow=5.0,SNR=4.0						
	comp=Z,0.9nm,0.8s						
SONM	**Songino Array**	**53.61**	**342**	P	**P**	**06 37 20.5**	**+0.5**
MKAR	**Makanchi Array**	**63.28**	**327**	P	**P**	**06 38 27.7**	**+0.2**
	comp=Z,1.7nm,0.7s,baz=125,slow=6.4,SNR=8.1						
	comp=Z,1.7nm,0.7s						
MKAR	**Makanchi Array**	**63.28**	**327**	P	**P**	**06 38 27.9**	**+0.4**
ZALV	**Zalesovo Beam**	**66.65**	**334**	P	**P**	**06 38 48.7**	**-0.5**
	comp=Z,0.3nm,0.3s,baz=118,slow=7.9,SNR=1.8						
	comp=Z,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**67.56**	**329**	P	**P**	**06 38 55.6**	**+0.5**
	comp=Z,1.8nm,0.6s,baz=128,slow=6.0,SNR=11						
	comp=Z,1.8nm,0.6s						
KURK	**Kurchatov**	**67.57**	**329**	P	**P**	**06 38 55.7**	**+0.6**
KURK				IAmb	IAmb	06 39 05.0	
	comp=Z,6.3nm,1.0s						
KK31	**Karatay Array**	**68.48**	**319**	P	**P**	**06 39 01.3**	**+0.3**
KK31				IAmb	IAmb	06 39 17.5	
	comp=Z,4.8nm,1.4s						
KKAR	**Karatay Array**	**68.48**	**319**	P	**P**	**06 39 01.1**	**+0.1**
BVAR	**Borovoye Array**	**73.11**	**328**	P	**P**	**06 39 27.6**	**-1.4**
	comp=Z,2.0nm,0.7s,baz=126,slow=7.3,SNR=5.8						
	comp=Z,2.0nm,0.7s						
BORK	**Borovoye**	**73.16**	**328**	P	**P**	**06 39 29.1**	**-0.2**
BORK				IAmb	IAmb	06 39 30.4	
	comp=Z,3.4nm,0.9s						
TIXI	**Tiksi**	**74.22**	**0**	P	**P**	**06 39 34.9**	**-0.2**
TIXI				IAmb	IAmb	06 39 36.4	
	comp=Z,3.9nm,0.8s						
VNDA	**Vanda**	**76.99**	**173**	P	**P**	**06 39 50.7**	**-0.3**
	comp=Z,0.7nm,0.8s,baz=333,slow=5.5,SNR=3.8						
	comp=Z,0.7nm,0.8s						
VNDA	**Vanda**	**76.99**	**173**	P	**P**	**06 39 50.2**	**-0.7**
VNDA				IAmb	IAmb	06 40 22.7	
	comp=Z,3.7nm,1.3s						
AB31	**Akbulak array**	**77.60**	**322**	P	**P**	**06 39 55.3**	**+0.4**
AB31				IAmb	IAmb	06 40 05.1	
	comp=Z,5.0nm,1.5s						
ABKAR	**Akbulak array**	**77.60**	**322**	P	**P**	**06 39 54.8**	**-0.1**
G19K	**Purcell Mounta**	**86.59**	**23**	P	**P**	**06 40 42.3**	**+0.6**
G19K				IAmb	IAmb	06 40 44.0	
	comp=Z,8.3nm,1.4s						
D19K	**Kuna River**	**86.82**	**21**	P	**P**	**06 40 43.1**	**+0.3**
KDAK	**Kodiak Island**	**86.90**	**32**	P	**P**	**06 40 43.8**	**+0.5**
QSPA	**South Pole Qui**	**87.25**	**180**	P	**P**	**06 40 44.8**	**-0.3**
	comp=Z,1.0nm,0.8s,baz=282,slow=1.7,SNR=6.9						
	comp=Z,1.0nm,0.8s						
QSPA	**South Pole Qui**	**87.25**	**180**	P	**P**	**06 40 44.8**	**-0.3**
QSPA				IAmb	IAmb	06 41 23.4	
	comp=Z,5.7nm,1.3s						
SNAA	**Sanae**	**99.21**	**194**	LR	LR	07 26 48.8	
	comp=Z,29nm,18.7s,baz=210,slow=36						
CPUP	**Villa Florida**	**150.77**	**171**	PKPbc	**PKiKP**	**06 47 52.3**	**-0.1**
	comp=Z,1.7nm,0.8s,baz=206,slow=3.4,SNR=4.6						

*IDC **28** 06:33:50.0±0.9, 12°.08N×58°.01E, h0km, mb3.8/11, mbtmp3.8/11, MS3.8/32, Error ellipse: s-maj=22.9km s-min=21.8km az=172.0*

*NEIC **28** 06:33:52.4±1.2, 12°.1N±0°.1×58°.0E±0°.1, h10km±1km, mb4.4/17, Error ellipse: s-maj=22.4km s-min=18.1km az=199.0*

*OMAN **28** 06:33:57.3±1.4, 12°.41N×58°.31E, h49km±19km, mb4.1/11, Error ellipse: s-maj=12.6km s-min=10.6km az=18.0*

ISC 28 06:33:53.4±0.7, 12°.21N±0°.08×58°.14E±0°.07, h16km, n90, σ1s31/63, mb4.1/18, MS3.8/32, Owen Fracture Zone region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHAO	**Shalim**	**6.27**	**338**	P	**Pn**	**06 35 24.4**	**-0.9**
DMTO	**DMTO**	**6.29**	**331**	P	**Pn

EVN					IAmb	IAmb	06 40 15.0	
	comp=Z,7.0nm,1.0s							
OPO	**Ambohidratompo**	**32.44**	**200**	LR	LR	06 50 48.5		
	comp=Z,96nm,18.8s,baz=117,slow=32							
AAK	**Ala-Archa**	**33.48**	**22**	LR	LR	06 55 21.4		
	comp=Z,180nm,20.8s,baz=210,slow=38							
AAK	**Ala-Archa**	**33.48**	**22**	P	**P**	**06 40 34.0**	**+1.8**	
AAK					IAmb	IAmb	06 40 35.7	
	comp=Z,3.8nm,0.9s							
KBZ	**Khabaz**	**34.05**	**340**	LR	LR	06 55 13.4		
	comp=Z,156nm,19.5s,baz=160,slow=38							
WUS	**Wushi**	**34.28**	**29**	P	**P**	**06 40 39.5**	**+0.4**	
BRTR	**Keskin Array B**	**34.93**	**326**	P	**P**	**06 40 44.8**	**+0.1**	
	comp=Z,0.2nm,0.4s,baz=146,slow=7.8,SNR=4.0							
BRTR				LR	LR	06 56 18.3		
	comp=Z,131nm,18.6s,baz=118,slow=39							
	comp=Z,0.2nm,0.4s							
BRTR	**Keskin Array B**	**34.93**	**326**	P	**P**	**06 40 43.9**	**-0.8**	
PDGK	**Podgornoye**	**36.09**	**27**	P	**P**	**06 40 55.6**	**+1.0**	
AB31	**Akbulak array**	**36.97**	**2**		**P**	**06 41 02.7**	**+0.9**	
AB31					IAmb	IAmb	06 41 04.0	
	comp=Z,6.5nm,1.1s							
ABKAR	**Akbulak array**	**36.97**	**2**		**P**	**06 41 02.9**	**+1.1**	
AKTO	**Aktyubinsk**	**38.12**	**360**	LR	LR	06 56 00.4		
	comp=Z,126nm,18.3s,baz=314,slow=35							
CMAR	**Chiang Mai Arr**	**39.77**	**76**	P	**P**	**06 41 25.6**	**-0.3**	
	comp=Z,1.0nm,0.3s,baz=267,slow=8.3,SNR=4.2							
CMAR				LR	LR	06 58 02.2		
	comp=Z,37nm,18.1s,baz=275,slow=36							
	comp=Z,1.0nm,0.3s							
CMAR	**Chiang Mai Arr**	**39.77**	**76**	P	**P**	**06 41 26.6**	**+0.7**	
MKAR	**Makanchi Array**	**40.04**	**26**	P	**P**	**06 41 27.5**	**-0.2**	
	comp=Z,1.8nm,0.9s,baz=224,slow=9.7,SNR=3.9							
MKAR				LR	LR	06 59 18.0		
	comp=Z,105nm,19.2s,baz=244,slow=38							
	comp=Z,1.8nm,0.9s							
MKAR	**Makanchi Array**	**40.04**	**26**	P	**P**	**06 41 28.4**	**+0.6**	
ALN	**Alexandroupoli**	**40.10**	**321**	P	**P**	**06 41 27.7**	**-0.6**	
ALN					IAmb	IAmb	06 41 28.2	
	comp=Z,5.8nm,1.1s							
PSI	**Prapat**	**41.44**	**100**	LR	LR	06 57 03.8		
	comp=Z,67nm,18.2s,baz=254,slow=34							
KURBB	**Kurchatov Arra**	**41.78**	**19**	P	**P**	**06 41 42.5**	**+0.5**	
	comp=Z,2.0nm,0.9s,baz=214,slow=8.2,SNR=12							
KURBB				LR	LR	07 00 41.4		
	comp=Z,164nm,18.2s,baz=192,slow=38							
	comp=Z,2.0nm,0.9s							
BVAR	**Borovoye Array**	**41.88**	**11**	P	**P**	**06 41 42.5**	**-0.2**	
	comp=Z,0.3nm,0.5s,baz=174,slow=4.2,SNR=1.5							
	comp=Z,0.3nm,0.5s							
MLR	**Muntele Rosu**	**43.01**	**327**	LR	LR	07 01 21.4		
	comp=Z,103nm,18.4s,baz=0.0,slow=38							
MATP	**Matopo**	**43.61**	**222**	LR	LR	06 58 19.1		
	comp=Z,402nm,18.6s,baz=54,slow=34							
COCO	**West Island**	**45.41**	**121**	P	**P**	**06 42 11.9**	**+0.2**	
ZAA0	**Zalesovo Array**	**46.70**	**21**	P	**P**	**06 42 21.8**	**+0.5**	
ZAA0					IAmb	IAmb	06 42 22.4	
	comp=Z,4.0nm,0.8s							
ZALV	**Zalesovo Beam**	**46.70**	**21**	P	**P**	**06 42 21.1**	**-0.2**	
	comp=Z,3.0nm,0.6s,baz=219,slow=8.0,SNR=13							
ZALV				LR	LR	07 02 36.6		
	comp=Z,119nm,19.4s,baz=256,slow=37							
	comp=Z,3.0nm,0.6s							
ZALV	**Zalesovo Beam**	**46.70**	**21**		**P**	**06 42 21.5**	**+0.2**	
KEST	**Kesra**	**49.75**	**307**	LR	LR	07 04 37.1		
	comp=Z,104nm,18.5s,baz=24,slow=37							
VRAC	**Vranov**	**50.38**	**326**	LR	LR	07 05 05.4		
	comp=Z,104nm,19.7s,baz=360,slow=37							
TSUM	**Tsumeb**	**50.71**	**233**	LR	LR	07 06 02.1		
	comp=Z,137nm,18.5s,baz=340,slow=38							
BOSA	**Boshof**	**51.56**	**218**	LR	LR	07 02 18.4		
	comp=Z,127nm,20.9s,baz=31,slow=33							
GERES	**GERESS Array B**	**51.77**	**324**	LR	LR	07 06 18.4		
	comp=Z,170nm,18.2s,baz=8.0,slow=38							
SONM	**Songino Array**	**53.57**	**39**	P	**P**	**06 43 14.2**	**+0.5**	
	comp=Z,0.7nm,0.7s,baz=250,slow=7.5,SNR=5.5							
SONM				LR	LR	07 06 22.9		
	comp=Z,79nm,18.8s,baz=320,slow=36							
	comp=Z,0.7nm,0.7s							
TLY	**Talaya**	**53.77**	**33**	LR	LR	07 09 29.7		
	comp=Z,99nm,18.0s,baz=283,slow=40							
FINES	**FINESS Array B**	**54.38**	**342**	P	**P**	**06 43 19.3**	**+0.1**	
	comp=Z,2.0nm,0.9s,baz=142,slow=7.0,SNR=6.2							
	comp=Z,2.0nm,0.9s							
FINES	**FINESS Array B**	**54.38**	**342**	P	**P**	**06 43 18.8**	**-0.4**	
SUR	**Sutherland**	**56.92**	**218**	LR	LR	07 05 16.8		
	comp=Z,126nm,22.0s,baz=30,slow=33							
NOA	**NORSAR Array B**	**59.44**	**336**	LR	LR	07 12 15.6		
	comp=Z,43nm,20.4s,baz=300,slow=39							
NRIK	**Noril'sk**	**60.09**	**12**	LR	LR	07 11 53.2		
	comp=Z,137nm,18.3s,baz=314,slow=38							
ESDC	**Sonseca Array**	**60.88**	**309**	P	**P**	**06 44 05.6**	**+0.1**	
	comp=Z,0.7nm,0.8s,baz=92,slow=7.1,SNR=5.6							
	comp=Z,0.7nm,0.8s							
ESDC	**Sonseca Array**	**60.88**	**309**	P	**P**	**06 44 03.9**	**-1.7**	
DBIC	**Dimbokro**	**62.28**	**271**	LR	LR	07 11 38.0		
	comp=Z,84nm,18.1s,baz=16,slow=36							
KSRS	**Korea Array**	**66.66**	**54**	LR	LR	07 15 04.9		
	comp=Z,51nm,21.1s,baz=340,slow=37							
USRK	**Ussuriysk Ar.**	**70.03**	**47**	P	**P**	**06 45 04.7**	**+0.2**	
YAK	**Yakutsk**	**70.66**	**28**	LR	LR	07 17 58.8		
	comp=Z,72nm,20.0s,baz=304,slow=37							
H01W3	**Cape Leeuwin H**	**70.74**	**134**	T	T	08 02 33.1		
	baz=301,slow=75,SNR=26							
H01W2	**Cape Leeuwin H**	**70.74**	**134**	T	T	08 02 33.5		
	baz=301,slow=75,SNR=32							
H01W1	**Cape Leeuwin H**	**70.75**	**134**	T	T	08 02 34.4		
	baz=301,slow=75,SNR=32							
TIXI	**Tiksi**	**72.45**	**18**	LR	LR	07 19 19.4		
	comp=Z,127nm,20.2s,baz=251,slow=38							
WRA	**Warramunga Arr**	**81.48**	**113**	P	**P**	**06 46 10.9**	**+0.4**	
	comp=Z,0.8nm,1.1s,baz=288,slow=4.8,SNR=5.7							
	comp=Z,0.8nm,1.1s							
WRA	**Warramunga Arr**	**81.48**	**113**	P	**P**	**06 46 09.1**	**-1.4**	
WRAB	**Tennant Creek**	**81.48**	**112**	P	**P**	**06 46 10.3**	**-0.2**	
WRAB					IAmb	IAmb	06 46 22.1	
	comp=Z,8.4nm,1.4s							
ASAR	**Alice Springs**	**82.15**	**116**	P	**P**	**06 46 14.4**	**+0.4**	
	comp=Z,0.9nm,0.7s,baz=285,slow=5.5,SNR=7.6							
	comp=Z,0.9nm,0.7s							
ASAR	**Alice Springs**	**82.15**	**116**	P	**P**	**06 46 13.7**	**-0.3**	
AS31	**Alice Springs**	**82.15**	**116**	P	**P**	**06 46 13.5**	**-0.5**	

*IDC **28** 06:35:01.6±1.5, 7°.27S×126°.74E, h296^{km}±19^{km}, mb2.9/2, mbtmp4.0/7, Error ellipse: s-maj=23.9km s-min=19.4km az=84.0*

ISC 28 06:35:01.7±1.0, 7°.35S±0°.08×126°.8E±0°.1, h300^{km}, n7, σ1^{s}17/11, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BATI	**Baumata**	**4.23**	**228**	P	**Pn**	**06 36 11.7**	**+1.1**
	113nm,0.4s,baz=68,slow=5.4,SNR=8.7						
BATI				S	**S**	**06 37 04.5**	**-1.3**
	88nm,0.5s,baz=47,slow=19,SNR=13						
SIJI	**Sorong**	**7.81**	**35**	P	**Pn**	**06 36 53.1**	**0.0**
	15nm,0.4s,baz=198,slow=20,SNR=4.2						
FITZ	**Fitzroy Crossi**	**10.74**	**186**	P	**Pn**	**06 37 29.6**	**+0.6**
	1.9nm,0.3s,baz=6.1,slow=10,SNR=12						
FITZ				S	**S**	**06 39 28.9**	**-0.7**
	2.3nm,0.8s,baz=342,slow=20,SNR=2.5						
WRA	**Warramunga Arr**	**14.47**	**151**	P	**P**	**06 38 13.8**	**+0.7**
	0.8nm,0.5s,baz=334,slow=11,SNR=6.1						
WRA				S	**S**	**06 40 50.4**	**-1.7**
	0.5nm,0.8s,baz=333,slow=21,SNR=4.8						
ASAR	**Alice Springs**	**17.58**	**158**	P	**P**	**06 38 48.6**	**+1.6**
	3.3nm,0.3s,baz=335,slow=11,SNR=33						
ASAR				S	**S**	**06 41 53.2**	**-0.8**
	0.9nm,0.7s,baz=341,slow=25,SNR=5.4						
MKAR	**Makanchi Array**	**66.84**	**328**	P	**P**	**06 45 21.1**	**-0.7**
	0.3nm,0.6s,baz=119,slow=8.2,SNR=2.1						
	0.3nm,0.6s						
KURBB	**Kurchatov Arra**	**71.20**	**330**	P	**P**	**06 45 47.8**	**-0.5**
	0.3nm,0.5s,baz=139,slow=5.0,SNR=4.0						
	0.3nm,0.5s						

*IDC **28** 06:41:17.6±0.9, 5°.20N×125°.21E, h0^{km}, mb3.8/8, mbtmp3.8/8, MS3.2/1, Error ellipse: s-maj=60.6km s-min=16.9km az=74.0*

*MAN **28** 06:41:27.0, 5°.18N×126°.09E, h71^{km}, MS3.5*

ISC 28 06:41:28.9±1.0, 5°.19N±0°.09×125°.8E±0°.2, h100^{km}, n14, σ2^{s}02/14, mb3.8/8, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.22**	**317**	*i* P	**Pn**	**06 41 52.0**	**0.0**
GSPH				*i* S	**Sn**	**06 42 09.9**	**+0.5**
DAV	**Davao City (W)**	**1.88**	**354**	Sn	**Sn**	**06 42 21.4**	**-2.2**
	baz=197,slow=19						
DMPH	**Davao City--Mi**	**1.90**	**351**	*e*P	**Pn**	**06 42 03.2**	**+3.0**
DMPH				*i* S	**Sn**	**06 42 22.0**	**-2.1**
KCP	**Kidapawan**	**1.93**	**339**	*i* P	**Pn**	**06 42 01.8**	**+1.0**
KCP				*i* S	**Sn**	**06 42 29.0**	**+4.0**
CGP	**Cagayan de Oro**	**3.42**	**341**	*e*P	Pn	06 42 25.9	+5.6
CGP				*e*S	Sn	06 43 11.3	+11
FITZ	**Fitzroy Crossi**	**23.14**	**180**	P	**P**	**06 46 27.3**	**+0.5**
	2.9nm,0.5s,baz=346,slow=4.2,SNR=8.7						
	2.9nm,0.5s						
WRA	**Warramunga Arr**	**26.36**	**162**	P	**P**	**06 46 56.3**	**+0.4**
	0.5nm,0.7s,baz=341,slow=9.8,SNR=6.5						
	0.5nm,0.7s						
JNU	**Nakatsue**	**28.19**	**9**	LR	LR	06 57 49.5	
	comp=Z,49nm,20.2s,baz=322,slow=35						
ASAR	**Alice Springs**	**29.76**	**165**	P	**P**	**06 47 26.9**	**+0.7**
	0.3nm,0.6s,baz=342,slow=8.7,SNR=6.2						
	0.3nm,0.6s						
KSRS	**Korea Array**	**32.17**	**3**	P	**P**	**06 47 46.7**	**-0.5**
	0.6nm,0.4s,baz=196,slow=7.6,SNR=1.3						
	0.6nm,0.4s						
MKAR	**Makanchi Array**	**55.83**	**325**	P	**P**	**06 50 54.8**	**-1.1**
	1.0nm,0.4s,baz=121,slow=7.5,SNR=12						
	1.0nm,0.4s						
ZALV	**Zalesovo Beam**	**58.87**	**333**	P	**P**	**06 51 15.0**	**-2.2**
	0.6nm,0.3s,baz=117,slow=6.7,SNR=3.6						
	0.6nm,0.3s						
KURBB	**Kurchatov Arra**	**60.01**	**327**	P	**P**	**06 51 23.6**	**-1.5**
	0.7nm,0.5s,baz=127,slow=6.1,SNR=10						
	0.7nm,0.5s						
ILAR	**Eielson Array**	**84.19**	**25**	P	P	06 53 53.4	+4.5
	0.2nm,0.7s,baz=266,slow=6.6,SNR=1.6						
	0.2nm,0.7s						

*OSPL **28** 06:41:31.4±1.3, 18°.33N×73°.20W, h0^{km}±5^{km}, ML2.8, Presumed earthquake*

*SSNC **28** 06:41:33.9±1.3, 18°.35N×73°.14W, h7^{km}±10^{km}, MD3.5, ML2.2, Presumed earthquake*

ISC 28 06:41:29.8±2.5, 18°.43N±0°.08×73°.14W±0°.04, h5^{km}±18^{km}, n17, σ1^{s}13/30, 2D, Haiti region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LGNH	**Logne**	**0.51**	**80**	*i* P	**Pb**	**06 41 41.7**	**+0.5**
LGNH				*e*S	**Sb**	**06 41 49.5**	**+0.5**
LGNH				IAML		06 41 49.7	
	comp=Z,87nm,0.3s						
LOBH	**Bahia de las A**	**1.53**	**111**	*i* P	**Pn**	**06 41 57.6**	**-0.2**
LOBH				*e*S	**Sb**	**06 42 17.6**	**-0.8**
LOBH				IAML		06 42 19.7	
	comp=Z,81nm,0.6s						
LODU1	**El Espartillar**	**1.58**	**92**	*i* P	**Pb**	**06 41 59.5**	**0.0**
LODU1				*e*S	**Sg**	**06 42 21.1**	**+0.5**
LODU1				IAML		06 42 25.7	
	comp=Z,162nm,0.6s						
LONE3	**El Aguacate, B**	**1.60**	**83**	*i* P	**Pb**	**06 41 59.2**	**-0.8**
LONE3				IAML		06 42 26.7	
	comp=Z,55nm,0.6s						
PODR	**Polo**	**1.78**	**98**	*i* P	**Pb**	**06 42 02.8**	**-0.2**
PODR				*e*S	**Sb**	**06 42 25.7**	**-0.1**
PODR				IAML		06 42 36.2	
	comp=Z,486nm,0.3s						
LOVI	**El Cajuil, Ovi**	**1.79**	**110**	*i* P	**Pb**	**06 42 02.0**	**-1.2**
LOVI				*e*S	**Sb**	**06 42 24.7**	**-1.2**
LOVI				IAML		06 42 30.3	
	comp=Z,106nm,0.7s						
SDDR	**Presa de Saban**	**1.84**	**72**	*e*P	**Pb**	**06 42 04.1**	**+0.2**
SDDR				*e*S	**Sn**	**06 42 25.6**	**-0.2**
SDDR				IAML		06 42 31.2	
	comp=Z,58nm,0.6s						
SDDR				IAML		06 42 31.3	
	comp=Z,70nm,0.4s						
SDDR	**Presa de Saban**	**1.84**	**72**	*i* P	**Pb**	**06 42 03.8**	**-0.1**
SDDR				*e*S	**Sb**	**06 42 27.4**	**+0.1**
SDDR				IAML		06 42 32.8	
	comp=Z,45nm,0.5s						
LOPP1	**Punta Rusia, P**	**2.32**	**52**	*i* P	**Pb**	**06 42 10.6**	**-1.5**
LOPP1				IAML		06 42 48.6	
	comp=Z,46nm,0.6s						
QMBU	**Quimbuelo**	**2.37**	**318**	*e*P	**Pn**	**06 42 09.2**	**-0.2**
QMBU				*e*S	**Sn**	**06 42 37.0**	**-2.0**
GTBY	**Guantanamo Bay**	**2.39**	**309**	*e*P	**Pn**	**06 42 11.0**	**+1.3**
NMDO	**Nuevo Mundo**	**2.75**	**321**	*e*P	**Pn**	**06 42 16.3**	**+1.7**
MOAC	**Moa**	**2.81**	**323**	*e*P	**Pb**	**06 42 18.1**	**-2.4**
SABCS	**La Quijada**	**2.82**	**313**	*e*P	**Pn**	**06 42 16.1**	**+0.5**
SABCS				*e*S	**Sn**	**06 42 49.9**	**-0.1**
SABCS				*e*Sg	**Sb**	**06 42 55.9**	**+0.4**
SABCS				IAML		06 42 58.0	
	comp=E,13nm,0.4s						
SABCS				IAML		06 42 58.4	
	comp=N,6.2nm,0.2s						
RCC	**Rio Carpintero**	**2.88**	**303**	*e*P	**Pn**	**06 42 17.7**	**+1.3**
RCC				*e*S	**Sn**	**06 42 51.9**	**+0.4**
RCC				IAML		06 42 52.9	
	comp=N,3.4nm,0.1s						
RCC				IAML		06 42 52.9	
	comp=E,1.7nm,0.1s						
MARVS	**Santiago de Cu**	**3.05**	**301**	*e*P	**Pn**	**06 42 21.1**	**+2.4**
MARVS				*e*S	**Sn**	**06 42 56.1**	**+0.6**
PINC	**Pinares de May**	**3.24**	**310**	*e*P	**Pn**	**06 42 23.2**	**+1.9**
PINC				*e*S	**Sn**	**06 43 00.3**	**0.0**
PINC				IAML		06 43 01.6	
	comp=E,3.2nm,0.1s						
PINC				IAML		06 43 02.0	
	comp=N,2.1nm,0.1s						

*IDC **28** 06:56:36.4±2.9, 6°.62S×129°.74E, h136^{km}±37^{km}, mb3.3/2, mbtmp3.7/6, Error ellipse: s-maj=70.3km s-min=20.6km az=89.0*

ISC 28 06:56:35.6±0.9, 6°.62S±0°.08×129°.9E±0°.2, h150^{km}, n6, σ3^{s}72/8, Banda Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SIJI	**Sorong**	**5.88**	**14**	P	**Pn**	**06 58 02.0**	**+1.1**
	7.8nm,0.5s,baz=198,slow=20,SNR=6.2						
SIJI				S	**Sn**	**06 59 02.2**	**-5.3**
	11nm,0.2s,baz=163,slow=20,SNR=5.7						
FITZ	**Fitzroy Crossi**	**12.12**	**199**	P	**Pn**	**06 59 24.4**	**+0.8**
	0.8nm,0.3s,baz=18,slow=11,SNR=7.7						
FITZ				S	**Sn**	**07 01 32.5**	**-5.2**
	2.4nm,0.4s,baz=68,slow=19,SNR=6.4						
WRA	**Warramunga Arr**	**13.94**	**162**	P	**Pn**	**06 59 47.2**	**+0.3**
	0.5nm,0.4s,baz=344,slow=13,SNR=17						
WRA				S	Sn	07 02 13.1	-8.4
	0.7nm,0.3s,baz=345,slow=24,SNR=7.6						
ASAR	**Alice Springs**	**17.39**	**167**	P	**Pn**	**07 00 31.6**	**+2.3**
	0.3nm,0.4s,baz=345,slow=9.3,SNR=12						
MKAR	**Makanchi Array**	**67.83**	**327**	P	**P**	**07 07 19.8**	**+2.2**
	0.8nm,0.5s,baz=124,slow=7.5,SNR=7.3						
	0.8nm,0.5s						
KURBB	**Kurchatov Arra**	**72.11**	**328**	P	**P**	**07 07 44.9**	**+1.3**
	0.2nm,0.5s,baz=128,slow=4.8,SNR=2.3						
	0.2nm,0.5s						

*IDC **28** 06:57:49.0±0.4, 8°.55S×157°.09E, h0^{km}, mb4.3/20, mbtmp4.3/24, ML3.6/2, MS3.9/43, Error ellipse: s-maj=14.4km s-min=9.5km az=19.0*

*NEIC **28** 06:57:50.5±1.1, 8°.68S±0°.10×157°.32E±0°.08, h10^{km}±1^{km}, mb4.9/29, Error ellipse: s-maj=17.6km s-min=11.2km az=26.0*

*GFZ **28** 06:57:54.7±0.5, 9°.S±4°×15°.7E±°, h62^{km}±6^{km}, M4.9/26, mb4.9/26, Error ellipse: s-maj=8.2km s-min=7.1km az=29.2, confirmed*

ISC 28 06:57:51.0±0.3, 8°.65S±0°.06×157°.30E±0°.05, h16^{km}, n170, σ1^{s}36/136, mb4.8/68, MS4.0/40, 2C-1D, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**2.73**	**107**	Pn	**Pn**	**06 58 36.7**	**+2.5**
	201nm,0.6s,baz=312,slow=4.6,SNR=48						
HNR				Pg	**Pg**	**06 58 43.2**	**-0.1**
	115nm,0.3s,baz=322,slow=3.8,SNR=48						
HNR				Sn	**Sb**	**06 59 12.3**	**-0.3**
	101nm,0.3s,baz=294,slow=10.0,SNR=4.1						
HNR				LR	LR	06 59 16.6	
	comp=Z,983nm,19.1s,baz=170,slow=30						
HNR				Lg	Lg	06 59 25.1	
	214nm,0.3s,baz=324,slow=19,SNR=10						
HNR	**Honiara**	**2.73**	**107**	Pn	**Pn**	**06 58 33.4**	**-0.8**
HNR	**Honiara**	**2.73**	**107**	P	**Pn**	**06 58 35.4**	**+1.2**
RABL	**Rabaul**	**6.76**	**311**	Pn	**Pn**	**06 59 28.8**	**-0.9**
KRVT	**Keravat (AS076**	**6.79**	**309**	Lg	Lg	07 01 15.2	
	116nm,0.3s,baz=216,slow=19,SNR=1.4						
KRVT				LR	LR	07 02 16.5	
	comp=Z,865nm,18.0s,baz=340,slow=41						
I40PG	**Keravat**	**6.81**	**309**	I	I	07 39 20.0	
	baz=128,slow=312,SNR=1.3						
PMG	**Port Moresby**	**10.04**	**265**	Pn	**Pn**	**07 00 15.0**	**+0.2**
	2.2nm,0.3s,baz=109,slow=18,SNR=1.2						
PMG				LR	LR	07 04 01.7	
	comp=Z,2μm,18.2s,baz=92,slow=38						
PMG	**Port Moresby**	**10.04**	**265**	Pn	**Pn**	**07 00 15.1**	**+0.3**
PMG	**Port Moresby**	**10.04**	**265**	P	**Pn**	**07 00 17.8**	**+3.1**
	comp=Z,17nm,1.2s						
SANVU	**Saraoutou**	**11.80**	**126**		**Pn**	**07 00 38.3**	**-0.5**
SANVU	**Saraoutou**	**11.80**	**126**	P	**Pn**	**07 00 38.6**	**-0.2**
	comp=Z,38nm,0.6s						
MANU	**Manus Island**	**11.87**	**303**	Pn	**Pn**	**07 00 40.0**	**+0.2**
PATS	**Pohnpei**	**15.42**	**4**	P	**Pn**	**07 01 28.9**	**+0.8**
	comp=Z,214nm,1.6s						
CTA	**Charters Tower**	**15.60**	**222**	Pn	**Pn**	**07 01 28.6**	**-1.8**
	comp=Z,0.2nm,0.3s,baz=41,slow=13,SNR=4.0						
CTA				LR	LR	07 07 06.4	
	comp=Z,724nm,18.4s,baz=42,slow=36						
	comp=Z,4.6nm,1.0s						
CTA				AML	AML		
MTSU	**Mount Surprise**	**15.75**	**232**	P	**Pn**	**07 01 33.3**	**+0.9**
	comp=Z,8.6nm,1.6s						
DZM	**Mont Dzumac**	**15.98**	**148**	Pn	**Pn**	**07 01 37.5**	**+2.1**
	comp=Z,0.1nm,0.3s,baz=316,slow=17,SNR=2.7						
DZM				LR	LR	07 06 11.9	
	comp=Z,266nm,19.2s,baz=356,slow=31						
	comp=Z,10.0nm,0.9s						
DZM				AML	AML		
JAY	**Jayapura**	**17.60**	**289**	P	**Pn**	**07 01 55.8**	**0.0**
	comp=Z,29nm,1.1s						
EIDS	**Eidsvold**	**17.65**	**199**		**Pn**	**07 01 56.4**	**0.0**
EIDS	**Eidsvold**	**17.65**	**199**	P	**Pn**	**07 01 57.0**	**+0.6**
	comp=Z,25nm,2.2s						
SMPI	**Sarmi**	**19.65**	**289**	P	**P**	**07 02 18.3**	**-1.0**
	comp=Z,75nm,1.6s,comp=Z,75nm,1.6s						
SMPI	**Sarmi**	**19.65**	**289**	P	**P**	**07 02 19.0**	**-0.3**
	comp=Z,58nm,2.5s						
QIS	**Mount Isa**	**20.79**	**233**	P	**P**	**07 02 32.6**	**+0.9**
	comp=Z,24nm,1.7s						
QLP	**Quilpie**	**21.71**	**213**	P	**P**	**07 02 41.9**	**+0.2**
	comp=Z,58nm,1.3s						
MSVF	**Nonsavu**	**22.11**	**116**	P	**P**	**07 02 44.8**	**-1.2**
	comp=Z,26nm,1.3s						
ARMA	**Armidale**	**22.29**	**193**	P	**P**	**07 02 47.9**	**0.0**
	comp=Z,17nm,1.9s						
MWPI	**Manokwari, Pap**	**24.40**	**287**	P	**P**	**07 03 09.4**	**+0.5**
INKA	**Innaminka**	**24.59**	**217**		**P**	**07 03 11.0**	**+0.4**
WR8	**Warramunga Arr**	**24.75**	**241**		**P**	**07 03 11.6**	**-0.5**
WR8				IAmb	IAmb	07 03 30.6	
	comp=Z,23nm,1.1s						
WB0	**Warramunga Arr**	**24.77**	**241**	P	**P**	**07 03 12.6**	**+0.3**
WB0				IAmb	IAmb	07 03 37.0	
	comp=Z,58nm,1.6s						
WRAB	**Tennant Creek**	**24.87**	**241**	P	**P**	**07 03 12.4**	**-0.8**
WRAB				IAmb	IAmb	07 03 37.7	
	comp=Z,63nm,1.8s						
WRAB	**Tennant Creek**	**24.87**	**241**	P	**P**	**07 03 12.8**	**-0.4**
	comp=Z,16nm,1.7s						
WRA	**Warramunga Arr**	**24.88**	**241**	P	**P**	**07 03 13.1**	**-0.2**
	comp=Z,5.7nm,0.8s,baz=64,slow=9.5,SNR=11						
WRA				PcP	**PcP**	**07 06 50.0**	**+0.7**
	comp=Z,4.2nm,1.1s,baz=64,slow=2.1,SNR=8.0						
WRA				LR	LR	07 12 35.1	
	comp=Z,727nm,19.1s,baz=90,slow=36						
	comp=Z,5.7nm,0.8s						
WRA	**Warramunga Arr**	**24.88**	**241**	P	**P**	**07 03 11.2**	**-2.1**
CMSA	**Cobar Meteorol**	**25.20**	**204**	P	**P**	**07 03 16.8**	**+0.7**
	comp=Z,28nm,1.1s						
GUMO	**Guam**	**25.31**	**331**	LR	LR	07 12 22.8	
	comp=Z,60nm,18.8s,baz=186,slow=35						
GUMO	**Guam**	**25.31**	**331**	P	**P**	**07 03 16.2**	**-1.0**
FAKI	**Fak Fak**	**25.56**	**281**	P	**P**	**07 03 19.6**	**+0.2**
FAKI				IAmb	IAmb	07 03 36.7	
	comp=Z,34nm,1.2s						
FAKI	**Fak Fak**	**25.56**	**281**	P	**P**	**07 03 17.3**	**-2.2**
	comp=Z,30nm,1.2s,comp=Z,30nm,1.2s						
FAKI	**Fak Fak**	**25.56**	**281**	P	**P**	**07 03 19.3**	**-0.2**
	comp=Z,30nm,1.2s						
SAUI	**Saumlaki**	**25.73**	**270**	P	**P**	**07 03 19.0**	**-2.1**
AS31	**Alice Springs**	**26.91**	**234**	P	**P**	**07 03 31.4**	**-0.3**
ASAR	**Alice Springs**	**26.91**	**234**	P	**P

UGM	Wanagama	46.27 267	P	P	07 06 14.9	-1.4	
	comp=Z,74nm,1.4s						
STKI	Sintang	46.46 278	P	P	07 06 15.7	-2.0	
	comp=Z,28nm,0.5s						
TATO	Taipei	48.32 315	P	P	07 06 30.5	-1.5	
	comp=Z,237nm,1.7s						
LEM	Lembang	49.24 268	LR	LR	07 30 26.5		
	comp=Z,94nm,18.6s,baz=200,slow=40						
PPT	Papeete	52.35 105	LR	LR	07 24 44.8		
	comp=Z,51nm,20.7s,baz=277,slow=31						
PPT2	Papeete2	52.35 105	eLR	LR	07 21 56.8		
	comp=Z,140nm,26.2s						
PPT2			eLR	LR	07 22 03.2		
	comp=Z,216nm,29.2s						
HON	Honolulu	53.04 55	P	P	07 07 04.1	-3.6	
	comp=Z,197nm,1.2s						
DSRI	Dabo	53.12 276	P	P	07 07 06.5	-2.1	
KSRS	Korea Array	53.48 331	P	P	07 07 09.8	-0.8	
	comp=Z,3.6nm,1.1s,baz=157,slow=9.9,SNR=5.3						
KSRS			LR	LR	07 28 14.0		
	comp=Z,50nm,19.9s,baz=130,slow=34						
	comp=Z,3.6nm,1.1s						
KSAR	Wonju Array Be	53.48 331	P	P	07 07 11.3	+0.6	
KS19	Wonju Array Si	53.54 331	P	P	07 07 12.1	+0.9	
ASAJ	Asahikawa	54.19 347	LR	LR	07 29 16.3		
	comp=Z,68nm,19.9s,baz=79,slow=35						
NJ2	Nanjing	54.65 320	eP	P	07 07 20.5	+1.2	
NJ2			pmax	pmax			
	comp=Z,14nm,0.6s						
USRK	Ussuriysk Ar.	57.38 339	P	P	07 07 38.9	+0.3	
	comp=Z,7.7nm,1.1s,baz=148,slow=6.6,SNR=4.3						
	comp=Z,7.7nm,1.1s						
PSI	Prapat	59.30 278	LR	LR	07 35 05.9		
	comp=Z,53nm,20.8s,baz=96,slow=38						
CN2	Changchun	59.67 334	P	P	07 07 56.0	+1.4	
CN2			pmax	pmax			
	comp=Z,10.0nm,0.8s						
GYA	Guiyang	60.27 307	⇑P	P	07 08 02.5	+3.3	
GYA			pmax	pmax			
	comp=Z,11nm,0.5s						
BNX	BinXian	60.42 336	⇓P	P	07 08 00.5	+0.8	
BNX			pmax	pmax			
	comp=Z,18nm,1.2s						
HNS	HongShan	60.71 322	⇑P	P	07 08 03.8	+2.0	
HNS			pmax	pmax			
	comp=Z,8.0nm,1.1s						
PETK	Petropavlovsk-	61.52 0	LR	LR	07 30 35.0		
	comp=Z,118nm,21.8s,baz=173,slow=32						
KLR	Kul'dur	61.84 341	LR	LR	07 31 39.3		
	comp=Z,41nm,21.7s,baz=83,slow=33						
XAN	Xi'an	62.48 316	P	P	07 08 18.0	+4.0	
XAN			pmax	pmax			
	comp=Z,11nm,2.3s						
CMAR	Chiang Mai Arr	63.56 296	P	P	07 08 22.0	+0.6	
	comp=Z,3.1nm,0.7s,baz=112,slow=6.1,SNR=17						
CMAR			LR	LR	07 35 04.2		
	comp=Z,21nm,19.9s,baz=130,slow=35						
	comp=Z,3.1nm,0.7s						
CMAR	Chiang Mai Arr	63.56 296		P	07 08 21.3	0.0	
CHTO	Chiang Mai	63.68 296		P	07 08 22.2	+0.1	
HEH	HeiHe	64.17 339	eP	P	07 08 25.0	+0.2	
HEH			pmax	pmax			
	comp=Z,14nm,0.9s						
XLT	XiLinHaoTe	64.26 328	eP	P	07 08 27.0	+1.4	
XLT			pmax	pmax			
	comp=Z,17nm,0.9s						
XLT			pmax	pmax			
	comp=Z,120nm,3.7s						
HHC	Hu-ho-hao-te	64.78 323	eP	P	07 08 32.0	+2.9	
HHC			pmax	pmax			
	comp=Z,25nm,0.8s						
HHC			pmax	pmax			
	comp=Z,77nm,6.0s						
HHC			L	L			
	comp=Z,180nm,13.9s						
HHC			L	L			
	comp=Z,170nm,13.5s						
CASY	Casey	65.75 199	P	P	07 08 35.0	+0.2	
CASY			IAmb	IAmb	07 10 02.3		
	comp=Z,16nm,1.4s						
HILR	Hailar Array B	66.61 334	P	P	07 08 41.0	+0.3	
	comp=Z,1.2nm,0.4s,baz=141,slow=7.3,SNR=2.1						
	comp=Z,1.2nm,0.4s						
LZH	Lanzhou	67.09 315	eP	P	07 08 46.8	+2.6	
LZH			sP	sP	07 08 51.5	+0.2	
LZH			pmax	pmax			
	comp=Z,13nm,0.9s						
LZH			L	L			
	comp=Z,210nm,12.7s						
LZH			L	L			
	comp=Z,360nm,12.0s						
LZDM	Lanzhou Array	67.13 315	P	P	07 08 44.5	-0.1	
	comp=Z,1.0nm,0.3s,baz=98,slow=10,SNR=1.8						
	comp=Z,1.0nm,0.3s						
MA2	Magadan	68.20 356	LR	LR	07 39 52.8		
	comp=Z,24nm,18.3s,baz=155,slow=37						
VNDA	Vanda	68.88 179	P	P	07 08 56.8	+2.2	
	comp=Z,1.6nm,0.8s,baz=346,slow=10,SNR=7.0						
VNDA			LR	LR	07 33 55.7		
	comp=Z,97nm,19.3s,baz=357,slow=31						
	comp=Z,1.6nm,0.8s						
VNDA	Vanda	68.88 179	P	P	07 08 55.3	+0.8	
VNDA			IAmb	IAmb	07 09 07.1		
	comp=Z,18nm,1.9s						
SBA	Scott Base	69.35 178	P	P	07 08 56.3	-1.1	
SBA			IAmb	IAmb	07 09 44.1		
	comp=Z,13nm,1.1s						
GTA2	Gaotai	71.58 317	eP	P	07 09 14.3	+2.4	
GTA2			pmax	pmax			
	comp=Z,7.0nm,1.4s						
SONM	Songino Array	71.96 327	P	P	07 09 13.9	-0.1	
	comp=Z,1.7nm,0.9s,baz=151,slow=5.6,SNR=9.2						
	comp=Z,1.7nm,0.9s						
SONM	Songino Array	71.96 327	P	P	07 09 15.4	+1.5	
GOMU	GeErMu	73.65 312	P	P	07 09 25.0	+0.5	
GOMU			pP	pP	07 09 28.8	-1.0	
GOMU			sP	sP	07 09 32.3	+0.6	
GOMU			pmax	pmax			
	comp=Z,2.0nm,0.4s						
EVN	Everest	77.14 301		P	07 09 45.1	-0.1	
EVN			IAmb	IAmb	07 09 57.8		
	comp=Z,8.9nm,1.1s						
KDAK	Kodiak Island	77.68 25	LR	LR	07 37 29.4		
	comp=Z,67nm,20.9s,baz=219,slow=31						
PALK	Pallekele	77.96 279	LR	LR	07 46 32.6		
	comp=Z,33nm,19.4s,baz=127,slow=38						
QSPA	South Pole Qui	81.33 180	P	P	07 10 06.3	-0.4	
	comp=Z,5.4nm,1.0s,baz=345,slow=3.4,SNR=11						
QSPA			LR	LR	07 41 40.4		
	comp=Z,65nm,19.9s,baz=12,slow=32						
	comp=Z,5.4nm,1.0s						
QSPA	South Pole Qui	81.33 180	P	P	07 10 07.3	+0.6	
QSPA			IAmb	IAmb	07 10 12.8		
	comp=Z,12nm,1.1s						
WMQ	Urumqi	81.59 317	eP	P	07 10 10.3	+1.9	
WMQ			pmax	pmax			
	comp=Z,18nm,0.6s						
MAW	Mawson	83.75 203	LR	LR	07 45 54.0		
	comp=Z,46nm,18.2s,baz=98,slow=34						
IL31		84.08 21	P	P	07 10 20.5	-0.2	
IL31			IAmb	IAmb	07 10 47.9		
	comp=Z,19nm,1.6s						
ILAR	Eielson Array	84.08 21	P	P	07 10 19.8	-1.0	
	comp=Z,0.8nm,0.9s,baz=248,slow=6.1,SNR=7.6						
ILAR			LR	LR	07 46 13.3		
	comp=Z,74nm,18.6s,baz=266,slow=34						
	comp=Z,0.8nm,0.9s						
ILAR	Eielson Array	84.08 21		P	07 10 20.7	0.0	
ZSN	Zaisan	84.68 319	eP	P	07 10 26.4	+2.3	
	comp=Z,11nm,1.3s						
BCAR	Beaver Creek A	85.08 24	P	P	07 10 25.9	0.0	
MKAR	Makanchi Array	86.15 318	P	P	07 10 29.9	-1.7	
	comp=Z,8.6nm,1.0s,baz=104,slow=4.7,SNR=16						
	comp=Z,8.6nm,1.0s						
MKAR	Makanchi Array	86.15 318		P	07 10 31.8	+0.3	
ZALV	Zalesovo Beam	86.83 326	P	P	07 10 32.6	-2.1	
	comp=Z,1.8nm,0.8s,baz=101,slow=4.6,SNR=7.7						
	comp=Z,1.8nm,0.8s						
ZALV	Zalesovo Beam	86.83 326		P	07 10 33.6	-1.0	
SHLS	Shalkode	87.10 314	eP	P	07 10 37.0	+0.5	
PDGK	Podgornoye	87.13 314	P	P	07 10 36.2	-0.3	
UZB	Uzynbulak	87.41 314	eP	P	07 10 40.0	+2.0	
	comp=Z,16nm,1.7s						
BBB	Bella Bella	87.48 36	LR	LR	07 41 03.1		
	comp=Z,115nm,21.0s,baz=242,slow=30						
SATY	Saty	87.83 314	eP	P	07 10 42.0	+2.0	
YBH	Yreka Blue Hor	88.31 48	LR	LR	07 42 15.4		
	comp=Z,78nm,21.9s,baz=298,slow=30						
DLBC	Dease Lake	88.41 30	LR	LR	07 44 49.2		
	comp=Z,114nm,18.8s,baz=264,slow=32						
MDOK	Medeo	88.82 314	eP	P	07 10 46.7	+2.0	
TNSS	Tian-Shan	88.86 314	eP	P	07 10 47.0	+1.8	
AAA	Alma-Ata	88.92 314	eP	P	07 10 47.2	+2.2	
KSH2	Kashi	89.05 310	P	P	07 10 48.0	+2.1	
KSH2			pmax	pmax			
	comp=Z,5.0nm,1.3s						
RPN	Rapa Nui	89.08 117	LR	LR	07 44 04.7		
	comp=Z,21nm,20.2s,baz=169,slow=31						
KURK	Kurchatov	89.54 321		P	07 10 47.6	0.0	
KURBB	Kurchatov Arra	89.58 321	P	P	07 10 46.3	-1.5	
	comp=Z,0.7nm,0.6s,baz=104,slow=3.4,SNR=8.4						
	comp=Z,0.7nm,0.6s						
LRMC	Laurel Mtn Rad	90.93 54	P	P	07 10 54.0	-0.7	
LRMC			IAmb	IAmb	07 11 01.3		
	comp=Z,14nm,1.8s						
NVAR	Mina Array Bea	90.96 51	P	P	07 10 55.9	+1.0	
	comp=Z,0.9nm,0.8s,baz=262,slow=5.2,SNR=6.0						
NVAR			LR	LR	07 45 47.1		
	comp=Z,78nm,21.0s,baz=320,slow=32						
	comp=Z,0.9nm,0.8s						
NRIK	Noril'sk	91.05 341	LR	LR	07 50 29.1		
	comp=Z,60nm,21.8s,baz=338,slow=35						
PFO	Pinyon Flats O	91.62 56	LR	LR	07 43 01.7		
	comp=Z,100nm,21.3s,baz=281,slow=30						
FURC	Furnace Creek,	91.75 54	P	P	07 10 58.3	0.0	
FURC			IAmb	IAmb	07 11 23.0		
	comp=Z,9.3nm,1.2s						
WCT	Wildcat Mounta	91.99 53	P	P	07 10 59.3	-0.3	
DZA	Taraz	92.88 313	eP	P	07 11 05.5	+2.1	
BELA	Belgrano 2	93.35 177	P	P	07 11 05.2	+0.2	
BELA			IAmb	IAmb	07 11 56.4		
	comp=Z,9.3nm,1.5s						
NEW	Newport	93.45 42	LR	LR	07 48 31.3		
	comp=Z,78nm,19.2s,baz=282,slow=32						
KK31	Karatay Array	93.51 313	P	P	07 11 06.3	0.0	
KK31			IAmb	IAmb	07 11 08.5		
	comp=Z,5.7nm,1.4s						
KKAR	Karatay Array	93.51 313	P	P	07 11 06.3	0.0	
CHM	Chimkent	94.06 312	eP	P	07 11 11.1	+2.2	
BVAR	Borovoye Array	94.99 323	P	P	07 11 11.5	-1.3	
	comp=Z,2.6nm,0.9s,baz=99,slow=4.7,SNR=9.4						
	comp=Z,2.6nm,0.9s						
BORK	Borovoye	95.03 323	P	P	07 11 12.5	-0.6	
LPIG	La Paz	95.65 67	LR	LR	07 47 40.3		
	comp=Z,41nm,18.7s,baz=30,slow=31						
YKA	Yellowknife Ar	96.73 28	P	P	07 11 20.9	+0.4	
	comp=Z,0.9nm,0.8s,baz=258,slow=4.2,SNR=5.9						
YKA			LR	LR	07 50 14.0		
	comp=Z,71nm,18.5s,baz=304,slow=32						
	comp=Z,0.9nm,0.8s						
PD31	Pinedale Array	98.11 48	P	P	07 11 26.9	-0.6	
PDAR	Pinedale Array	98.11 48	P	Pdif	07 11 28.1	+0.5	
	comp=Z,0.2nm,0.7s,baz=284,slow=4.9,SNR=2.4						
PDAR			LR	LR	07 52 39.6		
	comp=Z,77nm,18.4s,baz=328,slow=34						
	comp=Z,0.2nm,0.7s						
PDAR	Pinedale Array	98.11 48	P	Pdif	07 11 27.5	-0.1	
LPAZ	La Paz	128.66 119	PKP	PKiKP	07 17 00.2	+0.2	
	comp=Z,1.9nm,0.9s,baz=240,slow=6.1,SNR=5.7						
GERES	GERESS Array B	129.64 329	PKP	PKiKP	07 17 01.4	+1.0	
	comp=Z,0.3nm,0.6s,baz=47,slow=1.7,SNR=1.8						
SIV	San Ignacio	134.80 123	PKP	PKiKP	07 17 12.4	+0.8	
	comp=Z,0.2nm,0.3s,baz=270,slow=6.1,SNR=4.1						
ESDC	Sonseca Array	144.86 334	PKP	PKPbc	07 17 26.9	0.0	
	comp=Z,1.0nm,1.1s,baz=42,slow=2.1,SNR=4.8						
BDFB	Brasilia	145.19 134	PKPbc	PKPdf	07 17 29.5	+0.4	
	comp=Z,4.3nm,0.7s,baz=212,slow=6.3,SNR=7.5						

TAP **28** *07:03:27.4,24.°09N×122.°11E,h29km,ML3.7,C*
JMA **28** *07:03:27.1±0.1,24.°0N±0.°4×122.°1E±0.°2,h37km±1km, MV2.9/14, TAIWAN REGION*

ISC 28 07:03:27.2±0.9,24.°06N±0.°02×122.°11E±0.°02,h26km±7km, n152,σ1s08/259,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
EOS4	EOS4	0.20	73	i	P	Pn	07 03 33.1	-1.2
EOS4				i	S	Sb	07 03 37.2	+0.9
EOS3	EOS3	0.30	41	i	P	Pb	07 03 34.5	+0.5
EOS3					S	Sb	07 03 40.1	+1.3
EOS2	EOS2	0.38	18	i	P	Pb	07 03 35.8	+0.4
EOS2				i	S	Sn	07 03 42.6	-0.6
EAHA	Aohua	0.43	309	i	P	Pb	07 03 36.7	+0.5
EAHA				e	S	Sn	07 03 43.7	-1.0
ETL	Fush Village	0.45	283	i	P	Pb	07 03 37.1	+0.5
ETL					S	Sn	07 03 44.5	-0.8
HWA	Hwalien	0.47	260	i	P	Pn	07 03 37.5	-0.6
HWA				e	S	Sn	07 03 45.5	0.0
TWD	Chiawan	0.47	273	i	P	Pb	07 03 37.1	+0.3
TWD					S	Sb	07 03 44.1	+0.7
NACB	Ninganchiao	0.48	284		S	Sb	07 03 37.0	-6.8
NACB	Ninganchiao	0.48	284		S	Sb	07 03 37.0	-6.1
NACB	Ninganchiao	0.48	284		P	Pb	07 03 37.3	+0.2
NACB				e	S	Sn	07 03 45.3	-0.7
EWUT	Wuta	0.49	322	i	P	Pb	07 03 37.3	+0.1
EWUT					S	Sn	07 03 45.2	-0.9
ENA	Nanau	0.49	318		P	Pb	07 03 37.6	+0.2
ENA					S	Sn	07 03 45.3	-1.0
TEYL	Yanliau Villag	0.50	248		P	Pb	07 03 37.1	-0.4
TEYL				e	S	Sb	07 03 45.2	+0.8
ESAO	Su ao	0.57	335		P	Pb	07 03 38.4	-0.1
ESAO					S	Sb	07 03 46.0	-0.2
SHUL	Shoufeng	0.57	241		P	Pn	07 03 39.2	-0.4
SHUL					S	Sn	07 03 47.6	-0.5
ETM	Tongmen	0.57	261	i	P	Pb	07 03 38.6	0.0
ETM					S	Sn	07 03 47.3	-0.8
ETLH	Xiulin Townshi	0.59	284	i	P	Pb	07 03 39.0	+0.1
ETLH					S	Sn	07 03 47.8	-0.9
TWC	Suao	0.59	337	i	P	Pn	07 03 38.7	-1.2
TWC					S	Sb	07 03 46.4	-0.6
TEGC	Jichi Village	0.62	236		P	Pb	07 03 39.9	+0.4
TEGC					S	Sn	07 03 50.1	+0.6
LXIB	Xiulin Townshi	0.63	267	i	P	Pn	07 03 39.8	-0.8
LXIB					S	Sb	07 03 48.8	+0.5
ESL	Shilin	0.66	248	i	P	Pn	07 03 40.1	-0.8
ESL				e	S	Sb	07 03 48.1	-0.9
NDS	Dongshan	0.67	328		P	Pb	07 03 40.5	+0.2
NDS					S	Sn	07 03 49.8	-0.9
LATG	Datong	0.71	312	i	P	Pn	07 03 40.8	-0.8
EGFH	Guangfu	0.73	238		P	Pn	07 03 41.5	-0.4
EGFH					S	Sb	07 03 52.5	+1.6
NNSB	Datong	0.75	299	i	P	Pn	07 03 41.7	-0.5
NNSB					S	Sb	07 03 52.1	+0.4
NNSH	Datong	0.75	299	i	P	Pn	07 03 41.7	-0.6
NNSH					S	Sb	07 03 52.6	+0.9
NDT	Datong Townshi	0.76	315	i	P	Pb	07 03 42.0	+0.1
NDT					S	Sn	07 03 51.9	-1.2
NNS	Nan Shan	0.77	300		P	Pn	07 03 41.9	-0.6
TWE	Neicheng	0.77	329	i	P	Pn	07 03 42.0	-0.4
WHF	Hehuan Shan	0.77	276		P	Pn	07 03 42.1	-0.7
WHF				e	S	Sb	07 03 53.3	+0.7
ILA	Ilan	0.77	335	e	P	Pb	07 03 42.4	+0.4
ILA					S	Sb	07 03 53.2	+1.1
EGS		0.80	349	e	P	Pn	07 03 41.4	-1.4
FUSS	Fushou	0.81	284	i	P	Pn	07 03 42.7	-0.4
FUSS					S	Sb	07 03 54.3	+0.9
NTC	Toucheng	0.83	342	e	P	Pn	07 03 42.2	-0.9
NTC				e	S	Sb	07 03 54.1	+0.3
FUSB	Fushanzhiwuyua	0.84	326	i	P	Pn	07 03 43.1	-0.4
FUSB					S	Sb	07 03 55.8	+1.6
HGSD	Ruisui	0.84	228		P	Pn	07 03 42.5	-0.8
HGSD					S	Sn	07 03 54.2	-0.7
OWD	Renai	0.86	263	i	P	Pn	07 03 43.3	-0.4
OWD					S	Sn	07 03 54.3	-1.2
JYNG	Yonagunijimaku	0.86	63		P	Pn	07 03 43.3	-0.3
JYNG				e	S	Sb	07 03 54.8	+0.2
TWT	Tachien	0.87	283		P	Pb	07 03 44.4	+0.6
TWT				e	S	Sb	07 03 56.3	+1.2
TDCB	Techi	0.89	283		P	Pb	07 03 44.2	+0.2
TDCB				e	S	Sb	07 03 55.8	+0.3
EHYH	Wanrong	0.90	231		P	Pn	07 03 43.7	-0.4
EHYH				e	S	Sb	07 03 56.1	+0.4
YHNB	Yeheng	0.90	313		P	Pn	07 03 43.8	-0.5
YHNB	Yeheng	0.90	313	i	P	Pb	07 03 44.1	-0.1
YHNB					S	Sn	07 03 55.1	-1.4
NWLT	Wulai	0.90	323		P	Pn	07 03 43.8	-0.4
NWLT					S	Sn	07 03 55.5	-0.9
EHY	Hungye	0.91	233		P	Pn	07 03 43.9	-0.3
EHY				e	S	Sn	07 03 55.5	-1.0
WUSB	Renai	0.91	266		P	Pb	07 03 44.3	0.0
WUSB					S	Sb	07 03 56.6	+0.5
NSK	Sanguang	0.92	312		P	Pn	07 03 44.0	-0.5
YOJ	Yonaguni jima	0.92	64		P	Pn	07 03 44.1	-0.3
YOJ					S	Sb	07 03 56.7	+0.5
VWDT	VWDT	0.93	251	i	P	Pb	07 03 44.7	0.0
VWDT					S	Sb	07 03 56.9	+0.2
TIPB	Shuangxi	0.94	344	i	P	Pb	07 03 44.7	-0.2
TIPB					S	Sn	07 03 56.7	-0.8
TWB1	Santiao Chiao	0.95	354		P	Pn	07 03 44.5	-0.3
TWB1					S	Sn	07 03 56.3	-1.3
ECBN	Changbin	0.95	219		S	Sn	07 03 57.1	-0.5
YULB	Yu-li	0.99	228		P	Pb	07 03 47.2	+1.4
YULB	Yu-li	0.99	228	i	P	Pb	07 03 44.9	-0.6
YULB					S	Sn	07 03 57.8	-0.9
EYUL	Yuli	1.01	226		P	Pb	07 03 46.1	0.0
EYUL				e	S	Sb	07 03 59.7	+0.7
TWF1	Yuli	1.02	227		P	Pn	07 03 45.4	-0.4
TWF1					S	Sb	07 03 59.1	-0.2
TWA	Mucha	1.03	333		P	Pb	07 03 46.6	+0.2
TWA				e	S	Sb	07 04 00.2	+0.6
NHDH	Xindian Distri	1.04	330		P	Pb	07 03 46.9	+0.4
NHDH					S	Sb	07 04 00.8	+1.0
NWF	Wu-fen Shan	1.05	344	e	S	Sb	07 04 01.0	+0.9
WFSB	Wu-fen Shan	1.05	344	e	P	Pb	07 03 47.4	+0.8
WFSB					S	Sb	07 04 00.7	+0.7
SXI1	Grass Mountain	1.05	349	i	P	Pn	07 03 46.0	-0.3
SXI1				e	S	Sn	07 03 59.5	-0.7
WPL	Puli Township	1.05	268		P	Pb	07 03 46.7	0.0
WPL				e	S	Sb	07 04 00.7	+0.6
NFF	Wufeng Townshi	1.06	302		P	Pb	07 03 46.9	-0.1
NFF					S	Sb	07 04 00.6	0.0
TATO	Taipei	1.07	328		P	Pb	07 03 47.1	+0.1
TATO	Taipei	1.07	328		S	Sb	07 04 01.4	+0.8
TATO	Taipei	1.07	328		P	Pb	07 03 46.7	-0.3
DPDB	Guoxing	1.08	269	i	P	Pb	07 03 47.1	-0.1
WHP	Taichung City	1.08	282	e	P	Pb	07 03 47.7	+0.4
WHP				e	S	Sb	07 04 01.1	+0.1
CHKH	Chenggong	1.08	217	e	S	Sn	07 03 59.7	-1.1
SSLB	Suanglung	1.09	256		P	Pn	07 03 46.6	-0.2
SSLB	Suanglung	1.09	256	i	P	Pn	07 03 46.9	+0.1
WCS	Beigang Elemen	1.09	270		P	Pb	07 03 47.2	-0.2
WCS					S	Sb	07 04 01.6	+0.4
KSHI	Guanxi Townshi	1.11	310		P	Pb	07 03 48.3	+0.6
SMLT	Sun Moon Lake	1.12	261	i	P	Pb	07 03 47.5	-0.3
SMLT					S	Sb	07 04 02.2	+0.2
TAP	Taipei	1.12	331		S	Sb	07 04 03.0	+1.1
FULB	Fuli	1.14	221	e	P	Pn	07 03 47.5	0.0
FULB				e	S	Sb	07 04 02.6	+0.1
NJD	Zhudong	1.15	306	e	S	Sb	07 04 02.4	+0.4
LIOB	Emei	1.15	301	i	P	Pb	07 03 48.9	+0.5
LIOB					S	Sb	07 04 04.4	+1.4
TYC	Yuchr	1.15	262		P	Pb	07 03 48.1	-0.3
TYC				e	S	Sb	07 04 02.9	0.0
NSTT	Nanjuang	1.16	300	e	P	Pb	07 03 48.7	+0.2
NSTT					S	Sb	07 04 03.9	+0.8
YM01	YM01	1.19	336	e	P	Pb	07 03 49.0	-0.1
YM01				e	S	Sb	07 04 04.0	0.0
NTY	Taoyuan	1.19	322	e	P	Pn	07 03 48.3	+0.2
NTY				e	S	Sb	07 04 03.4	-0.6
WHYT	Xinyi Township	1.20	253		P	Pb	07 03 49.1	-0.2
WHYT					S	Sb	07 04 05.1	+0.7
NWRT	Kuosheng	1.21	340		P	Pn	07 03 48.3	-0.1
ZUZH	Zhuzihu	1.21	335		P	Pn	07 03 48.6	+0.1
ZUZH					S	Sb	07 04 04.2	-0.5
YM08	YM08	1.22	337	eP	P	Pb	07 03 49.8	+0.3
TWQ1	Liyutan	1.25	284		P	Pb	07 03 50.6	+0.5
TWQ1					S	Sb	07 04 07.1	+1.3
ECS	Chishang	1.26	220	e	S	Sb	07 04 05.8	-0.2
WJS	Zhushan	1.28	260		P	Pb	07 03 51.2	+0.5
WJS				e	S	Sb	07 04 10.3	+3.6
NMLH	Miaoli	1.29	292	eP	P	Pb	07 03 51.3	+0.5
EDH	Donghe	1.31	214	eP	P	Pn	07 03 49.1	-0.7
EDH				e	S	Sn	07 04 05.1	-1.3
TCU	Taichung	1.31	274		P	Pb	07 03 51.7	+0.6
TCU				e	S	Sb	07 04 09.6	+2.1
ALS	Alishan	1.31	246		P	Pb	07 03 51.2	-0.1
ALS					S	Sb	07 04 07.4	-0.4
WNT	Mingjian	1.31	262		P	Pb	07 03 51.6	+0.4
WNT				e	S	Sb	07 04 09.1	+1.6
WNT1	Nantou City	1.31	264	eP	P	Pb	07 03 50.8	-0.3
WDJ	Dajia District	1.37	282	eP	P	Pb	07 03 52.3	+0.2
WDJ				e	S	Sb	07 04 11.4	+2.2
CHN5	Tsauling	1.39	251		P	Pb	07 03 52.6	+0.1
CHN5					S	Sb	07 04 10.6	+1.1
WCHH	Zhanghua	1.41	271		P	Pb	07 03 53.0	+0.1
WCHH					S	Sb	07 04 12.5	+2.0
WCH1	Changhua City	1.43	271	eP	P	Pb	07 03 52.8	-0.2
WCH1				e	S	Sb	07 04 12.2	+1.4
LONT	Longtian	1.46	218		S	Sn	07 04 09.6	-0.5
WDL	Douliou City	1.47	257	eP	P	Pn	07 03 52.2	+0.1
WDL				e	S	Sb	07 04 13.0	+0.8
WDLH	Douliu	1.48	256	eP	P	Pb	07 03 54.0	0.0
WDLH				e	S	Sb	07 04 13.5	+1.1
LDUT	Ludao	1.50	203	eP	P	Pn	07 03 51.1	-1.3
LDUT				e	S	Sn	07 04 08.9	-2.2
STYH	Taoyuan	1.51	234		P	Pn	07 03 52.8	+0.3
STYH					S	Sb	07 04 12.4	-0.7
WCKO	Fanlu	1.51	246	eP	P

TWKBT	**Hengchun**	**2.42**	**210**	*eP*	**Pn**	**07 04 07.2 +2.1**
VWUC	**VWUC**	**2.59**	**292**	*eP*	**Pn**	**07 04 07.3 -0.1**
VWUC				*eS*	**Sn**	**07 04 37.7 -0.3**
VCHM	**Qimei**	**2.60**	**251**	*eS*	**Sn**	**07 04 39.7 +1.5**
MATB	**Ma-tsu**	**2.86**	**317**	*eP*	**Pn**	**07 04 11.8 +0.7**
MATB				*eS*	**Sn**	**07 04 44.0 -0.6**
PTMZ	**Houxiangcun**	**2.89**	**290**	P	**Pn**	**07 04 11.7 +0.2**
PTMZ				*eS*	**Sn**	**07 04 44.9 -0.5**
KNM	**Kinmen**	**3.37**	**277**	*eP*	**Pn**	**07 04 20.2 +2.0**
KNMB	**Chin-men Tao**	**3.42**	**278**	P	**Pn**	**07 04 18.9 +0.1**
KNMB				*eS*	**Sn**	**07 04 57.5 -1.0**
AXDP	**Jialang**	**3.86**	**283**	*eS*	**Sn**	**07 05 09.6 +0.2**
ZPLA	**Ao Xicun**	**3.98**	**269**	*eP*	**Pn**	**07 04 26.9 +0.3**
ZPLA				*eS*	**Sn**	**07 05 11.4 -1.1**
DSXP	**Dongshan**	**4.30**	**266**	*eP*	**Pn**	**07 04 32.4 +1.5**
DSXP				*eS*	**Sn**	**07 05 19.3 -0.9**
SXFK	**Yanhouchang**	**4.66**	**301**	*eS*	**Sn**	**07 05 28.6 -0.6**

*IDC **28** 07:14:00.2±2.8,20˚41S×177˚76W,h519km±25km, mb2.9/4, mbtmp3.8/6, Error ellipse: s-maj=41.3km s-min=25.8km az=129.0*

ISC 28 07:14:01.6±1.6,**20˚4S**±0˚2×**177˚9W**±0˚3,**h534**km,**n7,** σ0ᵗ**85/8,mb3.5/4,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.62**	**304**	P	**P**	**07 15 26.4**	**-1.1**
	3.2nm,0.3s,baz=114,slow=22,SNR=1.6						
URZ	**Urewera**	**18.35**	**192**	P	**P**	**07 17 42.2**	**-1.0**
	2.7nm,0.5s,baz=56,slow=18,SNR=1.6						
STKA	**Stephens Creek**	**37.91**	**244**	P	**P**	**07 20 33.9**	**+0.4**
	1.5nm,0.7s,baz=26,slow=15,SNR=1.5						
	1.5nm,0.7s						
ASAR	**Alice Springs**	**44.62**	**257**	P	**P**	**07 21 27.2**	**+0.5**
	1.6nm,0.8s,baz=96,slow=7.8,SNR=28						
ASAR				PcP	**PcP**	**07 22 58.3**	**+0.1**
	0.4nm,0.6s,baz=108,slow=3.8,SNR=6.5						
	1.6nm,0.8s						
WRA	**Warramunga Arr**	**44.69**	**262**	P	**P**	**07 21 27.7**	**+0.4**
	0.3nm,0.3s,baz=97,slow=7.4,SNR=24						
WRA				PcP	**PcP**	**07 22 59.3**	**+0.9**
	0.2nm,0.7s,baz=115,slow=1.5,SNR=1.4						
	0.3nm,0.3s						
ILAR	**Eielson Array**	**88.17**	**13**	P	**P**	**07 25 55.5**	**+0.3**
	0.3nm,0.5s,baz=226,slow=5.6,SNR=7.9						
	0.3nm,0.5s						
AKASG	**Malin Array Be**	**142.93**	**331**	PKP		07 32 32.7	
	1.0nm,0.6s,baz=49,slow=3.5,SNR=5.3						

*SJA **28** 07:16:49.4±0.7,31˚23S×68˚87W,h111km±2km, ML3.4, MW3.5*
*IDC **28** 07:16:50.6±1.1,31˚26S×68˚37W,h117km±6km, mb3.5/2, mbtmp3.7/4, Error ellipse: s-maj=47.7km s-min=25.2km az=109.0*

ISC 28 07:16:49.3±0.8,**31˚24S**±0˚02×**68˚84W**±0˚03,**h116**km±5km, **n50,**σ1ᵗ**49/77,San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTLL	**Cerro Villicun**	**0.33**	**105**	*eP*	**Pn**	**07 17 06.1**	**+0.1**
RTLL				*eS*	**Sn**	**07 17 18.0**	**-0.5**
RTLL				IAML		07 17 19.3	
	comp=Z,3μm,0.3s						
ZON	**Zonda**	**0.33**	**155**	*eP*	**Pn**	**07 17 06.5**	**+0.5**
ZON				*eS*	**Sn**	**07 17 18.3**	**-0.3**
ZON				IAML		07 17 19.4	
	comp=Z,1μm,0.4s						
DOCA	**Reserva Natura**	**0.36**	**325**	*eP*	**Pn**	**07 17 06.5**	**0.0**
CFA	**Coronel Fontan**	**0.63**	**125**	P	**Pn**	**07 17 08.4**	**+0.6**
	comp=Z,71nm,0.3s,baz=284,slow=4.3,SNR=1933						
CFA				S	**Sn**	**07 17 21.8**	**+0.1**
	comp=Z,519nm,0.2s,baz=312,slow=23,SNR=38						
CFA	**Coronel Fontan**	**0.63**	**125**	*eP*	**Pn**	**07 17 08.6**	**+0.8**
CFA				*eS*	**Sn**	**07 17 22.3**	**+0.6**
CFA				IAML		07 17 23.6	
	comp=Z,1μm,0.2s						
RTLS	**Leoncito**	**0.68**	**215**	*eP*	**Pn**	**07 17 08.8**	**+0.4**
RTLS				IAML		07 17 24.3	
	comp=Z,2μm,0.4s						
ACCO	**Cerro Coronel**	**0.68**	**344**	*eP*	**Pn**	**07 17 09.1**	**+0.5**
ACCO				*eS*	**Sn**	**07 17 24.2**	**+1.2**
ACCO				IAML		07 17 24.4	
	comp=Z,914nm,0.7s						
ACDV	**Cuesta del Vie**	**1.10**	**347**	*eP*	**Pn**	**07 17 12.6**	**+0.4**
ACDV				*eS*	**Sn**	**07 17 30.1**	**+0.6**
ACDV				IAML		07 17 30.6	
	comp=Z,944nm,0.3s						
AROD	**Rodeo**	**1.20**	**333**	*eP*	**Pn**	**07 17 14.3**	**+0.8**
AVFE	**Valle Fertil**	**1.33**	**64**	*eP*	**Pn**	**07 17 10.5**	**-4.1**
AVFE				IAML		07 17 36.8	
	comp=Z,1μm,0.6s						
ARCO	**CERRO ARCO**	**1.59**	**183**	*eP*	**Pn**	**07 17 19.3**	**+1.5**
ARCO				*eS*	**Sn**	**07 17 36.0**	**-3.5**
ARCO				IAML		07 17 43.2	
	comp=Z,382nm,0.6s						
CO03	**El Pedregal**	**1.64**	**284**	*eP*	**Pn**	**07 17 18.6**	**+0.4**
CO03				*eS*	**Sn**	**07 17 40.0**	**-0.1**
CO03				IAML		07 17 41.0	
	comp=Z,608nm,0.8s						
CO01	**Juntas del Tor**	**1.66**	**319**	*eP*	**Pn**	**07 17 20.1**	**+1.4**
CO01				*eS*	**Sn**	**07 17 42.3**	**+1.4**
CO01				IAML		07 17 46.1	
	comp=Z,175nm,0.5s						
ACAN	**Cantantal**	**1.74**	**126**	*eP*	**Pn**	**07 17 21.5**	**+2.0**
ACAN				IAML		07 17 47.4	
	comp=Z,1μm,0.3s						
AAGR	**Agrelo**	**1.83**	**180**	*eP*	**Pn**	**07 17 22.0**	**+1.4**
AAGR				*eS*	**Sn**	**07 17 45.8**	**+1.2**
AAGR				IAML		07 17 48.1	
	comp=Z,275nm,0.3s						
CO02	**Combarbal**	**1.85**	**271**	*eP*	**Pn**	**07 17 20.8**	**0.0**
CO02				*eS*	**Sn**	**07 17 45.2**	**+0.3**
CO02				IAML		07 17 49.0	
	comp=Z,270nm,0.7s						
GO04	**Tololo Observa**	**2.00**	**302**	*eP*	**Pn**	**07 17 22.8**	**0.0**
GO04				*eS*	**Sn**	**07 17 49.2**	**+0.9**
GO04				IAML		07 17 52.3	
	comp=Z,663nm,0.3s						
VA03	**San Esteban**	**2.10**	**223**	*eP*	**Pn**	**07 17 24.8**	**+0.9**
VA03				IAML		07 17 54.4	
	comp=Z,120nm,0.3s						
AVIZ	**Vizcacheras**	**2.24**	**173**	*eP*	**Pn**	**07 17 27.3**	**+1.6**
AVIZ				*eS*	**Sn**	**07 17 49.1**	**-4.4**
MT08	**Bocatoma Ro**	**2.41**	**204**	*eP*	Pn	07 17 08.9	-19
MT08				*eS*	**Sn**	**07 17 56.8**	**-0.9**
MT08				IAML		07 18 06.4	
	comp=Z,59nm,0.8s						
MT04	**Ro Olivares**	**2.42**	**207**	*eP*	**Pn**	**07 17 29.7**	**+1.6**
MT04				*eP*		07 17 30.8	
MT04				*eS*	Sn	07 18 07.6	+10
ACLC	**CERRO LA CRUZ**	**2.44**	**43**	*eP*	**Pn**	**07 17 29.6**	**+1.2**
ACLC				IAML		07 18 00.4	
	comp=Z,135nm,0.2s						
PEL	**Peldehue**	**2.45**	**219**	*eP*	**Pn**	**07 17 28.9**	**+0.5**
PEL				*eS*	**Sn**	**07 18 00.1**	**+1.7**
PEL				IAML		07 18 02.7	
	comp=Z,76nm,1.2s						
VCA	**Vinchina**	**2.56**	**13**	*eP*	**Pn**	**07 17 30.8**	**+0.8**
VCA				*eS*	**Sn**	**07 18 03.2**	**+2.1**
VCA				IAML		07 18 05.0	
	comp=Z,328nm,0.2s						
MT03	**Universidad Ad**	**2.65**	**212**	*eP*	**Pn**	**07 17 32.0**	**+1.1**
MT03				*eS*	**Sn**	**07 18 05.3**	**+2.3**
MT03				IAML		07 18 07.5	
	comp=Z,124nm,0.4s						
MT05	**Renca**	**2.67**	**216**	*eP*	**Pn**	**07 17 31.9**	**+0.6**
MT05				*eS*	**Sn**	**07 18 06.2**	**+2.6**
MT05				IAML		07 18 07.2	
	comp=Z,91nm,0.8s						
AC05	**El Transito**	**2.70**	**332**	*eP*	**Pn**	**07 17 33.0**	**+1.2**
AC05				*eS*	**Sn**	**07 18 05.3**	**+1.0**
AC05				IAML		07 18 09.6	
	comp=Z,98nm,0.2s						
LCO	**Las Campanas**	**2.75**	**324**	*eP*	**Pn**	**07 17 32.4**	**0.0**
LCO				*eS*	**Sn**	**07 18 05.7**	**+0.1**
LCO				IAML		07 18 06.1	
	comp=Z,413nm,0.2s						
MT13	**San Alfonso**	**2.77**	**206**	*eP*	**Pn**	**07 17 34.8**	**+2.2**
MT13				*eS*	**Sn**	**07 18 03.6**	**-2.4**
MT13				IAML		07 18 15.8	
	comp=Z,54nm,0.6s						
MT02	**Curacav**	**2.79**	**223**	*eP*	**Pn**	**07 17 32.3**	**-0.5**
MT02				*eS*	**Sn**	**07 18 05.4**	**-0.9**
MT02				IAML		07 18 44.4	
	comp=Z,52nm,0.7s						
MRA	**San Martin**	**2.91**	**115**	*eP*	**Pn**	**07 17 34.8**	**+0.4**
MRA				*eS*	Sn	07 17 58.5	-11
MRA				IAML		07 18 36.6	
	comp=Z,162nm,0.4s						
VA01	**Torpederas**	**2.97**	**233**	*eP*	**Pn**	**07 17 34.6**	**-0.4**
VA01				*eS*	**Sn**	**07 18 06.7**	**-3.6**
VA01				IAML		07 18 13.9	
	comp=Z,42nm,1.1s						
MT01	**Popeta**	**3.31**	**217**	*eP*	**Pn**	**07 17 38.4**	**-1.2**
MT01				*eS*	Sn	07 18 05.7	-13
MT01				IAML		07 18 16.2	
	comp=Z,29nm,1.1s						
TINO	**Tinogasta**	**3.36**	**20**	*eP*	**Pn**	**07 17 41.9**	**+1.5**
TINO				*eS*	Sn	07 18 06.5	-13
TINO				IAML		07 18 27.0	
	comp=Z,85nm,0.9s						
RFA	**San Rafael**	**3.53**	**175**	*eP*	**Pn**	**07 17 42.9**	**+0.3**
RFA				*eS*	**Sn**	**07 18 22.8**	**-0.9**
RFA				IAML		07 18 26.1	
	comp=Z,68nm,1.0s						
AC04	**Llanos de Chal**	**3.60**	**327**	*eP*	**Pn**	**07 17 43.0**	**-0.5**
AC04				IAML		07 18 55.3	
	comp=Z,62nm,1.1s						
TCA	**Tanti**	**3.64**	**93**	*eP*	**Pn**	**07 17 45.3**	**+1.3**
TCA				*eS*	**Sn**	**07 18 27.1**	**+0.8**
TCA				IAML		07 18 44.3	
	comp=Z,107nm,0.5s						
GO03	**Copiapo**	**3.83**	**341**	*eP*	**Pn**	**07 17 47.0**	**+0.3**
GO03				*eS*	**Sn**	**07 18 30.6**	**-0.4**
GO03				IAML		07 18 33.4	
	comp=Z,57nm,0.3s						
CYA	**Choya**	**3.84**	**44**	*eP*	**Pn**	**07 17 47.2**	**+0.4**
CYA				*eS*	**Sn**	**07 18 31.5**	**+0.2**
CYA				IAML		07 18 32.1	
	comp=Z,64nm,0.8s						
BO02	**Sierra Bellavi**	**3.90**	**204**	*eP*	**Pn**	**07 17 47.7**	**+0.2**
BO02				*eS*	**Sn**	**07 18 35.6**	**+3.1**
BO02				IAML		07 18 38.4	
	comp=Z,26nm,0.1s						
AC02	**Maricunga**	**4.40**	**357**	*eP*	**Pn**	**07 17 55.9**	**+1.3**
AC02				*eS*	**Sn**	**07 18 44.8**	**-0.5**
AC01	**Pan de Azucar**	**5.31**	**343**	*eP*	Pn	07 17 54.5	-12
AC01				*eS*	**Sn**	**07 19 03.0**	**-3.5**
AC01				IAML		07 19 15.8	
	comp=Z,21nm,1.0s						
CPUP	**Villa Florida**	**11.22**	**67**	P	Pn	07 19 21.5	-4.8
	comp=Z,0.8nm,0.8s,baz=228,slow=13,SNR=4.1						
LPAZ	**La Paz**	**14.90**	**3**	P	**P**	**07 20 15.7**	**-1.9**
	comp=Z,1.7nm,0.7s,baz=183,slow=8.5,SNR=8.0						
QSPA	**South Pole Qui**	**58.99**	**180**	P	**P**	**07 26 37.6**	**+1.1**
	comp=Z,1.1nm,0.8s,baz=145,slow=3.8,SNR=6.2						
	comp=Z,1.1nm,0.8s						
TORD	**Torodi Ar. Bea**	**80.72**	**69**	P	**P**	**07 28 49.3**	**-0.7**
	comp=Z,0.2nm,0.3s,baz=248,slow=7.6,SNR=1.7						
	comp=Z,0.2nm,0.3s						
YKA	**Yellowknife Ar**	**100.35**	**340**	P	**Pdif**	**07 30 22.6**	**+0.5**
	comp=Z,0.5nm,0.8s,baz=160,slow=36,SNR=1.4						
WRA	**Warramunga Arr**	**124.45**	**207**	PKP	**PKPdf**	**07 35 35.6**	**+0.2**
	comp=Z,0.3nm,0.9s,baz=167,slow=1.9,SNR=5.2						
KURBB	**Kurchatov Arra**	**149.02**	**42**	PKPbc	**PKPbc**	**07 36 23.8**	**+0.5**
	comp=Z,0.1nm,0.5s,baz=296,slow=2.9,SNR=2.5						
ZALV	**Zalesovo Beam**	**150.46**	**32**	PKPbc	**PKiKP**	**07 36 27.7**	**+0.3**
	comp=Z,1.6nm,0.6s,baz=321,slow=2.4,SNR=6.3						

*IDC **28** 07:21:18.8±0.9,33˚58N×88˚19E,h0km,mb3.9/9, mbtmp3.8/13,ML3.4/4,MS3.4/3, Error ellipse: s-maj=35.5km s-min=16.1km az=60.0*

ISC 28 07:21:20.1±0.9,**33˚6N**±0˚1×**88˚3E**±0˚2,**h10**km,**n18,** σ0ᵗ**70/15,mb4.0/8,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**13.93**	**343**	Pn	**Pn**	**07 24 38.1**	**+0.6**
	0.1nm,0.3s,baz=163,slow=8.9,SNR=7.8						
	0.5nm,0.6s						
MKAR				AML	AML		
AAK	**Ala-Archa**	**14.09**	**314**	LR	LR	07 29 45.3	
	comp=Z,67nm,18.2s,baz=274,slow=36						
CMAR	**Chiang Mai Arr**	**17.85**	**145**	P	**P**	**07 25 28.9**	**-0.5**
	0.2nm,0.3s,baz=337,slow=12,SNR=4.1						
	0.8nm,0.4s						
CMAR				AML	AML		
KURBB	**Kurchatov Arra**	**18.44**	**340**	P	**Pn**	**07 25 35.0**	**-0.8**
	baz=152,slow=12,SNR=11						
KURBB				LR	LR	07 34 34.2	
	comp=Z,84nm,21.5s,baz=198,slow=43						
	2.0nm,0.9s						
SONM	**Songino Array**	**19.67**	**38**	P	**Pn**	**07 25 50.3**	**-0.5**
	0.3nm,0.3s,baz=223,slow=11,SNR=24						
	3.1nm,0.7s						
SONM				AML	AML		
ZALV	**Zalesovo Beam**	**20.47**	**354**	P	**P**	**07 25 57.2**	**-0.6**
	3.3nm,0.9s,baz=163,slow=11,SNR=12						
	3.3nm,0.9s						
BVAR	**Borovoye Array**	**23.25**	**332**	P	**P**	**07 26 27.2**	**-0.3**
	1.3nm,0.7s,baz=128,slow=9.7,SNR=5.5						
	1.3nm,0.7s						
NRIK	**Noril'sk**	**35.77**	**360**	P	**P**	**07 28 19.5**	**+0.5**
	4.3nm,0.6s,baz=178,slow=6.7,SNR=6.1						
	4.3nm,0.6s						
FINES	**FINESS Array B**	**47.92**	**325**	P	**P**	**07 29 57.9**	**-0.4**
	1.1nm,0.7s,baz=112,slow=8.5,SNR=5.8						
	1.1nm,0.7s						
HFS	**Hagfors**	**53.98**	**323**	P	**P**	**07 30 44.0**	**0.0**
	0.8nm,0.7s,baz=43,slow=6.7,SNR=1.0						
	0.8nm,0.7s						
NB2	**NORSAR Subarra**	**55.09**	**325**	P	**P**	**07 30 52.1**	**0.0**
	comp=Z,0.6nm,0.5s,baz=82,slow=7.4						
NOA	**NORSAR Array B**	**55.09**	**325**	P	**P**	**07 30 51.9**	**-0.2**
	comp=Z,1.0nm,0.6s,baz=82,slow=7.3,SNR=4.6						
	comp=Z,1.0nm,0.6s						
GERES	**GERESS Array B**	**55.93**	**310**	P	**P**	**07 30 58.9**	**+0.5**
	comp=Z,1.4nm,0.7s,baz=81,slow=3.1,SNR=10						
	comp=Z,1.4nm,0.7s						
BORG	**Borgarnes**	**67.81**	**334**	LR	LR	08 01 48.9	
	comp=Z,104nm,18.7s,baz=39,slow=36						
WRA	**Warramunga Arr**	**69.02**	**134**	P	**P**	**07 32 27.6**	**+1.5**
	comp=Z,0.7nm,0.6s,baz=328,slow=5.6,SNR=5.2						
	comp=Z,0.7nm,0.6s						
ASAR	**Alice Springs**	**71.62**	**136**	P	**P**	**07 32 41.8**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=320,slow=5.9,SNR=3.9						
	comp=Z,0.5nm,0.7s						
MATP	**Matopo**	**78.32**	**236**	LR	LR	08 03 22.1	
	comp=Z,612nm,21.8s,baz=109,slow=32						
CPUP	**Villa Florida**	**149.45**	**275**	PKPbc	**PKPbc**	**07 41 08.8**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=95,slow=12,SNR=3.2						

*NNC **28** 07:21:52.4±2.3,49˚70N×81˚72E,h0km,mb2.4,mpv2.0, Error ellipse: s-maj=32.6km s-min=7.2km az=50.0, Suspected Mining explosion.*
*IDC **28** 07:21:53.4±1.4,49˚75N×81˚64E,h0km,mbtmp2.3/1, ML2.4/1,Error ellipse: s-maj=16.4km s-min=10.7km az=78.0*

ISC 28 07:21:50.0±1.4,**49˚76N**±0˚05×**81˚83E**±0˚07,**h0**km,**n7,** σ0ᵗ**49/7,4C-2D,Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.27**	**296**	⇑Pg	**Pg**	**07 22 33.3**	**-0.3**
	0.3nm,0.5s						
KURK				⇑Lg	Lg	07 23 03.1	
	0.6nm,0.3s						
KURBB	**Kurchatov Arra**	**2.29**	**293**	Pg	**Pg**	**07 22 33.8**	**-0.1**
	0.1nm,0.3s,baz=111,slow=19,SNR=9.0						
KURBB				Lg	Lg	07 23 04.5	
	0.2nm,0.3s,baz=109,slow=32,SNR=12						
KURBB	**Kurchatov Arra**	**2.29**	**293**	⇓Pg	**Pg**	**07 22 33.4**	**-0.4**
	0.9nm,0.4s						
KURBB				⇑Lg	Lg	07 23 03.8	
	2.6nm,0.3s						
MK31	**Makanchi Array**	**2.98**	**174**	⇑Pg	**Pg**	**07 22 46.7**	**-0.4**
	0.4nm,0.6s,baz=356,slow=15,SNR=11						
MK31				⇓Lg	Lg	07 23 23.9	
	0.5nm,0.4s,baz=358,slow=28,SNR=3.3						
MKAR	**Makanchi Array**	**2.98**	**174**	Pn	**Pb**	**07 22 44.5**	**+0.5**
	0.5nm,0.3s,baz=347,slow=12,SNR=3.7						
MKAR				Pg	**Pg**	**07 22 46.8**	**-0.4**
	0.5nm,0.3s,baz=352,slow=15,SNR=14						
MKAR				Lg	Lg	07 23 26.9	
	0.5nm,0.3s,baz=360,slow=29,SNR=9.3						
	0.7nm,0.3s						
MKAR				AML	AML		
ZALV	**Zalesovo Beam**	**4.58**	**23**	Pg	**Pg**	**07 23 17.5**	**-0.2**
	baz=209,slow=16						
ZALV				Lg	Lg	07 24 21.4	
	0.1nm,0.3s,baz=204,slow=25,SNR=2.2						
I46RU	**ZALESOVO INFRA**	**4.58**	**23**	I	I	07 51 00.0	
	baz=202,slow=335,SNR=0.3						

*IDC **28** 07:23:37.9±1.2,16˚69S×177˚60W,h427km±11km, mb3.5/7, mbtmp4.3/10, Error ellipse: s-maj=23.9km s-min=15.4km az=167.0*

ISC 28 07:23:38.9±0.9,**16˚6S**±0˚2×**177˚6W**±0˚1,**h450**km,**n10,** σ1ᵗ**75/14,mb3.8/7,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.31**	**254**	P	**P**	**07 24 55.2**	**-1.7**
	22nm,0.4s,baz=130,slow=23,SNR=17						
MSVF				S	**S**	**07 25 57.2**	**-3.2**
	16nm,1.0s,baz=258,slow=19,SNR=2.1						
AFI	**Afiamalu**	**6.23**	**65**	P	**P**	**07 25 13.3**	**-2.4**
	96nm,0.5s,baz=207,slow=4.5,SNR=26						
AFI				S	S	07 26 24.9	-10
	12nm,0.8s,baz=63,slow=23,SNR=0.8						
DZM	**Mont Dzumac**	**16.01**	**248**	P	**P**	**07 27 01.1**	**+0.2**
	7.2nm,1.1s,baz=82,slow=6.8,SNR=4.1						
URZ	**Urewera**	**22.06**	**191**	P	**P**	**07 27 57.9**	**-1.0**
	5.5nm,0.4s,baz=29,slow=0.4,SNR=11						
	5.5nm,0.4s						
STKA	**Stephens Creek**	**39.94**	**240**	P	**P**	**07 30 33.1**	**+0.2**
	1.9nm,0.5s,baz=86,slow=8.9,SNR=5.9						
	1.9nm,0.5s						
WRA	**Warramunga Arr**	**45.64**	**258**	P	**P**	**07 31 18.0**	**0.0**
	2.9nm,0.9s,baz=92,slow=6.7,SNR=23						
WRA				PcP	**PcP**	**07 32 49.0**	**+1.7**
	0.6nm,0.6s,baz=90,slow=3.7,SNR=1.5						
	2.9nm,0.9s						
ASAR	**Alice Springs**	**45.90**	**253**	P	**P**	**07 31 20.2**	**+0.2**
	9.2nm,0.5s,baz=86,slow=8.3,SNR=164						
ASAR				PcP	**PcP**	**07 32 49.6**	**+1.4**
	0.5nm,0.6s,baz=95,slow=3.4,SNR=4.0						
ASAR				S	**S**	**07 37 32.1**	**+1.4**
	0.4nm,0.8s,baz=80,slow=15,SNR=3.8						
	9.2nm,0.5s						
FITZ	**Fitzroy Crossi**	**54.02**	**259**	P	**P**	**07 32 20.9**	**+1.0**
	2.5nm,0.5s,baz=112,slow=5.1,SNR=11						
	2.5nm,0.5s						
QSPA	**South Pole Qui**	**73.43**	**180**	P	**P**	**07 34 25.6**	**+1.6**
	1.0nm,0.8s,baz=67,slow=0.6,SNR=5.5						
	1.0nm,0.8s						
ILAR	**Eielson Array**	**84.46**	**13**	P	**P**	**07 35 24.3**	**+1.7**
	0.9nm,1.2s,baz=228,slow=5.4,SNR=3.6						
	0.9nm,1.2s						

*NOU **28** 07:33:17.9, 40˚83S×174˚89E, h34km, MLv4.0/21, Cook Strait, New Zealand*
*WEL **28** 07:33:18.4±0.3, 41˚3S×17˚5E˚, h28km±3km, M3.8/29, ML3.8/29, MLv3.8/29, Error ellipse: s-maj=4.6km s-min=3.0km az=129.7*

ISC 28 07:33:18.5±1.2,**40˚83S**±0˚03×**174˚86E**±0˚03,**h46**km±6km, **n143,**σ1ᵗ**09/151,Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIW	**Kapiti Island**	**0.05**	**124**	P	**Pn**	**07 33 25.2**	**-0.6**
KIW				S	**Sn**	**07 33 29.8**	**-1.0**
KIW				AML	AML		
KIW				AML	AML		
PAPS	**Paraparaumu Pr**	**0.14**	**126**	P	**Pn**	**07 33 26.0**	**0.0**
PAPS				S	**Sn**	**07 33 31.6**	**+0.3**
OTKS	**Otaki School**	**0.23**	**70**	P	**Pn**	**07 33 26.4**	**-0.2**
OTKS				S	**Sn**	**07 33 32.5**	**+0.2**
OGWZ	**Otaki Gorge**	**0.24**	**86**	P	**Pn**	**07 33 26.8**	**+0.1**
OGWZ				S	**Sn**	**07 33 32.7**	**+0.2**
OGWZ				AML	AML		
OGWZ				AML	AML		
POKS	**Katoa Kinderga**	**0.29**	**184**	P	**Pn**	**07 33 27.2**	**0.0**
POKS				S	**Sn**	**07 33 33.9**	**+0.6**
PWES	**Porirua West**	**0.29**	**184**	P	**Pn**	**07 33 27.2**	**0.0**
PWES				S	**Sn**	**07 33 33.8**	**+0.5**
POLS	**Porirua Librar**	**0.30**	**182**	P	**Pn**	**07 33 27.4**	**+0.1**
POLS				S	**Sn**	**07 33 33.9**	**+0.5**
CAW	**Cannon Point**	**0.32**	**150**	P	**Pn**	**07 33 27.8**	**+0.4**
CAW				S	**Sn**	**07 33 35.1**	**+1.2**
CAW				AML	AML		
CAW				AML	AML		
WEL	**Wellington**	**0.46**	**188**	P	**Pn**	**07 33 29.3**	**+0.3**
WEL				S	**Sn**	**07 33 37.2**	**+0.8**
WEL				AML	AML		
WEL				AML	AML		
FXBS	**Foxton Beach S**	**0.47**	**37**	P	**Pn**	**07 33 28.6**	**-0.5**
FXBS				S	**Sn**	**07 33 35.7**	**-0.9**
SNZO	**South Karori**	**0.49**	**193**	P	**Pn**	**07 33 29.4**	**0.0**
SNZO	**South Karori**	**0.49**	**193**	S	**Sn**	**07 33 37.9**	**+0.8**
HOWZ	**Holdsworth Sta**	**0.50**	**98**	P	**Pn**	**07 33 30.4**	**+0.8**
HOWZ				S	**Sn**	**07 33 39.9**	**+2.4**
HOWZ				AML	AML		
HOWZ				AML	AML		
BHW	**Baring Head**	**0.57**	**179**	P	**Pn**	**07 33 31.0**	**+0.5**
BHW				AML	AML		
BHW				AML	AML		
MRZ	**Mangatainoka R**	**0.57**	**73**	P	**Pn**	**07 33 31.1**	**+0.6**
MRZ				AML	AML		
MRZ				AML	AML		
MTW	**Mount Morrison**	**0.59**	**124**	P	**Pn**	**07 33 31.5**	**+0.9**
MTW				AML	AML		
MTW				AML	AML		
MSWZ	**Moikau Station**	**0.65**	**153**	P	**Pn**	**07 33 32.5**	**+0.9**
MSWZ				AML	AML		
MSWZ				AML	AML		
PAWZ	**Paruwai Farm**

NNZ	**Nelson**	**1.18**	**251**	P	**Pn**	**07 33 38.6**	**0.0**
NNZ				AML	AML		
NNZ				AML	AML		
ANWZ	**Angora Road**	**1.29**	**74**	P	**Pn**	**07 33 39.8**	**-0.3**
ANWZ				AML	AML		
ANWZ				AML	AML		
PNHZ	**Pukenui**	**1.38**	**49**	P	**Pn**	**07 33 41.1**	**-0.3**
LREZ	**Lake Rotokare**	**1.42**	**346**	P	**Pn**	**07 33 42.2**	**+0.4**
LREZ				AML	AML		
LREZ				AML	AML		
WPHZ	**Waipukurau**	**1.43**	**58**	P	**Pn**	**07 33 41.8**	**-0.2**
TKNZ	**Takaka Hill**	**1.45**	**261**	P	**Pn**	**07 33 42.5**	**+0.3**
TKNZ				AML	AML		
TKNZ				AML	AML		
PRHZ	**Porangahau**	**1.47**	**68**	P	**Pn**	**07 33 42.4**	**-0.2**
MTVZ	**Mangateitei**	**1.52**	**18**	P	**Pn**	**07 33 44.2**	**+0.9**
MOVZ	**Moawhango**	**1.58**	**26**	P	**Pn**	**07 33 44.3**	**+0.1**
PREZ	**Palmer Road**	**1.58**	**340**	P	**Pn**	**07 33 44.7**	**+0.6**
PREZ				AML	AML		
PREZ				AML	AML		
PKVZ	**Pokaka**	**1.59**	**14**	P	**Pn**	**07 33 44.5**	**+0.3**
NMEZ	**Namu Road**	**1.60**	**332**	P	**Pn**	**07 33 44.6**	**+0.3**
NMEZ				AML	AML		
NMEZ				AML	AML		
WNVZ	**Wahianoa**	**1.61**	**21**	P	**Pn**	**07 33 44.9**	**+0.3**
TRVZ	**Turoa**	**1.62**	**19**	P	**Pn**	**07 33 45.4**	**+0.5**
BHHZ	**Black Hill Sta**	**1.63**	**35**	P	**Pn**	**07 33 44.9**	**+0.1**
WHVZ	**Whangaehu Hut**	**1.65**	**20**	P	**Pn**	**07 33 45.8**	**+0.6**
MAVZ	**Matarangi**	**1.65**	**19**	P	**Pn**	**07 33 46.2**	**+0.8**
KRHZ	**Kereru**	**1.66**	**45**	P	**Pn**	**07 33 44.7**	**-0.5**
FWVZ	**Far West T-bar**	**1.66**	**19**	P	**Pn**	**07 33 45.9**	**+0.5**
NEZ	**North Egmont**	**1.67**	**339**	P	**Pn**	**07 33 46.0**	**+0.7**
NEZ				AML	AML		
NEZ				AML	AML		
KHEZ	**Kahui Hut**	**1.67**	**337**	P	**Pn**	**07 33 45.7**	**+0.4**
KHEZ	**Kahui Hut**	**1.67**	**337**	S	**Sn**	**07 34 06.0**	**+0.4**
KHEZ	**Kahui Hut**	**1.67**	**337**	P	**Pn**	**07 33 45.8**	**+0.5**
KHEZ				AML	AML		
KHEZ				AML	AML		
TUVZ	**Tukino**	**1.68**	**22**	P	**Pn**	**07 33 46.1**	**+0.6**
MRNZ	**Matariki Terra**	**1.68**	**250**	P	**Pn**	**07 33 46.2**	**+0.7**
MRNZ				AML	AML		
MRNZ				AML	AML		
VRZ	**Vera Road**	**1.71**	**357**	P	**Pn**	**07 33 46.6**	**+0.8**
COVZ	**Chateau Observ**	**1.71**	**18**	P	**Pn**	**07 33 46.7**	**+0.7**
PXZ	**Pawanui**	**1.73**	**63**	P	**Pn**	**07 33 45.4**	**-0.7**
NBEZ	**Newall Road No**	**1.74**	**334**	P	**Pn**	**07 33 46.4**	**+0.2**
NBEZ				AML	AML		
NBEZ				AML	AML		
THZ	**Tophouse**	**1.74**	**237**	P	**Pn**	**07 33 46.4**	**+0.1**
NGZ	**Ngauruhoe**	**1.75**	**19**	P	**Pn**	**07 33 47.2**	**+0.7**
SNVZ	**South Ngauruho**	**1.75**	**20**	P	**Pn**	**07 33 47.2**	**+0.7**
QRZ	**Quartz Range**	**1.77**	**269**	P	**Pn**	**07 33 46.2**	**-0.4**
QRZ	**Quartz Range**	**1.77**	**269**	S	**Sn**	**07 34 08.4**	**+0.5**
QRZ	**Quartz Range**	**1.77**	**269**	P	**Pn**	**07 33 46.3**	**-0.3**
QRZ				AML	AML		
QRZ				AML	AML		
PKE	**Pukeiti**	**1.77**	**338**	P	**Pn**	**07 33 47.1**	**+0.5**
PKE				AML	AML		
PKE				AML	AML		
OTVZ	**Oturere**	**1.78**	**21**	P	**Pn**	**07 33 47.6**	**+0.7**
MHEZ	**Mangahewa**	**1.80**	**347**	P	**Pn**	**07 33 48.3**	**+1.2**
WTVZ	**West Tongariro**	**1.81**	**18**	P	**Pn**	**07 33 47.8**	**+0.6**
TWVZ	**Taurewa**	**1.82**	**14**	P	**Pn**	**07 33 47.7**	**+0.3**
ETVZ	**East Tongariro**	**1.82**	**21**	P	**Pn**	**07 33 48.0**	**+0.6**
TMVZ	**Te Maari**	**1.83**	**21**	P	**Pn**	**07 33 48.2**	**+0.5**
KRVZ	**Karewarewa**	**1.84**	**19**	P	**Pn**	**07 33 48.4**	**+0.7**
NTVZ	**North Tongarir**	**1.84**	**20**	P	**Pn**	**07 33 48.5**	**+0.7**
KWHZ	**Kaweka Forest**	**1.85**	**41**	P	**Pn**	**07 33 47.2**	**-0.6**
KAHZ	**Kahuranaki**	**1.86**	**57**	P	**Pn**	**07 33 47.5**	**-0.4**
KHZ	**Kahutara**	**1.86**	**212**	P	**Pn**	**07 33 47.9**	**0.0**
KHZ	**Kahutara**	**1.86**	**212**	S	**Sn**	**07 34 09.9**	**-0.3**
KHZ	**Kahutara**	**1.86**	**212**	P	**Pn**	**07 33 48.0**	**+0.1**
KATZ	**Kakaramea**	**1.96**	**19**	P	**Pn**	**07 33 51.0**	**+1.5**
MCHZ	**McNeill Hill**	**1.98**	**46**	P	**Pn**	**07 33 49.3**	**-0.2**
RITZ	**Rihia Road**	**2.01**	**23**	P	**Pn**	**07 33 52.0**	**+2.1**
CKHZ	**Cape Kidnapper**	**2.07**	**56**	P	**Pn**	**07 33 49.9**	**-0.8**
BKZ	**Black Stump Fm**	**2.09**	**38**	P	**Pn**	**07 33 50.1**	**-1.0**
BKZ	**Black Stump Fm**	**2.09**	**38**	P	**Pn**	**07 33 50.3**	**-0.8**
WATZ	**Wairara**	**2.23**	**18**	P	**Pn**	**07 33 54.5**	**+1.5**
ARHZ	**Aropaoanui**	**2.27**	**47**	P	**Pn**	**07 33 52.7**	**-0.8**
HIZ	**Hauiti**	**2.32**	**360**	P	**Pn**	**07 33 54.6**	**+0.4**
HIZ	**Hauiti**	**2.32**	**360**	P	**Pn**	**07 33 54.9**	**+0.7**
MRHZ	**Matea Rd**	**2.33**	**32**	P	**Pn**	**07 33 53.5**	**-0.9**
KAHZ	**Kaahu Road**	**2.46**	**18**	P	**Pn**	**07 33 59.9**	**+3.8**
DSZ	**Denniston Nort**	**2.47**	**247**	P	**Pn**	**07 33 56.0**	**-0.4**
MTHZ	**Maungataniwha**	**2.50**	**38**	P	**Pn**	**07 33 56.0**	**-0.7**
WPRZ	**Whakapapatarin**	**2.52**	**24**	P	**Pn**	**07 33 58.9**	**+1.9**
GVZ	**Greta Valley S**	**2.53**	**212**	P	**Pn**	**07 33 56.6**	**-0.4**
ALRZ	**Allen Road**	**2.54**	**27**	P	**Pn**	**07 33 57.8**	**+0.5**
TLZ	**Tolley Road**	**2.56**	**12**	P	**Pn**	**07 33 57.8**	**+0.3**
PRRZ	**Plateau Road**	**2.62**	**27**	P	**Pn**	**07 33 59.8**	**+1.5**
LTZ	**Lake Taylor**	**2.74**	**224**	P	**Pn**	**07 33 59.6**	**-0.4**
RTZ	**Ruatahuna**	**2.75**	**37**	P	Pn	07 34 05.3	+5.0
MUGZ	**Murupara**	**2.78**	**33**	P	**Pn**	**07 34 03.7**	**+3.2**
RRRZ	**Republican Roa**	**2.80**	**28**	P	Pn	07 34 05.8	+5.0
MHGZ	**Mahia Peninsul**	**2.88**	**55**	P	**Pn**	**07 34 00.0**	**-1.9**
TARZ	**Mount Tarawera**	**2.89**	**27**	P	**Pn**	**07 34 06.0**	**+3.9**
RIGZ	**Rimuhau**	**3.09**	**47**	P	**Pn**	**07 34 02.7**	**-2.1**
URZ	**Urewera**	**3.11**	**35**	P	**Pn**	**07 34 03.5**	**-1.5**
URZ	**Urewera**	**3.11**	**35**	S	**Sn**	**07 34 39.7**	**-1.1**
URZ	**Urewera**	**3.11**	**35**	P	**Pn**	**07 34 02.8**	**-2.2**
TOZ	**Tahuroa Road**	**3.14**	**9**	P	**Pn**	**07 34 05.5**	**+0.1**
MARZ	**Manawahe**	**3.17**	**27**	P	Pn	07 34 10.6	+4.7
INZ	**Inchbonnie**	**3.17**	**232**	P	**Pn**	**07 34 05.4**	**-0.5**
OKCZ	**Okains Bay**	**3.18**	**204**	P	**Pn**	**07 34 04.7**	**-1.3**
MWZ	**Matawai**	**3.24**	**40**	P	**Pn**	**07 34 04.9**	**-1.9**
OXZ	**Oxford**	**3.26**	**219**	P	**Pn**	**07 34 05.2**	**-1.8**
OPRZ	**Ohinepanea**	**3.26**	**24**	P	**Pn**	**07 34 11.2**	**+4.1**
TGRZ	**Tauranga**	**3.29**	**20**	P	**Pn**	**07 34 10.2**	**+2.8**
MQZ	**McQueen's Vall**	**3.30**	**209**	P	**Pn**	**07 34 05.5**	**-2.1**
AKCZ	**Akaroa Harbour**	**3.36**	**205**	P	**Pn**	**07 34 07.1**	**-1.4**
TWGZ	**Tauwhareparae**	**3.59**	**43**	P	**Pn**	**07 34 12.6**	**+0.9**
RUGZ	**Raukumara Rang**	**3.60**	**38**	P	**Pn**	**07 34 10.0**	**-2.0**
MHCZ	**Mount Hutt**	**3.64**	**221**	P	**Pn**	**07 34 12.0**	**-0.3**
MKAZ	**Moumakai**	**3.73**	**4**	P	**Pn**	**07 34 13.4**	**-0.1**
AWAZ	**Awhitu Peninsu**	**3.77**	**357**	P	**Pn**	**07 34 14.8**	**+0.8**
WVZ	**Waitaha Valley**	**3.80**	**233**	P	**Pn**	**07 34 14.2**	**-0.3**
HAZ	**Te Kaha**	**3.82**	**37**	P	**Pn**	**07 34 12.6**	**-2.1**
WAKCZ	**Wakanui South**	**3.83**	**215**	P	**Pn**	**07 34 12.9**	**-2.0**
ETAZ	**East Tamaki Re**	**3.87**	**1**	P	**Pn**	**07 34 15.8**	**+0.3**
WTAZ	**Waiatarua**	**3.90**	**357**	P	**Pn**	**07 34 17.3**	**+1.4**
RPZ	**Rata Peaks**	**4.03**	**223**	P	**Pn**	**07 34 19.6**	**+1.9**
WIAZ	**Waiheke Island**	**4.04**	**3**	P	**Pn**	**07 34 17.9**	**+0.1**
ARCZ	**Arundel**	**4.14**	**220**	P	**Pn**	**07 34 18.2**	**-1.0**
MXZ	**Matakaoa Point**	**4.22**	**40**	P	**Pn**	**07 34 20.0**	**-0.3**
MXZ	**Matakaoa Point**	**4.22**	**40**	S	**Sn**	**07 35 07.3**	**-1.1**
ODZ	**Otahua Downs**	**5.22**	**215**	P	**Pn**	**07 34 32.7**	**-1.3**
JCZ	**Jackson Bay**	**5.54**	**232**	P	**Pn**	**07 34 38.2**	**-0.2**
OUZ	**Omahuta**	**5.69**	**350**	P	**Pn**	**07 34 40.2**	**-0.3**
CTZ	**Chatham Island**	**6.96**	**117**	P	**Pn**	**07 34 58.0**	**+0.2**

*CATAC **28** 07:37:41.9±0.8, 9°N±6″×8°3W±″, h10km±3km, M2.8/7, MLv2.8/7, Error ellipse: s-maj=14.6km s-min=4.3km az=22.3, confirmed*
*UCR **28** 07:37:41.9±0.8, 8.59N×83.36W, h18km±7km, MW3.5, Presumed earthquake*
*UPA **28** 07:37:41.6±1.0, 8.62N×83.35W, h16km±1km, MW2.8, Presumed earthquake*

ISC 28 07:37:42.1±1.0, **8.62N**±0.04×**83.33W**±0.03, **h17**km±6km, **n47**, σ0.8**77**/70, **1C-5D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITO	**Golfito**	**0.18**	**89**	*eP*	**Pg**	**07 37 46.5**	**0.0**
FITO				*eS*	**Sg**	**07 37 49.9**	**+0.3**
FITO	**Golfito**	**0.18**	**89**	⇓*iP*	**Pg**	**07 37 46.5**	**0.0**
FITO				*eS*	**Sb**	**07 37 50.1**	**0.0**
PANP	**Palmar Norte**	**0.36**	**340**	*eP*	**Pg**	**07 37 49.3**	**-0.2**
PANP				*eS*	**Sb**	**07 37 55.6**	**+0.2**
NELY	**Ciudad Neily**	**0.38**	**86**	*eP*	**Pg**	**07 37 50.2**	**+0.2**
NELY				*eS*	**Sb**	**07 37 56.8**	**+0.7**
NELY	**Ciudad Neily**	**0.38**	**86**	⇓*iP*	**Pg**	**07 37 50.2**	**+0.2**
NELY				*eS*	**Sb**	**07 37 56.7**	**+0.7**
VITO	**San Vito**	**0.41**	**61**	*eP*	**Pb**	**07 37 51.1**	**+0.1**
VITO	**San Vito**	**0.41**	**61**	⇓*iP*	**Pb**	**07 37 51.1**	**+0.1**
VITO				*eS*	**Sb**	**07 37 57.6**	**+0.6**
EDP2	**Potrero Grande**	**0.42**	**22**	*eP*	**Pg**	**07 37 50.9**	**+0.2**
CDITO	**Canoas**	**0.46**	**96**	P	**Pg**	**07 37 51.2**	**-0.1**
CDITO	**Canoas**	**0.46**	**96**	*eP*	**Pg**	**07 37 51.2**	**-0.1**
CDITO				*eS*	**Sb**	**07 37 58.5**	**+0.2**
LPPC	**Paso Canoas**	**0.50**	**100**	*eP*	**Pg**	**07 37 51.8**	**-0.2**
MLIR3	**Monte Lirio, C**	**0.53**	**71**	*eP*	**Pg**	**07 37 53.0**	**+0.2**
MLIR3				*eS*	**Sg**	**07 38 00.5**	**+0.6**
BURE	**Buenos Aires**	**0.55**	**359**	*eP*	**Pg**	**07 37 51.5**	**-1.6**
EDPE	**Pejibaye, P**	**0.58**	**336**	*eP*	**Pg**	**07 37 53.2**	**-0.5**
SCLRA	**Santa Clara, W**	**0.58**	**69**	*eP*	**Pg**	**07 37 53.9**	**+0.2**
SCLRA	**Santa Clara, W**	**0.58**	**69**	⇓*iP*	**Pg**	**07 37 53.9**	**+0.2**
SCLRA				*eS*	**Sn**	**07 38 05.2**	**+0.2**
PTPM	**Petroterminale**	**0.61**	**133**	*eP*	**Pg**	**07 37 53.9**	**-0.2**
PTPM				*eS*	**Sb**	**07 38 03.4**	**+0.8**
CTCR	**Cotoan**	**0.63**	**64**	*eP*	**Pg**	**07 37 54.3**	**-0.3**
CTCR				*eS*	**Sg**	**07 38 03.5**	**+0.5**
BRU2	**Volcan**	**0.66**	**75**	P	**Pg**	**07 37 54.8**	**-0.2**
BRU2	**Volcan**	**0.66**	**75**	*eP*	**Pg**	**07 37 54.8**	**-0.2**
BRU2	**Volcan**	**0.66**	**75**	⇓*iP*	**Pg**	**07 37 54.8**	**-0.2**
BRU2				*eS*	**Sb**	**07 38 05.6**	**+1.4**
LIMO3	**Limones**	**0.69**	**138**	*eP*	**Pb**	**07 37 55.7**	**0.0**
CLLRA	**Cordillera,**	**0.72**	**80**	*eP*	**Pg**	**07 37 55.9**	**-0.3**
CLLRA	**Cordillera,**	**0.72**	**80**	*i P*	**Pg**	**07 37 55.9**	**-0.3**
CLLRA				*eS*	**Sn**	**07 38 08.2**	**-0.2**
BAGA3	**Bagala, Chiriq**	**0.81**	**101**	*eP*	**Pb**	**07 37 57.4**	**-0.4**
BQTLY	**Boquete Panama**	**0.87**	**81**	*eP*	**Pb**	**07 37 58.0**	**-0.9**
BQTLY	**Boquete Panama**	**0.87**	**81**	*eP*	**Pb**	**07 37 58.0**	**-0.9**
BQTLY				*eS*	**Sn**	**07 38 12.3**	**+0.1**
BQSF3	**Alto Boquete,**	**0.90**	**82**	*eP*	**Pb**	**07 37 58.2**	**-1.0**
LNBQ3	**Los Naranjos,**	**0.90**	**79**	*eP*	**Pb**	**07 37 58.1**	**-1.2**
LNBQ3				*eS*	**Sb**	**07 38 10.8**	**-0.2**
LOMA3	**Las Lomas, Chi**	**0.95**	**101**	*eP*	**Pb**	**07 37 58.1**	**-2.0**
BGUAL	**Bijagual, Pana**	**0.99**	**96**	*eP*	**Pb**	**07 38 00.0**	**-0.9**
BGUAL				*eS*	**Sg**	**07 38 14.5**	**+0.9**
PSOM3	**Paja de Sombre**	**1.00**	**86**	*eP*	**Pb**	**07 37 59.5**	**-1.5**
PSOM3				*eS*	**Sb**	**07 38 14.0**	**+0.1**
CHIR3	**Chiriqui UPA,**	**1.02**	**103**	*eP*	**Pb**	**07 37 59.5**	**-1.8**
QUEP	**Quepos**	**1.15**	**314**	S	**Sg**	**07 38 20.3**	**+1.0**
LAES	**El Progreso Va**	**1.17**	**14**	*eP*	**Pn**	**07 38 03.5**	**-0.2**
PIEC	**Cerro El Cedra**	**1.17**	**328**	*eP*	**Pn**	**07 38 03.4**	**-0.5**
RBALA	**Bur**	**1.19**	**78**	⇑*iP*	**Pn**	**07 38 02.9**	**-1.1**
RBALA				*eS*	**Sb**	**07 38 18.9**	**-0.5**
CHGR2	**Aguacate**	**1.22**	**75**	*eP*	**Pn**	**07 38 03.2**	**-1.2**
CHGR2				*eS*	**Sb**	**07 38 19.3**	**-0.8**
ABE2	**San Pablo**	**1.29**	**327**	*eP*	**Pn**	**07 38 05.0**	**-0.5**
LCR2	**La Lucha 2**	**1.30**	**329**	P	**Pn**	**07 38 05.2**	**-0.4**
LCR2				S	**Sg**	**07 38 24.0**	**-0.2**
VERH	**Veragua Rainfo**	**1.30**	**6**	*eP*	**Pn**	**07 38 05.5**	**-0.1**
ABRB	**Las Ábras (San**	**1.43**	**345**	*eP*	**Pb**	**07 38 08.4**	**0.0**
HDC	**Heredia**	**1.57**	**331**	P	**Pn**	**07 38 09.2**	**-0.2**
HDC				S	**Sb**	**07 38 31.3**	**+0.8**
TCS1	**Tacares**	**1.70**	**326**	P	**Pb**	**07 38 12.4**	**-0.6**
TRT2	**Tortugero**	**1.96**	**348**	P	**Pb**	**07 38 16.7**	**-0.7**
TRT2				S	**Sb**	**07 38 41.1**	**-0.5**
JTS	**Las Juntas de**	**2.30**	**316**	S	**Sn**	**07 38 49.0**	**+1.6**
BCIP	**Isla Barro Col**	**3.50**	**81**	P	**Pn**	**07 38 37.1**	**+1.4**
BCIP				S	**Sn**	**07 39 18.9**	**+2.2**

*KRNET **28** 08:02:59.6±0.1, 43.33N×71.91E, h21km, mb3.2*
*KNET **28** 08:03:00.6±0.3, 43.42N×71.92E, h28km±2km, ml2.9, Error ellipse: s-maj=5.9km s-min=2.2km az=31.0*
*SOME **28** 08:03:00.9, 43.18N×71.93E, h10km*
*NNC **28** 08:03:03.4±0.2, 43.32N×72.05E, h0km, mb3.8, mpv3.6, Error ellipse: s-maj=3.9km s-min=1.4km az=6.0*

ISC 28 08:02:59.1±1.5, **43.40N**±0.05×**71.95E**±0.04, **h5**km±10km, **n52**, σ1.9**18**/92, **30C-20D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNAS	**Manas**	**1.00**	**156**	⇑*iP*	**Pg**	**08 03 17.4**	**-1.5**
MNAS				⇑*iS*	**Sg**	**08 03 30.3**	**-0.9**
MRKS	**Merke** 40nm,0.1s	**1.14**	**124**	P	**Pg**	**08 03 22.9**	**+1.9**
MRKS				S	**Sn**	**08 03 38.0**	**+0.1**
	207nm,0.2s						
MRKS	**Merke** 40nm,0.1s	**1.14**	**124**	*eP*	**Pg**	**08 03 22.9**	**+1.9**
MRKS				*eS*	**Sn**	**08 03 38.0**	**+0.1**
	207nm,0.2s						
EKS2	**Erkin-Say** 14nm,0.1s,SNR=121	**1.53**	**118**	⇑P	**Pg**	**08 03 28.9**	**+0.5**
EKS2				⇓S	**Sg**	**08 03 51.1**	**+2.8**
	99nm,0.2s						
EKS2	**Erkin-Say**	**1.53**	**118**	⇑*iP*	**Pb**	**08 03 27.7**	**-0.3**
EKS2				⇑*iS*	**Sg**	**08 03 48.2**	**-0.1**
ARK	**Arkit**	**1.60**	**180**	⇑*iP*	**Pn**	**08 03 27.6**	**-0.5**
ARK				⇑*iS*	**Sn**	**08 03 48.2**	**-1.0**
USP	**Ospenovka** 12nm,0.1s,SNR=34	**1.87**	**93**	⇑P	**Pb**	**08 03 33.8**	**+0.1**
USP				⇑S	**Sg**	**08 04 00.3**	**+1.3**
	97nm,0.2s						
USP	**Ospenovka**	**1.87**	**93**	⇓*iP*	**Pb**	**08 03 33.8**	**+0.1**
USP				⇓*iS*	**Sg**	**08 03 59.0**	**-0.1**
TRKS	**Terek-Say**	**1.96**	**198**	⇓*iP*	**Pn**	**08 03 34.7**	**+1.6**
TRKS				⇓*iS*	**Sn**	**08 04 00.2**	**+2.0**
AAK	**Ala-Archa** 11nm,0.2s,SNR=19	**2.02**	**111**	⇑P	**Pb**	**08 03 36.2**	**-0.1**
AAK				⇓S	**Sg**	**08 04 04.1**	**+0.2**
	78nm,0.3s						
AAK	**Ala-Archa**	**2.02**	**111**	⇑*iP*	**Pb**	**08 03 35.7**	**-0.6**
AAK				⇑*iS*	**Sb**	**08 04 02.1**	**+0.3**
CHM	**Chimkent** 87nm,0.1s	**2.03**	**239**	*eP*	**Pn**	**08 03 35.2**	**+1.2**
CHM				*eS*	**Sn**	**08 03 59.3**	**-0.4**
	248nm,0.6s						
FRU1	**Bishkek**	**2.05**	**106**	⇑*iP*	**Pb**	**08 03 36.0**	**-0.9**
FRU1				⇑*iS*	**Sb**	**08 04 02.7**	**0.0**
CHMS	**Chumysh** 12nm,0.2s,SNR=11	**2.09**	**100**	⇑P	**Pb**	**08 03 36.9**	**-0.6**
CHMS				⇑S	**Sg**	**08 04 05.8**	**-0.4**
	42nm,0.2s						
CHMS	**Chumysh** 87nm,0.1s	**2.09**	**100**	P	**Pn**	**08 03 35.2**	**+0.4**
CHMS				S	**Sn**	**08 03 59.3**	**-1.9**
	248nm,0.6s						
CHMS	**Chumysh**	**2.09**	**100**	⇓*iP*	**Pb**	**08 03 36.9**	**-0.6**
CHMS				⇓*iS*	**Sb**	**08 04 03.9**	**+0.1**
ARSB	**Arslanbob**	**2.21**	**159**	⇑*iP*	**Pn**	**08 03 37.5**	**+0.9**
ARSB				⇑*iS*	**Sn**	**08 04 05.2**	**+0.9**
UCH	**Uchtor** 6.0nm,0.1s,SNR=17	**2.22**	**121**	⇑P	**Pb**	**08 03 39.3**	**-0.6**
UCH				⇓S	**Sg**	**08 04 09.4**	**-1.1**
	37nm,0.3s						
UCH	**Uchtor**	**2.22**	**121**	⇑*iP*	**Pb**	**08 03 38.6**	**-1.4**
UCH				⇑*iS*	**Sb**	**08 04 07.1**	**-0.9**
KBK	**Karagaybulak** 7.9nm,0.1s	**2.32**	**108**	⇑P	**Pb**	**08 03 40.4**	**-1.1**
KBK				⇑S	**Sg**	**08 04 12.0**	**-1.6**
	91nm,0.2s						
KBK	**Karagaybulak**	**2.32**	**108**	⇓*iP*	**Pb**	**08 03 40.1**	**-1.4**
KBK				⇓*iS*	**Sb**	**08 04 09.5**	**-1.1**
TKM2	**Tokmak 2** 7.4nm,0.2s,SNR=7.1	**2.71**	**99**	⇑P	**Pb**	**08 03 45.6**	**-2.5**
TKM2				⇓S	**Sb**	**08 04 20.6**	**-1.3**
	37nm,0.1s						
TKM2	**Tokmak 2**	**2.71**	**99**	⇑*iP*	**Pb**	**08 03 45.7**	**-2.5**
TKM2				⇑*iS*	**Sb**	**08 04 19.3**	**-2.6**
KRBS	**Karabastau** 8.6nm,0.2s	**2.73**	**82**	Pg	**Pg**	**08 03 51.8**	**+0.5**
KRBS				Lg	Lg	08 04 28.0	
	19nm,0.3s						
KRBS	**Karabastau** 8.6nm,0.2s	**2.73**	**82**	*eP*	**Pg**	**08 03 51.8**	**+0.5**
KRBS				*eS*	**Sg**	**08 04 28.0**	**+1.4**
	19nm,0.3s						
DGS	**Degeres** 11nm,0.4s	**2.80**	**92**	Pg	**Pg**	**08 03 53.0**	**+0.3**
DGS				Lg	Lg	08 04 29.9	
	34nm,0.5s						
DGS	**Degeres** 11nm,0.4s	**2.80**	**92**	*eP*	**Pg**	**08 03 53.0**	**+0.3**
DGS				*eS*	**Sg**	**08 04 29.9**	**+1.0**
	34nm,0.5s						
SALK	**Salom-Alik**	**2.87**	**150**	⇓*iP*	**Pn**	**08 03 47.0**	**+1.3**
SALK				⇓*iS*	**Sn**	**08 04 21.6**	**+0.9**
KST	**Kastek** 5.3nm,0.7s	**2.96**	**96**	Pg	**Pg**	**08 03 55.8**	**+0.1**
KST				Lg	Lg	08 04 34.5	
	25nm,0.5s						
KST	**Kastek** 5.3nm,0.7s	**2.96**	**96**	*eP*	**Pg**	**08 03 55.8**	**+0.1**
KST				*eS*	**Sg**	**08 04 34.5**	**+0.5**
	25nm,0.5s						
KUU	**Kurty** 9.3nm,0.3s	**3.23**	**80**	Pg	**Pg**	**08 04 01.7**	**+0.8**
KUU				Lg	Lg	08 04 44.3	
	27nm,0.4s						
KUU	**Kurty** 9.3nm,0.3s	**3.23**	**80**	*eP*	**Pg**	**08 04 01.6**	**+0.8**
KUU				*eS*	**Sg**	**08 04 44.3**	**+1.6**
	27nm,0.4s						
IZV	**Izvestkoviy** 19nm,0.3s	**3.43**	**94**	Pg	**Pg**	**08 04 04.5**	**-0.3**
IZV				Lg	Lg	08 04 49.5	
	18nm,0.3s						
IZV	**Izvestkoviy** 19nm,0.3s	**3.43**	**94**	*eP*	**Pg**	**08 04 04.5**	**-0.3**
IZV				*eS*	**Sg**	**08 04 49.5**	**+0.3**
	18nm,0.3s						
BTK	**Batken**	**3.44**	**195**	⇑*iP*	**Pn**	**08 03 54.4**	**+1.0**
BTK				⇑*iS*	**Sn**	**08 04 34.3**	**-0.4**
SFK	**Sufi-Kurgan**	**3.58**	**160**	⇓*iP*	**Pn**	**08 03 56.6**	**+1.2**
SFK				⇓*iS*	**Sn**	**08 04 38.2**	**0.0**
NRN	**Naryn**	**3.59**	**122**	⇓*iP*	**Pn**	**08 03 57.2**	**+1.6**
NRN				⇓*iS*	**Sn**	**08 04 39.2**	**+0.7**
TNSS	**Tian-Shan** 1.3nm,0.4s	**3.67**	**94**	Pg	**Pg**	**08 04 08.7**	**-0.8**
TNSS				Lg	Lg	08 04 56.9	
	4.8nm,0.6s						
TNSS	**Tian-Shan** 1.3nm,0.4s	**3.67**	**94**	*eP*	**Pg**	**08 04 08.7**	**-0.8**
TNSS				*eS*	**Sg**	**08 04 56.9**	**-0.2**
	4.8nm,0.6s						
MDOK	**Medeo** 3.2nm,0.3s	**3.73**	**92**	Pg	**Pg**	**08 04 10.2**	**-0.4**
MDOK				Lg	Lg	08 04 59.5	
	17nm,0.7s						
MDOK	**Medeo** 3.2nm,0.3s	**3.73**	**92**	*eP*	**Pg**	**08 04 10.2**	**-0.4**
MDOK				*eS*	**Sg**	**08 04 59.5**	**+0.5**
	17nm,0.7s						
KOTS	**Kotyrbulak** 3.8nm,0.3s	**3.77**	**91**	Pg	**Pg**	**08 04 11.0**	**-0.4**
KOTS				Lg	Lg	08 05 00.9	
	16nm,0.4s						
KOTS	**Kotyrbulak** 3.8nm,0.3s	**3.77**	**91**	*eP*	**Pg**	**08 04 11.0**	**-0.4**
KOTS				*eS*	**Sg**	**08 05 00.9**	**+0.7**
	16nm,0.4s						
KDJ	**Kajisay**	**4.06**	**106**	⇑*iP*	**Pn**	**08 04 04.7**	**+2.7**
KDJ				⇑*iS*	**Sn**	**08 04 51.6**	**+1.7**
ARXS	**Arharly** 5.4nm,0.4s	**4.33**	**77**	Pg	**Pg**	**08 04 21.7**	**-0.4**
ARXS				Lg	Lg	08 05 19.3	
	15nm,0.3s						
ARXS	**Arharly** 5.4nm,0.4s	**4.33**	**77**	*eP*	**Pg**	**08 04 21.7**	**-0.4**
ARXS				*eS*	**Sg**	**08 05 19.3**	**+1.0**
	15nm,0.3s						
TARG	**Taragay, Kyrgy**	**4.64**	**109**	⇓*iP*	**Pn**	**08 04 12.4**	**+2.2**
TARG				⇓*iS*	**Sn**	**08 05 05.3**	**+0.7**
SATY	**Saty** 2.1nm,0.5s	**4.73**	**92**	Pg	**Pg**	**08 04 28.4**	**-1.3**
SATY				Lg	Lg	08 05 30.5	
	6.5nm,0.3s						
SATY	**Saty** 2.1nm,0.5s	**4.73**	**92**	*eP*	**Pg**	**08 04 28.4**	**-1.3**
SATY				*eS*	**Sg**

	181nm,0.6s								
KOTS	**Kotyrbulak**	**2.82**	**1**	*e*P		**Pb**	**08 11 33.8**	**-0.1**
	75nm,0.4s								
KOTS				*e*S		**Sg**	**08 12 12.1**	**-1.7**
	181nm,0.6s								
SATY	**Saty**	**2.82**	**20**	Pg		**Pb**	**08 11 34.1**	**+0.1**
	22nm,0.6s								
SATY				Lg		Lg	08 12 12.3		
	38nm,0.5s								
SATY	**Saty**	**2.82**	**20**	*e*P		**Pb**	**08 11 34.1**	**+0.1**
	22nm,0.6s								
SATY				*e*S		**Sg**	**08 12 12.3**	**-1.8**
	38nm,0.5s								
AAK	**Ala-Archa**	**2.94**	**320**	P		**Pb**	**08 11 35.5**	**-0.6**
	SNR=13								
AAK	**Ala-Archa**	**2.94**	**320**	⇑Pn		**Pn**	**08 11 31.4**	**+1.1**
	25nm,0.9s								
AAK				⇑Lg		Lg	08 12 15.2		
	40nm,0.8s								
AAK	**Ala-Archa**	**2.94**	**320**	⇓*i*P		**Pn**	**08 11 30.9**	**+0.5**
AAK				⇓*i*S		**Sn**	**08 12 07.6**	**+1.8**
DGS	**Degeres**	**2.98**	**341**	Pg		**Pb**	**08 11 36.6**	**-0.1**
	43nm,1.0s								
DGS				Lg		Lg	08 12 17.1		
	71nm,0.9s								
DGS	**Degeres**	**2.98**	**341**	*e*P		**Pb**	**08 11 36.6**	**-0.1**
	43nm,1.0s								
DGS				*e*S		**Sg**	**08 12 17.1**	**-2.2**
	71nm,0.9s								
FRU1	**Bishkek**	**3.01**	**323**	⇓*e*P		**Pn**	**08 11 32.5**	**+1.3**
FRU1				⇓*e*S		**Sn**	**08 12 10.5**	**+3.1**
UZB	**Uzynbulak**	**3.10**	**28**	Pg		**Pb**	**08 11 38.6**	**0.0**
	15nm,0.6s								
UZB				Lg		Lg	08 12 19.9		
	38nm,0.7s								
UZB	**Uzynbulak**	**3.10**	**28**	*e*P		**Pb**	**08 11 38.6**	**0.0**
	15nm,0.6s								
UZB				*e*S		**Sg**	**08 12 19.9**	**-2.9**
	38nm,0.7s								
CHMS	**Chumysh**	**3.11**	**327**	P		**Pb**	**08 11 35.2**	**-3.6**
	SNR=9.2								
CHMS	**Chumysh**	**3.11**	**327**	⇑*i*P		**Pn**	**08 11 33.3**	**+0.8**
CHMS				⇑*i*S		**Sn**	**08 12 11.4**	**+1.6**
ARSB	**Arslanbob**	**3.23**	**288**	⇑*e*P		**Pn**	**08 11 34.6**	**+0.3**
ARSB				⇑*i*S		**Sn**	**08 12 13.9**	**+1.0**
OHH	**Osh**	**3.27**	**273**	⇑*e*P		**Pn**	**08 11 34.7**	**-0.1**
OHH				⇑*e*S		**Sn**	**08 12 14.2**	**+0.4**
SHLS	**Shalkode**	**3.27**	**32**	Pg		**Pg**	**08 11 45.2**	**-0.9**
	42nm,0.6s								
SHLS				Lg		Lg	08 12 31.2		
	31nm,0.6s								
EKS2	**Erkin-Say**	**3.34**	**313**	P		**Pn**	**08 11 38.4**	**+2.6**
	SNR=13								
EKS2	**Erkin-Say**	**3.34**	**313**	⇑*i*P		**Pn**	**08 11 36.4**	**+0.6**
EKS2				⇑*i*S		**Sn**	**08 12 16.8**	**+1.3**
USP	**Ospenovka**	**3.43**	**327**	P		**Pn**	**08 11 39.8**	**+2.8**
	SNR=6.3								
USP	**Ospenovka**	**3.43**	**327**	⇑*i*P		**Pn**	**08 11 37.8**	**+0.8**
USP				⇑*i*S		**Sn**	**08 12 19.4**	**+1.6**
KRBS	**Karabastau**	**3.44**	**343**	Pg		**Pb**	**08 11 44.7**	**+0.3**
	14nm,0.4s								
KRBS				Lg		Lg	08 12 30.8		
	40nm,0.5s								
KRBS	**Karabastau**	**3.44**	**343**	*e*P		**Pb**	**08 11 44.7**	**+0.3**
	14nm,0.4s								
KRBS				*e*S		**Sg**	**08 12 30.8**	**-3.0**
	40nm,0.5s								
KUU	**Kurty**	**3.52**	**351**	Pg		**Pb**	**08 11 45.6**	**-0.1**
	4.4nm,0.1s								
KUU				Lg		Lg	08 12 32.2		
	29nm,0.3s								
KUU	**Kurty**	**3.52**	**351**	*e*P		**Pb**	**08 11 45.6**	**-0.1**
	4.4nm,0.1s								
KUU				*e*S		**Sb**	**08 12 32.2**	**+3.7**
	29nm,0.3s								
MRKS	**Merke**	**3.70**	**310**	Pg		**Pb**	**08 11 48.5**	**-0.5**
	2.4nm,0.3s								
MRKS				Lg		Lg	08 12 37.0		
	5.9nm,0.8s								
MRKS	**Merke**	**3.70**	**310**	*e*P		**Pb**	**08 11 48.5**	**-0.5**
	2.4nm,0.3s								
MRKS				*e*S		**Sb**	**08 12 37.0**	**+3.1**
	5.9nm,0.8s								
ARXS	**Arharly**	**3.84**	**8**	Pg		**Pb**	**08 11 50.6**	**-0.6**
	13nm,1.1s								
ARXS				Lg		Lg	08 12 41.2		
	26nm,0.7s								
ARXS	**Arharly**	**3.84**	**8**	*e*P		**Pb**	**08 11 50.6**	**-0.6**
	13nm,1.1s								
ARXS				*e*S		**Sb**	**08 12 41.2**	**+3.5**
	26nm,0.7s								
KTMS	**Ketmen**	**3.89**	**38**	Pg		**Pb**	**08 11 52.0**	**-0.2**
	5.1nm,0.5s								
KTMS				Lg		Lg	08 12 43.1		
	14nm,0.9s								
KTMS	**Ketmen**	**3.89**	**38**	*e*P		**Pb**	**08 11 52.0**	**-0.2**
	5.1nm,0.5s								
KTMS				*e*S		**Sb**	**08 12 43.1**	**+3.6**
	14nm,0.9s								
MNAS	**Manas**	**4.00**	**303**	⇑*i*P		**Pn**	**08 11 45.6**	**+0.6**
MNAS				⇑*i*S		**Sn**	**08 12 32.9**	**+0.9**
ARK	**Arkit**	**4.10**	**291**	⇓*i*P		**Pn**	**08 11 46.8**	**+0.6**
ARK				⇓*i*S		**Sn**	**08 12 34.9**	**+0.7**
KNOS	**Konyrlen**	**4.24**	**21**	Pg		**Pg**	**08 12 01.9**	**-2.7**
	16nm,1.1s								
KNOS				Lg		Lg	08 13 00.3		
	11nm,0.9s								
DJR	**Jarkent**	**4.40**	**26**	Pg		**Pb**	**08 12 00.8**	**0.0**
	8.6nm,0.8s								
DJR				Lg		Lg	08 12 58.5		
	7.3nm,0.6s								
DJR	**Jarkent**	**4.40**	**26**	*e*P		**Pb**	**08 12 00.8**	**0.0**
	8.6nm,0.8s								
DJR				*e*S		**Sb**	**08 12 58.5**	**+4.4**
	7.3nm,0.6s								
KK31	**Karatay Array**	**5.59**	**301**	Pg		**Pb**	**08 12 22.2**	**+1.1**
	2.6nm,0.6s,baz=124,slow=16,SNR=9.0								
KK31				⇓Lg		Lg	08 13 38.0		
	4.0nm,0.6s,baz=128,slow=28,SNR=6.2								

*ISN **28** 08:17:36.3±1.0,34˚.53N×45˚.06E,h0km±14km,ML3.4, Presumed earthquake*
*TEH **28** 08:17:39.1,34˚.54N×45˚.09E,h8km±3km,ML3.5, Presumed earthquake*

ISC 28 08:17:39.2±0.9,34˚.54N±0˚.04×45˚.06E±0˚.04,h10km,n11, σ1ˢ16/15,Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IKRK	**Kirkuk**	**1.04**	**326**	*e*Pg	**Pg**	**08 17 58.0**	**-1.3**
IKRK				*e*Sg	**Sb**	**08 18 14.0**	**+0.9**
IDHR	**Dehrash**	**1.11**	**81**	Pg	**Pg**	**08 17 59.7**	**-0.9**
IGHG	**Ghaleghazi**	**1.27**	**99**	Pg	**Pg**	**08 18 03.6**	**0.0**
IGHG				Sg	**Sn**	**08 18 21.3**	**+0.9**
ILBA	**Ilam Banvizeh**	**1.32**	**133**	Pg	**Pg**	**08 18 04.1**	**-0.5**
BHD	**Baghdad**	**1.39**	**204**	*e*Pn	**Pb**	**08 18 05.0**	**-0.2**
BHD				*e*Sn	**Sg**	**08 18 25.0**	**+1.2**
BHD	comp=E,726nm,0.4s			AML	AML	08 18 35.0	
IBDR	**Badra**	**1.60**	**153**	*e*Pn	**Pn**	**08 18 07.0**	**-0.6**
IBDR				*e*Sn	**Sg**	**08 18 31.0**	**+0.3**
KCHF	**Cheshme Sefid,**	**1.66**	**99**	Pg	**Pg**	**08 18 10.2**	**-1.0**
SNJK	**Sanadaj_Korde**	**1.89**	**61**	Pn	**Pb**	**08 18 13.8**	**-0.1**
SNQR	**Sonqor, Kerman**	**2.14**	**81**	Pn	**Pb**	**08 18 17.8**	**-0.6**
IKFM	**Kafar-mosalman**	**2.53**	**113**	Pn	**Pb**	**08 18 22.4**	**-2.3**
IKLH	**Kolahrood**	**5.56**	**101**	Pn	**Pn**	**08 19 04.2**	**+1.9**

*NEIC **28** 08:33:20.8±1.1,8˚.17S±0˚.08×159˚.3E±0˚.1,h10km±1km, mb4.5/20,Error ellipse: s-maj=19.6km s-min=9.2km az=57.0*
*IDC **28** 08:33:28.3±1.3,8˚.19S×159˚.08E,h70km±13km,mb4.0/17, mbtmp4.3/20,MS3.6/29,Error ellipse: s-maj=15.7km s-min=11.8km az=39.0*

ISC 28 08:33:23.9±0.5,8˚.21S±0˚.07×159˚.26E±0˚.08,h35km,n82, σ0ˢ76/56,mb4.3/23,MS3.6/26,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**1.39**	**151**	P	Pn	08 33 51.6	+4.7
	226nm,0.7s,baz=24,slow=1.9,SNR=6.1						
HNR				S	Sn	08 34 12.6	+8.5
	991nm,0.8s,baz=52,slow=14,SNR=11						
HNR				LR	LR	08 34 39.1	
	comp=Z,1μm,19.5s,baz=44,slow=47						
HNR	**Honiara**	**1.39**	**151**		**Pn**	**08 33 46.5**	**-0.4**
HNR				Sn	**Sn**	**08 34 05.3**	**+1.2**
RABL	**Rabaul**	**8.11**	**299**	Pn	**Pn**	**08 35 19.6**	**+0.4**
KRVT	**Keravat (AS076**	**8.17**	**298**	P	**Pn**	**08 35 21.1**	**+1.0**
	64nm,0.3s,baz=130,slow=14,SNR=1.0						
KRVT				LR	LR	08 38 54.9	
	comp=Z,652nm,19.3s,baz=44,slow=41						
PMG	**Port Moresby**	**12.02**	**263**	P	**Pn**	**08 36 13.6**	**+0.8**
	2.2nm,0.4s,baz=86,slow=10.0,SNR=7.0						
PMG				LR	LR	08 40 24.7	
	comp=Z,263nm,21.5s,baz=135,slow=35						
PMG	**Port Moresby**	**12.02**	**263**		**Pn**	**08 36 14.3**	**+1.4**
OUENC	**Ouen Island, N**	**15.90**	**154**		**P**	**08 37 07.1**	**-1.4**
OUENC				IAmb	IAmb	08 37 15.0	
	comp=Z,36nm,1.0s						
COEN	**Coen**	**16.78**	**249**	Pn	**Pn**	**08 37 16.2**	**-0.2**
CTA	**Charters Tower**	**17.26**	**225**	P	**P**	**08 37 23.8**	**+0.1**
	comp=Z,4.9nm,1.0s,baz=90,slow=11,SNR=1.4						
CTA				LR	LR	08 43 37.6	
	comp=Z,215nm,18.9s,baz=51,slow=36						
EIDS	**Eidsvold**	**18.76**	**204**	P	**Pn**	**08 37 40.5**	**-0.3**
JAY	**Jayapura**	**19.32**	**286**	P	**P**	**08 37 45.7**	**-0.6**
	comp=Z,15nm,0.5s,baz=121,slow=3.6,SNR=9.5						
MSVF	**Nonsavu**	**20.59**	**119**	LR	LR	08 45 00.5	
	comp=Z,162nm,21.5s,baz=275,slow=33						
GUMO	**Guam**	**25.95**	**326**	LR	LR	08 48 16.2	
	comp=Z,91nm,20.7s,baz=156,slow=34						
INKA	**Innaminka**	**26.15**	**220**		**P**	**08 38 55.2**	**+0.2**
WR8	**Warramunga Arr**	**26.66**	**241**		**P**	**08 38 59.6**	**-0.2**
WRA	**Warramunga Arr**	**26.80**	**242**	P	**P**	**08 39 00.8**	**-0.2**
	comp=Z,4.4nm,0.8s,baz=67,slow=9.0,SNR=24						
WRA				PcP	**PcP**	**08 42 23.8**	**+0.3**
	comp=Z,1.0nm,0.8s,baz=66,slow=2.8,SNR=5.8						
	comp=Z,4.4nm,0.8s						
WRA	**Warramunga Arr**	**26.80**	**242**	P	**P**	**08 38 59.4**	**-1.6**
H11S2	**WAKE ISLAND Hy**	**27.53**	**15**	T	T	09 07 33.4	
	baz=196,slow=76,SNR=115						
H11S3	**WAKE ISLAND Hy**	**27.53**	**15**	T	T	09 07 31.9	
	baz=196,slow=76,SNR=67						
H11S1	**WAKE ISLAND Hy**	**27.54**	**15**	T	T	09 07 32.7	
	baz=196,slow=76,SNR=64						
MTN	**Manton Dam**	**28.02**	**258**	P	**P**	**08 39 11.6**	**-0.4**
MTN				IAmb	IAmb	08 39 43.1	
	comp=Z,6.5nm,1.2s						
STKA	**Stephens Creek**	**28.72**	**213**	P	**P**	**08 39 18.0**	**-0.1**
	comp=Z,1.8nm,0.6s,baz=52,slow=13,SNR=3.9						
STKA				LR	LR	08 50 46.6	
	comp=Z,262nm,18.6s,baz=25,slow=36						
	comp=Z,1.8nm,0.6s						
AS31	**Alice Springs**	**28.74**	**235**	P	**P**	**08 39 17.4**	**-1.0**
ASAR	**Alice Springs**	**28.74**	**235**	P	**P**	**08 39 18.3**	**-0.1**
	comp=Z,1.3nm,0.6s,baz=58,slow=9.6,SNR=33						
ASAR				PcP	**PcP**	**08 42 28.2**	**0.0**
	comp=Z,0.5nm,0.5s,baz=71,slow=2.4,SNR=5.3						
ASAR				LR	LR	08 50 25.2	
	comp=Z,139nm,18.6s,baz=72,slow=36						
	comp=Z,1.3nm,0.6s						
H11N1	**WAKE ISLAND Hy**	**28.74**	**15**	T	T	09 09 05.0	
	baz=196,slow=76,SNR=77						
H11N3	**WAKE ISLAND Hy**	**28.75**	**15**	T	T	09 09 06.5	
	baz=196,slow=76,SNR=82						
H11N2	**WAKE ISLAND Hy**	**28.76**	**15**	T	T	09 09 03.4	
	baz=196,slow=76,SNR=80						
SIJI	**Sorong**	**28.82**	**283**	LR	LR	08 52 54.5	
	comp=Z,75nm,20.8s,baz=220,slow=41						
AFI	**Afiamalu**	**28.97**	**104**	LR	LR	08 49 22.9	
	comp=Z,72nm,18.3s,baz=284,slow=33						
KNRA	**Kununurra**	**30.72**	**253**	P	**P**	**08 39 35.2**	**-0.7**
KNRA				IAmb	IAmb	08 39 38.5	
	comp=Z,8.4nm,1.4s						
URZ	**Urewera**	**33.98**	**154**	LR	LR	08 52 48.9	
	comp=Z,53nm,19.0s,baz=305,slow=34						
FITZ	**Fitzroy Crossi**	**34.13**	**250**	LR	LR	08 53 33.9	
	comp=Z,166nm,20.6s,baz=62,slow=36						
BATI	**Baumata**	**35.19**	**264**	LR	LR	08 56 08.8	
	comp=Z,166nm,18.0s,baz=107,slow=39						
DAV	**Davao City (W)**	**36.85**	**293**	LR	LR	08 55 46.8	
	comp=Z,46nm,19.4s,baz=93,slow=36						
MORW	**Morawa**	**45.57**	**237**	P	**P**	**08 41 41.0**	**+0.2**
JMN	**Monobe**	**48.17**	**331**	P	**P**	**08 42 01.9**	**+0.9**
PPT	**Papeete**	**50.60**	**106**	LR	LR	09 02 58.0	
	comp=Z,13nm,18.1s,baz=259,slow=35						
PPT2	**Papeete2**	**50.60**	**106**	*e*LR	LR	08 56 41.7	
	comp=Z,104nm,42.2s						
PPT2				*e*LR	LR	08 56 42.7	
	comp=Z,56nm,24.8s						
LEM	**Lembang**	**51.19**	**268**	LR	LR	09 06 22.0	
	comp=Z,46nm,19.8s,baz=130,slow=39						
KSRS	**Korea Array**	**54.06**	**329**	P	**P**	**08 42 45.0**	**-0.1**
	comp=Z,1.5nm,0.8s,baz=151,slow=8.0,SNR=3.6						
KSRS				LR	LR	09 03 00.5	
	comp=Z,17nm,21.3s,baz=335,slow=33						
	comp=Z,1.5nm,0.8s						
USRK	**Ussuriysk Ar.**	**57.70**	**337**	P	**P**	**08 43 11.3**	**+0.3**
	comp=Z,5.8nm,0.8s,baz=150,slow=6.1,SNR=7.7						
	comp=Z,5.8nm,0.8s						
USRK	**Ussuriysk Ar.**	**57.70**	**337**	P	**P**	**08 43 11.0**	**0.0**
PETK	**Petropavlovsk-**	**61.09**	**359**	P	**P**	**08 43 35.1**	**+0.8**
	comp=Z,2.3nm,0.7s,baz=198,slow=7.0,SNR=2.0						
PETK				LR	LR	09 05 17.4	
	comp=Z,40nm,21.9s,baz=139,slow=31						
	comp=Z,2.3nm,0.7s						
CMAR	**Chiang Mai Arr**	**65.12**	**295**	P	**P**	**08 44 01.8**	**0.0**
	comp=Z,1.1nm,0.3s,baz=110,slow=4.8,SNR=6.5						
	comp=Z,1.1nm,0.3s						
CMAR	**Chiang Mai Arr**	**65.12**	**295**	P	**P**	**08 44 00.6**	**-1.2**
HIA	**Hailar**	**66.86**	**333**	P	**P**	**08 44 12.8**	**+0.4**
HIA				IAmb	IAmb	08 44 13.9	
	comp=Z,8.6nm,1.0s						
MA2	**Magadan**	**67.90**	**355**	LR	LR	09 09 40.6	
	comp=Z,25nm,21.9s,baz=136,slow=32						
LZDM	**Lanzhou Array**	**68.21**	**314**	P	**P**	**08 44 21.7**	**+0.1**
	comp=Z,1.1nm,0.3s,baz=83,slow=6.1,SNR=1.5						
	comp=Z,1.1nm,0.3s						
VNDA	**Vanda**	**69.30**	**179**	P	**P**	**08 44 27.9**	**+0.6**
	comp=Z,1.0nm,0.8s,baz=348,slow=6.8,SNR=4.6						
VNDA				LR	LR	09 10 31.8	
	comp=Z,49nm,18.5s,baz=356,slow=32						
	comp=Z,1.0nm,0.8s						
VNDA	**Vanda**	**69.30**	**179**	P	**P**	**08 44 27.8**	**+0.6**
VNDA				IAmb	IAmb	08 44 58.1	
	comp=Z,4.1nm,1.4s						
SBA	**Scott Base**	**69.73**	**178**	P	**P**	**08 44 31.6**	**+1.8**
SONM	**Songino Array**	**72.67**	**326**	P	**P**	**08 44 48.6**	**+0.3**
	comp=Z,2.9nm,0.8s,baz=148,slow=6.6,SNR=15						
	comp=Z,2.9nm,0.8s						
SONM	**Songino Array**	**72.67**	**326**	P	**P**	**08 44 49.0**	**+0.6**
SONM				IAmb	IAmb	08 44 50.1	
	comp=Z,3.9nm,0.9s						
YAK	**Yakutsk**	**73.69**	**346**	LR	LR	09 20 31.5	
	comp=Z,15nm,18.0s,baz=298,slow=38						
KDAK	**Kodiak Island**	**76.47**	**24**	LR	LR	09 11 01.4	
	comp=Z,78nm,21.5s,baz=218,slow=29						
EVN	**Everest**	**78.58**	**301**	P	**P**	**08 45 23.6**	**+0.4**
EVN				IAmb	IAmb	08 45 24.7	
	comp=Z,4.8nm,0.6s						
J18K	**Innoko River**	**78.87**	**19**	P	**P**	**08 45 23.7**	**+0.4**
J18K				IAmb	IAmb	08 45 41.7	
	comp=Z,9.7nm,1.5s						
P23K	**Montague Islan**	**79.95**	**24**	P	**P**	**08 45 28.2**	**-1.0**
F19K	**Shaleruckik Mo**	**81.00**	**16**	P	**P**	**08 45 35.3**	**+0.6**
F19K				IAmb	IAmb	08 45 36.7	
	comp=Z,9.8nm,1.4s						
IMAR	**Indian Mountai**	**81.55**	**18**	P	**P**	**08 45 37.6**	**0.0**
QSPA	**South Pole Qui**	**81.78**	**180**	P	**P**	**08 45 39.2**	**+0.1**
	comp=Z,1.8nm,0.8s,baz=348,slow=0.8,SNR=10						
	comp=Z,1.8nm,0.8s						
QSPA	**South Pole Qui**	**81.78**	**180**	P	**P**	**08 45 40.0**	**+0.9**
QSPA				IAmb	IAmb	08 45 45.0	
	comp=Z,3.8nm,1.1s						
TIXI	**Tiksi**	**82.19**	**351**	LR	LR	09 25 37.1	
	comp=Z,31nm,18.2s,baz=15,slow=38						
ILAR	**Eielson Array**	**82.99**	**20**	P	**P**	**08 45 44.9**	**-0.3**
	comp=Z,1.1nm,0.9s,baz=278,slow=4.3,SNR=6.4						
	comp=Z,1.1nm,0.9s						
BBB	**Bella Bella**	**85.97**	**36**	LR	LR	09 16 11.1	
	comp=Z,43nm,19.9s,baz=169,slow=30						
YBH	**Yreka Blue Hor**	**86.58**	**47**	LR	LR	09 15 47.6	
	comp=Z,36nm,21.6s,baz=356,slow=29						
DLBC	**Dease Lake**	**87.06**	**30**	LR	LR	09 17 45.0	
	comp=Z,78nm,20.6s,baz=268,slow=30						
MKAR	**Makanchi Array**	**87.12**	**318**	P	**P**	**08 46 06.1**	**-0.3**
	comp=Z,2.5nm,0.8s,baz=95,slow=6.5,SNR=8.3						
	comp=Z,2.5nm,0.8s						
NVAR	**Mina Array Bea**	**89.17**	**51**	P	**P**	**08 46 17.5**	**+1.0**
	comp=Z,0.9nm,0.7s,baz=241,slow=8.2,SNR=7.5						
	comp=Z,0.9nm,0.7s						
PFO	**Pinyon Flats O**	**89.76**	**56**	LR	LR	09 17 53.0	
	comp=Z,78nm,21.9s,baz=292,slow=30						
NEW	**Newport**	**91.83**	**42**	LR	LR	09 27 52.2	
	comp=Z,45nm,18.1s,baz=298,slow=36						
LPIG	**La Paz**	**93.69**	**66**	LR	LR	09 25 03.9	
	comp=Z,38nm,18.4s,baz=30,slow=33						
YKA	**Yellowknife Ar**	**95.43**	**28**	P	**P**	**08 46 45.2**	**+0.6**
	comp=Z,2.3nm,0.8s,baz=259,slow=4.3,SNR=12						
	comp=Z,2.3nm,0.8s						
YKA	**Yellowknife Ar**	**95.43**	**28**	P	**P**	**08 46 44.5**	**-0.1**
BVAR	**Borovoye Array**	**95.81**	**323**	P	**P**	**08 46 45.8**	**-0.8**
	comp=Z,1.7nm,0.8s,baz=81,slow=8.9,SNR=2.7						
	comp=Z,1.7nm,0.8s						
PDAR	**Pinedale Array**	**96.37**	**48**	P	**P**	**08 46 50.2**	**+0.5**
	comp=Z,0.3nm,0.7s,baz=234,slow=5.1,SNR=4.0						
	comp=Z,0.3nm,0.7s						
ANMO	**Albuquerque**	**98.14**	**56**	LR	LR	09 23 09.7	
	comp=Z,54nm,21.6s,baz=293,slow=30						
AKASG	**Malin Array Be**	**120.96**	**325**	PKP	**PKPdf**	**08 52 11.3**	**-1.4**
	comp=Z,0.4nm,0.4s,baz=80,slow=1.3,SNR=1.6						
LPAZ	**La Paz**	**127.16**	**118**	PKP	**PKPdf**	**08 52 25.6**	**-0.8**
	comp=Z,1.3nm,0.9s,baz=276,slow=1.4,SNR=3.8						
GERES	**GERESS Array B**	**130.22**	**331**	PKP	**PKiKP**	**08 52 31.0**	**-0.5**
	comp=Z,0.5nm,1.0s,baz=90,slow=1.0,SNR=3.9						
BDFB	**Brasilia**	**144.06**	**131**	PKP	**PKPdf**	**08 52 55.6**	**-1.5**
	comp=Z,3.4nm,0.8s,baz=270,slow=1.0,SNR=4.2						
ESDC	**Sonseca Array**	**145.25**	**337**	PKPbc	**PKPbc**	**08 52 57.2**	**-0.9**
	comp=Z,1.5nm,1.0s,baz=4.0,slow=3.7,SNR=6.8						

IDC 28 08:34:56.1±3.7,17˚.97S×178˚.31E,h515km±27km,mb3.4/3, mbtmp4.4/3,Error ellipse: s-maj=151.3km s-min=33.5km az=130.0,Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**0.34**	**314**	P	P	08 35 58.1	+0.1
	10nm,0.7s,baz=132,slow=9.1,SNR=5.5						
STKA	**Stephens Creek**	**35.88**	**240**	P	P	08 41 12.2	-0.2
	1.9nm,0.5s,baz=75,slow=8.6,SNR=3.6						
	1.9nm,0.5s						
WRA	**Warramunga Arr**	**41.55**	**260**	P	P	08 41 58.3	-0.3
	0.7nm,0.3s,baz=95,slow=7.5,SNR=40						
	0.7nm,0.3s						
ASAR	**Alice Springs**	**41.77**	**254**	P	P	08 42 00.2	0.0
	9.8nm,0.6s,baz=87,slow=8.7,SNR=111						
	9.8nm,0.6s						

*UPA **28** 08:40:39.3±1.1,8˚.81N×82˚.48W,h7km±1km,MW2.4, Presumed earthquake*
*CATAC **28** 08:40:42.9±0.5,9˚.N±.5˚×8˚.3W±˚,h4km±2km,M2.6/6, MLv2.6/6,Error ellipse: s-maj=11.0km s-min=6.1km az=21.3,confirmed*

ISC 28 08:40:38.6±0.9,8˚.84N±0˚.03×82˚.43W±0˚.03,h12km±6km, n20,σ0ˢ70/35,2C-2D,Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BQTLY	**Boquete Panama**	**0.08**	**199**	⇑*i*P	**Pg**	**08 40 41.4**	**0.0**
BQSF3	**Alto Boquete,**	**0.10**	**180**	*e*P	**Pg**	**08 40 41.9**	**+0.3**
BQSF3				*e*S	**Sg**	**08 40 44.2**	**+0.5**
PTAR3	**Potrerillos Ar**	**0.16**	**204**	*e*P	**Pg**	**08 40 42.7**	**+0.3**
PTAR3				*e*S	**Sg**	**08 40 44.5**	**-0.6**
CLLRA	**Cordillera,**	**0.20**	**243**	*i* P	**Pg**	**08 40 43.3**	**+0.1**
CLLRA				*e*S	**Sg**	**08 40 46.0**	**-0.3**
BRU2	**Volcan**	**0.26**	**260**	P	**Pg**	**08 40 44.3**	**+0.1**
BRU2				S	**Sg**	**08 40 47.7**	**-0.1**
BRU2	**Volcan**	**0.26**	**260**	⇓*i*P	**Pg**	**08 40 44.3**	**+0.1**
BRU2				*e*S	**Sg**	**08 40 47.7**	**-0.1**
RBALA	**Bur**	**0.28**	**82**	⇓*i*P	**Pb**	**08 40 46.1**	**+0.5**
RBALA				*e*S	**Sb**	**08 40 50.8**	**+0.6**
CHGR2	**Aguacate**	**0.30**	**71**	*e*P	**Pn**	**08 40 48.6**	**-0.3**
CHGR2				*e*S	**Sb**	**08 40 51.2**	**+0.3**
BGUAL	**Bijagual, Pana**	**0.34**	**163**	⇑*i*P	**Pb**	**08 40 46.9**	**+0.3**
BGUAL				*e*S	**Sb**	**08 40 51.5**	**-0.5**
SCLRA	**Santa Clara, W**	**0.34**	**269**	*e*P	**Pg**	**08 40 46.2**	**+0.6**
SCLRA				*e*S	**Sg**	**08 40 50.6**	**+0.2**
DVD	**David**	**0.40**	**183**	*e*P	**Pb**	**08 40 47.6**	**0.0**
DVD				*e*S	**Sb**	**08 40 53.7**	**0.0**
LOMA3	**Las Lomas, Chi**	**0.41**	**174**	*e*P	**Pb**	**08 40 47.6**	**-0.1**
LOMA3				*e*S	**Sb**	**08 40 53.7**	**-0.1**
CDITO	**Canoas**	**0.51**	**239**	P	**Pb**	**08 40 49.5**	**0.0**
CDITO	**Canoas**	**0.51**	**239**	*e*P	**Pb**	**08 40 49.5**	**

SPSI				AML	AML			
TWSI	**Taliwang, Sumb**	**3.73**	**248**	P	**P**	**08 47 56.1**	**+1.0**	
TWSI				AML	AML			
TWSI				AML	AML			
TWSI	**Taliwang, Sumb**	**3.73**	**248**	P	**P**	**08 47 56.4**	**+1.3**	
TWSI				AML	AML			
BATI	**Baumata**	**4.33**	**132**	P	**P**	**08 48 00.8**	**+1.1**	
	187nm,0.3s,baz=313,slow=3.7,SNR=12							
BATI				S	**S**	**08 49 06.6**	**-1.1**	
	166nm,0.5s,baz=182,slow=0.6,SNR=7.6							
BATI	**Baumata**	**4.33**	**132**	P	**P**	**08 48 00.7**	**+1.0**	
BATI				S	**S**	**08 49 06.6**	**-1.1**	
BATI				AML	AML			
SOEI	**Soe**	**4.55**	**122**	P	**P**	**08 48 02.3**	**+0.7**	
SOEI				S	**S**	**08 49 11.0**	**0.0**	
MMSI	**Mamuju**	**4.83**	**342**	P	**P**	**08 48 05.9**	**+2.0**	
IGBI	**Denpasar**	**5.38**	**254**	P	**P**	**08 48 09.6**	**+1.0**	
	0.7nm63nm,0.7s							
IGBI				S	**S**	**08 49 20.2**	**-3.7**	
	0.7nm63nm,0.7s							
IGBI				AML	AML			
JAGI	**Jajag, Banyuwa**	**6.26**	**259**	P	**P**	**08 48 17.7**	**+1.0**	
JAGI	**Jajag, Banyuwa**	**6.26**	**259**	S	**S**	**08 49 37.3**	**-1.5**	
GTOI	**Gorontalo**	**8.34**	**19**	P	**S**	**08 50 17.8**	**+1.8**	
TOLI2	**Tolitoli**	**9.39**	**3**	P	**P**	**08 48 37.9**	**+0.2**	
FITZ	**Fitzroy Crossi**	**11.88**	**155**	P	**P**	**08 49 14.8**	**+1.3**	
	13nm,0.6s,baz=341,slow=6.6,SNR=42							
FITZ				S	**S**	**08 51 21.7**	**-1.3**	
	3.4nm,0.8s,baz=348,slow=18,SNR=2.3							
FITZ	**Fitzroy Crossi**	**11.88**	**155**	P	**P**	**08 49 13.9**	**+0.3**	
KKM	**Kota Kinabalu**	**13.91**	**343**	P	**P**	**08 49 34.6**	**-0.4**	
WRA	**Warramunga Arr**	**18.46**	**134**	P	**P**	**08 50 20.2**	**+0.9**	
	1.0nm,0.4s,baz=313,slow=11,SNR=28							
WRA				S	**S**	**08 53 19.8**	**-1.1**	
	1.9nm,0.9s,baz=302,slow=16,SNR=5.5							
WRAB	**Tennant Creek**	**18.46**	**134**	P	**P**	**08 50 20.3**	**+0.9**	
MEEK	**Meekatharra**	**19.28**	**185**	P	**P**	**08 50 27.6**	**+0.8**	
ASAR	**Alice Springs**	**20.80**	**143**	P	**P**	**08 50 41.5**	**+0.9**	
	1.1nm,0.4s,baz=321,slow=8.3,SNR=46							
ASAR				S	**S**	**08 53 56.2**	**-2.3**	
	0.5nm,0.6s,baz=313,slow=13,SNR=2.2							
ASAR				PcP	**PcP**	**08 54 26.3**	**0.0**	
	0.8nm,0.5s,baz=326,slow=1.7,SNR=8.8							
ASAR				ScP	**ScP**	**08 57 12.1**	**-0.6**	
	0.7nm,0.5s,baz=339,slow=1.9,SNR=8.8							
	1.1nm,0.4s							
AS01	**Alice Springs**	**20.83**	**143**	P	**P**	**08 50 41.3**	**+0.4**	
BLDU	**Ballidu**	**23.42**	**188**	P	**P**	**08 51 04.6**	**+0.6**	
KLBR	**Kellerberrin**	**24.27**	**185**	P	**P**	**08 51 12.2**	**+0.7**	
BBOO	**Buckleboo**	**29.25**	**152**	P	**P**	**08 51 55.8**	**+0.5**	
STKA	**Stephens Creek**	**31.43**	**144**	P	**P**	**08 52 15.5**	**+1.4**	
	2.9nm,0.4s,baz=328,slow=7.4,SNR=10.0							
	2.9nm,0.4s							
CMAR	**Chiang Mai Arr**	**33.22**	**321**	P	**P**	**08 52 29.9**	**+0.5**	
	1.1nm,0.3s,baz=148,slow=6.6,SNR=4.1							
	1.1nm,0.3s							
KSRS	**Korea Array**	**45.10**	**8**	P	**P**	**08 54 04.0**	**-0.9**	
	2.0nm,0.8s,baz=192,slow=9.2,SNR=5.7							
	2.0nm,0.8s							
MJAR	**Matsushiro Arr**	**46.74**	**20**	P	**P**	**08 54 15.8**	**-1.7**	
	2.3nm,0.7s,baz=196,slow=8.3,SNR=4.3							
	2.3nm,0.7s							
USRK	**Ussuriysk Ar.**	**52.35**	**11**	P	**P**	**08 54 57.7**	**-0.9**	
	2.6nm,0.5s,baz=191,slow=7.0,SNR=7.9							
	2.6nm,0.5s							
SONM	**Songino Array**	**56.29**	**349**	P	**P**	**08 55 26.2**	**-0.3**	
	1.9nm,0.5s,baz=165,slow=9.4,SNR=13							
	1.9nm,0.5s							
HILR	**Hailar Array B**	**56.65**	**360**	P	**P**	**08 55 27.6**	**-1.1**	
	2.0nm,0.4s,baz=189,slow=8.2,SNR=2.3							
	2.0nm,0.4s							
MKAR	**Makanchi Array**	**63.61**	**332**	P	**P**	**08 56 15.1**	**+0.1**	
	5.0nm,0.5s,baz=142,slow=7.4,SNR=39							
	5.0nm,0.5s							
ZALV	**Zalesovo Beam**	**67.98**	**338**	P	**P**	**08 56 40.9**	**-1.1**	
	3.4nm,0.5s,baz=145,slow=5.3,SNR=14							
	3.4nm,0.5s							
PETK	**Petropavlovsk-**	**68.01**	**23**	P	**P**	**08 56 41.9**	**-0.4**	
	1.2nm,0.7s,baz=255,slow=3.3,SNR=1.4							
	1.2nm,0.7s							
VNDA	**Vanda**	**73.42**	**171**	P	**P**	**08 57 15.1**	**+1.2**	
	1.4nm,0.4s,baz=317,slow=6.2,SNR=16							
	1.4nm,0.4s							
BVAR	**Borovoye Array**	**73.48**	**331**	P	**P**	**08 57 14.5**	**0.0**	
	0.6nm,0.4s,baz=123,slow=5.3,SNR=2.7							
	0.6nm,0.4s							
QSPA	**South Pole Qui**	**82.66**	**180**	P	**P**	**08 58 04.3**	**+0.5**	
	1.4nm,0.5s,baz=341,slow=0.7,SNR=29							
	1.4nm,0.5s							
CPUP	**Villa Florida**	**146.47**	**184**	PKPbc	**PKPbc**	**09 05 18.2**	**-0.4**	
	1.0nm,0.4s,baz=180,slow=5.1,SNR=4.2							
LPAZ	**La Paz**	**155.07**	**160**	PKPab	**PKPab**	**09 05 58.7**	**+0.9**	
	1.4nm,0.8s,baz=211,slow=5.9,SNR=4.8							

*IDC **28** 08:47:16.2±0.8, 13°.21N×143°.91E, h139km±8km, mb3.6/16, mbtmp4.0/16, MS3.5/2, Error ellipse: s-maj=21.6km s-min=13.1km az=86.0*
*NEIC **28** 08:47:16.9±2.3, 13°.2N±0°.1×143°.9E±0°.1, h141km±9km, mb4.1/11, Error ellipse: s-maj=20.4km s-min=16.1km az=126.0*

ISC 28 08:47:16.1±0.6, 13°.20N±0°.09×143°.88E±0°.09, h138km, n44, σ1§00/42, mb4.1/21, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.03**	**68**	P		**Pn**	**Pn**	**08 47 40.8**	**+0.8**
	423nm,0.3s,baz=63,slow=4.8,SNR=105								
GUMO				S		**Sn**	**Sn**	**08 47 58.5**	**+0.3**
	963nm,0.3s,baz=177,slow=24,SNR=46								
GUMO	**Guam**	**1.03**	**68**			**Pn**	**Pn**	**08 47 40.5**	**+0.5**
DPSS	**Saipan**	**2.74**	**42**	Pn		**Pn**	**Pn**	**08 47 59.3**	**-0.4**
PATS	**Pohnpei**	**15.55**	**113**			**Pn**	**Pn**	**08 50 47.7**	**-0.3**
JMN	**Monobe**	**22.37**	**338**	P		**P**	**P**	**08 52 03.4**	**+0.4**
JMN						IAmb	IAmb	08 52 46.7	
	comp=Z,18nm,1.1s								
H11S3	**WAKE ISLAND Hy**	**22.55**	**74**	T		T	T	09 15 55.5	
	baz=258								
H11S1	**WAKE ISLAND Hy**	**22.57**	**74**	T		T	T	09 15 58.0	
	baz=258								
H11S2	**WAKE ISLAND Hy**	**22.57**	**74**	T		T	T	09 15 57.2	
	baz=258								
JNU	**Nakatsue**	**23.11**	**331**	LR		LR		08 59 25.0	
	comp=Z,33nm,19.6s,baz=20,slow=32								
MJAR	**Matsushiro Arr**	**23.79**	**349**	P		**P**	**P**	**08 52 15.6**	**-0.5**
	comp=Z,0.9nm,0.4s,baz=168,slow=10,SNR=5.5								
	comp=Z,0.9nm,0.4s								
MJAR	**Matsushiro Arr**	**23.79**	**349**	P		**P**	**P**	**08 52 15.2**	**-1.0**
MJAR						IAmb	IAmb	08 52 56.8	
	comp=Z,3.6nm,1.2s								
KSRS	**Korea Array**	**28.04**	**332**	P		**P**	**P**	**08 52 54.7**	**+0.4**
	comp=Z,2.0nm,0.8s,baz=140,slow=8.6,SNR=5.5								
	comp=Z,2.0nm,0.8s								
USRK	**Ussuriysk Ar.**	**32.53**	**344**	P		**P**	**P**	**08 53 35.1**	**+1.3**
	comp=Z,1.1nm,0.5s,baz=163,slow=9.8,SNR=2.4								
	comp=Z,1.1nm,0.5s								
USRK	**Ussuriysk Ar.**	**32.53**	**344**	P		**P**	**P**	**08 53 33.5**	**-0.3**
WRAB	**Tennant Creek**	**34.24**	**196**	P		**P**	**P**	**08 53 48.0**	**-0.9**
WRAB						IAmb	IAmb	08 54 06.6	
	comp=Z,4.2nm,1.1s								
WRA	**Warramunga Arr**	**34.25**	**196**	P		**P**	**P**	**08 53 48.2**	**-0.8**
	comp=Z,0.9nm,0.8s,baz=16,slow=9.4,SNR=2.0								
	comp=Z,0.9nm,0.8s								
WRA	**Warramunga Arr**	**34.25**	**196**	P		**P**	**P**	**08 53 46.4**	**-2.6**
AS31	**Alice Springs**	**37.92**	**195**	P		**P**	**P**	**08 54 19.2**	**-1.0**
ASAR	**Alice Springs**	**37.92**	**195**	P		**P**	**P**	**08 54 18.7**	**-1.5**
	comp=Z,0.3nm,0.5s,baz=21,slow=11,SNR=4.1								
ASAR				S		**S**	**S**	**09 00 04.0**	**+2.2**
	comp=Z,0.5nm,0.9s,baz=5.7,slow=14,SNR=4.4								
	comp=Z,0.3nm,0.5s								
HILR	**Hailar Array B**	**41.32**	**336**	P		**P**	**P**	**08 54 47.7**	**-0.4**
	comp=Z,2.8nm,0.6s,baz=179,slow=8.1,SNR=1.9								
	comp=Z,2.8nm,0.6s								
LZDM	**Lanzhou Array**	**42.58**	**309**	P		**P**	**P**	**08 55 00.1**	**+1.2**
	comp=Z,1.8nm,0.3s,baz=108,slow=4.7,SNR=1.8								
	comp=Z,1.8nm,0.3s								
KULM	**Kulim**	**43.33**	**264**	P		**P**	**P**	**08 55 05.0**	**+0.2**
CMAR	**Chiang Mai Arr**	**43.47**	**283**	P		**P**	**P**	**08 55 06.2**	**+0.4**
SONM	**Songino Array**	**46.50**	**326**	PcP		**PcP**	**PcP**	**08 56 60.0**	**-1.8**
	comp=Z,0.2nm,0.4s,baz=108,slow=4.7,SNR=1.8								
MKAR	**Makanchi Array**	**61.10**	**316**	P		**P**	**P**	**08 57 16.2**	**+0.6**
	comp=Z,0.4nm,0.4s,baz=92,slow=9.9,SNR=5.9								
	comp=Z,0.4nm,0.4s								
MKAR	**Makanchi Array**	**61.10**	**316**	P		**P**	**P**	**08 57 16.0**	**+0.4**
ZALV	**Zalesovo Beam**	**61.38**	**325**	P		**P**	**P**	**08 57 17.6**	**+0.3**
	comp=Z,0.5nm,0.6s,baz=90,slow=5.8,SNR=1.4								
ZALV				PcP		**PcP**	**PcP**	**08 57 57.8**	**-0.4**
	comp=Z,0.7nm,0.5s,baz=79,slow=5.6,SNR=2.2								
	comp=Z,0.5nm,0.6s								
KURBB	**Kurchatov Arra**	**64.30**	**320**	P		**P**	**P**	**08 57 36.5**	**-0.2**
	comp=Z,1.0nm,0.3s,baz=100,slow=6.9,SNR=5.9								
	comp=Z,1.0nm,0.3s								
F17K	**Baldwin Pennin**	**64.34**	**21**	P		**P**	**P**	**08 57 37.5**	**+0.9**
G19K	**Purcell Mounta**	**65.72**	**22**	P		**P**	**P**	**08 57 46.3**	**+0.7**
G19K						IAmb	IAmb	08 58 10.8	
	comp=Z,2.3nm,1.1s								
M20K	**Styx River**	**65.83**	**28**	P		**P**	**P**	**08 57 47.9**	**+1.3**
M20K						IAmb	IAmb	08 58 20.9	
	comp=Z,3.0nm,1.0s								
J20K	**Nowinta River**	**66.14**	**25**	P		**P**	**P**	**08 57 49.5**	**+1.2**
ILAR	**Eielson Array**	**69.33**	**25**	P		**P**	**P**	**08 58 07.0**	**-1.2**
	comp=Z,0.4nm,0.6s,baz=261,slow=5.7,SNR=7.0								
	comp=Z,0.4nm,0.6s								
BVAR	**Borovoye Array**	**69.63**	**322**	P		**P**	**P**	**08 58 10.3**	**-0.1**
	comp=Z,1.4nm,0.3s,baz=93,slow=7.4,SNR=5.7								
	comp=Z,1.4nm,0.3s								
YKA	**Yellowknife Ar**	**83.64**	**27**	P		**P**	**P**	**08 59 29.2**	**+0.4**
	comp=Z,1.1nm,0.4s,baz=287,slow=5.1,SNR=23								
	comp=Z,1.1nm,0.4s								
YKA	**Yellowknife Ar**	**83.64**	**27**	P		**P**	**P**	**08 59 28.4**	**-0.5**
NVAR	**Mina Array Bea**	**87.91**	**51**	P		**P**	**P**	**08 59 51.8**	**+1.0**
	comp=Z,2.7nm,0.7s,baz=263,slow=5.7,SNR=24								
	comp=Z,2.7nm,0.7s								
NVAR	**Mina Array Bea**	**87.91**	**51**	P		**P**	**P**	**08 59 51.5**	**+0.8**
KBZ	**Khabaz**	**88.75**	**315**	LR		LR	LR	09 43 51.1	
	comp=Z,68nm,18.1s,baz=324,slow=38								
FINES	**FINESS Array B**	**91.10**	**335**	P		**P**	**P**	**09 00 03.5**	**-1.4**
	comp=Z,2.0nm,0.8s,baz=68,slow=5.9,SNR=8.7								
	comp=Z,2.0nm,0.8s								
FINES	**FINESS Array B**	**91.10**	**335**	P		**P**	**P**	**09 00 03.8**	**-1.1**
YMR	**Madison River**	**91.30**	**44**			**P**	**P**	**09 00 07.4**	**+1.0**
YMR						IAmb	IAmb	09 00 08.9	
	comp=Z,1.3nm,0.6s								
PDAR	**Pinedale Array**	**92.92**	**45**	P		**P**	**P**	**09 00 13.8**	**-0.2**
	comp=Z,0.3nm,0.5s,baz=247,slow=2.5,SNR=4.5								
	comp=Z,0.3nm,0.5s								
PDAR	**Pinedale Array**	**92.92**	**45**	P		**P**	**P**	**09 00 13.5**	**-0.5**

*JMA **28** 08:58:20.9±0.1, 40°.3N±0°.3×141°.4E±0°.5, h87km, MV3.1/38, NORTHERN IWATE PREF*
*IDC **28** 08:58:22.4±9.3, 40°.19N×141°.45E, h115km±68km, mb3.2/3, mbtmp3.5/4, Error ellipse: s-maj=88.3km s-min=30.4km az=71.0*

ISC 28 08:58:20.2±1.1, 40°.26N±0°.04×141°.47E±0°.08, h90km±7km, n23, σ0§73/28, mb3.3/3, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
JANG	**Nango**	**0.12**	**16**	*i* P		**Pn**	**Pn**	**08 58 33.3**	**+0.2**
JANG						S	**Sn**	**08 58 42.8**	**+0.2**
JKEN	**Kujiedanarisaw**	**0.19**	**106**	*i* P		**Pn**	**Pn**	**08 58 33.9**	**+0.7**
JKEN						S	**Sn**	**08 58 43.5**	**+0.7**
JKZ	**Kuzumaki**	**0.30**	**202**	*i* P		**Pn**	**Pn**	**08 58 34.1**	**+0.4**
JKZ						S	**Sn**	**08 58 43.6**	**-0.1**
JTM	**Tenmabayashi**	**0.61**	**330**	*i* P		**Pn**	**Pn**	**08 58 36.2**	**+0.2**
JTM						S	**Sn**	**08 58 46.9**	**-0.8**
JAH	**Hinai**	**0.65**	**264**	*i* P		**Pn**	**Pn**	**08 58 36.1**	**-0.1**
JAH						*e*S	**Sn**	**08 58 47.5**	**-0.6**
JOM	**Ohasama**	**0.80**	**190**	*i* P		**Pn**	**Pn**	**08 58 38.0**	**+0.3**
JOM						*e*S	**Sn**	**08 58 51.0**	**+0.2**
JRG	**Rokugo**	**1.08**	**217**	*i* P		**Pn**	**Pn**	**08 58 41.3**	**+0.4**
JRG						S	**Sn**	**08 58 57.0**	**+0.7**
JOT	**Ohata**	**1.17**	**344**	*i* P		**Pn**	**Pn**	**08 58 42.6**	**+0.8**
JOT						S	**Sn**	**08 58 59.1**	**+0.9**
JIW	**Iwasaki**	**1.17**	**287**	P		**Pn**	**Pn**	**08 58 42.0**	**+0.1**
JMK	**Ichinoseki**	**1.32**	**189**	*i* P		**Pn**	**Pn**	**08 58 44.0**	**+0.3**
JSR	**Shiriuchi**	**1.50**	**328**	*i* P		**Pn**	**Pn**	**08 58 46.5**	**+0.6**
JSR						S	**Sn**	**08 59 06.3**	**+0.9**
JYK	**Kaneyama**	**1.59**	**213**	*i* P		**Pn**	**Pn**	**08 58 47.4**	**+0.2**
JYK						*e*S	**Sn**	**08 59 07.5**	**0.0**
JOMM	**Oshimamatsumae**	**1.68**	**319**	*e*P		**Pn**	**Pn**	**08 58 48.8**	**+0.5**
MJAR	**Matsushiro Arr**	**4.51**	**216**	P		**Pn**	**Pn**	**08 59 27.3**	**+1.0**
	2.8nm,0.8s,baz=32,slow=13,SNR=2.8								
MJAR				S			**Sn**	**09 00 19.4**	**+1.9**
	0.8nm,0.5s,baz=37,slow=9.5,SNR=1.4								
H11N2	**WAKE ISLAND Hy**	**29.88**	**126**	T		T	T	09 35 11.1	
	baz=318,slow=75,SNR=8.9								
H11N1	**WAKE ISLAND Hy**	**29.89**	**126**	T		T	T	09 35 13.9	
	baz=318,slow=75,SNR=10.0								
H11N3	**WAKE ISLAND Hy**	**29.89**	**126**	T		T	T	09 35 11.8	
	baz=318,slow=75,SNR=8.0								
H11S1	**WAKE ISLAND Hy**	**30.68**	**128**	T		T	T	09 36 14.9	
	baz=318								
H11S3	**WAKE ISLAND Hy**	**30.68**	**128**	T		T	T	09 36 17.5	
	baz=319								
H11S2	**WAKE ISLAND Hy**	**30.70**	**128**	T		T	T	09 36 16.0	
	baz=318								
KURBB	**Kurchatov Arra**	**44.11**	**305**	P		**P**	**P**	**09 06 19.2**	**-0.1**
	0.7nm,0.3s,baz=79,slow=8.6,SNR=1.4								
	0.7nm,0.3s								
WRA	**Warramunga Arr**	**60.26**	**188**	P		**P**	**P**	**09 08 17.9**	**-1.1**
	0.1nm,0.5s,baz=1.5,slow=7.0,SNR=4.8								
	0.1nm,0.5s								
ASAR	**Alice Springs**	**63.98**	**188**	P		**P**	**P**	**09 08 43.0**	**-0.9**
	0.3nm,0.7s,baz=0.6,slow=6.7,SNR=4.9								
	0.3nm,0.7s								

IDC 28 09:31:06.6±24.0, 19°.84S×178°.73W, h630km±231km, mb2.8/3, mbtmp3.8/3, Error ellipse: s-maj=310.9km s-min=51.9km az=132.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**44.01**	**256**	P		P	P	09 38 20.9	+0.2
	1.3nm,0.6s,baz=93,slow=7.6,SNR=19								
ASAR				PcP		PcP	PcP	09 39 51.6	-0.3
	0.3nm,0.5s,baz=110,slow=3.5,SNR=4.6								
	1.3nm,0.6s								
WRA	**Warramunga Arr**	**44.02**	**262**	P		P	P	09 38 20.6	-0.2
	0.8nm,0.4s,baz=98,slow=8.2,SNR=14								
	0.8nm,0.4s								
ILAR	**Eielson Array**	**87.82**	**13**	P		P	P	09 42 50.0	0.0
	0.1nm,0.3s,baz=216,slow=6.0,SNR=4.0								
	0.1nm,0.3s								

*NEIC **28** 09:48:23.9±1.0, 15°.5S±0°.1×172°.7W±0°.2, h10km±2km, mb4.1/15, Error ellipse: s-maj=28.0km s-min=11.6km az=59.0*
*IDC **28** 09:48:29.8±2.0, 15°.54S×173°.04W, h40km±18km, mb3.8/11, mbtmp4.2/14, ML4.1/2, MS3.6/12, Error ellipse: s-maj=21.5km s-min=11.8km az=134.0*
*NOU **28** 09:49:04.2, 18°.28S×174°.86W, h50km, mb4.7/9, Tonga Islands*

ISC 28 09:48:28.1±0.5, 15°.65S±0°.06×172°.69W±0°.07, h35km, n59, σ1§87/44, mb4.1/16, MS3.9/9, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**1.94**	**27**	Pn		**Pn**	**Pn**	**09 48 58.2**	**-0.6**
	423nm,0.3s,baz=206,slow=3.1,SNR=725								
AFI				Sn		**Sn**	**Sn**	**09 49 18.3**	**-3.7**
	812nm,0.3s,baz=46,slow=22,SNR=29								
AFI				LR		LR	LR	09 49 40.7	
	comp=Z,525nm,20.9s,baz=270,slow=35								
	867nm,0.2s								
AFI				AML		AML			
NIUE	**Niue**	**4.31**	**143**			**Pn**	**Pn**	**09 49 31.2**	**-0.1**
NIUE						Sn	**Sn**	**09 50 15.8**	**-4.4**
MSVF	**Nonsavu**	**9.11**	**256**	Pn		**Pn**	**Pn**	**09 50 34.8**	**-2.4**
	13nm,1.1s,baz=94,slow=23,SNR=1.4								
MSVF				LR		LR	LR	09 53 45.4	
	comp=Z,304nm,21.4s,baz=175,slow=36								
RAR	**Rarotonga**	**13.45**	**116**	Pn		**Pn**	**Pn**	**09 51 34.6**	**-1.9**
	1.3nm,0.3s,baz=129,slow=21,SNR=1.3								
RAR				Sn		Sn	Sn	09 53 52.7	-12
	1.1nm,0.3s,baz=78,slow=19,SNR=1.3								
RAR				LR		LR	LR	09 55 54.0	
	comp=Z,30nm,21.6s,baz=272,slow=32								
	17nm,0.8s								
RAR				AML		AML	AML		
MARNC	**Mare, Loyalty**	**19.16**	**249**	P		**Pn**	**Pn**	**09 52 50.6**	**+0.8**
MARNC	**Mare, Loyalty**	**19.16**	**249**	P		**P**	**P**	**09 52 47.9**	**-0.8**
DZM	**Mont Dzumac**	**20.74**	**249**	P		**P**	**P**	**09 53 04.7**	**-1.3**
	5.6nm,0.9s,baz=97,slow=17								
DZM				LR		LR	LR	09 59 58.5	
	comp=Z,105nm,21.7s,baz=49,slow=34								
	5.6nm,0.9s								
NOUC	**Port Laguerre**	**20.87**	**249**	P		P	Pn	09 53 12.4	+2.4
PPT	**Papeete**	**22.23**	**98**	LR		LR	LR	09 59 35.9	
	comp=Z,32nm,20.5s,baz=266,slow=30								
PPT2	**Papeete2**	**22.23**	**98**	*e*LR		LR	LR	09 58 23.8	
	104nm,30.8s								
PPT2				*e*LR		LR	LR	09 58 30.0	
	155nm,26.2s								
OUZ	**Omahuta**	**23.04**	**210**	P		**P**	**P**	**09 53 29.8**	**-0.5**
MXZ	**Matakaoa Point**	**23.23**	**198**	P		**P**	**P**	**09 53 35.1**	**+2.9**
URZ	**Urewera**	**24.25**	**200**	P		**P**	**P**	**09 53 43.3**	**+1.5**
	32nm,0.5s,baz=16,slow=2.9,SNR=30								
URZ	**Urewera**	**24.25**	**200**	P		**P**	**P**	**09 53 44.0**	**+2.1**
BKZ	**Black Stump Fm**	**25.27**	**200**	P		**P**	**P**	**09 53 55.3**	**+4.1**
HIZ	**Hauiti**	**25.28**	**203**	P		**P**	**P**	**09 53 54.7**	**+3.5**
QRZ	**Quartz Range**	**28.18**	**204**	P		P	P	09 54 22.3	+5.0
KHZ	**Kahutara**	**29.18**	**201**	P		P	P	09 54 32.2	+6.0
TAOE	**Nuku Hiva Isla**	**32.48**	**82**	*e*LR		LR	LR	10 03 25.1	
	190nm,25.1s								
H11S2	**WAKE ISLAND Hy**	**39.53**	**328**	T		T	T	10 37 28.2	
	baz=146,slow=74								
H11S3	**WAKE ISLAND Hy**	**39.54**	**328**	T		T	T	10 37 28.2	
	baz=146,slow=74								
H11S1	**WAKE ISLAND Hy**	**39.55**	**328**	T		T	T	10 37 28.7	
	baz=146								
PMG	**Port Moresby**	**39.63**	**274**	LR		LR	LR	10 10 06.7	
	comp=Z,491nm,18.8s,baz=7.0,slow=33								
H11N3	**WAKE ISLAND Hy**	**40.47**	**330**	T		T	T	10 38 37.8	
	baz=146,slow=76,SNR=4.3								
H11N1	**WAKE ISLAND Hy**	**40.47**	**330**	T		T	T	10 38 37.3	
	baz=146,slow=76,SNR=5.8								
H11N2	**WAKE ISLAND Hy**	**40.49**	**330**	T		T	T	10 38 38.4	
	baz=146,slow=76,SNR=2.7								
COEN	**Coen**	**42.65**	**266**	P		**P**	**P**	**09 56 21.9**	**+0.3**
STKA	**Stephens Creek**	**44.50**	**240**	P		**P**	**P**	**09 56 34.9**	**-1.5**
	1.8nm,0.5s,baz=99,slow=9.9,SNR=5.2								
	1.8nm,0.5s								
STKA	**Stephens Creek**	**44.50**	**240**	P		**P**	**P**	**09 56 35.4**	**-1.0**
INKA	**Innaminka**	**44.66**	**246**	P		**P**	**P**	**09 56 37.8**	**+0.1**
INKA						IAmb	IAmb	09 56 42.9	
	comp=Z,2.0nm,1.1s								
JAY	**Jayapura**	**47.70**	**281**	LR		LR	LR	10 15 13.7	
	comp=Z,134nm,19.5s,baz=210,slow=34								
BBOO	**Buckleboo**	**49.28**	**240**	P		**P**	**P**	**09 57 12.4**	**-1.3**
WR8	**Warramunga Arr**	**50.30**	**257**	P		**P**	**P**	**09 57 20.4**	**-1.3**
WB0	**Warramunga Arr**	**50.41**	**257**	P		**P**	**P**	**09 57 20.5**	**-2.1**
WB0						IAmb	IAmb	09 57 38.3	
	comp=Z,2.4nm,1.0s								
WRAB	**Tennant Creek**	**50.44**	**257**	P		**P**	**P**	**09 57 21.2**	**-1.6**
WRA	**Warramunga Arr**	**50.45**	**257**	P		**P**	**P**	**09 57 20.8**	**-2.1**
	comp=Z,1.4nm,0.8s,baz=94,slow=6.8,SNR=16								
WRA				PcP		**PcP**	**PcP**	**09 58 41.7**	**+0.9**
	comp=Z,0.8nm,1.1s,baz=90,slow=3.8,SNR=5.2								
	comp=Z,1.4nm,0.8s								
WRA	**Warramunga Arr**	**50.45**	**257**	P		**P**	**P**	**09 57 21.4**	**-1.4**
AS31	**Alice Springs**	**50.68**	**252**			**P**	**P**	**09 57 23.2**	**-1.3**
AS31						IAmb	IAmb	09 57 23.8	
	comp=Z,1.7nm,0.6s								
ASAR	**Alice Springs**	**50.68**	**252**	P		**P**	**P**	**09 57 22.9**	**-1.6**
	comp=Z,6.1nm,0.5s,baz=87,slow=8.0,SNR=143								
ASAR				PcP		**PcP**	**PcP**	**09 58

H04N1	**CROZET ISLANDS** baz=55,slow=75,SNR=76	**61.82**	**215**	T	T	11 08 42.2
H04N3	**CROZET ISLANDS** baz=55,slow=75,SNR=106	**61.83**	**215**	T	T	11 08 40.9
H04S1	**CROZET ISLANDS** baz=52,slow=75,SNR=12	**62.14**	**214**	T	T	11 09 01.1
H04S3	**CROZET ISLANDS** baz=52,slow=75,SNR=13	**62.15**	**214**	T	T	11 09 00.9
H04S2	**CROZET ISLANDS** baz=52,slow=75,SNR=11	**62.16**	**214**	T	T	11 09 02.3

*IDC **28** 09:55:59.3±2.6,36˚.43S×177˚.26E,h235km±13km,mb3.7/3, mbtmp4.3/3,Error ellipse: s-maj=50.4km s-min=19.5km az=48.0*

*NOU **28** 09:56:01.7,36˚.98S×177˚.02E,h267km,MLv3.9/20,Off E. Coast of N. Island, N.Z.*

*WEL **28** 09:56:04.5±0.9,37˚.5±7˚×17˚.7E±˚,h233km±7km,M3.3/42, MLv3.3/42,Error ellipse: s-maj=10.3km s-min=5.5km az=36.4*

ISC 28 09:56:02.1±1.0,**36˚.92S**±0˚.06×**177˚.03E**±0˚.06,**h265**km±6km, **n157**,σ1=**23**/168,**mb3.9**/3,**Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MYRZ	**Mayor Island**	**0.72**	**240**	P	**Pn**	**09 56 38.0**	**+0.6**
MYRZ				AML	AML		
WHRZ	**Whale Island**	**0.93**	**182**	P	**Pn**	**09 56 38.4**	**0.0**
WHRZ				AML	AML		
OPRZ	**Ohinepanea**	**0.99**	**202**	P	**Pn**	**09 56 38.9**	**+0.2**
OPRZ				AML	AML		
TGRZ	**Tauranga**	**1.01**	**217**	P	**Pn**	**09 56 39.3**	**+0.6**
TGRZ				AML	AML		
HAZ	**Te Kaha**	**1.03**	**144**	P	**Pn**	**09 56 38.5**	**-0.4**
HAZ				S	**S**	**09 57 04.8**	**-3.0**
HAZ				AML	AML		
MARZ	**Manawahe**	**1.09**	**195**	P	**Pn**	**09 56 39.8**	**+0.6**
MARZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.16**	**154**	P	**Pn**	**09 56 39.1**	**-0.7**
RUGZ				S	**S**	**09 57 06.3**	**-3.3**
RUGZ				AML	AML		
EDRZ	**Edgecumbe**	**1.20**	**191**	P	**Pn**	**09 56 40.9**	**+0.9**
EDRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.20**	**122**	P	**Pn**	**09 56 39.6**	**-0.3**
MXZ	**Matakaoa Point**	**1.20**	**122**	S	**S**	**09 57 08.5**	**-1.2**
MXZ	**Matakaoa Point**	**1.20**	**122**	P	**Pn**	**09 56 39.6**	**-0.3**
MXZ				S	**S**	**09 57 07.6**	**-2.1**
MXZ				AML	AML		
KARZ	**Kaharoa**	**1.26**	**209**	P	**Pn**	**09 56 41.1**	**+0.9**
KARZ				AML	AML		
PKGZ	**Pakihiroa**	**1.26**	**139**	P	**Pn**	**09 56 40.9**	**+0.6**
PKGZ				S	**S**	**09 57 09.0**	**-1.5**
PKGZ				AML	AML		
KMRZ	**Kaimai**	**1.26**	**223**	P	**Pn**	**09 56 41.4**	**+1.1**
KMRZ				AML	AML		
TDHS	**Te Araroa Dist**	**1.28**	**124**	P	**Pn**	**09 56 40.0**	**-0.3**
TDHS				S	**S**	**09 57 09.2**	**-1.3**
URZ	**Urewera** 42nm,0.4s,baz=243,slow=4.7,SNR=145	**1.33**	**177**	P	**Pn**	**09 56 40.5**	**-0.2**
URZ				S	**S**	**09 57 10.0**	**-1.2**
	82nm,0.3s,baz=185,slow=22,SNR=26						
URZ	**Urewera**	**1.33**	**177**	P	**Pn**	**09 56 40.4**	**-0.2**
URZ	**Urewera**	**1.33**	**177**	S	**S**	**09 57 10.9**	**-0.3**
URZ	**Urewera**	**1.33**	**177**	P	**Pn**	**09 56 40.5**	**-0.2**
URZ				S	**S**	**09 57 09.3**	**-1.9**
URZ				AML	AML		
TARZ	**Mount Tarawera**	**1.37**	**197**	P	**Pn**	**09 56 42.0**	**+1.0**
TARZ				AML	AML		
UTU	**Utuhina**	**1.41**	**208**	P	**Pn**	**09 56 43.6**	**+2.3**
UTU				AML	AML		
WMGZ	**Waiomatatini S**	**1.42**	**129**	P	**Pn**	**09 56 41.8**	**+0.5**
WMGZ				S	**S**	**09 57 10.5**	**-1.7**
WMGZ				AML	AML		
HLRZ	**Highlands Stat**	**1.43**	**202**	P	**Pn**	**09 56 42.5**	**+1.2**
HLRZ				AML	AML		
GRZ	**Great Barrier**	**1.43**	**298**	P	**Pn**	**09 56 40.3**	**-1.2**
ECLS	**East Cape Ligh**	**1.43**	**123**	P	**Pn**	**09 56 41.2**	**-0.2**
ECLS				S	**S**	**09 57 07.5**	**-4.9**
TOZ	**Tahuroa Road**	**1.46**	**236**	P	**Pn**	**09 56 42.3**	**+0.8**
TOZ				AML	AML		
MWZ	**Matawai**	**1.46**	**164**	P	**Pn**	**09 56 41.8**	**+0.2**
MWZ				S	**S**	**09 57 11.3**	**-1.6**
MWZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.46**	**149**	P	**Pn**	**09 56 42.6**	**+0.9**
TWGZ				S	**S**	**09 57 12.8**	**-0.1**
TWGZ				AML	AML		
RRRZ	**Republican Roa**	**1.47**	**196**	P	**Pn**	**09 56 42.3**	**+0.7**
RRRZ				AML	AML		
MKAZ	**Moumakai**	**1.50**	**263**	P	**Pn**	**09 56 42.0**	**+0.1**
MKAZ				AML	AML		
PUZ	**Puketiti**	**1.51**	**140**	P	**Pn**	**09 56 42.3**	**+0.4**
PUZ				AML	AML		
WIAZ	**Waiheke Island**	**1.52**	**274**	P	**Pn**	**09 56 41.9**	**-0.2**
WIAZ				AML	AML		
MUGZ	**Murupara**	**1.56**	**187**	P	**Pn**	**09 56 42.4**	**+0.1**
MUGZ				AML	AML		
GRRZ	**Galatos Road**	**1.60**	**207**	P	**Pn**	**09 56 43.9**	**+1.3**
GRRZ				AML	AML		
RAGZ	**Rawiri**	**1.60**	**169**	P	**Pn**	**09 56 43.7**	**+1.0**
RAGZ				AML	AML		
TKGZ	**Te Karaka**	**1.65**	**157**	P	**Pn**	**09 56 42.5**	**-0.4**
TKGZ				AML	AML		
PRRZ	**Plateau Road**	**1.65**	**198**	P	**Pn**	**09 56 43.5**	**+0.6**
PRRZ				AML	AML		
ETAZ	**East Tamaki Re**	**1.68**	**268**	P	**Pn**	**09 56 43.3**	**+0.1**
ETAZ				AML	AML		
RTZ	**Ruatahuna**	**1.69**	**181**	P	**Pn**	**09 56 43.6**	**+0.2**
RTZ				AML	AML		
MBAZ	**Motutapu North**	**1.71**	**275**	P	**Pn**	**09 56 43.5**	**0.0**
MBAZ				AML	AML		
ALRZ	**Allen Road**	**1.72**	**198**	P	**Pn**	**09 56 44.3**	**+0.8**
ALRZ				AML	AML		
WPRZ	**Whakapapatarin**	**1.73**	**203**	P	**Pn**	**09 56 45.0**	**+1.3**
WPRZ				AML	AML		
ABAZ	**Army Bay**	**1.79**	**280**	P	**Pn**	**09 56 44.0**	**-0.1**
ABAZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.82**	**149**	P	**Pn**	**09 56 45.3**	**+1.1**
CNGZ				AML	AML		
EPAZ	**Eden Park BICE**	**1.83**	**271**	P	**Pn**	**09 56 44.4**	**0.0**
EPAZ				AML	AML		
TLZ	**Tolley Road**	**1.83**	**220**	P	**Pn**	**09 56 46.0**	**+1.5**
TLZ				AML	AML		
HBAZ	**Herne Bay Bore**	**1.84**	**272**	P	**Pn**	**09 56 44.4**	**-0.1**
HBAZ				AML	AML		
RIGZ	**Rimuhau**	**1.87**	**162**	P	**Pn**	**09 56 45.6**	**+0.9**
RIGZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**1.91**	**265**	P	**Pn**	**09 56 45.2**	**+0.1**
AWAZ				AML	AML		
MTHZ	**Maungataniwha**	**1.93**	**184**	P	**Pn**	**09 56 45.6**	**+0.3**
MTHZ				AML	AML		
WTAZ	**Waiatarua**	**1.96**	**269**	P	**Pn**	**09 56 45.6**	**+0.1**
WTAZ				AML	AML		
MRHZ	**Matea Rd**	**1.97**	**194**	P	**Pn**	**09 56 46.0**	**+0.4**
MRHZ				AML	AML		
RVAZ	**Riverhead Bore**	**1.97**	**274**	P	**Pn**	**09 56 45.2**	**-0.3**
RVAZ				AML	AML		
RAHZ	**Arahi**	**1.99**	**179**	P	**Pn**	**09 56 46.5**	**+0.8**
RAHZ				AML	AML		
WATZ	**Wairara**	**2.05**	**210**	P	**Pn**	**09 56 47.2**	**+0.9**
WATZ				AML	AML		
PRGZ	**Paritu Road**	**2.11**	**161**	P	**Pn**	**09 56 47.9**	**+1.1**
PRGZ				AML	AML		
KNZ	**Kokohu**	**2.15**	**166**	P	**Pn**	**09 56 47.6**	**+0.5**
KNZ				AML	AML		
WHHZ	**Waihua**	**2.15**	**176**	P	**Pn**	**09 56 48.1**	**+0.9**
WHHZ				AML	AML		
RITZ	**Rihia Road**	**2.25**	**204**	P	**Pn**	**09 56 49.0**	**+0.9**
RITZ				AML	AML		
BKZ	**Black Stump Fm**	**2.28**	**190**	P	**Pn**	**09 56 48.2**	**-0.1**
BKZ	**Black Stump Fm**	**2.28**	**190**	S	**S**	**09 57 24.6**	**-0.5**
BKZ	**Black Stump Fm**	**2.28**	**190**	P	**Pn**	**09 56 48.3**	**-0.1**
BKZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.33**	**163**	P	**Pn**	**09 56 49.7**	**+0.9**
MHGZ				AML	AML		
ARHZ	**Aropaoanui**	**2.33**	**181**	P	**Pn**	**09 56 49.7**	**+0.9**
ARHZ				AML	AML		
HIZ	**Hauiti**	**2.34**	**227**	P	**Pn**	**09 56 50.3**	**+1.4**
HIZ	**Hauiti**	**2.34**	**227**	P	**Pn**	**09 56 50.7**	**+1.8**
WCZ	**Waipu Caves**	**2.38**	**294**	P	**Pn**	**09 56 48.6**	**-0.7**
WCZ				AML	AML		
NTVZ	**North Tongarir**	**2.42**	**206**	P	**Pn**	**09 56 51.0**	**+1.2**
TMVZ	**Te Maari**	**2.42**	**205**	P	**Pn**	**09 56 50.7**	**+0.9**
KRVZ	**Karewarewa**	**2.43**	**206**	P	**Pn**	**09 56 50.7**	**+0.8**
ETVZ	**East Tongariro**	**2.44**	**205**	P	**Pn**	**09 56 50.7**	**+0.7**
WTVZ	**West Tongariro**	**2.46**	**207**	P	**Pn**	**09 56 51.1**	**+0.9**
OTVZ	**Oturere**	**2.48**	**205**	P	**Pn**	**09 56 51.2**	**+0.8**
TWVZ	**Taurewa**	**2.48**	**210**	P	**Pn**	**09 56 51.2**	**+0.8**
SNVZ	**South Ngauruho**	**2.51**	**205**	P	**Pn**	**09 56 51.5**	**+0.8**
NGZ	**Ngauruhoe**	**2.51**	**206**	P	**Pn**	**09 56 51.6**	**+0.9**
MCHZ	**McNeill Hill**	**2.53**	**186**	P	**Pn**	**09 56 51.6**	**+1.0**
KWHZ	**Kaweka Forest**	**2.54**	**191**	P	**Pn**	**09 56 51.4**	**+0.5**
COVZ	**Chateau Observ**	**2.56**	**207**	P	**Pn**	**09 56 51.8**	**+0.7**
TUVZ	**Tukino**	**2.58**	**204**	P	**Pn**	**09 56 51.9**	**+0.6**
FWVZ	**Far West T-bar**	**2.60**	**206**	P	**Pn**	**09 56 52.6**	**+0.9**
MAVZ	**Mataranga**	**2.61**	**206**	P	**Pn**	**09 56 52.7**	**+0.8**
WHVZ	**Whangaehu Hut**	**2.61**	**205**	P	**Pn**	**09 56 52.3**	**+0.5**
TRVZ	**Turoa**	**2.64**	**206**	P	**Pn**	**09 56 52.9**	**+0.8**
WNVZ	**Wahianoa**	**2.65**	**205**	P	**Pn**	**09 56 52.4**	**+0.3**
BHHZ	**Black Hill Sta**	**2.67**	**196**	P	**Pn**	**09 56 52.2**	**0.0**
MOVZ	**Moawhango**	**2.67**	**202**	P	**Pn**	**09 56 52.2**	**0.0**
PKVZ	**Pokaka**	**2.71**	**209**	P	**Pn**	**09 56 53.5**	**+1.0**
CKHZ	**Cape Kidnapper**	**2.73**	**179**	P	**Pn**	**09 56 53.2**	**+0.6**
MTVZ	**Mangateitei**	**2.75**	**206**	P	**Pn**	**09 56 53.7**	**+0.8**
KRHZ	**Kereru**	**2.76**	**191**	P	**Pn**	**09 56 53.1**	**+0.1**
VRZ	**Vera Road**	**2.83**	**219**	P	**Pn**	**09 56 55.5**	**+1.7**
KAHZ	**Kahuranaki**	**2.87**	**182**	P	**Pn**	**09 56 54.8**	**+0.6**
PNHZ	**Pukenui**	**3.05**	**192**	P	**Pn**	**09 56 55.9**	**-0.2**
PXZ	**Pawanui**	**3.10**	**182**	P	**Pn**	**09 56 56.6**	**0.0**
WPHZ	**Waipukurau**	**3.17**	**188**	P	**Pn**	**09 56 57.3**	**0.0**
TSZ	**Takapari Road**	**3.24**	**195**	P	**Pn**	**09 56 57.8**	**-0.3**
WAZ	**Wanganui**	**3.25**	**209**	P	**Pn**	**09 56 58.7**	**+0.5**
OUZ	**Omahuta**	**3.26**	**300**	P	**Pn**	**09 56 57.3**	**-1.0**
OUZ	**Omahuta**	**3.26**	**300**	P	**Pn**	**09 56 57.6**	**-0.7**
OUZ				AML	AML		
LREZ	**Lake Rotokare**	**3.27**	**218**	P	**Pn**	**09 56 60.0**	**+1.7**
NEZ	**North Egmont**	**3.29**	**224**	P	**Pn**	**09 57 01.1**	**+2.4**
PKE	**Pukeiti**	**3.30**	**226**	P	**Pn**	**09 57 01.2**	**+2.5**
PREZ	**Palmer Road**	**3.31**	**222**	P	**Pn**	**09 56 59.2**	**+0.4**
PRHZ	**Porangahau**	**3.35**	**185**	P	**Pn**	**09 56 59.2**	**0.0**
KHEZ	**Kahui Hut**	**3.35**	**224**	P	**Pn**	**09 57 00.7**	**+1.3**
KHEZ	**Kahui Hut**	**3.35**	**224**	P	**Pn**	**09 57 01.5**	**+2.1**
NBEZ	**Newall Road No**	**3.42**	**226**	P	**Pn**	**09 57 02.2**	**+2.3**
DVHZ	**Dannevirke**	**3.44**	**191**	P	**Pn**	**09 56 59.6**	**-0.6**
OHWZ	**Ohakea**	**3.54**	**202**	P	**Pn**	**09 57 01.7**	**+0.4**
ANWZ	**Angora Road**	**3.56**	**187**	P	**Pn**	**09 57 01.5**	**0.0**
POWZ	**Post Office Ro**	**3.60**	**195**	P	**Pn**	**09 57 01.7**	**-0.3**
PRWZ	**Pori Road**	**3.72**	**192**	P	**Pn**	**09 57 03.3**	**0.0**
BFZ	**Birch Farm**	**3.80**	**189**	P	**Pn**	**09 57 03.8**	**-0.4**
BFZ	**Birch Farm**	**3.80**	**189**	P	**S**	**09 57 53.9**	**+0.1**
BFZ	**Birch Farm**	**3.80**	**189**	P	**Pn**	**09 57 03.9**	**-0.3**
MRZ	**Mangatainoka R**	**3.90**	**196**	P	**Pn**	**09 57 04.6**	**-0.8**
TIWZ	**Tintock**	**3.95**	**193**	P	**Pn**	**09 57 06.0**	**0.0**
HOWZ	**Holdsworth Sta**	**4.14**	**196**	P	**Pn**	**09 57 07.1**	**-1.0**
OGWZ	**Otaki Gorge**	**4.15**	**200**	P	**Pn**	**09 57 07.4**	**-0.8**
TMWZ	**Te Maipa**	**4.27**	**192**	P	**Pn**	**09 57 09.2**	**-0.4**
MTW	**Mount Morrison**	**4.39**	**195**	P	**Pn**	**09 57 09.9**	**-1.2**
CAW	**Cannon Point**	**4.45**	**199**	P	**Pn**	**09 57 10.6**	**-1.1**
DUWZ	**D'Urville Isla**	**4.57**	**211**	P	**Pn**	**09 57 12.0**	**-1.1**
TRWZ	**Traveller**	**4.59**	**193**	P	**Pn**	**09 57 12.7**	**-0.7**
PAWZ	**Paruwai Farm**	**4.62**	**195**	P	**Pn**	**09 57 12.6**	**-1.2**
MSWZ	**Moikau Station**	**4.69**	**197**	P	**Pn**	**09 57 13.3**	**-1.4**
WEL	**Wellington**	**4.69**	**201**	P	**Pn**	**09 57 13.6**	**-1.0**
SNZO	**South Karori**	**4.74**	**202**	P	**Pn**	**09 57 14.4**	**-0.7**
SNZO	**South Karori**	**4.74**	**202**	S	**S**	**09 58 11.9**	**-1.6**
BHW	**Baring Head**	**4.78**	**200**	P	**Pn**	**09 57 14.2**	**-1.5**
PLWZ	**Palliser**	**4.84**	**196**	P	**Pn**	**09 57 15.0**	**-1.4**
TUMZ	**Tuamarina**	**5.10**	**207**	P	**Pn**	**09 57 18.2**	**-1.2**
NNZ	**Nelson**	**5.14**	**212**	P	**Pn**	**09 57 18.4**	**-1.6**
TKNZ	**Takaka Hill**	**5.18**	**216**	P	**Pn**	**09 57 18.9**	**-1.6**
QRZ	**Quartz Range**	**5.24**	**221**	P	**Pn**	**09 57 19.7**	**-1.5**
QRZ	**Quartz Range**	**5.24**	**221**	S	**S**	**09 58 22.9**	**-1.6**
QRZ	**Quartz Range**	**5.24**	**221**	P	**Pn**	**09 57 19.4**	**-1.8**
BSWZ	**Blackbirch Sta**	**5.37**	**206**	P	**Pn**	**09 57 21.6**	**-1.1**
MRNZ	**Matariki Terra**	**5.56**	**215**	P	**Pn**	**09 57 23.2**	**-1.9**
THZ	**Tophouse**	**5.79**	**212**	P	**Pn**	**09 57 26.3**	**-1.7**
KHZ	**Kahutara**	**6.11**	**205**	P	**Pn**	**09 57 30.8**	**-1.0**
KHZ	**Kahutara**	**6.11**	**205**	S	**S**	**09 58 41.2**	**-2.5**
KHZ	**Kahutara**	**6.11**	**205**	P	**Pn**	**09 57 30.7**	**-1.1**
DSZ	**Denniston Nort**	**6.29**	**218**	P	**Pn**	**09 57 31.6**	**-2.5**
GVZ	**Greta Valley S**	**6.77**	**206**	P	**Pn**	**09 57 38.7**	**-1.3**
AMCZ	**Amberley**	**7.09**	**207**	P	**Pn**	**09 57 42.4**	**-1.5**
INZ	**Inchbonnie**	**7.21**	**215**	P	**Pn**	**09 57 44.1**	**-1.4**
OKCZ	**Okains Bay**	**7.43**	**203**	P	**Pn**	**09 57 45.8**	**-2.5**
MQZ	**McQueen's Vall**	**7.55**	**205**	P	**Pn**	**09 57 47.4**	**-2.3**
RPZ	**Rata Peaks**	**8.17**	**212**	P	**Pn**	**09 57 55.9**	**-1.6**
ODZ	**Otahua Downs**	**9.43**	**209**	P	**Pn**	**09 58 12.2**	**-1.1**
JCZ	**Jackson Bay**	**9.50**	**219**	P	**Pn**	**09 58 12.4**	**-1.9**
ASAR	**Alice Springs** 2.7nm,0.5s,baz=119,slow=8.0,SNR=49	**39.19**	**277**	P	**P**	**10 03 05.9**	**+0.9**
	2.7nm,0.5s						
WRA	**Warramunga Arr** 1.6nm,0.4s,baz=121,slow=7.8,SNR=25	**40.80**	**283**	P	**P**	**10 03 18.6**	**+0.4**
	1.6nm,0.4s						
QSPA	**South Pole Qui** 3.0nm,0.5s,baz=316,slow=0.7,SNR=39	**53.20**	**180**	P	**P**	**10 04 56.8**	**+3.7**
	3.0nm,0.5s						
FINES	**FINESS Array B** 1.6nm,0.8s,baz=70,slow=2.2,SNR=6.0	**149.45**	**333**	PKPbc	**PKPbc**	**10 15 17.9**	**-1.0**

*IDC **28** 10:05:46.4±0.6,5˚.84S×151˚.61E,h0km,mb4.2/14, mbtmp4.3/16,ML2.9/2,MS3.6/18,Error ellipse: s-maj=23.8km s-min=9.4km az=116.0*

*NEIC **28** 10:05:48.9±1.4,5˚.97S±0˚.06×151˚.64E±0˚.08,h10km±1km, mb4.7/51,Error ellipse: s-maj=15.0km s-min=9.3km az=120.0*

ISC 28 10:05:48.4±0.4,**5˚.95S**±0˚.06×**151˚.60E**±0˚.06,**h10**km,**n108**, σ1=**48**/95,**mb4.6**/39,**MS3.8**/17,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076** 393nm,0.3s,baz=101,slow=5.2,SNR=13	**1.69**	**15**	Pg	**Pn**	**10 06 17.8**	**-0.2**
KRVT				Lg	Lg	10 06 40.6	
	476nm,0.3s,baz=158,slow=23,SNR=6.9						
KRVT				LR	LR	10 06 46.7	
	comp=Z,1μm,18.5s,baz=78,slow=38						
RABL	**Rabaul**	**1.84**	**18**	Pn	**Pn**	**10 06 20.4**	**+0.3**
RABL				Sn	**Sg**	**10 06 47.2**	**-0.3**
PMG	**Port Moresby** 5.4nm,0.3s,baz=50,slow=9.3,SNR=62	**5.58**	**232**	Pn	**Pn**	**10 07 15.0**	**+3.4**
PMG				Sn	**Sn**	**10 08 16.5**	**+0.7**
	16nm,0.3s,baz=124,slow=17,SNR=9.1						
	141nm,0.8s						
PMG				AML	AML		
PMG	**Port Moresby**	**5.58**	**232**	S	**Sn**	**10 08 10.8**	**-5.0**
PMG	**Port Moresby**	**5.58**	**232**	P	Pn	10 07 16.7	+5.1
PMG	**Port Moresby**	**5.58**	**232**	S	**Sn**	**10 08 11.0**	**-4.8**
PMG	**Port Moresby**	**5.58**	**232**		**Pn**	**10 07 11.8**	**+0.2**
MANU	**Manus Island**	**5.73**	**312**		**Pn**	**10 07 14.4**	**+0.8**
TATA	**Tatamba Isabel**	**8.50**	**107**	P	Pb	10 08 16.6	+0.9
HNR	**Honiara** comp=Z,239nm,19.9s,baz=7,0,slow=35	**8.97**	**113**	LR	LR	10 10 57.3	
COEN	**Coen**	**11.49**	**226**		**Pn**	**10 08 31.9**	**-0.8**
MTSU	**Mount Surprise**	**14.04**	**210**	P	**Pn**	**10 09 11.8**	**+4.2**
CTA	**Charters Tower** 0.1nm,0.3s,baz=21,slow=7.6,SNR=4.8	**14.98**	**200**	Pn	**Pn**	**10 09 20.8**	**+0.3**
CTA				LR	LR	10 14 14.4	
	comp=Z,120nm,20.9s,baz=46,slow=34						
	7.9nm,1.1s						
CTA				AML	AML		
CTAO	**Charters Tower**	**14.98**	**200**	Pn	Pn	10 09 15.1	-5.3
QIS	**Mount Isa**	**18.61**	**218**	P	**Pn**	**10 10 08.4**	**+2.0**
EIDS	**Eidsvold**	**19.32**	**181**	P	**P**	**10 10 12.9**	**-1.0**
GUMO	**Guam** comp=Z,72nm,20.7s,baz=154,slow=33	**20.53**	**341**	LR	LR	10 16 54.4	
MTN	**Manton Dam**	**21.31**	**250**	P	**P**	**10 10 35.5**	**-0.1**
WB0	**Warramunga Arr**	**21.64**	**229**	P	**P**	**10 10 40.0**	**+0.8**
WB0				IAmb	IAmb	10 10 51.7	
	comp=Z,16nm,0.8s						
WR8	**Warramunga Arr**	**21.68**	**228**	P	**P**	**10 10 40.6**	**+1.0**
QLP	**Quilpie**	**21.69**	**198**	P	**P**	**10 10 41.9**	**+2.3**
WRAB	**Tennant Creek**	**21.78**	**229**	P	**P**	**10 10 41.4**	**+0.8**
WRAB	**Tennant Creek**	**21.78**	**229**	P	**P**	**10 10 41.4**	**+0.8**
WRA	**Warramunga Arr** comp=Z,6.2nm,0.6s,baz=54,slow=10,SNR=30	**21.79**	**229**	P	**P**	**10 10 41.3**	**+0.5**
WRA				PcP	**PcP**	**10 14 41.2**	**0.0**
	comp=Z,1.4nm,0.7s,baz=41,slow=2.0,SNR=5.8						
WRA				ScP	**ScP**	**10 18 17.9**	**-0.8**
	comp=Z,0.6nm,0.9s,baz=66,slow=2.1,SNR=2.7						
	comp=Z,6.2nm,0.6s						
WRA	**Warramunga Arr**	**21.79**	**229**	P	**P**	**10 10 39.7**	**-1.1**
AULRC	**Lightning Ridg**	**23.60**	**188**	P	**P**	**10 11 04.8**	**+5.2**
INKA	**Innaminka**	**24.00**	**204**		**P**	**10 11 03.9**	**+0.5**
INKA				IAmb	IAmb	10 11 15.7	
	comp=Z,12nm,0.9s						
KNRA	**Kununurra**	**24.39**	**245**		**P**	**10 11 07.0**	**-0.2**
AS01	**Alice Springs**	**24.46**	**222**	P	**P**	**10 11 08.9**	**+1.0**
AS31	**Alice Springs**	**24.50**	**222**		**P**	**10 11 08.8**	**+0.7**
ASAR	**Alice Springs** comp=Z,11nm,0.8s,baz=54,slow=9.2,SNR=80	**24.50**	**222**	P	**P**	**10 11 09.1**	**+0.9**
ASAR				PcP	**PcP**	**10 14 46.0**	**-0.8**
	comp=Z,0.7nm,0.7s,baz=56,slow=3.4,SNR=3.1						
ASAR				S	**S**	**10 15 31.1**	**+2.4**
	comp=Z,0.8nm,0.9s,baz=56,slow=13,SNR=4.4						
ASAR				ScP	**ScP**	**10 18 27.2**	**+1.3**
	comp=Z,0.9nm,1.1s,baz=53,slow=3.2,SNR=3.0						
	comp=Z,11nm,0.8s						
ASAR	**Alice Springs**	**24.50**	**222**		**P**	**10 11 09.4**	**+1.2**
AUALC	**St Philip's Co**	**24.53**	**222**	P	**P**	**10 11 09.6**	**+1.2**
CMSA	**Cobar Meteorol**	**26.05**	**192**	P	**P**	**10 11 24.1**	**+2.0**
STKA	**Stephens Creek** comp=Z,7.3nm,0.9s,baz=13,slow=6.9,SNR=3.0	**27.44**	**199**	P	**P**	**10 11 34.9**	**+0.3**
STKA				LR	LR	10 21 46.7	
	comp=Z,120nm,20.5s,baz=18,slow=35						
	comp=Z,7.3nm,0.9s						
FITZ	**Fitzroy Crossi**	**28.06**	**242**	P	**P**	**10 11 40.4**	**+0.1**
FITZ	**Fitzroy Crossi**	**28.06**	**242**		**P**	**10 11 40.4**	**+0.1**
BBOO	**Buckleboo**	**30.39**	**206**	P	**P**	**10 12 00.2**	**-0.7**
BBOO				IAmb	IAmb	10 12 12.2	
	comp=Z,13nm,1.1s						
FUTU	**Fugatoga**	**30.91**	**108**	P	**P**	**10 12 04.3**	**-1.4**
FORT	**Forrest**	**33.15**	**219**	P	**P**	**10 12 24.7**	**-0.4**
FORT				IAmb	IAmb	10 12 50.7	
	comp=Z,6.7nm,0.9s						
JCJ	**Chichijima** comp=Z,62nm,20.7s,baz=349,slow=33	**34.09**	**345**	LR	LR	10 24 40.0	
MBWA	**Marble Bar**	**34.36**	**241**	P	**P**	**10 12 36.1**	**+0.2**
JAGI	**Jajag, Banyuwa**	**37.22**	**264**	P	**P**	**10 12 59.6**	**-0.9**
NIUE	**Niue**	**39.65**	**113**	P	**P**	**10 13 21.0**	**+0.1**
MORW	**Morawa**	**40.70**	**231**	P	**P**	**10 13 29.3**	**-0.1**
MORW				IAmb	IAmb	10 13 40.7	
	comp=Z,12nm,0.9s						
UGM	**Wanagama**	**40.81**	**265**	P	**P**	**10 13 30.7**	**+0.1**
UGM				IAmb	IAmb	10 13 33.6	
	comp=Z,16nm,0.7s						
BBJI	**Bungbulang**	**43.66**	**265**	P	**P**	**10 13 52.3**	**-1.6**
BBJI				IAmb	IAmb	10 13 52.5	
	comp=Z,18nm,0.9s						
NJ2	**Nanjing**	**49.00**	**323**	*e*P	**P**	**10 14 37.5**	**+2.0**
NJ2				pmax	pmax		
	comp=Z,12nm,0.6s						
USA0B	**Ussuriysk Arra**	**52.96**	**342**	P	**P**	**10 15 05.1**	**0.0**
USA0B				IAmb	IAmb	10 15 07.1	
	comp=Z,9.4nm,1.2s						
YSS	**Yuzhno-Sakhali**	**53.25**	**352**	P	**P**	**10 15 07.3**	**+0.1**
SLVN	**Son La**	**54.06**	**302**		**P**	**10 15 13.0**	**-0.6**
SLVN				IAmb	IAmb	10 15 18.1	
	comp=Z,5.8nm,0.7s						
CMAR	**Chiang Mai Arr** comp=Z,0.6nm,0.3s,baz=111,slow=6.9,SNR=3.1	**57.29**	**296**	P	**P**	**10 15 36.5**	**-0.4**
	comp=Z,0.6nm,0.3s						
KLR	**Kul'dur** comp=Z,41nm,18.0s,baz=156,slow=37	**57.62**	**345**	LR	LR	10 41 37.8	
PETK	**Petropavlovsk-** comp=Z,33nm,20.2s,baz=171,slow=32	**59.06**	**4**	LR	LR	10 36 46.2	
TBI	**Tubuai** comp=Z,1μm,36.8s	**59.19**	**114**	*e*LR	LR	10 33 14.4	
HHC	**Hu-ho-hao-te**	**59.29**	**325**	*e*P	**P**	**10 15 53.3**	**+2.7**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HHC				pmax	pmax		

	comp=Z,4.5nm,0.8s							
E28M	**Babbage River**	**87.95**	**20**	IAmb	IAmb	10 18 56.1		
	comp=Z,5.5nm,1.4s							
DLBC	**Dease Lake**	**88.98**	**31**	LR	LR	10 53 29.4		
	comp=Z,73nm,18.6s,baz=276,slow=32							
YBH	**Yreka Blue Hor**	**90.71**	**48**	LR	LR	10 52 45.2		
	comp=Z,49nm,19.2s,baz=301,slow=31							
NVAR	**Mina Array Bea**	**93.73**	**52**	P	**P**	**10 19 06.7**	**+0.5**	
	comp=Z,1.1nm,0.8s,baz=258,slow=6.1,SNR=10							
NVAR				LR	LR	10 55 54.2		
	comp=Z,68nm,19.5s,baz=310,slow=32							
	comp=Z,1.1nm,0.8s							
PFO	**Pinyon Flats O**	**94.87**	**57**	LR	LR	11 00 13.9		
	comp=Z,34nm,18.3s,baz=313,slow=34							
ARTI	**Arti**	**96.69**	**326**	LR	LR	11 06 17.0		
	comp=Z,127nm,18.0s,baz=314,slow=38							
YKA	**Yellowknife Ar**	**97.00**	**28**	P	**P**	**10 19 19.4**	**-0.7**	
	comp=Z,0.8nm,0.7s,baz=275,slow=4.8,SNR=7.4							
	comp=Z,0.8nm,0.7s							
PDAR	**Pinedale Array**	**100.50**	**48**	P	**Pdif**	**10 19 34.4**	**-2.3**	
	comp=Z,0.3nm,0.7s,baz=281,slow=6.1,SNR=3.6							
GERES	**GERESS Array B**	**124.39**	**328**	PKP	**PKPdf**	**10 24 47.1**	**-0.9**	
	comp=Z,1.5nm,0.7s,baz=90,slow=1.3,SNR=10.0							
EKA	**Eskdalemuir Ar**	**126.77**	**342**	PKP	**PKPdf**	**10 24 51.5**	**-0.8**	
	comp=Z,0.3nm,0.5s,baz=0.2,slow=2.9,SNR=1.5							
TORD	**Torodi Ar. Bea**	**149.49**	**286**	PKPbc	**PKPbc**	**10 25 38.2**	**-0.9**	
	comp=Z,4.3nm,0.8s,baz=67,slow=2.2,SNR=17							
TORD	**Torodi Ar. Bea**	**149.49**	**286**		**PKPbc**	**10 25 38.0**	**-1.1**	

TEH ***28*** *10:23:43.8,35.34N×44.91E,h8km±50km, ML3.1, Presumed earthquake*
ISN ***28*** *10:23:44.8±2.9, 35.30N×44.95E, h25km±999km, ML3.0, Presumed earthquake*

ISC 28 10:23:44.9±0.9**, 35.30N**±0.04×**44.92E**±0.05**, h10**km**, n15,** σ**2.17**/19**, Iraq**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IKRK	**Kirkuk**	**0.49**	**282**	*e*Pn	**Pn**	**10 23 57.0**	**-0.9**
IKRK				*e*Sn	**Sb**	**10 24 07.0**	**+4.3**
IDHR	**Dehrash**	**1.34**	**116**	Pg	**Pg**	**10 24 10.4**	**-0.3**
IDHR				Sg	**Sg**	**10 24 30.8**	**+2.7**
MAHB	**Mahabad**	**1.59**	**23**	Pg	**Pg**	**10 24 14.5**	**-1.0**
IGHG	**Ghaleghazi**	**1.67**	**125**	Pg	**Pg**	**10 24 17.1**	**+0.3**
SNJK	**Sanadaj _Korde**	**1.77**	**85**	Pg	**Pg**	**10 24 17.8**	**-1.0**
ILBA	**Ilam Banvizeh**	**1.98**	**147**	Pn	**Pb**	**10 24 21.0**	**-0.1**
BHD	**Baghdad**	**2.08**	**193**	*e*Pn	**Pn**	**10 24 18.5**	**-1.3**
BHD				*e*Sn	**Sn**	**10 24 46.5**	**+0.8**
BHD				AML	AML	10 24 55.0	
	comp=E,460nm,0.4s						
SNQR	**Songor, Kerman**	**2.26**	**101**	Pn	**Pb**	**10 24 24.6**	**-1.4**
IBDR	**Badra**	**2.34**	**159**	*e*Pn	**Pb**	**10 24 25.0**	**-2.1**
IBDR				*e*Sn	**Sn**	**10 24 51.0**	**-1.2**
IBDR				AML	AML	10 25 04.0	
	comp=N,45nm,0.2s						
IAZR	**Azarshahr**	**2.52**	**19**	Pn	**Pb**	**10 24 27.7**	**-2.6**
IBZA	**Bozab**	**2.55**	**108**	Pn	**Pb**	**10 24 29.6**	**-1.4**
IHSH	**Hashtrud**	**2.75**	**43**	Pn	**Pb**	**10 24 31.3**	**-3.0**
IKFM	**Kafar-mosalman**	**3.00**	**125**	Pn	**Pb**	**10 24 35.1**	**-3.3**
ISRB	**Sarab**	**3.35**	**40**	Pn	**Pn**	**10 24 39.5**	**+2.1**
IMRD	**Marand**	**3.46**	**10**	Pn	**Pn**	**10 24 41.0**	**+2.0**

NEIC ***28*** *10:24:01.4±1.4, 56.32N±0.04×154.60W±0.08, h35km±2km, ML3.3/46, ML3.1(AEIC), Error ellipse: s-maj=9.4km s-min=4.7km az=136.0*
AEIC ***28*** *10:24:02.0±1.2, 56.30N±0.05×154.62W±0.09, h37km±8km, Error ellipse: s-maj=9.2km s-min=5.0km az=141.0*
IDC ***28*** *10:24:10.7±6.5, 57.24N×155.24W, h64km±55km, mb3.4/5, mbtmp3.7/6, ML2.8/1, Error ellipse: s-maj=59.0km s-min=31.2km az=160.0*

ISC 28 10:24:00.3±1.5**, 56.32N**±0.06×**154.60W**±0.05**, h25**km±13km**, n78,** σ**0.56**/86**, mb4.1**/4**, Kodiak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SII	**Sitkinak Islan**	**0.34**	**43**		**Pn**	**10 24 09.8**	**+0.1**
SII					**Sn**	**10 24 16.3**	**+0.6**
SII				IAML		10 24 18.9	
	comp=N,3μm,0.6s						
CHIR	**Chirikof Islan**	**0.76**	**230**		**Pb**	**10 24 14.8**	**0.0**
CHIR					**Sn**	**10 24 26.5**	**+0.5**
CHIR				IAML		10 24 29.6	
	comp=E,976nm,0.7s						
CHIR				IAML		10 24 30.4	
	comp=N,778nm,0.8s						
OHAK	**Old Harbor**	**1.16**	**38**		**Pb**	**10 24 21.6**	**-0.1**
OHAK				Sn	**Sb**	**10 24 36.3**	**0.0**
R17L	**Mt. Peulik Vol**	**1.63**	**325**		**Pn**	**10 24 27.5**	**0.0**
R17L					**Sn**	**10 24 47.9**	**+0.2**
PLK3	**Peulik 3**	**1.65**	**327**		**Pn**	**10 24 28.2**	**+0.5**
PLK3					**Sn**	**10 24 48.3**	**+0.1**
PLK2	**Peulik 2**	**1.73**	**328**		**Pn**	**10 24 29.4**	**+0.6**
CAHL	**Cahill**	**1.78**	**348**		**Pn**	**10 24 29.8**	**+0.3**
CAHL					**Sn**	**10 24 52.0**	**+0.5**
KJL	**Kejulik**	**1.82**	**344**		**Pn**	**10 24 30.4**	**+0.3**
KABR	**Katmai Barrier**	**1.83**	**354**		**Pn**	**10 24 30.5**	**+0.3**
KDAK	**Kodiak Island**	**1.84**	**36**		**Pn**	**10 24 30.9**	**+0.6**
KDAK				IAML		10 25 06.8	
	comp=N,150nm,0.9s						
PLBL	**Peulik Blue Cr**	**1.84**	**320**		**Pn**	**10 24 30.5**	**+0.1**
PLBL					**Sn**	**10 24 53.6**	**+0.7**
MGLS	**Mageik Landsli**	**1.85**	**351**		**Pn**	**10 24 30.6**	**+0.1**
PLK1	**Peulik 1**	**1.85**	**325**		**Pn**	**10 24 30.5**	**+0.1**
KABU	**Katmai Buttres**	**2.00**	**350**		**Pn**	**10 24 33.1**	**+0.6**
KAKN	**Katmai Knife C**	**2.00**	**353**		**Pn**	**10 24 33.0**	**+0.4**
KAKN					**Sn**	**10 24 57.0**	**0.0**
R16K	**Pilot Point**	**2.06**	**309**		**Pn**	**10 24 33.0**	**-0.2**
Q17K	**Contact Creek**	**2.08**	**341**		**Pn**	**10 24 33.9**	**+0.2**
Q17K					**Sn**	**10 24 59.9**	**+1.2**
KAWH	**Katmai**	**2.08**	**357**		**Pn**	**10 24 33.8**	**+0.2**
CHGN	**Chignik**	**2.12**	**271**		**Pn**	**10 24 33.3**	**-0.8**
CHGN				IAML		10 25 04.0	
	comp=E,166nm,0.7s						
CHGN				IAML		10 25 07.3	
	comp=N,304nm,0.7s						
KAHG	**Katmai Hook Gl**	**2.19**	**1**		**Pn**	**10 24 36.0**	**+0.9**
KARR	**Katmai Rainbow**	**2.19**	**359**		**Pn**	**10 24 35.6**	**+0.5**
Q18K	**Katmai Hardscr**	**2.35**	**355**		**Pn**	**10 24 37.7**	**+0.3**
VNHG	**Veniaminof 1**	**2.55**	**270**		**Pn**	**10 24 40.2**	**+0.2**
Q19K	**Cape Douglas,**	**2.67**	**11**	Pn	**Pn**	**10 24 40.8**	**-0.9**
P17K	**Kvichak River**	**3.05**	**342**	Pn	**Pn**	**10 24 46.0**	**-0.8**
P16K	**Nushagak River**	**3.28**	**328**		**Pn**	**10 24 48.9**	**-1.0**
P16K				IAML		10 25 51.1	
	comp=N,111nm,0.9s						
SDPT	**Sand Point**	**3.45**	**256**	Pn	**Pn**	**10 24 52.1**	**-0.3**
SDPT				IAML		10 25 46.3	
	comp=E,61nm,1.0s						
SDPT				IAML		10 26 06.0	
	comp=N,77nm,1.1s						
CNPM	**China Poot**	**3.69**	**28**	Pn	**Pn**	**10 24 56.3**	**+0.6**
CNPM				IAML		10 26 02.4	
	comp=E,52nm,1.1s						
CNPM				IAML		10 26 04.9	
	comp=N,38nm,0.7s						
O17K	**Koliganek Bris**	**3.71**	**340**		**Pn**	**10 24 56.0**	**+0.1**
O16K	**Kokwok River B**	**3.78**	**332**		**Pn**	**10 24 56.4**	**-0.5**
O16K				IAML		10 26 00.7	
	comp=E,32nm,1.1s						
ILW	**Iliamna West**	**3.83**	**11**		**Pn**	**10 24 58.3**	**+0.5**
BRLK	**Bradley Lake**	**3.98**	**28**	Pn	**Pn**	**10 24 58.8**	**-1.0**
BRLK				IAML		10 26 12.8	
	comp=E,35nm,0.7s						
O15K	**Ungalikthiuk R**	**4.01**	**318**	Pn	**Pn**	**10 24 59.3**	**-0.8**
O15K				IAML		10 26 13.2	
	comp=E,50nm,0.8s						
REF	**Redoubt East F**	**4.30**	**13**		**Pn**	**10 25 03.5**	**-0.8**
N17K	**Nushagak Hills**	**4.44**	**343**		**Pn**	**10 25 05.0**	**-0.9**
N19K	**Bonanza Creek**	**4.51**	**1**	Pn	**Pn**	**10 25 06.7**	**-0.4**
N19K				IAML		10 26 29.1	
	comp=E,19nm,0.9s						
N19K				IAML		10 26 29.3	
	comp=N,18nm,0.9s						
O14K	**Tigyukauivet M**	**4.62**	**312**		**Pn**	**10 25 08.1**	**-0.4**
O14K				IAML		10 26 39.4	
	comp=N,32nm,1.2s						
O14K				IAML		10 27 05.3	
	comp=E,18nm,1.1s						
SEW	**Seward**	**4.67**	**33**	Pn	**Pn**	**10 25 09.1**	**-0.1**
SEW				IAML		10 26 32.5	
	comp=E,16nm,1.2s						
SEW				IAML		10 26 43.7	
	comp=N,23nm,1.2s						
N16K	**Nishlik Lake**	**4.71**	**334**		**Pn**	**10 25 10.3**	**+0.6**
N15K	**Kwethluk River**	**4.83**	**325**		**Pn**	**10 25 11.9**	**+0.6**
N15K				IAML		10 26 38.6	
	comp=N,22nm,0.8s						
N15K				IAML		10 26 53.6	
	comp=E,22nm,1.1s						
SPU	**Mount Spurr**	**5.06**	**14**	Pn	**Pn**	**10 25 14.2**	**-0.3**
N14K	**Kuskokwak Cree**	**5.21**	**317**	Pn	**Pn**	**10 25 16.6**	**0.0**
M18K	**Stony River**	**5.23**	**354**		**Pn**	**10 25 16.8**	**0.0**
M16K	**Timber Creek**	**5.24**	**336**	Pn	**Pn**	**10 25 16.7**	**-0.2**
M16K				IAML		10 26 56.6	
	comp=E,13nm,1.1s						
M17K	**Holitna River**	**5.31**	**345**	Pn	**Pn**	**10 25 17.8**	**-0.1**
M17K				IAML		10 27 25.3	
	comp=E,18nm,1.1s						
RC01	**Rabbit Creek A**	**5.42**	**26**	Pn	**Pn**	**10 25 19.1**	**-0.3**
M15K	**Kasigluk River**	**5.43**	**327**		**Pn**	**10 25 20.5**	**+1.0**
M19K	**Big River Lodg**	**5.61**	**1**	Pn	**Pn**	**10 25 22.1**	**0.0**
PWL	**Port Wells**	**5.61**	**33**	Pn	**Pn**	**10 25 21.6**	**-0.5**
L19K	**White Mountain**	**5.89**	**359**		**Pn**	**10 25 25.9**	**0.0**
HIN	**Hinchinbrook I**	**5.91**	**43**	Pn	**Pn**	**10 25 26.1**	**0.0**
L15K	**Talgik Mounta**	**6.45**	**329**		**Pn**	**10 25 34.6**	**+1.1**
L14K	**Kuka Creek**	**6.55**	**324**		**Pn**	**10 25 34.9**	**-0.1**
SCM	**Sheep Creek Mo**	**6.68**	**31**	Pn	**Pn**	**10 25 36.9**	**+0.1**
K17K	**Iditarod**	**6.69**	**345**		**Pn**	**10 25 36.7**	**-0.2**
PPLA	**Purkeypile**	**6.71**	**9**	Pn	**Pn**	**10 25 37.4**	**+0.1**
KLU	**Klutina**	**6.86**	**37**	Pn	**Pn**	**10 25 39.0**	**-0.3**
K15K	**Wolf Creek Mou**	**6.96**	**332**	Pn	**Pn**	**10 25 40.5**	**-0.1**
BMRM	**Bremner River**	**6.99**	**44**	Pn	**Pn**	**10 25 40.9**	**-0.1**
CAST	**Castle Rocks**	**7.24**	**9**	Pn	**Pn**	**10 25 42.8**	**-1.5**
J17K	**VABM Dome**	**7.45**	**344**	Pn	**Pn**	**10 25 46.8**	**-0.5**
GLB	**Gilahina Butte**	**7.59**	**43**	Pn	**Pn**	**10 25 48.7**	**-0.5**
TGL	**Tana Glacier**	**7.59**	**49**	Pn	**Pn**	**10 25 48.8**	**-0.6**
J16K	**Anvik River**	**7.61**	**339**	Pn	**Pn**	**10 25 48.8**	**-0.8**
GRNC	**Granite Creek**	**8.04**	**51**	Pn	**Pn**	**10 25 55.6**	**0.0**
LOGN	**Logan Glacier**	**8.42**	**52**	Pn	**Pn**	**10 25 59.9**	**-0.7**
BCPM	**Bancas Point**	**8.71**	**59**	Pn	**Pn**	**10 26 04.7**	**+0.1**
WRH	**Wood River Hil**	**8.79**	**19**	Pn	**Pn**	**10 26 04.8**	**-0.8**
IL31		**9.29**	**21**		**Pn**	**10 26 12.4**	**+0.1**
ILAR	**Eielson Array**	**9.29**	**21**	P	**Pn**	**10 26 13.1**	**+0.6**
	comp=E,0.1nm,0.3s,baz=219,slow=14,SNR=5.3						
ILAR				S	Sn	10 27 46.5	-9.4
	comp=E,0.5nm,0.8s,baz=206,slow=13,SNR=2.8						
	comp=E,0.3nm,0.5s						
ILAR				AML	AML		
H21K	**Melozitna Rive**	**9.41**	**5**	Pn	**Pn**	**10 26 13.7**	**-0.5**
IMAR	**Indian Mountai**	**9.71**	**2**	Pn	**Pn**	**10 26 17.7**	**-0.5**
YKA	**Yellowknife Ar**	**20.99**	**56**	P	Pn	10 28 45.0	+0.9
	comp=E,0.3nm,0.7s,baz=274,slow=10,SNR=1.9						
	comp=E,0.3nm,0.7s						
PETK	**Petropavlovsk-**	**27.30**	**284**	P	**P**	**10 29 43.8**	**+1.2**
	comp=E,1.9nm,0.4s,baz=68,slow=10,SNR=21						
	comp=E,1.9nm,0.4s						
SONM	**Songino Array**	**56.30**	**307**	P	**P**	**10 33 37.8**	**-0.8**
	comp=E,0.5nm,0.5s,baz=21,slow=8.4,SNR=2.6						
	comp=E,0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**59.85**	**324**	P	**P**	**10 34 03.1**	**-0.2**
	comp=E,0.7nm,0.5s,baz=46,slow=8.3,SNR=2.5						
	comp=E,0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**59.85**	**324**	P	**P**	**10 34 02.5**	**-0.7**
BVAR	**Borovoye Array**	**64.93**	**332**	P	**P**	**10 34 37.0**	**-0.2**
	comp=E,1.0nm,0.6s,baz=35,slow=5.3,SNR=3.8						
	comp=E,1.0nm,0.6s						

JMA 28 10:35:36.4±0.2**, 32°N**±2°×**13°8E**±°**, h412**km**, MV3.6**/58**, FAR S OFF TOKAI DISTRICT, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TTO2	**TONANKAI O.B.S**	**1.47**	**330**	*e*P	P	10 36 31.7	+1.6
TTO1	**TONANKAI O.B.S**	**1.50**	**322**	*e*P	P	10 36 31.6	+1.3
JHJ2	**Mitsune**	**1.75**	**67**	*e*P	P	10 36 33.5	+1.6
JIE	**Ise**	**2.18**	**333**	*e*P	P	10 36 35.2	+0.8
JKN2	**Miekihoku**	**2.24**	**323**	*e*P	P	10 36 35.3	+0.5
JTNC	**Tanabenakahech**	**2.35**	**306**	*e*P	P	10 36 35.6	0.0
JWY	**Kouya**	**2.61**	**313**	*e*P	P	10 36 38.0	+0.5
JNY	**Yasuok**	**2.90**	**359**	*e*P	P	10 36 41.2	+1.7
JOD2	**Odawara 2**	**2.97**	**19**	*e*P	P	10 36 41.1	+1.0
JAI	**Aioi**	**3.19**	**296**	P	P	10 36 41.9	0.0
BSO3	**Boso 3**	**3.20**	**42**	*e*P	P	10 36 41.7	+0.1
BSO3				*e*S	S	10 37 33.8	-1.0
BSO4	**Boso 4**	**3.25**	**38**	*e*P	P	10 36 43.1	+1.0
BSO4				*e*S	S	10 37 35.8	-0.1
JYTA	**Yamagatataniai**	**3.28**	**343**	*e*P	P	10 36 43.6	+1.1
BSO1	**Boso 1**	**3.38**	**49**	*e*P	P	10 36 42.7	-0.1
BSO1				*e*S	S	10 37 36.0	-1.1
JWT	**Wachi**	**3.50**	**324**	*e*P	P	10 36 45.1	+0.7
JHU2	**Hanno**	**3.57**	**18**	*e*P	P	10 36 45.9	+0.9
JMN	**Monobe**	**3.61**	**292**	*e*P	P	10 36 45.4	0.0
JRY	**Ryogami san**	**3.65**	**13**	*e*P	P	10 36 47.3	+1.6
JAG	**Ashikaga**	**4.17**	**18**	P	P	10 36 50.4	-0.1
JYT	**Yasato**	**4.22**	**26**	*e*P	P	10 36 50.8	-0.1
JYT				*e*S	S	10 37 48.5	-3.4
JFK	**Kawauchi**	**5.48**	**26**	*e*P	P	10 37 04.4	+0.8

IDC ***28*** *10:59:55.1±3.1, 57.62S×147.74W, h0km, mb3.8/3, mbtmp3.8/3, MS3.7/24, Error ellipse: s-maj=99.6km s-min=39.3km az=56.0*

ISC 28 10:59:55.7±2.6**, 57.6S**±0.4×**147.4W**±0.5**, h10**km**, n48,** σ**0.85**/9**, mb4.2**/6**, MS3.7**/24**, 4C, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	**Vanda**	**26.27**	**202**	LR	LR	11 13 29.0	
	comp=Z,115nm,18.5s,baz=80,slow=31						
RPZ	**Rata Peaks**	**29.24**	**280**	LR	LR	11 15 06.4	
	comp=Z,40nm,19.7s,baz=44,slow=31						
QSPA	**South Pole Qui**	**32.54**	**180**	P	**P**	**11 06 27.4**	**+0.8**
	1.0nm,0.7s,baz=77,slow=5.1,SNR=8.2						
QSPA				LR	LR	11 18 05.1	
	comp=Z,184nm,18.0s,baz=60,slow=34						
	1.0nm,0.7s						
TBI	**Tubuai**	**34.26**	**357**	*e*LR	LR	11 15 33.0	
	1μm,28.8s						
RKT	**Rikitea**	**35.62**	**20**	*e*LR	LR	11 16 05.4	
	781nm,26.5s						
RAR	**Rarotonga**	**37.46**	**341**	LR	LR	11 18 56.5	
	comp=Z,194nm,19.5s,baz=136,slow=30						
PMSA	**Palmer Station**	**37.99**	**136**	LR	LR	11 18 57.4	
	comp=Z,118nm,18.1s,baz=286,slow=30						
PPT2	**Papeete2**	**39.99**	**357**	*e*LR	LR	11 18 04.0	
	253nm,30.0s						
PPT2				*e*LR	LR	11 18 09.1	
	310nm,25.8s						
PPT	**Papeete**	**40.01**	**357**	LR	LR	11 20 49.7	
	comp=Z,107nm,19.8s,baz=202,slow=31						
RPN	**Rapa Nui**	**40.55**	**58**	LR	LR	11 20 37.0	
	comp=Z,32nm,21.1s,baz=179,slow=30						
MSVF	**Nonsavu**	**47.33**	**313**	LR	LR	11 23 42.6	
	comp=Z,79nm,21.2s,baz=201,slow=30						
AFI	**Afiamalu**	**47.35**	**327**	LR	LR	11 23 32.6	
	comp=Z,59nm,20.9s,baz=114,slow=30						
VNA3	**Neumayer Olymp**	**48.04**	**163**	⇑P	**P**	**11 08 34.0**	**-0.4**
	comp=Z,2.3nm,0.8s						
DZM	**Mont Dzumac**	**48.63**	**297**	LR	LR	11 26 28.3	
	comp=Z,54nm,19.2s,baz=189,slow=33						
SNAA	**Sanae**	**48.65**	**166**	LR	LR	11 28 07.4	
	comp=Z,37nm,21.0s,baz=196,slow=35						
VNA2	**Neumayer--Watz**	**48.68**	**164**	⇑P	**P**	**11 08 39.2**	**-0.1**
	comp=Z,2.1nm,0.6s,baz=203,slow=7.2						
VNA1	**Neumayer--Stat**	**48.79**	**163**	⇑P	**P**	**11 08 40.3**	**+0.2**
	comp=Z,4.0nm,1.0s						
TROLL	**Troll, Antarti**	**48.98**	**168**	⇑P	**P**	**11 08 40.1**	**-1.7**
	comp=Z,69nm,0.7s						
PLCA	**Paso Flores**	**50.16**	**105**	LR	LR	11 25 10.3	
	comp=Z,73nm,18.2s,baz=221,slow=30						
H03S2	**Juan Fernandez**	**50.85**	**93**	T	T	12 03 53.5	
	baz=218,slow=74,SNR=32						
H03S1	**Juan Fernandez**	**50.86**	**93**	T	T	12 03 53.7	
	baz=218,slow=74,SNR=32						
H03S3	**Juan Fernandez**	**50.87**	**93**	T	T	12 03 51.7	
	baz=218,slow=74,SNR=33						
H03N2	**Juan Fernandez**	**51.15**	**93**	T	T	12 04 11.0	
	baz=222,slow=74,SNR=115						
H03N1	**Juan Fernandez**	**51.16**	**93**	T	T	12 04 12.4	
	baz=40,slow=74,SNR=133						
MAW	**Mawson**	**53.10**	**194**	LR	LR	11 29 21.5	
	comp=Z,90nm,19.4s,baz=154,slow=33						
STKA	**Stephens Creek**	**53.69**	**266**	LR	LR	11 28 51.4	
	comp=Z,108nm,18.6s,baz=34,slow=32						
CTA	**Charters Tower**	**60.60**	**279**	LR	LR	11 32 32.5	
	comp=Z,53nm,19.4s,baz=195,slow=32						
HNR	**Honiara**	**62.64**	**298**	LR	LR	11 34 45.2	
	comp=Z,44nm,18.4s,baz=119,slow=33						
ASAR	**Alice Springs**	**64.32**	**266**	P	**P**	**11 10 31.0**	**-0.4**
	comp=Z,1.0nm,1.0s,baz=148,slow=6.0,SNR=6.3						
	comp=Z,1.0nm,1.0s						
H01W1	**Cape Leeuwin H**	**65.47**	**243**	T	T	12 22 22.5	
	baz=143,slow=75,SNR=18						
H01W2	**Cape Leeuwin H**	**65.48**	**243**	T	T	12 22 20.4	
	baz=143,slow=75,SNR=13						
H01W3	**Cape Leeuwin H**	**65.49**	**243**	T	T	12 22 21.5	
	baz=143,slow=75,SNR=17						
WRA	**Warramunga Arr**	**67.11**	**269**	P	**P**	**11 10 49.6**	**+0.2**
	comp=Z,0.9nm,1.0s,baz=150,slow=5.6,SNR=4.7						
	comp=Z,0.9nm,1.0s						
LPAZ	**La Paz**	**70.67**	**90**	LR	LR	11 35 47.8	
	comp=Z,50nm,18.8s,baz=236,slow=30						
FITZ	**Fitzroy Crossi**	**73.29**	**263**	LR	LR	11 39 31.9	
	comp=Z,77nm,20.6s,baz=80,slow=32						
BATI	**Baumata**	**80.89**	**265**	LR	LR	11 45 15.5	
	comp=Z,78nm,19.5s,baz=99,slow=34						
SIJI	**Sorong**	**84.61**	**277**	LR	LR	11 48 42.6	
	comp=Z,25nm,19.3s,baz=7.0,slow=35						
KAPI	**Kappang**	**87.32**	**265**	LR	LR	11 49 12.5	
	comp=Z,56nm,19.5s,baz=136,slow=34						
SUR	**Sutherland**	**89.81**	**170**	LR	LR	11 48 32.9	
	comp=Z,62nm,20.5s,baz=160,slow=32						
BOSA	**Boshof**	**93.89**	**174**	LR	LR	11 51 15.8	
	comp=Z,80nm,20.4s,baz=209,slow=33						
NVAR	**Mina Array Bea**	**98.76**	**23**	LR	LR	11 51 58.0	
	comp=Z,35nm,18.3s,baz=272,slow=32						
H10S3	**ASCENSION HYDR**	**103.34**	**132**	T	T	13 10 09.0	
	baz=15,slow=74,SNR=26						
H10S2	**ASCENSION HYDR**	**103.34**	**132**	T	T	13 10 05.1	
	baz=205,slow=74,SNR=26						
H10N3	**ASCENSION HYDR**	**104.42**	**131**	T	T	13 11 30.2	
	baz=204,slow=75,SNR=38						
H10N1	**ASCENSION HYDR**	**104.42**	**132**	T	T	13 11 25.7	
	baz=204,slow=75,SNR=48						
H10N2	**ASCENSION HYDR**	**104.43**	**131**	T	T	13 11 25.6	
	baz=204,slow=75,SNR=46						
MKAR	**Makanchi Array**	**148.37**	**272**	PKPbc	**PKPbc**	**11 19 41.1**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=132,slow=2.1,SNR=1.4						
KURBB	**Kurchatov Arra**	**152.63**	**275**	PKPbc	**PKiKP**	**11 19 51.9**	**+0.5**
	comp=Z,0.4nm,0.7s,baz=105,slow=3.0,SNR=2.7						

INMG ***28*** *11:18:31.8±2.2, 35.80N×4.67W, h92km±11km, ML2.8, Error ellipse: s-maj=5.1km s-min=4.3km az=146.0. #DIST_RANGE: REGIONAL #IPMA_REGION: Alboran*
CNRM ***28*** *11:18:31.3, 35.68N×4.80W, h95km, ML2.9*
MDD ***28*** *11:18:32.0±0.4, 35.80N×4.64W, h88km±5km, Mb3.0/22, Error ellipse: s-maj=2.8km s-min=2.1km az=166.0*
IGIL ***28*** *11:18:32.4, 35.80N×4.64W, h88km, ML3.3*
SFS ***28*** *11:18:32.1, 35.80N×4.65W, h72km, ML3.5/21, ML3.5/21, MLv3.4/21*

ISC 28 11:18:29.4±1.2**, 35.80N**±0.02×**4.63W**±0.03**, h101**km±7km**, n102,** σ**1.79**/190**, 20C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECEU	**Ceuta**	**0.61**	**279**	Pn	**Pn**	**11 18 47.3**	**+1.1**
ECEU	**Ceuta**	**0.61**	**279**	P	**Pn**	**11 18 47.0**	**+0.7**
ECEU				S	**Sn**	**11 18 58.2**	**-0.7**
SMIR	**Smir Dam**	**0.62**	**259**	P	**Pn**	**11 18 47.0**	**+0.7**
SMIR				S	**Sn**	**11 18 57.2**	**-1.8**
EMIJ	**Mijas**	**0.77**	**351**	Pn	**Pn**	**11 18 47.2**	**-0.5**
EMIJ				Sn	**Sn**	**11 18 58.3**	**-3.0**
EMIJ	**Mijas**	**0.77**	**351**	⇑P	**Pn**	**11 18 47.1**	**-0.5**
EMIJ				⇑IVmb_VC		11 18 47.7	
	4μm,SNR=46						
EMIJ				S	**Sn**	**11 18 58.9**	**-2.5**
PALE	**Palemas**	**0.81**	**136**	P	**Pn**	**11 18 49.0**	**+1.0**
PALE				S	**Sn**	**11 19 03.2**	**+1.1**
CHEFC	**Chefchaouen**	**0.91**	**220**	P	**Pn**	**11 18 51.5**	**+2.4**
CHEFC				S	**Sn**	**11 19 02.2**	**-1.7**
EXJIF	**Jim

PBDV			IAML			11 19 51.6
PBAR	**Barrancos**	**3.06 322**	Pn	**Pn**	**11 19 17.2**	**+1.3**
PBAR			Sn	**Sn**	**11 19 49.7**	**-2.0**
PBAR	**Barrancos**	**3.06 322**	*eP*	**Pn**	**11 19 17.2**	**+1.3**
PBAR			*eS*	**Sn**	**11 19 50.5**	**-1.2**
PBAR			IAML		11 19 52.7	
PBAR			IAML		11 19 52.7	
PBAR			IAML		11 19 52.9	
PCVE	**Castro Verde**	**3.29 305**	Pn	**Pn**	**11 19 20.2**	**+1.1**
PCVE			Sn	**Sn**	**11 19 56.0**	**-1.4**
PCVE	**Castro Verde**	**3.29 305**	*eP*	**Pn**	**11 19 20.2**	**+1.1**
PCVE			*eS*	**Sn**	**11 19 55.9**	**-1.6**
PCVE			IAML		11 19 58.3	
PCVE			IAML		11 19 59.8	
PCVE			IAML		11 19 59.8	
AVE	**Averroes**	**3.39 223**	Pn	**Pn**	**11 19 21.8**	**+1.3**
AVE			Sn	**Sn**	**11 19 58.1**	**-1.8**
AVE	**Averroes**	**3.39 223**	P	**Pn**	**11 19 19.6**	**-0.9**
AVE			S	**Sn**	**11 19 59.3**	**-0.6**
EBAD	**Badajoz**	**3.51 328**	Pn	**Pn**	**11 19 23.5**	**+1.6**
EBAD			Sn	**Sn**	**11 20 01.4**	**-1.2**
EBAD	**Badajoz**	**3.51 328**	⇑P	**Pn**	**11 19 23.5**	**+1.6**
EBAD			S	**Sn**	**11 20 01.4**	**-1.2**
MESJ	**Messejana**	**3.53 306**	*eP*	**Pn**	**11 19 23.4**	**+1.1**
MESJ			*eS*	**Sn**	**11 20 00.2**	**-2.9**
MESJ	**Messejana**	**3.53 306**	*eP*	**Pn**	**11 19 23.5**	**+1.3**
MESJ			*eS*	**Sn**	**11 20 01.3**	**-1.8**
MORF	**Marmelete**	**3.57 296**	*eP*	**Pn**	**11 19 23.7**	**+0.8**
MORF			*eS*	**Sn**	**11 20 01.1**	**-3.1**
MORF			IAML		11 20 06.1	
	comp=N,81nm,0.2s					
MORF	**Marmelete**	**3.57 296**	*eP*	**Pn**	**11 19 23.8**	**+1.0**
MORF			*eS*	**Sn**	**11 20 02.7**	**-1.5**
MORF			IAML		11 20 05.0	
MORF			IAML		11 20 05.0	
MORF			IAML		11 20 06.3	
PFVI	**Vila Bisbo**	**3.63 293**	Pn	**Pn**	**11 19 24.9**	**+1.2**
PFVI			Sn	**Sn**	**11 20 04.4**	**-1.3**
PFVI	**Vila Bisbo**	**3.63 293**	P	**Pn**	**11 19 24.2**	**+0.5**
PFVI			S	**Sn**	**11 20 05.6**	**-0.1**
PFVI	**Vila Bisbo**	**3.63 293**	*eP*	**Pn**	**11 19 24.9**	**+1.2**
PFVI			*eS*	**Sn**	**11 20 03.2**	**-2.5**
PFVI			IAML		11 20 06.2	
PFVI			IAML		11 20 06.3	
PFVI			IAML		11 20 06.4	
PTEO	**Sao Teotonio**	**3.72 299**	*eP*	**Pn**	**11 19 26.2**	**+1.3**
PTEO			*eS*	**Sn**	**11 20 06.6**	**-1.2**
PTEO			IAML		11 20 09.1	
PTEO			IAML		11 20 09.3	
PTEO			IAML		11 20 11.1	
PAB	**San Pablo**	**3.74 3**	P	**Pn**	**11 19 26.6**	**+1.3**
PAB			⇑IVmb_VC		11 19 28.9	
	comp=N,153nm,SNR=1.7					
PAB			S	**Sn**	**11 20 06.2**	**-2.2**
ETOB	**Tobarra**	**3.75 40**	Pn	**Pn**	**11 19 27.3**	**+2.0**
ETOB			Sn	**Sn**	**11 20 08.7**	**+0.1**
ETOB	**Tobarra**	**3.75 40**	P	**Pn**	**11 19 27.3**	**+2.0**
ETOB			⇑IVmb_VC		11 19 28.1	
	comp=N,321nm,SNR=0.9					
ETOB			S	**Sn**	**11 20 09.1**	**+0.4**
PLOUS	**Minas do Lousa**	**3.77 307**	*eP*	**Pn**	**11 19 26.8**	**+1.3**
PLOUS			*eS*	**Sn**	**11 20 07.8**	**-1.0**
PLOUS			IAML		11 20 09.6	
PLOUS			IAML		11 20 10.5	
PLOUS			IAML		11 20 10.6	
EVO	**Evora**	**3.84 316**	Pn	**Pn**	**11 19 28.2**	**+1.8**
EVO			Sn	**Sn**	**11 20 09.0**	**-1.6**
PESTR	**Estremoz**	**3.86 323**	Pn	**Pn**	**11 19 28.6**	**+1.8**
PESTR			Sn	**Sn**	**11 20 09.4**	**-1.8**
PESTR	**Estremoz**	**3.86 323**	P	**Pn**	**11 19 28.6**	**+1.8**
PESTR			S	**Sn**	**11 20 12.5**	**+1.3**
PESTR	**Estremoz**	**3.86 323**	*eP*	**Pn**	**11 19 28.7**	**+1.9**
PESTR			*eS*	**Sn**	**11 20 09.7**	**-1.5**
PESTR			IAML		11 20 09.9	
PESTR			IAML		11 20 11.6	
PESTR			IAML		11 20 12.8	
CIBOR	**Castaar de Ib**	**3.88 351**	P	**Pn**	**11 19 28.5**	**+1.5**
CIBOR			S	**Sn**	**11 20 09.7**	**-1.8**
ESDC	**Sonseca Array**	**3.90 8**	⇑IVmb_VC		11 19 32.2	
	comp=N,109nm,SNR=0.7					
ESDC			S	**Sn**	**11 20 09.8**	**-2.4**
MOE	**Montemor**	**4.03 314**	*eP*	**Pn**	**11 19 30.6**	**+1.7**
MOE			*eS*	**Sn**	**11 20 14.2**	**-0.9**
MOE			IAML		11 20 16.5	
MOE			IAML		11 20 17.4	
MOE			IAML		11 20 21.2	
PARRA	**Arraiolos**	**4.05 319**	*eP*	**Pn**	**11 19 31.0**	**+1.7**
PARRA			*eS*	**Sn**	**11 20 14.2**	**-1.6**
PARRA			IAML		11 20 15.6	
PARRA			IAML		11 20 16.3	
PARRA			IAML		11 20 16.5	
PMRV	**Marv??o**	**4.23 330**	*eP*	**Pn**	**11 19 33.4**	**+1.7**
PMRV			*eS*	**Sn**	**11 20 18.3**	**-1.8**
PMRV			IAML		11 20 19.6	
PMRV			IAML		11 20 20.5	
PMRV			IAML		11 20 31.0	
PMTG	**Montargil**	**4.34 320**	*eP*	**Pn**	**11 19 34.6**	**+1.5**
PMTG			*eS*	**Sn**	**11 20 20.6**	**-2.1**
PMTG			IAML		11 20 23.9	
PMTG			IAML		11 20 25.2	
PMTG			IAML		11 20 29.0	
TISM	**Timmit**	**4.34 201**	P	**Pn**	**11 19 32.4**	**-0.8**
TISM			S	**Sn**	**11 20 19.9**	**-2.8**
EPLA	**Plasencia**	**4.41 345**	⇑P	**Pn**	**11 19 35.8**	**+1.7**
EPLA			⇑IVmb_VC		11 19 36.2	
	comp=N,433nm,SNR=4.8					
EPLA			S	**Sn**	**11 20 22.1**	**-2.2**
PCBR	**Castelo Branco**	**4.62 332**	*eP*	**Pn**	**11 19 38.8**	**+1.8**
PCBR			*eS*	**Sn**	**11 20 27.2**	**-2.2**
PCBR			IAML		11 20 27.3	
PCBR			IAML		11 20 27.8	
PCBR			IAML		11 20 27.8	
UCM	**Universidad Co**	**4.63 13**	Sn	**Sn**	**11 20 27.2**	**-2.5**
PSARD	**Sardoal**	**4.71 325**	*eP*	**Pn**	**11 19 40.0**	**+1.7**
PSARD			*eS*	**Sn**	**11 20 29.6**	**-2.1**
PSARD			IAML		11 20 32.2	
PSARD			IAML		11 20 32.4	
PSARD			IAML		11 20 34.1	
ECHE	**Chera**	**4.77 36**	Sn	**Sn**	**11 20 32.5**	**-0.6**
PMAFR	**Mafra**	**4.86 312**	Pn	**Pn**	**11 19 42.3**	**+2.1**
PMAFR			Sn	**Sn**	**11 20 33.1**	**-2.3**
PMAFR	**Mafra**	**4.86 312**	*eP*	**Pn**	**11 19 42.4**	**+2.1**
PMAFR			*eS*	**Sn**	**11 20 34.2**	**-1.2**
PMAFR			IAML		11 20 36.1	
PMAFR			IAML		11 20 36.9	
PSBE	**So Bento**	**4.96 320**	*eP*	**Pn**	**11 19 43.8**	**+2.1**
PSBE			*eS*	**Sn**	**11 20 36.3**	**-1.6**
MTE	**Manteigas**	**5.13 334**	*eP*	**Pn**	**11 19 45.9**	**+1.9**
MTE			*eS*	**Sn**	**11 20 37.9**	**-4.1**
MTE			IAML		11 20 41.7	
MTE			IAML		11 20 41.9	
OUZM	**OUZ**	**5.20 201**	P	**Pn**	**11 19 46.5**	**+1.6**
OUZM			S	**Sn**	**11 20 46.3**	**+2.6**
PCAS	**Casmilo, Conde**	**5.23 325**	*eP*	**Pn**	**11 19 47.2**	**+1.9**
PCAS			*eS*	**Sn**	**11 20 41.6**	**-2.7**
PCAS			IAML		11 20 44.8	
PCAS			IAML		11 20 45.2	
PCAS			IAML		11 20 45.5	
OUK	**Oukaimeden**	**5.32 211**	P	**Pn**	**11 19 47.8**	**+0.9**
OUK			S	**Sn**	**11 20 46.5**	**-0.6**
TIO	**Tiouine**	**5.34 205**	Pn	**Pn**	**11 19 48.4**	**+1.5**
TIO			Sn	**Sn**	**11 20 45.0**	**-2.2**
EJUZ	**Juzbado, Salam**	**5.37 350**	P	**Pn**	**11 19 49.0**	**+1.8**
EJUZ			S	**Sn**	**11 20 45.1**	**-2.6**
ETOR	**Torete**	**5.40 21**	P	**Pn**	**11 19 49.4**	**+1.8**
ETOR			⇑IVmb_VC		11 19 52.0	
	comp=N,237nm,SNR=1.4					
ETOR			S	**Sn**	**11 20 44.9**	**-3.7**
PVIS	**Viseu**	**5.54 333**	*eP*	**Pn**	**11 19 51.1**	**+1.6**
PVIS			*eS*	**Sn**	**11 20 50.7**	**-1.1**
PVRL	**Vila Real**	**5.98 337**	*eP*	**Pn**	**11 19 57.7**	**+2.3**
PVRL			*eS*	**Sn**	**11 21 00.6**	**-1.9**
PVRL			IAML		11 21 01.6	
PVRL			IAML		11 21 01.6	
PVRL			IAML		11 21 03.6	
POLO	**Lamas de Olo**	**6.09 337**	*eP*	**Pn**	**11 19 59.2**	**+2.2**
POLO			*eS*	**Sn**	**11 21 02.1**	**-3.2**
POLO			IAML		11 21 03.4	
POLO			IAML		11 21 04.8	
POLO			IAML		11 21 06.3	
TTIG	**Tnine Tigouga,**	**6.14 212**	P	**Pn**	**11 19 56.6**	**-1.2**
TTIG			S	**Sn**	**11 21 04.8**	**-1.9**
PBRG	**Braganca**	**6.22 345**	*eP*	**Pn**	**11 20 00.9**	**+2.2**
ECAL	**Calabor**	**6.35 346**	Pn	**Pn**	**11 20 02.9**	**+2.5**
ECAL			Sn	**Sn**	**11 21 07.4**	**-4.1**
ECAL	**Calabor**	**6.35 346**	P	**Pn**	**11 20 02.7**	**+2.2**
ECAL			S	**Sn**	**11 21 09.3**	**-2.2**
PCAB	**Cabril**	**6.47 337**	*eP*	**Pn**	**11 20 04.3**	**+2.3**
PCAB			*eS*	**Sn**	**11 21 11.4**	**-3.0**
PCAB			IAML		11 21 12.9	
PCAB			IAML		11 21 13.0	
ELOB	**Lobios**	**6.62 337**	P	**Pn**	**11 20 06.3**	**+2.1**
ELOB			S	**Sn**	**11 21 14.9**	**-3.3**
PGAV	**Gavieira, Arco**	**6.78 336**	*eP*	**Pn**	**11 20 08.6**	**+2.3**
PGAV			*eS*	**Sn**	**11 21 18.8**	**-3.2**
PGAV			IAML		11 21 21.4	
PGAV			IAML		11 21 23.3	
EZAM	**Zamans**	**7.08 335**	P	**Pn**	**11 20 12.8**	**+2.4**
EAGO	**Agolada(Pontev**	**7.49 340**	P	**Pn**	**11 20 18.3**	**+2.4**

*IDC **28** 11:21:45.4±0.6,3.6′64S×131.22E,h0km,mb4.2/13, mbtmp4.3/19,ML4.4/5,MS3.3/5,Error ellipse: s-maj=18.9km s-min=10.1km az=84.0*

*NEIC **28** 11:21:46.7±1.4,3.75S±0.05×131.45E±0.05,h10km±1km, mb4.5/24,Error ellipse: s-maj=9.6km s-min=8.2km az=39.0*

*GFZ **28** 11:21:47.3±0.9,4°S±2°×13°1E±°,h26km±8km,M4.5/31, mb4.6/31,Error ellipse: s-maj=5.1km s-min=4.2km az=177.2,confirmed*

*DJA **28** 11:21:49.4±2.7,4°S±4°×13°1E±°,h21km±28km,M4.5/3, mB4.9/1,mb5.1/1,ML4.0/2,MLv4.3/5,MLv4.1/3, Mw(mB)4.2/1*

ISC 28 11:21:47.7±0.4,3.71S±0.04×131.43E±0.04,h24km,n114, σ1s60/111,mb4.5/30,MS3.4/4,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**1.13**	**46**		**Pb**	**11 22 09.0**	**+0.3**
FAKI	**Fak Fak**	**1.13**	**46**	P	**Pb**	**11 22 08.8**	**+0.1**
FAKI				AML	AML		
FAKI				AML	AML		
FAKI	**Fak Fak**	**1.13**	**46**	P	**Pb**	**11 22 08.6**	**0.0**
BNDI	**Bandanaira**	**1.72**	**242**	P	**Pb**	**11 22 19.0**	**+0.3**
BNDI	**Bandanaira**	**1.72**	**242**	P	**Pb**	**11 22 18.7**	**0.0**
SIJI	**Sorong**	**2.83**	**357**	Pn	**Pn**	**11 22 30.4**	**-1.1**
	17nm,0.3s,baz=154,slow=23,SNR=42						
SIJI				Sn	**Sn**	**11 23 03.0**	**-1.9**
	66nm,0.3s,baz=285,slow=23,SNR=5.9						
SIJI				LR	LR	11 23 25.7	
	comp=Z,259nm,18.2s,baz=265,slow=36 33nm,0.3s						
SIJI				AML	AML		
SIJI	**Sorong**	**2.83**	**357**	P	**Pn**	**11 22 30.1**	**-1.4**
AAI	**Ambon**	**3.23**	**270**	P	**Pn**	**11 22 38.0**	**+1.0**
MWPI	**Manokwari, Pap**	**3.80**	**43**	P	**Pn**	**11 22 46.4**	**+1.6**
MWPI	**Manokwari, Pap**	**3.80**	**43**	P	**Pn**	**11 22 44.7**	**-0.1**
SAUI	**Saumlaki**	**4.24**	**182**	Pn	**Pn**	**11 22 49.7**	**-1.2**
SAUI	**Saumlaki**	**4.24**	**182**	P	**Pn**	**11 22 51.3**	**+0.4**
NLAI	**Namlea**	**4.35**	**276**	P	**Pn**	**11 22 54.5**	**+2.1**
NLAI	**Namlea**	**4.35**	**276**	P	**Pn**	**11 22 53.6**	**+1.2**
SANI	**Sanana**	**5.68**	**287**	P	**Pn**	**11 23 09.4**	**-1.3**
SANI	**Sanana**	**5.68**	**287**	P	**Pn**	**11 23 09.0**	**-1.7**
	comp=Z,75nm,0.7s						
SMPI	**Sarmi**	**7.47**	**77**	P	**Pn**	**11 23 33.7**	**-1.6**
	comp=Z,44nm,1.0s						
KMSI	**Cibinong**	**8.58**	**300**	P	**Pn**	**11 23 49.2**	**-1.3**
	comp=Z,60nm,0.4s						
LUWI	**Luwuk**	**9.05**	**287**	Pn	**Pn**	**11 23 56.6**	**-0.4**
LUWI	**Luwuk**	**9.05**	**287**	P	**Pn**	**11 23 56.4**	**-0.6**
	comp=Z,64nm,0.5s						
MTN	**Manton Dam**	**9.08**	**182**		**Pn**	**11 23 58.8**	**+1.5**
SOEI	**Soe**	**9.31**	**229**		**Pn**	**11 24 02.6**	**+1.9**
SOEI	**Soe**	**9.31**	**229**	P	**Pn**	**11 24 00.9**	**+0.2**
	comp=Z,68nm,1.1s						
JAY	**Jayapura**	**9.34**	**83**	P	**Pn**	**11 23 58.0**	**-2.9**
	comp=Z,15nm,1.0s						
BATI	**Baumata**	**10.05**	**230**	Pn	**Pn**	**11 24 10.3**	**-0.4**
	comp=Z,10nm,0.3s,baz=135,slow=2.8,SNR=6.0 comp=Z,22nm,0.5s						
BATI				AML	AML		
BATI	**Baumata**	**10.05**	**230**	P	**Pn**	**11 24 10.5**	**-0.2**
	comp=Z,119nm,0.9s						
APSI	**Ampana**	**10.16**	**286**	P	**Pn**	**11 24 12.9**	**+0.7**
	comp=Z,37nm,1.0s						
EDFI	**Ende, Flores**	**10.90**	**242**	P	**Pn**	**11 24 22.7**	**+0.3**
	comp=Z,16nm,0.9s						
BKSI	**Bulukumba**	**11.39**	**262**	P	**Pn**	**11 24 27.9**	**-1.1**
	comp=Z,42nm,1.3s						
TOLI2	**Tolitoli**	**11.67**	**294**	Pn	**Pn**	**11 24 33.6**	**+0.7**
KAPI	**Kappang**	**11.72**	**263**	Pn	**Pn**	**11 24 35.6**	**+2.0**
	comp=Z,0.9nm,0.3s,baz=184,slow=5.0,SNR=4.2 comp=Z,5.1nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**11.72**	**263**	P	**Pn**	**11 24 33.0**	**-0.5**
	comp=Z,16nm,1.2s						
KNRA	**Kununurra**	**12.18**	**192**		**Pn**	**11 24 38.9**	**-0.9**
DBNI	**Kabupaten Domp**	**13.88**	**249**	P	**Pn**	**11 25 03.5**	**+0.3**
	comp=Z,15nm,1.1s						
PLAI	**Plampang**	**14.49**	**249**	P	**Pn**	**11 25 11.8**	**+0.3**
	comp=Z,31nm,1.2s						
TWSI	**Taliwang, Sumb**	**15.30**	**250**	P	**Pn**	**11 25 22.0**	**-0.3**
	comp=Z,11nm,0.7s						
FITZ	**Fitzroy Crossi**	**15.38**	**201**	Pn	**Pn**	**11 25 19.6**	**-3.8**
	comp=Z,3.0nm,0.3s,baz=29,slow=9.8,SNR=36						
FITZ				Sn	Sn	11 28 01.1	-12
	comp=Z,0.5nm,0.3s,baz=60,slow=13,SNR=2.0 comp=Z,6.4nm,0.3s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.38**	**201**		**Pn**	**11 25 19.5**	**-3.8**
FITZ	**Fitzroy Crossi**	**15.38**	**201**	P	**Pn**	**11 25 20.8**	**-2.5**
	comp=Z,6.3nm,0.7s						
WB0	**Warramunga Arr**	**16.22**	**170**		**Pn**	**11 25 32.0**	**-2.2**
WRAB	**Tennant Creek**	**16.37**	**170**		**Pn**	**11 25 33.0**	**-3.1**
WRAB				IAmb	IAmb	11 25 42.5	
	comp=Z,17nm,0.7s						
WRA	**Warramunga Arr**	**16.38**	**170**	Pn	**Pn**	**11 25 33.0**	**-3.3**
	comp=Z,1.0nm,0.3s,baz=345,slow=13,SNR=46						
WRA				Sn	Sn	11 28 27.5	-10
	comp=Z,1.0nm,0.3s,baz=346,slow=24,SNR=6.0 comp=Z,1.5nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.38**	**170**		**Pn**	**11 25 33.8**	**-2.4**
WR8	**Warramunga Arr**	**16.42**	**170**		**Pn**	**11 25 35.4**	**-1.4**
WR8				IAmb	IAmb	11 25 42.7	
	comp=Z,23nm,0.5s						
PMG	**Port Moresby**	**16.61**	**111**	Pn	**P**	**11 25 42.1**	**+0.6**
	comp=Z,3.9nm,0.4s,baz=279,slow=6.7,SNR=4.4						
PMG	**Port Moresby**	**16.61**	**111**		**Pn**	**11 25 38.3**	**-0.8**
PMG	**Port Moresby**	**16.61**	**111**	P	**Pn**	**11 25 37.7**	**-1.5**
	comp=Z,17nm,1.3s						
SRBI	**Singaraja**	**16.70**	**254**	P	**Pn**	**11 25 39.7**	**-0.7**
	comp=Z,22nm,1.0s						
JAGI	**Jajag, Banyuwa**	**17.82**	**254**	P	**Pn**	**11 25 53.1**	**-1.2**
JAGI				IAmb	IAmb	11 25 55.0	
	comp=Z,16nm,0.5s						
JAGI	**Jajag, Banyuwa**	**17.82**	**254**	P	**Pn**	**11 25 53.5**	**-0.7**
	comp=Z,24nm,0.8s						
KKM	**Kota Kinabalu**	**18.02**	**302**	P	**P**	**11 25 57.7**	**+0.4**
KKM				IAmb	IAmb	11 26 04.1	
	comp=Z,51nm,1.2s						
KKM	**Kota Kinabalu**	**18.02**	**302**	P	**Pn**	**11 25 54.4**	**-2.5**
	comp=Z,47nm,1.4s						
BLJI	**Banyuglugur**	**18.19**	**256**	P	**Pn**	**11 25 59.1**	**+0.3**
	comp=Z,56nm,0.7s						
QIS	**Mount Isa**	**18.54**	**155**	P	**P**	**11 26 03.4**	**+0.6**
	comp=Z,9.6nm,0.8s						
MTSU	**Mount Surprise**	**19.09**	**140**	P	**P**	**11 26 07.7**	**-1.2**
	comp=Z,6.9nm,0.7s						
SJI	**Sawahan**	**19.97**	**258**	P	**P**	**11 26 18.2**	**-0.3**
	comp=Z,14nm,0.8s						
AS31	**Alice Springs**	**19.98**	**173**		**P**	**11 26 20.0**	**+1.4**
AS31				IAmb	IAmb	11 26 26.9	
	comp=Z,13nm,0.4s						
ASAR	**Alice Springs**	**19.98**	**173**	P	Pn	11 26 20.9	+0.6
	comp=Z,11nm,0.5s,baz=350,slow=10,SNR=150						
ASAR				S	**S**	**11 29 55.7**	**-6.6**
	comp=Z,2.4nm,0.7s,baz=356,slow=26,SNR=6.0 comp=Z,11nm,0.5s						
ASAR	**Alice Springs**	**19.98**	**173**		**P**	**11 26 18.4**	**-0.2**
PWJI	**Pagerwojo**	**19.98**	**257**	P	**P**	**11 26 17.9**	**-0.8**
	comp=Z,14nm,1.5s						
STKI	**Sintang**	**20.29**	**280**	P	Pn	11 26 23.1	-1.0
	comp=Z,30nm,0.7s						
KRVT	**Keravat (AS076**	**20.55**	**92**	LR	LR	11 35 31.5	
	comp=Z,52nm,20.8s,baz=294,slow=40						
RABL	**Rabaul**	**20.69**	**92**	P	**P**	**11 26 25.7**	**-0.6**
RABL				IAmb	IAmb	11 26 42.5	
	comp=Z,15nm,0.6s						
MBWA	**Marble Bar**	**20.74**	**212**	P	**P**	**11 26 26.7**	**-0.1**
MBWA				IAmb	IAmb	11 26 27.5	
	comp=Z,11nm,0.7s						
GUMO	**Guam**	**21.75**	**38**	LR	LR	11 35 34.0	
	comp=Z,48nm,19.9s,baz=150,slow=38						
CTA	**Charters Tower**	**21.77**	**140**	P	**P**	**11 26 41.4**	**+3.5**
	comp=Z,4.6nm,0.6s,baz=311,slow=9.7,SNR=9.2 comp=Z,4.6nm,0.6s						
BBJI	**Bungbulang**	**23.96**	**260**	P	**P**	**11 26 57.7**	**-2.9**
BBJI				IAmb	IAmb	11 27 26.5	
	comp=Z,44nm,1.4s						
BBJI	**Bungbulang**	**23.96**	**260**	P	**P**	**11 26 58.3**	**-2.2**
	comp=Z,22nm,0.7s						
GIRL	**Giralia**	**25.13**	**220**	P	**P**	**11 27 11.2**	**+0.1**
FORT	**Forrest**	**27.11**	**186**		**P**	**11 27 30.5**	**+1.6**
FORT				IAmb	IAmb	11 27 31.9	
	comp=Z,10nm,0.7s						
MORW	**Morawa**	**29.15**	**208**		**P**	**11 27 44.8**	**-2.4**
BBOO	**Buckleboo**	**29.27**	**172**	P	**P**	**11 27 50.1**	**+1.9**
STKA	**Stephens Creek**	**29.60**	**162**	P	**P**	**11 27 52.1**	**+1.0**
	comp=Z,2.7nm,0.4s,baz=338,slow=8.5,SNR=6.6 comp=Z,2.7nm,0.4s						
STKA	**Stephens Creek**	**29.60**	**162**	P	**P**	**11 27 51.8**	**+0.7**
STKA	**Stephens Creek**	**29.60**	**162**	P	**P**	**11 27 51.5**	**+0.4**
	comp=Z,31nm,1.3s						
BLDU	**Ballidu**	**30.16**	**206**	P	**P**	**11 27 56.2**	**+0.2**
	comp=Z,16nm,1.7s						
KLBR	**Kellerberrin**	**30.57**	**203**	P	**P**	**11 28 00.2**	**+0.5**
	comp=Z,40nm,0.6s						
CMSA	**Cobar Meteorol**	**30.76**	**156**	P	**P**	**11 28 03.1**	**+1.7**
	comp=Z,8.3nm,2.5s						
HKPS	**Hong Kong Po S**	**30.87**	**328**	P	**P**	**11 28 02.5**	**+0.1**
	comp=Z,108nm,1.8s						
NWAO	**Narrogin (SRO)**	**31.96**	**203**	P	**P**	**11 28 11.9**	**0.0**
RPSI	**Rantau Prapat**	**33.11**	**281**	P	**P**	**11 28 21.8**	**-0.4**
	comp=Z,5.0nm,1.1s						
RPSI	**Rantau Prapat**	**33.11**	**281**	P	**P**	**11 28 22.4**	**+0.1**
	comp=Z,7.9nm,1.1s						
KCSI	**Kotacane, Aceh**	**34.40**	**282**	P	**P**	**11 28 33.4**	**-0.1**
	comp=Z,5.7nm,1.0s						
TPTI		**34.92**	**281**	P	**P**	**11 28 37.5**	**-0.5**
	comp=Z,216nm,1.1s						
CAN	**Canberra**	**35.41**	**155**	P	**P**	**11 28 42.1**	**+0.1**
MILA	**Mila**	**36.96**	**156**	P	**P**	**11 28 52.6**	**-2.7**
	comp=Z,12nm,1.9s						
JHJ2	**Mitsune**	**37.48**	**12**	P	**P**	**11 28 57.6**	**-1.9**
	comp=Z,278nm,1.0s						
NJ2	**Nanjing**	**37.52**	**342**	*eP*	**P**	**11 29 02.0**	**+2.1**
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
CMAR	**Chiang Mai Arr**	**38.85**	**306**	P	**P**	**11 29 11.4**	**0.0**
	comp=Z,1.0nm,0.3s,baz=131,slow=7.2,SNR=10 comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**38.85**	**306**	P	**P**	**11 29 11.3**	**-0.1**
CHTO	**Chiang Mai**	**39.04**	**306**	P	**P**	**11 29 12.8**	**-0.2**
	comp=Z,4.1nm,0.9s						
BJI2	**Beijing**	**45.72**	**344**	P	**P**	**11 30 09.5**	**+2.5**
BJI2				pP	**pP**	**11 30 14.0**	**-0.1**
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LZH	**Lanzhou**	**47.26**	**329**	*eP*	**P**	**11 30 22.0**	**+2.6**
LZH				sP	sP	11 30 29.0	-0.3
LZH				pmax	pmax		
	comp=Z,10.0nm,1.0s						
HHC	**Hu-ho-hao-te**	**47.93**	**340**	*eP*	**P**	**11 30 26.3**	**+1.9**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,5.6s						
GTA2	**Gaotai**	**51.94**	**329**	*eP*	**P**	**11 30 56.5**	**+1.5**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.3s						
SONM	**Songino Array**	**55.83**	**340**	P	**P**	**11 31 23.8**	**+0.5**
	comp=Z,0.9nm,0.6s,baz=162,slow=8.3,SNR=6.9 comp=Z,0.9nm,0.6s						
SONM	**Songino Array**	**55.83**	**340**	P	**P**	**11 31 23.9**	**+0.7**
PETK	**Petropavlovsk-**	**60.78**	**18**	P	**P**	**11 31 59.5**	**+1.9**
	comp=Z,1.1nm,0.7s,baz=224,slow=8.1,SNR=1.2 comp=Z,1.1nm,0.7s						
MKAR	**Makanchi Array**	**66.31**	**325**	P	**P**	**11 32 34.2**	**-0.1**
	comp=Z,1.5nm,0.8s,baz=108,slow=8.3,SNR=13 comp=Z,1.5nm,0.8s						
MKAR	**Makanchi Array**	**66.31**	**325**	P	**P**	**11 32 34.9**	**+0.6**
ZALV	**Zalesovo Beam**	**69.31**	**333**	P	**P**	**11 32 52.9**	**-0.1**
	comp=Z,2.2nm,0.8s,baz=111,slow=8.1,SNR=7.4 comp=Z,2.2nm,0.8s						
KURBB	**Kurchatov Arra**	**70.50**	**327**	P	**P**	**11 33 01.2**	**+0.8**
	comp=Z,3.3nm,0.8s,baz=127,slow=5.4,SNR=25 comp=Z,3.3nm,0.8s						
KURK	**Kurchatov**	**70.50**	**328**	P	**P**	**11 33 01.2**	**+0.8**
KURK				IAmb	IAmb	11 33 04.2	
	comp=Z,4.5nm,0.8s						
VNDA	**Vanda**	**75.52**	**173**	P	**P**	**11 33 31.9**	**+2.2**
	comp=Z,0.9nm,0.5s,baz=347,slow=6.3,SNR=6.6 comp=Z,0.9nm,0.5s						
VNDA	**Vanda**	**75.52**	**173**

s-maj=29.7km s-min=11.1km az=99.0
*MDD **28** 11:34:50.7±0.1,37°.05N×5°.86W, h2^{km}, mb_Lg3.8/76, Error ellipse: s-maj=1.1km s-min=1.0km az=170.0*
*IGIL **28** 11:34:50.9,37°.05N×5°.86W, h2^{km}*
*SFS **28** 11:34:50.4,37°.02N×5°.86W, h1^{km}, ML4.0/25, ML4.0/25, MLv3.9/25*
*INMG **28** 11:34:51.3±1.9,37°.04N×5°.79W, h15^{km}±3^{km}, ML3.7, Error ellipse: s-maj=2.4km s-min=2.2km az=60.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SE Sevilha (ESP)*
*CNRM **28** 11:34:53.0,36°.81N×6°.05W, h74^{km}, ML3.2*
ISC 28 11:34:49.5±0.9,37°.04N±0°.02×5°.85W±0°.01, h10^{km}±6^{km}, n144,σ1§57/307, mb3.6/7, 7C-2D, Spain

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ESPR	**Espera**	**0.17**	**183**	Pg	**Pg**		**11 34 52.8**		**-0.3**
ESPR	**Espera**	**0.17**	**183**	Pg	**Pg**		**11 34 52.6**		**-0.5**
ESPR				Sg	**Sg**		**11 34 56.0**		**+0.4**
ESPR				IVmb_Lg			11 35 00.5		
EXMOR	**Moron de la Fr**	**0.33**	**74**	Pg	**Pb**		**11 34 57.6**		**+0.1**
EXMOR				Sg	**Sb**		**11 35 03.1**		**+0.4**
SFS	**San Fernando**	**0.64**	**207**	Pg	**Pb**		**11 35 03.4**		**+0.7**
SFS	**San Fernando**	**0.64**	**207**	P	**Pn**		**11 35 04.5**		**0.0**
SFS				S	**Sn**		**11 35 13.3**		**-1.4**
SFS	**San Fernando**	**0.64**	**207**	Pg	**Pn**		**11 35 05.2**		**+0.7**
SFS				Sg	**Sb**		**11 35 11.6**		**0.0**
EJIF	**Jimena Fronter**	**0.66**	**152**	⇓Pg	**Pb**		**11 35 02.7**		**-0.3**
EJIF				Sg	**Sb**		**11 35 12.5**		**+0.3**
EXJIF	**Jimena de la F**	**0.68**	**152**	Pg	**Pb**		**11 35 03.9**		**+0.6**
EXJIF				Sg	**Sb**		**11 35 13.1**		**+0.4**
EXBAR	**Barbate**	**0.84**	**184**	Sg	**Sn**		**11 35 20.1**		**+0.3**
EMIJ	**Mijas**	**0.98**	**118**	Pg	**Pg**		**11 35 08.3**		**-0.1**
EMIJ	**Mijas**	**0.98**	**118**	⇓Pg	**Pg**		**11 35 08.2**		**-0.1**
EMIJ				Sg	**Sn**		**11 35 24.7**		**+1.5**
EMIJ				IVmb_Lg			11 35 28.6		
EMIN	**Mina Concepcio**	**0.98**	**318**	Pg	**Pn**		**11 35 09.3**		**0.0**
EMIN				Sg	**Sn**		**11 35 23.1**		**-0.2**
EMIN	**Mina Concepcio**	**0.98**	**318**	⇑Pg	**Pn**		**11 35 09.3**		**0.0**
EMIN				Sg	**Sn**		**11 35 23.4**		**0.0**
EMIN				IVmb_Lg			11 35 25.7		
ECAB	**El Cabril**	**1.09**	**18**	Pg	**Pb**		**11 35 10.3**		**-0.2**
ECAB				Sg	**Sn**		**11 35 26.0**		**-0.1**
ECAB	**El Cabril**	**1.09**	**18**	⇑Pg	**Pb**		**11 35 10.3**		**-0.2**
ECAB				Sg	**Sn**		**11 35 25.8**		**-0.3**
ECAB				IVmb_Lg			11 35 29.0		
EMAL	**Malaga-Limoner**	**1.17**	**103**	Pn	**Pg**		**11 35 12.1**		**+0.1**
EMAL				Sn	**Sn**		**11 35 29.0**		**+1.2**
ECEU	**Ceuta**	**1.20**	**161**	Pg	**Pg**		**11 35 12.7**		**+0.2**
ECEU				Sg	**Sn**		**11 35 28.1**		**-0.4**
ECEU	**Ceuta**	**1.20**	**161**	Pn	**Pg**		**11 35 12.5**		**0.0**
ECEU				Pg	**Pg**		**11 35 12.7**		**+0.2**
ECEU				Sn	**Sn**		**11 35 30.2**		**+1.6**
ECEU				Sg	**Sg**		**11 35 30.4**		**+2.4**
EGOR	**Sierra Gorda,**	**1.39**	**86**	Pn	**Pb**		**11 35 15.6**		**0.0**
EGOR				Sn	**Sg**		**11 35 34.5**		**+0.2**
EGOR	**Sierra Gorda,**	**1.39**	**86**	⇑Pn	**Pb**		**11 35 15.6**		**0.0**
EGOR				Sg	**Sg**		**11 35 35.2**		**+0.9**
EGOR				IVmb_Lg			11 35 41.4		
EGRO	**El Granado**	**1.40**	**291**	Pn	**Pn**		**11 35 15.1**		**+0.1**
EGRO				Sn	**Sg**		**11 35 35.1**		**+0.7**
EGRO	**El Granado**	**1.40**	**291**	⇑Pn	**Pn**		**11 35 15.2**		**+0.1**
EGRO				Sg	**Sg**		**11 35 35.2**		**+0.7**
EGRO				IVmb_Lg			11 35 38.5		
SMIR	**Smir Dam**	**1.40**	**164**	P	**Pb**		**11 35 15.4**		**-0.3**
SMIR				P	**Pb**		**11 35 15.5**		**-0.3**
SMIR				S	**Sn**		**11 35 32.7**		**-0.9**
PBAR	**Barrancos**	**1.48**	**321**	Pn	**Pn**		**11 35 16.1**		**0.0**
PBAR				Sn	**Sg**		**11 35 37.8**		**+0.7**
PBAR	**Barrancos**	**1.48**	**321**	⇑*e*Pn	**Pn**		**11 35 16.1**		**0.0**
PBAR				*e*Sg	**Sg**		**11 35 38.5**		**+1.4**
PBAR				IAML			11 35 40.4		
PBAR				IAML			11 35 42.6		
PBAR				IAML			11 35 46.6		
EADA	**Adamuz**	**1.51**	**41**	Pn	**Pn**		**11 35 16.4**		**-0.3**
EADA				Sn	**Sg**		**11 35 39.1**		**+0.8**
EADA	**Adamuz**	**1.51**	**41**	Pn	**Pn**		**11 35 16.4**		**-0.3**
EADA				Sg	**Sg**		**11 35 37.9**		**-0.3**
EADA				IVmb_Lg			11 35 40.7		
PVAQ	**Vaqueiros**	**1.54**	**284**	P	**Pn**		**11 35 17.2**		**+0.3**
PVAQ				S	**Sb**		**11 35 38.1**		**+0.5**
PVAQ	**Vaqueiros**	**1.54**	**284**	⇑*e*Pn	**Pn**		**11 35 17.0**		**+0.1**
PVAQ				*e*Sn	**Sb**		**11 35 37.6**		**0.0**
PVAQ				IAML			11 35 44.1		
PVAQ				IAML			11 35 44.4		
PVAQ				IAML			11 35 48.4		
PBDV	**Barranco-do-Ve**	**1.68**	**278**	Pn	**Pn**		**11 35 19.2**		**+0.3**
PBDV				Sn	**Sb**		**11 35 41.1**		**-0.6**
PBDV	**Barranco-do-Ve**	**1.68**	**278**	*e*Pn	**Pn**		**11 35 19.4**		**+0.5**
PBDV				*e*Sn	**Sn**		**11 35 39.5**		**-1.0**
PBDV				IAML			11 35 52.3		
PBDV				IAML			11 35 59.7		
PBDV				IAML			11 36 00.8		
ELGU	**Los Guajares,**	**1.79**	**95**	Pn	**Pb**		**11 35 22.1**		**-0.2**
ELGU	**Los Guajares,**	**1.79**	**95**	Pn	**Pb**		**11 35 21.5**		**-0.9**
ELGU				Sn	**Sb**		**11 35 44.8**		**0.0**
ELGU				IVmb_Lg			11 35 56.6		
PCVE	**Castro Verde**	**1.85**	**289**	Pn	**Pn**		**11 35 21.4**		**+0.2**
PCVE				P	**Pn**		**11 35 21.3**		**+0.2**
PCVE				Sn	**Sn**		**11 35 44.9**		**+0.3**
PCVE	**Castro Verde**	**1.85**	**289**	*e*Pn	**Pn**		**11 35 21.4**		**+0.2**
PCVE				*e*Sn	**Sb**		**11 35 45.6**		**-0.8**
PCVE				*e*Sg	**Sg**		**11 35 50.2**		**+1.4**
PCVE				IAML			11 35 56.9		
PCVE				IAML			11 35 58.3		
PCVE				IAML			11 36 04.9		
EQTA	**Presa de Quent**	**1.93**	**84**	Pn	**Pn**		**11 35 23.0**		**+0.6**
EQUE	**Quentar**	**1.93**	**84**	Pn	**Pn**		**11 35 23.0**		**+0.5**
EQUE				Sn	**Sb**		**11 35 49.2**		**+0.2**
EQUE				IVmb_Lg			11 35 58.5		
EBAD	**Badajoz**	**1.95**	**332**	Pn	**Pn**		**11 35 22.7**		**0.0**
EBAD	**Badajoz**	**1.95**	**332**	⇑Pn	**Pn**		**11 35 22.7**		**0.0**
EBAD				Sn	**Sn**		**11 35 47.8**		**+0.7**
EBAD				Sg	**Sb**		**11 35 50.9**		**+1.5**
EBAD				IVmb_Lg			11 35 55.4		
MESJ	**Messejana**	**2.05**	**294**	*e*P	**Pn**		**11 35 24.3**		**+0.3**
MESJ	**Messejana**	**2.05**	**294**	*e*Pn	**Pn**		**11 35 24.5**		**+0.4**
MESJ				*e*Sg	**Sg**		**11 35 55.3**		**-0.1**
MORF	**Marmelete**	**2.26**	**278**	*e*P	**Pn**		**11 35 27.2**		**+0.3**
MORF	**Marmelete**	**2.26**	**278**	*e*Pn	**Pn**		**11 35 27.3**		**+0.4**
MORF				*e*Sn	**Sn**		**11 35 54.8**		**0.0**
MORF				*e*Sg	**Sg**		**11 36 02.8**		**+0.7**
MORF				IAML			11 36 09.2		
MORF				IAML			11 36 10.4		
MORF				IAML			11 36 10.9		
EVO	**Evora**	**2.28**	**312**	Pn	**Pn**		**11 35 27.7**		**+0.6**
EVO				Sn	**Sn**		**11 35 56.0**		**+0.8**
EVO	**Evora**	**2.28**	**312**	*e*Pn	**Pn**		**11 35 27.7**		**+0.6**
EVO				*e*Pg	**Pg**		**11 35 33.6**		**+0.5**
EVO				*e*Sg	**Sg**		**11 36 02.4**		**-0.2**
EVO				IAML			11 36 10.3		
EVO				IAML			11 36 12.3		
EVO				IAML			11 36 13.9		
PLOUS	**Minas do Lousa**	**2.28**	**297**	*e*Pn	**Pn**		**11 35 27.6**		**+0.5**
PLOUS				*e*Sg	**Sg**		**11 36 02.9**		**+0.3**
PLOUS				IAML			11 36 08.8		
PLOUS				IAML			11 36 10.3		
PLOUS				IAML			11 36 12.9		
PESTR	**Estremoz**	**2.29**	**324**	Pn	**Pn**		**11 35 27.9**		**+0.5**
PESTR				Sn	**Sn**		**11 35 56.3**		**+0.7**
PESTR	**Estremoz**	**2.29**	**324**	P	**Pn**		**11 35 28.8**		**+1.5**
PESTR				S	**Sn**		**11 35 57.4**		**+1.8**
PESTR	**Estremoz**	**2.29**	**324**	*e*Pn	**Pn**		**11 35 28.1**		**+0.8**
PESTR				*e*Sg	**Sg**		**11 36 02.3**		**-0.8**
PESTR				IAML			11 36 06.8		
PESTR				IAML			11 36 08.5		
PESTR				IAML			11 36 13.2		
EQES	**Quesada**	**2.34**	**70**	Pn	**Pn**		**11 35 28.0**		**-0.1**
EQES				Sn	**Sn**		**11 35 58.0**		**+1.1**
EQES				Sg	**Sg**		**11 36 03.7**		**-1.0**
EQES				IVmb_Lg			11 36 15.8		
PTEO	**Sao Teotonio**	**2.35**	**283**	*e*Pn	**Pn**		**11 35 28.8**		**+0.7**
PTEO				*e*Sn	**Sn**		**11 35 57.5**		**+0.5**
PTEO				*e*Sg	**Sg**		**11 36 06.0**		**+1.0**
PTEO				IAML			11 36 20.7		
PTEO				IAML			11 36 22.3		
PTEO				IAML			11 36 22.6		
EBER	**Berja**	**2.37**	**92**	Pn	**Pb**		**11 35 30.5**		**-1.9**
EBER	**Berja**	**2.37**	**92**	Pn	**Pn**		**11 35 29.6**		**+1.0**
EBER				Sg	**Sg**		**11 36 04.0**		**-1.7**
EBER				IVmb_Lg			11 36 29.1		
PALE	**Palemas**	**2.38**	**139**	P	**Pn**		**11 35 29.3**		**+0.7**
PALE				S	**Sn**		**11 35 58.1**		**+0.2**
PFVI	**Vila Bisbo**	**2.39**	**273**	Pn	**Pn**		**11 35 28.5**		**0.0**
PFVI				Sn	**Sn**		**11 35 56.5**		**-1.4**
PFVI	**Vila Bisbo**	**2.39**	**273**	P	**Pn**		**11 35 28.6**		**0.0**
PFVI				S	**Sn**		**11 35 56.4**		**-1.4**
PFVI	**Vila Bisbo**	**2.39**	**273**	*e*Pn	**Pn**		**11 35 28.9**		**+0.3**
PFVI				*e*Sn	**Sn**		**11 35 58.3**		**+0.4**
PFVI				*e*Sg	**Sg**		**11 36 09.2**		**+3.1**
PFVI				IAML			11 36 11.2		
PFVI				IAML			11 36 18.6		
PFVI				IAML			11 36 18.6		
MOE	**Montemor**	**2.48**	**308**	*e*Pn	**Pn**		**11 35 30.5**		**+0.6**
MOE				*e*Sg	**Sg**		**11 36 09.5**		**+0.4**
MOE				IAML			11 36 12.3		
MOE				IAML			11 36 14.3		
MOE				IAML			11 36 14.4		
PARRA	**Arraiolos**	**2.48**	**316**	*e*Pn	**Pn**		**11 35 30.4**		**+0.4**
PARRA				*e*Sn	**Sn**		**11 36 01.3**		**+1.0**
PARRA				*e*Sg	**Sg**		**11 36 09.8**		**+0.6**
PARRA				IAML			11 36 15.9		
PARRA				IAML			11 36 19.6		
PARRA				IAML			11 36 20.7		
EALB	**Alboran**	**2.52**	**115**	Pn	**Pn**		**11 35 31.0**		**+0.7**
CIBOR	**Castaar de Ib**	**2.62**	**7**	Pn	**Pn**		**11 35 31.6**		**-0.2**
CIBOR				Sn	**Sn**		**11 36 04.2**		**+0.5**
CIBOR				Sg	**Sg**		**11 36 14.3**		**+0.7**
PMRV	**Marv??o**	**2.68**	**333**	*e*Pn	**Pn**		**11 35 33.0**		**+0.3**
PMRV				*e*Sg	**Sg**		**11 36 13.9**		**-1.7**
PMRV				IAML			11 36 18.7		
PMRV				IAML			11 36 19.7		
PMRV				IAML			11 36 19.7		
PMTG	**Montargil**	**2.77**	**318**	*e*Pn	**Pn**		**11 35 34.1**		**+0.3**
PMTG				*e*Sn	**Sn**		**11 36 08.5**		**+1.2**
PMTG				*e*Sg	**Sg**		**11 36 17.0**		**-1.4**
PMTG				IAML			11 36 24.4		
PMTG				IAML			11 36 25.1		
PMTG				IAML			11 36 34.4		
PAB	**San Pablo**	**2.77**	**25**	Pn	**Pn**		**11 35 34.5**		**+0.5**
PAB				Sn	**Sn**		**11 36 05.3**		**-2.2**
PAB				Sg	**Sg**		**11 36 17.5**		**-1.0**
PAB				IVmb_Lg			11 36 25.5		
WMELI	**Melilla**	**2.90**	**125**	Pn	**Pn**		**11 35 36.7**		**+1.0**
WMELI				Sn	**Sn**		**11 36 10.6**		**0.0**
ENIJ	**Nijar**	**2.91**	**90**	Pn	**Pn**		**11 35 36.2**		**+0.3**
ENIJ				Sn	**Sn**		**11 36 12.5**		**+1.5**
ENIJ	**Nijar**	**2.91**	**90**	Pn	**Pn**		**11 35 36.5**		**+0.6**
ENIJ				Sn	**Sn**		**11 36 13.7**		**+2.8**
ENIJ				IVmb_Lg			11 36 34.3		
AKLM	**AKL**	**2.99**	**147**	P	**Pn**		**11 35 34.7**		**-2.4**
AKLM				S	**Sn**		**11 36 07.4**		**-5.6**
ESDC	**Sonseca Array**	**3.02**	**29**	Pn	**Pn**		**11 35 38.0**		**+0.6**
	2.1nm,0.3s,baz=210,slow=12,SNR=61								
ESDC				Sn	**Sn**		**11 36 13.8**		**+0.1**
	4.9nm,0.3s,baz=211,slow=23,SNR=7.7								
ESDC				Lg	Lg		11 36 23.9		
	8.1nm,0.3s,baz=213,slow=28,SNR=13								
	4.7nm,0.4s								
ESDC					AML	AML			
ESDC	**Sonseca Array**	**3.02**	**29**	Pn	**Pn**		**11 35 37.8**		**+0.4**
ESDC				Sn	**Sn**		**11 36 14.4**		**+0.7**
ESDC				Sg	**Sg**		**11 36 25.3**		**-1.2**
ESDC				IVmb_Lg			11 36 34.0		
EPLA	**Plasencia**	**3.03**	**357**	Pn	**Pn**		**11 35 37.3**		**-0.2**
EPLA				Sn	**Sn**		**11 36 14.1**		**+0.2**
EPLA				Sg	**Sg**		**11 36 25.2**		**-1.6**
EPLA				IVmb_Lg			11 36 29.8		
PCBR	**Castelo Branco**	**3.08**	**336**	*e*Pn	**Pn**		**11 35 38.5**		**+0.4**
PCBR				*e*Sn	**Sn**		**11 36 13.9**		**-1.1**
PCBR				*e*Sg	**Sg**		**11 36 27.4**		**-1.0**
PCBR				IAML			11 36 34.7		
PCBR				IAML			11 36 34.8		
PCBR				IAML			11 36 35.9		
PSARD	**Sardoal**	**3.14**	**325**	*e*Pn	**Pn**		**11 35 39.5**		**+0.5**
PSARD				*e*Sn	**Sn**		**11 36 17.1**		**+0.5**
PSARD				*e*Sg	**Sg**		**11 36 27.7**		**-2.7**
PSARD				IAML			11 36 33.5		
PSARD				IAML			11 36 35.4		
PSARD				IAML			11 36 35.5		
RTC	**Rabat Centre**	**3.15**	**195**	Pn	**Pn**		**11 35 39.8**		**+0.6**
RTC				Sn	**Sn**		**11 36 14.7**		**-2.0**
ELOR	**Lorca, Murcia**	**3.32**	**78**	Sg	**Sg**		**11 36 35.9**		**-0.4**
ELOR				IVmb_Lg			11 36 44.5		
PMAFR	**Mafra**	**3.32**	**306**	Pn	**Pn**		**11 35 42.3**		**+0.8**
PMAFR				Sn	**Sn**		**11 36 21.0**		**-0.1**
PMAFR	**Mafra**	**3.32**	**306**	*e*Pn	**Pn**		**11 35 42.4**		**+0.9**
PMAFR				*e*Sn	**Sn**		**11 36 22.5**		**+1.5**
PMAFR				IAML			11 36 41.7		
PMAFR				IAML			11 36 44.6		
PMAFR				IAML			11 36 53.7		
PSBE	**So Bento**	**3.39**	**318**	*e*Pn	**Pn**		**11 35 43.3**		**+0.8**
PSBE				*e*Sn	**Sn**		**11 36 23.2**		**+0.4**
PSBE				*e*Sg	**Sg**		**11 36 36.1**		**-2.3**
PSBE				IAML			11 36 42.8		
PSBE				IAML			11 36 45.9		
PSBE				IAML			11 36 52.1		
IFR	**Ifrane**	**3.56**	**170**	Sn	**Sn**		**11 36 26.6**		**-0.5**
MTE	**Manteigas**	**3.61**	**339**	*e*Pn	**Pn**		**11 35 46.6**		**+1.0**
MTE				*e*Sn	**Sn**		**11 36 27.8**		**-0.5**
MTE				*e*Sg	**Sg**		**11 36 44.3**		**-1.2**
MTE				IAML			11 36 50.6		
MTE				IAML			11 36 53.1		
MTE				IAML			11 36 57.5		
ZHG	**ZHG**	**3.64**	**191**	P	**Pn**		**11 35 45.0**		**-1.0**
ZHG				S	**Sn**		**11 36 25.9**		**-3.0**
PCAS	**Casmilo, Conde**	**3.66**	**326**	*e*Pn	**Pn**		**11 35 46.4**		**+0.3**
PCAS				*e*Sn	**Sn**		**11 36 28.9**		**-0.5**
PCAS				*e*Sg	**Sg**		**11 36 47.9**		**+0.8**
PCAS				IAML			11 36 53.9		
PCAS				IAML			11 36 59.7		
PCAS				IAML			11 37 01.8		
ETOB	**Tobarra**	**3.76**	**63**	Pn	**Pn**		**11 35 47.2**		**-0.4**
ETOB				Sn	**Sn**		**11 36 31.3**		**-0.7**
ETOB	**Tobarra**	**3.76**	**63**	Pn	**Pn**		**11 35 47.0**		**-0.6**
ETOB				Sn	**Sn**		**11 36 33.7**		**+1.7**
ETOB				Sg	**Sb**		**11 36 45.4**		**+3.7**
ETOB				IVmb_Lg			11 36 56.3		
JBK	**JBK**	**3.79**	**134**	P	**Pn**		**11 35 48.2**		**+0.1**
JBK				S	**Sn**		**11 36 33.4**		**+0.5**
GUD	**Guadarrama**	**3.84**	**20**	Pn	**Pn**		**11 35 49.0**		**+0.3**
GUD				Sn	**Sn**		**11 36 34.5**		**+0.6**
GUD				Sg	**Sg**		**11 36 51.4**		**-1.3**
GUD				IVmb_Lg			11 36 55.9		
UCM	**Universidad Co**	**3.85**	**31**	Pn	**Pn**		**11 35 49.5**		**+0.8**
UCM				Sn	**Sn**		**11 36 34.0**		**0.0**
CART	**Cartagena**	**3.90**	**80**	Pn	**Pn**		**11 35 49.8**		**+0.4**
CART				Sn	**Sn**		**11 36 35.1**		**-0.1**
CART	**Cartagena**	**3.90**	**80**	P	**Pn**		**11 35 52.6**		**+3.1**
CART				S	**Sb**		**11 36 40.6**		**-5.0**
AVE	**Averroes**	**3.94**	**199**	Pn	**Pn**		**11 35 51.1**		**+1.0**
AVE				Sn	**Sn**		**11 36 36.7**		**+0.4**
PVIS	**Viseu**	**4.01**	**337**	*e*Pn	**Pn**		**11 35 51.4**		**+0.5**
PVIS				*e*Sn	**Sn**		**11 36 37.1**		**-0.9**
PVIS				*e*Sg	**Sg**		**11 36 55.8**		**-2.3**
EJUZ	**Juzbado, Salam**	**4.05**	**360**	Pn	**Pn**		**11 35 52.2**		**+0.7**
EJUZ				Sn	**Sn**		**11 36 38.1**		**-0.8**
EJUZ				Sg	**Sg**		**11 36 57.9**		**-1.5**
YEBES	**Yebes (Guadala**	**4.09**	**31**	Pn	**Pn**		**11 35 53.1**		**+0.9**
YEBES				Sn	**Sn**		**11 36 41.3**		**+1.1**
YEBES				Sg	**Sg**		**11 37 00.7**		**-0.2**
YEBES				IVmb_Lg			11 37 11.1		
MD31	**MD31**	**4.25**	**168**	P	**Pn**		**11 35 53.7**		**-0.7**
MD31				S	**Sn**		**11 36 39.8**		**-4.3**
MDT	**Midelt**	**4.33**	**166**	Pn	**Pn**		**11 35 54.7**		**-0.8**
	4.0nm,0.3s,baz=355,slow=7.3,SNR=6.5								
MDT				Sn	**Sn**		**11 36 42.0**		**-4.1**
	6.4nm,0.3s,baz=182,slow=20,SNR=13								
	8.1nm,0.3s								
MDT					AML	AML			
MDT	**Midelt**	**4.33**	**166**	P	**Pn**		**11 35 54.7**		**-0.8**
MDT				S	**Sn**		**11 36 43.4**		**-2.6**
EVIV	**Cofrentes, Val**	**4.34**	**58**	Pn	**Pn**		**11 35 54.7**		**-0.9**
EVIV				Sn	**Sn**		**11 36 45.2**		**-1.0**
EVIV				Sg	**Sg**		**11 37 07.2**		**-1.7**
EVIV				IVmb_Lg			11 37 24.0		
PVRL	**Vila Real**	**4.48**	**342**	*e*Pn	**Pn**		**11 35 57.6**		**+0.2**
PVRL				*e*Sn	**Sn**		**11 36 47.6**		**-1.9**
PVRL				IAML			11 36 48.5		
PVRL				IAML			11 36 48.6		
PVRL				IAML			11 36 50.5		
AFON	**Font Roja**	**4.50**	**67**	Pn	**Pn**		**11 35 57.2**		**-0.6**
AFON				Sg	**Sg**		**11 37 13.7**		**-0.3**
AFON				IVmb_Lg			11 37 28.9		
POLO	**Lamas de Olo**	**4.59**	**341**	*e*Pn	**Pn**		**11 35 59.5**		**+0.5**
POLO				*e*Sn	**Sn**		**11 36 50.2**		**-2.1**
POLO				IAML			11 36 51.2		
POLO				IAML			11 36 52.9		
POLO				IAML			11 36 52.9		
POLO				*e*Sg	**Sg**		**11 37 15.3**		**-1.5**
ECHE	**Chera**	**4.61**	**55**	Pn	**Pn**		**11 35 58.8**		**-0.4**
ECHE	**Chera**	**4.61**	**55**	Pn	**Pn**		**11 35 58.6**		**-0.6**
ECHE				Sn	**Sn**		**11 36 52.7**		**0.0**
ECHE				Sg	**Sg**		**11 37 18.4**		**+1.0**
ECHE				IVmb_Lg			11 37 29.6		
ETOR	**Torete**	**4.80**	**37**	Pn	**Pn**		**11 36 02.3**		**+0.4**
ETOR				Sn	**Sn**		**11 36 56.8**		**-0.7**
ETOR				Sg	**Sg**		**11 37 23.9**		**+0.4**
ETOR				IVmb_Lg			11 37 33.7		
PBRG	**Braganca**	**4.81**	**352**	*e*Pn	**Pn**		**11 36 02.5**		**+0.5**
PBRG				*e*Sn	**Sn**		**11 36 55.9**		**-2.0**
PBRG				*e*Sg	**Sg**		**11 37 20.2**		**-3.8**
PBRG				IAML			11 37 27.0		
PBRG				IAML			11 37 27.2		
PBRG				IAML			11 37 27.2		
SRHM	**Skhour des Reh**	**4.86**	**201**	P	**Pn**		**11 36 03.6**		**+0.9**
SRHM				S	**Sn**		**11 36 59.2**		**+0.3**
ECAL	**Calabor**	**4.95**	**352**	Pn	**Pn**		**11 36 03.8**		**-0.2**
ECAL				Sn	**Sn**		**11 36 58.9**		**-2.3**
ECAL	**Calabor**	**4.95**	**352**	Pn	**Pn**		**11 36 04.3**		**+0.4**
ECAL				Sn	**Sn**		**11 36 59.4**		**-1.8**
ECAL				Sg	**Sg**		**11 37 30.0**		**+1.6**
ECAL				IVmb_Lg			11 37 43.0		
PCAB	**Cabril**	**4.96**	**341**	*e*Pn	**Pn**		**11 36 04.3**		**+0.2**
PCAB				*e*Sn	**Sn**		**11 36 59.4**		**-2.2**
PCAB				*e*Sg	**Sg**		**11 37 28.2**		**-0.7**
PCAB				IAML			11 37 30.7		
PCAB				IAML			11 37 30.7		
PCAB				IAML			11 37 34.4		
E0901	**Celadas (Terue**	**5.04**	**46**	Pn	**Pn**		**11 36 05.6**		**+0.4**
E0901				Sn	**Sn**		**11 37 00.6**		**-3.0**
E0901				IVmb_Lg			11 37 47.3		
ELOB	**Lobios**	**5.12**	**341**	Pn	**Pn**		**11 36 06.3**		**0.0**
ELOB				Sn	**Sn**		**11 37 02.4**		**-3.1**
ELOB				Sg	**Sg**		**11 37 33.1**		**-0.8**
ELOB				IVmb_Lg			11 37 40.8		
PGAV	**Gavieira, Arco**	**5.27**	**340**	*e*Pn	**Pn**		**11 36 08.8**		**+0.4**
PGAV				*e*Sn	**Sn**		**11 37 06.6**		**-2.5**
PGAV				*e*Sg	**Sg**		**11 37 35.9**		**-2.7**
PGAV				IAML			11 37 43.9		
PGAV				IAML			11 37 45.6		
PGAV				IAML			11 37 46.8		
TISM	**Timmit**	**5.32**	**185**	P	**Pn**		**11 36 06.2**		**-2.8**
TISM				S	**Sn**		**11 37 04.7**		**-5.6**
EMOS	**Mosqueruela**	**5.36**	**50**	Pn	**Pn**		**11 36 09.7**		**0.0**
EMOS				Sn	**Sn**		**11 37 09.9**		**-1.6**
EMOS				Sg	**Sg**		**11 37 40.4**		**-1.1**
EMOS				IVmb_Lg			11 37 46.9		
EZAM	**Zamans**	**5.56**	**338**	Pn	**Pn**		**11 36 12.6**		**+0.3**
EZAM				Sn	**Sn**		**11 37 13.0**		**-3.2**
EZAM				Sg	**Sg**		**11 37 48.0**		**0.0**
EZAM				IVmb_Lg			11 38 00.7		
EAGO	**Agolada(Pontev**	**6.01**	**344**	Pn	**Pn**		**11 36 18.9**		**+0.4**
EAGO				Sn	**Sn**		**11 37 23.9**

h30km±11km,**n140**,σ1s**06**/145,**mb3.7**/11,**South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.29**	**15**		**Pn**	**11 38 12.0**	**0.0**
CNBA				IAML		11 38 19.1	
	comp=N,8µm,0.3s						
CNBA	**Chernabura Isl**	**0.29**	**15**		**Sn**	**11 38 17.7**	**+0.4**
CHNA	**Chernabura Isl**	**0.30**	**15**	P	**Pn**	**11 38 11.8**	**-0.3**
SDPT	**Sand Point**	**0.92**	**332**	P	**Pb**	**11 38 20.4**	**-0.7**
SDPT	**Sand Point**	**0.92**	**332**	S	**Sb**	**11 38 33.1**	**+0.1**
SDPT	**Sand Point**	**0.92**	**332**		**Pb**	**11 38 20.5**	**-0.7**
SDPT	**Sand Point**	**0.92**	**332**		**Sb**	**11 38 32.9**	**-0.1**
DOL	**Dolgoi Island**	**1.38**	**297**		**Pn**	**11 38 26.7**	**-0.3**
DOL					**Sn**	**11 38 44.3**	**0.0**
PVV	**Pavlof Volcano**	**1.46**	**306**		**Pn**	**11 38 28.4**	**+0.3**
PS1A	**Pavlof South-1**	**1.46**	**308**		**Pn**	**11 38 28.8**	**+0.7**
PS1A					**Sn**	**11 38 47.0**	**+0.8**
PS4A	**Pavlof South-4**	**1.47**	**304**		**Pn**	**11 38 28.4**	**+0.1**
VNSW	**Veniaminof 7**	**1.54**	**3**		**Pn**	**11 38 30.1**	**+0.9**
DTNA	**Dutton South F**	**1.58**	**294**		**Pn**	**11 38 29.9**	**+0.1**
DTNA					**Sn**	**11 38 49.7**	**+0.4**
DT1	**Dutton Round H**	**1.58**	**292**		**Pn**	**11 38 29.6**	**-0.2**
DT1					**Sn**	**11 38 49.2**	**-0.1**
PN7A	**Pavlof North-7**	**1.59**	**305**		**Pn**	**11 38 30.5**	**+0.6**
VNWF	**Veniaminof 8**	**1.61**	**3**		**Pn**	**11 38 31.6**	**+1.2**
VNSS	**Veniaminof 8**	**1.69**	**5**		**Pb**	**11 38 33.8**	**-0.6**
VNHG	**Veniaminof 1**	**1.71**	**10**		**Pb**	**11 38 33.3**	**-1.3**
VNFG	**Fog Glacier, M**	**1.75**	**3**		**Pn**	**11 38 33.7**	**+1.5**
VNNF	**Veniaminof 3**	**1.76**	**7**		**Pb**	**11 38 34.1**	**-1.4**
S12K	**Black Hills**	**1.78**	**312**		**Pn**	**11 38 33.7**	**+1.2**
CHGN	**Chignik**	**1.91**	**22**		**Pn**	**11 38 35.2**	**+1.0**
CHGN				Sn	**Sn**	**11 38 58.6**	**+1.2**
CHGN				IAML		11 39 00.3	
	comp=N,444nm,0.3s						
ISLZ	**Isanotski Laza**	**2.33**	**276**		**Pn**	**11 38 40.4**	**+0.4**
SSLS	**Shishaldin Sou**	**2.49**	**276**		**Pn**	**11 38 43.3**	**+1.0**
SSLN	**Shishaldin Nor**	**2.50**	**278**		**Pn**	**11 38 43.4**	**+1.0**
SSLN					**Sn**	**11 39 14.0**	**+2.2**
CHIR	**Chirikof Islan**	**2.68**	**60**	P	**Pn**	**11 38 45.3**	**+0.5**
CHIR	**Chirikof Islan**	**2.68**	**60**	Pn	**Pn**	**11 38 45.2**	**+0.4**
CHIR				IAML		11 39 17.2	
	comp=N,305nm,0.6s						
CHIR				IAML		11 39 34.9	
	comp=E,239nm,0.9s						
WTUG	**Tugumak**	**2.72**	**278**		**Pn**	**11 38 46.6**	**+1.1**
WESP	**Westdahl Peak**	**2.92**	**271**		**Pn**	**11 38 49.0**	**+0.9**
WESP					**Sn**	**11 39 24.1**	**+1.9**
WECS	**Westdahl Cape**	**2.95**	**272**	Pn	**Pn**	**11 38 49.5**	**+1.0**
WECS				IAML		11 39 37.9	
	comp=E,175nm,0.6s						
WECS				IAML		11 39 59.4	
	comp=N,258nm,1.1s						
R16K	**Pilot Point**	**3.26**	**21**	Pn	**Pn**	**11 38 53.8**	**+1.0**
R16K				IAML		11 39 55.1	
	comp=E,158nm,1.2s						
R16K				IAML		11 40 12.4	
	comp=N,195nm,1.0s						
AKSA	**Akutan Strait**	**3.52**	**266**		**Pn**	**11 38 57.3**	**+0.9**
PLBL	**Peulik Blue Cr**	**3.56**	**26**		**Pn**	**11 38 58.3**	**+1.4**
AKUT	**Akutan**	**3.56**	**266**	P	**Pn**	**11 38 58.0**	**+1.0**
AKUT	**Akutan**	**3.56**	**266**	S	**Sn**	**11 39 39.1**	**+1.0**
AKUT	**Akutan**	**3.56**	**266**	Pn	**Pn**	**11 38 57.3**	**+0.3**
AKUT				IAML		11 39 39.2	
	comp=E,102nm,0.3s						
AHB	**Akutan Harbor**	**3.59**	**266**		**Pn**	**11 38 58.4**	**+0.9**
R17L	**Mt. Peulik Vol**	**3.62**	**30**		**Pn**	**11 38 59.5**	**+1.6**
R17L					**Sn**	**11 39 40.4**	**+0.8**
ZRO	**Akutan Zero**	**3.69**	**265**		**Pn**	**11 38 58.9**	**+0.1**
ZRO					**Sn**	**11 39 40.2**	**-1.1**
PLK3	**Peulik 3**	**3.70**	**30**		**Pn**	**11 39 00.4**	**+1.5**
PLK1	**Peulik 1**	**3.70**	**27**		**Pn**	**11 39 00.2**	**+1.3**
SII	**Sitkinak Islan**	**3.74**	**55**	P	**Pn**	**11 39 00.0**	**+0.6**
SII	**Sitkinak Islan**	**3.74**	**55**	Pn	**Pn**	**11 39 00.1**	**+0.6**
SII				IAML		11 40 24.2	
	comp=E,142nm,0.7s						
SII				IAML		11 40 25.4	
	comp=N,142nm,0.9s						
PLK2	**Peulik 2**	**3.75**	**29**		**Pn**	**11 39 01.2**	**+1.7**
UNV	**Unalaska Valle**	**4.04**	**263**	P	**Pn**	**11 39 03.7**	**+0.1**
UNV	**Unalaska Valle**	**4.04**	**263**	Pn	**Pn**	**11 39 04.0**	**+0.4**
MNAT	**Makushin Natee**	**4.14**	**264**		**Pn**	**11 39 05.2**	**+0.3**
MNAT					**Sn**	**11 39 49.6**	**-2.7**
MSW	**Makushin Switc**	**4.19**	**264**		**Pn**	**11 39 07.1**	**+1.5**
MGOD	**Makushin Gods**	**4.27**	**263**		**Pn**	**11 39 07.3**	**+0.6**
MGOD					**Sn**	**11 39 56.0**	**+0.5**
CAHL	**Cahill**	**4.29**	**33**		**Pn**	**11 39 08.0**	**+1.0**
Q17K	**Contact Creek**	**4.29**	**28**		**Pn**	**11 39 08.2**	**+1.0**
MAPS	**Pakushin South**	**4.31**	**263**		**Sn**	**11 39 56.9**	**+0.5**
ANCK	**Angle Creek**	**4.35**	**31**		**Pn**	**11 39 09.2**	**+1.3**
MGLS	**Mageik Landsli**	**4.40**	**33**		**Pn**	**11 39 09.4**	**+0.9**
KABR	**Katmai Barrier**	**4.46**	**34**		**Pn**	**11 39 10.2**	**+0.8**
KABU	**Katmai Buttres**	**4.48**	**32**		**Pn**	**11 39 11.0**	**+1.4**
OHAK	**Old Harbor**	**4.51**	**51**	P	**Pn**	**11 39 10.0**	**+0.1**
OHAK	**Old Harbor**	**4.51**	**51**	Pn	**Pn**	**11 39 10.2**	**+0.2**
KAKN	**Katmai Knife C**	**4.57**	**33**		**Pn**	**11 39 12.1**	**+1.2**
P16K	**Nushagak River**	**4.60**	**11**	Pn	**Pn**	**11 39 12.2**	**+1.1**
O15K	**Ungalikthiuk R**	**4.65**	**359**	Pn	**Pn**	**11 39 12.3**	**+0.5**
O15K				IAML		11 40 38.5	
	comp=E,42nm,0.9s						
KAWH	**Katmai**	**4.72**	**33**		**Pn**	**11 39 13.3**	**+0.4**
O14K	**Tigyukauivet M**	**4.80**	**350**	Pn	**Pn**	**11 39 14.8**	**+0.9**
O14K				IAML		11 40 48.9	
	comp=E,32nm,0.7s						
O14K				IAML		11 40 53.1	
	comp=N,54nm,1.1s						
KARR	**Katmai Rainbow**	**4.84**	**33**		**Pn**	**11 39 15.0**	**+0.4**
Q18K	**Katmai Hardscr**	**4.87**	**30**		**Pn**	**11 39 15.9**	**+0.9**
KAHG	**Katmai Hook Gl**	**4.89**	**34**		**Pn**	**11 39 16.1**	**+0.8**
O16K	**Kokwok River B**	**5.14**	**9**	Pn	**Pn**	**11 39 19.3**	**+0.7**
KDAK	**Kodiak Island**	**5.14**	**48**	Pn	**Pn**	**11 39 18.5**	**-0.1**
	comp=N,1.1nm,0.3s,baz=177,slow=1.6,SNR=61						
KDAK				Sn	**Sn**	**11 40 13.7**	**-3.2**
	comp=N,2.3nm,0.3s,baz=33,slow=20,SNR=16 comp=N,5.4nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**5.14**	**48**	Pn	**Pn**	**11 39 18.8**	**+0.1**
KDAK				IAML		11 40 14.9	
	comp=N,25nm,0.8s						
KDAK				IAML		11 40 18.9	
	comp=N,32nm,1.1s						
O17K	**Koliganek Bris**	**5.43**	**14**		**Pn**	**11 39 23.4**	**+0.8**
P18K	**Big Mountain,**	**5.45**	**25**		**Pn**	**11 39 23.9**	**+1.0**
N14K	**Kuskokwak Cree**	**5.50**	**350**		**Pn**	**11 39 24.4**	**+0.9**
Q19K	**Cape Douglas,**	**5.52**	**35**	Pn	**Pn**	**11 39 25.3**	**+1.4**
N15K	**Kwethluk River**	**5.64**	**358**	Pn	**Pn**	**11 39 26.4**	**+0.9**
N16K	**Nishlik Lake**	**5.97**	**5**		**Pn**	**11 39 31.0**	**+1.0**
M15K	**Kasigluk River**	**6.19**	**356**		**Pn**	**11 39 33.4**	**+0.4**
M13K	**Dall Lake**	**6.20**	**343**	Pn	**Pn**	**11 39 34.5**	**+1.3**
M14K	**Bethel**	**6.34**	**350**		**Pn**	**11 39 35.6**	**+0.6**
M16K	**Timber Creek**	**6.51**	**3**		**Pn**	**11 39 38.2**	**+0.8**
N19K	**Bonanza Creek**	**6.88**	**22**	Pn	**Pn**	**11 39 43.6**	**+1.0**
M18K	**Stony River**	**7.27**	**15**		**Pn**	**11 39 49.9**	**+2.1**
K15K	**Wolf Creek Mou**	**7.83**	**354**	Pn	**Pn**	**11 39 56.1**	**+0.6**
K13K	**Kusilvak Mount**	**7.85**	**343**	Pn	**Pn**	**11 39 57.1**	**+1.3**
L18K	**Granite Mounta**	**7.86**	**10**		**Pn**	**11 39 57.4**	**+1.5**
L19K	**White Mountain**	**8.07**	**16**	Pn	**Pn**	**11 40 00.5**	**+1.6**
J16K	**Anvik River**	**8.78**	**357**	Pn	**Pn**	**11 40 09.1**	**+0.5**
ATKA	**Atka Island**	**8.97**	**261**	Pn	**Pn**	**11 40 11.8**	**+0.7**
EYAK	**Cordova Ski Ar**	**9.61**	**46**	P	**Pn**	**11 40 20.8**	**+0.9**
ILAR	**Eielson Airpag**	**12.11**	**27**	Pn	**Pn**	**11 40 52.1**	**-1.8**
	comp=N,0.1nm,0.3s,baz=216,slow=14,SNR=5.9 comp=N,0.5nm,0.5s						
ILAR				AML	AML		
PNL	**Peninsula**	**12.16**	**57**	P	**Pn**	**11 40 56.2**	**+1.4**
SIT	**Sitka**	**13.93**	**70**	P	**Pn**	**11 41 20.0**	**+1.2**
JIS	**Juneau Island**	**14.48**	**65**	P	**Pn**	**11 41 27.9**	**+1.6**
WHY	**Whitehorse**	**14.60**	**55**	Pn	**Pn**	**11 41 30.4**	**+2.3**
H27K	**Steamboat Moun**	**14.69**	**30**	Pn	**Pn**	**11 41 30.1**	**+0.9**
D22K	**Ayikyak River**	**14.75**	**10**	Pn	**Pn**	**11 41 31.5**	**+1.4**
TOLK	**Toolik Lake Re**	**14.91**	**15**	Pn	**Pn**	**11 41 33.1**	**+0.9**
P32M	**Atlin**	**14.96**	**60**	Pn	**Pn**	**11 41 33.9**	**+0.9**
D23K	**Nanushuk River**	**15.06**	**13**	Pn	**Pn**	**11 41 34.4**	**+0.2**
J30M	**Hart River**	**15.43**	**40**		**Pn**	**11 41 40.8**	**+1.6**
J30M				IAmb	IAmb	11 41 58.1	
	comp=Z,3.0nm,0.7s						
D24K	**Happy Valley**	**15.49**	**15**	Pn	**Pn**	**11 41 41.2**	**+1.4**
D24K				IAmb	IAmb	11 41 53.4	
	comp=Z,7.0nm,1.1s						
P33M	**Teslin, Yukon**	**15.51**	**58**	Pn	**Pn**	**11 41 40.5**	**+0.4**
P33M				IAmb	IAmb	11 41 51.9	
	comp=Z,2.5nm,0.9s						
Q32M	**Nakina River**	**15.63**	**62**	Pn	**Pn**	**11 41 43.1**	**+1.3**
Q32M				IAmb	IAmb	11 41 57.6	
	comp=Z,5.3nm,0.8s						
D25K	**Kavik River**	**16.04**	**17**	Pn	**Pn**	**11 41 47.4**	**+0.5**
F28M	**Old Crow**	**16.13**	**28**	Pn	**Pn**	**11 41 48.5**	**+0.5**
H31M	**Peel River**	**16.78**	**38**		**Pn**	**11 41 56.5**	**+0.3**
H31M				IAmb	IAmb	11 42 11.8	
	comp=Z,4.2nm,0.8s						
DLBC	**Dease Lake**	**16.78**	**65**	Pn	**P**	**11 41 59.6**	**+1.3**
	comp=Z,0.3nm,0.3s,baz=226,slow=11,SNR=8.8						
C27K	**Jago River**	**16.79**	**20**	Pn	**Pn**	**11 41 56.9**	**+0.6**
G30M	**tAoh Zraii Nji**	**16.79**	**33**		**Pn**	**11 41 56.1**	**-0.4**
G30M				IAmb	IAmb	11 42 10.8	
	comp=Z,4.6nm,0.8s						
C26K	**Camden Bay**	**16.81**	**18**	Pn	**Pn**	**11 41 56.8**	**+0.2**
C26K				IAmb	IAmb	11 42 10.6	
	comp=Z,5.2nm,1.0s						
E29M	**Blow River**	**17.20**	**28**	P	**Pn**	**11 42 00.7**	**-0.8**
INK	**Inuvik**	**18.41**	**31**	P	**P**	**11 42 16.1**	**0.0**
	comp=Z,0.5nm,0.3s,baz=211,slow=9.0,SNR=22 comp=Z,1.2nm,0.3s						
INK				AML	AML		
INK	**Inuvik**	**18.41**	**31**	P	**P**	**11 42 15.7**	**-0.5**
A36M	**Sachs Harbour**	**22.81**	**27**		**P**	**11 43 02.3**	**-1.3**
YKAW3	**Yellowknife Wh**	**24.39**	**53**	P	**P**	**11 43 19.8**	**+0.8**
YKAW3				IAmb	IAmb	11 43 20.5	
	comp=Z,2.5nm,1.1s						
YKA	**Yellowknife Ar**	**24.40**	**53**	P	**P**	**11 43 20.1**	**+1.0**
	comp=Z,0.5nm,0.6s,baz=267,slow=6.5,SNR=16 comp=Z,0.5nm,0.6s						
YKA	**Yellowknife Ar**	**24.40**	**53**	P	**P**	**11 43 19.5**	**+0.5**
YKAW1	**Yellowknife Wh**	**24.45**	**53**	P	**P**	**11 43 19.8**	**+0.2**
YKAW1				IAmb	IAmb	11 43 21.5	
	comp=Z,1.8nm,0.9s						
PETK	**Petropavlovsk-**	**24.90**	**284**	P	**P**	**11 43 21.6**	**-2.1**
	comp=Z,2.2nm,0.9s,baz=80,slow=14,SNR=9.2 comp=Z,2.2nm,0.9s						
PETK	**Petropavlovsk-**	**24.90**	**284**	P	**P**	**11 43 23.1**	**-0.6**
KSXB	**Camp Six Broad**	**26.75**	**104**	P	**P**	**11 43 40.3**	**-0.5**
NEW	**Newport**	**26.97**	**86**	LR	LR	11 53 00.1	
	comp=Z,75nm,18.6s,baz=274,slow=33						
NVAR	**Mina Array Bea**	**32.20**	**103**	P	**P**	**11 44 30.0**	**+0.8**
	comp=Z,0.6nm,0.7s,baz=312,slow=8.9,SNR=4.3 comp=Z,0.6nm,0.7s						
PDAR	**Pinedale Array**	**34.44**	**89**	P	**P**	**11 44 50.7**	**+2.0**
	comp=Z,0.6nm,0.6s,baz=299,slow=4.9,SNR=11 comp=Z,0.6nm,0.6s						
PDAR	**Pinedale Array**	**34.44**	**89**	P	**P**	**11 44 48.2**	**-0.5**
ULM	**Lac du Bonnet**	**38.00**	**69**	P	**P**	**11 45 19.6**	**+0.8**
	comp=Z,1.2nm,0.5s,baz=314,slow=12,SNR=2.9 comp=Z,1.2nm,0.5s						
H11N2	**WAKE ISLAND Hy**	**43.02**	**229**	T	T	12 31 51.5	
	baz=28,slow=76,SNR=32						
H11N3	**WAKE ISLAND Hy**	**43.03**	**229**	T	T	12 31 53.0	
	baz=28,slow=76,SNR=29						
H11N1	**WAKE ISLAND Hy**	**43.04**	**229**	T	T	12 31 52.9	
	baz=28,slow=76,SNR=34						
H11S1	**WAKE ISLAND Hy**	**44.19**	**229**	T	T	12 33 33.9	
	baz=27,slow=76,SNR=25						
H11S2	**WAKE ISLAND Hy**	**44.20**	**229**	T	T	12 33 35.0	
	baz=27,slow=76,SNR=32						
H11S3	**WAKE ISLAND Hy**	**44.20**	**229**	T	T	12 33 33.1	
	baz=27,slow=76,SNR=22						
TXAR	**Lajitas Array**	**47.14**	**99**	P	**P**	**11 46 34.7**	**+1.4**
	comp=Z,0.9nm,0.7s,baz=306,slow=6.1,SNR=9.1 comp=Z,0.9nm,0.7s						
TXAR	**Lajitas Array**	**47.14**	**99**	P	**P**	**11 46 32.4**	**-0.9**
SONM	**Songino Array**	**54.97**	**305**	P	**P**	**11 47 31.9**	**-0.1**
FINES	**FINESS Array B**	**64.27**	**357**	P	**P**	**11 48 35.0**	**-0.5**
	comp=Z,3.8nm,1.0s,baz=352,slow=8.4,SNR=3.6 comp=Z,3.8nm,1.0s						
MKAR	**Makanchi Array**	**66.26**	**318**	P	**P**	**11 48 47.8**	**-0.9**
	comp=Z,0.4nm,0.6s,baz=44,slow=7.2,SNR=1.7 comp=Z,0.4nm,0.6s						
MKAR	**Makanchi Array**	**66.26**	**318**	P	**P**	**11 48 48.3**	**-0.4**
AB31	**Akbulak array**	**71.33**	**334**	P	**P**	**11 49 20.6**	**+0.4**
ABKAR	**Akbulak array**	**71.33**	**334**	P	**P**	**11 49 20.5**	**+0.3**
AKASG	**Malin Array Be**	**74.86**	**354**	P	**P**	**11 49 38.7**	**-2.3**
	comp=Z,0.5nm,0.4s,baz=20,slow=9.3,SNR=1.7 comp=Z,0.5nm,0.4s						

GII ***28*** *11:53:19.7±0.0,33˚.924N±0˚.003×36˚.683E±0˚.001, h0km,Mws4.1,confirmed*
IDC ***28*** *11:53:20.5±0.7,33˚.77N×36˚.70E,h0km,mb3.7/9, mbtmp3.7/13,ML3.3/4,MS3.3/6,Error ellipse: s-maj=12.9km s-min=8.7km az=106.0*
GRAL ***28*** *11:53:22.1±0.4,33˚.78N×36˚.77E,h25km±3km,MD4.2*
JSO ***28*** *11:53:22.2±0.9,34˚N±7˚×3˚7E±˚,h10km,M5.0/17, MLv5.0/17*
NIC ***28*** *11:53:32.3,35˚.09N×36˚.16E,h9km±6km,Ml3.6/10*

ISC 28 11:53:21.8±1.4,**33˚.87N**±0˚.02×**36˚.69E**±0˚.04,**h8**km±9km, **n80**,σ1s**62**/109,**mb3.7/8**,**MS3.4**/4,**14C**,**Jordan-Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAHL	**Zahle**	**0.67**	**270**	*e*P	**Pg**	**11 53 35.3**	**+0.6**
ZAHL				*e*S	**Sb**	**11 53 45.2**	**0.0**
HWQ	**Hawqa**	**0.74**	**304**	*e*P	**Pg**	**11 53 36.9**	**+0.9**
HWQ				*e*S	**Sb**	**11 53 48.0**	**+0.7**
BEIL	**Beino**	**0.79**	**328**	*e*P	**Pb**	**11 53 38.0**	**+0.2**
BEIL				*e*S	**Sb**	**11 53 48.8**	**+1.0**
BHL	**Bhannes**	**0.86**	**273**	*e*P	**Pg**	**11 53 38.3**	**0.0**
QRWL	**Qaraoun**	**0.90**	**250**	*e*P	**Pg**	**11 53 38.6**	**-0.4**
DQRL	**Deir Qamar**	**0.95**	**261**	*e*P	**Pg**	**11 53 39.6**	**-0.3**
BEYL	**Beirut**	**1.00**	**271**	*e*P	**Pg**	**11 53 40.5**	**-0.4**
NATI	**Neve Ativ**	**1.00**	**233**	↑P	**Pg**	**11 53 39.6**	**-1.3**
NATI				S	**Sb**	**11 53 54.8**	**+0.3**
GEM	**Giv'at Ha'Em**	**1.08**	**233**	P	**Pg**	**11 53 41.1**	**-1.4**
GEM	**Giv'at Ha'Em**	**1.08**	**233**	↑P	**Pg**	**11 53 41.0**	**-1.4**
GEM				S	**Sb**	**11 53 57.6**	**+0.7**
KIRY	**Kiryat Shemona**	**1.14**	**235**	↑P	**Pb**	**11 53 42.4**	**-1.4**
KIRY				S	**Sg**	**11 53 58.6**	**+0.1**
KSHT	**Keshet**	**1.15**	**220**	P	**Pg**	**11 53 42.0**	**-1.8**
KSHT				S	**Sb**	**11 53 59.6**	**+0.7**
HULT	**Hulata**	**1.22**	**228**	↑P	**Pb**	**11 53 43.4**	**-1.6**
HULT				S	**Sb**	**11 54 00.9**	**+0.1**
RMOT	**Ramot**	**1.33**	**221**	↑P	**Pn**	**11 53 45.1**	**-1.5**
RMOT				S	**Sb**	**11 54 03.9**	**-0.1**
ZEFT	**Zefat**	**1.34**	**229**	P	**Pn**	**11 53 45.3**	**-1.5**
ZEFT				S	**Sn**	**11 54 05.2**	**+0.3**
KNHM	**Kefar Nahum**	**1.35**	**224**	↑P	**Pn**	**11 53 45.4**	**-1.5**
KNHM				S	**Sb**	**11 54 04.4**	**-0.3**
MMA0B	**Mount Meron ar**	**1.37**	**232**	↑P	**Pn**	**11 53 46.0**	**-1.3**
MMA0B				S	**Sg**	**11 54 07.0**	**+1.1**
MMAI	**Mount Meron Ar**	**1.37**	**232**	Pg	**Pn**	**11 53 46.0**	**-1.3**
	394nm,0.3s,baz=47,slow=18,SNR=364						
MMAI				Lg	Lg	11 54 05.2	
	491nm,0.3s,baz=34,slow=12,SNR=5.7						
ZRT	**Zar'it**	**1.40**	**237**	↑P	**Pn**	**11 53 46.9**	**-0.7**
ZRT				S	**Sb**	**11 54 06.2**	**+0.1**
TVER	**Teveria**	**1.45**	**222**	↑P	**Pn**	**11 53 46.9**	**-1.3**
TVER				S	**Sn**	**11 54 07.5**	**+0.1**
HNTI	**Hanita**	**1.49**	**239**	↑P	**Pn**	**11 53 48.3**	**-0.5**
HNTI				S	**Sb**	**11 54 09.3**	**+0.5**
BLGI	**Bet Lehem HaGe**	**1.69**	**228**	P	**Pn**	**11 53 51.1**	**-0.5**
BLGI				S	**Sb**	**11 54 14.6**	**+0.1**
ASF	**Jabal al Asfar**	**1.69**	**175**	Pg	**Pn**	**11 53 50.2**	**-1.5**
	541nm,0.3s,baz=354,slow=9.4,SNR=1290						
ASF				Lg	Lg	11 54 12.2	
	365nm,0.3s,baz=358,slow=23,SNR=40						
ASF				LR	LR	11 54 44.2	
	comp=Z,959nm,19.4s,baz=352,slow=52						
ASF	**Jabal al Asfar**	**1.69**	**175**	P	**Pn**	**11 53 50.3**	**-1.5**
ASF				AML	AML		
MMLI	**Mount Malkishu**	**1.78**	**217**	↑P	**Pn**	**11 53 52.1**	**-0.8**
MMLI				S	**Sb**	**11 54 16.8**	**-0.2**
QRNJ	**Al-Qirein**	**1.79**	**212**	P	**Pn**	**11 53 52.6**	**-0.3**
QRNJ				AML	AML		
HSUJ	**Al Zarqa**	**1.81**	**194**	P	**Pn**	**11 53 53.0**	**-0.2**
HSUJ				AML	AML		
OFRI	**`Ofer**	**1.89**	**229**	↑P	**Pn**	**11 53 54.2**	**-0.2**
OFRI				S	**Sb**	**11 54 20.1**	**-0.3**
ROII	**Roi**	**1.90**	**212**	↑P	**Pn**	**11 53 53.8**	**-0.7**
ROII				S	**Sb**	**11 54 20.4**	**-0.2**
RGMN	**Argaman**	**1.96**	**210**	P	**Pn**	**11 53 54.7**	**-0.5**
RGMN				S	**Sb**	**11 54 21.4**	**-0.7**
SLTI	**Sal'it**	**2.13**	**221**	P	**Pn**	**11 53 57.3**	**-0.3**
SLTI				S	**Sn**	**11 54 24.7**	**+0.3**
ARIL	**Ariel Universi**	**2.15**	**216**	↑P	**Pn**	**11 53 57.7**	**-0.3**
ARIL				S	**Sn**	**11 54 26.2**	**+1.3**
YITV	**Yitav**	**2.19**	**209**	P	**Pn**	**11 53 58.3**	**-0.1**
YITV				S	**Sb**	**11 54 27.7**	**-1.2**
SALP	**Salfit**	**2.19**	**216**	P	**Pn**	**11 53 58.8**	**+0.3**
SALP				AML	AML		
ALMO	**Almog**	**2.31**	**207**	P	**Pn**	**11 53 59.5**	**-0.6**
ALMO				S	**Sn**	**11 54 30.0**	**+1.2**
JER	**Jerusalem**	**2.44**	**211**	P	**Pn**	**11 54 01.9**	**-0.1**
JER				S	**Sn**	**11 54 33.0**	**+1.1**
PARAL	**Paralimni**	**2.46**	**298**	P	**Pn**	**11 54 03.0**	**+0.8**
PARAL				S	**Sn**	**11 54 25.6**	**-6.9**
PARAL				AML	AML	11 54 38.9	
	1.1nm,0.6s						
PARAL				AML	AML	11 54 40.7	
	1.7nm,0.6s						
GHAJ	**Ghor Haditha**	**2.73**	**201**	P	**Pn**	**11 54 08.1**	**+2.3**
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**2.73**	**201**	P	**Pn**	**11 54 05.7**	**-0.1**
AMAZ	**Amatzia**	**2.77**	**213**	P	**Pn**	**11 54 08.2**	**+1.8**
AMAZ				AML	AML		
AMAZ	**Amatzia**	**2.77**	**213**	P	**Pn**	**11 54 06.6**	**+0.2**
MVOU	**Mavrovouni**	**2.78**	**295**	P	**Pn**	**11 54 07.0**	**+0.5**
MVOU				S	**Sn**	**11 54 34.2**	**-6.0**
MVOU				AML	AML	11 54 44.4	
	0.7nm,1.0s						
MVOU				AML	AML	11 54 47.4	
	0.8nm,0.6s						
MSBI	**Mazada**	**2.78**	**204**	P	**Pn**	**11 54 08.6**	**+2.0**
MSBI				AML	AML		
LISJ	**El Lisan**	**2.81**	**202**	P	**Pn**	**11 54 08.6**	**+1.7**
LISJ				AML	AML		
CSS	**Mathiatis**	**2.98**	**292**	P	**Pn**	**11 54 09.9**	**+0.5**
CSS				S	**Sn**	**11 54 41.0**	**-4.4**
CSS				AML	AML	11 54 53.4	
	0.6nm,0.6s						
CSS				AML	AML	11 54 58.0	
	0.4nm,0.7s						
CSS	**Mathiatis**	**2.98**	**292**	P	**Pn**	**11 54 11.8**	**+2.4**
CSS				AML	AML		
CSS	**Mathiatis**	**2.98**	**292**	P	**Pn**	**11 54 08.5**	**-0.9**
CSS				S	**Sn**	**11 54 45.2**	**-0.2**
ASGA	**Asgata**	**2.99**	**289**	P	**Pn**	**11 54 10.6**	**+1.1**
ASGA				S	**Sn**	**11 54 42.9**	**-2.7**
ASGA				AML	AML	11 54 55.4	
	0.7nm,0.7s						
ASGA				AML	AML	11 54 56.6	
	0.8nm,0.7s						
XYLS	**Xyliatos**	**3.22**	**292**	P	**Pn**	**11 54 13.4**	**+0.7**
XYLS				AML	AML	11 54 57.9	
	0.7nm,0.5s						
XYLS				AML	AML	11 55 03.5	
	0.6nm,0.7s						
APOL	**The Sanctuary**	**3.27**	**285**	P	**Pn**	**11 54 15.0**	**+1.7**
APOL				S	**Sn**	**11 54 51.0**	**-1.4**
APOL				AML	AML	11 55 00.2	
	1.8nm,0.6s						
APOL				AML	AML	11 55 01.7	
	1.1nm,0.7s						
GAZ	**Gaziantep**	**3.33**	**7**	P	**Pn**	**11 54 09.8**	**-4.4**
GAZ				S	Sn	11 54 38.6	-15
GAZ				AML	AML	11 55 19.0	
	5.0nm,0.9s						
GAZ				AML	AML	11 55 20.0	
	4.0nm,0.6s						
TROD	**Troodos**	**3.34**	**290**	P	**Pn**	**11 54 15.9**	**+1.5**
TROD				AML	AML	11 55 07.5	
	1.0nm,0.9s						
TROD				AML	AML	11 55 07.7	
	0.6nm,0.5s						
NATA	**Nata**	**3.53**	**286**	P	**Pn**	**11 54

34nm,1.0s

NEIC ***28*** *12:16:53.3±2.6,52.9°N±0.3°×170.5°E±0.1,h10km±2km, mb4.1/15,Error ellipse: s-maj=46.4km s-min=12.1km az=181.0*
KRSC ***28*** *12:16:54.8±0.6,53.10°N×170.27°E,h41km±54km,Ml4.0*
IDC ***28*** *12:16:54.9±1.8,53.08°N×170.49°E,h0km,mb3.6/3, mbtmp3.6/5,ML3.1/2,MS3.0/1,Error ellipse: s-maj=56.6km s-min=14.5km az=178.0*

ISC 28 12:16:56.3±1.2,52.9°N±0.2°×170.44°E±0.06,h28km,n45, σ1s23/40,mb4.0/12,Near Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SHEM	**Shemya Is, Ala**	**2.23**	**94**	Pn	**Pn**	**12 17 33.3**	**+2.0**
	15nm,0.3s,baz=129,slow=2.5,SNR=11						
SHEM				Sn	**Sb**	**12 18 01.9**	**-1.1**
	27nm,0.3s,baz=238,slow=18,SNR=11						
	31nm,0.3s						
SHEM				AML	AML		
SHEM	**Shemya Is, Ala**	**2.23**	**94**	Pn	**Pn**	**12 17 29.8**	**-1.6**
SMY	**Shemya**	**2.23**	**94**	Pn	**Pn**	**12 17 29.6**	**-1.8**
MKZ	**Mys Kozlova**	**5.42**	**291**	*e*P	**Pn**	**12 18 15.4**	**+0.2**
KBTR	**Krutoberegovo**	**5.52**	**310**	*e*P	**Pn**	**12 18 16.5**	**0.0**
KZV	**Kizimen**	**6.37**	**294**	*e*P	**Pn**	**12 18 28.6**	**+0.3**
SDLR	**Sedlovina**	**6.97**	**277**	*e*P	**Pn**	**12 18 37.3**	**+0.7**
UGLR	**Uglovaya**	**7.01**	**277**	*e*P	**Pn**	**12 18 38.2**	**+1.1**
KRER	**Koryakskii**	**7.05**	**278**	*e*P	**Pn**	**12 18 38.7**	**+1.0**
AVH	**Avacha**	**7.06**	**277**	*e*P	**Pn**	**12 18 39.0**	**+1.2**
DALK	**Dalny**	**7.06**	**275**	*e*P	**Pn**	**12 18 39.1**	**+1.4**
KRX	**Arik**	**7.11**	**278**	*e*P	**Pn**	**12 18 39.6**	**+1.1**
KOK	**Koryaka**	**7.12**	**278**	*e*P	**Pn**	**12 18 39.2**	**+0.6**
PET	**Petropavlovsk**	**7.12**	**275**	Pn	**Pn**	**12 18 37.8**	**-0.7**
KRMR	**Karymshinskiy**	**7.45**	**274**	*e*S	**Sn**	**12 20 05.6**	**-1.0**
PEA0B	**Petropavlovsk-**	**7.69**	**276**	Pn	**Pn**	**12 18 46.0**	**-0.4**
PETK	**Petropavlovsk-**	**7.69**	**276**	Pn	**Pn**	**12 18 47.9**	**+1.5**
	0.6nm,0.3s,baz=88,slow=19,SNR=49						
PETK				Sn	**Sn**	**12 20 10.8**	**-1.6**
	0.4nm,0.3s,baz=69,slow=33,SNR=5.5						
	2.8nm,0.7s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**7.69**	**276**	Pn	**Pn**	**12 18 44.1**	**-2.3**
G18K	**Tagagawik**	**20.11**	**38**	P	**Pn**	**12 21 28.2**	**-1.3**
J20K	**Nowinta River**	**21.31**	**44**	P	**P**	**12 21 41.2**	**+0.7**
J20K				IAmb	IAmb	12 21 56.4	
	comp=Z,7.7nm,1.3s						
KDAK	**Kodiak Island**	**21.38**	**62**	P	**P**	**12 21 42.2**	**+1.0**
	comp=Z,11nm,1.1s,baz=290,slow=3.0,SNR=8.1						
	comp=Z,11nm,1.1s						
KDAK	**Kodiak Island**	**21.38**	**62**	P	**P**	**12 21 39.1**	**-2.1**
IMAR	**Indian Mountai**	**22.00**	**40**	P	**P**	**12 21 46.5**	**-1.4**
D22K	**Ayikyak River**	**23.46**	**33**	P	**P**	**12 22 01.7**	**-1.3**
D22K				IAmb	IAmb	12 22 08.1	
	comp=Z,7.5nm,1.4s						
WRH	**Wood River Hil**	**23.95**	**45**	P	**P**	**12 22 08.5**	**+0.8**
WRH				IAmb	IAmb	12 22 45.0	
	comp=Z,5.0nm,1.2s						
TOLK	**Toolik Lake Re**	**24.42**	**35**	P	**P**	**12 22 12.2**	**+0.1**
TOLK				IAmb	IAmb	12 22 43.7	
	comp=Z,8.2nm,1.4s						
IL31		**24.51**	**44**	P	**P**	**12 22 13.4**	**+0.5**
IL31				IAmb	IAmb	12 22 52.3	
	comp=Z,9.6nm,1.4s						
ILAR	**Eielson Array**	**24.51**	**44**	P	**P**	**12 22 13.8**	**+0.9**
	comp=Z,0.5nm,0.8s,baz=247,slow=7.3,SNR=8.5						
	comp=Z,0.5nm,0.8s						
ILAR	**Eielson Array**	**24.51**	**44**	P	**P**	**12 22 14.1**	**+1.2**
G24K	**Hadweenzic Riv**	**24.64**	**40**	P	**P**	**12 22 13.4**	**-0.6**
G24K				IAmb	IAmb	12 22 17.7	
	comp=Z,5.8nm,1.4s						
C24K	**Franklin Bluff**	**25.09**	**33**	P	**P**	**12 22 18.7**	**+0.7**
C24K				IAmb	IAmb	12 22 53.6	
	comp=Z,8.4nm,1.4s						
SCRK	**Sand Creek**	**25.68**	**47**	P	**P**	**12 22 22.9**	**-0.7**
D25K	**Kavik River**	**25.73**	**34**	P	**P**	**12 22 23.2**	**-0.8**
GRNC	**Granite Creek**	**26.75**	**54**	P	**P**	**12 22 31.7**	**-1.7**
E29M	**Blow River**	**28.55**	**37**	P	**P**	**12 22 48.7**	**-0.5**
E29M				IAmb	IAmb	12 23 27.5	
	comp=Z,5.7nm,1.4s						
H31M	**Peel River**	**29.83**	**43**	P	**P**	**12 23 01.7**	**+1.1**
H31M				IAmb	IAmb	12 23 27.3	
	comp=Z,4.4nm,1.2s						
H11N2	**WAKE ISLAND Hy**	**33.25**	**186**	T	T	12 58 44.9	
	baz=4.5,slow=76,SNR=15						
H11N3	**WAKE ISLAND Hy**	**33.26**	**186**	T	T	12 58 50.3	
	baz=4.5,slow=76,SNR=13						
H11N1	**WAKE ISLAND Hy**	**33.27**	**186**	T	T	12 58 50.7	
	baz=4.5,slow=76,SNR=14						
H11S1	**WAKE ISLAND Hy**	**34.48**	**186**	T	T	13 00 21.5	
	baz=4.6,slow=76,SNR=16						
H11S3	**WAKE ISLAND Hy**	**34.49**	**186**	T	T	13 00 23.6	
	baz=4.6,slow=76,SNR=12						
H11S2	**WAKE ISLAND Hy**	**34.49**	**186**	T	T	13 00 18.3	
	baz=4.6,slow=76,SNR=12						
YKA	**Yellowknife Ar**	**38.93**	**46**	P	**P**	**12 24 21.2**	**+2.1**
	comp=Z,0.4nm,0.7s,baz=294,slow=8.0,SNR=4.4						
	comp=Z,0.4nm,0.7s						
PV13	**Radium Mtn., P**	**55.49**	**71**	P	**P**	**12 26 29.4**	**+0.7**
DAV	**Davao City (W)**	**58.45**	**235**	LR	LR	12 57 14.2	
	comp=Z,11nm,18.1s,baz=342,slow=41						

BUC ***28*** *12:49:50.6±0.3,45.75°N×26.69°E,h121km±1km,ml3.5/44, Error ellipse: s-maj=1.5km s-min=1.3km az=74.0*
SOF ***28*** *12:49:52.7,45.57°N±0.01°×26.67°E±0.02,h100km±2km, MD3.3/5*

ISC 28 12:49:49.6±1.5,45.74°N±0.03°×26.66°E±0.04,h130km±8km, n55,σ0s58/82,39C-33D,Romania

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SAHR	**Sahastru**	**0.02**	**129**	⇓P	**Pn**	**12 50 07.8**	**+0.5**
SAHR				⇑S	**Sn**	**12 50 20.8**	**+0.2**
SAHR				AML	AML		
SAHR				AML	AML		
PLOR	**Plostina**	**0.11**	**356**	⇑P	**Pn**	**12 50 07.4**	**+0.1**
PLOR				⇓S	**Sn**	**12 50 19.9**	**-0.9**
PLOR				AML	AML		
PLOR				AML	AML		
VRI	**Vrincioaia**	**0.13**	**21**	⇓P	**Pn**	**12 50 07.6**	**+0.2**
VRI				⇑S	**Sn**	**12 50 20.0**	**-0.8**
VRI				AML	AML		
VRI				AML	AML		
BISRR	**Bisoca**	**0.20**	**170**	⇑P	**Pn**	**12 50 08.2**	**+0.6**
BISRR				⇓S	**Sn**	**12 50 21.4**	**+0.3**
BISRR				AML	AML		
BISRR				AML	AML		
ODBI	**Odobesti**	**0.28**	**85**	⇓S	**Sn**	**12 50 21.7**	**+0.4**
ODBI				AML	AML		
COVR	**Voineasa-Covas**	**0.34**	**288**	⇑P	**Pn**	**12 50 08.1**	**+0.2**
COVR				⇑S	**Sn**	**12 50 21.1**	**-0.7**
COVR				AML	AML		
COVR				AML	AML		
NEHR	**Nehoiu**	**0.41**	**219**	⇓P	**Pn**	**12 50 08.8**	**+0.5**
NEHR				⇑S	**Sn**	**12 50 21.9**	**-0.4**
GRER		**0.42**	**148**	⇓P	**Pn**	**12 50 08.4**	**0.0**
GRER				AML	AML		
TURR	**Turia**	**0.55**	**305**	⇑P	**Pn**	**12 50 09.3**	**+0.3**
TURR				⇑S	**Sn**	**12 50 23.4**	**-0.3**
TURR				AML	AML		
TURR				AML	AML		
MLR	**Muntele Rosu**	**0.56**	**244**	⇑P	**Pn**	**12 50 09.5**	**+0.3**
MLR				⇓S	**Sn**	**12 50 23.3**	**-0.7**
MLR				AML	AML		
MLR				AML	AML		
GHRR		**0.61**	**58**	⇓P	**Pn**	**12 50 09.9**	**+0.5**
GHRR				⇑S	**Sn**	**12 50 24.4**	**0.0**
GHRR				AML	AML		
GHRR				AML	AML		
ONER	**Baraj Valea Uz**	**0.62**	**343**	⇑P	**Pn**	**12 50 09.6**	**+0.1**
ONER				⇑S	**Sn**	**12 50 24.1**	**-0.4**
ONER				AML	AML		
ONER				AML	AML		
ISR	**Istrita**	**0.63**	**188**	⇑P	**Pn**	**12 50 10.1**	**+0.5**
ISR				⇑S	**Sn**	**12 50 23.8**	**-0.9**
ISR				AML	AML		
ISR				AML	AML		
OZUR		**0.71**	**301**	⇓P	**Pn**	**12 50 09.9**	**-0.2**
TUDR		**0.72**	**101**	⇓P	**Pn**	**12 50 10.6**	**+0.5**
TUDR				⇓S	**Sn**	**12 50 25.5**	**-0.1**
TUDR				AML	AML		
TUDR				AML	AML		
TESR	**Tescani**	**0.77**	**359**	⇓P	**Pn**	**12 50 10.6**	**0.0**
TESR				AML	AML		
IZVR	**Izvoarele**	**0.80**	**104**	⇓S	**Sn**	**12 50 26.2**	**-0.5**
IZVR				AML	AML		
VARL	**Varlezi**	**0.85**	**79**	⇑P	**Pn**	**12 50 11.2**	**+0.1**
VARL				⇑S	**Sn**	**12 50 27.1**	**-0.3**
VARL				AML	AML		
VARL				AML	AML		
BIR	**Birlad**	**0.85**	**52**	⇓P	**Pn**	**12 50 10.9**	**-0.3**
BIR				⇓S	**Sn**	**12 50 27.5**	**-0.1**
BIR				AML	AML		
BIR				AML	AML		
SCHL	**Schela**	**0.85**	**106**	⇑S	**Sn**	**12 50 27.1**	**-0.4**
SCHL				AML	AML		
PGOR	**Pogoanele**	**0.86**	**165**	⇓S	**Sn**	**12 50 28.0**	**+0.3**
PGOR				AML	AML		
SCHLR	**Schela**	**0.86**	**108**	⇑P	**Pn**	**12 50 11.7**	**+0.5**
SCHLR				⇓S	**Sn**	**12 50 27.3**	**-0.3**
SCHLR				AML	AML		
SCHLR				AML	AML		
NEGRR	**Negrea**	**0.88**	**103**	⇑S	**Sn**	**12 50 27.6**	**-0.2**
NEGRR				AML	AML		
DOPR	**Dopca**	**0.92**	**285**	⇑P	**Pn**	**12 50 12.2**	**+0.5**
DOPR				⇑S	**Sn**	**12 50 28.3**	**-0.4**
DOPR				AML	AML		
DOPR				AML	AML		
SCTR	**Scanteiesti**	**0.94**	**94**	⇓P	**Pn**	**12 50 11.1**	**-0.9**
SCTR				⇑S	**Sn**	**12 50 28.4**	**-0.4**
SCTR				AML	AML		
SCTR				AML	AML		
PLAR	**PLOIESTI**	**0.94**	**209**	⇓S	**Sn**	**12 50 29.5**	**+0.6**
PLAR				AML	AML		
TATR	**Tataca**	**0.98**	**98**	⇓S	**Sn**	**12 50 29.4**	**-0.2**
TATR				AML	AML		
VLDR	**Vladesti**	**1.00**	**84**	⇑P	**Pn**	**12 50 13.1**	**+0.6**
VLDR				⇑S	**Sn**	**12 50 29.5**	**-0.3**
VLDR				AML	AML		
VLDR				AML	AML		
SULR		**1.10**	**195**	⇑P	**Pn**	**12 50 13.9**	**+0.4**
SULR				⇓S	**Sn**	**12 50 31.8**	**+0.2**
SULR				AML	AML		
SULR				AML	AML		
DMBR	**Dumbraveni**	**1.13**	**25**	⇑S	**Sn**	**12 50 31.4**	**-0.7**
DMBR				AML	AML		
VOIR		**1.17**	**256**	⇓P	**Pn**	**12 50 14.6**	**+0.3**
PDRR	**Padureni**	**1.18**	**27**	⇓S	**Sn**	**12 50 32.1**	**-0.8**
PDRR				AML	AML		
CFR	**Carcaliu**	**1.18**	**118**	⇓P	**Pn**	**12 50 14.7**	**+0.4**
CFR				⇑S	**Sn**	**12 50 31.9**	**-1.0**
CFR				AML	AML		
CFR				AML	AML		
MNTR	**Muntenesti**	**1.18**	**30**	⇑P	**Pn**	**12 50 14.7**	**+0.4**
MNTR				⇓S	**Sn**	**12 50 32.3**	**-0.8**
GIRR	**Girov**	**1.22**	**355**	⇑S	**Sn**	**12 50 33.7**	**-0.1**
GIRR				AML	AML		
NGRR	**Negresti**	**1.22**	**26**	⇓S	**Sn**	**12 50 33.0**	**-0.8**
NGRR				AML	AML		
AMRR	**Amara**	**1.23**	**157**	⇓P	**Pn**	**12 50 15.4**	**+0.6**
AMRR				⇓S	**Sn**	**12 50 34.0**	**+0.2**
AMRR				AML	AML		
AMRR				AML	AML		
BIZ	**Bicaz**	**1.26**	**342**	⇑S	**Sn**	**12 50 34.8**	**+0.3**
LEHL	**Lehliu**	**1.27**	**175**	⇓P	**Pn**	**12 50 15.8**	**+0.6**
LEHL				⇑S	**Sn**	**12 50 34.8**	**+0.2**
LEHL				AML	AML		
LEHL				AML	AML		
HARR	**Harsova**	**1.38**	**139**	⇓P	**Pn**	**12 50 16.7**	**+0.3**
HARR				AML	AML		
TPGR	**Topolog**	**1.52**	**125**	⇑P	**Pn**	**12 50 17.9**	**-0.1**
TPGR				⇑S	**Sn**	**12 50 38.9**	**-0.7**
TPGR				AML	AML		
TPGR				AML	AML		
CICN	**Ciocanesti**	**1.56**	**170**	⇑P	**Pn**	**12 50 18.9**	**+0.5**
CICN				⇑S	**Sn**	**12 50 40.0**	**-0.4**
CICN				AML	AML		
CICN				AML	AML		
TLCR		**1.61**	**109**	⇓P	**Pn**	**12 50 19.4**	**+0.5**
TLCR				AML	AML		
CVDA	**Cernavoda**	**1.71**	**145**	⇓P	**Pn**	**12 50 20.4**	**+0.3**
CVDA				AML	AML		
TIRR	**Tirgusor**	**1.79**	**135**	⇑P	**Pn**	**12 50 21.4**	**+0.4**
JURR	**Jurilovca**	**1.84**	**121**	⇑P	**Pn**	**12 50 22.4**	**+0.8**
BURAR	**Bucovina Array**	**2.12**	**333**	⇑P	**Pn**	**12 50 26.4**	**+1.3**
PSN	**Presslentsi**	**2.35**	**153**	P	**Pn**	**12 50 28.6**	**+0.7**
NEF	**NEVSHA**	**2.52**	**170**	P	**Pn**	**12 50 30.7**	**+0.7**
SZH	**Strazhitsa**	**2.52**	**191**	P	**Pn**	**12 50 30.4**	**+0.3**
SZH				S	**Sn**	**12 50 59.5**	**-1.7**
PRD	**Provadia**	**2.63**	**168**	P	**Pn**	**12 50 32.1**	**+0.6**
ROIA	**ROIAK**	**2.70**	**169**	P	**Pn**	**12 50 33.1**	**+0.8**
PVL	**Pavlikeni**	**2.83**	**203**	P	**Pn**	**12 50 34.3**	**+0.3**
PVL				S	**Sn**	**12 51 06.8**	**-1.3**
MPEP	**Malo Peshtene**	**3.17**	**222**	S	**Sn**	**12 51 14.9**	**-1.2**
JMB	**Yambol**	**3.25**	**182**	P	**Pn**	**12 50 39.8**	**+0.3**

TAP 28 12:53:59.4,23.79N×120.88E,h19km,ML2.9,B,Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SSLB	**Suanglung**	**0.07**	**88**	*i*P	Pg	12 54 03.1	+0.2
SSLB				*i*S	Sg	12 54 05.8	+0.4
WHYT	**Xinyi Township**	**0.09**	**197**	*i*P	Pg	12 54 03.5	+0.3
WHYT				*i*S	Sg	12 54 06.7	+0.9
SMLT	**Sun Moon Lake**	**0.10**	**9**	P	Pg	12 54 03.7	+0.4
SMLT				S	Sg	12 54 06.7	+0.7
TYC	**Yuchr**	**0.12**	**349**	P	Pg	12 54 03.8	+0.4
TYC				S	Sg	12 54 07.4	+1.2
WNT	**Mingjian**	**0.20**	**297**	P	Pg	12 54 04.9	+0.4
WNT1	**Nantou City**	**0.22**	**303**	P	Pg	12 54 05.6	+0.8
WNT1				S	Sg	12 54 10.1	+1.6
WPL	**Puli Township**	**0.24**	**17**	S	Sg	12 54 10.0	+1.2
VWDT	**VWDT**	**0.24**	**97**	P	Pb	12 54 04.5	-0.3
VWDT				S	Sg	12 54 08.7	-0.2
CHN5	**Tsauling**	**0.27**	**225**	*i*P	Pg	12 54 06.2	+0.7
CHN5				S	Sg	12 54 11.3	+1.6
WCS	**Beigang Elemen**	**0.27**	**6**	P	Pb	12 54 06.3	+0.7
WUSB	**Renai**	**0.30**	**46**	P	Pg	12 54 05.7	-0.4
WUSB				S	Sb	12 54 10.8	+0.1
OWD	**Renai**	**0.32**	**58**	S	Sb	12 54 11.4	+0.1
WDL	**Douliou City**	**0.32**	**258**	S	Sb	12 54 12.8	+1.4
WDLH	**Douliu**	**0.33**	**253**	P	Pb	12 54 07.1	+0.4
WCKO	**Fanlu**	**0.43**	**217**	*i*P	Pb	12 54 08.9	+0.4
WRL	**Guolierlin Hig**	**0.48**	**284**	*e*P	Pb	12 54 09.5	+0.2
EHY	**Hungye**	**0.49**	**125**	P	Pg	12 54 09.2	-0.1
EHY				*e*S	Sb	12 54 16.3	+0.1
CHN4	**Tsaushan**	**0.51**	**212**	S	Sb	12 54 18.0	+1.3
EHYH	**Wanrong**	**0.51**	**124**	*e*P	Pg	12 54 09.8	0.0

TAP 28 12:54:03.6,23.16N×121.34E,h14km,ML2.4,B,Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
FULB	**Fuli**	**0.06**	**316**	*i*P	Pg	12 54 06.7	+0.4
FULB				*i*S	Sg	12 54 10.1	+1.9
CHKH	**Chenggong**	**0.06**	**57**	*i*P	Pg	12 54 06.6	+0.3
CHKH				S	Sg	12 54 08.9	+0.7
CHKT	**Chengkung**	**0.06**	**156**	*i*P	Pg	12 54 06.7	+0.5
CHKT				*i*S	Sg	12 54 09.1	+0.9
ECS	**Chishang**	**0.12**	**241**	*i*P	Pb	12 54 08.0	+0.2
ECS				S	Sb	12 54 11.9	+1.4
EDH	**Donghe**	**0.19**	**190**	*i*P	Pg	12 54 08.2	+0.3
EDH				S	Sb	12 54 11.6	-0.7
ECBN	**Changbin**	**0.19**	**33**	P	Pb	12 54 08.7	-0.2
ECBN				S	Sb	12 54 12.4	0.0
EYUL	**Yuli**	**0.19**	**355**	P	Pb	12 54 08.7	-0.2
EYUL				*e*S	Sb	12 54 12.8	+0.3
TWF1	**Yuli**	**0.20**	**349**	*i*P	Pb	12 54 08.6	-0.4
TWF1				S	Sb	12 54 12.3	-0.4
YULB	**Yu-li**	**0.24**	**351**	*i*P	Pg	12 54 09.1	+0.4
YULB				*i*S	Sb	12 54 13.1	-0.7
ELDTW	**Lidau**	**0.30**	**276**	*i*P	Pg	12 54 09.7	-0.1
ELDTW				*i*S	Sg	12 54 14.0	-0.1
LONT	**Longtian**	**0.32**	**218**	P	Pg	12 54 10.5	+0.5
LONT				S	Sb	12 54 16.0	0.0
EHYH	**Wanrong**	**0.34**	**1**	*e*P	Pg	12 54 10.8	+0.3
EHYH				S	Sb	12 54 16.9	+0.3
EHYH	**Wanrong**	**0.34**	**1**	S	Sb	12 54 17.0	+0.3
HGSD	**Ruisui**	**0.34**	**13**	*e*P	Pb	12 54 11.3	-0.2
EHY	**Hungye**	**0.35**	**358**	P	Pb	12 54 11.4	-0.2
TWGBT	**Beinan**	**0.41**	**215**	P	Pg	12 54 11.8	0.0
TWGBT				*e*S	Sg	12 54 18.0	+0.5
LDUT	**Ludao**	**0.50**	**166**	P	Pg	12 54 13.2	-0.2
LDUT				*i*S	Sb	12 54 20.7	-0.5
STYH	**Taoyuan**	**0.52**	**272**	*i*P	Pg	12 54 13.8	+0.1
STYH				S	Sg	12 54 20.9	+0.1
ALS	**Alishan**	**0.60**	**306**	*e*P	Pg	12 54 15.8	+0.3
ALS				S	Sb	12 54 24.3	-0.4
VWDT	**VWDT**	**0.62**	**343**	*e*P	Pg	12 54 15.5	-0.2
VWDT				S	Sg	12 54 24.0	0.0
TPUB	**Ta-pu**	**0.67**	**283**	*i*P	Pb	12 54 17.1	0.0
TPUB				S	Sb	12 54 26.7	+0.5
WTP	**Ta-pu**	**0.67**	**278**	P	Pb	12 54 17.1	0.0
WTP				S	Sb	12 54 26.5	+0.2
WHYT	**Xinyi Township**	**0.70**	**320**	*i*P	Pb	12 54 17.5	-0.1
WHYT				S	Sg	12 54 25.8	-0.6
SGST	**Jiashian**	**0.70**	**264**	P	Pg	12 54 17.3	+0.1
SGST				*e*S	Sg	12 54 26.6	+0.1
CHN4	**Tsaushan**	**0.71**	**286**	*e*S	Sb	12 54 27.2	-0.3
SSLB	**Suanglung**	**0.72**	**331**	P	Pb	12 54 18.0	+0.1
SSLB				S	Sg	12 54 26.8	-0.3
WCKO	**Fanlu**	**0.73**	**293**	P	Pb	12 54 18.3	+0.2
WCKO				S	Sb	12 54 29.0	+1.0
CHN1	**Nanshi**	**0.75**	**272**	*e*P	Pb	12 54 18.6	+0.2
CHN1				S	Sb	12 54 29.4	+0.9
CHN5	**Tsauling**	**0.75**	**306**	P	Pb	12 54 18.9	+0.4
CHN5				S	Sb	12 54 29.2	+0.6
TSMG	**Majia**	**0.78**	**235**	*e*P	Pg	12 54 18.8	+0.1
TWK	**Hsinying**	**0.79**	**278**	P	Pb	12 54 19.5	+0.3
TWK				*e*S	Sg	12 54 29.2	-0.2
QWD	**Renai**	**0.81**	**349**	P	Pb	12 54 19.4	-0.1
ETM	**Tongmen**	**0.82**	**10**	P	Pb	12 54 19.6	0.0
ETM				*e*S	Sb	12 54 31.4	+0.9
SMLT	**Sun Moon Lake**	**0.83**	**331**	P	Pg	12 54 19.2	-0.4
SMLT				*e*S	Sb	12 54 31.0	+0.1
MASBT	**Mashibuluo**	**0.85**	**230**	P	Pg	12 54 18.9	-1.1
MASBT				*e*S	Sg	12 54 29.9	-1.2
HWA	**Hwalien**	**0.85**	**17**	P	Pb	12 54 20.4	+0.2
WUSB	**Renai**	**0.85**	**346**	*e*P	Pg	12 54 19.9	-0.3
WUSB				*e*S	Sg	12 54 30.6	-0.9

IDC ***28*** *13:09:45.8±0.5,55.38°S×125.06°W,h0km,mb4.5/12, mbtmp4.5/12,MS4.7/50,Error ellipse: s-maj=22.0km s-min=16.2km az=155.0*
MOS ***28*** *13:09:46.3±1.1,55.49°S×124.84°W,h10km,mb5.3/13, Error ellipse: s-maj=20.6km s-min=14.0km az=75.4*
NEIC ***28*** *13:09:47.3,55.57°S×124.96°W,h10km*
NEIC ***28*** *13:09:47.8,55.57°S×125.13°W,h12km,Moment Tensor Solution. Duration: 2s4 Moment tensor: Scale 10^17Nm; Mrr=0.18; Mθθ=0.91; Mφφ=-0.74; Mrθ=0.17; Mrφ=0.53; Mθφ=0.29; Fault plane solution: M0 1.05000×10^17 NP1: φs118.16000°,δ69.96000°,λ-4.31000°. NP2:φs209.64000°, δ85.95000°,λ-159.91000°. Principal axes: T 1.1194, Plg11.0000°, Azm342.0000°; N -0.1547, Plg70.0000°, Azm221.0000°; P -0.9647, Plg17.0000°, Azm76.0000°;*
NEIC ***28*** *13:09:47.3±1.3,55.6S±0.1°×124.9W±0.2,h10km±1km, mb5.1/126,Mww5.3/18 Error ellipse: s-maj=18.0km s-min=15.8km az=162.0*
GFZ ***28*** *13:09:48.4,55.51S×124.85W,h12km,Mw5.3/25,Moment Tensor Solution. Moment tensor: Scale 10^16Nm; Mrr2.30; Mθθ3.19; Mφφ-5.49; Mrθ-0.20; Mθφ8.49; Mrφ1.19; Fault plane solution: M0 9.81953×10^16 NP1: φs103.43832°,δ83.55780°,λ-0.48425°. NP2:φs193.49265°, δ89.51880°,λ-173.55757°. Principal axes: T 8.4220, Plg4.2093°, Azm328.2852°; N 2.3636, Plg83.5397°, Azm197.7462°; P -10.7856, Plg4.8919°, Azm58.6461°;*
GFZ ***28*** *13:09:48.4±0.2,56°S±6°×12°5W±°,h10km,M5.0/31, mb5.0/31*
GCMT ***28*** *13:09:51.3±0.1,55.64S±0.01°×124.95W±0.01,h12km, MW5.3/145,Moment Tensor Solution. s104,c165; s145,c255; Duration: 1s1 Moment tensor: Scale 10^17 Nm; Mrr-0.04±.01; Mθθ0.73±.01; Mφφ-0.68±.01; Mrθ0.06±.04; Mθφ0.92±.01; Mrφ0.14±.03; Best double couple: M0 1.16800×10^17 NP1:φs109.00000°,δ83.00000°, λ0.00000°. NP2:φs199.00000°,δ90.00000°,λ-173.00000°. Principal axes: T 1.1900, Plg5.0000°, Azm334.0000°; N -0.0440, Plg83.0000°, Azm199.0000°; P -1.1460, Plg5.0000°, Azm64.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 28 13:09:47.2±0.3,55.48S±0.06×124.96W±0.06,h10km, n299,σ1s08/230,mb5.1/93,MS4.8/53,12C-6D,Southern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VA02	**Isla de Pascua**	**30.45**	**28**	P	**P**	**13 15 59.9**	**+0.1**
RPN	**Rapa Nui**	**30.51**	**28**	LR	LR	13 23 41.4	
	comp=Z,315nm,18.6s,baz=189,slow=27						
RPN	**Rapa Nui**	**30.51**	**28**	P	**P**	**13 16 00.1**	**-0.2**
RPN				pmax	pmax		
	comp=Z,194nm,1.3s						
RPN	**Rapa Nui**	**30.51**	**28**	P	**P**	**13 16 00.1**	**-0.2**
PMSA	**Palmer Station**	**30.52**	**132**	LR	LR	13 24 40.4	
	comp=Z,μm,21.8s,baz=262,slow=29						
PTCN	**Pitcairn Islan**	**30.61**	**351**	P	**P**	**13 16 01.2**	**+0.1**
SBA	**Scott Base**	**32.00**	**202**	P	**P**	**13 16 10.4**	**-2.5**
SBA				pmax	pmax		
	comp=Z,47nm,1.9s						
SBA	**Scott Base**	**32.00**	**202**	P	**P**	**13 16 10.4**	**-2.5**
SBA				IAmb	IAmb	13 17 04.9	
	comp=Z,46nm,1.9s						
VNDA	**Vanda**	**33.05**	**202**	P	**P**	**13 16 24.0**	**+1.9**
	comp=Z,1.4nm,1.0s,baz=102,slow=7.6,SNR=5.5						
VNDA				LR	LR	13 25 33.6	
	comp=Z,678nm,21.9s,baz=88,

comp=Z,30nm,1.2s
EFI East Falkland 38.52 113 P P 13 17 08.8 -0.5
EFI pmax pmax
comp=Z,194nm,1.6s
EFI East Falkland 38.52 113 P P 13 17 08.8 -0.5
H03N2 Juan Fernandez 38.60 75 T T 13 58 11.6
baz=35,slow=23,SNR=2232
H03N1 Juan Fernandez 38.62 75 T T 13 58 14.9
baz=226,slow=23,SNR=2232
BI05 Punta Hualpn 39.40 84 P P 13 17 16.2 -0.6
ORCD Orcadas 40.22 131 P P 13 17 22.3 -1.1
BI02 San Fabin de 40.55 85 P 13 17 26.9 +0.5
BI02 San Fabin de 40.55 85 P P 13 17 27.7 +1.2
comp=Z,26nm,2.3s
ML02 Panimavida 41.10 84 P 13 17 30.9 -0.1
ML02 Panimavida 41.10 84 P P 13 17 31.9 +1.0
comp=Z,44nm,0.7s
GO05 Hualane 41.36 83 P P 13 17 33.2 +0.1
GO05 IAmb IAmb 13 17 43.2
comp=Z,69nm,1.6s
GO05 Hualane 41.36 83 P P 13 17 33.9 +0.8
comp=Z,29nm,1.6s
RPZ Rata Peaks 41.65 259 LR LR 13 30 23.2
comp=Z,416nm,21.9s,baz=142,slow=30
URZ Urewera 41.85 269 LR LR 13 30 58.6
comp=Z,1µm,19.6s,baz=123,slow=30
THZ Tophouse 41.88 262 P P 13 17 38.0 +0.7
THZ IAmb IAmb 13 18 41.0
comp=Z,104nm,1.5s
BO02 Sierra Bellavi 42.16 84 P 13 17 39.4 -0.4
BO02 IAmb IAmb 13 17 50.1
comp=Z,46nm,1.0s
BO02 Sierra Bellavi 42.16 84 P P 13 17 40.3 +0.6
comp=Z,56nm,1.2s
PPT2 Papeete2 42.22 324 *e*P P 13 17 35.8 -4.5
comp=Z,77nm,25.0s
PPT2 *e*S **S 13 23 57.4 -3.1**
comp=Z,362nm,25.5s
PPT2 *e*LQ LQ 13 27 18.1
comp=Z,2µm,26.5s
PPT2 *e*LR LR 13 29 11.6
comp=Z,4µm,25.5s
PPT2 *e*LR LR 13 29 18.7
comp=Z,3µm,27.8s
PPT Papeete 42.24 324 LR LR 13 31 08.4
comp=Z,1µm,18.5s,baz=160,slow=30
BO01 Tunca 42.28 83 P 13 17 40.7 +0.1
BO01 IAmb IAmb 13 17 50.8
comp=Z,36nm,1.2s
BO01 Tunca 42.28 83 P P 13 17 41.6 +0.9
comp=Z,34nm,1.5s
MT01 Popeta 42.58 82 P P 13 17 43.4 +0.3
MT01 IAmb IAmb 13 17 52.5
comp=Z,51nm,1.4s
RAR Rarotonga 42.96 309 LR LR 13 30 39.5
comp=Z,612nm,20.3s,baz=150,slow=29
RAR Rarotonga 42.96 309 P P 13 17 45.6 -0.6
RAR pmax pmax
comp=Z,179nm,1.7s
RAR Rarotonga 42.96 309 P P 13 17 45.6 -0.6
MT13 San Alfonso 43.21 83 P P 13 17 48.7 +0.4
MT05 Renca 43.21 82 P P 13 17 48.6 +0.3
MT03 Universidad Ad 43.27 83 P P 13 17 47.7 -1.0
MT16 CCHEN 43.31 83 P P 13 17 49.0 0.0
MT16 IAmb IAmb 13 18 19.4
comp=Z,79nm,1.4s
PEL Peldehue 43.42 82 P P 13 17 50.1 +0.1
PEL pmax pmax
comp=Z,100nm,1.4s
PEL Peldehue 43.42 82 P P 13 17 50.1 +0.1
PEL Peldehue 43.42 82 P P 13 17 51.0 +1.1
comp=Z,52nm,1.4s
MT08 Bocatoma Ro 43.58 83 P P 13 17 50.6 -0.8
MT08 IAmb IAmb 13 17 59.3
comp=Z,47nm,1.5s
VA03 San Esteban 43.78 82 P P 13 17 53.0 0.0
VA03 IAmb IAmb 13 18 03.0
comp=Z,33nm,0.9s
VA03 San Esteban 43.78 82 P P 13 17 52.9 0.0
comp=Z,43nm,1.2s
CO04 Los Peladeros 44.08 81 P P 13 17 54.9 -0.6
CO04 Los Peladeros 44.08 81 P P 13 17 57.3 +1.8
comp=Z,67nm,1.8s
CO02 Combarbal 44.69 80 P P 13 18 00.7 +0.4
CO02 Combarbal 44.69 80 P P 13 18 02.2 +1.9
comp=Z,65nm,1.4s
CO06 Fray Jorge 44.74 79 P P 13 18 00.0 -0.5
CO06 IAmb IAmb 13 18 35.0
comp=Z,67nm,1.5s
CO03 El Pedregal 45.14 80 P P 13 18 03.6 -0.3
CO03 El Pedregal 45.14 80 P P 13 18 04.9 +1.1
comp=Z,41nm,1.5s
GO04 Tololo Observa 45.59 79 P P 13 18 06.5 -1.0
GO04 Tololo Observa 45.59 79 P P 13 18 06.0 -1.5
comp=Z,53nm,1.7s
VNA3 Neumayer Olymp 45.64 156 ⇑P **P 13 18 07.0 -0.2**
comp=Z,16nm,0.8s
VNA3 Neumayer Olymp 45.64 156 P P 13 18 07.1 0.0
comp=Z,32nm,1.1s
ZON Zonda 45.74 83 P P 13 18 07.9 -0.6
ZON pmax pmax
comp=Z,54nm,1.4s
ZON Zonda 45.74 83 P P 13 18 07.9 -0.6
ZON IAmb IAmb 13 18 18.1
comp=Z,54nm,1.4s
ZON Zonda 45.74 83 P P 13 18 08.3 -0.2
comp=E,19nm,1.1s
CFA Coronel Fontan 45.95 83 LR LR 13 33 08.1
comp=E,764nm,18.7s,baz=189,slow=30
VNA1 Neumayer--Stat 46.38 156 ⇑P **P 13 18 13.3 +0.3**
comp=Z,56nm,1.0s
VNA2 Neumayer--Watz 46.39 156 ⇑P **P 13 18 13.3 +0.3**
comp=Z,33nm,0.8s,baz=220,slow=8.6
VNA2 Neumayer--Watz 46.39 156 P P 13 18 13.4 +0.3
comp=Z,65nm,1.0s
LCO Las Campanas 46.53 78 P P 13 18 14.8 -0.2
LCO pmax pmax
comp=Z,41nm,1.5s
LCO Las Campanas 46.53 78 P P 13 18 14.8 -0.2
LCO IAmb IAmb 13 18 24.2
comp=Z,41nm,1.5s
SNAA Sanae 46.84 158 P P 13 18 16.6 0.0
comp=Z,12nm,0.7s,baz=236,slow=7.5,SNR=5.0
SNAA LR LR 13 38 26.6
comp=Z,2µm,18.1s,baz=216,slow=37
comp=Z,12nm,0.7s
SNAA Sanae 46.84 158⇓*e*P **P 13 18 17.3 +0.7**
SNAA pmax pmax
comp=Z,44nm,1.9s
SNAA Sanae 46.84 158 P P 13 18 15.9 -0.7
SNAA IAmb IAmb 13 18 32.2
comp=Z,27nm,1.2s
AC05 El Transito 46.90 79 P P 13 18 17.7 -0.1
AC05 IAmb IAmb 13 18 27.9
comp=Z,28nm,1.1s
AC05 El Transito 46.90 79 P P 13 18 16.4 -1.3
comp=Z,26nm,1.5s
AC04 Llanos de Chal 46.95 77 P **P 13 18 17.6 -0.3**
TROLL Troll, Antarti 47.65 161 ⇑P **P 13 18 23.5 +0.5**
comp=Z,1µm,1.2s
GO03 Copiapo 47.88 78 P P 13 18 24.6 -0.7
GO03 IAmb IAmb 13 18 34.7
comp=Z,33nm,1.4s
GO03 Copiapo 47.88 78 P P 13 18 25.1 -0.2
comp=Z,8.4nm,1.3s
AC06 Mina Casimiro 48.00 77 P P 13 18 26.2 0.0
AC06 IAmb IAmb 13 18 35.6
comp=Z,23nm,1.3s
TAOE Nuku Hiva Isla 48.03 340 *e*S **S 13 25 22.9 -1.8**
comp=Z,377nm,26.0s
TAOE *e*LR LR 13 32 02.2
comp=Z,3µm,26.9s
AC01 Pan de Azucar 48.81 76 P P 13 18 32.7 +0.2
AC02 Maricunga 49.09 78 P P 13 18 35.5 +0.4
AC02 IAmb IAmb 13 18 45.3
comp=Z,46nm,1.4s
AC02 Maricunga 49.09 78 P P 13 18 36.6 +1.5
comp=Z,22nm,2.1s
PB14 IPOC Station P 50.12 75 P P 13 18 43.1 +0.4
PB14 IAmb IAmb 13 18 51.7
comp=Z,37nm,1.3s
NVL N'lazarevskaya 50.35 163 *e*P **P 13 18 44.3 +0.8**
NVL *e*S **S 13 25 55.6 -0.3**
NVL pmax pmax
comp=Z,11nm,0.9s
NVL MLR MLR
comp=Z,737nm,15.0s
ELIB Princess Elisa 50.94 168 *d*P **P 13 18 48.7 +0.5**
comp=Z,17nm,1.0s
CASY Casey 51.59 205 P P 13 18 53.0 +0.1
PB05 IPOC Station P 51.65 74 P P 13 18 53.5 -0.6
PB05 IAmb IAmb 13 19 03.2
comp=Z,33nm,1.3s
PB05 IPOC Station P 51.65 74 P P 13 18 54.0 0.0
comp=Z,19nm,1.3s
PB06 IPOC Station P 52.11 74 P P 13 18 57.5 -0.1
PB06 IAmb IAmb 13 19 07.2
comp=Z,25nm,1.0s
PB06 IPOC Station P 52.11 74 P P 13 18 57.9 +0.3
comp=Z,27nm,1.2s
PB03 IPOC Station P 52.54 74 P P 13 19 00.7 -0.1
PB03 IAmb IAmb 13 19 10.0
comp=Z,29nm,1.4s
SALTA 52.69 79 P P 13 19 01.9 -0.4
comp=Z,16nm,1.3s
PB09 IPOC Station P 53.02 74 P P 13 19 03.8 -0.6
PB09 IAmb IAmb 13 19 40.1
comp=Z,50nm,1.6s
PB01 IPOC Station P 53.49 73 P P 13 19 07.3 -0.4
PB01 IAmb IAmb 13 19 17.4
comp=Z,47nm,1.6s
PB01 IPOC Station P 53.49 73 P P 13 19 06.9 -0.8
comp=Z,19nm,2.2s
TA01 Diego Aracena 53.50 72 P P 13 19 07.5 -0.2
TA01 IAmb IAmb 13 20 44.3
comp=Z,26nm,1.2s
PB08 IPOC Station P 54.40 73 P P 13 19 14.3 -0.4
PB11 IPOC Station P 54.44 72 P P 13 19 14.8 +0.1
PB11 IAmb IAmb 13 19 24.7
comp=Z,32nm,1.3s
GO01 Chusmiza 54.77 73 P P 13 19 17.1 -0.4
GO01 IAmb IAmb 13 19 21.8
comp=Z,34nm,1.9s
AFI Afiamalu 54.92 300 LR LR 13 38 49.9
comp=Z,151nm,18.3s,baz=150,slow=32
TAU Tasmania Unive 54.95 244 P **P 13 19 18.8 +0.9**
TAU pmax pmax
comp=Z,173nm,1.9s
TAU Tasmania Unive 54.95 244 P P 13 19 18.8 +0.9
CPSB Cacapava Do Su 55.25 94 P 13 19 19.1 -1.2
CPSB IAmb IAmb 13 19 29.5
comp=Z,39nm,1.3s
CPSB Cacapava Do Su 55.25 94 P P 13 19 19.4 -1.0
comp=Z,22nm,2.2s
SYO Syowa Base 55.31 173⇑*e*P **P 13 19 20.4 +0.2**
PB16 IPOC Station P 55.68 71 IAmb IAmb 13 19 34.2
comp=Z,38nm,1.4s
PB16 IPOC Station P 55.68 71 P P 13 19 24.9 +0.7
comp=Z,24nm,1.4s
CPUP Villa Florida 56.14 88 P P 13 19 26.7 -0.1
comp=Z,4.8nm,0.8s,baz=230,slow=8.6,SNR=7.2
CPUP LR LR 13 40 27.4
comp=Z,2µm,18.2s,baz=232,slow=33
comp=Z,4.8nm,0.8s
CPUP Villa Florida 56.14 88 P 13 19 26.3 -0.5
CPUP IAmb IAmb 13 19 35.8
comp=Z,31nm,1.3s
CPUP Villa Florida 56.14 88 P P 13 19 26.2 -0.5
comp=Z,26nm,2.1s
LHI Lord Howe Isla 56.94 261 P P 13 19 31.6 -0.7
MSVF Nonsavu 57.01 288 LR LR 13 37 42.5
comp=Z,149nm,21.2s,baz=178,slow=30
MAW Mawson 57.10 184 P P 13 19 33.8 +0.9
comp=Z,12nm,1.1s,baz=187,slow=11,SNR=9.6
MAW LR LR 13 41 53.1
comp=Z,1µm,22.0s,baz=166,slow=34
comp=Z,12nm,1.1s
MAW Mawson 57.10 184 P P 13 19 32.2 -0.8
MAW Mawson 57.10 184 P P 13 19 32.5 -0.4
comp=Z,3.4nm,1.1s
NNA Nana 57.21 60 LR LR 13 38 00.7
comp=Z,788nm,20.1s,baz=204,slow=30
LPAZ La Paz 58.11 71 P P 13 19 41.7 +0.3
comp=Z,6.4nm,1.1s,baz=214,slow=5.0,SNR=8.5
LPAZ LR LR 13 38 39.8
comp=Z,908nm,18.7s,baz=190,slow=30
comp=Z,6.4nm,1.1s
LPAZ La Paz 58.11 71 P 13 19 40.8 -0.7
LPAZ IAmb IAmb 13 19 52.1
comp=Z,31nm,1.2s
LPAZ La Paz 58.11 71 P P 13 19 42.2 +0.7
comp=Z,28nm,1.3s
ATAH Atahualpa 60.66 56 LR LR 13 39 44.6
comp=Z,1µm,21.6s,baz=219,slow=30
AQDB Aquidauana 61.64 85 P P 13 20 04.4 -0.6
AQDB IAmb IAmb 13 20 13.7
comp=Z,12nm,1.0s
AQDB Aquidauana 61.64 85 P P 13 20 05.8 +0.8
KOUNC Koumac, New Ca 62.44 274 P P 13 20 09.6 -0.7
PTLB Pontes e Lacer 63.74 79 P P 13 20 18.2 -0.8
PTLB IAmb IAmb 13 20 27.9
comp=Z,19nm,1.4s
FUNA Funafuti 64.07 294 P P 13 20 21.5 +0.3
CMSA Cobar Meteorol 64.32 251 P P 13 20 24.5 +1.8
comp=Z,21nm,1.5s
VAO Valinhos 64.62 94 P P 13 20 25.3 +0.4
EIDS Eidsvold 66.14 260 P P 13 20 34.1 -0.5
EIDS IAmb IAmb 13 21 32.1
comp=Z,16nm,1.4s
STKA Stephens Creek 66.24 248 P P 13 20 36.0 +0.8
comp=Z,5.8nm,1.0s,baz=148,slow=2.6,SNR=6.0
comp=Z,5.8nm,1.0s
STKA Stephens Creek 66.24 248 P P 13 20 36.0 +0.8
STKA Stephens Creek 66.24 248 P P 13 20 34.9 -0.3
STKA Stephens Creek 66.24 248 P P 13 20 37.3 +2.1
comp=Z,58nm,1.2s
QLP Quilpie 68.98 254 P P 13 20 54.4 +1.9
comp=Z,28nm,1.8s
CLDB Colider 69.33 79 P P 13 20 56.6 +1.8
comp=Z,8.3nm,2.2s
BDFB Brasilia 69.87 88 LR LR 13 48 43.1
comp=Z,2µm,19.4s,baz=213,slow=33
BDFB Brasilia 69.87 88 P P 13 20 58.0 -0.3
BDFB pmax pmax
comp=Z,15nm,1.3s
BDFB Brasilia 69.87 88 P P 13 20 58.0 -0.3
BDFB IAmb IAmb 13 21 07.6
comp=Z,15nm,1.3s
INKA Innaminka 69.95 250 P 13 20 58.7 +0.2
CTA Charters Tower 73.02 259 LR LR 13 49 53.2
comp=Z,468nm,18.9s,baz=120,slow=33
ROSC El Rosal 73.09 54 LR LR 13 48 00.9
comp=Z,464nm,19.2s,baz=240,slow=31
JTS Las Juntas de 73.54 41 LR LR 13 46 04.6
comp=Z,783nm,21.1s,baz=192,slow=30
JTS Las Juntas de 73.54 41⇓*e*P **P 13 21 22.0 +1.9**
JTS pmax pmax
comp=Z,17nm,1.1s
HELC Santa Helena 73.73 52 P P 13 21 22.2 +0.4
HELC IAmb IAmb 13 21 32.3
comp=Z,28nm,1.4s
HNR Honiara 73.84 277 LR LR 13 46 53.1
comp=Z,191nm,21.9s,baz=235,slow=30
RUSC La Rusia 74.58 54 P P 13 21 26.0 -0.8
RUSC IAmb IAmb 13 21 36.2
comp=Z,34nm,1.5s
SMTB Santa Maria do 75.59 85 P P 13 21 32.5 +0.3
SMTB IAmb IAmb 13 21 41.5
comp=Z,48nm,1.6s
MTO3 Montecristo 75.79 36 P P 13 21 34.1 +0.8
ESQI Esquipulas 75.95 36 P P 13 21 34.3 +0.2
TLIG Tlapa 76.11 26 P P 13 21 35.6 +0.5
QIS Mount Isa 76.33 254 P P 13 21 37.4 +1.1
comp=Z,13nm,1.6s
CMIG Matias Romero 76.64 30 LR LR 13 48 35.9
comp=Z,213nm,20.9s,baz=199,slow=30
H01W1 Cape Leeuwin H 76.83 226 T T 14 46 59.0
baz=148,slow=75,SNR=576
H01W2 Cape Leeuwin H 76.83 226 T T 14 46 59.3
baz=148,slow=75,SNR=495
H01W3 Cape Leeuwin H 76.84 226 T T 14 47 00.2
baz=148,slow=75,SNR=444
ASAR Alice Springs 76.86 247 P **P 13 21 39.2 -0.1**
comp=Z,6.8nm,0.9s,baz=140,slow=5.2,SNR=34
ASAR LR LR 13 50 12.7
comp=Z,1µm,20.6s,baz=126,slow=32
comp=Z,6.8nm,0.9s
ASAR Alice Springs 76.86 247 P P 13 21 39.0 -0.3
AS31 Alice Springs 76.86 247 P P 13 21 39.6 +0.2
NWAO Narrogin (SRO) 77.21 230 LR LR 13 47 59.0
comp=Z,210nm,18.9s,baz=98,slow=30
BOAV Boa Vista 77.80 67 P P 13 21 45.0 +0.5
SDV Santo Domingo 78.35 55 LR LR 13 52 18.2
comp=Z,450nm,19.3s,baz=193,slow=33
SDV Santo Domingo 78.35 55 P P 13 21 46.7 -1.1
WR8 Warramunga Arr 79.58 250 P P 13 21 54.3 -0.1
WRA Warramunga Arr 79.67 250 P P 13 21 54.5 -0.4
comp=Z,9.8nm,0.9s,baz=145,slow=5.0,SNR=51
WRA LR LR 13 53 32.4
comp=Z,853nm,18.9s,baz=90,slow=33
comp=Z,9.8nm,0.9s
WRA Warramunga Arr 79.67 250 P P 13 21 55.1 +0.2
WRA pmax pmax
comp=Z,3.0nm,1.9s
WRA Warramunga Arr 79.67 250 P 13 21 55.1 +0.2
WRAB Tennant Creek 79.67 250 P P 13 21 55.5 +0.6
WRAB pmax pmax
comp=Z,17nm,1.1s
WRAB Tennant Creek 79.67 250 P P 13 21 55.5 +0.6
WRAB IAmb IAmb 13 21 56.6
comp=Z,17nm,1.1s
WRAB Tennant Creek 79.67 250 P P 13 21 56.1 +1.1
comp=Z,19nm,1.0s
WB0 Warramunga Arr 79.79 250 P P 13 21 56.0 +0.5
LPIG La Paz 80.24 14 LR LR 13 48 45.4
comp=Z,415nm,20.9s,baz=211,slow=29
PMG Port Moresby 81.13 266 LR LR 13 54 25.0
comp=Z,550nm,18.3s,baz=154,slow=33
PMG Port Moresby 81.13 266⇓*e*P **P 13 22 05.1 +2.3**
PMG pmax pmax
comp=Z,32nm,1.8s
PMG Port Moresby 81.13 266 P P 13 22 02.5 -0.2
KRVT Keravat (AS076 82.51 273 LR LR 13 54 00.2
comp=Z,154nm,19.6s,baz=170,slow=32
MDP Montagnes des 84.28 73 LR LR 13 55 53.3
comp=Z,365nm,20.0s,baz=148,slow=33
RCBR Riachuelo 84.71 93 LR LR 13 56 35.0
comp=Z,192nm,21.1s,baz=196,slow=33
FITZ Fitzroy Crossi 85.76 244 LR LR 13 54 36.1
comp=Z,616nm,21.7s,baz=146,slow=31
TX31 Lajitas Ar. Si 86.42 19 P 13 22 30.7 +1.2
TXAR Lajitas Array 86.42 19 P P 13 22 29.5 0.0
comp=Z,1.1nm,1.0s,baz=198,slow=7.9,SNR=5.7
TXAR LR LR 13 53 08.5
comp=Z,187nm,19.2s,baz=222,slow=30
comp=Z,1.1nm,1.0s
TXAR Lajitas Array 86.42 19 P P 13 22 30.7 +1.2
TXAR Lajitas Array 86.42 19 P P 13 22 30.7 +1.2
SAND Sanderson 87.31 20 P P 13 22 34.2 +0.4
SAND IAmb IAmb 13 22 45.0
comp=Z,11nm,1.3s
ALPN Alpine 87.44 18 P P 13 22 34.6 +0.1
ALPN IAmb IAmb 13 23 14.9
comp=Z,22nm,1.9s
ESJX Sierra Juarez 87.47 8 P P 13 22 34.6 0.0
ESJX IAmb IAmb 13 22 48.2
comp=Z,15nm,1.3s
HNDO Hondo 87.47 22 P 13 22 35.1 +0.6
HNDO IAmb IAmb 13 22 54.3
comp=Z,25nm,1.4s
VHRN Van Horn 87.60 17 P P 13 22 35.1 -0.1
VHRN IAmb IAmb 13 22 46.1
comp=Z,26nm,1.9s
SUR Sutherland 87.72 152 LR LR 13 57 41.6
comp=Z,501nm,19.6s,baz=188,slow=33
TUC Tucson 88.27 12 P P 13 22 37.3 -1.0
TUC pmax pmax
comp=Z,9.0nm,1.1s
TUC Tucson 88.27 12 P 13 22 37.3 -1.0
TUC Tucson 88.27 12 P P 13 22 40.1 +1.8
comp=Z,9.1nm,1.1s
JCT Junction City 88.28 22 IAmb IAmb 13 22 49.1
comp=Z,20nm,1.4s
MNTX Cornudas Mount 88.43 17 IAmb IAmb 13 23 08.1
comp=Z,18nm,1.7s
MNTX Cornudas Mount 88.43 17 P P 13 22 38.9 -0.2
OZNA Ozona 88.44 20 P 13 22 41.0 +1.9
OZNA IAmb IAmb 13 22 59.6
comp=Z,15nm,1.2s
SJG San Juan 88.48 54 LR LR 13 58 02.8
comp=Z,170nm,19.0s,baz=210,slow=33
MNHN Monahans 88.53 19 IAmb IAmb 13 23 08.8
comp=Z,27nm,1.7s
TPB11 China Draw 88.89 18 IAmb IAmb 13 23 10.6
comp=Z,28nm,1.8s
PFO Pinyon Flats O 89.03 7 LR LR 13 53 40.9
comp=Z,445nm,18.9s,baz=192,slow=30
PFO Pinyon Flats O 89.03 7⇑*e*P **P 13 22 43.0 +1.1**
PFO pmax pmax
comp=Z,11nm,1.3s
IRM Iron Mountain 89.67 8 IAmb IAmb 13 22 58.5
comp=Z,14nm,1.4s
Y22A Socorro 90.38 15 IAmb IAmb 13 23 03.6
comp=Z,17nm,1.6s
JAY Jayapura 90.41 265 LR LR 14 00 30.9
comp=Z,197nm,19.1s,baz=142,slow=34
X18A Snowflake 90.56 12 IAmb IAmb 13 23 09.0
comp=Z,13nm,1.2s
CCCA Chr Cany lake 90.87 6 IAmb IAmb 13 23 10.4
comp=Z,8.7nm,1.1s
PKD Bear Valley Ra 91.14 4 IAmb IAmb 13 22 54.1
comp=Z,10nm,1.1s
ALQ Albuquerque 91.44 15 IAmb IAmb 13 23 12.8
comp=Z,5.5nm,1.0s
TASM ASL Pad, Albuq 91.44 15 IAmb IAmb 13 23 12.9
comp=Z,5.2nm,1.0s
ANMO Albuquerque 91.45 15 LR LR 13 55 33.3
comp=Z,217nm,20.6s,baz=196,slow=30
ANMO Albuquerque 91.45 15⇑*e*P **P 13 22 54.9 +1.6**
ANMO pmax pmax
comp=Z,6.0nm,1.0s
ANMO Albuquerque 91.45 15 P P 13 22 54.2 +1.0
ANMO Albuquerque 91.45 15 P P 13 22 53.7 +0.5
comp=Z,5.5nm,1.0s
FURC Furnace Creek, 91.84 7 IAmb IAmb 13 23 18.6
comp=Z,14nm,1.3s
U15A North Rim 92.18 10 IAmb IAmb 13 23 10.0
comp=Z,8.7nm,1.3s
TPNV Topopah Spring 92.36 7 IAmb IAmb 13 23 17.6
comp=Z,9.2nm,1.2s
BOSA Boshof 92.45 154 LR LR 14 02 15.0
comp=Z,664nm,18.5s,baz=210,slow=34
PRN Pahroc Range 92.90 8 IAmb IAmb 13 23 20.3
comp=Z,7.5nm,1.2s
MVCO Mesa Verde 93.39 13 P P 13 23 03.4 +1.1
BATI Baumata 93.42 247 LR LR 14 00 24.6
comp=Z,1µm,20.5s,baz=165,slow=32
H11S2 WAKE ISLAND Hy 93.42 298 T T 15 06 40.8
baz=148,slow=76,SNR=54
H11S3 WAKE ISLAND Hy 93.44 298 T T 15 06 49.6
baz=148,slow=76,SNR=56
H11S1 WAKE ISLAND Hy 93.44 298 T T 15 06 42.2
baz=148,slow=76,SNR=63
NVAR Mina Array Bea 93.71 5 P P 13 23 03.8 +0.1
comp=Z,0.9nm,1.0s,baz=194,slow=7.7,SNR=5.1
NVAR LR LR 13 55 36.0
comp=Z,569nm,21.8s,baz=182,slow=29
comp=Z,0.9nm,1.0s
H11N3 WAKE ISLAND Hy 94.36 299 T T 15 07 55.5
baz=148,slow=76,SNR=26
H11N1 WAKE ISLAND Hy 94.36 299 T T 15 07 56.6
baz=148,slow=76,SNR=31
H11N2 WAKE ISLAND Hy 94.37 299 T T 15 07 57.6
baz=148,slow=76,SNR=32
LBTB Lobatse 95.98 153 LR LR 14 00 54.4
comp=Z,476nm,20.5s,baz=222,slow=32
YBH Yreka Blue Hor 96.86 2 LR LR 13 58 15.8
comp=Z,621nm,19.0s,baz=173,slow=30
SIJI Sorong 97.08 258 LR LR 14 06 38.5
comp=Z,258nm,18.0s,baz=216,slow=35
TKL Tuckaleechee C 97.36 33 LR LR 14 03 17.3
comp=Z,101nm,18.2s,baz=195,slow=33
PDAR Pinedale Array 98.74 11 LR LR 14 00 07.4
comp=Z,453nm,19.5s,baz=188,slow=31
TSUM Tsumeb 99.11 144 LR LR 14 01 24.5
comp=Z,368nm,21.4s,baz=160,slow=31
KAPI Kappang 99.84 246 LR LR 14 06 52.5
comp=Z,450nm,18.1s,baz=146,slow=34
ILAR Eielson Array 121.09 349 PKP **PKPdf 13 28 37.8 -0.7**
comp=Z,0.8nm,0.9s,baz=220,slow=0.8,SNR=6.8
A36M Sachs Harbour 127.17 360 PKPdf 13 28 49.8 -0.1
YSS Yuzhno-Sakhali 127.91 300 *e*PKIKP **PKiKP 13 28 56.4 +3.8**
YSS pmax pmax
comp=Z,10.0nm,1.0s
NJ2 Nanjing 130.36 269 *e*P **PKiKP 13 28 58.0 0.0**
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
CMAR Chiang Mai Arr 130.40 240 PKP **PKPdf 13 28 57.5 -0.3**
comp=Z,0.3nm,0.4s,baz=307,slow=0.7,SNR=4.4

USA0B	Ussuriysk Arra	131.58	291	⇑	*i*PKIKP	PKPdf	13 28 57.9	-1.2
BILL	Bilibino	133.17	331	‖	*e*PKIKP	PKiKP	13 29 03.4	+0.8
SEY	Seymchan	134.25	321	‖	*e*PKIKP	PKPdf	13 29 03.6	+0.1
HHC	Hu-ho-hao-te	140.71	272		*e*P	PKPdf	13 29 13.5	-2.9
HHC					LR	LR		
	comp=N,150nm,13.0s							
HHC					LR	LR		
	comp=E,110nm,13.5s							
HHC					LR	LR		
	comp=Z,130nm,14.7s							
EVN	Everest	144.25	233			PKPab	13 29 21.5	-0.1
TIXI	Tiksi	146.10	327	‖	*i*PKP2	PKPbc	13 29 26.1	+0.4
TIXI	Tiksi	146.10	327			PKPbc	13 29 25.8	+0.1
GTA2	Gaotai	146.49	260		PKPbc	PKPab	13 29 29.0	0.0
GTA2					pPKP	sPKPab	13 29 37.0	+4.8
GOMU	GeErMu	146.86	251		PKPbc	PKPdf	13 29 27.0	-0.6
ULN	Ulaanbaatar	147.54	279		PKP2	PKPbc	13 29 31.7	+1.0
ULN	Ulaanbaatar	147.54	279			PKPbc	13 29 31.7	+1.0
EKA	Eskdalemuir Ar	147.79	66		PKPbc	PKPbc	13 29 31.8	+0.8
	comp=Z,5.4nm,0.9s,baz=241,slow=2.7,SNR=7.4							
SONM	Songino Array	147.89	278		PKPbc	PKPbc	13 29 31.7	0.0
	comp=Z,3.2nm,1.1s,baz=145,slow=5.4,SNR=8.8							
SONM	Songino Array	147.89	278			PKPdf	13 29 26.5	-2.1
ECH	Echery	150.06	84		PKIKP	PKPdf	13 29 30.8	-1.2
ECH	Echery	150.06	84			PKPdf	13 29 30.8	-1.2
BFO	Black Forest	150.78	84		*i* PKIKP	PKiKP	13 29 41.6	+2.3
FUORN	Ofenpass-Fuorn	150.95	89			PKPdf	13 29 31.3	-2.4
ZAK	Zakamensk	150.96	280		*e*PKIKP	PKPbc	13 29 37.8	-1.4
ZAK					pmax	pmax		
	comp=Z,11nm,1.9s							
DAVA	Damuels	151.10	87		*e*PKP	PKiKP	13 29 41.0	+0.8
	comp=Z,10nm,1.1s							
FETA	Feichten	151.44	88		*e*PKP	PKiKP	13 29 41.7	+0.8
	comp=Z,7.2nm,0.9s							
MOTA	Moosalm	151.83	88		*e*PKP	PKiKP	13 29 42.5	+0.8
	comp=Z,0.1nm,0.1s							
WTTA	Wattenberg	152.09	89		*e*PKP	PKiKP	13 29 42.8	+0.5
	comp=Z,0.6nm,0.3s							
ABTA	Abfaltersbach	152.30	90		*e*PKP	PKiKP	13 29 42.8	+0.1
	comp=Z,5.7nm,1.0s							
LESA	Schwarzleotal	152.77	89		*e*PKP	PKiKP	13 29 44.0	+0.4
	comp=Z,3.6nm,1.1s							
BIOA	Bad Ischl, Aus	153.46	90		*e*PKP	PKiKP	13 29 45.1	+0.2
	comp=Z,2.7nm,0.8s							
SESA	Seetaler Alpe	153.67	91		*e*PKP	PKiKP	13 29 45.8	+0.2
	comp=Z,0.1nm,0.2s							
MOA	Molln	153.90	90		*e*PKP	PKiKP	13 29 46.1	+0.3
	comp=Z,4.6nm,1.2s							
GERES	GERESS Array B	154.10	87		PKPbc	PKiKP	13 29 46.4	+0.1
	comp=Z,0.9nm,0.8s,baz=253,slow=2.2,SNR=7.4							
CLL	Collm	154.88	82		*i* PKP2	PKPab	13 30 00.5	-2.6
CLL					MLR	MLR		
	comp=Z,300nm,20.4s							
CLL	Collm	154.88	82		LV		14 23 00.0	
CLL					AMS	AMS	14 31 00.0	
	comp=Z,300nm,20.4s							
WMQ	Urumqi	156.09	255		*e*PKP	PKPdf	13 29 42.3	+1.3
BRTR	Keskin Array B	158.77	129		PKPab	PKPab	13 30 20.0	-0.3
	comp=Z,1.1nm,0.9s,baz=202,slow=5.3,SNR=4.3							
MLR	Muntele Rosu	159.11	106		PKIKP	PKPdf	13 29 42.7	-2.0
MLR	Muntele Rosu	159.11	106			PKPdf	13 29 42.7	-2.0
NRIK	Noril'sk	159.88	326	⇑	*e*PKIKP	PKPdf	13 29 47.2	+2.5
MKAR	Makanchi Array	160.93	254		PKPab	PKPab	13 30 28.4	-1.1
	comp=Z,2.2nm,0.9s,baz=140,slow=6.0,SNR=6.0							
AAK	Ala-Archa	161.99	233	‖	*e*PKIKP	PKPdf	13 29 49.8	+1.8
RNPP9	Sopachiv	162.23	91		PKP	PKPdf	13 29 49.4	+1.7
ZAA0	Zalesovo Array	162.79	277		PKPdf	PKPdf	13 29 47.8	-0.4
ZAA0						PKPab	13 30 36.3	-1.0
ZALV	Zalesovo Beam	162.79	277		PKPab	PKPab	13 30 36.5	-0.9
	comp=Z,3.3nm,1.0s,baz=109,slow=3.6,SNR=9.6							
ZALV	Zalesovo Beam	162.79	277			PKPab	13 30 36.1	-1.3
AKBB	Malin Array Si	163.82	96	‖	*e*PKIKP	PKPdf	13 29 49.7	+0.4
KURK	Kurchatov	165.09	261		PKP2	PKPab	13 30 47.8	+0.3
KURBB	Kurchatov Arra	165.09	261		PKPab	PKPab	13 30 47.8	+0.2
	comp=Z,0.4nm,0.3s,baz=125,slow=3.7,SNR=5.2							
OBN	Obninsk	169.46	84		*e*PKIKP	PKPdf	13 29 54.3	+0.9
OBN					*e*		13 34 56.7	
OBN					*e*PPP	PPP	13 38 59.2	
OBN					pmax	pmax		
	comp=Z,4.0nm,0.7s							

IDC 28 13:20:15.6±2.0, 16°80S×178°29W, h0km, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=129.0km s-min=23.8km az=152.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	44.96	258	P	P	13 28 32.8	-0.1
	0.3nm,0.4s,baz=95,slow=7.5,SNR=4.6 0.3nm,0.4s						
ASAR	Alice Springs	45.21	253	P	P	13 28 34.8	-0.1
	1.3nm,0.4s,baz=90,slow=8.1,SNR=58 1.3nm,0.4s						
NVAR	Mina Array Bea	78.55	44	P	P	13 32 20.4	+1.1
	0.6nm,0.8s,baz=246,slow=3.0,SNR=4.6 0.6nm,0.8s						
ILAR	Eielson Array	84.79	13	P	P	13 32 51.2	-0.2
	0.3nm,0.4s,baz=221,slow=5.4,SNR=10 0.3nm,0.4s						
TXAR	Lajitas Array	85.31	58	P	P	13 32 54.6	-0.4
	0.4nm,0.7s,baz=224,slow=5.2,SNR=5.0 0.4nm,0.7s						
PDAR	Pinedale Array	86.47	43	P	P	13 32 59.9	-0.7
	0.2nm,0.6s,baz=234,slow=5.8,SNR=2.3 0.2nm,0.6s						

TAP 28 13:49:28.8, 23°30N×120°66E, h14km, ML1.8, B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TPUB	Ta-pu	0.03	269	*i* P	Pg	13 49 31.6	+0.3
TPUB				*i* S	Sg	13 49 33.5	+0.4
WTP	Ta-pu	0.07	219	*i* P	Pg	13 49 32.0	+0.3
WTP				*i* S	Sg	13 49 34.3	+0.6
CHN4	Tsaushan	0.08	308	P	Pg	13 49 32.3	+0.5
CHN4				S	Sg	13 49 34.4	+0.7
WCKO	Fanlu	0.15	339	P	Pb	13 49 33.0	-0.3
WCKO				*i* S	Sb	13 49 36.2	-0.2
STYT	Tauyuan	0.16	148	*i* P	Pb	13 49 33.5	-0.2
STYT				*i* S	Sb	13 49 36.6	-0.3
TWK	Hsinying	0.16	258	*i* P	Pb	13 49 33.2	-0.4
TWK				*i* S	Sb	13 49 36.5	-0.4
STYH	Taoyuan	0.17	141	*i* P	Pb	13 49 33.2	-0.4
STYH				*i* S	Sb	13 49 36.3	-0.6
CHN1	Nanshi	0.17	227	P	Pb	13 49 33.5	-0.2
CHN1				*i* S	Sb	13 49 36.8	-0.2
SNST	Tainan City	0.17	242	*i* P	Pb	13 49 33.4	-0.4
SNST				*i* S	Sb	13 49 36.9	-0.1
SGST	Jiashian	0.23	198	P	Pg	13 49 33.6	-0.2
SGST				S	Sb	13 49 38.1	-0.6
ALS	Alishan	0.25	32	*i* P	Pb	13 49 35.0	-0.2
ALS				*i* S	Sb	13 49 39.5	-0.1
CHN2	Minshiung	0.29	323	*i* P	Pg	13 49 35.0	+0.2
CHN5	Tsauling	0.29	3	P	Pg	13 49 34.7	-0.3
CHN5				S	Sb	13 49 40.8	+0.1
SLGT	Liugui	0.31	183	P	Pg	13 49 35.3	+0.1
SLGT				S	Sg	13 49 40.2	+0.7
ELDTW	Lidau	0.34	109	P	Pb	13 49 36.6	-0.1
ICHU	Yijhu	0.36	280	*e*P	Pg	13 49 35.9	-0.2
SSHA	Shanhua	0.38	245	P	Pg	13 49 36.5	0.0
WGK	Gukeng	0.39	347	*e*P	Pg	13 49 36.3	-0.4
WGK				S	Sb	13 49 43.7	+0.2
WHYT	Xinyi Township	0.43	24	P	Pg	13 49 37.8	+0.3
WHYT				S	Sb	13 49 44.8	+0.2
SCST	Cishan	0.44	201	P	Pg	13 49 37.6	0.0
SCLT	Jiali	0.45	254	P	Pg	13 49 37.9	+0.2
WJS	Zhushan	0.52	7	*e*P	Pg	13 49 39.3	+0.2
WSF	Szhu	0.53	310	P	Pg	13 49 39.2	0.0
SSLB	Suanglung	0.55	29	*e*S	Sb	13 49 48.5	+0.3
TWF1	Yuli	0.59	85	*e*P	Pb	13 49 40.6	-0.2
TWF1				*e*S	Sb	13 49 49.9	+0.9
YULB	Yu-li	0.59	81	P	Pg	13 49 40.5	+0.1
YULB				*e*S	Sg	13 49 48.7	+0.4
TWG	Pinlang	0.61	142	*e*P	Pg	13 49 39.7	-1.0
TWG				*e*S	Sb	13 49 49.4	-0.2
TWGBT	Beinan	0.62	141	*e*P	Pg	13 49 40.3	-0.6
TWGBT				*e*S	Sb	13 49 50.0	+0.2
VWDT	VWDT	0.63	44	S	Sb	13 49 50.5	+0.2
WRL	Guolierlin Hig	0.65	336	P	Pb	13 49 42.0	0.0
WRL				*e*S	Sb	13 49 50.6	-0.4
EHYH	Wanrong	0.66	73	*e*P	Pg	13 49 41.8	+0.2
MASBT	Mashibuluo	0.69	182	*e*P	Pg	13 49 42.0	-0.1
WCS	Beigang Elemen	0.79	17	S	Sb	13 49 55.7	+0.9
OWD	Renai	0.80	36	P	Pg	13 49 44.2	-0.2
OWD				*e*S	Sb	13 49 55.6	+0.2
WUSB	Renai	0.81	31	P	Pb	13 49 44.9	+0.2
WUSB				S	Sb	13 49 56.1	+0.7
PHUB	P'eng-hu	1.02	282	*e*P	Pb	13 49 48.2	-0.1
PHUB				*e*S	Sb	13 50 01.4	-0.2
HWA	Hwalien	1.10	52	*e*P	Pb	13 49 49.6	0.0
HWA				*e*S	Sb	13 50 03.2	-0.5
VCHM	Qimei	1.14	266	*e*P	Pb	13 49 49.6	-0.6
VCHM				*e*S	Sg	13 50 05.3	-0.2
TWD	Chiawan	1.16	48	*e*P	Pn	13 49 50.0	-0.5
TWD				*e*S	Sg	13 50 06.4	+0.2
NNSB	Datong	1.30	30	*e*P	Pn	13 49 52.0	-0.6
TWKBT	Hengchun	1.36	174	*e*P	Pn	13 49 53.3	-0.1
TWKBT				*e*S	Sb	13 50 11.8	+0.5
LIOB	Emei	1.38	14	*e*S	Sn	13 50 11.4	-0.3

NOU 28 13:50:05.6, 15°48S×167°53E, h110km, ML4.4/21, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	Saraoutou	0.32	276	P	Pn	13 50 22.3	+0.9
SANVU	Saraoutou	0.32	276	S	Sn	13 50 35.4	+2.1
DVP	Devils Point	2.32	164	P	Pn	13 50 42.9	+0.2
DVP	Devils Point	2.32	164	S	Sn	13 51 11.1	0.0
RTV	Rentapao	2.45	160	P	Pn	13 50 44.1	-0.3
RTV	Rentapao	2.45	160	S	Sn	13 51 14.5	+0.3
KOUNC	Koumac, New Ca	5.91	211	P	Pn	13 51 32.2	+1.4
YATNC	Mamie plateau,	6.57	185	P	Pn	13 51 38.3	-1.4
PINNC	Pines Island,	7.10	181	P	Pn	13 51 47.1	+0.3

*IDC **28** 13:50:54.4±2.6, 13°.15N×91°.67W, h0km, mb3.4/2, mbtmp3.2/5, ML3.1/3, Error ellipse: s-maj=43.1km s-min=27.0km az=18.0*
*SNET **28** 13:50:56.8±1.2, 13°.28N×91°.67W, h28km±58km, ML3.6, Presumed earthquake*
ISC 28 13:50:56.7±1.5, 13°.2N±0°.1×91°.46W±0°.06, h28km, n13, σ1§72/17, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CEVE	Cerro Verde	1.89	71	*e*P	Pb	13 51 31.1	+0.5
CEVE				*e*S	Sb	13 51 57.2	+3.3
CEVE				IAML		13 52 01.6	
	comp=Z,379nm,0.5s						
JAYA	Jayaque - finc	2.00	77	*e*P	Pb	13 51 31.2	-1.4
JAYA				*e*S	Sb	13 51 57.8	+0.5
APG	El Apazote	2.02	29	Pn	Pb	13 51 31.1	-1.8
	comp=Z,1.1nm,0.3s,baz=188,slow=12,SNR=82 comp=Z,7.1nm,0.4s						
APG				AML	AML		
HUEH	Huehuetenango	2.08	359	*e*P	Pn	13 51 30.1	+0.1
MTO3	Montecristo	2.35	60	*e*P	Pb	13 51 36.3	-2.3
LFRS	El Faro	2.37	80	*e*P	Pb	13 51 37.3	-1.4
ESQI	Esquipulas	2.45	57	*e*P	Pb	13 51 38.0	-2.2
COEG	Centro de Oper	2.54	81	*e*P	Pb	13 51 39.3	-2.4
COEG				*e*S	Sb	13 52 12.7	+0.1
CMIG	Matias Romero	5.07	320	Pn	Pn	13 52 10.0	-0.9
	comp=Z,0.7nm,0.3s,baz=137,slow=8.1,SNR=4.9						
CMIG				Sn	Sn	13 53 09.5	+1.0
	comp=Z,0.9nm,0.3s,baz=63,slow=5.1,SNR=5.0 comp=Z,1.2nm,0.3s						
CMIG				AML	AML		
TXAR	Lajitas Array	19.63	327	P	Pn	13 55 23.6	-1.1
	comp=Z,0.1nm,0.3s,baz=160,slow=11,SNR=7.4 comp=Z,0.6nm,0.8s						
TXAR				AML	AML		
NVAR	Mina Array Bea	34.60	321	P	P	13 57 45.5	+1.9
	comp=Z,0.3nm,0.5s,baz=137,slow=7.5,SNR=5.2 comp=Z,0.3nm,0.5s						
YKA	Yellowknife Ar	51.90	347	P	P	14 00 02.7	+0.2
	comp=Z,0.3nm,0.6s,baz=149,slow=7.5,SNR=4.9 comp=Z,0.3nm,0.6s						
CMAR	Chiang Mai Arr	146.89	342	PKPbc	PKiKP	14 10 40.0	0.0
	comp=Z,0.2nm,0.3s,baz=15,slow=5.9,SNR=4.1						

*MAN **28** 14:00:47.0, 7°.75N×127°.27E, h2km, MS3.7*
*IDC **28** 14:00:49.3±0.8, 8°.14N×127°.11E, h0km, mb3.8/11, mbtmp3.8/11, MS4.5/1, Error ellipse: s-maj=22.4km s-min=14.7km az=86.0*
ISC 28 14:00:55.8±0.8, 7°.95N±0°.06×127°.05E±0°.09, h46km, n21, σ1§93/24, mb3.7/11, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	Davao City (W)	1.70	239	Pn	Pn	14 01 21.4	-1.6
	123nm,0.3s,baz=66,slow=3.5,SNR=11						
DAV				Sn	Sn	14 01 45.3	+1.7
	72nm,0.3s,baz=262,slow=19,SNR=6.1						
DAV				LR	LR	14 02 09.7	
	comp=Z,828nm,20.1s,baz=34,slow=43						
DAV	Davao City (W)	1.70	239	P	Pn	14 01 26.0	+3.0
DMPH	Davao City--Mi	1.75	241	*e*P	Pn	14 01 23.4	-0.4
DMPH				*i* S	Sn	14 01 46.5	+1.6
KCP	Kidapawan	2.15	244	*e*P	Pn	14 01 27.4	-2.0
KCP				*e*S	Sn	14 01 53.6	-1.3
CGP	Cagayan de Oro	2.38	282	*i* P	Pn	14 01 32.2	-0.2
CGP				*i* S	Sn	14 02 05.6	+5.1
TBP	Tagbilaran	3.59	299	*e*P	Pn	14 01 50.2	+1.2
TBP				*i* S	Sn	14 02 40.0	+10
DCPH	Dipolog City	3.71	280	*i* P	Pn	14 01 47.4	-3.3
PLP	Palo	3.79	328	*e*P	Pn	14 01 51.9	+0.1
PLP				*e*S	Sn	14 02 46.4	+11
LLP	Lapu-Lapu	3.85	308	*e*P	Pn	14 01 53.6	+1.1
LLP				*i* S	Sn	14 02 49.1	+13
FITZ	Fitzroy Crossi	25.92	183	P	P	14 06 24.0	+0.2
	1.5nm,0.5s,baz=347,slow=9.5,SNR=6.3 1.5nm,0.5s						
WRA	Warramunga Arr	28.63	166	P	P	14 06 49.8	+1.7
	0.6nm,0.8s,baz=349,slow=10,SNR=7.8 0.6nm,0.8s						
CMAR	Chiang Mai Arr	29.24	294	P	P	14 06 52.5	-1.2
	0.2nm,0.3s,baz=105,slow=9.3,SNR=1.6 0.2nm,0.3s						
ASAR	Alice Springs	32.13	168	P	P	14 07 19.3	+0.2
	0.3nm,0.6s,baz=1.4,slow=8.7,SNR=6.1 0.3nm,0.6s						
STKA	Stephens Creek	41.97	161	P	P	14 08 44.3	+1.9
	1.0nm,0.4s,baz=332,slow=14,SNR=2.0 1.0nm,0.4s						
SONM	Songino Array	43.45	340	P	P	14 08 54.0	-0.4
	0.3nm,0.7s,baz=142,slow=7.3,SNR=2.3 0.3nm,0.7s						
TLY	Talaya	47.67	340	P	P	14 09 26.2	-1.3
	8.6nm,0.9s,baz=12,slow=2.1,SNR=3.5 8.6nm,0.9s						
MKAR	Makanchi Array	54.34	323	P	P	14 10 16.2	-1.6
	1.1nm,0.8s,baz=136,slow=8.2,SNR=3.9 1.1nm,0.8s						
ZALV	Zalesovo Beam	57.02	332	P	P	14 10 35.7	-1.2
	0.3nm,0.4s,baz=131,slow=8.2,SNR=2.5 0.3nm,0.4s						
KURBB	Kurchatov Arra	58.41	326	P	P	14 10 45.0	-1.7
	0.6nm,0.7s,baz=127,slow=6.1,SNR=4.4 0.6nm,0.7s						
ARTI	Arti	71.67	327	LR	LR	14 45 53.9	
	comp=Z,326nm,21.8s,baz=327,slow=38						
ILAR	Eielson Array	81.19	26	P	P	14 13 06.2	-0.2
	0.5nm,0.8s,baz=259,slow=4.7,SNR=4.4 0.5nm,0.8s						

*IDC **28** 14:03:54.0±1.5, 35°.20N×25°.54E, h0km, mb3.8/4, mbtmp3.7/5, ML3.9/1, Error ellipse: s-maj=34.3km s-min=27.0km az=163.0*
*GII **28** 14:03:53.5±0.0, 35°.143N±0°.003×25°.781E±0°.001, h0km, Mws3.2, confirmed*
*THE **28** 14:04:03.2, 35°N±3°×2°6E±°, h38km±2km, M2.9/8, MLh2.9/8*
*ATH **28** 14:04:03.3, 35°.19N×25°.78E, h43km±1km, ML3.0/13, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
ISC 28 14:03:58.9±0.8, 34°.93N±0°.06×25°.93E±0°.04, h63km±8km, n49, σ1§72/68, mb3.9/3, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZKR	Zakros	0.30	53	P	Pn	14 04 12.3	+2.9
ZKR				S	Sn	14 04 20.4	+3.5
ZKR	Zakros	0.30	53	P	Pn	14 04 12.3	+2.9
ZKR				S	Sn	14 04 19.1	+2.2
ZKR				AML	AML		
SIT2	Siteia	0.31	28	P	Pn	14 04 11.7	+2.3
SIT2				S	Sn	14 04 17.5	+0.6
AGNA	Agios Nikolaos	0.31	326	P	Pn	14 04 09.8	+0.4
AGNA				S	Sn	14 04 15.3	-1.7
AGNA				AML	AML		
NPS	Neapolis	0.42	322	P	Pn	14 04 11.2	+0.8
NPS				S	Sn	14 04 16.1	-2.5
NPS				AML	AML		
NPS	Neapolis	0.42	322	P	Pn	14 04 10.8	+0.4
NPS				S	Sn	14 04 15.4	-3.2
IACM	Heraklion	0.80	298	P	Pn	14 04 14.8	+0.4
IACM				S	Sn	14 04 24.9	-1.0
IACM	Heraklion	0.80	298	P	Pn	14 04 15.2	+0.7
IACM				S	Sn	14 04 24.2	-1.8
IDI	Anoyia	0.92	293	P	Pn	14 04 16.8	+0.6
IDI				S	Sn	14 04 27.0	-1.8
IDI				AML	AML		
IDI	Anoyia	0.92	293	P	Pn	14 04 16.9	+0.7
IDI				S	Sn	14 04 27.9	-1.0
SIVA	Sivas	0.92	275	P	Pn	14 04 17.0	+0.9
SIVA				AML	AML		
SIVA	Sivas	0.92	275	P	Pn	14 04 17.2	+1.1
SIVA				S	Sn	14 04 29.3	+0.5
SIVA				AML	AML		
KARP	Karpathos	1.18	58	P	Pn	14 04 23.8	+4.4
KARP				AML	AML		
KARP	Karpathos	1.18	58	P	Pn	14 04 23.9	+4.4
KARP				S	Sn	14 04 38.5	+3.7
KARP				AML	AML		
THR6	Thira Island,	1.48	343	P	Pn	14 04 23.9	+0.4
VAM	Vamos	1.49	289	P	Pn	14 04 25.1	+1.5
VAM				S	Sn	14 04 42.5	+0.3
VAM	Vamos	1.49	289	P	Pn	14 04 24.9	+1.3
THR9	Santorini-Faro	1.50	342	P	Pn	14 04 24.0	+0.4
THR8	Santorini-Mono	1.52	346	P	Pn	14 04 24.2	+0.4
SNT5	Nea Kammeni, S	1.53	344	P	Pn	14 04 24.4	+0.3
THR3	Thira Island,	1.53	344	P	Pn	14 04 24.5	+0.4
GVDS	Gavdos	1.54	267	P	Pn	14 04 26.6	+2.4
GVDS	Gavdos	1.54	267	P	Pn	14 04 25.4	+1.1
THR5	Thira Island,	1.55	342	P	Pn	14 04 24.8	+0.4
THR2	Thira island,	1.56	345	P	Pn	14 04 24.7	+0.2
SAP3	Santorini-Thir	1.57	343	P	Pn	14 04 24.8	+0.2
CMBO	Columbo, Santo	1.59	345	P	Pn	14 04 25.1	+0.2
CMBO				AML	AML		
ASTA	Astypalaia	1.64	12	P	Pn	14 04 26.7	+1.1
CHAN	Chania	1.65	291	P	Pn	14 04 27.5	+1.8
CH01	Chania	1.67	291	P	Pn	14 04 27.4	+1.5
IMMV	Iera Moni Meta	1.68	289	P	Pn	14 04 27.9	+1.8
IMMV				AML	AML		
RODP	Rodopos	1.88	290	P	Pn	14 04 30.6	+1.8
RODP				AML	AML		
KNDR	Palaiochora Ch	1.91	280	P	Pn	14 04 29.8	+0.6
KNDR				AML	AML		
MHLO	Agia Marina, M	2.15	325	P	Pn	14 04 33.3	+0.9
MHLO				AML	AML		
CSS	Mathiatis	6.08	88	P	Pn	14 05 23.0	-3.2
CSS				S	Sn	14 06 33.0	-1.3
MMA0B	Mount Meron ar	8.10	101	P	Pn	14 05 51.8	-2.1
MMA0B				S	Sn	14 07 23.9	-0.1
MMAI	Mount Meron Ar	8.10	101	Pn	Pn	14 05 56.6	+2.7
	1.3nm,0.3s,baz=288,slow=10,SNR=4.2 0.5nm,0.3s						
MMAI				AML	AML		
KZIT	Kziot	8.17	117	P	Pn	14 05 53.3	-1.5
KZIT				S	Sn	14 07 27.2	+1.4
GEM	Giv'at Ha'Em	8.26	99	P	Pn	14 05 53.1	-2.9
GEM				S	Sn	14 07 27.4	-0.4
MMLI	Mount Malkishu	8.29	105	P	Pn	14 05 53.9	-2.7
MMLI				S	Sn	14 07 28.4	-0.3
MSBI	Mazada	8.69	112	P	Pn	14 05 59.9	-2.0
MSBI				S	Sn	14 07 38.5	+0.2
IDAN	Idan	8.86	115	P	Pn	14 06 02.0	-2.2
IDAN				S	Sn	14 07 41.8	-0.6
HRFI	Mount Harif	9.11	120	P	Pn	14 06 05.0	-2.7
HRFI				S	Sn	14 07 49.7	+0.9
YTVT	Yotvata	9.21	121	P	Pn	14 06 07.2	-1.8
YTVT				S	Sn	14 07 52.2	+1.1
EIL	Elat	9.26	122	P	Pn	14 06 07.7	-2.0
EIL				S	Sn	14 07 53.2	+0.8
FINES	FINESS Array B	26.53	0	P	P	14 09 30.6	+0.3
	3.3nm,0.9s,baz=156,slow=10.0,SNR=4.6 3.3nm,0.9s						
TORD	Torodi Ar. Bea	30.83	231	P	P	14 10 11.1	+1.9
	0.3nm,0.5s,baz=40,slow=10,SNR=1.7 0.3nm,0.5s						
KURBB	Kurchatov Arra	40.77	51	P	P	14 11 37.3	+3.5
	0.9nm,0.4s,baz=273,slow=8.7,SNR=5.8 0.9nm,0.4s						
MKAR	Makanchi Array	43.37	56	P	P	14 11 58.9	+3.9
	0.8nm,0.8s,baz=273,slow=9.5,SNR=2.2 0.8nm,0.8s						

*IDC **28** 14:04:18.7±1.3, 7°.34S×127°.28E, h0km, mb3.5/1, mbtmp3.9/6, ML3.9/5, MS4.1/1, Error ellipse: s-maj=19.9km s-min=14.8km az=99.0*
ISC 28 14:04:21.4±1.3, 7°.60S±0°.09×127°.4E±0°.1, h162km, n7, σ1§39/8, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BATI	Baumata	4.53	235	Pn	Pn	14 05 29.1	+0.2
	11nm,0.3s,baz=114,slow=3.0,SNR=6.0						
BATI				Sn	Sn	14 06 22.2	+0.5
	6.5nm,0.3s,baz=55,slow=19,SNR=5.9 41nm,0.4s						
BATI				AML	AML		
SIJI	Sorong	7.70	30	Pn	Pn	14 06 10.8	-0.2
	0.7nm,0.3s,baz=240,slow=20,SNR=2.3 3.2nm,0.5s						
SIJI				AML	AML		
FITZ

TATO	**Taipei**	**1.52**	**275**	S		**Sn**	**14 06 34.1**	**+0.4**
NACB	**Ninganchiao**	**1.57**	**245**	P		**Pn**	**14 06 12.7**	**-0.4**
NACB	**Ninganchiao**	**1.57**	**245**	S		**Sn**	**14 06 34.1**	**-0.6**
YHNB	**Yeheng**	**1.63**	**264**	P		**Pn**	**14 06 13.4**	**-0.5**
YHNB	**Yeheng**	**1.63**	**264**	S		**Sn**	**14 06 36.2**	**+0.1**
JIRJ	**Irabujima**	**1.85**	**90**	P		**Pn**	**14 06 16.5**	**+0.1**
JIRJ				S		**Sn**	**14 06 40.3**	**-0.3**
JIKM	**Ikemajima**	**1.90**	**87**	*e*S		**Sn**	**14 06 41.2**	**-0.4**
JMJ2	**Miyako jima3**	**1.97**	**92**	P		**Pn**	**14 06 18.1**	**+0.2**
JMJ2				S		**Sn**	**14 06 43.5**	**+0.2**
JOGS	**Gusukube**	**2.04**	**92**	*e*S		**Sn**	**14 06 45.2**	**+0.3**
YULB	**Yu-li**	**2.23**	**230**	P		**Pn**	**14 06 20.2**	**-1.0**
SSLB	**Suanglung**	**2.27**	**243**	P		**Pn**	**14 06 21.9**	**+0.2**
SSLB	**Suanglung**	**2.27**	**243**	S		**Sn**	**14 06 50.7**	**+0.7**
TWGBT	**Beinan**	**2.77**	**224**	P		**Pn**	**14 06 28.0**	**-0.1**
TWGBT	**Beinan**	**2.77**	**224**	S		**Sn**	**14 07 00.6**	**-0.9**
TPUB	**Ta-pu**	**2.77**	**237**	P		**Pn**	**14 06 28.5**	**+0.4**
TPUB	**Ta-pu**	**2.77**	**237**	S		**Sn**	**14 07 02.7**	**+1.1**

*AFAD **28** 14:05:54.0, 37.84N×27.00E, h14km±11km, ML2.3*
*ISK **28** 14:05:54.6, 37.84N×26.97E, h5km, ML2.6/15*
*THE **28** 14:05:55.3, 38°N±3.2°×27E±.°, h4km±2km, M2.5/8, MLh2.5/8*

ISC 28 14:05:54.6±0.8,**37.84N**±0.02×**26.96E**±0.02,**h15**km±6km, **n39**, σ0.48/66, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.16**	**217**	P	**Pb**	**14 05 58.8**	**-0.5**
SMG				S	**Sb**	**14 06 02.0**	**-0.4**
SMG				AML	AML		
DGB	**zmir**	**0.22**	**344**	P	**Pg**	**14 05 59.7**	**+0.1**
DGB				S	**Sg**	**14 06 02.8**	**-0.2**
DGB				IAML		14 06 03.0	
	comp=E,387nm,0.2s						
DGB				IAML		14 06 04.0	
	comp=N,310nm,0.5s						
GMLD	**Gumuldur**	**0.24**	**352**	Pg	**Pg**	**14 06 00.0**	**+0.1**
GMLD				Sg	**Sg**	**14 06 03.9**	**+0.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**122**	P	**Pg**	**14 06 00.3**	**+0.1**
GCAM				IAML		14 06 04.0	
	comp=N,1μm,0.2s						
GCAM				IAML		14 06 04.0	
	comp=E,986nm,0.3s						
GCAM				S	**Sg**	**14 06 04.0**	**+0.1**
GCAM	**G?zelcaml?**	**0.26**	**122**	Pg	**Pg**	**14 06 00.4**	**+0.3**
GCAM				Sg	**Sg**	**14 06 04.2**	**+0.3**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**85**	Pg	**Pg**	**14 06 00.0**	**-0.2**
KUSD				Sg	**Sg**	**14 06 03.6**	**-0.5**
KUSD				AML	AML		
BEYE	**izmir**	**0.39**	**356**	P	**Pg**	**14 06 02.7**	**+0.1**
BEYE				S	**Sb**	**14 06 08.6**	**-0.4**
DDIM	**Aydin, Didim**	**0.44**	**150**	P	**Pg**	**14 06 03.5**	**+0.1**
DDIM				IAML		14 06 10.0	
	comp=N,375nm,0.3s						
DDIM				IAML		14 06 10.0	
	comp=E,283nm,0.4s						
DDIM				S	**Sb**	**14 06 10.3**	**0.0**
DIDI	**Didim-Aydin**	**0.51**	**154**	Pg	**Pb**	**14 06 04.9**	**-0.3**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.54**	**318**	P	**Pb**	**14 06 05.5**	**-0.2**
ZEYE				S	**Sb**	**14 06 13.9**	**+0.6**
ZEYE				IAML		14 06 15.0	
	comp=E,276nm,0.4s						
DUVT	**Torbali**	**0.54**	**45**	P	**Pg**	**14 06 05.2**	**-0.1**
DUVT				S	**Sg**	**14 06 12.3**	**-0.2**
DUVT				IAML		14 06 17.0	
	comp=E,304nm,0.3s						
BLCB	**Balcova**	**0.55**	**7**	P	**Pg**	**14 06 05.6**	**+0.1**
BLCB				AML	AML		
BLCB	**Balcova**	**0.55**	**7**	Pg	**Pg**	**14 06 05.6**	**+0.1**
BLCB				AML	AML		
URLA	**Izmir**	**0.60**	**331**	P	**Pg**	**14 06 05.7**	**-0.6**
URLA				S	**Sb**	**14 06 15.1**	**+0.1**
URLA				IAML		14 06 17.0	
	comp=E,191nm,0.4s						
URLA				IAML		14 06 18.0	
	comp=N,294nm,0.4s						
URLA	**Izmir**	**0.60**	**331**	Pg	**Pb**	**14 06 06.5**	**-0.2**
URLA				Sg	**Sb**	**14 06 15.4**	**+0.5**
URLA				AML	AML		
DAGE	**izmir**	**0.65**	**75**	P	**Pg**	**14 06 07.4**	**+0.1**
DAGE				S	**Sg**	**14 06 14.6**	**-1.3**
DAGE				IAML		14 06 16.0	
	comp=E,131nm,0.2s						
DAGE				IAML		14 06 21.0	
	comp=N,110nm,0.2s						
AYDB	**Zeytinkoy-Aydi**	**0.74**	**81**	Pg	**Pg**	**14 06 09.6**	**+0.5**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**103**	P	**Pb**	**14 06 08.5**	**-0.8**
AYDN				S	**Sb**	**14 06 18.9**	**-0.5**
AYDN				IAML		14 06 23.0	
	comp=N,106nm,0.3s						
AYDN				IAML		14 06 23.0	
	comp=E,148nm,0.2s						
YKAV	**Yalikavak-Bodr**	**0.76**	**160**	Pg	**Pg**	**14 06 09.5**	**+0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.82**	**337**	Pg	**Pg**	**14 06 10.9**	**+0.4**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**354**	P	**Pb**	**14 06 10.3**	**-0.2**
BAGT				S	**Sn**	**14 06 22.7**	**-0.7**
BAGT				IAML		14 06 25.0	
	comp=N,103nm,0.7s						
BAGT				IAML		14 06 27.0	
	comp=E,77nm,0.5s						
BODT	**Bodrum**	**0.82**	**160**	P	**Pg**	**14 06 10.6**	**0.0**
BODT				S	**Sn**	**14 06 23.0**	**-0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.82**	**160**	Pg	**Pg**	**14 06 10.5**	**0.0**
BODT				Sg	**Sn**	**14 06 22.7**	**-0.8**
BODT				AML	AML		
IZMR	**zmir-demi**	**0.84**	**69**	P	**Pg**	**14 06 11.3**	**+0.5**
IZMR				S	**Sb**	**14 06 20.7**	**-1.2**
MLSB	**Milas**	**0.84**	**130**	Pg	**Pg**	**14 06 11.2**	**+0.2**
MLSB				AML	AML		
BDRM	**Kayabasi**	**0.86**	**153**	P	**Pb**	**14 06 10.9**	**-0.3**
BDRM				S	**Sg**	**14 06 23.4**	**+0.7**
BDRM				IAML		14 06 26.0	
	comp=N,124nm,0.5s						
BDRM				IAML		14 06 26.0	
	comp=E,102nm,0.2s						
FOCM	**Foa**	**0.89**	**348**	Pg	**Pg**	**14 06 12.1**	**+0.2**
FOCM				AML	AML		
CHOS	**Chios island**	**0.90**	**308**	P	**Pn**	**14 06 12.9**	**+0.2**
CHOS				S	**Sn**	**14 06 25.6**	**+0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.90**	**308**	Pg	**Pn**	**14 06 12.7**	**0.0**
CHOS				Sg	**Sn**	**14 06 25.5**	**0.0**
CHOS				AML	AML		
CAMT	**Merkez**	**0.95**	**17**	P	**Pn**	**14 06 13.3**	**0.0**
CAMT				S	**Sn**	**14 06 28.1**	**+1.5**
CAMT				IAML		14 06 29.0	
	comp=N,124nm,0.3s						
CAMT				IAML		14 06 29.0	
	comp=E,156nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.06**	**83**	Pg	**Pn**	**14 06 14.9**	**0.0**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.10**	**92**	P	**Pb**	**14 06 15.1**	**-0.1**
ESEN				S	**Sg**	**14 06 30.6**	**+0.4**
KIRA	**zmir-Kiraz**	**1.19**	**72**	P	**Pb**	**14 06 17.0**	**+0.1**
KIRA				S	**Sn**	**14 06 32.9**	**+0.2**
YAZI	**Mula-Dat§a-**	**1.22**	**161**	P	**Pb**	**14 06 17.5**	**+0.2**
YAZI				S	**Sg**	**14 06 35.4**	**+1.4**
KTTT	**Salihli**	**1.23**	**46**	P	**Pb**	**14 06 17.9**	**+0.4**
KTTT				S	**Sn**	**14 06 33.6**	**0.0**
KTTT				IAML		14 06 37.0	
	comp=N,59nm,0.4s						
APE	**Apeiranthos**	**1.37**	**236**	P	**Pg**	**14 06 20.7**	**-0.3**
APE				AML	AML		
GORD	**Gordes-Manisa**	**1.43**	**41**	Pn	**Pg**	**14 06 21.8**	**-0.4**
GORD				AML	AML		
PRK	**Paraskevi**	**1.51**	**339**	P	**Pg**	**14 06 23.3**	**-0.2**
HARTU	**Esme**	**1.54**	**70**	P	**Pn**	**14 06 22.1**	**+0.6**
HARTU				S	**Sb**	**14 06 42.1**	**+0.1**

*IDC **28** 14:14:19.2±0.8, 0.°64N×120.°62E, h0km, mb4.0/7,*
mbtmp4.1/10, ML4.0/3, MS3.4/9, Error ellipse:
s-maj=51.2km s-min=13.6km az=71.0

*DJA **28** 14:14:23.2±0.4, 0.°7N±4.°×12.°0E±.°, h10km, M4.5/8, ML4.1/4,*
MLv4.3/4, MLv4.5/8

ISC 28 14:14:26.4±0.9, **0.°45N**±0.°08×**120.°38E**±0.°09, **h55**km, **n22**, σ1.9**57**/17, **mb4.0**/7, **MS3.2**/5, **Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCI	**Palu**	**1.46**	**202**	P	**Pn**	**14 14 49.0**	**-1.4**
PCI				AML	AML		
PCI				AML	AML		
APSI	**Ampana**	**1.86**	**137**	P	**Pn**	**14 14 52.4**	**-3.5**
APSI				AML	AML		
GTOI	**Gorontalo**	**2.64**	**86**	P	**Pn**	**14 15 06.5**	**0.0**
LUWI	**Luwuk**	**2.81**	**122**	P	**Pn**	**14 15 08.3**	**-0.7**
MMSI	**Mamuju**	**3.45**	**205**	P	**Pn**	**14 15 17.0**	**-0.7**
TTSI	**Tana Toraja**	**3.52**	**189**	P	**Pn**	**14 15 18.6**	**-0.1**
KMSI	**Cibinong**	**3.60**	**88**	P	**Pn**	**14 15 18.6**	**-1.2**
KAPI	**Kappang**	**5.47**	**187**	Pn	**Pn**	**14 15 47.0**	**+1.7**
	3.2nm,0.3s,baz=344,slow=9.9,SNR=5.9						
KAPI				LR	LR	14 18 12.2	
	comp=Z,607nm,18.2s,baz=6.0,slow=41						
	12nm,0.3s						
KAPI				AML	AML		
SIJI	**Sorong**	**10.96**	**97**	LR	LR	14 21 19.6	
	comp=Z,90nm,20.9s,baz=32,slow=39						
BATI	**Baumata**	**11.08**	**163**	Pn	**Pn**	**14 17 05.8**	**+3.5**
	4.0nm,0.3s,baz=243,slow=10,SNR=3.7						
BATI				LR	LR	14 21 44.3	
	comp=Z,490nm,21.4s,baz=330,slow=40						
	18nm,0.6s						
BATI				AML	AML		
FITZ	**Fitzroy Crossi**	**19.15**	**165**	P	**P**	**14 18 45.4**	**+0.1**
	0.2nm,0.3s,baz=25,slow=5.1,SNR=7.2						
FITZ				LR	LR	14 25 41.7	
	comp=Z,190nm,20.8s,baz=335,slow=35						
	2.6nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**24.45**	**147**	P	**P**	**14 19 39.7**	**-0.7**
	8.5nm,0.8s,baz=328,slow=9.9,SNR=53						
	8.5nm,0.8s						
ASAR	**Alice Springs**	**27.34**	**152**	P	**P**	**14 20 06.2**	**-0.2**
	1.4nm,0.7s,baz=346,slow=14,SNR=24						
ASAR				LR	LR	14 31 46.5	
	comp=Z,82nm,21.2s,baz=286,slow=38						
	1.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**27.63**	**312**	LR	LR	14 32 49.8	
	comp=Z,86nm,18.2s,baz=150,slow=40						
CTA	**Charters Tower**	**32.54**	**130**	LR	LR	14 34 35.5	
	comp=Z,43nm,18.2s,baz=247,slow=37						
NWAO	**Narrogin (SRO)**	**33.33**	**185**	LR	LR	14 33 42.6	
	comp=Z,49nm,18.6s,baz=244,slow=35						
STKA	**Stephens Creek**	**37.91**	**150**	P	**P**	**14 21 38.5**	**0.0**
	5.4nm,0.8s,baz=331,slow=6.0,SNR=7.9						
	5.4nm,0.8s						
SONM	**Songino Array**	**48.73**	**347**	P	**P**	**14 23 06.3**	**+0.6**
	0.4nm,0.4s,baz=173,slow=13,SNR=4.0						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	**56.88**	**330**	P	**P**	**14 24 04.8**	**-0.8**
	1.7nm,0.9s,baz=133,slow=10,SNR=4.9						
	1.7nm,0.9s						
ZALV	**Zalesovo Beam**	**60.84**	**337**	P	**P**	**14 24 31.7**	**-1.3**
	0.9nm,0.7s,baz=123,slow=5.5,SNR=4.2						
	0.9nm,0.7s						
KURBB	**Kurchatov Arra**	**61.28**	**331**	P	**P**	**14 24 36.4**	**+0.3**
	0.2nm,0.2s,baz=135,slow=7.0,SNR=4.8						
	0.2nm,0.2s						
RPZ	**Rata Peaks**	**62.99**	**141**	LR	LR	14 52 59.3	
	comp=Z,13nm,18.4s,baz=288,slow=37						

*NNC **28** 14:44:18.3±0.6, 42.°82N×71.°55E, h0km, mb2.9, mpv2.7,*
Error ellipse: s-maj=5.5km s-min=3.7km az=2.0
*KRNET **28** 14:44:19.6±0.1, 42.°84N×71.°63E, h17km, mb2.9*
*SOME **28** 14:44:19.5, 42.°85N×71.°62E, h10km*

ISC 28 14:44:18.8±1.3, **42.°83N**±0.°04×**71.°58E**±0.°03, **h6**km±11km, **n24**, σ1.9**80**/45, **14C-17D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNAS	**Manas**	**0.77**	**117**	⇑*i*P	**Pg**	**14 44 33.7**	**+0.2**
MNAS				⇑*i*S	**Sg**	**14 44 43.8**	**+0.3**
KK31	**Karatay Array**	**0.83**	**289**	P	**Pb**	**14 44 34.4**	**-1.2**
	1.4nm,0.1s,baz=111,slow=15,SNR=547						
KK31				⇑S	**Sb**	**14 44 44.9**	**-2.1**
	5.3nm,0.1s,baz=110,slow=31,SNR=31						
ARK	**Arkit**	**1.07**	**164**	⇑*i*P	**Pb**	**14 44 39.8**	**-0.1**
ARK				⇑*i*S	**Sn**	**14 44 54.5**	**-1.3**
MRKS	**Merke**	**1.22**	**94**	P	**Pb**	**14 44 42.0**	**-0.3**
	3.4nm,0.1s						
MRKS				S	**Sg**	**14 44 58.4**	**+0.4**
	71nm,0.3s						
MRKS	**Merke**	**1.22**	**94**	*e*P	**Pb**	**14 44 42.0**	**-0.3**
	3.4nm,0.1s						
MRKS				*e*S	**Sg**	**14 44 58.4**	**+0.4**
	71nm,0.3s						
TRKS	**Terek-Say**	**1.34**	**194**	⇑*i*P	**Pg**	**14 44 46.0**	**+1.4**
TRKS				⇑*i*S	**Sg**	**14 45 05.1**	**+3.1**
EKS2	**Erkin-Say**	**1.63**	**95**	⇓*i*P	**Pb**	**14 44 49.0**	**-0.3**
EKS2				⇓*i*S	**Sg**	**14 45 10.3**	**-0.9**
AAK	**Ala-Archa**	**2.16**	**94**	⇑Pn	**Pb**	**14 44 57.2**	**-1.2**
	2.4nm,0.4s						
AAK				⇓Sn	**Sb**	**14 45 25.5**	**+0.1**
	1.0nm,0.3s						
AAK	**Ala-Archa**	**2.16**	**94**	⇓*i*P	**Pb**	**14 44 57.3**	**-1.1**
AAK				⇓*i*S	**Sb**	**14 45 24.9**	**-0.5**
USP	**Ospenovka**	**2.18**	**78**	⇑*i*P	**Pb**	**14 44 57.7**	**-1.1**
USP				⇑*i*S	**Sb**	**14 45 25.3**	**-0.8**
UCH	**Uchtor**	**2.25**	**105**	⇑*i*P	**Pb**	**14 44 59.0**	**-1.2**
UCH				⇑*i*S	**Sb**	**14 45 27.7**	**-0.7**
CHMS	**Chumysh**	**2.34**	**85**	⇓*i*P	**Pb**	**14 44 59.8**	**-1.6**
CHMS				⇓*i*S	**Sb**	**14 45 28.9**	**-1.6**
KBK	**Karagaybulak**	**2.49**	**93**	⇓*i*P	**Pb**	**14 45 02.1**	**-1.9**
KBK				⇓*i*S	**Sb**	**14 45 33.0**	**-2.0**
SALK	**Salom-Alik**	**2.57**	**139**	⇓*i*P	**Pb**	**14 45 03.5**	**-1.9**
SALK				⇓*i*S	**Sb**	**14 45 35.4**	**-1.9**
BTK	**Batken**	**2.83**	**192**	⇑*i*P	**Pb**	**14 45 07.4**	**-2.4**
BTK				⇑*i*S	**Sb**	**14 45 42.4**	**-2.3**
TKM2	**Tokmak 2**	**2.95**	**87**	⇓*i*P	**Pb**	**14 45 08.5**	**-3.5**
TKM2				⇓*i*S	**Sb**	**14 45 44.1**	**-4.3**
DGS	**Degeres**	**3.10**	**81**	Pg	**Pb**	**14 45 15.3**	**+0.8**
	0.8nm,0.1s						
DGS				Lg	Lg	14 45 55.1	
	11nm,0.9s						
DGS	**Degeres**	**3.10**	**81**	*e*P	**Pb**	**14 45 15.3**	**+0.8**
	0.8nm,0.1s						
DGS				*e*S	**Sg**	**14 45 55.1**	**-3.3**
	11nm,0.9s						
KRBS	**Karabastau**	**3.11**	**73**	Pg	**Pb**	**14 45 14.8**	**+0.2**
	1.0nm,0.6s						
KRBS				Lg	Lg	14 45 54.4	
	4.8nm,0.2s						
KRBS	**Karabastau**	**3.11**	**73**	*e*P	**Pb**	**14 45 14.8**	**+0.2**
	1.0nm,0.6s						
KRBS				*e*S	**Sb**	**14 45 54.4**	**+1.5**
	4.8nm,0.2s						
KST	**Kastek**	**3.23**	**85**	Pg	**Pb**	**14 45 17.4**	**+0.8**
	1.0nm,0.8s						
KST				Lg	Lg	14 45 59.1	
	11nm,0.6s						
KST	**Kastek**	**3.23**	**85**	*e*P	**Pb**	**14 45 17.4**	**+0.8**
	1.0nm,0.8s						
KST				*e*S	**Sg**	**14 45 59.0**	**-3.4**
	11nm,0.6s						
BOOM	**Boomskoye usch**	**3.23**	**95**	⇓*i*P	**Pn**	**14 45 12.4**	**+2.1**
BOOM				⇓*i*S	**Sn**	**14 45 50.9**	**+1.7**
ULHL	**Ulahol**	**3.50**	**98**	⇓*e*P	**Pn**	**14 45 16.1**	**+2.2**
ULHL				⇓*i*S	**Sn**	**14 45 57.3**	**+1.6**

*MAN **28** 14:45:20.0, 13.°69N×120.°54E, h143km, MS3.5*
*IDC **28** 14:45:21.2±9.1, 13.°60N×120.°81E, h172km±88km,*
mb3.5/14, mbtmp4.0/14, Error ellipse: s-maj=57.0km
s-min=12.1km az=60.0

ISC 28 14:45:19.4±0.8, **13.°5N**±0.°1×**120.°7E**±0.°1, **h150**km, **n16**, σ1.9**20**/18, **mb3.7**/14, **Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	**Tagaytay City**	**0.63**	**26**	*e*P	**Pn**	**14 45 43.5**	**+1.8**
TGY				*e*S	**Sn**	**14 46 00.6**	**+2.1**
GQP	**Guinayangan**	**1.78**	**78**	*i* P	**Pn**	**14 45 53.8**	**+1.7**
GQP				*i* S	**Sn**	**14 46 16.1**	**-0.9**
CMAR	**Chiang Mai Arr**	**21.43**	**286**	P	**P**	**14 49 57.4**	**+1.5**
	0.7nm,0.6s,baz=99,slow=7.9,SNR=6.2						
	0.7nm,0.6s						
BATI	**Baumata**	**23.77**	**173**	P	**P**	**14 50 19.1**	**+0.7**
	9.4nm,0.4s,baz=0.0,slow=5.1,SNR=2.2						
	9.4nm,0.4s						
WRA	**Warramunga Arr**	**35.88**	**158**	P	**P**	**14 52 04.5**	**-0.7**
	0.6nm,0.4s,baz=331,slow=10.0,SNR=36						
	0.6nm,0.4s						
SONM	**Songino Array**	**36.21**	**344**	P	**P**	**14 52 06.7**	**-1.1**
	0.4nm,0.5s,baz=157,slow=12,SNR=2.3						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**39.17**	**161**	P	**P**	**14 52 32.8**	**-0.1**
	0.4nm,0.4s,baz=333,slow=7.5,SNR=16						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	**46.15**	**324**	P	**P**	**14 53 29.1**	**+0.3**
	0.7nm,0.5s,baz=120,slow=7.4,SNR=7.2						
	0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**49.19**	**333**	P	**P**	**14 53 51.4**	**-0.8**
	1.1nm,0.4s,baz=113,slow=6.9,SNR=7.7						
	1.1nm,0.4s						
KURBB	**Kurchatov Arra**	**50.31**	**326**	P	**P**	**14 54 00.4**	**-0.2**
	1.0nm,0.2s,baz=131,slow=7.4,SNR=6.0						
	1.0nm,0.2s						
BVAR	**Borovoye Array**	**55.89**	**326**	P	**P**	**14 54 41.2**	**-0.3**
	0.4nm,0.5s,baz=130,slow=13,SNR=2.2						
	0.4nm,0.5s						
ARCES	**ARCESS Array B**	**79.23**	**339**	P	**P**	**14 57 06.6**	**-1.0**
	4.2nm,1.0s,baz=79,slow=6.4,SNR=5.6						
	4.2nm,1.0s						
FINES	**FINESS Array B**	**80.41**	**331**	P	**P**	**14 57 13.6**	**-0.5**
	1.1nm,0.7s,baz=75,slow=8.1,SNR=6.7						
	1.1nm,0.7s						
HFS	**Hagfors**	**86.61**	**331**	P	**P**	**14 57 45.2**	**-0.6**
	1.2nm,0.8s,baz=72,slow=4.7,SNR=1.0						
	1.2nm,0.8s						
NOA	**NORSAR Array B**	**87.39**	**333**	P	**P**	**14 57 47.8**	**-1.8**
	0.6nm,0.7s,baz=70,slow=4.2,SNR=1.8						
	0.6nm,0.7s						
YKA	**Yellowknife Ar**	**92.95**	**22**	P	**P**	**14 58 15.0**	**-0.3**
	0.8nm,0.9s,baz=310,slow=4.3,SNR=7.0						
	0.8nm,0.9s						

*IDC **28** 14:57:30.9±1.1, 9.°48S×118.°78E, h0km, mb3.9/5,*
mbtmp4.0/9, ML4.0/4, MS3.3/5, Error ellipse: s-maj=23.2km
s-min=11.2km az=59.0
*DJA **28** 14:57:37.8±0.2, 10.°S±3.°×11.°9E±.°, h10km, M4.5/33,*
mB5.2/4, mb4.6/12, mb4.6/14, mB5.2/4, ML4.3/32,
MLv4.4/33, MLv4.4/33, Mw(mB)4.6/4, Mw(mB)4.6/4

ISC 28 14:57:38.1±0.7, **9.°53S**±0.°06×**119.°04E**±0.°04, **h46**km, **n49**, σ2.**934**/45, **mb4.1**/4, **MS3.7**/3, **Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBNI	**Kabupaten Domp**	**1.25**	**325**	P	**Pn**	**14 57 59.8**	**+0.6**
DBNI				AML	AML		
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.34**	**39**	P	**Pn**	**14 58 00.5**	**+0.1**
PLAI	**Plampang**	**1.43**	**299**	P	**Pn**	**14 58 02.1**	**+0.5**
PLAI	**Plampang**	**1.43**	**299**	S	**Sn**	**14 58 20.1**	**+0.8**
PLAI	**Plampang**	**1.43**	**299**	P	**Pn**	**14 58 02.2**	**+0.6**
PLAI				AML	AML		
PLAI				AML	AML		
PLAI				AML	AML		
TWSI	**Taliwang, Sumb**	**2.27**	**290**	P	**Pn**	**14 58 14.5**	**+1.3**
TWSI				AML	AML		
TWSI				AML	AML		
TWSI				AML	AML		
EDFI	**Ende, Flores**	**2.73**	**74**	P	**Pn**	**14 58 20.4**	**+0.8**
MMRI	**Maumere**	**3.28**	**75**	P	**Pn**	**14 58 30.9**	**+3.8**
MMRI	**Maumere**	**3.28**	**75**	S	**Sn**	**14 59 08.5**	**+3.6**
MMRI	**Maumere**	**3.28**	**75**	P	**Pn**	**14 58 28.7**	**+1.6**
MMRI				AML	AML		
MMRI				AML	AML		
MMRI				AML	AML		
KHKI	**Kahang-Kahang**	**3.58**	**289**	P	**Pn**	**14 58 35.2**	**+4.0**
KHKI				AML	AML		
KHKI				AML	AML		
KHKI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.66**	**23**	P	**Pn**	**14 58 33.1**	**+0.8**
BSSI				AML	AML		
BSSI				AML	AML		
BSSI				AML	AML		
DNP	**Denpasar**	**3.88**	**282**	P	**Pn**	**14 58 38.8**	**+3.6**
IGBI	**Denpasar**	**3.91**	**280**	P	**Pn**	**14 58 38.2**	**+2.5**
IGBI				AML	AML		
IGBI				AML	AML		
SRBI	**Singaraja**	**4.04**	**290**	P	**Pn**	**14 58 41.1**	**+3.5**
SRBI				AML	AML		
SRBI				AML	AML		
SRBI				AML	AML		
RTBI	**Rangdo, Negare**	**4.18**	**284**	P	**Pn**	**14 58 43.0**	**+3.5**
RTBI				AML	AML		
RTBI				AML	AML		
RTBI				AML	AML		
MKS	**Makassar**	**4.31**	**6**	P	**Pn**	**14 58 43.8**	**+2.7**
MKS				AML	AML		
MKS				AML	AML		
MKS				AML	AML		
BKSI	**Bulukumba**	**4.32**	**14**	P	**Pn**	**14 58 43.6**	**+2.3**
BKSI				AML	AML		
BKSI				AML	AML		
BKSI				AML	AML		
KAPI	**Kappang**	**4.54**	**9**	Pn	**Pn**	**14 58 44.5**	**+0.1**
	6.4nm,0.3s,baz=179,slow=9.6,SNR=15						
KAPI				Sn	**Sn**	**14 59 34.3**	**-1.6**
	33nm,0.3s,baz=325,slow=22,SNR=15						
KAPI				LR	LR	15 00 40.2	
	comp=Z,91nm,21.6s,baz=208,slow=42						
	14nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**4.54**	**9**	P	**Pn**	**14 58 46.1**	**+1.7**
KAPI	**Kappang**	**4.54**	**9**	S	**Sn**	**14 59 37.2**	**+1.3**
KAPI	**Kappang**	**4.54**	**9**	P	**Pn**	**14 58 45.9**	**+1.5**
KAPI				AML	AML		
BATI	**Baumata**	**4.61**	**99**	Pn	**Pn**	**14 58 47.8**	**+2.5**
	27nm,0.3s,baz=278,slow=3.3,SNR=18						
BATI				Sn	**Sn**	**14 59 39.7**	**+2.2**
	23nm,0.3s,baz=265,slow=22,SNR=11		

FITZ				Sn	Sn	15 01 58.0	-8.3
	1.6nm,0.3s,baz=171,slow=20,SNR=10.0						
FITZ				LR	LR	15 03 57.6	
	comp=Z,49nm,21.9s,baz=285,slow=36						
	4.2nm,0.6s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**18.04 127**		P	**Pn**	**15 01 44.3**	**-1.3**
	0.2nm,0.3s,baz=300,slow=13,SNR=14						
WRA				S	Sn	15 04 53.5	-13
	0.2nm,0.3s,baz=347,slow=25,SNR=5.1						
	0.5nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.98 137**		P	**P**	**15 02 06.4**	**-0.5**
	0.9nm,0.7s,baz=306,slow=9.2,SNR=27						
ASAR				S	**S**	**15 05 46.5**	**-2.9**
	0.8nm,0.8s,baz=322,slow=22,SNR=4.6						
	0.9nm,0.7s						
STKA	**Stephens Creek**	**30.52 140**		P	**P**	**15 03 47.3**	**+0.1**
	2.8nm,0.8s,baz=324,slow=10.0,SNR=3.4						
	2.8nm,0.8s						
H08S2	**Diego Garcia H**	**46.04 269**		T	T	15 55 12.3	
	baz=95,slow=76,SNR=38						
H08S3	**Diego Garcia H**	**46.05 269**		T	T	15 55 12.1	
	baz=95,slow=76,SNR=35						
H08S1	**Diego Garcia H**	**46.06 269**		T	T	15 55 11.5	
	baz=95,slow=76,SNR=15						
USRK	**Ussuriysk Ar.**	**54.75 11**		LR	LR	15 31 33.3	
	comp=Z,62nm,18.9s,baz=26,slow=37						
SONM	**Songino Array**	**58.20 350**		P	**P**	**15 07 26.5**	**-1.1**
	1.1nm,0.4s,baz=168,slow=8.9,SNR=11						
	1.1nm,0.4s						
URZ	**Urewera**	**59.20 129**		LR	LR	15 32 25.7	
	comp=Z,63nm,19.9s,baz=322,slow=35						
MKAR	**Makanchi Array**	**64.94 333**		P	**P**	**15 08 11.5**	**-1.5**
	0.9nm,0.6s,baz=146,slow=7.0,SNR=6.6						
	0.9nm,0.6s						
ZALV	**Zalesovo Beam**	**69.55 339**		P	**P**	**15 08 39.7**	**-2.3**
	0.8nm,0.4s,baz=138,slow=5.9,SNR=5.4						
	0.8nm,0.4s						
ASF	**Jabal al Asfar**	**88.44 303**		LR	LR	15 56 56.3	
	comp=Z,28nm,18.1s,baz=25,slow=40						

*NEIC **28** 15:19:31.4±2.3, 16°.84S±0°.05×167°.3E±0°.1, h10km±1km, mb4.5/17, Error ellipse: s-maj=17.5km s-min=6.0km az=110.0*

*IDC **28** 15:19:35.2±0.9, 17°.01S×166°.95E, h0km, mb4.1/9, mbtmp4.1/11, ML3.7/2, MS3.5/10, Error ellipse: s-maj=24.2km s-min=15.5km az=96.0*

*NOU **28** 15:19:36.2, 16°.96S×167°.59E, h26km, mb4.6/21, Vanuatu Islands*

ISC 28 15:19:33.8±0.6, 16°.85S±0°.04×167°.37E±0°.08, h25km, n58, σ2s67/49, mb4.5/17, MS3.2/8, 3C, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DVP	**Devils Point**	**1.17**	**138**	P	**Pb**	**15 19 54.6**	**-0.7**
RTV	**Rentapao**	**1.38**	**133**	P	**Pb**	**15 19 57.8**	**-1.0**
SANVU	**Saraoutou**	**1.41**	**354**	P	**Pb**	**15 20 01.1**	**+1.7**
SANVU	**Saraoutou**	**1.41**	**354**		**Pn**	**15 19 56.9**	**-1.0**
MARNC	**Mare, Loyalty**	**4.64**	**172**	Pn	**Pn**	**15 20 42.3**	**-0.1**
KOUNC	**Koumac, New Ca**	**4.70**	**218**	P	**Pn**	**15 20 45.0**	**+1.9**
KOUNC	**Koumac, New Ca**	**4.70**	**218**		**Pn**	**15 20 43.5**	**+0.4**
DZM	**Mont Dzumac**	**5.26**	**189**	Pn	**Pn**	**15 20 51.4**	**+0.4**
	3.9nm,0.3s,baz=121,slow=18,SNR=60						
DZM				Sn	**Sn**	**15 21 48.8**	**-2.1**
	3.4nm,0.3s,baz=114,slow=22,SNR=1.8						
	10nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**5.32**	**191**	P	**Pn**	**15 20 53.1**	**+1.5**
PINNC	**Pines Island,**	**5.73**	**179**	Pn	**Pn**	**15 20 55.3**	**-2.0**
HNR	**Honiara**	**10.32**	**315**	LR	LR	15 25 43.7	
	comp=Z,129nm,18.6s,baz=230,slow=36						
HNR	**Honiara**	**10.32**	**315**	Pn	**Pn**	**15 21 57.4**	**-3.0**
SAVO	**Savo Central**	**10.62**	**315**	P	Pn	15 22 10.6	+6.1
EIDS	**Eidsvold**	**17.38**	**238**	P	**P**	**15 23 39.8**	**+3.9**
EIDS	**Eidsvold**	**17.38**	**238**		**Pn**	**15 23 30.9**	**-3.9**
RAO	**Raoul Island**	**18.30**	**135**	LR	LR	15 29 24.9	
	comp=Z,951nm,20.4s,baz=166,slow=32						
ARMA	**Armidale**	**19.72**	**224**	P	**P**	**15 24 00.6**	**-1.1**
ARMA				IAmb	IAmb	15 24 08.3	
	comp=Z,31nm,1.4s						
CTA	**Charters Tower**	**20.28**	**258**	P	**P**	**15 24 07.4**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=66,slow=2.1,SNR=3.0						
CTA				LR	LR	15 31 24.5	
	comp=Z,73nm,18.7s,baz=41,slow=36						
	comp=Z,8.5nm,1.1s						
CTA				AML	AML		
CTAO	**Charters Tower**	**20.28**	**258**	P	**P**	**15 24 04.4**	**-3.4**
CTAO				IAmb	IAmb	15 24 12.4	
	comp=Z,21nm,1.3s						
AFI	**Afiamalu**	**20.32**	**85**	LR	LR	15 31 11.6	
	comp=Z,39nm,18.2s,baz=356,slow=34						
PMG	**Port Moresby**	**21.01**	**288**	P	**P**	**15 24 17.3**	**+1.6**
	comp=Z,8.6nm,1.0s,baz=144,slow=11,SNR=4.3						
PMG				LR	LR	15 31 18.6	
	comp=Z,95nm,18.4s,baz=38,slow=34						
	comp=Z,8.6nm,1.0s						
PMG	**Port Moresby**	**21.01**	**288**	P	**P**	**15 24 11.4**	**-4.3**
AULRC	**Lightning Ridg**	**21.74**	**231**	P	**P**	**15 24 28.2**	**+4.7**
MTSU	**Mount Surprise**	**22.02**	**263**	P	**P**	**15 24 32.4**	**+5.8**
COEN	**Coen**	**23.50**	**274**	P	**P**	**15 24 38.0**	**-4.0**
QLP	**Quilpie**	**23.54**	**242**	P	**P**	**15 24 45.8**	**+3.5**
CMSA	**Cobar Meteorol**	**24.52**	**229**	P	**P**	**15 24 55.2**	**+3.8**
QIS	**Mount Isa**	**26.54**	**258**	P	**P**	**15 25 13.6**	**+3.8**
RPZ	**Rata Peaks**	**26.96**	**174**	LR	LR	15 35 52.1	
	comp=Z,36nm,18.2s,baz=282,slow=36						
STKA	**Stephens Creek**	**27.74**	**233**	P	**P**	**15 25 20.6**	**+0.1**
	comp=Z,6.6nm,0.9s,baz=83,slow=9.7,SNR=6.7						
STKA				LR	LR	15 35 59.9	
	comp=Z,57nm,18.1s,baz=32,slow=36						
	comp=Z,6.6nm,0.9s						
STKA	**Stephens Creek**	**27.74**	**233**	P	**P**	**15 25 18.8**	**-1.7**
WB0	**Warramunga Arr**	**31.41**	**260**		**P**	**15 25 53.2**	**-0.1**
WB0				IAmb	IAmb	15 25 57.8	
	comp=Z,9.2nm,1.1s						
WRA	**Warramunga Arr**	**31.46**	**259**	P	**P**	**15 25 55.5**	**+1.9**
	comp=Z,3nm,0.8s,baz=88,slow=8.9,SNR=24						
	comp=Z,2.3nm,0.8s						
WRA	**Warramunga Arr**	**31.46**	**259**		**P**	**15 25 52.1**	**-1.5**
AS01	**Alice Springs**	**32.02**	**252**	P	**P**	**15 26 01.6**	**+3.0**
AS31	**Alice Springs**	**32.06**	**252**		**P**	**15 25 59.2**	**+0.3**
AS31				IAmb	IAmb	15 26 02.5	
	comp=Z,5.0nm,1.3s						
ASAR	**Alice Springs**	**32.06**	**252**	P	**P**	**15 26 00.9**	**+2.0**
	comp=Z,5.8nm,0.7s,baz=81,slow=8.5,SNR=75						
ASAR				LR	LR	15 38 01.3	
	comp=Z,84nm,18.8s,baz=95,slow=35						
	comp=Z,5.8nm,0.7s						
ASAR	**Alice Springs**	**32.06**	**252**		**P**	**15 25 59.8**	**+0.9**
AUALC	**St Philip's Co**	**32.08**	**252**	P	**P**	**15 26 01.5**	**+2.4**
MTN	**Manton Dam**	**35.22**	**272**	P	**P**	**15 26 25.2**	**-1.2**
MTN				IAmb	IAmb	15 26 32.9	
	comp=Z,21nm,1.4s						
KNRA	**Kununurra**	**37.04**	**266**	P	**P**	**15 26 40.6**	**-1.4**
KNRA				IAmb	IAmb	15 26 45.8	
	comp=Z,18nm,1.4s						
FITZ	**Fitzroy Crossi**	**39.76**	**262**	LR	LR	15 43 21.4	
	comp=Z,63nm,18.1s,baz=354,slow=36						
FITZ	**Fitzroy Crossi**	**39.76**	**262**	P	**P**	**15 27 08.4**	**+3.5**
FITZ	**Fitzroy Crossi**	**39.76**	**262**	P	**P**	**15 27 02.3**	**-2.6**
VNDA	**Vanda**	**60.75**	**181**	P	**P**	**15 29 41.5**	**-1.5**
VNDA				IAmb	IAmb	15 30 10.8	
	comp=Z,4.2nm,1.4s						
SBA	**Scott Base**	**61.02**	**180**	P	**P**	**15 29 44.1**	**-0.7**
SBA				IAmb	IAmb	15 29 45.1	
	comp=Z,11nm,1.5s						
JKA	**Kamikawa-asahi**	**64.76**	**341**	P	**P**	**15 30 08.5**	**-1.6**
PETK	**Petropavlovsk-**	**70.17**	**354**	P	P	15 30 51.5	+7.4
	comp=Z,3.4nm,0.9s,baz=217,slow=7.2,SNR=5.8						
	comp=Z,3.4nm,0.9s						
QSPA	**South Pole Qui**	**73.19**	**180**	P	**P**	**15 31 05.9**	**+3.5**
	comp=Z,4.9nm,0.9s,baz=7.1,slow=3.3,SNR=13						
	comp=Z,4.9nm,0.9s						
QSPA	**South Pole Qui**	**73.19**	**180**	P	**P**	**15 31 05.3**	**+3.0**
QSPA				IAmb	IAmb	15 31 08.0	
	comp=Z,6.7nm,1.0s						
SONM	**Songino Array**	**84.25**	**324**	P	**P**	**15 32 07.5**	**+4.1**
	comp=Z,0.4nm,0.7s,baz=157,slow=8.0,SNR=4.8						
	comp=Z,0.4nm,0.7s						
RYN	**Ryan**	**88.50**	**49**	P	**P**	**15 32 24.2**	**-0.3**
ILAR	**Eielson Array**	**88.51**	**18**	P	P	15 32 30.7	+7.0
	comp=Z,0.4nm,0.8s,baz=232,slow=5.6,SNR=4.3						
	comp=Z,0.4nm,0.8s						
NVAR	**Mina Array Bea**	**88.58**	**49**	P	P	15 32 32.2	+7.2
	comp=Z,0.2nm,0.5s,baz=258,slow=5.0,SNR=3.9						
	comp=Z,0.2nm,0.5s						
PMSA	**Palmer Station**	**89.75**	**160**	LR	LR	16 09 05.2	
	comp=Z,58nm,18.9s,baz=233,slow=33						
TROLL	**Troll, Antarti**	**90.76**	**185**	⇑P	**P**	**15 32 37.7**	**+3.1**
	comp=Z,186nm,0.9s						
VNA3	**Neumayer Olymp**	**92.10**	**181**	⇑P	**P**	**15 32 43.9**	**+3.2**
	comp=Z,2.1nm,0.8s						
VNA2	**Neumayer--Watz**	**92.37**	**182**	⇑P	**P**	**15 32 44.5**	**+2.7**
	comp=Z,1.8nm,0.8s,baz=174,slow=3.1						

*IDC **28** 15:24:14.2±0.9, 42°.89N×85°.85E, h0km, mb4.0/8, mbtmp3.8/14, ML3.1/6, Error ellipse: s-maj=21.2km s-min=10.6km az=56.0*

*SOME **28** 15:24:18.6, 42°.87N×85°.67E, h10km*

*NNC **28** 15:24:22.1±2.6, 43°.13N×85°.48E, h15km±10km, mb4.1, mpv3.8, Error ellipse: s-maj=21.6km s-min=10.0km az=145.0*

ISC 28 15:24:17.2±1.7, 43°.0N±0°.1×85°.72E±0°.08, h10km, n29, σ2s43/35, mb3.9/8, 7C-4D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTMS	**Ketmen**	**3.94**	**278**	Pg	**Pb**	**15 25 29.8**	**+2.9**
	4.3nm,0.2s						
KTMS				Lg	Lg	15 26 21.1	
	39nm,0.4s						
KTMS	**Ketmen**	**3.94**	**278**	*e*P	**Pb**	**15 25 29.8**	**+2.9**
	4.3nm,0.2s						
KTMS				*e*S	**Sg**	**15 26 21.1**	**-2.8**
	39nm,0.4s						
DJR	**Jarkent**	**4.50**	**289**	Pg	**Pb**	**15 25 41.1**	**+4.8**
	8.0nm,0.3s						
DJR				Lg	Lg	15 26 40.0	
	26nm,0.3s						
DJR	**Jarkent**	**4.50**	**289**	*e*P	**Pb**	**15 25 41.1**	**+4.8**
	8.0nm,0.3s						
DJR				*e*S	**Sg**	**15 26 40.0**	**-1.5**
	26nm,0.3s						
MK31	**Makanchi Array**	**4.50**	**328**	Pn	**Pn**	**15 25 27.8**	**+2.3**
	2.3nm,0.3s,baz=150,slow=14,SNR=94						
MK31				⇓Sn	**Sn**	**15 26 20.2**	**+2.4**
	6.1nm,0.4s,baz=151,slow=24,SNR=5.3						
MK31				⇓Lg	Lg	15 26 40.7	
	14nm,0.5s,baz=148,slow=26,SNR=3.7						
MKAR	**Makanchi Array**	**4.50**	**328**	Pn	**Pn**	**15 25 27.6**	**+2.2**
	1.2nm,0.3s,baz=144,slow=14,SNR=38						
MKAR				Sn	**Sn**	**15 26 20.1**	**+2.3**
	9.7nm,0.3s,baz=139,slow=22,SNR=5.5						
MKAR				Lg	Lg	15 26 40.0	
	14nm,0.3s,baz=136,slow=30,SNR=17						
	1.7nm,0.3s						
MKAR				AML	AML		
PDGK	**Podgornoye**	**4.56**	**276**	⇑Pn	**Pn**	**15 25 28.9**	**+2.5**
	23nm,0.9s						
PDGK				⇓Sn	**Sn**	**15 26 20.5**	**+0.9**
	22nm,0.7s						
PDGK				⇑Lg	Lg	15 26 41.3	
	59nm,0.7s						
SHLS	**Shalkode**	**4.58**	**274**	Pg	**Pb**	**15 25 37.2**	**-0.6**
	13nm,0.2s						
SHLS				Lg	Lg	15 26 34.1	
	115nm,0.4s						
UZB	**Uzynbulak**	**4.91**	**274**	Pg	**Pb**	**15 25 47.1**	**+3.8**
	7.7nm,0.2s						
UZB				Lg	Lg	15 26 51.1	
	38nm,0.5s						
UZB	**Uzynbulak**	**4.91**	**274**	*e*P	**Pb**	**15 25 47.1**	**+3.8**
	7.7nm,0.2s						
UZB				*e*S	**Sg**	**15 26 51.0**	**-3.6**
	38nm,0.5s						
MDOK	**Medeo**	**6.35**	**274**	Pg	**Pg**	**15 26 16.5**	**-2.3**
	6.6nm,0.6s						
MDOK				Lg	Lg	15 27 41.0	
	25nm,1.1s						
MDOK	**Medeo**	**6.35**	**274**	*e*P	**Pg**	**15 26 16.5**	**-2.3**
	6.6nm,0.6s						
MDOK				*e*S	**Sg**	**15 27 41.0**	**0.0**
	25nm,1.1s						
AAK	**Ala-Archa**	**8.26**	**271**	Pn	**Pn**	**15 26 18.1**	**+0.9**
	0.4nm,0.3s,baz=49,slow=10,SNR=4.5						
	1.2nm,0.4s						
AAK				AML	AML		
KURBB	**Kurchatov Arra**	**9.06**	**330**	Pn	**Pn**	**15 26 28.5**	**+0.4**
	0.1nm,0.3s,baz=132,slow=13,SNR=8.2						
KURBB				Sn	**Sn**	**15 28 07.8**	**-2.2**
	0.2nm,0.3s,baz=151,slow=15,SNR=4.8						
KURBB				Lg	Lg	15 29 04.3	
	0.3nm,0.3s,baz=148,slow=32,SNR=5.7						
	0.4nm,0.3s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**9.06**	**330**	⇑Pn	**Pn**	**15 26 28.8**	**+0.7**
	2.8nm,0.6s						
KURBB				⇑Lg	Lg	15 29 04.1	
	49nm,0.8s						
KURK	**Kurchatov**	**9.11**	**330**	⇓Pn	**Pn**	**15 26 31.7**	**+3.1**
	0.4nm,0.5s						
KURK				⇑Lg	Lg	15 29 02.9	
	5.2nm,0.7s						
ZAA0	**Zalesovo Array**	**10.96**	**357**	⇑Pn	**Pn**	**15 26 54.7**	**+0.7**
	2.6nm,0.7s						
ZAA0				⇑Sn	**Sn**	**15 28 54.2**	**-2.4**
	3.4nm,0.3s						
ZALV	**Zalesovo Beam**	**10.96**	**357**	Pn	**Pn**	**15 26 53.3**	**-0.7**
	0.4nm,0.3s,baz=180,slow=13,SNR=9.7						
ZALV				Sn	**Sn**	**15 28 53.6**	**-3.0**
	1.9nm,0.3s,baz=176,slow=26,SNR=13						
	2.1nm,0.5s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**14.31**	**320**	Pn	**Pn**	**15 27 38.5**	**-1.3**
	0.1nm,0.3s,baz=124,slow=11,SNR=8.6						
	0.3nm,0.5s						
BVAR				AML	AML		
SONM	**Songino Array**	**15.29**	**64**	Pn	Pn	15 27 51.9	-1.2
	0.2nm,0.3s,baz=254,slow=12,SNR=6.9						
	0.9nm,0.5s						
SONM				AML	AML		
NRIK	**Noril'sk**	**26.41**	**1**	P	**P**	**15 29 53.0**	**-0.6**
	2.1nm,0.5s,baz=139,slow=6.8,SNR=3.6						
	2.1nm,0.5s						
CMAR	**Chiang Mai Arr**	**26.92**	**151**	P	P	15 29 56.6	-2.0
	0.3nm,0.3s,baz=337,slow=8.0,SNR=4.1						
	0.3nm,0.3s						
FINES	**FINESS Array B**	**39.27**	**319**	P	**P**	**15 31 45.0**	**-0.6**
	1.2nm,0.5s,baz=96,slow=8.4,SNR=10						
	1.2nm,0.5s						
ARCES	**ARCESS Array B**	**40.14**	**332**	P	**P**	**15 31 52.6**	**-0.2**
	13nm,1.3s,baz=87,slow=5.2,SNR=5.0						
	13nm,1.3s						
HFS	**Hagfors**	**45.43**	**318**	P	**P**	**15 32 35.3**	**-0.6**
	3.6nm,1.2s,baz=99,slow=7.7,SNR=6.5						
	3.6nm,1.2s						
NB2	**NORSAR Subarra**	**46.44**	**320**	P	**P**	**15 32 43.2**	**-0.6**
	comp=Z,0.6nm,0.5s,baz=76,slow=7.9						
NOA	**NORSAR Array B**	**46.44**	**320**	P	**P**	**15 32 43.0**	**-0.9**
	comp=Z,1.0nm,0.5s,baz=77,slow=7.7,SNR=5.2						
	comp=Z,1.0nm,0.5s						
YKA	**Yellowknife Ar**	**73.58**	**10**	P	P	15 35 48.4	-1.7
	comp=Z,0.6nm,0.7s,baz=336,slow=5.9,SNR=5.8						
	comp=Z,0.6nm,0.7s						
WRA	**Warramunga Arr**	**76.96**	**134**	P	P	15 36 07.4	-2.6
	comp=Z,0.3nm,0.7s,baz=330,slow=5.6,SNR=7.3						
	comp=Z,0.3nm,0.7s						

SGS 28 15:29:58.9, 25°.18N×38°.01E, h39km, MI0.9, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LNYS	**LNYS**	**0.12**	**213**	P	Pn	15 30 06.3	-0.8
LNYS				S	Sn	15 30 11.3	-2.1
LNYS	**LNYS**	**0.12**	**213**	P	Pn	15 30 06.3	-0.8
LNYS				S	Sn	15 30 11.2	-2.2
LNY02	**LNY02**	**0.14**	**254**	P	Pn	15 30 06.3	-0.6
LNY02				S	Sn	15 30 11.4	-1.8
LNY02	**LNY02**	**0.14**	**254**	P	Pn	15 30 06.3	-0.6
LNY02				S	Sn	15 30 11.4	-1.8
LNY17	**LNY17**	**0.20**	**289**	P	Pn	15 30 06.8	0.0
LNY17				S	Sn	15 30 12.1	-0.7
LNY17	**LNY17**	**0.20**	**289**	P	Pn	15 30 06.8	0.0
LNY17				S	Sn	15 30 12.1	-0.7
LNY06	**LNY06**	**0.21**	**278**	P	Pn	15 30 07.0	+0.2
LNY06				S	Sn	15 30 12.5	-0.4
LNY14	**LNY14**	**0.24**	**289**	P	Pn	15 30 07.0	+0.1
LNY14				S	Sn	15 30 12.5	-0.4
LNY14	**LNY14**	**0.24**	**289**	P	Pn	15 30 07.0	+0.1
LNY14				S	Sn	15 30 12.5	-0.4
LNY12	**LNY12**	**0.24**	**293**	P	Pn	15 30 07.0	+0.1
LNY12				S	Sn	15 30 12.6	-0.3
LNY12	**LNY12**	**0.24**	**293**	P	Pn	15 30 07.0	+0.1
LNY12				S	Sn	15 30 12.6	-0.3
LNY11	**LNY11**	**0.26**	**303**	P	Pn	15 30 07.3	+0.2
LNY11				S	Sn	15 30 13.0	-0.1
MURBA	**Al Muraba'a**	**0.31**	**43**	P	Pn	15 30 07.9	+0.5
MURBA				S	Sn	15 30 14.4	+0.8
MURBA	**Al Muraba'a**	**0.31**	**43**	P	Pn	15 30 08.2	+0.8
MURBA				S	Sn	15 30 14.4	+0.9
LNY05	**LNY05**	**0.32**	**245**	P	Pn	15 30 07.5	0.0
LNY13	**LNY13**	**0.34**	**269**	P	Pn	15 30 07.8	+0.2
LNY16	**LNY16**	**0.41**	**295**	P	Pn	15 30 08.6	+0.1
LNY16				S	Sn	15 30 15.2	-0.1
TRAS	**Al Qrash**	**0.52**	**103**	P	Pn	15 30 10.5	+0.6
TRAS				S	Sn	15 30 18.7	+1.1
TRAS	**Al Qrash**	**0.52**	**103**	P	Pn	15 30 10.6	+0.7
TRAS				S	Sn	15 30 18.7	+1.1
FGALY	**Al Ais**	**0.54**	**148**	P	Pn	15 30 10.7	+0.4
FGALY				S	Sn	15 30 18.3	0.0
FGALY	**Al Ais**	**0.54**	**148**	P	Pn	15 30 10.6	+0.3
FGALY				S	Sn	15 30 18.7	+0.5

*CNRM **28** 16:05:40.5, 36°.40N×7°.30W, h10km*

*MDD **28** 16:05:45.2±0.7, 36°.43N×7°.58W, h14km±4km, mb_Lg2.6/13, Error ellipse: s-maj=4.8km s-min=2.6km az=30.0*

*INMG **28** 16:05:46.1±1.7, 36°.45N×7°.52W, h11km±4km, ML1.9, Error ellipse: s-maj=5.2km s-min=3.2km az=32.0, #DIST_RANGE: LOCAL #IPMA_REGION: Golfo de Cadiz*

*IGIL **28** 16:05:46.3, 36°.45N×7°.52W, h11km, ML2.2*

ISC 28 16:05:44.8±1.6, 36°.54N±0°.06×7°.47W±0°.03, h11km±10km, n35, σ0s78/59, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBDV	**Barranco-do-Ve**	**0.79**	**332**	*e*P	**Pb**	**16 06 01.6**	**+1.0**
PBDV				*e*S	**Sn**	**16 06 13.2**	**-0.6**
PBDV				IAML		16 06 17.3	
PBDV				IAML		16 06 17.4	
PBDV				IAML		16 06 22.7	
PVAQ	**Vaqueiros**	**0.88**	**347**	P	**Pg**	**16 06 01.6**	**-0.3**
PVAQ				S	**Sn**	**16 06 16.3**	**+0.2**
PVAQ	**Vaqueiros**	**0.88**	**347**	*e*P	**Pn**	**16 06 03.2**	**0.0**
PVAQ				*e*S	**Sn**	**16 06 16.2**	**+0.2**
PVAQ				IAML		16 06 20.5	
PVAQ				IAML		16 06 20.7	
PVAQ				IAML		16 06 23.1	
EGRO	**El Granado**	**0.99**	**360**	P	**Pn**	**16 06 05.3**	**+0.6**
EGRO				S	**Sn**	**16 06 20.0**	**+1.3**
EGRO				IVmb_Lg		16 06 24.2	
PCVE	**Castro Verde**	**1.18**	**338**	*e*P	**Pg**	**16 06 07.3**	**-0.2**
MORF	**Marmelete**	**1.21**	**309**	*e*P	**Pb**	**16 06 07.8**	**0.0**
MORF				*e*S	**Sb**	**16 06 23.8**	**+0.2**
MORF				IAML		16 06 26.0	
	comp=N,31nm,0.1s						
MORF	**Marmelete**	**1.21**	**309**	*e*P	**Pb**	**16 06 08.2**	**+0.4**
MORF				*e*S	**Sb**	**16 06 24.1**	**+0.6**
MORF				IAML		16 06 26.1	
MORF				IAML		16 06 26.3	
MORF				IAML		16 06 28.7	
PFVI	**Vila Bisbo**	**1.23**	**299**	P	**Pb**	**16 06 07.4**	**-0.8**
PFVI				S	**Sg**	**16 06 24.7**	**+0.1**
PFVI	**Vila Bisbo**	**1.23**	**299**	*e*P	**Pb**	**16 06 08.3**	**+0.2**
PFVI				*e*S	**Sb**	**16 06 23.9**	**-0.2**
PFVI				IAML		16 06 27.3	
PFVI				IAML		16 06 27.7	
PFVI				IAML		16 06 30.0	
ESPR	**Espera**	**1.34**	**75**	P	**Pn**	**16 06 09.8**	**+0.3**
ESPR				S	**Sb**	**16 06 27.4**	**+0.2**
ESPR				IVmb_Lg		16 06 28.8	
EMIN	**Mina Concepcio**	**1.38**	**27**	P	**Pn**	**16 06 10.5**	**+0.5**
EMIN				S	**Sg**	**16 06 30.5**	**+1.2**
PTEO	**Sao Teotonio**	**1.42**	**315**	*e*P	**Pn**	**16 06 11.1**	**+0.6**
PTEO				*e*S	**Sb**	**16 06 27.9**	**-1.4**
PTEO				IAML		16 06 32.9	
PTEO				IAML		16 06 33.5	
PTEO				IAML		16 06 35.5	
MESJ	**Messejana**	**1.43**	**336**	*e*P	**Pn**	**16 06 11.1**	**+0.4**
MESJ				*e*S	**Sn**	**16 06 29.6**	**+0.2**
MESJ	**Messejana**	**1.43**	**336**	*e*P	**Pn**	**16 06 11.1**	**+0.4**
MESJ				*e*S	**Sn**	**16 06 29.7**	**+0.3**
PBAR	**Barrancos**	**1.67**	**12**	*e*P	**Pn**	**16 06 14.8**	**+0.8**
PBAR				*e*S	**Sg**	**16 06 37.1**	**-1.3**
PBAR				IAML		16 06 45.4	
PBAR				IAML		16 06 46.6	
PBAR				IAML		16 06 47.1	
PLOUS	**Minas do Lousa**	**1.67**	**333**	*e*P	**Pn**	**16 06 13.8**	**-0.2**
PLOUS				*e*S	**Sb**	**16 06 36.3**	**-0.3**
PLOUS				IAML		16 06 44.4	
PLOUS				IAML		16 06 45.5	
PLOUS				IAML		16 06 46.0	
MOE	**Montemor**	**2.10**	**341**	*e*P	**Pn**	**16 06 21.4**	**+1.5**
MOE				*e*S	**Sn**	**16 06 46.3**	**+0.3**
MOE				IAML		16 06 53.8	
MOE				IAML		16 06 56.9	
MOE				IAML		16 06 57.9	
EBAD	**Badajoz**	**2.24**	**9**	P	**Pn**	**16 06 22.8**	**+0.9**
EBAD				S	**Sb**	**16 06 51.4**	**-1.6**
EBAD				IVmb_Lg		16 06 54.1	
ECAB	**El Cabril**	**2.24**	**46**	P	**Pn**	**16 06 23.2**	**+1.2

s-maj=23.9km s-min=14.3km az=117.0
*KRSC **28** 16:39:47.0±0.7,55°.88N×163°.01E,h25^{km}±13^{km},MI4.4, Felt [II] at Ust-Kamchatsk.*
*MOS **28** 16:39:48.0±0.6,55°.93N×162°.96E,h22^{km},mb4.1/1,Error ellipse: s-maj=7.4km s-min=4.7km az=74.3*

ISC 28 16:39:47.0±1.7,55°.93N±0°.04×162.88E±0°.03,h6^{km}±11^{km}, n113,σ1§30/117,mb4.0/17,1C-3D,Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KBTR	**Krutoberegovo**	**0.28**	**352**	PN	**Pb**	**16 39 55.2**	**+0.8**
KBTR	**Krutoberegovo**	**0.28**	**352**	*eP*	**Pb**	**16 39 55.3**	**+0.8**
KBG	**Krutoberegovo**	**0.34**	**343**	PN	**Pb**	**16 39 56.0**	**+0.6**
KBG				S	**Sb**	**16 40 02.9**	**+1.8**
KBG	**Krutoberegovo**	**0.34**	**343**	*eP*	**Pb**	**16 39 56.0**	**+0.6**
KBG				*eS*	**Sb**	**16 40 02.9**	**+1.8**
SMKR	**Semkarok**	**1.02**	**310**	PN	**Pb**	**16 40 07.3**	**+0.1**
SMKR	**Semkarok**	**1.02**	**310**	*eP*	**Pb**	**16 40 07.3**	**+0.1**
BDR	**Baidarnaya**	**1.13**	**305**	PN	**Pn**	**16 40 09.2**	**-0.2**
BDR				S	**Sn**	**16 40 26.3**	**+1.0**
BDR	**Baidarnaya**	**1.13**	**305**	*eP*	**Pn**	**16 40 09.3**	**-0.2**
BDR				*eS*	**Sn**	**16 40 26.4**	**+1.0**
SRKR	**Sorokina**	**1.20**	**308**	PN	**Pg**	**16 40 10.3**	**+0.3**
SRKR				S	**Sn**	**16 40 27.6**	**+0.6**
SRKR	**Sorokina**	**1.20**	**308**	*eP*	**Pg**	**16 40 10.3**	**+0.3**
SRKR				*eS*	**Sn**	**16 40 27.6**	**+0.6**
BZGR	**Bezymyannyi-Gr**	**1.23**	**271**	PN	**Pn**	**16 40 10.9**	**0.0**
BZGR	**Bezymyannyi-Gr**	**1.23**	**271**	*eP*	**Pn**	**16 40 10.9**	**0.0**
KLY	**Klyuchi**	**1.31**	**288**	PN	**Pn**	**16 40 09.8**	**-2.0**
KLY				S	**Sb**	**16 40 26.8**	**-2.1**
KLY	**Klyuchi**	**1.31**	**288**	*eP*	**Pn**	**16 40 09.8**	**-2.0**
KLY				*eS*	**Sb**	**16 40 26.8**	**-2.1**
BZP	**Bezymyannyi-Pe**	**1.32**	**270**	PN	**Pn**	**16 40 11.6**	**-0.5**
BZP	**Bezymyannyi-Pe**	**1.32**	**270**	*eP*	**Pn**	**16 40 11.7**	**-0.5**
KRSR	**Krestovskiy**	**1.33**	**283**	PN	**Pn**	**16 40 12.0**	**-0.2**
KRSR	**Krestovskiy**	**1.33**	**283**	*eP*	**Pn**	**16 40 12.0**	**-0.2**
BZWR	**Bezymyannyi-We**	**1.34**	**272**	PN	**Pn**	**16 40 12.6**	**+0.2**
BZWR	**Bezymyannyi-We**	**1.34**	**272**	*eP*	**Pn**	**16 40 12.7**	**+0.2**
BZMR	**Bezymyannaya**	**1.35**	**271**	PN	**Pn**	**16 40 13.2**	**+0.7**
BZMR	**Bezymyannaya**	**1.35**	**271**	*eP*	**Pn**	**16 40 13.3**	**+0.7**
KIRR	**Kirishev**	**1.43**	**272**	PN	**Pn**	**16 40 13.5**	**-0.1**
KIRR	**Kirishev**	**1.43**	**272**	*eP*	**Pn**	**16 40 13.5**	**-0.1**
KPT	**Kopyto**	**1.50**	**272**	PN	**Pn**	**16 40 15.5**	**+1.0**
KPT	**Kopyto**	**1.50**	**272**	*eP*	**Pn**	**16 40 15.6**	**+1.0**
KMNR	**Kamenistaya**	**1.50**	**264**	PN	**Pn**	**16 40 15.2**	**+0.6**
KMNR	**Kamenistaya**	**1.50**	**264**	*eP*	**Pn**	**16 40 15.3**	**+0.6**
MKZ	**Mys Kozlova**	**1.53**	**206**	PN	**Pn**	**16 40 14.2**	**-0.6**
MKZ	**Mys Kozlova**	**1.53**	**206**	*eP*	**Pn**	**16 40 14.2**	**-0.6**
TUMR	**Tumrok**	**1.69**	**248**	PN	**Pn**	**16 40 17.8**	**+0.7**
TUMR	**Tumrok**	**1.69**	**248**	*eP*	**Pn**	**16 40 17.9**	**+0.7**
KZV	**Kizimen**	**1.69**	**242**	PN	**Pn**	**16 40 17.2**	**+0.1**
KZV	**Kizimen**	**1.69**	**242**	*eP*	**Pn**	**16 40 17.3**	**+0.1**
KOZ	**Kozyrevsk**	**1.70**	**275**	PN	**Pn**	**16 40 18.0**	**+0.9**
KOZ	**Kozyrevsk**	**1.70**	**275**	*eP*	**Pn**	**16 40 18.1**	**+0.9**
SRDR	**Sredinnyy**	**1.81**	**284**	PN	**Pn**	**16 40 19.3**	**+0.5**
SRDR	**Sredinnyy**	**1.81**	**284**	*eP*	**Pn**	**16 40 19.4**	**+0.5**
BKI	**Bering**	**1.90**	**111**	PN	**Pn**	**16 40 19.3**	**-0.6**
BKI				S	**Sn**	**16 40 43.4**	**-0.7**
BKI	**Bering**	**1.90**	**111**	*eP*	**Pn**	**16 40 19.4**	**-0.6**
BKI				*eS*	**Sn**	**16 40 43.4**	**-0.7**
ESO	**Esso**	**2.35**	**272**	PN	**Pn**	**16 40 26.5**	**+0.3**
ESO	**Esso**	**2.35**	**272**	*eP*	**Pn**	**16 40 26.5**	**+0.3**
KII	**Karymskiy**	**2.75**	**228**	PN	**Pn**	**16 40 32.2**	**+0.6**
KII	**Karymskiy**	**2.75**	**228**	*eP*	**Pn**	**16 40 32.3**	**+0.6**
TIGL	**Tigil**	**2.95**	**310**	PN	**Pb**	**16 40 37.6**	**-2.4**
TIGL	**Tigil**	**2.95**	**310**	*eP*	**Pb**	**16 40 37.7**	**-2.4**
SPN	**Mys Shipunski**	**3.29**	**212**	PN	**Pn**	**16 40 40.6**	**+1.5**
SPN	**Mys Shipunski**	**3.29**	**212**	*eP*	**Pn**	**16 40 40.7**	**+1.5**
OSSR	**Ossora**	**3.33**	**2**	PN	**Pn**	**16 40 40.8**	**+1.3**
OSSR	**Ossora**	**3.33**	**2**	*eP*	**Pn**	**16 40 40.9**	**+1.3**
NLC	**Nalytchevo**	**3.45**	**218**	PN	**Pn**	**16 40 41.7**	**+0.5**
NLC	**Nalytchevo**	**3.45**	**218**	*eP*	**Pn**	**16 40 41.8**	**+0.5**
PALN	**Palana**	**3.53**	**335**	PN	**Pn**	**16 40 43.3**	**+1.0**
PALN	**Palana**	**3.53**	**335**	*eP*	**Pn**	**16 40 43.4**	**+1.0**
SDLR	**Sedlovina**	**3.53**	**223**	PN	**Pn**	**16 40 43.1**	**+0.6**
SDLR	**Sedlovina**	**3.53**	**223**	*eP*	**Pn**	**16 40 43.2**	**+0.6**
KRX	**Arik**	**3.56**	**225**	PN	**Pn**	**16 40 43.8**	**+0.9**
KRX	**Arik**	**3.56**	**225**	*eP*	**Pn**	**16 40 43.9**	**+0.9**
KRER	**Koryakskii**	**3.57**	**224**	PN	**Pn**	**16 40 44.3**	**+1.3**
KRER	**Koryakskii**	**3.57**	**224**	*eP*	**Pn**	**16 40 44.4**	**+1.3**
AVH	**Avacha**	**3.60**	**224**	PN	**Pn**	**16 40 44.6**	**+1.2**
AVH	**Avacha**	**3.60**	**224**	*eP*	**Pn**	**16 40 44.6**	**+1.2**
UGLR	**Uglovaya**	**3.61**	**223**	PN	**Pn**	**16 40 44.3**	**+0.8**
UGLR	**Uglovaya**	**3.61**	**223**	*eP*	**Pn**	**16 40 44.4**	**+0.8**
KOK	**Koryaka**	**3.62**	**225**	PN	**Pn**	**16 40 45.4**	**+1.8**
KOK	**Koryaka**	**3.62**	**225**	*eP*	**Pn**	**16 40 45.5**	**+1.8**
DALK	**Dalny**	**3.78**	**221**	PN	**Pn**	**16 40 46.2**	**+0.5**
DALK	**Dalny**	**3.78**	**221**	*eP*	**Pn**	**16 40 46.3**	**+0.5**
PET	**Petropavlovsk**	**3.82**	**222**	*e*PN	**Pn**	**16 40 47.5**	**+1.2**
PET				pmax	pmax		
	comp=Z,48nm,0.8s						
PEA0B	**Petropavlovsk-**	**4.14**	**229**	⇓ *i*PN	**Pn**	**16 40 52.1**	**+1.4**
PETK	**Petropavlovsk-**	**4.14**	**229**	Pn	**Pn**	**16 40 52.2**	**+1.5**
	comp=Z,7.8nm,0.7s,baz=61,slow=17,SNR=60						
PETK				Sn	**Sn**	**16 41 45.0**	**+5.5**
	comp=Z,1.2nm,0.3s,baz=89,slow=18,SNR=1.8						
GRL	**Gorelyy**	**4.41**	**222**	PN	**Pn**	**16 40 56.5**	**+2.0**
GRL	**Gorelyy**	**4.41**	**222**	*eP*	**Pn**	**16 40 56.6**	**+2.0**
MTVR	**Mutnovka**	**4.42**	**221**	PN	**Pn**	**16 40 56.1**	**+1.4**
MTVR	**Mutnovka**	**4.42**	**221**	*eP*	**Pn**	**16 40 56.1**	**+1.4**
KDTR	**Khodutka, Kamc**	**5.02**	**217**	PN	**Pn**	**16 41 04.5**	**+1.8**
KDTR	**Khodutka, Kamc**	**5.02**	**217**	*eP*	**Pn**	**16 41 04.6**	**+1.8**
SKR	**Severo-Kuril's**	**6.64**	**220**	⇓ *e*PN	**Pn**	**16 41 27.5**	**+2.5**
KMSK	**Kamenskaya**	**6.77**	**13**	PN	**Pn**	**16 41 28.9**	**+2.1**
KMSK	**Kamenskaya**	**6.77**	**13**	*eP*	**Pn**	**16 41 28.9**	**+2.1**
SHEM	**Shemya Is, Ala**	**7.30**	**111**	LR	LR	16 44 03.4	
	comp=Z,61nm,19.9s,baz=290,slow=34						
MA2	**Magadan**	**7.44**	**304**	LR	LR	16 44 44.3	
	comp=Z,50nm,21.0s,baz=125,slow=41						
YSS	**Yuzhno-Sakhali**	**15.39**	**243**	*eP*	P	16 43 38.0	+8.8
YSS				pmax	pmax		
	comp=Z,10.0nm,1.1s						
YAK	**Yakutsk**	**18.01**	**303**	P	**Pn**	**16 43 56.3**	**-1.3**
	comp=Z,1.0nm,0.3s,baz=76,slow=12,SNR=2.6						
	comp=Z,4.3nm,0.5s						
YAK				AML	AML		
TIXI	**Tiksi**	**21.28**	**331**	P	**P**	**16 44 33.2**	**-0.5**
	comp=Z,8.2nm,0.6s,baz=127,slow=10,SNR=38						
	comp=Z,8.2nm,0.6s						
TIXI	**Tiksi**	**21.28**	**331**	⇑ *e*P	**P**	**16 44 34.8**	**+1.1**
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MJAR	**Matsushiro Arr**	**25.60**	**231**	P	**P**	**16 45 17.8**	**+1.0**
	comp=Z,1.2nm,0.9s,baz=48,slow=8.2,SNR=4.4						
	comp=Z,1.2nm,0.9s						
ILAR	**Eielson Array**	**25.69**	**49**	P	**P**	**16 45 18.6**	**+1.1**
	comp=Z,0.5nm,0.9s,baz=264,slow=8.9,SNR=4.7						
	comp=Z,0.5nm,0.9s						
H11N2	**WAKE ISLAND Hy**	**36.27**	**174**	T	T	17 25 21.0	
	baz=356,slow=76,SNR=509						
H11N3	**WAKE ISLAND Hy**	**36.29**	**174**	T	T	17 25 23.9	
	baz=356,slow=76,SNR=212						
H11N1	**WAKE ISLAND Hy**	**36.29**	**174**	T	T	17 25 23.0	
	baz=356,slow=76,SNR=246						
YKA	**Yellowknife Ar**	**39.99**	**46**	P	**P**	**16 47 21.9**	**0.0**
	comp=Z,0.3nm,0.4s,baz=299,slow=7.8,SNR=7.3						
	comp=Z,0.3nm,0.4s						
YKA	**Yellowknife Ar**	**39.99**	**46**	*eP*	**P**	**16 47 22.6**	**+0.7**
SPITS	**Spitsbergen Ar**	**44.59**	**351**	P	**P**	**16 47 59.0**	**-0.3**
	comp=Z,5.2nm,0.7s,baz=51,slow=11,SNR=5.7						
	comp=Z,5.2nm,0.7s						
SPITS	**Spitsbergen Ar**	**44.59**	**351**	P	**P**	**16 47 59.0**	**-0.3**
KURK	**Kurchatov**	**47.63**	**301**	P	**P**	**16 48 21.7**	**-1.8**
KURBB	**Kurchatov Arra**	**47.74**	**301**	P	**P**	**16 48 21.6**	**-2.7**
	comp=Z,0.4nm,0.4s,baz=56,slow=7.9,SNR=5.3						
	comp=Z,0.4nm,0.4s						
MKAR	**Makanchi Array**	**48.41**	**295**	P	**P**	**16 48 27.4**	**-2.2**
	comp=Z,0.6nm,0.8s,baz=65,slow=7.4,SNR=11						
MKAR				LR	LR	17 09 43.3	
	comp=Z,68nm,19.1s,baz=254,slow=37						
	comp=Z,0.6nm,0.8s						
ARCES	**ARCESS Array B**	**51.08**	**342**	P	**P**	**16 48 47.4**	**-2.2**
	comp=Z,6.4nm,1.0s,baz=34,slow=8.8,SNR=4.2						
	comp=Z,6.4nm,1.0s						
AAK	**Ala-Archa**	**55.28**	**296**	⇓ *e*P	**P**	**16 49 22.9**	**+1.8**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.3s						
FINES	**FINESS Array B**	**58.14**	**337**	P	**P**	**16 49 40.1**	**-0.8**
	comp=Z,1.5nm,0.6s,baz=32,slow=9.2,SNR=14						
	comp=Z,1.5nm,0.6s						
FINES	**FINESS Array B**	**58.14**	**337**	*eP*	**P**	**16 49 40.8**	**-0.1**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
OBN	**Obninsk**	**60.98**	**328**	*e*P	**P**	**16 49 58.3**	**-2.2**
OBN				*e*		16 50 41.1	
OBN				*i*		16 52 16.2	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.6s						
NB2	**NORSAR Subarra**	**61.25**	**345**	P	**P**	**16 50 01.6**	**-0.8**
	comp=Z,0.5nm,0.5s,baz=18,slow=6.9						
NOA	**NORSAR Array B**	**61.25**	**345**	P	**P**	**16 50 00.7**	**-1.7**
	comp=Z,0.5nm,0.4s,baz=18,slow=5.3,SNR=5.3						
	comp=Z,0.5nm,0.4s						
HFS	**Hagfors**	**61.72**	**343**	P	**P**	**16 50 04.2**	**-1.3**
	comp=Z,1.6nm,0.7s,baz=46,slow=10,SNR=6.8						
	comp=Z,1.6nm,0.7s						
EKA	**Eskdalemuir Ar**	**68.51**	**351**	P	**P**	**16 50 49.1**	**-0.5**
	comp=Z,0.7nm,0.5s,baz=16,slow=4.4,SNR=5.8						
	comp=Z,0.7nm,0.5s						
WRA	**Warramunga Arr**	**79.35**	**207**	P	**P**	**16 51 55.1**	**+1.6**
	comp=Z,0.3nm,0.7s,baz=14,slow=5.3,SNR=1.6						
	comp=Z,0.3nm,0.7s						
ASAR	**Alice Springs**	**83.03**	**207**	P	**P**	**16 52 13.4**	**+0.5**
	comp=Z,0.4nm,0.9s,baz=20,slow=4.5,SNR=1.9						
	comp=Z,0.4nm,0.9s						
ESDC	**Sonseca Array**	**84.10**	**350**	P	**P**	**16 52 18.0**	**-0.6**
	comp=Z,0.6nm,0.8s,baz=356,slow=5.5,SNR=2.0						
	comp=Z,0.6nm,0.8s						
RAO	**Raoul Island**	**86.41**	**163**	LR	LR	17 26 27.0	
	comp=Z,115nm,19.4s,baz=139,slow=32						
BOSA	**Boshof**	**139.41**	**294**	PKP	**PKPdf**	**16 59 15.2**	**+0.2**
	comp=Z,1.0nm,0.3s,baz=204,slow=1.4,SNR=4.1						
QSPA	**South Pole Qui**	**145.69**	**180**	PKPbc	**PKPab**	**16 59 25.6**	**+0.1**
	comp=Z,1.4nm,1.0s,baz=282,slow=1.4,SNR=5.1						

*IDC **28** 16:44:50.8±1.6,1°.23N×125°.84E,h0^{km},mb3.3/4, mbtmp3.4/5,ML3.2/1,Error ellipse: s-maj=127.1km s-min=20.7km az=68.0*
*DJA **28** 16:44:57.6±0.2,1°.N±4°×12°.6E±°,h10^{km},M3.4/11,ML3.3/8, MLv3.4/10,MLv3.4/11*

ISC 28 16:44:58.2±1.0,1°.3N±0°.1×126°.10E±0°.05,h44^{km},n11, σ2§34/13,mb3.3/4,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNI	**Manado**	**1.27**	**279**	P	**Pn**	**16 45 20.4**	**+0.9**
MNI				S	**Sn**	**16 45 36.3**	**+0.9**
MNI				AML	AML		
MNI				AML	AML		
TNTI	**Ternate**	**1.35**	**110**	P	**Pn**	**16 45 21.4**	**+0.7**
TNTI				S	**Sn**	**16 45 40.6**	**+3.1**
TNTI				AML	AML		
GAMI	**Galela, Maluku**	**1.79**	**71**	P	**Pn**	**16 45 28.8**	**+2.1**
GAMI				AML	AML		
GAMI				AML	AML		
GAMI				AML	AML		
KMSI	**Cibinong**	**2.22**	**253**	P	**Pn**	**16 45 36.2**	**+3.7**
KMSI				AML	AML		
GTOI	**Gorontalo**	**3.14**	**259**	P	**Pn**	**16 45 48.4**	**+3.2**
GTOI				AML	AML		
GTOI				AML	AML		
GTOI				AML	AML		
LUWI	**Luwuk**	**4.03**	**236**	P	**Pn**	**16 45 57.4**	**0.0**
LUWI				AML	AML		
LUWI				AML	AML		
FITZ	**Fitzroy Crossi**	**19.23**	**181**	P	**P**	**16 49 17.4**	**-1.4**
	0.1nm,0.3s,baz=11,slow=5.2,SNR=1.6						
	2.7nm,1.1s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.56**	**159**	P	**P**	**16 49 52.7**	**-2.1**
	0.3nm,0.3s,baz=336,slow=11,SNR=18						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**25.90**	**163**	P	**P**	**16 50 25.4**	**-0.8**
	0.2nm,0.6s,baz=345,slow=12,SNR=7.0						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**59.24**	**326**	P	**P**	**16 54 52.9**	**-2.3**
	0.3nm,0.5s,baz=120,slow=7.6,SNR=6.2						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**63.49**	**328**	P	**P**	**16 55 22.2**	**-1.5**
	0.1nm,0.3s,baz=119,slow=6.9,SNR=2.2						
	0.1nm,0.3s						

*IDC **28** 16:48:04.5±13.0,21°.10N×122°.24E,h172^{km}±136^{km}, mb3.3/11,mbtmp3.8/11,MS4.0/1,Error ellipse: s-maj=51.8km s-min=11.1km az=64.0*
*TAP **28** 16:48:05.0,21°.26N×122°.06E,h167^{km},ML4.9,D*
*MAN **28** 16:48:07.0,20°.56N×123°.06E,h107^{km},MS2.8*

ISC 28 16:48:04.3±0.8,21°.21N±0°.04×122°.08E±0°.05,h174^{km}±5^{km}, n174,σ1§63/327,mb3.6/11,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LYUB	**Lan-yu**	**0.91**	**330**	*i* P	**Pn**	**16 48 30.9**	**+0.2**
LYUB				*e*S	**Sn**	**16 48 48.8**	**-2.4**
LAY	**Lan-yu**	**0.96**	**329**	P	**Pn**	**16 48 30.8**	**-0.3**
LAY				*e*S	**Sn**	**16 48 48.8**	**-3.0**
TSEB	**Hengchuen, Pin**	**1.29**	**302**	*i* P	**Pn**	**16 48 34.5**	**+0.8**
TSEB				S	**Sn**	**16 48 56.5**	**0.0**
TWKBT	**Hengchun**	**1.38**	**302**	*i* P	**Pn**	**16 48 35.0**	**+0.4**
TWKBT				*i* S	**Sn**	**16 48 56.5**	**-1.5**
TWK1	**Hengchun**	**1.39**	**302**	*i* P	**Pn**	**16 48 35.0**	**+0.3**
TWK1				*i* S	**Sn**	**16 48 56.7**	**-1.5**
SMST	**Manzhou Townsh**	**1.41**	**305**	*i* P	**Pn**	**16 48 34.9**	**+0.1**
SMST				S	**Sn**	**16 48 57.0**	**-1.4**
SNW	**Nanwan**	**1.44**	**301**	*e*P	**Pn**	**16 48 35.2**	**+0.1**
SNW				S	**Sn**	**16 48 58.3**	**-0.8**
HEN	**Hengchun**	**1.48**	**303**	*i* P	**Pn**	**16 48 35.9**	**+0.5**
HEN				*i* S	**Sn**	**16 48 58.0**	**-1.6**
SLIU	**Shizi**	**1.55**	**310**	*i* P	**Pn**	**16 48 36.2**	**0.0**
SLIU				S	**Sn**	**16 48 58.8**	**-2.2**
LDUT	**Ludao**	**1.56**	**339**	*i* P	**Pn**	**16 48 35.9**	**-0.4**
LDUT				S	**Sn**	**16 49 00.2**	**-1.0**
TAWH	**Dawu Township**	**1.57**	**316**	*i* P	**Pn**	**16 48 36.0**	**-0.4**
TAWH				S	**Sn**	**16 48 58.9**	**-2.4**
TAW	**Tawu**	**1.58**	**316**	*i* P	**Pn**	**16 48 36.1**	**-0.3**
TAW				S	**Sn**	**16 48 58.8**	**-2.7**
EAST	**Anshuo**	**1.63**	**316**	*i* P	**Pn**	**16 48 36.8**	**-0.2**
EAST				S	**Sn**	**16 49 00.2**	**-2.3**
ECL	**Taimali**	**1.73**	**323**	*i* P	**Pn**	**16 48 37.2**	**-0.8**
ECL				S	**Sn**	**16 49 00.7**	**-3.5**
TTN	**Taitung**	**1.76**	**331**	P	**Pn**	**16 48 39.1**	**+0.8**
SCZT	**Fangliau**	**1.78**	**311**	*i* P	**Pn**	**16 48 38.5**	**0.0**
SCZT				S	**Sn**	**16 49 02.8**	**-2.3**
TWGBT	**Beinan**	**1.85**	**330**	*i* P	**Pn**	**16 48 38.7**	**-0.5**
TWGBT				S	**Sn**	**16 49 04.2**	**-2.3**
TWG	**Pinlang**	**1.85**	**330**	*i* P	**Pn**	**16 48 38.9**	**-0.4**
TWG				S	**Sn**	**16 49 04.0**	**-2.6**
SSPT	**Xinbi**	**1.89**	**312**	*i* P	**Pn**	**16 48 40.2**	**+0.6**
SSPT				S	**Sn**	**16 49 05.9**	**-1.3**
EDH	**Donghe**	**1.89**	**338**	*i* P	**Pn**	**16 48 39.8**	**+0.1**
EDH				S	**Sn**	**16 49 05.8**	**-1.5**
LONT	**Longtian**	**1.90**	**333**	*i* P	**Pn**	**16 48 39.6**	**-0.2**
LONT				S	**Sn**	**16 49 05.3**	**-2.2**
MASBT	**Mashibuluo**	**1.93**	**316**	*i* P	**Pn**	**16 48 40.3**	**+0.1**
MASBT				S	**Sn**	**16 49 05.2**	**-2.9**
WLCH	**Liuqiu**	**1.94**	**306**	*i* P	**Pn**	**16 48 41.7**	**+1.5**
WLCH				S	**Sn**	**16 49 09.5**	**+1.4**
TWP	**Hsiaoliuchiu**	**1.95**	**306**	*i* P	**Pn**	**16 48 41.8**	**+1.5**
TWP				S	**Sn**	**16 49 09.6**	**+1.3**
CHKT	**Chengkung**	**1.99**	**341**	P	**Pn**	**16 48 41.1**	**+0.3**
CHKT				S	**Sn**	**16 49 08.1**	**-1.1**
TSMG	**Majia**	**1.99**	**319**	*i* P	**Pn**	**16 48 40.8**	**0.0**
TSMG				S	**Sn**	**16 49 06.6**	**-2.6**
SSD	**Sandimen**	**2.03**	**319**	*i* P	**Pn**	**16 48 41.3**	**0.0**
SSD				S	**Sn**	**16 49 07.0**	**-3.0**
ECS	**Chishang**	**2.04**	**337**	*i* P	**Pn**	**16 48 41.4**	**+0.1**
ECS				S	**Sn**	**16 49 09.3**	**-0.8**
TSPT	**Pingtung City**	**2.07**	**315**	*i* P	**Pn**	**16 48 42.6**	**+1.0**
TSPT				S	**Sn**	**16 49 10.4**	**-0.2**
CHKH	**Chenggong**	**2.07**	**342**	P	**Pn**	**16 48 41.9**	**+0.3**
CHKH				S	**Sn**	**16 49 10.1**	**-0.6**
SGLT	**Jiouru**	**2.11**	**316**	*i* P	**Pn**	**16 48 43.3**	**+1.3**
SGLT				*e*S	**Sn**	**16 49 12.3**	**+0.9**
FULB	**Fuli**	**2.11**	**340**	P	**Pn**	**16 48 42.5**	**+0.4**
FULB				*e*S	**Sn**	**16 49 11.2**	**-0.4**
KAU	**Kaohsiung**	**2.13**	**310**	P	**Pn**	**16 48 43.7**	**+1.4**
KAU				S	**Sn**	**16 49 12.5**	**+0.7**
ECBN	**Changbin**	**2.17**	**345**	P	**Pn**	**16 48 43.4**	**+0.6**
ECBN				*e*S	**Sn**	**16 49 12.3**	**-0.5**
ELDTW	**Lidau**	**2.20**	**334**	*e*P	**Pn**	**16 48 42.9**	**-0.3**
ELDTW				*e*S	**Sn**	**16 49 10.1**	**-3.5**
WSSB	**Gushan**	**2.21**	**311**	*i* P	**Pn**	**16 48 44.1**	**+0.9**
WSSB				*e*S	**Sn**	**16 49 12.8**	**-0.7**
SLGT	**Liugui**	**2.21**	**324**	*i* P	**Pn**	**16 48 43.6**	**+0.3**
SLGT				*i* S	**Sn**	**16 49 11.6**	**-2.1**
TWM1	**Shoushan**	**2.22**	**317**	*i* P	**Pn**	**16 48 44.5**	**+1.1**
TWM1				*e*S	**Sn**	**16 49 12.0**	**-1.8**
SCST	**Cishan**	**2.22**	**319**	*i* P	**Pn**	**16 48 44.0**	**+0.6**
SCST				S	**Sn**	**16 49 12.1**	**-1.7**
SNJT	**Kaohsiung City**	**2.23**	**314**	P	**Pn**	**16 48 44.5**	**+1.1**
SNJT				S	**Sn**	**16 49 13.8**	**-0.1**
EYUL	**Yuli**	**2.24**	**342**	P	**Pn**	**16 48 44.0**	**+0.5**
EYUL				*e*S	**Sn**	**16 49 14.4**	**+0.2**
TWF1	**Yuli**	**2.25**	**341**	P	**Pn**	**16 48 43.7**	**0.0**
TWF1				*e*S	**Sn**	**16 49 13.3**	**-1.2**
YULB	**Yu-li**	**2.29**	**342**	P	**Pn**	**16 48 44.2**	**+0.1**
YULB				*i* S	**Sn**	**16 49 12.8**	**-2.5**
STYH	**Taoyuan**	**2.29**	**329**	*i* P	**Pn**	**16 48 44.5**	**+0.3**
STYH				S	**Sn**	**16 49 13.8**	**-1.4**
STYT	**Tauyuan**	**2.29**	**328**	*i* P	**Pn**	**16 48 44.4**	**+0.1**
STYT				S	**Sn**	**16 49 13.2**	**-2.2**
SGST	**Jiashian**	**2.32**	**324**	*i* P	**Pn**	**16 48 43.8**	**-0.8**
SGST				S	**Sn**	**16 49 13.0**	**-2.9**
HGSD	**Ruisui**	**2.35**	**345**	P	**Pn**	**16 48 45.0**	**+0.2**
HGSD				*e*S	**Sn**	**16 49 15.7**	**-0.8**
EHYH	**Wanrong**	**2.37**	**344**	*e*P	**Pn**	**16 48 46.2**	**+1.1**
EHYH				S	**Sn**	**16 49 15.9**	**-1.0**
EHY	**Hungye**	**2.39**	**343**	*e*P	**Pn**	**16 48 45.6**	**+0.3**
EHY				*e*S	**Sn**	**16 49 16.3**	**-1.0**
SHHT	**Tainan City**	**2.41**	**319**	*i* P	**Pn**	**16 48 46.9**	**+1.3**
SHHT				*e*S	**Sn**	**16 49 17.4**	**-0.3**
CHN1	**Nanshi**	**2.43**	**324**	*i* P	**Pn**	**16 48 46.0**	**+0.1**
CHN1				*i* S	**Sn**	**16 49 16.0**	**-2.2**
WTP	**Ta-pu**	**2.44**	**327**	*i* P	**Pn**	**16 48 46.0**	**0.0**
WTP				*e*S	**Sn**	**16 49 16.4**	**-1.9**
CHN3	**Shinhua**	**2.44**	**320**	P	**Pn**	**16 48 47.2**	**+1.3**
CHN3				*e*S	**Sn**	**16 49 18.1**	**-0.2**
TPUB	**Ta-pu**	**2.47**	**327**	*i* P	**Pn**	**16 48 46.3**	**0.0**
TPUB				*i* S	**Sn**	**16 49 16.8**	**-2.3**
SNST	**Tainan City**	**2.48**	**324**	*i* P	**Pn**	**16 48 46.4**	**+0.1**
SNST				*i* S	**Sn**	**16 49 16.9**	**-2.2**
TAI	**Tainan**	**2.49**	**316**	*i* P	**Pn**	**16 48 47.1**	**+0.7**
TAI				S	**Sn**	**16 49 18.1**	**-1.1**
TAI1	**Yung-k'ang**	**2.50**	**317**	P	**Pn**	**16 48 46.5**	**0.0**
TAI1				*i* S	**Sn**	**16 49 18.6**	**-0.9**
EGFH	**Guangfu**	**2.52**	**346**	P	**Pn**	**16 48 47.1**	**+0.3**
EGFH				*e*S	**Sn**	**16 49 17.6**	**-2.4**
TWK	**Hsinying**	**2.52**	**325**	*i* P	**Pn**	**16 48 46.6**	**-0.3**
TWK				*e

ENA	**Nanau**	**3.22**	**355**	*e*P		**Pn**	**16 48 55.4**	**+0.1**
ENA				*e*S		**Sn**	**16 49 32.1**	**-3.0**
WHP	**Taichung City**	**3.23**	**341**	P		**Pn**	**16 48 56.3**	**+0.8**
WHP				S		**Sn**	**16 49 35.5**	**0.0**
EWUT	**Wuta**	**3.23**	**355**	P		**Pn**	**16 48 56.7**	**+1.3**
PHUB	**P'eng-hu**	**3.26**	**315**	*i* P		**Pn**	**16 48 55.1**	**-0.7**
PHUB				*i* S		**Sn**	**16 49 32.5**	**-3.5**
NNSB	**Datong**	**3.27**	**349**	*i* P		**Pn**	**16 48 57.2**	**+1.2**
NNSB				*e*S		**Sn**	**16 49 34.1**	**-2.3**
NNSH	**Datong**	**3.27**	**349**	P		**Pn**	**16 48 56.9**	**+0.9**
NNSH				*e*S		**Sn**	**16 49 33.6**	**-2.9**
NNS	**Nan Shan**	**3.28**	**349**	*e*P		**Pn**	**16 48 57.0**	**+0.8**
NNS				*e*S		**Sn**	**16 49 34.5**	**-2.2**
PNG	**Penghu**	**3.31**	**316**	*i* P		**Pn**	**16 48 55.9**	**-0.5**
PNG				S		**Sn**	**16 49 33.8**	**-3.3**
TWQ1	**Liyutan**	**3.35**	**339**	P		**Pn**	**16 48 57.0**	**+0.1**
TWQ1				*e*S		**Sn**	**16 49 36.1**	**-1.9**
LATG	**Datong**	**3.35**	**351**	P		**Pn**	**16 48 58.0**	**+1.0**
LATG				*e*S		**Sn**	**16 49 35.9**	**-2.4**
WWCA	**Taichung City**	**3.35**	**335**	*e*P		**Pn**	**16 48 57.2**	**+0.2**
WWCA				*e*S		**Sn**	**16 49 35.9**	**-2.3**
TWC	**Suao**	**3.39**	**357**	*e*P		**Pn**	**16 48 57.5**	**+0.1**
TWC				*e*S		**Sn**	**16 49 36.5**	**-2.5**
WDJ	**Dajia District**	**3.39**	**337**	P		**Pn**	**16 48 57.7**	**+0.2**
WDJ				S		**Sn**	**16 49 38.4**	**-0.6**
NSY	**Sanyi**	**3.41**	**339**	*e*P		**Pn**	**16 48 58.0**	**+0.2**
NSY				*e*S		**Sn**	**16 49 36.8**	**-2.8**
NDT	**Datong Townshi**	**3.42**	**351**	*e*P		**Pn**	**16 48 58.2**	**+0.5**
NDT				S		**Sn**	**16 49 37.0**	**-2.7**
NDS	**Dongshan**	**3.42**	**355**	*e*P		**Pn**	**16 48 58.4**	**+0.6**
NDS				*e*S		**Sn**	**16 49 37.1**	**-2.7**
YHNB	**Yeheng**	**3.50**	**350**	P		**Pn**	**16 49 38.8**	**+1.6**
YHNB				*e*S		**Sn**	**16 49 38.8**	**-2.9**
NSK	**Sanguang**	**3.51**	**349**	P		**Pn**	**16 49 00.7**	**+1.7**
NSK				*e*S		**Sn**	**16 49 39.3**	**-2.6**
TWE	**Neicheng**	**3.51**	**354**	P		**Pn**	**16 48 59.4**	**+0.4**
TWE				*e*S		**Sn**	**16 49 40.0**	**-1.8**
NMLH	**Miaoli**	**3.52**	**341**	*e*P		**Pn**	**16 48 59.0**	**-0.1**
NMLH				*e*S		**Sn**	**16 49 39.1**	**-2.8**
NFF	**Wufeng Townshi**	**3.52**	**346**	P		**Pn**	**16 48 59.3**	**+0.2**
NFF				*e*S		**Sn**	**16 49 39.6**	**-2.4**
NSTT	**Nanjuang**	**3.55**	**344**	P		**Pn**	**16 48 58.5**	**-0.9**
NSTT				*e*S		**Sn**	**16 49 38.7**	**-3.8**
LIOB	**Emei**	**3.56**	**344**	P		**Pn**	**16 48 59.9**	**+0.3**
LIOB				*e*S		**Sn**	**16 49 39.3**	**-3.5**
FUSB	**Fushanzhiwuyua**	**3.56**	**353**	*e*P		**Pn**	**16 49 01.1**	**+1.5**
FUSB				*e*S		**Sn**	**16 49 41.4**	**-1.6**
NWLT	**Wulai**	**3.59**	**352**	*e*P		**Pn**	**16 49 00.3**	**+0.4**
NWLT				*e*S		**Sn**	**16 49 40.8**	**-2.8**
KSHI	**Guanxi Townshi**	**3.65**	**347**	*e*P		**Pn**	**16 49 01.8**	**+1.2**
KSHI				*e*S		**Sn**	**16 49 42.8**	**-1.9**
TIPB	**Shuangxi**	**3.75**	**357**	*e*P		**Pn**	**16 49 02.6**	**+0.6**
TIPB				*e*S		**Sn**	**16 49 43.8**	**-3.4**
NHDH	**Xindian Distri**	**3.77**	**352**	*e*P		**Pn**	**16 49 02.7**	**+0.5**
NHDH				*e*S		**Sn**	**16 49 45.0**	**-2.5**
TWA	**Mucha**	**3.78**	**353**	*e*P		**Pn**	**16 49 02.9**	**+0.5**
TATO	**Taipei**	**3.79**	**352**	*e*P		**Pn**	**16 49 02.6**	**+0.2**
SXI1	**Grass Mountain**	**3.87**	**357**	*e*P		**Pn**	**16 49 04.0**	**+0.5**
SXI1				*e*S		**Sn**	**16 49 48.0**	**-2.0**
YM01	**YM01**	**3.94**	**353**	*e*P		**Pn**	**16 49 04.6**	**+0.1**
YM01				*e*S		**Sn**	**16 49 47.9**	**-3.8**
ZUZH	**Zhuzihu**	**3.96**	**353**	*e*P		**Pn**	**16 49 04.9**	**+0.2**
ZUZH				*e*S		**Sn**	**16 49 48.2**	**-3.9**
ANP	**Anpu**	**3.99**	**353**	*e*P		**Pn**	**16 49 04.3**	**-0.8**
VWUC	**VWUC**	**4.47**	**328**	P		**Pn**	**16 49 11.1**	**-0.2**
VWUC				*e*S		**Sn**	**16 50 00.5**	**-3.2**
KNM	**Kinmen**	**4.63**	**314**	P		**Pn**	**16 49 14.2**	**+0.8**
KNM				*e*S		**Sn**	**16 50 07.3**	**-0.2**
PTMZ	**Houxiangcun**	**4.68**	**325**	P		**Pn**	**16 49 13.8**	**-0.2**
PTMZ				S		**Sn**	**16 50 05.4**	**-3.2**
KNMB	**Chin-men Tao**	**4.70**	**314**	P		**Pn**	**16 49 13.7**	**-0.5**
KNMB				*e*S		**Sn**	**16 50 05.9**	**-3.0**
ZPLA	**Ao Xicun**	**4.83**	**305**	*e*P		**Pn**	**16 49 16.5**	**+0.7**
ZPLA				*e*S		**Sn**	**16 50 08.4**	**-3.5**
DSXP	**Dongshan**	**4.97**	**301**	*e*P		**Pn**	**16 49 17.3**	**-0.4**
DSXP				*e*S		**Sn**	**16 50 11.4**	**-3.8**
AXDP	**Jialang**	**5.27**	**315**	P		**Pn**	**16 49 21.6**	**0.0**
AXDP				S		**Sn**	**16 50 20.4**	**-2.0**
MATB	**Ma-tsu**	**5.29**	**339**	P		**Pn**	**16 49 21.2**	**-0.7**
MATB				S		**Sn**	**16 50 19.6**	**-3.2**
MHZQ	**Yeshan**	**5.61**	**331**	*e*P		**Pn**	**16 49 25.9**	**-0.1**
MHZQ				*e*S		**Sn**	**16 50 26.5**	**-3.8**
LYJJ	**Jianjiangzhen**	**5.72**	**339**	*e*P		**Pn**	**16 49 27.4**	**-0.1**
LYJJ				*e*S		**Sn**	**16 50 27.8**	**-5.2**
XPSS	**Dashiqiu**	**5.95**	**344**	*e*P		**Pn**	**16 49 30.1**	**-0.3**
XPSS				*e*S		**Sn**	**16 50 35.3**	**-3.0**
SXFK	**Yanhouchang**	**6.57**	**323**	*e*P		**Pn**	**16 49 38.6**	**0.0**
SXFK				*e*S		**Sn**	**16 50 47.6**	**-5.4**
CMAR	**Chiang Mai Arr**	**21.93**	**267**	P		**P**	**16 52 46.5**	**+2.4**
	1.5nm,0.7s,baz=74,slow=8.2,SNR=16 1.5nm,0.7s							
SIJI	**Sorong**	**23.71**	**157**	P		**P**	**16 53 00.3**	**-0.2**
	3.4nm,0.4s,baz=345,slow=20,SNR=8.4 3.4nm,0.4s							
SONM	**Songino Array**	**29.42**	**338**	P		**P**	**16 53 53.4**	**+2.0**
	0.2nm,0.5s,baz=178,slow=8.4,SNR=1.8 0.2nm,0.5s							
FITZ	**Fitzroy Crossi**	**39.22**	**175**	P		**P**	**16 55 14.2**	**-1.5**
	1.5nm,0.4s,baz=4.2,slow=8.1,SNR=13 1.5nm,0.4s							
MKAR	**Makanchi Array**	**41.06**	**318**	P		**P**	**16 55 32.2**	**+1.5**
	1.0nm,0.6s,baz=108,slow=8.7,SNR=12 1.0nm,0.6s							
WRA	**Warramunga Arr**	**42.62**	**163**	P		**P**	**16 55 42.0**	**-1.5**
	0.9nm,0.4s,baz=343,slow=9.1,SNR=25 0.9nm,0.4s							
ZALV	**Zalesovo Beam**	**43.19**	**328**	P		**P**	**16 55 49.9**	**+2.2**
	0.4nm,0.4s,baz=115,slow=10,SNR=2.6 0.4nm,0.4s							
KURBB	**Kurchatov Arra**	**44.92**	**322**	P		**P**	**16 56 03.0**	**+1.5**
	0.3nm,0.5s,baz=113,slow=9.5,SNR=4.8 0.3nm,0.5s							
ASAR	**Alice Springs**	**46.07**	**165**	P		**P**	**16 56 10.4**	**-0.5**
	0.4nm,0.3s,baz=340,slow=7.1,SNR=29 0.4nm,0.3s							
SHEM	**Shemya Is, Ala**	**50.60**	**38**	LR		LR	17 21 27.8	
	comp=Z,146nm,19.1s,baz=112,slow=40							
STKA	**Stephens Creek**	**56.00**	**160**	P		**P**	**16 57 24.9**	**+0.2**
	1.2nm,0.5s,baz=339,slow=11,SNR=3.1 1.2nm,0.5s							
YKA	**Yellowknife Ar**	**85.38**	**23**	P		**P**	**17 00 22.4**	**+0.7**
	0.5nm,0.7s,baz=322,slow=4.6,SNR=5.8 0.5nm,0.7s							

*SDD **28** 16:55:55.0±1.0, 18°.12N×70°.61W, h2km±6km, MD2.4, ML2.2, MW2.5, Presumed earthquake*
*OSPL **28** 16:56:10.2±1.7, 18°.20N×71°.38W, h12km±14km, ML1.5, Presumed earthquake*

ISC 28 16:55:54.4±1.5, **18°.06N**±0°.07×**70°.63W**±0°.06, **h10**km, **n10, σ2s88/15, 7C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op		ISC	h m s	ISC
PODR	**Polo**	**0.63**	**279**	⇑*i*S		**Sg**	**16 56 15.6**	**+0.5**
PODR				IAML			16 56 18.5	
	comp=N,288nm,0.2s							
PODR	**Polo**	**0.63**	**279**	*i* P		**Pn**	**16 56 12.6**	**+2.9**
PODR				*e*S		**Sg**	**16 56 15.6**	**+0.5**
ABDR	**Alto Bandera**	**0.74**	**360**	⇑*i*P		**Pg**	**16 56 07.3**	**-1.7**
ABDR				⇑*i*S		**Sg**	**16 56 16.8**	**-1.9**
SDD	**Santo Domingo**	**0.78**	**60**	⇑*i*P		**Pg**	**16 56 08.3**	**-1.2**
LODU1	**El Espartillar**	**0.86**	**290**	*i* P		**Pn**	**16 56 12.9**	**+0.3**
LODU1				*e*S		**Sg**	**16 56 16.4**	**-5.8**
LODU1				IAML			16 56 16.6	
	comp=Z,189nm,0.4s							
NEDR	**Neiba UASD**	**0.86**	**299**	⇑*i*S		**Sg**	**16 56 22.1**	**-0.3**
NEDR				IAML			16 56 23.1	
	comp=N,89nm,0.3s							
LONE3	**El Aguacate, B**	**0.96**	**304**	*i* P		**Pn**	**16 56 17.7**	**+3.6**
LONE3				*e*S		**Sg**	**16 56 24.5**	**-0.9**
LONE3				IAML			16 56 26.8	
	comp=Z,32nm,0.3s							
LOBH	**Bahia de las A**	**0.99**	**258**	*i* P		**Pn**	**16 56 17.4**	**+3.0**
LOBH				*e*S		**Sg**	**16 56 24.3**	**-2.0**
LOBH				IAML			16 56 25.3	
	comp=Z,33nm,0.3s							
JIDR	**Jimani**	**1.24**	**290**	⇑*i*P		**Pn**	**16 56 16.8**	**-1.1**
REDR	**Restauracion**	**1.32**	**326**	⇑*i*S		**Sg**	**16 56 41.5**	**+4.5**
REDR				IAML			16 56 43.8	
	comp=N,14nm,2.2s							

*SDD **28** 17:07:00.8±1.9, 18°.06N×71°.40W, h5km±11km, MD3.2, ML2.7, MW3.0, Presumed earthquake*
*OSPL **28** 17:07:02.8±1.2, 18°.19N×71°.33W, h7km±7km, ML2.8, Presumed earthquake*

ISC 28 17:07:01.5±1.0, **18°.13N**±0°.03×**71°.38W**±0°.04, **h6**km±9km, **n13, σ0s56/23, 11C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op		ISC	h m s	ISC
PODR	**Polo**	**0.10**	**68**	⇑*i*P		**Pg**	**17 07 03.7**	**0.0**
PODR				⇑*i*S		**Sg**	**17 07 04.7**	**-0.7**
PODR				IAML			17 07 10.1	
	comp=N,9μm,0.3s							
PODR	**Polo**	**0.10**	**68**	*i* P		**Pg**	**17 07 03.7**	**0.0**
PODR				*e*S		**Sg**	**17 07 05.9**	**+0.5**
LODU1	**El Espartillar**	**0.24**	**338**	*i* P		**Pg**	**17 07 05.8**	**-0.4**
LODU1				*e*S		**Sg**	**17 07 10.0**	**+0.7**
LODU1				IAML			17 07 13.9	
	comp=Z,2μm,0.1s							
LOVI	**El Cajuil, Ovi**	**0.33**	**178**	*i* P		**Pb**	**17 07 09.7**	**-0.1**
LOVI				*e*S		**Sb**	**17 07 15.5**	**+0.2**
LOVI				IAML			17 07 21.0	
	comp=Z,3μm,0.1s							
NEDR	**Neiba UASD**	**0.35**	**354**	⇑*i*P		**Pg**	**17 07 09.0**	**+0.6**
NEDR				⇑*i*S		**Sb**	**17 07 15.1**	**-1.0**
NEDR				IAML			17 07 16.3	
	comp=N,1μm,0.7s							
LOBH	**Bahia de las A**	**0.36**	**223**	*i* P		**Pb**	**17 07 10.5**	**+0.2**
LOBH				*e*S		**Sb**	**17 07 16.7**	**+0.4**
LOBH				IAML			17 07 23.1	
	comp=Z,464nm,0.7s							
LONE3	**El Aguacate, B**	**0.48**	**351**	*i* P		**Pg**	**17 07 10.7**	**-0.1**
LONE3				*e*S		**Sg**	**17 07 17.1**	**+0.1**
LONE3				IAML			17 07 20.6	
	comp=Z,738nm,0.5s							
JIDR	**Jimani**	**0.57**	**309**	⇑*i*P		**Pg**	**17 07 11.9**	**-0.7**
JIDR				⇑*i*S		**Sg**	**17 07 19.3**	**-0.8**
JIDR				IAML			17 07 33.2	
	comp=N,348nm,0.4s							
SDDR	**Presa de Saban**	**0.85**	**6**	⇑*i*P		**Pg**	**17 07 17.5**	**-0.4**
SDDR				⇑*i*S		**Sb**	**17 07 30.5**	**0.0**
SDDR				IAML			17 07 42.0	
	comp=N,87nm,0.7s							
SDDR	**Presa de Saban**	**0.85**	**6**	*i* P		**Pg**	**17 07 17.4**	**-0.5**
ABDR	**Alto Bandera**	**0.99**	**46**	⇑*i*P		**Pg**	**17 07 19.6**	**-0.8**
ABDR				IAML			17 07 45.5	
	comp=N,115nm,0.3s							
BANI	**BANI**	**1.00**	**75**	⇑*i*P		**Pg**	**17 07 20.3**	**-0.5**
BANI				IAML			17 07 39.8	
	comp=N,179nm,0.6s							
REDR	**Restauracion**	**1.03**	**359**	⇓*i*P		**Pb**	**17 07 22.3**	**+0.5**
REDR				⇑⇑*i*S		**Sn**	**17 07 38.0**	**+0.7**
REDR				IAML			17 07 40.7	
	comp=N,135nm,0.2s							

*NEIC **28** 17:07:03.5±1.9, 23°.6S±0°.1×179°.6W±0°.1, h464km±6km, mb4.3/28, Error ellipse: s-maj=15.4km s-min=13.3km az=218.0*
*IDC **28** 17:07:06.1±2.4, 23°.57S×179°.84W, h486km±24km, mb3.3/4, mbtmp4.3/6, Error ellipse: s-maj=27.9km s-min=24.6km az=176.0*

ISC 28 17:07:02.1±0.6, **23°.6S**±0°.1×**179°.64W**±0°.08, **h450**km, **n45, σ1s46/45, mb4.3/17, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op		ISC	h m s	ISC
NIUE	**Niue**	**10.10**	**65**	P		**P**	**17 09 20.7**	**+0.3**
NIUE						**S**	**17 11 11.0**	**-3.1**
PINNC	**Pines Island,**	**11.93**	**272**	P		**P**	**17 09 39.2**	**-1.0**
AFI	**Afiamalu**	**12.16**	**39**	P		**P**	**17 09 47.5**	**+4.6**
	20nm,0.9s,baz=34,slow=21,SNR=2.4							
URZ	**Urewera**	**14.89**	**190**	P		**P**	**17 10 15.0**	**+3.1**
	5.9nm,0.6s,baz=266,slow=3.9,SNR=10							
MRZ	**Mangatainoka R**	**17.50**	**192**	P		**P**	**17 10 39.0**	**-0.5**
TCW	**Tory Channel**	**18.30**	**195**	P		**P**	**17 10 47.0**	**-0.7**
THZ	**Tophouse**	**19.17**	**197**	P		**P**	**17 10 55.7**	**-0.1**
KHZ	**Kahutara**	**19.62**	**195**	P		**P**	**17 10 59.8**	**0.0**
LTZ	**Lake Taylor**	**20.29**	**197**	P		**P**	**17 11 05.6**	**-0.4**
MQZ	**McQueen's Vall**	**21.05**	**196**	P		**P**	**17 11 13.1**	**+0.3**
MLZ	**Mavora Lakes**	**23.91**	**202**	P		**P**	**17 11 38.8**	**+0.2**
ARMA	**Armidale**	**26.45**	**249**	P		**P**	**17 12 02.9**	**+1.4**
ARMA				IAmb		IAmb	17 12 05.1	
	comp=Z,19nm,1.4s							
EIDS	**Eidsvold**	**26.69**	**260**	P		**P**	**17 12 04.6**	**+1.1**
EIDS				IAmb		IAmb	17 12 36.8	
	comp=Z,12nm,1.4s							
CAN	**Canberra**	**29.59**	**240**	P		**P**	**17 12 30.2**	**+1.2**
CAN				IAmb		IAmb	17 12 34.4	
	comp=Z,31nm,1.5s							
CTAO	**Charters Tower**	**31.81**	**270**	P		**P**	**17 12 49.8**	**+1.5**
PMG	**Port Moresby**	**34.71**	**288**	P		**P**	**17 13 13.1**	**+0.1**
PMG				IAmb		IAmb	17 13 14.8	
	comp=Z,10.0nm,0.7s							
STKA	**Stephens Creek**	**35.15**	**248**	P		**P**	**17 13 17.1**	**+0.6**
	comp=Z,1.0nm,0.4s,baz=90,slow=13,SNR=1.4 comp=Z,1.0nm,0.4s							
STKA	**Stephens Creek**	**35.15**	**248**	IAmb		IAmb	17 13 17.5	
	comp=Z,45nm,1.4s							
INKA	**Innaminka**	**35.84**	**255**	P		**P**	**17 13 22.8**	**+0.4**
BBOO	**Buckleboo**	**39.87**	**247**	P		**P**	**17 13 54.3**	**-1.1**
BBOO				IAmb		IAmb	17 13 59.1	
	comp=Z,13nm,1.1s							

AS31	**Alice Springs**	**42.41**	**260**			**P**	**17 14 15.7**	**-0.3**
ASAR	**Alice Springs**	**42.41**	**260**	P		**P**	**17 14 15.9**	**-0.1**
	comp=Z,4.0nm,0.6s,baz=97,slow=7.5,SNR=124							
ASAR				ScP		**ScP**	**17 19 02.1**	**-4.4**
	comp=Z,0.8nm,0.7s,baz=105,slow=4.9,SNR=11 comp=Z,4.0nm,0.6s							
ASAR	**Alice Springs**	**42.41**	**260**	P		**P**	**17 14 15.7**	**-0.3**
WR8	**Warramunga Arr**	**42.61**	**266**			**P**	**17 14 16.7**	**-0.9**
WR8				IAmb		IAmb	17 14 17.6	
	comp=Z,5.0nm,0.9s							
WB0	**Warramunga Arr**	**42.75**	**266**			**P**	**17 14 17.8**	**-0.8**
WB0				IAmb		IAmb	17 14 18.8	
	comp=Z,10nm,0.7s							
WRAB	**Tennant Creek**	**42.75**	**266**	P		**P**	**17 14 17.6**	**-1.0**
WRAB				IAmb		IAmb	17 14 18.4	
	comp=Z,5.9nm,0.5s							
WRA	**Warramunga Arr**	**42.76**	**266**	P		**P**	**17 14 18.2**	**-0.5**
	comp=Z,6.0nm,0.5s,baz=8.1,SNR=280 comp=Z,6.0nm,0.5s							
WRA	**Warramunga Arr**	**42.76**	**266**			**P**	**17 14 17.9**	**-0.9**
FORT	**Forrest**	**46.73**	**249**	P		**P**	**17 14 48.0**	**-1.3**
FORT				IAmb		IAmb	17 14 49.1	
	comp=Z,8.2nm,0.7s							
MTN	**Manton Dam**	**47.76**	**274**	P		**P**	**17 14 56.3**	**-1.0**
MTN				IAmb		IAmb	17 15 34.1	
	comp=Z,11nm,1.5s							
MTN				PcP		**PcP**	**17 16 17.4**	**-0.7**
HMH	**Humu'ula Sheep**	**48.96**	**31**	P		**P**	**17 15 06.2**	**-0.3**
KNRA	**Kununurra**	**49.02**	**269**	P		**P**	**17 15 06.5**	**-0.2**
KNRA				IAmb		IAmb	17 15 07.4	
	comp=Z,11nm,1.2s							
FAKI	**Fak Fak**	**50.81**	**286**	P		**P**	**17 15 19.7**	**-0.3**
FAKI				IAmb		IAmb	17 15 52.8	
	comp=Z,18nm,1.1s							
FITZ	**Fitzroy Crossi**	**51.19**	**265**	P		**P**	**17 15 22.4**	**-0.3**
MORW	**Morawa**	**57.30**	**250**	P		**P**	**17 16 04.8**	**-1.1**
MORW				IAmb		IAmb	17 16 26.4	
	comp=Z,34nm,1.4s							
QSPA	**South Pole Qui**	**66.50**	**180**	P		**P**	**17 17 06.6**	**+0.9**
	comp=Z,0.6nm,0.7s,baz=1.7,slow=1.4,SNR=6.6 comp=Z,0.6nm,0.7s							
MAW	**Mawson**	**78.16**	**200**	P		**P**	**17 18 11.8**	**-1.5**
FINES	**FINESS Array B**	**138.25**	**342**	PKP		**PKPdf**	**17 25 35.0**	**+0.5**
	comp=Z,2.5nm,1.1s,baz=29,slow=3.5,SNR=1.1							
FINES	**FINESS Array B**	**138.25**	**342**			**PKPdf**	**17 25 33.8**	**-0.7**
HFS	**Hagfors**	**142.30**	**349**	PKhKP		PKPpre	17 25 37.8	
	comp=Z,0.7nm,0.4s,baz=62,slow=3.8,SNR=12							
PABE	**Paberze**	**143.65**	**337**			PKPab	17 25 41.9	-0.9
AKASG	**Malin Array Be**	**144.88**	**328**	PKP		**PKPdf**	**17 25 46.0**	**-0.7**
	comp=Z,1.6nm,0.5s,baz=43,slow=4.4,SNR=5.4							
BRTR	**Keskin Array B**	**147.65**	**309**	PKPbc		**PKPdf**	**17 25 53.9**	**+2.0**
	comp=Z,0.8nm,0.6s,baz=96,slow=3.6,SNR=5.3							
MMAI	**Mount Meron Ar**	**147.87**	**295**	PKPbc		**PKPbc**	**17 25 56.6**	**+0.5**
	comp=Z,1.1nm,0.5s,baz=55,slow=6.2,SNR=5.5							
BURAR	**Bucovina Array**	**148.89**	**327**	PKPdf		**PKPdf**	**17 25 52.5**	**-1.2**

*IDC **28** 17:07:52.8±0.6, 52°.19N×169°.58W, h0km, mb4.4/32, mbtmp4.4/35, ML4.4/3, MS3.7/29, Error ellipse: s-maj=17.2km s-min=10.5km az=172.0*
*AEIC **28** 17:07:57.0±2.2, 52°.09N±0°.08×169°.50W±0°.08, h25km±4km, Error ellipse: s-maj=13.2km s-min=5.7km az=155.0*
*NEIC **28** 17:07:58.1±1.7, 52°.09N±0°.08×169°.51W±0°.09, h40km±6km, mb4.5/271, ML4.4/18, ML4.1(AEIC), Error ellipse: s-maj=12.6km s-min=6.4km az=156.0*
*GFZ **28** 17:07:59.4±0.3, 52°.N±6°×17°.0W±°, h39km, M4.8/21, mb4.8/21*

ISC 28 17:07:58.1±1.0, **52°.08N**±0°.08×**169°.50W**±0°.04, **h42**km±8km, **n510, σ1s27/423, mb4.6/169, MS3.7/28, 1C-2D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		ISC	Time	Res
				Op		ISC	h m s	ISC
OKCE	**Okmok Cone E**	**1.57**	**31**			**Pn**	**17 08 23.5**	**-0.1**
OKTU	**Okmok Mt. Tuli**	**1.58**	**34**			**Pn**	**17 08 22.9**	**-0.8**
OKNC	**Okmok New Cone**	**1.61**	**31**			**Sn**	**17 08 46.0**	**+2.3**
OKNC	**Okmok New Cone**	**1.61**	**31**			**Pn**	**17 08 23.9**	**-0.2**
OKNC	**Okmok New Cone**	**1.61**	**31**	IAML			17 08 59.6	
	comp=E,4μm,1.5s							
OKNC				IAML			17 09 06.9	
	comp=N,3μm,1.3s							
OKFG	**Magazine Ridge**	**1.65**	**35**			**Pn**	**17 08 23.5**	**-1.0**
MAPS	**Pakushin South**	**2.32**	**41**			**Pn**	**17 08 33.8**	**-0.1**
MAPS						**Sn**	**17 09 01.7**	**+0.5**
MGOD	**Makushin Gods**	**2.34**	**42**			**Pn**	**17 08 33.8**	**-0.3**
MGOD						**Sn**	**17 09 03.0**	**+1.4**
MREP	**Makushin Rep't**	**2.41**	**43**			**Pn**	**17 08 35.0**	**0.0**
MSW	**Makushin Switc**	**2.46**	**41**			**Pn**	**17 08 35.9**	**+0.1**
MNAT	**Makushin Natee**	**2.48**	**42**			**Pn**	**17 08 35.8**	**-0.2**
MNAT						**Sn**	**17 09 05.2**	**+0.1**
MNAT						LR	17 09 06.0	
UNV	**Unalaska Valle**	**2.53**	**45**	P		**Pn**	**17 08 36.3**	**-0.3**
UNV	**Unalaska Valle**	**2.53**	**45**			**Pn**	**17 08 36.4**	**-0.3**
UNV				Sn		**Sn**	**17 09 05.2**	**-1.0**
UNV				IAML			17 09 16.3	
	comp=N,1μm,1.4s							
UNV				IAML			17 09 23.6	
	comp=E,1μm,0.9s							
MTBL	**Makushin Table**	**2.55**	**41**			**Pn**	**17 08 37.4**	**+0.4**
MTBL						**Sn**	**17 09 09.2**	**+2.5**
KOSE	**Korovin Southe**	**2.81**	**277**			**Pn**	**17 08 40.9**	**+0.3**
KOFP	**Korovin Flat P**	**2.83**	**276**			**Pn**	**17 08 42.1**	**+1.2**
ATKA	**Atka Island**	**2.89**	**274**	P		**Pn**	**17 08 41.9**	**+0.3**
ATKA	**Atka Island**	**2.89**	**274**			**Pn**	**17 08 41.5**	**-0.2**
ATKA				Sn		**Sn**	**17 09 14.4**	**-0.7**
KOKL	**Mount Kliuchef**	**2.90**	**277**			**Pn**	**17 08 42.2**	**+0.4**
AKRB	**Akutan Reef Bi**	**2.92**	**44**			**Pn**	**17 08 42.6**	**+0.6**
ZRO	**Akutan Zero**	**2.93**	**45**			**Pn**	**17 08 42.5**	**+0.3**
ZRO						**Sn**	**17 09 18.1**	**+2.0**
ZRO						LR	17 09 18.5	
KOWE	**Korovin West**	**2.93**	**277**			**Pn**	**17 08 43.4**	**+1.1**
LVA	**Lava Point**	**2.95**	**44**			**Pn**	**17 08 40.2**	**-2.3**
LVA				IAML			17 09 39.6	
	comp=E,2μm,1.1s							
AKLV	**Akutan Long Va**	**2.99**	**44**			**Pn**	**17 08 43.8**	**+0.8**
AKGG	**Akutan Green G**	**3.00**	**44**			**Pn**	**17 08 43.8**	**+0.7**
AHB	**Akutan Harbor**	**3.02**	**46**			**Pn**	**17 08 44.0**	**+0.6**
AKUT	**Akutan**	**3.05**	**46**	P		**Pn**	**17 08 44.7**	**+1.0**
AKUT	**Akutan**	**3.05**	**46**			**Pn**	**17 08 43.2**	**-0.5**
AKSA	**Akutan Strait**	**3.08**	**47**			**Pn**	**17 08 44.7**	**+0.4**
WECS	**Westdahl Cape**	**3.75**	**47**	Pn		**Pn**	**17 08 50.8**	**-2.6**
WECS				IAML			17 09 55.8	
	comp=E,808nm,0.7s							
WECS				IAML			17 10 09.0	
	comp=N,1μm,0.9s							
WESP	**Westdahl Peak**	**3.75**	**48**			**Pn**	**17 08 54.3**	**+0.8**
GSIG	**Igitkin Island**	**3.97**	**271**			**Pn**	**17 08 56.7**	**+0.3**

M13K **Dall Lake** 9.02 20 Pn 17 10 06.2 +0.6
PLBL **Peulik Blue Cr** 9.22 47 Pn 17 10 10.1 +1.8
R17L **Mt. Peulik Vol** 9.39 49 Pn 17 10 11.7 +1.0
PLK3 **Peulik 3** 9.46 48 Pn 17 10 12.9 +1.1
PLK2 **Peulik 2** 9.48 48 Pn 17 10 12.4 +0.5
P16K **Nushagak River** 9.53 39 Pn 17 10 12.3 -0.3
N15K **Kwethluk River** 9.65 29 Pn 17 10 14.8 +0.5
O16K **Kokwok River B** 9.88 36 Pn 17 10 17.8 +0.4
M15K **Kasigluk River** 9.91 26 Pn 17 10 20.1 +2.3
Q17K **Contact Creek** 9.94 46 Pn 17 10 18.7 +0.4
KJL **Kejulik** 9.97 48 Pn 17 10 20.1 +1.4
L14K **Kuka Creek** 10.00 19 Pn 17 10 20.0 +0.9
SII **Sitkinak Islan** 10.00 57 Pn Pn 17 10 17.6 -1.6
CAHL **Cahill** 10.09 48 Pn 17 10 20.9 +0.5
K13K **Kusilvak Mount** 10.22 13 Pn 17 10 22.6 +0.6
P17K **Kvichak River** 10.25 41 Pn 17 10 22.9 +0.5
M16K **Timber Creek** 10.67 29 Pn 17 10 28.6 +0.4
OHAK **Old Harbor** 10.70 55 Pn Pn 17 10 26.1 -2.5
K15K **Wolf Creek Mou** 11.10 20 Pn 17 10 33.7 -0.4
KDAK **Kodiak Island** 11.27 53 Pn Pn 17 10 34.2 -2.2
comp=E,4.4nm,0.3s,baz=243,slow=5.1,SNR=47
comp=E,11nm,0.4s
KDAK AML AML
KDAK **Kodiak Island** 11.27 53 Pn Pn 17 10 33.2 -3.2
Q19K **Cape Douglas,** 11.29 46 Pn Pn 17 10 35.5 -1.2
M17K **Holitna River** 11.43 31 Pn 17 10 37.7 -0.8
N18K **Kilae Creek** 11.43 36 Pn Pn 17 10 38.5 -0.1
O19K **Port Alsworth** 11.71 40 Pn 17 10 42.9 +0.5
N19K **Bonanza Creek** 12.04 38 Pn 17 10 47.5 +0.6
ILSW **Iliamna Southw** 12.07 43 Pn Pn 17 10 47.7 +0.3
J16K **Anvik River** 12.18 19 Pn 17 10 48.5 -0.3
K17K **Iditarod** 12.23 25 Pn 17 10 49.5 0.0
L18K **Granite Mounta** 12.29 29 Pn 17 10 52.8 +2.5
RED **Redoubt Volcan** 12.47 41 Pn Pn 17 10 55.3 +2.5
HOM **Homer** 12.54 46 Pn Pn 17 10 53.2 -0.6
CNPM **China Poot** 12.66 47 Pn Pn 17 10 53.3 -2.1
ANM **Nome** 12.70 8 Pn Pn 17 10 57.6 +1.7
I17K **Unalakleet** 12.71 18 Pn 17 10 58.2 +2.2
L19K **White Mountain** 12.84 32 Pn 17 10 58.1 +0.3
BRLK **Bradley Lake** 12.93 46 Pn Pn 17 10 56.9 -2.2
SPU **Mount Spurr** 13.20 40 Pn Pn 17 11 00.2 -2.6
M20K **Styx River** 13.23 36 Pn 17 11 02.8 -0.4
L20K **Farewell, AK** 13.37 33 Pn 17 11 05.3 +0.3
TNA **Tin City** 13.54 3 Pn Pn 17 11 07.0 -0.4
SLKM **Skilak Lake** 13.59 44 Pn 17 11 06.3 -1.7
SEW **Seward** 13.73 46 Pn Pn 17 11 07.3 -2.6
O22K **Cooper Landing** 13.79 45 Pn 17 11 07.8 -2.9
H17K **Granite Mounta** 13.81 17 Pn 17 11 08.4 -2.5
G16K **Koyuk River** 13.84 13 Pn Pn 17 11 11.4 0.0
SKT **Skwentna** 13.88 37 Pn Pn 17 11 11.1 -0.9
SUA **Susitna One** 13.88 40 Pn Pn 17 11 09.0 -3.0
F15K **North Star Dit** 13.89 8 Pn Pn 17 11 11.7 -0.4
RC01 **Rabbit Creek A** 14.09 42 Pn Pn 17 11 12.0 -2.8
PPLA **Purkeypile** 14.23 34 Pn 17 11 18.1 +1.3
M22K **Willow** 14.29 40 Pn Pn 17 11 17.4 -0.1
J20K **Nowinta River** 14.53 28 P P 17 11 22.9 -3.7
PWL **Port Wells** 14.57 45 Pn 17 11 17.8 -3.5
PMR **Palmer** 14.60 41 Pn Pn 17 11 20.2 -1.4
CAST **Castle Rocks** 14.62 32 Pn 17 11 19.1 -2.8
P23K **Montague Islan** 14.62 49 Pn Pn 17 11 19.7 -2.2
GHO **Glory Hole Cre** 14.78 41 Pn Pn 17 11 20.4 -3.6
KNK **Knik Glacier** 14.78 43 Pn Pn 17 11 20.5 -3.7
G18K **Tagagawik** 14.90 17 Pn 17 11 26.1 +0.5
H19K **Roundabout Mou** 15.03 21 IAmb IAmb 17 11 57.2
comp=Z,43nm,1.4s
SML **Sawmill** 15.03 41 Pn Pn 17 11 24.5 -3.0
SML IAmb IAmb 17 12 00.7
comp=Z,48nm,1.3s
GLI **Glacier Island** 15.12 46 Pn Pn 17 11 24.8 -3.8
HIN **Hinchinbrook I** 15.19 48 Pn Pn 17 11 26.1 -3.3
TRF **Thorofare Moun** 15.24 34 Pn Pn 17 11 29.2 -1.1
TRF IAmb IAmb 17 11 36.0
comp=Z,24nm,1.2s
FID **Port Fidalgo** 15.34 47 Pn Pn 17 11 26.4 -5.0
FID IAmb IAmb 17 11 49.5
comp=Z,57nm,1.0s
G19K **Purcell Mounta** 15.43 19 Pn Pn 17 11 31.2 -1.3
BPAW **Bear Paw Mtn.** 15.44 32 Pn 17 11 32.0 -0.7
BPAW IAmb IAmb 17 11 42.9
comp=Z,26nm,0.6s
SCM **Sheep Creek Mo** 15.46 42 Pn 17 11 29.8 -3.3
EYAK **Cordova Ski Ar** 15.59 48 Pn Pn 17 11 31.1 -3.5
RND **Reindeer** 15.72 36 Pn 17 11 33.0 -3.4
DIV **Divide** 15.81 46 Pn 17 11 33.2 -4.3
DIV IAmb IAmb 17 11 47.7
comp=Z,21nm,0.6s
MCK **McKinley** 15.89 35 Pn Pn 17 11 35.4 -3.2
KLU **Klutina** 15.90 44 P Pn 17 11 35.2 -3.5
I21K **Tanana** 15.90 28 IAmb IAmb 17 11 51.6
comp=Z,23nm,0.8s
F19K **Shaleruckik Mo** 15.90 17 Pn Pn 17 11 38.5 -0.1
IMAR **Indian Mountai** 16.05 24 P 17 11 42.0 -1.3
DHY **Denali Highway** 16.08 38 Pn Pn 17 11 38.9 -2.2
MLY **Manley** 16.16 29 Pn 17 11 42.0 +0.1
MLY IAmb IAmb 17 11 46.2
comp=Z,21nm,0.6s
BMRM **Bremner River** 16.27 47 Pn 17 11 40.4 -3.0
BMRM IAmb IAmb 17 11 52.8
comp=Z,30nm,0.6s
NEA2 **Nenana** 16.39 32 Pn 17 11 43.7 -1.1
E19K **Redstone River** 16.56 17 P P 17 11 48.3 -0.7
H22K **Ishtalitna Cre** 16.60 27 P P 17 11 48.9 -0.6
HARP **HAARP** 16.63 42 P Pn 17 11 45.6 -2.3
HARP IAmb IAmb 17 11 54.6
comp=Z,105nm,1.5s
WRH **Wood River Hil** 16.64 34 P Pn 17 11 45.9 -2.1
I23K **Minto, Yukon-K** 16.66 30 P Pn 17 11 47.7 -0.6
PAX **Paxson** 16.77 40 P Pn 17 11 47.0 -2.7
GLB **Gilahina Butte** 16.80 46 P Pn 17 11 48.0 -2.1
GLB IAmb IAmb 17 12 18.8
comp=Z,44nm,1.3s
CRQM **Cirque** 16.87 49 IAmb IAmb 17 12 30.1
comp=Z,56nm,1.0s
VRDI **Verde Repeater** 16.89 47 IAmb IAmb 17 11 56.9
comp=Z,33nm,1.2s
COLA **College** 16.97 33 P P 17 11 52.8 -0.8
COLA **College** 16.97 33 P Pn 17 11 50.5 -1.6
COLA **College** 16.97 33 P Pn 17 11 51.1 -1.0
comp=Z,14nm,0.9s
C18K **Utukok River** 17.09 10 P P 17 11 54.2 -0.8
F21K **Alatna River** 17.11 21 P Pn 17 11 52.2 -1.6
MCARA **McCarthy VSAT** 17.14 47 P Pn 17 11 53.4 -0.8
MCARA IAmb IAmb 17 12 23.1
comp=Z,47nm,1.1s
IL31 17.24 34 P Pn 17 11 53.0 -2.3
ILAR **Eielson Array** 17.24 34 P Pn 17 11 53.6 -1.8
comp=Z,1.0nm,0.3s,baz=232,slow=11,SNR=65
ILAR LR LR 17 19 07.6
comp=Z,180nm,18.9s,baz=214,slow=39
comp=Z,2.2nm,0.4s
ILAR AML AML
POKR **Poker Plat Res** 17.27 32 P Pn 17 11 54.3 -1.5
D19K **Kuna River** 17.35 14 P P 17 11 56.5 -1.3
GRNC **Granite Creek** 17.50 50 IAmb IAmb 17 12 11.3
comp=Z,74nm,1.3s
BARN **Barnard Glacie** 17.65 49 IAmb IAmb 17 12 38.2
comp=Z,35nm,1.1s
J25K **Salcha River,** 17.68 35 P Pn 17 11 58.6 -2.3
J25K IAmb IAmb 17 12 08.4
comp=Z,14nm,0.5s
M27K **Edge Creek, AK** 18.00 44 P Pn 17 12 03.1 -1.8
M27K IAmb IAmb 17 12 17.3
comp=Z,30nm,1.1s
O28M **Mount Upton** 18.25 50 IAmb IAmb 17 12 17.2
comp=Z,57nm,1.3s
D22K **Ayikyak River** 18.65 19 P Pn 17 12 12.4 -0.3
D22K IAmb IAmb 17 12 27.4
comp=Z,29nm,1.3s
I26K **Coal Creek Min** 18.85 35 IAmb IAmb 17 12 22.8
comp=Z,15nm,0.6s
D23K **Nanushuk River** 19.15 21 P Pn 17 12 17.5 -1.2
P29M **Windy Craggy** 19.21 54 P P 17 12 17.8 -0.5
P29M IAmb IAmb 17 12 34.6
comp=Z,43nm,0.9s
PET **Petropavlovsk** 19.31 285 P P 17 12 19.2 -0.1
PET IAmb IAmb 17 12 31.1
comp=Z,40nm,1.4s
M29M **Somme Creek** 19.52 46 IAmb IAmb 17 12 38.1
comp=Z,17nm,0.7s
I27K **Kandik River** 19.55 35 IAmb IAmb 17 12 42.8
comp=Z,20nm,1.1s
BMAR **Burnt Mountain** 19.62 29 P P 17 12 20.8 -1.9
DAWY **Dawson** 19.70 41 IAmb IAmb 17 12 30.4
comp=Z,23nm,1.4s
BILI **Bilibino, Chuk** 19.78 333 P Pn 17 12 25.1 -1.1
comp=Z,14nm,1.5s
S31K **Pelican** 19.81 60 P P 17 12 24.2 -0.6
BILL **Bilibino** 19.82 333 P P 17 12 24.6 -0.2
PEA0B **Petropavlovsk-** 19.86 286 P P 17 12 25.4 +0.1
PETK **Petropavlovsk-** 19.86 286 P P 17 12 25.8 +0.5
comp=Z,5.8nm,0.3s,baz=79,slow=12,SNR=120
PETK LR LR 17 20 27.5
comp=Z,104nm,19.8s,baz=90,slow=38
comp=Z,18nm,0.4s
PETK AML AML
PETK **Petropavlovsk-** 19.86 286 P P 17 12 25.6 +0.2
L29M **L29M** 19.88 44 IAmb IAmb 17 12 52.9
comp=Z,21nm,0.9s
H27K **Steamboat Moun** 19.91 34 P P 17 12 24.6 -1.2
I28M **Miner Creek** 20.09 37 IAmb IAmb 17 12 39.4
comp=Z,11nm,0.7s
J29N **Klondike Camp** 20.33 40 IAmb IAmb 17 13 01.2
comp=Z,13nm,0.7s
K29M **Barlow Dome** 20.39 42 IAmb IAmb 17 12 36.1
comp=Z,20nm,1.1s
SKAG **Skagway** 20.40 55 P Pn 17 12 34.0 +0.5
SKAG **Skagway** 20.40 55 P P 17 12 30.7 -0.5
SKAG IAmb IAmb 17 12 48.4
comp=Z,25nm,0.8s
N31M **Braeburn, Yuko** 20.50 50 IAmb IAmb 17 13 08.3
comp=Z,33nm,0.8s
WHY **Whitehorse** 20.78 52 P P 17 12 34.8 -0.7
E27K **Colleen River** 20.98 29 P P 17 12 35.8 -1.7
H29M **Whitestone** 21.02 36 IAmb IAmb 17 12 50.4
comp=Z,41nm,1.0s
J30M **Hart River** 21.13 41 IAmb IAmb 17 12 43.4
comp=Z,9.9nm,0.5s
C26K **Camden Bay** 21.21 23 IAmb IAmb 17 12 57.3
comp=Z,19nm,1.0s
C27K **Jago River** 21.31 25 P P 17 12 40.0 -0.8
C27K IAmb IAmb 17 12 44.5
comp=Z,14nm,0.5s
EPYK **Eagle Plains** 21.68 36 IAmb IAmb 17 12 56.5
comp=Z,28nm,0.8s
P33M **Teslin, Yukon** 21.74 54 P P 17 12 45.6 0.0
P33M IAmb IAmb 17 12 52.5
comp=Z,32nm,1.1s
D27M **Malcolm River** 21.81 27 IAmb IAmb 17 12 49.2
comp=Z,9.9nm,0.6s
Q32M **Nakina River** 21.94 57 IAmb IAmb 17 13 16.8
comp=Z,19nm,0.9s
G30M **tAoh Zrail Nji** 22.13 35 IAmb IAmb 17 13 20.4
comp=Z,15nm,0.8s
E29M **Blow River** 22.24 31 P P 17 12 49.5 -1.4
E29M IAmb IAmb 17 12 52.8
comp=Z,8.2nm,0.5s
DIB **Dawson Inlet,** 22.34 72 P P 17 12 52.0 -0.1
DIB IAmb IAmb 17 13 10.8
comp=Z,42nm,1.2s
H31M **Peel River** 22.35 39 IAmb IAmb 17 13 23.8
comp=Z,19nm,1.0s
F30M **Barrier River** 22.56 34 IAmb IAmb 17 13 17.1
comp=Z,20nm,1.1s
R33M **Jennings River** 22.62 56 IAmb IAmb 17 13 19.6
comp=Z,24nm,1.2s
SEY **Seymchan** 22.81 313 P P 17 12 56.4 -0.5
comp=Z,6.4nm,0.8s,baz=97,slow=10,SNR=11
comp=Z,6.2nm,0.8s
F31M **Tsiigehtchic** 23.20 35 IAmb IAmb 17 13 42.5
comp=Z,9.3nm,0.8s
MA2 **Magadan** 23.24 304 P P 17 13 02.0 +0.7
comp=Z,1nm,0.6s,baz=76,slow=12,SNR=4.1
comp=Z,6.1nm,0.6s
MA2 **Magadan** 23.24 304 P P 17 13 00.2 -1.1
MA2 IAmb IAmb 17 13 07.5
comp=Z,24nm,1.2s
INK **Inuvik** 23.63 33 P P 17 13 02.8 -2.2
INK IAmb IAmb 17 13 05.4
comp=Z,11nm,0.6s
INK **Inuvik** 23.64 303 P P 17 13 03.5 -1.5
comp=Z,17nm,0.8s
C36M **Paulatuk** 27.21 34 IAmb IAmb 17 13 40.6
comp=Z,11nm,0.5s
LLLB **Lillooet** 29.37 74 P P 17 13 56.8 -0.1
LLLB IAmb IAmb 17 14 05.8
comp=Z,9.5nm,1.3s
YKAW3 **Yellowknife Wh** 30.48 48 IAmb IAmb 17 14 17.6
comp=Z,4.9nm,0.8s
YKA **Yellowknife Ar** 30.49 48 P P 17 14 07.3 +0.6
comp=Z,4.4nm,0.4s,baz=275,slow=8.3,SNR=49
YKA LR LR 17 28 20.5
comp=Z,159nm,18.8s,baz=258,slow=40
comp=Z,4.4nm,0.4s
YKA **Yellowknife Ar** 30.49 48 P P 17 14 07.6 +0.9
YKAW1 **Yellowknife Wh** 30.55 48 IAmb IAmb 17 14 09.2
comp=Z,5.6nm,0.8s
G04A **Mulino** 31.36 84 P P 17 14 15.1 +0.6
JKA **Kamikawa-asahi** 32.45 275 P P 17 14 23.2 -0.9
KHMM **Horse Mountain** 32.93 91 P P 17 14 27.9 -0.6
TIXI **Tiksi** 32.94 329 LR LR 17 29 49.0
comp=Z,79nm,18.1s,baz=28,slow=40
TIXI **Tiksi** 32.94 329 P P 17 14 27.2 -0.9
YBH **Yreka Blue Hor** 33.06 89 LR LR 17 25 07.9
comp=Z,75nm,21.3s,baz=302,slow=31
J05D **Fort Rock, OR** 33.12 86 P P 17 14 30.5 +0.3
J05D IAmb IAmb 17 14 59.8
comp=Z,9.8nm,1.2s
NEW **Newport** 33.16 75 LR LR 17 27 25.7
comp=Z,85nm,18.8s,baz=304,slow=35
NEW **Newport** 33.16 75 P P 17 14 30.9 +0.6
NEW IAmb IAmb 17 14 49.0
comp=Z,7.1nm,0.8s
NEW **Newport** 33.16 75 P P 17 14 32.2 +1.8
comp=Z,10nm,0.9s
YAK **Yakutsk** 33.30 311 LR LR 17 29 45.1
comp=Z,200nm,18.1s,baz=88,slow=40
YAK **Yakutsk** 33.30 311 P P 17 14 30.9 -0.4
YAK IAmb IAmb 17 14 45.1
comp=Z,16nm,1.2s
K05A **Summer Lake** 33.63 87 P P 17 14 33.6 -1.0
K05A IAmb IAmb 17 15 09.4
comp=Z,8.3nm,1.0s
O02D **Mt. Diablo Mer** 33.92 92 P P 17 14 36.2 -0.8
O02D IAmb IAmb 17 15 00.6
comp=Z,7.2nm,1.0s
JTMT **Jette** 35.09 75 P P 17 14 46.2 -1.0
PLID **Pearl Lake** 35.37 80 P P 17 14 48.6 -1.1
C15A **Salmond Ranch,** 36.07 74 P P 17 14 56.1 +0.5
PAHR **Pah Rah Range** 36.30 90 P P 17 14 57.0 -0.6
PAHR IAmb IAmb 17 15 28.7
comp=Z,4.4nm,0.8s
KLR **Kul'dur** 36.48 289 LR LR 17 31 03.3
comp=Z,116nm,19.4s,baz=76,slow=38
PNTR **Pine Nut** 36.54 91 P P 17 14 59.2 -0.6
PNTR IAmb IAmb 17 15 20.4
comp=Z,6.5nm,0.8s
GBMT **Granite Butte,** 36.61 75 IAmb IAmb 17 15 21.1
comp=Z,6.4nm,0.8s
RES **Resolute Bay** 36.67 25 LR LR 17 34 17.0
comp=Z,120nm,18.4s,baz=282,slow=43
RES **Resolute Bay** 36.67 25 P P 17 14 59.0 -1.1
RES IAmb IAmb 17 15 41.2
comp=Z,8.6nm,1.4s
HLID **Hailey** 37.15 81 P P 17 15 05.3 +0.5
HLID **Hailey** 37.15 81 P P 17 15 07.1 +2.3
comp=Z,4.6nm,1.4s
H11N2 **WAKE ISLAND Hy** 37.18 219 T T 17 54 38.4
baz=25,SNR=31
H11N3 **WAKE ISLAND Hy** 37.18 219 T T 17 54 38.4
baz=25,slow=74,SNR=32
H11N1 **WAKE ISLAND Hy** 37.20 219 T T 17 54 38.4
baz=25,slow=74,SNR=24
NVAR **Mina Array Bea** 37.74 90 P P 17 15 12.0 +2.1
comp=Z,1.0nm,0.7s,baz=291,slow=8.0,SNR=6.4
comp=Z,1.0nm,0.7s
BOZ **Bozeman (W)** 37.75 76 IAmb IAmb 17 15 18.9
comp=Z,12nm,1.4s
ELK **Elko** 38.24 85 LR LR 17 30 27.4
comp=Z,107nm,18.5s,baz=4.5,slow=35
H11S1 **WAKE ISLAND Hy** 38.36 218 T T 17 56 17.7
baz=22,slow=74,SNR=115
H11S2 **WAKE ISLAND Hy** 38.38 218 T T 17 56 19.3
baz=22,SNR=79
H11S3 **WAKE ISLAND Hy** 38.38 218 T T 17 56 18.4
baz=22,slow=74,SNR=96
YHL **Hebgen Lake** 38.41 77 P 17 15 14.6 -1.0
YHL IAmb IAmb 17 15 38.0
comp=Z,6.8nm,1.0s
YHB **Horse Butte** 38.45 77 P P 17 15 14.1 -1.9
HEH **HeiHe** 38.49 293 eP P 17 15 14.8 -1.1
HEH pmax pmax
comp=Z,8.0nm,0.7s
YHH **Holmes Hill** 38.64 77 IAmb IAmb 17 15 32.2
comp=Z,6.1nm,0.8s
YNR **Norris Junctio** 38.78 77 IAmb IAmb 17 15 34.0
comp=Z,7.6nm,1.0s
USRK **Ussuriysk Ar.** 38.87 282 P P 17 15 19.7 +0.6
comp=Z,1.5nm,0.6s,baz=38,slow=8.5,SNR=5.3
comp=Z,1.5nm,0.6s
RLMT **Red Lodge** 39.41 75 IAmb IAmb 17 15 38.5
comp=Z,12nm,1.2s
MJAR **Matsushiro Arr** 39.60 268 P P 17 15 25.9 +0.5
comp=Z,1.0nm,0.7s,baz=40,slow=8.5,SNR=6.0
comp=Z,1.0nm,0.7s
MJAR **Matsushiro Arr** 39.60 268 P P 17 15 24.7 -0.6
MAJO **Matsushiro** 39.60 268 P P 17 15 24.3 -1.0
MAJO IAmb IAmb 17 15 43.7
comp=Z,12nm,1.0s
TPNV **Topopah Spring** 39.94 91 IAmb IAmb 17 16 02.0
comp=Z,5.5nm,0.9s
DUG **Dugway, Tooele** 40.05 84 P P 17 15 30.9 +1.7
comp=Z,7.6nm,1.1s
BW06 **Boulder Array** 40.54 79 P P 17 15 33.5 +0.2
BW06 IAmb IAmb 17 15 50.9
comp=Z,6.1nm,0.9s
PD31 **Pinedale Array** 40.54 79 P 17 15 33.6 +0.3
PD31 IAmb IAmb 17 15 50.9
comp=Z,6.5nm,1.0s
PDAR **Pinedale Array** 40.54 79 P P 17 15 34.5 +1.2
comp=Z,3.1nm,0.6s,baz=301,slow=4.6,SNR=28
comp=Z,3.1nm,0.6s
PDAR **Pinedale Array** 40.54 79 P 17 15 33.1 -0.2
GSC **Goldstone, Bar** 40.66 93 IAmb IAmb 17 16 21.1
comp=Z,6.7nm,1.1s
BNX **BinXian** 40.78 287 ⇑P P 17 15 34.3 -0.6
BNX pmax pmax
comp=Z,5.0nm,0.6s
JHJ2 **Mitsune** 40.89 263 P P 17 15 36.7 +0.7
FCC **Fort Churchill** 41.19 50 IAmb IAmb 17 15 51.9
comp=Z,14nm,0.9s
TMUT **Trail Mountain** 41.58 84 IAmb IAmb 17 15 58.6
comp=Z,6.9nm,0.9s
P18A **Preston Nutter** 41.97 83 P P 17 15 45.3 +0.1
P18A IAmb IAmb 17 16 08.2
comp=Z,14nm,1.2s
PFO **Pinyon Flats O** 42.00 95 LR LR 17 31 45.8
comp=Z,98nm,18.2s,baz=300,slow=34
HMU **Henry Mountain** 42.71 85 IAmb IAmb 17 16 19.6
comp=Z,6.9nm,0.8s
U15A **North Rim** 42.71 88 P 17 15 50.0 -1.2
O20A **White River Ci** 42.89 81 IAmb IAmb 17 16 09.3
comp=Z,12nm,0.7s
HILR **Hailar Array B** 43.14 296 P P 17 15 53.7 -0.5
comp=Z,1.3nm,0.4s,baz=53,slow=9.6,SNR=2.6
comp=Z,1.3nm,0.4s
PV21 **Cone Mtn., Par** 43.41 83 IAmb IAmb 17 16 14.1
comp=Z,16nm,1.0s
PV10 **Paradox Valley** 43.48 84 IAmb IAmb 17 16 13.1
comp=Z,16nm,1.0s
PV22 **Blue Mesa, Par** 43.54 83 IAmb IAmb 17 16 14.0
comp=Z,15nm,0.9s
PV04 **Paradox Valley** 43.55 83 IAmb IAmb 17 16 14.8
comp=Z,13nm,0.9s
PV17 **East Wray Mesa** 43.59 84 P P 17 15 58.1 -0.1
PV16 **Nyswonger Mesa** 43.60 84 IAmb IAmb 17 16 23.5
comp=Z,17nm,1.0s
PV18 **Skein Mesa, Pa** 43.64 84 IAmb IAmb 17 16 13.9
comp=Z,14nm,0.9s
PV03 **Paradox Valley** 43.67 84 P P 17 15 57.9 -1.0
PV03 IAmb IAmb 17 16 13.6
comp=Z,17nm,1.0s
PV07 **Paradox Valley** 43.68 83 IAmb IAmb 17 16 14.1
comp=Z,8.9nm,0.8s
JCJ **Chichijima** 43.75 254 LR LR 17 39 54.6
comp=Z,13nm,18.1s,baz=45,slow=44
ULM **Lac du Bonnet** 44.36 62 P P 17 16 03.8 -0.1
comp=Z,2.6nm,0.5s,baz=291,slow=6.7,SNR=8.9
ULM LR LR 17 35 56.0
comp=Z,126nm,18.2s,baz=331,slow=38
comp=Z,2.6nm,0.5s
ULM **Lac du Bonnet** 44.36 62 IAmb IAmb 17 16 20.9
comp=Z,17nm,1.5s
NEEM **North Greenlan** 45.29 16 *i*P P 17 16 11.7 +0.4
NEEM IAmb IAmb 17 16 12.1
comp=Z,13nm,0.6s
KSRS **Korea Array** 45.36 277 P P 17 16 12.6 +0.6
comp=Z,2.5nm,0.8s,baz=52,slow=7.8,SNR=12
KSRS LR LR 17 32 51.4
comp=Z,44nm,21.9s,baz=55,slow=33
comp=Z,2.5nm,0.8s
KS19 **Wonju Array Si** 45.36 277 P P 17 16 10.7 -1.4
KSAR **Wonju Array Be** 45.39 277 P P 17 16 11.7 -0.5
AGMN **Agassiz Nation** 45.43 64 IAmb IAmb 17 16 13.7
comp=Z,6.4nm,0.8s
NOR **Nord** 45.77 5 *i*P P 17 16 14.8 0.0
NOR IAmb IAmb 17 16 15.4
comp=Z,3.0nm,0.8s
EPLO **Experimental L** 45.84 61 IAmb IAmb 17 16 16.9
comp=Z,7.2nm,0.7s
TUC **Tucson** 46.38 91 P P 17 16 21.2 +1.0
TUC IAmb IAmb 17 16 40.9
comp=Z,4.2nm,1.0s
TUC **Tucson** 46.38 91 P P 17 16 21.3 +1.0
comp=Z,4.0nm,1.0s
TJN **Taejon** 46.39 276 P P 17 16 20.5 +0.3
NRIK **Noril'sk** 46.64 332 P P 17 16 20.5 -1.2
comp=Z,3.6nm,0.4s,baz=79,slow=8.4,SNR=6.4
comp=Z,3.6nm,0.4s
NRIK **Noril'sk** 46.64 332 P P 17 16 21.4 -0.3
NRIK IAmb IAmb 17 16 22.1
comp=Z,4.7nm,0.6s
ANMO **Albuquerque** 47.27 85 LR LR 17 34 16.0
comp=Z,68nm,20.5s,baz=326,slow=34
ANMO **Albuquerque** 47.27 85 P P 17 16 29.9 +2.5
comp=Z,3.5nm,0.5s
Y22A **Socorro** 47.63 87 IAmb IAmb 17 16 54.9
comp=Z,9.7nm,0.9s
ECSD **EROS Data Cent** 47.65 70 P 17 16 29.6 -0.3
ECSD IAmb IAmb 17 16 30.2
comp=Z,5.0nm,0.6s
121A **Cookes Peak, D** 48.08 89 IAmb IAmb 17 16 57.6
comp=Z,4.5nm,0.9s
SPA0 **Spitsbergen Ar** 49.95 358 eP P 17 16 47.0 -0.1
SPITS **Spitsbergen Ar** 49.95 358 P P 17 16 46.4 -0.8
comp=Z,9.9nm,0.7s,baz=46,slow=6.0,SNR=12
comp=Z,9.9nm,0.7s
SPB2 **Spitsbergen Ar** 49.96 358 P P 17 16 46.5 -0.7
DAG **Danmarks Havn** 50.09 8 P P 17 16 48.2 +0.1
comp=Z,20nm,0.8s
DAG **Danmarks Havn** 50.09 8 *i*P P 17 16 47.8 -0.3
DAG IAmb IAmb 17 16 48.5
comp=Z,12nm,0.5s
MNTX **Cornudas Mount** 50.13 88 IAmb IAmb 17 17 07.0
comp=Z,4.5nm,0.8s
MNTX **Cornudas Mount** 50.13 88 P P 17 16 51.0 +1.9
comp=Z,7.3nm,0.8s
MSTX **Muleshoe** 50.19 84 IAmb IAmb 17 17 05.0
comp=Z,8.3nm,0.9s
TLY **Talaya** 50.44 306 P P 17 16 51.0 -0.2
comp=Z,5.3nm,0.6s,baz=116,slow=21,SNR=3.5
comp=Z,5.3nm,0.6s
TLY **Talaya** 50.44 306 P 17 16 51.9 +0.6
SMWD **Samnorwood** 50.98 81 IAmb IAmb 17 17 00.3
comp=Z,5.3nm,0.7s
VHRN **Van Horn** 51.01 88 IAmb IAmb 17 17 11.4
comp=Z,4.8nm,0.8s
ULN **Ulaanbaatar** 51.01 301 P P 17 16 55.7 0.0
ULN IAmb IAmb 17 17 15.6
comp=Z,3.9nm,1.0s
SUMG **Summit** 51.08 17 P P 17 16 56.1 -0.1
SUMG **Summit** 51.08 17 P P 17 16 57.3 +1.1
comp=Z,18nm,0.8s
SUMG **Summit** 51.08 17 *i*P P 17 16 57.0 +0.8
SUMG IAmb IAmb 17 16 57.9
comp=Z,13nm,0.7s
SONM **Songino Array** 51.38 301 P P 17 16 58.3 -0.2
comp=Z,1.3nm,0.8s,baz=80,slow=5.6,SNR=9.1
SONM PcP PcP 17 18 14.1 +1.5
comp=Z,1.6nm,0.8s,baz=54,slow=2.5,SNR=4.9
SONM LR LR 17 40 51.7
comp=Z,220nm,18.6s,baz=70,slow=39
comp=Z,1.3nm,0.8s
SONM **Songino Array** 51.38 301 P P 17 16 57.5 -0.9
SONM IAmb IAmb 17 17 11.8
comp=Z,5.2nm,1.4s
POST **Post** 51.58 84 IAmb IAmb 17 17 15.2
comp=Z,9.1nm,0.9s

P38A	**Dawn**	**52.02**	**72**	IAmb	IAmb	17 17 06.4			
	comp=Z,7.3nm,0.7s								
WMOK	**Wichita Mounta**	**52.11**	**80**	IAmb	IAmb	17 17 24.2			
	comp=Z,4.7nm,0.9s								
WMOK	**Wichita Mounta**	**52.11**	**80**	P	**P**	**17 17 04.5**	**+0.6**		
	comp=Z,5.7nm,1.0s								
DBG	**Daneborg**	**52.21**	**10**	*i* P	**P**	**17 17 04.0**	**0.0**		
DBG				IAmb	IAmb	17 17 04.5			
	comp=Z,14nm,0.5s								
SFJD	**Kangerlussuaq**	**52.67**	**26**	LR	LR	17 41 03.1			
	comp=Z,73nm,20.8s,baz=350,slow=38								
TX31	**Lajitas Ar. Si**	**52.84**	**89**		**P**	**17 17 10.0**	**+0.5**		
TX31				IAmb	IAmb	17 17 24.5			
	comp=Z,5.6nm,0.8s								
TXAR	**Lajitas Array**	**52.84**	**89**	P	**P**	**17 17 10.6**	**+1.2**		
	comp=Z,1.7nm,0.5s,baz=301,slow=5.7,SNR=15								
	comp=Z,1.7nm,0.5s								
TXAR	**Lajitas Array**	**52.84**	**89**		**P**	**17 17 09.6**	**+0.2**		
E46A	**Sault Ste Mari**	**52.88**	**60**	P	**P**	**17 17 09.8**	**+0.3**		
HHC	**Hu-ho-hao-te**	**52.95**	**291**	*e*P	**P**	**17 17 12.0**	**+1.9**		
HHC				pmax	pmax				
	comp=Z,9.0nm,0.7s								
HHC				pmax	pmax				
	comp=Z,82nm,4.2s								
HNS	**HongShan**	**53.38**	**286**	ǁP	**P**	**17 17 15.0**	**+1.8**		
HNS				pmax	pmax				
	comp=Z,15nm,0.8s								
R40A	**Maddies Statio**	**53.64**	**72**	IAmb	IAmb	17 17 27.9			
	comp=Z,5.2nm,0.8s								
BTO2	**Baotou**	**53.98**	**292**	*e*P	**P**	**17 17 19.0**	**+1.2**		
BTO2				pmax	pmax				
	comp=Z,22nm,0.7s								
BTO2				pmax	pmax				
	comp=Z,280nm,8.5s								
BRDY	**Brady**	**54.34**	**83**	IAmb	IAmb	17 17 35.6			
	comp=Z,6.2nm,0.9s								
NJ2	**Nanjing**	**54.51**	**278**	*e*P	**P**	**17 17 22.5**	**+1.0**		
NJ2				pmax	pmax				
	comp=Z,9.0nm,0.5s								
FCAR	**Ozark Folk Cen**	**55.34**	**74**	IAmb	IAmb	17 17 39.8			
	comp=Z,11nm,1.1s								
SCO	**Scoresbysund**	**55.52**	**13**	P	**P**	**17 17 28.3**	**0.0**		
SCO	**Scoresbysund**	**55.52**	**13**	*i* P	**P**	**17 17 28.9**	**+0.6**		
SCO				IAmb	IAmb	17 17 29.7			
	comp=Z,12nm,0.8s								
SCHQ	**Schefferville**	**55.70**	**43**	P	**P**	**17 17 30.1**	**+0.3**		
	comp=Z,7.0nm,0.9s,baz=292,slow=6.5,SNR=5.6								
SCHQ				LR	LR	17 43 54.3			
	comp=Z,121nm,18.5s,baz=328,slow=39								
	comp=Z,7.0nm,0.9s								
SCHQ	**Schefferville**	**55.70**	**43**	P	**P**	**17 17 29.8**	**0.0**		
LYN	**LuoYang**	**56.64**	**285**	P	**P**	**17 17 38.0**	**+1.2**		
LYN				pmax	pmax				
	comp=Z,25nm,0.6s								
VADS	**Vadso**	**57.34**	**352**	*e*P	**P**	**17 17 41.5**	**+0.3**		
ZAA0	**Zalesovo Array**	**57.58**	**318**		**P**	**17 17 42.3**	**-0.8**		
ZAA0				IAmb	IAmb	17 17 43.9			
	comp=Z,1.9nm,0.6s								
ZALV	**Zalesovo Beam**	**57.58**	**318**	P	**P**	**17 17 42.7**	**-0.4**		
	comp=Z,1.7nm,0.4s,baz=36,slow=5.6,SNR=11								
ZALV				LR	LR	17 46 01.4			
	comp=Z,62nm,18.7s,baz=15,slow=40								
	comp=Z,1.7nm,0.4s								
ZALV	**Zalesovo Beam**	**57.58**	**318**		**P**	**17 17 42.4**	**-0.7**		
KEV	**Kevo**	**57.88**	**353**	P	**P**	**17 17 45.2**	**+0.2**		
ARA0	**ARCESS Array S**	**58.20**	**354**	*e*P	**P**	**17 17 47.2**	**0.0**		
ARCES	**ARCESS Array B**	**58.20**	**354**	P	**P**	**17 17 46.7**	**-0.6**		
	comp=Z,7.1nm,0.9s,baz=16,slow=8.8,SNR=21								
ARCES				LR	LR	17 45 04.0			
	comp=Z,92nm,18.4s,baz=345,slow=38								
	comp=Z,7.1nm,0.9s								
ARCES	**ARCESS Array B**	**58.20**	**354**	P	**P**	**17 17 46.5**	**-0.8**		
TRO	**Tromso**	**58.44**	**357**	*e*P	**P**	**17 17 49.4**	**+0.5**		
JETT	**Jettan, Norway**	**58.46**	**356**	*e*P	**P**	**17 17 49.5**	**+0.3**		
U49A	**Red Boiling Sp**	**58.63**	**70**	IAmb	IAmb	17 17 54.8			
	comp=Z,9.6nm,1.5s								
KTK1	**Kautokeino**	**58.86**	**355**	*e*P	**P**	**17 17 52.3**	**+0.4**		
XAN	**Xi'an**	**59.10**	**287**	P	**P**	**17 17 55.3**	**+1.2**		
XAN				pP	pwP	17 18 07.0	-2.5		
XAN				pmax	pmax				
	comp=Z,7.0nm,1.5s								
YULB	**Yu-li**	**59.20**	**269**	P	**P**	**17 17 56.1**	**+1.2**		
L56A	**Greenwood**	**59.31**	**60**		**P**	**17 17 55.1**	**-0.3**		
J59A	**Piesco**	**59.98**	**57**	P	**P**	**17 17 60.0**	**-0.1**		
J59A				IAmb	IAmb	17 18 01.4			
	comp=Z,4.2nm,0.6s								
FPAL	**Fort Paine**	**60.11**	**71**		**P**	**17 18 00.1**	**-0.9**		
FPAL				IAmb	IAmb	17 18 13.7			
	comp=Z,5.5nm,0.9s								
STEI	**Steigen**	**60.26**	**358**	*e*P	**P**	**17 18 01.1**	**-0.4**		
GTA2	**Gaotai**	**60.51**	**297**	*e*P	**P**	**17 18 03.8**	**-0.1**		
GTA2				pmax	pmax				
	comp=Z,6.0nm,0.7s								
GTA2				L	L				
	comp=Z,150nm,13.0s								
GTA2				L	L				
	comp=Z,120nm,13.3s								
GTA2				L	L				
	comp=Z,280nm,15.2s								
FAUS	**Fauske**	**60.80**	**358**	*e*P	**P**	**17 18 05.4**	**+0.2**		
BORG	**Borgarnes**	**60.93**	**15**	LR	LR	17 48 08.7			
	comp=Z,52nm,18.0s,baz=349,slow=40								
BLA	**Blacksburg**	**61.20**	**66**		**P**	**17 18 08.7**	**+0.2**		
KONS	**Konsvik**	**61.73**	**359**	*e*P	**P**	**17 18 12.0**	**+0.5**		
RAUS	**Rausandaksla**	**61.78**	**358**	*e*P	**P**	**17 18 12.2**	**+0.4**		
LEIR	**Leirfjorden**	**62.12**	**359**	*e*P	**P**	**17 18 14.4**	**+0.3**		
KURK	**Kurchatov**	**62.53**	**318**		**P**	**17 18 17.1**	**0.0**		
KURK	**Kurchatov**	**62.53**	**318**	P	**P**	**17 18 17.8**	**+0.7**		
	comp=Z,9.4nm,0.6s								
KURBB	**Kurchatov Arra**	**62.64**	**318**	P	**P**	**17 18 18.1**	**+0.3**		
	comp=Z,3.9nm,0.6s,baz=44,slow=8.1,SNR=17								
	comp=Z,3.9nm,0.6s								
T59A	**Double "B" Far**	**62.97**	**64**		**P**	**17 18 20.8**	**+0.6**		
LMN	**Caledonia Moun**	**63.04**	**49**	P	**P**	**17 18 20.6**	**0.0**		
NSS	**Namsos**	**63.72**	**359**	*e*P	**P**	**17 18 24.3**	**-0.5**		
BORK	**Borovoye**	**63.90**	**324**		**P**	**17 18 25.8**	**-0.3**		
MK31	**Makanchi Array**	**63.94**	**313**	P	**P**	**17 18 26.0**	**-0.6**		
MK31				IAmb	IAmb	17 18 56.7			
	comp=Z,3.4nm,1.1s								
MKAR	**Makanchi Array**	**63.94**	**313**	P	**P**	**17 18 25.8**	**-0.8**		
	comp=Z,1.1nm,0.4s,baz=53,slow=6.8,SNR=33								
	comp=Z,1.1nm,0.4s								
MKAR	**Makanchi Array**	**63.94**	**313**	P	**P**	**17 18 25.5**	**-1.0**		
MAKZ	**Makanchi**	**64.07**	**314**	P	**P**	**17 18 26.5**	**-0.9**		
ARTI	**Arti**	**64.92**	**333**		**P**	**17 18 32.4**	**-0.4**		
MOL	**Molde**	**65.67**	**1**	*e*P	**P**	**17 18 37.8**	**+0.3**		
AKN	**Aaknes**	**66.05**	**2**	*e*P	**P**	**17 18 40.5**	**+0.5**		
FIA1	**FINESS Array S**	**66.14**	**352**	P	**P**	**17 18 39.8**	**-0.7**		
FINES	**FINESS Array B**	**66.14**	**352**	P	**P**	**17 18 40.1**	**-0.4**		
	comp=Z,5.2nm,0.6s,baz=14,slow=7.4,SNR=41								
FINES				LR	LR	17 49 43.7			
	comp=Z,92nm,18.4s,baz=323,slow=38								
	comp=Z,5.2nm,0.6s								
FINES	**FINESS Array B**	**66.14**	**352**	P	**P**	**17 18 40.0**	**-0.6**		
DOMB	**Dombas**	**66.22**	**1**	*e*P	**P**	**17 18 41.2**	**+0.1**		
NC204	**NORSAR Array S**	**66.99**	**360**	P	**P**	**17 18 45.4**	**-0.7**		
NB2	**NORSAR Subarra**	**67.23**	**360**	P	**P**	**17 18 47.7**	**+0.1**		
	comp=Z,7.7nm,0.6s,baz=360,slow=6.5								
NB2	**NORSAR Subarra**	**67.23**	**360**	P	**P**	**17 18 47.0**	**-0.5**		
NB2				AMP		17 18 47.0			
NOA	**NORSAR Array B**	**67.23**	**360**	P	**P**	**17 18 47.6**	**+0.1**		
	comp=Z,3.1nm,0.6s,baz=0.3,slow=6.3,SNR=21								
	comp=Z,3.1nm,0.6s								
NC602	**NORSAR Array S**	**67.53**	**359**	*e*P	**P**	**17 18 49.8**	**+0.4**		
SKAR	**Skarslia**	**67.58**	**1**	*e*P	**P**	**17 18 50.4**	**+0.6**		
HFS	**Hagfors**	**68.11**	**358**	P	**P**	**17 18 53.1**	**+0.1**		
	comp=Z,8.3nm,0.5s,baz=30,slow=3.9,SNR=47								
	comp=Z,8.3nm,0.5s								
KONO	**Kongsberg**	**68.62**	**0**	P	**P**	**17 18 56.8**	**+0.6**		
KONO	**Kongsberg**	**68.62**	**0**	*e*P	**P**	**17 18 57.2**	**+1.0**		
WUS	**Wushi**	**69.68**	**311**	IAmb	IAmb	17 19 23.2			
	comp=Z,6.0nm,0.9s								
BOOM	**Boomskoye usch**	**70.13**	**314**	P	**P**	**17 19 06.7**	**+0.6**		
MSVF	**Nonsavu**	**70.36**	**193**	LR	LR	17 47 03.2			
	comp=Z,41nm,18.4s,baz=60,slow=33								
AB31	**Akbulak array**	**70.64**	**328**		**P**	**17 19 08.8**	**0.0**		
AB31				IAmb	IAmb	17 19 10.3			
	comp=Z,5.3nm,1.1s								
ABKAR	**Akbulak array**	**70.64**	**328**		**P**	**17 19 08.7**	**-0.1**		
AAK	**Ala-Archa**	**70.64**	**315**	LR	LR	17 52 42.2			
	comp=Z,73nm,19.1s,baz=23,slow=38								
PPT2	**Papeete2**	**71.52**	**160**	*e*LR	LR	17 40 54.9			
	comp=Z,46nm,23.8s								
KK31	**Karatay Array**	**71.95**	**318**		**P**	**17 19 17.2**	**+0.2**		
KK31				IAmb	IAmb	17 19 18.1			
	comp=Z,5.8nm,0.7s								

KKAR	**Karatay Array**	**71.95**	**318**		**P**	**17 19 16.9**	**0.0**		
PABE	**Paberze**	**72.20**	**352**	P	**P**	**17 19 17.9**	**-0.3**		
PABE	**Paberze**	**72.20**	**352**	P	**P**	**17 19 18.8**	**+0.7**		
	comp=Z,40nm,0.7s								
EKA	**Eskdalemuir Ar**	**72.35**	**8**	P	**P**	**17 19 19.5**	**+0.5**		
	comp=Z,2.8nm,0.7s,baz=348,slow=4.6,SNR=13								
	comp=Z,2.8nm,0.7s								
KSH2	**Kashi**	**73.00**	**312**	P	**P**	**17 19 24.5**	**+1.1**		
KSH2				pmax	pmax				
	comp=Z,6.0nm,1.0s								
RAR	**Rarotonga**	**73.47**	**171**	LR	LR	17 45 47.1			
	comp=Z,41nm,19.8s,baz=186,slow=31								
BTK	**Batken**	**74.34**	**316**	IAmb	IAmb	17 19 32.8			
	comp=Z,7.5nm,0.8s								
BTK	**Batken**	**74.34**	**316**	P	**P**	**17 19 32.1**	**+0.9**		
	comp=Z,11nm,0.9s								
EVN	**Everest**	**76.24**	**298**		**P**	**17 19 42.6**	**-0.4**		
EVN				IAmb	IAmb	17 19 46.0			
	comp=Z,3.3nm,0.6s								
AK21	**Malin Array Si**	**76.32**	**348**	P	**P**	**17 19 41.2**	**-1.0**		
CHTO	**Chiang Mai**	**76.33**	**283**	P	**P**	**17 19 43.5**	**+0.7**		
CHTO				IAmb	IAmb	17 20 09.1			
	comp=Z,13nm,1.5s								
AK22	**Malin Array Si**	**76.33**	**348**	P	**P**	**17 19 41.3**	**-1.0**		
AK03	**Malin Array Si**	**76.35**	**348**	P	**P**	**17 19 41.3**	**-1.1**		
AK04	**Malin Array Si**	**76.36**	**348**	P	**P**	**17 19 41.7**	**-0.7**		
AK20	**Malin Array Si**	**76.36**	**348**	P	**P**	**17 19 41.4**	**-1.0**		
AK18	**Malin Array Si**	**76.37**	**348**	P	**P**	**17 19 41.6**	**-0.9**		
AKASG	**Malin Array Be**	**76.37**	**348**	P	**P**	**17 19 42.1**	**-0.4**		
	comp=Z,4.0nm,0.5s,baz=17,slow=5.7,SNR=12								
	comp=Z,4.0nm,0.5s								
AKBB	**Malin Array Si**	**76.37**	**348**	P	**P**	**17 19 41.5**	**-1.0**		
AK19	**Malin Array Si**	**76.38**	**348**	P	**P**	**17 19 41.6**	**-0.9**		
KIEV	**Kiev**	**76.38**	**348**	P	**P**	**17 19 42.4**	**-0.1**		
KIEV				IAmb	IAmb	17 19 42.9			
	comp=Z,5.9nm,0.6s								
KIEV	**Kiev**	**76.38**	**348**	P	**P**	**17 19 41.5**	**-1.0**		
AK01	**Malin Array Si**	**76.38**	**348**	P	**P**	**17 19 41.6**	**-1.0**		
AK14	**Malin Array Si**	**76.45**	**348**	P	**P**	**17 19 41.7**	**-1.3**		
AK10	**Malin Array Si**	**76.47**	**348**	P	**P**	**17 19 42.1**	**-0.9**		
CM31	**Chiang Mai Arr**	**76.60**	**283**	P	**P**	**17 19 44.5**	**+0.1**		
CM31				IAmb	IAmb	17 19 54.2			
	comp=Z,8.3nm,0.9s								
CMAR	**Chiang Mai Arr**	**76.60**	**283**	P	**P**	**17 19 45.9**	**+1.5**		
	comp=Z,3.8nm,0.8s,baz=24,slow=6.5,SNR=16								
	comp=Z,3.8nm,0.8s								
CMAR	**Chiang Mai Arr**	**76.60**	**283**		**P**	**17 19 44.8**	**+0.5**		
CLL	**Collm**	**76.96**	**358**	*i* P	**P**	**17 19 46.1**	**+0.3**		
	comp=Z,5.0nm,1.1s								
CLL				*e*pP	**pP**	**17 19 58.0**	**+0.6**		
NPW	**Naypyitaw**	**77.26**	**286**	P	**P**	**17 19 49.4**	**+1.4**		
	comp=Z,13nm,1.0s								
LUBAR	**Lubar, Ukraine**	**77.32**	**349**	P	**P**	**17 19 47.3**	**-0.6**		
KSP	**Ksiaz**	**77.33**	**356**	P	**P**	**17 19 47.9**	**0.0**		
	comp=Z,5.6nm,2.9s								
CHVC	**Chvalec**	**77.60**	**356**	*e*P	**P**	**17 19 50.5**	**+1.0**		
UPC	**Upice**	**77.68**	**356**	*e*P	**P**	**17 19 51.2**	**+1.3**		
OJC	**Ojcow**	**77.77**	**354**	P	**P**	**17 19 49.7**	**-0.7**		
DPC	**Dobruska-Polom**	**77.83**	**356**	*e*P	**P**	**17 19 52.1**	**+1.3**		
DPC	**Dobruska-Polom**	**77.83**	**356**	P	**P**	**17 19 50.2**	**-0.6**		
	comp=Z,6.2nm,1.8s								
BMRD	**Maredsous**	**77.88**	**4**	*d*P	**P**	**17 19 51.9**	**+0.9**		
NKC	**Novy Kostel**	**78.05**	**359**	*e*P	**P**	**17 19 52.9**	**+0.9**		
KRLC	**Kraliky**	**78.08**	**356**	*e*P	**P**	**17 19 53.4**	**+1.2**		
KWP	**Kalwaria Pacla**	**78.13**	**352**	P	**P**	**17 19 51.9**	**-0.5**		
	comp=Z,18nm,1.0s								
STEB	**Storice**	**78.17**	**355**	*e*P	**P**	**17 19 53.5**	**+0.9**		
MORC	**Moravsky Berou**	**78.34**	**355**	*e*P	**P**	**17 19 54.4**	**+0.8**		
NIL	**Nilore**	**78.56**	**311**	P	**P**	**17 19 56.7**	**+1.6**		
	comp=Z,11nm,0.7s								
MAUC	**Maruska**	**78.74**	**355**	*e*P	**P**	**17 19 57.2**	**+1.4**		
ZVC	**Zvikov**	**78.81**	**358**	*e*P	**P**	**17 19 57.4**	**+1.3**		
KMPD	**K-Podol'skiy**	**78.81**	**349**	P	**P**	**17 19 54.8**	**-1.3**		
VRAC	**Vranov**	**78.85**	**356**	LR	LR	17 54 49.7			
	comp=Z,52nm,18.9s,baz=353,slow=36								
VRAC	**Vranov**	**78.85**	**356**	*e*P	**P**	**17 19 57.6**	**+1.2**		
KRUC	**Moravsky**	**79.11**	**356**	*e*P	**P**	**17 19 58.6**	**+0.8**		
KHC	**Kasperske Hory**	**79.13**	**358**	IAmb	IAmb	17 20 00.7			
	comp=Z,8.2nm,1.3s								
KHC	**Kasperske Hory**	**79.13**	**358**	*e*P	**P**	**17 19 59.3**	**+1.3**		
JAVC	**Velka Javorina**	**79.25**	**355**	*e*P	**P**	**17 20 00.7**	**+2.1**		
GERES	**GERESS Array B**	**79.41**	**358**	P	**P**	**17 20 00.7**	**+1.1**		
	comp=Z,1.8nm,0.8s,baz=2.9,slow=5.3,SNR=7.2								
	comp=Z,1.8nm,0.8s								
CKRC	**Cesky Krumlov**	**79.42**	**357**	*e*P	**P**	**17 19 59.9**	**+0.4**		
ABNA	**Allensteig Bun**	**79.54**	**357**	*e*P	**P**	**17 20 01.0**	**+0.8**		
	comp=Z,2.2nm,0.6s								
TRPA	**Tarpa**	**79.64**	**352**	P	**P**	**17 20 02.0**	**+1.4**		
	comp=Z,8.7nm,1.5s								
KBL	**Kabul**	**79.73**	**314**		**P**	**17 20 01.6**	**-0.1**		
KBL				IAmb	IAmb	17 20 02.3			
	comp=Z,6.8nm,0.8s								
KBL	**Kabul**	**79.73**	**314**	P	**P**	**17 20 01.4**	**-0.3**		
	comp=Z,6.7nm,1.3s								
BUR08	**Bucovina Ar. S**	**79.86**	**350**		**P**	**17 20 02.6**	**+0.5**		
BUR08				IAmb	IAmb	17 20 03.4			
	comp=Z,5.6nm,1.2s								
BURAR	**Bucovina Array**	**79.89**	**350**	P	**P**	**17 20 01.8**	**-0.4**		
WINA	**Alland / Wiene**	**80.08**	**356**	*e*P	**P**	**17 20 03.5**	**+0.5**		
	comp=Z,5.1nm,1.2s								
CONA	**Conrad Observa**	**80.26**	**356**	*e*P	**P**	**17 20 05.1**	**+0.9**		
	comp=Z,8.4nm,1.1s								
KIV	**Kislovodsk**	**80.38**	**337**	P	**P**	**17 20 04.6**	**-0.3**		
KBZ	**Khabaz**	**80.54**	**337**	P	**P**	**17 20 07.3**	**+1.7**		
	comp=Z,4.0nm,0.7s,baz=93,slow=3.2,SNR=7.8								
	comp=Z,4.0nm,0.7s								
BIOA	**Bad Ischl, Aus**	**80.57**	**358**	*e*P	**P**	**17 20 07.2**	**+1.4**		
	comp=Z,0.5nm,0.4s								
RETA	**Reutte**	**80.81**	**360**	*e*P	**P**	**17 20 07.0**	**-0.1**		
	comp=Z,0.4nm,0.4s								
LESA	**Schwarzleotal**	**80.86**	**359**	*e*P	**P**	**17 20 07.6**	**+0.2**		
	comp=Z,0.6nm,0.4s								
ARSA	**Arzberg**	**80.95**	**357**	*e*P	**P**	**17 20 07.8**	**0.0**		
	comp=Z,2.0nm,0.8s								
WATA	**Walderalm**	**80.96**	**359**	*e*P	**P**	**17 20 08.9**	**+0.9**		
	comp=Z,0.3nm,0.3s								
WTTA	**Wattenberg**	**81.03**	**359**	*e*P	**P**	**17 20 09.1**	**+0.7**		
	comp=Z,3.2nm,0.7s								
SQTA	**Sankt Quirin**	**81.08**	**360**	*e*P	**P**	**17 20 09.2**	**+0.6**		
	comp=Z,0.1nm,0.2s								
SESA	**Seetaler Alpe,**	**81.12**	**357**	*e*P	**P**	**17 20 09.9**	**+0.9**		
	comp=Z,2.7nm,0.7s								
KBA	**Koelnbreinsper**	**81.19**	**358**	*e*P	**P**	**17 20 10.4**	**+1.1**		
	comp=Z,0.3nm,0.3s								
KBA	**Koelnbreinsper**	**81.19**	**358**	P	**P**	**17 20 09.5**	**+0.2**		
	comp=Z,18nm,1.1s								
FETA	**Feichten**	**81.28**	**360**	*e*P	**P**	**17 20 09.5**	**-0.2**		
	comp=Z,3.4nm,0.8s								
DAVOX	**Davos/Dischmat**	**81.52**	**0**	LR	LR	17 58 26.1			
	comp=Z,92nm,18.1s,baz=352,slow=37								
SOKA	**Soboth**	**81.54**	**357**	*e*P	**P**	**17 20 12.0**	**+1.0**		
	comp=Z,2.9nm,0.7s								
MYKA	**Terra Mystica**	**81.63**	**358**	*e*P	**P**	**17 20 10.6**	**-0.9**		
	comp=Z,10nm,1.6s								
OBKA	**Obir**	**81.73**	**357**	*e*P	**P**	**17 20 12.3**	**+0.3**		
	comp=Z,7.0nm,0.9s								
MLR	**Muntele Rosu**	**81.90**	**349**	P	**P**	**17 20 13.1**	**+0.1**		
MLR				IAmb	IAmb	17 20 23.7			
	comp=Z,4.5nm,1.1s								
GNI	**Garni**	**83.43**	**334**	LR	LR	18 04 34.6			
	comp=Z,56nm,18.4s,baz=358,slow=41								
SOEI	**Soe**	**83.53**	**245**	P	**P**	**17 20 21.6**	**-0.2**		
KELT	**Kelkit**	**84.80**	**338**	P	**P**	**17 20 29.3**	**+1.2**		
	comp=Z,54nm,0.9s								
KULM	**Kulim**	**85.77**	**273**	P	**P**	**17 20 31.1**	**-2.0**		
BRTR	**Keskin Array B**	**86.37**	**342**	LR	LR	18 03 47.0			
	comp=Z,41nm,19.3s,baz=356,slow=39								
ALN	**Alexandronpoli**	**86.42**	**348**	P	**P**	**17 20 36.4**	**+0.6**		
KNT	**Kendrikon**	**86.51**	**351**	P	**P**	**17 20 35.5**	**-0.8**		
	comp=Z,11nm,1.1s								
WB0	**Warramunga Arr**	**86.58**	**232**	P	**P**	**17 20 36.1**	**-0.7**		
WR0	**Warramunga Arr**	**86.68**	**231**	P	**P**	**17 20 36.7**	**-0.5**		
WR0				IAmb	IAmb	17 20 50.6			
	comp=Z,3.9nm,1.1s								
WR8	**Warramunga Arr**	**86.69**	**231**	P	**P**	**17 20 36.3**	**-1.0**		
WR8				IAmb	IAmb	17 20 38.4			
	comp=Z,8.0nm,1.3s								
WRA	**Warramunga Arr**	**86.76**	**232**	P	**P**	**17 20 37.0**	**-0.7**		
	comp=Z,1.1nm,0.6s,baz=33,slow=5.5,SNR=16								
	comp=Z,1.1nm,0.6s								
WRA	**Warramunga Arr**	**86.76**	**232**	IAmb	IAmb	17 20 37.5			
	comp=Z,0.4nm,1.5s								
GRG	**Griva**	**86.76**	**351**	P	**P**	**17 20 37.6**	**+0.1**		
	comp=Z,17nm,1.6s								
ESDC	**Sonseca Array**	**87.75**	**11**	P	**P**	**17 20 41.8**	**-0.7**		
	comp=Z,2.0nm,0.9s,baz=347,slow=4.9,SNR=9.8								
	comp=Z,2.0nm,0.9s								
ESDC	**Sonseca Array**	**87.75**	**11**	P	**P**	**17 20 42.1**	**-0.3**		
QLP	**Quilpie**	**88.18**	**220**	P	**P**	**17 20 46.1**	**+1.8**		
	comp=Z,22nm,0.9s								
RPSI	**Rantau Prapat**	**88.86**	**273**	P	**P**	**17 20 48.8**	**+0.8**		
	comp=Z,18nm,1.2s								
ASAR	**Alice Springs**	**90.15**	**230**	P	**P**	**17 20 54.2**	**+0.6**		
	comp=Z,3.2nm,0.8s,baz=26,slow=4.9,SNR=27								
	comp=Z,3.2nm,0.8s								
ASAR	**Alice Springs**	**90.15**	**230**		**P**	**17 20 54.0**	**+0.3**		
STKA	**Stephens Creek**	**93.92**	**220**	P	**P**	**17 21 11.7**	**+0.8**		
	comp=Z,1.2nm,0.5s,baz=333,slow=10,SNR=3.8								
	comp=Z,1.2nm,0.5s								
QSPA	**South Pole Qui**	**141.84**	**180**	PKhKP	PKPpre	17 27 18.4			
	comp=Z,0.7nm,0.5s,baz=249,slow=1.1,SNR=14								
MAW	**Mawson**	**150.60**	**218**	PKPbc	**PKiKP**	**17 27 45.2**	**+0.7**		
	comp=Z,2.7nm,0.8s,baz=24,slow=4.6,SNR=4.4								
BOSA	**Boshof**	**154.10**	**329**	PKPbc	**PKPbc**	**17 27 53.1**	**-0.1**		
	comp=Z,1.5nm,0.5s,baz=357,slow=2.2,SNR=4.2								
BOSA	**Boshof**	**154.10**	**329**		**PKPbc**	**17 27 49.4**	**-3.8**		

BER ***28*** *17:16:55.9±2.5, 84.07N×0.81W, h10km, Mw3.9, ML2.1 (DNK), Confirmed Earthquake*
IDC ***28*** *17:16:57.0±1.6, 83.77N×2.21W, h0km, mb3.6/6, mbtmp3.6/7, ML3.4/1, MS3.5/12, Error ellipse: s-maj=39.4km s-min=17.7km az=65.0*
DNK ***28*** *17:16:58.8±3.5, 83.98N×0.09E, h36km±43km, ML2.1, Presumed earthquake*

ISC 28 17:16:58.2±0.9, 83.57N±0.08×1.54W±0.06, h10km, n31, σ2s30/30, mb3.7/6, MS3.5/10, North of Svalbard

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NOR	**Nord**	**2.77**	**233**	*i* P	**Pn**	**17 17 44.2**	**+1.6**
NOR				*i* S	**Sn**	**17 18 17.8**	**+1.7**
NOR				IAML		17 18 23.3	
	comp=Z,7.8nm,0.6s						
NOR	**Nord**	**2.77**	**233**	*i* P	**Pn**	**17 17 44.2**	**+1.6**
NOR				*i* S	**Sn**	**17 18 17.8**	**+1.7**
NOR				IAML		17 18 23.3	
	comp=Z,7.8nm,0.6s						
KBS	**Kingsbay**	**5.08**	**149**	*i* P	**Pn**	**17 18 16.8**	**+2.6**
KBS				*i* S	**Sn**	**17 19 10.2**	**-2.5**
KBS	**Kingsbay**	**5.08**	**149**	*i* P	**Pn**	**17 18 16.8**	**+2.6**
KBS				*i* S	**Sn**	**17 19 10.2**	**-2.

BKB				Sn	**Sn**	17 27 57.0	+0.8	
BKB	**Balikpapan**	**3.92**	**244**	P	**Pn**	17 27 10.9	+0.7	
BKB				AML	AML			
TARAI	**Tarakan**	**3.99**	**315**	P	**Pn**	17 27 11.8	+0.6	
TARAI				AML	AML			
TARAI				AML	AML			
PMSI	**Majene**	**4.24**	**201**	P	**Pn**	17 27 19.4	+4.8	
PMSI				AML	AML			
MNI	**Manado**	**4.54**	**78**	P	**Pn**	17 27 21.7	+3.0	
MNI				AML	AML			
MNI				AML	AML			
KKSI	**Kolaka, Sulawe**	**4.80**	**165**	P	**Pn**	17 27 25.9	+3.6	
KKSI				AML	AML			
KDI	**Kendari**	**4.95**	**153**	P	**Pn**	17 27 27.3	+3.0	
	0.8nm1µm1µm2µm2µm217nm,0.8s,217nm,0.8s							
KDI				AML	AML			
KAPI	**Kappang**	**5.51**	**187**	P	**Pn**	17 27 36.3	+4.2	
	30nm,0.6s,baz=11,slow=10,SNR=14							
KAPI	**Kappang**	**5.51**	**187**		**Pn**	17 27 31.9	-0.2	
KAPI	**Kappang**	**5.51**	**187**	P	**Pn**	17 27 34.6	+2.5	
	67nm,0.8s,67nm,0.8s							
MKS	**Makassar**	**5.75**	**189**	P	**Pn**	17 27 39.1	+3.7	
	0.4nm94nm,0.9s,94nm,0.9s							
MKS				AML	AML			
BKSI	**Bulukumba**	**5.78**	**183**	P	Pn	17 27 41.0	+5.1	
	779nm779nm88nm,0.7s,88nm,0.7s							
SANI	**Sanana**	**6.13**	**114**	P	**Pn**	17 27 42.9	+2.3	
BSSI	**Bau Bau, Buton**	**6.59**	**179**	P	**Pn**	17 27 51.4	+4.4	
	84nm,0.7s,84nm,0.7s							
BBKI	**Banjar Baru**	**6.81**	**235**	P	**Pn**	17 27 53.3	+3.3	
	0.2nm1µm1µm45nm,0.8s,45nm,0.8s							
BBKI				AML	AML			
KKM	**Kota Kinabalu**	**6.92**	**323**		**Pn**	17 27 50.7	-0.9	
NLAI	**Namlea**	**7.65**	**119**	P	Pn	17 28 09.9	+8.3	
MMRI	**Maumere**	**9.25**	**169**	Pn	**Pn**	17 28 22.8	-0.8	
JAGI	**Jajag, Banyuwa**	**10.87**	**215**		**Pn**	17 28 44.5	-1.2	
SOEI	**Soe**	**10.88**	**159**	Pn	**Pn**	17 28 43.2	-2.8	
SlJI	**Sorong**	**10.95**	**97**	LR	LR	17 33 46.9		
	comp=Z,121nm,21.4s,baz=314,slow=40							
BATI	**Baumata**	**11.11**	**163**	P	Pn	17 28 54.7	+5.6	
	57nm,1.0s,baz=295,slow=2.8,SNR=10							
BATI				LR	LR	17 33 43.3		
	comp=Z,990nm,19.5s,baz=342,slow=40							
BBJI	**Bungbulang**	**14.97**	**238**	Pn	**Pn**	17 29 42.0	0.0	
MTN	**Manton Dam**	**17.00**	**142**	Pn	**Pn**	17 30 05.8	-2.1	
KNRA	**Kununurra**	**18.07**	**153**	Pn	**Pn**	17 30 17.5	-3.7	
FITZ	**Fitzroy Crossi**	**19.18**	**165**	P	**P**	17 30 34.9	+1.0	
	6.1nm,0.9s,baz=3.2,slow=11,SNR=12							
FITZ	**Fitzroy Crossi**	**19.18**	**165**		**P**	17 30 34.2	+0.3	
KULM	**Kulim**	**20.29**	**284**	P	**P**	17 30 47.2	+1.1	
KULM				IAmb	IAmb	17 31 29.5		
	comp=Z,29nm,1.4s							
PSI	**Prapat**	**21.59**	**276**	LR	LR	17 40 43.8		
	comp=Z,106nm,18.3s,baz=108,slow=40							
TPUB	**Ta-pu**	**22.67**	**1**	P	**P**	17 31 11.4	-0.3	
YULB	**Yu-li**	**22.78**	**2**	P	**P**	17 31 12.2	-0.5	
GSI	**Gunungsitoli**	**22.84**	**272**	P	**P**	17 31 13.8	+0.3	
GSI				IAmb	IAmb	17 31 27.1		
	comp=Z,17nm,0.9s							
SSLB	**Suanglung**	**23.16**	**1**	P	**P**	17 31 16.1	-0.7	
SSLB				IAmb	IAmb	17 31 31.4		
	comp=Z,27nm,1.0s							
WB0	**Warramunga Arr**	**24.36**	**146**		**P**	17 31 27.2	-1.3	
WB0				IAmb	IAmb	17 31 29.1		
	comp=Z,16nm,0.9s							
WRAB	**Tennant Creek**	**24.47**	**147**	P	**P**	17 31 28.1	-1.3	
WRAB				IAmb	IAmb	17 31 30.2		
	comp=Z,14nm,1.0s							
WRA	**Warramunga Arr**	**24.48**	**147**	P	**P**	17 31 28.4	-1.1	
	comp=Z,13nm,0.8s,baz=328,slow=9.9,SNR=82							
	comp=Z,13nm,0.8s							
WR8	**Warramunga Arr**	**24.57**	**147**		**P**	17 31 29.2	-1.1	
AS31	**Alice Springs**	**27.36**	**152**		**P**	17 31 54.8	-0.7	
ASAR	**Alice Springs**	**27.36**	**152**	P	**P**	17 31 55.4	-0.2	
	comp=Z,2.4nm,0.8s,baz=329,slow=9.2,SNR=31							
	comp=Z,2.4nm,0.8s							
ASAR	**Alice Springs**	**27.36**	**152**	P	**P**	17 31 55.0	-0.6	
GUMO	**Guam**	**27.50**	**61**	LR	LR	17 43 35.5		
	comp=Z,24nm,18.1s,baz=154,slow=37							
CMAR	**Chiang Mai Arr**	**27.62**	**311**	P	**P**	17 31 58.1	+0.2	
	comp=Z,0.3nm,0.3s,baz=127,slow=8.6,SNR=1.0							
CMAR				LR	LR	17 44 29.6		
	comp=Z,122nm,19.2s,baz=130,slow=40							
	comp=Z,0.3nm,0.3s							
WHN	**Wuhan**	**30.43**	**350**	P	**P**	17 32 22.3	-0.4	
NJ2	**Nanjing**	**31.42**	**357**	*e*P	**P**	17 32 33.0	+1.6	
NJ2				pmax	pmax			
	comp=Z,5.0nm,0.6s							
FORT	**Forrest**	**31.94**	**167**	P	**P**	17 32 35.6	-0.5	
FORT				IAmb	IAmb	17 33 00.4		
	comp=Z,9.0nm,0.9s							
KRVT	**Keravat (AS076**	**31.95**	**99**	LR	LR	17 47 33.2		
	comp=Z,39nm,18.1s,baz=312,slow=40							
RABL	**Rabaul**	**32.08**	**99**	P	**P**	17 32 35.2	-2.3	
JNU	**Nakatsue**	**33.92**	**16**	LR	LR	17 46 09.1		
	comp=Z,68nm,19.8s,baz=212,slow=35							
INKA	**Innaminka**	**34.20**	**147**	P	**P**	17 32 55.5	-0.3	
BBOO	**Buckleboo**	**36.27**	**157**	P	**P**	17 33 13.6	0.0	
JHJ	**Hachijo jima 2**	**37.22**	**27**	LR	LR	17 49 52.3		
	comp=Z,4.5nm,18.5s,baz=138,slow=38							
KSAR	**Wonju Array Be**	**37.41**	**10**	P	**P**	17 33 22.1	-1.1	
KSRS	**Korea Array**	**37.43**	**10**	P	**P**	17 33 27.5	+4.2	
	comp=Z,1.7nm,0.7s,baz=194,slow=9.0,SNR=6.6							
	comp=Z,1.7nm,0.7s							
KS19	**Wonju Array Si**	**37.47**	**10**	P	**P**	17 33 22.1	-1.6	
KS19				IAmb	IAmb	17 33 34.6		
	comp=Z,23nm,1.4s							
STKA	**Stephens Creek**	**37.94**	**150**	P	**P**	17 33 26.5	-1.3	
	comp=Z,6.1nm,0.5s,baz=328,slow=8.3,SNR=9.0							
STKA				LR	LR	17 50 07.7		
	comp=Z,59nm,18.4s,baz=22,slow=38							
	comp=Z,6.1nm,0.5s							
STKA	**Stephens Creek**	**37.94**	**150**		**P**	17 33 26.8	-0.9	
MJAR	**Matsushiro Arr**	**39.48**	**23**	P	**P**	17 33 42.7	+2.0	
	comp=Z,1.6nm,0.8s,baz=268,slow=5.2,SNR=4.4							
MJAR				LR	LR	17 50 20.0		
	comp=Z,25nm,21.7s,baz=205,slow=36							
	comp=Z,1.6nm,0.8s							
PALK	**Palikeke**	**40.15**	**281**	LR	LR	17 51 54.1		
	comp=Z,7.1nm,18.2s,baz=104,slow=38							
HHC	**Hu-ho-hao-te**	**40.96**	**350**	*e*P	**P**	17 33 55.8	+2.8	
HHC				pmax	pmax			
	comp=Z,6.0nm,0.6s							
HHC				pmax	pmax			
	comp=Z,140nm,5.7s							
HHC				L	L			
	comp=Z,120nm,14.3s							
HHC				L	L			
	comp=Z,130nm,14.7s							
HHC				L	L			
	comp=Z,82nm,14.3s							
GTA2	**Gaotai**	**43.15**	**336**	*e*P	**P**	17 34 12.5	+1.5	
GTA2				pmax	pmax			
	comp=Z,6.0nm,0.9s							
CN2	**Changchun**	**43.35**	**5**	P	**P**	17 34 11.3	-1.1	
CN2				pmax	pmax			
	comp=Z,10.0nm,0.7s							
CAN	**Canberra**	**44.52**	**146**	P	**P**	17 34 22.6	+0.7	
USRK	**Ussuriysk Ar.**	**44.72**	**12**	P	**P**	17 34 26.5	+3.2	
	comp=Z,1.9nm,0.7s,baz=217,slow=6.9,SNR=2.4							
	comp=Z,1.9nm,0.7s							
ULN	**Ulaanbaatar**	**48.59**	**348**		**P**	17 34 54.5	+0.7	
ULN				IAmb	IAmb	17 34 59.0		
	comp=Z,4.4nm,0.9s							
SONM	**Songino Array**	**48.70**	**347**	P	**P**	17 34 55.6	+1.0	
	comp=Z,1.7nm,0.8s,baz=166,slow=10,SNR=10							
	comp=Z,1.7nm,0.8s							
SONM	**Songino Array**	**48.70**	**347**	P	**P**	17 34 55.4	+0.8	
HEH	**HeiHe**	**49.93**	**6**	*e*P	**P**	17 35 07.3	+3.5	
WMQ	**Urumqi**	**52.05**	**330**	*e*P	**P**	17 35 19.3	-0.7	
WMQ				pmax	pmax			
	comp=Z,25nm,0.7s							
PDGK	**Podgornoye**	**56.13**	**325**	P	**P**	17 35 51.5	+1.6	
KSH2	**Kashi**	**56.17**	**319**	P	**P**	17 35 52.8	+2.5	
KSH2				pmax	pmax			
	comp=Z,4.0nm,1.8s							
KDJ	**Kajisay**	**56.79**	**322**	P	**P**	17 35 55.8	+1.1	
MKAR	**Makanchi Array**	**56.85**	**330**	P	**P**	17 35 56.1	+1.2	
	comp=Z,0.8nm,0.5s,baz=131,slow=9.0,SNR=9.9							
	comp=Z,0.8nm,0.5s							
MKAR	**Makanchi Array**	**56.85**	**330**	P	**P**	17 35 55.9	+1.1	
MAKZ	**Makanchi**	**57.02**	**329**	P	**P**	17 35 56.8	+0.7	
MAKZ				IAmb	IAmb	17 36 24.4		
	comp=Z,15nm,1.4s							
KBL	**Kabul**	**58.65**	**311**	P	**P**	17 36 07.8	-0.2	

ARSB	**Arslanbob**	**58.99**	**320**	P	**P**	17 36 10.5	+0.4	
ARSB				IAmb	IAmb	17 36 12.2		
	comp=Z,5.7nm,1.1s							
ZAA0	**Zalesovo Array**	**60.82**	**337**	P	**P**	17 36 21.8	-0.5	
ZAA0				IAmb	IAmb	17 36 23.1		
	comp=Z,4.0nm,1.1s							
ZALV	**Zalesovo Beam**	**60.82**	**337**	P	**P**	17 36 22.5	+0.3	
	comp=Z,1.5nm,0.6s,baz=122,slow=5.6,SNR=7.2							
	comp=Z,1.5nm,0.6s							
ZALV	**Zalesovo Beam**	**60.82**	**337**		**P**	17 36 21.9	-0.3	
KURBB	**Kurchatov Arra**	**61.26**	**331**	P	**P**	17 36 25.6	+0.3	
	comp=Z,2.4nm,0.2s,baz=139,slow=6.6,SNR=5.7							
	comp=Z,2.4nm,0.2s							
KURK	**Kurchatov**	**61.27**	**331**		**P**	17 36 25.1	-0.3	
KURK				IAmb	IAmb	17 36 26.9		
	comp=Z,3.7nm,0.8s							
KK31	**Karatay Array**	**61.47**	**320**	P	**P**	17 36 27.0	0.0	
KKAR	**Karatay Array**	**61.47**	**320**	P	**P**	17 36 27.1	+0.2	
YAK	**Yakutsk**	**61.78**	**5**	P	**P**	17 36 28.4	-0.1	
MA2	**Magadan**	**63.48**	**17**	LR	LR	18 05 35.4		
	comp=Z,24nm,18.5s,baz=330,slow=37							
RTZ	**Ruatahuna**	**64.78**	**134**	P	**P**	17 36 49.2	+0.2	
BVAR	**Borovoye Array**	**66.74**	**330**	P	**P**	17 37 00.5	-0.9	
	comp=Z,2.2nm,0.9s,baz=134,slow=6.4,SNR=6.3							
	comp=Z,2.2nm,0.9s							
BORK	**Borovoye**	**66.78**	**330**	P	**P**	17 37 01.7	+0.1	
BORK				IAmb	IAmb	17 37 13.3		
	comp=Z,3.2nm,0.9s							
AB31	**Akbulak array**	**70.76**	**323**		**P**	17 37 25.9	-0.6	
ABKAR	**Akbulak array**	**70.76**	**323**	P	**P**	17 37 26.2	-0.3	
TIXI	**Tiksi**	**71.25**	**3**	P	**P**	17 37 30.4	+1.4	
	baz=156,slow=3.3,SNR=4.3							
TIXI	**Tiksi**	**71.25**	**3**	P	**P**	17 37 28.4	-0.6	
TIXI				IAmb	IAmb	17 37 41.3		
	comp=Z,3.9nm,1.1s							
NRIK	**Noril'sk**	**72.17**	**348**	LR	LR	18 11 50.5		
	comp=Z,44nm,18.7s,baz=314,slow=38							
ARTI	**Arti**	**74.45**	**329**	P	**P**	17 37 48.0	-0.3	
ARTI				IAmb	IAmb	17 37 53.4		
	comp=Z,4.1nm,0.6s							
VNDA	**Vanda**	**81.10**	**172**	P	**P**	17 38 23.9	-1.0	
	comp=Z,0.5nm,0.7s,baz=251,slow=2.3,SNR=3.6							
	comp=Z,0.5nm,0.7s							
VNDA	**Vanda**	**81.10**	**172**	P	**P**	17 38 24.2	-0.7	
G16K	**Koyuk River**	**84.25**	**24**	P	**P**	17 38 41.6	+0.1	
CY602	**RAF Akrotiri,**	**86.32**	**304**	P	**P**	17 38 52.0	-0.3	
J18K	**Innoko River**	**86.37**	**27**	P	**P**	17 38 51.7	-0.5	
J18K				IAmb	IAmb	17 39 03.9		
	comp=Z,2.5nm,0.9s							
D19K	**Kuna River**	**86.41**	**21**	P	**P**	17 38 51.8	-0.6	
D19K				IAmb	IAmb	17 38 57.4		
	comp=Z,5.7nm,0.8s							
G19K	**Purcell Mounta**	**86.51**	**24**	P	**P**	17 38 52.9	0.0	
G19K				IAmb	IAmb	17 38 53.2		
	comp=Z,7.7nm,1.3s							
J19K	**Poorman**	**86.91**	**26**	P	**P**	17 38 55.2	+0.3	
J19K				IAmb	IAmb	17 38 55.7		
	comp=Z,7.7nm,1.3s							
BRTR	**Keskin Array B**	**87.19**	**310**	P	**P**	17 38 56.1	-0.9	
	comp=Z,1.1nm,0.8s,baz=102,slow=7.0,SNR=7.8							
	comp=Z,1.1nm,0.8s							
BRTR	**Keskin Array B**	**87.19**	**310**	P	**P**	17 38 56.4	-0.5	
CAST	**Castle Rocks**	**88.44**	**27**	P	**P**	17 39 01.6	-0.6	
CAST				IAmb	IAmb	17 39 09.9		
	comp=Z,6.5nm,1.2s							
QSPA	**South Pole Qui**	**90.42**	**180**	LR	LR	18 20 03.8		
	comp=Z,29nm,18.8s,baz=9.0,slow=36							
QSPA	**South Pole Qui**	**90.42**	**180**	P	**P**	17 39 11.7	+0.1	
QSPA				IAmb	IAmb	17 39 25.8		
	comp=Z,5.7nm,1.4s							
ILAR	**Eielson Array**	**90.72**	**25**	P	**P**	17 39 14.7	+1.8	
	comp=Z,0.3nm,0.7s,baz=252,slow=5.3,SNR=4.5							
	comp=Z,0.3nm,0.7s							
ILAR	**Eielson Array**	**90.72**	**25**	P	**P**	17 39 12.8	-0.1	
C27K	**Jago River**	**91.60**	**20**	P	**P**	17 39 17.7	+0.8	
NOA	**NORSAR Array B**	**98.77**	**332**	LR	LR	18 32 07.9		
	comp=Z,23nm,18.3s,baz=265,slow=40							
TXAR	**Lajitas Array**	**128.55**	**51**	PKP	**PKPdf**	17 45 18.5	+0.3	
	comp=Z,1.2nm,1.2s,baz=75,slow=1.4,SNR=3.9							

*IDC **28** 17:32:35.7±1.5,0.˝54N×120.˝63E, h0km, mb3.8/3, mbtmp3.8/5, ML3.6/2, Error ellipse: s-maj=55.7km s-min=23.2km az=71.0*

*DJA **28** 17:32:37.6±0.5, 1˝N±5˝×12˝0E±˝, h10km, M4.4/11, mB5.1/1, mb4.9/2, mb4.9/2, mB5.1/1, ML4.0/7, MLv4.1/7, MLv4.2/11, Mw(mB)4.4/1, Mw(mB)4.4/1*

*NEIC **28** 17:32:37.9±2.2, 0.˝54N×0.˝04×120.˝42E±0.˝04, h10km±2km, mb4.1/4, Error ellipse: s-maj=7.8km s-min=5.6km az=48.0*

ISC 28 17:32:37.0±0.9, 0.˝52N±0.˝06×120.˝36E±0.˝07, h10km, n22, σ1ᵖ39/21, mb4.0/5, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m	s ISC
TOLI2	**Tolitoli**	**0.72**	**36**		**Pg**	**17**	**32**	**50.6 -0.3**
TOLI2				Sg	**Sg**	**17**	**33**	**00.1 -0.3**
PCI	**Palu**	**1.51**	**200**	P	**Pn**	**17**	**33**	**03.5 -0.6**
PCI				AML	AML			
APSI	**Ampana**	**1.92**	**138**	P	**Pn**	**17**	**33**	**10.8 +1.1**
APSI				AML	AML			
GTOI	**Gorontalo**	**2.65**	**88**	P	**Pn**	**17**	**33**	**21.3 +1.5**
GTOI				AML	AML			
LUWI	**Luwuk**	**2.87**	**123**		**Pn**	**17**	**33**	**23.7 +0.9**
LUWI				Sn	**Sn**	**17**	**33**	**58.4 +1.0**
LUWI	**Luwuk**	**2.87**	**123**	P	**Pb**	**17**	**33**	**27.0 -1.3**
TTSI	**Tana Toraja**	**3.58**	**189**	P	Pg	17	33	53.6 +7.9
KDI	**Kendari**	**4.99**	**153**	P	**Pn**	**17**	**33**	**54.7 +2.7**
	49nm,0.8s							
KAPI	**Kappang**	**5.53**	**186**	Pn	**Pn**	**17**	**34**	**01.6 +2.2**
	1.7nm,0.3s,baz=8.6,slow=14,SNR=3.8							
	6.7nm,0.3s							
KAPI				AML	AML			
KKM	**Kota Kinabalu**	**6.87**	**323**	Pn	**Pn**	**17**	**34**	**19.2 +1.3**
KCP	**Kidapawan**	**7.99**	**36**	*i* P	Pn	17	34	40.3 +7.1
KCP				*i* S		17	34	43.0
MMRI	**Maumere**	**9.29**	**168**	Pn	**Pn**	**17**	**34**	**51.7 +0.6**
FITZ	**Fitzroy Crossi**	**19.22**	**165**	P	**P**	**17**	**37**	**00.5 -0.8**
	0.1nm,0.3s,baz=356,slow=16,SNR=1.7							
	1.2nm,0.5s							
FITZ				AML	AML			
FITZ	**Fitzroy Crossi**	**19.22**	**165**	IAmb	IAmb	17	37	09.8
	comp=Z,2.2nm,1.4s							
WB0	**Warramunga Arr**	**24.41**	**146**	P	**P**	**17**	**37**	**54.1 -1.8**
WB0				IAmb	IAmb	17	37	55.3
	comp=Z,3.0nm,0.8s							
WRA	**Warramunga Arr**	**24.52**	**147**	P	**P**	**17**	**37**	**55.6 -1.3**
	comp=Z,3.5nm,0.8s,baz=335,slow=9.3,SNR=24							
	comp=Z,3.5nm,0.8s							
WR8	**Warramunga Arr**	**24.62**	**147**	P	**P**	**17**	**37**	**55.9 -1.9**
WR8				IAmb	IAmb	17	37	57.9
	comp=Z,4.5nm,0.7s							
ASAR	**Alice Springs**	**27.41**	**152**	P	**P**	**17**	**38**	**23.1 0.0**
	comp=Z,0.7nm,0.8s,baz=344,slow=14,SNR=22							
	comp=Z,0.7nm,0.8s							
ASAR	**Alice Springs**	**27.41**	**152**	P	**P**	**17**	**38**	**21.9 -1.1**
BBOO	**Buckleboo**	**36.31**	**157**	P	**P**	**17**	**39**	**40.4 -0.6**
MKAR	**Makanchi Array**	**56.81**	**330**	P	**P**	**17**	**42**	**22.9 +1.3**
	comp=Z,0.9nm,1.0s,baz=134,slow=7.0,SNR=4.6							
	comp=Z,0.9nm,1.0s							
MKAR	**Makanchi Array**	**56.81**	**330**	P	**P**	**17**	**42**	**22.4 +0.8**

*IDC **28** 17:37:19.9±20.0, 0.˝86N×120.˝56E, h0km, mb4.2/3, mbtmp4.1/5, ML3.8/2, MS3.1/4, Error ellipse: s-maj=339.8km s-min=50.9km az=136.0*

*NEIC **28** 17:37:23.9±1.2, 0.˝54N±0.˝04×120.˝43E±0.˝06, h10km±1km, mb4.4/14, Error ellipse: s-maj=10.5km s-min=5.8km az=287.0*

*DJA **28** 17:37:25.9±0.3, 1˝N±3˝×12˝0E±˝, h10km, M4.3/6, ML4.2/6, MLv4.3/13, MLv4.3/6*

ISC 28 17:37:23.4±0.6, 0.˝53N±0.˝04×120.˝43E±0.˝06, h10km, n32, σ1ᵖ15/32, mb4.3/10, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m	s ISC
TOLI2	**Tolitoli**	**0.68**	**32**	Pg	**Pg**	**17**	**36**	**4.4 0.0**
TOLI2				Sg	**Sg**	**17**	**37**	**46.2 +0.8**
PCI	**Palu**	**1.54**	**202**	P	**Pg**	**17**	**37**	**53.3 +0.3**
PCI				AML	AML			
APSI	**Ampana**	**1.88**	**140**	P	**Pb**	**17**	**37**	**58.1 +0.2**
APSI				AML	AML			
GTOI	**Gorontalo**	**2.59**	**88**	P	**Pn**	**17**	**38**	**07.4 +2.1**
LUWI	**Luwuk**	**2.82**	**124**		**Pn**	**17**	**38**	**10.0 +1.5**
LUWI				Sn	**Sn**	**17**	**38**	**42.8 +0.2**
LUWI	**Luwuk**	**2.82**	**124**	P	**Pb**	**17**	**38**	**12.1 -1.7**
KAPI	**Kappang**	**5.55**	**187**	Pn	**Pn**	**17**	**38**	**50.0 +4.0**
	5.8nm,0.3s,baz=35,slow=10,SNR=4.4							
KAPI				LR	LR	17	41	14.6
	comp=Z,129nm,19.7s,baz=3.0,slow=40							
	13nm,0.3s							
KAPI				AML	AML			
KAPI	**Kappang**	**5.55**	**187**		**Pn**	**17**	**38**	**45.6 -0.5**
KKM	**Kota Kinabalu**	**6.90**	**323**	Pn	**Pn**	**17**	**39**	**05.1 +0.4**
BATI	**Baumata**	**11.14**	**163**	LR	LR	17	44	46.7
	comp=Z,193nm,20.2s,baz=316,slow=39							
FITZ	**Fitzroy Crossi**	**19.21**	**165**	P	**Pn**	**17**	**41**	**48.9 +0.3**
	0.1nm,0.3s,baz=359,slow=8.8,SNR=5.7							
FITZ				LR	LR	17	49	58.1
	comp=Z,55nm,18.5s,baz=1.5,slow=39							
	1.9nm,0.6s							
FITZ				AML	AML			
FITZ	**Fitzroy Crossi**	**19.21**	**165**	P	**P**	**17**	**41**	**47.4 -0.3**
WB0	**Warramunga Arr**	**24.38**	**147**	P	**P**	**17**	**42**	**41.2 -0.8**
WB0				IAmb	IAmb	17	42	42.5
	comp=Z,6.0nm,0.8s							
WRAB	**Tennant Creek**	**24.49**	**147**	P	**P**	**17**	**42**	**42.3 -0.7**
WRAB				IAmb	IAmb	17	42	43.8
	comp=Z,4.8nm,0.7s							
WRA	**Warramunga Arr**	**24.50**	**147**	P	**P**	**17**	**42**	**42.9 -0.2**
	comp=Z,5.8nm,0.8s,baz=335,slow=9.1,SNR=53							
	comp=Z,5.8nm,0.8s							
WR8	**Warramunga Arr**	**24.59**	**147**	P	**P**	**17**	**42**	**43.6 -0.3**
WR8				IAmb	IAmb	17	42	45.2
	comp=Z,11nm,0.8s							
AS31	**Alice Springs**	**27.39**	**152**	P	**P**	**17**	**43**	**08.2 -1.0**
ASAR	**Alice Springs**	**27.39**	**152**	P	**P**	**17**	**43**	**09.5 +0.3**
	comp=Z,1.0nm,0.7s,baz=344,slow=14,SNR=37							
	comp=Z,1.0nm,0.7s							
ASAR	**Alice Springs**	**27.39**	**152**	P	**P**	**17**	**43**	**09.2 0.0**
CMAR	**Chiang Mai Arr**	**27.61**	**311**	LR	LR	17	56	04.9
	comp=Z,28nm,18.3s,baz=315,slow=41							
STKA	**Stephens Creek**	**37.96**	**150**	P	**P**	**17**	**44**	**41.6 +0.2**
	comp=Z,4.2nm,0.7s,baz=329,slow=11,SNR=4.8							
	comp=Z,4.2nm,0.7s							
STKA	**Stephens Creek**	**37.96**	**150**	P	**P**	**17**	**44**	**41.0 -0.4**
CAN	**Canberra**	**44.53**	**146**	P	**P**	**17**	**45**	**35.1 -0.4**
JKA	**Kamikawa-asahi**	**47.67**	**22**	P	**P**	**17**	**46**	**00.2 +0.2**
KK31	**Karatay Array**	**61.45**	**320**	P	**P**	**17**	**47**	**40.2 0.0**
KK31				IAmb	IAmb	17	47	44.9
	comp=Z,5.2nm,1.4s							
KKAR	**Karatay Array**	**61.45**	**320**	P	**P**	**17**	**47**	**40.8 +0.6**
RTZ	**Ruatahuna**	**64.79**	**134**	P	**P**	**17**	**48**	**00.7 -1.8**
BORK	**Borovoye**	**66.76**	**330**	P	**P**	**17**	**48**	**16.2 +1.3**
BORK				IAmb	IAmb	17	48	28.1
	comp=Z,1.7nm,0.7s							
AB31	**Akbulak array**	**70.75**	**323**	P	**P**	**17**	**48**	**38.6 -1.2**
AB31				IAmb	IAmb	17	49	04.9
	comp=Z,1.8nm,0.8s							
ABKAR	**Akbulak array**	**70.75**	**323**	P	**P**	**17**	**48**	**38.7 -1.1**
J18K	**Innoko River**	**86.33**	**27**	P	**P**	**17**	**50**	**05.9 +0.4**
J18K				IAmb	IAmb	17	50	13.0
	comp=Z,5.2nm,1.1s							
D19K	**Kuna River**	**86.37**	**21**	P	**P**	**17**	**50**	**05.2 -0.4**

*NEIC **28** 17:39:10.9±2.4, 24˝09N±0.˝07×127˝17E±0.˝06, h10km±1km, mb4.4/24, Error ellipse: s-maj=14.0km s-min=4.6km az=145.0*

*IDC **28** 17:39:10.9±0.7, 23˝98N×127˝05E, h0km, mb4.1/11, mbtmp4.1/13, ML3.8/2, MS3.2/4, Error ellipse: s-maj=24.9km s-min=12.4km az=92.0*

*JMA **28** 17:39:15.1±0.3, 24˝N±2˝×126˝9E±1˝0, h101km, MV3.4/21, NEAR MIYAKOJIMA ISLAND*

ISC 28 17:39:09.1±2.0, 24˝05N±0˝06×127˝08E±0˝04, h2km±12km, n85, σ2ᵖ24/103, mb4.2/20, MS3.1/4, Southeast of Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time		Res
				Op	ISC	h	m	s ISC
JOGS	**Gusukube**	**1.68**	**295**	P	**Pg**	**17**	**39**	**41.3 -0.1**
JOGS				*

MJB9				IAmb	IAmb	17 42 51.6	
	comp=Z,21nm,1.4s						
DPSS	**Saipan**	**19.66**	**113**	P	**P**	**17 43 36.7**	**-2.8**
TOLI2	**Tolitoli**	**23.60**	**196**	P	**P**	**17 44 21.6**	**+0.1**
TOLI2				IAmb	IAmb	17 44 24.8	
	comp=Z,9.2nm,0.8s						
ASAJ	**Asahikawa**	**23.72**	**29**	LR	LR	17 54 37.7	
	comp=Z,43nm,19.1s,baz=70,slow=39						
JKA	**Kamikawa-asahi**	**23.72**	**29**	P	**P**	**17 44 20.2**	**-2.2**
KLR	**Kul'dur**	**25.41**	**7**	LR	LR	17 54 07.6	
	comp=Z,40nm,19.9s,baz=188,slow=35						
SONM	**Songino Array**	**28.88**	**330**	P	P	17 45 13.6	+4.3
	comp=Z,2.3nm,0.5s,baz=148,slow=11,SNR=22						
SONM				LR	LR	17 57 18.8	
	comp=Z,78nm,18.7s,baz=8.0,slow=38						
	comp=Z,2.3nm,0.5s						
SONM	**Songino Array**	**28.88**	**330**	P	**P**	**17 45 09.6**	**+0.3**
PET	**Petropavlovsk**	**37.50**	**31**	P	**P**	**17 46 23.2**	**-0.9**
KNRA	**Kununurra**	**39.51**	**177**	P	**P**	**17 46 41.7**	**+0.3**
KNRA				IAmb	IAmb	17 46 57.8	
	comp=Z,9.4nm,1.3s						
FITZ	**Fitzroy Crossi**	**41.91**	**182**	P	**P**	**17 47 02.0**	**+0.8**
	comp=Z,2.4nm,0.7s,baz=359,slow=7.4,SNR=9.7						
	comp=Z,2.4nm,0.7s						
FITZ	**Fitzroy Crossi**	**41.91**	**182**	P	**P**	**17 47 01.3**	**+0.1**
MKAR	**Makanchi Array**	**42.25**	**314**	P	**P**	**17 47 05.4**	**+1.6**
	comp=Z,0.6nm,0.5s,baz=97,slow=9.7,SNR=18						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**42.25**	**314**	P	**P**	**17 47 03.3**	**-0.5**
MAKZ	**Makanchi**	**42.46**	**314**	P	**P**	**17 47 05.2**	**-0.4**
MAKZ				IAmb	IAmb	17 47 42.8	
	comp=Z,13nm,1.4s						
ZAA0	**Zalesovo Array**	**43.38**	**325**	P	**P**	**17 47 13.0**	**+0.1**
ZALV	**Zalesovo Beam**	**43.38**	**325**	P	**P**	**17 47 13.9**	**+1.0**
	comp=Z,0.9nm,0.5s,baz=115,slow=8.9,SNR=5.6						
ZALV				LR	LR	18 05 47.2	
	comp=Z,43nm,20.5s,baz=78,slow=37						
	comp=Z,0.9nm,0.5s						
ZALV	**Zalesovo Beam**	**43.38**	**325**	P	**P**	**17 47 13.1**	**+0.2**
WB0	**Warramunga Arr**	**44.13**	**170**	P	**P**	**17 47 20.5**	**+1.3**
WB0				IAmb	IAmb	17 47 21.5	
	comp=Z,3.4nm,0.5s						
WRA	**Warramunga Arr**	**44.29**	**170**	P	**P**	**17 47 21.8**	**+1.3**
	comp=Z,2.1nm,0.6s,baz=349,slow=8.9,SNR=33						
	comp=Z,2.1nm,0.6s						
WR8	**Warramunga Arr**	**44.33**	**170**	P	**P**	**17 47 22.6**	**+1.7**
KURK	**Kurchatov**	**45.72**	**318**	P	**P**	**17 47 33.1**	**+1.5**
KURBB	**Kurchatov Arra**	**45.74**	**318**	P	**P**	**17 47 33.6**	**+1.8**
	comp=Z,0.6nm,0.3s,baz=108,slow=9.8,SNR=2.2						
	comp=Z,0.6nm,0.3s						
ASAR	**Alice Springs**	**47.89**	**172**	P	**P**	**17 47 51.3**	**+2.4**
	comp=Z,0.4nm,0.4s,baz=353,slow=8.2,SNR=20						
	comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	**47.89**	**172**	P	**P**	**17 47 50.4**	**+1.6**
ASAR				PcP	**PcP**	**17 49 18.3**	**+0.8**
BVAR	**Borovoye Array**	**51.23**	**320**	P	**P**	**17 48 16.6**	**+2.5**
	comp=Z,1.3nm,0.6s,baz=120,slow=5.2,SNR=7.6						
	comp=Z,1.3nm,0.6s						
AB31	**Akbulak array**	**57.39**	**314**	P	**P**	**17 48 59.6**	**+0.6**
AB31				IAmb	IAmb	17 49 14.1	
	comp=Z,6.2nm,1.5s						
ABKAR	**Akbulak array**	**57.39**	**314**	P	**P**	**17 48 59.3**	**+0.2**
D19K	**Kuna River**	**62.29**	**24**	P	**P**	**17 49 33.4**	**+0.9**
D22K	**Ayikyak River**	**64.29**	**23**	P	**P**	**17 49 44.7**	**-1.0**
D23K	**Nanushuk River**	**65.01**	**23**	P	**P**	**17 49 48.6**	**-1.8**
D23K				IAmb	IAmb	17 49 53.9	
	comp=Z,1.9nm,0.8s						
E24K	**Your Creek**	**65.87**	**24**	P	**P**	**17 49 56.0**	**0.0**
E24K				IAmb	IAmb	17 49 59.3	
	comp=Z,1.8nm,0.9s						
D25K	**Kavik River**	**66.53**	**23**	P	**P**	**17 50 00.6**	**+0.4**
D25K				IAmb	IAmb	17 50 23.8	
	comp=Z,3.8nm,1.2s						
BMAR	**Burnt Mountain**	**67.42**	**25**	P	**P**	**17 50 06.0**	**+0.1**
C27K	**Jago River**	**67.42**	**22**	P	**P**	**17 50 05.5**	**-0.4**
D27M	**Malcolm River**	**68.44**	**23**	P	**P**	**17 50 13.4**	**+1.1**
F30M	**Barrier River**	**70.69**	**24**	P	**P**	**17 50 26.4**	**+0.3**
F30M				IAmb	IAmb	17 50 58.9	
	comp=Z,4.4nm,1.2s						
SPITS	**Spitsbergen Ar**	**70.74**	**348**	P	**P**	**17 50 29.6**	**+3.3**
	comp=Z,15nm,1.0s,baz=339,slow=9.2,SNR=5.8						
	comp=Z,15nm,1.0s						
FINES	**FINESS Array B**	**74.25**	**331**	P	**P**	**17 50 50.1**	**+2.7**
	comp=Z,2.0nm,0.9s,baz=85,slow=4.2,SNR=3.6						
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	**74.25**	**331**	P	**P**	**17 50 48.8**	**+1.3**
YKA	**Yellowknife Ar**	**80.94**	**24**	P	**P**	**17 51 26.7**	**+1.9**
	comp=Z,0.3nm,0.6s,baz=304,slow=5.8,SNR=3.6						
	comp=Z,0.3nm,0.6s						

*IDC **28** 18:17:43.4±1.3, 39.47N×143.39E, h0km, mb3.6/9, mbtmp3.6/11, ML3.0/2, Error ellipse: s-maj=29.9km s-min=17.2km az=118.0*
*JMA **28** 18:17:46.9±0.1, 39.5N±0.1×143.3E±0.2, h12km±1km, MV3.3/28, FAR E OFF SANRIKU*
ISC 28 18:17:45.2±1.1, 39.5N±0.1×143.4E±0.2, h11km, n11, σ0.86/11, mb3.6/9, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAJ	**Asahikawa**	**4.64**	**353**	Pn	**Pn**	**18 18 55.2**	**-0.1**
	0.7nm,0.3s,baz=184,slow=15,SNR=14						
	3.9nm,0.6s						
ASAJ				AML	AML		
MJAR	**Matsushiro Arr**	**5.04**	**236**	Pn	**Pn**	**18 19 01.5**	**+0.8**
	0.3nm,0.3s,baz=37,slow=13,SNR=38						
	5.1nm,0.6s						
MJAR				AML	AML		
SONM	**Songino Array**	**27.80**	**300**	P	**P**	**18 23 34.3**	**+0.1**
	0.2nm,0.3s,baz=60,slow=8.8,SNR=2.0						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**44.16**	**300**	P	**P**	**18 25 53.6**	**-0.1**
	0.5nm,0.7s,baz=81,slow=8.9,SNR=2.7						
	0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**45.74**	**306**	P	**P**	**18 26 06.2**	**0.0**
	0.9nm,0.5s,baz=81,slow=8.7,SNR=9.0						
	0.9nm,0.5s						
ILAR	**Eielson Array**	**46.59**	**34**	P	**P**	**18 26 13.4**	**+0.6**
	0.5nm,0.9s,baz=261,slow=6.2,SNR=2.9						
	0.5nm,0.9s						
BVAR	**Borovoye Array**	**50.08**	**311**	P	**P**	**18 26 38.4**	**-1.5**
	0.5nm,0.5s,baz=51,slow=6.3,SNR=4.5						
	0.5nm,0.5s						
WRA	**Warramunga Arr**	**59.74**	**190**	P	**P**	**18 27 48.6**	**-1.4**
	0.4nm,0.8s,baz=8.7,slow=6.7,SNR=2.4						
	0.4nm,0.8s						
YKA	**Yellowknife Ar**	**60.90**	**31**	P	**P**	**18 27 58.4**	**+0.9**
	0.2nm,0.8s,baz=317,slow=5.3,SNR=1.7						
	0.2nm,0.8s						
FINES	**FINESS Array B**	**67.35**	**332**	P	**P**	**18 28 40.0**	**+0.2**
	2.8nm,0.9s,baz=70,slow=6.5,SNR=3.7						
	2.8nm,0.9s						
HFS	**Hagfors**	**72.47**	**336**	P	**P**	**18 29 11.3**	**-0.1**
	0.5nm,0.5s,baz=67,slow=5.2,SNR=4.3						
	0.5nm,0.5s						

IDC 28 18:27:50.6±2.4, 15.46S×174.81W, h161km±40km, mb3.0/3, mbtmp3.5/4, Error ellipse: s-maj=348.4km s-min=25.1km az=152.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**3.32**	**63**	P	Pn	18 28 43.8	+1.3
	30nm,0.5s,baz=47,slow=2.9,SNR=18						
AFI				S	Sn	18 29 22.6	-0.1
	29nm,0.4s,baz=280,slow=23,SNR=8.5						
WRA	**Warramunga Arr**	**48.50**	**257**	P	P	18 36 17.4	-0.1
	0.1nm,0.4s,baz=92,slow=7.4,SNR=7.1						
	0.1nm,0.4s						
ASAR	**Alice Springs**	**48.80**	**252**	P	P	18 36 19.4	-0.3
	0.7nm,0.4s,baz=88,slow=7.8,SNR=38						
	0.7nm,0.4s						
PDAR	**Pinedale Array**	**83.22**	**42**	P	P	18 39 59.5	+0.2
	0.2nm,0.7s,baz=221,slow=5.7,SNR=3.5						
	0.2nm,0.7s						

*NOU **28** 18:36:31.8, 36.59S×176.66E, h229km, MLv3.6/6, Off E. Coast of N. Island, N.Z.*
*WEL **28** 18:36:38.8±0.9, 37.3S±5.1°×17.7E±7.1°, h195km±8km, M2.5/8, ML2.5/6, MLv2.5/8, Error ellipse: s-maj=8.5km s-min=6.4km az=121.8*
ISC 28 18:36:33.8±2.7, 36.95S±0.10×177.19E±0.08, h234km±15km, n53, σ1.9/59/74, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HAZ	**Te Kaha**	**0.93**	**150**	P	**Pn**	**18 37 07.6**	**+1.0**
HAZ				S	**S**	**18 37 30.2**	**-2.2**
HAZ				AML	AML		
MXZ	**Matakaoa Point**	**1.08**	**125**	P	**Pn**	**18 37 09.4**	**+1.9**
MXZ	**Matakaoa Point**	**1.08**	**125**	P	**Pn**	**18 37 08.4**	**+1.0**
MXZ				S	**S**	**18 37 31.3**	**-2.6**
MXZ				AML	AML		
MXZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.08**	**159**	P	**Pn**	**18 37 08.0**	**+0.4**
RUGZ				S	**S**	**18 37 33.0**	**-1.3**
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.15**	**143**	P	**Pn**	**18 37 09.6**	**+1.6**
PKGZ				S	**S**	**18 37 33.5**	**-1.3**
PKGZ				AML	AML		
PKGZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.30**	**132**	P	**Pn**	**18 37 10.5**	**+1.6**
WMGZ				S	**S**	**18 37 35.0**	**-1.6**
URZ	**Urewera**	**1.31**	**183**	P	**Pn**	**18 37 10.0**	**+1.0**
URZ	**Urewera**	**1.31**	**183**	P	**Pn**	**18 37 10.2**	**+1.3**
URZ				S	**S**	**18 37 34.1**	**-2.6**
URZ				AML	AML		
PUZ	**Puketiti**	**1.40**	**143**	P	**Pn**	**18 37 11.3**	**+1.6**
PUZ				S	**S**	**18 37 35.8**	**-2.2**
MWZ	**Matawai**	**1.41**	**169**	P	**Pn**	**18 37 11.4**	**+1.6**
MWZ				S	**S**	**18 37 36.9**	**-1.2**
MWZ				AML	AML		
MUGZ	**Murupara**	**1.56**	**192**	P	**Pn**	**18 37 12.5**	**+1.5**
MUGZ				S	**S**	**18 37 39.7**	**-0.5**
MUGZ				AML	AML		
MUGZ				AML	AML		
MKAZ	**Moumakai**	**1.63**	**264**	P	**Pn**	**18 37 12.6**	**+1.0**
MKAZ				AML	AML		
RTZ	**Ruatahuna**	**1.67**	**186**	P	**Pn**	**18 37 13.6**	**+1.7**
RTZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.73**	**153**	P	**Pn**	**18 37 14.8**	**+2.4**
RIGZ	**Rimuhau**	**1.81**	**166**	P	**Pn**	**18 37 14.7**	**+1.5**
RIGZ				S	**S**	**18 37 44.3**	**+0.3**
ETAZ	**East Tamaki Re**	**1.81**	**269**	P	**Pn**	**18 37 14.4**	**+1.2**
ETAZ				AML	AML		
MBAZ	**Motutapu North**	**1.85**	**275**	P	**Pn**	**18 37 14.6**	**+1.1**
MBAZ				AML	AML		
TLZ	**Tolley Road**	**1.90**	**223**	P	**Pn**	**18 37 16.4**	**+2.4**
TLZ				AML	AML		
MTHZ	**Maungataniwha**	**1.92**	**188**	P	**Pn**	**18 37 16.6**	**+2.5**
MTHZ				S	**S**	**18 37 44.5**	**-1.4**
MRHZ	**Matea Rd**	**1.98**	**198**	P	**Pn**	**18 37 16.4**	**+1.7**
MRHZ				S	**S**	**18 37 46.5**	**-0.3**
KNZ	**Kokohu**	**2.10**	**170**	P	**Pn**	**18 37 18.0**	**+2.3**
WHHZ	**Waihua**	**2.12**	**179**	P	**Pn**	**18 37 18.5**	**+2.5**
WHHZ				S	**S**	**18 37 47.5**	**-1.7**
MHGZ	**Mahia Peninsul**	**2.27**	**166**	P	**Pn**	**18 37 20.3**	**+2.9**
MHGZ				S	**S**	**18 37 48.7**	**-3.1**
BKZ	**Black Stump Fm**	**2.28**	**194**	P	**Pn**	**18 37 18.4**	**+0.8**
BKZ	**Black Stump Fm**	**2.28**	**194**	P	**Pn**	**18 37 19.0**	**+1.4**
BKZ				S	**S**	**18 37 51.9**	**-0.1**
HIZ	**Hauiti**	**2.42**	**229**	P	**Pn**	**18 37 21.7**	**+2.7**
MCHZ	**McNeill Hill**	**2.52**	**189**	P	**Pn**	**18 37 22.2**	**+2.2**
MCHZ				S	**S**	**18 37 56.2**	**-0.2**
KWHZ	**Kaweka Forest**	**2.54**	**194**	P	**Pn**	**18 37 22.4**	**+2.1**
KWHZ				S	**S**	**18 37 57.0**	**+0.1**
BHHZ	**Black Hill Sta**	**2.69**	**199**	P	**Pn**	**18 37 23.1**	**+1.3**
BHHZ				S	**S**	**18 37 58.3**	**-1.4**
KRHZ	**Kereru**	**2.76**	**193**	P	**Pn**	**18 37 24.4**	**+1.8**
KRHZ				S	**S**	**18 37 57.9**	**-3.2**
KAHZ	**Kahuranaki**	**2.85**	**185**	P	**Pn**	**18 37 25.7**	**+2.1**
KAHZ				S	**S**	**18 38 00.7**	**+0.9**
PNHZ	**Pukenui**	**3.06**	**194**	P	**Pn**	**18 37 25.1**	**-0.7**
PNHZ				S	**S**	**18 38 05.9**	**-1.0**
PXZ	**Pawanui**	**3.08**	**185**	P	**Pn**	**18 37 27.8**	**+1.7**
TSZ	**Takapari Road**	**3.25**	**197**	P	**Pn**	**18 37 29.4**	**+1.3**
PRHZ	**Porangahau**	**3.34**	**187**	P	**Pn**	**18 37 30.7**	**+1.7**
BFZ	**Birch Farm**	**3.80**	**191**	P	**Pn**	**18 37 35.8**	**+1.5**
BFZ	**Birch Farm**	**3.80**	**191**	P	**Pn**	**18 37 35.8**	**+1.5**
MRZ	**Mangatainoka R**	**3.91**	**198**	P	**Pn**	**18 37 36.3**	**+0.6**
HOWZ	**Holdsworth Sta**	**4.15**	**198**	P	**Pn**	**18 37 39.0**	**+0.4**
OGWZ	**Otaki Gorge**	**4.17**	**202**	P	**Pn**	**18 37 37.8**	**-0.9**
TMWZ	**Te Maipa**	**4.27**	**193**	P	**Pn**	**18 37 41.1**	**+1.0**
MTW	**Mount Morrison**	**4.40**	**197**	P	**Pn**	**18 37 42.0**	**+0.4**
CAW	**Cannon Point**	**4.47**	**201**	P	**Pn**	**18 37 42.5**	**+0.1**
MSWZ	**Moikau Station**	**4.71**	**198**	P	**Pn**	**18 37 45.4**	**+0.1**
WEL	**Wellington**	**4.72**	**203**	P	**Pn**	**18 37 45.8**	**+0.4**
SNZO	**South Karori**	**4.76**	**203**	P	**Pn**	**18 37 46.3**	**+0.3**
BHW	**Baring Head**	**4.80**	**201**	P	**Pn**	**18 37 46.3**	**-0.1**
TCW	**Tory Channel**	**4.82**	**207**	P	**Pn**	**18 37 46.8**	**+0.1**
PLWZ	**Palliser**	**4.85**	**197**	P	**Pn**	**18 37 47.4**	**+0.3**
TUWZ	**Tuamarina**	**5.13**	**208**	P	**Pn**	**18 37 51.0**	**+0.4**
THZ	**Tophouse**	**5.84**	**213**	P	**Pn**	**18 38 00.9**	**+1.4**
KHZ	**Kahutara**	**6.14**	**206**	P	**Pn**	**18 38 03.2**	**0.0**
KHZ	**Kahutara**	**6.14**	**206**	P	**Pn**	**18 38 03.3**	**0.0**

*MEX **28** 18:37:14.6±0.9, 15.53N×93.60W, h88km±8km, MD4.3, Presumed earthquake*
*GCG **28** 18:37:17.5±1.6, 15.64N×93.28W, h54km±223km, MD4.3, Presumed earthquake*
ISC 28 18:37:11.9±1.3, 15.43N±0.05×93.64W±0.03, h89km±13km, n38, σ2.30/64, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCIG		**0.49**	**56**	*eP*	**Pn**	**18 37 26.6**	**+0.2**
PCIG				*eS*	**Sn**	**18 37 36.8**	**-0.5**
PATR	**El Naranjo**	**1.39**	**103**	*eP*	**Pn**	**18 37 37.7**	**+1.2**
PATR				*eS*	**Sn**	**18 37 55.5**	**+0.4**
TGIG		**1.43**	**20**	*eP*	**Pn**	**18 37 37.0**	**+0.2**
TGIG				*eS*	**Sn**	**18 37 54.0**	**-1.5**
THIG		**1.43**	**111**	*eP*	**Pn**	**18 37 37.8**	**+1.1**
THIG				*eS*	**Sn**	**18 37 56.1**	**+0.7**
PAVE	**Pavencul**	**1.43**	**99**	*eP*	**Pn**	**18 37 38.5**	**+1.6**
PAVE				*eS*	**Sn**	**18 37 56.9**	**+1.0**
CHUJ	**Union Juarez**	**1.52**	**103**	*eP*	**Pn**	**18 37 39.3**	**+1.2**
CHUJ				*eS*	**Sn**	**18 37 58.7**	**+0.9**
CCIG	**Comitan**	**1.67**	**60**	*eP*	**Pn**	**18 37 41.1**	**+1.1**
CCIG				*eS*	**Sn**	**18 38 02.5**	**+1.2**
UXUV	**UXUV**	**1.94**	**345**	*eP*	**Pn**	**18 37 45.0**	**+1.7**
UXUV				*eS*	**Sn**	**18 38 06.7**	**-1.5**
CMIG	**Matias Romero**	**2.04**	**324**	*eP*	**Pn**	**18 37 45.6**	**+1.0**
CMIG				*eS*	**Sn**	**18 38 08.4**	**-1.1**
HUEH	**Huehuetenango**	**2.06**	**93**	*eS*	**Sn**	**18 38 10.8**	**+0.3**
RTAL	**Retalhuleu**	**2.08**	**115**	*eP*	**Pn**	**18 37 46.8**	**+1.6**
RTAL				*eS*	**Sn**	**18 38 11.9**	**+1.2**
HUIG	**Huatulco**	**2.40**	**278**	*eP*	**Pn**	**18 37 49.2**	**-0.3**
HUIG				*eS*	**Sn**	**18 38 15.8**	**-2.4**
STG8	**El Palmar, Qui**	**2.42**	**114**	*eP*	**Pn**	**18 37 47.1**	**-2.8**
STG8				*eS*	**Sn**	**18 38 11.7**	**-7.2**
NEUV	**Arroyo Zacate**	**3.07**	**318**	*eP*	**Pn**	**18 37 59.2**	**+0.8**
NEUV				*eS*	**Sn**	**18 38 34.6**	**+0.3**
APG	**El Apazote**	**3.09**	**98**	*i* P	**Pn**	**18 38 00.3**	**+1.4**
FG16	**Alotenango, Sa**	**3.24**	**110**	*i* P	**Pn**	**18 37 59.3**	**-1.6**
VHO	**Vista Hermosa**	**3.39**	**299**	*eP*	**Pn**	**18 38 04.1**	**+1.2**
VHO				*eS*	**Sn**	**18 38 40.0**	**-2.2**
PEIG	**Puerto Escondi**	**3.43**	**280**	*eP*	**Pn**	**18 38 03.9**	**+0.7**
PEIG				*eS*	**Sn**	**18 38 38.6**	**-4.2**
PETF	**Flores**	**3.91**	**67**	*eP*	**Pn**	**18 38 10.2**	**+0.4**
PETF	**Flores**	**3.91**	**67**	*eP*	**Pn**	**18 38 10.5**	**+0.8**
PETF				*eS*	**Sn**	**18 38 51.7**	**-2.9**
YOIG	**Yosondua**	**4.01**	**291**	*eP*	**Pn**	**18 38 13.9**	**+2.5**
YOIG				*eS*	**Sn**	**18 38 56.0**	**-1.5**
TOIG	**Toxpalan**	**4.22**	**309**	*eP*	**Pn**	**18 38 17.1**	**+3.1**
TOIG				*eS*	**Sn**	**18 39 04.4**	**+2.2**
SCIG	**Sabancuy**	**4.22**	**33**	*eP*	**Pn**	**18 38 14.4**	**+0.4**
SCIG				*eS*	**Sn**	**18 38 57.8**	**-4.4**
MTO3	**Montecristo**	**4.26**	**103**	*eP*	**Pn**	**18 38 15.9**	**+1.2**
TXIG	**Tlaxiaco**	**4.36**	**295**	*eP*	**Pn**	**18 38 18.1**	**+2.1**
TXIG				*eS*	**Sn**	**18 39 05.9**	**+0.1**
PNIG	**Pinotepa**	**4.42**	**283**	*eP*	**Pn**	**18 38 18.5**	**+1.7**
PNIG				*eS*	**Sn**	**18 39 05.2**	**-1.8**
TPIG	**Tehuac#an**	**4.64**	**310**	*eS*	**Sn**	**18 39 13.9**	**+1.4**
HLIG	**Huajuapan de L**	**4.65**	**301**	*eP*	Pn	18 38 25.1	+5.1
HLIG				*eS*	**Sn**	**18 39 11.3**	**-1.6**
FTIG	**Fresnillo de T**	**4.96**	**300**	*eP*	**Pn**	**18 38 28.2**	**+4.1**
FTIG				*eS*	**Sn**	**18 39 18.6**	**-1.8**
MGIG	**Malinaltepec**	**5.12**	**291**	*eP*	**Pn**	**18 38 25.4**	**-1.0**
MGIG				*eS*	**Sn**	**18 39 23.1**	**-1.2**
CRIG	**Cruz Grande**	**5.44**	**285**	*eP*	**Pn**	**18 38 33.5**	**+3.0**
CRIG				*eS*	**Sn**	**18 39 25.3**	**-6.5**
PPCL	**Tochimilco**	**5.88**	**307**	*eP*	**Pn**	**18 38 38.5**	**+1.6**
PPPT	**Popocatepetl**	**5.92**	**307**	*eP*	**Pn**	**18 38 40.4**	**+2.8**
PPCU	**Popocatepetl**	**5.94**	**307**	*eP*	**Pn**	**18 38 40.4**	**+2.5**
PBPN	**Popocatepetl**	**5.97**	**308**	*eP*	**Pn**	**18 38 39.3**	**+1.1**
PBXN	**Popocatepetl**	**5.97**	**307**	*eP*	**Pn**	**18 38 39.7**	**+1.5**
TEIG	**Tepich**	**6.98**	**46**	*eP*	**Pn**	**18 38 51.4**	**-0.2**
TEIG				*eS*	**Sn**	**18 40 05.1**	**-4.4**
ARIG	**Puente Sto Nin**	**7.02**	**295**	*eP*	**Pn**	**18 38 56.0**	**+3.9**
ARIG				*eS*	**Sn**	**18 40 10.9**	**+0.4**

*IDC **28** 18:47:53.1±1.4, 36.24N×142.09E, h0km, mb3.6/5, mbtmp3.6/8, ML2.9/3, MS2.9/4, Error ellipse: s-maj=23.9km s-min=17.5km az=95.0*
*JMA **28** 18:47:58.0±0.0, 36.2N±0.2×141.8E±0.3, h21km±1km, MV3.4/38, FAR E OFF IBARAKI PREF*
ISC 28 18:47:56.2±1.5, 36.22N±0.08×142.0E±0.1, h23km, n20, σ1.00/13, mb3.5/5, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHYU	**Hitachinakayam**	**1.11**	**277**	*eP*	**Pn**	**18 48 15.0**	**-1.3**
JHO	**Hitachi**	**1.18**	**290**	*eP*	**Pn**	**18 48 15.8**	**-1.5**
JIHU	**Itakohorinouch**	**1.18**	**258**	*eP*	**Pn**	**18 48 16.9**	**-0.4**
MJAR	**Matsushiro Arr**	**3.04**	**277**	Pn	**Pn**	**18 48 43.4**	**+0.5**
	0.9nm,0.3s,baz=115,slow=9.1,SNR=101						
MJAR				Sn	**Sn**	**18 49 19.0**	**+0.5**
	0.9nm,0.3s,baz=79,slow=16,SNR=5.0						
MJAR				LR	LR	18 50 22.9	
	comp=Z,44nm,19.1s,baz=60,slow=48						
	5.7nm,0.4s						
MJAR				AML	AML		
JHJ	**Hachijo jima 2**	**3.57**	**211**	Pn	**Pn**	**18 48 50.7**	**+0.5**
	1.3nm,0.3s,baz=295,slow=22,SNR=7.5						
JHJ				Sn	**Sn**	**18 49 30.2**	**-1.4**
	3.3nm,0.3s,baz=85,slow=24,SNR=5.8						
	7.8nm,0.4s						
JHJ				AML	AML		
ASAJ	**Asahikawa**	**7.90**	**3**	Pn	**Pn**	**18 49 49.2**	**-0.4**
	0.3nm,0.3s,baz=191,slow=16,SNR=7.2						
	8.1nm,1.0s						
ASAJ				AML	AML		
USRK	**Ussuriysk Ar.**	**11.02**	**319**	LR	LR	18 55 00.9	
	comp=Z,81nm,19.0s,baz=15,slow=39						
KSRS	**Korea Array**	**11.31**	**280**	LR	LR	18 54 57.6	
	comp=Z,21nm,18.4s,baz=340,slow=37						
H11N2	**WAKE ISLAND Hy**	**27.36**	**120**	T	T	19 22 55.1	
	baz=312,slow=75,SNR=5.2						
H11N1	**WAKE ISLAND Hy**	**27.37**	**120**	T	T	19 22 34.3	
	baz=312,slow=75,SNR=5.0						
H11N3	**WAKE ISLAND Hy**	**27.38**	**120**	T	T	19 22 32.8	
	baz=312,slow=75,SNR=3.6						
H11S1	**WAKE ISLAND Hy**	**28.06**	**122**	T	T	19 23 27.8	
	baz=314,slow=76,SNR=6.8						
H11S3	**WAKE ISLAND Hy**	**28.06**	**122**	T	T	19 23 27.7	
	baz=314,slow=76,SNR=6.3						
H11S2	**WAKE ISLAND Hy**	**28.07**	**122**	T	T	19 23 15.0	
	baz=314,slow=76,SNR=4.3						
SONM	**Songino Array**	**28.60**	**305**	P	**P**	**18 53 50.1**	**-0.6**
	0.7nm,0.7s,baz=113,slow=11,SNR=4.8						
	0.7nm,0.7s						
ZALV	**Zalesovo Beam**	**42.78**	**313**	P	**P**	**18 55 52.9**	**+1.1**
	0.3nm,0.4s,baz=96,slow=12,SNR=1.6						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	**44.92**	**303**	P	**P**	**18 56 09.8**	**+0.7**
	0.6nm,0.7s,baz=82,slow=8.7,SNR=4.1						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**46.84**	**309**	P	**P**	**18 56 24.9**	**+0.7**
	0.9nm,0.6s,baz=82,slow=7.5,SNR=13						
	0.9nm,0.6s						
WRA	**Warramunga Arr**	**56.32**	**189**	P	**P**	**18 57 35.6**	**+0.4**
	0.2nm,0.6s,baz=1.9,slow=7.7,SNR=7.0						
	0.2nm,0.6s						
YBH	**Yreka Blue Hor**	**70.50**	**52**	LR	LR	19 24 10.2	
	comp=Z,76nm,21.8s,baz=154,slow=31						

IDC 28 18:55:53.7±7.8, 1.71N×95.11W, h0km, mb3.6/6, mbtmp3.6/6, MS3.6/18, Error ellipse: s-maj=153.4km s-min=135.0km az=11.0, Galapagos Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC

UNIO	**Chateau-d'Oler**	**1.86**	**92**	Pg	**Pn**	**19 08 19.1**	**+2.5**
UNIO				Sg	**Sb**	**19 08 42.9**	**+0.9**
BEGF	**Beganne - 5601**	**1.96**	**33**	Pn	**Pn**	**19 08 16.5**	**-1.6**
BEGF				Pg	**Pb**	**19 08 21.3**	**+0.7**
BEGF				Sn	**Sn**	**19 08 44.4**	**+1.6**
QUIF	**Quistinic**	**1.99**	**14**	*e*Pg	**Pn**	**19 08 21.1**	**+2.7**
QUIF				*e*Sg	**Sn**	**19 08 45.2**	**+1.8**
	19nm,0.2s						
QUIF				AML	AML		
GUEF	**Guhenno - 56**	**2.08**	**23**	Pn	**Pn**	**19 08 18.0**	**-1.6**
ROSF	**Rostrenen**	**2.38**	**9**	*e*Pg	**Pb**	**19 08 29.0**	**+1.2**
ROSF				*e*Sg	**Sb**	**19 08 57.2**	**0.0**
	18nm,0.2s						
ROSF				AML	AML		
SGMF	**Saint Gilles**	**2.44**	**21**	*e*Pn	**Pn**	**19 08 22.9**	**-1.7**
SGMF				*e*Sg	**Sb**	**19 08 59.4**	**+0.7**
	16nm,0.3s						
SGMF				AML	AML		
MFF	**Saint Martin d**	**2.65**	**75**	*e*Pn	**Pn**	**19 08 24.7**	**-2.8**
MFF				*e*Pg	**Pb**	**19 08 32.6**	**+0.3**
MFF				*e*Sg	**Sb**	**19 09 06.2**	**+1.4**
	9.0nm,0.2s						
MFF				AML	AML		
LRVF	**chteau la Riv**	**2.71**	**111**	Pn	**Pn**	**19 08 28.0**	**-0.2**
LRVF				Sn	**Sn**	**19 08 58.4**	**-2.7**
LRVF				S	**Sb**	**19 09 09.1**	**+2.7**
GRR	**Gorron**	**3.16**	**39**	*e*Pn	**Pn**	**19 08 32.5**	**-2.0**
GRR				*e*Pg	**Pb**	**19 08 43.8**	**+2.9**
GRR				*e*Sg	**Sb**	**19 09 19.9**	**+0.5**
	13nm,0.3s						
GRR				AML	AML		
EALK	**Alkurruntz**	**3.24**	**148**	Pn	**Pn**	**19 08 34.4**	**-1.3**
EALK				S	**Sn**	**19 09 11.2**	**-3.2**
OSSF	**Osses**	**3.30**	**145**	Pn	**Pn**	**19 08 34.4**	**-2.1**
OSSF				S	**Sn**	**19 09 11.9**	**-3.9**
LFF	**La Frestale**	**3.40**	**106**	*e*Pn	**Pn**	**19 08 37.0**	**-0.9**
LFF				*e*Pg	**Pb**	**19 08 47.8**	**+2.7**
LFF				*e*Sn	**Sn**	**19 09 15.4**	**-2.9**
LFF				*e*Sg	**Sb**	**19 09 29.1**	**+2.6**
	17nm,0.4s						
LFF				AML	AML		
SJPF	**Ste Jean**	**3.44**	**146**	*e*Pn	**Pn**	**19 08 38.0**	**-0.4**
SJPF				*e*Pg	**Pb**	**19 08 49.3**	**+3.6**
SJPF				*e*Sn	**Sn**	**19 09 16.7**	**-2.4**
	2.5nm,0.2s						
SJPF				AML	AML		
ORDF	**Ordiarp**	**3.47**	**142**	Pn	**Pn**	**19 08 37.1**	**-1.7**
ORDF				S	**Sn**	**19 09 14.9**	**-5.1**
FLN	**La Foliniere**	**3.60**	**38**	*e*Pn	**Pn**	**19 08 38.6**	**-2.0**
FLN				*e*Pg	**Pb**	**19 08 50.4**	**+1.9**
FLN				*e*Sn	**Sn**	**19 09 17.6**	**-5.6**
FLN				*e*Sg	**Sb**	**19 09 33.5**	**+1.2**
	4.8nm,0.2s						
FLN				AML	AML		
LDF	**La Druitiere**	**3.64**	**43**	*e*Pn	**Pn**	**19 08 38.9**	**-2.3**
LDF				*e*Pg	**Pb**	**19 08 51.4**	**+2.2**
LDF				*e*Sn	**Sn**	**19 09 19.1**	**-5.1**
LDF				*e*Sg	**Sb**	**19 09 35.9**	**+2.5**
	9.8nm,0.4s						
LDF				AML	AML		
ATE	**Arette**	**3.68**	**141**	Pn	**Pn**	**19 08 40.2**	**-1.5**
ATE				S	**Sn**	**19 09 20.9**	**-4.2**
RJF	**Les Rejaudoux**	**3.83**	**98**	*e*Pn	**Pn**	**19 08 42.1**	**-1.7**
RJF				*e*Pg	**Pb**	**19 08 55.0**	**+2.5**
RJF				*e*Sn	**Sn**	**19 09 23.1**	**-5.8**
RJF				*e*Sg	**Sb**	**19 09 43.0**	**+4.1**
	7.2nm,0.2s						
RJF				AML	AML		
ETSF	**Etsaut**	**3.89**	**141**	*e*Pn	**Pn**	**19 08 45.4**	**+0.8**
ETSF				*e*Sn	**Sn**	**19 09 27.2**	**-3.2**
LABF	**Labassere**	**4.07**	**135**	Pn	**Pn**	**19 08 44.8**	**-2.3**
LABF				S	**Sn**	**19 09 29.3**	**-5.5**
EPF	**Esparros**	**4.22**	**133**	*e*Pn	**Pn**	**19 08 48.6**	**-0.5**
EPF				*e*Pg	**Pb**	**19 09 03.0**	**+4.0**
EPF				*e*Sg	**Sg**	**19 09 58.8**	**-1.3**
	3.5nm,0.3s						
EPF				AML	AML		
TCF	**Toulx Ste Croi**	**4.23**	**84**	*e*Pn	**Pn**	**19 08 47.0**	**-2.3**
TCF				*e*Pg	**Pb**	**19 09 01.4**	**+2.1**
TCF				*e*Sn	**Sn**	**19 09 32.7**	**-6.1**
TCF				*e*Sg	**Sb**	**19 09 54.9**	**+4.5**
	5.4nm,0.3s						
TCF				AML	AML		
CAF	**Calviac**	**4.30**	**102**	*e*Pn	**Pn**	**19 08 48.4**	**-1.9**
CAF				*e*Pg	**Pb**	**19 09 03.4**	**+2.9**
CAF				*e*Sn	**Sn**	**19 09 33.7**	**-6.8**
CAF				*e*Sg	**Sb**	**19 09 56.6**	**+4.1**
	12nm,0.4s						
CAF				AML	AML		
PBRG	**Braganca**	**4.67**	**207**	*e*S	**Sn**	**19 09 44.4**	**-5.2**
PBRG				IAML		19 09 45.4	
BGF	**Bois d'Agland**	**4.69**	**81**	*e*Pn	**Pn**	**19 08 53.4**	**-2.1**
BGF				*e*Pg	**Pb**	**19 09 10.1**	**+3.1**
BGF				*e*Sn	**Sn**	**19 09 43.8**	**-6.1**
BGF				*e*Sg	**Sb**	**19 10 09.2**	**+5.7**
	19nm,0.4s						
BGF				AML	AML		
AVF	**Avril sur Loir**	**5.06**	**78**	*e*Pn	**Pn**	**19 08 58.4**	**-2.2**
AVF				*e*Sg	**Sb**	**19 10 19.2**	**+5.1**
	2.0nm,0.5s						
AVF				AML	AML		
MTLF	**Montolieu**	**5.08**	**119**	*e*Pn	**Pn**	**19 08 58.8**	**-2.1**
MTLF				*e*Pg	**Pb**	**19 09 17.1**	**+3.4**
MTLF				*e*Sn	**Sn**	**19 09 55.2**	**-4.4**
MTLF				*e*Sg	**Sg**	**19 10 25.7**	**-2.1**
PGAV	**Gavieira, Arco**	**5.13**	**220**	*e*S	**Sn**	**19 09 56.8**	**-4.1**
SSF	**Saint Saulge**	**5.20**	**75**	*e*Pn	**Pn**	**19 09 00.2**	**-2.3**
SSF				*e*Sn	**Sn**	**19 09 55.9**	**-6.6**
SSF				*e*Sg	**Sb**	**19 10 24.1**	**+5.9**
	2.2nm,0.3s						
SSF				AML	AML		
SMF	**Signal de Mont**	**5.38**	**80**	*e*Pn	**Pn**	**19 09 03.1**	**-1.9**
SMF				*e*Pg	**Pb**	**19 09 23.1**	**+4.3**
SMF				*e*Sn	**Sn**	**19 09 59.5**	**-7.5**
SMF				*e*Sg	**Sb**	**19 10 29.6**	**+6.3**
LOR	**Lormes**	**5.47**	**74**	*e*Pn	**Pn**	**19 09 03.0**	**-3.3**
LOR				*e*Pg	**Pb**	**19 09 24.7**	**+4.3**
LOR				*e*Sn	**Sn**	**19 10 01.8**	**-7.5**
LOR				*e*Sg	**Sb**	**19 10 32.9**	**+6.9**
	3.3nm,0.4s						
LOR				AML	AML		
LASF	**Ste Croix**	**5.79**	**106**	*e*Pn	**Pn**	**19 09 08.7**	**-2.1**
LASF				*e*Sn	**Sn**	**19 10 11.6**	**-5.7**
VIVF	**Saint-Julien-l**	**6.11**	**98**	*e*Sn	**Sn**	**19 10 19.2**	**-5.9**
VIVF				*e*Sg	**Sb**	**19 10 53.3**	**+8.8**
BAIF	**Baives**	**6.77**	**50**	*e*Pn	**Pn**	**19 09 21.3**	**-2.8**
BAIF				*e*P	**Pn**	**19 09 25.7**	**+1.6**

*IDC **28** 19:11:27.8±3.0,58˚28S×149˚76W,h0km,mb3.5/3, mbtmp3.5/3,MS3.2/5, Error ellipse: s-maj=98.7km s-min=39.8km az=57.0*

ISC 28 19:11:24.3±2.8,57˚9S±0˚4×148˚2W±0˚5,h10km,n17, σ1§33/7,mb3.7/4,MS3.2/5,1C,Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNDA	**Vanda**	**25.89**	**202**	LR	LR	19 25 05.6	
	comp=Z,62nm,18.1s,baz=85,slow=32						
RPZ	**Rata Peaks**	**28.91**	**281**	LR	LR	19 26 01.6	
	comp=Z,17nm,20.2s,baz=288,slow=31						
QSPA	**South Pole Qui**	**32.28**	**180**	P	**P**	**19 17 54.3**	**+1.3**
	0.6nm,0.7s,baz=66,slow=9.0,SNR=6.2						
QSPA				LR	LR	19 29 04.0	
	comp=Z,105nm,18.4s,baz=58,slow=33 0.6nm,0.7s						
AFI	**Afiamalu**	**47.36**	**328**	LR	LR	19 35 36.5	
	comp=Z,21nm,19.8s,baz=22,slow=31						
VNA3	**Neumayer Olymp**	**47.91**	**163**	⇑P	**P**	**19 20 00.8**	**-1.3**
	comp=Z,1.4nm,0.8s						
VNA2	**Neumayer--Watz**	**48.54**	**164**	P	**P**	**19 20 05.9**	**-1.0**
	baz=198,slow=8.6						
H03S2	**Juan Fernandez**	**51.22**	**93**	T	T	20 15 22.8	
	baz=218						
H03S1	**Juan Fernandez**	**51.23**	**93**	T	T	20 15 24.1	
	baz=218						
H03S3	**Juan Fernandez**	**51.24**	**93**	T	T	20 15 21.6	
	baz=218						
CTA	**Charters Tower**	**60.26**	**280**	LR	LR	19 42 43.7	
	comp=Z,31nm,19.8s,baz=345,slow=32						
ASAR	**Alice Springs**	**63.92**	**267**	P	**P**	**19 21 56.7**	**-0.6**
	comp=Z,0.5nm,0.8s,baz=149,slow=6.3,SNR=4.6 comp=Z,0.5nm,0.8s						

WRA	**Warramunga Arr**	**66.72**	**269**	P	**P**	**19 22 14.8**	**-0.7**
	comp=Z,0.4nm,0.8s,baz=153,slow=5.0,SNR=4.6 comp=Z,0.2nm,0.8s						
H10N3	**ASCENSION HYDR**	**04.53**	**132**	T	T	21 22 46.9	
	baz=204,slow=75,SNR=5.5						
H10N1	**ASCENSION HYDR**	**04.54**	**132**	T	T	21 22 50.5	
	baz=204,slow=75,SNR=7.1						
H10N2	**ASCENSION HYDR**	**04.55**	**132**	T	T	21 22 55.2	
	baz=204,slow=75,SNR=6.2						
MKAR	**Makanchi Array**	**148.00**	**272**	PKPbc	**PKPab**	**19 31 12.0**	**+0.3**
	comp=Z,1.2nm,0.8s,baz=128,slow=3.2,SNR=7.0						
ZALV	**Zalesovo Beam**	**150.69**	**285**	PKPbc	**PKiKP**	**19 31 17.3**	**+1.3**
	comp=Z,0.5nm,0.7s,baz=114,slow=2.8,SNR=2.1						

*NIED **28** 19:17:03.4,41˚69N×143˚82E,h21km,MW3.6,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr2.05; Mθθ-1.08; Mφφ-0.97; Mrθ-0.40; Mθφ-1.93; Mφr2.00; Fault plane solution: M₀3.32000×10¹⁴ NP1: φs255.00000°,δ42.00000°,λ142.00000°. NP2: φs15.00000°,δ66.00000°,λ55.00000°.*

JMA 28 19:17:03.4±0.0,41˚7N±0˚2×143˚8E±0˚3,h21km±1km, MV3.5/35,2D,SE OFF ERIMOMISAKI,Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JEM	**Erimo**	**0.59**	**304**	P	Pb	19 17 14.8	-0.3
JEM				*e*S	Sb	19 17 22.5	-0.6
JTHR	**Tokachihiroo**	**0.72**	**327**	⇓*i*P	Pb	19 17 16.8	-0.3
JTHR				⇓S	Sb	19 17 26.8	+0.2
JCH	**Churui**	**0.98**	**340**	P	Pb	19 17 20.5	-1.2
JCH				*e*S	Sb	19 17 34.0	-0.2
JNBK	**Urakawa-nobuka**	**0.99**	**307**	P	Pb	19 17 21.9	+0.1
JNBK				*e*S	Sb	19 17 34.9	+0.4

SJA 28 19:17:51.2±0.7,21˚93S×65˚97W,h266km±5km,ML3.6, MW3.6,Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YJA	**Yavi**	**0.49**	**120**	*e*P	Pn	19 18 27.3	+0.9
YJA				*e*S	S	19 18 53.0	-1.0
SALTA		**2.31**	**188**	*e*P	Pn	19 18 33.7	-4.6
SALTA				*e*P		19 18 39.0	
SLA	**San Lorenzo**	**2.81**	**171**	*e*P	Pn	19 18 29.9	-13
PB09	**IPOC Station P**	**3.04**	**272**	*e*P	Pn	19 18 45.5	+0.1
PB09				*e*S	S	19 19 28.4	+0.1
PB01	**IPOC Station P**	**3.39**	**284**	*e*P	Pn	19 18 48.8	-0.2
PB01				*e*S	S	19 19 33.6	-1.4
PB01				IAML		19 19 35.3	
	comp=Z,75nm,0.1s						
PB06	**IPOC Station P**	**3.42**	**256**	*e*P	Pn	19 18 49.7	+0.3
PB06				*e*S	S	19 19 30.4	-5.2
PB06				IAML		19 19 39.6	
	comp=Z,70nm,0.3s						
PB03	**IPOC Station P**	**3.52**	**267**	*e*P	Pn	19 18 50.2	-0.2
PB03				*e*S	S	19 19 34.8	-2.7
PB03				IAML		19 19 34.9	
	comp=Z,112nm,0.2s						
PB07	**IPOC Station P**	**3.65**	**272**	*e*P	Pn	19 18 51.6	-0.3
PB07				*e*S	S	19 19 37.8	-2.3
PB07				IAML		19 19 38.6	
	comp=Z,110nm,0.3s						
PB02	**IPOC Station P**	**3.71**	**279**	*e*P	Pn	19 18 52.3	-0.2
PB02				*e*S	S	19 19 38.5	-2.8
PB02				IAML		19 19 39.7	
	comp=Z,179nm,0.1s						
GO01	**Chusmiza**	**3.77**	**306**	*e*P	Pn	19 18 54.2	+0.7
GO01				*e*S	S	19 19 45.2	+2.1
GO01				IAML		19 19 48.3	
	comp=Z,38nm,0.1s						
PB05	**IPOC Station P**	**4.03**	**256**	*e*P	Pn	19 18 55.6	-0.5
PB05				*e*S	S	19 19 44.9	-2.9
PB05				IAML		19 19 46.3	
	comp=Z,44nm,0.4s						
PB11	**IPOC Station P**	**4.07**	**301**	*e*P	Pn	19 18 56.4	-0.3
PB11				*e*S	S	19 19 46.9	-2.0
PB11				IAML		19 19 49.2	
	comp=Z,51nm,0.1s						
TA01	**Diego Aracena**	**4.16**	**288**	*e*P	Pn	19 18 56.7	-0.9
TA01				*e*S	S	19 19 47.4	-3.1
TA01				IAML		19 19 50.0	
	comp=Z,24nm,0.2s						
PB10	**IPOC Station P**	**4.52**	**249**	*e*P	Pn	19 19 01.3	-0.5
PB10				*e*S	S	19 19 54.0	-4.1
PB10				IAML		19 20 03.0	
	comp=Z,36nm,1.5s						
PB14	**IPOC Station P**	**4.88**	**236**	*e*P	Pn	19 19 05.6	-0.8
PB14				*e*S	S	19 20 01.7	-4.7
PB14				IAML		19 20 04.0	
	comp=Z,102nm,0.2s						
PB16	**IPOC Station P**	**4.88**	**316**	*e*P	Pn	19 19 07.5	+0.7
PB16				*e*S	S	19 20 07.5	+0.5
PB16				IAML		19 20 10.5	
	comp=Z,12nm,0.6s						
PB12	**IPOC Station P**	**5.26**	**308**	*e*P	Pn	19 19 09.2	-1.6
PB12				*e*P		19 19 09.4	
PB12				*e*S	S	19 20 09.2	-5.2
PB12				IAML		19 20 14.3	
	comp=Z,21nm,0.1s						

IDC 28 19:44:45.9±2.6,7˚30N×125˚64E,h0km,mb3.5/3, mbtmp3.5/3,MS3.5/1,Error ellipse: s-maj=233.5km s-min=25.6km az=65.0,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**28.39**	**163**	P	P	19 50 42.3	+0.1
	0.2nm,0.3s,baz=342,slow=9.0,SNR=11 0.2nm,0.3s						
ASAR	**Alice Springs**	**31.82**	**166**	P	P	19 51 12.3	-0.2
	0.2nm,0.4s,baz=343,slow=6.8,SNR=6.3 0.2nm,0.4s						
MKAR	**Makanchi Array**	**54.03**	**324**	P	P	19 54 12.1	0.0
	0.3nm,0.3s,baz=118,slow=7.7,SNR=8.4 0.3nm,0.3s						
MSVF	**Nonsavu**	**57.42**	**116**	LR	LR	20 14 14.1	
	comp=Z,44nm,21.7s,baz=259,slow=31						

PGC 28 20:00:03.7,62˚17N×124˚43W,h1km,ML3.6/12,130km south of Wrigley, Nt Nw Territories - Nunavut, Canada, Northwest Territories

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NAHA	**Nahanni Butte**	**1.25**	**156**	P	Pg	20 00 25.9	-1.6
TGTN	**Hyland Airport**	**1.93**	**252**	Pn	Pn	20 00 37.0	-0.7
TGTN				Sn	Sn	20 01 00.7	-1.9
NBC1	**NorthernBC 1**	**2.54**	**173**	Pn	Pn	20 00 45.8	-0.2
NBC1				Sn	Sn	20 01 15.9	-1.5
WTLY	**Watson Lake, Y**	**2.96**	**228**	Pg	Pb	20 00 56.6	-0.5
FNSB	**Fort Nelson**	**3.48**	**165**	Sn	Sn	20 01 37.9	-2.7
R33M	**Jennings River**	**4.24**	**232**	Pn	Pn	20 01 09.0	-0.5
R33M				Sn	Sn	20 01 57.2	-2.5
R33M				Sg	Sb	20 02 14.3	+3.5
N32M	**Quiet Lake**	**4.25**	**260**	Sg	Sb	20 02 14.1	+3.2
P33M	**Teslin, Yukon**	**4.51**	**248**	Pn	Pn	20 01 12.2	-0.9
DLBC	**Dease Lake**	**4.66**	**219**	Pn	Pn	20 01 14.4	-0.8
DLBC				Sn	Sn	20 02 08.3	-1.6
Q32M	**Nakina River**	**5.03**	**234**	Pn	Pn	20 01 18.9	-1.5
P32M	**Atlin**	**5.22**	**244**	Pn	Pn	20 01 21.6	-1.2
P32M				Sn	Sn	20 02 20.4	-3.2
WHY	**Whitehorse**	**5.24**	**258**	Sn	Sn	20 02 22.2	-2.1
WHY				Sg	Sb	20 02 44.5	+5.0
N31M	**Braeburn, Yuko**	**5.42**	**268**	Pn	Pn	20 01 25.0	-0.6
S34M	**Telegraph Cree**	**5.43**	**221**	Pn	Pn	20 01 25.2	-0.4
H31M	**Peel River**	**5.69**	**314**	Pn	Pn	20 01 27.6	-1.6
O30N	**Mendenhall**	**5.76**	**261**	Sg	Sb	20 02 59.0	+4.6
M30M	**Minto, Yukon**	**5.77**	**280**	Pn	Pn	20 01 27.7	-2.6
M30M				Sg	Sb	20 02 59.0	+4.4
N30M	**Aishikik Lake**	**6.04**	**269**	Pn	Pn	20 01 32.6	-1.6
L29M	**L29M**	**6.39**	**285**	Sg	Sb	20 03 17.7	+5.4
HYT	**Haines Junctio**	**6.40**	**264**	Pn	Pn	20 01 38.7	-0.4
P30M	**Million Dollar**	**6.40**	**257**	Sg	Sb	20 03 18.9	+6.1
M29M	**Somme Creek**	**6.55**	**279**	Sg	Sb	20 03 23.2	+6.2
G30M	**tAoh Zraii Nji**	**7.00**	**319**	Sn	Sn	20 03 00.7	-6.6
C36M	**Paulatuk**	**7.21**	**1**	Pn	Pn	20 01 47.0	-3.1
INK	**Inuvik**	**7.24**	**332**	Pn	Pn	20 01 48.1	-2.4
F30M	**Barrier River**	**7.28**	**323**	Pn	Pn	20 01 48.2	-2.8
F30M				Sn	Sn	20 03 06.3	-7.9
H29M	**Whitestone**	**7.31**	**310**	Sn	Sn	20 03 06.8	-8.1
F28M	**Old Crow**	**8.52**	**317**	Pn	Pn	20 02 05.0	-3.1
E28M	**Babbage River**	**9.00**	**322**	Pn	Pn	20 02 12.0	-2.5
D27M	**Malcolm River**	**9.80**	**323**	Pn	Pn	20 02 23.5	-2.1
A36M	**Sachs Harbour**	**9.87**	**359**	Pn	Pn	20 02 24.9	-1.5
F26K	**Sheenjek River**	**10.00**	**312**	Pn	Pn	20 02 26.6	-1.7

DJA 28 20:13:21.1±1.5,7˚S±4˚×127˚E±˚,h14km±12km,M3.6/11, mb3.8/3,mb3.8/3,ML3.5/9,MLv3.6/9,MLv3.6/11,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SOEI	**Soe**	**3.75**	**231**	P	Pn	20 14 18.1	-0.6
SOEI				AML	AML		
SOEI				AML	AML		
SOEI				AML	AML		
NLAI	**Namlea**	**4.15**	**358**	P	Pn	20 14 23.1	-0.9
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
BATI	**Baumata**	**4.50**	**232**	P	Pn	20 14 27.5	-1.4
BATI				AML	AML		
BATI				AML	AML		
MMRI	**Maumere**	**5.10**	**256**	P	Pn	20 14 37.1	-0.1
	40nm,1.3s,40nm,1.3s						
SANI	**Sanana**	**5.47**	**347**	P	Pn	20 14 40.7	-1.5
	0.0nm0.0nm0.0nm7.9nm,0.7s						
SANI				AML	AML		
SANI				AML	AML		
SANI				AML	AML		

*IDC **28** 20:15:23.4±0.5,17˚35S×66˚24E,h0km,mb4.4/21, mbtmp4.4/22,ML4.2/1,MS4.4/67,Error ellipse: s-maj=17.6km s-min=15.2km az=71.0*

*BJI **28** 20:15:23.9,17˚78S×66˚06E,h31km,mB4.9/3,mb4.5/23, Ms4.9/17,Ms7 4.5/18*

*NEIC **28** 20:15:24.9±1.4,17˚43S±0˚08×66˚12E±0˚06,h10km±1km, mb4.7/46,Mwb5.2/23,Mww5.4/24,Error ellipse: s-maj=13.2km s-min=9.0km az=198.0,Moment Tensor Solution. Moment tensor: Scale 10¹⁶Nm; Mrr0.51; Mθθ-5.66; Mφφ5.16; Mrθ-0.46; Mφθ3.28; Mφr-2.95; Fault plane solution: M₀7.01000×10¹⁶ NP1:φs243.14000°, δ71.33000°,λ14.84000°. NP2:φs148.29000°,δ75.96000°, λ160.73000°. Principal axes: T 7.3606, Plg23.0000°, Azm105.0000°; N -0.7621, Plg66.0000°, Azm294.0000°; P -6.5985, Plg3.0000°, Azm196.0000°;*

*GFZ **28** 20:15:24.9±0.3,17˚S±6˚×6˚6E±˚,h10km,M4.7/16, mb4.7/16 Error ellipse: s-maj=12.9km s-min=6.5km az=167.1,confirmed*

*NEIC **28** 20:15:24.8,17˚41S×66˚16E,h10km*

*NEIC **28** 20:15:25,17˚43S×66˚19E,h10km*

*NEIC **28** 20:15:25.1,17˚41S×66˚27E,h26km,Moment Tensor Solution. Duration: 2s2 Moment tensor: Scale 10¹⁷Nm; Mrr-0.07; Mθθ-1.24; Mφφ1.31; Mrθ0.23; Mθφ0.50; Mφr-0.27; Fault plane solution: M₀1.42000×10¹⁷ NP1: φs235.55000°,δ75.58000°,λ-2.30000°. NP2:φs326.13000°, δ87.77000°,λ-165.57000°. Principal axes: T 1.4367, Plg9.0000°, Azm100.0000°; N -0.0420, Plg75.0000°, Azm335.0000°; P -1.3947, Plg12.0000°, Azm192.0000°;*

*GCMT **28** 20:15:29.8±0.1,17˚32S±0˚01×66˚17E±0˚01,h16km, MW5.3/144,Moment Tensor Solution. s99,c166; s144,c284; Duration: 1s1 Moment tensor: Scale 10¹⁷ Nm; Mrr-0.09±.02; Mθθ-1.05±.02; Mφφ1.14±.02; Mrθ-0.11±.04; Mφθ0.55±.01; Mφr-0.23±.04; Best double couple: M₀1.24700×10¹⁷ NP1:φs148.00000°,δ81.00000°, λ175.00000°. NP2:φs239.00000°,δ85.00000°,λ9.00000°. Principal axes: T 1.3120, Plg10.0000°, Azm103.0000°; N -0.1330, Plg80.0000°, Azm267.0000°; P -1.1820, Plg3.0000°, Azm13.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 28 20:15:25.8±0.3,17˚45S±0˚06×66˚08E±0˚05,h17km,n195, σ1§62/145,mb4.7/69,MS4.5/74,3D,Mauritius-Reunion region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROCAM	**Rodrigues Isla**	**3.44**	**228**	Pn	**Pn**	**20 16 17.9**	**-0.7**
ROCAM				Sn	**Sn**	**20 16 58.8**	**-0.2**
RER	**Riviere de l'E**	**10.43**	**248**	Pn	**Pn**	**20 17 52.8**	**-1.9**
H08S1	**Diego Carcia H**	**11.57**	**33**	T	T	20 29 55.2	
	baz=211,slow=75,SNR=878						
H08S2	**Diego Garcia H**	**11.58**	**33**	T	T	20 29 52.6	
	baz=211,slow=75,SNR=1392						
H08S3	**Diego Garcia H**	**11.59**	**33**	T	T	20 29 41.0	
	baz=211,slow=75,SNR=3109						
DGAR	**Diego Garcia**	**11.76**	**33**	P	**Pn**	**20 18 11.6**	**-1.3**
	comp=Z,94nm,1.4s						
MSEY	**Mahe Island**	**16.40**	**320**		**Pn**	**20 19 15.0**	**-0.4**
MSEY	**Mahe Island**	**16.40**	**320**	P	**P**	**20 19 16.9**	**-1.2**
	comp=Z,14nm,1.6s						
ABPO	**Ambohimpanom**	**17.98**	**262**		**Pn**	**20 19 35.1**	**-0.1**
ABPO				IAmb	IAmb	20 19 44.8	
	comp=Z,76nm,1.8s						
ABPO	**Ambohimpanom**	**17.98**	**262**	P	**P**	**20 19 36.5**	**+0.9**
	comp=Z,22nm,1.7s						
OPO	**Ambohidratompo**	**18.00**	**264**	P	**P**	**20 19 38.1**	**+2.1**
	comp=Z,0.1nm,0.3s,baz=98,slow=17,SNR=8.2						
OPO				S	**Sn**	**20 22 49.3**	**-6.9**
	comp=Z,2.7nm,0.8s,baz=317,slow=18,SNR=1.3 comp=Z,9.6nm,0.9s						
OPO				AML	AML		
VOI	**Vohitsoka**	**18.69**	**253**	P	**P**	**20 19 43.0**	**-0.5**
VOI	**Vohitsoka**	**18.69**	**253**	P	**P**	**20 19 43.4**	**-0.1**
	comp=Z,20nm,1.4s						
HMDM	**Hanimaadhoo**	**25.07**	**17**	P	**P**	**20 20 48.9**	**-0.7**
	comp=Z,51nm,2.8s						
PALK	**Pallekele**	**28.50**	**32**	LR	LR	20 30 49.4	
	comp=Z,242nm,18.3s,baz=208,slow=33						
H04N2	**CROZET ISLANDS**	**30.99**	**199**	T	T	20 54 26.8	
	baz=28,slow=75,SNR=722						
H04N1	**CROZET ISLANDS**	**31.00**	**199**	T	T	20 54 27.9	
	baz=28,slow=75,SNR=627						
H04N3	**CROZET ISLANDS**	**31.01**	**199**	T	T	20 54 26.6	
	baz=28,slow=75,SNR=634						
KIBK	**Kibwezi**	**31.36**	**296**		**P**	**20 21 46.9**	**+1.0**
KIBK				IAmb	IAmb	20 21 51.2	
	comp=Z,10nm,1.2s						
KIBK	**Kibwezi**	**31.36**	**296**	P

MBAR Mbarara 38.58 292 P P 20 22 49.0 +0.6
MBAR IAmb IAmb 20 24 13.0
comp=Z,24nm,1.6s
MBAR Mbarara 38.58 292 P P 20 22 48.4 +0.1
comp=Z,8.7nm,1.3s
BOSA Boshof 39.00 246 P P 20 22 53.8 +2.1
comp=Z,3.2nm,0.8s,baz=108,slow=9.6,SNR=5.0
BOSA LR LR 20 36 00.2
comp=Z,619nm,19.4s,baz=88,slow=32
comp=Z,3.2nm,0.8s
BOSA Boshof 39.00 246 P P 20 22 52.3 +0.6
BOSA IAmb IAmb 20 23 28.1
comp=Z,59nm,1.8s
BOSA Boshof 39.00 246 P P 20 22 51.6 -0.1
KDWAN Kaudwane 39.16 254 P P 20 22 53.3 +0.2
KDWAN IAmb IAmb 20 23 29.9
comp=Z,21nm,1.4s
MDSI Maura Dua 39.46 75 P P 20 22 55.1 -0.4
comp=Z,9.7nm,1.2s
IPM Ipoh 40.80 61 P P 20 23 06.7 0.0
comp=Z,13nm,1.6s
BBJI Bungbulang 41.70 82 P P 20 23 14.4 +0.3
comp=Z,20nm,1.4s
TPRI Tanjung Pinang 42.03 68 P P 20 23 15.8 -1.0
comp=Z,32nm,1.0s
UOSS Minazif 43.23 347 P P 20 23 24.9 -1.3
comp=Z,16nm,1.3s
KOOLE Kule 43.27 255 P P 20 23 27.6 +0.7
KOOLE IAmb IAmb 20 24 02.4
comp=Z,37nm,1.6s
SUR Sutherland 43.34 241 LR LR 20 38 45.7
comp=Z,599nm,18.5s,baz=86,slow=32
CVNA Calvinia 44.10 243 P P 20 23 33.3 -0.1
comp=Z,22nm,1.7s
WOJI Wonogiri, Jawa 44.69 83 P P 20 23 37.6 -0.6
comp=Z,52nm,1.5s
TSUM Tsumeb 45.95 260 LR LR 20 41 34.5
comp=Z,519nm,18.9s,baz=88,slow=34
H01W3 Cape Leeuwin H 46.04 122 T T 21 12 40.6
baz=280,slow=75,SNR=1355
H01W2 Cape Leeuwin H 46.04 122 T T 21 12 40.7
baz=280,slow=75,SNR=1484
H01W1 Cape Leeuwin H 46.05 122 T T 21 12 41.8
baz=280,slow=75,SNR=1666
BRDH Bariadhala 47.07 33 LR LR 20 46 03.0
comp=Z,178nm,18.0s,baz=192,slow=39
JAGI Jajag, Banyuwa 47.58 86 P P 20 23 59.5 -1.6
CM31 Chiang Mai Arr 48.15 44 P P 20 24 04.0 -1.3
CM31 IAmb IAmb 20 24 06.7
comp=Z,7.0nm,0.9s
CMAR Chiang Mai Arr 48.15 44 P P 20 24 04.9 -0.3
comp=Z,3.7nm,0.9s,baz=234,slow=8.6,SNR=27
CMAR LR LR 20 42 05.4
comp=Z,271nm,19.0s,baz=230,slow=33
comp=Z,3.7nm,0.9s
CMAR Chiang Mai Arr 48.15 44 P P 20 24 03.6 -1.7
NWAO Narrogin (SRO) 48.34 119 LR LR 20 39 46.2
comp=Z,555nm,20.3s,baz=289,slow=30
EVN Everest 49.41 24 P 20 24 14.5 -1.0
EVN IAmb IAmb 20 24 22.2
comp=Z,9.5nm,1.0s
SHL Shillong 49.59 31 P P 20 24 15.6 -0.9
MORE Moreh 49.75 34 P 20 24 16.9 -0.6
MORE IAmb IAmb 20 24 36.7
comp=Z,10nm,1.0s
MAW Mawson 50.17 182 P P 20 24 21.7 +1.7
comp=Z,8.1nm,0.8s,baz=353,slow=7.0,SNR=14
MAW LR LR 20 40 18.4
comp=Z,566nm,21.5s,baz=0.0,slow=30
comp=Z,8.1nm,0.8s
MAW Mawson 50.17 182 P 20 24 21.2 +1.1
KBL Kabul 51.78 3 P P 20 24 32.5 -0.4
KBL IAmb IAmb 20 24 49.3
comp=Z,24nm,1.9s
TNCH TengChong 52.74 38 *eP* **P 20 24 41.0 +0.8**
TNCH pP sP 20 24 45.5 -1.1
KAPI Kappang 53.90 83 LR LR 20 44 10.0
comp=Z,499nm,21.9s,baz=244,slow=32
EIL Elat 55.64 327 LR LR 20 45 28.2
comp=Z,559nm,20.3s,baz=146,slow=32
BATI Baumata 56.21 91 P P 20 25 05.8 +0.4
comp=Z,14nm,0.7s,baz=287,slow=2.4,SNR=4.4
BATI LR LR 20 44 21.9
comp=Z,233nm,20.3s,baz=258,slow=31
comp=Z,14nm,0.7s
QIZ Qiongzhong 56.25 52 P P 20 25 05.8 +0.2
QIZ S S 20 32 54.8 -0.2
QIZ L L
comp=Z,580nm,8.6s
QIZ L L
comp=Z,350nm,10.0s
QIZ L L
comp=Z,580nm,7.5s
FITZ Fitzroy Crossi 56.50 100 LR LR 20 45 41.1
comp=Z,869nm,20.9s,baz=256,slow=32
FITZ Fitzroy Crossi 56.50 100 P 20 25 06.5 -1.0
ASF Jabal al Asfar 56.74 330 LR LR 20 47 13.1
comp=Z,361nm,20.5s,baz=153,slow=34
SOEI Soe 56.90 90 P P 20 25 09.1 -1.4
TOLI2 Tolitoli 56.93 77 P P 20 25 08.9 -1.7
KSH2 Kashi 56.99 9 P P 20 25 10.0 -0.7
KSH2 pmax pmax
comp=Z,7.0nm,1.6s
KSH2 L L
comp=Z,580nm,21.0s
KSH2 L L
comp=Z,310nm,14.1s
KSH2 L L
comp=Z,700nm,20.6s
LUWI Luwuk 58.03 80 P P 20 25 16.4 -2.0
ARSB Arslanbob 58.82 6 P P 20 25 23.1 -0.4
ARSB IAmb IAmb 20 25 40.3
comp=Z,15nm,1.5s
KNRA Kununurra 59.87 98 P P 20 25 30.0 -1.0
KNRA IAmb IAmb 20 25 32.0
comp=Z,11nm,1.2s
ELIB Princess Elisa 59.88 194 *dP* **P 20 25 30.9 +0.5**
comp=Z,3.5nm,0.9s
GURO Guroymak-BITLI 60.10 338 P P 20 25 32.5 +0.2
GURO IAmb IAmb 20 25 57.9
comp=Z,10nm,1.1s
DZA Taraz 60.24 4 *eP* **P 20 25 35.6 +2.6**
AAK Ala-Archa 60.29 7 LR LR 20 49 34.3
comp=Z,326nm,21.9s,baz=200,slow=34
KK31 Karatay Array 60.39 4 P P 20 25 33.7 -0.4
KKAR Karatay Array 60.39 4 P P 20 25 33.8 -0.3
GNI Garni 60.66 341 LR LR 20 52 28.7
comp=Z,171nm,18.2s,baz=218,slow=37
GNI Garni 60.66 341 P 20 25 35.5 -0.6
TNSS Tian-Shan 61.01 9 *eP* **P 20 25 41.1 +2.3**
MDOK Medeo 61.15 9 *eP* **P 20 25 42.1 +2.6**
AAA Alma-Ata 61.18 9 *eP* **P 20 25 41.9 +2.4**
SATY Saty 61.27 10 *eP* **P 20 25 42.9 +2.7**
comp=Z,13nm,1.5s
UZB Uzynbulak 61.46 11 *eP* **P 20 25 43.8 +2.3**
comp=Z,13nm,1.7s
SHLS Shalkode 61.55 11 *eP* **P 20 25 44.8 +2.7**
comp=Z,9.3nm,1.4s
PDGK Podgornoye 61.72 11 P P 20 25 42.3 -0.9
KUU Kurty 61.76 8 *eP* **P 20 25 45.7 +2.3**
TDK Taldyqorghan 63.16 10 *eP* **P 20 25 55.0 +2.3**
comp=Z,7.3nm,1.6s
ENH Enshi 63.23 42 P P 20 25 52.5 -1.0
ASAR Alice Springs 63.30 108 P P 20 25 53.4 -0.9
comp=Z,10.0nm,0.7s,baz=272,slow=5.8,SNR=96
ASAR LR LR 20 49 58.8
comp=Z,1μm,19.7s,baz=269,slow=33
comp=Z,10.0nm,0.7s
ASAR Alice Springs 63.30 108 P 20 25 52.8 -1.5
AS31 Alice Springs 63.30 108 P 20 25 52.6 -1.7
AS31 IAmb IAmb 20 25 54.1
comp=Z,3.2nm,0.7s
DAV Davao City (W) 63.62 73 LR LR 20 51 22.3
comp=Z,342nm,21.1s,baz=248,slow=34
LZDM Lanzhou Array 63.95 33 P P 20 25 58.6 +0.1
comp=Z,1.3nm,0.3s,baz=223,slow=5.9,SNR=2.2
comp=Z,1.3nm,0.3s
SAUI Saumlaki 64.06 91 P P 20 25 58.5 -0.8
WMQ Urumqi 64.11 17 *eP* **P 20 26 01.5 +2.5**
WMQ L L
comp=Z,330nm,13.1s
WMQ L L
comp=Z,370nm,13.1s
WMQ L L
comp=Z,380nm,24.0s
WRA Warramunga Arr 64.30 104 P P 20 26 00.0 -0.8
comp=Z,17nm,0.9s,baz=263,slow=6.2,SNR=97
WRA LR LR 20 50 30.7
comp=Z,584nm,20.7s,baz=270,slow=33
comp=Z,17nm,0.9s
WRA Warramunga Arr 64.30 104 P 20 25 59.8 -1.0
WB0 Warramunga Ar 64.38 104 P 20 26 00.2 -1.2
BRTR Keskin Array B 64.43 333 P P 20 26 01.5 +0.2
comp=Z,0.7nm,0.8s,baz=163,slow=8.9,SNR=5.0
BRTR LR LR 20 52 13.4
comp=Z,268nm,20.0s,baz=144,slow=34
comp=Z,0.7nm,0.8s
WR8 Warramunga Arr 64.45 104 P 20 26 00.6 -1.2
KBZ Khabaz 64.48 342 LR LR 20 52 08.0
comp=Z,219nm,20.7s,baz=162,slow=34
GTA2 Gaotai 64.79 28 *eP* **P 20 26 03.5 -0.2**
GTA2 pmax pmax
comp=Z,3.0nm,1.2s
GTA2 L L
comp=Z,170nm,16.2s
GTA2 L L
comp=Z,220nm,16.2s
GTA2 L L
comp=Z,300nm,16.8s
XAN Xi'an 65.47 38 P P 20 26 07.5 -0.6
XAN pmax pmax
comp=Z,6.0nm,0.9s
MAKZ Makanchi 65.55 12 P P 20 26 08.2 -0.1
MAKZ IAmb IAmb 20 26 26.5
comp=Z,11nm,1.6s
MKAR Makanchi Array 65.59 12 P P 20 26 07.9 -0.8
comp=Z,1.8nm,0.7s,baz=207,slow=7.3,SNR=13
MKAR LR LR 20 54 05.4
comp=Z,182nm,18.4s,baz=188,slow=36
comp=Z,1.8nm,0.7s
MKAR Makanchi Array 65.59 12 P 20 26 07.8 -0.9
SIJI Sorong 66.11 83 LR LR 20 51 10.2
comp=Z,76nm,20.7s,baz=228,slow=33
WHN Wuhan 66.58 45 P P 20 26 11.0 -4.3
AB31 Akbulak array 66.63 356 P 20 26 14.2 -0.9
AB31 IAmb IAmb 20 26 31.5
comp=Z,7.4nm,1.4s
ABKAR Akbulak array 66.63 356 P P 20 26 14.7 -0.5
ZSN Zaisan 66.77 14 *eP* **P 20 26 19.0 +2.9**
SNAA Sanae 66.96 199 LR LR 20 48 35.8
comp=Z,308nm,20.9s,baz=56,slow=30
AKTO Aktyubinsk 67.96 354 LR LR 20 56 24.0
comp=Z,104nm,18.1s,baz=256,slow=36
VNA2 Neumayer--Watz 68.24 200 ⇓P **P 20 26 26.8 +1.6**
comp=Z,4.3nm,0.7s,baz=80,slow=6.0
KURBB Kurchatov Arra 68.66 8 P P 20 26 27.3 -0.6
comp=Z,2.2nm,0.9s,baz=206,slow=6.7,SNR=15
KURBB LR LR 20 53 31.8
comp=Z,358nm,21.9s,baz=157,slow=33
comp=Z,2.2nm,0.9s
SEM Semipalatinsk 68.71 10 *eP* **P 20 26 30.8 +2.2**
KURK Kurchatov 68.76 9 P P 20 26 28.6 0.0
KURK IAmb IAmb 20 26 31.3
comp=Z,3.8nm,0.9s
INKA Innaminka 68.79 114 P P 20 26 28.7 -0.7
INKA IAmb IAmb 20 26 31.7
comp=Z,4.2nm,0.8s
STKA Stephens Creek 68.92 118 P P 20 26 29.5 -0.6
comp=Z,2.3nm,0.7s,baz=299,slow=10,SNR=3.4
STKA LR LR 20 53 14.6
comp=Z,325nm,19.4s,baz=242,slow=33
comp=Z,2.3nm,0.7s
VNA3 Neumayer Olymp 69.02 200 ⇓P **P 20 26 32.1 +2.0**
comp=Z,3.6nm,0.7s
BVAR Bovoye Array 70.28 3 P P 20 26 37.0 -0.9
comp=Z,1.7nm,0.7s,baz=185,slow=6.0,SNR=4.6
comp=Z,1.7nm,0.7s
BORK Borovoye 70.30 3 P P 20 26 38.6 +0.6
TORD Torodi Ar. Bea 70.45 291 LR LR 20 55 58.3
comp=Z,505nm,18.1s,baz=254,slow=34
TORD Torodi Ar. Bea 70.45 291 P P 20 26 39.8 0.0
NJ2 Nanjing 70.55 46 *eP* **P 20 26 41.5 +1.5**
NJ2 pmax pmax
comp=Z,6.0nm,0.6s
BTO2 Baotou 70.75 34 *eP* **P 20 26 41.8 +0.6**
BTO2 pP **sP 20 26 46.5 -1.3**
BTO2 pmax pmax
comp=Z,16nm,1.0s
BELG Belogornoye 71.38 348 LR LR 20 58 26.3
comp=Z,146nm,19.2s,baz=130,slow=36
HHC Hu-ho-hao-te 71.73 35 *eP* **P 20 26 47.3 +0.1**
HHC pmax pmax
comp=Z,6.0nm,0.8s
HHC pmax pmax
comp=Z,59nm,5.7s
HHC L L
comp=Z,88nm,12.4s
HHC L L
comp=Z,130nm,12.8s
HHC L L
comp=Z,78nm,12.9s
QSPA South Pole Qui 72.64 180 P P 20 26 53.2 +0.9
comp=Z,2.6nm,0.9s,baz=283,slow=5.7,SNR=5.3
QSPA LR LR 20 53 54.9
comp=Z,313nm,21.7s,baz=286,slow=32
comp=Z,2.6nm,0.9s
QSPA South Pole Qui 72.64 180 P P 20 26 52.8 +0.5
QSPA IAmb IAmb 20 27 12.1
comp=Z,12nm,1.1s
ZAA0 Zalesovo Array 72.91 11 P 20 26 54.1 +0.4
ZAA0 IAmb IAmb 20 27 14.1
comp=Z,5.7nm,1.0s
ZALV Zalesovo Beam 72.91 11 P P 20 26 52.8 -1.0
comp=Z,4.2nm,0.7s,baz=204,slow=6.4,SNR=18
ZALV LR LR 20 56 44.8
comp=Z,265nm,20.8s,baz=206,slow=34
comp=Z,4.2nm,0.7s
ZALV Zalesovo Beam 72.91 11 P P 20 26 52.6 -1.1
VAE Valguarnera 73.12 319 LR LR 20 57 20.3
comp=Z,138nm,18.5s,baz=167,slow=34
BJI2 Beijing 73.78 38 P P 20 27 00.3 +1.1
BJI2 pP **sP 20 27 05.0 -0.8**
BJI2 PP **PP 20 29 46.8 +2.7**
BJI2 S **S 20 36 31.8 +2.1**
BJI2 pmax pmax
comp=Z,5.0nm,0.7s
BJI2 pmax pmax
comp=Z,100nm,5.4s
BJI2 L L
comp=Z,210nm,21.6s
BJI2 L L
comp=Z,220nm,24.2s
BJI2 L L
comp=Z,150nm,19.7s
ARTI Arti 73.84 356 LR LR 20 59 19.8
comp=Z,216nm,18.0s,baz=168,slow=36
DBIC Dimbokro 74.02 282 LR LR 20 58 14.2
comp=Z,482nm,20.0s,baz=124,slow=35
SONM Songino Array 74.33 27 P P 20 27 02.1 -0.3
comp=Z,1.7nm,0.7s,baz=207,slow=6.9,SNR=12
SONM LR LR 20 58 37.4
comp=Z,300nm,21.6s,baz=223,slow=35
comp=Z,1.7nm,0.7s
SONM Songino Array 74.33 27 P P 20 27 01.8 -0.7
VNDA Vanda 74.33 167 LR LR 20 56 01.6
comp=Z,349nm,19.9s,baz=260,slow=33
VNDA Vanda 74.33 167 P P 20 27 03.1 +1.2
VNDA IAmb IAmb 20 28 19.8
comp=Z,12nm,1.8s
JOW Kunigami 74.69 55 LR LR 20 57 19.9
comp=Z,79nm,19.9s,baz=216,slow=34
AKASG Malin Array Be 75.19 337 P P 20 27 06.8 -0.4
comp=Z,2.8nm,0.9s,baz=146,slow=5.2,SNR=7.8
comp=Z,2.8nm,0.9s
CTA Charters Tower 75.23 107 P P 20 27 07.7 -0.5
comp=Z,11nm,1.0s,baz=270,slow=9.1,SNR=4.8
CTA LR LR 20 57 43.0
comp=Z,702nm,20.1s,baz=236,slow=34
comp=Z,11nm,1.0s
KEST Kesra 75.36 315 LR LR 20 59 37.2
comp=Z,381nm,20.0s,baz=110,slow=35
TLY Talaya 76.24 23 LR LR 20 59 08.2
comp=Z,257nm,21.0s,baz=209,slow=34
KIRV Kirov 76.99 351 LR LR 20 59 18.1
comp=Z,201nm,21.4s,baz=164,slow=34
PMG Port Moresby 78.79 96 LR LR 21 02 10.6
comp=Z,185nm,19.0s,baz=278,slow=36
MORC Moravsky Berou 79.47 330 *eP* **P 20 27 33.5 +2.3**
KRUC Moravsky 79.53 329 *eP* **P 20 27 34.3 +2.8**
VRAC Vranov 79.60 330 *eP* **P 20 27 34.7 +2.8**
JNU Nakatsue 79.69 51 LR LR 21 00 07.8
comp=Z,96nm,21.5s,baz=242,slow=34
KSRS Korea Array 79.75 45 P P 20 27 33.0 0.0
comp=Z,1.7nm,0.8s,baz=230,slow=6.1,SNR=3.6
KSRS LR LR 21 00 40.2
comp=Z,156nm,20.4s,baz=235,slow=34
comp=Z,1.7nm,0.8s
CLL Collm 82.65 330 *i* P **P 20 27 48.8 +0.7**
comp=Z,12nm,1.7s
CLL *eS* **S 20 38 00.0 -4.7**
CLL *eSS* **SS 20 43 36.0 +8.7**
CLL *eSSS* SSS 20 47 18.0
CLL LH 20 50 00.0
CLL AMS AMS 21 00 00.0
comp=N,200nm,17.7s
CLL AMS AMS 21 00 00.0
comp=E,200nm,17.3s
CLL AMS AMS 21 00 00.0
comp=Z,200nm,20.1s
GUMO Guam 83.64 74 LR LR 21 00 30.1
comp=Z,44nm,19.6s,baz=207,slow=32
MDT Midelt 83.97 307 LR LR 21 04 56.9
comp=Z,444nm,20.7s,baz=124,slow=35
FINES FINESS Array B 84.84 342 LR LR 21 05 13.6
comp=Z,84nm,18.4s,baz=126,slow=35
KRVT Keravat (AS076 84.86 93 LR LR 21 03 55.7
comp=Z,129nm,20.9s,baz=240,slow=34
USRK Ussuriysk Ar. 85.81 41 LR LR 21 06 47.7
comp=Z,46nm,19.9s,baz=239,slow=36
JCJ Chichijima 86.03 60 LR LR 21 02 20.8
comp=Z,96nm,21.0s,baz=306,slow=33
HEH HeiHe 86.25 34 *eP* **P 20 28 07.8 +1.5**
ESDC Sonseca Array 86.45 313 P P 20 28 08.9 +1.3
comp=Z,1.2nm,1.1s,baz=108,slow=4.9,SNR=4.6
ESDC LR LR 21 05 48.9
comp=Z,235nm,21.3s,baz=112,slow=35
comp=Z,1.2nm,1.1s
ESDC Sonseca Array 86.45 313 P P 20 28 07.7 0.0
MJAR Matsushiro Arr 86.61 50 P P 20 28 09.0 +0.5
comp=Z,3.3nm,0.9s,baz=238,slow=6.8,SNR=6.6
MJAR LR LR 21 06 44.5
comp=Z,74nm,20.4s,baz=238,slow=36
comp=Z,3.3nm,0.9s
MJAR Matsushiro Arr 86.61 50 P 20 28 07.5 -1.0
NRIK Noril'sk 87.90 7 LR LR 21 06 07.2
comp=Z,215nm,20.4s,baz=210,slow=35
RPZ Rata Peaks 88.49 136 LR LR 21 00 11.4
comp=Z,48nm,18.2s,baz=273,slow=30
NOA NORSAR Array B 89.60 337 LR LR 21 07 41.8
comp=Z,56nm,21.9s,baz=105,slow=35
PMSA Palmer Station 89.67 199 LR LR 21 04 59.6
comp=Z,88nm,18.6s,baz=150,slow=33
HNR Honiara 90.86 100 LR LR 21 07 43.5
comp=Z,297nm,19.9s,baz=329,slow=35
ARCES ARCESS Array B 91.38 347 P P 20 28 31.1 +0.9
comp=Z,4.4nm,1.0s,baz=141,slow=3.0,SNR=3.9
ARCES LR LR 21 08 31.9
comp=Z,117nm,21.8s,baz=134,slow=35
comp=Z,4.4nm,1.0s
ASAJ Asahikawa 92.67 45 LR LR 21 08 17.4
comp=Z,70nm,21.7s,baz=338,slow=34
YAK Yakutsk 93.60 25 LR LR 21 10 25.4
comp=Z,112nm,20.8s,baz=235,slow=35
URZ Urewera 94.93 132 LR LR 21 04 27.9
comp=Z,173nm,19.0s,baz=244,slow=31
TIXI Tiksi 98.31 17 LR LR 21 12 54.4
comp=Z,202nm,21.8s,baz=222,slow=35
RCBR Riachuelo 99.62 261 LR LR 21 07 40.5
comp=Z,149nm,21.3s,baz=106,slow=31
ILAR Eielson Array 127.77 17 PKP PKPdf 20 34 29.4 -0.5
comp=Z,0.4nm,1.0s,baz=311,slow=3.1,SNR=2.4
PPT2 Papeete2 130.56 133 *e*SS SS 20 54 16.3 -2.0
comp=Z,117nm,30.0s
PPT2 *e*LR LR 21 15 48.5
comp=Z,326nm,28.2s
PPT2 *e*LR LR 21 15 49.1
comp=Z,235nm,30.5s
YKA Yellowknife Ar 135.00 0 PKP PKPdf 20 34 43.6 0.0
comp=Z,0.3nm,0.8s,baz=2.7,slow=1.7,SNR=3.1
TAOE Nuku Hiva Isla 143.19 133 *e*LR LR 21 21 40.3
comp=Z,565nm,24.2s
ULM Lac du Bonnet 144.21 340 PKP PKPbc 20 34 59.5 +0.6
comp=Z,3.2nm,0.8s,baz=96,slow=6.5,SNR=3.8
PDAR Pinedale Array 154.49 353 PKPbc PKiKP 20 35 26.6 +0.5
comp=Z,0.3nm,0.6s,baz=18,slow=2.8,SNR=4.3
NVAR Mina Array Bea 158.75 10 PKPab PKPab 20 35 59.3 +0.6
comp=Z,0.8nm,0.8s,baz=357,slow=5.4,SNR=4.8

INMG ***28*** *20:58:17.7±1.4,38.°04N×1.°48W,h13km±3km,ML2.1, Error ellipse: s-maj=2.4km s-min=2.3km az=131.0, #DIST_RANGE: REGIONAL #IPMA_REGION: W Murcia (ESP)*
MDD ***28*** *20:58:17.3±0.2,38.°09N×1.°51W,h1km±2km, mb_Lg2.6/37, Error ellipse: s-maj=2.1km s-min=1.4km az=108.0*
SFS ***28*** *20:58:18.5,38.°08N×1.°40W,h20km,ML2.7/19,ML3.2/19, MLv3.2/13*

ISC 28 20:58:17.1±1.0,38.°05N±0.°02×1.°47W±0.°02,h16km±8km, n53,σ1°31/93,Spain

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TLOR	**Lorca, Murcia**	**0.43**	**204**	Pg	**Pg**	**20 58 25.2**	**-0.6**
TLOR				Sg	**Sg**	**20 58 31.3**	**-0.5**
ELOR	**Lorca, Murcia**	**0.47**	**208**	Pg	**Pg**	**20 58 25.5**	**-1.0**
ELOR				Sg	**Sg**	**20 58 32.6**	**-0.2**
ELOR				IVmb_Lg		20 58 35.5	
ETRV	**Los Montesinos**	**0.56**	**93**	Pg	**Pb**	**20 58 28.6**	**+0.1**
ETRV				Sg	**Sb**	**20 58 35.6**	**-0.9**
ETRV				IVmb_Lg		20 58 40.4	
ETOB	**Tobarra**	**0.59**	**354**	Pg	**Pb**	**20 58 28.4**	**-0.8**
ETOB	**Tobarra**	**0.59**	**354**	Pg	**Pb**	**20 58 28.4**	**-0.8**
ETOB				Sg	**Sb**	**20 58 35.7**	**-1.6**
ETOB				IVmb_Lg		20 58 41.1	
CART	**Cartagena**	**0.60**	**141**	Pg	**Pb**	**20 58 29.2**	**+0.1**
CART				Sg	**Sb**	**20 58 37.0**	**-0.3**
AFON	**Font Roja**	**0.95**	**50**	Pg	**Pg**	**20 58 36.5**	**+0.9**
AFON				Sg	**Sn**	**20 58 48.9**	**-0.2**
AFON				IVmb_Lg		20 58 54.2	
ENIJ	**Nijar**	**1.23**	**209**	Pg	**Pg**	**20 58 41.4**	**+0.6**
ENIJ				Sn	**Sn**	**20 58 56.4**	**+0.6**
EVIV	**Cofrentes, Val**	**1.24**	**13**	Pg	**Pb**	**20 58 40.6**	**+0.4**
EVIV				Sg	**Sb**	**20 58 55.6**	**-0.4**
EVIV				IVmb_Lg		20 58 58.1	
EQES	**Quesada**	**1.29**	**259**	Pg	**Pg**	**20 58 41.9**	**0.0**
EQES				Sg	**Sg**	**20 58 59.1**	**+0.3**
EQES				IVmb_Lg		20 59 01.6	
E0802	**Ubeda,Jaen**	**1.50**	**270**	Pn	**Pb**	**20 58 44.3**	**-0.3**
E0802				Pg	**Pn**	**20 58 44.4**	**+1.0**
E0802				Sn	**Sb**	**20 59 03.7**	**+0.2**
ECHE	**Chera**	**1.58**	**14**	Pg	**Pb**	**20 58 46.6**	**+0.6**
ECHE				Sn	**Sn**	**20 59 02.8**	**-1.8**
ECHE	**Chera**	**1.58**	**14**	Pn	**Pn**	**20 58 44.4**	**-0.1**
ECHE				Sn	**Sn**	**20 59 04.1**	**-0.6**
ECHE				IVmb_Lg		20 59 08.6	
EBER	**Berja**	**1.61**	**225**	Pg	**Pg**	**20 58 49.0**	**+0.8**
EBER	**Berja**	**1.61**	**225**	Pn	**Pn**	**20 58 45.5**	**+0.4**
EBER				IVmb_Lg		20 59 13.5	
EQTA	**Presa de Quent**	**1.78**	**242**	Pn	**Pb**	**20 58 49.4**	**+0.1**
EQTA				Pg	**Pg**	**20 58 50.7**	**-0.6**
EQTA				Sg	**Sg**	**20 59 15.2**	**+0.8**
EQUE	**Quentar**	**1.78**	**242**	Pn	**Pn**	**20 58 48.1**	**+0.9**
EQUE				Sn	**Sb**	**20 59 11.8**	**+0.4**
EQUE				IVmb_Lg		20 59 18.0	
ELGU	**Los Guajares,**	**2.08**	**236**	Pn	**Pb**	**20 58 53.9**	**-0.6**
ELGU	**Los Guajares,**	**2.08**	**236**	Pn	**Pn**	**20 58 52.3**	**+0.9**
ELGU				Pg	**Pb**	**20 58 55.1**	**+0.6**
ELGU				Sn	**Sn**	**20 59 18.5**	**+1.4**
ELGU				IVmb_Lg		20 59 22.5	
EGOR	**Sierra Gorda,**	**2.30**	**247**	Pg	**Pb**	**20 58 58.9**	**+0.6**
EGOR	**Sierra Gorda,**	**2.30**	**247**	Pn	**Pn**	**20 58 55.5**	**+1.0**
EGOR				Sn	**Sn**	**20 59 24.1**	**+1.7**
EGOR				IVmb_Lg		20 59 31.3	
EMOS	**Mosqueruela**	**2.43**	**18**	Pn	**Pn**	**20 58 56.7**	**+0.4**
EMOS				Sn	**Sn**	**20 59 25.3**	**-0.6**
EMOS				IVmb_Lg		20 59 29.6	
E0901	**Celadas (Terue**	**2.44**	**6**	Pn	**Pn**	**20 58 56.9**	**+0.6**
E0901				Sn	**Sn**	**20 59 26.4**	**+0.6**
E0901				IVmb_Lg		20 59 29.1	
ESDC	**Sonseca Array**	**2.53**	**311**	Pg	**Pb**	**20 59 02.6**	**+0.4**
ESDC				Sg	**Sb**	**20 59 34.8**	**+1.7**
ESDC				IVmb_Lg		20 59 37.0	
UCM	**Universidad Co**	**2.64**	**329**	Pn	**Pn**	**20 58 59.9**	**+0.9**
UCM				Pg	**Pb**	**20 59 06.1**	**+2.1**
UCM				Sn	**Sn**	**20 59 30.4**	**-0.3**
UCM				Sg	**Sb**	**20 59 39.0**	**+2.9**
EMAL	**Malaga-Limoner**	**2.69**	**242**	Sn	**Sn**	**20 59 32.4**	**+0.7**

PAB	**San Pablo**	**2.70**	**304**	Pn	**Pn**	**20 58 59.4**	**-0.5**
PAB				Sn	**Sn**	**20 59 30.9**	**-1.3**
PAB				Sg	**Sb**	**20 59 40.2**	**+2.3**
PAB				IVmb_Lg		20 59 42.3	
ETOR	**Torete**	**2.80**	**351**	Pn	**Pn**	**20 59 01.3**	**+0.1**
ETOR				Pg	**Pb**	**20 59 08.2**	**+1.4**
ETOR				IVmb_Lg		20 59 38.9	
ETOR				Sg	**Sg**	**20 59 44.3**	**-2.8**
ECAB	**El Cabril**	**3.12**	**272**	Pn	**Pn**	**20 59 05.2**	**-0.4**
ECAB				Sn	**Sn**	**20 59 41.7**	**-0.8**
ECAB	**El Cabril**	**3.12**	**272**	Pn	**Pn**	**20 59 05.1**	**-0.4**
ECAB				Sn	**Sn**	**20 59 41.2**	**-1.2**
ECAB				IVmb_Lg		20 59 54.1	
ERTA	**Horta de San J**	**3.22**	**25**	Pn	**Pn**	**20 59 07.5**	**+0.5**
ERTA				Sn	**Sn**	**20 59 44.6**	**-0.4**
ERTA				IVmb_Lg		20 59 57.4	
GUD	**Guadarrama**	**3.32**	**322**	Sg	**Sb**	**20 59 59.5**	**+3.7**
GUD				IVmb_Lg		21 00 02.7	
CIBOR	**Castaar de Ib**	**3.47**	**298**	Pn	**Pn**	**20 59 10.4**	**0.0**
CIBOR				Sn	**Sn**	**20 59 49.3**	**-1.8**
EMIN	**Mina Concepcio**	**4.12**	**268**	Sn	**Sn**	**21 00 05.8**	**-1.4**
PBAR	**Barrancos**	**4.39**	**273**	Pn	**Pn**	**20 59 22.6**	**-0.5**
PBAR				Sn	**Sn**	**21 00 11.6**	**-2.3**
PBAR	**Barrancos**	**4.39**	**273**	*e*Pn	**Pn**	**20 59 22.9**	**-0.2**
PBAR				*e*Sn	**Sn**	**21 00 12.6**	**-1.3**
PBAR				IAML		21 00 12.6	
PBAR				IAML		21 00 13.1	
PBAR				IAML		21 00 42.4	
EBAD	**Badajoz**	**4.41**	**281**	Pn	**Pn**	**20 59 23.3**	**0.0**
EBAD				Sn	**Sn**	**21 00 12.3**	**-2.0**
EBAD	**Badajoz**	**4.41**	**281**	Pn	**Pn**	**20 59 22.8**	**-0.5**
EBAD				Sn	**Sn**	**21 00 11.3**	**-3.0**
EBAD				IVmb_Lg		21 00 18.0	
EGRO	**El Granado**	**4.79**	**266**	Pn	**Pn**	**20 59 28.1**	**-0.4**
EGRO				Sn	**Sn**	**21 00 20.6**	**-3.1**
PMRV	**Marv??o**	**4.83**	**288**	*e*Sn	**Sn**	**21 00 22.8**	**-1.9**
PESTR	**Estremoz**	**4.87**	**281**	Sn	**Sn**	**21 00 23.9**	**-1.8**
PESTR	**Estremoz**	**4.87**	**281**	*e*Sn	**Sn**	**21 00 24.0**	**-1.8**
PVAQ	**Vaqueiros**	**5.00**	**264**	*e*Pn	**Pn**	**20 59 31.3**	**-0.1**
PVAQ				*e*Sn	**Sn**	**21 00 26.4**	**-2.3**
PVAQ				IAML		21 00 28.6	
PBDV	**Barranco-do-Ve**	**5.19**	**263**	Pn	**Pn**	**20 59 34.0**	**-0.1**
PBDV				Sn	**Sn**	**21 00 31.1**	**-2.5**
PBDV	**Barranco-do-Ve**	**5.19**	**263**	*e*Pn	**Pn**	**20 59 34.5**	**+0.4**
PARRA	**Arraiolos**	**5.21**	**280**	*e*Sn	**Sn**	**21 00 32.1**	**-2.1**
PCVE	**Castro Verde**	**5.22**	**267**	Pn	**Pn**	**20 59 34.1**	**-0.3**
PCVE	**Castro Verde**	**5.22**	**267**	*e*Pn	**Pn**	**20 59 34.2**	**-0.1**
PMTG	**Montargil**	**5.39**	**283**	*e*Sn	**Sn**	**21 00 35.6**	**-2.8**
MOE	**Montemor**	**5.43**	**277**	*e*Sn	**Sn**	**21 00 37.9**	**-1.6**
PLOUS	**Minas do Lousa**	**5.49**	**272**	*e*Sn	**Sn**	**21 00 38.5**	**-2.3**
PMONC	**Monchique**	**5.66**	**265**	*e*Pn	**Pn**	**20 59 40.5**	**-0.1**
MORF	**Marmelete**	**5.75**	**265**	*e*Pn	**Pn**	**20 59 42.7**	**+1.0**

*IDC **28** 21:00:20.3±1.5,2˚20S×122˚29E,h0km,mb3.5/4, mbtmp3.7/6,ML3.8/2,MS2.7/2,Error ellipse: s-maj=33.0km s-min=23.1km az=59.0*
*DJA **28** 21:00:25.8±0.2,2˚S±2˚×12˚2E±˚,h10km,M4.5/29,mB4.8/2, mB4.8/2,mb4.8/2,mb4.8/2,MLv4.3/29,MLv4.3/29, Mw(mB)4.1/2,Mw(mB)4.1/2*

ISC 28 21:00:26.4±0.9,2˚26S±0˚04×122˚24E±0˚05,h35km,n24, σ2s09/24,mb3.5/4,Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
LUWI	**Luwuk**	**1.33**	**24**	P		**Pn**	**21 00 49.6**	**+1.2**
APSI	**Ampana**	**1.47**	**336**	P		**Pn**	**21 00 49.8**	**-0.6**
APSI				AML		AML		
APSI				AML		AML		
KDI	**Kendari**	**1.73**	**167**	P		**Pn**	**21 00 53.7**	**-0.2**
KKSI	**Kolaka, Sulawe**	**1.98**	**197**	P		**Pn**	**21 01 01.7**	**+4.2**
KKSI				AML		AML		
KKSI				AML		AML		
TTSI	**Tana Toraja**	**2.54**	**252**	P		**Pn**	**21 01 08.2**	**+3.1**
TTSI				AML		AML		
TTSI				AML		AML		
PCI	**Palu**	**2.75**	**299**	P		**Pn**	**21 01 10.0**	**+1.9**
PCI				AML		AML		
PCI				AML		AML		
GTOI	**Gorontalo**	**2.98**	**15**	P		**Pn**	**21 01 14.3**	**+3.1**
GTOI				AML		AML		
GTOI				AML		AML		
BBSI	**Bau Bau**	**3.22**	**174**	P		**Pn**	**21 01 17.2**	**+2.7**
KMSI	**Cibinong**	**3.31**	**32**	P		**Pn**	**21 01 18.7**	**+2.9**
MMSI	**Mamuju**	**3.35**	**263**	P		**Pn**	**21 01 17.2**	**+0.9**
MMSI				AML		AML		
MMSI				AML		AML		
PMSI	**Majene**	**3.54**	**250**	P		**Pn**	**21 01 20.0**	**+1.1**
PMSI				AML		AML		
PMSI				AML		AML		
KAPI	**Kappang**	**3.69**	**222**	Pn		**Pn**	**21 01 20.4**	**-0.6**
	17nm,0.3s,baz=46,slow=14,SNR=38							
KAPI				Sn		**Sn**	**21 02 04.2**	**+0.9**
	6.3nm,0.3s,baz=238,slow=22,SNR=3.6							
KAPI				LR		LR	21 02 58.3	
	comp=Z,76nm,18.5s,baz=20,slow=42 35nm,0.3s							
KAPI				AML		AML		
KAPI	**Kappang**	**3.69**	**222**	P		**Pn**	**21 01 20.9**	**-0.1**
BKSI	**Bulukumba**	**3.70**	**215**	P		**Pn**	**21 01 20.9**	**-0.2**
BKSI				AML		AML		
BKSI				AML		AML		
SANI	**Sanana**	**3.75**	**87**	P		**Pn**	**21 01 21.5**	**-0.3**
MKS	**Makassar**	**4.03**	**223**	P		**Pn**	**21 01 26.0**	**+0.4**
MKS				AML		AML		
MKS				AML		AML		
BSSI	**Bau Bau, Buton**	**4.23**	**204**	P		**Pn**	**21 01 32.3**	**+3.9**
MNI	**Manado**	**4.51**	**35**	P		**Pn**	**21 01 35.2**	**+3.0**
MNI				AML		AML		
MNI				AML		AML		
SIJI	**Sorong**	**9.13**	**81**	LR		LR	21 06 09.5	
	comp=Z,50nm,21.4s,baz=219,slow=38							
FITZ	**Fitzroy Crossi**	**16.09**	**168**	Pn		**Pn**	**21 04 09.0**	**-1.0**
	0.1nm,0.3s,baz=350,slow=12,SNR=6.6 1.0nm,0.6s							
FITZ				AML		AML		
WRA	**Warramunga Arr**	**21.18**	**147**	P		**P**	**21 05 08.4**	**-0.5**
	0.8nm,0.7s,baz=323,slow=10,SNR=8.6 0.8nm,0.7s							
PSI	**Prapat**	**23.84**	**282**	P		**P**	**21 05 36.1**	**-0.7**
	4.5nm,0.7s,baz=110,slow=12,SNR=3.5 4.5nm,0.7s							
ASAR	**Alice Springs**	**24.09**	**153**	P		**P**	**21 05 37.6**	**-1.2**
	1.1nm,0.7s,baz=332,slow=9.6,SNR=12 1.1nm,0.7s							
SONM	**Songino Array**	**51.78**	**346**	P		**P**	**21 09 29.3**	**-1.5**
	0.4nm,0.7s,baz=157,slow=6.6,SNR=2.6 0.4nm,0.7s							

*FUNV **28** 21:06:42.8,10˚71N×62˚39W,h34km,MW3.5,Presumed earthquake*
*TRN **28** 21:06:43.5,10˚74N×62˚11W,h95km,MD3.6,North of the Paria peninsula.*

ISC 28 21:06:40.3±2.1,10˚68N±0˚09×62˚4W±0˚1,h82km±33km, n20,σ1s51/32,Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.86**	**89**	*e*P		**Pn**	**21 06 59.0**	**+1.1**
DMDM				*e*S		**Sn**	**21 07 10.4**	**-0.5**
PSMG	**Mucurapo Girls**	**0.88**	**91**	*e*P		**Pn**	**21 06 59.1**	**+1.0**
PSMG				*e*S		**Sn**	**21 07 10.6**	**-0.7**
PSKH	**Kent House, Po**	**0.88**	**90**	*e*P		**Pn**	**21 06 59.1**	**+0.9**
PSKH				*e*S		**Sn**	**21 07 10.9**	**-0.6**
TRN	**Trinidad (W)**	**1.00**	**92**	*e*P		**Pn**	**21 07 00.1**	**+0.5**
TRN				*e*S		**Sn**	**21 07 12.0**	**-1.9**
TRN	**Trinidad (W)**	**1.00**	**92**	*e*P		**Pn**	**21 07 00.3**	**+0.7**
TRN				*e*S		**Sn**	**21 07 12.9**	**-1.1**
GRGR	**Grenville**	**1.62**	**28**	*e*P		**Pn**	**21 07 07.4**	**0.0**
GRGR				*e*S		**Sn**	**21 07 27.1**	**-0.8**
GRGR	**Grenville**	**1.62**	**28**	*e*P		**Pn**	**21 07 08.1**	**+0.7**
GRGR				*e*S		**Sn**	**21 07 27.4**	**-0.5**
GRW	**Mount Saint Ca**	**1.65**	**27**	*e*P		**Pn**	**21 07 08.2**	**+0.4**
GRW				*e*S		**Sn**	**21 07 28.1**	**-0.4**
GRHS	**Sauteurs**	**1.71**	**26**	*e*S		**Sn**	**21 07 29.5**	**-0.4**
GRSS	**Sisters**	**1.79**	**26**	*e*P		**Pn**	**21 07 10.5**	**+0.9**
GRSS				*e*S		**Sn**	**21 07 31.5**	**-0.2**
SVB	**Belmont**	**2.82**	**24**	*e*P		**Pn**	**21 07 25.2**	**+1.9**
SVB				*e*S		**Sn**	**21 07 54.7**	**-1.6**
MCLT	**Moule a Chique**	**3.34**	**26**	*e*P		**Pn**	**21 07 31.2**	**+0.8**
MCLT				*e*S		**Sn**	**21 08 06.2**	**-2.8**
SLBI	**Saint Lucia, B**	**3.61**	**23**	*e*P		**Pn**	**21 07 35.2**	**+1.3**
SLBI				*e*S		**Sn**	**21 08 12.3**	**-3.2**
BIM	**Bigot**	**4.03**	**19**	*e*P		**Pn**	**21 07 40.4**	**+0.6**
DSLB	**Salisbury**	**4.83**	**12**	*e*P		**Pn**	**21 07 52.5**	**+1.9**
CACV	**CAICARA DEL OR**	**5.11**	**233**	*e*P		Pn	21 07 50.5	-4.0
CACV				*e*S		Sn	21 08 41.3	-11
BENV	**Beln**	**5.14**	**262**	*e*P		**Pn**	**21 07 56.5**	**+1.5**
BENV				*e*S		**Sn**	**21 08 50.1**	**-3.0**
TURV	**Turiamo**	**5.33**	**268**	*e*P		**Pn**	**21 07 58.9**	**+1.4**
MAGL	**Barre de l'ile**	**5.35**	**12**	*e*P		**Pn**	**21 08 00.0**	**+2.3**
DHSZ	**Broadband at M**	**5.59**	**6**	*e*P		**Pn**	**21 08 02.5**	**+1.5**

*IDC **28** 21:07:43.9±0.6,7˚28S×106˚57E,h0km,mb4.2/26, mbtmp4.2/27,ML4.9/1,MS3.4/20,Error ellipse: s-maj=23.7km s-min=11.8km az=56.0*
*DJA **28** 21:07:48.6±1.9,8˚S±13˚×10˚6E±˚,h21km±7km,M5.0/7, ML5.0/4,MLv4.9/7,MLv4.9/7*
*GFZ **28** 21:07:50.2±0.4,8˚S±5˚×10˚6E±˚,h70km±3km,M4.7/25, mb4.7/25,Error ellipse: s-maj=12.6km s-min=3.3km az=30.4,confirmed*
*NEIC **28** 21:07:52.1±1.5,7˚37S±0˚09×106˚61E±0˚06,h58km±4km, mb4.5/50,Error ellipse: s-maj=13.5km s-min=7.6km az=208.0*

ISC 28 21:07:52.1±0.4,7˚47S±0˚07×106˚57E±0˚05,h66km,n179, σ1s32/157,mb4.4/55,Jawa

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SKJI	**Sukabumi**	**0.46**	**359**	P		**Pn**	**21 08 03.1**	**-1.1**
SKJI				AML		AML		
SKJI				AML		AML		
SKJI				AML		AML		
SKJI	**Sukabumi**	**0.46**	**359**	P		**Pn**	**21 08 03.4**	**-0.8**
BBJI	**Bungbulang**	**1.07**	**90**			**Pn**	**21 08 10.7**	**-0.7**
BBJI				Sn		**Sn**	**21 08 23.9**	**-1.9**
BBJI	**Bungbulang**	**1.07**	**90**	P		**Pn**	**21 08 10.3**	**-1.1**
BBJI	**Bungbulang**	**1.07**	**90**	P		**Pn**	**21 08 10.9**	**-0.5**
CGJI	**Cibinong**	**1.21**	**314**	P		**Pn**	**21 08 11.8**	**-1.3**
CGJI				AML		AML		
CGJI	**Cibinong**	**1.21**	**314**	P		**Pn**	**21 08 12.3**	**-0.8**
TNG	**Tangerang**	**1.29**	**4**	P		**Pn**	**21 08 16.5**	**+2.3**
TNG	**Tangerang**	**1.29**	**4**	P		**Pn**	**21 08 16.1**	**+2.0**
SBJI	**Serang**	**1.41**	**342**	P		**Pn**	**21 08 16.8**	**+1.1**
SBJI	**Serang**	**1.41**	**342**	P		**Pn**	**21 08 17.1**	**+1.4**
CMJI	**Cimerak**	**1.89**	**100**	P		**Pn**	**21 08 21.5**	**-0.7**
CMJI	**Cimerak**	**1.89**	**100**	P		**Pn**	**21 08 21.6**	**-0.5**
KPJI	**Karang Pucung**	**2.35**	**87**	P		**Pn**	**21 08 30.1**	**+1.7**
BLSI	**Bandar Lampung**	**2.47**	**328**	P		**Pn**	**21 08 30.6**	**+0.6**
SCJI	**Gunung Srandil**	**2.59**	**95**	P		**Pn**	**21 08 31.7**	**0.0**
KASI	**Kota Agung**	**2.82**	**313**	P		**Pn**	**21 08 33.9**	**-0.9**
MDSI	**Maura Dua**	**3.80**	**321**	P		**Pn**	**21 08 49.1**	**+1.0**
SMRI	**Semarang**	**3.87**	**84**			**Pn**	**21 08 50.3**	**+1.2**
SMRI	**Semarang**	**3.87**	**84**	P		**Pn**	**21 08 51.3**	**+2.2**
UGM	**Wanagama**	**3.95**	**97**			**Pn**	**21 08 50.8**	**+0.5**
UGM	**Wanagama**	**3.95**	**97**	P		**Pn**	**21 08 50.6**	**+0.4**
WOJI	**Wonogiri, Jawa**	**4.33**	**95**	P		**Pn**	**21 08 55.9**	**+0.4**
PCJI	**Pacitan**	**4.62**	**99**	P		**Pn**	**21 09 00.3**	**+0.8**
LHSI	**Lahat**	**4.72**	**320**	P		**Pn**	**21 09 00.4**	**-0.4**
MNAI	**Manna**	**4.74**	**310**	Pn		**Pn**	**21 09 00.9**	**-0.1**
MNAI	**Manna**	**4.74**	**310**	P		**Pn**	**21 09 00.7**	**-0.3**
PMBI	**Palembang**	**4.85**	**338**	Pn		**Pn**	**21 09 04.2**	**+1.6**
PMBI	**Palembang**	**4.85**	**338**	P		**Pn**	**21 09 04.8**	**+2.2**
	comp=Z,497nm,0.8s							
SJI	**Sawahan**	**5.16**	**93**	P		**Pn**	**21 09 08.2**	**+1.3**
	comp=Z,99nm,0.5s							
PWJI	**Pagerwojo**	**5.22**	**96**	P		**Pn**	**21 09 08.4**	**+0.8**
	comp=Z,74nm,0.6s							
MASI	**Maura Aman, Be**	**6.09**	**315**	P		**Pn**	**21 09 19.2**	**-0.4**
	comp=Z,123nm,0.8s							
GMJI	**Gumukmas**	**6.86**	**97**	P		**Pn**	**21 09 29.3**	**-0.8**
	comp=Z,26nm,1.0s							
DSRI	**Dabo**	**7.22**	**344**	P		**Pn**	**21 09 35.7**	**+0.7**
	comp=Z,45nm,1.2s							
JAGI	**Jajag, Banyuwa**	**7.58**	**98**			**Pn**	**21 09 40.9**	**+1.0**
JAGI	**Jajag, Banyuwa**	**7.58**	**98**	P		**Pn**	**21 09 40.4**	**+0.5**
	comp=Z,49nm,0.6s							
ABJI	**Asem Bagus**	**7.61**	**93**	P		**Pn**	**21 09 40.5**	**+0.2**
	comp=Z,102nm,0.8s							
RTBI	**Rangdo, Negare**	**8.35**	**97**	P		**Pn**	**21 09 51.0**	**+0.4**
	comp=Z,132nm,0.7s							
SRBI	**Singaraja**	**8.59**	**95**	P		**Pn**	**21 09 56.1**	**+2.4**
	comp=Z,66nm,0.8s							
SISI	**Saibi**	**9.63**	**309**	P		**Pn**	**21 10 05.0**	**-3.0**
	comp=Z,75nm,0.8s							
TWSI	**Taliwang, Sumb**	**10.29**	**98**	P		**Pn**	**21 10 16.1**	**-0.9**
	comp=Z,30nm,0.7s							
PLAI	**Plampang**	**11.18**	**98**	P		**Pn**	**21 10 29.6**	**+0.5**
	comp=Z,36nm,1.0s							
DBNI	**Kabupaten Domp**	**11.68**	**96**	P		**Pn**	**21 10 35.5**	**-0.5**
	comp=Z,10nm,0.6s							
GSI	**Gunungsitoli**	**12.51**	**314**			Pn	21 10 41.8	-5.5
GSI	**Gunungsitoli**	**12.51**	**314**	P		Pn	21 10 42.7	-4.6
	comp=Z,78nm,0.6s							
KAPI	**Kappang**	**13.33**	**80**	LR		LR	21 16 57.3	
	comp=Z,127nm,18.7s,baz=259,slow=42							
TPTI		**14.19**	**318**	P		Pn	21 11 05.5	-4.4
	comp=Z,186nm,1.1s							
EDFI	**Ende, Flores**	**15.03**	**96**	P		**Pn**	**21 11 18.9**	**-2.0**
	comp=Z,14nm,0.7s							
MMRI	**Maumere**	**15.56**	**95**			**Pn**	**21 11 29.9**	**+2.3**
MMRI				IAmb		IAmb	21 11 46.1	
	comp=Z,32nm,0.7s							
KKM	**Kota Kinabalu**	**16.52**	**36**			**Pn**	**21 11 39.8**	**0.0**
KKM				IAmb		IAmb	21 11 53.3	
	comp=Z,24nm,1.0s							
BATI	**Baumata**	**17.11**	**100**	P		**Pn**	**21 11 43.9**	**-3.2**
	comp=Z,4.2nm,0.3s,baz=233,slow=3.8,SNR=10							
BATI				S		**Sn**	**21 14 51.0**	**-5.8**
	comp=Z,6.8nm,0.4s,baz=218,slow=17,SNR=1.3 comp=Z,4.4nm,0.3s							
BATI				AML		AML		
BATI	**Baumata**	**17.11**	**100**	P		**Pn**	**21 11 48.7**	**+1.7**
	comp=Z,31nm,0.7s							
SOEI	**Soe**	**17.65**	**99**	P		**Pn**	**21 11 54.6**	**+0.8**
SOEI				IAmb		IAmb	21 12 06.7	
	comp=Z,22nm,0.8s							
SOEI	**Soe**	**17.65**	**99**	P		**Pn**	**21 11 53.8**	**+0.1**
	comp=Z,43nm,0.8s							
MBWA	**Marble Bar**	**18.63**	**138**			**P**	**21 12 05.0**	**+0.5**
NLAI	**Namlea**	**20.87**	**79**	P		**P**	**21 12 30.1**	**+1.2**
	comp=Z,19nm,0.7s							
FITZ	**Fitzroy Crossi**	**21.37**	**121**	P		**P**	**21 12 35.3**	**+1.1**
	comp=Z,4.2nm,0.7s,baz=268,slow=5.2,SNR=13							
FITZ				S		**S**	**21 16 27.3**	**-0.7**
	comp=Z,2.1nm,0.9s,baz=96,slow=15,SNR=1.9							
FITZ				LR		LR	21 20 50.0	
	comp=Z,81nm,20.7s,baz=339,slow=37 comp=Z,4.2nm,0.7s							
FITZ	**Fitzroy Crossi**	**21.37**	**121**			**P**	**21 12 35.2**	**+1.1**
FITZ	**Fitzroy Crossi**	**21.37**	**121**	P		**P**	**21 12 34.2**	**0.0**
	comp=Z,2.7nm,0.8s							
MEEK	**Meekatharra**	**22.24**	**150**	P		P	21 12 38.4	-5.2
	comp=Z,17nm,2.2s							
KNRA	**Kununurra**	**23.20**	**113**			**P**	**21 12 54.6**	**+1.0**
DAV	**Davao City (W)**	**23.84**	**53**	LR		LR	21 22 57.3	
	comp=Z,78nm,20.0s,baz=246,slow=38							
MTN	**Manton Dam**	**24.75**	**104**	P		**P**	**21 13 08.5**	**+0.7**
SIJI	**Sorong**	**25.48**	**76**	P		**P**	**21 13 10.9**	**-3.5**
	comp=Z,25nm,0.7s							
FAKI	**Fak Fak**	**25.97**	**81**	P		**P**	**21 13 19.0**	**+0.2**
FAKI				IAmb		IAmb	21 13 20.9	
	comp=Z,7.2nm,0.7s							
CMAR	**Chiang Mai Arr**	**26.84**	**344**	P		**P**	**21 13 25.0**	**-1.5**
	comp=Z,2.7nm,0.6s,baz=179,slow=8.5,SNR=24							
CMAR				PcP		**PcP**	**21 16 49.5**	**+1.5**
	comp=Z,0.6nm,0.5s,baz=203,slow=3.1,SNR=5.5							
CMAR				LR		LR	21 25 23.4	
	comp=Z,52nm,18.4s,baz=150,slow=40 comp=Z,2.7nm,0.6s							
CMAR	**Chiang Mai Arr**	**26.84**	**344**	P		**P**	**21 13 23.9**	**-2.6**
CHTO	**Chiang Mai**	**27.18**	**344**			**P**	**21 13 27.3**	**-2.2**
CHTO	**Chiang Mai**	**27.18**	**344**	P		**P**	**21 13 27.5**	**-2.0**
	comp=Z,7.1nm,1.0s							
NWAO	**Narrogin (SRO)**	**27.20**	**160**	LR		LR	21 24 02.2	
	comp=Z,100nm,20.9s,baz=299,slow=36							
H01W3	**Cape Leeuwin H**	**28.16**	**167**	T		T	21 43 17.6	
	baz=344,slow=76,SNR=223							
H01W1	**Cape Leeuwin H**	**28.17**	**167**	T		T	21 43 21.5	
	baz=344,slow=76,SNR=127							
H01W2	**Cape Leeuwin H**	**28.17**	**167**	T		T	21 43 18.7	
	baz=344,slow=76,SNR=239							

WB0	**Warramunga Arr**	**29.62**	**117**	P		**P**	**21 13 52.0**	**+0.6**
WRA	**Warramunga Arr**	**29.63**	**118**	P		**P**	**21 13 52.1**	**+0.5**
	comp=Z,0.9nm,0.8s,baz=291,slow=11,SNR=14							
WRA				PcP		**PcP**	**21 16 55.5**	**+0.7**
	comp=Z,0.7nm,0.6s,baz=296,slow=2.5,SNR=4.2 comp=Z,0.9nm,0.8s							
WRA	**Warramunga Arr**	**29.63**	**118**	P		**P**	**21 13 51.6**	**+0.1**
WRAB	**Tennant Creek**	**29.64**	**118**	P		**P**	**21 13 52.3**	**+0.7**
PALK	**Palikekele**	**29.66**	**299**	LR		LR	21 24 09.7	
	comp=Z,32nm,20.9s,baz=99,slow=33							
WR8	**Warramunga Arr**	**29.78**	**117**	P		**P**	**21 13 53.3**	**+0.5**
AS31	**Alice Springs**	**30.77**	**125**	P		**P**	**21 14 02.3**	**+0.7**
ASAR	**Alice Springs**	**30.77**	**125**	P		**P**	**21 14 02.3**	**+0.7**
	comp=Z,0.6nm,0.5s,baz=302,slow=8.4,SNR=13							
ASAR				PcP		**PcP**	**21 16 59.0**	**+1.2**
	comp=Z,0.8nm,0.8s,baz=300,slow=2.3,SNR=7.2 comp=Z,0.6nm,0.5s							
BRDH	**Bariadhala**	**33.33**	**334**	LR		LR	21 29 51.1	
	comp=Z,94nm,18.1s,baz=156,slow=40							
MORE	**Moreh**	**33.71**	**340**	P		**P**	**21 14 25.1**	**-2.1**
MORE				IAmb		IAmb	21 14 27.0	
	comp=Z,4.8nm,0.6s							
H08S2	**Diego Garcia H**	**33.77**	**267**	T		T	21 49 53.8	
	baz=91,slow=76,SNR=517							
H08S3	**Diego Garcia H**	**33.78**	**267**	T		T	21 49 48.8	
	baz=91,slow=76,SNR=527							
H08S1	**Diego Carcia H**	**33.79**	**267**	T		T	21 49 49.5	
	baz=91,slow=76,SNR=328							
JAY	**Jayapura**	**34.35**	**84**	P		**P**	**21 14 31.4**	**-1.6**
EVN	**Everest**	**40.06**	**332**	P		**P**	**21 15 20.6**	**-1.2**
EVN				IAmb		IAmb	21 15 22.8	
	comp=Z,5.8nm,0.5s							
PMG	**Port Moresby**	**40.18**	**96**	P		**P**	**21 15 22.5**	**+0.1**
	comp=Z,18nm,0.9s							
CTA	**Charters Tower**	**40.42**	**112**	LR		LR	21 32 49.1	
	comp=Z,42nm,18.3s,baz=222,slow=37							
CTAO	**Charters Tower**	**40.42**	**112**	P		**P**	**21 15 24.9**	**+0.6**
CTAO				IAmb		IAmb	21 15 27.0	
	comp=Z,6.6nm,0.8s							
STKA	**Stephens Creek**	**40.65**	**131**	P		**P**	**21 15 27.8**	**+1.8**
	comp=Z,8.4nm,0.7s,baz=302,slow=8.8,SNR=13							
STKA				LR		LR	21 34 48.1	
	comp=Z,54nm,18.1s,baz=230,slow=40 comp=Z,8.4nm,0.7s							
STKA	**Stephens Creek**	**40.65**	**131**	P		**P**	**21 15 26.7**	**+0.7**
STKA	**Stephens Creek**	**40.65**	**131**	P		**P**	**21 15 25.0**	**-0.9**
	comp=Z,56nm,0.7s							
NJ2	**Nanjing**	**41.01**	**16**	*e*P		**P**	**21 15 30.5**	**+1.7**
NJ2				pmax		pmax		
	comp=Z,5.0nm,0.6s							
LZDM	**Lanzhou Array**	**43.28**	**357**	P		**P**	**21 15 46.9**	**-0.7**
	comp=Z,1.3nm,0.4s,baz=179,slow=12,SNR=4.0 comp=Z,1.3nm,0.4s							
GUMO	**Guam**	**43.40**	**61**	LR		LR	21 32 51.0	
	comp=Z,25nm,21.2s,baz=100,slow=35							
CMSA	**Cobar Meteorol**	**43.61**	**129**	P		**P**	**21 15 49.6**	**-0.4**
	comp=Z,6.6nm,1.5s							
GTA2	**Gaotai**	**47.14**	**353**	*e*P		**P**	**21 16 17.8**	**-0.2**
GTA2				pmax		pmax		
	comp=Z,6.0nm,0.9s							
HHC	**Hu-ho-hao-te**	**48.30**	**5**	*e*P		**P**	**21 16 29.3**	**+2.4**
HHC				pmax		pmax		
	comp=Z,8.0nm,0.8s							
HHC				pmax		pmax		
	comp=Z,170nm,4.9s							
HHC				LR		LR		
	comp=N,72nm,13.1s							
HHC				LR		LR		
	comp=E,140nm,13.7s							
HHC				LR		LR		
	comp=Z,79nm,15.9s							
KSRS	**Korea Array**	**48.95**	**23**	P		**P**	**21 16 31.4**	**-0.4**
	comp=Z,1.9nm,0.8s,baz=208,slow=9.5,SNR=5.9 comp=Z,1.9nm,0.8s							
NIL	**Nilore**	**51.68**	**324**	P		**P**	**21 16 51.8**	**-0.8**
MJAR	**Matsushiro Arr**	**52.89**	**32**	P		**P**	**21 16 59.9**	**-1.6**
	comp=Z,1.3nm,0.7s,baz=211,slow=7.9,SNR=5.8 comp=Z,1.3nm,0.7s							
CN2	**Changchun**	**53.82**	**17**	P		**P**	**21 17 09.5**	**+1.4**
CN2				pmax		pmax		
	comp=Z,10.0nm,0.5s							
WMQ	**Urumqi**	**53.84**	**343**	*

	comp=Z,12nm,1.1s							
PETK	**Petropavlovsk-**	**74.21**	**29**	P		**P**	**21 19 21.0**	**-0.7**
	comp=Z,1.5nm,0.7s,baz=254,slow=1.8,SNR=6.9							
	comp=Z,1.5nm,0.7s							
ARTI	**Arti**	**74.91**	**335**	LR		LR	21 58 04.3	
	comp=Z,50nm,19.4s,baz=264,slow=40							
ARTI	**Arti**	**74.91**	**335**	P		**P**	**21 19 25.7**	**+0.1**
VNDA	**Vanda**	**75.59**	**169**	P		**P**	**21 19 30.8**	**+1.5**
	comp=Z,0.8nm,0.8s,baz=288,slow=6.1,SNR=3.5							
VNDA				LR		LR	21 47 58.8	
	comp=Z,36nm,21.9s,baz=320,slow=32							
	comp=Z,0.8nm,0.8s							
MBAR	**Mbarara**	**75.87**	**271**	LR		LR	21 47 27.2	
	comp=Z,26nm,19.6s,baz=70,slow=31							
KBZ	**Khabaz**	**76.71**	**318**	P		**P**	**21 19 36.0**	**-0.2**
	comp=Z,3.2nm,0.9s,baz=135,slow=5.7,SNR=5.3							
	comp=Z,3.2nm,0.9s							
NRIK	**Noril'sk**	**77.76**	**353**	P		**P**	**21 19 42.0**	**+0.4**
	comp=Z,3.1nm,0.3s,baz=155,slow=5.6,SNR=6.3							
NRIK				LR		LR	21 55 48.9	
	comp=Z,56nm,20.1s,baz=322,slow=37							
	comp=Z,3.1nm,0.3s							
NRIK	**Noril'sk**	**77.76**	**353**	P		**P**	**21 19 41.3**	**-0.3**
NRIK				IAmb		IAmb	21 19 42.7	
	comp=Z,8.9nm,1.1s							
GHAJ	**Ghor Haditha**	**77.90**	**304**	P		**P**	**21 19 42.9**	**-0.2**
MMAI	**Mount Meron Ar**	**78.52**	**306**	P		**P**	**21 19 48.9**	**+2.2**
	comp=Z,0.8nm,0.5s,baz=98,slow=5.7,SNR=3.7							
	comp=Z,0.8nm,0.5s							
CY604	**RAF Akrotiri,**	**79.61**	**307**			**P**	**21 19 53.2**	**+1.0**
TIXI	**Tiksi**	**80.32**	**7**	P		**P**	**21 19 54.1**	**-1.4**
	comp=Z,0.9nm,0.4s,baz=213,slow=2.0,SNR=11							
TIXI				LR		LR	21 59 27.4	
	comp=Z,21nm,19.1s,baz=13,slow=39							
	comp=Z,0.9nm,0.4s							
TIXI	**Tiksi**	**80.32**	**7**	P		**P**	**21 19 54.9**	**-0.6**
TIXI				IAmb		IAmb	21 19 54.9	
	comp=Z,2.9nm,0.8s							
CSS	**Mathiatis**	**80.72**	**307**	P		**P**	**21 19 59.4**	**+0.9**
CSS				IAmb		IAmb	21 20 11.8	
	comp=Z,11nm,0.9s							
BR131	**Keskin Array S**	**81.82**	**312**	P		**P**	**21 20 04.3**	**-0.1**
BR131				IAmb		IAmb	21 20 10.4	
	comp=Z,2.9nm,0.9s							
BRTR	**Keskin Array B**	**81.82**	**312**	P		**P**	**21 20 04.1**	**-0.3**
	comp=Z,1.6nm,0.7s,baz=98,slow=5.7,SNR=11							
	comp=Z,1.6nm,0.7s							
BR106	**Keskin Array S**	**81.84**	**312**	P		**P**	**21 20 09.2**	**+4.7**
SUR	**Sutherland**	**82.48**	**238**	LR		LR	21 49 54.4	
	comp=Z,38nm,21.4s,baz=90,slow=31							
QSPA	**South Pole Qui**	**82.52**	**180**	P		**P**	**21 20 08.8**	**+1.2**
	comp=Z,1.6nm,0.9s,baz=306,slow=4.8,SNR=4.5							
	comp=Z,1.6nm,0.9s							
QSPA	**South Pole Qui**	**82.52**	**180**	P		**P**	**21 20 08.7**	**+1.2**
AKASG	**Malin Array Be**	**87.79**	**322**	P		**P**	**21 20 34.4**	**+0.4**
	comp=Z,1.0nm,0.5s,baz=92,slow=4.6,SNR=5.8							
	comp=Z,1.0nm,0.5s							
MLR	**Muntele Rosu**	**88.75**	**316**	P		**P**	**21 20 39.3**	**+0.6**
MLR				IAmb		IAmb	21 20 50.5	
	comp=Z,6.5nm,1.1s							
BURAR	**Bucovina Array**	**89.67**	**318**	P		**P**	**21 20 43.8**	**+0.7**
BURAR				IAmb		IAmb	21 21 03.0	
	comp=Z,1.6nm,0.9s							
BUR08	**Bucovina Ar. S**	**89.68**	**318**	P		**P**	**21 20 44.4**	**+1.3**
BUR08				IAmb		IAmb	21 20 50.4	
	comp=Z,3.5nm,1.1s							
LIT	**Litokhoron**	**90.25**	**310**	P		**P**	**21 20 46.1**	**+0.3**
FINES	**FINESS Array B**	**91.98**	**332**	P		**P**	**21 20 53.6**	**+0.4**
	comp=Z,3.4nm,0.9s,baz=108,slow=6.2,SNR=9.6							
	comp=Z,3.4nm,0.9s							
FINES	**FINESS Array B**	**91.98**	**332**	P		**P**	**21 20 53.8**	**+0.5**
ARCES	**ARCESS Array B**	**93.82**	**340**	P		**P**	**21 21 01.6**	**0.0**
	comp=Z,1.8nm,0.9s,baz=108,slow=6.7,SNR=4.5							
	comp=Z,1.8nm,0.9s							
D19K	**Kuna River**	**98.86**	**22**	P		**P**	**21 21 24.8**	**+0.2**
D19K				IAmb		IAmb	21 21 38.4	
	comp=Z,2.5nm,1.0s							
E19K	**Redstone River**	**99.23**	**23**	P		**Pdif**	**21 21 26.3**	**+0.1**
E19K				IAmb		IAmb	21 21 45.2	
	comp=Z,3.3nm,1.0s							
YKA	**Yellowknife Ar**	**117.45**	**20**	PKP		**PKPdf**	**21 26 30.9**	**+0.9**
	comp=Z,0.4nm,0.8s,baz=331,slow=1.9,SNR=4.9							
YKA	**Yellowknife Ar**	**117.45**	**20**			**PKPdf**	**21 26 30.3**	**+0.4**
PDAR	**Pinedale Array**	**132.62**	**36**	PKP		**PKPdf**	**21 27 01.8**	**+1.9**
	comp=Z,0.2nm,0.6s,baz=319,slow=2.4,SNR=3.5							
PDAR	**Pinedale Array**	**132.62**	**36**			**PKPdf**	**21 27 00.5**	**+0.6**
TXAR	**Lajitas Array**	**144.20**	**49**	PKP		PKPbc	21 27 21.4	+1.9
	comp=Z,1.1nm,0.8s,baz=270,slow=1.3,SNR=10							
TXAR	**Lajitas Array**	**144.20**	**49**			**PKPab**	**21 27 20.8**	**+1.7**
WMOK	**Wichita Mounta**	**144.22**	**37**	PKPdf		**PKPab**	**21 27 19.9**	**+0.9**
APMT	**Aspermont**	**144.33**	**40**			**PKPab**	**21 27 20.4**	**+1.0**

*IDC **28** 21:42:54.1±1.5,0.°64N×120.°73E,h0km,mb3.3/3, mbtmp3.4/4,ML3.7/1,MS2.9/4, Error ellipse: s-maj=79.9km s-min=24.2km az=65.0*

*DJA **28** 21:42:56.6±0.3,1.°1N±3.°×12.°0E±.°,h10km,M4.1/29,mB5.1/2, mb4.3/5,mb4.3/5,mB5.2/2,ML4.0/24,MLv4.0/26,MLv4.0/29, Mw(mB)4.5/2,Mw(mB)4.5/2*

ISC 28 21:43:00.3±1.2,0.°57N±0.°09×120.°34E±0.°06,h55km,n20, σ1§53/17,mb3.3/3,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PCI	**Palu**	**1.55**	**199**	P	**Pn**	**21 43 23.1**	**-2.5**
PCI				AML	AML		
APSI	**Ampana**	**1.97**	**138**	P	**Pn**	**21 43 29.9**	**-1.5**
APSI				AML	AML		
APSI				AML	AML		
GTOI	**Gorontalo**	**2.67**	**89**	P	**Pn**	**21 43 39.3**	**-1.7**
GTOI				AML	AML		
GTOI				AML	AML		
GTOI				AML	AML		
LUWI	**Luwuk**	**2.91**	**123**	P	**Pn**	**21 43 42.7**	**-1.6**
LUWI				AML	AML		
LUWI				AML	AML		
LUWI				AML	AML		
SMKI	**Samarinda**	**3.29**	**252**	P	**Pn**	**21 43 48.5**	**-0.9**
SMKI				AML	AML		
MMSI	**Mamuju**	**3.54**	**204**	P	**Pn**	**21 43 52.9**	**+0.1**
MMSI				AML	AML		
MMSI				AML	AML		
MMSI				AML	AML		
TTSI	**Tana Toraja**	**3.63**	**188**	P	**Pn**	**21 43 55.3**	**+1.3**
TTSI				AML	AML		
TTSI				AML	AML		
TTSI				AML	AML		
KMSI	**Cibinong**	**3.65**	**90**	P	**Pn**	**21 43 54.1**	**-0.2**
BKB	**Balikpapan**	**3.89**	**242**	P	**Pn**	**21 43 55.1**	**-2.5**
BKB				AML	AML		
BKB				AML	AML		
BKB				AML	AML		
PMSI	**Majene**	**4.29**	**199**	P	**Pn**	**21 44 02.3**	**-0.8**
PMSI				AML	AML		
PMSI				AML	AML		
PMSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**4.89**	**164**	P	**Pn**	**21 44 11.3**	**-0.1**
KKSI				AML	AML		
KKSI				AML	AML		
KKSI				AML	AML		
KDI	**Kendari**	**5.04**	**153**	P	**Pn**	**21 44 12.5**	**-1.0**
	0.1nm0.1nm0.1nm1μm1μm19nm,0.8s						
KDI				AML	AML		
KDI				AML	AML		
KDI				AML	AML		
KAPI	**Kappang**	**5.58**	**186**	Pn	**Pn**	**21 44 19.9**	**-0.9**
	2.3nm,0.3s,baz=12,slow=9.3,SNR=4.6						
KAPI				LR	LR	21 45 57.6	
	comp=Z,30nm,20.4s,baz=8.5,slow=32						
	5.5nm,0.4s						
KAPI				AML	AML		
BKSI	**Bulukumba**	**5.86**	**182**	P	**Pn**	**21 44 25.9**	**+1.3**
	0.0nm0.1nm0.1nm16nm,0.8s						
BKSI				AML	AML		
BKSI				AML	AML		
BKSI				AML	AML		
BATI	**Baumata**	**11.21**	**163**	LR	LR	21 49 53.5	
	comp=Z,106nm,18.8s,baz=272,slow=38						
FITZ	**Fitzroy Crossi**	**19.27**	**165**	LR	LR	21 56 01.9	
	comp=Z,28nm,20.4s,baz=305,slow=41						
WRA	**Warramunga Arr**	**24.57**	**147**	P	**P**	**21 48 14.0**	**-1.3**
	0.7nm,0.7s,baz=329,slow=10.0,SNR=6.0						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**27.46**	**152**	P	**P**	**21 48 41.8**	**+0.3**
	0.2nm,0.6s,baz=338,slow=9.7,SNR=8.1						
	0.2nm,0.6s						
PMG	**Port Moresby**	**28.49**	**111**	LR	LR	22 02 22.2	
	comp=Z,60nm,18.1s,baz=192,slow=42						
MKAR	**Makanchi Array**	**56.76**	**330**	P	**P**	**21 52 40.8**	**+2.1**
	0.2nm,0.5s,baz=124,slow=7.8,SNR=3.3						
	0.2nm,0.5s						

*AFAD **28** 21:55:15.5,37.°86N×26.°84E,h10km±1km,ML2.6*
*ISK **28** 21:55:15.5,37.°85N×26.°85E,h10km,ML2.6/25*
*THE **28** 21:55:16.1,38.°1N±3.°×2.°7E±.°,h4km±2km,M2.7/6,MLh2.7/6*

ISC 28 21:55:15.6±0.9,37.°85N±0.°02×26.°85E±0.°02,h11km±7km, n48,σ0§53/72,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.14**	**184**	P	**Pg**	**21 55 19.1**	**+0.1**
SMG				S	**Sg**	**21 55 20.5**	**-0.9**
SMG				AML	AML		
DGB	**zmir**	**0.20**	**8**	P	**Pg**	**21 55 20.0**	**0.0**
DGB				S	**Sg**	**21 55 22.7**	**-0.3**
GMLD	**Gumuldur**	**0.23**	**13**	Pg	**Pg**	**21 55 20.6**	**+0.1**
GMLD				Sg	**Sg**	**21 55 24.4**	**+0.7**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**116**	P	**Pg**	**21 55 22.5**	**0.0**
GCAM				S	**Sg**	**21 55 28.2**	**+1.2**
GCAM				IAML		21 55 29.0	
	comp=N,722nm,0.6s						
GCAM				IAML		21 55 29.0	
	comp=E,666nm,0.1s						
GCAM	**G?zelcaml?**	**0.34**	**116**	Pg	**Pg**	**21 55 22.8**	**+0.3**
GCAM				Sg	**Sb**	**21 55 28.3**	**-0.8**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.35**	**89**	Pg	**Pg**	**21 55 22.8**	**+0.2**
KUSD				Sg	**Sg**	**21 55 28.1**	**+0.9**
KUSD				AML	AML		
BEYE	**izmir**	**0.38**	**9**	P	**Pg**	**21 55 23.3**	**+0.1**
BEYE				S	**Sg**	**21 55 28.2**	**-0.1**
ZEYE	**Izmir, Urla-Ze**	**0.47**	**325**	P	**Pg**	**21 55 24.9**	**0.0**
ZEYE				S	**Sg**	**21 55 31.2**	**0.0**
ZEYE				IAML		21 55 32.0	
	comp=N,742nm,0.2s						
DDIM	**Aydin, Didim**	**0.50**	**142**	P	**Pg**	**21 55 25.8**	**+0.3**
DDIM				IAML		21 55 34.0	
	comp=N,423nm,0.5s						
URLA	**Izmir**	**0.55**	**339**	P	**Pg**	**21 55 26.1**	**-0.2**
URLA				S	**Sg**	**21 55 33.9**	**+0.4**
URLA				IAML		21 55 36.0	
	comp=N,370nm,0.7s						
URLA				IAML		21 55 36.0	
	comp=E,473nm,0.4s						
URLA	**Izmir**	**0.55**	**339**	Pg	**Pg**	**21 55 26.3**	**0.0**
URLA				Sg	**Sb**	**21 55 34.5**	**-0.5**
URLA				AML	AML		
BLCB	**Balcova**	**0.55**	**16**	P	**Pg**	**21 55 26.7**	**+0.2**
BLCB				S	**Sg**	**21 55 34.0**	**+0.2**
BLCB	**Balcova**	**0.55**	**16**	Pg	**Pg**	**21 55 26.7**	**+0.2**
BLCB				Sg	**Sg**	**21 55 34.4**	**+0.6**
BLCB				AML	AML		
DIDI	**Didim-Aydin**	**0.57**	**147**	Pg	**Pg**	**21 55 26.9**	**+0.2**
DIDI				AML	AML		
DUVT	**Torbali**	**0.60**	**52**	P	**Pg**	**21 55 27.3**	**0.0**
DUVT				IAML		21 55 39.0	
	comp=E,317nm,0.2s						
CESE	**eme**	**0.65**	**318**	Pg	**Pb**	**21 55 28.7**	**-0.2**
CESE				AML	AML		
KRBN	**Karaburun**	**0.78**	**343**	Pg	**Pb**	**21 55 30.8**	**-0.3**
KRBN				AML	AML		
BAGT	**Foa**	**0.80**	**0**	P	**Pg**	**21 55 30.8**	**-0.4**
BAGT				S	**Sb**	**21 55 42.8**	**+0.4**
BAGT				IAML		21 55 45.0	
	comp=E,345nm,0.7s						
YKAV	**Yalikavak-Bodr**	**0.80**	**155**	Pg	**Pb**	**21 55 31.7**	**+0.1**
YKAV				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	P	**Pb**	**21 55 31.5**	**-0.4**
CHOS				S	**Sb**	**21 55 43.6**	**+0.6**
CHOS				AML	AML		
CHOS	**Chios island**	**0.82**	**311**	Pg	**Pb**	**21 55 32.3**	**+0.3**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.83**	**83**	Pg	**Pb**	**21 55 32.7**	**+0.6**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.84**	**103**	P	**Pg**	**21 55 31.6**	**-0.2**
AYDN				S	**Sg**	**21 55 42.0**	**-0.8**
FOCM	**Foa**	**0.86**	**354**	Pg	**Pb**	**21 55 32.6**	**0.0**
FOCM				AML	AML		
BODT	**Bodrum**	**0.87**	**155**	P	**Pg**	**21 55 32.5**	**+0.2**
BODT				S	**Sb**	**21 55 44.5**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.87**	**155**	Pg	**Pg**	**21 55 32.6**	**+0.2**
BODT				AML	AML		
KARB	**zmir-Karabur**	**0.88**	**337**	P	**Pg**	**21 55 32.1**	**-0.5**
KARB				S	**Sb**	**21 55 44.4**	**-0.3**
KARB				IAML		21 55 47.0	
	comp=N,312nm,0.5s						
KARB				IAML		21 55 47.0	
	comp=E,334nm,0.5s						
IZMR	**zmir-demi**	**0.92**	**72**	P	**Pg**	**21 55 33.1**	**-0.2**
IZMR				S	**Sg**	**21 55 43.8**	**-1.5**
BDRM	**Kayabasi**	**0.92**	**149**	P	**Pg**	**21 55 32.2**	**-1.1**
BDRM				S	**Sg**	**21 55 45.0**	**-0.3**
BDRM				IAML		21 55 48.0	
	comp=E,197nm,0.4s						
BDRM				IAML		21 55 49.0	
	comp=N,168nm,0.7s						
MLSB	**Milas**	**0.92**	**127**	Pg	**Pg**	**21 55 33.3**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.94**	**150**	Pg	**Pb**	**21 55 34.3**	**+0.5**
CAMT	**Merkez**	**0.97**	**22**	P	**Pn**	**21 55 35.0**	**-0.1**
CAMT				S	**Sb**	**21 55 47.5**	**+0.3**
ZEDA	**zmir-Bergama**	**1.13**	**9**	P	**Pb**	**21 55 37.1**	**0.0**
ZEDA				S	**Sb**	**21 55 52.3**	**+0.5**
ZEDA				IAML		21 55 55.0	
	comp=E,185nm,0.6s						
ZEDA				IAML		21 55 56.0	
	comp=N,162nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.15**	**84**	Pn	**Pb**	**21 55 37.5**	**0.0**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.20**	**44**	Pn	**Pg**	**21 55 39.3**	**+0.6**
GOMA				AML	AML		
DKL	**Dikili**	**1.22**	**2**	Pn	**Pg**	**21 55 39.5**	**+0.5**
DKL				AML	AML		
DAT	**Datca**	**1.26**	**152**	Pn	**Pg**	**21 55 39.8**	**-0.1**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.27**	**149**	Pn	**Pn**	**21 55 39.3**	**+0.1**
DATC				AML	AML		
AKHS	**Akhisar**	**1.27**	**36**	P	**Pg**	**21 55 40.8**	**+0.6**
AKHS				S	**Sb**	**21 55 56.0**	**-0.1**
AKHS				IAML		21 56 03.0	
	comp=N,114nm,0.9s						
AKS	**Akhisar**	**1.27**	**36**	Pn	**Pn**	**21 55 39.5**	**+0.1**
AKS				AML	AML		
KTTT	**Salihli**	**1.29**	**49**	P	**Pn**	**21 55 39.0**	**-0.5**
KTTT				S	**Sb**	**21 55 54.7**	**-1.7**
APE	**Apeiranthos**	**1.31**	**234**	P	**Pn**	**21 55 39.9**	**0.0**
APE				S	**Sg**	**21 55 59.0**	**+1.3**
APE	**Apeiranthos**	**1.31**	**234**	Pn	**Pn**	**21 55 39.5**	**-0.3**
APE				AML	AML		
SOMA	**Soma-Manisa**	**1.41**	**22**	Pn	**Pb**	**21 55 42.1**	**+0.2**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.46**	**342**	P	**Pb**	**21 55 42.8**	**0.0**
GORD	**Gordes-Manisa**	**1.48**	**44**	Pn	**Pb**	**21 55 43.2**	**0.0**
GORD				AML	AML		
KULA	**Kula-Manisa**	**1.57**	**65**	Pn	**Pn**	**21 55 44.2**	**+0.7**
KULA				AML	AML		
YAYO	**Edremit-Balk**	**1.77**	**6**	Pn	**Pb**	**21 55 47.1**	**-0.9**
YAYO				AML	AML		

*SDD **28** 21:57:23.2±20.0,17.°59N×69.°30W,h144km±176km,MD3.2, ML2.9,MW3.2,Presumed earthquake*

*NEIC **28** 21:57:29.3±1.1,18.°4N±0.°2×68.°71W±0.°05,h140km±11km, ML2.8/36,Md3.6/8(RSPR),Error ellipse: s-maj=27.5km s-min=3.4km az=191.0*

*RSPR **28** 21:57:30.5,18.°62N×68.°63W,h138km±1km,MD3.6/8*

ISC 28 21:57:29.3±1.6,18.°42N±0.°09×68.°71W±0.°04,h139km±9km, n44,σ0§73/63,25C-4D,Mona Passage

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HIDR	**Higuey Centro**	**0.17**	**359**	⇑*i*P	**Pn**	**21 57 47.6**	**-0.6**
HIDR				⇑*i*S	**Sn**	**21 58 02.3**	**-0.3**
HIDR				IAML		21 58 04.0	
	comp=N,641nm,0.2s						
SADR	**Isla Saona**	**0.23**	**196**	⇑*i*P	**Pn**	**21 57 48.1**	**-0.2**
SADR				⇑*i*S	**Sn**	**21 58 02.9**	**+0.1**
SADR				IAML		21 58 03.2	
	comp=N,444nm,0.3s						
PCDR	**Punta Cana, DR**	**0.33**	**73**		**Pn**	**21 57 48.5**	**-0.2**
PCDR					**Sn**	**21 58 03.6**	**+0.3**
PCDR				IAML		21 58 05.6	
	comp=N,169nm,0.4s						
PCDR				IAML		21 58 06.0	
	comp=E,115nm,0.6s						
PCDR	**Punta Cana, DR**	**0.33**	**73**	⇑*i*P	**Pn**	**21 57 48.6**	**0.0**
PCDR				⇑*i*S	**Sn**	**21 58 03.4**	**+0.2**
PCDR				IAML		21 58 05.5	
	comp=N,97nm,0.4s						
PCDR	**Punta Cana, DR**	**0.33**	**73**	⇑*e*P	**Pn**	**21 57 48.6**	**0.0**
PCDR				*e*S	**Sn**	**21 58 04.0**	**+0.7**
SMDR	**Samana, DR**	**0.98**	**333**		**Pn**	**21 57 52.5**	**-0.4**
SMDR					**Sn**	**21 58 09.9**	**-0.9**
SMDR	**Samana, DR**	**0.98**	**333**	⇑*i*P	**Pn**	**21 57 53.9**	**+1.1**
SMDR				⇑*i*S	**Sn**	**21 58 10.4**	**-0.4**
SMDR				IAML		21 58 16.9	
	comp=N,121nm,0.3s						
SMDR	**Samana, DR**	**0.98**	**333**	⇑*e*P	**Pn**	**21 57 52.5**	**-0.4**
SMDR				*e*S	**Sn**	**21 58 09.9**	**-0.9**
SDD	**Santo Domingo**	**1.14**	**272**	⇑*i*S	**Sn**	**21 58 13.3**	**-0.1**
SDD				IAML		21 58 14.4	
	comp=N,35nm,1.4s						
IDE	**Isla Desecheo**	**1.18**	**91**		**Pn**	**21 57 55.3**	**+0.6**
IDE					**Sn**	**21 58 14.3**	**+0.3**
IDE	**Isla Desecheo**	**1.18**	**91**	⇑*e*P	**Pn**	**21 57 55.3**	**+0.6**
IDE				*e*S	**Sn**	**21 58 14.3**	**+0.3**
PRSN	**Puerto Rico Se**	**1.50**	**97**		**Pn**	**21 57 58.9**	**+0.8**
PRSN					**Sn**	**21 58 20.0**	**0.0**
PRSN				IAML		21 58 24.6	
	comp=N,131nm,0.4s						
PRSN	**Puerto Rico Se**	**1.50**	**97**	⇑*e*P	**Pn**	**21 57 59.2**	**+1.2**
AGPR	**Aguadilla, PR**	**1.52**	**88**		**Pn**	**21 57 58.6**	**+0.3**
AGPR					**Sn**	**21 58 20.4**	**+0.1**
AGPR				IAML		21 58 25.0	
	comp=N,125nm,1.1s						
AGPR				IAML		21 58 25.3	
	comp=N,109nm,1.0s						
AGPR	**Aguadilla, PR**	**1.52**	**88**	⇑*i*P	**Pn**	**21 57 59.7**	**+1.4**
AGPR				⇑*i*S	**Sn**	**21 58 21.7**	**+1.3**
AGPR				IAML		21 58 24.8	
	comp=N,90nm,0.8s						
AGPR	**Aguadilla, PR**	**1.52**	**88**	⇑*e*P	**Pn**	**21 57 59.9**	**+1.6**
BANI	**BANI**	**1.56**	**269**	Pn	**Pn**	**21 57 59.4**	**+0.6**
BANI	**BANI**	**1.56**	**269**	⇑*i*P	**Pn**	**21 57 59.5**	**+0.6**
BANI				IAML		21 58 26.7	
	comp=N,105nm,0.6s						
CRPR	**Cabo Rojo, PR**	**1.58**	**105**		**Pn**	**21 57 58.4**	**-0.5**
CRPR					**Sn**	**21 58 20.0**	**-1.5**
CRPR	**Cabo Rojo, PR**	**1.58**	**105**	⇑*i*P	**Pn**	**21 57 58.8**	**-0.1**
CRPR				IAML		21 58 26.7	
	comp=N,41nm,1.8s						
CRPR	**Cabo Rojo, PR**	**1.58**	**105**	⇓*e*P	**Pn**	**21 57 58.9**	**0.0**
MLPR	**Magueyes Islan**	**1.65**	**105**		**Pn**	**21 57 59.1**	**-0.6**
MLPR					**Sn**	**21 58 22.1**	**-0.8**
MLPR	**Magueyes Islan**	**1.65**	**105**	⇑*i*P	**Pn**	**21 57 59.5**	**-0.1**
MLPR				IAML		21 58 29.8	
	comp=N,9.3nm,0.5s						
MLPR	**Magueyes Islan**	**1.65**	**105**	⇑*e*P	**Pn**	**21 57 59.6**	**0.0**
ABDR	**Alto Bandera**	**1.86**	**283**	⇑*i*P	**Pn**	**21 58 02.9**	**+0.5**
ABDR				IAML		21 58 32.8	
	comp=N,58nm,0.3s						
AOPR	**Arecibo Observ**	**1.86**	**92**		**Pn**	**21 58 03.0**	**+0.9**
AOPR					**Sn**	**21 58 26.4**	**-1.0**
AOPR	**Arecibo Observ**	**1.86**	**92**	⇑*i*P	**Pn**	**21 58 03.5**	**+1.4**
AOPR				*i* S	**Sn**	**21 58 26.6**	**-0.7**
AOPR				IAML		21 58 33.5	
	comp=N,126nm,0.3s						
AOPR	**Arecibo Observ**	**1.86**	**92**	⇑*e*P	**Pn**	**21 58 02.0**	**-0.1**
OBIP	**Obispado Ponce**	**2.04**	**100**		**Pn**	**21 58 04.0**	**-0.3**
OBIP					**Sn**	**21 58 31.2**	**+0.2**
OBIP	**Obispado Ponce**	**2.04**	**100**	*e*S	**Sn**	**21 58 31.8**	**+0.8**
CELP	**Cerrillos**	**2.06**	**99**		**Pn**	**21 58 04.3**	**-0.2**
CELP					**Sn**	**21 58 31.8**	**+0.4**
CELP				IAML		21 58 36.8	
	comp=N,62nm,0.4s						
CELP	**Cerrillos**	**2.06**	**99**	⇑*i*P	**Pn**	**21 58 04.6**	**+0.1**
CELP				IAML		21 58 36.7	
	comp=N,22nm,0.3s						
CELP	**Cerrillos**	**2.06**	**99**	⇓*e*P	**Pn**	**21 58 04.6**	**+0.1**
SCO1	**Santiago de lo**	**2.15**	**298**	Pn	**Pn**	**21 58 05.9**	**+0.3**
ECPR	**Experimental S**	**2.23**	**92**		**Sn**	**21 58 34.2**	**-1.1**
ECPR	**Experimental S**	**2.23**	**92**		**Pn**	**21 58 06.8**	**+0.1**
ECPR	**Experimental S**	**2.23**	**92**	IAML		21 58 39.8	
	comp=N,132nm,0.2s						
ECPR				IAML		21 58 41.2	
	comp=N,179nm,0.2s						
ECPR	**Experimental S**	**2.23**	**92**	⇓*e*P	**Pn**	**21 58 07.2**	**+0.5**
PODR	**Polo**	**2.45**	**265**	Pn	**Pn**	**21 58 09.7**	**+0.2**
PODR				IAML		21 58 53.0	
	comp=E,30nm,2.0s						
PODR				IAML		21 59 22.8	
	comp=N,22nm,2.1s						
PODR	**Polo**	**2.45**	**265**	⇑*i*P	**Pn**	**21 58 10.1**	**+0.6**
SJG	**San Juan**	**2.46**	**97**	Pn	**Pn**	**21 58 09.6**	**+0.2**
SJG				IAML		21 58 44.0	
	comp=N,37nm,0.5s						
SJG				IAML		21 58 44.7	
	comp=N,31nm,0.5s						
SDDR	**Presa de Saban**	**2.50**	**283**		**Pn**	**21 58 09.7**	**-0.3**
SDDR				IAML		21 58 46.3	
	comp=N,40nm,0.7s						
SDDR				IAML		21 58 49.7	
	comp=N,34nm,0.5s					

JISG				*e*S	**Sn**	**22 33 03.4**	**-0.5**		
LATG	**Datong**	**1.32 280**		P	**Pn**	**22 32 49.3**	**+0.4**		
LATG				*i* S	**Sn**	**22 33 05.6**	**+0.1**		
FUSB	**Fushanzhiwuyua**	**1.32 290**		*i* P	**Pn**	**22 32 48.5**	**-0.4**		
FUSB				S	**Sn**	**22 33 04.1**	**-1.3**		
NDT	**Datong Townshi**	**1.34 282**		*e*P	**Pn**	**22 32 49.1**	**-0.1**		
NDT				*e*S	**Sn**	**22 33 05.6**	**-0.3**		
ETLH	**Xiulin Townshi**	**1.35 266**		P	**Pn**	**22 32 48.7**	**-0.6**		
ETLH				S	**Sn**	**22 33 05.4**	**-0.7**		
SHUL	**Shoufeng**	**1.38 248**		*e*P	**Pn**	**22 32 49.1**	**-0.5**		
SHUL				*e*S	**Sn**	**22 33 05.9**	**-0.8**		
ETM	**Tongmen**	**1.38 256**		P	**Pn**	**22 32 48.7**	**-0.9**		
ETM				S	**Sn**	**22 33 05.3**	**-1.5**		
NWLT	**Wulai**	**1.40 289**		P	**Pn**	**22 32 49.7**	**-0.2**		
NWLT				S	**Sn**	**22 33 06.3**	**-1.0**		
TWA	**Mucha**	**1.41 298**		P	**Pn**	**22 32 49.7**	**-0.3**		
NNSB	**Datong**	**1.44 275**		*e*P	**Pn**	**22 32 50.4**	**-0.1**		
NNSB				*e*S	**Sn**	**22 33 08.0**	**-0.4**		
NNSH	**Datong**	**1.44 275**		P	**Pn**	**22 32 50.3**	**-0.2**		
NNSH				*e*S	**Sn**	**22 33 07.9**	**-0.4**		
LXIB	**Xiulin Townshi**	**1.44 258**		*e*P	**Pn**	**22 32 49.7**	**-0.9**		
LXIB				S	**Sn**	**22 33 06.8**	**-1.7**		
NNS	**Nan Shan**	**1.45 275**		*e*P	**Pn**	**22 32 50.8**	**+0.1**		
ESL	**Shilin**	**1.48 250**		*e*P	**Pn**	**22 32 49.8**	**-1.2**		
ESL				*e*S	**Sn**	**22 33 07.4**	**-1.8**		
YHNB	**Yeheng**	**1.48 284**		*e*P	**Pn**	**22 32 51.4**	**+0.3**		
YHNB				*e*S	**Sn**	**22 33 09.4**	**+0.1**		
TATO	**Taipei**	**1.49 296**		P	**Pn**	**22 32 51.1**	**+0.1**		
TATO				S	**Sn**	**22 33 08.7**	**-0.7**		
NSK	**Sanguang**	**1.50 284**		*e*S	**Sn**	**22 33 09.8**	**0.0**		
WHF	**Hehuan Shan**	**1.55 264**		*e*P	**Pn**	**22 32 51.6**	**-0.7**		
WHF				*e*S	**Sn**	**22 33 09.8**	**-1.8**		
FUSS	**Fushou**	**1.56 268**		*e*P	**Pn**	**22 32 51.7**	**-0.6**		
JTJ	**Tarama**	**1.62 78**		*e*S	**Sn**	**22 33 12.9**	**+0.2**		
HGSD	**Ruisui**	**1.62 240**		P	**Pn**	**22 32 52.1**	**-0.9**		
HGSD				*e*S	**Sn**	**22 33 11.3**	**-1.4**		
OWD	**Renai**	**1.67 258**		*i* P	**Pn**	**22 32 53.1**	**-0.5**		
OWD				S	**Sn**	**22 33 12.2**	**-1.8**		
EHYH	**Wanrong**	**1.69 241**		P	**Pn**	**22 32 53.3**	**-0.5**		
EHYH				S	**Sn**	**22 33 13.5**	**-0.8**		
EHY	**Hungye**	**1.70 242**		P	**Pn**	**22 32 53.6**	**-0.4**		
EHY				S	**Sn**	**22 33 12.2**	**-2.4**		
NFF	**Wufeng Townshi**	**1.70 281**		P	**Pn**	**22 32 54.9**	**+0.8**		
NFF				S	**Sn**	**22 33 15.5**	**+0.7**		
WUSB	**Renai**	**1.71 259**		P	**Pn**	**22 32 54.0**	**-0.3**		
WUSB				S	**Sn**	**22 33 14.5**	**-0.5**		
VWDT	**VWDT**	**1.75 252**		*i* P	**Pn**	**22 32 54.8**	**+0.1**		
VWDT				S	**Sn**	**22 33 15.0**	**-0.8**		
YULB	**Yu-li**	**1.78 239**		P	**Pn**	**22 32 54.3**	**-0.7**		
YULB				S	**Sn**	**22 33 14.2**	**-2.3**		
EYUL	**Yuli**	**1.78 237**		*e*P	**Pn**	**22 32 55.4**	**+0.2**		
EYUL				*e*S	**Sn**	**22 33 14.7**	**-1.9**		
TWF1	**Yuli**	**1.80 238**		*i* P	**Pn**	**22 32 54.8**	**-0.6**		
TWF1				*e*S	**Sn**	**22 33 15.8**	**-1.2**		
WHP	**Taichung City**	**1.83 269**		*e*P	**Pn**	**22 32 56.8**	**+0.9**		
WHP				*e*S	**Sn**	**22 33 17.8**	**-0.2**		
WCS	**Beigang Elemen**	**1.88 262**		P	**Pn**	**22 32 56.9**	**+0.4**		
WCS				*e*S	**Sn**	**22 33 19.9**	**+0.8**		
FULB	**Fuli**	**1.89 234**		*e*P	**Pn**	**22 32 55.2**	**-1.4**		
FULB				S	**Sn**	**22 33 18.4**	**-0.8**		
SSLB	**Suanglung**	**1.90 254**		*i* P	**Pn**	**22 32 56.6**	**-0.3**		
SSLB				*e*S	**Sn**	**22 33 19.0**	**-0.6**		
SMLT	**Sun Moon Lake**	**1.93 257**		P	**Pn**	**22 32 57.3**	**+0.1**		
SMLT				S	**Sn**	**22 33 20.5**	**+0.1**		
TYC	**Yuchr**	**1.96 258**		P	**Pn**	**22 32 57.9**	**+0.3**		
TYC				*e*S	**Sn**	**22 33 20.9**	**-0.1**		
WHYT	**Xinyi Township**	**2.02 253**		P	**Pn**	**22 32 58.8**	**+0.4**		
WHYT				S	**Sn**	**22 33 22.7**	**+0.2**		
EDH	**Donghe**	**2.02 229**		*e*S	**Sn**	**22 33 19.5**	**-3.0**		
WJS	**Zhushan**	**2.10 257**		*e*P	**Pn**	**22 33 00.8**	**+1.4**		
WJS				S	**Sn**	**22 33 27.1**	**+2.9**		
ELDTW	**Lidau**	**2.10 238**		*e*P	**Pn**	**22 32 57.5**	**-2.1**		
WNT	**Mingjian**	**2.12 259**		P	**Pn**	**22 33 01.1**	**+1.4**		
WNT				S	**Sn**	**22 33 26.9**	**+2.0**		
ALS	**Alishan**	**2.13 248**		*e*P	**Pn**	**22 33 00.6**	**+0.5**		
ALS				*e*S	**Sn**	**22 33 26.1**	**+0.6**		
CHN5	**Tsauling**	**2.20 251**		P	**Pn**	**22 33 01.9**	**+0.9**		
CHN5				S	**Sn**	**22 33 28.1**	**+1.0**		
WDLH	**Douliu**	**2.30 255**		*e*P	**Pn**	**22 33 03.7**	**+1.6**		
WDLH				*e*S	**Sn**	**22 33 32.6**	**+3.4**		
STYH	**Taoyuan**	**2.30 241**		*i* P	**Pn**	**22 33 02.9**	**+0.6**		
STYH				*e*S	**Sn**	**22 33 28.6**	**-0.7**		
WCKO	**Fanlu**	**2.32 248**		P	**Pn**	**22 33 04.1**	**+1.6**		
WCKO				S	**Sn**	**22 33 31.5**	**+1.6**		
TPUB	**Ta-pu**	**2.36 245**		P	**Pn**	**22 33 04.2**	**+1.2**		
TPUB				S	**Sn**	**22 33 32.1**	**+1.3**		
CHN4	**Tsaushan**	**2.37 246**		P	**Pn**	**22 33 04.6**	**+1.5**		
CHN4				*e*S	**Sn**	**22 33 32.6**	**+1.6**		
WRL	**Guolierlin Hig**	**2.39 261**		*e*P	**Pn**	**22 33 04.1**	**+0.6**		
WRL				*e*S	**Sn**	**22 33 33.5**	**+1.9**		
WTP	**Ta-pu**	**2.40 244**		*e*P	**Pn**	**22 33 05.0**	**+1.4**		
WTK	**Tuku**	**2.43 256**		*e*P	**Pn**	**22 33 05.0**	**+1.0**		
WTK				S	**Sn**	**22 33 34.9**	**+2.4**		
TWK	**Hsinying**	**2.49 246**		*e*P	**Pn**	**22 33 06.4**	**+1.5**		
TWK				*e*S	**Sn**	**22 33 35.8**	**+1.7**		
CHN1	**Nanshi**	**2.49 244**		*e*P	**Pn**	**22 33 06.3**	**+1.4**		
CHN1				*e*S	**Sn**	**22 33 35.6**	**+1.5**		
TSCK	**Chigu Township**	**2.88 247**		*e*P	**Pn**	**22 33 11.3**	**+1.2**		
TSCK				*e*S	**Sn**	**22 33 44.6**	**+1.1**		

IDC ***28*** *22:33:34.7±2.3, 39.°66S×176.°81E, h0km, mb3.6/2, mbtmp3.6/2, MS3.3/5, Error ellipse: s-maj=43.8km s-min=22.8km az=128.0*

WEL ***28*** *22:33:35.9±0.9, 37.°S±6.°×17.°7E±.°, h12km, M3.6/47, ML3.7/18, MLv3.6/47, Error ellipse: s-maj=9.0km s-min=4.3km az=26.3*

ISC 28 22:33:35.0±1.5**, 36.°81S**±0.°05×**177.°37E**±0.°04**, h7**km±10km**, n81, σ1$37/87, MS3.4/5, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.72**	**192**	P	**Pb**	**22 33 50.1**	**+0.1**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.73**	**191**	P	**Pb**	**22 33 49.8**	**-0.2**
WIZ				AML	AML		
WIZ				AML	AML		
HAZ	**Te Kaha**	**1.00**	**161**	P	**Pg**	**22 33 53.5**	**-0.7**
HAZ				AML	AML		
HAZ				AML	AML		
MYRZ	**Mayor Island**	**1.02**	**242**	P	**Pg**	**22 33 54.4**	**-0.1**
MYRZ				AML	AML		
MYRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.06**	**135**	P	**Pg**	**22 33 53.9**	**-1.5**
MXZ				S	**Sg**	**22 34 07.2**	**-2.0**
MXZ				AML	AML		
MXZ				AML	AML		
WHRZ	**Whale Island**	**1.09**	**197**	P	**Pb**	**22 33 56.3**	**+0.1**
WHRZ				AML	AML		
WHRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.18**	**168**	P	**Pb**	**22 33 57.0**	**-0.8**
RUGZ				S	**Sb**	**22 34 12.4**	**-0.9**
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.20**	**152**	P	**Pb**	**22 33 58.0**	**-0.1**
PKGZ				S	**Sn**	**22 34 14.2**	**-0.6**
PKGZ				AML	AML		
PKGZ				AML	AML		
OPRZ	**Ohinepanea**	**1.22**	**212**	P	**Pn**	**22 33 57.4**	**-1.1**
OPRZ				AML	AML		
OPRZ				AML	AML		
TGRZ	**Tauranga**	**1.27**	**224**	P	**Pn**	**22 33 58.6**	**-0.6**
TGRZ				AML	AML		
TGRZ				AML	AML		
MARZ	**Manawahe**	**1.30**	**205**	P	**Pg**	**22 34 00.6**	**+0.7**
MARZ				AML	AML		
MARZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.31**	**141**	P	**Pn**	**22 33 59.7**	**0.0**
WMGZ				S	**Sg**	**22 34 17.9**	**+0.8**
WMGZ				AML	AML		
WMGZ				AML	AML		
EDRZ	**Edgecumbe**	**1.39**	**201**	P	**Pn**	**22 34 00.4**	**-0.5**
EDRZ				AML	AML		
EDRZ				AML	AML		
LIRZ	**Lichensteins R**	**1.43**	**213**	P	**Pn**	**22 34 00.5**	**-0.8**
LIRZ				AML	AML		
LIRZ				AML	AML		
PUZ	**Puketiti**	**1.45**	**151**	P	**Pb**	**22 34 02.6**	**+0.3**
PUZ				S	**Sg**	**22 34 21.5**	**+0.1**
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.45**	**161**	P	**Pn**	**22 34 01.8**	**+0.1**
TWGZ				S	**Sg**	**22 34 24.8**	**+3.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
URZ	**Urewera**	**1.46**	**188**	Pn	**Pn**	**22 34 00.7**	**-1.1**
	14nm,0.3s,baz=340,slow=6.3,SNR=68						
URZ				Sn	**Sn**	**22 34 19.9**	**-1.3**
	44nm,0.3s,baz=194,slow=22,SNR=14						
URZ				LR	LR	22 34 46.8	
	comp=Z,388nm,21.2s,baz=55,slow=51						
URZ	**Urewera**	**1.46**	**188**	P	**Pn**	**22 34 01.1**	**-0.7**
URZ				S	**Sn**	**22 34 19.0**	**-2.2**
URZ				AML	AML		
URZ				AML	AML		
KARZ	**Kaharoa**	**1.50**	**216**	P	**Pn**	**22 34 01.8**	**-0.7**
KARZ				AML	AML		
KARZ				AML	AML		
MWZ	**Matawai**	**1.53**	**175**	P	**Pn**	**22 34 01.6**	**-1.2**
MWZ				S	**Sn**	**22 34 20.2**	**-2.7**
MWZ				AML	AML		
MWZ				AML	AML		
KMRZ	**Kaimai**	**1.54**	**227**	P	**Pn**	**22 34 02.5**	**-0.4**
KMRZ				AML	AML		
KMRZ				AML	AML		
NGRZ	**Ngongotaha**	**1.60**	**216**	P	**Pn**	**22 34 03.4**	**-0.3**
NGRZ				AML	AML		
NGRZ				AML	AML		
GRZ	**Great Barrier**	**1.64**	**289**	P	**Pn**	**22 34 03.5**	**-0.7**
GRZ				S	**Sn**	**22 34 24.2**	**-1.3**
GRZ				AML	AML		
GRZ				AML	AML		
HLRZ	**Highlands Stat**	**1.65**	**209**	P	**Pn**	**22 34 04.5**	**0.0**
HLRZ				AML	AML		
HLRZ				AML	AML		
UTU	**Utuhina**	**1.65**	**214**	P	**Pn**	**22 34 04.9**	**+0.4**
UTU				AML	AML		
UTU				AML	AML		
TKGZ	**Te Karaka**	**1.67**	**167**	P	**Pb**	**22 34 06.0**	**0.0**
TKGZ				S	**Sb**	**22 34 27.8**	**+0.5**
TKGZ				AML	AML		
RAGZ	**Rawiri**	**1.68**	**179**	P	**Pn**	**22 34 04.4**	**-0.6**
RAGZ				S	**Sg**	**22 34 31.9**	**+2.7**
RAGZ				AML	AML		
MUGZ	**Murupara**	**1.73**	**196**	P	**Pb**	**22 34 06.6**	**-0.6**
MUGZ				AML	AML		
TOZ	**Tahuroa Road**	**1.75**	**238**	P	**Pn**	**22 34 05.5**	**-0.3**
TOZ				AML	AML		
MKAZ	**Moumakai**	**1.79**	**260**	P	**Pn**	**22 34 05.9**	**-0.5**
MKAZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.80**	**159**	P	**Pb**	**22 34 08.7**	**+0.4**
CNGZ				AML	AML		
RTZ	**Ruatahuna**	**1.83**	**190**	P	**Pn**	**22 34 07.2**	**+0.3**
RTZ				AML	AML		
RIGZ	**Rimuhau**	**1.92**	**171**	P	**Pb**	**22 34 10.3**	**-0.1**
RIGZ				AML	AML		
ETAZ	**East Tamaki Re**	**1.96**	**265**	P	**Pn**	**22 34 08.7**	**0.0**
ETAZ				AML	AML		
MBAZ	**Motutapu North**	**1.98**	**270**	P	**Pn**	**22 34 09.2**	**+0.2**
MBAZ				AML	AML		
MTHZ	**Maungataniwha**	**2.08**	**191**	P	**Pn**	**22 34 11.3**	**+0.9**
MTHZ				AML	AML		
TLZ	**Tolley Road**	**2.10**	**223**	P	**Pn**	**22 34 07.3**	**-3.4**
TLZ				AML	AML		
RAHZ	**Arahi**	**2.12**	**186**	P	**Pb**	**22 34 13.1**	**-0.6**
RAHZ				AML	AML		
PRGZ	**Paritu Road**	**2.15**	**169**	P	**Pb**	**22 34 15.2**	**+0.9**
PRGZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**2.20**	**263**	P	**Pn**	**22 34 12.7**	**+0.8**
AWAZ				AML	AML		
KNZ	**Kokohu**	**2.22**	**174**	P	**Pb**	**22 34 14.1**	**-1.4**
KNZ				AML	AML		
WHHZ	**Waihua**	**2.27**	**183**	P	**Pb**	**22 34 16.7**	**+0.4**
WHHZ				AML	AML		
BKZ	**Black Stump Fm**	**2.45**	**196**	P	**Pn**	**22 34 16.3**	**+0.8**
BKZ				AML	AML		
RITZ	**Rihia Road**	**2.47**	**208**	P	**Pg**	**22 34 21.9**	**-0.5**
RITZ				AML	AML		
KATZ	**Kakaramea**	**2.54**	**211**	P	**Pg**	**22 34 22.6**	**-1.0**
KATZ				AML	AML		
WCZ	**Waipu Caves**	**2.59**	**289**	P	**Pn**	**22 34 17.2**	**-0.1**
WCZ				AML	AML		
HIZ	**Hauiti**	**2.62**	**229**	P	**Pn**	**22 34 18.2**	**+0.4**
NTVZ	**North Tongarir**	**2.65**	**210**	P	**Pb**	**22 34 21.6**	**-1.2**
NTVZ				AML	AML		
TMVZ	**Te Maari**	**2.65**	**209**	P	**Pb**	**22 34 21.4**	**-1.5**
TMVZ				AML	AML		
KRVZ	**Karewarewa**	**2.66**	**210**	P	**Pb**	**22 34 23.2**	**+0.2**
KRVZ				AML	AML		
ETVZ	**East Tongariro**	**2.67**	**209**	P	**Pb**	**22 34 23.0**	**-0.1**
ETVZ				AML	AML		
MCHZ	**McNeill Hill**	**2.68**	**191**	P	**Pb**	**22 34 21.4**	**-1.9**
MCHZ				AML	AML		
WTVZ	**West Tongariro**	**2.70**	**211**	P	**Pb**	**22 34 23.5**	**-0.1**
WTVZ				AML	AML		
OTVZ	**Oturere**	**2.71**	**209**	P	**Pb**	**22 34 22.1**	**-1.7**
KWHZ	**Kaweka Forest**	**2.71**	**196**	P	**Pb**	**22 34 21.5**	**-2.4**
KWHZ				AML	AML		
TWVZ	**Taurewa**	**2.73**	**213**	P	**Pb**	**22 34 24.6**	**+0.5**
TWVZ				AML	AML		
COVZ	**Chateau Observ**	**2.79**	**211**	P	**Pn**	**22 34 22.2**	**+2.0**
FWVZ	**Far West T-bar**	**2.83**	**210**	P	**Pb**	**22 34 25.6**	**-0.4**
BHHZ	**Black Hill Sta**	**2.87**	**201**	P	**Pn**	**22 34 23.2**	**+2.0**
BHHZ				AML	AML		
WNVZ	**Wahianoa**	**2.88**	**209**	P	**Pb**	**22 34 25.5**	**-1.2**
WNVZ				AML	AML		
MOVZ	**Moawhango**	**2.89**	**206**	P	**Pb**	**22 34 24.9**	**-2.0**
MOVZ				AML	AML		
KRHZ	**Kereru**	**2.94**	**195**	P	**Pn**	**22 34 24.3**	**+2.1**
KRHZ				AML	AML		
PNHZ	**Pukenui**	**3.23**	**196**	P	**Pn**	**22 34 27.5**	**+1.3**
PNHZ				AML	AML		
PXZ	**Pawanui**	**3.24**	**187**	P	**Pb**	**22 34 29.6**	**-3.2**
TSZ	**Takapari Road**	**3.43**	**198**	P	**Pn**	**22 34 32.0**	**+3.1**
OUZ	**Omahuta**	**3.44**	**296**	P	**Pn**	**22 34 29.0**	**-0.1**
WAZ	**Wanganui**	**3.49**	**212**	P	**Pb**	**22 34 33.6**	**-3.5**
DVHZ	**Dannevirke**	**3.61**	**195**	P	**Pn**	**22 34 34.2**	**+2.8**
DVHZ				AML	AML		
HOWZ	**Holdsworth Sta**	**4.33**	**199**	P	**Pn**	**22 34 41.6**	**+0.3**
HOWZ				AML	AML		
OGWZ	**Otaki Gorge**	**4.35**	**203**	P	**Pn**	**22 34 42.6**	**+1.0**
TMWZ	**Te Maipa**	**4.44**	**195**	P	**Pn**	**22 34 42.8**	**0.0**
MRNZ	**Matariki Terra**	**5.82**	**217**	P	Pn	22 35 07.4	+5.7
THZ	**Tophouse**	**6.04**	**214**	P	Pn	22 35 09.6	+4.9
KHZ	**Kahutara**	**6.33**	**207**	P	**Pn**	**22 35 08.9**	**+0.2**
CTA	**Charters Tower**	**31.84**	**293**	LR	LR	22 51 51.9	
	comp=Z,47nm,19.3s,baz=52,slow=34						
ASAR	**Alice Springs**	**39.45**	**277**	P	**P**	**22 41 07.5**	**+1.6**
	0.6nm,0.8s,baz=114,slow=7.5,SNR=5.3						
ASAR				LR	LR	22 56 32.5	
	comp=Z,38nm,19.6s,baz=108,slow=35 0.6nm,0.8s						
WRA	**Warramunga Arr**	**41.04**	**282**	P	**P**	**22 41 21.7**	**+2.5**
	1.1nm,0.8s,baz=124,slow=7.1,SNR=7.0 1.1nm,0.8s						
FITZ	**Fitzroy Crossi**	**48.93**	**278**	LR	LR	23 02 10.4	
	comp=Z,35nm,19.2s,baz=32,slow=35						
KAPI	**Kappang**	**61.31**	**286**	LR	LR	23 11 54.5	
	comp=Z,24nm,18.8s,baz=103,slow=37						
MAW	**Mawson**	**64.94**	**203**	LR	LR	23 10 18.9	
	comp=Z,34nm,19.3s,baz=104,slow=36						
FINES	**FINESS Array B**	**149.48**	**333**	PKPbc	**PKPab**	**22 53 29.1**	**+0.1**
	3.8nm,1.0s,baz=45,slow=0.6,SNR=3.5						

WEL ***28*** *22:42:19.0±0.9, 37.°S±6.°×17.°7E±.°, h12km, M3.7/61, ML3.7/18, MLv3.7/61, Error ellipse: s-maj=8.4km s-min=4.6km az=30.8*

NOU ***28*** *22:42:20.2, 36.°78S×177.°53E, h35km, MLv4.2/12, Off E. Coast of N. Island, N.Z.*

ISC 28 22:42:16.7±1.5**, 36.°63S**±0.°06×**177.°43E**±0.°04**, h27**km±14km**, n115, σ1$86/120, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.91**	**193**	P	**Pn**	**22 42 33.3**	**-0.4**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.91**	**192**	P	**Pn**	**22 42 33.5**	**-0.2**
WIZ				S	**Sb**	**22 42 43.0**	**-2.7**
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	**Mayor Island**	**1.15**	**236**	P	**Pb**	**22 42 38.7**	**+0.8**
MYRZ				AML	AML		
MYRZ				AML	AML		
HAZ	**Te Kaha**	**1.16**	**166**	P	**Pn**	**22 42 36.8**	**-0.3**
HAZ				AML	AML		
HAZ				AML	AML		
MXZ	**Matakaoa Point**	**1.16**	**143**	P	**Pb**	**22 42 37.8**	**-0.4**
MXZ	**Matakaoa Point**	**1.16**	**143**	S	**Sn**	**22 42 51.7**	**-0.5**
MXZ	**Matakaoa Point**	**1.16**	**143**	P	**Pb**	**22 42 37.4**	**-0.7**
MXZ				S	**Sn**	**22 42 50.7**	**-1.5**
MXZ				AML	AML		
MXZ				AML	AML		
WHRZ	**Whale Island**	**1.27**	**196**	P	**Pn**	**22 42 39.3**	**+0.6**
WHRZ				AML	AML		
WHRZ				AML	AML		
PKGZ	**Pakihiroa**	**1.33**	**157**	P	**Pb**	**22 42 40.7**	**-0.5**
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.34**	**172**	P	**Pn**	**22 42 40.1**	**+0.3**
RUGZ				S	**Sn**	**22 42 55.7**	**-1.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
OPRZ	**Ohinepanea**	**1.39**	**210**	P	**Pn**	**22 42 40.5**	**+0.1**
OPRZ				AML	AML		
OPRZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.42**	**147**	P	**Pb**	**22 42 43.2**	**+0.7**
WMGZ				AML	AML		
TGRZ	**Tauranga**	**1.44**	**220**	P	**Pn**	**22 42 42.0**	**+1.0**
TGRZ				AML	AML		
TGRZ				AML	AML		
MARZ	**Manawahe**	**1.48**	**204**	P	**Pn**	**22 42 42.1**	**+0.5**
MARZ				AML	AML		
MARZ				AML	AML		
EDRZ	**Edgecumbe**	**1.57**	**200**	P	**Pn**	**22 42 43.4**	**+0.6**
EDRZ				AML	AML		
EDRZ				AML	AML		
PUZ	**Puketiti**	**1.58**	**156**	P	**Pb**	**22 42 45.5**	**+0.3**
PUZ				S	**Sb**	**22 43 08.1**	**+3.2**
PUZ				AML	AML		
TMHS	**Thames High Sc**	**1.59**	**251**	S	**Sb**	**22 43 06.8**	**+1.7**
LIRZ	**Lichensteins R**	**1.60**	**211**	P	**Pn**	**22 42 44.3**	**+1.0**
LIRZ				AML	AML		
LIRZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.60**	**164**	P	**Pb**	**22 42 45.5**	**-0.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
GRZ	**Great Barrier**	**1.63**	**283**	P	**Pb**	**22 42 46.9**	**+0.8**
GRZ				AML	AML		
GRZ				AML	AML		
URZ	**Urewera**	**1.64**	**189**	P	**Pn**	**22 42 44.9**	**+1.1**
URZ	**Urewera**	**1.64**	**189**	S	**Sn**	**22 43 03.9**	**-0.1**
URZ	**Urewera**	**1.64**	**189**	P	**Pn**	**22 42 44.7**	**+0.9**
URZ				S	**Sn**	**22 43 02.7**	**-1.2**
URZ				AML	AML		
URZ				AML	AML		
KARZ	**Kaharoa**	**1.68**	**214**	P	**Pn**	**22 42 45.8**	**+1.5**
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	**Kaimai**	**1.69**	**224**	P	**Pn**	**22 42 45.8**	**+1.3**
KMRZ				AML	AML		
KMRZ				AML	AML		
MWZ	**Matawai**	**1.70**	**177**	P	**Pn**	**22 42 45.7**	**+1.1**
MWZ				S	**Sn**	**22 43 03.9**	**-1.6**
MWZ				AML	AML		
MWZ				AML	AML		
NGRZ	**Ngongotaha**	**1.77**	**214**	P	**Pn**	**22 42 47.1**	**+1.6**
NGRZ				AML	AML		
NGRZ				AML	AML		
UTU	**Utuhina**	**1.83**	**212**	P	Pb	22 42 54.7	+5.2
UTU				AML	AML		
TKGZ	**Te Karaka**	**1.83**	**170**	P	**Pb**	**22 42 49.4**	**-0.1**
TKGZ				AML	AML		
RRRZ	**Republican Roa**	**1.85**	**203**	P	**Pn**	**22 42 48.2**	**+1.5**
RRRZ				AML	AML		
RRRZ				AML	AML		
RAGZ	**Rawiri**	**1.86**	**180**	P	**Pn**	**22 42 48.2**	**+1.3**
RAGZ				AML	AML		
RAGZ				AML	AML		
MKAZ	**Moumakai**	**1.88**	**255**	P	**Pb**	**22 42 49.4**	**-0.9**
MKAZ				AML	AML		
TOZ	**Tahuroa Road**	**1.89**	**234**	P	**Pn**	**22 42 48.9**	**+1.8**
TOZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.95**	**162**	P	**Pb**	**22 42 51.5**	**0.0**
CNGZ				AML	AML		
RTZ	**Ruatahuna**	**2.01**	**190**	P	**Pn**	**22 42 50.4**	**+1.5**
RTZ				AML	AML		
ETAZ	**East Tamaki Re**	**2.03**	**260**	P	**Pb**	**22 42 52.3**	**-0.7**
ETAZ				AML	AML		
MBAZ	**Motutapu North**	**2.04**	**265**	P	**Pb**	**22 42 52.6**	**-0.5**
MBAZ				AML	AML		
RIGZ	**Rimuhau**	**2.08**	**173**	P	**Pb**	**22 42 53.3**	**-0.6**
RIGZ				AML	AML		
ALRZ	**Allen Road**	**2.11**	**204**	P	**Pb**	**22 42 53.2**	**-1.0**
ALRZ				AML	AML		
KUTZ	**Kaahu Road**	**2.25**	**214**	P	**Pn**	**22 42 54.2**	**+2.0**
KUTZ				AML	AML		
MTHZ	**Maungataniwha**	**2.26**	**192**	P	**Pn**	**22 42 54.5**	**+2.1**
MTHZ				AML	AML		
TLZ	**Tolley Road**	**2.26**	**221**	P	**Pn**	**22 42 54.1**	**+1.8**
TLZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**2.27**	**258**	P	**Pb**	**22 42 56.1**	**-0.9**
AWAZ				AML	AML		
RVAZ	**Riverhead Bore**	**2.29**	**266**	P	**Pn**	**22 42 54.8**	**+2.0**
RVAZ				AML	AML		
RAHZ	**Arahi**	**2.29**	**187**	P	**Pn**	**22 42 54.7**	**+1.9**
RAHZ				AML	AML		
WTAZ	**Waiatarua**	**2.31**	**262**	P	**Pb**	**22 42 57.1**	**-0.6**
WTAZ			

FWVZ	**Far West T-bar**	**3.01**	**209**	P	**Pb**	**22 43 08.9**	**-0.8**
FWVZ				AML	AML			
MAVZ	**Matarangi**	**3.02**	**209**	P	**Pb**	**22 43 09.0**	**-0.9**
MAVZ				AML	AML			
WHVZ	**Whangaehu Hut**	**3.02**	**208**	P	**Pb**	**22 43 07.8**	**-2.1**
WHVZ				AML	AML			
CKHZ	**Cape Kidnapper**	**3.03**	**185**	P	**Pn**	**22 43 06.5**	**+3.6**
BHHZ	**Black Hill Sta**	**3.05**	**200**	P	**Pn**	**22 43 05.7**	**+2.5**
BHHZ				AML	AML			
TRVZ	**Turoa**	**3.05**	**209**	P	**Pb**	**22 43 08.2**	**-2.2**
TRVZ				AML	AML			
WNVZ	**Wahianoa**	**3.05**	**208**	P	**Pb**	**22 43 08.2**	**-2.3**
WNVZ				AML	AML			
MOVZ	**Moawhango**	**3.07**	**205**	P	**Pn**	**22 43 06.9**	**+3.4**
MOVZ				AML	AML			
KRHZ	**Kereru**	**3.12**	**195**	P	**Pn**	**22 43 07.2**	**+3.1**
KRHZ				AML	AML			
KAHZ	**Kahuranaki**	**3.19**	**188**	P	**Pn**	**22 43 08.3**	**+3.3**
KAHZ				AML	AML			
VRZ	**Vera Road**	**3.26**	**220**	P	**Pn**	**22 43 09.0**	**+2.9**
PNHZ	**Pukenui**	**3.41**	**196**	P	**Pn**	**22 43 09.1**	**+0.9**
PNHZ				AML	AML			
OUZ	**Omahuta**	**3.42**	**293**	P	**Pb**	**22 43 12.6**	**-3.9**
OUZ	**Omahuta**	**3.42**	**293**	P	**Pb**	**22 43 12.7**	**-3.9**
PXZ	**Pawanui**	**3.42**	**187**	P	**Pn**	**22 43 09.7**	**+1.5**
TSZ	**Takapari Road**	**3.61**	**198**	P	**Pb**	**22 43 17.7**	**-2.1**
WAZ	**Wanganui**	**3.66**	**211**	P	**Pb**	**22 43 17.4**	**-3.3**
PRHZ	**Porangahau**	**3.68**	**189**	P	**Pn**	**22 43 13.9**	**+2.1**
PRHZ				AML	AML			
KHEZ	**Kahui Hut**	**3.79**	**224**	P	**Pn**	**22 43 17.2**	**+3.9**
KHEZ	**Kahui Hut**	**3.79**	**224**	P	**Pn**	**22 43 18.1**	**+4.7**
DVHZ	**Dannevirke**	**3.79**	**195**	P	**Pn**	**22 43 15.4**	**+2.0**
DVHZ				AML	AML			
BFZ	**Birch Farm**	**4.15**	**193**	P	**Pn**	**22 43 19.2**	**+1.0**
BFZ	**Birch Farm**	**4.15**	**193**	P	**Pn**	**22 43 18.9**	**+0.7**
MRZ	**Mangatainoka R**	**4.27**	**199**	P	**Pn**	**22 43 21.5**	**+1.6**
TIWZ	**Tintock**	**4.31**	**196**	P	**Pn**	**22 43 23.2**	**+2.7**
TIWZ				AML	AML			
HOWZ	**Holdsworth Sta**	**4.51**	**199**	P	**Pn**	**22 43 24.5**	**+1.2**
HOWZ				AML	AML			
OGWZ	**Otaki Gorge**	**4.53**	**202**	P	**Pn**	**22 43 25.3**	**+1.8**
TMWZ	**Te Maipa**	**4.62**	**195**	P	**Pn**	**22 43 26.1**	**+1.3**
KIW	**Kapiti Island**	**4.66**	**204**	P	**Pn**	**22 43 26.8**	**+1.6**
DUWZ	**D'Urville Isla**	**4.98**	**212**	P	**Pn**	**22 43 32.1**	**+2.4**
PAWZ	**Paruwai Farm**	**4.99**	**198**	P	**Pn**	**22 43 30.7**	**+0.9**
SNZO	**South Karori**	**5.13**	**204**	P	**Pn**	**22 43 32.6**	**+0.9**
BHW	**Baring Head**	**5.17**	**202**	P	**Pn**	**22 43 32.5**	**+0.3**
PLWZ	**Palliser**	**5.21**	**198**	P	**Pn**	**22 43 33.1**	**+0.2**
TUWZ	**Tuamarina**	**5.50**	**208**	P	**Pn**	**22 43 38.0**	**+1.2**
TUWZ				AML	AML			
NNZ	**Nelson**	**5.56**	**213**	P	**Pn**	**22 43 40.1**	**+2.5**
QRZ	**Quartz Range**	**5.67**	**221**	P	**Pn**	**22 43 41.5**	**+2.3**
QRZ	**Quartz Range**	**5.67**	**221**	P	**Pn**	**22 43 41.7**	**+2.6**
MRNZ	**Matariki Terra**	**5.99**	**216**	P	**Pn**	**22 43 45.4**	**+1.9**
THZ	**Tophouse**	**6.21**	**213**	P	**Pn**	**22 43 48.1**	**+1.5**
KHZ	**Kahutara**	**6.51**	**206**	P	**Pn**	**22 43 50.7**	**+0.1**
KHZ	**Kahutara**	**6.51**	**206**	P	**Pn**	**22 43 50.7**	**+0.1**
CTZ	**Chatham Island**	**8.43**	**149**	P	**Pn**	**22 44 19.1**	**+2.2**

*AEIC **28** 22:56:12.0±1.7,51°.62N±0°.09×176°.34W±0°.06, h53km±6km, Error ellipse: s-maj=12.8km s-min=4.1km az=163.0*

NEIC 28 22:56:12.4±0.7,**51°.7N**±0°.1×**176°.34W**±0°.07,**h59**km±8km, **mb3.6**/19,**ML4.3**/10,**ML3.7**(AEIC),**Error ellipse: s-maj=17.6km s-min=4.3km az=164.0, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ETKA	**Kagalaska Isla**	**0.21**	**349**		Pn	22 56 21.8	-0.1
ETKA					Sn	22 56 28.6	-0.1
ADK	**Adak**	**0.32**	**318**		Pn	22 56 22.1	-0.4
ADK				IAML		22 56 29.9	
	17μm,0.4s						
ADK				IAML		22 56 30.3	
	15μm,0.3s						
ADK	**Adak**	**0.32**	**318**		Sn	22 56 29.4	-0.5
ADAG	**Mount Adagdak**	**0.37**	**334**		Pn	22 56 23.0	0.0
ADAG					Sn	22 56 31.0	+0.3
GSCK	**Great Sitkin C**	**0.38**	**17**		Pn	22 56 23.0	-0.1
GSCK					Sn	22 56 31.2	+0.3
GSIG	**Igitkin Island**	**0.42**	**37**		Pn	22 56 23.4	-0.1
GSIG					Sn	22 56 31.8	+0.1
GSMY	**Great Sitkin M**	**0.43**	**24**		Pn	22 56 23.4	-0.2
GSMY					Sn	22 56 31.8	+0.1
GSSP	**Great Sitkin S**	**0.46**	**13**		Pn	22 56 23.6	-0.2
GSSP					Sn	22 56 32.1	0.0
GSTR	**Great Sitkin T**	**0.48**	**21**		Pn	22 56 24.1	0.0
GSTR				Sn	Sn	22 56 32.0	-0.5
GSTR				IAML		22 56 35.1	
	comp=E,13μm,0.3s						
KIRH	**Kanaga Island**	**0.53**	**298**		Pn	22 56 24.5	0.0
KIRH					Sn	22 56 33.7	+0.2
KIWB	**Kanaga Island**	**0.54**	**292**		Pn	22 56 24.6	-0.1
KIWB					Sn	22 56 33.8	+0.1
KIWB				IAML		22 56 34.7	
	comp=E,17μm,0.4s						
KIWB				IAML		22 56 34.8	
	comp=N,12μm,0.3s						
KIKV	**Kanaga Island**	**0.56**	**294**		Pn	22 56 24.8	-0.1
KIKV					Sn	22 56 34.3	+0.2
KIMD	**Kanaga Island**	**0.57**	**282**		Sn	22 56 34.4	+0.2
KICM	**Kanaga Island**	**0.59**	**297**		Pn	22 56 25.2	-0.1
TAPA	**Tanaga Point A**	**0.93**	**281**		Sn	22 56 42.3	+0.2
TAFL	**Tanaga Flats**	**0.97**	**277**		Sn	22 56 43.6	+0.6
TASE	**Tanaga Southea**	**1.07**	**281**		Pn	22 56 31.4	0.0
TASE					Sn	22 56 46.2	+0.8
TACS	**Tanaga Cape Sa**	**1.14**	**281**		Pn	22 56 32.3	0.0
ATKA	**Atka Island**	**1.44**	**67**		Pn	22 56 36.2	+0.1
ATKA					Sn	22 56 54.1	0.0
KOWE	**Korovin West**	**1.48**	**60**		Pn	22 56 37.2	+0.5
KOWE					Sn	22 56 56.0	+0.9
KOKL	**Mount Kliuchef**	**1.49**	**62**		Pn	22 56 37.4	+0.5
KOKL					Sn	22 56 56.5	+1.2
GAEA	**Gareloi East**	**1.50**	**276**		Pn	22 56 37.2	+0.1
GAEA					Sn	22 56 56.3	+0.7
GALAA	**Gareloi Lava P**	**1.52**	**275**		Pn	22 56 37.4	+0.2
GANE	**Gareloi Northe**	**1.52**	**277**		Pn	22 56 37.3	0.0
GANE					Sn	22 56 56.6	+0.5
KOFP	**Korovin Flat P**	**1.52**	**65**		Sn	22 56 58.0	+1.9
KOKV	**Korovin Volcan**	**1.52**	**61**		Pn	22 56 38.2	+0.9
GANO	**Gareloi North**	**1.54**	**277**		Pn	22 56 37.4	-0.2
GANO				Sn	Sn	22 56 56.5	-0.1
GANO				IAML		22 56 59.6	
	comp=N,3μm,0.2s						
GAKI	**Gareloi-Kavalg**	**1.54**	**267**		Pn	22 56 37.5	0.0
GAKI					Sn	22 56 57.2	+0.7
KOSE	**Korovin Southe**	**1.58**	**63**		Pn	22 56 38.6	+0.5
SHEM	**Shemya Is, Ala**	**5.98**	**284**	Pn	Pn	22 57 38.0	-0.1
SMY	**Shemya**	**5.98**	**284**	Pn	Pn	22 57 39.0	+0.9
UNV	**Unalaska Valle**	**6.37**	**66**		Pn	22 57 44.0	+0.6
O14K	**Tigyukauivet M**	**11.44**	**42**	Pn	Pn	22 58 54.2	+1.6
O15K	**Ungalikthiuk R**	**12.01**	**45**	Pn	Pn	22 59 02.1	+1.6
P16K	**Nushagak River**	**12.76**	**47**	Pn	Pn	22 59 12.1	+1.4
N17K	**Nushagak Hills**	**13.86**	**43**	Pn	Pn	22 59 26.9	+1.4
N18K	**Kilae Creek**	**14.48**	**43**	Pn	Pn	22 59 34.4	+0.6
KDAK	**Kodiak Island**	**14.99**	**57**	Pn	Pn	22 59 38.0	-2.3
L18K	**Granite Mounta**	**15.00**	**38**	Pn	Pn	22 59 40.0	-0.5
L19K	**White Mountain**	**15.69**	**39**	Pn	Pn	22 59 50.1	+0.8
L19K				IAmb	IAmb	23 00 00.2	
	comp=Z,15nm,1.4s						
M19K	**Big River Lodg**	**15.73**	**41**	Pn	Pn	22 59 49.9	0.0
CNPM	**China Poot**	**16.15**	**51**	Pn	Pn	22 59 54.6	-0.7
H18K	**Honhosa River**	**16.39**	**28**		P	22 59 59.5	-0.6
BRLK	**Bradley Lake**	**16.40**	**50**	Pn	Pn	22 59 57.6	-0.7
G18K	**Tagagawik**	**16.87**	**25**	Pn	Pn	23 00 03.9	-0.3
SKT	**Skwentna**	**16.95**	**43**	Pn	Pn	23 00 04.6	-0.6
SKT				IAmb	IAmb	23 00 18.4	
	comp=Z,5.8nm,1.0s						
SLKM	**Skilak Lake**	**16.96**	**48**	Pn	Pn	23 00 03.9	-1.4
PPLA	**Purkeypile**	**17.11**	**40**	P	P	23 00 08.5	+0.2
PPLA				IAmb	IAmb	23 00 13.8	
	comp=Z,5.8nm,1.1s						
GHO	**Glory Hole Cre**	**18.00**	**45**	P	P	23 00 17.1	-0.8
GHO				IAmb	IAmb	23 00 46.0	
	comp=Z,7.7nm,1.1s						
TRF	**Thorofare Moun**	**18.14**	**39**	P	P	23 00 19.4	-0.2
TRF				IAmb	IAmb	23 00 25.9	
	comp=Z,3.8nm,1.2s						
E19K	**Redstone River**	**18.43**	**24**	P	P	23 00 22.4	-0.1
RND	**Reindeer**	**18.69**	**40**	P	P	23 00 25.6	0.0
RND				IAmb	IAmb	23 00 30.2	
	comp=Z,3.0nm,0.9s						
MCK	**McKinley**	**18.81**	**39**	P	P	23 00 27.0	+0.3
MCK				IAmb	IAmb	23 00 28.1	
	comp=Z,2.6nm,0.8s						
D19K	**Kuna River**	**19.04**	**21**	P	P	23 00 28.9	-0.3
D19K				IAmb	IAmb	23 00 34.7	
	comp=Z,5.5nm,1.1s						
CCB	**Clear Creek Bu**	**19.67**	**38**	P	P	23 00 33.9	-2.1
CCB				IAmb	IAmb	23 00 39.9	
	comp=Z,4.1nm,1.2s						
HDA	**Harding Lake**	**19.89**	**39**	P	P	23 00 38.6	+0.1
HDA				IAmb	IAmb	23 01 01.1	
	comp=Z,4.0nm,1.2s						
J25K	**Salcha River,**	**20.60**	**39**	P	P	23 00 44.8	-1.5
D22K	**Ayikyak River**	**20.63**	**24**	P	P	23 00 45.9	-0.7
D22K				IAmb	IAmb	23 01 13.2	
	comp=Z,3.1nm,1.1s						
L26K	**Log Cabin Wild**	**20.86**	**44**	P	P	23 00 48.6	-0.5
D23K	**Nanushuk River**	**21.22**	**26**	P	P	23 00 52.9	+0.1
PDAR	**Pinedale Array**	**44.76**	**74**	P	P	23 04 19.4	-0.6

*SJA **28** 23:08:52.7±0.6,21°.96S×68°.54W, h136km, ML3.5, MW3.6*
*NEIC **28** 23:08:53.0±0.7, 22°.00S±0°.05×68°.52W±0°.05, h138km±7km, mb4.1/3, ML3.6(GUC), Error ellipse: s-maj=10.0km s-min=3.1km az=222.0*
*GUC **28** 23:08:54.8±0.6,21°.99S×68°.51W, h125km±4km, ML3.6, Presumed earthquake*

ISC 28 23:08:52.3±0.9,**22°.02S**±0°.03×**68°.58W**±0°.05,**h145**km±7km, **n64**,σ0°.95/92,**11C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.65**	**290**	*eP*	**Pn**	**23 09 14.5**	**+0.3**
PB09				*eS*	**Sn**	**23 09 30.3**	**-0.5**
PB09				IAML		23 09 31.2	
	comp=Z,938nm,0.7s						
PB09	**IPOC Station P**	**0.65**	**290**		**Pn**	**23 09 14.4**	**+0.3**
PB09				Sn	**Sn**	**23 09 29.9**	**-1.0**
PB09	**IPOC Station P**	**0.65**	**290**	↑*iP*	**Pn**	**23 09 14.7**	**+0.5**
PB09				*i* S	**Sn**	**23 09 29.8**	**-1.0**
PB09				IAML		23 09 32.8	
	comp=N,1μm,0.2s						
AF01	**San Pedro de A**	**1.00**	**158**	*eP*	**Pn**	**23 09 17.6**	**+0.7**
AF01				*eS*	Sn	23 09 53.4	+18
AF01				IAML		23 10 00.3	
	comp=Z,454nm,1.4s						
AF01	**San Pedro de A**	**1.00**	**158**		**Pn**	**23 09 17.2**	**+0.4**
AF01				Sn	**Sn**	**23 09 34.0**	**-1.7**
AF01	**San Pedro de A**	**1.00**	**158**	↑*iP*	**Pn**	**23 09 17.4**	**+0.4**
PB03	**IPOC Station P**	**1.09**	**268**	*eP*	**Pn**	**23 09 18.2**	**+0.6**
PB03				*eS*	**Sn**	**23 09 36.7**	**-0.2**
PB03				IAML		23 09 38.7	
	comp=Z,1μm,0.1s						
PB03	**IPOC Station P**	**1.09**	**268**		**Pn**	**23 09 18.2**	**+0.6**
PB03				Sn	**Sn**	**23 09 36.1**	**-0.8**
PB03	**IPOC Station P**	**1.09**	**268**	↑*iP*	**Pn**	**23 09 18.3**	**+0.6**
PB03				*i* S	**Sn**	**23 09 36.6**	**-0.2**
PB03				IAML		23 09 38.0	
	comp=E,2μm,0.1s						
PB06	**IPOC Station P**	**1.15**	**233**	*eP*	**Pn**	**23 09 15.7**	**-2.4**
PB06				*eS*	**Sn**	**23 09 38.8**	**+1.0**
PB06				IAML		23 09 41.4	
	comp=Z,636nm,0.3s						
PB06	**IPOC Station P**	**1.15**	**233**		**Pn**	**23 09 18.9**	**+0.8**
PB06				Sn	**Sn**	**23 09 37.9**	**+0.1**
PB06	**IPOC Station P**	**1.15**	**233**	↑*iP*	**Pn**	**23 09 19.1**	**+1.0**
PB06				*i* S	**Sn**	**23 09 38.4**	**+0.6**
PB06				IAML		23 09 40.8	
	comp=N,995nm,0.2s						
PB07	**IPOC Station P**	**1.25**	**283**	*eP*	**Pn**	**23 09 20.1**	**+1.0**
PB07				*eS*	**Sn**	**23 09 39.8**	**+0.3**
PB07				IAML		23 09 40.7	
	comp=Z,697nm,0.3s						
PB07	**IPOC Station P**	**1.25**	**283**		**Pn**	**23 09 19.8**	**+0.8**
PB07	**IPOC Station P**	**1.25**	**283**	↑*iP*	**Pn**	**23 09 19.9**	**+0.8**
PB07				*i* S	**Sn**	**23 09 39.4**	**-0.2**
PB07				IAML		23 09 41.9	
	comp=E,2μm,0.5s						
PB01	**IPOC Station P**	**1.29**	**319**	*eP*	**Pn**	**23 09 19.6**	**+0.2**
PB01				*eS*	**Sn**	**23 09 39.8**	**-0.3**
PB01				IAML		23 09 40.9	
	comp=Z,543nm,0.2s						
PB01	**IPOC Station P**	**1.29**	**319**		**Pn**	**23 09 19.8**	**+0.4**
PB01	**IPOC Station P**	**1.29**	**319**	↑*iP*	**Pn**	**23 09 19.6**	**+0.2**
PB01				*i* S	**Sn**	**23 09 39.6**	**-0.5**
PB01				IAML		23 09 41.3	
	comp=E,1μm,0.3s						
PB02	**IPOC Station P**	**1.41**	**299**	*eP*	**Pn**	**23 09 21.1**	**+0.6**
PB02				*eS*	**Sn**	**23 09 41.9**	**-0.3**
PB02				IAML		23 09 42.6	
	comp=Z,1μm,0.4s						
PB02	**IPOC Station P**	**1.41**	**299**		**Pn**	**23 09 21.2**	**+0.6**
PB02	**IPOC Station P**	**1.41**	**299**	↑*iP*	**Pn**	**23 09 21.2**	**+0.6**
PB02				*i* S	**Sn**	**23 09 41.7**	**-0.5**
PB02				IAML		23 09 42.5	
	comp=N,1μm,0.2s						
PB05	**IPOC Station P**	**1.72**	**241**	*eP*	**Pn**	**23 09 25.3**	**+1.4**
PB05				*eS*	**Sn**	**23 09 49.4**	**+1.2**
PB05				IAML		23 09 52.8	
	comp=Z,193nm,0.2s						
PB05	**IPOC Station P**	**1.72**	**241**		**Pn**	**23 09 25.1**	**+1.1**
PB05	**IPOC Station P**	**1.72**	**241**	↑*iP*	**Pn**	**23 09 25.1**	**+1.1**
PB05				*i* S	**Sn**	**23 09 48.7**	**+0.4**
PB05				IAML		23 09 57.2	
	comp=E,244nm,0.4s						
PB08	**IPOC Station P**	**1.94**	**344**	*eP*	**Pn**	**23 09 27.9**	**+1.0**
PB08				*eS*	**Sn**	**23 09 53.7**	**+0.3**
PB08				IAML		23 09 55.9	
	comp=Z,155nm,0.3s						
PB08	**IPOC Station P**	**1.94**	**344**		**Pn**	**23 09 27.8**	**+1.0**
PB08	**IPOC Station P**	**1.94**	**344**	↑*iP*	**Pn**	**23 09 27.9**	**+1.0**
PB08				*i* S	**Sn**	**23 09 53.2**	**-0.1**
PB08				IAML		23 09 54.2	
	comp=E,278nm,0.6s						
TA01	**Diego Aracena**	**2.08**	**314**	*eP*	**Pn**	**23 09 28.4**	**+0.4**
TA01				*eS*	**Sn**	**23 09 55.5**	**0.0**
TA01				IAML		23 10 02.9	
	comp=Z,193nm,0.7s						
TA01	**Diego Aracena**	**2.08**	**314**		**Pn**	**23 09 28.6**	**+0.5**
TA01	**Diego Aracena**	**2.08**	**314**	*eP*	**Pn**	**23 09 27.9**	**-0.1**
TA01				*i* S	**Sn**	**23 09 55.2**	**-0.3**
TA01				IAML		23 09 57.8	
	comp=E,371nm,0.2s						
TA02	**Huaiquique**	**2.26**	**320**	*eP*	**Pn**	**23 09 32.1**	**+1.9**
TA02				*eS*	**Sn**	**23 09 58.4**	**-1.1**
TA02				IAML		23 10 00.5	
	comp=Z,186nm,0.3s						
PB10	**IPOC Station P**	**2.35**	**230**	*eP*	Pn	23 09 21.2	-10
PB10				*eS*	**Sn**	**23 10 02.5**	**+1.1**
PB10				IAML		23 10 05.6	
	comp=Z,70nm,0.4s						
PB10	**IPOC Station P**	**2.35**	**230**		**Pn**	**23 09 31.9**	**+0.6**
PB10	**IPOC Station P**	**2.35**	**230**	↓*iP*	**Pn**	**23 09 32.3**	**+1.0**
PB10				*i* S	**Sn**	**23 10 02.1**	**+0.6**
PB10				IAML		23 10 03.0	
	comp=E,156nm,0.3s						
GO01	**Chusmiza**	**2.41**	**346**	*eP*	**Pn**	**23 09 33.2**	**+0.7**
GO01				*eS*	**Sn**	**23 10 04.0**	**+0.5**
GO01				IAML		23 10 05.3	
	comp=Z,155nm,0.5s						
GO01	**Chusmiza**	**2.41**	**346**		**Pn**	**23 09 32.9**	**+0.3**
GO01	**Chusmiza**	**2.41**	**346**	↑*iP*	**Pn**	**23 09 33.0**	**+0.5**
GO01				*i* S	**Sn**	**23 10 03.5**	**0.0**
GO01				IAML		23 10 05.6	
	comp=E,279nm,0.4s						
PB11	**IPOC Station P**	**2.46**	**336**	*eP*	**Pn**	**23 09 33.0**	**+0.1**
PB11				*eS*	**Sn**	**23 10 03.2**	**-1.0**
PB11				IAML		23 10 06.5	
	comp=Z,160nm,0.2s						
PB11	**IPOC Station P**	**2.46**	**336**		**Pn**	**23 09 32.9**	**-0.1**
PB11	**IPOC Station P**	**2.46**	**336**	*eP*	**Pn**	**23 09 32.8**	**-0.1**
PB11				*i* S	**Sn**	**23 10 02.9**	**-1.2**
PB11				IAML		23 10 04.6	
	comp=N,321nm,0.2s						
PSGCX	**Pisagua**	**2.81**	**329**	*eP*	**Pn**	**23 09 36.3**	**-0.9**
PSGCX				*eS*	**Sn**	**23 10 08.5**	**-3.3**
PSGCX				IAML		23 10 14.9	
	comp=Z,102nm,0.4s						
PSGCX	**Pisagua**	**2.81**	**329**		**Pn**	**23 09 36.4**	**-0.7**
PSGCX	**Pisagua**	**2.81**	**329**	↑*iP*	**Pn**	**23 09 36.2**	**-0.9**
YJA	**Yavi**	**2.85**	**94**	*eP*	Pn	23 09 42.7	+4.8
YJA				*eS*	**Sn**	**23 10 13.7**	**+0.6**
SALTA		**3.01**	**137**	*eP*	Pn	23 09 51.8	+12
PB14	**IPOC Station P**	**3.09**	**213**	*eS*	**Sn**	**23 10 17.5**	**-0.9**
PB14				IAML		23 10 20.1	
	comp=Z,121nm,0.3s						
PB14	**IPOC Station P**	**3.09**	**213**		**Pn**	**23 09 41.6**	**+0.7**
PB14	**IPOC Station P**	**3.09**	**213**	*eP*	**Pn**	**23 09 41.6**	**+0.7**
PB14				*i* S	**Sn**	**23 10 17.6**	**-0.9**
PB12	**IPOC Station P**	**3.76**	**334**	Pn	Pn	**23 09 47.8**	**-1.7**
PB16	**IPOC Station P**	**3.77**	**346**	*eP*	Pn	23 09 31.2	-19
PB16	**IPOC Station P**	**3.77**	**346**		**Pn**	**23 09 50.4**	**+0.4**
AC01	**Pan de Azucar**	**4.51**	**204**	*eS*	**Sn**	**23 10 48.8**	**-2.3**
AC01				IAML		23 10 51.8	
	comp=Z,51nm,0.2s						
AC01	**Pan de Azucar**	**4.51**	**204**		**Pn**	**23 09 58.9**	**-0.2**
AC02	**Maricunga**	**4.82**	**186**	*eP*	**Pn**	**23 10 04.8**	**+1.1**
AC02	**Maricunga**	**4.82**	**186**		**Pn**	**23 10 04.6**	**+0.9**
AC06	**Mina Casimiro**	**5.55**	**197**		**Pn**	**23 10 11.8**	**-1.2**
LPAZ	**La Paz**	**5.72**	**4**		**Pn**	**23 10 16.7**	**+0.9**
GO03	**Copiapo**	**5.75**	**195**		**Pn**	**23 10 14.7**	**-0.9**
AC05	**El Transito**	**6.96**	**192**	Pn	**Pn**	**23 10 30.1**	**-1.7**
LCO	**Las Campanas**	**7.22**	**195**	Pn	**Pn**	**23 10 33.7**	**-1.8**
CO01	**Juntas del Tor**	**8.04**	**189**	Pn	**Pn**	**23 10 45.1**	**-1.3**
VAO	**Valinhos**	**19.99**	**97**	P	**P**	**23 13 13.5**	**-0.1**
VAO				IAmb	IAmb	23 13 32.1	
	comp=Z,12nm,1.1s						
SMTB	**Santa Maria do**	**24.05**	**60**	P	**P**	**23 13 54.5**	**+0.3**
SMTB				IAmb	IAmb	23 14 00.4	
	comp=Z,9.2nm,1.2s						
BOAV	**Boa Vista**	**25.51**	**19**	P	**P**	**23 14 07.6**	**+0.2**
BOAV				IAmb	IAmb	23 14 09.2	
	comp=Z,3.2nm,1.2s						

IDC 28 23:21:30.1±1.8,**29°.66S×178°.11W,h179**km±11km, **mb3.2**/2,**mbtmp3.8**/3,**Error ellipse: s-maj=58.6km s-min=23.6km az=104.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**0.44**	**22**	P	Pn	23 21 55.9	+1.4
	718nm,0.3s,baz=100,slow=17,SNR=6.5						
RAO				S	Sn	23 22 14.3	+1.1
	2μm,0.3s,baz=80,slow=23,SNR=27						
URZ	**Urewera**	**9.45**	**204**	P	Pn	23 23 41.5	-0.8
	2.6nm,0.3s,baz=14,slow=19,SNR=12						
URZ				S	Sn	23 25 28.3	+0.8
	6.8nm,0.3s,baz=259,slow=22,SNR=15						
ASAR	**Alice Springs**	**43.06**	**266**	P	P	23 29 12.6	+0.1
	0.6nm,0.7s,baz=107,slow=7.5,SNR=5.9						
	0.6nm,0.7s						
WRA	**Warramunga Arr**	**43.98**	**271**	P	P	23 29 19.6	-0.2
	0.5nm,0.3s,baz=111,slow=7.8,SNR=6.1						
	0.5nm,0.3s						
FINES	**FINESS Array B**	**144.42**	**340**	PKP	PKPab	23 40 42.4	-0.5
	0.5nm,0.6s,baz=48,slow=4.5,SNR=6.5						

*IDC **28** 23:30:44.7±1.1,34°.22N×25°.66E, h0km, mb3.8/13, mbtmp3.7/19, ML3.1/6, Error ellipse: s-maj=21.2km s-min=8.6km az=26.0*
*GII **28** 23:30:46.6±0.0, 33°.775N±0°.001×25°.916E±0°.001, h0km, Mws3.5, confirmed*
*NEIC **28** 23:30:47.1±1.9, 33°.99N±0°.08×25°.65E±0°.05, h24km±5km, mb4.3/21, Error ellipse: s-maj=11.1km s-min=5.9km az=182.0*
*ISK **28** 23:30:48.2, 34°.10N×25°.76E, h21km, ML3.1/16*
*THE **28** 23:30:49.5, 34°N±3°×2°.6E±°, h1km±5km, M3.0/9, MLh3.0/9*
*ATH **28** 23:30:50.1, 34°.30N×25°.66E, h8km±2km, ML3.1/12, Latitude uncertainty: 3 km; Longitude uncertainty: 2 km*
*AFAD **28** 23:30:53.1, 34°.46N×26°.01E, h7km±5km, ML2.8*

ISC 28 23:30:47.7±1.2,**34°.02N**±0°.05×**25°.81E**±0°.05,**h29**km±8km, **n192**,σ1°**69**/244,**mb4.0**/21,**Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZKR	**Zakros**	**1.15**	**17**	P	**Pn**	**23 31 07.7**	**-0.1**
ZKR	**Zakros**	**1.15**	**17**	Pn	**Pb**	**23 31 09.0**	**+0.1**
ZKR				Sn	**Sb**	**23 31 23.7**	**+0.3**
ZKR				AML	AML		
ZKR	**Zakros**	**1.15**	**17**	P	**Pn**	**23 31 08.0**	**+0.2**
ZKR				S	**Sn**	**23 31 19.7**	**-2.8**
ZKR				AML	AML		
AGNA	**Agios Nikolaos**	**1.17**	**356**	P	**Pn**	**23 31 07.5**	**-0.7**
AGNA				S	**Sn**	**23 31 19.6**	**-3.5**
AGNA				AML	AML		
SIT2	**Siteia**	**1.21**	**12**	P	**Pn**	**23 31 09.4**	**+0.8**
NPS	**Neapolis**	**1.25**	**353**	P	**Pn**	**23 31

TURN AML AML
VLI Veliai 3.57 320 P **Pn** 23 31 41.3 +0.1
DALY Dalyan (Mula) 3.63 39 P **Pn** 23 31 43.9 +1.9
DALY S **Sn** 23 32 22.5 -1.3
DALY Dalyan (Mula) 3.63 39 Pn **Pn** 23 31 44.5 +2.5
DALY AML AML
MLSB Milas 3.64 26 Pn **Pn** 23 31 44.6 +2.5
MLSB AML AML
IZZE Mula-Seydike 3.69 48 P **Pn** 23 31 43.9 +1.1
IZZE S **Sn** 23 32 24.7 -0.7
IZZE IAML 23 32 32.0
comp=E,46nm,0.4s
FETY Fethiye 3.74 45 Pn **Pn** 23 31 46.3 +2.8
FETY AML AML
SABU Mula-Dalaman 3.81 42 P **Pn** 23 31 46.3 +1.9
SABU S **Sn** 23 32 24.7 -3.5
AKAS Kas 3.82 54 P **Pn** 23 31 46.3 +1.7
AKAS S **Sn** 23 32 25.9 -2.7
AKAS IAML 23 32 35.0
comp=E,40nm,0.4s
AKAS Kas 3.82 54 **Pn** 23 31 46.2 +1.6
AKAS Sn **Sn** 23 32 30.5 +1.9
AKAS Kas 3.82 54 Pn **Pn** 23 31 47.4 +2.8
AKAS AML AML
AYDN Tasoluk 4.01 24 P **Pn** 23 31 47.7 +0.5
CAME Cameli-Denizli 4.08 43 Pn **Pn** 23 31 50.9 +2.6
KARY Karystos 4.16 345 P **Pn** 23 31 50.0 +0.8
KNIK Mula-Seydike 4.17 46 P **Pn** 23 31 52.0 +2.5
CAEL Denizli, Camel 4.22 42 P **Pn** 23 31 54.0 +3.8
CAEL S **Sn** 23 32 35.5 -3.0
CAEL IAML 23 32 50.0
comp=N,32nm,0.8s
TAVA DENIZLI_Tavas 4.27 35 P **Pn** 23 31 52.0 +1.2
TAVA S **Sn** 23 32 37.1 -2.6
ATHU Athens Univers 4.27 338 P **Pn** 23 31 51.2 +0.4
AYDB Zeytinkoy-Aydi 4.27 23 Pn **Pn** 23 31 53.2 +2.4
ESEN Aydn-Nazilli 4.30 28 P **Pn** 23 31 52.6 +1.5
ESEN S **Sn** 23 32 36.4 -3.8
ELL Elmali 4.32 50 **Pn** 23 31 53.7 +2.2
ELL Elmali 4.32 50 Pn **Pn** 23 31 54.4 +2.9
ELL AML AML
DION Dionisos Attik 4.33 340 P **Pn** 23 31 52.4 +0.8
NAZL Nazilli-Aydin 4.42 26 Pn **Pn** 23 31 55.6 +2.7
GOLH Golhisar 4.43 43 P **Pn** 23 31 54.7 +1.6
GOLH S **Sn** 23 32 41.6 -2.2
GOLH IAML 23 32 53.0
comp=E,19nm,0.8s
GOLH IAML 23 32 55.0
comp=N,20nm,1.0s
DNIZ Denizli-Tavas- 4.46 35 P **Pn** 23 31 57.3 +4.0
DNIZ S **Sn** 23 32 42.5 -1.8
DNIZ IAML 23 32 53.0
comp=N,23nm,0.4s
IZMR zmir-demi 4.46 22 P **Pn** 23 31 54.4 +1.1
APMY Acipayam-Deniz 4.47 38 Pn **Pn** 23 31 56.6 +3.1
APMY AML AML
ITM Ithomi 4.47 316 Pn **Pn** 23 31 52.3 -1.1
ITM Sn **Sn** 23 32 41.8 -2.7
VIL2 Platees 4.66 335 P **Pn** 23 31 55.7 -0.5
SULTU Buldan 4.69 30 P **Pn** 23 31 59.6 +3.0
SULTU S **Sn** 23 32 48.1 -2.0
SULTU IAML 23 33 10.0
comp=N,9.7nm,0.7s
SULTU IAML 23 34 00.0
comp=E,9.4nm,1.6s
INCE Denizli-Bozkur 4.79 39 P **Pn** 23 32 00.1 +2.1
INCE S **Sn** 23 32 46.1 -6.4
INCE IAML 23 33 08.0
comp=E,11nm,1.3s
KYMI Kymi, Euboea I 4.81 344 P **Pn** 23 31 58.9 +0.7
GUR Goura 4.82 325 P **Pn** 23 31 58.3 -0.1
CAMT Merkez 4.88 14 P **Pn** 23 31 58.9 -0.1
CAMT S Sn 23 32 44.3 -10
CAMT IAML 23 33 37.0
comp=E,11nm,1.3s
CAMT IAML 23 34 01.0
comp=N,8.8nm,1.3s
HARTU Esme 4.95 28 P **Pn** 23 32 01.2 +1.1
MANT Manisa 4.99 26 P **Pn** 23 31 58.5 -2.3
MANT Manisa 4.99 26 Pn **Pn** 23 32 01.6 +0.9
KLV Kalavryta, Ach 4.99 325 P **Pn** 23 32 00.8 0.0
KTTT Salihli 5.01 21 P **Pn** 23 32 03.0 +2.0
KTTT S Sn 23 32 38.0 -20
AGG Agios Georgios 5.73 332 **Pn** 23 32 11.3 +0.6
CSS Mathiatis 6.28 79 Pn **Pn** 23 32 19.4 +1.0
CSS Mathiatis 6.28 79 P **Pn** 23 32 19.4 +1.0
CSS S **Sn** 23 33 31.0 +1.8
LIT Litokhoron 6.63 337 Pn **Pn** 23 32 22.4 -0.7
CY604 RAF Akrotiri, 7.22 85 Pn **Pn** 23 32 32.3 +1.3
OFRI `Ofer 7.81 98 P **Pn** 23 32 38.9 -0.4
OFRI S **Sn** 23 34 05.9 -0.9
KZIT Kziot 7.89 111 P **Pn** 23 32 43.3 +2.8
0.1nm12nm,1.0s
KZIT AML AML
KZIT Kziot 7.89 111 P **Pn** 23 32 39.4 -1.1
KZIT S **Sn** 23 34 07.3 -1.6
SLTI Sal'it 7.94 100 P **Pn** 23 32 40.9 -0.3
SLTI S **Sn** 23 34 09.6 -0.5
AMAZ Amatzia 8.06 105 P Pn 23 32 49.3 +6.5
0.2nm590nm30nm,1.5s
AMAZ AML AML
AMAZ Amatzia 8.06 105 P **Pn** 23 32 42.2 -0.6
AMAZ S **Sn** 23 34 12.2 -0.7
MMA0B Mount Meron ar 8.07 94 P **Pn** 23 32 43.2 +0.1
MMA0B S **Sn** 23 34 14.3 +0.8
MMAI Mount Meron Ar 8.07 94 Pn **Pn** 23 32 44.4 +1.4
1.3nm,0.3s,baz=282,slow=12,SNR=16
MMAI Sn **Sn** 23 34 11.5 -1.9
2.9nm,0.3s,baz=243,slow=32,SNR=7.3
0.6nm,0.2s
MMAI AML AML
SALP Salfit 8.11 101 P **Pn** 23 32 47.8 +4.2
0.1nm18nm,1.3s
SALP AML AML
ARIL Ariel Universi 8.12 101 P **Pn** 23 32 43.4 -0.3
ARIL S **Sn** 23 34 14.0 -0.5
JER Jerusalem 8.21 103 P **Pn** 23 32 44.3 -0.5
JER S **Sn** 23 34 16.0 -0.6
MMLI Mount Malkishu 8.21 98 P **Pn** 23 32 44.5 -0.3
MMLI S **Sn** 23 34 15.8 -0.8
GEM Giv'at Ha'Em 8.26 93 P **Pn** 23 32 45.0 -0.6
GEM S **Sn** 23 34 18.8 +1.0
RMNI Mount Ramon 8.31 112 P **Pn** 23 32 45.7 -0.6
RMNI S **Sn** 23 34 19.3 -0.9
NATI Neve Ativ 8.31 92 P **Pn** 23 32 46.6 +0.4
NATI S **Sn** 23 34 20.3 +1.2
YITV Yitav 8.34 102 P **Pn** 23 32 46.3 -0.3
YITV S **Sn** 23 34 19.1 -0.6
RGMN Argaman 8.36 100 P **Pn** 23 32 46.5 -0.3
RGMN S **Sn** 23 34 19.8 -0.3
ALMO Almog 8.41 103 P **Pn** 23 32 47.0 -0.6
ALMO S **Sn** 23 34 20.6 -1.0
MZS Mizpe Shalem 8.44 104 P **Pn** 23 32 47.3 -0.6
MZS S **Sn** 23 34 21.3 -0.8
BRTR Keskin Array B 8.47 45 Pn **Pn** 23 32 49.8 +1.2
baz=232,slow=13,SNR=3.4
BRTR Sn **Sn** 23 34 21.2 -2.1
baz=15,slow=6.6,SNR=2.0
0.5nm,0.7s
BRTR Keskin Array B 8.47 45 **Pn** 23 32 50.5 +1.9
BR131 Keskin Array S 8.47 45 Pn **Pn** 23 32 50.8 +2.2
MSBI Mazada 8.49 106 P **Pn** 23 32 51.7 +3.1
0.0nm2.4nm,0.8s
MSBI AML AML
MSBI Mazada 8.49 106 P **Pn** 23 32 48.0 -0.6
MSBI S **Sn** 23 34 22.6 -0.8
IDAN Idan 8.61 109 P **Pn** 23 32 49.5 -0.8
IDAN S **Sn** 23 34 25.1 -1.3
PRNI Paran 8.61 113 P **Pn** 23 32 51.5 +1.2
27nm,0.6s
HZVA Hazeva 8.64 109 P **Pn** 23 32 49.8 -1.0
HZVA S **Sn** 23 34 26.2 -1.0
ZFRI Zfri 8.65 111 P **Pn** 23 32 49.8 -1.1
ZFRI S **Sn** 23 34 25.9 -1.5
GHAJ Ghor Haditha 8.66 106 Pn **Pn** 23 32 52.5 +1.5
GHAJ Ghor Haditha 8.66 106 P **Pn** 23 32 53.8 +2.8
661nm22nm,0.4s
GHAJ Ghor Haditha 8.66 106 P **Pn** 23 32 50.4 -0.6
GHAJ S **Sn** 23 34 26.9 -0.8
HRFI Mount Harif 8.78 114 P **Pn** 23 32 55.1 +2.4
10nm,0.4s
HRFI Mount Harif 8.78 114 P **Pn** 23 32 51.9 -0.8
HRFI S **Sn** 23 34 29.2 -1.5
YTVT Yotvata 8.87 115 P **Pn** 23 32 53.1 -0.8
YTVT S **Sn** 23 34 30.7 -2.1
EIL Elat 8.90 117 Pn **Pn** 23 32 55.2 +0.8
1.2nm,0.3s,baz=226,slow=2.2,SNR=15
EIL Sn **Sn** 23 34 30.1 -3.6
1.6nm,0.3s,baz=135,slow=9.2,SNR=6.4
3.4nm,0.4s
EIL AML AML
EIL Elat 8.90 117 P **Pn** 23 32 53.4 -1.0
EIL S **Sn** 23 34 32.5 -1.2
TIP Timpagrande 8.91 308 Pn **Pn** 23 32 53.2 -1.3
AQBJ Aqaba 8.95 116 P Pn 23 33 01.5 +6.6
31nm,0.5s
CEL Celeste 9.07 301 Pn **Pn** 23 32 55.0 -1.6
BNN Bunyan 9.41 56 Pn **Pn** 23 33 02.9 +1.4
ASF Jabal al Asfar 9.44 98 Pn **Pn** 23 33 02.5 +0.2
0.1nm,0.3s,baz=285,slow=12,SNR=1.1
ASF Sn **Sn** 23 34 45.5 -2.5
0.2nm,0.3s,baz=294,slow=20,SNR=1.3
0.5nm,0.5s
ASF AML AML
PDG Podgorica 9.85 330 Pn **Pn** 23 33 05.5 -1.8
RAFF Raffo Rosso 9.85 292 Pn **Pn** 23 33 05.3 -2.0
VAE Valguarnera 9.88 294 Pn Pn 23 33 05.5 -2.3
1.2nm,0.3s,baz=114,slow=20,SNR=1.8
VAE Sn Sn 23 34 49.1 -8.7
0.5nm,0.3s,baz=135,slow=18,SNR=1.9
14nm,0.9s
VAE AML AML
CUC Castrocucco 9.97 310 Pn **Pn** 23 33 06.8 -2.2
ACER Acerenza 10.35 314 Pn **Pn** 23 33 12.2 -2.0
INTR Introdacqua 12.31 314 Pn **Pn** 23 33 40.4 -0.7
NRCA Norcia 13.27 315 Pn **Pn** 23 33 53.8 -0.3
FDMO Fiordimonte 13.41 316 Pn **Pn** 23 33 55.6 -0.4
SABO M.te Sabotino 15.15 326 Pn **Pn** 23 34 17.4 -2.2
RONA Rosalia, Austr 15.43 335 *e*Pn **Pn** 23 34 24.5 +1.3
6.5nm,1.6s
SESA Seetaler Alpe, 15.60 330 *e*P **P** 23 34 29.7 +0.2
1.1nm,0.8s
STAL STALIGIAL 15.78 325 Pn **Pn** 23 34 27.7 -0.1
STAL IAmb IAmb 23 34 54.1
comp=Z,18nm,1.4s
CTI Castel Tesino 16.16 322 Pn **Pn** 23 34 31.7 -1.0
ABTA Abfaltersbach 16.23 326 *e*P **P** 23 34 37.2 +0.8
comp=Z,0.6nm,0.4s
LESA Schwarzleotal 16.65 327 *e*P **P** 23 34 42.2 +1.0
comp=Z,0.9nm,0.5s
KIEV Kiev 16.85 7 **Pn** 23 34 42.1 +0.9
KIEV IAmb IAmb 23 34 45.5
comp=Z,6.7nm,0.8s
AKASG Malin Array Be 16.86 8 Pn **Pn** 23 34 42.4 +1.0
comp=Z,1.4nm,0.3s,baz=202,slow=11,SNR=11
WTTA Wattenberg 17.02 325 *e*pP **P** 23 34 49.4 +4.1
comp=Z,2.2nm,0.6s
WATA Walderalm 17.09 325 *e*P **P** 23 34 48.8 +2.7
comp=Z,1.9nm,0.7s
FUORN Ofenpass-Fuorn 17.25 321 Pn **Pn** 23 34 45.4 -1.2
FETA Feichten 17.29 323 *e*P **P** 23 34 50.8 +2.6
comp=Z,2.6nm,0.8s
MOTA Moosalm 17.33 325 *e*Pn **Pn** 23 34 47.7 +0.2
comp=Z,0.2nm,0.3s
GEC2 GERESS Array S 17.34 332 Pn **Pn** 23 34 45.7 -1.8
GERES GERESS Array B 17.34 332 P **Pn** 23 34 48.5 +0.9
comp=Z,0.8nm,0.6s,baz=148,slow=11,SNR=5.9
GERES GERESS Array B 17.34 332 P **Pn** 23 34 46.9 -0.7
DAVOX Davos/Dischmat 17.55 321 P **Pn** 23 34 48.8 -1.6
comp=Z,0.1nm,0.3s,baz=152,slow=15,SNR=2.0
comp=Z,1.0nm,0.7s
DAVOX AML AML
KHC Kasperske Hory 17.62 333 Pn **Pn** 23 34 49.7 -1.3
TUE Stuetta 17.64 320 P **Pn** 23 34 50.4 -1.0
CLL Collm 19.63 336 *e*P **P** 23 35 14.0 +0.3
CLL *e*pP **pP** 23 35 21.0 +0.3
SUW Suwalki 20.08 355 P **P** 23 35 18.4 -0.1
PABE Paberze 21.52 357 P **P** 23 35 34.4 +0.3
PABE IAmb IAmb 23 35 57.3
comp=Z,40nm,1.5s
ESDC Sonseca Array 24.42 292 P **P** 23 36 04.4 +0.7
comp=Z,0.3nm,0.5s,baz=93,slow=9.5,SNR=5.5
comp=Z,0.3nm,0.5s
HFS Hagfors 27.31 347 P **P** 23 36 28.8 -0.8
comp=Z,1.1nm,0.8s,baz=160,slow=9.3,SNR=5.0
comp=Z,1.1nm,0.8s
FINES FINESS Array B 27.44 0 P **P** 23 36 29.8 -0.9
comp=Z,2.1nm,0.6s,baz=163,slow=11,SNR=19
comp=Z,2.1nm,0.6s
FINES FINESS Array B 27.44 0 P **P** 23 36 29.7 -1.1
FIA1 FINESS Array S 27.44 0 P **P** 23 36 30.0 -0.7
NOA NORSAR Array B 28.64 345 P **P** 23 36 40.6 -0.8
comp=Z,0.1nm,0.3s,baz=168,slow=8.5,SNR=1.4
comp=Z,0.1nm,0.3s
EKA Eskdalemuir Ar 29.28 326 P **P** 23 36 46.7 -0.5
comp=Z,0.5nm,0.6s,baz=128,slow=9.9,SNR=2.5
comp=Z,0.5nm,0.6s
ARCES ARCESS Array B 35.57 360 P **P** 23 37 40.9 -1.2
comp=Z,8.2nm,1.1s,baz=169,slow=7.2,SNR=7.7
comp=Z,8.2nm,1.1s
ARCES ARCESS Array B 35.57 360 P **P** 23 37 40.9 -1.2
BVAR Borovoye Array 36.76 45 P **P** 23 37 52.9 +0.5
comp=Z,0.3nm,0.4s,baz=253,slow=4.4,SNR=1.9
comp=Z,0.3nm,0.4s
KURBB Kurchatov Arra 41.43 50 P **P** 23 38 33.0 +1.5
comp=Z,0.5nm,0.4s,baz=287,slow=10,SNR=11
comp=Z,0.5nm,0.4s
KURK Kurchatov 41.49 50 P **P** 23 38 32.5 +0.5
KURK IAmb IAmb 23 38 55.7
comp=Z,4.0nm,1.4s
MK31 Makanchi Array 43.97 56 P **P** 23 38 53.3 +1.1
MK31 IAmb IAmb 23 39 33.0
comp=Z,4.2nm,1.4s
MKAR Makanchi Array 43.97 56 P **P** 23 38 54.1 +1.9
comp=Z,0.6nm,0.6s,baz=268,slow=7.6,SNR=7.8
comp=Z,0.6nm,0.6s
MKAR Makanchi Array 43.97 56 P **P** 23 38 53.9 +1.7
SPITS Spitsbergen Ar 44.45 357 P **P** 23 38 54.0 -1.6
comp=Z,11nm,0.9s,baz=153,slow=13,SNR=1.8
comp=Z,11nm,0.9s
ZAA0 Zalesovo Array 45.42 45 P **P** 23 39 03.9 +0.4
ZAA0 IAmb IAmb 23 39 05.4
comp=Z,4.0nm,1.4s
ZALV Zalesovo Beam 45.42 45 P **P** 23 39 04.3 +0.8
comp=Z,1.2nm,0.5s,baz=267,slow=8.2,SNR=6.3
comp=Z,1.2nm,0.5s
ZALV Zalesovo Beam 45.42 45 P **P** 23 39 03.9 +0.3
MAKGR Makgori 59.51 181 P **P** 23 40 47.2 -1.1
SONM Songino Array 59.80 50 P **P** 23 40 51.3 +1.1
comp=Z,0.3nm,0.7s,baz=275,slow=6.7,SNR=2.3
comp=Z,0.3nm,0.7s
SONM Songino Array 59.80 50 P **P** 23 40 51.0 +0.7
SONM IAmb IAmb 23 41 16.1
comp=Z,1.5nm,1.4s
SCHQ Schefferville 64.40 320 P **P** 23 41 21.3 +0.4
E29M Blow River 77.18 354 P **P** 23 42 39.3 +1.0
E29M IAmb IAmb 23 42 42.8
comp=Z,4.2nm,1.3s
D23K Nanushuk River 77.29 359 P **P** 23 42 39.6 +0.7
D23K IAmb IAmb 23 42 58.3
comp=Z,10nm,1.5s
F30M Barrier River 77.73 353 P **P** 23 42 41.2 -0.2
F30M IAmb IAmb 23 43 05.8
comp=Z,7.8nm,1.3s
YKA Yellowknife Ar 78.70 342 P **P** 23 42 47.5 +0.7
comp=Z,0.2nm,0.4s,baz=31,slow=5.5,SNR=2.4
comp=Z,0.2nm,0.4s
E19K Redstone River 78.81 1 P **P** 23 42 48.7 +1.3
E19K IAmb IAmb 23 43 19.0
comp=Z,8.4nm,1.4s
H29M Whitestone 79.34 354 P **P** 23 42 51.4 +1.1

IDC 28 23:33:05.2±1.8,5°62S×152°71E,h0km,mb3.4/3, mbtmp3.4/3, Error ellipse: s-maj=42.5km s-min=22.1km az=94.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.47**	**332**	Pn	Pg	23 33 33.4	0.0
	174nm,0.3s,baz=279,slow=2.5,SNR=16						
KRVT				Sn	Sg	23 33 52.5	0.0
	191nm,0.3s,baz=179,slow=22,SNR=16						
WRA	**Warramunga Arr**	**22.84**	**230**	P	P	23 38 10.2	+0.1
	0.4nm,0.6s,baz=60,slow=11,SNR=2.6						
	0.4nm,0.6s						
ASAR	**Alice Springs**	**25.49**	**223**	P	P	23 38 35.3	-0.1
	0.7nm,0.7s,baz=60,slow=9.2,SNR=5.0						
	0.7nm,0.7s						
ILAR Eielson Array 82.95 22 P P 23 45 31.7 0.0
0.5nm,0.7s,baz=251,slow=4.7,SNR=7.2
0.5nm,0.7s

*BJI **28** 23:47:29.5,4°.94N×94°.45E,h73km,mB4.8/2,mb4.7/23, Ms4.6/1,Ms7 4.5/1*
*IDC **28** 23:47:32.2±2.6,5°.41N×94°.48E,h50km±23km,mb4.1/21, mbtmp4.3/24,ML4.2/3,MS3.3/13,Error ellipse: s-maj=25.0km s-min=12.2km az=52.0*
*DJA **28** 23:47:33.2±1.0,5°N±8°×9°5E±°,h26km±9km,M4.5/6, mb4.5/3,mb4.4/3,ML4.3/3,MLv4.5/12,MLv4.5/6*
*NEIC **28** 23:47:33.7±1.5,5°.31N±0°.08×94°.50E±0°.08,h65km±8km, mb4.9/49,Error ellipse: s-maj=12.5km s-min=10.4km az=219.0*
*GFZ **28** 23:47:33.6±0.4,5°N±4°×9°5E±°,h76km±3km,M4.4/24, mb4.7/24,Error ellipse: s-maj=13.1km s-min=4.8km az=53.0,confirmed*

ISC 28 23:47:32.4±0.5,5°35N±0°05×94°51E±0°05,h56km±3km, h56km:pP-P,n186,σ1§07/187,mb4.7/73,MS3.4/10,1C, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BSI	**Banda Aceh**	**0.79**	**79**	P	**Pn**	**23 47 47.1**	**-0.6**
BSI				S	**Sn**	**23 47 57.6**	**-1.3**
BSI				AML	AML		
BSI				AML	AML		
BSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**2.17**	**120**	P	**Pn**	**23 48 06.6**	**+0.5**
MLSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**2.17**	**120**	P	**Pn**	**23 48 06.8**	**+0.7**
LHMI	**Lhok Sumawe**	**2.43**	**93**	P	**Pn**	**23 48 10.7**	**+1.0**
LHMI	**Lhok Sumawe**	**2.43**	**93**		**Pn**	**23 48 10.5**	**+0.8**
LHMI				Sn	**Sn**	**23 48 39.2**	**+1.0**
LHMI	**Lhok Sumawe**	**2.43**	**93**	P	**Pn**	**23 48 10.1**	**+0.4**
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**2.43**	**93**	P	**Pn**	**23 48 09.7**	**+0.1**
TPTI		**3.37**	**128**	P	**Pn**	**23 48 23.6**	**+1.0**
TPTI		**3.37**	**128**	P	**Pn**	**23 48 23.4**	**+0.7**
SNSI	**Sinabang, Aceh**	**3.43**	**148**	P	**Pn**	**23 48 23.7**	**+0.2**
SNSI				AML	AML		
SNSI	**Sinabang, Aceh**	**3.43**	**148**	P	**Pn**	**23 48 23.0**	**-0.4**
KCSI	**Kotacane, Aceh**	**3.72**	**119**	P	**Pn**	**23 48 28.6**	**+1.2**
KCSI	**Kotacane, Aceh**	**3.72**	**119**	P	**Pn**	**23 48 29.2**	**+1.8**
TSI	**Tuntungan**	**4.43**	**114**	P	**Pn**	**23 48 37.2**	**0.0**
TSI				AML	AML		
TSI	**Tuntungan**	**4.43**	**114**	P	**Pn**	**23 48 37.9**	**+0.6**
GSI	**Gunungsitoli**	**5.04**	**143**	P	**Pn**	**23 48 46.3**	**+0.7**
GSI	**Gunungsitoli**	**5.04**	**143**	Pn	**Pn**	**23 48 45.9**	**+0.2**
GSI				Sn	**Sn**	**23 49 40.7**	**-2.0**
GSI	**Gunungsitoli**	**5.04**	**143**	P	**Pn**	**23 48 47.0**	**+1.4**
29nm,0.8s							
PSI	**Prapat**	**5.07**	**120**	P	**Pn**	**23 48 47.9**	**+1.8**
5.6nm,0.3s,baz=347,slow=12,SNR=12							
PSI				S	**Sn**	**23 49 42.3**	**-1.2**
12nm,0.5s,baz=94,slow=4.0,SNR=3.7							
PSI				LR	LR	23 51 11.0	
comp=Z,161nm,18.4s,baz=305,slow=42							
15nm,0.3s							
PSI				AML	AML		
PSI	**Prapat**	**5.07**	**120**	P	**Pn**	**23 48 47.5**	**+1.4**
PSI	**Prapat**	**5.07**	**120**	P	**Pn**	**23 48 48.1**	**+2.0**
18nm,0.6s,18nm,0.6s							
RPSI	**Rantau Prapat**	**5.13**	**121**		**Pn**	**23 48 48.1**	**+1.4**
RPSI	**Rantau Prapat**	**5.13**	**121**	P	**Pn**	**23 48 48.1**	**+1.4**
comp=Z,16nm,0.8s							
RPSI	**Rantau Prapat**	**5.13**	**121**	P	**Pn**	**23 48 48.4**	**+1.7**
comp=Z,24nm,0.7s							
KULM	**Kulim**	**6.11**	**90**	P	**Pn**	**23 49 00.3**	**+0.1**
KULM	**Kulim**	**6.11**	**90**		**Pn**	**23 49 00.6**	**+0.4**
KULM				Sn	**Sn**	**23 50 06.5**	**-2.3**
KULM	**Kulim**	**6.11**	**90**	P	**Pn**	**23 49 01.1**	**+0.9**
comp=Z,28nm,0.6s							
IPM	**Ipoh**	**6.54**	**97**	P	**Pn**	**23 49 06.3**	**+0.1**
IPM	**Ipoh**	**6.54**	**97**		**Pn**	**23 49 06.3**	**+0.1**
IPM	**Ipoh**	**6.54**	**97**	P	**Pn**	**23 49 05.7**	**-0.5**
comp=Z,22nm,0.6s							
CM31	**Chiang Mai Arr**	**13.73**	**18**	Pn	**Pn**	**23 50 45.7**	**+1.3**
CMAR	**Chiang Mai Arr**	**13.73**	**18**	P	**Pn**	**23 50 43.7**	**-0.8**
comp=Z,1.8nm,0.3s,baz=208,slow=14,SNR=19							
CMAR				LR	LR	23 56 53.1	
comp=Z,28nm,18.2s,baz=190,slow=41							
comp=Z,2.8nm,0.3s							
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**13.73**	**18**		**Pn**	**23 50 45.0**	**+0.6**
MDSI	**Maura Dua**	**13.73**	**135**	P	**Pn**	**23 50 43.0**	**-1.5**
comp=Z,14nm,1.1s							
PALK	**Pallekele**	**13.86**	**279**	P	**Pn**	**23 50 46.6**	**+0.3**
comp=Z,0.2nm,0.3s,baz=93,slow=15,SNR=1.0							
PALK				S	Sn	23 53 04.4	-14
comp=Z,3.4nm,0.3s,baz=23,slow=23,SNR=8.6							
PALK				LR	LR	23 55 33.6	
comp=Z,97nm,21.4s,baz=109,slow=35							
comp=Z,1.1nm,0.4s							
PALK				AML	AML		
PALK	**Pallekele**	**13.86**	**279**	Pn	**Pn**	**23 50 45.7**	**-0.5**
CHTO	**Chiang Mai**	**14.07**	**18**	P	**P**	**23 50 52.9**	**-2.2**
CHTO	**Chiang Mai**	**14.07**	**18**	P	**Pn**	**23 50 51.6**	**+2.7**
comp=Z,13nm,1.0s							
COCO	**West Island**	**17.57**	**172**	P	**Pn**	**23 51 29.6**	**-3.9**
EVN	**Everest**	**23.65**	**343**		**P**	**23 52 37.7**	**-1.8**
EVN	**Everest**	**23.65**	**343**	P	**P**	**23 52 38.4**	**-1.1**
comp=Z,12nm,0.6s							
SRBI	**Singaraja**	**24.58**	**123**	P	**P**	**23 52 49.2**	**+1.8**
comp=Z,48nm,0.6s							
H08S3	**Diego Garcia H**	**25.48**	**240**	T	T	00 18 58.2	
baz=59,slow=76,SNR=428							
H08S2	**Diego Garcia H**	**25.48**	**240**	T	T	00 18 40.1	
baz=59,slow=76,SNR=568							
H08S1	**Diego Garcia H**	**25.50**	**240**	T	T	00 19 01.0	
baz=59,slow=76,SNR=252							
KAPI	**Kappang**	**27.22**	**112**	P	**P**	**23 53 07.6**	**-3.8**
comp=Z,11nm,0.4s							
BKSI	**Bulukumba**	**27.68**	**112**	P	**P**	**23 53 16.6**	**+1.2**
comp=Z,25nm,0.7s							
LUWI	**Luwuk**	**28.93**	**102**	P	**P**	**23 53 27.2**	**+0.6**
LUWI				IAmb	IAmb	23 53 33.7	
comp=Z,18nm,0.6s							
XAN	**Xi'an**	**31.53**	**23**	P	**P**	**23 53 48.5**	**-0.9**
XAN				pmax	pmax		
comp=Z,13nm,0.7s							
XAN	**Xi'an**	**31.53**	**23**	P	**P**	**23 53 48.5**	**-0.9**
XAN				pP	**pP**	**23 54 01.6**	**-1.4**
LZDM	**Lanzhou Array**	**31.61**	**14**	P	**P**	**23 53 49.6**	**-0.8**
comp=Z,1.3nm,0.3s,baz=194,slow=7.9,SNR=5.2							
comp=Z,1.3nm,0.3s							
LZH	**Lanzhou**	**31.77**	**14**	*e*P	**P**	**23 53 53.5**	**+1.8**
LZH				sP	sP	23 54 17.0	+5.1
LZH				pmax	pmax		
comp=Z,64nm,1.1s							
NACB	**Ninganchiao**	**32.07**	**52**	P	**P**	**23 53 51.6**	**-2.6**
comp=Z,61nm,2.5s							
NACB				pP	**pP**	**23 54 10.2**	**+2.1**
GTA2	**Gaotai**	**34.32**	**7**	*e*P	**P**	**23 54 13.5**	**-0.3**
GTA2				pmax	pmax		
comp=Z,6.0nm,0.7s							
NIL	**Nilore**	**34.40**	**328**	P	**P**	**23 54 14.0**	**-0.5**
comp=Z,7.0nm,0.8s							
HNS	**HongShan**	**36.85**	**27**	⇑P	**P**	**23 54 36.5**	**+1.2**
HNS				pmax	pmax		
comp=Z,19nm,0.9s							
TIA	**Tai'an**	**37.08**	**31**	P	**P**	**23 54 37.0**	**-0.3**
TIA				pmax	pmax		
comp=Z,9.0nm,0.7s							
KSH2	**Kashi**	**37.77**	**336**	P	**P**	**23 54 44.0**	**+0.7**
KSH2				pmax	pmax		
comp=Z,4.0nm,1.3s							
WUS	**Wushi**	**38.23**	**341**	P	**P**	**23 54 47.3**	**+0.1**
WUS				IAmb	IAmb	23 54 48.9	
comp=Z,18nm,0.5s							
WUS	**Wushi**	**38.23**	**341**	P	**P**	**23 54 46.6**	**-0.5**
comp=Z,25nm,0.9s							
WUS	**Wushi**	**38.23**	**341**	P	**P**	**23 54 48.2**	**+1.0**
WUS				pP	**pP**	**23 55 01.1**	**+0.2**
FITZ	**Fitzroy Crossi**	**38.54**	**128**	LR	LR	00 10 34.0	
comp=Z,37nm,21.5s,baz=350,slow=36							
FITZ	**Fitzroy Crossi**	**38.54**	**128**	P	**P**	**23 54 49.7**	**-0.2**
FAKI	**Fak Fak**	**38.58**	**101**	P	**P**	**23 54 49.6**	**-0.7**
FAKI				IAmb	IAmb	23 54 53.0	
comp=Z,25nm,1.4s							
WMQ	**Urumqi**	**38.79**	**352**	*e*P	**P**	**23 54 53.5**	**+1.8**
ASAI	**AK-SAY(Kyrgyzs**	**38.92**	**338**	P	**P**	**23 54 51.5**	**-1.7**

	comp=Z,3.5nm,2.2s							
ASAI					pP	**pwP**	**23 55 09.2**	**-1.1**
TARG	**Taragay, Kyrgy**	**39.18**	**340**		P	**P**	**23 54 52.9**	**-2.6**
	comp=Z,25nm,2.0s							
BJT	**Baijiatuau**	**39.65**	**26**		P	**P**	**23 54 58.3**	**-0.6**
BJT					IAmb	IAmb	23 55 01.1	
	comp=Z,8.1nm,0.6s							
BJI2	**Beijing**	**39.65**	**26**		P	**P**	**23 55 00.3**	**+1.4**
BJI2					pP	**pP**	**23 55 15.5**	**+2.6**
BJI2					sP	**sP**	**23 55 22.5**	**+3.3**
BJI2					pmax	pmax		
	comp=Z,10.0nm,0.9s							
BJI2					pmax	pmax		
	comp=Z,60nm,5.4s							
PRZ	**Przheval'sk**	**39.66**	**341**		P	**P**	**23 55 00.2**	**+1.0**
DRK	**Karamyk**	**39.70**	**332**			**P**	**23 55 00.0**	**+0.4**
DRK					IAmb	IAmb	23 55 03.7	
	comp=Z,15nm,0.6s							
DRK	**Karamyk**	**39.70**	**332**		P	**P**	**23 54 59.6**	**0.0**
	comp=Z,18nm,0.7s							
KDJ	**Kajisay**	**39.75**	**340**		P	**P**	**23 55 01.1**	**+1.2**
KDJ	**Kajisay**	**39.75**	**340**		P	**P**	**23 54 59.7**	**-0.1**
	comp=Z,46nm,1.9s							
PDGK	**Podgornoye**	**40.09**	**343**			**P**	**23 55 03.5**	**+0.9**
OHH	**Osh**	**40.09**	**334**		P	**P**	**23 55 01.4**	**-1.3**
	comp=Z,7.3nm,1.4s							
BOOM	**Boomskoye usch**	**40.50**	**339**		P	**P**	**23 55 06.7**	**+0.6**
BOOM					IAmb	IAmb	23 56 35.3	
	comp=Z,64nm,1.8s							
BTK	**Batken**	**40.61**	**332**		P	**P**	**23 55 07.3**	**+0.3**
	comp=Z,5.5nm,0.8s							
ARSB	**Arslanbob**	**40.67**	**335**			**P**	**23 55 07.9**	**+0.4**
ARSB					IAmb	IAmb	23 55 34.0	
	comp=Z,17nm,1.5s							
ARK	**Arkit**	**41.49**	**334**		P	**P**	**23 55 13.9**	**-0.3**
	comp=Z,5.4nm,2.2s							
MKAR	**Makanchi Array**	**42.62**	**348**		P	**P**	**23 55 23.2**	**0.0**
	comp=Z,9.9nm,0.6s,baz=179,slow=7.7,SNR=104							
MKAR					PcP	**PcP**	**23 57 15.1**	**+0.6**
	comp=Z,0.3nm,0.4s,baz=188,slow=2.9,SNR=3.2							
	comp=Z,9.9nm,0.6s							
MKAR	**Makanchi Array**	**42.62**	**348**			**P**	**23 55 23.5**	**+0.3**
MAKZ	**Makanchi**	**42.70**	**347**			**P**	**23 55 24.3**	**+0.5**
MAKZ					IAmb	IAmb	23 55 24.9	
	comp=Z,13nm,0.5s							
MAKZ	**Makanchi**	**42.70**	**347**		P	**P**	**23 55 23.3**	**-0.6**
	comp=Z,17nm,0.7s							
MAKZ	**Makanchi**	**42.70**	**347**		P	**P**	**23 55 24.1**	**+0.3**
MAKZ					sP	**sP**	**23 55 42.9**	**-1.2**
TJN	**Taejon**	**43.14**	**40**		P	**P**	**23 55 27.5**	**0.0**
KK31	**Karatay Array**	**43.18**	**334**			**P**	**23 55 28.0**	**+0.2**
KKAR	**Karatay Array**	**43.18**	**334**		P	**P**	**23 55 28.1**	**+0.3**
SONM	**Songino Array**	**43.54**	**12**		P	**P**	**23 55 30.3**	**-0.4**
	comp=Z,2.9nm,0.6s,baz=187,slow=9.0,SNR=30							
SONM					PcP	**PcP**	**23 57 18.4**	**+0.7**
	comp=Z,1.0nm,0.5s,baz=193,slow=4.4,SNR=12							
	comp=Z,2.9nm,0.6s							
SONM	**Songino Array**	**43.54**	**12**		P	**P**	**23 55 30.4**	**-0.3**
JNU	**Nakatsue**	**43.68**	**46**		LR	LR	00 14 39.4	
	comp=Z,46nm,18.2s,baz=220,slow=37							
ULN	**Ulaanbaatar**	**43.71**	**12**			**P**	**23 55 31.4**	**-0.7**
ULN	**Ulaanbaatar**	**43.71**	**12**		P	**P**	**23 55 31.3**	**-0.8**
	comp=Z,5.6nm,0.6s							
ULN	**Ulaanbaatar**	**43.71**	**12**		P	**P**	**23 55 31.7**	**-0.4**
KSRS	**Korea Array**	**44.15**	**39**		P	**P**	**23 55 34.9**	**-0.8**
	comp=Z,0.8nm,0.4s,baz=227,slow=8.7,SNR=3.6							
KSRS					LR	LR	00 16 52.3	
	comp=Z,27nm,18.3s,baz=250,slow=40							
	comp=Z,0.8nm,0.4s							
SMPI	**Sarmi**	**44.74**	**98**		P	P	23 55 35.4	-5.4
	comp=Z,16nm,1.1s							
WB0	**Warramunga Arr**	**46.49**	**124**		P	**P**	**23 55 54.4**	**0.0**
WRA	**Warramunga Arr**	**46.52**	**124**		P	**P**	**23 55 55.1**	**+0.4**
	comp=Z,3.1nm,0.7s,baz=303,slow=9.2,SNR=36							
WRA					PcP	**PcP**	**23 57 28.9**	**+0.4**
	comp=Z,0.3nm,0.4s,baz=296,slow=9.8,SNR=1.2							
	comp=Z,3.1nm,0.7s							
WRA	**Warramunga Arr**	**46.52**	**124**			**P**	**23 55 53.7**	**-1.0**
WRAB	**Tennant Creek**	**46.53**	**124**		P	**P**	**23 55 55.5**	**+0.8**
TLY	**Talaya**	**46.80**	**8**		LR	LR	00 18 48.4	
	comp=Z,38nm,18.0s,baz=182,slow=40							
KURBB	**Kurchatov Arra**	**47.07**	**346**		P	**P**	**23 55 59.3**	**+0.8**
	comp=Z,7.3nm,0.5s,baz=171,slow=6.8,SNR=104							
KURBB					PcP	**PcP**	**23 57 27.5**	**-2.2**
	comp=Z,0.7nm,0.7s,baz=156,slow=2.8,SNR=2.0							
	comp=Z,7.3nm,0.5s							
KURK	**Kurchatov**	**47.14**	**346**			**P**	**23 55 59.7**	**+0.7**
KURK					IAmb	IAmb	23 56 00.7	
	comp=Z,9.7nm,0.8s							
KURK	**Kurchatov**	**47.14**	**346**		P	**P**	**23 55 59.4**	**+0.4**
	comp=Z,15nm,1.0s							
KURK	**Kurchatov**	**47.14**	**346**		P	**P**	**23 55 59.9**	**+0.9**
AS31	**Alice Springs**	**48.04**	**129**			**P**	**23 56 06.0**	**-0.5**
ASAR	**Alice Springs**	**48.04**	**129**		P	**P**	**23 56 07.2**	**+0.8**
	comp=Z,1.4nm,0.5s,baz=299,slow=7.6,SNR=37							
ASAR					PcP	**PcP**	**23 57 34.7**	**+0.9**
	comp=Z,0.7nm,0.5s,baz=299,slow=4.1,SNR=3.6							
	comp=Z,1.4nm,0.5s							
ASAR	**Alice Springs**	**48.04**	**129**		P	**P**	**23 56 06.4**	**-0.1**
ZAA0	**Zalesovo Array**	**49.09**	**352**			**P**	**23 56 14.2**	**+0.2**
ZAA0					IAmb	IAmb	23 56 15.4	
	comp=Z,9.2nm,0.8s							
ZALV	**Zalesovo Beam**	**49.09**	**352**		P	**P**	**23 56 14.4**	**+0.4**
	comp=Z,6.9nm,0.5s,baz=183,slow=6.7,SNR=42							
	comp=Z,6.9nm,0.5s							
ZALV	**Zalesovo Beam**	**49.09**	**352**			**P**	**23 56 14.5**	**+0.5**
JGF	**Kuroka**	**49.56**	**47**		P	**P**	**23 56 17.8**	**-0.3**
RAYN	**Ar Rayn**	**50.49**	**296**		P	**P**	**23 56 25.0**	**-0.3**
RAYN					IAmb	IAmb	23 56 30.7	
	comp=Z,19nm,1.8s							
RAYN	**Ar Rayn**	**50.49**	**296**		P	**P**	**23 56 27.1**	**+1.8**
MJAR	**Matsushiro Arr**	**50.61**	**46**		LR	LR	00 19 10.7	
	comp=Z,32nm,18.4s,baz=250,slow=38							
USRK	**Ussuriysk Ar.**	**50.75**	**34**		LR	LR	00 19 14.0	
	comp=Z,32nm,19.3s,baz=294,slow=38							
BVAR	**Borovoye Array**	**51.49**	**342**		P	**P**	**23 56 31.9**	**-0.3**
	comp=Z,3.6nm,0.6s,baz=135,slow=9.9,SNR=18							
	comp=Z,3.6nm,0.6s							
BORK	**Borovoye**	**51.53**	**342**			**P**	**23 56 32.6**	**+0.2**
BORK					IAmb	IAmb	23 56 47.5	
	comp=Z,4.1nm,0.6s							
AB31	**Akbulak array**	**52.62**	**332**			**P**	**23 56 41.1**	**+0.5**
ABKAR	**Akbulak array**	**52.62**	**332**		P	**P**	**23 56 41.0**	**+0.4**
KLR	**Kul'dur**	**53.88**	**29**		LR	LR	00 23 59.8	
	comp=Z,22nm,19.8s,baz=231,slow=41							
STKA	**Stephens Creek**	**58.12**	**133**		P	**P**	**23 57 21.4**	**+0.9**
	comp=Z,3.4nm,0.8s,baz=275,slow=4.4,SNR=3.6							
	comp=Z,3.4nm,0.8s							
ARTI	**Arti**	**58.39**	**337**		LR	LR	00 23 09.5	
	comp=Z,44nm,18.2s,baz=324,slow=37							
ARTI	**Arti**	**58.39**	**337**		P	**P**	**23 57 21.3**	**-0.6**
ARTI					IAmb	IAmb	23 57 22.1	
	comp=Z,5.2nm,0.6s							
ARTI	**Arti**	**58.39**	**337**		P	**P**	**23 57 21.7**	**-0.3**
ARTI					pP	**pP**	**23 57 35.6**	**-0.9**
CSS	**Mathiatis**	**63.45**	**306**		P	**P**	**23 57 56.4**	**-0.4**
CSS					IAmb	IAmb	23 58 08.0	
	comp=Z,24nm,1.4s							
H04N2	**CROZET ISLANDS**	**63.77**	**212**		T	T	01 07 57.1	
	baz=50,slow=75,SNR=229							
H04N1	**CROZET ISLANDS**	**63.78**	**212**		T	T	01 07 57.7	
	baz=50,slow=75,SNR=306							
H04N3	**CROZET ISLANDS**	**63.79**	**212**		T	T	01 07 57.8	
	baz=50,slow=75,SNR=286							
MBAR	**Mbarara**	**63.96**	**267**		LR	LR	00 21 38.2	
	comp=Z,28nm,21.4s,baz=81,slow=32							
NRIK	**Noril'sk**	**64.07**	**357**		P	**P**	**23 57 59.9**	**-0.2**
	comp=Z,2.6nm,0.4s,baz=171,slow=6.6,SNR=5.1							
	comp=Z,2.6nm,0.4s							
NRIK	**Noril'sk**	**64.07**	**357**		P	**P**	**23 57 59.6**	**-0.5**
NRIK					IAmb	IAmb	23 58 35.8	
	comp=Z,29nm,2.0s							
H04S1	**CROZET ISLANDS**	**64.16**	**211**		T	T	01 08 12.9	
	baz=48,slow=75,SNR=3.6							
H04S3	**CROZET ISLANDS**	**64.17**	**211**		T	T	01 08 24.2	
	baz=48,slow=75,SNR=15							
H04S2	**CROZET ISLANDS**	**64.18**	**211**		T	T	01 08 14.6	
	baz=48,slow=75,SNR=2.9							
BR131	**Keskin Array S**	**64.36**	**312**			**P**	**23 58 02.0**	**-0.8**
BR131					IAmb	IAmb	23 58 03.4	
	comp=Z,16nm,2.0s							
BRTR	**Keskin Array B**	**64.36**	**312**		P	**P**	**23 58 02.2**	**-0.6**
	comp=Z,1.5nm,0.7s,baz=117,slow=7.6,SNR=14							
	comp=Z,1.5nm,0.7s							
ELL	**Elmali**	**66.54**	**308**			**P**	**23 58 17.2**	**+0.3**
ELL					IAmb	IAmb	23 58 19.1	
	comp=Z,8.8nm,1.0s							

AKAS	**Kas**	**66.68**	**307**		P	**P**	**23 58 17.4**	**-0.5**
AKAS					IAmb	IAmb	23 58 34.6	
	comp=Z,31nm,1.2s							
KARP	**Karpathos**	**68.52**	**306**		P	**P**	**23 58 30.1**	**+0.8**
TIXI	**Tiksi**	**69.63**	**11**		LR	LR	00 30 14.1	
	comp=Z,35nm,18.7s,baz=192,slow=37							
TIXI	**Tiksi**	**69.63**	**11**		P	**P**	**23 58 34.8**	**-0.6**
TIXI					IAmb	IAmb	00 00 12.6	
	comp=Z,5.3nm,0.5s							
IDI	**Anoyia**	**70.31**	**305**		P	**P**	**23 58 40.7**	**+0.2**
IDI					IAmb	IAmb	23 58 42.1	
	comp=Z,4.7nm,0.6s							
AKASG	**Malin Array Be**	**70.36**	**322**		P	**P**	**23 58 39.0**	**-1.3**
	comp=Z,1.6nm,0.7s,baz=87,slow=5.7,SNR=7.8							
	comp=Z,1.6nm,0.7s							
MLR	**Muntele Rosu**	**71.23**	**316**		P	**P**	**23 58 46.4**	**+0.5**
MLR					IAmb	IAmb	00 00 09.2	
	comp=Z,17nm,1.7s							
BURAR	**Bucovina Array**	**72.16**	**318**		P	**P**	**23 58 52.0**	**+0.6**
ITM	**Ithomi**	**72.92**	**307**		P	**P**	**23 58 55.5**	**-0.6**
ITM					IAmb	IAmb	00 01 19.5	
	comp=Z,36nm,1.3s							
FIA1	**FINESS Array S**	**75.11**	**332**		P	**P**	**23 59 07.9**	**-0.3**
FINES	**FINESS Array B**	**75.11**	**332**		P	**P**	**23 59 07.8**	**-0.5**
	comp=Z,0.9nm,0.3s,baz=110,slow=5.8,SNR=18							
	comp=Z,0.9nm,0.3s							
OJC	**Ojcow**	**76.14**	**320**		P	**P**	**23 59 14.3**	**-0.1**
MORC	**Moravsky Berou**	**77.53**	**320**	*eP*		**P**	**23 59 23.3**	**+1.0**
ARCES	**ARCESS Array B**	**77.76**	**340**		P	**P**	**23 59 23.7**	**+0.6**
	comp=Z,0.9nm,0.4s,baz=101,slow=7.0,SNR=12							
	comp=Z,0.9nm,0.4s							
ARCES	**ARCESS Array B**	**77.76**	**340**		P	**P**	**23 59 23.3**	**+0.1**
VRAC	**Vranov**	**78.09**	**319**	*eP*		**P**	**23 59 25.9**	**+0.5**
KRUC	**Moravsky**	**78.20**	**319**	*eP*		**P**	**23 59 26.5**	**+0.5**
ABNA	**Allensteig Bun**	**78.80**	**318**	*eP*		**P**	**23 59 30.5**	**+1.2**
	comp=Z,2.8nm,0.6s							
SESA	**Seetaler Alpe,**	**79.26**	**317**	*eP*		**P**	**23 59 33.3**	**+1.2**
	comp=Z,5.0nm,0.7s							
GERES	**GERESS Array B**	**79.95**	**319**		P	**P**	**23 59 36.4**	**+0.7**
	comp=Z,3.0nm,0.7s,baz=101,slow=5.6,SNR=18							
	comp=Z,3.0nm,0.7s							
GERES	**GERESS Array B**	**79.95**	**319**		P	**P**	**23 59 35.9**	**+0.2**
LESA	**Schwarzleotal**	**80.56**	**317**	*eP*		**P**	**23 59 39.4**	**+0.3**
	comp=Z,3.1nm,0.4s							
HFS	**Hagfors**	**80.81**	**330**		P	**P**	**23 59 40.7**	**+0.7**
	comp=Z,0.6nm,0.3s,baz=96,slow=5.4,SNR=2.1							
	comp=Z,0.6nm,0.3s							
WTTA	**Wattenberg**	**81.27**	**317**	*eP*		**P**	**23 59 43.2**	**+0.3**
	comp=Z,1.4nm,0.4s							
WATA	**Walderalm**	**81.31**	**317**	*eP*		**P**	**23 59 43.1**	**+0.1**
	comp=Z,1.7nm,0.5s							
SQTA	**Sankt Quirin**	**81.56**	**317**	*eP*		**P**	**23 59 44.7**	**+0.4**
	comp=Z,3.8nm,0.6s							
GRFO	**Grafenberg**	**81.61**	**319**		P	**P**	**23 59 45.2**	**+0.7**
GRFO					pP	**pP**	**23 59 58.9**	**-0.6**
MOTA	**Moosalm**	**81.63**	**317**	*eP*		**P**	**23 59 45.1**	**+0.3**
	comp=Z,7.7nm,1.5s							
RETA	**Reutte**	**81.86**	**317**	*eP*		**P**	**23 59 46.4**	**+0.5**
	comp=Z,3.1nm,0.5s							
CCD	**Concordia, Ant**	**82.17**	**173**		P	**P**	**23 59 49.8**	**+2.5**
CCD					pP	**pwP**	**00 00 04.7**	**-1.0**
FUORN	**Ofenpass-Fuorn**	**82.19**	**316**		P	**P**	**23 59 48.3**	**+0.4**
FUORN					IAmb	IAmb	00 02 15.4	
	comp=Z,20nm,1.7s							
SPITS	**Spitsbergen Ar**	**82.37**	**348**		P	**P**	**23 59 47.7**	**-0.2**
	comp=Z,22nm,1.1s,baz=137,slow=5.3,SNR=1.9							
	comp=Z,22nm,1.1s							
PLWZ	**Palliser**	**86.61**	**132**		P	**P**	**00 00 09.5**	**-0.6**
EKA	**Eskdalemuir Ar**	**90.00**	**326**		P	**P**	**00 00 26.1**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=74,slow=5.4,SNR=2.3							
	comp=Z,0.8nm,0.8s							
C18K	**Utukok River**	**90.22**	**21**		P	**P**	**00 00 26.5**	**-0.2**
F17K	**Baldwin Pennin**	**90.78**	**23**		P	**P**	**00 00 29.9**	**+0.8**
D22K	**Ayikyak River**	**93.07**	**20**		P	**P**	**00 00 40.0**	**+0.1**
ESDC	**Sonseca Array**	**93.12**	**310**		P	**P**	**00 00 41.2**	**+0.5**
	comp=Z,0.6nm,1.0s,baz=72,slow=4.7,SNR=2.6							
	comp=Z,0.6nm,1.0s							
IMAR	**Indian Mountai**	**93.81**	**22**		P	**P**	**00 00 43.8**	**+0.6**
TOLK	**Toolik Lake Re**	**94.20**	**19**		P	**P**	**00 00 45.3**	**+0.2**
J20K	**Nowinta River**	**94.33**	**24**		P	**P**	**00 00 46.1**	**+0.4**
J20K					IAmb	IAmb	00 03 14.8	
	comp=Z,23nm,1.5s							
C26K	**Camden Bay**	**95.05**	**17**		P	**P**	**00 00 49.6**	**+0.8**
ILAR	**Eielson Array**	**96.93**	**22**		P	**P**	**00 00 58.7**	**+1.2**
	comp=Z,0.2nm,0.5s,baz=295,slow=4.2,SNR=3.8							
	comp=Z,0.2nm,0.5s							
A36M	**Sachs Harbour**	**98.64**	**12**		P	**P**	**00 01 04.5**	**-0.5**
A36M					IAmb	IAmb	00 01 06.3	
	comp=Z,5.3nm,1.0s							
ULM	**Lac du Bonnet**	**123.90**	**8**		PKP	**PKPdf**	**00 06 24.1**	**-0.2**
	comp=Z,1.1nm,0.6s,baz=338,slow=5.4,SNR=6.8							
NVAR	**Mina Array Bea**	**126.87**	**32**		PKP	**PKiKP**	**00 06 32.4**	**+1.2**
	comp=Z,0.4nm,0.5s,baz=336,slow=4.0,SNR=3.6							
PDAR	**Pinedale Array**	**127.36**	**22**		PKP	**PKPdf**	**00 06 31.9**	**+0.4**
	comp=Z,0.6nm,0.5s,baz=113,slow=2.5,SNR=6.1							
TXAR	**Lajitas Array**	**141.34**	**26**		PKP	**PKPdf**	**00 06 58.7**	**+0.8**
	comp=Z,0.7nm,0.5s,baz=71,slow=0.1,SNR=11							

*IDC **28** 23:51:07.0±1.2,59.°26N×153.°85W,h79km±13km,mb3.5/15, mbtmp3.7/18,Error ellipse: s-maj=13.8km s-min=11.0km az=88.0*

*NEIC **28** 23:51:08.8±1.5,59.°16N±0.°04×153.°69W±0.°06, h103km±3km,mb4.1/12,ML3.6/144,ML3.5(AEIC),Error ellipse: s-maj=5.2km s-min=4.7km az=154.0*

*AEIC **28** 23:51:10.0±1.2,59.°15N±0.°04×153.°61W±0.°06,h98km±3km, Error ellipse: s-maj=5.1km s-min=4.4km az=178.0*

ISC 28 23:51:08.8±0.6,**59.°15N**±0.°03×**153.°63W**±0.°04, **h103**km±5km,**n235,**σ**0°70**/255,**mb3.9**/92,**Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase	ID	Op	Time	Res
							h m s	ISC
AUI	**Augustine Isla**	**0.21**	**29**			**Pn**	**23 51 23.4**	**0.0**
AUI						**Sn**	**23 51 33.9**	**-0.4**
AUJK	**Augustine Jueg**	**0.23**	**29**			**Pn**	**23 51 23.5**	**0.0**
AUJK						**Sn**	**23 51 34.0**	**-0.4**
Q19K	**Cape Douglas,**	**0.23**	**183**			**Pn**	**23 51 23.3**	**-0.2**
Q19K					Sn	**Sn**	**23 51 33.9**	**-0.6**
AUW	**Augustine West**	**0.23**	**20**			**Pn**	**23 51 23.6**	**+0.1**
AUW						**Sn**	**23 51 34.1**	**-0.3**
AU22	**Augustine Moun**	**0.26**	**32**			**Pn**	**23 51 23.6**	**+0.1**
AU22						**Sn**	**23 51 34.6**	**+0.1**
P19K	**Oil Pt**	**0.54**	**22**			**Pn**	**23 51 25.4**	**+0.2**
P19K						**Sn**	**23 51 37.4**	**-0.1**
KAHG	**Katmai Hook Gl**	**0.82**	**216**			**Pn**	**23 51 27.5**	**-0.2**
ILS	**Iliamna Low So**	**0.85**	**19**			**Pn**	**23 51 28.0**	**-0.1**
ILS						**Sn**	**23 51 42.1**	**-0.5**
P18K	**Big Mountain,**	**0.86**	**287**			**Pn**	**23 51 27.2**	**-0.8**
P18K						**Sn**	**23 51 41.0**	**-1.5**
KARR	**Katmai Rainbow**	**0.86**	**221**			**Sn**	**23 51 42.7**	**+0.1**
ILSW	**Iliamna Southw**	**0.87**	**16**			**Pn**	**23 51 28.0**	**-0.2**
ILSW					Sn	**Sn**	**23 51 42.2**	**-0.6**
Q18K	**Katmai Hardscr**	**0.88**	**235**			**Sn**	**23 51 41.9**	**-1.1**
IVE	**Iliamna Volcan**	**0.92**	**19**			**Sn**	**23 51 43.0**	**-0.6**
KAWH	**Katmai**	**0.98**	**219**			**Sn**	**23 51 44.3**	**-0.5**
O20K	**Slope Mountain**	**1.06**	**28**			**Sn**	**23 51 46.2**	**-0.1**
O19K	**Port Alsworth**	**1.10**	**342**			**Pn**	**23 51 30.3**	**-0.3**
O19K					Sn	**Sn**	**23 51 45.7**	**-1.2**
O19K					IAML		23 51 50.3	
	comp=N,2μm,0.5s							
HOM	**Homer**	**1.13**	**63**			**Pn**	**23 51 31.1**	**+0.3**
HOM						**Sn**	**23 51 47.9**	**+0.4**
KAKN	**Katmai Knife C**	**1.14**	**222**			**Pn**	**23 51 30.9**	**-0.2**
KAKN						**Sn**	**23 51 47.3**	**-0.5**
KABU	**Katmai Buttres**	**1.24**	**225**			**Pn**	**23 51 32.3**	**+0.1**
KABU						**Sn**	**23 51 50.0**	**+0.1**
KABR	**Katmai Barrier**	**1.24**	**215**			**Pn**	**23 51 32.1**	**-0.1**
CNPM	**China Poot**	**1.28**	**72**			**Pn**	**23 51 32.6**	**0.0**
CNPM					Sn	**Sn**	**23 51 50.3**	**-0.3**
CNPM					IAML		23 51 51.1	
	comp=E,923nm,0.6s							
CNPM					IAML		23 51 52.6	
	comp=N,1μm,0.7s							
ACHA	**Angle Creek He**	**1.30**	**224**			**Pn**	**23 51 32.8**	**-0.1**
RED	**Redoubt Volcan**	**1.34**	**18**			**Pn**	**23 51 33.5**	**+0.1**
RED					Sn	**Sn**	**23 51 51.8**	**-0.2**
RED					IAML		23 51 52.2	
	comp=E,468nm,0.8s							
ANCK	**Angle Creek**	**1.37**	**226**			**Pn**	**23 51 33.7**	**0.0**
RDSO	**Redoubt South**	**1.38**	**18**			**Sn**	**23 51 52.7**	**-0.2**
RDWB	**Redoubt West**	**1.40**	**16**			**Sn**	**23 51 52.6**	**-0.6**
REF	**Redoubt East F**	**1.42**	**19**			**Sn**	**23 51 53.5**	**-0.3**
P17K	**Kvichak River**	**1.45**	**273**			**Pn**	**23 51 34.4**	**-0.1**
P17K					IAML		23 52 00.8	
	comp=E,1μm,0.9s							
KDAK	**Kodiak Island**	**1.48**	**158**		P	**Pn**	**23 51 34.6**	**-0.3**
	comp=E,221nm,0.3s,baz=14,slow=4.7,SNR=935							
KDAK					S	**Sn**	**23 51 53.9**	**-0.8**
	comp=E,1μm,0.4s,baz=200,slow=22,SNR=36							
KDAK	**Kodiak Island**	**1.48**	**158**			**Pn**	**23 51 34.8**	**-0.2**
KDAK						**Sn**	**23 51 54.0**	**-0.8**
KDAK					IAML		23 51 58.9	
	comp=E,1μm,0.7s							
KDAK					IAML		23 51 59.6	
	comp=E,1μm,0.6s							
RDJH	**Redoubt Jeurge**	**1.50**	**16**			**Sn**	**23 51 55.4**	**-0.1**
KJL	**Kejulik**	**1.50**	**224**			**Pn**	**23 51 35.6**	**+0.3**
BRLK	**Bradley Lake**	**1.53**	**65**			**Pn**	**23 51 35.3**	**-0.3**
BRLK					IAML		23 51 57.6	
	comp=N,907nm,0.4s							
BRLK					IAML		23 51 58.6	
	comp=E,636nm,0.4s							
RDT	**Redoubt**	**1.55**	**23**			**Sn**	**23 51 56.1**	**-0.4**
N19K	**Bonanza Creek**	**1.72**	**346**			**Pn**	**23 51 38.2**	**+0.1**
N19K					IAML		23 52 00.4	
	comp=N,301nm,0.8s							
N19K					IAML		23 52 00.7	
	comp=E,396nm,0.8s							
O17K	**Koliganek Bris**	**1.88**	**291**			**Pn**	**23 51 39.7**	**-0.2**
N18K	**Kilae Creek**	**1.91**	**324**			**Pn**	**23 51 40.1**	**-0.2**
OHAK	**Old Harbor**	**1.94**	**175**		P	**Pn**	**23 51 40.3**	**-0.4**
OHAK	**Old Harbor**	**1.94**	**175**		S	**Sn**	**23 52 03.4**	**-1.7**
OHAK	**Old Harbor**	**1.94**	**175**			**Pn**	**23 51 40.4**	**-0.4**
OHAK						**Sn**	**23 52 03.0**	**-2.1**
OHAK					IAML		23 52 04.2	
	comp=N,964nm,0.5s							
OHAK					IAML		23 52 04.7	
	comp=E,803nm,0.6s							
PLK3	**Peulik 3**	**2.02**	**225**			**Pn**	**23 51 42.3**	**+0.5**
CAPN	**Captain Cook N**	**2.04**	**36**		Pn	**Pn**	**23 51 42.8**	**+0.9**
PLK5	**Peulik 5**	**2.06**	**237**			**Pn**	**23 51 42.9**	**+0.6**
PLK1	**Peulik 1**	**2.07**	**230**			**Pn**	**23 51 42.5**	**+0.2**
R17L	**Mt. Peulik Vol**	**2.10**	**225**			**Pn**	**23 51 43.3**	**+0.6**
SPU	**Mount Spurr**	**2.18**	**20**			**Pn**	**23 51 44.0**	**+0.1**
SLKM	**Skilak Lake**	**2.19**	**50**			**Pn**	**23 51 43.7**	**-0.3**
SLKM					IAML		23 52 11.9	
	comp=N,508nm,0.4s							
SLKM					IAML		23 52 16.7	
	comp=E,610nm,0.3s							
SPCP	**Crater Peak Br**	**2.24**	**18**			**Pn**	**23 51 45.4**	**+0.7**
P16K	**Nushagak River**	**2.26**	**269**			**Pn**	**23 51 45.2**	**+0.4**
P16K					IAML		23 52 15.2	
	comp=N,557nm,0.8s							
P16K					IAML		23 52 40.8	
	comp=E,316nm,1.1s							
N17K	**Nushagak Hills**	**2.27**	**309**			**Pn**	**23 51 44.7**	**-0.2**
SEW	**Seward**	**2.32**	**64**			**Pn**	**23 51 45.2**	**-0.4**
SEW					IAML		23 52 18.4	
	comp=N,218nm,0.8s							
SEW					IAML		23 52 21.9	
	comp=E,338nm,0.9s							
O16K	**Kokwok River B**	**2.33**	**283**			**Pn**	**23 51 45.7**	**0.0**
O16K					IAML		23 52 09.4	
	comp=E,154nm,0.6s							
O16K					I

comp=E,99nm,0.4s
J18K Innoko River 4.58 342 Pn 23 52 15.7 0.0
J18K IAML 23 53 46.9
comp=E,26nm,1.1s
TRF Thorofare Moun 4.60 19 Pn 23 52 16.4 +0.2
TRF IAML 23 53 16.2
comp=N,46nm,1.4s
TRF IAML 23 53 16.3
comp=E,48nm,0.8s
L15K Ungalak Mounta 4.65 306 Pn 23 52 16.9 +0.2
RAGM Ragged Mountai 4.69 71 Pn 23 52 17.1 -0.3
GOAT Goat Mountain 4.71 68 Pn 23 52 16.9 -0.7
KAIM Kayak Island 4.75 77 Pn 23 52 18.5 +0.4
CHUM Lake Minchumin 4.79 7 Pn 23 52 19.0 +0.5
RND Reindeer 4.85 26 Pn 23 52 19.1 -0.3
RND IAML 23 53 16.9
comp=N,30nm,0.9s
RND IAML 23 53 20.5
comp=E,29nm,0.4s
BMRM Bremner River 4.87 64 Pn 23 52 18.8 -1.0
J19K Poorman 4.95 350 Pn 23 52 20.4 -0.3
DHY Denali Highway 4.96 35 Pn 23 52 20.8 -0.3
DHY IAML 23 53 18.3
comp=E,81nm,0.5s
DHY IAML 23 53 19.4
comp=N,68nm,0.3s
K15K Wolf Creek Mou 5.00 312 Pn 23 52 21.8 +0.4
K15K IAML 23 53 39.7
comp=E,21nm,1.4s
J17K VABM Dome 5.00 331 Pn 23 52 21.6 +0.1
L14K Kuka Creek 5.02 300 Pn 23 52 22.3 +0.6
L14K IAML 23 53 03.0
comp=N,30nm,1.2s
L14K IAML 23 53 52.5
comp=E,33nm,1.4s
J20K Nowinta River 5.05 357 Pn 23 52 22.1 0.0
J20K IAML 23 53 58.7
comp=N,23nm,1.5s
J20K IAML 23 54 05.7
comp=E,20nm,1.0s
M13K Dall Lake 5.07 289 Pn 23 52 22.8 +0.4
M13K IAML 23 53 44.0
comp=N,25nm,1.5s
M13K IAML 23 55 10.6
comp=E,24nm,1.4s
N25K Chitina, Valde 5.11 57 Pn 23 52 22.6 -0.4
MCK McKinley 5.12 24 Pn 23 52 23.1 +0.1
MCK IAML 23 53 22.3
comp=N,29nm,0.3s
MCK IAML 23 53 22.5
comp=E,29nm,0.6s
BPAW Bear Paw Mtn. 5.12 13 Pn 23 52 23.2 +0.2
BPAW IAML 23 53 19.8
comp=N,18nm,0.6s
BPAW IAML 23 54 07.2
comp=E,21nm,0.9s
BERG Berg Lake 5.17 72 Pn 23 52 23.5 -0.2
HARP HAARP 5.27 48 Pn 23 52 25.2 0.0
HARP IAML 23 53 29.6
comp=N,73nm,0.7s
J16K Anvik River 5.34 324 Pn 23 52 26.2 +0.2
GLB Gilahina Butte 5.39 61 Pn 23 52 26.2 -0.6
WACK Wrangell Chich 5.39 54 Pn 23 52 27.1 +0.1
WASW Wrangell South 5.43 55 Pn 23 52 27.5 0.0
VRDI Verde Repeater 5.49 63 Pn 23 52 27.6 -0.6
PAXL Paxson 5.51 42 Pn 23 52 27.9 -0.5
CRQM Cirque 5.51 69 Pn 23 52 28.1 -0.4
TGL Tana Glacier 5.66 69 Pn 23 52 30.2 -0.3
MCARA McCarthy VSAT 5.73 63 Pn Pn 23 52 31.3 -0.1
BARK Barkley Ridge 5.76 73 Pn 23 52 32.0 +0.1
I17K Unalakleet 5.83 328 Pn 23 52 32.6 0.0
NEA2 Nenana 5.87 20 Pn 23 52 32.1 -1.0
KIAG Kiagna River 5.92 68 Pn 23 52 33.6 -0.4
PTPK Patty Peak 5.93 65 Pn 23 52 34.3 0.0
WRH Wood River Hil 5.94 24 Pn 23 52 33.2 -1.0
K24K Donnelly Dome 5.99 36 Pn 23 52 35.4 +0.6
J14K Nanvaranak Lak 6.03 311 Pn 23 52 35.5 +0.1
MLY Manley 6.05 12 Pn 23 52 34.5 -1.3
M26K Nabesna, AK 6.14 53 Pn 23 52 37.5 +0.5
HDA Harding Lake 6.15 28 Pn 23 52 36.2 -0.7
CCB Clear Creek Bu 6.16 24 Pn 23 52 35.8 -1.3
GRNC Granite Creek 6.17 70 Pn Pn 23 52 37.4 -0.2
BARN Barnard Glacie 6.28 67 Pn 23 52 39.1 +0.1
L26K Log Cabin Wild 6.32 48 Pn 23 52 40.7 +1.4
I23K Minto, Yukon-K 6.34 17 Pn 23 52 39.4 -0.2
COLA College 6.35 23 P Pn 23 52 39.1 -0.6
COLA College 6.35 23 Pn 23 52 38.7 -1.0
MDM Murphy Dome 6.35 21 Pn 23 52 39.0 -0.7
H20K Anotleneega Mo 6.39 355 Pn 23 52 40.3 0.0
CHX Chaix Hills 6.42 76 Pn 23 52 41.4 +0.7
H18K Honhosa River 6.42 342 Pn 23 52 40.3 -0.3
IL31 6.47 27 Pn 23 52 40.5 -0.8
ILAR Eielson Array 6.47 27 P Pn 23 52 40.1 -1.2
comp=N,2.3nm,0.4s,baz=210,slow=13,SNR=62
ILAR S **Sn 23 53 51.0 -2.5**
comp=N,3.9nm,0.5s,baz=202,slow=28,SNR=7.4
ILAR Eielson Array 6.47 27 Pn 23 52 40.4 -0.9
H17K Granite Mounta 6.51 336 Pn 23 52 42.0 +0.2
H19K Roundabout Mou 6.53 350 Pn 23 52 42.0 -0.2
H21K Melozitna Rive 6.54 3 Pn 23 52 42.5 +0.2
LOGN Logan Glacier 6.55 70 Pn 23 52 42.4 -0.2
SAMH Samovar Hills 6.59 76 Pn 23 52 43.5 +0.4
M27K Edge Creek, AK 6.59 56 Pn 23 52 43.2 +0.1
POKR Poker Plat Res 6.65 23 Pn 23 52 43.5 -0.3
J25K Salcha River, 6.72 32 Pn 23 52 44.0 -0.8
H16K Elim 6.84 327 Pn 23 52 47.0 +0.7
H22K Ishtalitna Cre 6.84 8 Pn 23 52 46.3 -0.1
PCA Pinnacle 6.85 76 Pn 23 52 46.7 +0.2
YUK2 White River 6.85 62 Pn 23 52 46.8 +0.2
IMAR Indian Mountai 6.86 360 Pn Pn 23 52 46.8 +0.2
BC01 Beaver Creek A 6.93 51 Pn 23 52 47.9 +0.3
L27K Beaver Creek, 6.93 51 Pn 23 52 47.8 +0.2
O28M Mount Upton 6.94 71 Pn 23 52 48.1 +0.1
BC04 Beaver Creek A 6.96 51 Pn 23 52 48.9 +0.8
YUK3 Moose Creek 7.02 62 Pn 23 52 49.2 +0.2
G18K Tagagawik 7.15 343 Pn 23 52 50.5 +0.1
BCPM Bancas Point 7.16 78 Pn 23 52 51.6 +0.9
G17K Kiwalik Mounta 7.16 336 Pn 23 52 50.6 0.0
G19K Purcell Mounta 7.19 349 Pn 23 52 51.0 -0.2
H24K Noodor Dome 7.21 19 Pn 23 52 51.0 -0.5
PNL Peninsula 7.28 80 P Pn 23 52 52.1 -0.3
PNL Peninsula 7.28 80 Pn 23 52 52.0 -0.4
K27K Chicken 7.36 43 Pn 23 52 53.4 0.0
G21K Allakaket 7.39 0 Pn 23 52 54.4 +0.6
PRP Porcupine Dome 7.41 27 Pn 23 52 54.0 -0.2
G16K Koyuk River 7.46 331 Pn 23 52 55.1 +0.4
O29M Mount Kennedy 7.69 75 Pn 23 52 58.5 +0.4
ANM Nome 7.76 319 Pn 23 52 59.8 +1.0
YUK6 Outpost Mounta 7.85 70 Pn 23 53 00.5 +0.2
I26K Coal Creek Min 7.87 34 Pn 23 52 59.7 -0.6
F20K Avaraart Lake 7.98 354 Pn 23 53 02.2 +0.4
H25L Birch Creek 7.98 23 Pn 23 53 01.5 -0.3
M29M Somme Creek 8.11 60 Pn 23 53 04.0 +0.3
P29M Windy Craggy 8.12 80 Pn 23 53 04.0 +0.1
F22K John River 8.41 4 Pn 23 53 08.3 +0.6
L29M L29M 8.47 56 Pn 23 53 09.2 +0.6
E19K Redstone River 8.49 351 Pn 23 53 09.3 +0.6
N30M Aishikik Lake 8.53 67 Pn 23 53 09.4 +0.1
I27K Kandik River 8.53 36 Pn 23 53 09.3 0.0
F24K Squaw Lake 8.78 15 Pn 23 53 11.9 -0.8
M30M Minto, Yukon 8.89 60 Pn 23 53 14.0 -0.3
F25K Christian Rive 9.19 19 Pn 23 53 17.3 -1.0
BM01 Burnt Mountain 9.27 22 Pn 23 53 17.8 -1.5
SIT Sitka 9.91 94 P Pn 23 53 28.1 +0.1
D25K Kavik River 10.67 14 Pn 23 53 37.6 -0.8
U33K Whale Pass 11.39 97 Pn Pn 23 53 47.0 -1.0
INK Inuvik 12.71 36 P Pn 23 54 05.3 -0.2
comp=N,0.7nm,0.9s,baz=243,slow=14,SNR=3.7
INK S **Sn 23 56 22.1 -2.8**
comp=N,0.7nm,0.7s,baz=285,slow=9.1,SNR=1.6
INK Inuvik 12.71 36 Pn 23 54 06.1 +0.6
YKA Yellowknife Ar 19.11 63 P P 23 55 23.7 +0.5
comp=N,1.0nm,0.7s,baz=280,slow=10,SNR=8.6
YKA Yellowknife Ar 19.11 63 P P 23 55 22.5 -0.7
B04A Port Angeles 20.84 109 P P 23 55 42.6 +0.6
B04A IAmb IAmb 23 55 46.0
comp=Z,11nm,1.0s
NEW Newport 23.88 101 P P 23 56 13.3 +0.7
NEW IAmb IAmb 23 56 15.9
comp=Z,4.8nm,0.9s
K02D Willamette Mer 24.75 118 P P 23 56 22.5 +1.9
F10A Beach Ranch, E 25.38 105 P P 23 56 27.3 +0.9

PLID Pearl Lake 26.62 105 P P 23 56 38.8 +1.2
PETK Petropavlovsk- 27.27 279 P P 23 56 42.6 -0.5
comp=Z,1.6nm,0.6s,baz=66,slow=14,SNR=7.5
comp=Z,1.6nm,0.6s
BEKR Beckworth 28.50 118 P P 23 56 55.4 +0.9
NVAR Mina Array Bea 30.61 117 P P 23 57 15.7 +2.6
comp=Z,0.5nm,0.4s,baz=316,slow=8.2,SNR=4.3
comp=Z,0.5nm,0.4s
PDAR Pinedale Array 31.52 102 P P 23 57 23.1 +2.1
comp=Z,0.7nm,0.7s,baz=317,slow=4.6,SNR=8.2
comp=Z,0.7nm,0.7s
PDAR Pinedale Array 31.52 102 P P 23 57 22.5 +1.5
TPNV Topopah Spring 32.76 116 P P 23 57 32.7 +0.9
TPNV IAmb IAmb 23 57 35.5
comp=Z,2.0nm,0.5s
SRU San Rafael Swe 33.78 107 P P 23 57 41.6 +0.8
MNTX Cornudas Mount 42.21 109 P P 23 58 51.9 +0.5
MNTX IAmb IAmb 23 58 55.1
comp=Z,1.9nm,0.7s
TXAR Lajitas Array 44.99 109 P P 23 59 16.1 +2.3
comp=Z,1.1nm,0.8s,baz=329,slow=6.6,SNR=9.4
comp=Z,1.1nm,0.8s
TXAR Lajitas Array 44.99 109 P P 23 59 14.8 +1.0
HILR Hailar Array B 47.92 299 P P 23 59 35.6 -0.7
comp=Z,3.0nm,0.6s,baz=40,slow=7.6,SNR=4.6
comp=Z,3.0nm,0.6s
OXF Oxford 48.05 91 P P 23 59 38.5 +1.0
KSRS Korea Array 53.05 283 P P 00 00 15.3 +0.3
comp=Z,0.9nm,0.6s,baz=39,slow=7.9,SNR=3.1
comp=Z,0.9nm,0.6s
ULN Ulaanbaatar 54.73 306 P P 00 00 27.1 -0.2
ULN IAmb IAmb 00 00 28.7
comp=Z,1.4nm,0.6s
SONM Songino Array 55.03 306 P P 00 00 29.7 +0.2
comp=Z,3.1nm,0.4s,baz=51,slow=5.4,SNR=45
comp=Z,3.1nm,0.4s
SONM Songino Array 55.03 306 P P 00 00 29.5 +0.1
ZALV Zalesovo Beam 57.87 324 P P 00 00 49.0 -0.3
comp=Z,0.6nm,0.4s,baz=43,slow=7.3,SNR=3.6
comp=Z,0.6nm,0.4s
HHC Hu-ho-hao-te 58.29 297 *eP* P 00 00 54.0 +1.4
HHC pmax pmax
comp=Z,7.0nm,0.5s
HHC pmax pmax
comp=Z,87nm,6.2s
FINES FINESS Array B 59.73 0 P P 00 01 02.1 +0.1
comp=Z,0.9nm,0.7s,baz=7.3,slow=7.2,SNR=1.1
comp=Z,0.9nm,0.7s
KURBB Kurchatov Arra 62.66 326 P P 00 01 21.6 -0.3
comp=Z,0.2nm,0.5s,baz=30,slow=6.7,SNR=4.2
comp=Z,0.2nm,0.5s
BVAR Borovoye Array 62.67 332 P P 00 01 21.2 -0.8
comp=Z,0.5nm,0.6s,baz=31,slow=7.6,SNR=2.3
comp=Z,0.5nm,0.6s
EKA Eskdalemuir Ar 63.44 18 P P 00 01 26.4 -0.6
comp=Z,0.7nm,0.7s,baz=328,slow=5.3,SNR=3.8
comp=Z,0.7nm,0.7s
GTA2 Gaotai 64.61 305 *eP* P 00 01 35.0 -0.1
GTA2 pmax pmax
comp=Z,4.0nm,0.9s
MKAR Makanchi Array 64.89 321 P P 00 01 35.6 -1.1
comp=Z,0.2nm,0.4s,baz=33,slow=6.5,SNR=6.7
comp=Z,0.2nm,0.4s
MKAR Makanchi Array 64.89 321 P P 00 01 35.5 -1.2
MAKZ Makanchi 64.98 321 P P 00 01 36.2 -1.0
MAKZ IAmb IAmb 00 01 52.7
comp=Z,2.4nm,1.1s
GERES GERESS Array B 71.86 9 P P 00 02 20.0 -0.2
comp=Z,0.4nm,0.8s,baz=353,slow=7.0,SNR=2.1
comp=Z,0.4nm,0.8s
ESDC Sonseca Array 78.36 23 P P 00 02 57.7 +0.1
comp=Z,0.4nm,0.8s,baz=334,slow=4.5,SNR=1.9
comp=Z,0.4nm,0.8s
BOSA Boshof 149.46 2 PKPbc PKPbc 00 10 45.0 -0.5
comp=Z,3.2nm,0.7s,baz=350,slow=2.9,SNR=8.6
BOSA Boshof 149.46 2 PKPbc 00 10 43.9 -1.6

***IDC 29** 00:11:50.5±6.8,**30°.96S**×**178°.48W**,**h0**km,**mb3.9**/2,*
mbtmp3.9**/2,**MS3.1**/2,**Error ellipse: s-maj=277.0km
s-min=58.2km az=156.0,Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
ASAR	**Alice Springs**	**42.67**	**268**	P	P	00 19 48.9	-0.3
	0.5nm,0.7s,baz=108,slow=7.5,SNR=5.7						
ASAR				LR	LR	00 35 59.1	
	comp=Z,18nm,19.9s,baz=194,slow=34						
	0.5nm,0.7s						
WRA	**Warramunga Arr**	**43.71**	**273**	P	P	00 19 57.6	0.0
	1.7nm,0.4s,baz=114,slow=7.9,SNR=14						
	1.7nm,0.4s						
KAPI	**Kappang**	**63.30**	**281**	LR	LR	00 51 42.1	
	comp=Z,21nm,18.5s,baz=56,slow=38						
H03S2	**Juan Fernandez**	**80.50**	**124**	T	T	01 52 57.0	
	baz=236						
H03S1	**Juan Fernandez**	**80.51**	**124**	T	T	01 52 51.3	
	baz=236						
H03S3	**Juan Fernandez**	**80.52**	**124**	T	T	01 52 57.5	
	baz=236						
FINES	**FINESS Array B**	**145.52**	**339**	PKPbc	PKPdf	00 31 29.1	-0.8
	1.3nm,0.8s,baz=40,slow=2.1,SNR=5.7						

*NOU **29** 00:12:50.5,36°.78S×177°.43E,h0km,MLv3.5/7,Off E. Coast of N. Island, N.Z.*
*WEL **29** 00:12:51.3±1.0,37°.5S±5°×17°.7E±°,h10km±8km,M3.3/15, ML3.2/17,MLv3.3/15,Error ellipse: s-maj=8.2km s-min=4.7km az=41.6*
ISC 29 00:12:51.2±1.7,36°.75S±0°.06×177°.42E±0°.05,h13km±11km,
n63,σ1§39/69,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WSRZ	**White Island S**	**0.79**	**194**	P	**Pg**	**00 13 06.7**	**+0.2**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.79**	**193**	P	**Pg**	**00 13 06.5**	**0.0**
WIZ				S	**Sg**	**00 13 16.7**	**-0.3**
WIZ				AML	AML		
WIZ				AML	AML		
HAZ	**Te Kaha**	**1.04**	**164**	P	**Pb**	**00 13 09.8**	**-1.2**
HAZ				S	**Sb**	**00 13 25.1**	**+0.6**
HAZ				AML	AML		
HAZ				AML	AML		
MXZ	**Matakaoa Point**	**1.07**	**139**	P	**Pb**	**00 13 10.4**	**-1.1**
MXZ	**Matakaoa Point**	**1.07**	**139**	S	**Sb**	**00 13 24.6**	**-0.9**
MXZ	**Matakaoa Point**	**1.07**	**139**	P	**Pb**	**00 13 10.6**	**-0.9**
MXZ				S	**Sb**	**00 13 24.3**	**-1.1**
MXZ				AML	AML		
MXZ				AML	AML		
WHRZ	**Whale Island**	**1.16**	**198**	P	**Pn**	**00 13 13.0**	**0.0**
WHRZ				AML	AML		
WHRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.23**	**170**	P	**Pn**	**00 13 13.3**	**-0.8**
RUGZ				S	**Sb**	**00 13 29.8**	**-0.2**
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.23**	**155**	P	**Pn**	**00 13 14.2**	**+0.2**
PKGZ				AML	AML		
PKGZ				AML	AML		
OPRZ	**Ohinepanea**	**1.29**	**212**	P	**Pn**	**00 13 14.2**	**-0.6**
OPRZ				AML	AML		
OPRZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.33**	**144**	P	**Pn**	**00 13 15.5**	**+0.2**
WMGZ				AML	AML		
WMGZ				AML	AML		
TGRZ	**Tauranga**	**1.34**	**223**	P	**Pn**	**00 13 15.2**	**-0.4**
TGRZ				AML	AML		
TGRZ				AML	AML		
MARZ	**Manawahe**	**1.36**	**206**	P	**Pn**	**00 13 15.5**	**-0.4**
MARZ				AML	AML		
MARZ				AML	AML		
PUZ	**Puketiti**	**1.47**	**153**	P	**Pb**	**00 13 19.3**	**+0.9**
TWGZ	**Tauwhareparae**	**1.49**	**163**	P	**Pg**	**00 13 19.9**	**+0.1**
URZ	**Urewera**	**1.52**	**189**	P	**Pn**	**00 13 17.5**	**-0.5**
URZ	**Urewera**	**1.52**	**189**	P	**Pn**	**00 13 17.6**	**-0.4**
URZ				S	**Sn**	**00 13 36.5**	**-1.1**
URZ				AML	AML		
URZ				AML	AML		
MWZ	**Matawai**	**1.58**	**177**	P	**Pn**	**00 13 18.6**	**-0.2**
GRZ	**Great Barrier**	**1.66**	**287**	P	**Pn**	**00 13 20.6**	**+0.7**
GRZ				S	**Sn**	**00 13 40.7**	**-0.4**
GRZ				AML	AML		
GRZ				AML	AML		

TKGZ Te Karaka 1.72 169 P Pb 00 13 22.5 0.0
TOZ Tahuroa Road 1.81 237 P Pn 00 13 21.8 -0.2
TOZ AML AML
TOZ AML AML
CNGZ Carnagh Statio 1.84 160 P Pb 00 13 24.9 +0.4
MKAZ Moumakai 1.84 258 P Pn 00 13 22.5 +0.1
MKAZ AML AML
MKAZ AML AML
RTZ Ruatahuna 1.89 191 P Pn 00 13 23.4 +0.2
RIGZ Rimuhau 1.97 172 P Pb 00 13 26.3 -0.5
ETAZ East Tamaki Re 2.01 264 P Pn 00 13 25.1 +0.4
ETAZ AML AML
ETAZ AML AML
MBAZ Motutapu North 2.03 269 P Pn 00 13 25.4 +0.5
MBAZ AML AML
MBAZ AML AML
MTHZ Maungataniwha 2.14 192 P Pn 00 13 27.5 +0.9
AWAZ Awhitu Peninsu 2.25 261 P Pn 00 13 28.9 +0.9
AWAZ AML AML
AWAZ AML AML
KNZ Kokohu 2.27 175 P Pn 00 13 30.0 +1.7
NMHZ Naumai 2.39 192 P Pn 00 13 32.2 +2.2
BKZ Black Stump Fm 2.52 197 P Pn 00 13 32.3 +0.6
BKZ Black Stump Fm 2.52 197 P Pb 00 13 34.7 -1.5
BKZ AML AML
ARHZ Aropaoanui 2.53 188 P Pn 00 13 34.2 +2.4
WCZ Waipu Caves 2.61 287 P Pn 00 13 33.6 +0.6
WCZ AML AML
WCZ AML AML
HIZ Hauiti 2.69 228 P Pn 00 13 34.6 +0.5
HIZ Hauiti 2.69 228 P Pn 00 13 34.9 +0.9
NTVZ North Tongarir 2.72 210 P Pb 00 13 38.2 -1.4
TMVZ Te Maari 2.72 209 P Pb 00 13 38.0 -1.7
KRVZ Karewarewa 2.73 211 P Pb 00 13 38.5 -1.3
ETVZ East Tongariro 2.73 209 P Pb 00 13 38.2 -1.8
MCHZ McNeill Hill 2.75 192 P Pn 00 13 37.6 +2.8
WTVZ West Tongariro 2.77 211 P Pb 00 13 40.2 -0.3
KWHZ Kaweka Forest 2.78 196 P Pn 00 13 37.9 +2.6
TWVZ Taurewa 2.79 214 P Pb 00 13 41.4 +0.4
NGZ Ngauruhoe 2.81 210 P Pb 00 13 41.0 -0.3
BHHZ Black Hill Sta 2.93 201 P Pn 00 13 40.0 +2.5
TRVZ Turoa 2.94 210 P Pb 00 13 42.2 -1.3
WNVZ Wahianoa 2.94 209 P Pb 00 13 41.9 -1.7
MOVZ Moawhango 2.96 206 P Pn 00 13 40.1 +2.2
KRHZ Kereru 3.00 196 P Pn 00 13 40.4 +2.1
PKVZ Pokaka 3.02 212 P Pn 00 13 40.3 +1.7
PXZ Pawanui 3.30 187 P Pn 00 13 50.8 +1.3
OUZ Omahuta 3.46 295 P Pn 00 13 45.7 +1.1
OUZ Omahuta 3.46 295 P Pn 00 13 45.7 +1.1
OUZ AML AML
TSZ Takapari Road 3.49 199 P Pn 00 13 47.0 +1.9
WAZ Wanganui 3.56 212 P Pn 00 13 50.4 +4.4
PRHZ Porangahau 3.56 190 P Pn 00 13 47.0 +1.0
BFZ Birch Farm 4.03 193 P Pn 00 13 53.3 +0.8
BFZ Birch Farm 4.03 193 P Pn 00 13 53.2 +0.7
HOWZ Holdsworth Sta 4.40 199 P Pn 00 13 57.9 +0.3
OGWZ Otaki Gorge 4.42 203 P Pn 00 13 58.6 +0.7
MSWZ Moikau Station 4.95 199 P Pn 00 14 09.4 +4.3

*IDC **29** 00:17:14.2±5.3,10°.73S×166°.01E,h186km±48km,mb3.4/7, mbtmp3.9/8,MS2.6/1,Error ellipse: s-maj=27.2km s-min=24.5km az=148.0*
ISC 29 00:17:15.3±0.9,10°.7S±0°.2×166°.0E±0°.1,h200km,n10,
σ1§16/11,mb3.5/7,Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**6.12**	**282**	S	**Sn**	**00 19 52.7**	**-1.7**
	130nm,0.7s,baz=86,slow=6.5,SNR=2.9						
HNR				LR	LR	00 21 13.4	
	comp=Z,46nm,18.3s,baz=132,slow=39						
DZM	**Mont Dzumac**	**11.28**	**178**	S	Sn	00 21 46.3	-11
	1.9nm,0.4s,baz=119,slow=21,SNR=1.4						
MSVF	**Nonsavu**	**13.57**	**122**	P	**P**	**00 20 20.6**	**-1.8**
	16nm,0.8s,baz=282,slow=7.0,SNR=8.9						
WRA	**Warramunga Arr**	**31.85**	**249**	P	**P**	**00 23 21.5**	**-0.2**
	0.4nm,0.8s,baz=82,slow=9.1,SNR=1.5						
WRA				PcP	**PcP**	**00 26 08.5**	**+0.8**
	0.3nm,0.5s,baz=78,slow=3.2,SNR=1.8						
	0.4nm,0.8s						
ASAR	**Alice Springs**	**33.17**	**243**	P	**P**	**00 23 33.2**	**0.0**
	0.4nm,0.8s,baz=63,slow=11,SNR=6.6						
ASAR				PcP	**PcP**	**00 26 12.5**	**+1.1**
	0.4nm,0.7s,baz=75,slow=2.5,SNR=4.2						
	0.4nm,0.8s						
VNDA	**Vanda**	**66.80**	**181**	P	**P**	**00 27 45.1**	**+0.3**
	0.5nm,0.6s,baz=346,slow=4.8,SNR=5.5						
	0.5nm,0.6s						
QSPA	**South Pole Qui**	**79.27**	**180**	P	**P**	**00 28 58.0**	**-0.2**
	1.7nm,0.6s,baz=338,slow=1.5,SNR=7.2						
	1.7nm,0.6s						
ILAR	**Eielson Array**	**83.14**	**18**	P	**P**	**00 29 18.6**	**+0.3**
	0.6nm,0.6s,baz=230,slow=5.6,SNR=7.1						
	0.6nm,0.6s						
MAW	**Mawson**	**85.11**	**202**	P	**P**	**00 29 29.8**	**+1.5**
	2.2nm,0.6s,baz=113,slow=9.8,SNR=4.4						
	2.2nm,0.6s						
MKAR	**Makanchi Array**	**93.49**	**317**	P	**P**	**00 30 08.4**	**+0.1**
	0.3nm,0.6s,baz=100,slow=5.0,SNR=3.8						
	0.3nm,0.6s						

*HEL **29** 00:19:51.2±0.2,67°.84N×20°.16E,h0km,ML1.7,Suspected explosion*
*UPP **29** 00:19:51.3±0.0,67°.86N×20°.21E,h0km,ML2.2,Suspected explosion*
*IDC **29** 00:19:52.9±1.6,67°.81N×20°.49E,h0km,mbtmp3.0/4, ML2.1/4,Error ellipse: s-maj=23.3km s-min=11.0km az=120.0*
ISC 29 00:19:51.2±0.7,67°.83N±0°.02×20°.23E±0°.02,h0km,n36,
σ1§16/55,Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.13**	**17**	P	**Pg**	**00 19 53.6**	**-0.1**
KUA				S	**Sg**	**00 19 55.5**	**+0.1**
RATU	**Laukkuluspa**	**0.24**	**269**	P	**Pg**	**00 19 56.0**	**+0.2**
RATU				S	**Sg**	**00 19 59.5**	**+0.5**
KOVU	**Salmi**	**0.40**	**356**	P	**Pg**	**00 19 58.5**	**-0.4**
KOVU				S	**Sg**	**00 20 03.9**	**-0.1**
NIKU	**Nikkaluokta**	**0.46**	**275**	P	**Pg**	**00 19 59.9**	**0.0**
NIKU				S	**Sg**	**00 20 06.2**	**+0.3**
LANU	**Lannavaara**	**0.70**	**71**	P	**Pg**	**00 20 04.7**	**+0.1**
LANU				S	**Sg**	**00 20 14.0**	**+0.3**
LANU	**Lannavaara**	**0.70**	**71**	PB	**Pg**	**00 20 04.7**	**+0.1**
	baz=257						
LANU				SG	**Sg**	**00 20 13.7**	**0.0**
DUNU	**Dundret**	**0.72**	**170**	P	**Pg**	**00 20 05.4**	**+0.4**
MASU	**Masugnsbyn**	**0.77**	**118**	P	**Pg**	**00 20 06.4**	**+0.4**
SALU	**Saltoluokta**	**0.80**	**237**	P	**Pg**	**00 20 06.6**	**+0.1**
SALU	**Saltoluokta**	**0.80**	**237**	*eP*	**Pg**	**00 20 06.1**	**-0.4**
HEF	**Hetta**	**1.41**	**64**	*eP*	**Pn**	**00 20 17.2**	**-0.9**
HEF	**Hetta**	**1.41**	**64**	PG	**Pn**	**00 20 17.2**	**-0.9**
	baz=247						
HEF				MSG		00 20 34.2	
	comp=Z,8.7nm,0.2s						
HEF				SN	**Sn**	**00 20 39.3**	**+1.9**
ERTU	**Ertsjaerv**	**1.49**	**148**	P	**Pn**	**00 20 19.1**	**0.0**
ERTU	**Ertsjaerv**	**1.49**	**148**	PN	**Pn**	**00 20 19.2**	**0.0**
ERTU				SN	**Sn**	**00 20 39.9**	**+0.6**
KLF	**Kolari**	**1.55**	**111**	PG	**Pn**	**00 20 20.0**	**-0.1**
	baz=298						
KLF				MSG		00 20 38.6	
	comp=Z,5.1nm,0.2s						
KLF				SN	**Sg**	**00 20 41.2**	**+0.1**
KTK1	**Kautokeino**	**1.63**	**42**	PN	**Pn**	**00 20 21.1**	**0.0**
KTK1				SN	**Sg**	**00 20 44.6**	**+1.2**
HARU	**Harads**	**1.70**	**170**	P	**Pb**	**00 20 22.9**	**-0.4**
TRO	**Tromso**	**1.87**	**346**	PG	**Pn**	**00 20 24.8**	**+0.3**
TOF	**Tornio**	**2.38**	**136**	PG	**Pb**	**00 20 33.3**	**-1.6**
TOF				MSG		00 21 02.5	
	comp=Z,4.0nm,0.2s						
TOF				SG	**Sb**	**00 21 04.6**	**-0.1**
RNF	**Rovaniemi**	**2.56**	**116**	PB	**Pb**	**00 20 36.2**	**-1.8**
	baz=303						
RNF				SG	**Sb**	**00 21 10.1**	**+0.1**
ARA0	**ARCESS Array S**	**2.58**	**46**	PB	**Pn**	**00 20 35.7**	**+1.6**
	baz=227						
ARA0				SB	**Sb**	**00 21 08.7**	**-1.7**
ARCES	**ARCESS Array B**	**2.58**	**46**	Pn	**Pn**	**00 20 35.0**	**+0.8**
	comp=Z,0.8nm,0.3s,baz=225,slow=16,SNR=16						

ARCES				Sn	Sn	00 21 06.8	+0.6	
	comp=Z,1.5nm,0.3s,baz=226,slow=23,SNR=10							
	comp=Z,1.6nm,0.3s							
ARCES				AML	AML			
RAJF	**Raja-Jooseppi**	**3.09**	**74**	PB	**Pn**	**00 20 42.6**	**+1.5**	
RAJF				SG	**Sb**	**00 21 25.1**	**-0.1**	
KEV	**Kevo**	**3.13**	**49**	PB	**Pn**	**00 20 43.2**	**+1.5**	
KEV				SG	**Sb**	**00 21 25.2**	**-1.2**	
RANF	**Ranua**	**3.16**	**122**	SG	**Sb**	**00 21 28.7**	**+1.5**	
BURU	**Burvik**	**3.29**	**171**	PB	**Pn**	**00 20 46.3**	**+2.4**	
VRF	**Varrio**	**3.56**	**87**	PG	**Pb**	**00 20 55.2**	**+0.2**	
	baz=279							
OUL	**Oulu**	**3.57**	**138**	PG	**Pb**	**00 20 56.4**	**+1.2**	
OUL				SG	**Sg**	**00 21 44.2**	**-1.5**	
OBF8	**Ulkokalla**	**3.75**	**158**	SN	**Sn**	**00 21 33.5**	**-1.4**	
OLKF	**Oulanka, Finla**	**3.89**	**109**	PG	**Pb**	**00 21 02.0**	**+1.4**	
UMAU	**Umeaa**	**3.97**	**177**	SN	**Sn**	**00 21 41.0**	**+0.7**	
KU6	**Riekki**	**4.21**	**111**	PG	**Pb**	**00 21 07.2**	**+1.2**	
KU6				SG	**Sg**	**00 22 03.0**	**-3.3**	
KU1	**Kurvinen**	**4.34**	**117**	PN	**Pn**	**00 21 01.0**	**+2.6**	
FINES	**FINESS Array B**	**6.88**	**156**	Pn	**Pn**	**00 21 32.0**	**-1.2**	
	comp=Z,0.1nm,0.3s,baz=343,slow=14,SNR=1.6							
FINES				Lg	Lg	00 23 22.4		
	comp=Z,0.3nm,0.3s,baz=339,slow=27,SNR=2.3							
	comp=Z,2.1nm,0.9s							
FINES				AML	AML			
NOA	**NORSAR Array B**	**7.84**	**214**	Pn	**Pn**	**00 21 47.1**	**+0.7**	
	baz=24,slow=11,SNR=4.0							
NOA				Lg	Lg	00 23 53.0		
	baz=48,slow=24,SNR=4.9							
	comp=Z,0.2nm,0.5s							
HFS	**Hagfors**	**8.24**	**203**	Pn	**Pn**	**00 21 51.3**	**-0.4**	
	comp=Z,0.1nm,0.3s,baz=20,slow=14,SNR=2.1							
HFS				Sn	**Sn**	**00 23 23.0**	**-2.4**	
	comp=Z,0.1nm,0.3s,baz=20,slow=25,SNR=1.8							
HFS				Lg	Lg	00 24 07.6		
	comp=Z,0.1nm,0.3s,baz=20,slow=32,SNR=2.0							
	comp=Z,2.7nm,1.0s							
HFS				AML	AML			

CATAC ***29*** *00:41:28.4±0.5, 7°N±2°×7°3W±°, h152km±5km, M3.9/10, mb3.8/2, MLv4.0/10, Error ellipse: s-maj=7.8km s-min=4.3km az=107.3, confirmed*
RSNC ***29*** *00:41:28.6±0.0, 7°N±3°×7°3W±°, h145km±5km, M3.5, mbB4.5, mb3.9, ML3.1, Mw(mB)3.7*

ISC 29 00:41:28.2±1.3, 6°85N±0°03×73°09W±0°04, h153km±8km, n44, σ1s22/81, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
BARC	**Barichara**	**0.27**	**200**	P		**Pn**	**00 41 49.7**	**+0.3**
BARC				S		**Sn**	**00 42 04.7**	**-0.8**
BRJC	**Barrancabermej**	**0.66**	**281**	P		**Pn**	**00 41 51.4**	**+0.6**
BRJC				S		**Sn**	**00 42 08.5**	**+0.5**
RUSC	**La Rusia**	**0.95**	**180**	P		**Pn**	**00 41 53.6**	**+0.2**
RUSC				S		**Sn**	**00 42 12.1**	**-0.6**
RUSC	**La Rusia**	**0.95**	**180**	P		**Pn**	**00 41 53.6**	**+0.2**
RUSC				S		**Sn**	**00 42 12.1**	**-0.6**
TAMC	**Tame, Arauca**	**1.35**	**108**	P		**Pn**	**00 41 58.0**	**+1.5**
TAMC				S		**Sn**	**00 42 19.1**	**+0.9**
PTBC	**PUERTO BERRIO,**	**1.39**	**257**	P		**Pn**	**00 41 56.3**	**-0.6**
PTBC				S		**Sn**	**00 42 17.6**	**-1.3**
OCAC	**Ocana**	**1.40**	**351**	P		**Pn**	**00 41 57.9**	**+0.7**
OCAC				S		**Sn**	**00 42 19.7**	**+0.3**
SPBC	**San Pablo de B**	**1.54**	**219**	P		**Pn**	**00 41 58.6**	**+0.1**
SPBC				S		**Sn**	**00 42 21.1**	**-0.7**
ZARC	**Zaragoza, Cauc**	**1.87**	**290**	P		**Pn**	**00 42 02.7**	**+0.7**
ZARC				S		**Sn**	**00 42 28.6**	**+0.6**
CHIC	**Chingaza**	**2.30**	**196**	P		**Pn**	**00 42 07.8**	**+0.3**
CHIC				S		**Sn**	**00 42 37.0**	**-0.7**
ROSC	**El Rosal**	**2.34**	**212**	P		**Pn**	**00 42 09.6**	**+1.6**
ROSC				S		**Sn**	**00 42 40.6**	**+2.0**
CVER	**Cruz Verde, Cu**	**2.51**	**203**	P		**Pn**	**00 42 11.5**	**+1.4**
CVER				S		**Sn**	**00 42 43.3**	**+0.9**
UREC	**San Jos de Ur**	**2.59**	**290**	P		**Pn**	**00 42 10.0**	**-0.5**
UREC				S		**Sn**	**00 42 41.7**	**-1.5**
GUY2C	**Guyana, Caldas**	**2.78**	**235**	P		**Pn**	**00 42 13.8**	**+0.4**
GUY2C				S		**Sn**	**00 42 49.4**	**+1.1**
PTGC	**Puerto Gaitan,**	**2.80**	**160**	P		**Pn**	**00 42 12.9**	**-0.3**
PTGC				S		**Sn**	**00 42 46.4**	**-1.6**
NIZA	**Niza - Manizal**	**2.96**	**233**	P		**Pn**	**00 42 16.9**	**+1.4**
NIZA				S		**Sn**	**00 42 54.1**	**+2.0**
CBOC	**Ciudad Bolivar**	**3.07**	**252**	P		**Pn**	**00 42 17.9**	**+1.2**
CBOC				S		**Sn**	**00 42 55.7**	**+1.5**
SDV	**Santo Domingo**	**3.16**	**50**	P		**Pn**	**00 42 19.4**	**+1.4**
SDV				S		**Sn**	**00 42 56.2**	**-0.3**
ARGC	**Ariguani, Magd**	**3.20**	**339**	P		**Pn**	**00 42 20.3**	**+2.0**
ARGC				S		**Sn**	**00 42 59.5**	**+2.4**
PRAC	**Prado**	**3.59**	**210**	P		**Pn**	**00 42 23.6**	**+0.2**
PRAC				S		**Sn**	**00 43 05.6**	**-0.6**
PRAC	**Prado**	**3.59**	**210**	P		**Pn**	**00 42 23.1**	**-0.2**
PRAC				S		**Sn**	**00 43 05.9**	**-0.3**
APAC	**Apartado, Choc**	**3.62**	**287**	P		**Pn**	**00 42 24.3**	**+0.7**
APAC				S		**Sn**	**00 43 04.3**	**-2.3**
ORTC	**Ortega, Tolima**	**3.63**	**216**	P		**Pn**	**00 42 24.1**	**+0.3**
ORTC				S		**Sn**	**00 43 07.1**	**+0.2**
SJCC	**San Jacinto, C**	**3.67**	**326**	P		**Pn**	**00 42 24.2**	**-0.1**
SJCC				S		**Sn**	**00 43 05.9**	**-2.0**
SJCC	**San Jacinto, C**	**3.67**	**326**	P		**Pn**	**00 42 23.9**	**-0.4**
SJCC				S		**Sn**	**00 43 05.6**	**-2.3**
PLMC	**San Jos del P**	**3.72**	**239**	P		**Pn**	**00 42 25.9**	**+0.9**
PLMC				S		**Sn**	**00 43 08.3**	**-0.8**
URMC	**La Uribe, Meta**	**3.80**	**200**	P		**Pn**	**00 42 26.9**	**+0.8**
URMC				S		**Sn**	**00 43 11.2**	**+0.1**
LCBC	**Los crdobas,**	**3.81**	**302**	P		**Pn**	**00 42 26.7**	**+0.6**
LCBC				S		**Sn**	**00 43 13.2**	**+2.1**
CRJC	**Cerrejon, Guaj**	**4.15**	**3**	P		**Pn**	**00 42 30.2**	**-0.4**
CRJC				S		**Sn**	**00 43 17.6**	**-1.6**
GUVC	**San Jose del G**	**4.30**	**174**	P		**Pn**	**00 42 32.1**	**-0.4**
GUVC				S		**Sn**	**00 43 22.4**	**-0.2**
YOTC	**Yotoco, Valle**	**4.32**	**229**	P		**Pn**	**00 42 32.9**	**+0.1**
SMRC	**Santa Marta, M**	**4.43**	**345**	P		**Pn**	**00 42 34.8**	**+0.6**
SMRC				S		**Sn**	**00 43 28.8**	**-1.9**
PIZC	**Pizarro, Choco**	**4.64**	**246**	P		**Pn**	**00 42 39.0**	**+2.0**
MACC	**Macarena, Meta**	**4.73**	**189**	P		**Pn**	**00 42 36.8**	**-1.4**
MACC				S		**Sn**	**00 43 29.1**	**-3.8**
BETC	**Betania**	**4.76**	**210**	P		**Pn**	**00 42 38.0**	**-0.6**
URI	**Uribia**	**4.94**	**13**	P		**Pn**	**00 42 40.2**	**-0.7**
URIC	**Uribia, Colomb**	**4.94**	**13**	P		**Pn**	**00 42 40.2**	**-0.7**
	24nm,0.6s							
URIC				S		**Sn**	**00 43 36.2**	**-1.5**
	24nm,0.6s							
URIC				AML	AML			
JAMC	**Jamundi, Valle**	**5.08**	**225**	P		**Pn**	**00 42 43.3**	**+0.3**
JAMC				AML	AML			
UPD2	**Meteti**	**5.17**	**289**	P		**Pn**	**00 42 43.7**	**-0.2**
UPD2				S		**Sn**	**00 43 41.6**	**-1.4**
GARC	**Garzon, Huila**	**5.21**	**207**	P		**Pn**	**00 42 44.3**	**-0.5**
GARC				S		**Sn**	**00 43 41.7**	**-2.9**
GARC				AML	AML			
POPC	**Popayan, Colom**	**5.58**	**220**	P		**Pn**	**00 42 50.1**	**+0.5**
	5.3nm,0.8s							
POPC				S		**Sn**	**00 43 53.6**	**+0.4**
	5.3nm,0.8s							
POPC				AML	AML			
FLOC	**Florencia**	**5.82**	**206**	P		**Pn**	**00 42 52.3**	**-0.3**
FLOC				S		**Sn**	**00 43 58.4**	**-0.4**
FLOC	**Florencia**	**5.82**	**206**	P		**Pn**	**00 42 53.1**	**+0.4**
FLOC				AML	AML			
BBAC	**Balboa, Cauca**	**6.34**	**221**	P		**Pn**	**00 43 01.1**	**+1.4**

GII ***29*** *00:55:52.2±0.0, 33°386N±0°002×34°594E±0°001, h0km, Mws2.2, confirmed*
GRAL ***29*** *00:55:53.1±0.3, 33°52N×34°57E, h10km±8km, MD2.8*

ISC 29 00:55:48.9±1.4, 33°42N±0°03×34°54E±0°04, h8km±11km, n38, σ0s71/72, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
HNTI	**Hanita**	**0.63**	**122**	P		**Pn**	**00 56 03.9**	**-0.2**
HNTI				S		**Sb**	**00 56 12.2**	**+1.1**
ZRT	**Zar'it**	**0.70**	**117**	P		**Pn**	**00 56 04.7**	**-0.5**
ZRT				S		**Sb**	**00 56 14.3**	**+1.0**
MMA0B	**Mount Meron ar**	**0.83**	**119**	P		**Pn**	**00 56 06.9**	**-0.1**
MMA0B				S		**Sb**	**00 56 17.9**	**+0.9**
BLGI	**Bet Lehem HaGe**	**0.87**	**141**	P		**Pn**	**00 56 08.0**	**+0.5**
BLGI				S		**Sb**	**00 56 19.4**	**+1.2**
OFRI	**`Ofer**	**0.88**	**155**	P		**Pn**	**00 56 07.5**	**-0.1**
OFRI				S		**Sb**	**00 56 19.4**	**+1.0**
KIRY	**Kiryat Shemona**	**0.89**	**103**	P		**Pn**	**00 56 08.2**	**+0.6**
KIRY				S		**Sn**	**00 56 19.9**	**-0.8**
DQRL	**Deir Qamar**	**0.91**	**71**	*eP*		**Pn**	**00 56 08.4**	**+0.3**
DQRL				*eS*		**Sb**	**00 56 19.6**	**+0.4**
ZEFT	**Zefat**	**0.92**	**119**	P		**Pn**	**00 56 08.7**	**+0.6**
ZEFT				S		**Sb**	**00 56 20.6**	**+1.2**
GEM	**Giv'at Ha'Em**	**0.96**	**102**	P		**Pn**	**00 56 09.2**	**+0.4**
GEM				S		**Sb**	**00 56 21.4**	**+0.7**
QRWL	**Qaraoun**	**0.96**	**82**	*eP*		**Pn**	**00 56 09.5**	**+0.6**
QRWL				*eS*		**Sn**	**00 56 21.6**	**-1.2**
HULT	**Hulata**	**0.97**	**112**	P		**Pn**	**00 56 09.5**	**+0.7**
HULT				S		**Sb**	**00 56 21.6**	**+0.7**
NATI	**Neve Ativ**	**1.01**	**99**	P		**Pn**	**00 56 10.0**	**+0.5**
NATI				S		**Sn**	**00 56 23.4**	**-0.4**
KNHM	**Kefar Nahum**	**1.02**	**121**	P		**Pn**	**00 56 10.0**	**+0.5**
KNHM				S		**Sb**	**00 56 23.2**	**+0.7**
BHL	**Bhannes**	**1.05**	**62**	*eP*		**Pn**	**00 56 10.5**	**+0.4**
TVER	**Teveria**	**1.05**	**127**	P		**Pb**	**00 56 09.5**	**+0.1**
TVER				S		**Sb**	**00 56 23.4**	**+0.2**
RMOT	**Ramot**	**1.10**	**121**	P		**Pn**	**00 56 11.0**	**+0.4**
RMOT				S		**Sb**	**00 56 24.7**	**0.0**
KSHT	**Keshet**	**1.15**	**112**	P		**Pn**	**00 56 11.5**	**+0.1**
KSHT				S		**Sn**	**00 56 27.0**	**-0.4**
ZAHL	**Zahle**	**1.20**	**68**	*eP*		**Pn**	**00 56 13.2**	**+0.9**
MMLI	**Mount Malkishu**	**1.23**	**143**	P		**Pn**	**00 56 12.6**	**+0.1**
MMLI				S		**Sg**	**00 56 27.7**	**-0.7**
SLTI	**Sal'it**	**1.25**	**160**	P		**Pn**	**00 56 13.0**	**+0.4**
SLTI				S		**Sg**	**00 56 29.2**	**+0.2**
ROII	**Roi**	**1.41**	**145**	P		**Pg**	**00 56 15.8**	**-0.2**
ROII				S		**Sb**	**00 56 32.8**	**-0.9**
ARIL	**Ariel Universi**	**1.43**	**157**	P		**Pn**	**00 56 15.6**	**+0.4**
ARIL				S		**Sb**	**00 56 33.5**	**-0.6**
HWQ	**Hawqa**	**1.45**	**53**	*eP*		**Pg**	**00 56 16.6**	**-0.2**
RGMN	**Argaman**	**1.50**	**146**	P		**Pn**	**00 56 16.6**	**+0.6**
RGMN				S		**Sn**	**00 56 35.1**	**-0.7**
YITV	**Yitav**	**1.65**	**153**	P		**Pn**	**00 56 18.9**	**+0.8**
YITV				S		**Sn**	**00 56 38.6**	**-0.8**
UJAP	**Al Uja**	**1.66**	**152**	P		**Pn**	**00 56 18.6**	**+0.4**
UJAP				S		**Sn**	**00 56 38.9**	**-0.8**
JER	**Jerusalem**	**1.73**	**161**	P		**Pb**	**00 56 20.6**	**-0.4**
JER				S		**Sn**	**00 56 41.6**	**-0.1**
BEIL	**Beino**	**1.77**	**50**	*eP*		**Pb**	**00 56 21.4**	**-0.2**
ALMO	**Almog**	**1.80**	**154**	P		**Pn**	**00 56 20.9**	**+0.6**
ALMO				S		**Sn**	**00 56 42.4**	**-0.9**
CSS	**Mathiatis**	**1.84**	**327**	P		**Pb**	**00 56 22.7**	**-0.2**
CSS				S		**Sb**	**00 56 46.1**	**0.0**
AMAZ	**Amatzia**	**1.91**	**170**	P		**Pn**	**00 56 22.7**	**+0.9**
AMAZ				S		**Sn**	**00 56 45.9**	**0.0**
MZS	**Mizpe Shalem**	**1.98**	**158**	P		**Pn**	**00 56 23.9**	**+1.2**
MZS				S		**Sn**	**00 56 47.2**	**-0.6**
MSBI	**Mazada**	**2.21**	**162**	P		**Pn**	**00 56 27.0**	**+1.1**
MSBI				S		**Sn**	**00 56 52.3**	**-1.1**
GHAJ	**Ghor Haditha**	**2.28**	**157**	P		**Pn**	**00 56 27.5**	**+0.6**
GHAJ				S		**Sn**	**00 56 54.3**	**-0.8**
KZIT	**Kziot**	**2.51**	**183**	P		**Pn**	**00 56 31.0**	**+1.0**
KZIT				S		**Sn**	**00 56 59.8**	**-0.9**
RMNI	**Mount Ramon**	**2.82**	**176**	P		**Pn**	**00 56 35.6**	**+1.2**
RMNI				S		**Sn**	**00 57 07.9**	**-0.7**
HRFI	**Mount Harif**	**3.40**	**173**	P		**Pn**	**00 56 43.4**	**+1.1**
HRFI				S		**Sn**	**00 57 22.4**	**-0.4**
EIL	**Elat**	**3.75**	**175**	P		**Pn**	**00 56 48.0**	**+0.8**
EIL				S		**Sn**	**00 57 30.5**	**-1.1**

DJA ***29*** *01:02:53.1±1.6, 4°N±11°×12°6E±°, h15km±17km, M4.4/9, mB4.8/2, mb4.5/5, mb4.5/5, mB4.8/2, ML4.2/7, MLv4.2/7, MLv4.3/9, Mw(mB)4.1/2, Mw(mB)4.1/2*
MAN ***29*** *01:02:55.0, 3°76N×126°51E, h32km, MS4.0*
NEIC ***29*** *01:02:57.6±1.4, 3°72N±0°07×126°31E±0°05, h122km±10km, mb4.2/11, Error ellipse: s-maj=10.7km s-min=6.9km az=182.0*
IDC ***29*** *01:02:58.8±1.5, 3°84N×126°55E, h143km±17km, mb3.6/9, mbtmp4.0/11, Error ellipse: s-maj=69.1km s-min=10.6km az=69.0*

ISC 29 01:02:55.2±0.6, 3°73N±0°05×126°38E±0°09, h100km, n39, σ2s02/38, mb4.0/15, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
GAMI	**Galela, Maluku**	**2.34**	**143**	P		Pn	01 03 27.2	-5.1
GAMI				AML		AML		
GAMI				AML		AML		
GAMI				AML		AML		
MNI	**Manado**	**2.74**	**214**	P		**Pn**	**01 03 38.8**	**+1.2**
MNI				AML		AML		
MNI				AML		AML		
MNI				AML		AML		
TNTI	**Ternate**	**3.10**	**161**			**Pn**	**01 03 43.6**	**+1.4**
TNTI	**Ternate**	**3.10**	**161**	P		**Pn**	**01 03 42.4**	**+0.1**
DAV	**Davao City (W)**	**3.42**	**346**	P		**Pn**	**01 03 50.6**	**+4.0**
	72nm,0.3s,baz=284,slow=2.7,SNR=1.3							
DAV				S		**Sn**	**01 04 31.0**	**+4.8**
	86nm,0.3s,baz=275,slow=23,SNR=2.0							
DAV	**Davao City (W)**	**3.42**	**346**			**Pn**	**01 03 50.1**	**+3.6**
KCP	**Kidapawan**	**3.50**	**339**	*i* P		**Pn**	**01 03 50.2**	**+2.4**
KCP				*eS*		**Sn**	**01 04 31.2**	**+2.8**
KMSI	**Cibinong**	**3.95**	**218**	P		Pn	01 03 59.6	+5.9
KMSI				AML		AML		
BIPH	**Bislig**	**4.43**	**360**	*eP*		**Pn**	**01 04 02.2**	**+2.0**
BIPH				*eS*		**Sn**	**01 04 49.8**	**-0.8**
GTOI	**Gorontalo**	**4.56**	**228**	P		**Pn**	**01 04 03.3**	**+1.3**
GTOI				AML		AML		
CGP	**Cagayan de Oro**	**4.99**	**340**	*eP*		Pn	01 03 59.9	-7.9
LUWI	**Luwuk**	**5.96**	**217**			**Pn**	**01 04 23.3**	**+2.4**
LUWI	**Luwuk**	**5.96**	**217**	P		**Pn**	**01 04 24.0**	**+3.1**
LUWI				AML		AML		
TOLI2	**Tolitoli**	**6.17**	**245**			**Pn**	**01 04 24.6**	**+0.8**
APSI	**Ampana**	**6.60**	**226**	P		**Pn**	**01 04 32.6**	**+2.9**
	51nm,1.1s,51nm,1.1s							
SIJI	**Sorong**	**6.68**	**133**	P		**Pn**	**01 04 33.4**	**+2.6**
	4.9nm,0.4s,baz=291,slow=24,SNR=5.3							
NLAI	**Namlea**	**6.96**	**174**	P		**Pn**	**01 04 37.0**	**+2.5**
	1µm1µm24nm,0.7s							
FAKI	**Fak Fak**	**8.83**	**138**	Pn		**Pn**	**01 05 02.9**	**+2.9**
KNRA	**Kununurra**	**19.42**	**173**			**P**	**01 07 14.8**	**+1.1**
KNRA				IAmb		IAmb	01 07 32.4	
	comp=Z,10nm,1.5s							
FITZ	**Fitzroy Crossi**	**21.70**	**182**	P		**P**	**01 07 39.9**	**+1.6**
	comp=Z,6.0nm,0.6s,baz=2.4,slow=8.5,SNR=27							
	comp=Z,6.0nm,0.6s							
FITZ	**Fitzroy Crossi**	**21.70**	**182**	IAmb		IAmb	01 07 40.5	
	comp=Z,1.1nm,0.6s							
WB0	**Warramunga Arr**	**24.64**	**162**	P		**P**	**01 08 06.7**	**+0.1**
WRA	**Warramunga Arr**	**24.79**	**162**	P		**P**	**01 08 08.0**	**+0.1**
	comp=Z,0.9nm,0.4s,baz=340,slow=10,SNR=9.6							
	comp=Z,0.9nm,0.4s							
WR8	**Warramunga Arr**	**24.85**	**162**	P		**P**	**01 08 08.7**	**+0.2**
WR8				IAmb		IAmb	01 08 32.4	
	comp=Z,8.7nm,1.4s							
ASAR	**Alice Springs**	**28.20**	**165**	P		**P**	**01 08 39.1**	**+0.5**
	comp=Z,0.3nm,0.6s,baz=339,slow=6.7,SNR=6.2							
	comp=Z,0.3nm,0.6s							
MORW	**Morawa**	**34.09**	**196**	P		**P**	**01 09 29.9**	**-0.4**
MORW				IAmb		IAmb	01 10 01.7	
	comp=Z,13nm,1.1s							
NWAO	**Narrogin (SRO)**	**37.47**	**193**	P		**P**	**01 09 58.3**	**-0.8**
BBOO	**Buckleboo**	**37.48**	**167**	P		**P**	**01 09 59.0**	**-0.3**
EVN	**Everest**	**44.71**	**307**	P		**P**	**01 10 58.1**	**-1.2**
EVN				IAmb		IAmb	01 11 13.2	
	comp=Z,3.5nm,1.3s							
MKAR	**Makanchi Array**	**57.36**	**325**	P		**P**	**01 12 31.7**	**-1.3**
	comp=Z,0.8nm,0.5s,baz=117,slow=7.8,SNR=14							
	comp=Z,0.8nm,0.5s							
MAKZ	**Makanchi**	**57.55**	**325**	P		**P**	**01 12 33.2**	**-1.2**
MAKZ				IAmb		IAmb	01 12 36.3	
	comp=Z,6.2nm,1.4s							
ZALV	**Zalesovo Beam**	**60.43**	**333**	P		**P**	**01 12 53.4**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=117,slow=5.2,SNR=2.9							
	comp=Z,0.3nm,0.3s							
KURBB	**Kurchatov Arra**	**61.55**	**328**	P		**P**	**01 13 00.9**	**-0.9**
	comp=Z,0.7nm,0.3s,baz=126,slow=6.7,SNR=8.0							
	comp=Z,0.7nm,0.3s							
KURK	**Kurchatov**	**61.56**	**328**	P		**P**	**01 13 01.6**	**-0.1**
KURK				IAmb		IAmb	01 13 02.4	
	comp=Z,3.2nm,0.6s							
BVAR	**Borovoye Array**	**67.13**	**327**	P		**P**	**01 13 37.0**	**-1.1**
	comp=Z,1.4nm,0.9s,baz=131,slow=5.9,SNR=5.2							
	comp=Z,1.4nm,0.9s							
BORK	**Borovoye**	**67.18**	**327**	P		**P**	**01 13 37.7**	**-0.7**
BORK				IAmb		IAmb	01 13 39.3	
	comp=Z,1.7nm,0.8s							
ABKAR	**Akbulak array**	**71.93**	**321**	P		**P**	**01 14 05.6**	**-2.1**
BRTR	**Keskin Array B**	**89.75**	**310**	P		**P**	**01 15 40.8**	**-2.1**
	comp=Z,0.6nm,0.9s,baz=98,slow=5.1,SNR=3.8							
	comp=Z,0.6nm,0.9s							
FINES	**FINESS Array B**	**91.67**	**332**	P		**P**	**01 15 50.0**	**-1.0**
	comp=Z,2.3nm,0.9s,baz=71,slow=6.4,SNR=3.7							
	comp=Z,2.3nm,0.9s							

SJA ***29*** *01:09:09.6±0.7, 38°17S×68°58W, h8km, ML4.1, MW4.1*
IDC ***29*** *01:09:11.2±1.6, 38°19S×68°89W, h0km, mb3.5/1, mbtmp3.5/3, ML3.7/2, MS3.4/6, Error ellipse: s-maj=63.7km s-min=13.5km az=117.0*

ISC 29 01:09:09.2±0.9, 38°18S±0°03×68°64W±0°06, h10km, n20, σ2s12/32, MS3.5/5, 3C, Southern Argentina

Code	Station Name	Δ°	AZ°	Phase	Op	ISC	Time	Res
CANA	**Caviahue**	**1.94**	**278**	*eP*		**Pb**	**01 09 44.5**	**-0.2**
CANA				*i* S		**Sg**	**01 10 12.2**	**+0.7**
CANA				IAML			01 10 23.9	
	comp=Z,424nm,0.5s							
EDS3	**Malargue**	**2.48**	**346**	*eP*		**Pb**	**01 09 52.5**	**-1.4**
EDS3				*eS*		**Sg**	**01 10 29.5**	**+0.7**
BI02	**San Fabin de**	**2.59**	**305**	*eP*		**Pb**	**01 09 54.2**	**-1.5**
BI02				*i* S		**Sg**	**01 10 30.1**	**-2.2**
BI02				IAML			01 10 31.1	
	comp=Z,886nm,0.3s							
GO06	**Curarrehue**	**2.62**	**237**	*eP*		**Pb**	**01 09 54.2**	**-2.1**
GO06				*eS*		**Sg**	**01 10 31.4**	**-2.0**
GO06				IAML			01 10 46.2	
	comp=Z,813nm,0.7s							
PLCA	**Paso Flores**	**2.95**	**210**	Pn		**Pn**	**01 09 57.9**	**+1.7**
	comp=Z,1.5nm,0.3s,baz=23,slow=14,SNR=44							
PLCA				Pg		**Pg**	**01 10 03.5**	**-2.2**
	comp=Z,44nm,0.3s,baz=26,slow=14,SNR=98							
PLCA				Lg		Lg	01 10 41.4	
	comp=Z,26nm,0.3s,baz=299,slow=22,SNR=3.5							
	comp=Z,8.7nm,0.4s							
PLCA				AML		AML		
PLCA	**Paso Flores**	**2.95**	**210**	*eP*		**Pn**	**01 09 57.9**	**+1.7**
PLCA				*eS*		**Sg**	**01 10 42.1**	**-1.9**
PLCA				IAML			01 10 50.4	
	comp=Z,1µm,0.7s							
PLCA				IAML			01 10 55.1	
	comp=Z,606nm,0.7s							
LR03	**Panguipulli**	**3.24**	**242**	*eP*		**Pg**	**01 10 09.2**	**-2.0**
LR03				*eS*		**Sg**	**01 10 52.1**	**-1.0**
LR03				IAML			01 10 57.9	
	comp=Z,347nm,0.5s							
ML02	**Panimavida**	**3.28**	**316**	*eP*		**Pg**	**01 10 11.0**	**-1.1**
ML02				*i* S		**Sg**	**01 10 53.4**	**-1.1**
ML02				IAML			01 10 59.4	
	comp=Z,357nm,0.5s							
LR05	**Currie**	**3.32**	**231**	*eP*		**Pb**	**01 10 09.2**	**+1.0**
LR05				*eS*		**Sg**	**01 10 54.2**	**-1.7**
LR05				IAML			01 11 15.2	
	comp=Z,424nm,0.8s							
RFA	**San Rafael**	**3.40**	**2**	*eP*		**Pn**	**01 10 04.4**	**+2.0**
RFA				*ePg*		**Pg**	**01 10 12.0**	**-2.4**
RFA				*eS*		**Sg**	**01 10 57.6**	**-0.9**
RFA				IAML			01 11 10.7	
	comp=Z,354nm,0.4s							
RFA				IAML			01 11 10.7	
	comp=Z,571nm,0.4s							
BO02	**Sierra Bellavi**	**3.79**	**332**	*eP*		**Pn**	**01 10 11.4**	**+3.6**
BO02				*eS*		**Sg**	**01 11 07.9**	**-3.2**
BO02				IAML			01 11 18.4	
	comp=Z,185nm,0.6s							
LR04	**Corral**	**4.10**	**244**	*eP*		**Pb**	**01 10 23.1**	**+1.7**
LR04				*i* S		**Sg**	**01 11 20.1**	**-0.7**
LR04				IAML			01 11 28.4	
	comp=Z,119nm,0.8s							
GO05	**Hualane**	**4.12**	**319**	*eP*		**Pb**	**01 10 22.9**	**+1.0**
GO05				*eS*		**Sg**	**01 11 18.8**	**-2.8**
GO05				IAML			01 11 25.9	
	comp=Z,110nm,0.5s							
LL03	**Petrohue**	**4.15**	**223**	*eP*		**Pg**	**01 10 27.3**	**-1.3**
LL03				*eS*		**Sg**	**01

	22nm,0.7s							
SATY				*e*S		**Sb**	**01 47 33.9**	**+1.8**
	24nm,1.0s							
KOTS	**Kotyrbulak**	**3.52**	**359**	Pg		**Pb**	**01 46 49.9**	**-0.5**
	13nm,0.3s							
KOTS				Lg		Lg	01 47 34.4	
	19nm,0.5s							
KOTS	**Kotyrbulak**	**3.52**	**359**	*e*P		**Pb**	**01 46 49.9**	**-0.5**
	13nm,0.3s							
KOTS				*e*S		**Sb**	**01 47 34.4**	**+0.7**
	19nm,0.5s							
AAK	**Ala-Archa**	**3.56**	**326**	⇓Pg		**Pb**	**01 46 49.5**	**-1.6**
	3.9nm,0.7s							
AAK				⇑Lg		Lg	01 47 35.0	
	4.6nm,0.6s							
AAK	**Ala-Archa**	**3.56**	**326**	⇓*i*P		**Pn**	**01 46 45.0**	**+1.2**
AAK				⇓*i*S		**Sn**	**01 47 25.5**	**-1.2**
DGS	**Degeres**	**3.68**	**344**	Pg		**Pb**	**01 46 52.5**	**-0.7**
	15nm,0.6s							
DGS				Lg		Lg	01 47 39.3	
	10nm,0.5s							
DGS	**Degeres**	**3.68**	**344**	*e*P		**Pb**	**01 46 52.5**	**-0.7**
	15nm,0.6s							
DGS				*e*S		**Sb**	**01 47 39.3**	**+0.9**
	10nm,0.5s							
UZB	**Uzynbulak**	**3.69**	**21**	Pg		**Pb**	**01 46 52.4**	**-1.0**
	7.4nm,0.5s							
UZB				Lg		Lg	01 47 38.8	
	10.0nm,0.6s							
UZB	**Uzynbulak**	**3.69**	**21**	*e*P		**Pb**	**01 46 52.4**	**-1.0**
	7.4nm,0.5s							
UZB				*e*S		**Sb**	**01 47 38.8**	**0.0**
	10.0nm,0.6s							
CHMS	**Chumysh**	**3.76**	**332**	⇓*i*P		**Pn**	**01 46 47.5**	**+1.0**
CHMS				⇓*i*S		**Sn**	**01 47 29.9**	**-1.6**
SHLS	**Shalkode**	**3.84**	**26**	Pg		**Pg**	**01 47 00.3**	**-0.4**
	5.3nm,0.3s							
SHLS				Lg		Lg	01 47 52.1	
	12nm,0.4s							
EKS2	**Erkin-Say**	**3.92**	**320**	⇑*i*P		**Pn**	**01 46 49.9**	**+1.2**
EKS2				⇑*i*S		**Sn**	**01 47 34.3**	**-1.1**
PDGK	**Podgornoye**	**4.00**	**25**	⇓Pg		**Pb**	**01 46 58.1**	**-0.6**
	4.8nm,0.6s							
PDGK				⇑Lg		Lg	01 47 49.5	
	19nm,0.9s							
USP	**Ospenovka**	**4.09**	**331**	⇓*i*P		**Pn**	**01 46 51.9**	**+1.0**
USP				⇓*i*S		**Sn**	**01 47 37.8**	**-1.7**
KRBS	**Karabastau**	**4.14**	**345**	Pg		**Pb**	**01 47 00.2**	**-0.7**
	3.3nm,0.4s							
KRBS				Lg		Lg	01 47 52.6	
	6.1nm,0.5s							
KRBS	**Karabastau**	**4.14**	**345**	*e*P		**Pb**	**01 47 00.2**	**-0.7**
	3.3nm,0.4s							
KRBS				*e*S		**Sb**	**01 47 52.6**	**+1.1**
	6.1nm,0.5s							
MRKS	**Merke**	**4.26**	**317**	*e*P		**Pb**	**01 47 03.7**	**+0.8**
	3.6nm,0.4s							
MRKS				*e*S		**Sb**	**01 47 57.9**	**+3.0**
	5.7nm,0.6s							
ARXS	**Arharly**	**4.52**	**6**	Pg		**Pb**	**01 47 07.1**	**-0.3**
	3.6nm,0.6s							
ARXS				Lg		Lg	01 48 04.6	
	6.8nm,0.6s							
ARXS	**Arharly**	**4.52**	**6**	*e*P		**Pb**	**01 47 07.1**	**-0.3**
	3.6nm,0.6s							
ARXS				*e*S		**Sb**	**01 48 04.6**	**+2.1**
	6.8nm,0.6s							
KK31	**Karatay Array**	**6.06**	**306**	⇑Pg		**Pb**	**01 47 35.3**	**+1.7**
	0.3nm,0.5s,baz=122,slow=18,SNR=4.0							
KK31				⇑Lg		Lg	01 48 54.0	
	1.0nm,0.6s,baz=117,slow=26,SNR=4.2							

GCMT 29 02:24:10.0±0.2,**44°46S**±0.03×**15°81W**±0.03,**h14**km±1km, **MW4.9**/107,**Moment Tensor Solution. s31,c35; s107,c145; Duration: 0 Moment tensor: Scale** 10^{16} **Nm;** M_{rr}-2.46±.15; $M_{\theta\theta}$0.67±.10; $M_{\phi\phi}$1.79±.10; $M_{r\theta}$0.37±.27; $M_{\theta\phi}$-0.94±.07; $M_{\phi r}$0.95±.21; **Best double couple:** $M_0$2.58600×10^{16} **NP1:**ϕ_s317.00000°,δ39.00000°, λ-114.00000°. **NP2:**ϕ_s166.00000°,δ55.00000°, λ-72.00000°. **Principal axes:** T 2.4160, Plg8.0000°, Azm243.0000°; N 0.3440, Plg15.0000°, Azm335.0000°; P -2.7560, Plg73.0000°, Azm126.0000°; **nsta1 refers to body waves, cutoff=50s. Surface-wave location Triangular moment-rate function Southern Mid-Atlantic Ridge**

IDC 29 02:52:17.5±4.5,**22°32S×173°00E,h0**km,**mb3.8**/3, **mbtmp3.9**/4,**ML3.8**/1,**MS3.7**/2 **Error ellipse: s-maj=142.9km s-min=39.0km az=12.0,Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**6.08**	**271**	Pn	Pn	02 53 49.7	+1.0
	2.3nm,0.3s,baz=128,slow=14,SNR=22						
DZM				Sn	Sn	02 54 55.9	-3.3
	3.5nm,0.3s,baz=185,slow=22,SNR=5.4						
	9.0nm,0.3s						
DZM				AML	AML		
STKA	**Stephens Creek**	**29.44**	**244**	P	P	02 58 22.2	-0.9
	0.9nm,0.6s,baz=88,slow=9.9,SNR=3.8						
	0.9nm,0.6s						
ASAR	**Alice Springs**	**35.94**	**260**	P	P	02 59 19.5	-0.5
	1.3nm,0.8s,baz=78,slow=9.3,SNR=11						
	1.3nm,0.8s						
WRA	**Warramunga Arr**	**36.07**	**266**	P	P	02 59 22.1	+0.9
	0.6nm,0.6s,baz=97,slow=8.0,SNR=6.6						
	0.6nm,0.6s						
FITZ	**Fitzroy Crossi**	**44.50**	**267**	LR	LR	03 18 47.0	
	comp=Z,63nm,19.6s,baz=198,slow=36						
BATI	**Baumata**	**48.67**	**276**	LR	LR	03 20 26.5	
	comp=Z,133nm,19.8s,baz=242,slow=35						

DJA ***29*** *03:25:17.5±0.2,3°S±2°×12°7E±°,h10km,M4.2/6,mB5.1/3, mb4.8/3,mb4.9/4,mB5.1/2,ML3.9/7,MLv4.0/11,MLv3.9/7, Mw(mB)4.5/3,Mw(mB)4.5/2*

IDC ***29*** *03:25:24.1±2.0,2°71S×127°78E,h88km±20km,mb3.4/5, mbtmp3.8/9,MS2.9/3,Error ellipse: s-maj=18.0km s-min=9.8km az=78.0*

ISC 29 03:25:18.0±0.7,**2°70S**±0°05×**127°37E**±0°05,**h29**km,**n18,** σ1§**82**/**21**,**mb3.9**/5,**Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NLAI	**Namlea**	**0.60**	**207**	P	**Pn**	**03 25 32.1**	**+1.5**
NLAI				S	**Sb**	**03 25 40.5**	**+2.2**
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
SANI	**Sanana**	**1.52**	**295**	P	**Pn**	**03 25 41.8**	**-1.5**
SANI				S	**Sn**	**03 25 59.9**	**-2.3**
SANI				AML	AML		
SANI				AML	AML		
MSAI	**Masohi**	**1.68**	**113**	P	**Pb**	**03 25 48.8**	**+0.4**
MSAI				AML	AML		
MSAI				AML	AML		
BNDI	**Bandanaira**	**3.11**	**126**	P	**Pb**	**03 26 10.2**	**-2.5**
BNDI				AML	AML		
BNDI				AML	AML		
SIJI	**Sorong**	**4.30**	**65**	P	**Pn**	**03 26 20.7**	**-0.8**
	16nm,0.3s,baz=243,slow=11,SNR=25						
SIJI				S	**Sn**	**03 27 08.7**	**-2.0**
	11nm,0.3s,baz=313,slow=22,SNR=6.0						
SIJI				LR	LR	03 28 29.6	
	comp=Z,66nm,19.7s,baz=155,slow=47						
FAKI	**Fak Fak**	**4.88**	**93**	P	**Pn**	**03 26 30.9**	**+1.4**
LUWI	**Luwuk**	**4.88**	**290**	P	**Pn**	**03 26 30.8**	**+1.3**
GTOI	**Gorontalo**	**5.47**	**307**	P	**Pn**	**03 26 39.8**	**+2.1**
	935nm935nm30nm,0.4s,30nm,0.4s						
APSI	**Ampana**	**5.99**	**287**	P	**Pn**	**03 26 46.4**	**+1.7**
	3μm3μm225nm,0.5s						
KAPI	**Kappang**	**7.94**	**253**	P	Pn	03 27 21.8	+10
	7.2nm,0.7s,baz=65,slow=14,SNR=2.8						
BATI	**Baumata**	**8.32**	**206**	LR	LR	03 31 27.5	
	comp=Z,108nm,18.8s,baz=241,slow=43						
FITZ	**Fitzroy Crossi**	**15.40**	**186**	P	**P**	**03 28 57.8**	**+0.1**
	2.0nm,1.0s,baz=6.1,slow=11,SNR=5.8						
WRA	**Warramunga Arr**	**18.44**	**159**	P	**P**	**03 29 31.6**	**+0.2**
	2.1nm,0.6s,baz=341,slow=12,SNR=18						
WRA				S	**Sn**	**03 32 55.5**	**-1.5**
	0.9nm,0.7s,baz=336,slow=22,SNR=5.0						
ASAR	**Alice Springs**	**21.78**	**164**	P	**P**	**03 30 08.7**	**+0.9**
	1.1nm,0.6s,baz=345,slow=12,SNR=22						
ASAR				S	**S**	**03 34 03.5**	**-3.9**
	1.0nm,0.8s,baz=346,slow=18,SNR=7.8						
	1.1nm,0.6s						
MJAR	**Matsushiro Arr**	**40.33**	**14**	P	**P**	**03 32 51.6**	**-1.4**
	0.5nm,0.4s,baz=198,slow=9.1,SNR=2.5						
MJAR				LR	LR	03 47 47.6	
	comp=Z,26nm,19.5s,baz=206,slow=33						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**63.21**	**327**	P	**P**	**03 35 45.0**	**+1.3**
	0.8nm,0.7s,baz=126,slow=8.2,SNR=8.0						
	0.8nm,0.7s						
KURBB	**Kurchatov Arra**	**67.50**	**329**	P	**P**	**03 36 12.3**	**+1.0**
	1.0nm,0.7s,baz=128,slow=5.4,SNR=9.9						
	1.0nm,0.7s						
BVAR	**Borovoye Array**	**73.05**	**328**	P	**P**	**03 36 45.7**	**+0.4**
	1.2nm,0.9s,baz=142,slow=7.3,SNR=3.5						
	1.2nm,0.9s						

DJA ***29*** *03:34:12.2±0.3,9°S±4°×11°1E±°,h10km,M4.7/38,mB5.1/1, mb5.1/2,mb5.1/2,mB5.1/1,ML4.6/17,MLv4.6/38,MLv4.6/27, Mw(mB)4.4/1,Mw(mB)4.4/1*

NEIC ***29*** *03:34:14.3±1.7,8°7S±0°1×111°40E±0°08,h69km±8km, mb4.1/12,Error ellipse: s-maj=18.5km s-min=8.1km az=207.0*

IDC ***29*** *03:34:15.9±2.0,8°61S×111°46E,h81km±19km,mb3.7/11, mbtmp4.0/13,MS3.2/9,Error ellipse: s-maj=23.7km s-min=12.3km az=36.0*

ISC 29 03:34:13.1±0.5,**8°83S**±0°07×**111°39E**±0°05,**h58**km,**n83,** σ1§**47**/**69**,**mb4.1**/15,**MS3.2**/**7**,**Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCJI	**Pacitan**	**0.67**	**341**	P	**Pn**	**03 34 26.0**	**-0.9**
PCJI				AML	AML		
PCJI				AML	AML		
PCJI				AML	AML		
PWJI	**Pagerwojo**	**0.90**	**27**	P	**Pn**	**03 34 29.8**	**0.0**
PWJI				AML	AML		
WOJI	**Wonogiri, Jawa**	**1.09**	**335**	P	**Pn**	**03 34 32.1**	**-0.2**
WOJI				AML	AML		
WOJI				AML	AML		
WOJI				AML	AML		
SNJI	**Sawahan-Nganju**	**1.10**	**19**	P	**Pn**	**03 34 33.8**	**+1.1**
SNJI				AML	AML		
SNJI				AML	AML		
SNJI				AML	AML		
SJI	**Sawahan**	**1.15**	**19**	P	**Pn**	**03 34 33.6**	**+0.4**
UGM	**Wanagama**	**1.25**	**317**	P	**Pn**	**03 34 35.0**	**+0.5**
UGM	**Wanagama**	**1.25**	**317**		**Pn**	**03 34 35.0**	**+0.5**
UGM				Sn	**Sn**	**03 34 50.4**	**-0.1**
UGM	**Wanagama**	**1.25**	**317**	P	**Pn**	**03 34 34.8**	**+0.3**
UGM				AML	AML		
UGM				AML	AML		
UGM				AML	AML		
NGJI	**Ngawi**	**1.45**	**3**	P	**Pn**	**03 34 40.3**	**+3.1**
NGJI				AML	AML		
NGJI				AML	AML		
YOGI	**Yogyakarta**	**1.48**	**313**	P	**Pn**	**03 34 38.3**	**+0.7**
YOGI				AML	AML		
YOGI				AML	AML		
SMRI	**Semarang**	**2.00**	**332**	P	**Pn**	**03 34 47.0**	**+2.3**
SMRI	**Semarang**	**2.00**	**332**		**Pn**	**03 34 47.0**	**+2.3**
SMRI	**Semarang**	**2.00**	**332**	P	Pn	03 34 49.6	+4.9
TBJI	**Tambak Boyo**	**2.05**	**13**	P	Pn	03 34 52.5	+7.2
GRJI	**Gresik**	**2.19**	**30**	P	Pn	03 34 51.4	+4.3
BLJI	**Banyuglugur**	**2.43**	**64**	P	**Pn**	**03 34 51.6**	**+1.1**
BLJI				AML	AML		
JAGI	**Jajag, Banyuwa**	**2.75**	**83**	P	**Pn**	**03 34 55.2**	**+0.3**
JAGI	**Jajag, Banyuwa**	**2.75**	**83**		**Pn**	**03 34 55.2**	**+0.3**
JAGI	**Jajag, Banyuwa**	**2.75**	**83**	P	**Pn**	**03 34 54.7**	**-0.2**
JAGI				AML	AML		
CTJI	**Waduk Cacaban**	**2.84**	**309**	P	**Pn**	**03 34 59.1**	**+3.0**
KPJI	**Karang Pucung**	**2.86**	**301**	P	**Pn**	**03 34 57.6**	**+1.3**
ABJI	**Asem Bagus**	**2.99**	**70**	P	**Pn**	**03 34 59.9**	**+1.7**
BYJI	**Banyuwangi**	**2.99**	**78**	P	**Pn**	**03 35 00.9**	**+2.7**
CMJI	**Cimerak**	**3.09**	**289**	P	**Pn**	**03 34 58.9**	**-0.6**
CMJI				AML	AML		
RTBI	**Rangdo, Negare**	**3.53**	**84**	P	**Pn**	**03 35 07.1**	**+1.6**
IGBI	**Denpasar**	**3.71**	**90**	P	**Pn**	**03 35 09.3**	**+1.3**
DNP	**Denpasar**	**3.78**	**88**	P	Pn	03 35 20.6	+12
SRBI	**Singaraja**	**3.85**	**79**	P	**Pn**	**03 35 12.9**	**+3.0**
BBJI	**Bungbulang**	**3.95**	**290**	P	**Pn**	**03 35 10.7**	**-0.6**
BBJI	**Bungbulang**	**3.95**	**290**		**Pn**	**03 35 10.9**	**-0.4**
BBJI	**Bungbulang**	**3.95**	**290**	P	**Pn**	**03 35 10.7**	**-0.6**
KHKI	**Kahang-Kahang**	**4.19**	**84**	P	Pn	03 35 19.6	+5.0
LEM	**Lembang**	**4.24**	**298**	P	**Pn**	**03 35 17.4**	**+2.0**
	55nm,0.6s,baz=113,slow=15,SNR=7.8						
LEM				S	**Sn**	**03 36 06.3**	**+2.6**
	151nm,0.8s,baz=19,slow=14,SNR=5.9						
LEM				LR	LR	03 37 00.6	
	comp=Z,231nm,20.6s,baz=184,slow=39						
PLAI	**Plampang**	**6.31**	**90**	P	**Pn**	**03 35 45.4**	**+1.8**
KAPI	**Kappang**	**9.12**	**66**	P	**Pn**	**03 36 23.5**	**+1.3**
	3.9nm,0.3s,baz=234,slow=8.7,SNR=4.1						
KAPI				LR	LR	03 40 05.0	
	comp=Z,133nm,21.9s,baz=252,slow=39						
BATI	**Baumata**	**12.18**	**97**	P	**Pn**	**03 37 03.0**	**-1.0**
	15nm,0.3s,baz=270,slow=12,SNR=2.6						
SOEI	**Soe**	**12.74**	**95**	Pn	**Pn**	**03 37 12.1**	**+0.4**
GIRL	**Giralia**	**14.00**	**169**	Pn	**Pn**	**03 37 25.6**	**-3.1**
FITZ	**Fitzroy Crossi**	**16.63**	**125**	P	**Pn**	**03 38 02.2**	**-0.3**
	3.7nm,0.7s,baz=308,slow=9.0,SNR=8.5						
FITZ				S	Sn	03 40 53.5	-13
	2.1nm,0.7s,baz=52,slow=22,SNR=2.6						
FITZ	**Fitzroy Crossi**	**16.63**	**125**		**Pn**	**03 38 01.7**	**-0.8**
KNRA	**Kununurra**	**18.28**	**114**	P	**P**	**03 38 22.4**	**+0.1**
KNRA				IAmb	IAmb	03 38 24.4	
	comp=Z,8.6nm,1.2s						
MEEK	**Meekatharra**	**18.99**	**160**	P	**P**	**03 38 29.6**	**-0.5**
MTN	**Manton Dam**	**19.79**	**103**	P	**P**	**03 38 39.6**	**+0.7**
MTN				IAmb	IAmb	03 38 46.7	
	comp=Z,12nm,1.1s						
FAKI	**Fak Fak**	**21.55**	**75**	P	**P**	**03 38 57.4**	**-0.5**
WRA	**Warramunga Arr**	**24.78**	**119**	P	**P**	**03 39 30.7**	**+0.9**
	comp=Z,3.2nm,0.9s,baz=293,slow=11,SNR=28						
	comp=Z,3.2nm,0.9s						
WRAB	**Tennant Creek**	**24.79**	**119**	P	**P**	**03 39 31.0**	**+1.1**
WR8	**Warramunga Arr**	**24.93**	**119**		**P**	**03 39 32.4**	**+1.3**
WR8				IAmb	IAmb	03 39 34.2	
	comp=Z,6.5nm,0.8s						
WR0	**Warramunga Arr**	**24.96**	**119**	P	**P**	**03 39 32.7**	**+1.3**
WR0				IAmb	IAmb	03 39 34.2	
	comp=Z,6.9nm,0.8s						
ASAR	**Alice Springs**	**26.11**	**127**	P	**P**	**03 39 43.1**	**+1.2**
	comp=Z,1.8nm,0.5s,baz=298,slow=8.5,SNR=36						
ASAR				LR	LR	03 50 11.3	
	comp=Z,26nm,19.5s,baz=294,slow=36						
	comp=Z,1.8nm,0.5s						
ASAR	**Alice Springs**	**26.11**	**127**	P	**P**	**03 39 42.3**	**+0.5**
AS31	**Alice Springs**	**26.11**	**127**	P	**P**	**03 39 43.1**	**+1.3**
AS01	**Alice Springs**	**26.14**	**127**	P	**P**	**03 39 43.4**	**+1.3**
FORT	**Forrest**	**26.81**	**147**	P	**P**	**03 39 47.7**	**-0.3**
FORT				IAmb	IAmb	03 40 22.0	
	comp=Z,7.2nm,1.0s						
QIS	**Mount Isa**	**29.62**	**116**	P	**P**	**03 40 14.9**	**+1.7**
CMAR	**Chiang Mai Arr**	**29.77**	**336**	LR	LR	03 55 12.8	
	comp=Z,20nm,18.4s,baz=140,slow=42						
CTA	**Charters Tower**	**35.49**	**112**	LR	LR	03 57 12.8	
	comp=Z,32nm,18.1s,baz=209,slow=39						
STKA	**Stephens Creek**	**36.21**	**134**	P	**P**	**03 41 12.0**	**+1.4**
	comp=Z,3.3nm,0.9s,baz=315,slow=11,SNR=3.2						
	comp=Z,3.3nm,0.9s						
H08S2	**Diego Garcia H**	**38.51**	**269**	T	T	04 22 34.2	
	baz=94,slow=75,SNR=20						
H08S3	**Diego Garcia H**	**38.52**	**269**	T	T	04 22 37.9	
	baz=94,slow=75,SNR=27						
H08S1	**Diego Garcia H**	**38.52**	**269**	T	T	04 22 35.9	
	baz=94,slow=75,SNR=19						
CN2	**Changchun**	**53.91**	**13**	*e*P	**P**	**03 43 27.8**	**-2.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
SONM	**Songino Array**	**56.59**	**356**	P	**P**	**03 43 49.3**	**-0.8**
	comp=Z,0.4nm,0.6s,baz=168,slow=7.4,SNR=2.2						
	comp=Z,0.4nm,0.6s						
SONM	**Songino Array**	**56.59**	**356**	P	**P**	**03 43 49.5**	**-0.5**
SONM				IAmb	IAmb	03 44 27.7	
	comp=Z,2.0nm,1.4s						
DCZ	**Deep Cove**	**60.02**	**138**	P	**P**	**03 44 15.8**	**+1.8**
MKAR	**Makanchi Array**	**61.15**	**338**	P	**P**	**03 44 20.6**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=152,slow=7.4,SNR=11						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**61.15**	**338**	P	**P**	**03 44 20.2**	**-1.4**
H04N2	**CROZET ISLANDS**	**62.78**	**222**	T	T	04 53 03.9	
	baz=70						
H04N1	**CROZET ISLANDS**	**62.80**	**222**	T	T	04 53 11.0	
	baz=70						
H04N3	**CROZET ISLANDS**	**62.80**	**222**	T	T	04 53 15.1	
	baz=70						
KURBB	**Kurchatov Arra**	**65.72**	**338**	P	**P**	**03 44 50.4**	**-1.2**
	comp=Z,0.2nm,0.6s,baz=153,slow=6.5,SNR=2.3						
	comp=Z,0.2nm,0.6s						
ZALV	**Zalesovo Beam**	**66.45**	**343**	P	**P**	**03 44 56.0**	**-0.3**
	comp=Z,0.4nm,0.3s,baz=154,slow=7.4,SNR=2.9						
	comp=Z,0.4nm,0.3s						
ZALV	**Zalesovo Beam**	**66.45**	**343**	P	**P**	**03 44 55.1**	**-1.2**
ABKAR	**Akbulak array**	**73.24**	**328**	P	**P**	**03 45 36.8**	**-1.3**
VNDA	**Vanda**	**73.40**	**170**	LR	LR	04 17 21.5	
	comp=Z,28nm,18.4s,baz=304,slow=35						
QSPA	**South Pole Qui**	**81.17**	**180**	P	**P**	**03 46 23.8**	**+1.4**
	comp=Z,1.4nm,0.9s,baz=322,slow=4.4,SNR=6.1						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	**81.17**	**180**	P	**P**	**03 46 23.2**	**+0.7**
QSPA				IAmb	IAmb	03 46 28.6	
	comp=Z,4.9nm,1.5s						
BOSA	**Boshof**	**82.46**	**242**	P	**P**	**03 46 31.8**	**+1.8**
	comp=Z,2.3nm,0.8s,baz=100,slow=6.1,SNR=3.2						
BOSA				LR	LR	04 16 23.2	
	comp=Z,29nm,21.5s,baz=31,slow=31						
	comp=Z,2.3nm,0.8s						
RAR	**Rarotonga**	**85.78**	**111**	LR	LR	04 26 32.8	
	comp=Z,9.2nm,18.4s,baz=200,slow=37						
SUR	**Sutherland**	**85.83**	**238**	LR	LR	04 21 21.9	
	comp=Z,16nm,20.1s,baz=63,slow=33						
BRTR	**Keskin Array B**	**86.30**	**311**	P	**P**	**03 46 47.6**	**-1.6**
	comp=Z,0.9nm,1.0s,baz=108,slow=4.7,SNR=5.0						
	comp=Z,0.9nm,1.0s						
BRTR	**Keskin Array B**	**86.30**	**311**	P	**P**	**03 46 47.0**	**-2.2**
SNAA	**Sanae**	**89.06**	**197**	P	**P**	**03 47 03.2**	**+1.5**
	comp=Z,2.7nm,0.7s,baz=174,slow=7.6,SNR=5.4						
	comp=Z,2.7nm,0.7s						
SNAA	**Sanae**	**89.06**	**197**	P	**P**	**03 47 03.5**	**+1.8**

IDC ***29*** *04:06:25.3±4.5,39°12N×74°52E,h0km,mb3.8/4, mbtmp3.6/7,ML2.7/2,Error ellipse: s-maj=79.9km s-min=20.4km az=143.0*

SOME ***29*** *04:06:30.2,39°53N×73°47E,h5km*

KRNET ***29*** *04:06:32.4±0.1,39°55N×73°60E,h28km,mb3.8*

NNC ***29*** *04:06:40.1±5.0,39°83N×73°86E,h6km±28km,mb4.1, mpv3.8,Error ellipse: s-maj=34.2km s-min=27.6km az=179.0*

ISC 29 04:06:31.3±1.4,**39°53N**±0°04×**73°68E**±0°03,**h4**km±9km, **n57**,σ1§**68**/**90**,**mb3.8**/4,**28C-18D,Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**0.50**	**344**	⇑*i*P	**Pg**	**04 06 42.2**	**+1.2**
SFK				⇑*e*S	**Sg**	**04 06 49.6**	**+2.0**
OHH	**Osh**	**1.21**	**326**	⇑*e*P	**Pn**	**04 06 53.3**	**-1.8**
OHH				⇑*e*S	**Sg**	**04 07 09.2**	**-1.0**
SALK	**Salom-Alik**	**1.36**	**5**	⇑*e*P	**Pn**	**04 06 56.9**	**-0.3**
SALK				⇑*i*S	**Sg**	**04 07 15.0**	**0.0**
DRK	**Karamyk**	**1.46**	**269**	⇑*e*P	**Pn**	**04 06 57.8**	**-0.8**
DRK				⇑*e*S	**Sn**	**04 07 16.1**	**-2.2**
KSH2	**Kashi**	**1.51**	**104**	Pg	**Pg**	**04 07 00.3**	**0.0**
KSH2				Sg	**Sn**	**04 07 20.0**	**+0.5**
KSH2				smax	smax		
	comp=N,310nm,0.4s						
KSH2				smax	smax		
	comp=E,300nm,0.7s						
ARSB	**Arslanbob**	**1.87**	**344**	⇓*i*P	**Pn**	**04 07 04.5**	**+0.3**
ARSB				⇓*i*S	**Sn**	**04 07 27.7**	**-0.7**
BTK	**Batken**	**2.27**	**284**	⇑*e*P	**Pn**	**04 07 09.4**	**-0.2**
BTK				⇑*i*S	**Sn**	**04 07 36.3**	**-1.7**
NRN	**Naryn**	**2.60**	**42**	⇓*i*P	**Pn**	**04 07 15.1**	**+0.7**
NRN				⇓*e*S	**Sn**	**04 07 46.0**	**-0.6**
ARK	**Arkit**	**2.62**	**331**	⇓*e*P	**Pn**	**04 07 15.0**	**+0.6**
ARK				⇓*e*S	**Sn**	**04 07 45.4**	**-1.3**
UCH	**Uchtor**	**2.77**	**13**	⇓*i*P	**Pn**	**04 07 17.5**	**+0.6**
UCH				⇓*i*S	**Sn**	**04 07 50.3**	**-0.7**
MNAS	**Manas**	**3.09**	**344**	⇑*e*P	**Pn**	**04 07 21.3**	**+0.4**
MNAS				⇑*i*S	**Sn**	**04 07 57.0**	**-1.4**
EKS2	**Erkin-Say**	**3.13**	**1**	⇑*i*P	**Pn**	**04 07 22.2**	**+0.7**
EKS2				⇑*i*S	**Sn**	**04 07 58.4**	**-1.0**
AAK	**Ala-Archa**	**3.17**	**11**	⇑Pn	**Pb**	**04 07 27.0**	**-1.2**
	comp=E,104nm,0.6s						
AAK				⇑Lg	Lg	04 08 11.3	
	comp=E,216nm,0.7s						
AAK	**Ala-Archa**	**3.17**	**11**	⇓*i*P	**Pn**	**04 07 22.8**	**+0.7**
AAK				⇓*i*S	**Sn**	**04 07 59.5**	**-0.9**
MRKS	**Merke**	**3.23**	**354**	Pg	**Pb**	**04 07 30.7**	**+1.4**
	comp=E,21nm,0.3s						
MRKS				Lg	Lg	04 08 13.9	
	comp=E,66nm,0.3s						
MRKS	**Merke**	**3.23**	**354**	*e*P	**Pb**	**04 07 30.7**	**+1.4**
	comp=E,21nm,0.3s						
MRKS				*e*S	**Sg**	**04 08 13.9**	**-1.2**
	comp=E,66nm,0.3s						
KBK	**Karagaybulak**	**3.27**	**17**	⇓*i*P	**Pn**	**04 07 24.3**	**+0.8**
KBK				⇓*i*S	**Sn**	**04 08 02.2**	**-0.7**
ULHL	**Ulahol**	**3.34**	**35**	⇑*i*P	**Pn**	**04 07 25.5**	**+1.1**
ULHL				⇑*i*S	**Sn**	**04 08 04.4**	**-0.3**
FRU1	**Bishkek**	**3.36**	**12**

MDOK	**Medeo**	**4.43**	**34**	*eP*	**Pg**	**04 07 54.4**	**-1.8**
	comp=E,11nm,0.5s							
MDOK				*eS*	**Sg**	**04 08 54.5**	**+1.0**
	comp=E,49nm,0.6s							
KOTS	**Kotyrbulak**	**4.51**	**34**	Pg	**Pg**	**04 07 56.1**	**-1.7**
	comp=E,9.1nm,0.4s							
KOTS				Lg	Lg	04 08 58.2		
	comp=E,108nm,0.5s							
KOTS	**Kotyrbulak**	**4.51**	**34**	*eP*	**Pg**	**04 07 56.1**	**-1.7**
	comp=E,9.1nm,0.4s							
KOTS				*eS*	**Sg**	**04 08 58.2**	**+1.9**
	comp=E,108nm,0.5s							
KUU	**Kurty**	**4.79**	**24**	Pg	**Pg**	**04 08 00.7**	**-2.4**
	comp=E,4.2nm,0.1s							
KUU				Lg	Lg	04 09 05.4		
	comp=E,21nm,0.4s							
KUU	**Kurty**	**4.79**	**24**	*eP*	**Pg**	**04 08 00.7**	**-2.4**
	comp=E,4.2nm,0.1s							
KUU				*eS*	**Sg**	**04 09 05.4**	**+0.2**
	comp=E,21nm,0.4s							
SATY	**Saty**	**5.01**	**44**	Pg	**Pg**	**04 08 05.3**	**-2.0**
	comp=E,14nm,0.5s							
SATY				Lg	Lg	04 09 13.0		
	comp=E,23nm,0.8s							
SATY	**Saty**	**5.01**	**44**	*eP*	**Pg**	**04 08 05.3**	**-2.0**
	comp=E,14nm,0.5s							
SATY				*eS*	**Sg**	**04 09 13.0**	**+0.8**
	comp=E,23nm,0.8s							
KURS	**Kuram**	**5.20**	**39**	Pg	**Pg**	**04 08 09.2**	**-1.7**
	comp=E,5.8nm,0.7s							
KURS				Lg	Lg	04 09 20.1		
	comp=E,18nm,1.0s							
KURS	**Kuram**	**5.20**	**39**	*eP*	**Pg**	**04 08 09.2**	**-1.7**
	comp=E,5.8nm,0.7s							
KURS				*eS*	**Sg**	**04 09 20.1**	**+1.9**
	comp=E,18nm,1.0s							
UZB	**Uzynbulak**	**5.41**	**46**	Pg	**Pg**	**04 08 12.9**	**-2.0**
	comp=E,2.7nm,0.3s							
UZB				Lg	Lg	04 09 26.0		
	comp=E,10nm,0.4s							
UZB	**Uzynbulak**	**5.41**	**46**	*eP*	**Pg**	**04 08 12.9**	**-2.0**
	comp=E,2.7nm,0.3s							
UZB				*eS*	**Sg**	**04 09 26.0**	**+1.1**
	comp=E,10nm,0.4s							
PDGK	**Podgornoye**	**5.79**	**47**	⇓Pg	**Pg**	**04 08 20.6**	**-1.5**
	comp=E,7.5nm,0.9s							
PDGK				⇑Lg	Lg	04 09 35.4		
	comp=E,31nm,1.4s							
MKAR	**Makanchi Array**	**9.60**	**38**	Pn	**Pn**	**04 08 45.9**	**-4.3**
	comp=E,0.1nm,0.3s,baz=223,slow=12,SNR=1.8							
MKAR				Lg	Lg	04 11 24.2		
	comp=E,0.1nm,0.3s,baz=203,slow=28,SNR=1.7							
	comp=E,0.1nm,0.3s							
MKAR				AML	AML			
KURBB	**Kurchatov Arra**	**11.61**	**16**	Lg	Lg	04 12 35.9		
	baz=207,slow=30,SNR=4.3							
BVAR	**Borovoye Array**	**13.69**	**352**	Pn	**Pn**	**04 09 46.1**	**0.0**
	comp=E,1.0nm,0.6s,baz=267,slow=38,SNR=3.2							
ZALV	**Zalesovo Beam**	**16.29**	**24**	Pn	**Pn**	**04 10 16.2**	**-4.5**
	comp=E,0.1nm,0.3s,baz=211,slow=11,SNR=0.9							
	comp=E,0.2nm,0.4s							
ZALV				AML	AML			
BRTR	**Keskin Array B**	**30.66**	**283**	P	**P**	**04 12 48.5**	**+1.5**
	comp=E,0.8nm,0.7s,baz=87,slow=7.1,SNR=7.5							
	comp=E,0.8nm,0.7s							
FINES	**FINESS Array B**	**36.24**	**323**	P	**P**	**04 13 35.7**	**+0.6**
	comp=E,2.0nm,0.7s,baz=109,slow=9.5,SNR=9.7							
	comp=E,2.0nm,0.7s							
HFS	**Hagfors**	**42.06**	**320**	P	**P**	**04 14 24.4**	**+0.7**
	comp=E,0.9nm,0.5s,baz=89,slow=12,SNR=7.9							
	comp=E,0.9nm,0.5s							
NB2	**NORSAR Subarra**	**43.30**	**321**	P	**P**	**04 14 34.1**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=90,slow=8.6							
NOA	**NORSAR Array B**	**43.30**	**321**	P	**P**	**04 14 33.7**	**-0.1**
	comp=Z,0.5nm,0.6s,baz=93,slow=8.1,SNR=3.3							
	comp=Z,0.5nm,0.6s							

ATH 29 04:10:10.8, 35.46N×26.69E, h5km±2km, ML2.4/7,
Latitude uncertainty: 2 km; Longitude uncertainty: 1 km, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	**Karpathos**	**0.40**	**77**	P	Pg	04 10 18.6	+0.2
KARP				S	Sg	04 10 24.3	+0.6
ZKR	**Zakros**	**0.52**	**228**	P	Pg	04 10 20.7	0.0
ZKR				S	Sg	04 10 28.5	+1.0
SIT2	**Siteia**	**0.54**	**242**	P	Pb	04 10 22.0	-0.8
SIT2				S	Sg	04 10 28.8	+0.6
AGNA	**Agios Nikolaos**	**0.84**	**251**	P	Pg	04 10 27.1	+0.2
AGNA				S	Sb	04 10 38.7	-0.7
NPS	**Neapolis**	**0.90**	**258**	P	Pg	04 10 28.3	+0.2
NPS				S	Sb	04 10 40.8	-0.5
NPS				AML	AML		
THR8	**Santorini-Mono**	**1.36**	**314**	P	Pg	04 10 37.1	+0.2
THR6	**Thira Island,**	**1.38**	**311**	P	Pn	04 10 36.6	-0.1
ARG	**Arkhangelos**	**1.39**	**57**	P	Pg	04 10 37.6	+0.2
ARG				S	Sn	04 10 56.2	+0.6
ARG				AML	AML		
SNT5	**Nea Kammeni, S**	**1.41**	**312**	P	Pn	04 10 37.1	0.0
THR3	**Thira Island,**	**1.41**	**313**	P	Pb	04 10 37.5	0.0
THR2	**Thira island,**	**1.42**	**314**	P	Pg	04 10 38.1	+0.2
CMBO	**Columbo, Santo**	**1.45**	**314**	P	Pg	04 10 38.9	+0.3
IDI	**Anoyia**	**1.48**	**264**	P	Pn	04 10 37.9	-0.2
IDI				AML	AML		
SIVA	**Sivas**	**1.60**	**254**	P	Pn	04 10 39.7	0.0
SIVA				AML	AML		
APE	**Apeiranthos**	**1.86**	**330**	P	Pn	04 10 43.5	+0.1
APE				AML	AML		

*ISK **29** 04:10:41.7, 36.21N×27.35E, h8km, ML1.7/8*
AFAD 29 04:10:47.8, 36.41N×27.52E, h7km±3km, ML1.6,
Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YAZI	**Mula-Dat§a-**	**0.27**	**349**	P	Pg	04 10 52.8	-0.4
YAZI				S	Sg	04 10 57.5	+0.6
DAT	**Datca**	**0.32**	**8**	Pg	Pg	04 10 52.9	-1.2
DAT				Sg	Sb	04 11 00.9	-0.4
DAT				AML	AML		
DATC	**Datca-Mugla**	**0.36**	**18**	Pg	Pg	04 10 53.9	-1.0
DATC				Sg	Sb	04 11 02.5	0.0
DATC				AML	AML		
BDRM	**Kayabasi**	**0.66**	**355**	P	Pg	04 11 00.3	-0.1
BDRM				S	Sb	04 11 10.1	-0.8
BDRM				IAML		04 11 13.0	
	comp=N,31nm,0.4s						
BDRM				IAML		04 11 16.0	
	comp=E,22nm,0.6s						
BODT	**Bodrum**	**0.67**	**345**	Pg	Pg	04 10 58.1	-2.6
BODT				Sg	Sb	04 11 10.8	-0.5
BODT				AML	AML		
TURN	**Turunc**	**0.69**	**58**	P	Pb	04 11 01.7	-0.3
TURN				S	Sg	04 11 10.5	+0.5
TURN				IAML		04 11 14.0	
	comp=E,20nm,0.3s						
TURN				IAML		04 11 15.0	
	comp=N,26nm,0.2s						
TURN	**Turunc**	**0.69**	**58**	Pg	Pg	04 10 59.5	-1.5
TURN				Sg	Sb	04 11 12.9	+1.2
TURN				AML	AML		
MLSB	**Milas**	**0.91**	**13**	Pn	Pg	04 11 03.9	-1.3
MLSB				Sn	Sn	04 11 20.2	-0.1
DALY	**Dalyan (Mula)**	**1.00**	**66**	P	Pn	04 11 10.0	+1.9
DALY				IAML		04 11 26.0	
	comp=E,19nm,0.9s						
DALY				IAML		04 11 30.0	
	comp=N,12nm,0.6s						
DALY	**Dalyan (Mula)**	**1.00**	**66**	Pn	Pg	04 11 05.5	-1.4
DALY				Sn	Sn	04 11 22.3	-0.2
MULA	**Mugla, Merkez-**	**1.06**	**37**	P	Pn	04 11 11.3	+2.2
MULA				IAML		04 11 31.0	
	comp=E,15nm,0.5s						
SABU	**Mula-Dalaman**	**1.23**	**70**	P	Pb	04 11 10.9	-0.6
SABU				IAML		04 11 34.0	
	comp=N,9.3nm,0.6s						
SABU				IAML		04 11 37.0	
	comp=E,7.6nm,1.0s						
FETY	**Fethiye**	**1.28**	**79**	Pn	Pn	04 11 09.0	-3.1
FETY				Sn	Sg	04 11 29.0	+0.1
AYDN	**Tasoluk**	**1.28**	**13**	P	Pg	04 11 13.2	+0.9
AYDN				S	Sn	04 11 29.4	-0.2
AYDN				IAML		04 11 32.0	
	comp=N,18nm,0.9s						
AYDN				IAML		04 12 01.0	
	comp=E,15nm,2.2s						
GCAM	**G?zelcaml?**	**1.31**	**350**	P	Pn	04 11 09.9	-2.6
GCAM				IAML		04 11 34.0	
	comp=N,14nm,0.9s						
GCAM				IAML		04 11 52.0	
	comp=E,14nm,1.0s						
IZZE	**Mula-Seydike**	**1.38**	**88**	P	Pn	04 11 12.6	-0.8
IZZE				S	Sb	04 11 29.6	-2.0
IZZE				IAML		04 11 46.0	
	comp=E,10nm,0.5s						
TAVA	**DENIZLI_Tavas**	**1.53**	**46**	P	Pg	04 11 19.4	+2.2
ESEN	**Aydn-Nazilli**	**1.53**	**25**	P	Pn	04 11 15.9	+0.4
APMY	**Acipayam-Deniz**	**1.78**	**53**	Pn	Pn	04 11 16.7	-2.3

*IDC **29** 04:18:51.5±2.3, 41.15N×78.81E, h0km, mb3.8/3, mbtmp3.8/4, ML2.8/2, MS3.8/2, Error ellipse: s-maj=27.6km s-min=13.1km az=162.0*
*SOME **29** 04:18:54.1, 41.37N×78.77E, h5km*
*NNC **29** 04:18:55.7±0.9, 41.35N×78.77E, h0km, mb4.1, mpv3.8, Error ellipse: s-maj=6.4km s-min=4.0km az=164.0*
*KRNET **29** 04:18:56.8±0.1, 41.47N×78.70E, h30km, mb3.6*
ISC 29 04:18:54.6±1.7, 41.35N±0.06×78.74E±0.04, h10km±10km,
n68, σ1°59/105, 32C-19D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**0.80**	**299**	⇑*iP*	**Pg**	**04 19 10.9**	**+0.9**
TARG				⇑*eS*	**Sg**	**04 19 21.3**	**+0.9**
PRZ	**Przheval'sk**	**1.16**	**348**	⇓*eP*	**Pg**	**04 19 16.3**	**-0.6**
PRZ				⇑*iS*	**Sg**	**04 19 30.5**	**-1.5**
KDJ	**Kajisay**	**1.40**	**304**	⇓*eP*	**Pn**	**04 19 20.2**	**-0.2**
KDJ				⇓*iS*	**Sg**	**04 19 37.6**	**-2.1**
ANVS	**Anan'yevo**	**1.64**	**331**	⇓*eP*	**Pn**	**04 19 23.9**	**+0.2**
ANVS				⇓*eS*	**Sn**	**04 19 43.1**	**-1.9**
SATY	**Saty**	**1.73**	**352**	P	**Pg**	**04 19 27.5**	**-0.2**
	33nm,0.2s						
SATY				S	**Sg**	**04 19 52.2**	**+2.1**
	251nm,0.2s						
SATY	**Saty**	**1.73**	**352**	*eP*	**Pg**	**04 19 27.5**	**-0.2**
	33nm,0.2s						
SATY				*eS*	**Sg**	**04 19 52.2**	**+2.1**
	251nm,0.2s						
UZB	**Uzynbulak**	**1.81**	**7**	P	**Pb**	**04 19 28.2**	**+0.3**
	41nm,0.4s						
UZB				S	**Sg**	**04 19 53.1**	**+0.3**
	226nm,0.4s						
UZB	**Uzynbulak**	**1.81**	**7**	*eP*	**Pb**	**04 19 28.2**	**+0.3**
	41nm,0.4s						
UZB				*eS*	**Sg**	**04 19 53.1**	**+0.3**
	226nm,0.4s						
SHLS	**Shalkode**	**1.88**	**16**	Pg	**Pg**	**04 19 31.6**	**+0.8**
	77nm,0.2s						
SHLS				Lg	Lg	04 19 58.5	
	292nm,0.4s						
PDGK	**Podgornoye**	**2.06**	**16**	⇑Pn	**Pb**	**04 19 32.0**	**-0.1**
	24nm,0.6s						
PDGK				⇓Sn	**Sg**	**04 20 00.1**	**-0.6**
	231nm,0.6s						
NRN	**Naryn**	**2.06**	**273**	⇑*eP*	**Pn**	**04 19 31.1**	**+1.5**
NRN				⇑*iS*	**Sn**	**04 19 56.2**	**+0.7**
ULHL	**Ulahol**	**2.07**	**296**	⇑*iP*	**Pn**	**04 19 30.2**	**+0.6**
ULHL				⇑*iS*	**Sn**	**04 19 54.8**	**-0.8**
TNSS	**Tian-Shan**	**2.15**	**322**	Pg	**Pb**	**04 19 35.2**	**+1.3**
	22nm,0.5s						
TNSS				Lg	Lg	04 20 04.9	
	97nm,0.5s						
TNSS	**Tian-Shan**	**2.15**	**322**	*eP*	**Pb**	**04 19 35.2**	**+1.3**
	22nm,0.5s						
TNSS				*eS*	**Sg**	**04 20 04.9**	**+1.2**
	97nm,0.5s						
KURS	**Kuram**	**2.18**	**349**	Pg	**Pb**	**04 19 35.0**	**+0.9**
	32nm,0.6s						
KURS				Lg	Lg	04 20 04.7	
	107nm,0.5s						
KURS	**Kuram**	**2.18**	**349**	*eP*	**Pb**	**04 19 35.0**	**+0.9**
	32nm,0.6s						
KURS				*eS*	**Sg**	**04 20 04.7**	**+0.1**
	107nm,0.5s						
MDOK	**Medeo**	**2.20**	**326**	Pg	**Pb**	**04 19 35.9**	**+1.3**
	43nm,0.4s						
MDOK				Lg	Lg	04 20 06.2	
	321nm,0.5s						
MDOK	**Medeo**	**2.20**	**326**	*eP*	**Pb**	**04 19 35.9**	**+1.3**
	43nm,0.4s						
MDOK				*eS*	**Sg**	**04 20 06.2**	**+0.8**
	321nm,0.5s						
KOTS	**Kotyrbulak**	**2.23**	**328**	Pg	**Pg**	**04 19 36.7**	**-0.7**
	31nm,0.2s						
KOTS				Lg	Lg	04 20 07.4	
	465nm,0.3s						
KOTS	**Kotyrbulak**	**2.23**	**328**	*eP*	**Pg**	**04 19 36.7**	**-0.7**
	31nm,0.2s						
KOTS				*eS*	**Sg**	**04 20 07.4**	**+1.0**
	465nm,0.3s						
KNDC	**Almaty**	**2.28**	**325**	⇑Pn	**Pb**	**04 19 36.2**	**+0.3**
	31nm,0.5s						
KNDC				⇑Lg	Lg	04 20 09.5	
	329nm,0.8s						
AAA	**Alma-Ata**	**2.30**	**325**	Pg	**Pg**	**04 19 38.5**	**-0.1**
	72nm,0.2s						
AAA				Lg	Lg	04 20 10.3	
	18nm,0.2s						
IZV	**Izvestkoviy**	**2.31**	**318**	Pg	**Pg**	**04 19 38.5**	**-0.4**
	25nm,0.2s						
IZV				Lg	Lg	04 20 10.5	
	293nm,0.4s						
IZV	**Izvestkoviy**	**2.31**	**318**	*eP*	**Pg**	**04 19 38.5**	**-0.4**
	25nm,0.2s						
IZV				*eS*	**Sg**	**04 20 10.5**	**+1.7**
	293nm,0.4s						
BOOM	**Boomskoye usch**	**2.38**	**300**	⇑*eP*	**Pn**	**04 19 34.4**	**+0.6**
BOOM				⇑*iS*	**Sn**	**04 20 02.0**	**-1.2**
KTMS	**Ketmen**	**2.41**	**29**	Pg	**Pb**	**04 19 38.6**	**+0.4**
	14nm,0.3s						
KTMS				Lg	Lg	04 20 10.5	
	116nm,0.5s						
KTMS	**Ketmen**	**2.41**	**29**	*eP*	**Pb**	**04 19 38.6**	**+0.4**
	14nm,0.3s						
KTMS				*eS*	**Sg**	**04 20 10.5**	**-1.6**
	116nm,0.5s						
MTBS	**Maitube**	**2.47**	**317**	Pg	**Pb**	**04 19 40.9**	**+1.7**
	12nm,0.2s						
MTBS				Lg	Lg	04 20 14.4	
	165nm,0.3s						
MTBS	**Maitube**	**2.47**	**317**	*eP*	**Pb**	**04 19 40.9**	**+1.7**
	12nm,0.2s						
MTBS				*eS*	**Sg**	**04 20 14.4**	**+0.4**
	165nm,0.3s						
KST	**Kastek**	**2.67**	**310**	Pg	**Pb**	**04 19 44.5**	**+1.9**
	9.6nm,0.4s						
KST				Lg	Lg	04 20 20.6	
	352nm,0.6s						
KST	**Kastek**	**2.67**	**310**	*eP*	**Pb**	**04 19 44.5**	**+1.9**
	9.6nm,0.4s						
KST				*eS*	**Sg**	**04 20 20.6**	**+0.3**
	352nm,0.6s						
BLB	**Baldybastay**	**2.75**	**356**	Pg	**Pb**	**04 19 44.4**	**+0.4**
	9.7nm,0.2s						
BLB				Lg	Lg	04 20 20.9	
	58nm,0.2s						
TKM2	**Tokmak 2**	**2.81**	**305**	⇓*eP*	**Pn**	**04 19 40.5**	**+0.6**
TKM2				⇓*iS*	**Sn**	**04 20 12.4**	**-1.6**
DGS	**Degeres**	**2.90**	**312**	Pg	**Pb**	**04 19 48.3**	**+1.8**
	17nm,0.4s						
DGS				Lg	Lg	04 20 27.5	
	136nm,0.3s						
DGS	**Degeres**	**2.90**	**312**	*eP*	**Pb**	**04 19 48.3**	**+1.8**
	17nm,0.4s						
DGS				*eS*	**Sg**	**04 20 27.5**	**-0.2**
	136nm,0.3s						
ARXS	**Arharly**	**2.94**	**347**	Pg	**Pb**	**04 19 48.2**	**+1.1**
	11nm,0.4s						
ARXS				Lg	Lg	04 20 27.6	
	120nm,0.4s						
ARXS	**Arharly**	**2.94**	**347**	*eP*	**Pb**	**04 19 48.2**	**+1.1**
	11nm,0.4s						
ARXS				*eS*	**Sg**	**04 20 27.6**	**-1.4**
	120nm,0.4s						
KNOS	**Konyrlen**	**3.02**	**6**	Pg	**Pb**	**04 19 49.6**	**+0.9**
	11nm,0.2s						
KNOS				Lg	Lg	04 20 29.2	
	95nm,0.4s						
DJR	**Jarkent**	**3.08**	**14**	Pg	**Pb**	**04 19 50.4**	**+0.8**
	6.3nm,0.3s						
DJR				Lg	Lg	04 20 30.9	
	41nm,0.2s						
DJR	**Jarkent**	**3.08**	**14**	*eP*	**Pb**	**04 19 50.4**	**+0.8**
	6.3nm,0.3s						
DJR				*eS*	**Sg**	**04 20 30.9**	**-2.6**
	41nm,0.2s						
KUU	**Kurty**	**3.10**	**326**	Pg	**Pb**	**04 19 51.0**	**+1.2**
	2.1nm,0.1s						
KUU				Lg	Lg	04 20 31.8	
	86nm,0.5s						
KUU	**Kurty**	**3.10**	**326**	*eP*	**Pb**	**04 19 51.0**	**+1.2**
	2.1nm,0.1s						
KUU				*eS*	**Sg**	**04 20 31.8**	**-2.3**
	86nm,0.5s						
KBK	**Karagaybulak**	**3.11**	**296**	⇓*eP*	**Pn**	**04 19 44.6**	**+0.7**
KBK				⇓*iS*	**Sn**	**04 20 19.8**	**-1.4**
KRBS	**Karabastau**	**3.26**	**317**	Pg	**Pb**	**04 19 54.1**	**+1.5**
	8.7nm,0.2s						
KRBS				Lg	Lg	04 20 37.2	
	71nm,0.5s						
KRBS	**Karabastau**	**3.26**	**317**	*eP*	**Pb**	**04 19 54.1**	**+1.5**
	8.7nm,0.2s						
KRBS				*eS*	**Sg**	**04 20 37.2**	**-2.1**
	71nm,0.5s						
UCH	**Uchtor**	**3.28**	**287**	⇓*iP*	**Pn**	**04 19 47.4**	**+0.9**
UCH				⇓*iS*	**Sn**	**04 20 24.4**	**-1.3**
FRU1	**Bishkek**	**3.39**	**297**	⇓*iP*	**Pn**	**04 19 48.6**	**+1.0**
FRU1				⇓*iS*	**Sn**	**04 20 26.6**	**-1.3**
CHMS	**Chumysh**	**3.39**	**300**	⇑*iP*	**Pn**	**04 19 48.3**	**+0.7**
CHMS				⇑*iS*	**Sn**	**04 20 26.0**	**-1.9**
AAK	**Ala-Archa**	**3.41**	**294**	Pn	**Pn**	**04 19 51.6**	**+3.5**
	0.9nm,0.3s,baz=119,slow=10,SNR=8.8						
AAK				Pg	**Pg**	**04 19 58.6**	**-1.4**
	3.0nm,0.3s,baz=113,slow=13,SNR=24						
AAK				Lg	Lg	04 20 43.6	
	5.9nm,0.3s,baz=322,slow=23,SNR=12						
	6.1nm,0.6s						
AAK				AML	AML		
AAK	**Ala-Archa**	**3.41**	**294**	⇓Pn	**Pn**	**04 19 51.4**	**+3.4**
	25nm,0.6s						
AAK				⇑Pg	**Pb**	**04 19 57.9**	**+2.6**
	47nm,0.5s						
AAK				⇑Lg	Lg	04 20 43.7	
	192nm,0.6s						
AAK	**Ala-Archa**	**3.41**	**294**	⇓*iP*	**Pn**	**04 19 48.9**	**+0.8**
AAK				⇓*eS*	**Sn**	**04 20 27.2**	**-1.5**
USP	**Ospenovka**	**3.68**	**303**	⇓*iP*	**Pn**	**04 19 52.4**	**+0.8**
USP				⇓*iS*	**Sn**	**04 20 33.0**	**-2.1**
SALK	**Salom-Alik**	**3.74**	**264**	⇑*eP*	**Pn**	**04 19 54.2**	**+1.6**
SALK				⇑*iS*	**Sn**	**04 20 36.3**	**-0.5**
SFK	**Sufi-Kurgan**	**4.20**	**253**	⇑*eP*	**Pn**	**04 20 01.0**	**+2.1**
SFK				⇑*iS*	**Sn**	**04 20 48.0**	**-0.1**
ARSB	**Arslanbob**	**4.33**	**272**	⇑*iP*	**Pn**	**04 20 02.3**	**+1.6**
ARSB				⇑*iS*	**Sn**	**04 20 50.2**	**-1.1**
MRKS	**Merke**	**4.33**	**291**	*eP*	**Pg**	**04 20 15.2**	**-2.4**
	6.7nm,0.5s						
MRKS				*eS*	**Sg**	**04 21 13.1**	**-0.6**
	78nm,1.0s						
MAKZ	**Makanchi**	**5.93**	**22**	⇑Pn	**Pn**	**04 20 24.7**	**+2.2**
	0.7nm,0.6s						
MAKZ				⇑Sn	**Sn**	**04 21 35.6**	**+5.0**
	2.3nm,0.7s						
MAKZ				⇑Lg	Lg	04 22 02.7	
	4.1nm,0.8s						
MK31	**Makanchi Array**	**6.01**	**24**	⇑Pn	**Pn**	**04 20 25.2**	**+1.5**
	0.2nm,0.4s,baz=212,slow=15,SNR=16						
MK31				⇑Sn	**Sn**	**04 21 36.7**	**+4.1**
	2.2nm,0.8s,baz=199,slow=22,SNR=4.2						
MK31				⇓Lg	Lg	04 22 03.3	
	0.9nm,0.4s,baz=200,slow=26,SNR=3.9						
MKAR	**Makanchi Array**	**6.01**	**24**	Pn	**Pn**	**04 20 25.3**	**+1.6**
	0.2nm,0.3s,baz=206,slow=12,SNR=8.7						
MKAR				Pg	**Pg**	**04 20 47.2**	**-2.5**
	0.6nm,0.3s,baz=206,slow=16,SNR=6.4						
MKAR				Sn	**Sn**	**04 21 35.8**	**+3.3**
	0.6nm,0.3s,baz=191,slow=13,SNR=5.5						
MKAR				Lg	Lg	04 22 04.3	
	0.9nm,0.3s,baz=202,slow=30,SNR=3.5						
MKAR				AML	AML		
KK31	**Karatay Array**	**6.35**	**289**	⇑Pg	**Pg**	**04 20 52.6**	**-3.6**
	1.3nm,0.5s,baz=98,slow=16,SNR=15						
KK31				⇑Lg	Lg	04 22 19.8	
	6.1nm,0.6s,baz=104,slow=29,SNR=5.5						
KURBB	**Kurchatov Arra**	**9.28**	**359**	Lg	Lg	04 23 46.5	
	0.1nm,0.3s,baz=16,slow=22,SNR=8.7						
KURBB	**Kurchatov Arra**	**9.28**	**359**	⇑Lg	Lg	04 23 50.7	
	32nm,0.7s						
KURK	**Kurchatov**	**9.37**	**360**	⇑Lg	Lg	04 23 49.9	
	6.9nm,0.8s						
SONM	**Songino Array**	**20.67**	**62**	P	**P**	**04 23 33.6**	**-1.1**
	0.8nm,0.9s,baz=258,slow=7.2,SNR=3.5						
	0.8nm,0.9s						
KVAR	**Kislovodsk Arr**	**26.50**	**288**	LR	LR	04 35 41.6	
	comp=Z,249nm,20.3s,baz=84,slow=38						
OBN	**Obninsk**	**30.76**	**311**	LR	LR	04 37 41.6	
	comp=Z,182nm,21.8s,baz=166,slow=36						
FINES	**FINESS Array B**	**37.19**	**321**	P	**P**	**04 26 05.3**	**-0.3**
	3.3nm,1.0s,baz=82,slow=10.0,SNR=4.9						
	3.3nm,1.0s						
ARCES	**ARCESS Array B**	**39.23**	**334**	P	**P**	**04 26 21.5**	**-1.2**
	3.2nm,0.8s,baz=101,slow=6.9,SNR=3.7						
	3.2nm,0.8s						

*BJI **29** 04:24:25.0, 27.40N×54.10E, h10km, mB5.0/9, mb5.0/48, Ms4.2/7, Ms7 3.8/8*
*MOS **29** 04:24:25.9±1.1, 27.33N×54.10E, h10km, mb5.1/63, Error ellipse: s-maj=4.9km s-min=3.3km az=109.0*
*IDC **29** 04:24:26.1±0.5, 27.34N×54.14E, h0km, mb4.7/33, mbtmp4.7/39, ML4.6/6, MS3.7/44, Error ellipse: s-maj=12.4km s-min=9.1km az=10.0*
*THR **29** 04:24:27.4±0.0, 27.44N×54.12E, h10km±6km, ML4.8, Presumed earthquake*
*DSN **29** 04:24:28.8±1.5, 27.45N×54.14E, h10km, ML4.7/19, Error ellipse: s-maj=18.8km s-min=5.4km az=4.0*
*GII **29** 04:24:28.8±0.0, 27.39N×54.10E, h0km, confirmed*
*TEH **29** 04:24:28.4, 27.40N×54.15E, h16km±22km, ML4.7, Presumed earthquake*
*NEIC **29** 04:24:28.7±1.9, 27.42N±0.07×54.07E±0.07, h10km±1km, mb4.9/166, Error ellipse: s-maj=11.3km s-min=10.0km az=163.0*
*OMAN **29** 04:24:29.4±1.2, 27.43N×54.19E, h15km, mb4.8/13, ml4.8/21, Error ellipse: s-maj=13.5km s-min=5.3km az=25.0*
*GFZ **29** 04:24:29.5±0.3, 27°N±4°×5°4E±°, h10km, M4.6/26, mb5.1/26*
*BGR **29** 04:24:52.7, 29.44N×52.30E, h33km, mb4.4*
**ISC 29 04:24:28.0±0.5, 27.38N±0.03×54.

NAZ S Sb 04 25 49.8 -1.4
SNR=43
MDH Madha 2.85 136 eP Pn 04 25 15.2 +1.6
SNR=17
MDH Madha 2.85 136 P Pn 04 25 15.7 +2.2
SNR=18
MDH S Sn 04 25 51.1 +3.2
AJN Ajban 2.91 164 eP Pn 04 25 16.8 +2.5
SNR=12
AJN Ajban 2.91 164 P Pn 04 25 17.1 +2.8
FAQ Al Faqa, Dubai 2.94 153 i P Pn 04 25 17.4 +2.7
SNR=30
FAQ Al Faqa, Dubai 2.94 153 P Pn 04 25 17.8 +3.0
SNR=30
ASUD Al Ashush, Dub 2.95 158 i P Pn 04 25 18.0 +3.1
SNR=32
ASUD Al Ashush, Dub 2.95 158 P Pn 04 25 18.4 +3.5
SNR=32
UOSS Minazif 3.07 142 i P Pn 04 25 17.9 +1.4
SNR=37
UOSS Minazif 3.07 142 P Pn 04 25 18.7 +2.2
UOSS S Sn 04 25 55.6 +2.4
UOSS Minazif 3.07 142 Pn Pn 04 25 18.2 +1.7
UOSS Minazif 3.07 142 Pn Pn 04 25 18.2 +1.7
UOSS Minazif 3.07 142 P Pn 04 25 18.6 +2.1
KAZ2 Kazeron-Fars-I 3.10 316 Pn Pn 04 25 18.5 +1.5
HATD Hatta, Dubai 3.12 144 i P Pn 04 25 19.4 +2.2
SNR=14
HATD Hatta, Dubai 3.12 144 P Pn 04 25 19.9 +2.6
SNR=13
HATD S Sn 04 25 57.6 +3.0
ASHO Ashiyiah 3.20 147 i P Pn 04 25 20.3 +1.9
SNR=237
ASHO Ashiyiah 3.20 147 P Pn 04 25 20.7 +2.3
SNR=237
KHNJ Kahnooj 3.23 79 Pn Pn 04 25 19.6 +0.8
MZWR Madinat Zayed 3.61 183 P Pn 04 25 26.9 +3.0
ALNE Al Ain 3.62 156 i P Pn 04 25 26.4 +2.3
SNR=37
ALNE Al Ain 3.62 156 P Pn 04 25 26.8 +2.6
SNR=37
ALNE S Sn 04 26 09.6 +2.6
KHGB Koh Gabri 3.63 34 Pn Pn 04 25 26.0 +1.5
SOHO SOHO 3.90 145 i P Pn 04 25 29.3 +1.4
SNR=53
SOHO SOHO 3.90 145 P Pn 04 25 29.4 +1.5
SNR=53
SOHO S Sn 04 26 16.2 +2.5
SLWR Sila 3.96 214 P Pn 04 25 30.7 +2.0
ZRDN Zarand Kerman 4.15 30 Pn Pn 04 25 32.8 +1.2
KRM1 Kerman Provinc 4.16 41 Pn Pn 04 25 33.3 +1.6
KBAM BAM 4.21 64 Pn Pn 04 25 33.8 +1.6
KLNJ Kolanjah 4.24 329 ePn Pn 04 25 33.4 +0.5
KLNJ Kolanjah 4.24 329 Pn Pn 04 25 34.0 +1.1
TAFT Taft - Yazd 4.33 1 Pn Pn 04 25 35.6 +1.6
IBAF Bafgh 4.38 16 Pn Pn 04 25 36.3 +1.6
MZR Muzera 4.40 188 i P Pn 04 25 36.4 +1.6
SNR=20
MZR Muzera 4.40 188 P Pn 04 25 36.5 +1.7
SNR=19
ARQ Araqi 4.58 151 P Pn 04 25 39.0 +1.8
SNR=70
ARQ S Sn 04 26 32.4 +1.9
SNR=5.7
DOBD Dorbid, Yazd 4.61 4 Pn Pn 04 25 39.4 +1.6
UMZA Um Al Zommool 4.74 168 P Pn 04 25 41.3 +1.8
UMZA S Sn 04 26 36.6 +2.1
HOQ Hoqain 4.76 142 P Pn 04 25 41.7 +2.0
SNR=30
HOQ S Sn 04 26 35.5 +0.6
YZKH Yazd 5.01 5 ePn Pn 04 25 45.3 +2.0
YZKH IAML 04 27 10.6
comp=Z,220nm,1.0s
BIDO Bidbid 5.28 136 P Pn 04 25 47.7 +0.7
SNR=10
BIDO S Sn 04 26 47.4 -0.5
BSY Bisya 5.40 148 P Pn 04 25 50.5 +2.0
SNR=88
BSY S Sn 04 26 51.7 +1.0
SMDO Samad 5.58 140 P Pn 04 25 53.1 +1.9
SNR=61
SMDO S Sn 04 26 56.1 +0.6
SNR=6.2
ANAR Anarak 5.80 357 Pn Pn 04 25 55.4 +1.2
WSAR Wadi Sarin 5.80 134 P Pn 04 25 56.0 +1.8
SNR=36
WSAR S Sn 04 26 59.0 -1.7
CHBR Chabahar 5.97 106 ePn Pn 04 25 57.2 +0.8
CHBR IAML 04 27 18.5
comp=Z,160nm,1.0s
CHBR Chabahar 5.97 106 Pn Pn 04 25 57.4 +1.0
AMIS Naft Sefid 6.00 317 Pn Pn 04 25 58.3 +1.6
JMDO Jabal Madar 6.16 143 P Pn 04 26 00.1 +1.0
SNR=12
JMDO S Sn 04 27 09.8 +0.2
BSRN Basiran 6.31 42 ePn Pn 04 26 02.1 +0.9
BSRN IAML 04 28 16.4
comp=Z,110nm,1.0s
WBK Wadi Bani Khal 6.48 136 P Pn 04 26 04.4 +1.1
SNR=92
NHDN Nehbandan 6.54 51 Pn Pn 04 26 06.0 +1.7
NGCH Negor - Chabah 6.61 106 Pn Pn 04 26 05.7 +0.6
GTMR Gotvand 6.68 321 ePn Pn 04 26 05.8 -0.3
GTMR IAML 04 27 34.6
comp=Z,300nm,1.0s
TABS Tabas 6.76 22 ePn Pn 04 26 08.7 +1.3
TABS IAML 04 28 23.5
comp=Z,120nm,1.0s
JLN Jalan Bani Buh 7.09 136 P Pn 04 26 12.2 +0.4
SNR=19
MHTO MHTO 7.27 150 P Pn 04 26 15.7 +1.4
SNR=129
KHMZ Khomeyn 7.28 332 ePn Pn 04 26 15.1 +0.5
KHMZ IAML 04 27 44.5
comp=Z,180nm,1.0s
SRVN Saravan 7.36 88 ePn Pn 04 26 16.8 +1.1
SRVN IAML 04 27 45.7
comp=Z,65nm,1.0s
GHVR GHOM 7.48 342 ePn Pn 04 26 18.5 +1.3
GHVR IAML 04 27 50.6
comp=Z,270nm,1.0s
ASAO Ashtian 7.96 335 ePn Pn 04 26 24.6 +0.7
DQM DQM 8.05 156 P Pn 04 26 25.4 +0.4
SNR=63
SHRT Shahrakht 8.21 39 ePn Pn 04 26 29.6 +2.4
DAMV Damavand 8.43 348 ePn Pn 04 26 31.0 +0.7
RAYN Ar Rayn 8.68 246 i P Pn 04 26 33.5 -0.1
SNR=44
RAYN Ar Rayn 8.68 246 P Pn 04 26 33.8 +0.1
RAYN Ar Rayn 8.68 246 P Pn 04 26 33.4 -0.3
RAYN 04 28 07.2
RAYN Ar Rayn 8.68 246 Pn 04 26 33.4 -0.3
RAYN Sn Sn 04 28 07.2 -4.4
RAYN Ar Rayn 8.68 246 P Pn 04 26 33.7 +0.1
comp=Z,104nm,0.6s
DOK Doka 8.72 180 P Pn 04 26 34.8 +0.6
SNR=18
SHRO Shahrood 8.73 10 ePn Pn 04 26 36.6 +2.2
CHTH Charan 8.88 344 ePn Pn 04 26 36.6 +0.1
SHAO Shalim 9.42 171 P Pn 04 26 43.7 0.0
WHFO Wadi Hawf 9.42 182 P Pn 04 26 43.8 0.0
SNR=150
SBZV Sabzevar 9.46 17 ePn Pn 04 26 45.1 +0.6
DMTO DMTO 9.65 175 P Pn 04 26 46.6 -0.3
SNR=25
RBK Rabkut 9.83 180 P Pn 04 26 50.7 +1.3
SNR=9.6
HRA Herat 9.87 43 Pn Pn 04 26 50.9 +0.7
ABTO Aybut 10.01 185 P Pn 04 26 51.7 -0.2
SNR=42
GIDE GILAN DEYLAMAN 10.16 341 ePn Pn 04 26 55.1 +1.1
ZNJK Zanjan 10.34 335 ePn Pn 04 26 56.7 +0.1
MRVT Maraveh tapeh 10.38 9 ePn Pn 04 26 58.7 +1.7
BJRD Bojnurd 10.66 14 ePn Pn 04 27 04.0 +3.2
GRMI Germi 12.53 337 ePn Pn 04 27 27.5 +1.1
HAKT HAKKARI 13.41 322 P Pn 04 27 35.9 -2.7
comp=Z,164nm,0.7s
OZAP Van, Ozalp-Mer 14.08 326 ⇓P Pn 04 27 49.5 +1.8
GEVA Gevas 14.31 322 Pn 04 27 47.5 -3.3
KBL Kabul 14.65 57 P Pn 04 27 55.7 +0.2
KBL Kabul 14.65 57 Pn 04 27 55.7 +0.2
KBL Kabul 14.65 57 P Pn 04 27 59.2 +3.7
comp=Z,44nm,1.1s
GNI Garni 14.92 331 Pn Pn 04 28 00.5 +1.5
comp=Z,11nm,0.3s,baz=280,slow=1.1,SNR=6.8

GNI Sn Sn 04 30 45.1 +0.7
comp=Z,0.9nm,0.3s,baz=206,slow=21,SNR=1.1
comp=Z,11nm,0.6s
GNI AML AML
GNI Garni 14.92 331 Pn 04 27 59.2 +0.2
GNI Garni 14.92 331 P P 04 28 03.0 -1.7
comp=Z,84nm,0.6s
MARD Mardin 14.99 315 Pn 04 27 56.9 -3.1
GURO Guroymak-BITLI 15.05 321 Pn 04 27 58.0 -2.7
ASF Jabal al Asfar 15.73 292 Pn Pn 04 28 06.5 -2.7
comp=Z,2.8nm,0.3s,baz=96,slow=6.8,SNR=20
ASF Sn Sn 04 30 54.6 -8.6
comp=Z,0.7nm,0.3s,baz=100,slow=12,SNR=2.2
ASF Lg Lg 04 33 13.7
baz=131,slow=19
ASF LR LR 04 35 44.3
comp=Z,262nm,18.4s,baz=33,slow=43
comp=Z,6.9nm,0.4s
ASF AML AML
ASF Jabal al Asfar 15.73 292 P Pn 04 28 07.4 -1.8
comp=Z,1.4nmcomp=Z,4µmcomp=Z,338nm,1.0s
ASF AML AML
DIGO Kars 15.75 328 P Pn 04 28 11.9 +1.8
comp=Z,120nm,1.0s
HOMI Horasan 16.19 324 ⇑P Pn 04 28 17.1 +1.4
SWQJ Karak 16.20 289 P P 04 28 22.5 +3.4
HSUJ Al Zarqa 16.26 291 P P 04 28 22.1 +2.5
HSNJ Maan 16.41 284 P P 04 28 23.9 +2.6
comp=Z,3µmcomp=Z,238nm,1.1s
MAK Makhachkala 16.45 343 eP Pn 04 28 12.0 -6.8
MAK pmax pmax
comp=Z,319nm,1.2s
MAK MLR MLR
comp=Z,135nm,11.0s
GHAJ Ghor Haditha 16.64 288 Pn Pn 04 28 19.1 -2.2
GHAJ IAmb IAmb 04 28 26.9
comp=Z,47nm,0.6s
GHAJ Ghor Haditha 16.64 288 P Pn 04 28 21.9 +0.7
comp=Z,62nm,1.4s
LISJ El Lisan 16.70 288 P Pn 04 28 23.7 +1.7
comp=Z,31nm,1.0s
KSHT Keshet 16.78 294 P Pn 04 28 23.4 +0.3
MSBI Mazada 16.82 288 P Pn 04 28 24.6 +1.1
comp=Z,146nmcomp=Z,11nm,0.8s
MSBI Mazada 16.82 288 P Pn 04 28 24.6 +1.1
comp=Z,45nm,0.8s
MSBI Mazada 16.82 288 P Pn 04 28 24.1 +0.6
QRNJ Al-Qirein 16.82 292 P Pn 04 28 24.1 +0.6
comp=Z,7µmcomp=Z,49µmcomp=Z,6µm,0.9s
IDAN Idan 16.82 286 P Pn 04 28 24.1 +0.5
RGMN Argaman 16.83 291 P Pn 04 28 24.1 +0.5
UJAP Al Uja 16.84 290 P Pn 04 28 23.2 -0.5
comp=Z,102nm,1.1s
ZFRI Zfri 16.87 285 P Pn 04 28 25.1 +0.9
ROII Roi 16.88 291 P Pn 04 28 24.6 +0.4
EPOS Posof 16.91 329 P P 04 28 26.8 0.0
comp=Z,62nm,1.3s
NATI Neve Ativ 16.91 295 P Pn 04 28 25.1 +0.5
AQBJ Aqaba 16.91 282 P P 04 28 28.7 +1.9
comp=Z,2µmcomp=Z,117nm,0.8s
KOPT Kop Dagi 16.92 322 Pn 04 28 24.6 -0.6
KOPT IAmb IAmb 04 28 34.4
comp=Z,98nm,1.0s
KNHM Kefar Nahum 16.94 293 P Pn 04 28 25.4 +0.3
BEIL Beino 16.94 299 eP Pn 04 28 24.2 -1.0
HRFI Mount Harif 16.95 283 P Pn 04 28 26.4 +1.2
comp=Z,1µmcomp=Z,107nm,0.9s
HRFI Mount Harif 16.95 283 P Pn 04 28 25.6 +0.4
comp=Z,108nm,0.9s
HRFI Mount Harif 16.95 283 P Pn 04 28 25.6 +0.4
GEM Giv'at Ha'Em 16.96 295 P P 04 28 26.9 -0.3
GEM Giv'at Ha'Em 16.96 295 P Pn 04 28 25.6 +0.4
ZAHL Zahle 16.96 297 eP Pn 04 28 23.6 -1.8
MMLI Mount Malkishu 16.97 292 P Pn 04 28 27.0 +1.5
comp=Z,68nm,0.9s
MMLI Mount Malkishu 16.97 292 P Pn 04 28 25.9 +0.4
EIL Elat 17.00 282 P Pn 04 28 25.6 -0.3
comp=Z,3.0nm,0.3s,baz=130,slow=3.1,SNR=15
EIL S Sn 04 31 23.8 -11
comp=Z,10nm,0.8s,baz=125,slow=18,SNR=1.4
EIL Lg Lg 04 33 53.8
comp=Z,0.2nm,0.3s,baz=345,slow=21,SNR=1.4
EIL LR LR 04 36 22.9
comp=Z,359nm,18.6s,baz=98,slow=42
comp=Z,38nm,1.1s
EIL AML AML
EIL Elat 17.00 282 P P 04 28 27.6 -0.1
comp=Z,454nmcomp=Z,41nm,1.3s
EIL Elat 17.00 282 P Pn 04 28 27.2 +1.4
comp=Z,42nm,1.3s
EIL Elat 17.00 282 P Pn 04 28 26.7 +0.8
PRNI Paran 17.00 285 P P 04 28 28.4 +0.6
comp=Z,2µmcomp=Z,241nm,0.8s
JER Jerusalem 17.03 289 P Pn 04 28 26.9 +0.7
HWQ Hawqa 17.04 298 eP Pn 04 28 23.8 -2.7
SALP Salfit 17.09 290 P P 04 28 30.8 +2.1
MMA0B Mount Meron ar 17.12 294 P Pn 04 28 27.7 +0.3
MMAI Mount Meron Ar 17.12 294 P Pn 04 28 26.7 -0.7
comp=Z,3.6nm,0.3s,baz=86,slow=15,SNR=15
MMAI S Sn 04 31 26.8 -11
comp=Z,1.7nm,0.7s,baz=45,slow=55,SNR=1.4
MMAI Lg Lg 04 33 56.0
comp=Z,1.2nm,0.3s,baz=154,slow=43,SNR=1.2
MMAI LR LR 04 36 40.6
comp=Z,279nm,19.0s,baz=84,slow=43
comp=Z,14nm,0.7s
MMAI AML AML
BHL Bhannes 17.16 297 eP Pn 04 28 23.3 -4.6
AMAZ Amatzia 17.22 288 P P 04 28 35.3 +5.1
BLGI Bet Lehem HaGe 17.22 293 P Pn 04 28 28.9 +0.3
ZRT Zar'it 17.23 294 P Pn 04 28 29.2 +0.4
RMNI Mount Ramon 17.23 285 P Pn 04 28 29.9 +1.1
SLTI Sal'it 17.25 291 P Pn 04 28 29.2 +0.3
GAZ Gaziantep 17.29 309 Pn 04 28 28.8 -0.7
OFRI `Ofer 17.37 292 P Pn 04 28 30.2 -0.3
KZIT Kziot 17.58 286 P P 04 28 35.1 +1.0
KZIT Kziot 17.58 286 P P 04 28 34.4 +0.2
comp=Z,123nm,1.0s
KZIT Kziot 17.58 286 P Pn 04 28 33.7 +0.6
ARPR Arapgir-MALATY 17.60 316 P Pn 04 28 33.1 -0.3
ARPR IAmb IAmb 04 28 39.0
comp=Z,117nm,1.1s
KEMA Kemaliye 17.61 316 P Pn 04 28 33.6 +0.1
comp=Z,303nm,1.0s
NIL Nilore 17.62 65 P Pn 04 28 33.1 -0.5
NIL pmax pmax
comp=Z,73nm,0.9s
NIL Nilore 17.62 65 Pn 04 28 33.1 -0.5
NIL IAmb IAmb 04 28 41.7
comp=Z,73nm,0.8s
NIL Nilore 17.62 65 P P 04 28 35.4 +0.8
comp=Z,111nm,0.8s
KELT Kelkit 17.71 320 P Pn 04 28 34.9 0.0
comp=Z,80nm,0.8s
ANDN Andirin 18.09 309 P P 04 28 41.6 +1.8
comp=Z,262nm,1.0s
CY604 RAF Akrotiri, 18.19 297 Pn 04 28 39.1 -1.2
NCK Nalchik 18.20 335 ⇓iP P 04 28 42.8 +1.9
NEUR Neytrino 18.35 333 ⇓eP P 04 28 43.7 +0.9
KBZ Khabaz 18.66 334 P Pn 04 28 48.0 +1.8
comp=Z,0.5nm,0.3s,baz=118,slow=7.9,SNR=22
comp=Z,30nm,1.0s
KBZ AML AML
BTK Batken 18.75 43 P P 04 28 46.5 -0.5
BTK pmax pmax
comp=Z,73nm,1.0s
BTK Batken 18.75 43 P 04 28 46.5 -0.5
BTK IAmb IAmb 04 28 53.0
comp=Z,73nm,1.0s
SHA1 Shidzhatmaz 18.77 333 ⇓iP Pn 04 28 49.0 +1.2
KIV Kislovodsk 18.94 334 ⇑P Pn 04 28 51.5 +1.8
KIV Kislovodsk 18.94 334 P P 04 28 49.9 +0.8
KIV IAmb IAmb 04 29 01.0
comp=Z,72nm,0.7s
KIV Kislovodsk 18.94 334 ⇑P Pn 04 28 51.5 +1.8
KIV Kislovodsk 18.94 334 P Pn 04 28 51.6 +1.8
comp=Z,87nm,1.2s
ATD Arta Tunnel 18.99 216 P P 04 28 50.8 +1.0
comp=Z,0.7nm,0.3s,baz=303,slow=7.0,SNR=3.7
ATD LR LR 04 36 33.4
comp=Z,112nm,18.9s,baz=23,slow=38
comp=Z,2.5nm,0.3s
ATD AML AML
ATD Arta Tunnel 18.99 216 P P 04 28 49.4 -0.5
BNN Bunyan 19.07 311 P 04 28 51.2 +0.5

CSS Mathiatis 19.30 298 P 04 28 52.5 -0.6
CSS Mathiatis 19.30 298 P P 04 28 53.3 +0.2
comp=Z,596nmcomp=Z,56nm,1.0s
CSS Mathiatis 19.30 298 P Pn 04 28 54.5 +0.4
CSS Mathiatis 19.30 298 P Pn 04 28 54.6 +0.4
comp=Z,56nm,1.0s
TOKA Tokat 19.48 316 P P 04 28 55.8 +0.7
CHM Chimkent 19.54 36 eP P 04 28 56.7 +1.1
CHM Chimkent 19.54 36 eP P 04 28 56.7 +1.1
VSLR Vesyoloye 19.68 328 deP P 04 28 58.3 +1.2
VSLR pmax pmax
comp=Z,78nm,0.9s
SOC Sochi 19.92 328 eP Pn 04 29 01.2 -0.2
SOC e 04 32 48.4
SOC pmax pmax
comp=Z,70nm,0.8s
SOC MLR MLR
comp=Z,211nm,17.0s
LABN Labinsk 20.30 332 eP P 04 29 05.0 +1.1
LABN e 04 29 20.2
LABN eS S 04 32 51.6 +0.2
LABN eSS SnSn 04 33 11.3 +2.2
LABN pmax pmax
comp=Z,77nm,0.8s
KIRS Kirsehir-Merke 20.51 310 ⇓P Pn 04 29 08.6 +0.1
KK31 Karatay Array 20.57 36 i P P 04 29 06.8 0.0
KK31 pmax pmax
comp=Z,22nm,0.9s
KK31 Karatay Array 20.57 36 P 04 29 06.6 -0.2
KKAR Karatay Array 20.57 36 P P 04 29 06.4 -0.4
KKAR Karatay Array 20.57 36 P 04 29 06.3 -0.4
DZA Taraz 20.86 38 eP P 04 29 10.8 +0.8
DZA pmax pmax
comp=Z,20nm,0.6s
DZA Taraz 20.86 38 eP P 04 29 10.9 +0.8
comp=Z,20nm,0.6s
BR131 Keskin Array S 20.99 311 P P 04 29 12.1 +0.6
BR131 pmax pmax
comp=Z,54nm,0.9s
BR131 Keskin Array S 20.99 311 P P 04 29 12.1 +0.6
BR131 IAmb IAmb 04 29 21.0
comp=Z,54nm,0.8s
BRTR Keskin Array B 20.99 311 P P 04 29 12.5 +1.0
comp=Z,29nm,0.8s,baz=130,slow=12,SNR=128
BRTR S Sn 04 33 09.6 -1.7
comp=Z,0.8nm,1.1s,baz=320,slow=44,SNR=1.4
BRTR ScP ScP 04 36 54.6 -0.9
comp=Z,0.7nm,0.7s,baz=151,slow=5.4,SNR=4.3
BRTR LR LR 04 38 22.1
comp=Z,136nm,18.4s,baz=120,slow=40
comp=Z,29nm,0.8s
BRTR Keskin Array B 20.99 311 P 04 29 12.1 +0.6
KKUL Konya-Kulu 21.21 309 P P 04 29 15.8 +1.8
comp=Z,76nm,1.2s
KEPZ Antalya-Kepez 21.25 302 ⇑P P 04 29 15.9 +1.6
ERBR Yeremizino-Bor 21.27 333 eP P 04 29 14.2 -0.1
ERBR e 04 29 33.4
ERBR eS S 04 33 09.7 -0.9
ERBR pmax pmax
comp=Z,34nm,0.8s
ERBR MLR MLR
comp=Z,152nm,13.0s
KSH2 Kashi 21.38 51 P P 04 29 14.5 -1.2
KSH2 pP pP 04 29 19.0 -0.1
KSH2 pmax pmax
comp=Z,55nm,0.7s
KSH2 L L
comp=Z,360nm,10.7s
KSH2 L L
comp=Z,310nm,15.8s
ILGA Ilgaz 21.62 314 P P 04 29 19.4 +1.0
ILGA IAmb IAmb 04 29 29.6
comp=Z,74nm,1.2s
ANN Anapa 21.93 327 eP P 04 29 22.5 +1.1
ANN e 04 29 44.3
ANN eS S 04 33 26.7 +3.4
ANN eSS SnSn 04 33 53.0 +4.1
ANN pmax pmax
comp=Z,48nm,0.9s
BZK Bozkurt 21.95 317 P P 04 29 20.4 -1.3
BZK IAmb IAmb 04 29 35.4
comp=Z,52nm,1.0s
BZK Bozkurt 21.95 317 ⇑P P 04 29 23.2 +1.5
EKS2 Erkin-Say 22.09 41 P P 04 29 25.0 +1.6
SNR=17
UCH Uchtor 22.28 43 P P 04 29 26.2 +0.4
SNR=27
AB31 Akbulak array 22.30 10 eP P 04 29 25.9 +0.5
AB31 pmax pmax
comp=Z,24nm,0.5s
AB31 Akbulak array 22.30 10 P P 04 29 25.7 +0.3
ABKAR Akbulak array 22.30 10 P P 04 29 25.6 +0.3
ISP Isparta 22.38 304 P P 04 29 26.4 -0.1
ISP pmax pmax
comp=Z,27nm,0.7s
ISP Isparta 22.38 304 P P 04 29 26.4 -0.1
ISP IAmb IAmb 04 29 33.1
comp=Z,27nm,0.7s
ELL Elmali 22.49 301 P P 04 29 28.7 +1.0
ELL pmax pmax
comp=Z,114nm,1.0s
ELL Elmali 22.49 301 P P 04 29 28.7 +1.0
AAK Ala-Archa 22.50 42 P P 04 29 29.3 +1.5
comp=Z,25nm,0.9s,baz=222,slow=20,SNR=14
AAK LR LR 04 38 40.7
comp=Z,262nm,18.8s,baz=245,slow=38
comp=Z,25nm,0.9s
AAK Ala-Archa 22.50 42 P P 04 29 29.4 +1.6
SNR=14
AAK Ala-Archa 22.50 42 P P 04 29 28.7 +0.8
AAK IAmb IAmb 04 29 40.1
comp=Z,31nm,0.8s
AAK Ala-Archa 22.50 42 P P 04 29 29.5 +1.6
comp=Z,58nm,1.2s
CIDE Kastamonu/Cide 22.56 315 ⇓P P 04 29 29.6 +1.4
AKAS Kas 22.58 299 P 04 29 26.6 -2.0
AKAS Kas 22.58 299 P P 04 29 28.4 -0.3
comp=Z,397nm,0.9s
NRN Naryn 22.77 46 IAmb IAmb 04 29 48.2
comp=Z,41nm,0.9s
KBK Karagaybulak 22.79 43 P P 04 29 32.0 +1.2
SNR=22
ASAI AK-SAY(Kyrgyzs 22.86 48 P P 04 29 32.5 +0.7
comp=Z,98nm,1.0s
CHMS Chumysh 22.87 42 P P 04 29 33.2 +1.6
SNR=14
USP Ospenovka 22.88 41 P P 04 29 33.1 +1.4
SNR=15
MDUB Mudurnu 22.99 310 P P 04 29 31.3 -1.6
MDUB IAmb IAmb 04 29 43.8
comp=Z,40nm,0.8s
AKTO Aktyubinsk 23.21 6 LR LR 04 40 43.2
comp=Z,141nm,18.9s,baz=214,slow=42
AKTO Aktyubinsk 23.21 6 P P 04 29 35.3 +0.3
AKTO pmax pmax
comp=Z,32nm,0.9s
TKM2 Tokmak 2 23.33 43 P P 04 29 37.0 +0.5
SNR=16
SAHE Sakarya_HENDEK 23.40 311 ⇓P P 04 29 38.2 +1.2
TAVA DENIZLI_Tavas 23.47 302 ⇑P P 04 29 38.0 +0.3
ARG Arkhangelos 23.73 298 P P 04 29 40.5 +0.3
ARG pmax pmax
comp=Z,34nm,0.7s
ARG Arkhangelos 23.73 298 P P 04 29 40.5 +0.3
ARG IAmb IAmb 04 29 48.4
comp=Z,34nm,0.7s
SIM Simferopol' 23.73 323 eP P 04 29 38.4 -1.7
SIM eS S 04 33 48.1 -7.1
SIM pmax pmax
comp=Z,46nm,0.6s
SIM smax smax
comp=E,21nm,0.9s
MANT Manisa 24.07 304 P P 04 29 43.7 +0.1
TARG Taragay, Kyrgy 24.09 47 P P 04 29 44.9 +0.7
TARG pmax pmax
comp=Z,34nm,1.0s
TARG Taragay, Kyrgy 24.09 47 P P 04 29 44.9 +0.7
TARG IAmb IAmb 04 29 49.5
comp=Z,34nm,1.0s
TNSS Tian-Shan 24.22 44 eP P 04 29 45.4 +0.2
TNSS Tian-Shan 24.22 44 eP P 04 29 45.5 +0.2
YLV Yalova 24.28 309 P P 04 29 45.7 +0.3
comp=Z,511nmcomp=Z,32nm,0.8s
AAA Alma-Ata 24.29 44 eP P 04 29 46.2 +0.7
AAA pmax pmax

comp=Z,25nm,0.7s
AAA Alma-Ata 24.29 44 *e*P **P** **04 29 46.2 +0.7**
comp=Z,25nm,0.7s
AYDN Tasoluk 24.31 302 P **P** **04 29 47.0 +1.3**
comp=Z,231nm,0.7s
KUU Kurty 24.33 42 *e*P **P** **04 29 46.7 +0.9**
KUU Kurty 24.33 42 *e*P **P** **04 29 46.8 +0.9**
KARP Karpathos 24.34 296 P **P** **04 29 46.4 +0.4**
comp=Z,1µmcomp=Z,151nm,0.8s
KARP Karpathos 24.34 296 P **P** **04 29 47.3 +1.3**
comp=Z,150nm,0.8s
SILT Sile 24.35 311 ⇑P **P** **04 29 46.7 +0.7**
MDOK Medeo 24.35 44 *e*P **P** **04 29 46.9 +0.7**
MDOK Medeo 24.35 44 *e*P **P** **04 29 46.9 +0.7**
BDRM Kayabasi 24.48 300 ⇓P **P** **04 29 48.3 +1.1**
KLYT Kilyos 24.80 310 P **P** **04 29 50.0 0.0**
comp=Z,40nm,0.8s
BALB Balikesir 24.96 306 P **P** **04 29 51.4 -0.1**
BALB IAmb IAmb 04 29 56.9
comp=Z,24nm,0.7s
ZKR Zakros 25.01 295 P **P** **04 29 53.6 +1.6**
comp=Z,73nm,0.9s
BAND Balkesir-Ban 25.08 308 ⇑P **P** **04 29 54.1 +1.5**
SATY Saty 25.14 45 *e*P **P** **04 29 54.8 +1.5**
SATY pmax pmax
comp=Z,17nm,1.2s
SATY Saty 25.14 45 *e*P **P** **04 29 54.8 +1.5**
comp=Z,17nm,1.2s
BALY Balya 25.19 306 P **P** **04 29 54.9 +1.3**
comp=Z,49nm,0.8s
CTYL Yalikoy Yolu 25.41 310 ⇑P **P** **04 29 57.1 +1.5**
CTYL Yalikoy Yolu 25.41 310 P **P** **04 29 55.8 +0.3**
comp=Z,35nm,1.2s
BELG Belogornoye 25.45 351*c* *i*P **P** **04 29 56.2 +0.4**
BELG pmax pmax
comp=Z,28nm,0.9s
UZB Uzynbulak 25.58 46 *e*P **P** **04 29 57.9 +0.6**
UZB pmax pmax
comp=Z,8.0nm,0.6s
UZB Uzynbulak 25.58 46 *e*P **P** **04 29 57.9 +0.6**
comp=Z,7.6nm,0.6s
VRH Novokhopyorsk 25.58 342 *e*P **P** **04 29 57.6 +0.6**
VRH pmax pmax
comp=Z,126nm,0.7s
SHLS Shalkode 25.86 46 *e*P **P** **04 30 02.7 +2.9**
SHLS pmax pmax
comp=Z,7.0nm,0.6s
SHLS Shalkode 25.86 46 *e*P **P** **04 30 02.7 +2.9**
comp=Z,7.2nm,0.6s
APE Apeiranthos 25.96 299 ⇑P **P** **04 30 01.4 +0.7**
APE Apeiranthos 25.96 299 ⇑P **P** **04 30 01.4 +0.7**
APE Apeiranthos 25.96 299 P **P** **04 30 01.4 +0.7**
comp=Z,58nm,0.7s
PDGK Podgornoye 25.96 46 P **P** **04 30 00.9 +0.2**
PDGK Podgornoye 25.96 46 P **P** **04 30 00.9 +0.2**
PHSR Pinarhisar 25.99 310 ⇓P **P** **04 30 01.8 +1.0**
VORD Divnogorie 26.11 338 *e*P **P** **04 30 00.3 -1.5**
VORD pmax pmax
comp=Z,30nm,0.8s
IDI Anoyia 26.11 295 P **P** **04 30 02.8 +0.7**
EZN Ezine 26.15 305 ⇑P **P** **04 30 03.5 +1.2**
EZN Ezine 26.15 305 ⇑P **P** **04 30 03.5 +1.2**
EZN Ezine 26.15 305 P **P** **04 30 02.2 -0.1**
comp=Z,767nmcomp=Z,31nm,0.8s
MANR Mangalia 26.30 315 ⇓P **P** **04 30 05.0 +1.4**
VSR Storozhevoye 26.36 339 *e*P **P** **04 30 03.0 -1.1**
VSR pmax pmax
comp=Z,20nm,1.0s
MFTR Murfatlar 26.59 316 ⇑P **P** **04 30 07.2 +1.0**
JURR Jurilovca 26.62 317 ⇓P **P** **04 30 07.2 +0.7**
TIRR Tirgusor 26.74 316 ⇑P **P** **04 30 08.4 +0.9**
TIRR Tirgusor 26.74 316 ⇑P **P** **04 30 08.4 +0.9**
TIRR Tirgusor 26.74 316 P **P** **04 30 07.1 -0.4**
comp=Z,22nm,0.9s
TIRR Tirgusor 26.74 316 P **P** **04 30 07.8 +0.2**
comp=Z,22nm,0.9s
VORR Voronezh 26.74 339 *e*P **P** **04 30 05.6 -1.9**
VORR pmax pmax
comp=Z,30nm,1.1s
IMMV Iera Moni Meta 26.87 295 P **P** **04 30 09.9 +1.0**
comp=Z,62nm,0.7s
TLCR 26.88 318 ⇑P **P** **04 30 09.3 +0.5**
TLCR 26.88 318 ⇑P **P** **04 30 09.3 +0.5**
TPGR Topolog 26.94 317 ⇑P **P** **04 30 10.5 +1.0**
ICOR Ion Corvin 26.95 315 ⇓P **P** **04 30 10.5 +1.1**
PURM Purcari 27.04 321 ⇑P **P** **04 30 10.6 +0.4**
PURM Purcari 27.04 321 P **P** **04 30 09.8 -0.4**
comp=Z,77nm,0.8s
HARR Harsova 27.15 316 ⇑P **P** **04 30 12.1 +0.8**
HARR Harsova 27.15 316 ⇑P **P** **04 30 12.1 +0.8**
CFR Carcaliu 27.28 317 ⇑P **P** **04 30 13.0 +0.6**
CFR Carcaliu 27.28 317 ⇑P **P** **04 30 13.0 +0.6**
LOZB Loznitsa 27.37 313 ⇓P **P** **04 30 14.3 +1.1**
CICN Ciocanesti 27.47 315 ⇑P **P** **04 30 15.8 +1.6**
SCTR Scanteiesti 27.63 318 ⇑P **P** **04 30 16.7 +1.1**
LPSR Galich'ya Gora 27.63 340 *e*P **P** **04 30 15.0 -0.5**
LPSR pmax pmax
comp=Z,25nm,0.9s
VLDR Vladesti 27.67 319 ⇑P **P** **04 30 17.0 +1.1**
VARL Varlezi 27.84 319 ⇑P **P** **04 30 18.5 +1.1**
BIR Birlad 28.16 319 ⇑P **P** **04 30 21.5 +1.1**
BIR Birlad 28.16 319 ⇑P **P** **04 30 21.5 +1.1**
GHRR 28.18 318 ⇑P **P** **04 30 22.1 +1.6**
GHRR 28.18 318 P **P** **04 30 20.7 +0.2**
GHRR 28.18 318 P **P** **04 30 21.9 +1.4**
comp=Z,42nm,0.7s
SULR 28.19 315 ⇓P **P** **04 30 22.1 +1.6**
ISR Istrita 28.22 316 P **P** **04 30 21.2 +0.3**
comp=Z,37nm,1.3s
BORK Borovoye 28.33 21 P **P** **04 30 22.2 +0.4**
BORK pmax pmax
comp=Z,17nm,0.8s
BORK Borovoye 28.33 21 P **P** **04 30 22.2 +0.4**
BORK IAmb IAmb 04 30 26.4
comp=Z,17nm,0.8s
BVA2 Borovoye Array 28.33 21 P **P** **04 30 22.1 +0.3**
BVA2 pmax pmax
comp=Z,17nm,0.7s
BISRR Bisoca 28.33 317 ⇑P **P** **04 30 23.7 +1.8**
BISRR Bisoca 28.33 317 P **P** **04 30 22.0 0.0**
comp=Z,35nm,0.8s
BVAR Borovoye Array 28.34 21 P **P** **04 30 22.2 +0.4**
comp=Z,25nm,0.7s,baz=214,slow=7.5,SNR=105
BVAR PcP **PcP** **04 33 34.5 +0.1**
comp=Z,1.1nm,0.5s,baz=82,slow=1.1,SNR=1.9
BVAR ScP **ScP** **04 37 14.4 -1.1**
comp=Z,1.6nm,0.8s,baz=232,slow=4.9,SNR=3.5
comp=Z,25nm,0.7s
SAHR Sahastru 28.44 317 ⇑P **P** **04 30 23.3 +0.4**
VRI Vrincioaia 28.48 318 ⇑P **P** **04 30 24.2 +1.0**
VRI Vrincioaia 28.48 318 ⇑P **P** **04 30 24.2 +1.0**
VRI Vrincioaia 28.48 318 P **P** **04 30 27.4 +4.1**
comp=Z,11nm,0.7s
PLOR Plostina 28.52 318 ⇑P **P** **04 30 25.5 +1.9**
PLOR Plostina 28.52 318 ⇑P **P** **04 30 25.5 +1.9**
NEHR Nehoiu 28.52 317 ⇑P **P** **04 30 25.6 +2.0**
SRS Serrai 28.55 307 P **P** **04 30 25.0 +1.2**
comp=Z,44nm,0.8s
PDRR Padureni 28.55 320 ⇓P **P** **04 30 24.4 +0.6**
DMBR Dumbraveni 28.60 320 ⇓P **P** **04 30 24.7 +0.5**
COPA Copaceanca 28.60 313 ⇑P **P** **04 30 25.8 +1.6**
PLVB Pleven 28.67 312 ⇓P **P** **04 30 26.2 +1.3**
MLR Muntele Rosu 28.77 316 LR LR 04 44 20.1
comp=Z,217nm,18.5s,baz=180,slow=41
MLR Muntele Rosu 28.77 316 ⇑P **P** **04 30 27.9 +2.0**
MLR Muntele Rosu 28.77 316 P **P** **04 30 27.4 +1.5**
MLR Muntele Rosu 28.77 316 ⇑P **P** **04 30 27.9 +2.0**
COVR Voineasa-Covas 28.79 317 ⇓P **P** **04 30 27.5 +1.6**
ITM Ithomi 28.80 298 P **P** **04 30 26.2 +0.1**
SORM Soroca 28.82 323 ⇓P **P** **04 30 25.3 -0.9**
SORM Soroca 28.82 323 ⇓P **P** **04 30 25.3 -0.9**
SORM Soroca 28.82 323 P **P** **04 30 24.7 -1.5**
comp=Z,12nm,1.1s
TESR Tescani 28.87 319 ⇓P **P** **04 30 27.5 +0.9**
TESR Tescani 28.87 319 P **P** **04 30 25.8 -0.8**
comp=Z,30nm,0.7s
TESR Tescani 28.87 319 P **P** **04 30 27.1 +0.5**
comp=Z,30nm,0.8s
EVN Everest 28.92 81 P **P** **04 30 28.7 +0.7**
EVN IAmb IAmb 04 30 29.6
comp=Z,22nm,0.7s
HUMR Humele 28.93 314 ⇑P **P** **04 30 28.8 +1.7**
TURR Turia 29.01 317 ⇑P **P** **04 30 29.7 +1.8**
ARTI Arti 29.15 5 LR LR 04 44 08.2
comp=Z,126nm,18.7s,baz=206,slow=40
ARTI Arti 29.15 5*d* *i*P **P** **04 30 30.0 +1.0**
ARTI 04 31 19.9
ARTI 04 33 34.4
ARTI S **S** **04 35 24.4 +3.6**
ARTI SS **SnSn** **04 36 43.6 -1.6**
ARTI pmax pmax
comp=Z,14nm,1.3s
ARTI Arti 29.15 5 P **P** **04 30 29.5 +0.5**
OZUR 29.17 317 ⇑P **P** **04 30 30.5 +1.2**
GIRR Girov 29.19 319 ⇓P **P** **04 30 29.9 +0.4**
MAKZ Makanchi 29.25 41 ⇑P **P** **04 30 30.8 +0.7**
MAKZ Makanchi 29.25 41 P **P** **04 30 30.6 +0.5**
VOIR 29.30 316 ⇑P **P** **04 30 31.6 +1.0**
VOIR 29.30 316 ⇑P **P** **04 30 31.6 +1.0**
VOIR 29.30 316 P **P** **04 30 30.8 +0.3**
comp=Z,21nm,0.9s
DOPR Dopca 29.34 317 ⇓P **P** **04 30 31.9 +1.0**
BIZ Bicaz 29.41 319 ⇓P **P** **04 30 32.5 +1.0**
MK31 Makanchi Array 29.43 41 *i*P **P** **04 30 31.8 +0.2**
MK31 pmax pmax
comp=Z,14nm,0.5s
MKAR Makanchi Array 29.43 41 P **P** **04 30 32.1 +0.5**
comp=Z,13nm,0.6s,baz=230,slow=8.7,SNR=106
MKAR PcP **PcP** **04 33 36.9 -0.5**
comp=Z,1.2nm,0.6s,baz=239,slow=3.9,SNR=5.3
MKAR ScP **ScP** **04 37 18.0 -1.1**
comp=Z,0.2nm,0.4s,baz=148,slow=42,SNR=2.1
MKAR LR LR 04 42 43.6
comp=Z,132nm,18.7s,baz=245,slow=37
comp=Z,13nm,0.6s
ARR Arges 29.52 315 ⇑P **P** **04 30 34.0 +1.4**
PRAR RASCA 29.57 320 ⇓P **P** **04 30 33.0 +0.2**
KURBB Kurchatov Arra 29.73 32 P **P** **04 30 34.8 +0.6**
comp=Z,8.4nm,0.7s,baz=232,slow=8.8,SNR=87
KURBB PcP **PcP** **04 33 37.7 -0.2**
comp=Z,0.4nm,0.5s,baz=209,slow=1.7,SNR=4.0
KURBB ScP **ScP** **04 37 18.7 -1.2**
comp=Z,0.1nm,0.3s,baz=135,slow=22,SNR=3.8
KURBB LR LR 04 43 19.4
comp=Z,177nm,20.7s,baz=216,slow=38
comp=Z,8.4nm,0.7s
SVE Sverdlovsk 29.79 7 *e*P **P** **04 30 35.6 +0.9**
SVE pmax pmax
comp=Z,24nm,1.2s
KURK Kurchatov 29.83 32 P **P** **04 30 34.8 -0.3**
KURK 04 33 37.7
KURK Kurchatov 29.83 32 P **P** **04 30 35.6 +0.5**
AK07 Malin Array Si 29.91 327 P **P** **04 30 34.6 -1.2**
AK09 Malin Array Si 29.92 328 P **P** **04 30 34.6 -1.3**
AK10 Malin Array Si 29.92 328 P **P** **04 30 34.6 -1.3**
AK06 Malin Array Si 29.94 327 P **P** **04 30 34.8 -1.2**
AKASG Malin Array Be 30.00 328 P **P** **04 30 35.7 -0.9**
comp=Z,6.3nm,0.5s,baz=137,slow=8.1,SNR=36
AKASG LR LR 04 45 19.7
comp=Z,120nm,18.7s,baz=138,slow=42
comp=Z,6.3nm,0.5s
AKBB Malin Array Si 30.00 328*c* *i*P **P** **04 30 35.6 -1.0**
AKBB pmax pmax
comp=Z,24nm,1.1s
AKBB Malin Array Si 30.00 328 P **P** **04 30 35.4 -1.2**
KIEV Kiev 30.01 328 ⇓P **P** **04 30 36.2 -0.4**
KIEV Kiev 30.01 328 P **P** **04 30 35.7 -0.9**
KIEV IAmb IAmb 04 30 36.5
comp=Z,15nm,0.5s
KIEV Kiev 30.01 328 ⇓P **P** **04 30 36.2 -0.4**
MDB Medias 30.04 316 ⇑P **P** **04 30 38.6 +1.5**
MDB Medias 30.04 316 ⇑P **P** **04 30 38.6 +1.5**
BLKB Belogradchik 30.07 311 ⇑P **P** **04 30 38.5 +1.2**
KMPD K-Podol'skiy 30.10 322 P **P** **04 30 35.9 -1.6**
LOT Lotru 30.11 315 ⇑P **P** **04 30 38.3 +0.6**
LUBAR Lubar, Ukraine 30.22 325 P **P** **04 30 37.4 -1.2**
BURAR Bucovina Array 30.28 320 ⇓P **P** **04 30 40.2 +1.0**
BURAR Bucovina Array 30.28 320 P **P** **04 30 39.3 0.0**
BURAR Bucovina Array 30.28 320 ⇓P **P** **04 30 40.2 +1.0**
BUR08 Bucovina Ar. S 30.30 320 P **P** **04 30 39.7 +0.2**
SEM Semipalatinsk 30.42 34 *e*P **P** **04 30 41.1 +0.5**
SEM pmax pmax
comp=Z,11nm,0.9s
SEM Semipalatinsk 30.42 34 *e*P **P** **04 30 41.1 +0.5**
comp=Z,11nm,0.9s
MI29 MI29, Kamyanyy 30.49 326 P **P** **04 30 39.9 -1.0**
comp=Z,104nm,0.5s
OBN Obninsk 30.51 340*de*P **P** **04 30 41.5 +0.5**
OBN *e* 04 31 40.6
OBN pmax pmax
comp=Z,16nm,0.6s
OBN MLR MLR
comp=Z,77nm,11.0s
ARCR ARCALIA 30.52 318 ⇑P **P** **04 30 42.8 +1.5**
MI30 MI30,Zelenitsa 30.53 327 P **P** **04 30 39.7 -1.6**
comp=Z,41nm,0.7s
BOVS Bovan 30.73 310 ⇑P **P** **04 30 44.2 +1.1**
HERR Herculane 30.73 313 ⇑P **P** **04 30 43.9 +0.7**
MOS Moscow 30.74 342 *e*P **P** **04 30 43.7 +0.7**
MOS pmax pmax
comp=Z,26nm,0.7s
CJR Cluj-Napoca 30.79 317 ⇑P **P** **04 30 45.3 +1.6**
CJR Cluj-Napoca 30.79 317 ⇑P **P** **04 30 45.3 +1.6**
MARR Marisel-Cluj 31.07 317 ⇓P **P** **04 30 47.3 +1.2**
MDVR Moldovita 31.15 312 ⇑P **P** **04 30 47.7 +0.8**
SURR Surduc 31.28 314 ⇑P **P** **04 30 49.5 +1.6**
ZSN Zaisan 31.28 42 *e*P **P** **04 30 48.7 +0.7**
ZSN Zaisan 31.28 42 *e*P **P** **04 30 48.7 +0.7**
BMR Baia Mare 31.31 319 ⇑P **P** **04 30 49.6 +1.4**
BMR Baia Mare 31.31 319 ⇑P **P** **04 30 49.6 +1.4**
KIRV Kirov 31.36 355 LR LR 04 45 09.4
comp=Z,145nm,18.9s,baz=152,slow=40
KIRV Kirov 31.36 355*c* *i*P **P** **04 30 49.3 +0.8**
DRGR 31.37 317 ⇑P **P** **04 30 50.3 +1.5**
DRGR 31.37 317 ⇑P **P** **04 30 50.3 +1.5**
BZS Buzias 31.55 314 ⇓P **P** **04 30 51.1 +0.8**
BZS Buzias 31.55 314 ⇓P **P** **04 30 51.1 +0.8**
WMQ Urumqi 31.58 50 *e*P **P** **04 30 51.5 +0.7**
WMQ pmax pmax
comp=Z,16nm,0.7s
SIRR Siria 31.79 315 ⇓P **P** **04 30 54.1 +1.7**
RNPP5 Staryi Chortor 31.97 326 P **P** **04 30 53.1 -0.8**
PDG Podgorica 32.04 307 ⇑P **P** **04 30 54.5 -0.1**
RNPP8 Varash 32.05 326 P **P** **04 30 53.6 -1.0**
PALK Pallele 32.17 124 LR LR 04 43 37.6
comp=Z,62nm,18.1s,baz=302,slow=36
KOLS Kolonicke sedl 32.64 320 *e*P **P** **04 31 01.2 +1.3**
KOLS pmax pmax
comp=Z,24nm,0.8s
KOLS Kolonicke sedl 32.64 320 *e*P **P** **04 31 01.2 +1.3**
KMBO Kilima Mbogo 32.66 213 P P 04 30 55.5 -5.1
baz=39,slow=14
MNK Minsk 33.19 332 *i*P **P** **04 31 04.1 -0.5**
MNK *i* 04 32 14.3
MNK *i* 04 33 46.2
MNK *i*S **S** **04 36 25.1 +1.0**
MNK *i*SS **SnSn** **04 38 26.2 +2.7**
MNK pmax pmax
comp=Z,12nm,0.7s
MNK pmax pmax
comp=N,18nm,1.0s
MNK pmax pmax
comp=E,10.0nm,0.8s
MNK MLR MLR
comp=E,215nm,23.0s
MNK MLR MLR
comp=N,200nm,20.0s
MNK MLR MLR
comp=Z,150nm,17.0s
MNK Minsk 33.19 332 *i*P **P** **04 31 04.2 -0.5**
comp=E,10.0nm,0.8s
MNK *i*P **P** **04 31 04.2 -0.5**
comp=N,18nm,1.0s
MNK *i*P **P** **04 31 04.2 -0.5**
comp=Z,12nm,0.7s,baz=134
MNK *i*PP **PnPn** **04 32 14.3 -0.2**
MNK *i*PPP PPP 04 32 24.9
MNK *i*PcP **PcP** **04 33 46.2 -0.9**
MNK *i*S **S** **04 36 25.1 +1.0**
MNK *i*SS **SnSn** **04 38 26.3 +2.7**
MNK *i*SSS SSS 04 38 41.9
MNK *i*LQ LQ 04 42 16.9
MNK *i*LR LR 04 44 34.9
MNK *i*LRM MLR 04 45 07.2
comp=E,215nm,22.5s
MNK *i*LRM MLR 04 45 53.2
comp=N,200nm,20.1s
MNK *i*LRM MLR 04 46 01.8
comp=Z,150nm,16.8s
KIBK Kibwezi 33.36 210 P **P** **04 31 06.5 -0.1**
KECS Kecovo 33.48 318 *e*P **P** **04 31 08.2 +1.0**
KECS pmax pmax
comp=Z,15nm,0.8s
KECS Kecovo 33.48 318 *e*P **P** **04 31 08.2 +1.0**
PSZ Piszkesteto 33.58 317 ⇓P **P** **04 31 08.6 +0.4**
PSZ Piszkesteto 33.58 317 *e*P **P** **04 31 08.6 +0.4**
PSZ Piszkesteto 33.58 317 ⇓P **P** **04 31 08.6 +0.4**
MORH Mrgy, Hungar 33.69 313 ⇑P **P** **04 31 09.6 +0.5**
SHL Shillong 33.77 84 P **P** **04 31 08.5 -1.8**
SHL Shillong 33.77 84 P **P** **04 31 08.5 -1.8**
NACGM Naroch 33.94 332 *e*P **P** **04 31 14.2 +3.2**
comp=Z,9.0nm,0.8s,baz=133
LANS Liptovska Anna 34.38 319 *e*P **P** **04 31 16.0 +0.9**
LANS pmax pmax
comp=Z,11nm,0.8s
LANS Liptovska Anna 34.38 319 *e*P **P** **04 31 16.0 +0.9**
VYHS Vyhne 34.47 317 *e*P **P** **04 31 15.7 -0.1**
VYHS pmax pmax
comp=Z,11nm,1.3s
VYHS Vyhne 34.47 317 *e*P **P** **04 31 15.7 -0.1**
OJC Ojcow 34.68 320 *e*P **P** **04 31 17.5 -0.1**
ZAA0 Zalesovo Array 34.82 32 P **P** **04 31 18.2 -0.5**
ZALV Zalesovo Beam 34.82 32 P **P** **04 31 18.7 -0.1**
comp=Z,33nm,0.6s,baz=239,slow=9.3,SNR=172
ZALV PcP **PcP** **04 33 51.0 -0.9**
comp=Z,1.1nm,0.5s,baz=207,slow=4.1,SNR=1.7
ZALV LR LR 04 46 19.8
comp=Z,116nm,18.7s,baz=228,slow=38
comp=Z,33nm,0.6s
ZALV Zalesovo Beam 34.82 32 P **P** **04 31 18.4 -0.3**
KLMR Klimovskoe 34.90 348 *e*P **P** **04 31 17.8 -1.5**
KLMR pmax pmax
comp=Z,44nm,0.7s
SUW Suwalki 34.97 328 *e*P **P** **04 31 19.8 -0.2**
SUW Suwalki 34.97 328 P **P** **04 31 19.2 -0.8**
SUW Suwalki 34.97 328 P **P** **04 31 19.2 -0.8**
SUW Suwalki 34.97 328 *e*P **P** **04 31 19.4 -0.6**
BEHE Becsehely 34.99 313 IAmb IAmb 04 31 25.5
comp=Z,11nm,0.8s
JAVC Velka Javorina 35.32 317 *e*P **P** **04 31 24.1 +0.8**
KOGS Kog 35.33 313 *i*P **P** **04 31 23.5 +0.3**
SMOL Smolenice 35.33 317 *e*P **P** **04 31 23.0 -0.3**
SMOL pmax pmax
comp=Z,1.0nm,1.0s
MODS Modra-Piesok 35.37 316 *e*P **P** **04 31 26.1 +2.5**
MODS pmax pmax
comp=Z,29nm,1.4s
MODS Modra-Piesok 35.37 316 *e*P **P** **04 31 26.1 +2.5**
MAUC Maruska 35.44 318 *e*P **P** **04 31 23.2 -1.0**
OKC Ostrava-Krasne 35.45 319 *e*P **P** **04 31 24.3 0.0**
OKC Ostrava-Krasne 35.45 319 *e*P **P** **04 31 24.3 0.0**
GOMU GeErMu 35.48 65 P **P** **04 31 26.3 +1.1**
GOMU pP sP 04 31 30.0 -0.2
GOMU sP pP 04 31 34.5 +5.7
GOMU pmax pmax
comp=Z,39nm,0.8s
PABE Paberze 35.54 331 P **P** **04 31 23.9 -1.1**
PABE Paberze 35.54 331 *e*P **P** **04 31 23.8 -1.2**
BOJS Bojanci 35.69 311 *i*P **P** **04 31 27.0 +0.6**
STEB Steborice 35.71 319 *e*P **P** **04 31 25.9 -0.6**
RONA Rosalia, Austr 35.73 315 *i*P **P** **04 31 26.8 0.0**
comp=Z,2.5nm,0.6s
MBAR Mbarara 35.77 223 LR LR 04 46 30.8
comp=Z,147nm,20.9s,baz=36,slow=37
MORC Moravsky Berou 35.78 319 ⇓P **P** **04 31 27.3 +0.2**
MORC Moravsky Berou 35.78 319 P **P** **04 31 27.0 -0.2**
MORC IAmb IAmb 04 31 31.0
comp=Z,14nm,1.0s
MORC Moravsky Berou 35.78 319 *e*P **P** **04 31 26.9 -0.2**
MORC Moravsky Berou 35.78 319 ⇓P **P** **04 31 27.3 +0.2**
INTR Introdacqua 35.80 305 P **P** **04 31 27.6 +0.1**
INTR IAmb IAmb 04 31 33.1
comp=Z,21nm,0.8s
WINA Alland / Wiene 36.01 315 *e*P **P** **04 31 28.9 -0.2**
comp=Z,3.5nm,0.5s
ARSA Arzberg 36.06 314 *i*P **P** **04 31 29.8 +0.2**
comp=Z,3.5nm,0.8s
CONA Conrad Observa 36.08 315 *e*P **P** **04 31 29.4 -0.5**
comp=Z,2.7nm,1.0s
VRAC Vranov 36.15 317 LR LR 04 49 17.3
comp=Z,77nm,18.5s,baz=84,slow=41
VRAC Vranov 36.15 317 *e*P **P** **04 31 30.4 +0.1**
KRUC Moravsky 36.17 317 *e*P **P** **04 31 30.5 0.0**
SOKA Soboth 36.20 313 *e*P **P** **04 31 31.0 +0.2**
comp=Z,5.9nm,0.9s,SNR=4.5
KRLC Kraliky 36.35 319 *e*P **P** **04 31 30.3 -1.8**
KRLC Kraliky 36.35 319 *e*P **P** **04 31 30.3 -1.8**
OBKA Obir 36.46 312 *e*P **P** **04 31 33.5 +0.4**
comp=Z,6.0nm,0.7s
VSU Vasula 36.47 336*c* *i*P **P** **04 31 31.3 -1.6**
VSU pmax pmax
comp=Z,24nm,0.7s
VSU Vasula 36.47 336 *e*P **P** **04 31 31.2 -1.6**
CRNS Crni Vrh 36.52 311 *i*P **P** **04 31 34.0 +0.4**
ABNA Allensteig Bun 36.62 316 *i*P **P** **04 31 33.9 -0.4**
comp=Z,4.1nm,1.0s
SESA Seetaler Alpe, 36.64 313 *e*P **P** **04 31 35.1 +0.4**
comp=Z,4.2nm,0.8s,SNR=7.4
DPC Dobruska-Polom 36.73 319 *e*P **P** **04 31 34.6 -0.7**
DPC Dobruska-Polom 36.73 319 *e*P **P** **04 31 34.6 -0.7**
DPC Dobruska-Polom 36.73 319 P **P** **04 31 34.4 -0.9**
comp=Z,7.2nm,0.9s
DPC pP **pP** **04 31 37.8 -1.2**
comp=Z,7.2nm,0.9s
TREC Trest 36.81 317 *e*P **P** **04 31 35.5 -0.5**
TREC Trest 36.81 317 *e*P **P** **04 31 35.5 -0.5**
CESX Cesi 36.87 305 IAmb IAmb 04 31 38.7
comp=Z,26nm,1.0s
OSTC Ostas 36.88 319 *e*P **P** **04 31 34.6 -1.9**
OSTC Ostas 36.88 319 *e*P **P** **04 31 34.6 -1.9**
SABO M.te Sabotino 36.94 311 P **P** **04 31 37.1 0.0**
KSP Ksiaz 36.96 320 P **P** **04 31 36.3 -0.8**
comp=Z,10nm,1.0s
UPC Upice 36.98 319 *e*P **P** **04 31 36.3 -1.0**
UPC Upice 36.98 319 *e*P **P** **04 31 36.3 -1.0**
CHVC Chvalec 36.99 319 *e*P **P** **04 31 36.9 -0.5**
CHVC Chvalec 36.99 319 *e*P **P** **04 31 36.9 -0.5**
MOA Molln 37.07 314 *e*P **P** **04 31 38.1 -0.1**
comp=Z,8.3nm,0.9s,SNR=9.1
MYKA Terra Mystica 37.09 312 *e*P **P** **04 31 38.3 -0.1**
comp=Z,8.9nm,0.8s
CKRC Cesky Krumlov 37.37 316 *e*P **P** **04 31 40.0 -0.7**
CKRC Cesky Krumlov 37.37 316 *e*P **P** **04 31 40.0 -0.7**
BIOA Bad Ischl, Aus 37.42 314 *i*P **P** **04 31 41.2 +0.1**
comp=Z,10nm,0.8s,SNR=6.7
KBA Koelnbreinsper 37.42 313 *e*P **P** **04 31 41.4 +0.1**
comp=Z,13nm,0.7s,SNR=10
ARBE Arbavere 37.44 337 *e*P **P** **04 31 39.9 -1.2**
STAL STALIGIAL 37.61 311 P **P** **04 31 42.4 -0.4**
STAL IAmb IAmb 04 31 43.4
comp=Z,13nm,0.8s
ZVC Zvikov 37.66 317 *e*P **P** **04 31 42.2 -0.9**
GERES GERESS Array B 37.75 316 P **P** **04 31 43.0 -1.0**
comp=Z,1.2nm,0.5s,baz=109,slow=7.8,SNR=8.9
GERES PcP **PcP** **04 34 00.5 -0.4**
comp=Z,1.3nm,0.7s,baz=195,slow=2.1,SNR=4.3
comp=Z,1.2nm,0.5s
PVCC Panska Ves 37.83 319 *e*P **P** **04 31 47.7 +3.1**
PVCC Panska Ves 37.83 319 *e*P **P** **04 31 47.7 +3.1**
ABTA Abfaltersbach 37.87 312 *e*P **P** **04 31 44.8 -0.3**
comp=Z,13nm,0.8s,SNR=13
KHC Kasperske Hory 37.92 316 P **P** **04 31 45.1 -0.3**
KHC pmax pmax
comp=Z,10.0nm,0.9s
KHC Kasperske Hory 37.92 316 P **P** **04 31 45.0 -0.3**
KHC Kasperske Hory 37.92 316 *e*P **P** **04 31 44.4 -1.0**
KHC Kasperske Hory 37.92 316 P **P** **04 31 44.5 -1.0**
comp=Z,13nm,1.0s
LESA Schwarzleotal 37.96 313 *e*P **P** **04 31 45.3 -0.4**
comp=Z,4.2nm,0.5s,SNR=11
TEOL Teolo 38.09 310 IAmb IAmb 04 31 59.8
comp=Z,16nm,0.7s
CTI Castel Tesino 38.27 311 P **P** **04 31 48.4 -0.1**
CTI pmax pmax
comp=Z,32nm,0.7s
CTI Castel Tesino 38.27 311 P **P** **04 31 48.4 -0.1**
BRG Berggiesshubel 38.33 319 *e*P **P** **04 31 48.4 -0.4**
BRG Amp 04 31 52.6
comp=Z,4.3nm,0.9s
HSKC Hora Svate Kat 38.53 318 *e*P **P** **04 31 49.2 -1.3**
JOF Joensuu 38.56 343 *e*P **P** **04 31 50.1 -0.4**
WTTA Wattenberg 38.59 312 *i*P **P** **04 31 50.8 -0.5**

comp=Z,11nm,0.6s,SNR=21
WATA Walderalm 38.65 313 *e*P P **04 31 50.9 -0.8**
comp=Z,23nm,0.9s,SNR=17
KEST Kesra 38.78 294 P P **04 31 54.5 +1.7**
comp=Z,7.0nm,0.6s,baz=87,slow=2.5,SNR=13
comp=Z,7.0nm,0.6s
SQTA Sankt Quirin 38.86 312 *e*P P **04 31 52.9 -0.6**
comp=Z,33nm,0.7s,SNR=39
FINES FINESS Array B 38.89 339 P P **04 31 53.2 -0.1**
comp=Z,11nm,0.5s,baz=143,slow=9.7,SNR=180
FINES LR LR 04 50 21.2
comp=Z,90nm,18.1s,baz=184,slow=40
comp=Z,11nm,0.5s
FINES FINESS Array B 38.89 339 P P **04 31 52.8 -0.5**
SALO Salr 38.93 310 IAmb IAmb 04 31 55.2
comp=Z,25nm,0.8s
MOTA Moosalm 38.96 312 *e*P P **04 31 53.3 -1.0**
comp=Z,16nm,0.7s,SNR=24
NKC Novy Kostel 38.99 317 *e*P P **04 31 55.8 +1.4**
NKC Novy Kostel 38.99 317 *e*P P **04 31 55.8 +1.4**
CLL Collm 39.05 319 *i* P P **04 31 54.3 -0.5**
CLL pmax pmax
comp=Z,18nm,1.3s
CLL Collm 39.05 319 P P **04 31 53.9 -0.8**
comp=Z,11nm,1.6s
CLL Collm 39.05 319 *i* P P **04 31 54.3 -0.5**
comp=Z,18nm,1.3s
CLL *e*PP **PnPn 04 33 26.0 -0.6**
CLL *e*PPP PPP 04 33 46.0
CLL L L 04 47 00.0
FETA Feichten 39.12 312 *e*P P **04 31 55.3 -0.4**
comp=Z,30nm,0.8s,SNR=32
RETA Reutte 39.22 313 *i* P P **04 31 55.4 -1.0**
comp=Z,6.4nm,0.7s,SNR=5.3
FUORN Ofenpass-Fuorn 39.34 311 P P **04 31 57.7 +0.1**
GRA1 Grafenberg Arr 39.56 316 P P **04 31 57.9 -1.2**
GRA1 lAmb lAmb 04 32 03.0
comp=Z,19nm,0.9s
GRF Grafenberg Arr 39.56 316 P P **04 31 57.9 -1.2**
GRF pmax pmax
comp=Z,19nm,0.9s
GRF Grafenberg Arr 39.56 316 *e*P P **04 31 58.8 -0.3**
comp=Z,8.3nm,1.0s,baz=112,slow=9.3
GRFO Grafenberg 39.56 316 P P **04 31 59.3 +0.2**
GRFO Grafenberg 39.56 316 P P **04 31 59.3 +0.2**
GTA2 Gaotai 39.57 60 P P **04 32 00.5 +1.0**
GTA2 pmax pmax
comp=Z,48nm,0.7s
BSD Bornholm Skovb 39.62 325 *i* P P **04 31 58.2 -1.3**
BSD lAmb lAmb 04 32 02.0
comp=Z,32nm,0.7s
DAVOX Davos/Dischmat 39.63 311 LR LR 04 50 25.7
comp=Z,67nm,18.7s,baz=81,slow=39
DAVA Damuels 39.75 312 *i* P P **04 32 00.3 -0.6**
comp=Z,34nm,0.5s,SNR=32
TNCH TengChong 39.75 83 ⇑P P **04 32 02.5 +1.3**
TNCH pP pP 04 32 05.3 +0.5
TNCH pmax pmax
comp=Z,63nm,0.9s
TNCH pmax pmax
comp=Z,120nm,4.5s
BLEU Blekinge 39.76 327 *i* P P **04 32 00.7 +0.1**
KEF Keuruu 39.82 339 *e*P P **04 32 00.3 -0.7**
SUF Sumiainen 39.84 340 *e*P P **04 32 00.0 -1.1**
TUE Stuetta 39.92 311 P P **04 32 02.3 -0.1**
TUE Stuetta 39.92 311 P P **04 32 01.3 -1.1**
RAF Rauma 40.06 336 *e*P P **04 32 01.2 -1.8**
KNGR Kungurtug, Tuv 40.16 43⇑*e*P P **04 32 05.3 +1.1**
KNGR pmax pmax
comp=Z,64nm,1.2s
LUNU Lund 40.60 325 *i* P P **04 32 07.7 +0.1**
DEL Delary 40.78 327 *i* P P **04 32 08.5 -0.6**
BJUU Bjuv 41.01 326 *i* P P **04 32 09.0 -2.0**
BFO Black Forest 41.02 313 P P **04 32 11.0 -0.2**
BFO pmax pmax
comp=Z,7.0nm,0.8s
BFO Black Forest 41.02 313 P P **04 32 11.0 -0.2**
COP Copenhagen 41.14 325 *i* P P **04 32 11.4 -0.6**
COP lAmb lAmb 04 32 16.6
comp=Z,72nm,0.8s
VAF Ylistaro 41.15 339 *e*P P **04 32 10.8 -1.2**
SENIN Lac Senin/Sane 41.29 310 lAmb lAmb 04 32 14.2
comp=Z,14nm,0.7s
BNI Bardonecchia 41.49 308 P P **04 32 14.8 -0.5**
BNI pmax pmax
comp=Z,15nm,0.8s
BNI Bardonecchia 41.49 308 P **04 32 14.8 -0.5**
BNI lAmb lAmb 04 32 15.5
comp=Z,15nm,0.8s
FABU Falkenberg 41.59 327 *i* P P **04 32 15.3 -0.4**
CHTO Chiang Mai 41.92 92 P P **04 32 20.1 +1.1**
CHTO pmax pmax
comp=Z,6.0nm,0.6s
CHTO Chiang Mai 41.92 92 P **04 32 20.1 +1.1**
CHTO Chiang Mai 41.92 92 P P **04 32 19.4 +0.4**
comp=Z,11nm,0.9s,comp=Z,11nm,0.9s
CMAR Chiang Mai Arr 42.05 92 P P **04 32 20.6 +0.7**
comp=Z,3.4nm,0.5s,baz=284,slow=9.9,SNR=16
CMAR PcP **PcP 04 34 15.3 +0.3**
comp=Z,3.1nm,0.8s,baz=293,slow=5.2,SNR=6.6
CMAR LR LR 04 52 46.6
comp=Z,16nm,20.5s,baz=310,slow=40
comp=Z,3.4nm,0.5s
CMAR Chiang Mai Arr 42.05 92 P P **04 32 21.1 +1.1**
APA Apatity 42.13 348 *e*P P **04 32 18.8 -1.2**
APA *e* 04 33 58.0
APA *e* 04 34 13.3
APA *e*S S **04 38 36.4 -2.9**
APA *e*SS SS **04 41 45.3 -1.4**
APA pmax pmax
comp=Z,25nm,1.2s
APA MLR MLR
comp=Z,972nm,4.3s
ONAU Onsala 42.16 327 *i* P P **04 32 19.6 -0.8**
LVZ Lovozero 42.21 349⇑*e*P P **04 32 23.4 +2.7**
LVZ pmax pmax
comp=Z,88nm,1.6s
MOY Mondy 42.57 42 *e*P P **04 32 24.9 +0.9**
MOY pmax pmax
comp=Z,27nm,1.3s
LZDM Lanzhou Array 42.67 66 P P **04 32 25.9 +0.5**
comp=Z,8.5nm,0.7s,baz=255,slow=5.8,SNR=9.7
comp=Z,8.5nm,0.7s
HFS Hagfors 42.70 331 P P **04 32 24.3 -0.5**
comp=Z,7.0nm,0.4s,baz=120,slow=8.8,SNR=37
HFS LR LR 04 52 12.5
comp=Z,154nm,19.2s,baz=85,slow=39
comp=Z,7.0nm,0.4s
WLF Walferdange 42.73 315 *d*P P **04 32 24.7 -0.4**
comp=Z,7.6nm,0.8s
LZH Lanzhou 42.79 65 *e*P P **04 32 27.0 +1.0**
LZH sP sP 04 32 39.5 +8.4
LZH pmax pmax
comp=Z,28nm,1.0s
MEM Membach 43.04 316 *d*P P **04 32 29.0 +1.3**
MUD Monsted U'grnd 43.12 325 *i* P P **04 32 28.8 +0.6**
MUD lAmb lAmb 04 32 29.6
comp=Z,14nm,0.6s
RCHB Rochefort 43.42 315 *d*P P **04 32 30.8 +0.1**
BCLA Clavier 43.43 316 *d*P P **04 32 31.2 +0.4**
comp=Z,5.8nm,1.1s
KMI2 Kunming 43.45 81 P P **04 32 32.5 +0.9**
KMI2 pmax pmax
comp=Z,11nm,0.8s
ZAK Zakamensk 43.64 45 *e*P P **04 32 32.8 +0.1**
ZAK pmax pmax
comp=Z,5.0nm,1.4s
BMRD Maredsous 43.74 315 *d*P P **04 32 33.4 +0.1**
comp=Z,6.8nm,1.2s
DOU Dourbes 43.80 315 *d*P P **04 32 33.5 -0.3**
comp=Z,10.0nm,1.0s
OSL Oslo 43.90 330 *e*P P **04 32 33.9 -0.5**
NC602 NORSAR Array S 43.93 331 *e*P P **04 32 34.0 -0.7**
TAM Tamanrasset 44.03 275 P P **04 32 37.0 +0.8**
TAM pmax pmax
comp=Z,38nm,0.7s
TAM Tamanrasset 44.03 275 P **04 32 37.0 +0.8**
NC405 NORSAR Array S 44.05 332 P **04 32 34.8 -0.8**
NC405 lAmb lAmb 04 32 35.5
comp=Z,18nm,0.6s
UCC Uccle 44.10 316 *d*P P **04 32 36.6 +0.5**
comp=Z,7.9nm,1.1s
TLY Talaya 44.16 43 LR LR 04 51 49.3
comp=Z,114nm,18.6s,baz=254,slow=37
HOMB Homborsund 44.19 327 *e*P P **04 32 36.3 -0.4**
HOMB Homborsund 44.19 327 *i* P P **04 32 36.3 -0.4**
NB201 NORSAR Array S 44.19 332 P P **04 32 36.0 -0.8**
NB2 NORSAR Subarra 44.22 332 P P **04 32 35.7 -1.4**
comp=Z,4.2nm,0.7s,baz=118,slow=8.6
NB2 NORSAR Subarra 44.22 332 AMP P **04 32 35.0 -2.1**
NB2 P P **04 32 35.0 -2.1**
NOA NORSAR Array B 44.22 332 P P **04 32 36.1 -0.9**
comp=Z,3.1nm,0.5s,baz=106,slow=10,SNR=27
NOA LR LR 04 51 47.0
comp=Z,54nm,20.2s,baz=135,slow=37
comp=Z,3.1nm,0.5s
BSKQ Steenkerk 44.24 316 *d*P P **04 32 37.9 +0.6**
comp=Z,12nm,0.8s
NAO01 NORSAR Array S 44.27 331 *e*P P **04 32 36.5 -0.8**
LANU Lannavaara 45.00 344 *e*P P **04 32 42.7 -0.5**
VADS Vadso 45.08 348 *e*P P **04 32 44.4 +0.6**
CEST Esterri de Car 45.18 304 P P **04 32 46.2 +1.1**
CEST lAmb lAmb 04 32 53.1
comp=Z,22nm,1.1s
SONM Songino Array 45.20 49 P P **04 32 45.9 +0.7**
comp=Z,4.9nm,0.8s,baz=246,slow=8.6,SNR=23
SONM LR LR 04 52 32.3
comp=Z,140nm,21.1s,baz=233,slow=37
comp=Z,4.9nm,0.8s
SONM Songino Array 45.20 49 P P **04 32 45.7 +0.5**
SKAR Skarslia 45.31 330 *e*P P **04 32 46.0 +0.2**
ARA0 ARCESS Array S 45.35 346 *e*P P **04 32 46.0 0.0**
ARCES ARCESS Array B 45.35 346 P P **04 32 45.9 0.0**
comp=Z,7.2nm,0.5s,baz=142,slow=9.2,SNR=66
ARCES PcP **PcP 04 34 24.5 -0.7**
comp=Z,6.7nm,1.0s,baz=107,slow=3.0,SNR=1.6
ARCES LR LR 04 56 52.4
comp=Z,98nm,18.2s,baz=190,slow=43
comp=Z,7.2nm,0.5s
ARCES ARCESS Array B 45.35 346 P P **04 32 46.0 +0.1**
ARCES lAmb lAmb 04 32 50.1
comp=Z,18nm,0.9s
KTK1 Kautokeino 45.44 345 *e*P P **04 32 46.5 -0.1**
DOMB Dombas 45.61 332 *e*P P **04 32 47.9 -0.2**
BLS5 Blasjo 45.63 328 *e*P P **04 32 48.5 +0.3**
ULN Ulaanbaatar 45.65 49*c* *i*P P **04 32 49.0 +0.2**
ULN pmax pmax
comp=Z,6.0nm,0.6s
ULN Ulaanbaatar 45.65 49 P P **04 32 48.7 0.0**
ULN lAmb lAmb 04 32 49.9
comp=Z,7.8nm,0.6s
ULN Ulaanbaatar 45.65 49 P P **04 32 48.8 0.0**
comp=Z,13nm,0.7s,comp=Z,13nm,0.7s
ODD1 Odda 45.74 329 *e*P P **04 32 50.6 +1.4**
NSS Namsos 45.77 336 *e*P P **04 32 48.8 -0.4**
RAUS Rausandaksla 46.18 339 *e*P P **04 32 52.3 -0.2**
LEIR Leirfjorden 46.28 338 *e*P P **04 32 53.5 +0.2**
NRIK Noril'sk 46.29 16 P P **04 32 54.1 +0.8**
comp=Z,8.4nm,0.8s,baz=226,slow=3.6,SNR=8.2
NRIK LR LR 04 54 13.1
comp=Z,62nm,20.5s,baz=232,slow=39
comp=Z,8.4nm,0.8s
NRIK Noril'sk 46.29 16 P P **04 32 53.8 +0.5**
NRIK lAmb lAmb 04 32 58.0
comp=Z,12nm,1.1s
FAUS Fauske 46.39 340 *e*P P **04 32 54.0 -0.1**
STOK Stokkvaagen 46.45 339 *e*P P **04 32 54.8 +0.2**
MOL Molde 46.48 332 *e*P P **04 32 54.8 -0.1**
JETT Jettan, Norway 46.51 344 *e*P P **04 32 55.7 +0.6**
KONS Konsvik 46.51 339 *e*P P **04 32 55.0 0.0**
AKN Aaknes 46.54 332 *e*P P **04 32 56.2 +0.8**
VAGH Vaagaholmen 46.60 339 *e*P P **04 32 55.9 +0.1**
HAMF Hammerfest 46.61 347 *e*P P **04 32 56.1 +0.3**
TRO Tromso 46.93 344 *e*P P **04 32 58.5 +0.2**
XAN Xi'an 47.12 68 P P **04 33 00.0 -0.4**
XAN pmax pmax
comp=Z,13nm,1.1s
LOF Lofoten 47.38 341 *e*P P **04 33 00.8 -1.0**
WOL Wolverton 47.66 316 *e*P P **04 33 04.2 0.0**
WOL lAmb lAmb 04 33 05.0
comp=Z,27nm,0.8s
CWF Charnwood Fore 47.93 318 *e*P P **04 33 05.9 -0.5**
CWF lAmb lAmb 04 33 06.9
comp=Z,6.1nm,0.8s
EDA Edea 48.04 249 P P **04 33 06.8 -0.9**
EDA lAmb lAmb 04 33 08.1
comp=Z,8.4nm,0.8s
HHC Hu-ho-hao-te 48.62 58 *e*P P **04 33 12.0 0.0**
HHC pmax pmax
comp=Z,14nm,0.5s
HHC pmax pmax
comp=Z,82nm,4.7s
EDMD Edmundbyers 48.68 320 *e*P P **04 33 11.5 -0.7**
EDMD lAmb lAmb 04 33 14.2
comp=Z,17nm,0.6s
MONM Monmouth 48.71 316 *e*P P **04 33 10.9 -1.5**
MONM lAmb lAmb 04 33 12.8
comp=Z,13nm,0.6s
HLM1 Long Mynd 48.85 317 *e*P P **04 33 12.9 -0.5**
HLM1 lAmb lAmb 04 33 14.2
comp=Z,9.5nm,0.7s
ESBB Sonseca Array 49.17 300 lAmb lAmb 04 33 21.1
comp=Z,8.2nm,0.7s
ESDC Sonseca Array 49.17 300 P P **04 33 16.3 +0.1**
comp=Z,5.2nm,0.6s,baz=64,slow=7.6,SNR=85
ESDC PcP **PcP 04 34 39.6 +0.1**
comp=Z,1.3nm,0.9s,baz=55,slow=4.7,SNR=1.4
comp=Z,5.2nm,0.6s
ESDC Sonseca Array 49.17 300 P **04 33 16.1 -0.1**
KESW Keswick, Cumbr 49.29 320 *e*P P **04 33 16.6 -0.3**
KESW lAmb lAmb 04 33 17.7
comp=Z,12nm,0.6s
LLW Llanuwychllyn 49.36 317 *e*P P **04 33 16.7 -0.7**
LLW lAmb lAmb 04 33 17.8
comp=Z,4.4nm,0.8s
DRUM Mains of Drumt 49.38 323 *e*P P **04 33 16.8 -0.7**
DRUM lAmb lAmb 04 33 17.8
comp=Z,16nm,0.6s
EKA Eskdalemuir Ar 49.45 321 P P **04 33 17.3 -0.7**
comp=Z,1.8nm,0.4s,baz=108,slow=8.0,SNR=46
EKA PcP **PcP 04 34 39.3 -0.7**
comp=Z,1.5nm,0.7s,baz=109,slow=5.3,SNR=2.0
EKA LR LR 04 58 41.3
comp=Z,121nm,19.2s,baz=168,slow=42
comp=Z,1.8nm,0.4s
PAB San Pablo 49.48 300 P P **04 33 18.7 +0.1**
PAB pmax pmax
comp=Z,14nm,0.7s
PAB San Pablo 49.48 300 P P **04 33 18.7 +0.1**
PAB lAmb lAmb 04 33 19.6
comp=Z,14nm,0.7s
VOI Vohitsoka 49.51 189 P P **04 33 20.1 +1.3**
VOI lAmb lAmb 04 33 20.9
comp=Z,12nm,0.7s
EDI Edinburgh 49.57 322 *e*P P **04 33 18.4 -0.5**
EDI lAmb lAmb 04 33 20.7
comp=Z,7.7nm,0.6s
MCD Coleburn Disti 49.93 324 *e*P P **04 33 21.1 -0.5**
MCD lAmb lAmb 04 33 21.9
comp=Z,9.1nm,0.8s
INVG Invergeldie, C 50.13 322 *e*P P **04 33 22.4 -0.8**
INVG lAmb lAmb 04 33 23.6
comp=Z,8.5nm,0.7s
EAB Aberfoyle 50.26 322 *e*P P **04 33 23.6 -0.5**
EAB lAmb lAmb 04 33 24.6
comp=Z,6.0nm,0.8s
MD01 Midelt array s 50.66 291 P **04 33 28.6 +0.8**
MD31 MD31 50.66 291 P P **04 33 28.5 +0.8**
MD31 lAmb lAmb 04 33 29.5
comp=Z,15nm,0.8s
TORD Torodi Ar. Bea 50.83 265 P P **04 33 28.8 -0.2**
comp=Z,13nm,0.6s,baz=60,slow=7.6,SNR=95
comp=Z,13nm,0.6s
TORD Torodi Ar. Bea 50.83 265 P P **04 33 28.6 -0.4**
TORD lAmb lAmb 04 33 29.7
comp=Z,12nm,0.8s
LAWE Loch Awe, Argy 50.85 322 *e*P P **04 33 27.9 -0.7**
LAWE lAmb lAmb 04 33 29.0
comp=Z,11nm,0.6s
DSB Dublin 51.03 318 P P **04 33 29.8 -0.2**
ILTH Belurgan, Co L 51.09 319 P P **04 33 30.1 -0.3**
PBRG Braganca 51.13 303 *e*P P **04 33 31.3 +0.3**
IWEX Carrickbyrne, 51.20 317 P P **04 33 31.6 +0.3**
BOD Bodaibo 51.30 36 *e*P P **04 33 31.4 -0.6**
BOD pmax pmax
comp=Z,47nm,0.9s
PBAR Barrancos 51.71 298 *e*P P **04 33 35.5 +0.2**
XLT XiLinHaoTe 51.81 54 *e*P P **04 33 37.0 +0.8**
XLT pP pP 04 33 39.8 -0.1
XLT pmax pmax
comp=Z,12nm,0.8s
XLT pmax pmax
comp=Z,140nm,4.2s
PMRV Marv??o 51.84 300 *e*P P **04 33 36.4 +0.1**
MTE Manteigas 51.85 301 *e*P P **04 33 37.2 +0.7**
PCBR Castelo Branco 51.86 301 *e*P P **04 33 37.0 +0.6**
IDGL Inch Island, C 51.88 320 P P **04 33 36.1 -0.2**
PVRL Vila Real 51.90 302 *e*P P **04 33 37.2 +0.4**
POLO Lamas de Olo 51.95 303 *e*P P **04 33 38.0 +0.7**
PESTR Estremoz 52.05 299 *e*P P **04 33 37.9 -0.1**
PVIS Viseu 52.09 302 *e*P P **04 33 39.2 +0.9**
PCAB Cabril 52.10 303 *e*P P **04 33 39.2 +1.0**
BJI2 Beijing 52.19 59 P P **04 33 36.8 -2.1**
BJI2 pP **pP 04 33 41.0 -1.6**
BJI2 sP **sP 04 33 43.3 -0.8**
BJI2 PP **PP 04 35 35.0 -2.2**
BJI2 S **S 04 40 57.8 -5.7**
BJI2 pmax pmax
comp=Z,7.0nm,0.8s
BJI2 pmax pmax
comp=Z,95nm,5.0s
BJI2 L L
comp=Z,92nm,14.5s
BJI2 L L
comp=Z,76nm,16.8s
WHN Wuhan 52.25 71 P P **04 33 38.5 -1.0**
PGAV Gavieira, Arco 52.26 303 *e*P P **04 33 40.3 +0.8**
PARRA Arraiolos 52.41 299 *e*P P **04 33 40.7 +0.2**
PSARD Sardoal 52.41 300 *e*P P **04 33 41.0 +0.4**
EVO Evora 52.42 299 *e*P P **04 33 40.8 +0.1**
PMTG Montargil 52.52 300 *e*P P **04 33 41.5 +0.2**
PCVE Castro Verde 52.56 298 *e*P P **04 33 41.6 -0.1**
PCAS Casmilo, Conde 52.62 301 *e*P P **04 33 42.7 +0.6**
MOE Montemor 52.69 299 *e*P P **04 33 43.4 +0.7**
IGLA Glengowla, Co 52.84 318 P P **04 33 43.1 -0.4**
PSBE So Bento 52.91 300 *e*P P **04 33 45.0 +0.7**
MORF Marmelete 53.09 298 *e*P P **04 33 47.9 +2.2**
VAL Valentia 53.31 316 P P **04 33 47.4 +0.4**
TIA Tai'an 53.45 64 P P **04 33 48.3 0.0**
TIA pmax pmax
comp=Z,29nm,0.7s
SDSI Sungai Dareh 53.46 114 P P **04 33 47.5 -1.1**
comp=Z,19nm,0.7s,comp=Z,19nm,0.7s
MATP Matopo 53.61 210 LR LR 04 57 53.1
comp=Z,264nm,19.1s,baz=50,slow=38
SPA0 Spitsbergen Ar 53.66 351 *e*P P **04 33 49.6 +0.4**
SPITS Spitsbergen Ar 53.66 351 P P **04 33 49.2 0.0**
comp=Z,7.4nm,0.7s,baz=121,slow=9.8,SNR=6.5
SPITS PcP **PcP 04 34 55.0 -0.3**
comp=Z,12nm,0.9s,baz=106,slow=6.2,SNR=4.6
comp=Z,7.4nm,0.7s
NJ2 Nanjing 55.68 68 *e*P P **04 34 05.5 +1.0**
NJ2 pmax pmax
comp=Z,11nm,0.5s
KDWAN Kaudwane 57.93 212 P **04 34 21.6 +1.0**
KDWAN lAmb lAmb 04 34 38.2
comp=Z,12nm,0.8s
GRTLG Ghanzi 57.98 217 P **04 34 22.2 +1.3**
GRTLG lAmb lAmb 04 34 23.7
comp=Z,11nm,0.8s
TSUM Tsumeb 58.28 221 LR LR 04 59 41.0
comp=Z,70nm,19.1s,baz=344,slow=36
CN2 Changchun 58.56 54 *e*P P **04 34 26.3 +1.6**
CN2 pmax pmax
comp=Z,10.0nm,1.0s
ZEA Zeya 58.58 42 *e*P P **04 34 26.1 +1.4**
ZEA pmax pmax
comp=E,10.0nm,0.6s
ZEA pmax pmax
comp=Z,10.0nm,0.9s
HEH HeiHe 59.01 46 *e*P P **04 34 27.0 -0.8**
HEH pmax pmax
comp=Z,12nm,0.7s
BORG Borgarnes 59.40 331 LR LR 05 04 13.8
comp=Z,55nm,18.7s,baz=90,slow=40
DBIC Dimbokro 59.46 261 P P **04 34 31.3 -0.1**
comp=Z,26nm,0.5s,baz=57,slow=5.9,SNR=51
comp=Z,26nm,0.5s
TIXI Tiksi 59.47 21 LR LR 05 02 39.3
comp=Z,70nm,19.5s,baz=292,slow=38
TIXI Tiksi 59.47 21⇑*e*P P **04 34 30.2 -0.4**
TIXI pmax pmax
comp=Z,11nm,1.0s
TIXI Tiksi 59.47 21 P **04 34 29.2 -1.4**
TIXI lAmb lAmb 04 34 35.2
comp=Z,6.3nm,0.8s
YAK Yakutsk 59.47 32 LR LR 05 02 38.1
comp=Z,114nm,18.5s,baz=267,slow=38
YAK Yakutsk 59.47 32 *e*P P **04 34 29.9 -0.8**
YAK *e**PP **pP 04 34 33.0 -1.5**
YAK *e* 04 35 16.1
YAK *e* 04 36 39.6
YAK *e*S S **04 42 40.6 +0.8**
YAK *e**SS sS **04 42 46.7 +0.8**
YAK *e* 04 44 19.8
YAK *e*SS SS **04 46 36.7 +2.3**
YAK pmax pmax
comp=Z,19nm,1.0s
YAK pmax pmax
comp=N,6.0nm,1.7s
YAK pmax pmax
comp=E,12nm,1.6s
YAK pmax pmax
comp=N,104nm,4.0s
YAK pmax pmax
comp=Z,114nm,4.3s
YAK pmax pmax
comp=E,109nm,4.5s
YAK smax smax
comp=N,100nm,5.3s
YAK smax smax
comp=E,84nm,4.5s
YAK Yakutsk 59.47 32 P P **04 34 29.7 -1.0**
DAG Danmarks Havn 59.62 345 *i* P P **04 34 31.2 -0.3**
DAG lAmb lAmb 04 34 31.9
comp=Z,4.9nm,0.6s
BNX BinXian 59.63 51 ⇓P P **04 34 31.5 -0.6**
BNX pmax pmax
comp=Z,9.0nm,0.8s
DBG Daneborg 59.63 342 *i* P P **04 34 32.5 +0.8**
DBG lAmb lAmb 04 34 37.3
comp=Z,12nm,1.1s
SCO Scoresbysund 59.81 338 *i* P P **04 34 34.0 +1.1**
KOOLE Kule 59.85 216 P **04 34 35.6 +1.7**
NOR Nord 60.30 351 *i* P P **04 34 35.0 -1.1**
NOR lAmb lAmb 04 34 41.1
comp=Z,8.2nm,1.3s
PMAR Madeira 60.67 294 *e*P P **04 34 40.8 +1.0**
KSRS Korea Array 61.68 60 P P **04 34 45.0 -1.2**
comp=Z,4.1nm,0.6s,baz=280,slow=6.4,SNR=15
comp=Z,4.1nm,0.6s
KLR Kul'dur 61.95 47 LR LR 05 04 59.3
comp=Z,44nm,19.4s,baz=278,slow=39
KLR Kul'dur 61.95 47*c* *i*P P **04 34 46.6 -1.3**
KLR pmax pmax
comp=Z,9.0nm,0.9s
BOSA Boshof 62.17 209 P P **04 34 50.0 +0.4**
comp=Z,4.4nm,0.7s,baz=31,slow=7.0,SNR=11
BOSA LR LR 05 02 11.0
comp=Z,75nm,18.9s,baz=23,slow=36
comp=Z,4.4nm,0.7s
BOSA Boshof 62.17 209 P P **04 34 49.9 +0.2**
BOSA lAmb lAmb 04 35 09.2
comp=Z,6.3nm,0.8s
BBJI Bungbulang 62.28 116 P P **04 34 48.6 -2.0**
BBJI lAmb lAmb 04 35 01.5
comp=Z,11nm,0.9s
USRK Ussuriysk Ar. 63.12 52 P P **04 34 54.6 -1.2**
comp=Z,3.0nm,0.7s,baz=267,slow=6.2,SNR=5.3
comp=Z,3.0nm,0.7s
SUMG Summit 64.90 341 P P **04 35 08.0 +0.5**
SUMG pmax pmax
comp=Z,27nm,1.0s
SUMG Summit 64.90 341 P **04 35 08.0 +0.5**
SUMG Summit 64.90 341 *i* P P **04 35 08.0 +0.5**
SUMG lAmb lAmb 04 35 12.9
comp=Z,35nm,1.1s
JNU Nakatsue 65.19 64 P P **04 35 09.1 -0.5**
comp=Z,8.1nm,0.9s,baz=2.8,slow=12,SNR=3.6
comp=Z,8.1nm,0.9s
JNU LR LR 05 07 17.5
comp=Z,46nm,19.6s,baz=58,slow=39
NEEM North Greenlan 66.71 347 *i* P P **04 35 19.3 +0.4**
NEEM lAmb lAmb 04 35 20.3
comp=Z,8.5nm,0.8s

SUR	**Sutherland**	**67.35**	**210**	LR	LR	05 04 46.8		
	comp=Z,87nm,20.1s,baz=20,slow=36							
MMSI	**Mamuju**	**69.09**	**105**	P	**P**	**04 35 34.1**	**-0.5**	
	comp=Z,35nm,0.9s,comp=Z,35nm,0.9s							
SEY	**Seymchan**	**69.62**	**29**	P	**P**	**04 35 37.3**	**+0.3**	
	comp=Z,13nm,0.6s,baz=282,slow=7.2,SNR=44							
	comp=Z,13nm,0.6s							
SEY	**Seymchan**	**69.62**	**29**⇑	*i*P	**P**	**04 35 37.5**	**+0.5**	
SEY				pmax	pmax			
	comp=Z,13nm,0.7s							
YSS	**Yuzhno-Sakhali**	**69.65**	**47**	*e*P	**P**	**04 35 36.3**	**-1.2**	
YSS				pmax	pmax			
	comp=Z,20nm,0.7s							
YSS				MLR	MLR			
	comp=Z,400nm,15.0s							
MAJO	**Matsushiro**	**69.82**	**59**⇑	*e*P	**P**	**04 35 40.1**	**+1.2**	
MAJO				pmax	pmax			
	comp=Z,26nm,1.9s							
MJAR	**Matsushiro Arr**	**69.83**	**59**	P	**P**	**04 35 38.0**	**-0.8**	
	comp=Z,1.8nm,0.7s,baz=283,slow=6.3,SNR=6.9							
	comp=Z,1.8nm,0.7s							
MA2	**Magadan**	**70.04**	**33**	LR	LR	05 08 12.6		
	comp=Z,46nm,18.2s,baz=264,slow=38							
SFJD	**Kangerlussuaq**	**70.63**	**336**	LR	LR	05 06 40.4		
	comp=Z,43nm,18.4s,baz=76,slow=36							
KAPI	**Kappang**	**70.99**	**106**	P	**P**	**04 35 46.6**	**+0.4**	
	comp=Z,25nm,1.3s,comp=Z,25nm,1.3s							
BILL	**Bilibino**	**72.68**	**21**⇓	*e*P	**P**	**04 35 55.9**	**+0.4**	
BILL				pmax	pmax			
	comp=Z,16nm,1.1s							
PETK	**Petropavlovsk-**	**76.17**	**37**	LR	LR	05 12 57.0		
	comp=Z,53nm,19.5s,baz=308,slow=38							
RES	**Resolute Bay**	**76.21**	**352**	LR	LR	05 12 55.4		
	comp=Z,29nm,20.7s,baz=15,slow=38							
C18K	**Utukok River**	**80.80**	**12**	IAmb	IAmb	04 36 42.8		
	comp=Z,13nm,0.7s							
A36M	**Sachs Harbour**	**80.90**	**360**		**P**	**04 36 42.3**	**+0.4**	
D19K	**Kuna River**	**81.50**	**11**	IAmb	IAmb	04 36 46.4		
	comp=Z,14nm,0.8s							
C24K	**Franklin Bluff**	**81.78**	**8**	IAmb	IAmb	04 36 48.6		
	comp=Z,16nm,1.0s							
D22K	**Ayikyak River**	**82.03**	**9**	IAmb	IAmb	04 36 49.6		
	comp=Z,14nm,0.8s							
D23K	**Nanushuk River**	**82.23**	**9**	IAmb	IAmb	04 36 50.7		
	comp=Z,8.8nm,0.7s							
E21K	**Killik River**	**82.23**	**10**	IAmb	IAmb	04 36 52.6		
	comp=Z,10nm,0.9s							
D24K	**Happy Valley**	**82.30**	**8**	IAmb	IAmb	04 36 53.2		
	comp=Z,8.8nm,0.8s							
C27K	**Jago River**	**82.41**	**6**	IAmb	IAmb	04 36 54.7		
	comp=Z,8.3nm,0.8s							
D25K	**Kavik River**	**82.43**	**7**	IAmb	IAmb	04 36 51.8		
	comp=Z,7.8nm,0.8s							
TOLK	**Toolik Lake Re**	**82.68**	**9**		**P**	**04 36 52.3**	**+0.9**	
TOLK				IAmb	IAmb	04 36 53.1		
	comp=Z,11nm,0.7s							
FITZ	**Fitzroy Crossi**	**82.72**	**115**	P	**P**	**04 36 52.4**	**+0.1**	
F19K	**Shaleruckik Mo**	**83.03**	**12**	IAmb	IAmb	04 36 53.6		
	comp=Z,8.6nm,0.8s							
BLDU	**Ballidu**	**83.05**	**130**	P	P	04 36 49.6	-4.1	
F20K	**Avaraart Lake**	**83.20**	**11**	IAmb	IAmb	04 36 54.9		
	comp=Z,7.2nm,0.7s							
E24K	**Your Creek**	**83.36**	**8**	IAmb	IAmb	04 36 59.8		
	comp=Z,9.2nm,1.0s							
F21K	**Alatna River**	**83.42**	**10**	IAmb	IAmb	04 37 01.5		
	comp=Z,9.8nm,1.0s							
C36M	**Paulatuk**	**83.55**	**359**		**P**	**04 36 55.5**	**-0.3**	
SCHQ	**Schefferville**	**83.77**	**330**	P	**P**	**04 36 57.0**	**-0.3**	
	comp=Z,16nm,0.8s,baz=38,slow=4.1,SNR=15							
	comp=Z,16nm,0.8s							
E28M	**Babbage River**	**83.77**	**5**	IAmb	IAmb	04 36 58.7		
	comp=Z,5.3nm,0.8s							
F24K	**Squaw Lake**	**83.96**	**8**	IAmb	IAmb	04 37 02.0		
	comp=Z,7.0nm,0.7s							
E27K	**Coleen River**	**84.01**	**6**	IAmb	IAmb	04 37 02.5		
	comp=Z,8.0nm,1.1s							
KNRA	**Kununurra**	**84.03**	**111**	P	**P**	**04 36 59.3**	**+0.2**	
	comp=Z,8.1nm,1.2s							
G21K	**Allakaket**	**84.07**	**11**	IAmb	IAmb	04 36 59.3		
	comp=Z,7.5nm,0.7s							
E29M	**Blow River**	**84.11**	**4**	IAmb	IAmb	04 37 02.6		
	comp=Z,9.1nm,1.1s							
F25K	**Christian Rive**	**84.17**	**7**	IAmb	IAmb	04 37 02.3		
	comp=Z,5.8nm,0.8s							
KLBR	**Kellerberrin**	**84.35**	**130**	P	**P**	**04 36 59.3**	**-1.1**	
	comp=Z,26nm,0.8s							
G23K	**Bananza Creek**	**84.43**	**9**	IAmb	IAmb	04 37 01.4		
	comp=Z,5.7nm,0.9s							
INK	**Inuvik**	**84.43**	**3**	IAmb	IAmb	04 37 03.1		
	comp=Z,6.4nm,1.0s							
BMAR	**Burnt Mountain**	**84.44**	**7**		**P**	**04 37 01.8**	**+1.3**	
IMAR	**Indian Mountai**	**84.51**	**11**	P	**P**	**04 37 00.8**	**0.0**	
F28M	**Old Crow**	**84.72**	**5**	IAmb	IAmb	04 37 06.3		
	comp=Z,11nm,1.1s							
H21K	**Melozitna Rive**	**84.97**	**11**	IAmb	IAmb	04 37 04.6		
	comp=Z,9.2nm,0.8s							
G26K	**Porcupine Rive**	**84.99**	**7**	IAmb	IAmb	04 37 07.0		
	comp=Z,5.2nm,0.9s							
I21K	**Tanana**	**85.55**	**11**	IAmb	IAmb	04 37 11.7		
	comp=Z,6.8nm,0.7s							
KDU	**Kakadu**	**85.68**	**107**	P	**P**	**04 37 07.6**	**+0.2**	
	comp=Z,11nm,0.8s							
MLY	**Manley**	**85.89**	**10**	IAmb	IAmb	04 37 09.0		
	comp=Z,9.0nm,0.8s							
H27K	**Steamboat Moun**	**85.92**	**6**	IAmb	IAmb	04 37 09.6		
	comp=Z,9.5nm,0.7s							
I23K	**Minto, Yukon-K**	**85.99**	**10**	IAmb	IAmb	04 37 11.8		
	comp=Z,9.2nm,1.2s							
EPYK	**Eagle Plains**	**86.18**	**4**	IAmb	IAmb	04 37 09.9		
	comp=Z,9.6nm,0.8s							
H29M	**Whitestone**	**86.21**	**5**	IAmb	IAmb	04 37 20.1		
	comp=Z,15nm,1.1s							
J18K	**Innoko River**	**86.23**	**13**	IAmb	IAmb	04 37 13.3		
	comp=Z,8.7nm,0.9s							
COLA	**College**	**86.47**	**9**⇓	*i*P	**P**	**04 37 10.8**	**+0.3**	
COLA				pmax	pmax			
	comp=Z,33nm,3.5s							
I26K	**Coal Creek Min**	**86.65**	**7**	IAmb	IAmb	04 37 15.3		
	comp=Z,10nm,1.1s							
IL31		**86.70**	**9**	IAmb	IAmb	04 37 11.8		
	comp=Z,5.2nm,0.8s							
ILAR	**Eielson Array**	**86.70**	**9**	P	**P**	**04 37 11.1**	**-0.6**	
	comp=Z,3.3nm,0.6s,baz=322,slow=4.5,SNR=50							
ILAR				PKKPbc	**PKKPbc**	**04 55 05.8**	**-1.8**	
	comp=Z,0.7nm,0.7s,baz=186,slow=2.1,SNR=8.8							
ILAR				LR	LR	05 21 11.3		
	comp=Z,26nm,19.0s,baz=28,slow=39							
	comp=Z,3.3nm,0.6s							
ILAR	**Eielson Array**	**86.70**	**9**		**P**	**04 37 10.7**	**-1.0**	
H31M	**Peel River**	**86.89**	**3**	IAmb	IAmb	04 37 13.1		
	comp=Z,9.6nm,0.8s							
HDA	**Harding Lake**	**87.04**	**9**	IAmb	IAmb	04 37 13.4		
	comp=Z,8.1nm,0.8s							
J25K	**Salcha River,**	**87.05**	**8**	IAmb	IAmb	04 37 24.0		
	comp=Z,9.4nm,1.0s							
I29M	**Ogilvie Camp,**	**87.06**	**5**	IAmb	IAmb	04 37 19.2		
	comp=Z,6.0nm,0.8s							
I30M	**Mount Dempster**	**87.34**	**4**	IAmb	IAmb	04 37 15.8		
	comp=Z,9.0nm,0.8s							
WRKA	**Warakurna**	**88.43**	**119**	P	**P**	**04 37 21.1**	**+0.4**	
	comp=Z,6.1nm,1.3s							
YKA	**Yellowknife Ar**	**89.98**	**355**	P	**P**	**04 37 27.5**	**+0.2**	
	comp=Z,3.9nm,0.7s,baz=7.7,slow=5.0,SNR=42							
	comp=Z,3.9nm,0.7s							
YKA	**Yellowknife Ar**	**89.98**	**355**	P	**P**	**04 37 27.7**	**+0.4**	
YKA	**Yellowknife Ar**	**89.98**	**355**	P	**P**	**04 37 27.7**	**+0.4**	
WRA	**Warramunga Arr**	**90.75**	**112**	P	**P**	**04 37 30.9**	**-0.7**	
	comp=Z,2.0nm,0.6s,baz=313,slow=4.0,SNR=42							
WRA				PKKPbc	**PKKPbc**	**04 54 57.4**	**+0.2**	
	comp=Z,0.5nm,0.7s,baz=122,slow=2.4,SNR=5.7							
	comp=Z,2.0nm,0.6s							
WRA	**Warramunga Arr**	**90.75**	**112**	P	**P**	**04 37 31.2**	**-0.4**	
WRA	**Warramunga Arr**	**90.75**	**112**	P	**P**	**04 37 31.2**	**-0.4**	
WRAB	**Tennant Creek**	**90.75**	**112**⇓	*i*P	**P**	**04 37 31.1**	**-0.5**	
WRAB				pmax	pmax			
	comp=Z,5.0nm,0.7s							
ASAR	**Alice Springs**	**92.18**	**115**	P	**P**	**04 37 37.5**	**-0.6**	
	comp=Z,2.3nm,0.7s,baz=302,slow=4.5,SNR=25							
	comp=Z,2.3nm,0.7s							
KDAK	**Kodiak Island**	**92.25**	**14**	LR	LR	05 27 49.6		
	comp=Z,67nm,19.2s,baz=13,slow=41							
DLBC	**Dease Lake**	**94.44**	**2**	LR	LR	05 26 56.0		
	comp=Z,17nm,18.1s,baz=22,slow=40							
MAW	**Mawson**	**94.92**	**177**	LR	LR	05 13 21.5		
	comp=Z,20nm,18.2s,baz=20,slow=31							
QSPA	**South Pole Qui**	**117.22**	**180**	PKP	**PKPdf**	**04 43 12.0**	**-0.8**	
	comp=Z,3.2nm,0.8s,baz=200,slow=1.6,SNR=17							
LPAZ	**La Paz**	**125.67**	**269**	PKP	**PKPdf**	**04 43 31.3**	**+0.2**	

comp=Z,1.2nm,0.7s,baz=186,slow=4.0,SNR=5.5

*TEH **29** 04:41:32.1,30.˚68N×50.˚04E,h15km±17km, ML3.4, Presumed earthquake*
*OMAN **29** 04:41:41.4±0.7,30.˚28N×50.˚71E,h10km±29km, mb3.6/9, Error ellipse: s-maj=54.7km s-min=5.5km az=323.0*
ISC 29 04:41:33.8±0.9,30.˚55N±0.˚07×50.˚10E±0.˚07,h25km,n32,
σ2s17/42,Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABEH	**Behbahan**	**0.14**	**69**	Pg	**Pb**	**04 41 37.3**	**-1.6**
KLNJ	**Kolanjah**	**1.36**	**70**	Pg	**Pn**	**04 41 58.9**	**+1.3**
AHWZ	**Ahwaz**	**1.47**	**302**	Sg	**Sb**	**04 42 19.2**	**+0.3**
KAZ2	**Kazeron-Fars-I**	**1.64**	**124**	Pg	**Pb**	**04 42 06.2**	**+2.7**
IBRJ	**Brojen**	**1.68**	**36**	Pg	**Pn**	**04 42 04.0**	**+2.1**
ZNGN	**Zangian**	**1.69**	**22**	Pg	**Pn**	**04 42 03.2**	**+1.1**
JHBN	**Jahan bin**	**1.75**	**16**	Pg	**Pn**	**04 42 04.3**	**+1.4**
SHI	**Shiraz**	**2.28**	**113**	Pn	**Pb**	**04 42 14.0**	**-0.4**
IRAM	**Rameshed**	**2.32**	**57**	Pn	**Pn**	**04 42 13.4**	**+2.7**
DSBU	**Dashti - Bushe**	**2.40**	**155**	Pn	**Pb**	**04 42 16.0**	**-0.4**
IGAR	**Gharneh**	**2.48**	**41**	Pn	**Pn**	**04 42 14.8**	**+1.8**
IKFM	**Kafar-mosalman**	**3.53**	**328**	Pn	**Pn**	**04 42 27.5**	**+0.4**
TAFT	**Taft - Yazd**	**3.68**	**70**	Pn	**Pn**	**04 42 32.2**	**+2.8**
IMEH	**Mehriz**	**3.97**	**77**	Pn	**Pn**	**04 42 36.3**	**+3.0**
DOBD	**Dorbid, Yazd**	**4.04**	**68**	Pn	**Pn**	**04 42 36.7**	**+2.5**
HAGD	**Aghdareh**	**4.34**	**349**	Pn	**Pn**	**04 42 38.8**	**+0.4**
ILBA	**Ilam Banvizeh**	**4.51**	**314**	Pn	**Pn**	**04 42 40.2**	**-0.4**
IALM	**Almabolaq**	**4.60**	**340**	Pn	**Pn**	**04 42 42.4**	**+0.4**
SNQR	**Sonqor, Kerman**	**4.78**	**335**	Pn	**Pn**	**04 42 44.6**	**+0.1**
IDHR	**Dehrash**	**5.19**	**324**	Pn	**Pn**	**04 42 50.0**	**-0.1**
SHME	**Shamm**	**6.96**	**129**	P	**Pn**	**04 43 15.3**	**+1.0**
SHME				S	**Sn**	**04 44 29.7**	**-3.0**
BANOM	**Banah**	**7.15**	**129**	P	**Pn**	**04 43 16.7**	**-0.2**
BANOM				S	**Sn**	**04 44 34.5**	**-2.8**
MASF	**Masafi**	**7.44**	**132**	P	**Pn**	**04 43 22.4**	**+1.6**
MASF				S	**Sn**	**04 44 41.5**	**-2.9**
ASUD	**Al Ashush, Dub**	**7.50**	**141**	P	**Pn**	**04 43 23.7**	**+2.0**
ASUD				S	**Sn**	**04 44 44.5**	**-1.6**
	SNR=8.5						
MDH	**Madha**	**7.58**	**132**	P	**Pn**	**04 43 24.0**	**+1.3**
	SNR=6.6						
MDH				S	**Sn**	**04 44 44.9**	**-2.9**
UOSS	**Minazif**	**7.77**	**134**	P	**Pn**	**04 43 27.4**	**+2.1**
UOSS				S	**Sn**	**04 44 49.8**	**-2.7**
HATD	**Hatta, Dubai**	**7.81**	**135**	P	**Pn**	**04 43 29.4**	**+3.5**
HATD				S	**Sn**	**04 44 51.4**	**-2.3**
ASHO	**Ashiyiah**	**7.88**	**136**	P	**Pn**	**04 43 31.2**	**+4.3**
	SNR=10.0						
ASHO				S	**Sn**	**04 44 52.7**	**-2.5**
MZR	**Muzera**	**8.10**	**157**	P	**Pn**	**04 43 32.9**	**+3.0**
MZR				S	**Sn**	**04 44 58.4**	**-2.3**
SOHO	**SOHO**	**8.57**	**137**	P	**Pn**	**04 43 37.5**	**+1.1**
	SNR=12						
SOHO				S	**Sn**	**04 45 10.1**	**-2.3**
BSY	**Bisya**	**10.03**	**139**	P	**Pn**	**04 43 56.4**	**0.0**
SMDO	**Samad**	**10.29**	**135**	P	**Pn**	**04 44 03.0**	**+2.9**

IDC 29 04:51:41.1±2.5,13.˚40N×123.˚64E,h0km,mb3.6/4, mbtmp3.9/5,ML4.9/1,Error ellipse: s-maj=214.0km s-min=19.6km az=65.0,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**6.57**	**163**	Pn	Pn	04 53 21.4	+2.3
	28nm,0.3s,baz=37,slow=19,SNR=3.7						
DAV				Sn	Sn	04 54 24.8	-10
	23nm,0.3s,baz=331,slow=23,SNR=9.2						
	128nm,0.4s						
DAV				AML	AML		
WRA	**Warramunga Arr**	**34.76**	**162**	P	P	04 58 32.9	-0.6
	0.3nm,0.5s,baz=344,slow=10,SNR=6.7						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**38.18**	**165**	P	P	04 59 04.2	+1.6
	0.5nm,0.3s,baz=341,slow=7.1,SNR=20						
	0.5nm,0.3s						
MKAR	**Makanchi Array**	**48.00**	**322**	P	P	05 00 22.1	+0.3
	0.3nm,0.3s,baz=117,slow=8.4,SNR=4.1						
	0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**52.05**	**325**	P	P	05 00 51.5	-1.1
	0.2nm,0.3s,baz=123,slow=6.8,SNR=2.3						
	0.2nm,0.3s						

*IDC **29** 04:54:56.7±1.5,36.˚86N×142.˚13E,h0km,mb3.7/6, mbtmp3.7/10,ML3.1/4,MS3.0/2,Error ellipse: s-maj=23.9km s-min=15.7km az=90.0*
*NIED **29** 04:55:02.5,36.˚75N×141.˚76E,h32km,MW3.8,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr4.35; Mθθ-1.10; Mφφ-3.24; Mrθ1.31; Mθφ-2.04; Mφr3.75; Fault plane solution: M₀5.94000×10¹⁴ NP1: φs219.00000°,δ25.00000°,λ105.00000°. NP2: φs23.00000°,δ66.00000°,λ83.00000°.*
*JMA **29** 04:55:02.5±0.1,36.˚8N±0.˚5×141.˚8E±0.˚5,h32km±1km, MV3.6/39,E OFF FUKUSHIMA PREF*
ISC 29 04:55:02.2±1.3,36.˚72N±0.˚07×141.˚9E±0.˚1,h35km,n20,
σ1s77/15,mb3.7/6,1D,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ONAJ	**Iwakimizuishiy**	**0.94**	**294**	⇓P	**Pn**	**04 55 17.3**	**-1.7**
JFK	**Kawauchi**	**1.03**	**309**	P	**Pn**	**04 55 18.6**	**-1.6**
JHO	**Hitachi**	**1.06**	**264**	P	**Pn**	**04 55 18.9**	**-1.6**
JFFD	**Fukushimafurud**	**1.12**	**290**	P	**Pn**	**04 55 19.6**	**-1.7**
MJAR	**Matsushiro Arr**	**2.96**	**268**	Pn	**Pn**	**04 55 47.3**	**+0.6**
	3.1nm,0.3s,baz=98,slow=11,SNR=99						
MJAR				Sn	**Sn**	**04 56 23.5**	**+2.6**
	0.8nm,0.3s,baz=81,slow=32,SNR=5.1						
MJAR				LR	LR	04 57 11.0	
	comp=Z,126nm,19.8s,baz=147,slow=42						
	20nm,0.3s						
MJAR				AML	AML		
JHJ	**Hachijo jima 2**	**3.98**	**206**	Pn	**Pn**	**04 56 01.6**	**+0.8**
	2.0nm,0.3s,baz=290,slow=22,SNR=10.0						
JHJ				Sn	**Sn**	**04 56 42.0**	**-4.2**
	3.5nm,0.3s,baz=267,slow=23,SNR=5.9						
	9.6nm,0.4s						
JHJ				AML	AML		
USRK	**Ussuriysk Ar.**	**10.60**	**318**	Pn	**Pn**	**04 57 31.5**	**0.0**
	0.1nm,0.3s,baz=132,slow=12,SNR=1.6						
	0.7nm,0.5s						
USRK				AML	AML		
KSRS	**Korea Array**	**11.17**	**278**	Pn	Pn	04 57 43.2	+3.9
	0.1nm,0.3s,baz=92,slow=13,SNR=2.1						
	1.2nm,0.7s						
KSRS				AML	AML		
H11N2	**WAKE ISLAND Hy**	**27.67**	**121**	T	T	05 30 09.0	
	baz=313,slow=75,SNR=12						
H11N1	**WAKE ISLAND Hy**	**27.68**	**121**	T	T	05 30 03.3	
	baz=313,slow=75,SNR=12						
H11N3	**WAKE ISLAND Hy**	**27.69**	**121**	T	T	05 30 10.3	
	baz=313,slow=75,SNR=13						
SONM	**Songino Array**	**28.27**	**304**	P	**P**	**05 00 52.3**	**+0.2**
	1.1nm,0.6s,baz=109,slow=10.0,SNR=7.5						
	1.1nm,0.6s						
H11S1	**WAKE ISLAND Hy**	**28.38**	**123**	T	T	05 31 03.3	
	baz=315,slow=75,SNR=13						
H11S3	**WAKE ISLAND Hy**	**28.38**	**123**	T	T	05 30 57.5	
	baz=315,slow=75,SNR=11						
H11S2	**WAKE ISLAND Hy**	**28.39**	**123**	T	T	05 31 05.1	
	baz=315,slow=75,SNR=9.3						
ZALV	**Zalesovo Beam**	**42.40**	**313**	P	**P**	**05 02 53.5**	**+0.4**
	0.5nm,0.4s,baz=91,slow=7.6,SNR=3.7						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**44.60**	**302**	P	**P**	**05 03 10.9**	**0.0**
	0.6nm,0.7s,baz=81,slow=7.5,SNR=3.6						
MKAR				LR	LR	05 22 56.5	
	comp=Z,26nm,19.0s,baz=314,slow=38						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**46.49**	**308**	P	**P**	**05 03 25.8**	**+0.1**
	0.8nm,0.5s,baz=83,slow=7.8,SNR=5.0						
	0.8nm,0.5s						
WRA	**Warramunga Arr**	**56.80**	**188**	P	**P**	**05 04 43.7**	**+0.7**
	0.1nm,0.4s,baz=6.0,slow=6.8,SNR=5.5						
	0.1nm,0.4s						
AKASG	**Malin Array Be**	**74.77**	**323**	P	**P**	**05 06 39.0**	**+0.6**
	0.4nm,0.4s,baz=46,slow=6.6,SNR=4.7						
	0.4nm,0.4s						

*SJA **29** 05:03:44.7±0.7,23.˚39S×69.˚23W,h106km±4km, ML3.4,*

MW3.5
*GUC **29** 05:03:45.8±0.7,23.˚39S×69.˚26W,h102km±4km, ML3.5, Presumed earthquake*
ISC 29 05:03:45.9±1.5,23.˚39S±0.˚04×69.˚24W±0.˚05,
h102km±11km,n31,σ0s46/50,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB06	**IPOC Station P**	**0.75**	**336**	*i* P	**Pn**	**05 04 03.9**	**-0.2**
PB06				*i* S	**Sn**	**05 04 18.2**	**+0.4**
PB06				IAML		05 04 19.6	
	comp=Z,2μm,0.1s						
PB06	**IPOC Station P**	**0.75**	**336**	*e*P	**Pn**	**05 04 03.8**	**-0.3**
PB06				*i* S	**Sn**	**05 04 16.7**	**-1.0**
PB06				IAML		05 04 17.6	
	comp=N,3μm,0.1s						
PB05	**IPOC Station P**	**1.03**	**301**	*i* P	**Pn**	**05 04 07.1**	**+0.1**
PB05				*i* S	**Sn**	**05 04 23.2**	**+0.4**
PB05				IAML		05 04 28.2	
	comp=Z,408nm,0.4s						
PB05	**IPOC Station P**	**1.03**	**301**	*e*P	**Pn**	**05 04 06.4**	**-0.5**
PB05				*i* S	**Sn**	**05 04 22.0**	**-0.8**
PB05				IAML		05 04 23.9	
	comp=N,639nm,0.1s						
AF01	**San Pedro de A**	**1.07**	**66**	*i* P	**Pn**	**05 04 07.7**	**+0.2**
AF01				IAML		05 04 27.3	
	comp=Z,2μm,0.3s						
AF01	**San Pedro de A**	**1.07**	**66**	*e*P	**Pn**	**05 04 07.5**	**-0.1**
AF01				*i* S	**Sn**	**05 04 23.8**	**-0.1**
AF01				IAML		05 04 24.8	
	comp=E,7μm,0.2s						
PB10	**IPOC Station P**	**1.21**	**264**	*i* P	**Pn**	**05 04 09.4**	**+0.7**
PB10				*i* S	**Sn**	**05 04 26.9**	**+0.8**
PB10				IAML		05 04 31.9	
	comp=Z,182nm,0.3s						
PB10	**IPOC Station P**	**1.21**	**264**	*e*P	**Pn**	**05 04 09.2**	**+0.5**
PB10				*i* S	**Sn**	**05 04 25.4**	**-0.7**
PB10				IAML		05 04 31.7	
	comp=N,431nm,0.5s						
PB03	**IPOC Station P**	**1.42**	**341**	*i* P	**Pn**	**05 04 11.9**	**+0.4**
PB03				*i* S	**Sn**	**05 04 31.4**	**+0.6**
PB03				IAML		05 04 34.7	
	comp=Z,791nm,0.2s						
PB03	**IPOC Station P**	**1.42**	**341**	*e*P	**Pn**	**05 04 11.6**	**+0.2**
PB03				*i* S	**Sn**	**05 04 30.7**	**-0.1**
PB03				IAML		05 04 31.3	
	comp=N,702nm,0.5s						
PB09	**IPOC Station P**	**1.59**	**0**	*i* P	**Pn**	**05 04 13.9**	**+0.3**
PB09				*i* S	**Sn**	**05 04 34.7**	**+0.2**
PB09				IAML		05 04 36.7	
	comp=Z,535nm,0.5s						
PB09	**IPOC Station P**	**1.59**	**0**	*e*P	**Pn**	**05 04 14.3**	**+0.8**
PB09				*i* S	**Sn**	**05 04 34.9**	**+0.3**
PB09				IAML		05 04 37.2	
	comp=E,373nm,0.4s						
PB14	**IPOC Station P**	**1.62**	**221**	*e*P	**Pn**	**05 04 14.0**	**0.0**
PB14				*i* S	**Sn**	**05 04 35.3**	**-0.1**
PB07	**IPOC Station P**	**1.76**	**340**	*i* P	**Pn**	**05 04 16.0**	**+0.3**
PB07				*i* S	**Sn**	**05 04 39.0**	**+0.6**
PB07				IAML		05 04 44.2	
	comp=Z,244nm,0.2s						
PB07	**IPOC Station P**	**1.76**	**340**	*e*P	**Pn**	**05 04 15.7**	**0.0**
PB07				*i* S	**Sn**	**05 04 38.5**	**+0.2**
PB07				IAML		05 04 39.2	
	comp=E,340nm,0.2s						
PB02	**IPOC Station P**	**2.15**	**344**	*i* P	**Pn**	**05 04 20.9**	**+0.3**
PB02				*i* S	**Sn**	**05 04 47.7**	**+0.6**
PB02				IAML		05 04 55.3	
	comp=Z,460nm,0.4s						
PB02	**IPOC Station P**	**2.15**	**344**	*e*P	**Pn**	**05 04 20.7**	**0.0**
PB02				*i* S	**Sn**	**05 04 46.9**	**-0.3**
PB02				IAML		05 04 49.8	
	comp=E,462nm,0.2s						
PB01	**IPOC Station P**	**2.35**	**354**	*i* P	**Pn**	**05 04 23.8**	**+0.6**
PB01				*i* S	**Sn**	**05 04 52.0**	**+0.2**
PB01				IAML		05 04 53.4	
	comp=Z,215nm,0.2s						
PB01	**IPOC Station P**	**2.35**	**354**	*e*P	**Pn**	**05 04 23.5**	**+0.3**
PB01				*i* S	**Sn**	**05 04 51.3**	**-0.4**
PB01				IAML		05 04 55.6	
	comp=E,271nm,0.2s						
SALTA		**2.78**	**108**	*i* P	**Pn**	**05 04 29.6**	**+0.3**
SALTA				IAML		05 05 04.6	
	comp=Z,33nm,0.9s						
TA01	**Diego Aracena**	**2.95**	**343**	*i* P	**Pn**	**05 04 31.0**	**+0.1**
TA01				IAML		05 05 31.0	
	comp=Z,54nm,0.3s						
AC01	**Pan de Azucar**	**3.01**	**204**	*i* P	**Pn**	**05 04 31.8**	**0.0**
AC01				IAML		05 05 16.5	
	comp=Z,57nm,0.3s						
PB08	**IPOC Station P**	**3.24**	**1**	*i* P	**Pn**	**05 04 35.5**	**+0.3**
PB08				IAML		05 05 43.8	
	comp=Z,49nm,

BRBB	**Barentsburg B**	**8.20**	**28**	Pn		**Pn**	**05 32 15.2**	**+0.9**	
LEIR	**Leirfjorden**	**8.38**	**121**	*e*P		**Pn**	**05 32 14.1**	**-2.7**	
LEIR				*e*S		Sn	05 33 39.4	-12	
LEIR				IAML			05 33 41.6		
	comp=Z,6.5nm,0.4s								
RAUS	**Rausandaksla**	**8.40**	**118**	*e*P		**Pn**	**05 32 14.2**	**-2.9**	
RAUS				*e*S		Sn	05 33 38.6	-13	
RAUS				IAML			05 33 51.6		
	comp=Z,4.6nm,0.8s								
KBS	**Kingsbay**	**8.52**	**22**	Pn		**Pn**	**05 32 20.2**	**+1.6**	
KBS	**Kingsbay**	**8.52**	**22**	Pn		**Pn**	**05 32 20.2**	**+1.6**	
JETT	**Jettan, Norway**	**8.56**	**91**	Pn		**Pn**	**05 32 16.0**	**-3.3**	
JETT	**Jettan, Norway**	**8.56**	**91**	Pn		**Pn**	**05 32 16.0**	**-3.3**	
SPA0	**Spitsbergen Ar**	**8.59**	**30**	Pn		**Pn**	**05 32 21.5**	**+1.8**	
	baz=222,slow=14								
SPA0	**Spitsbergen Ar**	**8.59**	**30**	Pn		**Pn**	**05 32 21.5**	**+1.8**	
SPITS	**Spitsbergen Ar**	**8.59**	**30**	Pn		**Pn**	**05 32 20.9**	**+1.3**	
	baz=218,slow=16								
	comp=Z,16nm,0.8s								
MOR8	**Moi Rana**	**8.70**	**119**	*e*P		**Pn**	**05 32 19.0**	**-2.2**	
MOR8				*e*S		Sn	05 33 47.4	-12	
SALU	**Saltoluokta**	**9.09**	**106**	*e*P		**Pn**	**05 32 24.1**	**-2.5**	
SALU				*e*S		Sn	05 33 58.2	-11	
NSS	**Namsos**	**9.33**	**130**	*e*P		**Pn**	**05 32 28.3**	**-1.5**	
NSS				*e*S		Sn	05 34 04.3	-10	
NSS				IAML			05 34 06.2		
	comp=Z,3.0nm,0.5s								
KTK1	**Kautokeino**	**9.70**	**91**	Pn		**Pn**	**05 32 32.5**	**-2.4**	
KTK1	**Kautokeino**	**9.70**	**91**	*e*P		**Pn**	**05 32 32.3**	**-2.6**	
MOL	**Molde**	**10.13**	**146**	*e*P		**Pn**	**05 32 39.3**	**-1.4**	
HEF	**Hetta**	**10.13**	**94**	P		**Pn**	**05 32 38.4**	**-2.4**	
HEF	**Hetta**	**10.13**	**94**	*e*P		**Pn**	**05 32 38.2**	**-2.6**	
HEF				P			05 32 38.4		
ARA0	**ARCESS Array S**	**10.19**	**87**	Pn		**Pn**	**05 32 38.7**	**-2.9**	
	baz=290,slow=12								
ARA0	**ARCESS Array S**	**10.19**	**87**	Pn		**Pn**	**05 32 38.7**	**-2.9**	
ARCES	**ARCESS Array B**	**10.19**	**87**	Pn		**Pn**	**05 32 38.5**	**-3.1**	
	comp=Z,0.2nm,0.3s,baz=293,slow=11,SNR=10								
ARCES				LR		LR	05 35 52.3		
	comp=Z,135nm,20.0s,baz=345,slow=34								
	comp=Z,3.1nm,0.7s								
ARCES				AML		AML			
AKN	**Aaknes**	**10.40**	**148**	*e*P		**Pn**	**05 32 43.4**	**-1.1**	
NOR	**Nord**	**10.48**	**350**	P		**Pn**	**05 32 47.6**	**+2.1**	
NOR	**Nord**	**10.48**	**350**	P		**Pn**	**05 32 47.6**	**+2.1**	
NOR				*e*S		Sn	05 34 34.6	-8.1	
DOMB	**Dombas**	**10.90**	**144**	*e*P		**Pn**	**05 32 50.7**	**-0.6**	
NOA	**NORSAR Array B**	**12.23**	**141**	Pn		**Pn**	**05 33 08.0**	**-1.5**	
	baz=326,slow=13,SNR=5.0								
NOA				LR		LR	05 37 23.9		
	comp=Z,175nm,20.7s,baz=335,slow=35								
	comp=Z,0.8nm,0.9s								
NRA0	**NORESS Array S**	**12.58**	**141**	Pn		**Pn**	**05 33 13.1**	**-1.1**	
	baz=343,slow=16								
NRA0	**NORESS Array S**	**12.58**	**141**	Pn		**Pn**	**05 33 13.1**	**-1.1**	
HFS	**Hagfors**	**13.57**	**138**	Pn		**Pn**	**05 33 26.0**	**-1.8**	
	comp=Z,0.4nm,0.3s,baz=353,slow=11,SNR=13								
	comp=Z,2.5nm,0.6s								
HFS				AML		AML			
HFS	**Hagfors**	**13.57**	**138**	P		**Pn**	**05 33 26.0**	**-1.8**	
	baz=326,slow=10								
HFS	**Hagfors**	**13.57**	**138**	P		**Pn**	**05 33 26.0**	**-1.8**	
FIA0	**FINESS Array S**	**15.64**	**114**	P		**Pn**	**05 33 52.8**	**-2.9**	
	baz=318,slow=11								
FIA0	**FINESS Array S**	**15.64**	**114**	P		**Pn**	**05 33 52.8**	**-2.9**	
FINES	**FINESS Array B**	**15.64**	**114**	Pn		**Pn**	**05 33 52.3**	**-3.3**	
	comp=Z,0.1nm,0.3s,baz=324,slow=12,SNR=6.8								
FINES				LR		LR	05 38 48.5		
	comp=Z,125nm,18.5s,baz=335,slow=33								
	comp=Z,4.8nm,0.9s								
FINES				AML		AML			
EKA	**Eskdalemuir Ar**	**16.25**	**177**	Pn		**Pn**	**05 34 03.1**	**-0.4**	
	baz=354,slow=13								
	comp=Z,0.2nm,0.4s								
SFJD	**Kangerlussuaq**	**16.54**	**277**	LR		LR	05 39 54.6		
	comp=Z,53nm,20.6s,baz=90,slow=35								
CHVC	**Chvalec**	**23.00**	**145**	*e*P		**P**	**05 35 21.5**	**+1.4**	
OSTC	**Ostas**	**23.06**	**145**	*e*P		**P**	**05 35 25.7**	**+5.0**	
DPC	**Dobruska-Polom**	**23.28**	**145**	*e*P		**P**	**05 35 23.6**	**+0.6**	
KRLC	**Kraliky**	**23.63**	**144**	*e*P		**P**	**05 35 32.9**	**+6.5**	
STEB	**Steborice**	**23.95**	**143**	*e*P		**P**	**05 35 28.7**	**-0.8**	
OBN	**Obninsk**	**23.99**	**111**	LR		LR	05 43 51.9		
	comp=Z,47nm,19.2s,baz=350,slow=34								
RES	**Resolute Bay**	**24.04**	**319**	LR		LR	05 43 30.3		
	comp=Z,65nm,18.2s,baz=26,slow=33								
TREC	**Trest**	**24.14**	**147**	*e*P		**P**	**05 35 33.3**	**+2.0**	
GERES	**GERESS Array B**	**24.28**	**150**	P		**P**	**05 35 33.3**	**+0.6**	
	comp=Z,0.7nm,0.8s,baz=330,slow=7.7,SNR=3.6								
	comp=Z,0.7nm,0.8s								
FRB	**Frobisher Bay**	**24.32**	**284**	LR		LR	05 44 19.1		
	comp=Z,100nm,20.7s,baz=52,slow=34								
VRAC	**Vranov**	**24.33**	**145**	LR		LR	05 44 53.9		
	comp=Z,60nm,18.1s,baz=338,slow=36								
CKRC	**Cesky Krumlov**	**24.40**	**149**	*e*P		**P**	**05 35 28.3**	**-5.4**	
KIRV	**Kirov**	**25.12**	**93**	LR		LR	05 44 19.4		
	comp=Z,66nm,19.4s,baz=9.4,slow=34								
AKASG	**Malin Array Be**	**25.86**	**126**	P		**P**	**05 35 46.3**	**-0.4**	
	comp=Z,0.7nm,0.6s,baz=336,slow=9.9,SNR=4.5								
	comp=Z,0.7nm,0.6s								
ARTI	**Arti**	**29.76**	**87**	LR		LR	05 47 40.3		
	comp=Z,61nm,19.3s,baz=346,slow=35								
MLR	**Muntele Rosu**	**29.91**	**134**	LR		LR	05 48 48.5		
	comp=Z,173nm,18.3s,baz=0.0,slow=37								
SCHQ	**Schefferville**	**30.78**	**270**	LR		LR	05 47 45.1		
	comp=Z,81nm,19.6s,baz=18,slow=34								
ESDC	**Sonseca Array**	**31.91**	**179**	LR		LR	05 48 49.9		
	comp=Z,34nm,21.1s,baz=283,slow=35								
AKTO	**Aktyubinsk**	**34.68**	**93**	LR		LR	05 50 45.5		
	comp=Z,60nm,18.9s,baz=138,slow=36								
KBZ	**Khabaz**	**36.01**	**115**	LR		LR	05 51 52.2		
	comp=Z,54nm,20.2s,baz=52,slow=36								
BVAR	**Borovoye Array**	**36.38**	**80**	P		**P**	**05 37 20.7**	**+1.4**	
	comp=Z,1.3nm,0.9s,baz=332,slow=5.4,SNR=3.7								
	comp=Z,1.3nm,0.9s								
BRTR	**Keskin Array B**	**37.21**	**128**	P		**P**	**05 37 29.1**	**+2.4**	
	comp=Z,0.6nm,0.8s,baz=339,slow=9.5,SNR=1.3								
BRTR				LR		LR	05 54 25.5		
	comp=Z,37nm,18.4s,baz=328,slow=39								
	comp=Z,0.6nm,0.8s								
YKA	**Yellowknife Ar**	**37.93**	**315**	LR		LR	05 52 43.4		
	comp=Z,55nm,18.2s,baz=22,slow=35								
KURBB	**Kurchatov Arra**	**41.00**	**75**	P		**P**	**05 37 58.9**	**+0.8**	
	comp=Z,0.2nm,0.5s,baz=335,slow=7.2,SNR=8.5								
	comp=Z,0.2nm,0.5s								
ILAR	**Eielson Array**	**41.57**	**337**	LR		LR	05 55 52.4		
	comp=Z,27nm,21.1s,baz=162,slow=37								
SADO	**Sadowa**	**43.45**	**274**	LR		LR	05 56 31.5		
	comp=Z,32nm,18.9s,baz=42,slow=36								
DLBC	**Dease Lake**	**44.86**	**323**	LR		LR	05 59 29.6		
	comp=Z,71nm,18.7s,baz=272,slow=39								
ASF	**Jabal al Asfar**	**45.18**	**128**	LR		LR	05 58 59.0		
	comp=Z,28nm,20.6s,baz=24,slow=38								
MKAR	**Makanchi Array**	**45.55**	**74**	P		**P**	**05 38 35.8**	**+0.9**	
	comp=Z,0.1nm,0.3s,baz=327,slow=5.8,SNR=4.0								
MKAR				LR		LR	05 59 40.1		
	comp=Z,45nm,18.4s,baz=357,slow=39								
	comp=Z,0.1nm,0.3s								
AAK	**Ala-Archa**	**46.84**	**83**	LR		LR	06 00 18.1		
	comp=Z,10.0nm,18.4s,baz=337,slow=39								
KDAK	**Kodiak Island**	**49.05**	**338**	LR		LR	06 04 01.9		
	comp=Z,38nm,18.2s,baz=36,slow=41								
NEW	**Newport**	**51.42**	**308**	LR		LR	06 02 49.8		
	comp=Z,53nm,18.1s,baz=340,slow=38								
SONM	**Songino Array**	**51.45**	**54**	LR		LR	06 03 41.8		
	comp=Z,34nm,18.3s,baz=238,slow=39								
PDAR	**Pinedale Array**	**54.50**	**299**	LR		LR	06 03 26.8		
	comp=Z,54nm,18.8s,baz=22,slow=36								
YBH	**Yreka Blue Hor**	**58.93**	**310**	LR		LR	06 06 38.2		
	comp=Z,52nm,19.3s,baz=1.0,slow=37								
ANMO	**Albuquerque**	**60.87**	**293**	LR		LR	06 09 14.7		
	comp=Z,33nm,18.9s,baz=67,slow=38								
NVAR	**Mina Array Bea**	**60.92**	**305**	LR		LR	06 08 49.7		
	comp=Z,40nm,18.5s,baz=288,slow=38								
PFO	**Pinyon Flats O**	**64.96**	**301**	LR		LR	06 09 14.8		
	comp=Z,34nm,21.4s,baz=57,slow=36								
ASAR	**Alice Springs**	**126.70**	**49**	PKP		**PKPdf**	**05 49 19.6**	**+1.1**	
	comp=Z,0.2nm,0.7s,baz=7.1,slow=2.2,SNR=2.3								

*ISK **29** 05:33:20.6,38°.83N×40°.15E,h5km,ML3.6/20*
*TIF **29** 05:33:21.3,38°.82N×40°.14E,h14km±1km*
*AFAD **29** 05:33:21.1,38°.84N×40°.12E,h12km±1km,MW3.7*
ISC 29 05:33:21.1±1.0,38°.83N±0°.02×40°.15E±0°.01,h12km±8km, n63,σ0s81/103, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
KOVA	**Elazig, Kovanc**	**0.29**	**245**	P		**Pg**	**05 33 27.3**	**+0.3**	
KOVA				S		Sg	05 33 31.8	+0.8	
BNGB	**Bingl**	**0.45**	**68**	Pg		**Pg**	**05 33 30.4**	**+0.4**	
BNGB				Sg		**Sb**	**05 33 37.4**	**-0.3**	
BNGB				AML		AML			
TNCL	**Tunceli-Merkez**	**0.55**	**301**	P		**Pg**	**05 33 31.7**	**-0.2**	
TNCL				S		Sg	05 33 39.3	+0.1	
MDNT	**Maden**	**0.57**	**220**	P		**Pg**	**05 33 32.4**	**+0.2**	
MDNT				S		**Sb**	**05 33 41.0**	**-0.1**	
KKOY	**Diyarbakr**	**0.61**	**152**	P		**Pb**	**05 33 34.0**	**+0.2**	
KKOY				S		**Sb**	**05 33 42.6**	**+0.3**	
YEDI	**Yedisu-Bingol**	**0.68**	**27**	Pg		**Pg**	**05 33 34.8**	**+0.4**	
YEDI				Sg		**Sb**	**05 33 45.7**	**+1.1**	
YEDI				AML		AML			
SLHN	**Bingol, Solhan**	**0.70**	**79**	P		**Pg**	**05 33 34.9**	**+0.2**	
SLHN				S		**Sb**	**05 33 45.4**	**+0.4**	
ELZ	**Elazig**	**0.75**	**260**	P		**Pb**	**05 33 35.8**	**-0.3**	
ELZ				S		**Sb**	**05 33 46.6**	**+0.2**	
SVRC	**Sivrice-ELAZID**	**0.80**	**236**	Pg		**Pb**	**05 33 37.2**	**+0.2**	
SVRC				Sg		Sn	05 33 49.2	-1.1	
SVRC				AML		AML			
ERZN	**Erzincan**	**0.83**	**337**	Pg		**Pb**	**05 33 37.5**	**0.0**	
ERZN				AML		AML			
KARO	**Karliova-Bingo**	**0.85**	**55**	Pg		**Pb**	**05 33 38.1**	**+0.1**	
KARO				Sg		Sn	05 33 51.0	-0.7	
KARO				AML		AML			
DYBB	**Diyarbakir**	**0.87**	**180**	Pg		**Pn**	**05 33 39.1**	**-0.2**	
DYBB				Sg		Sn	05 33 51.6	-0.4	
DYBB				AML		AML			
CNGT	**ngs**	**0.90**	**228**	P		**Pb**	**05 33 38.6**	**-0.2**	
CNGT				S		**Sb**	**05 33 50.7**	**-0.1**	
DIYA	**Diyarbakir**	**0.90**	**181**	P		**Pn**	**05 33 39.4**	**-0.3**	
DIYA				S		**Sb**	**05 33 51.3**	**+0.4**	
EUZM	**Uzumlu**	**0.94**	**339**	P		**Pg**	**05 33 39.0**	**-0.3**	
EUZM				S		**Sg**	**05 33 50.6**	**-1.1**	
ELZG	**Elazig**	**0.97**	**250**	P		**Pg**	**05 33 39.4**	**-0.4**	
ELZG				S		**Sb**	**05 33 53.4**	**+0.6**	
ECAT	**Cat-ERZURUM**	**1.01**	**39**	P		**Pg**	**05 33 40.3**	**-0.2**	
ECAT				S		**Sg**	**05 33 51.5**	**-2.2**	
SVAN	**Silvan-Diyarba**	**1.07**	**129**	P		**Pn**	**05 33 41.8**	**-0.1**	
SVAN				S		**Sg**	**05 33 55.7**	**+0.1**	
SVAN	**Silvan-Diyarba**	**1.07**	**129**	Pg		**Pn**	**05 33 41.9**	**-0.1**	
SVAN				Sg		**Sn**	**05 33 57.9**	**+1.1**	
SVAN				AML		AML			
MUSM	**Mu-Merkez**	**1.07**	**95**	P		**Pb**	**05 33 40.8**	**-1.0**	
VRTB	**Varto-Mus**	**1.07**	**72**	P		**Pb**	**05 33 40.8**	**-1.0**	
VRTB				S		Sn	05 33 57.3	+0.1	
VRTB	**Varto-Mus**	**1.07**	**72**	Pg		**Pn**	**05 33 42.2**	**0.0**	
VRTB				Sg		Sn	05 33 58.5	+1.4	
VRTB				AML		AML			
KOPT	**Kop Dagi**	**1.22**	**13**	P		**Pn**	**05 33 44.2**	**-0.1**	
KOPT				S		Sn	05 34 00.8	-0.1	
BTMN	**Batman**	**1.29**	**136**	P		**Pb**	**05 33 45.5**	**+0.2**	
BTMN				S		**Sb**	**05 34 01.1**	**-0.8**	
KEMA	**Kemaliye**	**1.36**	**289**	P		**Pn**	**05 33 45.9**	**-0.1**	
KEMA				S		**Sb**	**05 34 03.4**	**-0.7**	
EMRE	**Erzurum,Aziziy**	**1.36**	**28**	P		**Pg**	**05 33 47.5**	**+0.2**	
ATA5	**Erzurum, Merke**	**1.37**	**38**	P		**Pg**	**05 33 47.4**	**-0.1**	
ATA5				S		**Sb**	**05 34 04.4**	**0.0**	
ILIC	**ilic-Erzincan**	**1.38**	**297**	Pn		**Pg**	**05 33 47.8**	**+0.2**	
ILIC				AML		AML			
BAYB	**BAYBURT**	**1.43**	**3**	P		**Pb**	**05 33 48.2**	**+0.3**	
BAYB				S		**Sb**	**05 34 06.4**	**+0.2**	
ERZM	**Erzurum**	**1.43**	**41**	P		**Pb**	**05 33 47.8**	**-0.1**	
ERZM				S		**Sg**	**05 34 07.1**	**-0.2**	
ARPR	**Arapgir-MALATY**	**1.44**	**281**	Pn		**Pg**	**05 33 49.2**	**+0.5**	
MAYA	**Malatya/Merkez**	**1.44**	**250**	P		**Pb**	**05 33 48.1**	**+0.1**	
MAYA				S		**Sb**	**05 34 06.6**	**+0.3**	
NARI	**Adyaman-Kaht**	**1.44**	**230**	P		**Pb**	**05 33 48.2**	**+0.3**	
NARI				S		**Sb**	**05 34 06.6**	**+0.3**	
KELT	**Kelkit**	**1.49**	**333**	P		**Pb**	**05 33 49.0**	**+0.1**	
KELT				S		Sn	05 34 06.2	-1.3	
GURO	**Guroymak-BITLI**	**1.50**	**100**	Pn		**Pg**	**05 33 49.6**	**-0.4**	
GURO				AML		AML			
EKAR	**Karacoban**	**1.55**	**73**	P		**Pg**	**05 33 51.1**	**+0.2**	
BAYT	**Aydıntepe-Bayb**	**1.56**	**360**	Pn		**Pg**	**05 33 51.1**	**-0.1**	
BAYT				AML		AML			
AKDA	**Akdag**	**1.58**	**36**	P		**Pb**	**05 33 50.7**	**+0.2**	
AKDA				S		Sn	05 34 10.0	+0.2	
MARD	**Mardin**	**1.59**	**162**	P		**Pn**	**05 33 49.7**	**+0.4**	
MARD				S		**Sb**	**05 34 10.3**	**-0.4**	
HANM	**anlurfa/Hi**	**1.60**	**219**	P		**Pb**	**05 33 50.3**	**-0.2**	
HANM				S		**Sb**	**05 34 10.4**	**-0.3**	
BLIS	**Bitlis-Merkez**	**1.60**	**104**	P		**Pb**	**05 33 50.5**	**-0.2**	
BLIS				S		**Sg**	**05 34 12.8**	**+0.3**	
KRIK	**Erzurum-spir**	**1.62**	**22**	P		**Pb**	**05 33 51.4**	**+0.2**	
KRIK				S		**Sb**	**05 34 11.5**	**-0.3**	
SRTM	**Siirt_Merkez**	**1.63**	**120**	P		**Pn**	**05 33 50.2**	**+0.5**	
HEKM	**Malatya_Hekimh**	**1.71**	**272**	P		**Pb**	**05 33 52.1**	**-0.5**	
HEKM				S		**Sb**	**05 34 14.8**	**+0.7**	
MIDY	**Mardin/Midyat-**	**1.73**	**145**	P		**Pn**	**05 33 51.7**	**+0.5**	
MIDY				S		Sn	05 34 11.2	-2.0	
URFA	**Urfa**	**1.73**	**217**	Pn		**Pb**	**05 33 52.8**	**-0.2**	
URFA				AML		AML			
KOPR	**Koprukoy-ERZUR**	**1.76**	**48**	Pn		**Pb**	**05 33 53.6**	**+0.1**	
KOPR				AML		AML			
AZEY	**Adyaman-Merk**	**1.81**	**236**	P		**Pb**	**05 33 53.4**	**-0.8**	
AZEY				S		**Sb**	**05 34 16.7**	**-0.1**	
AKCD	**Akcadag**	**1.82**	**254**	P		**Pn**	**05 33 52.9**	**+0.4**	
AKCD				S		**Sb**	**05 34 16.3**	**+0.9**	
ALUC	**Giresun/Alucra**	**1.85**	**325**	P		**Pb**	**05 33 54.6**	**-0.4**	
SANL	**SANLIURFA_Merk**	**1.89**	**209**	P		**Pb**	**05 33 54.6**	**-1.0**	
SANL				S		Sn	05 34 17.8	+0.7	
MLAZ	**Malazgirt-MUS**	**1.90**	**80**	Pn		**Pb**	**05 33 55.5**	**-0.3**	
MLAZ				AML		AML			
ATAB	**Bozova**	**1.99**	**228**	P		**Pn**	**05 33 55.4**	**+0.7**	
ATAB				S		Sn	05 34 20.0	+0.4	
DARE	**Darende-Malaty**	**2.10**	**264**	Pn		**Pb**	**05 33 58.8**	**-0.4**	
DARE				AML		AML			
KTUT	**Trabzon**	**2.18**	**352**	Pn		**Pb**	**05 33 59.7**	**-0.8**	
KTUT				AML		AML			
TUNC	**Hafik-SIVAS**	**2.20**	**294**	Pn		**Pb**	**05 33 59.7**	**-1.3**	
AKDM	**Akdamar-Van**	**2.28**	**102**	Pn		**Pb**	**05 34 01.4**	**-0.9**	
AKDM				AML		AML			
CHOM	**Cayeli-Rize**	**2.31**	**12**	Pn		**Pb**	**05 34 01.7**	**-1.1**	
CHOM				AML		AML			
AGRB	**Hanur-Agry**	**2.33**	**70**	Pn		**Pb**	**05 34 01.7**	**-1.6**	
AGRB				AML		AML			
SENK	**Senkaya-Erzuru**	**2.43**	**44**	Pn		**Pb**	**05 34 03.1**	**-1.8**	
SENK				AML		AML			
AKH	**Akhalkalaki**	**3.64**	**44**	P		**Pn**	**05 34 21.4**	**+4.0**	
TRLG	**Trialeti**	**4.06**	**47**	P		**Pn**	**05 34 23.1**	**-0.2**	
CHRG	**Chargali**	**5.05**	**45**	P		**Pn**	**05 34 39.5**	**+2.7**	

*IDC **29** 05:48:58.4±0.9,8°.04N×127°.43E,h0km,mb3.7/8, mbtmp3.7/9,ML4.5/1,MS2.6/2,Error ellipse: s-maj=22.5km s-min=17.8km az=97.0*
*MAN **29** 05:48:59.0,7°.78N×127°.29E,h1km,MS3.1*
*NEIC **29** 05:49:03.6±0.7,7°.88N±0°.09×127°.17E±0°.09,h38km±8km, mb4.1/22,Error ellipse: s-maj=13.0km s-min=12.7km az=99.0*
ISC 29 05:49:01.8±1.8,7°.89N±0°.05×127°.23E±0°.07,h25km±13km, n48,σ1s21/55,mb3.9/17,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
DAV	**Davao City (W)**	**1.83**	**244**	Pn		**Pb**	**05 49 34.2**	**-0.4**	
	160nm,0.3s,baz=65,slow=5.4,SNR=11								
DAV				Sn		**Sb**	**05 49 58.9**	**+1.9**	
	147nm,0.3s,baz=222,slow=23,SNR=14								
	343nm,0.3s								
DAV				AML		AML			
DAV	**Davao City (W)**	**1.83**	**244**			**Pn**	**05 49 31.5**	**-0.1**	
DAV				Sn		Sn	05 49 54.4	+0.3	
DMPH	**Davao City--Mi**	**1.89**	**245**	*e*P		**Pn**	**05 49 34.4**	**+1.9**	
DMPH				*i* S		**Sb**	**05 49 58.3**	**-0.4**	
KCP	**Kidapawan**	**2.29**	**248**	*e*P		**Pn**	**05 49 38.9**	**+0.8**	
KCP				*e*S		Sn	05 50 05.8	+0.2	
CGP	**Cagayan de Oro**	**2.58**	**283**	*e*P		**Pn**	**05 49 44.3**	**+2.4**	
CGP				*i* S		**Sb**	**05 50 17.7**	**-0.9**	
TBP	**Tagbilaran**	**3.78**	**299**	*e*P		**Pn**	**05 50 01.9**	**+3.3**	
TBP				*e*S		**Sb**	**05 50 48.9**	**-4.5**	
PLP	**Palo**	**3.94**	**326**	*e*P		**Pb**	**05 50 10.5**	**-0.1**	
LLP	**Lapu-Lapu**	**4.03**	**307**	*e*P		**Pn**	**05 50 05.2**	**+3.2**	
LLP				*i* S		**Sb**	**05 51 01.0**	**+0.6**	
TNTI	**Ternate**	**7.07**	**179**	Pn		**Pn**	**05 50 44.6**	**+0.8**	

LUWI	**Luwuk**	**9.92**	**207**	Pn		**Pn**	**05 51 22.7**	**-0.2**	
FAKI	**Fak Fak**	**11.84**	**155**	Pn		**Pn**	**05 51 49.6**	**+0.4**	
KAPI	**Kappang**	**14.83**	**210**	Pn		**Pn**	**05 52 30.0**	**0.0**	
NACB	**Ninganchiao**	**17.07**	**342**			**Pn**	**05 52 59.7**	**+0.8**	
NACB				IAmb		IAmb	05 53 21.3		
	comp=Z,8.6nm,0.9s								
SOEI	**Soe**	**17.77**	**190**	P		**Pn**	**05 53 07.5**	**-0.2**	
JAGI	**Jajag, Banyuwa**	**20.83**	**219**	P		**P**	**05 53 41.0**	**-0.8**	
JAGI				IAmb		IAmb	05 53 57.4		
	comp=Z,23nm,1.1s								
MTN	**Manton Dam**	**20.95**	**169**	P		**P**	**05 53 42.5**	**-0.6**	
SMRI	**Semarang**	**22.37**	**229**	P		**P**	**05 53 57.0**	**-1.4**	
KNRA	**Kununurra**	**23.46**	**176**	P		**P**	**05 54 09.3**	**-0.2**	
KNRA				IAmb		IAmb	05 54 22.7		
	comp=Z,2.6nm,0.7s								
FITZ	**Fitzroy Crossi**	**25.86**	**183**	P		**P**	**05 54 30.6**	**-1.1**	
COEN	**Coen**	**26.86**	**144**	P		**P**	**05 54 40.2**	**-0.5**	
MNAI	**Manna**	**27.10**	**244**	P		**P**	**05 54 41.9**	**-1.0**	
WB0	**Warramunga Arr**	**28.37**	**166**	P		**P**	**05 54 53.5**	**-0.7**	
WRAB	**Tennant Creek**	**28.52**	**166**	P		**P**	**05 54 54.7**	**-0.8**	
WRAB				IAmb		IAmb	05 55 01.2		
	comp=Z,3.0nm,1.1s								
WRA	**Warramunga Arr**	**28.52**	**166**	P		**P**	**05 54 56.4**	**+0.8**	
	comp=Z,0.3nm,0.7s,baz=351,slow=10.0,SNR=11								
	comp=Z,0.3nm,0.7s								
WRA	**Warramunga Arr**	**28.52**	**166**	P		**P**	**05 54 54.5**	**-1.0**	
WB2	**Warramunga Arr**	**28.53**	**166**	P		**P**	**05 54 55.0**	**-0.6**	
WB2				IAmb		IAmb	05 55 17.1		
	comp=Z,3.0nm,0.9s								
WR8	**Warramunga Arr**	**28.58**	**166**	P		**P**	**05 54 55.8**	**-0.2**	
WR8				IAmb		IAmb	05 55 11.7		
	comp=Z,3.2nm,1.1s								
WR0	**Warramunga Arr**	**28.59**	**166**	P		**P**	**05 54 55.4**	**-0.8**	
KSRS	**Korea Array**	**29.44**	**1**	LR		LR	06 05 35.0		
	comp=Z,5.3nm,20.2s,baz=205,slow=34								
ASAR	**Alice Springs**	**32.03**	**168**	P		**P**	**05 55 27.5**	**+0.9**	
	comp=Z,0.2nm,0.5s,baz=352,slow=7.5,SNR=5.1								
ASAR				PcP		**PcP**	**05 58 17.1**	**+1.0**	
	comp=Z,0.1nm,0.4s,baz=348,slow=2.4,SNR=4.4								
ASAR				LR		LR	06 12 12.4		
	comp=Z,17nm,18.2s,baz=117,slow=43								
	comp=Z,0.2nm,0.5s								
ASAR	**Alice Springs**	**32.03**	**168**	P		**P**	**05 55 26.7**	**+0.1**	
BJT	**Baijiatuan**	**33.49**	**345**	P		**P**	**05 55 38.3**	**-0.9**	
USA0B	**Ussuriysk Arra**	**36.41**	**6**	P		**P**	**05 56 03.7**	**-0.6**	
USA0B				IAmb		IAmb	05 56 20.6		
	comp=Z,4.5nm,0.7s								
USRK	**Ussuriysk Ar.**	**36.41**	**6**	P		**P**	**05 56 03.8**	**-0.5**	
BBOO	**Buckleboo**	**41.33**	**169**	P		**P**

PTPK Sb 06 18 15.0 -0.1
PTPK Patty Peak 1.45 336 P Pn 06 17 55.6 -0.2
PTPK S Sb 06 18 15.0 -0.1
KAIM Kayak Island 1.59 273 Pb 06 17 58.5 -0.4
YUK8 Steele Glacier 1.60 27 Pn 06 17 57.9 0.0
YUK8 Pb 06 17 58.0 -1.1
YUK8 Steele Glacier 1.60 27 Pn Pn 06 17 57.6 -0.4
YUK8 Sn Sn 06 18 18.6 -0.2
YUK7 Dusty Glacier 1.69 66 Pn 06 17 59.0 -0.2
YUK7 Dusty Glacier 1.69 66 Pn Pn 06 17 58.9 -0.3
YUK7 Sn Sn 06 18 21.7 +0.7
VRDI Verde Repeater 1.74 322 Pn 06 17 59.5 -0.3
VRDI IAML 06 18 32.2
comp=N,549nm,0.8s
MCARA McCarthy VSAT 1.75 331 Pn 06 18 00.0 +0.2
MCARA McCarthy VSAT 1.75 331 Pn Pn 06 17 59.8 0.0
MCARA Sn Sb 06 18 23.8 +0.2
RAGM Ragged Mountai 1.79 288 Pn 06 18 00.9 +0.6
YUK6 Outpost Mounta 1.79 52 Pn 06 18 01.1 +0.5
YUK6 Outpost Mounta 1.79 52 Pg Pb 06 18 01.7 -0.7
YUK6 Sn Sb 06 18 24.7 -0.4
P29M Windy Craggy 1.80 96 Pn 06 18 00.1 -0.4
P29M Windy Craggy 1.80 96 Pn Pn 06 17 59.9 -0.5
P29M Sn Sn 06 18 23.9 +0.5
BRWY Burwash Landin 1.86 35 Pb 06 18 02.7 -0.7
BRWY Burwash Landin 1.86 35 Pg Pb 06 18 03.2 -0.3
BRWY Sg Sg 06 18 28.8 -0.2
GOAT Goat Mountain 1.87 294 Pn 06 18 01.9 +0.3
YUK2 White River 1.93 6 Pn 06 18 03.4 +1.0
YUK2 White River 1.93 6 Pg Pb 06 18 04.0 -0.7
YUK3 Moose Creek 1.95 11 Pn 06 18 04.0 +1.2
YUK3 Moose Creek 1.95 11 Pg Pb 06 18 04.4 -0.6
YUK4 Talbot Arm 1.96 40 Pg Pb 06 18 06.0 +0.8
YUK4 Sg Sg 06 18 34.6 +2.5
BMRM Bremner River 1.99 305 Pn 06 18 04.0 +0.8
GLB Gilahina Butte 2.02 323 Pn Pn 06 18 03.6 +0.1
GLB IAML 06 18 32.0
comp=N,437nm,0.4s
GLB IAML 06 18 32.7
comp=E,349nm,0.7s
HYT Haines Junctio 2.10 61 Pn 06 18 05.1 +0.5
HYT IAML 06 18 41.6
comp=E,282nm,1.0s
HYT IAML 06 18 41.8
comp=N,244nm,1.0s
HYT Haines Junctio 2.10 61 Pn Pn 06 18 04.7 0.0
HYT Sn Sn 06 18 32.0 +1.1
YUK5 Granite Creek 2.10 52 Pn 06 18 05.3 +0.5
YUK5 Granite Creek 2.10 52 Pn Pn 06 18 04.7 -0.1
YUK5 Sn Sn 06 18 32.3 +1.2
P30M Million Dollar 2.17 81 Pn 06 18 05.9 +0.2
P30M Million Dollar 2.17 81 Pn Pn 06 18 05.5 -0.1
EYAK Cordova Ski Ar 2.34 289 Pn 06 18 08.1 +0.2
EYAK IAML 06 19 01.5
comp=N,192nm,1.1s
N25K Chitina, Valde 2.39 318 Pn 06 18 09.3 +0.6
PLBC Pleasant Camp 2.52 97 Pn 06 18 10.0 -0.3
PLBC Pleasant Camp 2.52 97 Pn Pn 06 18 10.0 -0.3
PLBC Sn Sn 06 18 41.1 0.0
BVCY Beaver Creek 2.56 4 Pn 06 18 12.1 +1.2
BVCY Beaver Creek 2.56 4 Pg Pb 06 18 15.2 -0.1
DIV Divide 2.57 301 Pn 06 18 11.3 +0.2
DIV IAML 06 18 48.9
comp=N,201nm,0.9s
DIV IAML 06 18 57.2
comp=E,140nm,0.8s
DIV Divide 2.57 301 Pn Pn 06 18 11.1 +0.1
DIV Sn Sn 06 18 43.0 +0.6
N30M Aishikik Lake 2.60 50 Pn 06 18 11.8 +0.3
N30M IAML 06 18 56.6
comp=E,174nm,0.9s
N30M IAML 06 18 58.5
comp=N,142nm,0.9s
N30M Aishikik Lake 2.60 50 Pn Pn 06 18 11.6 +0.1
N30M Sn Sn 06 18 43.3 +0.1
WACK Wrangell Chich 2.60 326 Pn 06 18 12.9 +1.2
M26K Nabesna, AK 2.68 342 Pn 06 18 13.8 +1.3
M26K IAML 06 18 52.8
comp=E,139nm,0.9s
M26K IAML 06 18 58.6
comp=N,155nm,0.7s
HIN Hinchinbrook I 2.68 284 Pn Pn 06 18 12.8 +0.3
HIN IAML 06 19 11.0
comp=N,145nm,0.9s
HIN IAML 06 19 24.0
comp=E,209nm,1.1s
O30N Mendenhall 2.72 68 Pn 06 18 13.2 0.0
O30N Mendenhall 2.72 68 Pn Pn 06 18 13.0 -0.1
FID Port Fidalgo 2.75 291 Pn Pn 06 18 14.0 +0.5
FID IAML 06 19 01.9
comp=N,112nm,0.9s
KLU Klutina 2.81 307 Pn 06 18 15.3 +0.9
KLU IAML 06 18 56.0
comp=E,239nm,0.7s
M29M Somme Creek 2.92 26 Pn 06 18 16.9 +1.0
M29M IAML 06 19 07.5
comp=N,130nm,0.7s
M29M Somme Creek 2.92 26 Pn Pn 06 18 16.9 +1.0
M29M Sn Sn 06 18 51.0 -0.1
GLI Glacier Island 3.07 292 Pn Pn 06 18 17.4 -0.5
P23K Montague Islan 3.10 275 Pn Pn 06 18 18.4 +0.2
P23K IAML 06 19 26.4
comp=N,91nm,1.0s
N31M Braeburn, Yuko 3.14 57 Pn 06 18 20.0 +1.0
N31M IAML 06 19 17.9
comp=N,173nm,1.0s
N31M Braeburn, Yuko 3.14 57 Pn Pn 06 18 19.3 +0.4
N31M Sn Sn 06 18 55.9 -0.7
BC01 Beaver Creek A 3.21 355 Pn 06 18 20.3 +0.4
L27K Beaver Creek, 3.21 355 Pn 06 18 20.1 +0.2
L27K IAML 06 19 17.3
comp=E,93nm,1.2s
L27K Beaver Creek, 3.21 355 Pn Pn 06 18 20.2 +0.2
S31K Pelican 3.23 124 Pn Pn 06 18 20.1 0.0
WHY Whitehorse 3.27 73 Pn 06 18 20.8 0.0
WHY Whitehorse 3.27 73 Pn Pn 06 18 20.7 0.0
WHY Sn Sn 06 18 59.4 -0.5
M30M Minto, Yukon 3.47 37 Pn 06 18 24.5 +1.1
M30M IAML 06 19 21.9
comp=E,102nm,0.7s
M30M IAML 06 19 24.8
comp=N,77nm,0.8s
M30M Minto, Yukon 3.47 37 Pn Pn 06 18 23.7 +0.3
M30M Sn Sn 06 19 04.8 +0.2
BESE Bessie Mountai 3.54 109 Pn Pn 06 18 24.3 -0.1
BESE IAML 06 19 30.3
comp=E,80nm,1.2s
BESE IAML 06 19 47.1
comp=N,97nm,0.9s
BESE Bessie Mountai 3.54 109 Pn Pn 06 18 24.5 +0.2
SCM Sheep Creek Mo 3.56 306 Pn 06 18 25.4 +0.7
L29M L29M 3.58 23 Pn 06 18 26.3 +1.4
L29M L29M 3.58 23 Pn Pn 06 18 25.9 +0.9
P32M Atlin 3.83 91 Pn Pn 06 18 27.4 -0.9
KNK Knik Glacier 3.87 297 Pn 06 18 30.7 +1.8
SML Sawmill 3.97 302 Pn 06 18 31.7 +1.4
SEW Seward 4.12 277 Pn Pn 06 18 32.0 -0.4
WAT6 Susitna Watana 4.15 314 Pn 06 18 33.3 +0.5
WAT6 Pb 06 18 33.9 -8.5
K27K Chicken 4.19 355 Pn 06 18 34.1 +0.8
SIT Sitka 4.20 130 Pn Pn 06 18 33.2 -0.2
PMR Palmer 4.24 297 Pn 06 18 35.6 +1.7
S32K Killisnoo 4.24 122 Pn Pn 06 18 33.5 -0.4
S32K IAML 06 20 15.2
comp=N,34nm,0.9s
N32M Quiet Lake 4.24 69 Pn Pn 06 18 34.5 +0.5
P33M Teslin, Yukon 4.25 82 Pn 06 18 33.3 -0.8
DAWY Dawson 4.30 11 Pn 06 18 36.2 +1.3
DAWY Dawson 4.30 11 Pn Pn 06 18 35.7 +0.8
DAWY Sn Sn 06 19 25.2 0.0
K29M Barlow Dome 4.36 22 Pn 06 18 37.5 +1.8
K29M IAML 06 19 59.3
comp=E,45nm,1.1s
K29M Barlow Dome 4.36 22 Pn Pn 06 18 37.3 +1.6
K29M Sn Sn 06 19 26.2 -0.5
RC01 Rabbit Creek A 4.37 290 Pn 06 18 36.1 +0.4
SLKM Skilak Lake 4.52 282 Pn 06 18 37.6 -0.2
Q32M Nakina River 4.68 97 Pn 06 18 39.7 -0.5
Q32M Nakina River 4.68 97 Pn Pn 06 18 39.5 -0.7
WAT7 Susitna Watana 4.71 312 Pn 06 18 41.3 +0.8
WAT7 Pn 06 18 41.6 +1.1
BRLK Bradley Lake 4.86 273 Pn Pn 06 18 44.5 +2.0
BRLK IAML 06 19 43.5
comp=E,24nm,0.6s
CUT Chulitna 5.05 304 Pn 06 18 47.4 +2.3
CNPM China Poot 5.07 270 Pn 06 18 47.1 +1.8
R33M Jennings River 5.24 91 Pn Pn 06 18 47.4 -0.4
R33M IAML 06 20 19.3
comp=N,32nm,0.7s
R33M IAML 06 20 21.2
comp=E,18nm,1.2s
R33M Jennings River 5.24 91 Pn Pn 06 18 47.2 -0.7
J30M Hart River 5.25 24 Pn Pn 06 18 50.0 +2.0
HOM Homer 5.26 272 Pn Pn 06 18 50.5 +2.6
SPU Mount Spurr 5.49 288 Pn Pn 06 18 51.2 0.0
SPCG Spurr Capps Gl 5.50 290 Pn 06 18 51.3 0.0
IL31 5.57 334 Pn Pn 06 18 52.7 +0.5
S34M Telegraph Cree 5.60 106 Pn Pn 06 18 52.5 -0.2
WRH Wood River Hil 5.62 328 Pn 06 18 54.1 +1.2
I28M Miner Creek 5.63 6 Pn 06 18 54.6 +1.5
I28M Miner Creek 5.63 6 Pn Pn 06 18 54.4 +1.3
CCB Clear Creek Bu 5.68 330 Pn 06 18 55.1 +1.4
I27K Kandik River 5.76 359 Pn 06 18 55.8 +0.9
RED Redoubt Volcan 5.78 280 Pn Pn 06 18 57.5 +2.3
I30M Mount Dempster 5.83 21 Pn Pn 06 18 58.6 +2.8
ILSW Illiamna Southw 5.98 276 Pn Pn 06 18 59.6 +1.6
KDAK Kodiak Island 6.24 255 Pn 06 19 02.5 +1.1
H27K Steamboat Moun 6.39 359 Pn Pn 06 19 04.5 +1.1
Q19K Cape Douglas, 6.40 267 Pn Pn 06 19 05.6 +2.0
H29M Whitestone 6.51 10 Pn Pn 06 19 06.3 +1.3
H29M Whitestone 6.51 10 Pn Pn 06 19 06.4 +1.3
H31M Peel River 6.74 25 Pn Pn 06 19 09.8 +1.5
OHAK Old Harbor 6.83 252 Pn Pn 06 19 10.2 +0.7
N18K Kilae Creek 7.32 283 Pn Pn 06 19 16.5 +0.2
H21K Melozitna Rive 7.85 323 Pn Pn 06 19 24.1 +0.6
I20K Naaghedeneel 7.88 314 Pn Pn 06 19 23.4 -0.5
J19K Poorman 7.93 308 Pn Pn 06 19 24.7 +0.1
J18K Innoko River 8.18 303 Pn Pn 06 19 28.6 +0.5
F31M Tsiigehtchic 8.29 20 Pn Pn 06 19 30.0 +0.5
P16K Nushagak River 8.57 272 Pn Pn 06 19 35.5 +2.3
G21K Allakaket 8.65 326 Pn Pn 06 19 34.6 +0.2
H19K Roundabout Mou 8.98 316 Pn Pn 06 19 39.2 +0.3
G18K Tagagawik 9.95 315 Pn Pn 06 19 52.6 +0.4
K15K Wolf Creek Mou 10.11 293 Pn Pn 06 19 54.5 +0.2

NOU ***29*** *06:22:24.0,32˚.10S×175˚.88W,h0km,mb4.8/9,South of Kermadec Islands*
WEL ***29*** *06:22:51.9±0.8,33˚.5±.5×17˚.8W±1˚.3,h33km,M5.0/11, mB5.4/7,ML4.8/11,MLv5.1/11,Mw(mB)4.8/7,Error ellipse: s-maj=16.9km s-min=5.1km az=104.6*
IDC ***29*** *06:22:51.2±0.7,32˚.77S×178˚.54W,h0km,mb4.5/8, mbtmp4.6/11,ML4.4/3,MS3.8/32,Error ellipse: s-maj=22.4km s-min=17.5km az=97.0*
NEIC ***29*** *06:22:54.7±0.7,32˚.95S±0˚.08×178˚.8W±0˚.1,h10km±1km, mb4.5/23,Error ellipse: s-maj=22.4km s-min=12.5km az=68.0*

ISC 29 06:22:55.7±0.6,32˚.97S±0˚.05×178˚.55W±0˚.09,h32km, n130,σ1$62/110,mb4.7/22,MS3.9/29,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.74**	**8**	P	**Pn**	**06 23 48.3**	**-2.8**
GLKZ				S	**Sn**	**06 24 30.6**	**-3.4**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**3.75**	**8**	Pn	Pn	06 23 45.7	-5.6
	126nm,0.3s,baz=110,slow=21,SNR=1.9						
	270nm,0.2s						
RAO				AML	AML		
RAO	**Raoul Island**	**3.75**	**8**	Pn	**Pn**	**06 23 52.0**	**+0.7**
MXZ	**Matakaoa Point**	**5.25**	**208**	P	**Pn**	**06 24 11.2**	**-0.8**
MXZ	**Matakaoa Point**	**5.25**	**208**	P	**Pn**	**06 24 11.5**	**-0.5**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.43**	**206**	P	**Pn**	**06 24 14.2**	**-0.2**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.61**	**208**	P	**Pn**	**06 24 16.0**	**-0.9**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.64**	**211**	P	**Pn**	**06 24 16.6**	**-0.6**
HAZ				S	**Sn**	**06 25 24.0**	**+3.2**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**5.72**	**206**	P	**Pn**	**06 24 16.6**	**-1.8**
PUZ				S	**Sn**	**06 25 23.9**	**+1.0**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.86**	**211**	P	**Pn**	**06 24 19.3**	**-1.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.91**	**208**	P	**Pn**	**06 24 20.6**	**-0.6**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.10**	**205**	P	**Pn**	**06 24 21.8**	**-1.8**
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	**6.23**	**210**	P	**Pn**	**06 24 24.1**	**-1.4**
URZ	**Urewera**	**6.35**	**213**	Pn	**Pn**	**06 24 27.3**	**+0.3**
	21nm,0.3s,baz=270,slow=4.0,SNR=48						
URZ				Sn	**Sn**	**06 25 37.3**	**-1.1**
	17nm,0.3s,baz=125,slow=16,SNR=8.5						
URZ				LR	LR	06 27 03.3	
	comp=Z,576nm,18.5s,baz=22,slow=39						
	46nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**6.35**	**213**	P	**Pn**	**06 24 26.6**	**-0.4**
URZ	**Urewera**	**6.35**	**213**	P	**Pn**	**06 24 25.9**	**-1.2**
URZ				AML	AML		
URZ				AML	AML		
RIGZ	**Rimuhau**	**6.46**	**207**	P	**Pn**	**06 24 27.1**	**-1.5**
WCZ	**Waipu Caves**	**6.57**	**241**	P	**Pn**	**06 24 34.3**	**+4.2**
WCZ				AML	AML		
WCZ				AML	AML		
PRGZ	**Paritu Road**	**6.61**	**205**	P	**Pn**	**06 24 28.8**	**-1.8**
RTZ	**Ruatahuna**	**6.70**	**212**	P	**Pn**	**06 24 32.1**	**+0.1**
KNZ	**Kokohu**	**6.77**	**206**	P	**Pn**	**06 24 30.1**	**-2.7**
TOZ	**Tahuroa Road**	**6.79**	**224**	P	**Pn**	**06 24 35.2**	**+2.1**
TOZ				AML	AML		
TOZ				AML	AML		
OUZ	**Omahuta**	**6.89**	**249**	P	Pn	06 24 39.1	+4.6
OUZ	**Omahuta**	**6.89**	**249**	P	Pn	06 24 39.4	+4.9
OUZ				AML	AML		
OUZ				AML	AML		
BKZ	**Black Stump Fm**	**7.37**	**212**	P	**Pn**	**06 24 40.8**	**-0.3**
BKZ	**Black Stump Fm**	**7.37**	**212**	P	**Pn**	**06 24 41.3**	**+0.2**
TMVZ	**Te Maari**	**7.70**	**216**	P	**Pn**	**06 24 45.7**	**0.0**
NTVZ	**North Tongarir**	**7.70**	**216**	P	**Pn**	**06 24 45.9**	**+0.2**
HIZ	**Hauiti**	**7.70**	**222**	P	**Pn**	**06 24 47.6**	**+2.0**
HIZ	**Hauiti**	**7.70**	**222**	P	**Pn**	**06 24 45.0**	**-0.6**
ETVZ	**East Tongariro**	**7.71**	**215**	P	**Pn**	**06 24 45.7**	**-0.2**
KRVZ	**Karewarewa**	**7.71**	**216**	P	**Pn**	**06 24 47.9**	**+2.1**
OTVZ	**Oturere**	**7.75**	**216**	P	**Pn**	**06 24 46.0**	**-0.5**
WTVZ	**West Tongariro**	**7.75**	**216**	P	**Pn**	**06 24 47.0**	**+0.6**
NGZ	**Ngauruhoe**	**7.79**	**216**	P	**Pn**	**06 24 46.9**	**-0.1**
PXZ	**Pawanui**	**7.95**	**206**	P	**Pn**	**06 24 47.7**	**-1.4**
PXZ				S	**Sn**	**06 26 13.5**	**-4.4**
TSZ	**Takapari Road**	**8.34**	**210**	P	**Pn**	**06 24 53.3**	**-1.1**
BFZ	**Birch Farm**	**8.75**	**207**	P	**Pn**	**06 24 56.5**	**-3.5**
BFZ	**Birch Farm**	**8.75**	**207**	P	**Pn**	**06 24 56.3**	**-3.7**
MRZ	**Mangatainoka R**	**9.00**	**210**	P	**Pn**	**06 24 59.2**	**-4.2**
CTZ	**Chatham Island**	**10.85**	**173**	P	Pn	06 25 24.6	-4.2
THZ	**Tophouse**	**11.10**	**215**	P	**Pn**	**06 25 29.0**	**-3.1**
KHZ	**Kahutara**	**11.31**	**211**	P	**Pn**	**06 25 34.3**	**-0.8**
KHZ	**Kahutara**	**11.31**	**211**	P	**Pn**	**06 25 32.7**	**-2.4**
RPZ	**Rata Peaks**	**13.46**	**214**	Pn	Pn	06 25 58.7	-5.8
	0.2nm,0.3s,baz=35,slow=21,SNR=1.3						
RPZ				Sn	Sn	06 28 20.6	-12
	0.4nm,0.3s,baz=324,slow=11,SNR=3.6						
ODZ	**Otahua Downs**	**14.68**	**212**	P	**Pn**	**06 26 18.5**	**-2.5**
JCZ	**Jackson Bay**	**14.85**	**218**	P	**Pn**	**06 26 22.6**	**-0.8**
MSVF	**Nonsavu**	**15.48**	**348**	Pn	**P**	**06 26 36.9**	**+0.9**
	0.3nm,0.3s,baz=148,slow=18,SNR=3.8						
MSVF				LR	LR	06 31 35.9	
	comp=Z,529nm,18.8s,baz=167,slow=34						
OUENC	**Ouen Island, N**	**16.65**	**305**	Pn	**Pn**	**06 26 44.8**	**-2.0**
OUENC				IAmb	IAmb	06 27 06.7	
	comp=Z,25nm,1.0s						
DZM	**Mont Dzumac**	**17.16**	**305**	P	**Pn**	**06 26 51.3**	**-1.9**
	comp=Z,0.1nm,0.3s,baz=116,slow=11,SNR=4.1						
DZM				LR	LR	06 32 26.1	
	comp=Z,1μm,18.2s,baz=202,slow=34						
	comp=Z,4.3nm,0.8s						
DZM				AML	AML		
FUTU	**Fugatoga**	**18.58**	**1**	P	**Pn**	**06 27 13.8**	**+3.2**
FUTU				IAmb	IAmb	06 27 35.6	
	comp=Z,57nm,1.1s						
LHI	**Lord Howe Isla**	**18.99**	**268**	P	**P**	**06 27 13.4**	**-1.2**
LHI				IAmb	IAmb	06 27 39.4	
	comp=Z,36nm,1.1s						
RAR	**Rarotonga**	**20.37**	**60**	LR	LR	06 33 14.7	
	comp=Z,132nm,21.8s,baz=244,slow=31						
ARMA	**Armidale**	**25.46**	**268**	P	**P**	**06 28 20.6**	**-0.4**
ARMA				IAmb	IAmb	06 28 24.1	
	comp=Z,11nm,1.1s						
CAN	**Canberra**	**26.90**	**256**	P	**P**	**06 28 33.3**	**-0.6**
EIDS	**Eidsvold**	**27.51**	**278**		**P**	**06 28 38.9**	**-0.5**
EIDS				IAmb	IAmb	06 28 42.7	
	comp=Z,14nm,1.0s						
PPT2	**Papeete2**	**30.21**	**67**	*e*LR	LR	06 36 52.2	
	comp=Z,180nm,25.8s						
PPT2				*e*LR	LR	06 36 57.2	
	comp=Z,237nm,24.8s						
PPT	**Papeete**	**30.23**	**67**	LR	LR	06 42 39.9	
	comp=Z,82nm,18.1s,baz=210,slow=40						
HNR	**Honiara**	**30.70**	**315**	P	**P**	**06 29 07.1**	**-0.7**
	comp=Z,182nm,0.4s,baz=85,slow=11,SNR=6.6						
STKA	**Stephens Creek**	**33.52**	**261**	P	**P**	**06 29 33.3**	**+0.8**
	comp=Z,1.7nm,0.8s,baz=58,slow=10,SNR=3.3						
STKA				LR	LR	06 42 31.0	
	comp=Z,398nm,18.3s,baz=51,slow=35						
	comp=Z,1.7nm,0.8s						
STKA	**Stephens Creek**	**33.52**	**261**	P	**P**	**06 29 32.2**	**-0.2**
CTA	**Charters Tower**	**33.84**	**283**	P	**P**	**06 29 36.1**	**+0.8**
	comp=Z,10nm,0.7s,baz=112,slow=10,SNR=13						
CTA				LR	LR	06 41 55.6	
	comp=Z,136nm,18.3s,baz=54,slow=34						
	comp=Z,10nm,0.7s						
CTAO	**Charters Tower**	**33.84**	**283**	P	**P**	**06 29 34.7**	**-0.6**
INKA	**Innaminka**	**35.35**	**267**	P	**P**	**06 29 46.7**	**-1.6**
INKA				IAmb	IAmb	06 29 51.3	
	comp=Z,8.8nm,0.8s						
BBOO	**Buckleboo**	**37.89**	**257**	P	**P**	**06 30 09.1**	**-0.8**
BBOO				IAmb	IAmb	06 30 37.8	
	comp=Z,9.4nm,1.1s						
RKT	**Rikitea**	**39.45**	**87**	*e*LR	LR	06 41 14.8	
	comp=Z,5μm,44.5s						
AS31	**Alice Springs**	**42.57**	**270**		**P**	**06 30 48.7**	**-0.2**
ASAR	**Alice Springs**	**42.57**	**270**	P	**P**	**06 30 48.9**	**+0.1**
	comp=Z,5.8nm,0.7s,baz=110,slow=7.4,SNR=82						
ASAR				PcP	**PcP**	**06 32 40.6**	**-0.3**
	comp=Z,0.4nm,0.5s,baz=104,slow=3.8,SNR=1.4						
ASAR				ScP	**ScP**	**06 36 33.5**	**+4.2**
	comp=Z,0.6nm,0.9s,baz=96,slow=5.5,SNR=3.0						
ASAR				S	**S**	**06 37 06.9**	**-2.7**
	comp=Z,0.7nm,0.9s,baz=116,slow=15,SNR=5.6						
ASAR				LR	LR	06 48 12.6	
	comp=Z,137nm,18.2s,baz=106,slow=36						
	comp=Z,5.8nm,0.7s						
ASAR	**Alice Springs**	**42.57**	**270**		**P**	**06 30 48.7**	**-0.2**
WR8	**Warramunga Arr**	**43.65**	**275**		**P**	**06 30 57.4**	**-0.1**
WR8				IAmb	IAmb	06 31 04.5	
	comp=Z,18nm,1.1s						
WRAB	**Tennant Creek**	**43.79**	**275**	P	**P**	**06 30 58.5**	**-0.2**
WRAB				IAmb	IAmb	06 31 00.3	
	comp=Z,17nm,1.1s						
WRA	**Warramunga Arr**	**43.79**	**275**	P	**P**	**06 30 58.8**	**+0.1**
	comp=Z,8.7nm,0.5s,baz=116,slow=7.7,SNR=150						
WRA				S	**S**	**06 37 23.9**	**-3.6**
	comp=Z,0.7nm,1.0s,baz=117,slow=13,SNR=3.6						
	comp=Z,8.7nm,0.5s						
WRA	**Warramunga Arr**	**43.79**	**275**		**P**	**06 30 58.2**	**-0.5**
WB0	**Warramunga Arr**	**43.83**	**275**		**P**	**06 30 58.9**	**-0.1**
FORT	**Forrest**	**44.99**	**258**	P	**P**	**06 31 07.8**	**-0.4**
FORT				IAmb	IAmb	06 31 10.0	
	comp=Z,6.8nm,0.9s						
VNDA	**Vanda**	**45.50**	**186**	LR	LR	06 47 15.1	
	comp=Z,77nm,18.3s,baz=353,slow=32						
JAY	**Jayapura**	**48.71**	**300**	LR	LR	06 52 44.4	
	comp=Z,82nm,18.2s,baz=7.5,slow=37						
MTN	**Manton Dam**	**49.98**	**281**	P	**P**	**06 31 46.8**	**-0.3**
MTN				IAmb	IAmb	06 32 02.2	
	comp=Z,2.0nm,0.8s						
KNRA	**Kununurra**	**50.49**	**277**	P	**P**	**06 31 50.7**	**-0.2**
KNRA				IAmb	IAmb	06 31 52.0	
	comp=Z,2.9nm,0.7s						
FITZ	**Fitzroy Crossi**	**51.94**	**272**	P	**P**	**06 32 01.4**	**-0.4**
	comp=Z,6.6nm,0.8s,baz=171,slow=5.3,SNR=14						
FITZ				LR	LR	06 53 50.6	
	comp=Z,282nm,18.4s,baz=144,slow=36						
	comp=Z,6.6nm,0.8s						
FITZ	**Fitzroy Crossi**	**51.94**	**272**	P	**P**	**06 32 01.5**	**-0.3**
CASY	**Casey**	**52.66**	**209**	P	**P**	**06 32 07.4**	**+0.9**
CASY				IAmb	IAmb	06 32 22.2	
	comp=Z,8.7nm,0.8s						
SIJI	**Sorong**	**56.88**	**294**	LR	LR	06 56 51.3	
	comp=Z,104nm,18.9s,baz=88,slow=36						
QSPA	**South Pole Qui**	**57.15**	**180**	P	**P**	**06 32 41.4**	**+2.3**
	comp=Z,15nm,1.0s,baz=342,slow=1.3,SNR=40						
	comp=Z,15nm,1.0s						
QSPA	**South Pole Qui**	**57.15**	**180**	P	**P**	**06 32 41.6**	**+2.4**
SOEI	**Soe**	**57.30**	**280**	P	**P**	**06 32 40.9**	**0.0**
BATI	**Baumata**	**57.56**	**279**	LR	LR	06 59 16.7	
	comp=Z,165nm,18.2s,baz=142,slow=38						
RPN	**Rapa Nui**	**59.23**	**104**	LR	LR	06 54 40.4	
	comp=Z,30nm,18.7s,baz=201,slow=32						
KAPI	**Kappang**	**63.64**	**282**	LR	LR	07 01 35.4	
	comp=Z,82nm,18.1s,baz=95,slow=36						
MAW	**Mawson**	**69.75**	**201**	P	**P**	**06 34 05.0**	**+2.9**
	comp=Z,0.9nm,0.6s,baz=131,slow=6.3,SNR=4.9						
MAW				LR	LR	07 03 54.1	
	comp=Z,89nm,19.5s,baz=112,slow=35						
	comp=Z,0.9nm,0.6s						
MAW	**Mawson**	**69.75**	**201**	P	**P**	**06 34 03.7**	**+1.5**
TROLL	**Troll, Antarti**	**75.31**	**180**	P	**P**	**06 34 36.3**	**+0.9**
	comp=Z,248nm,0.7s						
VNA3	**Neumayer Olymp**	**75.78**	**176**	P	**P**	**06 34 38.1**	**+0.2**
	comp=Z,15nm,0.7s						
VNA2	**Neumayer--Watz**	**76.20**	**177**	P	**P**	**06 34 41.0**	**+0.7**
	comp=Z,9.7nm,0.6s,baz=168,slow=5.3						
VNA1	**Neumayer--Stat**	**76.44**	**177**	P	**P**	**06 34 42.1**	**+0.5**
	comp=Z,8.8nm,0.8s						
PLCA	**Paso Flores**	**81.10**	**133**	LR	LR	07 02 55.1	
	comp=Z,59nm,20.0s,baz=280,slow=30						
JNU	**Nakatsue**	**81.17**	**319**	LR	LR	07 07 08.4	
	comp=Z,16nm,18.1s,baz=116,slow=33						
ASAJ	**Asahikawa**	**84.51**	**333**	LR	LR	07 05 37.6	
	comp=Z,53nm,21.6s,baz=83,slow=30						
PSI	**Prapat**	**85.25**	**276**	LR	LR	07 13 50.9	
	comp=Z,113nm,20.3s,baz=106,slow=36						
KSRS	**Korea Array**	**86.01**	**320**	LR	LR	07 12 08.9	
	comp=Z,29nm,19.0s,baz=145,slow=34						
PETK	**Petropavlovsk-**	**88.18**	**346**	P	**P**	**06 35 42.0**	**-0.9**
	comp=Z,3.9nm,0.9s,baz=177,slow=6.6,SNR=3.3						
PETK				LR	LR	07 08 13.6	
	comp=Z,58nm,21.1s,baz=147,slow=31						
	comp=Z,3.9nm,0.9s						
PETK	**Petropavlovsk-**	**88.18**	**346**	P	**P**	**06 35 43.2**	**+0.2**
PFO	**Pinyon Flats O**	**88.28**	**48**	LR	LR	07 10 16.6	
	comp=Z,52nm,18.0s,baz=296,slow=32						
USRK	**Ussuriysk Ar.**	**89.05**	**327**	LR	LR	07 11 42.3	
	comp=Z,21nm,18.4s,baz=319,slow=33						
YBH	**Yreka Blue Hor**	**90.34**	**38**	LR	LR	07 09 54.0	
	comp=Z,43nm,18.8s,baz=258,slow=31						
KLR	**Kul'dur**	**93.02**	**330**	LR	LR	07 13 43.8	
	comp=Z,50nm,20.2s,baz=227,slow=33						
NNA	**Nana**	**93.16**	**106**	LR	LR	07 09 01.6	
	comp=Z,47nm

FINES	**FINES Array B**	**147.37**	**338**		**PKPbc**	**06 42 35.0**	**-0.3**
NB2	**NORSAR Subarra**	**151.21**	**350**	PKP	**PKPbc**	**06 42 44.5**	**-0.5**
	comp=Z,3.6nm,0.8s,baz=15,slow=4.1						
NOA	**NORSAR Array B**	**151.21**	**350**	PKPbc	**PKPbc**	**06 42 44.6**	**-0.5**
	comp=Z,1.4nm,0.8s,baz=20,slow=4.7,SNR=10						
MMAI	**Mount Meron Ar**	**151.59**	**279**	PKPbc	**PKiKP**	**06 42 47.7**	**+0.4**
	comp=Z,3.5nm,0.6s,baz=46,slow=6.0,SNR=6.7						
HFS	**Hagfors**	**151.65**	**347**	PKPbc	**PKPbc**	**06 42 45.7**	**-0.3**
	comp=Z,2.9nm,0.7s,baz=108,slow=3.2,SNR=7.3						
AKASG	**Malin Array Be**	**153.00**	**319**	PKPbc	**PKPbc**	**06 42 49.2**	**-0.2**
	comp=Z,2.4nm,0.8s,baz=60,slow=2.3,SNR=9.0						
BR104	**Keskin Array S**	**153.31**	**294**	PKP	**PKPdf**	**06 42 42.2**	**-0.9**
BRTR	**Keskin Array B**	**153.31**	**294**	PKPbc	**PKPbc**	**06 42 50.0**	**-0.6**
	comp=Z,1.9nm,0.8s,baz=125,slow=4.1,SNR=11						
CLL	**Collm**	**159.82**	**339**	*e*PKPab	**PKPab**	**06 43 30.0**	**0.0**
TORD	**Torodi Ar. Bea**	**160.26**	**181**	PKPab	**PKPab**	**06 43 34.2**	**+1.4**
	comp=Z,0.6nm,0.6s,baz=202,slow=3.1,SNR=3.6						
TORD	**Torodi Ar. Bea**	**160.26**	**181**		**PKPab**	**06 43 34.5**	**+1.7**
GERES	**GERESS Array B**	**161.68**	**334**	PKPab	**PKPab**	**06 43 37.7**	**-0.7**
	comp=Z,0.8nm,0.8s,baz=39,slow=4.6,SNR=5.1						
GERES	**GERESS Array B**	**161.68**	**334**	PKPdf	**PKPdf**	**06 42 55.0**	**+1.8**
GERES				PKPab	**PKPab**	**06 43 38.1**	**-0.2**

*IDC **29** 06:41:18.3±3.0,32.°74S×178.°45W,h0km,mb3.5/2, mbtmp3.6/3,ML3.6/1,Error ellipse: s-maj=71.2km s-min=45.3km az=123.0*
*WEL **29** 06:41:26.9±1.5,34.°5S×179.°17'8W±2.°0,h281km±47km, M4.0/3,mB4.1/1,ML4.0/7,MLv4.0/3,Mw(mB)3.2/1,Error ellipse: s-maj=25.9km s-min=24.5km az=106.5*
ISC 29 06:41:17.9±2.0,33.°2S±0.°1×177.°6W±0.°2,h26km,n16, σ2°20/25,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PKGZ	**Pakihiroa**	**5.81**	**216**	P	**Pn**	**06 42 44.5**	**+2.1**
PKGZ				S	**Sn**	**06 43 49.6**	**+1.3**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.88**	**219**	P	**Pn**	**06 42 46.6**	**+3.3**
HAZ				S	**Sn**	**06 43 49.2**	**-0.6**
HAZ				AML	AML		
PUZ	**Puketiti**	**5.89**	**214**	S	**Sn**	**06 43 51.0**	**+0.8**
RUGZ	**Raukumara Rang**	**6.09**	**218**	P	**Pn**	**06 42 48.0**	**+1.6**
RUGZ				S	**Sn**	**06 43 55.8**	**+0.5**
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.11**	**215**	P	**Pn**	**06 42 47.8**	**+1.3**
TWGZ				S	**Sn**	**06 43 56.5**	**+1.0**
MWZ	**Matawai**	**6.45**	**217**	P	**Pn**	**06 42 54.0**	**+2.8**
MWZ				S	**Sn**	**06 44 02.9**	**-1.1**
MWZ				AML	AML		
URZ	**Urewera**	**6.61**	**219**	Pn	**Pn**	**06 42 55.9**	**+2.6**
	1.2nm,0.3s,baz=352,slow=15,SNR=8.6						
URZ				Sn	**Sn**	**06 44 05.2**	**-2.6**
	1.7nm,0.3s,baz=194,slow=23,SNR=6.4						
	4.6nm,0.5s						
URZ				AML	AML		
URZ	**Urewera**	**6.61**	**219**	P	**Pn**	**06 42 55.7**	**+2.4**
URZ				S	**Sn**	**06 44 05.1**	**-2.7**
URZ				AML	AML		
RIGZ	**Rimuhau**	**6.63**	**213**	P	**Pn**	**06 42 56.6**	**+2.9**
RIGZ				S	**Sn**	**06 44 06.3**	**-2.1**
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	**6.95**	**220**	P	**Pn**	**06 42 59.9**	**+1.8**
MUGZ				AML	AML		
MUGZ				AML	AML		
WCZ	**Waipu Caves**	**7.17**	**246**	P	**Pn**	**06 43 04.1**	**+3.0**
OUZ	**Omahuta**	**7.56**	**252**	P	**Pn**	**06 43 08.6**	**+2.1**
BKZ	**Black Stump Fm**	**7.61**	**217**	P	**Pn**	**06 43 06.2**	**-0.9**
BKZ				S	**Sn**	**06 44 29.1**	**-3.4**
ASAR	**Alice Springs**	**43.37**	**270**	P	**P**	**06 49 16.8**	**-1.6**
	0.3nm,0.6s,baz=111,slow=7.3,SNR=8.2						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**44.62**	**275**	P	**P**	**06 49 26.5**	**-1.8**
	0.4nm,0.4s,baz=115,slow=8.1,SNR=11						
	0.4nm,0.4s						
FINES	**FINES Array B**	**147.91**	**339**	PKPbc	**PKiKP**	**07 01 01.9**	**+0.1**
	2.0nm,0.9s,baz=46,slow=4.4,SNR=6.9						

IDC 29 06:56:58.9±66.0,15.°16S×168.°62E,h0km,mb3.7/3, mbtmp3.7/3,Error ellipse: s-maj=1113.0km s-min=127.3km az=67.0,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**29.73**	**231**	P	P	07 03 06.2	-0.8
	0.9nm,0.4s,baz=45,slow=6.6,SNR=3.8						
	0.9nm,0.4s						
WRA	**Warramunga Arr**	**32.99**	**257**	P	P	07 03 36.4	+0.6
	0.2nm,0.4s,baz=88,slow=9.3,SNR=2.8						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**33.75**	**250**	P	P	07 03 42.5	+0.1
	0.5nm,0.5s,baz=75,slow=9.5,SNR=25						
	0.5nm,0.5s						

*IDC **29** 06:58:28.9±0.9,33.°87S×72.°44W,h0km,mb3.6/4, mbtmp3.5/8,ML3.3/4,MS3.7/1,Error ellipse: s-maj=22.4km s-min=13.6km az=139.0*
*SJA **29** 06:58:29.5±0.7,33.°97S×72.°41W,h22km±2km,ML3.7, MW4.1*
*GUC **29** 06:58:31.1±0.7,33.°95S×72.°39W,h36km±2km,ML3.7, Presumed earthquake*
ISC 29 06:58:31.8±1.5,34.°03S±0.°03×72.°42W±0.°05,h27km±11km, n62,σ1°50/89,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BO03	**Pichilemu**	**0.60**	**141**	*e*P	**Pn**	**06 58 43.4**	**-1.2**
BO03				*i* S	**Sn**	**06 58 52.5**	**-1.0**
MT01	**Popeta**	**0.99**	**81**	*e*P	**Pn**	**06 58 48.5**	**-1.5**
MT01				*e*S	**Sn**	**06 59 02.3**	**-0.7**
MT01				IAML		06 59 03.9	
	comp=Z,2μm,0.4s						
MT01	**Popeta**	**0.99**	**81**	*e*P	**Pn**	**06 58 48.5**	**-1.5**
MT01				*i* S	**Sn**	**06 59 01.1**	**-1.9**
MT01				IAML		06 59 02.2	
	comp=N,2μm,0.3s						
GO05	**Hualane**	**1.06**	**158**	*e*P	**Pn**	**06 58 50.7**	**-0.3**
GO05				*e*S	**Sb**	**06 59 06.7**	**+1.7**
GO05				IAML		06 59 08.3	
	comp=Z,1μm,0.9s						
GO05	**Hualane**	**1.06**	**158**	*e*P	**Pn**	**06 58 51.1**	**+0.2**
GO05				*i* S	**Sn**	**06 59 05.8**	**+0.9**
BO01	**Tunca**	**1.17**	**108**	*e*P	**Pn**	**06 58 50.4**	**-1.9**
BO01				*e*S	**Sn**	**06 59 08.3**	**+0.9**
BO01				IAML		06 59 12.8	
	comp=Z,620nm,0.3s						
VA01	**Torpederas**	**1.20**	**33**	*e*P	**Pn**	**06 58 51.2**	**-1.7**
VA01				IAML		06 59 20.6	
	comp=Z,670nm,0.7s						
VA01	**Torpederas**	**1.20**	**33**	*e*P	**Pn**	**06 58 51.1**	**-1.7**
VA01				*i* S	**Sn**	**06 59 05.6**	**-2.5**
VA01				IAML		06 59 09.2	
	comp=E,632nm,0.5s						
MT09	**Talagante**	**1.22**	**78**	*e*P	**Pn**	**06 58 52.0**	**-1.3**
MT09				*i* S	**Sn**	**06 59 07.5**	**-1.4**
MT09				IAML		06 59 13.0	
	comp=N,2μm,0.3s						
MT02	**Curacav**	**1.32**	**55**	*e*P	**Pn**	**06 58 53.2**	**-1.3**
MT02				IAML		06 59 15.6	
	comp=Z,1μm,0.6s						
MT02	**Curacav**	**1.32**	**55**	*e*P	**Pn**	**06 58 53.0**	**-1.6**
MT02				*i* S	**Sn**	**06 59 09.7**	**-1.6**
BO04	**La Punta**	**1.51**	**89**	*e*P	**Pn**	**06 58 56.5**	**-0.6**
BO04				*i* S	**Sn**	**06 59 16.3**	**+0.4**
MT05	**Renca**	**1.54**	**66**	*e*P	**Pn**	**06 58 57.5**	**-0.2**
MT05				IAML		06 59 25.1	
	comp=Z,712nm,1.3s						
MT05	**Renca**	**1.54**	**66**	*e*P	**Pn**	**06 58 56.8**	**-0.8**
MT05				*i* S	**Sn**	**06 59 16.5**	**-0.3**
BO02	**Sierra Bellavi**	**1.55**	**120**	*e*P	**Pn**	**06 58 55.3**	**-2.5**
BO02				*e*S	**Sb**	**06 59 19.8**	**+0.6**
BO02				IAML		06 59 25.2	
	comp=Z,2μm,0.4s						
ROCH	**El Roble**	**1.58**	**49**	*e*P	**Pn**	**06 58 57.1**	**-1.2**
ROCH				*i* S	**Sn**	**06 59 17.1**	**-1.0**
MT12	**Pirque**	**1.59**	**80**	*e*P	**Pn**	**06 58 57.5**	**-0.8**
MT12				*i* S	**Sn**	**06 59 18.5**	**+0.6**
MT12				IAML		06 59 28.2	
	comp=E,3μm,0.5s						

MT03	**Universidad Ad**	**1.68**	**72**	*e*P	**Pn**	**06 58 59.5**	**0.0**
MT03				*e*S	**Sn**	**06 59 21.2**	**+1.0**
MT03				IAML		06 59 32.4	
	comp=Z,809nm,0.9s						
MT03	**Universidad Ad**	**1.68**	**72**	*e*P	**Pn**	**06 58 58.8**	**-0.8**
MT03				*i* S	**Sn**	**06 59 20.4**	**+0.2**
MT14	**Cerro Cal¡n**	**1.69**	**69**	*e*P	**Pn**	**06 58 59.2**	**-0.5**
PEL	**Peldehue**	**1.70**	**59**	*e*P	**Pn**	**06 58 59.5**	**-0.2**
PEL				*e*S	**Sb**	**06 59 29.4**	**+6.1**
PEL				IAML		06 59 30.3	
	comp=Z,1μm,0.8s						
PEL	**Peldehue**	**1.70**	**59**	*e*P	**Pn**	**06 58 59.3**	**-0.4**
PEL				*i* S	**Sn**	**06 59 21.2**	**+0.5**
PEL				IAML		06 59 30.2	
	comp=N,2μm,0.5s						
MT13	**San Alfonso**	**1.80**	**81**	*e*P	**Pn**	**06 59 01.1**	**-0.1**
MT13				*e*S	**Sb**	**06 59 26.4**	**0.0**
MT13				IAML		06 59 32.5	
	comp=Z,746nm,1.1s						
MT13	**San Alfonso**	**1.80**	**81**	*e*P	**Pn**	**06 59 01.6**	**+0.3**
MT13				*i* S	**Sn**	**06 59 23.9**	**+0.7**
MT13				IAML		06 59 28.3	
	comp=E,1μm,0.3s						
LMEL	**Las Melosas**	**1.85**	**85**	*e*P	**Pn**	**06 59 02.2**	**+0.2**
LMEL				*i* S	**Sn**	**06 59 25.5**	**+0.9**
LMEL				IAML		06 59 35.7	
	comp=N,1μm,0.7s						
FCH	**Farellones**	**1.91**	**69**	*e*P	**Pn**	**06 59 02.3**	**-0.6**
FCH				*i* S	**Sn**	**06 59 26.9**	**+0.6**
ML02	**Panimavida**	**1.91**	**155**	*e*P	**Pn**	**06 58 59.4**	**-3.3**
ML02				*e*S	Sn	06 59 09.9	-16
ML02				IAML		06 59 40.6	
	comp=Z,1μm,0.8s						
MT04	**Ro Olivares**	**2.00**	**72**	*e*P	Pn	06 58 50.0	-14
MT04				IAML		06 59 37.2	
	comp=Z,415nm,0.6s						
VA03	**San Esteban**	**2.01**	**52**	*e*P	**Pn**	**06 59 04.0**	**-0.2**
VA03				*e*S	**Sn**	**06 59 29.0**	**+0.6**
VA03				IAML		06 59 37.1	
	comp=Z,1μm,1.2s						
VA03	**San Esteban**	**2.01**	**52**	*i* S	**Sn**	**06 59 28.2**	**-0.2**
VA03				IAML		06 59 39.0	
	comp=N,2μm,0.5s						
MT08	**Bocatoma Ro**	**2.09**	**74**	*e*P	**Pn**	**06 59 05.4**	**+0.1**
MT08				*e*S	**Sn**	**06 59 31.9**	**+1.3**
MT08				IAML		06 59 41.4	
	comp=Z,495nm,0.8s						
MT08	**Bocatoma Ro**	**2.09**	**74**	*e*P	**Pn**	**06 59 05.2**	**-0.1**
MT08				*i* S	**Sn**	**06 59 31.6**	**+1.1**
BI05	**Punta Hualpn**	**2.78**	**193**	*e*P	**Pn**	**06 59 15.6**	**+1.0**
BI05				IAML		07 00 05.4	
	comp=Z,149nm,2.2s						
EDS3	**Malargue**	**3.03**	**126**	*e*S	**Sb**	**06 59 59.9**	**-1.9**
CO02	**Combarbal**	**3.06**	**23**	*e*P	**Pn**	**06 59 17.6**	**-1.1**
CO02				*e*S	**Sn**	**06 59 53.0**	**-1.4**
CO02				IAML		07 00 12.5	
	comp=Z,301nm,1.1s						
AAGR	**Agrelo**	**3.15**	**74**	*e*P	**Pn**	**06 59 18.8**	**-1.0**
AAGR				IAML		07 00 34.5	
	comp=Z,140nm,1.2s						
ARCO	**CERRO ARCO**	**3.15**	**69**	*e*P	**Pb**	**06 59 25.3**	**-2.0**
ARCO				*e*S	Sb	07 00 15.2	+10
ARCO				IAML		07 00 17.4	
	comp=Z,222nm,0.9s						
RFA	**San Rafael**	**3.35**	**104**	*e*P	**Pn**	**06 59 21.2**	**-1.3**
RFA				*e*P		06 59 25.6	
RFA				*e*S	**Sb**	**07 00 12.7**	**+1.7**
RFA				IAML		07 00 19.3	
	comp=Z,189nm,1.5s						
RTLS	**Leoncito**	**3.44**	**51**	*e*P	**Pn**	**06 59 25.5**	**+1.5**
RTLS				*e*S	**Sb**	**07 00 15.4**	**+1.5**
RTLS				IAML		07 00 28.5	
	comp=Z,547nm,0.8s						
CO03	**El Pedregal**	**3.50**	**25**	*e*P	**Pn**	**06 59 23.9**	**-0.8**
CO03				*e*S	**Sb**	**07 00 14.5**	**-0.8**
CO03				IAML		07 00 28.0	
	comp=Z,196nm,0.6s						
GO04	**Tololo Observa**	**4.09**	**20**	*e*P	**Pn**	**06 59 31.7**	**-1.1**
GO04				*e*S	**Sb**	**07 00 33.0**	**+0.8**
GO04				IAML		07 00 44.5	
	comp=Z,196nm,0.6s						
DOCA	**Reserva Natura**	**4.17**	**43**	*e*P	**Pn**	**06 59 35.3**	**+1.2**
CFA	**Coronel Fontan**	**4.27**	**57**	Pn	**Pn**	**06 59 35.9**	**+0.7**
	comp=Z,0.6nm,0.3s,baz=242,slow=14,SNR=22						
CFA				Sn	**Sn**	**07 00 25.7**	**+1.5**
	comp=Z,1.9nm,0.3s,baz=206,slow=16,SNR=1.8						
CFA				Lg	Lg	07 00 37.0	
	comp=Z,2.9nm,0.3s,baz=88,slow=12,SNR=5.5						
	comp=Z,1.5nm,0.3s						
CFA				AML	AML		
ACCO	**Cerro Coronel**	**4.46**	**41**	*e*P	**Pn**	**06 59 39.6**	**+1.6**
ACCO				*e*S	**Sb**	**07 00 49.0**	**+6.0**
ACCO				IAML		07 00 59.2	
	comp=Z,90nm,1.2s						
CO01	**Juntas del Tor**	**4.50**	**27**	*e*P	**Pn**	**06 59 38.5**	**0.0**
H03S1	**Juan Fernandez**	**5.39**	**270**	T	T	07 05 56.9	
	baz=96,slow=74						
H03S3	**Juan Fernandez**	**5.40**	**270**	T	T	07 05 58.4	
	baz=96,slow=74						
H03S2	**Juan Fernandez**	**5.41**	**270**	T	T	07 05 56.0	
	baz=96,slow=74						
H03N1	**Juan Fernandez**	**5.44**	**274**	Pn	**Pn**	**06 59 51.3**	**+0.4**
H03N1	baz=334,slow=74						
				T	T	07 05 52.7	
	baz=99,slow=74,SNR=4.9						
H03N3	**Juan Fernandez**	**5.45**	**274**	Pn	**Pn**	**06 59 51.2**	**+0.2**
	baz=55,slow=74						
H03N2	**Juan Fernandez**	**5.46**	**274**	Pn	**Pn**	**06 59 51.8**	**+0.6**
H03N2				T	T	07 05 55.8	
	baz=163,slow=74,SNR=7.9						
PLCA	**Paso Flores**	**6.85**	**168**	Pn	**Pn**	**07 00 12.7**	**+2.0**
	comp=Z,0.2nm,0.3s,baz=341,slow=12,SNR=6.7						
PLCA				Lg	Lg	07 01 59.5	
	baz=291,slow=11						
	comp=Z,0.6nm,0.4s						
PLCA				AML	AML		
CPUP	**Villa Florida**	**15.13**	**64**	Pn	**Pn**	**07 02 04.5**	**+0.7**
	baz=293,slow=18,SNR=1.4						
	comp=Z,0.5nm,0.5s						
LPAZ	**La Paz**	**18.09**	**13**	P	**Pn**	**07 02 40.5**	**-1.4**
	comp=Z,0.1nm,0.3s,baz=194,slow=7.9,SNR=7.2						
	comp=Z,1.6nm,0.7s						
LPAZ				AML	AML		
SIV	**San Ignacio**	**20.67**	**32**	P	**P**	**07 03 07.8**	**-1.9**
	comp=Z,1.2nm,0.8s,baz=202,slow=13,SNR=7.6						
	comp=Z,1.2nm,0.8s						
MDP	**Montagnes des**	**43.18**	**30**	LR	LR	07 26 24.9	
	comp=Z,79nm,18.8s,baz=174,slow=39						
TXAR	**Lajitas Array**	**69.61**	**331**	P	**P**	**07 09 39.3**	**+0.6**
	comp=Z,0.1nm,0.6s,baz=151,slow=8.4,SNR=5.3						
	comp=Z,0.1nm,0.6s						
MAW	**Mawson**	**73.24**	**164**	P	**P**	**07 10 01.6**	**+1.6**
	comp=Z,1.5nm,0.9s,baz=159,slow=9.8,SNR=2.4						
	comp=Z,1.5nm,0.9s						
TORD	**Torodi Ar. Bea**	**84.52**	**70**	P	**P**	**07 11 02.6**	**-0.2**
	comp=Z,0.7nm,0.8s,baz=230,slow=3.6,SNR=2.7						
	comp=Z,0.7nm,0.8s						
BVAR	**Borovoye Array**	**147.52**	**43**	PKPbc	**PKPab**	**07 18 14.2**	**-0.9**
	comp=Z,0.9nm,0.6s,baz=291,slow=4.0,SNR=4.4						
KURBB	**Kurchatov Arra**	**153.11**	**43**	PKPbc	**PKiKP**	**07 18 27.3**	**+0.6**
	comp=Z,0.5nm,0.3s,baz=284,slow=3.7,SNR=4.2						
ZALV	**Zalesovo Beam**	**154.42**	**32**	PKPbc	**PKiKP**	**07 18 29.8**	**+0.5**
	comp=Z,1.1nm,0.9s,baz=321,slow=2.0,SNR=3.7						

*CATAC **29** 07:07:40.0±0.5,0.°5S±2.°7×7.°8W±5.°,h5km±2km,M3.2/6, MLv3.2/6,Error ellipse: s-maj=6.4km s-min=3.4km az=104.8,confirmed*
*RSNC **29** 07:07:43.9±0.3,0.°7N±2.°7×7.°9W±5.°,h0km,M2.7,ML2.1*
ISC 29 07:07:39.2±0.8,0.°03S±0.°02×78.°48W±0.°03,h14km±5km, n23,σ1°46/41,Ecuador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PULU	**Pululahua**	**0.06**	**335**	P	**Pg**	**07 07 42.5**	**0.0**
PULU				S	**Sg**	**07 07 44.7**	**+0.1**
GGPC	**Guagua Pichinc**	**0.19**	**219**	P	**Pg**	**07 07 44.3**	**+0.2**
GGPC				S	**Sg**	**07 07 47.8**	**+0.5**
OTAV	**Otavalo**	**0.27**	**6**	P	**Pb**	**07 07 45.5**	**-0.7**
OTAV				S	**Sb**	**07 07 50.1**	**-0.6**
OTAV	**Otavalo**	**0.27**	**6**	P	**Pg**	**07 07 45.2**	**0.0**
OTAV				S	**Sb**	**07 07 50.0**	**-0.7**
CUSE	**Cuicocha Este**	**0.34**	**13**	P	**Pb**	**07 07 46.8**	**-0.6**
CUSE				S	**Sb**	**07 07 52.9**	**0.0**
IMBA	**Imbabura, San**	**0.41**	**42**	P	**Pb**	**07 07 49.0**	**+0.4**
IMBA				S	**Sb**	**07 07 55.9**	**+1.0**
PAC1	**Pacto, Paraso**	**0.43**	**313**	P	**Pb**	**07 07 48.8**	**+0.1**
PAC1				S	**Sb**	**07 07 55.3**	**+0.2**
ANTS	**Antisana-Sarah**	**0.56**	**146**	P	**Pg**	**07 07 49.4**	**-1.0**
SLOR	**San Lorenzo -**	**0.69**	**182**	P	**Pg**	**07 07 53.2**	**+0.3**
VCES	**Cotopaxi**	**0.77**	**174**	P	**Pg**	**07 07 53.9**	**-0.3**
VCES				S	**Sg**	**07 08 04.1**	**-0.3**
PIAT	**Ana Tenorio**	**0.98**	**167**	P	**Pb**	**07 07 56.4**	**-1.9**
PIAT				S	**Sg**	**07 08 08.4**	**-2.8**
TULM	**Tulcn-Chalpat**	**1.01**	**43**	P	**Pn**	**07 07 59.6**	**+0.1**
TULM				S	**Sn**	**07 08 13.4**	**-0.3**
FLF1	**Flavio Alfaro-**	**1.40**	**257**	P	**Pg**	**07 08 06.2**	**0.0**
FLF1				S	**Sg**	**07 08 27.3**	**+2.8**
CHKH	**Refugio Sur-Vo**	**1.50**	**195**	P	**Pb**	**07 08 08.1**	**+0.9**
BBAC	**Balboa, Cauca**	**2.38**	**31**	P	**Pb**	**07 08 23.2**	**+1.2**
BBAC				S	**Sg**	**07 08 56.3**	**+0.4**
PPLP	**Puerto Lpez**	**2.75**	**237**	P	**Pn**	**07 08 25.0**	**+2.1**
PPLP				S	**Sb**	**07 09 02.9**	**+1.2**
POPC	**Popayan, Colom**	**3.13**	**35**	P	**Pb**	**07 08 36.5**	**+1.8**
POPC				S	**Sg**	**07 09 19.5**	**-0.3**
FLOC	**Florencia**	**3.25**	**60**	P	**Pb**	**07 08 37.1**	**+0.4**
FLOC				S	**Sb**	**07 09 18.8**	**+2.6**
PTLC	**Puerto Leguiza**	**3.69**	**87**	P	**Pb**	**07 08 45.3**	**+1.1**
PTLC				S	**Sb**	**07 09 30.3**	**+1.5**
JAMC	**Jamundi, Valle**	**3.69**	**29**	P	**Pb**	**07 08 41.0**	**-3.4**
JAMC				S	**Sb**	**07 09 30.4**	**+1.2**
GARC	**Garzon, Huila**	**3.71**	**54**	P	**Pg**	**07 08 52.1**	**+1.7**
GARC				S	**Sb**	**07 09 31.3**	**+1.6**
YOTC	**Yotoco, Valle**	**4.52**	**28**	P	**Pb**	**07 08 55.8**	**-2.7**
CNGA	**Al SSO del Vol**	**14.88**	**327**	P	**Pn**	**07 11 06.7**	**-2.7**

*SJA **29** 07:19:33.4±0.6,23.°02S×69.°33W,h104km±4km,ML3.7, MW3.7*
*GUC **29** 07:19:33.1±0.5,23.°07S×69.°30W,h115km±3km,ML4.1, Presumed earthquake*
ISC 29 07:19:32.7±1.5,23.°05S±0.°04×69.°31W±0.°06, h115km±10km,n34,σ0°61/48,14C-2D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB06	**IPOC Station P**	**0.42**	**324**	*i* P	**Pn**	**07 19 49.9**	**0.0**
PB06				*i* S	**Sn**	**07 20 01.7**	**-1.1**
PB06				IAML		07 20 02.4	
	comp=Z,5μm,0.2s						
PB06	**IPOC Station P**	**0.42**	**324**	⇓*e*P	**Pn**	**07 19 49.9**	**0.0**
PB06				*e*S	**Sn**	**07 20 01.7**	**-1.1**
PB06				IAML		07 20 02.1	
	comp=N,12μm,0.2s						
PB05	**IPOC Station P**	**0.85**	**283**	*i* P	**Pn**	**07 19 53.6**	**+0.5**
PB05				*i* S	**Sn**	**07 20 08.0**	**-0.3**
PB05				IAML		07 20 13.6	
	comp=Z,628nm,0.3s						
PB05	**IPOC Station P**	**0.85**	**283**	⇑*e*P	**Pn**	**07 19 53.5**	**+0.5**
PB05				*e*S	**Sn**	**07 20 08.1**	**-0.3**
AF01	**San Pedro de A**	**1.04**	**85**	IAML		07 20 24.2	
	comp=Z,4μm,0.6s						
AF01	**San Pedro de A**	**1.04**	**85**	⇓*e*P	**Pn**	**07 19 55.2**	**+0.1**
AF01				*e*S	**Sn**	**07 20 11.6**	**-0.4**
AF01				IAML		07 20 11.9	
	comp=E,7μm,0.3s						
PB03	**IPOC Station P**	**1.08**	**337**	*i* P	**Pn**	**07 19 55.8**	**+0.5**
PB03				*i* S	**Sn**	**07 20 11.9**	**-0.5**
PB03				IAML		07 20 13.5	
	comp=Z,4μm,0.1s						
PB03	**IPOC Station P**	**1.08**	**337**	⇑*e*P	**Pn**	**07 19 55.9**	**+0.5**
PB03				*e*S	**Sn**	**07 20 12.3**	**-0.2**
PB03				IAML		07 20 13.1	
	comp=E,7μm,0.2s						
PB10	**IPOC Station P**	**1.24**	**248**	*i* P	**Pn**	**07 19 57.4**	**+0.5**
PB10				*i* S	**Sn**	**07 20 15.3**	**+0.2**
PB10				IAML		07 20 20.6	
	comp=Z,203nm,0.3s						
PB10	**IPOC Station P**	**1.24**	**248**	⇑*e*P	**Pn**	**07 19 57.5**	**+0.7**
PB10				*e*S	**Sn**	**07 20 14.8**	**-0.3**
PB09	**IPOC Station P**	**1.25**	**3**	*i* P	**Pn**	**07 19 58.0**	**+0.7**
PB09				*i* S	**Sn**	**07 20 15.2**	**-0.5**
PB09				IAML		07 20 17.4	
	comp=Z,823nm,0.4s						
PB09	**IPOC Station P**	**1.25**	**3**	⇑*e*P	**Pn**	**07 19 58.1**	**+0.9**
PB09				*e*S	**Sn**	**07 20 16.4**	**+0.7**
PB09				IAML		07 20 17.9	
	comp=E,2μm,0.4s						
PB07	**IPOC Station P**	**1.43**	**338**	*i* P	**Pn**	**07 19 59.8**	**+0.6**
PB07				*i* S	**Sn**	**07 20 19.0**	**-0.2**
PB07				IAML		07 20 21.2	
	comp=Z,1μm,0.2s						
PB07	**IPOC Station P**	**1.43**	**338**	*e*P	**Pn**	**07 19 59.5**	**+0.4**
PB07				*e*S	**Sn**	**07 20 19.4**	**+0.2**
PB02	**IPOC Station P**	**1.81**	**342**	*i* P	**Pn**	**07 20 04.3**	**+0.6**
PB02				*i* S	**Sn**	**07 20 27.6**	**+0.3**
PB02				IAML		07 20 31.4	
	comp=Z,1μm,0.2s						
PB02	**IPOC Station P**	**1.81**	**342**	⇑*e*P	**Pn**	**07 20 04.3**	**+0.6**
PB02				*e*S	**Sn**	**07 20 28.1**	**+0.8**
PB02				IAML		07 20 30.1	
	comp=N,2μm,0.5

	434nm,0.3s							
AFI				AML	AML			
H11S2	**WAKE ISLAND Hy**	**38.83**	**329**	T	T	08 21 19.9		
	baz=146,slow=74							
H11S3	**WAKE ISLAND Hy**	**38.84**	**329**	T	T	08 21 19.9		
	baz=146,slow=74							
H11S1	**WAKE ISLAND Hy**	**38.84**	**329**	T	T	08 21 21.1		
	baz=146							
H11N3	**WAKE ISLAND Hy**	**39.77**	**330**	T	T	08 22 30.7		
	baz=148							
H11N1	**WAKE ISLAND Hy**	**39.77**	**330**	T	T	08 22 29.0		
	baz=148							
H11N2	**WAKE ISLAND Hy**	**39.79**	**330**	T	T	08 22 30.1		
	baz=148							
WRA	**Warramunga Arr**	**50.06**	**257**	P	**P**	**07 41 38.8**	**-1.1**	
	0.1nm,0.3s,baz=95,slow=6.3,SNR=1.9							
	0.1nm,0.3s							
ASAR	**Alice Springs**	**50.34**	**252**	P	**P**	**07 41 41.0**	**-1.1**	
	1.0nm,0.6s,baz=88,slow=7.9,SNR=22							
	1.0nm,0.6s							
PDAR	**Pinedale Array**	**81.97**	**42**	P	**P**	**07 45 05.5**	**+0.6**	
	0.3nm,0.7s,baz=223,slow=3.3,SNR=3.5							
	0.3nm,0.7s							
ILAR	**Eielson Array**	**82.17**	**11**	P	**P**	**07 45 06.3**	**+1.2**	
	0.5nm,0.7s,baz=225,slow=6.4,SNR=8.1							
	0.5nm,0.7s							
BRTR	**Keskin Array B**	**146.06**	**321**	PKPbc	**PKPbc**	**07 52 25.2**	**+0.1**	
	0.9nm,0.7s,baz=64,slow=3.4,SNR=5.3							

*ISK **29** 07:40:56.9,36.49N×26.97E,h106km±1km,ML2.8/18*
*ATH **29** 07:40:57.8,36.50N×26.94E,h100km±3km,ML3.1/10,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
*THE **29** 07:40:59.1,36.4N±4.2×27.7E±.1,h94km±8km,M2.8/7,*
MLh2.8/7

ISC 29 07:40:57.4±1.5,**36.49N**±0.04×**26.96E**±0.03,**h106**km±10km,
n44,σ0**845**/62,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KLNA	**Kalymnos**	**0.47**	**2**	P	**Pn**	**07 41 13.5**	**-0.1**
ASTA	**Astypalaia**	**0.49**	**277**	P	**Pn**	**07 41 13.8**	**0.0**
DAT	**Datca**	**0.56**	**64**	P	**Pn**	**07 41 15.0**	**+0.6**
DAT				S	**Sn**	**07 41 27.3**	**+0.2**
DAT				AML	AML		
DAT	**Datca**	**0.56**	**64**	Pg	**Pn**	**07 41 14.4**	**0.0**
DAT				Sg	**Sn**	**07 41 27.1**	**0.0**
DAT				AML	AML		
BODT	**Bodrum**	**0.64**	**26**	P	**Pn**	**07 41 15.2**	**+0.3**
BODT				S	**Sn**	**07 41 29.4**	**+1.2**
BODT				AML	AML		
BODT	**Bodrum**	**0.64**	**26**	Pg	**Pn**	**07 41 14.9**	**0.0**
BODT				Sg	**Sn**	**07 41 28.2**	**+0.1**
BODT				AML	AML		
KARP	**Karpathos**	**0.95**	**170**	P	**Pn**	**07 41 17.8**	**0.0**
KARP				S	**Sn**	**07 41 32.6**	**-0.6**
KARP				AML	AML		
KARP	**Karpathos**	**0.95**	**170**	Pg	**Pn**	**07 41 17.8**	**0.0**
KARP				Sg	**Sn**	**07 41 32.9**	**-0.3**
KARP				AML	AML		
KARP	**Karpathos**	**0.95**	**170**	P	**Pn**	**07 41 17.7**	**-0.2**
KARP				S	**Sn**	**07 41 32.6**	**-0.6**
KARP				AML	AML		
ARG	**Arkhangelos**	**0.98**	**106**	P	**Pn**	**07 41 18.8**	**+0.7**
ARG				S	**Sn**	**07 41 32.8**	**-0.9**
ARG				AML	AML		
ARG	**Arkhangelos**	**0.98**	**106**	Pg	**Pn**	**07 41 18.4**	**+0.3**
ARG				Sg	**Sn**	**07 41 33.9**	**+0.2**
ARG				AML	AML		
ARG	**Arkhangelos**	**0.98**	**106**	P	**Pn**	**07 41 18.2**	**+0.1**
ARG				S	**Sn**	**07 41 33.5**	**-0.2**
ARG				AML	AML		
RODB	**Rodos**	**1.02**	**92**	P	**Pn**	**07 41 18.2**	**-0.3**
RODB				S	**Sn**	**07 41 34.0**	**-0.4**
RODB				AML	AML		
MLSB	**Milas**	**1.04**	**39**	Pg	**Pn**	**07 41 18.9**	**+0.1**
MLSB				Sg	**Sn**	**07 41 34.5**	**-0.4**
MLSB				AML	AML		
TURN	**Turunc**	**1.08**	**74**	Pg	**Pn**	**07 41 19.2**	**+0.1**
TURN				Sg	**Sn**	**07 41 35.1**	**-0.3**
TURN				AML	AML		
APE	**Apeiranthos**	**1.28**	**297**	Pn	**Pn**	**07 41 21.5**	**+0.1**
APE	**Apeiranthos**	**1.28**	**297**	P	**Pn**	**07 41 21.6**	**+0.1**
APE				S	**Sn**	**07 41 38.9**	**-0.8**
DALY	**Dalyan (Mula)**	**1.40**	**76**	Pn	**Pn**	**07 41 23.2**	**+0.4**
DALY				Sn	**Sn**	**07 41 42.0**	**-0.1**
DALY				AML	AML		
ZKR	**Zakros**	**1.50**	**204**	P	**Pn**	**07 41 24.1**	**+0.1**
ZKR				S	**Sn**	**07 41 43.7**	**-0.4**
ZKR	**Zakros**	**1.50**	**204**	Pn	**Pn**	**07 41 24.8**	**+0.8**
ZKR				AML	AML		
ZKR	**Zakros**	**1.50**	**204**	P	**Pn**	**07 41 24.5**	**+0.6**
ZKR				S	**Sn**	**07 41 44.4**	**+0.3**
NPS	**Neapolis**	**1.64**	**222**	P	**Pn**	**07 41 25.9**	**+0.2**
NPS				S	**Sn**	**07 41 47.6**	**+0.3**
NPS				AML	AML		
NPS	**Neapolis**	**1.64**	**222**	P	**Pn**	**07 41 25.2**	**-0.5**
NPS				AML	AML		
FETY	**Fethiye**	**1.72**	**84**	Pn	**Pn**	**07 41 27.2**	**+0.5**
FETY				AML	AML		
CAME	**Cameli-Denizli**	**1.94**	**76**	Pn	**Pn**	**07 41 29.6**	**0.0**
CAME				AML	AML		
IDI	**Anoyia**	**2.06**	**235**	Pn	**Pn**	**07 41 31.2**	**+0.1**
IDI				AML	AML		
IDI	**Anoyia**	**2.06**	**235**	P	**Pn**	**07 41 30.6**	**-0.5**
IDI				AML	AML		
APMY	**Acipayam-Deniz**	**2.12**	**62**	Pn	**Pn**	**07 41 31.9**	**+0.1**
APMY				AML	AML		
AKAS	**Kas**	**2.15**	**96**	Pn	**Pn**	**07 41 32.4**	**+0.1**
AKAS				AML	AML		
SIVA	**Sivas**	**2.28**	**231**	P	**Pn**	**07 41 34.1**	**+0.3**
SIVA				AML	AML		
ELL	**Elmali**	**2.39**	**83**	Pn	**Pn**	**07 41 35.7**	**+0.3**
ELL				AML	AML		
DEMR	**Demre-Antalya**	**2.39**	**95**	Pn	**Pn**	**07 41 34.7**	**-0.6**
DEMR				AML	AML		
VAM	**Vamos**	**2.48**	**245**	P	**Pn**	**07 41 36.2**	**-0.2**
IMMV	**Iera Moni Meta**	**2.62**	**248**	Pn	**Pn**	**07 41 39.5**	**+1.2**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**2.62**	**248**	P	**Pn**	**07 41 38.4**	**+0.1**
IMMV				AML	AML		
RODP	**Rodopos**	**2.75**	**251**	P	**Pn**	**07 41 40.0**	**0.0**
RODP				AML	AML		
GVD	**Gavdhos**	**2.86**	**236**	Pn	**Pn**	**07 41 42.5**	**+1.1**
GVD				AML	AML		
VLY	**Voula,Athens**	**2.87**	**299**	P	**Pn**	**07 41 41.5**	**0.0**
GVDS	**Gavdos**	**2.88**	**236**	P	**Pn**	**07 41 41.9**	**+0.3**
DION	**Dionisos Attik**	**2.89**	**304**	P	**Pn**	**07 41 41.9**	**+0.1**
ATHU	**Athens Univers**	**2.93**	**301**	P	**Pn**	**07 41 42.4**	**+0.1**
KNDR	**Palaiochora Ch**	**2.98**	**246**	P	**Pn**	**07 41 43.5**	**+0.5**
ANKY	**Antikythira Is**	**3.02**	**259**	P	**Pn**	**07 41 43.6**	**0.0**
VLI	**Veliai**	**3.24**	**275**	P	**Pn**	**07 41 46.2**	**-0.3**

*IDC **29** 08:00:00.9±1.8,25.61N×96.16E,h0km,mb3.4/6,*
mbtmp3.4/6,Error ellipse: s-maj=75.8km s-min=27.2km
az=62.0

ISC 29 08:00:06.3±1.6,**25.7N**±0.2×**96.2E**±0.4,**h35**km,**n6**,σ0**858**/6,
mb3.2/6,**Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**23.55**	**17**	P	**P**	**08 05 14.0**	**+0.5**
	0.4nm,0.7s,baz=216,slow=8.9,SNR=2.2						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	**23.84**	**336**	P	**P**	**08 05 15.8**	**-0.4**
	0.3nm,0.3s,baz=132,slow=12,SNR=4.7						
	0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**28.41**	**336**	P	**P**	**08 05 57.3**	**0.0**
	0.2nm,0.5s,baz=148,slow=10,SNR=4.1						
	0.2nm,0.5s						
ZALV	**Zalesovo Beam**	**29.52**	**346**	P	**P**	**08 06 06.3**	**-0.8**
	0.4nm,0.4s,baz=160,slow=8.8,SNR=1.9						
	0.4nm,0.4s						
BVAR	**Borovoye Array**	**33.51**	**332**	P	**P**	**08 06 42.4**	**+0.1**
	0.6nm,0.6s,baz=123,slow=10,SNR=2.4						
	0.6nm,0.6s						
ASAR	**Alice Springs**	**61.11**	**140**	P	**P**	**08 10 17.1**	**0.0**
	0.1nm,0.6s,baz=326,slow=6.8,SNR=1.6						
	0.1nm,0.6s						

*GCG **29** 08:07:28.0±2.3,17.59N×92.54W,h0km±47km,MD5.3,*
Presumed earthquake
*IDC **29** 08:07:29.9±0.6,17.39N×92.41W,h0km,mb4.2/16,*
mbtmp4.2/19,ML3.8/5,MS4.1/54,Error ellipse:
s-maj=12.6km s-min=7.8km az=52.0
*NEIC **29** 08:07:31.8±2.1,17.42N±0.02×92.55W±0.04,h10km±1km,*
mb4.6/269,Md4.8/54(MEX),Error ellipse: s-maj=6.2km
s-min=3.2km az=92.0
*CATAC **29** 08:07:32.2±0.4,17.1N±2.2×93.3W±.,h17km,M5.9/13,*
mb6.1/1,mB6.2/1,MLv5.8/13,Mw(mB)5.9/1,MwMwp4.7/1,
Mwp5.0/1,Error ellipse: s-maj=6.0km s-min=4.6km
az=126.7,Moment Tensor Solution. Moment tensor:
Scale 10^16Nm; Mrr2.20; Mθθ-2.38; Mϕϕ0.18; Mrθ-1.55;
Mθϕ0.72; Mϕr-0.57; Fault plane solution: M0 2.91864×10^16
NP1:ϕs124.64520°,δ33.50635°,λ124.36894°. NP2:
ϕs265.28596°,δ62.89285°,λ69.50740°. Principal axes: T
2.8881, Plg65.7554°, Azm138.2120°; N 0.0602,
Plg18.1576°, Azm274.9505°; P -2.9483, Plg15.5099°,
Azm10.1724°; confirmed
*GFZ **29** 08:07:33.2±0.2,17.1N±3.3×93.2W±.,h10km,M4.7/22,*
mb4.6/22,Mw4.9/35 Error ellipse: s-maj=9.8km
s-min=5.0km az=63.2,confirmed
*GCMT **29** 08:07:34.8±0.2,17.5N±0.01×92.42W±0.02,h12km,*
MW5.0/115,Moment Tensor Solution. s56,c77;
s115,c184; Duration: 0 Moment tensor: Scale 10^16Nm;
Mrr3.18±.06; Mθθ-2.90±.06; Mϕϕ-0.28±.06; Mrθ-2.65±.18;
Mθϕ1.23±.05; Mϕr-0.38±.22; Best double couple:
M0 4.23800×10^16 NP1:ϕs128.00000°,δ30.00000°,
λ121.00000°. NP2:ϕs274.00000°,δ65.00000°,λ74.00000°.
Principal axes: T 4.3100, Plg66.0000°, Azm155.0000°;
N -0.1480, Plg15.0000°, Azm281.0000°; P -4.1660,
Plg18.0000°, Azm16.0000°; nsta1 refers to body waves,
cutoff=40s. nsta2 refers to surface waves, cutoff=50s.
Triangular moment-rate function
*MEX **29** 08:07:36.6±1.5,17.23N×92.68W,h7km,MD4.8,*
Presumed earthquake
*RSNC **29** 08:07:40.8±2.4,18.1N±3.9×92.2W±2.3,h145km±8km,M4.7,*
mB5.2,mb4.8,ML4.7,Mw(mB)4.6,MwMwp4.6,Mwp5.0

ISC 29 08:07:31.7±1.2,**17.33N**±0.02×**92.58W**±0.02,**h16**km±8km,
n455,σ2**806**/400,**mb4.6**/90,**MS4.2**/54,**3C-2D**,**Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TGIG		**0.76**	**224**		**Pb**	**08 07 46.8**	**+0.3**
TGIG					**Sg**	**08 07 56.6**	**+0.1**
TGIG		**0.76**	**224**	*eP*	**Pb**	**08 07 46.8**	**+0.3**
TGIG				*i* S	**Sg**	**08 07 56.6**	**+0.1**
CCIG	**Comitan**	**1.12**	**158**		**Pb**	**08 07 52.8**	**0.0**
CCIG	**Comitan**	**1.12**	**158**	*eP*	**Pb**	**08 07 52.6**	**-0.3**
	baz=326,slow=11						
CCIG				*i* S	**Sg**	**08 08 09.8**	**+1.7**
UXUV	**UXUV**	**1.50**	**270**		**Pb**	**08 07 59.5**	**+0.3**
UXUV					**Sn**	**08 08 16.6**	**-0.6**
UXUV	**UXUV**	**1.50**	**270**	*eP*	**Pb**	**08 07 59.5**	**+0.3**
	baz=89,slow=7.9						
UXUV				*i* S	**Sn**	**08 08 16.6**	**-0.6**
PCIG		**1.73**	**201**		**Pb**	**08 08 02.7**	**-0.3**
PCIG					**Sn**	**08 08 21.9**	**-0.9**
PCIG		**1.73**	**201**	*eP*	**Pb**	**08 08 02.7**	**-0.3**
PCIG				*eS*	**Sn**	**08 08 21.9**	**-0.9**
TUIG	**Tuzandepetl**	**1.90**	**292**	*eP*	**Pb**	**08 08 05.9**	**-0.1**
TUIG				*i* S	**Sn**	**08 08 27.8**	**+0.8**
SCIG	**Sabancuy**	**2.10**	**39**	P	**Pn**	**08 08 05.6**	**-0.7**
SCIG				S	**Sn**	**08 08 33.3**	**+1.2**
SCIG	**Sabancuy**	**2.10**	**39**		**Pn**	**08 08 07.5**	**+1.3**
SCIG					**Sb**	**08 08 35.6**	**+0.3**
SCIG	**Sabancuy**	**2.10**	**39**	*eP*	**Pn**	**08 08 07.5**	**+1.3**
SCIG				*i* S	**Sb**	**08 08 35.6**	**+0.3**
PAVE	**Pavencul**	**2.15**	**170**		**Pb**	**08 08 09.2**	**-1.3**
PAVE	**Pavencul**	**2.15**	**170**	*eP*	**Pb**	**08 08 09.2**	**-1.3**
PAVE				*e*		08 08 38.0	
CMIG	**Matias Romero**	**2.22**	**264**	Pn	**Pn**	**08 08 08.2**	**+0.3**
	15nm,0.3s,baz=88,slow=12,SNR=37						
CMIG				Lg	Lg	08 08 44.5	
	155nm,0.3s,baz=107,slow=14,SNR=10						
CMIG				AML	AML		
CMIG	**Matias Romero**	**2.22**	**264**		**Pb**	**08 08 09.8**	**-1.7**
CMIG					**Sn**	**08 08 34.7**	**-0.3**
CMIG	**Matias Romero**	**2.22**	**264**	*eP*	**Pb**	**08 08 09.8**	**-1.7**
CMIG				*eS*	**Sn**	**08 08 34.7**	**-0.3**
PATR	**El Naranjo**	**2.22**	**171**		**Pb**	**08 08 10.2**	**-1.4**
PATR					**Sb**	**08 08 38.7**	**-0.3**
PATR	**El Naranjo**	**2.22**	**171**	*eP*	**Pb**	**08 08 10.2**	**-1.4**
PATR				*eS*	**Sb**	**08 08 38.7**	**-0.3**
HUEH	**Huehuetenango**	**2.25**	**153**	P	**Pn**	**08 08 09.9**	**+1.4**
HUEH				S	**Sb**	**08 08 39.3**	**-0.4**
HUEH	**Huehuetenango**	**2.25**	**153**		**Pn**	**08 08 10.3**	**+1.8**
HUEH	**Huehuetenango**	**2.25**	**153**	*i* P	**Pn**	**08 08 09.7**	**+1.2**
HUEH				*i* S	**Sn**	**08 08 35.8**	**-0.2**
HUEH	**Huehuetenango**	**2.25**	**153**	*eP*	**Pn**	**08 08 09.8**	**+1.4**
HUEH				*eS*	**Sn**	**08 08 38.0**	**+2.0**
CHUJ	**Union Juarez**	**2.27**	**168**	*eP*	**Pb**	**08 08 11.0**	**-1.4**
CHUJ				*i* S	**Sn**	**08 08 36.1**	**-0.3**
THIG		**2.42**	**173**	*eP*	**Pb**	**08 08 13.8**	**-1.1**
THIG				*eS*	**Sg**	**08 08 48.6**	**-1.1**
PETF	**Flores**	**2.62**	**99**	P	**Pn**	**08 08 13.3**	**-0.1**
PETF	**Flores**	**2.62**	**99**		**Pn**	**08 08 13.1**	**-0.3**
PETF				Sn	**Sn**	**08 08 45.0**	**0.0**
PETF	**Flores**	**2.62**	**99**	*i* P	**Pn**	**08 08 13.0**	**-0.5**
PETF	**Flores**	**2.62**	**99**	*eP*	**Pn**	**08 08 12.9**	**-0.5**
PETF				*eS*	**Sn**	**08 08 44.0**	**-0.9**
QUEO	**Labor Ovalle**	**2.65**	**157**	*i* P	**Pn**	**08 08 16.6**	**+2.6**
QUEO				*i* S	**Sb**	**08 08 52.2**	**+0.9**
PMUV	**Sontecomapan**	**2.71**	**297**		**Pn**	**08 08 14.8**	**+0.1**
PMUV					**Sn**	**08 08 46.0**	**-1.2**
PMUV	**Sontecomapan**	**2.71**	**297**	*eP*	**Pn**	**08 08 14.8**	**+0.1**
PMUV				*i* S	**Sn**	**08 08 46.0**	**-1.2**
AVCB	**Coban**	**2.78**	**131**	*i* P	**Pn**	**08 08 16.6**	**+0.9**
RTAL	**Retalhuleu**	**2.91**	**163**	P	**Pn**	**08 08 20.4**	**+2.9**
RTAL				S	**Sb**	**08 08 56.2**	**-2.5**
RTAL	**Retalhuleu**	**2.91**	**163**		**Pn**	**08 08 19.5**	**+2.1**
RTAL	**Retalhuleu**	**2.91**	**163**	*eP*	**Pn**	**08 08 20.4**	**+2.9**
RTAL				*eS*	**Sn**	**08 08 54.5**	**+2.4**
APG	**El Apazote**	**3.07**	**138**	Pn	**Pn**	**08 08 19.4**	**-0.5**
	1.8nm,0.3s,baz=233,slow=20,SNR=64						
APG				Sn	**Sn**	**08 08 55.6**	**-0.8**
	17nm,0.3s,baz=86,slow=17,SNR=11						
APG				Lg	Lg	08 09 07.5	
	65nm,0.3s,baz=238,slow=19,SNR=12						
APG				AML	AML		
APG	**El Apazote**	**3.07**	**138**	*i* P	**Pn**	**08 08 19.3**	**-0.5**
APG				*i* S	**Sg**	**08 09 08.4**	**-2.2**
STG8	**El Palmar, Qui**	**3.09**	**157**	*i* P	**Pn**	**08 08 16.9**	**-3.2**
NEUV	**Arroyo Zacate**	**3.10**	**278**		**Pn**	**08 08 22.9**	**+2.8**
NEUV					**Sb**	**08 09 01.2**	**-3.0**
NEUV	**Arroyo Zacate**	**3.10**	**278**	*eP*	**Pn**	**08 08 22.9**	**+2.8**
NEUV				*eS*	**Sb**	**08 09 01.2**	**-3.0**
GCG4	**OSOP**	**3.36**	**144**	*i* P	**Pn**	**08 08 25.0**	**+1.3**
FG16	**Alotenango, Sa**	**3.63**	**146**	*i* P	**Pn**	**08 08 24.4**	**-3.1**
HUIG	**Huatulco**	**3.73**	**246**	*eP*	**Pn**	**08 08 29.9**	**+1.3**
HUIG				*eS*	**Sn**	**08 09 11.9**	**-0.3**
OXLC	**Oaxaca**	**3.95**	**267**	*eP*	Pn	08 08 24.4	-7.6
OXLC				*eS*	**Sn**	**08 09 10.1**	**-8.0**
VHO	**Vista Hermosa**	**3.98**	**267**	*eP*	**Pn**	**08 08 35.6**	**+3.3**
VHO				*eS*	**Sn**	**08 09 17.7**	**-1.1**
IZABA	**Izabal, Puerto**	**4.14**	**112**	P	**Pn**	**08 08 34.6**	**+0.3**
IZABA				S	**Sn**	**08 09 23.3**	**+0.8**
IZABA	**Izabal, Puerto**	**4.14**	**112**	*eP*	**Pn**	**08 08 33.5**	**-0.8**
IZABA				*i* S	**Sb**	**08 09 35.2**	**+1.0**
ESQI	**Esquipulas**	**4.15**	**131**		**Pn**	**08 08 36.7**	**+2.1**
SLOZ	**Alcaldia de Sa**	**4.24**	**140**	P	**Pn**	**08 08 35.6**	**-0.2**
MTO3	**Montecristo**	**4.25**	**133**	P	**Pn**	**08 08 36.8**	**+0.8**
MTO3				S	**Sn**	**08 09 28.0**	**+2.6**
MTO3	**Montecristo**	**4.25**	**133**		**Pn**	**08 08 36.2**	**+0.2**
MTO3	**Montecristo**	**4.25**	**133**	*i* P	**Pn**	**08 08 35.8**	**-0.2**
FAME	**Alcaldia de Sa**	**4.25**	**144**	P	**Pn**	**08 08 37.3**	**+1.4**
NUBE	**Las Nubes**	**4.34**	**141**	P	**Pn**	**08 08 37.5**	**+0.3**
NUBE	**Las Nubes**	**4.34**	**141**	*i* P	**Pn**	**08 08 37.5**	**+0.3**
TOIG	**Toxpalan**	**4.35**	**281**		**Pn**	**08 08 39.0**	**+1.8**
TOIG					**Sn**	**08 09 25.8**	**-1.8**
TOIG	**Toxpalan**	**4.35**	**281**	*eP*	**Pn**	**08 08 39.0**	**+1.8**
TOIG				*eS*	**Sn**	**08 09 25.8**	**-1.8**
SARH	**Santa Rosa de**	**4.46**	**124**	*i* P	**Pn**	**08 08 38.4**	**-0.3**
JAUV	**Jalcomulco**	**4.50**	**297**		**Pn**	**08 08 39.4**	**+0.1**
JAUV					**Sn**	**08 09 31.0**	**-0.3**
JAUV	**Jalcomulco**	**4.50**	**297**	*eP*	**Pn**	**08 08 39.4**	**+0.1**
JAUV				*i* S	**Sn**	**08 09 31.0**	**-0.3**
PEIG	**Puerto Escondi**	**4.58**	**254**	*eP*	**Pn**	**08 08 39.8**	**-0.5**
PEIG				*eS*	**Sb**	**08 09 43.2**	**-3.5**
TPIG	**Tehuac#an**	**4.69**	**284**	*eP*	**Pn**	**08 08 44.2**	**+2.2**
TPIG				*eS*	**Sn**	**08 09 34.1**	**-2.0**
JAYA	**Jayaque - finc**	**4.73**	**140**	P	**Pn**	**08 08 43.5**	**+0.9**
JAYA	**Jayaque - finc**	**4.73**	**140**	*i* P	**Pn**	**08 08 43.6**	**+0.9**
PMON	**Piamonte**	**4.77**	**138**	P	**Pn**	**08 08 43.8**	**+0.7**
YOIG	**Yosondua**	**4.78**	**265**	*eP*	**Pn**	**08 08 45.3**	**+2.0**
YOIG				*eS*	**Sn**	**08 09 45.4**	**+6.9**
TXIG	**Tlaxiaco**	**4.96**	**270**	*eP*	**Pn**	**08 08 48.1**	**+2.3**
TXIG				*eS*	**Sn**	**08 09 42.9**	**-0.2**
TEIG	**Tepich**	**4.99**	**54**		**Pn**	**08 08 44.9**	**-1.2**
TEIG	**Tepich**	**4.99**	**54**	P	**Pn**	**08 08 44.8**	**-1.2**
TEIG	**Tepich**	**4.99**	**54**	P	**Pn**	**08 08 44.9**	**-1.2**
	comp=Z,663nm,0.7s						
HLIG	**Huajuapan de L**	**5.01**	**277**		**Pn**	**08 08 47.4**	**+0.9**
HLIG					**Sn**	**08 09 42.6**	**-1.7**
HLIG	**Huajuapan de L**	**5.01**	**277**	*eP*	**Pn**	**08 08 47.4**	**+0.9**
HLIG				*eS*	**Sn**	**08 09 42.6**	**-1.7**
PAVA	**Las Pavas**	**5.02**	**135**	P	**Pn**	**08 08 47.9**	**+1.4**
PAVA				S	**Sn**	**08 09 48.9**	**+4.6**
FTIG	**Fresnillo de T**	**5.33**	**277**	*eP*	**Pn**	**08 08 52.9**	**+2.1**
FTIG				*eS*	**Sn**	**08 09 50.7**	**-1.2**
PNIG	**Pinotepa**	**5.40**	**261**	*eP*	**Pn**	**08 08 52.7**	**+1.1**
PNIG				*eS*	**Sn**	**08 09 52.9**	**-0.5**
CXUV	**Coxquihui**	**5.53**	**302**		**Pn**	**08 08 54.5**	**+1.1**
CXUV					**Sn**	**08 10 01.2**	**+4.4**
CXUV	**Coxquihui**	**5.53**	**302**	*eP*	**Pn**	**08 08 54.5**	**+1.1**
CXUV				*eS*	**Sn**	**08 10 01.2**	**+4.4**
TLIG	**Tlapa**	**5.72**	**273**		**Pn**	**08 08 58.6**	**+2.4**
TLIG	**Tlapa**	**5.72**	**273**	*eP*	**Pn**	**08 08 57.6**	**+1.4**
TLIG				*eS*	**Sn**	**08 10 02.4**	**+0.8**
MGIG	**Malinaltepec**	**5.79**	**270**		**Pn**	**08 08 58.6**	**+1.5**
MGIG	**Malinaltepec**	**5.79**	**270**	*eP*	**Pn**	**08 08 58.6**	**+1.5**
MGIG				*eS*	**Sn**	**08 10 06.5**	**+3.1**
PPCL	**Tochimilco**	**5.96**	**286**	*eP*	**Pn**	**08 09 03.2**	**+3.6**
PPCL				*eS*	**Sn**	**08 10 03.4**	**-4.3**
PPPT	**Popocatepetl**	**5.98**	**287**	*eP*	**Pn**	**08 09 03.4**	**+3.3**
PPPT				*eS*	**Sn**	**08 10 13.1**	**+4.6**
PBPN	**Popocatepetl**	**6.00**	**287**	*eP*	**Pn**	**08 09 03.0**	**+2.6**
PBPN				*eS*	**Sn**	**08 10 13.8**	**+4.7**
TGUH	**Tegucigalpa,Un**	**6.05**	**122**		**Pn**	**08 09 01.0**	**+0.2**
TGUH	**Tegucigalpa,Un**	**6.05**	**122**	P	**Pn**	**08 09 00.7**	**0.0**
	comp=Z,2μmcomp=Z,9μmcomp=Z,349nm,0.9s						
TGUH	**Tegucigalpa,Un**	**6.05**	**122**	P	**Pn**	**08 09 01.4**	**+0.7**
	comp=Z,294nm,0.5s						
CRIG	**Cruz Grande**	**6.30**	**266**	*eP*	**Pn**	**08 09 01.3**	**-2.7**
CRIG				*eS*	**Sn**	**08 10 11.0**	**-4.6**
YAIG	**Yautepec**	**6.36**	**285**	*eP*	**Pn**	**08 09 06.8**	**+1.8**
YAIG				*eS*	**Sn**	**08 10 10.3**	**-7.0**
VTVM	**Tizayuca**	**6.36**	**293**	*eP*	**Pn**	**08 09 02.3**	**-2.8**
VTVM				*eS*	**Sn**	**08 10 17.5**	**-0.2**
MPVM	**San Francisco**	**6.39**	**288**	*eP*	**Pn**	**08 09 10.1**	**+4.6**
MPVM				*eS*	**Sn**	**08 10 20.1**	**+1.8**
XCVM	**Xochimilco**	**6.50**	**288**	*eP*	Pb	08 09 17.7	-7.0
XCVM				*i* S	**Sn**	**08 10 24.5**	**+3.4**
TLVM	**San Miguel Top**	**6.53**	**288**	*eP*	Pn	08 09 01.6	-5.8
TLVM				*eS*	**Sn**	**08 10 23.6**	**+1.9**
UNM	**Universidad Na**	**6.58**	**289**	Pn	**Pn**	**08 09 06.8**	**-1.3**
ZUVM	**ZUMPANGO**	**6.65**	**293**	*eP*	**Pn**	**08 09 07.0**	**-2.1**
ZUVM				*eS*	**Sn**	**08 10 23.7**	**-0.9**
PLIG	**Platanillo**	**6.68**	**280**		**Pn**	**08 09 08.3**	**-1.1**
PLIG					**Sn**	**08 10 21.9**	**-3.3**
PLIG	**Platanillo**	**6.68**	**280**	*eP*	**Pn**	**08 09 08.3**	**-1.1**
PLIG				*eS*	**Sn**	**08 10 21.9**	**-3.3**
MEIG	**Mezcala**	**6.74**	**276**		**Pn**	**08 09 11.1**	**+0.9**
MEIG					**Sn**	**08 10 26.9**	**+0.2**
MEIG	**Mezcala**	**6.74**	**276**	*eP*	**Pn**	**08 09 11.1**	**+0.9**
MEIG				*eS*	**Sn**	**08 10 26.9**	**+0.2**
DAIG	**Los Arroyos**	**6.77**	**268**		**Pn**	**08 09 07.9**	**-2.6**
DAIG					**Sn**	**08 10 26.5**	**-0.8**
DAIG	**Los Arroyos**	**6.77**	**268**	*eP*	**Pn**	**08 09 07.9**	**-2.6**
DAIG				*eS*	**Sn**	**08 10 26.5**	**-0.8**
MAVM	**Malinalco, Edo**	**6.78**	**285**		**Pn**	**08 09 07.7**	**-3.1**
MAVM					**Sn**	**08 10 33.7**	**+6.0**
MAVM	**Malinalco, Edo**	**6.78**	**285**	*eP*	**Pn**	**08 09 07.7**	**-3.1**

656A Willston 15.11 36 Pn 08 11 02.1 -2.5
SAND Sanderson 15.30 327 Pn 08 11 07.0 -0.2
SAND IAmb IAmb 08 11 23.4
comp=Z,30nm,1.4s
143A Socs Landing, 15.35 4 IAmb IAmb 08 11 31.7
comp=Z,21nm,0.8s
HPIG 15.43 311 Pn 08 11 10.0 +0.9
146A Union 15.57 11 IAmb IAmb 08 11 46.1
comp=Z,31nm,0.9s
FW13 Cleburne 15.59 345 Pn 08 11 10.6 -0.3
FW13 IAmb IAmb 08 11 44.1
comp=Z,25nm,0.7s
OZNA Ozona 15.61 332 IAmb IAmb 08 11 24.1
comp=Z,18nm,0.8s
TREL Terrell 15.66 349 IAmb IAmb 08 11 22.3
comp=Z,37nm,0.7s
250A Grady 15.67 20 Pn 08 11 11.1 -0.8
TXAR Lajitas Array 15.69 322 Pn Pn 08 11 13.8 +1.5
comp=Z,0.2nm,0.3s,baz=143,slow=9.8,SNR=11
comp=Z,0.5nm,0.7s
TXAR AML AML
TXAR Lajitas Array 15.69 322 Pn 08 11 13.3 +1.0
352A Blakely 15.71 25 Pn 08 11 11.2 -1.3
352A IAmb IAmb 08 11 38.8
comp=Z,31nm,1.0s
Z41A Richland Creek 15.87 359 Pn 08 11 13.1 -1.3
Z41A IAmb IAmb 08 11 30.6
comp=Z,52nm,0.8s
HLGC Holguin 16.00 75 eP Pn 08 11 16.4 +0.1
MARVS Santiago de Cu 16.02 78 eP Pn 08 11 15.0 -1.5
PINC Pinares de May 16.19 76 eP Pn 08 11 19.5 +0.8
RCC Rio Carpintero 16.21 78 eP Pn 08 11 19.4 +0.4
TIGA Tifton 16.25 28 IAmb IAmb 08 11 41.5
comp=Z,82nm,1.4s
PLPT Palo Pinto 16.27 343 Pn 08 11 20.0 +0.4
PLPT IAmb IAmb 08 11 46.1
comp=Z,27nm,0.7s
WLAR White Oak Lake 16.30 358 IAmb IAmb 08 11 31.6
comp=Z,60nm,0.7s
Z47A Carrollton 16.32 14 IAmb IAmb 08 11 48.4
comp=Z,34nm,0.7s
ALPN Alpine 16.45 324 IAmb IAmb 08 11 36.9
comp=Z,42nm,1.0s
ABTX Abilene, Hawle 16.52 339 IAmb IAmb 08 11 35.7
comp=Z,33nm,1.0s
CCAR Cane Creek 16.54 2 Pn 08 11 22.6 -0.4
CCAR IAmb IAmb 08 11 32.8
comp=Z,44nm,0.8s
SABCS La Quijada 16.62 77 eP P 08 11 28.1 +1.6
TMB01 Midkiff 16.68 331 Pn 08 11 24.9 0.0
Y45A Yeager Farm, C 16.69 9 Pn 08 11 24.9 -0.1
Y45A IAmb IAmb 08 11 33.5
comp=Z,90nm,1.4s
GTBY Guantanamo Bay 16.75 78 eP P 08 11 27.0 -1.0
NMDO Nuevo Mundo 16.95 76 eP P 08 11 31.7 +1.5
MOAC Moa 16.98 76 eP P 08 11 30.4 -0.2
QMBU Quimbuelo 17.06 78 eP P 08 11 35.1 +3.6
LOOK Love County 17.10 347 IAmb IAmb 08 12 13.3
comp=Z,37nm,1.1s
MIAR Mount Ida 17.17 357 P P 08 11 32.3 -0.2
comp=Z,20nm,1.0s
WTFS Witchita Falls 17.20 343 IAmb IAmb 08 11 49.6
comp=Z,35nm,0.7s
APMT Aspermont 17.32 338 IAmb IAmb 08 11 51.2
comp=Z,68nm,1.3s
PECS Pecos 17.34 326 P Pn 08 11 32.9 -0.3
OXF Oxford 17.35 9 Pn 08 11 32.0 -1.2
OXF IAmb IAmb 08 12 01.1
comp=Z,40nm,0.9s
Y49A Blount Mountai 17.37 17 Pn 08 11 32.5 -1.0
UALR University of 17.38 1 P Pn 08 11 31.7 -1.9
UALR IAmb IAmb 08 11 44.5
comp=Z,28nm,0.8s
129A Stewart Farms, 17.40 333 P Pn 08 11 32.9 -1.0
154A Montrose 17.46 28 P Pn 08 11 32.9 -1.7
154A IAmb IAmb 08 11 58.0
comp=Z,77nm,1.3s
128A Castleberry Fa 17.66 331 Pn 08 11 36.3 -0.9
X48A Hartselle 17.76 15 P Pn 08 11 37.3 -1.0
WHAR Wooly Hollow 17.89 1 Pn 08 11 39.6 -0.4
LPIG La Paz 17.90 295 LR LR 08 19 07.9
comp=Z,740nm,18.5s,baz=123,slow=39
DKNS Dickens 17.92 337 P Pn 08 11 40.3 0.0
GOGA Godfrey 17.99 25 P Pn 08 11 40.5 -0.7
PAYG Puerto Ayora 18.03 173 P P 08 11 46.5 +4.4
comp=Z,48nm,1.1s
APAC Apartado, Choc 18.19 119 P P 08 11 44.1 +0.1
comp=Z,52nm,0.9s
WMOK Wichita Mounta 18.21 343 P P 08 11 45.6 +1.5
comp=Z,20nm,0.9s
GDL2 Guadalupe Moun 18.25 326 P Pn 08 11 43.6 -0.9
MNTX Cornudas Mount 18.43 323 P Pn 08 11 49.1 +2.5
comp=Z,9.5nm,0.8s
SJCC San Jacinto, C 18.44 111 P P 08 11 46.2 -0.5
SJCC IAmb IAmb 08 11 59.4
comp=Z,39nm,1.0s
FCAR Ozark Folk Cen 18.50 1 P P 08 11 46.2 -0.9
LCAR Lake Charles 18.71 4 P P 08 11 48.9 -0.7
TUL3 Leonard 18.73 352 P P 08 11 48.8 -0.9
HHAR Hobbs 18.92 357 P Pn 08 11 52.2 -0.3
W50A Signal Mountai 18.94 19 P P 08 11 52.2 +0.1
W50A IAmb IAmb 08 12 10.9
comp=Z,23nm,0.6s
OK052 Battle Ridge R 18.97 349 P P 08 11 51.7 -0.7
OK052 IAmb IAmb 08 12 10.8
comp=Z,26nm,0.8s
UREC San Jos de Ur 19.15 118 P P 08 11 54.7 +0.2
comp=Z,1μmcomp=Z,1μmcomp=Z,42nm,1.1s
WVT Waverly 19.20 12 P P 08 11 54.7 -0.2
WVT Waverly 19.20 12 P P 08 11 54.2 -0.7
comp=Z,13nm,1.7s
HODGE Hodges 19.21 27 P P 08 11 54.7 -0.3
NHSC New Hope 19.28 33 P P 08 11 55.7 0.0
NHSC IAmb IAmb 08 12 28.0
comp=Z,61nm,1.1s
OK048 Pawnee Station 19.41 349 IAmb IAmb 08 12 38.1
comp=Z,37nm,1.2s
PARMO Parma 19.42 7 IAmb IAmb 08 12 02.9
comp=Z,40nm,0.6s
PBMO Poplar Bluff 19.47 5 IAmb IAmb 08 12 28.5
comp=Z,20nm,0.9s
BG3 Lake Jocassee 19.59 24 IAmb IAmb 08 12 17.6
comp=Z,19nm,0.7s
ELIS Ellis County 19.63 343 IAmb IAmb 08 12 24.4
comp=Z,34nm,1.1s
CROK Carrier 19.70 347 IAmb IAmb 08 12 09.5
comp=Z,20nm,0.9s
CBOC Ciudad Bolivar 19.80 123 P P 08 12 02.3 +0.5
comp=Z,952nmcomp=Z,17nm,1.0s
TKL Tuckaleechee C 19.87 22 P Pn 08 12 03.0 -0.8
comp=Z,1.1nm,0.3s,baz=197,slow=12,SNR=11
TKL S S 08 15 42.1 -3.3
comp=Z,6.8nm,0.8s,baz=251,slow=17,SNR=2.2
TKL LR LR 08 20 39.7
comp=Z,637nm,20.3s,baz=200,slow=40
comp=Z,7.7nm,0.8s
TKL AML AML
TKL Tuckaleechee C 19.87 22 IAmb IAmb 08 12 12.8
comp=Z,21nm,0.8s
PAULI Pauline 19.90 27 IAmb IAmb 08 12 29.3
comp=Z,32nm,1.3s
U49A Red Boiling Sp 20.04 16 IAmb IAmb 08 12 12.3
comp=Z,19nm,0.7s
T47A Sharon Grove 20.17 13 IAmb IAmb 08 12 45.0
comp=Z,21nm,0.7s
V53A Saluda 20.23 24 Pn 08 12 08.4 +0.3
V53A IAmb IAmb 08 12 26.0
comp=Z,24nm,0.9s
KAN01 Argonia South 20.27 348 IAmb IAmb 08 12 30.6
comp=Z,18nm,0.8s
SDDR Presa de Saban 20.30 82 Pn 08 12 12.1 +3.0
SDDR IAmb IAmb 08 12 40.9
comp=Z,25nm,0.7s
SDDR Presa de Saban 20.30 82 eP Pn 08 12 09.1 0.0
S39A Bolivar 20.30 358 IAmb IAmb 08 12 16.2
comp=Z,21nm,0.9s
KAN08 Anthony NE Sta 20.39 348 IAmb IAmb 08 12 27.6
comp=Z,15nm,0.6s
S44A Carbondale 20.50 8 IAmb IAmb 08 12 19.9
comp=Z,42nm,0.8s
TZTN Tazewell 20.74 21 IAmb IAmb 08 12 36.4
comp=Z,20nm,0.6s
OCAC Ocana 20.82 113 P P 08 12 13.6 +0.7
comp=Z,1μmcomp=Z,94nm,0.7s
R40A Maddies Statio 20.89 1 IAmb IAmb 08 12 24.3
comp=Z,16nm,0.7s

Y22A Socorro 20.98 325 IAmb IAmb 08 12 55.3
comp=Z,26nm,1.2s
RTBA Rita Blanca 21.06 337 IAmb IAmb 08 12 28.2
comp=Z,64nm,1.3s
BBAC Balboa, Cauca 21.41 134 P P 08 12 20.7 +1.4
comp=Z,894nmcomp=Z,64nm,1.1s
POPC Popayan, Colom 21.44 132 P P 08 12 20.5 +0.8
comp=Z,739nmcomp=Z,36nm,0.9s
ALQ Albuquerque 21.48 327 P P 08 12 20.1 +0.2
ALQ Albuquerque 21.48 327 P P 08 12 20.1 +0.2
ALQ IAmb IAmb 08 12 41.6
comp=Z,10nm,1.1s
ANMO Albuquerque 21.48 327 P P 08 12 22.0 +2.1
comp=Z,2.2nm,0.7s,baz=144,slow=14,SNR=13
ANMO LR LR 08 21 16.2
comp=Z,110nm,20.7s,baz=146,slow=38
comp=Z,2.2nm,0.7s
ANMO Albuquerque 21.48 327 P P 08 12 20.5 +0.6
TASM ASL Pad, Albuq 21.48 327 IAmb IAmb 08 12 41.7
comp=Z,11nm,1.2s
WCI Wyandotte Cave 21.54 14 P P 08 12 19.8 -0.5
WCI IAmb IAmb 08 12 32.5
comp=Z,29nm,0.7s
WCI Wyandotte Cave 21.54 14 P P 08 12 20.8 +0.5
comp=Z,44nm,0.7s
R32A Long Quarter, 21.70 347 IAmb IAmb 08 12 44.1
comp=Z,41nm,1.4s
Q44A Meyer Farm, Va 21.72 8 IAmb IAmb 08 12 33.6
comp=Z,34nm,0.9s
S51A Beattyville 21.73 20 P 08 12 24.7 +2.5
S51A IAmb IAmb 08 12 47.3
comp=Z,18nm,0.8s
ROSC El Rosal 21.76 123 P P 08 12 22.8 -0.4
comp=Z,2.0nm,0.4s,baz=283,slow=9.5,SNR=9.8
ROSC LR LR 08 21 30.7
comp=Z,346nm,18.2s,baz=34,slow=39
comp=Z,2.0nm,0.4s
ROSC El Rosal 21.76 123 P P 08 12 22.9 -0.4
U56A King 21.81 27 IAmb IAmb 08 12 38.1
comp=Z,23nm,0.8s
CMBC Cumbal 21.81 137 P P 08 12 25.2 +1.4
R49A Shelbyville 21.87 16 IAmb IAmb 08 12 41.5
comp=Z,27nm,1.1s
V58A Windy Hill, Pi 21.94 30 IAmb IAmb 08 12 40.6
comp=Z,28nm,1.3s
OTAV Otavalo 21.95 139 P P 08 12 25.6 +0.3
OTAV IAmb IAmb 08 12 59.1
comp=Z,18nm,1.1s
OTAV Otavalo 21.95 139 P P 08 12 26.2 +0.9
comp=Z,477nmcomp=Z,14nm,1.7s
OTAV Otavalo 21.95 139 ⇑P P 08 12 26.3 +1.0
comp=Z,14nm,1.7s
OTAV Otavalo 21.95 139 eP P 08 12 25.8 +0.5
KSU1 Kansas State U 21.98 352 P P 08 12 25.1 +0.1
KSU1 IAmb IAmb 08 12 40.4
comp=Z,30nm,0.9s
R50A Paris 22.09 17 IAmb IAmb 08 12 38.2
comp=Z,38nm,1.3s
P40A Paris 22.13 1 IAmb IAmb 08 12 56.9
comp=Z,19nm,0.9s
RUSC La Rusia 22.19 118 P 08 12 28.3 +0.3
TUC Tucson 22.21 316 P 08 12 31.9 +4.2
P38A Dawn 22.23 358 IAmb IAmb 08 12 56.5
comp=Z,20nm,1.1s
T25A Trinidad 22.33 334 IAmb IAmb 08 12 40.3
comp=Z,30nm,0.9s
BLO Bloomington 22.40 12 IAmb IAmb 08 12 41.4
comp=Z,15nm,0.8s
BLA Blacksburg 22.52 26 IAmb IAmb 08 12 50.7
comp=Z,35nm,0.9s
S54A Dingess, Beckl 22.67 24 IAmb IAmb 08 13 17.7
comp=Z,15nm,0.8s
SLOR San Lorenzo - 22.68 141 P P 08 12 33.1 -0.1
SLOR IAmb IAmb 08 13 12.2
comp=Z,14nm,0.8s
P46A Rosedale 22.70 11 IAmb IAmb 08 12 39.9
comp=Z,30nm,0.8s
SDV Santo Domingo 22.94 109 P P 08 12 36.5 +0.9
comp=Z,11nm,0.5s,baz=292,slow=10,SNR=12
SDV S S 08 16 39.5 -5.9
comp=Z,3.7nm,0.3s,baz=331,slow=19,SNR=1.2
comp=Z,11nm,0.5s
SDV Santo Domingo 22.94 109 P P 08 12 34.4 -1.2
SDV Santo Domingo 22.94 109 P P 08 12 35.7 +0.1
comp=Z,6μmcomp=Z,275nm,1.4s
SDV Santo Domingo 22.94 109 ⇑P P 08 12 35.6 -0.1
comp=Z,277nm,1.4s
X18A Snowflake 23.13 321 IAmb IAmb 08 12 48.9
comp=Z,25nm,1.3s
SDCO Great Sand Dun 23.30 333 P P 08 12 40.8 +1.6
N38A Joes South For 23.39 359 P P 08 12 39.8 0.0
SFIN Lafayette 23.46 11 P P 08 12 40.1 -0.3
SFIN IAmb IAmb 08 13 11.7
comp=Z,16nm,1.0s
R55A Marlinton 23.56 25 IAmb IAmb 08 13 02.6
comp=Z,19nm,0.8s
T59A Double "E" Far 23.64 31 IAmb IAmb 08 13 07.2
comp=Z,17nm,1.1s
MACC Macarena, Meta 23.80 127 P P 08 12 44.2 +0.2
O49A Covington 23.88 16 IAmb IAmb 08 13 16.2
comp=Z,12nm,0.7s
Q54A Coxs Mills 23.89 23 P 08 12 46.2 +1.6
Q54A IAmb IAmb 08 13 19.5
comp=Z,17nm,0.9s
X16A Lo Mia Camp, P 23.97 319 IAmb IAmb 08 12 55.8
comp=Z,12nm,0.8s
P53A Whipple 24.13 22 IAmb IAmb 08 13 20.0
comp=Z,20nm,0.8s
Q24A Divide 24.19 336 IAmb IAmb 08 12 58.5
comp=Z,25nm,1.3s
MVCO Mesa Verde 24.28 328 P 08 12 51.3 +2.7
MVCO Mesa Verde 24.28 328 P P 08 12 51.5 +3.0
comp=Z,28nm,1.3s
113A Mohawk Valley, 24.52 313 IAmb IAmb 08 13 03.5
comp=Z,21nm,1.3s
Q56A Snyder Ridge, 24.59 26 IAmb IAmb 08 13 00.0
comp=Z,12nm,0.9s
CELP Cerrillos 24.77 84 P P 08 12 56.1 +3.1
CELP IAmb IAmb 08 13 00.8
comp=Z,22nm,1.1s
ISCO Idaho Springs 25.09 336 IAmb IAmb 08 13 07.2
comp=Z,13nm,1.1s
ISCO Idaho Springs 25.09 336 P P 08 12 57.7 +1.7
comp=Z,13nm,1.1s
PV02 Paradox Valley 25.17 329 IAmb IAmb 08 13 40.2
comp=Z,21nm,1.0s
PV13 Radium Mtn., J 25.17 329 IAmb IAmb 08 13 08.7
comp=Z,25nm,1.1s
SJG San Juan 25.18 84 P P 08 12 56.7 0.0
comp=Z,7.8nm,0.5s,baz=298,slow=10,SNR=6.8
SJG LR LR 08 23 17.9
comp=Z,197nm,20.7s,baz=282,slow=38
comp=Z,7.8nm,0.5s
SJG San Juan 25.18 84 IAmb IAmb 08 13 01.4
comp=Z,43nm,1.4s
PV03 Paradox Valley 25.26 329 IAmb IAmb 08 13 07.5
comp=Z,24nm,1.0s
PDPR Patillas Dam, 25.30 84 IAmb IAmb 08 13 05.7
comp=Z,17nm,0.9s
PV14 Lion Creek, Pa 25.44 329 IAmb IAmb 08 13 08.9
comp=Z,23nm,1.0s
PV21 Cone Mtn., Par 25.56 329 IAmb IAmb 08 13 09.9
comp=Z,20nm,1.0s
HMU Henry Mountain 26.00 326 IAmb IAmb 08 13 18.8
comp=Z,15nm,1.1s
O20A White River Ci 26.47 332 IAmb IAmb 08 13 18.9
comp=Z,18nm,1.2s
ECSD EROS Data Cent 26.55 353 IAmb IAmb 08 13 20.4
comp=Z,11nm,0.9s
ECSD EROS Data Cent 26.55 353 P P 08 13 09.5 +0.7
comp=Z,15nm,0.9s
SRU San Rafael Swe 26.76 328 IAmb IAmb 08 13 20.7
comp=Z,16nm,1.2s
PFO Pinyon Flats O 26.88 312 LR LR 08 25 14.5
comp=Z,354nm,18.0s,baz=142,slow=40
SZCU Shurtz Canyon 27.07 322 IAmb IAmb 08 13 25.0
comp=Z,13nm,1.4s
P17A Butcher Ranch, 27.14 328 IAmb IAmb 08 13 24.8
comp=Z,18nm,1.2s
ATAH Atahualpa 28.06 149 LR LR 08 23 32.7
comp=Z,188nm,21.7s,baz=337,slow=34
TCUT Toone Canyon 28.72 330 IAmb IAmb 08 13 39.8
comp=Z,18nm,1.0s
PDAR Pinedale Array 29.19 334 P P 08 13 33.2 +0.5
comp=Z,0.2nm,0.4s,baz=144,slow=9.3,SNR=6.6
PDAR LR LR 08 28 11.9
comp=Z,389nm,19.9s,baz=138,slow=42
comp=Z,0.2nm,0.4s

SPUT South Promonto 29.38 329 IAmb IAmb 08 13 45.0
comp=Z,13nm,1.4s
SADO Sadowa 29.60 20 LR LR 08 26 54.2
comp=Z,482nm,18.8s,baz=220,slow=40
SNOW Snow King Moun 30.27 333 IAmb IAmb 08 13 58.0
comp=Z,8.9nm,0.8s
ELK Elko 30.44 325 LR LR 08 28 51.1
comp=Z,307nm,19.1s,baz=158,slow=42
NVAR Mina Array Bea 30.79 318 P P 08 13 49.4 +2.4
comp=Z,2.2nm,0.7s,baz=124,slow=7.4,SNR=19
NVAR LR LR 08 29 41.0
comp=Z,513nm,19.0s,baz=152,slow=43
comp=Z,2.2nm,0.7s
YNE Yellowstone No 31.23 336 IAmb IAmb 08 14 02.4
comp=Z,18nm,1.5s
ULM Lac du Bonnet 32.95 356 P P 08 14 04.7 -0.8
comp=Z,1.8nm,0.8s,baz=180,slow=10,SNR=3.4
ULM LR LR 08 30 41.4
comp=Z,176nm,18.1s,baz=182,slow=42
comp=Z,1.8nm,0.8s
ULM Lac du Bonnet 32.95 356 IAmb IAmb 08 14 11.4
comp=Z,17nm,1.4s
NNA Nana 33.02 151 LR LR 08 25 44.3
comp=Z,141nm,21.0s,baz=313,slow=33
WVOR Wild Horse Val 33.47 324 IAmb IAmb 08 14 20.7
comp=Z,17nm,1.4s
WVOR Wild Horse Val 33.47 324 P P 08 14 12.4 +2.1
comp=Z,11nm,2.4s
J08A Circle Bar Ran 33.98 325 IAmb IAmb 08 14 23.6
comp=Z,10nm,0.8s
I07A Izee 35.02 325 IAmb IAmb 08 14 32.2
comp=Z,8.1nm,1.4s
F10A Beach Ranch, E 35.16 330 IAmb IAmb 08 15 08.2
comp=Z,13nm,1.4s
YBH Yreka Blue Hor 35.45 320 LR LR 08 32 47.6
comp=Z,239nm,19.6s,baz=142,slow=43
NEW Newport 36.80 332 LR LR 08 31 41.2
comp=Z,249nm,19.3s,baz=137,slow=39
EDM Edmonton 39.33 340 IAmb IAmb 08 15 13.3
comp=Z,22nm,1.1s
MDP Montagnes des 40.91 102 LR LR 08 35 10.2
comp=Z,110nm,18.3s,baz=284,slow=41
LPAZ La Paz 41.18 143 P P 08 15 15.2 -1.3
comp=Z,2.2nm,0.7s,baz=322,slow=9.9,SNR=12
LPAZ LR LR 08 33 10.9
comp=Z,252nm,20.2s,baz=306,slow=38
comp=Z,2.2nm,0.7s
LPAZ La Paz 41.18 143 P P 08 15 16.3 -0.2
LPAZ La Paz 41.18 143 P P 08 15 17.1 +0.6
comp=Z,3.8nm,1.1s
LPAZ La Paz 41.18 143 eP P 08 15 14.8 -1.7
FCC Fort Churchill 41.39 359 P P 08 15 17.1 +0.2
PB16 IPOC Station P 42.08 146 IAmb IAmb 08 15 26.4
comp=Z,8.6nm,1.0s
PB16 IPOC Station P 42.08 146 P P 08 15 25.7 +1.9
comp=Z,9.8nm,1.3s
SCHQ Schefferville 42.34 22 LR LR 08 34 20.4
comp=Z,626nm,18.2s,baz=214,slow=38
PB11 IPOC Station P 43.19 148 IAmb IAmb 08 15 34.2
comp=Z,17nm,1.1s
PB11 IPOC Station P 43.19 148 P P 08 15 33.2 +0.9
comp=Z,16nm,1.2s
GO01 Chusmiza 43.35 147 P P 08 15 35.9 +1.9
comp=Z,13nm,2.0s
PB08 IPOC Station P 43.76 147 IAmb IAmb 08 16 15.3
comp=Z,16nm,1.5s
PB08 IPOC Station P 43.76 147 P P 08 15 38.2 +1.1
comp=Z,8.8nm,1.8s
VILB Vilhena 43.90 131 P P 08 15 37.2 -0.8
VILB IAmb IAmb 08 15 37.8
comp=Z,12nm,1.1s
BBB Bella Bella 44.62 329 LR LR 08 36 25.4
comp=Z,153nm,19.4s,baz=98,slow=39
PDRB Porto dos Gac 45.62 127 eP P 08 15 49.3 -2.4
CLDB Colider 45.89 125 eP P 08 15 50.8 -3.1
PTLB Pontes e Lacer 46.35 133 P P 08 15 56.4 -1.0
PTLB IAmb IAmb 08 15 57.2
comp=Z,13nm,1.2s
PTLB Pontes e Lacer 46.35 133 eP P 08 15 56.7 -0.6
BBSD Serra de San D 46.55 136 eP P 08 15 58.1 -0.9
RPN Rapa Nui 47.09 201 LR LR 08 31 29.4
comp=Z,111nm,20.3s,baz=36,slow=30
YKAW1 Yellowknife Wh 47.64 346 P P 08 16 07.4 +0.5
YKA Yellowknife Ar 47.68 346 P P 08 16 07.5 +0.3
comp=Z,3.4nm,0.6s,baz=151,slow=7.5,SNR=32
YKA LR LR 08 40 21.0
comp=Z,222nm,18.5s,baz=146,slow=41
comp=Z,3.4nm,0.6s
YKA Yellowknife Ar 47.68 346 P P 08 16 08.8 +1.7
SALTA 48.59 147 P P 08 16 16.7 +1.4
comp=Z,3.8nm,1.9s
FRB Frobisher Bay 49.23 14 LR LR 08 38 51.4
comp=Z,526nm,18.6s,baz=224,slow=38
AC02 Maricunga 49.45 152 P P 08 16 23.9 +2.0
comp=Z,9.2nm,1.6s
COIM Forte Coimbra 50.36 136 eP P 08 16 27.2 -1.0
BDQN Bodoquena, MS 51.43 135 eP P 08 16 34.4 -2.0
SMTB Santa Maria do 51.51 117 P 08 16 36.6 -0.5
SMTB Santa Maria do 51.51 117 eP P 08 16 36.4 -0.8
ARAG Araguaiana, MT 51.89 127 eP P 08 16 37.4 -2.5
AQDB Aquidauana 52.16 135 eP P 08 16 41.6 -0.2
CO03 El Pedregal 52.31 156 P P 08 16 44.0 +1.2
comp=Z,22nm,2.7s
TAOE Nuku Hiva Isla 53.73 245 eLR LR 08 32 18.4
comp=Z,351nm,25.0s
BDFB Brasilia 54.80 124 P P 08 17 01.0 -0.4
comp=Z,4.1nm,0.9s,baz=321,slow=6.5,SNR=3.9
BDFB LR LR 08 43 23.5
comp=Z,230nm,18.3s,baz=321,slow=39
comp=Z,4.1nm,0.9s
BDFB Brasilia 54.80 124 IAmb IAmb 08 17 31.2
comp=Z,8.1nm,1.1s
CPUP Villa Florida 55.28 141 P P 08 17 03.2 -1.3
comp=Z,2.9nm,0.9s,baz=339,slow=14,SNR=4.9
CPUP LR LR 08 42 15.4
comp=Z,200nm,18.3s,baz=280,slow=38
comp=Z,2.9nm,0.9s
CPUP Villa Florida 55.28 141 IAmb IAmb 08 17 39.3
comp=Z,7.2nm,1.4s
CPUP Villa Florida 55.28 141 eP P 08 17 02.4 -2.2
SDBA SAO DESIDERIO 55.59 119 eP P 08 17 06.6 -0.5
PCMB Pacaembu 55.99 132 P P 08 17 09.3 -0.5
comp=Z,21nm,1.9s
PCMB Pacaembu 55.99 132 eP P 08 17 09.2 -0.6
IPMB Ipameri, GO 56.01 127 eP P 08 17 09.5 -0.5
SFJD Kangerlussuaq 56.54 18 LR LR 08 43 07.5
comp=Z,323nm,20.0s,baz=223,slow=38
INK Inuvik 57.11 343 LR LR 08 47 06.5
comp=Z,142nm,19.9s,baz=12,slow=42
LDASE Londrina, Braz 57.26 134 eP P 08 17 17.2 -1.6
RES Resolute Bay 57.39 359 LR LR 08 43 16.8
comp=Z,156nm,21.4s,baz=176,slow=37
PTGB Pitanga 57.49 136 eP P 08 17 23.7 +3.2
BB19B Bebedouro 57.63 130 eP P 08 17 21.2 -0.2
PMNB Patos De Minas 57.70 126 eP P 08 17 20.7 -1.3
RKT Rikitea 57.73 227 eLR LR 08 34 23.5
comp=Z,4μm,34.0s
DOT Dot Lake 57.97 336 IAmb IAmb 08 17 30.6
comp=Z,7.7nm,0.9s
PAX Paxson 58.23 335 IAmb IAmb 08 17 32.5
comp=Z,7.6nm,1.0s
NBMA Muriti-CE 58.55 110 eP P 08 17 27.9 -0.2
PSAL Palomas, Salto 58.70 145 eP P 08 17 29.6 +0.9
CANS Sao Roque de M 58.75 128 eP P 08 17 28.9 -0.5
J25K Salcha River, 58.93 336 IAmb IAmb 08 17 37.7
comp=Z,12nm,1.3s
E27K Coleen River 59.42 341 IAmb IAmb 08 17 47.7
comp=Z,11nm,1.2s
ILAR Eielson Array 59.59 336 P P 08 17 36.3 +1.9
comp=Z,6.0nm,1.1s,baz=112,slow=7.5,SNR=20
ILAR LR LR 08 48 47.2
comp=Z,99nm,19.4s,baz=108,slow=42
comp=Z,6.0nm,1.1s
KDAK Kodiak Island 59.62 327 LR LR 08 43 32.0
comp=Z,76nm,18.6s,baz=84,slow=36
DIAM Diamantina, MG 59.72 124 eP P 08 17 35.9 -0.3
D27M Malcolm River 59.82 342 IAmb IAmb 08 17 42.7
comp=Z,4.9nm,0.9s
CCB Clear Creek Bu 59.89 336 IAmb IAmb 08 17 43.9
comp=Z,5.3nm,1.0s
VAO Valinhos 59.95 130 eP P 08 17 36.5 -1.2
SPB Sao Paulo 59.98 131 eP P 08 17 37.0 -0.7
BMAR Burnt Mountain 60.00 339 P 08 17 38.1 +0.8
RCBR Riachuelo 60.51 107 LR LR 08 46 55.7
comp=Z,64nm,19.0s,baz=42,slow=39
ANCO Parque Anchore 60.98 147 eP P 08 17 44.5 +0.2
PLCA Paso Flores 61.28 161 P P 08 17 46.5 +0.1

comp=Z,6.8nm,1.0s,baz=334,slow=9.1,SNR=7.9
PLCA LR LR 08 38 45.5
comp=Z,260nm,21.8s,baz=342,slow=31
comp=Z,6.8nm,1.0s
PLCA Paso Flores 61.28 161 P **P 08 17 47.8 +1.5**
PLCA Paso Flores 61.28 161 P **P 08 17 48.3 +1.9**
comp=Z,19nm,1.4s
PLCA Paso Flores 61.28 161 *e*P **P 08 17 46.4 +0.1**
G23K Bananza Creek 61.58 338 lAmb lAmb 08 17 55.4
comp=Z,5.9nm,1.0s
CMC01 Camacan, BA 61.58 119 *e*P **P 08 17 49.0 +0.3**
H22K Ishtalitna Cre 61.77 336 P 08 17 50.0 +0.7
SJMB Sao Joao De Ma 61.93 123 *e*P **P 08 17 51.1 0.0**
K20K Telida 61.98 333 P **P 08 17 51.0 +0.2**
BSFB Barra de Sao F 62.27 123 P **P 08 17 53.7 +0.4**
comp=Z,25nm,0.9s
BSFB Barra de Sao F 62.27 123 *e*P **P 08 17 53.0 -0.3**
RIB01 Linhares ES 62.88 123 *e*P **P 08 17 56.3 -1.2**
CAM01 Campos-RJ 63.25 126 *e*P **P 08 17 57.7 -2.1**
PPT Papeete 65.95 241 LR LR 08 38 38.9
comp=Z,129nm,21.3s,baz=34,slow=28
PPT2 Papeete2 65.96 241 *e*LR LR 08 37 57.3
comp=Z,385nm,26.5s
PPT2 *e*LR LR 08 38 04.8
comp=Z,295nm,27.0s
BORG Borgarnes 66.48 26 LR LR 08 46 40.3
comp=Z,206nm,18.9s,baz=265,slow=35
TBI Tubuai 68.72 236 *e*LR LR 08 39 17.7
comp=Z,2µm,29.8s
DAG Danmarks Havn 69.58 14 P **P 08 18 39.2 -0.3**
JMIC Jan Mayen 71.82 20 LR LR 08 50 28.8
comp=Z,303nm,20.8s,baz=266,slow=36
EKA Eskdalemuir Ar 75.61 36 P **P 08 19 15.2 -0.5**
comp=Z,1.3nm,0.8s,baz=277,slow=5.9,SNR=4.6
EKA LR LR 08 51 23.9
comp=Z,130nm,19.9s,baz=269,slow=35
comp=Z,1.3nm,0.8s
SPITS Spitsbergen Ar 76.96 12 LR LR 08 57 23.0
comp=Z,271nm,18.1s,baz=284,slow=39
ESDC Sonseca Array 78.11 52 P **P 08 19 31.5 +1.3**
comp=Z,2.0nm,1.0s,baz=283,slow=5.7,SNR=6.4
ESDC LR LR 08 51 42.9
comp=Z,185nm,20.4s,baz=282,slow=34
comp=Z,2.0nm,1.0s
MDT Midelt 79.16 59 LR LR 08 49 26.4
comp=Z,158nm,18.8s,baz=294,slow=32
NOA NORSAR Array B 81.50 29 LR LR 08 57 41.5
comp=Z,80nm,18.4s,baz=285,slow=37
ARCES ARCESS Array B 83.17 18 P **P 08 19 58.1 +1.4**
comp=Z,7.7nm,1.0s,baz=291,slow=7.6,SNR=2.8
ARCES LR LR 08 56 42.4
comp=Z,153nm,21.7s,baz=297,slow=36
comp=Z,7.7nm,1.0s
ARCES ARCESS Array B 83.17 18 P **P 08 19 56.5 -0.2**
PMSA Palmer Station 84.71 168 LR LR 08 49 02.1
comp=Z,133nm,21.4s,baz=322,slow=29
DAVOX Davos/Dischmat 85.79 40 LR LR 08 56 45.2
comp=Z,167nm,18.7s,baz=260,slow=34
DBIC Dimbokro 85.88 84 LR LR 08 55 10.6
comp=Z,112nm,20.3s,baz=294,slow=33
CLL Collm 86.02 37 *e*S **S 08 30 45.0 +0.1**
CLL *e*SS **SS 08 36 30.0 +7.8**
CLL *e*SSS SSS 08 39 54.0
CLL LH 08 46 00.0
CLL LV 08 48 00.0
CLL AMS AMS 08 54 00.0
comp=N,100nm,18.1s
CLL AMS AMS 08 54 00.0
comp=E,200nm,19.3s
CLL AMS AMS 08 54 00.0
comp=Z,200nm,25.3s
CLL AMS AMS 09 03 00.0
comp=Z,100nm,20.6s
TIXI Tiksi 86.91 348 LR LR 09 03 27.1
comp=Z,72nm,21.0s,baz=29,slow=39
TIXI Tiksi 86.91 348 P 08 20 15.3 -0.2
GERES GERESS Array B 87.40 39 LR LR 08 58 56.3
comp=Z,174nm,19.4s,baz=262,slow=35
FINES FINESS Array B 87.74 25 LR LR 09 00 45.9
comp=Z,149nm,18.6s,baz=313,slow=36
VRAC Vranov 88.94 38 LR LR 09 02 28.7
comp=Z,169nm,18.1s,baz=286,slow=37
KEST Kesra 89.34 53 LR LR 08 58 32.8
comp=Z,89nm,19.6s,baz=280,slow=34
VAE Valguarnera 92.45 50 LR LR 09 00 18.2
comp=Z,390nm,18.7s,baz=338,slow=34
NRIK Noril'sk 93.57 360 LR LR 09 07 21.7
comp=Z,180nm,18.7s,baz=10.0,slow=38
YAK Yakutsk 94.14 341 LR LR 09 08 52.0
comp=Z,121nm,21.1s,baz=38,slow=39
AKASG Malin Array Be 95.26 33 LR LR 09 05 39.4
comp=Z,106nm,18.3s,baz=322,slow=37
MLR Muntele Rosu 96.34 38 LR LR 09 06 46.6
comp=Z,102nm,18.9s,baz=298,slow=37
KIRV Kirov 98.17 19 LR LR 09 07 21.3
comp=Z,131nm,18.7s,baz=331,slow=37
HHC Hu-ho-hao-te 117.93 339 *e*P **PKPdf 08 26 14.5 -3.6**
WMQ Urumqi 119.15 360 *e*PKP **PKiKP 08 26 21.5 +1.1**
WMQ LR LR
comp=Z,160nm,22.9s
NJ2 Nanjing 122.40 328 *e*P **PKiKP 08 26 28.0 +1.1**
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
LZH Lanzhou 124.65 344 *e*P **PKPdf 08 26 24.8 -6.4**
LZH sP sPKPdf 08 26 40.8 +1.8
LZH pmax pmax
comp=Z,19nm,1.4s
WRA Warramunga Arr 135.58 259 PKP **PKiKP 08 26 54.8 +1.1**
comp=Z,1.0nm,0.8s,baz=89,slow=2.2,SNR=2.5

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*NEIC **29** 08:19:35.0±1.6, 14°.44S×0°.07×167°.4E±0°.1, h179km±5km, mb4.6/72, Error ellipse: s-maj=17.4km s-min=8.9km az=74.0*
*NOU **29** 08:19:35.6, 14°.40S×167°.37E, h179km, mb4.8/51, Vanuatu Islands*
*GFZ **29** 08:19:35.4±0.2, 14°.5S±5°×16°.7E±°, h183km, M4.7/25, mb4.7/25, confirmed*
*IDC **29** 08:19:36.4±0.8, 14°.52S×167°.25E, h195km±6km, mb4.1/26, mbtmp4.6/28, MS3.4/8, Error ellipse: s-maj=10.2km s-min=8.7km az=147.0*
ISC 29 08:19:33.8±0.3, 14°.40S±0°.05×167°.33E±0°.05, h170km, n269, σ1§33/279, mb4.7/92, 1C-1D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**1.05**	**187**	P		**Pn**		**08 20 03.8**	**+2.9**
SANVU	**Saraoutou**	**1.05**	**187**	S		**Sn**		**08 20 25.4**	**+3.5**
SANVU	**Saraoutou**	**1.05**	**187**			**Pn**		**08 20 02.8**	**+1.9**
SANVU	**Saraoutou**	**1.05**	**187**	P		**Pn**		**08 20 03.2**	**+2.3**
SANVU				S		**Sn**		**08 20 24.0**	**+2.1**
SANVU				AML		AML			
SANVU	**Saraoutou**	**1.05**	**187**	P		**Pn**		**08 20 03.0**	**+2.1**
KOUNC	**Koumac, New Ca**	**6.77**	**205**	P		**Pn**		**08 21 13.3**	**+2.4**
KOUNC	**Koumac, New Ca**	**6.77**	**205**	S		**Sn**		**08 22 29.9**	**+2.5**
KOUNC	**Koumac, New Ca**	**6.77**	**205**			**Pn**		**08 21 12.8**	**+1.9**
MARNC	**Mare, Loyalty**	**7.08**	**175**	P		**Pn**		**08 21 15.2**	**+0.3**
MARNC	**Mare, Loyalty**	**7.08**	**175**			**Pn**		**08 21 14.9**	**0.0**
YATNC	**Mamie plateau,**	**7.63**	**183**	P		**Pn**		**08 21 24.5**	**+2.2**
YATNC	**Mamie plateau,**	**7.63**	**183**	S		**Sn**		**08 22 49.9**	**+2.0**
DZM	**Mont Dzumac**	**7.68**	**186**	P		**Pn**		**08 21 23.8**	**+0.8**
	32nm,0.7s,baz=20,slow=15,SNR=45								
DZM				S		**Sn**		**08 22 49.6**	**+0.5**
	18nm,0.5s,baz=323,slow=20,SNR=3.0								
NOUC	**Port Laguerre**	**7.72**	**187**	P		**Pn**		**08 21 25.0**	**+1.5**
NOUC	**Port Laguerre**	**7.72**	**187**	P		**Pn**		**08 21 24.7**	**+1.3**
NOUC				S		**Sn**		**08 22 50.5**	**+0.4**
NOUC				AML		AML			
OUENC	**Ouen Island, N**	**7.99**	**183**			**Pn**		**08 21 28.9**	**+1.8**
PINNC	**Pines Island,**	**8.17**	**179**	P		**Pn**		**08 21 31.3**	**+1.9**
PINNC	**Pines Island,**	**8.17**	**179**			**Pn**		**08 21 31.0**	**+1.6**
HNR	**Honiara**	**8.75**	**304**	LR		LR		08 25 15.3	
	comp=Z,80nm,18.6s,baz=299,slow=39								
MSVF	**Nonsavu**	**10.82**	**109**	P		**Pn**		**08 22 07.3**	**+2.8**
	7.4nm,0.9s,baz=281,slow=16,SNR=2.3								
MSVF				LR		LR		08 25 33.4	
	comp=Z,50nm,21.1s,baz=348,slow=33								
MSVF	**Nonsavu**	**10.82**	**109**	P		**Pn**		**08 22 06.1**	**+1.7**
FUTU	**Fugatoga**	**14.10**	**91**	P		**Pn**		**08 22 46.8**	**+0.6**
GD1S	**Gladstone Soft**	**17.91**	**236**	P		**Pn**		**08 23 32.5**	**0.0**
KRVT	**Keravat (AS076**	**18.11**	**302**	LR		LR		08 31 03.5	
	comp=Z,97nm,19.8s,baz=201,slow=38								
AUNRC	**North Rockhamp**	**18.21**	**238**	P		**Pn**		**08 23 36.8**	**+0.9**
AUBSH	**Beerwah State**	**18.28**	**225**	P		**Pn**		**08 23 37.6**	**+0.9**
LHI	**Lord Howe Isla**	**18.65**	**203**	P		**Pn**		**08 23 41.1**	**0.0**
EIDS	**Eidsvold**	**18.76**	**232**	P		**Pn**		**08 23 42.5**	**+0.2**
EIDS	**Eidsvold**	**18.76**	**232**			**Pn**		**08 23 41.9**	**-0.5**
EIDS	**Eidsvold**	**18.76**	**232**	P		**Pn**		**08 23 42.6**	**+0.2**
	comp=Z,75nm,1.1s								
TW1H	**Toowoomba 1 Ha**	**19.38**	**225**	P		**Pn**		**08 23 49.3**	**-0.5**
AUTOO	**Toowoomba Stat**	**19.39**	**225**	P		**Pn**		**08 23 49.8**	**-0.1**
AUAYR	**Ayr State High**	**19.73**	**252**	P		**P**		**08 23 51.3**	**+0.8**
AFI	**Afiamalu**	**20.27**	**91**	P		**P**		**08 23 57.6**	**+1.2**
	comp=Z,109nm,0.9s,baz=281,slow=16,SNR=16								
	comp=Z,109nm,0.9s								
PMG	**Port Moresby**	**20.35**	**282**	P		**P**		**08 23 58.8**	**+1.7**
	comp=Z,24nm,0.9s,baz=90,slow=8.1,SNR=6.3								
PMG				pP		**pP**		**08 24 30.5**	**+4.4**
	comp=Z,14nm,0.8s,baz=117,slow=20,SNR=2.6								
	comp=Z,24nm,0.9s								
PMG	**Port Moresby**	**20.35**	**282**	P		**P**		**08 23 59.3**	**+2.1**
PMG	**Port Moresby**	**20.35**	**282**	P		**P**		**08 23 59.2**	**+2.1**
PMG	**Port Moresby**	**20.35**	**282**			**P**		**08 23 58.5**	**+1.3**
PMG				lAmb		lAmb		08 24 02.9	
	comp=Z,21nm,0.9s								
PMG	**Port Moresby**	**20.35**	**282**	P		Pn		08 23 59.5	-1.9
PMG	**Port Moresby**	**20.35**	**282**	P		**P**		**08 23 59.2**	**+2.1**
CTA	**Charters Tower**	**20.90**	**251**	P		**P**		**08 24 03.2**	**+0.1**
	comp=Z,26nm,1.0s,baz=77,slow=13,SNR=15								
CTA				pP		**pwP**		**08 24 36.5**	**-1.1**
	comp=Z,6.7nm,0.8s,baz=62,slow=12,SNR=1.9								
	comp=Z,26nm,1.0s								
CTA	**Charters Tower**	**20.90**	**251**	P		**P**		**08 24 04.3**	**+1.2**
RMQ	**Roma**	**21.12**	**232**	P		**P**		**08 24 07.7**	**+2.3**
RMQ	**Roma**	**21.12**	**232**	P		**P**		**08 24 07.2**	**+1.9**
	comp=Z,45nm,1.1s								
ARMA	**Armidale**	**21.52**	**220**	P		**P**		**08 24 11.4**	**+1.7**
ARMA	**Armidale**	**21.52**	**220**			**P**		**08 24 11.1**	**+1.4**
ARMA	**Armidale**	**21.52**	**220**	P		**P**		**08 24 09.6**	**-0.1**
	comp=Z,39nm,1.3s								
MTSU	**Mount Surprise**	**22.40**	**257**	P		**P**		**08 24 19.7**	**+1.2**
MTSU	**Mount Surprise**	**22.40**	**257**	P		**P**		**08 24 20.0**	**+1.5**
	comp=Z,28nm,1.1s								
AUPHS	**Peel High Scho**	**22.45**	**219**	P		**P**		**08 24 20.7**	**+1.9**
AULRC	**Lightning Ridg**	**23.31**	**227**	P		**P**		**08 24 28.4**	**+1.7**
AUDCS	**Dubbo College**	**24.63**	**221**	P		**P**		**08 24 39.9**	**+1.3**
QLP	**Quilpie**	**24.75**	**237**	P		**P**		**08 24 41.2**	**+1.4**
QLP	**Quilpie**	**24.75**	**237**	P		**P**		**08 24 40.8**	**+1.0**
	comp=Z,211nm,1.2s								
HAZ	**Te Kaha**	**25.05**	**160**	P		**P**		**08 24 42.9**	**+0.6**
URZ	**Urewera**	**25.30**	**162**	P		**P**		**08 24 43.9**	**-0.7**
	comp=Z,5.6nm,0.7s,baz=300,slow=3.9,SNR=1.4								
	comp=Z,5.6nm,0.7s								
URZ	**Urewera**	**25.30**	**162**	P		**P**		**08 24 45.5**	**+0.9**
BKZ	**Black Stump Fm**	**25.96**	**164**	P		**P**		**08 24 50.1**	**-0.5**
CMSA	**Cobar Meteorol**	**26.14**	**226**	P		**P**		**08 24 53.8**	**+1.4**
CMSA	**Cobar Meteorol**	**26.14**	**226**	P		**P**		**08 24 53.7**	**+1.4**
	comp=Z,38nm,1.2s								
MRZ	**Mangatinoka R**	**27.14**	**166**	P		**P**		**08 25 02.5**	**+1.4**
BFZ	**Birch Farm**	**27.32**	**165**	P		**P**		**08 25 03.1**	**+0.4**
THZ	**Tophouse**	**27.69**	**171**	P		**P**		**08 25 07.0**	**+1.0**
INKA	**Innaminka**	**28.06**	**237**			**P**		**08 25 10.3**	**+0.9**
INKA				lAmb		lAmb		08 25 11.4	
	comp=Z,10nm,0.9s								
LTZ	**Lake Taylor**	**28.60**	**172**	P		**P**		**08 25 14.2**	**+0.1**
OXZ	**Oxford**	**29.11**	**173**	P		**P**		**08 25 18.7**	**+0.1**
STKA	**Stephens Creek**	**29.25**	**229**	P		**P**		**08 25 20.1**	**+0.1**
	comp=Z,12nm,0.4s,baz=59,slow=10,SNR=38								
STKA				PcP		**PcP**		**08 28 22.7**	**0.0**
	comp=Z,4.8nm,0.7s,baz=57,slow=4.3,SNR=5.9								
STKA				LR		LR		08 35 15.1	
	comp=Z,59nm,19.8s,baz=87,slow=32								
	comp=Z,12nm,0.4s								
STKA	**Stephens Creek**	**29.25**	**229**	P		**P**		**08 25 21.2**	**+1.2**
STKA	**Stephens Creek**	**29.25**	**229**	P		**P**		**08 25 21.4**	**+1.4**
STKA	**Stephens Creek**	**29.25**	**229**	P		**P**		**08 25 21.2**	**+1.2**
	comp=Z,158nm,1.0s								
MQZ	**McQueen's Vall**	**29.56**	**172**	P		**P**		**08 25 22.5**	**+0.1**
LBZ	**Lake Benmore**	**29.99**	**176**	P		**P**		**08 25 26.8**	**+0.5**
TMZ	**Timaru**	**30.05**	**175**	P		**P**		**08 25 25.9**	**-0.9**
ODZ	**Otahua Downs**	**30.67**	**175**	P		**P**		**08 25 31.5**	**-0.8**
EAZ	**Earnscleugh**	**30.78**	**177**	P		**P**		**08 25 33.3**	**+0.1**
WR8	**Warramunga Arr**	**31.81**	**255**	P		**P**		**08 25 41.9**	**-0.8**
WR8				lAmb		lAmb		08 25 42.8	
	comp=Z,7.4nm,0.8s								
WB0	**Warramunga Arr**	**31.90**	**256**	P		**P**		**08 25 42.9**	**-0.5**
WRAB	**Tennant Creek**	**31.95**	**255**	P		**P**		**08 25 43.0**	**-0.9**
WRAB	**Tennant Creek**	**31.95**	**255**	P		**P**		**08 25 43.7**	**-0.2**
WRAB				lAmb		lAmb		08 25 44.0	
	comp=Z,11nm,0.9s								
WRAB	**Tennant Creek**	**31.95**	**255**	P		**P**		**08 25 42.4**	**-1.5**
	comp=Z,17nm,1.7s								
WRA	**Warramunga Arr**	**31.96**	**255**	P		**P**		**08 25 42.9**	**-1.1**
	comp=Z,8.7nm,0.7s,baz=84,slow=8.5,SNR=68								
WRA				PcP		**PcP**		**08 28 29.5**	**-0.6**
	comp=Z,1.0nm,0.8s,baz=80,slow=2.4,SNR=3.8								
WRA				S		**S**		**08 30 37.5**	**-5.5**
	comp=Z,1.6nm,0.9s,baz=83,slow=15,SNR=4.9								
WRA				ScP		**ScP**		**08 31 53.7**	**-4.0**
	comp=Z,0.9nm,0.9s,baz=92,slow=2.9,SNR=4.8								
	comp=Z,8.7nm,0.7s								
WRA	**Warramunga Arr**	**31.96**	**255**	P		**P**		**08 25 43.3**	**-0.7**
HTT	**Hallett**	**31.98**	**229**	P		**P**		**08 25 45.4**	**+1.4**
AUMBR	**Murray Bridge**	**32.59**	**226**	P		**P**		**08 25 50.3**	**+1.1**
AS01	**Alice Springs**	**32.80**	**249**	P		**P**		**08 25 50.8**	**-0.5**
AS31	**Alice Springs**	**32.84**	**249**	P		**P**		**08 25 51.1**	**-0.6**
ASAR	**Alice Springs**	**32.85**	**249**	P		**P**		**08 25 50.6**	**-1.0**
	comp=Z,19nm,0.8s,baz=81,slow=9.0,SNR=184								
ASAR				PcP		**PcP**		**08 28 32.0**	**-0.5**
	comp=Z,0.8nm,0.8s,baz=83,slow=1.9,SNR=2.3								
ASAR				S		**S**		**08 30 50.6**	**-6.1**
	comp=Z,1.0nm,0.9s,baz=87,slow=15,SNR=4.8								
ASAR				ScP		**ScP**		**08 31 56.3**	**-4.5**
	comp=Z,0.9nm,0.9s,baz=79,slow=3.7,SNR=4.4								
ASAR				LR		LR		08 38 50.1	
	comp=Z,62nm,18.9s,baz=82,slow=35								
	comp=Z,19nm,0.8s								
ASAR	**Alice Springs**	**32.85**	**249**			**P**		**08 25 51.2**	**-0.5**
AUALC	**St Philip's Co**	**32.87**	**249**	P		**P**		**08 25 51.2**	**-0.7**
BBOO	**Buckleboo**	**33.83**	**232**	P		**P**		**08 26 00.8**	**+0.8**
BBOO	**Buckleboo**	**33.83**	**232**	P		**P**		**08 26 01.0**	**+1.0**
BBOO	**Buckleboo**	**33.83**	**232**	P		**P**		**08 26 00.8**	**+0.8**
	comp=Z,50nm,1.2s								
AUCAS	**Cummins Area S**	**34.72**	**230**	P		**P**		**08 26 08.9**	**+1.3**
MTN	**Manton Dam**	**35.19**	**268**	P		**P**		**08 26 12.7**	**+0.8**
FAKI	**Fak Fak**	**36.44**	**285**	P		**P**		**08 26 23.5**	**+0.9**
KNRA	**Kununurra**	**37.23**	**263**			**P**		**08 26 29.2**	**0.0**
KNRA				lAmb		lAmb		08 26 30.6	
	comp=Z,17nm,0.9s								
SIJI	**Sorong**	**38.10**	**287**	LR		LR		08 43 09.7	
	comp=Z,45nm,18.4s,baz=8.0,slow=37								
FORT	**Forrest**	**39.52**	**239**	P		**P**		**08 26 48.3**	**+0.2**
FORT				lAmb		lAmb		08 26 49.2	
	comp=Z,16nm,0.8s								
FITZ	**Fitzroy Crossi**	**40.13**	**259**	P		**P**		**08 26 53.7**	**+0.3**
FITZ	**Fitzroy Crossi**	**40.13**	**259**	P		**P**		**08 26 53.7**	**+0.3**
	comp=Z,6.4nm,1.0s								
NLAI	**Namlea**	**41.19**	**282**	P		**P**		**08 27 03.1**	**+1.0**
	comp=Z,41nm,1.5s,comp=Z,41nm,1.5s								
PPT	**Papeete**	**41.48**	**100**	P		**P**		**08 27 05.2**	**+0.8**
	comp=Z,30nm,0.7s,baz=270,slow=18,SNR=2.8								
	comp=Z,30nm,0.7s								
SANI	**Sanana**	**42.62**	**283**	P		**P**		**08 27 14.3**	**+0.6**
	comp=Z,20nm,0.9s								
EDFI	**Ende, Flores**	**45.01**	**272**	P		**P**		**08 27 32.7**	**-0.1**
	comp=Z,20nm,1.0s,comp=Z,20nm,1.0s								
MBWA	**Marble Bar**	**45.69**	**254**	P		**P**		**08 27 38.5**	**+0.5**
MBWA				lAmb		lAmb		08 27 39.4	
	comp=Z,20nm,0.9s								
MEEK	**Meekatharra**	**46.97**	**247**	P		**P**		**08 27 48.1**	**+0.1**
MEEK	**Meekatharra**	**46.97**	**247**	P		**P**		**08 27 48.2**	**+0.3**
	comp=Z,36nm,0.9s								
KLBR	**Kellerberrin**	**48.32**	**240**	P		**P**		**08 27 58.0**	**-0.3**
KLBR	**Kellerberrin**	**48.32**	**240**	P		**P**		**08 27 57.4**	**-0.8**
	comp=Z,35nm,0.8s								
PLAI	**Plampang**	**48.78**	**271**	P		**P**		**08 28 02.6**	**+0.6**
	comp=Z,40nm,0.9s								
NWAO	**Narrogin (SRO)**	**48.97**	**239**	P		**P**		**08 28 02.4**	**-0.8**
NWAO				lAmb		lAmb		08 28 03.8	
	comp=Z,23nm,0.9s								
BLDU	**Ballidu**	**49.06**	**242**	P		**P**		**08 28 02.8**	**-1.2**
	comp=Z,18nm,1.5s								
MORW	**Morawa**	**49.46**	**244**	P		**P**		**08 28 07.3**	**+0.3**
MORW				lAmb		lAmb		08 28 08.6	
	comp=Z,19nm,1.0s								
MORW	**Morawa**	**49.46**	**244**	P		**P**		**08 28 06.8**	**-0.2**
	comp=Z,24nm,1.0s								
TWSI	**Taliwang, Sumb**	**49.66**	**271**	P		**P**		**08 28 08.7**	**0.0**
	comp=Z,67nm,0.9s,comp=Z,67nm,0.9s								
JAGI	**Jajag, Banyuwa**	**52.36**	**270**	P		**P**		**08 28 28.6**	**-0.3**
KKM	**Kota Kinabalu**	**54.61**	**288**	P		**P**		**08 28 44.8**	**-0.6**
KKM				lAmb		lAmb		08 29 16.6	
	comp=Z,16nm,1.0s								
INU	**Inuyama**	**57.22**	**331**	P		**P**		**08 29 04.7**	**+1.4**
	comp=Z,16nm,2.8s								
JGF	**Kuroka**	**57.26**	**331**	P		**P**		**08 29 04.0**	**+0.4**
JGF	**Kuroka**	**57.26**	**331**	P		**P**		**08 29 03.5**	**-0.1**
MJAR	**Matsushiro Arr**	**57.64**	**332**	P		**P**		**08 29 06.2**	**-0.1**
	comp=Z,2.3nm,0.8s,baz=173,slow=8.1,SNR=12								
	comp=Z,2.3nm,0.8s								
MJAR	**Matsushiro Arr**	**57.64**	**332**	P		**P**		**08 29 06.2**	**-0.1**
MAJO	**Matsushiro**	**57.64**	**332**	P		**P**		**08 29 06.5**	**+0.1**
MAJO				lAmb		lAmb		08 29 08.1	
	comp=Z,6.3nm,0.5s								
MAJO	**Matsushiro**	**57.64**	**332**	P		**P**		**08 29 06.4**	**+0.1**
	comp=Z,12nm,1.1s								
MJB9	**Matsu-Tunnel**	**57.65**	**332**	P		**P**		**08 29 06.6**	**+0.3**
MJB9				lAmb		lAmb		08 29 46.0	
	comp=Z,17nm,1.4s								
BBJI	**Bungbulang**	**58.87**	**270**	P		**P**		**08 29 14.3**	**-1.0**
BBJI	**Bungbulang**	**58.87**	**270**	P		**P**		**08 29 15.2**	**-0.2**
	comp=Z,9.1nm,0.9s								
TPUB	**Ta-pu**	**59.08**	**309**	P		**P**		**08 29 16.5**	**-0.1**
VNDA	**Vanda**	**63.19**	**181**	P		**P**		**08 29 42.5**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=354,slow=3.3,SNR=5.1								
	comp=Z,0.6nm,0.5s								
VNDA	**Vanda**	**63.19**	**181**	P		**P**		**08 29 43.3**	**0.0**
KSRS	**Korea Array**	**63.50**	**326**	P		**P**		**08 29 45.9**	**+0.1**
	comp=Z,1.2nm,0.7s,baz=155,slow=6.7,SNR=4.2								
	comp=Z,1.2nm,0.7s								
CASY	**Casey**	**63.85**	**202**	P		**P**		**08 29 48.1**	**+0.3**
CASY				lAmb		lAmb		08 29 48.8	
	comp=Z,4.2nm,0.7s								
YSS	**Yuzhno-Sakhali**	**64.94**	**342**	P		**P**		**08 29 56.7**	**+1.7**
	comp=Z,24nm,1.0s								
NJ2	**Nanjing**	**65.48**	**316**	*e*P		**P**		**08 30 01.3**	**+2.4**
NJ2				pmax		pmax			
	comp=Z,13nm,0.6s								
USA0B	**Ussuriysk Arra**	**66.62**	**333**	P		**P**		**08 30 06.0**	**+0.1**
USA0B				lAmb		lAmb		08 30 08.5	
	comp=Z,12nm,1.0s								
USRK	**Ussuriysk Ar.**	**66.62**	**333**	P		**P**		**08 30 06.8**	**+1.0**
	comp=Z,3.3nm,0.6s,baz=134,slow=6.2,SNR=6.8								
	comp=Z,3.3nm,0.6s								
USRK	**Ussuriysk Ar.**	**66.62**	**333**	P		**P**		**08 30 06.1**	**+0.2**
PEA0B	**Petropavlovsk-**	**67.74**	**354**	P		**P**		**08 30 13.3**	**+0.6**
PETK	**Petropavlovsk-**	**67.74**	**354**	P		**P**		**08 30 13.7**	**+0.9**
	comp=Z,16nm,0.8s,baz=179,slow=7.1,SNR=19								
	comp=Z,16nm,0.8s								
PETK	**Petropavlovsk-**	**67.74**	**354**	P		**P**		**08 30 13.2**	**+0.5**
BNX	**BinXian**	**69.88**	**331**	⇑P		**P**		**08 30 26.5**	**+0.4**
BNX				pmax		pmax			
	comp=Z,13nm,0.6s								
HEH	**HeiHe**	**73.29**	**335**	*e*P		**P**		**08 30 47.5**	**+1.1**
CMAR	**Chiang Mai Arr**	**74.87**	**294**	P		**P**		**08 30 56.5**	**+0.2**
	comp=Z,1.2nm,0.4s,baz=111,slow=6.0,SNR=6.8								
CMAR				pP		**pwP**		**08 31 42.7**	**+3.2**
	comp=Z,1.0nm,0.3s,baz=118,slow=4.6,SNR=1.6								
	comp=Z,1.2nm,0.4s								
CMAR	**Chiang Mai Arr**	**74.87**	**294**	P		**P**		**08 30 55.8**	**-0.5**
HHC	**Hu-ho-hao-te**	**75.37**	**320**	*e*P		**P**		**08 31 01.5**	**+2.7**
HHC				pmax		pmax			
	comp=Z,8.0nm,0.6s								
HHC				pmax		pmax			
	comp=Z,85nm,4.7s								
QSPA	**South Pole Qui**	**75.63**	**180**	P		**P**		**08 30 59.3**	**-0.6**
	comp=Z,3.4nm,1.0s,baz=34,slow=1.7,SNR=11								
QSPA				LR		LR		09 02 53.8	
	comp=Z,107nm,19.0s,baz=114,slow=34								
	comp=Z,3.4nm,1.0s								
QSPA	**South Pole Qui**	**75.63**	**180**	P		**P**		**08 30 59.5**	**-0.5**
HILR	**Hailar Array B**	**76.22**	**330**	P		**P**		**08 31 02.9**	**-0.5**
	comp=Z,1.7nm,0.5s,baz=115,slow=9.7,SNR=2.3								
	comp=Z,1.7nm,0.5s								
LZH	**Lanzhou**	**78.14**	**312**	*e*P		**P**		**08 31 16.3**	**+1.8**
LZH				pP		pwP		08 32 01.0	+2.6
LZH				pmax		pmax			
	comp=Z,15nm,1.0s								
LZDM	**Lanzhou Array**	**78.19**	**312**	P		**P**		**08 31 15.6**	**+0.6**
	comp=Z,1.0nm,0.3s,baz=113,slow=11,SNR=1.6								
	comp=Z

HAWA IAmb IAmb 08 32 11.0
comp=Z,6.8nm,0.8s
TIXI Tiksi 89.66 349 P P 08 32 11.8 +0.1
TIXI IAmb IAmb 08 32 13.1
comp=Z,8.4nm,1.1s
TIXI Tiksi 89.66 349 P **P 08 32 11.9 +0.1**
comp=Z,7.3nm,1.1s
I30M Mount Dempster 89.86 21 P **P 08 32 12.4 -0.7**
BMO Blue Mountains 89.97 43 P 08 32 14.3 +0.2
BMO IAmb IAmb 08 32 14.8
comp=Z,4.3nm,0.9s
E09A Wood Farm, Sta 90.01 42 P **P 08 32 13.5 -0.6**
E09A IAmb IAmb 08 32 15.1
comp=Z,6.7nm,1.0s
C26K Camden Bay 90.39 15 P **P 08 32 16.3 +1.0**
C26K IAmb IAmb 08 32 19.0
comp=Z,7.2nm,0.8s
F10A Beach Ranch, E 90.42 42 P **P 08 32 16.0 -0.1**
ELIB Princess Elisa 90.55 191 *d*P **P 08 32 15.5 -0.9**
U15A North Rim 90.89 53 P 08 32 19.5 +0.8
U15A IAmb IAmb 08 32 20.4
comp=Z,4.2nm,0.8s
TUC Tucson 90.89 57 P **P 08 32 19.4 +0.8**
comp=Z,3.0nm,1.3s
PLID Pearl Lake 90.92 44 P 08 32 18.7 +0.1
NEW Newport 91.28 40 P **P 08 32 19.2 -0.8**
comp=Z,5.4nm,1.2s
HLID Hailey 91.51 45 P **P 08 32 21.0 -0.3**
DUG Dugway, Tooele 91.61 49 P **P 08 32 22.0 +0.1**
WMQ Urumqi 92.54 315 *e*P **P 08 32 30.3 +4.4**
WMQ pP pwP 08 33 16.3 +5.9
WMQ pmax pmax
comp=Z,10.0nm,0.9s
WMQ LR LR
comp=Z,140nm,20.7s
HWUT Hardware Ranch 92.93 48 P **P 08 32 27.6 -0.3**
comp=Z,2.6nm,0.9s
TROLL Troll, Antarti 93.19 185 P **P 08 32 27.7 -0.9**
comp=Z,139nm,0.5s
VNA3 Neumayer Olymp 94.54 181 P **P 08 32 32.8 -1.8**
comp=Z,2.3nm,0.5s
PDAR Pinedale Array 94.68 47 P **P 08 32 35.1 -0.9**
comp=Z,0.4nm,0.8s,baz=283,slow=5.2,SNR=3.6
comp=Z,0.4nm,0.8s
VNA2 Neumayer--Watz 94.81 182 P **P 08 32 34.6 -1.2**
comp=Z,4.3nm,0.6s,baz=178,slow=5.4
VNA2 Neumayer--Watz 94.81 182 P **P 08 32 34.2 -1.6**
comp=Z,8.5nm,0.6s
TXAR Lajitas Array 96.07 61 P **P 08 32 42.2 -0.3**
comp=Z,0.3nm,0.7s,baz=250,slow=3.5,SNR=5.3
comp=Z,0.3nm,0.7s
MKAR Makanchi Array 97.01 316 P **P 08 32 45.9 -0.3**
comp=Z,3.1nm,0.7s,baz=96,slow=6.0,SNR=26
MKAR PKiKP **PKiKP 08 37 20.8 -0.6**
comp=Z,0.1nm,0.5s,baz=160,slow=1.4,SNR=4.4
MKAR S **SKSac 08 43 03.0 -4.1**
comp=Z,0.7nm,0.9s,baz=65,slow=11,SNR=3.7
MKAR LR LR 09 18 57.7
comp=Z,60nm,19.7s,baz=352,slow=37
comp=Z,3.1nm,0.7s
MKAR Makanchi Array 97.01 316 P Pdif 08 32 46.8 +0.5
ZALV Zalesovo Beam 97.16 324 P **P 08 32 45.7 -1.0**
comp=Z,1.9nm,0.6s,baz=112,slow=3.7,SNR=9.3
comp=Z,1.9nm,0.6s
ZALV Zalesovo Beam 97.16 324 P 08 32 46.8 +0.1
MAKZ Makanchi 97.22 316 P Pdif 08 32 48.2 +1.0
comp=Z,3.2nm,1.4s
YKA Yellowknife Ar 97.23 27 P **P 08 32 45.3 -1.5**
comp=Z,1.8nm,0.8s,baz=253,slow=4.6,SNR=12
comp=Z,1.8nm,0.8s
YKA Yellowknife Ar 97.23 27 P **P 08 32 45.9 -0.9**
NRIK Noril'sk 99.79 339 P **Pdif 08 32 57.4 -0.7**
comp=Z,1.7nm,0.5s,baz=124,slow=3.6,SNR=3.6
comp=Z,1.7nm,0.5s
BVAR Borovoye Array 105.53 322 PKiKP **PKiKP 08 37 35.5 -1.0**
comp=Z,0.9nm,0.5s,baz=70,slow=1.7,SNR=4.5
ARCES ARCESS Array B 119.95 345 PKP **PKPdf 08 38 03.2 -0.3**
comp=Z,2.5nm,0.4s,baz=63,slow=2.2,SNR=43
BOSA Boshof 123.66 220 PKP **PKPdf 08 38 11.5 -0.6**
comp=Z,2.9nm,0.9s,baz=90,slow=5.1,SNR=2.4
FINES FINESS Array B 125.44 338 PKP **PKPdf 08 38 13.9 -0.3**
comp=Z,5.4nm,0.9s,baz=61,slow=1.9,SNR=16
FINES FINESS Array B 125.44 338 PKiKP 08 38 14.5 -0.1
NB2 NORSAR Subarra130.32 345 PKPdf **PKPdf 08 38 23.7 +0.1**
comp=Z,1.3nm,0.7s,baz=31,slow=1.8
NB2 SKPa 08 41 31.7
comp=Z,2.5nm,0.8s,baz=41,slow=4.4
NOA NORSAR Array B130.32 345 PKP **PKPdf 08 38 23.6 0.0**
comp=Z,1.4nm,0.8s,baz=32,slow=4.4,SNR=5.5
NOA SKPbc **SKPab 08 41 28.8 -2.3**
comp=Z,6.4nm,0.9s,baz=31,slow=2.9,SNR=10
HFS Hagfors 130.43 343 PKP **PKPdf 08 38 22.9 -0.8**
comp=Z,2.9nm,0.9s,baz=46,slow=6.2,SNR=3.0
HFS SKPbc **SKPbc 08 41 29.2 -2.2**
comp=Z,3.9nm,0.8s,baz=77,slow=6.2,SNR=4.7
AKASG Malin Array Be 130.50 326 PKP **PKPdf 08 38 23.6 -0.5**
comp=Z,0.4nm,0.4s,baz=56,slow=1.7,SNR=2.6
AKASG SKPbc **SKPbc 08 41 30.0 -1.9**
comp=Z,2.2nm,0.6s,baz=49,slow=4.8,SNR=15
AK09 Malin Array Si 130.51 326 PKP **PKPdf 08 38 24.2 0.0**
AK18 Malin Array Si 130.57 326 PKP **PKPdf 08 38 23.4 -0.9**
AK06 Malin Array Si 130.57 326 PKP **PKPdf 08 38 23.6 -0.7**
LUBAR Lubar, Ukraine 131.71 326 PKP **PKPdf 08 38 25.7 -0.8**
BRTR Keskin Array B 132.34 311 PKP **PKPdf 08 38 26.9 -1.3**
comp=Z,0.9nm,0.6s,baz=160,slow=4.6,SNR=5.4
BRTR SKPbc **SKPbc 08 41 37.1 -2.1**
comp=Z,2.0nm,1.0s,baz=72,slow=2.6,SNR=6.8
BRTR Keskin Array B 132.34 311 PKPdf 08 38 26.5 -1.7
BR104 Keskin Array S 132.34 311 PKP **PKPdf 08 38 27.0 -1.2**
KMPD K-Podol'skiy 133.16 325 PKP **PKPdf 08 38 28.3 -1.0**
TIRR Tirgusor 134.07 319 PKP **PKPdf 08 38 30.2 -0.9**
KLYT Kilyos 135.05 315 PKP **PKPdf 08 38 31.7 -1.3**
KOLS Kolonicke sedl 135.20 328 *e*PKP **PKiKP 08 38 35.5 +0.8**
STEB Steborice 136.75 331 *e*PKPDF **PKPdf 08 38 36.5 +0.5**
OSTC Ostas 137.01 333 *e*PKPDF **PKPdf 08 38 37.2 +0.7**
DPC Dobruska-Polom 137.12 333 *e*PKPDF PKPpre 08 38 25.2
CLL Collm 137.78 336 *i* PKPdf **PKiKP 08 38 39.9 +0.1**
EKA Eskdalemuir Ar 138.49 352 PKP **PKPdf 08 38 39.3 +0.3**
comp=Z,1.5nm,0.8s,baz=16,slow=2.4,SNR=3.4
ZVC Zvikov 138.72 333 *e*PKPDF **PKiKP 08 38 41.6 -0.2**
ABNA Allensteig Bun 138.73 332 *e*PKiKP **PKiKP 08 38 42.0 +0.2**
comp=Z,1.5nm,0.7s
RONA Rosalia, Austr 139.01 330 *e*PKiKP **PKiKP 08 38 42.6 +0.1**
comp=Z,8.1nm,0.9s
CONA Conrad Observa 139.06 331 *i* PKiKP **PKiKP 08 38 42.9 +0.2**
comp=Z,1.9nm,0.6s
CKRC Cesky Krumlov 139.13 333 *e*PKPDF **PKiKP 08 38 41.7 -1.0**
KHC Kasperske Hory 139.22 334 *e*PKPDF **PKPdf 08 38 41.3 +0.7**
GERES GERESS Array B 139.38 333 PKP **PKPdf 08 38 41.7 +0.7**
comp=Z,2.3nm,0.9s,baz=66,slow=1.2,SNR=9.4
GERES SKPbc **SKPbc 08 41 56.5 -4.0**
comp=Z,1.1nm,0.7s,baz=17,slow=1.0,SNR=4.1
SESA Seetaler Alpe, 140.26 331 *i* PKiKP **PKiKP 08 38 44.9 -0.4**
comp=Z,3.8nm,0.9s
KBA Koelnbreinsper 140.85 332 *i* PKiKP **PKiKP 08 38 46.3 -0.2**
comp=Z,1.4nm,0.5s
LESA Schwarzleotal 140.90 333 *e*PKiKP **PKiKP 08 38 46.2 -0.2**
comp=Z,2.4nm,0.4s
WATA Walderalm 141.45 333 *e*PKP **PKPdf 08 38 43.9 -1.0**
comp=Z,5.4nm,1.6s
WTTA Wattenberg 141.48 333 *e*PKP **PKPdf 08 38 44.0 -0.9**
comp=Z,0.9nm,0.3s
ABTA Abfaltersbach 141.48 332 *e*PKP **PKPdf 08 38 43.9 -0.9**
comp=Z,3.5nm,0.7s
MOTA Moosalm 141.65 334 PKP **PKPdf 08 38 44.3 -0.9**
comp=Z,3.6nm,1.0s
SQTA Sankt Quirin 141.70 334 *e*PKP **PKPdf 08 38 44.2 -1.0**
comp=Z,4.9nm,1.5s
KEST Kesra 150.99 321 PKPbc **PKPbc 08 39 06.4 -0.6**
comp=Z,13nm,0.7s,baz=90,slow=1.0,SNR=9.0
KEST Kesra 150.99 321 PKiKP 08 39 07.9 +0.4
ESDC Sonseca Array 153.69 345 PKP **PKPdf 08 39 03.8 -1.2**
comp=Z,1.5nm,1.0s,baz=39,slow=2.9,SNR=5.1
ESDC PKPbc **PKiKP 08 39 13.2 +0.2**
comp=Z,1.8nm,0.8s,baz=30,slow=3.0,SNR=9.0
ESDC PKPab **PKPab 08 39 26.6 +0.5**
comp=Z,3.4nm,0.8s,baz=20,slow=5.2,SNR=12
ESDC Sonseca Array 153.69 345 PKPbc **PKiKP 08 39 13.6 +0.6**
ESDC PKPab **PKPab 08 39 26.4 +0.2**
TORD Torodi Ar. Bea 165.99 267 PKPab **PKPab 08 40 19.8 -0.7**
comp=Z,0.7nm,0.9s,baz=132,slow=2.1,SNR=3.3

*IDC **29** 08:36:38.9±6.4,7°.49S×156°.41E,h0km,mb3.9/7, mbtmp3.9/7,MS2.5/1,Error ellipse: s-maj=206.3km s-min=32.3km az=114.0*

ISC 29 08:36:41.9±9.0,7.7S±0°.8×155°.7E±°,h35km,n11,σ0s72/7, mb4.0/7,Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**3.46**	**119**	LR		LR	LR	08 39 27.4	
	comp=Z,62nm,21.7s,baz=39,slow=42								
WRA	**Warramunga Arr**	**24.98**	**239**	P		**P**		**08 42 02.0**	**-0.5**
	0.4nm,0.6s,baz=61,slow=9.0,SNR=3.6								
	0.4nm,0.6s								
ASAR	**Alice Springs**	**27.13**	**232**	P		**P**		**08 42 22.2**	**+0.2**
	0.2nm,0.7s,baz=67,slow=9.3,SNR=1.4								
	0.2nm,0.7s								
H11S3	**WAKE ISLAND Hy**	**27.81**	**20**	T		T		09 10 56.5	
	baz=202,slow=75,SNR=19								
H11S2	**WAKE ISLAND Hy**	**27.81**	**20**	T		T		09 10 56.7	
	baz=202,slow=75,SNR=16								
H11S1	**WAKE ISLAND Hy**	**27.82**	**20**	T		T		09 10 57.8	
	baz=202,slow=75,SNR=9.4								
SONM	**Songino Array**	**70.98**	**327**	P		**P**		**08 47 56.1**	**0.0**
	0.4nm,0.3s,baz=128,slow=6.7,SNR=2.5								
	0.4nm,0.3s								
MKAR	**Makanchi Array**	**85.20**	**318**	P		**P**		**08 49 15.9**	**+1.0**
	2.2nm,0.6s,baz=105,slow=5.6,SNR=18								
	2.2nm,0.6s								
ZALV	**Zalesovo Beam**	**85.84**	**326**	P		**P**		**08 49 17.6**	**-0.2**
	1.7nm,0.5s,baz=112,slow=6.0,SNR=5.8								
	1.7nm,0.5s								
KURBB	**Kurchatov Arra**	**88.61**	**321**	P		**P**		**08 49 31.3**	**+0.1**
	0.4nm,0.6s,baz=98,slow=4.6,SNR=5.9								
	0.4nm,0.6s								
BVAR	**Borovoye Array**	**94.02**	**323**	P		**P**		**08 49 55.5**	**-0.8**
	0.4nm,0.5s,baz=108,slow=4.7,SNR=1.9								
	0.4nm,0.5s								

*SJA **29** 08:41:00.3±0.7,34°.00S×72°.48W,h6km±3km,ML3.7, MW3.7*
*IDC **29** 08:41:01.9±1.1,33°.96S×72°.30W,h0km,mb3.6/3, mbtmp3.6/6,ML3.6/3,Error ellipse: s-maj=31.5km s-min=19.6km az=103.0*
*GUC **29** 08:41:03.8±0.7,33°.96S×72°.45W,h32km±2km,ML3.9, Presumed earthquake*

ISC 29 08:41:01.8±1.5,33°.98S±0°.02×72°.46W±0°.04,h5km±9km, n72,σ1s17/107,21C-1D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
BO03	**Pichilemu**	**0.66**	**141**	*e*P		**P**	**Pb**	**08 41 16.7**	**+0.9**
BO03				*e*S		**S**	**Sb**	**08 41 25.6**	**+0.4**
MT01	**Popeta**	**1.01**	**84**	*e*P		**P**	**Pb**	**08 41 21.8**	**0.0**
MT01				*e*S		**S**	**Sb**	**08 41 35.2**	**-0.2**
MT01				IAML				08 41 36.3	
	comp=Z,3μm,0.4s								
MT01	**Popeta**	**1.01**	**84**	*e*P		**P**	**Pb**	**08 41 21.9**	**0.0**
MT01				*e*S		**S**	**Sb**	**08 41 34.8**	**-0.6**
MT01				IAML				08 41 37.2	
	comp=N,4μm,0.2s								
GO05	**Hualane**	**1.11**	**157**	*e*P		**Pg**	**Pb**	**08 41 20.7**	**-2.5**
GO05				*e*S		**Sn**	**Sb**	**08 41 39.5**	**-0.4**
GO05				IAML				08 41 44.6	
	comp=Z,1μm,0.8s								
GO05	**Hualane**	**1.11**	**157**	*e*P		**Pb**	**Pb**	**08 41 24.0**	**+0.4**
GO05				*e*S		**Sb**	**Sb**	**08 41 39.2**	**+0.8**
GO05				IAML				08 41 43.4	
	comp=E,4μm,0.6s								
VA01	**Torpederas**	**1.17**	**36**	*e*P		**Pn**	**Pb**	**08 41 24.7**	**-0.1**
VA01				IAML				08 41 53.8	
	comp=Z,632nm,0.9s								
VA01	**Torpederas**	**1.17**	**36**	*e*P		**Pn**	**Pb**	**08 41 24.5**	**-0.4**
VA01				*e*S		**Sb**	**Sb**	**08 41 39.5**	**-0.5**
BO01	**Tunca**	**1.21**	**110**	*e*P		**Pg**	**Pb**	**08 41 24.4**	**-0.6**
BO01				*e*S		**Sg**	**Sb**	**08 41 40.7**	**0.0**
BO01				IAML				08 41 48.6	
	comp=Z,785nm,0.5s								
BO01	**Tunca**	**1.21**	**110**	*e*P		**Pg**	**Pb**	**08 41 24.0**	**-1.0**
BO01				*e*S		**Sg**	**Sb**	**08 41 40.5**	**-0.2**
MT09	**Talagante**	**1.24**	**81**	*e*P		**Pg**	**Pb**	**08 41 25.3**	**-0.2**
MT09				*e*S		**Sb**	**Sb**	**08 41 41.7**	**-0.5**
MT09				IAML				08 41 46.0	
	comp=N,3μm,0.2s								
MT02	**Curacav**	**1.32**	**57**	*e*P		**Pn**	**Pb**	**08 41 26.4**	**-0.5**
MT02				*e*S		**Sn**	**Sb**	**08 41 44.8**	**-0.1**
MT02				IAML				08 41 49.3	
	comp=Z,1μm,0.5s								
MT02	**Curacav**	**1.32**	**57**	*e*P		**Pn**	**Pb**	**08 41 26.4**	**-0.5**
MT02				*e*S		**Sb**	**Sb**	**08 41 43.6**	**-0.6**
BO04	**La Punta**	**1.54**	**91**	*e*P		**Pn**	**Pb**	**08 41 30.0**	**+0.1**
BO04				*e*S		**Sn**	**Sb**	**08 41 50.0**	**-0.3**
BO04				IAML				08 41 56.0	
	comp=N,2μm,0.3s								
MT05	**Renca**	**1.55**	**68**	*e*P		**Pb**	**Pb**	**08 41 30.4**	**-0.6**
MT05				*e*S		**Sg**	**Sb**	**08 41 57.5**	**+5.8**
MT05				IAML				08 42 01.5	
	comp=Z,560nm,0.3s								
MT05	**Renca**	**1.55**	**68**	*e*P		**Pn**	**Pb**	**08 41 30.0**	**-0.2**
MT05				IAML				08 42 03.0	
	comp=E,2μm,0.4s								
ROCH	**El Roble**	**1.57**	**51**	*e*P		**Pn**	**Pb**	**08 41 30.5**	**-0.1**
ROCH				*e*S		**Sg**	**Sb**	**08 41 54.3**	**+1.9**
ROCH				IAML				08 42 03.8	
	comp=N,3μm,0.6s								
BO02	**Sierra Bellavi**	**1.60**	**121**	*e*P		**Pn**	**Pb**	**08 41 31.1**	**+0.2**
BO02				IAML				08 41 58.5	
	comp=Z,3μm,0.2s								
BO02	**Sierra Bellavi**	**1.60**	**121**	*e*P		**Pn**	**Pb**	**08 41 31.0**	**0.0**
BO02				*e*S		**Sb**	**Sb**	**08 41 52.4**	**-0.2**
MT12	**Pirque**	**1.61**	**82**	*e*P		**Pn**	**Pb**	**08 41 30.9**	**-0.1**
MT12				*e*S		**Sn**	**Sb**	**08 41 51.7**	**-0.4**
MT12				IAML				08 42 00.9	
	comp=N,3μm,0.4s								
MT15	**Las Vizcachas**	**1.67**	**77**	*e*P		**Pn**	**Pb**	**08 41 31.7**	**-0.1**
MT15				*e*S		**Sb**	**Sb**	**08 41 54.0**	**-0.5**
MT15				IAML				08 41 59.0	
	comp=N,4μm,0.2s								
MT03	**Universidad Ad**	**1.69**	**74**	*e*P		**Pb**	**Pb**	**08 41 32.6**	**-0.9**
MT03				*e*S		**Sg**	**Sb**	**08 41 57.8**	**+1.6**
MT03				IAML				08 41 59.5	
	comp=Z,718nm,0.7s								
MT03	**Universidad Ad**	**1.69**	**74**	*e*P		**Pn**	**Pb**	**08 41 32.1**	**0.0**
MT03				*e*S		**Sb**	**Sb**	**08 41 55.3**	**+0.1**
MT03				IAML				08 41 58.4	
	comp=N,2μm,0.2s								
PEL	**Peldehue**	**1.70**	**61**	*e*P		**Pb**	**Pb**	**08 41 33.0**	**-0.6**
PEL				*e*S		**Sg**	**Sb**	**08 41 57.4**	**+0.9**
PEL				IAML				08 42 03.4	
	comp=Z,1μm,0.6s								
PEL	**Peldehue**	**1.70**	**61**	*e*P		**Pb**	**Pb**	**08 41 32.8**	**-0.8**
PEL				*e*S		**Sb**	**Sb**	**08 41 54.7**	**-0.7**
PEL				IAML				08 42 05.1	
	comp=E,2μm,0.3s								
MT14	**Cerro Calן**	**1.71**	**70**	*e*P		**Pn**	**Pb**	**08 41 32.6**	**+0.3**
MT14				*e*S		**Sb**	**Sb**	**08 41 55.6**	**+0.1**
MT14				IAML				08 42 06.5	
	comp=E,2μm,0.2s								
MT16	**CCHEN**	**1.71**	**72**	*e*P		**Pn**	**Pb**	**08 41 32.5**	**+0.2**
MT16				*e*S		**Sb**	**Sb**	**08 41 55.2**	**-0.3**
MT10	**Hacienda Santa**	**1.75**	**67**	*e*P		**Pn**	**Pb**	**08 41 33.5**	**+0.5**
MT10				*e*S		**Sg**	**Sb**	**08 41 58.3**	**+0.1**
MT13	**San Alfonso**	**1.82**	**83**	*e*P		**Pn**	**Pb**	**08 41 34.4**	**+0.5**
MT13				*e*S		**Sg**	**Sb**	**08 42 00.0**	**-0.4**
MT13				IAML				08 42 05.0	
	comp=Z,804nm,0.8s								
MT13	**San Alfonso**	**1.82**	**83**	*e*P		**Pn**	**Pb**	**08 41 34.4**	**+0.5**
MT13				*e*S		**Sb**	**Sb**	**08 41 58.2**	**-0.8**
MT13				IAML				08 42 05.0	
	comp=E,2μm,0.3s								
LMEL	**Las Melosas**	**1.88**	**87**	*e*P		**Pn**	**Pb**	**08 41 35.4**	**+0.6**
LMEL				*e*S		**Sb**	**Sb**	**08 42 00.2**	**-0.4**
LMEL				IAML				08 42 02.9	
	comp=N,2μm,0.5s								
FCH	**Farellones**	**1.92**	**71**	*e*P		**Pn**	**Pb**	**08 41 35.7**	**+0.2**
FCH				*e*S		**Sb**	**Sb**	**08 42 01.9**	**0.0**
FCH				IAML				08 42 08.4	
	comp=N,2μm,0.5s								
ML02	**Panimavida**	**1.97**	**155**	*e*P		Pn		08 41 30.7	-5.2
ML02				*e*S		Sn		08 41 42.7	-18
ML02				IAML				08 42 14.0	
	comp=Z,1μm,0.5s								
ML02	**Panimavida**	**1.97**	**155**	*e*P		**Pn**	**Pb**	**08 41 37.2**	**+1.3**
ML02				*e*S		**Sg**	**Sb**	**08 42 04.9**	**-0.2**
ML02				IAML				08 42 12.8	
	comp=N,2μm,0.6s								
VA03	**San Esteban**	**2.01**	**53**	*e*P		**Pn**	**Pb**	**08 41 37.0**	**+0.5**
VA03				*e*S		**Sg**	**Sb**	**08 42 05.0**	**-1.3**
VA03				IAML				08 42 12.1	
	comp=Z,1μm,1.2s								
VA03	**San Esteban**	**2.01**	**53**	*e*P		**Pn**		**08 41 37.0**	**+0.5**
VA03				*e*S		**Sg**		**08 42 07.3**	**+1.1**
MT04	**Ro Olivares**	**2.02**	**74**	*e*P		**Pn**		**08 41 37.6**	**+0.8**
MT04				*e*S		**Sg**		**08 42 05.3**	**-1.3**
MT04				IAML				08 42 13.6	
	comp=Z,579nm,0.3s								
MT04	**Ro Olivares**	**2.02**	**74**	*e*P		**Pn**		**08 41 37.1**	**+0.3**
MT04				*e*S		**Sb**		**08 42 05.0**	**+0.3**
MT04				IAML				08 42 11.7	
	comp=N,761nm,0.6s								
MT08	**Bocatoma Ro**	**2.10**	**76**	*e*P		**Pn**		**08 41 38.6**	**+0.7**
MT08				*e*S		**Sb**		**08 42 07.8**	**+0.7**
MT08				IAML				08 42 12.4	
	comp=Z,530nm,0.6s								
MT08	**Bocatoma Ro**	**2.10**	**76**	*e*P		**Pn**		**08 41 38.5**	**+0.6**
MT08				*e*S		**Sg**		**08 42 08.3**	**-1.1**
MT08				IAML				08 42 13.9	
	comp=N,711nm,0.4s								
CO04	**Los Peladeros**	**2.30**	**33**	*e*P		**Pn**		**08 41 40.2**	**-0.5**
CO04				*e*S		**Sg**		**08 42 18.3**	**+2.6**
CO04				IAML				08 42 25.3	
	comp=N,1μm,0.6s								
BI05	**Punta Hualpn**	**2.82**	**192**	*e*P		**Pn**		**08 41 48.2**	**+0.6**
BI05				IAML				08 42 39.9	
	comp=Z,175nm,0.6s								
BI05	**Punta Hualpn**	**2.82**	**192**	*e*P		**Pn**		**08 41 47.9**	**+0.3**
BI05				*e*S		**Sn**		**08 42 18.9**	**-3.1**
BI02	**San Fabin de**	**2.84**	**160**	*e*P		**Pn**		**08 41 50.5**	**+2.5**
BI02				IAML				08 42 42.3	
	comp=Z,166nm,0.5s								
BI02	**San Fabin de**	**2.84**	**160**	*e*P		**Pn**		**08 41 49.4**	**+1.4**
BI02				IAML				08 42 40.7	
	comp=E,302nm,0.2s								
CO02	**Combarbal**	**3.03**	**24**	*e*P		**Pn**		**08 41 51.0**	**+0.4**
CO02				IAML				08 42 48.5	
	comp=Z,407nm,0.8s								
CO02	**Combarbal**	**3.03**	**24**	*e*P		**Pn**		**08 41 50.7**	**+0.2**
EDS3	**Malargue**	**3.08**	**126**	*e*S		**Sb**		**08 42 35.5**	**+0.2**
AAGR	**Agrelo**	**3.16**	**75**	*e*P		**Pn**		**08 41 51.7**	**-0.6**
AAGR				IAML				08 43 07.8	
	comp=Z,152nm,1.2s								
ARCO	**CERRO ARCO**	**3.16**	**70**	*e*P		**Pn**		**08 41 54.7**	**+2.3**
ARCO				IAML				08 42 48.0	
	comp=Z,211nm,1.2s								
AVIZ	**Vizcacheras**	**3.33**	**82**	*e*P		**Pn**		**08 41 54.7**	**+0.2**
AVIZ				*e*S		**Sg**		**08 42 49.6**	**+1.0**
CO06	**Fray Jorge**	**3.37**	**12**	*e*P		**Pn**		**08 41 54.5**	**-0.6**
RFA	**San Rafael**	**3.39**	**105**	*e*P		**Pn**		**08 41 54.6**	**-0.9**
RFA				*e*S		**Sg**		**08 42 53.4**	**+2.5**
RFA				IAML				08 42 54.3	
	comp=Z,155nm,0.7s								
RTLS	**Leoncito**	**3.44**	**52**	*e*P		**Pn**		**08 41 58.9**	**+2.5**
RTLS				*e*S		**Sb**		**08 42 48.1**	**+2.6**
RTLS				IAML				08 43 09.5	
	comp=Z,465nm,0.8s								
CO03	**El Pedregal**	**3.47**	**26**	*e*P		**Pn**		**08 41 57.0**	**+0.4**
ZON	**Zonda**	**4.01**	**54**	*e*P		**Pn**		**08 42 02.1**	**-1.8**
ZON				IAML				08 43 25.3	
	comp=Z,70nm,0.7s								
GO04	**Tololo Observa**	**4.05**	**21**	*e*P		**Pn**		**08 42 04.7**	**0.0**
CFA	**Coronel Fontan**	**4.27**	**57**	Pn		**Pn**		**08 42 08.0**	**+0.5**
	comp=Z,0.9nm,0.3s,baz=232,slow=15,SNR=40								
CFA				Lg		Lg		08 43 07.5	
	comp=Z,3.3nm,0.3s,baz=279,slow=19,SNR=5.8								
	comp=Z,2.2nm,0.2s								
CFA				AML		AML			
CFA	**Coronel Fontan**	**4.27**	**57**	*e*P		**Pn**		**08 42 09.6**	**+2.0**
CFA				IAML				08 43 19.1	
	comp=Z,66nm,0.5s								
LCO	**Las Campanas**	**5.18**	**17**	*e*S		**Sn**		**08 43 18.2**	**-2.3**
LCO				IAML				08 43 52.9	
	comp=Z,102nm,1.4s								
H03S1	**Juan Fernandez**	**5.36**	**270**	T		T		08 48 25.3	
	baz=95,slow=74,SNR=432								
H03S3	**Juan Fernandez**	**5.37**	**270**	T		T		08 48 27.0	
	baz=95,slow=74,SNR=292								
H03S2	**Juan Fernandez**	**5.38**	**270**	T		T		08 48 25.9	
	baz=95,slow=74,SNR=413								
PLCA	**Paso Flores**	**6.91**	**168**	Pn		**Pn**		**08 42 44.5**	**+0.7**
	comp=Z,0.3nm,0.3s,baz=335,slow=12,SNR=11								
PLCA				Lg		Lg		08 44 30.8	
	comp=Z,0.2nm,0.3s,baz=311,slow=12,SNR=2.8								
	comp=Z,0.8nm,0.4s								
PLCA				AML		AML			
CPUP	**Villa Florida**	**15.14**	**64**	Lg		Lg		08 48 37.6	
	comp=Z,0.1nm,0.3s,baz=168,slow=19,SNR=2.9								
LPAZ	**La Paz**	**18.05**	**14**	P		**P**		**08 45 15.6**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=186,slow=7.8,SNR=10								
	comp=Z,2.4nm,0.7s								
LPAZ				AML		AML			
SIV	**San Ignacio**	**20.64**	**33**	P		**P**		**08 45 40.6**	**-1.8**
	comp=Z,2.2nm,0.8s,baz=211,slow=12,SNR=14								
	comp=Z,2.2nm,0.8s								
TXAR	**Lajitas Array**	**69.55**	**331**	P		**P**		**08 52 13.4**	**+1.6**
	comp=Z,0.2nm,0.7s,baz=143,slow=5.3,SNR=5.0								
	comp=Z,0.2nm,0.7s								
TORD	**Torodi Ar. Bea**	**84.53**	**70**	P		**P**		**08 53 35.7**	**-0.6**
	comp=Z,0.8nm,0.7s,baz=227,slow=7.7,SNR=5.1								
	comp=Z,0.8nm,0.7s								
BVAR	**Borovoye Array**	**147.50**	**43**	PKPbc		**PKPbc**		**09 00 46.9**	**+0.4**
	comp=Z,1.3nm,0.5s,baz=289,slow=4.4,SNR=5.3				

HAZ			S	**Sn**	**09 00 10.8**	**+3.3**
HAZ			AML	AML		
HAZ			AML	AML		
PUZ	**Puketiti**	**5.82 210**	P	**Pn**	**08 59 01.1**	**-2.0**
PUZ			S	**Sn**	**09 00 12.3**	**+3.6**
PUZ			AML	AML		
RUGZ	**Raukumara Rang**	**5.99 215**	P	**Pn**	**08 59 03.1**	**-2.4**
RUGZ			AML	AML		
RUGZ			AML	AML		
TWGZ	**Tauwhareparae**	**6.03 212**	P	**Pn**	**08 59 06.3**	**+0.4**
TWGZ			S	**Sn**	**09 00 16.1**	**+2.3**
TWGZ			AML	AML		
TWGZ			AML	AML		
CNGZ	**Carnagh Statio**	**6.19 209**	P	Pn	08 59 02.6	-5.5
CNGZ			S	**Sn**	**09 00 20.6**	**+2.9**
CNGZ			AML	AML		
CNGZ			AML	AML		
TKGZ	**Te Karaka**	**6.30 211**	P	**Pn**	**08 59 10.9**	**+1.2**
TKGZ			S	**Sn**	**09 00 22.0**	**+1.5**
TKGZ			AML	AML		
TKGZ			AML	AML		
MWZ	**Matawai**	**6.36 213**	P	**Pn**	**08 59 11.5**	**+1.0**
MWZ			S	**Sn**	**09 00 20.5**	**-1.4**
MWZ			AML	AML		
MWZ			AML	AML		
URZ	**Urewera**	**6.50 216**	Pn	**Pn**	**08 59 08.2**	**-4.2**
	3.4nm,0.3s,baz=44,slow=18,SNR=20					
URZ			Sn	**Sn**	**09 00 23.6**	**-1.7**
	4.7nm,0.3s,baz=32,slow=19,SNR=6.8					
	6.4nm,0.9s					
URZ			AML	AML		
URZ	**Urewera**	**6.50 216**	P	**Pn**	**08 59 12.7**	**+0.3**
URZ			S	**Sn**	**09 00 23.0**	**-2.3**
URZ			AML	AML		
RAGZ	**Rawiri**	**6.54 213**	P	**Pn**	**08 59 15.1**	**+2.0**
RAGZ			AML	AML		
RAGZ			AML	AML		
RIGZ	**Rimuhau**	**6.56 210**	P	**Pn**	**08 59 14.7**	**+1.4**
RIGZ			S	**Sn**	**09 00 27.4**	**+0.4**
RIGZ			AML	AML		
RIGZ			AML	AML		
PRGZ	**Paritu Road**	**6.70 209**	P	**Pn**	**08 59 17.5**	**+2.4**
PRGZ			AML	AML		
MUGZ	**Murupara**	**6.84 217**	P	**Pn**	**08 59 16.8**	**-0.3**
MUGZ			S	**Sn**	**09 00 34.7**	**+1.0**
MUGZ			AML	AML		
MUGZ			AML	AML		
RTZ	**Ruatahuna**	**6.84 215**	P	**Pn**	**08 59 17.8**	**+0.7**
RTZ			AML	AML		
RTZ			AML	AML		
KNZ	**Kokohu**	**6.87 209**	P	**Pn**	**08 59 18.1**	**+0.7**
KNZ			S	**Sn**	**09 00 34.2**	**-0.2**
KNZ			AML	AML		
MHGZ	**Mahia Peninsul**	**6.89 207**	P	**Pn**	**08 59 17.6**	**-0.1**
MHGZ			AML	AML		
WCZ	**Waipu Caves**	**6.91 244**	P	**Pn**	**08 59 21.5**	**+3.5**
WCZ			AML	AML		
RAHZ	**Arahi**	**7.03 213**	P	**Pn**	**08 59 21.3**	**+1.6**
RAHZ			S	**Sn**	**09 00 37.7**	**-0.8**
RAHZ			AML	AML		
RAHZ			AML	AML		
MTHZ	**Maungataniwha**	**7.10 214**	P	**Pn**	**08 59 20.2**	**-0.4**
MTHZ			S	**Sn**	**09 00 39.6**	**-0.5**
MTHZ			AML	AML		
MTHZ			AML	AML		
OUZ	**Omahuta**	**7.27 251**	P	**Pn**	**08 59 25.5**	**+2.6**
OUZ			AML	AML		
NMHZ	**Naumai**	**7.31 213**	P	**Pn**	**08 59 23.0**	**-0.5**
NMHZ			S	**Sn**	**09 00 46.2**	**+0.9**
NMHZ			AML	AML		
NMHZ			AML	AML		
ARHZ	**Aropaoanui**	**7.36 212**	P	**Pn**	**08 59 25.3**	**+1.2**
BKZ	**Black Stump Fm**	**7.51 215**	P	**Pn**	**08 59 26.5**	**+0.2**
MCHZ	**McNeill Hill**	**7.64 212**	P	**Pn**	**08 59 28.8**	**+0.8**
MCHZ			S	**Sn**	**09 00 51.8**	**-1.6**
CKHZ	**Cape Kidnapper**	**7.65 210**	P	**Pn**	**08 59 28.8**	**+0.6**
KWHZ	**Kaweka Forest**	**7.75 214**	P	**Pn**	**08 59 30.5**	**+1.0**
KWHZ			S	**Sn**	**09 00 54.8**	**-1.4**
KAHZ	**Kahuranaki**	**7.85 210**	P	**Pn**	**08 59 26.2**	**-4.7**
KAHZ			S	**Sn**	**09 00 57.1**	**-1.5**
OTVZ	**Oturere**	**7.92 218**	P	**Pn**	**08 59 33.4**	**+1.3**
OTVZ			S	**Sn**	**09 00 59.7**	**-0.8**
KRHZ	**Kereru**	**7.95 213**	P	**Pn**	**08 59 32.9**	**+0.6**
KRHZ			S	**Sn**	**09 00 58.4**	**-2.6**
BHHZ	**Black Hill Sta**	**7.97 215**	P	**Pn**	**08 59 32.5**	**-0.1**
PNHZ	**Pukenui**	**8.24 213**	P	**Pn**	**08 59 36.4**	**0.0**
PNHZ			S	**Sn**	**09 01 04.6**	**-3.7**
PRHZ	**Porangahau**	**8.35 209**	P	**Pn**	**08 59 37.6**	**-0.1**
BFZ	**Birch Farm**	**8.86 210**	P	**Pn**	**08 59 44.3**	**-0.3**
BFZ			S	**Sn**	**09 01 18.9**	**-4.3**
MRZ	**Mangatainoka R**	**9.13 212**	Pn	**Pn**	**08 59 44.2**	**-4.2**
MRZ	**Mangatainoka R**	**9.13 212**	P	**Pn**	**08 59 46.5**	**-1.9**
MRZ			S	**Sn**	**09 01 24.7**	**-5.2**
CAN	**Canberra**	**27.30 256**	P	**P**	**09 03 18.4**	**-2.2**
EIDS	**Eidsvold**	**27.97 278**	P	**P**	**09 03 25.1**	**-1.6**
ASAR	**Alice Springs**	**43.02 270**	P	**P**	**09 05 34.1**	**-1.5**
	0.9nm,0.7s,baz=113,slow=8.3,SNR=14					
	0.9nm,0.7s					
WR8	**Warramunga Arr**	**44.10 275**	P	**P**	**09 05 43.0**	**-1.4**
WRAB	**Tennant Creek**	**44.24 275**		**P**	**09 05 44.4**	**-1.1**
WRAB			IAmb	IAmb	09 05 46.2	
	comp=Z,1.9nm,0.6s					
WRA	**Warramunga Arr**	**44.25 275**	P	**P**	**09 05 44.4**	**-1.1**
	comp=Z,2.3nm,0.6s,baz=117,slow=7.9,SNR=21					
	comp=Z,2.3nm,0.6s					
WB0	**Warramunga Arr**	**44.28 275**	P	**P**	**09 05 44.4**	**-1.4**
WB0			IAmb	IAmb	09 05 46.8	
	comp=Z,3.9nm,0.6s					
SBA	**Scott Base**	**45.36 184**	P	**P**	**09 05 54.8**	**+1.2**
FORT	**Forrest**	**45.40 258**	P	**P**	**09 05 52.7**	**-1.8**
FORT			IAmb	IAmb	09 05 53.5	
	comp=Z,5.8nm,1.0s					
QSPA	**South Pole Qui**	**57.02 180**	P	**P**	**09 07 23.3**	**+1.9**
	comp=Z,1.4nm,0.8s,baz=74,slow=1.1,SNR=6.8					
	comp=Z,1.4nm,0.8s					
QSPA	**South Pole Qui**	**57.02 180**	P	**P**	**09 07 22.8**	**+1.4**
QSPA			IAmb	IAmb	09 07 34.8	
	comp=Z,3.2nm,1.1s					
MAW	**Mawson**	**69.79 201**	P	**P**	**09 08 47.1**	**+1.5**
MAW			IAmb	IAmb	09 09 15.7	
	comp=Z,3.5nm,1.1s					
FINES	**FINESS Array B**	**147.65 338**	PKPbc	**PKPbc**	**09 17 20.1**	**+0.8**
	comp=Z,2.6nm,0.6s,baz=46,slow=4.0,SNR=18					
NOA	**NORSAR Array B**	**151.40 351**	PKPbc	**PKiKP**	**09 17 31.3**	**+2.1**
	comp=Z,0.9nm,0.8s,baz=16,slow=3.0,SNR=3.4					
HFS	**Hagfors**	**151.87 348**	PKPbc	**PKiKP**	**09 17 32.1**	**+2.0**
	comp=Z,0.6nm,0.4s,baz=45,slow=4.3,SNR=4.9					

*MOS **29** 09:01:34.1±1.0, 14.˚73S×167.˚14E, h116km, mb5.1/11, Error ellipse: s-maj=8.9km s-min=6.9km az=134.4*
*IDC **29** 09:01:34.8±0.3, 14.˚75S×167.˚21E, h113km±2km, mb4.7/33, mbtmp5.2/38, MS4.3/46, Error ellipse: s-maj=7.7km s-min=7.4km az=33.0*
*GFZ **29** 09:01:35.1, 14.˚76S×167.˚22E, h113km, Mw5.6/22, Moment Tensor Solution. Moment tensor: Scale 10^17^Nm; Mrr0.67; Mθθ 1.45; Mrθ -2.13; Mrφ -1.16; Mθφ 1.61; Mφr-0.54; Fault plane solution: Mo2.78536×10^17^ NP1: φs298.31649°, δ67.62779°, λ21.54648°. NP2: φs199.76960°, δ70.14672°, λ156.12932°. Principal axes: T 2.8240, Plg30.6161°, Azm158.4781°; N -0.0789, Plg59.3290°, Azm342.2655°; P -2.7451, Plg1.6617°, Azm249.4618°;*
*IPGP **29** 09:01:35.0, 14.˚82S×167.˚26E, h108km, Mw5.6, Fault plane solution: NP1:φs196.00000°, δ68.00000°, λ155.00000°. NP2:φs297.00000°, δ67.00000°, λ25.00000°.*
*NEIC **29** 09:01:35.6, 14.˚81S×167.˚26E, h109km*
*GFZ **29** 09:01:35.1±0.2, 15˚S±3˚×16˚7E±˚, h111km±1km, M5.5/57, mb5.7/57, confirmed*
*NOU **29** 09:01:35.4, 14.˚78S×167.˚18E, h103km, ML5.6/139, Vanuatu Islands*
*BJI **29** 09:01:35.1, 14.˚12S×167.˚31E, h107km, mB5.3/21, mb5.1/74*
*NEIC **29** 09:01:35.3±1.4, 14.˚76S±0.˚07×167.˚25E±0.˚08, h109km±4km, mb5.5/74, Mwb5.6/26, Mww5.6/39, Error ellipse: s-maj=11.2km s-min=9.9km az=94.0, Moment Tensor Solution. Moment tensor: Scale 10^17^Nm; Mrr0.29; Mθθ 1.74; Mφφ-2.03; Mrθ -1.64; Mθφ 1.36; Mφr-0.57; Fault plane solution: Mo2.91000×10^17^ NP1:φs301.54000°, δ68.10000°, λ22.15000°. NP2:φs202.91000°, δ69.53000°, λ156.54000°. Principal axes: T 3.2110, Plg31.0000°, Azm162.0000°; N -0.7420, Plg59.0000°, Azm344.0000°; P -2.4689, Plg1.0000°, Azm252.0000°;*
*NEIC **29** 09:01:35.7, 14.˚81S×167.˚25E, h110km*
*GCMT **29** 09:01:37.3±0.1, 14.˚81S±0.˚01×167.˚13E±0.˚01, h120km, MW5.6/165, Moment Tensor Solution. s144,c259; s165,c324; Duration: 1s5 Moment tensor: Scale 10^17^ Nm; Mrr0.63±.02; Mθθ 1.64±.03; Mφφ-2.26±.03; Mrθ-1.43±.02; Mrφ 1.74±.03; Mθr-0.73±.02; Best double couple: Mo3.10100×10^17^ NP1:φs299.00000°, δ66.00000°, λ21.00000°. NP2:φs200.00000°, δ71.00000°, λ155.00000°. Principal axes: T 3.2690, Plg31.0000°, Azm158.0000°; N -0.3280, Plg59.0000°, Azm345.0000°; P -2.9330, Plg3.0000°, Azm250.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **29** 09:01:38.2, 14.˚71S×167.˚25E, h110km, Moment Tensor Solution. Duration: 3s1 Moment tensor: Scale 10^17^Nm; Mrr1.03; Mθθ 1.20; Mφφ-2.23; Mrθ -1.16; Mθφ 1.63; Mφr-0.47; Fault plane solution: Mo2.82000×10^17^ NP1: φs299.21000°, δ65.37000°, λ26.97000°. NP2: φs197.24000°, δ65.65000°, λ152.77000°. Principal axes: T 2.7572, Plg36.0000°, Azm158.0000°; N 0.1255, Plg54.0000°, Azm339.0000°; P -2.8826, Plg0.0000°, Azm248.0000°;*

ISC 29 09:01:34.8±0.2, 14.˚79S±0.˚03×167.˚26E±0.˚03, h114km±1km, h114km:pP-P,n735,σ1s30/893, mb5.5/181, 32C-41D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.65**	**185**	P		**Pn**	**09 01 53.5**	**+0.3**
SANVU	**Saraoutou**	**0.65**	**185**	S		**Sn**	**09 02 07.3**	**+0.2**
SANVU	**Saraoutou**	**0.65**	**185**			**Pn**	**09 01 53.3**	**0.0**
SANVU				Sn		**Sn**	**09 02 06.7**	**-0.4**
SANVU	**Saraoutou**	**0.65**	**185**	P		**Pn**	**09 01 53.4**	**+0.3**
SANVU				S		**Sn**	**09 02 07.1**	**0.0**
SANVU				AML		AML		
SANVU	**Saraoutou**	**0.65**	**185**	⇓P		**Pn**	**09 01 53.5**	**+0.3**
DVP	**Devils Point**	**3.05**	**163**	P		**Pn**	**09 02 23.3**	**+1.7**
DVP	**Devils Point**	**3.05**	**163**	S		**Sn**	**09 03 00.0**	**+2.3**
RTV	**Rentapao**	**3.19**	**160**	P		**Pn**	**09 02 24.5**	**+1.1**
KOUNC	**Koumac, New Ca**	**6.39**	**206**	P		**Pn**	**09 03 07.9**	**+1.4**
KOUNC	**Koumac, New Ca**	**6.39**	**206**	S		**Sn**	**09 04 18.5**	**+0.4**
KOUNC	**Koumac, New Ca**	**6.39**	**206**			**Pn**	**09 03 08.0**	**+1.4**
KOUNC				Sn		**Sn**	**09 04 17.9**	**-0.1**
MARNC	**Mare, Loyalty**	**6.69**	**174**	P		**Pn**	**09 03 09.8**	**-0.8**
MARNC	**Mare, Loyalty**	**6.69**	**174**			**Pn**	**09 03 09.2**	**-1.4**
HURO	**Huro Makira**	**6.77**	**309**	P		**Pn**	**09 03 11.4**	**-0.3**
HURO	**Huro Makira**	**6.77**	**309**	S		**Sn**	**09 04 25.3**	**-2.1**
YATNC	**Mamie plateau,**	**7.24**	**183**	P		**Pn**	**09 03 17.3**	**-0.7**
YATNC	**Mamie plateau,**	**7.24**	**183**	S		**Sn**	**09 04 38.2**	**-0.5**
DZM	**Mont Dzumac**	**7.28**	**186**	P		**Pn**	**09 03 19.2**	**+0.6**
	763nm,0.3s,baz=16,slow=18,SNR=839							
DZM				S		**Sn**	**09 04 40.2**	**+0.3**
	baz=336,slow=20							
DZM				LR		LR	09 05 46.1	
	comp=Z,4μm,19.1s,baz=7.5,slow=34							
NOUC	**Port Laguerre**	**7.33**	**187**	P		**Pn**	**09 03 20.5**	**+1.3**
NOUC	**Port Laguerre**	**7.33**	**187**	S		**Sn**	**09 04 41.9**	**+1.1**
NOUC	**Port Laguerre**	**7.33**	**187**	P		**Pn**	**09 03 20.7**	**+1.5**
NOUC				AML		AML		
OUENC	**Ouen Island, N**	**7.60**	**183**			**Pn**	**09 03 24.3**	**+1.5**
NGOA	**Tingoa Renbel**	**7.71**	**294**	P		**Pn**	**09 03 25.1**	**+0.6**
NGOA	**Tingoa Renbel**	**7.71**	**294**	S		**Sn**	**09 04 48.1**	**-2.2**
PINNC	**Pines Island,**	**7.78**	**179**	P		**Pn**	**09 03 26.2**	**+0.9**
PINNC	**Pines Island,**	**7.78**	**179**	S		**Sn**	**09 04 51.4**	**-0.4**
PINNC	**Pines Island,**	**7.78**	**179**			**Pn**	**09 03 25.7**	**+0.4**
ALEG	**Aligegeo Malai**	**8.79**	**312**	P		**Pn**	**09 03 39.2**	**+0.1**
HNR	**Honiara**	**8.92**	**306**	P		**Pn**	**09 03 39.7**	**-1.1**
	719nm,0.3s,baz=42,slow=6.9,SNR=47							
HNR				S		**Sn**	**09 05 16.3**	**-3.3**
	5μm,0.8s,baz=214,slow=7.3,SNR=8.6							
HNR				LR		LR	09 07 04.8	
	comp=Z,2μm,18.6s,baz=222,slow=37							
HNR	**Honiara**	**8.92**	**306**	P		**Pn**	**09 03 42.4**	**+1.6**
HNR	**Honiara**	**8.92**	**306**			**Pn**	**09 03 41.2**	**+0.3**
HNR	**Honiara**	**8.92**	**306**	P		**Pn**	**09 03 42.3**	**+1.6**
HNR				S		**Sn**	**09 05 17.9**	**-1.6**
HNR	**Honiara**	**8.92**	**306**	P		**Pn**	**09 03 41.1**	**+0.3**
	comp=Z,4μm,0.8s							
SAVO	**Savo Central**	**9.19**	**307**	P		**Pn**	**09 03 45.9**	**+1.3**
TATA	**Tatamba Isabel**	**9.69**	**310**	P		**Pn**	**09 03 51.9**	**+0.7**
MSVF	**Nonsavu**	**10.77**	**107**	P		**Pn**	**09 04 08.0**	**+2.1**
	comp=Z,36nm,0.9s,baz=256,slow=16,SNR=12							
MSVF				LR		LR	09 07 19.9	
	comp=Z,3μm,19.5s,baz=286,slow=32							
MSVF	**Nonsavu**	**10.77**	**107**	P		**Pn**	**09 04 08.4**	**+2.5**
MSVF	**Nonsavu**	**10.77**	**107**	*i* P		**Pn**	**09 04 09.9**	**+4.0**
MSVF	**Nonsavu**	**10.77**	**107**	P		Pn	09 04 15.0	+9.2
FUNA	**Funafuti**	**13.24**	**63**	P		**Pn**	**09 04 41.0**	**+2.5**
FUNA	**Funafuti**	**13.24**	**63**			**Pn**	**09 04 39.5**	**+1.0**
FUNA	**Funafuti**	**13.24**	**63**	⇓P		**Pn**	**09 04 39.5**	**+1.0**
	comp=Z,491nm,1.5s							
FUTU	**Fugatoga**	**14.16**	**90**	P		**P**	**09 04 52.6**	**-1.8**
FUTU	**Fugatoga**	**14.16**	**90**			**Pn**	**09 04 50.8**	**+0.4**
FUTU	**Fugatoga**	**14.16**	**90**	P		**P**	**09 04 54.5**	**+0.2**
	comp=Z,189nm,1.3s							
NFK	**Norfolk Island**	**14.20**	**178**	P		**Pn**	**09 04 51.2**	**+0.4**
	comp=Z,358nm,1.2s,comp=Z,0.0nm							
NFK	**Norfolk Island**	**14.20**	**178**	P		**Pn**	**09 04 51.3**	**+0.5**
GD1S	**Gladstone Soft**	**17.64**	**237**	P		**Pn**	**09 05 33.8**	**+0.3**
AUNRC	**North Rockhamp**	**17.95**	**239**	P		**Pn**	**09 05 38.0**	**+0.9**
AUBSH	**Beerwah State**	**17.95**	**226**	P		**Pn**	**09 05 38.8**	**+1.6**
RABL	**Rabaul**	**18.22**	**304**	P		**P**	**09 05 39.3**	**0.0**
RABL				IAmb		IAmb	09 05 52.7	
	comp=Z,102nm,0.7s							
LHI	**Lord Howe Isla**	**18.26**	**203**	P		**Pn**	**09 05 41.4**	**+0.5**
	comp=Z,151nm,1.2s,comp=Z,0.0nm							
LHI	**Lord Howe Isla**	**18.26**	**203**			**Pn**	**09 05 40.7**	**-0.1**
LHI	**Lord Howe Isla**	**18.26**	**203**	P		**Pn**	**09 05 41.5**	**+0.6**
KRVT	**Keravat (AS076**	**18.27**	**303**	P		**P**	**09 05 40.2**	**+0.5**
	comp=Z,103nm,0.4s,baz=158,slow=5.4,SNR=8.5							
KRVT				LR		LR	09 12 46.8	
	comp=Z,1μm,20.5s,baz=124,slow=37							
GC1S	**Gold Coast 1 S**	**18.43**	**222**	P		**Pn**	**09 05 44.1**	**+1.2**
EIDS	**Eidsvold**	**18.46**	**233**	P		**P**	**09 05 42.3**	**+0.5**
	comp=Z,479nm,1.1s,comp=Z,0.0nmcomp=Z,0.0nm							
EIDS	**Eidsvold**	**18.46**	**233**	P		**Pn**	**09 05 44.6**	**+1.3**
EIDS	**Eidsvold**	**18.46**	**233**	P		**Pn**	**09 05 42.6**	**-0.7**
EIDS				IAmb		IAmb	09 05 45.7	
	comp=Z,334nm,0.8s							
EIDS	**Eidsvold**	**18.46**	**233**	⇓P		**Pn**	**09 05 44.4**	**+1.1**
	comp=Z,479nm,1.1s							
TW1H	**Toowoomba 1 Ha**	**19.06**	**226**	P		**Pn**	**09 05 50.6**	**+0.2**
AUTOO	**Toowoomba Stat**	**19.06**	**226**	P		**Pn**	**09 05 51.1**	**+0.6**
AUAYR	**Ayr State High**	**19.55**	**253**	P		**Pn**	**09 05 56.1**	**0.0**
RAO	**Raoul Island**	**19.86**	**139**	P		**Pn**	**09 05 59.0**	**-0.7**
	comp=Z,1μm,0.9s,baz=343,slow=20,SNR=5.9							
RAO	**Raoul Island**	**19.86**	**139**	P		**Pn**	**09 05 59.6**	**-0.1**
RAO	**Raoul Island**	**19.86**	**139**	P		**Pn**	**09 05 59.0**	**-0.7**
RAO	**Raoul Island**	**19.86**	**139**	P		**P**	**09 05 58.0**	**+1.0**
RAO	**Raoul Island**	**19.86**	**139**	P		**Pn**	**09 05 59.3**	**-0.4**
	comp=Z,2μm,1.1s							
GLKZ	**Green Lake**	**19.87**	**139**	P		**Pn**	**09 06 00.7**	**+0.9**
AFI	**Afiamalu**	**20.33**	**90**	P		Pn	09 06 04.7	-0.7
	comp=Z,156nm,1.0s,baz=275,slow=17,SNR=16							
	comp=Z,156nm,1.0s							
PMG	**Port Moresby**	**20.36**	**283**	P		**P**	**09 06 03.3**	**+0.8**
	comp=Z,321nm,1.1s,baz=107,slow=9.7,SNR=49							
	comp=Z,321nm,1.1s							
PMG	**Port Moresby**	**20.36**	**283**	P		**P**	**09 06 03.3**	**+0.8**
PMG	**Port Moresby**	**20.36**	**283**	*d* P		**P**	**09 06 03.6**	**+1.1**
PMG				pmax		pmax		
	comp=Z,354nm,1.1s							
PMG	**Port Moresby**	**20.36**	**283**	P		**P**	**09 06 03.4**	**+0.8**
PMG				IAmb		IAmb	09 06 09.4	
	comp=Z,792nm,1.5s							
PMG	**Port Moresby**	**20.36**	**283**	P		**P**	**09 06 02.4**	**-0.1**
	comp=Z,4μmcomp=Z,4μmcomp=Z,355nm,1.3s,comp=Z,355nm,1.3s							
PMG	**Port Moresby**	**20.36**	**283**	⇓P		**P**	**09 06 03.7**	**+1.2**
	comp=Z,356nm,1.3s							
CTA	**Charters Tower**	**20.71**	**252**	P		**P**	**09 06 07.1**	**+0.8**
	comp=Z,331nm,0.8s,baz=76,slow=12,SNR=278							
CTA				S		**S**	**09 09 52.3**	**+0.8**
	comp=Z,11nm,0.9s,baz=37,slow=5.1,SNR=1.6							
	comp=Z,331nm,0.8s							
RMQ	**Roma**	**20.83**	**233**	P		**P**	**09 06 08.8**	**+1.3**
	comp=Z,217nm,1.3s							
RMQ	**Roma**	**20.83**	**233**	P		**P**	**09 06 08.4**	**+1.3**
RMQ	**Roma**	**20.83**	**233**	P		**P**	**09 06 08.4**	**+0.9**
	comp=Z,217nm,1.3s							
OUZ	**Omahuta**	**21.12**	**165**	P		**P**	**09 06 12.4**	**+2.0**
OUZ	**Omahuta**	**21.12**	**165**	⇑P		**P**	**09 06 12.5**	**+2.0**
	comp=Z,1μm,1.0s							
ARMA	**Armidale**	**21.18**	**220**	P		**P**	**09 06 13.3**	**+2.0**
	comp=Z,164nm,1.0s,comp=Z,0.0nm							
ARMA	**Armidale**	**21.18**	**220**	P		**P**	**09 06 13.1**	**+1.9**
ARMA	**Armidale**	**21.18**	**220**	P		**P**	**09 06 13.2**	**+1.9**
ARMA				IAmb		IAmb	09 06 32.8	
	comp=Z,136nm,0.9s							
ARMA	**Armidale**	**21.18**	**220**	⇑P		**P**	**09 06 13.8**	**+2.6**
	comp=Z,164nm,1.0s							
WCZ	**Waipu Caves**	**21.99**	**164**	P		**P**	**09 06 22.0**	**+2.2**
AUPHS	**Peel High Scho**	**22.11**	**220**	P		**P**	**09 06 22.8**	**+1.8**
NIUE	**Niue**	**22.23**	**104**	P		**P**	**09 06 23.8**	**+1.5**
	comp=Z,747nm,1.5s							
NIUE	**Niue**	**22.23**	**104**	P		**P**	**09 06 24.2**	**+1.8**
NIUE	**Niue**	**22.23**	**104**	P		**P**	**09 06 23.1**	**+0.7**
NIUE	**Niue**	**22.23**	**104**	P		**P**	**09 06 22.4**	**+0.1**
NIUE	**Niue**	**22.23**	**104**	P		**P**	**09 06 24.1**	**+1.7**
	comp=Z,749nm,1.5s							
MTSU	**Mount Surprise**	**22.25**	**258**	P		**P**	**09 06 23.1**	**+0.5**
	comp=Z,296nm,0.8s							
MTSU	**Mount Surprise**	**22.25**	**258**	P		**P**	**09 06 22.4**	**-0.2**
MTSU	**Mount Surprise**	**22.25**	**258**	⇓P		**P**	**09 06 23.3**	**+0.7**
	comp=Z,296nm,0.8s							
GRZ	**Great Barrier**	**22.59**	**163**	P		**P**	**09 06 27.8**	**+1.9**
NTLH	**Newcastle Hard**	**22.91**	**215**	P		**P**	**09 06 30.7**	**+1.7**
AULRC	**Lightning Ridg**	**23.00**	**228**	P		**P**	**09 06 30.3**	**+0.4**
PATS	**Pohnpei**	**23.25**	**337**	P		**P**	**09 06 32.5**	**+0.2**
	comp=Z,540nm,1.1s,comp=Z,0.0nm							
MANU	**Manus Island**	**23.37**	**301**	P		**P**	**09 06 33.5**	**0.0**
AUKHS	**Kincumber High**	**23.51**	**215**	P		**P**	**09 06 36.2**	**+1.6**
RIV	**Riverview**	**23.91**	**215**	P		**P**	**09 06 40.2**	**+2.0**
	comp=Z,812nm,1.0s							
RIV	**Riverview**	**23.91**	**215**	P		**P**	**09 06 39.8**	**+1.6**
RIV	**Riverview**	**23.91**	**215**	P		**P**	**09 06 39.8**	**+1.6**
	comp=Z,812nm,1.0s							
TOZ	**Tahuroa Road**	**23.99**	**164**	P		**P**	**09 06 40.2**	**+1.3**
SYDH	**Sydney Hard Ro**	**24.09**	**215**	P		**P**	**09 06 41.6**	**+1.8**
AUDCS	**Dubbo College**	**24.29**	**221**	P		**P**	**09 06 43.1**	**+1.5**
WIZ	**White Island**	**24.30**	**161**	P		**P**	**09 06 42.7**	**+1.1**
QLP	**Quilpie**	**24.48**	**238**	P		**P**	**09 06 44.5**	**+1.1**
	comp=Z,309nm,0.8s,comp=Z,0.0nm							
QLP	**Quilpie**	**24.48**	**238**	P		**P**	**09 06 44.6**	**+1.1**
QLP	**Quilpie**	**24.48**	**238**	⇓P		**P**	**09 06 44.5**	**+1.1**
	comp=Z,309nm,0.8s							
WOLH	**Wollongong Har**	**24.50**	**214**	P		**P**	**09 06 45.1**	**+1.6**
TLZ	**Tolley Road**	**24.56**	**164**	P		**P**	**09 06 46.1**	**+2.1**
HIZ	**Hauiti**	**24.56**	**166**	P		**P**	**09 06 45.8**	**+1.8**
HIZ	**Hauiti**	**24.56**	**166**	⇑P		**P**	**09 06 45.4**	**+1.4**
	comp=Z,692nm,1.7s							
HAZ	**Te Kaha**	**24.70**	**160**	P		**P**	**09 06 46.2**	**+0.9**
MXZ	**Matakaoa Point**	**24.71**	**159**	P		**P**	**09 06 48.6**	**+3.2**
MXZ	**Matakaoa Point**	**24.71**	**159**	P		**P**	**09 06 45.8**	**+0.4**
URZ	**Urewera**	**24.95**	**161**	P		**P**	**09 06 47.7**	**+0.2**
	comp=Z,330nm,0.9s,baz=314,slow=3.0,SNR=42							
URZ				LR		LR	09 15 28.6	
	comp=Z,1μm,19.8s,baz=346,slow=33							
	comp=Z,330nm,0.9s							
URZ	**Urewera**	**24.95**	**161**	P		**P**	**09 06 49.3**	**+1.8**
URZ	**Urewera**	**24.95**	**161**	P		**P**	**09 06 48.0**	**+0.4**
URZ	**Urewera**	**24.95**	**161**	⇑P		**P**	**09 06 47.8**	**+0.2**
	comp=Z,685nm,1.1s							
MWZ	**Matawai**	**25.15**	**161**	P		**P**	**09 06 49.7**	**+0.3**
PUZ	**Puketiti**	**25.15**	**159**	P		**P**	**09 06 48.7**	**-0.7**
RTZ	**Ruatahuna**	**25.23**	**162**	P		**P**	**09 06 50.2**	**0.0**
NGZ	**Ngauruhoe**	**25.38**	**165**	P		**P**	**09 06 52.7**	**+1.1**
AUUHS	**Ulladulla High**	**25.43**	**213**	P		**P**	**09 06 53.8**	**+1.8**
BKZ	**Black Stump Fm**	**25.60**	**163**	P		**P**	**09 06 54.1**	**+0.5**
BKZ	**Black Stump Fm**	**25.60**	**163**	P		**P**	**09 06 53.5**	**-0.1**
KNZ	**Kokohu**	**25.82**	**161**	P		**P**	**09 06 55.1**	**-0.3**
CMSA	**Cobar Meteorol**	**25.82**	**226**	P		**P**	**09 06 56.5**	**+0.9**
	comp=Z,95nm,1.0s							
CMSA	**Cobar Meteorol**	**25.82**	**226**	P		**P**	**09 06 57.0**

WHZ Wether Hill Ro 31.01 179 P P 09 07 41.2 -0.3
HHSZ Highcliff Hill 31.12 175 P P 09 07 44.5 +2.0
TUZ Tuapeka 31.13 177 P P 09 07 43.6 +1.1
ARPS Mount Arapiles 31.49 221 P P 09 07 45.9 0.0
comp=Z,22nm,1.4s
WR8 Warramunga Arr 31.65 256 P P 09 07 46.4 -1.1
WR8 IAmb IAmb 09 08 57.7
comp=Z,54nm,1.0s
HTT Hallett 31.67 229 P P 09 07 49.0 +1.4
comp=Z,59nm,1.0s
HTT Hallett 31.67 229 P P 09 07 48.8 +1.2
SYZ Scrubby Hill 31.69 178 P P 09 07 48.6 +1.2
SYZ Scrubby Hill 31.69 178 P P 09 07 48.7 +1.3
WB0 Warramunga Arr 31.74 256 P P 09 07 47.1 -1.2
WB0 IAmb IAmb 09 07 48.1
comp=Z,95nm,1.1s
WRAB Tennant Creek 31.79 256 P P 09 07 48.3 -0.4
WRAB Tennant Creek 31.79 256 P P 09 07 47.8 -0.9
WRAB pmax pmax
comp=Z,62nm,1.1s
WRAB Tennant Creek 31.79 256 P P 09 07 47.8 -0.9
WRAB IAmb IAmb 09 08 59.0
comp=Z,62nm,1.1s
WRAB Tennant Creek 31.79 256 ⇓P **P 09 07 47.3 -1.4**
comp=Z,57nm,1.3s
WRAB Tennant Creek 31.79 256 P P 09 07 47.4 -1.3
WRAB sP **sP 09 08 23.4 -2.4**
WRA Warramunga Arr 31.80 256 P P 09 07 47.3 -1.5
comp=Z,43nm,0.9s,baz=84,slow=8.4,SNR=83
WRA PcP **PcP 09 10 36.1 -1.4**
comp=Z,6.8nm,1.0s,baz=80,slow=3.6,SNR=2.2
WRA S **S 09 12 44.9 -6.1**
comp=Z,5.6nm,1.2s,baz=90,slow=13,SNR=2.6
WRA ScP **ScP 09 14 10.6 +0.1**
comp=Z,4.3nm,1.0s,baz=91,slow=3.2,SNR=4.4
WRA PKiKP **PKiKP 09 18 04.1 -2.1**
comp=Z,1.2nm,1.0s,baz=76,slow=0.7,SNR=4.5
WRA P3KPbc 09 39 17.5
comp=Z,0.9nm,1.0s,baz=268,slow=3.6,SNR=4.8
comp=Z,43nm,0.9s
APZ The Paps 31.95 179 P P 09 07 49.4 -0.4
RAR Rarotonga 31.95 106 P P 09 07 51.1 +1.0
comp=Z,161nm,1.1s,baz=254,slow=7.4,SNR=15
comp=Z,161nm,1.1s
RAR Rarotonga 31.95 106 P P 09 07 52.3 +2.2
RAR Rarotonga 31.95 106 P P 09 07 51.2 +1.1
RAR pmax pmax
comp=Z,403nm,1.3s
RAR Rarotonga 31.95 106 P P 09 07 51.2 +1.1
RAR Rarotonga 31.95 106 P P 09 07 51.8 +1.7
comp=Z,371nm,2.1s
RAR Rarotonga 31.95 106 P P 09 07 51.4 +1.3
AUHPC Hawkesdale P12 32.03 219 P P 09 07 52.3 +1.8
AUBRN Burnie High Sc 32.09 211 P P 09 07 52.0 +1.0
AUMBR Murray Bridge 32.27 226 P P 09 07 54.2 +1.5
MOO Moorlands 32.53 208 P P 09 07 55.8 +0.9
comp=Z,292nm,1.6s
MOO Moorlands 32.53 208 P P 09 07 56.5 +1.6
MOO Moorlands 32.53 208 P P 09 07 56.3 +1.4
MOO Moorlands 32.53 208 ⇑P **P 09 07 56.0 +1.1**
comp=Z,292nm,1.6s
AS01 Alice Springs 32.60 249 P P 09 07 55.4 -0.4
AUMAR Marden Senior 32.60 227 P P 09 07 57.8 +2.2
AS31 Alice Springs 32.64 249 P P 09 07 55.2 -1.0
GHSS Government Hou 32.64 227 P P 09 07 57.6 +1.7
ASAR Alice Springs 32.64 249 P P 09 07 55.4 -0.8
comp=Z,95nm,0.9s,baz=82,slow=8.7,SNR=259
ASAR pP **pP 09 08 22.2 +1.0**
comp=Z,52nm,0.8s,baz=81,slow=8.9,SNR=6.6
ASAR PcP **PcP 09 10 39.0 -0.8**
comp=Z,4.8nm,0.5s,baz=72,slow=2.4,SNR=4.8
ASAR S **S 09 12 58.7 -5.4**
comp=Z,3.0nm,1.0s,baz=78,slow=15,SNR=2.4
ASAR ScP **ScP 09 14 14.1 +0.6**
comp=Z,5.8nm,0.7s,baz=80,slow=3.5,SNR=11
ASAR PKiKP **PKiKP 09 18 05.1 -1.6**
comp=Z,0.4nm,0.5s,baz=92,slow=1.2,SNR=5.3
comp=Z,95nm,0.9s
AUALC St Philip's Co 32.66 249 P P 09 07 55.8 -0.6
TAU Tasmania Unive 32.84 208 P P 09 07 58.8 +1.2
TAU Tasmania Unive 32.84 208 P P 09 07 57.7 +0.1
TAU pmax pmax
comp=Z,186nm,1.2s
TAU Tasmania Unive 32.84 208 P P 09 07 57.7 +0.1
TAU IAmb IAmb 09 07 59.9
comp=Z,186nm,1.2s
TAU Tasmania Unive 32.84 208 ⇑P **P 09 07 58.4 +0.8**
comp=Z,147nm,1.3s
TAU Tasmania Unive 32.84 208 P P 09 07 57.2 -0.4
TAU sP **sP 09 08 34.4 -1.8**
BBOO Buckleboo 33.53 232 P P 09 08 04.9 +1.1
comp=Z,177nm,0.7s,comp=Z,0.0nm
BBOO Buckleboo 33.53 232 P P 09 08 04.9 +1.1
BBOO Buckleboo 33.53 232 P P 09 08 04.5 +0.8
BBOO IAmb IAmb 09 08 05.8
comp=Z,105nm,0.6s
BBOO Buckleboo 33.53 232 ⇑P **P 09 08 05.2 +1.4**
comp=Z,177nm,0.7s
KDU Kakadu 33.84 269 P P 09 08 06.1 -0.5
comp=Z,41nm,1.1s,comp=Z,0.0nm
AUCAS Cummins Area S 34.41 230 P P 09 08 13.3 +1.9
MTN Manton Dam 35.11 269 P P 09 08 17.2 -0.4
comp=Z,14nm,0.7s
MTN Manton Dam 35.11 269 P P 09 08 17.1 -0.4
DRS Darwin Rock St 35.39 269 P P 09 08 20.9 +0.9
MWPI Manokwari, Pap 35.59 290 P P 09 08 19.0 -2.7
comp=Z,227nm,0.9s,comp=Z,227nm,0.9s
SAUI Saumlaki 35.86 277 P P 09 08 23.6 -0.4
SAUI Saumlaki 35.86 277 P P 09 08 25.6 +1.6
comp=Z,244nm,0.8s,comp=Z,244nm,0.8s
SAUI Saumlaki 35.86 277 ⇓P **P 09 08 24.8 +0.8**
comp=Z,189nm,0.8s
GUMO Guam 35.87 321 LR LR 09 21 53.9
comp=Z,175nm,21.9s,baz=136,slow=34
FAKI Fak Fak 36.48 285 P P 09 08 29.8 +0.5
FAKI Fak Fak 36.48 285 P P 09 08 28.9 -0.4
FAKI IAmb IAmb 09 08 30.4
comp=Z,124nm,1.1s
FAKI Fak Fak 36.48 285 P P 09 08 26.0 -3.3
comp=Z,1µmcomp=Z,1µmcomp=Z,1µmcomp=Z,1µm
comp=Z,105nm,1.0s,comp=Z,105nm,1.0s
FAKI Fak Fak 36.48 285 ⇓P **P 09 08 28.9 -0.4**
comp=Z,106nm,1.0s
KNRA Kununurra 37.12 263 P P 09 08 34.0 -0.7
comp=Z,84nm,1.0s,comp=Z,0.0nmcomp=Z,0.0nm
KNRA Kununurra 37.12 263 P P 09 08 34.0 -0.7
KNRA IAmb IAmb 09 08 35.0
comp=Z,76nm,1.0s
WRKA Warakurna 37.91 248 P P 09 08 40.6 -0.7
comp=Z,62nm,1.1s
BNDI Bandanaira 38.15 282 P P 09 08 44.2 +0.8
BNDI Bandanaira 38.15 282 P P 09 08 42.2 -1.2
comp=Z,256nm,1.0s,comp=Z,256nm,1.0s
BNDI Bandanaira 38.15 282 ⇓P **P 09 08 43.2 -0.2**
comp=Z,455nm,1.1s
SIJI Sorong 38.16 288 LR LR 09 25 12.5
comp=Z,789nm,19.1s,baz=90,slow=37
FORT Forrest 39.26 239 P P 09 08 52.7 +0.2
comp=Z,113nm,0.7s,comp=Z,0.0nm
FORT Forrest 39.26 239 P P 09 08 52.8 +0.3
FORT IAmb IAmb 09 08 54.1
comp=Z,76nm,0.7s
FITZ Fitzroy Crossi 39.99 259 P P 09 08 58.2 -0.5
comp=Z,27nm,1.1s,comp=Z,0.0nm
FITZ Fitzroy Crossi 39.99 259 P P 09 08 59.2 +0.5
FITZ Fitzroy Crossi 39.99 259 P P 09 08 58.3 -0.4
FITZ Fitzroy Crossi 39.99 259 ⇓P **P 09 08 58.2 -0.5**
comp=Z,27nm,1.1s
NLAI Namlea 41.21 282 P P 09 09 08.4 -0.3
comp=Z,3µmcomp=Z,3µmcomp=Z,366nm,1.2s,comp=Z,366nm,1.2s
PAE Paea 41.48 100 *eP* **P 09 09 12.0 +1.1**
comp=Z,402nm,1.2s
PPT2 Papeete2 41.48 100 *eP* **P 09 09 12.5 +1.5**
comp=Z,227nm,1.2s
PPT2 *e*S **S 09 15 10.8 -7.5**
comp=Z,530nm,24.2s
PPT2 *e*LQ LQ 09 19 01.8
comp=Z,6µm,38.8s
PPT2 *e*LR LR 09 20 43.9
comp=Z,2µm,30.0s
PPT2 *e*LR LR 09 20 45.8
comp=Z,1µm,31.5s
PPT Papeete 41.48 100 P P 09 09 12.4 +1.4
comp=Z,173nm,1.0s,baz=248,slow=5.4,SNR=12
PPT LR LR 09 22 18.0
comp=Z,546nm,20.4s,baz=261,slow=30
comp=Z,173nm,1.0s
PPTF Pamatai, Papee 41.49 100 P P 09 09 13.9 +2.8
PPTF Pamatai, Papee 41.49 100 P P 09 09 11.6 +0.5
PPTF Pamatai, Papee 41.49 100 P P 09 09 11.1 0.0
comp=Z,199nm,1.1s
PPTF Pamatai, Papee 41.49 100 P P 09 09 12.8 +1.7
TBI Tubuai 41.65 109 *eP* **P 09 09 12.9 +0.7**
comp=Z,223nm,1.0s
TBI *e*S **S 09 15 18.3 -2.2**
comp=Z,1µm,32.5s
TBI *e*LQ LQ 09 19 07.6
comp=Z,15µm,30.0s
TBI *e*LR LR 09 20 49.6
comp=Z,8µm,34.2s
TBI *e*LR LR 09 20 57.3
comp=Z,2µm,35.8s
TIAR Tiarei 41.70 100 *eP* **P 09 09 14.1 +1.3**
comp=Z,2µm,1.2s
TVO Taravao 41.78 100 *eP* **P 09 09 14.7 +1.2**
comp=Z,324nm,1.0s
SOEI Soe 42.26 272 P P 09 09 18.6 +1.1
SOEI Soe 42.26 272 P P 09 09 17.6 +0.1
SOEI IAmb IAmb 09 10 21.7
comp=Z,129nm,1.0s
SOEI Soe 42.26 272 P P 09 09 18.5 +1.1
comp=Z,2µmcomp=Z,2µmcomp=Z,100nm,0.7s,comp=Z,100nm,0.7s
SOEI Soe 42.26 272 ⇓P **P 09 09 18.3 +0.8**
comp=Z,156nm,1.2s
SANI Sanana 42.65 283 P P 09 09 20.9 +0.5
SANI Sanana 42.65 283 P P 09 09 21.0 +0.5
comp=Z,2µmcomp=Z,2µmcomp=Z,172nm,0.9s,comp=Z,172nm,0.9s
SANI Sanana 42.65 283 ⇓P **P 09 09 20.6 +0.2**
comp=Z,174nm,0.9s
BATI Baumata 42.76 271 LR LR 09 27 25.8
comp=Z,572nm,19.8s,baz=100,slow=36
BATI Baumata 42.76 271 P P 09 09 21.6 +0.2
PMOR Pomariorio Ree 43.28 96 *eP* **P 09 09 27.3 +1.8**
comp=Z,627nm,1.1s
VAH Vaihoa 43.52 97 *eP* **P 09 09 29.1 +1.7**
comp=Z,334nm,1.1s
MMRI Maumere 44.45 273 P P 09 09 35.2 +0.3
MMRI Maumere 44.45 273 P P 09 09 34.8 0.0
MMRI Maumere 44.45 273 P P 09 09 34.9 0.0
comp=Z,3µmcomp=Z,3µmcomp=Z,227nm,1.0s,comp=Z,227nm,1.0s
MMRI Maumere 44.45 273 ⇓P **P 09 09 34.6 -0.3**
comp=Z,228nm,1.0s
KMBL Kambalda 44.55 240 P P 09 09 35.7 +0.1
comp=Z,36nm,1.1s
EDFI Ende, Flores 44.95 272 P P 09 09 38.3 -0.7
comp=Z,2µmcomp=Z,182nm,1.0s,comp=Z,182nm,1.0s
KMSI Cibinong 45.44 286 P P 09 09 43.8 +1.0
comp=Z,5µmcomp=Z,328nm,1.1s,comp=Z,328nm,1.1s
MBWA Marble Bar 45.52 255 P P 09 09 43.5 +0.2
MBWA pP **pP 09 10 09.3 -0.6**
BASI Baing, Sumba 45.74 270 P P 09 09 46.7 +1.6
comp=Z,3µmcomp=Z,3µmcomp=Z,271nm,1.6s,comp=Z,271nm,1.6s
LUWI Luwuk 46.01 283 P P 09 09 48.1 +0.8
LUWI Luwuk 46.01 283 P P 09 09 47.5 +0.3
LUWI IAmb IAmb 09 09 49.0
comp=Z,153nm,1.0s
LUWI Luwuk 46.01 283 P P 09 09 47.7 +0.4
comp=Z,2µmcomp=Z,2µmcomp=Z,158nm,1.4s,comp=Z,158nm,1.4s
LUWI Luwuk 46.01 283 ⇓P **P 09 09 47.7 +0.4**
comp=Z,160nm,1.4s
GTOI Gorontalo 46.37 285 P P 09 09 51.1 +1.1
comp=Z,900nmcomp=Z,900nmcomp=Z,88nm,0.7s,comp=Z,88nm,0.7s
DAV Davao City (W) 46.69 295 LR LR 09 29 12.7
comp=Z,207nm,18.0s,baz=119,slow=36
LBFI Labuan Bajo, 46.75 272 P P 09 09 52.4 -0.6
MEEK Meekatharra 46.75 247 P P 09 09 52.9 0.0
comp=Z,184nm,0.8s,comp=Z,0.0nm
MEEK Meekatharra 46.75 247 P P 09 09 53.6 +0.6
MEEK Meekatharra 46.75 247 P P 09 09 53.3 +0.3
comp=Z,184nm,0.8s
APSI Ampana 47.11 283 P P 09 09 59.4 +3.5
KAPI Kappang 47.71 277 P P 09 10 01.7 +1.2
KAPI Kappang 47.71 277 P P 09 10 01.7 +1.2
KAPI pmax pmax
comp=Z,231nm,1.5s
KAPI Kappang 47.71 277 P P 09 10 01.6 +1.2
KAPI IAmb IAmb 09 10 02.4
comp=Z,231nm,1.5s
KAPI Kappang 47.71 277 P P 09 10 01.1 +0.6
comp=Z,694nmcomp=Z,61nm,1.3s,comp=Z,61nm,1.3s
KAPI Kappang 47.71 277 ⇓P **P 09 10 00.9 +0.5**
comp=Z,118nm,1.3s
AUKUL Kulin High Sch 47.91 239 P P 09 10 02.3 +0.5
KLBR Kellerberrin 48.06 241 P P 09 10 03.2 +0.1
comp=Z,147nm,0.8s
KLBR Kellerberrin 48.06 241 P P 09 10 02.4 -0.6
KLBR Kellerberrin 48.06 241 ⇑P **P 09 10 02.5 -0.6**
comp=Z,147nm,0.8s
DBNI Kabupaten Domp 48.27 272 P P 09 10 04.6 -0.2
NWAO Narrogin (SRO) 48.71 239 LR LR 09 31 16.5
comp=Z,1µm,18.4s,baz=93,slow=37
NWAO Narrogin (SRO) 48.71 239 P P 09 10 08.3 +0.4
NWAO Narrogin (SRO) 48.71 239 P P 09 10 07.6 -0.4
NWAO pP **pP 09 10 32.8 -2.0**
NWAO sP **sP 09 10 45.7 -2.0**
PLAI Plampang 48.72 271 P P 09 10 08.5 +0.2
PLAI Plampang 48.72 271 P P 09 10 08.1 -0.2
comp=Z,2µmcomp=Z,2µmcomp=Z,194nm,0.9s,comp=Z,194nm,0.9s
PLAI Plampang 48.72 271 ⇓P **P 09 10 08.0 -0.2**
comp=Z,197nm,0.9s
PCI Palu 48.83 282 P P 09 10 11.5 +2.4
comp=Z,4µmcomp=Z,4µmcomp=Z,272nm,1.1s,comp=Z,272nm,1.1s
MPSI Mapaga 49.18 284 P P 09 10 11.7 -0.1
comp=Z,2µmcomp=Z,2µmcomp=Z,201nm,0.9s,comp=Z,201nm,0.9s
MORW Morawa 49.23 244 P P 09 10 12.2 +0.2
comp=Z,107nm,0.8s
MORW Morawa 49.23 244 P P 09 10 12.2 +0.2
MORW Morawa 49.23 244 P P 09 10 12.4 +0.4
MORW IAmb IAmb 09 10 13.2
comp=Z,74nm,0.8s
MORW Morawa 49.23 244 ⇓P **P 09 10 11.6 -0.4**
comp=Z,107nm,0.8s
KIP Kipapa 49.56 44 P P 09 10 16.0 +1.5
KIP pP **pwP 09 10 42.4 -1.2**
KIP sP **sP 09 10 54.5 +1.5**
TWSI Taliwang, Sumb 49.60 271 P P 09 10 15.1 +0.1
IGBI Denpasar 51.27 270 P P 09 10 27.8 +0.3
SRBI Singaraja 51.35 271 P P 09 10 28.3 +0.1
comp=Z,1µmcomp=Z,126nm,1.1s,comp=Z,126nm,1.1s
TAOE Nuku Hiva Isla 51.72 90 *eP* **P 09 10 32.7 +1.7**
comp=Z,323nm,1.2s
TAOE *e*S **S 09 17 42.5 -1.9**
comp=Z,404nm,25.1s
TAOE *e*SS **SS 09 21 15.9 -6.6**
comp=Z,183nm,24.3s
TAOE *e*LQ LQ 09 23 22.7
comp=Z,3µm,29.2s
TAOE *e*LR LR 09 25 30.9
comp=Z,1µm,31.6s
JAGI Jajag, Banyuwa 52.30 271 P P 09 10 34.9 -0.3
JAGI Jajag, Banyuwa 52.30 271 P P 09 10 33.9 -1.3
JAGI IAmb IAmb 09 11 14.1
comp=Z,80nm,0.9s
JAGI Jajag, Banyuwa 52.30 271 P P 09 10 34.4 -0.8
comp=Z,2µmcomp=Z,2µmcomp=Z,106nm,0.9s,comp=Z,106nm,0.9s
JAGI Jajag, Banyuwa 52.30 271 ⇓P **P 09 10 34.0 -1.2**
comp=Z,105nm,0.9s
ABJI Asem Bagus 52.36 272 P P 09 10 36.4 +0.7
comp=Z,3µmcomp=Z,90nm,0.9s,comp=Z,90nm,0.9s
BBKI Banjar Baru 52.84 277 P P 09 10 40.4 +1.2
comp=Z,3µmcomp=Z,112nm,1.2s,comp=Z,112nm,1.2s
BLJI Banyuglugur 52.99 271 P P 09 10 40.6 +0.3
comp=Z,2µmcomp=Z,91nm,1.0s,comp=Z,91nm,1.0s
JHJ Hachijo jima 2 54.39 332 LR LR 09 35 44.4
comp=Z,9.5nm,18.1s,baz=154,slow=38
PWJI Pagerwojo 54.66 271 P P 09 10 54.2 +1.7
comp=Z,103nm,1.1s,comp=Z,103nm,1.1s
KKM Kota Kinabalu 54.67 289 P P 09 10 53.7 +1.1
KKM Kota Kinabalu 54.67 289 P P 09 10 52.6 0.0
KKM Kota Kinabalu 54.67 289 P P 09 10 53.1 +0.5
comp=Z,2µmcomp=Z,175nm,1.3s,comp=Z,175nm,1.3s
KKM Kota Kinabalu 54.67 289 ⇓P **P 09 10 52.9 +0.3**
comp=Z,174nm,1.3s
SNJI Sawahan-Nganju 54.76 271 P P 09 10 54.8 +1.4
comp=Z,81nm,0.9s,comp=Z,81nm,0.9s
SJI Sawahan 54.76 271 P P 09 10 54.5 +1.2
comp=Z,104nm,1.5s,comp=Z,104nm,1.5s
DRV Dumont d'Urvil 54.88 193 P P 09 10 53.3 +0.2
DRV Dumont d'Urvil 54.88 193 P P 09 10 53.2 +0.1
DRV pP **pP 09 11 20.4 -0.1**
DRV sP **sP 09 11 32.2 -0.9**
RKT Rikitea 54.97 108 *e*S **S 09 18 24.9 -3.1**
comp=Z,3µm,29.5s
RKT *e*LQ LQ 09 24 38.6
comp=Z,8µm,28.2s
RKT *e*LR LR 09 27 03.0
comp=Z,6µm,31.8s
PCJI Pacitan 55.23 270 P P 09 10 57.9 +1.3
WOJI Wonogiri, Jawa 55.56 271 P P 09 11 00.0 +1.1
comp=Z,126nm,0.9s,comp=Z,126nm,0.9s
JOW Kunigami 56.09 317 LR LR 09 35 27.5
comp=Z,184nm,18.8s,baz=52,slow=36
JOW Kunigami 56.09 317 P P 09 11 03.0 +0.6
SMRI Semarang 56.20 271 P P 09 11 04.6 +1.1
SMRI Semarang 56.20 271 P P 09 11 04.8 +1.3
comp=Z,145nm,0.9s,comp=Z,145nm,0.9s
SMRI Semarang 56.20 271 P P 09 11 04.4 +0.9
comp=Z,147nm,0.9s
STKI Sintang 57.07 280 P P 09 11 11.2 +1.6
CTJI Waduk Cacaban 57.42 271 P P 09 11 13.0 +0.9
comp=Z,143nm,0.9s,comp=Z,143nm,0.9s
INU Inuyama 57.52 331 P P 09 11 13.4 +1.0
JGF Kuroka 57.57 331 P P 09 11 12.8 +0.1
JGF Kuroka 57.57 331 P P 09 11 12.4 -0.4
JGF IAmb IAmb 09 11 41.1
comp=Z,51nm,0.9s
JGF Kuroka 57.57 331 P P 09 11 12.7 -0.1
comp=Z,62nm,1.0s
KPJI Karang Pucung 57.59 271 P P 09 11 14.2 +0.9
comp=Z,2µmcomp=Z,2µmcomp=Z,159nm,0.8s,comp=Z,159nm,0.8s
JMN Monobe 57.80 327 P P 09 11 15.8 +1.4
JMN Monobe 57.80 327 P P 09 11 14.8 +0.4
JMN Monobe 57.80 327 P P 09 11 15.0 +0.6
comp=Z,127nm,1.6s
JMN pP **pP 09 11 41.2 -0.2**
MJAR Matsushiro Arr 57.96 333 P P 09 11 14.0 -1.4
comp=Z,14nm,0.8s,baz=167,slow=7.9,SNR=58
MJAR pP **pP 09 11 41.7 -0.8**
comp=Z,31nm,0.8s,baz=164,slow=8.0,SNR=19
MJAR LR LR 09 33 10.9
comp=Z,66nm,21.9s,baz=136,slow=33
comp=Z,14nm,0.8s
MJAR Matsushiro Arr 57.96 333 P P 09 11 14.5 -0.9
MJAR IAmb IAmb 09 11 42.6
comp=Z,42nm,0.9s
MAJO Matsushiro 57.96 333 P P 09 11 15.8 +0.4
MAJO Matsushiro 57.96 333 P P 09 11 15.2 -0.2
MAJO pmax pmax
comp=Z,54nm,0.9s
MAJO Matsushiro 57.96 333 P P 09 11 15.2 -0.2
MAJO IAmb IAmb 09 11 42.6
comp=Z,54nm,0.8s
MAJO Matsushiro 57.96 333 P P 09 11 14.6 -0.8
comp=Z,68nm,1.0s
MAJO Matsushiro 57.96 333 P P 09 11 14.6 -0.8
MAJO pP **pP 09 11 41.4 -1.1**
MAJO sP **sP 09 11 53.4 -1.5**
MJB9 Matsu-Tunnel 57.96 333 P P 09 11 14.9 -0.6
MJB9 IAmb IAmb 09 11 42.6
comp=Z,52nm,0.8s
BBJI Bungbulang 58.80 270 P P 09 11 22.3 +0.5
BBJI Bungbulang 58.80 270 P P 09 11 20.6 -1.3
BBJI IAmb IAmb 09 11 22.4
comp=Z,37nm,0.7s
BBJI Bungbulang 58.80 270 P P 09 11 21.3 -0.5
comp=Z,55nm,0.8s,comp=Z,55nm,0.8s
BBJI Bungbulang 58.80 270 ⇓P **P 09 11 20.9 -0.9**
comp=Z,54nm,0.8s
YULB Yu-li 58.83 309 P P 09 11 23.0 +1.3
JNU Nakatsue 58.97 324 LR LR 09 33 18.4
comp=Z,149nm,20.0s,baz=140,slow=32
LEM Lembang 58.98 271 LR LR 09 38 39.0
comp=Z,170nm,18.4s,baz=168,slow=38
NACB Ninganchiao 59.06 310 P P 09 11 24.3 +1.0
NACB Ninganchiao 59.06 310 P P 09 11 22.8 -0.5
NACB Ninganchiao 59.06 310 P P 09 11 23.5 +0.2
comp=Z,69nm,1.3s
TPUB Ta-pu 59.28 309 P P 09 11 25.5 +0.7
TPUB Ta-pu 59.28 309 P P 09 11 23.8 -1.0
SSLB Suanglung 59.31 310 P P 09 11 26.0 +0.9
SSLB Suanglung 59.31 310 P P 09 11 24.5 -0.6
YHNB Yeheng 59.52 311 P P 09 11 27.4 +0.9
YHNB Yeheng 59.52 311 P P 09 11 26.9 +0.3
YHNB Yeheng 59.52 311 ⇑P **P 09 11 26.5 0.0**
comp=Z,115nm,1.1s
TPI Tanjungpandan 59.94 275 P P 09 11 31.1 +1.5
comp=Z,86nm,0.9s,comp=Z,86nm,0.9s
JTM Tenmabayashi 60.40 337 P P 09 11 32.4 +0.3
JTM IAmb IAmb 09 12 17.7
comp=Z,84nm,1.1s
CGJI Cibinong 60.89 271 P P 09 11 38.4 +2.4
ASAJ Asahikawa 62.80 340 LR LR 09 37 57.9
comp=Z,176nm,18.9s,baz=90,slow=35
VNDA Vanda 62.80 181 P P 09 11 48.1 +0.3
comp=Z,35nm,0.8s,baz=1.3,slow=7.5,SNR=92
VNDA LR LR 09 35 46.6
comp=Z,67nm,19.1s,baz=7.0,slow=33
comp=Z,35nm,0.8s
VNDA Vanda 62.80 181 P P 09 11 48.3 +0.5
VNDA pmax pmax
comp=Z,335nm,1.8s
VNDA Vanda 62.80 181 P P 09 11 48.3 +0.5
VNDA Vanda 62.80 181 ⇑P **P 09 11 48.2 +0.5**
comp=Z,98nm,1.3s
VNDA Vanda 62.80 181 P P 09 11 48.0 +0.3
VNDA pP **pP 09 12 15.0 -0.7**
MDSI Maura Dua 62.85 273 P P 09 11 48.1 -1.1
comp=Z,49nm,0.8s,comp=Z,49nm,0.8s
SBA Scott Base 63.07 180 P P 09 11 50.9 +1.4
SBA pmax pmax
comp=Z,255nm,1.0s
SBA Scott Base 63.07 180 P P 09 11 50.9 +1.4
SBA Scott Base 63.07 180 ⇑P **P 09 11 51.0 +1.4**
comp=Z,295nm,1.3s
TJN Taejon 63.32 325 *i* P **P 09 11 51.9 +0.2**
TJN pmax pmax
comp=Z,1.0nm,1.1s
CASY Casey 63.47 202 P P 09 11 52.6 +0.2
CASY Casey 63.47 202 ⇑P **P 09 11 52.7 +0.4**
comp=Z,156nm,1.1s
CASY Casey 63.47 202 P P 09 11 52.7 +0.4
CASY pP **pP 09 12 20.5 +0.1**
CASY sP **sP 09 12 32.9 0.0**
DSRI Dabo 63.51 277 P P 09 11 54.4 +0.8
comp=Z,54nm,1.1s,comp=Z,54nm,1.1s
HKPS Hong Kong Po S 63.76 304 P P 09 11 55.2 +0.2
KSRS Korea Array 63.79 326 P P 09 11 54.4 -0.4
comp=Z,7.2nm,0.8s,baz=138,slow=7.1,SNR=18
KSRS pP **pP 09 12 22.3 -0.1**
comp=Z,18nm,0.8s,baz=139,slow=7.1,SNR=15
comp=Z,7.2nm,0.8s
KSAR Wonju Array Be 63.80 326 P P 09 11 55.2 +0.3
KSAR Wonju Array Be 63.80 326 P P 09 11 55.2 +0.3
BTDF Bukit Timah Da 64.81 279 P P 09 12 03.6 +1.6
YSS Yuzhno-Sakhali 65.29 342 P P 09 12 05.9 +1.5
YSS Yuzhno-Sakhali 65.29 342 *eP* **P 09 12 05.0 +0.6**
YSS *e**PP **pwP 09 12 33.4 -0.8**
YSS *e* 09 12 36.6
YSS *e**SP **sP 09 12 47.6 +3.5**
YSS *e* 09 14 31.4
YSS *e*S **S 09 20 39.0 +0.1**
YSS *e*SS **SS 09 24 55.4 +1.0**
YSS pmax pmax
comp=Z,100nm,4.2s
YSS pmax pmax
comp=Z,30nm,1.2s
YSS Yuzhno-Sakhali 65.29 342 P P 09 12 05.1 +0.8
YSS IAmb IAmb 09 12 51.8
comp=Z,79nm,1.0s
YSS Yuzhno-Sakhali 65.29 342 P P 09 12 05.3 +0.9
comp=Z,74nm,1.3s
YSS Yuzhno-Sakhali 65.29 342 P P 09 12 05.2 +0.8
YSS pP **pwP 09 12 33.1 -1.0**
YSS PcP **PcP 09 12 37.0 +1.3**
YSS sP **sP 09 12 45.7 +1.6**
NJ2 Nanjing 65.72 316 *eP* **P 09 12 08.0 +0.5**
NJ2 pP **pP 09 12 35.0 -0.1**
NJ2 sP **sP 09 12 47.5 +0.2**
NJ2 pmax pmax
comp=Z,31nm,1.2s
QIZ Qiongzhong 65.76 299 P P 09 12 09.0 +1.0
QIZ S **S 09 20 47.8 +2.0**
QIZ sS **sS 09 21 33.3 -0.2**
QIZ L L
comp=Z,670nm,12.8s
QIZ L L
comp=Z,700nm,18.2s

QIZ L L
comp=Z,530nm,11.5s
SKR Severo-Kuril's 65.92 352 *i* P **P 09 12 09.2 +0.8**
USA0B Ussuriysk Arra 66.94 333 *i* P **P 09 12 15.3 +0.3**
USRK Ussuriysk Ar. 66.94 333 P **P 09 12 15.2 +0.2**
comp=Z,16nm,1.0s,baz=145,slow=5.3,SNR=19
USRK pP **pP 09 12 42.9 +0.1**
comp=Z,25nm,0.9s,baz=144,slow=5.9,SNR=9.9
USRK LR LR 09 37 42.1
comp=Z,62nm,20.8s,baz=143,slow=32
comp=Z,16nm,1.0s
USRK Ussuriysk Ar. 66.94 333 P **P 09 12 15.4 +0.4**
SHEM Shemya Is, Ala 67.50 4 LR LR 09 35 17.7
comp=Z,505nm,20.9s,baz=140,slow=30
PET Petropavlovsk 67.94 354 *e*P **P 09 12 18.2 -2.9**
PET *e**SP **sP 09 12 59.3 -1.8**
PET *e*S **S 09 21 09.5 -1.2**
WHN Wuhan 67.98 312 P **P 09 12 22.3 +0.5**
WHN pP **pP 09 12 49.5 -0.2**
WHN sP **sP 09 13 03.5 +1.6**
WHN pmax pmax
comp=Z,370nm,1.6s
PEA0B Petropavlovsk- 68.12 354 *i* P **P 09 12 22.7 +0.4**
PETK Petropavlovsk- 68.12 354 P **P 09 12 22.1 -0.2**
comp=Z,12nm,0.8s,baz=161,slow=5.5,SNR=20
PETK pP **pP 09 12 50.5 +0.4**
comp=Z,14nm,0.9s,baz=184,slow=6.2,SNR=5.5
PETK LR LR 09 37 15.7
comp=Z,288nm,19.9s,baz=152,slow=31
comp=Z,12nm,0.8s
PETK Petropavlovsk- 68.12 354 P **P 09 12 23.1 +0.9**
GULI GuiLin 68.26 305 ⇓P **P 09 12 28.0 +4.3**
GULI S **S 09 21 15.8 +0.2**
GULI pmax pmax
comp=Z,56nm,1.1s
GULI pmax pmax
comp=Z,360nm,4.9s
GULI L L
comp=Z,520nm,29.3s
GULI L L
comp=Z,410nm,26.0s
GULI L L
comp=Z,440nm,27.1s
MDJ Mudanjiang 68.33 332 P **P 09 12 24.8 +1.0**
MDJ PcP **PcP 09 12 47.8 -0.7**
MDJ pmax pmax
comp=Z,36nm,1.1s
DL2 Dalian 68.34 323 P **P 09 12 23.8 -0.1**
DL2 pP **pP 09 12 51.8 -0.1**
DL2 sP **sP 09 13 02.3 -1.8**
DL2 S **S 09 21 16.0 -0.1**
DL2 pmax pmax
comp=Z,81nm,1.2s
DL2 pmax pmax
comp=Z,260nm,3.9s
IPM Ipoh 68.35 281 P **P 09 12 25.4 +0.8**
IPM Ipoh 68.35 281 P **P 09 12 24.5 -0.1**
IPM IAmb IAmb 09 12 26.0
comp=Z,70nm,0.9s
IPM Ipoh 68.35 281 ⇓P **P 09 12 24.7 +0.1**
comp=Z,86nm,1.0s
KULM Kulim 68.95 282 P **P 09 12 29.7 +1.4**
KULM Kulim 68.95 282 P **P 09 12 28.5 +0.2**
KULM IAmb IAmb 09 12 29.7
comp=Z,46nm,1.0s
KULM Kulim 68.95 282 ⇓P **P 09 12 28.3 0.0**
comp=Z,48nm,1.1s
TIA Tai'an 69.38 318 P **P 09 12 30.5 0.0**
TIA pmax pmax
comp=Z,32nm,0.8s
CN2 Changchun 69.69 329 *e*P **P 09 12 32.3 +0.1**
CN2 *e*pP pP 09 12 59.5 -0.6
CN2 *e*S S 09 21 21.0 -11
CN2 pmax pmax
comp=Z,10.0nm,0.8s
CN2 pmax pmax
comp=Z,70nm,3.0s
RPSI Rantau Prapat 69.83 278 ⇓P **P 09 12 33.0 -0.7**
comp=Z,63nm,1.0s
PSI Prapat 69.86 279 LR LR 09 44 24.1
comp=Z,153nm,20.8s,baz=134,slow=37
PSI Prapat 69.86 279 P **P 09 12 33.8 -0.2**
BNX BinXian 70.19 332 ⇑P **P 09 12 35.5 +0.3**
BNX pP **pP 09 13 02.8 -0.4**
BNX sP **sP 09 13 16.3 +1.0**
BNX S **S 09 21 40.8 +3.3**
BNX pmax pmax
comp=Z,43nm,0.7s
BNX pmax pmax
comp=Z,260nm,4.9s
BNX L L
comp=Z,250nm,10.8s
BNX L L
comp=Z,230nm,14.6s
BNX L L
comp=Z,190nm,21.7s
GRNR Gornyy 70.65 340 ⇓*i* P **P 09 12 39.0 +1.1**
GRNR pmax pmax
comp=Z,10.0nm,1.3s
GSI Gunungsitoli 70.73 277 P **P 09 12 40.5 +1.3**
GSI Gunungsitoli 70.73 277 P **P 09 12 39.4 +0.2**
GSI IAmb IAmb 09 12 41.1
comp=Z,111nm,0.8s
GSI Gunungsitoli 70.73 277 ⇓P **P 09 12 39.4 +0.2**
comp=Z,160nm,0.9s
KLR Kul'dur 71.06 336 LR LR 09 42 30.1
comp=Z,98nm,19.9s,baz=156,slow=35
KLR Kul'dur 71.06 336 *i* P **P 09 12 40.9 +0.5**
KLR pmax pmax
comp=Z,39nm,1.8s
ENH Enshi 71.40 309 P **P 09 12 44.3 +1.4**
ENH Enshi 71.40 309 P **P 09 12 42.8 -0.1**
ENH pP **pP 09 13 10.3 -0.8**
ENH sP **sP 09 13 22.2 -1.0**
LYN LuoYang 71.51 315 P **P 09 12 44.3 +0.8**
LYN SKS SKiKP 09 22 27.5 +16
LYN pmax pmax
comp=Z,92nm,0.8s
HNS HongShan 71.64 318 ⇑P **P 09 12 45.3 +1.1**
HNS pP **pP 09 13 12.3 0.0**
HNS S **S 09 21 54.8 +0.1**
HNS pmax pmax
comp=Z,31nm,1.1s
HNS L L
comp=Z,330nm,23.7s
HNS L L
comp=Z,250nm,16.2s
HNS L L
comp=Z,260nm,18.8s
GYA Guiyang 71.74 305 ⇑P **P 09 12 45.8 +0.6**
GYA pmax pmax
comp=Z,15nm,0.8s
SLVN Son La 71.78 299 P **P 09 12 46.8 +1.4**
SLVN Son La 71.78 299 P **P 09 12 44.2 -1.3**
comp=Z,26nm,2.5s
BJI2 Beijing 72.30 321 P **P 09 12 48.3 +0.3**
BJI2 pP **pP 09 13 13.3 -2.9**
BJI2 PP **PP 09 15 31.5 +1.0**
BJI2 S **S 09 22 03.3 +1.2**
BJI2 pmax pmax
comp=Z,12nm,1.2s
BJI2 pmax pmax
comp=Z,120nm,6.6s
BJI2 L L
comp=Z,270nm,23.8s
BJI2 L L
comp=Z,240nm,24.0s
BJI2 L L
comp=Z,470nm,41.7s
BJT Baijiatuau 72.30 321 P **P 09 12 49.7 +1.7**
BJT Baijiatuau 72.30 321 P **P 09 12 48.2 +0.2**
BJT pP **pP 09 13 15.8 -0.4**
BJT sP **sP 09 13 27.9 -0.5**
TIY Taiyuan 73.30 317 *e*P **P 09 12 55.5 +1.4**
TIY pP **pP 09 13 23.0 +0.6**
TIY pmax pmax
comp=Z,30nm,0.6s
HEH HeiHe 73.61 335 *e*P **P 09 12 55.8 +0.3**
HEH pP **pP 09 13 23.0 -0.8**
HEH pmax pmax
comp=Z,12nm,1.0s
XAN Xi'an 73.73 313 P **P 09 12 57.0 +0.3**
XAN pP pP 09 13 24.5 -0.3
XAN sP sP 09 13 38.8 +1.7
XAN pmax pmax
comp=Z,40nm,0.9s
XAN Xi'an 73.73 313 P **P 09 12 56.9 +0.2**
XAN pP **pP 09 13 24.6 -0.2**
KMI2 Kunming 74.34 302 ⇓P **P 09 13 02.0 +1.4**
KMI2 pP pP 09 13 30.5 +1.6
KMI2 sP sP 09 13 43.5 +2.5
KMI2 S **SKiKP 09 22 17.5 +0.9**
KMI2 pmax pmax
comp=Z,35nm,1.4s
KMI2 L L
comp=Z,480nm,26.0s
XLT XiLinHaoTe 74.75 324 *e*P **P 09 13 03.0 +0.6**
XLT pP pP 09 13 30.8 0.0
XLT pmax pmax
comp=Z,20nm,0.7s
XLT L L
comp=Z,270nm,21.6s
XLT L L
comp=Z,190nm,21.6s
CMAR Chiang Mai Arr 74.97 294 P **P 09 13 05.1 +1.0**
comp=Z,11nm,0.7s,baz=110,slow=5.7,SNR=48
CMAR pP **pP 09 13 32.5 -0.2**
comp=Z,25nm,0.8s,baz=112,slow=6.0,SNR=10
comp=Z,11nm,0.7s
CMAR Chiang Mai Arr 74.97 294 P **P 09 13 04.5 +0.4**
CHTO Chiang Mai 75.10 294 P **P 09 13 06.4 +1.5**
CHTO Chiang Mai 75.10 294 P **P 09 13 05.1 +0.2**
CHTO pmax pmax
comp=Z,39nm,0.9s
CHTO Chiang Mai 75.10 294 P **P 09 13 05.1 +0.2**
CHTO IAmb IAmb 09 13 48.9
comp=Z,39nm,0.9s
CHTO Chiang Mai 75.10 294 ⇓P **P 09 13 05.7 +0.8**
comp=Z,35nm,1.0s
CHTO Chiang Mai 75.10 294 P **P 09 13 05.6 +0.8**
CHTO pP **pP 09 13 33.5 +0.1**
QSPA South Pole Qui 75.23 180 P **P 09 13 04.9 -0.1**
comp=Z,140nm,0.9s,baz=21,slow=1.6,SNR=295
QSPA S **S 09 22 33.4 -1.3**
comp=Z,0.9nm,1.0s,baz=45,slow=12,SNR=1.4
QSPA LR LR 09 43 43.1
comp=Z,214nm,18.9s,baz=23,slow=34
comp=Z,140nm,0.9s
QSPA South Pole Qui 75.23 180 P **P 09 13 05.0 0.0**
QSPA IAmb IAmb 09 13 06.5
comp=Z,167nm,0.9s
QSPA South Pole Qui 75.23 180 ⇑P **P 09 13 05.0 0.0**
comp=Z,238nm,1.4s
QSPA South Pole Qui 75.23 180 P **P 09 13 05.0 0.0**
QSPA PcP **PcP 09 13 17.8 0.0**
QSPA sP **sP 09 13 44.3 -1.4**
MA2 Magadan 75.31 351 LR LR 09 41 10.9
comp=Z,284nm,21.7s,baz=168,slow=32
MA2 Magadan 75.31 351 *i* P **P 09 13 05.8 +0.6**
MA2 pmax pmax
comp=Z,10.0nm,0.7s
HHC Hu-ho-hao-te 75.63 320 *e*P **P 09 13 08.5 +0.9**
HHC pP pP 09 13 35.0 -1.0
HHC sP sP 09 13 48.8 +0.7
HHC S **S 09 22 38.0 -1.7**
HHC ScS **ScS 09 23 10.5 -0.7**
HHC sS sS 09 23 28.3 +1.3
HHC pmax pmax
comp=Z,16nm,0.6s
HHC pmax pmax
comp=Z,74nm,5.0s
HHC L L
comp=Z,150nm,19.1s
HHC L L
comp=Z,220nm,18.3s
HHC L L
comp=Z,290nm,19.1s
PZH PanZhiHua 75.72 303 P **P 09 13 08.8 +0.3**
PZH S **S 09 22 41.5 +0.2**
PZH pmax pmax
comp=Z,20nm,0.7s
CD2 Chengdu 76.04 308 P **P 09 13 11.0 +0.9**
CD2 pP pP 09 13 38.8 +0.4
CD2 S **S 09 22 45.5 +1.0**
CD2 pmax pmax
comp=Z,40nm,0.8s
CD2 L L
comp=Z,400nm,15.9s
ZEA Zeya 76.35 337 *e*P **P 09 13 12.2 +1.0**
ZEA *e* 09 13 40.9
ZEA pmax pmax
comp=N,10.0nm,1.0s
ZEA pmax pmax
comp=Z,20nm,0.8s
HILR Hailar Array B 76.53 330 P **P 09 13 11.8 -0.6**
comp=Z,2.6nm,0.5s,baz=134,slow=8.3,SNR=5.3
HILR pP **pP 09 13 40.2 -0.6**
comp=Z,9.7nm,0.7s,baz=131,slow=6.5,SNR=4.8
HILR LR LR 09 44 01.3
comp=Z,120nm,21.9s,baz=120,slow=33
comp=Z,2.6nm,0.5s
BTO2 Baotou 76.63 319 *e*P **P 09 13 15.0 +1.7**
BTO2 pP **pP 09 13 43.0 +1.2**
BTO2 sP **sP 09 13 55.5 +1.6**
BTO2 pmax pmax
comp=Z,40nm,1.4s
BTO2 pmax pmax
comp=Z,190nm,7.7s
BTO2 L L
comp=Z,770nm,21.0s
BTO2 L L
comp=Z,640nm,22.8s
RPN Rapa Nui 77.64 115 LR LR 09 43 21.8
comp=Z,56nm,18.1s,baz=255,slow=32
TNCH TengChong 77.79 300 *e*P **P 09 13 23.5 +3.3**
TNCH pP pP 09 13 50.0 +1.4
TNCH sP sP 09 13 58.5 -2.2
TNCH pmax pmax
comp=Z,210nm,6.3s
NPW Naypyitaw 77.91 294 P **P 09 13 22.4 +1.7**
comp=Z,81nm,1.1s
NPW pP **pP 09 13 48.7 -0.6**
SEY Seymchan 78.34 353 LR LR 09 43 11.2
comp=Z,429nm,21.7s,baz=152,slow=32
SEY Seymchan 78.34 353 *i* P **P 09 13 22.9 +0.8**
SEY pmax pmax
comp=Z,18nm,1.0s
LZH Lanzhou 78.36 312 *e*P **P 09 13 24.5 +1.5**
LZH pP pP 09 13 53.0 +1.3
LZH sP sP 09 14 05.0 +1.1
LZH SKS **SKSac 09 23 23.0 -4.5**
LZH pmax pmax
comp=Z,43nm,1.0s
LZDM Lanzhou Array 78.40 312 P **P 09 13 23.9 +0.4**
comp=Z,1.1nm,0.2s,baz=116,slow=6.7,SNR=7.2
LZDM pP **pP 09 13 52.0 -0.2**
comp=Z,28nm,0.9s,baz=108,slow=4.7,SNR=5.3
LZDM LR LR 09 45 37.1
comp=Z,178nm,21.4s,baz=295,slow=34
comp=Z,1.1nm,0.2s
KDAK Kodiak Island 79.53 21 LR LR 09 42 43.9
comp=Z,538nm,19.6s,baz=211,slow=31
CIT Chita 81.12 330 *e*P **P 09 13 37.8 +0.3**
CIT *e* 09 14 05.6
CIT *e* 09 14 19.0
CIT pmax pmax
comp=Z,122nm,2.0s
MAW Mawson 81.82 202 LR LR 09 45 24.8
comp=Z,289nm,19.9s,baz=96,slow=32
YAK Yakutsk 82.09 343 LR LR 09 50 50.1
comp=Z,105nm,18.1s,baz=132,slow=36
YAK Yakutsk 82.09 343 *e*P **P 09 13 42.0 -0.2**
YAK *e**PP **pwP 09 14 12.5 -0.5**
YAK *e* 09 16 49.5
YAK *e*PPP PPP 09 18 42.4
YAK *e*S **S 09 23 47.0 -0.1**
YAK *e**SS **sS 09 24 39.3 +2.9**
YAK *e*SS **SS 09 29 08.5 -0.9**
YAK *e*SSS SSS 09 32 36.9
YAK pmax pmax
comp=Z,70nm,1.4s
YAK pmax pmax
comp=N,27nm,1.5s
YAK pmax pmax
comp=E,11nm,1.4s
YAK pmax pmax
comp=N,239nm,4.1s
YAK pmax pmax
comp=Z,162nm,4.0s
YAK pmax pmax
comp=E,169nm,2.3s
YAK smax smax
comp=E,402nm,5.2s
YAK smax smax
comp=N,275nm,4.8s
YAK Yakutsk 82.09 343 ⇓P **P 09 13 41.6 -0.6**
comp=Z,82nm,1.2s
YAK pP **pP 09 14 10.6 -0.3**
ULN Ulaanbaatar 82.18 324 P **P 09 13 43.6 +0.3**
ULN pmax pmax
comp=Z,69nm,1.4s
ULN Ulaanbaatar 82.18 324 P **P 09 13 43.6 +0.3**
ULN IAmb IAmb 09 14 12.9
comp=Z,68nm,1.4s
ULN Ulaanbaatar 82.18 324 ⇑P **P 09 13 43.9 +0.6**
comp=Z,47nm,1.8s
ULN Ulaanbaatar 82.18 324 P **P 09 13 43.4 +0.2**
ULN PcP **PcP 09 13 47.6 -0.7**
ULN pP **pP 09 14 11.8 -0.2**
SLKM Skilak Lake 82.40 20 P **P 09 13 44.2 +0.3**
SLKM IAmb IAmb 09 14 21.3
comp=Z,49nm,0.9s
SONM Songino Array 82.54 324 P **P 09 13 45.2 0.0**
comp=Z,6.8nm,0.9s,baz=133,slow=4.4,SNR=28
SONM pP **pP 09 14 13.5 -0.4**
comp=Z,3.7nm,1.0s,baz=128,slow=4.6,SNR=7.1
SONM LR LR 09 49 15.6
comp=Z,75nm,19.9s,baz=108,slow=35
comp=Z,6.8nm,0.9s
SONM Songino Array 82.54 324 P **P 09 13 45.1 -0.1**
SONM IAmb IAmb 09 14 15.4
comp=Z,72nm,1.6s
BILL Bilibino 82.61 360 *i* P **P 09 13 44.7 -0.1**
BILL pmax pmax
comp=Z,15nm,1.0s
BILL Bilibino 82.61 360 P **P 09 13 45.3 +0.5**
BILL IAmb IAmb 09 14 30.5
comp=Z,38nm,1.0s
BILL Bilibino 82.61 360 P **P 09 13 45.1 +0.3**
BILL PcP **PcP 09 13 48.9 -0.7**
BILL pP **pP 09 14 13.3 -0.5**
BILI Bilibino, Chuk 82.62 360 P **P 09 13 45.3 +0.4**
comp=Z,20nm,1.2s
GTA2 Gaotai 82.78 314 P **P 09 13 47.5 +1.0**
GTA2 pP pP 09 14 16.0 +0.5
GTA2 S **S 09 23 55.5 0.0**
GTA2 pmax pmax
comp=Z,32nm,1.3s
J18K Innoko River 82.84 15 P **P 09 13 46.7 +0.6**
J18K IAmb IAmb 09 14 40.7
comp=Z,82nm,1.9s
PMR Palmer 83.56 19 P **P 09 13 51.8 +2.0**
PMR Palmer 83.56 19 P **P 09 13 49.8 0.0**
PMR pmax pmax
comp=Z,30nm,1.1s
PMR Palmer 83.56 19 P **P 09 13 49.8 0.0**
KMRM Mail Ridge 84.15 46 P **P 09 13 54.7 +1.2**
KMRM IAmb IAmb 09 14 45.7
comp=Z,45nm,1.4s
GOMU GeErMu 85.02 309 P **P 09 13 59.5 +1.2**
GOMU S **S 09 24 19.3 +0.7**
GOMU pmax pmax
comp=Z,5.0nm,0.6s
GOMU L L
comp=Z,81nm,14.5s
GOMU L L
comp=Z,180nm,14.0s
GOMU L L
comp=Z,330nm,14.3s
YBH Yreka Blue Hor 85.47 45 P **P 09 14 00.5 +0.4**
comp=Z,3.1nm,0.7s,baz=210,slow=7.4,SNR=13
YBH pP **pP 09 14 28.3 -0.2**
comp=Z,4.6nm,1.0s,baz=143,slow=2.0,SNR=4.5
comp=Z,3.1nm,0.7s
AFDM Forest Hills D 85.58 48 P **P 09 14 01.3 +0.7**
LSA Lhasa 85.59 302 P **P 09 14 00.5 -0.9**
ZAK Zakamensk 85.60 325 *e*P **P 09 14 00.1 -0.4**
ZAK pmax pmax
comp=Z,22nm,1.4s
TLY Talaya 86.04 326 LR LR 09 48 60.0
comp=Z,71nm,21.4s,baz=117,slow=33
TLY Talaya 86.04 326 *i* P **P 09 14 02.7 +0.1**
TLY pmax pmax
comp=Z,13nm,0.9s
TLY Talaya 86.04 326 ⇑P **P 09 14 02.7 +0.1**
comp=Z,27nm,0.8s
TLY pP **pP 09 14 30.6 -0.9**
COLA College 86.38 18 P **P 09 14 05.3 +1.5**
COLA College 86.38 18 *i* P **P 09 14 03.5 -0.3**
COLA pmax pmax
comp=Z,29nm,2.8s
COLA College 86.38 18 P **P 09 14 03.3 -0.5**
COLA PcP **PcP 09 14 05.8 -0.4**
COLA pP **pP 09 14 31.6 -0.9**
MDPB Devils Postpil 86.46 50 P **P 09 14 05.7 +0.4**
ILAR Eielson Array 86.59 18 P **P 09 14 03.5 -1.4**
comp=Z,5.3nm,0.6s,baz=238,slow=5.6,SNR=69
ILAR pP **pP 09 14 33.6 0.0**
comp=Z,9.3nm,0.8s,baz=236,slow=5.6,SNR=6.4
ILAR PKKP **PKKPdf 09 31 57.7 +1.0**
comp=Z,0.6nm,0.5s,baz=14,slow=3.1,SNR=15
ILAR LR LR 09 46 09.4
comp=Z,408nm,20.7s,baz=222,slow=31
comp=Z,5.3nm,0.6s
BORC Borrego Spring 86.96 55 P **P 09 14 07.7 +0.3**
PFO Pinyon Flats O 87.04 54 P **P 09 14 08.2 +0.2**
comp=Z,3.2nm,0.8s,baz=259,slow=4.5,SNR=7.9
PFO pP **pwP 09 14 38.5 -1.8**
comp=Z,8.1nm,1.0s,baz=245,slow=5.4,SNR=7.4
PFO LR LR 09 44 35.2
comp=Z,282nm,20.3s,baz=250,slow=30
comp=Z,3.2nm,0.8s
PFO Pinyon Flats O 87.04 54 P **P 09 14 07.8 -0.2**
PFO Pinyon Flats O 87.04 54 P **P 09 14 09.0 +1.0**
PFO pP **pP 09 14 37.9 +1.3**
PFO sP **sP 09 14 49.1 +0.7**
XPFO Pinon Flat 87.04 54 P **P 09 14 09.0 +1.0**
XPFO pP **pP 09 14 37.9 +1.3**
XPFO sP **sP 09 14 49.1 +0.7**
MPMC Manual Prospec 87.08 52 P **P 09 14 08.6 +0.3**
K05A Summer Lake 87.10 45 P **P 09 14 09.1 +0.9**
NVAR Mina Array Bea 87.32 49 P **P 09 14 09.2 -0.2**
comp=Z,2.9nm,0.9s,baz=253,slow=6.4,SNR=17
NVAR pP **pwP 09 14 40.1 -1.7**
comp=Z,8.3nm,0.9s,baz=252,slow=6.7,SNR=10
NVAR PKKPbc **PKKPbc 09 31 58.6 -2.1**
comp=Z,0.4nm,0.6s,baz=84,slow=5.7,SNR=3.8
NVAR PKPPKP **P'P'df 09 40 06.0 -0.8**
comp=Z,0.2nm,0.3s,baz=61,slow=3.1,SNR=4.2
comp=Z,2.9nm,0.9s
PALK Pallekele 88.53 278 P **P 09 14 16.9 +1.5**
PALK pP **pP 09 14 46.5 +1.9**
WVOR Wild Horse Val 88.53 45 P **P 09 14 16.3 +1.4**
comp=Z,6.8nm,1.8s
EVN Everest 88.64 299 ⇑P **P 09 14 17.0 +0.6**
comp=Z,83nm,0.7s
SYO Syowa Base 88.64 197 ⇑*i* P **P 09 14 14.6 -0.2**
SYO Syowa Base 88.64 197 ⇓*e*P **P 09 14 17.0 +2.2**
KNGR Kungurtug, Tuv 88.98 323 *i* P **P 09 14 17.0 +0.2**
KNGR pmax pmax
comp=Z,15nm,1.1s
J08A Circle Bar Ran 88.98 45 P **P 09 14 17.6 +0.6**
LPIG La Paz 89.23 65 LR LR 09 44 15.1
comp=Z,168nm,22.0s,baz=220,slow=29
TIXI Tiksi 90.03 349 LR LR 09 52 58.8
comp=Z,114nm,18.7s,baz=174,slow=34
TIXI Tiksi 90.03 349 P **P 09 14 21.3 +0.3**
TIXI pmax pmax
comp=Z,10.0nm,0.9s
TIXI Tiksi 90.03 349 P **P 09 14 21.3 +0.3**
TIXI Tiksi 90.03 349 P **P 09 14 21.1 0.0**
comp=Z,12nm,1.1s
ELIB Princess Elisa 90.15 191 *d*P **P 09 14 21.7 -0.3**
ELIB *d*pP **pP 09 14 50.9 -0.6**
BMO Blue Mountains 90.30 44 P **P 09 14 22.6 -0.5**
BMO pmax pmax
comp=Z,9.0nm,1.0s
BMO Blue Mountains 90.30 44 P **P 09 14 22.6 -0.5**
ELK Elko 90.34 48 P **P 09 14 23.2 -0.3**
comp=Z,3.6nm,1.0s,baz=251,slow=6.3,SNR=12
ELK pP **pP 09 14 54.1 +1.9**
comp=Z,5.9nm,0.9s,baz=262,slow=7.1,SNR=8.0
comp=Z,3.6nm,1.0s
ELK Elko 90.34 48 P **P 09 14 23.2 -0.3**
PSUT Pine Spring 90.64 50 P **P 09 14 24.7 -0.2**
NEW Newport 91.62 40 P **P 09 14 28.0 -1.1**

comp=Z,1.4nm,0.6s,baz=264,slow=10,SNR=4.4
comp=Z,1.4nm,0.6s
NEW Newport 91.62 40 P **P** 09 14 28.0 -1.1
PMSA Palmer Station 91.71 160 LR LR 09 49 48.2
comp=Z,122nm,21.4s,baz=219,slow=32
WMQ Urumqi 92.77 315 *eP* **P** 09 14 34.8 +0.3
WMQ pP pP 09 15 04.0 +0.3
WMQ sP sP 09 15 13.3 -2.3
WMQ SKS **SKSac** 09 24 57.0 -0.8
WMQ pmax pmax
comp=Z,9.0nm,0.7s
WMQ L L
comp=Z,220nm,23.8s
TROLL Troll, Antarti 92.80 185 ⇑P **P** 09 14 33.8 -0.5
comp=Z,3μm,0.6s
INK Inuvik 92.95 19 LR LR 09 50 30.1
comp=Z,294nm,21.1s,baz=256,slow=32
NVL N'lazarevskaya 92.99 188 *eP* **P** 09 14 33.0 -2.0
NVL pmax pmax
comp=Z,26nm,0.9s
SNAA Sanae 93.48 183 ⇑P **P** 09 14 36.3 -1.1
comp=Z,279nm,0.4s
SNAA Sanae 93.48 183 P **P** 09 14 36.3 -1.1
comp=Z,17nm,0.6s,baz=172,slow=7.8,SNR=14
comp=Z,17nm,0.6s
SNAA Sanae 93.48 183*c i*P **P** 09 14 36.5 -0.9
SNAA pmax pmax
comp=Z,44nm,1.3s
SNAA Sanae 93.48 183 ⇑P **P** 09 14 36.3 -1.1
comp=Z,46nm,1.3s
VNA3 Neumayer Olymp 94.15 181 ⇑P **P** 09 14 39.1 -1.3
comp=Z,33nm,0.6s
VNA3 Neumayer Olymp 94.15 181 ⇑P **P** 09 14 39.1 -1.3
comp=Z,48nm,0.8s
VNA2 Neumayer--Watz 94.42 182 ⇑P **P** 09 14 40.6 -1.0
comp=Z,44nm,0.6s,baz=171,slow=5.4
VNA2 Neumayer--Watz 94.42 182 ⇑P **P** 09 14 40.6 -1.0
comp=Z,83nm,0.9s
VNA1 Neumayer--Stat 94.72 181 ⇑P **P** 09 14 42.1 -0.8
comp=Z,26nm,0.6s
PDAR Pinedale Array 95.00 47 P **P** 09 14 43.8 -1.2
comp=Z,0.4nm,0.7s,baz=283,slow=5.9,SNR=4.2
PDAR pP **pP** 09 15 15.3 +1.6
comp=Z,1.1nm,0.9s,baz=267,slow=6.8,SNR=5.7
PDAR PKKPbc **PKKPdf** 09 31 38.6 -2.7
comp=Z,0.5nm,0.8s,baz=79,slow=3.1,SNR=4.1
comp=Z,0.4nm,0.7s
ANMO Albuquerque 95.34 55 P **P** 09 14 46.6 -0.1
comp=Z,0.4nm,0.5s,baz=258,slow=5.7,SNR=3.7
ANMO pP **pP** 09 15 17.0 +1.6
comp=Z,2.2nm,1.0s,baz=218,slow=7.2,SNR=6.3
ANMO LR LR 09 49 14.9
comp=Z,133nm,20.6s,baz=258,slow=30
comp=Z,0.4nm,0.5s
USHA Ushuaia 96.23 151 LR LR 09 50 16.4
comp=Z,21μm,21.7s,baz=78,slow=30
TXAR Lajitas Array 96.31 61 P **P** 09 14 51.0 -0.1
comp=Z,0.6nm,0.6s,baz=251,slow=4.4,SNR=12
TXAR pP **pP** 09 15 21.3 +1.4
comp=Z,1.5nm,0.9s,baz=246,slow=4.2,SNR=6.4
TXAR LR LR 09 49 23.8
comp=Z,65nm,21.1s,baz=260,slow=30
comp=Z,0.6nm,0.6s
MK31 Makanchi Array 97.24 316 *i* P Pdif 09 14 54.9 0.0
MKAR Makanchi Array 97.24 316 P **P** 09 14 54.6 -0.2
comp=Z,6.4nm,0.7s,baz=98,slow=6.3,SNR=45
MKAR pP **pP** 09 15 22.6 -1.5
comp=Z,15nm,0.7s,baz=100,slow=6.3,SNR=14
MKAR S **SKSac** 09 25 19.6 -1.9
comp=Z,0.4nm,0.4s,baz=113,slow=9.6,SNR=3.2
MKAR LR LR 09 59 07.7
comp=Z,79nm,21.4s,baz=108,slow=36
comp=Z,6.4nm,0.7s
MKAR Makanchi Array 97.24 316 P Pdif 09 14 54.9 0.0
ZALV Zalesovo Beam 97.44 324 P **P** 09 14 54.1 -1.3
comp=Z,6.7nm,0.7s,baz=108,slow=4.7,SNR=34
ZALV pP **pP** 09 15 22.9 -1.9
comp=Z,8.9nm,0.8s,baz=104,slow=4.5,SNR=7.9
ZALV PKiKP **PKiKP** 09 19 26.8 -3.0
comp=Z,2.1nm,0.8s,baz=104,slow=6.1,SNR=4.0
ZALV S **SKSac** 09 25 18.1 -3.9
comp=Z,0.3nm,0.3s,baz=86,slow=5.9,SNR=1.4
ZALV LR LR 09 57 29.4
comp=Z,74nm,21.3s,baz=95,slow=34
comp=Z,6.7nm,0.7s
ZALV Zalesovo Beam 97.44 324 P **P** 09 14 54.7 -0.7
MAKZ Makanchi 97.46 316 P Pdif 09 14 56.0 +0.2
MAKZ pmax pmax
comp=Z,20nm,1.3s
MAKZ Makanchi 97.46 316 P Pdif 09 14 56.0 +0.1
MAKZ IAmb IAmb 09 15 25.9
comp=Z,20nm,1.2s
MAKZ Makanchi 97.46 316 P Pdif 09 14 56.0 +0.2
comp=Z,14nm,1.3s
YKA Yellowknife Ar 97.61 27 P **P** 09 14 54.7 -1.3
comp=Z,1.4nm,0.7s,baz=255,slow=4.4,SNR=15
YKA pP **pP** 09 15 23.9 -1.3
comp=Z,2.0nm,0.9s,baz=258,slow=4.6,SNR=3.6
YKA PKiKP **PKiKP** 09 19 29.0 -0.7
comp=Z,0.3nm,0.7s,baz=251,slow=1.6,SNR=4.4
YKA PKKPbc **PKKPbc** 09 31 32.4 -2.4
comp=Z,0.8nm,0.8s,baz=76,slow=2.3,SNR=6.6
YKA LR LR 09 51 02.8
comp=Z,112nm,21.6s,baz=234,slow=30
comp=Z,1.4nm,0.7s
NRIK Noril'sk 100.13 339 P **Pdif** 09 15 06.9 -0.2
comp=Z,3.2nm,0.7s,baz=100,slow=6.7,SNR=5.1
NRIK pP **pPdif** 09 15 34.2 -2.1
comp=Z,5.5nm,0.8s,baz=98,slow=4.7,SNR=3.8
NRIK S **SKSac** 09 25 35.6 +0.7
comp=Z,1.3nm,0.5s,baz=135,slow=5.7,SNR=6.6
KURK Kurchatov 100.44 320 P **Pdif** 09 15 09.0 +0.1
KURBB Kurchatov Arra 100.48 320 P **Pdif** 09 15 09.0 -0.2
comp=Z,0.6nm,0.6s,baz=102,slow=4.3,SNR=7.0
KURBB pP **pPdif** 09 15 36.4 -2.0
comp=Z,1.3nm,0.9s,baz=98,slow=4.1,SNR=3.6
KURBB PP **PP** 09 19 16.8 -0.6
comp=Z,4.2nm,1.2s,baz=108,slow=7.4,SNR=7.1
KURBB PKiKP **PKiKP** 09 19 34.9 -0.3
comp=Z,2.6nm,0.8s,baz=110,slow=1.7,SNR=6.7
KURBB PKKPbc **PKKPbc** 09 31 24.9 -1.3
comp=Z,0.6nm,0.5s,baz=289,slow=3.5,SNR=2.1
BVAR Borovoye Array 105.79 321 Pdiff **Pdif** 09 15 31.6 -1.1
comp=Z,0.8nm,0.7s,baz=99,slow=4.7,SNR=4.2
BVAR PKiKP **PKiKP** 09 19 44.8 -0.1
comp=Z,1.1nm,0.4s,baz=131,slow=1.2,SNR=7.1
ABPO Ambohimpanom 112.08 242 *i* PKiKP **PKiKP** 09 19 59.5 +1.6
ARTI Arti 112.64 325 *i* PKiKP **PKiKP** 09 19 57.8 +0.2
ARTI 09 20 46.9
ARTI 09 26 59.7
ARTI SS SS 09 36 11.7 -7.2
SPA0 Spitsbergen Ar 114.99 354 *e*PKPdf **PKiKP** 09 20 01.3 -0.4
SPITS Spitsbergen Ar 114.99 354 PKP **PKiKP** 09 20 01.0 -0.7
comp=Z,3.3nm,0.5s,baz=63,slow=3.9,SNR=7.7
SPITS Spitsbergen Ar 114.99 354 PKiKP **PKiKP** 09 20 01.0 -0.7
LPAZ La Paz 117.19 117 PKP **PKPdf** 09 20 07.5 -0.9
comp=Z,0.9nm,0.4s,baz=272,slow=3.7,SNR=7.3
LPAZ PKKPbc **PKKPbc** 09 30 30.6 -2.0
comp=Z,1.0nm,0.7s,baz=309,slow=6.5,SNR=4.0
LPAZ PKKP **PKKPdf** 09 30 58.2 -1.4
comp=Z,1.5nm,0.7s,baz=30,slow=3.8,SNR=5.7
APA Apatity 119.44 341 *e*PKiKP **PKiKP** 09 20 10.7 +0.3
APA *e* 09 20 37.0
APA pmax pmax
comp=Z,13nm,1.1s
BELG Belogornoye 119.58 322 *i* PKiKP **PKiKP** 09 20 11.3 +0.2
HAMF Hammerfest 119.92 347 *e*PKPdf **PKPdf** 09 20 10.8 -0.4
ARA0 ARCESS Array S 120.31 345 *e*PKPdf **PKPdf** 09 20 11.9 -0.1
ARCES ARCESS Array B 120.31 345 PKP **PKPdf** 09 20 11.7 -0.3
comp=Z,9.1nm,0.5s,baz=51,slow=1.9,SNR=81
ARCES pPKP **pPKPdf** 09 20 42.6 +0.2
comp=Z,9.4nm,0.8s,baz=39,slow=2.2,SNR=3.6
CPUP Villa Florida 120.42 133 PKP **PKiKP** 09 20 14.6 +0.9
comp=Z,1.2nm,0.7s,baz=209,slow=19,SNR=4.2
KLMR Klimovskoe 120.74 333 *e*PKiKP **PKPdf** 09 20 10.9 -2.1
KLMR *e* 09 20 39.1
KLMR pmax pmax
comp=Z,18nm,1.0s
KTK1 Kautokeino 121.25 346 *e*PKPdf **PKPdf** 09 20 13.2 -0.7
JETT Jettan, Norway 121.47 347 *e*PKPdf **PKPdf** 09 20 13.3 -1.0
TRO Tromso 121.73 348 *e*PKPdf **PKPdf** 09 20 14.0 -0.7
SCHQ Schefferville 122.35 34 PKP **PKPdf** 09 20 16.3 -0.1
comp=Z,1.8nm,0.6s,baz=283,slow=3.8,SNR=1.5
SCHQ PKKPbc **PKKPab** 09 30 12.0 +0.3
comp=Z,2.6nm,0.5s,baz=127,slow=5.1,SNR=13
BOSA Boshof 123.32 220 PKP **PKPdf** 09 20 19.0 -0.3
comp=Z,7.1nm,0.8s,baz=125,slow=2.5,SNR=8.7
BOSA pPKP **pPKPdf** 09 20 49.1 -0.7
comp=Z,4.0nm,0.8s,baz=146,slow=3.6,SNR=2.8
VRH Novokhopyorsk 123.43 322 *e*PKiKP **PKPdf** 09 20 16.9 -1.6
VRH *e**PP **pPKPdf** 09 20 47.1 -1.8
VRH pmax pmax
comp=Z,7.0nm,0.8s
MOS Moscow 123.93 328 *e*PKiKP **PKiKP** 09 20 20.2 +0.6
MOS *e* 09 20 49.7
GNI Garni 124.16 309*c i*PKiKP **PKPdf** 09 20 19.2 -1.3
GNI pmax pmax
comp=Z,24nm,0.8s
FAUS Fauske 124.35 347 *e*PKPdf **PKPdf** 09 20 19.8 0.0
LPSR Galich'ya Gora 124.54 324 *e*PKiKP **PKPdf** 09 20 18.9 -1.7
LPSR *e**PP **pPKPdf** 09 20 48.2 -2.8
LPSR pmax pmax
comp=Z,10.0nm,1.0s
VORR Voronezh 124.74 323 *e*PKiKP **PKPdf** 09 20 19.7 -1.3
VORR *e**PP **pPKPdf** 09 20 49.6 -1.8
VORR pmax pmax
comp=Z,10.0nm,0.9s
OBN Obninsk 124.75 328*d i*PKiKP **PKPdf** 09 20 20.8 -0.1
OBN *e* 09 20 51.2
OBN *e* 09 22 14.3
OBN *e*PPP PPP 09 24 50.7
OBN pmax pmax
comp=Z,23nm,1.6s
KBZ Khabaz 124.79 313 PKP **PKPdf** 09 20 20.7 -0.6
comp=Z,3.0nm,0.8s,baz=53,slow=5.1,SNR=4.7
KBZ pPKP **pPKPdf** 09 20 53.2 +1.3
comp=Z,6.0nm,0.8s,baz=135,slow=4.3,SNR=6.0
VSR Storozhevoye 124.93 323 *e*PKiKP **PKPdf** 09 20 16.2 -5.2
VSR *e**PP **pPKPdf** 09 20 50.3 -1.5
VSR pmax pmax
comp=Z,9.0nm,1.1s
VORD Divnogorie 124.95 323 *e*PKiKP **PKPdf** 09 20 17.9 -3.5
VORD *e**PP **pPKPdf** 09 20 49.7 -2.2
VORD pmax pmax
comp=Z,8.0nm,1.0s
SHA1 Shidzhatmaz 124.96 313 *i* PKiKP **PKiKP** 09 20 22.4 0.0
NEUR Neytrino 125.04 313 *i* PKiKP **PKPdf** 09 20 21.9 -0.2
KONS Konsvik 125.56 348 *e*PKPdf **PKPdf** 09 20 22.3 +0.2
STOK Stokkvaagen 125.72 348 *e*PKPdf **PKPdf** 09 20 21.0 -1.4
FINES FINESS Array B 125.78 338 PKP **PKPdf** 09 20 22.8 +0.1
comp=Z,3.5nm,0.5s,baz=29,slow=3.2,SNR=33
FINES pPKP **pPKPdf** 09 20 53.4 +0.4
comp=Z,12nm,1.0s,baz=46,slow=4.0,SNR=4.9
LEIR Leirfjorden 125.89 347 *e*PKPdf **PKPdf** 09 20 22.9 +0.1
ERBR Yeremizino-Bor 125.93 316 *i* PKiKP **PKPdf** 09 20 23.3 -0.2
ERBR pmax pmax
comp=Z,10.0nm,0.8s
LABN Labinsk 126.07 315 *e*PKiKP **PKPdf** 09 20 17.8 -6.0
LABN *e* 09 20 52.4
LABN pmax pmax
comp=Z,38nm,0.6s
VSU Vasula 127.47 335 *i* PKiKP **PKPdf** 09 20 24.2 -1.8
NSS Namsos 127.50 347 *e*PKPdf **PKPdf** 09 20 25.9 0.0
MNK Minsk 129.37 331 *i* P **Pdif** 09 17 17.4 -0.1
MNK *i* 09 20 29.7
MNK *i* 09 20 59.6
MNK *i* 09 22 40.6
MNK *i* PPP PPP 09 25 28.0
MNK *i* 09 27 30.9
MNK *i* PS **PS** 09 32 51.2 -0.1
MNK *i* SSS SSS 09 44 43.1
MNK pmax pmax
comp=N,8.0nm,1.0s
MNK pmax pmax
comp=E,6.0nm,0.8s
MNK pmax pmax
comp=Z,5.0nm,0.9s
MNK MLR MLR
comp=Z,127nm,17.0s
MNK MLR MLR
comp=E,280nm,21.0s
MNK MLR MLR
comp=N,155nm,19.0s
MNK Minsk 129.37 331 *i* P **Pdif** 09 17 17.4 -0.1
comp=E,6.0nm,0.8s
MNK *i* P **Pdif** 09 17 17.4 -0.1
comp=N,8.0nm,1.0s
MNK *i* P **Pdif** 09 17 17.4 -0.1
comp=Z,5.0nm,0.9s,baz=54
MNK *i* pP **pPdif** 09 17 46.2 -0.5
MNK *i* PKP **PKPdf** 09 20 29.8 0.0
MNK *i* pPKP **pPKPdf** 09 20 59.7 -0.6
MNK *i* PP **PP** 09 22 40.7 +0.6
MNK *i* PPP PPP 09 25 28.0
MNK *i* SKS **SKSdf** 09 27 30.9 +0.1
MNK *i* PS **PS** 09 32 51.3 -0.1
MNK *i* SKKS **SKKSdf** 09 37 35.9 -3.3
MNK *i* SS **SS** 09 40 00.0 +7.9
MNK *i* SSS SSS 09 44 43.2
MNK *i* LR LR 10 17 15.4
MOL Molde 130.17 348 *e*PKPdf **PKiKP** 09 20 31.5 -0.4
DOMB Dombas 130.32 347 *e*PKPdf **PKiKP** 09 20 32.0 -0.2
AKN Aaknes 130.63 348 *e*PKPdf **PKiKP** 09 20 32.8 -0.1
NB2 NORSAR Subarra 130.68 345 PKPdf **PKPdf** 09 20 32.4 +0.2
comp=Z,1.7nm,0.6s,baz=31,slow=1.9
NB2 pPKP **SKPbc** 09 23 46.2 +0.5
comp=Z,2.1nm,0.6s,baz=40,slow=4.6
NB2 SKP 09 24 38.9
comp=Z,140nm,1.4s,baz=39,slow=4.6
NB2 NORSAR Subarra 130.68 345 PKPdf **PKPdf** 09 20 32.0 -0.2
NB2 AMP 09 20 32.0
NOA NORSAR Array B 130.68 345 PKP **PKPdf** 09 20 31.8 -0.3
comp=Z,1.6nm,0.7s,baz=34,slow=2.0,SNR=11
NOA pPKP **pPKPdf** 09 21 02.5 0.0
comp=Z,2.6nm,0.8s,baz=32,slow=1.9,SNR=4.9
NOA SKPbc **SKPbc** 09 23 45.1 -0.7
comp=Z,3.0nm,0.6s,baz=31,slow=3.1,SNR=12
AK03 Malin Array Si 130.77 326 PKP **PKPdf** 09 20 32.7 +0.2
HFS Hagfors 130.78 343 PKP **PKPdf** 09 20 32.0 -0.3
comp=Z,1.3nm,0.5s,baz=29,slow=3.3,SNR=9.8
HFS SKPbc **SKPbc** 09 23 45.8 -0.2
comp=Z,1.7nm,0.6s,baz=50,slow=4.5,SNR=4.3
HFS Hagfors 130.78 343 PKiKP **PKPdf** 09 20 32.0 -0.3
AKASG Malin Array Be 130.78 326 PKP **PKPdf** 09 20 32.2 -0.4
comp=Z,1.1nm,0.4s,baz=49,slow=3.2,SNR=13
AKASG pPKP **pPKPdf** 09 21 01.8 -1.2
comp=Z,1.6nm,0.5s,baz=51,slow=3.0,SNR=3.7
AKASG SKPbc **SKPbc** 09 23 45.5 -0.8
comp=Z,2.5nm,0.6s,baz=51,slow=4.5,SNR=8.7
AKBB Malin Array Si 130.78 326 PKP **PKPdf** 09 20 32.7 +0.1
AK01 Malin Array Si 130.79 326 PKP **PKPdf** 09 20 32.7 +0.1
AK09 Malin Array Si 130.79 326 PKP **PKPdf** 09 20 32.7 +0.1
KIEV Kiev 130.79 326 PKP **PKPdf** 09 20 32.7 +0.1
AK08 Malin Array Si 130.80 326 PKP **PKPdf** 09 20 32.7 +0.1
AK04 Malin Array Si 130.80 326 PKP **PKPdf** 09 20 32.7 +0.1
AK23 Malin Array Si 130.80 326 PKP **PKPdf** 09 20 32.7 +0.1
AK02 Malin Array Si 130.81 326 PKP **PKPdf** 09 20 32.8 +0.2
AK10 Malin Array Si 130.82 326 PKP **PKPdf** 09 20 32.8 +0.2
AK11 Malin Array Si 130.82 326 PKP **PKPdf** 09 20 32.8 +0.2
AK22 Malin Array Si 130.83 326 PKP **PKPdf** 09 20 32.8 +0.1
AK05 Malin Array Si 130.84 326 PKP **PKPdf** 09 20 32.8 +0.1
NC602 NORSAR Array S 130.86 345 *e*PKPdf **PKiKP** 09 20 32.9 -0.4
AK17 Malin Array Si 130.88 326 PKP **PKPdf** 09 20 32.9 +0.1
AK14 Malin Array Si 130.88 326 PKP **PKPdf** 09 20 32.9 +0.1
AK19 Malin Array Si 130.89 326 PKP **PKPdf** 09 20 32.9 +0.1
LUBAR Lubar, Ukraine 131.99 326 PKP **PKPdf** 09 20 35.1 +0.2
RNPP9 Sopachiv 132.15 328 PKP **PKPdf** 09 20 35.4 +0.3
RNPP5 Staryi Chortor 132.25 328 PKP **PKPdf** 09 20 35.6 +0.3
BRTR Keskin Array B 132.54 311 PKP **PKPdf** 09 20 36.0 -0.5
comp=Z,1.5nm,0.5s,baz=116,slow=3.4,SNR=9.6
BRTR pPKP **pPKPdf** 09 21 06.8 -0.3
comp=Z,4.0nm,0.8s,baz=79,slow=2.2,SNR=9.3
BRTR SKPbc **SKPbc** 09 23 53.4 +0.1
comp=Z,2.3nm,1.0s,baz=98,slow=5.3,SNR=4.4
ODD1 Odda 132.76 347 *e*PKPdf **PKiKP** 09 20 37.3 0.0
MMAI Mount Meron Ar 132.84 301 pPKP **pPKPdf** 09 21 08.2 +0.5
comp=Z,3.4nm,0.6s,baz=73,slow=4.8,SNR=3.0
MMAI SKPab **SKPbc** 09 23 54.7 +0.3
comp=Z,0.4nm,0.3s,baz=76,slow=6.1,SNR=4.8
KMPD K-Podol'skiy 133.44 325 PKP **PKPdf** 09 20 37.9 +0.3
BDFB Brasilia 133.85 130 PKP **PKiKP** 09 20 40.8 -0.1
comp=Z,3.3nm,0.7s,baz=221,slow=3.6,SNR=4.2
MBAR Mbarara 134.36 254 *i* PKiKP **PKPdf** 09 20 39.5 -1.2
MLR Muntele Rosu 135.35 321 PKP **PKPdf** 09 20 40.5 -1.1
comp=Z,3.5nm,1.1s,baz=63,slow=2.3,SNR=3.0
KOLS Kolonicke sedl 135.49 327 *e*PKiKP **PKPdf** 09 20 42.2 +0.7
KOLS *e* 09 21 15.2
KOLS Kolonicke sedl 135.49 327 *e*PKP **PKPdf** 09 20 42.1 +0.6
KOLS *e* 09 21 15.2
LANS Liptovska Anna 136.78 329 *e*PKiKP **PKiKP** 09 20 45.0 -0.8
LANS *e* 09 21 17.1
LANS Liptovska Anna 136.78 329 *e*PKP **PKiKP** 09 20 45.0 -0.8
LANS *e* 09 21 17.1
STEB Steborice 137.06 331 *e*PKPDF **PKiKP** 09 20 46.9 +0.6
STEB *ex* x 09 21 00.6
MORC Moravsky Berou 137.28 331 *e*PKP **PKPdf** 09 20 44.7 -0.2
OSTC Ostas 137.33 333 *e*PKiKP PKPpre 09 20 38.2
OSTC Ostas 137.33 333 *e*PKPpre PKPpre 09 20 38.2
OSTC *e*PKPDF **PKiKP** 09 20 47.9 +1.1
CHVC Chvalec 137.38 333 *e*PKiKP **PKiKP** 09 20 47.6 +0.7
CHVC Chvalec 137.38 333 *e*PKPDF **PKiKP** 09 20 47.6 +0.7
DPC Dobruska-Polom 137.43 333 *e*PKHKP PKPpre 09 20 34.0
DPC Dobruska-Polom 137.43 333 *e*PKPpre PKPpre 09 20 34.0
DPC *e*PKPDF **PKiKP** 09 20 47.8 +0.7
MAUC Maruska 137.43 331 *e*PKPDF **PKiKP** 09 20 46.6 -0.5
UPC Upice 137.46 333 *e*PKiKP **PKiKP** 09 20 47.8 +0.8
UPC Upice 137.46 333 *e*PKPDF **PKiKP** 09 20 47.8 +0.8
JAVC Velka Javorina 137.85 330 *e*PKiKP **PKiKP** 09 20 48.1 +0.1
PVCC Panska Ves 138.06 334 *e*PKiKP **PKPdf** 09 20 44.6 -1.6
PVCC Panska Ves 138.06 334 *e*PKPDF **PKPdf** 09 20 44.6 -1.6
BRG Berggiesshubel 138.06 335⇓ *e*PKPdf **PKiKP** 09 20 47.5 -0.7
BRG Amp 09 20 50.7
comp=Z,4.3nm,0.7s
BRG ⇓pPKPf 09 21 17.3
BRG Amp 09 21 18.3
comp=Z,14nm,1.3s
CLL Collm 138.11 336 *e*PKiKP **PKPdf** 09 20 46.0 -0.3
CLL *e* 09 21 17.0
CLL Collm 138.11 336 *e*PKPdf **PKPdf** 09 20 46.0 -0.3
CLL *i* PKiKP **PKiKP** 09 20 48.8 +0.5
comp=Z,6.0nm,0.7s
CLL *ep*PKPdf **pPKPdf** 09 21 17.0 +0.2
CLL *es*PKPdf **sPKPdf** 09 21 30.0 +1.6
CLL *e*PP **PP** 09 23 42.0 +6.6
CLL *i* SKPab **SKPab** 09 24 17.3 -1.1
CLL *e*PKSdf **PKSdf** 09 24 25.0 +2.8
CLL *i* pPKSdf 09 24 52.2
CLL *i* sPKSbc 09 25 03.9
CLL *es*SKPab 09 25 12.0
CLL *e*SKSP 09 33 26.0
CLL *ep*PPS 09 36 12.0
CLL *e*SKKSdf **SKKSdf** 09 37 26.0 +3.8
CLL *e*SS **SS** 09 41 36.0 -1.2
CLL *es*SS 09 42 30.0
CLL *es*PSPS 09 43 12.0
CLL *e*SSS SSS 09 46 48.0
CLL LH 10 03 00.0
CLL L L 10 06 00.0
CLL AMS AMS 10 12 00.0
comp=N,200nm,23.5s
CLL AMS AMS 10 12 00.0
comp=E,200nm,35.3s
CLL AMS AMS 10 12 00.0
comp=Z,200nm,30.5s
KRUC Moravsky 138.32 331 *e*PKP **PKPdf** 09 20 46.5 -0.2
MODS Modra-Piesok 138.38 330 *e*PKiKP **PKiKP** 09 20 48.9 -0.1
MODS Modra-Piesok 138.38 330 *e*PKP **PKiKP** 09 20 48.9 -0.1
EKA Eskdalemuir Ar 138.87 352 PKhKP PKPpre 09 20 36.7
comp=Z,0.7nm,0.6s,baz=19,slow=2.2,SNR=5.9
EKA PKP **PKPdf** 09 20 47.7 +0.1
comp=Z,1.3nm,0.5s,baz=5.2,slow=1.6,SNR=12
ZVC Zvikov 139.04 333 *e*PKPpre PKPpre 09 20 37.2
MPLH Magyarpolny 139.06 328 PKP **PKPdf** 09 20 48.2 0.0
MORH Mrgy, Hungar 139.11 326 PKP **PKPdf** 09 20 48.0 -0.2
WINA Alland / Wiene 139.14 330 *e*PKiKP **PKiKP** 09 20 51.0 +0.4
comp=Z,1.8nm,0.3s
NKC Novy Kostel 139.17 335 *e*PKiKP **PKPdf** 09 20 44.8 -3.5
NKC Novy Kostel 139.17 335 *e*PKPpre PKPpre 09 20 44.8
NKC *e*PKPDF **PKPdf** 09 20 49.0 +0.7
RONA Rosalia, Austr 139.32 330 *e*PKiKP **PKiKP** 09 20 51.2 +0.2
comp=Z,2.1nm,0.4s
RONA *ep*PKP **pPKPdf** 09 21 19.1 0.0
comp=Z,3.6nm,0.7s
CONA Conrad Observa 139.37 330 *e*PKiKP **PKiKP** 09 20 51.3 +0.2
comp=Z,3.1nm,0.4s
CONA *i* pPKP **pPKPdf** 09 21 19.2 -0.1
comp=Z,6.7nm,1.1s
CKRC Cesky Krumlov 139.44 332 *e*PKHKP PKPpre 09 20 41.9
CKRC Cesky Krumlov 139.44 332 *e*PKPDF **PKPdf** 09 20 41.9 -6.9
CKRC *ex* x 09 20 51.8
KHC Kasperske Hory 139.53 333 *e*PKiKP **PKPdf** 09 20 43.8 -5.2
KHC Kasperske Hory 139.53 333 *e*PKPpre PKPpre 09 20 43.8
KHC *e*PKPDF **PKPdf** 09 20 48.9 -0.1
GERES GERESS Array B 139.69 333 PKHKP PKPpre 09 20 42.0
comp=Z,2.0nm,0.9s,baz=68,slow=0.5,SNR=5.1
GERES PKP **PKPdf** 09 20 50.0 +0.6
comp=Z,2.7nm,0.6s,baz=24,slow=2.8,SNR=13
GERES GERESS Array B 139.69 333 PKiKP **PKPdf** 09 20 50.0 +0.6
GRF Grafenberg Arr 140.08 336 *e*PKPdf **PKiKP** 09 20 51.7 -0.7
baz=38,slow=1.4
GRF *ep*PKPdf **pPKPdf** 09 21 17.7 -2.8
MOA Molln 140.18 331 *ep*PKP pPKPdf 09 21 20.9 +0.2
comp=Z,0.8nm,0.3s
SESA Seetaler Alpe, 140.57 330 *e*PKP **PKPdf** 09 20 51.2 0.0
comp=Z,3.4nm,0.5s
SESA *ep*PKP **pPKPdf** 09 21 21.4 -0.2
comp=Z,2.8nm,0.7s
SOKA Soboth 140.65 330 *ep*PKP pPKPdf 09 21 21.8 +0.1
comp=Z,2.6nm,0.7s
KBA Koelnbreinsper 141.17 331 *e*PKP **PKPdf** 09 20 52.0 -0.2
comp=Z,3.0nm,0.5s
KBA *ep*PKP **pPKPdf** 09 21 22.6 -0.1
comp=Z,3.7nm,0.7s
MEM Membach 141.18 341 *d*PKPdf **PKPdf** 09 20 52.3 +0.4
LESA Schwarzleotal 141.21 332 *i* PKP **PKPdf** 09 20 52.0 -0.2
comp=Z,5.4nm,0.4s
LESA *ep*PKP **pPKPdf** 09 21 22.2 -0.4
comp=Z,4.5nm,0.6s
WATA Walderalm 141.77 333 *e*PKP **PKPdf** 09 20 53.0 -0.3
comp=Z,2.2nm,0.6s
ABTA Abfaltersbach 141.79 332 *e*PKP **PKPdf** 09 20 52.7 -0.6
comp=Z,2.1nm,0.5s
WTTA Wattenberg 141.80 333 *e*PKP **PKPdf** 09 20 53.6 +0.2
comp=Z,1.2nm,0.4s
WTTA *ep*PKP **pPKPdf** 09 21 23.8 -0.1
comp=Z,2.8nm,0.4s
BMRD Maredsous 141.84 342 *d*PKPdf **PKPdf** 09 20 53.5 +0.5
BMRD *dp*PKP **pPKPdf** 09 21 24.2 +0.6
MOTA Moosalm 141.97 334 *e*PKiKP **PKiKP** 09 20 56.6 0.0
comp=Z,1.6nm,0.5s
MOTA *ep*PKP **pPKPdf** 09 21 23.8 -0.4
comp=Z,7.5nm,0.8s
RETA Reutte 142.00 334 *e*PKP **PKPdf** 09 20 52.7 -0.9
comp=Z,1.4nm,0.4s
RETA *i* PKiKP **PKiKP** 09 20 56.6 0.0
comp=Z,1.5nm,0.4s
SQTA Sankt Quirin 142.02 333 *ep*PKP pPKPdf 09 21 24.3 +0.1
comp=Z,8.5nm,0.8s
DOU Dourbes 142.07 342 *d*PKP **PKiKP** 09 20 57.2 +0.7
FETA Feichten 142.38 333 *ep*PKP pPKPdf 09 21 24.6 -0.3
comp=Z,4.8nm,0.9s
DAVOX Davos/Dischmat 142.93 334 PKP **PKPdf** 09 20 52.4 -3.0
comp=Z,8.7nm,0.5s,baz=40,slow=9.7,SNR=28
VAE Valguarnera 146.98 318 PKPbc **PKPbc** 09 21 04.2 -0.4
comp=Z,7.5nm,0.5s,baz=60,slow=20,SNR=1.8
KEST Kesra 151.25 320 PKPbc **PKPbc** 09 21 15.5 0.0
comp=Z,19nm,0.6s,baz=49,slow=3.5,SNR=15
KEST pPKPbc **pPKPbc** 09 21 46.0 +0.1
comp=Z,67nm,0.8s,baz=33,slow=2.4,SNR=11
PBRG Braganca 152.59 350 *e*PKPbc **PKiKP** 09 21 19.1 +0.6
PGAV Gavieira, Arco 152.65 353 *e*PKPbc **PKiKP** 09 21 19.6 +0.9
POLO Lamas de Olo 153.17 352 *e*PKPbc **PKiKP** 09 21 20.4 +0.7
PVRL Vila Real 153.25 352 *e*PKPbc **PKiKP** 09 21 20.8 +0.9
PTO Porto 153.50 353 *e*PKPbc **PKiKP** 09 21 20.8 +0.5
PVIS Viseu 153.83 352 *e*PKPab **PKPab** 09 21 35.0 +0.7
ESDC Sonseca Array 154.04 344 PKP **PKPdf** 09 21 12.6 -0.8
comp=Z,0.9nm,1.0s,baz=10,slow=4.0,SNR=4.6
ESDC PKPbc **PKiKP** 09 21 22.0 +0.4
comp=Z,1.5nm,0.8s,baz=16,slow=4.2,SNR=11
ESDC PKPab **PKPab** 09 21 35.6 +0.4
comp=Z,3.1nm,0.7s,baz=29,slow=4.3,SNR=5.6
MTE Manteigas 154.09 351 *e*PKPbc **PKiKP** 09 21 22.1 +0.5
PCBR Castelo Branco 154.62 351 *e*PKPab **PKPab** 09 21 38.1 +0.5
PARRA Arraiolos 155.71 351 *e*PKPab **PKPab** 09 21 43.3 +1.0
PVAQ Vaqueiros 157.04 350 *e*PKPab **PKPab** 09 21 49.8 +1.8
TORD Torodi Ar. Bea 165.90 265 PKP **PKPdf** 09 21 25.5 -1.7
comp=Z,0.7nm,0.4s,baz=90,slow=1.4,SNR=12
TORD pPKP **pPKPdf** 09 21 59.0 +1.1
comp=Z,2.4nm,0.9s,baz=60,slow=3.5,SNR=4.6
TORD PKPab **PKPab** 09 22 27.8 +0.2
comp=Z,2.2nm,0.5s,baz=92,slow=4.3,SNR=10
TORD pPKPab **pPKPab** 09 22 56.4 -0.8
comp=Z,7.1nm,0.9s,baz=92,slow=4.3,SNR=4.4
DBIC Dimbokro 168.82 225 PKP **PKPdf** 09 21 28.9 -0.4
comp=Z,5.7nm,0.9s,baz=27,slow=3.2,SNR=4.4

DBIC	**Dimbokro**	**168.82**	**225**	PKIKP	**PKPdf**	**09**	**21**	**29.0**	**-0.4**

*TXNET **29** 09:20:38.3,31.2N±0.4×103.3W±0.4,h3km,ML3.4/18, Error ellipse: s-maj=0.7km s-min=0.6km az=55.9,final Hypocentre not reviewed by the ISC*

NEIC 29 09:20:38.7±1.1,31.16N±0.02×103.257W±0.007, h5km±2km,mb_Lg3.3/137,ML3.6/86,8C-14D,Error ellipse: s-maj=4.1km s-min=2.8km az=179.0,Western Texas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TPB16	**Coyonosa**	**0.03**	**172**		Pg	09 20 39.5	-0.3
TPB16	**Coyonosa**	**0.03**	**172**	↑P		09 20 39.5	
TPB16				S		09 20 40.2	
TPB04	**Verhalen**	**0.03**	**342**		Pg	09 20 39.5	-0.4
TPB04	**Verhalen**	**0.03**	**342**	↓P		09 20 39.5	
TPB04				S		09 20 40.2	
TPB18		**0.07**	**47**		Pg	09 20 40.2	-0.1
TPB18		**0.07**	**47**	P		09 20 40.2	
TPB18				S		09 20 41.7	
TPB14		**0.09**	**106**		Pg	09 20 40.8	+0.1
TPB14		**0.09**	**106**	P		09 20 40.8	
TPB14				S		09 20 42.6	
TPB30		**0.14**	**336**		Pg	09 20 41.7	+0.2
TPB30		**0.14**	**336**	P		09 20 41.7	
TPB30				S		09 20 44.2	
TPB15	**Southwest of C**	**0.16**	**69**		Pg	09 20 42.8	+0.9
TPB17		**0.18**	**150**		Pg	09 20 42.8	+0.5
TPB17				IAML		09 20 47.7	
	7µm,0.4s						
TPB17				IAML		09 20 47.9	
	8µm,0.5s						
TPB17		**0.18**	**150**	P		09 20 42.8	
TPB17				S		09 20 46.7	
TPB19	**West of Imperi**	**0.20**	**42**	P		09 20 43.5	
TPB19				S		09 20 47.2	
TDG01		**0.22**	**357**	P		09 20 44.0	
TDG01				S		09 20 47.9	
TPB03	**Saragosa**	**0.23**	**252**	P		09 20 43.8	
TPB03				S		09 20 48.0	
TPB05	**Hovey Rd**	**0.24**	**194**		Pg	09 20 44.1	+0.7
TPB05				IAML		09 20 49.5	
	11µm,0.5s						
TPB05				IAML		09 20 49.6	
	9µm,0.3s						
TPB05	**Hovey Rd**	**0.24**	**194**	↓P		09 20 44.6	
TPB05				S		09 20 48.9	
TPB21		**0.25**	**42**	↑P		09 20 44.4	
TPB21				S		09 20 49.2	
LWM2	**Layne Water Mi**	**0.30**	**292**	↓P		09 20 45.6	
LWM2				S		09 20 50.9	
TDG03		**0.30**	**320**	P		09 20 45.6	
TDG03				S		09 20 51.1	
LWM1	**Layne Water Mi**	**0.33**	**283**	↓P		09 20 46.1	
LWM1				S		09 20 52.1	
PCOS	**Crockett Middl**	**0.33**	**319**		Pg	09 20 46.0	+0.8
TPB08	**Permian Basin**	**0.40**	**131**		Pb	09 20 47.5	-0.8
TPB08	**Permian Basin**	**0.40**	**131**	P		09 20 47.5	
TPB08				S		09 20 54.1	
TPB10	**Southeast of T**	**0.45**	**287**		Pg	09 20 47.8	+0.5
TPB10	**Southeast of T**	**0.45**	**287**	↓P		09 20 47.8	
TPB10				S		09 20 54.9	
MNHN	**Monahans**	**0.46**	**66**		Pg	09 20 47.5	-0.1
MNHN				Sg	Sg	09 20 54.7	+1.0
TPB06	**Permian Basin**	**0.49**	**4**	P		09 20 48.7	
TPB06				S		09 20 56.1	
TPB06	**Permian Basin**	**0.49**	**4**		Pg	09 20 48.9	+0.7
TPB06				IAML		09 21 00.4	
	2µm,0.8s						
TPB01	**Permian Basin**	**0.50**	**245**		Pg	09 20 48.3	0.0
TPB01				IAML		09 21 03.7	
	3µm,0.5s						
TPB01				IAML		09 21 04.7	
	3µm,0.5s						
TPB01	**Permian Basin**	**0.50**	**245**	↓P		09 20 48.4	
TPB01				S		09 20 55.9	
TPB07	**Mentone**	**0.55**	**320**		Pb	09 20 50.1	-0.7
TPB07				IAML		09 21 08.3	
	2µm,0.7s						
TPB07	**Mentone**	**0.55**	**320**	P		09 20 49.6	
TPB07				S		09 20 58.1	
PECS	**Pecos**	**0.56**	**292**		Pg	09 20 49.9	+0.4
TPB12	**Southwest of T**	**0.60**	**276**		Pg	09 20 50.4	+0.1
TPB12	**Southwest of T**	**0.60**	**276**	↓P		09 20 50.4	
TPB12				S		09 20 59.4	
ALPN	**Alpine**	**0.84**	**203**		Pg	09 20 54.8	-0.1
TPB11	**China Draw**	**1.02**	**320**		Pg	09 20 58.3	0.0
TPB11	**China Draw**	**1.02**	**320**	S		09 21 12.3	
TMB02	**Rankin**	**1.05**	**87**		Pg	09 20 58.7	-0.1
TMB02	**Rankin**	**1.05**	**87**	P		09 20 58.7	
TPB09	**Culberson Coun**	**1.08**	**305**		Pg	09 20 59.1	-0.4
TPB09	**Culberson Coun**	**1.08**	**305**	P		09 20 59.1	
TMB01	**Midkiff**	**1.13**	**63**		Pg	09 21 00.1	-0.2
TMB01	**Midkiff**	**1.13**	**63**	P		09 20 59.9	
TMB01				S		09 21 15.8	
ODSA	**Odessa**	**1.14**	**32**		Pg	09 20 59.9	-0.6
ODSA				IAML		09 21 25.8	
	799nm,1.1s						
ODSA				IAML		09 21 28.8	
	1µm,0.8s						
TPB28		**1.18**	**296**		Pg	09 21 00.4	-0.9
TPB28				IAmb_Lg		09 21 16.2	
	comp=Z,15nm,0.8s						
TPB28				IAML		09 21 33.3	
	comp=Z,182nm,0.5s						
TPB28				IAML		09 21 41.0	
	comp=Z,206nm,0.8s						
NM01	**Eunice**	**1.20**	**354**	P		09 21 01.7	
NM01				S		09 21 18.0	
TMB07		**1.20**	**45**	↑P		09 21 01.3	
TMB07				S		09 21 18.2	
CLNB	**Carlsbad**	**1.23**	**335**		Pg	09 21 02.1	-0.1
GDL2	**Guadalupe Moun**	**1.41**	**318**		Pn	09 21 05.1	0.0
229A	**Bryant Ranch,**	**1.48**	**56**		Pn	09 21 06.3	+0.3
229A				IAML		09 21 28.9	
	comp=Z,461nm,0.5s						
TMB06	**Greenwood**	**1.49**	**56**	↑P		09 21 06.3	
TMB06				S		09 21 26.2	
VHRN	**Van Horn**	**1.53**	**257**		Pn	09 21 07.0	+0.2
VHRN				IAML		09 21 32.9	
	comp=Z,424nm,0.8s						
VHRN				IAML		09 21 35.0	
	comp=Z,571nm,0.4s						
SAND	**Sanderson**	**1.54**	**140**		Pb	09 21 08.1	+0.2
128A	**Castleberry Fa**	**1.60**	**24**		Pn	09 21 07.9	+0.2
128A				IAML		09 21 33.6	
	comp=Z,491nm,0.5s						
128A				IAML		09 21 35.1	
	comp=Z,405nm,0.4s						
TMB04	**Seminole**	**1.60**	**24**	P		09 21 07.9	
TMB04				S		09 21 29.9	
OZNA	**Ozona**	**1.84**	**97**		Pb	09 21 12.5	-0.5
OZNA				IAML		09 21 39.1	
	comp=Z,617nm,0.4s						
OZNA				IAML		09 21 43.1	
	comp=Z,450nm,0.7s						
TX31	**Lajitas Ar. Si**	**1.85**	**191**	Pn	Pb	09 21 12.6	-0.5
TXAR	**Lajitas Array**	**1.85**	**191**		Pn	09 21 11.9	+0.7
129A	**Stewart Farms,**	**1.89**	**38**		Pb	09 21 13.0	-0.7
TMB05	**Klondike**	**1.89**	**39**	P		09 21 12.7	
TMB05				S		09 21 38.5	
MNTX	**Cornudas Mount**	**1.90**	**287**		Pb	09 21 13.1	-0.7
CPRX	**Cap Rock**	**1.94**	**345**		Pb	09 21 14.5	-0.1
SGCY	**Sterling City**	**1.97**	**67**		Pb	09 21 14.3	-0.7
SGCY				IAmb_Lg		09 21 43.7	
	comp=Z,174nm,0.7s						
SGCY				IAML		09 21 47.0	
	comp=Z,698nm,1.1s						
SGCY				IAML		09 21 47.0	
	comp=Z,561nm,1.0s						
POST	**Post**	**2.42**	**38**		Pn	09 21 20.2	+1.2
POST				IAML		09 22 01.8	
	comp=Z,468nm,0.6s						
SN07	**Snyder 07**	**2.78**	**46**		Pn	09 21 25.0	+1.0
MSTX	**Muleshoe**	**2.84**	**8**		Pn	09 21 25.1	+0.4
MSTX				IAmb_Lg		09 22 10.4	
	comp=Z,76nm,0.7s						
JCT	**Junction City**	**3.05**	**102**		Pn	09 21 28.8	+1.2
JCT				IAML		09 22 18.8	
	comp=Z,308nm,0.4s						
JCT				IAML		09 22 24.6	
	comp=Z,292nm,0.6s						
DKNS	**Dickens**	**3.19**	**38**		Pn	09 21 29.9	+0.4
DKNS				IAML		09 22 28.8	
	comp=Z,338nm,0.6s						
APMT	**Aspermont**	**3.43**	**50**		Pn	09 21 33.2	+0.4
APMT				IAmb_Lg		09 22 35.4	
	comp=Z,114nm,1.0s						
BRDY	**Brady**	**3.65**	**87**		Pn	09 21 37.2	+1.3
BRDY				IAML		09 22 39.9	
	comp=Z,139nm,0.6s						
BRDY				IAML		09 22 44.2	
	comp=Z,115nm,0.6s						
HNDO	**Hondo**	**3.80**	**114**		Pn	09 21 40.5	+2.6
HNDO				IAML		09 22 44.8	
	comp=Z,179nm,0.6s						
HNDO				IAML		09 22 47.5	
	comp=Z,144nm,1.1s						
HNDO				IAmb_Lg		09 22 47.6	
	comp=Z,75nm,0.7s						
AMTX	**Amarillo**	**3.95**	**19**		Pn	09 21 41.0	+0.9
AMTX				IAmb_Lg		09 22 47.1	
	comp=Z,66nm,0.8s						
CRNM	**Carthage**	**4.05**	**314**		Pn	09 21 43.6	+2.1
121A	**Cookes Peak, D**	**4.09**	**291**		Pn	09 21 43.8	+1.7
121A				IAML		09 22 59.1	
	comp=E,87nm,0.7s						
121A				IAML		09 23 04.0	
	comp=N,90nm,0.7s						
Y22A	**Socorro**	**4.18**	**313**		Pn	09 21 45.3	+1.9
Y22A				IAML		09 22 54.5	
	comp=E,103nm,0.9s						
Y22A				IAML		09 22 57.8	
	comp=N,68nm,0.7s						
SBM	**South Baldy**	**4.34**	**311**	Pn	Pn	09 21 46.7	+1.0
PH02	**Texas Public H**	**4.36**	**14**	IAmb_Lg		09 23 05.5	
	comp=Z,86nm,0.8s						
833A	**Chaparral WMA,**	**4.39**	**129**	IAmb_Lg		09 23 06.9	
	comp=Z,73nm,1.1s						
PLPT	**Palo Pinto**	**4.51**	**67**		Pn	09 21 48.0	+0.3
PLPT				IAmb_Lg		09 23 11.5	
	comp=Z,76nm,0.8s						
ALQ	**Albuquerque**	**4.63**	**325**	IAmb_Lg		09 23 07.3	
	comp=Z,26nm,0.7s						
ALQ	**Albuquerque**	**4.63**	**325**	IAmb_Lg		09 23 05.6	
	comp=Z,41nm,1.0s						
ALQ				IAmb_Lg		09 23 05.7	
	comp=Z,39nm,1.0s						
ANMO	**Albuquerque**	**4.64**	**325**	IAmb_Lg		09 23 12.3	
	comp=Z,26nm,0.7s						
TASM	**ASL Pad, Albuq**	**4.64**	**325**	IAmb_Lg		09 23 12.7	
TASM	comp=Z,26nm,0.8s			IAmb_Lg		09 23 12.7	
	comp=Z,27nm,0.8s						
SMWD	**Samnorwood**	**4.68**	**32**	Pn	Pn	09 21 50.7	+0.6
HPIG		**4.70**	**207**		Pn	09 21 51.4	+0.8
HPIG				IAML		09 23 16.3	
	comp=N,26nm,0.6s						
HPIG				IAML		09 23 20.1	
	comp=E,33nm,0.5s						
WTFS	**Witchita Falls**	**4.81**	**56**		Pn	09 21 52.8	+0.9
435B	**Jarrell**	**4.89**	**93**	Pn	Pn	09 21 53.2	+0.4
FW13	**Cleburne**	**5.10**	**75**		Pn	09 21 56.8	+1.0
FW13				IAmb_Lg		09 23 34.8	
	comp=Z,67nm,0.9s						
EF04	**Eagle Ford 04**	**5.12**	**111**	Pn	Pn	09 21 57.0	+1.0
DUN6	**Lazy B Ranch**	**5.16**	**287**	Pn	Pn	09 21 57.7	+1.1
319A	**Douglas**	**5.16**	**274**		Pn	09 21 57.6	+0.8
319A				IAML		09 23 32.3	
	comp=E,75nm,0.7s						
319A				IAML		09 23 37.8	
	comp=N,67nm,0.7s						
FW06	**Azle**	**5.17**	**68**		Pn	09 21 56.8	+0.1
WMOK	**Wichita Mounta**	**5.19**	**45**		Pn	09 21 57.4	+0.4
WMOK				IAmb_Lg		09 23 30.2	
	comp=Z,54nm,0.8s						
WMOK				IAML		09 23 33.2	
	comp=Z,49nm,0.9s						
WMOK				IAML		09 23 35.6	
	comp=Z,63nm,0.6s						
MLDN	**Muldoon**	**5.51**	**103**	IAmb_Lg		09 23 42.1	
	comp=Z,61nm,0.7s						
Z35A	**Pechaven, San**	**5.53**	**65**		Pn	09 22 01.6	0.0
X34A	**Smith Ranch, M**	**5.71**	**52**		Pn	09 22 05.2	+1.0
ELIS	**Ellis County**	**5.85**	**32**	IAmb_Lg		09 23 49.6	
	comp=Z,56nm,0.8s						
TREL	**Terrell**	**6.29**	**74**	IAmb_Lg		09 24 11.4	
	comp=Z,62nm,0.7s						
TUC	**Tucson**	**6.51**	**282**	IAmb_Lg		09 24 16.5	
	comp=Z,5.3nm,0.8s						
NOKA	**Waynoka**	**6.54**	**32**	IAmb_Lg		09 24 24.8	
	comp=Z,32nm,0.8s						
W35A	**Tecumseh**	**6.67**	**52**	IAmb_Lg		09 24 23.3	
	comp=Z,37nm,0.9s						
CROK	**Carrier**	**6.91**	**38**	IAmb_Lg		09 24 29.9	
	comp=Z,29nm,0.8s						
OK052	**Battle Ridge R**	**7.23**	**46**	IAmb_Lg		09 24 44.3	
	comp=Z,23nm,0.8s						
Z38A	**Mt. Pleasant**	**7.32**	**71**	IAmb_Lg		09 24 42.2	
	comp=Z,47nm,0.7s						
DEOK	**Depew**	**7.33**	**49**	IAmb_Lg		09 24 43.4	
	comp=Z,22nm,0.8s						
NATX	**Nacogdoches**	**7.37**	**83**	IAmb_Lg		09 24 46.1	
	comp=Z,24nm,0.8s						
SNAG	**San Augustine**	**7.77**	**85**	IAmb_Lg		09 24 53.4	
	comp=Z,24nm,0.9s						
KSCO	**Kaye Shedlock'**	**7.86**	**4**	IAmb_Lg		09 25 00.4	
	comp=Z,29nm,0.8s						
R32A	**Long Quarter,**	**8.16**	**26**	IAmb_Lg		09 25 19.6	
	comp=Z,20nm,0.8s						
CBKS	**Cedar Bluff**	**8.17**	**20**	IAmb_Lg		09 25 15.5	
	comp=Z,25nm,0.9s						
MIAR	**Mount Ida**	**8.82**	**65**	IAmb_Lg		09 25 30.1	
	comp=Z,21nm,0.8s						

*BER **29** 09:28:11.9±3.0,78.97N×19.92W,h10km,Mw4.9, ML3.1(DNK),Confirmed Earthquake*
*DNK **29** 09:28:13.2±2.0,78.96N×19.71W,h31km±13km,ML3.1, Presumed earthquake*

ISC 29 09:28:07.1±0.8,79.08N±0.04×19.79W±0.06,h10km,n19, σ2s08/30,Eastern Kalaallit Nunaat

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAG	**Danmarks Havn**	**2.34**	**174**	*e*P	**Pn**	**09**	**28**	**47.3**	**+1.9**
DAG				*i* S	**Sn**	**09**	**29**	**13.3**	**-0.8**
DAG				IAML		09	29	21.4	
	comp=Z,640nm,0.4s								
DAG	**Danmarks Havn**	**2.34**	**174**	*e*P	**Pn**	**09**	**28**	**47.3**	**+1.9**
DAG				*i* S	**Sn**	**09**	**29**	**13.3**	**-0.8**
DAG				IAML		09	29	21.4	
	comp=Z,640nm,0.4s								
NOR	**Nord**	**2.59**	**10**	*i* P	**Pb**	**09**	**28**	**54.7**	**+1.3**
NOR				*i* S	**Sb**	**09**	**29**	**25.6**	**+0.4**
NOR				IAML		09	29	34.2	
	comp=Z,215nm,0.5s								
NOR	**Nord**	**2.59**	**10**	*i* P	**Pb**	**09**	**28**	**54.7**	**+1.3**
NOR				*i* S	**Sb**	**09**	**29**	**25.6**	**+0.4**
NOR				IAML		09	29	34.2	
	comp=Z,215nm,0.5s								
DBG	**Daneborg**	**4.80**	**181**	*i* P	**Pn**	**09**	**29**	**21.0**	**+1.6**
DBG				*i* S	**Sn**	**09**	**30**	**11.8**	**-3.1**
DBG				IAML		09	30	45.3	
	comp=Z,104nm,0.8s								
DBG	**Daneborg**	**4.80**	**181**	*i* P	**Pn**	**09**	**29**	**21.0**	**+1.6**
DBG				*i* S	**Sn**	**09**	**30**	**11.8**	**-3.1**
DBG				IAML		09	30	45.3	
	comp=Z,104nm,0.8s								
KBS	**Kingsbay**	**6.02**	**76**	*i* P	**Pn**	**09**	**29**	**37.8**	**+1.8**
KBS				*i* S	**Sn**	**09**	**30**	**41.9**	**-2.9**
KBS	**Kingsbay**	**6.02**	**76**	*i* P	**Pn**	**09**	**29**	**37.8**	**+1.8**
KBS				*i* S	**Sn**	**09**	**30**	**41.9**	**-2.9**
NEEM	**North Greenlan**	**6.52**	**271**	*i* P	**Pn**	**09**	**29**	**46.4**	**+3.2**
NEEM				*i* S	**Sn**	**09**	**30**	**54.8**	**-2.9**
NEEM				IAML		09	31	40.8	
	comp=Z,42nm,0.6s								
NEEM	**North Greenlan**	**6.52**	**271**	*i* P	**Pn**	**09**	**29**	**46.4**	**+3.2**
NEEM				*i* S	**Sn**	**09**	**30**	**54.8**	**-2.9**
NEEM				IAML		09	31	40.8	
	comp=Z,42nm,0.6s								
SPA0	**Spitsbergen Ar**	**7.11**	**79**	*e*P	**Pn**	**09**	**29**	**54.0**	**+3.0**
SPA0				*e*S	**Sn**	**09**	**31**	**09.4**	**-2.4**
SUMG	**Summit**	**7.92**	**224**	*i* P	**Pn**	**09**	**30**	**03.0**	**+0.6**
SUMG				*i* S	Sn	09	31	23.8	-8.3
SUMG				IAML		09	32	29.0	
	comp=Z,14nm,0.7s								
SUMG	**Summit**	**7.92**	**224**	*i* P	**Pn**	**09**	**30**	**03.0**	**+0.6**
SUMG				*i* S	Sn	09	31	23.8	-8.3
SUMG				IAML		09	32	29.0	
	comp=Z,14nm,0.7s								
SCO	**Scoresbysund**	**8.67**	**185**	*i* P	**Pn**	**09**	**30**	**13.5**	**+1.3**
SCO				*i* S	Sn	09	31	39.7	-10
SCO				IAML		09	31	46.2	
	comp=Z,44nm,3.4s								
SCO	**Scoresbysund**	**8.67**	**185**	*i* P	**Pn**	**09**	**30**	**13.5**	**+1.3**
SCO				*i* S	Sn	09	31	39.7	-10
SCO				IAML		09	31	46.2	
	comp=Z,44nm,3.4s								
KULLO	**Kullorsuaq**	**9.47**	**261**	*i* P	**Pn**	**09**	**30**	**24.0**	**+0.7**
KULLO	**Kullorsuaq**	**9.47**	**261**	*i* P	**Pn**	**09**	**30**	**24.0**	**+0.7**
UPNV	**Upernavik**	**10.63**	**253**	*i* P	**Pn**	**09**	**30**	**38.5**	**-0.6**
UPNV	**Upernavik**	**10.63**	**253**	*i* P	**Pn**	**09**	**30**	**38.5**	**-0.6**

IDC 29 09:47:01.5±2.1,32.65S×178.57W,h0km,mb3.6/3, mbtmp3.6/3,Error ellipse: s-maj=62.6km s-min=41.5km az=41.0,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**42.56**	**270**	P	P	09 54 59.0	-0.2
	0.3nm,0.7s,baz=114,slow=7.9,SNR=5.3						
	0.3nm,0.7s						
WRA	**Warramunga Arr**	**43.75**	**275**	P	P	09 55 08.9	-0.1
	0.6nm,0.5s,baz=115,slow=8.0,SNR=7.0						
	0.6nm,0.5s						
QSPA	**South Pole Qui**	**57.47**	**180**	P	P	09 56 52.0	-0.1
	0.8nm,0.8s,baz=50,slow=1.9,SNR=2.3						
	0.8nm,0.8s						
FINES	**FINESS Array B**	**147.06**	**338**	PKPbc	PKPbc	10 06 44.8	-0.8
	2.1nm,0.8s,baz=42,slow=2.3,SNR=6.9						

*RSNC **29** 09:57:56.8±0.0,7.7N±3.3×7.7W±.7,h145km±5km,M3.4, mB4.5,mb3.9,ML3.0,Mw(mB)3.7*
*CATAC **29** 09:57:57.7±0.9,7.7N±3.3×7.7W±.7,h148km±8km,M3.6/9, mb3.6/1,MLv3.5/9,Error ellipse: s-maj=18.2km s-min=5.8km az=80.7,confirmed*
*IDC **29** 09:57:59.4±4.6,6.67N×73.41W,h186km±33km,mb3.3/2, mbtmp3.9/3,Error ellipse: s-maj=129.0km s-min=39.1km az=93.0*

ISC 29 09:57:56.4±0.9,6.85N±0.03×73.10W±0.04,h154km±6km, n46,σ1s50/83,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.27**	**198**	P	**Pn**	**09**	**58**	**17.8**	**+0.2**
BARC				S	**Sn**	**09**	**58**	**32.5**	**-1.2**
BRJC	**Barrancabermej**	**0.65**	**281**	P	**Pn**	**09**	**58**	**19.5**	**+0.6**
BRJC				S	**Sn**	**09**	**58**	**35.9**	**-0.2**
RUSC	**La Rusia**	**0.95**	**179**	P	**Pn**	**09**	**58**	**21.8**	**0.0**
RUSC				S	**Sn**	**09**	**58**	**40.8**	**-0.2**
RUSC	**La Rusia**	**0.95**	**179**	P	**Pn**	**09**	**58**	**21.7**	**0.0**
RUSC				S	**Sn**	**09**	**58**	**40.3**	**-0.7**
TAMC	**Tame, Arauca**	**1.36**	**108**	P	**Pn**	**09**	**58**	**26.0**	**+1.1**
TAMC				S	**Sn**	**09**	**58**	**47.7**	**+1.1**
PTBC	**PUERTO BERRIO,**	**1.38**	**257**	P	**Pn**	**09**	**58**	**24.4**	**-0.6**
PTBC				S	**Sn**	**09**	**58**	**45.7**	**-1.3**
OCAC	**Ocana**	**1.39**	**351**	P	**Pn**	**09**	**58**	**26.1**	**+0.8**
OCAC				S	**Sn**	**09**	**58**	**47.8**	**+0.3**
SPBC	**San Pablo de B**	**1.54**	**219**	P	**Pn**	**09**	**58**	**26.7**	**0.0**
SPBC				S	**Sn**	**09**	**58**	**49.4**	**-0.6**
ZARC	**Zaragoza, Cauc**	**1.86**	**290**	P	**Pn**	**09**	**58**	**30.3**	**+0.2**
ZARC				S	**Sn**	**09**	**58**	**55.9**	**-0.1**
CHIC	**Chingaza**	**2.30**	**196**	P	**Pn**	**09**	**58**	**35.9**	**+0.3**
CHIC				S	**Sn**	**09**	**59**	**05.8**	**-0.1**
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**09**	**58**	**37.5**	**+1.4**
	133nm,0.4s,baz=37,slow=20,SNR=210								
ROSC				S	**Sn**	**09**	**59**	**07.6**	**+0.8**
	115nm,0.3s,baz=24,slow=20,SNR=12								
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**09**	**58**	**37.6**	**+1.4**
ROSC				S	**Sn**	**09**	**59**	**07.8**	**+1.0**
CVER	**Cruz Verde, Cu**	**2.51**	**203**	P	**Pn**	**09**	**58**	**39.5**	**+1.2**
CVER				S	**Sn**	**09**	**59**	**11.5**	**+0.9**
UREC	**San Jos de Ur**	**2.58**	**290**	P	**Pn**	**09**	**58**	**38.0**	**-0.6**
UREC				S	**Sn**	**09**	**59**	**09.3**	**-1.9**
GUY2C	**Guyana, Caldas**	**2.77**	**234**	P	**Pn**	**09**	**58**	**42.4**	**+0.9**
GUY2C				S	**Sn**	**09**	**59**	**16.0**	**-0.4**
PTGC	**Puerto Gaitan,**	**2.81**	**160**	P	**Pn**	**09**	**58**	**40.8**	**-0.7**
PTGC				S	**Sn**	**09**	**59**	**14.0**	**-2.4**
NIZA	**Niza - Manizal**	**2.96**	**233**	P	**Pn**	**09**	**58**	**45.6**	**+2.0**
NIZA				S	**Sn**	**09**	**59**	**23.6**	**+3.4**
CBOC	**Ciudad Bolivar**	**3.06**	**251**	P	**Pn**	**09**	**58**	**45.9**	**+1.1**
CBOC				S	**Sn**	**09**	**59**	**21.1**	**-1.1**
SDV	**Santo Domingo**	**3.17**	**50**	P	**Pn**	**09**	**58**	**47.3**	**+1.1**
SDV				S	**Sn**	**09**	**59**	**24.2**	**-0.6**
ARGC	**Ariguani, Magd**	**3.19**	**339**	P	**Pn**	**09**	**58**	**48.7**	**+2.3**
ARGC				S	**Sn**	**09**	**59**	**26.1**	**+1.3**
PRAC	**Prado**	**3.59**	**210**	P	**Pn**	**09**	**58**	**52.0**	**+0.5**
PRAC	**Prado**	**3.59**	**210**	P	**Pn**	**09**	**58**	**51.0**	**-0.5**
PRAC				S	**Sn**	**09**	**59**	**33.0**	**-1.3**
APAC	**Apartado, Choc**	**3.61**	**287**	P	**Pn**	**09**	**58**	**51.8**	**+0.2**
APAC				S	**Sn**	**09**	**59**	**33.4**	**-1.1**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**09**	**58**	**52.0**	**+0.1**
ORTC				S	**Sn**	**09**	**59**	**34.8**	**-0.2**
SJCC	**San Jacinto, C**	**3.66**	**326**	P	**Pn**	**09**	**58**	**52.3**	**0.0**
SJCC				S	**Sn**	**09**	**59**	**33.8**	**-2.1**
SJCC	**San Jacinto, C**	**3.66**	**326**	P	**Pn**	**09**	**58**	**51.9**	**-0.5**
SJCC				S	**Sn**	**09**	**59**	**32.8**	**-3.1**
PLMC	**San Jos del P**	**3.71**	**239**	P	**Pn**	**09**	**58**	**53.7**	**+0.6**
PLMC				S	**Sn**	**09**	**59**	**35.8**	**-1.3**
LCBC	**Los crdobas,**	**3.80**	**302**	P	**Pn**	**09**	**58**	**54.5**	**+0.3**
LCBC				S	**Sn**	**09**	**59**	**40.3**	**+1.2**
URMC	**La Uribe, Meta**	**3.80**	**200**	P	**Pn**	**09**	**58**	**54.6**	**+0.3**
URMC				S	**Sn**	**09**	**59**	**38.5**	**-0.8**
CRJC	**Cerrejon, Guaj**	**4.15**	**3**	P	**Pn**	**09**	**58**	**58.3**	**-0.4**
CRJC				S	**Sn**	**09**	**59**	**45.0**	**-2.3**
GUVC	**San Jose del G**	**4.30**	**174**	P	**Pn**	**09**	**58**	**

MwMwp4.6/1,Mwp5.0/1
VAO ***29*** *10:37:06.7±0.4,5˚22S×78˚67W,h10km,mb4.9, Presumed earthquake*
RSNC ***29*** *10:37:08.5±0.5,5˚S±4˚×7˚9W±˚, h47km±8km, M5.2, mb5.3, mB5.6, ML4.6, Mw(mB)5.1, MwMwp4.7, Mwp5.0*
GCMT ***29*** *10:37:09.0±0.4,4˚98S±0˚02×78˚91W±0˚02, h30km±1km, MW4.9/85, Moment Tensor Solution. s19,c23; s85,c113; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr=0.12±.21; Mθθ2.58±.13; Mϕϕ-2.46±.16; Mrθ0.96±.20; Mϕθ-1.85±.10; Mrϕ0.38±.25; Best double couple: M₀3.29200×10¹⁶ NP1:ϕs153.00000°, δ72.00000°, λ1.00000°. NP2: ϕs63.00000°, δ90.00000°, λ162.00000°. Principal axes: T 3.3730, Plg13.0000°, Azm17.0000°; N -0.1580, Plg72.0000°, Azm242.0000°; P -3.2110, Plg12.0000°, Azm110.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NEIC ***29*** *10:37:10.0±1.4,5˚20S±0˚06×78˚9W±0˚1, h53km±7km, mb4.7/108 Error ellipse: s-maj=15.1km s-min=8.7km az=72.0*
GFZ ***29*** *10:37:11.1±0.1,5˚S±3˚×7˚9W±˚, h58km, M4.8/45, mb4.7/45*
CATAC ***29*** *10:37:13.0±0.9,5˚S±5˚×7˚8W±˚, h1km, M5.3/7, mb5.0/7, mB5.2/6, MLv5.9/5, Mw(mB)4.6/6, Error ellipse: s-maj=13.3km s-min=11.7km az=94.4, confirmed*

ISC 29 10:37:04.2±0.3,5˚19S±0˚03×79˚04W±0˚05, h10km, n355, σ1°69/340, mb4.7/82, MS3.8/29, 26C-6D, Northern Peru

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
ZUMB	**Zumba**	**0.34**	**341**	P	**Pg**	**10 37 09.5**	**-1.6**
GONZ	**Gonzanam**	**1.01**	**339**	↑P	**Pg**	**10 37 21.5**	**-2.3**
GONZ				S	**Sg**	**10 37 34.5**	**-2.5**
ATAH	**Atahualpa**	**2.03**	**162**	Pn	**Pb**	**10 37 42.0**	**+0.4**
	2µm,0.4s,baz=360,slow=7.1,SNR=1873						
ATAH				Sn	**Sg**	**10 38 10.1**	**+0.3**
	502nm,0.3s,baz=63,slow=22,SNR=9.7						
BOSC	**San Juan Bosco**	**2.10**	**15**	↑P	**Pn**	**10 37 40.0**	**+0.4**
BOSC				S	**Sn**	**10 38 07.7**	**+1.9**
ISPG	**Isla Puna-Puer**	**2.48**	**333**	↓P	**Pn**	**10 37 46.9**	**+2.1**
ISPG				S	**Sb**	**10 38 21.5**	**+1.9**
MORR	**Playas El Morr**	**2.85**	**333**	↓P	**Pn**	**10 37 51.0**	**+1.2**
MORR				S	**Sb**	**10 38 29.3**	**-0.8**
TAIS	**Taisha**	**3.18**	**29**	↑P	**Pn**	**10 37 57.0**	**+2.6**
SANGA	**Volcan Sangay**	**3.19**	**12**	↑P	**Pn**	**10 37 58.8**	**+3.9**
JSCH	**Cashca Totoras**	**3.45**	**1**	↑P	**Pn**	**10 38 00.9**	**+2.4**
SALI	**Salinas**	**3.57**	**327**	↓P	**Pn**	**10 37 59.7**	**+0.1**
TAMH	**Tambohuasha Ch**	**3.63**	**4**	↑P	**Pn**	**10 38 04.2**	**+3.2**
CHSH	**Refugio Sur-Vo**	**3.67**	**3**	P	**Pn**	**10 38 05.7**	**+4.0**
CHSH				S	**Sb**	**10 38 53.8**	**-0.8**
CHSH	**Refugio Sur-Vo**	**3.67**	**3**	↑P	**Pn**	**10 38 04.8**	**+3.1**
BPAT	**Tungurahua Vol**	**3.71**	**9**	↑P	**Pn**	**10 38 05.4**	**+3.3**
BBIL	**Ulba Tungurahu**	**3.75**	**8**	P	**Pn**	**10 38 06.2**	**+3.6**
PUYO	**Puyo, Santa Ro**	**3.81**	**15**	P	**Pn**	**10 38 07.0**	**+3.9**
PUYO				S	**Sn**	**10 38 50.9**	**+2.8**
PUYO	**Puyo, Santa Ro**	**3.81**	**15**	↑P	**Pn**	**10 38 06.6**	**+3.5**
PPLP	**Puerto Lpez**	**4.02**	**334**	P	**Pn**	**10 38 06.0**	**+0.1**
PPLP	**Puerto Lpez**	**4.02**	**334**	P	**Pn**	**10 38 06.3**	**+0.4**
PPLP				S	**Sn**	**10 38 53.7**	**+0.6**
JIPI	**JIPIJAPA**	**4.09**	**338**	P	**Pn**	**10 38 08.2**	**+1.2**
PIS1	**Pisayambo**	**4.16**	**9**	P	**Pn**	**10 38 11.5**	**+3.2**
PIAT	**Ana Tenorio**	**4.24**	**11**	↑P	**Pn**	**10 38 12.7**	**+3.4**
PIAT	**Ana Tenorio**	**4.24**	**11**	P	**Pn**	**10 38 12.6**	**+3.4**
ARDO	**Archidona, Ten**	**4.35**	**17**	↑P	**Pn**	**10 38 12.8**	**+2.3**
ISPT	**Isla de la Pla**	**4.40**	**332**	P	**Pn**	**10 38 11.2**	**0.0**
VCES	**Cotopaxi**	**4.41**	**8**	P	Pn	10 38 16.2	+4.4
VCES				S	**Sn**	**10 39 08.6**	**+5.2**
VCES	**Cotopaxi**	**4.41**	**8**	↑P	**Pn**	**10 38 15.2**	**+3.4**
ILLI	**Illinizas Sur**	**4.46**	**4**	P	**Pn**	**10 38 15.5**	**+3.1**
SLOR	**San Lorenzo -**	**4.46**	**7**		**Pn**	**10 38 15.5**	**+3.1**
BMOR	**Cotopaxi Volca**	**4.47**	**7**	↑P	**Pn**	**10 38 15.8**	**+3.2**
BREF	**Cotopaxi Volca**	**4.53**	**8**	↑P	**Pn**	**10 38 16.9**	**+3.4**
BTAM	**Cotopaxi Volca**	**4.53**	**8**	↑P	**Pn**	**10 38 17.1**	**+3.6**
BVC2	**Cotopaxi Volca**	**4.54**	**8**	↑P	**Pn**	**10 38 16.9**	**+3.3**
ANTM	**Antisana-La Mi**	**4.69**	**10**	↑P	**Pn**	**10 38 19.1**	**+3.4**
ANTG	**Antisana-Guama**	**4.72**	**10**	↑P	**Pn**	**10 38 19.2**	**+3.2**
ANTS	**Antisana-Sarah**	**4.74**	**11**	↑P	**Pn**	**10 38 20.0**	**+3.6**
FLF1	**Flavio Alfaro-**	**4.87**	**350**	P	**Pn**	**10 38 19.0**	**+1.4**
FLF1	**Flavio Alfaro-**	**4.87**	**350**	P	**Pn**	**10 38 19.1**	**+1.4**
GGPT	**Toaza - Volcan**	**4.95**	**5**	↑P	**Pn**	**10 38 22.5**	**+3.4**
CAB1	**Cabo Pasado-Ma**	**4.97**	**344**	P	**Pn**	**10 38 22.2**	**+3.2**
GGPC	**Guagua Pichinc**	**5.00**	**5**	↑P	**Pn**	**10 38 22.8**	**+3.0**
TERV	**Terraza Guagua**	**5.00**	**5**	↑P	**Pn**	**10 38 23.2**	**+3.3**
PUEM	**Granja Avicola**	**5.06**	**8**	↑P	**Pn**	**10 38 24.1**	**+3.6**
PULU	**Pululahua**	**5.20**	**6**	P	**Pn**	**10 38 25.3**	**+2.8**
ANGU	**Angureal**	**5.30**	**11**	P	**Pn**	**10 38 27.7**	**+3.6**
OTAV	**Otavalo**	**5.42**	**6**		**Pn**	**10 38 28.8**	**+3.2**
OTAV	**Otavalo**	**5.42**	**6**	↑P	**Pn**	**10 38 28.3**	**+2.7**
OTAV	**Otavalo**	**5.42**	**6**	P	**Pn**	**10 38 28.1**	**+2.5**
	3µm7µm613nm,0.8s						
OTAV				AML	AML		
OTAV	**Otavalo**	**5.42**	**6**	P	**Pn**	**10 38 29.7**	**+4.0**
	comp=Z,620nm,0.8s						
OTAV	**Otavalo**	**5.42**	**6**	*e*P	**Pn**	**10 38 28.3**	**+2.7**
PAC1	**Pacto, Paraso**	**5.42**	**3**	P	**Pn**	**10 38 28.3**	**+2.9**
PAC1	**Pacto, Paraso**	**5.42**	**3**	P	Pn	10 38 30.2	+4.8
	comp=Z,25µmcomp=Z,2µm,1.1s						
PAC1				AML	AML		
IMBA	**Imbabura, San**	**5.49**	**9**	↑P	**Pn**	**10 38 30.4**	**+3.8**
CUSE	**Cuicocha Este**	**5.50**	**7**	P	**Pn**	**10 38 30.6**	**+4.0**
	comp=Z,10µmcomp=Z,758nm,0.9s						
CUSE				AML	AML		
CUIC	**Cuicocha-Domo**	**5.50**	**7**	P	**Pn**	**10 38 30.1**	**+3.4**
COTA	**Cotacachi**	**5.53**	**7**	P	**Pn**	**10 38 30.8**	**+3.6**
YAHU	**Yahuarcocha**	**5.61**	**10**	P	**Pn**	**10 38 31.6**	**+3.5**
URCU	**Urcuqui**	**5.64**	**8**	P	**Pn**	**10 38 31.7**	**+3.1**
LNGL	**El Angel-Carch**	**5.98**	**10**	P	**Pn**	**10 38 36.5**	**+3.1**
TULM	**Tulcn-Chalpat**	**6.00**	**12**	P	**Pn**	**10 38 37.4**	**+3.8**
TULM	**Tulcn-Chalpat**	**6.00**	**12**	P	**Pn**	**10 38 36.8**	**+3.2**
	comp=Z,7µmcomp=Z,669nm,1.0s						
TULM				AML	AML		
CHL1	**Volcn Chiles**	**6.04**	**10**	P	**Pn**	**10 38 37.6**	**+3.4**
CMBC	**Cumbal**	**6.21**	**11**	P	**Pn**	**10 38 40.5**	**+4.1**
CMBC	**Cumbal**	**6.21**	**11**	P	Pn	10 38 40.9	+4.5
RVRD	**Rio Verde**	**6.23**	**357**	↓P	**Pn**	**10 38 37.9**	**+1.6**
SNLR	**San Lorenzo-Es**	**6.44**	**2**	↓P	**Pn**	**10 38 41.2**	**+2.0**
CZSB	**Cruzeiro do Su**	**6.78**	**112**		**Pn**	**10 38 44.6**	**+0.8**
CZSB	**Cruzeiro do Su**	**6.78**	**112**	P	**Pn**	**10 38 44.4**	**+0.6**
	comp=Z,7µmcomp=Z,673nm,0.8s						
CZSB	**Cruzeiro do Su**	**6.78**	**112**	*e*P	**Pn**	**10 38 42.3**	**-1.5**
NNA	**Nana**	**7.09**	**162**	Pn	**Pn**	**10 38 49.5**	**+1.3**
	comp=Z,19nm,0.3s,baz=326,slow=13,SNR=36						
NNA				Sn	**Sn**	**10 40 09.9**	**+0.9**
	comp=Z,16nm,0.3s,baz=31,slow=21,SNR=1.9						
NNA				Lg	Lg	10 40 43.0	
	comp=Z,64nm,0.3s,baz=241,slow=21,SNR=8.4 comp=Z,60nm,0.3s						
NNA				AML	AML		
NNA	**Nana**	**7.09**	**162**		**Pn**	**10 38 49.7**	**+1.4**
NNA	**Nana**	**7.09**	**162**	P	**Pn**	**10 38 50.6**	**+2.3**
NNA	**Nana**	**7.09**	**162**	P	**Pn**	**10 38 49.9**	**+1.7**
	comp=Z,2µmcomp=Z,190nm,0.8s						
NNA	**Nana**	**7.09**	**162**	P	**Pn**	**10 38 50.5**	**+2.3**
	comp=Z,187nm,0.8s						
BBAC	**Balboa, Cauca**	**7.38**	**14**	↑P	**Pn**	**10 38 54.6**	**+2.3**
BBAC	**Balboa, Cauca**	**7.38**	**14**	P	**Pn**	**10 38 54.3**	**+1.9**
	comp=Z,2µmcomp=Z,100nm,0.8s						
FLOC	**Florencia**	**7.53**	**27**	P	**Pn**	**10 38 54.9**	**+0.7**
FLOC				S	**Sn**	**10 40 16.2**	**-3.5**
FLOC	**Florencia**	**7.53**	**27**	P	**Pn**	**10 38 54.5**	**+0.3**
FLOC	**Florencia**	**7.53**	**27**	P	**Pn**	**10 38 54.3**	**+0.1**
POPC	**Popayan, Colom**	**8.03**	**17**	P	**Pn**	**10 39 02.9**	**+1.6**
	comp=Z,1µmcomp=Z,72nm,1.3s						
GARC	**Garzon, Huila**	**8.14**	**26**	P	**Pn**	**10 39 03.4**	**+0.6**
	comp=Z,6µmcomp=Z,237nm,0.6s						
BETC	**Betania**	**8.60**	**25**	P	Pn	10 39 14.1	+5.1
JAMC	**Jamundi, Valle**	**8.68**	**16**	P	**Pn**	**10 39 10.5**	**+0.4**
	comp=Z,1µmcomp=Z,69nm,1.4s						
MACC	**Macarena, Meta**	**8.94**	**36**	P	**Pn**	**10 39 13.4**	**-0.2**
	comp=Z,3µmcomp=Z,266nm,0.8s						
YOTC	**Yotoco, Valle**	**9.50**	**16**	P	**Pn**	**10 39 20.0**	**-1.3**
	comp=Z,45nm,1.1s						
URMC	**La Uribe, Meta**	**9.59**	**29**	P	**Pn**	**10 39 23.7**	**+1.2**
	comp=Z,2µmcomp=Z,122nm,0.7s						
PRAC	**Prado**	**9.77**	**25**	P	**Pn**	**10 39 26.8**	**+1.8**
PRAC				S	**Sn**	**10 41 10.4**	**-4.4**
PRAC	**Prado**	**9.77**	**25**	P	**Pn**	**10 39 26.4**	**+1.5**
	comp=Z,1µmcomp=Z,52nm,0.8s						
ORTC	**Ortega, Tolima**	**9.80**	**23**	P	**Pn**	**10 39 27.8**	**+2.4**
	comp=Z,1µmcomp=Z,98nm,1.1s						
GUVC	**San Jose del G**	**10.00**	**40**	P	**Pn**	**10 39 28.4**	**+0.3**
ROSC	**El Rosal**	**11.02**	**25**	Pn	**Pn**	**10 39 44.1**	**+1.7**
	comp=Z,3.3nm,0.3s,baz=84,slow=15,SNR=4.9						
ROSC				Lg	Lg	10 42 45.2	
	comp=Z,6.1nm,0.3s,baz=347,slow=19,SNR=1.5						
ROSC				LR	LR	10 43 46.9	
	comp=Z,365nm,18.7s,baz=224,slow=37 comp=Z,7.1nm,0.6s						
ROSC				AML	AML		
ROSC	**El Rosal**	**11.02**	**25**	Pn	**Pn**	**10 39 43.1**	**+0.7**
RUSC	**La Rusia**	**12.51**	**28**	P	**Pn**	**10 40 04.3**	**+1.3**
RUSC				S	**Sn**	**10 42 17.2**	**-5.5**
RUSC	**La Rusia**	**12.51**	**28**		**Pn**	**10 40 03.7**	**+0.8**
CACAO	**El Cacao, Vera**	**12.59**	**352**	P	**Pn**	**10 40 05.6**	**+2.1**
	comp=Z,73nm,1.2s						
APAC	**Apartado, Choc**	**13.23**	**11**	P	**Pn**	**10 40 14.7**	**+2.4**
	comp=Z,57nm,0.9s						
TAMC	**Tame, Arauca**	**13.62**	**32**	P	**Pn**	**10 40 19.3**	**+1.6**
	comp=Z,1µmcomp=Z,184nm,0.9s						
BRU2	**Volcan**	**14.36**	**345**	P	**Pn**	**10 40 31.2**	**+3.3**
	comp=Z,49nm,1.1s						
TEFE	**Tefe**	**14.46**	**84**	*e*P	Pn	10 40 24.4	-4.7
LPAZ	**La Paz**	**15.36**	**137**	Pn	**Pn**	**10 40 43.5**	**+1.6**
	comp=Z,0.2nm,0.3s,baz=330,slow=11,SNR=13						
LPAZ				LR	LR	10 47 42.1	
	comp=Z,3µm,18.3s,baz=302,slow=42 comp=Z,16nm,1.0s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**15.36**	**137**	Pn	**Pn**	**10 40 42.1**	**+0.2**
LPAZ				IAmb	IAmb	10 40 49.6	
	comp=Z,56nm,1.2s						
LPAZ	**La Paz**	**15.36**	**137**	P	**Pn**	**10 40 43.1**	**+1.2**
	comp=Z,39nm,1.8s						
LPAZ	**La Paz**	**15.36**	**137**	*e*P	**Pn**	**10 40 38.8**	**-3.1**
PB18	**Visviri**	**15.47**	**144**	Pn	**Pn**	**10 40 44.1**	**+0.9**
SJCC	**San Jacinto, C**	**15.47**	**14**	P	**P**	**10 40 49.6**	**+2.3**
SJCC	**San Jacinto, C**	**15.47**	**14**	P	**Pn**	**10 40 45.6**	**+2.8**
	comp=Z,1µmcomp=Z,137nm,0.8s						
LCR2	**La Lucha 2**	**15.64**	**342**	Pn	**Pn**	**10 40 47.2**	**+2.1**
HDC	**Heredia**	**15.92**	**341**	*e*P	**P**	**10 40 52.6**	**+0.3**
PB16	**IPOC Station P**	**16.04**	**145**	Pn	**Pn**	**10 40 49.5**	**-1.1**
PB16				IAmb	IAmb	10 41 09.8	
	comp=Z,39nm,0.8s						
SDV	**Santo Domingo**	**16.30**	**31**	Pn	**Pn**	**10 40 54.2**	**+0.6**
	comp=Z,1.9nm,0.3s,baz=214,slow=14,SNR=7.9						
SDV				Lg	Lg	10 45 22.3	
	comp=Z,0.9nm,0.3s,baz=107,slow=22,SNR=3.3						
SDV				LR	LR	10 48 43.4	
	comp=Z,681nm,18.8s,baz=206,slow=43 comp=Z,19nm,0.7s						
SDV				AML	AML		
SDV	**Santo Domingo**	**16.30**	**31**	Pn	**Pn**	**10 40 53.1**	**-0.5**
SDV				IAmb	IAmb	10 41 03.3	
	comp=Z,51nm,0.9s						
SDV	**Santo Domingo**	**16.30**	**31**	P	**Pn**	**10 40 54.6**	**+1.0**
	comp=Z,367nm,1.0s						
JTS	**Las Juntas de**	**16.47**	**339**	Pn	**Pn**	**10 40 56.5**	**+0.9**
	comp=Z,0.2nm,0.3s,baz=153,slow=12,SNR=8.1						
JTS				LR	LR	10 45 54.3	
	comp=Z,326nm,20.6s,baz=165,slow=32 comp=Z,7.7nm,0.9s						
JTS				AML	AML		
JTS	**Las Juntas de**	**16.47**	**339**	Pn	**P**	**10 40 57.7**	**-0.6**
JTS				IAmb	IAmb	10 41 11.5	
	comp=Z,86nm,1.4s						
JTS	**Las Juntas de**	**16.47**	**339**	P	**P**	**10 40 59.3**	**+0.9**
	comp=Z,45nm,1.7s						
PSGCX	**Pisagua**	**16.75**	**150**	Pn	**Pn**	**10 40 58.9**	**-0.2**
PSGCX	**Pisagua**	**16.75**	**150**	P	**P**	**10 41 03.4**	**+1.9**
	comp=Z,23nm,1.1s						
SMRC	**Santa Marta, M**	**16.94**	**16**	Pn	**Pn**	**10 41 01.9**	**+0.4**
PB11	**IPOC Station P**	**17.12**	**149**	Pn	**Pn**	**10 41 03.8**	**-0.2**
PB11	**IPOC Station P**	**17.12**	**149**	P	**P**	**10 41 07.1**	**+1.4**
	comp=Z,33nm,0.9s						
GO01	**Chusmiza**	**17.29**	**147**		**Pn**	**10 41 06.5**	**+0.1**
GO01				IAmb	IAmb	10 41 15.9	
	comp=Z,61nm,1.3s						
GO01	**Chusmiza**	**17.29**	**147**	P	**Pn**	**10 41 07.1**	**+0.7**
	comp=Z,43nm,1.1s						
TA01	**Diego Aracena**	**17.54**	**151**		**Pn**	**10 41 09.5**	**+0.5**
TA01	**Diego Aracena**	**17.54**	**151**	P	**P**	**10 41 11.8**	**+1.6**
	comp=Z,43nm,1.1s						
PB08	**IPOC Station P**	**17.70**	**148**		**P**	**10 41 12.0**	**-0.3**
PB08	**IPOC Station P**	**17.70**	**148**	P	**P**	**10 41 13.1**	**+0.8**
	comp=Z,22nm,1.1s						
URIC	**Uribia, Colomb**	**18.18**	**23**	P	**Pn**	**10 41 16.4**	**-0.6**
URIC				IAmb	IAmb	10 41 20.2	
	comp=Z,79nm,1.0s						
PB01	**IPOC Station P**	**18.28**	**150**	P	**P**	**10 41 19.1**	**+0.7**
PB01	**IPOC Station P**	**18.28**	**150**	P	**P**	**10 41 21.2**	**+2.8**
	comp=Z,23nm,1.0s						
PB02	**IPOC Station P**	**18.32**	**152**	P	**P**	**10 41 19.4**	**+0.5**
PB02	**IPOC Station P**	**18.32**	**152**	P	**P**	**10 41 21.0**	**+2.1**
	comp=Z,40nm,1.1s						
MACA	**Manacapuru-AM**	**18.41**	**84**	P	**P**	**10 41 19.2**	**-0.6**
MACA	**Manacapuru-AM**	**18.41**	**84**	*e*P	**P**	**10 41 15.6**	**-4.2**
PB07	**IPOC Station P**	**18.68**	**153**	P	**P**	**10 41 22.7**	**-0.1**
PB07	**IPOC Station P**	**18.68**	**153**	P	**P**	**10 41 22.8**	**0.0**
	comp=Z,27nm,0.9s						
BOAB	**BOACO BROADBAN**	**18.72**	**339**		**Pn**	**10 41 24.6**	**+1.0**
BOAB				IAmb	IAmb	10 41 57.6	
	comp=Z,68nm,1.1s						
BOAB	**BOACO BROADBAN**	**18.72**	**339**	P	**Pn**	**10 41 25.9**	**+2.3**
	comp=Z,54nm,1.1s						
PB03	**IPOC Station P**	**19.02**	**153**	P	**Pn**	**10 41 27.1**	**-0.2**
PB03	**IPOC Station P**	**19.02**	**153**	P	**Pn**	**10 41 27.7**	**+0.4**
	comp=Z,18nm,0.9s						
PB09	**IPOC Station P**	**19.04**	**151**	P	**P**	**10 41 26.6**	**-0.2**
PB09				IAmb	IAmb	10 41 45.4	
	comp=Z,44nm,0.9s						
PB09	**IPOC Station P**	**19.04**	**151**	P	**Pn**	**10 41 29.6**	**+2.0**
	comp=Z,66nm,1.1s						
CRIN	**San Cristobal**	**19.48**	**336**	P	**P**	**10 41 32.4**	**+0.9**
BOAV	**Boa Vista**	**19.97**	**68**	P	**P**	**10 41 36.5**	**-0.4**
BOAV	**Boa Vista**	**19.97**	**68**	*e*P	**P**	**10 41 35.7**	**-1.2**
VILB	**Vilhena**	**20.12**	**114**	P	**P**	**10 41 38.1**	**-0.5**
VILB	**Vilhena**	**20.12**	**114**	*e*P	**P**	**10 41 38.1**	**-0.5**
SIV	**San Ignacio**	**20.64**	**123**	P	**P**	**10 41 44.3**	**+0.1**
	comp=Z,12nm,1.0s,baz=297,slow=10,SNR=36						
SIV				S	**S**	**10 45 36.4**	**+1.3**
	comp=Z,5.5nm,0.7s,baz=178,slow=19,SNR=2.1						
SIV				Lg	Lg	10 47 58.0	
	baz=60,slow=20,SNR=3.0 comp=Z,12nm,1.0s						
TGUH	**Tegucigalpa,Un**	**20.80**	**337**		**P**	**10 41 46.8**	**+0.8**
TGUH				IAmb	IAmb	10 42 00.6	
	comp=Z,29nm,0.8s						
TGUH	**Tegucigalpa,Un**	**20.80**	**337**	P	**P**	**10 41 45.8**	**-0.2**
	comp=Z,40nm,1.1s						
TGUH	**Tegucigalpa,Un**	**20.80**	**337**	P	**P**	**10 41 47.6**	**+1.7**
	comp=Z,41nm,1.1s						
PB14	**IPOC Station P**	**21.03**	**158**	P	**P**	**10 41 49.8**	**+1.1**
PB14				IAmb	IAmb	10 41 54.9	
	comp=Z,49nm,1.1s						
PB14	**IPOC Station P**	**21.03**	**158**	P	**P**	**10 41 49.4**	**+0.7**
	comp=Z,42nm,1.4s						
BBSD	**Serra de San D**	**21.62**	**125**	*e*P	**P**	**10 41 53.6**	**-1.2**
MTO3	**Montecristo**	**21.99**	**332**	P	**P**	**10 42 00.5**	**+1.5**
MTO3				IAmb	IAmb	10 42 09.9	
	comp=Z,31nm,1.2s						
PTLB	**Pontes e Lacer**	**22.05**	**119**	P	**P**	**10 41 58.9**	**-0.5**
PTLB				IAmb	IAmb	10 42 01.6	
	comp=Z,31nm,1.0s						
PTLB	**Pontes e Lacer**	**22.05**	**119**	*e*P	**P**	**10 41 59.4**	**+0.1**
PDRB	**Porto dos Gac**	**22.96**	**108**	*e*P	**P**	**10 42 08.0**	**-1.1**
ITTB	**Itaituba**	**23.23**	**89**	*e*P	**P**	**10 42 11.2**	**-0.8**
AC02	**Maricunga**	**23.51**	**157**	P	**P**	**10 42 14.0**	**-1.1**
AC02	**Maricunga**	**23.51**	**157**	P	**P**	**10 42 16.9**	**+1.8**
	comp=Z,42nm,1.1s						
NPGB	**Novo Progresso**	**23.61**	**96**	*e*P	**P**	**10 42 14.6**	**-1.2**
CLDB	**Colider**	**23.68**	**105**	P	**P**	**10 42 15.6**	**-0.8**
	comp=Z,41nm,0.8s						
CLDB	**Colider**	**23.68**	**105**	*e*P	**P**	**10 42 15.4**	**-1.0**
GO03	**Copiapo**	**23.80**	**160**	P	**P**	**10 42 17.1**	**-0.3**
GO03				IAmb	IAmb	10 42 53.4	
	comp=Z,43nm,1.4s						
GO03	**Copiapo**	**23.80**	**160**	P	**P**	**10 42 18.8**	**+1.3**
	comp=Z,28nm,1.1s						
HUEH	**Huehuetenango**	**23.83**	**329**	P	**P**	**10 42 18.7**	**+0.8**
PETF	**Flores**	**24.44**	**334**	P	**P**	**10 42 24.4**	**+1.0**
PETF				IAmb	IAmb	10 42 29.7	
	comp=Z,21nm,0.9s						
PODR	**Polo**	**24.44**	**18**	P	**P**	**10 42 24.1**	**+0.5**
AC05	**El Transito**	**24.94**	**162**		**P**	**10 42 28.0**	**0.0**
AC05				IAmb	IAmb	10 42 32.1	
	comp=Z,33nm,1.1s						
AC05	**El Transito**	**24.94**	**162**	P	**P**	**10 42 28.9**	**+0.9**
	comp=Z,30nm,1.3s						
CCIG	**Comitan**	**24.96**	**329**	P	**P**	**10 42 27.2**	**-1.1**
GTBY	**Guantanamo Bay**	**25.26**	**9**	P	**P**	**10 42 33.0**	**+2.3**
	comp=Z,75nm,1.1s						
SALV	**Santo Antonio**	**25.26**	**117**	*e*P	**P**	**10 42 31.8**	**+0.9**
COIM	**Forte Coimbra**	**25.33**	**127**	*e*P	**P**	**10 42 31.9**	**+0.4**
PRSN	**Puerto Rico Se**	**26.05**	**26**	P	**P**	**10 42 38.2**	**+0.2**
OBIP	**Obispado Ponce**	**26.14**	**28**	P	**P**	**10 42 38.5**	**-0.3**
OBIP				IAmb	IAmb	10 42 44.9	
	comp=Z,24nm,1.1s						
CELP	**Cerrillos**	**26.18**	**28**	P	**P**	**10 42 39.9**	**+0.8**
CELP				IAmb	IAmb	10 43 20.6	
	comp=Z,26nm,0.9s						
AOPR	**Arecibo Observ**	**26.34**	**27**		**P**	**10 42 40.1**	**-0.5**
PDPR	**Patillas Dam,**	**26.39**	**29**	P	**P**	**10 42 41.5**	**+0.4**
SJG	**San Juan**	**26.41**	**28**	LR	LR	10 54 31.5	
	comp=Z,286nm,21.6s,baz=191,slow=40						
SJG	**San Juan**	**26.41**	**28**	P	**P**	**10 42 41.1**	**-0.2**
SJG	**San Juan**	**26.41**	**28**	P	**P**	**10 42 41.5**	**+0.3**
SJG	**San Juan**	**26.41**	**28**	P	**P**	**10 42 42.9**	**+1.6**
	comp=Z,91nm,1.2s						
BDQN	**Bodoquena, MS**	**26.44**	**127**	*e*P	**P**	**10 42 41.6**	**+0.1**
ECPR	**Experimental S**	**26.49**	**28**	P	**P**	**10 42 41.5**	**-0.5**
GCPR	**Guaynabo City**	**26.62**	**28**	P	**P**	**10 42 42.6**	**-0.5**
PP1B	**Ponte de Pedra**	**26.65**	**120**	*e*P	**P**	**10 42 44.5**	**+1.0**
AQDB	**Aquidauana**	**27.29**	**126**	P	**P**	**10 42 48.9**	**-0.3**
AQDB				IAmb	IAmb	10 43 16.4	
	comp=Z,23nm,1.2s						
AQDB	**Aquidauana**	**27.29**	**126**	P	**P**	**10 42 49.6**	**+0.4**
	comp=Z,16nm,1.0s						
AQDB	**Aquidauana**	**27.29**	**126**	*e*P	**P**	**10 42 49.6**	**+0.4**
CFA	**Coronel Fontan**	**28.16**	**160**	P	**P**	**10 42 57.8**	**+0.9**
	comp=Z,5.1nm,0.8s,baz=330,slow=8.9,SNR=8.9 comp=Z,5.1nm,0.8s						
SNDB	**Serra Nova Dou**	**28.23**	**106**	*e*P	**P**	**10 42 58.1**	**+0.5**
MDP	**Montagnes des**	**28.27**	**69**	LR	LR	10 54 12.7	
	comp=Z,377nm,20.4s,baz=256,slow=36						
ARAG	**Araguaiana, MT**	**28.70**	**113**	*e*P	**P**	**10 43 00.9**	**-1.0**
SJPY	**San Joaquin**	**29.53**	**134**	*e*P	**P**	**10 43 09.3**	**+0.1**
CPUP	**Villa Florida**	**29.53**	**138**	P	**P**	**10 43 08.5**	**-0.6**
	comp=Z,1.1nm,0.8s,baz=348,slow=10,SNR=4.0						
CPUP				LR	LR	10 56 57.9	
	comp=Z,369nm,21.6s,baz=312,slow=40 comp=Z,1.1nm,0.8s						
TLIG	**Tlapa**	**29.72**	**320**	P	**P**	**10 43 11.8**	**+0.8**
BO01	**Tunca**	**29.98**	**167**	P	**P**	**10 43 13.8**	**+0.8**
	comp=Z,15nm,2.9s						
BO02	**Sierra Bellavi**	**30.43**	**167**	P	**P**	**10 43 18.0**	**+0.9**
	comp=Z,17nm,1.4s						
ML02	**Panimavida**	**31.22**	**168**		**P**	**10 43 23.6**	**-0.3**
**

PBMO	**Poplar Bluff**	**43.09 347**	P	**P**	**10 45 03.9**	**-0.7**
PBMO			IAmb	IAmb	10 45 13.2	
	comp=Z,12nm,0.9s					
WMOK	**Wichita Mounta**	**43.86 336**	P	**P**	**10 45 11.6**	**+0.7**
	comp=Z,4.6nm,1.1s					
ANMO	**Albuquerque**	**47.55 329**	P	**P**	**10 45 40.7**	**+0.4**
	comp=Z,10nm,0.9s					
TUC	**Tucson**	**47.98 323**	P	**P**	**10 45 44.2**	**+0.6**
	comp=Z,5.7nm,1.0s					
MVCO	**Mesa Verde**	**50.34 329**	P	**P**	**10 46 01.8**	**0.0**
	comp=Z,4.9nm,0.6s					
G62A	**West of Eustis**	**50.76 8**	P	**P**	**10 46 03.1**	**-1.4**
ISCO	**Idaho Springs**	**51.03 334**	P	**P**	**10 46 06.6**	**-0.4**
	comp=Z,3.8nm,1.4s					
PV15	**Paradox Valley**	**51.21 330**	P	**P**	**10 46 08.5**	**+0.2**
ECSD	**EROS Data Cent**	**51.22 344**	P	**P**	**10 46 07.5**	**-0.5**
	comp=Z,19nm,1.0s					
BORC	**Borrego Spring**	**52.12 320**	P	**P**	**10 46 14.3**	**-0.6**
BORC			IAmb	IAmb	10 46 51.1	
	comp=Z,8.8nm,1.2s					
DPP	**Dos Picos Cty**	**52.29 319**	P	**P**	**10 46 15.8**	**-0.4**
O20A	**White River Ci**	**52.50 332**	P	**P**	**10 46 18.1**	**+0.3**
O20A			IAmb	IAmb	10 46 56.9	
	comp=Z,9.5nm,1.2s					
SHOC	**Shoshone, Teco**	**53.75 322**	P	**P**	**10 46 27.1**	**+0.2**
SHOC			IAmb	IAmb	10 46 55.5	
	comp=Z,6.2nm,0.8s					
RSSD	**Black Hills**	**54.00 338**	P	**P**	**10 46 27.8**	**-1.1**
RSSD	**Black Hills**	**54.00 338**	P	**P**	**10 46 29.4**	**+0.6**
	comp=Z,7.4nm,0.8s					
BSUT	**Blindstream Ca**	**54.02 330**			**10 46 29.4**	**+0.2**
BSUT			IAmb	IAmb	10 46 32.4	
	comp=Z,7.7nm,1.1s					
DUG	**Dugway, Tooele**	**54.81 329**	P	**P**	**10 46 34.2**	**-0.5**
	comp=Z,8.3nm,0.9s					
E28A	**Huff**	**55.01 342**	P	**P**	**10 46 35.4**	**-0.4**
PDAR	**Pinedale Array**	**55.18 333**	P	**P**	**10 46 36.6**	**-0.9**
	comp=Z,1.3nm,0.7s,baz=125,slow=8.9,SNR=13					
PDAR			LR	LR	11 11 36.8	
	comp=Z,92nm,19.0s,baz=118,slow=38					
	comp=Z,1.3nm,0.7s					
HWUT	**Hardware Ranch**	**55.23 331**	P	**P**	**10 46 37.9**	**+0.1**
	comp=Z,11nm,2.4s					
AGMN	**Agassiz Nation**	**55.27 346**	P	**P**	**10 46 37.5**	**-0.2**
	comp=Z,35nm,0.8s					
NVAR	**Mina Array Bea**	**56.64 323**	P	**P**	**10 46 48.0**	**+0.1**
	comp=Z,3.2nm,0.8s,baz=139,slow=7.1,SNR=12					
NVAR			LR	LR	11 09 57.1	
	comp=Z,22nm,18.3s,baz=166,slow=35					
	comp=Z,3.2nm,0.8s					
ULM	**Lac du Bonnet**	**57.11 347**	P	**P**	**10 46 49.6**	**-1.2**
	comp=Z,11nm,0.9s,baz=162,slow=7.2,SNR=11					
ULM			LR	LR	11 13 20.9	
	comp=Z,87nm,18.1s,baz=37,slow=38					
	comp=Z,11nm,0.9s					
YHH	**Holmes Hill**	**57.35 334**	P	**P**	**10 46 53.4**	**+0.4**
HLID	**Hailey**	**58.09 330**	P	**P**	**10 46 58.7**	**+0.6**
	comp=Z,8.0nm,1.1s					
WVOR	**Wild Horse Val**	**59.49 327**	P	**P**	**10 47 07.8**	**0.0**
	comp=Z,6.9nm,0.9s					
O03E	**Paynes Creek**	**59.91 323**	P	**P**	**10 47 10.0**	**-0.7**
O03E			IAmb	IAmb	10 47 46.2	
	comp=Z,7.4nm,1.0s					
PLID	**Pearl Lake**	**59.98 331**	P	**P**	**10 47 10.4**	**-0.8**
HATC	**Hat Creek Radi**	**60.04 324**	P	**P**	**10 47 11.1**	**-0.4**
MOD	**Modoc Plateau**	**60.06 325**	P	**P**	**10 47 11.6**	**-0.2**
MOD			IAmb	IAmb	10 47 22.2	
	comp=Z,7.4nm,1.1s					
SCHQ	**Schefferville**	**60.66 8**	LR	LR	11 12 47.8	
	comp=Z,40nm,21.5s,baz=162,slow=35					
TAOE	**Nuku Hiva Isla**	**60.71 263**	*e*LR	LR	11 05 11.2	
	comp=Z,170nm,24.1s					
L04D	**Klamath Falls**	**61.41 325**		**P**	**10 47 20.7**	**-0.2**
NEW	**Newport**	**62.81 332**	LR	LR	11 14 39.6	
	comp=Z,72nm,21.9s,baz=130,slow=36					
NEW	**Newport**	**62.81 332**	P	**P**	**10 47 29.8**	**-0.3**
	comp=Z,5.2nm,2.2s					
EDM	**Edmonton**	**64.99 338**	P	**P**	**10 47 43.5**	**-0.8**
FRB	**Frobisher Bay**	**69.20 5**	LR	LR	11 20 12.2	
	comp=Z,63nm,19.6s,baz=139,slow=38					
PPT	**Papeete**	**69.91 253**	LR	LR	11 09 24.9	
	comp=Z,23nm,21.0s,baz=80,slow=28					
PPT2	**Papeete2**	**69.91 253**	*e*LR	LR	11 09 27.3	
	comp=Z,90nm,27.5s					
BBB	**Bella Bella**	**70.68 330**	LR	LR	11 19 19.9	
	comp=Z,60nm,21.0s,baz=172,slow=36					
YKA	**Yellowknife Ar**	**72.75 344**	P	**P**	**10 48 31.3**	**-1.1**
	comp=Z,1.2nm,0.7s,baz=144,slow=5.9,SNR=10					
	comp=Z,1.2nm,0.7s					
SFJD	**Kangerlussuaq**	**74.83 11**	LR	LR	11 22 07.8	
	comp=Z,48nm,21.0s,baz=195,slow=36					
DBIC	**Dimbokro**	**74.97 82**	P	**P**	**10 48 46.3**	**-0.1**
	comp=Z,15nm,0.7s,baz=256,slow=5.0,SNR=14					
DBIC			LR	LR	11 19 35.7	
	comp=Z,126nm,19.8s,baz=290,slow=34					
	comp=Z,15nm,0.7s					
BELA	**Belgrano 2**	**76.22 171**	P	**P**	**10 48 51.8**	**-0.6**
BELA			IAmb	IAmb	10 48 53.4	
	comp=Z,8.2nm,0.7s					
VNA3	**Neumayer Olymp**	**78.55 162**	P	**P**	**10 49 05.9**	**+0.3**
	comp=Z,17nm,0.9s					
VNA3	**Neumayer Olymp**	**78.55 162**	P	**P**	**10 49 06.4**	**+0.8**
	comp=Z,36nm,1.1s					
VNA2	**Neumayer--Watz**	**79.16 161** ⇓P		**P**	**10 49 09.4**	**+0.5**
	comp=Z,6.4nm,0.6s,baz=300,slow=4.7					
VNA2	**Neumayer--Watz**	**79.16 161**	P	**P**	**10 49 09.9**	**+0.9**
	comp=Z,11nm,0.8s					
MDT	**Midelt**	**79.82 56**	LR	LR	11 19 43.0	
	comp=Z,57nm,21.6s,baz=270,slow=32					
RES	**Resolute Bay**	**80.33 356**	LR	LR	11 24 56.1	
	comp=Z,48nm,20.9s,baz=48,slow=36					
BORG	**Borgarnes**	**81.54 22**	LR	LR	11 22 29.7	
	comp=Z,47nm,20.8s,baz=242,slow=34					
SUMG	**Summit**	**81.83 11**	P	**P**	**10 49 23.2**	**-0.4**
SUMG			IAmb	IAmb	10 49 29.7	
	comp=Z,13nm,1.1s					
SUMG	**Summit**	**81.83 11**	P	**P**	**10 49 24.4**	**+0.7**
	comp=Z,16nm,1.0s					
ESDC	**Sonseca Array**	**81.90 49**	P	**P**	**10 49 24.0**	**-0.3**
	comp=Z,2.4nm,0.9s,baz=260,slow=4.9,SNR=6.5					
ESDC			LR	LR	11 24 14.4	
	comp=Z,78nm,18.6s,baz=270,slow=35					
	comp=Z,2.4nm,0.9s					
TORD	**Torodi Ar. Bea**	**82.19 76**	P	**P**	**10 49 25.6**	**-0.7**
	comp=Z,2.7nm,0.6s,baz=288,slow=6.8,SNR=20					
	comp=Z,2.7nm,0.6s					
TORD	**Torodi Ar. Bea**	**82.19 76**	P	**P**	**10 49 25.1**	**-1.2**
TROLL	**Troll, Antarti**	**82.48 162**	P	**P**	**10 49 27.3**	**+0.4**
	comp=Z,223nm,0.6s					
G29M	**Pine Creek**	**83.12 340**	P	**P**	**10 49 29.4**	**-0.6**
G29M			IAmb	IAmb	10 50 10.8	
	comp=Z,8.6nm,1.1s					
K27K	**Chicken**	**83.22 337**	P	**P**	**10 49 30.7**	**+0.1**
K27K			IAmb	IAmb	10 49 38.2	
	comp=Z,8.8nm,1.0s					
E29M	**Blow River**	**83.84 341**	P	**P**	**10 49 33.3**	**-0.3**
E29M			IAmb	IAmb	10 49 40.5	
	comp=Z,8.0nm,1.1s					
HTL	**Hartland**	**84.37 38**	P	**P**	**10 49 35.6**	**-1.1**
	comp=Z,7.9nm,1.3s					
J25K	**Salcha River,**	**84.76 337**	P	**P**	**10 49 38.4**	**-0.1**
J25K			IAmb	IAmb	10 49 48.1	
	comp=Z,5.4nm,0.8s					
QSPA	**South Pole Qui**	**84.90 180**	P	**P**	**10 49 39.4**	**+0.1**
	comp=Z,14nm,0.8s,baz=175,slow=0.9,SNR=91					
	comp=Z,14nm,0.9s					
QSPA	**South Pole Qui**	**84.90 180**	P	**P**	**10 49 39.5**	**+0.2**
QSPA	**South Pole Qui**	**84.90 180**	P	**P**	**10 49 40.0**	**+0.6**
	comp=Z,23nm,1.4s					
D27M	**Malcolm River**	**85.23 342**	P	**P**	**10 49 40.4**	**-0.4**
D27M			IAmb	IAmb	10 49 51.2	
	comp=Z,8.8nm,1.1s					
ILAR	**Eielson Array**	**85.43 337**	P	**P**	**10 49 41.3**	**-0.5**
	comp=Z,0.8nm,0.9s,baz=66,slow=5.8,SNR=7.3					
ILAR			LR	LR	11 30 06.7	
	comp=Z,52nm,18.0s,baz=92,slow=37					
	comp=Z,0.8nm,0.9s					
KDAK	**Kodiak Island**	**85.69 329**	LR	LR	11 29 09.0	
	comp=Z,122nm,18.2s,baz=89,slow=36					
EKA	**Eskdalemuir Ar**	**86.27 34**	P	**P**	**10 49 46.2**	**+0.1**
	comp=Z,3.0nm,1.0s,baz=255,slow=6.5,SNR=5.5					
	comp=Z,3.0nm,1.0s					
DAG	**Danmarks Havn**	**88.52 12**	P	**P**	**10 49 57.2**	**+0.7**
	comp=Z,12nm,1.1s					
VNDA	**Vanda**	**91.01 191**	P	**P**	**10 50 07.6**	**-0.7**
	comp=Z,1.2nm,0.8s,baz=96,slow=4.3,SNR=5.2					
VNDA			LR	LR	11 23 20.2	
	comp=Z,42nm,18.3s,baz=218,slow=30					
	comp=Z,1.2nm,0.8s					
TSUM	**Tsumeb**	**94.54 110**	LR	LR	11 33 02.7	
	comp=Z,91nm,18.0s,baz=349,slow=36					
NOA	**NORSAR Array B**	**94.62 29**	LR	LR	11 31 43.0	
	comp=Z,16nm,19.9s,baz=350,slow=35					
SUR	**Sutherland**	**95.52 123**	LR	LR	11 29 06.2	
	comp=Z,138nm,21.4s,baz=264,slow=33					
GERES	**GERESS Array B**	**95.67 42**	LR	LR	11 33 18.4	
	comp=Z,31nm,18.0s,baz=282,slow=35					
HFS	**Hagfors**	**95.83 30**	LR	LR	11 27 59.4	
	comp=Z,42nm,21.1s,baz=254,slow=32					
VRAC	**Vranov**	**97.58 41**	LR	LR	11 32 50.1	
	comp=Z,27nm,19.2s,baz=264,slow=34					
BVAR	**Borovoye Array**	**126.13 22**	PKP	**PKPdf**	**10 56 06.9**	**-0.1**
	comp=Z,1.0nm,0.6s,baz=325,slow=1.8,SNR=4.2					
ZALV	**Zalesovo Beam**	**129.64 12**	PKP	**PKPdf**	**10 56 13.3**	**-0.3**
	comp=Z,0.8nm,0.6s,baz=264,slow=3.0,SNR=5.3					
KURBB	**Kurchatov Arra**	**130.97 19**	PKP	**PKPdf**	**10 56 16.3**	**+0.1**
	comp=Z,3.0nm,0.2s,baz=318,slow=2.4,SNR=4.7					
MKAR	**Makanchi Array**	**135.53 18**	PKP	**PKPdf**	**10 56 24.7**	**-0.3**
	comp=Z,0.3nm,0.5s,baz=320,slow=3.8,SNR=3.7					
ASAR	**Alice Springs**	**136.93 227**	PKhKP	PKPpre	10 56 20.0	
	comp=Z,0.5nm,0.6s,baz=141,slow=2.5,SNR=12					
ASAR			PKP	**PKPdf**	**10 56 26.4**	**-1.9**
	comp=Z,0.9nm,0.8s,baz=132,slow=2.4,SNR=6.3					
SONM	**Songino Array**	**137.26 355**	PKP	**PKPdf**	**10 56 28.5**	**+0.2**
	comp=Z,0.6nm,0.6s,baz=336,slow=3.2,SNR=4.0					
WRA	**Warramunga Arr**	**138.76 232**	PKhKP	PKPpre	10 56 23.3	
	comp=Z,0.3nm,0.8s,baz=126,slow=2.2,SNR=2.1					
WRA			PKP	**PKPdf**	**10 56 31.2**	**-0.5**
	comp=Z,0.7nm,0.7s,baz=126,slow=2.4,SNR=5.0					
HHC	**Hu-ho-hao-te**	**143.24 347**	*e*P	PKPab	10 56 32.3	-2.7
GTA2	**Gaotai**	**145.84 2**	*e*PKPbc	**PKPdf**	**10 56 44.0**	**+0.1**
FITZ	**Fitzroy Crossi**	**146.41 226**	PKPbc	**PKPdf**	**10 56 45.9**	**+0.7**
	comp=Z,18nm,1.0s,baz=169,slow=3.1,SNR=16					
NJ2	**Nanjing**	**148.46 330**	*e*P	**PKPdf**	**10 56 47.0**	**-1.3**
NJ2			pmax	pmax		
	comp=Z,13nm,0.6s					
LZH	**Lanzhou**	**149.14 355**	*e*PKPbc	**PKPbc**	**10 56 54.5**	**+0.8**
LZH			pPKP	sPKPab	10 57 03.3	0.0
LZDM	**Lanzhou Array**	**149.28 356**	PKPbc	**PKPbc**	**10 56 52.6**	**-1.7**
	comp=Z,1.0nm,0.2s,baz=61,slow=3.7,SNR=4.1					
CMAR	**Chiang Mai Arr**	**166.67 8**	PKPab	**PKPab**	**10 58 13.2**	**0.0**
	comp=Z,2.8nm,0.9s,baz=358,slow=2.5,SNR=6.3					

WEL 29 10:57:12.8±0.6, 31°S±25″×17°9W±6″2, h12km, M4.5/4, ML4.4/6, MLv4.5/4, Error ellipse: s-maj=87.3km s-min=4.4km az=111.9, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**2.22**	**23**	P	Pn	10 57 50.4	+1.0
GLKZ				S	Sn	10 58 16.0	-0.8
GLKZ				AML	AML		
GLKZ				AML	AML		
MXZ	**Matakaoa Point**	**6.64**	**199**	P	Pn	10 58 51.7	+1.5
MXZ				S	Sn	11 00 06.0	+0.2
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**6.85**	**198**	P	Pn	10 58 53.9	+0.8
WMGZ				S	Sn	11 00 12.4	+1.4
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**6.98**	**202**	P	Pn	10 58 56.3	+1.5
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**7.13**	**198**	S	Sn	11 00 15.2	-2.7
RUGZ	**Raukumara Rang**	**7.20**	**202**	P	Pn	10 58 59.9	+1.9
RUGZ				S	Sn	11 00 22.1	+2.3
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**7.30**	**200**	S	Sn	11 00 21.8	-0.4
CNGZ	**Carnagh Statio**	**7.53**	**197**	P	Pn	10 59 02.7	+0.3
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	**7.59**	**202**	P	Pn	10 59 02.4	-0.8
MWZ				S	Sn	11 00 27.9	-1.3
MWZ				AML	AML		
TKGZ	**Te Karaka**	**7.59**	**200**	S	Sn	11 00 28.9	-0.2
URZ	**Urewera**	**7.66**	**204**	P	Pn	10 59 04.3	+0.1
URZ				S	Sn	11 00 31.0	+0.2
URZ				AML	AML		
NMHZ	**Naumai**	**8.51**	**203**	S	Sn	11 00 52.4	+0.3
MCHZ	**McNeill Hill**	**8.86**	**203**	P	Sn	11 00 59.6	-0.9
KWHZ	**Kaweka Forest**	**8.94**	**204**	P	Pn	10 59 20.0	-1.8
KWHZ				P	Sn	11 01 01.1	-1.3
KRHZ	**Kereru**	**9.15**	**203**	P	Sn	11 01 03.4	-4.2
PNHZ	**Pukenui**	**9.45**	**203**	P	Sn	11 01 08.7	-6.3
WPHZ	**Waipukurau**	**9.51**	**202**	P	Sn	11 01 12.7	-3.7
TSZ	**Takapari Road**	**9.66**	**204**	P	Sn	11 01 11.2	-9.0
DVHZ	**Dannevirke**	**9.81**	**203**	P	Sn	11 01 16.5	-7.3
BFZ	**Birch Farm**	**10.13**	**201**	P	Sn	11 01 24.0	-7.7
MRZ	**Mangatainoka R**	**10.33**	**204**	P	Sn	11 01 24.2	-12

*THE **29** 11:37:27.8, 37°.8N±0°.8×26°.9E±0°.6, h7km±1km, M3.2/10, MLh3.2/10*
*AFAD **29** 11:37:27.0, 37°.83N×26°.84E, h10km±10km, ML3.2*
*ISK **29** 11:37:27.5, 37°.85N×26°.84E, h8km, ML3.3/24*
*ATH **29** 11:37:27.8, 37°.83N×26°.84E, h11km±1km, ML3.1/13, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 29 11:37:27.7±0.8, 37°.83N±0°.02×26°.84E±0°.02, h11km±6km, n61, σ0°.50/91, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.12**	**181**	P	**Pg**	**11 37 30.6**	**-0.1**
SMG				S	**Sg**	**11 37 32.7**	**-0.3**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**181**	P	**Pg**	**11 37 30.6**	**-0.1**
SMG				S	**Sg**	**11 37 33.4**	**+0.4**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.20**	**248**	P	**Pg**	**11 37 31.7**	**-0.2**
SAM2				S	**Sg**	**11 37 35.0**	**+0.2**
SAM2				AML	AML		
DGB	**zmir**	**0.22**	**9**	P	**Pg**	**11 37 32.2**	**-0.2**
DGB				S	**Sg**	**11 37 35.1**	**-0.5**
GMLD	**Gumuldur**	**0.25**	**14**	Pg	**Pg**	**11 37 32.9**	**0.0**
GMLD				Sg	**Sg**	**11 37 36.5**	**+0.1**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**113**	P	**Pg**	**11 37 34.6**	**+0.1**
GCAM				IAML		11 37 40.0	
	comp=N,2μm,0.2s						
GCAM				IAML		11 37 40.0	
	comp=E,4μm,0.3s						
GCAM				S	**Sb**	**11 37 40.2**	**-1.0**
GCAM	**G?zelcaml?**	**0.34**	**113**	Pg	**Pg**	**11 37 34.7**	**+0.2**
GCAM				Sg	**Sg**	**11 37 39.8**	**+0.8**
GCAM				AML	AML		
BEYE	**izmir**	**0.40**	**10**	P	**Pg**	**11 37 35.5**	**-0.1**
BEYE				S	**Sg**	**11 37 40.8**	**-0.1**
ZEYE	**Izmir, Urla-Ze**	**0.48**	**327**	P	**Pg**	**11 37 36.0**	**-1.2**
ZEYE				IAML		11 37 44.0	
	comp=N,2μm,0.4s						
ZEYE				S	**Sg**	**11 37 44.1**	**+0.5**
ZEYE				IAML		11 37 48.0	
	comp=E,1μm,0.2s						
DDIM	**Aydin, Didim**	**0.49**	**139**	P	**Pg**	**11 37 37.1**	**-0.2**
DDIM				S	**Sb**	**11 37 45.5**	**0.0**
DDIM				IAML		11 37 46.0	
	comp=E,1μm,0.3s						
DDIM				IAML		11 37 48.0	
	comp=N,1μm,0.5s						
DIDI	**Didim-Aydin**	**0.56**	**145**	Pg	**Pg**	**11 37 39.0**	**+0.5**
DIDI				Sg	**Sb**	**11 37 47.3**	**0.0**
DIDI				AML	AML		
URLA	**Izmir**	**0.56**	**340**	P	**Pg**	**11 37 38.0**	**-0.7**
URLA				S	**Sg**	**11 37 46.2**	**+0.1**
URLA				IAML		11 37 51.0	
	comp=N,932nm,0.6s						
URLA				IAML		11 37 52.0	
	comp=E,1μm,0.4s						
URLA	**Izmir**	**0.56**	**340**	Pg	**Pg**	**11 37 38.3**	**-0.3**
URLA				Sg	**Sg**	**11 37 46.5**	**+0.4**
URLA				AML	AML		
BLCB	**Balcova**	**0.57**	**16**	P	**Pg**	**11 37 38.9**	**0.0**
BLCB				S	**Sg**	**11 37 46.8**	**+0.4**
BLCB				AML	AML		
BLCB	**Balcova**	**0.57**	**16**	Pg	**Pg**	**11 37 38.7**	**-0.2**
BLCB				Sg	**Sg**	**11 37 46.9**	**+0.4**
DUVT	**Torbali**	**0.62**	**51**	P	**Pg**	**11 37 39.1**	**-0.6**
DUVT				S	**Sg**	**11 37 47.2**	**-0.7**
DUVT				IAML		11 37 51.0	
	comp=E,1μm,0.5s						

CESE	**eme**	**0.65**	**320**	Pg	**Pg**	**11 37 40.4**	**0.0**
CESE				AML	AML		
DAGE	**izmir**	**0.74**	**76**	P	**Pg**	**11 37 42.0**	**0.0**
DAGE				S	**Sg**	**11 37 51.3**	**-0.4**
DAGE				IAML		11 37 54.0	
	comp=N,694nm,0.4s						
YKAV	**Yalikavak-Bodr**	**0.79**	**153**	Pg	**Pg**	**11 37 43.2**	**+0.3**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.79**	**344**	Pg	**Pg**	**11 37 42.9**	**-0.1**
KRBN				AML	AML		
BAGT	**Foa**	**0.82**	**1**	P	**Pg**	**11 37 42.5**	**-1.0**
BAGT				S	**Sb**	**11 37 56.4**	**+1.3**
BAGT				IAML		11 37 57.0	
	comp=E,1μm,0.7s						
BAGT				IAML		11 37 58.0	
	comp=N,2μm,0.7s						
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**11 37 43.4**	**-0.3**
CHOS				S	**Sb**	**11 37 55.7**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	Pg	**Pg**	**11 37 43.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**312**	P	**Pg**	**11 37 44.0**	**+0.2**
CHOS				S	**Sb**	**11 37 55.3**	**-0.1**
CHOS				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.84**	**82**	Pg	**Pg**	**11 37 44.1**	**+0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.84**	**101**	P	**Pg**	**11 37 43.3**	**-0.6**
AYDN				S	**Sg**	**11 37 55.1**	**+0.1**
AYDN				IAML		11 37 59.0	
	comp=E,892nm,0.3s						
BODT	**Bodrum**	**0.86**	**154**	P	**Pg**	**11 37 43.4**	**-0.7**
BODT				S	**Sg**	**11 37 55.0**	**-0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.86**	**154**	Pg	**Pb**	**11 37 44.7**	**+0.1**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.88**	**173**	P	**Pg**	**11 37 44.9**	**+0.2**
KLNA				S	**Sb**	**11 37 57.1**	**+0.4**
FOCM	**Foa**	**0.88**	**355**	Pg	**Pg**	**11 37 44.6**	**-0.1**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**338**	S	**Sb**	**11 37 57.3**	**+0.1**
BDRM	**Kayabasi**	**0.91**	**148**	P	**Pg**	**11 37 44.7**	**-0.4**
BDRM				S	**Sb**	**11 37 58.1**	**+0.7**
BDRM				IAML		11 38 00.0	
	comp=E,959nm,0.4s						
BDRM				IAML		11 38 01.0	
	comp=N,958nm,0.7s						
MLSB	**Milas**	**0.92**	**125**	Pg	**Pb**	**11 37 45.9**	**+0.3**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.93**	**149**	Pg	**Pg**	**11 37 45.5**	**0.0**
IZMR	**zmir-demi**	**0.93**	**71**	P	**Pg**	**11 37 44.9**	**-0.7**
IZMR				S	**Sg**	**11 37 56.6**	**-1.1**
CAMT	**Merkez**	**0.99**	**22**	P	**Pg**	**11 37 46.3**	**-0.4**
CAMT				S	**Sn**	**11 38 01.0**	**-0.5**
CAMT				IAML		11 38 06.0	
	comp=N,1μm,0.4s						
CAMT				IAML		11 38 08.0	
	comp=E,1μm,0.4s						
ZEDA	**zmir-Bergama**	**1.15**	**9**	P	**Pb**	**11 37 48.9**	**-0.6**
ZEDA				S	**Sn**	**11 38 05.8**	**+0.4**
ZEDA				IAML		11 38 07.0	
	comp=E,486nm,0.5s						
ZEDA				IAML		11 38 09.0	
	comp=N,326nm,0.3s						
NAZL	**Nazilli-Aydin**	**1.16**	**83**	Pn	**Pb**	**11 37 49.9**	**+0.2**
NAZL				AML	AML		
GOMA	**Golmarmara-Man**	**1.22**	**44**	Pn	**Pn**	**11 37 50.8**	**+0.2**
GOMA				AML	AML		
DKL	**Dikili**	**1.24**	**2**	Pn	**Pg**	**11 37 51.6**	**+0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.24**	**2**	P	**Pg**	**11 37 51.6**	**+0.1**
DAT	**Datca**	**1.25**	**152**	P	**Pn**	**11 37 50.2**	**-0.9**
DAT				AML	AML		
DAT	**Datca**	**1.25**	**152**	Pn	**Pg**	**11 37 51.9**	**+0.2**
DAT				AML	AML		
APE	**Apeiranthos**	**1.29**	**234**	P	**Pn**	**11 37 51.6**	**0.0**
APE				S	**Sb**	**11 38 09.0**	**+0.4**
APE				AML	AML		
APE	**Apeiranthos**	**1.29**	**234**	Pn	**Pg**	**11 37 52.5**	**0.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.29**	**234**	P	**Pn**	**11 37 50.3**	**-1.3**
APE				S	**Sg**	**11 38 09.4**	**+0.2**
APE				AML	AML		
AKS	**Akhisar**	**1.30**	**36**	Pn	**Pn**	**11 37 51.9**	**+0.2**
AKS				AML	AML		
ASTA	**Astypalaia**	**1.34**	**197**	P	**Pn**	**11 37 52.8**	**+0.5**
ASTA				AML	AML		
TNSA	**Tinos**	**1.36**	**258**	P	**Pn**	**11 37 51.8**	**-0.8**
SOMA	**Soma-Manisa**	**1.43**	**22**	Pn	**Pb**	**11 37 54.3**	**0.0**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**11 37 53.9**	**-0.3**
PRK				S	**Sg**	**11 38 15.0**	**-0.3**
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**11 37 54.5**	**+0.3**
GORD	**Gordes-Manisa**	**1.50**	**44**	Pn	**Pb**	**11 37 55.4**	**-0.2**
GORD				AML	AML		
TURN	**Turunc**	**1.54**	**133**	Pn	**Pb**	**11 37 55.9**	**-0.3**
TURN				AML	AML		
KULA	**Kula-Manisa**	**1.59**	**64**	Pn	**Pn**	**11 37 56.6**	**+0.8**
KULA				AML	AML		
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn	**Pn**	**11 37 59.4**	**+1.0**
YAYO				AML	AML		
BALB	**Balikesir**	**1.98**	**24**	Pn	**Pn**	**11 38 02.1**	**+1.0**
BALB				AML	AML		
DION	**

GTOI				AML	AML				
LUWI	**Luwuk**	**2.63**	**125**	Pn	**Pn**	**12**	**14**	**56.0**	**+0.5**
LUWI	**Luwuk**	**2.63**	**125**	P	**Pn**	**12**	**14**	**53.2**	**-2.3**
LUWI				AML	AML				
KMSI	**Cibinong**	**3.37**	**88**	P	**Pb**	**12**	**15**	**11.1**	**-1.6**
MMSI	**Mamuju**	**3.58**	**208**	P	**Pn**	**12**	**15**	**08.0**	**-0.6**
MMSI				AML	AML				
MMSI				AML	AML				
TTSI	**Tana Toraja**	**3.59**	**193**	P	**Pn**	**12**	**15**	**12.1**	**+3.3**
TTSI				AML	AML				
TTSI				AML	AML				
BKB	**Balikpapan**	**4.10**	**245**	Pn	**Pn**	**12**	**15**	**15.3**	**-0.5**
BKB	**Balikpapan**	**4.10**	**245**	P	**Pn**	**12**	**15**	**14.4**	**-1.4**
BKB				AML	AML				
BKB				AML	AML				
KAPI	**Kappang**	**5.53**	**189**	Pn	**Pn**	**12**	**15**	**39.0**	**+3.6**
	4.2nm,0.3s,baz=337,slow=7.5,SNR=8.0								
KAPI				Sn	**Sn**	**12**	**16**	**39.8**	**+0.8**
	1.0nm,0.3s,baz=72,slow=20,SNR=1.6								
KAPI				LR	LR	12	18	14.2	
	comp=Z,225nm,18.5s,baz=5.5,slow=43 22nm,0.5s								
KAPI				AML	AML				
KAPI	**Kappang**	**5.53**	**189**		**Pn**	**12**	**15**	**35.4**	**0.0**
KKM	**Kota Kinabalu**	**7.06**	**322**	Pn	**Pn**	**12**	**15**	**55.8**	**-0.8**
DAV	**Davao City (W)**	**8.20**	**37**	LR	LR	12	20	00.8	
	comp=Z,43nm,18.6s,baz=267,slow=43								
SIJI	**Sorong**	**10.73**	**97**	Pn	**Pn**	**12**	**16**	**48.3**	**+1.5**
	0.2nm,0.3s,baz=324,slow=19,SNR=1.2 2.2nm,0.6s								
SIJI				AML	AML				
BATI	**Baumata**	**11.04**	**164**	LR	LR	12	21	26.1	
	comp=Z,334nm,20.5s,baz=334,slow=39								
FAKI	**Fak Fak**	**12.11**	**106**	Pn	**Pn**	**12**	**17**	**05.7**	**0.0**
FITZ	**Fitzroy Crossi**	**19.11**	**165**	LR	LR	12	26	55.5	
	comp=Z,104nm,18.7s,baz=2.5,slow=40								
FITZ	**Fitzroy Crossi**	**19.11**	**165**	P	**P**	**12**	**18**	**35.5**	**-0.7**
WB0	**Warramunga Arr**	**24.24**	**147**	P	**P**	**12**	**19**	**29.8**	**-0.5**
WB0				IAmb	IAmb	12	19	31.5	
	comp=Z,6.2nm,0.7s								
WRA	**Warramunga Arr**	**24.35**	**147**	P	**P**	**12**	**19**	**31.5**	**+0.2**
	comp=Z,7.1nm,0.8s,baz=323,slow=9.4,SNR=44 comp=Z,7.1nm,0.8s								
WRA	**Warramunga Arr**	**24.35**	**147**	P	**P**	**12**	**19**	**30.8**	**-0.5**
AS31	**Alice Springs**	**27.26**	**153**	P	**P**	**12**	**19**	**57.6**	**0.0**
AS31				IAmb	IAmb	12	20	00.8	
	comp=Z,0.8nm,0.5s								
ASAR	**Alice Springs**	**27.26**	**153**	P	**P**	**12**	**19**	**58.3**	**+0.7**
	comp=Z,1.3nm,0.7s,baz=333,slow=9.4,SNR=38								
ASAR				PcP	**PcP**	**12**	**23**	**16.1**	**-1.5**
	comp=Z,0.1nm,0.5s,baz=339,slow=3.2,SNR=1.4								
ASAR				LR	LR	12	31	41.6	
	comp=Z,62nm,21.6s,baz=295,slow=38 comp=Z,1.3nm,0.7s								
ASAR	**Alice Springs**	**27.26**	**153**	P	**P**	**12**	**19**	**58.0**	**+0.4**
CMAR	**Chiang Mai Arr**	**27.79**	**311**	LR	LR	12	30	53.0	
	comp=Z,15nm,21.1s,baz=170,slow=36								
KRVT	**Keravat (AS076**	**31.74**	**99**	LR	LR	12	34	16.3	
	comp=Z,30nm,18.4s,baz=252,slow=38								
FORT	**Forrest**	**31.89**	**168**	P	**P**	**12**	**20**	**38.6**	**0.0**
FORT				IAmb	IAmb	12	21	01.1	
	comp=Z,5.4nm,0.8s								
CTA	**Charters Tower**	**32.38**	**131**	LR	LR	12	34	23.5	
	comp=Z,36nm,18.6s,baz=35,slow=38								
INKA	**Innaminka**	**34.08**	**147**	P	**P**	**12**	**20**	**57.0**	**-0.8**
INKA				IAmb	IAmb	12	21	21.1	
	comp=Z,4.8nm,1.4s								
LYN	**LuoYang**	**34.74**	**348**	*e*P	**P**	**12**	**21**	**07.0**	**+3.6**
LYN				pmax	pmax				
	comp=Z,12nm,0.6s								
KSRS	**Korea Array**	**37.40**	**10**	P	**P**	**12**	**21**	**26.3**	**+0.1**
	comp=Z,0.9nm,0.8s,baz=197,slow=8.5,SNR=4.3 comp=Z,0.9nm,0.8s								
STKA	**Stephens Creek**	**37.82**	**150**	P	**P**	**12**	**21**	**30.0**	**+0.2**
	comp=Z,4.8nm,0.7s,baz=323,slow=7.3,SNR=8.3 comp=Z,4.8nm,0.7s								
SONM	**Songino Array**	**48.76**	**347**	P	**P**	**12**	**22**	**57.9**	**-0.2**
	comp=Z,0.3nm,0.6s,baz=171,slow=11,SNR=2.6 comp=Z,0.3nm,0.6s								
SONM	**Songino Array**	**48.76**	**347**	P	**P**	**12**	**22**	**57.6**	**-0.5**
SONM				IAmb	IAmb	12	23	24.1	
	comp=Z,2.7nm,1.5s								
MKAR	**Makanchi Array**	**56.97**	**329**	P	**P**	**12**	**23**	**58.5**	**-0.2**
	comp=Z,0.5nm,0.6s,baz=129,slow=7.7,SNR=6.8								
MKAR				PcP	**PcP**	**12**	**24**	**53.3**	**-0.6**
	comp=Z,0.4nm,0.7s,baz=144,slow=3.9,SNR=1.8 comp=Z,0.5nm,0.6s								
MKAR	**Makanchi Array**	**56.97**	**329**	P	**P**	**12**	**23**	**58.2**	**-0.5**
ZALV	**Zalesovo Beam**	**60.91**	**337**	P	**P**	**12**	**24**	**25.3**	**-0.6**
	comp=Z,0.2nm,0.3s,baz=140,slow=7.6,SNR=2.6 comp=Z,0.2nm,0.3s								
KURBB	**Kurchatov Arra**	**61.37**	**331**	P	**P**	**12**	**24**	**29.4**	**+0.3**
	comp=Z,0.6nm,0.3s,baz=126,slow=5.8,SNR=2.2 comp=Z,0.6nm,0.3s								
ABKAR	**Akbulak array**	**70.90**	**323**	P	**P**	**12**	**25**	**29.3**	**-1.1**
AKTO	**Aktyubinsk**	**72.50**	**323**	P	**P**	**12**	**25**	**40.2**	**+0.2**
	comp=Z,1.5nm,0.8s,baz=90,slow=1.0,SNR=4.0 comp=Z,1.5nm,0.8s								
D19K	**Kuna River**	**86.34**	**21**	P	**P**	**12**	**26**	**55.2**	**+0.1**
E19K	**Redstone River**	**86.54**	**22**	P	**P**	**12**	**26**	**56.0**	**0.0**
BRTR	**Keskin Array B**	**87.36**	**310**	P	**P**	**12**	**26**	**59.7**	**-1.1**
	comp=Z,0.4nm,0.5s,baz=121,slow=5.6,SNR=2.6 comp=Z,0.4nm,0.5s								

*IDC **29** 12:29:48.4±1.0,31˚.31N×140˚.21E, h0km, mb3.6/9, mbtmp3.6/10, ML2.6/1, MS3.1/2, Error ellipse: s-maj=29.1km s-min=14.7km az=83.0*
*JMA **29** 12:29:55.9±0.6,32˚N±2˚×14˚0E±˚, h0km, MV3.2/16, E OFF HACHIJOJIMA ISLAND*
ISC 29 12:29:50.3±0.9,31˚.52N±0˚.07×140˚.3E±0˚.1, h10km, n26, σ2^{s}12/19, mb3.6/9, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time			Res
				Op	ISC	h	m	s	ISC
JAOM	**Aogashimamukai**	**1.03**	**336**	*e*P	**Pn**	**12**	**30**	**10.8**	**-0.1**
JAOM				*e*S	**Sg**	**12**	**30**	**21.0**	**-2.5**
JHCJ	**Hachijojimakas**	**1.59**	**346**	*e*P	**Pb**	**12**	**30**	**19.2**	**-0.7**
JHJ2	**Mitsune**	**1.63**	**347**	*e*P	**Pn**	**12**	**30**	**18.9**	**-0.1**
JHJ	**Hachijo jima 2**	**1.64**	**346**	Pn	**Pn**	**12**	**30**	**19.0**	**-0.2**
	2.2nm,0.3s,baz=227,slow=19,SNR=13								
JHJ				Sn	**Sn**	**12**	**30**	**36.2**	**-4.2**
	2.8nm,0.3s,baz=217,slow=20,SNR=2.9								
JMYK	**Miyake Tsubota**	**2.60**	**347**	*e*P	**Pn**	**12**	**30**	**34.0**	**+1.6**
BSO1	**Boso 1**	**3.18**	**11**	*e*P	**Pn**	**12**	**30**	**39.5**	**-0.4**
MJAR	**Matsushiro Arr**	**5.29**	**342**	Pn	**Pn**	**12**	**31**	**13.6**	**+4.2**
	0.2nm,0.3s,baz=153,slow=14,SNR=15								
MJAR				Sn	**Sn**	**12**	**32**	**13.0**	**+2.6**
	baz=179,slow=18								
MJAR				LR	LR	12	33	24.1	
	comp=Z,164nm,19.0s,baz=174,slow=39 6.1nm,0.8s								
MJAR				AML	AML				
KLR	**Kul'dur**	**18.82**	**343**	LR	LR	12	41	09.5	
	comp=Z,58nm,19.2s,baz=266,slow=36								
H11N2	**WAKE ISLAND Hy 26.66**	**110**		T	T	13	03	25.7	
	baz=302,slow=75,SNR=188								
H11N1	**WAKE ISLAND Hy 26.66**	**110**		T	T	13	03	26.0	
	baz=302,slow=75,SNR=356								
H11N3	**WAKE ISLAND Hy 26.68**	**110**		T	T	13	03	26.6	
	baz=302,slow=75,SNR=261								
H11S3	**WAKE ISLAND Hy 27.15**	**112**		T	T	13	04	01.2	
	baz=304,slow=76,SNR=2456								
H11S1	**WAKE ISLAND Hy 27.16**	**112**		T	T	13	04	02.0	
	baz=304,slow=76,SNR=2893								
H11S2	**WAKE ISLAND Hy 27.17**	**112**		T	T	13	04	02.3	
	baz=304,slow=76,SNR=3512								
SONM	**Songino Array**	**30.43**	**312**	P	**P**	**12**	**36**	**04.9**	**+1.9**
	0.3nm,0.5s,baz=95,slow=7.8,SNR=1.9 0.3nm,0.5s								
CMAR	**Chiang Mai Arr**	**39.41**	**261**	P	**P**	**12**	**37**	**20.4**	**-0.1**
	1.6nm,0.7s,baz=52,slow=6.9,SNR=14 1.6nm,0.7s								
ZALV	**Zalesovo Beam**	**45.09**	**317**	P	**P**	**12**	**38**	**07.1**	**+0.7**
	0.3nm,0.5s,baz=89,slow=7.9,SNR=2.4 0.3nm,0.5s								
MKAR	**Makanchi Array**	**46.43**	**306**	P	**P**	**12**	**38**	**16.5**	**-0.7**
	0.4nm,0.7s,baz=79,slow=10,SNR=1.8 0.4nm,0.7s								
KURBB	**Kurchatov Arra**	**48.80**	**312**	P	**P**	**12**	**38**	**34.7**	**-0.8**
	0.5nm,0.3s,baz=88,slow=7.3,SNR=8.6 0.5nm,0.3s								
WRA	**Warramunga Arr**	**51.48**	**187**	P	**P**	**12**	**38**	**53.1**	**-3.0**
	0.6nm,0.7s,baz=3.9,slow=7.4,SNR=8.5 0.6nm,0.7s								
ILAR	**Eielson Array**	**54.69**	**30**	P	**P**	**12**	**39**	**20.5**	**+1.2**
	0.5nm,0.9s,baz=278,slow=7.3,SNR=4.4 0.5nm,0.9s								
ASAR	**Alice Springs**	**55.21**	**187**	P	**P**	**12**	**39**	**21.9**	**-1.5**
	0.2nm,0.8s,baz=2.7,slow=5.6,SNR=5.0 0.2nm,0.8s								
TXAR	**Lajitas Array**	**94.25**	**52**	P	**P**	**12**	**43**	**11.5**	**+1.3**
	0.5nm,1.0s,baz=317,slow=6.7,SNR=2.1 0.5nm,1.0s								
H03N2	**Juan Fernandez**	**147.01**	**104**	T	T	15	33	52.5	
	baz=278,slow=77,SNR=325								
H03N3	**Juan Fernandez**	**147.02**	**104**	T	T	15	34	06.6	
	baz=278,slow=77,SNR=3.0								
H03N1	**Juan Fernandez**	**147.03**	**104**	T	T	15	33	53.3	
	baz=278,slow=77,SNR=338								

*IDC **29** 12:41:31.9±0.7,31˚.42N×140˚.24E, h0km, mb3.9/17, mbtmp3.8/19, ML2.5/2, MS3.1/7, Error ellipse: s-maj=19.7km s-min=13.5km az=74.0*
*NEIC **29** 12:41:34.5±1.1,31˚.39N±0˚.06×140˚.3E±0˚.1, h10km±1km, mb4.6/21, Error ellipse: s-maj=16.9km s-min=9.7km az=79.0*
*NIED **29** 12:41:37.2,31˚.65N×140˚.22E, h28km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-3.77; $M_{\theta\theta}$2.71; $M_{\phi\phi}$1.06; $M_{r\theta}$1.76; $M_{\theta\phi}$1.70; $M_{\phi r}$4.45; Fault plane solution: $M_0$6.05000×10^{14} NP1:ϕ_s75.00000°, δ24.00000°, λ-50.00000°. NP2:ϕ_s212.00000°, δ72.00000°, λ-106.00000°.*
*JMA **29** 12:41:37.2±0.4,32˚N±2˚×14˚0E±˚, h28km, MV3.6/16, NEAR TORISHIMA IS*
ISC 29 12:41:34.1±0.6,31˚.50N±0˚.06×140˚.24E±0˚.09, h10km, n72, σ1^{s}75/56, mb4.1/27, MS3.1/3, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time			Res
				Op	ISC	h	m	s	ISC
JAOM	**Aogashimamukai**	**1.04**	**337**	P	**Pg**	**12**	**41**	**53.5**	**-0.8**
JHCJ	**Hachijojimakas**	**1.61**	**347**	P	**Pn**	**12**	**42**	**02.6**	**-0.1**
JHJ2	**Mitsune**	**1.65**	**348**	Pn	**Pn**	**12**	**42**	**03.4**	**+0.2**
JHJ2	**Mitsune**	**1.65**	**348**	*e*P	**Pn**	**12**	**42**	**03.1**	**0.0**
JHJ	**Hachijo jima 2**	**1.66**	**347**	Pn	**Pn**	**12**	**42**	**03.0**	**-0.4**
	3.6nm,0.3s,baz=248,slow=22,SNR=18								
JHJ				Sn	**Sn**	**12**	**42**	**20.1**	**-4.7**
	5.4nm,0.3s,baz=216,slow=23,SNR=5.9								
JSG	**Sagara**	**3.61**	**332**	Pn	**Pn**	**12**	**42**	**31.9**	**+1.9**
JOD2	**Odawara 2**	**3.88**	**346**	*e*P	**Pn**	**12**	**42**	**38.3**	**+4.5**
JIE	**Ise**	**4.14**	**315**	*e*P	**Pn**	**12**	**42**	**39.3**	**+1.9**
INU	**Inuyama**	**4.69**	**326**		**Pn**	**12**	**42**	**46.7**	**+1.7**
JCJ	**Chichijima**	**4.70**	**158**	Pn	**Pn**	**12**	**42**	**43.4**	**-1.8**
JYT	**Yasato**	**4.72**	**360**	Pn	**Pn**	**12**	**42**	**47.1**	**+1.8**
JGF	**Kuroka**	**4.75**	**330**		**Pn**	**12**	**42**	**47.7**	**+1.9**
MJAR	**Matsushiro Arr**	**5.31**	**342**	Pn	**Pn**	**12**	**42**	**56.4**	**+2.9**
	0.2nm,0.3s,baz=169,slow=10,SNR=28								
MJAR				LR	LR	12	45	00.8	
	comp=Z,212nm,20.5s,baz=186,slow=39 48nm,1.2s								
MJAR				AML	AML				
MJAR	**Matsushiro Arr**	**5.31**	**342**		**Pn**	**12**	**42**	**56.0**	**+2.6**
MAJO	**Matsushiro**	**5.31**	**342**		**Pn**	**12**	**42**	**55.9**	**+2.4**
MJB9	**Matsu-Tunnel**	**5.31**	**342**		**Pn**	**12**	**42**	**55.5**	**+2.0**
JMN	**Monobe**	**5.81**	**294**	Pn	**Pn**	**12**	**43**	**02.4**	**+2.0**
KSRS	**Korea Array**	**11.77**	**304**	Pn	**Pn**	**12**	**44**	**25.6**	**+3.5**
	baz=115,slow=13,SNR=8.9								
KSRS				LR	LR	12	48	11.5	
	comp=Z,14nm,21.3s,baz=320,slow=34 0.8nm,0.8s								
USRK	**Ussuriysk Ar.**	**14.25**	**335**	LR	LR	12	50	01.2	
	comp=Z,62nm,18.9s,baz=143,slow=36								
DPSS	**Saipan**	**16.96**	**161**	Pn	**Pn**	**12**	**45**	**29.2**	**-2.4**
YULB	**Yu-li**	**18.63**	**249**	P	**P**	**12**	**45**	**51.9**	**-0.2**
YULB				IAmb	IAmb	12	46	05.0	
	comp=Z,74nm,1.4s								
KLR	**Kul'dur**	**18.84**	**343**	LR	LR	12	52	42.0	
	comp=Z,75nm,18.4s,baz=142,slow=35								
BJT	**Baijiatuan**	**21.26**	**300**		**P**	**12**	**46**	**20.7**	**+0.2**
BJT				IAmb	IAmb	12	46	24.3	
	comp=Z,39nm,1.2s								
ENH	**Enshi**	**26.38**	**275**	P	**P**	**12**	**47**	**10.7**	**-0.1**
ENH				IAmb	IAmb	12	47	21.2	
	comp=Z,9.8nm,1.0s								
H11N2	**WAKE ISLAND Hy 26.67**	**110**		T	T	13	15	09.7	
	baz=302,slow=75,SNR=265								
H11N1	**WAKE ISLAND Hy 26.67**	**110**		T	T	13	15	09.3	
	baz=302,slow=75,SNR=263								
H11N3	**WAKE ISLAND Hy 26.68**	**110**		T	T	13	15	10.3	
	baz=302,slow=75,SNR=263								
H11S3	**WAKE ISLAND Hy 27.16**	**112**		T	T	13	15	44.0	
	baz=304,slow=75,SNR=1324								
H11S1	**WAKE ISLAND Hy 27.16**	**112**		T	T	13	15	44.2	
	baz=304,slow=75,SNR=2511								
H11S2	**WAKE ISLAND Hy 27.18**	**112**		T	T	13	15	45.3	
	baz=304,slow=75,SNR=785								
SONM	**Songino Array**	**30.44**	**312**	P	**P**	**12**	**47**	**47.5**	**+0.6**
	comp=Z,0.6nm,0.7s,baz=116,slow=9.8,SNR=3.8 comp=Z,0.6nm,0.7s								
SONM	**Songino Array**	**30.44**	**312**	P	**P**	**12**	**47**	**46.6**	**-0.3**
YAK	**Yakutsk**	**31.31**	**350**	LR	LR	13	00	51.1	
	comp=Z,38nm,18.9s,baz=30,slow=37								
YAK	**Yakutsk**	**31.31**	**350**	P	**P**	**12**	**47**	**55.2**	**+1.1**
YAK				IAmb	IAmb	12	48	08.7	
	comp=Z,7.0nm,0.8s								
TLY	**Talaya**	**33.51**	**318**	LR	LR	13	02	27.5	
	comp=Z,30nm,18.6s,baz=245,slow=37								
SLVN	**Son La**	**33.94**	**262**	P	**P**	**12**	**48**	**17.9**	**+0.1**
SLVN				IAmb	IAmb	12	48	22.9	
	comp=Z,5.3nm,1.0s								
LUWI	**Luwuk**	**36.36**	**210**	P	**P**	**12**	**48**	**38.3**	**-0.2**
CHTO	**Chiang Mai**	**39.23**	**261**	P	**P**	**12**	**49**	**02.6**	**-0.3**
CHTO				IAmb	IAmb	12	49	03.9	
	comp=Z,7.8nm,0.8s								
CM31	**Chiang Mai Arr**	**39.40**	**261**		**P**	**12**	**49**	**04.3**	**0.0**
CM31				IAmb	IAmb	12	49	08.1	
	comp=Z,9.7nm,1.1s								
CMAR	**Chiang Mai Arr**	**39.40**	**261**	P	**P**	**12**	**49**	**04.8**	**+0.5**
	comp=Z,2.6nm,0.7s,baz=50,slow=7.3,SNR=24 comp=Z,2.6nm,0.7s								
CMAR	**Chiang Mai Arr**	**39.40**	**261**	P	**P**	**12**	**49**	**04.2**	**-0.1**
ZALV	**Zalesovo Beam**	**45.10**	**317**	P	**P**	**12**	**49**	**49.7**	**-0.6**
	comp=Z,0.3nm,0.4s,baz=115,slow=6.7,SNR=3.8 comp=Z,0.3nm,0.4s								
ZALV	**Zalesovo Beam**	**45.10**	**317**	P	**P**	**12**	**49**	**50.8**	**+0.4**
KULM	**Kulim**	**45.32**	**243**	P	**P**	**12**	**49**	**52.6**	**0.0**
KULM				IAmb	IAmb	12	49	53.6	
	comp=Z,7.0nm,0.9s								
MKAR	**Makanchi Array**	**46.43**	**307**	P	P	12	49	59.5	-1.5
	comp=Z,0.9nm,0.8s,baz=88,slow=11,SNR=6.4 comp=Z,0.9nm,0.8s								
MKAR	**Makanchi Array**	**46.43**	**307**	P	**P**	**12**	**50**	**01.1**	**+0.1**
NRIK	**Noril'sk**	**47.95**	**338**	LR	LR	13	11	04.3	
	comp=Z,46nm,20.1s,baz=14,slow=37								
KURK	**Kurchatov**	**48.74**	**312**	P	**P**	**12**	**50**	**18.5**	**-0.3**
KURBB	**Kurchatov Arra**	**48.80**	**312**	P	**P**	**12**	**50**	**18.4**	**-0.9**
	comp=Z,1.4nm,0.9s,baz=88,slow=7.2,SNR=9.1 comp=Z,1.4nm,0.9s								
F17K	**Baldwin Pennin**	**49.05**	**27**	P	**P**	**12**	**50**	**21.5**	**+0.5**
K17K	**Iditarod**	**49.50**	**32**	P	**P**	**12**	**50**	**26.0**	**+1.5**
H18K	**Honhosa River**	**49.91**	**29**	P	**P**	**12**	**50**	**29.4**	**+1.8**
H18K				IAmb	IAmb	12	50	39.8	
	comp=Z,16nm,1.2s								
D19K	**Kuna River**	**50.74**	**25**	P	**P**	**12**	**50**	**35.0**	**+1.2**
D19K				IAmb	IAmb	12	51	12.8	
	comp=Z,9.7nm,1.3s								
WR8	**Warramunga Arr**	**51.45**	**187**	P	P	12	50	37.8	-1.9
WRA	**Warramunga Arr**	**51.46**	**187**	P	P	12	50	37.6	-2.2
	comp=Z,2.1nm,0.9s,baz=4.7,slow=7.7,SNR=12 comp=Z,2.1nm,0.9s								
WRA	**Warramunga Arr**	**51.46**	**187**	P	P	12	50	37.2	-2.5
BVAR	**Borovoye Array**	**53.70**	**315**	P	**P**	**12**	**50**	**55.2**	**-0.9**
	comp=Z,0.3nm,0.3s,baz=95,slow=11,SNR=1.3 comp=Z,0.3nm,0.3s								
D24K	**Happy Valley**	**54.17**	**25**	P	**P**	**12**	**51**	**00.1**	**+0.9**
D24K				IAmb	IAmb	12	51	03.8	
	comp=Z,3.8nm,1.0s								
ILAR	**Eielson Array**	**54.72**	**30**	P	**P**	**12**	**51**	**02.6**	**-0.7**
	comp=Z,1.0nm,0.9s,baz=276,slow=6.4,SNR=7.1 comp=Z,1.0nm,0.9s								
AS31	**Alice Springs**	**55.18**	**187**	P	**P**	**12**	**51**	**06.6**	**-0.6**
ASAR	**Alice Springs**	**55.19**	**187**	P	**P**	**12**	**51**	**06.0**	**-1.2**
	comp=Z,0.6nm,0.8s,baz=16,slow=12,SNR=8.6 comp=Z,0.6nm,0.8s								
FINES	**FINESS Array B**	**73.27**	**333**	P	**P**	**12**	**53**	**04.9**	**-0.4**
	comp=Z,3.8nm,1.0s,baz=48,slow=7.6,SNR=2.2 comp=Z,3.8nm,1.0s								
KBZ	**Khabaz**	**73.80**	**312**	P	**P**	**12**	**53**	**08.8**	**+0.1**
	comp=Z,3.2nm,0.9s,baz=45,slow=5.7,SNR=4.1 comp=Z,3.2nm,0.9s								
AKASG	**Malin Array Be**	**78.09**	**323**	P	**P**	**12**	**53**	**31.8**	**-1.3**
	comp=Z,0.3nm,0.4s,baz=54,slow=5.4,SNR=4.1 comp=Z,0.3nm,0.4s								
HFS	**Hagfors**	**78.72**	**336**	P	**P**	**12**	**53**	**36.3**	**-0.2**
	comp=Z,2.1nm,0.9s,baz=38,slow=7.3,SNR=2.3 comp=Z,2.1nm,0.9s								
NVAR	**Mina Array Bea**	**79.13**	**52**	P	**P**	**12**	**53**	**39.2**	**-0.2**
	comp=Z,0.3nm,0.7s,baz=311,slow=5.7,SNR=1.8 comp=Z,0.3nm,0.7s								
BRTR	**Keskin Array B**	**81.80**	**312**	P	**P**	**12**	**53**	**52.2**	**-1.4**
	comp=Z,0.6nm,0.7s,baz=92,slow=4.3,SNR=4.5 comp=Z,0.6nm,0.7s								
PDAR	**Pinedale Array**	**82.27**	**44**	P	**P**	**12**	**53**	**55.1**	**-1.1**
	comp=Z,0.2nm,0.7s,baz=320,slow=4.3,SNR=1.7 comp=Z,0.2nm,0.7s								
TXAR	**Lajitas Array**	**94.28**	**52**	P	**P**	**12**	**54**	**55.2**	**+1.0**
	comp=Z,0.8nm,1.0s,baz=302,slow=2.8,SNR=4.5 comp=Z,0.8nm,1.0s								
H03N2	**Juan Fernandez**	**147.02**	**104**	T	T	15	45	36.7	
	baz=277,slow=78								
H03N1	**Juan Fernandez**	**147.04**	**104**	T	T	15	45	38.5	
	baz=345,slow=78								
LPAZ	**La Paz**	**150.08**	**66**	PKPbc	**PKPdf**	**13**	**01**	**27.2**	**+5.7**
	comp=Z,1.6nm,0.8s,baz=353,slow=3.9,SNR=6.9								

*JSO **29** 13:04:36.8±1.0,30˚N±6˚×3˚5E±˚, h57km±13km, M2.3/8, MLv2.3/8*
GII 29 13:04:27.3±0.0, 29˚.698N±0˚.002×36˚.220E±0˚.001, h0km, confirmed, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time			Res
				Op	ISC	h	m	s	ISC
HSNJ	**Maan**	**0.72**	**320**	P	Pn	13	04	51.9	+6.9
HSNJ				AML	AML				
AQBJ	**Aqaba**	**1.02**	**272**	P	Pn	13	04	48.9	0.0
AQBJ				AML	AML				
HRFI	**Mount Harif**	**1.08**	**288**	P	Pb	13	04	49.0	0.0
HRFI				AML	AML				
HRFI	**Mount Harif**	**1.08**	**288**	P	Pg	13	04	48.2	+0.1
HRFI				S	Sn	13	05	04.7	-0.9
EIL	**Elat**	**1.10**	**269**	P	Pn	13	04	50.2	+0.1
EIL				AML	AML				
EIL	**Elat**	**1.10**	**269**	P	Pb	13	04	49.1	-0.2
EIL				S	Sb	13	05	04.7	+0.4
PRNI	**Paran**	**1.24**	**302**	P	Pg	13	04	50.8	-0.3
PRNI				AML	AML				
IDAN	**Idan**	**1.40**	**324**	P	Pn	13	04	53.8	-0.3
IDAN				S	Sn	13	05	13.0	-0.2
RMNI	**Mount Ramon**	**1.55**	**306**	P	Pn	13	04	56.1	-0.2
RMNI				S	Sb	13	05	17.6	+0.4
GHAJ	**Ghor Haditha**	**1.70**	**341**	P	Pn	13	04	57.3	-0.9
GHAJ				S	Sn	13	05	20.6	0.0
MSBI	**Mazada**	**1.77**	**335**	P	Pn	13	04	59.4	+0.2
MSBI				AML	AML				
MSBI	**Mazada**	**1.77**	**335**	P	Pn	13	04	58.8	-0.4
MSBI				S	Sn	13	05	22.6	+0.1
KZIT	**Kziot**	**1.98**	**308**	P	Pn	13	05	02.1	-0.1
KZIT				S	Sn	13	05	27.9	+0.2
ASF	**Jabal al Asfar**	**2.52**	**12**	P	Pb	13	05	14.8	+1.0

*NEIC **29** 13:05:06.0±1.5,22˚.7S±0˚.1×170˚.65E±0˚.03, h10km±1km, mb4.3/12, Error ellipse: s-maj=20.7km s-min=4.5km az=183.0*
*NOU **29** 13:05:08.0,22˚.72S×170˚.41E, h0km, mB5.7/11, Southeast of Loyalty Islands*
*IDC **29** 13:05:09.4±4.0,22˚.75S×170˚.64E, h42km±27km, mb3.7/6, mbtmp4.0/8, ML4.5/2, MS3.2/6, Error ellipse: s-maj=63.0km s-min

Plg17.0000°, Azm73.0000°; P -1.9290, Plg16.0000°, Azm168.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

GFZ ***29*** *13:42:14.8±0.6,24°N±3°×12°2E±°, h30km±4km, M4.8/17, mb4.8/17*

TAP ***29*** *13:42:14.7,24°.20N×122°.25E, h32km, ML5.2, B*

JMA ***29*** *13:42:14.6±0.1,24°.1N±0°.9×122°.3E±0°.3, h35km±2km, MD4.9/17, MV4.9/17, TAIWAN REGION*

JMA Felt I J1 at TAIWAN REGION .

NIED ***29*** *13:42:14.6,24°.14N×122°.26E, h35km, MW4.8, Moment Tensor Solution. s2 Moment tensor: Scale 10¹⁶Nm; Mrr1.45; Mθθ-1.84; Mφφ 0.39; Mrθ 0.99; Mθφ -0.13; Mrφ 0.68; Fault plane solution: M₀2.06000×10¹⁶ NP1: φs289.00000°, δ33.00000°, λ127.00000°. NP2: φs67.00000°, δ64.00000°, λ69.00000°.*

BJI ***29*** *13:42:14.1,24°.14N×122°.27E, h31km, mB4.8/20, mb4.5/57, ML4.5/9, Ms4.5/55, Ms7 4.4/58*

ASIES ***29*** *13:42:14.5,24°.20N×122°.27E, h33km, Mw4.7, Fault plane solution: NP1:φs303.00000°, δ28.00000°, λ150.00000°. NP2:φs60.00000°, δ76.00000°, λ65.00000°.*

NEIC ***29*** *13:42:15.2±1.4,24°.25N±0°.05×122°.20E±0°.06, h32km±1km, mb4.9/91, Error ellipse: s-maj=8.4km s-min=6.4km az=112.0*

IDC ***29*** *13:42:16.3±2.2,24°.34N×122°.30E, h49km±21km, mb4.1/30, mbtmp4.3/34, ML4.1/3, MS4.0/67, Error ellipse: s-maj=14.4km s-min=10.0km az=60.0*

ISC 29 13:42:14.6±0.3,24°.19N±0°.02×122°.24E±0°.02,h32km±2km, h34km:pP-P,n472,σ1§26/581,mb4.8/101,MS4.1/69, 22C-17D,Taiwan region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.10**	**134**	*i*P		**Pb**	**13 42 19.8**		**0.0**
EOS4				eS		**Sb**	**13 42 23.4**		**+0.1**
EOS3	**EOS3**	**0.12**	**35**	⇑*i*P		**Pb**	**13 42 20.2**		**0.0**
EOS3				*i* S		**Sb**	**13 42 24.2**		**+0.2**
EOS2	**EOS2**	**0.23**	**358**	⇓*i*P		**Pn**	**13 42 21.3**		**-0.3**
EOS2				S		**Sb**	**13 42 26.1**		**+0.2**
EHP	**Heping Village**	**0.47**	**285**	*e*P		**Pb**	**13 42 24.8**		**+0.1**
EHP				eS		**Sb**	**13 42 30.6**		**-1.1**
EAHA	**Aohua**	**0.48**	**287**	⇓*i*P		**Pb**	**13 42 24.6**		**-0.2**
EAHA				eS		**Sb**	**13 42 31.7**		**-0.1**
EWUT	**Wuta**	**0.49**	**301**	⇓*i*P		**Pb**	**13 42 24.5**		**-0.5**
EWUT				eS		**Sb**	**13 42 31.2**		**-1.0**
ENA	**Nanau**	**0.52**	**298**	⇓*i*P		**Pb**	**13 42 24.9**		**-0.5**
ENA				eS		**Sb**	**13 42 31.9**		**-0.9**
ESAO	**Su ao**	**0.53**	**317**	⇓*e*P		**Pb**	**13 42 24.9**		**-0.7**
ESAO				eS		**Sb**	**13 42 31.9**		**-1.3**
TWC	**Suao**	**0.55**	**320**	⇓*e*P		**Pb**	**13 42 25.1**		**-0.9**
TWC				eS		**Sb**	**13 42 32.5**		**-1.3**
ETL	**Fush Village**	**0.57**	**267**	P		**Pb**	**13 42 26.4**		**+0.2**
ETL				eS		**Sn**	**13 42 36.1**		**+1.4**
NACB	**Ninganchiao**	**0.59**	**269**	P		**Pb**	**13 42 27.0**		**+0.3**
NACB	**Ninganchiao**	**0.59**	**269**			**Pn**	**13 42 26.7**		**0.0**
NACB	**Ninganchiao**	**0.59**	**269**	P		**Pn**	**13 42 26.8**		**0.0**
NACB	**Ninganchiao**	**0.59**	**269**	⇑*i*P		**Pn**	**13 42 26.6**		**0.0**
NACB				eS		**Sb**	**13 42 35.5**		**+0.6**
HWA	**Hwalien**	**0.62**	**250**	*e*P		**Pn**	**13 42 27.2**		**+0.1**
HWA				eS		**Sb**	**13 42 36.4**		**+0.8**
NDS	**Dongshan**	**0.65**	**313**	⇓*i*P		**Pn**	**13 42 27.1**		**-0.5**
NDS				eS		**Sb**	**13 42 36.0**		**-0.5**
TEYL	**Yanliau Villag**	**0.67**	**242**	⇓P		**Pn**	**13 42 27.9**		**+0.1**
TEYL				S		**Sn**	**13 42 38.4**		**+1.3**
JYNG	**Yonagunijimaku**	**0.69**	**68**	P		**Pb**	**13 42 28.0**		**-0.2**
JYNG				A		A	13 42 28.0		
	comp=N,91nm,1.1s,comp=E,72nm,0.6s								
JYNG				eS		**Sn**	**13 42 37.1**		**-0.7**
ETLH	**Xiulin Townshi**	**0.69**	**272**	⇑*i*P		**Pb**	**13 42 28.2**		**0.0**
ETLH				S		**Sb**	**13 42 39.2**		**+1.5**
EGS		**0.71**	**337**	⇓*i*P		**Pn**	**13 42 28.2**		**-0.2**
EGS				S		**Sb**	**13 42 38.2**		**+0.1**
ETM	**Tongmen**	**0.72**	**252**	⇑P		**Pn**	**13 42 28.2**		**-0.3**
ETM				*i* S		**Sn**	**13 42 38.5**		**0.0**
ILA	**Ilan**	**0.73**	**322**	P		**Pn**	**13 42 28.7**		**0.0**
ILA				eS		**Sb**	**13 42 39.6**		**+1.0**
LATG	**Datong**	**0.74**	**298**	⇓*i*P		**Pn**	**13 42 29.1**		**+0.2**
LATG				eS		**Sn**	**13 42 39.3**		**+0.3**
SHUL	**Shoufeng**	**0.74**	**237**	P		**Pn**	**13 42 28.7**		**0.0**
SHUL				S		**Sb**	**13 42 39.6**		**+0.8**
TWE	**Neicheng**	**0.75**	**315**	⇓*e*P		**Pn**	**13 42 28.8**		**-0.1**
TWE				eS		**Sn**	**13 42 38.8**		**-0.3**
YOJ	**Yonaguni jima**	**0.75**	**69**	P		**Pb**	**13 42 29.4**		**+0.2**
YOJ	**Yonaguni jima**	**0.75**	**69**			**Pb**	**13 42 29.2**		**-0.1**
YOJ	**Yonaguni jima**	**0.75**	**69**	P		**Pb**	**13 42 29.1**		**-0.1**
YOJ	**Yonaguni jima**	**0.75**	**69**	⇑P		**Pb**	**13 42 28.9**		**-0.3**
YOJ				*i* S		**Sb**	**13 42 39.5**		**+0.3**
YOJ	**Yonaguni jima**	**0.75**	**69**	*i* P		**Pb**	**13 42 29.0**		**-0.3**
YOJ				A		A	13 42 29.0		
	comp=N,92nm,3.3s,comp=E,53nm,1.2s								
YOJ				S		**Sb**	**13 42 39.0**		**-0.2**
NTC	**Toucheng**	**0.76**	**331**	*e*P		**Pb**	**13 42 29.4**		**-0.1**
NTC				eS		**Sn**	**13 42 39.4**		**0.0**
NDT	**Datong Townshi**	**0.78**	**302**	⇓*i*P		**Pb**	**13 42 29.9**		**+0.1**
NDT				eS		**Sn**	**13 42 39.6**		**-0.5**
TEGC	**Jichi Village**	**0.80**	**234**	*e*P		**Pn**	**13 42 29.5**		**-0.1**
TEGC				eS		**Sb**	**13 42 41.7**		**+1.2**
NNSB	**Datong**	**0.82**	**287**	⇑*e*P		**Pn**	**13 42 30.4**		**+0.4**
NNSB				eS		**Sb**	**13 42 42.4**		**+1.1**
FUSB	**Fushanzhiwuyua**	**0.82**	**314**	⇓*i*P		**Pb**	**13 42 30.5**		**0.0**
FUSB				eS		**Sb**	**13 42 42.6**		**+1.3**
ESL	**Shilin**	**0.83**	**243**	⇑*i*P		**Pn**	**13 42 29.6**		**-0.4**
ESL				S		**Sn**	**13 42 41.4**		**+0.3**
NNS	**Nan Shan**	**0.83**	**288**	⇑*i*P		**Pn**	**13 42 30.5**		**+0.3**
NNS				S		**Sn**	**13 42 41.8**		**+0.4**
TWB1	**Santiao Chiao**	**0.85**	**344**	P		**Pn**	**13 42 30.4**		**+0.1**
TWB1				eS		**Sn**	**13 42 41.3**		**-0.3**
TIPB	**Shuangxi**	**0.87**	**334**	⇓*i*P		**Pn**	**13 42 30.9**		**+0.3**
TIPB				*i* S		**Sn**	**13 42 42.4**		**+0.2**
NWLT	**Wulai**	**0.89**	**311**	⇓P		**Pb**	**13 42 31.6**		**0.0**
NWLT				eS		**Sb**	**13 42 43.4**		**+0.1**
WHF	**Hehuan Shan**	**0.89**	**267**	⇑*i*P		**Pn**	**13 42 31.3**		**0.0**
WHF				*i* S		**Sn**	**13 42 43.3**		**-0.1**
FUSS	**Fushou**	**0.91**	**274**	⇑P		**Pn**	**13 42 31.9**		**+0.5**
FUSS				eS		**Sn**	**13 42 43.2**		**-0.3**
YHNB	**Yeheng**	**0.93**	**301**	P		**Pb**	**13 42 32.5**		**+0.3**
YHNB	**Yeheng**	**0.93**	**301**			**Pn**	**13 42 31.9**		**+0.5**
YHNB	**Yeheng**	**0.93**	**301**	P		**Pb**	**13 42 32.4**		**+0.2**
YHNB	**Yeheng**	**0.93**	**301**	⇑*i*P		**Pb**	**13 42 32.2**		**0.0**
NSK	**Sanguang**	**0.94**	**301**	⇑*i*P		**Pb**	**13 42 32.3**		**-0.1**
NSK				eS		**Sb**	**13 42 47.3**		**+2.6**
SXI1	**Grass Mountain**	**0.96**	**340**	*i* P		**Pn**	**13 42 32.3**		**+0.4**
SXI1				S		**Sb**	**13 42 45.4**		**+0.1**
WFSB	**Wu-fen Shan**	**0.97**	**335**	⇑*i*P		**Pb**	**13 42 32.8**		**-0.2**
WFSB				*i* S		**Sb**	**13 42 46.1**		**+0.6**
TWT	**Tachien**	**0.98**	**274**	P		**Pn**	**13 42 33.0**		**+0.8**
TWT				eS		**Sb**	**13 42 48.4**		**+2.7**
TWA	**Mucha**	**0.99**	**323**	P		**Pb**	**13 42 33.6**		**+0.3**
TWA				eS		**Sb**	**13 42 46.6**		**+0.6**
TDCB	**Techi**	**0.99**	**274**	P		**Pn**	**13 42 32.8**		**+0.4**
OWD	**Renai**	**1.00**	**257**	*i* P		**Pn**	**13 42 32.7**		**+0.2**
OWD				eS		**Sn**	**13 42 46.2**		**+0.6**
NHDH	**Xindian Distri**	**1.01**	**320**	*e*P		**Pb**	**13 42 34.1**		**+0.5**
NHDH				eS		**Sb**	**13 42 46.9**		**+0.4**
HGSD	**Ruisui**	**1.02**	**227**	*i* P		**Pn**	**13 42 32.4**		**-0.2**
HGSD				eS		**Sn**	**13 42 43.1**		**-2.7**
TATO	**Taipei**	**1.04**	**319**	P		**Pb**	**13 42 34.8**		**+0.7**
TATO	**Taipei**	**1.04**	**319**			**Pn**	**13 42 34.0**		**-0.1**
TATO	**Taipei**	**1.04**	**319**	P		**Pn**	**13 42 34.6**		**+0.4**
NHY	**Taipei**	**1.05**	**324**	P		**Pb**	**13 42 35.1**		**+1.0**
NHY				eS		**Sb**	**13 42 48.5**		**+0.9**
WUSB	**Renai**	**1.05**	**259**	*i* P		**Pn**	**13 42 33.6**		**+0.5**
WUSB				eS		**Sn**	**13 42 47.0**		**+0.4**
TNOU	**National Taiwa**	**1.05**	**336**	*e*P		**Pn**	**13 42 33.3**		**+0.3**
TNOU				eS		**Sn**	**13 42 47.0**		**+0.5**
EHYH	**Wanrong**	**1.07**	**230**	*e*P		**Pn**	**13 42 33.7**		**+0.3**
EHYH				eS		**Sn**	**13 42 46.4**		**-0.8**
TAP	**Taipei**	**1.08**	**322**	*e*P		**Pb**	**13 42 34.9**		**+0.1**
TAP				S		**Sb**	**13 42 49.5**		**+1.0**
EHY	**Hungye**	**1.08**	**231**	*e*P		**Pn**	**13 42 33.3**		**-0.2**
VWDT	**VWDT**	**1.10**	**247**	⇑P		**Pn**	**13 42 34.1**		**+0.5**
VWDT				eS		**Sn**	**13 42 45.6**		**-2.1**
NFF	**Wufeng Townshi**	**1.12**	**294**	*e*P		**Pb**	**13 42 35.2**		**-0.2**
ECBN	**Changbin**	**1.13**	**220**	*i* P		**Pn**	**13 42 34.0**		**-0.2**
ECBN				S		**Sn**	**13 42 48.1**		**-0.4**
YM01	**YM01**	**1.13**	**327**	*e*P		**Pb**	**13 42 35.1**		**-0.6**
YM01				eS		**Sb**	**13 42 50.6**		**+0.5**
KSHI	**Guanxi Townshi**	**1.14**	**301**	P		**Pb**	**13 42 35.8**		**+0.1**
ZUZH	**Zhuzihu**	**1.16**	**327**	*e*P		**Pn**	**13 42 35.4**		**+0.8**
ZUZH				eS		**Sb**	**13 42 51.4**		**+0.5**
YM08	**YM08**	**1.16**	**329**	*e*P		**Pn**	**13 42 34.6**		**0.0**
YULB	**Yu-li**	**1.17**	**228**	P		**Pn**	**13 42 34.8**		**0.0**
YULB	**Yu-li**	**1.17**	**228**			**Pn**	**13 42 34.7**		**-0.1**
YULB	**Yu-li**	**1.17**	**228**	P		**Pn**	**13 42 34.6**		**-0.1**
YULB	**Yu-li**	**1.17**	**228**	*i* P		**Pn**	**13 42 34.5**		**-0.3**
YULB				*i* S		**Sn**	**13 42 49.3**		**-0.3**
TWS1	**Kuangyinshan**	**1.18**	**321**	P		**Pb**	**13 42 36.0**		**-0.4**
TWS1				eS		**Sb**	**13 42 51.7**		**+0.3**
WHP	**Taichung City**	**1.19**	**275**	*e*P		**Pb**	**13 42 36.2**		**-0.4**
EYUL	**Yuli**	**1.19**	**226**	*e*P		**Pn**	**13 42 35.1**		**+0.2**
EYUL				eS		**Sn**	**13 42 49.9**		**-0.1**
ANP	**Anpu**	**1.19**	**327**	*e*P		**Pn**	**13 42 35.6**		**+0.5**
TWF1	**Yuli**	**1.20**	**226**	P		**Pn**	**13 42 35.0**		**-0.1**
TWF1				S		**Sn**	**13 42 50.3**		**-0.1**
LIOB	**Emei**	**1.21**	**292**	⇑*i*P		**Pb**	**13 42 37.0**		**+0.1**
NTST	**Danshui**	**1.21**	**324**	*e*P		**Pb**	**13 42 36.3**		**-0.6**
NTST				eS		**Sb**	**13 42 54.8**		**+2.5**
NSTT	**Nanjuang**	**1.22**	**292**	*e*P		**Pb**	**13 42 36.8**		**-0.2**
WCS	**Beigang Elemen**	**1.22**	**264**	*e*P		**Pn**	**13 42 36.3**		**+0.9**
TWY	**Chenhua**	**1.23**	**332**	*e*P		**Pb**	**13 42 36.6**		**-0.7**
TWY				eS		**Sb**	**13 42 53.5**		**+0.7**
NCU	**National Centr**	**1.24**	**309**	*e*P		**Pb**	**13 42 37.0**		**-0.3**
NCU				eS		**Sb**	**13 42 56.6**		**+3.6**
SSLB	**Suanglung**	**1.24**	**252**	P		**Pn**	**13 42 36.6**		**+0.9**
SSLB	**Suanglung**	**1.24**	**252**			**Pn**	**13 42 36.2**		**+0.5**
SSLB	**Suanglung**	**1.24**	**252**	P		**Pn**	**13 42 36.4**		**+0.7**
SSLB	**Suanglung**	**1.24**	**252**	⇑P		**Pn**	**13 42 36.1**		**+0.3**
SSLB				eS		**Sn**	**13 42 51.4**		**-0.1**
CHKH	**Chenggong**	**1.26**	**218**	*e*P		**Pn**	**13 42 49.8**		**-1.9**
CHKH				S		**Sn**	**13 42 37.0**		**+0.9**
SMLT	**Sun Moon Lake**	**1.27**	**256**	⇑*i*P		**Pn**	**13 42 52.3**		**+0.2**
SMLT				eS		**Sn**	**13 42 37.9**		**-0.4**
SBCB	**Hsinchu**	**1.29**	**298**	P		**Pb**	**13 42 37.3**		**+0.9**
TYC	**Yuchr**	**1.30**	**258**	P		**Pn**	**13 42 37.3**		**+0.9**
HSN	**Hsinchu**	**1.31**	**298**	*e*P		**Pn**	**13 42 37.8**		**+1.1**
FULB	**Fuli**	**1.31**	**222**	P		**Pn**	**13 42 36.2**		**-0.5**
FULB				eS		**Sn**	**13 42 52.7**		**-0.4**
CHKT	**Chengkung**	**1.35**	**217**	*i* P		**Pn**	**13 42 36.4**		**-0.8**
CHKT				S		**Sn**	**13 42 52.6**		**-1.4**
TWQ1	**Liyutan**	**1.35**	**277**	⇑P		**Pb**	**13 42 39.3**		**0.0**
WHYT	**Xinyi Township**	**1.36**	**249**	*e*P		**Pn**	**13 42 38.5**		**+1.1**
WHYT				eS		**Sn**	**13 42 56.0**		**+1.7**
IRIF	**Iriomote-Funau**	**1.36**	**84**	P		**Pn**	**13 42 38.0**		**+0.7**
IRIF				A		A	13 42 38.0		
	comp=N,49nm,1.3s,comp=E,36nm,1.7s								
NMLH	**Miaoli**	**1.37**	**285**	*e*P		**Pb**	**13 42 39.6**		**0.0**
TCU	**Taichung**	**1.43**	**269**	*e*P		**Pb**	**13 42 40.8**		**+0.1**
TCU				eS		**Sb**	**13 42 59.8**		**+1.3**
HATJ	**Hateruma jima**	**1.43**	**95**	*e*P		**Pb**	**13 42 41.2**		**+0.5**
HATJ				A		A	13 42 41.2		
	comp=N,52nm,2.3s,comp=E,63nm,2.6s								
ECS	**Chishang**	**1.44**	**221**	*e*P		**Pn**	**13 42 38.9**		**+0.6**
ECS				eS		**Sn**	**13 42 57.0**		**+0.9**
PCYT	**Pengchaiyu**	**1.44**	**354**	*e*P		**Pn**	**13 42 38.8**		**+0.3**
WNT	**Mingjian**	**1.46**	**258**	P		**Pb**	**13 42 40.7**		**-0.4**
WNT				S		**Sb**	**13 42 59.9**		**+0.6**
WDJ	**Dajia District**	**1.47**	**277**	*i* P		**Pb**	**13 42 41.0**		**-0.3**
WDJ				eS		**Sn**	**13 42 58.8**		**+1.8**
ALS	**Alishan**	**1.48**	**243**	P		**Pn**	**13 42 40.4**		**+1.2**
ALS				*i* S		**Sn**	**13 42 59.1**		**+1.5**
EDH	**Donghe**	**1.48**	**216**	*e*P		**Pb**	**13 42 38.6**		**-0.5**
EDH				eS		**Sn**	**13 42 56.0**		**-1.3**
ELDTW	**Lidau**	**1.50**	**229**	*e*P		**Pn**	**13 42 38.9**		**-0.4**
ELDTW				eS		**Sn**	**13 42 57.0**		**-0.9**
WCHH	**Zhanghua**	**1.54**	**266**	*e*P		**Pb**	**13 42 42.0**		**-0.6**
WCHH				eS		**Sb**	**13 43 02.5**		**+0.8**
CHN5	**Tsauling**	**1.55**	**248**	*i* P		**Pn**	**13 42 41.8**		**+1.8**
CHN5				eS		**Sn**	**13 43 01.2**		**+2.2**
WCH1	**Changhua City**	**1.55**	**266**	*e*P		**Pb**	**13 42 42.7**		**0.0**
WCH1				eS		**Sb**	**13 43 03.9**		**+1.9**
JKRS	**Kuro-shima**	**1.61**	**88**	P		**Pb**	**13 42 42.3**		**-1.4**
JKRS				A		A	13 42 42.3		
	comp=N,66nm,3.1s,comp=E,62nm,2.4s								
WGK	**Gukeng**	**1.62**	**252**	*e*P		**Pb**	**13 42 43.2**		**-0.6**
WGK				eS		**Sb**	**13 43 03.4**		**-0.4**
WDL	**Douliou City**	**1.63**	**254**	*e*S		**Sb**	**13 43 05.3**		**+1.1**
LONT	**Longtian**	**1.63**	**219**	*e*P		**Pn**	**13 43 01.0**		**0.0**
LONT				eS		**Sn**	**13 43 01.0**		**0.0**
WDLH	**Douliu**	**1.64**	**253**	*e*P		**Pb**	**13 42 43.3**		**-0.9**
WDLH				eS		**Sb**	**13 43 04.4**		**0.0**
LDUT	**Ludao**	**1.67**	**205**	*e*P		**Pn**	**13 42 41.1**		**-0.4**
LDUT				eS		**Sn**	**13 43 00.7**		**-1.1**
WCKO	**Fanlu**	**1.68**	**244**	*i* P		**Pb**	**13 42 43.8**		**-1.1**
WCKO				S		**Sb**	**13 43 05.2**		**-0.4**
STYH	**Taoyuan**	**1.68**	**233**	*i* P		**Pn**	**13 42 42.9**		**+1.2**
STYH				S		**Sn**	**13 43 03.5**		**+1.3**
TPUB	**Ta-pu**	**1.72**	**239**	P		**Pb**	**13 42 44.6**		**-1.0**
TPUB	**Ta-pu**	**1.72**	**239**	P		**Pb**	**13 42 44.6**		**-1.0**
TPUB	**Ta-pu**	**1.72**	**239**	*e*P		**Pn**	**13 42 44.2**		**+1.9**
TPUB				eS		**Sb**	**13 43 06.1**		**-0.8**
CHN4	**Tsaushan**	**1.73**	**241**	P		**Pb**	**13 42 44.7**		**-1.0**
CHN4				eS		**Sb**	**13 43 06.4**		**-0.6**
WRL	**Guolierlin Hig**	**1.73**	**261**	P		**Pn**	**13 42 44.0**		**+1.6**
WRL				S		**Sb**	**13 43 06.5**		**-0.5**
TWGBT	**Beinan**	**1.73**	**218**	P		**Pn**	**13 42 42.2**		**-0.2**
TWGBT	**Beinan**	**1.73**	**218**	*i* P		**Pn**	**13 42 41.9**		**-0.5**
TWGBT				eS		**Sn**	**13 43 01.9**		**-1.5**
TWG	**Pinlang**	**1.73**	**219**	Pn		**Pn**	**13 42 41.7**		**-0.8**
TWG	**Pinlang**	**1.73**	**219**	P		**Pn**	**13 42 41.9**		**-0.5**
TWG	**Pinlang**	**1.73**	**219**	P		**Pn**	**13 42 41.8**		**-0.7**
TWG				S		**Sn**	**13 43 02.4**		**-1.1**
JIJ	**Ishigaki jima**	**1.74**	**84**	P		**Pn**	**13 42 43.2**		**+0.6**
JIJ				A		A	13 42 43.2		
	comp=N,16nm,1.0s,comp=E,10.0nm,2.0s								
CHN2	**Minshiung**	**1.75**	**248**	P		**Pb**	**13 42 45.4**		**-0.6**
CHN2				S		**Sb**	**13 43 07.2**		**-0.3**
RLNB	**Erlin**	**1.75**	**261**	P		**Pb**	**13 42 44.8**		**-1.1**
RLNB				S		**Sb**	**13 43 08.0**		**+0.5**
WTP	**Ta-pu**	**1.76**	**238**	*i* P		**Pn**	**13 42 45.0**		**+2.2**
WTP				S		**Sb**	**13 43 07.1**		**-0.9**
WTK	**Tuku**	**1.77**	**254**	P		**Pb**	**13 42 45.2**		**-1.2**
WTK				S		**Sb**	**13 43 08.3**		**+0.2**
CHY	**Chiayi**	**1.80**	**248**	*e*P		**Pb**	**13 42 46.0**		**-0.9**
CHY				S		**Sb**	**13 43 09.5**		**+0.4**
WTCT	**Ta-ch'eng**	**1.82**	**260**	eS		**Sb**	**13 43 09.8**		**+0.1**
TWK	**Hsinying**	**1.85**	**241**	P		**Pn**	**13 42 46.2**		**+2.1**
TWK				S		**Sb**	**13 43 09.8**		**-0.8**
CHN1	**Nanshi**	**1.86**	**238**	*e*P		**Pn**	**13 42 46.4**		**+2.2**
CHN1				S		**Sn**	**13 43 09.5**		**+2.8**
SGST	**Jiashian**	**1.88**	**234**	*i* P		**Pn**	**13 42 45.8**		**+1.4**
SGST				*i* S		**Sb**	**13 43 10.0**		**-1.4**
SLGT	**Liugui**	**1.89**	**231**	*e*P		**Pn**	**13 42 46.5**		**+1.9**
SLGT				*i* S		**Sn**	**13 43 09.7**		**+2.4**
JISG	**Ishigakijimahi**	**1.93**	**78**	P		**Pn**	**13 42 45.6**		**+0.5**
JISG				A		A	13 42 45.6		
	comp=N,18nm,0.6s,comp=E,12nm,0.6s								
JISG				S		**Sn**	**13 43 08.0**		**-0.2**
WSF	**Szhu**	**1.93**	**254**	*e*P		**Pn**	**13 42 47.2**		**+2.1**
WSF				*i* S		**Sb**	**13 43 12.4**		**-0.3**
WSL	**Shuilin Townsh**	**1.96**	**251**	*i* P		**Pb**	**13 42 48.1**		**-1.5**
WSL				eS		**Sb**	**13 43 13.0**		**-0.7**
ECL	**Taimali**	**1.98**	**217**	*e*P		**Pn**	**13 42 45.4**		**-0.4**
ECL				eS		**Sn**	**13 43 08.0**		**-1.4**
ICHU	**Yijhu**	**1.98**	**246**	*e*P		**Pn**	**13 42 48.1**		**+2.3**
ICHU				*i* S		**Sb**	**13 43 13.3**		**-0.9**
CHN8	**Yiju**	**2.04**	**246**	*e*P		**Pn**	**13 42 48.7**		**+2.0**
CHN8				*i* S		**Sb**	**13 43 14.6**		**-1.4**
CHN3	**Shinhua**	**2.05**	**238**	*e*P		**Pb**	**13 42 50.4**		**-0.7**
CHN3				S		**Sb**	**13 43 16.1**		**0.0**
SSD	**Sandimen**	**2.06**	**226**	*e*P		**Pn**	**13 42 48.6**		**+1.7**
SSD				S		**Sn**	**13 43 14.4**		**+2.8**
SCST	**Cishan**	**2.06**	**231**	P		**Pb**	**13 42 50.2**		**-1.2**
SCST				eS		**Sb**	**13 43 16.2**		**-0.4**
SSHA	**Shanhua**	**2.08**	**240**	*e*P		**Pn**	**13 42 49.8**		**+2.6**
SSHA				*i* S		**Sb**	**13 43 16.6**		**-0.4**
TSMG	**Majia**	**2.08**	**225**	*e*P		**Pb**	**13 42 50.2**		**-1.5**
TSMG				S		**Sn**	**13 43 15.0**		**+3.0**
SCLT	**Jiali**	**2.13**	**242**	P		**Pn**	**13 42 49.8**		**+1.9**
SCLT				*i* S		**Sn**	**13 43 16.3**		**+3.1**
TWM1	**Shoushan**	**2.15**	**231**	*e*P		**Pb**	**13 42 52.6**		**-0.3**
TWM1				eS		**Sb**	**13 43 20.4**		**+1.1**
MASBT	**Mashibuluo**	**2.16**	**224**	P		**Pn**	**13 42 49.2**		**+1.0**
MASBT				eS		**Sn**	**13 43 14.9**		**+1.0**
SGLT	**Jiouru**	**2.17**	**228**	*e*P		**Pb**	**13 42 52.1**		**-1.0**
SGLT				eS		**Sb**	**13 43 19.6**		**0.0**
TAI1	**Yung-k'ang**	**2.17**	**239**	eS		**Sb**	**13 43 18.1**		**-1.6**
TAW	**Tawu**	**2.20**	**214**	eS		**Sn**	**13 43 14.1**		**-1.0**
EAST	**Anshuo**	**2.21**	**216**	*e*P		**Pn**	**13 42 48.7**		**-0.3**
EAST				eS		**Sn**	**13 43 14.1**		**-1.1**
TSCK	**Chigu Township**	**2.23**	**243**	*e*P		**Pn**	**13 42 51.2**		**+2.0**
TSCK				eS		**Sn**	**13 43 18.2**		**+2.4**
LYUB	**Lan-yu**	**2.26**	**196**	P		**Pn**	**13 42 47.4**		**-2.3**
JTJ	**Tarama**	**2.29**	**78**	P		**Pn**	**13 42 51.3**		**+1.3**
JTJ				A		A	13 42 51.3		
	comp=N,14nm,1.0s,comp=E,16nm,1.2s								
SSPT	**Xinbi**	**2.29**	**223**	*e*P		**Pn**	**13 42 51.9**		**+1.8**
SSPT				eS		**Sn**	**13 43 18.9**		**+1.7**
SCZT	**Fangliau**	**2.34**	**220**	P		**Pn**	**13 42 52.0**		**+1.1**
SCZT				eS		**Sn**	**13 43 20.4**		**+1.8**
SLIU	**Shizi**	**2.37**	**214**	*e*P		**Pn**	**13 42 51.1**		**-0.1**
WSSB	**Gushan**	**2.38**	**230**	*e*P		**Pb**	**13 42 54.8**		**-2.0**
SMST	**Manzhou Townsh**	**2.52**	**211**	*e*P		**Pn**	**13 42 53.4**		**+0.2**
SMST				eS		**Sn**	**13 43 22.0**		**-0.7**
TWP	**Hsiaoliuchiu**	**2.52**	**224**	eS		**Sb**	**13 43 29.4**		**-0.3**
PHUB	**P'eng-hu**	**2.54**	**255**	P		**Pn**	**13 42 54.5**		**+1.0**
PHUB				S		**Sn**	**13 43 24.5**		**+1.3**
PNG	**Penghu**	**2.54**	**256**	*e*P		**Pn**	**13 42 53.6**		**+0.1**
PNG				eS		**Sn**	**13 43 24.3**		**+1.0**
WDGT	**Dungji**	**2.54**	**249**	*e*P		**Pn**	**13 42 55.1**		**+1.6**
WDGT				eS		**Sn**	**13 43 24.3**		**+0.9**
HEN	**Hengchun**	**2.58**	**213**	*e*P		**Pn**	**13 42 54.7**		**+0.6**
HEN				eS		**Sn**	**13 43 24.3**		**0.0**
TSEB	**Hengchuen, Pin**	**2.59**	**209**	eS		**Sn**	**13 43 24.6**		**0.0**
TWKBT	**

GYA pmax pmax
comp=Z,6.0nm,0.5s
HNS HongShan 14.67 336 ⇓P **P 13 45 43.3 -2.2**
HNS S **Sn 13 48 17.3 -3.8**
HNS pmax pmax
comp=Z,18nm,1.8s
HNS L L
comp=Z,2μm,15.3s
HNS L L
comp=Z,1μm,14.7s
HNS L L
comp=Z,2μm,15.6s
DL2 Dalian 14.68 358 P **Pn 13 45 41.3 +1.4**
DL2 S **Sn 13 48 23.8 +2.3**
DL2 pmax pmax
comp=Z,29nm,1.4s
DL2 pmax pmax
comp=Z,370nm,3.5s
DL2 L L
comp=Z,560nm,13.7s
DL2 L L
comp=Z,540nm,15.6s
DL2 L L
comp=Z,1μm,15.4s
XAN Xi'an 15.21 313 P **Pn 13 45 48.0 +0.9**
XAN pP P 13 45 54.0 +2.3
XAN pmax pmax
comp=Z,9.0nm,1.2s
XAN L L
comp=Z,780nm,14.4s
XAN L L
comp=Z,1μm,15.1s
XAN L L
comp=Z,2μm,14.4s
BJI2 Beijing 16.59 343 P **Pn 13 46 04.5 -0.2**
BJI2 pP **pP 13 46 12.3 -2.8**
BJI2 sP **pwP 13 46 17.3 +2.2**
BJI2 PP **sP 13 46 18.5 -0.2**
BJI2 S **Sn 13 49 06.0 -2.0**
BJI2 pmax pmax
comp=Z,5.0nm,0.8s
BJI2 pmax pmax
comp=Z,110nm,7.2s
BJI2 L L
comp=Z,350nm,20.0s
BJI2 L L
comp=Z,410nm,18.1s
BJI2 L L
comp=Z,930nm,15.0s
DAV Davao City (W) 17.32 169 LR LR 13 52 45.5
comp=Z,413nm,20.7s,baz=360,slow=36
CD2 Chengdu 17.70 296 P **P 13 46 19.5 +0.2**
CD2 pmax pmax
comp=Z,70nm,1.1s
CD2 pmax pmax
comp=Z,420nm,4.1s
CD2 L L
comp=Z,790nm,12.1s
CD2 L L
comp=Z,2μm,13.3s
CD2 L L
comp=Z,2μm,14.0s
KMI2 Kunming 17.75 277 P **P 13 46 23.5 +3.4**
KMI2 pP pP 13 46 29.3 +1.6
KMI2 pmax pmax
comp=Z,12nm,1.4s
KMI2 L L
comp=Z,480nm,12.0s
KMI2 L L
comp=Z,1μm,15.2s
KMI2 L L
comp=Z,1μm,13.8s
JHJ Hachijo jima 2 17.76 56 LR LR 13 52 48.8
comp=Z,22nm,21.4s,baz=148,slow=36
DLV Lat 17.85 229 **Pn 13 46 20.4 -0.4**
DLV IAmb IAmb 13 46 22.1
comp=Z,135nm,1.9s
JCJ Chichijima 18.21 77 LR LR 13 53 15.1
comp=Z,288nm,18.1s,baz=144,slow=36
MJAR Matsushiro Arr 18.45 44 P **P 13 46 25.5 -1.9**
comp=Z,0.9nm,0.6s,baz=224,slow=9.8,SNR=5.6
MJAR LR LR 13 54 18.8
comp=Z,392nm,20.2s,baz=218,slow=40
MJAR Matsushiro Arr 18.45 44 P **P 13 46 26.5 -1.0**
HHC Hu-ho-hao-te 18.87 334 *e*P **Pn 13 46 35.0 +2.1**
HHC sP sP 13 46 46.5 +2.4
HHC S **Sn 13 50 02.3 -0.9**
HHC sS S 13 50 11.5 +6.6
HHC SS **SnSn 13 50 29.0 +11**
HHC pmax pmax
comp=Z,13nm,0.5s
HHC pmax pmax
comp=Z,280nm,5.2s
HHC L L
comp=Z,990nm,13.0s
HHC L L
comp=Z,610nm,13.8s
HHC L L
comp=Z,1μm,15.0s
BTO2 Baotou 19.49 331 *e*P **Pn 13 46 40.8 +0.4**
BTO2 pP **pwP 13 46 49.0 -1.0**
BTO2 sP **sP 13 46 53.5 +2.5**
BTO2 S **S 13 50 14.3 -3.3**
BTO2 pmax pmax
comp=Z,23nm,1.3s
BTO2 pmax pmax
comp=Z,280nm,8.6s
BTO2 L L
comp=Z,3μm,15.1s
BTO2 L L
comp=Z,1μm,13.5s
BTO2 L L
comp=Z,3μm,15.2s
LZH Lanzhou 19.81 311 P **Pn 13 46 45.0 +0.8**
LZH pP pwP 13 46 54.3 0.0
LZH sP sP 13 47 00.3 +6.2
LZH pmax pmax
comp=Z,37nm,1.1s
LZH pmax pmax
comp=Z,270nm,7.5s
LZH L L
comp=Z,830nm,13.4s
LZH L L
comp=Z,920nm,13.2s
LZH L L
comp=Z,1μm,16.7s
LZDM Lanzhou Array 19.84 311 P **P 13 46 42.9 -0.2**
baz=134,slow=15
LZDM LR LR 13 55 00.7
comp=Z,808nm,18.4s,baz=95,slow=39
comp=Z,3.0nm,0.4s
XLT XiLinHaoTe 20.30 347 *e*P **P 13 46 48.0 +0.2**
XLT sP pwP 13 46 58.5 +2.5
XLT pmax pmax
comp=Z,17nm,1.2s
XLT pmax pmax
comp=Z,140nm,4.8s
XLT L L
comp=Z,76nm,15.2s
XLT L L
comp=Z,430nm,14.7s
XLT L L
comp=Z,1μm,15.3s
USA0B Ussuriysk Arra 21.50 19 P **P 13 47 00.5 0.0**
USRK Ussuriysk Ar. 21.50 19 P **P 13 46 59.3 -1.3**
comp=Z,3.8nm,0.7s,baz=210,slow=10,SNR=7.9
USRK LR LR 13 56 01.7
comp=Z,426nm,18.2s,baz=196,slow=39
comp=Z,3.8nm,0.7s
USRK Ussuriysk Ar. 21.50 19 P **P 13 46 59.8 -0.8**
TNCH TengChong 21.58 277 P **P 13 47 04.3 +2.4**
TNCH pP pP 13 47 09.5 -0.1
TNCH sP sP 13 47 14.8 +1.4
TNCH S **S 13 50 54.0 -5.6**
TNCH SS **SnSn 13 51 27.3 +3.1**
TNCH pmax pmax
comp=Z,35nm,1.0s
TNCH pmax pmax
comp=Z,110nm,2.6s
TNCH L L
comp=Z,610nm,7.5s
TNCH L L
comp=Z,380nm,5.4s
TNCH L L
comp=Z,2μm,14.8s
BNX BinXian 21.91 10 ⇓P **P 13 47 09.5 +4.6**
BNX pmax pmax
comp=Z,9.0nm,0.7s
CHTO Chiang Mai 22.32 261 **P 13 47 09.2 -0.4**
CHTO Chiang Mai 22.32 261 P **P 13 47 11.5 +1.9**
comp=Z,20nm,1.4s
CM31 Chiang Mai Arr 22.43 260 P **P 13 47 10.7 -0.2**
CMAR Chiang Mai Arr 22.43 260 P **P 13 47 11.4 +0.6**
comp=Z,4.6nm,0.9s,baz=63,slow=8.6,SNR=22
CMAR PcP **PcP 13 51 05.1 +0.2**
comp=Z,0.5nm,0.4s,baz=71,slow=0.5,SNR=4.2
CMAR LR LR 13 56 39.0
comp=Z,203nm,18.5s,baz=75,slow=38
comp=Z,4.6nm,0.9s
CMAR Chiang Mai Arr 22.43 260 **P 13 47 10.3 -0.5**
GTOI Gorontalo 23.42 178 P **P 13 47 21.0 0.0**
comp=Z,52nm,1.4s,comp=Z,52nm,1.4s
TNTI Ternate 23.80 167 P **P 13 47 26.3 +1.7**
comp=Z,48nm,1.0s,comp=Z,48nm,1.0s
TNTI Ternate 23.80 167 P **P 13 47 26.4 +1.8**
comp=Z,49nm,1.0s
GUMO Guam 23.83 112 LR LR 13 56 33.6
comp=Z,334nm,19.2s,baz=286,slow=36
GTA2 Gaotai 24.35 314 *e*P **P 13 47 29.5 -0.2**
GTA2 sP sP 13 47 44.0 +1.6
GTA2 PcP **PcP 13 51 09.3 +0.6**
GTA2 sS sS 13 51 59.8 -1.2
GTA2 pmax pmax
comp=Z,13nm,1.8s
GTA2 L L
comp=Z,250nm,16.5s
GTA2 L L
comp=Z,660nm,18.4s
GTA2 L L
comp=Z,780nm,17.1s
NPW Naypyitaw 24.59 265 P **P 13 47 33.9 +2.0**
comp=Z,17nm,1.1s
HILR Hailar Array B 25.40 356 P **P 13 47 38.0 -1.0**
comp=Z,1.8nm,0.5s,baz=171,slow=10,SNR=1.8
comp=Z,1.8nm,0.5s
ASAJ Asahikawa 25.93 35 P **P 13 47 41.6 -2.2**
comp=Z,6.4nm,0.7s,baz=241,slow=10,SNR=7.0
ASAJ LR LR 13 59 00.2
comp=Z,299nm,18.7s,baz=252,slow=39
comp=Z,6.4nm,0.7s
JKA Kamikawa-asahi 25.93 35 P **P 13 47 41.5 -2.3**
JKA IAmb IAmb 13 47 43.0
comp=Z,43nm,1.4s
KLR Kul'dur 26.09 14 P **P 13 47 43.2 -2.0**
comp=Z,1.4nm,0.6s,baz=222,slow=11,SNR=4.4
KLR LR LR 13 59 06.0
comp=Z,462nm,19.0s,baz=202,slow=39
comp=Z,1.4nm,0.6s
HEH HeiHe 26.33 7 *e*P **P 13 47 51.0 +3.7**
HEH L L
comp=Z,690nm,15.5s
HEH L L
comp=Z,340nm,15.1s
HEH L L
comp=Z,1μm,16.2s
SIJI Sorong 26.40 159 LR LR 13 57 12.2
comp=Z,110nm,20.5s,baz=16,slow=34
GOMU GeErMu 26.46 303 P **P 13 47 48.8 -0.4**
GOMU S **S 13 52 21.5 +0.2**
GOMU pmax pmax
comp=Z,6.0nm,0.4s
GOMU L L
comp=Z,210nm,16.1s
GOMU L L
comp=Z,390nm,16.8s
GOMU L L
comp=Z,570nm,16.2s
ULN Ulaanbaatar 26.53 337 P **P 13 47 49.2 -0.3**
ULN IAmb IAmb 13 47 50.2
comp=Z,40nm,1.2s
ULN Ulaanbaatar 26.53 337 P **P 13 47 49.3 -0.1**
comp=Z,27nm,1.2s
SONM Songino Array 26.75 336 P **P 13 47 50.8 -0.6**
comp=Z,29nm,0.9s,baz=151,slow=11,SNR=113
SONM PcP **PcP 13 51 11.4 -2.5**
comp=Z,1.6nm,0.9s,baz=159,slow=5.2,SNR=4.1
SONM LR LR 13 59 37.7
comp=Z,1μm,19.0s,baz=150,slow=39
comp=Z,29nm,0.9s
SONM Songino Array 26.75 336 P **P 13 47 51.2 -0.2**
SONM IAmb IAmb 13 47 52.0
comp=Z,37nm,1.1s
NLAI Namlea 27.67 170 P **P 13 48 02.2 +2.5**
comp=Z,72nm,0.8s,comp=Z,72nm,0.8s
IPM Ipoh 28.31 230 P **P 13 48 06.0 +0.5**
IPM IAmb IAmb 13 48 35.0
comp=Z,30nm,1.6s
KAPI Kappang 29.13 185 LR LR 13 59 45.5
comp=Z,135nm,21.2s,baz=359,slow=36
TLY Talaya 30.94 337 P **P 13 48 27.4 -1.0**
comp=Z,13nm,0.7s,baz=177,slow=6.2,SNR=8.5
comp=Z,13nm,0.7s
TLY Talaya 30.94 337 P **P 13 48 28.0 -0.5**
TLY IAmb IAmb 13 48 28.8
comp=Z,12nm,0.6s
TLY Talaya 30.94 337 P **P 13 48 28.1 -0.3**
comp=Z,21nm,0.8s
TLY Talaya 30.94 337 P **P 13 48 27.9 -0.5**
TLY pP **pP 13 48 37.0 -0.6**
PSI Prapat 30.97 230 LR LR 13 59 58.8
comp=Z,142nm,21.8s,baz=35,slow=34
EVN Everest 31.97 284 P **P 13 48 37.9 -0.7**
EVN Everest 31.97 284 P **P 13 48 39.6 +1.1**
comp=Z,10nm,1.3s
EDFI Ende, Flores 32.74 181 P **P 13 48 43.9 -0.8**
comp=Z,47nm,0.7s,comp=Z,47nm,0.7s
KHKI Kahang-Kahang 33.00 192 P **P 13 48 47.4 +0.7**
comp=Z,45nm,0.8s,comp=Z,45nm,0.8s
KRJI Kerinci 33.02 221 P P 13 48 38.5 -8.6
SNJI Sawahan-Nganju 33.38 199 P **P 13 48 51.9 +1.6**
comp=Z,48nm,0.9s,comp=Z,48nm,0.9s
PWJI Pagerwojo 33.60 199 P **P 13 48 52.0 0.0**
WMQ Urumqi 34.35 313 *e*P **P 13 48 59.3 +0.8**
WMQ pmax pmax
comp=Z,11nm,0.9s
WMQ L L
comp=Z,150nm,19.5s
MTN Manton Dam 37.82 166 P **P 13 49 28.4 +0.2**
comp=Z,20nm,0.7s,comp=Z,0.0nm,1.1s
MTN Manton Dam 37.82 166 P **P 13 49 27.7 -0.5**
MTN IAmb IAmb 13 49 39.1
comp=Z,12nm,0.6s
KDU Kakadu 37.99 164 P **P 13 49 32.9 +3.3**
KDU Kakadu 37.99 164 P **P 13 49 30.9 +1.3**
comp=Z,8.5nm,0.8s,comp=Z,0.0nm,4.9s
YAK Yakutsk 38.16 6 LR LR 14 07 09.9
comp=Z,473nm,18.1s,baz=194,slow=39
MK31 Makanchi Array 39.01 315 P **P 13 49 38.0 0.0**
MKAR Makanchi Array 39.01 315 P **P 13 49 37.9 -0.2**
comp=Z,2.6nm,0.5s,baz=100,slow=9.6,SNR=50
MKAR PcP **PcP 13 51 46.8 -1.0**
comp=Z,1.9nm,0.7s,baz=85,slow=5.6,SNR=4.0
MKAR LR LR 14 07 16.0
comp=Z,422nm,18.8s,baz=88,slow=38
comp=Z,2.6nm,0.5s
MKAR Makanchi Array 39.01 315 P **P 13 49 38.0 0.0**
MAKZ Makanchi 39.22 315 P **P 13 49 39.7 -0.1**
MAKZ IAmb IAmb 13 49 40.9
comp=Z,19nm,1.2s
MAKZ Makanchi 39.22 315 P **P 13 49 39.6 -0.2**
MAKZ pP **pP 13 49 48.1 -0.3**
MAKZ sP **pwP 13 49 52.1 -0.1**
MAKZ PcP **PcP 13 51 47.5 -1.0**
PETK Petropavlovsk- 39.33 33 LR LR 14 06 35.3
comp=Z,184nm,18.4s,baz=229,slow=37
PDGK Podgornoye 39.83 309 P **P 13 49 45.5 +0.4**
KNRA Kununurra 40.13 170 P **P 13 49 47.7 +0.1**
KRVT Keravat (AS076 40.54 130 LR LR 14 03 26.5
comp=Z,125nm,20.6s,baz=304,slow=31
MA2 Magadan 40.62 22 LR LR 14 08 18.2
comp=Z,280nm,18.1s,baz=221,slow=39
ZAA0 Zalesovo Array 40.77 327 P **P 13 49 51.2 -1.3**
ZAA0 IAmb IAmb 13 49 52.2
comp=Z,18nm,1.0s
ZALV Zalesovo Beam 40.77 327 P **P 13 49 51.1 -1.3**
comp=Z,7.9nm,0.5s,baz=111,slow=8.1,SNR=50
ZALV PcP **PcP 13 51 51.4 -1.8**
comp=Z,1.4nm,0.5s,baz=104,slow=3.8,SNR=2.5
ZALV LR LR 14 08 05.0
comp=Z,591nm,18.3s,baz=122,slow=38
comp=Z,7.9nm,0.5s
PMG Port Moresby 41.31 141 P **P 13 49 57.7 +0.3**
comp=Z,6.8nm,0.8s,baz=229,slow=11,SNR=2.3
PMG LR LR 14 06 59.0
comp=Z,130nm,18.8s,baz=309,slow=36
comp=Z,6.8nm,0.8s
KSH2 Kashi 41.98 302 P **P 13 50 03.5 +0.7**
KSH2 pmax pmax
comp=Z,7.0nm,1.2s
KSH2 L L
comp=Z,190nm,13.1s
KSH2 L L
comp=Z,380nm,14.1s
KSH2 L L
comp=Z,370nm,18.6s
FITZ Fitzroy Crossi 42.16 175 P **P 13 50 03.4 -0.8**
KURK Kurchatov 42.71 320 **PcP 13 51 58.1 -1.6**
KURK Kurchatov 42.71 320 P **P 13 50 07.3 -1.1**
KURK Kurchatov 42.71 320 P **P 13 50 07.9 -0.5**
comp=Z,16nm,1.2s
KURK Kurchatov 42.71 320 P **P 13 50 07.7 -0.7**
KURK pP **pP 13 50 16.9 -0.2**
KURK sP **sP 13 50 20.8 -0.4**
KURBB Kurchatov Arra 42.73 320 P **P 13 50 07.6 -1.0**
comp=Z,6.4nm,1.0s,baz=109,slow=9.9,SNR=26
KURBB PcP **PcP 13 51 58.1 -1.7**
comp=Z,0.4nm,0.3s,baz=118,slow=2.9,SNR=2.6
KURBB LR LR 14 09 14.8
comp=Z,76nm,18.6s,baz=170,slow=38
comp=Z,6.4nm,1.0s
PALK Pallekele 43.17 254 LR LR 14 09 08.4
comp=Z,76nm,19.3s,baz=64,slow=37
AAK Ala-Archa 43.27 307 LR LR 14 11 05.2
comp=Z,364nm,18.9s,baz=89,slow=40
DRK Karamyk 44.92 302 P **P 13 50 25.3 -1.4**
WB0 Warramunga Arr 45.27 164 P **P 13 50 29.5 +0.2**
WRAB Tennant Creek 45.41 164 **P 13 50 30.8 +0.5**
WRAB IAmb IAmb 13 50 42.5
comp=Z,11nm,0.8s
WRAB Tennant Creek 45.41 164 P **P 13 50 29.5 -0.9**
comp=Z,18nm,0.8s
WRAB Tennant Creek 45.41 164 P **P 13 50 30.9 +0.5**
WRA Warramunga Arr 45.42 164 P **P 13 50 31.1 +0.7**
comp=Z,5.2nm,0.7s,baz=345,slow=8.7,SNR=73
WRA PcP **PcP 13 52 09.0 -0.4**
comp=Z,1.0nm,0.7s,baz=347,slow=4.0,SNR=1.8
comp=Z,5.2nm,0.7s
WRA Warramunga Arr 45.42 164 P **P 13 50 29.8 -0.6**
WR8 Warramunga Arr 45.47 164 P **P 13 50 31.2 +0.3**
WR8 IAmb IAmb 13 50 42.9
comp=Z,15nm,0.9s
KK31 Karatay Array 46.24 307 P **P 13 50 36.8 0.0**
KK31 IAmb IAmb 13 50 38.4
comp=Z,16nm,1.5s
KKAR Karatay Array 46.24 307 P **P 13 50 36.5 -0.2**
KBL Kabul 47.03 295 P **P 13 50 43.5 +0.1**
KBL IAmb IAmb 13 50 57.6
comp=Z,16nm,0.8s
KBL Kabul 47.03 295 P **P 13 50 44.8 +1.4**
comp=Z,25nm,1.0s
MTSU Mount Surprise 47.26 151 P **P 13 50 46.8 +1.9**
comp=Z,10nm,0.9s,comp=Z,0.0nm,0.1s
MTSU Mount Surprise 47.26 151 P **P 13 50 46.8 +1.9**
comp=Z,10nm,0.9s
TIXI Tiksi 47.64 3 LR LR 14 13 27.2
comp=Z,706nm,18.1s,baz=203,slow=39
TIXI Tiksi 47.64 3 P **P 13 50 45.7 -1.5**
TIXI Tiksi 47.64 3 P **P 13 50 44.9 -2.3**
comp=Z,7.2nm,0.7s
TIXI Tiksi 47.64 3 P **P 13 50 45.3 -1.9**
TIXI pP **pP 13 50 54.6 -1.9**
TIXI sP **sP 13 50 58.8 -0.9**
BVAR Borovoye Array 48.28 320 P **P 13 50 52.0 -0.5**
comp=Z,5.3nm,0.6s,baz=109,slow=9.3,SNR=28
BVAR PcP **PcP 13 52 18.4 -0.7**
comp=Z,2.4nm,0.8s,baz=104,slow=2.2,SNR=2.1
comp=Z,5.3nm,0.6s
BORK Borovoye 48.33 320 P **P 13 50 52.2 -0.7**
BORK IAmb IAmb 13 50 53.5
comp=Z,20nm,1.1s
AS31 Alice Springs 48.90 166 P **P 13 50 58.4 +0.9**
ASAR Alice Springs 48.90 166 P **P 13 50 58.4 +0.8**
comp=Z,4.1nm,0.8s,baz=351,slow=13,SNR=72
ASAR PcP **PcP 13 52 21.3 -0.4**
comp=Z,1.2nm,0.8s,baz=349,slow=4.0,SNR=1.1
ASAR LR LR 14 11 37.8
comp=Z,45nm,20.5s,baz=310,slow=36
comp=Z,4.1nm,0.8s
ASAR Alice Springs 48.90 166 P **P 13 50 58.6 +1.0**
WRKA Warakurna 49.28 173 P **P 13 51 00.7 +0.2**
comp=Z,5.5nm,1.3s,comp=Z,0.0nm,4.6s
NRIK Noril'sk 49.65 345 LR LR 14 14 02.8
comp=Z,380nm,18.7s,baz=147,slow=38
HNR Honiara 49.72 128 LR LR 14 10 37.2
comp=Z,67nm,19.7s,baz=22,slow=34
CTA Charters Tower 49.84 150 P **P 13 51 05.6 +0.8**
comp=Z,4.9nm,0.9s,baz=311,slow=7.3,SNR=2.5
CTA LR LR 14 10 17.9
comp=Z,100nm,21.1s,baz=26,slow=34
comp=Z,4.9nm,0.9s
MEEK Meekatharra 50.65 184 P **P 13 51 10.2 -0.6**
comp=Z,25nm,0.9s,comp=Z,0.0nm,4.2s
KAAM Kaadhehdhoo 53.16 251 P **P 13 51 29.1 -0.7**
AB31 Akbulak array 54.13 314 P **P 13 51 36.6 +0.1**
AB31 IAmb IAmb 13 51 37.4
comp=Z,13nm,1.0s
ABKAR Akbulak array 54.13 314 P **P 13 51 36.5 +0.1**
INKA Innaminka 54.62 160 P **P 13 51 41.8 +1.6**
FORT Forrest 54.94 174 P **P 13 51 43.0 +0.6**
FORT IAmb IAmb 13 51 56.5
comp=Z,12nm,0.9s
AKTO Aktyubinsk 55.45 316 LR LR 14 18 13.4
comp=Z,178nm,18.4s,baz=140,slow=39
ARTI Arti 55.78 323 LR LR 14 17 24.3
comp=Z,178nm,21.6s,baz=96,slow=38
ARTI Arti 55.78 323 P **P 13 51 47.0 -1.3**
ARTI IAmb IAmb 13 51 58.9
comp=Z,14nm,0.6s
ARTI Arti 55.78 323 P **P 13 51 46.9 -1.3**
ARTI pP **pP 13 51 56.2 -0.9**
ARTI sP **pwP 13 51 59.8 -1.3**
EIDS Eidsvold 56.63 148 P **P 13 51 55.3 +0.7**
BBOO Buckleboo 58.19 166 P **P 13 52 06.2 +0.7**
comp=Z,21nm,0.9s,comp=Z,0.0nm,4.8s
BBOO Buckleboo 58.19 166 P **P 13 52 05.8 +0.3**
STKA Stephens Creek 58.74 161 P **P 13 52 15.8 +6.4**
STKA Stephens Creek 58.74 161 P **P 13 52 10.2 +0.8**
comp=Z,59nm,0.7s
STKA Stephens Creek 58.74 161 P **P 13 52 10.4 +1.0**
comp=Z,3.6nm,0.5s,baz=355,slow=5.9,SNR=12
STKA LR LR 14 19 43.0
comp=Z,47nm,19.5s,baz=25,slow=38
comp=Z,3.6nm,0.5s
STKA Stephens Creek 58.74 161 P **P 13 52 10.3 +1.0**
KIRV Kirov 60.77 325 LR LR 14 21 16.2
comp=Z,332nm,18.0s,baz=91,slow=38
H17K Granite Mounta 63.22 28 P **P 13 52 41.0 +1.5**
H17K IAmb IAmb 13 53 44.0
comp=Z,15nm,1.3s
J17K VABM Dome 63.61 30 P **P 13 52 42.7 +0.7**
GNI Garni 65.60 305 LR LR 14 26 13.8
comp=Z,80nm,19.9s,baz=86,slow=40
D22K Ayikyak River 65.91 23 P **P 13 52 57.6 +0.6**
D22K IAmb IAmb 13 53 12.1
comp=Z,32nm,1.8s
H21K Melozitna Rive 66.17 27 P **P 13 52 59.4 +0.8**
H21K IAmb IAmb 13 53 11.1
comp=Z,7.5nm,0.9s
KBZ Khabaz 66.23 309 P **P 13 52 59.6 +0.2**
comp=Z,6.2nm,1.0s,baz=122,slow=5.3,SNR=5.7
KBZ LR LR 14 26 58.9
comp=Z,129nm,18.8s,baz=57,slow=40
comp=Z,6.2nm,1.0s
KIV Kislovodsk 66.34 309 P **P 13 53 00.5 +0.3**
comp=Z,21nm,1.4s
KIV Kislovodsk 66.34 309 P **P 13 53 00.3 0.0**
comp=Z,27nm,1.4s
H22K Ishtalitna Cre 66.72 27 P **P 13 53 02.9 +0.7**
E24K Your Creek 67.54 24 P **P 13 53 07.9 +0.5**
F24K Squaw Lake 67.86 25 P **P 13 53 10.1 +0.6**
F24K IAmb IAmb 13 53 49.1
comp=Z,36nm,1.9s
D25K Kavik River 68.10 23 P **P 13 53 10.9 +0.1**
OBN Obninsk 68.10 322 LR LR 14 26 49.2
comp=Z,170nm,19.3s,baz=74,slow=39
MSVF Nonsavu 68.54 122 LR LR 14 19 46.6
comp=Z,48nm,19.9s,baz=347,slow=33
F25K Christian Rive 68.69 24 P **P 13 53 15.5 +0.9**
F25K IAmb IAmb 13 53 25.6

comp=Z,5.9nm,0.8s
ILAR Eielson Array 68.77 27 P **P** **13 53 13.2 -1.9**
comp=Z,0.5nm,0.9s,baz=290,slow=9.4,SNR=5.2
comp=Z,0.5nm,0.9s
C27K Jago River 68.96 22 IAmb IAmb 13 55 29.9
comp=Z,14nm,1.7s
BMAR Burnt Mountain 69.12 24 P **P** **13 53 18.1 +0.8**
MARD Mardin 69.27 303 P **P** **13 53 19.1 +0.3**
RAYN Ar Rayn 69.27 287 P **P** **13 53 18.5 -0.5**
RAYN IAmb IAmb 13 53 31.9
comp=Z,11nm,1.1s
SPITS Spitsbergen Ar 69.69 348 P **P** **13 53 19.2 -1.4**
comp=Z,11nm,0.8s,baz=75,slow=9.6,SNR=7.2
SPITS LR LR 14 28 14.8
comp=Z,300nm,18.4s,baz=52,slow=40
comp=Z,11nm,0.8s
ARCES ARCESS Array B 69.90 338 P **P** **13 53 21.3 -0.7**
comp=Z,1.9nm,0.7s,baz=54,slow=5.2,SNR=4.7
ARCES LR LR 14 30 30.5
comp=Z,88nm,19.4s,baz=90,slow=42
comp=Z,1.9nm,0.7s
E27K Coleen River 70.05 23 P **P** **13 53 23.3 +0.3**
E27K IAmb IAmb 13 54 55.4
comp=Z,18nm,1.8s
BCAR Beaver Creek A 71.37 29 P **P** **13 53 31.8 +0.6**
FINES FINESS Array B 71.93 330 P **P** **13 53 33.5 -0.9**
comp=Z,0.9nm,0.4s,baz=113,slow=4.4,SNR=11
FINES LR LR 14 28 28.6
comp=Z,442nm,18.8s,baz=60,slow=39
comp=Z,0.9nm,0.4s
DAWY Dawson 72.09 27 P **P** **13 53 35.1 -0.4**
DAWY IAmb IAmb 13 53 36.4
comp=Z,33nm,2.0s
F30M Barrier River 72.31 23 IAmb IAmb 13 55 58.9
comp=Z,31nm,1.6s
BNN Bunyan 72.58 305 IAmb IAmb 13 53 40.2
comp=Z,14nm,1.2s
INK Inuvik 72.86 22 P **P** **13 53 39.2 -0.6**
comp=Z,2.0nm,0.6s,baz=300,slow=6.0,SNR=11
comp=Z,2.0nm,0.6s
F31M Tsiigehtchic 73.11 23 IAmb IAmb 13 54 16.0
comp=Z,10.0nm,1.1s
AK03 Malin Array Si 73.50 319 P **P** **13 53 43.2 -0.8**
AKASG Malin Array Be 73.51 319 P **P** **13 53 42.9 -1.1**
comp=Z,0.7nm,0.4s,baz=66,slow=4.7,SNR=6.7
AKASG LR LR 14 29 12.6
comp=Z,117nm,18.3s,baz=68,slow=38
comp=Z,0.7nm,0.4s
AKBB Malin Array Si 73.51 319 P **P** **13 53 44.0 0.0**
AK01 Malin Array Si 73.52 319 P **P** **13 53 44.1 0.0**
AK10 Malin Array Si 73.52 318 P **P** **13 53 43.4 -0.7**
AK02 Malin Array Si 73.53 318 P **P** **13 53 43.6 -0.6**
AK04 Malin Array Si 73.54 319 P **P** **13 53 43.6 -0.6**
AK06 Malin Array Si 73.56 318 P **P** **13 53 43.8 -0.5**
AK22 Malin Array Si 73.58 319 P **P** **13 53 43.5 -1.0**
AK18 Malin Array Si 73.60 319 P **P** **13 53 43.8 -0.7**
ASF Jabal al Asfar 73.81 298 LR LR 14 31 51.7
comp=Z,59nm,18.0s,baz=25,slow=40
BR131 Keskin Array S 73.95 307 IAmb IAmb 13 53 47.9
comp=Z,13nm,1.0s
BRTR Keskin Array B 73.95 307 P **P** **13 53 46.8 -0.3**
comp=Z,6.7nm,0.9s,baz=96,slow=6.3,SNR=38
BRTR LR LR 14 29 51.3
comp=Z,54nm,20.5s,baz=26,slow=39
comp=Z,6.7nm,0.9s
BRTR Keskin Array S 73.95 307 P **P** **13 53 46.4 -0.7**
BR104 Keskin Array S 73.95 307 P **P** **13 53 46.7 -0.3**
comp=Z,76nmcomp=Z,9.8nm,1.0s
BR106 Keskin Array S 73.96 307 P **P** **13 53 46.9 -0.2**
comp=Z,92nmcomp=Z,12nm,1.2s
BR105 Keskin Array S 73.97 307 P **P** **13 53 46.9 -0.2**
comp=Z,95nmcomp=Z,12nm,1.2s
LUBAR Lubar, Ukraine 74.65 318 P **P** **13 53 50.2 -0.5**
AFI Afiamalu 74.71 113 LR LR 14 23 15.1
comp=Z,80nm,18.3s,baz=282,slow=33
MMAI Mount Meron Ar 74.74 300 LR LR 14 32 52.3
comp=Z,103nm,19.7s,baz=64,slow=41
MHA Mahukona 74.85 74 P **P** **13 53 53.6 +1.3**
RNPP8 Varash 75.31 320 P **P** **13 53 53.6 -0.9**
C36M Paulatuk 75.48 20 IAmb IAmb 13 54 35.4
comp=Z,31nm,1.9s
CSS Mathiatis 75.72 302 P **P** **13 53 57.2 0.0**
CSS IAmb IAmb 13 53 57.5
comp=Z,14nm,0.6s
CSS Mathiatis 75.72 302 P **P** **13 53 56.9 -0.3**
comp=Z,25nm,1.0s
CSS Mathiatis 75.72 302 P **P** **13 53 57.1 -0.1**
comp=Z,25nm,1.0s
ATD Arta Tunnel 75.78 276 LR LR 14 27 01.2
comp=Z,12nm,18.8s,baz=54,slow=35
KMPD K-Podol'skiy 75.91 317 P **P** **13 53 57.2 -0.8**
EIL Elat 76.22 296 LR LR 14 33 12.5
comp=Z,71nm,18.1s,baz=100,slow=40
ISP Isparta 76.87 306 IAmb IAmb 13 54 03.8
comp=Z,21nm,1.2s
MLR Muntele Rosu 77.34 314 LR LR 14 32 55.5
comp=Z,68nm,19.4s,baz=158,slow=39
HFS Hagfors 78.03 331 P **P** **13 54 09.6 -0.1**
comp=Z,4.9nm,1.1s,baz=81,slow=9.5,SNR=2.1
HFS LR LR 14 32 07.7
comp=Z,661nm,18.1s,baz=67,slow=38
comp=Z,4.9nm,1.1s
NB2 NORSAR Subarra 78.67 332 P **P** **13 54 11.8 -1.5**
comp=Z,0.9nm,0.6s,baz=55,slow=6.2
NOA NORSAR Array B 78.67 332 P **P** **13 54 11.5 -1.8**
comp=Z,1.0nm,0.7s,baz=57,slow=5.8,SNR=4.7
NOA LR LR 14 32 41.2
comp=Z,298nm,18.2s,baz=70,slow=38
comp=Z,1.0nm,0.7s
JMIC Jan Mayen 79.07 345 LR LR 14 33 29.0
comp=Z,158nm,18.5s,baz=95,slow=39
OJC Ojcow 79.29 320 P **P** **13 54 17.2 +0.4**
comp=Z,6.0nm,1.2s
KARP Karpathos 80.22 304 P **P** **13 54 21.9 -0.4**
VYHS Vyhne 80.60 319 eP **P** **13 54 24.6 +0.6**
URZ Urewera 80.65 139 LR LR 14 24 39.8
comp=Z,42nm,21.5s,baz=308,slow=32
RPZ Rata Peaks 81.05 146 LR LR 14 27 35.8
comp=Z,14nm,20.8s,baz=277,slow=34
VRAC Vranov 81.56 320 LR LR 14 30 59.7
comp=Z,80nm,19.1s,baz=68,slow=36
MQZ McQueen's Vall 81.86 146 P **P** **13 54 31.0 +0.5**
POIN Pond Inlet 82.39 6 P **P** **13 54 32.5 -0.5**
POIN IAmb IAmb 13 55 42.3
comp=Z,19nm,1.5s
YKAW3 Yellowknife Wh 82.54 23 P **P** **13 54 33.4 -0.5**
YKAW3 IAmb IAmb 13 56 30.5
comp=Z,18nm,1.6s
YKA Yellowknife Ar 82.59 23 P **P** **13 54 33.3 -0.9**
comp=Z,2.0nm,0.7s,baz=311,slow=5.1,SNR=14
comp=Z,2.0nm,0.7s
SUMG Summit 82.60 354 P **P** **13 54 33.9 -0.7**
SUMG IAmb IAmb 13 54 36.9
comp=Z,15nm,1.4s
CLL Collm 82.63 323 LH 14 24 00.0
CLL AMS AMS 14 35 00.0
comp=N,200nm,17.6s
CLL AMS AMS 14 35 00.0
comp=E,100nm,21.4s
CLL AMS AMS 14 35 00.0
comp=Z,200nm,18.0s
ITM Ithomi 83.42 308 P **P** **13 54 37.6 -1.5**
GERES GERESS Array B 83.45 321 P **P** **13 54 38.9 -0.2**
comp=Z,2.0nm,0.9s,baz=57,slow=4.9,SNR=15
GERES LR LR 14 35 26.9
comp=Z,141nm,19.3s,baz=42,slow=38
comp=Z,2.0nm,0.9s
GRF Grafenberg Arr 84.43 322 eP **P** **13 54 44.3 +0.4**
comp=Z,5.0nm,1.1s,baz=63,slow=4.4
ABPO Ambohimpanom 84.75 247 P **P** **13 54 46.6 +0.4**
ABPO sP **sP** **13 54 59.6 +0.4**
KIBK Kibwezi 85.66 266 P **P** **13 54 50.3 -0.4**
KIBK IAmb IAmb 13 54 52.9
comp=Z,8.2nm,1.0s
KIBK Kibwezi 85.66 266 P **P** **13 54 51.9 +1.1**
comp=Z,9.1nm,1.1s
KMBO Kilima Mbogo 85.88 267 P **P** **13 54 51.3 -0.8**
KMBO IAmb IAmb 13 54 54.3
comp=Z,11nm,1.1s
KMBO Kilima Mbogo 85.88 267 P **P** **13 54 53.3 +1.2**
comp=Z,11nm,1.1s
KMBO Kilima Mbogo 85.88 267 P **P** **13 54 53.0 +0.9**
KMBO pP **pP** **13 55 02.7 +1.3**
DAVOX Davos/Dischmat 86.72 320 LR LR 14 37 34.0
comp=Z,162nm,21.4s,baz=41,slow=38
BORG Borgarnes 86.97 345 LR LR 14 38 19.5
comp=Z,106nm,18.3s,baz=16,slow=39

CEL Celeste 87.20 311 P **P** **13 54 58.1 +0.2**
WISH Wishkah 87.47 39 P **P** **13 54 59.3 +0.3**
EKA Eskdalemuir Ar 88.16 332 P **P** **13 55 02.0 -0.1**
comp=Z,0.5nm,0.7s,baz=27,slow=6.4,SNR=1.3
EKA LR LR 14 38 52.7
comp=Z,248nm,18.1s,baz=44,slow=39
comp=Z,0.5nm,0.7s
RAR Rarotonga 88.23 114 LR LR 14 30 31.4
comp=Z,48nm,21.2s,baz=289,slow=33
D05A Enumclaw 88.44 38 P **P** **13 55 04.6 +1.0**
VAE Valguarnera 88.60 311 LR LR 14 39 40.8
comp=Z,53nm,19.4s,baz=314,slow=39
LTY Liberty 89.14 37 P **P** **13 55 07.2 +0.2**
LTY IAmb IAmb 13 55 18.8
comp=Z,6.2nm,0.8s
BNI Bardonecchia 89.54 320 P **P** **13 55 08.6 -0.4**
E07A Sunnyside 90.00 38 IAmb IAmb 13 55 23.6
comp=Z,11nm,0.9s
D08A Wollman Farm, 90.22 37 IAmb IAmb 13 55 22.6
comp=Z,8.1nm,0.7s
HAWA Hanford 90.28 38 P **P** **13 55 12.9 +0.7**
HAWA IAmb IAmb 13 55 23.1
comp=Z,8.2nm,0.9s
NEW Newport 90.45 35 IAmb IAmb 13 55 23.2
comp=Z,6.8nm,1.0s
NEW Newport 90.45 35 P **P** **13 55 13.5 +0.5**
comp=Z,7.5nm,1.2s
E09A Wood Farm, Sta 90.97 37 IAmb IAmb 13 55 26.4
comp=Z,6.4nm,0.9s
L04D Klamath Falls 91.08 42 P **P** **13 55 16.7 +0.5**
K05A Summer Lake 91.64 41 P **P** **13 55 19.6 +0.7**
FRB Frobisher Bay 91.95 5 LR LR 14 40 57.6
comp=Z,64nm,18.4s,baz=358,slow=38
BMO Blue Mountains 92.45 38 IAmb IAmb 13 55 33.4
comp=Z,4.2nm,1.0s
MOD Modoc Plateau 92.48 42 P **P** **13 55 23.1 +0.4**
MOD IAmb IAmb 13 55 33.4
comp=Z,7.6nm,0.9s
BEKR Beckworth 93.63 43 IAmb IAmb 13 55 38.1
comp=Z,4.5nm,0.9s
PPT Papeete 95.43 107 LR LR 14 29 41.6
comp=Z,76nm,20.3s,baz=313,slow=30
PPT2 Papeete2 95.44 107 eLR LR 14 26 22.4
comp=Z,148nm,25.5s
PPT2 eLR LR 14 26 24.8
comp=Z,149nm,23.2s
NVAR Mina Array Bea 95.77 43 P **P** **13 55 38.0 0.0**
comp=Z,0.6nm,0.8s,baz=295,slow=5.3,SNR=5.4
comp=Z,0.6nm,0.8s
ULM Lac du Bonnet 98.56 24 LR LR 14 44 00.8
comp=Z,71nm,18.0s,baz=15,slow=38
ESDC Sonseca Array 99.05 321 LR LR 14 46 32.0
comp=Z,162nm,21.4s,baz=40,slow=39
LSZ Lusaka 99.73 258 LR LR 14 37 27.0
comp=Z,43nm,19.8s,baz=212,slow=33
PFO Pinyon Flats O 99.87 46 LR LR 14 37 57.0
comp=Z,60nm,20.9s,baz=310,slow=34
RKT Rikitea 110.19 107 eLR LR 14 33 03.7
comp=Z,15µm,36.5s
QSPA South Pole Qui 113.98 180 PKP **PKiKP** **14 00 48.7 -0.9**
comp=Z,0.6nm,0.7s,baz=262,slow=2.3,SNR=5.5
VNA2 Neumayer--Watz 125.19 198 ⇑PKPdf **PKPdf** **14 01 11.1 +0.1**
comp=Z,8.8nm,0.6s,baz=118,slow=2.4
VNA2 pPKPdf **pPKPdf** **14 01 22.3 +1.7**
comp=Z,8.8nm,0.6s,baz=103,slow=2.0
VNA3 Neumayer Olymp 125.65 197 PKPdf **PKPdf** **14 01 11.4 -0.5**
comp=Z,4.1nm,0.7s
VNA3 pPKPdf **pPKPdf** **14 01 22.9 +1.4**
comp=Z,4.1nm,0.7s
LPAZ La Paz 167.49 53 PKP **PKPdf** **14 02 19.0 +0.1**
comp=Z,1.3nm,0.8s,baz=6.9,slow=5.6,SNR=6.1
LPAZ La Paz 167.49 53 **PKPdf** **14 02 20.4 +1.5**

*DRS **29** 13:44:36.5, 41.00N×44.05E, h31km*
*MOS **29** 13:44:37.7, 41.27N×43.89E, h18km, MPVA3.4*
*NORS **29** 13:44:37.1, 41.24N×43.76E, h21km, MPVA3.5*
*AZER **29** 13:44:38.8, 41.38N×44.22E, h10km, ml2.3*
ISC 29 13:44:37.0±2.2, 41.36N±0.03×44.09E±0.06, h2km±15km, n15, σ1§30/29, Western Caucasus

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
QZX	**Qazax, Azerbai**	**1.01**	**107**	P	**Pb**	**13 44 56.5**	**-0.8**
QZX				S	**Sn**	**13 45 11.6**	**-1.4**
GNI	**Garni**	**1.31**	**158**	*e*Pg	**Pn**	**13 45 02.8**	**+0.3**
GNI				*e*Sg	**Sg**	**13 45 21.5**	**+2.4**
GDB	**GEDABAY**	**1.41**	**116**	Pn	**Pn**	**13 45 03.0**	**-0.9**
GDB				Sn	**Sg**	**13 45 22.4**	**0.0**
LACR	**Lac**	**1.47**	**6**	*e*Pg	**Pn**	**13 45 04.1**	**-0.5**
LACR				*e*Sg	**Sn**	**13 45 23.9**	**-0.6**
DIGR	**Digorskoe uzhe**	**1.58**	**346**	*e*Pg	**Pn**	**13 45 06.0**	**-0.3**
DIGR				*e*Sg	**Sn**	**13 45 27.5**	**+0.1**
GANJ	**Ganja**	**1.83**	**112**	Pn	**Pn**	**13 45 10.5**	**+1.0**
GANJ				Sn	**Sg**	**13 45 34.6**	**-1.3**
TLTR	**Tlyarata**	**1.85**	**66**	*e*Pg	**Pn**	**13 45 10.9**	**+1.0**
TLTR				*e*Sg	**Sg**	**13 45 36.4**	**-0.1**
ZKTA	**Zakatala**	**1.92**	**81**	P	**Pn**	**13 45 11.9**	**+1.2**
ZKTA				Sg	**Sg**	**13 45 39.0**	**+0.3**
BTLR	**Botlikh**	**2.05**	**50**	*e*Pg	**Pn**	**13 45 14.8**	**+2.2**
BTLR				*e*Sg	**Sg**	**13 45 42.8**	**-0.1**
DVE	**Vedeno**	**2.20**	**43**	*e*Pn	**Pn**	**13 45 17.4**	**+2.8**
DVE				*e*Sn	**Sg**	**13 45 47.3**	**-0.3**
SBZ	**Shahbuz**	**2.26**	**150**	P	**Pn**	**13 45 16.5**	**+1.1**
SBZ				Sg	**Sg**	**13 45 50.5**	**+0.9**
XNZR	**Khunzakh**	**2.28**	**58**	*e*Pn	**Pn**	**13 45 17.7**	**+2.0**
XNZR				*e*Sn	**Sb**	**13 45 47.9**	**+0.3**
SEKA	**Sheki**	**2.35**	**93**	P	**Pb**	**13 45 18.9**	**-1.2**
SEKA				Sg	**Sg**	**13 45 51.3**	**-1.1**
UNCR	**Uncukul**	**2.42**	**55**	*e*Pn	**Pn**	**13 45 19.9**	**+2.3**
UNCR				*e*Sn	**Sb**	**13 45 52.2**	**+0.5**
ORD	**Ordubad**	**2.83**	**148**	Sg	**Sg**	**13 46 07.3**	**-0.7**

*IDC **29** 14:10:18.4±1.7, 31.37N×140.17E, h0km, mb3.6/3, mbtmp3.5/4, ML2.5/1, Error ellipse: s-maj=56.6km s-min=17.3km az=85.0*
*JMA **29** 14:10:27.3±0.2, 32.0N±1.0×140.3E±0.8, h16km, MV3.4/12, NEAR TORISHIMA IS*
ISC 29 14:10:17.8±1.4, 31.7N±0.1×138.9E±0.2, h10km, n15, σ1§03/9, mb3.5/3, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHCJ	**Hachijojimakas**	**1.55**	**30**	*e*P	**Pg**	**14 10 48.8**	**+1.2**
JHJ	**Hachijo jima 2**	**1.59**	**29**	Pn	**Pg**	**14 10 49.1**	**+0.8**
JHJ	3.0nm,0.3s,baz=244,slow=21,SNR=14			Sn	**Sn**	**14 11 06.0**	**-0.6**
	2.4nm,0.3s,baz=56,slow=23,SNR=5.8						
JHJ2	**Mitsune**	**1.59**	**30**	*e*P	**Pg**	**14 10 49.2**	**+0.8**
JIM2	**Oshima 3**	**3.02**	**9**	*e*P	**Pb**	**14 11 11.8**	**+0.1**
BSO1	**Boso 1**	**3.41**	**31**	*e*P	**Pn**	**14 11 09.4**	**-1.1**
MJAR	**Matsushiro Arr**	**4.83**	**354**	Pn	**Pb**	**14 11 42.7**	**0.0**
	0.2nm,0.3s,baz=161,slow=12,SNR=15						
	4.5nm,0.7s						
MJAR				AML	AML		
H11N2	**WAKE ISLAND Hy 27.84**		**109**	T	T	14 43 55.5	
	baz=302,slow=75,SNR=88						
H11N1	**WAKE ISLAND Hy 27.84**		**109**	T	T	14 43 55.4	
	baz=302,slow=75,SNR=86						
H11N3	**WAKE ISLAND Hy 27.86**		**109**	T	T	14 43 56.8	
	baz=302,slow=75,SNR=92						
H11S3	**WAKE ISLAND Hy 28.32**		**111**	T	T	14 44 31.0	
	baz=304,slow=76,SNR=1870						
H11S1	**WAKE ISLAND Hy 28.33**		**111**	T	T	14 44 31.6	
	baz=304,slow=76,SNR=1442						
H11S2	**WAKE ISLAND Hy 28.34**		**111**	T	T	14 44 31.3	
	baz=304,slow=76,SNR=1299						
CMAR	**Chiang Mai Arr**	**38.29**	**260**	P	P	14 17 49.9	+11
	0.8nm,0.3s,baz=47,slow=7.8,SNR=6.6						
	0.8nm,0.3s						
WRA	**Warramunga Arr**	**51.56**	**185**	P	**P**	**14 19 23.3**	**-0.8**
	0.5nm,0.8s,baz=2.1,slow=7.6,SNR=7.4						
	0.5nm,0.8s						
ASAR	**Alice Springs**	**55.28**	**186**	P	**P**	**14 19 52.6**	**+1.1**
	0.2nm,0.5s,baz=9.9,slow=8.7,SNR=6.1						
	0.2nm,0.5s						

*NEIC **29** 14:26:45.0±1.1, 6.40S±0.09×147.7E±0.1, h44km±7km, mb4.3/30, Error ellipse: s-maj=20.7km s-min=12.6km az=98.0*
*IDC **29** 14:26:49.0±1.3, 6.49S×147.45E, h74km±13km, mb3.9/15, mbtmp4.3/21, MS3.0/8, Error ellipse: s-maj=16.2km*

s-min=8.3km az=111.0
ISC 29 14:26:47.5±0.5, 6.47S±0.05×147.55E±0.08, h63km, n70, σ1§02/68, mb4.3/28, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**2.94**	**187**	P	**Pn**	**14 27 32.4**	**+0.5**
	226nm,0.5s,baz=35,slow=4.9,SNR=65						
PMG				S	**Sn**	**14 28 07.2**	**+1.2**
	404nm,0.5s,baz=353,slow=22,SNR=7.4						
PMG	**Port Moresby**	**2.94**	**187**	P	**Pn**	**14 27 32.5**	**+0.6**
PMG	**Port Moresby**	**2.94**	**187**		**Pn**	**14 27 31.9**	**0.0**
PMG				Sn	**Sn**	**14 28 05.1**	**-0.9**
KRVT	**Keravat (AS076**	**4.95**	**65**	P	Pn	14 28 03.5	+4.2
	27nm,0.6s,baz=285,slow=21,SNR=0.8						
KRVT				S	**Sn**	**14 28 58.4**	**+3.1**
	49nm,0.6s,baz=300,slow=23,SNR=1.2						
KRVT				LR	LR	14 29 49.6	
	comp=Z,115nm,21.4s,baz=186,slow=36						
TABU	**Tabubil**	**6.40**	**280**	P	Pn	14 28 13.6	-5.6
JAY	**Jayapura**	**7.87**	**300**	P	**Pn**	**14 28 41.1**	**+1.8**
	20nm,0.8s,baz=149,slow=8.4,SNR=5.3						
MTSU	**Mount Surprise**	**12.02**	**195**	P	**Pn**	**14 29 37.9**	**+1.9**
HNR	**Honiara**	**12.63**	**104**	LR	LR	14 34 27.8	
	comp=Z,32nm,18.1s,baz=54,slow=36						
CTA	**Charters Tower**	**13.60**	**185**	P	**Pn**	**14 29 58.6**	**+1.1**
	4.3nm,0.7s,baz=357,slow=13,SNR=13						
CTA				LR	LR	14 34 36.3	
	comp=Z,78nm,18.3s,baz=36,slow=34						
SIJI	**Sorong**	**17.16**	**288**	P	**Pn**	**14 30 42.8**	**-0.4**
	4.9nm,0.4s,baz=84,slow=20,SNR=5.7						
MTN	**Manton Dam**	**17.37**	**247**	P	**Pn**	**14 30 46.1**	**+0.4**
WB0	**Warramunga Arr**	**18.39**	**223**	P	**P**	**14 30 57.0**	**-0.5**
WR8	**Warramunga Ar**	**18.45**	**222**		**P**	**14 30 57.6**	**-0.5**
WRAB	**Tennant Creek**	**18.53**	**223**	P	**P**	**14 30 58.6**	**-0.4**
WRA	**Warramunga Arr**	**18.55**	**223**	P	**P**	**14 30 58.1**	**-1.2**
	2.2nm,0.4s,baz=42,slow=12,SNR=76						
WRA	**Warramunga Arr**	**18.55**	**223**		**P**	**14 30 58.3**	**-0.9**
GUMO	**Guam**	**20.10**	**352**	LR	LR	14 39 18.6	
	comp=Z,18nm,18.1s,baz=140,slow=37						
QLP	**Quilpie**	**20.25**	**189**	P	**P**	**14 31 18.6**	**+0.9**
KNRA	**Kununurra**	**20.56**	**242**		**P**	**14 31 20.6**	**-0.6**
KNRA				IAmb	IAmb	14 31 57.6	
	comp=Z,10nm,1.2s						
AS01	**Alice Springs**	**21.52**	**216**	P	**P**	**14 31 31.7**	**+0.2**
AS31	**Alice Springs**	**21.55**	**216**		**P**	**14 31 31.8**	**0.0**
AS31				IAmb	IAmb	14 31 34.9	
	comp=Z,3.8nm,0.5s						
ASAR	**Alice Springs**	**21.55**	**216**	P	**P**	**14 31 31.6**	**-0.2**
	comp=Z,5.3nm,0.5s,baz=50,slow=9.2,SNR=178						
ASAR				S	**S**	**14 35 25.1**	**-2.4**
	comp=Z,1.0nm,0.6s,baz=33,slow=23,SNR=6.0						
ASAR				LR	LR	14 40 19.9	
	comp=Z,43nm,20.8s,baz=52,slow=38						
	comp=Z,5.3nm,0.5s						
ASAR	**Alice Springs**	**21.55**	**216**		**P**	**14 31 31.9**	**+0.1**
INKA	**Innaminka**	**22.12**	**196**		**P**	**14 31 37.0**	**-0.8**
INKA				IAmb	IAmb	14 31 43.5	
	comp=Z,5.8nm,0.9s						
AULRC	**Lightning Ridg**	**22.84**	**179**	P	**P**	**14 31 45.4**	**-0.1**
ARMA	**Armidale**	**24.13**	**171**	P	**P**	**14 31 56.5**	**-1.2**
ARMA				IAmb	IAmb	14 32 03.5	
	comp=Z,28nm,1.4s						
FITZ	**Fitzroy Crossi**	**24.29**	**240**	P	**P**	**14 31 59.1**	**0.0**
	comp=Z,8.1nm,0.4s,baz=58,slow=13,SNR=43						
FITZ				LR	LR	14 41 08.9	
	comp=Z,63nm,19.7s,baz=30,slow=36						
	comp=Z,8.1nm,0.4s						
FITZ	**Fitzroy Crossi**	**24.29**	**240**	P	**P**	**14 31 59.0**	**-0.1**
LUWI	**Luwuk**	**25.29**	**281**	P	**P**	**14 32 08.2**	**-0.1**
STKA	**Stephens Creek**	**25.88**	**192**	P	**P**	**14 32 14.6**	**+1.1**
	comp=Z,1.8nm,0.4s,baz=22,slow=7.3,SNR=11						
STKA				LR	LR	14 42 57.6	
	comp=Z,57nm,18.2s,baz=27,slow=38						
	comp=Z,1.8nm,0.4s						
STKA	**Stephens Creek**	**25.88**	**192**	P	**P**	**14 32 12.1**	**-1.4**
BBOO	**Buckleboo**	**28.31**	**201**	P	**P**	**14 32 34.9**	**-0.3**
BBOO				IAmb	IAmb	14 32 39.3	
	comp=Z,13nm,1.1s						
FORT	**Forrest**	**30.32**	**215**	P	**P**	**14 32 53.4**	**+0.3**
FORT				IAmb	IAmb	14 33 05.6	
	comp=Z,11nm,1.2s						
MBWA	**Marble Bar**	**30.62**	**239**	P	**P**	**14 32 56.6**	**+0.7**
MBWA				IAmb	IAmb	14 33 20.8	
	comp=Z,20nm,1.3s						
NWAO	**Narrogin (SRO)**	**38.55**	**223**	P	**P**	**14 34 04.3**	**+0.1**
SSLB	**Suanglung**	**39.72**	**320**	P	**P**	**14 34 13.8**	**-0.3**
MJAR	**Matsushiro Arr**	**43.67**	**349**	LR	LR	14 52 41.5	
	comp=Z,24nm,19.6s,baz=174,slow=36						
CMAR	**Chiang Mai Arr**	**53.95**	**298**	P	**P**	**14 36 06.2**	**+1.0**
	comp=Z,0.8nm,0.6s,baz=101,slow=4.5,SNR=5.3						
	comp=Z,0.8nm,0.6s						
KLR	**Kul'dur**	**57.16**	**348**	P	**P**	**14 36 28.9**	**+1.2**
	comp=Z,1.5nm,0.8s,baz=213,slow=6.7,SNR=3.6						
	comp=Z,1.5nm,0.8s						
PEA0B	**Petropavlovsk-**	**59.97**	**7**	P	**P**	**14 36 45.9**	**-1.3**
PETK	**Petropavlovsk-**	**59.97**	**7**	P	**P**	**14 36 48.4**	**+1.2**
	comp=Z,2.0nm,0.6s,baz=172,slow=6.6,SNR=20						
	comp=Z,2.0nm,0.6s						
KIP	**Kipapa**	**60.15**	**61**	P	**P**	**14 36 46.0**	**-2.9**
HILR	**Hailar Array B**	**60.82**	**340**	P	**P**	**14 36 53.0**	**-0.1**
	comp=Z,1.6nm,0.4s,baz=127,slow=2.2,SNR=2.7						
	comp=Z,1.6nm,0.4s						
ULN	**Ulaanbaatar**	**64.78**	**331**	P	**P**	**14 37 18.7**	**-0.9**
ULN				IAmb	IAmb	14 37 21.1	
	comp=Z,1.7nm,0.8s						
SONM	**Songino Array**	**65.07**	**331**	P	**P**	**14 37 22.0**	**+0.5**
	comp=Z,0.6nm,0.7s,baz=150,slow=9.4,SNR=5.4						
	comp=Z,0.6nm,0.7s						
SONM	**Songino Array**	**65.07**	**331**	P	**P**	**14 37 21.1**	**-0.4**
SONM				IAmb	IAmb	14 37 23.0	
	comp=Z,1.8nm,1.1s						
VNDA	**Vanda**	**71.42**	**177**	P	**P**	**14 38 01.9**	**+1.3**
	comp=Z,0.9nm,0.6s,baz=334,slow=7.5,SNR=14						
	comp=Z,0.9nm,0.6s						
VNDA	**Vanda**	**71.42**	**177**	P	**P**	**14 38 00.6**	**0.0**
MKAR	**Makanchi Array**	**78.20**	**320**	P	**P**	**14 38 40.3**	**0.0**
	comp=Z,0.8nm,0.5s,baz=99,slow=7.9,SNR=15						
	comp=Z,0.8nm,0.5s						
MKAR	**Makanchi Array**	**78.20**	**320**	P	**P**	**14 38 40.1**	**-0.2**
MAKZ	**Makanchi**	**78.40**	**320**	P	**P**	**14 38 41.6**	**+0.1**
MAKZ				IAmb	IAmb	14 38 41.8	
	comp=Z,1.9nm,0.7s						
PDGK	**Podgornoye**	**78.78**	**316**	P	**P**	**14 38 43.6**	**-0.1**
ZAA0	**Zalesovo Array**	**79.69**	**328**	P	**P**	**14 38 47.0**	**-1.3**
ZAA0				IAmb	IAmb	14 38 47.9	
	comp=Z,1.9nm,0.6s						
ZALV	**Zalesovo Beam**	**79.69**	**328**	P	**P**	**14 38 47.2**	**-1.0**
	comp=Z,2.5nm,0.4s,baz=114,slow=6.5,SNR=13						
	comp=Z,2.5nm,0.4s						
ZALV	**Zalesovo Beam**	**79.69**	**328**	P	**P**	**14 38 47.0**	**-1.2**
KURK	**Kurchatov**	**81.91**	**323**	P	**P**	**14 38 59.7**	**-0.5**
KURK	**Kurchatov**	**81.91**	**323**	IAmb	IAmb	14 39 00.7	
	comp=Z,1.2nm,0.8s						
KURBB	**Kurchatov Arra**	**81.93**	**323**	P	**P**	**14 38 59.7**	**-0.6**
	comp=Z,1.4nm,0.2s,baz=114,slow=5.0,SNR=4.6						
	comp=Z,1.4nm,0.2s						
G18K	**Tagagawik**	**82.01**	**20**	P	**P**	**14 38 59.7**	**-0.7**
G18K				IAmb	IAmb	14 39 05.1	
	comp=Z,10nm,1.4s						
QSPA	**South Pole Qui**	**83.50**	**180**	P	**P**	**14 39 08.9**	**+0.6**
	comp=Z,2.8nm,0.6s,baz=288,slow=1.0,SNR=43						
	comp=Z,2.8nm,0.6s						
QSPA	**South Pole Qui**	**83.50**	**180**	P	**P**	**14 39 08.8**	**+0.4**
QSPA				I

JMA ***29*** *14:27:40.3±0.1, 37.°73N×89.°41W, h150km, ML3.1, Presumed earthquake*

GCG ***29*** *14:27:02.5±0.9, 13.°74N×89.°41W, h150km±15km, MD4.1, Presumed earthquake*

CATAC ***29*** *14:37:03.6±0.5, 14.°5S×9.°9W±.°, h136km±3km, M3.2/24, MLv3.2/24, Error ellipse: s-maj=10.6km s-min=6.3km az=26.5, confirmed*

IDC ***29*** *14:37:04.3±1.7, 13.°98N×89.°20W, h147km±13km, mb3.3/4, mbtmp3.7/6, MS3.4/1, Error ellipse: s-maj=51.8km s-min=18.0km az=41.0*

ISC 29 14:37:02.9±1.0, 13.°74N±0.°07×89.°38W±0.°06, h148km±6km, n48, σ0s87/60, mb3.8/3, El Salvador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CEDA	**San Andres**	**0.06**	**344**	P	**Pn**	**14 37 22.5**	**-0.4**
CEDA				S	**Sn**	**14 37 38.2**	**+0.2**
PMON	**Piamonte**	**0.07**	**116**	P	**Pn**	**14 37 22.9**	**0.0**
BOQS	**Boqueron**	**0.10**	**94**	*e*P	**Pn**	**14 37 23.2**	**+0.1**
JAYA	**Jayaque - finc**	**0.11**	**218**	P	**Pn**	**14 37 22.7**	**-0.3**
JAYA	**Jayaque - finc**	**0.11**	**218**	*i* P	**Pn**	**14 37 22.7**	**-0.3**
JAYA				*i* S	**Sn**	**14 37 38.5**	**+0.2**
UEES	**Universidad Ev**	**0.14**	**101**	P	**Pn**	**14 37 22.8**	**-0.1**
SEMO	**Seminario San**	**0.15**	**104**	P	**Pn**	**14 37 22.6**	**-0.4**
UTEC	**Universidad Te**	**0.18**	**103**	P	**Pn**	**14 37 23.4**	**+0.4**
UDBS	**Universidad Do**	**0.22**	**97**	P	**Pn**	**14 37 23.0**	**-0.1**
UDBS				S	**Sn**	**14 37 38.5**	**+0.2**
PANCS	**Alcalda de**	**0.23**	**124**	P	**Pn**	**14 37 22.2**	**-0.9**
CEVE	**Cerro Verde**	**0.25**	**290**	P	**Pn**	**14 37 23.5**	**+0.1**
CEVE	**Cerro Verde**	**0.25**	**290**	*e*P	**Pn**	**14 37 23.9**	**+0.6**
LALI	**Alcalda de L**	**0.26**	**168**	*i* P	Pn	14 37 14.1	-9.0
UNIC	**Universidad Ca**	**0.29**	**325**	P	**Pn**	**14 37 23.1**	**-0.2**
NUBE	**Las Nubes**	**0.42**	**292**	P	**Pn**	**14 37 23.9**	**0.0**
NUBE				S	**Sn**	**14 37 38.9**	**-0.9**
NUBE	**Las Nubes**	**0.42**	**292**	*i* P	**Pn**	**14 37 23.9**	**0.0**
PAVA	**Las Pavas**	**0.43**	**94**	P	**Pn**	**14 37 23.8**	**0.0**
PAVA				S	**Sn**	**14 37 39.9**	**+0.2**
LOAL	**Lomas de Alarc**	**0.47**	**303**	P	**Pn**	**14 37 24.1**	**+0.2**
ACAJ	**Puerto de Acaj**	**0.47**	**249**	*e*P	**Pn**	**14 37 24.3**	**+0.4**
ACAJ				*e*S	**Sn**	**14 37 41.1**	**+1.3**
SLOZ	**Alcaldia de Sa**	**0.48**	**306**	P	**Pn**	**14 37 24.2**	**+0.2**
COEG	**Centro de Oper**	**0.50**	**104**	P	**Pn**	**14 37 23.9**	**-0.2**
COEG	**Centro de Oper**	**0.50**	**104**	*e*P	**Pn**	**14 37 24.1**	**0.0**
COEG				*e*S	**Sn**	**14 37 40.4**	**+0.2**
TECO	**Alcaldia de Te**	**0.61**	**109**	P	**Pn**	**14 37 24.5**	**-0.2**
TECO				S	**Sn**	**14 37 43.0**	**+1.7**
FAME	**Alcaldia de Sa**	**0.63**	**279**	P	**Pn**	**14 37 24.6**	**-0.2**
FAME				S	**Sn**	**14 37 41.5**	**+0.2**
MTO3	**Montecristo**	**0.65**	**1**	P	**Pn**	**14 37 25.2**	**0.0**
MTO3				S	**Sn**	**14 37 41.4**	**-0.8**
MTO3	**Montecristo**	**0.65**	**1**	*i* P	**Pn**	**14 37 25.2**	**0.0**
JUAM	**Asuncion Mita**	**0.67**	**332**	*i* P	**Pn**	**14 37 25.2**	**+0.1**
ESQI	**Esquipulas**	**0.81**	**2**	P	**Pn**	**14 37 26.5**	**+0.3**
ESQI				S	**Sn**	**14 37 43.1**	**-0.8**
ESQI	**Esquipulas**	**0.81**	**2**	*e*P	**Pn**	**14 37 26.7**	**+0.6**
ALJI	**Alcalda de J**	**0.89**	**118**	P	**Pn**	**14 37 26.7**	**+0.1**
ALJI				S	**Sn**	**14 37 45.1**	**+0.6**
ALJI	**Alcalda de J**	**0.89**	**118**	*e*P	**Pn**	**14 37 27.0**	**+0.4**
ALJI				*e*S	**Sn**	**14 37 44.9**	**+0.3**
PACA	**Pacayal**	**1.06**	**105**	P	**Pn**	**14 37 28.7**	**+0.5**
RANC	**El Ranchito**	**1.10**	**106**	P	**Pn**	**14 37 29.1**	**+0.5**
SARH	**Santa Rosa de**	**1.19**	**30**	P	**Pn**	**14 37 29.7**	**+0.4**
SARH	**Santa Rosa de**	**1.19**	**30**	*i* P	**Pn**	**14 37 29.8**	**+0.5**
FG16	**Alotenango, Sa**	**1.22**	**296**	*i* P	Pn	14 37 34.1	+4.4
CNCH	**Conchagua**	**1.57**	**107**	P	**Pn**	**14 37 33.4**	**+0.1**
CNCH	**Conchagua**	**1.57**	**107**	*e*P	**Pn**	**14 37 33.5**	**+0.3**
CNCH				*e*S	**Sn**	**14 37 56.6**	**+0.2**
APG	**El Apazote**	**1.64**	**320**	P	**Pn**	**14 37 35.0**	**+1.0**
	2.6nm,0.3s,baz=138,slow=9.9,SNR=21						
APG				S	**Sn**	**14 37 58.4**	**+0.5**
	3.2nm,0.6s,baz=96,slow=14,SNR=6.4						
CSGN	**Cosiguina Volc**	**1.93**	**113**	P	**Pn**	**14 37 40.4**	**+3.3**
TGUH	**Tegucigalpa,Un**	**2.07**	**81**	P	**Pn**	**14 37 39.0**	**+0.2**
JTS	**Las Juntas de**	**5.52**	**128**	P	**Pn**	**14 38 25.1**	**+1.8**
	5.2nm,0.3s,baz=310,slow=17,SNR=12						
JTS				S	**Sn**	**14 39 22.6**	**-3.5**

IDC 29 14:34:42.9±3.0, 30.°54S×177.°38W, h0km, mb3.3/2, mbtmp3.3/2, Error ellipse: s-maj=61.0km s-min=27.0km az=93.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.36**	**340**	Pn	Pg	14 35 07.2	-1.9
	156nm,0.3s,baz=249,slow=24,SNR=3.1						
RAO				Sn	Sg	14 35 23.5	-3.2
	232nm,0.3s,baz=8.4,slow=24,SNR=3.7						
ASAR	**Alice Springs**	**43.63**	**267**	P	P	14 42 49.9	+0.4
	0.1nm,0.4s,baz=107,slow=7.5,SNR=7.4						
	0.1nm,0.4s						
WRA	**Warramunga Arr**	**44.64**	**272**	P	P	14 42 56.8	-0.7
	0.3nm,0.4s,baz=110,slow=8.1,SNR=13						
	0.3nm,0.4s						
FINES	**FINESS Array B**	**145.46**	**340**	PKPbc	PKPbc	14 54 21.1	-1.1
	2.5nm,0.8s,baz=11,slow=1.4,SNR=6.0						

SNET ***29*** *14:37:02.5±2.0, 13.°73N×89.°41W, h150km, ML3.1, Presumed earthquake*

GCG ***29*** *14:37:02.5±0.9, 13.°74N×89.°41W, h150km±15km, MD4.1, Presumed earthquake*

CATAC ***29*** *14:37:03.6±0.5, 14.°5S×9.°9W±.°, h136km±3km, M3.2/24, MLv3.2/24, Error ellipse: s-maj=10.6km s-min=6.3km az=26.5, confirmed*

IDC ***29*** *14:37:04.3±1.7, 13.°98N×89.°20W, h147km±13km, mb3.3/4, mbtmp3.7/6, MS3.4/1, Error ellipse: s-maj=51.8km s-min=18.0km az=41.0*

ISC 29 14:37:02.9±1.0, 13.°74N±0.°07×89.°38W±0.°06, h148km±6km, n48, σ0s87/60, mb3.8/3, El Salvador

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
CEDA	**San Andres**	**0.06**	**344**	P	**Pn**	**14 37 22.5**	**-0.4**
CEDA				S	**Sn**	**14 37 38.2**	**+0.2**
PMON	**Piamonte**	**0.07**	**116**	P	**Pn**	**14 37 22.9**	**0.0**
BOQS	**Boqueron**	**0.10**	**94**	*e*P	**Pn**	**14 37 23.2**	**+0.1**
JAYA	**Jayaque - finc**	**0.11**	**218**	P	**Pn**	**14 37 22.7**	**-0.3**
JAYA	**Jayaque - finc**	**0.11**	**218**	*i* P	**Pn**	**14 37 22.7**	**-0.3**
JAYA				*i* S	**Sn**	**14 37 38.5**	**+0.2**
UEES	**Universidad Ev**	**0.14**	**101**	P	**Pn**	**14 37 22.8**	**-0.1**
SEMO	**Seminario San**	**0.15**	**104**	P	**Pn**	**14 37 22.6**	**-0.4**
UTEC	**Universidad Te**	**0.18**	**103**	P	**Pn**	**14 37 23.4**	**+0.4**
UDBS	**Universidad Do**	**0.22**	**97**	P	**Pn**	**14 37 23.0**	**-0.1**
UDBS				S	**Sn**	**14 37 38.5**	**+0.2**
PANCS	**Alcalda de**	**0.23**	**124**	P	**Pn**	**14 37 22.2**	**-0.9**
CEVE	**Cerro Verde**	**0.25**	**290**	P	**Pn**	**14 37 23.5**	**+0.1**
CEVE	**Cerro Verde**	**0.25**	**290**	*e*P	**Pn**	**14 37 23.9**	**+0.6**
LALI	**Alcalda de L**	**0.26**	**168**	*i* P	Pn	14 37 14.1	-9.0
UNIC	**Universidad Ca**	**0.29**	**325**	P	**Pn**	**14 37 23.1**	**-0.2**
NUBE	**Las Nubes**	**0.42**	**292**	P	**Pn**	**14 37 23.9**	**0.0**
NUBE				S	**Sn**	**14 37 38.9**	**-0.9**
NUBE	**Las Nubes**	**0.42**	**292**	*i* P	**Pn**	**14 37 23.9**	**0.0**
PAVA	**Las Pavas**	**0.43**	**94**	P	**Pn**	**14 37 23.8**	**0.0**
PAVA				S	**Sn**	**14 37 39.9**	**+0.2**
LOAL	**Lomas de Alarc**	**0.47**	**303**	P	**Pn**	**14 37 24.1**	**+0.2**
ACAJ	**Puerto de Acaj**	**0.47**	**249**	*e*P	**Pn**	**14 37 24.3**	**+0.4**
ACAJ				*e*S	**Sn**	**14 37 41.1**	**+1.3**
SLOZ	**Alcaldia de Sa**	**0.48**	**306**	P	**Pn**	**14 37 24.2**	**+0.2**
COEG	**Centro de Oper**	**0.50**	**104**	P	**Pn**	**14 37 23.9**	**-0.2**
COEG	**Centro de Oper**	**0.50**	**104**	*e*P	**Pn**	**14 37 24.1**	**0.0**
COEG				*e*S	**Sn**	**14 37 40.4**	**+0.2**
TECO	**Alcaldia de Te**	**0.61**	**109**	P	**Pn**	**14 37 24.5**	**-0.2**
TECO				S	**Sn**	**14 37 43.0**	**+1.7**
FAME	**Alcaldia de Sa**	**0.63**	**279**	P	**Pn**	**14 37 24.6**	**-0.2**
FAME				S	**Sn**	**14 37 41.5**	**+0.2**
MTO3	**Montecristo**	**0.65**	**1**	P	**Pn**	**14 37 25.2**	**0.0**
MTO3				S	**Sn**	**14 37 41.4**	**-0.8**
MTO3	**Montecristo**	**0.65**	**1**	*i* P	**Pn**	**14 37 25.2**	**0.0**
JUAM	**Asuncion Mita**	**0.67**	**332**	*i* P	**Pn**	**14 37 25.2**	**+0.1**
ESQI	**Esquipulas**	**0.81**	**2**	P	**Pn**	**14 37 26.5**	**+0.3**
ESQI				S	**Sn**	**14 37 43.1**	**-0.8**
ESQI	**Esquipulas**	**0.81**	**2**	*e*P	**Pn**	**14 37 26.7**	**+0.6**
ALJI	**Alcalda de J**	**0.89**	**118**	P	**Pn**	**14 37 26.7**	**+0.1**
ALJI				S	**Sn**	**14 37 45.1**	**+0.6**
ALJI	**Alcalda de J**	**0.89**	**118**	*e*P	**Pn**	**14 37 27.0**	**+0.4**
ALJI				*e*S	**Sn**	**14 37 44.9**	**+0.3**
PACA	**Pacayal**	**1.06**	**105**	P	**Pn**	**14 37 28.7**	**+0.5**
RANC	**El Ranchito**	**1.10**	**106**	P	**Pn**	**14 37 29.1**	**+0.5**
SARH	**Santa Rosa de**	**1.19**	**30**	P	**Pn**	**14 37 29.7**	**+0.4**
SARH	**Santa Rosa de**	**1.19**	**30**	*i* P	**Pn**	**14 37 29.8**	**+0.5**
FG16	**Alotenango, Sa**	**1.22**	**296**	*i* P	Pn	14 37 34.1	+4.4
CNCH	**Conchagua**	**1.57**	**107**	P	**Pn**	**14 37 33.4**	**+0.1**
CNCH	**Conchagua**	**1.57**	**107**	*e*P	**Pn**	**14 37 33.5**	**+0.3**
CNCH				*e*S	**Sn**	**14 37 56.6**	**+0.2**
APG	**El Apazote**	**1.64**	**320**	P	**Pn**	**14 37 35.0**	**+1.0**
	2.6nm,0.3s,baz=138,slow=9.9,SNR=21						
APG				S	**Sn**	**14 37 58.4**	**+0.5**
	3.2nm,0.6s,baz=96,slow=14,SNR=6.4						
CSGN	**Cosiguina Volc**	**1.93**	**113**	P	**Pn**	**14 37 40.4**	**+3.3**
TGUH	**Tegucigalpa,Un**	**2.07**	**81**	P	**Pn**	**14 37 39.0**	**+0.2**
JTS	**Las Juntas de**	**5.52**	**128**	P	**Pn**	**14 38 25.1**	**+1.8**
	5.2nm,0.3s,baz=310,slow=17,SNR=12						
JTS				S	**Sn**	**14 39 22.6**	**-3.5**
	7.8nm,0.3s,baz=286,slow=22,SNR=6.4						
CMIG	**Matias Romero**	**6.27**	**303**	P	**Pn**	**14 38 34.5**	**+1.4**
	0.9nm,0.4s,baz=139,slow=7.4,SNR=2.2						
TXAR	**Lajitas Array**	**20.40**	**322**	P	Pn	14 41 30.5	-1.7
	1.0nm,0.7s,baz=143,slow=11,SNR=13						
	1.0nm,0.7s						
TKL	**Tuckaleechee C**	**22.40**	**12**	LR	LR	14 52 05.2	
	comp=Z,86nm,18.6s,baz=346,slow=41						
PDAR	**Pinedale Array**	**33.76**	**333**	P	**P**	**14 43 31.6**	**+0.8**
	0.2nm,0.5s,baz=138,slow=7.1,SNR=1.9						
	0.2nm,0.5s						
SCHQ	**Schefferville**	**44.62**	**18**	P	**P**	**14 44 59.2**	**-1.1**
	1.8nm,0.4s,baz=215,slow=5.0,SNR=10						
	1.8nm,0.4s						
YKA	**Yellowknife Ar**	**51.89**	**345**	P	**P**	**14 45 55.4**	**-0.5**
	1.5nm,0.8s,baz=151,slow=7.3,SNR=10						
	1.5nm,0.8s						

WEL 29 14:42:59.9±1.1, 34.°5S±18.°1×18.°0E±3.°0, h236km±24km, M3.5/4, mB4.5/2, ML3.7/11, MLv3.5/4, Mw(mB)3.6/2, Error ellipse: s-maj=43.8km s-min=13.0km az=117.1, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**3.74**	**197**	P	Pn	14 43 59.0	-0.9
HAZ	**Te Kaha**	**4.07**	**202**	P	Pn	14 44 01.1	-2.7
PKGZ	**Pakihiroa**	**4.09**	**198**	P	Pn	14 44 05.3	+1.2
PKGZ				S	S	14 44 56.5	+1.6
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**4.24**	**196**	P	Pn	14 44 06.3	+0.4
PUZ				S	S	14 44 56.5	-1.7
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**4.29**	**202**	P	Pn	14 44 07.3	+0.7
RUGZ				S	S	14 44 59.5	-0.1
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	**Carnagh Statio**	**4.64**	**195**	P	Pn	14 44 11.6	+0.8
CNGZ				S	S	14 45 07.8	+0.7
CNGZ				AML	AML		
MWZ	**Matawai**	**4.68**	**202**	P	Pn	14 44 11.9	+0.7
MWZ				S	S	14 45 07.9	0.0
MWZ				AML	AML		
URZ	**Urewera**	**4.75**	**206**	P	Pn	14 44 12.0	0.0
URZ				S	S	14 45 10.8	+1.4
URZ				AML	AML		
RIGZ	**Rimuhau**	**4.96**	**198**	P	Pn	14 44 15.7	+1.0
RIGZ				S	S	14 45 14.2	0.0
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	**5.07**	**207**	P	Pn	14 44 16.6	+0.6
MUGZ				AML	AML		
MUGZ				AML	AML		
KNZ	**Kokohu**	**5.28**	**197**	P	Pn	14 44 19.1	+0.5
BKZ	**Black Stump Fm**	**5.78**	**206**	P	Pn	14 44 25.0	+0.1
BKZ				S	S	14 45 33.0	+0.4
BKZ				AML	AML		
KAHZ	**Kahuranaki**	**6.22**	**201**	P	Pn	14 44 30.3	-0.1
KAHZ				S	S	14 45 44.5	+1.8
KAHZ				AML	AML		
MTVZ	**Mangateitei**	**6.37**	**211**	P	Pn	14 44 32.3	0.0
MTVZ				AML	AML		
PNHZ	**Pukenui**	**6.54**	**204**	P	Pn	14 44 33.2	-1.4
PNHZ				S	S	14 45 49.4	-0.8
PNHZ				AML	AML		
PRHZ	**Porangahau**	**6.73**	**201**	P	Pn	14 44 35.7	-1.1
PRHZ				S	S	14 45 54.8	+0.4
PRHZ				AML	AML		

MOS ***29*** *14:48:27.7±1.0, 4.°69S×103.°19E, h60km, mb5.3/44, Error ellipse: s-maj=8.7km s-min=4.5km az=112.5*

BJI ***29*** *14:48:27.5, 4.°90S×103.°00E, h68km, mB5.1/9, mb5.2/53, Ms4.5/5, Ms7 4.2/5*

NEIC ***29*** *14:48:28.0±1.5, 5.°01S±0.°05×102.°93E±0.°07, h55km±5km, mb5.2/94, Error ellipse: s-maj=9.9km s-min=6.7km az=66.0*

DJA ***29*** *14:48:28.0±0.2, 5.°S±3.°×10.°3E±.°, h10km, M5.2/29, mB5.5/18, mB5.6/14, mb5.4/29, mb5.4/29, MLv5.3/20, MLv5.4/14, Mw(mB)5.0/18, Mw(mB)5.1/14*

GFZ ***29*** *14:48:28.1±0.4, 5.°S±4.°×10.°3E±.°, h60km±4km, M4.9/22, mb5.3/22*

IDC ***29*** *14:48:30.2±1.3, 4.°75S×103.°28E, h69km±10km, mb4.8/35, mbtmp5.1/37, MS3.6/49, Error ellipse: s-maj=12.8km s-min=7.0km az=43.0*

ISC 29 14:48:28.5±0.3, 4.°94S±0.°04×102.°99E±0.°04, h62km±2km, h62km:pP-P, n649, σ1s26/661, mb5.2/196, 49C-28D, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MNAI	**Manna**	**0.57**	**356**	P	**Pn**	**14 48 41.8**	**+0.4**
MNAI	**Manna**	**0.57**	**356**	S	**Sn**	**14 48 51.7**	**+0.8**
MNAI	**Manna**	**0.57**	**356**		**Pn**	**14 48 41.9**	**+0.4**
MNAI				Sn	**Sn**	**14 48 51.1**	**+0.2**
MNAI	**Manna**	**0.57**	**356**	P	**Pn**	**14 48 42.0**	**+0.5**
MNAI				AML	AML		
MNAI	**Manna**	**0.57**	**356**	P	**Pn**	**14 48 42.1**	**+0.6**
MDSI	**Maura Dua**	**1.26**	**69**	P	**Pn**	**14 48 50.8**	**+0.7**
MDSI				AML	AML		
KSI	**Kapahiang**	**1.34**	**343**	P	**Pn**	**14 48 52.2**	**+1.0**
KSI				AML	AML		
KSI				AML	AML		
UBSI	**University, Be**	**1.37**	**328**	P	**Pn**	**14 48 52.1**	**+0.5**
MASI	**Maura Aman, Be**	**1.94**	**337**	P	**Pn**	**14 49 00.9**	**+1.7**
MASI				AML	AML		
PMBI	**Palembang**	**2.67**	**42**	P	**Pn**	**14 49 10.6**	**+1.4**
PMBI	**Palembang**	**2.67**	**42**		**Pn**	**14 49 10.4**	**+1.2**
PMBI	**Palembang**	**2.67**	**42**	P	**Pn**	**14 49 10.3**	**+1.1**
PMBI				AML	AML		
PMBI	**Palembang**	**2.67**	**42**	P	**Pn**	**14 49 11.0**	**+1.8**
CGJI	**Cibinong**	**3.16**	**122**	P	**Pn**	**14 49 16.3**	**+0.4**
CGJI				AML	AML		
CGJI				AML	AML		
KRJI	**Kerinci**	**3.21**	**332**	P	**Pn**	**14 49 20.9**	**+4.2**
KRJI				AML	AML		
SBJI	**Serang**	**3.34**	**111**	P	**Pn**	**14 49 22.2**	**+3.9**
SBJI				AML	AML		
JMBI	**JAMBI**	**3.35**	**11**	P	**Pn**	**14 49 21.0**	**+2.6**
JMBI				AML	AML		
JMBI				AML	AML		
SKJI	**Sukabumi**	**4.10**	**120**	P	Pn	14 49 34.3	+5.6
CBJI	**Citeko**	**4.11**	**111**	P	**Pn**	**14 49 33.6**	**+4.7**
CBJI				AML	AML		
SDSI	**Sungai Dareh**	**4.28**	**339**	P	**Pn**	**14 49 32.6**	**+1.5**
RGRI	**Rengat**	**4.61**	**352**	P	**Pn**	**14 49 39.8**	**+4.1**
DSRI	**Dabo**	**4.70**	**20**	P	**Pn**	**14 49 39.0**	**+2.0**
LEM	**Lembang**	**4.97**	**112**	P	**Pn**	**14 49 43.1**	**+2.4**
	160nm,0.4s,baz=195,slow=13,SNR=35						
LEM				S	**Sn**	**14 50 36.7**	**-0.3**
	241nm,0.8s,baz=155,slow=21,SNR=4.6						
LEM				LR	LR	14 51 40.0	
	comp=Z,471nm,21.8s,baz=290,slow=40						
TPI	**Tanjungpandan**	**5.13**	**65**	P	**Pn**	**14 49 46.2**	**+3.4**
PPI	**Padang Panjang**	**5.15**	**330**	P	**Pn**	**14 49 45.8**	**+2.6**
	2μm157nm,0.9s,157nm,0.9s						
BBJI	**Bungbulang**	**5.26**	**119**	P	**Pn**	**14 49 45.0**	**+0.2**
	220nm,0.7s						
BBJI				AML	AML		
BBJI	**Bungbulang**	**5.26**	**119**		**Pn**	**14 49 44.6**	**-0.2**
BBJI	**Bungbulang**	**5.26**	**119**	P	**Pn**	**14 49 44.9**	**+0.2**
	3μm3μm191nm,0.6s,191nm,0.6s						
BBJI	**Bungbulang**	**5.26**	**119**	P	**Pn**	**14 49 45.1**	**+0.2**
	comp=Z,220nm,0.7s						
SISI	**Saibi**	**5.30**	**313**	P	**Pn**	**14 49 47.1**	**+2.0**
	comp=Z,5μmcomp=Z,5μmcomp=Z,265nm,0.7s,comp=Z,265nm,0.7s						
BKNI	**Bangkinang**	**5.58**	**339**		**Pn**	**14 49 49.6**	**+0.6**
BKNI	**Bangkinang**	**5.58**	**339**	P	**Pn**	**14 49 52.9**	**+3.8**
	comp=Z,7μmcomp=Z,7μmcomp=Z,309nm,0.8s,comp=Z,309nm,0.8s						
BKNI	**Bangkinang**	**5.58**	**339**	P	**Pn**	**14 49 51.6**	**+2.5**
	comp=Z,305nm,1.0s						
TPRI	**Tanjung Pinang**	**6.02**	**15**	P	**Pn**	**14 49 57.8**	**+2.8**
	comp=Z,4μmcomp=Z,4μmcomp=Z,316nm,0.5s,comp=Z,316nm,0.5s						
CMJI	**Cimerak**	**6.11**	**118**	P	**Pn**	**14 49 58.2**	**+1.9**
	comp=Z,5μmcomp=Z,5μmcomp=Z,274nm,0.6s,comp=Z,274nm,0.6s						
BTDF	**Bukit Timah Da**	**6.30**	**7**	P	**Pn**	**14 50 01.3**	**+2.3**
	comp=Z,151nm,0.7s						
BTDF				AML	AML		
KPJI	**Karang Pucung**	**6.37**	**112**	P	**Pn**	**14 50 02.8**	**+3.0**
	comp=Z,143nm,0.6s,comp=Z,143nm,0.6s						
PBSI	**Pulau Batu**	**6.76**	**316**	P	Pn	14 50 16.0	+11
SMRI	**Semarang**	**7.70**	**106**		**Pn**	**14 50 18.9**	**+0.8**
SMRI	**Semarang**	**7.70**	**106**	P	**Pn**	**14 50 22.4**	**+4.3**
	comp=Z,175nm,0.7s,comp=Z,175nm,0.7s						
UGM	**Wanagama**	**8.04**	**112**	P	**Pn**	**14 50 23.3**	**+0.5**
	comp=Z,189nm,0.8s						
UGM	**Wanagama**	**8.04**	**112**		**Pn**	**14 50 23.3**	**+0.5**
GSI	**Gunungsitoli**	**8.23**	**319**	P	**Pn**	**14 50 25.4**	**0.0**
	comp=Z,112nm,0.4s						
GSI	**Gunungsitoli**	**8.23**	**319**		**Pn**	**14 50 24.7**	**-0.7**
GSI	**Gunungsitoli**	**8.23**	**319**	P	**Pn**	**14 50 25.9**	**+0.6**
	comp=Z,2μmcomp=Z,2μmcomp=Z,120nm,0.5s,comp=Z,120nm,0.5s						
GSI	**Gunungsitoli**	**8.23**	**319**	P	**Pn**	**14 50 25.4**	**0.0**
	comp=Z,112nm,0.4s						
RPSI	**Rantau Prapat**	**8.60**	**332**		**Pn**	**14 50 31.7**	**+1.3**
PSI	**Prapat**	**8.70**	**332**	P	**Pn**	**14 50 31.7**	**-0.1**
	comp=Z,4.0nm,0.3s,baz=157,slow=14,SNR=2.0						
PSI				LR	LR	14 54 11.5	
	comp=Z,334nm,21.6s,baz=151,slow=40						
SJI	**Sawahan**	**9.15**	**108**	P	**Pn**	**14 50 40.1**	**+2.1**
SNJI	**Sawahan-Nganju**	**9.16**	**108**	P	**Pn**	**14 50 41.0**	**+2.8**
	comp=Z,174nm,0.6s,comp=Z,174nm,0.6s						
PWJI	**Pagerwojo**	**9.27**	**110**	P	**Pn**	**14 50 42.4**	**+2.8**
	comp=Z,100nm,0.9s,comp=Z,100nm,0.9s						
COCO	**West Island**	**9.43**	**220**	P	**Pn**	**14 50 40.7**	**-1.1**
	comp=Z,236nm,0.6s						
COCO	**West Island**	**9.43**	**220**	P	**Pn**	**14 50 38.7**	**-3.0**
COCO	**West Island**	**9.43**	**220**		**Pn**	**14 50 38.7**	**-3.0**
COCO	**West Island**	**9.43**	**220**	P	**Pn**	**14 50 39.2**	**-2.6**
	comp=Z,463nm,0.6s						
IPM	**Ipoh**	**9.56**	**348**	P	**Pn**	**14 50 45.3**	**+1.8**
	comp=Z,34nm,0.7s						
IPM	**Ipoh**	**9.56**	**348**		**Pn**	**14 50 44.5**	**+1.0**
IPM	**Ipoh**	**9.56**	**348**	P	**Pn**	**14 50 48.3**	**+4.7**
	comp=Z,34nm,0.7s						
STKI	**Sintang**	**9.82**	**60**	P	Pn	14 50 55.1	+8.0
JAGI	**Jajag, Banyuwa**	**11.62**	**108**	P	**Pn**	**14 51 10.7**	**-1.1**
	comp=Z,200nm,0.6s						
JAGI	**Jajag, Banyuwa**	**11.62**	**108**		**Pn**	**14 51 10.6**	**-1.2**
JAGI	**Jajag, Banyuwa**	**11.62**	**108**	P	**Pn**	**14 51 08.9**	**-2.8**
	comp=Z,200nm,0.6s						
PLAI	**Plampang**	**15.18**	**106**	P	**Pn**	**14 51 56.7**	**-2.6**
PLAI	**Plampang**	**15.18**	**106**	P	**Pn**	**14 51 56.1**	**-3.2**
	comp=Z,198nm,0.6s						
KAPI	**Kappang**	**16.70**	**91**	P	**Pn**	**14 52 17.7**	**-0.9**
	comp=Z,22nm,0.5s,baz=286,slow=10.0,SNR=8.7						
KAPI				LR	LR	14 59 13.1	
	comp=Z,252nm,20.6s,baz=267,slow=39						
KAPI	**Kappang**	**16.70**	**91**	P	**Pn**	**14 52 19.0**	**+0.4**
KAPI				pmax	pmax		
	comp=Z,47nm,1.3s						
KAPI	**Kappang**	**16.70**	**91**		**Pn**	**14 52 18.9**	**+0.4**
KAPI	**Kappang**	**16.70**	**91**	P	**Pn**	**14 52 19.3**	**+0.7**
	comp=Z,35nm,0.8s						
KKM	**Kota Kinabalu**	**17.12**	**51**	P	**Pn**	**14 52 24.5**	**+0.5**
	comp=Z,34nm,0.9s						
KKM	**Kota Kinabalu**	**17.12**	**51**		**P**	**14 52 24.7**	**-0.2**
TOLI2	**Tolitoli**	**18.76**	**72**	P	**Pn**	**14 52 44.1**	**+0.3**
	comp=Z,172nm,0.8s						
TOLI2	**Tolitoli**	**18.76**	**72**	Pn	**Pn**	**14 52 43.9**	**+0.1**
TOLI2

baz=86,slow=76,SNR=85
NWAO Narrogin (SRO) 30.86 156 LR LR 15 05 44.7
comp=Z,130nm,20.8s,baz=5.5,slow=34
H01W3 Cape Leeuwin H 31.53 162 T T 15 28 12.6
baz=340,slow=76,SNR=282
H01W2 Cape Leeuwin H 31.55 162 T T 15 28 06.7
baz=340,slow=76,SNR=226
H01W1 Cape Leeuwin H 31.55 162 T T 15 28 06.8
baz=340,slow=76,SNR=287
SHL Shillong 32.19 341 P **P** **14 54 49.7 -1.2**
SHL Shillong 32.19 341 P **P** **14 54 49.7 -1.2**
TPUB Ta-pu 32.93 31 P **P** **14 54 57.8 +0.5**
comp=Z,74nm,2.4s
YULB Yu-li 33.35 32 P **P** **14 55 02.0 +1.0**
comp=Z,50nm,2.1s
YULB Yu-li 33.35 32 P **P** **14 55 01.8 +0.9**
SSLB Suanglung 33.50 31 P **P** **14 55 03.0 +0.7**
comp=Z,36nm,1.3s
SSLB Suanglung 33.50 31 P **P** **14 55 02.7 +0.4**
WRA Warramunga Arr 33.95 119 P **P** **14 55 06.3 0.0**
comp=Z,22nm,0.6s,baz=298,slow=9.1,SNR=430
WRA PcP **PcP** **14 57 44.2 +0.7**
comp=Z,6.4nm,0.7s,baz=303,slow=2.1,SNR=7.2
WRA S **S** **15 00 23.1 -4.0**
comp=Z,1.8nm,0.9s,baz=299,slow=16,SNR=6.1
comp=Z,22nm,0.6s
WRA Warramunga Arr 33.95 119 P **P** **14 55 06.1 -0.3**
WRAB Tennant Creek 33.96 119 P **P** **14 55 06.3 -0.1**
comp=Z,27nm,0.7s
WRAB Tennant Creek 33.96 119*ce*P **P** **14 55 06.5 +0.1**
WRAB pmax pmax
comp=Z,39nm,0.8s
WRAB Tennant Creek 33.96 119 P **P** **14 55 06.4 +0.1**
WRAB IAmb IAmb 14 55 07.3
comp=Z,35nm,0.8s
WRAB Tennant Creek 33.96 119 P **P** **14 55 06.7 +0.3**
comp=Z,51nm,0.7s
WRAB Tennant Creek 33.96 119 P **P** **14 55 06.3 -0.1**
WRAB PcP **PcP** **14 57 43.6 0.0**
WB1 Warramunga Ar. 33.96 119 P **P** **14 55 06.3 -0.1**
comp=Z,42nm,0.6s
NACB Ninganchiao 34.14 31 P **P** **14 55 08.5 +0.7**
comp=Z,31nm,0.5s
YHNB Yeheng 34.44 30 P **P** **14 55 10.8 +0.3**
AS31 Alice Springs 35.12 125 P **P** **14 55 17.2 +0.7**
AS31 IAmb IAmb 14 55 18.7
comp=Z,19nm,0.5s
ASAR Alice Springs 35.12 125 P **P** **14 55 17.0 +0.6**
comp=Z,32nm,0.6s,baz=302,slow=7.7,SNR=970
ASAR PcP **PcP** **14 57 48.0 +1.1**
comp=Z,8.7nm,0.7s,baz=310,slow=2.8,SNR=14
ASAR S **S** **15 00 42.9 -2.3**
comp=Z,2.4nm,0.9s,baz=302,slow=15,SNR=8.8
ASAR ScP **ScP** **15 01 28.6 +1.1**
comp=Z,0.5nm,0.6s,baz=316,slow=3.5,SNR=5.0
ASAR LR LR 15 10 55.7
comp=Z,62nm,20.1s,baz=288,slow=38
comp=Z,32nm,0.6s
ASAR Alice Springs 35.12 125 P **P** **14 55 17.2 +0.7**
AS01 Alice Springs 35.16 125 P **P** **14 55 17.0 +0.2**
comp=Z,54nm,0.8s
CD2 Chengdu 35.65 1 P **P** **14 55 20.0 -0.8**
CD2 pmax pmax
comp=Z,50nm,0.6s
EVN Everest 36.24 335 P **P** **14 55 26.1 -0.4**
EVN IAmb IAmb 14 55 27.7
comp=Z,14nm,0.7s
EVN Everest 36.24 335 P **P** **14 55 26.8 +0.3**
comp=Z,24nm,0.8s
LSA Lhasa 36.27 342 P **P** **14 55 26.8 +0.2**
LSA pP **pP** **14 55 41.4 -0.4**
JMJ Miyako jima 2 36.68 35 P **P** **14 55 30.1 +0.5**
comp=Z,2μm,1.0s
WHN Wuhan 36.92 16 P **P** **14 55 32.0 +0.5**
XAN Xi'an 39.17 8 P **P** **14 55 50.0 -0.5**
XAN pmax pmax
comp=Z,39nm,0.8s
XAN Xi'an 39.17 8 P **P** **14 55 49.5 -1.0**
XAN pP **pP** **14 56 04.7 -1.2**
XAN sP **sP** **14 56 11.9 -1.2**
NJ2 Nanjing 39.76 21 *e*P **P** **14 55 57.8 +2.4**
NJ2 pmax pmax
comp=Z,11nm,0.6s
LYN LuoYang 40.28 12 P **P** **14 56 00.3 +0.6**
LYN pmax pmax
comp=Z,82nm,0.7s
LZDM Lanzhou Array 40.68 1 P **P** **14 56 02.8 -0.6**
comp=Z,17nm,0.6s,baz=186,slow=12,SNR=22
comp=Z,17nm,0.6s
LZH Lanzhou 40.82 1 *e*P **P** **14 56 05.0 +0.7**
LZH sP pP 14 56 24.0 +4.3
LZH pmax pmax
comp=Z,43nm,1.0s
BBOO Buckleboo 41.47 136 P **P** **14 56 10.1 +0.4**
comp=Z,18nm,1.2s
BBOO Buckleboo 41.47 136 P **P** **14 56 10.0 +0.4**
comp=Z,18nm,1.2s
BBOO Buckleboo 41.47 136 P **P** **14 56 09.4 -0.2**
BBOO IAmb IAmb 14 56 10.8
comp=Z,38nm,1.4s
GOMU GeErMu 41.63 350 P **P** **14 56 11.8 +0.6**
GOMU pmax pmax
comp=Z,6.0nm,0.6s
MTSU Mount Surprise 42.44 111 P **P** **14 56 18.4 +0.6**
comp=Z,70nm,0.6s
MTSU Mount Surprise 42.44 111 P **P** **14 56 17.9 +0.2**
comp=Z,70nm,0.6s
MTSU Mount Surprise 42.44 111 P **P** **14 56 18.2 +0.5**
comp=Z,70nm,0.6s
MTSU Mount Surprise 42.44 111 P **P** **14 56 18.4 +0.6**
comp=Z,70nm,0.6s
TIA Tai'an 43.02 17 P **P** **14 56 21.3 -0.8**
TIA pmax pmax
comp=Z,17nm,0.7s
HNS HongShan 43.51 14 ⇑P **P** **14 56 26.0 0.0**
HNS S **S** **15 02 50.0 -0.4**
HNS pmax pmax
comp=Z,22nm,0.7s
HNS L L
comp=Z,220nm,10.8s
HNS L L
comp=Z,220nm,17.3s
HTT Hallett 43.82 135 P **P** **14 56 30.3 +1.6**
comp=Z,9.4nm,1.3s
HTT Hallett 43.82 135 P **P** **14 56 29.5 +0.8**
comp=Z,9.3nm,1.3s
HTT Hallett 43.82 135 P **P** **14 56 29.6 +0.9**
comp=Z,23nm,1.3s
PMG Port Moresby 44.02 98 LR LR 15 17 45.5
comp=Z,48nm,18.1s,baz=296,slow=40
PMG Port Moresby 44.02 98 P **P** **14 56 29.5 -1.1**
comp=Z,35nm,0.9s
PMG Port Moresby 44.02 98 P **P** **14 56 29.4 -1.1**
PMG pmax pmax
comp=Z,27nm,0.6s
PMG Port Moresby 44.02 98 P **P** **14 56 29.4 -1.1**
PMG IAmb IAmb 14 56 30.7
comp=Z,27nm,0.6s
PMG Port Moresby 44.02 98 P **P** **14 56 29.3 -1.1**
comp=Z,35nm,0.9s
PMG Port Moresby 44.02 98 P **P** **14 56 29.4 -1.1**
GTA2 Gaotai 44.30 356 P **P** **14 56 32.5 0.0**
GTA2 PcP **PP** **14 58 16.8 -0.1**
GTA2 pmax pmax
comp=Z,24nm,0.7s
GTA2 L L
comp=Z,230nm,13.6s
GTA2 L L
comp=Z,150nm,13.3s
GTA2 L L
comp=Z,270nm,17.5s
CTA Charters Tower 44.67 114 P **P** **14 56 36.3 +0.6**
comp=Z,70nm,0.8s,baz=282,slow=9.2,SNR=74
CTA LR LR 15 17 22.1
comp=Z,74nm,18.8s,baz=264,slow=39
comp=Z,70nm,0.8s
CTA Charters Tower 44.67 114 P **P** **14 56 36.2 +0.6**
comp=Z,2.7nm,0.9s
CTAO Charters Tower 44.67 114 P **P** **14 56 36.2 +0.6**
CTAO pP **pP** **14 56 51.7 +0.6**
CTAO sP **sP** **14 56 58.7 +0.6**
CTAO PcP **PcP** **14 58 17.9 +0.4**
JSU Suzuyama 44.71 34 P **P** **14 56 35.1 -0.7**
comp=Z,54nm,1.3s
JSU Suzuyama 44.71 34 P **P** **14 56 35.6 -0.2**
QLP Quilpie 44.85 123 P **P** **14 56 38.6 +1.6**
comp=Z,35nm,0.9s
QLP Quilpie 44.85 123 P **P** **14 56 38.0 +1.0**
comp=Z,35nm,1.0s
QLP Quilpie 44.85 123 P **P** **14 56 38.3 +1.3**
comp=Z,35nm,1.0s
QLP Quilpie 44.85 123 P **P** **14 56 37.7 +0.8**
comp=Z,35nm,1.0s
STKA Stephens Creek 44.98 131 P **P** **14 56 39.4 +1.5**
comp=Z,242nm,1.0s
STKA Stephens Creek 44.98 131 P **P** **14 56 37.9 0.0**
comp=Z,243nm,1.0s
STKA Stephens Creek 44.98 131 P **P** **14 56 39.2 +1.3**
comp=Z,44nm,0.7s,baz=308,slow=7.5,SNR=76
STKA LR LR 15 17 40.2
comp=Z,47nm,20.3s,baz=5.7,slow=39
comp=Z,44nm,0.7s
STKA Stephens Creek 44.98 131 P **P** **14 56 39.2 +1.3**
comp=Z,12nm,1.0s
STKA Stephens Creek 44.98 131 P **P** **14 56 39.0 +1.1**
STKA Stephens Creek 44.98 131 P **P** **14 56 39.4 +1.5**
comp=Z,242nm,1.0s
GUMO Guam 45.46 66 P **P** **14 56 39.5 -2.5**
comp=Z,98nm,0.5s,baz=178,slow=9.2,SNR=7.2
comp=Z,98nm,0.5s
GUMO Guam 45.46 66 P **P** **14 56 39.6 -2.3**
comp=Z,117nm,1.6s
BTO2 Baotou 45.90 7 *e*P **P** **14 56 45.5 +0.4**
BTO2 pP **pP** **14 57 04.3 +3.4**
BTO2 sP **sP** **14 57 13.0 +5.0**
BTO2 pmax pmax
comp=Z,29nm,0.9s
BTO2 pmax pmax
comp=Z,210nm,9.2s
JNU Nakatsue 46.17 33 LR LR 15 17 03.4
comp=Z,40nm,18.7s,baz=212,slow=37
HHC Hu-ho-hao-te 46.24 9 *e*P **P** **14 56 48.5 +0.7**
HHC pmax pmax
comp=Z,22nm,0.6s
HHC pmax pmax
comp=Z,100nm,5.0s
BJI2 Beijing 46.35 14 P **P** **14 56 48.5 0.0**
BJI2 pP **pP** **14 57 03.8 -0.5**
BJI2 sP **sP** **14 57 11.0 -0.4**
BJI2 PcP **PcP** **14 58 23.3 +0.5**
BJI2 PP **PP** **14 58 38.3 -0.1**
BJI2 pmax pmax
comp=Z,22nm,0.8s
BJI2 pmax pmax
comp=Z,140nm,5.4s
JTU Tsushima 46.48 30 P **P** **14 56 49.4 -0.3**
comp=Z,94nm,1.8s
JTU Tsushima 46.48 30 P **P** **14 56 49.0 -0.6**
TJN Taejon 47.01 27 P **P** **14 56 54.2 +0.5**
TJN pmax pmax
comp=Z,438nm,1.7s
TJN Taejon 47.01 27 P **P** **14 56 54.2 +0.5**
NIL Nilore 47.59 326 P **P** **14 56 58.2 -0.2**
NIL pmax pmax
comp=Z,32nm,0.5s
NIL Nilore 47.59 326 P **P** **14 56 58.1 -0.2**
NIL Nilore 47.59 326 P **P** **14 56 58.3 0.0**
comp=Z,54nm,0.6s
ARPS Mount Arapiles 47.62 137 P **P** **14 57 00.4 +1.8**
comp=Z,7.4nm,1.3s
CMSA Cobar Meteorol 47.95 129 P **P** **14 57 03.2 +2.0**
comp=Z,29nm,0.7s
CMSA Cobar Meteorol 47.95 129 P **P** **14 57 02.3 +1.0**
comp=Z,29nm,0.7s
CMSA Cobar Meteorol 47.95 129 P **P** **14 57 02.7 +1.5**
comp=Z,29nm,0.7s
CMSA Cobar Meteorol 47.95 129 P **P** **14 57 02.6 +1.3**
comp=Z,29nm,0.7s
KSAR Wonju Array Be 48.12 27 P **P** **14 57 02.2 -0.2**
KSAR Wonju Array Be 48.12 27 P **P** **14 57 02.1 -0.2**
KSRS Korea Array 48.15 27 P **P** **14 57 02.5 0.0**
comp=Z,9.9nm,0.6s,baz=228,slow=7.2,SNR=58
KSRS PcP **PcP** **14 58 29.4 +0.2**
comp=Z,4.1nm,0.8s,baz=216,slow=3.1,SNR=8.6
comp=Z,9.9nm,0.6s
KS19 Wonju Array Si 48.16 27 P **P** **14 57 02.7 0.0**
JMN Monobe 48.29 35 P **P** **14 57 03.8 0.0**
comp=Z,68nm,0.8s
JMN Monobe 48.29 35 P **P** **14 57 03.9 0.0**
JCJ Chichijima 49.48 48 P **P** **14 57 11.1 -1.9**
comp=Z,152nm,1.2s
XLT XiLinHaoTe 50.03 12 *e*P **P** **14 57 16.5 -0.4**
XLT pmax pmax
comp=Z,30nm,0.8s
XLT pmax pmax
comp=Z,150nm,4.5s
EIDS Eidsvold 50.32 119 P **P** **14 57 19.6 +0.2**
comp=Z,19nm,1.8s
EIDS Eidsvold 50.32 119 P **P** **14 57 19.6 +0.2**
comp=Z,19nm,1.8s
EIDS Eidsvold 50.32 119 P **P** **14 57 19.3 -0.1**
EIDS IAmb IAmb 14 57 27.6
comp=Z,40nm,1.6s
WMQ Urumqi 50.46 346 *e*P **P** **14 57 20.5 +0.3**
WMQ sP sP 14 57 44.8 +1.6
WMQ PcP **PcP** **14 58 42.5 +4.9**
WMQ pmax pmax
comp=Z,26nm,0.9s
WMQ Urumqi 50.46 346 P **P** **14 57 20.8 +0.6**
KBL Kabul 50.65 323 P **P** **14 57 21.4 -0.6**
KBL pmax pmax
comp=Z,9.0nm,1.0s
KBL Kabul 50.65 323 P **P** **14 57 21.4 -0.6**
KSH2 Kashi 50.66 332 P **P** **14 57 21.5 -0.4**
KSH2 pmax pmax
comp=Z,33nm,0.6s
YNG Young 51.16 131 P **P** **14 57 27.5 +1.8**
comp=Z,51nm,0.8s
YNG Young 51.16 131 P **P** **14 57 26.7 +1.1**
comp=Z,51nm,0.8s
INU Inuyama 51.26 36 P **P** **14 57 26.5 +0.3**
INU IAmb IAmb 14 57 28.1
comp=Z,25nm,1.1s
JGF Kuroka 51.63 36 P **P** **14 57 27.9 -1.2**
comp=Z,24nm,2.7s
TARG Taragay, Kyrgy 51.82 336 P **P** **14 57 31.2 +0.3**
TARG pmax pmax
comp=Z,200nm,2.0s
TARG Taragay, Kyrgy 51.82 336 P **P** **14 57 31.2 +0.3**
CAN Canberra 52.04 132 P **P** **14 57 28.8 -3.4**
CAN Canberra 52.04 132 P **P** **14 57 32.0 -0.2**
comp=Z,48nm,1.0s
CAN Canberra 52.04 132 P **P** **14 57 34.2 +2.0**
comp=Z,73nm,1.0s
CAN Canberra 52.04 132 P **P** **14 57 33.9 +1.7**
ARMA Armidale 52.28 125 P **P** **14 57 34.0 -0.1**
NRN Naryn 52.33 334 IAmb IAmb 14 57 35.2
comp=Z,29nm,1.1s
SHLS Shalkode 52.40 338*c* *i*P **P** **14 57 34.0 -0.7**
SHLS Shalkode 52.40 338⇑ *i*P **P** **14 57 34.0 -0.7**
PDGK Podgornoye 52.54 338 P **P** **14 57 35.9 +0.1**
PDGK pmax pmax
comp=Z,45nm,0.7s
PDGK Podgornoye 52.54 338 P **P** **14 57 35.9 +0.1**
UZB Uzynbulak 52.55 338*c* *i*P **P** **14 57 36.3 +0.4**
UZB pmax pmax
comp=Z,14nm,0.6s
UZB Uzynbulak 52.55 338⇑ *i*P **P** **14 57 36.4 +0.4**
comp=Z,14nm,0.6s
CN2 Changchun 52.57 20 *e*P **P** **14 57 34.5 -1.4**
CN2 pmax pmax
comp=Z,10.0nm,0.6s
SONM Songino Array 52.63 3 P **P** **14 57 36.8 +0.3**
comp=Z,29nm,0.8s,baz=180,slow=10.0,SNR=138
SONM PcP **PcP** **14 58 45.9 +0.2**
comp=Z,5.9nm,0.4s,baz=191,slow=4.1,SNR=16
SONM LR LR 15 21 23.8
comp=Z,84nm,19.1s,baz=185,slow=38
comp=Z,29nm,0.8s
SONM Songino Array 52.63 3 P **P** **14 57 36.7 +0.3**
SONM IAmb IAmb 14 57 37.8
comp=Z,24nm,0.7s
ULN Ulaanbaatar 52.70 3*ce*P **P** **14 57 37.1 +0.1**
ULN pmax pmax
comp=Z,14nm,1.0s
ULN Ulaanbaatar 52.70 3 P **P** **14 57 37.0 +0.1**
ULN IAmb IAmb 14 57 38.2
comp=Z,18nm,1.1s
ULN Ulaanbaatar 52.70 3 P **P** **14 57 37.2 +0.3**
ULN PcP **PcP** **14 58 46.0 0.0**
SATY Saty 52.71 337*c* *i*P **P** **14 57 37.4 +0.3**
SATY pmax pmax
comp=Z,10.0nm,0.6s
SATY Saty 52.71 337⇑ *i*P **P** **14 57 37.4 +0.3**
comp=Z,10nm,0.6s
DRK Karamyk 52.74 330 IAmb IAmb 14 57 45.5
comp=Z,23nm,0.6s
MAJO Matsushiro 52.78 36 P **P** **14 57 37.1 -0.5**
comp=Z,17nm,0.9s
MAJO Matsushiro 52.78 36 P **P** **14 57 36.0 -1.6**
MAJO pmax pmax
comp=Z,14nm,0.8s
MAJO Matsushiro 52.78 36 P **P** **14 57 36.0 -1.6**
MAJO IAmb IAmb 14 57 40.0
comp=Z,14nm,0.8s
MAJO Matsushiro 52.78 36 P **P** **14 57 36.0 -1.6**
MJB9 Matsu-Tunnel 52.78 36 IAmb IAmb 14 57 40.0
comp=Z,15nm,0.9s
MJAR Matsushiro Arr 52.78 36 P **P** **14 57 36.1 -1.5**
comp=Z,17nm,0.8s,baz=216,slow=7.0,SNR=63
MJAR PcP **PcP** **14 58 46.9 +0.5**
comp=Z,3.2nm,0.7s,baz=194,slow=4.4,SNR=5.4
comp=Z,17nm,0.8s
MJAR Matsushiro Arr 52.78 36 P **P** **14 57 35.9 -1.7**
BOOM Boomskoye usch 53.22 335 IAmb IAmb 14 57 41.7
comp=Z,26nm,0.7s
TNSS Tian-Shan 53.26 336 *e*P **P** **14 57 41.5 0.0**
TNSS Tian-Shan 53.26 336 *e*P **P** **14 57 41.5 0.0**
MDOK Medeo 53.33 336 *e*P **P** **14 57 41.8 +0.2**
MDOK Medeo 53.33 336 *e*P **P** **14 57 41.9 +0.2**
AAA Alma-Ata 53.42 336 *e*P **P** **14 57 42.5 +0.3**
AAA pmax pmax
comp=Z,18nm,0.8s
AAA Alma-Ata 53.42 336 *e*P **P** **14 57 42.6 +0.3**
comp=Z,18nm,0.8s
ARSB Arslanbob 53.59 332 IAmb IAmb 14 57 44.8
comp=Z,31nm,0.8s
UCH Uchtor 53.62 334 P **P** **14 57 44.2 +0.1**
SNR=8.5
BTK Batken 53.67 330 IAmb IAmb 14 57 45.5
comp=Z,13nm,0.5s
TKM2 Tokmak 2 53.72 335 P **P** **14 57 44.7 +0.1**
SNR=50
KBK Karagaybulak 53.77 335 P **P** **14 57 45.6 +0.7**
SNR=20
AAK Ala-Archa 53.96 334 LR LR 15 22 34.9
comp=Z,43nm,21.9s,baz=141,slow=38
AAK Ala-Archa 53.96 334*ce*P **P** **14 57 46.5 +0.3**
AAK pmax pmax
comp=Z,5.0nm,0.9s
AAK Ala-Archa 53.96 334 P **P** **14 57 46.2 -0.1**
AAK IAmb IAmb 14 58 53.5
comp=Z,13nm,0.8s
AAK Ala-Archa 53.96 334 P **P** **14 57 46.6 +0.3**
AAK PcP **PcP** **14 58 52.4 +1.4**
MOO Moorlands 54.11 140 P **P** **14 57 49.4 +2.1**
MOO Moorlands 54.11 140 P **P** **14 57 49.2 +1.9**
EKS2 Erkin-Say 54.29 334 P **P** **14 57 49.0 +0.3**
SNR=22
TAU Tasmania Unive 54.43 141 P **P** **14 57 51.7 +2.1**
comp=Z,45nm,2.9s
USP Ospenovka 54.46 335 P **P** **14 57 49.7 -0.2**
SNR=13
VLA Vladivostok 54.52 26 *i* P **P** **14 57 49.4 -0.7**
VLA pmax pmax
comp=Z,20nm,1.0s
ZSN Zaisan 54.56 345 *e*P **P** **14 57 50.8 +0.4**
ZSN pmax pmax
comp=Z,7.0nm,0.7s
ZSN Zaisan 54.56 345 *e*P **P** **14 57 50.8 +0.4**
comp=Z,6.6nm,0.7s
MK31 Makanchi Array 54.67 343*c* *i*P **P** **14 57 50.8 -0.5**
MKAR Makanchi Array 54.67 343 P **P** **14 57 50.8 -0.5**
comp=Z,25nm,0.7s,baz=145,slow=7.9,SNR=224
MKAR LR LR 15 23 27.9
comp=Z,50nm,20.8s,baz=154,slow=38
comp=Z,25nm,0.7s
MKAR Makanchi Array 54.67 343 P **P** **14 57 50.9 -0.3**
MKAR Makanchi Array 54.67 343 P **P** **14 57 50.9 -0.3**
MAKZ Makanchi 54.78 342 P **P** **14 57 51.5 -0.5**
MAKZ pmax pmax
comp=Z,9.0nm,0.8s
MAKZ Makanchi 54.78 342 P **P** **14 57 51.5 -0.5**
MAKZ Makanchi 54.78 342 P **P** **14 57 51.3 -0.7**
BNX BinXian 54.95 21 ⇑P **P** **14 57 52.8 -0.4**
BNX pmax pmax
comp=Z,52nm,0.7s
ZAK Zakamensk 55.10 0 *e*P **P** **14 57 53.6 -0.7**
ZAK *e* 15 01 04.8
ZAK pmax pmax
comp=Z,9.0nm,0.9s
USA0B Ussuriysk Arra 55.43 25 *i* P **P** **14 57 56.1 -0.6**
USRK Ussuriysk Ar. 55.43 25 P **P** **14 57 56.3 -0.4**
comp=Z,43nm,0.8s,baz=216,slow=5.8,SNR=50
comp=Z,43nm,0.8s
USRK Ussuriysk Ar. 55.43 25 P **P** **14 57 56.1 -0.6**
KNGR Kungurtug, Tuv 55.52 356 *i* P **P** **14 57 56.7 -0.7**
KNGR pmax pmax
comp=Z,8.0nm,0.8s
CHM Chimkent 55.97 330 *e*P **P** **14 58 01.3 +0.7**
CHM pmax pmax
comp=Z,5.0nm,0.5s
CHM Chimkent 55.97 330 *e*P **P** **14 58 01.4 +0.7**
comp=Z,5.4nm,0.5s
KK31 Karatay Array 56.13 332 P **P** **14 58 00.7 -1.1**
KK31 pmax pmax
comp=Z,6.0nm,1.0s
KK31 Karatay Array 56.13 332 P **P** **14 58 00.7 -1.1**
KKAR Karatay Array 56.13 332 P **P** **14 58 00.7 -1.1**
KKAR Karatay Array 56.13 332 P **P** **14 58 00.7 -1.1**
HILR Hailar Array B 56.19 13 P **P** **14 58 01.5 -0.6**
comp=Z,12nm,0.6s,baz=187,slow=10,SNR=9.0
HILR PcP **PcP** **14 58 59.2 0.0**
comp=Z,6.0nm,0.6s,baz=204,slow=3.3,SNR=3.5
comp=Z,12nm,0.6s
TLY Talaya 56.40 0 LR LR 15 24 16.8
comp=Z,66nm,19.4s,baz=174,slow=38
TLY Talaya 56.40 0*ce*P **P** **14 58 04.1 +0.6**
TLY pmax pmax
comp=Z,16nm,0.6s
TLY Talaya 56.40 0 P **P** **14 58 03.9 +0.3**
TLY IAmb IAmb 14 58 05.6
comp=Z,22nm,0.8s
MOY Mondy 56.41 359 *e*P **P** **14 58 04.1 +0.4**
PATS Pohnpei 56.44 78 P **P** **14 58 08.5 +4.0**
TATA Tatamba Isabel 56.49 97 P **P** **14 58 06.4 +1.5**
comp=Z,49nm,1.6s
HNR Honiara 56.63 98 P **P** **14 58 04.4 -1.4**
comp=Z,39nm,0.7s,baz=246,slow=5.8,SNR=3.8
HNR LR LR 15 23 34.1
comp=Z,30nm,21.8s,baz=340,slow=37
comp=Z,39nm,0.7s
HNR Honiara 56.63 98 IAmb IAmb 14 58 05.7
comp=Z,55nm,0.8s
NGOA Tingoa Renbel 56.78 101 P **P** **14 58 05.7 -1.2**
comp=Z,99nm,1.2s
JTM Tenmabayashi 57.32 34 P **P** **14 58 09.5 -0.7**
comp=Z,42nm,2.0s
HEH HeiHe 58.88 18 *e*P **P** **14 58 20.5 -0.4**
HEH PcP **PcP** **14 59 09.0 -0.7**
HEH pmax pmax
comp=Z,36nm,0.9s
KURBB Kurchatov Arra 59.22 342 P **P** **14 58 22.8 -0.5**
comp=Z,14nm,0.7s,baz=159,slow=6.6,SNR=55
KURBB PcP **PcP** **14 59 11.5 +0.5**
comp=Z,6.6nm,0.7s,baz=157,slow=3.5,SNR=12
KURBB LR LR 15 27 21.2
comp=Z,49nm,18.7s,baz=174,slow=39
comp=Z,14nm,0.7s
KURK Kurchatov 59.27 342 P **P** **14 58 22.8 -0.8**
KURK **14 59 11.5**
KURK Kurchatov 59.27 342 P **P** **14 58 23.3 -0.4**
KURK IAmb IAmb 14 58 24.1
comp=Z,20nm,0.7s
KURK Kurchatov 59.27 342 P **P** **14 58 23.2 -0.4**
KURK pP **pP** **14 58 39.7 -0.1**
KURK PcP **PcP** **14 59 11.7 +0.5**
ERM Erimo 59.31 34 P **P** **14 58 23.7 -0.4**
ERM pmax pmax
comp=Z,63nm,1.1s
ERM Erimo 59.31 34 P **P** **14 58 23.7 -0.4**
JEM Erimo 59.31 34 P **P** **14 58 23.9 -0.2**
comp=Z,37nm,1.7s
KLR Kul'dur 59.47 21 LR LR 15 24 51.6
comp=Z,66nm,20.1s,baz=217,slow=37
KLR Kul'dur 59.47 21 *i* P **P** **14 58 24.1 -0.9**
KLR pmax pmax
comp=Z,12nm,0.9s

ASAJ Asahikawa 60.42 32 LR LR 15 26 20.7
comp=Z,32nm,18.6s,baz=272,slow=38
ASAJ Asahikawa 60.42 32 P **P** **14 58 31.8 +0.1**
ASAJ pmax pmax
comp=Z,24nm,0.6s
JKA Kamikawa-asahi 60.42 32 P **P** **14 58 31.8 +0.1**
JKA IAmb IAmb 14 58 32.6
comp=Z,24nm,0.6s
ZAA0 Zalesovo Array 60.62 348 P **P** **14 58 32.3 -0.5**
ZALV Zalesovo Beam 60.62 348 P **P** **14 58 32.4 -0.4**
comp=Z,34nm,0.4s,baz=158,slow=5.8,SNR=208
ZALV LR LR 15 27 49.8
comp=Z,147nm,18.3s,baz=145,slow=39
comp=Z,34nm,0.4s
ZALV Zalesovo Beam 60.62 348 P **P** **14 58 32.1 -0.7**
ZEA Zeya 61.91 16 *eP* **P** **14 58 41.5 0.0**
ZEA pmax pmax
comp=E,10.0nm,0.6s
ZEA pmax pmax
comp=N,10.0nm,0.9s
ZEA pmax pmax
comp=Z,30nm,0.7s
ATD Arta Tunnel 62.02 286 LR LR 15 22 00.7
comp=Z,11nm,18.9s,baz=14,slow=32
YSS Yuzhno-Sakhali 62.46 30 P **P** **14 58 45.1 -0.3**
comp=Z,43nm,1.1s
YSS Yuzhno-Sakhali 62.46 30 *eP* **P** **14 58 45.0 -0.3**
YSS pmax pmax
comp=Z,40nm,0.8s
YSS Yuzhno-Sakhali 62.46 30 P **P** **14 58 45.0 -0.4**
YSS IAmb IAmb 14 58 46.4
comp=Z,30nm,0.8s
YSS Yuzhno-Sakhali 62.46 30 P **P** **14 58 44.8 -0.6**
YSS sP **sP** **14 59 07.9 -0.8**
YSS PcP **PcP** **14 59 23.6 -0.6**
RAYN Ar Rayn 62.77 299 P **P** **14 58 48.8 +0.9**
RAYN pP **pP** **14 59 04.3 +0.1**
RAYN sP **sP** **14 59 11.6 +0.6**
NOUC Port Laguerre 63.45 112 P **P** **14 58 52.7 +0.3**
comp=Z,19nm,2.1s
DZM Mont Dzumac 63.58 112 LR LR 15 28 08.0
comp=Z,64nm,18.0s,baz=66,slow=38
SANVU Saraoutou 63.85 105 P **P** **14 58 55.0 -0.2**
BVA2 Borovoye Array 63.96 339 P **P** **14 58 54.6 -0.6**
BVA2 pmax pmax
comp=Z,18nm,0.6s
BVAR Borovoye Array 63.97 339 P **P** **14 58 54.6 -0.7**
comp=Z,36nm,0.6s,baz=143,slow=8.8,SNR=135
comp=Z,36nm,0.6s
YATNC Mamie plateau, 63.99 112 P **P** **14 58 57.5 +1.5**
comp=Z,19nm,0.8s
BORK Borovoye 64.01 339 P **P** **14 58 54.9 -0.6**
BORK pmax pmax
comp=Z,28nm,0.7s
BORK Borovoye 64.01 339 P **P** **14 58 54.9 -0.6**
BORK IAmb IAmb 14 58 55.6
comp=Z,28nm,0.7s
AB31 Akbulak array 65.64 331 *i* P **P** **14 59 05.9 -0.3**
AB31 pmax pmax
comp=Z,16nm,0.7s
AB31 Akbulak array 65.64 331 P **P** **14 59 05.9 -0.3**
AB31 IAmb IAmb 14 59 06.9
comp=Z,29nm,0.9s
ABKAR Akbulak array 65.64 331 P **P** **14 59 06.0 -0.2**
DRV Dumont d'Urvil 66.71 165 P **P** **14 59 13.5 +0.8**
DRV pP **pP** **14 59 29.6 +0.7**
AKTO Aktyubinsk 67.36 331 P **P** **14 59 16.7 -0.4**
AKTO pmax pmax
comp=Z,2.0nm,0.4s
MAW Mawson 68.23 195 P **P** **14 59 25.5 +3.2**
comp=Z,2.1nm,0.7s,baz=38,slow=12,SNR=4.3
MAW LR LR 15 23 03.1
comp=Z,130nm,21.7s,baz=28,slow=30
MAW Mawson 68.23 195 P **P** **14 59 21.4 -0.9**
JCZ Jackson Bay 69.28 135 P **P** **14 59 29.5 0.0**
comp=Z,31nm,1.4s
OZAP Van, Ozalp-Mer 69.60 314 ⇑P **P** **14 59 31.9 +0.2**
GNI Garni 69.70 316 LR LR 15 31 38.5
comp=Z,23nm,20.6s,baz=78,slow=37
GNI Garni 69.70 316 *i* P **P** **14 59 31.0 -1.2**
GNI pmax pmax
comp=Z,14nm,1.1s
YAK Yakutsk 69.86 13 LR LR 15 34 01.7
comp=Z,58nm,18.3s,baz=210,slow=39
YAK Yakutsk 69.86 13 *eP* **P** **14 59 31.0 -1.5**
YAK *e**PP **pP** **14 59 47.0 -2.1**
YAK *e* 14 59 53.4
YAK *e* 15 02 03.1
YAK *e*PPP PPP 15 03 49.0
YAK *e*S **S** **15 08 36.9 -0.3**
YAK *e**SS **SKiKP** **15 09 10.4 -3.6**
YAK *e* 15 09 29.9
YAK *e*SS **SS** **15 13 08.1 +0.8**
YAK pmax pmax
comp=N,13nm,1.3s
YAK pmax pmax
comp=Z,52nm,0.9s
YAK pmax pmax
comp=E,9.0nm,1.5s
YAK pmax pmax
comp=Z,150nm,3.6s
YAK pmax pmax
comp=N,434nm,4.6s
YAK pmax pmax
comp=E,141nm,3.8s
YAK smax smax
comp=N,230nm,3.0s
YAK smax smax
comp=E,103nm,4.7s
YAK Yakutsk 69.86 13 P **P** **14 59 31.2 -1.3**
YAK Yakutsk 69.86 13 P **P** **14 59 31.0 -1.5**
SVE Sverdlovsk 70.53 337 *eP* **P** **14 59 37.0 +0.3**
SVE pmax pmax
comp=Z,25nm,1.1s
RPZ Rata Peaks 70.80 135 LR LR 15 30 47.0
comp=Z,11nm,20.1s,baz=217,slow=36
CCD Concordia, Ant 71.08 175 P **P** **14 59 42.2 +2.0**
ARTI Arti 71.13 336 LR LR 15 34 31.6
comp=Z,18nm,19.2s,baz=137,slow=39
ARTI Arti 71.13 336*c i*P **P** **14 59 40.2 -0.2**
ARTI *e**PP **pP** **14 59 54.0 -3.0**
ARTI 15 00 00.1
ARTI S **S** **15 08 50.2 -2.0**
ARTI pmax pmax
comp=Z,25nm,0.8s
ARTI Arti 71.13 336 P **P** **14 59 40.1 -0.2**
ARTI IAmb IAmb 14 59 40.9
comp=Z,30nm,0.6s
ARTI Arti 71.13 336 P **P** **14 59 39.9 -0.4**
ARTI pP **pP** **14 59 56.2 -0.8**
ARTI PcP **PcP** **14 59 59.5 -0.6**
ARTI sP **sP** **15 00 03.2 -0.6**
QRZ Quartz Range 71.33 131 P **P** **14 59 42.2 +0.2**
comp=Z,52nm,1.5s
MARD Mardin 71.42 312 IAmb IAmb 14 59 44.7
comp=Z,27nm,0.8s
MBAR Mbarara 72.27 271 LR LR 15 28 09.6
comp=Z,52nm,18.8s,baz=59,slow=33
KHZ Kahutara 72.35 133 P **P** **14 59 48.5 +0.5**
comp=Z,35nm,1.3s
DUWZ D'Urville Isla 72.37 131 P P 14 59 57.8 +10
NEUR Neytrino 72.40 318 *eP* **P** **14 59 48.5 0.0**
NEUR pmax pmax
comp=Z,3.0nm,0.8s
KBZ Khabaz 72.47 319 P **P** **14 59 49.2 +0.6**
comp=Z,15nm,0.8s,baz=121,slow=3.9,SNR=26
comp=Z,15nm,0.8s
KBZ Khabaz 72.47 319*ce*P **P** **14 59 49.4 +0.8**
KBZ pmax pmax
comp=Z,16nm,0.9s
SHA1 Shidzhatmaz 72.63 319 *i* P **P** **14 59 50.7 +0.8**
KIV Kislovodsk 72.70 319 P **P** **14 59 49.9 -0.3**
KIV IAmb IAmb 14 59 52.2
comp=Z,20nm,0.9s
KIV Kislovodsk 72.70 319 P **P** **14 59 49.7 -0.5**
comp=Z,15nm,0.8s
ASF Jabal al Asfar 72.72 306 LR LR 15 32 51.4
comp=Z,31nm,19.4s,baz=28,slow=36
WAZ Wanganui 73.03 130 P **P** **14 59 53.9 +1.7**
OGWZ Otaki Gorge 73.31 131 P **P** **14 59 54.7 +0.9**
FWVZ Far West T-bar 73.40 129 P **P** **14 59 55.5 +0.9**
TRVZ Turoa 73.40 129 P **P** **14 59 55.8 +1.2**
NGZ Ngauruhoe 73.42 129 P **P** **14 59 55.4 +0.8**
WNVZ Wahianoa 73.44 129 P **P** **14 59 55.7 +0.9**
OTVZ Oturere 73.47 129 P **P** **14 59 56.3 +1.4**

MOVZ Moawhango 73.57 130 P **P** **14 59 56.2 +0.8**
PAWZ Paruwai Farm 73.58 132 P P 15 00 05.3 +10
MTW Mount Morrison 73.61 131 P **P** **14 59 56.6 +1.1**
MATP Matopo 73.77 250 LR LR 15 27 05.9
comp=Z,127nm,21.2s,baz=47,slow=31
BELG Belogornoye 73.78 328 *i* P **P** **14 59 55.7 -0.4**
BELG pmax pmax
comp=Z,4.0nm,0.8s
PEA0B Petropavlovsk- 73.81 31 P **P** **14 59 55.7 -0.7**
PEA0B pmax pmax
comp=Z,79nm,1.7s
PEA0B Petropavlovsk- 73.81 31 P **P** **14 59 55.7 -0.7**
PEA0B IAmb IAmb 15 02 03.6
comp=Z,79nm,1.7s
PETK Petropavlovsk- 73.81 31 P **P** **14 59 55.0 -1.4**
comp=Z,3.8nm,0.7s,baz=271,slow=3.4,SNR=22
PETK LR LR 15 33 04.2
comp=Z,9.6nm,20.1s,baz=154,slow=36
comp=Z,3.8nm,0.7s
PETK Petropavlovsk- 73.81 31 P **P** **14 59 55.7 -0.7**
PETK Petropavlovsk- 73.81 31 P **P** **14 59 55.7 -0.7**
BHHZ Black Hill Sta 73.82 130 P **P** **14 59 57.5 +0.7**
PNHZ Pukenui 73.97 130 P **P** **14 59 58.9 +1.1**
GAZ Gaziantep 74.04 311 IAmb IAmb 15 00 00.5
comp=Z,17nm,0.7s
LSZ Lusaka 74.07 256 LR LR 15 27 54.2
comp=Z,58nm,18.3s,baz=90,slow=32
LSZ Lusaka 74.07 256 P **P** **14 59 57.9 -0.9**
LSZ pmax pmax
comp=Z,16nm,1.6s
LSZ Lusaka 74.07 256 P **P** **14 59 57.9 -0.9**
BFZ Birch Farm 74.11 131 P **P** **14 59 59.2 +0.7**
comp=Z,55nm,0.9s
BFZ Birch Farm 74.11 131 P **P** **14 59 59.1 +0.7**
BKZ Black Stump Fm 74.11 129 P **P** **14 59 58.7 +0.1**
comp=Z,35nm,0.8s
BKZ Black Stump Fm 74.11 129 P **P** **14 59 59.1 +0.5**
MMAI Mount Meron Ar 74.17 306 P **P** **15 00 01.2 +2.2**
comp=Z,5.9nm,0.6s,baz=66,slow=10,SNR=17
MMAI LR LR 15 33 58.9
comp=Z,28nm,19.5s,baz=95,slow=37
comp=Z,5.9nm,0.6s
ANWZ Angora Road 74.25 131 P P 15 00 09.2 +10
PET Petropavlovsk 74.25 31 P **P** **14 59 57.7 -1.2**
comp=Z,225nm,1.0s
PET Petropavlovsk 74.25 31 *eP* **P** **14 59 58.1 -0.8**
PET pmax pmax
comp=Z,31nm,0.6s
MTHZ Maungataniwha 74.34 129 P **P** **15 00 00.7 +0.8**
NMHZ Naumai 74.34 129 P **P** **15 00 01.8 +1.8**
PRHZ Porangahau 74.35 130 P **P** **15 00 01.1 +1.3**
RTZ Ruatahuna 74.43 129 P **P** **15 00 00.3 -0.1**
RTZ IAmb IAmb 15 00 01.9
comp=Z,50nm,1.0s
RTZ Ruatahuna 74.43 129 P **P** **15 00 00.7 +0.3**
KAHZ Kahuranaki 74.48 130 P **P** **15 00 02.2 +1.6**
URZ Urewera 74.49 128 LR LR 15 34 48.1
comp=Z,36nm,19.6s,baz=286,slow=37
URZ Urewera 74.49 128 P **P** **15 00 01.0 +0.3**
comp=Z,16nm,1.8s
MA2 Magadan 74.50 23 LR LR 15 33 31.4
comp=Z,36nm,20.7s,baz=246,slow=36
MWZ Matawai 74.83 128 P **P** **15 00 03.1 +0.4**
NRIK Noril'sk 74.88 354 P **P** **15 00 01.5 -0.7**
comp=Z,6.5nm,0.4s,baz=140,slow=5.8,SNR=19
NRIK LR LR 15 35 12.6
comp=Z,77nm,18.9s,baz=172,slow=38
comp=Z,6.5nm,0.4s
NRIK Noril'sk 74.88 354 P **P** **15 00 01.6 -0.7**
NRIK pmax pmax
comp=Z,11nm,0.8s
NRIK Noril'sk 74.88 354 P **P** **15 00 01.6 -0.6**
RUGZ Raukumara Rang 74.91 128 P P 15 00 10.8 +7.6
HAZ Te Waha 74.97 128 P **P** **15 00 03.0 -0.4**
TWGZ Tauwhareparae 75.17 128 P **P** **15 00 05.4 +0.7**
PUZ Puketiti 75.37 128 P **P** **15 00 06.4 +0.6**
WMGZ Waiomatatini S 75.47 128 P **P** **15 00 07.8 +1.4**
BNN Bunyan 75.60 312 P **P** **15 00 06.8 -0.4**
KIRV Kirov 76.29 334 *i* P **P** **15 00 10.6 +0.1**
CSS Mathiatis 76.37 308 P **P** **15 00 11.1 -0.5**
CSS IAmb IAmb 15 00 13.9
comp=Z,26nm,0.8s
CSS Mathiatis 76.37 308 P **P** **15 00 11.3 -0.2**
comp=Z,35nm,0.9s
VRH Novokhopyorsk 76.42 325 *eP* **P** **15 00 11.2 -0.2**
VRH pmax pmax
comp=Z,59nm,0.7s
BOSA Boshof 76.89 242 P **P** **15 00 16.4 +1.6**
comp=Z,2.8nm,0.7s,baz=107,slow=3.6,SNR=5.4
BOSA LR LR 15 28 07.8
comp=Z,72nm,18.3s,baz=34,slow=31
comp=Z,2.8nm,0.7s
BOSA Boshof 76.89 242 P **P** **15 00 13.2 -1.6**
KIRS Kirsehir-Merke 77.12 312 ⇑P **P** **15 00 16.3 +0.5**
SEY Seymchan 77.25 21 *i* P **P** **15 00 15.7 -0.1**
SEY pmax pmax
comp=Z,6.0nm,0.9s
BR104 Keskin Array S 77.49 312 P **P** **15 00 17.8 -0.1**
comp=Z,115nmcomp=Z,16nm,0.8s
BR131 Keskin Array S 77.50 312 IAmb IAmb 15 00 18.9
comp=Z,14nm,0.7s
BRTR Keskin Array B 77.50 312 P **P** **15 00 18.1 +0.1**
comp=Z,11nm,0.7s,baz=136,slow=7.0,SNR=58
BRTR LR LR 15 37 05.6
comp=Z,20nm,19.4s,baz=79,slow=38
comp=Z,11nm,0.7s
BRTR Keskin Array B 77.50 312 P **P** **15 00 17.3 -0.6**
BR105 Keskin Array S 77.51 312 P **P** **15 00 17.3 -0.7**
comp=Z,121nmcomp=Z,18nm,0.8s
BR106 Keskin Array S 77.52 312 P **P** **15 00 17.4 -0.6**
comp=Z,97nmcomp=Z,15nm,0.8s
VORD Divnogorie 77.71 325 *eP* **P** **15 00 16.4 -2.2**
VORD pmax pmax
comp=Z,10.0nm,0.8s
VSR Storozhevoye 77.88 325 *eP* **P** **15 00 19.3 -0.3**
VSR pmax pmax
comp=Z,39nm,0.6s
BZK Bozkurt 77.91 315 ⇓P **P** **15 00 21.3 +1.3**
BZK Bozkurt 77.91 315 P **P** **15 00 20.1 +0.1**
VORR Voronezh 78.04 325 *eP* **P** **15 00 19.7 -0.8**
VORR pmax pmax
comp=Z,45nm,0.4s
RAO Raoul Island 78.09 119 LR LR 15 34 02.1
comp=Z,43nm,22.0s,baz=310,slow=35
KEPZ Antalya-Kepez 78.24 309 ⇑P **P** **15 00 22.4 +0.4**
TIXI Tiksi 78.30 8 LR LR 15 38 00.7
comp=Z,91nm,18.8s,baz=196,slow=38
TIXI Tiksi 78.30 8*ce*P **P** **15 00 19.7 -1.8**
TIXI pmax pmax
comp=Z,4.0nm,0.6s
TIXI Tiksi 78.30 8 P **P** **15 00 19.4 -2.0**
LPSR Galich'ya Gora 78.58 326 *eP* **P** **15 00 23.0 -0.4**
LPSR pmax pmax
comp=Z,42nm,0.7s
VNDA Vanda 78.72 169 P **P** **15 00 24.9 +1.1**
comp=Z,1.6nm,0.7s,baz=294,slow=4.9,SNR=7.2
VNDA LR LR 15 29 48.0
comp=Z,38nm,21.3s,baz=306,slow=31
comp=Z,1.6nm,0.7s
VNDA Vanda 78.72 169 P P 15 00 14.0 -10
SIM Simferopol' 78.77 318 *eP* **P** **15 00 24.5 -0.2**
SIM *eS* **S** **15 10 15.0 -2.7**
SIM pmax pmax
comp=Z,30nm,0.9s
SIM smax smax
comp=N,23nm,1.2s
SIM MLR MLR
comp=Z,27nm,15.2s
ISP Isparta 79.31 310*ce*P **P** **15 00 28.1 +0.1**
ISP pmax pmax
comp=Z,5.0nm,0.9s
MDUB Mudurnu 79.50 313 IAmb IAmb 15 00 30.4
comp=Z,27nm,0.8s
SBA Scott Base 79.81 169 P **P** **15 00 31.7 +1.9**
SBA pP **pP** **15 00 48.9 +2.5**
SAHE Sakarya_HENDEK 79.86 313 ⇑P **P** **15 00 30.9 +0.2**
MOS Moscow 80.54 329 *eP* **P** **15 00 34.0 0.0**
MOS pmax pmax
comp=Z,57nm,0.7s
MOS pmax pmax
comp=Z,100nm,0.8s
SUR Sutherland 80.78 238 LR LR 15 28 30.8
comp=Z,42nm,21.6s,baz=72,slow=30
OBN Obninsk 80.85 328⇑*eP* **P** **15 00 36.0 +0.3**
OBN *e* 15 03 37.8

OBN *e*PPP PPP 15 05 30.6
OBN *i* S **SKSac** **15 10 48.9 +0.1**
OBN pmax pmax
comp=Z,29nm,0.6s
OBN MLR MLR
comp=Z,76nm,16.0s
YLV Yalova 80.87 312 P **P** **15 00 36.0 -0.2**
comp=Z,458nmcomp=Z,57nm,0.9s
KARP Karpathos 81.41 307 P **P** **15 00 38.9 -0.3**
comp=Z,102nm,0.8s
BDRM Kayabasi 81.51 308 ⇑P **P** **15 00 40.5 +0.8**
KLMR Klimovskoe 81.76 334 *eP* **P** **15 00 39.3 -1.1**
KLMR pmax pmax
comp=Z,61nm,1.4s
CTYL Yalikoy Yolu 81.89 313 ⇓P **P** **15 00 42.5 +1.0**
CTYL Yalikoy Yolu 81.89 313 P **P** **15 00 41.3 -0.2**
comp=Z,2µmcomp=Z,23nm,0.8s
PURM Purcari 82.08 318 ⇓P **P** **15 00 43.7 +1.3**
PURM Purcari 82.08 318 P **P** **15 00 42.2 -0.1**
comp=Z,4µmcomp=Z,25nm,0.8s
ELIB Princess Elisa 82.12 198 *d*P **P** **15 00 44.9 +2.6**
comp=Z,5.6nm,0.7s
TLCR 82.44 317 ⇓P **P** **15 00 45.5 +1.3**
TLCR 82.44 317 ⇓P **P** **15 00 45.5 +1.3**
TIRR Tirgusor 82.53 316 P **P** **15 00 44.6 -0.2**
comp=Z,15nm,0.9s
SMY Shemya 82.63 35 P **P** **15 00 45.6 +0.5**
comp=Z,191nm,1.3s
CFR Carcaliu 82.90 317 ⇓P **P** **15 00 47.8 +1.1**
CFR Carcaliu 82.90 317 ⇓P **P** **15 00 47.8 +1.1**
ALN Alexandroupoli 83.41 312 P **P** **15 00 50.5 +1.1**
ALN pmax pmax
comp=Z,28nm,1.2s
ALN Alexandroupoli 83.41 312 P **P** **15 00 50.5 +1.1**
ALN IAmb IAmb 15 00 52.5
comp=Z,28nm,1.2s
SORM Soroca 83.50 319 ⇑P **P** **15 00 50.3 +0.6**
SORM Soroca 83.50 319 ⇑P **P** **15 00 50.3 +0.6**
SORM Soroca 83.50 319 P **P** **15 00 49.4 -0.3**
AK09 Malin Array Si 83.56 322 P **P** **15 00 49.7 -0.3**
AK10 Malin Array Si 83.58 322 P **P** **15 00 49.7 -0.3**
AK08 Malin Array Si 83.58 322 P **P** **15 00 49.8 -0.3**
AK07 Malin Array Si 83.59 322 P **P** **15 00 49.8 -0.3**
AK06 Malin Array Si 83.61 322 P **P** **15 00 49.9 -0.3**
AK02 Malin Array Si 83.62 322 P **P** **15 00 50.0 -0.3**
AKASG Malin Array Be 83.62 322 P **P** **15 00 50.4 +0.1**
comp=Z,8.0nm,0.7s,baz=90,slow=4.8,SNR=24
comp=Z,8.0nm,0.7s
AKBB Malin Array Si 83.62 322 *i* P **P** **15 00 49.9 -0.3**
AKBB pmax pmax
comp=Z,13nm,0.7s
AKBB Malin Array Si 83.62 322 P **P** **15 00 50.0 -0.3**
AK01 Malin Array Si 83.63 322 P **P** **15 00 50.0 -0.3**
KIEV Kiev 83.63 322 ⇓P **P** **15 00 50.7 +0.4**
KIEV Kiev 83.63 322 P **P** **15 00 50.0 -0.3**
KIEV IAmb IAmb 15 00 51.2
comp=Z,12nm,0.7s
KIEV Kiev 83.63 322 ⇓P **P** **15 00 50.7 +0.4**
KIEV Kiev 83.63 322 P **P** **15 00 50.0 -0.3**
comp=Z,77nm,0.8s
KIEV Kiev 83.63 322 P **P** **15 00 50.2 -0.1**
AK03 Malin Array Si 83.63 322 P **P** **15 00 50.0 -0.3**
AK12 Malin Array Si 83.65 322 P **P** **15 00 50.1 -0.3**
AK11 Malin Array Si 83.65 322 P **P** **15 00 50.1 -0.3**
AK14 Malin Array Si 83.67 322 P **P** **15 00 50.2 -0.3**
AK15 Malin Array Si 83.68 322 P **P** **15 00 50.3 -0.3**
AK16 Malin Array Si 83.69 322 P **P** **15 00 50.3 -0.3**
AK13 Malin Array Si 83.70 322 P **P** **15 00 50.4 -0.3**
AK23 Malin Array Si 83.70 322 P **P** **15 00 50.4 -0.3**
AK17 Malin Array Si 83.72 322 P **P** **15 00 50.5 -0.3**
AK18 Malin Array Si 83.72 322 P **P** **15 00 50.5 -0.3**
AK22 Malin Array Si 83.73 322 P **P** **15 00 50.5 -0.3**
AK21 Malin Array Si 83.75 322 P **P** **15 00 50.6 -0.3**
AK19 Malin Array Si 83.76 322 P **P** **15 00 50.7 -0.3**
PDRR Padureni 83.76 318 ⇓P **P** **15 00 52.5 +1.4**
AK20 Malin Array Si 83.76 322 P **P** **15 00 50.7 -0.3**
SAHR Sahastru 84.02 317 ⇑P **P** **15 00 54.4 +1.8**
VRI Vrincioaia 84.02 317 ⇓P **P** **15 00 54.4 +1.9**
VRI Vrincioaia 84.02 317 ⇓P **P** **15 00 54.4 +1.9**
TSUM Tsumeb 84.07 251 LR LR 15 35 00.7
comp=Z,65nm,19.1s,baz=174,slow=33
PLOR Plostina 84.07 317 ⇑P **P** **15 00 54.2 +1.4**
PLOR Plostina 84.07 317 ⇑P **P** **15 00 54.2 +1.4**
TESR Tescani 84.23 318 ⇑P **P** **15 00 54.8 +1.3**
TESR Tescani 84.23 318 P **P** **15 00 53.3 -0.2**
comp=Z,34nm,0.9s
MI30 MI30,Zelenitsa 84.27 322 P **P** **15 00 53.6 0.0**
comp=Z,23nm,1.1s
LUBAR Lubar, Ukraine 84.33 321 P **P** **15 00 53.9 0.0**
MI29 MI29, Kamyanyy 84.39 322 P **P** **15 00 53.6 -0.6**
comp=Z,137nm,0.7s
GIRR Girov 84.43 318 ⇑P **P** **15 00 55.8 +1.3**
MLR Muntele Rosu 84.47 316 ⇓P **P** **15 00 56.6 +1.7**
MLR Muntele Rosu 84.47 316 P **P** **15 00 55.3 +0.4**
MLR IAmb IAmb 15 00 57.3
comp=Z,31nm,1.2s
MLR Muntele Rosu 84.47 316 ⇓P **P** **15 00 56.6 +1.7**
BIZ Bicaz 84.69 318 ⇓P **P** **15 00 56.2 +0.4**
PRAR RASCA 84.70 318 ⇑P **P** **15 00 57.0 +1.1**
KMPD K-Podol'skiy 84.82 320 P **P** **15 00 55.7 -0.7**
DOPR Dopca 84.96 317 ⇓P **P** **15 00 58.4 +1.2**
QSPA South Pole Qui 85.04 180 P **P** **15 00 58.3 +1.0**
comp=Z,0.9nm,0.5s,baz=284,slow=1.2,SNR=23
QSPA LR LR 15 34 43.0
comp=Z,45nm,18.5s,baz=354,slow=32
comp=Z,0.9nm,0.5s
QSPA South Pole Qui 85.04 180 IAmb IAmb 15 01 07.6
comp=Z,20nm,2.0s
QSPA South Pole Qui 85.04 180 P **P** **15 00 58.5 +1.1**
VOIR 85.08 316 ⇑P **P** **15 00 57.9 0.0**
VOIR 85.08 316 ⇑P **P** **15 00 57.9 0.0**
MNK Minsk 85.42 326 *i* P **P** **15 01 00.0 +0.8**
MNK *i* *PP **pP** **15 01 14.6 -1.6**
MNK *i* 15 04 18.7
MNK *i* PPP PPP 15 06 12.1
MNK *i* S **SKSac** **15 11 20.0 +1.0**
MNK *i* SS **SS** **15 17 05.2 +3.4**
MNK *i* SSS SSS 15 20 36.6
MNK pmax pmax
comp=Z,23nm,0.8s
MNK pmax pmax
comp=E,8.0nm,0.8s
MNK pmax pmax
comp=N,33nm,1.1s
MNK MLR MLR
comp=N,101nm,17.0s
MNK MLR MLR
comp=E,73nm,15.0s
MNK MLR MLR
comp=Z,80nm,16.0s
MNK Minsk 85.42 326 *i* P **P** **15 01 00.1 +0.8**
comp=E,8.0nm,0.8s
MNK *i* P **P** **15 01 00.1 +0.8**
comp=N,33nm,1.1s
MNK *i* P **P** **15 01 00.1 +0.8**
comp=Z,23nm,0.8s,baz=105
MNK *i* pP **pP** **15 01 14.7 -1.6**
MNK *i* PP **PP** **15 04 18.7 +0.5**
MNK *i* PPP PPP 15 06 12.1
MNK *i* S **SKSac** **15 11 20.0 +1.0**
MNK *i* sS **pS** **15 11 46.0 -1.2**
MNK *i* SS **SS** **15 17 05.3 +3.4**
MNK *i* SSS SSS 15 20 36.7
MNK *i* LQ LQ 15 33 44.0
MNK *i* LR LR 15 40 14.6
MNK *i* LRM MLR 15 41 30.4
comp=N,101nm,16.9s
MNK *i* LRM MLR 15 42 06.5
comp=E,73nm,15.2s
BURAR Bucovina Array 85.42 318 ⇓P **P** **15 01 01.9 +2.3**
BURAR Bucovina Array 85.42 318 PcP **PcP** **15 01 01.2 -1.3**
BURAR Bucovina Array 85.42 318 ⇓P **P** **15 01 01.9 +2.3**
BUR08 Bucovina Ar. S 85.44 318 P **P** **15 01 01.6 +1.9**
BUR08 IAmb IAmb 15 01 02.5
comp=Z,12nm,0.7s
RNPP5 Staryi Chortor 85.80 322 P **P** **15 01 00.9 -0.3**
RNPP9 Sopachiv 85.84 322 P **P** **15 01 01.1 -0.3**
LIT Litokhoron 85.92 311 IAmb IAmb 15 01 03.2
comp=Z,25nm,0.7s
BLKB Belogradchik 86.39 314 ⇑P **P** **15 01 05.4 +0.9**
BMR Baia Mare 86.58 318 ⇑P **P** **15 01 07.1 +1.9**
BMR Baia Mare 86.58 318 ⇑P **P** **15 01 07.1 +1.9**
MARR Marisel-Cluj 86.64 317 ⇑P **P** **15 01 07.3 +1.7**

MARR	**Marisel-Cluj**	**86.64 317**	⇑P	**P**	**15 01 07.3 +1.7**	
HERR	**Herculane**	**86.80 315**	⇓P	**P**	**15 01 07.3 +1.0**	
HERR	**Herculane**	**86.80 315**	⇓P	**P**	**15 01 07.3 +1.0**	
APA	**Apatity**	**86.88 339**	*e*P	**P**	**15 01 06.4 +0.2**	
APA			*e*		15 04 31.3	
APA			pmax	pmax		
	comp=Z,12nm,1.2s					
APA			MLR	MLR		
	comp=Z,1μm,5.1s					
DRGR		**86.94 317**	⇑P	**P**	**15 01 08.2 +1.2**	
DRGR		**86.94 317**	⇑P	**P**	**15 01 08.2 +1.2**	
DRGR		**86.94 317**	⇑P	**P**	**15 01 08.2 +1.2**	
VSU	**Vasula**	**87.04 329**	*ce*P	**P**	**15 01 06.9 -0.2**	
VSU			pmax	pmax		
	comp=Z,28nm,0.9s					
SURR	**Surduc**	**87.15 316**	⇑P	**P**	**15 01 09.3 +1.3**	
MDVR	**Moldovita**	**87.28 315**	⇑P	**P**	**15 01 10.0 +1.3**	
MDVR	**Moldovita**	**87.28 315**	⇑P	**P**	**15 01 10.0 +1.3**	
BZS	**Buzias**	**87.48 316**	⇑P	**P**	**15 01 10.8 +1.2**	
BZS	**Buzias**	**87.48 316**	⇑P	**P**	**15 01 10.8 +1.2**	
SIRR	**Siria**	**87.56 317**	⇑P	**P**	**15 01 11.3 +1.3**	
KOLS	**Kolonicke sedl**	**87.61 319**	*e*P	**P**	**15 01 12.1 +1.9**	
KOLS	**Kolonicke sedl**	**87.61 319**	*e*P	**P**	**15 01 12.1 +1.9**	
KEK	**Kerkira**	**87.90 310**	P	**P**	**15 01 11.1 -0.6**	
FIA1	**FINESS Array S**	**88.09 332**	P	**P**	**15 01 12.6 +0.6**	
FINES	**FINESS Array B**	**88.09 332**	P	**P**	**15 01 12.8 +0.7**	
	comp=Z,19nm,0.6s,baz=106,slow=5.6,SNR=133					
	comp=Z,19nm,0.6s					
PDG	**Podgorica**	**88.68 313**	⇓P	**P**	**15 01 16.5 +1.1**	
PDG	**Podgorica**	**88.68 313**	⇓P	**P**	**15 01 16.5 +1.1**	
KECS	**Kecovo**	**88.70 319**	*e*P	**P**	**15 01 16.9 +1.6**	
KECS	**Kecovo**	**88.70 319**	*e*P	**P**	**15 01 16.8 +1.5**	
PSZ	**Piszkesteto**	**89.01 318**	⇓P	**P**	**15 01 18.1 +1.2**	
PSZ	**Piszkesteto**	**89.01 318**	P	**P**	**15 01 16.7 -0.2**	
PSZ			IAmb	IAmb	15 01 19.1	
	comp=Z,9.2nm,1.0s					
PSZ	**Piszkesteto**	**89.01 318**	⇓P	**P**	**15 01 18.1 +1.2**	
VADS	**Vadso**	**89.10 341**	*e*P	**P**	**15 01 16.9 +0.2**	
OJC	**Ojcow**	**89.41 320**	P	**P**	**15 01 18.3 -0.3**	
	comp=Z,5.6nm,1.2s					
LANS	**Liptovska Anna**	**89.47 319**	*e*P	**P**	**15 01 21.0 +2.0**	
LANS	**Liptovska Anna**	**89.47 319**	*e*P	**P**	**15 01 21.0 +2.0**	
MORH	**Mrgy, Hungar**	**89.62 316**	⇑P	**P**	**15 01 21.0 +1.4**	
MORH	**Mrgy, Hungar**	**89.62 316**	P	**P**	**15 01 19.4 -0.3**	
	comp=Z,11nm,0.9s					
KEV	**Kevo**	**89.78 340**	P	**P**	**15 01 19.9 0.0**	
KEV			pmax	pmax		
	comp=Z,231nm,2.0s					
KEV	**Kevo**	**89.78 340**	P	**P**	**15 01 19.9 0.0**	
KEV	**Kevo**	**89.78 340**	P	**P**	**15 01 20.4 +0.5**	
VYHS	**Vyhne**	**89.79 319**	*e*P	**P**	**15 01 22.6 +2.1**	
VYHS	**Vyhne**	**89.79 319**	*e*P	**P**	**15 01 22.6 +2.1**	
ARA0	**ARCESS Array S**	**90.24 340**	*e*P	**P**	**15 01 22.3 +0.2**	
ARCES	**ARCESS Array B**	**90.24 340**	P	**P**	**15 01 22.3 +0.2**	
	comp=Z,11nm,0.6s,baz=107,slow=5.2,SNR=39					
	comp=Z,11nm,0.6s					
OKC	**Ostrava-Krasne**	**90.41 320**	*e*P	**P**	**15 01 25.1 +1.8**	
BLY	**Banja Luka**	**90.47 315**	⇓P	**P**	**15 01 25.7 +2.1**	
MPLH	**Magyarpolny**	**90.50 317**	P	**P**	**15 01 23.4 -0.3**	
	comp=Z,57nm,1.1s					
JAVC	**Velka Javorina**	**90.61 319**	*e*P	**P**	**15 01 26.1 +1.8**	
STEB	**Steborice**	**90.67 320**	*e*P	**P**	**15 01 25.6 +1.1**	
MORC	**Moravsky Berou**	**90.80 320**	⇓P	**P**	**15 01 26.9 +1.7**	
MORC	**Moravsky Berou**	**90.80 320**	P	**P**	**15 01 25.0 -0.1**	
MORC			IAmb	IAmb	15 01 27.6	
	comp=Z,11nm,0.9s					
MORC	**Moravsky Berou**	**90.80 320**	*e*P	**P**	**15 01 26.4 +1.3**	
MORC	**Moravsky Berou**	**90.80 320**	⇓P	**P**	**15 01 26.9 +1.7**	
MODS	**Modra-Piesok**	**90.81 318**	*e*P	**P**	**15 01 27.3 +2.1**	
MODS	**Modra-Piesok**	**90.81 318**	*e*P	**P**	**15 01 27.3 +2.1**	
KTK1	**Kautokeino**	**90.91 339**	*e*P	**P**	**15 01 25.4 +0.1**	
HAMF	**Hammerfest**	**91.09 341**	*e*P	**P**	**15 01 26.4 +0.4**	
KRLC	**Kraliky**	**91.32 320**	*e*P	**P**	**15 01 29.1 +1.5**	
DPC	**Dobruska-Polom**	**91.64 320**	*e*P	**P**	**15 01 30.7 +1.7**	
DPC	**Dobruska-Polom**	**91.64 320**	P	**P**	**15 01 28.7 -0.3**	
	comp=Z,8.1nm,0.9s					
KSP	**Ksiaz**	**91.71 321**	P	**P**	**15 01 29.2 -0.1**	
OSTC	**Ostas**	**91.73 320**	*e*P	**P**	**15 01 30.9 +1.5**	
CHVC	**Chvalec**	**91.83 320**	*e*P	**P**	**15 01 31.2 +1.3**	
UPC	**Upice**	**91.85 320**	*e*P	**P**	**15 01 32.0 +2.0**	
JETT	**Jettan, Norway**	**92.00 340**	*e*P	**P**	**15 01 30.7 +0.4**	
TREC	**Trest**	**92.08 319**	*e*P	**P**	**15 01 31.6 +0.5**	
CKRC	**Cesky Krumlov**	**92.81 319**	*e*P	**P**	**15 01 34.8 +0.3**	
ZVC	**Zvikov**	**92.93 319**	*e*P	**P**	**15 01 35.8 +0.8**	
BJO1	**Bjornoya**	**93.11 344**	*e*P	**P**	**15 01 35.0 -0.3**	
BRG	**Berggiesshubel**	**93.19 321**	*i* P	**P**	**15 01 37.6 +1.4**	
BRG			Amp		15 01 38.2	
	comp=Z,5.8nm,0.8s					
GERES	**GERESS Array B**	**93.21 319**	P	**P**	**15 01 37.4 +1.0**	
	comp=Z,1.6nm,0.7s,baz=92,slow=3.5,SNR=19					
	comp=Z,1.6nm,0.7s					
KHC	**Kasperske Hory**	**93.31 319**	*e*P	**P**	**15 01 37.6 +0.8**	
HSKC	**Hora Svate Kat**	**93.50 320**	*e*P	**P**	**15 01 39.0 +1.4**	
FAUS	**Fauske**	**93.64 337**	*e*P	**P**	**15 01 38.0 +0.2**	
STEI	**Steigen**	**93.69 338**	*e*P	**P**	**15 01 38.3 +0.3**	
CLL	**Collm**	**93.81 321**	*e*P	**P**	**15 01 40.0 +1.0**	
HFS	**Hagfors**	**93.89 330**	P	**P**	**15 01 39.3 +0.1**	
	comp=Z,3.8nm,0.7s,baz=116,slow=3.4,SNR=13					
	comp=Z,3.8nm,0.7s					
RAUS	**Rausandaksla**	**94.07 336**	*e*P	**P**	**15 01 39.9 +0.1**	
SPA0	**Spitsbergen Ar**	**94.10 348**	*e*P	**P**	**15 01 39.3 -0.6**	
SPITS	**Spitsbergen Ar**	**94.10 348**	P	**P**	**15 01 39.0 -0.8**	
	comp=Z,6.9nm,0.7s,baz=110,slow=7.2,SNR=7.1					
SPITS			LR	LR	15 49 53.7	
	comp=Z,89nm,18.1s,baz=108,slow=39					
	comp=Z,6.9nm,0.7s					
SPITS	**Spitsbergen Ar**	**94.10 348**	P	**P**	**15 01 39.0 -0.8**	
NKC	**Novy Kostel**	**94.11 320**	*e*P	**P**	**15 01 39.6 -0.8**	
LEIR	**Leirfjorden**	**94.43 336**	*e*P	**P**	**15 01 42.0 +0.5**	
NSS	**Namsos**	**94.87 334**	*e*P	**P**	**15 01 43.8 +0.3**	
GRF	**Grafenberg Arr**	**94.88 319**	*e*P	**P**	**15 01 45.0 +1.0**	
	comp=Z,3.7nm,0.8s,baz=92,slow=3.4					
NC602	**NORSAR Array S**	**94.98 330**	*e*P	**P**	**15 01 44.4 +0.2**	
NB2	**NORSAR Subarra**	**95.15 331**	P	**P**	**15 01 45.4 +0.5**	
	comp=Z,2.2nm,0.8s,baz=90,slow=4.6					
NB2	**NORSAR Subarra**	**95.15 331**	P	**P**	**15 01 45.0 +0.1**	
NB2			AMP		15 01 45.0	
NOA	**NORSAR Array B**	**95.15 331**	P	**P**	**15 01 44.8 -0.2**	
	comp=Z,2.8nm,0.8s,baz=95,slow=5.0,SNR=14					
NOA			LR	LR	15 49 40.1	
	comp=Z,11nm,18.2s,baz=345,slow=39					
	comp=Z,2.8nm,0.8s					
SKAR	**Skarslia**	**96.58 330**	*e*P	**P**	**15 01 52.0 +0.5**	
MOL	**Molde**	**96.87 332**	*e*P	**P**	**15 01 53.7 +1.0**	
PPT2	**Papeete2**	**105.01 110**	*e*LR	LR	15 37 03.5	
	comp=Z,500nm,24.5s					
YKA	**Yellowknife Ar**	**116.25 18**	PKIKP	**PKPdf**	**15 07 04.1 -0.5**	
	comp=Z,0.8nm,0.7s,baz=7.4,slow=1.7,SNR=9.0					
EDM	**Edmonton**	**123.43 25**	PKIKP	**PKPdf**	**15 07 18.5 -0.3**	
EDM	**Edmonton**	**123.43 25**		**PKPdf**	**15 07 18.5 -0.3**	
SCHQ	**Schefferville**	**129.58 352**	PKP	**PKiKP**	**15 07 31.1 -0.1**	
	comp=Z,2.0nm,0.5s,baz=67,slow=1.7,SNR=7.8					
NVAR	**Mina Array Bea**	**129.85 42**	PKP	**PKiKP**	**15 07 32.9 +0.3**	
	comp=Z,1.9nm,0.6s,baz=295,slow=2.0,SNR=14					
NVAR			SKPbc	SKPab	15 10 48.2 -0.4	
	comp=Z,0.9nm,0.8s,baz=232,slow=3.8,SNR=5.2					
ULM	**Lac du Bonnet**	**132.13 16**	PKP	**PKPdf**	**15 07 35.7 +0.3**	
	comp=Z,4.4nm,0.6s,baz=346,slow=3.6,SNR=8.8					
ULM			SKPbc	**SKPbc**	**15 10 55.4 -1.2**	
	comp=Z,2.8nm,0.5s,baz=335,slow=3.6,SNR=10					
PDAR	**Pinedale Array**	**132.56 33**	PKP	**PKPdf**	**15 07 37.1 +0.3**	
	comp=Z,0.9nm,0.5s,baz=186,slow=1.5,SNR=12					
PDAR			SKPbc	**SKPbc**	**15 10 58.5 -0.2**	
	comp=Z,0.5nm,0.5s,baz=0.0,slow=1.5,SNR=4.2					
PDAR	**Pinedale Array**	**132.56 33**		**PKPdf**	**15 07 34.4 -2.4**	
CPUP	**Villa Florida**	**143.53 211**	PKP	**PKPdf**	**15 07 58.3 +1.2**	
	comp=Z,1.9nm,0.7s,baz=116,slow=5.5,SNR=4.5					
CPUP	**Villa Florida**	**143.53 211**		PKPbc	15 07 55.4 +0.9	
BDFB	**Brasilia**	**144.76 234**	PKPbc	**PKPdf**	**15 08 00.4 +0.7**	
	comp=Z,8.8nm,0.6s,baz=131,slow=5.1,SNR=15					
BDFB	**Brasilia**	**144.76 234**	PKIKP	**PKPdf**	**15 08 00.7 +1.1**	
BDFB	**Brasilia**	**144.76 234**		**PKPdf**	**15 08 00.7 +1.1**	
TXAR	**Lajitas Array**	**145.00 43**	PKP	**PKPdf**	**15 07 59.7 0.0**	
	comp=Z,12nm,0.5s,baz=264,slow=1.1,SNR=226					
TXAR			SKPbc	**SKPbc**	**15 11 33.9 -0.2**	
	comp=Z,0.7nm,0.7s,baz=82,slow=0.3,SNR=4.1					
LPAZ	**La Paz**	**157.16 202**	PKP	**PKPdf**	**15 08 20.8 +1.6**	
	comp=Z,1.1nm,0.7s,baz=104,slow=5.0,SNR=5.2					

JMA 29 14:55:14.2±0.0, 34.5N±0.1×134.8E±0.1, h16km, MV1.1/32, AWAJISHIMA ISLAND REGION, Near south coast of western Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JAWN	**Awajishima-nag**	**0.06**	**70**	P	Pg	14 55 17.0	-0.2
JAWN				*e*S	Sg	14 55 19.1	0.0
JMIK	**Miki**	**0.38**	**28**	*e*P	Pg	14 55 21.8	-0.2
JMIK				*e*S	Sg	14 55 27.5	+0.1
JKS	**Kasai**	**0.52**	**1**	*e*P	Pg	14 55 24.4	-0.1
JKS				S	Sg	14 55 31.4	0.0
JWY	**Kouya**	**0.67**	**111**	*e*S	Sg	14 55 36.1	-0.2
JHE	**Heguri**	**0.72**	**75**	*e*S	Sg	14 55 37.1	-0.8
JAD	**Aida**	**0.73**	**311**	*e*P	Pg	14 55 28.1	-0.3
JAD				*e*S	Sg	14 55 37.7	-0.3
JAI	**Aioi**	**0.74**	**206**	*e*P	Pg	14 55 28.1	-0.6
JAI				*e*S	Sg	14 55 38.3	-0.2
JWM	**Minabe**	**0.75**	**145**	*e*P	Pg	14 55 28.8	0.0
JWM				*e*S	Sg	14 55 38.7	0.0
JJS	**Sakaide**	**0.76**	**263**	*e*P	Pg	14 55 27.9	-1.0
JJS				*e*S	Sg	14 55 37.9	-1.0

*AFAD **29** 14:55:44.9, 37.87N×26.97E, h11km±1km, ML3.2*
*ISK **29** 14:55:44.5, 37.85N×26.95E, h8km, ML3.5/21*
*ATH **29** 14:55:44.0, 37.88N×27.02E, h6km±1km, ML3.1/10,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
*THE **29** 14:55:45.1, 38°N±1°×27°E±°, h3km×3km, M3.2/8, MLh3.2/8*
ISC 29 14:55:45.0±0.8, 37.85N±0.02×26.96E±0.02, h11km±6km, n63, σ0.52/95, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.18**	**214**	P	**Pg**	**14 55 48.5**	**-0.3**
SMG				S	**Sg**	**14 55 50.5**	**-1.0**
SMG				AML	AML		
SMG	**Samos**	**0.18**	**214**	P	**Pg**	**14 55 48.6**	**-0.3**
SMG				S	**Sg**	**14 55 51.7**	**+0.1**
SMG				AML	AML		
DGB	**zmir**	**0.21**	**342**	P	**Pg**	**14 55 49.2**	**-0.2**
DGB				S	**Sg**	**14 55 52.0**	**-0.4**
GMLD	**Gumuldur**	**0.23**	**351**	Pg	**Pg**	**14 55 49.6**	**-0.1**
GMLD				Sg	**Sg**	**14 55 53.6**	**+0.7**
GMLD				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.26**	**89**	Pg	**Pg**	**14 55 50.7**	**+0.4**
KUSD				Sg	**Sg**	**14 55 54.5**	**+0.6**
KUSD				AML	AML		
GCAM	**G?zelcaml?**	**0.26**	**125**	P	**Pg**	**14 55 50.4**	**0.0**
GCAM				IAML		14 55 54.0	
	comp=N,6μm,0.5s						
GCAM				S	**Sg**	**14 55 54.5**	**+0.5**
GCAM				IAML		14 55 55.0	
	comp=E,4μm,0.4s						
GCAM	**G?zelcaml?**	**0.26**	**125**	Pg	**Pg**	**14 55 50.5**	**+0.1**
GCAM				Sg	**Sg**	**14 55 54.5**	**+0.5**
GCAM				AML	AML		
SAM2	**Drakei, Karlov**	**0.29**	**251**	P	**Pg**	**14 55 50.6**	**-0.4**
SAM2				S	**Sg**	**14 55 55.3**	**+0.3**
SAM2				AML	AML		
BEYE	**İzmir**	**0.37**	**356**	P	**Pg**	**14 55 52.0**	**-0.4**
BEYE				S	**Sg**	**14 55 57.8**	**+0.4**
BEYE				IAML		14 55 58.0	
	comp=N,2μm,0.5s						
BEYE				IAML		14 55 58.0	
	comp=E,2μm,0.2s						
DDIM	**Aydin, Didim**	**0.45**	**151**	P	**Pg**	**14 55 53.9**	**0.0**
DDIM				IAML		14 56 01.0	
	comp=E,1μm,0.4s						
DDIM				S	**Sb**	**14 56 01.2**	**-0.5**
DDIM				IAML		14 56 02.0	
	comp=N,2μm,0.4s						
DIDI	**Didim-Aydin**	**0.53**	**155**	Pg	**Pg**	**14 55 55.1**	**-0.1**
DIDI				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.53**	**317**	P	**Pg**	**14 55 54.7**	**-0.6**
ZEYE				IAML		14 56 03.0	
	comp=N,2μm,0.5s						
ZEYE				S	**Sg**	**14 56 03.0**	**+0.8**
ZEYE				IAML		14 56 06.0	
	comp=E,994nm,0.4s						
DUVT	**Torbali**	**0.53**	**46**	P	**Pg**	**14 55 54.9**	**-0.4**
DUVT				IAML		14 56 02.0	
	comp=E,2μm,0.1s						
DUVT				S	**Sg**	**14 56 02.1**	**-0.2**
BLCB	**Balcova**	**0.53**	**7**	P	**Pg**	**14 55 55.1**	**-0.3**
BLCB				S	**Sb**	**14 56 03.5**	**-0.6**
BLCB				AML	AML		
BLCB	**Balcova**	**0.53**	**7**	Pg	**Pg**	**14 55 55.2**	**-0.2**
BLCB				Sg	**Sg**	**14 56 02.9**	**+0.4**
URLA	**Izmir**	**0.58**	**330**	P	**Pg**	**14 55 55.9**	**-0.4**
URLA				S	**Sg**	**14 56 04.2**	**+0.2**
URLA				IAML		14 56 08.0	
	comp=E,1μm,0.5s						
URLA				IAML		14 56 11.0	
	comp=N,1μm,0.4s						
URLA	**İzmir**	**0.58**	**330**	Pg	**Pg**	**14 55 56.1**	**-0.2**
URLA				Sg	**Sb**	**14 56 04.7**	**-0.8**
URLA				AML	AML		
DAGE	**İzmir**	**0.64**	**76**	P	**Pb**	**14 55 58.9**	**+0.7**
DAGE				S	**Sg**	**14 56 06.0**	**+0.1**
DAGE				IAML		14 56 09.0	
	comp=E,1μm,0.4s						
DAGE				IAML		14 56 10.0	
	comp=N,1μm,0.4s						
CESE	**eme**	**0.71**	**313**	Pg	**Pb**	**14 55 59.1**	**-0.2**
AYDB	**Zeytinkoy-Aydi**	**0.74**	**83**	Pg	**Pb**	**14 55 59.7**	**-0.2**
AYDB				AML	AML		
AYDN	**Tasoluk**	**0.75**	**105**	P	**Pg**	**14 55 59.2**	**-0.3**
AYDN				S	**Sb**	**14 56 11.7**	**+1.4**
AYDN				IAML		14 56 13.0	
	comp=E,1μm,0.3s						
AYDN				IAML		14 56 14.0	
	comp=N,792nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.77**	**161**	Pg	**Pg**	**14 55 59.5**	**-0.4**
YKAV				AML	AML		
BAGT	**Foa**	**0.81**	**354**	P	**Pg**	**14 56 00.3**	**-0.2**
BAGT				S	**Sb**	**14 56 12.3**	**+0.4**
BAGT				IAML		14 56 15.0	
	comp=E,1μm,0.6s						
BAGT				IAML		14 56 19.0	
	comp=N,1μm,0.7s						
KRBN	**Karaburun**	**0.81**	**337**	Pg	**Pg**	**14 56 00.6**	**+0.1**
KRBN				AML	AML		
IZMR	**zmir-demi**	**0.83**	**70**	P	**Pg**	**14 56 00.7**	**-0.4**
IZMR				S	**Sg**	**14 56 11.1**	**-0.8**
BODT	**Bodrum**	**0.84**	**161**	P	**Pg**	**14 56 00.8**	**-0.4**
BODT				S	**Sb**	**14 56 12.8**	**0.0**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**161**	Pg	**Pg**	**14 56 00.8**	**-0.4**
BODT				AML	AML		
MLSB	**Milas**	**0.85**	**131**	Pg	**Pg**	**14 56 01.3**	**-0.2**
BDRM	**Kayabasi**	**0.88**	**154**	P	**Pg**	**14 56 00.9**	**-1.0**
BDRM				S	**Sb**	**14 56 13.9**	**0.0**
BDRM				IAML		14 56 16.0	
	comp=E,618nm,0.6s						
BDRM				IAML		14 56 19.0	
	comp=N,587nm,0.7s						
FOCM	**Foa**	**0.88**	**348**	Pg	**Pb**	**14 56 02.1**	**-0.1**
FOCM				AML	AML		
CHOS	**Chios island**	**0.89**	**307**	P	**Pb**	**14 56 02.4**	**-0.1**
CHOS				S	**Sg**	**14 56 14.1**	**+0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**307**	Pg	**Pn**	**14 56 03.5**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.89**	**307**	P	**Pg**	**14 56 01.7**	**-0.5**
CHOS				S	**Sb**	**14 56 14.4**	**-0.1**
CHOS				AML	AML		
KLNA	**Kalymnos**	**0.90**	**179**	P	**Pg**	**14 56 01.8**	**-0.5**
KLNA				S	**Sb**	**14 56 14.7**	**+0.3**
KLNA				AML	AML		
BODA	**Bodrum-Mula**	**0.90**	**155**	Pg	**Pg**	**14 56 02.3**	**0.0**
KARB	**zmir-Karabur**	**0.92**	**332**	P	**Pg**	**14 56 02.5**	**-0.2**
KARB				S	**Sb**	**14 56 15.8**	**+0.7**
KARB				IAML		14 56 18.0	
	comp=N,689nm,0.9s						
KARB				IAML		14 56 18.0	
	comp=E,1μm,0.6s						
CAMT	**Merkez**	**0.93**	**17**	P	**Pg**	**14 56 02.8**	**-0.2**
CAMT				S	**Sn**	**14 56 17.6**	**+0.2**
CAMT				IAML		14 56 18.0	
	comp=E,2μm,0.7s						
CAMT				IAML		14 56 22.0	
	comp=N,2μm,0.4s						
NAZL	**Nazilli-Aydin**	**1.06**	**84**	Pg	**Pb**	**14 56 05.4**	**+0.1**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.10**	**92**	P	**Pg**	**14 56 05.4**	**-0.7**
ESEN				S	**Sn**	**14 56 21.4**	**-0.1**
ZEDA	**zmir-Bergama**	**1.11**	**5**	P	**Pg**	**14 56 05.9**	**-0.5**
ZEDA				S	**Sn**	**14 56 22.8**	**+0.9**
ZEDA				IAML		14 56 23.0	
	comp=N,777nm,0.4s						
ZEDA				IAML		14 56 25.0	
	comp=E,709nm,0.4s						
GOMA	**Golmarmara-Man**	**1.14**	**41**	Pn	**Pn**	**14 56 06.8**	**0.0**
GOMA				AML	AML		
KIRA	**zmir-Kiraz**	**1.19**	**73**	P	**Pg**	**14 56 07.1**	**-0.7**
KIRA				S	**Sg**	**14 56 22.6**	**-0.7**
KIRA				IAML		14 56 25.0	
	comp=N,290nm,0.3s						
DKL	**Dikili**	**1.22**	**358**	Pn	**Pn**	**14 56 08.4**	**+0.5**
DKL				AML	AML		
DKL	**Dikili**	**1.22**	**358**	P	**Pb**	**14 56 07.0**	**-1.0**
KTTT	**Salihli**	**1.22**	**47**	P	**Pb**	**14 56 06.8**	**-1.3**
KTTT				S	**Sn**	**14 56 24.3**	**-0.1**
KTTT				IAML		14 56 27.0	
	comp=N,359nm,0.4s						
AKS	**Akhisar**	**1.22**	**33**	Pn	**Pb**	**14 56 07.9**	**-0.2**
AKS				AML	AML		
AKHS	**Akhisar**	**1.22**	**33**	P	**Pb**	**14 56 07.3**	**-0.8**
AKHS				S	**Sn**	**14 56 24.7**	**+0.1**
AKHS				IAML		14 56 32.0	
	comp=N,609nm,0.4s						
DAT	**Datca**	**1.23**	**156**	Pn	**Pb**	**14 56 07.6**	**-0.6**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.23**	**153**	Pn	**Pb**	**14 56 07.8**	**-0.3**
DATC				AML	AML		
SOMA	**Soma-Manisa**	**1.38**	**19**	Pn	**Pg**	**14 56 11.6**	**+0.2**
SOMA				AML	AML		
APE	**Apeiranthos**	**1.38**	**236**	P	**Pn**	**14 56 11.0**	**+0.8**
APE				AML	AML		
APE	**Apeiranthos**	**1.38**	**236**	Pn	**Pn**	**14 56 10.2**	**0.0**
APE	**Apeiranthos**	**1.38**	**236**	P	**Pn**	**14 56 11.0**	**+0.8**
GORD	**Gordes-Manisa**	**1.42**	**42**	Pn	**Pg**	**14 56 12.0**	**-0.3**
GORD				AML	AML		
PRK	**Paraskevi**	**1.49**	**339**	P	**Pn**	**14 56 12.1**	**+0.4**
PRK	**Paraskevi**	**1.49**	**339**	P	**Pn**	**14 56 12.3**	**+0.6**
KULA	**Kula-Manisa**	**1.49**	**63**	Pn	**Pn**	**14 56 11.8**	**0.0**
KULA				AML	AML		
YAYO	**Edremit-Balk**	**1.76**	**3**	Pn	**Pn**	**14 56 16.2**	**+0.9**
YAYO				AML	AML		
KARP	**Karpathos**	**2.31**	**176**	P	**Pn**	**14 56 23.1**	**+0.2**
KARP				AML	AML		
DION	**Dionisos Attik**	**2.40**	**276**	P	**Pn**	**14 56 24.4**	**+0.1**
DION				AML	AML		
LIA	**Limnos Island**	**2.47**	**326**	P	**Pn**	**14 56 24.8**	**-0.3**
LIA				AML	AML		
VLY	**Voula,Athens**	**2.51**	**271**	P	**Pn**	**14 56 27.2**	**+1.5**
VLY				AML	AML		
SMTH	**Samothraki Isl**	**2.84**	**337**	P	**Pn**	**14 56 29.9**	**-0.4**
SMTH				AML	AML		

JMA 29 14:56:13.3±0.0, 32.2N±0.1×130.3E±0.1, h11km, MV0.8/27, AMAKUSA REGION, Kyushu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JZO	**Okuchi**	**0.23**	**112**	*i* P	Pg	14 56 18.4	+0.1
JZO				*e*S	Sg	14 56 21.9	+0.3
JHD	**Hondo**	**0.29**	**324**	P	Pg	14 56 19.4	+0.1
JHD				*e*S	Sg	14 56 24.3	+0.9
JIU3	**Izumi3**	**0.51**	**51**	*e*S	Sg	14 56 30.5	+0.4
JTZ	**Takazaki**	**0.71**	**117**	*e*S	Sg	14 56 36.6	+0.1
JSU	**Suzuyama**	**0.73**	**172**	*e*S	Sg	14 56 36.8	-0.2
JTSN	**Tsuno**	**0.99**	**89**	*e*S	Sg	14 56 44.8	-0.4

ISK 29 14:58:52.6, 37.90N×27.04E, h5km, ML1.4/7, Turkey

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GMLD	**Gumuldur**	**0.21**	**331**	Pg	Pg	14 58 57.6	+0.9
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.25**	**142**	Pg	Pg	14 58 57.9	+0.5
GCAM				AML	AML		
BLCB	**Balcova**	**0.49**	**0**	Pg	Pg	14 59 02.5	+0.5
BLCB				Sg	Sb	14 59 09.9	-1.3
BLCB				AML	AML		
URLA	**Izmir**	**0.58**	**323**	Pg	Pg	14 59 04.5	+0.7
AYDB	**Zeytinkoy-Aydi**	**0.67**	**85**	Pg	Pb	14 59 06.3	-0.6
AYDB				Sg	Sb	14 59 16.0	-0.6
BODT	**Bodrum**	**0.86**	**166**	Pg	Pb	14 59 09.7	-0.3
CHOS	**Chios island**	**0.92**	**303**	Pg	Pb	14 59 10.8	-0.3
CHOS				AML	AML		

*CFUSG **29** 15:23:35.3, 43.63N×38.92E, h35km, Mb1.9/3, MD3.0/3, MSH2.7/7*
*AFAD **29** 15:23:39.0, 43.05N×38.84E, h6km±3km, ML2.9*
**ISC 29 15:23:33.2±1.6, 43.64N±0.07×38.84E±0.08, h

DNZ2	**Donuzlav2**	**4.38**	**295**	*ex*	**Sn**	**15 25 30.7**	**-0.2**
DNZ2				smax	smax	15 25 36.0	
	comp=N,6.0nm,0.3s						
DNZ2				smax	smax	15 25 36.0	
	comp=E,7.0nm,0.2s						
TARU	**Tarkhankut**	**4.84**	**293**	*ex*	**Sn**	**15 25 41.4**	**-0.6**
TARU				smax	smax	15 25 42.5	
	comp=N,5.0nm,0.4s						
TARU				smax	smax	15 25 42.5	
	comp=E,4.0nm,0.4s						

SKHL ***29*** *15:28:34.8±0.3,45.00N×152.60E,h43km±7km, mb4.6/3*
IDC ***29*** *15:28:37.4±4.2,47.10N×150.73E,h170km±40km,mb3.1/7, mbtmp3.6/8,Error ellipse: s-maj=29.6km s-min=26.1km az=91.0*

ISC 29 15:28:37.3±1.1,**47°.1N**±0°.1×**150°.8E**±0°.2,**h166**km,**n18, σ2s48/16,mb3.3/7,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**2.75**	**228**	*eP*			**Pn**	**15 29 25.5**	**+3.3**
KUR						AMB	AMB	15 29 35.3	
	80nm,0.4s								
KUR				*eS*			**Sn**	**15 30 02.6**	**+5.5**
KUR						A	A	15 30 05.3	
	110nm,0.3s								
KUR						A	A	15 30 05.3	
	70nm,0.3s								
YUK	**Yuzh-Kuril'sk**	**4.62**	**230**	*eP*			**Pn**	**15 29 47.5**	**+1.6**
YUK						AMB	AMB	15 29 49.3	
	70nm,0.7s								
YUK				*eS*			**Sn**	**15 30 41.0**	**+1.5**
YUK						A	A	15 30 45.8	
	130nm,0.7s								
YUK						A	A	15 30 45.8	
	110nm,0.7s								
NMR	**Nemuro--Hokkai**	**5.16**	**225**	*eP*			**Pn**	**15 29 52.2**	**-0.9**
NMR				*eS*			**Sn**	**15 30 48.1**	**-4.3**
AKK	**Akkeshi**	**5.86**	**228**	*eP*			**Pn**	**15 30 02.4**	**+0.2**
AKK				*eS*			**Sn**	**15 31 05.3**	**-3.6**
PETK	**Petropavlovsk-**	**7.47**	**34**	P			**Pn**	**15 30 23.8**	**+0.3**
	1.2nm,0.6s,baz=216,slow=14,SNR=9.6								
H11N2	**WAKE ISLAND Hy**	**30.33**	**149**	T			T	16 06 23.4	
	baz=336								
H11N1	**WAKE ISLAND Hy**	**30.35**	**149**	T			T	16 06 27.9	
	baz=336								
H11N3	**WAKE ISLAND Hy**	**30.35**	**149**	T			T	16 06 20.1	
	baz=336								
H11S1	**WAKE ISLAND Hy**	**31.39**	**150**	T			T	16 07 35.4	
	baz=340,slow=76,SNR=5.7								
H11S3	**WAKE ISLAND Hy**	**31.40**	**150**	T			T	16 07 44.7	
	baz=340,slow=76,SNR=5.6								
H11S2	**WAKE ISLAND Hy**	**31.41**	**150**	T			T	16 07 45.3	
	baz=340,slow=76,SNR=5.9								
MKAR	**Makanchi Array**	**45.33**	**296**	P			**P**	**15 36 38.6**	**+0.1**
	0.2nm,0.5s,baz=66,slow=7.3,SNR=2.0								
	0.2nm,0.5s								
KURBB	**Kurchatov Arra**	**45.90**	**302**	P			**P**	**15 36 42.3**	**-0.5**
	0.4nm,0.5s,baz=72,slow=8.4,SNR=4.0								
	0.4nm,0.5s								
BVAR	**Borovoye Array**	**49.37**	**308**	P			**P**	**15 37 09.3**	**-0.2**
	0.5nm,0.6s,baz=104,slow=6.1,SNR=2.4								
	0.5nm,0.6s								
YKA	**Yellowknife Ar**	**51.59**	**36**	P			**P**	**15 37 26.1**	**+0.1**
	0.4nm,0.6s,baz=302,slow=6.8,SNR=4.1								
	0.4nm,0.6s								
FINES	**FINESS Array B**	**63.00**	**334**	P			**P**	**15 38 44.8**	**-1.1**
	1.2nm,0.7s,baz=39,slow=7.2,SNR=6.7								
	1.2nm,0.7s								
ASAR	**Alice Springs**	**72.08**	**196**	P			**P**	**15 39 42.6**	**-0.6**
	0.5nm,0.6s,baz=12,slow=6.4,SNR=6.1								
	0.5nm,0.6s								
EKA	**Eskdalemuir Ar**	**75.58**	**345**	P			**P**	**15 40 03.3**	**+0.1**
	0.2nm,0.3s,baz=22,slow=5.5,SNR=5.3								
	0.2nm,0.3s								

NIED ***29*** *15:40:20.6,34.68N×140.18E,h62km,MW3.8,Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr0.35; Mθθ-1.59; Mφφ 1.23; Mrθ-1.34; Mθφ-0.29; Mφr 5.36; Fault plane solution: M₀5.56000×10¹⁴ NP1:φ₁52.00000°, δ6.00000°,λ-22.00000°. NP2:φ₂164.00000°,δ88.00000°, λ-95.00000°.*
NEIC ***29*** *15:40:20.7±0.6,34.66N±0.04×140.34E±0.08,h59km±7km, mb4.5/23 Error ellipse: s-maj=9.3km s-min=6.4km az=96.0*
JMA ***29*** *15:40:20.6±0.1,34.7N±0.3×140.2E±0.4,h62km,MV3.5/39, SE OFF BOSO PENINSULA*
JMA Felt I J1 at SE OFF BOSO PENINSULA .
IDC ***29*** *15:40:21.9±1.6,34.61N×140.17E,h66km±12km,mb3.5/12, mbtmp3.8/14,Error ellipse: s-maj=23.8km s-min=7.2km az=75.0.*

ISC 29 15:40:20.9±0.7,**34°.66N**±0°.03×**140°.19E**±0°.04,**h60**km,**n72,σ0s90/83,mb4.3**/24,**2D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
BSO3	**Boso 3**	**0.30**	**61**	*i*	P		**Pn**	**15 40 31.0**	**+0.3**
BSO3					S		**Sn**	**15 40 39.3**	**+1.5**
BSO4	**Boso 4**	**0.35**	**20**	*i*	P		**Pn**	**15 40 31.6**	**+0.3**
BSO4					S		**Sn**	**15 40 40.1**	**+1.2**
TATJ	**Tateyama 2**	**0.45**	**326**	*e*	P		**Pn**	**15 40 32.8**	**+0.5**
TATJ					S		**Sn**	**15 40 42.0**	**+1.4**
KTR	**Katsuura**	**0.50**	**11**	*i*	P		**Pn**	**15 40 32.7**	**-0.1**
KTR					S		**Sn**	**15 40 41.3**	**-0.2**
JKUC	**kamogawauchiur**	**0.50**	**0**	*i*	P		**Pn**	**15 40 32.6**	**-0.3**
JKUC					S		**Sn**	**15 40 41.5**	**-0.1**
JIM2	**Oshima 3**	**0.63**	**276**	*i*	P		**Pn**	**15 40 33.9**	**-0.5**
JIM2					S		**Sn**	**15 40 43.2**	**-1.0**
BSO1	**Boso 1**	**0.65**	**90**	*i*	P		**Pn**	**15 40 34.0**	**+0.1**
BSO1					S		**Sn**	**15 40 44.7**	**+1.2**
JTHY	**Toshimahigashi**	**0.76**	**260**	*i*	P		**Pn**	**15 40 35.9**	**0.0**
JTHY					S		**Sn**	**15 40 46.8**	**0.0**
JMYK	**Miyake Tsubota**	**0.80**	**222**	*i*	P		**Pn**	**15 40 36.5**	**+0.2**
JMYK					S		**Sn**	**15 40 47.9**	**+0.2**
JMKN	**Mikurajimanish**	**0.91**	**213**	⇓*i*	P		**Pn**	**15 40 37.8**	**0.0**
JMKN				⇓	S		**Sn**	**15 40 50.2**	**0.0**
KTJ3	**Kamata3**	**0.96**	**287**	*i*	P		**Pn**	**15 40 37.7**	**-0.8**
KTJ3					S		**Sn**	**15 40 49.8**	**-1.7**
JKO	**Kozu shima**	**0.99**	**242**		P		**Pn**	**15 40 39.0**	**+0.2**
JKO					S		**Sn**	**15 40 52.2**	**+0.2**
JIZS	**Izushimoda**	**1.09**	**274**		P		**Pn**	**15 40 39.6**	**-0.4**
JIZS					S		**Sn**	**15 40 53.8**	**-0.5**
JOD2	**Odawara 2**	**1.09**	**304**	*i*	P		**Pn**	**15 40 39.5**	**-0.6**
JOD2					S		**Sn**	**15 40 53.0**	**-1.4**
JYT	**Yasato**	**1.57**	**360**		Pn		**Pn**	**15 40 45.1**	**-1.4**
JHJ	**Hachijo jima 2**	**1.57**	**193**		P		**Pn**	**15 40 47.0**	**+0.4**
	61nm,0.3s,baz=297,slow=17,SNR=191								
JHJ					S		**Sn**	**15 41 06.0**	**+0.2**
	44nm,0.3s,baz=206,slow=24,SNR=23								
JHJ2	**Mitsune**	**1.57**	**192**				**Pn**	**15 40 47.1**	**+0.5**
JSG	**Sagara**	**1.66**	**271**		Pn		**Pn**	**15 40 48.7**	**+1.0**
MJAR	**Matsushiro Arr**	**2.48**	**320**		P		**Pn**	**15 40 59.6**	**+0.6**
	17nm,0.4s,baz=152,slow=12,SNR=190								
MJAR					S		**Sn**	**15 41 29.0**	**+0.9**
	20nm,0.4s,baz=28,slow=30,SNR=3.1								
MAJO	**Matsushiro**	**2.48**	**320**				**Pn**	**15 40 59.8**	**+0.8**
MAJO							**Sn**	**15 41 28.9**	**+0.7**
MJB9	**Matsu-Tunnel**	**2.49**	**320**				**Pn**	**15 40 59.8**	**+0.7**
JGF	**Kuroka**	**2.51**	**293**				**Pn**	**15 41 00.6**	**+1.2**
INU	**Inuyama**	**2.70**	**286**				**Pn**	**15 41 03.0**	**+1.1**
JTM	**Tenmabayashi**	**6.16**	**6**	Pn			**Pn**	**15 41 48.6**	**-0.7**
JNU	**Nakatsue**	**7.90**	**261**	P			**Pn**	**15 42 15.5**	**+2.4**
	6.5nm,0.7s,baz=43,slow=7.0,SNR=7.9								
ASAJ	**Asahikawa**	**9.63**	**10**	P			**Pn**	**15 42 34.5**	**-2.2**
	2.5nm,0.4s,baz=202,slow=9.7,SNR=6.7								
JKA	**Kamikawa-asahi**	**9.63**	**10**				**Pn**	**15 42 34.2**	**-2.4**
DPSS	**Saipan**	**19.98**	**164**	P			**P**	**15 44 47.5**	**-0.9**
H11N2	**WAKE ISLAND Hy**	**27.91**	**115**	T			T	16 15 51.1	
	baz=308,slow=75,SNR=29								
H11N1	**WAKE ISLAND Hy**	**27.91**	**115**	T			T	16 15 50.6	
	baz=308,slow=75,SNR=26								
H11N3	**WAKE ISLAND Hy**	**27.93**	**115**	T			T	16 15 52.1	
	baz=308,slow=75,SNR=26								
YAK	**Yakutsk**	**28.20**	**350**	P			**P**	**15 46 08.3**	**+0.7**
YAK						IAmb	IAmb	15 46 50.8	
	comp=Z,14nm,1.2s								
SONM	**Songino Array**	**28.38**	**308**	P			**P**	**15 46 10.5**	**+1.0**
	comp=Z,0.6nm,0.7s,baz=106,slow=9.3,SNR=4.1								
	comp=Z,0.6nm,0.7s								
H11S3	**WAKE ISLAND Hy**	**28.52**	**118**	T			T	16 16 36.2	
	baz=310,slow=76,SNR=13								
H11S1	**WAKE ISLAND Hy**	**28.52**	**118**	T			T	16 16 36.3	
	baz=310,slow=76,SNR=14								
H11S2	**WAKE ISLAND Hy**	**28.54**	**118**	T			T	16 16 37.5	
	baz=310,slow=76,SNR=12								
CMAR	**Chiang Mai Arr**	**39.97**	**257**	P			**P**	**15 47 49.8**	**0.0**
	comp=Z,0.4nm,0.5s,baz=46,slow=6.9,SNR=4.9								
	comp=Z,0.4nm,0.5s								
ZAA0	**Zalesovo Array**	**42.82**	**314**	P			**P**	**15 48 13.2**	**+0.5**
ZALV	**Zalesovo Beam**	**42.82**	**314**	P			**P**	**15 48 12.8**	**+0.1**
	comp=Z,1.2nm,0.7s,baz=100,slow=6.2,SNR=4.6								
	comp=Z,1.2nm,0.7s								
ZALV	**Zalesovo Beam**	**42.82**	**314**	P			**P**	**15 48 13.2**	**+0.5**
MKAR	**Makanchi Array**	**44.58**	**304**	P			**P**	**15 48 27.4**	**+0.4**
	comp=Z,2.1nm,0.6s,baz=91,slow=9.9,SNR=26								
	comp=Z,2.1nm,0.6s								
MAKZ	**Makanchi**	**44.80**	**304**	P			**P**	**15 48 29.0**	**+0.3**
J16K	**Anvik River**	**45.92**	**33**	P			**P**	**15 48 37.2**	**-0.1**
KURK	**Kurchatov**	**46.65**	**310**	P			**P**	**15 48 43.1**	**-0.1**
KURK						IAmb	IAmb	15 48 44.3	
	comp=Z,3.4nm,0.7s								
KURBB	**Kurchatov Arra**	**46.72**	**310**	P			**P**	**15 48 44.2**	**+0.5**
	comp=Z,2.1nm,0.8s,baz=84,slow=7.8,SNR=18								
	comp=Z,2.1nm,0.8s								
PDGK	**Podgornoye**	**47.05**	**300**	P			**P**	**15 48 46.6**	**0.0**
TARG	**Taragay, Kyrgy**	**48.60**	**298**	P			**P**	**15 48 59.6**	**+0.7**
KNRA	**Kununurra**	**51.22**	**194**	P			**P**	**15 49 17.1**	**-1.3**
KNRA						IAmb	IAmb	15 49 50.1	
	comp=Z,12nm,1.4s								
BVAR	**Borovoye Array**	**51.46**	**314**	P			**P**	**15 49 20.5**	**+0.5**
	comp=Z,0.8nm,0.7s,baz=69,slow=4.8,SNR=3.4								
	comp=Z,0.8nm,0.7s								
ILAR	**Eielson Array**	**52.03**	**31**	P			**P**	**15 49 24.6**	**+0.5**
	comp=Z,0.4nm,0.7s,baz=273,slow=5.5,SNR=5.2								
	comp=Z,0.4nm,0.7s								
ILAR	**Eielson Array**	**52.03**	**31**	P			**P**	**15 49 23.4**	**-0.7**
ARSB	**Arslanbob**	**52.20**	**299**	P			**P**	**15 49 26.5**	**+0.6**
ARSB						IAmb	IAmb	15 50 09.5	
	comp=Z,11nm,1.5s								
KKAR	**Karatay Array**	**53.48**	**301**	P			**P**	**15 49 35.3**	**+0.2**
I26K	**Coal Creek Min**	**53.58**	**31**	P			**P**	**15 49 35.2**	**-0.2**
I26K						IAmb	IAmb	15 50 07.4	
	comp=Z,4.3nm,1.2s								
WB0	**Warramunga Arr**	**54.40**	**187**				**P**	**15 49 41.4**	**-0.5**
WB0						IAmb	IAmb	15 49 42.2	
	comp=Z,6.8nm,0.9s								
WRAB	**Tennant Creek**	**54.57**	**187**	P			**P**	**15 49 42.4**	**-0.7**
WRAB						IAmb	IAmb	15 49 43.1	
	comp=Z,4.1nm,0.8s								
WR8	**Warramunga Arr**	**54.58**	**187**				**P**	**15 49 42.5**	**-0.7**
WR8						IAmb	IAmb	15 49 43.6	
	comp=Z,5.4nm,0.8s								
WRA	**Warramunga Arr**	**54.58**	**187**	P			**P**	**15 49 42.4**	**-0.7**
	comp=Z,4.7nm,0.8s,baz=2.8,slow=7.6,SNR=56								
	comp=Z,4.7nm,0.8s								
WRA	**Warramunga Arr**	**54.58**	**187**				**P**	**15 49 42.5**	**-0.7**
P29M	**Windy Craggy**	**56.95**	**37**	P			**P**	**15 49 59.4**	**-0.4**
MWH	**Mokuaweoweo**	**58.26**	**87**	P			**P**	**15 50 07.7**	**-2.5**
AS31	**Alice Springs**	**58.31**	**187**	P			**P**	**15 50 09.3**	**-0.4**
ASAR	**Alice Springs**	**58.31**	**187**	P			**P**	**15 50 09.2**	**-0.5**
	comp=Z,1.0nm,0.8s,baz=9.4,slow=6.8,SNR=16								
	comp=Z,1.0nm,0.8s								
AB31	**Akbulak array**	**58.73**	**311**	P			**P**	**15 50 12.5**	**+0.1**
AB31						IAmb	IAmb	15 50 15.0	
	comp=Z,2.1nm,0.9s								
ABKAR	**Akbulak array**	**58.73**	**311**	P			**P**	**15 50 12.5**	**+0.1**
INKA	**Innaminka**	**62.06**	**179**	P			**P**	**15 50 34.9**	**-0.3**
INKA						IAmb	IAmb	15 51 05.1	
	comp=Z,6.5nm,1.4s								
SUMG	**Summit**	**73.05**	**360**	P			**P**	**15 51 44.3**	**-0.3**
SUMG						IAmb	IAmb	15 52 06.0	
	comp=Z,14nm,1.5s								
AKASG	**Malin Array Be**	**75.57**	**322**	P			**P**	**15 51 58.4**	**-0.6**
	comp=Z,0.5nm,0.4s,baz=51,slow=6.1,SNR=2.6								
	comp=Z,0.5nm,0.4s								
NC303	**NORSAR Array S**	**75.80**	**337**	P			**P**	**15 52 00.4**	**+0.3**
NVAR	**Mina Array Bea**	**77.22**	**52**	P			**P**	**15 52 10.4**	**+1.5**
	comp=Z,0.8nm,0.8s,baz=313,slow=5.2,SNR=3.5								
	comp=Z,0.8nm,0.8s								
BRTR	**Keskin Array B**	**79.68**	**311**	P			**P**	**15 52 24.1**	**+1.7**
	comp=Z,0.3nm,0.5s,baz=54,slow=7.3,SNR=2.5								
	comp=Z,0.3nm,0.5s								
FUORN	**Ofenpass-Fuorn**	**87.40**	**328**	P			**P**	**15 53 02.1**	**+0.2**
FUORN						IAmb	IAmb	15 53 14.2	
	comp=Z,5.0nm,1.3s								

IDC ***29*** *15:42:33.0±3.6,32.12N×75.58E,h0km,mb3.4/4, mbtmp3.4/6,ML3.2/2,Error ellipse: s-maj=143.0km s-min=18.2km az=74.0*
NDI ***29*** *15:42:40.2±1.2,31.40N×72.86E,h25km±124km,MW3.3, Presumed earthquake*

ISC 29 15:42:22.3±1.4,**31°.69N**±0°.08×**72°.22E**±0°.07,**h10**km,**n14, σ2s69/19,mb3.4/4,3C-1D,Pakistan**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
JMU	**Jammu**	**2.47**	**63**	*i*	P		**Pg**	15 43 15.6	+6.0
JMU					*i*	S	**Sg**	**15 43 40.8**	**-0.8**
TSSA	**Tissa**	**3.52**	**70**	*i*	P		**Pg**	**15 43 28.1**	**-1.7**
TSSA						IAmb	IAmb	15 43 37.5	
	comp=Z,15nm,0.4s								
TSSA					*i*	S	**Sn**	**15 44 03.5**	**+4.4**
BHK	**Bhakra**	**3.57**	**94**	*i*	S		**Sb**	**15 44 10.9**	**+2.0**
SMLA	**Simla**	**4.27**	**96**	*i*	P		**Pb**	**15 43 35.6**	**-1.9**
SMLA						IAmb	IAmb	15 43 44.9	
	comp=Z,6.5nm,0.7s								
SMLA					*i*	S	**Sn**	**15 44 17.2**	**0.0**
ALCI	**Alchi Leh**	**4.88**	**58**	*i*	P		**Pb**	**15 43 48.0**	**-0.1**
ALCI						IAmb	IAmb	15 44 11.8	
	comp=Z,11nm,0.3s								
ALCI					*i*	S	**Sn**	**15 44 36.9**	**+4.2**
KLP	**Kalpa**	**5.15**	**90**	*i*	S		**Sn**	**15 44 38.2**	**-1.2**
KLP					*i*	S	**Sn**	**15 44 38.4**	**-1.0**
AAK	**Ala-Archa**	**11.07**	**9**		Pn		**Pn**	15 45 07.2	+6.3
	comp=Z,0.4nm,0.3s,baz=180,slow=12,SNR=4.9								
AAK					Sn		**Sn**	**15 47 01.0**	**-3.8**
	comp=Z,0.2nm,0.3s,baz=236,slow=24,SNR=1.8								
	comp=Z,1.7nm,0.5s								
AAK						AML	AML		
AAK	**Ala-Archa**	**11.07**	**9**	⇑	Pn		**Pn**	**15 45 04.9**	**+4.0**
	comp=Z,2.2nm,0.8s								
AAK					⇑Sn		**Sn**	**15 47 01.4**	**-3.5**
	comp=Z,2.9nm,0.8s								
KK31	**Karatay Array**	**11.47**	**354**	⇑	Pn		**Pn**	**15 45 08.6**	**+2.4**
	comp=Z,0.4nm,0.3s,baz=173,slow=11,SNR=14								
KK31					⇓Sn		**Sn**	**15 47 10.6**	**-3.7**
	comp=Z,0.6nm,0.3s,baz=167,slow=20,SNR=7.9								
KURBB	**Kurchatov Arra**	**19.49**	**12**	P			**Pn**	**15 46 50.8**	**+0.3**
	baz=204,slow=10,SNR=3.8								
	comp=Z,0.1nm,0.3s								
BVAR	**Borovoye Array**	**21.36**	**357**	P			P	15 47 20.5	+11
	comp=Z,0.9nm,0.5s,baz=158,slow=11,SNR=5.6								
	comp=Z,0.9nm,0.5s								
ZALV	**Zalesovo Beam**	**24.02**	**18**	P			**P**	**15 47 38.1**	**+0.9**
	comp=Z,0.5nm,0.3s,baz=209,slow=10,SNR=4.6								
	comp=Z,0.5nm,0.3s								
WRA	**Warramunga Arr**	**78.60**	**122**	P			**P**	**15 54 24.4**	**-0.1**
	comp=Z,0.2nm,0.6s,baz=316,slow=6.1,SNR=5.2								
	comp=Z,0.2nm,0.6s								
ASAR	**Alice Springs**	**80.67**	**125**	P			**P**	**15 54 37.1**	**+1.4**
	comp=Z,0.2nm,0.7s,baz=305,slow=5.0,SNR=4.6								
	comp=Z,0.2nm,0.7s								

ATH ***29*** *15:42:46.2,34.72N×26.41E,h20km±5km, ML2.7/7, Latitude uncertainty: 6 km; Longitude uncertainty: 1 km*
THE ***29*** *15:42:50.2,35°N±3°×2°6E±°,h23km±2km, M2.3/8, MLh2.3/8*

ISC 29 15:42:50.1±1.1,**35°.36N**±0°.07×**26°.16E**±0°.03,**h22**km±12km, **n14,σ0s79/21,Crete**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
ZKR	**Zakros**	**0.25**	**170**	P			**Pb**	**15 42 55.6**	**-0.6**
ZKR				S			**Sb**	**15 43 01.2**	**+0.9**
ZKR	**Zakros**	**0.25**	**170**	P			**Pb**	**15 42 55.2**	**-1.0**
ZKR				S			**Sb**	**15 43 01.3**	**+0.9**
ZKR						AML	AML		
AGNA	**Agios Nikolaos**	**0.40**	**245**	P			**Pn**	**15 43 00.2**	**-0.3**
AGNA						AML	AML		
NPS	**Neapolis**	**0.46**	**258**	P			**Pb**	**15 42 59.4**	**-0.2**
NPS				S			**Sb**	**15 43 07.0**	**+1.0**
NPS						AML	AML		
KARP	**Karpathos**	**0.84**	**77**	P			**Pb**	**15 43 05.6**	**-0.3**
KARP						S	**Sn**	**15 43 18.0**	**-0.2**
KARP						AML	AML		
KARP	**Karpathos**	**0.84**	**77**	P			**Pb**	**15 43 05.3**	**-0.7**
KARP						S	**Sn**	**15 43 19.6**	**+1.4**
KARP						AML	AML		
IACM	**Heraklion**	**0.89**	**267**	P			**Pn**	**15 43 08.3**	**+1.0**
IDI	**Anoyia**	**1.04**	**266**	P			**Pn**	**15 43 08.7**	**-0.8**
IDI						S	**Sn**	**15 43 23.6**	**+0.2**
IDI						AML	AML		
IDI	**Anoyia**	**1.04**	**266**	P			**Pn**	**15 43 08.9**	**-0.5**
THERA	**Ancient Thera,**	**1.15**	**331**	P			**Pn**	**15 43 10.0**	**-0.8**
THERA						S	**Sn**	**15 43 26.2**	**+0.4**
THERA						AML	AML		
SIVA	**Sivas**	**1.16**	**253**	P			**Pn**	**15 43 10.2**	**-0.8**
SIVA						AML	AML		
SIVA	**Sivas**	**1.16**	**253**	P			**Pn**	**15 43 10.2**	**-0.8**
SIVA						AML	AML		
VAM	**Vamos**	**1.60**	**272**	P			**Pb**	**15 43 18.6**	**-0.5**
ARG	**Arkhangelos**	**1.81**	**61**	P			**Pn**	**15 43 19.9**	**0.0**
ARG						AML	AML		

NCEDC ***29*** *15:46:52.4±2.1,40.28N±0.01×124.41W±0.08,h20km±7km, Error ellipse: s-maj=9.0km s-min=2.2km az=89.0*

NEIC 29 15:46:50.5±1.4,**40°.27N**±0°.04×**124°.49W**±0°.08,**h23**km±5km, **ML3.0**/93,**Mwr3.5**/3(NCEDC),**Error ellipse: s-maj=9.1km s-min=4.8km az=80.0,Near coast of northern California**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
PETL	**Petrolia**	**0.12**	**83**				**Pn**	**15 46 56.4**	**-0.6**
PETL							Sb	15 46 59.8	+1.8
KCTM	**Capetown**	**0.23**	**31**				**Pn**	**15 46 58.1**	**-0.6**
KCTM							Sb	15 47 02.9	+2.4
RBOW	**Rainbow Ridge,**	**0.30**	**78**				**Pb**	**15 46 58.5**	**+1.0**
RBOW							Sb	15 47 03.4	+1.2
KMPM	**Mount Pierce**	**0.32**	**63**				**Pb**	**15 46 58.7**	**+1.0**
FER	**Ferndale**	**0.35**	**30**				**Pn**	**15 46 60.0**	**-0.3**
FER							Sn	15 47 06.6	+0.1
BRIC	**Briceland Vine**	**0.48**	**109**				**Pn**	**15 47 01.4**	**-0.7**
KCRM	**Chalk Rock**	**0.54**	**73**				**Pn**	**15 47 02.3**	**-0.5**
KMRM	**Mail Ridge**	**0.60**	**95**				**Pn**	**15 47 03.3**	**-0.5**
JCC	**Jacoby Creek,**	**0.65**	**33**				**Pb**	**15 47 03.2**	**0.0**
JCC						IAML		15 47 13.3	
	comp=E,1μm,0.6s								
JCC						IAML		15 47 13.6	
	comp=N,702nm,0.8s								
DMOR	**Dinsmores, CA**	**0.74**	**54**				**Pb**	**15 47 05.3**	**+0.4**
KHMM	**Horse Mountain**	**0.83**	**44**				**Pb**	**15 47 06.4**	**0.0**
KHMM						IAML		15 47 21.1	
	comp=E,740nm,0.6s								
KIPM	**Iron Peak**	**0.91**	**121**				**Pb**	**15 47 07.5**	**-0.1**
KCPM	**Cahto Peak**	**0.91**	**130**				**Pb**	**15 47 07.6**	**-0.2**
RVIT	**Round Valley I**	**0.93**	**113**				**Pb**	**15 47 07.9**	**-0.1**
KRPM	**Rodgers**	**0.95**	**22**				**Pb**	**15 47 08.2**	**-0.2**
KHBM	**Hayfork Bally**	**1.04**	**68**				**Pn**	**15 47 09.2**	**-0.7**
KHBM						IAML		15 47 24.2	
	comp=E,428nm,0.3s								
KHBM						IAML		15 47 38.1	
	comp=N,596nm,0.7s								
MNDO	**Woodland Fire**	**1.12**	**149**				**Pn**	**15 47 10.4**	**-0.4**
DCMP	**DeCamp, Califo**	**1.20**	**132**				**Pn**	**15 47 11.3**	**-0.6**
KRKM	**Rackout Spring**	**1.23**	**125**				**Pn**	**15 47 12.1**	**-0.4**
WEAV	**Weaverville**	**1.24**	**67**				**Pn**	**15 47 12.0**	**-0.7**
GNAM	**Navarro Ridge**	**1.26**	**148**				**Pn**	**15 47 12.3**	**-0.5**
KOMM	**Orleans Mounta**	**1.28**	**38**				**Pn**	**15 47 12.7**	**-0.4**
O02D	**Mt. Diablo Mer**	**1.31**	**94**				**Pn**	**15 47 13.6**	**+0.1**
O02D						IAML		15 47 30.6	
	comp=N,392nm,0.7s								
O02D						IAML		15 47 34.0	
	comp=E,247nm,0.5s								
KRMB	**Red Mountain**	**1.32**	**19**				**Pn**	**15 47 13.3**	**-0.5**
KRMB						IAML		15 47 28.8	
	comp=E,219nm,0.4s								
KRMB						IAML		15 47 29.2	
	comp=N,287nm,0.6s								
GWRM	**Wonder Ranch**	**1.41**	**139**				**Pn**	**15 47 14.4**	**-0.4**

comp=E,20nm,0.7s
PAHR IAML 15 48 44.3
comp=N,16nm,0.6s
YERR Yerington 4.25 106 IAML 15 48 56.9
comp=E,30nm,0.8s
YERR IAML 15 48 57.2
comp=N,17nm,0.9s
PMPB Monarch Peak 4.99 143 Pn Pn 15 48 04.1 +0.1
LHV Little Huntoon 5.07 112 IAML 15 49 36.0
comp=E,12nm,3.6s
LHV IAML 15 49 46.0
comp=N,13nm,4.3s
KVN Kaiserville 5.08 102 IAML 15 49 31.6
comp=E,6.6nm,4.9s
KVN IAML 15 49 47.2
comp=N,7.0nm,4.7s

IDC ***29*** *15:57:32.9±0.5, 51°21'N×178°95'W, h0km, mb4.6/33, mbtmp4.6/36, ML4.7/3, MS4.2/58, Error ellipse: s-maj=15.1km s-min=10.5km az=166.0*
BJI ***29*** *15:57:35.9, 51°35'N×179°17'W, h27km, mB5.3/16, mb4.9/55, Ms4.8/30, Ms7 4.6/31*
GFZ ***29*** *15:57:35.5±0.3, 51°N±8°×17°W±°, h10km, M4.9/24, mb4.9/24*
MOS ***29*** *15:57:38.2±0.8, 51°.26N×178°.97W, h45km, mb5.1/47, MS4.4/10, Error ellipse: s-maj=8.4km s-min=5.0km az=107.1*
AEIC ***29*** *15:57:38.6±1.8, 51°.14N±0°.06×178°.96W±0°.08, h22km±3km, Error ellipse: s-maj=9.0km s-min=6.9km az=153.0*
GCMT ***29*** *15:57:39.3±0.2, 50°.96N±0°.02×178°.85W±0°.03, h31km, MW5.1/98, Moment Tensor Solution. s61,c77; s98,c154; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr 3.65±.18; Mθθ -4.24±.12; Mφφ 0.59±.11; Mrθ 3.06±.17; Mrφ -1.09±.07; Mθφ 1.48±.15; Best double couple: Mo 5.31100×10^16 NP1: φ=271.0000°, δ26.00000°, λ110.00000°. NP2: φ=68.0000°, δ65.00000°, λ80.00000°. Principal axes: T 4.9620, Plg68.0000°, Azm319.0000°; N 0.6980, Plg9.0000°, Azm72.0000°; P -5.6590, Plg20.0000°, Azm165.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NEIC ***29*** *15:57:39.3±1.8, 51°.12N±0°.06×178°.96W±0°.07, h37km±3km, mb4.9/491, ML5.0/13, ML4.6(AEIC) Error ellipse: s-maj=8.2km s-min=6.2km az=189.0*
BGR ***29*** *15:57:40.7, 51°.32N×179°.73E, h33km, mb4.7*
ISC 29 15:57:38.7±0.4, 51°11N±0°.05×178°97W±0°.03, h40km±2km, h40km:pP-P, n798, σ1§22/659, mb4.9/324, MS4.3/79, 67C-56D, Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
GAKI	**Gareloi-Kavalg**	**0.46**	**12**			**Pn**	**15 57 47.6**	**-1.2**
GAKI						**Sn**	**15 57 55.4**	**-0.6**
GALAA	**Gareloi Lava P**	**0.66**	**11**			**Pn**	**15 57 51.6**	**0.0**
GAEA	**Gareloi East**	**0.69**	**12**			**Pn**	**15 57 51.9**	**-0.1**
GAEA						**Sn**	**15 58 02.4**	**+0.9**
GANO	**Gareloi North**	**0.72**	**8**			**Pn**	**15 57 52.0**	**-0.4**
GANO				IAML			15 58 11.8	
	comp=E,63μm,0.4s							
GANE	**Gareloi Northe**	**0.72**	**10**			**Pn**	**15 57 52.2**	**-0.2**
GANE						**Sn**	**15 58 03.3**	**+1.0**
TACS	**Tanaga Cape Sa**	**0.91**	**34**			**Pn**	**15 57 55.4**	**+0.2**
TACS						**Sn**	**15 58 07.4**	**+0.2**
TASE	**Tanaga Southea**	**0.93**	**38**			**Pn**	**15 57 55.6**	**+0.3**
TASE						**Sn**	**15 58 08.8**	**+1.3**
TAFL	**Tanaga Flats**	**0.93**	**46**			**Pn**	**15 57 54.9**	**-0.4**
TAFL						**Sn**	**15 58 08.1**	**+0.7**
TANO	**Tanaga North**	**0.96**	**33**			**Pn**	**15 57 56.0**	**+0.3**
TAPA	**Tanaga Point A**	**1.01**	**45**			**Pn**	**15 57 56.3**	**-0.2**
TAPA						**Sn**	**15 58 12.3**	**+2.9**
KIMD	**Kanaga Island**	**1.27**	**58**			**Pn**	**15 58 00.1**	**+0.2**
KIMD						**Sn**	**15 58 16.8**	**+1.1**
KIWB	**Kanaga Island**	**1.36**	**56**			**Sn**	**15 58 20.7**	**+2.7**
KIWB	**Kanaga Island**	**1.36**	**56**			**Pn**	**15 58 01.1**	**0.0**
KIWB	**Kanaga Island**	**1.36**	**56**	IAML			15 58 25.7	
	comp=E,25μm,0.6s							
KIWB				IAML			15 58 26.0	
	comp=N,14μm,0.5s							
KIKV	**Kanaga Island**	**1.36**	**55**			**Sn**	**15 58 19.4**	**+1.4**
KICM	**Kanaga Island**	**1.37**	**53**			**Pn**	**15 58 02.0**	**+0.7**
KICM						**Sn**	**15 58 19.8**	**+1.5**
ADK	**Adak**	**1.62**	**61**	P		**Pn**	**15 58 04.7**	**-0.1**
ADK							15 58 26.6	
ADK	**Adak**	**1.62**	**61**			**Pn**	**15 58 04.7**	**-0.1**
ADK				IAML			15 58 30.9	
	comp=N,18μm,0.7s							
ADK				IAML			15 58 31.2	
	comp=N,20μm,0.8s							
ADK	**Adak**	**1.62**	**61**	P		**Pn**	**15 58 05.1**	**+0.4**
ADAG	**Mount Adagdak**	**1.71**	**59**			**Pn**	**15 58 06.8**	**+0.7**
ETKA	**Kagalaska Isla**	**1.77**	**64**			**Sn**	**15 58 30.0**	**+2.0**
GSSP	**Great Sitkin S**	**2.00**	**59**			**Sn**	**15 58 37.1**	**+3.3**
GSMY	**Great Sitkin M**	**2.04**	**62**			**Sn**	**15 58 38.4**	**+3.6**
GSMY						LR	15 58 38.6	
GSTR	**Great Sitkin T**	**2.06**	**60**			**Pn**	**15 58 10.9**	**0.0**
GSTR				IAML			15 58 49.3	
	comp=E,14μm,0.4s							
ATKA	**Atka Island**	**3.17**	**68**			**Sn**	**15 59 06.1**	**+3.6**
ATKA	**Atka Island**	**3.17**	**68**			**Pn**	**15 58 26.4**	**+0.4**
ATKA	**Atka Island**	**3.17**	**68**	IAML			15 59 11.8	
	comp=N,3μm,1.0s							
ATKA				IAML			15 59 12.9	
	comp=E,2μm,0.6s							
KOWE	**Korovin West**	**3.19**	**65**			**Pn**	**15 58 28.0**	**+1.6**
KOWE						**Sn**	**15 59 06.5**	**+3.4**
KOKL	**Mount Kliuchef**	**3.21**	**66**			**Pn**	**15 58 28.4**	**+1.8**
KOKL						**Sn**	**15 59 08.8**	**+5.3**
KOFP	**Korovin Flat P**	**3.25**	**67**			**Sn**	**15 59 09.9**	**+5.3**
KOSE	**Korovin Southe**	**3.30**	**66**			**Pn**	**15 58 30.2**	**+2.3**
SHEM	**Shemya Is, Ala**	**4.59**	**293**	Pn		**Pn**	**15 58 48.1**	**+2.7**
	comp=E,64nm,0.3s,baz=106,slow=1.8,SNR=12							
SHEM				Sn		**Sn**	**15 59 41.9**	**+4.5**
	comp=E,42nm,0.3s,baz=255,slow=23,SNR=8.9							
SHEM	**Shemya Is, Ala**	**4.59**	**293**	IAML			16 00 00.2	
	comp=N,2μm,1.0s							
SMY	**Shemya**	**4.59**	**293**	P		**Pn**	**15 58 46.4**	**+0.9**
SMY	**Shemya**	**4.59**	**293**			**Pn**	**15 58 46.4**	**+0.9**
OKTU	**Okmok Mt. Tuli**	**7.08**	**67**			**Pn**	**15 59 21.8**	**+2.0**
MGOD	**Makushin Gods**	**7.86**	**65**			**Pn**	**15 59 31.3**	**+0.8**
SPIA	**Saint Paul Isl**	**7.94**	**37**			**Pn**	**15 59 32.3**	**+0.9**
UNV	**Unalaska Valle**	**8.09**	**65**			**Pn**	**15 59 34.1**	**+0.7**
ZRO	**Akutan Zero**	**8.45**	**64**			**Pn**	**15 59 41.5**	**+3.0**
AKBBA	**Akutan Broad B**	**8.48**	**64**			**Pn**	**15 59 41.7**	**+2.8**
SDPT	**Sand Point**	**11.86**	**62**	Pn		**Pn**	**16 00 25.4**	**+0.4**
PEA0B	**Petropavlovsk-**	**14.46**	**287**	P		**Pn**	**16 01 01.8**	**+1.3**
PEA0B	**Petropavlovsk-**	**14.46**	**287**	Pn		**Pn**	**16 01 01.8**	**+1.3**
PETK	**Petropavlovsk-**	**14.46**	**287**	Pn		**Pn**	**16 01 03.0**	**+2.4**
	comp=N,0.7nm,0.3s,baz=79,slow=15,SNR=26							
PETK				Sn		**Sn**	**16 03 44.0**	**+4.6**
	comp=N,0.6nm,0.3s,baz=319,slow=16,SNR=4.1							
PETK				LR		LR	16 06 22.1	
	comp=N,1μm,21.8s,baz=92,slow=37							
O16K	**Kokwok River B**	**14.54**	**46**	P		**P**	**16 01 06.5**	**-0.8**
K15K	**Wolf Creek Mou**	**14.68**	**34**	Pn		**Pn**	**16 01 04.5**	**+1.2**
P17K	**Kvichak River**	**15.15**	**49**			**P**	**16 01 13.5**	**-0.6**
P17K				IAmb		IAmb	16 01 16.8	
	comp=Z,50nm,0.6s							
ANM	**Nome**	**15.25**	**23**	P		**P**	**16 01 15.6**	**+0.3**
ANM				pmax		pmax		
	comp=Z,42nm,0.9s							
ANM	**Nome**	**15.25**	**23**	P		**P**	**16 01 15.6**	**+0.3**
ANM				IAmb		IAmb	16 01 17.3	
	comp=Z,42nm,0.9s							
N17K	**Nushagak Hills**	**15.38**	**44**	Pn		**Pn**	**16 01 13.2**	**+0.6**
SII	**Sitkinak Islan**	**15.57**	**60**	Pn		**Pn**	**16 01 15.9**	**+0.8**
SII				IAmb		IAmb	16 01 22.6	
	comp=Z,77nm,1.0s							
J16K	**Anvik River**	**15.66**	**32**	Pn		**Pn**	**16 01 17.5**	**+1.3**
SKR	**Severo-Kuril's**	**15.71**	**278**	*i* P		**Pn**	**16 01 16.7**	**-0.1**
I17K	**Unalakleet**	**16.05**	**30**	P		**P**	**16 01 25.7**	**+1.7**
Q19K	**Cape Douglas,**	**16.41**	**52**	P		**P**	**16 01 29.1**	**+1.0**
Q19K				IAmb		IAmb	16 01 33.8	
	comp=Z,273nm,1.5s							
O19K	**Port Alsworth**	**16.52**	**47**	P		**P**	**16 01 30.6**	**+1.3**
KDAK	**Kodiak Island**	**16.66**	**56**	Pn		**Pn**	**16 01 25.6**	**-3.3**
	comp=Z,2.6nm,0.3s,baz=243,slow=5.5,SNR=46							
	comp=Z,10nm,0.3s							
KDAK				AML		AML		
KDAK	**Kodiak Island**	**16.66**	**56**	*i* P		**Pn**	**16 01 25.8**	**-3.1**
ILSW	**Iliamna Southw**	**17.00**	**49**	Pn		**Pn**	**16 01 33.8**	**+0.6**
RED	**Redoubt Volcan**	**17.32**	**47**			**P**	**16 01 38.1**	**-0.2**
CNPM	**China Poot**	**17.77**	**51**			**Pn**	**16 01 42.8**	**+0.1**
CNPM				IAmb		IAmb	16 01 51.5	
	comp=Z,188nm,2.0s							
SPU	**Mount Spurr**	**17.93**	**45**			**P**	**16 01 45.5**	**+0.5**
BRLK	**Bradley Lake**	**18.01**	**50**			**P**	**16 01 46.1**	**+0.3**
BRLK				IAmb		IAmb	16 01 53.0	
	comp=Z,122nm,1.9s							
BILI	**Bilibino, Chuk**	**18.44**	**343**	P		**Pn**	**16 01 52.9**	**+2.1**
	comp=Z,58nm,1.3s							
BILL	**Bilibino**	**18.45**	**342**	*ce*P		**P**	**16 01 49.1**	**-1.5**
BILL				pmax		pmax		
	comp=Z,40nm,1.3s							
BILL	**Bilibino**	**18.45**	**342**			**Pn**	**16 01 52.2**	**+1.2**
BILL				IAmb		IAmb	16 02 02.6	
	comp=Z,113nm,1.4s							
SKT	**Skwentna**	**18.47**	**43**			**Pn**	**16 01 52.0**	**+0.8**
SLKM	**Skilak Lake**	**18.55**	**48**	P		**Pn**	**16 01 52.8**	**+0.6**
PPLA	**Purkeypile**	**18.59**	**40**			**Pn**	**16 01 53.7**	**+0.9**
PPLA				IAmb		IAmb	16 01 59.6	
	comp=Z,28nm,0.6s							
E18K	**Tukpahlearik C**	**18.72**	**22**	P		**Pn**	**16 01 55.0**	**+0.8**
SEW	**Seward**	**18.80**	**50**			**P**	**16 01 54.3**	**-0.1**
SEW				IAmb		IAmb	16 02 06.9	
	comp=Z,37nm,0.8s							
CAST	**Castle Rocks**	**18.87**	**39**			**Pn**	**16 01 56.0**	**-0.1**
RC01	**Rabbit Creek A**	**18.95**	**47**	P		**Pn**	**16 01 56.8**	**-0.3**
F19K	**Shaleruckik Mo**	**19.01**	**26**	P		**Pn**	**16 01 57.8**	**+0.2**
MA2	**Magadan**	**19.03**	**308**	P		**P**	**16 01 56.9**	**-0.1**
	comp=Z,0.4nm,0.3s,baz=177,slow=22,SNR=1.7							
MA2				LR		LR	16 08 49.2	
	comp=Z,759nm,19.8s,baz=104,slow=36							
	comp=Z,4.7nm,0.6s							
MA2				AML		AML		
MA2	**Magadan**	**19.03**	**308**	*i* P		**Pn**	**16 01 57.9**	**-0.1**
MA2				pmax		pmax		
	comp=Z,15nm,1.1s							
CUT	**Chulitna**	**19.18**	**43**	IAmb		IAmb	16 02 09.9	
	comp=Z,88nm,0.9s							
SEY	**Seymchan**	**19.37**	**319**	P		**P**	**16 02 00.3**	**-0.4**
	comp=Z,0.6nm,0.3s,baz=111,slow=12,SNR=6.3							
SEY				LR		LR	16 09 40.0	
	comp=Z,1μm,18.7s,baz=129,slow=38							
	comp=Z,1.7nm,0.6s							
SEY				AML		AML		
SEY	**Seymchan**	**19.37**	**319**	*i* P		**P**	**16 02 00.7**	**0.0**
SEY				pmax		pmax		
	comp=Z,6.0nm,1.0s							
PWL	**Port Wells**	**19.54**	**48**	P		**P**	**16 02 02.4**	**-0.1**
C18K	**Utukok River**	**19.58**	**19**	P		**Pn**	**16 02 04.3**	**-0.2**
TRF	**Thorofare Moun**	**19.61**	**40**	P		**P**	**16 02 03.9**	**+0.5**
TRF				IAmb		IAmb	16 02 18.0	
	comp=Z,52nm,1.0s							
BPAW	**Bear Paw Mtn.**	**19.63**	**38**	P		**Pn**	**16 02 04.5**	**-0.6**
BPAW				IAmb		IAmb	16 02 09.3	
	comp=Z,46nm,0.7s							
IMAR	**Indian Mountai**	**19.66**	**31**	P		**Pn**	**16 02 04.8**	**-0.6**
F20K	**Avaraart Lake**	**19.74**	**27**	P		**Pn**	**16 02 05.7**	**-0.6**
G21K	**Allakaket**	**20.06**	**30**	IAmb		IAmb	16 02 10.3	
	comp=Z,32nm,0.8s							
GLI	**Glacier Island**	**20.13**	**49**	IAmb		IAmb	16 02 21.8	
	comp=Z,21nm,0.6s							
D19K	**Kuna River**	**20.15**	**22**	P		**P**	**16 02 10.1**	**+1.0**
D19K				IAmb		IAmb	16 02 15.3	
	comp=Z,25nm,0.7s							
RND	**Reindeer**	**20.18**	**41**	P		**P**	**16 02 09.6**	**+0.1**
RND				pmax		pmax		
	comp=Z,27nm,0.7s							
RND	**Reindeer**	**20.18**	**41**	P		**P**	**16 02 09.6**	**+0.1**
RND				IAmb		IAmb	16 02 24.5	
	comp=Z,27nm,0.7s							
MLY	**Manley**	**20.18**	**36**	P		**P**	**16 02 10.6**	**+1.2**
SCM	**Sheep Creek Mo**	**20.28**	**46**	IAmb		IAmb	16 02 16.6	
	comp=Z,87nm,1.3s							
FID	**Port Fidalgo**	**20.39**	**49**	P		**P**	**16 02 12.0**	**+0.3**
FID				IAmb		IAmb	16 02 19.6	
	comp=Z,144nm,1.7s							
H22K	**Ishtalitna Cre**	**20.40**	**33**	P		**P**	**16 02 13.1**	**+1.2**
F21K	**Alatna River**	**20.51**	**29**	P		**P**	**16 02 14.3**	**+1.3**
F21K				IAmb		IAmb	16 02 19.1	
	comp=Z,27nm,0.7s							
NEA2	**Nenana**	**20.59**	**38**	IAmb		IAmb	16 02 19.1	
	comp=Z,30nm,0.8s							
DHY	**Denali Highway**	**20.67**	**43**	IAmb		IAmb	16 02 19.9	
	comp=Z,58nm,0.7s							
D20K	**Etivluk River**	**20.68**	**23**	P		**P**	**16 02 15.8**	**+1.0**
D20K				IAmb		IAmb	16 02 16.6	
	comp=Z,70nm,0.7s							
I23K	**Minto, Yukon-K**	**20.74**	**36**	IAmb		IAmb	16 02 20.0	
	comp=Z,28nm,0.7s							
DIV	**Divide**	**20.81**	**48**	IAmb		IAmb	16 02 20.6	
	comp=Z,27nm,0.6s							
COLA	**College**	**21.19**	**38**	P		**P**	**16 02 21.4**	**+1.1**
COLA				pmax		pmax		
	comp=Z,31nm,0.9s							
COLA	**College**	**21.19**	**38**	P		**P**	**16 02 21.4**	**+1.1**
COLA				IAmb		IAmb	16 02 34.0	
	comp=Z,31nm,0.8s							
COLA	**College**	**21.19**	**38**	P		**P**	**16 02 21.1**	**+0.8**
	comp=Z,33nm,1.0s							
G23K	**Bananza Creek**	**21.31**	**32**	IAmb		IAmb	16 02 40.4	
	comp=Z,72nm,1.7s							
BMRM	**Bremner River**	**21.33**	**49**	P		**P**	**16 02 22.9**	**+0.9**
BMRM				IAmb		IAmb	16 02 34.3	
	comp=Z,135nm,1.8s							
HDA	**Harding Lake**	**21.35**	**39**	P		**P**	**16 02 23.2**	**+1.1**
HDA				IAmb		IAmb	16 02 24.9	
	comp=Z,18nm,0.5s							
HARP	**HAARP**	**21.43**	**45**	P		**P**	**16 02 23.4**	**+0.5**
POKR	**Poker Flat Res**	**21.45**	**37**	P		**P**	**16 02 24.0**	**+0.8**
PAX	**Paxson**	**21.45**	**44**	IAmb		IAmb	16 02 37.0	
	comp=Z,30nm,0.8s							
ILAR	**Eielson Array**	**21.52**	**38**	P		**P**	**16 02 23.1**	**-0.8**
	comp=Z,6.2nm,0.8s,baz=240,slow=8.5,SNR=120							
ILAR				PcP		**PcP**	**16 06 24.5**	**-0.4**
	comp=Z,0.6nm,0.5s,baz=291,slow=3.2,SNR=5.8							
ILAR				ScP		**ScP**	**16 10 00.2**	**+1.8**
	comp=Z,0.5nm,0.6s,baz=278,slow=3.2,SNR=6.4							
ILAR				LR		LR	16 11 54.6	
	comp=Z,752nm,19.6s,baz=230,slow=40							
	comp=Z,6.2nm,0.8s							
ILAR	**Eielson Array**	**21.52**	**38**	P		**P**	**16 02 23.3**	**-0.5**
K24K	**Donnelly Dome**	**21.60**	**41**	IAmb		IAmb	16 02 42.8	
	comp=Z,32nm,0.8s							
H24K	**Noodor Dome**	**21.61**	**35**	P		**P**	**16 02 25.2**	**+0.2**
GLB	**Gilahina Butte**	**21.81**	**48**	IAmb		IAmb	16 02 30.8	
	comp=Z,27nm,0.6s							
RIDG	**Independent Ri**	**21.97**	**42**	IAmb		IAmb	16 02 30.9	
	comp=Z,23nm,0.6s							
CRQM	**Cirque**	**22.00**	**50**	IAmb		IAmb	16 02 43.8	
	comp=Z,53nm,1.2s							
TGL	**Tana Glacier**	**22.14**	**50**	P		**P**	**16 02 31.9**	**+1.2**
G24K	**Hadweenzic Riv**	**22.17**	**33**	IAmb		IAmb	16 02 33.8	
	comp=Z,38nm,0.8s							
MENT	**Mentasta**	**22.21**	**44**	P		**P**	**16 02 32.7**	**+1.4**
MENT				IAmb		IAmb	16 02 43.4	
	comp=Z,16nm,0.6s							
DOT	**Dot Lake**	**22.27**	**42**	IAmb		IAmb	16 02 33.6	
	comp=Z,40nm,0.8s							
M26K	**Nabesna, AK**	**22.40**	**46**	IAmb		IAmb	16 02 55.6	
	comp=Z,36nm,1.3s							
SCRK	**Sand Creek**	**22.41**	**42**	P		**P**	**16 02 32.3**	**-1.2**
SCRK				IAmb		IAmb	16 02 35.1	
	comp=Z,18nm,0.6s							
D23K	**Nanushuk River**	**22.43**	**27**	IAmb		IAmb	16 02 56.2	
	comp=Z,27nm,0.8s							
F24K	**Squaw Lake**	**22.45**	**31**	IAmb		IAmb	16 02 36.2	
	comp=Z,46nm,0.8s							
E24K	**Your Creek**	**22.56**	**30**	P		**P**	**16 02 36.0**	**+0.9**
E24K				IAmb		IAmb	16 02 37.3	
	comp=Z,21nm,0.6s							
GRNC	**Granite Creek**	**22.66**	**50**	P		**P**	**16 02 37.2**	**+0.8**
M27K	**Edge Creek, AK**	**22.90**	**46**	IAmb		IAmb	16 02 40.7	
	comp=Z,26nm,0.8s							
FYU	**Fort Yukon**	**22.90**	**35**	IAmb		IAmb	16 02 45.1	
	comp=Z,80nm,1.7s							
BCAR	**Beaver Creek A**	**23.10**	**45**	P		**P**	**16 02 39.9**	**-0.8**
F25K	**Christian Rive**	**23.23**	**32**	IAmb		IAmb	16 02 43.4	
	comp=Z,22nm,0.7s							
BMAR	**Burnt Mountain**	**23.52**	**33**	P		**P**	**16 02 44.8**	**+0.1**
G26K	**Porcupine Rive**	**23.59**	**35**	IAmb		IAmb	16 02 50.8	
	comp=Z,25nm,0.7s							
D25K	**Kavik River**	**23.89**	**28**	IAmb		IAmb	16 02 49.9	
	comp=Z,36nm,0.7s							
TYV	**Tymovskoe**	**23.98**	**285**	*e*P		**P**	**16 02 50.9**	**+1.8**
TYV				pmax		pmax		
	comp=Z,36nm,1.2s							
TYV				pmax		pmax		
	comp=Z,600nm,4.0s							
TYV				MLR		MLR		
	comp=Z,900nm,21.0s							
DAWY	**Dawson**	**24.38**	**43**	P		**P**	**16 02 52.2**	**-0.5**
I28M	**Miner Creek**	**24.51**	**39**	IAmb		IAmb	16 02 56.5	
	comp=Z,24nm,0.8s							
L29M	**L29M**	**24.73**	**45**	IAmb		IAmb	16 02 58.6	
	comp=Z,20nm,0.7s							
HYT	**Haines Junctio**	**24.75**	**51**	P		**P**	**16 02 56.0**	**-0.1**
HYT				IAmb		IAmb	16 03 03.9	
	comp=Z,35nm,1.6s							
E27K	**Coleen River**	**24.87**	**33**	IAmb		IAmb	16 03 19.7	
	comp=Z,22nm,1.0s							
K29M	**Barlow Dome**	**25.14**	**44**	IAmb		IAmb	16 03 00.5	
	comp=Z,23nm,0.8s							
YSS	**Yuzhno-Sakhali**	**25.24**	**276**	*e*P		**P**	**16 03 02.1**	**+1.5**
YSS				*e*S		**S**	**16 07 25.4**	**+2.2**
YSS				pmax		pmax		
	comp=Z,50nm,0.8s							
YSS				pmax		pmax		
	comp=Z,200nm,3.1s							
YSS				smax		smax		
	comp=N,200nm,2.8s							
YSS				smax		smax		
	comp=E,400nm,3.3s							
YSS				MLR		MLR		
	comp=N,300nm,16.0s							
YSS				MLR		MLR		
	comp=Z,500nm,16.0s							
YSS				MLR		MLR		
	comp=E,400nm,17.0s							
YSS	**Yuzhno-Sakhali**	**25.24**	**276**	P		**P**	**16 03 01.8**	**+1.2**
YSS				IAmb		IAmb	16 03 03.8	
	comp=Z,40nm,0.8s							
YSS	**Yuzhno-Sakhali**	**25.24**	**276**	P		**P**	**16 03 02.5**	**+2.0**
	comp=Z,59nm,1.3s							
F28M	**Old Crow**	**25.25**	**34**	P		**P**	**16 03 00.8**	**+0.2**
F28M				IAmb		IAmb	16 03 03.4	
	comp=Z,22nm,0.8s							
O30N	**Mendenhall**	**25.43**	**51**	P		**P**	**16 03 04.0**	**+1.7**
O30N				IAmb		IAmb	16 03 28.0	
	comp=Z,48nm,1.8s							
JKA	**Kamikawa-asahi**	**26.60**	**270**	P		**P**	**16 03 13.7**	**+0.7**
JKA				IAmb		IAmb	16 03 27.9	
	comp=Z,51nm,1.0s							
ASAJ	**Asahikawa**	**26.60**	**270**	LR		LR	16 12 33.5	
	comp=Z,355nm,21.2s,baz=91,slow=34							
ASAJ	**Asahikawa**	**26.60**	**270**	P		**P**	**16 03 13.7**	**+0.8**
ASAJ				pmax		pmax		
	comp=Z,51nm,1.0s							
F31M	**Tsiigehtchic**	**27.44**	**36**	P		**P**	**16 03 19.6**	**-0.6**
F31M				IAmb		IAmb	16 03 20.7	
	comp=Z,12nm,0.7s							
INK	**Inuvik**	**27.74**	**35**	P		**P**	**16 03 22.8**	**-0.1**
INK				pmax		pmax		
	comp=Z,19nm,1.6s							
INK	**Inuvik**	**27.74**	**35**	P		**P**	**16 03 22.8**	**-0.1**
GRNR	**Gornyy**	**27.79**	**287**	⇑*i*P		**P**	**16 03 23.9**	**+0.3**
GRNR				pmax		pmax		
	comp=Z,10.0nm,1.1s							
GRNR				MLR		MLR		
	comp=E,360nm,18.0s							
GRNR				MLR		MLR		
	comp=N,110nm,14.0s							
GRNR				MLR		MLR		
	comp=Z,420nm,17.0s							
YAK	**Yakutsk**	**29.52**	**312**	LR		LR	16 15 09.4	
	comp=Z,626nm,20.9s,baz=94,slow=36							
YAK	**Yakutsk**	**29.52**	**312**	*e*P		**P**	**16 03 38.4**	**-0.4**
YAK				pmax		pmax		
	comp=Z,12nm,1.5s							
YAK				pmax		pmax		
	comp=N,8.0nm,1.9s							
YAK				pmax		pmax		
	comp=E,8.0nm,2.3s							
TIXI	**Tiksi**	**30.82**	**331**	LR		LR	16 16 57.7	
	comp=E,675nm,18.1s,baz=156,slow=38							
KLR	**Kul'dur**	**31.15**	**286**	LR		LR	16 17 39.4	
	comp=E,539nm,19.5s,baz=76,slow=39							
KLR	**Kul'dur**	**31.15**	**286**	*c i*P		**P**	**16 03 53.5**	**+0.1**
KLR				pmax		pmax		
	comp=Z,27nm,0.8s							
C36M	**Paulatuk**	**31.31**	**34**	P		**P**	**16 03 54.0**	**-0.5**
A36M	**Sachs Harbour**	**31.37**	**29**	P		**P**	**16 03 55.3**	**+0.3**
A36M				IAmb		IAmb	16 03 57.9	
	comp=Z,22nm,0.8s							
ZEA	**Zeya**	**32.25**	**296**	*e*P		**P**	**16 04 02.3**	**-0.7**
ZEA				pmax		pmax		
	comp=N,10.0nm,0.5s							
ZEA				pmax		pmax		
	comp=Z,20nm,0.6s							
ZEA				MLR		MLR		
	comp=E,300nm,13.0s							
ZEA				MLR		MLR		
	comp=Z,300nm,15.0s							
USA0B	**Ussuriysk Arra**	**33.22**	**278**	P		**P**	**16 04 12.3**	**+0.7**
USA0B				pmax		pmax		
	comp=Z,8.0nm,0.9s							
USA0B	**Ussuriysk Arra**	**33.22**	**278**	P		**P**	**16 04 12.3**	**+0.7**
USA0B				IAmb		IAmb	16 04 22.2	
	comp=Z,8.1nm,0.8s							
USRK	**Ussuriysk Ar.**	**33.22**	**278**	P		**P**	**16 04 11.8**	**+0.2**
	comp=Z,4.1nm,0.6s,baz=53,slow=7.4,SNR=5.7							
USRK				PcP		**PcP**	**16 06 53.6**

YKAW3 **Yellowknife Wh** 35.48 46 IAmb IAmb 16 04 31.7
comp=Z,14nm,0.7s
YKA Yellowknife Ar 35.49 46 P P 16 04 30.6 -0.4
comp=Z,12nm,0.7s,baz=283,slow=7.6,SNR=55
YKA PcP **PcP 16 07 00.7 +1.2**
comp=Z,1.0nm,0.6s,baz=284,slow=3.0,SNR=7.0
YKA ScP **ScP 16 10 44.1 +2.3**
comp=Z,0.9nm,0.7s,baz=284,slow=3.4,SNR=5.0
YKA LR LR 16 20 59.0
comp=Z,803nm,18.7s,baz=256,slow=40
comp=Z,12nm,0.7s
YKA Yellowknife Ar 35.49 46 P P 16 04 30.4 -0.5
YKAW1 **Yellowknife Wh 35.55 46** IAmb IAmb 16 04 32.6
comp=Z,14nm,1.0s
GNW Green Mountain 36.00 73 P P 16 04 36.4 +0.8
GNW IAmb IAmb 16 04 38.6
comp=Z,14nm,0.8s
D05A Enumclaw 36.68 73 P P 16 04 42.4 +1.1
OVEH Oceanview Est 36.79 142 P P 16 04 43.3 +0.7
LON Longmire 36.99 74 P P 16 04 45.7 +1.6
LON pmax pmax
comp=Z,9.0nm,0.8s
LON Longmire 36.99 74 P P 16 04 45.7 +1.6
LON IAmb IAmb 16 05 01.8
comp=Z,8.8nm,0.8s
LTY Liberty 37.44 72 P P 16 04 49.3 +1.4
LTY IAmb IAmb 16 04 59.2
comp=Z,58nm,2.0s
H04D Lebanon 37.52 77 IAmb IAmb 16 05 11.5
comp=Z,17nm,0.8s
HOOD Mount Hood Mea 37.78 76 IAmb IAmb 16 05 01.4
comp=Z,17nm,0.8s
JCJ Chichijima 37.87 246 LR LR 16 17 33.3
comp=Z,212nm,20.7s,baz=80,slow=32
MXC Moxie City 37.99 73 P P 16 04 54.1 +1.6
MXC IAmb IAmb 16 04 56.2
comp=Z,13nm,1.1s
G05A Wamic 38.03 76 IAmb IAmb 16 05 08.9
comp=Z,22nm,0.8s
I04A Tendick Farm, 38.10 78 IAmb IAmb 16 05 15.2
comp=Z,19nm,0.8s
HILR Hailar Array B 38.15 292 P P 16 04 53.4 -0.5
comp=Z,2.4nm,0.3s,baz=57,slow=11,SNR=16
HILR LR LR 16 21 03.6
comp=Z,407nm,21.4s,baz=60,slow=37
comp=Z,2.4nm,0.3s
E07A Sunnyside 38.27 73 IAmb IAmb 16 05 16.3
comp=Z,16nm,1.1s
HIA Hailar 38.29 292 P P 16 04 54.6 -0.3
HIA sP **pwP 16 05 09.4 +1.3**
WIFE Three Sisters- 38.33 78 IAmb IAmb 16 05 06.1
comp=Z,15nm,0.9s
WAH2 Wahluke Slope 38.34 73 P P 16 04 56.7 +1.3
WAH2 IAmb IAmb 16 04 57.8
comp=Z,19nm,0.7s
I05D Terrebonne, OR 38.48 77 IAmb IAmb 16 05 23.2
comp=Z,11nm,0.8s
HAWA Hanford 38.54 73 P P 16 04 58.2 +1.1
HAWA IAmb IAmb 16 05 00.2
comp=Z,24nm,0.8s
F07A Phinny Hill Vi 38.55 74 IAmb IAmb 16 05 01.0
comp=Z,24nm,0.8s
D08A Wollman Farm, 38.59 72 P P 16 04 58.5 +1.0
D08A IAmb IAmb 16 05 18.5
comp=Z,12nm,0.9s
E08A Dider Farm, El 38.78 73 IAmb IAmb 16 05 01.9
comp=Z,10nm,0.8s
EDM Edmonton 39.04 60 P P 16 05 01.7 +0.5
EDM pmax pmax
comp=Z,20nm,0.6s
EDM Edmonton 39.04 60 P P **16 05 01.7 +0.5**
EDM IAmb IAmb 16 05 02.8
comp=Z,20nm,0.6s
YPT Yellepit 39.06 73 IAmb IAmb 16 05 04.3
comp=Z,21nm,0.8s
NEW Newport 39.08 69 IAmb IAmb 16 05 24.5
comp=Z,15nm,0.8s
NEW Newport 39.08 69 P **P 16 05 02.6 +1.0**
comp=Z,24nm,1.0s
KSRS Korea Array 39.53 271 P P 16 05 06.7 +1.3
comp=Z,5.6nm,0.7s,baz=53,slow=8.0,SNR=20
KSRS LR LR 16 20 22.9
comp=Z,127nm,21.5s,baz=60,slow=35
comp=Z,5.6nm,0.7s
KSAR Wonju Array Be 39.57 271 P P 16 05 06.5 +0.8
KSAR Wonju Array Be 39.57 271 P P 16 05 06.5 +0.8
K05A Summer Lake 39.61 79 IAmb IAmb 16 05 28.1
comp=Z,12nm,0.9s
O02D Mt. Diablo Mer 39.85 83 P P 16 05 09.1 +0.9
RES Resolute Bay 40.03 24 LR LR 16 24 01.4
comp=Z,336nm,20.8s,baz=272,slow=40
LDM Libby Dam 40.05 68 IAmb IAmb 16 05 42.7
comp=Z,16nm,1.3s
F10A Beach Ranch, E 40.14 72 P P 16 05 11.5 +1.0
F10A IAmb IAmb 16 05 35.0
comp=Z,15nm,1.0s
O03E Paynes Creek 40.40 83 IAmb IAmb 16 05 40.3
comp=Z,15nm,1.0s
MOD Modoc Plateau 40.43 80 P P 16 05 14.1 +1.1
MOD IAmb IAmb 16 05 36.2
comp=Z,11nm,0.8s
JNU Nakatsue 40.44 263 LR LR 16 20 20.1
comp=Z,322nm,21.4s,baz=56,slow=34
TJN Taejon 40.55 270 P P 16 05 15.2 +1.3
TJN pmax pmax
comp=Z,71nm,0.7s
TJN Taejon 40.55 270 P P 16 05 15.2 +1.3
WVOR Wild Horse Val 41.16 78 P P 16 05 18.9 -0.1
comp=Z,11nm,0.9s
MSO Missoula 41.66 69 IAmb IAmb 16 05 45.2
comp=Z,13nm,0.9s
C15A Salmond Ranch, 41.96 68 P P 16 05 26.4 +0.9
C15A IAmb IAmb 16 05 27.5
comp=Z,23nm,0.8s
PNTR Pine Nut 42.49 83 IAmb IAmb 16 05 51.2
comp=Z,19nm,0.7s
GBMT Granite Butte, 42.52 69 P P 16 05 30.6 +0.4
ALE Alert 42.91 10 P P 16 05 32.4 -0.2
ALE pP **pP 16 05 43.0 -0.8**
ALE sP **sP 16 05 47.4 -1.1**
BLKN Baker Lake 42.91 39 IAmb IAmb 16 05 33.8
comp=Z,32nm,1.8s
HLID Hailey 43.12 74 IAmb IAmb 16 05 38.5
comp=Z,14nm,0.9s
HLID Hailey 43.12 74 P P 16 05 36.2 +1.2
comp=Z,17nm,0.9s
XLT XiLinHaoTe 43.17 287 *e*P **P 16 05 35.8 +0.5**
XLT pmax pmax
comp=Z,18nm,1.3s
XLT pmax pmax
comp=Z,210nm,4.5s
XLT L L
comp=Z,410nm,19.9s
XLT L L
comp=Z,460nm,19.9s
DLMT Dillon 43.23 71 P P 16 05 36.5 +0.6
MCMT McKenzie Canyo 43.36 71 P P 16 05 37.5 +0.4
EGMT Eagleton 43.48 66 P P 16 05 38.0 +0.2
EGMT IAmb IAmb 16 05 40.2
comp=Z,28nm,0.9s
BOZ Bozeman (W) 43.67 70 P P 16 05 39.9 +0.5
BOZ pmax pmax
comp=Z,11nm,0.7s
BOZ Bozeman (W) 43.67 70 P P 16 05 39.9 +0.5
BOZ IAmb IAmb 16 06 02.1
comp=Z,11nm,0.7s
NVAR Mina Array Bea 43.69 82 P P 16 05 40.6 +0.9
comp=Z,2.0nm,0.8s,baz=296,slow=8.3,SNR=12
comp=Z,2.0nm,0.8s
NVAR Mina Array Bea 43.69 82 P P 16 05 40.2 +0.5
YHL Hebgen Lake 44.34 70 P P 16 05 45.4 +0.4
YHL IAmb IAmb 16 05 60.0
comp=Z,18nm,1.0s
YHB Horse Butte 44.39 71 P P 16 05 45.8 +0.5
YHB IAmb IAmb 16 05 47.6
comp=Z,12nm,0.8s
YHH Holmes Hill 44.58 70 IAmb IAmb 16 05 48.4
comp=Z,14nm,0.7s
NRIK Noril'sk 44.59 330 P P 16 05 46.6 +0.4
comp=Z,2.0nm,0.6s,baz=104,slow=4.2,SNR=2.0
comp=Z,2.0nm,0.6s
NRIK Noril'sk 44.59 330 *i* P **P 16 05 46.8 +0.6**
NRIK pmax pmax
comp=Z,4.0nm,1.1s
NRIK Noril'sk 44.59 330 IAmb IAmb 16 06 29.9
comp=Z,36nm,1.9s
YNR Norris Junctio 44.72 70 IAmb IAmb 16 06 02.9
comp=Z,12nm,0.8s
YFT Old Faithful 44.77 71 IAmb IAmb 16 05 51.8
comp=Z,16nm,0.8s
YNE Yellowstone No 44.95 70 P P 16 05 50.2 +0.4
H17A Grant Village 44.96 71 IAmb IAmb 16 05 52.9
comp=Z,11nm,0.7s
YMP Mirror Lake Pl 45.01 70 IAmb IAmb 16 06 26.9
comp=Z,14nm,1.0s
RLMT Red Lodge 45.33 69 IAmb IAmb 16 05 56.7
comp=Z,20nm,0.8s
BJI2 Beijing 45.34 282 P P 16 05 52.0 -0.6
BJI2 pP **pP 16 06 01.5 -1.8**
BJI2 sP **pwP 16 06 05.8 -0.6**
BJI2 PP **PP 16 07 38.3 -0.6**
BJI2 S **S 16 12 29.8 -0.6**
BJI2 pmax pmax
comp=Z,9.0nm,0.5s
BJI2 pmax pmax
comp=Z,65nm,5.1s
BJI2 L L
comp=Z,170nm,19.5s
BJI2 L L
comp=Z,230nm,22.6s
BJI2 L L
comp=Z,250nm,21.1s
AHID Auburn Hatcher 45.57 73 IAmb IAmb 16 05 57.4
comp=Z,12nm,0.9s
AHID Auburn Hatcher 45.57 73 P P 16 05 56.1 +1.4
comp=Z,14nm,0.9s
SPUT South Promonto 45.60 75 IAmb IAmb 16 06 10.4
comp=Z,8.1nm,0.9s
TPNV Topopah Spring 45.89 83 IAmb IAmb 16 06 19.8
comp=Z,19nm,1.0s
LRMC Laurel Mtn Rad 45.91 85 IAmb IAmb 16 06 21.4
comp=Z,20nm,2.0s
HWUT Hardware Ranch 45.96 74 P P 16 05 59.1 +1.4
comp=Z,7.4nm,0.6s
DUG Dugway, Tooele 46.03 77 IAmb IAmb 16 06 25.8
comp=Z,14nm,0.9s
DUG Dugway, Tooele 46.03 77 P P 16 05 59.8 +1.5
comp=Z,17nm,0.8s
CCCA Chr Cany lake 46.09 85 IAmb IAmb 16 06 07.1
comp=Z,10nm,0.6s
TLY Talaya 46.12 303 LR LR 16 25 55.3
comp=Z,391nm,21.9s,baz=48,slow=37
TLY Talaya 46.12 303 *i* **P 16 05 59.1 +0.5**
TLY pmax pmax
comp=Z,7.0nm,0.9s
ULN Ulaanbaatar 46.28 296 *ce*P **P 16 06 00.8 +0.6**
ULN pmax pmax
comp=Z,34nm,1.7s
ULN Ulaanbaatar 46.28 296 P P 16 06 00.7 +0.5
ULN IAmb IAmb 16 06 01.9
comp=Z,43nm,1.5s
ULN Ulaanbaatar 46.28 296 P P 16 06 01.0 +0.8
comp=Z,19nm,0.9s
TCUT Toone Canyon 46.34 75 IAmb IAmb 16 06 21.9
comp=Z,16nm,1.1s
PRN Pahroc Range 46.35 81 IAmb IAmb 16 06 24.2
comp=Z,20nm,1.0s
PSUT Pine Spring 46.40 79 IAmb IAmb 16 06 24.0
comp=Z,9.2nm,0.8s
PDAR Pinedale Array 46.49 72 P P 16 06 02.5 +0.6
comp=Z,31nm,0.8s,baz=309,slow=3.7,SNR=155
comp=Z,31nm,0.8s
PDAR Pinedale Array 46.49 72 P P 16 06 02.4 +0.4
GSC Goldstone, Bar 46.58 85 IAmb IAmb 16 06 40.0
comp=Z,7.5nm,0.9s
NLU North Lily Min 46.63 77 IAmb IAmb 16 06 32.4
comp=Z,7.3nm,0.9s
SONM Songino Array 46.67 297 P P 16 06 04.0 +0.8
comp=Z,7.9nm,0.7s,baz=64,slow=8.2,SNR=45
SONM ScP **ScP 16 11 31.1 +4.7**
comp=Z,1.5nm,1.0s,baz=86,slow=4.5,SNR=4.8
SONM LR LR 16 26 53.9
comp=Z,835nm,19.0s,baz=64,slow=38
comp=Z,7.9nm,0.7s
SONM Songino Array 46.67 297 P P 16 06 04.0 +0.8
SONM Songino Array 46.67 297 P P 16 06 04.0 +0.8
ZAK Zakamensk 47.00 301 *e*P **P 16 06 05.2 -0.5**
ZAK pmax pmax
comp=Z,27nm,1.4s
BSUT Blindstream Ca 47.08 75 IAmb IAmb 16 06 45.0
comp=Z,7.3nm,0.8s
TIA Tai'an 47.09 277 P P 16 06 06.5 +0.1
TIA pmax pmax
comp=Z,9.0nm,0.8s
NOR Nord 47.19 3 *i* P **P 16 06 06.3 -0.3**
NOR IAmb IAmb 16 06 06.8
comp=Z,1.8nm,0.7s
GUMO Guam 47.46 231 LR LR 16 24 27.0
comp=Z,102nm,20.1s,baz=50,slow=34
MOY Mondy 47.52 304 *e*P **P 16 06 10.2 +0.5**
MOY pmax pmax
comp=Z,30nm,1.4s
TMUT Trail Mountain 47.56 77 IAmb IAmb 16 06 14.8
comp=Z,16nm,0.7s
HHC Hu-ho-hao-te 47.66 286 *e*P **P 16 06 12.0 +1.1**
HHC S **S 16 13 05.0 +1.2**
HHC pmax pmax
comp=Z,9.0nm,0.7s
HHC pmax pmax
comp=Z,120nm,4.6s
HHC L L
comp=Z,290nm,15.3s
HHC L L
comp=Z,410nm,17.6s
HHC L L
comp=Z,370nm,16.8s
NEEM North Greenlan 47.72 13 *i* P **P 16 06 10.4 -0.7**
NEEM IAmb IAmb 16 06 11.3
comp=Z,25nm,0.6s
LCMT Little Creek M 47.72 80 IAmb IAmb 16 06 34.9
comp=Z,11nm,1.0s
P17A Butcher Ranch, 47.74 76 IAmb IAmb 16 06 37.8
comp=Z,6.9nm,0.8s
Q16A Castle Valley 47.82 77 IAmb IAmb 16 06 28.3
comp=Z,7.3nm,0.8s
HNS HongShan 47.85 280 ⇑P **P 16 06 13.3 +1.0**
HNS S **S 16 13 00.5 -5.8**
HNS pmax pmax
comp=Z,16nm,1.3s
HNS L L
comp=Z,290nm,16.7s
HNS L L
comp=Z,340nm,18.7s
HNS L L
comp=Z,320nm,20.0s
P18A Preston Nutter 47.95 76 IAmb IAmb 16 06 34.7
comp=Z,10nm,0.9s
KNB Kanab 47.98 80 IAmb IAmb 16 06 36.4
comp=Z,16nm,1.1s
U15A North Rim 48.68 80 IAmb IAmb 16 06 42.4
comp=Z,14nm,0.9s
NJ2 Nanjing 48.71 272 *e*P **P 16 06 19.5 +0.5**
NJ2 pmax pmax
comp=Z,10.0nm,0.5s
BTO2 Baotou 48.74 287 *e*P **P 16 06 20.5 +1.2**
BTO2 pP **pP 16 06 30.5 +0.2**
BTO2 sP **pwP 16 06 34.5 +4.2**
BTO2 S **S 16 13 20.8 +1.6**
BTO2 sS **sS 16 13 35.5 -2.1**
BTO2 pmax pmax
comp=Z,60nm,1.3s
BTO2 pmax pmax
comp=Z,470nm,5.0s
BTO2 L L
comp=Z,640nm,17.0s
BTO2 L L
comp=Z,1μm,16.4s
BTO2 L L
comp=Z,1μm,22.2s
KULLO Kullorsuaq 48.76 18 *i* P **P 16 06 17.7 -1.1**
KULLO IAmb IAmb 16 06 21.3
comp=Z,13nm,0.8s
RSSD Black Hills 48.96 67 P **P 16 06 20.5 -0.5**
RSSD pmax pmax
comp=Z,8.0nm,0.8s
RSSD Black Hills 48.96 67 P P 16 06 20.5 -0.5
RSSD IAmb IAmb 16 06 23.3
comp=Z,8.0nm,0.8s
RSSD Black Hills 48.96 67 P **P 16 06 21.1 0.0**
comp=Z,12nm,0.9s
RSSD Black Hills 48.96 67 P P 16 06 20.8 -0.2
HAYD Hayden 49.22 73 IAmb IAmb 16 06 41.9
comp=Z,6.5nm,0.8s
WUAZ Wupatki 49.84 81 IAmb IAmb 16 07 00.7
comp=Z,7.7nm,0.8s
ULM Lac du Bonnet 49.92 56 P P 16 06 27.1 -0.9
comp=Z,2.0nm,0.6s,baz=338,slow=8.1,SNR=4.1
comp=Z,2.0nm,0.6s
ULM Lac du Bonnet 49.92 56 IAmb IAmb 16 08 26.1
comp=Z,21nm,1.5s
KNGR Kungurtug, Tuv 49.94 304 *i* P **P 16 06 28.7 +0.4**
KNGR pmax pmax
comp=Z,6.0nm,0.9s
KBS Kingsbay 50.06 357 *i* P **P 16 06 29.1 +0.4**
MVCO Mesa Verde 50.53 77 IAmb IAmb 16 07 17.3
comp=Z,7.2nm,0.8s
MVCO Mesa Verde 50.53 77 P P 16 06 34.0 +0.9
comp=Z,9.9nm,0.9s
SPA0 Spitsbergen Ar 50.63 356 *e*P **P 16 06 33.0 -0.1**
SPITS Spitsbergen Ar 50.63 356 P **P 16 06 32.3 -0.8**
comp=Z,16nm,0.4s,baz=50,slow=6.6,SNR=26
SPITS LR LR 16 30 26.5
comp=Z,181nm,18.1s,baz=4.5,slow=39
comp=Z,16nm,0.4s
SPB2 Spitsbergen Ar 50.64 356 P P 16 06 32.7 -0.3
DAG Danmarks Havn 51.77 6 P P 16 06 40.2 -1.3
comp=Z,6.4nm,1.3s
DAG Danmarks Havn 51.77 6 *i* P **P 16 06 40.5 -1.0**
DAG IAmb IAmb 16 06 40.8
comp=Z,4.1nm,0.8s
SDCO Great Sand Dun 52.02 75 IAmb IAmb 16 07 28.4
comp=Z,15nm,1.3s
NIAQ Niaqornat 52.27 20 *i* P **P 16 06 43.1 -2.2**
TUC Tucson 52.32 83 P P 16 06 46.5 +0.2
TUC pmax pmax
comp=Z,12nm,1.3s
TUC Tucson 52.32 83 P P 16 06 46.5 +0.2
TUC IAmb IAmb 16 07 08.7
comp=Z,12nm,1.3s
TUC Tucson 52.32 83 P P 16 06 51.7 +5.4
comp=Z,6.6nm,1.0s
WHN Wuhan 52.57 274 P P 16 06 48.3 +0.2
T25A Trinidad 53.07 74 IAmb IAmb 16 07 13.1
comp=Z,16nm,1.1s
ANMO Albuquerque 53.25 78 LR LR 16 26 48.8
comp=Z,244nm,21.8s,baz=313,slow=33
ANMO Albuquerque 53.25 78 *ce*P **P 16 06 53.4 +0.1**
ANMO pmax pmax
comp=Z,1.0nm,0.9s
ANMO Albuquerque 53.25 78 P P 16 06 54.4 +1.0
ANMO sP **sP 16 07 09.8 +1.3**
FRB Frobisher Bay 53.31 31 LR LR 16 31 19.7
comp=Z,457nm,19.2s,baz=286,slow=38
ECSD EROS Data Cent 53.45 63 P P 16 06 53.7 -0.7
comp=Z,7.8nm,0.9s
SUMG Summit 53.58 14 P P 16 06 54.9 -0.6
SUMG pmax pmax
comp=Z,8.0nm,0.8s
SUMG Summit 53.58 14 P P 16 06 54.9 -0.6
SUMG IAmb IAmb 16 06 56.6
comp=Z,8.1nm,0.8s
SUMG Summit 53.58 14 P P 16 06 55.5 +0.1
comp=Z,13nm,0.9s
SUMG Summit 53.58 14 *i* P **P 16 06 55.1 -0.4**
SUMG IAmb IAmb 16 06 56.3
comp=Z,10.0nm,1.0s
XAN Xi'an 53.60 281 P P 16 06 55.8 +0.1
XAN pmax pmax
comp=Z,10.0nm,1.5s
XAN L L
comp=Z,270nm,9.6s
XAN L L
comp=Z,440nm,11.7s
XAN L L
comp=Z,390nm,15.8s
Y22A Socorro 53.61 79 IAmb IAmb 16 07 26.9
comp=Z,8.1nm,1.0s
DBG Daneborg 54.05 7 *i* P **P 16 06 57.1 -1.2**
DBG IAmb IAmb 16 06 59.1
comp=Z,2.9nm,0.7s
ZALV Zalesovo Beam 54.14 314 P P 16 06 58.7 -0.6
comp=Z,0.9nm,0.5s,baz=53,slow=6.9,SNR=5.1
ZALV PcP **PcP 16 08 04.3 +0.9**
comp=Z,5.8nm,0.7s,baz=28,slow=3.8,SNR=13
ZALV LR LR 16 31 43.1
comp=Z,198nm,18.0s,baz=51,slow=38
comp=Z,0.9nm,0.5s
ZALV Zalesovo Beam 54.14 314 PcP 16 08 04.0 +0.5
RTBA Rita Blanca 54.55 74 IAmb IAmb 16 07 06.0
comp=Z,9.2nm,0.8s
LZH Lanzhou 55.36 286 *e*P **P 16 07 07.3 -1.3**
LZH sP pwP 16 07 23.5 +3.7
LZH pmax pmax
comp=Z,30nm,1.1s
LZH L L
comp=Z,470nm,16.8s
LZH L L
comp=Z,430nm,17.0s
LZH L L
comp=Z,570nm,18.9s
LZDM Lanzhou Array 55.53 286 P P 16 07 09.7 -0.3
comp=Z,2.5nm,0.4s,baz=35,slow=5.4,SNR=4.9
LZDM LR LR 16 31 51.3
comp=Z,305nm,21.9s,baz=310,slow=37
comp=Z,2.5nm,0.4s
GTA2 Gaotai 55.55 292 P P 16 07 10.3 +0.4
GTA2 pP pP 16 07 17.5 -3.8
GTA2 pmax pmax
comp=Z,33nm,0.7s
GTA2 L L
comp=Z,350nm,18.1s
GTA2 L L
comp=Z,220nm,19.0s
GTA2 L L
comp=Z,460nm,16.5s
R32A Long Quarter, 55.65 70 IAmb IAmb 16 07 12.2
comp=Z,19nm,0.9s
SFJD Kangerlussuaq 55.94 22 LR LR 16 35 07.8
comp=Z,123nm,18.9s,baz=316,slow=40
SFJD Kangerlussuaq 55.94 22 *i* P **P 16 07 11.2 -0.9**
MNTX Cornudas Mount 56.10 80 IAmb IAmb 16 07 37.7
comp=Z,6.7nm,0.9s
MNTX Cornudas Mount 56.10 80 P P 16 07 18.0 +4.2
comp=Z,8.5nm,2.3s
KSU1 Kansas State U 56.44 68 IAmb IAmb 16 07 36.0
comp=Z,16nm,0.8s
TPB28 56.67 80 IAmb IAmb 16 07 41.9
comp=Z,6.3nm,1.1s
SMWD Samnorwood 56.94 74 IAmb IAmb 16 07 24.1
comp=Z,12nm,0.7s
CROK Carrier 57.36 71 IAmb IAmb 16 07 24.8
comp=Z,15nm,0.8s
DKNS Dickens 57.50 75 IAmb IAmb 16 07 27.5
comp=Z,13nm,0.6s
L40A Anamosa 57.55 62 IAmb IAmb 16 07 32.3
comp=Z,17nm,1.0s
POST Post 57.56 76 IAmb IAmb 16 07 41.5
comp=Z,12nm,0.9s
SCO Scoresbysund 57.58 9 *i* P **P 16 07 23.4 -0.3**
SCO IAmb IAmb 16 07 23.9
comp=Z,2.5nm,0.7s
BLOK Blackwell 57.64 70 IAmb IAmb 16 07 26.8
comp=Z,14nm,1.2s
T35A Sooner Cattle 57.95 70 IAmb IAmb 16 07 51.3
comp=Z,12nm,0.9s
MNHN Monahans 57.97 79 IAmb IAmb 16 07 40.6
comp=Z,10nm,1.0s
OK048 Pawnee Station 58.04 70 IAmb IAmb 16 07 29.5
comp=Z,14nm,0.8s
WMOK Wichita Mounta 58.08 73 IAmb IAmb 16 07 42.0
comp=Z,6.0nm,0.8s
WMOK Wichita Mounta 58.08 73 P P 16 07 28.1 +0.4
comp=Z,9.7nm,0.8s
APMT Aspermont 58.23 75 IAmb IAmb 16 07 32.3
comp=Z,10nm,0.7s
ARA0 ARCESS Array S 58.34 350 *e*P **P 16 07 28.1 -0.9**
ARCES ARCESS Array B 58.34 350 P **P 16 07 27.6 -1.4**
comp=Z,4.4nm,0.6s,baz=23,slow=7.4,SNR=15
comp=Z,4.4nm,0.6s
LPIG La Paz 58.34 90 LR LR 16 26 30.2
comp=Z,72nm,21.8s,baz=218,slow=30
TXAR Lajitas Array 58.80 81 P P 16 07 32.5 -0.5
comp=Z,1.5nm,0.7s,baz=315,slow=5.4,SNR=9.9
comp=Z,1.5nm,0.7s
TXAR Lajitas Array 58.80 81 P P 16 07 32.7 -0.2
TXAR Lajitas Array 58.80 81 P P 16 07 32.7 -0.2
JETT Jettan, Norway 58.81 352 *e*P **P 16 07 31.8 -0.5**
TRO Tromso 58.86 353 *e*P **P 16 07 32.3 -0.3**
CD2 Chengdu 58.92 282 P P 16 07 33.8 +0.1
CD2 pmax pmax
comp=Z,10.0nm,0.5s

WTFS Witchita Falls 58.93 74 IAmb IAmb 16 07 55.3
comp=Z,11nm,0.8s
ABTX Abilene, Hawle 59.00 75 IAmb IAmb 16 07 37.6
comp=Z,9.1nm,0.8s
TUL3 Leonard 59.06 70 IAmb IAmb 16 07 37.2
comp=Z,12nm,0.8s
KTK1 Kautokeino 59.08 351 *e*P **P 16 07 33.4 -0.7**
KURK Kurchatov 59.13 314 *ce*P **P 16 07 34.3 -0.5**
KURK pmax pmax
comp=Z,14nm,1.3s
KURK Kurchatov 59.13 314 P **P 16 07 33.6 -1.2**
KURK IAmb IAmb 16 07 38.6
comp=Z,9.3nm,0.9s
KURK Kurchatov 59.13 314 P **P 16 07 35.0 +0.3**
comp=Z,9.3nm,1.2s
KURK Kurchatov 59.13 314 P **P 16 07 34.5 -0.3**
KURK PcP **PcP 16 08 21.9 -1.1**
KURBB Kurchatov Arra 59.23 314 P **P 16 07 34.2 -1.3**
comp=Z,5.6nm,0.8s,baz=44,slow=6.6,SNR=36
KURBB LR LR 16 34 55.0
comp=Z,456nm,18.7s,baz=162,slow=38
comp=Z,5.6nm,0.8s
KURBB Kurchatov Arra 59.23 314 P **P 16 07 35.2 -0.3**
KURBB pmax pmax
comp=Z,4.0nm,0.7s
HPIG 59.24 84 P **P 16 07 38.5 +2.4**
comp=Z,7.0nm,1.0s
OZNA Ozona 59.27 78 IAmb IAmb 16 07 56.3
comp=Z,8.5nm,0.9s
S39A Bolivar 59.30 67 IAmb IAmb 16 07 45.8
comp=Z,5.7nm,1.0s
WMQ Urumqi 59.40 303 ⇑P **P 16 07 37.8 +1.0**
WMQ sP sP 16 07 53.0 +0.3
WMQ S **S 16 15 45.5 +2.8**
WMQ pmax pmax
comp=Z,29nm,0.9s
WMQ L L
comp=Z,340nm,16.7s
WMQ L L
comp=Z,400nm,17.5s
WMQ L L
comp=Z,450nm,21.9s
R40A Maddies Statio 59.50 66 IAmb IAmb 16 07 38.8
comp=Z,9.5nm,0.6s
U38A Gravette 59.53 69 IAmb IAmb 16 07 38.8
comp=Z,7.2nm,0.8s
PLPT Palo Pinto 59.68 74 IAmb IAmb 16 07 41.9
comp=Z,13nm,0.8s
ISOG Isortoq, Green 59.68 18 *i*P **P 16 07 36.8 -1.5**
ISOG IAmb IAmb 16 07 38.0
comp=Z,19nm,0.5s
ANGG Ammassalik, Gr 59.87 17 *i*P **P 16 07 38.1 -1.5**
ANGG IAmb IAmb 16 07 40.0
comp=Z,12nm,0.9s
HHAR Hobbs 59.90 69 IAmb IAmb 16 07 41.1
comp=Z,6.8nm,0.8s
MK31 Makanchi Array 60.12 308 *di*P **P 16 07 41.1 -0.6**
MKAR Makanchi Array 60.12 308 P **P 16 07 41.1 -0.6**
comp=Z,6.4nm,0.5s,baz=52,slow=6.1,SNR=147
MKAR LR LR 16 34 49.8
comp=Z,273nm,20.0s,baz=33,slow=37
comp=Z,6.4nm,0.5s
MKAR Makanchi Array 60.12 308 P **P 16 07 40.9 -0.8**
CCM Cathedral Cave 60.24 65 P **P 16 07 41.8 -0.8**
CCM pP **pP 16 07 52.9 -1.0**
MAKZ Makanchi 60.26 309 P **P 16 07 42.0 -0.6**
MAKZ pmax pmax
comp=Z,8.0nm,0.6s
MAKZ Makanchi 60.26 309 P **P 16 07 42.0 -0.6**
MAKZ IAmb IAmb 16 07 43.3
comp=Z,8.3nm,0.6s
MAKZ Makanchi 60.26 309 P **P 16 07 42.3 -0.4**
MAKZ pP **pP 16 07 53.0 -1.3**
MAKZ sP **sP 16 07 57.1 -1.9**
MAKZ PcP **PcP 16 08 25.8 -1.8**
SCHQ Schefferville 60.28 38 P **P 16 07 41.8 -0.9**
comp=Z,6.2nm,0.6s,baz=329,slow=6.6,SNR=12
SCHQ LR LR 16 33 17.6
comp=Z,236nm,21.7s,baz=322,slow=36
comp=Z,6.2nm,0.6s
KRVT Keravat (AS076 60.54 214 LR LR 16 29 21.9
comp=Z,141nm,20.9s,baz=15,slow=32
GOMU GeErMu 60.65 292 P **P 16 07 45.5 -0.4**
GOMU S **S 16 15 54.5 -5.1**
GOMU pmax pmax
comp=Z,6.0nm,0.4s
GOMU L L
comp=Z,140nm,14.1s
GOMU L L
comp=Z,110nm,14.6s
GOMU L L
comp=Z,89nm,14.1s
FVM French Village 60.76 65 IAmb IAmb 16 08 06.7
comp=Z,24nm,1.4s
BVAR Borovoye Array 61.02 320 P **P 16 07 46.9 -0.8**
comp=Z,5.3nm,0.5s,baz=47,slow=6.3,SNR=28
comp=Z,5.3nm,0.5s
BVA2 Borovoye Array 61.03 320 P **P 16 07 47.1 -0.7**
BVA2 pmax pmax
comp=Z,2.0nm,0.5s
BORK Borovoye 61.04 320 P **P 16 07 47.4 -0.4**
BORK pmax pmax
comp=Z,4.0nm,0.7s
BORK Borovoye 61.04 320 P **P 16 07 47.4 -0.4**
BORK IAmb IAmb 16 07 50.0
comp=Z,4.0nm,0.7s
FCAR Ozark Folk Cen 61.23 68 P **P 16 07 48.8 -0.6**
MIAR Mount Ida 61.31 70 P **P 16 07 50.7 +0.8**
comp=Z,23nm,1.3s
IVI Ivigtut 61.33 25 *i*P **P 16 07 47.3 -2.3**
IVI IAmb IAmb 16 07 47.7
comp=Z,39nm,1.2s
FAUS Fauske 61.34 354 *e*P **P 16 07 51.3 +1.7**
WHAR Wooly Hollow 61.55 68 IAmb IAmb 16 08 08.8
comp=Z,13nm,1.0s
LCAR Lake Charles 61.67 67 IAmb IAmb 16 08 05.6
comp=Z,7.0nm,0.8s
X40A Basin Creek Fa 61.79 69 IAmb IAmb 16 07 54.9
comp=Z,7.2nm,1.0s
NRS Narsarsuaq 62.07 23 *i*P **P 16 07 53.1 -1.5**
NRS IAmb IAmb 16 07 56.6
comp=Z,34nm,1.3s
SADO Sadowa 62.08 53 LR LR 16 37 25.0
comp=Z,139nm,18.4s,baz=344,slow=39
VAGH Vaagaholmen 62.12 355 *e*P **P 16 07 56.0 +1.1**
RAUS Rausandaksla 62.36 354 *e*P **P 16 07 55.7 -0.8**
O49A Covington 62.62 59 IAmb IAmb 16 08 00.4
comp=Z,9.8nm,0.7s
ARTI Arti 62.87 328 LR LR 16 37 39.6
comp=Z,344nm,20.5s,baz=34,slow=38
ARTI Arti 62.87 328 *di*P **P 16 07 59.7 -0.3**
ARTI 16 08 38.4
ARTI S **S 16 16 27.2 +0.9**
ARTI SS **SS 16 20 27.2 -3.6**
ARTI pmax pmax
comp=Z,15nm,1.6s
ARTI Arti 62.87 328 P **P 16 07 59.9 -0.2**
WCI Wyandotte Cave 62.92 62 P **P 16 08 00.4 -0.3**
WCI pmax pmax
comp=Z,28nm,0.8s
WCI Wyandotte Cave 62.92 62 P **P 16 08 00.4 -0.3**
WCI Wyandotte Cave 62.92 62 P **P 16 08 01.0 +0.3**
comp=Z,37nm,0.9s
WCI Wyandotte Cave 62.92 62 P **P 16 08 00.7 0.0**
HNR Honiara 63.00 203 LR LR 16 32 28.0
comp=Z,162nm,18.9s,baz=108,slow=33
BORG Borgarnes 63.18 11 LR LR 16 36 14.3
comp=Z,64nm,19.9s,baz=331,slow=37
DAV Davao City (W) 63.27 246 LR LR 16 30 39.8
comp=Z,217nm,21.7s,baz=350,slow=31
WVT Waverly 63.54 65 P **P 16 08 05.0 +0.2**
WVT pmax pmax
comp=Z,8.0nm,0.8s
WVT Waverly 63.54 65 P **P 16 08 05.0 +0.2**
WVT IAmb IAmb 16 08 06.8
comp=Z,8.3nm,0.8s
WVT Waverly 63.54 65 P **P 16 08 05.5 +0.7**
comp=Z,12nm,0.9s
WVT Waverly 63.54 65 P **P 16 08 05.1 +0.2**
WVT pP **pP 16 08 16.2 -0.1**
KIRV Kirov 63.77 334 LR LR 16 38 06.5
comp=Z,488nm,20.7s,baz=23,slow=38
P51A Williamsport 63.81 59 IAmb IAmb 16 08 08.4
comp=Z,9.3nm,0.5s
PDGK Podgornoye 63.98 307 P **P 16 08 07.7 0.0**
PDGK pmax pmax
comp=Z,25nm,1.4s
KLMR Klimovskoe 64.19 340 *e*P **P 16 08 05.2 -3.5**
KLMR *e* 16 08 41.8
KLMR pmax pmax
comp=Z,32nm,1.4s
KLMR MLR MLR
comp=Z,540nm,16.0s
V48A Smith Brothers 64.39 64 IAmb IAmb 16 08 12.8
comp=Z,11nm,0.9s
CLTN Cedars of Leba 64.42 64 IAmb IAmb 16 08 13.4
comp=Z,19nm,0.9s
P53A Whipple 64.70 58 IAmb IAmb 16 08 13.7
comp=Z,12nm,0.7s
O54A Avella 64.74 57 IAmb IAmb 16 08 13.9
comp=Z,13nm,0.7s
S51A Beattyville 64.84 61 IAmb IAmb 16 08 14.3
comp=Z,11nm,0.7s
X48A Hartselle 65.19 65 IAmb IAmb 16 08 29.0
comp=Z,6.8nm,0.6s
SWET Sewanee 65.27 64 IAmb IAmb 16 08 17.7
comp=Z,9.9nm,0.9s
BINY Binghamton 65.53 53 IAmb IAmb 16 08 19.5
comp=Z,12nm,0.7s
M57A Sunshine Farm, 65.58 54 IAmb IAmb 16 08 19.2
comp=Z,11nm,0.7s
W50A Signal Mountai 65.64 64 IAmb IAmb 16 08 21.6
comp=Z,15nm,0.8s
TZTN Tazewell 65.65 62 IAmb IAmb 16 08 26.5
comp=Z,19nm,1.1s
TZTN Tazewell 65.65 62 P **P 16 08 18.2 -0.4**
comp=Z,25nm,1.6s
SSPA Standing Stone 65.71 55 P **P 16 08 18.7 -0.2**
SSPA IAmb IAmb 16 08 20.4
comp=Z,11nm,0.7s
FPAL Fort Paine 65.94 64 IAmb IAmb 16 08 21.4
comp=Z,9.4nm,0.7s
L59A Walton 66.00 52 IAmb IAmb 16 08 21.8
comp=Z,12nm,0.8s
FINES FINESS Array B 66.02 347 P **P 16 08 19.5 -1.0**
comp=Z,9.8nm,0.6s,baz=19,slow=9.1,SNR=49
FINES LR LR 16 43 07.9
comp=Z,220nm,18.1s,baz=22,slow=42
comp=Z,9.8nm,0.6s
FINES FINESS Array B 66.02 347 P **P 16 08 19.6 -0.9**
LRAL Lakeview Retre 66.23 67 IAmb IAmb 16 08 34.5
comp=Z,8.3nm,0.7s
W52A Murphy 66.49 63 IAmb IAmb 16 08 26.7
comp=Z,16nm,1.1s
U54A Nelsons Funny 66.62 61 IAmb IAmb 16 08 26.1
comp=Z,15nm,0.9s
V53A Saluda 66.70 62 IAmb IAmb 16 08 26.4
comp=Z,9.6nm,0.8s
SIJI Sorong 66.71 236 LR LR 16 32 42.1
comp=Z,54nm,21.0s,baz=55,slow=32
AAK Ala-Archa 66.95 310 LR LR 16 40 05.5
comp=Z,180nm,19.1s,baz=35,slow=38
AAK Ala-Archa 66.95 310 *ce*P **P 16 08 27.7 +0.7**
AAK pmax pmax
comp=Z,13nm,1.0s
AAK Ala-Archa 66.95 310 P **P 16 08 27.5 +0.5**
AAK IAmb IAmb 16 08 29.0
comp=Z,11nm,0.6s
AAK Ala-Archa 66.95 310 P **P 16 08 28.1 +1.1**
MVL Millersville 66.97 55 IAmb IAmb 16 08 28.2
comp=Z,7.8nm,0.7s
DOMB Dombas 67.01 356 *e*P **P 16 08 25.0 -2.0**
PMG Port Moresby 67.02 217 LR LR 16 35 27.4
comp=Z,155nm,18.9s,baz=34,slow=34
NRN Naryn 67.12 308 IAmb IAmb 16 08 45.2
comp=Z,16nm,1.5s
ASAI AK-SAY(Kyrgyzs 67.24 307 P **P 16 08 31.1 +2.0**
comp=Z,16nm,0.7s
Y52A Lilburn 67.31 64 IAmb IAmb 16 08 30.2
comp=Z,10nm,0.7s
BRNJ Basking Ridge 67.37 53 IAmb IAmb 16 08 31.6
comp=Z,16nm,0.9s
V55A Taylorsville 67.44 61 IAmb IAmb 16 08 32.8
comp=Z,12nm,0.9s
U56A King 67.54 60 IAmb IAmb 16 08 32.1
comp=Z,11nm,0.9s
AKTO Aktyubinsk 67.84 325 LR LR 16 41 09.6
comp=Z,672nm,18.4s,baz=44,slow=39
AKTO Aktyubinsk 67.84 325 P **P 16 08 31.2 -1.1**
AKTO pmax pmax
comp=Z,3.0nm,0.7s
PAULI Pauline 67.87 62 IAmb IAmb 16 08 34.0
comp=Z,15nm,1.1s
NB2 NORSAR Subarra 67.90 355 P **P 16 08 31.5 -1.1**
comp=Z,2.1nm,0.6s,baz=5.5,slow=6.2
NB2 NORSAR Subarra 67.90 355 P **P 16 08 31.0 -1.6**
NOA NORSAR Array B 67.90 355 P **P 16 08 31.8 -0.8**
comp=Z,3.1nm,0.6s,baz=5.7,slow=6.2,SNR=19
comp=Z,3.1nm,0.6s
GOGA Godfrey 67.98 64 IAmb IAmb 16 08 42.0
comp=Z,26nm,1.5s
AB31 Akbulak array 68.09 323 *e*P **P 16 08 33.3 -0.6**
AB31 pmax pmax
comp=Z,1.0nm,0.6s
ABKAR Akbulak array 68.09 323 P **P 16 08 33.0 -0.9**
SKAR Skarslia 68.41 356 *e*P **P 16 08 35.3 -0.4**
KK31 Karatay Array 68.49 312 *i*P **P 16 08 36.0 -0.5**
KK31 pmax pmax
comp=Z,4.0nm,0.6s
KK31 Karatay Array 68.49 312 IAmb IAmb 16 08 39.3
comp=Z,6.3nm,0.8s
KKAR Karatay Array 68.49 312 P **P 16 08 36.5 0.0**
KKAR Karatay Array 68.49 312 P **P 16 08 36.5 0.0**
TAOE Nuku Hiva Isla 68.49 138 *e*LR LR 16 29 18.1
comp=Z,673nm,23.5s
JSC Jenkinsville 68.58 62 IAmb IAmb 16 08 38.5
comp=Z,13nm,0.7s
MSVF Nonsavu 68.59 183 LR LR 16 34 30.7
comp=Z,94nm,19.0s,baz=16,slow=32
V58A Windy Hill, Pi 68.63 59 IAmb IAmb 16 08 38.8
comp=Z,9.9nm,0.8s
HFS Hagfors 68.64 353 P **P 16 08 36.4 -0.7**
comp=Z,3.1nm,0.5s,baz=28,slow=6.7,SNR=17
HFS LR LR 16 39 07.8
comp=Z,134nm,20.0s,baz=35,slow=36
comp=Z,3.1nm,0.5s
BIRD Birdtown, Kers 68.75 61 IAmb IAmb 16 08 40.8
comp=Z,20nm,1.0s
MTSE Matsula 68.97 347 P **P 16 08 39.0 -0.1**
comp=Z,126nm,0.7s
KSH2 Kashi 69.06 307 P **P 16 08 42.0 +1.7**
KSH2 pmax pmax
comp=Z,15nm,0.8s
KSH2 L L
comp=Z,310nm,14.8s
KSH2 L L
comp=Z,320nm,16.5s
KSH2 L L
comp=Z,420nm,18.6s
MOS Moscow 69.27 339 *e*P **P 16 08 40.3 -0.8**
MOS pmax pmax
comp=Z,43nm,0.8s
MOS MLR MLR
comp=Z,700nm,20.0s
KONO Kongsberg 69.38 355 *e*P **P 16 08 38.5 -3.2**
BELG Belogornoye 69.63 332 LR LR 16 42 28.2
comp=Z,181nm,18.2s,baz=26,slow=39
STRU Stroemstad 69.90 354 *i*P **P 16 08 44.8 -0.1**
OBN Obninsk 70.08 339 LR LR 16 43 29.3
comp=Z,282nm,18.1s,baz=2.5,slow=39
OBN Obninsk 70.08 339 *di*P **P 16 08 46.0 -0.1**
OBN *e* 16 09 07.0
OBN *e* 16 11 23.1
OBN *e*SS SS 16 22 16.6 -5.8
OBN pmax pmax
comp=Z,19nm,0.8s
OBN MLR MLR
comp=Z,339nm,17.0s
BTK Batken 70.70 310 IAmb IAmb 16 08 56.0
comp=Z,15nm,1.0s
HOMB Homborsund 70.81 356 *i*P **P 16 08 50.3 -0.2**
TJOU Tjoern 70.87 354 *i*P **P 16 08 50.4 -0.4**
CMAR Chiang Mai Arr 70.93 276 P **P 16 08 51.8 -0.1**
comp=Z,3.0nm,0.7s,baz=26,slow=6.3,SNR=28
CMAR LR LR 16 41 41.9
comp=Z,65nm,19.9s,baz=35,slow=37
comp=Z,3.0nm,0.7s
CMAR Chiang Mai Arr 70.93 276 P **P 16 08 51.6 -0.3**
EVN Everest 71.27 291 IAmb IAmb 16 09 11.4
comp=Z,20nm,1.4s
ONAU Onsala 71.48 354 *i*P **P 16 08 53.8 -0.8**
FABU Falkenberg 71.82 353 *i*P **P 16 08 56.1 -0.5**
BLEU Blekinge 72.25 351 *i*P **P 16 08 58.5 -0.7**
DEL Delary 72.26 353 *i*P **P 16 08 58.7 -0.6**
BRDH Bariadhala 72.31 284 LR LR 16 43 37.0
comp=Z,58nm,20.7s,baz=358,slow=38
MNK Minsk 72.39 344 *i*P **P 16 09 00.2 +0.2**
MNK *i* 16 09 17.7
MNK *i* 16 11 41.1
MNK *i*PPP PPP 16 13 25.5
MNK *i*S **S 16 18 22.1 +1.8**
MNK *i* 16 19 04.1
MNK *i*SS **SS 16 23 01.6 +3.9**
MNK pmax pmax
comp=Z,22nm,0.7s
MNK pmax pmax
comp=E,10.0nm,0.9s
MNK pmax pmax
comp=N,10.0nm,0.6s
MNK MLR MLR
comp=Z,127nm,17.0s
MNK MLR MLR
comp=N,83nm,15.0s
MNK MLR MLR
comp=E,142nm,19.0s
MNK Minsk 72.39 344 *i*P **P 16 09 00.2 +0.2**
comp=E,10.0nm,0.9s
MNK *i*P **P 16 09 00.2 +0.2**
comp=N,10.0nm,0.6s
MNK *i*P **P 16 09 00.2 +0.2**
comp=Z,22nm,0.7s,baz=17
MNK *i*PcP **PcP 16 09 17.8 0.0**
MNK *i*PP **PP 16 11 41.1 +0.6**
MNK *i*PPP PPP 16 13 25.5
MNK *i*S **S 16 18 22.1 +1.8**
MNK *i*ScS **ScS 16 19 04.1 +1.0**
MNK *i*SS **SS 16 23 01.7 +3.9**
MNK *i*SSS SSS 16 26 22.3
MNK *i*LQ LQ 16 35 57.2
MNK *i*LR LR 16 42 59.1
MNK *i*LRM MLR 16 44 20.8
comp=Z,127nm,16.7s
MNK *i*LRM MLR 16 44 30.3
comp=N,83nm,15.0s
PPT Papeete 73.08 151 LR LR 16 34 52.7
comp=N,128nm,19.2s,baz=344,slow=31
PPT2 Papeete2 73.10 151 *e*S **S 16 18 24.9 -4.3**
comp=N,112nm,28.5s
PPT2 *e*SS **SS 16 23 10.5 -1.0**
comp=N,60nm,23.8s
PPT2 *e*LR LR 16 31 25.7
comp=N,256nm,31.5s
PPT2 *e*LR LR 16 31 33.3
comp=N,405nm,26.8s
EKA Eskdalemuir Ar 73.87 2 P **P 16 09 08.6 -0.2**
comp=N,3.5nm,0.5s,baz=354,slow=5.1,SNR=40
comp=N,3.5nm,0.5s
IDGL Inch Island, C 73.94 5 P **P 16 09 10.1 +0.9**
RAR Rarotonga 73.97 161 LR LR 16 35 42.7
comp=N,390nm,19.2s,baz=316,slow=31
DZM Mont Dzumac 73.99 194 LR LR 16 35 14.7
comp=N,244nm,20.6s,baz=24,slow=30
NIL Nilore 74.48 304 P **P 16 09 13.4 +0.6**
NIL pmax pmax
comp=Z,29nm,0.6s
NIL Nilore 74.48 304 P **P 16 09 13.4 +0.6**
ILTH Belurgan, Co L 75.05 4 P **P 16 09 16.8 +1.2**
IGLA Glengowla, Co 75.47 6 P **P 16 09 18.0 -0.1**
AK23 Malin Array Si 75.73 342 P **P 16 09 19.3 -0.3**
AK21 Malin Array Si 75.73 342 P **P 16 09 19.4 -0.2**
AK22 Malin Array Si 75.74 342 P **P 16 09 19.5 -0.2**
AK03 Malin Array Si 75.75 342 P **P 16 09 19.4 -0.3**
AK04 Malin Array Si 75.76 342 P **P 16 09 19.3 -0.5**
AKASG Malin Array Be 75.77 342 P **P 16 09 19.3 -0.6**
comp=Z,20nm,0.5s,baz=24,slow=6.2,SNR=51
AKASG LR LR 16 46 54.5
comp=Z,166nm,18.4s,baz=28,slow=39
comp=Z,20nm,0.5s
AKBB Malin Array Si 75.77 342 *c*P **P 16 09 19.3 -0.5**
AKBB pmax pmax
comp=Z,29nm,0.6s
AKBB Malin Array Si 75.77 342 P **P 16 09 19.4 -0.4**
AK20 Malin Array Si 75.77 342 P **P 16 09 19.4 -0.5**
KIEV Kiev 75.78 342 P **P 16 09 19.6 -0.3**
KIEV pmax pmax
comp=Z,30nm,0.6s
KIEV Kiev 75.78 342 P **P 16 09 19.6 -0.3**
KIEV Kiev 75.78 342 ⇓P **P 16 09 19.4 -0.5**
KIEV Kiev 75.78 342 P **P 16 09 19.4 -0.5**
comp=Z,211nm,0.9s
KIEV Kiev 75.78 342 P **P 16 09 19.4 -0.5**
RNPP8 Varash 75.78 344 P **P 16 09 19.7 -0.2**
AK18 Malin Array Si 75.78 342 P **P 16 09 19.5 -0.4**
AK01 Malin Array Si 75.78 342 P **P 16 09 19.5 -0.4**
AK19 Malin Array Si 75.79 342 P **P 16 09 19.5 -0.5**
AK15 Malin Array Si 75.80 342 P **P 16 09 19.5 -0.5**
AK11 Malin Array Si 75.80 342 P **P 16 09 19.7 -0.3**
AK02 Malin Array Si 75.81 342 P **P 16 09 19.8 -0.3**
AK17 Malin Array Si 75.82 342 P **P 16 09 19.8 -0.3**
AK16 Malin Array Si 75.82 342 P **P 16 09 19.8 -0.3**
AK08 Malin Array Si 75.83 342 P **P 16 09 19.6 -0.6**
DSB Dublin 75.83 5 P **P 16 09 19.7 -0.5**
AK12 Malin Array Si 75.84 342 P **P 16 09 19.7 -0.5**
AK09 Malin Array Si 75.84 342 P **P 16 09 19.7 -0.6**
AK05 Malin Array Si 75.85 342 P **P 16 09 19.8 -0.5**
AK14 Malin Array Si 75.86 342 P **P 16 09 19.8 -0.6**
AK10 Malin Array Si 75.86 342 P **P 16 09 19.8 -0.6**
RNPP5 Staryi Chortor 75.88 344 P **P 16 09 19.9 -0.6**
AK06 Malin Array Si 75.88 342 P **P 16 09 20.0 -0.5**
AK13 Malin Array Si 75.89 342 P **P 16 09 20.0 -0.5**
AK07 Malin Array Si 75.92 342 P **P 16 09 20.1 -0.6**
KBL Kabul 75.92 308 P **P 16 09 20.7 -0.6**
KBL pmax pmax
comp=Z,12nm,0.7s
KBL Kabul 75.92 308 P **P 16 09 20.7 -0.6**
KBL IAmb IAmb 16 09 22.0
comp=Z,12nm,0.7s
IWEX Carrickbyrne, 76.68 5 P **P 16 09 25.0 0.0**
LUBAR Lubar, Ukraine 76.80 343 P **P 16 09 25.4 -0.3**
CLL Collm 77.45 352 *i*P **P 16 09 28.8 -0.6**
CLL *e**SP **sP 16 09 45.0 -0.6**
CLL pmax pmax
comp=Z,6.0nm,0.7s
CLL Collm 77.45 352 IAmb IAmb 16 09 29.6
comp=Z,5.6nm,0.7s
CLL Collm 77.45 352 P **P 16 09 29.0 -0.3**
comp=Z,10nm,0.7s
CLL Collm 77.45 352 *i*P **P 16 09 28.8 -0.6**
comp=Z,6.0nm,0.7s
CLL *es*P **sP 16 09 45.0 -0.6**
CLL *eS* **S 16 19 12.0 -4.8**
CLL *e*PS **PnS 16 20 00.0 +0.3**
CLL *e*SS **SS 16 24 18.0 +3.4**
CLL *e*SSS SSS 16 27 48.0
CLL *ex* x 16 28 54.0
CLL *e* L L 16 37 00.0
CLL AMS AMS 16 47 00.0
comp=Z,200nm,20.7s
KSP Ksiaz 77.60 350 P **P 16 09 29.8 -0.4**
comp=Z,8.0nm,0.8s
ERBR Yeremizino-Bor 77.71 333 *e*P **P 16 09 30.7 -0.2**
ERBR pmax pmax
comp=Z,34nm,1.2s
ERBR MLR MLR
comp=Z,485nm,20.0s
OJC Ojcow 77.79 348 P **P 16 09 31.0 -0.3**
comp=Z,8.6nm,2.3s
BRG Berggiesshubel 77.80 352 *e*P **P 16 09 31.1 -0.2**
BRG Amp 16 09 31.7
comp=Z,4.8nm,0.7s
CHVC Chvalec 77.87 350 *e*P **P 16 09 30.2 -1.6**
CHVC Chvalec 77.87 350 *e*P **P 16 09 30.2 -1.6**
OSTC Ostas 77.89 350 *e*P **P 16 09 31.6 -0.2**
OSTC Ostas 77.89 350 *e*P **P 16 09 31.6 -0.2**
KWP Kalwaria Pacla 77.94 346 P **P 16 09 32.9 +0.8**
comp=Z,2|µmcomp=Z,86nm,0.7s
UPC Upice 77.96 350 *e*P **P 16 09 31.7 -0.5**
UPC Upice 77.96 350 *e*P **P 16 09 31.7 -0.5**
MAK Makhachkala 77.97 327 *e*P **P 16 09 27.7 -4.7**
MAK *e*S **S 16 19 16.3 -6.3**
MAK *e*SS **SS 16 24 28.0 +5.2**
MAK pmax pmax
comp=Z,544nm,1.3s
MAK MLR MLR
comp=Z,715nm,13.0s
DPC Dobruska-Polom 78.08 350 *e*P **P 16 09 32.2 -0.7**
DPC Dobruska-Polom 78.08 350 *e*P **P 16 09 32.2 -0.7**

DPC Dobruska-Polom 78.08 350 P P 16 09 33.2 +0.3
comp=Z,8.5nm,0.8s
PVCC Panska Ves 78.08 351 eP P 16 09 32.5 -0.4
PVCC Panska Ves 78.08 351 eP P 16 09 32.5 -0.4
HSKC Hora Svate Kat 78.11 352 eP P 16 09 31.4 -1.7
RICC Richard 78.11 352 eP P 16 09 33.2 +0.2
KRLC Kraliky 78.30 350 eP P 16 09 33.7 -0.5
KRLC Kraliky 78.30 350 eP P 16 09 33.7 -0.5
STEB Steborice 78.32 349 eP P 16 09 33.6 -0.6
KMPD K-Podol'skiy 78.34 343 P P 16 09 33.5 -0.8
OKC Ostrava-Krasne 78.37 349 eP P 16 09 34.4 -0.1
OKC Ostrava-Krasne 78.37 349 eP P 16 09 34.4 -0.1
SORM Soroca 78.39 342 ⇓P P 16 09 34.2 -0.4
SORM Soroca 78.39 342 ⇓P P 16 09 34.2 -0.4
SORM Soroca 78.39 342 P P 16 09 34.2 -0.4
comp=Z,977nmcomp=Z,117nm,1.1s
UCC Uccle 78.43 358 dP P 16 09 34.7 0.0
MORC Moravsky Berou 78.51 349 ⇑P P 16 09 35.1 -0.2
MORC Moravsky Berou 78.51 349 IAmb IAmb 16 09 36.7
comp=Z,30nm,2.0s
MORC Moravsky Berou 78.51 349 eP P 16 09 34.8 -0.5
MORC Moravsky Berou 78.51 349 ⇑P P 16 09 35.1 -0.2
TBI Tubuai 78.56 152 eLR LR 16 33 54.1
comp=Z,2µm,23.8s
NKC Novy Kostel 78.56 353 eP P 16 09 35.2 -0.4
NKC Novy Kostel 78.56 353 eP P 16 09 35.2 -0.4
MEM Membach 78.57 357 dP P 16 09 35.4 -0.1
comp=Z,11nm,0.9s
BSKQ Steenkerk 78.58 358 dP P 16 09 35.7 +0.1
comp=Z,7.5nm,0.8s
LABN Labinsk 78.62 332 eP P 16 09 36.3 +0.3
LABN pmax pmax
comp=Z,35nm,0.6s
KVAR Kislovodsk Arr 78.65 331 LR LR 16 47 35.0
comp=Z,206nm,21.9s,baz=274,slow=38
KIV Kislovodsk 78.65 331 P P 16 09 36.8 +0.5
comp=Z,8.8nm,1.0s
DRBR Darabani 78.66 343 ⇑P P 16 09 36.0 -0.1
KOLS Kolonicke sedl 78.69 346 eP P 16 09 36.6 +0.3
KOLS pmax pmax
comp=Z,21nm,0.7s
KOLS Kolonicke sedl 78.69 346 eP P 16 09 36.6 +0.3
BCLA Clavier 78.78 357 dP P 16 09 36.4 -0.3
comp=Z,7.5nm,0.7s
BCLA dpP PcP 16 09 44.4 -1.0
BCLA dsP pP 16 09 47.3 -1.3
KBZ Khabaz 78.79 330 P P 16 09 37.1 +0.2
comp=Z,4.8nm,0.8s,baz=123,slow=3.9,SNR=8.7
KBZ LR LR 16 47 58.2
comp=Z,311nm,21.9s,baz=14,slow=38
comp=Z,4.8nm,0.8s
MAUC Maruska 78.88 349 eP P 16 09 37.1 -0.2
LANS Liptovska Anna 78.88 348 eP P 16 09 38.4 +1.0
LANS pmax pmax
comp=Z,7.0nm,0.7s
LANS Liptovska Anna 78.88 348 eP P 16 09 38.4 +1.0
BMRD Maredsous 78.91 358 dP P 16 09 37.4 -0.1
comp=Z,14nm,0.7s
BMRD dPP PP 16 12 37.4 +1.8
UZHM Uzhgorod 78.98 346 P P 16 09 38.5 +0.7
VRAC Vranov 79.08 350 ⇑P P 16 09 38.7 +0.3
VRAC Vranov 79.08 350 eP P 16 09 38.4 0.0
VRAC Vranov 79.08 350 ⇑P P 16 09 38.7 +0.3
DOU Dourbes 79.12 358 dP P 16 09 38.1 -0.5
DOU dPP PP 16 12 37.5 +0.2
GRA1 Grafenberg Arr 79.20 353 IAmb IAmb 16 09 39.9
comp=Z,14nm,0.9s
GRF Grafenberg Arr 79.20 353 eP P 16 09 39.1 0.0
comp=Z,6.3nm,0.8s,baz=10,slow=4.8
ZVC Zvikov 79.20 351 eP P 16 09 38.4 -0.7
GRFO Grafenberg 79.20 353 P P 16 09 39.4 +0.3
TREC Trest 79.21 350 eP P 16 09 38.9 -0.3
TREC Trest 79.21 350 eP P 16 09 38.9 -0.3
NEUR Neytrino 79.27 330 i P P 16 09 40.0 +0.2
NEUR pmax pmax
comp=Z,6.0nm,1.5s
KRUC Moravsky 79.34 350 eP P 16 09 39.6 -0.2
KECS Kecovo 79.39 347 eP P 16 09 41.2 +1.1
KECS Kecovo 79.39 347 eP P 16 09 41.2 +1.1
JAVC Velka Javorina 79.39 349 eP P 16 09 41.2 +1.0
ANN Anapa 79.40 335 eP P 16 09 39.0 -1.2
ANN pmax pmax
comp=Z,19nm,0.7s
BURAR Bucovina Array 79.48 344 ⇑P P 16 09 40.9 +0.1
BURAR Bucovina Array 79.48 344 P P 16 09 40.9 +0.1
BURAR Bucovina Array 79.48 344 ⇑P P 16 09 40.9 +0.1
WLF Walferdange 79.51 357 dP P 16 09 40.5 -0.2
comp=Z,6.6nm,0.8s
KHC Kasperske Hory 79.56 352 ceP P 16 09 41.2 +0.1
KHC pmax pmax
comp=Z,16nm,2.5s
KHC Kasperske Hory 79.56 352 IAmb IAmb 16 09 41.7
comp=Z,6.2nm,0.7s
KHC Kasperske Hory 79.56 352 eP P 16 09 41.1 0.0
VYHS Vyhne 79.61 348 eP P 16 09 41.6 +0.3
VYHS Vyhne 79.61 348 eP P 16 09 41.6 +0.3
CKRC Cesky Krumlov 79.80 351 eP P 16 09 42.2 -0.2
CKRC Cesky Krumlov 79.80 351 eP P 16 09 42.2 -0.2
GERES GERESS Array B 79.83 352 P P 16 09 42.4 -0.3
comp=Z,3.9nm,0.6s,baz=24,slow=5.1,SNR=49
comp=Z,3.9nm,0.6s
GERES GERESS Array B 79.83 352 P P 16 09 42.0 -0.7
ABNA Allensteig Bun 79.83 350 i P P 16 09 42.3 -0.2
comp=Z,3.3nm,0.5s
SOC Sochi 79.88 333 eP P 16 09 41.6 -1.2
SOC e 16 12 41.2
SOC eS S 16 19 44.3 +1.3
SOC eSS SS 16 24 54.2 +2.8
SOC pmax pmax
comp=Z,16nm,1.0s
SOC MLR MLR
comp=Z,356nm,19.0s
GIRR Girov 79.88 343 ⇑P P 16 09 43.3 +0.5
DMBR Dumbraveni 79.90 342 ⇑P P 16 09 42.7 -0.3
MODS Modra-Piesok 79.92 349 eP P 16 09 43.5 +0.5
MODS pmax pmax
comp=Z,19nm,0.9s
MODS Modra-Piesok 79.92 349 eP P 16 09 43.5 +0.5
VASR Vaslui 79.93 342 ⇓P P 16 09 43.5 +0.4
BIZ Bicaz 79.97 343 ⇑P P 16 09 44.0 +0.7
RAO Raoul Island 80.02 179 LR LR 16 37 08.4
comp=Z,236nm,20.7s,baz=341,slow=30
PSZ Piszkesteto 80.03 347 ⇑P P 16 09 44.1 +0.4
PSZ Piszkesteto 80.03 347 IAmb IAmb 16 09 45.3
comp=Z,24nm,1.4s
PSZ Piszkesteto 80.03 347 ⇑P P 16 09 44.1 +0.4
ARCR ARCALIA 80.14 344 ⇑P P 16 09 45.4 +1.2
TESR Tescani 80.28 342 ⇑P P 16 09 45.0 +0.1
TESR Tescani 80.28 342 P P 16 09 45.1 +0.1
comp=Z,32nm,0.7s
ONER Baraj Valea Uz 80.50 342 ⇑P P 16 09 46.9 +0.8
CONA Conrad Observa 80.52 350 i P P 16 09 46.6 +0.2
comp=Z,4.0nm,0.5s,SNR=8.6
GHRR 80.56 342 ⇑P P 16 09 47.3 +0.8
GHRR 80.56 342 P P 16 09 46.7 +0.2
VARL Varlezi 80.63 341 ⇓P P 16 09 47.7 +0.9
VLDR Vladesti 80.64 341 ⇓P P 16 09 47.2 +0.3
RONA Rosalia, Austr 80.70 350 i P P 16 09 47.6 +0.4
comp=Z,3.1nm,0.5s,SNR=4.5
DRGR 80.70 345 ⇑P P 16 09 47.4 +0.1
DRGR 80.70 345 ⇑P P 16 09 47.4 +0.1
MARR Marisel-Cluj 80.75 345 ⇓P P 16 09 47.9 +0.3
MOA Molln 80.77 351 eP P 16 09 47.2 -0.4
comp=Z,2.6nm,0.6s
SCTR Scanteiesti 80.82 341 ⇓P P 16 09 48.6 +0.7
TURR Turia 80.84 343 ⇓P P 16 09 49.4 +1.4
OZUR 80.84 343 ⇓P P 16 09 49.1 +1.0
VRI Vrincioaia 80.88 342 ⇑P P 16 09 48.8 +0.5
VRI Vrincioaia 80.88 342 ⇑P P 16 09 48.8 +0.5
PLOR Plostina 80.91 342 ⇑P P 16 09 48.7 +0.3
PLOR Plostina 80.91 342 ⇑P P 16 09 48.7 +0.3
ODBI Odobesti 80.92 342 ⇑P P 16 09 49.9 +1.6
BIOA Bad Ischl, Aus 80.98 351 i P P 16 09 47.8 -0.9
comp=Z,3.2nm,0.5s
IZVR Izvoarele 80.99 341 ⇓P P 16 09 49.8 +1.0
COVR Voineasa-Covas 81.00 342 ⇓P P 16 09 49.8 +0.9
SAHR Sahastru 81.03 342 ⇓P P 16 09 50.5 +1.5
DOPR Dopca 81.04 343 ⇓P P 16 09 50.6 +1.5
SCHLR Schela 81.05 341 ⇑P P 16 09 50.4 +1.4
MDB Medias 81.05 344 ⇑P P 16 09 49.9 +0.8
MDB Medias 81.05 344 ⇑P P 16 09 49.9 +0.8
TLCR 81.11 341 ⇑P P 16 09 49.8 +0.4
BISRR Bisoca 81.19 342 ⇑P P 16 09 51.3 +1.3
ARSA Arzberg 81.23 350 i P P 16 09 50.4 +0.3
comp=Z,4.4nm,0.6s
CFR Carcaliu 81.26 341 ⇑P P 16 09 51.0 +0.8
CFR Carcaliu 81.26 341 ⇑P P 16 09 51.0 +0.8
GRER 81.30 342 ⇓P P 16 09 51.5 +1.0
LESA Schwarzleotal 81.33 352 i P P 16 09 50.6 -0.1
comp=Z,4.4nm,0.6s,SNR=8.7
SIRR Siria 81.38 346 ⇑P P 16 09 51.8 +1.0
NEHR Nehoiu 81.39 342 ⇓P P 16 09 52.0 +1.0
MLR Muntele Rosu 81.39 343 LR LR 16 51 11.3
comp=Z,140nm,18.3s,baz=2.5,slow=40
MLR Muntele Rosu 81.39 343 ⇓P P 16 09 52.7 +1.6
MLR Muntele Rosu 81.39 343 ⇓P P 16 09 52.7 +1.6
GNI Garni 81.41 328 LR LR 16 51 06.3
comp=Z,369nm,18.6s,baz=28,slow=40
RETA Reutte 81.42 353 i P P 16 09 50.9 -0.2
comp=Z,2.8nm,0.6s
SESA Seetaler Alpe, 81.46 351 i P P 16 09 51.8 +0.3
comp=Z,4.9nm,0.6s,SNR=8.3
WATA Walderalm 81.51 353 eP P 16 09 51.6 -0.1
comp=Z,7.9nm,0.6s,SNR=6.5
MOTA Moosalm 81.54 353 i P P 16 09 51.6 -0.3
comp=Z,6.5nm,0.9s
TNR Turnu Rosu 81.54 344 ⇓P P 16 09 52.3 +0.6
TNR Turnu Rosu 81.54 344 ⇓P P 16 09 52.3 +0.6
WTTA Wattenberg 81.58 353 eP P 16 09 52.1 0.0
comp=Z,14nm,0.7s,SNR=12
VOIR 81.61 343 ⇓P P 16 09 53.5 +1.3
KBA Koelnbreinsper 81.62 352 i P P 16 09 52.7 +0.3
comp=Z,32nm,0.6s,SNR=12
ISR Istrita 81.64 342 ⇓P P 16 09 52.1 -0.2
ISR Istrita 81.64 342 ⇓P P 16 09 52.1 -0.2
SQTA Sankt Quirin 81.66 353 eP P 16 09 52.4 0.0
comp=Z,7.9nm,0.6s,SNR=9.1
WRAB Tennant Creek 81.73 224 ceP P 16 09 53.2 +0.3
WRAB pmax pmax
comp=Z,10.0nm,1.7s
WRAB Tennant Creek 81.73 224 P P 16 09 52.3 -0.6
WRAB pP pP 16 10 02.8 -1.6
WRA Warramunga Arr 81.75 224 P P 16 09 52.3 -0.6
comp=Z,2.0nm,0.7s,baz=32,slow=5.9,SNR=26
comp=Z,2.0nm,0.7s
ARR Arges 81.75 343 ⇓P P 16 09 54.2 +1.3
HARR Harsova 81.77 341 ⇓P P 16 09 53.4 +0.5
HARR Harsova 81.77 341 ⇓P P 16 09 53.4 +0.5
SURR Surduc 81.81 345 ⇑P P 16 09 53.5 +0.4
LOT Lotru 81.83 344 ⇑P P 16 09 53.7 +0.4
SOKA Soboth 81.84 350 eP P 16 09 53.3 -0.1
comp=Z,14nm,0.8s,SNR=14
MORH Mrgy, Hungar 81.87 348 ⇓P P 16 09 52.9 -0.5
MORH Mrgy, Hungar 81.87 348 ⇑iP P 16 09 51.6 -1.8
TLBR Topalu 81.89 341 ⇓P P 16 09 54.2 +0.7
FETA Feichten 81.89 353 i P P 16 09 53.7 0.0
comp=Z,5.7nm,0.7s,SNR=8.5
TIRR Tirgusor 81.89 341 IAmb IAmb 16 09 54.6
comp=Z,12nm,0.7s
TIRR Tirgusor 81.89 341 ⇑P P 16 09 54.4 +0.8
TIRR Tirgusor 81.89 341 P P 16 09 53.6 +0.1
comp=Z,20nm,0.8s
ABTA Abfaltersbach 82.02 352 i P P 16 09 54.1 -0.2
comp=Z,3.4nm,0.7s
BZS Buzias 82.02 346 ⇓P P 16 09 54.4 +0.2
BZS Buzias 82.02 346 ⇓P P 16 09 54.4 +0.2
MYKA Terra Mystica 82.03 351 i P P 16 09 54.5 +0.2
comp=Z,4.5nm,0.7s
OBKA Obir 82.06 351 i P P 16 09 54.9 +0.4
comp=Z,14nm,0.9s,SNR=11
SULR 82.12 342 ⇓P P 16 09 55.2 +0.5
MFTR Murfatlar 82.16 340 ⇓P P 16 09 55.5 +0.5
STFAR Stefanesti-Arg 82.18 343 ⇑P P 16 09 56.4 +1.3
LEHL Lehliu 82.20 342 ⇑P P 16 09 55.5 +0.3
PRED Cave del Predi 82.23 351 IAmb IAmb 16 09 55.7
comp=Z,9.6nm,0.8s
FUORN Ofenpass-Fuorn 82.32 354 IAmb IAmb 16 09 59.2
comp=Z,11nm,0.7s
ICOR Ion Corvin 82.35 341 ⇑P P 16 09 56.1 +0.1
HOMI Horasan 82.44 330 ⇓P P 16 09 57.9 +1.1
TUE Stuetta 82.53 354 IAmb IAmb 16 09 59.3
comp=Z,11nm,0.8s
TUE Stuetta 82.53 354 P P 16 09 56.8 -0.4
comp=Z,59nm,1.1s
HERR Herculane 82.61 345 ⇓P P 16 09 57.6 +0.3
FRGS Fruska Gora 82.74 347 ⇑iP P 16 09 57.9 -0.1
MDVR Moldovita 82.82 345 ⇓P P 16 09 59.0 +0.5
KOPT Kop Dagi 82.91 331 IAmb IAmb 16 10 04.1
comp=Z,5.2nm,0.8s
RPSI Rantau Prapat 82.95 266 IAmb IAmb 16 10 01.1
comp=Z,8.2nm,0.8s
OZAP Van_Ozalp-Mer 83.00 327 ⇑P P 16 10 01.0 +1.2
VLAD Vladila 83.12 343 ⇓P P 16 09 59.7 -0.2
ZIMR 83.27 342 ⇓P P 16 10 00.9 +0.2
ZIMR 83.27 342 ⇓P P 16 10 00.9 +0.2
LOZB Loznitsa 83.31 342 ⇑P P 16 10 01.0 0.0
TEKS Tekeris 83.38 347 ⇑iP P 16 10 01.0 -0.3
RKT Rikitea 83.43 140 eLR LR 16 36 21.6
comp=Z,3µm,31.2s
BLY Banja Luka 83.50 348 ⇓P P 16 10 01.9 0.0
BLY Banja Luka 83.50 348 ⇑iP P 16 10 01.3 -0.6
PLVB Pleven 83.67 343 ⇓P P 16 10 03.2 +0.4
GURO Guroymak-BITLI 83.75 329 IAmb IAmb 16 10 05.5
comp=Z,21nm,1.7s
BLKB Belogradchik 83.79 344 ⇑P P 16 10 03.1 -0.4
ILGA Ilgaz 83.88 336 IAmb IAmb 16 10 07.0
comp=Z,7.8nm,0.9s
BOVS Bovan 83.94 345 ⇑P P 16 10 04.2 0.0
BBLS Lazi&#263i 84.07 347 ⇑iP P 16 10 05.5 +0.6
ARPR Arapgir-MALATY 84.41 332 IAmb IAmb 16 10 08.6
comp=Z,14nm,0.8s
SJES Sjenica 84.57 346 ⇑iP P 16 10 08.1 +0.5
BRY Bratogost 85.13 347 ⇑iP P 16 10 10.0 -0.4
BR131 Keskin Array S 85.14 335 IAmb IAmb 16 10 11.4
comp=Z,11nm,0.7s
BRTR Keskin Array B 85.14 335 P P 16 10 10.7 +0.1
comp=Z,7.9nm,0.7s,baz=54,slow=2.8,SNR=60
BRTR LR LR 16 54 16.2
comp=Z,50nm,18.6s,baz=5.0,slow=40
comp=Z,7.9nm,0.7s
BRTR Keskin Array B 85.14 335 P P 16 10 10.1 -0.5
BR105 Keskin Array S 85.16 335 P P 16 10 10.5 -0.1
comp=Z,105nmcomp=Z,15nm,0.7s
BR104 Keskin Array S 85.16 335 P P 16 10 10.5 -0.1
comp=Z,111nmcomp=Z,14nm,0.7s
ASAR Alice Springs 85.22 222 P P 16 10 10.9 +0.2
comp=Z,2.3nm,0.7s,baz=24,slow=5.4,SNR=41
comp=Z,2.3nm,0.7s
ASAR Alice Springs 85.22 222 P P 16 10 11.0 +0.2
ASAR Alice Springs 85.22 222 P P 16 10 10.5 -0.3
TREB Trebinje 85.34 347 ⇑iP P 16 10 09.7 -1.6
BNN Bunyan 85.36 333 IAmb IAmb 16 10 12.7
comp=Z,11nm,0.7s
PDG Podgorica 85.49 347 ⇓P P 16 10 12.2 +0.2
PDG Podgorica 85.49 347 ⇑iP P 16 10 11.1 -0.9
HCV Herceg Novi 85.59 347 ⇑iP P 16 10 12.1 -0.4
KIRS Kirsehir-Merke 85.63 335 ⇓P P 16 10 13.6 +0.7
DRME Dracevica, Mon 85.74 347 ⇑iP P 16 10 12.8 -0.5
BAND Balkesir-Ban 85.89 340 ⇑P P 16 10 13.9 -0.2
AQU L'Aquila 86.29 351 eP P 16 10 15.1 -1.0
AQU L'Aquila 86.29 351 P P 16 10 16.1 0.0
ISP Isparta 87.73 337 ceP P 16 10 22.9 -0.3
ISP pmax pmax
comp=Z,3.0nm,0.6s
ESDC Sonseca Array 89.49 4 P P 16 10 30.4 -0.9
comp=Z,2.4nm,0.7s,baz=346,slow=4.1,SNR=19
comp=Z,2.4nm,0.7s
ESDC Sonseca Array 89.49 4 IAmb IAmb 16 10 33.7
comp=Z,22nm,1.4s
STKA Stephens Creek 89.64 213 P P 16 10 32.4 +0.5
comp=Z,6.2nm,0.8s,baz=338,slow=9.2,SNR=8.8
comp=Z,6.2nm,0.8s
MMAI Mount Meron Ar 90.93 332 LR LR 16 57 46.3
comp=Z,117nm,18.1s,baz=62,slow=40
H03N2 Juan Fernandez 121.17 106 T T 18 29 32.2
baz=313,slow=76,SNR=80
H03N1 Juan Fernandez 121.19 106 T T 18 29 33.5
baz=309,slow=76,SNR=85
VNDA Vanda 128.92 185 PKP PKiKP 16 16 40.6 -0.2
comp=Z,0.7nm,1.0s,baz=288,slow=3.2,SNR=2.1
PLCA Paso Flores 130.99 107 PKP PKPdf 16 16 45.4 +0.1
comp=Z,2.0nm,0.8s,baz=335,slow=6.3,SNR=4.6
QSPA South Pole Qui 140.86 180 PKhKP PKPpre 16 16 55.4
comp=Z,0.8nm,0.6s,baz=284,slow=0.9,SNR=12
QSPA PKP PKiKP 16 17 04.4 -1.0
comp=Z,1.9nm,0.7s,baz=311,slow=0.7,SNR=14
MAW Mawson 146.21 217 PKPbc PKPbc 16 17 13.3 +0.2
comp=Z,6.8nm,0.8s,baz=84,slow=5.1,SNR=15
MAW Mawson 146.21 217 PKPdf PKPbc 16 17 12.9 -0.3
BOSA Boshof 151.08 312 PKPbc PKPbc 16 17 26.9 -0.3
comp=Z,3.9nm,0.5s,baz=14,slow=2.8,SNR=17
BOSA Boshof 151.08 312 PKiKP 16 17 27.5 -0.3

IDC 29 16:16:08.5±7.0, 20°34S×177°81W, h0km, mb3.2/2, mbtmp3.2/2, MS2.8/1, Error ellipse: s-maj=345.3km s-min=105.0km az=156.0, Fiji Islands region

Code Station Name Δ° AZ° Phase ID Time Res
Op ISC h m s ISC
MSVF Nonsavu 4.69 303 LR LR 16 18 44.6
comp=Z,100nm,18.4s,baz=194,slow=33
ASAR Alice Springs 44.73 257 P P 16 24 23.4 -0.5
0.2nm,0.6s,baz=90,slow=7.9,SNR=5.0
0.2nm,0.6s
WRA Warramunga Arr 44.80 262 P P 16 24 24.6 +0.2
0.3nm,0.8s,baz=97,slow=8.2,SNR=11
0.3nm,0.8s
AKASG Malin Array Be 142.96 331 PKP PKPdf 16 35 43.5 -0.6
0.5nm,0.4s,baz=40,slow=4.2,SNR=4.3

*UPA **29** 16:27:01.1±1.4, 8°32N×82°91W, h32km±8km, MW3.2, Presumed earthquake*
*UCR **29** 16:27:02.5±0.8, 8°39N×82°89W, h28km±2km, MW3.5, Presumed earthquake*

ISC 29 16:27:02.1±1.2, 8°36N±0°05×82°88W±0°04, h29km±7km, n42, σ0.894/54, 7C, Panama-Costa Rica border region

Code Station Name Δ° AZ° Phase ID Time Res
Op ISC h m s ISC
PTPA Petro Terminal 0.16 177 eP Pn 16 27 08.8 +0.1
LPPC Paso Canoas 0.17 13 eP Pb 16 27 07.9 0.0
LPPC eS Sb 16 27 12.6 +0.7
NELY Ciudad Neily 0.29 347 eP Pb 16 27 09.1 -0.3
NELY eS Sb 16 27 14.7 +0.4
NELY Ciudad Neily 0.29 347 ⇑iP Pb 16 27 09.1 -0.3
NELY eS Sb 16 27 14.5 +0.2
FITO Golfito 0.38 314 eP Pb 16 27 09.5 -1.1
FITO eS Sb 16 27 15.5 -0.8
FITO Golfito 0.38 314 ⇑iP Pb 16 27 09.5 -1.1
FITO eS Sb 16 27 15.6 -0.8
CLLRA Cordillera, 0.46 35 eP Pb 16 27 11.7 -0.2
CLLRA Cordillera, 0.46 35 ⇑iP Pb 16 27 11.8 -0.2
CLLRA eS Sb 16 27 17.6 -1.1
VITO San Vito 0.46 349 eP Pb 16 27 11.8 -0.2
VITO eS Sn 16 27 19.8 -0.4
VITO San Vito 0.46 349 i P Pb 16 27 11.8 -0.2
VITO eS Sn 16 27 19.6 -0.7
BRU2 Volcan 0.47 23 eP Pb 16 27 11.8 -0.3
BRU2 eS Sb 16 27 19.5 +0.6
BRU2 Volcan 0.47 23 ⇑iP Pb 16 27 11.9 -0.3
BRU2 eS Sb 16 27 19.6 +0.7
SCLRA Santa Clara, W 0.48 12 ⇑iP Pb 16 27 12.1 -0.2
SCLRA eS Sn 16 27 21.1 +0.4
BQTLY Boquete Panama 0.57 46 eP Pb 16 27 13.2 -0.6
BQTLY Boquete Panama 0.57 46 ⇑iP Pb 16 27 13.2 -0.6
EDP2 Potrero Grande 0.71 336 eP Pb 16 27 15.3 -0.7
FIMO Fila Mora 0.78 323 eP Pn 16 27 16.3 -1.1
PANP Palmar Norte 0.82 316 eP Pn 16 27 16.9 -0.9
RBALA Bur 0.88 54 eP Pn 16 27 17.7 -0.9
RBALA Bur 0.88 54 ⇑iP Pn 16 27 17.7 -0.9
RBALA eS Sn 16 27 29.8 -0.7
EDPE Pejibaye, P 1.04 319 eP Pn 16 27 20.2 -0.7
SAJE San Jernim 1.16 328 eP Pn 16 27 21.5 -1.0
CEUA Cerro Uatsi, L 1.25 357 eP Pn 16 27 25.3 +0.2
LAES El Progreso Va 1.40 353 eP Pn 16 27 26.3 +0.6
VERH Veragua Rainfo 1.58 349 eP Pn 16 27 28.6 +0.2
PIEC Cerro El Cedra 1.64 320 eP Pn 16 27 29.3 0.0
GMAL Guarumal, Vera 1.74 110 eP Pn 16 27 31.3 +1.0
LCR2 La Lucha 2 1.76 321 eP Pn 16 27 31.2 +0.3
PICV PH. Pirrs 1.81 314 eP Pn 16 27 32.4 +1.0
VTCV VTCV, Calle Va 1.81 333 eP Pn 16 27 32.1 +0.5
ABRB Las Abras (San 1.83 333 eP Pn 16 27 32.7 +0.8
LCOCO El Coco 1.84 339 eP Pn 16 27 32.9 +1.1
CVTV Tajo 1.84 332 eP Pn 16 27 32.7 +0.5
VTR0 Volcan Turrial 1.86 332 eP Pn 16 27 33.0 +0.6
RVLA Villa Bonita 1.87 338 eP Pn 16 27 33.1 +0.9
VICA Volcano Irazu 1.87 329 eP Pn 16 27 33.9 +1.2
CVTG V. Turrialba, 1.98 334 eP Pn 16 27 34.7 +0.9
BELE Belen 2.06 321 eP Pn 16 27 36.4 +1.5
VBV1 V. Barva 2.12 325 eP Pn 16 27 36.9 +1.0
VPL2 V. Platanar 2.44 323 eP Pn 16 27 42.3 +2.1
ARE1 Arenal 1 2.76 319 eP Pn 16 27 47.3 +2.7
VARE2 V. Arenal 2.76 319 eP Pn 16 27 47.2 +2.6

*IDC **29** 16:27:31.3±0.8, 31°45S×58°77E, h0km, mb4.0/9, mbtmp4.1/10, ML3.3/1, MS3.5/1, Error ellipse: s-maj=31.5km s-min=20.5km az=61.0*
*NEIC **29** 16:27:33.5±1.4, 31°31S±0°02×58°8E±0°1, h10km±1km, mb4.6/19, Error ellipse: s-maj=18.5km s-min=3.3km az=262.0*

ISC 29 16:27:32.7±0.5, 31°37S±0°09×58°77E±0°09, h10km, n51, σ1.911/40, mb4.5/18, Southwest Indian Ridge

Code Station Name Δ° AZ° Phase ID Time Res
Op ISC h m s ISC
RER Riviere de l'E 10.53 344 Pn Pn 16 30 04.1 +0.3
FOMA Nahampoana Res 12.20 299 Pn Pn 16 30 27.6 +1.2
H04N2 CROZET ISLANDS 15.73 198 T T 16 47 19.0
baz=23,slow=75,SNR=552
H04N1 CROZET ISLANDS 15.73 198 T T 16 47 25.8
baz=23,slow=75,SNR=1913
H04N3 CROZET ISLANDS 15.74 198 T T 16 47 19.8
baz=23,slow=75,SNR=2161
CRZF Crozet Islands 15.96 198 Pn P 16 31 19.2 -1.5
CRZF IAmb IAmb 16 31 22.1
comp=Z,41nm,1.0s
ABPO Ambohimpanom 16.12 317 Pn Pn 16 31 20.4 +0.7
OPO Ambohidratompo 16.50 318 Pn Pn 16 31 21.7 -2.7
baz=144,slow=15,SNR=2.5
OPO Sn Sn 16 34 07.8 -20
baz=275,slow=9.6
comp=Z,4.3nm,0.9s
H08S1 Diego Carcia H 26.85 31 T T 17 01 11.8
baz=206,slow=76,SNR=42
H08S2 Diego Garcia H 26.86 31 T T 17 01 13.8
baz=206,slow=76,SNR=25
H08S3 Diego Garcia H 26.87 31 T T 17 01 13.3
baz=206,slow=76,SNR=74
KDWAN Kaudwane 31.22 276 P P 16 33 53.2 +0.6
KDWAN IAmb IAmb 16 33 58.8
comp=Z,9.1nm,0.8s
LKGWB Lokgwabe 33.89 273 P P 16 34 11.2 -4.7
KAAM Kaadhehdhoo 34.45 26 P P 16 34 19.3 -1.3
KMBO Kilima Mbogo 36.32 322 P P 16 34 36.8 -0.3
TSUM Tsumeb 38.95 278 P P 16 34 57.9 -1.3
MBAR Mbarara 40.51 314 LR LR 16 50 08.5
comp=Z,70nm,20.5s,baz=122,slow=34
H01W2 Cape Leeuwin H 46.00 110 T T 17 25 04.0
baz=258,slow=75,SNR=30
H01W3 Cape Leeuwin H 46.01 110 T T 17 25 06.9
baz=258,slow=75,SNR=30
H01W1 Cape Leeuwin H 46.02 110 T T 17 25 04.5
baz=258,slow=75,SNR=33
BBJI Bungbulang 51.34 73 P P 16 36 35.8 -1.9
BBJI IAmb IAmb 16 37 16.0
comp=Z,29nm,1.2s
PBA Port Blair 53.78 43 P P 16 36 55.9 +0.3
RAYN Ar Rayn 56.05 345 P P 16 37 11.9 0.0
RAYN IAmb IAmb 16 37 15.1
comp=Z,4.9nm,1.2s
QSPA South Pole Qui 58.79 180 P P 16 37 31.1 +0.2
comp=Z,4.9nm,0.9s,baz=264,slow=2.1,SNR=17
comp=Z,4.9nm,0.9s
QSPA South Pole Qui 58.79 180 P P 16 37 31.8 +0.8
QSPA IAmb IAmb 16 37 32.8
comp=Z,5.6nm,0.9s
BELA Belgrano 2 60.29 194 P P 16 37 42.1 +1.2
BELA IAmb IAmb 16 37 42.3
comp=Z,5.3nm,1.4s
CMAR Chiang Mai Arr 62.78 44 P P 16 37 58.7 +0.2
comp=Z,0.6nm,0.4s,baz=231,slow=5.8,SNR=9.0
comp=Z,0.6nm,0.4s
CMAR Chiang Mai Arr 62.78 44 P P 16 37 58.2 -0.3
ASAR Alice Springs 65.92 104 P P 16 38 19.2 0.0
comp=Z,1.6nm,0.8s,baz=244,slow=5.8,SNR=20
comp=Z,1.6nm,0.8s
WRA Warramunga Arr 67.90 100 P P 16 38 32.0 +0.1
comp=Z,2.9nm,0.8s,baz=241,slow=5.7,SNR=17

comp=Z,2.9nm,0.8s
WRA Warramunga Arr 67.90 100 P **P** **16 38 32.0 +0.1**
WRAB Tennant Creek 67.91 100 P **P** **16 38 32.0 +0.1**
WRAB IAmb IAmb 16 38 33.6
comp=Z,5.7nm,1.1s
WB0 Warramunga Arr 68.03 100 P **P** **16 38 32.5 -0.1**
WB0 IAmb IAmb 16 38 33.3
comp=Z,4.2nm,0.8s
STKA Stephens Creek 68.70 115 P **P** **16 38 37.5 +0.7**
comp=Z,3.0nm,0.8s,baz=262,slow=6.7,SNR=4.1
comp=Z,3.0nm,0.8s
INKA Innaminka 69.77 111 P **P** **16 38 44.7 +1.3**
INKA IAmb IAmb 16 38 45.6
comp=Z,3.5nm,0.8s
BRTR Keskin Array B 74.49 340 P **P** **16 39 13.3 +2.0**
comp=Z,0.5nm,0.8s,baz=178,slow=10,SNR=4.0
comp=Z,0.5nm,0.8s
BRTR Keskin Array B 74.49 340 P **P** **16 39 11.4 +0.1**
KKAR Karatay Array 74.89 9 P **P** **16 39 14.6 +1.2**
AB31 Akbulak array 80.28 1 P **P** **16 39 43.6 +0.3**
AB31 IAmb IAmb 16 39 51.1
comp=Z,2.9nm,0.8s
ABKAR Akbulak array 80.28 1 P **P** **16 39 43.6 +0.3**
MKAR Makanchi Array 80.65 16 P **P** **16 39 47.9 +2.5**
comp=Z,0.7nm,0.8s,baz=197,slow=3.8,SNR=5.7
comp=Z,0.7nm,0.8s
KURBB Kurchatov Arra 83.49 13 P **P** **16 40 00.2 0.0**
comp=Z,0.8nm,0.9s,baz=207,slow=6.3,SNR=7.8
comp=Z,0.8nm,0.9s
KURK Kurchatov 83.59 13 P **P** **16 40 00.9 +0.2**
KURK IAmb IAmb 16 40 08.9
comp=Z,2.8nm,0.8s
BVAR Borovoye Array 84.65 7 P **P** **16 40 06.6 +0.5**
comp=Z,1.3nm,0.9s,baz=156,slow=7.8,SNR=4.5
comp=Z,1.3nm,0.9s
MRNZ Matariki Terra 85.43 136 P **P** **16 40 11.3 +0.7**
VAO Valinhos 90.71 242 P **P** **16 40 35.1 -1.2**
ILAR Eielson Array 142.99 18 PKP **PKPdf** **16 47 05.7 -0.2**
comp=Z,0.3nm,0.9s,baz=343,slow=2.8,SNR=4.1
YKA Yellowknife Ar 148.57 354 PKPbc **PKPbc** **16 47 17.8 -1.3**
comp=Z,2.4nm,0.8s,baz=5.1,slow=2.2,SNR=10
ULM Lac du Bonnet 153.31 322 PKPbc **PKPbc** **16 47 28.7 -1.9**
comp=Z,2.9nm,0.8s,baz=61,slow=5.1,SNR=4.9
TXAR Lajitas Array 164.70 267 PKP **PKPdf** **16 47 36.9 -0.4**
comp=Z,0.3nm,0.7s,baz=212,slow=1.7,SNR=2.6
TXAR Lajitas Array 164.70 267 **PKPdf** **16 47 36.1 -1.2**

CATAC ***29*** *16:40:41.6±0.9,23°S±6°×6°5W±1°0,h1km,M5.7/6, mb5.7/6,mB6.1/6,MLv5.8/5,Mw(mB)5.7/6,MwMwp5.4/6, Mwp5.5/6,Error ellipse: s-maj=21.9km s-min=11.0km az=114.3,confirmed*

SJA ***29*** *16:40:42.7±1.7,23°.26S×65°.03W,h17km,ML5.8,MW5.9*

NEIC ***29*** *16:40:44.0±2.1,23°.26S±0°.05×65°.03W±0°.06,h8km±1km, mb6.1/608,Ms_20 5.4/366,Mwb5.6/86,Mww5.8/34, Mwr5.7(GUC),Error ellipse: s-maj=10.4km s-min=7.5km az=134.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; Mrr-2.82; Mθθ3.25; Mϕϕ-0.43; Mrθ 1.84; Mθϕ 1.01; Mϕr-0.09; Fault plane solution: M0 3.71000×10^{17} NP1:ϕs62.86000°,δ31.67000°,λ-110.08000°. NP2: ϕs266.10000°,δ60.46000°,λ-78.05000°. Principal axes: T 3.9685, Plg15.0000°, Azm347.0000°; N -0.5899, Plg10.0000°, Azm80.0000°; P -3.3786, Plg72.0000°, Azm204.0000°.*

VAO ***29*** *16:40:43.6±0.2,23°.34S×65°.08W,h10km, mb5.5, Presumed earthquake*

IDC ***29*** *16:40:43.4±0.3,23°.22S×65°.11W,h0km,mb5.4/17, mbtmp5.3/23,ML4.5/6,MS5.2/54,Error ellipse: s-maj=11.9km s-min=8.9km az=84.0*

ISC-PP ***29*** *16:40:43,23°.26S×65°.03W,h2km,Mwppsmb6.0,Moment Tensor Solution. s31 Moment tensor: Scale 10^{18}Nm; Mrr-0.66±.16; Mθθ0.56±.21; Mϕϕ0.10±.20; Mrθ-0.21±.16; Mθϕ0.07±.33; Mϕr0.26±.14; Fault plane solution: M0 1.08000×10^{18} NP1:ϕs233.90000°,δ39.30000°, λ251.50000°. NP2:ϕs77.30000°,δ53.10000°,λ-75.40000°.*

IPGP ***29*** *16:40:44.0,23°.26S×65°.02W,h9km,Mw5.7, Fault plane solution: NP1:ϕs291.00000°,δ43.00000°,λ-72.00000°. NP2:ϕs87.00000°,δ50.00000°,λ-106.00000°.*

NEIC ***29*** *16:40:44,23°.26S×65°.03W,h8km*

NEIC ***29*** *16:40:44.2,23°.25S×65°.03W,h10km*

MOS ***29*** *16:40:44.2±2.2,23°.17S×65°.11W,h10km,mb6.1/27, MS5.3/22,Error ellipse: s-maj=10.9km s-min=7.2km az=102.4*

GFZ ***29*** *16:40:45.6±0.1,23°S±1°×6°5W±°,h10km,M5.6/51, mb5.7/51,confirmed*

BJI ***29*** *16:40:45.0,23°.30S×65°.00W,h10km,mB5.7/34,Ms5.8/60, Ms7 5.7/62*

GUC ***29*** *16:40:45.6±1.8,23°.43S×65°.11W,h10km,MS5.5, Presumed earthquake*

OSUNB ***29*** *16:40:45.4±0.3,23°.21S×65°.03W,h0km,mb5.5/43,Error ellipse: s-maj=2.8km s-min=2.9km az=0.0*

GFZ ***29*** *16:40:46.0,23°.27S×65°.05W,h10km,Mw5.7/94,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; Mrr-3.53; Mθθ4.35; Mϕϕ-0.82; Mrθ-1.46; Mθϕ-1.11; Mϕr0.91; Fault plane solution: M0 4.49634×10^{17} NP1: ϕs112.16714°,δ56.86026°,λ-76.83349°. NP2: ϕs269.00055°,δ35.38020°,λ-109.23324°. Principal axes: T 4.8874, Plg10.9505°, Azm192.7249°; N -0.9263, Plg10.9954°, Azm284.8794°; P -3.9610, Plg74.3839°, Azm58.9179°;*

GCMT ***29*** *16:40:48.0±0.1,23°.29S×64°.98W,h12km,MW5.7/146, Moment Tensor Solution. s128,c240; s146,c311; Duration: 1s8 Moment tensor: Scale 10^{17}Nm; Mrr-3.84±.05; Mθθ4.81±.04; Mϕϕ-0.96±.06; Mrθ0.92±.11; Mθϕ-0.69±.04; Mϕr1.85±.14; Best double couple: M0 4.91500×10^{17} NP1:ϕs121.00000°,δ46.00000°, λ-52.00000°. NP2:ϕs252.00000°,δ55.00000°, λ-123.00000°. Principal axes: T 4.9520, Plg5.0000°, Azm5.0000°; N -0.0700, Plg27.0000°, Azm273.0000°; P -4.8780, Plg63.0000°, Azm105.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***29*** *16:40:54.6,23°.26S×65°.03W,h12km,Moment Tensor Solution. Duration: 3s9 Moment tensor: Scale 10^{17}Nm; Mrr-3.94; Mθθ5.79; Mϕϕ-1.85; Mrθ2.37; Mθϕ-0.96; Mϕr0.92; Fault plane solution: M0 5.80000×10^{17} NP1: ϕs120.55000°,δ37.42000°,λ-53.84000°. NP2: ϕs257.92000°,δ60.62000°,λ-114.30000°. Principal axes: T 6.4045, Plg12.0000°, Azm5.0000°; N -1.5037, Plg21.0000°, Azm270.0000°; P -4.9008, Plg65.0000°, Azm124.0000°;*

RSNC ***29*** *16:41:29.7±2.6,20°S±24°×6°5W±1°2,h178km±10km,M5.4, mB5.8,mb5.4,ML4.2,Mw(mB)5.3,MwMwp5.3,Mwp5.5*

ISC 29 16:40:43.7±0.4,23°25S±0°02×65°06W±0°03,h7km±2km, h6km:pP-P,n1150,σ2s96/783,mb6.1/352,MS5.4/256, 17C-21D,Jujuy Province

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
YJA	**Yavi**	**1.15**	**338**	*eP*		**Pg**	**16 41 05.1**	**-0.8**
YJA				*eP*		**Pb**	**16 41 05.4**	**-0.8**
YJA				*i* S		**Sg**	**16 41 19.5**	**-1.3**
YJA	**Yavi**	**1.15**	**338**	⇓*i*P		**Pg**	**16 41 05.0**	**-0.9**
SLA	**San Lorenzo**	**1.52**	**196**	*eP*		**Pb**	**16 41 11.7**	**-0.6**
SLA				IAML			16 41 41.7	
comp=Z,50μm,0.6s								
SLA	**San Lorenzo**	**1.52**	**196**	⇑*i*P		**Pn**	**16 41 10.3**	**-1.1**
SALTA		**1.52**	**230**	*eP*		**Pn**	**16 41 10.9**	**-0.9**
SALTA				IAML			16 41 41.8	
comp=Z,181μm,0.8s								
SALTA				IAML			16 41 42.1	
comp=Z,264μm,1.0s								
SALTA		**1.52**	**230**	P		**Pn**	**16 41 09.6**	**-2.2**
SALTA				⇑P		**Pn**	**16 41 09.6**	**-2.2**
SALTA				S		**Sb**	**16 41 32.8**	**+0.4**
AF01	**San Pedro de A**	**2.89**	**275**			**Pn**	**16 41 31.9**	**+1.4**
AF01	**San Pedro de A**	**2.89**	**275**	*eP*		**Pb**	**16 41 33.5**	**-2.3**
AF01				IVMs_BB	IVMs_BB		16 42 48.3	
comp=Z,245μm,4.9s								
FSA	**Cafayete**	**2.97**	**196**	*eP*		**Pn**	**16 41 33.5**	**+2.1**
FSA				*eS*		**Sg**	**16 42 18.4**	**-0.6**
AHML	**Horco Molle**	**3.53**	**184**	*eP*		Pn	16 41 29.6	-9.3
AHML				*eS*		**Sb**	**16 42 27.6**	**-2.0**
AHML				IAML			16 42 41.6	
comp=Z,11μm,0.6s								
AHML	**Horco Molle**	**3.53**	**184**	⇑*i*P		Pn	16 41 29.2	-10
PB09	**IPOC Station P**	**4.13**	**290**	*eP*		**Pn**	**16 41 51.4**	**+3.9**
PB09	**IPOC Station P**	**4.13**	**290**	P		**Pn**	**16 41 51.1**	**+3.6**
PB09	**IPOC Station P**	**4.13**	**290**			**Pn**	**16 41 48.9**	**+1.5**
PB09	**IPOC Station P**	**4.13**	**290**	⇓*i*P		**Pn**	**16 41 50.6**	**+3.2**
PB09				*i* S		**Sn**	**16 42 39.4**	**+3.2**
PB09	**IPOC Station P**	**4.13**	**290**	⇓P		**Pn**	**16 41 50.8**	**+3.4**
PB09				P		**Pn**	**16 41 51.0**	**+3.5**
PB06	**IPOC Station P**	**4.20**	**277**	*eP*		**Pn**	**16 41 51.0**	**+2.7**
PB06	**IPOC Station P**	**4.20**	**277**	P		**Pn**	**16 41 51.2**	**+2.8**
PB06	**IPOC Station P**	**4.20**	**277**			**Pn**	**16 41 50.5**	**+2.2**
PB06	**IPOC Station P**	**4.20**	**277**	⇓*i*P		**Pn**	**16 41 50.0**	**+1.7**
PB06				*i* S		**Sb**	**16 42 44.8**	**-4.3**
PB06				AMSG			16 43 35.8	
comp=Z,81μm,7.6s								
PB06	**IPOC Station P**	**4.20**	**277**	⇓P		**Pn**	**16 41 50.5**	**+2.2**
PB06				P		**Pn**	**16 41 51.1**	**+2.8**
PB03	**IPOC Station P**	**4.50**	**285**	*eP*		**Pn**	**16 41 54.7**	**+2.2**
PB03				*eS*		**Sn**	**16 42 37.1**	**-8.1**
PB03	**IPOC Station P**	**4.50**	**285**			**Pn**	**16 41 54.4**	**+1.9**
PB03	**IPOC Station P**	**4.50**	**285**	⇑*i*P		**Pn**	**16 41 54.0**	**+1.5**
PB03				IAmb	IAmb		16 42 05.3	
comp=E,1μm,0.8s								
PB03				*eS*		**Sn**	**16 42 47.5**	**+2.2**
PB03	**IPOC Station P**	**4.50**	**285**	P		**Pn**	**16 41 54.7**	**+2.2**
PB01	**IPOC Station P**	**4.66**	**297**	*eP*		**Pn**	**16 41 57.8**	**+3.1**
PB01	**IPOC Station P**	**4.66**	**297**			**Pn**	**16 41 56.9**	**+2.2**
PB01	**IPOC Station P**	**4.66**	**297**	⇓*i*P		**Pn**	**16 41 57.4**	**+2.8**
PB01				IAmb	IAmb		16 42 28.5	
comp=N,704nm,0.6s								
PB01				*eS*		**Sn**	**16 42 52.8**	**+3.7**
PB01				IVMs_BB	IVMs_BB		16 43 50.1	
comp=Z,82μm,8.3s								
PB01	**IPOC Station P**	**4.66**	**297**	⇓P		**Pn**	**16 41 57.7**	**+3.1**
PB07	**IPOC Station P**	**4.72**	**288**			**Pn**	**16 41 56.9**	**+1.4**
PB07	**IPOC Station P**	**4.72**	**288**	*eP*		**Pn**	**16 41 57.2**	**+1.7**
PB07	**IPOC Station P**	**4.72**	**288**	⇓P		**Pn**	**16 41 57.6**	**+2.1**
PB07				P		**Pn**	**16 41 57.8**	**+2.3**
comp=Z,2μm,0.7s								
PB05	**IPOC Station P**	**4.76**	**274**			**Pn**	**16 41 57.3**	**+1.3**
PB05	**IPOC Station P**	**4.76**	**274**	*i* P		**Pn**	**16 41 57.5**	**+1.6**
PB05				IAmb	IAmb		16 42 49.4	
comp=E,1μm,0.7s								
PB05				IVMs_BB	IVMs_BB		16 44 02.2	
comp=Z,111μm,9.0s								
PB05	**IPOC Station P**	**4.76**	**274**	P		**Pn**	**16 41 57.8**	**+1.8**
comp=Z,1μm,0.9s								
PB02	**IPOC Station P**	**4.88**	**292**	P		**Pn**	**16 42 00.6**	**+3.0**
PB02	**IPOC Station P**	**4.88**	**292**			**Pn**	**16 41 59.3**	**+1.6**
PB02	**IPOC Station P**	**4.88**	**292**	⇓*e*P		**Pn**	**16 41 59.6**	**+2.0**
PB02				IVMs_BB	IVMs_BB		16 43 59.8	
comp=Z,100μm,6.9s								
PB02	**IPOC Station P**	**4.88**	**292**	P		**Pn**	**16 42 00.1**	**+2.4**
comp=Z,1μm,0.9s								
PB08	**IPOC Station P**	**4.91**	**308**	P		**Pn**	**16 42 01.8**	**+3.5**
PB10	**IPOC Station P**	**5.06**	**266**			**Pn**	**16 42 01.5**	**+1.4**
PB10	**IPOC Station P**	**5.06**	**266**	⇓*i*P		**Pn**	**16 42 01.4**	**+1.4**
PB10				*i* S		**Sn**	**16 42 59.6**	**+0.8**
PB10				IVMs_BB	IVMs_BB		16 44 05.0	
comp=Z,63μm,8.3s								
PB10	**IPOC Station P**	**5.06**	**266**	P		**Pn**	**16 42 03.3**	**+3.3**
comp=Z,2μm,0.9s								
PB14	**IPOC Station P**	**5.08**	**253**	P		**Pn**	**16 42 02.0**	**+1.4**
PB14	**IPOC Station P**	**5.08**	**253**			**Pn**	**16 42 01.1**	**+0.5**
PB14	**IPOC Station P**	**5.08**	**253**	⇓*i*P		**Pn**	**16 42 02.4**	**+1.8**
PB14				IAmb	IAmb		16 42 17.9	
comp=N,402nm,1.1s								
PB14				*i* S		**Sn**	**16 43 00.7**	**+0.9**
PB14	**IPOC Station P**	**5.08**	**253**	P		**Pn**	**16 42 02.9**	**+2.3**
comp=Z,2μm,0.8s								
AC02	**Maricunga**	**5.14**	**225**			**Pn**	**16 42 03.0**	**+1.5**
AC02	**Maricunga**	**5.14**	**225**	*i* P		**Pn**	**16 42 04.8**	**+3.2**
AC02				IVmB_BB			16 42 29.8	
comp=N,26μm,2.5s								
AC02				IVMs_BB	IVMs_BB		16 44 00.1	
comp=Z,67μm,9.0s								
AC02	**Maricunga**	**5.14**	**225**	P		**Pn**	**16 42 04.9**	**+3.4**
comp=Z,797nm,1.4s								
GO01	**Chusmiza**	**5.25**	**312**	Pn		**Pn**	**16 42 04.1**	**+1.0**
GO01	**Chusmiza**	**5.25**	**312**	*i* P		**Pn**	**16 42 05.8**	**+2.6**
GO01				IAmb	IAmb		16 42 34.9	
comp=N,750nm,0.7s								
GO01				IVmB_BB			16 42 42.0	
comp=N,12μm,3.2s								
GO01	**Chusmiza**	**5.25**	**312**	P		**Pn**	**16 42 06.4**	**+3.3**
comp=Z,1μm,0.7s								
TA01	**Diego Aracena**	**5.46**	**298**			**Pn**	**16 42 07.2**	**+1.7**
TA01	**Diego Aracena**	**5.46**	**298**	⇓*i*P		**Pn**	**16 42 07.2**	**+1.7**
TA01				IAmb	IAmb		16 42 17.8	
comp=E,1μm,0.6s								
TA01				*i* S		**Sn**	**16 43 11.9**	**+3.3**
TA01				IVMs_BB	IVMs_BB		16 44 24.1	
comp=Z,47μm,5.5s								
TA01	**Diego Aracena**	**5.46**	**298**	P		**Pn**	**16 42 07.6**	**+2.1**
comp=Z,4μm,0.9s								
PB11	**IPOC Station P**	**5.52**	**308**			**Pn**	**16 42 08.2**	**+1.8**
PB11	**IPOC Station P**	**5.52**	**308**	⇓*i*P		**Pn**	**16 42 09.3**	**+2.8**
PB11	**IPOC Station P**	**5.52**	**308**	P		**Pn**	**16 42 09.6**	**+3.1**
comp=Z,3μm,0.9s								
TA02	**Huaiquique**	**5.57**	**301**	*eP*		**Pn**	**16 42 08.8**	**+1.7**
TA02				IVMs_BB	IVMs_BB		16 44 28.3	
comp=Z,75μm,6.9s								
AC01	**Pan de Azucar**	**5.81**	**239**	P		**Pn**	**16 42 12.3**	**+1.9**
AC01	**Pan de Azucar**	**5.81**	**239**			**Pn**	**16 42 11.2**	**+0.9**
AC01	**Pan de Azucar**	**5.81**	**239**	*eP*		**Pn**	**16 42 12.0**	**+1.7**
AC01				IVMs_BB	IVMs_BB		16 44 19.3	
comp=Z,46μm,6.9s								
AC01	**Pan de Azucar**	**5.81**	**239**	P		**Pn**	**16 42 13.1**	**+2.7**
comp=Z,731nm,1.3s								
PSGCX	**Pisagua**	**5.96**	**307**			**Pn**	**16 42 13.9**	**+1.4**
PSGCX	**Pisagua**	**5.96**	**307**	⇓*i*P		**Pn**	**16 42 14.1**	**+1.6**
PSGCX				*i* S		**Sn**	**16 43 26.6**	**+5.5**
PSGCX	**Pisagua**	**5.96**	**307**	P		**Pn**	**16 42 14.4**	**+1.9**
comp=Z,1μm,1.0s								
AC06	**Mina Casimiro**	**6.30**	**228**			**Pn**	**16 42 18.2**	**+1.1**
GO03	**Copiapo**	**6.37**	**226**			**Pn**	**16 42 19.0**	**+0.8**
GO03	**Copiapo**	**6.37**	**226**	P		**Pn**	**16 42 20.3**	**+2.2**
comp=Z,730nm,1.3s								
PB16	**IPOC Station P**	**6.43**	**319**	P		**Pn**	**16 42 23.2**	**+3.9**
comp=Z,778nm,0.5s								
PB12	**IPOC Station P**	**6.75**	**312**			**Pn**	**16 42 23.8**	**+0.5**
PB12	**IPOC Station P**	**6.75**	**312**	P		**Pn**	**16 42 25.2**	**+1.8**
comp=Z,666nm,1.0s								
AP01	**Chacalluta**	**6.93**	**314**	⇓P		**Pn**	**16 42 26.8**	**+1.0**
comp=Z,1μm,0.9s								
PB18	**Visviri**	**7.00**	**323**			**Pn**	**16 42 28.1**	**+0.9**
AC05	**El Transito**	**7.28**	**219**	P		**Pn**	**16 42 32.6**	**+2.1**
comp=Z,1μm,1.2s								
AC04	**Llanos de Chal**	**7.33**	**226**	P		**Pn**	**16 42 33.9**	**+2.7**
comp=Z,1μm,1.3s								
BBSD	**Serra de San D**	**7.34**	**35**	*eP*		**Pn**	**16 42 33.1**	**+1.8**
LPAZ	**La Paz**	**7.51**	**337**	Pn		**Pn**	**16 42 36.3**	**+2.0**
LPAZ								
comp=Z,5.8nm,0.3s,baz=140,slow=12,SNR=55								
LPAZ				LR	LR		16 46 10.1	
comp=Z,52μm,18.3s,baz=143,slow=44								
comp=Z,27nm,0.5s								
LPAZ				AML	AML			
LPAZ	**La Paz**	**7.51**	**337**			**Pn**	**16 42 36.0**	**+1.8**
LPAZ	**La Paz**	**7.51**	**337**	P		**Pn**	**16 42 36.2**	**+2.0**
LPAZ	**La Paz**	**7.51**	**337**	P		**Pn**	**16 42 35.4**	**+1.1**
LPAZ	**La Paz**	**7.51**	**337**	P		**Pn**	**16 42 36.6**	**+2.3**
comp=Z,453nm,0.9s								
LPAZ	**La Paz**	**7.51**	**337**	*eP*		**Pn**	**16 42 34.3**	**0.0**
COIM	**Forte Coimbra**	**7.54**	**65**	*eP*		**Pn**	**16 42 33.9**	**-0.1**
LCO	**Las Campanas**	**7.66**	**220**	P		**Pn**	**16 42 36.8**	**+0.9**
LCO	**Las Campanas**	**7.66**	**220**	P		**Pn**	**16 42 36.1**	**+0.2**
LCO	**Las Campanas**	**7.66**	**220**			**Pn**	**16 42 36.1**	**+0.2**
CPUP	**Villa Florida**	**7.66**	**115**	Pn		**Pn**	**16 42 36.2**	**+0.5**
comp=Z,7.8nm,0.3s,baz=298,slow=13,SNR=244								
CPUP				Sn		**Sn**	**16 44 00.1**	**-2.7**
comp=Z,31nm,0.3s,baz=325,slow=15,SNR=3.2								
comp=Z,259nm,0.9s								
CPUP				AML	AML			
CPUP	**Villa Florida**	**7.66**	**115**			**Pn**	**16 42 36.0**	**+0.3**
CPUP	**Villa Florida**	**7.66**	**115**	P		**Pn**	**16 42 36.4**	**+0.7**
CO01	**Juntas del Tor**	**8.07**	**213**	P		**Pn**	**16 42 44.6**	**+3.0**
comp=Z,339nm,1.2s								
SIV	**San Ignacio**	**8.14**	**28**	Pn		**Pn**	**16 42 43.3**	**+0.9**
comp=Z,252nm,0.5s,baz=211,slow=8.0,SNR=527								
SIV				Sn		**Sn**	**16 44 12.9**	**-1.9**
comp=Z,9.5nm,0.3s,baz=279,slow=12,SNR=5.8								
BDQN	**Bodoquena, MS**	**8.20**	**72**	*eP*		**Pn**	**16 42 43.9**	**+0.7**
GO04	**Tololo Observa**	**8.59**	**215**	P		**Pn**	**16 42 49.9**	**+1.1**
comp=Z,668nm,1.0s								
CFA	**Coronel Fontan**	**8.79**	**198**	Pn		**Pn**	**16 42 51.7**	**+0.5**
comp=Z,2.3nm,0.3s,baz=25,slow=12,SNR=61								
CFA				Sn		**Sn**	**16 44 28.0**	**-2.6**
comp=Z,5.4nm,0.3s,baz=34,slow=16,SNR=1.5								
CFA				LR	LR		16 46 43.9	
comp=Z,21μm,18.9s,baz=26,slow=41								
comp=Z,438nm,1.1s								
CFA				AML	AML			
ZON	**Zonda**	**8.87**	**200**	P		**Pn**	**16 42 53.1**	**+0.8**
comp=E,530nm,1.3s								
CO03	**El Pedregal**	**9.07**	**212**	P		**Pn**	**16 42 56.5**	**+1.3**
comp=Z,401nm,1.1s								
AQDB	**Aquidauana**	**9.12**	**74**			**Pn**	**16 42 56.0**	**+0.3**
AQDB	**Aquidauana**	**9.12**	**74**	P		**Pn**	**16 42 57.0**	**+1.3**
AQDB	**Aquidauana**	**9.12**	**74**	P		**Pn**	**16 42 57.1**	**+1.4**
comp=Z,619nm,1.0s								
AQDB	**Aquidauana**	**9.12**	**74**	*eP*		**Pn**	**16 42 56.6**	**+0.9**
CO02	**Combarbal**	**9.52**	**212**	P		**Pn**	**16 43 03.4**	**+2.0**
comp=Z,307nm,1.1s								
PTLB	**Pontes e Lacer**	**9.56**	**37**			**Pn**	**16 43 02.7**	**+0.8**
PTLB	**Pontes e Lacer**	**9.56**	**37**	P		**Pn**	**16 43 03.2**	**+1.4**
PTLB	**Pontes e Lacer**	**9.56**	**37**	*eP*		**Pn**	**16 43 02.1**	**+0.3**
ITQB	**Itaqui**	**9.89**	**132**	P		**Pn**	**16 43 09.3**	**+3.0**
ITQB	**Itaqui**	**9.89**	**132**	*eP*		**Pn**	**16 43 05.8**	**-0.6**
CO04	**Los Peladeros**	**10.21**	**210**	P		**Pn**	**16 43 13.5**	**+2.6**
comp=Z,260nm,1.5s								
PSAL	**Palomas, Salto**	**10.23**	**141**	*eP*		**Pn**	**16 43 10.3**	**-0.7**
VA03	**San Esteban**	**10.64**	**206**	P		**Pn**	**16 43 20.1**	**+3.4**
comp=Z,381nm,0.8s								
PEL	**Peldehue**	**11.03**	**205**	⇑P		**Pn**	**16 43 21.1**	**-0.9**
comp=Z,242nm,1.2s								
PP1B	**Ponte de Pedra**	**11.07**	**61**	*eP*		**Pn**	**16 43 20.7**	**-1.9**
MT16	**CCHEN**	**11.22**	**204**			**Pn**	**16 43 26.2**	**+1.6**
VILB	**Vilhena**	**11.23**	**25**			**Pn**	**16 43 25.0**	**+0.2**
VILB	**Vilhena**	**11.23**	**25**	P		**Pn**	**16 43 26.2**	**+1.4**
VILB	**Vilhena**	**11.23**	**25**	*eP*		**Pn**	**16 43 25.9**	**+1.1**
VA01	**Torpederas**	**11.34**	**209**	P		**Pn**	**16 43 26.9**	**+0.8**
comp=Z,369nm,1.1s								
MT13	**San Alfonso**	**11.42**	**203**			**Pn**	**16 43 28.5**	**+1.1**
SALV	**Santo Antonio**	**11.46**	**52**	P		**Pn**	**16 43 26.8**	**-1.0**
SALV	**Santo Antonio**	**11.46**	**52**	*eP*		**Pn**	**16 43 25.7**	**-2.1**
PTGB	**Pitanga**	**11.97**	**100**	P		**Pn**	**16 43 35.6**	**+0.7**
PTGB	**Pitanga**	**11.97**	**100**	*eP*		**Pn**	**16 43 36.0**	**+1.2**
BO01	**Tunca**	**12.29**	**204**			**Pn**	**16 43 39.6**	**+0.4**
BO01	**Tunca**	**12.29**	**204**	P		**Pn**	**16 43 38.3**	**-0.9**
comp=Z,67nm,1.2s								
ITAB	**Concordia**	**12.35**	**111**			**Pn**	**16 43 39.5**	**-0.5**
ITAB	**Concordia**	**12.35**	**111**	P		**Pn**	**16 43 41.4**	**+1.4**
ITAB	**Concordia**	**12.35**	**111**	P		**Pn**	**16 43 40.7**	**+0.7**
comp=Z,203nm,1.2s								
ITAB	**Concordia**	**12.35**	**111**	*eP*		**Pn**	**16 43 40.0**	**0.0**
BO02	**Sierra Bellavi**	**12.54**	**202**	P		**Pn**	**16 43 45.5**	**+2.9**
comp=Z,237nm,1.3s								
CPSB	**Cacapava Do Su**	**12.58**	**127**			**Pn**	**16 43 42.2**	**-0.9**
CPSB	**Cacapava Do Su**	**12.58**	**127**	P		**Pn**	**16 43 42.9**	**-0.2**
CPSB	**Cacapava Do Su**	**12.58**	**127**	P		**Pn**	**16 43 42.9**	**-0.2**
comp=Z,192nm,0.8s								
CPSB	**Cacapava Do Su**	**12.58**	**127**	*eP*		**Pn**	**16 43 41.1**	**-2.0**
ANCO	**Parque Anchore**	**12.61**	**152**	*eP*		**Pn**	**16 43 42.3**	**-1.3**
LDASE	**Londrina, Braz**	**12.81**	**93**	*eP*		**Pn**	**16 43 46.1**	**-0.3**
PCMB	**Pacaembu**	**12.86**	**85**	P		**Pn**	**16 43 49.4**	**+2.3**
PCMB	**Pacaembu**	**12.86**	**85**	P		**Pn**	**16 43 47.6**	**+0.5**
comp=Z,288nm,1.0s								
PCMB	**Pacaembu**	**12.86**	**85**	*eP*		**Pn**	**16 43 47.5**	**+0.5**
GO05	**Hualane**	**13.16**	**206**	P		**Pn**	**16 43 49.4**	**-1.7**
comp=Z,115nm,1.2s								
LPA	**La Plata**	**13.17**	**153**	*i* P		**Pn**	**16 43 47.6**	**-3.6**
LPA	**La Plata**	**13.17**	**153**	PN		**Pn**	**16 43 53.5**	**+2.3**
LPA				pP		**P**	**16 44 00.1**	**-1.3**
LPA				sP			16 44 05.8	
LPA				PP		PnPn	16 44 11.0	+12
LPA				pPP			16 44 38.3	
LPA				PPP		PPP	16 45 02.1	
LPA				S		**Sn**	**16 46 09.4**	**-8.6**
LPA	**La Plata**	**13.17**	**153**	SN		**Sn**	**16 46 15.4**	**-2.6**
LPA				sS		S	16 46 30.9	-12
LPA				SS		SbSb	16 46 54.8	-17
LPA				SSS		SSS	16 47 51.5	
LPA				PCP		**PcP**	**16 49 17.7**	**-4.9**
LPA				PKIKP		**PKiKP**	**16 57 17.8**	**-1.8**

LR05 Currie 17.92 198 P **Pn** **16 44 52.7 -0.7**
PMNB Patos De Minas 18.01 78 P **P** **16 44 58.4 +3.1**
PMNB Patos De Minas 18.01 78 P **P** **16 44 56.5 +1.2**
comp=Z,127nm,1.0s
PMNB Patos De Minas 18.01 78 *e*P **P** **16 44 55.0 -0.3**
PLCA Paso Flores 18.03 194 P **P** **16 44 56.2 +0.8**
comp=Z,0.2nm,0.3s,baz=14,slow=14,SNR=22
PLCA S **Sn** **16 48 14.1 -2.3**
comp=Z,13nm,1.1s,baz=2.4,slow=21,SNR=1.4
PLCA LR LR 16 52 26.6
comp=Z,32µm,18.3s,baz=2.0,slow=39
comp=Z,23nm,0.9s
PLCA AML AML
PLCA Paso Flores 18.03 194 P **Pn** **16 44 53.7 -1.2**
PLCA 16 48 14.1
PLCA pmax pmax
comp=Z,155nm,1.2s
PLCA Paso Flores 18.03 194 **Pn** **16 44 53.7 -1.2**
PLCA Paso Flores 18.03 194 P **P** **16 44 57.7 +2.3**
PLCA Paso Flores 18.03 194 P **P** **16 44 56.1 +0.8**
comp=Z,146nm,1.2s
PLCA Paso Flores 18.03 194 *e*P **Pn** **16 44 52.6 -2.3**
NPGB Novo Progresso 18.62 32 P **Pn** **16 45 03.3 +1.2**
NPGB Novo Progresso 18.62 32 *e*P **P** **16 45 01.3 -0.6**
LL03 Petrohue 18.87 197 P **P** **16 45 03.1 -1.5**
LL03 Petrohue 18.87 197 P **Pn** **16 45 06.2 +1.1**
comp=Z,730nm,1.0s
LL05 Los Muermos 19.43 199 P **Pn** **16 45 13.9 +2.1**
comp=Z,506nm,1.3s
TEFE Tefe 19.63 1 P **Pn** **16 45 15.5 +1.1**
VAS01 Vassouras-RJ 19.95 91 *e*P **Pn** **16 45 16.7 -1.5**
JQT1 Jequitai-MG 20.31 77 P Pn 16 45 23.7 +1.2
MACA Manacapuru-AM 20.42 13 P **P** **16 45 20.7 -0.9**
MACA IAmb IAmb 16 45 27.5
comp=Z,1µm,1.0s
MACA Manacapuru-AM 20.42 13 P Pn 16 45 22.8 -0.8
MACA Manacapuru-AM 20.42 13 *e*P Pn 16 45 22.1 -1.5
ATAH Atahualpa 20.53 319 P **P** **16 45 22.4 -0.8**
comp=Z,10nm,0.6s,baz=152,slow=11,SNR=8.4
ATAH S **S** **16 49 10.2 -3.4**
comp=Z,12nm,0.9s,baz=115,slow=11,SNR=1.4
DIAM Diamantina, MG 20.59 80 P Pn 16 45 26.2 +0.4
DIAM Diamantina, MG 20.59 80 *e*P **P** **16 45 23.4 -0.2**
LL02 Futaleuf 20.67 194 P **P** **16 45 22.5 -1.6**
LL02 Futaleuf 20.67 194 P **P** **16 45 24.2 +0.1**
comp=Z,609nm,1.2s
LL07 Hotel Espejo d 20.74 198 P Pn 16 45 27.3 +0.1
comp=Z,1µm,1.1s
ITTB Itaituba 20.82 27 P Pn 16 45 27.5 -0.9
ITTB Itaituba 20.82 27 *e*P Pn 16 45 26.7 -1.8
GO07 Milladeo Hill, 21.05 198 IAmb IAmb 16 45 35.9
comp=Z,751nm,0.8s
GO07 Milladeo Hill, 21.05 198 P **P** **16 45 30.1 +1.8**
comp=Z,1µm,0.8s
CAM01 Campos-RJ 21.66 91 P **P** **16 45 39.8 +4.9**
CAM01 Campos-RJ 21.66 91 *e*P **P** **16 45 34.4 -0.5**
SDBA SAO DESIDERIO 21.98 64 P **P** **16 45 41.9 +3.4**
SDBA SAO DESIDERIO 21.98 64 *e*P **P** **16 45 38.8 +0.3**
SMTB Santa Maria do 22.02 52 **P** **16 45 40.0 +1.1**
SMTB Santa Maria do 22.02 52 P **P** **16 45 41.3 +2.4**
SMTB Santa Maria do 22.02 52 *e*P **P** **16 45 39.8 +0.9**
SJMB Sao Joao De Ma 22.73 83 *e*P **P** **16 45 46.5 0.0**
COYC Coyhaique 22.99 193 **P** **16 45 47.9 -1.1**
COYC IAmb IAmb 16 45 54.4
comp=Z,532nm,1.2s
COYC Coyhaique 22.99 193 P **P** **16 45 49.9 +1.0**
comp=Z,391nm,1.1s
BSFB Barra de Sao F 23.01 84 P **P** **16 45 54.0 +4.6**
BSFB Barra de Sao F 23.01 84 P **P** **16 45 50.4 +1.0**
comp=Z,153nm,1.2s
BSFB Barra de Sao F 23.01 84 *e*P **P** **16 45 49.5 +0.1**
RIB01 Linhares ES 23.30 85 P **P** **16 45 54.7 +2.3**
RIB01 Linhares ES 23.30 85 *e*P **P** **16 45 52.3 -0.1**
ATM1 UHE Belo Monte 23.41 34 P **P** **16 45 54.8 +1.3**
MAL2 Monte Alegre, 23.60 28 P **P** **16 45 56.2 +0.8**
PAL2 UHE Estreito - 23.67 49 P **P** **16 45 58.6 +2.5**
BMO1 UHE Belo Monte 23.77 35 P **P** **16 45 58.3 +1.3**
GUA01 Guaratinga, BA 24.63 79 P **P** **16 46 07.9 +2.9**
GUA01 Guaratinga, BA 24.63 79 *e*P **P** **16 46 04.9 -0.1**
PTLC Puerto Leguiza 25.14 337 P **P** **16 46 05.3 -4.3**
CMC01 Camacan, BA 25.32 77 P **P** **16 46 14.1 +2.9**
CMC01 Camacan, BA 25.32 77 *e*P **P** **16 46 11.1 -0.1**
NBIT Itapeh - BA 25.56 76 P **P** **16 46 17.0 +3.6**
NBIT Itapeh - BA 25.56 76 *e*P **P** **16 46 13.4 0.0**
PIAT Ana Tenorio 25.57 328 P **P** **16 46 14.3 +0.3**
comp=Z,7µm,comp=Z,486nm,1.2s
GO08 Villa O'Higgin 25.86 191 **P** **16 46 15.5 -0.3**
GO08 Villa O'Higgin 25.86 191 P **P** **16 46 18.7 +2.8**
comp=Z,301nm,1.2s
BOAV Boa Vista 25.87 10 **P** **16 46 14.7 -1.6**
BOAV Boa Vista 25.87 10 P **P** **16 46 13.8 -2.4**
comp=Z,7µm,comp=Z,2µm,comp=Z,143nm,1.0s
SLOR San Lorenzo - 25.92 328 IAmb IAmb 16 46 38.9
comp=Z,385nm,0.9s
PPLP Puerto Lpez 26.42 323 P **P** **16 46 25.4 +4.1**
GUVC San Jose del G 26.68 343 P **P** **16 46 23.9 +0.3**
NBPN Ponto Novo - B 26.72 67 P **P** **16 46 26.9 +2.9**
NBPN Ponto Novo - B 26.72 67 *e*P **P** **16 46 25.0 +1.0**
OTAV Otavalo 26.74 329 P **P** **16 46 26.5 +1.9**
OTAV Otavalo 26.74 329 P **P** **16 46 24.1 -0.5**
OTAV pmax pmax
comp=Z,192nm,1.1s
OTAV Otavalo 26.74 329 P **P** **16 46 24.1 -0.5**
OTAV Otavalo 26.74 329 P **P** **16 46 24.4 -0.2**
comp=Z,5µm,comp=Z,2µm,comp=Z,174nm,1.3s
OTAV Otavalo 26.74 329 P **P** **16 46 26.5 +1.9**
OTAV Otavalo 26.74 329 P **P** **16 46 25.6 +1.0**
comp=Z,174nm,1.3s
OTAV Otavalo 26.74 329 *e*P **P** **16 46 25.2 +0.6**
FLOC Florencia 26.76 336 P **P** **16 46 22.3 -2.0**
FLOC Florencia 26.76 336 P **P** **16 46 22.9 -1.4**
comp=Z,4µm,comp=Z,8µm,comp=Z,489nm,1.6s
CUSE Cuicocha Este 26.77 329 P **P** **16 46 27.9 +3.0**
comp=Z,3µm,comp=Z,196nm,1.2s
TULM Tulcn-Chalpat 26.85 331 P **P** **16 46 27.9 +2.2**
comp=Z,4µm,comp=Z,217nm,1.1s
FLF1 Flavio Alfaro- 26.91 326 P **P** **16 46 29.7 +4.0**
comp=Z,9µm,comp=Z,574nm,1.3s
PAC1 Pacto, Paraso 26.93 328 P **P** **16 46 30.4 +4.4**
GARC Garzon, Huila 27.25 337 P **P** **16 46 26.9 -2.1**
comp=Z,5µm,comp=Z,4µm,comp=Z,392nm,1.2s
BETC Betania 27.70 337 P **P** **16 46 36.0 +3.3**
BBAC Balboa, Cauca 27.79 333 P **P** **16 46 32.7 -1.1**
comp=Z,5µm,comp=Z,6µm,comp=Z,413nm,1.1s
URMC La Uribe, Meta 27.86 340 P **P** **16 46 36.0 +1.7**
POPC Popayan, Colom 28.03 335 P **P** **16 46 34.7 -1.2**
comp=Z,4µm,comp=Z,167nm,1.8s
PTGC Puerto Gaitan, 28.15 345 P **P** **16 46 35.2 -1.5**
comp=Z,2µm,comp=Z,65nm,1.0s
PRAC Prado 28.47 339 P **P** **16 46 39.8 +0.2**
PRAC Prado 28.47 339 P **P** **16 46 40.8 +1.2**
comp=Z,4µm,comp=Z,2µm,comp=Z,103nm,1.2s
JAMC Jamundi, Valle 28.64 335 P **P** **16 46 39.0 -2.4**
comp=Z,4µm,comp=Z,3µm,comp=Z,118nm,0.9s
ORTC Ortega, Tolima 28.77 338 P **P** **16 46 40.5 -1.8**
comp=Z,4µm,comp=Z,3µm,comp=Z,301nm,1.1s
CVER Cruz Verde, Cu 28.98 341 P **P** **16 46 48.3 +3.7**
CHIC Chingaza 28.98 342 P **P** **16 46 41.0 -3.6**
comp=Z,3µm,comp=Z,190nm,1.2s
YOTC Yotoco, Valle 29.23 336 P **P** **16 46 47.0 +0.5**
comp=Z,1µm,comp=Z,83nm,1.2s
ROSC El Rosal 29.35 341 P **P** **16 46 47.2 -0.6**
comp=Z,21nm,0.6s,baz=184,slow=14,SNR=7.4
ROSC LR LR 16 58 21.0
comp=Z,17µm,18.1s,baz=191,slow=36
comp=Z,21nm,0.6s
ROSC El Rosal 29.35 341 **P** **16 46 45.9 -2.0**
ROSC El Rosal 29.35 341 P **P** **16 46 46.0 -1.9**
comp=Z,100nm,1.2s
NBTA Tacaratu-PE 29.41 66 P **P** **16 46 50.8 +2.7**
NBTA Tacaratu-PE 29.41 66 *e*P **P** **16 46 49.0 +1.0**
NBPS Pedro II - PI 29.52 54 P **P** **16 46 51.1 +2.0**
NBPS Pedro II - PI 29.52 54 *e*P **P** **16 46 50.1 +1.1**
NBMA Muriti-CE 29.79 62 P **P** **16 46 54.5 +3.0**
NBMA Muriti-CE 29.79 62 *e*P **P** **16 46 51.5 0.0**
RUSC La Rusia 30.01 344 P **P** **16 46 52.9 -1.0**
RUSC La Rusia 30.01 344 IAmb IAmb 16 46 58.6
comp=Z,236nm,1.0s
RUSC La Rusia 30.01 344 P **P** **16 46 50.6 -3.2**
comp=Z,4µm,comp=Z,243nm,1.2s
GUY2C Guyana, Caldas 30.04 339 P **P** **16 46 51.6 -2.5**
comp=Z,2µm,comp=Z,115nm,1.1s
SPBC San Pablo de B 30.05 342 P **P** **16 46 50.1 -3.6**
comp=Z,3µm,comp=Z,252nm,1.0s
PLMC San Jos del P 30.06 337 P **P** **16 46 52.6 -1.2**
comp=Z,2µm,comp=Z,121nm,1.2s
NBPB Pedra_Branca-C 30.21 58 P **P** **16 46 56.6 +1.5**
TAMC Tame, Arauca 30.23 347 P **P** **16 46 55.1 -0.2**
comp=Z,4µm,comp=Z,3µm,comp=Z,118nm,0.6s
PIZC Pizarro, Choco 30.51 335 P **P** **16 47 00.6 +2.9**
MDP Montagnes des 30.68 25 LR LR 17 00 26.1
comp=Z,11µm,18.4s,baz=196,slow=39
BARC Barichara 30.71 344 P **P** **16 46 57.6 -2.1**
comp=Z,5µm,comp=Z,361nm,1.3s
CBOC Ciudad Bolivar 30.86 338 P **P** **16 46 56.6 -4.3**
PFBR Pau dos Ferros 30.91 61 P **P** **16 47 04.0 +2.7**
HELC Santa Helena 31.00 339 P **P** **16 46 58.6 -3.9**
comp=Z,2µm,comp=Z,165nm,1.2s
PTBC PUERTO BERRIO, 31.00 342 P **P** **16 46 57.6 -4.5**
BRJC Barrancabermej 31.22 343 P **P** **16 47 03.9 0.0**
comp=Z,1µm,comp=Z,77nm,1.0s
NBMO Morrinhos-CE 31.28 54 P **P** **16 47 07.2 +2.6**
NBMO Morrinhos-CE 31.28 54 *e*P **P** **16 47 04.4 -0.1**
NBLV Livramento - P 31.30 64 P P 16 47 09.4 +4.6
ZARC Zaragoza, Cauc 32.03 341 P **P** **16 47 06.7 -4.4**
NBCL Caracol-CE 32.03 58 P **P** **16 47 14.3 +3.1**
NBPA Parau_RN 32.05 61 *e*P **P** **16 47 11.0 -0.4**
OCAC Ocana 32.33 345 P **P** **16 47 09.9 -4.0**
comp=Z,2µm,comp=Z,1µm,comp=Z,93nm,0.7s
SDV Santo Domingo 32.40 350 LR LR 17 00 12.8
comp=Z,3µm,21.8s,baz=190,slow=36
SDV Santo Domingo 32.40 350 **P** **16 47 11.9 -2.7**
SDV IAmb IAmb 16 47 17.8
comp=Z,303nm,1.3s
SDV Santo Domingo 32.40 350 P **P** **16 47 10.2 -4.4**
comp=Z,5µm,comp=Z,16µm,comp=Z,983nm,1.3s
SDV Santo Domingo 32.40 350 P **P** **16 47 12.4 -2.2**
comp=Z,987nm,1.3s
UREC San Jos de Ur 32.47 340 P **P** **16 47 11.2 -3.8**
comp=Z,2µm,comp=Z,90nm,1.0s
PTAC Punta Ardita, 32.69 336 P **P** **16 47 18.2 +1.4**
comp=Z,3µm,comp=Z,127nm,1.0s
APAC Apartado, Choc 32.95 339 P **P** **16 47 17.7 -1.5**
comp=Z,4µm,comp=Z,2µm,comp=Z,90nm,1.1s
RCBR Riachuelo 32.99 63 LR LR 17 02 15.2
comp=Z,1µm,20.9s,baz=230,slow=39
RCBR Riachuelo 32.99 63 P **P** **16 47 22.8 +3.1**
RCBR Riachuelo 32.99 63 P P 16 47 25.0 +5.4
comp=Z,95nm,1.5s
RCBR Riachuelo 32.99 63 *e*P **P** **16 47 19.5 -0.2**
NBPV Pedro Velho 33.17 64 P **P** **16 47 23.3 +2.2**
NBPV Pedro Velho 33.17 64 *e*P **P** **16 47 21.2 0.0**
LCBC Los crdobas, 33.78 340 IAmb IAmb 16 47 30.2
comp=Z,526nm,1.4s
CACAO El Cacao, Vera 34.11 331 P **P** **16 47 30.3 +1.0**
comp=Z,3µm,comp=Z,196nm,1.3s
ARGC Ariguani, Magd 34.12 344 P **P** **16 47 26.3 -3.0**
comp=Z,3µm,comp=Z,4µm,comp=Z,218nm,0.9s
SJCC San Jacinto, C 34.40 342 IAmb IAmb 16 47 34.2
comp=Z,256nm,1.1s
SJCC San Jacinto, C 34.40 342 P **P** **16 47 27.3 -4.6**
GMAL Guarumal, Vera 34.65 331 P **P** **16 47 37.3 +3.3**
comp=Z,2µm,comp=Z,137nm,1.4s
PNME Penonome 34.90 333 P **P** **16 47 38.8 +2.7**
comp=Z,171nm,1.3s
CRJC Cerrejon, Cuaj 34.91 346 P **P** **16 47 33.3 -3.0**
comp=Z,2µm,comp=Z,132nm,1.1s
BCIP Isla Barro Col 35.32 334 P **P** **16 47 40.0 +0.3**
GRGR Grenville 35.33 6 IAMs_20 IAMs_20 17 03 03.3
comp=Z,7µm,19.0s
URIC Uribia, Colomb 35.40 348 IAmb IAmb 16 47 41.1
comp=Z,557nm,1.2s
URIC Uribia, Colomb 35.40 348 P P 16 47 34.8 -5.6
BRU2 Volcan 36.23 330 P P 16 47 52.6 +4.9
comp=Z,160nm,1.3s
BBGH Gun Hill 36.57 9 IAMs_20 IAMs_20 17 04 22.3
comp=Z,8µm,22.0s
HOPE Hope Point 37.66 153 P **P** **16 48 02.6 +3.2**
comp=Z,189nm,1.2s
LCR2 La Lucha 2 37.67 328 IAmb IAmb 16 48 06.5
comp=Z,472nm,1.4s
HDC Heredia 37.95 328 IAMs_20 IAMs_20 17 04 54.5
comp=Z,5µm,22.0s
HDC Heredia 37.95 328 *e*P **P** **16 48 02.3 -0.1**
JTS Las Juntas de 38.61 328 LR LR 17 06 09.2
comp=Z,2µm,19.0s,baz=159,slow=40
JTS Las Juntas de 38.61 328 P **P** **16 48 08.6 +0.8**
JTS pmax pmax
comp=Z,340nm,1.3s
JTS MLR MLR
comp=Z,3µm,22.0s
JTS Las Juntas de 38.61 328 P **P** **16 48 08.6 +0.8**
JTS Las Juntas de 38.61 328 P P 16 48 13.2 +5.4
comp=Z,247nm,1.5s
ABD La Joyeuse, An 39.64 5 IAMs_20 IAMs_20 17 04 46.6
comp=Z,6µm,21.0s
RPN Rapa Nui 40.10 255 LR LR 17 01 19.0
comp=Z,2µm,19.7s,baz=94,slow=31
SEUS St. Eustatius 40.55 3 IAMs_20 IAMs_20 17 06 08.8
comp=Z,7µm,21.0s
ANWB Willy Bob 40.80 5 IAMs_20 IAMs_20 17 07 04.4
comp=Z,5µm,20.0s
BOAB BOACO BROADBAN 40.82 328 IAMs_20 IAMs_20 17 06 48.5
comp=Z,6µm,21.0s
BOAB BOACO BROADBAN 40.82 328 P **P** **16 48 28.1 +2.0**
comp=Z,598nm,1.6s
MGAN Managua 40.84 327 P **P** **16 48 29.9 +3.6**
comp=Z,225nm,1.4s
MLPR Magueyes Islan 41.02 357 P **P** **16 48 25.4 -2.2**
PDPR Patillas Dam, 41.03 359 P **P** **16 48 24.1 -3.7**
SMRT St. Maarten 41.10 3 P **P** **16 48 27.0 -1.4**
SMRT IAMs_20 IAMs_20 17 05 40.3
comp=Z,6µm,21.0s
SMRT St. Maarten 41.10 3 x **P** **16 48 24.3 -4.1**
SMRT St. Maarten 41.10 3 P **P** **16 48 27.5 -0.9**
comp=Z,107nm,1.3s
SJG San Juan 41.13 358 LR LR 17 06 16.4
comp=Z,2µm,21.3s,baz=184,slow=37
SJG San Juan 41.13 358 P **P** **16 48 25.9 -2.7**
SJG pmax pmax
comp=Z,158nm,1.3s
SJG MLR MLR
comp=Z,4µm,22.0s
SJG San Juan 41.13 358 P **P** **16 48 25.9 -2.7**
SJG San Juan 41.13 358 IAMs_20 IAMs_20 17 05 32.1
comp=Z,4µm,22.0s
SJG San Juan 41.13 358 P **P** **16 48 25.1 -3.5**
comp=Z,2µm,comp=Z,92nm,1.2s
SJG San Juan 41.13 358 x x 16 48 26.1
SJG San Juan 41.13 358 P **P** **16 48 26.1 -2.5**
comp=Z,92nm,1.2s
CNGN Cerro Negro 41.37 327 P **P** **16 48 33.8 +3.1**
comp=Z,72nm,1.2s
PMSA Palmer Station 41.52 179 LR LR 17 07 26.0
comp=Z,9µm,18.2s,baz=354,slow=39
SDDR Presa de Saban 42.42 351 IAMs_20 IAMs_20 17 08 13.5
comp=Z,7µm,21.0s
SDDR Presa de Saban 42.42 351 P **P** **16 48 37.7 -1.5**
SDDR Presa de Saban 42.42 351 P **P** **16 48 39.4 +0.2**
comp=Z,80nm,1.1s
TGUH Tegucigalpa,Un 42.99 327 IAmb IAmb 16 48 49.0
comp=Z,551nm,1.2s
TGUH Tegucigalpa,Un 42.99 327 P **P** **16 48 44.2 +0.2**
comp=Z,384nm,1.3s
MTDJ Mount Denham 42.99 342 IAMs_20 IAMs_20 17 07 51.9
comp=Z,4µm,21.0s
MTDJ Mount Denham 42.99 342 P **P** **16 48 39.7 -4.2**
MTDJ Mount Denham 42.99 342 P **P** **16 48 42.4 -1.6**
comp=Z,104nm,1.5s
GTBY Guantanamo Bay 44.02 346 IAMs_20 IAMs_20 17 09 50.2
comp=Z,3µm,18.0s
GRTK Grand Turk 44.89 352 P **P** **16 48 57.6 -1.4**
comp=Z,350nm,1.4s
CCIG Comitan 47.38 324 IAmb IAmb 16 49 23.6
comp=Z,148nm,1.1s
CAIB Caibarien 47.59 342 IAmb IAmb 16 49 24.1
comp=Z,311nm,1.2s
TEIG Tepich 48.79 331 P **P** **16 49 27.6 -2.0**
SOR Soroa 48.99 338 P **P** **16 49 29.7 -1.4**
SOR pmax pmax
comp=Z,354nm,1.4s
SOR Soroa 48.99 338 P **P** **16 49 29.7 -1.4**
SOR IAmb IAmb 16 49 35.2
comp=Z,354nm,1.4s
CMIG Matias Romero 49.58 321 LR LR 17 11 30.4
comp=Z,782nm,18.8s,baz=164,slow=37
TLIG Tlapa 52.13 318 P **P** **16 49 53.6 -1.5**
060A Indiantown 52.14 343 IAMs_20 IAMs_20 17 14 27.2
comp=Z,3µm,22.0s
656A Willston 54.96 341 IAmb IAmb 16 50 19.8
comp=Z,530nm,1.8s
SACV Santiago Islan 55.56 51 IAMs_20 IAMs_20 17 12 09.9
comp=Z,3µm,20.0s
456A Hilliard 56.09 342 IAMs_20 IAMs_20 17 15 24.7
comp=Z,3µm,21.0s
BELA Belgrano 2 56.54 173 P **P** **16 50 26.5 +0.2**
BELA IAmb IAmb 16 50 32.0
comp=Z,185nm,1.1s
TIGA Tifton 57.21 341 IAMs_20 IAMs_20 17 15 45.5
comp=Z,3µm,22.0s
VNA3 Neumayer Olymp 57.28 162 P **P** **16 50 32.1 +0.4**
comp=Z,49nm,0.9s
VNA1 Neumayer--Stat 57.45 161 P **P** **16 50 33.5 +0.7**
comp=Z,112nm,1.1s
352A Blakely 57.66 340 IAmb IAmb 16 50 38.0
comp=Z,156nm,1.0s
352A IAMs_20 IAMs_20 17 19 16.3
comp=Z,3µm,19.0s
VNA2 Neumayer--Watz 57.83 161 P **P** **16 50 36.1 +0.6**
comp=Z,81nm,1.0s,baz=303,slow=7.8
NHSC New Hope 57.87 345 IAMs_20 IAMs_20 17 17 16.0
comp=Z,3µm,20.0s
BRAL Brewton 58.08 338 IAMs_20 IAMs_20 17 19 49.5
comp=Z,2µm,19.0s
154A Montrose 58.17 342 IAmb IAmb 16 50 41.8
comp=Z,163nm,0.9s
Y60A Bolivia 58.30 347 IAMs_20 IAMs_20 17 18 44.3
comp=Z,2µm,21.0s
545A Edgard 58.36 334 IAMs_20 IAMs_20 17 18 22.0
comp=Z,3µm,21.0s
ZAIG Zacatecas 58.51 319 P **P** **16 50 39.5 -1.8**
152A Waverly Hall 58.69 341 IAMs_20 IAMs_20 17 20 34.8
comp=Z,2µm,18.0s
Y57A Sumter 58.79 345 IAmb IAmb 16 50 46.3
comp=Z,307nm,1.5s
Y57A IAMs_20 IAMs_20 17 17 20.4
comp=Z,4µm,22.0s
GOGA Godfrey 59.02 342 IAMs_20 IAMs_20 17 17 27.4
comp=Z,3µm,20.0s
X58A Rowland 59.07 346 IAmb IAmb 16 50 48.1
comp=Z,110nm,0.9s
X58A IAMs_20 IAMs_20 17 17 25.7
comp=Z,3µm,20.0s
JSC Jenkinsville 59.26 344 IAmb IAmb 16 50 49.7
comp=Z,196nm,1.2s
BIRD Birdtown, Kers 59.41 345 IAmb IAmb 16 50 50.7
comp=Z,141nm,1.0s
HODGE Hodges 59.46 343 IAmb IAmb 16 50 51.9
comp=Z,194nm,1.3s
SNAA Sanae 59.47 161 P **P** **16 50 49.7 +2.7**
comp=Z,1µm,1.3s
SNAA Sanae 59.47 161 P **P** **16 50 47.5 +0.4**
comp=Z,109nm,1.2s,baz=296,slow=6.0,SNR=34
SNAA LR LR 17 15 19.7
comp=Z,2µm,20.0s,baz=293,slow=35
SNAA PKPPKP **P'P'df** **17 20 21.4 -1.6**
comp=Z,2.3nm,0.7s,baz=39,slow=0.8,SNR=7.0
comp=Z,109nm,1.2s
SNAA Sanae 59.47 161 P **P** **16 50 47.0 0.0**
SNAA IAmb IAmb 16 50 52.8
comp=Z,161nm,1.2s
SNAA IAMs_20 IAMs_20 17 15 17.0
comp=Z,3µm,20.0s
W59A Clinton 59.47 347 IAmb IAmb 16 50 50.9
comp=Z,128nm,1.2s
W59A IAMs_20 IAMs_20 17 17 09.3
comp=Z,2µm,22.0s
Y52A Lilburn 59.61 342 IAmb IAmb 16 50 52.2
comp=Z,224nm,1.5s
Y52A IAMs_20 IAMs_20 17 17 34.2
comp=Z,3µm,22.0s
LRAL Lakeview Retre 59.76 339 IAmb IAmb 16 50 52.3
comp=Z,181nm,1.4s
PAULI Pauline 59.91 344 IAmb IAmb 16 50 55.1
comp=Z,157nm,1.0s
KMSC Kings Mountain 60.09 345 IAmb IAmb 16 50 55.5
comp=Z,262nm,1.4s
KMSC IAMs_20 IAMs_20 17 18 21.8
comp=Z,3µm,21.0s
V58A Windy Hill, Pi 60.22 347 IAmb IAmb 16 50 58.1
comp=Z,130nm,1.2s
Y49A Blount Mountai 60.32 340 IAMs_20 IAMs_20 17 19 34.0
comp=Z,2µm,21.0s
BG3 Lake Jocassee 60.36 343 IAmb IAmb 16 50 57.4
comp=Z,124nm,0.9s
X51A Calhoun 60.50 341 IAmb IAmb 16 50 57.8
comp=Z,203nm,1.0s
X51A IAMs_20 IAMs_20 17 18 11.7
comp=Z,2µm,22.0s
BBTS Babate 60.60 56 LR LR 17 15 17.5
comp=Z,73nm,21.2s,baz=68,slow=34
HKT Hockley 60.61 329 *i* P **P** **16 50 52.9 -2.2**
HKT pmax pmax
comp=Z,57nm,1.3s
735A Kenedy 60.66 327 IAmb IAmb 16 51 00.0
comp=Z,208nm,1.2s
W52A Murphy 60.73 342 IAmb IAmb 16 50 59.5
comp=Z,125nm,1.1s
W52A IAMs_20 IAMs_20 17 17 54.6
comp=Z,4µm,22.0s
V55A Taylorsville 60.74 345 IAMs_20 IAMs_20 17 18 51.0
comp=Z,3µm,22.0s
V53A Saluda 60.97 343 IAmb IAmb 16 51 01.3
comp=Z,119nm,0.9s
V53A IAMs_20 IAMs_20 17 19 35.0
comp=Z,3µm,20.0s
U56A King 61.02 346 IAmb IAmb 16 51 02.2
comp=Z,155nm,1.0s
U56A IAMs_20 IAMs_20 17 17 04.4
comp=Z,2µm,20.0s
833A Chaparral WMA, 61.04 325 IAmb IAmb 16 51 02.4
comp=Z,151nm,0.8s
T59A Double "B" Far 61.05 349 IAMs_20 IAMs_20 17 18 18.1
comp=Z,3µm,22.0s
X48A Hartselle 61.07 339 P **P** **16 50 57.2 -1.1**
TROLL Troll, Antarti 61.18 161 P **P** **16 50 58.1 -0.7**
comp=Z,3µm,1.0s
TKL Tuckaleechee C 61.21 343 LR LR 17 19 15.8
comp=Z,2µm,20.5s,baz=160,slow=38
TKL Tuckaleechee C 61.21 343 IAmb IAmb 16 51 02.5
comp=Z,158nm,0.9s
W50A Signal Mountai 61.23 341 IAmb IAmb 16 51 02.8
comp=Z,162nm,1.0s
CPCT Cooper Cave 61.23 342 IAmb IAmb 16 51 02.7
comp=Z,117nm,1.0s
S61A Accomac 61.43 350 IAMs_20 IAMs_20 17 20 03.1
comp=Z,2µm,20.0s
U54A Nelsons Funny 61.52 345 IAMs_20 IAMs_20 17 18 52.8
comp=Z,2µm,22.0s
BLA Blacksburg 61.86 346 IAmb IAmb 16 51 07.9
comp=Z,284nm,1.4s
HNDO Hondo 61.95 326 P **P** **16 51 03.4 -1.0**
HNDO IAmb IAmb 16 51 09.1
comp=Z,190nm,1.4s
TZTN Tazewell 61.99 343 P **P** **16 51 02.9 -1.6**
TZTN IAmb IAmb 16 51 08.5
comp=Z,269nm,1.4s
TZTN IAMs_20 IAMs_20 17 22 41.0
comp=Z,2µm,19.0s
S57A Dark Hollow, R 62.08 348 IAMs_20 IAMs_20 17 19 49.4
comp=Z,2µm,21.0s
CLTN Cedars of Leba 62.36 341 IAmb IAmb 16 51 10.8
comp=Z,342nm,1.7s
S54A Dingess, Beckl 62.62 346 IAmb IAmb 16 51 12.6
comp=Z,210nm,1.0s
S54A IAMs_20 IAMs_20 17 18 22.8
comp=Z,2µm,22.0s
T50A Nancy 62.79 342 IAmb IAmb 16 51 13.6
comp=Z,382nm,1.8s
T50A IAMs_20 IAMs_20 17 19 33.2
comp=Z,3µm,22.0s
R55A Marlinton 62.82 347 IAmb IAmb 16 51 14.7
comp=Z,336nm,1.7s
R55A IAMs_20 IAMs_20 17 19 12.1
comp=Z,3µm,20.0s
WVT Waverly 62.87 339 P **P** **16 51 08.5 -1.8**
WVT pmax pmax
comp=Z,246nm,0.9s
WVT MLR MLR
comp=Z,2µm,19.0s
WVT Waverly 62.87 339 P **P** **16 51 08.5 -1.8**
WVT Waverly 62.87 339 IAMs_20 IAMs_20 17 22 05.4
comp=Z,2µm,19.0s
JCT Junction City 62.98 326 IAmb IAmb 16 51 54.6
comp=Z,106nm,1.1s
Z38A Mt. Pleasant 63.03 332 IAmb IAmb 16 51 16.8
comp=Z,272nm,1.3s
S51A Beattyville 63.03 344 IAmb IAmb 16 51 14.7

S51A comp=Z,108nm,1.2s IAMs_20 IAMs_20 17 20 27.6
comp=Z,3µm,20.0s
UALR University of comp=Z,240nm,1.3s **63.26 335** IAmb IAmb 16 51 17.1
FW13 Cleburne comp=Z,249nm,1.6s **63.36 330** IAmb IAmb 16 51 17.6
Q56A Snyder Ridge, comp=Z,96nm,1.0s **63.37 348** IAmb IAmb 16 51 18.0
Q56A IAMs_20 IAMs_20 17 21 39.4
comp=Z,2µm,20.0s
HPIG **63.48 320** P **P** **16 51 13.8 -1.1**
MIAR Mount Ida comp=Z,251nm,1.2s **63.55 334** IAmb IAmb 16 51 19.3
P57A Homestead Farm comp=Z,2µm,21.0s **63.57 349** IAMs_20 IAMs_20 17 21 17.9
RKT Rikitea comp=Z,13µm,28.5s **63.64 255** *e*LR LR 17 10 14.0
Q54A Coxs Mills comp=Z,3µm,21.0s **63.65 346** IAMs_20 IAMs_20 17 19 38.0
WHAR Wooly Hollow comp=Z,188nm,1.3s **63.69 335** IAmb IAmb 16 51 19.9
SAND Sanderson comp=Z,213nm,1.3s **63.78 324** IAmb IAmb 16 51 21.5
R50A Paris comp=Z,278nm,1.4s **63.83 343** IAmb IAmb 16 51 20.7
R50A IAMs_20 IAMs_20 17 23 05.8
comp=Z,2µm,19.0s
NVL N'lazarevskaya **63.93 159** *e*P **P** **16 51 16.5 -0.5**
NVL *e*S **S** **16 59 48.7 -4.1**
NVL pmax pmax
comp=Z,88nm,1.0s
NVL MLR MLR
comp=Z,1µm,15.0s
FW06 Azle comp=Z,249nm,1.5s **63.94 330** IAmb IAmb 16 51 21.5
Q52A Bidwell comp=Z,132nm,1.0s **63.95 345** IAmb IAmb 16 51 21.0
LCAR Lake Charles comp=Z,321nm,1.5s **63.96 337** IAmb IAmb 16 51 21.5
OZNA Ozona comp=Z,95nm,1.1s **64.02 326** IAmb IAmb 16 51 21.7
R49A Shelbyville comp=Z,297nm,1.7s **64.07 342** IAmb IAmb 16 51 22.0
R49A IAMs_20 IAMs_20 17 20 24.1
comp=Z,2µm,21.0s
PAGS Pennsylvania G comp=Z,276nm,1.7s **64.08 350** IAmb IAmb 16 51 23.5
MCWV Mont Chateau comp=Z,95nm,0.9s **64.09 347** IAmb IAmb 16 51 22.6
MCWV IAMs_20 IAMs_20 17 20 28.7
comp=Z,2µm,22.0s
TXAR Lajitas Array comp=Z,13nm,1.0s,baz=149,slow=8.3,SNR=28 **64.14 323** P **P** **16 51 18.1 -1.0**
TXAR LR LR 17 18 47.1
TXAR comp=Z,881nm,21.6s,baz=127,slow=36 PKPPKP **P'P'df** **17 20 10.8 +4.7**
comp=Z,4.1nm,1.2s,baz=236,slow=1.4,SNR=9.1
comp=Z,13nm,1.0s
FCAR Ozark Folk Cen comp=Z,238nm,1.3s **64.16 336** IAmb IAmb 16 51 22.7
BRNJ Basking Ridge comp=Z,197nm,1.2s **64.22 352** IAmb IAmb 16 51 24.5
CPNY Central Park comp=Z,256nm,1.4s **64.25 353** IAmb IAmb 16 51 24.1
P53A Whipple comp=Z,3µm,22.0s **64.25 346** IAMs_20 IAMs_20 17 19 57.0
Q51A Peebles comp=Z,2µm,21.0s **64.28 344** IAMs_20 IAMs_20 17 21 26.7
WCI Wyandotte Cave **64.33 342** P **P** **16 51 18.3 -1.7**
WCI pmax pmax
comp=Z,209nm,1.3s
WCI MLR MLR
comp=Z,4µm,22.0s
WCI Wyandotte Cave **64.33 342** P **P** **16 51 18.3 -1.7**
WCI IAmb IAmb 16 51 23.4
comp=Z,209nm,1.3s
PAL Palisades comp=Z,236nm,1.3s **64.46 353** IAmb IAmb 16 51 25.4
CGM3 Cape Girardeau comp=Z,293nm,1.4s **64.53 338** IAmb IAmb 16 51 25.1
WSPT Westport, CT comp=Z,197nm,1.2s **64.55 353** IAmb IAmb 16 51 26.2
ODNJ Ogdensburg comp=Z,133nm,1.2s **64.62 352** IAmb IAmb 16 51 26.8
P51A Williamsport comp=Z,188nm,1.3s **64.64 345** IAmb IAmb 16 51 25.8
ABTX Abilene, Hawle comp=Z,129nm,1.2s **64.64 328** IAmb IAmb 16 51 26.7
SSPA Standing Stone **64.67 349** P **P** **16 51 21.5 -0.6**
SSPA IAmb IAmb 16 51 27.7
comp=Z,164nm,1.4s
SSPA Standing Stone comp=Z,2µm,21.0s **64.67 349** IAMs_20 IAMs_20 17 20 51.0
N58A Sunbury comp=Z,270nm,1.5s **64.68 350** IAmb IAmb 16 51 27.7
N58A IAMs_20 IAMs_20 17 20 51.2
comp=Z,2µm,20.0s
M65A Busby, Falmout comp=Z,2µm,20.0s **64.69 355** IAMs_20 IAMs_20 17 22 57.4
O54A Avella comp=Z,232nm,1.9s **64.70 347** IAmb IAmb 16 51 26.1
S44A Carbondale comp=Z,131nm,1.1s **64.76 339** IAmb IAmb 16 51 26.3
S44A IAMs_20 IAMs_20 17 24 17.4
comp=Z,2µm,18.0s
O53A New Philadelph comp=Z,101nm,0.9s **64.94 346** IAmb IAmb 16 51 27.6
O52A Adamsville comp=Z,92nm,1.0s **64.95 346** IAmb IAmb 16 51 27.6
L64A Middleborough comp=Z,2µm,20.0s **65.08 355** IAMs_20 IAMs_20 17 23 16.7
TMB01 Midkiff comp=Z,112nm,1.3s **65.10 326** IAmb IAmb 16 51 29.5
KSCT Kent School, K comp=Z,260nm,1.4s **65.12 353** IAmb IAmb 16 51 30.0
MNHN Monahans comp=Z,268nm,1.5s **65.20 325** IAmb IAmb 16 51 29.9
HHAR Hobbs comp=Z,249nm,1.4s **65.20 335** IAmb IAmb 16 51 29.9
NPNY Mohonk Preserv comp=Z,179nm,1.1s **65.22 353** IAmb IAmb 16 51 30.9
P48A Milroy comp=Z,188nm,1.5s **65.23 343** IAmb IAmb 16 51 28.3
M57A Sunshine Farm, comp=Z,281nm,1.5s **65.23 350** IAmb IAmb 16 51 31.5
M57A IAMs_20 IAMs_20 17 21 37.8
comp=Z,3µm,20.0s
KSPA Keystone Colle comp=Z,170nm,1.1s **65.24 351** IAmb IAmb 16 51 31.2
ACSO Alum Creek Sta comp=Z,160nm,0.9s **65.33 345** IAmb IAmb 16 51 29.8
OLIL Olney comp=Z,346nm,1.7s **65.34 340** IAmb IAmb 16 51 29.7
PAMR Moraine State comp=Z,170nm,1.2s **65.38 348** IAmb IAmb 16 51 31.0
N53A Lisbon comp=Z,137nm,1.2s **65.40 347** IAmb IAmb 16 51 33.2
X34A Smith Ranch, M comp=Z,244nm,1.3s **65.42 331** IAmb IAmb 16 51 32.0
TPB01 Permian Basin comp=Z,130nm,1.1s **65.44 324** IAmb IAmb 16 51 31.8
APMT Aspermont comp=Z,116nm,0.9s **65.44 328** IAmb IAmb 16 51 31.3
W35A Tecumseh comp=Z,149nm,1.2s **65.46 332** IAmb IAmb 16 52 04.4
U38A Gravette comp=Z,241nm,1.5s **65.52 334** IAmb IAmb 16 51 32.1
WES Weston comp=Z,173nm,1.2s **65.56 355** IAmb IAmb 16 51 32.0
WES IAMs_20 IAMs_20 17 23 55.5
comp=Z,2µm,19.0s
O49A Covington comp=Z,130nm,1.0s **65.62 344** IAmb IAmb 16 51 31.4
O49A IAMs_20 IAMs_20 17 22 18.3
comp=Z,2µm,21.0s
TUL3 Leonard comp=Z,145nm,1.0s **65.64 333** IAmb IAmb 16 51 33.1
HRV Adam Dziewonsk **65.70 355** P **P** **16 51 28.6 -0.2**
HRV pmax pmax
comp=Z,386nm,1.2s
HRV MLR MLR
comp=Z,1µm,20.0s
HRV Adam Dziewonsk **65.70 355** P **P** **16 51 28.6 -0.2**
FNO Franklin comp=Z,152nm,1.0s **65.78 331** IAmb IAmb 16 51 33.1
N51A Ashland comp=Z,132nm,1.1s **65.84 346** IAmb IAmb 16 51 33.0

N51A IAMs_20 IAMs_20 17 20 46.0
comp=Z,3µm,21.0s
PAOC Oil Creek Stat comp=Z,95nm,1.0s **65.85 348** IAmb IAmb 16 51 33.7
DBIC Dimbokro comp=Z,55nm,1.0s,baz=235,slow=6.3,SNR=22 **65.87 71** P **P** **16 51 30.6 0.0**
DBIC LR LR 17 19 52.8
comp=Z,2µm,18.3s,baz=239,slow=36
comp=Z,55nm,1.0s
DBIC Dimbokro **65.87 71** P **P** **16 51 29.3 -1.2**
DBIC IAmb IAmb 16 51 35.2
comp=Z,140nm,1.2s
DBIC Dimbokro **65.87 71** P **P** **16 51 31.3 +0.7**
P46A Rosedale comp=Z,180nm,1.2s **65.88 341** IAmb IAmb 16 51 33.3
P46A IAMs_20 IAMs_20 17 20 45.1
comp=Z,3µm,22.0s
OKCSW OKLAHOMA CITY comp=Z,176nm,0.9s **65.92 331** IAmb IAmb 16 51 33.9
K62A Royalston comp=Z,2µm,20.0s **65.92 354** IAMs_20 IAMs_20 17 20 24.0
SLM Saint Louis comp=Z,120nm,1.2s **65.94 339** IAmb IAmb 16 51 34.0
VHRN Van Horn comp=Z,158nm,1.3s **65.98 323** IAmb IAmb 16 51 35.1
L56A Greenwood **66.08 350** P **P** **16 51 30.3 -1.0**
L56A IAMs_20 IAMs_20 17 21 35.2
comp=Z,3µm,20.0s
M52A Chesterland comp=Z,3µm,20.0s **66.21 347** IAMs_20 IAMs_20 17 21 44.8
UNH University of comp=Z,172nm,1.1s **66.23 355** IAmb IAmb 16 51 36.9
OK029 Liberty Lake comp=Z,203nm,0.9s **66.25 332** IAmb IAmb 16 51 36.2
N49A Columbus Grove comp=Z,195nm,0.9s **66.28 344** IAmb IAmb 16 51 35.7
N49A IAMs_20 IAMs_20 17 24 22.6
comp=Z,2µm,19.0s
R40A Maddies Statio comp=Z,133nm,1.0s **66.34 337** IAmb IAmb 16 51 37.0
TPB28 **66.39 324** IAmb IAmb 16 51 38.5
comp=Z,126nm,1.1s
M50A Fremont comp=Z,102nm,1.0s **66.46 345** IAmb IAmb 16 51 36.9
M50A IAMs_20 IAMs_20 17 23 57.3
comp=Z,3µm,21.0s
ERPA Erie comp=Z,2µm,21.0s **66.49 348** IAMs_20 IAMs_20 17 21 04.2
P43A Skaggs, Pawnee comp=Z,2µm,19.0s **66.61 340** IAMs_20 IAMs_20 17 25 02.5
J61A Chester comp=Z,268nm,1.3s **66.63 354** IAmb IAmb 16 51 40.1
N47A Urbana comp=Z,2µm,21.0s **66.63 343** IAMs_20 IAMs_20 17 22 38.9
MMNY Mt. Morris Dam comp=Z,2µm,20.0s **66.72 350** IAMs_20 IAMs_20 17 22 06.1
QSPA South Pole Qui comp=Z,60nm,0.8s,baz=157,slow=2.1,SNR=83 **66.95 180** P **P** **16 51 37.0 +0.2**
QSPA S **S** **17 00 32.3 +2.0**
QSPA comp=Z,1.0nm,1.0s,baz=204,slow=11,SNR=3.3 PKPPKP **P'P'df** **17 20 05.4 -5.5**
comp=Z,8.8nm,1.0s,baz=302,slow=3.2,SNR=4.7
QSPA LR LR 17 21 53.1
comp=Z,3µm,21.6s,baz=164,slow=37
comp=Z,60nm,0.8s
QSPA South Pole Qui **66.95 180** P **P** **16 51 36.6 -0.3**
QSPA IAmb IAmb 16 51 43.6
comp=Z,162nm,1.1s
HNH Hanover comp=Z,2µm,22.0s **66.96 354** IAMs_20 IAMs_20 17 20 53.4
BLOK Blackwell comp=Z,277nm,1.3s **66.96 332** IAmb IAmb 16 51 41.9
I62A Tamworth comp=Z,176nm,1.2s **67.04 355** IAmb IAmb 16 51 41.8
I62A IAMs_20 IAMs_20 17 21 12.7
comp=Z,2µm,21.0s
I63A Otisfield comp=Z,224nm,1.1s **67.16 356** IAmb IAmb 16 51 42.9
I63A IAMs_20 IAMs_20 17 19 53.8
comp=Z,2µm,21.0s
J55A Hilton comp=Z,158nm,1.1s **67.22 350** IAmb IAmb 16 51 42.3
J55A IAMs_20 IAMs_20 17 22 10.5
comp=Z,2µm,20.0s
MEDO Medina comp=Z,140nm,1.2s **67.23 349** IAmb IAmb 16 51 42.5
MCVT Middlebury Col comp=Z,2µm,22.0s **67.27 354** IAMs_20 IAMs_20 17 21 37.7
P40A Paris comp=Z,2µm,18.0s **67.36 338** IAMs_20 IAMs_20 17 25 53.4
HDIL Hopedale comp=Z,2µm,19.0s **67.37 340** IAMs_20 IAMs_20 17 23 55.7
OK038 West end E0370 comp=Z,149nm,1.1s **67.39 331** IAmb IAmb 16 51 43.7
AAM Ann Arbor comp=Z,2µm,22.0s **67.45 345** IAMs_20 IAMs_20 17 21 35.5
LBNH Lisbon comp=Z,235nm,1.1s **67.46 355** IAmb IAmb 16 51 44.6
AMTX Amarillo comp=Z,158nm,1.1s **67.46 328** IAmb IAmb 16 51 44.8
HAL Halifax **67.57 1** P **P** **16 51 39.9 -0.8**
HAL pmax pmax
comp=Z,249nm,1.0s
HAL Halifax **67.57 1** P **P** **16 51 39.9 -0.8**
NOKA Waynoka comp=Z,230nm,1.7s **67.61 331** IAmb IAmb 16 51 45.3
WCNY West Carthage comp=Z,3µm,21.0s **67.61 352** IAMs_20 IAMs_20 17 21 27.6
WVL Waterville comp=Z,2µm,22.0s **67.62 356** IAMs_20 IAMs_20 17 20 19.8
K50A Cassville comp=Z,173nm,1.0s **67.67 346** IAmb IAmb 16 51 44.5
K50A IAMs_20 IAMs_20 17 22 00.3
comp=Z,3µm,21.0s
CFNY Clifton-Fine, comp=Z,177nm,1.1s **67.71 352** IAmb IAmb 16 51 46.6
H62A Milan comp=Z,287nm,1.5s **67.73 355** IAmb IAmb 16 51 47.2
H62A IAMs_20 IAMs_20 17 21 08.7
comp=Z,2µm,22.0s
M44A Midewin, Midew comp=Z,128nm,1.2s **67.76 341** IAmb IAmb 16 52 13.9
N41A Harden Midland comp=Z,2µm,21.0s **68.01 339** IAMs_20 IAMs_20 17 25 48.5
HSIG **68.21 317** IAmb IAmb 16 51 50.8
comp=Z,120nm,1.3s
PKME Peaks-Kenny Pk comp=Z,2µm,21.0s **68.30 357** IAMs_20 IAMs_20 17 21 29.7
G62A West of Eustis comp=Z,274nm,1.3s **68.32 356** IAmb IAmb 16 51 50.7
GBN Guysborough **68.41 3** P **P** **16 51 45.1 -0.8**
GBN IAmb IAmb 16 51 49.4
comp=Z,159nm,1.1s
L44A Lake County Fo comp=Z,194nm,1.2s **68.45 342** IAmb IAmb 16 51 49.7
L44A IAMs_20 IAMs_20 17 23 09.1
comp=Z,3µm,20.0s
LMN Caledonia Moun comp=Z,171nm,0.9s **68.77 0** IAmb IAmb 16 51 51.8
L42A Oliver, Polo comp=Z,2µm,21.0s **68.81 341** IAMs_20 IAMs_20 17 23 58.6
I49A Point Hope comp=Z,3µm,20.0s **68.82 346** IAMs_20 IAMs_20 17 23 04.9
121A Cookes Peak, D comp=Z,249nm,1.4s **68.86 322** IAmb IAmb 16 51 55.5
N38A Joes South For comp=Z,112nm,1.0s **68.90 337** IAmb IAmb 16 51 52.2
SADO Sadowa comp=Z,2µm,20.6s,baz=194,slow=38 **68.91 349** LR LR 17 23 43.2
SADO Sadowa comp=Z,130nm,1.0s **68.91 349** IAmb IAmb 16 51 52.7
RTBA Rita Blanca comp=Z,193nm,1.4s **69.22 328** IAmb IAmb 16 51 57.7
L40A Anamosa comp=Z,2µm,22.0s **69.35 339** IAMs_20 IAMs_20 17 22 14.0
ACRG Accra comp=Z,240nm,1.6s **69.47 74** IAmb IAmb 16 51 58.6
BUKO Buck Lake comp=Z,205nm,1.0s **69.60 349** IAmb IAmb 16 51 57.3
E62A Clayton Lake comp=Z,225nm,1.0s **69.66 357** IAmb IAmb 16 51 58.1
TRQ Mont Tremblant comp=Z,312nm,1.3s **69.68 353** IAmb IAmb 16 51 58.5
I45A Fountain comp=Z,2µm,22.0s **69.72 344** IAMs_20 IAMs_20 17 23 38.7
JFWS Jewell Farm comp=Z,2µm,20.0s **69.81 341** IAMs_20 IAMs_20 17 23 54.3
ALQ Albuquerque **69.94 325** IAmb IAmb 16 52 01.0

ALQ Albuquerque comp=Z,136nm,1.2s **69.94 325** IAmb IAmb 16 52 01.0
ANMO Albuquerque comp=Z,844nm,20.2s,baz=129,slow=38 **69.95 325** LR LR 17 24 53.5
ANMO Albuquerque **69.95 325** *e*P **P** **16 51 55.6 -0.4**
ANMO pmax pmax
comp=Z,81nm,1.2s
ANMO Albuquerque **69.95 325** P **P** **16 51 55.2 -0.8**
TASM ASL Pad, Albuq comp=Z,137nm,1.3s **69.95 325** IAmb IAmb 16 52 01.0
TASM ASL Pad, Albuq comp=Z,140nm,1.3s **69.95 325** IAmb IAmb 16 52 01.0
GLMI Grayling comp=Z,2µm,21.0s **70.07 345** IAMs_20 IAMs_20 17 23 02.8
D62A Allapoint, All comp=Z,236nm,1.0s **70.10 357** IAmb IAmb 16 52 00.6
BATG Bathurst New B comp=Z,207nm,1.0s **70.20 359** IAmb IAmb 16 52 01.1
I42A Draeger Farm, comp=Z,2µm,20.0s **70.31 342** IAMs_20 IAMs_20 17 25 08.4
H43A Windswept, Lux comp=Z,232nm,1.1s **70.53 343** IAmb IAmb 16 52 02.4
H43A IAMs_20 IAMs_20 17 24 34.1
comp=Z,2µm,21.0s
T25A Trinidad comp=Z,314nm,1.6s **70.59 328** IAmb IAmb 16 52 05.8
LMQ La Malbaie comp=Z,133nm,1.0s **70.63 356** IAmb IAmb 16 52 03.5
I40A Norwalk comp=Z,367nm,1.7s **70.81 341** IAmb IAmb 16 52 05.1
I40A IAMs_20 IAMs_20 17 24 23.7
comp=Z,2µm,21.0s
L34A Svendsen Farm, comp=Z,232nm,1.0s **71.07 336** IAmb IAmb 16 52 06.0
L34A IAMs_20 IAMs_20 17 25 15.6
comp=Z,2µm,21.0s
LDAQ Lac Daran comp=Z,144nm,1.0s **71.10 356** IAmb IAmb 16 52 06.6
E46A Sault Ste Mari comp=Z,3µm,21.0s **71.45 346** IAMs_20 IAMs_20 17 24 06.5
SDCO Great Sand Dun comp=Z,180nm,1.2s **71.61 327** IAmb IAmb 16 52 11.3
F42A Maple Grove Fa comp=Z,310nm,1.8s **71.82 343** IAmb IAmb 16 52 11.2
VLDQ Val d'Or comp=Z,192nm,1.4s **71.90 351** IAmb IAmb 16 52 11.4
G40A Rib Lake comp=Z,221nm,1.4s **71.94 342** IAmb IAmb 16 52 12.2
G40A IAMs_20 IAMs_20 17 25 05.5
comp=Z,2µm,22.0s
X16A Lo Mia Camp, P comp=Z,176nm,1.5s **72.33 321** IAmb IAmb 16 52 16.8
ICQ Pointe Anglais comp=Z,286nm,1.1s **72.47 358** IAmb IAmb 16 52 14.6
DRLN Deer Lake **72.49 5** P **P** **16 52 09.7 -1.1**
DRLN IAmb IAmb 16 52 14.8
comp=Z,225nm,1.0s
ECSD EROS Data Cent comp=Z,216nm,1.3s **72.68 337** IAmb IAmb 16 52 15.9
SPMN Marine on St. comp=Z,167nm,1.1s **72.69 340** IAmb IAmb 16 52 15.6
SPMN IAMs_20 IAMs_20 17 26 08.5
comp=Z,2µm,20.0s
MVCO Mesa Verde comp=Z,312nm,1.4s **72.74 325** IAmb IAmb 16 52 18.9
MVCO IAMs_20 IAMs_20 17 26 32.8
comp=Z,1µm,21.0s
TAOE Nuku Hiva Isla comp=Z,340nm,29.4s **72.91 268** *e*PKIKP **P** **16 52 15.2 +0.9**
TAOE *e*S **S** **17 01 41.4 -0.3**
TAOE comp=Z,315nm,26.1s *e*LR LR 17 14 32.5
comp=Z,2µm,22.8s
WUAZ Wupatki comp=Z,286nm,1.6s **73.07 322** IAmb IAmb 16 52 21.3
WUAZ IAMs_20 IAMs_20 17 23 51.1
comp=Z,2µm,21.0s
ISCO Idaho Springs comp=Z,212nm,1.5s **73.26 328** IAmb IAmb 16 52 22.0
PV01 Paradox Valley comp=Z,296nm,1.3s **73.47 326** IAmb IAmb 16 52 22.7
E38A The Farm, Brul comp=Z,244nm,1.4s **73.55 341** IAmb IAmb 16 52 21.5
E38A IAMs_20 IAMs_20 17 27 08.2
comp=Z,1µm,20.0s
SYO Syowa Base **73.60 159** ‖ *e*P **P** **16 52 17.5 +0.2**
SYO Syowa Base **73.60 159** ‖ *i*P P 16 52 21.8 +4.5
PV02 Paradox Valley comp=Z,358nm,1.5s **73.61 325** IAmb IAmb 16 52 24.2
PV13 Radium Mtn., P comp=Z,470nm,1.6s **73.62 325** IAmb IAmb 16 52 24.1
PV03 Paradox Valley comp=Z,192nm,1.3s **73.70 325** IAmb IAmb 16 52 24.5
PV05 Paradox Valley comp=Z,445nm,1.6s **73.70 325** IAmb IAmb 16 52 24.3
PV18 Skein Mesa, Pa comp=Z,201nm,1.3s **73.73 325** IAmb IAmb 16 52 23.8
PV07 Paradox Valley comp=Z,216nm,1.2s **73.73 326** IAmb IAmb 16 52 24.1
PV11 David Mesa, Pa comp=Z,199nm,1.4s **73.75 325** IAmb IAmb 16 52 24.9
PV16 Nyswonger Mesa comp=Z,227nm,1.4s **73.78 325** IAmb IAmb 16 52 24.2
PV17 East Wray Mesa comp=Z,192nm,1.4s **73.78 325** IAmb IAmb 16 52 24.1
PV20 West Nyswonger comp=Z,180nm,1.4s **73.83 325** IAmb IAmb 16 52 24.4
PV04 Paradox Valley comp=Z,225nm,1.5s **73.84 325** IAmb IAmb 16 52 24.5
PV22 Blue Mesa, Par comp=Z,271nm,1.1s **73.88 326** IAmb IAmb 16 52 24.9
PV14 Lion Creek, Pa comp=Z,193nm,1.3s **73.88 325** IAmb IAmb 16 52 24.7
PV10 Paradox Valley comp=Z,171nm,1.2s **73.89 325** IAmb IAmb 16 52 24.4
PV21 Cone Mtn., Par comp=Z,258nm,1.3s **74.00 326** IAmb IAmb 16 52 25.6
IRM Iron Mountain **74.34 319** P **P** **16 52 21.0 -1.2**
F33A 5 Mile Ranch, comp=Z,2µm,21.0s **74.39 338** IAMs_20 IAMs_20 17 26 21.5
HMU Henry Mountain comp=Z,458nm,1.8s **74.47 324** IAmb IAmb 16 52 29.7
WIN Windhoek comp=Z,2µm,20.0s **74.58 108** IAMs_20 IAMs_20 17 21 08.7
WIN Windhoek **74.58 108** P **P** **16 52 25.3 +1.2**
WIN pP **pP** **16 52 28.0 +0.4**
SUR Sutherland comp=Z,2µm,18.2s,baz=242,slow=34 **74.61 119** LR LR 17 23 04.1
SUR Sutherland comp=Z,2µm,19.1s **74.61 119** IAMs_20 IAMs_20 17 23 22.1
SUR Sutherland **74.61 119** P **P** **16 52 27.7 +3.5**
TORD Torodi Ar. Bea comp=Z,89nm,1.0s,baz=250,slow=5.6,SNR=46 **74.64 68** P **P** **16 52 24.6 +0.3**
TORD S **S** **17 02 04.7 +3.8**
TORD comp=Z,1.5nm,0.9s,baz=262,slow=10.0,SNR=6.5 LR LR 17 22 28.0
comp=Z,2µm,21.8s,baz=248,slow=34
comp=Z,89nm,1.0s
TORD Torodi Ar. Bea **74.64 68** P **P** **16 52 23.6 -0.7**
TORD IAmb IAmb 16 52 29.3
comp=Z,323nm,1.4s
SBA Scott Base **74.74 190** P **P** **16 52 24.0 +0.2**
SBA pmax pmax
comp=Z,187nm,1.7s
SBA MLR MLR
comp=Z,2µm,22.0s
SBA Scott Base **74.74 190** P **P** **16 52 24.0 +0.2**
SBA Scott Base comp=Z,2µm,22.0s **74.74 190** IAMs_20 IAMs_20 17 21 52.8
EYMN Ely comp=Z,1µm,21.0s **74.75 342** IAMs_20 IAMs_20 17 29 08.8
PFO Pinyon Flats O comp=Z,531nm,20.4s,baz=126,slow=36 **74.78 317** LR LR 17 25 23.1
PFO Pinyon Flats O **74.78 317** *i*P **P** **16 52 23.8 -1.0**
PFO pmax pmax
comp=Z,35nm,1.3s
O20A White River Ci comp=Z,187nm,1.1s **74.81 327** IAmb IAmb 16 52 30.2
O20A IAMs_20 IAMs_20 17 30 47.8
comp=Z,1µm,18.0s
TBO Thunder Bay comp=Z,370nm,1.3s **74.82 344** IAmb IAmb 16 52 29.0
Q16A Castle Valley comp=Z,289nm,1.6s **75.42 324** IAmb IAmb 16 52 34.9
P18A Preston Nutter comp=Z,218nm,1.3s **75.45 326** IAmb IAmb 16 52 35.1
P17A Butcher Ranch, **75.60 325** IAmb IAmb 16 52 35.5

comp=Z,388nm,1.5s
TMUT Trail Mountain 75.71 325 IAmb IAmb 16 52 36.6
comp=Z,279nm,1.9s
VNDA Vanda 75.73 189 P **P** **16 52 31.1 +1.6**
comp=Z,23nm,1.1s,baz=148,slow=4.8,SNR=37
VNDA PKPPKP P'P'df 17 19 46.5 -8.6
comp=Z,2.8nm,1.2s,baz=274,slow=6.5,SNR=4.1
VNDA LR LR 17 23 30.4
comp=Z,3µm,21.5s,baz=137,slow=34
comp=Z,23nm,1.1s
VNDA Vanda 75.73 189 P **P** **16 52 29.7 +0.2**
RSSD Black Hills 75.96 332 P **P** **16 52 30.9 -0.6**
RSSD pmax pmax
comp=Z,105nm,1.2s
RSSD MLR MLR
comp=Z,1µm,21.0s
RSSD Black Hills 75.96 332 P **P** **16 52 30.9 -0.6**
RSSD Black Hills 75.96 332 IAms_20 IAms_20 17 30 24.2
comp=Z,1µm,21.0s
GSC Goldstone, Bar 76.12 319 IAmb IAmb 16 52 38.8
comp=Z,161nm,1.4s
TSUM Tsumeb 76.13 105 LR LR 17 23 42.9
comp=Z,2µm,19.0s,baz=286,slow=34
TSUM Tsumeb 76.13 105 P **P** **16 52 31.6 -1.4**
TSUM IAmb IAmb 16 52 37.9
comp=Z,296nm,1.1s
TSUM Tsumeb 76.13 105 IAms_20 IAms_20 17 23 22.0
comp=Z,2µm,20.0s
TSUM Tsumeb 76.13 105 P **P** **16 52 33.9 +0.8**
TSUM pP **pP** **16 52 37.2 +0.7**
TBI Tubuai 76.28 250 *eP* **P** **16 52 32.0 -1.6**
comp=Z,368nm,1.3s
BSUT Blindstream Ca 76.39 326 IAmb IAmb 16 52 39.7
comp=Z,159nm,1.2s
AGMN Agassiz Nation 76.39 339 IAmb IAmb 16 52 37.6
comp=Z,128nm,1.0s
AGMN IAms_20 IAms_20 17 27 38.4
comp=Z,2µm,22.0s
PRN Pahroc Range 76.51 321 IAmb IAmb 16 52 41.4
comp=Z,197nm,1.5s
ALKP Alkanpan, Nort 76.56 117 P **P** **16 52 34.0 -1.2**
ALKP IAmb IAmb 16 52 39.6
comp=Z,154nm,0.9s
CCCA Chr Cany lake 76.61 318 IAmb IAmb 16 52 41.5
comp=Z,301nm,1.4s
NLU North Lily Min 76.65 325 IAmb IAmb 16 52 41.9
comp=Z,172nm,1.4s
LRMC Laurel Mtn Rad 76.77 318 IAmb IAmb 16 52 42.4
comp=Z,195nm,1.6s
TPNV Topopah Spring 76.89 320 IAmb IAmb 16 52 43.5
comp=Z,225nm,1.5s
FURC Furnace Creek, 76.93 319 IAmb IAmb 16 52 43.4
comp=Z,286nm,1.5s
EPLO Experimental L 76.95 341 IAmb IAmb 16 52 40.4
comp=Z,142nm,1.0s
WCT Wildcat Mounta 77.01 320 IAmb IAmb 16 52 44.1
comp=Z,186nm,1.4s
TCUT Toone Canyon 77.15 326 IAmb IAmb 16 52 44.5
comp=Z,158nm,1.3s
DUG Dugway, Tooele 77.22 324 IAmb IAmb 16 52 44.9
comp=Z,189nm,1.4s
TIO Tiouine 77.26 48 P **P** **16 52 42.7 +3.6**
MDND Maddock 77.28 337 IAms_20 IAms_20 17 31 56.0
comp=Z,2µm,18.0s
BW06 Boulder Array 77.44 328 IAmb IAmb 16 52 45.6
comp=Z,221nm,1.6s
PD31 Pinedale Array 77.44 328 IAmb IAmb 16 52 45.5
comp=Z,219nm,1.6s
PDAR Pinedale Array 77.44 328 P **P** **16 52 39.6 -0.3**
comp=Z,10nm,0.8s,baz=130,slow=6.9,SNR=73
PDAR LR LR 17 31 42.8
comp=Z,536nm,18.4s,baz=124,slow=40
comp=Z,10nm,0.8s
PDAR Pinedale Array 77.44 328 P **P** **16 52 38.8 -1.1**
VAH Vaihoa 77.45 259 *eP* **P** **16 52 43.8 +3.5**
comp=Z,156nm,1.0s
HWUT Hardware Ranch 77.58 326 IAmb IAmb 16 52 46.6
comp=Z,283nm,1.6s
LKGWB Lokgwabe 77.64 111 P **P** **16 52 45.0 +3.6**
LKGWB pP **sP** **16 52 47.4 +1.3**
PMOR Pomariorio Ree 77.77 259 *eP* **P** **16 52 45.7 +3.6**
comp=Z,228nm,1.3s
SCHQ Schefferville 77.78 359 P **P** **16 52 40.5 -0.8**
comp=Z,108nm,0.9s,baz=175,slow=3.6,SNR=26
SCHQ LR LR 17 29 04.3
comp=Z,1µm,19.6s,baz=176,slow=37
comp=Z,108nm,0.9s
SCHQ Schefferville 77.78 359 IAmb IAmb 16 52 45.0
comp=Z,128nm,0.9s
SPUT South Promonto 77.83 325 IAmb IAmb 16 52 48.0
comp=Z,267nm,1.4s
BGU Big Grassy Mou 77.86 325 IAmb IAmb 16 52 48.1
comp=Z,207nm,1.4s
TVO Taravao 78.01 256 *eP* P 16 52 47.9 +4.4
comp=Z,114nm,1.2s
ULM Lac du Bonnet 78.11 340 P **P** **16 52 42.4 -0.8**
comp=Z,34nm,0.6s,baz=144,slow=5.8,SNR=37
ULM LR LR 17 30 19.4
comp=Z,1µm,19.5s,baz=155,slow=38
comp=Z,34nm,0.6s
ULM Lac du Bonnet 78.11 340 IAmb IAmb 16 52 46.9
comp=Z,391nm,1.6s
TIAR Tiarei 78.17 256 *eP* **P** **16 52 47.7 +3.3**
comp=Z,407nm,1.0s
AHID Auburn Hatcher 78.20 327 IAmb IAmb 16 52 49.9
comp=Z,330nm,1.4s
TPH Tonopah 78.22 320 IAmb IAmb 16 52 50.5
comp=Z,221nm,1.5s
PAE Paea 78.34 256 *eP* **P** **16 52 48.7 +3.4**
comp=Z,141nm,1.2s
PPTF Pamatai, Papee 78.36 256 P **P** **16 52 49.6 +4.1**
PPT2 Papeete2 78.37 256 *eP* **P** **16 52 47.3 +1.8**
comp=Z,94nm,1.3s
PPT2 *e*PP **PP** **16 55 35.0 -7.6**
comp=Z,80nm,25.2s
PPT2 *e*S **S** **17 02 40.7 -1.3**
comp=Z,251nm,23.2s
PPT2 *e*LQ LQ 17 13 37.7
comp=Z,1µm,25.5s
PPT2 *e*LR LR 17 16 57.1
comp=Z,876nm,27.5s
PPT2 *e*LR LR 17 17 02.9
comp=Z,1µm,25.8s
PPT Papeete 78.37 256 P **P** **16 52 45.2 -0.3**
comp=Z,14nm,0.8s,baz=210,slow=11,SNR=5.3
PPT LR LR 17 19 31.2
comp=Z,494nm,21.9s,baz=102,slow=30
comp=Z,14nm,0.8s
SNOW Snow King Moun 78.54 328 IAms_20 IAms_20 17 30 05.6
comp=Z,1µm,20.0s
GRTLG Ghanzi 78.58 108 P **P** **16 52 47.3 +0.5**
GRTLG pP **pP** **16 52 50.4 +0.2**
AVE Averroes 78.59 46 P **P** **16 52 49.1 +2.9**
ELK Elko 78.92 324 LR LR 17 29 09.2
comp=Z,890nm,18.7s,baz=134,slow=37
ELK Elko 78.92 324 IAms_20 IAms_20 17 27 43.7
comp=Z,1µm,22.0s
LAO LASA Array 78.94 333 IAmb IAmb 16 52 53.5
comp=Z,313nm,1.4s
RLMT Red Lodge 79.08 330 IAmb IAmb 16 52 55.0
comp=Z,329nm,1.4s
LHV Little Huntoon 79.09 320 IAmb IAmb 16 52 55.6
comp=Z,243nm,1.6s
NVAR Mina Array Bea 79.09 320 P **P** **16 52 49.9 +0.7**
comp=Z,31nm,1.1s,baz=155,slow=3.9,SNR=60
NVAR LR LR 17 29 08.1
comp=Z,512nm,18.5s,baz=128,slow=37
comp=Z,31nm,1.1s
NVAR Mina Array Bea 79.09 320 P **P** **16 52 48.9 -0.2**
LKWY Lake 79.19 329 IAms_20 IAms_20 17 31 01.4
comp=Z,2µm,19.0s
YNE Yellowstone No 79.34 329 IAmb IAmb 16 52 55.5
comp=Z,217nm,1.1s
KVN Kaiserville 79.38 321 IAmb IAmb 16 52 56.5
comp=Z,202nm,1.4s
BOSA Boshof 79.48 117 P **P** **16 52 52.0 +0.4**
comp=Z,126nm,1.0s,baz=246,slow=4.0,SNR=32
BOSA LR LR 17 24 55.7
comp=Z,1µm,18.5s,baz=248,slow=33
comp=Z,126nm,1.0s
BOSA Boshof 79.48 117 P **P** **16 52 50.8 -0.8**
BOSA IAmb IAmb 16 52 55.4
comp=Z,183nm,1.0s
BOSA Boshof 79.48 117 P **P** **16 52 52.2 +0.7**
BOSA Boshof 79.48 117 P **P** **16 52 51.9 +0.4**
BOSA pP **pP** **16 52 54.7 -0.3**
DGMT Dagmar 79.53 335 IAms_20 IAms_20 17 31 39.5
comp=Z,1µm,18.0s

YMR Madison River 79.54 329 IAmb IAmb 16 52 58.1
comp=Z,360nm,1.6s
YHH Holmes Hill 79.57 329 IAmb IAmb 16 52 58.2
comp=Z,355nm,1.3s
YHL Hebgen Lake 79.78 329 IAmb IAmb 16 52 59.4
comp=Z,200nm,1.3s
SKOMA Sekoma 79.82 112 P **P** **16 52 54.3 +0.9**
SKOMA pP **pP** **16 52 57.0 +0.1**
YERR Yerington 80.01 320 IAmb IAmb 16 53 00.5
comp=Z,293nm,1.5s
MAKGR Makgori 80.09 114 P **P** **16 52 57.7 +2.8**
MD01 Midelt array s 80.12 48 P **P** **16 52 53.0 -1.8**
MDT Midelt 80.20 48 LR LR 17 26 12.8
comp=Z,2µm,21.4s,baz=238,slow=34
IFR Ifrane 80.25 47 P **P** **16 52 58.8 +3.2**
PNTR Pine Nut 80.29 320 IAmb IAmb 16 53 02.0
comp=Z,215nm,1.3s
HLID Hailey 80.45 326 IAmb IAmb 16 53 02.9
comp=Z,407nm,1.4s
BOZ Boman (W) 80.54 329 IAms_20 IAms_20 17 30 11.5
comp=Z,2µm,21.0s
PAHR Pah Rah Range 80.56 321 IAmb IAmb 16 53 03.3
comp=Z,366nm,1.4s
MPK Martis Peak 80.68 320 IAmb IAmb 16 53 04.3
comp=Z,365nm,1.4s
PBDV Barranco-do-Ve 80.69 43 P **P** **16 52 57.5 0.0**
DLMT Dillon 80.83 328 IAmb IAmb 16 53 04.5
comp=Z,324nm,1.4s
DLMT IAms_20 IAms_20 17 32 03.2
comp=Z,1µm,20.0s
KDWAN Kaudwane 80.85 111 P **P** **16 53 00.3 +1.3**
KDWAN pP **pP** **16 53 02.6 +0.2**
MESJ Messejana 80.88 42 *etx* tx 16 53 03.2
PVAQ Vaqueiros 80.92 43 *eS* **SKSac** **17 03 15.9 -2.0**
PVAQ *e*LR LR 17 20 38.4
PVAQ IAms_20 IAms_20 17 29 48.2
comp=Z,2µm,18.0s
AFDM Forest Hills D 81.02 319 P **P** **16 52 59.3 0.0**
AFDM IAmb IAmb 16 53 04.9
comp=Z,190nm,1.5s
MFID Camas Ranch 81.08 325 IAmb IAmb 16 53 06.1
comp=Z,289nm,1.4s
EGRO El Granado 81.14 43 P **P** **16 53 02.0 +2.0**
MOE Montemor 81.22 42 *eP* **P** **16 53 00.9 +0.5**
MOE *etx* tx 16 53 05.2
BEKR Beckworth 81.24 320 IAmb IAmb 16 53 06.7
comp=Z,232nm,1.5s
BUT Butte 81.29 329 IAmb IAmb 16 53 06.1
comp=Z,248nm,1.2s
CVS Carmenet Viney 81.54 318 IAmb IAmb 16 53 07.8
comp=Z,325nm,1.5s
PARRA Arraiolos 81.60 41 *etx* tx 16 53 06.8
PARRA IAmb IAmb 16 53 09.2
comp=Z,57nm,1.6s
MAW Mawson 81.61 162 P **P** **16 53 05.0 +3.0**
comp=Z,8.6nm,1.2s
MAW Mawson 81.61 162 P **P** **16 53 04.7 +2.7**
comp=Z,8.6nm,1.2s,comp=Z,0.0nmcomp=Z,0.0nm,18.3s
MAW Mawson 81.61 162 P **P** **16 53 02.7 +0.7**
comp=Z,27nm,0.8s,baz=238,slow=6.8,SNR=28
comp=Z,27nm,0.8s
MAW Mawson 81.61 162 P **P** **16 53 01.6 -0.4**
PMTG Montargil 81.64 41 *etx* tx 16 53 06.5
SUTB Sutter Butte 81.69 319 IAmb IAmb 16 53 08.4
comp=Z,238nm,1.5s
ORV Oroville 81.72 319 IAmb IAmb 16 53 09.1
comp=Z,362nm,1.4s
PBAR Barrancos 81.82 42 *etx* tx 16 53 07.6
PBAR IAmb IAmb 16 53 08.6
comp=Z,58nm,1.5s
GBMT Granite Butte, 81.86 329 IAmb IAmb 16 53 09.8
comp=Z,201nm,1.4s
PSARD Sardoal 82.02 41 *etx* tx 16 53 08.6
PSARD IAmb IAmb 16 53 09.5
comp=Z,98nm,1.6s
PCAS Casmilo, Conde 82.10 40 *etx* tx 16 53 09.2
PCAS IAmb IAmb 16 53 10.2
comp=Z,171nm,1.7s
O03E Paynes Creek 82.37 320 IAmb IAmb 16 53 11.1
comp=Z,276nm,1.5s
PMRV Marv??o 82.37 41 *etx* tx 16 53 10.1
PMRV *e*S S 17 03 33.0 +10
PMRV *e*LR LR 17 19 28.9
PMRV IAms_20 IAms_20 17 25 21.4
comp=Z,1µm,20.0s
TAM Tamanrasset 82.47 61 IAmb IAmb 16 53 12.4
comp=Z,101nm,0.9s
TAM IAms_20 IAms_20 17 30 25.1
comp=Z,2µm,18.0s
MOD Modoc Plateau 82.52 322 IAmb IAmb 16 53 13.2
comp=Z,135nm,1.3s
MSO Missoula 82.54 329 IAmb IAmb 16 53 12.5
comp=Z,138nm,1.4s
PCBR Castelo Branco 82.58 41 *eP* **P** **16 53 07.2 -0.3**
PCBR *etx* tx 16 53 11.5
MTE Manteigas 82.89 40 *eP* **P** **16 53 09.4 +0.3**
MTE *etx* tx 16 53 13.4
MTE *e*S S 17 03 41.3 +13
MTE *e*LR LR 17 19 44.9
MTE IAms_20 IAms_20 17 30 06.7
comp=Z,2µm,18.0s
M03C McCloud 83.17 320 IAmb IAmb 16 53 15.6
comp=Z,218nm,1.6s
POLO Lamas de Olo 83.35 40 *etx* tx 16 53 15.5
POLO IAmb IAmb 16 53 17.3
comp=Z,39nm,1.5s
F10A Beach Ranch, E 83.57 326 IAmb IAmb 16 53 18.8
comp=Z,185nm,1.3s
YBH Yreka Blue Hor 83.80 320 LR LR 17 32 14.6
comp=Z,697nm,20.1s,baz=132,slow=37
L04D Klamath Falls 83.87 321 IAmb IAmb 16 53 19.4
comp=Z,236nm,1.7s
FFC Flin Flon 83.87 339 P **P** **16 53 13.4 -0.4**
FFC pmax pmax
comp=Z,102nm,1.2s
FFC MLR MLR
comp=Z,2µm,22.0s
FFC Flin Flon 83.87 339 P **P** **16 53 13.4 -0.4**
FFC IAmb IAmb 16 53 18.1
comp=Z,102nm,1.1s
FFC Flin Flon 83.87 339 IAms_20 IAms_20 17 31 36.2
comp=Z,2µm,22.0s
J05D Fort Rock, OR 83.94 322 IAmb IAmb 16 53 20.5
comp=Z,212nm,1.5s
PBRG Braganca 84.23 40 *etx* tx 16 53 19.7
PBRG IAmb IAmb 16 53 21.9
comp=Z,101nm,1.6s
LDM Libby Dam 84.35 329 IAmb IAmb 16 53 21.1
comp=Z,93nm,1.0s
E09A Wood Farm, Sta 84.40 326 IAmb IAmb 16 53 22.0
comp=Z,115nm,1.3s
L02F Cave Junction 84.55 320 IAmb IAmb 16 53 23.4
comp=Z,202nm,1.5s
ESDC Sonseca Array 84.63 43 P **P** **16 53 18.8 +0.7**
comp=Z,33nm,1.2s,baz=234,slow=4.6,SNR=46
ESDC LR LR 17 30 06.4
comp=Z,2µm,18.3s,baz=230,slow=35
comp=Z,33nm,1.2s
ESDC Sonseca Array 84.63 43 P **P** **16 53 17.7 -0.5**
I05D Terrebonne, OR 84.67 323 IAmb IAmb 16 53 23.6
comp=Z,150nm,1.4s
G06A Carlson Farm, 84.86 324 IAmb IAmb 16 53 24.7
comp=Z,144nm,1.3s
K02D Willamette Mer 84.95 321 IAmb IAmb 16 53 25.6
comp=Z,253nm,1.4s
HAWA Hanford 85.04 326 IAmb IAmb 16 53 25.0
comp=Z,189nm,1.1s
NEW Newport 85.08 328 LR LR 17 37 10.9
comp=Z,1µm,18.7s,baz=130,slow=40
D08A Wollman Farm, 85.16 326 IAmb IAmb 16 53 25.6
comp=Z,228nm,1.3s
G05A Wamic 85.23 324 IAmb IAmb 16 53 26.5
comp=Z,242nm,1.2s
MATP Matopo 85.25 110 LR LR 17 29 08.6
comp=Z,5µm,18.1s,baz=247,slow=34
WAH2 Wahluke Slope 85.29 326 IAmb IAmb 16 53 26.7
comp=Z,270nm,1.4s
E07A Sunnyside 85.31 326 IAmb IAmb 16 53 26.5
comp=Z,106nm,1.1s
MXC Moxie City 85.55 325 IAmb IAmb 16 53 28.5
comp=Z,120nm,1.2s
RAR Rarotonga 85.95 249 LR LR 17 23 10.5
comp=Z,469nm,21.6s,baz=119,slow=30
LTY Liberty 86.19 326 IAmb IAmb 16 53 30.3
comp=Z,135nm,1.0s
FRB Frobisher Bay 86.75 358 LR LR 17 31 35.4
comp=Z,1µm,21.8s,baz=169,slow=35

LSZ Lusaka 86.99 105 LR LR 17 29 07.6
comp=Z,1µm,19.9s,baz=252,slow=33
LSZ Lusaka 86.99 105 IAMs_20 IAMs_20 17 29 49.5
comp=Z,2µm,20.0s
GNW Green Mountain 87.52 325 IAmb IAmb 16 53 36.3
comp=Z,81nm,1.1s
SHUK Shuksan-Mt. Ba 87.74 326 IAmb IAmb 16 53 37.3
comp=Z,93nm,0.9s
BLKN Baker Lake 90.55 347 IAmb IAmb 16 53 49.8
comp=Z,155nm,1.5s
SFJD Kangerlussuaq 90.62 6 LR LR 17 35 22.5
comp=Z,614nm,20.6s,baz=196,slow=36
SFJD Kangerlussuaq 90.62 6 IAMs_20 IAMs_20 17 35 57.1
comp=Z,1µm,19.0s
SFJD Kangerlussuaq 90.62 6 P **P** **16 53 49.3 +3.1**
CASY Casey 90.69 178 P **P** **16 53 46.2 -0.7**
CASY IAmb IAmb 16 53 52.1
comp=Z,154nm,1.0s
IWEX Carrickbyrne, 90.78 31 P **P** **16 53 47.5 +0.2**
DSB Dublin 91.51 31 P **P** **16 53 52.5 +1.8**
DSB Dublin 91.51 31 P **P** **16 53 51.3 +0.6**
KEST Kesra 91.55 52 P **P** **16 53 52.0 +0.6**
comp=Z,8.8nm,1.0s,baz=277,slow=5.9,SNR=4.1
KEST LR LR 17 37 35.4
comp=Z,2µm,18.1s,baz=236,slow=37
comp=Z,8.8nm,1.0s
ILTH Belurgan, Co L 92.02 30 P **P** **16 53 54.8 +1.8**
IDGL Inch Island, C 92.14 29 P **P** **16 53 56.4 +2.9**
ILULI Ilulissat 92.75 5 IAmb IAmb 16 54 01.0
comp=Z,150nm,1.2s
ILULI IAMs_20 IAMs_20 17 39 42.4
comp=Z,1µm,19.0s
ILON Igloolik, Nuna 93.15 354 IAmb IAmb 16 54 02.1
comp=Z,92nm,1.2s
BORG Borgarnes 93.99 17 LR LR 17 32 23.1
comp=Z,2µm,21.2s,baz=224,slow=33
YKAW1 Yellowknife Wh 94.00 339 IAmb IAmb 16 54 06.3
comp=Z,88nm,1.0s
YKA Yellowknife Ar 94.05 339 P **P** **16 54 01.6 -0.6**
comp=Z,82nm,1.0s,baz=130,slow=4.4,SNR=50
YKA PKiKP **PKiKP** **16 58 49.4 +2.9**
comp=Z,0.7nm,0.7s,baz=135,slow=1.7,SNR=5.1
YKA PKKP **PKKPbc** **17 11 07.4 +0.5**
comp=Z,1.3nm,0.8s,baz=308,slow=2.6,SNR=6.3
YKA LR LR 17 40 48.3
comp=Z,795nm,19.2s,baz=122,slow=38
YKA Yellowknife Ar 94.05 339 P **P** **16 54 02.3 +0.1**
YKAW3 Yellowknife Wh 94.10 339 IAmb IAmb 16 54 06.8
comp=Z,78nm,0.9s
EKA Eskdalemuir Ar 94.28 30 P **P** **16 54 03.5 +0.1**
comp=Z,5.1nm,1.1s,baz=216,slow=4.1,SNR=5.4
EKA LR LR 17 33 04.8
comp=Z,1µm,19.2s,baz=236,slow=33
comp=Z,5.1nm,1.1s
MBAR Mbarara 95.09 93 LR LR 17 33 45.7
comp=Z,946nm,20.3s,baz=252,slow=33
MBAR Mbarara 95.09 93 *i* P **P** **16 54 06.2 -2.2**
MBAR pmax pmax
comp=Z,5.0nm,1.2s
MBAR Mbarara 95.09 93 IAMs_20 IAMs_20 17 33 12.9
comp=Z,1µm,20.0s
SNZO South Karori 95.21 221 IAMs_20 IAMs_20 17 30 01.1
comp=Z,930nm,19.0s
URZ Urewera 95.51 224 LR LR 17 28 26.3
comp=Z,682nm,20.9s,baz=119,slow=30
BMRD Maredsous 95.61 37 *dP* **P** **16 54 11.8 +2.2**
comp=Z,7.5nm,1.3s
RPZ Rata Peaks 95.83 217 LR LR 17 29 18.0
comp=Z,247nm,19.5s,baz=120,slow=30
ECH Echery 95.97 40 IAMs_20 IAMs_20 17 39 19.8
comp=Z,1µm,19.0s
VAE Valguarnera 95.97 52 LR LR 17 36 13.0
comp=Z,2µm,21.6s,baz=313,slow=35
WLF Walferdange 96.08 38 P **P** **16 54 08.7 -3.1**
WLF Walferdange 96.08 38 *dP* **P** **16 54 13.0 +1.2**
comp=Z,9.1nm,1.3s
POIN Pond Inlet 96.11 356 IAmb IAmb 16 54 15.9
comp=Z,87nm,1.1s
TUE Stuetta 96.48 42 P **P** **16 54 13.1 -0.9**
comp=Z,55nm,1.7s
BFO Black Forest 96.71 40 IAMs_20 IAMs_20 17 36 04.5
comp=Z,1µm,20.0s
DAVOX Davos/Dischmat 96.94 42 LR LR 17 34 31.9
comp=Z,2µm,21.3s,baz=253,slow=33
RAO Raoul Island 96.97 234 LR LR 17 29 59.2
comp=Z,198nm,21.2s,baz=152,slow=30
DAVA Damuels 97.17 41 *e*PcP Pdif 16 54 17.6 +0.4
comp=Z,8.5nm,1.1s
SUMG Summit 97.27 8 IAmb IAmb 16 54 24.5
comp=Z,38nm,1.1s
CEL Celeste 97.36 52 IAMs_20 IAMs_20 17 37 00.2
comp=Z,2µm,22.0s
DLBC Dease Lake 97.42 331 LR LR 17 44 03.1
comp=Z,888nm,18.8s,baz=88,slow=39
STU Stuttgart 97.42 40 IAMs_20 IAMs_20 17 36 34.4
comp=Z,1µm,20.0s
FETA Feichten 97.57 42 *e*P Pdif 16 54 18.9 0.0
comp=Z,8.7nm,1.2s
RETA Reutte 97.80 42 *e*PcP Pdif 16 54 20.6 +0.8
comp=Z,9.9nm,1.1s
MOTA Moosalm 97.94 42 *e*PcP Pdif 16 54 21.4 +0.8
comp=Z,18nm,1.3s
SQTA Sankt Quirin 97.95 42 *e*PcP Pdif 16 54 21.3 +0.7
comp=Z,15nm,1.3s
WATA Walderalm 98.23 42 *e*Pdiff Pdif 16 54 22.4 +0.6
comp=Z,17nm,1.5s
WTTA Wattenberg 98.23 42 *e*Pdiff Pdif 16 54 22.7 +0.8
comp=Z,9.6nm,1.2s
LESA Schwarzleotal 98.94 42 Pdiff Pdif 16 54 25.2 +0.3
comp=Z,5.1nm,1.4s
GRFO Grafenberg 99.02 40 IAMs_20 IAMs_20 17 37 18.6
comp=Z,1µm,20.0s
GRA1 Grafenberg Arr 99.02 40 IAMs_20 IAMs_20 17 37 18.7
comp=Z,1µm,20.0s
GRF Grafenberg Arr 99.02 40 *e*Pdiff **Pdif** **16 54 27.6 +2.5**
GRF *e*PP **PP** **16 58 22.9 -4.6**
baz=245,slow=7.6
AFI Afiamalu 99.39 250 LR LR 17 31 19.3
comp=Z,540nm,18.6s,baz=119,slow=31
P33M Teslin, Yukon 99.57 332 IAmb IAmb 16 54 32.8
comp=Z,64nm,1.5s
RES Resolute Bay 99.58 352 LR LR 17 41 05.5
comp=Z,1µm,20.8s,baz=152,slow=36
BIOA Bad Ischl, Aus 99.65 42 *e*Pdiff **Pdif** **16 54 28.4 +0.4**
comp=Z,4.4nm,0.9s
NKC Novy Kostel 99.97 40 AMS AMS 17 36 10.0
comp=Z,2µm,24.4s
MOA Molln 100.10 42 *e*Pdiff **Pdif** **16 54 30.5 +0.5**
comp=Z,5.6nm,1.2s
GERES GERESS Array B 100.15 41 P **Pdif** **16 54 30.3 0.0**
comp=Z,0.3nm,0.5s,baz=219,slow=10,SNR=5.3
GERES PKiKP **PKiKP** **16 59 00.4 +2.6**
comp=Z,1.0nm,0.9s,baz=225,slow=3.6,SNR=3.6
KHC Kasperske Hory 100.19 41 *i* P **Pdif** **16 54 28.3 -2.1**
KHC pmax pmax
comp=Z,2.0nm,1.2s
KHC Kasperske Hory 100.19 41 AMS AMS 17 32 20.0
comp=Z,900nm,23.8s
CKRC Cesky Krumlov 100.51 41 AMS AMS 17 33 20.0
comp=Z,1µm,20.8s
ZVC Zvikov 100.68 41 AMS AMS 17 38 40.0
comp=Z,800nm,14.5s
HSKC Hora Svate Kat 100.69 39 AMS AMS 17 36 50.0
comp=Z,2µm,22.8s
CLL Collm 100.73 39 *i* P **Pdif** **16 54 35.2 +2.6**
CLL *e*S 17 06 10.0
CLL MLR MLR
comp=Z,1µm,20.6s
CLL Collm 100.73 39 IAMs_20 IAMs_20 17 38 45.7
comp=Z,1µm,20.0s
CLL Collm 100.73 39 *i* Pdif **Pdif** **16 54 35.2 +2.6**
CLL *e*PP **PP** **16 58 39.0 -1.4**
CLL *e*SKSac **SKSac** **17 05 12.0 0.0**
CLL *e*SKKSac **SKKSac** **17 05 42.0 -4.9**
CLL *e*Sdif **Sdif** **17 06 10.0 -0.4**
CLL *e*PS **PS** **17 07 41.0 -0.5**
CLL *e*PPS PPS 17 08 34.0
CLL *e*SS **SS** **17 13 06.0 -2.1**
CLL *ex* x 17 14 24.0
CLL *e*SSS SSS 17 16 48.0
CLL *e*SSSS 17 20 12.0
CLL LQ LQ 17 22 00.0
CLL L L 17 26 00.0
CLL AMS AMS 17 35 00.0
comp=N,400nm,26.9s
CLL AMS AMS 17 35 00.0
comp=E,1µm,23.1s

CLL AMS AMS 17 35 00.0
comp=Z,1µm,23.3s
CLL AMS AMS 17 38 00.0
comp=Z,1µm,20.6s
BLY Banja Luka 100.77 46 IAMs_20 IAMs_20 17 41 05.2
comp=Z,1µm,19.0s
KMBO Kilima Mbogo 100.86 96 IAMs_20 IAMs_20 17 39 20.6
comp=Z,1µm,19.0s
BRG Berggiesshubel 101.10 39 SS SS 17 13 15.0 +1.7
CONA Conrad Observa 101.12 43 *e*Pdiff **Pdif 16 54 34.8 +0.2**
comp=Z,5.3nm,2.3s
PDG Podgorica 101.33 49 IAMs_20 IAMs_20 17 40 02.0
comp=Z,875nm,20.0s
PVCC Panska Ves 101.33 40 AMS AMS 17 36 50.0
comp=Z,2µm,19.7s
TREC Trest 101.41 41 AMS AMS 17 39 10.0
comp=Z,1µm,18.3s
UPC Upice 102.18 40 AMS AMS 17 37 30.0
comp=Z,1µm,24.2s
CHVC Chvalec 102.23 40 AMS AMS 17 37 30.0
comp=Z,1µm,24.6s
DPC Dobruska-Polom 102.30 40 AMS AMS 17 38 40.0
comp=Z,1µm,19.5s
OSTC Ostas 102.31 40 AMS AMS 17 38 10.0
comp=Z,1µm,20.6s
KRLC Kraliky 102.48 41 AMS AMS 17 39 20.0
comp=Z,1µm,20.7s
MAUC Maruska 102.86 42 AMS AMS 17 45 20.0
comp=Z,1µm,16.5s
OKC Ostrava-Krasne 103.22 41 AMS AMS 17 35 10.0
comp=Z,1µm,24.0s
PSZ Piszkesteto 103.65 44 IAMs_20 IAMs_20 17 40 02.3
comp=Z,1µm,20.0s
KARP Karpathos 104.84 57 IAMs_20 IAMs_20 17 47 38.4
comp=Z,1µm,19.0s
MLR Muntele Rosu 106.88 47 IAMs_20 IAMs_20 17 49 34.9
comp=Z,985nm,19.0s
HDA Harding Lake 107.29 333 IAMs_20 IAMs_20 17 44 39.8
comp=Z,1µm,22.0s
ILAR Eielson Array 107.38 334 Pdiff **Pdif 16 55 04.8 +2.9**
comp=Z,1.8nm,0.9s,baz=135,slow=3.8,SNR=11
ILAR PKiKP **PKiKP 16 59 11.3 +0.9**
comp=Z,4.4nm,1.1s,baz=174,slow=1.7,SNR=9.9
WRH Wood River Hil 107.79 333 IAMs_20 IAMs_20 17 33 01.8
comp=Z,970nm,20.0s
ISP Isparta 108.09 56 IAMs_20 IAMs_20 17 48 32.3
comp=Z,824nm,20.0s
G24K Hadweenzic Riv 108.17 335 IAMs_20 IAMs_20 17 48 05.9
comp=Z,1µm,20.0s
TIRR Tirgusor 108.29 49 IAMs_20 IAMs_20 17 50 41.4
comp=Z,751nm,19.0s
H22K Ishtalitna Cre 109.49 334 IAMs_20 IAMs_20 17 44 45.9
comp=Z,1µm,22.0s
CSS Mathiatis 109.52 60 IAMs_20 IAMs_20 17 44 45.4
comp=Z,1µm,22.0s
I21K Tanana 109.58 333 IAMs_20 IAMs_20 17 46 32.0
comp=Z,1µm,22.0s
MNK Minsk 110.27 38 *i* P **Pdif 16 55 13.8 -1.2**
MNK *i* 16 59 49.1
MNK *i* PPP PPP 17 02 08.2
MNK *i* 17 06 27.5
MNK *i* PS **PS 17 09 18.9 -1.5**
MNK *i* SS SS 17 15 17.0 -1.2
MNK *i* SSS SSS 17 19 23.7
MNK pmax pmax
comp=E,12nm,1.1s
MNK pmax pmax
comp=N,10.0nm,1.0s
MNK pmax pmax
comp=Z,4.0nm,0.7s
MNK MLR MLR
comp=E,340nm,19.0s
MNK MLR MLR
comp=Z,925nm,19.0s
MNK MLR MLR
comp=N,747nm,19.0s
MNK Minsk 110.27 38 *i* P **Pdif 16 55 13.8 -1.2**
comp=E,12nm,1.1s
MNK *i* P **Pdif 16 55 13.8 -1.2**
comp=N,10.0nm,1.0s
MNK *i* P **Pdif 16 55 13.8 -1.2**
comp=Z,4.0nm,0.7s,baz=258
MNK *i* PP **PP 16 59 49.1 -1.7**
MNK *i* PPP PPP 17 02 08.2
MNK *i* SKS **SKSdf 17 06 27.6 -0.9**
MNK *i* PS **PS 17 09 18.9 -1.5**
MNK *i* SS **SS 17 15 17.0 -1.2**
MNK *i* SSS SSS 17 19 23.7
MNK *i* LQ LQ 17 39 03.3
MNK *i* LRM MLR 17 45 24.3
comp=E,340nm,19.4s
MNK *i* LRM MLR 17 45 48.9
comp=N,747nm,19.3s
MNK *i* LRM MLR 17 45 48.9
comp=Z,925nm,19.0s
KIEV Kiev 110.27 43 PKiKP **PKiKP 16 59 18.1 +1.8**
KIEV Kiev 110.27 43 IAMs_20 IAMs_20 17 41 49.7
comp=Z,1µm,22.0s
AKASG Malin Array Be 110.28 43 PKiKP **PKiKP 16 59 17.7 +1.4**
comp=Z,2.0nm,0.8s,baz=273,slow=2.7,SNR=9.9
GHAJ Ghor Haditha 110.37 64 IAMs_20 IAMs_20 17 45 57.1
comp=Z,926nm,20.0s
I20K Naaghedeneel 110.54 333 IAMs_20 IAMs_20 17 49 24.5
comp=Z,892nm,20.0s
FINES FINESS Array B 110.67 31 PKiKP **PKiKP 16 59 19.3 +2.6**
comp=Z,3.7nm,0.9s,baz=174,slow=1.4,SNR=4.4
ATD Arta Tunnel 110.80 86 IAMs_20 IAMs_20 17 52 42.5
comp=Z,1µm,18.0s
BRTR Keskin Array B 110.92 55 PKiKP **PKiKP 16 59 17.9 -0.2**
comp=Z,2.9nm,0.9s,baz=91,slow=1.5,SNR=16
F20K Avaraart Lake 111.43 335 IAMs_20 IAMs_20 17 50 19.8
comp=Z,837nm,20.0s
E19K Redstone River 112.07 335 IAMs_20 IAMs_20 17 50 09.8
comp=Z,1µm,19.0s
H18K Honhosa River 112.22 333 IAMs_20 IAMs_20 17 50 23.0
comp=Z,971nm,20.0s
SIM Simferopol' 112.36 49 *e*PKiKP **PKiKP 16 59 21.5 +1.1**
SIM pmax pmax
comp=Z,21nm,1.3s
SIM MLR MLR
comp=Z,507nm,18.5s
D19K Kuna River 112.52 337 IAMs_20 IAMs_20 17 50 08.7
comp=Z,1µm,21.0s
E18K Tukpahlearik C 113.36 335 IAMs_20 IAMs_20 17 50 18.9
comp=Z,1µm,22.0s
G16K Koyuk River 113.92 333 IAMs_20 IAMs_20 17 51 39.9
comp=Z,938nm,20.0s
J14K Nanvaranak Lak 114.27 330 IAMs_20 IAMs_20 17 51 31.4
comp=Z,986nm,20.0s
ARPR Arapgir-MALATY 114.35 56 IAMs_20 IAMs_20 17 54 22.0
comp=Z,650nm,19.0s
APA Apatity 114.48 25 *e*PKiKP **PKiKP 16 59 23.9 +0.1**
APA *e* 17 00 21.2
APA *e*SS SS 17 16 11.7 -1.8
APA pmax pmax
comp=Z,9.0nm,1.3s
APA MLR MLR
comp=Z,2µm,20.6s
ANN Anapa 114.66 50 *i* PKiKP **PKiKP 16 59 26.5 +1.7**
ANN pmax pmax
comp=Z,28nm,0.9s
ANM Nome 115.16 332 IAMs_20 IAMs_20 17 52 57.9
comp=Z,1µm,21.0s
OBN Obninsk 115.33 39 *i* PKIKP **PKiKP 16 59 24.6 -1.1**
OBN *e* 17 00 26.1
OBN *e*PPP PPP 17 02 54.8
OBN pmax pmax
comp=Z,34nm,1.3s
OBN MLR MLR
comp=Z,2µm,21.0s
MOS Moscow 115.97 38 *i* PKIKP **PKiKP 16 59 28.1 +1.2**
MOS *e* 17 00 29.7
MOS pmax pmax
comp=Z,57nm,1.4s
MOS MLR MLR
comp=Z,1µm,20.0s
MOS MLR MLR
comp=E,1µm,19.0s
SOC Sochi 116.11 51 *i* PKIKP **PKiKP 16 59 29.9 +2.3**
SOC *e* 17 00 41.0
SOC MLR MLR
comp=Z,654nm,22.0s
LPSR Galich'ya Gora 116.53 41 *e*PKIKP **PKiKP 16 59 31.1 +3.0**
LPSR pmax pmax
comp=Z,41nm,1.0s
VSR Storozhevoye 116.57 43 *e*PKIKP **PKiKP 16 59 31.1 +2.8**
VSR pmax pmax
comp=Z,34nm,1.2s
VORD Divnogorie 116.63 43 *e*PKIKP **PKiKP 16 59 29.6 +1.2**
VORD pmax pmax
comp=Z,10.0nm,1.3s
VORR Voronezh 116.63 42 *e*PKIKP **PKiKP 16 59 31.3 +2.9**
VORR pmax pmax
comp=Z,72nm,0.5s
ERBR Yeremizino-Bor 116.92 49 *i* PKIKP **PKiKP 16 59 30.1 +1.0**
ERBR pmax pmax
comp=Z,49nm,1.4s
ERBR MLR MLR
comp=Z,569nm,21.0s
LABN Labinsk 116.96 50 *i* PKIKP **PKiKP 16 59 30.7 +1.4**
LABN pmax pmax
comp=Z,35nm,0.9s
KLMR Klimovskoe 117.10 32 *e*PKIKP **PKPdf 16 59 28.2 -0.8**
KLMR SP SP 17 10 19.5 -1.5
KLMR pmax pmax
comp=Z,100nm,1.4s
KLMR MLR MLR
comp=Z,1µm,17.0s
VRH Novokhopyorsk 118.17 43 *e*PKIKP **PKiKP 16 59 32.9 +1.5**
VRH pmax pmax
comp=Z,34nm,1.1s
NEUR Neytrino 118.23 52 *i* PKIKP **PKiKP 16 59 32.2 +0.2**
SHA1 Shidzhatmaz 118.25 52 *i* PKIKP **PKPdf 16 59 30.1 -2.0**
KIV Kislovodsk 118.29 51 *i* PKiKP **PKiKP 16 59 32.9 +0.9**
SNR=10
KBZ Khabaz 118.42 52 PKP **PKiKP 16 59 33.5 +1.5**
comp=Z,27nm,1.0s,baz=246,slow=3.4,SNR=20
GNI Garni 119.40 56 PKiKP **PKiKP 16 59 35.6 +1.2**
GNI Garni 119.40 56*c* *i*PKIKP **PKiKP 16 59 34.2 -0.2**
GNI pmax pmax
comp=Z,44nm,1.7s
STKA Stephens Creek 119.54 206 P **PKiKP 16 59 37.4 +2.5**
STKA Stephens Creek 119.54 206 PKP **PKiKP 16 59 36.9 +2.0**
comp=Z,6.7nm,1.1s,baz=193,slow=3.2,SNR=4.5
MAK Makhachkala 121.71 53*c* *i*P **Pdif 16 56 01.9 -4.2**
MAK *i* 16 59 34.5
MAK *e*SSS SSS 17 22 13.2
MAK pmax pmax
comp=Z,376nm,1.2s
BELG Belogornoye 121.84 42 *i* PKIKP **PKPdf 16 59 37.0 -1.3**
QLP Quilpie 122.93 211 P **PKiKP 16 59 43.4 +1.8**
MZR Muzera 123.87 77 *i* PKiKP **PKiKP 16 59 43.7 +0.3**
SNR=8.0
BILL Bilibino 125.44 339 *i* PKIKP **PKPdf 16 59 43.8 -1.0**
BILL pmax pmax
comp=Z,12nm,0.8s
BILL Bilibino 125.44 339 IAMs_20 IAMs_20 17 54 58.2
comp=Z,650nm,21.0s
ASUD Al Ashush, Dub 125.88 76 PKiKP **PKiKP 16 59 48.5 +1.2**
FAQ Al Faqa, Dubai 126.14 76 PKPdf **PKiKP 16 59 47.4 -0.5**
ASHO Ashiyiah 126.54 76 PKPdf **PKPdf 16 59 47.9 -0.4**
HATD Hatta, Dubai 126.63 76 *i* PKiKP **PKiKP 16 59 49.6 +0.7**
SNR=7.3
UOSS Minazif 126.72 75 *i* PKiKP **PKiKP 16 59 49.0 -0.1**
SNR=6.0
UOSS Minazif 126.72 75 IAMs_20 IAMs_20 18 04 41.4
comp=Z,936nm,18.0s
UOSS Minazif 126.72 75 PKP **PKiKP 16 59 51.0 +1.9**
SOHO SOHO 126.85 77 *i* PKPdf **PKiKP 16 59 48.8 -0.6**
SNR=19
SHME Shamn 126.87 74 *i* PKPdf **PKiKP 16 59 48.7 -0.6**
SNR=5.9
CTA Charters Tower 127.20 218 PKP **PKiKP 16 59 50.2 0.0**
comp=Z,20nm,1.1s,baz=111,slow=4.8,SNR=16
CTAO Charters Tower 127.20 218 IAMs_20 IAMs_20 18 02 54.9
comp=Z,658nm,21.0s
ARTI Arti 127.45 36 *i* PKIKP **PKiKP 16 59 50.8 +1.2**
ARTI 17 01 52.4
ARTI 17 07 01.7
ARTI SS SS 17 18 57.3 -2.7
MORW Morawa 127.97 181 P **PKiKP 16 59 53.9 +2.4**
AKTO Aktyubinsk 128.52 43 PKIKP **PKiKP 16 59 52.4 +0.5**
AKTO pmax pmax
comp=Z,51nm,1.5s
SVE Sverdlovsk 128.53 35 *i* PKIKP **PKiKP 16 59 54.5 +2.8**
SVE pmax pmax
comp=Z,58nm,1.6s
SVE MLR MLR
comp=Z,2µm,20.0s
MTSU Mount Surprise 129.85 217 P **PKiKP 16 59 56.6 +1.0**
ASAR Alice Springs 129.85 203 PKhKP PKPpre 16 59 36.4
comp=Z,0.3nm,0.6s,baz=130,slow=2.2,SNR=7.3
ASAR PKP **PKPdf 16 59 53.5 -1.2**
comp=Z,18nm,0.8s,baz=146,slow=2.0,SNR=27
ASAR PP **PP 17 02 07.0 +2.5**
comp=Z,4.8nm,1.2s,baz=155,slow=4.6,SNR=4.5
AB31 Akbulak array 129.96 44 *i* PKIKP **PKiKP 16 59 54.8 0.0**
AB31 pmax pmax
comp=Z,107nm,1.4s
WRKA Warakurna 130.28 196 P **PKiKP 16 59 58.4 +2.0**
TIXI Tiksi 130.93 354*c* *i*PKIKP **PKiKP 16 59 56.1 0.0**
TIXI pmax pmax
comp=Z,63nm,1.3s
TIXI Tiksi 130.93 354 IAMs_20 IAMs_20 18 00 18.4
comp=Z,721nm,20.0s
NRIK Noril'sk 131.06 13 PKP **PKiKP 16 59 56.3 -0.1**
comp=Z,14nm,1.0s,baz=151,slow=1.4,SNR=14
WR8 Warramunga Arr 133.01 206 PKPpre 16 59 52.7
WRA Warramunga Arr 133.08 205 PKhKP PKPpre 16 59 50.3
comp=Z,1.1nm,0.7s,baz=157,slow=1.6,SNR=10
WRA PKP **PKiKP 17 00 01.7 -0.4**
comp=Z,14nm,0.6s,baz=170,slow=1.7,SNR=42
WRA PP **PP 17 02 25.9 +0.4**
comp=Z,3.5nm,1.1s,baz=157,slow=6.0,SNR=5.1
WRA Warramunga Arr 133.08 205 PKHKP PKPpre 16 59 51.1
WRA 17 00 01.7
WRA Warramunga Arr 133.08 205 PKPpre 16 59 51.0
WRAB Tennant Creek 133.09 205 *i* PKIKP **PKPdf 16 59 58.4 -2.5**
WRAB Tennant Creek 133.09 205 PKPpre 16 59 51.5
SEY Seymchan 133.09 338 *i* PKIKP **PKiKP 17 00 01.4 +0.7**
SEY pmax pmax
comp=Z,116nm,1.3s
WB0 Warramunga Arr 133.22 205 PKPpre 16 59 53.9
PMG Port Moresby 134.76 228 PKP **PKiKP 17 00 05.1 -0.4**
comp=Z,25nm,1.2s,baz=47,slow=2.9,SNR=8.3
PMG Port Moresby 134.76 228 IAMs_20 IAMs_20 17 53 23.4
comp=Z,510nm,18.0s
BVAR Borovoye Array 135.13 37 PKP **PKPdf 17 00 03.2 -0.4**
comp=Z,18nm,1.1s,baz=274,slow=3.5,SNR=20
MBWA Marble Bar 135.61 186 PKP **PKiKP 17 00 07.5 +0.3**
PETK Petropavlovsk- 136.08 324 PKhKP PKPpre 16 59 58.6
comp=Z,5.4nm,0.8s,baz=71,slow=5.3,SNR=6.4
PETK PKP **PKiKP 17 00 06.9 -0.2**
comp=Z,10nm,0.8s,baz=91,slow=5.9,SNR=8.8
PETK Petropavlovsk- 136.08 324 **PKiKP 17 00 07.1 0.0**
CHM Chimkent 137.97 52 *e*PKIKP **PKiKP 17 00 09.9 -1.4**
CHM Chimkent 137.97 52 *e*PKP **PKiKP 17 00 09.9 -1.4**
KK31 Karatay Array 138.44 51 *i* PKIKP **PKPdf 17 00 06.9 -3.2**
KK31 pmax pmax
comp=Z,16nm,1.2s
DZA Taraz 139.08 51 *e*PKIKP **PKPdf 17 00 11.8 +0.5**
DZA Taraz 139.08 51 *e*PKP **PKPdf 17 00 11.9 +0.5**
YAK Yakutsk 139.96 349 PKhKP PKPpre 17 00 06.4
comp=Z,21nm,0.8s,baz=187,slow=0.4,SNR=12
YAK Yakutsk 139.96 349 *e*PKIKP **PKPdf 17 00 09.6 -2.6**
YAK *e* 17 00 12.8
YAK *e* 17 00 15.8
YAK *e* 17 03 06.7
YAK *e* 17 07 25.4
YAK *e*SS SS 17 21 28.8 -1.0
YAK pmax pmax
comp=Z,32nm,1.1s
YAK pmax pmax
comp=N,8.0nm,1.4s
YAK pmax pmax
comp=E,9.0nm,1.8s
YAK pmax pmax
comp=Z,424nm,3.9s
YAK pmax pmax
comp=N,211nm,2.0s
YAK pmax pmax
comp=E,179nm,3.6s
KDU Kakadu 140.37 207 P **PKPdf 17 00 11.6 -2.9**
KURBB Kurchatov Arra 140.72 37 PKhKP PKPpre 17 00 11.3
comp=E,5.3nm,1.0s,baz=299,slow=2.4,SNR=16
KURBB PKP **PKiKP 17 00 16.2 -0.4**
comp=E,54nm,1.2s,baz=299,slow=2.8,SNR=37
KURBB PP **PP 17 03 17.4 +3.7**
comp=E,10.0nm,1.1s,baz=289,slow=6.6,SNR=11
KURBB Kurchatov Arra 140.72 37 PKIKP **PKiKP 17 00 15.0 -1.6**
KURBB pmax pmax
comp=Z,84nm,1.3s
KURK Kurchatov 140.72 37 PKIKP **PKiKP 17 00 16.2 -0.4**
KURK Kurchatov 140.72 37 **PKiKP 17 00 16.2 -0.4**
KURK Kurchatov 140.72 37 IAMs_20 IAMs_20 18 00 39.3
comp=Z,759nm,21.0s
MTN Manton Dam 140.78 205 P **PKiKP 17 00 18.1 +0.3**
EKS2 Erkin-Say 140.87 50 P **PKiKP 17 00 19.3 +1.9**
SNR=9.2
USP Ospenovka 141.20 49 P **PKiKP 17 00 19.9 +1.9**
SNR=10
AAK Ala-Archa 141.39 50 P **PKiKP 17 00 20.6 +2.2**
SNR=9.7
AAK Ala-Archa 141.39 50 PKPdf **PKPdf 17 00 14.9 -0.8**
AAK Ala-Archa 141.39 50 PKIKP **PKiKP 17 00 16.6 -1.9**
AAK pmax pmax
comp=Z,280nm,1.0s
AAK Ala-Archa 141.39 50 IAMs_20 IAMs_20 18 11 49.1
comp=Z,667nm,20.0s
AAK Ala-Archa 141.39 50 PKP **PKiKP 17 00 17.7 -0.8**
CHMS Chumysh 141.46 49 P **PKiKP 17 00 19.2 +0.8**
SNR=6.9
UCH Uchtor 141.52 51 P **PKiKP 17 00 19.3 +0.1**
SNR=14
SEM Semipalatinsk 141.77 36 *e*PKIKP **PKPdf 17 00 16.6 +0.4**
SEM Semipalatinsk 141.77 36 *e*PKP **PKPdf 17 00 16.7 +0.4**
ZALV Zalesovo Beam 141.89 29 PKhKP PKPpre 17 00 13.8
comp=Z,8.1nm,0.6s,baz=297,slow=3.2,SNR=18
ZALV PKP **PKPdf 17 00 16.5 +0.5**
comp=Z,47nm,0.9s,baz=298,slow=2.7,SNR=47
AAA Alma-Ata 142.89 48 *e*PKIKP **PKPdf 17 00 18.7 +0.5**
AAA Alma-Ata 142.89 48 *e*PKP **PKPdf 17 00 18.8 +0.5**
TNSS Tian-Shan 142.97 49 *e*PKIKP **PKPdf 17 00 18.9 +0.1**
TNSS Tian-Shan 142.97 49 *e*PKP **PKPdf 17 00 18.9 +0.1**
MDOK Medeo 143.00 48 *e*PKIKP **PKPdf 17 00 18.8 +0.3**
MDOK Medeo 143.00 48 *e*PKP **PKPdf 17 00 18.8 +0.3**
KSH2 Kashi 143.09 55 PKP **PKPdf 17 00 18.8 -0.1**
KSH2 PP **PP 17 03 31.8 +2.7**
KSH2 PPMZ
comp=Z,350nm,7.0s
KSH2 L L
comp=Z,750nm,19.6s
KSH2 L L
comp=Z,550nm,18.9s
KSH2 L L
comp=Z,1µm,22.2s
SATY Saty 143.97 48 *e*PKIKP **PKPdf 17 00 20.6 +0.4**
SATY Saty 143.97 48 *e*PKP **PKPdf 17 00 20.6 +0.4**
UZB Uzynbulak 144.35 47 *e*PKIKP **PKPdf 17 00 21.2 +0.3**
UZB Uzynbulak 144.35 47 *e*PKP **PKPdf 17 00 21.3 +0.3**
PDGK Podgornoye 144.60 47 PKIKP **PKPdf 17 00 20.5 -0.8**
PDGK pmax pmax
comp=Z,118nm,1.4s
MAKZ Makanchi 144.62 40 PKIKP **PKPdf 17 00 19.9 -1.2**
MAKZ MLR MLR
comp=Z,1µm,22.0s
MAKZ Makanchi 144.62 40 **PKPdf 17 00 19.9 -1.2**
SHLS Shalkode 144.65 47 *e*PKIKP **PKPdf 17 00 22.1 +0.7**
SHLS Shalkode 144.65 47 *e*PKP **PKPdf 17 00 22.2 +0.7**
MK31 Makanchi Array 144.81 40 *i* PKIKP PKPbc 17 00 20.2 -0.3
MK31 pmax pmax
comp=Z,155nm,1.4s
MKAR Makanchi Array 144.81 40 PKP PKPbc 17 00 19.9 -0.6
comp=Z,108nm,1.2s,baz=301,slow=3.7,SNR=58
MKAR Makanchi Array 144.81 40 PKIKP PKPbc 17 00 20.1 -0.4
MKAR Makanchi Array 144.81 40 PKPbc 17 00 20.1 -0.3
TYV Tymovskoe 145.05 329 *e*PKIKP **PKiKP 17 00 24.9 -0.6**
TYV pmax pmax
comp=Z,1µm,4.9s
TYV pmax pmax
comp=Z,300nm,1.3s
KUR Kuril'sk 145.42 317*c* *i*PKIKP **PKiKP 17 00 26.5 +0.1**
KUR pmax pmax
comp=Z,1µm,1.3s
HYB Hyderabad 145.45 93 *e*pPKPbc **PKPab 17 00 24.3 +0.7**
HYB *e*PKiKP **PKiKP 17 00 26.3 -1.0**
HYB *e*SKSdf **SKSdf 17 07 32.3 -1.1**
BOD Bodaibo 145.46 1 *e*PKP2 **PKPdf 17 00 21.6 -0.5**
BOD pmax pmax
comp=Z,665nm,1.3s
BATI Baumata 145.67 195 PKPbc **PKPab 17 00 25.3 +0.9**
comp=Z,321nm,1.0s,baz=149,slow=2.1,SNR=47
ZSN Zaisan 145.94 37 *e*PKP2 **PKPab 17 00 23.7 -0.8**
ZSN Zaisan 145.94 37 *e*PKP **PKPab 17 00 23.8 -0.8**
SOEI Soe 145.95 197 PKP **PKPdf 17 00 20.7 -3.8**
YSS Yuzhno-Sakhali 147.49 324 *i* PKIKP **PKPbc 17 00 27.4 -1.0**
YSS *e* 17 03 52.8
YSS *e*SS SS 17 22 59.4 +1.8
YSS pmax pmax
comp=Z,160nm,1.4s
YSS MLR MLR
comp=Z,600nm,18.0s
YSS MLR MLR
comp=N,500nm,16.0s
YSS MLR MLR
comp=E,300nm,17.0s
YSS Yuzhno-Sakhali 147.49 324 IAMs_20 IAMs_20 18 13 17.0
comp=Z,671nm,20.0s
MMRI Maumere 147.51 194 IAMs_20 IAMs_20 18 03 00.7
comp=Z,717nm,21.0s
MMRI Maumere 147.51 194 P **PKPab 17 00 30.6 -0.8**
EDFI Ende, Flores 147.52 192 P **PKPbc 17 00 29.2 -0.4**
GRNR Gornyy 147.86 334 *i* PKP2 **PKPab 17 00 31.0 -0.8**
GRNR pmax pmax
comp=Z,30nm,1.2s
PLAI Plampang 148.00 185 P **PKiKP 17 00 31.5 -1.2**
LBFI Labuhan Bajo, 148.09 189 P **PKiKP 17 00 31.9 -1.0**
IGBI Denpasar 148.13 180 P **PKPab 17 00 35.2 +1.4**
TWSI Taliwang, Sumb 148.15 184 P **PKPbc 17 00 31.4 +0.2**
ZEA Zeya 148.17 346 *i* PKP2 **PKiKP 17 00 30.8 -1.0**
ZEA pmax pmax
comp=Z,900nm,6.5s
ZEA pmax pmax
comp=N,20nm,1.7s
ZEA pmax pmax
comp=Z,140nm,1.2s
ZEA MLR MLR
comp=Z,400nm,25.0s
DNP Denpasar 148.26 180 P **PKPab 17 00 37.4 +3.0**
DBNI Kabupaten Domp 148.27 186 P **PKiKP 17 00 32.5 -0.8**
JAGI Jajag, Banyuwa 148.46 178 P **PKiKP 17 00 32.5 -1.2**
RTBI Rangdo, Negare 148.48 180 P **PKPab 17 00 35.6 +0.3**
CMJI Cimerak 148.51 168 P **PKPab 17 00 35.4 0.0**
PCJI Pacitan 148.53 173 P **PKPab 17 00 34.6 -0.8**
KHKI Kahang-Kahang 148.57 181 P **PKPab 17 00 37.1 +1.5**
BBJI Bungbulang 148.65 166 P **PKiKP 17 00 33.7 -0.4**
UGM Wanagama 148.72 172 P **PKPab 17 00 37.6 +1.3**
SCJI Gunung Srandil 148.74 169 P **PKPab 17 00 37.1 +0.8**
PWJI Pagerwojo 148.77 174 P **PKPab 17 00 33.5 -0.8**
SKJI Sukabumi 148.83 164 P **PKPab 17 00 41.1 +4.4**
WOJI Wonogiri, Jawa 148.85 172 P **PKPab 17 00 36.3 -0.4**
SRBI Singaraja 148.85 181 P **PKiKP 17 00 34.5 0.0**
CGJI Cibinong 148.97 162 P **PKPab 17 00 36.0 -1.2**
FAKI Fak Fak 149.00 215 IAMs_20 IAMs_20 18 05 03.0
comp=Z,482nm,22.0s
FAKI Fak Fak 149.00 215 P **PKPab 17 00 36.7 -0.7**
SNJI Sawahan-Nganju 149.00 174 P **PKiKP 17 00 35.1 +0.1**
KPJI Karang Pucung 149.04 168 P **PKPab 17 00 36.8 -0.7**
SJI Sawahan 149.05 174 P **PKiKP 17 00 34.4 -0.6**
ABJI Asem Bagus 149.13 179 P **PKPab 17 00 36.1 -1.8**
BLJI Banyuglugur 149.16 177 P **PKPab 17 00 37.9 -0.1**
ASAJ Asahikawa 149.22 319 PKPbc **PKPbc 17 00 32.8 -0.3**
comp=Z,172nm,1.2s,baz=257,slow=6.8,SNR=8.8
LEM Lembang 149.26 166 PKPbc **PKPbc 17 00 34.1 -0.1**
comp=Z,380nm,0.9s,baz=194,slow=4.9,SNR=19
KNGR Kungurtug, Tuv 149.51 22 *i* PKIKP **PKPdf 17 00 27.2 -2.1**
SBJI Serang 149.56 162 P **PKPab 17 00 39.4 -0.2**
SMRI Semarang 149.56 171 P **PKPab 17 00 39.0 -0.7**
MWPI Manokwari, Pap 149.62 220 P **PKPab 17 00 40.9 +0.9**
WMQ Urumqi 149.62 41 PKPbc **PKPbc 17 00 33.5 -0.7**
WMQ pPKP PKPab 17 00 38.5 -0.8
WMQ PP **PP 17 04 12.0 +5.0**
WMQ L L
comp=Z,620nm,18.7s
WMQ L L
comp=Z,850nm,22.3s
WMQ L L
comp=Z,1µm,22.3s
MOY Mondy 149.66 17 *e*PKHKP PKPpre 17 00 31.9
MOY pmax pmax
comp=Z,440nm,1.7s
IRK Irkutsk 149.92 13 *e*PKHKP PKPpre 17 00 33.8
IRK pmax pmax
comp=Z,350nm,2.1s
GRJI Gresik 149.92 175 P **PKPab 17 00 40.6 -0.5**
TBJI Tambak Boyo 149.96 174 P **PKPab 17 00 41.5 +0.3**

TLY	**Talaya**	**150.31**	**14**	PKPbc	**PKPbc**	**17 00 35.3**	**-0.3**	
	comp=Z,47nm,1.0s,baz=214,slow=2.1,SNR=18							
TLY	**Talaya**	**150.31**	**14**	*c i*PKIKP	**PKiKP**	**17 00 35.9**	**-0.5**	
TLY				pmax	pmax			
	comp=Z,169nm,1.7s							
MDSI	**Maura Dua**	**150.49**	**158**	P	**PKPbc**	**17 00 34.6**	**-2.5**	
KSI	**Kapahiang**	**150.67**	**154**	P	**PKiKP**	**17 00 40.0**	**+1.7**	
KLR	**Kul'dur**	**150.88**	**337**	PKPbc	**PKiKP**	**17 00 37.0**	**-0.6**	
	comp=Z,23nm,0.8s,baz=2.7,slow=3.3,SNR=17							
MASI	**Maura Aman, Be**	**150.99**	**153**	P	**PKiKP**	**17 00 39.4**	**+0.5**	
SISI	**Saibi**	**151.10**	**146**	P	**PKiKP**	**17 00 38.4**	**-0.7**	
SIJI	**Sorong**	**151.24**	**216**	PKPbc	**PKiKP**	**17 00 38.8**	**-0.7**	
	comp=Z,66nm,1.0s,baz=11,slow=3.1,SNR=12							
CIT	**Chita**	**151.26**	**2**	*e*PKIKP	**PKPbc**	**17 00 36.7**	**-1.1**	
CIT				*e*		17 04 17.8		
CIT				pmax	pmax			
	comp=Z,554nm,1.3s							
HEH	**HeiHe**	**151.34**	**343**	PKPbc	**PKPbc**	**17 00 34.8**	**-3.2**	
HEH				pPKP	**pPKPbc**	**17 00 41.0**	**-0.6**	
HEH				PPMZ				
	comp=Z,550nm,6.9s							
HEH				L	L			
	comp=Z,670nm,21.0s							
HEH				L	L			
	comp=Z,630nm,19.2s							
HEH				L	L			
	comp=Z,1μm,21.4s							
ZAK	**Zakamensk**	**151.43**	**16**	*e*PKIKP	**PKPbc**	**17 00 36.1**	**-2.2**	
ZAK				pmax	pmax			
	comp=Z,83nm,1.3s							
KAPI	**Kappang**	**151.52**	**190**	PKPbc	**PKiKP**	**17 00 41.1**	**+1.2**	
	comp=Z,56nm,1.0s,baz=232,slow=3.1,SNR=6.9							
KAPI	**Kappang**	**151.52**	**190**	IAMs_20	IAMs_20	18 01 07.5		
	comp=Z,666nm,22.0s							
KRJI	**Kerinci**	**151.59**	**151**	P	**PKPab**	**17 00 43.8**	**-4.4**	
PBSI	**Pulau Batu**	**151.73**	**143**	P	**PKPab**	**17 00 44.8**	**-3.8**	
TEY	**Ternei**	**152.00**	**326**	⇓*e*PKIKP	**PKiKP**	**17 00 39.6**	**-0.4**	
TEY				*e*		17 04 21.4		
TEY				pmax	pmax			
	comp=E,20nm,1.1s							
TEY				pmax	pmax			
	comp=N,10.0nm,1.2s							
TEY				pmax	pmax			
	comp=Z,80nm,1.2s							
GSI	**Gunungsitoli**	**152.43**	**140**	P	**PKPbc**	**17 00 40.1**	**-1.5**	
PPI	**Padang Panjang**	**152.51**	**147**	P	**PKPbc**	**17 00 38.5**	**-3.3**	
SNSI	**Sinabang, Aceh**	**152.53**	**136**	P	**PKiKP**	**17 00 46.2**	**+4.1**	
SDSI	**Sungai Dareh**	**152.60**	**149**	P	**PKPdf**	**17 00 37.1**	**+2.1**	
HILR	**Hailar Array B**	**153.48**	**353**	PKP	**PKPdf**	**17 00 36.7**	**+1.5**	
	comp=Z,11nm,0.6s,baz=135,slow=0.8,SNR=18							
HILR				PKPab	**pPKPab**	**17 00 57.2**	**-1.4**	
	comp=Z,67nm,0.9s,baz=48,slow=2.2,SNR=16							
BKNI	**Bangkinang**	**153.51**	**147**	P	**PKiKP**	**17 00 47.9**	**+3.8**	
TPTI		**153.72**	**137**	P	**PKPbc**	**17 00 40.1**	**-4.3**	
HIA	**Hailar**	**153.76**	**353**	IAMs_20	IAMs_20	18 11 34.8		
	comp=Z,705nm,21.0s							
MLSI	**Meulaboh, Aceh**	**153.98**	**134**	P	**PKPbc**	**17 00 40.9**	**-4.1**	
BSI	**Banda Aceh**	**154.10**	**130**	P	**PKPdf**	**17 00 40.2**	**+3.0**	
KCSI	**Kotacane, Aceh**	**154.29**	**137**	P	**PKPdf**	**17 00 40.7**	**+3.2**	
RPSI	**Rantau Prapat**	**154.34**	**140**		pPKPab	17 01 02.9	-0.3	
PSI	**Prapat**	**154.42**	**140**	PKP	**PKPdf**	**17 00 39.5**	**+1.8**	
	comp=Z,16nm,0.9s,baz=216,slow=4.3,SNR=21							
PSI				PKPab	**pPKPab**	**17 01 02.9**	**-0.8**	
	comp=Z,21nm,1.0s,baz=186,slow=14,SNR=5.6							
PSI	**Prapat**	**154.42**	**140**	P	**PKPdf**	**17 00 40.3**	**+2.5**	
SONM	**Songino Array**	**154.54**	**13**	PKP	**PKPdf**	**17 00 38.8**	**+1.9**	
	comp=Z,34nm,1.1s,baz=207,slow=0.8,SNR=55							
SONM				PKPab	**pPKPab**	**17 01 02.2**	**-1.1**	
	comp=Z,20nm,1.0s,baz=266,slow=1.3,SNR=8.2							
SONM				PP	**PP**	**17 04 39.5**	**+5.2**	
	comp=Z,9.0nm,1.2s,baz=326,slow=3.3,SNR=4.9							
LUWI	**Luwuk**	**154.68**	**199**	IAMs_20	IAMs_20	18 10 01.9		
	comp=Z,509nm,20.0s							
USRK	**Ussuriysk Ar.**	**154.85**	**330**	PKP	**PKPdf**	**17 00 39.4**	**+2.1**	
	comp=Z,18nm,1.1s,baz=259,slow=1.5,SNR=22							
USRK				PKPab	**pPKPab**	**17 01 03.3**	**-1.2**	
	comp=Z,8.0nm,0.7s,baz=40,slow=2.4,SNR=5.9							
BNX	**BinXian**	**155.39**	**339**	⇑PKP	**PKPdf**	**17 00 37.0**	**-0.9**	
BNX				pPKP	**pPKPdf**	**17 00 40.5**	**-1.1**	
BNX				sPKP	**sPKPdf**	**17 00 42.0**	**-0.7**	
BNX				PPMZ				
	comp=Z,450nm,7.1s							
BNX				L	L			
	comp=Z,520nm,23.9s							
BNX				L	L			
	comp=Z,440nm,27.1s							
BNX				L	L			
	comp=Z,880nm,26.0s							
MDJ	**Mudanjiang**	**155.54**	**334**	PKP	**PKPdf**	**17 00 41.3**	**+3.1**	
BKB	**Balikpapan**	**155.56**	**185**	IAMs_20	IAMs_20	18 12 20.5		
	comp=Z,721nm,20.0s							
MJAR	**Matsushiro Arr**	**155.95**	**309**	PKP	**PKPdf**	**17 00 40.8**	**+1.8**	
	comp=Z,16nm,1.2s,baz=142,slow=0.1,SNR=17							
MJAR				PKPab	**PKPab**	**17 01 07.7**	**+1.7**	
	comp=Z,16nm,1.1s,baz=41,slow=2.0,SNR=7.3							
MJAR	**Matsushiro Arr**	**155.95**	**309**	PKIKP	**PKPdf**	**17 00 42.3**	**+3.3**	
MJAR						17 01 07.7		
MJAR	**Matsushiro Arr**	**155.95**	**309**		**PKPdf**	**17 00 42.3**	**+3.3**	
MAJO	**Matsushiro**	**155.95**	**309**	IAMs_20	IAMs_20	18 20 34.0		
	comp=Z,663nm,21.0s							
MAJO	**Matsushiro**	**155.95**	**309**	PKP	**PKPdf**	**17 00 42.5**	**+3.5**	
TOLI2	**Tolitoli**	**157.27**	**195**	IAMs_20	IAMs_20	18 12 33.4		
	comp=Z,473nm,22.0s							
INU	**Inuyama**	**157.35**	**307**	IAMs_20	IAMs_20	18 22 32.9		
	comp=Z,487nm,19.0s							
CN2	**Changchun**	**157.75**	**340**	*e*PKP	**PKPdf**	**17 00 43.0**	**+1.9**	
LSA	**Lhasa**	**157.78**	**68**	PKP	**PKPdf**	**17 00 41.5**	**-0.7**	
LSA	**Lhasa**	**157.78**	**68**	IAMs_20	IAMs_20	18 16 24.9		
	comp=Z,645nm,20.0s							
GOMU	**GeErMu**	**158.33**	**49**	PKP	**PKPdf**	**17 00 41.8**	**-0.7**	
GOMU				SS	SS	17 25 00.5	+2.3	
GOMU				L	L			
	comp=Z,600nm,18.3s							
GOMU				L	L			
	comp=Z,470nm,18.8s							
GOMU				L	L			
	comp=Z,1μm,18.4s							
BRDH	**Bariadhala**	**158.54**	**87**	PKPab	**PKPab**	**17 01 20.2**	**+2.6**	
	comp=Z,170nm,0.3s,baz=0.0,slow=0.0,SNR=9.6							
GTA2	**Gaotai**	**159.31**	**35**	*e*PKP	**PKPdf**	**17 00 44.5**	**+1.2**	
GTA2				PKPab	**pPKPab**	**17 01 23.0**	**-1.1**	
GTA2				L	L			
	comp=Z,730nm,20.6s							
GTA2				L	L			
	comp=Z,300nm,20.0s							
GTA2				L	L			
	comp=Z,1μm,20.6s							
XLT	**XiLinHaoTe**	**159.38**	**358**	*e*PKP	**PKPdf**	**17 00 46.5**	**+3.3**	
XLT				PKPab	**pPKPab**	**17 01 24.3**	**+0.1**	
XLT				SS	SS	17 25 08.8	+2.2	
XLT				L	L			
	comp=Z,590nm,19.1s							
XLT				L	L			
	comp=Z,810nm,22.3s							
KSRS	**Korea Array**	**161.98**	**325**	PKP	**PKPdf**	**17 00 48.5**	**+2.4**	
	comp=Z,13nm,1.1s,baz=96,slow=0.4,SNR=25							
KSRS				PKPab	**PKPab**	**17 01 33.2**	**+1.2**	
	comp=Z,31nm,1.1s,baz=48,slow=4.0,SNR=19							
KSRS				PP	**PP**	**17 05 19.5**	**+4.1**	
	comp=Z,12nm,1.2s,baz=4.3,slow=5.8,SNR=7.9							
BTO2	**Baotou**	**162.04**	**13**	*e*PKP	**PKPdf**	**17 00 48.3**	**+2.1**	
BTO2				PP	PP	17 05 23.3	+8.0	
BTO2				SS	SS	17 25 38.5	+3.7	
BTO2				L	L			
	comp=Z,1μm,16.1s							
BTO2				L	L			
	comp=Z,1μm,18.4s							
BTO2				L	L			
	comp=Z,2μm,19.7s							
HHC	**Hu-ho-hao-te**	**162.22**	**8**	*e*PKP	**PKPdf**	**17 00 48.5**	**+2.1**	
HHC				PP	**PP**	**17 05 16.5**	**+0.3**	
HHC				L	L			
	comp=Z,810nm,21.4s							
HHC				L	L			
	comp=Z,580nm,20.6s							
HHC				L	L			
	comp=Z,1μm,21.4s							
JNU	**Nakatsue**	**162.87**	**309**	PKP	**PKPdf**	**17 00 49.5**	**+2.4**	
	comp=Z,27nm,1.2s,baz=29,slow=2.2,SNR=4.5							
BJI2	**Beijing**	**163.25**	**357**	PKP	**PKPdf**	**17 00 48.3**	**+1.1**	
BJI2				PP	**PP**	**17 05 23.5**	**+2.0**	
BJI2				SKS	**SKSdf**	**17 07 47.8**	**-4.6**	
BJI2				PPMZ				
	comp=Z,380nm,7.1s							
BJI2				L	L			
	comp=Z,500nm,26.0s							
BJI2				L	L			
	comp=Z,440nm,25.7s							
BJI2				L	L			
	comp=Z,1μm,27.1s							
DL2	**Dalian**	**163.39**	**341**	PKP	**PKPdf**	**17 00 48.5**	**+1.1**	
DL2				PKPab	**PKPab**	**17 01 38.5**	**+0.4**	
DL2				PP	**PP**	**17 05 25.3**	**+2.9**	
DL2				PPMZ				
	comp=Z,590nm,4.5s							
DL2				L	L			
	comp=Z,850nm,19.7s							
DL2				L	L			
	comp=Z,570nm,15.9s							
DL2				L	L			
	comp=Z,1μm,23.3s							
LZH	**Lanzhou**	**164.00**	**34**	*e*PKP	**PKPdf**	**17 00 51.5**	**+3.2**	
LZH				L	L			
	comp=Z,1μm,20.1s							
LZH				L	L			
	comp=Z,680nm,17.9s							
LZH				L	L			
	comp=Z,2μm,22.5s							
LZDM	**Lanzhou Array**	**164.02**	**35**	PKP	**PKPdf**	**17 00 50.6**	**+2.1**	
	comp=Z,52nm,1.2s,baz=341,slow=3.1,SNR=14							
CMAR	**Chiang Mai Arr**	**164.30**	**105**	PKP	**PKPdf**	**17 00 50.6**	**+1.8**	
	comp=Z,21nm,1.1s,baz=256,slow=1.9,SNR=49							
CMAR				PKPab	**PKPab**	**17 01 44.4**	**+1.4**	
	comp=Z,15nm,0.9s,baz=250,slow=4.8,SNR=24							
CMAR				PP	**PP**	**17 05 29.6**	**+0.4**	
	comp=Z,17nm,1.2s,baz=264,slow=5.5,SNR=8.3							
CHTO	**Chiang Mai**	**164.42**	**103**	PKP	**PKPdf**	**17 00 51.1**	**+2.2**	
TNCH	**TengChong**	**164.90**	**80**	PKP	**PKPdf**	**17 00 51.8**	**+2.4**	
TNCH				pPKP	pPKPdf	17 00 52.8	-0.2	
TNCH				sPKP	sPKPdf	17 00 55.5	+1.3	
TNCH				PKPab	**pPKPab**	**17 01 49.3**	**+0.1**	
TNCH				PP	**PP**	**17 05 34.0**	**+1.5**	
TNCH				SS	SS	17 26 03.0	-5.1	
TNCH				PPMZ				
	comp=Z,430nm,8.7s							
TNCH				L	L			
	comp=Z,520nm,21.0s							
TNCH				L	L			
	comp=Z,350nm,22.1s							
TNCH				L	L			
	comp=Z,1μm,22.9s							
TIY	**Taiyuan**	**165.43**	**8**	PKP	**PKPdf**	**17 00 49.5**	**+0.1**	
TIY				PKPab	**pPKPab**	**17 01 50.5**	**-0.2**	
TIY				PP	**PP**	**17 05 35.8**	**+2.8**	
TIY				SS	SS	17 26 09.0	-0.4	
TIY				PPMZ				
	comp=Z,310nm,10.1s							
TIY				L	L			
	comp=Z,590nm,20.6s							
TIY				L	L			
	comp=Z,580nm,21.6s							
TIY				L	L			
	comp=Z,1μm,23.3s							
HNS	**HongShan**	**165.90**	**1**	⇓PKP	**PKPdf**	**17 00 53.5**	**+3.9**	
HNS				PKPab	**pPKPab**	**17 01 52.3**	**-0.4**	
HNS				SS	SS	17 26 15.3	+1.4	
HNS				L	L			
	comp=Z,670nm,20.4s							
HNS				L	L			
	comp=Z,560nm,18.6s							
HNS				L	L			
	comp=Z,1μm,24.1s							
TIA	**Tai'an**	**166.95**	**352**	PKP	**PKPdf**	**17 00 54.8**	**+4.3**	
TIA				PP	**PP**	**17 05 42.8**	**+2.0**	
TIA				PPMZ				
	comp=Z,570nm,4.1s							
TIA				L	L			
	comp=Z,580nm,16.5s							
TIA				L	L			
	comp=Z,240nm,17.2s							
TIA				L	L			
	comp=Z,1μm,24.7s							
CD2	**Chengdu**	**167.46**	**50**	PKP	**PKPdf**	**17 00 52.8**	**+1.7**	
CD2				PKPab	**pPKPab**	**17 01 59.8**	**-0.3**	
CD2				PP	**PP**	**17 05 46.5**	**+1.7**	
CD2				PPMZ				
	comp=Z,480nm,8.9s							
CD2				L	L			
	comp=Z,1μm,22.8s							
CD2				L	L			
	comp=Z,1μm,17.8s							
CD2				L	L			
	comp=Z,1μm,20.3s							
PZH	**PanZhiHua**	**167.59**	**72**	PKP	**PKPdf**	**17 00 54.0**	**+2.6**	
PZH				PKPab	**pPKPab**	**17 02 00.8**	**-0.2**	
PZH				PP	**PP**	**17 05 47.5**	**+1.3**	
PZH				SKKS		17 12 31.3		
PZH				SS	**SS**	**17 26 27.8**	**-7.2**	
PZH				L	L			
	comp=Z,620nm,18.8s							
PZH				L	L			
	comp=Z,460nm,15.9s							
PZH				L	L			
	comp=Z,840nm,22.6s							
XAN	**Xi'an**	**168.03**	**25**	PKP	**PKPdf**	**17 00 53.3**	**+1.9**	
XAN				PKPab	**pPKPab**	**17 02 01.5**	**-0.8**	
XAN				PP	**PP**	**17 05 47.8**	**+1.1**	
XAN				PPMZ				
	comp=Z,430nm,14.4s							
XAN				L	L			
	comp=Z,1μm,22.7s							
XAN				L	L			
	comp=Z,580nm,19.9s							
XAN				L	L			
	comp=Z,1μm,23.4s							
KMI2	**Kunming**	**168.71**	**78**	⇑PKP	**PKPdf**	**17 00 54.0**	**+1.6**	
SSE	**Sheshan**	**170.42**	**326**	PKP	**PKPdf**	**17 00 56.0**	**+3.1**	
SSE				PP	**PP**	**17 06 00.0**	**+1.0**	
SSE				SS	SS	17 27 01.3	+0.8	
SSE				PPMZ				
	comp=Z,370nm,5.3s							
SSE				L	L			
	comp=Z,430nm,24.0s							
SSE				L	L			
	comp=Z,360nm,19.9s							
NJ2	**Nanjing**	**170.58**	**339**	⇑PKP	**PKPdf**	**17 00 57.0**	**+4.0**	
NJ2				PKPab	**pPKPab**	**17 02 12.5**	**-1.0**	
NJ2				PP	**PP**	**17 06 00.5**	**+1.1**	
NJ2				SS	SS	17 27 02.8	+1.5	
NJ2				PPMZ				
	comp=Z,530nm,6.1s							
NJ2				L	L			
	comp=Z,740nm,15.2s							
NJ2				L	L			
	comp=Z,650nm,18.6s							
NJ2				L	L			
	comp=Z,640nm,21.1s							
GYA	**Guiyang**	**171.83**	**65**	PKP	**PKPdf**	**17 00 54.5**	**+0.6**	
WHN	**Wuhan**	**172.72**	**4**	⇑PKP	**PKPdf**	**17 00 58.0**	**+4.0**	
WHN				PKPab	**pPKPab**	**17 02 21.8**	**-1.2**	
WHN				PP	**PP**	**17 06 12.0**	**+2.3**	
WHN				SKKS		17 13 01.5		
WHN				L	L			
	comp=Z,5μm,26.6s							
QIZ	**Qiongzhong**	**173.65**	**130**	PKP	**PKPdf**	**17 00 56.8**	**+2.1**	
QIZ				PP	**PP**	**17 06 16.5**	**+0.8**	
QIZ				SS	SS	17 27 34.3	+0.9	
QIZ				L	L			
	comp=Z,1μm,17.3s							
QIZ				L	L			
	comp=Z,770nm,17.5s							
QIZ				L	L			
	comp=Z,1μm,19.0s							
GULI	**GuiLin**	**175.35**	**63**	⇓PKP	**PKPdf**	**17 01 02.0**	**+6.9**	

IDC ***29*** *16:52:16.3±0.5,31°.24S×58°.68E,h0km,mb4.4/19, mbtmp4.4/19,MS4.4/11,Error ellipse: s-maj=19.5km s-min=14.9km az=48.0*

GFZ ***29*** *16:52:17.4±0.2,31°.S±4°×5°.9E±°,h10km,M4.8/19, mb4.8/19,Error ellipse: s-maj=9.2km s-min=7.4km az=28.2,confirmed*

NEIC ***29*** *16:52:18.6±1.1,31°.25S±0°.09×58°.7E±0°.1,h10km±1km, mb5.0/38,Mww5.0/13,Error ellipse: s-maj=17.7km s-min=15.4km az=246.0*

GCMT ***29*** *16:52:20.6±0.3,31°.20S±0°.02×58°.51E±0°.03,h12km, MW5.1/93,Moment Tensor Solution. s29,c34; s93,c124; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-4.36±.13; Mθθ4.07±.11; Mϕϕ0.29±.14; Mrθ2.09±.43; Mrϕ-1.19±.12; Mθϕ0.92±.53; Best double couple: Mo4.93800×10^16 NP1:ϕs121.00000°,δ36.00000°,λ-64.00000°. NP2: ϕs270.00000°,δ58.00000°,λ-108.00000°. Principal axes: T 4.7670, Plg11.0000°, Azm13.0000°; N 0.3470, Plg15.0000°, Azm280.0000°; P -5.1080, Plg71.0000°, Azm138.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 29 16:52:18.5±0.3,31°.31S±0°.07×58°.66E±0°.07,h14km,n161, σ0s97/141,mb4.7/71,MS4.5/13,3C-4D,Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RER	**Riviere de l'E**	**10.44**	**345**	Pn	**Pn**	**16 54 48.1**	**+0.2**
FOMA	**Nahampoana Res**	**12.08**	**299**		**Pn**	**16 55 10.2**	**-0.1**
FOMA	**Nahampoana Res**	**12.08**	**299**	P	**Pn**	**16 55 10.6**	**+0.4**
	comp=Z,71nm,1.3s						
VOI	**Vohitsoka**	**14.15**	**309**		**Pn**	**16 55 37.9**	**-0.8**
VOI	**Vohitsoka**	**14.15**	**309**	P	**Pn**	**16 55 37.3**	**-1.3**
	comp=Z,40nm,0.5s						
H04N2	**CROZET ISLANDS**	**15.76**	**198**	T	T	17 11 54.8	
	baz=22,slow=75,SNR=62						
H04N1	**CROZET ISLANDS**	**15.76**	**198**	T	T	17 12 21.5	
	baz=22,slow=75,SNR=5116						
H04N3	**CROZET ISLANDS**	**15.78**	**198**	T	T	17 12 16.6	
	baz=22,slow=75,SNR=3493						
ABPO	**Ambohimpanom**	**16.01**	**317**		**Pn**	**16 56 03.1**	**-0.5**
ABPO	**Ambohimpanom**	**16.01**	**317**	P	**Pn**	**16 56 03.0**	**-0.5**
	comp=Z,24nm,2.1s						
OPO	**Ambohidratompo**	**16.39**	**318**	Pn	**Pn**	**16 56 08.5**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=126,slow=13,SNR=14						
OPO				Sn	Sn	16 58 54.9	-15
	comp=Z,0.2nm,0.3s,baz=193,slow=22,SNR=7.1						
POGA	**Pongola**	**23.81**	**273**	P	**P**	**16 57 30.8**	**-0.2**
POGA				IAmb	IAmb	16 57 38.9	
	comp=Z,34nm,0.9s						
POGA	**Pongola**	**23.81**	**273**	P	**P**	**16 57 30.3**	**-0.7**
	comp=Z,107nm,1.2s						
MSEY	**Mahe Island**	**26.66**	**353**	P	**P**	**16 57 56.0**	**-1.1**
MSEY				IAmb	IAmb	16 58 30.7	
	comp=Z,94nm,1.9s						
H08S1	**Diego Garcia H**	**26.84**	**32**	T	T	17 25 59.1	
	baz=206,slow=76,SNR=182						
H08S2	**Diego Garcia H**	**26.85**	**32**	T	T	17 25 59.6	
	baz=206,slow=76,SNR=167						
H08S3	**Diego Garcia H**	**26.86**	**32**	T	T	17 26 00.6	
	baz=206,slow=76,SNR=245						
BOSA	**Boshof**	**29.01**	**267**	P	**P**	**16 58 17.3**	**-0.8**
	comp=Z,2.3nm,0.8s,baz=166,slow=8.4,SNR=2.0						
	comp=Z,2.3nm,0.8s						
BOSA	**Boshof**	**29.01**	**267**	P	**P**	**16 58 17.5**	**-0.7**
BOSA				IAmb	IAmb	16 59 07.1	
	comp=Z,28nm,1.6s						
MATP	**Matopo**	**29.14**	**285**	LR	LR	17 08 09.9	
	comp=Z,946nm,21.7s,baz=100,slow=33						
MAKGR	**Makgori**	**30.17**	**272**	P	**P**	**16 58 27.4**	**-1.0**
MAKGR				IAmb	IAmb	16 58 36.8	
	comp=Z,20nm,0.9s						
KDWAN	**Kaudwane**	**31.13**	**276**		**P**	**16 58 36.5**	**-0.4**
KDWAN				IAmb	IAmb	16 58 44.2	
	comp=Z,25nm,0.8s						
SUR	**Sutherland**	**32.06**	**258**	P	**P**	**16 58 45.4**	**+0.2**
CVNA	**Calvinia**	**33.09**	**259**	P	**P**	**16 58 53.6**	**-0.4**
	comp=Z,13nm,1.9s						
LKGWB	**Lokgwabe**	**33.80**	**273**	P	**P**	**16 58 55.6**	**-4.7**
LKGWB				IAmb	IAmb	16 59 03.9	
	comp=Z,26nm,0.8s						
GRTLG	**Ghanzi**	**34.85**	**277**	P	**P**	**16 59 09.4**	**-0.1**
GRTLG				IAmb	IAmb	16 59 16.7	
	comp=Z,11nm,0.8s						
MAW	**Mawson**	**36.42**	**177**	P	**P**	**16 59 23.3**	**+1.1**
	comp=Z,4.3nm,0.8s,baz=331,slow=6.5,SNR=6.1						
MAW				PcP	**PcP**	**17 01 46.7**	**+0.6**
	comp=Z,4.5nm,0.9s,baz=351,slow=3.3,SNR=4.6						
	comp=Z,4.3nm,0.8s						
MAW	**Mawson**	**36.42**	**177**	P	**P**	**16 59 21.7**	**-0.5**
MAW	**Mawson**	**36.42**	**177**	P	**P**	**16 59 22.4**	**+0.2**
WIN	**Windhoek**	**37.88**	**273**	P	**P**	**16 59 35.8**	**+0.3**
	comp=Z,13nm,1.1s						
TSUM	**Tsumeb**	**38.85**	**278**		**P**	**16 59 43.4**	**-0.2**
TSUM	**Tsumeb**	**38.85**	**278**	P	**P**	**16 59 43.3**	**-0.2**
	comp=Z,11nm,0.8s						
PALK	**Pallekele**	**43.77**	**33**	LR	LR	17 14 24.9	
	comp=Z,285nm,20.1s,baz=187,slow=30						
PALK	**Pallekele**	**43.77**	**33**	pmax	pmax		
	comp=Z,61nm,1.3s						
PALK	**Pallekele**	**43.77**	**33**	P	**P**	**17 00 22.4**	**-1.5**
PALK				IAmb	IAmb	17 00 25.0	
	comp=Z,61nm,1.2s						
PALK	**Pallekele**	**43.77**	**33**	P	**P**	**17 00 23.9**	**0.0**
	comp=Z,41nm,1.6s						
PALK	**Pallekele**	**43.77**	**33**	PKIKP	**P**	**17 00 22.4**	**-1.5**
ATD	**Arta Tunnel**	**45.22**	**338**	LR	LR	17 15 55.7	
	comp=Z,247nm,21.1s,baz=168,slow=31						
H01W2	**Cape Leeuwin H**	**46.11**	**110**	T	T	17 49 50.5	
	baz=258,slow=75,SNR=233						
H01W3	**Cape Leeuwin H**	**46.11**	**110**	T	T	17 49 50.9	
	baz=258,slow=75,SNR=233						
H01W1	**Cape Leeuwin H**	**46.12**	**110**	T	T	17 49 51.8	
	baz=258,slow=75,SNR=223						
KRJI	**Kerinci**	**49.73**	**63**	P	**P**	**17 01 08.1**	**-2.6**
	comp=Z,682nm,0.5s						
TROLL	**Troll, Antarti**	**50.23**	**200**	⇓P	**P**	**17 01 14.3**	**+0.5**
	comp=Z,90nm,0.7s						
PSI	**Prapat**	**51.15**	**56**	LR	LR	17 18 29.9	
	comp=Z,167nm,19.8s,baz=240,slow=31						
MEEK	**Meekatharra**	**52.10**	**101**	P	**P**	**17 01 26.3**	**-2.1**
	comp=Z,19nm,2.7s						
VNA2	**Neumayer--Watz**	**52.95**	**202**	P	**P**	**17 01 33.0**	**-0.9**
	comp=Z,9.4nm,0.8s						
VNA3	**Neumayer Olymp**	**53.73**	**202**	P	**P**	**17 01 40.6**	**+0.9**
	comp=Z,6.6nm,1.0s						
VNA3	**Neumayer Olymp**	**53.73**	**202**	P	**P**	**17 01 38.3**	**-1.5**
	comp=Z,10nm,1.2s						
IPM	**Ipoh**	**53.81**	**56**	P	**P**	**17 01 40.0**	**-1.1**
	comp=Z,14nm,1.6s						
RAYN	**Ar Rayn**	**55.96**	**345**	P	**P**	**17 01 56.5**	**+0.1**
	comp=Z,6.6nm,1.4s						
QSPA	**South Pole Qui**	**58.86**	**180**	P	**P**	**17 02 17.1**	**+0.6**
	comp=Z,17nm,0.9s,baz=228,slow=2.2,SNR=32						
	comp=Z,17nm,0.9s						
QSPA	**South Pole Qui**	**58.86**	**180**		**P**	**17 02 17.2**	**+0.6**
QSPA				IAmb	IAmb	17 02 20.7	
	comp=Z

	comp=Z,6.5nm,2.1s							
TTSI	**Tana Toraja**	**63.92**	**77**	P		**P**	**17 02 51.5**	**+0.2**
	comp=Z,10nm,1.0s							
BBOO	**Buckleboo**	**64.14**	**114**	P		**P**	**17 02 53.2**	**+0.5**
BBOO	**Buckleboo**	**64.14**	**114**	P		**P**	**17 02 52.6**	**0.0**
	comp=Z,20nm,0.6s							
ASAR	**Alice Springs**	**66.03**	**104**	P		**P**	**17 03 04.7**	**-0.4**
	comp=Z,5.7nm,1.0s,baz=243,slow=6.0,SNR=17							
	comp=Z,5.7nm,1.0s							
ASAR	**Alice Springs**	**66.03**	**104**	P		**P**	**17 03 05.0**	**0.0**
AS31	**Alice Springs**	**66.03**	**104**	P		**P**	**17 03 04.8**	**-0.3**
TOLI2	**Tolitoli**	**67.03**	**74**	P		**P**	**17 03 12.7**	**+1.2**
TOLI2				IAmb		IAmb	17 03 21.2	
	comp=Z,10nm,0.9s							
TNCH	**TengChong**	**67.76**	**39**	P		**P**	**17 03 19.5**	**+3.5**
TNCH				pP		pwP	17 03 22.5	-0.7
TNCH				S		**S**	**17 12 12.8**	**-0.9**
TNCH				sS		sS	17 12 22.3	+2.9
TNCH				pmax		pmax		
	comp=Z,17nm,1.3s							
TNCH				pmax		pmax		
	comp=Z,100nm,3.3s							
TNCH				LR		LR		
	comp=N,290nm,4.6s							
TNCH				LR		LR		
	comp=E,240nm,7.5s							
TNCH				LR		LR		
	comp=Z,300nm,17.4s							
WRA	**Warramunga Arr**	**68.00**	**101**	P		**P**	**17 03 17.4**	**-0.2**
	comp=Z,8.6nm,0.9s,baz=241,slow=5.7,SNR=21							
	comp=Z,8.6nm,0.9s							
WRAB	**Tennant Creek**	**68.02**	**101**	P		**P**	**17 03 17.8**	**+0.1**
WRAB				IAmb		IAmb	17 03 18.6	
	comp=Z,18nm,1.1s							
WB0	**Warramunga Arr**	**68.13**	**100**	P		**P**	**17 03 18.3**	**-0.1**
WR8	**Warramunga Arr**	**68.13**	**101**	P		**P**	**17 03 18.4**	**-0.1**
STKA	**Stephens Creek**	**68.82**	**115**	P		**P**	**17 03 22.8**	**+0.2**
	comp=Z,13nm,1.1s,baz=250,slow=6.0,SNR=8.4							
	comp=Z,13nm,1.1s							
STKA	**Stephens Creek**	**68.82**	**115**			**P**	**17 03 23.2**	**+0.6**
INKA	**Innaminka**	**69.88**	**111**			**P**	**17 03 29.8**	**+0.6**
INKA				IAmb		IAmb	17 03 31.1	
	comp=Z,6.3nm,0.8s							
TORD	**Torodi Ar. Bea**	**70.27**	**300**	P		**P**	**17 03 31.6**	**0.0**
	comp=Z,1.1nm,0.8s,baz=127,slow=5.3,SNR=4.8							
	comp=Z,1.1nm,0.8s							
TORD	**Torodi Ar. Bea**	**70.27**	**300**	P		**P**	**17 03 31.9**	**+0.3**
DBIC	**Dimbokro**	**71.37**	**290**	P		**P**	**17 03 39.0**	**+0.6**
	comp=Z,10.0nm,0.8s,baz=157,slow=6.2,SNR=11							
	comp=Z,10.0nm,0.8s							
DBIC	**Dimbokro**	**71.37**	**290**			**P**	**17 03 38.6**	**+0.2**
DBIC				IAmb		IAmb	17 03 40.8	
	comp=Z,10nm,0.8s							
GNI	**Garni**	**72.26**	**349**	P		**P**	**17 03 44.2**	**+0.9**
ARSB	**Arslanbob**	**73.47**	**11**	P		**P**	**17 03 51.3**	**+0.8**
ARSB				IAmb		IAmb	17 04 14.5	
	comp=Z,25nm,1.2s							
BR104	**Keskin Array S**	**74.38**	**340**	P		**P**	**17 03 55.5**	**-0.3**
	comp=Z,2.4nm,0.8s							
BR105	**Keskin Array S**	**74.40**	**340**	P		**P**	**17 03 55.7**	**-0.2**
	comp=Z,3.3nm,0.8s							
BRTR	**Keskin Array B**	**74.40**	**340**	P		**P**	**17 03 55.9**	**0.0**
	comp=Z,0.7nm,0.8s,baz=162,slow=8.0,SNR=4.2							
	comp=Z,0.7nm,0.8s							
PMSA	**Palmer Station**	**74.40**	**202**	LR		LR	17 29 50.6	
	comp=Z,301nm,21.6s,baz=56,slow=30							
BR131	**Keskin Array S**	**74.40**	**340**	P		**P**	**17 03 56.6**	**+0.7**
BR106	**Keskin Array S**	**74.41**	**340**	P		**P**	**17 03 55.8**	**-0.2**
	comp=Z,3.4nm,0.8s							
KKAR	**Karatay Array**	**74.84**	**9**	P		**P**	**17 03 59.3**	**+1.0**
CTYL	**Yalikoy Yolu**	**77.66**	**337**	P		**P**	**17 04 14.0**	**-0.3**
	comp=Z,2µmcomp=Z,10nm,0.9s							
CTA	**Charters Tower**	**77.86**	**106**	P		**P**	**17 04 16.1**	**0.0**
	comp=Z,5.9nm,0.9s,baz=275,slow=3.2,SNR=4.5							
	comp=Z,5.9nm,0.9s							
WMQ	**Urumqi**	**79.34**	**21**	*e*P		**P**	**17 04 26.3**	**+2.7**
WMQ				LR		LR		
	comp=Z,200nm,18.1s							
AB31	**Akbulak array**	**80.21**	**1**			**P**	**17 04 27.9**	**-0.2**
AB31				IAmb		IAmb	17 04 38.0	
	comp=Z,8.1nm,0.8s							
ABKAR	**Akbulak array**	**80.21**	**1**			**P**	**17 04 28.1**	**0.0**
MKAR	**Makanchi Array**	**80.61**	**16**	P		**P**	**17 04 31.1**	**+0.7**
	comp=Z,1.9nm,0.8s,baz=192,slow=8.7,SNR=4.1							
	comp=Z,1.9nm,0.8s							
CFR	**Carcaliu**	**81.03**	**339**	⇑P		**P**	**17 04 33.9**	**+1.3**
MLR	**Muntele Rosu**	**82.01**	**337**	LR		LR	17 39 55.0	
	comp=Z,575nm,21.2s,baz=183,slow=35							
MLR	**Muntele Rosu**	**82.01**	**337**	P		**P**	**17 04 38.1**	**+0.1**
MLR				IAmb		IAmb	17 04 48.6	
	comp=Z,20nm,1.5s							
MLR	**Muntele Rosu**	**82.01**	**337**	⇓P		**P**	**17 04 38.1**	**+0.1**
VRI	**Vrincioaia**	**82.09**	**338**	⇓P		**P**	**17 04 38.3**	**0.0**
VRI	**Vrincioaia**	**82.09**	**338**	P		**P**	**17 04 37.8**	**-0.4**
	comp=Z,16nm,0.7s							
PLOR	**Plostina**	**82.10**	**338**	⇓P		**P**	**17 04 38.4**	**0.0**
VOIR		**82.26**	**337**	⇑P		**P**	**17 04 38.5**	**-0.7**
DMBR	**Dumbraveni**	**82.69**	**339**	⇑P		**P**	**17 04 41.7**	**+0.3**
KURBB	**Kurchatov Arra**	**83.45**	**13**	P		**P**	**17 04 46.0**	**+0.9**
	comp=Z,1.1nm,0.8s,baz=205,slow=6.4,SNR=5.1							
	comp=Z,2.1nm,0.8s							
KURK	**Kurchatov**	**83.55**	**13**	P		**P**	**17 04 46.0**	**+0.4**
KURK	**Kurchatov**	**83.55**	**13**	IAmb		IAmb	17 04 54.5	
	comp=Z,6.5nm,0.9s							
AQU	**L'Aquila**	**84.29**	**328**	P		**P**	**17 04 49.6**	**-0.1**
	comp=Z,31nm,2.4s							
LTZ	**Lake Taylor**	**84.40**	**137**	P		**P**	**17 04 51.4**	**+0.8**
KMPD	**K-Podol'skiy**	**84.57**	**339**	P		**P**	**17 04 50.8**	**-0.1**
BVAR	**Borovoye Array**	**84.60**	**7**	P		**P**	**17 04 51.3**	**+0.3**
	comp=Z,2.9nm,0.8s,baz=216,slow=6.8,SNR=4.0							
	comp=Z,2.9nm,0.8s							
NJ2	**Nanjing**	**84.94**	**48**	*e*P		**P**	**17 04 54.8**	**+1.6**
NJ2				pmax		pmax		
	comp=Z,13nm,0.6s							
LUBAR	**Lubar, Ukraine**	**85.40**	**341**	P		**P**	**17 04 55.4**	**+0.3**
AK11	**Malin Array Si**	**85.70**	**342**	P		**P**	**17 04 56.9**	**+0.4**
AKASG	**Malin Array Be**	**85.70**	**342**	P		**P**	**17 04 55.8**	**-0.7**
	comp=Z,0.7nm,0.5s,baz=160,slow=4.3,SNR=1.3							
	comp=Z,0.7nm,0.5s							
TUWZ	**Tuamarina**	**86.22**	**137**	P		**P**	**17 04 59.8**	**+0.2**
KOLS	**Kolonicke sedl**	**86.24**	**337**	*e*P		**P**	**17 05 02.3**	**+3.1**
HHC	**Hu-ho-hao-te**	**86.86**	**37**	*e*P		**P**	**17 05 04.0**	**+1.3**
HHC				pmax		pmax		
	comp=Z,16nm,0.6s							
HHC				pmax		pmax		
	comp=Z,120nm,4.1s							
SOKA	**Soboth**	**87.05**	**332**	*e*P		**P**	**17 05 05.3**	**+2.0**
	comp=Z,0.3nm,0.4s							
VYHS	**Vyhne**	**87.07**	**335**	*e*P		**P**	**17 05 06.1**	**+2.8**
ARSA	**Arzberg**	**87.31**	**332**	*e*P		**P**	**17 05 05.4**	**+0.9**
	comp=Z,0.3nm,0.3s							
SESA	**Seetaler Alpe**	**87.58**	**332**	*i* P		**P**	**17 05 06.7**	**+0.6**
	comp=Z,1.3nm,0.7s							
CONA	**Conrad Observa**	**87.73**	**333**	*e*P		**P**	**17 05 07.1**	**+0.5**
	comp=Z,2.7nm,1.0s							
WINA	**Alland / Wiene**	**87.79**	**333**	*e*P		**P**	**17 05 06.3**	**-0.5**
	comp=Z,0.2nm,0.2s							
ZALV	**Zalesovo Beam**	**87.88**	**15**	P		**P**	**17 05 05.3**	**-1.8**
	comp=Z,0.6nm,0.4s,baz=207,slow=4.7,SNR=1.4							
	comp=Z,0.6nm,0.4s							
OBN	**Obninsk**	**88.14**	**348**	LR		LR	17 45 12.3	
	comp=Z,559nm,21.9s,baz=284,slow=36							
ABTA	**Abfaltersbach**	**88.15**	**330**	*e*P		**P**	**17 05 08.3**	**-0.3**
	comp=Z,0.5nm,0.2s							
MOA	**Molln**	**88.30**	**332**	*i* P		**P**	**17 05 09.3**	**0.0**
	comp=Z,0.6nm,0.4s							
LESA	**Schwarzleotal**	**88.61**	**331**	*e*P		**P**	**17 05 10.6**	**-0.2**
	comp=Z,1.1nm,0.3s							
WTTA	**Wattenberg**	**88.93**	**330**	*e*P		**P**	**17 05 12.6**	**+0.2**
	comp=Z,0.8nm,0.3s							
WATA	**Walderalm**	**89.01**	**330**	*i* P		**P**	**17 05 12.9**	**+0.1**
	comp=Z,0.2nm,0.2s							
FUORN	**Ofenpass-Fuorn**	**89.02**	**329**	P		**P**	**17 05 12.9**	**-0.1**
FUORN				IAmb		IAmb	17 08 38.4	
	comp=Z,27nm,1.8s							
SQTA	**Sankt Quirin**	**89.08**	**330**	*e*P		**P**	**17 05 13.4**	**+0.3**
	comp=Z,0.6nm,0.3s							
FETA	**Feichten**	**89.13**	**329**	*i* P		**P**	**17 05 13.3**	**-0.1**
	comp=Z,1.1nm,0.4s							
MOTA	**Moosalm**	**89.22**	**330**	*e*P		**P**	**17 05 13.8**	**0.0**
	comp=Z,1.3nm,0.4s							
TUE	**Stuetta**	**89.32**	**328**	P		**P**	**17 05 14.7**	**+0.4**
TUE				IAmb		IAmb	17 05 39.0	
	comp=Z,20nm,1.7s							
GERES	**GERESS Array B**	**89.32**	**332**	P		**P**	**17 05 12.5**	**-1.7**
	comp=Z,0.5nm,0.7s,baz=145,slow=4.9,SNR=4.3							
	comp=Z,0.5nm,0.7s							

AVE	**Averroes**	**89.53**	**310**	P		**P**	**17 05 15.9**	**+0.5**
DAVA	**Damuels**	**89.70**	**329**	*i* P		**P**	**17 05 16.6**	**+0.6**
	comp=Z,5.1nm,0.9s							
ESDC	**Sonseca Array**	**91.44**	**317**	P		**P**	**17 05 23.9**	**-0.3**
	comp=Z,1.8nm,0.9s,baz=114,slow=3.2,SNR=9.7							
	comp=Z,1.8nm,0.9s							
PLCA	**Paso Flores**	**94.31**	**216**	LR		LR	17 41 48.9	
	comp=Z,322nm,19.5s,baz=14,slow=32							
HNR	**Honiara**	**94.65**	**104**	LR		LR	17 45 17.3	
	comp=Z,223nm,20.2s,baz=222,slow=34							
ILAR	**Eielson Array**	**142.95**	**18**	PKP		**PKPdf**	**17 11 48.7**	**-2.2**
	comp=Z,1.4nm,1.0s,baz=294,slow=2.7,SNR=5.0							
DOT	**Dot Lake**	**144.59**	**17**			PKPbc	17 11 53.1	+0.5
K27K	**Chicken**	**144.76**	**16**			**PKPdf**	**17 11 53.8**	**-0.3**
PAX	**Paxson**	**144.77**	**19**			**PKPdf**	**17 11 53.8**	**-0.5**
DAWY	**Dawson**	**145.31**	**14**			**PKPbc**	**17 11 54.8**	**-0.2**
BCAR	**Beaver Creek A**	**145.65**	**16**			**PKPbc**	**17 11 56.1**	**0.0**
FCC	**Fort Churchill**	**146.92**	**334**			**PKPbc**	**17 11 59.3**	**-0.5**
V53A	**Saluda**	**147.72**	**288**			**PKPbc**	**17 12 02.3**	**-0.6**
YKA	**Yellowknife Ar**	**148.50**	**354**	PKPbc		**PKPbc**	**17 12 03.4**	**-0.7**
	comp=Z,9.2nm,0.9s,baz=359,slow=2.4,SNR=27							
WVT	**Waverly**	**151.80**	**289**			**PKPbc**	**17 12 11.9**	**-1.0**
EYMN	**Ely**	**151.88**	**315**			**PKPbc**	**17 12 12.5**	**-0.2**
EPLO	**Experimental L**	**152.36**	**320**			**PKPbc**	**17 12 13.0**	**-0.7**
ULM	**Lac du Bonnet**	**153.20**	**322**	PKPbc		**PKPbc**	**17 12 14.9**	**-0.6**
	comp=Z,11nm,0.9s,baz=65,slow=3.1,SNR=14							
TXAR	**Lajitas Array**	**164.61**	**267**	PKPab		**PKPab**	**17 13 17.6**	**0.0**
	comp=Z,0.9nm,0.8s,baz=125,slow=5.7,SNR=7.6							
PDAR	**Pinedale Array**	**165.21**	**324**	PKP		**PKPdf**	**17 12 22.9**	**+0.4**
	comp=Z,2.1nm,1.2s,baz=42,slow=3.2,SNR=4.2							
NVAR	**Mina Array Bea**	**172.47**	**342**	PKP		**PKPdf**	**17 12 26.9**	**-0.4**
	comp=Z,0.2nm,0.5s,baz=324,slow=3.0,SNR=1.8							

IDC ***29*** *16:58:07.2±0.7, 15°.08S×173°.82W, h0km, mb4.3/8, mbtmp4.3/9, ML5.5/1, MS3.3/1, Error ellipse: s-maj=30.1km s-min=16.6km az=136.0*

NEIC ***29*** *16:58:08.9±1.8, 15°.09S±0°.07×173°.49W±0°.02, h8km±4km, mb4.7/28, Error ellipse: s-maj=10.8km s-min=2.5km az=188.0*

ISC 29 16:58:11.3±0.5,**15°.07S**±0°.09×**173°.48W**±0°.08,**h30**km,**n57**, σ1°.**25**/51,**mb4.7**/22,**1D**,**Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**2.01**	**55**	Pn	**Pn**	**16 58 43.3**	**0.0**
	1µm,0.3s,baz=187,slow=2.1,SNR=1372						
AFI				Sn	**Sn**	**16 59 03.2**	**-4.2**
	2µm,0.3s,baz=56,slow=22,SNR=9.7						
AFI				LR	LR	16 59 26.4	
	comp=Z,776nm,21.5s,baz=204,slow=34						
	3µm,0.3s						
AFI				AML	AML		
FUTU	**Fugatoga**	**4.56**	**279**	Pn	**Pn**	**16 59 18.1**	**-0.2**
NIUE	**Niue**	**5.23**	**140**		**Pn**	**16 59 27.2**	**-0.3**
MSVF	**Nonsavu**	**8.55**	**251**	Pn	**Pn**	**17 00 12.7**	**-0.5**
MARNC	**Mare, Loyalty**	**18.68**	**247**	P	**Pn**	**17 02 28.0**	**+0.4**
RTZ	**Ruatahuna**	**24.92**	**198**	P	**P**	**17 03 31.1**	**-0.8**
RTZ				IAmb	IAmb	17 03 54.3	
	comp=Z,13nm,1.1s						
BFZ	**Birch Farm**	**27.04**	**197**	P	**P**	**17 03 50.4**	**-0.5**
BFZ				IAmb	IAmb	17 04 23.4	
	comp=Z,34nm,1.4s						
TCW	**Tory Channel**	**28.13**	**200**	P	**P**	**17 04 00.6**	**-0.1**
QRZ	**Quartz Range**	**28.40**	**203**	P	**P**	**17 04 02.8**	**-0.3**
WHZ	**Wether Hill Ro**	**34.47**	**203**	P	**P**	**17 04 56.7**	**+0.3**
ARMA	**Armidale**	**35.45**	**238**	P	**P**	**17 05 04.3**	**-0.9**
ARMA				IAmb	IAmb	17 05 45.3	
	comp=Z,20nm,1.4s						
KHLU	**Kahalu`u**	**38.55**	**27**	P	**P**	**17 05 31.3**	**-0.3**
H11S2	**WAKE ISLAND Hy**	**38.65**	**329**	T	T	17 46 20.9	
	baz=146,slow=76,SNR=11						
H11S3	**WAKE ISLAND Hy**	**38.66**	**329**	T	T	17 46 22.0	
	baz=146,slow=76,SNR=32						
H11S1	**WAKE ISLAND Hy**	**38.66**	**329**	T	T	17 46 22.6	
	baz=146,slow=76,SNR=9.5						
H11N3	**WAKE ISLAND Hy**	**39.59**	**330**	T	T	17 47 04.3	
	baz=147,slow=76,SNR=9.2						
H11N1	**WAKE ISLAND Hy**	**39.60**	**330**	T	T	17 47 04.7	
	baz=147,slow=76,SNR=7.3						
H11N2	**WAKE ISLAND Hy**	**39.61**	**330**	T	T	17 47 05.6	
	baz=147,slow=76,SNR=7.0						
STKA	**Stephens Creek**	**44.14**	**240**	P	**P**	**17 06 16.8**	**-0.5**
STKA				IAmb	IAmb	17 06 17.5	
	comp=Z,13nm,0.8s						
BBOO	**Buckleboo**	**48.91**	**240**	P	**P**	**17 06 54.5**	**-0.3**
WR8	**Warramunga Arr**	**49.70**	**256**	P	**P**	**17 06 59.6**	**-1.4**
WR8				IAmb	IAmb	17 07 00.4	
	comp=Z,12nm,1.4s						
WB0	**Warramunga Arr**	**49.81**	**257**	P	**P**	**17 07 00.5**	**-1.3**
WB0				IAmb	IAmb	17 07 26.9	
	comp=Z,7.5nm,1.2s						
WRA	**Warramunga Arr**	**49.85**	**256**	P	**P**	**17 07 00.2**	**-1.9**
	comp=Z,2.5nm,0.9s,baz=90,slow=6.9,SNR=13						
	comp=Z,2.5nm,0.9s						
WRA	**Warramunga Arr**	**49.85**	**256**	P	**P**	**17 07 00.3**	**-1.9**
AS31	**Alice Springs**	**50.14**	**252**		**P**	**17 07 02.7**	**-1.7**
ASAR	**Alice Springs**	**50.14**	**252**	P	**P**	**17 07 02.5**	**-1.9**
	comp=Z,10nm,0.9s,baz=89,slow=7.4,SNR=73						
	comp=Z,10nm,0.9s						
SBA	**Scott Base**	**63.57**	**185**	P	**P**	**17 08 40.1**	**+1.4**
SBA				IAmb	IAmb	17 08 41.1	
	comp=Z,5.0nm,0.8s						
VNDA	**Vanda**	**63.69**	**186**	P	**P**	**17 08 40.0**	**+0.6**
	comp=Z,2.5nm,0.8s,baz=11,slow=5.2,SNR=14						
	comp=Z,2.5nm,0.8s						
VNDA	**Vanda**	**63.69**	**186**	P	**P**	**17 08 40.6**	**+1.2**
VNDA				IAmb	IAmb	17 08 41.5	
	comp=Z,2.8nm,0.8s						
KMRM	**Mail Ridge**	**71.85**	**38**	P	**P**	**17 09 33.1**	**+1.6**
KMRM				IAmb	IAmb	17 09 34.9	
	comp=Z,10nm,1.0s						
PNTR	**Pine Nut**	**73.68**	**41**	P	**P**	**17 09 43.5**	**+0.9**
NVAR	**Mina Array Bea**	**74.14**	**42**	P	**P**	**17 09 47.1**	**+1.9**
	comp=Z,1.5nm,0.8s,baz=224,slow=9.7,SNR=7.6						
	comp=Z,1.5nm,0.8s						
NVAR	**Mina Array Bea**	**74.14**	**42**	P	**P**	**17 09 46.8**	**+1.6**
GMN	**Gold Mountain**	**74.19**	**44**	P	**P**	**17 09 47.1**	**+1.5**
MZP	**Montezuma Peak**	**74.33**	**43**	P	**P**	**17 09 47.8**	**+1.3**
QSPA	**South Pole Qui**	**74.97**	**180**	P	**P**	**17 09 50.0**	**+0.5**
	comp=Z,7.0nm,0.8s,baz=12,slow=1.2,SNR=25						
	comp=Z,7.0nm,0.8s						
QSPA	**South Pole Qui**	**74.97**	**180**	P	**P**	**17 09 50.0**	**+0.5**
QSPA				IAmb	IAmb	17 09 51.2	
	comp=Z,7.3nm,0.8s						
W13A	**Hualapai Mount**	**75.34**	**47**	P	**P**	**17 09 53.0**	**+0.7**
SCM	**Sheep Creek Mo**	**79.40**	**12**	P	**P**	**17 10 15.5**	**+1.3**
K20K	**Telida**	**79.62**	**9**	P	**P**	**17 10 17.0**	**+1.7**
K20K				IAmb	IAmb	17 10 51.7	
	comp=Z,10nm,1.4s						
TXAR	**Lajitas Array**	**80.49**	**56**	P	**P**	**17 10 22.6**	**+1.7**
	comp=Z,0.5nm,0.9s,baz=245,slow=4.7,SNR=3.6						
	comp=Z,0.5nm,0.9s						
TXAR	**Lajitas Array**	**80.49**	**56**	P	**P**	**17 10 22.0**	**+1.1**
G18K	**Tagagawik**	**81.49**	**6**	P	**P**	**17 10 27.1**	**+1.8**
G18K				IAmb	IAmb	17 10 52.1	
	comp=Z,14nm,1.4s						
WRH	**Wood River Hil**	**81.64**	**11**	P	**P**	**17 10 27.5**	**+1.4**
WRH				IAmb	IAmb	17 10 28.6	
	comp=Z,8.4nm,1.0s						
PDAR	**Pinedale Array**	**82.07**	**42**	P	**P**	**17 10 28.2**	**-1.0**
	comp=Z,0.6nm,0.8s,baz=209,slow=2.7,SNR=4.0						
ILAR	**Eielson Array**	**82.14**	**11**	P	**P**	**17 10 27.9**	**-0.9**
	comp=Z,0.8nm,0.8s,baz=242,slow=4.7,SNR=7.3						
	comp=Z,0.8nm,0.8s						
ILAR	**Eielson Array**	**82.14**	**11**	P	**P**	**17 10 28.4**	**-0.3**
F19K	**Shaleruckik Mo**	**82.50**	**6**	P	**P**	**17 10 31.6**	**+1.1**
F19K				IAmb	IAmb	17 10 50.0	
	comp=Z,12nm,1.4s						
I30M	**Mount Dempster**	**84.81**	**15**	P	**P**	**17 10 43.2**	**+0.6**
INK	**Inuvik**	**87.97**	**14**	LR	LR	17 44 14.8	
	comp=Z,µm,21.9s,baz=112,slow=31						
MAW	**Mawson**	**88.08**	**199**	P	**P**	**17 10 58.0**	**-0.6**
	comp=Z,3.1nm,0.6s,baz=155,slow=9.2,SNR=10						
	comp=Z,3.1nm,0.6s						
MAW	**Mawson**	**88.08**	**199**	P	**P**	**17 10 58.5**	**-0.1**
ELIB	**Princess Elisa**	**92.45**	**185**	*d*P	**P**	**17 11 18.9**	**-0.2**
	comp=Z,2.5nm,0.9s						
GERES	**GERESS Array B**	**145.81**	**352**	PKPbc	**PKPab**	**17 17 48.5**	**+0.4**
	comp=Z,0.5nm,0.8s,baz=347,slow=1.8,SNR=4.1						
GERES	**GERESS Array B**	**145.81**	**352**		**PKPbc**	**17 17 47.9**	**+0.2**
BRTR	**Keskin Array B**	**145.86**	**321**	PKPbc	**PKPab**	**17 17 49.0**	**+0.4**
	comp=Z,2.5nm,0.8s,baz=97,slow=3.0,SNR=20						
BRTR	**Keskin Array B**	**145.86**	**321**		**PKPdf**	**17 17 46.9**	**-0.7**

NEIC ***29*** *17:12:57.7±2.1, 39°.33S±0°.06×174°.77E±0°.09, h155km±6km, mb4.7/24, Error ellipse: s-maj=10.8km s-min=6.6km az=123.0*

GFZ ***29*** *17:12:57.7±0.2, 39°.3S±.3°×17°.5E±°, h144km, M5.0/18, mb5.0/18*

IDC ***29*** *17:12:57.7±1.1, 39°.14S×174°.90E, h157km±11km, mb4.3/12, mbtmp4.7/12, MS2.5/1, Error ellipse: s-maj=15.1km s-min=12.4km az=74.0*

NOU ***29*** *17:12:57.2, 39°.33S×174°.77E, h142km, mb4.9/35, North Island, New Zealand*

WEL ***29*** *17:12:59.8, 39°.28S×174°.80E, ML4.6, Mw4.7, Moment Tensor Solution. Moment tensor: Scale 10^16 Nm; Mrr=0.22; Mθθ=0.56; Mφφ=0.34; Mrθ=0.76; Mθφ=-0.51; Mφr=1.08; Fault plane solution: M0=1.50000×10^16 NP1: φs=325.00000°, δ=79.00000°, λ=-79.00000°. NP2: φs=100.00000°, δ=16.00000°, λ=-134.00000°. Principal axes: T 1.5765, Plg=33.0000°, Azm=46.0000°; N -0.2321, Plg=11.0000°, Azm=143.0000°; P -1.3444, Plg=55.0000°, Azm=249.0000°; Stations used: BFZ BKZ GRZ HAZ HIZ KHEZ KNZ MKAZ MRZ MWZ NNZ OPRZ OBLIQUE FAULTING*

WEL ***29*** *17:12:59.1±0.8, 39°.5S×17°.5E±°, h140km±5km, ML4.2/26, MLv4.6/118 Error ellipse: s-maj=11.3km s-min=5.7km az=179.1*

ISC 29 17:12:58.3±0.5,**39°.33S**±0°.03×**174°.77E**±0°.03,**h163**km±4km, **n317**,σ1°.**59**/339,**mb4.8**/40,**4D**,**North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUKS	**Huiakama Schoo**	**0.17**	**295**	P	**Pn**	**17 13 18.8**	**-1.2**
HUKS				S	**Sn**	**17 13 34.3**	**-2.3**
VRZ	**Vera Road**	**0.21**	**358**	P	**Pn**	**17 13 18.7**	**-1.4**
VRZ				S	**Sn**	**17 13 34.7**	**-2.1**
VRZ				AML	AML		
VRZ				AML	AML		
LREZ	**Lake Rotokare**	**0.31**	**246**	P	**Pn**	**17 13 19.8**	**-0.5**
LREZ				S	**Sn**	**17 13 36.7**	**-0.5**
LREZ				AML	AML		
LREZ				AML	AML		
MHEZ	**Mangahewa**	**0.43**	**307**	P	**Pn**	**17 13 20.1**	**-0.6**
MHEZ				S	**Sn**	**17 13 36.7**	**-1.2**
MHEZ				AML	AML		
MHEZ				AML	AML		
PKVZ	**Pokaka**	**0.45**	**85**	P	**Pn**	**17 13 19.9**	**-1.0**
PKVZ				S	**Sn**	**17 13 36.1**	**-2.1**
PKVZ				AML	AML		
PKVZ				AML	AML		
WAZ	**Wanganui**	**0.45**	**158**	P	**Pn**	**17 13 20.6**	**-0.3**
WAZ				S	**Sn**	**17 13 37.1**	**-1.2**
WAZ				AML	AML		
WAZ				AML	AML		
DREZ	**Durham Road**	**0.46**	**288**	P	**Pn**	**17 13 20.1**	**-0.8**
DREZ				S	**Sn**	**17 13 36.4**	**-1.8**
DREZ				AML	AML		
DREZ				AML	AML		
PREZ	**Palmer Road**	**0.47**	**269**	P	**Pn**	**17 13 20.2**	**-0.8**
PREZ				S	**Sn**	**17 13 37.2**	**-1.1**
PREZ				AML	AML		
PREZ				AML	AML		
INHS	**Inglewood High**	**0.48**	**291**	P	**Pn**	**17 13 20.0**	**-1.0**
ORCS	**Ohakune Ruapeh**	**0.51**	**100**	P	**Pn**	**17 13 20.3**	**-0.9**
NEZ	**North Egmont**	**0.53**	**277**	P	**Pn**	**17 13 20.6**	**-0.7**
NEZ				S	**Sn**	**17 13 37.2**	**-1.7**
NEZ				AML	AML		
NEZ				AML	AML		
MTVZ	**Mangateitei**	**0.55**	**96**	P	**Pn**	**17 13 20.5**	**-0.9**
MTVZ				S	**Sn**	**17 13 36.8**	**-2.3**
MTVZ				AML	AML		
MTVZ				AML	AML		
TWVZ	**Taurewa**	**0.58**	**63**	P	**Pn**	**17 13 20.4**	**-1.3**
TWVZ				S	**Sn**	**17 13 36.7**	**-2.7**

WATZ Wairara 0.98 51 P **Pn** 17 13 23.2 -0.9
WATZ AML AML
WATZ AML AML
BHHZ Black Hill Sta 1.02 99 P **Pn** 17 13 23.4 -1.1
BHHZ AML AML
HATZ Hinemaiaia 1.12 67 P **Pn** 17 13 24.0 -1.3
HATZ AML AML
WHTZ Whakaora 1.14 55 P **Pn** 17 13 24.8 -0.7
WHTZ AML AML
TLZ Tolley Road 1.17 31 P **Pn** 17 13 24.1 -1.7
TLZ AML AML
TSZ Takapari Road 1.17 129 P **Pn** 17 13 25.4 -0.3
TSZ AML AML
KUTZ Kaahu Road 1.18 45 P **Pn** 17 13 24.9 -0.9
KUTZ AML AML
POIZ Poihipi 1.21 55 P **Pn** 17 13 25.2 -1.0
POIZ AML AML
PNHZ Pukenui 1.25 118 P **Pn** 17 13 26.0 -0.5
PNHZ AML AML
ARAZ Aratiatia Land 1.27 57 P **Pn** 17 13 25.8 -0.8
ARAZ AML AML
KRHZ Kereru 1.28 104 P **Pn** 17 13 26.1 -0.5
KRHZ AML AML
KWHZ Kaweka Forest 1.29 95 P **Pn** 17 13 26.4 -0.4
KWHZ AML AML
POWZ Post Office Ro 1.31 144 P **Pn** 17 13 26.5 -0.4
POWZ AML AML
BKZ Black Stump Fm 1.35 83 P **Pn** 17 13 26.0 -1.4
BKZ Black Stump Fm 1.35 83 S **Sn** 17 13 46.2 -3.5
BKZ Black Stump Fm 1.35 83 P **Pn** 17 13 26.2 -1.2
BKZ AML AML
WPRZ Whakapapatarin 1.36 54 P **Pn** 17 13 26.1 -1.4
WPRZ AML AML
MRHZ Matea Rd 1.38 69 P **Pn** 17 13 26.0 -1.7
MRHZ AML AML
GRRZ Galatos Road 1.44 47 P **Pn** 17 13 27.2 -1.0
GRRZ AML AML
DVHZ Dannevirke 1.45 132 P **Pn** 17 13 27.8 -0.5
DVHZ AML AML
ALRZ Allen Road 1.45 58 P **Pn** 17 13 26.8 -1.6
ALRZ AML AML
MRZ Mangatainoka R 1.46 155 **Pn** 17 13 28.2 -0.2
MRZ Sn **Sn** 17 13 49.2 -2.6
MRZ Mangatainoka R 1.46 155 P **Pn** 17 13 28.1 -0.2
MRZ AML AML
WPHZ Waipukurau 1.48 120 P **Pn** 17 13 28.3 -0.3
WPHZ AML AML
MCHZ McNeill Hill 1.50 95 P **Pn** 17 13 28.9 +0.1
MCHZ AML AML
HRRZ Handcock Road 1.51 52 P **Pn** 17 13 27.8 -1.2
HRRZ AML AML
OGWZ Otaki Gorge 1.51 168 P **Pn** 17 13 28.8 -0.1
OGWZ AML AML
PRRZ Plateau Road 1.52 57 P **Pn** 17 13 27.5 -1.5
PRRZ AML AML
KIW Kapiti Island 1.53 176 P **Pn** 17 13 28.6 -0.5
KIW AML AML
PRWZ Pori Road 1.53 143 P **Pn** 17 13 29.0 -0.1
PRWZ AML AML
NMHZ Naumai 1.60 82 P **Pn** 17 13 29.7 -0.3
NMHZ AML AML
DUWZ D'Urville Isla 1.60 204 P **Pn** 17 13 29.2 -0.7
DUWZ AML AML
UTU Utuhina 1.61 44 P **Pn** 17 13 29.0 -1.0
UTU AML AML
HLRZ Highlands Stat 1.64 49 P **Pn** 17 13 29.6 -0.7
HLRZ AML AML
NGRZ Ngongotaha 1.66 43 P **Pn** 17 13 29.5 -1.0
NGRZ AML AML
HOWZ Holdsworth Sta 1.66 160 P **Pn** 17 13 30.0 -0.4
HOWZ AML AML
TIWZ Tintock 1.68 150 P **Pn** 17 13 30.3 -0.3
TIWZ AML AML
MTHZ Maungataniwha 1.68 74 P **Pn** 17 13 29.2 -1.6
MTHZ AML AML
RRRZ Republican Roa 1.69 54 P **Pn** 17 13 29.3 -1.5
RRRZ AML AML
KAHZ Kahuranaki 1.69 106 P **Pn** 17 13 30.5 -0.3
KAHZ AML AML
TOZ Tahuroa Road 1.70 20 **Pn** 17 13 28.9 -2.0
TOZ Tahuroa Road 1.70 20 P **Pn** 17 13 29.2 -1.7
TOZ AML AML
PRHZ Porangahau 1.71 124 P **Pn** 17 13 30.7 -0.3
PRHZ AML AML
ANWZ Angora Road 1.73 131 P **Pn** 17 13 31.1 -0.1
ANWZ AML AML
ARHZ Aropaoanui 1.73 88 P **Pn** 17 13 30.8 -0.4
ARHZ AML AML
TARZ Mount Tarawera 1.75 52 P **Pn** 17 13 30.2 -1.3
TARZ AML AML
KARZ Kaharoa 1.75 42 P **Pn** 17 13 30.4 -1.0
KARZ AML AML
KMRZ Kaimai 1.75 32 P **Pn** 17 13 30.4 -1.1
KMRZ AML AML
PXZ Pawanui 1.76 114 P **Pn** 17 13 31.0 -0.4
PXZ AML AML
BFZ Birch Farm 1.76 140 P **Pn** 17 13 31.1 -0.4
BFZ Birch Farm 1.76 140 S **Sn** 17 13 53.9 -3.3
BFZ Birch Farm 1.76 140 **Pn** 17 13 30.9 -0.6
BFZ Birch Farm 1.76 140 P **Pn** 17 13 30.9 -0.6
BFZ AML AML
BFZ Birch Farm 1.76 140 P **Pn** 17 13 31.0 -0.4
MUGZ Murupara 1.78 62 P **Pn** 17 13 29.9 -1.9
MUGZ AML AML
CAW Cannon Point 1.79 173 P **Pn** 17 13 31.5 -0.3
CAW AML AML
MKRZ Makatiti 1.79 49 P **Pn** 17 13 31.1 -0.8
MKRZ AML AML
CKHZ Cape Kidnapper 1.82 101 P **Pn** 17 13 31.8 -0.3
CKHZ AML AML
RAHZ Arahi 1.85 78 P **Pn** 17 13 31.8 -0.7
RAHZ AML AML
RTZ Ruatahuna 1.87 68 **Pn** 17 13 30.7 -2.1
RTZ Sn **Sn** 17 13 55.1 -4.2
RTZ Ruatahuna 1.87 68 P **Pn** 17 13 30.9 -1.8
RTZ AML AML
MTW Mount Morrison 1.91 163 P **Pn** 17 13 32.5 -0.6
MTW AML AML
TCW Tory Channel 1.91 191 **Pn** 17 13 32.5 -0.6
TCW Tory Channel 1.91 191 P **Pn** 17 13 32.5 -0.6
TCW AML AML
CPWZ Castlepoint 1.92 146 P **Pn** 17 13 33.4 +0.2
CPWZ AML AML
WHHZ Waihua 1.93 83 P **Pn** 17 13 32.8 -0.6
WHHZ AML AML
WEL Wellington 1.95 180 P **Pn** 17 13 33.0 -0.5
WEL AML AML
TMWZ Te Maipa 1.97 154 P **Pn** 17 13 33.3 -0.5
TMWZ AML AML
EDRZ Edgecumbe 1.97 52 P **Pn** 17 13 32.3 -1.6
EDRZ AML AML
SNZO South Karori 1.98 181 P **Pn** 17 13 33.0 -0.8
SNZO South Karori 1.98 181 P **Sn** 17 13 57.6 -3.8
SNZO South Karori 1.98 181 **Pn** 17 13 33.1 -0.7
SNZO South Karori 1.98 181 P **Pn** 17 13 33.3 -0.5
TGRZ Tauranga 1.98 37 P **Pn** 17 13 32.9 -1.1
TGRZ AML AML
MARZ Manawahe 2.01 49 P **Pn** 17 13 33.1 -1.3
MARZ AML AML
OPRZ Ohinepanea 2.04 44 P **Pn** 17 13 33.2 -1.5
OPRZ AML AML
BHW Baring Head 2.07 178 **Pn** 17 13 34.1 -0.8
BHW Baring Head 2.07 178 P **Pn** 17 13 34.2 -0.7
BHW AML AML
PAWZ Paruwai Farm 2.11 166 P **Pn** 17 13 34.7 -0.7
PAWZ AML AML
MSWZ Moikau Station 2.11 170 **Pn** 17 13 34.7 -0.7
MSWZ Moikau Station 2.11 170 P **Pn** 17 13 34.8 -0.6
MSWZ AML AML
URZ Urewera 2.12 60 P **Pn** 17 13 33.3 -2.3
984nm,0.7s,baz=238,slow=6.5,SNR=484
URZ S **Sn** 17 13 59.1 -5.2
4µm,0.6s,baz=251,slow=9.8,SNR=66
URZ LR LR 17 14 17.2
comp=Z,888nm,20.2s,baz=135,slow=41
URZ Urewera 2.12 60 P **Pn** 17 13 33.2 -2.3
URZ Urewera 2.12 60 P **Sn** 17 13 59.3 -5.0
URZ Urewera 2.12 60 P **Pn** 17 13 33.3 -2.3
URZ AML AML

URZ Urewera 2.12 60 P **Pn** 17 13 33.4 -2.1
NNZ Nelson 2.16 209 **Pn** 17 13 34.9 -1.0
NNZ Nelson 2.16 209 P **Pn** 17 13 34.8 -1.1
NNZ AML AML
TRWZ Traveller 2.18 161 P **Pn** 17 13 35.5 -0.7
TRWZ AML AML
TUWZ Tuamarina 2.19 196 **Pn** 17 13 35.3 -0.9
TUWZ Tuamarina 2.19 196 P **Pn** 17 13 35.5 -0.7
TKNZ Takaka Hill 2.19 219 **Pn** 17 13 34.9 -1.5
TKNZ Takaka Hill 2.19 219 P **Pn** 17 13 34.9 -1.5
TKNZ AML AML
RAGZ Rawiri 2.23 69 P **Pn** 17 13 35.4 -1.5
RAGZ AML AML
KBAZ Karaka Road Bo 2.24 2 P **Pn** 17 13 36.3 -0.6
KBAZ AML AML
MKAZ Moumakai 2.25 8 P **Pn** 17 13 35.9 -1.2
MKAZ AML AML
PLWZ Palliser 2.26 171 **Pn** 17 13 36.1 -1.1
PLWZ Palliser 2.26 171 P **Pn** 17 13 36.3 -0.9
PLWZ AML AML
AWAZ Awhitu Peninsu 2.27 357 P **Pn** 17 13 36.4 -0.9
AWAZ AML AML
QRZ Quartz Range 2.27 228 P **Pn** 17 13 35.2 -2.1
QRZ Quartz Range 2.27 228 P **Sn** 17 14 03.5 -4.0
QRZ Quartz Range 2.27 228 **Pn** 17 13 35.7 -1.6
QRZ Quartz Range 2.27 228 P **Pn** 17 13 35.7 -1.6
QRZ AML AML
QRZ Quartz Range 2.27 228 P **Pn** 17 13 35.8 -1.6
WHRZ Whale Island 2.27 50 P **Pn** 17 13 38.8 +1.4
WHRZ AML AML
KNZ Kokohu 2.28 83 P **Pn** 17 13 36.0 -1.3
KNZ AML AML
MYRZ Mayor Island 2.36 30 P **Pn** 17 13 37.8 -0.6
MYRZ AML AML
MWZ Matawai 2.38 66 P **Pn** 17 13 36.6 -2.0
MWZ AML AML
ETAZ East Tamaki Re 2.38 3 P **Pn** 17 13 37.7 -0.9
ETAZ AML AML
WTAZ Waiatarua 2.40 356 P **Pn** 17 13 38.3 -0.6
WTAZ AML AML
RIGZ Rimuhau 2.42 76 P **Pn** 17 13 37.6 -1.4
RIGZ AML AML
MHGZ Mahia Peninsul 2.44 87 P **Pn** 17 13 38.2 -1.1
MHGZ AML AML
CMWZ Cape Campbell 2.45 190 **Pn** 17 13 39.1 -0.3
CMWZ Cape Campbell 2.45 190 P **Pn** 17 13 39.2 -0.2
CMWZ AML AML
EPAZ Eden Park BICE 2.46 360 P **Pn** 17 13 38.8 -0.7
EPAZ AML AML
PRGZ Paritu Road 2.46 81 P **Pn** 17 13 38.2 -1.3
PRGZ AML AML
BSWZ Blackbirch Sta 2.47 196 **Pn** 17 13 38.8 -0.8
BSWZ Blackbirch Sta 2.47 196 P **Pn** 17 13 39.0 -0.7
BSWZ AML AML
HBAZ Herne Bay Bore 2.48 359 P **Pn** 17 13 39.1 -0.7
HBAZ AML AML
WIAZ Waiheke Island 2.55 7 P **Pn** 17 13 39.8 -0.8
WIAZ AML AML
MBAZ Motutapu North 2.56 2 P **Pn** 17 13 40.0 -0.8
MBAZ AML AML
RVAZ Riverhead Bore 2.56 357 P **Pn** 17 13 40.2 -0.6
RVAZ AML AML
TKGZ Te Karaka 2.56 71 P **Pn** 17 13 39.5 -1.3
TKGZ AML AML
MRNZ Matariki Terra 2.57 216 **Pn** 17 13 38.9 -1.9
MRNZ Matariki Terra 2.57 216 P **Pn** 17 13 39.2 -1.7
MRNZ AML AML
RUGZ Raukumara Rang 2.66 60 P **Pn** 17 13 39.3 -2.7
RUGZ AML AML
ABAZ Army Bay 2.73 1 P **Pn** 17 13 42.3 -0.5
ABAZ AML AML
TWGZ Tauwhareparae 2.77 66 P **Pn** 17 13 42.0 -1.3
TWGZ AML AML
THZ Tophouse 2.81 210 **Pn** 17 13 42.4 -1.4
THZ Tophouse 2.81 210 P **Pn** 17 13 42.2 -1.6
THZ AML AML
CNGZ Carnagh Statio 2.81 74 P **Pn** 17 13 42.6 -1.3
CNGZ AML AML
HAZ Te Kaha 2.84 57 P **Pn** 17 13 41.7 -2.5
HAZ AML AML
PKGZ Pakihiroa 2.98 62 P **Pn** 17 13 43.8 -2.1
PKGZ AML AML
PUZ Puketiti 3.01 66 P **Pn** 17 13 44.0 -2.2
PUZ AML AML
GRZ Great Barrier 3.13 10 P **Pn** 17 13 46.8 -1.0
GRZ AML AML
KHZ Kahutara 3.22 196 P **Pn** 17 13 47.7 -1.0
KHZ AML AML
KHZ Kahutara 3.22 196 P **Pn** 17 13 47.8 -1.0
WMGZ Waiomatatini S 3.23 63 P **Pn** 17 13 46.7 -2.3
WMGZ AML AML
MXZ Matakaoa Point 3.29 59 P **Pn** 17 13 47.8 -2.0
MXZ Matakaoa Point 3.29 59 S **Sn** 17 14 25.7 -4.1
MXZ Matakaoa Point 3.29 59 **Pn** 17 13 47.8 -2.0
MXZ Matakaoa Point 3.29 59 P **Pn** 17 13 47.9 -2.0
MXZ AML AML
DSZ Denniston Nort 3.30 222 P **Pn** 17 13 47.8 -2.1
DSZ AML AML
WCZ Waipu Caves 3.41 354 P **Pn** 17 13 50.5 -0.8
WCZ AML AML
GVZ Greta Valley S 3.86 199 P **Pn** 17 13 55.0 -2.0
GVZ AML AML
LTZ Lake Taylor 3.93 208 P **Pn** 17 13 55.3 -2.6
LTZ AML AML
AMCZ Amberley 4.16 202 **Pn** 17 13 58.3 -2.5
AMCZ Amberley 4.16 202 P **Pn** 17 13 58.2 -2.6
AMCZ AML AML
OUZ Omahuta 4.21 347 P **Pn** 17 14 00.7 -0.9
OUZ Omahuta 4.21 347 P **Pn** 17 14 00.8 -0.8
OUZ AML AML
OUZ Omahuta 4.21 347 P **Pn** 17 14 01.0 -0.6
INZ Inchbonnie 4.22 216 P **Pn** 17 13 58.9 -2.7
INZ AML AML
OKCZ Okains Bay 4.57 196 P **Pn** 17 14 03.5 -2.7
OKCZ AML AML
AKCZ Akaroa Harbour 4.74 196 P **Pn** 17 14 05.5 -2.9
AKCZ AML AML
RACZ Rakaia 4.81 203 P **Pn** 17 14 05.9 -3.5
RACZ AML AML
WVZ Waitaha Valley 4.82 218 P **Pn** 17 14 05.9 -3.5
WVZ AML AML
RPZ Rata Peaks 5.19 211 P **Pn** 17 14 10.4 -3.9
4.4nm,0.3s,baz=92,slow=7.6,SNR=62
RPZ S **Sn** 17 15 07.1 -6.8
138nm,0.6s,baz=13,slow=6.8,SNR=24
RPZ LR LR 17 15 58.5
comp=Z,46nm,21.0s,baz=319,slow=33
RPZ Rata Peaks 5.19 211 P **Pn** 17 14 10.5 -3.9
RPZ Rata Peaks 5.19 211 P **Pn** 17 14 10.8 -3.5
RPZ AML AML
RPZ Rata Peaks 5.19 211 P **Pn** 17 14 12.2 -2.1
FOZ Fox Glacier 5.61 220 **Pn** 17 14 16.1 -3.7
ODZ Otahua Downs 6.47 207 P **Pn** 17 14 28.2 -3.1
ODZ Otahua Downs 6.47 207 P **Pn** 17 14 28.8 -2.5
comp=Z,80nm,0.8s
JCZ Jackson Bay 6.51 221 P **Pn** 17 14 29.4 -2.5
HHSZ Highcliff Hill 7.23 204 P **Pn** 17 14 38.7 -2.6
HHSZ AML AML
TUZ Tuapeka 7.62 208 P **Pn** 17 14 43.3 -3.2
TUZ AML AML
CTZ Chatham Island 7.81 127 P **Pn** 17 14 50.8 +1.8
CTZ AML AML
DZM Mont Dzumac 18.62 335 P **Pn** 17 17 05.5 -0.2
comp=Z,9.9nm,1.0s,baz=161,slow=14,SNR=5.7
MSVF Nonsavu 21.71 8 P **P** 17 17 35.8 -0.9
comp=Z,43nm,0.6s,baz=175,slow=8.3,SNR=40
comp=Z,43nm,0.6s
MSVF Nonsavu 21.71 8 P **P** 17 17 36.3 -0.3
MSVF Nonsavu 21.71 8 **P** 17 17 34.9 -1.8
MSVF Nonsavu 21.71 8 P **P** 17 17 36.4 -0.3
comp=Z,80nm,0.9s
AULRC Lightning Ridg 24.14 286 P **P** 17 18 01.0 +1.8
BRAT Ballarat 24.16 264 P **P** 17 18 00.6 +1.3
EIDS Eidsvold 24.29 298 P **P** 17 18 04.3 +3.7
comp=Z,16nm,1.0s
CMSA Cobar Meteorol 24.86 279 P **P** 17 18 07.2 +1.5
STKA Stephens Creek 27.86 275 P **P** 17 18 34.0 +1.4
comp=Z,4.2nm,0.7s,baz=116,slow=8.8,SNR=7.3
comp=Z,4.2nm,0.7s
STKA Stephens Creek 27.86 275 P **P** 17 18 33.9 +1.2

STKA Stephens Creek 27.86 275 P **P** 17 18 34.1 +1.4
comp=Z,49nm,1.6s
QLP Quilpie 28.46 287 P **P** 17 18 39.5 +1.5
QLP Quilpie 28.46 287 P **P** 17 18 39.8 +1.8
comp=Z,47nm,1.5s
INKA Innaminka 30.45 282 P **P** 17 18 56.2 +0.6
BBOO Buckleboo 31.78 270 P **P** 17 19 06.5 -0.8
BBOO IAmb IAmb 17 19 08.2
comp=Z,11nm,0.8s
QIS Mount Isa 35.46 292 P **P** 17 19 40.1 +0.9
PPT Papeete 37.77 65 P **P** 17 19 58.7 +0.1
comp=Z,21nm,0.7s,baz=162,slow=5.8,SNR=3.0
comp=Z,21nm,0.7s
AS01 Alice Springs 37.80 282 P **P** 17 19 59.4 +0.4
AS31 Alice Springs 37.84 282 P **P** 17 19 58.8 -0.5
ASAR Alice Springs 37.84 282 P **P** 17 19 59.5 +0.2
comp=Z,14nm,0.7s,baz=134,slow=8.5,SNR=303
ASAR PcP **PcP** 17 22 11.2 -1.1
comp=Z,1.5nm,0.4s,baz=123,slow=3.9,SNR=7.0
ASAR ScP **ScP** 17 25 43.0 -1.4
comp=Z,0.4nm,0.7s,baz=120,slow=3.6,SNR=4.1
comp=Z,14nm,0.7s
ASAR Alice Springs 37.84 282 P **P** 17 19 57.0 -2.3
ASAR PcP **PcP** 17 22 11.4 -0.8
AUALC St Philip's Co 37.84 282 P **P** 17 19 59.9 +0.6
VNDA Vanda 38.68 184 P **P** 17 20 07.8 +2.1
comp=Z,2.7nm,0.5s,baz=2.1,slow=8.7,SNR=44
comp=Z,2.7nm,0.5s
VNDA Vanda 38.68 184 P **P** 17 20 06.5 +0.9
VNDA Vanda 38.68 184 P **P** 17 20 08.0 +2.4
comp=Z,7.0nm,0.8s
FORT Forrest 38.82 268 P **P** 17 20 07.9 +0.6
FORT IAmb IAmb 17 20 08.6
comp=Z,23nm,1.1s
WR8 Warramunga Arr 39.57 287 P **P** 17 20 13.9 +0.2
WR8 IAmb IAmb 17 20 15.0
comp=Z,14nm,1.1s
WRAB Tennant Creek 39.69 287 P **P** 17 20 14.8 +0.1
WRAB Tennant Creek 39.69 287 P **P** 17 20 13.4 -1.3
comp=Z,23nm,0.7s
WRA Warramunga Arr 39.70 287 P **P** 17 20 15.0 +0.2
comp=Z,7.4nm,0.5s,baz=126,slow=8.0,SNR=112
comp=Z,7.4nm,0.5s
WRA Warramunga Arr 39.70 287 P **P** 17 20 15.1 +0.4
WB0 Warramunga Arr 39.77 287 P **P** 17 20 15.5 +0.2
WB0 IAmb IAmb 17 20 16.0
comp=Z,12nm,0.7s
CASY Casey 44.46 211 P **P** 17 20 51.8 -0.9
CASY Casey 44.46 211 P **P** 17 20 52.0 -0.6
comp=Z,18nm,2.8s
NWAO Narrogin (SRO) 46.24 259 P **P** 17 21 05.4 -1.8
NWAO IAmb IAmb 17 21 07.1
comp=Z,28nm,1.1s
KLBR Kellerberrin 46.41 261 P **P** 17 21 08.1 -0.4
comp=Z,39nm,0.8s
KNRA Kununurra 46.49 287 P **P** 17 21 10.1 +0.8
KNRA IAmb IAmb 17 21 11.9
comp=Z,10nm,0.6s
MTN Manton Dam 46.62 292 P **P** 17 21 10.1 -0.2
MTN IAmb IAmb 17 21 11.2
comp=Z,7.8nm,0.7s
FITZ Fitzroy Crossi 47.34 282 P **P** 17 21 16.5 +0.7
FITZ Fitzroy Crossi 47.34 282 P **P** 17 21 15.7 -0.2
BLDU Ballidu 47.65 262 P **P** 17 21 17.8 -0.4
comp=Z,25nm,1.4s
MEEK Meekatharra 48.08 268 P **P** 17 21 21.0 -0.4
MEEK Meekatharra 48.08 268 P **P** 17 21 21.1 -0.4
comp=Z,48nm,1.3s
MORW Morawa 48.88 263 P **P** 17 21 27.3 -0.3
MORW IAmb IAmb 17 22 06.8
comp=Z,18nm,1.1s
MBWA Marble Bar 50.11 274 P **P** 17 21 34.0 -2.9
MBWA IAmb IAmb 17 21 36.9
comp=Z,14nm,1.0s
QSPA South Pole Qui 50.79 180 P **P** 17 21 44.2 +2.5
comp=Z,19nm,0.5s,baz=22,slow=2.3,SNR=203
comp=Z,19nm,0.5s
QSPA South Pole Qui 50.79 180 **P** 17 21 43.0 +1.4
QSPA South Pole Qui 50.79 180 P **P** 17 21 44.5 +2.9
comp=Z,29nm,0.7s
GIRL Giralia 53.55 269 P **P** 17 22 00.0 -2.4
SOEI Soe 53.66 289 P **P** 17 22 04.7 +1.3
SOEI Soe 53.66 289 P **P** 17 22 05.6 +2.2
comp=Z,35nm,1.1s
SANI Sanana 57.78 297 P **P** 17 22 32.8 +0.2
SANI Sanana 57.78 297 P **P** 17 22 32.4 -0.2
comp=Z,34nm,1.0s
PLAI Plampang 59.08 285 P **P** 17 22 41.4 -0.2
comp=Z,19nm,1.2s
BELA Belgrano 2 61.69 173 **P** 17 22 59.3 +0.9
BELA IAmb IAmb 17 23 01.6
comp=Z,15nm,0.8s
MAW Mawson 61.82 204 P **P** 17 23 00.3 +0.9
comp=Z,1.4nm,0.5s,baz=126,slow=3.3,SNR=6.1
comp=Z,1.4nm,0.5s
MAW Mawson 61.82 204 P **P** 17 22 59.4 +0.1
TROLL Troll, Antarti 68.82 183 ⇓P **P** 17 23 45.3 +0.8
comp=Z,949nm,0.7s
SNAA Sanae 69.29 181 ⇓P **P** 17 23 48.0 +0.7
comp=Z,315nm,1.0s
SNAA Sanae 69.29 181 P **P** 17 23 48.0 +0.7
comp=Z,7.5nm,0.6s,baz=160,slow=5.4,SNR=9.1
comp=Z,7.5nm,0.6s
SNAA Sanae 69.29 181 **P** 17 23 46.9 -0.4
SNAA IAmb IAmb 17 23 49.1
comp=Z,18nm,1.0s
SNAA Sanae 69.29 181 P **P** 17 23 48.1 +0.7
comp=Z,19nm,1.1s
VNA3 Neumayer Olymp 69.68 178 ⇓P **P** 17 23 50.3 +0.6
comp=Z,29nm,1.0s
VNA3 Neumayer Olymp 69.68 178 P **P** 17 23 51.0 +1.3
comp=Z,40nm,0.9s
VNA2 Neumayer--Watz 70.04 179 ⇓P **P** 17 23 52.8 +1.0
comp=Z,29nm,0.7s,baz=167,slow=5.9
VNA2 Neumayer--Watz 70.04 179 P **P** 17 23 53.1 +1.2
comp=Z,64nm,0.9s
VNA1 Neumayer--Stat 70.30 179 P **P** 17 23 54.6 +1.2
comp=Z,34nm,0.8s
PLCA Paso Flores 80.55 136 P **P** 17 24 54.2 +1.8
comp=Z,2.0nm,0.8s,baz=226,slow=8.4,SNR=3.5
comp=Z,2.0nm,0.8s
RPSI Rantau Prapat 80.79 281 P **P** 17 24 53.2 -0.8
comp=Z,20nm,1.1s
GSI Gunungsitoli 80.93 279 **P** 17 24 53.8 -1.0
GSI Gunungsitoli 80.93 279 P **P** 17 24 56.1 +1.3
comp=Z,142nm,0.9s
KULM Kulim 81.17 284 P **P** 17 24 54.9 -1.1
KULM IAmb IAmb 17 24 56.7
comp=Z,7.5nm,0.9s
KSRS Korea Array 87.72 324 P **P** 17 25 29.7 +1.5
comp=Z,3.3nm,0.7s,baz=143,slow=5.2,SNR=9.9
comp=Z,3.3nm,0.7s
NJ2 Nanjing 87.95 315 *e*P **P** 17 25 31.3 +1.8
NJ2 pmax pmax
comp=Z,8.0nm,0.6s
CMAR Chiang Mai Arr 91.05 293 P **P** 17 25 45.4 +1.0
comp=Z,1.5nm,0.3s,baz=149,slow=3.7,SNR=14
comp=Z,1.5nm,0.3s
HHC Hu-ho-hao-te 98.40 317 *e*P Pdif 17 26 18.5 +1.0
HHC pmax pmax
comp=Z,7.0nm,0.6s
HHC pmax pmax
comp=Z,74nm,4.7s
HHC LR LR
comp=N,480nm,22.9s
HHC LR LR
comp=E,520nm,23.7s
HHC LR LR
comp=Z,470nm,22.2s
WMQ Urumqi 114.01 308 *e*PKP PKPdf 17 31 17.5 -0.1
WMQ LR LR
comp=N,460nm,19.3s
WMQ LR LR
comp=E,570nm,24.7s
WMQ LR LR
comp=Z,850nm,21.1s
MKAR Makanchi Array 118.80 308 PKhKP PKPpre 17 31 23.0
comp=Z,0.7nm,0.8s,baz=86,slow=1.6,SNR=4.5
KURBB Kurchatov Arra 122.71 311 PKP **PKPdf** 17 31 31.7 -2.3
comp=Z,0.3nm,0.3s,baz=123,slow=1.6,SNR=5.4
KBZ Khabaz 144.10 293 PKP **PKPab** 17 32 11.8 -0.3
comp=Z,7.5nm,0.8s,baz=126,slow=3.5,SNR=15
ARCES ARCESS Array B 145.63 341 PKPbc **PKPdf** 17 32 16.1 +0.1
comp=Z,7.6nm,0.8s,baz=50,slow=1.3,SNR=13
MMAI Mount Meron Ar 146.81 272 PKPbc **PKPdf** 17 32 19.8 +0.6
comp=Z,1.2nm,0.5s,baz=65,slow=8.1,SNR=5.9
DBIC Dimbokro 147.48 181 PKPbc **PKPbc** 17 32 22.5 -1.0

	comp=Z,8.4nm,0.8s,baz=186,slow=3.5,SNR=7.8							
BRTR	**Keskin Array B**	**150.17 283**		PKPbc	**PKPbc**	**17 32 28.6**	**-1.2**
	comp=Z,3.9nm,0.8s,baz=143,slow=5.3,SNR=28							
BRTR				PKPab	**PKPab**	**17 32 36.0**	**-0.5**
	comp=Z,7.8nm,1.0s,baz=123,slow=4.6,SNR=18							
BRTR	**Keskin Array B**	**150.17 283**			**PKPbc**	**17 32 29.4**	**-0.4**
ILGA	**Ilgaz**	**150.36 286**		PKPbc	**PKPbc**	**17 32 29.8**	**-0.5**
FINES	**FINESS Array B**	**150.69 329**		PKPbc	**PKPbc**	**17 32 29.3**	**-0.8**
	comp=Z,1.2nm,0.4s,baz=19,slow=4.0,SNR=9.7							
FINES				PKPab	**PKPab**	**17 32 36.5**	**-1.2**
	comp=Z,3.0nm,0.7s,baz=38,slow=4.6,SNR=10							
FINES	**FINESS Array B**	**150.69 329**		PKPbc	**PKPbc**	**17 32 30.1**	**0.0**
AKASG	**Malin Array Be**	**153.36 307**		PKPbc	**PKPbc**	**17 32 35.2**	**-1.2**
	comp=Z,0.4nm,0.3s,baz=66,slow=2.3,SNR=2.1							
AKASG				PKPab	**PKPab**	**17 32 48.3**	**-1.0**
	comp=Z,1.6nm,0.5s,baz=68,slow=4.0,SNR=5.4							
KOLS	**Kolonicke sedl**	**158.16 305**	*e*	PKP	**PKPab**	**17 33 10.7**	**+0.7**
LANS	**Liptovska Anna**	**159.85 307**	*e*	PKP	**PKPab**	**17 33 18.8**	**+1.4**
VYHS	**Vyhne**	**160.46 306**	*e*	PKP	**PKPab**	**17 33 21.4**	**+1.4**
GERES	**GERESS Array B**	**163.44 311**		PKPab	**PKPab**	**17 33 32.9**	**-0.3**
	comp=Z,1.3nm,0.7s,baz=51,slow=4.3,SNR=15							
SOKA	**Soboth**	**163.49 303**	*i*	PKP	**PKPab**	**17 33 33.6**	**+0.2**
	comp=Z,0.2nm,0.2s							
MOA	**Molln**	**163.54 307**	*i*	PKP	**PKPab**	**17 33 34.2**	**+0.6**
	comp=Z,0.9nm,0.3s							
SESA	**Seetaler Alpe,**	**163.64 305**	*e*	PKP	**PKPab**	**17 33 34.3**	**0.0**
	comp=Z,2.2nm,0.9s							
LESA	**Schwarzleotal**	**164.69 308**	*i*	PKP	**PKPab**	**17 33 38.3**	**-0.4**
	comp=Z,0.6nm,0.3s							
ABTA	**Abfaltersbach**	**165.08 306**	*i*	PKP	**PKPab**	**17 33 39.5**	**-0.9**
	comp=Z,1.2nm,0.6s							
WTTA	**Wattenberg**	**165.40 308**	*e*	PKP	**PKPab**	**17 33 41.8**	**-0.2**
	comp=Z,1.7nm,0.4s							
WATA	**Walderalm**	**165.41 309**	*i*	PKP	**PKPab**	**17 33 42.4**	**+0.4**
	comp=Z,1.8nm,0.5s							
SQTA	**Sankt Quirin**	**165.68 309**	*i*	PKP	**PKPab**	**17 33 42.7**	**-0.5**
	comp=Z,4.7nm,0.8s							
MOTA	**Moosalm**	**165.69 309**	*i*	PKP	**PKPab**	**17 33 42.7**	**-0.5**
	comp=Z,0.7nm,0.3s							
FETA	**Feichten**	**166.06 309**	*i*	PKP	**PKPab**	**17 33 44.7**	**-0.1**
	comp=Z,2.5nm,0.7s							
KEST	**Kesra**	**167.88 257**		PKPab	**PKPab**	**17 33 54.4**	**+1.2**
	comp=Z,5.6nm,0.8s,baz=338,slow=2.4,SNR=4.5							

AFAD ***29*** *17:35:36.8, 37.81N×26.81E, h2km, ML3.2*
THE ***29*** *17:35:37.6, 38.1°×26.8E±0.4, h7km±1km, M3.3/7, MLh3.3/7*
ISK ***29*** *17:35:37.1, 37.81N×26.82E, h9km, ML3.4/25*
ATH ***29*** *17:35:38.5, 37.77N×26.68E, h13km, ML3.0/14, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 29 17:35:37.5±0.8, 37.81N±0.02×26.82E±0.02, h10km±6km, n87, σ0 64/121, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
SMG	**Samos**	**0.10**	**170**	P	**Pg**	**17 35 40.0**	**-0.1**
SMG				S	**Sg**	**17 35 42.6**	**+0.6**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.17**	**253**	P	**Pg**	**17 35 41.4**	**+0.1**
SAM2				S	**Sg**	**17 35 43.7**	**0.0**
SAM2				AML	AML		
DGB	**zmir**	**0.25**	**12**	P	**Pg**	**17 35 42.0**	**-0.6**
DGB				S	**Sg**	**17 35 45.7**	**-0.3**
GMLD	**Gumuldur**	**0.28**	**17**	Pg	**Pg**	**17 35 42.9**	**-0.3**
GMLD				Sg	**Sg**	**17 35 47.9**	**+1.0**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.35**	**108**	P	**Pg**	**17 35 44.5**	**0.0**
GCAM				S	**Sg**	**17 35 49.9**	**+0.8**
GCAM				IAML		17 35 51.0	
	comp=N,3μm,0.3s						
GCAM	**G?zelcaml?**	**0.35**	**108**	Pg	**Pg**	**17 35 44.5**	**0.0**
GCAM				Sg	**Sg**	**17 35 50.1**	**+1.0**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.38**	**82**	Pg	**Pg**	**17 35 44.8**	**-0.2**
KUSD				Sg	**Sg**	**17 35 50.5**	**+0.5**
KUSD				AML	AML		
BEYE	**izmir**	**0.43**	**12**	P	**Pg**	**17 35 45.3**	**-0.7**
BEYE				S	**Sg**	**17 35 51.1**	**-0.5**
BEYE				IAML		17 35 56.0	
	comp=N,2μm,0.3s						
DDIM	**Aydin, Didim**	**0.49**	**136**	P	**Pg**	**17 35 47.0**	**0.0**
DDIM				S	**Sg**	**17 35 54.4**	**+0.9**
DDIM				IAML		17 35 56.0	
	comp=N,2μm,0.4s						
DDIM				IAML		17 35 58.0	
	comp=E,1μm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**330**	P	**Pg**	**17 35 46.7**	**-0.5**
ZEYE				IAML		17 35 54.0	
	comp=E,2μm,0.2s						
ZEYE				S	**Sg**	**17 35 54.1**	**+0.4**
ZEYE				IAML		17 35 55.0	
	comp=N,3μm,0.3s						
DIDI	**Didim-Aydin**	**0.55**	**142**	Pg	**Pg**	**17 35 48.5**	**+0.3**
DIDI				AML	AML		
URLA	**Izmir**	**0.58**	**343**	P	**Pg**	**17 35 48.4**	**-0.3**
URLA				S	**Sg**	**17 35 56.8**	**+0.5**
URLA				IAML		17 36 00.0	
	comp=N,2μm,0.3s						
URLA				IAML		17 36 00.0	
	comp=E,2μm,0.7s						
URLA	**Izmir**	**0.58**	**343**	Pg	**Pg**	**17 35 48.3**	**-0.5**
URLA				Sg	**Sb**	**17 35 57.3**	**-0.8**
URLA				AML	AML		
BLCB	**Balcova**	**0.60**	**17**	P	**Pg**	**17 35 49.1**	**-0.2**
BLCB				S	**Sg**	**17 35 56.9**	**-0.2**
BLCB	**Balcova**	**0.60**	**17**	Pg	**Pg**	**17 35 48.9**	**-0.3**
BLCB				Sg	**Sg**	**17 35 57.9**	**+0.7**
BLCB				AML	AML		
DUVT	**Torbali**	**0.65**	**51**	P	**Pg**	**17 35 49.5**	**-0.6**
CESE	**eme**	**0.66**	**322**	Pg	**Pg**	**17 35 50.7**	**+0.4**
CESE				Sg	**Sb**	**17 35 59.9**	**-0.5**
CESE				AML	AML		
DAGE	**izmir**	**0.77**	**75**	P	**Pb**	**17 35 53.2**	**+0.2**
DAGE				S	**Sg**	**17 36 01.2**	**-1.1**
DAGE				IAML		17 36 03.0	
	comp=N,1μm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.78**	**151**	Pg	**Pg**	**17 35 52.7**	**+0.2**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.81**	**345**	Pg	**Pg**	**17 35 53.2**	**0.0**
KRBN				AML	AML		
CHOS	**Chios island**	**0.83**	**314**	P	**Pg**	**17 35 53.8**	**+0.2**
CHOS				S	**Sb**	**17 36 06.1**	**+0.7**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**314**	Pg	**Pg**	**17 35 53.5**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**314**	P	**Pg**	**17 35 53.6**	**0.0**
CHOS				S	**Sb**	**17 36 05.0**	**-0.4**
CHOS				AML	AML		
BODT	**Bodrum**	**0.84**	**152**	P	**Pg**	**17 35 54.0**	**+0.2**
BODT				S	**Sg**	**17 36 05.2**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.84**	**152**	Pg	**Pg**	**17 35 53.4**	**-0.4**
BODT				AML	AML		
BAGT	**Foa**	**0.84**	**2**	P	**Pg**	**17 35 53.6**	**-0.2**
BAGT				S	**Sb**	**17 36 06.5**	**+0.8**
BAGT				IAML		17 36 09.0	
	comp=N,2μm,0.8s						
AYDN	**Tasoluk**	**0.86**	**100**	P	**Pg**	**17 35 54.0**	**-0.1**
KLNA	**Kalymnos**	**0.86**	**172**	P	**Pb**	**17 35 54.9**	**+0.4**
KLNA				S	**Sb**	**17 36 06.8**	**+0.7**
AYDB	**Zeytinkoy-Aydi**	**0.86**	**81**	Pg	**Pg**	**17 35 54.4**	**+0.2**
AYDB				AML	AML		
BDRM	**Kayabasi**	**0.90**	**146**	P	**Pg**	**17 35 54.4**	**-0.3**
BDRM				S	**Sg**	**17 36 06.7**	**+0.3**
BDRM				IAML		17 36 07.0	
	comp=E,557nm,0.5s						
FOCM	**Foa**	**0.91**	**356**	Pg	**Pb**	**17 35 55.3**	**0.0**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.91**	**340**	P	**Pg**	**17 35 54.4**	**-0.7**
KARB				S	**Sb**	**17 36 08.0**	**+0.4**
KARB				IAML		17 36 09.0	
	comp=N,1μm,0.3s						
BODA	**Bodrum-Mula**	**0.92**	**147**	Pg	**Pg**	**17 35 55.1**	**0.0**
EAG2	**Marmaro, Chios**	**0.92**	**323**	P	**Pb**	**17 35 55.8**	**+0.1**
EAG2				S	**Sb**	**17 36 07.9**	**0.0**
MLSB	**Milas**	**0.92**	**124**	Pg	**Pg**	**17 35 54.7**	**-0.6**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.96**	**70**	P	**Pg**	**17 35 55.5**	**-0.4**
IZMR				P	**Pb**	**17 35 55.6**	**-0.6**
IZMR				S	**Sg**	**17 36 06.9**	**-1.5**
IZMR				S	**Sb**	**17 36 07.0**	**-1.9**
CAMT	**Merkez**	**1.02**	**23**	P	**Pb**	**17 35 57.2**	**-0.1**
CAMT				S	**Sb**	**17 36 11.3**	**+0.6**
CAMT				IAML		17 36 16.0	
	comp=N,2μm,0.5s						
ZEDA	**zmir-Bergama**	**1.17**	**10**	P	**Pb**	**17 35 59.8**	**-0.2**
ZEDA				S	**Sg**	**17 36 15.7**	**+0.3**
ZEDA				IAML		17 36 20.0	
	comp=N,578nm,0.5s						
NAZL	**Nazilli-Aydin**	**1.18**	**82**	Pn	**Pb**	**17 35 59.4**	**-0.6**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.22**	**90**	P	**Pn**	**17 36 00.3**	**-0.3**
ESEN				S	**Sb**	**17 36 15.6**	**-0.8**
ESEN				IAML		17 36 17.0	
	comp=N,68nm,0.4s						
YAZI	**Mula-Dat§a-**	**1.24**	**155**	P	**Pn**	**17 36 00.2**	**-0.7**
DAT	**Datca**	**1.24**	**150**	P	**Pn**	**17 36 00.6**	**-0.4**
DAT				AML	AML		
DAT	**Datca**	**1.24**	**150**	Pn	**Pn**	**17 36 00.9**	**-0.1**
DAT				AML	AML		
DATC	**Datca-Mugla**	**1.25**	**147**	Pn	**Pg**	**17 36 01.5**	**0.0**
DATC				AML	AML		
GOMA	**Golmarmara-Man**	**1.25**	**44**	Pn	**Pb**	**17 36 01.2**	**0.0**
GOMA				AML	AML		
APE	**Apeiranthos**	**1.26**	**235**	P	**Pn**	**17 36 00.5**	**-0.8**
APE				S	**Sn**	**17 36 19.5**	**+1.2**
APE				AML	AML		
APE	**Apeiranthos**	**1.26**	**235**	Pn	**Pn**	**17 35 59.8**	**-1.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.26**	**235**	P	**Pn**	**17 36 00.1**	**-1.2**
APE				S	**Sb**	**17 36 15.7**	**-2.0**
APE				AML	AML		
DKL	**Dikili**	**1.26**	**3**	Pn	**Pn**	**17 36 00.9**	**-0.3**
DKL				AML	AML		
DKL	**Dikili**	**1.26**	**3**	P	**Pn**	**17 36 00.8**	**-0.5**
DKL				S	**Sn**	**17 36 20.0**	**+1.8**
KIRA	**zmir-Kiraz**	**1.31**	**72**	P	**Pn**	**17 36 02.2**	**+0.2**
ASTA	**Astypalaia**	**1.31**	**196**	P	**Pn**	**17 36 01.9**	**0.0**
ASTA				AML	AML		
MULA	**Mugla, Merkez-**	**1.32**	**114**	P	**Pn**	**17 36 01.8**	**-0.3**
AKHS	**Akhisar**	**1.33**	**36**	P	**Pn**	**17 36 01.4**	**-0.7**
AKS	**Akhisar**	**1.33**	**36**	Pn	**Pb**	**17 36 02.4**	**-0.1**
AKS				AML	AML		
KTTT	**Salihli**	**1.33**	**49**	P	**Pn**	**17 36 01.9**	**-0.4**
TNSA	**Tinos**	**1.34**	**259**	P	**Pn**	**17 36 01.3**	**-1.0**
TNSA				S	**Sb**	**17 36 17.6**	**-2.3**
TNSA				AML	AML		
SOMA	**Soma-Manisa**	**1.46**	**23**	Pn	**Pn**	**17 36 04.1**	**+0.1**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.50**	**344**	P	**Pn**	**17 36 04.6**	**+0.1**
PRK	**Paraskevi**	**1.50**	**344**	P	**Pb**	**17 36 05.6**	**+0.2**
AYVA	**Ayvalik**	**1.50**	**356**	P	**Pn**	**17 36 04.8**	**+0.3**
GORD	**Gordes-Manisa**	**1.53**	**44**	Pn	**Pn**	**17 36 05.5**	**+0.4**
GORD				AML	AML		
MANT	**Manisa**	**1.53**	**63**	P	**Pb**	**17 36 06.4**	**+0.2**
TURN	**Turunc**	**1.54**	**132**	P	**Pn**	**17 36 04.0**	**-1.0**
SULTU	**Buldan**	**1.56**	**80**	P	**Pn**	**17 36 05.3**	**-0.2**
KULA	**Kula-Manisa**	**1.62**	**64**	Pn	**Pb**	**17 36 07.4**	**-0.1**
KULA				AML	AML		
HARTU	**Esme**	**1.65**	**71**	P	**Pg**	**17 36 09.5**	**+0.3**
TAVA	**DENIZLI_Tavas**	**1.70**	**101**	P	**Pn**	**17 36 07.0**	**-0.4**
BUHA	**Balikesir, Bur**	**1.70**	**7**	P	**Pn**	**17 36 06.7**	**-0.6**
STEP	**BALIKESIR_Sava**	**1.72**	**24**	P	**Pn**	**17 36 09.2**	**-0.1**
DNIZ	**Denizli-Tavas-**	**1.77**	**95**	P	**Pn**	**17 36 08.0**	**-0.4**
YAYO	**Edremit-Balk**	**1.81**	**6**	Pn	**Pn**	**17 36 08.5**	**-0.3**
YAYO				AML	AML		
KARY	**Karystos**	**1.89**	**277**	P	**Pn**	**17 36 09.4**	**-0.6**
ARG	**Arkhangelos**	**1.91**	**146**	P	**Pb**	**17 36 11.8**	**-0.6**
ARG				AML	AML		
DEMI	**Demirci**	**1.94**	**50**	P	**Pb**	**17 36 12.8**	**-0.2**
BAYC	**CANAKKALE_Bayr**	**1.94**	**354**	P	**Pn**	**17 36 09.6**	**-1.0**
USAK	**Uak-Merkez**	**1.96**	**62**	P	**Pb**	**17 36 13.8**	**+0.5**
BALY	**Balya**	**2.03**	**18**	P	**Pb**	**17 36 14.1**	**-0.4**
BKES	**Balkesir-Mer**	**2.11**	**24**	P	**Pb**	**17 36 16.2**	**+0.3**
DION	**Dionisos Attik**	**2.29**	**278**	P	**Pn**	**17 36 15.1**	**-0.4**
DION				AML	AML		
PTL	**Penteli**	**2.34**	**277**	P	**Pn**	**17 36 15.9**	**-0.3**
VLY	**Voula,Athens**	**2.39**	**272**	P	**Pn**	**17 36 16.4**	**-0.4**
VLY				AML	AML		
ATHU	**Athens Univers**	**2.40**	**275**	P	**Pn**	**17 36 16.6**	**-0.3**
LIA	**Limnos Island**	**2.44**	**329**	P	**Pn**	**17 36 17.9**	**+0.4**
LIA				AML	AML		
ZKR	**Zakros**	**2.73**	**190**	P	**Pn**	**17 36 22.1**	**+0.6**
ZKR				AML	AML		
SMTH	**Samothraki Isl**	**2.84**	**340**	P	**Pn**	**17 36 22.9**	**-0.1**
SMTH				AML	AML		
OUR	**Ouranopolis**	**3.35**	**320**	P	**Pn**	**17 36 30.2**	**+0.2**
OUR				AML	AML		

IDC ***29*** *17:42:09.1±1.8, 60.23N×151.86W, h54km±43km, mb3.5/2, mbtmp3.8/6, ML3.9/4, MS4.1/1, Error ellipse: s-maj=48.8km s-min=9.4km az=111.0*
AEIC ***29*** *17:42:10.9±0.8, 60.22N±0.03×151.64W±0.06, h71km±2km, Error ellipse: s-maj=5.0km s-min=3.7km az=51.0*
NEIC ***29*** *17:42:10.1±0.7, 60.22N±0.03×151.65W±0.07, h73km±7km, ML3.3/182, ML3.2(AEIC), Error ellipse: s-maj=5.2km s-min=3.8km az=46.0*

ISC 29 17:42:10.1±0.9, 60.20N±0.03×151.63W±0.03, h78km±6km, n206, σ0 65/178, Kenai Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op	ISC		
O20K	**Slope Mountain**	**0.51**	**257**		**Pn**	**17 42 23.6**	**-0.2**
O20K					**Sn**	**17 42 33.5**	**-0.4**
RDT	**Redoubt**	**0.54**	**315**		**Pn**	**17 42 23.2**	**-0.8**
RDT					**Sn**	**17 42 33.2**	**-1.1**
HOM	**Homer**	**0.54**	**181**		**Pn**	**17 42 24.2**	**+0.2**
HOM				Sn	**Sn**	**17 42 34.8**	**+0.6**
BRLK	**Bradley Lake**	**0.57**	**139**		**Pn**	**17 42 24.1**	**-0.2**
BRLK				Sn	**Sn**	**17 42 34.5**	**-0.3**
REF	**Redoubt East F**	**0.61**	**299**		**Pn**	**17 42 24.2**	**-0.6**
REF					**Sn**	**17 42 34.6**	**-1.1**
RED	**Redoubt Volcan**	**0.61**	**292**		**Pn**	**17 42 24.0**	**-0.7**
RED				Sn	**Sn**	**17 42 34.5**	**-1.0**
RED				IAML		17 42 35.5	
	comp=N,865nm,0.3s						
RED				IAML		17 42 35.5	
	comp=E,1μm,0.2s						
RDSO	**Redoubt South**	**0.61**	**295**		**Pn**	**17 42 24.0**	**-0.8**
RDSO					**Sn**	**17 42 34.8**	**-0.9**
CAPN	**Captain Cook N**	**0.62**	**22**		**Pn**	**17 42 25.9**	**+1.2**
DFR	**Drift River**	**0.66**	**307**		**Pn**	**17 42 24.5**	**-0.7**
DFR					**Sn**	**17 42 35.6**	**-0.8**
RDWB	**Redoubt West**	**0.67**	**296**		**Sn**	**17 42 35.9**	**-0.8**
ILIM	**Iliamna**	**0.68**	**260**		**Pn**	**17 42 25.1**	**-0.3**
ILIM					**Sn**	**17 42 36.6**	**0.0**
RDJH	**Redoubt Jeurge**	**0.70**	**304**		**Sn**	**17 42 36.7**	**-0.6**
CNPM	**China Poot**	**0.70**	**164**		**Pn**	**17 42 25.5**	**-0.1**
CNPM	**China Poot**	**0.70**	**164**		**Sn**	**17 42 37.0**	**-0.2**
IVE	**Iliamna Volcan**	**0.72**	**256**		**Sn**	**17 42 37.0**	**-0.6**
NCT	**North Crescent**	**0.74**	**300**		**Sn**	**17 42 37.3**	**-0.6**
ILS	**Iliamna Low So**	**0.76**	**252**		**Sn**	**17 42 38.0**	**-0.4**
SLKM	**Skilak Lake**	**0.77**	**66**		**Pn**	**17 42 25.7**	**-0.6**
SLKM	**Skilak Lake**	**0.77**	**66**		**Sn**	**17 42 37.9**	**-0.4**
ILSW	**Iliamna Southw**	**0.79**	**255**		**Pn**	**17 42 26.0**	**-0.7**
ILSW	**Iliamna Southw**	**0.79**	**255**		**Sn**	**17 42 38.4**	**-0.5**
ILSW	**Iliamna Southw**	**0.79**	**255**	IAML		17 42 39.3	
	comp=N,890nm,0.7s						
ILSW				IAML		17 42 43.0	
	comp=E,813nm,0.7s						
P19K	**Oil Pt**	**0.98**	**236**		**Pn**	**17 42 28.7**	**-0.1**
P19K					**Sn**	**17 42 42.8**	**+0.2**
O22K	**Cooper Landing**	**0.99**	**73**		**Pn**	**17 42 28.8**	**0.0**
SPU	**Mount Spurr**	**1.01**	**348**		**Pn**	**17 42 28.6**	**-0.5**
SPU				IAML		17 42 44.8	
	comp=N,630nm,0.6s						
SPU				IAML		17 42 44.8	
	comp=E,622nm,0.3s						
SPU	**Mount Spurr**	**1.01**	**348**		**Sn**	**17 42 43.0**	**-0.3**
SPCR	**Spurr Chakacha**	**1.04**	**344**		**Pn**	**17 42 29.2**	**-0.4**
SEW	**Seward**	**1.09**	**94**		**Pn**	**17 42 29.6**	**-0.5**
SEW				IAML		17 42 47.7	
	comp=E,508nm,0.3s						
SEW				IAML		17 42 47.7	
	comp=N,516nm,0.6s						
SPCG	**Spurr Capps Gl**	**1.11**	**350**		**Sn**	**17 42 45.8**	**+0.1**
SPBG	**Spurr Blockage**	**1.12**	**341**		**Pn**	**17 42 30.4**	**-0.2**
SPBG					**Sn**	**17 42 46.4**	**+0.5**
SPWE	**Spurr West**	**1.17**	**337**		**Pn**	**17 42 31.2**	**0.0**
FIS	**Fire Island**	**1.17**	**36**		**Pn**	**17 42 31.4**	**+0.3**
FIS	**Fire Island**	**1.17**	**36**	IAML		17 42 50.0	
FIS				IAML		17 42 51.3	
	comp=N,1μm,0.7s						
AUW	**Augustine West**	**1.25**	**229**		**Pn**	**17 42 32.5**	**+0.5**
AUI	**Augustine Isla**	**1.26**	**227**		**Pn**	**17 42 32.5**	**+0.3**
AUI					**Sn**	**17 42 48.9**	**+0.2**
RC01	**Rabbit Creek A**	**1.29**	**45**		**Pn**	**17 42 32.3**	**-0.3**
RC01				IAML		17 42 51.5	
	comp=N,670nm,0.3s						
SUA	**Susitna One**	**1.34**	**18**		**Pn**	**17 42 33.4**	**+0.1**
SUA				IAML		17 42 52.4	
	comp=N,555nm,0.7s						
SUA				IAML		17 42 54.2	
	comp=E,413nm,0.8s						
O19K	**Port Alsworth**	**1.34**	**271**		**Pn**	**17 42 32.6**	**-0.6**
O19K	**Port Alsworth**	**1.34**	**271**		**Sn**	**17 42 49.7**	**-1.0**
N19K	**Bonanza Creek**	**1.54**	**295**		**Pn**	**17 42 35.2**	**-0.7**
N19K				IAML		17 42 55.7	
	comp=N,255nm,0.4s						
N19K				IAML		17 42 55.9	
	comp=E,181nm,0.4s						
Q19K	**Cape Douglas,**	**1.64**	**220**		**Pn**	**17 42 37.6**	**+0.5**
Q19K				IAML		17 43 04.8	
	comp=N,406nm,0.5s						
M22K	**Willow**	**1.72**	**25**		**Pn**	**17 42 38.3**	**+0.2**
PWL	**Port Wells**	**1.76**	**66**		**Pn**	**17 42 38.3**	**-0.4**
SKT	**Skwentna**	**1.79**	**1**		**Pn**	**17 42 39.2**	**+0.1**
SKT				IAML		17 43 03.6	
	comp=E,144nm,0.3s						
M20K	**Styx River**	**1.84**	**337**		**Pn**	**17 42 40.0**	**+0.1**
PMR	**Palmer**	**1.85**	**40**		**Pn**	**17 42 39.6**	**-0.3**
PMR				IAML		17 43 02.2	
	comp=N,221nm,0.5s						
PMR				IAML		17 43 03.6	
	comp=E,273nm,0.3s						
KNK	**Knik Glacier**	**1.97**	**51**		**Pn**	**17 42 41.4**	**-0.2**
KNK	**Knik Glacier**	**1.97**	**51**		**Sn**	**17 43 04.1**	**-1.4**
P18K	**Big Mountain,**	**1.99**	**248**		**Sn**	**17 43 04.4**	**-1.6**
GHO	**Glory Hole Cre**	**2.06**	**39**		**Pn**	**17 42 42.5**	**-0.2**
GHO				IAML		17 43 08.6	
	comp=N,368nm,0.6s						
P23K	**Montague Islan**	**2.13**	**94**		**Pn**	**17 42 43.2**	**-0.3**
P23K				IAML		17 43 09.1	
	comp=N,374nm,0.6s						
P23K				IAML		17 43 09.7	
	comp=E,391nm,0.5s						
N18K	**Kilae Creek**	**2.17**	**285**		**Pn**	**17 42 43.4**	**-0.7**
KAHG	**Katmai Hook Gl**	**2.27**	**222**		**Pn**	**17 42 46.0**	**+0.4**
SML	**Sawmill**	**2.28**	**43**		**Pn**	**17 42 45.4**	**-0.2**
SML				IAML		17 43 12.2	
	comp=E,191nm,0.8s						
SML				IAML		17 43 13.0	
	comp=N,279nm,0.6s						
SML	**Sawmill**	**2.28**	**43**		**Sn**	**17 43 10.8**	**-2.0**
CUT	**Chulitna**	**2.31**	**16**	IAML		17 43 22.0	
	comp=N,225nm,0.4s						
CUT				IAML		17 43 35.5	
	comp=E,274nm,0.8s						
M18K	**Stony River**	**2.43**	**304**		**Pn**	**17 42 46.9**	**-0.7**
M18K					**Sn**	**17 43 14.8**	**-1.5**
KDAK	**Kodiak Island**	**2.48**	**192**	P	**Pn**	**17 42 47.4**	**-0.8**
	comp=E,12nm,0.3s,baz=29,slow=3.9,SNR=280						
KDAK				S	**Sn**	**17 43 16.5**	**-0.9**
	comp=E,31nm,0.3s,baz=217,slow=15,SNR=10						
	comp=E,50nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**2.48**	**192**	IAML		17 43 20.7	
	comp=E,81nm,0.7s						
KDAK				IAML		17 43 20.8	
	comp=E,91nm,0.2s						
M23K	**Glacier View**	**2.48**	**48**		**Sn**	**17 43 15.9**	**-1.8**
L19K	**White Mountain**	**2.53**	**323**		**Pn**	**17 42 48.9**	**-0.1**
L19K	**White Mountain**	**2.53**	**323**	IAML		17 43 19.1	
	comp=E,80nm,0.4s						
L19K				IAML		17 43 19.3	
	comp=N,70nm,0.5s						
L20K	**Farewell, AK**	**2.53**	**336**		**Pn**	**17 42 49.0**	**0.0**
HIN	**Hinchinbrook I**	**2.56**	**83**	IAML		17 43 18.7	
	comp=N,260nm,0.5s						
P17K	**Kvichak River**	**2.64**	**250**		**Pn**	**17 42 50.1**	**-0.3**
SCM	**Sheep Creek Mo**	**2.66**	**50**	IAML		17 43 23.1	
	comp=N,145nm,0.4s						
SCM				IAML		17 43 23.4	
	comp=E,204nm,0.5s						
KABR	**Katmai Barrier**	**2.69**	**221**		**Pn**	**17 42 51.8**	**+0.5**
ACHA	**Angle Creek He**	**2.76**	**225**		**Pn**	**17 42 52.2**	**+0.1**
N17K	**Nushagak Hills**	**2.78**	**279**	IAML		17 43 23.9	
	comp=N,63nm,0.5s						
MID	**Middleton Isla**	**2.78**	**104**		**Pn**	**17 42 52.4**	**+0.1**
MID	**Middleton Isla**	**2.78**	**104**	IAML		17 43 25.9	
	comp=N,160nm,0.8s						
MID				IAML		17 44 01.8	
	comp=E,155nm,1.0s						
ANCK	**Angle Creek**	**2.83**	**226**		**Pn**	**17 42 52.5**	**-0.5**
CAHL	**Cahill**	**2.87**	**223**		**Pn**	**17 42 54.2**	**+0.6**
Q17K	**Contact Creek**	**2.93**	**230**		**Pn**

ellipse: s-maj=5.2km s-min=2.2km az=4.0
*SOME **29** 17:47:05.4, 42˚.17N×75˚.55E, h10km*
*NNC **29** 17:47:06.5±0.7, 42˚.19N×75˚.52E, h0km, mb4.5, mpv4.3, Error ellipse: s-maj=5.6km s-min=2.8km az=170.0*
*IDC **29** 17:47:06.0±1.1, 42˚.24N×75˚.43E, h0km, mb3.7/9, mbtmp3.8/15, ML3.6/6, Error ellipse: s-maj=13.6km s-min=9.7km az=172.0*

ISC 29 17:47:05.2±1.1, 42˚.15N±0˚.02×75˚.51E±0˚.01, h3km±7km, n91, σ1%42/158, mb3.8/9, 44C-36D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID	Time h m s	Res ISC
				Op			
BOOM	**Boomskoye usch**	**0.47**	**43**	⇑*iP*	**Pg**	**17 47 14.2**	**-0.1**
BOOM				⇑*iS*	**Sg**	**17 47 20.9**	**+0.5**
ULHL	**Ulahol**	**0.55**	**79**	⇑P	**Pg**	**17 47 15.5**	**-0.3**
ULHL	294nm,0.2s,SNR=1952			⇑S	**Sg**	**17 47 22.8**	**-0.2**
	3μm,0.3s						
ULHL	**Ulahol**	**0.55**	**79**	⇑*iP*	**Pg**	**17 47 15.0**	**-0.9**
ULHL				⇑*iS*	**Sg**	**17 47 22.5**	**-0.6**
KBK	**Karagaybulak**	**0.66**	**321**	P	**Pb**	**17 47 18.8**	**-0.7**
KBK	1μm,0.1s,SNR=4668			⇓S	**Sb**	**17 47 28.0**	**-1.1**
	9μm,0.2s						
KBK	**Karagaybulak**	**0.66**	**321**	⇓*eP*	**Pg**	**17 47 18.2**	**+0.3**
KBK				⇓*iS*	**Sb**	**17 47 27.6**	**-1.5**
UCH	**Uchtor**	**0.75**	**277**	P	**Pg**	**17 47 19.5**	**0.0**
UCH	186nm,0.2s,SNR=700			⇓S	**Sg**	**17 47 29.9**	**+0.7**
	588nm,0.1s						
UCH	**Uchtor**	**0.75**	**277**	⇑*eP*	**Pg**	**17 47 19.4**	**-0.2**
UCH				⇑*iS*	**Sg**	**17 47 30.0**	**+0.7**
TKM2	**Tokmak 2**	**0.78**	**5**	P	**Pb**	**17 47 20.6**	**-0.9**
TKM2	412nm,0.2s,SNR=951			⇓S	**Sb**	**17 47 31.6**	**-1.0**
	1μm,0.1s						
TKM2	**Tokmak 2**	**0.78**	**5**	⇑*eP*	**Pg**	**17 47 19.9**	**-0.3**
TKM2				⇑*iS*	**Sb**	**17 47 30.9**	**-1.7**
NRN	**Naryn**	**0.80**	**153**	⇑*iP*	**Pg**	**17 47 19.3**	**-1.3**
NRN				⇑*iS*	**Sg**	**17 47 29.8**	**-1.2**
AAK	**Ala-Archa**	**0.90**	**304**	Pg	**Pg**	**17 47 22.7**	**+0.2**
AAK	163nm,0.3s,baz=129,slow=10,SNR=1154			Lg	Lg	17 47 35.0	
	558nm,0.3s,baz=324,slow=21,SNR=25						
AAK	**Ala-Archa**	**0.90**	**304**	P	**Pg**	**17 47 22.7**	**+0.2**
AAK	275nm,0.1s,SNR=756			⇓S	**Sb**	**17 47 34.9**	**-1.1**
	3μm,0.3s						
AAK	**Ala-Archa**	**0.90**	**304**	⇑P	**Pg**	**17 47 22.6**	**+0.2**
AAK	2μm,0.5s			⇑S	**Sg**	**17 47 34.8**	**+0.6**
	7μm,0.5s						
AAK	**Ala-Archa**	**0.90**	**304**	⇓*iP*	**Pg**	**17 47 22.3**	**-0.2**
AAK				⇓*iS*	**Sg**	**17 47 34.7**	**+0.5**
FRU1	**Bishkek**	**0.93**	**316**	⇑*iP*	**Pg**	**17 47 23.2**	**+0.1**
FRU1				⇑*iS*	**Sb**	**17 47 36.3**	**-0.5**
KST	**Kastek**	**0.96**	**20**	P	**Pb**	**17 47 23.8**	**-0.8**
KST	90nm,0.3s			S	**Sb**	**17 47 36.6**	**-1.1**
	1μm,0.3s						
KST	**Kastek**	**0.96**	**20**	*eP*	**Pb**	**17 47 23.8**	**-0.8**
KST	90nm,0.3s			*eS*	**Sb**	**17 47 36.6**	**-1.1**
	1μm,0.3s						
CHMS	**Chumysh**	**1.02**	**327**	P	**Pb**	**17 47 25.0**	**-0.5**
CHMS	149nm,0.1s,SNR=283			⇓S	**Sn**	**17 47 39.2**	**-2.1**
	2μm,0.1s						
CHMS	**Chumysh**	**1.02**	**327**	⇑*iP*	**Pg**	**17 47 24.3**	**-0.5**
CHMS				⇑*iS*	**Sb**	**17 47 38.4**	**-1.0**
DGS	**Degeres**	**1.11**	**10**	P	**Pb**	**17 47 26.7**	**-1.2**
DGS	38nm,0.1s			S	**Sn**	**17 47 41.5**	**-2.2**
	427nm,0.3s						
DGS	**Degeres**	**1.11**	**10**	*eP*	**Pn**	**17 47 26.7**	**-1.2**
DGS	38nm,0.1s			*eS*	**Sn**	**17 47 41.5**	**-2.2**
	427nm,0.3s						
KDJ	**Kajisay**	**1.24**	**90**	⇑*eP*	**Pn**	**17 47 27.3**	**-2.3**
KDJ				⇑*eS*	**Sb**	**17 47 43.9**	**-2.0**
USP	**Ospenovka**	**1.35**	**327**	⇑P	**Pb**	**17 47 30.4**	**-0.7**
USP	277nm,0.2s,SNR=549			⇓S	**Sg**	**17 47 49.1**	**+0.6**
	1μm,0.2s						
USP	**Ospenovka**	**1.35**	**327**	⇓*iP*	**Pn**	**17 47 30.1**	**-0.9**
USP				⇓*iS*	**Sg**	**17 47 48.3**	**-0.2**
EKS2	**Erkin-Say**	**1.38**	**292**	⇑P	**Pn**	**17 47 31.2**	**-0.4**
EKS2	376nm,0.2s,SNR=303			⇑S	**Sg**	**17 47 50.1**	**+0.4**
	556nm,0.2s						
EKS2	**Erkin-Say**	**1.38**	**292**	⇓*eP*	**Pn**	**17 47 30.7**	**-0.8**
EKS2				⇓*iS*	**Sn**	**17 47 49.6**	**-0.8**
TNSS	**Tian-Shan**	**1.39**	**49**	P	**Pb**	**17 47 31.3**	**-0.7**
TNSS	28nm,0.2s			S	**Sg**	**17 47 49.7**	**-0.1**
	150nm,0.4s						
TNSS	**Tian-Shan**	**1.39**	**49**	*eP*	**Pb**	**17 47 31.3**	**-0.7**
TNSS	28nm,0.2s			*eS*	**Sg**	**17 47 49.7**	**-0.1**
	150nm,0.4s						
AAA	**Alma-Ata**	**1.48**	**44**	P	**Pg**	**17 47 33.6**	**-0.1**
AAA	126nm,0.3s			S	**Sg**	**17 47 53.4**	**+0.5**
	33nm,0.1s						
AAA	**Alma-Ata**	**1.48**	**44**	*eP*	**Pg**	**17 47 33.6**	**-0.1**
AAA	126nm,0.3s			*eS*	**Sg**	**17 47 53.4**	**+0.5**
	33nm,0.1s						
KNDC	**Almaty**	**1.52**	**45**	⇓P	**Pg**	**17 47 34.4**	**0.0**
KNDC	302nm,0.3s			⇑S	**Sg**	**17 47 56.2**	**+2.2**
	819nm,0.5s						
MDOK	**Medeo**	**1.52**	**48**	Pg	**Pb**	**17 47 33.8**	**-0.5**
MDOK	133nm,0.4s			Lg	Lg	17 47 53.7	
	377nm,0.4s						
MDOK	**Medeo**	**1.52**	**48**	*eP*	**Pb**	**17 47 33.8**	**-0.5**
MDOK	133nm,0.4s			*eS*	**Sg**	**17 47 53.7**	**-0.5**
	377nm,0.4s						
KRBS	**Karabastau**	**1.56**	**4**	P	**Pg**	**17 47 34.9**	**-0.2**
KRBS	218nm,0.3s			S	**Sg**	**17 47 55.9**	**+0.7**
	267nm,0.1s						
KRBS	**Karabastau**	**1.56**	**4**	*eP*	**Pg**	**17 47 34.9**	**-0.2**
KRBS	218nm,0.3s			*eS*	**Sg**	**17 47 55.9**	**+0.7**
	267nm,0.1s						
ANVS	**Anan'yevo**	**1.72**	**67**	⇓*eP*	**Pn**	**17 47 35.8**	**-0.4**
ANVS				⇓*iS*	**Sb**	**17 47 58.5**	**-1.1**
TARG	**Taragay, Kyrgy**	**1.76**	**103**	⇑*eP*	**Pn**	**17 47 36.4**	**-0.6**
TARG				⇑*iS*	**Sn**	**17 47 59.4**	**-0.7**
SALK	**Salom-Alik**	**1.79**	**226**	⇑*iP*	**Pn**	**17 47 37.2**	**+0.1**
SALK				⇑*iS*	**Sn**	**17 48 00.6**	**+0.2**
MRKS	**Merke**	**1.79**	**290**	P	**Pg**	**17 47 39.4**	**-0.3**
MRKS	413nm,0.3s			S	**Sg**	**17 48 03.6**	**+0.7**
	980nm,0.2s						
MRKS	**Merke**	**1.79**	**290**	*eP*	**Pg**	**17 47 39.4**	**-0.3**
MRKS	413nm,0.3s			*eS*	**Sg**	**17 48 03.6**	**+0.7**
	980nm,0.2s						
KUU	**Kurty**	**1.85**	**19**	P	**Pb**	**17 47 39.6**	**-0.1**
KUU	59nm,0.2s			S	**Sg**	**17 48 03.7**	**-1.0**
	555nm,0.2s						
KUU	**Kurty**	**1.85**	**19**	*eP*	**Pb**	**17 47 39.6**	**-0.1**
KUU	59nm,0.2s			*eS*	**Sg**	**17 48 03.7**	**-1.0**
	555nm,0.2s						
ARSB	**Arslanbob**	**2.06**	**247**	⇑*iP*	**Pn**	**17 47 41.2**	**+0.3**
ARSB				⇑*iS*	**Sn**	**17 48 07.7**	**+0.5**
PRZ	**Przheval'sk**	**2.17**	**80**	⇓*eP*	**Pn**	**17 47 42.3**	**-0.1**
PRZ				⇓*iS*	**Sn**	**17 48 09.6**	**-0.3**
MNAS	**Manas**	**2.26**	**280**	⇓*iP*	**Pn**	**17 47 44.1**	**+0.5**
MNAS				⇓*iS*	**Sn**	**17 48 12.5**	**+0.6**
SATY	**Saty**	**2.33**	**66**	Pg	**Pb**	**17 47 48.1**	**+0.2**
SATY	62nm,0.2s			Lg	Lg	17 48 18.5	
	441nm,0.3s						
SATY	**Saty**	**2.33**	**66**	*eP*	**Pb**	**17 47 48.1**	**+0.2**
SATY	62nm,0.2s			*eS*	**Sg**	**17 48 18.5**	**-1.4**
	441nm,0.3s						
KURS	**Kuram**	**2.37**	**55**	Pg	**Pb**	**17 47 48.6**	**-0.1**
KURS	117nm,0.5s			Lg	Lg	17 48 19.4	
	519nm,0.6s						
KURS	**Kuram**	**2.37**	**55**	*eP*	**Pb**	**17 47 48.6**	**-0.1**
KURS	117nm,0.5s			*eS*	**Sg**	**17 48 19.4**	**-2.0**
	519nm,0.6s						
OHH	**Osh**	**2.61**	**233**	⇓*iP*	**Pn**	**17 47 48.6**	**+0.2**
OHH				⇓*iS*	**Sn**	**17 48 20.5**	**-0.2**
SFK	**Sufi-Kurgan**	**2.62**	**216**	⇓*iP*	**Pn**	**17 47 48.6**	**0.0**
SFK				⇓*iS*	**Sn**	**17 48 20.5**	**-0.4**
ARK	**Arkit**	**2.67**	**264**	⇓*eP*	**Pn**	**17 47 49.6**	**+0.4**
ARK				⇓*eS*	**Sn**	**17 48 22.4**	**+0.3**
ARXS	**Arharly**	**2.67**	**39**	Pg	**Pg**	**17 47 54.6**	**-1.9**
ARXS	117nm,0.4s			Lg	Lg	17 48 29.6	
	782nm,0.3s						
ARXS	**Arharly**	**2.67**	**39**	*eP*	**Pg**	**17 47 54.6**	**-1.9**
ARXS	117nm,0.4s			*eS*	**Sg**	**17 48 29.6**	**-1.5**
	782nm,0.3s						
UZB	**Uzynbulak**	**2.78**	**68**	Pg	**Pb**	**17 47 55.8**	**+0.3**
UZB	98nm,0.3s			Lg	Lg	17 48 31.7	
	894nm,0.5s						
UZB	**Uzynbulak**	**2.78**	**68**	*eP*	**Pb**	**17 47 55.8**	**+0.3**
UZB	98nm,0.3s			*eS*	**Sg**	**17 48 31.7**	**-2.8**
	894nm,0.5s						
BLB	**Baldybastay**	**2.92**	**47**	Pg	**Pb**	**17 47 59.0**	**+1.0**
BLB	70nm,0.3s			Lg	Lg	17 48 37.3	
	504nm,0.3s						
KSH2	**Kashi**	**3.00**	**179**	Pn	**Pb**	**17 47 59.3**	**0.0**
KSH2				Sn	**Sg**	**17 48 39.8**	**-1.7**
KSH2				smax	smax		
	comp=N,480nm,0.7s						
KSH2				smax	smax		
	comp=E,740nm,0.9s						
SHLS	**Shalkode**	**3.09**	**70**	Pg	**Pg**	**17 48 06.4**	**+2.0**
	comp=E,62nm,0.3s						
SHLS				Lg	Lg	17 48 50.0	
	comp=E,548nm,0.4s						
SHLS	**Shalkode**	**3.09**	**70**	*eP*	**Pg**	**17 48 06.4**	**+2.0**
	comp=E,62nm,0.3s						
SHLS				*eS*	**Sg**	**17 48 50.0**	**+5.7**
	comp=E,548nm,0.4s						
PDGK	**Podgornoye**	**3.16**	**67**	⇓Pn	**Pb**	**17 47 58.7**	**-3.4**
	comp=E,45nm,0.6s						
PDGK				⇓Lg	Lg	17 48 47.9	
	comp=E,474nm,0.7s						
KNOS	**Konyrlen**	**3.48**	**49**	Pg	**Pb**	**17 48 08.2**	**+0.7**
	comp=E,36nm,0.3s						
KNOS				Lg	Lg	17 48 53.1	
	comp=E,213nm,0.5s						
KTMS	**Ketmen**	**3.79**	**68**	Pg	**Pb**	**17 48 14.8**	**+1.9**
	comp=E,13nm,0.2s						
KTMS				Lg	Lg	17 49 04.2	
	comp=E,55nm,0.3s						
KTMS	**Ketmen**	**3.79**	**68**	*eP*	**Pb**	**17 48 14.8**	**+1.9**
	comp=E,13nm,0.2s						
KTMS				*eS*	**Sg**	**17 49 04.2**	**-2.9**
	comp=E,55nm,0.3s						
KK31	**Karatay Array**	**3.81**	**286**	⇓Pn	**Pn**	**17 48 07.1**	**+2.3**
	comp=E,1.4nm,0.6s,baz=97,slow=12,SNR=895						
KK31				⇑Pg	**Pg**	**17 48 16.8**	**-1.5**
	comp=E,46nm,0.5s,baz=63,slow=20,SNR=8.5						
KK31				⇑Lg	Lg	17 49 05.1	
	comp=E,100nm,0.5s,baz=104,slow=26,SNR=9.4						
DRK	**Karamyk**	**3.87**	**228**	⇓*iP*	**Pn**	**17 48 06.1**	**+0.2**
DRK				⇓*iS*	**Sn**	**17 48 51.0**	**-1.1**
BTK	**Batken**	**4.11**	**241**	⇓*iP*	**Pn**	**17 48 09.5**	**+0.5**
BTK				⇓*eS*	**Sn**	**17 48 56.7**	**-1.0**
MAKZ	**Makanchi**	**6.57**	**43**	⇑Pn	**Pn**	**17 48 45.7**	**+3.0**
	comp=E,7.9nm,0.5s						
MAKZ				⇑Sn	**Sn**	**17 50 01.6**	**+3.6**
	comp=E,7.2nm,0.5s						
MAKZ				⇓Lg	Lg	17 50 34.5	
	comp=E,26nm,0.8s						
MK31	**Makanchi Array**	**6.72**	**44**	⇑Pn	**Pn**	**17 48 47.1**	**+2.4**
	comp=E,7.0nm,0.5s,baz=219,slow=15,SNR=250						
MK31				⇑Sn	**Sn**	**17 50 04.8**	**+3.1**
	comp=E,5.4nm,0.5s						
MK31				⇓Lg	Lg	17 50 36.4	
	comp=E,9.2nm,0.6s,baz=220,slow=27,SNR=5.2						
MKAR	**Makanchi Array**	**6.72**	**44**	Pn	**Pn**	**17 48 47.1**	**+2.4**
	comp=E,3.3nm,0.3s,baz=221,slow=14,SNR=130						
MKAR				Sn	**Sn**	**17 50 03.6**	**+1.9**
	comp=E,3.5nm,0.3s,baz=228,slow=25,SNR=5.5						
MKAR				Lg	Lg	17 50 34.5	
	comp=E,4.0nm,0.3s,baz=214,slow=26,SNR=5.4						
	comp=E,8.5nm,0.5s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**8.73**	**13**	Pn	**Pn**	**17 49 12.6**	**+0.2**
	comp=E,0.7nm,0.3s,baz=201,slow=13,SNR=35						
KURBB				Sn	**Sn**	**17 50 51.8**	**+0.6**
	comp=E,0.6nm,0.3s,baz=340,slow=14,SNR=6.6						
KURBB				Lg	Lg	17 51 35.6	
	comp=E,0.6nm,0.3s,baz=196,slow=29,SNR=4.8						
	comp=E,2.6nm,0.4s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**8.73**	**13**	⇑Pn	**Pn**	**17 49 13.3**	**+1.0**
	comp=E,7.3nm,0.4s						
KURBB				⇑Sn	**Sn**	**17 50 49.7**	**-1.5**
	comp=E,31nm,0.6s						
KURBB				⇑Lg	Lg	17 51 43.1	
	comp=E,118nm,0.8s						
KURK	**Kurchatov**	**8.84**	**13**	⇑Pn	**Pn**	**17 49 14.4**	**+0.7**
	comp=E,1.1nm,0.5s						
KURK				⇑Sn	**Sn**	**17 50 52.8**	**-0.9**
	comp=E,5.6nm,0.6s						
KURK				⇑Lg	Lg	17 51 47.2	
	comp=E,74nm,0.9s						
WMQ	**Urumqi**	**9.09**	**75**	Pn	**Pn**	**17 49 14.5**	**-2.8**
WMQ				Sn	**Sn**	**17 51 03.0**	**+2.9**
WMQ				smax	smax		
	comp=N,25nm,1.3s						
WMQ				smax	smax		
	comp=E,17nm,1.5s						
BVAR	**Borovoye Array**	**11.42**	**344**	Pn	**Pn**	**17 49 49.2**	**+0.1**
	comp=E,0.1nm,0.3s,baz=150,slow=14,SNR=8.0						
BVAR				Sn	**Sn**	**17 51 56.4**	**-0.7**
	comp=E,0.1nm,0.3s,baz=161,slow=16,SNR=3.9						
BVAR				Lg	Lg	17 53 01.1	
	comp=E,0.2nm,0.3s,baz=163,slow=26,SNR=5.7						
	comp=E,1.0nm,0.4s						
BVAR				AML	AML		
AB31	**Akbulak array**	**12.98**	**309**	P	**Pn**	**17 50 09.2**	**-1.3**
	comp=E,2.7nm,0.5s,baz=116,slow=12,SNR=39						
ZAA0	**Zalesovo Array**	**13.34**	**24**	⇑P	**Pn**	**17 50 16.2**	**+1.0**
	comp=E,3.5nm,0.7s						
ZALV	**Zalesovo Beam**	**13.34**	**24**	Pn	**Pn**	**17 50 16.3**	**+1.0**
	comp=E,0.5nm,0.3s,baz=222,slow=15,SNR=12						
ZALV				Sn	**Sn**	**17 52 41.8**	**-2.1**
	comp=E,0.4nm,0.3s,baz=222,slow=24,SNR=5.4						
ZALV				Lg	Lg	17 54 05.0	
	comp=E,0.4nm,0.3s,baz=220,slow=27,SNR=1.4						
	comp=E,2.2nm,0.5s						
ZALV				AML	AML		
AKTO	**Aktyubinsk**	**14.64**	**310**	Pn	**Pn**	**17 50 32.3**	**-0.7**
	comp=E,0.6nm,0.3s,baz=112,slow=10,SNR=7.2						
AKTO				Sn	**Sn**	**17 53 11.1**	**-4.6**
	comp=E,0.2nm,0.3s,baz=332,slow=14,SNR=3.1						
AKTO				Lg	Lg	17 54 49.2	
	comp=E,0.1nm,0.3s,baz=358,slow=13,SNR=2.2						
	comp=E,2.4nm,0.5s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**14.64**	**310**	⇑P	**Pn**	**17 50 32.7**	**-0.3**
	comp=E,5.6nm,1.1s						
ARTI	**Arti**	**18.04**	**328**	P	**P**	**17 51 16.6**	**-0.5**
	comp=E,0.3nm,0.3s,baz=184,slow=6.7,SNR=4.2						
ARTI				S	**Sn**	**17 54 33.2**	**-4.9**
	comp=E,1.0nm,0.4s,baz=306,slow=19,SNR=1.3						
ARTI				Lg	Lg	17 56 35.7	
	comp=E,0.2nm,0.3s,baz=90,slow=12,SNR=4.3						
	comp=E,2.8nm,0.7s						
ARTI				AML	AML		
GTA2	**Gaotai**	**18.53**	**90**	*eP*	**Pn**	**17 51 25.5**	**+2.5**
GTA2				pmax	pmax		
	comp=Z,2.0nm,1.3s						
BELG	**Belogornoye**	**21.39**	**308**	P	**P**	**17 51 53.3**	**-0.4**
	comp=Z,12nm,1.0s,baz=137,slow=9.2,SNR=4.6						
	comp=Z,12nm,1.0s						
SONM	**Songino Array**	**22.48**	**65**	P	**P**	**17 52 07.2**	**+1.5**
	comp=Z,0.4nm,0.7s,baz=262,slow=10,SNR=7.3						
	comp=Z,0.4nm,0.7s						
BRTR	**Keskin Array B**	**31.50**	**280**	P	**P**	**17 53 29.1**	**+0.7**
	comp=Z,0.5nm,0.7s,baz=108,slow=8.2,SNR=4.8						
	comp=Z,0.5nm,0.7s						

VRDI				IAML		17 43 58.4	
	comp=E,23nm,0.6s						
J20K	**Nowinta River**	**4.16**	**345**		**Pn**	**17 43 10.9**	**-0.1**
N15K	**Kwethluk River**	**4.23**	**273**		**Pn**	**17 43 12.2**	**+0.2**
N15K	**Kwethluk River**	**4.23**	**273**	IAML		17 43 59.9	
N15K	comp=E,27nm,1.2s			IAML		17 44 02.3	
	comp=N,29nm,0.4s						
CRQM	**Cirque**	**4.24**	**79**		**Pn**	**17 43 11.3**	**-1.0**
CRQM	**Cirque**	**4.24**	**79**	IAML		17 43 57.9	
	comp=E,58nm,1.1s						
PS10	**TAPS Pump St10**	**4.26**	**38**		**Pn**	**17 43 12.8**	**+0.3**
O15K	**Ungalikthiuk R**	**4.28**	**260**		**Pn**	**17 43 13.1**	**+0.4**
O15K	**Ungalikthiuk R**	**4.28**	**260**	IAML		17 44 02.5	
O15K	comp=N,23nm,0.6s			IAML		17 44 03.7	
	comp=E,19nm,0.8s						
MCARA	**McCarthy VSAT**	**4.38**	**71**		**Pn**	**17 43 13.3**	**-0.8**
MCARA	**McCarthy VSAT**	**4.38**	**71**	IAML		17 44 06.4	
MCARA	comp=E,62nm,0.5s			IAML		17 44 13.0	
	comp=N,59nm,0.6s						
M15K	**Kasigluk River**	**4.51**	**280**		**Pn**	**17 43 15.7**	**-0.2**
K24K	**Donnelly Dome**	**4.55**	**35**		**Pn**	**17 43 16.2**	**-0.1**
NEA2	**Nenana**	**4.57**	**14**		**Pn**	**17 43 15.5**	**-1.1**
WRH	**Wood River Hil**	**4.59**	**20**		**Pn**	**17 43 16.8**	**-0.2**
PTPK	**Patty Peak**	**4.61**	**74**		**Pn**	**17 43 16.6**	**-0.8**
KIAG	**Kiagna River**	**4.63**	**77**		**Pn**	**17 43 16.6**	**-1.1**
MENT	**Mentasta**	**4.67**	**51**	IAML		17 44 32.4	
MENT	comp=E,47nm,0.5s			IAML		17 44 44.3	
	comp=N,40nm,0.8s						
M26K	**Nabesna, AK**	**4.71**	**58**		**Pn**	**17 43 18.6**	**-0.1**
M26K	**Nabesna, AK**	**4.71**	**58**	IAML		17 44 12.8	
M26K	comp=N,36nm,0.6s			IAML		17 44 13.1	
	comp=E,22nm,0.5s						
HDA	**Harding Lake**	**4.75**	**25**	IAML		17 44 13.2	
HDA	comp=E,37nm,0.5s			IAML		17 44 15.0	
	comp=N,32nm,0.4s						
J17K	**VABM Dome**	**4.77**	**315**		**Pn**	**17 43 19.1**	**-0.2**
J17K	**VABM Dome**	**4.77**	**315**	IAML		17 44 42.4	
	comp=E,12nm,0.8s						
RIDG	**Independent Ri**	**4.78**	**39**		**Pn**	**17 43 19.9**	**+0.3**
RIDG	**Independent Ri**	**4.78**	**39**	IAML		17 44 30.0	
RIDG	comp=E,38nm,0.7s			IAML		17 44 32.4	
	comp=N,20nm,1.2s						
MLY	**Manley**	**4.87**	**4**		**Pn**	**17 43 20.1**	**-0.7**
CHIR	**Chirikof Islan**	**4.88**	**208**		**Pn**	**17 43 20.0**	**-0.8**
PS08	**TAPS Pump Stn8**	**4.90**	**25**		**Pn**	**17 43 20.7**	**-0.4**
O14K	**Tigyukauivet M**	**4.97**	**263**		**Pn**	**17 43 22.4**	**+0.3**
DOT	**Dot Lake**	**4.97**	**43**		**Pn**	**17 43 22.1**	**-0.1**
DOT	**Dot Lake**	**4.97**	**43**	IAML		17 44 33.6	
DOT	comp=N,20nm,0.8s			IAML		17 44 58.2	
	comp=E,22nm,1.0s						
COLA	**College**	**5.01**	**19**	IAML		17 44 25.9	
MDM	comp=E,40nm,0.4s **Murphy Dome**	**5.03**	**17**		**Pn**	**17 43 22.7**	**-0.2**
L15K	**Ungalak Mounta**	**5.03**	**291**		**Pn**	**17 43 22.3**	**-0.6**
N14K	**Kuskokwak Cree**	**5.05**	**271**		**Pn**	**17 43 23.4**	**+0.3**
N14K	**Kuskokwak Cree**	**5.05**	**271**	IAML		17 44 20.3	
N14K	comp=E,25nm,1.2s			IAML		17 44 55.0	
	comp=N,22nm,1.2s						
ILAR	**Eielson Array**	**5.09**	**24**	P	**Pn**	**17 43 23.6**	**-0.1**
	comp=N,11nm,0.3s,baz=205,slow=14,SNR=281						
ILAR				S	**Sn**	**17 44 20.4**	**-0.6**
	comp=N,3.3nm,0.5s,baz=206,slow=19,SNR=6.0						
	comp=N,20nm,0.3s						
ILAR				AML	AML		
M14K	**Bethel**	**5.14**	**281**		**Pn**	**17 43 24.6**	**+0.2**
GCSA	**Galena City Sc**	**5.17**	**334**		**Pn**	**17 43 25.3**	**+0.5**
SCRK	**Sand Creek**	**5.22**	**40**	IAML		17 44 38.6	
SCRK	comp=N,13nm,1.1s			IAML		17 44 54.3	
	comp=E,11nm,0.7s						
K15K	**Wolf Creek Mou**	**5.22**	**298**		**Pn**	**17 43 25.6**	**0.0**
K15K	**Wolf Creek Mou**	**5.22**	**298**	IAML		17 44 27.6	
J16K	comp=N,8.6nm,1.1s **Anvik River**	**5.27**	**310**		**Pn**	**17 43 26.1**	**0.0**
LOGN	**Logan Glacier**	**5.29**	**79**		**Pn**	**17 43 26.6**	**0.0**
LOGN	**Logan Glacier**	**5.29**	**79**	IAML		17 44 27.8	
LOGN	comp=N,29nm,1.0s			IAML		17 44 28.4	
	comp=E,11nm,0.9s						
J25K	**Salcha River,**	**5.30**	**31**	IAML		17 44 27.7	
J25K	comp=N,21nm,1.0s			IAML		17 44 28.3	
	comp=E,16nm,0.5s						
POKR	**Poker Plat Res**	**5.30**	**20**		**Pn**	**17 43 26.4**	**-0.2**
POKR	**Poker Plat Res**	**5.30**	**20**	IAML		17 44 28.7	
POKR	comp=N,8.9nm,0.5s			IAML		17 44 29.1	
	comp=E,12nm,1.2s						
BC01	**Beaver Creek A**	**5.48**	**54**		**Pn**	**17 43 28.9**	**-0.2**
L27K	**Beaver Creek,**	**5.48**	**54**		**Pn**	**17 43 28.9**	**-0.2**
YUK2	**White River**	**5.49**	**68**		**Pn**	**17 43 28.9**	**-0.3**
H21K	**Melozitna Rive**	**5.50**	**355**		**Pn**	**17 43 28.7**	**-0.7**
H20K	**Anotleneega Mo**	**5.52**	**346**		**Pn**	**17 43 29.1**	**-0.4**
L14K	**Kuka Creek**	**5.54**	**287**		**Pn**	**17 43 30.1**	**+0.3**
YUK3	**Moose Creek**	**5.66**	**69**		**Pn**	**17 43 31.5**	**-0.2**
PCA	**Pinnacle**	**5.68**	**86**		**Pn**	**17 43 32.1**	**+0.2**
O28M	**Mount Upton**	**5.69**	**79**		**Pn**	**17 43 32.4**	**+0.3**
H22K	**Ishtalitna Cre**	**5.72**	**1**		**Pn**	**17 43 32.0**	**-0.3**
H19K	**Roundabout Mou**	**5.78**	**340**		**Pn**	**17 43 33.0**	**-0.1**
M13K	**Dall Lake**	**5.83**	**277**		**Pn**	**17 43 34.6**	**+0.8**
H18K	**Honhosa River**	**5.86**	**331**		**Pn**	**17 43 34.6**	**+0.5**
IM01	**Indian Mountai**	**5.90**	**352**		**Pn**	**17 43

ARCES	**ARCESS Array B**	**37.45**	**334**	P		**P**	**17 54 20.0**	**+0.7**
	comp=Z,7.8nm,1.1s,baz=104,slow=9.1,SNR=9.4							
	comp=Z,7.8nm,1.1s							
GERES	**GERESS Array B**	**42.78**	**301**	P		**P**	**17 55 05.1**	**+1.2**
	comp=Z,0.5nm,0.6s,baz=69,slow=5.7,SNR=4.5							
	comp=Z,0.5nm,0.6s							
MJAR	**Matsushiro Arr**	**47.85**	**75**	P		**P**	**17 55 45.3**	**+1.0**
	comp=Z,1.2nm,0.9s,baz=296,slow=9.4,SNR=2.2							
	comp=Z,1.2nm,0.9s							
ESDC	**Sonseca Array**	**58.00**	**297**	P		**P**	**17 57 00.8**	**+1.6**
	comp=Z,0.3nm,0.6s,baz=50,slow=6.4,SNR=3.2							
	comp=Z,0.3nm,0.6s							
ILAR	**Eielson Array**	**68.37**	**18**	P		**P**	**17 58 06.7**	**-0.8**
	comp=Z,0.7nm,0.8s,baz=322,slow=5.9,SNR=9.2							
	comp=Z,0.7nm,0.8s							
YKA	**Yellowknife Ar**	**75.39**	**5**	P		**P**	**17 58 49.6**	**-0.1**
	comp=Z,0.6nm,0.6s,baz=350,slow=5.9,SNR=6.2							
	comp=Z,0.6nm,0.6s							

*IDC **29** 18:10:04.9±1.6, 40.63N×141.04E, h142km±20km, mb3.1/7, mbtmp3.5/9, Error ellipse: s-maj=30.4km s-min=15.1km az=88.0*
*JMA **29** 18:10:05.8±0.1, 40.6N±0.4×140.7E±0.7, h136km±1km, MV2.8/39, WESTERN AOMORI PREF*
ISC 29 18:10:05.2±0.9, 40.62N±0.04×140.84E±0.08, h140km±6km, n22, σ0.58/31, mb3.5/7, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JTM	**Tenmabayashi**	**0.24**	**46**	P		**Pn**	**18 10 24.8**	**+0.5**
JTM				S		**Sn**	**18 10 38.9**	**+0.1**
JHHS	**Hirosakihyakuz**	**0.36**	**276**	P		**Pn**	**18 10 24.9**	**+0.2**
JHHS				S		**Sn**	**18 10 39.3**	**-0.2**
JAH	**Hinai**	**0.45**	**200**	P		**Pn**	**18 10 25.1**	**0.0**
JAH				S		**Sn**	**18 10 39.6**	**-0.6**
JANG	**Nango**	**0.57**	**115**	P		**Pn**	**18 10 26.2**	**+0.5**
JANG				*e*S		**Sn**	**18 10 41.2**	**-0.1**
JIW	**Iwasaki**	**0.63**	**268**	P		**Pn**	**18 10 26.1**	**0.0**
JIW				*e*S		**Sn**	**18 10 41.4**	**-0.6**
JOT	**Ohata**	**0.78**	**12**	P		**Pn**	**18 10 28.1**	**+0.9**
JSR	**Shiriuchi**	**0.96**	**341**	P		**Pn**	**18 10 29.0**	**+0.4**
JSR				*e*S		**Sn**	**18 10 45.9**	**-0.7**
JOMM	**Oshimamatsumae**	**1.10**	**326**	P		**Pn**	**18 10 30.1**	**+0.3**
JOM	**Ohasama**	**1.20**	**163**	P		**Pn**	**18 10 31.0**	**+0.2**
JOM				S		**Sn**	**18 10 49.5**	**-0.8**
JRG	**Rokugo**	**1.23**	**187**	P		**Pn**	**18 10 31.4**	**+0.2**
JRG				S		**Sn**	**18 10 50.7**	**-0.2**
JMK	**Ichinoseki**	**1.69**	**170**	P		**Pn**	**18 10 36.0**	**-0.1**
JYK	**Kaneyama**	**1.74**	**192**	P		**Pn**	**18 10 36.4**	**-0.2**
JOSM	**Okushiri--Mats**	**1.79**	**325**	P		**Pn**	**18 10 37.0**	**-0.2**
ASAJ	**Asahikawa**	**3.73**	**20**	P		**Pn**	**18 11 01.9**	**+0.4**
	3.2nm,0.4s,baz=214,slow=13,SNR=24							
ASAJ				S		**Sn**	**18 11 43.6**	**-1.8**
	6.8nm,0.8s,baz=209,slow=10,SNR=2.5							
MJAR	**Matsushiro Arr**	**4.56**	**208**	P		**Pn**	**18 11 13.4**	**+0.8**
	2.0nm,0.6s,baz=19,slow=14,SNR=14							
SONM	**Songino Array**	**25.55**	**298**	P		**P**	**18 15 21.3**	**+0.4**
	0.4nm,0.8s,baz=108,slow=9.4,SNR=1.9							
	0.4nm,0.8s							
ZALV	**Zalesovo Beam**	**39.23**	**309**	P		**P**	**18 17 19.8**	**+0.3**
	0.6nm,0.5s,baz=99,slow=9.3,SNR=3.7							
	0.6nm,0.5s							
MKAR	**Makanchi Array**	**41.92**	**299**	P		**P**	**18 17 42.3**	**+0.5**
	0.2nm,0.5s,baz=88,slow=9.2,SNR=5.0							
	0.2nm,0.5s							
KURBB	**Kurchatov Arra**	**43.51**	**305**	P		**P**	**18 17 54.7**	**+0.2**
	1.2nm,0.5s,baz=79,slow=8.6,SNR=12							
	1.2nm,0.5s							
BVAR	**Borovoye Array**	**47.88**	**310**	P		**P**	**18 18 29.3**	**+0.6**
	0.4nm,0.4s,baz=85,slow=10.0,SNR=2.1							
	0.4nm,0.4s							
WRA	**Warramunga Arr**	**60.55**	**187**	P		**P**	**18 19 60.0**	**-0.7**
	0.2nm,0.3s,baz=2.6,slow=6.9,SNR=2.5							
	0.2nm,0.3s							
ASAR	**Alice Springs**	**64.28**	**187**	P		**P**	**18 20 25.3**	**-0.2**
	0.6nm,1.1s,baz=360,slow=6.3,SNR=6.0							
	0.6nm,1.1s							

*SDD **29** 18:52:47.5±0.7, 18.55N×72.24W, h0km±421km, MD2.5, ML2.3, MW2.6, Presumed earthquake*
*OSPL **29** 18:52:50.0±1.7, 18.68N×72.03W, h56km±18km, ML2.2, Presumed earthquake*
ISC 29 18:52:48.5±3.5, 18.56N±0.07×72.02W±0.04, h14km±25km, n10, σ0.65/17, 5C, Haiti region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JIDR	**Jimani**	**0.18**	**114**	↑*e*Pg		**Pb**	**18 52 54.0**	**+0.4**
JIDR				IAML			18 52 58.4	
	comp=N,632nm,0.2s							
LONE3	**El Aguacate, B**	**0.54**	**85**	*i* P		**Pn**	**18 53 01.2**	**-0.7**
LONE3				*e*S		**Sn**	**18 53 10.3**	**-0.6**
LONE3				IAML			18 53 12.5	
	comp=Z,81nm,0.3s							
LGNH	**Logne**	**0.56**	**265**	*i* P		**Pn**	**18 53 02.2**	**+0.1**
LGNH				*e*S		**Sn**	**18 53 10.6**	**-0.5**
LODU1	**El Espartillar**	**0.56**	**112**	*i* P		**Pn**	**18 53 01.3**	**-0.8**
LODU1				*e*S		**Sn**	**18 53 11.1**	**-0.2**
LODU1				IAML			18 53 15.9	
	comp=Z,145nm,0.4s							
NEDR	**Neiba UASD**	**0.58**	**98**	↑*e*Pg		**Pb**	**18 53 00.4**	**-0.1**
NEDR				IAML			18 53 16.0	
	comp=N,119nm,0.3s							
LOBH	**Bahia de las A**	**0.79**	**152**	*i* P		**Pn**	**18 53 04.7**	**-0.5**
LOBH				*e*S		**Sn**	**18 53 16.3**	**-0.6**
LOBH				IAML			18 53 24.8	
	comp=Z,53nm,3.2s							
PODR	**Polo**	**0.81**	**119**	↑*e*Pg		**Pn**	**18 53 05.6**	**-0.1**
PODR				↑*e*Sg		**Sn**	**18 53 18.3**	**+0.6**
PODR				IAML			18 53 22.4	
	comp=N,111nm,0.8s							
PODR	**Polo**	**0.81**	**119**	*i* P		**Pn**	**18 53 05.6**	**-0.1**
PODR				*e*S		**Sn**	**18 53 18.1**	**+0.4**
SDDR	**Presa de Saban**	**0.81**	**59**	↑*e*Sg		**Sn**	**18 53 18.8**	**+1.3**
SDDR				IAML			18 53 28.1	
	comp=N,22nm,0.5s							
LOVI	**El Cajuil, Ovi**	**0.98**	**141**	*i* P		**Pn**	**18 53 08.8**	**+0.8**
LOVI				*e*S		**Sn**	**18 53 22.1**	**+0.4**

*LDG **29** 18:57:04.4±0.2, 42.90N×1.45W, h2km, Md2.5/3, Ml2.6/9, Error ellipse: s-maj=3.3km s-min=2.6km az=91.0*
*MDD **29** 18:57:05.2±0.2, 42.83N×1.51W, h0km, mb_Lg2.4/27, Error ellipse: s-maj=2.1km s-min=1.3km az=3.0*
ISC 29 18:57:03.5±0.8, 42.94N±0.02×1.42W±0.03, h14km±5km, n29, σ1.54/60, Pyrenees

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
EORO	**Oroz-Betelu**	**0.10**	**121**	Pg		**Pg**	**18 57 07.0**	**+0.3**
EORO				Sg		**Sg**	**18 57 09.4**	**+0.5**
EORO				IVmb_Lg			18 57 10.9	
EARA	**Aranguren**	**0.21**	**215**	Pg		**Pg**	**18 57 05.6**	**-2.6**
EARA				Sg		**Sg**	**18 57 07.2**	**-4.2**
EARA				IVmb_Lg			18 57 07.3	
SJPF	**Ste Jean**	**0.22**	**40**	*e*Pg		**Pg**	**18 57 10.5**	**+2.0**
SJPF				*e*Sg		**Sg**	**18 57 12.4**	**+0.6**
	109nm,0.2s							
EALK	**Alkurruntz**	**0.28**	**347**	Pg		**Pb**	**18 57 11.3**	**+0.9**
EALK				Sg		**Sb**	**18 57 17.4**	**+2.4**
EALK				IVmb_Lg			18 57 22.0	
ETSF	**Etsaut**	**0.64**	**94**	*e*Pg		**Pb**	**18 57 16.5**	**+0.2**
ETSF				*e*Sg		**Sb**	**18 57 24.7**	**-0.4**
	27nm,0.3s							
ECHI	**Chisagues Biel**	**1.22**	**103**	Pg		**Pn**	**18 57 27.5**	**+1.3**
ECHI				Sg		**Sn**	**18 57 45.9**	**+3.3**
ECHI				IVmb_Lg			18 57 49.6	
EPF	**Esparros**	**1.29**	**86**	*e*Pg		**Pg**	**18 57 29.5**	**+1.1**
EPF				*e*Sg		**Sn**	**18 57 47.1**	**+2.8**
	38nm,0.3s							
EPF				AML		AML		
ESAC	**San Caprasio**	**1.41**	**150**	Pg		**Pg**	**18 57 29.8**	**-0.7**
ESAC				Sg		**Sb**	**18 57 47.7**	**+0.3**
ESAC				IVmb_Lg			18 57 49.7	
ELAN	**Lanestosa**	**1.50**	**282**	Pg		**Pb**	**18 57 31.7**	**+0.6**
ELAN				Sg		**Sg**	**18 57 53.0**	**+1.1**
ELAN				IVmb_Lg			18 57 53.8	
ETOR	**Torete**	**2.17**	**193**	Pn		**Pn**	**18 57 39.7**	**+0.4**
ETOR				Pg		**Pb**	**18 57 43.3**	**+0.7**
ETOR				Sg		**Sb**	**18 58 11.9**	**+2.5**
ETOR				IVmb_Lg			18 58 13.8	
ERTA	**Horta de San J**	**2.38**	**146**	Sg		**Sg**	**18 58 19.8**	**0.0**
EPOB	**Poblet**	**2.44**	**130**	Pn		**Pn**	**18 57 43.2**	**+0.2**
EPOB				Pg		**Pg**	**18 57 48.7**	**-1.6**
EPOB				Sn		**Sn**	**18 58 12.9**	**+0.2**
EPOB				Sg		**Sg**	**18 58 21.6**	**-0.5**
EPOB				IVmb_Lg			18 58 22.6	
LFF	**La Frestale**	**2.53**	**37**	*e*Pn		**Pn**	**18 57 44.6**	**+0.5**
LFF				*e*Pg		**Pg**	**18 57 50.2**	**-1.8**
LFF				*e*Sn		**Sn**	**18 58 13.6**	**-1.1**
EMOS	**Mosqueruela**	**2.67**	**164**	Pn		**Pn**	**18 57 47.4**	**+1.2**
EMOS				Pg		**Pg**	**18 57 53.8**	**-0.9**
MTLF	**Montolieu**	**2.69**	**80**	*e*Pn		**Pn**	**18 57 47.2**	**+0.9**
MTLF				*e*Pg		**Pg**	**18 57 52.9**	**-2.2**
MTLF				*e*Sn		**Sn**	**18 58 16.8**	**-1.9**
	5.3nm,0.4s							
MTLF				AML		AML		
EARI	**Arriondas**	**2.80**	**279**	Sn		**Sn**	**18 58 22.2**	**+0.9**
RJF	**Les Rejaudoux**	**3.17**	**41**	*e*Pn		**Pn**	**18 57 53.4**	**+0.5**
RJF				*e*Sn		**Sn**	**18 58 29.2**	**-1.2**
RJF				*e*Sg		**Sg**	**18 58 43.8**	**-1.5**
	3.5nm,0.3s							
RJF				AML		AML		
CAF	**Calviac**	**3.20**	**51**	*e*Pn		**Pn**	**18 57 53.7**	**+0.3**
CAF				*e*Pg		**Pg**	**18 58 03.9**	**-1.0**
CAF				*e*Sn		**Sn**	**18 58 31.4**	**+0.1**
LASF	**Ste Croix**	**4.00**	**72**	*e*Pn		**Pn**	**18 58 05.5**	**+1.2**
LASF				*e*Pg		**Pg**	**18 58 17.0**	**-3.1**
TCF	**Toulx Ste Croi**	**4.23**	**37**	*e*Pn		**Pn**	**18 58 07.2**	**-0.3**
TCF				*e*Pg		**Pg**	**18 58 22.3**	**-2.2**
TCF				*e*Sn		**Sn**	**18 58 55.3**	**-1.3**
TCF				*e*Sg		**Sg**	**18 59 16.3**	**-3.0**
BGF	**Bois d'Agland**	**4.72**	**39**	*e*Pn		**Pn**	**18 58 14.3**	**+0.1**
BGF				*e*Pg		**Pg**	**18 58 31.4**	**-2.5**
BGF				*e*Sn		**Sn**	**18 59 08.0**	**-0.7**
	6.0nm,0.5s							
BGF				AML		AML		
VIVF	**Saint-Julien-l**	**4.80**	**64**	*e*Pn		**Pn**	**18 58 15.3**	**0.0**
QUIF	**Quistinic**	**5.12**	**347**	*e*Pn		**Pn**	**18 58 20.8**	**+1.1**
AVF	**Avril sur Loir**	**5.13**	**40**	*e*Pn		**Pn**	**18 58 21.1**	**+1.3**
SSF	**Saint Saulge**	**5.40**	**39**	*e*Pn		**Pn**	**18 58 25.0**	**+1.5**
SSF				*e*Sn		**Sn**	**18 59 25.1**	**-0.3**
	0.6nm,0.3s							
SSF				AML		AML		
GRR	**Gorron**	**5.46**	**4**	*e*Sn		**Sn**	**18 59 27.0**	**+0.2**
	1.9nm,0.4s							
GRR				AML		AML		
ROSF	**Rostrenen**	**5.55**	**347**	*e*Pn		**Pn**	**18 58 26.3**	**+0.8**
ROSF				*e*Sn		**Sn**	**18 59 28.3**	**-0.7**
	5.5nm,0.6s							
ROSF				AML		AML		
LOR	**Lormes**	**5.71**	**39**	*e*Sn		**Sn**	**18 59 33.9**	**+0.7**
	0.5nm,0.3s							
LOR				AML		AML		
LDF	**La Druitiere**	**5.72**	**9**	*e*Sn		**Sn**	**18 59 32.2**	**-1.2**
	4.2nm,0.4s							
LDF				AML		AML		

*OSPL **29** 18:59:09.6±1.3, 18.63N×71.94W, h73km±13km, ML2.4, Presumed earthquake*
*SDD **29** 18:59:10.0±2.1, 18.48N×72.16W, h0km±20km, MD2.6, ML2.0, MW2.2, Presumed earthquake*
ISC 29 18:59:09.0±2.1, 18.56N±0.05×72.1W±0.1, h18km±8km, n12, σ0.64/18, Haiti region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
JIDR	**Jimani**	**0.25**	**105**	*i* P		**Pb**	**18 59 15.3**	**+0.2**
JIDR				*i* S		**Sg**	**18 59 17.6**	**-1.0**
JIDR				IAML			18 59 18.7	
	comp=E,528nm,0.3s							
JIDR				IAML			18 59 21.4	
	comp=N,413nm,0.3s							
LONE3	**El Aguacate, B**	**0.62**	**85**	*i* P		**Pb**	**18 59 21.7**	**+0.3**
LONE3				*e*S		**Sb**	**18 59 30.5**	**+0.7**
LONE3				IAML			18 59 32.5	
	comp=Z,43nm,0.3s							
LODU1	**El Espartillar**	**0.63**	**108**	*i* P		**Pb**	**18 59 21.4**	**-0.2**
LODU1				*e*S		**Sb**	**18 59 31.3**	**+1.2**
LODU1				IAML			18 59 33.9	
	comp=Z,645nm,0.2s							
NEDR	**Neiba UASD**	**0.66**	**96**	*e*Sg		**Sn**	**18 59 32.3**	**-1.1**
NEDR				IAML			18 59 34.5	
	comp=N,55nm,0.5s							
NEDR				IAML			18 59 36.9	
	comp=E,66nm,0.3s							
LOBH	**Bahia de las A**	**0.82**	**147**	*i* P		**Pb**	**18 59 24.8**	**0.0**
LOBH				*e*S		**Sg**	**18 59 36.4**	**+0.4**
LOBH				IAML			18 59 44.1	
	comp=Z,66nm,1.6s							
PODR	**Polo**	**0.88**	**116**	*i* P		**Pb**	**18 59 25.7**	**-0.2**
PODR				*i* S		**Sb**	**18 59 37.1**	**-0.2**
PODR				IAML			18 59 49.9	
	comp=N,70nm,0.4s							
PODR	**Polo**	**0.88**	**116**	*i* P		**Pb**	**18 59 25.9**	**+0.1**
PODR				*e*S		**Sb**	**18 59 36.5**	**-0.8**
SDDR	**Presa de Saban**	**0.89**	**61**	IAML			18 59 39.9	
	comp=N,16nm,2.0s							
REDR	**Restauracion**	**0.91**	**48**	*i* P		**Pb**	**18 59 26.2**	**-0.1**
REDR				*i* S		**Sb**	**18 59 38.0**	**-0.1**
MCDR	**Montecristi**	**1.40**	**18**	*i* P		**Pg**	**18 59 36.2**	**+0.2**
ABDR	**Alto Bandera**	**1.43**	**79**	*e*Pg		**Pg**	**18 59 37.3**	**+0.7**
ABDR				IAML			18 59 57.7	
	comp=N,32nm,1.9s							
LUDR	**Luperon**	**1.72**	**39**	*i* P		**Pb**	**18 59 40.3**	**+0.2**

*NNC **29** 19:16:44.7±0.2, 43.65N×77.66E, h7km±2km, mb3.0, mpv3.6, Error ellipse: s-maj=2.5km s-min=1.4km az=160.0*
*SOME **29** 19:16:45.8, 43.62N×77.63E, h10km*
*KRNET **29** 19:16:46.1±0.1, 43.64N×77.53E, h24km, mb3.0*
ISC 29 19:16:45.6±1.0, 43.65N±0.02×77.61E±0.02, h8km±8km, n54, σ1.15/99, 23C-19D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
KURS	**Kuram**	**0.44**	**112**	P		**Pg**	**19 16 54.0**	**-0.2**
	63nm,0.1s							
KURS				S		**Sg**	**19 17 00.1**	**+0.1**
	54nm,0.1s							
KURS	**Kuram**	**0.44**	**112**	*e*P		**Pg**	**19 16 54.0**	**-0.2**
	63nm,0.1s							
KURS				*e*S		**Sg**	**19 17 00.1**	**+0.1**
	54nm,0.1s							
ARXS	**Arharly**	**0.58**	**15**	P		**Pg**	**19 16 56.7**	**-0.2**
	39nm,0.1s							
ARXS				S		**Sg**	**19 17 04.6**	**0.0**
	188nm,0.2s							
ARXS	**Arharly**	**0.58**	**15**	*e*P		**Pg**	**19 16 56.8**	**-0.2**
	39nm,0.1s							
ARXS				*e*S		**Sg**	**19 17 04.6**	**0.0**
	188nm,0.2s							
MDOK	**Medeo**	**0.64**	**220**	Pg		**Pg**	**19 16 58.0**	**0.0**
	102nm,0.1s							
MDOK				Lg		Lg	19 17 06.7	
	183nm,0.1s							
MDOK	**Medeo**	**0.64**	**220**	*e*P		**Pg**	**19 16 58.0**	**0.0**
	102nm,0.1s							
MDOK				*e*S		**Sg**	**19 17 06.7**	**+0.4**
	183nm,0.1s							
KNDC	**Almaty**	**0.64**	**227**	↑P		**Pg**	**19 16 58.3**	**+0.2**
	22nm,0.3s							
KNDC				↑S		**Sb**	**19 17 07.9**	**-0.4**
	186nm,0.5s							
AAA	**Alma-Ata**	**0.67**	**229**	P		**Pg**	**19 16 59.2**	**+0.5**
	45nm,0.1s							
AAA				S		**Sb**	**19 17 08.9**	**-0.2**
	30nm,0.1s							
AAA	**Alma-Ata**	**0.67**	**229**	*e*P		**Pg**	**19 16 59.2**	**+0.5**
	45nm,0.1s							
AAA				*e*S		**Sb**	**19 17 08.9**	**-0.2**
	30nm,0.1s							
BLB	**Baldybastay**	**0.77**	**54**	P		**Pg**	**19 16 59.5**	**-1.0**
	37nm,0.1s							
BLB				S		**Sg**	**19 17 09.5**	**-0.9**
	223nm,0.3s							
TNSS	**Tian-Shan**	**0.78**	**218**	P		**Pg**	**19 17 00.7**	**-0.1**
	17nm,0.2s							
TNSS				S		**Sg**	**19 17 11.4**	**+0.4**
	50nm,0.2s							
TNSS	**Tian-Shan**	**0.78**	**218**	*e*P		**Pg**	**19 17 00.7**	**-0.1**
	17nm,0.2s							
TNSS				*e*S		**Sg**	**19 17 11.4**	**+0.4**
	50nm,0.2s							
SATY	**Saty**	**0.83**	**135**	P		**Pg**	**19 17 00.6**	**-1.0**
	93nm,0.1s							
SATY				S		**Sg**	**19 17 11.2**	**-1.1**
	812nm,0.1s							
SATY	**Saty**	**0.83**	**135**	*e*P		**Pg**	**19 17 00.6**	**-1.0**
	93nm,0.1s							
SATY				*e*S		**Sg**	**19 17 11.2**	**-1.1**
	812nm,0.1s							
ANVS	**Anan'yevo**	**0.87**	**177**	↑*e*P		**Pg**	**19 17 02.1**	**-0.3**
ANVS				↑*e*S		**Sg**	**19 17 13.8**	**+0.1**
KUU	**Kurty**	**0.95**	**285**	P		**Pg**	**19 17 03.2**	**-0.7**
	12nm,0.1s							
KUU				S		**Sg**	**19 17 15.8**	**-0.5**
	90nm,0.2s							
KUU	**Kurty**	**0.95**	**285**	*e*P		**Pg**	**19 17 03.2**	**-0.7**
	12nm,0.1s							
KUU				*e*S		**Sg**	**19 17 15.8**	**-0.5**
	90nm,0.2s							
IZV	**Izvestkoviy**	**0.95**	**230**	P		**Pg**	**19 17 03.9**	**-0.1**
	28nm,0.1s							
IZV				S		**Sg**	**19 17 16.7**	**+0.3**
	58nm,0.1s							
IZV	**Izvestkoviy**	**0.95**	**230**	*e*P		**Pg**	**19 17 03.9**	**-0.1**
	28nm,0.1s							
IZV				*e*S		**Sg**	**19 17 16.7**	**+0.3**
	58nm,0.1s							
UZB	**Uzynbulak**	**1.15**	**116**	P		**Pg**	**19 17 05.9**	**-1.8**
	54nm,0.1s							
UZB				S		**Sg**	**19 17 20.3**	**-2.2**
	61nm,0.1s							
UZB	**Uzynbulak**	**1.15**	**116**	*e*P		**Pg**	**19 17 05.8**	**-1.8**
	54nm,0.1s							
UZB				*e*S		**Sg**	**19 17 20.3**	**-2.2**
	61nm,0.1s							
PRZ	**Przheval'sk**	**1.30**	**153**	↓*e*P		**Pn**	**19 17 10.0**	**-0.3**
PRZ				↓*e*S		**Sn**	**19 17 27.4**	**-0.6**
KNOS	**Konyrlen**	**1.33**	**57**	P		**Pn**	**19 17 09.5**	**-1.2**
	9.3nm,0.1s							
KNOS				S		**Sb**	**19 17 26.4**	**-1.8**
	67nm,0.3s							
KST	**Kastek**	**1.35**	**244**	P		**Pn**	**19 17 10.6**	**-0.2**
	2.9nm,0.1s							
KST				S		**Sb**	**19 17 28.5**	**-0.2**
	55nm,0.3s							
KST	**Kastek**	**1.35**	**244**	*e*P		**Pn**	**19 17 10.6**	**-0.2**
	2.9nm,0.1s							
KST				*e*S		**Sb**	**19 17 28.5**	**-0.2**
	55nm,0.3s							
DGS	**Degeres**	**1.40**	**254**	P		**Pn**	**19 17 11.5**	**-0.1**
	14nm,0.1s							
DGS				S		**Sn**	**19 17 30.0**	**-0.3**
	102nm,0.3s							
DGS	**Degeres**	**1.40**	**254**	*e*P		**Pn**	**19 17 11.4**	**-0.1**
	14nm,0.1s							
DGS				*e*S		**Sn**	**19 17 30.0**	**-0.3**
	102nm,0.3s							
PDGK	**Podgornoye**	**1.40**	**103**	↑P		**Pn**	**19 17 09.7**	**-1.9**
	6.1nm,0.2s							
PDGK				↓S		**Sb**	**19 17 27.7**	**-2.5**
	29nm,0.6s							
KRBS	**Karabastau**	**1.41**	**272**	P		**Pn**	**19 17 11.5**	**-0.1**
	25nm,0.3s							
KRBS				S		**Sn**	**19 17 30.1**	**-0.3**
	159nm,0.2s							
KRBS	**Karabastau**	**1.41**	**272**	*e*P		**Pn**	**19 17 11.5**	**-0.1**
	25nm,0.3s							
KRBS				*e*S		**Sn**	**19 17 30.1**	**-0.3**
	159nm,0.2s							
SHLS	**Shalkode**	**1.44**	**110**	P		**Pg**	**19 17 15.5**	**+2.3**
	11nm,0.2s							
SHLS				S		**Sg**	**19 17 36.9**	**+5.0**
	49nm,0.2s							
SHLS	**Shalkode**	**1.44**	**110**	*e*P		**Pg**	**19 17 15.5**	**+2.3**
	11nm,0.2s							
SHLS				*e*S		**Sg**	**19 17 36.9**	**+5.0**
	49nm,0.2s							
KDJ	**Kajisay**	**1.56**	**192**	↑*e*P		**Pn**	**19 17 13.9**	**+0.2**
KDJ				↑*e*S		**Sb**	**19 17 34.1**	**-0.5**
TKM2	**Tokmak 2**	**1.64**	**244**	↓*e*P		**Pn**	**19 17 15.0**	**0.0**
TKM2				↓*e*S		**Sn**	**19 17 35.9**	**-0.5**
BOOM	**Boomskoye usch**	**1.69**	**227**	↑*e*P		**Pn**	**19 17 15.8**	**+0.2**
BOOM				↑*e*S		**Sn**	**19 17 37.3**	**-0.1**
DJR	**Jarkent**	**1.71**	**66**	P		**Pn**	**19 17 16.3**	**+0.4**
	6.5nm,0.1s							
DJR				S		**Sn**	**19 17 38.1**	**+0.2**
	24nm,0.2s							
DJR	**Jarkent**	**1.71**	**66**	*e*P		**Pn**	**19 17 16.3**	**+0.4**
	6.5nm,0.1s							
DJR				*e*S		**Sn**	**19 17 38.1**	**+0.2**
	24nm,0.2s							
ULHL	**Ulahol**	**1.73**	**216**	↑*e*P		**Pn**	**19 17 16.6**	**+0.4**
ULHL				↑*e*S		**Sn**	**19 17 38.7**	**+0.2**
TARG	**Taragay, Kyrgy**	**1.93**	**176**	↓*e*P		**Pb**	**19 17 20.0**	**-1.2**
TARG				↓*e*S		**Sb**	**19 17 44.6**	**-1.0**
KTMS	**Ketmen**	**2.00**	**95**	P		**Pn**	**19 17 20.7**	**+0.8**
	3.8nm,0.1s							
KTMS				S		**Sn**	**19 17 45.7**	**+0.6**
	17nm,0.1s							
KTMS	**Ketmen**	**2.00**	**95**	*e*P		**Pn**	**19 17 20.7**	**+0.8**
	3.8nm,0.1s							
KTMS				*e*S		**Sn**	**19 17 45.7**	**+0.6**
	17nm,0.1s							
CHMS	**Chumysh**	**2.19**	**254**	↓*e*P		**Pn**	**19 17 22.6**	**+0.3**
CHMS				↓*e*S		**Sn**	**19 17 49.2**	**-0.4**
KBK	**Karagaybulak**	**2.19**	**244**	↓*e*P		**Pn**	**19 17 22.8**	**+0.3**
KBK				↓*e*S		**Sn**	**19 17 49.6**	**-0.2**
USP	**Ospenovka**	**2.30**	**261**	↓*e*P		**Pn**	**19 17 24.2**	**+0.4**
USP				↓*e*S		**Sn**	**19 17 51.9**	**-0.4**
AAK	**Ala-Archa**	**2.50**	**247**	↑Pg		**Pb**	**19 17 29.9**	**-0.9**
	1.4nm,0.6s							
AAK				↑Lg		Lg	19 18 03.3	
	4.5nm,0.5s							
AAK	**Ala-Archa**	**2.50**	**247**	↑*e*P		**Pn**	**19 17 27.1**	**+0.4**
AAK				↑

EAHA	**Aohua**	**0.88**	**267**	*eP*	**Pn**	**19 27 47.9**	**+0.2**
EAHA				*eS*	**Sn**	**19 28 00.1**	**+0.7**
TWB1	**Santiao Chiao**	**0.90**	**314**	P	**Pn**	**19 27 46.8**	**-1.2**
TWB1				S	**Sn**	**19 27 58.2**	**-1.8**
NDS	**Dongshan**	**0.93**	**286**	P	**Pn**	**19 27 47.9**	**-0.5**
NDS				S	**Sn**	**19 27 59.8**	**-0.9**
IRIF	**Iriomote-Funau**	**0.94**	**93**	P	**Pn**	**19 27 48.1**	**-0.4**
IRIF				S	**Sn**	**19 28 01.0**	**+0.1**
TIPB	**Shuangxi**	**0.99**	**307**	P	**Pn**	**19 27 48.8**	**-0.4**
TIPB				S	**Sn**	**19 28 00.8**	**-1.4**
TWE	**Neicheng**	**1.00**	**290**	P	**Pn**	**19 27 49.0**	**-0.3**
TWE				S	**Sn**	**19 28 01.7**	**-0.6**
ETL	**Fush Village**	**1.01**	**258**	*eP*	**Pn**	**19 27 48.9**	**-0.5**
NACB	**Ninganchiao**	**1.03**	**259**	P	**Pn**	**19 27 48.6**	**-1.1**
NACB	**Ninganchiao**	**1.03**	**259**	S	**Sn**	**19 28 01.9**	**-1.2**
NACB	**Ninganchiao**	**1.03**	**259**	*eP*	**Pn**	**19 27 49.0**	**-0.7**
NACB				*eS*	**Sn**	**19 28 01.9**	**-1.2**
SXI1	**Grass Mountain**	**1.03**	**314**	P	**Pn**	**19 27 49.7**	**-0.1**
SXI1				S	**Sn**	**19 28 02.4**	**-0.8**
HATJ	**Hateruma jima**	**1.06**	**108**	*eP*	**Pn**	**19 27 48.7**	**-1.4**
LATG	**Datong**	**1.08**	**278**	P	**Pn**	**19 27 50.8**	**+0.3**
LATG				*eS*	**Sn**	**19 28 06.0**	**+1.6**
FUSB	**Fushanzhiwuyua**	**1.08**	**291**	P	**Pn**	**19 27 50.1**	**-0.3**
FUSB				S	**Sn**	**19 28 03.5**	**-1.0**
WFSB	**Wu-fen Shan**	**1.08**	**310**	P	**Pn**	**19 27 49.9**	**-0.6**
WFSB				S	**Sn**	**19 28 04.0**	**-0.3**
NDT	**Datong Townshi**	**1.10**	**282**	*eP*	**Pn**	**19 27 51.4**	**+0.6**
ETLH	**Xiulin Townshi**	**1.12**	**261**	*eP*	**Pn**	**19 27 50.8**	**-0.3**
ETLH				*eS*	**Sn**	**19 28 04.6**	**-0.9**
NWLT	**Wulai**	**1.16**	**290**	P	**Pn**	**19 27 51.4**	**0.0**
NWLT				S	**Sn**	**19 28 05.2**	**-1.0**
TWA	**Mucha**	**1.18**	**301**	P	**Pn**	**19 27 51.1**	**-0.6**
TWA				S	**Sn**	**19 28 05.6**	**-1.1**
ETM	**Tongmen**	**1.18**	**250**	*eP*	**Pn**	**19 27 50.3**	**-1.4**
ETM				*eS*	**Sn**	**19 28 05.0**	**-1.7**
SHUL	**Shoufeng**	**1.20**	**241**	P	**Pn**	**19 27 51.9**	**0.0**
SHUL				S	**Sn**	**19 28 06.1**	**-1.0**
NNSB	**Datong**	**1.20**	**272**	*eP*	**Pn**	**19 27 52.2**	**+0.1**
NNSB				*eS*	**Sn**	**19 28 07.7**	**+0.3**
JKRS	**Kuro-shima**	**1.20**	**97**	P	**Pn**	**19 27 52.1**	**+0.1**
JKRS				*eS*	**Sn**	**19 28 08.0**	**+0.7**
NNS	**Nan Shan**	**1.21**	**273**	*eP*	**Pn**	**19 27 52.2**	**-0.1**
NNS				*eS*	**Sn**	**19 28 08.0**	**+0.4**
NHDH	**Xindian Distri**	**1.22**	**299**	*eP*	**Pn**	**19 27 52.0**	**-0.2**
NHDH				*eS*	**Sn**	**19 28 07.5**	**0.0**
NHY	**Taipei**	**1.22**	**303**	*eP*	**Pn**	**19 27 51.6**	**-0.6**
NHY				*eS*	**Sn**	**19 28 07.3**	**-0.3**
LXIB	**Xiulin Townshi**	**1.23**	**253**	*eP*	**Pn**	**19 27 51.7**	**-0.9**
LXIB				*eS*	**Sn**	**19 28 06.3**	**-1.8**
YHNB	**Yeheng**	**1.24**	**284**	P	**Pn**	**19 27 53.0**	**+0.4**
YHNB	**Yeheng**	**1.24**	**284**	S	**Sn**	**19 28 09.2**	**+0.9**
YHNB	**Yeheng**	**1.24**	**284**	P	**Pn**	**19 27 53.0**	**+0.4**
YHNB				*eS*	**Sn**	**19 28 08.9**	**+0.6**
TATO	**Taipei**	**1.25**	**298**	P	**Pn**	**19 27 52.4**	**-0.3**
TATO	**Taipei**	**1.25**	**298**	S	**Sn**	**19 28 08.0**	**-0.4**
NSK	**Sanguang**	**1.26**	**284**	P	**Pn**	**19 27 53.3**	**+0.5**
NSK				S	**Sn**	**19 28 09.1**	**+0.4**
YM01	**YM01**	**1.28**	**307**	*eP*	**Pn**	**19 27 52.7**	**-0.4**
YM01				*eS*	**Sn**	**19 28 07.9**	**-1.3**
ESL	**Shilin**	**1.29**	**244**	*eP*	**Pn**	**19 27 51.6**	**-1.6**
YM08	**YM08**	**1.29**	**309**	*eP*	**Pn**	**19 27 52.5**	**-0.8**
YM08				*eS*	**Sn**	**19 28 07.9**	**-1.5**
ZUZH	**Zhuzihu**	**1.31**	**307**	P	**Pn**	**19 27 52.6**	**-0.9**
JIJ	**Ishigaki jima**	**1.32**	**90**	P	**Pn**	**19 27 53.1**	**-0.5**
JIJ				S	**Sn**	**19 28 09.3**	**-0.7**
WHF	**Hehuan Shan**	**1.33**	**260**	*eP*	**Pn**	**19 27 54.2**	**0.0**
WHF				*eS*	**Sn**	**19 28 09.1**	**-1.9**
FUSS	**Fushou**	**1.33**	**265**	*eP*	**Pn**	**19 27 53.8**	**-0.3**
PCYT	**Pengchaiyu**	**1.37**	**335**	*eP*	**Pn**	**19 27 54.1**	**-0.2**
TWS1	**Kuangyinshan**	**1.37**	**302**	*eP*	**Pn**	**19 27 53.6**	**-0.7**
TWS1				*eS*	**Sn**	**19 28 11.6**	**+0.3**
TWT	**Tachien**	**1.40**	**265**	*eP*	**Pn**	**19 27 56.0**	**+1.1**
TDCB	**Techi**	**1.41**	**265**	*eP*	**Pn**	**19 27 55.4**	**+0.4**
TDCB				*eS*	**Sn**	**19 28 12.2**	**-0.4**
KSHI	**Guanxi Townshi**	**1.44**	**286**	*eP*	**Pn**	**19 27 56.6**	**+1.3**
OWD	**Renai**	**1.46**	**253**	*eP*	**Pn**	**19 27 54.3**	**-1.3**
NFF	**Wufeng Townshi**	**1.46**	**280**	P	**Pn**	**19 27 57.1**	**+1.4**
NFF				S	**Sn**	**19 28 15.1**	**+1.4**
HGSD	**Ruisui**	**1.47**	**233**	*eP*	**Pn**	**19 27 54.3**	**-1.3**
JISG	**Ishigakijimahi**	**1.48**	**82**	P	**Pn**	**19 27 55.5**	**-0.4**
JISG				*eS*	**Sn**	**19 28 13.6**	**-0.5**
WUSB	**Renai**	**1.50**	**255**	*eP*	**Pn**	**19 27 55.5**	**-0.6**
WUSB				*eS*	**Sn**	**19 28 13.6**	**-1.0**
EHYH	**Wanrong**	**1.52**	**235**	*eP*	**Pn**	**19 27 55.8**	**-0.6**
EHY	**Hungye**	**1.53**	**236**	*eP*	**Pn**	**19 27 55.0**	**-1.5**
VWDT	**VWDT**	**1.56**	**247**	*eP*	**Pn**	**19 27 56.1**	**-0.7**
VWDT				*eS*	**Sn**	**19 28 14.3**	**-1.6**
LIOB	**Emei**	**1.56**	**280**	*eP*	**Pn**	**19 27 57.8**	**+0.9**
LIOB				*eS*	**Sn**	**19 28 17.9**	**+1.9**
NSTT	**Nanjuang**	**1.57**	**279**	P	**Pn**	**19 27 58.3**	**+1.3**
NSTT				S	**Sn**	**19 28 18.5**	**+2.4**
YULB	**Yu-li**	**1.62**	**233**	P	**Pn**	**19 27 56.5**	**-1.2**
YULB	**Yu-li**	**1.62**	**233**	*eP*	**Pn**	**19 27 56.4**	**-1.3**
EYUL	**Yuli**	**1.63**	**231**	*eP*	**Pn**	**19 27 57.1**	**-0.8**
TWF1	**Yuli**	**1.64**	**232**	*eP*	**Pn**	**19 27 56.8**	**-1.3**
WCS	**Beigang Elemen**	**1.66**	**259**	*eP*	**Pn**	**19 27 59.9**	**+1.6**
SSLB	**Suanglung**	**1.70**	**250**	P	**Pn**	**19 27 58.8**	**-0.1**
SSLB	**Suanglung**	**1.70**	**250**	*eP*	**Pn**	**19 27 58.7**	**-0.1**
SMLT	**Sun Moon Lake**	**1.72**	**254**	*eP*	**Pn**	**19 27 59.5**	**+0.3**
SMLT				*eS*	**Sn**	**19 28 19.4**	**-0.7**
TYC	**Yuchr**	**1.75**	**255**	*eP*	**Pn**	**19 28 00.0**	**+0.5**
TYC				*eS*	**Sn**	**19 28 21.6**	**+0.9**
TWQ1	**Liyutan**	**1.76**	**269**	*eP*	**Pn**	**19 28 02.0**	**+2.3**
TWQ1				*eS*	**Sn**	**19 28 21.9**	**+1.0**
WHYT	**Xinyi Township**	**1.82**	**248**	*eP*	**Pn**	**19 28 01.2**	**+0.7**
JTJ	**Tarama**	**1.84**	**82**	P	**Pn**	**19 28 01.0**	**+0.2**
JTJ				S	**Sn**	**19 28 23.2**	**+0.3**
TCU	**Taichung**	**1.86**	**263**	*eP*	**Pn**	**19 28 00.1**	**-0.9**
ECS	**Chishang**	**1.87**	**227**	*eP*	**Pn**	**19 28 01.6**	**+0.5**
WJS	**Zhushan**	**1.89**	**253**	*eP*	**Pn**	**19 28 02.1**	**+0.7**
EDH	**Donghe**	**1.90**	**223**	*eP*	**Pn**	**19 28 00.0**	**-1.5**
WNT	**Mingjian**	**1.91**	**255**	*eP*	**Pn**	**19 28 02.9**	**+1.3**
ALS	**Alishan**	**1.94**	**244**	*eP*	**Pn**	**19 28 02.6**	**+0.2**
ELDTW	**Lidau**	**1.95**	**233**	*eP*	**Pn**	**19 28 01.0**	**-1.3**
CHN5	**Tsauling**	**2.01**	**248**	*eP*	**Pn**	**19 28 04.5**	**+1.4**
LONT	**Longtian**	**2.06**	**225**	*eP*	**Pn**	**19 28 02.1**	**-1.6**
WDLH	**Douliu**	**2.09**	**251**	*eP*	**Pn**	**19 28 05.1**	**+0.9**
WCKO	**Fanlu**	**2.13**	**244**	*eP*	**Pn**	**19 28 05.5**	**+0.7**
STYH	**Taoyuan**	**2.14**	**236**	*eP*	**Pn**	**19 28 05.1**	**+0.3**
TWGBT	**Beinan**	**2.15**	**224**	P	**Pn**	**19 28 05.3**	**+0.3**
TWGBT	**Beinan**	**2.15**	**224**	*eP*	**Pn**	**19 28 05.9**	**+1.1**
TWG	**Pinlang**	**2.15**	**224**	*eP*	**Pn**	**19 28 04.3**	**-0.7**
TPUB	**Ta-pu**	**2.18**	**241**	P	**Pn**	**19 28 05.8**	**+0.4**
TPUB	**Ta-pu**	**2.18**	**241**	S	**Sn**	**19 28 31.7**	**+0.5**
TPUB	**Ta-pu**	**2.18**	**241**	*eP*	**Pn**	**19 28 06.0**	**+0.6**
CHN4	**Tsaushan**	**2.19**	**242**	*eP*	**Pn**	**19 28 07.0**	**+1.6**
WTP	**Ta-pu**	**2.22**	**240**	*eP*	**Pn**	**19 28 07.2**	**+1.2**
WTK	**Tuku**	**2.22**	**252**	*eP*	**Pn**	**19 28 06.5**	**+0.6**
TWK	**Hsinying**	**2.31**	**242**	*eP*	**Pn**	**19 28 08.3**	**+1.1**
JIRJ	**Irabujima**	**2.31**	**78**	*eP*	**Pn**	**19 28 07.6**	**+0.4**
JIRJ				*eS*	**Sn**	**19 28 35.2**	**+0.7**
CHN1	**Nanshi**	**2.32**	**240**	*eP*	**Pn**	**19 28 08.8**	**+1.5**
SGST	**Jiashian**	**2.33**	**237**	*eP*	**Pn**	**19 28 08.1**	**+0.6**
WSL	**Shuilin Townsh**	**2.42**	**250**	*eP*	**Pn**	**19 28 10.4**	**+1.8**
JMJ2	**Miyako jima3**	**2.42**	**81**	*eP*	**Pn**	**19 28 09.2**	**+0.6**
SCST	**Cishan**	**2.51**	**234**	*eP*	**Pn**	**19 28 12.0**	**+2.1**
MASBT	**Mashibuluo**	**2.59**	**228**	*eP*	**Pn**	**19 28 12.3**	**+1.3**
TSCK	**Chigu Township**	**2.69**	**243**	*eP*	**Pn**	**19 28 13.6**	**+1.2**

SJA 29 19:40:50.9±0.6, 23°32S×64°20W, h36km±24km, ML3.6, MW3.1, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FSA	**Cafayete**	**3.22**	**210**	*eP*	Pn	19 41 42.0	+2.9
FSA				*eS*	Sn	19 42 20.1	+3.8
AHML	**Horco Molle**	**3.60**	**196**	*eP*	Pn	19 41 47.2	+3.0
AHML				*eS*	Sn	19 42 28.6	+3.0
AHML				IAML		19 42 32.0	
	comp=Z,131nm,0.6s						
CYA	**Choya**	**5.30**	**195**	*eP*	Pn	19 42 10.7	+3.1
CYA				*eS*	Sn	19 43 10.6	+3.1
CYA				IAML		19 43 49.4	
	comp=Z,30nm,0.9s						
TINO	**Tinogasta**	**5.62**	**212**	*eP*	Pn	19 42 15.6	+3.6
TINO				*eS*	Sn	19 43 17.5	+2.2
TINO				IAML		19 43 54.5	
	comp=Z,20nm,1.3s						

SJA 29 19:45:08.2±0.7, 23°20S×65°30W, h39km, ML3.6, MW3.1, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FSA	**Cafayete**	**2.97**	**192**	*eP*	Pn	19 45 55.2	+2.2
FSA				*eS*	Sn	19 46 30.9	+3.4
CYA	**Choya**	**5.24**	**185**	*eP*	Pn	19 46 27.9	+3.8
CYA				*eS*	Sn	19 47 25.3	+2.0
CYA				IAML		19 47 52.2	
	comp=Z,47nm,0.4s						
TINO	**Tinogasta**	**5.26**	**202**	*eP*	Pn	19 46 27.6	+3.2
TINO				IAML		19 48 18.9	
	comp=Z,27nm,1.2s						

*THE **29** 19:59:02.7, 38°N±1°×26°.8E±0°.5, h8km±2km, M3.1/6, MLh3.1/6*
*AFAD **29** 19:59:02.4, 37°.83N×26°.83E, h7km±2km, ML3.0*
*ISK **29** 19:59:02.2, 37°.83N×26°.83E, h14km, ML3.1/25*
*ATH **29** 19:59:02.1, 37°.83N×26°.83E, h12km±1km, ML3.0/12, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

ISC 29 19:59:02.3±0.8, 37°.83N±0°.02×26°.83E±0°.02, h12km±5km, n73, σ0°44/105, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRL1	**Karlovasi Samo**	**0.10**	**253**	P	**Pg**	**19 59 05.0**	**-0.1**
KRL1				S	**Sg**	**19 59 07.2**	**0.0**
SMG	**Samos**	**0.12**	**177**	P	**Pg**	**19 59 05.0**	**-0.3**
SMG				S	**Sg**	**19 59 07.8**	**+0.3**
SMG				AML	AML		
SMG	**Samos**	**0.12**	**177**	P	**Pg**	**19 59 05.3**	**0.0**
SMG				S	**Sg**	**19 59 07.6**	**+0.1**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.18**	**249**	P	**Pg**	**19 59 06.3**	**-0.1**
SAM2				S	**Sg**	**19 59 09.2**	**-0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.23**	**10**	P	**Pg**	**19 59 07.2**	**0.0**
GMLD	**Gumuldur**	**0.26**	**15**	Pg	**Pg**	**19 59 07.9**	**+0.2**
GMLD				Sg	**Sb**	**19 59 12.7**	**-0.7**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.34**	**111**	P	**Pg**	**19 59 09.3**	**+0.1**
GCAM				S	**Sb**	**19 59 15.0**	**-0.7**
GCAM				IAML		19 59 17.0	
	comp=N,2μm,0.2s						
GCAM	**G?zelcaml?**	**0.34**	**111**	Pg	**Pg**	**19 59 09.6**	**+0.4**
GCAM				Sg	**Sb**	**19 59 15.5**	**-0.2**
GCAM				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.36**	**84**	Pg	**Pg**	**19 59 09.9**	**+0.3**
KUSD				Sg	**Sb**	**19 59 15.7**	**-0.6**
KUSD				AML	AML		
BEYE	**izmir**	**0.41**	**11**	P	**Pg**	**19 59 10.4**	**-0.1**
BEYE				S	**Sg**	**19 59 16.4**	**+0.5**
BEYE				IAML		19 59 20.0	
	comp=N,967nm,0.2s						
ZEYE	**Izmir, Urla-Ze**	**0.49**	**328**	P	**Pg**	**19 59 11.9**	**0.0**
ZEYE				IAML		19 59 19.0	
	comp=N,2μm,0.3s						
ZEYE				S	**Sg**	**19 59 19.1**	**+0.8**
ZEYE				IAML		19 59 23.0	
	comp=E,1μm,0.2s						
DDIM	**Aydin, Didim**	**0.49**	**138**	P	**Pg**	**19 59 12.1**	**+0.2**
DDIM				S	**Sb**	**19 59 19.8**	**-0.2**
DDIM				IAML		19 59 21.0	
	comp=N,748nm,0.3s						
DIDI	**Didim-Aydin**	**0.55**	**144**	Pg	**Pb**	**19 59 13.7**	**-0.2**
DIDI				AML	AML		
URLA	**Izmir**	**0.57**	**341**	P	**Pg**	**19 59 13.3**	**0.0**
URLA				S	**Sb**	**19 59 21.8**	**-0.4**
URLA				IAML		19 59 24.0	
	comp=E,1μm,0.3s						
URLA				IAML		19 59 25.0	
	comp=N,1μm,0.3s						
URLA	**Izmir**	**0.57**	**341**	Pg	**Pg**	**19 59 13.4**	**0.0**
URLA				Sg	**Sb**	**19 59 22.0**	**-0.2**
URLA				AML	AML		
BLCB	**Balcova**	**0.58**	**17**	P	**Pg**	**19 59 14.0**	**+0.3**
BLCB				AML	AML		
BLCB	**Balcova**	**0.58**	**17**	Pg	**Pg**	**19 59 13.9**	**+0.2**
BLCB				Sg	**Sb**	**19 59 22.5**	**-0.2**
BLCB				AML	AML		
DUVT	**Torbali**	**0.63**	**51**	P	**Pg**	**19 59 14.5**	**0.0**
DUVT				S	**Sg**	**19 59 23.3**	**+0.5**
DUVT				IAML		19 59 27.0	
	comp=E,2μm,0.5s						
CESE	**eme**	**0.66**	**321**	Pg	**Pb**	**19 59 15.5**	**-0.2**
CESE				AML	AML		
DAGE	**izmir**	**0.75**	**76**	P	**Pg**	**19 59 17.1**	**+0.3**
DAGE				S	**Sg**	**19 59 25.9**	**-0.8**
DAGE				IAML		19 59 27.0	
	comp=N,622nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.79**	**153**	Pg	**Pb**	**19 59 18.5**	**+0.7**
YKAV				AML	AML		
KRBN	**Karaburun**	**0.80**	**344**	Pg	**Pb**	**19 59 18.1**	**0.0**
KRBN				AML	AML		
BAGT	**Foa**	**0.83**	**1**	P	**Pb**	**19 59 18.5**	**-0.1**
BAGT				S	**Sb**	**19 59 29.9**	**+0.2**
BAGT				IAML		19 59 34.0	
	comp=E,804nm,0.3s						
CHOS	**Chios island**	**0.83**	**313**	Pg	**Pb**	**19 59 18.9**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.83**	**313**	P	**Pg**	**19 59 17.9**	**-0.5**
CHOS				S	**Sb**	**19 59 30.1**	**+0.3**
CHOS				AML	AML		
AYDN	**Tasoluk**	**0.85**	**101**	P	**Pg**	**19 59 18.9**	**+0.3**
AYDN				S	**Sg**	**19 59 29.9**	**+0.1**
AYDN				IAML		19 59 34.0	
	comp=N,268nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**0.85**	**81**	Pg	**Pb**	**19 59 19.1**	**+0.1**
AYDB				AML	AML		
BODT	**Bodrum**	**0.85**	**153**	P	**Pg**	**19 59 18.8**	**+0.1**
BODT				S	**Sb**	**19 59 30.8**	**+0.4**
BODT				AML	AML		
BODT	**Bodrum**	**0.85**	**153**	Pg	**Pb**	**19 59 19.4**	**+0.4**
BODT				AML	AML		
KLNA	**Kalymnos**	**0.87**	**172**	P	**Pb**	**19 59 19.6**	**+0.2**
KLNA				S	**Sg**	**19 59 31.0**	**+0.5**
KLNA				AML	AML		
FOCM	**Foa**	**0.89**	**355**	Pg	**Pg**	**19 59 19.0**	**-0.5**
FOCM				AML	AML		
KARB	**zmir-Karabur**	**0.90**	**339**	P	**Pg**	**19 59 19.5**	**-0.2**
KARB				S	**Sb**	**19 59 32.8**	**+1.0**
KARB				IAML		19 59 35.0	
	comp=N,706nm,0.5s						
BDRM	**Kayabasi**	**0.90**	**147**	P	**Pb**	**19 59 20.4**	**+0.5**
BDRM				S	**Sb**	**19 59 32.8**	**+0.9**
BDRM				IAML		19 59 35.0	
	comp=N,346nm,0.4s						
EAG2	**Marmaro, Chios**	**0.92**	**322**	P	**Pg**	**19 59 19.7**	**-0.3**
EAG2				S	**Sb**	**19 59 32.8**	**+0.6**
MLSB	**Milas**	**0.92**	**125**	Pg	**Pg**	**19 59 19.9**	**-0.1**
MLSB				AML	AML		
BODA	**Bodrum-Mula**	**0.92**	**149**	Pg	**Pn**	**19 59 20.8**	**-0.2**
IZMR	**zmir-demi**	**0.94**	**70**	P	**Pb**	**19 59 20.7**	**+0.2**
IZMR				P	**Pg**	**19 59 20.9**	**+0.5**
IZMR				S	**Sg**	**19 59 31.4**	**-1.3**
IZMR				S	**Sg**	**19 59 31.4**	**-1.3**
CAMT	**Merkez**	**1.00**	**22**	P	**Pn**	**19 59 22.4**	**+0.3**
CAMT				S	**Sn**	**19 59 36.0**	**-0.1**
NAZL	**Nazilli-Aydin**	**1.17**	**83**	Pn	**Pb**	**19 59 24.4**	**0.0**
NAZL				AML	AML		
ESEN	**Aydn-Nazilli**	**1.20**	**91**	P	**Pn**	**19 59 24.7**	**-0.2**
ESEN				S	**Sn**	**19 59 41.8**	**+0.6**
GOMA	**Golmarmara-Man**	**1.23**	**44**	Pn	**Pb**	**19 59 25.7**	**+0.3**
GOMA				AML	AML		
YAZI	**Mula-Dat§a-**	**1.25**	**156**	P	**Pn**	**19 59 25.0**	**-0.5**
DAT	**Datca**	**1.25**	**151**	P	**Pn**	**19 59 25.4**	**-0.2**
DAT	**Datca**	**1.25**	**151**	Pn	**Pb**	**19 59 26.0**	**+0.2**
DAT				AML	AML		
DKL	**Dikili**	**1.25**	**3**	Pn	**Pb**	**19 59 25.9**	**+0.2**
DKL				AML	AML		
DKL	**Dikili**	**1.25**	**3**	P	**Pn**	**19 59 25.4**	**-0.1**
DKL				S	**Sb**	**19 59 41.7**	**0.0**
DATC	**Datca-Mugla**	**1.25**	**148**	Pn	**Pn**	**19 59 25.4**	**-0.2**
DATC				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	Pn	**Pn**	**19 59 25.1**	**-1.0**
APE				AML	AML		
APE	**Apeiranthos**	**1.28**	**234**	P	**Pn**	**19 59 25.0**	**-1.0**
APE				AML	AML		
KIRA	**zmir-Kiraz**	**1.29**	**73**	P	**Pg**	**19 59 27.0**	**-0.2**
KIRA				S	**Sb**	**19 59 42.1**	**-1.2**
AKHS	**Akhisar**	**1.31**	**36**	P	**Pb**	**19 59 26.8**	**+0.1**
AKS	**Akhisar**	**1.31**	**36**	Pn	**Pn**	**19 59 26.0**	**-0.4**
AKS				AML	AML		
MULA	**Mugla, Merkez-**	**1.31**	**115**	P	**Pn**	**19 59 26.4**	**-0.1**
KTTT	**Salihli**	**1.32**	**49**	P	**Pb**	**19 59 26.8**	**-0.1**
SOMA	**Soma-Manisa**	**1.44**	**22**	Pn	**Pb**	**19 59 29.1**	**+0.1**
SOMA				AML	AML		
AYVA	**Ayvalik**	**1.48**	**356**	P	**Pg**	**19 59 30.5**	**-0.3**
PRK	**Paraskevi**	**1.48**	**343**	P	**Pn**	**19 59 28.8**	**0.0**
GORD	**Gordes-Manisa**	**1.51**	**44**	Pn	**Pb**	**19 59 30.5**	**+0.2**
GORD				AML	AML		
MANT	**Manisa**	**1.52**	**63**	P	**Pb**	**19 59 30.6**	**+0.1**
MANT				S	**Sn**	**19 59 48.8**	**-0.5**
TURN	**Turunc**	**1.54**	**132**	P	**Pn**	**19 59 28.9**	**-0.6**
SULTU	**Buldan**	**1.55**	**81**	P	**Pb**	**19 59 31.0**	**+0.1**
KULA	**Kula-Manisa**	**1.60**	**64**	Pn	**Pb**	**19 59 32.0**	**+0.2**
KULA				AML	AML		
HARTU	**Esme**	**1.64**	**71**	P	**Pg**	**19 59 34.7**	**+1.0**
BUHA	**Balikesir, Bur**	**1.69**	**7**	P	**Pn**	**19 59 31.4**	**-0.1**
TAVA	**DENIZLI_Tavas**	**1.69**	**102**	P	**Pn**	**19 59 31.8**	**0.0**
STEP	**BALIKESIR_Sava**	**1.70**	**24**	P	**Pb**	**19 59 34.1**	**+0.6**
KOCA	**Canakkale, Ayv**	**1.76**	**342**	P	**Pb**	**19 59 34.9**	**+0.4**
YAYO	**Edremit-Balk**	**1.79**	**6**	Pn	**Pn**	**19 59 33.5**	**+0.5**
YAYO				AML	AML		
KARY	**Karystos**	**1.90**	**277**	P	**Pn**	**19 59 34.2**	**-0.4**
ARG	**Arkhangelos**	**1.91**	**147**	P	**Pn**	**19 59 34.6**	**0.0**
ARG				AML	AML		
DION	**Dionisos Attik**	**2.30**	**277**	P	**Pn**	**19 59 40.2**	**+0.1**
DION				AML	AML		
VLY	**Voula,Athens**	**2.40**	**272**	P	**Pn**	**19 59 41.5**	**+0.1**
VLY				AML	AML		
LIA	**Limnos Island**	**2.44**	**329**	P	**Pn**	**19 59 42.0**	**+0.1**
LIA				AML	AML		

*TRN **29** 20:00:35.0, 11°.18N×61°.91W, h64km, MD3.1, North-west of Trinidad.*
*FUNV **29** 20:01:05.2, 11°.23N×61°.92W, h10km, MW3.4, Presumed earthquake*

ISC 29 20:01:04.0±1.1, 11°.20N±0°.03×61°.97W±0°.04, h22km±8km, n18, σ1°28/35, Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DMDM	**Guralp CMG5TDE**	**0.65**	**141**	*eP*	**Pn**	**20 01 18.3**	**+0.3**
DMDM				*eS*	**Sn**	**20 01 27.9**	**+0.3**
PSKH	**Kent House, Po**	**0.68**	**140**	*eP*	**Pn**	**20 01 19.6**	**+1.2**
PSKH				*eS*	**Sn**	**20 01 29.1**	**+0.8**
PSMG	**Mucurapo Girls**	**0.68**	**141**	*eP*	**Pn**	**20 01 19.1**	**+0.7**
PSMG				*eS*	**Sn**	**20 01 28.3**	**0.0**
PSDM	**Port of Spain,**	**0.71**	**140**	*eP*	**Pn**	**20 01 19.2**	**+0.5**
PSDM				*eS*	**Sn**	**20 01 28.9**	**-0.1**
TRN	**Trinidad (W)**	**0.79**	**135**	*eP*	**Pn**	**20 01 20.0**	**+0.2**
TRN				*eS*	**Sb**	**20 01 29.8**	**+0.6**
TRN	**Trinidad (W)**	**0.79**	**135**	*eP*	**Pn**	**20 01 19.9**	**+0.2**
TRN				*eS*	**Sn**	**20 01 30.3**	**-0.5**
GRGR	**Grenville**	**0.97**	**19**	*eP*	**Pb**	**20 01 22.1**	**-0.1**
GRGR				*eS*	**Sb**	**20 01 35.0**	**+0.3**
GRGR	**Grenville**	**0.97**	**19**	*eP*	**Pn**	**20 01 22.2**	**-0.1**
GRGR				*eS*	**Sn**	**20 01 35.4**	**-0.1**
GRW	**Mount Saint Ca**	**1.00**	**18**	*eP*	**Pn**	**20 01 23.7**	**+0.9**
GRW				*eS*	**Sn**	**20 01 38.4**	**+2.1**
GRHS	**Sauteurs**	**1.06**	**18**	*eP*	**Pn**	**20 01 23.6**	**-0.1**
GRHS				*eS*	**Sb**	**20 01 37.2**	**-0.1**
GRSS	**Sisters**	**1.14**	**18**	*eP*	**Pn**	**20 01 24.7**	**0.0**
GRSS				*eS*	**Sn**	**20 01 40.3**	**+0.6**
SVB	**Belmont**	**2.17**	**19**	*eP*	**Pn**	**20 01 40.1**	**+1.2**
SVB				*eS*	**Sn**	**20 02 06.3**	**+1.2**
SVB	**Belmont**	**2.17**	**19**	*eP*	**Pn**	**20 01 38.3**	**-0.6**
SVB		

ZKR				AML	AML			
ZKR	**Zakros**	**1.32**	**69**	P	**Pg**	**20 05 29.6**	**+1.1**	
ANKY	**Antikythira Is**	**1.68**	**317**	P	**Pb**	**20 05 33.5**	**-0.6**	
ANKY				AML	AML			
THR5	**Thira Island,**	**1.84**	**16**	Pn	**Pg**	**20 05 37.5**	**-1.0**	
THR2	**Thira island,**	**1.89**	**18**	P	**Pn**	**20 05 36.0**	**+0.8**	
CMBO	**Columbo, Santo**	**1.91**	**17**	P	**Pb**	**20 05 38.4**	**+0.6**	
KTHA	**Kythira Island**	**2.10**	**320**	Pn	**Pb**	**20 05 41.2**	**0.0**	
KTHA				AML	AML			
KARP	**Karpathos**	**2.19**	**65**	Pn	**Pb**	**20 05 43.9**	**+1.1**	
KARP				AML	AML			
KARP	**Karpathos**	**2.19**	**65**	P	**Pb**	**20 05 43.7**	**+0.9**	
KARP				AML	AML			
APE	**Apeiranthos**	**2.51**	**15**	Pn	**Pb**	**20 05 46.8**	**-1.3**	
APE				AML	AML			
APE	**Apeiranthos**	**2.51**	**15**	P	**Pn**	**20 05 45.6**	**+1.8**	
VLI	**Veliai**	**2.53**	**325**	P	**Pn**	**20 05 45.9**	**+1.9**	
DAT	**Datca**	**3.12**	**47**	Pn	**Pb**	**20 05 56.2**	**-2.4**	
BODT	**Bodrum**	**3.20**	**40**	Pn	**Pb**	**20 05 57.1**	**-2.8**	
TURN	**Turunc**	**3.57**	**52**	Pn	**Pb**	**20 06 02.6**	**-3.6**	
TURN				AML	AML			
DALY	**Dalyan (Mula)**	**3.86**	**55**	Pn	**Pb**	**20 06 07.1**	**-4.1**	
AKAS	**Kas**	**4.29**	**67**	Pn	Pb	20 06 13.9	-4.7	
AKAS				AML	AML			
CAME	**Cameli-Denizli**	**4.37**	**57**	Pn	**Pn**	**20 06 13.6**	**+4.1**	
CAME				AML	AML			
ELL	**Elmali**	**4.71**	**62**	Pn	Pn	20 06 19.9	+5.7	
ELL				AML	AML			
CSS	**Mathiatis**	**7.09**	**85**	P	**Pn**	**20 06 44.0**	**-2.7**	
CSS				S	**Sn**	**20 08 04.4**	**-2.8**	
BRTR	**Keskin Array B**	**8.74**	**52**	Pn	**Pn**	**20 07 11.4**	**+2.0**	
	0.1nm,0.3s,baz=232,slow=14,SNR=6.3							
BRTR				LR	LR	20 11 31.7		
	comp=Z,39nm,19.4s,baz=198,slow=45							
	0.2nm,0.4s							
BRTR				AML	AML			
KZIT	**Kziot**	**8.96**	**112**	P	**Pn**	**20 07 12.0**	**-0.4**	
KZIT				S	**Sn**	**20 08 52.8**	**-0.4**	
MMA0B	**Mount Meron ar**	**9.04**	**97**	P	**Pn**	**20 07 11.8**	**-1.6**	
MMA0B				S	**Sn**	**20 08 53.3**	**-1.9**	
MMAI	**Mount Meron Ar**	**9.04**	**97**	Pn	**Pn**	**20 07 15.0**	**+1.6**	
	1.1nm,0.3s,baz=287,slow=11,SNR=4.4							
MMAI				Sn	**Sn**	**20 08 53.7**	**-1.4**	
	0.7nm,0.3s,baz=274,slow=23,SNR=1.5							
	0.4nm,0.3s							
MMAI				AML	AML			
AMAZ	**Amatzia**	**9.10**	**107**	P	**Pn**	**20 07 12.6**	**-1.7**	
AMAZ				S	**Sn**	**20 08 55.8**	**-0.9**	
MMLI	**Mount Malkishu**	**9.20**	**101**	P	**Pn**	**20 07 13.9**	**-1.8**	
MMLI				S	**Sn**	**20 08 57.6**	**-1.6**	
GEM	**Giv'at Ha'Em**	**9.21**	**96**	P	**Pn**	**20 07 13.3**	**-2.4**	
GEM				S	**Sn**	**20 08 57.1**	**-2.2**	
YITV	**Yitav**	**9.35**	**104**	P	**Pn**	**20 07 15.9**	**-1.8**	
YITV				S	**Sn**	**20 09 01.6**	**-1.2**	
RMNI	**Mount Ramon**	**9.38**	**113**	P	**Pn**	**20 07 17.1**	**-1.1**	
RMNI				S	**Sn**	**20 09 03.1**	**-0.5**	
UJAP	**Al Uja**	**9.38**	**104**	P	**Pn**	**20 07 15.9**	**-2.3**	
UJAP				S	**Sn**	**20 09 02.4**	**-1.2**	
MSBI	**Mazada**	**9.53**	**107**	P	**Pn**	**20 07 18.9**	**-1.3**	
MSBI				S	**Sn**	**20 09 06.2**	**-1.0**	
HRFI	**Mount Harif**	**9.86**	**115**	P	**Pn**	**20 07 23.5**	**-1.3**	
HRFI				S	**Sn**	**20 09 15.0**	**-0.4**	
EIL	**Elat**	**9.99**	**117**	Pn	**Pn**	**20 07 28.1**	**+1.7**	
	0.5nm,0.3s,baz=351,slow=11,SNR=4.1							
EIL				Sn	**Sn**	**20 09 15.3**	**-3.2**	
	0.6nm,0.3s,baz=2.1,slow=10,SNR=4.8							
	3.4nm,0.6s							
EIL				AML	AML			
EIL	**Elat**	**9.99**	**117**	P	**Pn**	**20 07 25.5**	**-1.0**	
EIL				S	**Sn**	**20 09 18.3**	**-0.2**	
ASF	**Jabal al Asfar**	**10.43**	**100**	Pn	**Pn**	**20 07 34.0**	**+0.8**	
	0.2nm,0.3s,baz=294,slow=10,SNR=2.3							
ASF				Sn	**Sn**	**20 09 29.0**	**-1.5**	
	0.2nm,0.3s,baz=210,slow=22,SNR=1.9							
	0.7nm,0.4s							
ASF				AML	AML			
GERES	**GERESS Array B**	**16.37**	**333**	Pn	**Pn**	**20 08 50.8**	**-2.0**	
	baz=138,slow=12,SNR=6.8							
	0.1nm,0.3s							
AKASG	**Malin Array Be**	**16.38**	**10**	Pn	**Pn**	**20 08 53.5**	**+0.8**	
	0.6nm,0.3s,baz=204,slow=11,SNR=4.0							
	0.2nm,0.3s							
AKASG				AML	AML			
DAVOX	**Davos/Dischmat**	**16.50**	**322**	Pn	**Pn**	**20 08 55.4**	**+0.8**	
	baz=143,slow=11,SNR=1.7							
	0.5nm,0.4s							
KBZ	**Khabaz**	**16.73**	**52**	Pn	**P**	**20 09 01.4**	**+1.9**	
	0.1nm,0.3s,baz=266,slow=9.0,SNR=6.5							
KBZ				AML	AML			
ESDC	**Sonseca Array**	**23.35**	**291**	P	**P**	**20 10 12.9**	**+1.5**	
	0.4nm,0.7s,baz=81,slow=8.7,SNR=7.0							
	0.4nm,0.7s							
EKA	**Eskdalemuir Ar**	**28.25**	**326**	P	**P**	**20 10 57.0**	**+1.1**	
	0.4nm,0.6s,baz=127,slow=10,SNR=1.8							
	0.4nm,0.6s							
KURBB	**Kurchatov Arra**	**41.73**	**51**	P	**P**	**20 12 53.1**	**+1.3**	
	0.4nm,0.4s,baz=275,slow=8.5,SNR=1.9							
	0.4nm,0.4s							
MKAR	**Makanchi Array**	**44.36**	**56**	P	**P**	**20 13 14.7**	**+1.4**	
	0.9nm,0.7s,baz=273,slow=7.7,SNR=12							
	0.9nm,0.7s							
ZALV	**Zalesovo Beam**	**45.62**	**46**	P	**P**	**20 13 23.2**	**+0.1**	
	0.3nm,0.3s,baz=282,slow=9.7,SNR=5.8							
	0.3nm,0.3s							

*IDC **29** 20:07:37.4±1.3,21˚.63N×143˚.19E,h279km±11km, mb3.7/27,mbtmp4.4/32,Error ellipse: s-maj=13.7km s-min=8.5km az=78.0*
*GFZ **29** 20:07:38.8±0.9,21˚.N±5˚×14˚.3E±˚,h288km±8km,M4.4/25, mb4.4/25,Error ellipse: s-maj=13.6km s-min=7.9km az=129.6,confirmed*
*NEIC **29** 20:07:39.6±2.2,21˚.62N±0˚.08×143˚.1E±0˚.1,h302km±6km, mb4.2/59,Error ellipse: s-maj=14.1km s-min=11.0km az=79.0*
*JMA **29** 20:07:39.9±0.2,22˚.N±1˚×14˚.4E±˚,h318km,MV5.0/18, MARIANA ISLANDS REGION*
ISC 29 20:07:38.6±0.9,21˚.60N±0˚.05×143˚.17E±0˚.09,h294km±8km, n149,σ1§19/145,mb4.2/70,1C,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JHH2	**Haha-jima-NKT2**	**5.09**	**350**	*eS*	**S**	**20 09 59.4**	**-0.5**
JCJ	**Chichijima**	**5.55**	**351**	P	**Pn**	**20 09 00.0**	**-2.2**
	170nm,0.3s,baz=166,slow=5.0,SNR=30						
JCJ				S	**S**	**20 10 04.6**	**-5.0**
	288nm,0.3s,baz=306,slow=23,SNR=14						
JCJ	**Chichijima**	**5.55**	**351**		**Pn**	**20 09 02.8**	**+0.6**
JCJ				Sn	**S**	**20 10 10.2**	**+0.6**
JCJ	**Chichijima**	**5.55**	**351**	P	**Pn**	**20 09 02.8**	**+0.6**
	comp=Z,234nm,0.7s						
CBIJ	**Chichi jima**	**5.55**	**351**	P	**Pn**	**20 09 03.1**	**+0.8**
CBIJ				*eS*	**S**	**20 10 08.4**	**-1.2**
DPSS	**Saipan**	**6.79**	**158**		**Pn**	**20 09 18.9**	**+1.5**
GUMO	**Guam**	**8.13**	**168**	P	**Pn**	**20 09 33.3**	**-0.5**
	comp=Z,98nm,0.9s,baz=178,slow=7.9,SNR=6.3						
GUMO	**Guam**	**8.13**	**168**		**Pn**	**20 09 36.5**	**+2.7**
JHCJ	**Hachijojimakas**	**11.81**	**346**	*eP*	**Pn**	**20 10 19.0**	**+0.1**
JHJ2	**Mitsune**	**11.85**	**346**	Pn	**Pn**	**20 10 18.7**	**-0.6**
JHJ2	**Mitsune**	**11.85**	**346**	*eP*	**Pn**	**20 10 19.3**	**0.0**
JHJ	**Hachijo jima 2**	**11.86**	**346**	P	**Pn**	**20 10 19.6**	**+0.2**
	comp=Z,13nm,0.3s,baz=234,slow=22,SNR=14						
JHJ				S	**S**	**20 12 31.5**	**-0.1**
	comp=Z,5.6nm,0.4s,baz=60,slow=19,SNR=1.6						
BSO1	**Boso 1**	**13.15**	**352**	*eP*	**P**	**20 10 36.4**	**+1.5**
JTNC	**Tanabenakahech**	**13.89**	**333**	*eP*	**Pn**	**20 10 46.0**	**+2.1**
JIE	**Ise**	**13.96**	**337**	P	**Pn**	**20 10 45.4**	**+0.7**
JOD2	**Odawara 2**	**14.08**	**346**	P	**Pn**	**20 10 46.9**	**+0.7**
JAMN	**Amaminishikomi**	**14.31**	**300**	*eP*	Pn	20 10 54.9	+5.9
JTO	**Tosashimizu**	**14.51**	**323**	P	**Pn**	**20 10 54.5**	**+3.2**
JMN	**Monobe**	**14.61**	**328**		**P**	**20 10 50.7**	**-1.0**
JMN	**Monobe**	**14.61**	**328**	P	**Pn**	**20 10 55.1**	**+2.5**
	comp=Z,62nm,0.9s						
INU	**Inuyama**	**14.72**	**340**		**P**	**20 10 52.5**	**-0.3**
INU	**Inuyama**	**14.72**	**340**	P	**Pn**	**20 10 55.5**	**+1.6**
	comp=Z,37nm,0.9s						
JRY	**Ryogami san**	**14.84**	**346**	P	**P**	**20 10 55.0**	**+0.8**
MJAR	**Matsushiro Arr**	**15.51**	**345**	P	**P**	**20 11 00.9**	**-0.5**
	comp=Z,8.5nm,0.6s,baz=173,slow=11,SNR=30						
MJAR	**Matsushiro Arr**	**15.51**	**345**		**P**	**20 10 59.1**	**-2.3**
MJAR				IAmb	IAmb	20 11 03.3	
	comp=Z,9.2nm,0.9s						
MAJO	**Matsushiro**	**15.51**	**345**		**P**	**20 11 00.3**	**-1.1**
MAJO				IAmb	IAmb	20 11 08.9	
	comp=Z,17nm,0.7s						
MAJO	**Matsushiro**	**15.51**	**345**	P	**P**	**20 11 02.4**	**+1.0**
	comp=Z,21nm,0.5s						
MJB9	**Matsu-Tunnel**	**15.51**	**345**		**P**	**20 11 01.8**	**+0.4**
JNU	**Nakatsue**	**15.83**	**319**	P	**P**	**20 11 05.2**	**+0.1**
	comp=Z,10nm,0.8s,baz=93,slow=3.0,SNR=14						
JMK	**Ichinoseki**	**17.38**	**355**	P	**Pn**	**20 11 23.8**	**-1.1**
ERM	**Erimo**	**20.36**	**360**	P	**P**	**20 11 53.4**	**+0.1**
KSRS	**Korea Array**	**20.59**	**323**	P	**P**	**20 11 55.7**	**-0.1**
	comp=Z,4.8nm,0.7s,baz=144,slow=8.5,SNR=14						
	comp=Z,4.8nm,0.7s						
SSLB	**Suanglung**	**20.61**	**280**	P	**P**	**20 11 56.2**	**0.0**
JKA	**Kamikawa-asahi**	**22.46**	**359**	P	**P**	**20 12 13.3**	**+0.2**
USRK	**Ussuriysk Ar.**	**24.37**	**340**	P	**P**	**20 12 31.4**	**+1.1**
	comp=Z,2.3nm,0.6s,baz=144,slow=7.4,SNR=6.3						
	comp=Z,2.3nm,0.6s						
WHN	**Wuhan**	**27.32**	**295**	P	**P**	**20 12 59.0**	**+2.1**
BNX	**BinXian**	**27.32**	**336**	⇑P	**P**	**20 12 57.3**	**+0.6**
BNX				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HEH	**HeiHe**	**31.18**	**340**	*e*P	**P**	**20 13 31.5**	**+0.9**
HHC	**Hu-ho-hao-te**	**32.89**	**313**	*e*P	**P**	**20 13 46.5**	**+0.8**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,94nm,4.6s						
HILR	**Hailar Array B**	**33.51**	**332**	P	**P**	**20 13 51.6**	**+0.8**
	comp=Z,1.2nm,0.4s,baz=134,slow=13,SNR=3.8						
	comp=Z,1.2nm,0.4s						
MTN	**Manton Dam**	**36.21**	**200**	P	**P**	**20 14 12.4**	**-1.7**
LZDM	**Lanzhou Array**	**37.18**	**301**	P	**P**	**20 14 22.6**	**+0.1**
	comp=Z,3.0nm,0.4s,baz=152,slow=6.7,SNR=5.8						
	comp=Z,3.0nm,0.4s						
STKI	**Sintang**	**37.60**	**239**	P	**P**	**20 14 26.2**	**+0.3**
	comp=Z,30nm,0.7s						
SONM	**Songino Array**	**39.41**	**321**	P	**P**	**20 14 42.2**	**+1.6**
	comp=Z,0.5nm,0.4s,baz=124,slow=7.0,SNR=4.5						
SONM				PcP	**PcP**	**20 16 42.9**	**+0.7**
	comp=Z,0.5nm,0.6s,baz=93,slow=2.9,SNR=2.0						
SONM				ScP	**ScP**	**20 20 02.5**	**+0.1**
	comp=Z,0.4nm,0.9s,baz=116,slow=3.4,SNR=1.7						
	comp=Z,0.5nm,0.4s						
SONM	**Songino Array**	**39.41**	**321**	P	**P**	**20 14 39.9**	**-0.7**
KNRA	**Kununurra**	**39.65**	**202**	P	**P**	**20 14 42.8**	**+0.2**
KNRA				IAmb	IAmb	20 14 49.9	
	comp=Z,17nm,1.4s						
YAK	**Yakutsk**	**41.46**	**350**	P	**P**	**20 14 55.0**	**-1.8**
YAK				IAmb	IAmb	20 14 57.8	
	comp=Z,12nm,1.0s						
CHTO	**Chiang Mai**	**41.50**	**274**	P	**P**	**20 14 55.8**	**-2.0**
CMAR	**Chiang Mai Arr**	**41.57**	**274**	P	**P**	**20 14 59.7**	**+1.3**
	comp=Z,2.0nm,0.5s,baz=81,slow=6.1,SNR=23						
	comp=Z,2.0nm,0.5s						
WB0	**Warramunga Arr**	**42.00**	**192**	P	**P**	**20 14 60.0**	**-1.7**
WR8	**Warramunga Arr**	**42.16**	**192**		**P**	**20 15 01.4**	**-1.7**
WRAB	**Tennant Creek**	**42.17**	**192**	P	**P**	**20 15 01.4**	**-1.7**
WRAB				IAmb	IAmb	20 15 04.0	
	comp=Z,8.9nm,0.7s						
WRAB	**Tennant Creek**	**42.17**	**192**	P	**P**	**20 15 03.4**	**+0.3**
	comp=Z,16nm,0.6s						
WRA	**Warramunga Arr**	**42.18**	**192**	P	**P**	**20 15 03.3**	**+0.1**
	comp=Z,6.6nm,0.6s,baz=15,slow=8.4,SNR=103						
	comp=Z,6.6nm,0.6s						
WRA	**Warramunga Arr**	**42.18**	**192**	P	**P**	**20 15 00.6**	**-2.6**
PWJI	**Pagerwojo**	**42.59**	**230**	P	**P**	**20 15 06.3**	**-0.3**
	comp=Z,28nm,1.1s						
TPRI	**Tanjung Pinang**	**42.90**	**247**	P	**P**	**20 15 11.0**	**+1.9**
	comp=Z,34nm,0.8s						
FITZ	**Fitzroy Crossi**	**43.03**	**205**	PcP	**PcP**	**20 16 53.2**	**-1.1**
	comp=Z,3.0nm,0.8s,baz=0.0,slow=3.0,SNR=2.6						
FITZ	**Fitzroy Crossi**	**43.03**	**205**	P	**P**	**20 15 09.7**	**-0.2**
FITZ	**Fitzroy Crossi**	**43.03**	**205**	P	**P**	**20 15 09.9**	**0.0**
	comp=Z,2.2nm,0.5s						
PCJI	**Pacitan**	**43.16**	**230**	P	**P**	**20 15 11.2**	**+0.1**
	comp=Z,39nm,1.1s						
UGM	**Wanagama**	**43.43**	**231**	P	**P**	**20 15 11.8**	**-1.5**
NPW	**Naypyitaw**	**43.91**	**276**	P	**P**	**20 15 18.0**	**+1.0**
	comp=Z,6.4nm,1.1s						
KULM	**Kulim**	**44.23**	**255**		**P**	**20 15 19.1**	**-0.5**
KULM	**Kulim**	**44.23**	**255**	P	**P**	**20 15 21.2**	**+1.5**
	comp=Z,32nm,0.7s						
IPM	**Ipoh**	**44.25**	**253**		**P**	**20 15 19.1**	**-0.7**
IPM				IAmb	IAmb	20 15 21.7	
	comp=Z,11nm,0.8s						
IPM	**Ipoh**	**44.25**	**253**	P	**P**	**20 15 20.9**	**+1.1**
	comp=Z,15nm,1.3s						
MORE	**Moreh**	**44.91**	**283**		**P**	**20 15 24.1**	**-0.8**
MORE				IAmb	IAmb	20 15 24.8	
	comp=Z,11nm,0.5s						
AS31	**Alice Springs**	**45.89**	**192**		**P**	**20 15 31.7**	**-0.7**
ASAR	**Alice Springs**	**45.89**	**192**	P	**P**	**20 15 32.2**	**-0.2**
	comp=Z,1.7nm,0.8s,baz=17,slow=12,SNR=44						
	comp=Z,1.7nm,0.8s						
ASAR	**Alice Springs**	**45.89**	**192**	P	**P**	**20 15 31.0**	**-1.4**
MDSI	**Maura Dua**	**46.16**	**240**	P	**P**	**20 15 33.9**	**-0.8**
	comp=Z,8.1nm,1.3s						
CGJI	**Cibinong**	**46.23**	**237**	P	**P**	**20 15 33.6**	**-1.6**
	comp=Z,35nm,1.1s						
LHSI	**Lahat**	**46.31**	**242**	P	**P**	**20 15 36.7**	**+0.8**
	comp=Z,14nm,0.9s						
SDSI	**Sungai Dareh**	**46.50**	**247**	P	**P**	**20 15 38.2**	**+0.9**
	comp=Z,17nm,0.8s						
RPSI	**Rantau Prapat**	**46.92**	**253**		**P**	**20 15 39.7**	**-0.9**
RPSI				IAmb	IAmb	20 15 42.0	
	comp=Z,18nm,1.1s						
RPSI	**Rantau Prapat**	**46.92**	**253**	P	**P**	**20 15 41.1**	**+0.5**
	comp=Z,11nm,0.8s						
RPSI	**Rantau Prapat**	**46.92**	**253**	P	**P**	**20 15 41.5**	**+0.9**
	comp=Z,17nm,0.8s						
KCSI	**Kotacane, Aceh**	**47.58**	**254**	P	**P**	**20 15 45.2**	**-0.5**
	comp=Z,6.4nm,1.0s						
SISI	**Saibi**	**48.71**	**248**	P	**P**	**20 15 54.3**	**+0.1**
	comp=Z,43nm,1.1s						
GSI	**Gunungsitoli**	**48.76**	**252**		**P**	**20 15 52.7**	**-1.9**
GSI	**Gunungsitoli**	**48.76**	**252**	P	**P**	**20 15 54.7**	**+0.1**
	comp=Z,38nm,0.7s						
INKA	**Innaminka**	**49.11**	**183**	P	**P**	**20 15 55.4**	**-1.5**
EVN	**Everest**	**51.19**	**289**		**P**	**20 16 13.1**	**-0.3**
EVN				IAmb	IAmb	20 16 15.5	
	comp=Z,8.4nm,0.6s						
STKA	**Stephens Creek**	**53.19**	**182**	P	**P**	**20 16 26.6**	**-0.4**
	comp=Z,2.3nm,0.6s,baz=10,slow=3.2,SNR=5.4						
	comp=Z,2.3nm,0.6s						
STKA	**Stephens Creek**	**53.19**	**182**	P	**P**	**20 16 25.7**	**-1.3**
STKA				IAmb	IAmb	20 16 41.6	
	comp=Z,30nm,1.4s						
FORT	**Forrest**	**54.06**	**196**	P	**P**	**20 16 33.2**	**-0.2**
FORT				IAmb	IAmb	20 16 54.7	
	comp=Z,19nm,1.4s						
ZALV	**Zalesovo Beam**	**54.28**	**322**	P	**P**	**20 16 34.9**	**+0.2**
	comp=Z,1.8nm,0.6s,baz=107,slow=8.2,SNR=8.5						
ZALV				PcP	**PcP**	**20 17 34.3**	**-0.4**
	comp=Z,4.0nm,0.4s,baz=118,slow=3.9,SNR=16						
	comp=Z,1.8nm,0.6s						
ZALV	**Zalesovo Beam**	**54.28**	**322**	P	**P**	**20 16 33.8**	**-0.9**
ZALV					**PcP**	**20 17 34.1**	**-0.6**
MKAR	**Makanchi Array**	**54.76**	**313**	P	**P**	**20 16 38.7**	**+0.4**
	comp=Z,1.2nm,0.6s,baz=86,slow=8.9,SNR=4.4						
MKAR				PcP	**PcP**	**20 17 36.9**	**+0.1**
	comp=Z,1.5nm,0.4s,baz=72,slow=4.2,SNR=6.8						
	comp=Z,1.2nm,0.6s						
MKAR	**Makanchi Array**	**54.76**	**313**	P	**P**	**20 16 38.1**	**-0.1**
MKAR				PcP	**PcP**	**20 17 36.9**	**+0.1**
MAKZ	**Makanchi**	**54.97**	**313**	P	**P**	**20 16 38.9**	**-0.9**
KURK	**Kurchatov**	**57.54**	**317**	P	**P**	**20 16 55.7**	**-2.0**
KURBB	**Kurchatov Arra**	**57.59**	**317**	P	**P**	**20 16 58.2**	**+0.2**
	comp=Z,5.7nm,0.6s,baz=94,slow=7.5,SNR=38						
	comp=Z,5.7nm,0.6s						
NRIK	**Noril'sk**	**58.09**	**340**	P	**P**	**20 17 02.5**	**+1.3**
	comp=Z,2.7nm,0.7s,baz=106,slow=7.8,SNR=3.9						
	comp=Z,2.7nm,0.7s						
D22K	**Ayikyak River**	**60.78**	**22**		**P**	**20 17 20.2**	**+0.7**
D22K				IAmb	IAmb	20 17 21.9	
	comp=Z,4.2nm,0.4s						
ILAR	**Eielson Array**	**62.13**	**27**	P	**P**	**20 17 28.4**	**-0.2**
	comp=Z,1.2nm,0.6s,baz=259,slow=5.5,SNR=20						
	comp=Z,1.2nm,0.6s						
ILAR	**Eielson Array**	**62.13**	**27**	P	**P**	**20 17 27.6**	**-1.0**
BVAR	**Borovoye Array**	**62.74**	**320**	P	**P**	**20 17 33.2**	**+0.5**
	comp=Z,9.7nm,0.3s,baz=98,slow=7.8,SNR=99						
BVAR				PcP	**PcP**	**20 18 08.6**	**+0.2**
	comp=Z,2.4nm,0.5s,baz=99,slow=5.5,SNR=4.9						
	comp=Z,9.7nm,0.3s						
J25K	**Salcha River,**	**62.76**	**27**	P	**P**	**20 17 31.1**	**-1.7**
BORK	**Borovoye**	**62.78**	**320**		**P**	**20 17 33.3**	**+0.2**
KK31	**Karatay Array**	**63.11**	**308**	IAmb	IAmb	20 17 36.8	
	comp=Z,4.0nm,0.8s						
KKAR	**Karatay Array**	**63.11**	**308**	P	**P**	**20 17 36.2**	**+0.8**
BMAR	**Burnt Mountain**	**63.44**	**24**	P	**P**	**20 17 36.9**	**-0.2**
BCAR	**Beaver Creek A**	**64.20**	**29**	P	**P**	**20 17 42.3**	**+0.1**
H27K	**Steamboat Moun**	**64.52**	**26**	P	**P**	**20 17 45.3**	**+1.1**
H27K				IAmb	IAmb	20 17 46.9	
	comp=Z,3.5nm,0.8s						
ARTI	**Arti**	**69.44**	**324**	P	**P**	**20 18 14.8**	**-0.2**
	comp=Z,2.3nm,0.5s,baz=132,slow=3.4,SNR=6.5						
	comp=Z,2.3nm,0.5s						
ARTI	**Arti**	**69.44**	**324**	P	**P**	**20 18 13.4**	**-1.7**
ABKAR	**Akbulak array**	**69.61**	**316**		**P**	**20 18 16.3**	**0.0**
AKTO	**Aktyubinsk**	**70.63**	**318**	P	**P**	**20 18 21.7**	**-0.8**
	comp=Z,1.0nm,0.4s,baz=77,slow=7.8,SNR=5.5						
	comp=Z,1.0nm,0.4s						
YKA	**Yellowknife Ar**	**76.55**	**28**	P	**P**	**20 18 57.1**	**+0.7**
	comp=Z,2.8nm,0.6s,baz=293,slow=5.8,SNR=14						
	comp=Z,2.8nm,0.6s						
YKA	**Yellowknife Ar**	**76.55**	**28**	P	**P**	**20 18 55.0**	**-1.4**
ARCES	**ARCESS Array B**	**79.01**	**342**	P	**P**	**20 19 10.6**	**+0.7**
	comp=Z,4.1nm,0.5s,baz=73,slow=8.4,SNR=33						
	comp=Z,4.1nm,0.5s						
ARCES	**ARCESS Array B**	**79.01**	**342**	P	**P**	**20 19 09.8**	**0.0**
NEW	**Newport**	**80.36**	**42**	P	**P**	**20 19 19.1**	**+1.6**
NEW				IAmb	IAmb	20 19 19.6	
	comp=Z,4.8nm,0.9s						
NEW	**Newport**	**80.36**	**42**	P	**P**	**20 19 18.9**	**+1.4**
	comp=Z,10nm,2.8s						
BEKR	**Beckworth**	**81.20**	**51**	IAmb	IAmb	20 19 24.2	
	comp=Z,3.0nm,0.9s						
CMB	**Columbia Colle**	**81.83**	**52**		**P**	**20 19 27.0**	**+1.5**
CMB				IAmb	IAmb	20 19 27.5	
	comp=Z,3.2nm,0.8s						
KBZ	**Khabaz**	**82.43**	**314**	P	**P**	**20 19 29.0**	**+0.7**
	comp=Z,6.0nm,0.8s,baz=138,slow=5.6,SNR=13						
	comp=Z,6.0nm,0.8s						
MFID	**Camas Ranch**	**83.04**	**46**	IAmb	IAmb	20 19 33.7	
	comp=Z,5.2nm,1.2s						
NVAR	**Mina Array Bea**	**83.21**	**51**	P	**P**	**20 19 33.4**	**+0.7**
	comp=Z,1.7nm,0.5s,baz=271,slow=5.4,SNR=11						
	comp=Z,1.7nm,0.5s						
FINES	**FINESS Array B**	**83.27**	**334**	P	**P**	**20 19 31.4**	**-0.8**
	comp=Z,5.1nm,0.5s,baz=64,slow=4.8,SNR=65						
	comp=Z,5.1nm,0.5s						
FINES	**FINESS Array B**	**83.27**	**334**	P	**P**	**20 19 30.9**	**-1.4**
HLID	**Hailey**	**83.92**	**46**	P	**P**	**20 19 37.2**	**+1.1**
	comp=Z,3.5nm,2.1s						
ELK	**Elko**	**84.50**	**48**	IAmb	IAmb	20 19 40.9	
	comp=Z,2.1nm,0.6s						
MPMC	**Manual Prospec**	**84.72**	**53**	IAmb	IAmb	20 19 42.5	
	comp=Z,3.5nm,1.2s						
CLC	**China Lake**	**84.73**	**54**	IAmb	IAmb	20 19 42.1	
	comp=Z,2.5nm,0.8s						
LRMC	**Laurel Mtn Rad**	**84.80**	**54**	IAmb	IAmb	20 19 42.5	
	comp=Z,3.1nm,0.8s						
CCCA	**Chr Cany lake**	**85.02**	**54**	IAmb	IAmb	20 19 43.8	
	comp=Z,2.8nm,0.8s						
GWY	**Greenwater Val**	**85.28**	**53**	P	**P**	**20 19 44.5**	**+1.4**
GWY				IAmb	IAmb	20 19 44.9	
	comp=Z,3.8nm,1.0s						
TPNV	**Topopah Spring**	**85.29**	**52**	IAmb	IAmb	20 19 45.1	
	comp=Z,3.9nm,0.8s						
YHL	**Hebgen Lake**	**85.49**	**43**	IAmb	IAmb	20 19 46.7	
	comp=Z,3.6nm,0.8s						
YMR	**Madison River**	**85.71**	**43**	IAmb	IAmb	20 19 47.9	
	comp=Z,2.9nm,0.7s						
FFC	**Flin Flon**	**85.92**	**32**	P	**

MDOK	**Medeo**	**2.53**	**305**	*e*P		**Pb**	**20 13 24.6**	**+0.3**
	21nm,0.5s							
MDOK				*e*S		**Sg**	**20 13 59.1**	**-0.2**
	43nm,0.6s							
KNOS	**Konyrlen**	**2.67**	**349**	Pg		**Pb**	**20 13 25.8**	**-1.0**
	44nm,0.4s							
KNOS				Lg		Lg	20 14 01.4	
	24nm,0.2s							
NRN	**Naryn**	**2.91**	**265**	⇑*e*P		**Pb**	**20 13 30.1**	**-0.8**
NRN				⇑*e*S		**Sg**	**20 14 10.3**	**-1.4**
KST	**Kastek**	**3.17**	**296**	Pg		**Pb**	**20 13 36.2**	**+0.9**
	1.8nm,0.3s							
KST				Lg		Lg	20 14 19.1	
	24nm,0.6s							
KST	**Kastek**	**3.17**	**296**	*e*P		**Pb**	**20 13 36.2**	**+0.9**
	1.8nm,0.3s							
KST				*e*S		**Sg**	**20 14 19.1**	**-0.9**
	24nm,0.6s							
DGS	**Degeres**	**3.38**	**298**	Pg		**Pb**	**20 13 37.1**	**-1.7**
	4.1nm,0.4s							
DGS				Lg		Lg	20 14 20.7	
	13nm,0.4s							
DGS	**Degeres**	**3.38**	**298**	*e*P		**Pb**	**20 13 40.5**	**+1.7**
	3.5nm,0.4s							
DGS				*e*S		**Sg**	**20 14 26.4**	**-0.3**
	20nm,0.4s							
KRBS	**Karabastau**	**3.66**	**304**	Pg		**Pb**	**20 13 44.7**	**+1.2**
	3.1nm,0.3s							
KRBS				Lg		Lg	20 14 34.0	
	22nm,0.3s							
KRBS	**Karabastau**	**3.66**	**304**	*e*P		**Pb**	**20 13 44.6**	**+1.2**
	3.1nm,0.3s							
KRBS				*e*S		**Sg**	**20 14 34.0**	**-1.6**
	22nm,0.3s							
MAKZ	**Makanchi**	**5.30**	**16**	⇓Pn		**Pn**	**20 13 58.8**	**+0.5**
	2.4nm,0.8s							
MAKZ				⇑Sn		**Sn**	**20 15 01.8**	**+2.0**
	1.2nm,0.7s							
MAKZ				⇓Lg		Lg	20 15 24.4	
	2.6nm,0.8s							
MK31	**Makanchi Array**	**5.35**	**18**	⇑Pn		**Pn**	**20 13 59.4**	**+0.4**
	0.2nm,0.3s,baz=192,slow=13,SNR=41							
MK31				⇑Sn		**Sn**	**20 15 02.8**	**+1.6**
	0.7nm,0.5s							
MK31				⇑Lg		Lg	20 15 27.8	
	1.2nm,0.6s,baz=194,slow=28							

UPA ***29*** *20:17:36.8±0.6,9.°23N×83.°87W,h71km±21km, MW3.4, Presumed earthquake*
UCR ***29*** *20:17:37.3±1.1,9.°17N×83.°82W,h23km±8km, MW3.7, Presumed earthquake*
ISC 29 20:17:36.3±1.0, 9.°16N±0.°05×83.°83W±0.°05, h13km, n44, σ0s50/49, Costa Rica

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
EDPE	**Pejibaye, P**	**0.25**	**89**	*e*P		**Pb**	**20 17 43.6**		**+0.9**
SAJE	**San Jernim**	**0.37**	**59**	*e*P		**Pb**	**20 17 45.3**		**+0.5**
PANP	**Palmar Norte**	**0.41**	**118**	*e*P		**Pb**	**20 17 45.7**		**+0.3**
PANP				*e*S		**Sb**	**20 17 52.8**		**+1.1**
PIEC	**Cerro El Cedra**	**0.48**	**344**	*e*P		**Pb**	**20 17 46.6**		**-0.2**
BURE	**Buenos Aires**	**0.48**	**88**	*e*P		**Pg**	**20 17 44.7**		**-1.2**
FIMO	**Fila Mora**	**0.50**	**109**	*e*P		**Pb**	**20 17 47.4**		**+0.5**
ABE2	**San Pablo**	**0.59**	**338**	*e*P		**Pb**	**20 17 48.5**		**-0.1**
PICV	**PH. Pirrs**	**0.59**	**322**	*e*P		**Pg**	**20 17 48.2**		**+0.3**
LCR2	**La Lucha 2**	**0.61**	**343**	*e*P		**Pg**	**20 17 48.4**		**+0.1**
EDP2	**Potrero Grande**	**0.66**	**102**	*e*P		**Pb**	**20 17 49.2**		**-0.4**
REPA	**Paraso**	**0.67**	**356**	*e*P		**Pb**	**20 17 49.8**		**-0.2**
ACOS	**Acosta**	**0.72**	**332**	*e*P		**Pg**	**20 17 50.2**		**-0.1**
PCAYA	**Pacayas**	**0.76**	**1**	*e*P		**Pb**	**20 17 51.2**		**-0.3**
VICA	**Volcano Irazu**	**0.82**	**359**	*e*P		**Pg**	**20 17 52.4**		**0.0**
VTCV	**VTCV, Calle Va**	**0.83**	**7**	*e*P		**Pb**	**20 17 52.6**		**-0.1**
CVTQ	**Turrialba Volc**	**0.84**	**4**	*e*P		**Pb**	**20 17 53.0**		**-0.1**
CVTV	**Tajo**	**0.85**	**5**	*e*P		**Pb**	**20 17 52.9**		**-0.1**
FITO	**Golfito**	**0.85**	**128**	*e*S		**Sg**	**20 18 03.9**		**-0.1**
ABRB	**Las Abras (San**	**0.85**	**7**	*e*P		**Pb**	**20 17 53.1**		**0.0**
VTR0	**Volcan Turrial**	**0.86**	**4**	*e*P		**Pb**	**20 17 53.2**		**-0.1**
CVTR	**Volcan Turrial**	**0.86**	**4**	*e*P		**Pb**	**20 17 53.2**		**-0.1**
RESJ	**San Isidro (Tu**	**0.89**	**12**	*e*P		**Pb**	**20 17 53.8**		**+0.1**
VITO	**San Vito**	**0.91**	**112**	*e*S		**Sn**	**20 18 09.1**		**+1.1**
LCOCO	**El Coco**	**0.96**	**16**	*e*P		**Pb**	**20 17 54.7**		**-0.1**
RVLA	**Villa Bonita**	**0.97**	**14**	*e*P		**Pg**	**20 17 55.1**		**0.0**
LAES	**El Progreso Va**	**0.98**	**52**	*e*P		**Pn**	**20 17 55.3**		**-0.5**
CVTG	**V. Turrialba,**	**0.98**	**3**	*e*P		**Pg**	**20 17 55.3**		**-0.1**
VBV1	**V. Barva**	**0.99**	**344**	*e*P		**Pg**	**20 17 55.1**		**-0.4**
CEUA	**Cerro Uatsi, L**	**0.99**	**62**	*e*P		**Pn**	**20 17 56.6**		**+0.6**
VERH	**Veragua Rainfo**	**0.99**	**39**	*e*P		**Pg**	**20 17 55.3**		**-0.1**
NELY	**Ciudad Neily**	**1.01**	**120**	*e*S		**Sn**	**20 18 10.9**		**+0.8**
BRU2	**Volcan**	**1.18**	**108**	*e*P		**Pb**	**20 17 58.3**		**-0.3**
BRU2	**Volcan**	**1.18**	**108**	*e*P		**Pb**	**20 17 58.4**		**-0.3**
BRU2				*e*S		**Sn**	**20 18 15.4**		**+0.7**
CLLRA	**Cordillera,**	**1.27**	**109**	*e*P		**Pn**	**20 17 59.6**		**-0.2**
CLLRA	**Cordillera,**	**1.27**	**109**	*i* P		**Pn**	**20 17 59.6**		**-0.2**
CLLRA				*e*S		**Sg**	**20 18 17.3**		**0.0**
TRT2	**Tortugero**	**1.40**	**4**	*e*P		**Pn**	**20 18 01.2**		**-0.2**
BQTLY	**Boquete Panama**	**1.41**	**106**	*e*P		**Pb**	**20 18 02.1**		**-0.5**
ARE1	**Arenal 1**	**1.57**	**326**	*e*P		**Pb**	**20 18 05.7**		**+0.5**
VARE2	**V. Arenal**	**1.57**	**326**	*e*P		**Pb**	**20 18 05.4**		**+0.2**
BGUAL	**Bijagual, Pana**	**1.61**	**113**	*e*P		**Pb**	**20 18 05.8**		**-0.1**
BGUAL	**Bijagual, Pana**	**1.61**	**113**	*e*P		**Pb**	**20 18 06.4**		**+0.4**
BGUAL				*e*S		**Sg**	**20 18 27.6**		**-0.6**
RBALA	**Bur**	**1.68**	**99**	*e*P		**Pn**	**20 18 04.8**		**-0.6**
RBALA	**Bur**	**1.68**	**99**	*i* P		**Pn**	**20 18 04.8**		**-0.6**
RBALA				*e*S		**Sn**	**20 18 25.7**		**-1.0**
CUI	**Cuipilapa**	**1.99**	**319**	*e*P		**Pb**	**20 18 11.6**		**-0.9**

KRNET ***29*** *20:18:22.0±0.1,42.°12N×75.°54E,h19km, mb3.8*
KNET ***29*** *20:18:22.1±0.6,42.°15N×75.°50E,h8km±5km, ml3.2, Error ellipse: s-maj=4.9km s-min=2.4km az=179.0*
SOME ***29*** *20:18:22.5,42.°13N×75.°50E,h15km*
NNC ***29*** *20:18:23.7±0.7,42.°19N×75.°51E,h0km, mb4.1, mpv3.9, Error ellipse: s-maj=5.7km s-min=2.6km az=171.0*
ISC 29 20:18:22.1±1.1, 42.°14N±0.°02×75.°52E±0.°01, h3km±9km, n65, σ1s30/120, 50C-29D, Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
BOOM	**Boomskoye usch**	**0.47**	**42**	⇓*e*P		**Pg**	**20 18 31.5**		**+0.4**
BOOM				⇓*i*S		**Sb**	**20 18 38.1**		**-2.3**
ULHL	**Ulahol**	**0.55**	**79**	P		**Pg**	**20 18 32.8**		**+0.2**
	87nm,0.1s,SNR=16								
ULHL				⇑S		**Sg**	**20 18 40.2**		**+0.6**
	623nm,0.2s								
ULHL	**Ulahol**	**0.55**	**79**	⇑*e*P		**Pg**	**20 18 32.4**		**-0.2**
ULHL				⇑*i*S		**Sg**	**20 18 39.8**		**+0.1**
KBK	**Karagaybulak**	**0.67**	**321**	⇑P		**Pb**	**20 18 35.8**		**-0.7**
	648nm,0.1s,SNR=1173								
KBK				⇓S		**Sb**	**20 18 45.5**		**-0.7**
	1µm,0.2s								
KBK	**Karagaybulak**	**0.67**	**321**	⇓*e*P		**Pg**	**20 18 35.3**		**+0.4**
KBK				⇓*i*S		**Sb**	**20 18 44.8**		**-1.4**
UCH	**Uchtor**	**0.75**	**277**	⇑P		**Pg**	**20 18 36.7**		**+0.1**
	71nm,0.3s,SNR=33								
UCH				⇓S		**Sg**	**20 18 47.5**		**+1.1**
	188nm,0.2s								
UCH	**Uchtor**	**0.75**	**277**	⇑*e*P		**Pg**	**20 18 36.6**		**0.0**
UCH				⇑*i*S		**Sg**	**20 18 47.3**		**+0.9**
TKM2	**Tokmak 2**	**0.78**	**4**	⇑P		**Pb**	**20 18 37.7**		**-0.8**
	215nm,0.3s,SNR=368								
TKM2				⇓S		**Sb**	**20 18 48.7**		**-0.7**
	529nm,0.1s								
TKM2	**Tokmak 2**	**0.78**	**4**	⇓*i*P		**Pb**	**20 18 37.3**		**-1.1**
TKM2				⇓*i*S		**Sb**	**20 18 48.0**		**-1.5**
NRN	**Naryn**	**0.79**	**153**	⇓*e*P		**Pg**	**20 18 36.5**		**-0.8**
NRN				⇓*e*S		**Sg**	**20 18 46.9**		**-0.7**
AAK	**Ala-Archa**	**0.91**	**303**	P		**Pg**	**20 18 39.9**		**+0.4**
	185nm,0.1s,SNR=346								
AAK				⇓S		**Sb**	**20 18 52.0**		**-1.1**
	542nm,0.4s								
AAK	**Ala-Archa**	**0.91**	**303**	⇓P		**Pg**	**20 18 39.9**		**+0.4**
	504nm,0.4s								
AAK				⇑S		**Sb**	**20 18 52.2**		**-0.9**
	1µm,0.4s								
AAK	**Ala-Archa**	**0.91**	**303**	⇑*e*P		**Pg**	**20 18 39.5**		**0.0**
AAK				⇑*i*S		**Sb**	**20 18 52.1**		**-0.9**
FRU1	**Bishkek**	**0.94**	**316**	⇑*e*P		**Pb**	**20 18 40.4**		**-0.6**
FRU1				⇑*e*S		**Sb**	**20 18 53.6**		**-0.3**
KST	**Kastek**	**0.96**	**20**	P		**Pb**	**20 18 40.9**		**-0.5**
	11nm,0.1s								
KST				S		**Sb**	**20 18 54.2**		**-0.3**
	416nm,0.3s								
KST	**Kastek**	**0.96**	**20**	*e*P		**Pb**	**20 18 40.9**		**-0.5**
	11nm,0.1s								
KST				*e*S		**Sb**	**20 18 54.2**		**-0.3**
	416nm,0.3s								
CHMS	**Chumysh**	**1.03**	**327**	⇑P		**Pb**	**20 18 42.2**		**-0.3**
	92nm,0.1s,SNR=168								
CHMS				⇑S		**Sb**	**20 18 56.2**		**-0.2**
	363nm,0.2s								
CHMS	**Chumysh**	**1.03**	**327**	⇑*e*P		**Pg**	**20 18 41.5**		**-0.3**
CHMS				⇑*i*S		**Sb**	**20 18 55.7**		**-0.7**
DGS	**Degeres**	**1.11**	**9**	P		**Pn**	**20 18 43.9**		**-0.8**
	14nm,0.1s								
DGS				S		**Sn**	**20 18 59.0**		**-1.6**
	180nm,0.2s								
DGS	**Degeres**	**1.11**	**9**	*e*P		**Pn**	**20 18 43.9**		**-0.8**
	14nm,0.1s								
DGS				*e*S		**Sn**	**20 18 59.0**		**-1.6**
	180nm,0.2s								
IZV	**Izvestkoviy**	**1.20**	**42**	P		**Pn**	**20 18 45.7**		**-0.3**
	20nm,0.2s								
IZV				S		**Sn**	**20 19 02.2**		**-0.6**
	208nm,0.2s								
IZV	**Izvestkoviy**	**1.20**	**42**	*e*P		**Pn**	**20 18 45.6**		**-0.3**
	20nm,0.2s								
IZV				*e*S		**Sn**	**20 19 02.2**		**-0.6**
	208nm,0.2s								
KDJ	**Kajisay**	**1.23**	**90**	⇑*e*P		**Pg**	**20 18 44.7**		**-1.0**
KDJ				⇑*e*S		**Sg**	**20 19 01.1**		**-0.6**
USP	**Ospenovka**	**1.35**	**327**	⇓P		**Pg**	**20 18 47.9**		**-0.1**
	160nm,0.3s,SNR=156								
USP				⇑S		**Sn**	**20 19 06.6**		**+0.2**
	350nm,0.2s								
USP	**Ospenovka**	**1.35**	**327**	⇓*i*P		**Pn**	**20 18 47.2**		**-0.7**
USP				⇓*i*S		**Sn**	**20 19 05.7**		**-0.7**
TNSS	**Tian-Shan**	**1.38**	**49**	P		**Pg**	**20 18 48.7**		**+0.1**
	7.5nm,0.2s								
TNSS				S		**Sn**	**20 19 07.3**		**-0.3**
	33nm,0.3s								
TNSS	**Tian-Shan**	**1.38**	**49**	*e*P		**Pg**	**20 18 48.7**		**+0.1**
	7.5nm,0.2s								
TNSS				*e*S		**Sn**	**20 19 07.3**		**-0.3**
	33nm,0.3s								
EKS2	**Erkin-Say**	**1.39**	**292**	⇓P		**Pg**	**20 18 48.7**		**-0.1**
	220nm,0.2s,SNR=710								
EKS2				⇑S		**Sn**	**20 19 07.9**		**+0.5**
	335nm,0.5s								
EKS2	**Erkin-Say**	**1.39**	**292**	⇑*i*P		**Pn**	**20 18 48.0**		**-0.5**
EKS2				⇑*i*S		**Sg**	**20 19 06.9**		**+0.1**
KNDC	**Almaty**	**1.51**	**44**	⇑P		**Pg**	**20 18 51.7**		**+0.6**
	45nm,0.2s								
KNDC				⇑S		**Sg**	**20 19 12.4**		**+1.7**
	144nm,0.3s								
KRBS	**Karabastau**	**1.56**	**4**	P		**Pg**	**20 18 51.5**		**-0.4**
	19nm,0.2s								
KRBS				S		**Sg**	**20 19 12.3**		**+0.2**
	43nm,0.2s								
KRBS	**Karabastau**	**1.56**	**4**	*e*P		**Pg**	**20 18 51.5**		**-0.4**
	19nm,0.2s								
KRBS				*e*S		**Sg**	**20 19 12.3**		**+0.2**
	43nm,0.2s								
ANVS	**Anan'yevo**	**1.71**	**67**	⇓*e*P		**Pb**	**20 18 53.3**		**-1.0**
ANVS				⇓*e*S		**Sb**	**20 19 15.9**		**-0.4**
TARG	**Taragay, Kyrgy**	**1.75**	**103**	⇑*i*P		**Pn**	**20 18 53.6**		**-0.1**
TARG				⇑*i*S		**Sn**	**20 19 16.5**		**-0.2**
SALK	**Salom-Alik**	**1.79**	**226**	⇓*e*P		**Pn**	**20 18 54.3**		**+0.3**
SALK				⇓*i*S		**Sn**	**20 19 18.0**		**+0.6**
MRKS	**Merke**	**1.80**	**290**	P		**Pb**	**20 18 55.9**		**-0.1**
	45nm,0.2s								
MRKS				S		**Sg**	**20 19 20.4**		**+0.4**
	215nm,0.4s								
MRKS	**Merke**	**1.80**	**290**	*e*P		**Pb**	**20 18 55.9**		**+0.1**
	45nm,0.2s								
MRKS				*e*S		**Sg**	**20 19 20.4**		**+0.4**
	215nm,0.4s								
ARSB	**Arslanbob**	**2.07**	**248**	⇓*i*P		**Pn**	**20 18 58.3**		**+0.5**
ARSB				⇓*i*S		**Sn**	**20 19 24.8**		**+0.6**
PRZ	**Przheval'sk**	**2.16**	**80**	⇑*i*P		**Pn**	**20 18 59.5**		**+0.4**
PRZ				⇑*i*S		**Sn**	**20 19 26.6**		**+0.1**
MNAS	**Manas**	**2.26**	**280**	⇓*e*P		**Pn**	**20 19 01.2**		**+0.7**
MNAS				⇑*i*S		**Sn**	**20 19 29.8**		**+0.8**
SATY	**Saty**	**2.32**	**66**	Pg		**Pg**	**20 19 05.6**		**-0.9**
	25nm,0.3s								
SATY				Lg		Lg	20 19 36.8		
	164nm,0.3s								
SATY	**Saty**	**2.32**	**66**	*e*P		**Pg**	**20 19 05.6**		**-0.9**
	25nm,0.3s								
SATY				*e*S		**Sg**	**20 19 36.8**		**+0.2**
	164nm,0.3s								
KURS	**Kuram**	**2.37**	**55**	Pg		**Pb**	**20 19 05.8**		**+0.4**
	37nm,0.5s								
KURS				Lg		Lg	20 19 36.9		
	113nm,0.6s								
KURS	**Kuram**	**2.37**	**55**	*e*P		**Pb**	**20 19 05.8**		**+0.4**
	37nm,0.5s								
KURS				*e*S		**Sg**	**20 19 36.9**		**-1.3**
	113nm,0.6s								
SFK	**Sufi-Kurgan**	**2.62**	**216**	⇑*i*P		**Pn**	**20 19 05.8**		**+0.4**
SFK				⇑*i*S		**Sn**	**20 19 37.7**		**-0.1**
OHH	**Osh**	**2.62**	**233**	⇑*i*P		**Pn**	**20 19 05.8**		**+0.5**
OHH				⇑*i*S		**Sn**	**20 19 37.7**		**+0.1**
ARXS	**Arharly**	**2.67**	**38**	Pg		**Pg**	**20 19 11.5**		**-1.8**
	44nm,0.4s								
ARXS				Lg		Lg	20 19 46.8		
	198nm,0.3s								
ARXS	**Arharly**	**2.67**	**38**	*e*P		**Pg**	**20 19 11.5**		**-1.8**
	44nm,0.4s								
ARXS				*e*S		**Sg**	**20 19 46.8**		**-1.0**
	198nm,0.3s								
ARK	**Arkit**	**2.67**	**264**	⇑*e*P		**Pn**	**20 19 06.9**		**+0.8**
ARK				⇑*i*S		**Sn**	**20 19 39.6**		**+0.5**
UZB	**Uzynbulak**	**2.77**	**68**	Pg		**Pb**	**20 19 12.9**		**+0.6**
	48nm,0.3s								
UZB				Lg		Lg	20 19 48.9		
	124nm,0.3s								
UZB	**Uzynbulak**	**2.77**	**68**	*e*P		**Pb**	**20 19 12.9**		**+0.6**
	48nm,0.3s								
UZB				*e*S		**Sg**	**20 19 49.0**		**-2.1**
	124nm,0.3s								
BLB	**Baldybastay**	**2.92**	**47**	Pg		**Pg**	**20 19 16.6**		**-1.3**
	59nm,0.4s								
BLB				Lg		Lg	20 19 55.2		
	176nm,0.3s								
KSH2	**Kashi**	**2.99**	**179**	Pn		**Pb**	**20 19 16.5**		**+0.4**
KSH2				Sn		**Sg**	**20 19 56.8**		**-1.5**
KSH2				smax		smax			
	comp=N,64nm,0.7s								
KSH2				smax		smax			
	comp=E,200nm,0.9s								
SHLS	**Shalkode**	**3.08**	**69**	Pg		**Pg**	**20 19 23.5**		**+2.4**
	comp=E,17nm,0.3s								
SHLS				Lg		Lg	20 20 07.1		
	comp=E,114nm,0.4s								
SHLS	**Shalkode**	**3.08**	**69**	*e*P		**Pg**	**20 19 23.5**		**+2.4**
	comp=E,17nm,0.3s								
SHLS				*e*S		**Sg**	**20 20 07.1**		**+6.1**
	comp=E,114nm,0.4s								
PDGK	**Podgornoye**	**3.15**	**67**	⇓Pn		**Pb**	**20 19 16.5**		**-2.3**
	comp=E,12nm,0.6s								
PDGK				⇑Lg		Lg	20 20 01.1		
	comp=E,184nm,1.0s								
DJR	**Jarkent**	**3.81**	**54**	Pg		**Pb**	**20 19 31.5**		**+1.6**
	comp=E,37nm,0.4s								
DJR				Lg		Lg	20 20 20.9		
	comp=E,36nm,0.4s								
DJR	**Jarkent**	**3.81**	**54**	*e*P		**Pb**	**20 19 31.6**		**+1.6**
	comp=E,37nm,0.4s								
DJR				*e*S		**Sg**	**20 20 20.9**		**-3.6**
	comp=E,36nm,0.4s								
KK31	**Karatay Array**	**3.82**	**286**	⇑Pg		**Pg**	**20 19 34.5**		**-0.7**
	comp=E,20nm,0.6s,baz=96,slow=15,SNR=7.9								
KK31				⇑Lg		Lg	20 20 22.9		
	comp=E,25nm,0.5s,baz=109,slow=27,SNR=8.6								
DRK	**Karamyk**	**3.88**	**228**	⇑*i*P		**Pn**	**20 19 23.3**		**+0.5**
DRK				⇑*i*S		**Sn**	**20 20 08.2**		**-0.8**
BTK	**Batken**	**4.12**	**241**	⇑*e*P		**Pn**	**20 19 26.8**		**+0.9**
BTK				⇑*i*S		**Sn**	**20 20 13.8**		**-0.8**
MAKZ	**Makanchi**	**6.56**	**43**	⇑Pn		**Pn**	**20 20 02.8**		**+3.4**
	comp=E,2.9nm,0.7s								
MAKZ				⇓Sn		**Sn**	**20 21 18.5**		**+3.8**
	comp=E,3.2nm,0.6s								
MAKZ				⇑Lg		Lg	20 21 53.1		
	comp=E,16nm,1.2s								
MK31	**Makanchi Array**	**6.71**	**44**	⇓Pn		**Pn**	**20 20 03.9**		**+2.4**
	comp=E,1.5nm,0.4s,baz=218,slow=15,SNR=48								
MK31				⇑Sn		**Sn**	**20 21 22.6**		**+4.1**
	comp=E,1.0nm,0.3s,baz=234,slow=18,SNR=6.4								
MK31				⇑Lg		Lg	20 21 56.9		
	comp=E,2.4nm,0.5s,baz=228,slow=27,SNR=5.0								
KURBB	**Kurchatov Arra**	**8.73**	**13**	⇓Pn		**Pn**	**20 20 32.4**		**+3.2**
	comp=E,1.9nm,0.3s								
KURBB				⇑Sn		**Sn**	**20 22 07.7**		**-0.3**
	comp=E,12nm,0.7s								
KURBB				⇓Lg		Lg	20 22 58.6		
	comp=E,33nm,0.8s								
KURK	**Kurchatov**	**8.84**	**13**	⇑Pn		**Pn**	**20 20 32.1**		**+1.5**
	comp=E,0.2nm,0.5s								
KURK				⇓Lg		Lg	20 23 01.7		
	comp=E,15nm,1.0s								

SKHL ***29*** *20:19:06.2±0.2,42.°70N×147.°50E,h38km±7km,mb4.3/3*
JMA ***29*** *20:19:07.8±0.2,42.°7N±0.°5×14.°7E±.°,h63km±1km, MV3.6/37, OFF NEMURO PENINSULA*
ISC 29 20:19:05.9±3.2, 42.°7N±0.°2×147.°5E±0.°1, h38km, n11, σ0s79/19, Off southeast coast of Hokkaido

Code	Station Name	Δ°	AZ°	Phase	ID		Time		Res
				Op		ISC	h m s		ISC
NEM2	**Nemuro 2**	**1.43**	**298**	*i* P		**Pn**	**20 19 29.9**		**+0.7**
NEM2				S		**Sn**	**20 19 46.9**		**+0.1**
NMR	**Nemuro--Hokkai**	**1.44**	**298**	*i* P		**Pn**	**20 19 29.9**		**+0.5**
NMR				*i* S		**Sn**	**20 19 46.8**		**-0.2**
JKHN	**Kushirohamanak**	**1.74**	**283**	*i* P		**Pn**	**20 19 34.0**		**+0.5**
JKHN				S		**Sn**	**20 19 54.1**		**-0.3**
YUK	**Yuzh-Kuril'sk**	**1.77**	**319**	*i* P		**Pn**	**20 19 34.3**		**+0.3**
YUK				AMB		AMB	20 19 34.9		
	300nm,0.4s								
YUK				*i* S		**Sn**	**20 19 54.8**		**-0.5**
YUK				A		A	20 19 59.0		
	200nm,0.4s								
YUK				A		A	20 19 59.0		
	270nm,0.4s								
JAK	**Akkeshi**	**2.06**	**279**	P		**Pn**	**20 19 38.3**		**+0.4**
JAK				S		**Sn**	**20 20 01.3**		**-1.0**
JNSB	**Nemuroshibetsu**	**2.10**	**302**	P		**Pn**	**20 19 38.8**		**+0.4**
JRA	**Rausu**	**2.11**	**307**	P		**Pn**	**20 19 39.4**		**+0.8**
JRA				*e*S		**Sn**	**20 20 03.9**		**+0.3**
JNK	**Nakash**	**2.20**	**295**	P		**Pn**	**20 19 40.2**		**+0.4**
KUR	**Kuril'sk**	**2.55**	**6**	*e*P		**Pn**	**20 19 45.2**		**+0.6**
KUR				AMB		AMB	20 19 46.9		
	30nm,0.6s								
KUR				*e*S		**Sn**	**20 20 12.9**		**-1.4**
KUR				A		A	20 20 15.9		
	50nm,0.3s								
KUR				A		A	20 20 15.9		
	40nm,0.3s								
JOB	**Onbets**	**2.68**	**276**	*e*S		**Sn**	**20 20 16.3**		**-1.3**
JAR	**Ashorobuto**	**2.78**	**284**	P		**Pn**	**20 19 48.5**		**+0.8**
JAR				S		**Sn**	**20 20 18.8**		**-1.2**

DJA ***29*** *20:23:46.6±0.5,13.°N±5.°×12.°5E±.°,h10km, M5.0/36, mB5.6/11, mB5.6/11, mb4.9/36, mb4.9/36, Mw(mB)5.1/11, Mw(mB)5.1/11*
BJI ***29*** *20:23:46.4,11.°79N×124.°32E,h17km, mB5.0/16, mb4.6/60, Ms4.6/38, Ms7 4.3/40*
IDC ***29*** *20:23:47.2±0.4,11.°95N×124.°21E,h0km, mb4.4/33, mbtmp4.4/35, ML4.0/2, MS3.9/57, Error ellipse: s-maj=17.5km s-min=9.2km az=79.0*
MAN ***29*** *20:23:48.0,11.°90N×124.°11E,h12km, MS4.8*
MAN INTENSITY V - CATAINGAN MASBATE; . INTENSITY IV - DIMASALANG AND PIO V. CORPUZ MASBATE; ALMAGRO SAMAR; . INTENSITY III - MASBATE CITY; . INTENSITY II - IROSIN AND MAGALLANES SORSOGON.
GFZ ***29*** *20:23:49.3±0.2,12.°N±3.°×12.°4E±.°,h10km, M4.9/36, mb4.9/36, confirmed*
NEIC ***29*** *20:23:49.4±2.5,12.°10N±0.°08×124.°3E±0.°1,h10km±1km, mb4.9/76, Error ellipse: s-maj=18.2km s-min=12.0km az=71.0*
GCMT ***29*** *20:23:53.4±0.2,11.°95N±0.°01×124.°02E±0.°02,h22km±1km, MW4.9/105, Moment Tensor Solution. s19,c22; s105,c152; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-0.07±.13; Mθθ2.75±.10; Mϕϕ-2.67±.10; Mrθ-0.98±.17; Mθϕ-0.54±.07; M

BNDI Bandanaira 17.30 161 P **P** **20 27 52.9 +0.7**
comp=Z,116nm,1.6s
PKKI Palangkaraya 17.41 217 P P 20 28 11.3 +18
comp=Z,0.2nm,0.3s,baz=26,slow=18,SNR=1.7
KAPI Kappang 17.44 195 P **P** **20 27 53.2 -0.5**
KAPI LR LR 20 35 00.3
comp=Z,598nm,19.3s,baz=12,slow=39
comp=Z,13nm,1.0s
KAPI AML AML
KAPI Kappang 17.44 195 **P** **20 27 54.5 +0.8**
KAPI Kappang 17.44 195 P P 20 28 09.2 +16
KAPI Kappang 17.44 195 P **P** **20 27 55.6 +1.9**
comp=Z,54nm,1.2s
SMPI Sarmi 19.95 133 P **Pn** **20 28 24.4 +1.3**
comp=Z,70nm,1.1s,comp=Z,70nm,1.1s
GUMO Guam 20.17 83 LR LR 20 34 30.2
comp=Z,173nm,21.3s,baz=250,slow=32
NJ2 Nanjing 20.62 347 *eP* **P** **20 28 28.0 -0.4**
NJ2 pmax pmax
comp=Z,16nm,0.9s
NJ2 L L
comp=Z,430nm,15.2s
NJ2 L L
comp=Z,630nm,9.9s
NJ2 L L
comp=Z,540nm,18.0s
WHN Wuhan 20.66 335 ⇓P Pn 20 28 33.5 +2.3
WHN sP sP 20 28 38.3 +4.8
WHN pmax pmax
comp=Z,130nm,1.3s
WHN L L
comp=Z,2µm,15.0s
EDFI Ende, Flores 20.72 187 P Pn 20 28 37.1 +4.9
comp=Z,19nm,0.8s,comp=Z,19nm,0.8s
EDFI Ende, Flores 20.72 187 P Pn 20 28 33.2 +1.0
comp=Z,20nm,0.8s
SAUI Saumlaki 21.00 160 **P** **20 28 33.0 +0.3**
SAUI Saumlaki 21.00 160 P 20 28 36.9
comp=Z,171nm,1.1s,comp=Z,171nm,1.1s
SAUI Saumlaki 21.00 160 P 20 28 34.1
comp=Z,172nm,1.1s
SOEI Soe 21.56 180 P P 20 28 49.9 +11
SOEI Soe 21.56 180 P **P** **20 28 40.2 +1.3**
comp=Z,54nm,0.9s
SLVN Son La 21.59 298 P **P** **20 28 39.4 +0.2**
PLAI Plampang 21.62 198 P **P** **20 28 44.9 +5.5**
comp=Z,50nm,0.8s,comp=Z,50nm,0.8s
PLAI Plampang 21.62 198 P **P** **20 28 40.6 +1.1**
comp=Z,50nm,0.8s
TWSI Taliwang, Sumb 21.82 200 P P 20 28 52.8 +11
comp=Z,36nm,1.3s,comp=Z,36nm,1.3s
JNU Nakatsue 21.93 15 P **P** **20 28 43.2 +0.5**
comp=Z,12nm,0.8s,baz=279,slow=3.9,SNR=5.1
JNU LR LR 20 36 50.0
comp=Z,199nm,20.8s,baz=181,slow=36
comp=Z,12nm,0.8s
BATI Baumata 22.02 182 P **P** **20 28 44.0 +0.3**
comp=Z,8.9nm,0.4s,baz=254,slow=0.9,SNR=4.0
BATI LR LR 20 39 45.2
comp=Z,328nm,19.5s,baz=359,slow=44
comp=Z,8.9nm,0.4s
BATI Baumata 22.02 182 P **P** **20 28 50.0 +6.3**
comp=Z,67nm,1.0s,comp=Z,67nm,1.0s
JAGI Jajag, Banyuwa 22.64 207 **P** **20 28 53.0 +2.7**
JAGI Jajag, Banyuwa 22.64 207 P **P** **20 28 56.2 +5.9**
comp=Z,78nm,1.1s,comp=Z,78nm,1.1s
JAGI Jajag, Banyuwa 22.64 207 P **P** **20 28 54.1 +3.7**
comp=Z,78nm,1.1s
ENH Enshi 22.81 325 **P** **20 28 52.5 +0.5**
BTDF Bukit Timah Da 22.88 244 P **P** **20 28 56.1 +3.2**
SJI Sawahan 23.17 213 P **P** **20 29 01.8 +5.9**
comp=Z,90nm,0.9s,comp=Z,90nm,0.9s
SNJI Sawahan-Nganju 23.21 213 P P 20 29 11.8 +15
WOJI Wonogiri, Jawa 23.71 215 P P 20 29 23.7 +22
IPM Ipoh 24.14 254 P **P** **20 29 05.6 +0.2**
comp=Z,23nm,1.1s,comp=Z,23nm,1.1s
IPM Ipoh 24.14 254 P **P** **20 29 03.9 -1.6**
comp=Z,23nm,1.1s
KULM Kulim 24.25 256 P **P** **20 29 10.0 +3.6**
comp=Z,14nm,1.1s
KPJI Karang Pucung 24.48 219 P **P** **20 29 14.1 +5.7**
comp=Z,55nm,1.0s,comp=Z,55nm,1.0s
LYN LuoYang 24.93 336 P **P** **20 29 13.5 +1.2**
LYN sS sS 20 33 49.0 +7.7
LYN SS **SnSn** **20 34 32.0 +8.1**
LYN pmax pmax
comp=Z,40nm,0.9s
LYN L L
comp=Z,710nm,17.9s
LYN L L
comp=Z,940nm,20.6s
LYN L L
comp=Z,680nm,17.2s
LEM Lembang 24.93 222 P **P** **20 29 14.1 +1.3**
comp=Z,30nm,0.8s,baz=253,slow=7.2,SNR=6.4
comp=Z,30nm,0.8s
TIA Tai'an 25.00 346 P **P** **20 29 14.3 +1.3**
TIA pmax pmax
comp=Z,10.0nm,0.6s
CBJI Citeko 25.15 224 P P 20 29 35.8 +21
CM31 Chiang Mai Arr 25.25 288 P **P** **20 29 16.0 +0.6**
CMAR Chiang Mai Arr 25.25 288 P **P** **20 29 15.6 +0.1**
comp=Z,3.7nm,0.8s,baz=102,slow=8.1,SNR=20
CMAR PcP **PcP** **20 32 50.1 +1.2**
comp=Z,1.4nm,1.0s,baz=122,slow=0.3,SNR=5.8
CMAR LR LR 20 40 22.1
comp=Z,199nm,18.8s,baz=115,slow=40
comp=Z,3.7nm,0.8s
CMAR Chiang Mai Arr 25.25 288 P **P** **20 29 14.5 -1.0**
CMAR PcP **PcP** **20 32 51.0 +2.0**
CHTO Chiang Mai 25.32 289 P **P** **20 29 09.1 -7.0**
BBJI Bungbulang 25.39 221 **P** **20 29 20.1 +3.3**
BBJI IAmb IAmb 20 29 32.6
comp=Z,29nm,0.9s
BBJI Bungbulang 25.39 221 P P 20 29 24.0 +7.2
comp=Z,34nm,1.0s,comp=Z,34nm,1.0s
BBJI Bungbulang 25.39 221 P **P** **20 29 18.6 +1.8**
comp=Z,34nm,1.0s
JHJ Hachijo jima 2 25.42 32 LR LR 20 39 03.9
comp=Z,220nm,18.0s,baz=169,slow=36
KSRS Korea Array 25.61 7 P **P** **20 29 19.3 +0.9**
comp=Z,6.5nm,0.7s,baz=186,slow=10,SNR=21
KSRS LR LR 20 38 32.3
comp=Z,215nm,21.9s,baz=195,slow=35
comp=Z,6.5nm,0.7s
BKNI Bangkinang 25.77 245 P **P** **20 29 22.9 +2.7**
comp=Z,82nm,0.5s
SDSI Sungai Dareh 26.04 242 P **P** **20 29 26.3 +3.7**
XAN Xi'an 26.06 330 P **P** **20 29 21.5 -1.2**
XAN pP sP 20 29 25.8 -1.7
XAN sP pP 20 29 28.5 +2.4
XAN pmax pmax
comp=Z,31nm,0.9s
XAN L L
comp=Z,960nm,22.7s
XAN L L
comp=Z,980nm,21.3s
XAN L L
comp=Z,240nm,17.2s
MASI Maura Aman, Be 26.53 237 P **P** **20 29 31.7 +4.6**
KRJI Kerinci 26.60 240 P **P** **20 29 31.5 +3.7**
PSI Prapat 26.69 252 P **P** **20 29 27.5 -1.1**
comp=Z,3.1nm,0.6s,baz=87,slow=6.9,SNR=5.2
PSI LR LR 20 40 14.5
comp=Z,213nm,19.4s,baz=82,slow=37
comp=Z,3.1nm,0.6s
PSI Prapat 26.69 252 P **P** **20 29 32.5 +3.8**
comp=Z,13nm,1.5s,comp=Z,13nm,1.5s
PSI P **sP** **20 29 32.9 -0.5**
comp=Z,13nm,1.5s,comp=Z,13nm,1.5s
PPI Padang Panjang 26.71 244 P **P** **20 29 32.9 +4.2**
comp=Z,15nm,0.6s,comp=Z,15nm,0.6s
RPSI Rantau Prapat 26.73 252 P **P** **20 29 28.1 -0.8**
comp=Z,13nm,1.5s
CD2 Chengdu 26.75 318 P **P** **20 29 27.8 -1.1**
CD2 pmax pmax
comp=Z,10.0nm,0.6s
CD2 L L
comp=Z,840nm,9.5s
CD2 L L
comp=Z,1µm,17.1s
CD2 L L
comp=Z,570nm,10.8s
HNS HongShan 26.75 343 ⇑P **P** **20 29 28.5 -0.3**
HNS S **S** **20 30 09.0 +4.5**
HNS pmax pmax
comp=Z,14nm,1.1s
HNS L L
comp=Z,280nm,17.6s
HNS L L
comp=Z,510nm,13.6s
HNS L L
comp=Z,450nm,17.3s
DL2 Dalian 26.95 355 P **P** **20 29 32.3 +1.7**
DL2 S **S** **20 34 07.5 0.0**
DL2 pmax pmax
comp=Z,24nm,1.0s
DL2 pmax pmax
comp=Z,150nm,4.7s
DL2 L L
comp=Z,460nm,12.6s
DL2 L L
comp=Z,450nm,12.2s
DL2 L L
comp=Z,410nm,25.7s
KCSI Kotacane, Aceh 27.52 254 P P 20 29 44.2 +8.2
MJAR Matsushiro Arr 27.53 25 P **P** **20 29 34.4 -1.5**
comp=Z,2.4nm,0.8s,baz=190,slow=8.7,SNR=6.3
MJAR LR LR 20 40 06.4
comp=Z,164nm,19.3s,baz=211,slow=36
comp=Z,2.4nm,0.8s
TNCH TengChong 27.59 302 P **P** **20 29 38.0 +1.2**
TNCH pP sP 20 29 41.0 -0.6
TNCH S **S** **20 34 18.5 0.0**
TNCH SS **SnSn** **20 35 30.3 +0.9**
TNCH pmax pmax
comp=Z,12nm,1.3s
TNCH L L
comp=Z,310nm,10.0s
TNCH L L
comp=Z,240nm,12.4s
TNCH L L
comp=Z,210nm,14.6s
BJI2 Beijing 28.86 347 P **P** **20 29 47.3 -0.3**
BJI2 pP **sP** **20 29 51.5 -0.9**
BJI2 sP **pP** **20 29 54.5 +3.4**
BJI2 PP **PnPn** **20 30 40.8 +1.9**
BJI2 S **S** **20 34 36.5 -1.2**
BJI2 pmax pmax
comp=Z,13nm,1.0s
BJI2 pmax pmax
comp=Z,87nm,4.2s
BJI2 L L
comp=Z,150nm,18.0s
BJI2 L L
comp=Z,220nm,18.9s
BJI2 L L
comp=Z,200nm,20.6s
FITZ Fitzroy Crossi 29.89 177 LR LR 20 45 24.2
comp=Z,114nm,18.0s,baz=10,slow=43
LZDM Lanzhou Array 30.27 326 P **P** **20 30 00.1 -0.5**
comp=Z,1.1nm,0.3s,baz=148,slow=8.7,SNR=4.1
LZDM LR LR 20 42 05.2
comp=Z,278nm,20.8s,baz=125,slow=36
comp=Z,1.1nm,0.3s
HHC Hu-ho-hao-te 30.88 341 *eP* **P** **20 30 06.5 +0.8**
HHC S **S** **20 35 06.5 -3.1**
HHC pmax pmax
comp=Z,13nm,0.5s
HHC pmax pmax
comp=Z,130nm,5.0s
HHC L L
comp=Z,220nm,16.8s
HHC L L
comp=Z,270nm,17.6s
HHC L L
comp=Z,260nm,18.3s
XLT XiLinHaoTe 32.61 349 *eP* **P** **20 30 20.3 -0.5**
XLT pP sP 20 30 25.0 -0.6
XLT pmax pmax
comp=Z,12nm,0.9s
XLT L L
comp=Z,260nm,14.3s
XLT L L
comp=Z,210nm,20.3s
USRK Ussuriysk Ar. 32.82 10 P **P** **20 30 23.6 +1.0**
comp=Z,7.7nm,0.9s,baz=186,slow=8.2,SNR=8.3
USRK LR LR 20 42 13.9
comp=Z,78nm,21.7s,baz=181,slow=34
comp=Z,7.7nm,0.9s
USRK Ussuriysk Ar. 32.82 10 **P** **20 30 22.7 +0.1**
BRDH Bariadhala 32.84 293 LR LR 20 45 34.4
comp=Z,96nm,19.1s,baz=146,slow=40
WB0 Warramunga Arr 33.06 162 **P** **20 30 23.1 -1.8**
WRAB Tennant Creek 33.20 162 P **P** **20 30 24.6 -1.6**
WRA Warramunga Arr 33.21 162 P **P** **20 30 25.0 -1.2**
comp=Z,2.9nm,0.9s,baz=339,slow=9.9,SNR=11
WRA PcP **PcP** **20 33 07.3 -1.7**
comp=Z,1.1nm,0.7s,baz=339,slow=2.7,SNR=6.2
comp=Z,2.9nm,0.9s
WRA Warramunga Arr 33.21 162 P **P** **20 30 24.1 -2.2**
WRA PcP **PcP** **20 33 07.4 -1.6**
WR8 Warramunga Arr 33.27 162 **P** **20 30 25.7 -1.1**
SHL Shillong 33.40 299 **P** **20 30 26.4 -1.8**
BNX BinXian 33.78 4 ⇓P **P** **20 30 29.8 -1.1**
BNX pmax pmax
comp=Z,9.0nm,0.9s
GTA2 Gaotai 34.97 326 P **P** **20 30 41.5 0.0**
GTA2 S **S** **20 36 17.0 +3.7**
GTA2 pmax pmax
comp=Z,8.0nm,1.0s
GTA2 L L
comp=Z,780nm,20.3s
GTA2 L L
comp=Z,670nm,20.0s
GTA2 L L
comp=Z,470nm,16.5s
ASAJ Asahikawa 35.73 23 LR LR 20 45 17.9
comp=Z,95nm,21.6s,baz=232,slow=36
GOMU GeErMu 35.88 317 P **P** **20 30 48.5 -1.1**
GOMU pP pP 20 30 51.8 -1.2
GOMU sP sP 20 30 55.8 +1.4
GOMU S **S** **20 36 30.3 +2.5**
GOMU pmax pmax
comp=Z,7.0nm,0.5s
GOMU L L
comp=Z,80nm,10.7s
GOMU L L
comp=Z,180nm,10.6s
GOMU L L
comp=Z,270nm,10.8s
AS31 Alice Springs 36.63 165 **P** **20 30 55.5 -0.3**
ASAR Alice Springs 36.63 165 P **P** **20 30 55.8 0.0**
comp=Z,5.1nm,0.8s,baz=353,slow=7.8,SNR=38
ASAR LR LR 20 47 23.6
comp=Z,199nm,18.8s,baz=336,slow=39
comp=Z,5.1nm,0.8s
HILR Hailar Array B 37.68 355 P **P** **20 31 04.0 -0.5**
comp=Z,3.6nm,0.6s,baz=173,slow=13,SNR=3.7
comp=Z,3.6nm,0.6s
HEH HeiHe 38.28 3 *eP* **P** **20 31 09.3 -0.1**
HEH pmax pmax
comp=Z,9.0nm,0.9s
HEH L L
comp=Z,430nm,14.3s
EVN Everest 38.44 300 **P** **20 31 11.3 -0.5**
EVN Everest 38.44 300 P **P** **20 31 11.1 -0.8**
comp=Z,6.6nm,0.7s
CTA Charters Tower 38.50 146 LR LR 20 47 40.1
comp=Z,206nm,21.7s,baz=326,slow=37
ULN Ulaanbaatar 38.60 341 **P** **20 31 12.4 +0.1**
ULN Ulaanbaatar 38.60 341 P **P** **20 31 12.4 +0.1**
ULN Ulaanbaatar 38.60 341 P **P** **20 31 12.7 +0.4**
comp=Z,16nm,1.3s
SONM Songino Array 38.78 341 P **P** **20 31 13.7 -0.1**
comp=Z,2.9nm,0.8s,baz=165,slow=9.6,SNR=20
SONM LR LR 20 47 49.4
comp=Z,172nm,20.4s,baz=150,slow=37
comp=Z,2.9nm,0.8s
SONM Songino Array 38.78 341 P **P** **20 31 14.0 +0.2**
HNR Honiara 41.35 119 LR LR 20 46 39.1
comp=Z,135nm,21.2s,baz=15,slow=33
INKA Innaminka 42.57 158 **P** **20 31 45.0 -0.1**
TLY Talaya 43.01 341 LR LR 20 49 53.1
comp=Z,202nm,21.6s,baz=142,slow=36
PALK Pallekele 43.16 268 LR LR 20 49 29.0
comp=Z,118nm,21.9s,baz=94,slow=36
WMQ Urumqi 44.69 322 *eP* **P** **20 31 59.0 -3.2**
WMQ pP sP 20 32 07.0 -0.1
WMQ pmax pmax
comp=Z,7.0nm,0.7s
WMQ L L
comp=Z,1µm,21.3s
WMQ L L
comp=Z,450nm,19.5s
WMQ L L
comp=Z,430nm,21.9s
NWAO Narrogin (SRO) 45.12 188 P **P** **20 32 04.3 -1.3**
comp=Z,20nm,1.0s,baz=357,slow=9.8,SNR=2.5
NWAO LR LR 20 54 32.8
comp=Z,53nm,18.1s,baz=286,slow=41
comp=Z,20nm,1.0s
STKA Stephens Creek 46.64 160 P **P** **20 32 17.6 -0.1**
comp=Z,8.5nm,0.9s,baz=316,slow=7.3,SNR=12
STKA LR LR 20 54 58.2
comp=Z,148nm,18.1s,baz=350,slow=40
comp=Z,8.5nm,0.9s
STKA Stephens Creek 46.64 160 **P** **20 32 17.4 -0.1**
STKA Stephens Creek 46.64 160 P **P** **20 32 17.4 -0.1**
comp=Z,87nm,1.0s
CMSA Cobar Meteorol 47.88 155 P **P** **20 32 27.6 +0.3**
comp=Z,41nm,0.9s
ZSN Zaisan 48.36 325 *eP* **P** **20 32 31.1 +0.1**
PETK Petropavlovsk- 48.97 26 P **P** **20 32 36.5 +1.0**
comp=Z,8.5nm,1.1s,baz=251,slow=6.2,SNR=5.1
PETK LR LR 20 50 46.1
comp=Z,85nm,21.9s,baz=221,slow=33
comp=Z,8.5nm,1.1s
PETK Petropavlovsk- 48.97 26 P **P** **20 32 32.9 -2.6**
MKAR Makanchi Array 49.50 323 P **P** **20 32 39.9 +0.2**
comp=Z,3.3nm,0.7s,baz=120,slow=7.9,SNR=25
MKAR PcP **PcP** **20 34 01.6 0.0**
comp=Z,4.4nm,0.9s,baz=97,slow=4.1,SNR=4.1
comp=Z,3.3nm,0.7s
MKAR Makanchi Array 49.50 323 **P** **20 32 39.4 -0.4**
MKAR PcP **PcP** **20 34 00.9 -0.7**
SHLS Shalkode 49.58 317 *eP* **P** **20 32 38.2 -2.2**
comp=Z,5.4nm,0.7s
MAKZ Makanchi 49.70 323 **P** **20 32 39.1 -2.1**
MAKZ Makanchi 49.70 323 P **P** **20 32 41.6 +0.4**
comp=Z,9.6nm,1.3s
UZB Uzynbulak 49.87 317 *eP* **P** **20 32 42.4 -0.3**
comp=Z,9.4nm,1.0s
YAK Yakutsk 50.15 3 LR LR 20 55 20.8
comp=Z,125nm,19.4s,baz=180,slow=38
YAK Yakutsk 50.15 3 P **P** **20 32 44.4 +0.1**
comp=Z,34nm,1.0s
SATY Saty 50.24 317 *eP* **P** **20 32 45.4 -0.1**
comp=Z,6.7nm,0.8s
ASAI AK-SAY(Kyrgyzs 50.73 314 P **P** **20 32 50.6 +1.1**
comp=Z,7.1nm,1.2s
KSH2 Kashi 50.83 311 P **P** **20 32 50.3 +0.3**
KSH2 pmax pmax
comp=Z,6.0nm,1.0s
NIL Nilore 51.16 304 **P** **20 32 51.1 -1.3**
NIL Nilore 51.16 304 P **P** **20 32 52.7 +0.2**
comp=Z,44nm,0.8s
MDOK Medeo 51.20 316 *eP* **P** **20 32 52.6 -0.1**
TNSS Tian-Shan 51.22 316 *eP* **P** **20 32 52.5 -0.7**
AAA Alma-Ata 51.30 316 *eP* **P** **20 32 53.3 -0.2**
comp=Z,6.9nm,0.6s
KUU Kurty 51.95 317 *eP* **P** **20 32 58.1 -0.1**
comp=Z,7.2nm,0.7s
ZALV Zalesovo Beam 52.22 332 P **P** **20 32 59.5 -0.4**
comp=Z,4.8nm,0.8s,baz=116,slow=6.9,SNR=21
ZALV LR LR 20 55 50.1
comp=Z,146nm,20.9s,baz=122,slow=37
comp=Z,4.8nm,0.8s
ZALV Zalesovo Beam 52.22 332 **P** **20 32 58.2 -1.7**
DZM Mont Dzumac 53.44 129 P **P** **20 33 09.2 -0.3**
comp=Z,8.5nm,0.8s,baz=213,slow=3.4,SNR=4.1
comp=Z,8.5nm,0.8s
KURK Kurchatov 53.57 326 **P** **20 33 09.2 -0.9**
KURK Kurchatov 53.57 326 P **P** **20 33 10.3 +0.3**
comp=Z,40nm,0.9s
KURBB Kurchatov Arra 53.58 325 P **P** **20 33 10.1 0.0**
comp=Z,11nm,0.7s,baz=126,slow=7.3,SNR=97
comp=Z,11nm,0.7s
DRK Karamyk 53.72 310 IAmb IAmb 20 33 27.7
comp=Z,8.7nm,0.9s
DRK Karamyk 53.72 310 P **P** **20 33 11.8 +0.2**
comp=Z,12nm,0.9s
ARK Arkit 54.26 313 P **P** **20 33 16.3 +0.9**
comp=Z,11nm,1.0s
BTK Batken 54.60 311 IAmb IAmb 20 33 25.1
comp=Z,18nm,1.5s
BTK Batken 54.60 311 P **P** **20 33 17.8 -0.1**
comp=Z,8.1nm,1.2s
KBL Kabul 54.76 304 **P** **20 33 18.9 -0.4**
KBL IAmb IAmb 20 33 23.6
comp=Z,11nm,0.8s
KBL Kabul 54.76 304 P **P** **20 33 19.5 +0.3**
comp=Z,15nm,1.0s
DZA Taraz 55.03 314 *eP* **P** **20 33 20.8 -0.1**
comp=Z,6.4nm,1.1s
KK31 Karatay Array 55.67 314 IAmb IAmb 20 33 31.9
comp=Z,14nm,1.1s
KKAR Karatay Array 55.67 314 **P** **20 33 24.8 -0.6**
CHM Chimkent 56.09 313 *eP* **P** **20 33 28.4 -0.1**
BVAR Borovoye Array 59.17 325 P **P** **20 33 50.0 0.0**
comp=Z,6.8nm,0.8s,baz=119,slow=8.8,SNR=25
comp=Z,6.8nm,0.8s
BORK Borovoye 59.22 325 **P** **20 33 50.1 -0.2**
TIXI Tiksi 59.73 2 LR LR 21 00 05.9
comp=Z,199nm,21.6s,baz=188,slow=36
TIXI Tiksi 59.73 2 **P** **20 33 52.7 -0.8**
TIXI IAmb IAmb 20 33 53.9
comp=Z,8.4nm,0.8s
TIXI Tiksi 59.73 2 P **P** **20 33 53.1 -0.4**
comp=Z,15nm,1.4s
MSVF Nonsavu 60.75 118 LR LR 20 58 37.4
comp=Z,33nm,20.0s,baz=269,slow=34
NRIK Noril'sk 61.91 346 P **P** **20 34 07.9 -0.5**
comp=Z,9.3nm,0.7s,baz=129,slow=7.9,SNR=10
NRIK LR LR 21 03 14.6
comp=Z,255nm,18.1s,baz=134,slow=38
comp=Z,9.3nm,0.7s
NRIK Noril'sk 61.91 346 **P** **20 34 06.2 -2.2**
NRIK IAmb IAmb 20 34 09.2
comp=Z,10nm,0.8s
AB31 Akbulak array 64.32 319 **P** **20 34 24.2 -0.5**
ABKAR Akbulak array 64.32 319 **P** **20 34 23.5 -1.3**
AKTO Aktyubinsk 65.78 320 LR LR 21 02 58.2
comp=Z,201nm,19.5s,baz=70,slow=36
ARTI Arti 66.83 326 LR LR 21 03 27.8
comp=Z,105nm,20.7s,baz=104,slow=36
AFI Afiamalu 68.41 110 LR LR 20 58 56.8
comp=Z,58nm,21.9s,baz=314,slow=31
URZ Urewera 70.22 138 LR LR 21 05 48.3
comp=Z,67nm,20.0s,baz=306,slow=36
KIRV Kirov 71.98 328 LR LR 21 06 41.2
comp=Z,129nm,20.4s,baz=102,slow=36
RAYN Ar Rayn 75.12 291 **P** **20 35 31.2 -0.6**
RAYN Ar Rayn 75.12 291 P **P** **20 35 31.4 -0.5**
comp=Z,7.4nm,1.3s
F20K Avaraart Lake 75.18 24 IAmb IAmb 20 36 40.6
comp=Z,17nm,1.5s
HAKT HAKKARI 75.37 306 P **P** **20 35 32.8 -0.5**
comp=Z,23nm,1.0s
KBZ Khabaz 75.62 312 P **P** **20 35 33.2 -1.0**
comp=Z,3.9nm,0.9s,baz=102,slow=9.3,SNR=4.5
comp=Z,3.9nm,0.9s
KIV Kislovodsk 75.77 313 P **P** **20 35 34.7 -0.5**
KIV Kislovodsk 75.77 313 P **P** **20 35 35.8 +0.5**
comp=Z,15nm,1.4s
KIV Kislovodsk 75.77 313 P **P** **20 35 35.6 +0.4**
comp=Z,19nm,1.4s
G21K Allakaket 76.03 24 IAmb IAmb 20 35 43.5
comp=Z,11nm,1.1s
H21K Melozitna Rive 76.29 25 IAmb IAmb 20 35 40.0
comp=Z,17nm,1.6s
CAST Castle Rocks 76.56 27 **P** **20 35 39.9 +0.6**
CAST IAmb IAmb 20 35 46.1
comp=Z,11nm,1.0s
I21K Tanana 76.62 26 IAmb IAmb 20 35 47.0
comp=Z,15nm,1.0s
H22K Ishtalitna Cre 76.88 25 IAmb IAmb 20 35 48.7
comp=Z,9.6nm,1.1s
BPAW Bear Paw Mtn. 77.05 27 IAmb IAmb 20 35 48.8
comp=Z,17nm,1.1s
MLY Manley 77.15 26 IAmb IAmb 20 35 49.5
comp=Z,10nm,1.1s
D23K Nanushuk River 77.16 22 IAmb IAmb 20 35 50.1
comp=Z,13nm,1.1s
TOLK Toolik Lake Re 77.56 22 IAmb IAmb 20 35 55.7
comp=Z,13nm,1.1s
KOPT Kop Dagi 77.67 309 IAmb IAmb 20 35 56.7
comp=Z,15nm,1.4s
NEA2 Nenana 77.87 26 IAmb IAmb 20 35 53.3
comp=Z,9.8nm,0.7s
F24K Squaw Lake 78.23 23 P **P** **20 35 47.5 -1.2**
F24K IAmb IAmb 20 35 55.4

	comp=Z,7.1nm,0.8s							
D25K	**Kavik River**	**78.69**	**21**	IAmb	IAmb	20 35 58.0		
	comp=Z,16nm,1.1s							
ILAR	**Eielson Array**	**78.80**	**26**	P	**P**	**20 35 51.6**	**-0.1**	
	comp=Z,1.0nm,0.7s,baz=241,slow=5.0,SNR=10							
ILAR				LR	LR	21 13 00.6		
	comp=Z,51nm,18.1s,baz=118,slow=38							
	comp=Z,1.0nm,0.7s							
F25K	**Christian Rive**	**79.09**	**23**	IAmb	IAmb	20 36 00.9		
	comp=Z,10nm,1.0s							
C26K	**Camden Bay**	**79.16**	**21**	IAmb	IAmb	20 36 04.6		
	comp=Z,17nm,1.1s							
KEMA	**Kemaliye**	**79.29**	**308**	P	**P**	**20 35 55.4**	**+0.4**	
	comp=Z,13nm,1.1s							
BMAR	**Burnt Mountain**	**79.51**	**23**		**P**	**20 35 56.4**	**+0.8**	
C27K	**Jago River**	**79.60**	**21**	IAmb	IAmb	20 36 06.1		
	comp=Z,12nm,1.1s							
G26K	**Porcupine Rive**	**79.87**	**24**	IAmb	IAmb	20 36 05.1		
	comp=Z,11nm,1.1s							
I26K	**Coal Creek Min**	**80.32**	**25**	IAmb	IAmb	20 36 08.7		
	comp=Z,11nm,1.1s							
D27M	**Malcolm River**	**80.61**	**21**	IAmb	IAmb	20 36 08.8		
	comp=Z,11nm,1.0s							
G27K	**Doyon Strip**	**80.72**	**24**	IAmb	IAmb	20 36 31.7		
	comp=Z,25nm,2.0s							
I27K	**Kandik River**	**80.92**	**25**	IAmb	IAmb	20 36 10.6		
	comp=Z,14nm,0.9s							
ANDN	**Andirin**	**81.18**	**307**	P	**P**	**20 36 06.5**	**+1.2**	
	comp=Z,22nm,0.8s							
F28M	**Old Crow**	**81.28**	**23**	IAmb	IAmb	20 36 11.7		
	comp=Z,11nm,0.8s							
RAR	**Rarotonga**	**81.53**	**114**	LR	LR	21 05 26.3		
	comp=Z,96nm,19.9s,baz=285,slow=31							
ASF	**Jabal al Asfar**	**81.53**	**301**	LR	LR	21 15 47.0		
	comp=Z,49nm,18.6s,baz=32,slow=38							
I28M	**Miner Creek**	**81.63**	**25**	IAmb	IAmb	20 36 17.2		
	comp=Z,14nm,1.0s							
ARCES	**ARCESS Array B**	**81.94**	**339**	P	**P**	**20 36 08.4**	**-0.1**	
	comp=Z,5.4nm,0.7s,baz=52,slow=4.8,SNR=9.8							
ARCES				LR	LR	21 15 11.5		
	comp=Z,85nm,18.2s,baz=82,slow=38							
	comp=Z,5.4nm,0.7s							
ARCES	**ARCESS Array B**	**81.94**	**339**	P	**P**	**20 36 09.5**	**+1.0**	
SPITS	**Spitsbergen Ar**	**81.99**	**349**	LR	LR	21 16 16.1		
	comp=Z,104nm,19.9s,baz=58,slow=38							
G29M	**Pine Creek**	**82.11**	**23**	IAmb	IAmb	20 36 20.1		
	comp=Z,14nm,0.9s							
RNF	**Rovaniemi**	**82.38**	**337**	P	**P**	**20 36 08.9**	**-2.0**	
	comp=Z,42nm,2.2s							
MMAI	**Mount Meron Ar**	**82.64**	**302**	LR	LR	21 16 37.0		
	comp=Z,29nm,18.3s,baz=56,slow=38							
OUL	**Oulu**	**82.76**	**335**	P	**P**	**20 36 11.8**	**-1.0**	
	comp=Z,37nm,1.2s							
BRTR	**Keskin Array B**	**82.94**	**309**	P	**P**	**20 36 13.4**	**-1.2**	
	comp=Z,0.6nm,0.8s,baz=132,slow=3.3,SNR=4.6							
BRTR				LR	LR	21 18 30.9		
	comp=Z,33nm,19.2s,baz=37,slow=40							
	comp=Z,0.6nm,0.8s							
I30M	**Mount Dempster**	**83.14**	**25**	IAmb	IAmb	20 36 22.5		
	comp=Z,8.6nm,1.2s							
INK	**Inuvik**	**83.46**	**21**	IAmb	IAmb	20 36 26.6		
	comp=Z,16nm,1.4s							
INK	**Inuvik**	**83.46**	**21**	P	**P**	**20 36 17.1**	**+0.7**	
	comp=Z,9.6nm,1.5s							
FINES	**FINESS Array B**	**83.48**	**331**	P	**P**	**20 36 16.5**	**-0.2**	
	comp=Z,4.0nm,0.7s,baz=65,slow=5.1,SNR=21							
FINES				LR	LR	21 15 26.0		
	comp=Z,52nm,19.2s,baz=90,slow=37							
	comp=Z,4.0nm,0.7s							
FINES	**FINESS Array B**	**83.48**	**331**	P	**P**	**20 36 16.3**	**-0.4**	
EIL	**Elat**	**83.59**	**299**	LR	LR	21 17 11.0		
	comp=Z,56nm,21.7s,baz=58,slow=38							
KKUL	**Konya-Kulu**	**83.59**	**309**	P	**P**	**20 36 17.8**	**-0.1**	
	comp=Z,8.7nm,0.7s							
VSU	**Vasula**	**83.82**	**328**	P	**P**	**20 36 16.9**	**-1.6**	
	comp=Z,43nm,0.9s							
AK09	**Malin Array Si**	**84.00**	**320**	P	**P**	**20 36 19.0**	**-0.6**	
CSS	**Mathiatis**	**84.01**	**304**	P	**P**	**20 36 19.6**	**-0.4**	
	comp=Z,16nm,1.2s							
CSS	**Mathiatis**	**84.01**	**304**	P	**P**	**20 36 19.6**	**-0.4**	
	comp=Z,16nm,1.2s							
AK08	**Malin Array Si**	**84.01**	**320**	P	**P**	**20 36 19.2**	**-0.4**	
AK03	**Malin Array Si**	**84.02**	**320**	P	**P**	**20 36 19.0**	**-0.7**	
AKASG	**Malin Array Be**	**84.02**	**320**	P	**P**	**20 36 18.3**	**-1.4**	
	comp=Z,6.0nm,1.1s,baz=67,slow=5.0,SNR=9.2							
	comp=Z,6.0nm,1.1s							
AKBB	**Malin Array Si**	**84.02**	**320**	P	**P**	**20 36 18.9**	**-0.8**	
AK10	**Malin Array Si**	**84.02**	**320**	P	**P**	**20 36 19.0**	**-0.7**	
AK01	**Malin Array Si**	**84.03**	**320**	P	**P**	**20 36 19.0**	**-0.7**	
KIEV	**Kiev**	**84.03**	**320**	P	**P**	**20 36 18.1**	**-1.6**	
KIEV				IAmb	IAmb	20 36 24.7		
	comp=Z,12nm,1.1s							
KIEV	**Kiev**	**84.03**	**320**	P	**P**	**20 36 19.0**	**-0.7**	
	comp=Z,39nm,1.1s							
KIEV	**Kiev**	**84.03**	**320**	P	**P**	**20 36 18.8**	**-0.9**	
	comp=Z,9.8nm,1.1s							
AK02	**Malin Array Si**	**84.04**	**320**	P	**P**	**20 36 19.0**	**-0.8**	
AK05	**Malin Array Si**	**84.05**	**320**	P	**P**	**20 36 19.1**	**-0.7**	
AK04	**Malin Array Si**	**84.05**	**320**	P	**P**	**20 36 19.1**	**-0.7**	
AK06	**Malin Array Si**	**84.06**	**320**	P	**P**	**20 36 19.1**	**-0.8**	
AK11	**Malin Array Si**	**84.06**	**320**	P	**P**	**20 36 19.1**	**-0.8**	
AK07	**Malin Array Si**	**84.06**	**320**	P	**P**	**20 36 19.2**	**-0.7**	
AK23	**Malin Array Si**	**84.07**	**321**	P	**P**	**20 36 19.2**	**-0.7**	
AK12	**Malin Array Si**	**84.07**	**320**	P	**P**	**20 36 19.2**	**-0.8**	
AK15	**Malin Array Si**	**84.08**	**320**	P	**P**	**20 36 19.3**	**-0.7**	
AK16	**Malin Array Si**	**84.10**	**320**	P	**P**	**20 36 19.4**	**-0.7**	
AK22	**Malin Array Si**	**84.10**	**321**	P	**P**	**20 36 19.4**	**-0.7**	
AK14	**Malin Array Si**	**84.11**	**320**	P	**P**	**20 36 19.4**	**-0.7**	
AK18	**Malin Array Si**	**84.11**	**320**	P	**P**	**20 36 19.4**	**-0.8**	
AK21	**Malin Array Si**	**84.12**	**321**	P	**P**	**20 36 19.4**	**-0.8**	
AK17	**Malin Array Si**	**84.13**	**320**	P	**P**	**20 36 19.5**	**-0.7**	
AK13	**Malin Array Si**	**84.14**	**320**	P	**P**	**20 36 19.6**	**-0.7**	
AK20	**Malin Array Si**	**84.14**	**321**	P	**P**	**20 36 19.6**	**-0.7**	
AK19	**Malin Array Si**	**84.15**	**320**	P	**P**	**20 36 19.6**	**-0.7**	
A36M	**Sachs Harbour**	**84.90**	**17**	IAmb	IAmb	20 36 45.4		
	comp=Z,7.8nm,0.8s							
LUBAR	**Lubar, Ukraine**	**85.10**	**320**	P	**P**	**20 36 24.0**	**-1.2**	
RNPP9	**Sopachiv**	**85.92**	**322**	P	**P**	**20 36 29.0**	**-0.2**	
RNPP8	**Varash**	**85.96**	**322**	P	**P**	**20 36 29.3**	**-0.1**	
RNPP5	**Staryi Chortor**	**85.96**	**321**	P	**P**	**20 36 29.4**	**0.0**	
PABE	**Paberze**	**86.00**	**326**	P	**P**	**20 36 29.9**	**+0.4**	
	comp=Z,52nm,1.1s							
KMPD	**K-Podol'skiy**	**86.24**	**319**	P	**P**	**20 36 29.9**	**-0.9**	
TESR	**Tescani**	**86.60**	**317**	P	**P**	**20 36 31.8**	**-0.9**	
	comp=Z,16nm,1.6s							
BURAR	**Bucovina Array**	**87.28**	**318**		**P**	**20 36 35.6**	**-0.5**	
HFS	**Hagfors**	**89.65**	**332**	P	**P**	**20 36 45.1**	**-1.8**	
	comp=Z,0.7nm,0.6s,baz=98,slow=4.4,SNR=5.2							
HFS				LR	LR	21 19 05.3		
	comp=Z,93nm,19.7s,baz=70,slow=37							
	comp=Z,0.7nm,0.6s							
PPT	**Papeete**	**89.96**	**108**	LR	LR	21 09 51.3		
	comp=Z,30nm,20.8s,baz=358,slow=31							
PPT2	**Papeete2**	**89.97**	**108**	*e*LR	LR	21 05 11.0		
	comp=Z,154nm,35.8s							
RES	**Resolute Bay**	**90.19**	**10**	LR	LR	21 22 22.2		
	comp=Z,63nm,18.0s,baz=9.0,slow=39							
NB2	**NORSAR Subarra**	**90.38**	**333**	P	**P**	**20 36 48.5**	**-1.9**	
	comp=Z,8.0nm,1.4s,baz=67,slow=5.1							
NOA	**NORSAR Array B**	**90.38**	**333**	P	**P**	**20 36 48.6**	**-1.9**	
	comp=Z,1.6nm,1.0s,baz=65,slow=5.0,SNR=4.6							
NOA				LR	LR	21 19 38.6		
	comp=Z,126nm,20.6s,baz=60,slow=37							
	comp=Z,1.6nm,1.0s							
MAW	**Mawson**	**90.60**	**200**	LR	LR	21 14 13.5		
	comp=Z,32nm,20.3s,baz=80,slow=33							
TBI	**Tubuai**	**91.31**	**113**	*e*LR	LR	21 05 58.8		
	comp=Z,1μm,36.2s							
VNDA	**Vanda**	**91.84**	**172**	P	**P**	**20 36 57.5**	**+0.9**	
	comp=Z,1.3nm,0.9s,baz=320,slow=4.3,SNR=5.3							
VNDA				LR	LR	21 17 20.5		
	comp=Z,63nm,20.7s,baz=335,slow=35							
	comp=Z,1.3nm,0.9s							
VRAC	**Vranov**	**92.22**	**321**	LR	LR	21 18 52.1		
	comp=Z,83nm,19.9s,baz=88,slow=36							
YKA	**Yellowknife Ar**	**93.02**	**23**	P	**P**	**20 37 03.5**	**+1.0**	
	comp=Z,0.8nm,0.9s,baz=303,slow=5.4,SNR=4.9							
	comp=Z,0.8nm,0.9s							
MBAR	**Mbarara**	**93.56**	**270**	LR	LR	21 19 55.4		
	comp=Z,55nm,18.0s,baz=66,slow=36							
CLL	**Collm**	**93.58**	**324**	*e*Px	Px	20 37 08.0		
CLL				*e*S	**S**	**20 48 11.0**	**-3.0**	
CLL				LH		21 07 00.0		
CLL				AMS	AMS	21 14 00.0		
	comp=N,200nm,28.8s							
CLL				AMS	AMS	21 14 00.0		
	comp=E,100nm,28.1s							
CLL				AMS	AMS	21 20 00.0		
	comp=Z,100nm,20.9s							
GERES	**GERESS Array B**	**94.16**	**322**	P	**P**	**20 37 07.5**	**-0.7**	
	comp=Z,0.5nm,0.8s,baz=72,slow=4.3,SNR=3.6							
	comp=Z,0.5nm,0.8s							
DAVOX	**Davos/Dischmat**	**97.36**	**321**	LR	LR	21 23 45.6		
	comp=Z,129nm,19.5s,baz=60,slow=37							
LSZ	**Lusaka**	**98.84**	**256**	LR	LR	21 17 54.8		
	comp=Z,68nm,20.7s,baz=96,slow=33							
BORG	**Borgarnes**	**99.23**	**346**	LR	LR	21 25 21.8		
	comp=Z,60nm,19.6s,baz=15,slow=37							
MATP	**Matopo**	**99.41**	**251**	LR	LR	21 17 27.9		
	comp=Z,180nm,20.4s,baz=70,slow=32							
EKA	**Eskdalemuir Ar**	**99.84**	**333**	LR	LR	21 26 16.8		
	comp=Z,115nm,18.3s,baz=48,slow=38							
PLCA	**Paso Flores**	**148.51**	**158**	PKPbc	**PKPbc**	**20 43 35.4**	**-1.0**	
	comp=Z,3.7nm,0.9s,baz=216,slow=3.0,SNR=4.2							

IDC ***29*** *20:35:04.3±0.9,5°.37S×151°.65E,h76km±8km,mb3.7/9, mbtmp4.1/11,Error ellipse: s-maj=23.6km s-min=9.7km az=116.0*

ISC 29 20:35:02.7±0.8,5°.41S±0°.09×151°.7E±0°.1,h57km,n14, σ1§46/16,mb3.9/9,New Britain region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.14**	**16**	P		**P**	**Pn**	**20 35 23.8**	**+1.3**
	3μm,0.3s,baz=48,slow=0.3,SNR=168								
KRVT				S			**Sn**	**20 35 40.1**	**+3.0**
	6μm,0.4s,baz=178,slow=23,SNR=10								
PMG	**Port Moresby**	**6.02**	**228**	P			**Pn**	**20 36 31.2**	**+2.1**
	39nm,0.3s,baz=42,slow=12,SNR=28								
PMG				S			**Sn**	**20 37 37.0**	**+0.3**
	50nm,0.4s,baz=164,slow=18,SNR=12								
CTA	**Charters Tower**	**15.53**	**200**	P			**Pn**	**20 38 38.6**	**+0.4**
	1.7nm,0.8s,baz=8.7,slow=11,SNR=3.3								
DZM	**Mont Dzumac**	**21.85**	**141**	P			**P**	**20 39 50.9**	**+0.2**
	3.0nm,0.6s,baz=299,slow=13,SNR=1.7								
	3.0nm,0.6s								
WRA	**Warramunga Arr**	**22.24**	**228**	P			**P**	**20 39 54.6**	**-0.3**
	5.3nm,0.6s,baz=52,slow=9.8,SNR=44								
	5.3nm,0.6s								
ASAR	**Alice Springs**	**24.98**	**222**	P			**P**	**20 40 21.7**	**+0.5**
	8.0nm,0.7s,baz=55,slow=9.0,SNR=80								
	8.0nm,0.7s								
SONM	**Songino Array**	**66.27**	**328**	P			**P**	**20 45 44.9**	**-0.2**
	1.2nm,0.4s,baz=146,slow=5.9,SNR=22								
	1.2nm,0.4s								
VNDA	**Vanda**	**72.27**	**178**	P			**P**	**20 46 22.2**	**+0.7**
	0.7nm,0.7s,baz=338,slow=7.0,SNR=6.6								
	0.7nm,0.7s								
MKAR	**Makanchi Array**	**80.08**	**319**	P			**P**	**20 47 05.6**	**-0.8**
	0.3nm,0.4s,baz=94,slow=7.6,SNR=13								
	0.3nm,0.4s								
ZALV	**Zalesovo Beam**	**81.06**	**327**	P			**P**	**20 47 09.3**	**-2.2**
	0.9nm,0.5s,baz=118,slow=6.6,SNR=6.5								
	0.9nm,0.5s								
ILAR	**Eielson Array**	**83.13**	**22**	P			**P**	**20 47 20.0**	**-2.1**
	0.5nm,0.6s,baz=252,slow=5.0,SNR=9.5								
	0.5nm,0.6s								
KURBB	**Kurchatov Arra**	**83.61**	**322**	P			**P**	**20 47 24.0**	**-0.9**
	0.3nm,0.3s,baz=92,slow=4.6,SNR=2.9								
	0.3nm,0.3s								
GERES	**GERESS Array B**	**124.00**	**328**	PKP			**PKPdf**	**20 53 54.0**	**-0.8**
	0.5nm,0.5s,baz=90,slow=1.3,SNR=7.1								
EKA	**Eskdalemuir Ar**	**126.29**	**342**	PKP			**PKPdf**	**20 53 58.6**	**-0.2**
	1.2nm,0.8s,baz=23,slow=4.8,SNR=4.2								

IDC ***29*** *21:01:08.2±1.9, 18°.18S×175°.08W,h247km±18km,mb3.8/8, mbtmp4.4/10,Error ellipse: s-maj=21.9km s-min=12.2km az=114.0*

NEIC ***29*** *21:01:08.8±2.0, 18°.15S±0°.08×174°.98W±0°.08, h252km±6km,mb4.4/25,Error ellipse: s-maj=12.7km s-min=10.2km az=144.0*

ISC 29 21:01:08.2±0.5,18°.09S±0°.08×174°.94W±0°.08,h250km, n60,σ1§31/66,mb4.2/19,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	**4.85**	**320**				**Pn**	**21 02 25.2**	**+3.0**
NIUE	**Niue**	**4.85**	**102**				**Pn**	**21 02 24.1**	**+1.9**
AFI	**Afiamalu**	**5.15**	**37**	P			**Pn**	**21 02 26.1**	**+0.1**
	49nm,0.3s,baz=33,slow=6.2,SNR=11								
AFI				S			**S**	**21 03 23.6**	**-4.5**
	260nm,0.4s,baz=50,slow=22,SNR=13								
MSVF	**Nonsavu**	**6.68**	**272**	P			**Pn**	**21 02 47.5**	**+2.5**
	22nm,0.8s,baz=105,slow=15,SNR=7.1								
MSVF	**Nonsavu**	**6.68**	**272**				**Pn**	**21 02 45.3**	**+0.3**
MARNC	**Mare, Loyalty**	**16.38**	**255**	P			**P**	**21 04 42.1**	**-1.1**
PINNC	**Pines Island,**	**17.11**	**252**	P			**P**	**21 04 50.7**	**-0.6**
PINNC				IAmb		IAmb	IAmb	21 04 53.3	
	comp=Z,29nm,1.0s								
DZM	**Mont Dzumac**	**17.93**	**254**	P			**P**	**21 05 00.6**	**+0.4**
	comp=Z,6.3nm,0.8s,baz=69,slow=20,SNR=6.1								
URZ	**Urewera**	**21.26**	**197**	P			**P**	**21 05 34.7**	**-0.5**
	comp=Z,5.3nm,0.3s,baz=22,slow=10.0,SNR=14								
URZ				S			**S**	**21 09 12.2**	**-2.3**
	comp=Z,7.1nm,0.9s,baz=22,slow=19,SNR=2.2								
	comp=Z,5.3nm,0.3s								
BFZ	**Birch Farm**	**23.76**	**197**	P			**P**	**21 05 57.7**	**-0.4**
BFZ				IAmb		IAmb	IAmb	21 06 27.1	
	comp=Z,32nm,1.4s								
MRZ	**Mangatainoka R**	**23.93**	**198**	P			**P**	**21 05 59.0**	**-0.6**
MRZ				IAmb		IAmb	IAmb	21 06 27.8	
	comp=Z,21nm,1.2s								
QRZ	**Quartz Range**	**25.09**	**203**	P			**P**	**21 06 12.3**	**+2.1**
NNZ	**Nelson**	**25.13**	**201**	P			**P**	**21 06 11.1**	**+0.6**
EIDS	**Eidsvold**	**32.32**	**251**	P			**P**	**21 07 12.4**	**-1.8**
EIDS				IAmb		IAmb	IAmb	21 07 45.2	
	comp=Z,6.5nm,1.2s								
ARMA	**Armidale**	**32.73**	**242**	P			**P**	**21 07 17.0**	**-0.9**
CTAO	**Charters Tower**	**36.67**	**260**	P			**P**	**21 07 49.9**	**-1.7**
CTAO				IAmb		IAmb	IAmb	21 07 52.9	
	comp=Z,4.7nm,0.7s								
PMG	**Port Moresby**	**37.75**	**278**	P			**P**	**21 08 00.7**	**+0.1**
PMG				IAmb		IAmb	IAmb	21 08 27.1	
	comp=Z,27nm,1.4s								
STKA	**Stephens Creek**	**41.45**	**242**	P			**P**	**21 08 29.6**	**-1.3**
	comp=Z,1.8nm,0.4s,baz=87,slow=6.1,SNR=5.8								
	comp=Z,1.8nm,0.4s								
STKA	**Stephens Creek**	**41.45**	**242**	P			**P**	**21 08 30.1**	**-0.8**
INKA	**Innaminka**	**41.74**	**248**	P			**P**	**21 08 32.8**	**-0.5**
BBOO	**Buckleboo**	**46.22**	**242**	P			**P**	**21 09 06.9**	**-1.8**
BBOO				IAmb		IAmb	IAmb	21 09 07.8	
	comp=Z,10nm,0.7s								
WR8	**Warramunga Arr**	**47.69**	**259**	P			**P**	**21 09 18.5**	**-1.7**
WB0	**Warramunga Arr**	**47.81**	**259**	P			**P**	**21 09 19.3**	**-1.8**
WB0				IAmb		IAmb	IAmb	21 09 20.0	
	comp=Z,8.7nm,0.7s								
WRAB	**Tennant Creek**	**47.83**	**259**	P			**P**	**21 09 19.8**	**-1.5**
WRAB				IAmb		IAmb	IAmb	21 09 20.1	
	comp=Z,6.3nm,0.5s								
WRA	**Warramunga Arr**	**47.84**	**259**	P			**P**	**21 09 19.6**	**-1.8**
	comp=Z,6.6nm,0.5s,baz=98,slow=7.0,SNR=189								
WRA				PcP			**PcP**	**21 10 45.8**	**-0.2**
	comp=Z,0.4nm,0.6s,baz=94,slow=3.4,SNR=2.0								
	comp=Z,6.6nm,0.5s								
WRA	**Warramunga Arr**	**47.84**	**259**	P			**P**	**21 09 19.2**	**-2.2**
WRA							**sP**	**21 10 44.1**	**+2.6**
AS31	**Alice Springs**	**47.92**	**254**	P			**P**	**21 09 20.8**	**-1.2**
AS31				IAmb		IAmb	IAmb	21 09 21.7	
	comp=Z,10nm,0.5s								
ASAR	**Alice Springs**	**47.92**	**254**	P			**P**	**21 09 20.5**	**-1.5**
	comp=Z,26nm,0.5s,baz=89,slow=8.8,SNR=514								
ASAR				PcP			**PcP**	**21 10 46.2**	**-0.1**
	comp=Z,0.6nm,0.7s,baz=97,slow=4.1,SNR=2.5								
	comp=Z,26nm,0.5s								
ASAR	**Alice Springs**	**47.92**	**254**	P			**P**	**21 09 20.8**	**-1.1**
ASAR							**PcP**	**21 10 45.9**	**-0.4**
KNRA	**Kununurra**	**53.75**	**264**	P			**P**	**21 10 04.0**	**-1.3**
KNRA				IAmb		IAmb	IAmb	21 10 29.1	
	comp=Z,19nm,1.5s								
FITZ	**Fitzroy Crossi**	**56.25**	**260**	P			**P**	**21 10 22.3**	**-0.8**
VNDA	**Vanda**	**60.56**	**186**	P			**P**	**21 10 53.5**	**+1.6**
TOLI2	**Tolitoli**	**66.00**	**280**	P			**P**	**21 11 28.9**	**+0.4**
TOLI2				IAmb		IAmb	IAmb	21 11 30.7	
	comp=Z,5.8nm,0.8s								
GIRL	**Giralia**	**66.00**	**253**	P			**P**	**21 11 27.9**	**-0.5**
MJAR	**Matsushiro Arr**	**70.07**	**321**	P			**P**	**21 11 53.5**	**+0.1**
	comp=Z,1.5nm,0.6s,baz=139,slow=7.6,SNR=3.2								
	comp=Z,1.5nm,0.6s								
MJAR	**Matsushiro Arr**	**70.07**	**321**	P			**P**	**21 11 53.2**	**-0.1**
MJAR				IAmb		IAmb	IAmb	21 12 30.3	
	comp=Z,6.3nm,1.5s								
QSPA	**South Pole Qui**	**71.96**	**180**	P			**P**	**21 12 04.7**	**+0.3**
	comp=Z,1.6nm,0.4s,baz=44,slow=2.1,SNR=6.4								
	comp=Z,1.6nm,0.4s								
QSPA	**South Pole Qui**	**71.96**	**180**	P			**P**	**21 12 04.0**	**-0.5**
PETK	**Petropavlovsk-**	**74.75**	**343**	P			**P**	**21 12 20.9**	**+0.4**
	comp=Z,2.1nm,0.8s,baz=110,slow=7.3,SNR=5.8								
	comp=Z,2.1nm,0.8s								
PETK	**Petropavlovsk-**	**74.75**	**343**	P			**P**	**21 12 21.4**	**+0.8**
ILAR	**Eielson Array**	**85.36**	**12**	P			**P**	**21 13 17.7**	**+0.8**
	comp=Z,0.3nm,0.4s,baz=204,slow=5.1,SNR=10								
	comp=Z,0.3nm,0.4s								
ILAR	**Eielson Array**	**85.36**	**12**	P			**P**	**21 13 17.3**	**+0.4**
MKAR	**Makanchi Array**	**111.64**	**314**	PKiKP			**PKiKP**	**21 19 12.5**	**-0.5**
	comp=Z,0.4nm,0.7s,baz=99,slow=1.0,SNR=7.3								
BVAR	**Borovoye Array**	**119.07**	**321**	PKP			**PKPdf**	**21 19 26.7**	**-0.3**
	comp=Z,0.6nm,0.3s,baz=83,slow=2.3,SNR=8.7								
ARCES	**ARCESS Array B**	**127.04**	**351**	PKP			**PKPdf**	**21 19 41.5**	**-0.3**
	comp=Z,4.0nm,1.0s,baz=28,slow=2.4,SNR=5.1								
ARCES	**ARCESS Array B**	**127.04**	**351**				**PKPdf**	**21 19 42.2**	**+0.4**
CLL	**Collm**	**146.26**	**351**	*i* PKPbc			**PKPbc**	**21 20 20.4**	**+1.2**
BRTR	**Keskin Array B**	**147.21**	**317**	PKPbc			**PKPbc**	**21 20 22.8**	**+0.4**
	comp=Z,1.2nm,0.7s,baz=51,slow=3.6,SNR=4.9								
BRTR	**Keskin Array B**	**147.21**	**317**				**PKPbc**	**21 20 22.0**	**-0.4**
GERES	**GERESS Array B**	**148.53**	**349**	PKPbc			**PKPbc**	**21 20 26.1**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=14,slow=2.6,SNR=5.6								
MMAI	**Mount Meron Ar**	**148.99**	**305**	PKPbc			**PKPbc**	**21 20 28.1**	**+1.0**
	comp=Z,1.1nm,0.6s,baz=63,slow=3.2,SNR=3.6								
MOA	**Molln**	**149.38**	**348**	*i* PKP			**PKiKP**	**21 20 29.2**	**+0.6**
	comp=Z,0.3nm,0.2s								
BIOA	**Bad Ischl, Aus**	**149.66**	**348**	*i* PKP			**PKPbc**	**21 20 28.9**	**+0.7**
	comp=Z,0.6nm,0.3s								
SESA	**Seetaler Alpe,**	**150.02**	**347**	*i* PKP			**PKPbc**	**21 20 30.1**	**+0.7**
	comp=Z,0.6nm,0.3s								
WATA	**Walderalm**	**150.35**	**351**	*i* PKP			**PKPbc**	**21 20 31.0**	**+0.9**
	comp=Z,0.4nm,0.2s								
MOTA	**Moosalm**	**150.41**	**352**	*i* PKP			**PKPbc**	**21 20 31.1**	**+0.8**
	comp=Z,0.6nm,0.4s								
WTTA	**Wattenberg**	**150.41**	**351**	*i* PKP			**PKPbc**	**21 20 31.3**	**+1.1**
	comp=Z,3.2nm,0.3s								
SQTA	**Sankt Quirin**	**150.51**	**351**	*i* PKP			**PKiKP**	**21 20 31.6**	**+0.5**
	comp=Z,0.2nm,0.2s								
DAVA	**Damuels**	**150.62**	**353**	*i* PKP			**PKiKP**	**21 20 32.2**	**+0.9**
	comp=Z,0.8nm,0.3s								
ABTA	**Abfaltersbach**	**150.77**	**349**	*i* PKP			**PKPbc**	**21 20 31.5**	**+0.4**
	comp=Z,1.4nm,0.4s								

DJA 29 21:16:11.2±0.3,9°S±4°×118°E±°,h121km±4km,M3.4/19, mb3.3/2,mb3.3/2,MLv3.5/19,MLv3.5/19,Sumbawa region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
DBNI	**Kabupaten Domp**	**0.13**	**334**	P		P	Pn	21 16 28.8	+1.0
DBNI				S		S	Sn	21 16 41.6	+1.3
PLAI	**Plampang**

OUZ	**Omahuta**	**5.81**	**233**	P		**P**	**21 47 00.1**	**+3.0**
	comp=Z,2µm,1.4s							
WSRZ	**White Island S**	**5.89**	**197**	P		**P**	**21 46 58.7**	**+0.9**
WSRZ				AML		AML		
WIZ	**White Island**	**5.90**	**197**	P		**P**	**21 46 59.1**	**+1.2**
WIZ				S		**S**	**21 48 11.8**	**-3.3**
WIZ				AML		AML		
WIZ				AML		AML		
MYRZ	**Mayor Island**	**5.95**	**204**	P		**P**	**21 47 01.6**	**+3.1**
WMGZ	**Waiomatatini S**	**5.97**	**187**	P		**P**	**21 46 58.6**	**0.0**
WMGZ				AML		AML		
WMGZ				AML		AML		
ABAZ	**Army Bay**	**5.99**	**217**	P		**P**	**21 47 02.1**	**+3.3**
ABAZ				AML		AML		
WIAZ	**Waiheke Island**	**5.99**	**214**	P		**P**	**21 47 01.8**	**+3.0**
WIAZ				AML		AML		
HAZ	**Te Kaha**	**6.00**	**192**	P		**P**	**21 46 58.6**	**-0.2**
HAZ				S		**S**	**21 48 13.6**	**-3.4**
HAZ				AML		AML		
HAZ				AML		AML		
PKGZ	**Pakihiroa**	**6.06**	**189**	P		**P**	**21 46 59.6**	**+0.1**
PKGZ				S		**S**	**21 48 14.9**	**-3.2**
PKGZ				AML		AML		
PKGZ				AML		AML		
MBAZ	**Motutapu North**	**6.09**	**216**	P		**P**	**21 47 03.1**	**+3.4**
MBAZ				AML		AML		
RUGZ	**Raukumara Rang**	**6.22**	**192**	P		**P**	**21 47 00.4**	**-0.7**
RUGZ				S		**S**	**21 48 16.9**	**-4.3**
RUGZ				AML		AML		
RUGZ				AML		AML		
ETAZ	**East Tamaki Re**	**6.22**	**214**	P		**P**	**21 47 04.7**	**+3.6**
ETAZ				AML		AML		
MKAZ	**Moumakai**	**6.23**	**212**	P		**P**	**21 47 04.5**	**+3.3**
MKAZ				AML		AML		
HBAZ	**Herne Bay Bore**	**6.24**	**216**	P		**P**	**21 47 04.3**	**+3.1**
HBAZ				AML		AML		
PUZ	**Puketiti**	**6.24**	**188**	P		**P**	**21 47 01.0**	**-0.3**
PUZ				S		**S**	**21 48 17.8**	**-3.7**
PUZ				AML		AML		
PUZ				AML		AML		
EPAZ	**Eden Park BICE**	**6.25**	**216**	P		**P**	**21 47 04.8**	**+3.4**
EPAZ				AML		AML		
RVAZ	**Riverhead Bore**	**6.25**	**217**	P		**P**	**21 47 04.1**	**+2.8**
RVAZ				AML		AML		
WHRZ	**Whale Island**	**6.26**	**197**	P		**P**	**21 47 03.9**	**+2.4**
WHRZ				S		**S**	**21 48 20.4**	**-1.4**
OPRZ	**Ohinepanea**	**6.37**	**200**	P		**P**	**21 47 03.1**	**+0.6**
OPRZ				AML		AML		
TWGZ	**Tauwhareparae**	**6.38**	**189**	P		**P**	**21 47 03.0**	**+0.3**
TWGZ				S		**S**	**21 48 22.2**	**-1.8**
TWGZ				AML		AML		
TWGZ				AML		AML		
MWZ	**Matawai**	**6.61**	**192**	P		**P**	**21 47 04.7**	**-0.2**
MWZ				AML		AML		
URZ	**Urewera**	**6.62**	**195**	P		**P**	**21 47 04.7**	**-0.3**
	comp=Z,344nm,0.3s,baz=3.0,slow=5.5,SNR=315							
URZ				S		**S**	**21 48 23.4**	**-4.8**
	comp=Z,329nm,0.4s,baz=220,slow=22,SNR=17							
URZ	**Urewera**	**6.62**	**195**	P		**P**	**21 47 04.6**	**-0.3**
	comp=Z,793nm,0.8s							
URZ				AML		AML		
URZ	**Urewera**	**6.62**	**195**	P		**P**	**21 47 04.3**	**-0.7**
URZ				AML		AML		
URZ	**Urewera**	**6.62**	**195**	P		**P**	**21 47 04.2**	**-0.7**
	comp=Z,793nm,0.8s							
TOZ	**Tahuroa Road**	**6.62**	**207**	P		**P**	**21 47 07.3**	**+2.2**
TOZ	**Tahuroa Road**	**6.62**	**207**	P		**P**	**21 47 06.4**	**+1.4**
TOZ				AML		AML		
RTZ	**Ruatahuna**	**6.99**	**195**	P		**P**	**21 47 08.0**	**-0.9**
RTZ	**Ruatahuna**	**6.99**	**195**	P		**P**	**21 47 08.7**	**-0.1**
RTZ				AML		AML		
TLZ	**Tolley Road**	**7.14**	**205**	P		**P**	**21 47 12.3**	**+2.0**
TLZ				AML		AML		
KNZ	**Kokohu**	**7.25**	**190**	P		**P**	**21 47 11.5**	**+0.1**
KNZ				AML		AML		
HIZ	**Hauiti**	**7.55**	**208**	P		**P**	**21 47 16.2**	**+1.6**
HIZ	**Hauiti**	**7.55**	**208**			**P**	**21 47 16.5**	**+1.9**
HIZ	**Hauiti**	**7.55**	**208**	P		**P**	**21 47 17.9**	**+3.3**
HIZ				AML		AML		
HIZ	**Hauiti**	**7.55**	**208**	P		**P**	**21 47 17.8**	**+3.2**
	comp=Z,547nm,1.1s							
BKZ	**Black Stump Fm**	**7.62**	**197**	P		**P**	**21 47 14.3**	**-1.1**
	comp=Z,86nm,0.8s							
BKZ				AML		AML		
BKZ	**Black Stump Fm**	**7.62**	**197**	P		**P**	**21 47 14.3**	**-1.1**
BKZ				AML		AML		
NGZ	**Ngauruhoe**	**7.88**	**201**	P		**P**	**21 47 17.9**	**-0.3**
NGZ				AML		AML		
VRZ	**Vera Road**	**8.12**	**206**	P		**P**	**21 47 21.8**	**+1.3**
PWZ	**Pawanui**	**8.37**	**193**	P		**P**	**21 47 22.9**	**-0.2**
PXZ	**Pawanui**	**8.37**	**193**	P		**P**	**21 47 23.4**	**+0.2**
NEZ	**North Egmont**	**8.51**	**208**	P		**P**	**21 47 27.1**	**+2.4**
KHEZ	**Kahui Hut**	**8.56**	**209**	P		**P**	**21 47 25.8**	**+0.6**
TSZ	**Takapari Road**	**8.60**	**197**	P		**P**	**21 47 24.8**	**-0.8**
WAZ	**Wanganui**	**8.61**	**203**	P		**P**	**21 47 25.9**	**+0.3**
BFZ	**Birch Farm**	**9.13**	**195**	P		**P**	**21 47 29.8**	**-1.3**
	comp=Z,119nm,0.7s							
BFZ	**Birch Farm**	**9.13**	**195**	P		**P**	**21 47 30.2**	**-1.0**
BFZ	**Birch Farm**	**9.13**	**195**	P		**P**	**21 47 30.5**	**-0.6**
BFZ	**Birch Farm**	**9.13**	**195**	P		**P**	**21 47 30.6**	**-0.5**
	comp=Z,119nm,0.7s							
MRZ	**Mangatainoka R**	**9.27**	**198**			**P**	**21 47 30.9**	**-1.8**
MRZ	**Mangatainoka R**	**9.27**	**198**	P		**P**	**21 47 31.0**	**-1.6**
MSWZ	**Moikau Station**	**10.06**	**198**	P		**P**	**21 47 39.5**	**-1.6**
SNZO	**South Karori**	**10.11**	**200**	P		**P**	**21 47 40.4**	**-1.3**
SNZO	**South Karori**	**10.11**	**200**	P		**P**	**21 47 40.9**	**-0.7**
	comp=Z,90nm,0.9s							
TCW	**Tory Channel**	**10.15**	**202**			**P**	**21 47 39.9**	**-2.2**
BHW	**Baring Head**	**10.15**	**199**			**P**	**21 47 40.4**	**-1.7**
NFK	**Norfolk Island**	**10.20**	**283**	P		**P**	**21 47 44.5**	**+1.7**
	comp=Z,64nm,1.1s							
PLWZ	**Palliser**	**10.20**	**197**	P		**P**	**21 47 40.6**	**-2.1**
QRZ	**Quartz Range**	**10.46**	**210**	P		**P**	**21 47 44.4**	**-1.0**
	comp=Z,129nm,0.6s							
QRZ	**Quartz Range**	**10.46**	**210**	P		**P**	**21 47 44.1**	**-1.3**
NNZ	**Nelson**	**10.46**	**205**	P		**P**	**21 47 44.2**	**-1.2**
NNZ	**Nelson**	**10.46**	**205**	P		**P**	**21 47 44.5**	**-1.0**
TKNZ	**Takaka Hill**	**10.46**	**207**	P		**P**	**21 47 44.1**	**-1.4**
CMWZ	**Cape Campbell**	**10.66**	**201**	P		**P**	**21 47 47.3**	**-0.2**
BSWZ	**Blackbirch Sta**	**10.74**	**202**	P		**P**	**21 47 47.2**	**-1.1**
MRNZ	**Matariki Terra**	**10.86**	**207**	P		**P**	**21 47 48.3**	**-1.4**
THZ	**Tophouse**	**11.11**	**206**			**P**	**21 47 51.2**	**-1.3**
KHZ	**Kahutara**	**11.48**	**202**			**P**	**21 47 55.5**	**-0.7**
KHZ	**Kahutara**	**11.48**	**202**	P		**P**	**21 47 55.2**	**-1.0**
GVZ	**Greta Valley S**	**12.13**	**202**	P		**P**	**21 48 02.1**	**-1.2**
LTZ	**Lake Taylor**	**12.23**	**205**			**P**	**21 48 03.0**	**-1.4**
CTZ	**Chatham Island**	**12.27**	**166**	P		**P**	**21 48 06.8**	**+2.1**
AMCZ	**Amberley**	**12.45**	**203**	P		**P**	**21 48 06.1**	**-0.5**
INZ	**Inchbonnie**	**12.50**	**208**			**P**	**21 48 05.8**	**-1.3**
OXZ	**Oxford**	**12.79**	**205**	P		**P**	**21 48 08.5**	**-1.8**
RPZ	**Rata Peaks**	**13.49**	**206**	P		**P**	**21 48 16.8**	**-0.9**
	comp=Z,8.5nm,0.5s,baz=48,slow=12,SNR=27							
RPZ				S		**S**	**21 50 37.4**	**-4.1**
	comp=Z,11nm,0.8s,baz=291,slow=23,SNR=9.6							
RPZ				ScP		**ScP**	**21 55 52.3**	**-1.0**
	comp=Z,2.9nm,0.7s,baz=234,slow=2.6,SNR=6.5							
PINNC	**Pines Island,**	**14.00**	**308**	P		**P**	**21 48 24.9**	**+1.5**
	comp=Z,659nm,0.8s							
PINNC	**Pines Island,**	**14.00**	**308**			**P**	**21 48 23.2**	**-0.2**
MSVF	**Nonsavu**	**14.13**	**355**	P		**P**	**21 48 23.2**	**-1.7**
	comp=Z,24nm,0.5s,baz=169,slow=8.0,SNR=23							
MSVF	**Nonsavu**	**14.13**	**355**	P		**P**	**21 48 23.2**	**-1.7**
	comp=Z,73nm,1.3s							
MSVF	**Nonsavu**	**14.13**	**355**	*i* P		**P**	**21 48 23.5**	**-1.4**
MSVF	**Nonsavu**	**14.13**	**355**			**P**	**21 48 22.3**	**-2.7**
MSVF	**Nonsavu**	**14.13**	**355**	P		**P**	**21 48 23.9**	**-1.0**
	comp=Z,73nm,1.3s							
MARNC	**Mare, Loyalty**	**14.43**	**313**	P		**P**	**21 48 28.5**	**+0.5**
	comp=Z,631nm,1.4s							
MARNC	**Mare, Loyalty**	**14.43**	**313**			**P**	**21 48 26.9**	**-1.1**
OUENC	**Ouen Island, N**	**14.54**	**307**	P		**P**	**21 48 29.6**	**+0.5**
	comp=Z,248nm,1.8s							
YATNC	**Mamie plateau,**	**14.75**	**308**	P		**P**	**21 48 32.0**	**+0.6**
	comp=Z,449nm,1.4s							
DZM	**Mont Dzumac**	**15.04**	**307**	P		**P**	**21 48 35.0**	**+0.4**
	comp=Z,63nm,0.5s,baz=138,slow=7.2,SNR=41							
DZM				ScP		**ScP**	**21 55 57.6**	**+1.1**
	comp=Z,8.6nm,0.6s,baz=150,slow=11,SNR=14							
NOUC	**Port Laguerre**	**15.12**	**307**	P		**P**	**21 48 35.6**	**+0.3**
	comp=Z,230nm,1.6s							
WKZ	**Wanaka**	**15.22**	**209**	P		**P**	**21 48 33.5**	**-2.6**
WKZ				IAmb		IAmb	21 48 46.6	
	comp=Z,172nm,1.6s							
NIUE	**Niue**	**16.02**	**40**	P		**P**	**21 48 41.9**	**-2.9**
	comp=Z,261nm,1.8s							
NIUE	**Niue**	**16.02**	**40**	P		**P**	**21 48 42.6**	**-2.2**
	comp=Z,263nm,1.8s							
NIUE	**Niue**	**16.02**	**40**	P		**P**	**21 48 45.1**	**+0.3**
	comp=Z,262nm,1.8s							
NIUE	**Niue**	**16.02**	**40**	P		**P**	**21 48 43.8**	**-0.9**
NIUE	**Niue**	**16.02**	**40**	P		**P**	**21 48 46.7**	**+1.9**
MLZ	**Mavora Lakes**	**16.03**	**210**	P		**P**	**21 48 42.7**	**-1.9**
MLZ				IAmb		IAmb	21 49 25.6	
	comp=Z,91nm,1.8s							
DCZ	**Deep Cove**	**16.53**	**211**	P		**P**	**21 48 47.6**	**-2.1**
DCZ				IAmb		IAmb	21 49 28.0	
	comp=Z,66nm,1.4s							
WHZ	**Wether Hill Ro**	**16.53**	**209**	P		**P**	**21 48 47.2**	**-2.6**
WHZ				IAmb		IAmb	21 48 54.7	
	comp=Z,59nm,1.4s							
RTV	**Rentapao**	**17.13**	**322**	P		**P**	**21 48 56.1**	**-0.2**
	comp=Z,436nm,1.6s							
LHI	**Lord Howe Isla**	**17.23**	**266**	P		**P**	**21 48 58.2**	**+1.1**
	comp=Z,78nm,1.6s							
DVP	**Devils Point**	**17.31**	**322**	P		**P**	**21 48 58.5**	**+0.4**
KOUNC	**Koumac, New Ca**	**17.55**	**306**	P		**P**	**21 49 01.4**	**+1.0**
	comp=Z,220nm,1.7s							
KOUNC	**Koumac, New Ca**	**17.55**	**306**			**P**	**21 49 00.8**	**+0.4**
FUTU	**Fugatoga**	**17.65**	**8**			**P**	**21 48 59.4**	**-2.0**
FUTU	**Fugatoga**	**17.65**	**8**	P		**P**	**21 49 01.4**	**0.0**
	comp=Z,79nm,0.7s							
AFI	**Afiamalu**	**19.66**	**27**	P		**P**	**21 49 20.8**	**+0.7**
	comp=Z,31nm,0.6s,baz=203,slow=8.9,SNR=9.2							
AFI				S		**S**	**21 52 34.2**	**+1.3**
	comp=Z,15nm,0.6s,baz=168,slow=20,SNR=1.9							
SANVU	**Saraoutou**	**19.72**	**323**	P		**P**	**21 49 20.3**	**-0.3**
	comp=Z,331nm,0.6s							
SANVU	**Saraoutou**	**19.72**	**323**			**P**	**21 49 20.0**	**-0.6**
SANVU	**Saraoutou**	**19.72**	**323**	P		**P**	**21 49 19.9**	**-0.8**
	comp=Z,331nm,0.6s							
RAR	**Rarotonga**	**21.49**	**65**	P		**P**	**21 49 37.5**	**+0.9**
	comp=Z,51nm,0.8s,baz=230,slow=6.8,SNR=14							
	comp=Z,51nm,0.8s							
RAR	**Rarotonga**	**21.49**	**65**	P		**P**	**21 49 38.1**	**+1.5**
	comp=Z,61nm,2.1s							
RAR	**Rarotonga**	**21.49**	**65**	P		**P**	**21 49 37.2**	**+0.6**
RAR				pmax		pmax		
	comp=Z,74nm,0.9s							
RAR	**Rarotonga**	**21.49**	**65**			**P**	**21 49 37.2**	**+0.6**
RAR				IAmb		IAmb	21 49 38.5	
	comp=Z,74nm,0.9s							
ARMA	**Armidale**	**23.70**	**266**	P		**P**	**21 49 59.3**	**+2.8**
	comp=Z,55nm,1.4s							
ARMA	**Armidale**	**23.70**	**266**	P		**P**	**21 49 58.5**	**+1.9**
	comp=Z,56nm,2.5s							
ARMA	**Armidale**	**23.70**	**266**	P		**P**	**21 49 56.4**	**-0.1**
ARMA	**Armidale**	**23.70**	**266**	P		**P**	**21 49 58.8**	**+2.2**
ARMA				IAmb		IAmb	21 49 59.6	
	comp=Z,29nm,0.6s							
CNB	**Canberra Magne**	**25.12**	**254**	P		**P**	**21 50 11.6**	**+2.5**
CNB	**Canberra Magne**	**25.12**	**254**	P		**P**	**21 50 11.4**	**+2.4**
MILA	**Mila**	**25.32**	**250**	P		**P**	**21 50 13.2**	**+2.4**
	comp=Z,19nm,0.6s							
MILA	**Mila**	**25.32**	**250**	P		**P**	**21 50 10.7**	**-0.1**
	comp=Z,19nm,0.6s							
CAN	**Canberra**	**25.42**	**254**	P		**P**	**21 50 13.9**	**+2.3**
	comp=Z,35nm,0.6s							
CAN	**Canberra**	**25.42**	**254**	P		**P**	**21 50 13.8**	**+2.0**
	comp=Z,35nm,0.6s							
CAN	**Canberra**	**25.42**	**254**	P		**P**	**21 50 13.7**	**+2.0**
	comp=Z,54nm,0.6s							
CAN	**Canberra**	**25.42**	**254**	P		**P**	**21 50 12.8**	**+1.1**
CAN				pmax		pmax		
	comp=Z,70nm,1.6s							
CAN	**Canberra**	**25.42**	**254**	P		**P**	**21 50 12.8**	**+1.1**
CAN				IAmb		IAmb	21 50 17.3	
	comp=Z,70nm,1.6s							
EIDS	**Eidsvold**	**25.56**	**278**	P		**P**	**21 50 13.7**	**+0.8**
	comp=Z,71nm,0.7s							
EIDS	**Eidsvold**	**25.56**	**278**	P		**P**	**21 50 13.6**	**+0.7**
	comp=Z,71nm,0.7s							
EIDS	**Eidsvold**	**25.56**	**278**	P		**P**	**21 50 13.3**	**+0.4**
	comp=Z,71nm,0.7s							
EIDS	**Eidsvold**	**25.56**	**278**	P		**P**	**21 50 12.5**	**-0.4**
EIDS				IAmb		IAmb	21 50 14.9	
	comp=Z,45nm,0.6s							
EIDS	**Eidsvold**	**25.56**	**278**	P		**P**	**21 50 13.7**	**+0.8**
	comp=Z,71nm,0.7s							
YNG	**Young**	**25.96**	**256**	P		**P**	**21 50 19.0**	**+2.6**
	comp=Z,33nm,1.1s							
YNG	**Young**	**25.96**	**256**	P		**P**	**21 50 18.4**	**+2.1**
	comp=Z,33nm,1.1s							
GD1S	**Gladstone Soft**	**26.07**	**281**	P		**P**	**21 50 17.0**	**-0.5**
GLAD	**Gladstone**	**26.65**	**241**	P		**P**	**21 50 24.5**	**+2.1**
	comp=Z,45nm,0.7s							
HURO	**Huro Makira**	**26.70**	**319**	P		**P**	**21 50 22.8**	**-0.3**
NGOA	**Tingoa Renbel**	**26.90**	**314**	P		**P**	**21 50 24.8**	**0.0**
RMQ	**Roma**	**27.15**	**274**	P		**P**	**21 50 27.2**	**+0.2**
	comp=Z,34nm,2.0s							
MOO	**Moorlands**	**27.53**	**238**	P		**P**	**21 50 30.7**	**+0.6**
	comp=Z,37nm,1.4s							
MOO	**Moorlands**	**27.53**	**238**	P		**P**	**21 50 32.2**	**+2.1**
	comp=Z,37nm,1.4s							
TAU	**Tasmania Unive**	**27.54**	**237**	P		**P**	**21 50 30.4**	**+0.3**
TAU	**Tasmania Unive**	**27.54**	**237**	P		**P**	**21 50 31.2**	**+1.1**
TAU				pmax		pmax		
	comp=Z,158nm,1.6s							
TAU	**Tasmania Unive**	**27.54**	**237**	P		**P**	**21 50 31.2**	**+1.1**
TAU				IAmb		IAmb	21 50 34.3	
	comp=Z,158nm,1.6s							
CMSA	**Cobar Meteorol**	**28.53**	**262**	P		**P**	**21 50 40.6**	**+1.5**
	comp=Z,140nm,0.6s							
CMSA	**Cobar Meteorol**	**28.53**	**262**	P		**P**	**21 50 40.4**	**+1.4**
	comp=Z,140nm,0.6s							
CMSA	**Cobar Meteorol**	**28.53**	**262**	P		**P**	**21 50 40.4**	**+1.4**
	comp=Z,140nm,0.6s							
CMSA	**Cobar Meteorol**	**28.53**	**262**	P		**P**	**21 50 40.6**	**+1.5**
	comp=Z,140nm,0.6s							
TBI	**Tubuai**	**28.88**	**81**	*e*sS		sS	21 57 26.5	-4.3
	comp=Z,5µm,28.5s							
BRAT	**Ballarat**	**29.50**	**249**	P		**P**	**21 50 48.2**	**+0.8**
TATA	**Tatamba Isabel**	**29.58**	**318**	P		**P**	**21 50 46.3**	**-2.0**
	comp=Z,64nm,0.7s							
QLP	**Quilpie**	**30.96**	**271**	P		**P**	**21 51 00.7**	**+0.5**
	comp=Z,242nm,0.6s							
QLP	**Quilpie**	**30.96**	**271**	P		**P**	**21 51 00.7**	**+0.5**
	comp=Z,242nm,0.6s							
QLP	**Quilpie**	**30.96**	**271**	P		**P**	**21 51 00.7**	**+0.5**
	comp=Z,242nm,0.6s							
QLP	**Quilpie**	**30.96**	**271**	P		**P**	**21 51 00.8**	**+0.5**
	comp=Z,242nm,0.6s							
ARPS	**Mount Arapiles**	**31.18**	**251**	P		**P**	**21 51 03.8**	**+1.8**
	comp=Z,16nm,0.5s							
ARPS	**Mount Arapiles**	**31.18**	**251**	P		**P**	**21 51 03.6**	**+1.6**
	comp=Z,16nm,0.5s							
PAE	**Paea**	**31.47**	**71**	*e*P		**P**	**21 51 05.2**	**+0.6**
	comp=Z,90nm,1.0s							
PPT2	**Papeete2**	**31.51**	**71**	*e*P		**P**	**21 51 01.3**	**-3.8**
	comp=Z,168nm,38.2s							
PPT2	**Papeete2**	**31.51**	**71**	*e*P		**P**	**21 51 05.4**	**+0.3**
	comp=Z,52nm,1.3s							
PPT2				*e*pP		**pP**	**21 52 27.9**	**+0.6**
	comp=Z,59nm,26.8s							
PPT2				*e*S		**S**	**21 55 34.2**	**-4.6**
	comp=Z,104nm,27.8s							
PPT2				*e*sS		**sS**	**21 58 11.4**	**-1.5**
	comp=Z,461nm,27.2s							
PPT2				*e*sS		sS	21 58 17.0	-21
	comp=Z,335nm,29.5s							
PPT2				*e*LR		LR	22 00 01.2	
	comp=Z,75nm,22.0s							
PPTF	**Pamatai, Papee**	**31.52**	**71**	P		**P**	**21 51 06.7**	**+1.5**
PPTF				IAmb		IAmb	21 51 07.7	
	comp=Z,69nm,1.0s							
PPTF	**Pamatai, Papee**	**31.52**	**71**	P		**P**	**21 51 06.8**	**+1.6**
PPT	**Papeete**	**31.53**	**71**	P		**P**	**21 51 06.9**	**+1.7**
	comp=Z,30nm,0.7s,baz=237,slow=8.5,SNR=5.4							
PPT				ScP		**ScP**	**21 56 41.8**	**+1.1**
	comp=Z,17nm,0.8s,baz=16,slow=12,SNR=4.1							
	comp=Z,30nm,0.7s							
TIAR	**Tiarei**	**31.72**	**71**	*e*P		**P**	**21 51 08.8**	**+2.0**
	comp=Z,1µm,0.7s							
CTA	**Charters Tower**	**31.82**	**284**	P		**P**	**21 51 08.7**	**+1.1**
	comp=Z,104nm,0.5s,baz=115,slow=11,SNR=88							
	comp=Z,104nm,0.5s							
CTA	**Charters Tower**	**31.82**	**284**	P		**P**	**21 51 08.4**	**+0.8**
	comp=Z,6.7nm,0.6s							
CTAO	**Charters Tower**	**31.82**	**284**	P		**P**	**21 51 08.0**	**+0.4**
CTAO				pmax		pmax		
	comp=Z,547nm,1.6s							
CTAO	**Charters Tower**	**31.82**	**284**	P		**P**	**21 51 08.0**	**+0.4**
CTAO	**Charters Tower**	**31.82**	**284**	P		**P**	**21 51 08.4**	**+0.8**
STKA	**Stephens Creek**	**31.91**	**260**	P		**P**	**21 51 09.7**	**+1.4**
STKA	**Stephens Creek**	**31.91**	**260**	P		**P**	**21 51 09.6**	**+1.3**
	comp=Z,48nm,0.4s,baz=102,slow=10,SNR=145							
	comp=Z,48nm,0.4s							
STKA	**Stephens Creek**	**31.91**	**260**	P		**P**	**21 51 08.2**	**-0.1**
STKA				pmax		pmax		
	comp=Z,1µm,2.0s							
STKA	**Stephens Creek**	**31.91**	**260**			**P**	**21 51 08.2**	**-0.1**
MGBR	**Mount Gambier**	**32.17**	**249**	P		**P**	**21 51 10.6**	**+0.2**
MGBR				IAmb		IAmb	21 52 04.6	
	comp=Z,50nm,1.4s							
INKA	**Innaminka**	**33.59**	**267**			**P**	**21 51 22.9**	**+0.3**
INKA				IAmb		IAmb	21 51 25.2	
	comp=Z,138nm,1.6s							
				PcP		**PcP**	**21 53 50.5**	**+1.2**
TARA	**Tarawa**	**33.60**	**348**	P		**P**	**21 51 21.6**	**-1.1**
TARA				pP		**pP**	**21 52 43.7**	**-2.6**
HTT	**Hallett**	**33.88**	**256**	P		**P**	**21 51 26.2**	**+1.1**
	comp=Z,35nm,0.6s							
HTT	**Hallett**	**33.88**	**256**	P		**P**	**21 51 26.1**	**+0.9**
	comp=Z,35nm,0.6s							
HTT	**Hallett**	**33.88**	**256**	P		**P**	**21 51 25.9**	**+0.8**
	comp=Z,86nm,0.6s							
MTSU	**Mount Surprise**	**34.37**	**285**	P		**P**	**21 51 30.2**	**+0.9**
	comp=Z,68nm,0.8s							
MTSU	**Mount Surprise**	**34.37**	**285**	P		**P**	**21 51 30.1**	**+0.9**
	comp=Z,68nm,0.8s							
MTSU	**Mount Surprise**	**34.37**	**285**	P		**P**	**21 51 30.0**	**+0.7**
	comp=Z,68nm,0.8s							
MTSU	**Mount Surprise**	**34.37**	**285**	P		**P**	**21 51 30.2**	**+0.9**
	comp=Z,68nm,0.8s							
VAH	**Vaihoa**	**34.37**	**69**	*e*P		**P**	**21 51 29.3**	**0.0**
	comp=Z,200nm,1.2s							
BBOO	**Buckleboo**	**36.36**	**257**	P		**P**	**21 51 46.0**	**+0.3**
	comp=Z,127nm,0.6s							
BBOO	**Buckleboo**	**36.36**	**257**	P		**P**	**21 51 45.9**	**+0.1**
	comp=Z,127nm,0.6s							
BBOO	**Buckleboo**	**36.36**	**257**	P		**P**	**21 51 45.6**	**-0.1**
	comp=Z,127nm,0.6s							
BBOO	**Buckleboo**	**36.36**	**257**			**P**	**21 51 45.7**	**-0.1**
BBOO				IAmb		IAmb	21 51 47.3	
	comp=Z,70nm,0.7s							
BBOO	**Buckleboo**	**36.36**	**257**	P		**P**	**21 51 44.4**	**-1.4**
	comp=Z,127nm,0.6s							
QIS	**Mount Isa**	**37.16**	**278**	P		**P**	**21 51 52.4**	**-0.2**
	comp=Z,60nm,1.3s							
QIS	**Mount Isa**	**37.16**	**278**	P		**P**	**21 51 52.3**	**-0.2**
	comp=Z,60nm,1.3s							
QIS	**Mount Isa**	**37.16**	**278**	P		**P**	**21 51 52.4**	**-0.2**
	comp=Z,60nm,1.3s							
QIS	**Mount Isa**	**37.16**	**278**	P		**P**	**21 51 52.4**	**-0.2**
	comp=Z,60nm,1.3s							
PMG	**Port Moresby**	**37.23**	**300**	*i* P		**P**	**21 51 54.0**	**+0.8**
PMG				pmax		pmax		
	comp=Z,23nm,0.9s							
PMG	**Port Moresby**	**37.23**	**300**	P		**P**	**21 51 52.3**	**-0.9**
PMG				IAmb		IAmb	21 51 53.5	
	comp=Z,28nm,0.7s							
RABL	**Rabaul**	**37.51**	**312**			**P**	**21 51 54.9**	**-0.5**
AS01	**Alice Springs**	**40.71**	**270**	P		**P**	**21 52 21.1**	**-0.3**
	comp=Z,111nm,0.6s							
AS31	**Alice Springs**	**40.75**	**270**			**P**	**21 52 21.1**	**-0.6**
AS31				IAmb		IAmb	21 52 23.1	
	comp=Z,30nm,0.6s							
ASAR	**Alice Springs**	**40.75**	**270**	P		**P**	**21 52 21.4**	**-0.3**
	comp=Z,70nm,0.5s,baz=106,slow=7.1,SNR=839							
ASAR				pP		**pP**	**21 53 49.1**	**+0.2**
	comp=Z,3.6nm,0.7s,baz=108,slow=7.8,SNR=1.3							
ASAR				PcP		**PcP**	**21 54 11.2**	**-0.5**
	comp=Z,7.2nm,0.4s,baz=104,slow=3.8,SNR=5.5							
ASAR				ScP		**ScP**	**21 57 14.7**	**-0.3**
	comp=Z,3.8nm,0.7s,baz=110,slow=3.4,SNR=5.2							
ASAR				S		**S**	**

CCD pP **pP** 21 55 09.5 -2.1
CCD ScP **ScP** 21 57 56.2 -0.5
KLBR Kellerberrin 51.69 253 P **P** 21 53 41.7 -3.3
KLBR Kellerberrin 51.69 253 P **P** 21 53 44.5 -0.5
comp=Z,101nm,0.5s
KLBR Kellerberrin 51.69 253 P **P** 21 53 41.7 -3.3
comp=Z,101nm,0.5s
MEEK Meekatharra 52.61 259 P **P** 21 53 51.1 -0.6
comp=Z,120nm,0.8s
MEEK Meekatharra 52.61 259 P **P** 21 53 50.5 -1.2
comp=Z,120nm,0.8s
FAKI Fak Fak 52.73 293 P **P** 21 53 51.5 -1.2
comp=Z,123nm,1.6s
FAKI Fak Fak 52.73 293 **P** 21 53 51.1 -1.5
FAKI Fak Fak 52.73 293 P **P** 21 53 51.3 -1.4
comp=Z,2µmcomp=Z,2µmcomp=Z,124nm,1.6s,comp=Z,124nm,1.6s
FAKI Fak Fak 52.73 293 P **P** 21 53 51.8 -0.9
comp=Z,123nm,1.6s
CASY Casey 52.75 208 P **P** 21 53 52.0 +0.1
CASY IAmb IAmb 21 53 53.4
comp=Z,22nm,0.5s
CASY Casey 52.75 208 P **P** 21 53 52.7 +0.7
comp=Z,33nm,0.8s
CASY Casey 52.75 208 P **P** 21 53 52.4 +0.4
BLDU Ballidu 52.84 254 P **P** 21 53 52.8 -0.5
comp=Z,47nm,1.9s
BNDI Bandanaira 53.62 290 P **P** 21 53 58.3 -0.7
comp=Z,187nm,1.1s,comp=Z,187nm,1.1s
BNDI Bandanaira 53.62 290 P **P** 21 53 57.9 -1.1
comp=Z,188nm,1.2s
MBWA Marble Bar 53.78 266 P **P** 21 53 58.9 -1.3
MBWA PcP **PcP** 21 54 57.6 -1.0
MORW Morawa 53.90 255 P **P** 21 54 00.9 0.0
comp=Z,24nm,0.6s
MORW Morawa 53.90 255 P **P** 21 54 00.2 -0.7
comp=Z,35nm,1.7s
MORW Morawa 53.90 255 P **P** 21 54 00.2 -0.7
MORW IAmb IAmb 21 54 01.6
comp=Z,43nm,1.2s
MORW PcP **PcP** 21 54 57.9 -1.1
SIJI Sorong 54.77 294 P **P** 21 54 06.5 -0.6
comp=Z,27nm,0.5s,baz=112,slow=5.5,SNR=15
comp=Z,27nm,0.5s
SOEI Soe 55.31 281 P **P** 21 54 12.5 +1.4
comp=Z,88nm,0.7s
SOEI Soe 55.31 281 **P** 21 54 11.8 +0.7
SOEI IAmb IAmb 21 54 13.3
comp=Z,81nm,0.9s
SOEI Soe 55.31 281 P **P** 21 54 12.2 +1.1
comp=Z,1µmcomp=Z,1µmcomp=Z,89nm,0.6s,comp=Z,89nm,0.6s
SOEI Soe 55.31 281 P **P** 21 54 12.1 +1.0
comp=Z,88nm,0.7s
BATI Baumata 55.58 280 P **P** 21 54 14.0 +1.1
comp=Z,2µmcomp=Z,2µmcomp=Z,115nm,0.5s,comp=Z,115nm,0.5s
NLAI Namlea 56.62 289 P **P** 21 54 19.8 -0.2
comp=Z,2µmcomp=Z,2µmcomp=Z,102nm,1.7s,comp=Z,102nm,1.7s
KIP Kipapa 57.28 25 *i* P **P** 21 54 24.2 -0.1
KIP pmax pmax
comp=Z,24nm,1.0s
MMRI Maumere 57.60 281 P **P** 21 54 26.7 -0.1
comp=Z,174nm,1.4s
MMRI Maumere 57.60 281 **P** 21 54 26.7 -0.1
MMRI Maumere 57.60 281 P **P** 21 54 26.4 -0.4
comp=Z,3µmcomp=Z,3µmcomp=Z,177nm,1.4s,comp=Z,177nm,1.4s
MMRI Maumere 57.60 281 P **P** 21 54 26.3 -0.4
comp=Z,174nm,1.4s
EDFI Ende, Flores 58.00 280 P **P** 21 54 29.0 -0.6
comp=Z,1µmcomp=Z,1µmcomp=Z,82nm,0.5s,comp=Z,82nm,0.5s
SANI Sanana 58.22 289 P **P** 21 54 30.5 -0.5
comp=Z,112nm,1.5s
SANI Sanana 58.22 289 P **P** 21 54 30.0 -1.0
comp=Z,2µmcomp=Z,2µmcomp=Z,113nm,1.5s,comp=Z,113nm,1.5s
SANI Sanana 58.22 289 P **P** 21 54 30.2 -0.8
comp=Z,81nm,1.1s
QSPA South Pole Qui 58.24 180 P **P** 21 54 31.7 +1.2
comp=Z,13nm,0.7s,baz=29,slow=2.9,SNR=3.8
QSPA pP **pP** 21 56 08.7 +1.6
comp=Z,4.4nm,0.6s,baz=281,slow=3.3,SNR=2.3
QSPA S **S** 22 01 56.8 +2.3
comp=Z,1.8nm,0.8s,baz=225,slow=21,SNR=7.8
comp=Z,13nm,0.7s
QSPA South Pole Qui 58.24 180 P **P** 21 54 31.9 +1.4
QSPA **pP** 21 56 08.1 +1.1
QSPA South Pole Qui 58.24 180 P **P** 21 54 32.3 +1.8
LBFI Labuhan Bajo, 59.65 279 P **P** 21 54 40.2 -0.4
KDI Kendari 59.85 285 P **P** 21 54 41.3 -0.7
comp=Z,785nmcomp=Z,785nmcomp=Z,49nm,0.6s,comp=Z,49nm,0.6s
BKSI Bulukumba 61.15 283 P **P** 21 54 50.5 -0.1
comp=Z,775nmcomp=Z,775nmcomp=Z,44nm,0.5s,comp=Z,44nm,0.5s
PLAI Plampang 61.24 278 P **P** 21 54 51.0 -0.2
comp=Z,96nm,1.7s
PLAI Plampang 61.24 278 P **P** 21 54 50.0 -1.2
comp=Z,1µmcomp=Z,1µmcomp=Z,96nm,1.7s,comp=Z,96nm,1.7s
PLAI Plampang 61.24 278 P **P** 21 54 51.0 -0.2
comp=Z,96nm,1.7s
LUWI Luwuk 61.40 288 **P** 21 54 51.4 -0.9
LUWI Luwuk 61.40 288 P **P** 21 54 53.5 +1.3
comp=Z,3µmcomp=Z,3µmcomp=Z,94nm,1.4s,comp=Z,94nm,1.4s
LUWI Luwuk 61.40 288 P **P** 21 54 52.4 +0.2
comp=Z,95nm,1.4s
KAPI Kappang 61.63 283 *i* P **P** 21 54 54.4 +0.7
KAPI pmax pmax
comp=Z,22nm,0.4s
KAPI Kappang 61.63 283 **P** 21 54 53.1 -0.6
KAPI IAmb IAmb 21 54 55.2
comp=Z,158nm,1.6s
KAPI Kappang 61.63 283 P **P** 21 54 56.8 +3.1
comp=Z,476nmcomp=Z,476nmcomp=Z,37nm,0.6s,comp=Z,37nm,0.6s
KAPI Kappang 61.63 283 P **P** 21 54 52.8 -0.9
comp=Z,70nm,0.6s
KAPI Kappang 61.63 283 P **P** 21 54 53.5 -0.2
TWSI Taliwang, Sumb 62.05 277 P **P** 21 54 56.4 -0.1
comp=Z,99nm,1.0s,comp=Z,99nm,1.0s
APSI Ampana 62.39 288 P **P** 21 55 00.4 +1.7
comp=Z,70nm,1.4s,comp=Z,70nm,1.4s
TTSI Tana Toraja 62.66 284 P **P** 21 55 00.2 -0.3
comp=Z,2µmcomp=Z,2µmcomp=Z,65nm,0.6s,comp=Z,65nm,0.6s
KHKI Kahang-Kahang 63.31 277 P **P** 21 55 05.3 +0.6
comp=Z,63nm,1.4s,comp=Z,63nm,1.4s
MMSI Mamuju 63.61 284 P **P** 21 55 06.7 +0.1
comp=Z,1µmcomp=Z,1µmcomp=Z,97nm,0.9s,comp=Z,97nm,0.9s
SRBI Singaraja 63.79 277 P **P** 21 55 09.1 +1.3
comp=Z,2µmcomp=Z,2µmcomp=Z,120nm,0.8s,comp=Z,120nm,0.8s
PCI Palu 63.86 286 P **P** 21 55 09.0 +0.8
comp=Z,2µmcomp=Z,2µmcomp=Z,151nm,0.8s,comp=Z,151nm,0.8s
TOLI2 Tolitoli 64.27 289 P **P** 21 55 10.0 -0.8
comp=Z,53nm,1.6s
TOLI2 Tolitoli 64.27 289 **P** 21 55 09.9 -1.0
TOLI2 IAmb IAmb 21 55 11.6
comp=Z,89nm,1.4s
TOLI2 Tolitoli 64.27 289 P **P** 21 55 09.5 -1.4
comp=Z,53nm,1.6s
JAGI Jajag, Banyuwa 64.49 276 P **P** 21 55 11.7 -0.6
comp=Z,76nm,0.5s
JAGI Jajag, Banyuwa 64.49 276 **P** 21 55 11.7 -0.6
JAGI IAmb IAmb 21 55 13.4
comp=Z,115nm,1.2s
JAGI Jajag, Banyuwa 64.49 276 P **P** 21 55 12.6 +0.4
comp=Z,87nm,0.5s,comp=Z,87nm,0.5s
JAGI Jajag, Banyuwa 64.49 276 P **P** 21 55 09.2 -3.1
comp=Z,75nm,0.5s
BLJI Banyuglugur 65.34 276 P **P** 21 55 17.9 +0.3
BBKI Banjar Baru 66.56 281 P **P** 21 55 27.0 +1.7
comp=Z,107nm,1.8s,comp=Z,107nm,1.8s
PWJI Pagerwojo 66.71 275 P **P** 21 55 26.5 +0.3
comp=Z,4µmcomp=Z,4µmcomp=Z,88nm,0.5s,comp=Z,88nm,0.5s
SNJI Sawahan-Nganju 66.87 275 P **P** 21 55 28.5 +1.1
comp=Z,2µmcomp=Z,2µmcomp=Z,92nm,0.5s,comp=Z,92nm,0.5s
SJI Sawahan 66.89 275 P P 21 55 34.9 +7.5
PCJI Pacitan 67.15 275 P **P** 21 55 29.5 +0.6
WOJI Wonogiri, Jawa 67.55 275 P **P** 21 55 32.4 +1.1
comp=Z,111nm,0.5s,comp=Z,111nm,0.5s
UGM Wanagama 67.85 274 P **P** 21 55 33.5 +0.2
comp=Z,114nm,1.4s
JCJ Chichijima 68.48 325 P **P** 21 55 31.9 -4.8
comp=Z,163nm,0.4s,baz=270,slow=21,SNR=22
JCJ Chichijima 68.48 325 P **P** 21 55 35.2 -1.5
comp=Z,233nm,0.6s
JCJ Chichijima 68.48 325 P **P** 21 55 35.2 -1.5
BELA Belgrano 2 68.63 173 **P** 21 55 37.6 +0.7
KPJI Karang Pucung 69.50 274 P **P** 21 55 45.2 +2.0
comp=Z,46nm,0.5s,comp=Z,46nm,0.5s
BBJI Bungbulang 70.52 273 P **P** 21 55 48.7 -0.7
comp=Z,32nm,1.9s
KKM Kota Kinabalu 70.85 290 P **P** 21 55 50.9 -0.4
comp=Z,56nm,1.2s
KKM Kota Kinabalu 70.85 290 **P** 21 55 50.6 -0.7
KKM IAmb IAmb 21 55 52.4
comp=Z,60nm,1.2s
STKI Sintang 71.30 282 P **P** 21 55 54.8 +0.9
comp=Z,83nm,1.4s,comp=Z,83nm,1.4s
JHJ2 Mitsune 74.61 326 P **P** 21 56 11.9 -0.5
comp=Z,242nm,1.1s
JHJ Hachijo jima 2 74.63 326 P **P** 21 56 12.4 -0.2
comp=Z,6.9nm,0.4s,baz=146,slow=5.5,SNR=4.9
comp=Z,6.9nm,0.4s
SZP Santa 74.78 302 P **P** 21 56 13.0 -0.8
MDSI Maura Dua 75.01 274 P **P** 21 56 13.5 -1.7
comp=Z,1µmcomp=Z,1µmcomp=Z,81nm,0.5s,comp=Z,81nm,0.5s
ELIB Princess Elisa 75.10 188 *d* P 21 56 15.5 +0.6
comp=Z,10nm,0.7s
JOW Kunigami 75.98 314 P **P** 21 56 19.6 -0.6
comp=Z,30nm,0.7s,baz=132,slow=14,SNR=8.3
comp=Z,30nm,0.7s
JOW Kunigami 75.98 314 P **P** 21 56 20.5 +0.2
comp=Z,53nm,1.1s
JOW Kunigami 75.98 314 P **P** 21 56 20.1 -0.2
MNAI Manna 76.11 274 P **P** 21 56 21.2 -0.2
comp=Z,304nm,1.0s
TROLL Troll, Antarti 76.38 181 P **P** 21 56 23.0 +1.0
comp=Z,303nm,0.4s
SNAA Sanae 76.73 179 P **P** 21 56 24.8 +1.0
comp=Z,93nm,0.3s
SNAA Sanae 76.73 179 P **P** 21 56 24.5 +0.6
comp=Z,4.3nm,0.4s,baz=177,slow=8.3,SNR=12
comp=Z,4.3nm,0.4s
SNAA Sanae 76.73 179 *ce* P **P** 21 56 24.9 +1.0
SNAA pmax pmax
comp=Z,13nm,1.4s
SNAA Sanae 76.73 179 **P** 21 56 24.2 +0.3
VNA3 Neumayer Olymp 76.97 177 P **P** 21 56 26.0 +0.8
comp=Z,9.5nm,0.3s
VNA2 Neumayer--Watz 77.38 178 P **P** 21 56 28.8 +1.4
comp=Z,10nm,0.3s,baz=181,slow=5.7
VNA1 Neumayer--Stat 77.62 177 P **P** 21 56 30.0 +1.3
comp=Z,3.7nm,0.3s
INU Inuyama 77.77 326 P **P** 21 56 29.9 0.0
comp=Z,21nm,1.2s
INU Inuyama 77.77 326 P **P** 21 56 29.2 -0.6
JGF Kuroka 77.81 326 P **P** 21 56 29.6 -0.6
comp=Z,29nm,0.9s
JMN Monobe 78.04 323 P **P** 21 56 31.5 0.0
comp=Z,36nm,1.1s
MJAR Matsushiro Arr 78.18 327 P **P** 21 56 31.0 -1.1
comp=Z,4.0nm,0.5s,baz=150,slow=6.5,SNR=18
comp=Z,4.0nm,0.5s
MJAR Matsushiro Arr 78.18 327 P **P** 21 56 31.2 -0.9
MJAR pmax pmax
comp=Z,15nm,1.3s
MJAR Matsushiro Arr 78.18 327 **P** 21 56 31.2 -0.9
MAJO Matsushiro 78.18 327 *i* P **P** 21 56 31.9 -0.2
MAJO pmax pmax
comp=Z,17nm,1.0s
MAJO Matsushiro 78.18 327 P **P** 21 56 31.2 -0.9
MJB9 Matsu-Tunnel 78.18 327 **P** 21 56 31.8 -0.3
MJB9 IAmb IAmb 21 58 48.8
comp=Z,89nm,1.9s
JNU Nakatsue 79.16 320 P **P** 21 56 36.6 -0.8
comp=Z,8.7nm,0.6s,baz=157,slow=3.5,SNR=9.0
comp=Z,8.7nm,0.6s
COYC Coyhaique 79.44 137 P **P** 21 56 40.0 +1.2
COYC IAmb IAmb 21 56 42.1
comp=Z,20nm,1.0s
JTM Tenmabayashi 80.47 332 P **P** 21 56 44.7 +0.6
comp=Z,50nm,1.3s
LL02 Futaleuf 80.95 136 **P** 21 56 48.7 +1.9
IPM Ipoh 82.44 280 P **P** 21 56 54.2 -0.7
comp=Z,20nm,0.5s
IPM Ipoh 82.44 280 **P** 21 56 54.3 -0.7
IPM IAmb IAmb 21 56 55.2
comp=Z,14nm,0.5s
JKA Kamikawa-asahi 82.72 334 IAmb IAmb 21 56 57.5
comp=Z,84nm,1.4s
ASAJ Asahikawa 82.72 334 P **P** 21 56 55.7 +0.1
comp=Z,6.1nm,0.5s,baz=170,slow=6.1,SNR=7.3
comp=Z,6.1nm,0.5s
PLCA Paso Flores 83.17 134 P **P** 21 57 00.2 +1.8
comp=Z,2.4nm,0.6s,baz=236,slow=5.5,SNR=14
comp=Z,2.4nm,0.6s
PLCA Paso Flores 83.17 134 P **P** 21 57 00.6 +2.3
KULM Kulim 83.19 280 P **P** 21 56 58.2 -0.5
comp=Z,28nm,1.2s
KULM Kulim 83.19 280 IAmb IAmb 21 56 58.7
comp=Z,65nm,1.7s
RPSI Rantau Prapat 83.25 277 **P** 21 56 57.9 -1.1
RPSI IAmb IAmb 21 56 58.1
comp=Z,32nm,1.4s
PSI Prapat 83.30 277 P **P** 21 56 58.4 -1.1
comp=Z,23nm,1.9s
PSI Prapat 83.30 277 P **P** 21 56 57.9 -1.6
PSI pmax pmax
comp=Z,32nm,1.4s
ADK Adak 83.47 3 P **P** 21 56 59.5 +0.3
GSI Gunungsitoli 83.65 275 P **P** 21 57 01.4 +0.3
comp=Z,112nm,0.6s
KSRS Korea Array 84.01 321 P **P** 21 57 02.9 +0.7
comp=Z,10nm,0.5s,baz=138,slow=5.8,SNR=52
comp=Z,10nm,0.5s
KSAR Wonju Array Be 84.02 321 P **P** 21 57 03.2 +1.0
KSAR Wonju Array Be 84.02 321 **P** 21 57 03.2 +1.0
KS19 Wonju Array Si 84.07 321 IAmb IAmb 21 57 48.2
comp=Z,118nm,1.9s
YSS Yuzhno-Sakhali 85.10 336 *eP* **P** 21 57 08.6 +1.3
YSS *eS* **S** 22 06 58.7 +2.9
YSS pmax pmax
comp=Z,500nm,3.2s
YSS pmax pmax
comp=Z,30nm,1.4s
YSS smax smax
comp=N,300nm,3.6s
YSS smax smax
comp=E,300nm,4.5s
NJ2 Nanjing 85.48 312 *eP* **P** 21 57 11.5 +2.0
NJ2 pmax pmax
comp=E,17nm,0.6s
UNV Unalaska Valle 86.25 8 P **P** 21 57 12.9 +0.2
BO02 Sierra Bellavi 86.56 129 P **P** 21 57 16.9 +1.9
BO02 IAmb IAmb 22 00 07.5
comp=Z,38nm,1.6s
PEA0B Petropavlovsk- 86.70 347 *i* P **P** 21 57 16.6 +1.8
PETK Petropavlovsk- 86.70 347 P **P** 21 57 15.2 +0.4
comp=Z,22nm,0.6s,baz=121,slow=6.3,SNR=18
comp=Z,22nm,0.6s
PETK Petropavlovsk- 86.70 347 P **P** 21 57 15.7 +0.9
PETK Petropavlovsk- 86.70 347 **P** 21 57 15.7 +0.9
MT01 Popeta 86.81 128 IAmb IAmb 21 59 26.8
comp=Z,96nm,1.9s
USA0B Ussuriysk Arra 87.14 328 *i* P **P** 21 57 19.1 +1.9
USA0B Ussuriysk Arra 87.14 328 IAmb IAmb 21 57 19.4
comp=Z,59nm,1.5s
USRK Ussuriysk Ar. 87.14 328 P **P** 21 57 17.8 +0.6
comp=Z,3.9nm,0.4s,baz=149,slow=4.3,SNR=19
comp=Z,3.9nm,0.4s
USRK Ussuriysk Ar. 87.14 328 P **P** 21 57 18.0 +0.8
USRK Ussuriysk Ar. 87.14 328 **P** 21 57 18.0 +0.8
WHN Wuhan 87.42 309 P **P** 21 57 20.3 +1.5
ESJX Sierra Juarez 88.22 50 P **P** 21 57 25.6 +2.8
DL2 Dalian 88.49 319 P **P** 21 57 23.8 +0.2
DL2 pmax pmax
comp=Z,62nm,1.8s
TYV Tymovskoe 88.50 338 *eP* **P** 21 57 24.2 +0.9
TYV *eS* **S** 22 07 21.6 -6.1
TYV pmax pmax
comp=Z,32nm,1.4s
TYV pmax pmax
comp=Z,500nm,4.1s
TYV smax smax
comp=N,300nm,5.9s
TYV smax smax
comp=E,300nm,5.9s
MDJ Mudanjiang 88.56 327 P **P** 21 57 24.0 +0.2
MDJ pmax pmax
comp=E,20nm,1.8s
O02D Mt. Diablo Mer 89.51 40 **P** 21 57 29.7 +1.2
CN2 Changchun 89.95 324 *eP* **P** 21 57 30.0 -0.3
CN2 pmax pmax
comp=E,10.0nm,0.8s
GYA Guiyang 90.30 301 ⇑P **P** 21 57 32.5 0.0
GYA pmax pmax
comp=E,10.0nm,1.7s
BNX BinXian 90.43 327 ⇑P **P** 21 57 32.3 -0.1
BNX pmax pmax
comp=E,8.0nm,1.7s
AC05 El Transito 90.48 125 IAmb IAmb 21 57 36.9
comp=Z,34nm,1.4s
YBH Yreka Blue Hor 90.63 39 P **P** 21 57 35.2 +1.6
comp=Z,1.1nm,0.6s,baz=249,slow=5.6,SNR=5.1
comp=Z,1.1nm,0.6s
YBH Yreka Blue Hor 90.63 39 P **P** 21 57 34.6 +1.0
YBH pmax pmax
comp=Z,16nm,1.9s
YBH Yreka Blue Hor 90.63 39 P **P** 21 57 34.6 +1.0
GMN Gold Mountain 90.79 46 P **P** 21 57 36.7 +2.0
NVAR Mina Array Bea 90.90 44 P **P** 21 57 36.1 +1.0
comp=Z,1.2nm,0.6s,baz=224,slow=5.7,SNR=9.3
NVAR pP **pP** 21 59 23.6 +1.0
comp=Z,0.6nm,0.6s,baz=218,slow=6.6,SNR=3.5
comp=Z,1.2nm,0.6s
NVAR Mina Array Bea 90.90 44 P **P** 21 57 36.4 +1.3
LYN LuoYang 91.17 311 P **P** 21 57 37.3 +1.2
LYN pmax pmax
comp=Z,20nm,0.8s
LYN pmax pmax
comp=Z,330nm,4.8s
KLR Kul'dur 91.17 331 P **P** 21 57 37.0 +1.3
comp=Z,1.7nm,0.4s,baz=224,slow=3.5,SNR=11
KLR pP **pP** 21 59 24.6 +1.8
comp=Z,0.5nm,0.4s,baz=116,slow=6.3,SNR=1.3
comp=Z,1.7nm,0.4s
KLR Kul'dur 91.17 331 *i* P **P** 21 57 36.1 +0.3
KLR pmax pmax
comp=Z,12nm,1.8s
TPNV Topopah Spring 91.18 46 P **P** 21 57 37.3 +0.9
TPNV pmax pmax
comp=Z,3.0nm,0.7s
TPNV Topopah Spring 91.18 46 P **P** 21 57 37.3 +0.9
TPH Tonopah 91.31 45 IAmb IAmb 21 59 31.9
comp=Z,15nm,1.6s
HNS HongShan 91.55 314 ⇓P **P** 21 57 39.0 +1.2
HNS pmax pmax
comp=Z,19nm,1.4s
CMAR Chiang Mai Arr 91.72 291 P **P** 21 57 39.5 +0.4
comp=Z,1.5nm,0.3s,baz=147,slow=4.9,SNR=7.6
CMAR pP **pP** 21 59 28.1 +2.1
comp=Z,1.1nm,0.3s,baz=220,slow=31,SNR=2.8
CMAR PKKPbc **PKKPbc** 22 14 54.1 -0.2
comp=Z,0.7nm,0.4s,baz=290,slow=5.2,SNR=4.1
comp=Z,1.5nm,0.3s
CMAR Chiang Mai Arr 91.72 291 P **P** 21 57 38.3 -0.8
CMAR Chiang Mai Arr 91.72 291 P **P** 21 57 38.3 -0.8
XAN Xi'an 93.18 308 P **P** 21 57 46.0 +0.5
XAN pmax pmax
comp=Z,10.0nm,1.8s
HHC Hu-ho-hao-te 95.62 315 *eP* **P** 21 58 00.8 +4.3
HHC pmax pmax
comp=Z,11nm,0.5s
HHC pmax pmax
comp=Z,55nm,5.5s
HHC Hu-ho-hao-te 95.62 315 *eP* **P** 21 57 57.0 +0.5
HHC pmax pmax
comp=Z,9.0nm,0.5s
HHC pmax pmax
comp=Z,57nm,5.0s
HIA Hailar 96.58 325 *i* P **P** 21 58 02.3 +1.8
HIA pmax pmax
comp=Z,5.0nm,0.8s
PDAR Pinedale Array 98.81 45 P **P** 21 58 11.3 +0.4
comp=Z,0.3nm,0.6s,baz=181,slow=4.0,SNR=4.4
PDAR PKKPbc **PKKPbc** 22 14 35.5 -1.3
comp=Z,0.4nm,0.5s,baz=99,slow=5.4,SNR=7.0
comp=Z,0.3nm,0.6s
PDAR Pinedale Array 98.81 45 **P** 21 58 11.5 +0.6
ILAR Eielson Array 99.90 14 PKiKP **PKiKP** 22 02 39.6 -0.2
comp=Z,0.5nm,0.5s,baz=206,slow=2.0,SNR=6.3
ILAR PKKPbc **PKKPbc** 22 14 32.6 -1.6
comp=Z,0.3nm,0.5s,baz=26,slow=2.3,SNR=6.5
CPUP Villa Florida 100.85 130 PKKPbc PKKPbc 22 14 29.4 -0.8
comp=Z,0.9nm,0.5s,baz=21,slow=5.8,SNR=5.2
SONM Songino Array 102.70 319 P **Pdif** 21 58 26.2 -1.7
comp=Z,0.3nm,0.5s,baz=144,slow=4.3,SNR=4.4
SONM PKiKP **PKiKP** 22 02 46.1 +0.4
comp=Z,0.4nm,0.4s,baz=117,slow=1.9,SNR=5.5
SONM Songino Array 102.70 319 *i* P **Pdif** 21 58 26.0 -1.9
SONM Songino Array 102.70 319 **Pdif** 21 58 26.0 -1.9
YKA Yellowknife Ar 107.78 26 PKiKP **PKiKP** 22 02 54.1 -0.3
comp=Z,0.6nm,0.5s,baz=245,slow=1.5,SNR=17
YKA SKP 22 05 44.4
comp=Z,0.4nm,0.6s,baz=243,slow=1.6,SNR=4.1
YKA PKKPbc **PKKPbc** 22 14 09.2 -1.4
comp=Z,0.9nm,0.5s,baz=41,slow=3.2,SNR=16
YKA SKKPbc SKKPbc 22 17 04.5 -5.2
comp=Z,0.4nm,0.6s,baz=34,slow=2.7,SNR=5.6
HYB Hyderabad 107.92 280 *e*PKiKP **PKiKP** 22 02 54.7 -1.4
HYB *e*PP **PP** 22 03 26.7 -1.0
HYB *ep*PKiKP **pPKiKP** 22 04 47.2 -2.7
HYB *es*PKiKP **sPKiKP** 22 05 33.0 -3.9
HYB *e*SKKSac **SKKSdf** 22 20 48.7 +1.4
TIXI Tiksi 109.07 345 PKiKP **PKiKP** 22 02 55.5 -1.1
comp=Z,2.8nm,0.5s,baz=126,slow=1.9,SNR=8.9
WMQ Urumqi 112.32 309 PKP **PKiKP** 22 03 05.0 +1.3
BDFB Brasilia 114.52 129 SKP **SKPdf** 22 05 58.0 -0.1
comp=Z,2.6nm,0.6s,baz=212,slow=2.2,SNR=7.0
BDFB PKKPbc PKKPbc 22 13 48.2 +0.1
comp=Z,1.6nm,0.4s,baz=308,slow=3.4,SNR=4.4
BOSA Boshof 114.97 205 PKP **PKiKP** 22 03 09.8 +0.3
comp=Z,1.6nm,0.6s,baz=144,slow=1.9,SNR=8.0
BOSA SKP **SKPdf** 22 05 58.7 0.0
comp=Z,2.4nm,1.0s,baz=148,slow=1.8,SNR=4.1
ZSN Zaisan 115.50 311 *e*PKiKP **PKPdf** 22 03 09.5 -0.1
ZSN Zaisan 115.50 311 *e*PKP **PKPdf** 22 03 09.5 -0.1
MK31 Makanchi Array 116.95 310 *i* PKiKP **PKPdf** 22 03 11.6 -0.8
MKAR Makanchi Array 116.95 310 Pdiff **Pdif** 21 59 32.7 +1.6
comp=Z,0.7nm,0.9s,baz=88,slow=5.4,SNR=5.3
MKAR PKP **PKPdf** 22 03 11.6 -0.9
comp=Z,2.9nm,0.4s,baz=98,slow=2.8,SNR=72
MKAR SKP **SKPdf** 22 06 01.0 -0.6
comp=Z,0.9nm,0.5s,baz=114,slow=1.7,SNR=3.5
MKAR PKKPbc **PKKPbc** 22 13 41.0 +1.1
comp=Z,1.1nm,0.5s,baz=281,slow=3.2,SNR=42
MKAR SKKPbc **SKKPbc** 22 16 40.0 -1.0
comp=Z,0.5nm,0.6s,baz=274,slow=3.0,SNR=7.8
MKAR Makanchi Array 116.95 310 PKiKP **PKPdf** 22 03 11.7 -0.8
MKAR Makanchi Array 116.95 310 **PKPdf** 22 03 11.7 -0.8
ZALV Zalesovo Beam 117.59 318 PKP **PKPdf** 22 03 12.2 -1.1
comp=Z,3.8nm,0.4s,baz=125,slow=2.9,SNR=26
ZALV SKP **SKPdf** 22 06 02.6 0.0
comp=Z,0.8nm,0.5s,baz=242,slow=2.3,SNR=3.7
SHLS Shalkode 117.68 305 *e*PKiKP **PKPdf** 22 03 13.2 -0.9
SHLS Shalkode 117.68 305 *e*PKP **PKPdf** 22 03 13.2 -0.9
UZB Uzunbulak 117.98 305 *e*PKiKP **PKPdf** 22 03 14.3 -0.4
UZB Uzunbulak 117.98 305 *e*PKP **PKPdf** 22 03 14.3 -0.4
SATY Saty 118.38 305 *e*PKiKP **PKPdf** 22 03 15.0 -0.4
SATY Saty 118.38 305 *e*PKP **PKPdf** 22 03 15.1 -0.4
KSH2 Kashi 119.17 300 PKP **PKiKP** 22 03 17.5 +0.3
MDOK Medeo 119.36 305 *e*PKiKP **PKPdf** 22 03 16.8 -0.5
MDOK Medeo 119.36 305 *e*PKP **PKPdf** 22 03 16.9 -0.5
TNSS Tian-Shan 119.39 305 *e*PKiKP **PKPdf** 22 03 16.9 -0.8
TNSS Tian-Shan 119.39 305 *e*PKP **PKPdf** 22 03 17.0 -0.8
AAA Alma-Ata 119.47 305 *e*PKiKP **PKPdf** 22 03 17.1 -0.3
AAA Alma-Ata 119.47 305 *e*PKP **PKPdf** 22 03 17.1 -0.3
KDWAN Kaudwane 119.94 207 **PKiKP** 22 03 19.6 +0.4
NRIK Noril'sk 120.03 336 PKP **PKPdf** 22 03 17.2 -0.5
comp=Z,3.6nm,0.5s,baz=101,slow=2.2,SNR=8.7
KURK Kurchatov 120.39 314 PKiKP **PKPdf** 22 03 18.3 -0.6
KURK Kurchatov 120.39 314 **PKPdf** 22 03 18.2 -0.6
KURBB Kurchatov Arra 120.42 313 PKP **PKPdf** 22 03 18.1 -0.8
comp=Z,8.2nm,0.5s,baz=114,slow=2.0,SNR=136
KURBB SKP **SKPdf** 22 06 07.4 -0.7
comp=Z,0.9nm,0.5s,baz=116,slow=1.9,SNR=6.1
KURBB PKKPbc **PKKPab** 22 13 28.6 +0.8
comp=Z,0.3nm,0.6s,baz=272,slow=5.4,SNR=4.3
KURBB SKKPbc **SKKPbc** 22 16 29.1 -1.0
comp=Z,0.5nm,0.6s,baz=288,slow=3.6,SNR=6.4
AAK Ala-Archa 121.00 304 PKiKP **PKiKP** 22 03 20.9 +0.2
AAK Ala-Archa 121.00 304 **PKiKP** 22 03 20.9 +0.2
KBL Kabul 122.67 293 PKiKP **PKiKP** 22 03 24.6 +0.3
KBL Kabul 122.67 293 **PKiKP** 22 03 24.6 +0.3
GRTLG Ghanzi 123.05 205 **PKiKP** 22 03 25.9 +0.4
DZA Taraz 123.32 303 *e*PKiKP **PKPdf** 22 03 24.4 -0.4
DZA Taraz 123.32 303 *e*PKP **PKPdf** 22 03 24.5 -0.4
KKAR Karatay Array 123.95 303 PKiKP **PKPdf** 22 03 25.8 -0.2
KKAR Karatay Array 123.95 303 **PKPdf** 22 03 25.8 -0.2
CHM Chimkent 124.41 302 *e*PKiKP **PKPdf** 22 03 26.6 -0.3
CHM Chimkent 124.41 302 *e*PKP **PKPdf** 22 03 26.6 -0.3
LSZ Lusaka 125.54 215 PKiKP **PKiKP** 22 03 30.6 +0.1
LSZ Lusaka 125.54 215 **PKiKP** 22 03 30.6 +0.1
BVAR Borovoye Array 125.83 315 PKP **PKPdf** 22 03 28.7 -0.6
comp=Z,9.7nm,0.4s,baz=90,slow=1.4,SNR=55
BVAR SKPbc SKPbc 22 05 59.6

comp=Z,3.7nm,0.5s,baz=139,slow=2.0,SNR=5.2
BORK Borovoye 125.87 315 PKIKP **PKPdf 22 03 28.7 -0.6**
BORK Borovoye 125.87 315 **PKPdf 22 03 28.7 -0.6**
SCHQ Schefferville 128.89 43 PKP **PKPdf 22 03 34.5 -0.6**
comp=Z,2.6nm,0.8s,baz=301,slow=3.0,SNR=7.2
SCHQ SKPbc SKPbc 22 06 09.7
comp=Z,16nm,0.5s,baz=283,slow=2.9,SNR=45
ARTI Arti 132.83 319 PKhKP PKPpre 22 03 28.0
comp=Z,1.4nm,0.5s,baz=100,slow=5.1,SNR=6.7
ARTI PKP **PKPdf 22 03 42.6 +0.2**
comp=Z,13nm,0.5s,baz=182,slow=0.7,SNR=34
ARTI SKPbc **SKPbc 22 06 23.5 -0.8**
comp=Z,27nm,0.7s,baz=105,slow=1.8,SNR=39
ARTI Arti 132.83 319 *i* PKIKP **PKiKP 22 03 43.0 -0.7**
ARTI 22 06 24.9
SPA0 Spitsbergen Ar 132.99 355 *e*PKPdf **PKiKP 22 03 43.5 0.0**
SPITS Spitsbergen Ar 132.99 355 PKP **PKiKP 22 03 42.9 -0.6**
comp=Z,5.9nm,0.4s,baz=36,slow=2.4,SNR=20
SPITS SKPbc **SKPbc 22 06 24.1 -0.2**
comp=Z,10nm,0.7s,baz=27,slow=4.4,SNR=6.2
AKTO Aktyubinsk 133.35 311 PKhKP PKPpre 22 03 29.5
comp=Z,1.2nm,0.5s,baz=68,slow=11,SNR=4.2
AKTO PKP **PKiKP 22 03 44.5 -0.5**
comp=Z,5.5nm,0.5s,baz=103,slow=4.8,SNR=14
AKTO SKPbc **SKPbc 22 06 25.8 -0.5**
comp=Z,7.4nm,0.7s,baz=83,slow=4.7,SNR=13
HOPEN Hopen 133.69 352 *e*PKPdf **PKiKP 22 03 45.1 +0.2**
KIRV Kirov 137.17 324 PKhKP PKPpre 22 03 39.0
comp=Z,5.0nm,0.4s,baz=73,slow=2.9,SNR=4.3
KIRV PKP **PKiKP 22 03 52.4 0.0**
comp=Z,13nm,0.5s,baz=70,slow=2.1,SNR=7.6
KIRV SKPbc **SKPbc 22 06 37.7 -0.1**
comp=Z,42nm,0.5s,baz=74,slow=3.1,SNR=21
VADS Vadso 138.22 345 *e*PKPdf PKPpre 22 03 48.6
HAMF Hammerfest 138.92 348 *e*PKPdf **PKiKP 22 03 54.7 -1.0**
APA Apatity 139.08 341 *e*PKIKP **PKiKP 22 03 56.9 +0.8**
APA *e* 22 05 41.5
APA *e* 22 06 50.9
APA pmax pmax
comp=Z,9.0nm,1.3s
ARA0 ARCESS Array S 139.50 346 *e* PKPpre 22 03 47.5
ARCES ARCESS Array B 139.50 346 PKhKP PKPpre 22 03 45.6
comp=Z,2.0nm,0.3s,baz=36,slow=4.0,SNR=30
ARCES PKP **PKPdf 22 03 54.6 +0.2**
comp=Z,3.2nm,0.5s,baz=48,slow=2.2,SNR=7.2
ARCES SKPbc **SKPbc 22 06 44.3 +0.3**
comp=Z,7.1nm,0.6s,baz=34,slow=3.2,SNR=6.4
BELG Belogornoye 139.63 315 PKhKP PKPpre 22 03 46.5
comp=Z,13nm,0.5s,baz=14,slow=0.5,SNR=26
BELG PKP **PKiKP 22 03 57.0 -0.6**
comp=Z,16nm,0.5s,baz=101,slow=1.2,SNR=11
BELG SKPbc **SKPbc 22 06 44.8 0.0**
comp=Z,23nm,0.8s,baz=4.9,slow=1.1,SNR=11
KTK1 Kautokeino 140.39 347 *e*PKPdf PKPpre 22 03 51.0
JETT Jettan, Norway 140.43 349 *e*PKPdf PKPpre 22 03 52.8
TRO Tromso 140.61 349 *e*PKPdf PKPpre 22 03 49.1
JNE Jan Mayen East 140.61 4 *e*PKPdf **PKPdf 22 03 54.7 -1.6**
GNI Garni 142.66 296 PKP PKPpre 22 03 58.9
comp=Z,5.8nm,0.6s,baz=86,slow=1.8,SNR=10
GNI Garni 142.66 296*c* *i*PKIKP **PKiKP 22 04 05.6 +1.1**
GNI pmax pmax
comp=Z,27nm,1.7s
STEI Steigen 142.72 350 *e*PKPdf PKPpre 22 03 57.5
LOF Lofoten 142.77 351 *e*PKPdf PKPpre 22 03 57.7
OZAP Van, Ozalp-Mer 143.17 293 ⇑P PKPbc 22 04 00.7 +0.5
FAUS Fauske 143.22 350 *e*PKPdf PKPab 22 03 58.7 -0.1
VRH Novokhopyorsk 143.47 315 *e*PKHKP PKPpre 22 03 59.6
VRH pmax pmax
comp=Z,24nm,0.7s
KBZ Khabaz 143.96 302 PKP PKPbc 22 04 02.1 -0.1
comp=Z,8.8nm,0.4s,baz=153,slow=2.2,SNR=97
KVAR Kislovodsk Arr 144.09 302 PKP **PKPdf 22 04 03.2 -0.3**
comp=Z,7.8nm,0.5s,baz=86,slow=23,SNR=5.7
KIV Kislovodsk 144.10 302 **PKPab 22 04 03.1 +0.1**
VAGH Vaagaholmen 144.12 351 *e*PKPbc PKPbc 22 04 01.9 -0.2
MOS Moscow 144.18 323 *e*PKIKP PKPbc 22 04 02.2 -0.3
MOS pmax pmax
comp=Z,95nm,0.7s
RAUS Rausandaksla 144.29 350 *e*PKPbc **PKPab 22 04 02.7 -0.2**
KONS Konsvik 144.36 351 *e*PKPbc PKPbc 22 04 02.5 -0.2
MOR8 Moi Rana 144.47 349 *e*PKPbc PKPbc 22 04 02.3 -0.9
STOK Stokkvaagen 144.53 351 *e*PKPbc PKPbc 22 04 03.2 -0.1
LPSR Galich'ya Gora 144.70 318*d* *i*PKIKP PKPbc 22 04 04.2 0.0
LPSR pmax pmax
comp=Z,145nm,0.6s
BORG Borgarnes 144.71 15 PKP **PKPab 22 04 04.8 +0.3**
comp=Z,5.7nm,0.5s,baz=314,slow=2.7,SNR=9.2
LEIR Leirfjorden 144.73 350 *e*PKPbc PKPbc 22 04 03.8 -0.2
HOMI Horasan 144.83 296 ⇓P **PKPab 22 04 05.9 -0.2**
VORR Voronezh 144.84 316 *e*PKIKP PKPbc 22 04 04.7 0.0
VORR pmax pmax
comp=Z,187nm,0.5s
OBN Obninsk 145.00 323 PKP PKPbc 22 04 04.9 -0.1
comp=Z,98nm,0.4s,baz=73,slow=1.5,SNR=48
OBN SKPbc **SKPbc 22 06 57.8 -0.1**
comp=Z,10nm,0.6s,baz=360,slow=0.7,SNR=5.2
OBN Obninsk 145.00 323*d* PKIKP PKPbc 22 04 05.0 -0.1
OBN *i* 22 05 58.9
OBN *e* 22 07 35.9
OBN *e*PPP PPP 22 10 45.3
OBN pmax pmax
comp=Z,99nm,1.8s
VSR Storozhevoye 145.01 315*d* *i*PKIKP **PKPbc 22 04 05.1 -0.2**
VSR pmax pmax
comp=Z,63nm,0.5s
VORD Divnogorie 145.01 315 *e*PKHKP PKPpre 22 04 01.9
VORD pmax pmax
comp=Z,20nm,0.9s
FINES FINESS Array B 145.67 337 PKPbc **PKPbc 22 04 06.4 -0.4**
comp=Z,34nm,0.6s,baz=46,slow=3.2,SNR=17
FINES SKPbc **SKPbc 22 06 58.0 -1.2**
comp=Z,3.0nm,0.5s,baz=36,slow=3.1,SNR=3.4
FINES FINESS Array B 145.67 337 PKIKP **PKPbc 22 04 06.7 -0.2**
FINES FINESS Array B 145.67 337 **PKPbc 22 04 06.7 -0.2**
NSS Namsos 146.38 350 *e*PKPdf **PKPbc 22 04 07.9 -0.9**
KHAM Kharkiv 147.16 314 PKP **PKPdf 22 04 09.8 +1.4**
VSU Vasula 147.56 333 *i* PKIKP **PKPdf 22 04 09.5 +0.8**
ASF Jabal al Asfar 148.22 281 pPKPbc pPKPbc 22 06 07.3 0.0
comp=Z,0.8nm,0.7s,baz=180,slow=1.0,SNR=1.1
ASF Jabal al Asfar 148.22 281 P **PKiKP 22 04 15.5 -0.6**
ASF AML AML
HSUJ Al Zarqa 148.80 280 P **PKiKP 22 04 17.2 0.0**
HSUJ AML AML
HSNJ Maan 148.88 277 P **PKiKP 22 04 18.2 +0.7**
HSNJ AML AML
BEIL Beino 149.13 285 *e*P **PKiKP 22 04 17.4 -0.4**
GHAJ Ghor Haditha 149.19 279 **PKiKP 22 04 17.6 -0.3**
GHAJ Ghor Haditha 149.19 279 P **PKiKP 22 04 17.8 -0.1**
GHAJ AML AML
LISJ El Lisan 149.25 279 P **PKiKP 22 04 18.5 +0.5**
LISJ AML AML
AKN Aaknes 149.28 353 *e*PKPbc **PKiKP 22 04 16.8 -0.5**
AQBJ Aqaba 149.30 275 P **PKiKP 22 04 18.3 0.0**
AQBJ AML AML
HWQ Hawqa 149.30 284 *e*P **PKPbc 22 04 17.4 -0.1**
ZAHL Zahle 149.31 284 *e*P **PKPbc 22 04 17.8 +0.4**
QRNJ Al-Qirein 149.36 281 P **PKiKP 22 04 18.5 +0.3**
QRNJ AML AML
MSBI Mazada 149.37 279 P **PKiKP 22 04 19.1 +0.8**
MSBI AML AML
EIL Elat 149.37 275 P **PKiKP 22 04 18.1 -0.3**
EIL AML AML
HRFI Mount Harif 149.38 276 P **PKiKP 22 04 18.2 -0.3**
HRFI AML AML
UJAP Al Uja 149.39 280 P **PKiKP 22 04 18.3 0.0**
UJAP AML AML
GEM Giv'at Ha'Em 149.41 282 P **PKiKP 22 04 18.7 +0.3**
GEM AML AML
QRWL Qaraoun 149.44 283 *e*P **PKiKP 22 04 18.4 -0.1**
PRNI Paran 149.47 277 P **PKiKP 22 04 18.5 -0.1**
PRNI AML AML
BHL Bhannes 149.50 284 *e*P **PKiKP 22 04 18.3 -0.4**
DQRL Deir Qamar 149.55 283 *e*P **PKiKP 22 04 18.7 -0.1**
MMAI Mount Meron Ar 149.60 282 PKPbc **PKiKP 22 04 18.6 -0.3**
comp=Z,20nm,0.5s,baz=90,slow=2.6,SNR=118
MNK Minsk 149.61 327 *i* PKHKP PKPpre 22 04 17.8
MNK *i* 22 07 55.3
MNK *i* 22 10 34.8
MNK *i* PPP PPP 22 11 21.3
MNK *i* SS SS 22 26 33.9 +3.5
MNK *i* SSS SSS 22 32 21.8
MNK Minsk 149.61 327 *i* PKiKP **PKiKP 22 04 17.9 -0.2**
MNK *i* PKiKP **PKiKP 22 04 17.9 -0.2**
baz=53
MNK *i* pPKiKP **pPKPdf 22 06 07.8 +1.2**
MNK *i* PP **PP 22 07 55.3 -0.2**
MNK *i* SKS **SKSdf 22 10 34.9 +1.2**
MNK *i* PPP PPP 22 11 21.3
MNK *i* SS **SS 22 26 34.0 +3.5**
MNK *i* SSS SSS 22 32 21.8
SALP Salfit 149.64 280 P **PKiKP 22 04 19.2 +0.3**
SALP AML AML
NC405 NORSAR Array S 149.64 348 **PKPbc 22 04 17.2 -0.1**
NB2 NORSAR Subarra149.79 348 PKP **PKPbc 22 04 17.7 +0.1**
comp=Z,9.1nm,0.5s,baz=17,slow=2.6
NB2 NORSAR Subarra149.79 348 AMP PKPab 22 04 17.0 -8.1
NB2 PKPab PKPab 22 04 17.0 -8.1
NOA NORSAR Array B 149.79 348 PKPbc **PKPbc 22 04 17.3 -0.4**
comp=Z,11nm,0.5s,baz=18,slow=4.2,SNR=88
NC602 NORSAR Array S 150.02 348 *e*PKPbc **PKPbc 22 04 17.8 -0.4**
FOO Floro 150.03 355 *e*PKPbc **PKPbc 22 04 18.2 +0.1**
KZIT Kziot 150.10 278 P **PKiKP 22 04 19.9 0.0**
HFS Hagfors 150.16 346 PKPbc **PKPbc 22 04 17.9 -0.6**
comp=Z,11nm,0.6s,baz=27,slow=3.2,SNR=30
EDA Edea 150.25 202 **PKPbc 22 04 20.3 +0.2**
HYA Hoyanger 150.35 353 *e*PKPbc **PKiKP 22 04 19.1 -0.2**
CY604 RAF Akrotiri, 150.49 284 **PKiKP 22 04 20.5 +0.3**
SKAR Skarsila 150.58 351 *e*PKPbc **PKiKP 22 04 19.8 -0.2**
SUE Sulen 150.59 355 *e*PKPbc **PKiKP 22 04 19.8 -0.1**
BZK Bozkurt 150.66 300 ⇑P **PKiKP 22 04 21.1 +0.4**
BZK Bozkurt 150.66 300 PKP **PKPdf 22 04 15.5 +1.3**
OSL Oslo 150.92 348 *e*PKPbc **PKiKP 22 04 20.5 -0.1**
AK03 Malin Array Si 150.97 319 PKP **PKPdf 22 04 15.4 +1.1**
AKASG Malin Array Be 150.98 319 PKPbc **PKPbc 22 04 20.1 -0.5**
comp=Z,12nm,0.4s,baz=48,slow=3.0,SNR=83
AKASG pPKPbc **pPKPbc 22 06 15.0 +1.3**
comp=Z,1.3nm,0.7s,baz=64,slow=2.2,SNR=1.6
AKBB Malin Array Si 150.98 319 *i* PKIKP **PKPdf 22 04 17.1 +2.7**
AKBB Malin Array Si 150.98 319 PKP **PKPdf 22 04 15.8 +1.4**
AK09 Malin Array Si 150.99 319 PKP **PKPdf 22 04 16.3 +1.9**
AK01 Malin Array Si 150.99 319 PKP **PKPdf 22 04 15.9 +1.5**
KIEV Kiev 150.99 319 PKIKP **PKPbc 22 04 20.7 0.0**
KIEV Kiev 150.99 319 **PKPbc 22 04 20.7 0.0**
KIEV Kiev 150.99 319 ⇑P **PKPbc 22 04 20.2 -0.5**
KIEV Kiev 150.99 319 PKP **PKPdf 22 04 15.8 +1.4**
AK08 Malin Array Si 151.00 319 PKP **PKPdf 22 04 15.7 +1.3**
AK04 Malin Array Si 151.00 319 PKP **PKPdf 22 04 15.5 +1.1**
AK23 Malin Array Si 151.01 319 PKP **PKPdf 22 04 15.6 +1.2**
AK02 Malin Array Si 151.01 319 PKP **PKPdf 22 04 15.7 +1.3**
AK10 Malin Array Si 151.01 319 PKP **PKPdf 22 04 15.7 +1.3**
AK11 Malin Array Si 151.02 319 PKP **PKPdf 22 04 15.7 +1.3**
KIRS Kirsehir-Merke 151.03 294 ⇑P **PKiKP 22 04 21.6 -0.1**
AK05 Malin Array Si 151.03 319 PKP **PKPdf 22 04 15.7 +1.3**
AK22 Malin Array Si 151.04 319 PKP **PKPdf 22 04 15.7 +1.3**
AK15 Malin Array Si 151.04 319 PKP **PKPdf 22 04 15.7 +1.2**
AK21 Malin Array Si 151.05 319 PKP **PKPdf 22 04 15.7 +1.2**
AK12 Malin Array Si 151.05 319 PKP **PKPdf 22 04 15.7 +1.2**
AK06 Malin Array Si 151.05 319 PKP **PKPdf 22 04 15.7 +1.2**
AK18 Malin Array Si 151.06 319 PKP **PKPdf 22 04 15.7 +1.2**
AK16 Malin Array Si 151.06 319 PKP **PKPdf 22 04 15.7 +1.2**
AK07 Malin Array Si 151.06 319 PKP **PKPdf 22 04 15.6 +1.1**
AK14 Malin Array Si 151.08 319 PKP **PKPdf 22 04 15.5 +1.0**
AK20 Malin Array Si 151.08 319 PKP **PKPdf 22 04 15.7 +1.2**
AK17 Malin Array Si 151.08 319 PKP **PKPdf 22 04 15.5 +1.0**
AK19 Malin Array Si 151.09 319 PKP **PKPdf 22 04 15.5 +1.0**
AK13 Malin Array Si 151.12 319 PKP **PKPdf 22 04 15.5 +0.9**
ASK Askoy 151.12 354 *e*PKPbc **PKiKP 22 04 20.9 0.0**
BR104 Keskin Array S 151.20 295 PKP **PKPdf 22 04 16.0 +0.7**
BRTR Keskin Array B 151.20 295 PKPbc **PKPbc 22 04 21.2 -0.5**
comp=Z,18nm,0.5s,baz=78,slow=2.6,SNR=184
BRTR pPKPbc **pPKPbc 22 06 16.0 +1.1**
comp=Z,0.4nm,0.6s,baz=151,slow=2.8,SNR=1.0
BRTR Keskin Array B 151.20 295 PKIKP **PKPbc 22 04 21.4 -0.3**
BRTR Keskin Array B 151.20 295 **PKPbc 22 04 21.4 -0.3**
BER Bergen 151.21 354 *e*PKPbc **PKiKP 22 04 21.2 0.0**
BR106 Keskin Array S 151.21 295 PKP **PKPdf 22 04 16.0 +0.7**
BR105 Keskin Array S 151.22 295 PKP **PKPdf 22 04 16.0 +0.7**
KONO Kongsberg 151.38 349 *e*PKPbc **PKiKP 22 04 21.4 -0.1**
CIDE Kastamonu/Cide 151.45 300 ⇑P **PKPbc 22 04 21.6 -0.4**
CSS Mathiatis 151.51 286 PKP **PKPdf 22 04 16.6 +0.9**
CSS Mathiatis 151.51 286 P **PKPbc 22 04 22.5 +0.1**
ODD1 Odda 151.53 352 *e*PKPbc **PKiKP 22 04 21.9 0.0**
STRU Stroemstad 151.68 347 *i* P **PKPbc 22 04 21.9 0.0**
BLS5 Blasjo 152.03 352 *e*PKPbc **PKiKP 22 04 23.5 +0.5**
SUW Suwalki 152.05 329 *e*PKPbc **PKPbc 22 04 22.9 -0.1**
SUW *e*PKPab **PKPab 22 04 34.0 -0.7**
LUBAR Lubar, Ukraine 152.18 319 PKP **PKPdf 22 04 17.0 +0.8**
PURM Purcari 152.36 311 ⇑P **PKiKP 22 04 24.3 +0.3**
PURM Purcari 152.36 311 PKP **PKPdf 22 04 17.2 +0.7**
KMY Karmoy 152.37 355 *e*PKPbc **PKiKP 22 04 23.8 +0.2**
RNPP9 Popachiv 152.39 323 PKP **PKPdf 22 04 17.6 +1.2**
RNPP8 Varash 152.46 323 PKP **PKPdf 22 04 18.0 +1.5**
RNPP1 Kostyukhnivka 152.49 323 PKP **PKPdf 22 04 18.0 +1.4**
RNPP5 Staryi Chortor 152.50 322 PKP **PKPdf 22 04 18.1 +1.5**
TJOU Tjoern 152.52 346 *i* P **PKPbc 22 04 23.6 -0.2**
SORM Soroca 152.67 315 ⇑PKIKP **PKiKP 22 04 24.5 -0.1**
SORM Soroca 152.67 315 ⇑P **PKiKP 22 04 24.5 -0.1**
HOMB Homborsund 152.87 349 *e*PKPbc **PKiKP 22 04 24.7 0.0**
HOMB Homborsund 152.87 349 *i* P **PKiKP 22 04 25.0 +0.4**
KEPZ Antalya-Kepez 152.95 290 ⇓P **PKPbc 22 04 24.2 -1.4**
BLEU Blekinge 152.99 340 *i* P **PKPbc 22 04 24.7 -0.2**
SNART Snartemo 152.99 351 *e*PKPbc **PKiKP 22 04 24.9 -0.1**
SNART Snartemo 152.99 351 *i* P **PKiKP 22 04 25.4 +0.5**
ONAU Onsala 153.04 345 *i* P **PKPbc 22 04 24.6 -0.3**
SAHE Sakarya_HENDEK 153.17 298 ⇑P **PKiKP 22 04 25.9 -0.1**
FABU Falkenberg 153.21 344 *i* P **PKPbc 22 04 25.1 -0.2**
DEL Delary 153.40 342 *i* P **PKPbc 22 04 25.5 -0.3**
TLCR 153.52 309 ⇑PKIKP **PKiKP 22 04 27.4 +0.9**
TLCR 153.52 309 ⇑P **PKiKP 22 04 27.4 +0.9**
KMPD K-Podol'skiy 153.59 317 PKP **PKPdf 22 04 19.9 +1.6**
VASR Vaslui 153.65 312 ⇑P **PKPab 22 04 42.9 +1.1**
VLDR Vladesti 153.77 310 ⇑P **PKiKP 22 04 28.3 +1.3**
NGRR Negresti 153.78 313 ⇑P **PKiKP 22 04 27.9 +1.0**
DMBR Dumbraveni 153.87 313 ⇑P **PKPab 22 04 43.6 +0.8**
SCTR Scanteiesti 153.89 310 ⇑P **PKiKP 22 04 28.3 +1.1**
CFR Carcaliu 153.98 309 ⇑PKIKP **PKPbc 22 04 27.1 -0.3**
CFR Carcaliu 153.98 309 ⇑P **PKPbc 22 04 27.1 -0.3**
GHRR 154.12 311 ⇑P **PKiKP 22 04 29.5 +1.8**
TLBR Topalu 154.26 308 ⇓P **PKiKP 22 04 28.6 +0.6**
BSD Bornholm Skovb 154.27 339 *i* P **PKPbc 22 04 27.5 -0.2**
HARR Harsova 154.28 308 ⇓PKIKP **PKPbc 22 04 29.1 +1.1**
HARR Harsova 154.28 308 ⇓P **PKPbc 22 04 29.1 +1.1**
GIRR Girov 154.31 314 ⇑P **PKPab 22 04 44.5 -0.2**
PANC Panciu 154.36 311 ⇓P **PKPab 22 04 46.7 +1.8**
TESR Tescani 154.41 310 ⇓P **PKPab 22 04 45.3 +0.2**
ODBI Odobesti 154.46 311 ⇑P **PKPab 22 04 43.3 +1.1**
BIZ Bicaz 154.56 314 ⇓P **PKPbc 22 04 29.9 +1.2**
BEL Belsk 154.60 328 *e*PKPbc **PKPbc 22 04 29.2 +0.7**
BEL *e*PKPab **PKPab 22 04 45.6 -0.1**
DBIC Dimbokro 154.62 170 PKP **PKPdf 22 04 21.1 +0.3**
comp=Z,2.0nm,0.6s,baz=180,slow=1.4,SNR=5.2
DBIC PKPbc **PKPbc 22 04 30.6 +0.9**
comp=Z,4.7nm,0.4s,baz=174,slow=3.3,SNR=16
VRI Vrincioaia 154.63 311 ⇑P **PKPab 22 04 47.6 +1.4**
PLOR Plostina 154.69 311 ⇓PKP2 **PKPab 22 04 47.2 +0.8**
PLOR Plostina 154.69 311 ⇓P **PKPab 22 04 47.2 +0.8**
BISRR Bisoca 154.77 311 ⇑P **PKPab 22 04 48.1 +1.3**
BURAR Bucovina Array 154.78 316 ⇑PKP2 **PKPab 22 04 47.6 +0.8**
BURAR Bucovina Array 154.78 316 **PKPab 22 04 47.6 +0.8**
BURAR Bucovina Array 154.78 316 ⇑P **PKPab 22 04 47.6 +0.8**
TURR Turia 155.01 312 ⇓P **PKPab 22 04 49.3 +1.5**
TAVA DENIZLI_Tavas 155.07 291 ⇓P PKPdf 22 04 30.5 +10
KWP Kalwaria Pacla 155.08 322 *e*PKPab **PKPab 22 04 48.0 +0.1**
OZUR 155.13 312 ⇓P **PKPab 22 04 48.6 +0.3**
MLR Muntele Rosu 155.29 311 PKP **PKPdf 22 04 20.7 -0.2**
comp=Z,0.8nm,0.6s,baz=91,slow=23,SNR=1.7
MLR PKPbc PKPab 22 04 30.4 -19
comp=Z,2.1nm,0.5s,baz=90,slow=24,SNR=9.4
MLR PKPab PKPab 22 04 49.6 +0.5
comp=Z,6.8nm,0.5s,baz=84,slow=23,SNR=17
MLR Muntele Rosu 155.29 311 PKIKP **PKPdf 22 04 20.8 -0.1**
MLR Muntele Rosu 155.29 311 ⇑P **PKPab 22 04 49.6 +0.5**
DOPR Dopca 155.44 312 ⇑P **PKPab 22 04 50.5 +0.9**
VOIR 155.88 312 ⇑PKP2 **PKPab 22 04 52.4 +0.8**
VOIR 155.88 312 ⇑P **PKPab 22 04 52.4 +0.8**
UZHM Uzhgorod 155.90 321 PKP **PKPdf 22 04 22.2 +0.8**
ARR Arges 156.18 312 ⇓P **PKPab 22 04 53.9 +1.1**
EKA Eskdalemuir Ar 156.49 4 PKP **PKPdf 22 04 22.8 +0.9**
comp=Z,0.6nm,0.6s,baz=24,slow=5.1,SNR=1.7
EKA PKPab **PKPab 22 04 52.9 -0.7**
comp=Z,1.5nm,0.6s,baz=359,slow=2.1,SNR=3.5
MARR Marisel-Cluj 156.49 316 ⇓P **PKPab 22 04 54.1 -0.1**
BSEG Bad Segeberg 156.58 343 *e*PKPab **PKPab 22 04 54.0 -0.1**
baz=31,slow=4.4
DRGR 156.67 316 ⇑PKP2 **PKPab 22 04 55.3 +0.4**
DRGR 156.67 316 ⇑P **PKPab 22 04 55.3 +0.4**
LOT Lotru 156.69 313 ⇓P **PKPab 22 04 55.5 +0.4**
RUE Ruedersdorf 156.87 337 *e*PKPab **PKPab 22 04 55.3 -0.1**
baz=31,slow=4.4
GORT1 Trebel 157.17 341 *e*PKPab **PKPab 22 04 56.9 +0.2**
baz=31,slow=4.4
KSP Ksiaz 157.26 331 *e*PKPab **PKPab 22 04 57.2 0.0**
SRE Strehaia 157.40 311 ⇓PKP2 **PKPab 22 05 00.0 +1.9**
SRE Strehaia 157.40 311 ⇓P **PKPab 22 04 60.0 +1.9**
OSTC Ostas 157.51 331 *e*PKP2 **PKPab 22 04 58.6 +0.3**
OSTC Ostas 157.51 331 *e*PKPAB **PKPab 22 04 58.6 +0.3**
MORC Moravsky Berou 157.51 328 *e*PKP **PKPab 22 04 57.4 -1.0**
CHVC Chvalec 157.55 331 *e*PKP2 **PKPab 22 04 58.0 -0.5**
CHVC Chvalec 157.55 331 *e*PKPAB **PKPab 22 04 58.0 -0.5**
SURR Surduc 157.55 315 ⇑P **PKPab 22 04 59.3 +0.6**
SIRR Siria 157.57 316 ⇑P **PKPab 22 04 59.1 +0.3**
DPC Dobruska-Polom 157.62 330 *e*PKP2 **PKPab 22 04 58.9 0.0**
DPC Dobruska-Polom 157.62 330 *e*PKPAB **PKPab 22 04 58.9 0.0**
UPC Upice 157.63 331 *e*PKP2 **PKPab 22 04 58.4 -0.4**
UPC Upice 157.63 331 *e*PKPAB **PKPab 22 04 58.4 -0.4**
KRLC Kraliky 157.63 329 *e*PKP2 **PKPab 22 04 57.9 -1.0**
KRLC Kraliky 157.63 329 *e*PKPAB **PKPab 22 04 57.9 -1.0**
MAUC Maruska 157.67 327 *e*PKPAB PKPab 22 04 42.5 -17
VYHS Vyhne 157.78 324 *e*PKP2 **PKPab 22 04 59.7 +0.1**
VYHS Vyhne 157.78 324 *e*PKP **PKPab 22 04 59.7 +0.1**
FLTG Flechtingen 157.78 340 *e*PKPab **PKPab 22 04 58.8 -0.6**
baz=31,slow=4.4
HERR Herculane 157.80 312 ⇓P **PKPab 22 05 00.5 +0.7**
RETH Rethem/Aller, 157.91 344 *e*PKPab **PKPab 22 04 59.5 -0.3**
baz=31,slow=4.4
BZS Buzias 157.93 315 ⇓PKP2 **PKPab 22 05 00.1 -0.2**
BZS Buzias 157.93 315 ⇓P **PKPab 22 05 00.1 -0.2**
JAVC Velka Javorina 158.10 326 *e*PKP **PKPab 22 05 01.4 +0.4**
CLL Collm 158.11 336 *i* PKP2 **PKPab 22 05 00.4 -0.5**
CLL pmax pmax
comp=Z,15nm,0.6s
CLL Collm 158.11 336 *e*PKPab **PKPab 22 05 00.4 -0.5**
baz=31,slow=4.4
CLL Collm 158.11 336 *i* PKPab **PKPab 22 05 00.4 -0.5**
comp=Z,15nm,0.6s
CLL *ex* x 22 06 53.0
CLL *e*SKSP 22 18 16.0
CLL *e*PSKS 22 19 09.0
CLL *es*PSKS 22 21 30.0
CLL *ex* x 22 26 24.0
CLL *e*SS SS 22 27 46.0 -15
CLL *es*SS 22 31 08.0
CLL *ex* x 22 35 54.0
CLL *e*SSSS 22 38 30.0
ASSE Asse, Remlinge 158.12 341 *e*PKPab **PKPab 22 05 00.5 -0.3**
baz=31,slow=4.4
BRG Berggiesshubel 158.14 335 *e*PKPab **PKPab 22 05 00.7 -0.3**
baz=31,slow=4.4
BRG Berggiesshubel 158.14 335 *i* PKPab **PKPab 22 05 00.9 -0.1**
BRG Amp 22 05 01.3
comp=Z,6.4nm,0.7s
BRG pPKPab **pPKPab 22 06 56.9 +7.7**
BRG Amp 22 06 58.0
comp=Z,10.0nm,1.3s
PVCC Panska Ves 158.19 333 *e*PKP2 **PKPab 22 05 01.3 +0.1**
PVCC Panska Ves 158.19 333 *e*PKPAB **PKPab 22 05 01.3 +0.1**
BLKB Belogradchik 158.19 309 ⇓P **PKPab 22 05 01.7 +0.1**
VRAC Vranov 158.28 328 PKPab **PKPab 22 05 01.1 -0.7**
comp=Z,2.6nm,0.5s,baz=54,slow=2.0,SNR=6.5
VRAC Vranov 158.28 328 *e*PKP **PKPab 22 05 01.4 -0.3**
IDI Anoyia 158.43 286 PKP **PKPdf 22 04 25.8 +0.7**
comp=Z,8.3nm,1.0s,baz=60,slow=16,SNR=2.5
IDI PKPab **PKPab 22 05 02.1 -0.9**
comp=Z,7.9nm,0.5s,baz=88,slow=6.6,SNR=12
SMOL Smolenice 158.46 326 *e*PKP2 **PKPab 22 05 03.1 +0.6**
CLZ Clausthal 158.46 341 *e*PKPab **PKPab 22 05 02.2 -0.2**
baz=31,slow=4.4
HSKC Hora Svate Kat 158.55 335 *e*PKPAB **PKPab 22 05 02.8 -0.1**
KRUC Moravsky 158.55 328 *e*PKP **PKPab 22 05 02.2 -0.7**
NEUB Neuenburg 158.60 338 *e*PKPab **PKPab 22 05 02.9 -0.1**
baz=31,slow=4.4
MODS Modra-Piesok 158.63 326 *e*PKP2 **PKPab 22 05 02.2 +1.9**
MODS Modra-Piesok 158.63 326 *e*PKP **PKPab 22 05 02.2 +1.9**
IBBN Ibbenburen 158.67 346 *e*PKPab **PKPab 22 05 03.0 -0.2**
baz=31,slow=4.4
TREC Trest 158.77 330 *e*PKP2 **PKPab 22 05 03.2 -0.7**
TREC Trest 158.77 330 *e*PKPAB **PKPab 22 05 03.2 -0.7**
GTTG Gottingen 158.84 341 *e*PKPab **PKPab 22 05 03.9 -0.1**
baz=31,slow=4.4
TANN Tannenbergstha 159.05 336 *e*PKPab **PKPab 22 05 04.9 -0.2**
baz=31,slow=4.4
PLN Plauen 159.09 337 *e*PKPab **PKPab 22 05 05.2 0.0**
baz=31,slow=4.4
MOX Moxa 159.14 338 *e*PKPab **PKPab 22 05 05.2 -0.2**
baz=31,slow=4.4
ZVC Zvikov 159.20 332 *e*PKPAB **PKPab 22 05 05.0 -0.7**
NKC Novy Kostel 159.21 336 *e*PKP2 **PKPab 22 05 05.7 0.0**
NKC Novy Kostel 159.21 336 *e*PKPAB **PKPab 22 05 05.7 0.0**
KASTN Kahler Asten 159.55 343 *e*PKPab **PKPab 22 05 06.8 -0.4**
baz=31,slow=4.4
RONA Rosalia, Austr 159.57 326 *i* PKP **PKPab 22 05 07.5 +0.1**
comp=Z,2.6nm,0.5s
CONA Conrad Observa 159.61 327 *i* PKP **PKPab 22 05 07.6 -0.1**
comp=Z,2.9nm,0.5s
CKRC Cesky Krumlov 159.63 331 *e*PKP2 **PKPab 22 05 07.4 -0.3**
CKRC Cesky Krumlov 159.63 331 *e*PKPAB **PKPab 22 05 07.4 -0.3**
KHC Kasperske Hory 159.69 332 *e*PKP2 **PKPab 22 05 07.4 -0.5**
KHC Kasperske Hory 159.69 332 *e*PKPAB **PKPab 22 05 07.4 -0.5**
GERES GERESS Array B 159.87 331 PKPab **PKPab 22 05 07.8 -0.9**
comp=Z,1.1nm,0.4s,baz=36,slow=6.2,SNR=11
WET Wettzell 159.95 333 *e*PKPab **PKPab 22 05 09.0 0.0**
baz=31,slow=4.4
GRF Grafenberg Arr 160.09 337 *e*PKPab **PKPab 22 05 09.9 +0.3**
baz=31,slow=4.4
ARSA Arzberg 160.26 326 *i* PKP **PKPab 22 05 09.9 -0.5**
comp=Z,0.5nm,0.3s
MOA Molln 160.40 329 *i* PKP **PKPab 22 05 10.4 -0.6**
comp=Z,0.4nm,0.3s
TNS Taunus Mts 160.44 342 *e*PKPab **PKPab 22 05 10.7 -0.4**
baz=31,slow=4.4
MEM Membach 160.63 347 *d*PKP **PKPab 22 05 11.6 -0.3**
BIOA Bad Ischl, Aus 160.79 329 *i* PKP **PKPab 22 05 12.5 -0.3**
comp=Z,1.2nm,0.5s
SESA Seetaler Alpe, 160.81 327 *i* PKP **PKPab 22 05 12.7 -0.4**
comp=Z,3.3nm,0.6s
SOKA Soboth 160.90 325 *i* PKP **PKPab 22 05 12.7 -0.7**
comp=Z,1.7nm,0.6s
BCLA Clavier 160.94 348 *d*PKP **PKPab 22 05 12.7 -0.6**
BMRD Maredsous 161.14 349 *d*PKP **PKPab 22 05 13.6 -0.5**
TORD Torodi Ar. Bea 161.23 187 **PKPdf 22 04 28.9 +0.2**
OBKA Obir 161.25 326 *i* PKP **PKPab 22 05 14.3 -0.

ISC 29 22:09:55.9±1.2, 35°84N±0.02, 32°32E±0.04, h7km±9km, n48, σ1§38/78, 5C-1D, Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GAZI	**Gazipasa**	**0.39**	**360**	Pg	**Pg**	**22 10 05.2**	**+1.6**
GAZI				AML	AML		
BOZY	**Bozyazi-Mersin**	**0.60**	**63**	Pg	**Pb**	**22 10 09.2**	**+0.5**
BOZY				Sg	**Sb**	**22 10 18.8**	**+1.5**
BOZY				AML	AML		
TEKE	**Tekeli-Mersin**	**0.71**	**65**	Pg	**Pb**	**22 10 11.9**	**+1.2**
TEKE				Sg	**Sn**	**22 10 22.6**	**-1.0**
TEKE				AML	AML		
ALFC	**Alefka**	**0.72**	**161** ⇑	*iP*	**Pg**	**22 10 11.0**	**+1.2**
ALFC				S	**Sg**	**22 10 19.3**	**+0.2**
ALFC				AML	AML	22 10 22.2	
	1.5nm,0.2s						
ALFC				AML	AML	22 10 22.3	
	1.4nm,0.1s						
AKMS	**Akamas**	**0.82**	**179** ⇓	*iP*	**Pg**	**22 10 12.3**	**+0.6**
AKMS				S	**Sg**	**22 10 22.4**	**+0.1**
AKMS				AML	AML	22 10 23.2	
	1.3nm,0.2s						
AKMS				AML	AML	22 10 23.2	
	2.0nm,0.2s						
BERE	**Bereket-Mersin**	**0.89**	**55**	Pg	**Pb**	**22 10 14.6**	**+0.8**
BERE				Sg	**Sn**	**22 10 28.0**	**-0.3**
BERE				AML	AML		
YORU	**Yoruktepe-Mers**	**0.94**	**70**	Pg	**Pb**	**22 10 15.5**	**+1.0**
YORU				Sg	**Sn**	**22 10 29.2**	**0.0**
YORU				AML	AML		
OREN	**Orenkoy-Mersin**	**0.99**	**68**	Pg	**Pb**	**22 10 16.2**	**+0.7**
OREN				Sg	**Sn**	**22 10 30.9**	**+0.3**
TROD	**Troodos**	**1.00**	**153** ⇑	*iP*	**Pg**	**22 10 15.0**	**-0.1**
TROD				S	**Sg**	**22 10 27.4**	**-0.6**
TROD				AML	AML	22 10 28.6	
	0.4nm,0.3s						
TROD				AML	AML	22 10 29.8	
	0.4nm,0.2s						
XYLS	**Xyliatos**	**1.02**	**144** ⇑	*iP*	**Pg**	**22 10 15.3**	**-0.1**
XYLS				S	**Sg**	**22 10 27.8**	**-0.8**
XYLS				AML	AML	22 10 28.5	
	0.4nm,0.2s						
XYLS				AML	AML	22 10 28.8	
	0.8nm,0.2s						
BECE	**Buyukeceli-Mer**	**1.05**	**72**	Pn	**Pb**	**22 10 17.3**	**+0.8**
BECE				Sn	**Sn**	**22 10 32.4**	**+0.3**
BECE				AML	AML		
NATA	**Nata**	**1.08**	**169**	P	**Pn**	**22 10 19.2**	**+1.7**
NATA				S	**Sn**	**22 10 35.2**	**+2.6**
NATA				AML	AML	22 10 38.6	
	0.4nm,0.7s						
NATA				AML	AML	22 10 41.3	
	0.4nm,0.7s						
TEVE	**Tevekalti-Mers**	**1.09**	**56**	Pn	**Pb**	**22 10 17.9**	**+0.8**
TEVE				Sn	**Sn**	**22 10 32.9**	**-0.1**
TEVE				AML	AML		
ATHAL	**Athalassa**	**1.12**	**128**	P	**Pg**	**22 10 17.5**	**+0.1**
ATHAL				S	**Sg**	**22 10 31.1**	**-0.9**
ATHAL				AML	AML	22 10 34.0	
	0.2nm,0.3s						
ATHAL				AML	AML	22 10 37.2	
	0.2nm,0.2s						
HDMB	**Hadim**	**1.13**	**7**	Pn	**Pg**	**22 10 16.9**	**-0.7**
HDMB				AML	AML		
LFK	**Lefkose**	**1.14**	**119**	Pn	**Pg**	**22 10 17.7**	**0.0**
LFK				Sn	**Sb**	**22 10 33.6**	**+0.7**
LFK				AML	AML		
TISA	**Tisan-Mersin**	**1.15**	**73**	Pn	**Pb**	**22 10 18.8**	**+0.7**
TISA				AML	AML		
IKL	**Isikli**	**1.18**	**70**	Pn	**Pb**	**22 10 19.1**	**+0.5**
IKL				AML	AML		
KARG	**Kargicak-Mersi**	**1.18**	**72**	Pn	**Pb**	**22 10 19.1**	**+0.4**
CSS	**Mathiatis**	**1.20**	**136** ⇑	*iP*	**Pg**	**22 10 17.7**	**-1.3**
CSS				S	**Sg**	**22 10 31.5**	**-3.2**
CSS				AML	AML	22 10 33.1	
	0.1nm,0.1s						
CSS				AML	AML	22 10 33.9	
	0.1nm,0.1s						
CSS	**Mathiatis**	**1.20**	**136**	Pn	**Pg**	**22 10 17.7**	**-1.3**
CSS				AML	AML		
CSS	**Mathiatis**	**1.20**	**136**	P	**Pg**	**22 10 17.3**	**-1.7**
CSS				S	**Sg**	**22 10 31.8**	**-2.8**
APOL	**The Sanctuary**	**1.25**	**159**	P	**Pg**	**22 10 20.2**	**+0.3**
KEBE	**Keben-Mersin**	**1.28**	**61**	Pn	**Pg**	**22 10 20.5**	**0.0**
KEBE				Sn	**Sn**	**22 10 38.1**	**+0.3**
KEBE				AML	AML		
ASGA	**Asgata**	**1.30**	**144**	P	**Pg**	**22 10 19.6**	**-1.2**
MVOU	**Mavrovouni**	**1.35**	**127** ⇑	*iP*	**Pn**	**22 10 19.8**	**-1.4**
MVOU				S	**Sg**	**22 10 35.4**	**-3.9**
MVOU				AML	AML	22 10 36.6	
	0.1nm,0.1s						
MVOU				AML	AML	22 10 36.8	
	0.1nm,0.2s						
SILI	**Silifke-Mersin**	**1.40**	**67**	Pn	**Pn**	**22 10 22.3**	**+0.4**
SILI				Sn	**Sn**	**22 10 41.1**	**+0.4**
SILI				AML	AML		
KRMN	**Karaman**	**1.53**	**29**	Pn	**Pn**	**22 10 24.2**	**+0.4**
KRMN				AML	AML		
EREN	**Erenkoy**	**1.54**	**101**	Pn	**Pn**	**22 10 24.1**	**+0.3**
EREN				AML	AML		
SEYD	**Seydisehir-KON**	**1.61**	**346**	Pn	**Pn**	**22 10 24.9**	**0.0**
SEYD				AML	AML		
KORT	**Korkueli**	**1.97**	**307**	Pn	**Pn**	**22 10 29.3**	**-0.5**
KORT				AML	AML		
KONT	**Konya--Tatoy**	**2.10**	**1**	Pn	**Pn**	**22 10 31.7**	**+0.1**
BCK	**Bucak**	**2.13**	**320**	Pn	**Pn**	**22 10 31.2**	**-0.9**
BCK				AML	AML		
ELL	**Elmali**	**2.15**	**296**	Pn	**Pn**	**22 10 31.8**	**-0.5**
ELL				AML	AML		
AKAS	**Kas**	**2.23**	**281**	Pn	**Pn**	**22 10 32.2**	**-1.3**
AKAS				AML	AML		
YESY	**Yesilyurt**	**2.25**	**30**	Pn	**Pn**	**22 10 34.2**	**+0.5**
LADK	**Ladik-KONYA**	**2.36**	**1**	Pn	**Pn**	**22 10 35.0**	**-0.2**
ZRT	**Zar'it**	**3.67**	**137**	P	**Pn**	**22 10 55.3**	**+2.1**
ZRT				S	**Sn**	**22 11 35.1**	**-1.7**
MMA0B	**Mount Meron ar**	**3.80**	**137**	P	**Pn**	**22 10 56.6**	**+1.6**
MMA0B				S	**Sn**	**22 11 38.9**	**-1.1**
GEM	**Giv'at Ha'Em**	**3.81**	**133**	P	**Pn**	**22 10 56.9**	**+1.9**
GEM				S	**Sn**	**22 11 38.9**	**-1.2**
KSHT	**Keshet**	**4.06**	**134**	P	**Pn**	**22 11 00.4**	**+1.9**
KSHT				S	**Sn**	**22 11 45.2**	**-1.1**
MMLI	**Mount Malkishu**	**4.26**	**142**	P	**Pn**	**22 11 03.4**	**+2.2**
MMLI				S	**Sn**	**22 11 49.5**	**-1.7**
ROII	**Roi**	**4.44**	**143**	P	**Pn**	**22 11 05.7**	**+2.0**
ROII				S	**Sn**	**22 11 54.0**	**-1.7**
YITV	**Yitav**	**4.66**	**146**	P	**Pn**	**22 11 08.2**	**+1.5**
YITV				S	**Sn**	**22 11 59.1**	**-2.0**
MSBI	**Mazada**	**5.18**	**150**	P	**Pn**	**22 11 15.3**	**+1.5**
MSBI				S	**Sn**	**22 12 12.1**	**-1.7**
KZIT	**Kziot**	**5.22**	**160**	P	**Pn**	**22 11 15.8**	**+1.4**
KZIT				S	**Sn**	**22 12 13.3**	**-1.6**
GHAJ	**Ghor Haditha**	**5.27**	**148**	P	**Pn**	**22 11 17.1**	**+2.0**
GHAJ				S	**Sn**	**22 12 14.0**	**-2.1**
EIL	**Elat**	**6.54**	**159**	P	**Pn**	**22 11 34.0**	**+1.5**
EIL				S	**Sn**	**22 12 45.4**	**-2.0**

*AFAD **29** 22:27:53.9, 37°.85N×26°.78E, h7km±2km, ML2.6*
*ISK **29** 22:27:53.5, 37°.84N×26°.75E, h9km, ML2.7/24*
*ATH **29** 22:27:53.5, 37°.83N×26°.77E, h14km±1km, ML2.6/7,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
*THE **29** 22:27:54.2, 37°.9N±0.7×26°.8E±0.6, h6km±1km, M2.7/7, MLh2.7/7*

ISC 29 22:27:53.9±0.8, 37°84N±0.02, 26°77E±0.02, h11km±6km, n65, σ0§54/94, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**158**	P	**Pg**	**22 27 57.3**	**+0.1**
SMG				S	**Sg**	**22 27 59.8**	**+0.2**
SMG				AML	AML		
SMG	**Samos**	**0.14**	**158**	P	**Pg**	**22 27 57.2**	**-0.1**
SMG				S	**Sg**	**22 27 59.7**	**+0.2**
SMG				AML	AML		
SAM2	**Drakei, Karlov**	**0.15**	**238**	P	**Pg**	**22 27 57.4**	**0.0**
SAM2				S	**Sg**	**22 27 59.9**	**+0.1**
SAM2				AML	AML		
DGB	**zmir**	**0.23**	**23**	P	**Pg**	**22 27 58.6**	**-0.2**
DGB				S	**Sg**	**22 28 01.5**	**-0.5**
DGB				IAML		22 28 02.0	
	comp=E,941nm,0.2s						
GMLD	**Gumuldur**	**0.26**	**26**	Pg	**Pg**	**22 27 59.4**	**+0.1**
GMLD				Sg	**Sg**	**22 28 03.4**	**+0.4**
GMLD				AML	AML		
GCAM	**G?zelcaml?**	**0.39**	**111**	P	**Pg**	**22 28 02.1**	**+0.4**
GCAM	**G?zelcaml?**	**0.39**	**111**	Pg	**Pg**	**22 28 01.9**	**+0.2**
GCAM				Sg	**Sb**	**22 28 08.2**	**-0.7**
GCAM				AML	AML		
BEYE	**izmir**	**0.41**	**18**	P	**Pg**	**22 28 01.9**	**-0.1**
BEYE				S	**Sg**	**22 28 07.4**	**0.0**
KUSD	**Kusadasi-Aydin**	**0.41**	**87**	Pg	**Pg**	**22 28 02.2**	**+0.2**
KUSD				AML	AML		
ZEYE	**Izmir, Urla-Ze**	**0.45**	**332**	P	**Pg**	**22 28 02.6**	**-0.2**
ZEYE				S	**Sg**	**22 28 09.4**	**+0.6**
ZEYE				IAML		22 28 10.0	
	comp=N,938nm,0.2s						
DDIM	**Aydin, Didim**	**0.53**	**135**	P	**Pg**	**22 28 04.3**	**-0.1**
URLA	**Izmir**	**0.54**	**345**	P	**Pg**	**22 28 04.4**	**-0.1**
URLA				S	**Sb**	**22 28 12.3**	**-0.9**
URLA				IAML		22 28 14.0	
	comp=N,373nm,0.4s						
URLA				IAML		22 28 14.0	
	comp=E,414nm,0.3s						
URLA	**Izmir**	**0.54**	**345**	Pg	**Pg**	**22 28 04.4**	**-0.1**
URLA				Sg	**Sb**	**22 28 12.3**	**-0.9**
URLA				AML	AML		
BLCB	**Balcova**	**0.59**	**21**	P	**Pg**	**22 28 05.3**	**0.0**
BLCB				S	**Sg**	**22 28 13.3**	**+0.2**
BLCB	**Balcova**	**0.59**	**21**	Pg	**Pg**	**22 28 05.4**	**0.0**
BLCB				AML	AML		
DUVT	**Torbali**	**0.66**	**54**	P	**Pg**	**22 28 06.5**	**-0.2**
DUVT				S	**Sg**	**22 28 14.6**	**-0.7**
DUVT				IAML		22 28 19.0	
	comp=E,331nm,0.4s						
KRBN	**Karaburun**	**0.77**	**347**	Pg	**Pg**	**22 28 08.7**	**-0.2**
KRBN				Sg	**Sb**	**22 28 19.9**	**0.0**
KRBN				AML	AML		
CHOS	**Chios island**	**0.79**	**314**	P	**Pg**	**22 28 08.9**	**-0.3**
CHOS				S	**Sb**	**22 28 20.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**0.79**	**314**	Pg	**Pg**	**22 28 08.9**	**-0.3**
CHOS				AML	AML		
CHOS	**Chios island**	**0.79**	**314**	P	**Pg**	**22 28 08.8**	**-0.4**
CHOS				S	**Sg**	**22 28 19.9**	**+0.5**
CHOS				AML	AML		
BAGT	**Foa**	**0.82**	**4**	P	**Pb**	**22 28 10.3**	**+0.2**
BAGT				S	**Sg**	**22 28 20.1**	**-0.3**
BAGT				IAML		22 28 25.0	
	comp=N,257nm,0.3s						
YKAV	**Yalikavak-Bodr**	**0.82**	**150**	Pg	**Pb**	**22 28 10.1**	**-0.1**
YKAV				AML	AML		
KARB	**zmir-Karabur**	**0.87**	**341**	P	**Pg**	**22 28 10.1**	**-0.7**
FOCM	**Foa**	**0.87**	**358**	Pg	**Pb**	**22 28 11.1**	**0.0**
FOCM				Sg	**Sb**	**22 28 23.4**	**+0.6**
FOCM				AML	AML		
EAG2	**Marmaro, Chios**	**0.88**	**324**	P	**Pg**	**22 28 10.5**	**-0.3**
EAG2				S	**Sb**	**22 28 22.8**	**0.0**
BODT	**Bodrum**	**0.89**	**151**	P	**Pg**	**22 28 10.9**	**-0.1**
BODT				S	**Sb**	**22 28 23.5**	**+0.3**
BODT				AML	AML		
BODT	**Bodrum**	**0.89**	**151**	Pg	**Pb**	**22 28 11.8**	**+0.5**
BODT				Sg	**Sb**	**22 28 23.8**	**+0.6**
BODT				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**0.89**	**83**	Pg	**Pb**	**22 28 11.8**	**+0.3**
AYDB				AML	AML		
KLNA	**Kalymnos**	**0.90**	**170**	P	**Pg**	**22 28 10.7**	**-0.4**
AYDN	**Tasoluk**	**0.90**	**101**	P	**Pg**	**22 28 11.1**	**-0.1**
BDRM	**Kayabasi**	**0.94**	**145**	P	**Pb**	**22 28 12.4**	**+0.2**
BODA	**Bodrum-Mula**	**0.96**	**147**	Pg	**Pg**	**22 28 12.5**	**+0.1**
MLSB	**Milas**	**0.97**	**124**	Pg	**Pg**	**22 28 12.5**	**0.0**
MLSB				AML	AML		
IZMR	**zmir-demi**	**0.98**	**72**	P	**Pb**	**22 28 13.0**	**+0.1**
CAMT	**Merkez**	**1.00**	**25**	P	**Pn**	**22 28 13.8**	**-0.2**
CAMT				S	**Sb**	**22 28 26.4**	**-0.1**
CAMT				IAML		22 28 30.0	
	comp=E,704nm,0.3s						
ZEDA	**zmir-Bergama**	**1.15**	**12**	P	**Pg**	**22 28 15.3**	**-0.8**
ZEDA				S	**Sn**	**22 28 32.2**	**+0.5**
ZEDA				IAML		22 28 36.0	
	comp=N,144nm,0.2s						
NAZL	**Nazilli-Aydin**	**1.21**	**84**	Pn	**Pb**	**22 28 16.4**	**-0.5**
NAZL				AML	AML		
DKL	**Dikili**	**1.23**	**5**	Pn	**Pg**	**22 28 17.6**	**-0.1**
DKL				AML	AML		
DKL	**Dikili**	**1.23**	**5**	P	**Pn**	**22 28 16.6**	**-0.5**
ESEN	**Aydn-Nazilli**	**1.25**	**91**	P	**Pn**	**22 28 17.2**	**-0.1**
APE	**Apeiranthos**	**1.25**	**232**	P	**Pn**	**22 28 16.9**	**-0.5**
APE				S	**Sn**	**22 28 36.1**	**+1.9**
APE				AML	AML		
APE	**Apeiranthos**	**1.25**	**232**	Pn	**Pn**	**22 28 16.8**	**-0.5**
APE				AML	AML		
APE	**Apeiranthos**	**1.25**	**232**	P	**Pn**	**22 28 16.4**	**-1.0**
APE				AML	AML		
GOMA	**Golmarmara-Man**	**1.25**	**46**	Pn	**Pg**	**22 28 17.8**	**-0.2**
GOMA				AML	AML		
YAZI	**Mula-Dat§a-**	**1.28**	**155**	P	**Pn**	**22 28 16.2**	**-1.5**
DAT	**Datca**	**1.28**	**150**	Pn	**Pb**	**22 28 18.3**	**+0.2**
DAT				AML	AML		
AKHS	**Akhisar**	**1.32**	**38**	P	**Pb**	**22 28 18.7**	**-0.1**
AKS	**Akhisar**	**1.32**	**38**	Pn	**Pb**	**22 28 18.8**	**0.0**
AKS				Sn	**Sg**	**22 28 37.5**	**+1.0**
KIRA	**zmir-Kiraz**	**1.34**	**74**	P	**Pn**	**22 28 18.3**	**-0.3**
KTTT	**Salihli**	**1.34**	**50**	P	**Pg**	**22 28 19.8**	**+0.1**
KTTT				S	**Sb**	**22 28 35.8**	**-0.5**
KTTT				IAML		22 28 40.0	
	comp=N,94nm,0.4s						
MULA	**Mugla, Merkez-**	**1.36**	**115**	P	**Pn**	**22 28 16.8**	**-2.2**
SOMA	**Soma-Manisa**	**1.45**	**24**	Pn	**Pb**	**22 28 20.9**	**0.0**
SOMA				Sn	**Sg**	**22 28 40.5**	**0.0**
SOMA				AML	AML		
PRK	**Paraskevi**	**1.46**	**345**	P	**Pn**	**22 28 19.8**	**-0.4**
PRK	**Paraskevi**	**1.46**	**345**	P	**Pn**	**22 28 19.6**	**-0.6**
PRK				AML	AML		
AYVA	**Ayvalik**	**1.47**	**358**	P	**Pg**	**22 28 21.7**	**-0.4**
GORD	**Gordes-Manisa**	**1.54**	**46**	Pn	**Pb**	**22 28 22.2**	**-0.3**
GORD				Sn	**Sg**	**22 28 42.8**	**-0.6**
GORD				AML	AML		
MANT	**Manisa**	**1.55**	**65**	P	**Pg**	**22 28 23.7**	**0.0**
TURN	**Turunc**	**1.58**	**132**	Pn	**Pb**	**22 28 22.9**	**-0.3**
TURN				AML	AML		
SULTU	**Buldan**	**1.59**	**82**	P	**Pn**	**22 28 21.3**	**-0.8**
KULA	**Kula-Manisa**	**1.64**	**65**	Pn	**Pn**	**22 28 23.2**	**+0.5**
KULA				AML	AML		
BUHA	**Balikesir, Bur**	**1.68**	**8**	P	**Pn**	**22 28 23.4**	**+0.2**
BUHA				S	**Sg**	**22 28 48.5**	**+0.7**
STEP	**BALIKESIR_Sava**	**1.71**	**26**	P	**Pb**	**22 28 25.4**	**0.0**
STEP				S	**Sb**	**22 28 47.5**	**+0.7**
STEP				IAML		22 28 51.0	
	comp=E,74nm,0.2s						
DALY	**Dalyan (Mula)**	**1.81**	**124**	Pn	**Pb**	**22 28 26.3**	**-0.8**
KARY	**Karystos**	**1.85**	**277**	P	**Pn**	**22 28 25.2**	**-0.4**
APMY	**Acipayam-Deniz**	**2.04**	**100**	Pn	**Pn**	**22 28 29.1**	**+0.8**

*MAN **29** 23:35:20.0, 7°.78N×127°.14E, h20km, MS3.5*
*IDC **29** 23:35:22.0±1.1, 6°.59N×123°.91E, h0km, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=23.9km s-min=19.3km az=25.0*

ISC 29 23:35:21.2±1.4, 7°90N±0.05×127°1E±0.1, h22km±8km, n15, σ1§84/22, mb3.8/5, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.82**	**290**	*i* P	**Pb**	**23 35 36.5**	**-0.3**
BIPH				*i* S	**Sb**	**23 35 47.5**	**+0.1**
DAV	**Davao City (W)**	**1.75**	**242**	Pn	**Pb**	**23 35 51.6**	**-1.1**
	147nm,0.3s,baz=284,slow=19,SNR=18						
DAV				Sn	**Sb**	**23 36 16.3**	**+2.1**
	74nm,0.3s,baz=253,slow=19,SNR=7.1						
DAV				LR	LR	23 36 39.5	
	comp=Z,802nm,19.9s,baz=16,slow=45						
DMPH	**Davao City--Mi**	**1.81**	**243**	*e*P	**Pb**	**23 35 52.9**	**-0.8**
DMPH				*i* S	**Sb**	**23 36 16.5**	**+0.7**
KCP	**Kidapawan**	**2.21**	**247**	*e*P	**Pn**	**23 35 56.3**	**-0.4**
KCP				*i* S	**Sn**	**23 36 23.4**	**-0.1**
CGP	**Cagayan de Oro**	**2.48**	**283**	*i* P	**Pn**	**23 36 01.5**	**+1.2**
CGP				*i* S	**Sb**	**23 36 36.2**	**+1.0**
SCPH	**Surigao**	**2.48**	**319**	*e*P	**Pb**	**23 36 04.1**	**-1.0**
CTBH	**Cotabato--PC H**	**2.94**	**257**	*i* P	Pb	23 36 18.3	+5.3
TBP	**Tagbilaran**	**3.69**	**299**	*e*P	**Pn**	**23 36 19.7**	**+2.7**
TBP				*e*S	**Sb**	**23 37 07.8**	**-2.4**
PLP	**Palo**	**3.88**	**327**	*e*P	**Pb**	**23 36 26.6**	**-2.4**
PLP				*e*S	**Sb**	**23 37 18.9**	**+3.3**
LLP	**Lapu-Lapu**	**3.95**	**308**	*e*P	**Pn**	**23 36 23.9**	**+3.4**
LLP				*i* S	**Sb**	**23 37 16.5**	**-0.9**
WRA	**Warramunga Arr**	**28.56**	**166**	P	**P**	**23 41 18.1**	**+2.3**
	0.5nm,0.7s,baz=347,slow=10,SNR=5.0						
	0.5nm,0.7s						
ASAR	**Alice Springs**	**32.06**	**168**	P	**P**	**23 41 46.1**	**-0.6**
	0.2nm,0.5s,baz=338,slow=7.2,SNR=5.6						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**54.42**	**323**	P	**P**	**23 44 45.7**	**-1.2**
	0.6nm,0.7s,baz=125,slow=6.6,SNR=7.5						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**58.50**	**326**	P	**P**	**23 45 14.8**	**-0.9**
	1.2nm,0.2s,baz=121,slow=7.8,SNR=0.8						
	1.2nm,0.2s						
BVAR	**Borovoye Array**	**64.09**	**326**	P	**P**	**23 45 52.7**	**-0.9**
	0.3nm,0.4s,baz=113,slow=7.4,SNR=2.7						
	0.3nm,0.4s						

*IDC **29** 23:51:55.3±1.3, 8°.17N×127°.19E, h0km, mb3.7/5, mbtmp3.7/5, MS4.2/2, Error ellipse: s-maj=32.4km s-min=20.9km az=81.0*
*MAN **29** 23:51:59.0, 7°.76N×127°.06E, h19km, MS3.5*

ISC 29 23:51:58.3±1.2, 7°.85N±0.06×127°.09E±0.08, h10km, n14, σ2§18/17, mb3.7/5, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**1.69**	**243**	Pn	**Pb**	**23 52 29.3**	**-0.2**
	75nm,0.3s,baz=56,slow=3.6,SNR=15						
DAV				Sn	**Sg**	**23 52 54.8**	**+2.1**
	72nm,0.3s,baz=262,slow=22,SNR=16						
DAV				LR	LR	23 53 17.3	
	comp=Z,542nm,19.5s,baz=321,slow=42						
DMPH	**Davao City--Mi**	**1.75**	**244**	*e*P	**Pb**	**23 52 30.4**	**-0.1**
DMPH				*i* S	**Sg**	**23 52 54.8**	**+0.3**
KCP	**Kidapawan**	**2.15**	**247**	*i* P	**Pb**	**23 52 36.4**	**-1.1**
KCP				*i* S	**Sb**	**23 53 01.8**	**-2.5**
CGP	**Cagayan de Oro**	**2.45**	**284**	*e*P	Pn	23 52 31.4	-7.0
CGP				*e*S	**Sb**	**23 53 14.2**	**+1.5**
SCPH	**Surigao**	**2.49**	**321**	*e*P	Pn	23 52 35.3	-3.6
TBP	**Tagbilaran**	**3.68**	**300**	*e*P	**Pn**	**23 52 57.8**	**+2.5**
TBP				*e*S	**Sb**	**23 53 45.8**	**-2.4**
PLP	**Palo**	**3.90**	**328**	*e*P	**Pb**	**23 53 06.0**	**-1.2**
PLP				*e*S	**Sb**	**23 53 57.8**	**+3.2**
LLP	**Lapu-Lapu**	**3.94**	**309**	*e*P	**Pn**	**23 53 00.9**	**+2.0**
LLP				*i* S	**Sb**	**23 53 54.4**	**-1.5**
WRA	**Warramunga Arr**	**28.52**	**166**	P	**P**	**23 57 56.6**	**+2.4**
	0.2nm,0.3s,baz=348,slow=10.0,SNR=5.6						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**32.02**	**168**	P	**P**	**23 58 25.0**	**-0.2**
	0.2nm,0.6s,baz=348,slow=7.6,SNR=4.9						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**54.44**	**323**	P	**P**	**00 01 24.1**	**-1.8**
	0.9nm,0.7s,baz=128,slow=8.0,SNR=7.3						
	0.9nm,0.7s						
ZALV	**Zalesovo Beam**	**57.13**	**332**	P	P	00 01 40.9	-4.1
	0.3nm,0.4s,baz=127,slow=6.2,SNR=1.8						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**58.52**	**326**	P	**P**	**00 01 51.2**	**-3.7**
	0.8nm,0.2s,baz=123,slow=6.8,SNR=1.2						
KURBB				LR	LR	00 28 06.8	
	comp=Z,146nm,21.1s,baz=274,slow=37						
	0.8nm,0.2s						
BBB	**Bella Bella**	**92.80**	**37**	LR	LR	00 53 33.1	
	comp=Z,158nm,18.0s,baz=225,slow=40						

*PTWC **29** 23:56:51, 17°.50S×174°.30W, h10km, Mb5.5/96*
*IDC **29** 23:56:52.3±0.4, 17°.81S×174°.77W, h0km, mb4.7/25, mbtmp4.6/27, ML4.9/2, MS4.9/65, Error ellipse: s-maj=10.0km s-min=12.0km az=127.0*
*NEIC **29** 23:56:54.4, 17°.68S×174°.77W, h10km*
*NEIC **29** 23:56:54.8, 17°.78S×174°.67W, h12km, Moment Tensor Solution. Duration: 2§1.0 Moment tensor: Scale 10^17 Nm; Mrr-1.91; Mθθ 1.10; Mϕϕ 0.81; Mrθ-0.25; Mϕϕ 0.93; Mϕ2.12; Fault plane solution: M0 2.86000×10^17 NP1: ϕs 65.97000°, δ30.76000°, λ-43.41000°. NP2: ϕs 195.09000°, δ69.42000°, λ-113.38000°. Principal axes: T 2.3702, Plg21.0000°, Azm303.0000°; N 0.8001, Plg22.0000°, Azm204.0000°; P -3.1703, Plg59.0000°, Azm72.0000°;*
*NEIC **29** 23:56:54.3, 17°.71S×174°.80W, h10km*
*NEIC **29** 23:56:54.4±2.0, 17°.68S±0.08×174°.77W±0.07, h10km±1km, mb5.5/431, Ms_20 5.2/183, Mwb5.5/48, Mww5.6/19, Error ellipse: s-maj=13.6km s-min=11.3km az=184.0, Moment Tensor Solution. Moment tensor: Scale 10^17 Nm; Mrr-1.79; Mθθ 1.46; Mϕϕ 0.33; Mrθ 0.81; Mϕϕ 0.36; Mϕ1.46; Fault plane solution: M0 2.38000×10^17 NP1: ϕs 226.41000°, δ67.45000°, λ-107.54000°. NP2: ϕs 85.91000°, δ28.28000°, λ-54.02000°. Principal axes: T 2.0258, Plg21.0000°, Azm330.0000°; N 0.5887, Plg16.0000°, Azm233.0000°; P -2.6145, Plg63.0000°, Azm108.0000°;*
*GFZ **29** 23:56:55.2, 17°.80S×174°.67W, h18km, Mw5.6/29, Moment Tensor Solution. Moment tensor: Scale 10^17 Nm; Mrr-2.38; Mθθ 1.29; Mϕϕ 1.09; Mrθ 0.88; Mϕϕ 0.87; Mϕ2.00; Fault plane solution: M0 3.12830×10^17 NP1: ϕs 57.41223°, δ24.68643°, λ-66.95351°. NP2: ϕs 212.32205°, δ67.39859°, λ-100.20105°. Principal axes: T 2.8690, Plg21.7605°, Azm310.0714°; N 0.4662, Plg9.4102°, Azm216.2782°; P -3.3353, Plg66.0975°, Azm104.3187°;*
*GFZ **29** 23:56:55.2±0.1, 18°S±3°×17°5W±°, h10km, M5.6/43, mb5.1/43*
*MOS **29** 23:56:56.4±1.6, 17°.02S×174°.98W, h10km, mb5.4/28, MS5.3/20, Error ellipse: s-maj=18.5km s-min=12.5km az=114.2*
*GCMT **29** 23:56:58.4±0.1, 17°.72S±0.01×174°.61W±0.01, h12km, MW5.5/165, Moment Tensor Solution. s119,c210; s165,c323; Duration: 1§4 Moment tensor: Scale 10^17 Nm; Mrr-2.36±.02; Mθθ 1.43±.

MARNC IAmb IAmb 00 00 55.5
comp=Z,387nm,1.5s
PINNC Pines Island, 17.52 251 Pn **Pn** **00 00 55.3 -3.2**
PINNC Pines Island, 17.52 251 P **P** **00 01 00.5 +0.9**
SANVU Saraoutou 17.59 275 **Pn** **00 00 59.5 -0.1**
SANVU IAmb IAmb 00 01 05.9
comp=Z,483nm,1.5s
SANVU Saraoutou 17.59 275 P **P** **00 01 01.5 +1.0**
SANVU Saraoutou 17.59 275 P **P** **00 01 02.6 +2.1**
comp=Z,217nm,1.5s
OUENC Ouen Island, N 18.02 252 **Pn** **00 01 04.2 -0.7**
OUENC Ouen Island, N 18.02 252 P **P** **00 01 08.5 +3.2**
DZM Mont Dzumac 18.32 253 P **P** **00 01 09.7 +1.1**
comp=Z,45nm,1.0s,baz=84,slow=17,SNR=14
NFK Norfolk Island 19.52 232 P Pn 00 01 32.3 +9.4
NFK Norfolk Island 19.52 232 P **P** **00 01 21.4 -0.3**
comp=Z,122nm,1.6s,comp=Z,0.0nmcomp=Z,0.0nm,4.0s
KOUNC Koumac, New Ca 20.13 259 **P** **00 01 27.6 -0.8**
KOUNC IAmb IAmb 00 01 35.9
comp=Z,511nm,1.6s
OUZ Omahuta 20.29 209 P Pn 00 01 35.0 +3.0
comp=Z,66nm,1.2s
URZ Urewera 21.64 198 P **P** **00 01 43.8 -0.7**
comp=Z,16nm,0.9s,baz=3.8,slow=6.6,SNR=5.8
URZ LR LR 00 09 06.9
comp=Z,9μm,20.3s,baz=24,slow=34
comp=Z,16nm,0.9s
URZ Urewera 21.64 198 P **P** **00 01 43.5 -1.0**
comp=Z,96nm,1.2s
TOZ Tahuroa Road 21.68 202 P **P** **00 01 44.4 -0.5**
TOZ IAmb IAmb 00 01 51.1
comp=Z,372nm,1.4s
RTZ Ruatahuna 22.01 198 IAMs_20 IAMs_20 00 09 06.9
comp=Z,8μm,20.0s
TARA Tarawa 22.65 326 IAMs_20 IAMs_20 00 08 23.7
comp=Z,9μm,20.0s
PAE Paea 23.83 94 *e*P P 00 01 53.6 -14
comp=Z,151nm,1.4s
PAE *e*LR LR 00 07 44.9
comp=Z,5μm,24.1s
PPT2 Papeete2 23.84 93 *e*P **P** **00 02 08.4 +0.7**
comp=Z,87nm,1.6s
PPT2 *e*S S 00 06 01.2 -22
comp=Z,12μm,26.5s
PPT2 *e*LR LR 00 07 39.0
comp=Z,10μm,27.2s
PPT2 *e*LR LR 00 07 40.8
comp=Z,7μm,29.8s
PPT Papeete 23.84 93 LR LR 00 08 57.4
comp=Z,1μm,19.4s,baz=261,slow=30
TVO Taravao 24.13 94 *e*P P 00 01 56.3 -14
comp=Z,92nm,1.1s
TVO *e*LR LR 00 07 51.9
comp=Z,4μm,23.7s
TBI Tubuai 24.16 107 *e*S S 00 06 11.6 -17
comp=Z,51μm,27.2s
TBI *e*LR LR 00 07 46.7
comp=Z,68μm,28.0s
MSWZ Moikau Station 25.10 198 P **P** **00 02 19.7 +0.8**
BHW Baring Head 25.21 199 P **P** **00 02 21.8 +1.9**
PLWZ Palliser 25.24 198 P **P** **00 02 21.4 +1.2**
QRZ Quartz Range 25.49 203 P **P** **00 02 21.8 -0.6**
QRZ IAmb IAmb 00 02 30.0
comp=Z,174nm,1.2s
TUWZ Tuamarina 25.52 200 P **P** **00 02 22.3 -0.5**
PMOR Pomariorio Ree 25.76 88 *e*LR LR 00 08 37.0
comp=Z,6μm,24.5s
CTZ Chatham Island 25.92 183 IAMs_20 IAMs_20 00 12 11.4
comp=Z,5μm,19.0s
VAH Vaihoa 25.98 88 *e*LR LR 00 08 42.5
comp=Z,6μm,24.6s
HNR Honiara 26.07 285 LR LR 00 11 05.2
comp=Z,7μm,20.4s,baz=208,slow=33
HNR Honiara 26.07 285 IAMs_20 IAMs_20 00 10 44.4
comp=Z,7μm,21.0s
THZ Tophouse 26.17 202 P **P** **00 02 27.3 -1.4**
SAVO Savo Central 26.30 286 P **P** **00 02 31.5 +1.4**
KHZ Kahutara 26.54 200 P **P** **00 02 31.5 -0.5**
KHZ IAmb IAmb 00 02 44.1
comp=Z,64nm,0.9s
KHZ IAMs_20 IAMs_20 00 14 12.8
comp=Z,5μm,21.0s
KHZ Kahutara 26.54 200 P **P** **00 02 35.2 +3.3**
comp=Z,83nm,2.6s
DSZ Denniston Nort 26.56 203 IAMs_20 IAMs_20 00 12 52.9
comp=Z,6μm,20.0s
LTZ Lake Taylor 27.30 201 P **P** **00 02 38.4 -0.5**
LHI Lord Howe Isla 27.47 235 P **P** **00 02 41.9 +1.5**
comp=Z,58nm,1.6s
LHI Lord Howe Isla 27.47 235 P **P** **00 02 41.0 +0.5**
comp=Z,58nm,1.6s,comp=Z,0.0nm,3.0s
INZ Inchbonnie 27.54 203 P **P** **00 02 39.9 -1.0**
INZ IAMs_20 IAMs_20 00 12 40.9
comp=Z,6μm,22.0s
OXZ Oxford 27.86 201 P **P** **00 02 44.6 +0.9**
RPZ Rata Peaks 28.54 202 LR LR 00 13 46.2
comp=Z,1μm,21.6s,baz=28,slow=36
FOZ Fox Glacier 28.84 204 IAMs_20 IAMs_20 00 13 06.3
comp=Z,6μm,21.0s
LBZ Lake Benmore 29.43 203 IAMs_20 IAMs_20 00 14 54.1
comp=Z,6μm,21.0s
ODZ Otahua Downs 29.84 201 IAMs_20 IAMs_20 00 14 14.0
comp=Z,4μm,20.0s
WKZ Wanaka 30.25 203 IAMs_20 IAMs_20 00 15 17.5
comp=Z,6μm,21.0s
MLZ Mavora Lakes 31.05 204 IAmb IAmb 00 03 17.4
comp=Z,62nm,1.1s
MLZ IAMs_20 IAMs_20 00 15 40.5
comp=Z,4μm,20.0s
DCZ Deep Cove 31.51 205 IAMs_20 IAMs_20 00 15 18.7
comp=Z,4μm,20.0s
WHZ Wether Hill Ro 31.55 204 P **P** **00 03 15.7 -0.8**
WHZ IAmb IAmb 00 03 22.3
comp=Z,73nm,1.0s
PYZ Puysegur Point 32.27 205 IAMs_20 IAMs_20 00 15 52.9
comp=Z,4μm,21.0s
EIDS Eidsvold 32.72 251 P **P** **00 03 28.5 +1.5**
comp=Z,24nm,1.7s
EIDS Eidsvold 32.72 251 P **P** **00 03 28.6 +1.5**
comp=Z,24nm,1.7s
EIDS Eidsvold 32.72 251 P **P** **00 03 25.5 -1.5**
comp=Z,0.0nm,3.8s
ARMA Armidale 33.16 241 P P 00 03 36.6 +5.6
ARMA Armidale 33.16 241 P P 00 03 36.4 +5.4
ARMA Armidale 33.16 241 P **P** **00 03 31.4 +0.5**
comp=Z,0.0nm,4.6s
ARMA pP **pwP** **00 03 36.2 -0.3**
TAOE Nuku Hiva Isla 34.63 80 *e*LQ LQ 00 11 12.5
comp=Z,3μm,26.1s
TAOE *e*LR LR 00 12 46.5
comp=Z,3μm,26.1s
KRVT Keravat (AS076 35.31 288 LR LR 00 16 36.5
comp=Z,6μm,20.6s,baz=135,slow=34
PATS Pohnpei 36.26 310 IAMs_20 IAMs_20 00 15 50.6
comp=Z,5μm,19.0s
CNB Canberra Magne 36.40 234 P P 00 04 04.5 +5.6
comp=Z,65nm,1.4s
CNB Canberra Magne 36.40 234 P **P** **00 03 58.2 -0.6**
comp=Z,66nm,1.3s,comp=Z,0.0nm,4.9s
CAN Canberra 36.69 234 P **P** **00 04 01.0 -0.3**
comp=Z,37nm,1.3s
CAN Canberra 36.69 234 P **P** **00 04 00.3 -1.0**
comp=Z,37nm,1.3s,comp=Z,0.0nm,4.0s
CAN Canberra 36.69 234 P **P** **00 04 00.5 -0.8**
CAN IAmb IAmb 00 04 09.0
comp=Z,78nm,1.4s
CAN IAMs_20 IAMs_20 00 18 14.4
comp=Z,3μm,20.0s
CAN Canberra 36.69 234 P **P** **00 04 00.5 -0.8**
comp=Z,37nm,1.3s
YNG Young 36.84 236 P **P** **00 04 03.2 +0.6**
comp=Z,0.0nm,0.6s
CTA Charters Tower 37.04 260 LR LR 00 18 39.8
comp=Z,2μm,18.8s,baz=78,slow=35
RKT Rikitea 37.42 105 *e*S S 00 09 34.1 -22
comp=Z,2μm,26.2s
RKT *e*SS **SnSn** **00 12 22.5 -10**
comp=Z,10μm,26.2s
RKT *e*LR LR 00 13 53.7
comp=Z,39μm,27.2s
PMG Port Moresby 38.03 278 LR LR 00 18 54.1
comp=Z,2μm,18.4s,baz=75,slow=35
PMG Port Moresby 38.03 278*ce*P **P** **00 04 13.4 +0.6**
PMG pmax pmax
comp=Z,33nm,1.2s
PMG Port Moresby 38.03 278 P **P** **00 04 11.0 -1.8**
PMG Port Moresby 38.03 278 P **P** **00 04 13.2 +0.4**
PMG Port Moresby 38.03 278 P **P** **00 04 13.4 +0.6**
comp=Z,3μmcomp=Z,3μmcomp=Z,68nm,2.3s
PMG Port Moresby 38.03 278 P **P** **00 04 14.3 +1.4**
comp=Z,68nm,2.3s
CMSA Cobar Meteorol 38.38 241 P **P** **00 04 15.8 +0.2**
comp=Z,31nm,2.0s
CMSA Cobar Meteorol 38.38 241 P **P** **00 04 15.7 +0.1**
comp=Z,31nm,2.0s,comp=Z,0.0nm,4.0s
CMSA Cobar Meteorol 38.38 241 P **P** **00 04 15.9 +0.2**
comp=Z,32nm,2.0s
QLP Quilpie 38.97 250 P **P** **00 04 20.4 -0.3**
comp=Z,69nm,1.9s,comp=Z,0.0nm,2.0s
QLP Quilpie 38.97 250 P **P** **00 04 20.6 -0.1**
comp=Z,69nm,1.9s
MTSU Mount Surprise 39.02 263 P **P** **00 04 20.1 -1.1**
comp=Z,15nm,1.0s
MTSU Mount Surprise 39.02 263 P **P** **00 04 20.8 -0.5**
comp=Z,15nm,1.0s,comp=Z,0.0nm,0.1s
MTSU Mount Surprise 39.02 263 P **P** **00 04 19.6 -1.6**
comp=Z,15nm,1.0s
H11N3 WAKE ISLAND Hy 41.47 333 T T 00 49 11.9
baz=152,slow=76,SNR=24
H11N1 WAKE ISLAND Hy 41.47 333 T T 00 48 59.4
baz=152,slow=76,SNR=44
H11N2 WAKE ISLAND Hy 41.48 333 T T 00 49 07.3
baz=152,slow=76,SNR=23
STKA Stephens Creek 41.87 242 P **P** **00 04 45.0 +0.3**
comp=Z,286nm,2.4s
STKA Stephens Creek 41.87 242 P **P** **00 04 44.1 -0.5**
comp=Z,285nm,2.4s,comp=Z,0.0nm,4.4s
STKA Stephens Creek 41.87 242 P **P** **00 04 43.1 -1.5**
comp=Z,8.4nm,0.9s,baz=101,slow=10.0,SNR=9.2
comp=Z,8.4nm,0.9s
STKA Stephens Creek 41.87 242 *i*P **P** **00 04 45.2 +0.6**
STKA Stephens Creek 41.87 242 P **P** **00 04 44.1 -0.5**
STKA Stephens Creek 41.87 242 P **P** **00 04 43.8 -0.8**
STKA Stephens Creek 41.87 242 P **P** **00 04 44.9 +0.3**
comp=Z,286nm,2.4s
INKA Innaminka 42.15 248 P **P** **00 04 45.5 -1.5**
KIP Kipapa 42.23 23 *i*P **P** **00 04 48.0 +0.5**
KIP pmax pmax
comp=Z,68nm,1.3s
QIS Mount Isa 43.24 259 P **P** **00 04 56.2 +0.4**
comp=Z,13nm,2.8s
QIS Mount Isa 43.24 259 P **P** **00 04 55.0 -0.9**
comp=Z,13nm,2.8s,comp=Z,0.0nm,0.6s
QIS Mount Isa 43.24 259 P **P** **00 04 56.4 +0.5**
QIS Mount Isa 43.24 259 P **P** **00 04 55.8 -0.1**
comp=Z,13nm,2.8s
HTT Hallett 44.34 240 P **P** **00 05 05.2 +0.5**
comp=Z,21nm,1.3s
HTT Hallett 44.34 240 P **P** **00 05 04.5 -0.2**
comp=Z,21nm,1.3s,comp=Z,0.0nm,3.0s
JAY Jayapura 46.38 284 P **P** **00 05 19.6 -1.4**
comp=Z,19nm,0.8s,baz=130,slow=12,SNR=6.1
JAY LR LR 00 23 38.8
comp=Z,1μm,21.2s,baz=87,slow=35
comp=Z,19nm,0.8s
JAY Jayapura 46.38 284 P **P** **00 05 23.0 +2.0**
JAY Jayapura 46.38 284 P **P** **00 05 22.3 +1.3**
comp=Z,3μmcomp=Z,3μmcomp=Z,88nm,2.6s,comp=Z,88nm,2.6s
BBOO Buckleboo 46.64 241 P **P** **00 05 21.6 -1.2**
comp=Z,44nm,1.1s,comp=Z,0.0nm,14.3s
BBOO Buckleboo 46.64 241 **P** **00 05 21.0 -1.9**
BBOO IAmb IAmb 00 05 28.2
comp=Z,33nm,0.9s
BBOO Buckleboo 46.64 241 P **P** **00 05 21.7 -1.2**
comp=Z,44nm,1.1s
GENI Genyem 46.85 284 P **P** **00 05 27.5 +2.8**
GENI Genyem 46.85 284 P **P** **00 05 26.4 +1.7**
GENI Genyem 46.85 284 P **P** **00 05 27.2 +2.6**
comp=Z,174nm,1.1s
WR8 Warramunga Arr 48.06 259 **P** **00 05 32.0 -2.1**
WR8 IAmb IAmb 00 05 39.9
comp=Z,63nm,1.4s
WB0 Warramunga Arr 48.19 259 P **P** **00 05 32.6 -2.4**
WB0 IAmb IAmb 00 05 40.6
comp=Z,90nm,1.8s
WB0 PcP **PcP** **00 06 58.9 -3.4**
WRAB Tennant Creek 48.21 259*ce*P **P** **00 05 35.2 0.0**
WRAB pmax pmax
comp=Z,35nm,1.3s
WRAB Tennant Creek 48.21 259 P **P** **00 05 32.8 -2.4**
WRAB IAmb IAmb 00 05 40.9
comp=Z,41nm,1.3s
WRAB Tennant Creek 48.21 259 IAMs_20 IAMs_20 00 27 34.6
comp=Z,2μm,20.0s
WRAB Tennant Creek 48.21 259 P **P** **00 05 35.3 0.0**
WRAB Tennant Creek 48.21 259 P **P** **00 05 33.3 -1.9**
comp=Z,21nm,0.8s
WRA Warramunga Arr 48.22 259 P **P** **00 05 32.5 -2.8**
comp=Z,8.9nm,0.9s,baz=94,slow=7.2,SNR=25
WRA PcP **PcP** **00 07 01.9 -0.6**
comp=Z,8.0nm,1.0s,baz=92,slow=3.8,SNR=5.4
comp=Z,8.9nm,0.9s
WRA Warramunga Arr 48.22 259 P **P** **00 05 32.9 -2.4**
WRA PcP **PcP** **00 07 02.6 +0.2**
AS01 Alice Springs 48.27 254 P **P** **00 05 33.6 -2.1**
AS01 Alice Springs 48.27 254 P **P** **00 05 33.6 -2.1**
AS31 Alice Springs 48.31 254 P **P** **00 05 34.2 -1.8**
ASAR Alice Springs 48.31 254 P **P** **00 05 33.8 -2.2**
comp=Z,25nm,0.7s,baz=87,slow=8.4,SNR=193
ASAR PcP **PcP** **00 07 02.0 -0.8**
comp=Z,7.2nm,1.0s,baz=106,slow=4.3,SNR=5.1
comp=Z,25nm,0.7s
ASAR Alice Springs 48.31 254 P **P** **00 05 34.3 -1.7**
ASAR PcP **PcP** **00 07 01.0 -1.8**
SMPI Sarmi 48.42 284 P **P** **00 05 37.2 +0.3**
comp=Z,67nm,2.1s,comp=Z,67nm,2.1s
GUMO Guam 50.71 305 LR LR 00 24 30.0
comp=Z,863nm,20.6s,baz=131,slow=33
KDU Kakadu 51.19 268 P **P** **00 05 56.3 -1.6**
comp=Z,22nm,1.4s,comp=Z,0.0nmcomp=Z,0.0nm,0.4s
MTN Manton Dam 52.43 267 P **P** **00 06 06.2 -1.0**
comp=Z,26nm,1.1s
MTN Manton Dam 52.43 267 P **P** **00 06 05.1 -2.1**
comp=Z,26nm,1.1s,comp=Z,0.0nmcomp=Z,0.0nm,1.8s
MTN Manton Dam 52.43 267 P **P** **00 06 05.5 -1.7**
MTN Manton Dam 52.43 267 P **P** **00 06 05.3 -1.9**
WRKA Warakurna 53.33 252 P **P** **00 06 12.4 -1.4**
WRKA Warakurna 53.33 252 P **P** **00 06 13.0 -0.8**
comp=Z,34nm,1.4s,comp=Z,0.0nm,3.2s
WRKA Warakurna 53.33 252 P **P** **00 06 12.4 -1.4**
FORT Forrest 53.33 245 P **P** **00 06 12.2 -1.5**
comp=Z,22nm,0.9s
FORT Forrest 53.33 245 P **P** **00 06 12.3 -1.4**
comp=Z,22nm,0.9s,comp=Z,0.0nm,4.2s
FORT Forrest 53.33 245 P **P** **00 06 11.9 -1.8**
FORT IAmb IAmb 00 06 18.7
comp=Z,56nm,1.4s
SAUI Saumlaki 53.47 273 P **P** **00 06 12.3 -2.6**
SAUI Saumlaki 53.47 273 P **P** **00 06 15.8 +0.9**
comp=Z,9μmcomp=Z,9μmcomp=Z,85nm,1.0s,comp=Z,85nm,1.0s
SAUI Saumlaki 53.47 273 P **P** **00 06 17.1 +2.1**
comp=Z,80nm,1.0s
KNRA Kununurra 54.11 263 P **P** **00 06 17.6 -1.9**
KNRA Kununurra 54.11 263 P **P** **00 06 17.6 -1.9**
comp=Z,31nm,1.0s,comp=Z,0.0nm,10.1s
KNRA Kununurra 54.11 263 **P** **00 06 17.8 -1.8**
KNRA Kununurra 54.11 263 P **P** **00 06 17.6 -1.9**
FAKI Fak Fak 54.13 279 P **P** **00 06 22.5 +2.8**
SIJI Sorong 55.76 281 LR LR 00 29 09.4
comp=Z,1μm,19.7s,baz=116,slow=35
BNDI Bandanaira 55.82 277 P **P** **00 06 34.4 +2.4**
comp=Z,83nm,1.9s,comp=Z,83nm,1.9s
FITZ Fitzroy Crossi 56.62 260 P **P** **00 06 37.7 +0.1**
comp=Z,12nm,1.6s
FITZ Fitzroy Crossi 56.62 260 P **P** **00 06 36.6 -1.0**
comp=Z,12nm,1.6s,comp=Z,0.0nm
FITZ Fitzroy Crossi 56.62 260 LR LR 00 28 24.4
comp=Z,1μm,21.8s,baz=95,slow=34
FITZ Fitzroy Crossi 56.62 260 **P** **00 06 36.0 -1.6**
FITZ Fitzroy Crossi 56.62 260 P **P** **00 06 36.1 -1.6**
FITZ Fitzroy Crossi 56.62 260 P **P** **00 06 37.3 -0.4**
comp=Z,12nm,1.6s
MSAI Masohi 57.11 278 P **P** **00 06 41.1 -0.1**
SOEI Soe 59.70 269 P **P** **00 06 56.7 -2.8**
SOEI IAMs_20 IAMs_20 00 33 50.4
comp=Z,1μm,19.0s
SOEI Soe 59.70 269 P **P** **00 07 01.0 +1.6**
comp=Z,2μmcomp=Z,2μmcomp=Z,104nm,1.2s,comp=Z,104nm,1.2s
SOEI Soe 59.70 269 P **P** **00 06 59.8 +0.4**
comp=Z,103nm,1.2s
TNTI Ternate 59.98 282 P **P** **00 07 01.1 -0.1**
TNTI Ternate 59.98 282 P **P** **00 07 02.8 +1.5**
comp=Z,52nm,0.4s
BATI Baumata 60.16 268 P **P** **00 07 01.6 -0.9**
comp=Z,2μmcomp=Z,2μmcomp=Z,45nm,2.2s,comp=Z,45nm,2.2s
SANI Sanana 60.31 278 P **P** **00 07 02.7 -0.8**
comp=Z,944nmcomp=Z,944nmcomp=Z,36nm,1.1s,comp=Z,36nm,1.1s
RPN Rapa Nui 60.46 111 LR LR 00 26 07.9
comp=Z,2μm,19.4s,baz=262,slow=29
SBA Scott Base 60.78 184 P **P** **00 07 06.2 +0.6**
SBA IAmb IAmb 00 07 16.5
comp=Z,91nm,1.8s
SBA Scott Base 60.78 184 IAMs_20 IAMs_20 00 29 28.3
comp=Z,1μm,19.0s
SBA Scott Base 60.78 184 P **P** **00 07 08.8 +3.1**
comp=Z,26nm,2.2s
VNDA Vanda 60.89 186 P **P** **00 07 06.5 0.0**
comp=Z,5.3nm,1.1s,baz=360,slow=6.3,SNR=8.2
VNDA LR LR 00 29 32.9
comp=Z,729nm,20.7s,baz=14,slow=32
comp=Z,5.3nm,1.1s
VNDA Vanda 60.89 186 P **P** **00 07 06.9 +0.5**
VNDA Vanda 60.89 186 P **P** **00 07 05.9 -0.5**
VNDA Vanda 60.89 186 P **P** **00 07 08.3 +1.9**
comp=Z,14nm,2.0s
JCJ Chichijima 61.23 316 LR LR 00 29 44.7
comp=Z,2μm,19.7s,baz=130,slow=32
MBWA Marble Bar 61.62 255 IAMs_20 IAMs_20 00 38 00.7
comp=Z,2μm,19.0s
MMRI Maumere 61.93 270 P **P** **00 07 16.0 +1.5**
comp=Z,29nm,1.3s,comp=Z,29nm,1.3s
KLBR Kellerberrin 62.12 243 P **P** **00 07 20.1 +4.6**
KLBR Kellerberrin 62.12 243 P **P** **00 07 15.2 -0.4**
comp=Z,66nm,1.1s,comp=Z,0.0nm,1.0s
KLBR Kellerberrin 62.12 243 P **P** **00 07 15.4 -0.2**
comp=Z,66nm,1.1s
EDFI Ende, Flores 62.42 269 P **P** **00 07 20.5 +2.6**
comp=Z,767nmcomp=Z,767nmcomp=Z,30nm,1.2s,comp=Z,30nm,1.2s
NWAO Narrogin (SRO) 62.46 242 LR LR 00 34 53.6
comp=Z,1μm,18.3s,baz=67,slow=37
LUWI Luwuk 63.68 278 P **P** **00 07 28.8 +2.7**
KKSI Kolaka, Sulawe 63.75 274 P **P** **00 07 29.4 +2.8**
DAV Davao City (W) 64.01 287 LR LR 00 32 50.3
comp=Z,626nm,20.4s,baz=122,slow=34
APSI Ampana 64.78 278 P **P** **00 07 36.0 +2.6**
comp=Z,2μmcomp=Z,2μmcomp=Z,62nm,1.6s,comp=Z,62nm,1.6s
KAPI Kappang 65.31 273 LR LR 00 34 51.2
comp=Z,324nm,21.1s,baz=103,slow=35
CCD Concordia, Ant 65.87 195 P **P** **00 07 40.0 +0.1**
PLAI Plampang 66.12 268 P **P** **00 07 42.2 +0.1**
comp=Z,739nmcomp=Z,739nmcomp=Z,53nm,1.1s,comp=Z,53nm,1.1s
PLAI Plampang 66.12 268 P **P** **00 07 40.6 -1.5**
comp=Z,53nm,0.9s
PCI Palu 66.49 277 P **P** **00 07 44.8 +0.3**
comp=Z,27nm,1.1s,comp=Z,27nm,1.1s
JHJ Hachijo jima 2 66.79 319 LR LR 00 36 13.4
comp=Z,68nm,18.2s,baz=256,slow=35
TWSI Taliwang, Sumb 67.00 268 P **P** **00 07 48.3 +0.6**
comp=Z,80nm,1.1s,comp=Z,80nm,1.1s
CASY Casey 67.76 205 P **P** **00 07 51.4 -0.2**
CASY IAmb IAmb 00 07 59.5
comp=Z,30nm,1.0s
CASY Casey 67.76 205 P **P** **00 07 51.7 +0.1**
CASY Casey 67.76 205 P **P** **00 07 52.2 +0.6**
comp=Z,40nm,1.1s
JAGI Jajag, Banyuwa 69.67 267 P **P** **00 08 01.5 -3.0**
JAGI Jajag, Banyuwa 69.67 267 P **P** **00 08 04.2 -0.2**
comp=Z,73nm,1.1s,comp=Z,73nm,1.1s
JAGI Jajag, Banyuwa 69.67 267 P **P** **00 08 02.5 -1.9**
comp=Z,73nm,1.1s
MJAR Matsushiro Arr 70.04 321 P **P** **00 08 05.6 -0.7**
comp=Z,2.2nm,0.6s,baz=154,slow=5.1,SNR=5.7
MJAR LR LR 00 32 56.4
comp=Z,974nm,21.7s,baz=143,slow=31
comp=Z,2.2nm,0.6s
MAJO Matsushiro 70.04 321 IAMs_20 IAMs_20 00 32 34.0
comp=Z,1μm,22.0s
SHEM Shemya Is, Ala 70.91 353 LR LR 00 32 24.9
comp=Z,2μm,21.9s,baz=144,slow=30
ERM Erimo 71.15 328 IAMs_20 IAMs_20 00 32 50.5
comp=Z,2μm,22.0s
PWJI Pagerwojo 72.03 267 P **P** **00 08 22.2 +3.4**
comp=Z,52nm,1.2s,comp=Z,52nm,1.2s
SNJI Sawahan-Nganju 72.14 267 P **P** **00 08 21.2 +1.6**
comp=Z,54nm,1.3s,comp=Z,54nm,1.3s
QSPA South Pole Qui 72.26 180 P **P** **00 08 19.3 -0.1**
comp=Z,10nm,0.8s,baz=45,slow=2.4,SNR=23
QSPA LR LR 00 36 19.0
comp=Z,938nm,20.1s,baz=33,slow=33
comp=Z,10nm,0.8s
QSPA South Pole Qui 72.26 180 P **P** **00 08 20.3 +0.9**
QSPA South Pole Qui 72.26 180 IAMs_20 IAMs_20 00 36 56.0
comp=Z,1μm,20.0s
PCJI Pacitan 72.58 267 P **P** **00 08 24.3 +2.3**
JNU Nakatsue 72.61 314 LR LR 00 34 48.8
comp=Z,1μm,21.6s,baz=125,slow=31
ASAJ Asahikawa 72.98 329 LR LR 00 37 19.4
comp=Z,525nm,19.2s,baz=81,slow=33
PKD Bear Valley Ra 73.96 43 P **P** **00 08 30.4 +0.7**
MHC Mount Hamilton 74.10 41 IAmb IAmb 00 08 36.5
comp=Z,93nm,1.9s
CVS Carmenet Viney 74.21 40 IAmb IAmb 00 08 40.6
comp=Z,44nm,1.4s
PET Petropavlovsk 74.22 344 *e*P **P** **00 08 27.0 -3.8**
PET *e* 00 11 12.8
PET *e*S **SKiKP** **00 18 00.2 +1.9**
PET *e* 00 18 37.6
PET MLR MLR
comp=Z,900nm,20.0s
PET MLR MLR
comp=Z,1μm,17.0s
KCPM Cahto Peak 74.38 39 IAmb IAmb 00 08 40.7
comp=Z,64nm,1.8s
PETK Petropavlovsk- 74.56 343 P **P** **00 08 32.0 -0.8**
comp=Z,6.0nm,0.8s,baz=120,slow=8.8,SNR=5.8
PETK LR LR 00 34 43.5
comp=Z,1μm,21.8s,baz=161,slow=30
comp=Z,6.0nm,0.8s
PETK Petropavlovsk- 74.56 343 P **P** **00 08 31.7 -1.2**
MWC Mount Wilson 74.62 46 IAmb IAmb 00 08 39.0
comp=Z,48nm,1.6s
KMRM Mail Ridge 74.65 38 IAmb IAmb 00 08 36.7
comp=Z,51nm,0.9s
ELS Elsinore Mount 74.73 47 IAmb IAmb 00 08 41.6
comp=Z,91nm,1.9s
ESJX Sierra Juarez 74.88 49 IAmb IAmb 00 08 41.2
comp=Z,47nm,1.6s
TPO Tropico Hills 74.88 45 IAmb IAmb 00 08 40.7
comp=Z,105nm,1.7s
YSS Yuzhno-Sakhali 75.00 331↑ *e*P **P** **00 08 36.2 +0.7**
YSS *e**SP **sP** **00 08 40.6 0.0**
YSS *e* 00 11 26.0
YSS *e*S **S** **00 18 13.4 +0.4**
YSS *e*PS **PnS** **00 19 02.3 +14**
YSS pmax pmax
comp=Z,700nm,3.5s
YSS smax smax
comp=N,500nm,8.0s
YSS MLR MLR
comp=N,500nm,16.0s
YSS MLR MLR
comp=Z,800nm,16.0s
YSS Yuzhno-Sakhali 75.00 331 IAMs_20 IAMs_20 00 34 35.5
comp=Z,1μm,22.0s
ISA Isabella, Lake 75.16 44 IAmb IAmb 00 08 42.4
comp=Z,119nm,1.9s
O02D Mt. Diablo Mer 75.16 39 IAmb IAmb 00 08 42.6
comp=Z,109nm,1.9s
SUTB Sutter Butte 75.17 40 IAmb IAmb 00 08 41.4
comp=Z,105nm,2.0s
BORC Borrego Spring 75.23 47 IAmb IAmb 00 08 42.5
comp=Z,64nm,1.9s
DNR Dunn Ranch,Anz 75.24 47 IAmb IAmb 00 08 44.8
comp=Z,60nm,1.5s
LPIG La Paz 75.27 58 LR LR 00 36 31.6
comp=Z,444nm,18.2s,baz=230,slow=32
CMB Columbia Colle 75.31 41 **P** **00 08 38.3 +0.7**
CMB IAMs_20 IAMs_20 00 33 46.3
comp=Z,751nm,18.0s
KRMB Red Mountain 75.37 37 IAmb IAmb 00 08 43.8
comp=Z,116nm,1.9s
PFO Pinyon Flats O 75.39 47 LR LR 00 36 03.3
comp=Z,528nm,18.3s,baz=253,slow=31
PFO Pinyon Flats O 75.39 47*ce*P **P** **00 08 39.9 +1.7**
PFO pmax pmax
comp=Z,9.0nm,1.1s
PFO Pinyon Flats O 75.39 47 P **P** **00 08 38.6 +0.4**
PFO IAmb IAmb 00 08 45.4
comp=Z,63nm,1.9s
PFO Pinyon Flats O 75.39 47 P **P** **00 08 39.5 +1.3**

comp=Z,17nm,2.5s
AONC Vina, CA USA 75.44 39 IAMs_20 IAMs_20 00 33 18.6
comp=Z,1µm,21.0s
LRMC Laurel Mtn Rad 75.59 45 IAmb IAmb 00 08 44.9
comp=Z,107nm,2.0s
O03E Paynes Creek 75.82 39 IAmb IAmb 00 08 46.3
comp=Z,66nm,1.5s
CWC Cottonwood Cre 75.87 44 IAmb IAmb 00 08 46.4
comp=Z,63nm,1.8s
M02C Callahan 75.89 38 IAmb IAmb 00 08 46.7
comp=Z,50nm,1.6s
BELC Belle Mtn. Jos 75.92 47 IAmb IAmb 00 08 49.6
comp=Z,89nm,1.9s
MPMC Manual Prospec 76.04 45 IAmb IAmb 00 08 47.6
comp=Z,101nm,1.8s
GSC Goldstone, Bar 76.08 45 IAmb IAmb 00 08 47.4
comp=Z,69nm,1.6s
BC3 Big Chuckawall 76.11 48 IAmb IAmb 00 08 48.1
comp=Z,54nm,1.7s
YBH Yreka Blue Hor 76.19 37 LR LR 00 36 18.1
comp=Z,459nm,19.3s,baz=240,slow=31
M03C McCloud 76.24 38 IAmb IAmb 00 08 45.3
comp=Z,28nm,1.0s
MPK Martis Peak 76.29 41 IAmb IAmb 00 08 50.6
comp=Z,65nm,1.5s
LEM Lembang 76.34 267 LR LR 00 42 22.9
comp=Z,397nm,20.1s,baz=173,slow=36
HATC Hat Creek Radi 76.35 39 IAmb IAmb 00 08 46.2
comp=Z,45nm,1.2s
PNTR Pine Nut 76.44 41 IAmb IAmb 00 08 49.5
comp=Z,90nm,1.8s
IRM Iron Mountain 76.60 47 IAmb IAmb 00 08 53.6
comp=Z,103nm,1.8s
YERR Yerington 76.60 41 IAmb IAmb 00 08 53.2
comp=Z,77nm,1.7s
GWY Greenwater Val 76.66 45 IAmb IAmb 00 08 53.6
comp=Z,68nm,1.7s
FURC Furnace Creek, 76.69 44 IAmb IAmb 00 08 50.9
comp=Z,90nm,1.6s
SHOC Shoshone, Teco 76.77 45 IAmb IAmb 00 09 04.2
comp=Z,82nm,1.6s
BLYC Blythe 76.82 48 IAmb IAmb 00 08 53.8
comp=Z,40nm,1.4s
TJN Taejon 76.84 315 *i* P P **00 08 44.0 -2.2**
RYN Ryan 76.84 42 IAmb IAmb 00 09 28.7
comp=Z,33nm,0.8s
113A Mohawk Valley, 76.84 49 IAmb IAmb 00 08 53.8
comp=Z,62nm,1.8s
NVAR Mina Array Bea 76.87 42 P P **00 08 47.5 +0.8**
comp=Z,7.8nm,0.9s,baz=227,slow=9.4,SNR=35
NVAR LR LR 00 35 23.7
comp=Z,436nm,20.4s,baz=220,slow=30
comp=Z,7.8nm,0.9s
NVAR Mina Array Bea 76.87 42 P P **00 08 46.7 0.0**
GMN Gold Mountain 76.90 44 IAmb IAmb 00 08 52.1
comp=Z,68nm,1.8s
PAHR Pah Rah Range 76.94 41 IAmb IAmb 00 08 52.4
comp=Z,83nm,2.0s
NV11 Mina Array Sit 76.96 42 IAmb IAmb 00 08 57.0
comp=Z,71nm,1.6s
WCT Wildcat Mounta 77.03 44 IAmb IAmb 00 08 52.9
comp=Z,55nm,1.6s
MTPC Mountain Pass 77.03 46 IAmb IAmb 00 08 56.1
comp=Z,110nm,1.9s
KSRS Korea Array 77.07 316 P P **00 08 47.7 +0.2**
comp=Z,2.3nm,0.9s,baz=138,slow=6.2,SNR=6.0
KSRS LR LR 00 39 15.3
comp=Z,754nm,19.6s,baz=125,slow=33
comp=Z,2.3nm,0.9s
KSAR Wonju Array Be 77.09 316 P P **00 08 47.0 -0.6**
KVN Kaiserville 77.36 42 IAmb IAmb 00 08 54.5
comp=Z,61nm,1.7s
TPNV Topopah Spring 77.37 44 IAmb IAmb 00 08 55.1
comp=Z,57nm,1.6s
KDAK Kodiak Island 77.49 12 LR LR 00 35 21.7
comp=Z,1µm,21.4s,baz=210,slow=30
J04A Umpqua Nationa 77.49 36 IAmb IAmb 00 08 52.4
comp=Z,34nm,0.8s
O15K Ungalikthiuk R 77.64 8 IAMs_20 IAMs_20 00 36 04.3
comp=Z,1µm,21.0s
P16K Nushagak River 77.75 9 IAMs_20 IAMs_20 00 35 22.3
comp=Z,1µm,20.0s
K05A Summer Lake 77.86 37 IAmb IAmb 00 08 56.7
comp=Z,84nm,1.7s
INCN Inchon 77.94 316 IAMs_20 IAMs_20 00 37 39.2
comp=Z,1µm,21.0s
TYV Tymovskoe 77.97 334 *e*P P 00 08 58.6 +6.4
TYV *e*S **SKSac** **00 18 57.5 -8.3**
TYV pmax pmax
comp=Z,22nm,1.1s
TYV pmax pmax
comp=Z,400nm,4.4s
TYV smax smax
comp=N,200nm,4.7s
TYV smax smax
comp=E,500nm,4.7s
TYV MLR MLR
comp=Z,1µm,21.0s
W13A Hualapai Mount 77.98 47 IAmb IAmb 00 09 01.6
comp=Z,57nm,1.8s
S11A Rachel 78.09 44 IAmb IAmb 00 09 34.4
comp=Z,76nm,1.7s
O16K Kokwok River B 78.28 8 IAMs_20 IAMs_20 00 38 26.2
comp=Z,1µm,20.0s
PRN Pahroc Range 78.42 44 IAmb IAmb 00 09 03.9
comp=Z,107nm,1.7s
N15K Kwethluk River 78.58 7 IAMs_20 IAMs_20 00 38 55.9
comp=Z,1µm,20.0s
USA0B Ussuriysk Arra 78.61 324 *i* P P **00 08 56.5 +0.5**
USRK Ussuriysk Ar. 78.61 324 P P **00 08 56.4 +0.5**
comp=Z,1.0nm,0.6s,baz=123,slow=5.7,SNR=1.7
USRK LR LR 00 37 24.4
comp=Z,2µm,21.9s,baz=137,slow=31
comp=Z,1.0nm,0.6s
USRK Ussuriysk Ar. 78.61 324 P P **00 08 55.2 -0.8**
BMN Battle Mountai 78.71 41 IAmb IAmb 00 09 01.9
comp=Z,91nm,1.8s
TUC Tucson 78.79 51 P P **00 08 57.4 0.0**
TUC Tucson 78.79 51 P P **00 08 59.6 +2.2**
comp=Z,22nm,1.7s
WVOR Wild Horse Val 79.01 39 IAmb IAmb 00 09 03.5
comp=Z,54nm,1.6s
WVOR Wild Horse Val 79.01 39 P P **00 08 59.6 +1.3**
X16A Lo Mia Camp, P 79.35 49 IAmb IAmb 00 09 08.4
comp=Z,71nm,1.8s
LCMT Little Creek M 79.43 46 IAmb IAmb 00 09 06.4
comp=Z,81nm,1.9s
M16K Timber Creek 79.55 8 IAmb IAmb 00 09 05.7
comp=Z,119nm,1.8s
KNB Kanab 79.72 46 IAmb IAmb 00 09 07.5
comp=Z,52nm,1.4s
U15A North Rim 79.78 47 IAmb IAmb 00 09 11.6
comp=Z,132nm,1.7s
SZCU Shurtz Canyon 79.84 45 IAmb IAmb 00 09 08.9
comp=Z,52nm,1.6s
WUAZ Wupatki 79.95 48 IAmb IAmb 00 09 09.7
comp=Z,60nm,1.6s
D05A Enumclaw 80.07 33 IAmb IAmb 00 09 14.0
comp=Z,60nm,1.5s
ELK Elko 80.13 42 LR LR 00 39 59.0
comp=Z,461nm,18.6s,baz=247,slow=32
DUN6 Lazy B Ranch 80.16 51 IAmb IAmb 00 09 07.7
comp=Z,66nm,0.9s
MDJ Mudanjiang 80.23 323 P P **00 09 06.5 +1.7**
MDJ S S **00 19 17.0 +7.3**
MDJ pmax pmax
comp=Z,25nm,2.3s
MDJ pmax pmax
comp=Z,650nm,3.5s
MDJ L L
comp=Z,700nm,24.0s
MDJ L L
comp=Z,1µm,24.1s
MDJ L L
comp=Z,3µm,23.2s
HKPS Hong Kong Po S 80.27 297 IAMs_20 IAMs_20 00 37 05.6
comp=Z,981nm,20.0s
HPIG 80.28 58 P P **00 09 07.5 +1.8**
comp=Z,11nm,1.1s
SLKM Skilak Lake 80.48 12 IAmb IAmb 00 09 06.9
comp=Z,77nm,1.4s
K15K Wolf Creek Mou 80.49 6 IAmb IAmb 00 09 10.8
comp=Z,85nm,1.6s
BBB Bella Bella 80.53 27 LR LR 00 39 50.4
comp=Z,488nm,18.1s,baz=223,slow=32
GRNR Gornyy 80.65 331 *e*P P **00 09 06.3 -0.6**
A04D Lummi Island 80.69 32 IAmb IAmb 00 09 09.3
comp=Z,32nm,1.0s

NJ2 Nanjing 80.70 308 *e*P P **00 09 08.0 +0.4**
NJ2 pmax pmax
comp=Z,9.0nm,0.5s
ZAIG Zacatecas 81.12 63 P P **00 09 13.7 +3.3**
comp=Z,22nm,1.6s
121A Cookes Peak, D 81.12 52 IAmb IAmb 00 09 16.4
comp=Z,101nm,1.9s
PWL Port Wells 81.18 13 IAmb IAmb 00 09 16.0
comp=Z,61nm,1.3s
K17K Iditarod 81.27 8 IAmb IAmb 00 09 14.9
comp=Z,62nm,1.7s
GAMB Gambell 81.34 1 IAMs_20 IAMs_20 00 37 28.4
comp=Z,1µm,22.0s
DUG Dugway, Tooele 81.39 43 P P **00 09 12.5 +1.2**
comp=Z,11nm,2.2s
J16K Anvik River 81.55 6 IAmb IAmb 00 09 20.9
comp=Z,48nm,1.4s
HMU Henry Mountain 81.61 46 IAmb IAmb 00 09 18.0
comp=Z,47nm,1.5s
BGU Big Grassy Mou 81.63 42 IAmb IAmb 00 09 17.9
comp=Z,56nm,2.0s
E09A Wood Farm, Sta 81.72 36 IAmb IAmb 00 09 17.2
comp=Z,76nm,2.0s
NLU North Lily Min 81.74 44 IAmb IAmb 00 09 21.7
comp=Z,63nm,1.9s
GHO Glory Hole Cre 81.89 12 IAmb IAmb 00 09 19.1
comp=Z,52nm,1.5s
GHO IAMs_20 IAMs_20 00 41 02.0
comp=Z,2µm,22.0s
KLR Kulʹdur 81.91 328 LR LR 00 39 21.0
comp=Z,982nm,21.7s,baz=142,slow=31
KLR Kulʹdur 81.91 328 *i* P P **00 09 13.9 +0.3**
KLR pmax pmax
comp=Z,7.0nm,1.0s
F10A Beach Ranch, E 81.92 36 IAmb IAmb 00 09 21.4
comp=Z,90nm,1.9s
TMUT Trail Mountain 81.98 44 IAmb IAmb 00 09 22.3
comp=Z,86nm,1.8s
DIV Divide 81.98 14 IAmb IAmb 00 09 20.2
comp=Z,91nm,1.6s
DL2 Dalian 82.04 315 P P **00 09 16.0 +1.5**
DL2 S **SKSac** **00 19 34.5 -0.3**
DL2 pmax pmax
comp=Z,22nm,1.0s
DL2 pmax pmax
comp=Z,460nm,4.5s
DL2 L L
comp=Z,890nm,19.9s
DL2 L L
comp=Z,930nm,19.4s
DL2 L L
comp=Z,2µm,22.0s
MA2 Magadan 82.10 343 LR LR 00 39 39.8
comp=Z,1µm,21.9s,baz=142,slow=31
MA2 Magadan 82.10 343 IAMs_20 IAMs_20 00 39 49.7
comp=Z,1µm,21.0s
BNX BinXian 82.14 323 ⇓P P **00 09 15.5 +0.6**
BNX pP **pP** **00 09 18.8 +0.2**
BNX S **S** **00 19 32.5 +3.0**
BNX sS **SKKSac** **00 19 37.5 -1.0**
BNX pmax pmax
comp=Z,18nm,1.2s
BNX pmax pmax
comp=Z,530nm,3.8s
BNX L L
comp=Z,560nm,19.0s
BNX L L
comp=Z,840nm,27.1s
BNX L L
comp=Z,2µm,26.9s
CN2 Changchun 82.19 321 *e*P P **00 09 17.8 +2.6**
CN2 *e*S **SKSac** **00 19 37.8 +2.2**
CN2 pmax pmax
comp=Z,10.0nm,2.0s
CN2 pmax pmax
comp=Z,90nm,3.4s
CN2 L L
comp=Z,90nm,13.0s
CN2 L L
comp=Z,110nm,13.0s
CN2 L L
comp=Z,130nm,10.0s
J18K Innoko River 82.19 8 IAmb IAmb 00 09 18.4
comp=Z,54nm,1.9s
HLID Hailey 82.20 40 P P **00 09 16.7 +1.1**
HLID IAmb IAmb 00 09 21.0
comp=Z,62nm,1.8s
HLID Hailey 82.20 40 P P **00 09 17.1 +1.5**
comp=Z,19nm,2.1s
SPUT South Promonto 82.21 42 IAmb IAmb 00 09 20.8
comp=Z,48nm,1.5s
SRU San Rafael Swe 82.34 45 IAmb IAmb 00 09 21.8
comp=Z,39nm,1.3s
Y22A Socorro 82.38 51 IAmb IAmb 00 09 22.8
comp=Z,64nm,1.7s
P17A Butcher Ranch, 82.38 45 IAmb IAmb 00 09 22.2
comp=Z,80nm,1.8s
K20K Telida 82.47 9 IAmb IAmb 00 09 19.2
comp=Z,43nm,1.7s
PMSA Palmer Station 82.47 156 LR LR 00 37 22.5
comp=Z,756nm,20.9s,baz=291,slow=29
VHRN Van Horn 82.48 54 IAmb IAmb 00 09 20.0
comp=Z,22nm,0.9s
MNTX Cornudas Mount 82.57 53 P P **00 09 19.7 +2.1**
comp=Z,22nm,1.1s
VRDI Verde Repeater 82.61 15 IAmb IAmb 00 09 21.9
comp=Z,66nm,1.4s
TLIG Tlapa 82.63 69 IAmb IAmb 00 09 25.6
comp=Z,63nm,1.9s
GLB Gilahina Butte 82.71 14 IAmb IAmb 00 09 24.3
comp=Z,62nm,1.6s
QIZ Qiongzhong 82.74 293 P P **00 09 18.0 -0.7**
QIZ S S **00 19 36.0 -0.8**
QIZ SS SS **00 24 58.5 -1.1**
QIZ pmax pmax
comp=Z,1µm,3.9s
QIZ L L
comp=Z,640nm,12.9s
QIZ L L
comp=Z,1µm,15.9s
QIZ L L
comp=Z,1µm,23.1s
P18A Preston Nutter 82.79 45 IAmb IAmb 00 09 28.9
comp=Z,38nm,1.5s
MVCO Mesa Verde 82.81 47 IAmb IAmb 00 09 34.2
comp=Z,34nm,1.4s
MVCO Mesa Verde 82.81 47 P P **00 09 19.2 +0.2**
comp=Z,15nm,2.1s
CAST Castle Rocks 82.84 10 IAMs_20 IAMs_20 00 40 38.8
comp=Z,1µm,21.0s
J19K Poorman 82.85 8 IAmb IAmb 00 09 22.0
comp=Z,47nm,1.8s
TXAR Lajitas Array 82.89 56 P P **00 09 20.9 +1.5**
comp=Z,5.5nm,0.9s,baz=211,slow=7.0,SNR=33
TXAR LR LR 00 41 17.5
comp=Z,257nm,18.5s,baz=250,slow=32
comp=Z,5.5nm,0.9s
TXAR Lajitas Array 82.89 56 P **00 09 20.1 +0.7**
BARN Barnard Glacie 82.91 15 IAmb IAmb 00 09 25.9
comp=Z,79nm,1.6s
BSUT Blindstream Ca 82.91 44 IAmb IAmb 00 09 26.8
comp=Z,70nm,1.6s
HWUT Hardware Ranch 82.93 42 IAmb IAmb 00 09 24.1
comp=Z,79nm,1.9s
HWUT Hardware Ranch 82.93 42 P P **00 09 20.8 +1.4**
comp=Z,18nm,1.9s
PV10 Paradox Valley 82.99 46 IAmb IAmb 00 09 21.6
comp=Z,40nm,0.9s
PV04 Paradox Valley 83.09 46 P P **00 09 21.0 +0.7**
PV04 IAmb IAmb 00 09 22.5
comp=Z,39nm,0.9s
TRF Thorofare Moun 83.18 11 IAmb IAmb 00 09 19.9
comp=Z,25nm,1.2s
TASM ASL Pad, Albuq 83.21 50 P **00 09 21.3 +0.3**
TASM ASL Pad, Albuq 83.21 50 P P **00 09 21.6 +0.6**
TASM IAmb IAmb 00 09 26.8
comp=Z,81nm,1.7s
ALQ Albuquerque 83.21 50 IAmb IAmb 00 09 26.7
comp=Z,79nm,1.6s
ANMO Albuquerque 83.21 50 LR LR 00 41 28.9
comp=Z,336nm,18.1s,baz=256,slow=32
ANMO Albuquerque 83.21 50 *e*P P **00 09 22.4 +1.4**
ANMO pmax pmax
comp=Z,54nm,1.6s
ANMO Albuquerque 83.21 50 P **00 09 21.6 +0.6**
ANMO IAmb IAmb 00 09 26.6
comp=Z,68nm,1.6s

ANMO Albuquerque 83.21 50 P P **00 09 22.8 +1.7**
comp=Z,25nm,1.5s
TPB28 83.23 54 IAmb IAmb 00 09 27.1
comp=Z,36nm,1.5s
TNA Tin City 83.25 3 IAMs_20 IAMs_20 00 40 25.2
comp=Z,1µm,20.0s
NEW Newport 83.32 35 LR LR 00 38 25.0
comp=Z,184nm,19.9s,baz=237,slow=30
NEW Newport 83.32 35 IAMs_20 IAMs_20 00 36 53.5
comp=Z,850nm,18.0s
DHY Denali Highway 83.38 12 IAmb IAmb 00 09 27.9
comp=Z,87nm,2.0s
S34M Telegraph Cree 83.56 22 IAmb IAmb 00 09 28.2
comp=Z,27nm,1.1s
PECS Pecos 83.59 54 IAmb IAmb 00 09 30.6
comp=Z,67nm,1.9s
PAX Paxson 83.68 13 IAmb IAmb 00 09 29.0
comp=Z,44nm,1.7s
TPB11 China Draw 83.71 54 IAmb IAmb 00 09 29.5
comp=Z,66nm,1.6s
RDMU Red Mountain 83.71 44 IAmb IAmb 00 09 28.4
comp=Z,69nm,1.7s
M26K Nabesna, AK 83.74 14 IAmb IAmb 00 09 28.9
comp=Z,55nm,1.5s
I20K Naaghedeneel 83.77 9 IAMs_20 IAMs_20 00 41 57.2
comp=Z,1µm,21.0s
AHID Auburn Hatcher 83.83 42 IAmb IAmb 00 09 28.9
comp=Z,38nm,1.3s
AHID Auburn Hatcher 83.83 42 P P **00 09 25.1 +1.1**
comp=Z,24nm,1.4s
H19K Roundabout Mou 84.20 7 IAmb IAmb 00 09 29.7
comp=Z,56nm,1.4s
DLMT Dillon 84.27 39 IAmb IAmb 00 09 31.2
comp=Z,64nm,1.6s
MSO Missoula 84.28 37 IAmb IAmb 00 09 30.4
comp=Z,69nm,1.8s
DLBC Dease Lake 84.34 22 P P **00 09 26.3 +0.2**
comp=Z,6.3nm,0.9s,baz=224,slow=4.9,SNR=6.6
comp=Z,6.3nm,0.9s
SAND Sanderson 84.37 56 IAmb IAmb 00 09 32.6
comp=Z,45nm,1.8s
MNHN Monahans 84.44 55 IAmb IAmb 00 09 34.5
comp=Z,28nm,1.3s
RIDG Independent Ri 84.50 13 IAmb IAmb 00 09 30.6
comp=Z,61nm,1.6s
SEY Seymchan 84.53 345 LR LR 00 42 55.8
comp=Z,1µm,20.2s,baz=150,slow=33
SEY Seymchan 84.53 345 *i* P P **00 09 26.8 0.0**
SEY pmax pmax
comp=Z,16nm,0.9s
MLY Manley 84.56 10 IAmb IAmb 00 09 32.1
comp=Z,66nm,1.8s
L27K Beaver Creek, 84.58 14 IAmb IAmb 00 09 33.4
comp=Z,83nm,1.9s
DOT Dot Lake 84.58 13 IAmb IAmb 00 09 33.9
comp=Z,47nm,1.5s
USHA Ushuaia 84.59 146 LR LR 00 38 10.1
comp=Z,670nm,20.7s,baz=258,slow=29
BCAR Beaver Creek A 84.59 14 P **00 09 27.2 0.0**
G19K Purcell Mounta 84.72 7 IAMs_20 IAMs_20 00 43 24.3
comp=Z,942nm,18.0s
R33M Jennings River 84.73 21 IAmb IAmb 00 09 30.2
comp=Z,41nm,1.4s
P33M Teslin, Yukon 84.75 20 IAmb IAmb 00 10 24.2
comp=Z,54nm,1.8s
HEH HeiHe 84.76 327 *e*P P **00 09 29.0 +0.7**
HEH pP **sP** **00 09 33.5 +0.1**
HEH S **S** **00 19 58.5 +2.6**
HEH pmax pmax
comp=Z,14nm,1.4s
HEH L L
comp=Z,1µm,22.8s
HEH L L
comp=Z,1µm,21.0s
HEH L L
comp=Z,3µm,22.9s
YPP Pitchstone Pla 84.78 40 IAmb IAmb 00 09 37.3
comp=Z,38nm,1.8s
BW06 Boulder Array 84.81 42 IAmb IAmb 00 09 33.5
comp=Z,63nm,1.9s
PD31 Pinedale Array 84.81 42 IAmb IAmb 00 09 33.5
comp=Z,63nm,1.9s
PDAR Pinedale Array 84.81 42 P P **00 09 29.0 0.0**
comp=Z,6.4nm,0.8s,baz=213,slow=3.1,SNR=57
PDAR LR LR 00 41 15.3
comp=Z,408nm,20.5s,baz=251,slow=31
comp=Z,6.4nm,0.8s
PDAR Pinedale Array 84.81 42 P **00 09 28.5 -0.6**
YFT Old Faithful 84.86 40 IAmb IAmb 00 09 38.4
comp=Z,70nm,1.9s
SCRK Sand Creek 84.89 13 IAmb IAmb 00 09 31.9
comp=Z,47nm,1.7s
YMR Madison River 84.89 40 IAmb IAmb 00 09 35.1
comp=Z,26nm,1.4s
M29M Somme Creek 84.90 16 IAmb IAmb 00 09 33.2
comp=Z,83nm,1.9s
I23K Minto, Yukon-K 84.90 10 IAmb IAmb 00 09 35.1
comp=Z,50nm,1.5s
COLA College 84.92 11 *i* P P **00 09 28.5 -0.2**
COLA pmax pmax
comp=Z,27nm,1.1s
COLA College 84.92 11 P P **00 09 28.0 -0.7**
COLA College 84.92 11 P P **00 09 28.5 -0.2**
comp=Z,32nm,1.8s
ODSA Odessa 84.93 54 IAmb IAmb 00 09 32.5
comp=Z,42nm,1.1s
BOZ Bozeman (W) 84.97 39 IAmb IAmb 00 09 34.8
comp=Z,54nm,1.7s
H17A Grant Village 84.99 40 IAmb IAmb 00 09 36.0
comp=Z,53nm,1.9s
IMAR Indian Mountai 84.99 8 P P **00 09 29.0 -0.1**
ILAR Eielson Array 85.01 12 P P **00 09 28.1 -1.1**
comp=Z,7.8nm,1.1s,baz=220,slow=5.3,SNR=28
ILAR LR LR 00 39 52.4
comp=Z,774nm,21.5s,baz=209,slow=30
comp=Z,7.8nm,1.1s
ILAR Eielson Array 85.01 12 P **00 09 28.7 -0.5**
YHH Holmes Hill 85.02 40 IAmb IAmb 00 09 38.7
comp=Z,61nm,1.6s
TMB01 Midkiff 85.10 55 IAmb IAmb 00 09 36.3
comp=Z,64nm,1.9s
GBMT Granite Butte, 85.15 38 IAmb IAmb 00 09 32.9
comp=Z,61nm,1.7s
J25K Salcha River, 85.16 12 IAmb IAmb 00 09 36.8
comp=Z,42nm,1.4s
SDCO Great Sand Dun 85.17 48 IAmb IAmb 00 09 36.2
comp=Z,50nm,2.0s
MAW Mawson 85.17 199 P P **00 09 30.6 +0.5**
comp=Z,3.4nm,1.1s
MAW Mawson 85.17 199 P P **00 09 29.6 -0.6**
comp=Z,12nm,1.0s,baz=113,slow=7.7,SNR=8.0
MAW LR LR 00 44 21.9
comp=Z,781nm,21.7s,baz=119,slow=34
comp=Z,12nm,1.0s
MAW Mawson 85.17 199 P P **00 09 29.1 -1.0**
MAW Mawson 85.17 199 P P **00 09 30.7 +0.5**
comp=Z,3.4nm,1.1s
128A Castleberry Fa 85.18 54 IAmb IAmb 00 09 33.8
comp=Z,24nm,0.9s
H22K Ishtalitna Cre 85.26 9 IAmb IAmb 00 09 37.4
comp=Z,55nm,1.5s
F19K Shaleruckik Mo 85.31 7 IAMs_20 IAMs_20 00 41 28.7
comp=Z,837nm,20.0s
K27K Chicken 85.36 14 IAmb IAmb 00 09 35.7
comp=Z,72nm,1.7s
229A Bryant Ranch, 85.44 55 IAmb IAmb 00 09 35.0
comp=Z,19nm,1.0s
M30M Minto, Yukon 85.45 17 IAmb IAmb 00 09 38.5
comp=Z,46nm,1.4s
MSTX Muleshoe 85.53 52 IAmb IAmb 00 09 35.3
comp=Z,44nm,1.1s
G21K Allakaket 85.53 8 IAmb IAmb 00 09 39.0
comp=Z,56nm,1.5s
G21K IAMs_20 IAMs_20 00 40 13.8
comp=Z,1µm,20.0s
C15A Salmond Ranch, 85.55 37 IAmb IAmb 00 09 36.8
comp=Z,52nm,1.6s
YNE Yellowstone No 85.65 40 IAmb IAmb 00 09 38.7
comp=Z,30nm,1.4s
F20K Avaraart Lake 85.75 7 IAmb IAmb 00 09 37.2
comp=Z,66nm,1.9s
F20K IAMs_20 IAMs_20 00 43 29.5
comp=Z,1µm,21.0s
CMIG Matias Romero 85.76 71 LR LR 00 39 04.9
comp=Z,440nm,21.3s,baz=251,slow=30
COYC Coyhaique 85.92 137 P P **00 09 36.4 +2.0**
COYC IAmb IAmb 00 09 41.2
comp=Z,48nm,1.3s

COYC Coyhaique 85.92 137 P **P** 00 09 38.0 +3.7
comp=Z,34nm,2.3s
E19K Redstone River 85.97 7 IAmb IAmb 00 09 41.1
comp=Z,54nm,1.5s
ISCO Idaho Springs 86.01 46 P **P** 00 09 36.3 +1.1
POST Post 86.12 54 IAmb IAmb 00 09 37.9
comp=Z,37nm,1.0s
HNS HongShan 86.15 311 ⇑P **P** 00 09 36.5 +1.0
HNS S **SKSac** 00 20 05.3 +3.8
HNS SS **SS** 00 25 53.0 +3.7
HNS pmax pmax
comp=Z,20nm,1.7s
HNS L L
comp=Z,370nm,18.5s
HNS L L
comp=Z,960nm,21.1s
HNS L L
comp=Z,1μm,21.6s
RLMT Red Lodge 86.16 40 IAmb IAmb 00 09 40.9
comp=Z,39nm,1.6s
F21K Alatna River 86.20 8 IAmb IAmb 00 09 39.0
comp=Z,75nm,2.0s
F21K IAMs_20 IAMs_20 00 43 15.4
comp=Z,1μm,20.0s
BJI2 Beijing 86.28 314 P **P** 00 09 35.0 -1.1
BJI2 pP **pP** 00 09 39.8 -0.1
BJI2 PP **PP** 00 12 58.0 +0.6
BJI2 SKS **SKSac** 00 19 56.5 -5.7
BJI2 SS **SS** 00 25 51.0 -0.1
BJI2 pmax pmax
comp=Z,21nm,2.9s
BJI2 pmax pmax
comp=Z,490nm,3.7s
BJI2 L L
comp=Z,350nm,20.1s
BJI2 L L
comp=Z,540nm,22.3s
BJI2 L L
comp=Z,930nm,23.4s
BJT Baijiatuan 86.28 314 IAMs_20 IAMs_20 00 41 37.6
comp=Z,953nm,22.0s
K29M Barlow Dome 86.30 16 IAmb IAmb 00 09 43.4
comp=Z,52nm,1.4s
LYN LuoYang 86.60 308 P **P** 00 09 38.5 +0.7
LYN S **SKSac** 00 20 08.8 +4.3
LYN pmax pmax
comp=Z,24nm,1.1s
LYN pmax pmax
comp=Z,690nm,4.8s
LYN L L
comp=Z,830nm,15.7s
LYN L L
comp=Z,850nm,16.5s
LYN L L
comp=Z,2μm,27.1s
J29N Klondike Camp 86.62 15 IAmb IAmb 00 09 42.1
comp=Z,49nm,1.3s
BILI Bilibino, Chuk 86.72 353 P **P** 00 09 37.7 +0.1
comp=Z,26nm,1.2s
AMTX Amarillo 86.72 52 IAmb IAmb 00 09 43.5
comp=Z,43nm,1.5s
BILL Bilibino 86.72 353 *ce*P **P** 00 09 37.4 -0.3
BILL pmax pmax
comp=Z,15nm,0.9s
BILL Bilibino 86.72 353 P **P** 00 09 35.6 -2.0
BILL IAmb IAmb 00 09 45.7
comp=Z,38nm,1.2s
BILL IAMs_20 IAMs_20 00 44 05.4
comp=Z,1μm,20.0s
C18K Utukok River 86.75 5 IAMs_20 IAMs_20 00 45 14.5
comp=Z,988nm,18.0s
I27K Kandik River 86.81 13 IAmb IAmb 00 09 44.3
comp=Z,30nm,1.4s
D19K Kuna River 86.88 6 IAmb IAmb 00 09 47.0
comp=Z,85nm,2.0s
ZEA Zeya 86.89 330 *e*P **P** 00 09 39.2 +0.4
ZEA *e*S **S** 00 20 17.2 +0.6
ZEA pmax pmax
comp=Z,10.0nm,1.1s
ZEA pmax pmax
comp=Z,300nm,5.2s
ZEA smax smax
comp=E,200nm,12.3s
LL02 Futaleuf 86.94 134 P **P** 00 09 38.1 -1.4
LL02 IAmb IAmb 00 09 48.5
comp=Z,27nm,1.2s
LL02 Futaleuf 86.94 134 P **P** 00 09 42.1 +2.6
comp=Z,21nm,1.1s
I28M Miner Creek 87.05 14 IAmb IAmb 00 09 46.4
comp=Z,48nm,1.6s
J30M Hart River 87.20 16 IAmb IAmb 00 09 44.7
comp=Z,26nm,1.4s
ENH Enshi 87.23 303 P **P** 00 09 41.8 +0.7
comp=Z,32nm,1.1s
E21K Killik River 87.29 7 IAMs_20 IAMs_20 00 42 17.8
comp=Z,1μm,19.0s
H27K Steamboat Moun 87.37 13 IAmb IAmb 00 09 45.3
comp=Z,49nm,1.8s
BRDY Brady 87.37 56 IAmb IAmb 00 09 48.8
comp=Z,46nm,1.3s
RPSI Rantau Prapat 87.46 274 P **P** 00 09 40.2 -2.3
RPSI IAmb IAmb 00 09 49.4
comp=Z,21nm,1.2s
RPSI IAMs_20 IAMs_20 00 56 16.3
comp=Z,619nm,19.0s
RPSI Rantau Prapat 87.46 274 P **P** 00 09 41.2 -1.3
comp=Z,16nm,1.7s
I30M Mount Dempster 87.71 15 IAmb IAmb 00 09 46.9
comp=Z,45nm,1.4s
F25K Christian Rive 87.76 11 IAmb IAmb 00 09 55.5
comp=Z,47nm,1.9s
BMAR Burnt Mountain 87.81 11 **P** 00 09 43.0 +0.1
LR05 Currie 87.92 132 **P** 00 09 44.9 +0.6
TIY Taiyuan 87.92 311 *e*P **P** 00 09 45.0 +0.8
TIY SKS **SKSac** 00 20 07.8 -4.8
TIY S **SKKSac** 00 20 22.0 -0.6
TIY L L
comp=Z,380nm,27.5s
TIY L L
comp=Z,690nm,24.7s
TIY L L
comp=Z,1μm,27.5s
H29M Whitestone 88.05 14 IAmb IAmb 00 09 45.9
comp=Z,24nm,1.3s
TOLK Toolik Lake Re 88.07 9 IAmb IAmb 00 10 23.0
comp=Z,48nm,2.0s
XLT XiLinHaoTe 88.09 317 *e*P **P** 00 09 46.5 +1.6
XLT pP sP 00 09 50.5 +0.4
XLT SKS **SKSac** 00 20 15.8 +2.4
XLT S **ScS** 00 20 33.0 -2.0
XLT pmax pmax
comp=Z,18nm,1.7s
XLT pmax pmax
comp=Z,400nm,3.7s
XLT L L
comp=Z,430nm,20.4s
XLT L L
comp=Z,560nm,19.4s
D23K Nanushuk River 88.21 8 IAmb IAmb 00 09 51.2
comp=Z,52nm,1.8s
435B Jarrell 88.31 57 IAmb IAmb 00 09 49.4
comp=Z,31nm,1.1s
GSI Gunungsitoli 88.32 272 P **P** 00 09 44.0 -2.6
GSI Gunungsitoli 88.32 272 P **P** 00 09 47.1 +0.5
comp=Z,40nm,2.2s
HIA Hailar 88.41 323 P **P** 00 09 46.8 +0.5
comp=Z,16nm,2.4s
GO06 Curarrehue 88.53 131 P **P** 00 09 50.3 +2.9
comp=Z,22nm,2.7s
HILR Hailar Array B 88.55 324 P **P** 00 09 46.6 -0.3
comp=Z,3.0nm,0.6s,baz=126,slow=7.5,SNR=8.8
HILR LR LR 00 43 46.0
comp=Z,1μm,21.6s,baz=120,slow=32
comp=Z,3.0nm,0.6s
H31M Peel River 88.69 15 IAmb IAmb 00 10 04.4
comp=Z,38nm,1.6s
PLCA Paso Flores 88.76 132 P **P** 00 09 48.9 +0.5
comp=Z,3.1nm,0.9s,baz=259,slow=8.8,SNR=4.5
PLCA LR LR 00 41 07.8
comp=Z,610nm,21.3s,baz=224,slow=30
comp=Z,3.1nm,0.9s
SLVN Son La 88.77 293 IAMs_20 IAMs_20 00 44 43.8
comp=Z,700nm,22.0s
RSSD Black Hills 88.99 43 **P** 00 09 49.2 -0.1
RSSD Black Hills 88.99 43 P **P** 00 09 50.1 +0.7
comp=Z,13nm,1.1s
XAN Xi'an 89.10 306 P **P** 00 09 50.5 +0.6
XAN pP sP 00 09 55.5 +0.5
XAN S **S** 00 20 38.3 -0.4
XAN pmax pmax
comp=Z,12nm,1.2s
XAN L L
comp=Z,400nm,13.1s
XAN L L
comp=Z,590nm,17.9s
XAN L L
comp=Z,900nm,17.9s
C24K Franklin Bluff 89.19 9 IAmb IAmb 00 11 08.4
comp=Z,32nm,1.6s
HKT Hockley 89.42 58 *i* P **P** 00 09 54.2 +2.9
HKT pmax pmax
comp=Z,27nm,1.4s
HKT Hockley 89.42 58 P **P** 00 09 51.6 +0.4
HKT Hockley 89.42 58 P **P** 00 09 53.9 +2.6
comp=Z,41nm,2.1s
OK038 West end E0370 89.55 51 IAMs_20 IAMs_20 00 45 45.2
comp=Z,863nm,21.0s
ELIB Princess Elisa 89.66 186 *d*P **P** 00 09 51.5 -0.5
comp=Z,13nm,1.1s
CBKS Cedar Bluff 89.73 49 IAMs_20 IAMs_20 00 52 31.5
comp=Z,571nm,18.0s
BI02 San Fabin de 89.77 129 IAMs_20 IAMs_20 00 40 12.2
comp=Z,1μm,21.0s
F30M Barrier River 89.78 14 IAmb IAmb 00 09 53.9
comp=Z,35nm,1.6s
HHC Hu-ho-hao-te 89.81 313 *e*P **P** 00 09 53.3 +0.2
HHC pmax pmax
comp=Z,10.0nm,1.1s
HHC pmax pmax
comp=Z,400nm,4.3s
HHC L L
comp=Z,360nm,19.1s
HHC L L
comp=Z,510nm,19.9s
HHC L L
comp=Z,940nm,19.9s
GO05 Hualane 89.89 127 IAMs_20 IAMs_20 00 40 03.5
comp=Z,1μm,19.0s
FNO Franklin 90.10 53 IAmb IAmb 00 09 57.4
comp=Z,16nm,0.8s
F31M Tsiigehtchic 90.13 15 P **P** 00 09 53.8 0.0
OK029 Liberty Lake 90.26 52 IAMs_20 IAMs_20 00 45 45.1
comp=Z,780nm,19.0s
R32A Long Quarter, 90.32 50 IAmb IAmb 00 10 01.9
comp=Z,35nm,1.3s
TROLL Troll, Antarti 90.40 179 ⇑P **P** 00 09 55.3 -0.2
comp=Z,750nm,0.8s
SNAA Sanae 90.58 177 P **P** 00 09 56.2 -0.1
comp=Z,149nm,0.9s
SNAA Sanae 90.58 177 P **P** 00 09 55.7 -0.5
comp=Z,7.3nm,0.9s,baz=173,slow=4.4,SNR=9.1
SNAA LR LR 00 47 55.3
comp=Z,489nm,20.1s,baz=190,slow=34
comp=Z,7.3nm,0.9s
SNAA Sanae 90.58 177 **P** 00 09 56.1 -0.1
SNAA IAMs_20 IAMs_20 00 47 22.6
comp=Z,713nm,20.0s
SNAA Sanae 90.58 177 P **P** 00 09 54.6 -1.6
comp=Z,13nm,1.4s
VNA3 Neumayer Olymp 90.58 175 ⇑P **P** 00 09 56.1 -0.1
comp=Z,17nm,0.7s
VNA3 Neumayer Olymp 90.58 175 P **P** 00 09 56.1 -0.1
comp=Z,34nm,0.8s
MT01 Popeta 90.83 126 P **P** 00 09 58.0 -0.1
YAK Yakutsk 90.85 337 LR LR 00 50 07.3
comp=Z,299nm,18.5s,baz=109,slow=35
YAK Yakutsk 90.85 337 IAMs_20 IAMs_20 00 44 03.9
comp=Z,879nm,22.0s
INK Inuvik 90.86 14 P **P** 00 09 57.1 -0.1
comp=Z,8.5nm,1.2s,baz=216,slow=5.3,SNR=11
INK LR LR 00 43 24.9
comp=Z,518nm,21.4s,baz=211,slow=31
comp=Z,8.5nm,1.2s
INK Inuvik 90.86 14 IAmb IAmb 00 10 01.2
comp=Z,32nm,1.5s
INK Inuvik 90.86 14 P **P** 00 09 57.8 +0.6
comp=Z,10nm,1.2s
BTO2 Baotou 90.95 313 *e*P **P** 00 10 01.8 +3.3
BTO2 SKS **SKSac** 00 20 31.5 +1.1
BTO2 S **S** 00 20 55.8 +0.1
BTO2 pmax pmax
comp=Z,31nm,2.1s
BTO2 pmax pmax
comp=Z,950nm,5.0s
BTO2 L L
comp=Z,2μm,20.3s
BTO2 L L
comp=Z,2μm,22.9s
BTO2 L L
comp=Z,3μm,24.7s
KMI2 Kunming 91.03 296 P **P** 00 10 03.0 +3.7
KMI2 pmax pmax
comp=Z,24nm,1.9s
KMI2 pmax pmax
comp=Z,430nm,5.5s
KMI2 L L
comp=Z,460nm,21.2s
KMI2 L L
comp=Z,720nm,19.8s
KMI2 L L
comp=Z,1μm,27.3s
VNA2 Neumayer--Watz 91.06 176 P **P** 00 09 55.5 -2.9
comp=Z,52nm,0.9s
VNA1 Neumayer--Stat 91.27 175 ⇑P **P** 00 09 59.6 +0.3
comp=Z,32nm,1.0s
PEL Peldehue 91.54 125 IAMs_20 IAMs_20 00 40 10.2
comp=Z,919nm,20.0s
NVL N'lazarevskaya 91.56 182 *e*P **P** 00 09 59.7 -0.9
NVL pmax pmax
comp=Z,10.0nm,0.9s
NVL MLR MLR
comp=Z,1μm,18.0s
CO04 Los Peladeros 91.73 124 IAMs_20 IAMs_20 00 41 12.5
comp=Z,1μm,20.0s
VA03 San Esteban 91.79 125 IAMs_20 IAMs_20 00 39 31.0
comp=Z,1μm,22.0s
MT08 Bocatoma Ro 91.94 126 IAMs_20 IAMs_20 00 40 34.1
comp=Z,1μm,21.0s
CD2 Chengdu 92.08 302 P **P** 00 10 08.3 +4.5
CD2 SKS **SKSac** 00 20 40.0 +2.9
CD2 S **ScS** 00 21 12.0 +3.4
CD2 pmax pmax
comp=Z,20nm,0.6s
CD2 L L
comp=Z,490nm,13.3s
CD2 L L
comp=Z,840nm,13.3s
CD2 L L
comp=Z,810nm,15.2s
CMAR Chiang Mai Arr 92.28 289 P **P** 00 10 04.6 -0.4
comp=Z,0.8nm,0.3s,baz=123,slow=3.0,SNR=9.7
CMAR LR LR 00 48 59.5
comp=Z,414nm,19.6s,baz=105,slow=34
comp=Z,0.8nm,0.3s
CMAR Chiang Mai Arr 92.28 289 *ce*P **P** 00 10 06.1 +1.1
CMAR pmax pmax
comp=Z,5.0nm,1.1s
CMAR Chiang Mai Arr 92.28 289 P **P** 00 10 04.2 -0.8
PZH PanZhiHua 92.32 297 P **P** 00 10 09.3 +4.1
PZH SKS **SKSac** 00 20 40.3 +1.5
PZH S **ScS** 00 21 12.0 +1.0
PZH pmax pmax
comp=Z,10.0nm,2.9s
PZH pmax pmax
comp=Z,340nm,4.6s
PZH L L
comp=Z,400nm,21.4s
PZH L L
comp=Z,400nm,22.2s
PZH L L
comp=Z,620nm,19.8s
CHTO Chiang Mai 92.38 289 P **P** 00 10 08.9 +3.5
comp=Z,7.4nm,1.4s
SUSD Miller 92.45 44 IAMs_20 IAMs_20 00 48 34.9
comp=Z,690nm,19.0s
YKA Yellowknife Ar 92.74 24 P **P** 00 10 05.6 -0.5
comp=Z,1.7nm,1.0s,baz=243,slow=4.1,SNR=9.4
YKA LR LR 00 47 14.2
comp=Z,557nm,18.6s,baz=250,slow=32
comp=Z,1.7nm,1.0s
YKA Yellowknife Ar 92.74 24 P **P** 00 10 04.5 -1.5
JTS Las Juntas de 92.76 80 LR LR 00 40 58.6
comp=Z,327nm,21.9s,baz=246,slow=28
JTS Las Juntas de 92.76 80 *i* P **P** 00 10 08.6 +1.3
JTS pmax pmax
comp=Z,11nm,1.0s
JTS Las Juntas de 92.76 80 P **P** 00 10 07.2 -0.1
JTS IAmb IAmb 00 10 13.1
comp=Z,29nm,1.4s
YKAW1 Yellowknife Wh 92.78 24 IAmb IAmb 00 11 13.0
comp=Z,35nm,1.9s
MIAR Mount Ida 92.79 55 P **P** 00 10 09.1 +2.1
comp=Z,17nm,1.5s
U38A Gravette 92.81 53 IAmb IAmb 00 10 11.9
comp=Z,17nm,1.3s
X40A Basin Creek Fa 93.35 55 IAmb IAmb 00 10 15.0
comp=Z,35nm,1.8s
NNA Nana 93.62 104 LR LR 00 45 12.1
comp=Z,270nm,18.9s,baz=243,slow=31
ATAH Atahualpa 93.71 99 LR LR 00 41 54.3
comp=Z,674nm,20.9s,baz=239,slow=29
LZH Lanzhou 93.72 307 *e*P **P** 00 10 15.0 +3.6
LZH sP sP 00 10 24.5 +7.9
LZH pmax pmax
comp=Z,72nm,1.1s
LZH pmax pmax
comp=Z,330nm,5.0s
LZH L L
comp=Z,340nm,18.0s
LZH L L
comp=Z,650nm,18.4s
LZH L L
comp=Z,780nm,19.1s
ECSD EROS Data Cent 93.75 45 **P** 00 10 11.1 -0.1
ECSD IAmb IAmb 00 10 12.8
comp=Z,18nm,1.4s
ECSD EROS Data Cent 93.75 45 P **P** 00 10 11.9 +0.7
comp=Z,12nm,1.7s
LZDM Lanzhou Array 93.79 306 P **P** 00 10 12.5 +0.5
comp=Z,0.8nm,0.3s,baz=101,slow=4.6,SNR=4.3
LZDM LR LR 00 48 59.8
comp=Z,451nm,21.8s,baz=60,slow=33
comp=Z,0.8nm,0.3s
UALR University of 93.83 55 IAmb IAmb 00 10 14.2
comp=Z,22nm,1.1s
C36M Paulatuk 93.96 16 IAmb IAmb 00 10 15.2
comp=Z,57nm,1.9s
S39A Bolivar 94.03 52 IAmb IAmb 00 10 20.1
comp=Z,49nm,1.9s
CFA Coronel Fontan 94.05 125 LR LR 00 42 39.7
comp=Z,336nm,21.9s,baz=216,slow=29
FCAR Ozark Folk Cen 94.36 54 IAmb IAmb 00 10 19.7
comp=Z,15nm,1.1s
TNCH TengChong 94.63 295 P **P** 00 10 15.8 -0.1
TNCH sP sP 00 10 20.3 -0.7
TNCH SKS **SKSac** 00 20 51.5 -0.2
TNCH pmax pmax
comp=Z,400nm,3.7s
TNCH L L
comp=Z,550nm,20.9s
TNCH L L
comp=Z,470nm,22.1s
TNCH L L
comp=Z,1μm,25.6s
F33A 5 Mile Ranch, 94.72 43 IAmb IAmb 00 10 20.8
comp=Z,17nm,1.3s
LCAR Lake Charles 95.16 54 IAmb IAmb 00 10 24.5
comp=Z,23nm,1.4s
AC02 Maricunga 95.20 120 IAMs_20 IAMs_20 00 42 28.9
comp=Z,851nm,21.0s
ULN Ulaanbaatar 95.45 319 *i* P **P** 00 10 18.6 -0.5
ULN pmax pmax
comp=Z,3.0nm,1.1s
ULN Ulaanbaatar 95.45 319 IAMs_20 IAMs_20 00 48 18.3
comp=Z,657nm,22.0s
SONM Songino Array 95.86 318 P **P** 00 10 22.0 +1.1
comp=Z,0.4nm,0.7s,baz=96,slow=3.8,SNR=4.3
SONM LR LR 00 49 15.1
comp=Z,527nm,21.7s,baz=116,slow=33
comp=Z,0.4nm,0.7s
SONM Songino Array 95.86 318 IAmb IAmb 00 10 23.3
comp=Z,11nm,1.8s
ULM Lac du Bonnet 96.51 39 LR LR 00 47 03.6
comp=Z,639nm,20.8s,baz=259,slow=31
TA01 Diego Aracena 96.67 114 IAMs_20 IAMs_20 00 41 36.2
comp=Z,735nm,22.0s
TIXI Tiksi 96.99 345 LR LR 00 49 03.1
comp=Z,852nm,21.7s,baz=154,slow=32
TIXI Tiksi 96.99 345 *ce*P **P** 00 10 24.9 -0.4
TIXI pmax pmax
comp=Z,4.0nm,1.0s
TIXI Tiksi 96.99 345 **P** 00 10 24.6 -0.7
TIXI IAmb IAmb 00 10 32.6
comp=Z,9.2nm,1.1s
TIXI Tiksi 96.99 345 IAMs_20 IAMs_20 01 00 44.2
comp=Z,1μm,22.0s
TIXI Tiksi 96.99 345 P **P** 00 10 24.6 -0.7
comp=Z,12nm,1.2s
PB09 IPOC Station P 97.03 115 IAMs_20 IAMs_20 00 43 39.5
comp=Z,977nm,19.0s
PB08 IPOC Station P 97.73 114 IAMs_20 IAMs_20 00 43 43.1
comp=Z,777nm,22.0s
GTA2 Gaotai 97.84 309 *e*P Pdif 00 10 31.8 +1.7
GTA2 SKS **SKSac** 00 21 10.0 +2.3
GTA2 pmax pmax
comp=Z,5.0nm,1.5s
GTA2 L L
comp=Z,280nm,22.5s
GTA2 L L
comp=Z,810nm,24.1s
GTA2 L L
comp=Z,2μm,23.5s
GO01 Chusmiza 97.87 113 IAMs_20 IAMs_20 00 44 00.9
comp=Z,767nm,20.0s
JFWS Jewell Farm 97.89 48 IAMs_20 IAMs_20 00 52 45.3
comp=Z,879nm,20.0s
TLY Talaya 98.78 321 LR LR 00 49 36.2
comp=Z,804nm,21.9s,baz=102,slow=32
BRDH Bariadhala 100.03 291 LR LR 00 53 34.3
comp=Z,501nm,20.6s,baz=151,slow=34
P48A Milroy 100.47 52 IAMs_20 IAMs_20 00 51 43.2
comp=Z,666nm,18.0s
LSA Lhasa 102.19 297 IAMs_20 IAMs_20 00 52 45.9
comp=Z,595nm,22.0s
WMQ Urumqi 107.58 311 Pdif **Pdif** 00 11 13.5 +0.2
WMQ L L
comp=Z,420nm,23.8s
WMQ L L
comp=Z,670nm,23.7s
WMQ L L
comp=Z,770nm,20.9s
SDDR Presa de Saban 107.81 75 IAMs_20 IAMs_20 00 49 27.7
comp=Z,691nm,22.0s
HYB Hyderabad 110.73 282 *e*PKiKP **PKiKP** 00 15 27.4 -0.6
HYB *e*PP **PP** 00 16 06.3 +1.2
HYB *e*SKSdf **SKSdf** 00 22 39.2 -1.1
MKAR Makanchi Array 111.67 314 *c i* PKiKP **PKiKP** 00 15 27.8 -1.2
MKAR pmax pmax
comp=Z,2.0nm,0.9s
MAKZ Makanchi 111.88 314 IAMs_20 IAMs_20 00 58 06.0
comp=Z,530nm,21.0s
KURK Kurchatov 114.16 318 *c i* PKiKP **PKiKP** 00 15 33.8 +0.3
KURK pmax pmax
comp=Z,12nm,1.7s
KURK Kurchatov 114.16 318 PKPdf 00 15 33.2 -0.3
KURK Kurchatov 114.16 318 IAMs_20 IAMs_20 00 59 01.3
comp=Z,919nm,22.0s
KURBB Kurchatov Arra 114.22 318 PKP PKPdf 00 15 32.4 -1.3
comp=Z,0.5nm,0.3s,baz=100,slow=1.4,SNR=8.1
KSH2 Kashi 116.25 305 PKP **PKPdf** 00 15 37.0 -1.2
KSH2 L L
comp=Z,420nm,16.5s
KSH2 L L
comp=Z,250nm,16.5s
KSH2 L L
comp=Z,470nm,19.2s
AAK Ala-Archa 117.12 309 IAMs_20 IAMs_20 01 04 11.9
comp=Z,493nm,22.0s
BVAR Borovoye Array 119.04 321 PKP **PKPdf** 00 15 41.4 -1.4
comp=Z,5.0nm,0.8s,baz=76,slow=2.3,SNR=21
BORK Borovoye 119.08 321 *i* PKiKP **PKPdf** 00 15 42.5 -0.4
BORK Borovoye 119.08 321 **PKPdf** 00 15 41.7 -1.2
KKAR Karatay Array 120.03 310 **PKPdf** 00 15 43.8 -1.4
KBL Kabul 121.37 300 **PKPdf** 00 15 47.9 -0.3
ARTI Arti 124.85 327 *i* PKiKP **PKPdf** 00 15 53.6 -0.3
ARTI 00 17 40.8
ARTI 00 23 05.0
ARTI SP SP 00 27 35.3 -4.1
ARTI SS **SS** 00 34 33.9 -2.5
ARTI Arti 124.85 327 **PKPdf** 00 15 53.1 -0.8
ABKAR Akbulak array 126.27 319 **PKPdf** 00 15 56.4 -0.4

LVZ	**Lovozero**	**126.57**	**347**	*c* iPKIKP	**PKPdf**	**00 15 55.9**	**-1.0**
LVZ				pmax	pmax			
	comp=Z,38nm,1.3s							
ARCES	**ARCESS Array B**	**126.80**	**351**	PKP	**PKPdf**	**00 15 57.0**	**-0.3**
	comp=Z,5.7nm,1.0s,baz=45,slow=3.6,SNR=6.8							
APA	**Apatity**	**127.11**	**347**	*i* PKIKP	**PKPdf**	**00 15 57.2**	**-0.7**
APA				*e*		00 17 56.0		
APA				pmax	pmax			
	comp=Z,10.0nm,1.4s							
KIRV	**Kirov**	**128.14**	**332**	*i* PKIKP	**PKPdf**	**00 15 59.7**	**-0.4**
KLMR	**Klimovskoe**	**130.62**	**339**	*e*PKIKP	**PKPdf**	**00 16 03.4**	**-1.4**
KLMR				pmax	pmax			
	comp=Z,32nm,1.7s							
UOSS	**Minazif**	**132.38**	**288**		**PKPdf**	**00 16 08.0**	**-1.3**
FINES	**FINESS Array B**	**134.00**	**346**	PKP	**PKPdf**	**00 16 11.2**	**+0.1**
	comp=Z,4.1nm,0.9s,baz=36,slow=2.4,SNR=5.3							
MOS	**Moscow**	**134.94**	**335**	*i* PKIKP	**PKPdf**	**00 16 12.7**	**-0.3**
OBN	**Obninsk**	**135.81**	**335**	*i* PKIKP	**PKPdf**	**00 16 14.0**	**-0.7**
OBN				pmax	pmax			
	comp=Z,14nm,1.0s							
VRH	**Novokhopyorsk**	**135.98**	**328**	*e*PKIKP	**PKPdf**	**00 16 14.2**	**-0.9**
VRH				pmax	pmax			
	comp=Z,6.0nm,0.6s							
LPSR	**Galich'ya Gora**	**136.48**	**331**	*e*PKIKP	**PKiKP**	**00 16 18.3**	**+0.6**
LPSR				pmax	pmax			
	comp=Z,13nm,1.0s							
VORR	**Voronezh**	**136.94**	**330**	*e*PKIKP	**PKPdf**	**00 16 17.5**	**+0.6**
VORR				pmax	pmax			
	comp=Z,24nm,0.5s							
VSR	**Storozhevoye**	**137.25**	**329**	*e*PKIKP	**PKiKP**	**00 16 20.2**	**+0.8**
VSR				pmax	pmax			
	comp=Z,17nm,1.5s							
VORD	**Divnogorie**	**137.34**	**329**	*e*PKIKP	**PKiKP**	**00 16 19.9**	**+0.4**
VORD				pmax	pmax			
	comp=Z,10.0nm,1.2s							
KBZ	**Khabaz**	**139.22**	**317**	*i* PKIKP	**PKPdf**	**00 16 20.5**	**-0.8**
KIV	**Kislovodsk**	**139.25**	**318**	IAMs_20	IAMs_20	01 18 36.9		
	comp=Z,498nm,22.0s							
GNI	**Garni**	**139.45**	**312**	IAMs_20	IAMs_20	01 20 06.8		
	comp=Z,487nm,22.0s							
MNK	**Minsk**	**139.48**	**340**	*i* PKIKP	**PKPdf**	**00 16 22.2**	**+0.7**
MNK				*i*		00 19 16.8		
MNK				*i* PPP	PPP	00 22 19.4		
MNK				*i*		00 23 32.6		
MNK				pmax	pmax			
	comp=N,13nm,1.1s							
MNK				pmax	pmax			
	comp=Z,9.0nm,1.0s							
MNK				pmax	pmax			
	comp=E,9.0nm,1.2s							
MNK				MLR	MLR			
	comp=E,673nm,19.0s							
MNK				MLR	MLR			
	comp=Z,813nm,21.0s							
MNK				MLR	MLR			
	comp=N,498nm,20.0s							
NEUR	**Neytrino**	**139.56**	**317**	*i* PKIKP	**PKPdf**	**00 16 21.9**	**-0.4**
ERBR	**Yeremizino-Bor**	**139.73**	**321**	*i* PKIKP	**PKiKP**	**00 16 25.0**	**+0.4**
ERBR				pmax	pmax			
	comp=Z,24nm,1.1s							
ERBR				MLR	MLR			
	comp=Z,694nm,22.0s							
LABN	**Labinsk**	**140.14**	**320**	*i* PKIKP	**PKiKP**	**00 16 25.9**	**+0.4**
LABN				pmax	pmax			
	comp=Z,10.0nm,0.6s							
TSUM	**Tsumeb**	**141.33**	**199**	IAMs_20	IAMs_20	01 16 41.8		
	comp=Z,582nm,20.0s							
ANN	**Anapa**	**142.03**	**322**	*e*PKIKP	**PKPdf**	**00 16 24.6**	**-1.8**
ANN				*e*		00 19 31.5		
ANN				pmax	pmax			
	comp=Z,17nm,1.2s							
ANN				MLR	MLR			
	comp=Z,451nm,21.0s							
AKASG	**Malin Array Be**	**142.06**	**335**	PKP	**PKPdf**	**00 16 26.2**	**-0.1**
	comp=Z,4.6nm,1.0s,baz=40,slow=3.1,SNR=10							
AKASG	**Malin Array Be**	**142.06**	**335**	*c* iPKIKP	**PKiKP**	**00 16 30.6**	**+1.4**
AKASG				pmax	pmax			
	comp=Z,2.0nm,1.0s							
AKBB	**Malin Array Si**	**142.06**	**335**	*i* PKIKP	**PKPdf**	**00 16 25.4**	**-0.9**
AKBB	**Malin Array Si**	**142.06**	**335**	PKP	**PKPdf**	**00 16 25.7**	**-0.6**
AK04	**Malin Array Si**	**142.07**	**335**	PKP	**PKPdf**	**00 16 25.5**	**-0.8**
KIEV	**Kiev**	**142.07**	**335**		**PKPdf**	**00 16 25.6**	**-0.7**
KIEV	**Kiev**	**142.07**	**335**	PKP	**PKPdf**	**00 16 25.7**	**-0.6**
AK21	**Malin Array Si**	**142.07**	**336**	PKP	**PKPdf**	**00 16 25.6**	**-0.7**
AK11	**Malin Array Si**	**142.10**	**335**	PKP	**PKPdf**	**00 16 25.6**	**-0.7**
KIBK	**Kibwezi**	**142.12**	**241**		**PKPdf**	**00 16 24.4**	**-3.3**
KIBK				IAMs_20	IAMs_20	01 20 41.4		
	comp=Z,362nm,20.0s							
RAYN	**Ar Rayn**	**142.13**	**286**	IAMs_20	IAMs_20	01 23 24.8		
	comp=Z,432nm,20.0s							
RNPP9	**Sopachiv**	**142.73**	**339**	PKP	**PKPdf**	**00 16 25.6**	**-1.8**
ATD	**Arta Tunnel**	**143.29**	**265**	IAMs_20	IAMs_20	01 12 43.0		
	comp=Z,379nm,21.0s							
MARD	**Mardin**	**143.39**	**309**		PKPbc	00 16 26.1	-0.3	
KMBO	**Kilima Mbogo**	**143.44**	**242**		PKPbc	00 16 27.0	-0.3	
KMBO	**Kilima Mbogo**	**143.44**	**242**	IAMs_20	IAMs_20	01 21 46.6		
	comp=Z,429nm,20.0s							
LLW	**Llanuwchllyn**	**144.31**	**9**	*e*P	PKPbc	00 16 28.4	0.0	
ARPR	**Arapgir-MALATY**	**144.39**	**313**	IAMs_20	IAMs_20	01 32 04.9		
	comp=Z,351nm,20.0s							
SORM	**Soroca**	**144.41**	**333**	⇓PKIKP	PKPbc	00 16 29.2	+0.3	
SORM	**Soroca**	**144.41**	**333**	⇓P	PKPbc	00 16 29.2	+0.3	
SORM	**Soroca**	**144.41**	**333**	PKP	PKPbc	00 16 28.8	-0.1	
GORT1	**Trebel**	**144.57**	**354**	*e*PKPbc	**PKPab**	**00 16 28.9**	**-0.1**
	baz=11,slow=3.0							
CWF	**Charnwood Fore**	**144.74**	**7**	*e*P	PKPbc	00 16 30.1	+0.3	
HLM1	**Long Mynd**	**144.74**	**9**	*e*P	PKPbc	00 16 30.3	+0.4	
RUE	**Ruedersdorf**	**144.77**	**351**	*e*PKPbc	**PKPab**	**00 16 29.0**	**-0.8**
	baz=11,slow=3.0							
PURM	**Purcari**	**144.93**	**330**	PKP	**PKPab**	**00 16 29.8**	**-0.8**
LPW	**Lampeter**	**144.95**	**10**	*e*P	PKPbc	00 16 30.7	+0.2	
RETH	**Rethem/Aller,**	**144.99**	**356**	*e*PKPbc	**PKPab**	**00 16 30.3**	**-0.3**
	baz=11,slow=3.0							
FLTG	**Flechtingen**	**145.23**	**354**	*e*PKPbc	**PKPbc**	**00 16 30.5**	**-0.9**
	baz=11,slow=3.0							
KWP	**Kalwaria Pacla**	**145.31**	**340**	*e*PKP	**PKPdf**	**00 16 31.9**	**-0.1**
KWP	**Kalwaria Pacla**	**145.31**	**340**	PKP	**PKPbc**	**00 16 30.6**	**-1.2**
MONM	**Monmouth**	**145.41**	**9**	*e*P	**PKPbc**	**00 16 31.0**	**-1.0**
ASSE	**Asse, Remlinge**	**145.49**	**354**	*e*PKPbc	**PKPbc**	**00 16 32.0**	**-0.1**
	baz=11,slow=3.0							
IBBN	**Ibbenburen**	**145.51**	**357**	*e*PKPbc	**PKPdf**	**00 16 32.1**	**-0.1**
	baz=11,slow=3.0							
STRD	**Stroud**	**145.57**	**8**	*e*P	**PKPdf**	**00 16 32.1**	**-0.3**
ELMS	**Elmsett, Ipswi**	**145.60**	**5**	*e*P	**PKPdf**	**00 16 32.1**	**-0.3**
OJC	**Ojcow**	**145.65**	**344**	*e*PKP	**PKPdf**	**00 16 32.6**	**0.0**
OJC	**Ojcow**	**145.65**	**344**	PKP	**PKPdf**	**00 16 32.2**	**-0.4**
CLZ	**Clausthal**	**145.80**	**355**	*e*PKPbc	**PKPbc**	**00 16 33.2**	**-0.1**
	baz=11,slow=3.0							
VASR	**Vaslui**	**145.80**	**332**	⇑P	**PKPbc**	**00 16 33.5**	**0.0**
NGRR	**Negresti**	**145.81**	**333**	⇑P	**PKPbc**	**00 16 33.2**	**-0.2**
MNTR	**Muntenesti**	**145.83**	**333**	⇓P	**PKPdf**	**00 16 32.9**	**-0.1**
PDRR	**Padureni**	**145.85**	**333**	⇑P	**PKPbc**	**00 16 33.3**	**-0.3**
KSP	**Ksiaz**	**145.90**	**348**	*e*PKP	**PKPab**	**00 16 34.0**	**-0.1**
KSP	**Ksiaz**	**145.90**	**348**	PKP	**PKPdf**	**00 16 33.0**	**0.0**
DMBR	**Dumbraveni**	**145.91**	**333**	⇑P	**PKPdf**	**00 16 33.4**	**+0.2**
CLL	**Collm**	**146.02**	**351**	*i* PKP2	**PKPbc**	**00 16 33.7**	**-0.2**
CLL				*i*		00 16 36.6		
CLL				pmax	pmax			
	comp=Z,71nm,1.1s							
CLL				pmax	pmax			
	comp=Z,137nm,1.5s							
CLL				MLR	MLR			
	comp=Z,500nm,21.3s							
CLL	**Collm**	**146.02**	**351**		**PKPdf**	**00 16 31.8**	**-1.4**
CLL				IAMs_20	IAMs_20	01 19 53.1		
	comp=Z,476nm,20.0s							
CLL	**Collm**	**146.02**	**351**	*e*PKPbc	**PKPdf**	**00 16 33.5**	**+0.3**
	baz=11,slow=3.0							
CLL	**Collm**	**146.02**	**351**	PKP	**PKPdf**	**00 16 33.0**	**-0.2**
CLL	**Collm**	**146.02**	**351**	*i* PKPbc	**PKPbc**	**00 16 33.7**	**-0.2**
	comp=Z,71nm,1.1s							
CLL				*i* PKiKP	**pPKPdf**	**00 16 36.6**	**-0.5**
	comp=Z,137nm,1.5s							
CLL				*i* pPKiKP	sPKPab	00 16 39.0	-0.7	
	comp=Z,150nm,1.5s							
CLL				*i* PP	**PP**	**00 19 54.6**	**-0.1**
CLL				*e*SKKSac	SKKSac	00 26 54.0	+6.7	
CLL				*ex*	x	00 28 12.0		
CLL				*e*PSKS		00 30 12.0		
CLL				*e*SKKSdf	**SKKSdf**	**00 32 48.0**	**-1.8**
CLL				*e*SS	**SS**	**00 38 48.0**	**-0.9**
CLL				*e*SSS	SSS	00 44 18.0		
CLL				LH		00 57 00.0		
CLL				L	L	01 05 00.0		
CLL				AMS	AMS	01 14 00.0		
	comp=N,400nm,25.3s							
CLL				AMS	AMS	01 14 00.0		
	comp=E,200nm,24.9s							
CLL				AMS	AMS	01 14 00.0		
	comp=Z,500nm,26.4s							
CLL				AMS	AMS	01 20 00.0		
	comp=Z,500nm,21.3s							
KOLS	**Kolonicke sedl**	**146.06**	**340**	*e*PKIKP	**PKPab**	**00 16 34.9**	**+0.2**
BURAR	**Bucovina Array**	**146.11**	**336**	⇓PKIKP	**PKPab**	**00 16 35.2**	**+0.1**
BURAR	**Bucovina Array**	**146.11**	**336**		**PKPdf**	**00 16 32.9**	**-0.7**
BURAR	**Bucovina Array**	**146.11**	**336**	⇓P	**PKPab**	**00 16 35.2**	**+0.1**
GIRR	**Girov**	**146.12**	**334**	⇓P	**PKPbc**	**00 16 34.4**	**0.0**
GTTG	**Gottingen**	**146.13**	**355**	*e*PKPbc	**PKPbc**	**00 16 34.2**	**0.0**
	baz=11,slow=3.0							
WOL	**Wolverton**	**146.15**	**7**	*e*P	**PKPbc**	**00 16 34.0**	**-0.3**
OSTC	**Ostas**	**146.19**	**348**	*e*PKP2	**PKPbc**	**00 16 34.1**	**-0.4**
OSTC				MLR	MLR			
	comp=Z,700nm,21.4s							
OSTC	**Ostas**	**146.19**	**348**	*e*PKP	**PKPbc**	**00 16 34.1**	**-0.4**
OSTC				AMS	AMS	01 14 20.0		
	comp=Z,700nm,21.4s							
CHVC	**Chvalec**	**146.19**	**348**	*e*PKIKP	**PKPab**	**00 16 35.1**	**-0.1**
CHVC				MLR	MLR			
	comp=Z,800nm,26.9s							
CHVC	**Chvalec**	**146.19**	**348**	*e*PKP	**PKPab**	**00 16 35.1**	**-0.1**
CHVC				AMS	AMS	01 14 10.0		
	comp=Z,800nm,26.9s							
VLDR	**Vladesti**	**146.27**	**331**	⇑P	**PKPab**	**00 16 35.4**	**-0.3**
UPC	**Upice**	**146.28**	**348**	*e*PKIKP	**PKPbc**	**00 16 34.8**	**0.0**
UPC				MLR	MLR			
	comp=Z,700nm,22.1s							
UPC	**Upice**	**146.28**	**348**	*e*PKP	**PKPbc**	**00 16 34.8**	**0.0**
UPC				AMS	AMS	01 19 50.0		
	comp=Z,700nm,22.1s							
NEUB	**Neuenburg**	**146.28**	**353**	*e*PKPbc	**PKPbc**	**00 16 34.5**	**-0.2**
	baz=11,slow=3.0							
BIZ	**Bicaz**	**146.30**	**334**	⇓P	**PKPab**	**00 16 35.6**	**-0.1**
BRG	**Berggiesshubel**	**146.30**	**350**	*e*PKPbc	**PKPbc**	**00 16 34.7**	**-0.1**
	baz=11,slow=3.0							
BRG	**Berggiesshubel**	**146.30**	**350**	*e*PKP	**PKPbc**	**00 16 35.1**	**+0.3**
BRG				Amp		00 16 36.5		
	comp=Z,35nm,1.1s							
BRG	**Berggiesshubel**	**146.30**	**350**	P	**PKiKP**	**00 16 38.0**	**0.0**
BRG				Amp		00 16 39.9		
	comp=Z,126nm,1.7s							
VARL	**Varlezi**	**146.34**	**331**	⇑P	**PKPdf**	**00 16 34.4**	**+0.6**
DPC	**Dobruska-Polom**	**146.36**	**347**	*e*PKIKP	**PKPbc**	**00 16 35.4**	**+0.3**
DPC				MLR	MLR			
	comp=Z,700nm,20.5s							
DPC	**Dobruska-Polom**	**146.36**	**347**	*e*PKP	**PKPbc**	**00 16 35.4**	**+0.3**
DPC				AMS	AMS	01 19 40.0		
	comp=Z,700nm,20.5s							
DPC	**Dobruska-Polom**	**146.36**	**347**	PKP	**PKPbc**	**00 16 34.7**	**-0.4**
BUG	**Bochum--Univer**	**146.40**	**358**	*e*PKPbc	**PKPbc**	**00 16 34.8**	**-0.2**
	baz=11,slow=3.0							
TESR	**Tescani**	**146.40**	**333**	⇓P	**PKPbc**	**00 16 34.7**	**-0.6**
TESR	**Tescani**	**146.40**	**333**	PKP	**PKPdf**	**00 16 34.0**	**0.0**
TLCR		**146.41**	**329**	⇑PKIKP	**PKPbc**	**00 16 35.1**	**-0.2**
TLCR		**146.41**	**329**	⇑P	**PKPbc**	**00 16 35.1**	**-0.2**
GHRR		**146.42**	**332**	⇑P	**PKPab**	**00 16 36.1**	**-0.1**
GHRR		**146.42**	**332**	PKP	**PKPdf**	**00 16 34.3**	**+0.3**
OKC	**Ostrava-Krasne**	**146.43**	**345**	*e*PKIKP	**PKPab**	**00 16 35.9**	**-0.2**
OKC				MLR	MLR			
	comp=Z,1μm,24.9s							
OKC	**Ostrava-Krasne**	**146.43**	**345**	*e*PKP	**PKPab**	**00 16 35.9**	**-0.2**
OKC				AMS	AMS	01 17 30.0		
	comp=Z,1μm,24.9s							
STEB	**Steborice**	**146.43**	**346**	*e*PKP	**PKPbc**	**00 16 34.7**	**-0.5**
SCTR	**Scanteiesti**	**146.44**	**331**	⇑P	**PKPbc**	**00 16 35.7**	**+0.3**
TATR	**Tatarca**	**146.47**	**331**	⇓P	**PKPab**	**00 16 35.9**	**-0.4**
FURI	**Furi**	**146.48**	**259**	IAMs_20	IAMs_20	01 23 45.6		
	comp=Z,526nm,20.0s							
KRLC	**Kraliky**	**146.52**	**347**	*e*PKIKP	**PKPdf**	**00 16 34.8**	**+0.6**
KRLC				MLR	MLR			
	comp=Z,900nm,23.2s							
KRLC	**Kraliky**	**146.52**	**347**	*e*PKP	**PKPdf**	**00 16 34.8**	**+0.6**
KRLC				*ex*	x	00 16 48.0		
KRLC				AMS	AMS	01 19 10.0		
	comp=Z,900nm,23.2s							
PVCC	**Panska Ves**	**146.53**	**349**	*e*PKP2	**PKPab**	**00 16 36.2**	**-0.2**
PVCC				MLR	MLR			
	comp=Z,700nm,20.9s							
PVCC	**Panska Ves**	**146.53**	**349**	*e*PKP	**PKPab**	**00 16 36.2**	**-0.2**
PVCC				*ex*	x	00 16 42.0		
PVCC				AMS	AMS	01 17 10.0		
	comp=Z,700nm,20.9s							
BOST	**Ostende**	**146.58**	**3**	*d*PKP	**PKiKP**	**00 16 38.2**	**-0.3**
KASTN	**Kahler Asten**	**146.58**	**357**	*e*PKPbc	**PKPbc**	**00 16 35.6**	**-0.1**
	baz=11,slow=3.0							
DYA	**Yadsworthy**	**146.59**	**11**	*e*P	**PKPdf**	**00 16 34.8**	**+0.6**
NEGRR	**Negrea**	**146.60**	**331**	⇑P	**PKPab**	**00 16 36.8**	**0.0**
COSR	**Cosmesti PH**	**146.62**	**332**	⇓P	**PKPab**	**00 16 36.4**	**-0.5**
MORC	**Moravsky Berou**	**146.63**	**346**	⇓PKP2	**PKPbc**	**00 16 35.6**	**-0.3**
MORC	**Moravsky Berou**	**146.63**	**346**		**PKPdf**	**00 16 32.5**	**-1.8**
MORC	**Moravsky Berou**	**146.63**	**346**	*e*PKP	**PKPab**	**00 16 36.4**	**-0.5**
MORC	**Moravsky Berou**	**146.63**	**346**	⇓P	**PKPbc**	**00 16 35.6**	**-0.3**
HSKC	**Hora Svate Kat**	**146.64**	**351**	*e*PKP	**PKPbc**	**00 16 35.4**	**-0.5**
HSKC				AMS	AMS	01 17 20.0		
	comp=Z,800nm,27.8s							
IZVR	**Izvoarele**	**146.65**	**331**	⇑P	**PKPbc**	**00 16 36.4**	**+0.4**
SCHL	**Schela**	**146.65**	**331**	⇑P	**PKPbc**	**00 16 36.4**	**+0.4**
ONER	**Baraj Valea Uz**	**146.65**	**333**	⇓P	**PKPbc**	**00 16 36.1**	**0.0**
BMOL	**Mol**	**146.66**	**0**	*d*PKP	**PKPab**	**00 16 36.8**	**0.0**
SCHLR	**Schela**	**146.67**	**331**	⇑P	**PKPbc**	**00 16 36.4**	**+0.3**
PANC	**Panciu**	**146.68**	**332**	⇓P	**PKPab**	**00 16 36.9**	**-0.3**
LANS	**Liptovska Anna**	**146.71**	**343**	*e*PKP2	**PKPab**	**00 16 37.6**	**+0.3**
BMR	**Baia Mare**	**146.71**	**338**	⇓PKP2	**PKPbc**	**00 16 36.5**	**+0.4**
BMR	**Baia Mare**	**146.71**	**338**	⇓P	**PKPbc**	**00 16 36.5**	**+0.4**
CFR	**Carcaliu**	**146.75**	**330**	⇑PKIKP	**PKPdf**	**00 16 34.9**	**+0.3**
CFR	**Carcaliu**	**146.75**	**330**	⇑P	**PKPdf**	**00 16 34.9**	**+0.3**
BOPT	**Opiter**	**146.76**	**360**	*d*PKP	**PKPab**	**00 16 37.0**	**-0.3**
ODBI	**Odobesti**	**146.80**	**332**	⇓P	**PKPab**	**00 16 37.7**	**0.0**
TPGR	**Topolog**	**146.85**	**329**	⇑P	**PKPbc**	**00 16 37.0**	**+0.4**
MOX	**Moxa**	**146.85**	**353**	*e*PKPbc	**PKPbc**	**00 16 36.2**	**-0.2**
	baz=11,slow=3.0							
MOX				*e*L	L	01 28 34.6		
	comp=Z,418nm,21.7s							
VRI	**Vrincioaia**	**146.87**	**332**	⇑PKIKP	**PKPbc**	**00 16 35.9**	**-0.8**
VRI	**Vrincioaia**	**146.87**	**332**	⇑P	**PKPbc**	**00 16 35.9**	**-0.8**
ARCR	**ARCALIA**	**146.88**	**336**	⇑P	**PKPab**	**00 16 37.6**	**-0.4**
PLOR	**Plostina**	**146.92**	**332**	⇓PKP2	**PKPbc**	**00 16 36.9**	**+0.1**
PLOR	**Plostina**	**146.92**	**332**	⇓P	**PKPbc**	**00 16 36.9**	**+0.1**
PLN	**Plauen**	**146.94**	**352**	*e*PKPbc	**PKPbc**	**00 16 37.3**	**+0.6**
	baz=11,slow=3.0							
MAUC	**Maruska**	**146.94**	**345**	*e*PKP	**PKPab**	**00 16 37.6**	**-0.6**
MAUC				*ex*	x	00 16 42.1		
MAUC				AMS	AMS	01 17 40.0		
	comp=Z,2μm,19.2s							
TANN	**Tannenbergstha**	**146.97**	**352**	*e*PKPbc	**PKPbc**	**00 16 36.7**	**-0.2**
	baz=11,slow=3.0							
PRA	**Prague**	**146.99**	**349**	*e*PKP2	**PKPab**	**00 16 38.2**	**-0.1**
PRA	**Prague**	**146.99**	**349**	*e*PKP	**PKPab**	**00 16 38.2**	**-0.1**
SAHR	**Sahastru**	**147.00**	**332**	⇓P	**PKPbc**	**00 16 37.6**	**+0.5**
TURR	**Turia**	**147.03**	**333**	⇓P	**PKPbc**	**00 16 37.6**	**+0.4**
UCC	**Uccle**	**147.06**	**1**		**PKPdf**	**00 16 33.9**	**-1.1**
UCC	**Uccle**	**147.06**	**1**	*d*PKP	**PKPbc**	**00 16 37.2**	**+0.2**
OZUR		**147.10**	**333**	⇓P	**PKPbc**	**00 16 37.8**	**+0.5**
COVR	**Voineasa-Covas**	**147.12**	**333**	⇑P	**PKPbc**	**00 16 37.1**	**-0.3**
NKC	**Novy Kostel**	**147.15**	**352**	*e*PKP2	**PKPbc**	**00 16 37.1**	**-0.2**
NKC	**Novy Kostel**	**147.15**	**352**	*e*PKP	**PKPbc**	**00 16 37.1**	**-0.2**
HARR	**Harsova**	**147.20**	**330**	⇑PKP2	**PKPbc**	**00 16 37.4**	**-0.2**
HARR	**Harsova**	**147.20**	**330**	⇑P	**PKPbc**	**00 16 37.4**	**-0.2**
BSKQ	**Steenkerk**	**147.21**	**2**	*d*PKP	**PKPbc**	**00 16 37.8**	**+0.4**
BR131	**Keskin Array S**	**147.21**	**318**	*i* PKIKP	**PKPdf**	**00 16 35.5**	**-0.3**
BR131	**Keskin Array S**	**147.21**	**318**		**PKPdf**	**00 16 34.6**	**-1.2**
BRTR	**Keskin Array B**	**147.21**	**318**	PKPbc	**PKPbc**	**00 16 37.4**	**-0.6**
	comp=Z,11nm,0.9s,baz=58,slow=3.7,SNR=56							
BRTR	**Keskin Array B**	**147.21**	**318**		**PKPdf**	**00 16 34.4**	**-1.3**
BR104	**Keskin Array S**	**147.22**	**318**	PKP	**PKPdf**	**00 16 34.5**	**-1.3**
BR106	**Keskin Array S**	**147.22**	**318**	PKP	**PKPdf**	**00 16 34.5**	**-1.3**
BR105	**Keskin Array S**	**147.23**	**318**	PKP	**PKPdf**	**00 16 35.0**	**-0.8**
TLBR	**Topalu**	**147.26**	**329**	⇓P	**PKPbc**	**00 16 38.2**	**+0.5**
MEM	**Membach**	**147.26**	**359**	*d*PKP	**PKPbc**	**00 16 37.2**	**-0.4**
VRAC	**Vranov**	**147.29**	**346**	⇑PKP2	**PKPbc**	**00 16 38.3**	**+0.6**
VRAC	**Vranov**	**147.29**	**346**	*e*PKP	**PKPbc**	**00 16 38.5**	**+0.8**
VRAC	**Vranov**	**147.29**	**346**	⇑P	**PKPbc**	**00 16 38.3**	**+0.6**
LODK	**Lodwar**	**147.35**	**248**	PKPdf	**PKPdf**	**00 16 34.4**	**-2.3**
LODK				IAMs_20	IAMs_20	01 17 43.3		
	comp=Z,412nm,21.0s							
KIRS	**Kirsehir-Merke**	**147.36**	**317**	⇓P	**PKPdf**	**00 16 36.0**	**0.0**
DOPR	**Dopca**	**147.37**	**334**	⇑P	**PKPbc**	**00 16 38.6**	**+0.6**
JAVC	**Velka Javorina**	**147.45**	**345**	*e*PKP	**PKPab**	**00 16 39.2**	**-1.0**
BCLA	**Clavier**	**147.45**	**0**	*d*PKP	**PKPbc**	**00 16 38.1**	**0.0**
CJR	**Cluj-Napoca**	**147.48**	**336**	⇑PKP2	**PKPbc**	**00 16 38.4**	**0.0**
CJR	**Cluj-Napoca**	**147.48**	**336**	⇑P	**PKPbc**	**00 16 38.4**	**0.0**
VYHS	**Vyhne**	**147.48**	**343**	*e*PKP2	**PKPbc**	**00 16 38.5**	**+0.2**
MLR	**Muntele Rosu**	**147.51**	**333**	⇑PKP2	**PKPbc**	**00 16 38.8**	**+0.2**
MLR	**Muntele Rosu**	**147.51**	**333**	⇑P	**PKPbc**	**00 16 38.8**	**+0.2**
MLR	**Muntele Rosu**	**147.51**	**333**	PKP	**PKPdf**	**00 16 35.6**	**-0.5**
LTVH	**Ltavrtes, Hu**	**147.52**	**339**	⇑P	**PKPbc**	**00 16 38.9**	**+0.5**
ISR	**Istrita**	**147.53**	**332**	⇓PKP2	**PKPbc**	**00 16 39.0**	**+0.4**
ISR	**Istrita**	**147.53**	**332**	⇓P	**PKPbc**	**00 16 39.0**	**+0.4**
ISR	**Istrita**	**147.53**	**332**	PKP	**PKPdf**	**00 16 35.0**	**-1.0**
TREC	**Trest**	**147.53**	**348**	*e*PKP2	**PKPbc**	**00 16 38.1**	**-0.3**
TREC				MLR	MLR			
	comp=Z,800nm,20.0s							
TREC	**Trest**	**147.53**	**348**	*e*PKP	**PKPbc**	**00 16 38.1**	**-0.3**
TREC				AMS	AMS	01 21 30.0		
	comp=Z,800nm,20.0s							
AMRR	**Amara**	**147.55**	**330**	⇑PKP2	**PKPab**	**00 16 39.7**	**-0.9**
AMRR	**Amara**	**147.55**	**330**	⇑P	**PKPab**	**00 16 39.7**	**-0.9**
TNS	**Taunus Mts**	**147.56**	**356**	*e*PKPbc	**PKPab**	**00 16 39.8**	**-0.7**
	baz=11,slow=3.0							
KRUC	**Moravsky**	**147.56**	**346**	*e*PKP	**PKPbc**	**00 16 38.6**	**+0.1**
BMRD	**Maredsous**	**147.57**	**1**	*d*PKP	**PKPbc**	**00 16 38.8**	**+0.3**
ZVC	**Zvikov**	**147.64**	**349**	*e*PKP	**PKPbc**	**00 16 39.2**	**+0.5**
ZVC				AMS	AMS	01 19 10.0		
	comp=Z,700nm,24.6s							
MDB	**Medias**	**147.65**	**335**	⇓PKP2	**PKPbc**	**00 16 39.5**	**+0.7**
MDB	**Medias**	**147.65**	**335**	⇓P	**PKPbc**	**00 16 39.5**	**+0.7**
MARR	**Marisel-Cluj**	**147.69**	**337**	⇑P	**PKPbc**	**00 16 39.0**	**0.0**
PSZ	**Piszkesteto**	**147.70**	**342**	⇑PKP2	**PKPbc**	**00 16 39.6**	**+0.6**
PSZ	**Piszkesteto**	**147.70**	**342**	⇑P	**PKPbc**	**00 16 39.6**	**+0.6**
DRGR		**147.75**	**337**	⇑P	**PKPbc**	**00 16 38.8**	**-0.3**
DOU	**Dourbes**	**147.77**	**1**	*d*PKP	**PKPbc**	**00 16 38.9**	**-0.1**
SMOL	**Smolenice**	**147.83**	**345**	*e*PKP2	**

SOKA	**Soboth**	**150.12**	**347**	*i* PKP	**PKPbc**	**00 16 44.2**	**-1.0**
	comp=Z,23nm,1.2s,SNR=7.0						
MOTA	**Moosalm**	**150.16**	**352**	*e*PKiKP	**PKPbc**	**00 16 45.6**	**+0.2**
	comp=Z,36nm,1.7s,SNR=15						
MPEP	**Malo Peshtene**	**150.16**	**333**	P	**PKPbc**	**00 16 45.2**	**-0.1**
WTTA	**Wattenberg**	**150.17**	**351**	*e*PKiKP	**PKPbc**	**00 16 45.6**	**+0.2**
	comp=Z,64nm,1.7s,SNR=16						
BAND	**Balkesir-Ban**	**150.18**	**324**	⇑P	**PKPdf**	**00 16 38.3**	**-2.1**
SQTA	**Sankt Quirin**	**150.27**	**352**	*e*PKiKP	**PKPbc**	**00 16 45.7**	**+0.1**
	comp=Z,36nm,1.6s,SNR=8.5						
ISP	**Isparta**	**150.30**	**317**	*c* PKHKP	**PKPbc**	**00 16 45.7**	**-0.3**
ISP				pmax pmax			
	comp=Z,44nm,1.7s						
ISP	**Isparta**	**150.30**	**317**	PKPdf	**PKPdf**	**00 16 39.0**	**-1.8**
ISP				IAMs_20	IAMs_20	01 34 39.3	
	comp=Z,469nm,20.0s						
PRNI	**Paran**	**150.32**	**300**	P	**PKiKP**	**00 16 46.8**	**-0.1**
PRNI				AML	AML		
DAVA	**Damuels**	**150.36**	**354**	*i* PKiKP	**PKiKP**	**00 16 46.2**	**-0.4**
	comp=Z,39nm,1.2s,SNR=14						
OBKA	**Obir**	**150.38**	**347**	*e*PKP	**PKPbc**	**00 16 45.4**	**-0.4**
	comp=Z,21nm,1.4s						
HRFI	**Mount Harif**	**150.39**	**300**	P	**PKiKP**	**00 16 46.8**	**-0.3**
HRFI				AML	AML		
BLKB	**Belogradchik**	**150.40**	**334**	⇑P	**PKPbc**	**00 16 43.9**	**-2.0**
MYKA	**Terra Mystica**	**150.45**	**348**	*i* PKP	**PKPbc**	**00 16 45.4**	**-0.6**
	comp=Z,26nm,1.7s,SNR=5.1						
AQBJ	**Aqaba**	**150.47**	**299**	P	**PKiKP**	**00 16 47.5**	**+0.3**
AQBJ				AML	AML		
FETA	**Feichten**	**150.53**	**353**	*i* PKP	**PKPbc**	**00 16 45.6**	**-0.7**
	comp=Z,49nm,1.4s,SNR=12						
ABTA	**Abfaltersbach**	**150.54**	**350**	*i* PKP	**PKPbc**	**00 16 45.2**	**-1.0**
	comp=Z,27nm,0.9s,SNR=13						
EIL	**Elat**	**150.57**	**299**	P	**PKiKP**	**00 16 47.5**	**+0.1**
EIL				AML	AML		
KZIT	**Kziot**	**150.63**	**302**	P	**PKiKP**	**00 16 47.4**	**-0.1**
KZIT				AML	AML		
BLSH	**Balsha**	**150.76**	**332**	P	**PKPdf**	**00 16 42.8**	**+1.5**
BALB	**Balikesir**	**150.78**	**323**	PKPdf	**PKPdf**	**00 16 38.6**	**-2.7**
BOVS	**Bovan**	**150.79**	**335**	⇓P	**PKPbc**	**00 16 45.4**	**-1.3**
VTS	**Vitosha**	**150.97**	**332**	P	**PKiKP**	**00 16 49.4**	**+1.3**
RZN	**Rozhen**	**150.99**	**329**	P	**PKPdf**	**00 16 41.5**	**-0.3**
CTI	**Castel Tesino**	**151.35**	**351**	PKPdf	**PKPdf**	**00 16 40.8**	**-1.3**
BLY	**Banja Luka**	**151.37**	**342**	⇑P	**PKiKP**	**00 16 49.1**	**+0.5**
SENIN	**Lac Senin/Sane**	**151.47**	**357**	PKPdf	**PKPdf**	**00 16 40.9**	**-1.6**
EZN	**Ezine**	**151.53**	**325**	⇑PKiKP	**PKPbc**	**00 16 48.1**	**-0.5**
EZN	**Ezine**	**151.53**	**325**	⇑P	**PKPbc**	**00 16 48.1**	**-0.5**
TAVA	**DENIZLI_Tavas**	**151.54**	**318**	⇓P	**PKPbc**	**00 16 48.5**	**-0.4**
MMB	**Musomishta**	**151.58**	**330**	P	**PKPdf**	**00 16 43.1**	**+0.5**
SSB	**Saint Sauveur**	**152.59**	**1**		**PKPbc**	**00 16 50.5**	**-0.4**
KARP	**Karpathos**	**153.82**	**317**	IAMs_20	IAMs_20	01 28 42.6	
	comp=Z,506nm,21.0s						
ESDC	**Sonseca Array**	**156.73**	**19**	PKPab	**PKPab**	**00 17 18.8**	**-0.3**
	comp=Z,3.5nm,0.9s,baz=326,slow=3.9,SNR=17						
ESDC	**Sonseca Array**	**156.73**	**19**	PKPdf	**PKPdf**	**00 16 48.4**	**-1.5**
ESDC					**PKPab**	**00 17 19.1**	**0.0**
TORD	**Torodi Ar. Bea**	**174.16**	**142**	PKPab	**PKPab**	**00 18 37.8**	**+1.5**
	comp=Z,2.5nm,0.8s,baz=215,slow=3.5,SNR=4.4						
TORD	**Torodi Ar. Bea**	**174.16**	**142**		**PKPdf**	**00 17 03.6**	**-1.3**
TORD					**PKPab**	**00 18 37.5**	**+1.3**
TAM	**Tamanrasset**	**175.03**	**359**	PKPdf	**PKPdf**	**00 17 03.3**	**-1.9**
TAM					**PKPab**	**00 18 37.9**	**-2.0**

*IDC **30** 00:02:43.7±1.8, 17.°84S×174.°79W, h0km, mb3.8/6, mbtmp3.8/6, Error ellipse: s-maj=118.3km s-min=23.6km az=151.0*

ISC 30 00:03:10.9±1.6, 17.°9S±0.°6×175.°0W±0.°3, h228km, n10, σ1$28/12, mb3.5/6, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**47.83**	**259**	P	**P**	**00 11 25.1**	**-1.0**
	0.4nm,0.6s,baz=95,slow=7.6,SNR=1.7						
WRA				PcP	**PcP**	**00 12 52.9**	**+1.7**
	0.3nm,0.5s,baz=88,slow=3.3,SNR=1.8						
	0.4nm,0.6s						
ASAR	**Alice Springs**	**47.93**	**254**	P	**P**	**00 11 25.4**	**-1.5**
	3.2nm,0.7s,baz=88,slow=8.4,SNR=22						
ASAR				PcP	**PcP**	**00 12 53.7**	**+2.2**
	0.8nm,0.9s,baz=91,slow=3.6,SNR=4.7						
	3.2nm,0.7s						
NVAR	**Mina Array Bea**	**77.18**	**42**	P	**P**	**00 14 38.4**	**-1.5**
	0.4nm,0.5s,baz=252,slow=6.7,SNR=3.9						
	0.4nm,0.5s						
TXAR	**Lajitas Array**	**83.25**	**56**	P	**P**	**00 15 12.1**	**-0.2**
	0.5nm,0.7s,baz=248,slow=6.3,SNR=3.6						
	0.5nm,0.7s						
PDAR	**Pinedale Array**	**85.11**	**42**	P	**P**	**00 15 21.1**	**-0.5**
	0.7nm,0.7s,baz=204,slow=3.3,SNR=5.5						
	0.7nm,0.7s						
ILAR	**Eielson Array**	**85.15**	**12**	P	**P**	**00 15 21.5**	**+0.6**
	1.2nm,1.1s,baz=187,slow=5.4,SNR=4.8						
	1.2nm,1.1s						
CLL	**Collm**	**146.03**	**351**	*i* PKPbc	**PKPab**	**00 22 25.4**	**+0.7**
	comp=Z,9.0nm,1.1s						
BRTR	**Keskin Array B**	**147.01**	**317**	PKPbc	**PKPab**	**00 22 28.8**	**-0.4**
	comp=Z,1.5nm,0.9s,baz=88,slow=1.5,SNR=8.1						
GERES	**GERESS Array B**	**148.30**	**349**	PKPbc	**PKPbc**	**00 22 30.5**	**+0.3**
	comp=Z,0.3nm,0.7s,baz=329,slow=1.1,SNR=5.9						
MMAI	**Mount Meron Ar**	**148.82**	**305**	PKPbc	**PKiKP**	**00 22 33.7**	**+0.5**
	comp=Z,0.4nm,0.4s,baz=116,slow=3.4,SNR=4.0						

*IDC **30** 00:19:38.9±1.2, 18.°77S×174.°27W, h0km, mb4.1/7, mbtmp4.1/8, ML4.4/1, MS3.6/2, Error ellipse: s-maj=61.0km s-min=20.5km az=154.0*

ISC 30 00:19:55.7±1.4, 18.°7S±0.°4×174.°4W±0.°3, h130km, n22, σ1$27/18, mb3.8/7, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**7.23**	**276**	Pn	Pn	00 21 29.5	-9.3
	0.2nm,0.3s,baz=120,slow=12,SNR=8.3						
	16nm,0.9s						
MSVF				AML	AML		
RAR	**Rarotonga**	**13.99**	**103**	LR	LR	00 27 01.7	
	comp=Z,338nm,19.9s,baz=280,slow=32						
DZM	**Mont Dzumac**	**18.28**	**256**	P	**P**	**00 24 00.9**	**+1.3**
	3.6nm,1.0s,baz=93,slow=19,SNR=3.6						
PPT	**Papeete**	**23.62**	**91**	LR	LR	00 31 36.5	
	comp=Z,95nm,20.1s,baz=272,slow=31						
WRA	**Warramunga Arr**	**48.24**	**260**	P	**P**	**00 28 21.8**	**-2.0**
	1.4nm,0.9s,baz=98,slow=7.0,SNR=7.0						
WRA				PcP	**PcP**	**00 29 48.0**	**-0.9**
	0.4nm,0.8s,baz=91,slow=3.7,SNR=5.8						
	1.4nm,0.9s						
ASAR	**Alice Springs**	**48.26**	**255**	P	**P**	**00 28 22.6**	**-1.3**
	4.9nm,0.8s,baz=86,slow=8.4,SNR=43						
ASAR				PcP	**PcP**	**00 29 49.8**	**+0.8**
	1.5nm,0.9s,baz=99,slow=4.3,SNR=6.6						
	4.9nm,0.8s						
PETK	**Petropavlovsk-**	**75.43**	**343**	P	**P**	**00 31 25.2**	**+0.3**
	5.8nm,1.1s,baz=180,slow=6.5,SNR=6.4						
	5.8nm,1.1s						
NVAR	**Mina Array Bea**	**77.37**	**42**	P	**P**	**00 31 37.3**	**+0.7**
	1.1nm,0.9s,baz=228,slow=9.3,SNR=7.6						
	1.1nm,0.9s						
TXAR	**Lajitas Array**	**83.21**	**56**	P	**P**	**00 32 07.6**	**-0.3**
	1.3nm,1.1s,baz=212,slow=4.4,SNR=4.5						
	1.3nm,1.1s						
H03S2	**Juan Fernandez**	**84.21**	**124**	T	T	02 06 02.8	
	baz=250,slow=74,SNR=14						
H03S1	**Juan Fernandez**	**84.23**	**124**	T	T	02 06 03.8	
	baz=250,slow=74,SNR=12						
H03S3	**Juan Fernandez**	**84.23**	**124**	T	T	02 06 02.5	
	baz=250,slow=74,SNR=14						
PDAR	**Pinedale Array**	**85.31**	**42**	P	**P**	**00 32 17.2**	**-1.1**
	1.3nm,0.9s,baz=222,slow=2.0,SNR=8.6						
	1.3nm,0.9s						
ILAR	**Eielson Array**	**85.80**	**11**	P	**P**	**00 32 18.4**	**-1.6**
	2.0nm,1.1s,baz=210,slow=6.2,SNR=6.7						
	2.0nm,1.1s						
CLL	**Collm**	**146.89**	**351**	*i* PKPbc	**PKPbc**	**00 39 23.1**	**+0.5**
	comp=Z,12nm,1.2s						
OSTC	**Ostas**	**147.06**	**348**	*e*P	**PKPbc**	**00 39 24.8**	**+1.6**
BRG	**Berggiesshubel**	**147.17**	**350**	*e*P	**PKPbc**	**00 39 24.4**	**+0.9**
BRG				Amp		00 39 25.4	
	comp=Z,9.5nm,1.2s						
BRTR	**Keskin Array B**	**147.96**	**317**	PKPbc	**PKPbc**	**00 39 27.3**	**+1.1**
	comp=Z,2.4nm,0.9s,baz=132,slow=1.8,SNR=14						
KHC	**Kasperske Hory**	**148.91**	**350**	*e*P	**PKPbc**	**00 39 29.5**	**+1.3**
CKRC	**Cesky Krumlov**	**149.09**	**349**	*e*P	**PKPbc**	**00 39 30.0**	**+1.4**
GERES	**GERESS Array B**	**149.17**	**350**	PKPbc	**PKPbc**	**00 39 29.6**	**+0.7**
	comp=Z,2.4nm,1.0s,baz=349,slow=0.7,SNR=11						
MMAI	**Mount Meron Ar**	**149.72**	**304**	PKPbc	**PKiKP**	**00 39 33.0**	**+1.3**
	comp=Z,2.6nm,0.8s,baz=79,slow=4.4,SNR=5.8						

*IDC **30** 00:37:01.6±0.6, 17.°55S×174.°95W, h0km, mb4.3/11, mbtmp4.3/13, ML4.3/2, MS4.0/21, Error ellipse: s-maj=27.8km s-min=14.6km az=137.0*

*MOS **30** 00:37:04.5±1.7, 17.°38S×174.°72W, h10km, mb5.1/21, Error ellipse: s-maj=14.3km s-min=10.9km az=146.3*

*NEIC **30** 00:37:04.4±1.6, 17.°5S±0.°1×174.°64W±0.°09, h10km±1km, mb5.0/149, Error ellipse: s-maj=18.1km s-min=12.8km az=150.0*

*GCMT **30** 00:37:06.4±0.4, 17.°79S±0.°03×174.°67W±0.°04, h20km±1km, MW5.0/85, Moment Tensor Solution. s22,c28; s85,c101; Duration: 0 Moment tensor: Scale 10^16 Nm; Mrr-3.70±.23; Mθθ2.34±.17; Mϕϕ1.35±.14; Mrθ0.52±.34; Mrϕ1.11±.08; Mθϕ0.82±.31; Best double couple: Mo3.51300×10^16 NP1:ϕs231.00000°, δ53.00000°, λ-96.00000°. Principal axes: T 3.1760, Plg7.0000°, Azm326.0000°; N 0.6650, Plg5.0000°, Azm235.0000°; P -3.8510, Plg81.0000°, Azm112.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 30 00:37:03.9±0.5, 17.°59S±0.°08×174.°59W±0.°07, h12km±2km, h12km:pP-P,n397, σ1$15/371, mb5.0/90, MS4.1/21, 47C-57D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.55**	**37**	Pn	**Pn**	**00 38 09.2**	**-3.5**
	5.0nm,0.3s,baz=74,slow=15,SNR=4.2						
	13nm,0.3s						
AFI				AML	AML		
FUTU	**Fugatoga**	**4.71**	**313**		**Pn**	**00 38 11.8**	**-3.1**
MSVF	**Nonsavu**	**7.02**	**268**	Pn	**Pn**	**00 38 42.4**	**-4.3**
	0.3nm,0.3s,baz=109,slow=16,SNR=7.8						
MSVF				LR	LR	00 40 54.0	
	comp=Z,1μm,18.5s,baz=96,slow=35						
	7.1nm,1.0s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**7.02**	**268**	*i* P	**Pn**	**00 38 46.5**	**-0.2**
MSVF	**Nonsavu**	**7.02**	**268**		**Pn**	**00 38 45.6**	**-1.1**
SANVU	**Saraoutou**	**17.59**	**274**		**P**	**00 41 09.6**	**-0.4**
PINNC	**Pines Island,**	**17.59**	**251**		**P**	**00 41 10.7**	**+0.6**
PINNC				IAmb	IAmb	00 41 16.5	
	comp=Z,193nm,1.4s						
OUENC	**Ouen Island, N**	**18.10**	**252**	P	**Pn**	**00 41 15.0**	**-0.3**
DZM	**Mont Dzumac**	**18.39**	**253**	P	**Pn**	**00 41 20.5**	**+1.6**
	comp=Z,27nm,1.1s,baz=73,slow=19,SNR=10						
KOUNC	**Koumac, New Ca**	**20.18**	**258**	P	**P**	**00 41 37.8**	**-0.8**
KOUNC				IAmb	IAmb	00 41 54.1	
	comp=Z,164nm,1.4s						
URZ	**Urewera**	**21.83**	**198**	LR	LR	00 49 12.8	
	comp=Z,1μm,19.2s,baz=26,slow=34						
TOZ	**Tahuroa Road**	**21.87**	**201**		**P**	**00 41 54.2**	**-2.3**
PPT2	**Papeete2**	**23.84**	**94**	*e*S	**S**	**00 46 32.6**	**-0.6**
	comp=Z,852nm,25.5s						
PPT2				*e*LR	LR	00 47 56.0	
	comp=Z,659nm,28.5s						
PPT2				*e*LR	LR	00 48 03.5	
	comp=Z,641nm,23.8s						
PPT	**Papeete**	**23.84**	**94**	LR	LR	00 48 54.8	
	comp=Z,326nm,20.9s,baz=249,slow=30						
HNR	**Honiara**	**26.03**	**285**	LR	LR	00 51 12.6	
	comp=Z,626nm,19.6s,baz=192,slow=33						
RPZ	**Rata Peaks**	**28.73**	**202**		**P**	**00 42 59.3**	**-1.8**
TAOE	**Nuku Hiva Isla**	**34.58**	**80**	*e*LR	LR	00 52 55.2	
	comp=Z,274nm,23.0s						
KRVT	**Kevat (AS076**	**35.26**	**288**	LR	LR	00 56 53.3	
	comp=Z,516nm,19.1s,baz=137,slow=34						
PMG	**Port Moresby**	**38.02**	**277**	*i* P	**P**	**00 44 22.6**	**+0.3**
PMG				pmax	pmax		
	comp=Z,14nm,1.0s						
H11N3	**WAKE ISLAND Hy**	**41.29**	**333**	T	T	01 29 12.7	
	baz=152,slow=76,SNR=5.7						
H11N1	**WAKE ISLAND Hy**	**41.30**	**333**	T	T	01 29 13.8	
	baz=152,slow=76,SNR=6.5						
H11N2	**WAKE ISLAND Hy**	**41.31**	**333**	T	T	01 29 15.7	
	baz=152,slow=76,SNR=5.3						
STKA	**Stephens Creek**	**41.98**	**242**	P	**P**	**00 44 52.3**	**-2.7**
	comp=Z,2.0nm,0.5s,baz=90,slow=9.2,SNR=5.5						
	comp=Z,2.0nm,0.5s						
STKA	**Stephens Creek**	**41.98**	**242**	*e*P	**P**	**00 44 56.9**	**+1.8**
STKA				pmax	pmax		
	comp=Z,12nm,1.0s						
STKA	**Stephens Creek**	**41.98**	**242**		**P**	**00 44 54.3**	**-0.7**
INKA	**Innaminka**	**42.24**	**248**		**P**	**00 44 57.6**	**+0.4**
JAY	**Jayapura**	**46.34**	**284**	LR	LR	01 03 12.5	
	comp=Z,177nm,20.7s,baz=306,slow=34						
WR8	**Warramunga Arr**	**48.12**	**259**	P	**P**	**00 45 43.1**	**-1.0**
WR8				IAmb	IAmb	00 45 48.5	
	comp=Z,15nm,1.4s						
WRAB	**Tennant Creek**	**48.26**	**259**	*i* P	**P**	**00 45 45.2**	**0.0**
WRAB				pmax	pmax		
	comp=Z,7.0nm,1.1s						
WRA	**Warramunga Arr**	**48.27**	**259**	P	**P**	**00 45 41.0**	**-4.3**
	comp=Z,3.8nm,1.1s,baz=95,slow=6.6,SNR=7.4						
WRA				PcP	**PcP**	**00 47 10.0**	**-2.2**
	comp=Z,4.4nm,1.1s,baz=94,slow=3.4,SNR=8.4						
	comp=Z,3.8nm,1.1s						
WRA	**Warramunga Arr**	**48.27**	**259**	*e*P	**P**	**00 45 44.3**	**-1.0**
WRA				pmax	pmax		
	comp=Z,4.0nm,1.1s						
WRA	**Warramunga Arr**	**48.27**	**259**	P	**P**	**00 45 44.2**	**-1.0**
AS31	**Alice Springs**	**48.38**	**254**		**P**	**00 45 43.3**	**-2.7**
ASAR	**Alice Springs**	**48.38**	**254**	P	**P**	**00 45 42.2**	**-3.9**
	comp=Z,7.6nm,0.7s,baz=89,slow=8.4,SNR=72						
ASAR				PcP	**PcP**	**00 47 10.8**	**-1.9**
	comp=Z,2.0nm,0.9s,baz=107,slow=3.2,SNR=4.9						
	comp=Z,7.6nm,0.7s						
ASAR	**Alice Springs**	**48.38**	**254**	P	**P**	**00 45 44.5**	**-1.6**
ASAR						00 47 11.6	
ASAR	**Alice Springs**	**48.38**	**254**	P	**P**	**00 45 44.5**	**-1.6**
ASAR				PcP	**PcP**	**00 47 11.6**	**-1.1**
MTN	**Manton Dam**	**52.45**	**267**		**P**	**00 46 17.4**	**+0.5**
KNRA	**Kununurra**	**54.14**	**263**	P	**P**	**00 46 28.9**	**-0.5**
KNRA				IAmb	IAmb	00 46 31.6	
	comp=Z,15nm,1.1s						
SIJI	**Sorong**	**55.73**	**281**	LR	LR	01 09 05.5	
	comp=Z,135nm,20.4s,baz=191,slow=35						
FITZ	**Fitzroy Crossi**	**56.67**	**260**	LR	LR	01 09 37.6	
	comp=Z,179nm,18.2s,baz=78,slow=35						
FITZ	**Fitzroy Crossi**	**56.67**	**260**	P	**P**	**00 46 47.6**	**0.0**
RPN	**Rapa Nui**	**60.52**	**112**	LR	LR	01 06 15.9	
	comp=Z,149nm,21.4s,baz=259,slow=29						
VNDA	**Vanda**	**61.09**	**186**	P	**P**	**00 47 18.4**	**+1.1**
	comp=Z,3.9nm,1.2s,baz=21,slow=7.6,SNR=5.2						
VNDA				LR	LR	01 09 50.6	
	comp=Z,137nm,20.7s,baz=348,slow=32						
	comp=Z,3.9nm,1.2s						
VNDA	**Vanda**	**61.09**	**186**	P	**P**	**00 47 19.7**	**+2.3**
VNDA				pmax	pmax		
	comp=Z,45nm,0.7s						
VNDA	**Vanda**	**61.09**	**186**		**P**	**00 47 19.7**	**+2.3**
EDFI	**Ende, Flores**	**62.43**	**269**	P	**P**	**00 47 29.3**	**+1.7**
	comp=Z,14nm,1.4s						
DAV	**Davao City (W)**	**63.96**	**287**	LR	LR	01 12 57.5	
	comp=Z,68nm,20.0s,baz=1.5,slow=34						
DBNI	**Kabupaten Domp**	**65.72**	**268**	P	**P**	**00 47 50.4**	**+1.3**
PLAI	**Plampang**	**66.14**	**268**	P	**P**	**00 47 54.2**	**+2.4**
	comp=Z,23nm,1.1s						
QSPA	**South Pole Qui**	**72.46**	**180**	P	**P**	**00 48 30.2**	**0.0**
	comp=Z,7.2nm,1.0s,baz=30,slow=2.7,SNR=10						
QSPA				LR	LR	01 16 06.1	
	comp=Z,114nm,20.6s,baz=12,slow=32						
	comp=Z,7.2nm,1.0s						
QSPA	**South Pole Qui**	**72.46**	**180**	P	**P**	**00 48 28.2**	**-2.0**
QSPA				IAmb	IAmb	00 48 34.3	
	comp=Z,20nm,1.2s						
PEA0B	**Petropavlovsk-**	**74.37**	**343**	*i* P	**P**	**00 48 42.4**	**+1.1**
KMRM	**Mail Ridge**	**74.48**	**38**		**P**	**00 48 43.1**	**+0.8**
KMRM				IAmb	IAmb	00 48 49.7	
	comp=Z,19nm,0.9s						
VES	**Vestal, Richgr**	**74.71**	**44**	P	**P**	**00 48 44.2**	**+0.6**
YSS	**Yuzhno-Sakhali**	**74.83**	**331**	*e*P	**P**	**00 48 46.2**	**+2.1**
YSS				MLR	MLR		
	comp=Z,500nm,16.0s						
ISA	**Isabella, Lake**	**75.01**	**44**	P	**P**	**00 48 46.2**	**+0.7**
ISA				pmax	pmax		
	comp=Z,23nm,1.5s						
ISA	**Isabella, Lake**	**75.01**	**44**	P	**P**	**00 48 46.2**	**+0.7**
ISA				IAmb	IAmb	00 48 52.8	
	comp=Z,23nm,1.5s						

BORC	**Borrego Spring**	**75.08**	**47**	P	**P**	**00 48 45.5**	**-0.4**
YUH	**Yuha Desert**	**75.10**	**48**	P	**P**	**00 48 46.3**	**+0.3**
YUH				IAmb	IAmb	00 48 58.2	
	comp=Z,22nm,1.9s						
PFO	**Pinyon Flats O**	**75.24**	**47**	*ce*P	**P**	**00 48 48.0**	**+1.0**
PFO				pmax	pmax		
	comp=Z,5.0nm,1.3s						
AFDM	**Forest Hills D**	**75.34**	**40**	P	**P**	**00 48 47.8**	**+0.5**
ORV	**Oroville**	**75.39**	**40**	P	**P**	**00 48 48.7**	**+1.2**
ORV				pmax	pmax		
	comp=Z,9.0nm,1.6s						
ORV	**Oroville**	**75.39**	**40**	P	**P**	**00 48 48.7**	**+1.2**
LRMC	**Laurel Mtn Rad**	**75.44**	**45**	P	**P**	**00 48 49.1**	**+1.1**
O03E	**Paynes Creek**	**75.66**	**39**	P	**P**	**00 48 50.5**	**+1.3**
CCCA	**Chr Cany lake**	**75.68**	**45**	P	**P**	**00 48 50.3**	**+1.0**
CLC	**China Lake**	**75.68**	**45**	P	**P**	**00 48 49.7**	**+0.3**
CLC				pmax	pmax		
	comp=Z,25nm,1.7s						
CLC	**China Lake**	**75.68**	**45**	P	**P**	**00 48 49.7**	**+0.3**
CLC				IAmb	IAmb	00 48 52.8	
	comp=Z,24nm,1.7s						
CWC	**Cottonwood Cre**	**75.72**	**44**	P	**P**	**00 48 49.9**	**+0.2**
M02C	**Callahan**	**75.73**	**38**	P	**P**	**00 48 48.5**	**-1.1**
M02C				IAmb	IAmb	00 49 00.8	
	comp=Z,35nm,1.9s						
MDPB	**Devils Postpil**	**75.75**	**42**		**P**	**00 48 49.6**	**-0.4**
BELC	**Belle Mtn. Jos**	**75.78**	**47**	P	**P**	**00 48 50.9**	**+0.8**
MPMC	**Manual Prospec**	**75.89**	**45**		**P**	**00 48 51.8**	**+1.0**
MPMC				IAmb	IAmb	00 48 58.0	
	comp=Z,37nm,1.8s						
GSC	**Goldstone, Bar**	**75.93**	**46**	P	**P**	**00 48 49.9**	**-0.9**
GSC				pmax	pmax		
	comp=Z,26nm,1.9s						
GSC	**Goldstone, Bar**	**75.93**	**46**	P	**P**	**00 48 49.9**	**-0.9**
GSC				IAmb	IAmb	00 48 53.0	
	comp=Z,26nm,1.9s						
BC3	**Big Chuckawall**	**75.97**	**48**		**P**	**00 48 52.1**	**+0.9**
BC3				IAmb	IAmb	00 48 58.5	
	comp=Z,13nm,1.4s						
YBH	**Yreka Blue Hor**	**76.03**	**37**	P	**P**	**00 48 52.8**	**+1.5**
YBH				pmax	pmax		
	comp=Z,7.0nm,1.2s						
YBH	**Yreka Blue Hor**	**76.03**	**37**		**P**	**00 48 52.8**	**+1.5**
M03C	**McCloud**	**76.08**	**38**	P	**P**	**00 48 52.4**	**+0.8**
MPK	**Martis Peak**	**76.13**	**41**		**P**	**00 48 51.9**	**-0.3**
MPK				IAmb	IAmb	00 48 59.1	
	comp=Z,18nm,1.4s						
BEKR	**Beckworth**	**76.27**	**40**	P	**P**	**00 48 53.9**	**+1.1**
BEKR				IAmb	IAmb	00 48 58.8	
	comp=Z,27nm,1.9s						
PNTR	**Pine Nut**	**76.28**	**41**	P	**P**	**00 48 53.6**	**+0.7**
PNTR				IAmb	IAmb	00 48 56.3	
	comp=Z,31nm,1.7s						
IRM	**Iron Mountain**	**76.45**	**47**		**P**	**00 48 54.4**	**+0.6**
IRM				IAmb	IAmb	00 49 01.8	
	comp=Z,19nm,1.5s						
LHV	**Little Huntoon**	**76.48**	**42**	P	**P**	**00 48 54.8**	**+1.1**
LHV				IAmb	IAmb	00 49 04.8	
	comp=Z,17nm,1.5s						
GWY	**Greenwater Val**	**76.51**	**45**	P	**P**	**00 48 54.1**	**-0.1**
GWY				IAmb	IAmb	00 48 56.3	
	comp=Z,29nm,1.9s						
FURC	**Furnace Creek,**	**76.54**	**44**	P	**P**	**00 48 54.1**	**0.0**
L04D	**Klamath Falls**	**76.57**	**37**	IAmb	IAmb	00 49 04.2	
	comp=Z,35nm,1.7s						
NVAR	**Mina Array Bea**	**76.71**	**42**	P	**P**	**00 48 56.3**	**+0.9**
	comp=Z,1.7nm,0.8s,baz=224,slow=9.6,SNR=8.2						
	comp=Z,1.7nm,0.8s						
GMN	**Gold Mountain**	**76.74**	**44**	P	**P**	**00 48 56.3**	**+0.7**
PAHR	**Pah Rah Range**	**76.78**	**41**		**P**	**00 48 55.2**	**-0.4**
NV11	**Mina Array Sit**	**76.81**	**42**	IAmb	IAmb	00 49 06.6	
	comp=Z,29nm,1.6s						
WCT	**Wildcat Mounta**	**76.88**	**44**	IAmb	IAmb	00 49 03.3	
	comp=Z,25nm,1.7s						
KVN	**Kaiserville**	**77.20**	**42**	IAmb	IAmb	00 49 00.2	
	comp=Z,25nm,1.9s						
TPH	**Tonopah**	**77.21**	**43**	IAmb	IAmb	00 49 08.9	
	comp=Z,22nm,1.5s						
TPNV	**Topopah Spring**	**77.22**	**44**	P	**P**	**00 48 58.3**	**+0.1**
TPNV				pmax	pmax		
	comp=Z,27nm,1.7s						
TPNV	**Topopah Spring**	**77.22**	**44**		**P**	**00 48 58.3**	**+0.1**
TPNV			

ALQ Albuquerque 83.07 50 P P 00 49 30.1 +0.2
ALQ IAmb IAmb 00 49 37.1
comp=Z,12nm,1.2s
ANMO Albuquerque 83.08 50 *ce*P **P 00 49 31.3 +1.4**
ANMO pmax pmax
comp=Z,20nm,2.5s
ANMO Albuquerque 83.08 50 P P 00 49 29.9 -0.1
ANMO IAmb IAmb 00 49 37.0
comp=Z,11nm,1.2s
PV22 Blue Mesa, Par 83.09 46 IAmb IAmb 00 49 36.8
comp=Z,19nm,1.2s
TPB28 83.11 54 P P **00 49 29.8 -0.2**
TPB28 IAmb IAmb 00 49 32.0
comp=Z,7.3nm,1.3s
PV07 Paradox Valley 83.14 46 P P **00 49 29.9 -0.3**
PV07 IAmb IAmb 00 49 37.0
comp=Z,15nm,1.1s
PV15 Paradox Valley 83.21 46 P P **00 49 30.3 -0.3**
PV15 IAmb IAmb 00 49 37.2
comp=Z,18nm,1.1s
ALPN Alpine 83.23 55 P P 00 49 31.2 +0.4
TPB01 Permian Basin 83.36 55 P P **00 49 31.1 -0.2**
RDMU Red Mountain 83.56 44 IAmb IAmb 00 49 37.7
comp=Z,22nm,1.9s
AHID Auburn Hatcher 83.67 42 P P **00 49 32.6 -0.2**
AHID IAmb IAmb 00 49 39.4
comp=Z,12nm,1.4s
SNOW Snow King Moun 84.24 41 P P **00 49 35.5 -0.3**
MNHN Monahans 84.32 55 P P 00 49 36.5 +0.3
YPP Pitchstone Pla 84.62 40 IAmb IAmb 00 49 48.9
comp=Z,13nm,1.6s
BW06 Boulder Array 84.65 42 IAmb IAmb 00 49 38.3
comp=Z,24nm,1.9s
PD31 Pinedale Array 84.65 42 P P **00 49 37.1 -0.7**
PD31 IAmb IAmb 00 49 38.3
comp=Z,11nm,1.4s
PDAR Pinedale Array 84.65 42 P P **00 49 37.9 0.0**
comp=Z,1.2nm,0.8s,baz=218,slow=3.1,SNR=12
comp=Z,1.2nm,0.8s
PDAR Pinedale Array 84.65 42 P P 00 49 37.6 -0.3
YHL Hebgen Lake 84.69 40 P P **00 49 39.1 +1.0**
YHL IAmb IAmb 00 49 46.0
comp=Z,14nm,1.3s
COLA College 84.72 11 *i* P P **00 49 38.0 +0.7**
COLA pmax pmax
comp=Z,11nm,1.1s
YMR Madison River 84.73 40 P P 00 49 37.9 -0.3
ODSA Odessa 84.80 54 IAmb IAmb 00 49 45.5
comp=Z,17nm,1.1s
ILAR Eielson Array 84.81 12 P P **00 49 37.2 -0.6**
comp=Z,0.6nm,0.8s,baz=229,slow=6.0,SNR=7.8
comp=Z,0.6nm,0.8s
ILAR Eielson Array 84.81 12 *e*P P **00 49 42.0 +4.2**
ILAR pmax pmax
comp=Z,5.0nm,1.1s
ILAR Eielson Array 84.81 12 P P 00 49 36.6 -1.2
YHH Holmes Hill 84.86 40 P P 00 49 38.7 -0.2
YHH IAmb IAmb 00 49 41.5
comp=Z,19nm,1.7s
H03S2 Juan Fernandez 84.94 124 T T 02 23 21.3
baz=250,slow=74
H03S1 Juan Fernandez 84.95 124 T T 02 23 22.2
baz=250,slow=74
H03S3 Juan Fernandez 84.96 124 T T 02 23 28.8
baz=250
J25K Salcha River, 84.97 12 P P **00 49 39.7 +1.0**
J25K IAmb IAmb 00 49 44.5
comp=Z,20nm,1.6s
128A Castleberry Fa 85.06 54 P P **00 49 40.2 +0.3**
128A IAmb IAmb 00 49 46.8
comp=Z,10nm,1.0s
MAW Mawson 85.36 199 P P **00 49 38.8 -2.0**
comp=Z,9.3nm,1.2s,baz=55,slow=3.4,SNR=4.7
MAW LR LR 01 25 59.2
comp=Z,117nm,18.4s,baz=106,slow=34
comp=Z,9.3nm,1.2s
C15A Salmond Ranch, 85.39 37 P P **00 49 41.3 0.0**
OZNA Ozona 85.43 56 P P 00 49 40.8 -1.0
OZNA IAmb IAmb 00 49 48.7
comp=Z,14nm,1.3s
YNE Yellowstone No 85.49 40 P P **00 49 41.9 -0.1**
YNE IAmb IAmb 00 49 52.8
comp=Z,29nm,1.8s
129A Stewart Farms, 85.54 54 P P **00 49 42.6 +0.3**
129A IAmb IAmb 00 49 49.2
comp=Z,8.5nm,1.0s
CMIG Matias Romero 85.68 71 LR LR 01 18 51.5
comp=Z,58nm,21.1s,baz=275,slow=29
PRP Porcupine Dome 85.74 12 P P 00 49 42.2 -0.4
PRP IAmb IAmb 00 49 51.3
comp=Z,12nm,1.2s
POST Post 85.99 54 P P 00 49 44.5 -0.1
POST IAmb IAmb 00 49 50.9
comp=Z,13nm,1.1s
BJI2 Beijing 86.15 314 P P **00 49 45.5 +0.4**
BJI2 pP **sP 00 49 50.0 +0.4**
BJI2 sP **pwP 00 49 52.5 +1.0**
BJI2 pmax pmax
comp=Z,9.0nm,2.0s
BJI2 pmax pmax
comp=Z,190nm,9.7s
HNDO Hondo 86.36 58 P P 00 49 47.2 +0.8
BILL Bilibino 86.53 353 *ce*P **P 00 49 46.1 -0.2**
BILL pmax pmax
comp=Z,11nm,1.2s
ZEA Zeya 86.72 330 *e*P **P 00 49 48.6 +1.1**
ZEA pmax pmax
comp=Z,10.0nm,1.3s
BRDY Brady 87.25 56 P P 00 49 50.6 -0.1
BRDY IAmb IAmb 00 49 57.3
comp=Z,12nm,1.1s
ABTX Abilene, Hawle 87.26 55 P P **00 49 50.6 -0.1**
G26K Porcupine Rive 87.34 12 P P 00 49 50.7 +0.5
G26K IAmb IAmb 00 49 52.9
comp=Z,13nm,1.4s
XLT XiLinHaoTe 87.95 317 *e*P **P 00 49 58.5 +4.6**
XLT pmax pmax
comp=Z,8.0nm,1.6s
PLCA Paso Flores 88.88 132 LR LR 01 20 52.4
comp=Z,66nm,19.4s,baz=250,slow=30
XAN Xi'an 88.99 306 P P **00 50 03.3 +4.3**
XAN pmax pmax
comp=Z,14nm,1.0s
HHC Hu-ho-hao-te 89.68 313 *e*P **P 00 50 02.5 +0.4**
HHC pP sP 00 50 07.0 +0.3
HHC sP pwP 00 50 10.0 +1.4
HHC pmax pmax
comp=Z,8.0nm,0.6s
ELIB Princess Elisa 89.86 186 *d*P **P 00 50 04.4 +1.9**
F31M Tsiigehtchic 89.93 15 P P 00 50 02.4 -0.1
TROLL Troll, Antarti 90.60 179 ⇑P **P 00 50 09.0 +3.0**
comp=Z,349nm,1.0s
TROLL Troll, Antarti 90.60 179 ⇑P **P 00 50 03.6 -2.4**
comp=Z,335nm,1.0s
YAK Yakutsk 90.67 337 LR LR 01 29 26.9
comp=Z,56nm,18.4s,baz=100,slow=35
SNAA Sanae 90.78 177 ⇑P **P 00 50 09.5 +2.8**
comp=Z,70nm,0.8s
SNAA Sanae 90.78 177 LR LR 01 24 57.4
comp=Z,85nm,21.9s,baz=189,slow=32
SNAA Sanae 90.78 177 *ce*P **P 00 50 09.8 +3.1**
SNAA pmax pmax
comp=Z,7.0nm,1.1s
SNAA Sanae 90.78 177 P P 00 50 07.5 +0.8
SNAA IAmb IAmb 00 50 10.1
comp=Z,11nm,1.2s
VNA3 Neumayer Olymp 90.78 175 ⇑P **P 00 50 09.6 +2.9**
comp=Z,6.0nm,0.8s
VNA3 Neumayer Olymp 90.78 175 P P 00 50 04.6 -2.1
VNA2 Neumayer--Watz 91.26 176 ⇑P **P 00 50 12.5 +3.6**
comp=Z,13nm,0.7s,baz=190,slow=2.8
VNA2 Neumayer--Watz 91.26 176 P P 00 50 07.1 -1.8
baz=182,slow=4.4
CMAR Chiang Mai Arr 92.22 289 P P 00 50 13.3 -1.0
comp=Z,0.8nm,0.3s,baz=104,slow=3.1,SNR=10
CMAR LR LR 01 29 35.1
comp=Z,40nm,19.3s,baz=40,slow=34
comp=Z,0.8nm,0.3s
CMAR Chiang Mai Arr 92.22 289 P P 00 50 13.6 -0.7
CMAR Chiang Mai Arr 92.22 289 P P 00 50 13.6 -0.7
LZH Lanzhou 93.61 307 *e*P **P 00 50 16.0 -4.5**
LZH sP pwP 00 50 28.0 +1.0
LZH pmax pmax
comp=Z,12nm,1.1s
ATAH Atahualpa 93.73 99 LR LR 01 22 00.4
comp=Z,72nm,19.3s,baz=300,slow=29

TNCH TengChong 94.56 295 ⇓P **P 00 50 25.5 +0.3**
TNCH pP pP 00 50 27.8 -0.7
TNCH sP sP 00 50 30.5 +0.8
TNCH pmax pmax
comp=Z,73nm,0.8s
SONM Songino Array 95.72 318 LR LR 01 29 22.5
comp=Z,69nm,21.1s,baz=31,slow=33
TLY Talaya 98.63 321 *i* P **P 00 50 42.5 -0.3**
TLY pmax pmax
comp=Z,7.0nm,1.0s
ZALV Zalesovo Beam 110.24 322 PKiKP **PKiKP 00 55 34.8 -0.8**
comp=Z,0.4nm,0.5s,baz=343,slow=3.0,SNR=4.3
HYB Hyderabad 110.70 282 *e*PKiKP **PKiKP 00 55 37.2 -0.4**
HYB *es*PKiKP **sPKiKP 00 55 42.0 -0.2**
KURK Kurchatov 114.02 318 *i* PKiKP **PKiKP 00 55 44.6 +1.8**
KURBB Kurchatov Arra 114.08 318 PKiKP PKPdf 00 55 41.0 -1.9
comp=Z,1.0nm,0.9s,baz=86,slow=1.9,SNR=4.3
AAK Ala-Archa 117.00 309 *i* PKiKP **PKiKP 00 55 50.3 +1.2**
BVAR Borovoye Array 118.89 321 PKP **PKPdf 00 55 50.9 -1.3**
comp=Z,2.9nm,0.8s,baz=146,slow=1.1,SNR=6.8
BORK Borovoye 118.93 321 *i* PKiKP **PKiKP 00 55 55.1 +2.8**
ARTI Arti 124.69 327 *i* PKiKP **PKPdf 00 56 03.1 -0.1**
ARTI 00 57 49.2
ARTI 01 03 14.5
ARTI SS SS 01 14 44.7 +0.7
OBN Obninsk 135.63 335 *i* PKiKP **PKiKP 00 56 27.1 +1.6**
OBN pmax pmax
comp=Z,4.0nm,0.9s
AKASG Malin Array Be 141.88 335 PKP **PKPdf 00 56 36.1 +0.6**
comp=Z,0.7nm,0.5s,baz=48,slow=1.3,SNR=6.4
RAYN Ar Rayn 142.09 286 ⇓PKiKP **PKiKP 00 56 38.7 -1.1**
KMBO Kilima Mbogo 143.54 243 PKiKP **PKPdf 00 56 39.2 -0.7**
KMBO Kilima Mbogo 143.54 243 PKPdf 00 56 39.2 -0.7
VASR Vaslui 145.63 332 ⇓P **PKPab 00 56 42.6 -0.2**
VASR Vaslui 145.63 332 ⇓P **PKPab 00 56 42.6 -0.2**
NGRR Negesti 145.63 333 ⇓P **PKPdf 00 56 41.2 -1.0**
MNTR Muntenesti 145.66 333 ⇓P **PKPdf 00 56 40.7 -1.6**
PDRR Padureni 145.68 333 ⇓P **PKPdf 00 56 42.3 0.0**
PDRR Padureni 145.68 333 ⇓P **PKPdf 00 56 42.3 0.0**
DMBR Dumbraveni 145.73 333 ⇑P **PKPdf 00 56 42.3 -0.1**
DMBR Dumbraveni 145.73 333 ⇑P **PKPdf 00 56 42.3 -0.1**
CLL Collm 145.82 352 *i* PKP2 **PKPdf 00 56 42.4 0.0**
CLL pmax pmax
comp=Z,19nm,1.2s
CLL pmax pmax
comp=Z,40nm,1.1s
CLL Collm 145.82 352 *i* PKPbc **PKPdf 00 56 42.4 0.0**
comp=Z,19nm,1.2s
CLL *i* PKiKP **sPKPdf 00 56 46.9 -0.2**
comp=Z,40nm,1.1s
BUR08 Bucovina Ar. S 145.92 336 PKPdf 00 56 41.9 -1.0
BURAR Bucovina Array 145.93 336 ⇑PKP2 **PKPab 00 56 44.1 +0.1**
BURAR Bucovina Array 145.93 336 PKPdf 00 56 42.1 -0.7
BURAR Bucovina Array 145.93 336 ⇑P **PKPab 00 56 44.1 +0.1**
OSTC Ostas 146.00 348 *e*PKP2 **PKPab 00 56 43.8 -0.2**
OSTC Ostas 146.00 348 *e*PKP **PKPab 00 56 43.8 -0.2**
CHVC Chvalec 146.00 348 *e*PKP2 **PKPab 00 56 43.8 -0.3**
CHVC Chvalec 146.00 348 *e*PKP **PKPab 00 56 43.8 -0.3**
BNN Bunyan 146.08 315 PKPdf 00 56 42.2 -1.3
VLDR Vladestil 146.10 331 ⇑P **PKPdf 00 56 43.1 0.0**
VLDR Vladestil 146.10 331 ⇑P **PKPdf 00 56 43.1 0.0**
BRG Berggiesshubel 146.11 350 *e*PKP **PKPdf 00 56 43.1 +0.1**
BRG Amp 00 56 44.6
comp=Z,9.1nm,1.2s
BRG Berggiesshubel 146.11 350 P **PKiKP 00 56 48.4 +1.3**
BRG Amp 00 56 49.5
comp=Z,18nm,1.2s
BIZ Bicaz 146.12 334 ⇑P **PKPbc 00 56 43.9 -0.1**
BIZ Bicaz 146.12 334 ⇑P **PKPbc 00 56 43.9 -0.1**
TESR Tescani 146.23 333 ⇓P **PKPbc 00 56 44.2 -0.2**
TESR Tescani 146.23 333 ⇓P **PKPbc 00 56 44.2 -0.2**
STEB Steborice 146.24 346 *e*PKP **PKPbc 00 56 44.1 -0.2**
GHRR 146.25 332 ⇓P **PKPab 00 56 45.1 0.0**
GHRR 146.25 332 ⇓P **PKPab 00 56 45.1 0.0**
TLCR 146.25 330 ⇓P **PKPbc 00 56 44.4 0.0**
TLCR 146.25 330 ⇓PKP2 **PKPbc 00 56 44.4 0.0**
TLCR 146.25 330 ⇓P **PKPbc 00 56 44.4 0.0**
SCTR Scanteiesti 146.27 331 ⇑P **PKPbc 00 56 44.0 -0.4**
SCTR Scanteiesti 146.27 331 ⇑P **PKPbc 00 56 44.0 -0.4**
KRLC Kraliky 146.33 347 *e*PKP2 **PKPbc 00 56 44.8 +0.2**
KRLC Kraliky 146.33 347 *e*PKP **PKPbc 00 56 44.8 +0.2**
KRLC *ex* x 00 56 49.3
MORC Moravsky Berou 146.44 346 *e*PKP **PKPbc 00 56 44.7 -0.2**
BMOL Mol 146.46 0 *d*PKP **PKPbc 00 56 44.7 -0.1**
ONER Baraj Valea Uz 146.48 333 ⇓P **PKPab 00 56 45.7 -0.3**
ONER Baraj Valea Uz 146.48 333 ⇓P **PKPab 00 56 45.7 -0.3**
LANS Liptovska Anna 146.52 343 *e*PKP2 **PKiKP 00 56 50.9 +2.8**
LANS Liptovska Anna 146.52 343 *e*PKP **PKiKP 00 56 50.9 +2.8**
TPGR Topolog 146.68 330 ⇑P **PKPbc 00 56 45.3 -0.4**
TPGR Topolog 146.68 330 ⇑P **PKPbc 00 56 45.3 -0.4**
VRI Vrincioaia 146.70 332 ⇑P **PKPbc 00 56 46.1 +0.3**
VRI Vrincioaia 146.70 332 ⇑PKP2 **PKPbc 00 56 46.1 +0.3**
VRI Vrincioaia 146.70 332 ⇑P **PKPbc 00 56 46.1 +0.3**
PLOR Plostina 146.75 333 ⇓P **PKPab 00 56 47.4 +0.3**
PLOR Plostina 146.75 333 ⇓PKP2 **PKPab 00 56 47.4 +0.3**
PLOR Plostina 146.75 333 ⇓P **PKPab 00 56 47.4 +0.3**
MAUC Maruska 146.75 345 *e*PKP **PKPbc 00 56 46.1 +0.3**
TURR Turia 146.86 333 ⇓P **PKPbc 00 56 46.2 0.0**
TURR Turia 146.86 333 ⇓P **PKPbc 00 56 46.2 0.0**
UCC Uccle 146.86 1 *d*P **PKPbc 00 56 45.8 -0.2**
OZUR 146.93 334 ⇓P **PKPdf 00 56 45.4 +0.9**
OZUR 146.93 334 ⇓P **PKPdf 00 56 45.4 +0.9**
COVR Voineasa-Covas 146.94 333 ⇓P **PKPbc 00 56 46.2 -0.3**
COVR Voineasa-Covas 146.94 333 ⇓P **PKPbc 00 56 46.2 -0.3**
MEM Membach 147.06 359 *d*PKP **PKiKP 00 56 48.6 -0.5**
BR131 Keskin Array S 147.07 318 *i* PKiKP **PKPdf 00 56 45.8 +0.7**
BRTR Keskin Array B 147.07 318 PKPbc **PKPbc 00 56 46.2 -1.0**
comp=Z,3.6nm,0.9s,baz=137,slow=3.3,SNR=22
BRTR Keskin Array B 147.07 318 PKPdf 00 56 44.5 -0.6
TLBR Topalu 147.09 330 ⇑P **PKPbc 00 56 46.2 -0.7**
TLBR Topalu 147.09 330 ⇑P **PKPbc 00 56 46.2 -0.7**
VRAC Vranov 147.09 346 ⇑PKP2 **PKPbc 00 56 46.8 0.0**
VRAC Vranov 147.09 346 *e*PKP **PKPbc 00 56 46.5 -0.3**
VRAC Vranov 147.09 346 ⇑P **PKPbc 00 56 46.8 0.0**
VYHS Vyhne 147.29 343 *e*PKP2 **PKPbc 00 56 47.2 -0.2**
VYHS Vyhne 147.29 343 *e*PKP **PKPbc 00 56 47.2 -0.2**
VYHS *e* 00 56 51.7
CJR Cluj-Napoca 147.30 337 ⇑P **PKPbc 00 56 47.1 -0.4**
CJR Cluj-Napoca 147.30 337 ⇑PKP2 **PKPbc 00 56 47.1 -0.4**
CJR Cluj-Napoca 147.30 337 ⇑P **PKPbc 00 56 47.1 -0.4**
MLR Muntele Rosu 147.34 333 ⇑P **PKPdf 00 56 44.2 -1.1**
MLR Muntele Rosu 147.34 333 ⇑PKHKP PKPpre 00 56 44.2
MLR Muntele Rosu 147.34 333 ⇑P **PKPdf 00 56 44.2 -1.1**
BMRD Maredsous 147.37 1 *d*PKP **PKPab 00 56 48.4 -0.9**
KRUC Moravsky 147.37 347 *e*PKP **PKPbc 00 56 46.8 -0.7**
LODK Lodwar 147.44 248 PKPdf 00 56 45.2 -1.2
ZVC Zvikov 147.45 349 *e*PKP **PKPbc 00 56 47.9 +0.2**
MDB Medias 147.47 335 ⇓P **PKPbc 00 56 47.0 -0.9**
MDB Medias 147.47 335 ⇓PKiKP **PKPbc 00 56 47.0 -0.9**
MDB Medias 147.47 335 ⇓P **PKPbc 00 56 47.0 -0.9**
MARR Marisel-Cluj 147.51 337 ⇓P **PKPbc 00 56 47.0 -1.1**
MARR Marisel-Cluj 147.51 337 ⇓P **PKPbc 00 56 47.0 -1.1**
MARR Marisel-Cluj 147.51 337 ⇓PKiKP **PKPbc 00 56 47.0 -1.1**
DRGR 147.56 338 ⇑PKP2 **PKPbc 00 56 47.7 -0.5**
DRGR 147.56 338 ⇑P **PKPbc 00 56 47.7 -0.5**
DOU Dourbes 147.57 1 *d*PKP **PKPbc 00 56 47.6 -0.4**
GRF Grafenberg Arr 147.64 353 *e*PKP **PKPbc 00 56 48.1 -0.1**
baz=11,slow=2.1
SMOL Smolenice 147.64 345 *e*PKP2 **PKPbc 00 56 49.3 +1.0**
LEHL Lehliu 147.72 331 ⇑P **PKPbc 00 56 48.0 -0.6**
LEHL Lehliu 147.72 331 ⇑P **PKPbc 00 56 48.0 -0.6**
VOIR 147.76 334 ⇓P **PKPbc 00 56 48.8 -0.1**
VOIR 147.76 334 ⇓PKP2 **PKPbc 00 56 48.8 -0.1**
VOIR 147.76 334 ⇓P **PKPbc 00 56 48.8 -0.1**
MODS Modra-Piesok 147.81 345 *e*PKP2 **PKPbc 00 56 49.3 +0.5**
MODS Modra-Piesok 147.81 345 *e*PKP **PKPbc 00 56 49.3 +0.5**
MODS *e* 00 56 53.9
MODS *e* 01 16 54.7
KHC Kasperske Hory 147.85 350 *e*PKP2 **PKPbc 00 56 48.6 -0.3**
KHC Kasperske Hory 147.85 350 PKPdf 00 56 45.6 -0.4
KHC Kasperske Hory 147.85 350 *e*PKP **PKPbc 00 56 48.6 -0.3**
ABNA Allensteig Bun 147.95 347 *ep*PKP **PKPbc 00 56 49.2 +0.1**
comp=Z,3.1nm,0.8s
ARR Arges 147.99 334 ⇓P **PKPbc 00 56 49.7 +0.2**
ARR Arges 147.99 334 ⇓P **PKPbc 00 56 49.7 +0.2**
WLF Walferdange 148.00 359 *d*PKPdf **PKPdf 00 56 43.2 -2.9**
WLF *d*PKP **pPKPdf 00 56 49.5 -0.1**

CKRC Cesky Krumlov 148.02 349 *e*PKiKP **PKPbc 00 56 48.3 -1.1**
CKRC *e* 00 56 53.9
CKRC Cesky Krumlov 148.02 349 *e*PKP **PKPbc 00 56 48.3 -1.1**
CKRC *ex* **PKPab 00 56 53.9 +1.9**
GERES GERESS Array B 148.11 350 PKPbc **PKPbc 00 56 49.2 -0.5**
comp=Z,2.9nm,0.9s,baz=29,slow=3.0,SNR=17
GERES GERESS Array B 148.11 350 PKPdf **PKPdf 00 56 44.9 -1.6**
ASF Jabal al Asfar 148.14 303 P **PKiKP 00 56 51.5 -0.5**
DEV Deva 148.26 336 ⇓P **PKPab 00 56 52.8 -0.2**
DEV Deva 148.26 336 ⇓PKP2 **PKPab 00 56 52.8 -0.2**
DEV Deva 148.26 336 ⇓P **PKPab 00 56 52.8 -0.2**
WINA Allanu / Wiene 148.34 346 *ep*PKP **PKPbc 00 56 50.4 +0.2**
comp=Z,12nm,1.9s
SIRR Siria 148.39 338 ⇑P **PKPbc 00 56 50.0 -0.4**
SIRR Siria 148.39 338 ⇑P **PKPbc 00 56 50.0 -0.4**
CONA Conrad Observa 148.56 346 *ep*PKP **PKPbc 00 56 50.8 -0.1**
comp=Z,7.2nm,1.0s
SURR Surduc 148.66 337 ⇑P **PKPdf 00 56 48.9 +1.6**
SURR Surduc 148.66 337 ⇑P **PKPdf 00 56 48.9 +1.6**
RONA Rosalia, Austr 148.67 346 *e*PKP **PKPbc 00 56 51.0 -0.1**
comp=Z,6.2nm,0.9s
HSUJ Al Zarqa 148.69 303 P **PKPab 00 56 57.4 +2.1**
HSUJ Al Zarqa 148.69 303 AML AML
GEM Giv'at Ha'Em 148.71 306 P **PKPbc 00 56 52.0 +0.4**
GEM Giv'at Ha'Em 148.71 306 AML AML
BZS Buzias 148.96 338 ⇑P **PKPbc 00 56 51.3 -0.6**
BZS Buzias 148.96 338 ⇑PKiKP **PKPbc 00 56 51.3 -0.6**
BZS Buzias 148.96 338 ⇑P **PKPbc 00 56 51.3 -0.6**
MMAI Mount Meron Ar 148.98 305 PKPbc **PKPbc 00 56 51.8 -0.7**
comp=Z,7.3nm,0.8s,baz=46,slow=3.6,SNR=11
QRNJ Al-Qirein 149.10 304 P **PKiKP 00 56 53.2 -0.6**
QRNJ Al-Qirein 149.10 304 AML AML
MBAR Mbarara 149.20 237 *i* PKiKP **PKPdf 00 56 51.4 +2.0**
MBAR Mbarara 149.20 237 PKPdf **PKPdf 00 56 49.7 +0.3**
BIOA Bad Ischl, Aus 149.23 349 *i* PKiKP **PKiKP 00 56 53.6 -0.1**
comp=Z,5.3nm,1.2s
BIOA *i* pPKiKP **sPKPbc 00 56 57.4 +0.2**
comp=Z,9.5nm,1.1s
BFO Black Forest 149.25 356 PKHKP PKPpre 00 56 47.0
BFO Black Forest 149.25 356 PKPdf 00 56 47.0 -1.2
HERR Herculane 149.29 336 ⇓P **PKPbc 00 56 52.1 -0.5**
HERR Herculane 149.29 336 ⇓P **PKPbc 00 56 52.1 -0.5**
UJAP Al Uja 149.32 303 P **PKPab 00 56 58.1 +0.4**
UJAP Al Uja 149.32 303 AML AML
MORH Mrgy, Hungar 149.42 342 ⇓P **PKPbc 00 56 52.6 -0.3**
GHAJ Ghor Haditha 149.46 302 P **PKPab 00 56 58.6 +0.2**
GHAJ Ghor Haditha 149.46 302 AML AML
SALP Salfit 149.50 304 P **PKiKP 00 56 55.1 +0.3**
SALP Salfit 149.50 304 AML AML
LISJ El Lisan 149.55 302 P **PKPab 00 56 58.7 0.0**
LISJ El Lisan 149.55 302 AML AML
SESA Seetaler Alpe, 149.61 348 *i* PKP **PKPbc 00 56 53.1 -0.6**
comp=Z,2.7nm,0.8s
SESA *i* pPKiKP **sPKPbc 00 56 58.3 -0.1**
comp=Z,20nm,1.0s
MSBI Mazada 149.63 302 P **PKPab 00 56 58.8 -0.2**
MSBI Mazada 149.63 302 AML AML
MDVR Moldovita 149.64 337 ⇓P **PKPbc 00 56 52.3 -1.3**
MDVR Moldovita 149.64 337 ⇓P **PKPbc 00 56 52.3 -1.3**
LESA Schwarzleotal 149.66 350 *e*PKP **PKPbc 00 56 52.8 -0.8**
comp=Z,6.7nm,1.4s
LESA *ep*PKiKP **sPKPbc 00 56 58.4 +0.1**
comp=Z,13nm,1.3s
HSNJ Maan 149.69 300 P **PKPab 00 56 59.9 +0.3**
HSNJ AML AML
CSS Mathiatis 149.72 310 PKPdf **PKPdf 00 56 49.3 -0.1**
CSS Mathiatis 149.72 310 P **PKPab 00 56 58.5 -0.9**
CSS AML AML
RETA Reutte 149.87 353 *e*PKP **PKPbc 00 56 53.6 -0.5**
comp=Z,6.2nm,1.3s
RETA *i* PKP **sPKPbc 00 56 59.0 +0.3**
comp=Z,11nm,1.0s
WATA Walderalm 149.91 352 *i* PKP **PKPbc 00 56 53.8 -0.6**
comp=Z,9.3nm,1.6s
WATA *i* PKP **sPKPbc 00 56 59.1 +0.1**
comp=Z,16nm,1.3s
SOKA Soboth 149.93 347 *e*PKP **PKPbc 00 56 53.4 -0.9**
comp=Z,14nm,2.3s
SOKA *i* pPKiKP **sPKPbc 00 56 58.7 -0.2**
comp=Z,20nm,1.4s
MOTA Moosalm 149.96 352 *e*PKP **PKPbc 00 56 53.7 -0.8**
comp=Z,10nm,1.1s
MOTA *i* PKP **sPKPbc 00 56 59.4 +0.2**
comp=Z,19nm,1.1s
WTTA Wattenberg 149.97 352 *e*PKP **PKPbc 00 56 53.9 -0.6**
comp=Z,5.4nm,0.8s
WTTA *i* PKP **sPKPbc 00 56 59.4 +0.2**
comp=Z,23nm,1.6s
SQTA Sankt Quirin 150.07 352 *e*PKP **PKPbc 00 56 54.3 -0.4**
comp=Z,4.5nm,1.0s
SQTA *i* PKP **sPKPbc 00 56 59.6 +0.3**
comp=Z,16nm,1.1s
ISP Isparta 150.16 318 *i* PKiKP **PKPdf 00 56 50.8 +0.6**
DAVA Damuels 150.16 354 *e*PKP **PKPbc 00 56 54.8 -0.2**
comp=Z,3.5nm,0.9s
DAVA *i* PKP **sPKPbc 00 57 00.1 +0.4**
comp=Z,26nm,1.1s
PRNI Paran 150.23 301 P **PKPbc 00 56 55.6 +0.1**
PRNI AML AML
BLKB Belogradchik 150.23 334 ⇑P **PKPbc 00 56 54.6 -0.5**
BLKB Belogradchik 150.23 334 ⇑P **PKPbc 00 56 54.6 -0.5**
FETA Feichten 150.33 353 *e*PKP **PKPbc 00 56 55.0 -0.4**
comp=Z,4.7nm,0.9s
FETA *i* PKP **sPKPbc 00 57 00.5 +0.5**
comp=Z,15nm,1.1s
ABTA Abfaltersbach 150.34 350 *i* PKP **PKPbc 00 56 54.3 -1.0**
comp=Z,6.3nm,0.9s
ABTA *i* pPKiKP **sPKPbc 00 56 59.7 -0.3**
comp=Z,17nm,1.0s
AQBJ Aqaba 150.38 300 P **PKPab 00 57 01.4 -0.8**
AQBJ AML AML
EIL Elat 150.48 299 P **PKPbc 00 56 56.0 -0.1**
EIL AML AML
KZIT Kziot 150.54 302 P **PKPbc 00 56 56.1 -0.1**
KZIT Kziot 150.54 302 AML AML
ESDC Sonseca Array 156.54 18 PKPab **PKPab 00 57 28.5 +0.6**
comp=Z,1.4nm,1.1s,baz=334,slow=3.6,SNR=5.5

THE 30 00:54:42.4,38°N±1°×26°8E±0°.6,h8km±2km,M2.1/7,
MLh2.1/7,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.15**	**176**	P	Pg	00 54 45.7	+0.1
SMG				S	Sg	00 54 47.9	+0.2
SMG				AML	AML		
BLCB	**Balcova**	**0.55**	**18**	P	Pg	00 54 52.9	-0.2
BLCB				S	Sg	00 55 00.7	+0.2
BLCB				AML	AML		
CHOS	**Chios island**	**0.81**	**311**	P	Pg	00 54 58.3	+0.4
CHOS				S	Sb	00 55 09.2	-0.6
CHOS				AML	AML		
BODT	**Bodrum**	**0.88**	**154**	P	Pb	00 55 00.4	+0.4
BODT				S	Sb	00 55 12.2	+0.3

*IDC **30** 00:57:05.4±0.8, 17°.91S×174°.75W, h0km, mb4.2/9, mbtmp4.2/9, MS3.5/9, Error ellipse: s-maj=44.1km s-min=19.5km az=145.0*
*NEIC **30** 00:57:14.2±0.9, 18°.1S±0°.2×174°.66W±0°.08, h59km±8km, mb4.2/14, Error ellipse: s-maj=24.5km s-min=11.3km az=182.0*

ISC 30 00:57:12.9±0.5, 18°.0S±0°.1×174°.72W±0°.08, h50km, n67,
σ1§11/60, mb4.1/16, MS3.7/5, 1C-1D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**4.67**	**104**	Pn	**Pn**	**00 58 20.8**	**0.0**
AFI	**Afiamalu**	**4.96**	**35**	LR	LR	00 59 51.1	
	comp=Z,192nm,21.1s,baz=224,slow=34						
MSVF	**Nonsavu**	**6.89**	**271**	Pn	**Pn**	**00 58 52.4**	**+0.9**
	0.3nm,0.3s,baz=119,slow=13,SNR=4.8						
MSVF				LR	LR	01 01 00.5	
	comp=Z,305nm,21.7s,baz=125,slow=34						
MSVF	**Nonsavu**	**6.89**	**271**		**Pn**	**00 58 53.1**	**+1.6**
RAR	**Rarotonga**	**14.44**	**105**	LR	LR	01 05 12.3	
	comp=Z,66nm,18.1s,baz=284,slow=34						
DZM	**Mont Dzumac**	**18.16**	**254**	P	**P**	**01 01 22.9**	**+1.5**
	11nm,1.0s,baz=82,slow=18,SNR=6.0						
DZM				LR	LR	01 06 30.0	
	comp=Z,199nm,18.2s,baz=116,slow=31						
PPT	**Papeete**	**23.94**	**93**	LR	LR	01 09 33.5	
	comp=Z,76nm,18.8s,baz=338,slow=31						

HNR	**Honiara**	**26.02**	**286**	LR	LR	01 11 16.5			
	comp=Z,227nm,18.7s,baz=191,slow=33								
RPZ	**Rata Peaks**	**28.31**	**202**	LR	LR	01 14 08.1			
	comp=Z,53nm,19.9s,baz=320,slow=36								
KRVT	**Keravat (AS076**	**35.27**	**289**	LR	LR	01 16 58.3			
	comp=Z,211nm,18.7s,baz=249,slow=34								
STKA	**Stephens Creek**	**41.68**	**242**	P	**P**	**01 04 56.5**	**-0.3**		
	2.1nm,0.7s,baz=112,slow=5.4,SNR=3.3								
	2.1nm,0.7s								
WRA	**Warramunga Arr**	**48.07**	**259**	P	**P**	**01 05 46.2**	**-1.6**		
	1.9nm,1.1s,baz=94,slow=7.7,SNR=7.0								
WRA				PcP	**PcP**	**01 07 14.2**	**-0.9**		
	1.4nm,1.0s,baz=83,slow=3.5,SNR=5.1								
	1.9nm,1.1s								
WRA	**Warramunga Arr**	**48.07**	**259**	P	**P**	**01 05 46.9**	**-0.9**		
AS31	**Alice Springs**	**48.15**	**254**	P	**P**	**01 05 48.1**	**-0.3**		
AS31				IAmb	IAmb	01 05 48.7			
	comp=Z,2.1nm,0.8s								
ASAR	**Alice Springs**	**48.15**	**254**	P	**P**	**01 05 47.8**	**-0.7**		
	comp=Z,6.1nm,0.8s,baz=87,slow=8.5,SNR=56								
ASAR				PcP	**PcP**	**01 07 15.3**	**-0.1**		
	comp=Z,1.3nm,1.0s,baz=103,slow=4.2,SNR=6.1								
	comp=Z,6.1nm,0.8s								
DPSS	**Saipan**	**51.05**	**308**	P	**P**	**01 06 10.7**	**+0.2**		
KNRA	**Kununurra**	**53.97**	**263**	P	**P**	**01 06 30.4**	**-1.9**		
KNRA				IAmb	IAmb	01 06 33.0			
	comp=Z,2.8nm,0.6s								
FITZ	**Fitzroy Crossi**	**56.48**	**260**	P	**P**	**01 06 50.2**	**0.0**		
NWAO	**Narrogin (SRO)**	**62.27**	**242**	P	**P**	**01 07 28.1**	**-1.9**		
QSPA	**South Pole Qui**	**72.05**	**180**	P	**P**	**01 08 31.4**	**-0.2**		
	comp=Z,0.8nm,0.4s,baz=4.3,slow=1.5,SNR=3.9								
	comp=Z,0.8nm,0.4s								
QSPA	**South Pole Qui**	**72.05**	**180**	P	**P**	**01 08 31.8**	**+0.2**		
QSPA				IAmb	IAmb	01 08 39.9			
	comp=Z,4.5nm,1.1s								
NVAR	**Mina Array Bea**	**77.09**	**42**	P	**P**	**01 09 00.8**	**-0.5**		
	comp=Z,1.8nm,1.1s,baz=223,slow=8.8,SNR=7.4								
	comp=Z,1.8nm,1.1s								
GMN	**Gold Mountain**	**77.12**	**44**	P	**P**	**01 09 02.4**	**+0.9**		
GMN				IAmb	IAmb	01 09 02.7			
	comp=Z,3.1nm,1.1s								
KVN	**Kaiserville**	**77.58**	**42**	P	**P**	**01 09 03.8**	**-0.2**		
KVN				IAmb	IAmb	01 09 07.9			
	comp=Z,1.5nm,1.0s								
TPH	**Tonopah**	**77.59**	**43**	P	**P**	**01 09 03.7**	**-0.4**		
TPH				IAmb	IAmb	01 09 09.9			
	comp=Z,4.3nm,1.1s								
USRK	**Ussuriysk Ar.**	**78.72**	**324**	LR	LR	01 37 58.9			
	comp=Z,58nm,21.2s,baz=170,slow=31								
TXAR	**Lajitas Array**	**83.10**	**56**	P	**P**	**01 09 34.8**	**+1.1**		
	comp=Z,1.2nm,0.9s,baz=248,slow=5.8,SNR=3.3								
	comp=Z,1.2nm,0.9s								
TXAR	**Lajitas Array**	**83.10**	**56**	P	**P**	**01 09 33.8**	**+0.1**		
H03S2	**Juan Fernandez**	**84.81**	**124**	T	T	02 43 27.0			
	baz=250,slow=74,SNR=50								
H03S1	**Juan Fernandez**	**84.83**	**124**	T	T	02 43 23.5			
	baz=250,slow=74,SNR=52								
H03S3	**Juan Fernandez**	**84.83**	**124**	T	T	02 43 21.5			
	baz=250,slow=74,SNR=51								
PD31	**Pinedale Array**	**85.03**	**42**	P	**P**	**01 09 43.3**	**-0.2**		
PDAR	**Pinedale Array**	**85.03**	**42**	P	**P**	**01 09 42.2**	**-1.2**		
	comp=Z,1.4nm,1.0s,baz=211,slow=4.9,SNR=8.1								
	comp=Z,1.4nm,1.0s								
PDAR	**Pinedale Array**	**85.03**	**42**	P	**P**	**01 09 42.5**	**-0.9**		
YHL	**Hebgen Lake**	**85.08**	**40**	P	**P**	**01 09 43.9**	**+0.2**		
ILAR	**Eielson Array**	**85.23**	**12**	P	**P**	**01 09 42.0**	**-1.6**		
	comp=Z,1.6nm,1.1s,baz=219,slow=4.4,SNR=6.4								
	comp=Z,1.6nm,1.1s								
ILAR	**Eielson Array**	**85.23**	**12**	P	**P**	**01 09 42.4**	**-1.2**		
YHH	**Holmes Hill**	**85.25**	**40**	P	**P**	**01 09 44.8**	**+0.2**		
YHH				IAmb	IAmb	01 09 55.9			
	comp=Z,1.9nm,1.2s								
ELIB	**Princess Elisa**	**89.44**	**186**	*d*P	**P**	**01 10 05.0**	**+0.8**		
	comp=Z,2.8nm,1.1s								
CMAR	**Chiang Mai Arr**	**92.24**	**289**	P	**P**	**01 10 17.2**	**-0.8**		
	comp=Z,1.1nm,0.3s,baz=101,slow=6.8,SNR=6.0								
	comp=Z,1.1nm,0.3s								
CMAR	**Chiang Mai Arr**	**92.24**	**289**	P	**P**	**01 10 16.5**	**-1.6**		
CLL	**Collm**	**146.21**	**351**	*i*PKPbc	**PKPdf**	**01 16 47.5**	**+0.9**		
	comp=Z,17nm,1.1s								
CLL				*i* PKiKP	**PKiKP**	**01 16 51.5**	**+0.7**		
	comp=Z,15nm,1.4s								
OSTC	**Ostas**	**146.37**	**347**	*e*PKP	**PKPdf**	**01 16 48.8**	**+1.9**		
BRG	**Berggiesshubel**	**146.49**	**350**	*e*PKP	**PKPdf**	**01 16 48.7**	**+1.7**		
BRG				Amp		01 16 50.4			
	comp=Z,9.2nm,1.2s								
DPC	**Dobruska-Polom**	**146.54**	**347**	*e*PKP	**PKPdf**	**01 16 49.1**	**+1.9**		
MORC	**Moravsky Berou**	**146.80**	**345**	*e*PKP	**PKPdf**	**01 16 49.1**	**+1.4**		
BRTR	**Keskin Array B**	**147.29**	**317**	PKPbc	**PKPdf**	**01 16 51.1**	**+2.2**		
	comp=Z,3.0nm,1.0s,baz=150,slow=2.7,SNR=14								
BRTR	**Keskin Array B**	**147.29**	**317**		**PKPdf**	**01 16 48.1**	**-0.8**		
VRAC	**Vranov**	**147.46**	**346**	*e*PKP	**PKPdf**	**01 16 51.3**	**+2.5**		
KRUC	**Moravsky**	**147.74**	**346**	*e*PKP	**PKPbc**	**01 16 52.4**	**+0.3**		
KHC	**Kasperske Hory**	**148.23**	**350**	*e*PKP	**PKPbc**	**01 16 54.0**	**+0.6**		
ABNA	**Allensteig Bun**	**148.32**	**347**	*i* PKP	**PKPbc**	**01 16 54.4**	**+0.8**		
	comp=Z,6.9nm,1.2s								
GERES	**GERESS Array B**	**148.49**	**349**	PKPbc	**PKPdf**	**01 16 53.6**	**+3.1**		
	comp=Z,2.1nm,1.0s,baz=346,slow=2.8,SNR=12								
CONA	**Conrad Observa**	**148.93**	**346**	*i* PKP	**PKPbc**	**01 16 56.0**	**+0.7**		
	comp=Z,10.0nm,1.5s								
RONA	**Rosalia, Austr**	**149.04**	**345**	*i* PKP	**PKPbc**	**01 16 56.3**	**+0.8**		
	comp=Z,6.9nm,1.3s								
MMAI	**Mount Meron Ar**	**149.12**	**305**	PKPbc	**PKPbc**	**01 16 56.4**	**+0.2**		
	comp=Z,3.2nm,0.8s,baz=33,slow=17,SNR=6.2								
CY604	**RAF Akrotiri,**	**149.28**	**308**	PKPdf	**PKPdf**	**01 16 51.3**	**-0.5**		
MOA	**Molln**	**149.34**	**348**	*i* PKP	**PKPbc**	**01 16 56.6**	**+0.3**		
	comp=Z,4.5nm,1.1s								
SESA	**Seetaler Alpe,**	**149.98**	**347**	*i* PKP	**PKPbc**	**01 16 58.1**	**0.0**		
	comp=Z,7.9nm,1.2s								
RETA	**Reutte**	**150.25**	**353**	*i* PKP	**PKPbc**	**01 16 59.1**	**+0.5**		
	comp=Z,8.4nm,1.3s								
WATA	**Walderalm**	**150.29**	**351**	*i* PKP	**PKPbc**	**01 16 59.2**	**+0.5**		
	comp=Z,2.1nm,0.7s								
MOTA	**Moosalm**	**150.35**	**352**	*i* PKP	**PKPbc**	**01 16 59.2**	**+0.3**		
	comp=Z,6.2nm,1.2s								
WTTA	**Wattenberg**	**150.35**	**351**	*i* PKP	**PKPbc**	**01 16 59.4**	**+0.4**		
	comp=Z,12nm,1.5s								
DAVA	**Damuels**	**150.55**	**354**	*i* PKP	**PKPbc**	**01 16 59.9**	**+0.5**		
	comp=Z,6.1nm,1.1s								
FETA	**Feichten**	**150.72**	**352**	*i* PKP	**PKPbc**	**01 17 00.3**	**+0.5**		
	comp=Z,10nm,1.3s								
ABTA	**Abfaltersbach**	**150.72**	**350**	*i* PKP	**PKPbc**	**01 17 00.4**	**+0.7**		
	comp=Z,8.9nm,1.3s								
ESDC	**Sonseca Array**	**156.97**	**18**	PKPab	**PKPab**	**01 17 32.5**	**-0.8**		
	comp=Z,0.4nm,1.0s,baz=343,slow=6.4,SNR=3.4								

IDC ***30*** *00:57:31.1±2.6,56˚.21N×160˚.79W,h122km±21km, mb3.9/23,mbtmp4.2/27,MS3.9/2,Error ellipse: s-maj=20.3km s-min=11.7km az=26.0*

NEIC ***30*** *00:57:33.3±1.5,56˚.04N±0˚.07×160˚.72W±0˚.08, h152km±5km,mb4.3/55,ML3.9/56,ML3.8(AEIC),Error ellipse: s-maj=10.5km s-min=5.9km az=156.0*

AEIC ***30*** *00:57:34.3±2.0,55˚.94N±0˚.07×160˚.60W±0˚.08, h151km±4km,Error ellipse: s-maj=10.3km s-min=5.7km az=156.0*

ISC 30 00:57:33.0±0.5,56˚.02N±0˚.05×160˚.61W±0˚.04, h152km±5km,n317,σ1°03/319,mb4.2/60,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
VNWF	**Veniaminof 8**	**0.60**	**77**		**Pn**	**00 57 56.1**	**+0.9**
VNWF					**Sn**	**00 58 12.8**	**+0.6**
VNFG	**Fog Glacier, M**	**0.65**	**65**		**Pn**	**00 57 56.6**	**+1.1**
SDPT	**Sand Point**	**0.67**	**173**	P	**Pn**	**00 57 55.1**	**-0.4**
SDPT	**Sand Point**	**0.67**	**173**		**Pn**	**00 57 55.3**	**-0.3**
SDPT				Sn	**Sn**	**00 58 11.5**	**-1.1**
VNSS	**Veniaminof 8**	**0.68**	**72**		**Pn**	**00 57 57.4**	**+1.6**
VNKR	**Veniaminof 5**	**0.70**	**88**		**Pn**	**00 57 56.4**	**+0.7**
VNHG	**Veniaminof 1**	**0.83**	**75**		**Pn**	**00 57 57.3**	**+0.6**
VNSG	**Veniaminof 6**	**0.86**	**82**		**Pn**	**00 57 57.4**	**+0.5**
VNSG					**Sn**	**00 58 15.2**	**+0.1**
PS1A	**Pavlof South-1**	**0.88**	**227**		**Pn**	**00 57 57.1**	**+0.1**
PS1A					**Sn**	**00 58 14.7**	**-0.5**
S12K	**Black Hills**	**0.88**	**250**		**Pn**	**00 57 57.1**	**+0.2**
S12K				Sn	**Sn**	**00 58 14.2**	**-1.0**
S12K				IAML		00 58 16.1	
	comp=N,2μm,0.5s						
PVV	**Pavlof Volcano**	**0.93**	**226**		**Pn**	**00 57 57.4**	**+0.1**
PS4A	**Pavlof South-4**	**0.97**	**227**		**Pn**	**00 57 57.8**	**+0.1**
PS4A					**Sn**	**00 58 16.2**	**-0.4**
PN7A	**Pavlof North-7**	**0.98**	**234**		**Pn**	**00 57 58.3**	**+0.4**
PN7A					**Sn**	**00 58 17.2**	**+0.4**
DOL	**Dolgoi Island**	**1.12**	**220**		**Pn**	**00 57 58.8**	**-0.3**
DOL					**Sn**	**00 58 18.0**	**-0.9**
CHGN	**Chignik**	**1.26**	**76**		**Pn**	**00 58 00.6**	**+0.3**
CHGN					**Sn**	**00 58 20.9**	**-0.1**
CHGN	**Chignik**	**1.26**	**76**	IAML		00 58 21.4	
	comp=N,1μm,0.4s						
DTNA	**Dutton South F**	**1.27**	**228**		**Sn**	**00 58 21.3**	**-0.1**
CHNA	**Chernabura Isl**	**1.32**	**154**	P	**Pn**	**00 57 59.9**	**-1.0**
BPBCA	**Veniaminof**	**1.33**	**64**		**Pn**	**00 58 01.6**	**+0.6**
CNBA	**Chernabura Isl**	**1.33**	**154**		**Pn**	**00 58 00.0**	**-1.0**
CNBA	**Chernabura Isl**	**1.33**	**154**		**Sn**	**00 58 19.9**	**-2.5**
CNBA	**Chernabura Isl**	**1.33**	**154**	IAML		00 58 21.9	
	comp=N,4μm,0.4s						
CNBA				IAML		00 58 21.9	
	comp=E,3μm,0.2s						
AZAC	**Aniakchak**	**1.59**	**55**		**Pn**	**00 58 04.3**	**+0.7**
ANNW	**Aniakchak Nort**	**1.63**	**53**		**Pn**	**00 58 05.4**	**+1.2**
ISNN	**Isanotski Nort**	**2.16**	**238**		**Pn**	**00 58 10.4**	**+0.3**
ISNN					**Sn**	**00 58 38.5**	**-0.2**
ISLZ	**Isanotski Laza**	**2.19**	**235**		**Pn**	**00 58 10.4**	**-0.1**
ISLZ					**Sn**	**00 58 38.8**	**-0.5**
R16K	**Pilot Point**	**2.28**	**46**	Pn	**Pn**	**00 58 12.2**	**+0.7**
R16K				IAML		00 59 17.6	
	comp=E,371nm,1.1s						
SSBA	**Shishaldin**	**2.36**	**240**		**Pn**	**00 58 12.4**	**-0.2**
SSBA					**Sn**	**00 58 42.5**	**-0.5**
WTUG	**Tugumak**	**2.45**	**243**		**Pn**	**00 58 13.3**	**-0.3**
WTUG					**Sn**	**00 58 44.1**	**-0.8**
PLBL	**Peulik Blue Cr**	**2.68**	**49**		**Sn**	**00 58 49.7**	**-0.2**
WESP	**Westdahl Peak**	**2.81**	**239**		**Pn**	**00 58 18.0**	**-0.1**
WECS	**Westdahl Cape**	**2.81**	**240**		**Pn**	**00 58 17.5**	**-0.5**
WECS				IAML		00 59 06.0	
	comp=E,350nm,0.9s						
CHIR	**Chirikof Islan**	**2.81**	**92**	P	**Pn**	**00 58 18.0**	**0.0**
CHIR	**Chirikof Islan**	**2.81**	**92**	S	**Sn**	**00 58 51.3**	**-1.5**
CHIR	**Chirikof Islan**	**2.81**	**92**		**Sn**	**00 58 50.7**	**-2.1**
CHIR	**Chirikof Islan**	**2.81**	**92**	Pn	**Pn**	**00 58 18.0**	**0.0**
CHIR				IAML		00 58 52.1	
	comp=N,275nm,0.5s						
CHIR				IAML		00 59 03.4	
	comp=E,270nm,0.7s						
PLK1	**Peulik 1**	**2.83**	**49**		**Pn**	**00 58 19.6**	**+1.3**
R17L	**Mt. Peulik Vol**	**2.84**	**54**		**Pn**	**00 58 19.6**	**+1.1**
R17L					**Sn**	**00 58 54.1**	**+0.6**
PLK3	**Peulik 3**	**2.92**	**53**		**Pn**	**00 58 20.6**	**+1.3**
O15K	**Ungalikthiuk R**	**3.20**	**7**		**Pn**	**00 58 22.9**	**+0.1**
O15K				IAML		00 59 22.0	
	comp=E,157nm,0.9s						
O14K	**Tigyukauivet M**	**3.26**	**354**		**Pn**	**00 58 24.3**	**+0.7**
O14K				IAML		00 59 05.5	
	comp=N,258nm,1.2s						
P16K	**Nushagak River**	**3.34**	**24**		**Pn**	**00 58 25.8**	**+1.2**
P16K				IAML		00 59 06.1	
	comp=E,307nm,1.1s						
P16K				IAML		00 59 26.0	
	comp=N,253nm,1.1s						
AKSA	**Akutan Strait**	**3.48**	**239**		**Pn**	**00 58 26.6**	**+0.1**
AKUT	**Akutan**	**3.52**	**240**		**Pn**	**00 58 26.8**	**-0.2**
AKUT				IAML		00 59 12.3	
	comp=E,263nm,0.5s						
AKUT				IAML		00 59 16.3	
	comp=N,205nm,0.5s						
AHB	**Akutan Harbor**	**3.55**	**240**		**Pn**	**00 58 27.1**	**-0.3**
AKGG	**Akutan Green G**	**3.59**	**242**		**Pn**	**00 58 27.8**	**-0.1**
AKBBA	**Akutan Broad B**	**3.61**	**240**		**Pn**	**00 58 27.9**	**-0.4**
SII	**Sitkinak Islan**	**3.62**	**79**	P	**Pn**	**00 58 28.0**	**-0.4**
SII	**Sitkinak Islan**	**3.62**	**79**	Pn	**Pn**	**00 58 28.3**	**-0.1**
ACHA	**Angle Creek He**	**3.62**	**50**		**Pn**	**00 58 29.3**	**+0.9**
LVA	**Lava Point**	**3.63**	**241**	Pn	**Pn**	**00 58 28.1**	**-0.4**
LVA				IAML		00 59 14.2	
	comp=E,220nm,0.9s						
KABR	**Katmai Barrier**	**3.74**	**53**		**Pn**	**00 58 30.3**	**+0.4**
KAKN	**Katmai Knife C**	**3.79**	**51**		**Pn**	**00 58 31.3**	**+0.7**
O16K	**Kokwok River B**	**3.83**	**20**		**Pn**	**00 58 31.4**	**+0.4**
P17K	**Kvichak River**	**3.90**	**33**		**Pn**	**00 58 32.8**	**+1.0**
KAWH	**Katmai**	**3.95**	**51**		**Pn**	**00 58 33.2**	**+0.5**
N14K	**Kuskokwak Cree**	**3.96**	**352**		**Pn**	**00 58 32.6**	**0.0**
N14K				IAML		00 59 44.2	
	comp=E,158nm,1.1s						
N14K				IAML		00 59 50.8	
	comp=N,140nm,0.6s						
UNV	**Unalaska Valle**	**4.04**	**240**	P	**Pn**	**00 58 32.9**	**-0.8**
UNV	**Unalaska Valle**	**4.04**	**240**		**Pn**	**00 58 32.7**	**-1.0**
UNV				IAML		00 59 20.4	
	comp=E,146nm,0.5s						
UNV				IAML		00 59 20.6	
	comp=N,183nm,0.6s						
KARR	**Katmai Rainbow**	**4.06**	**50**		**Pn**	**00 58 34.9**	**+0.9**
KAHG	**Katmai Hook Gl**	**4.12**	**50**		**Pn**	**00 58 35.9**	**+1.0**
MSW	**Makushin Switc**	**4.13**	**242**		**Pn**	**00 58 34.5**	**-0.5**
N15K	**Kwethluk River**	**4.17**	**4**		**Pn**	**00 58 35.4**	**0.0**
N15K				IAML		00 59 41.9	
	comp=E,140nm,0.9s						
N15K				IAML		00 59 42.0	
	comp=N,77nm,0.6s						
O17K	**Koliganek Bris**	**4.21**	**25**		**Pn**	**00 58 36.5**	**+0.7**
OHAK	**Old Harbor**	**4.22**	**70**		**Pn**	**00 58 35.3**	**-0.8**
OHAK	**Old Harbor**	**4.22**	**70**	IAML		00 59 23.1	
	comp=E,128nm,0.3s						
OHAK				IAML		00 59 23.4	
	comp=N,150nm,0.4s						
P18K	**Big Mountain,**	**4.45**	**38**		**Pn**	**00 58 40.3**	**+1.2**
N16K	**Nishlik Lake**	**4.57**	**12**		**Pn**	**00 58 41.0**	**+0.2**
M13K	**Dall Lake**	**4.64**	**343**		**Pn**	**00 58 41.7**	**+0.2**
M13K				IAML		00 59 52.6	
	comp=E,96nm,1.0s						
M15K	**Kasigluk River**	**4.69**	**360**		**Pn**	**00 58 41.6**	**-0.7**
KDAK	**Kodiak Island**	**4.74**	**65**	P	**Pn**	**00 58 42.4**	**-0.5**
	comp=E,34nm,0.3s,baz=210,slow=5.5,SNR=59						
KDAK				S	**Sn**	**00 59 33.6**	**-3.8**
	comp=E,57nm,0.5s,baz=67,slow=21,SNR=12						
KDAK	**Kodiak Island**	**4.74**	**65**		**Pn**	**00 58 42.2**	**-0.8**
KDAK				IAML		00 59 37.0	
	comp=E,116nm,0.5s						
KDAK				IAML		00 59 45.5	
	comp=E,99nm,0.5s						
Q19K	**Cape Douglas,**	**4.76**	**49**		**Pn**	**00 58 43.6**	**+0.4**
M14K	**Bethel**	**4.80**	**352**		**Pn**	**00 58 43.5**	**-0.2**
N17K	**Nushagak Hills**	**4.87**	**20**		**Pn**	**00 58 44.9**	**+0.3**
OKNC	**Okmok New Cone**	**5.05**	**243**		**Pn**	**00 58 46.4**	**-0.7**
OKNC	**Okmok New Cone**	**5.05**	**243**	IAML		00 59 53.9	
	comp=E,75nm,1.1s						
OKNC				IAML		01 01 15.3	
	comp=N,58nm,1.1s						
OKTU	**Okmok Mt. Tuli**	**5.05**	**242**		**Pn**	**00 58 46.4**	**-0.7**
AUI	**Augustine Isla**	**5.09**	**46**		**Pn**	**00 58 48.5**	**+0.9**
AUW	**Augustine West**	**5.09**	**46**		**Pn**	**00 58 48.6**	**+1.0**
M16K	**Timber Creek**	**5.09**	**9**		**Pn**	**00 58 47.2**	**-0.3**
AUJK	**Augustine Jueg**	**5.11**	**46**		**Pn**	**00 58 48.4**	**+0.6**
N18K	**Kilae Creek**	**5.29**	**26**		**Pn**	**00 58 51.0**	**+0.8**
O19K	**Port Alsworth**	**5.35**	**36**		**Pn**	**00 58 51.3**	**+0.3**
O19K				IAML		00 59 38.5	
	comp=N,86nm,0.5s						
O19K				IAML		01 01 30.9	
	comp=E,75nm,0.4s						
P19K	**Oil Pt**	**5.37**	**44**		**Pn**	**00 58 52.2**	**+0.9**
L14K	**Kuka Creek**	**5.45**	**349**		**Pn**	**00 58 52.0**	**-0.2**
SPIA	**Saint Paul Isl**	**5.45**	**286**	P	**Pn**	**00 58 50.8**	**-1.5**
ILSW	**Iliamna Southw**	**5.62**	**42**		**Pn**	**00 58 54.9**	**+0.3**
ILS	**Iliamna Low So**	**5.63**	**42**		**Pn**	**00 58 55.2**	**+0.4**
M17K	**Holitna River**	**5.65**	**16**		**Pn**	**00 58 55.4**	**+0.5**
IVE	**Iliamna Volcan**	**5.69**	**42**		**Pn**	**00 58 56.1**	**+0.6**
L15K	**Ungalak Mounta**	**5.70**	**356**		**Pn**	**00 58 54.9**	**-0.6**
L16K	**Owhat River**	**5.74**	**5**		**Pn**	**00 58 55.7**	**-0.4**
ILIM	**Iliamna**	**5.75**	**42**		**Pn**	**00 58 57.2**	**+0.8**
N19K	**Bonanza Creek**	**5.79**	**31**		**Pn**	**00 58 58.0**	**+1.2**
O20K	**Slope Mountain**	**5.88**	**43**		**Pn**	**00 58 59.4**	**+1.3**
HOM	**Homer**	**6.02**	**49**	Pn	**Pn**	**00 59 00.2**	**+0.3**
HOM					**Sn**	**01 00 05.8**	**-2.0**
RED	**Redoubt Volcan**	**6.05**	**40**		**Pn**	**00 59 00.8**	**+0.5**
RDWB	**Redoubt West**	**6.07**	**39**		**Pn**	**00 59 01.5**	**+0.8**
RDSD	**Redoubt South**	**6.08**	**40**		**Pn**	**00 59 01.8**	**+0.9**
CNPM	**China Poot**	**6.12**	**51**		**Pn**	**00 59 00.9**	**-0.4**
REF	**Redoubt East F**	**6.12**	**40**		**Pn**	**00 59 02.4**	**+1.0**
L17K	**Donlin**	**6.25**	**10**		**Pn**	**00 59 02.4**	**-0.5**
K13K	**Kusilvak Mount**	**6.29**	**342**		**Pn**	**00 59 03.3**	**-0.1**
K15K	**Wolf Creek Mou**	**6.31**	**356**		**Pn**	**00 59 03.9**	**+0.1**
BRLK	**Bradley Lake**	**6.40**	**50**		**Pn**	**00 59 04.1**	**-0.9**
L18K	**Granite Mounta**	**6.54**	**16**		**Pn**	**00 59 06.9**	**+0.2**
M19K	**Big River Lodg**	**6.72**	**26**		**Pn**	**00 59 10.6**	**+1.4**
SPBG	**Spurr Blockage**	**6.79**	**36**		**Pn**	**00 59 11.5**	**+1.3**
K17K	**Iditarod**	**6.82**	**9**		**Pn**	**00 59 10.6**	**+0.1**
SPU	**Mount Spurr**	**6.84**	**37**		**Pn**	**00 59 11.8**	**+1.0**
L19K	**White Mountain**	**6.85**	**23**		**Pn**	**00 59 11.7**	**+0.7**
CAPN	**Captain Cook N**	**6.88**	**42**		**Pn**	**00 59 12.8**	**+1.5**
J14K	**Nanvaranak Lak**	**6.92**	**349**		**Pn**	**00 59 11.8**	**0.0**
M20K	**Styx River**	**7.04**	**30**		**Pn**	**00 59 15.3**	**+1.9**
SLKM	**Skilak Lake**	**7.09**	**46**		**Pn**	**00 59 14.2**	**+0.1**
SEW	**Seward**	**7.20**	**51**		**Pn**	**00 59 14.4**	**-1.1**
O22K	**Cooper Landing**	**7.28**	**48**		**Pn**	**00 59 15.6**	**-0.9**
J16K	**Anvik River**	**7.29**	**0**		**Pn**	**00 59 16.7**	**0.0**
L20K	**Farewell, AK**	**7.34**	**25**		**Pn**	**00 59 19.1**	**+1.7**
J17K	**VABM Dome**	**7.44**	**5**		**Pn**	**00 59 17.7**	**-1.1**
FIS	**Fire Island**	**7.47**	**42**		**Pn**	**00 59 19.5**	**+0.3**
SUA	**Susitna One**	**7.49**	**39**		**Pn**	**00 59 19.6**	**+0.1**
SKT	**Skwentna**	**7.59**	**34**		**Pn**	**00 59 21.6**	**+0.8**
RC01	**Rabbit Creek A**	**7.62**	**44**		**Pn**	**00 59 20.4**	**-0.8**
J18K	**Innoko River**	**7.72**	**13**		**Pn**	**00 59 23.8**	**+1.2**
I17K	**Unalakleet**	**7.89**	**360**		**Pn**	**00 59 25.1**	**+0.3**
P23K	**Montague Islan**	**8.06**	**55**		**Pn**	**00 59 26.0**	**-1.1**
K20K	**Telida**	**8.07**	**21**		**Pn**	**00 59 28.0**	**+0.9**
PPLA	**Purkeypile**	**8.12**	**28**		**Pn**	**00 59 29.5**	**+1.6**
PMR	**Palmer**	**8.16**	**42**	P	**Pn**	**00 59 27.4**	**-1.0**
PMR	**Palmer**	**8.16**	**42**		**Pn**	**00 59 27.3**	**-1.0**
KNK	**Knik Glacier**	**8.31**	**44**		**Pn**	**00 59 28.4**	**-2.0**
GHO	**Glory Hole Cre**	**8.35**	**42**		**Pn**	**00 59 28.8**	**-2.2**
J19K	**Poorman**	**8.38**	**15**		**Pn**	**00 59 31.9**	**+0.6**
CAST	**Castle Rocks**	**8.57**	**27**		**Pn**	**00 59 34.5**	**+0.6**
GLI	**Glacier Island**	**8.59**	**50**		**Pn**	**00 59 31.9**	**-2.2**
SML	**Sawmill**	**8.60**	**43**		**Pn**	**00 59 31.9**	**-2.4**
HIN	**Hinchinbrook I**	**8.64**	**54**		**Pn**	**00 59 33.7**	**-1.1**
H16K	**Elim**	**8.69**	**355**		**Pn**	**00 59 35.3**	**0.0**
J20K	**Nowinta River**	**8.79**	**19**		**Pn**	**00 59 37.8**	**+1.0**
FID	**Port Fidalgo**	**8.80**	**52**		**Pn**	**00 59 34.8**	**-2.1**
ANM	**Nome**	**8.89**	**347**		**Pn**	**00 59 38.7**	**+0.7**
GCSA	**Galena City Sc**	**8.95**	**10**		**Pn**	**00 59 40.1**	**+1.3**
H17K	**Granite Mounta**	**8.96**	**2**		**Pn**	**00 59 39.9**	**+1.0**
VMT	**TAPS TI Valdez**	**9.00**	**50**		**Pn**	**00 59 38.6**	**-0.9**
WAT7	**Susitna Watana**	**9.08**	**36**		**Pn**	**00 59 38.1**	**-2.5**
TRF	**Thorofare Moun**	**9.08**	**31**		**Pn**	**00 59 39.6**	**-1.2**
WAT1	**Susitna Watana**	**9.18**	**37**		**Pn**	**00 59 39.1**	**-2.8**
H18K	**Honhosa River**	**9.23**	**6**		**Pn**	**00 59 43.7**	**+1.1**
DIV	**Divide**	**9.28**	**50**		**Pn**	**00 59 42.3**	**-1.0**
WAT6

comp=Z,6.8nm,0.9s
NEEM North Greenlan 39.98 19 *i* P **P 01 04 52.0 -0.4**
NEEM IAmb IAmb 01 04 52.6
comp=Z,11nm,0.4s
NOR Nord 41.26 8 *i* P **P 01 05 02.0 -0.5**
NOR IAmb IAmb 01 05 03.5
comp=Z,6.7nm,1.2s
UPNV Upernavik 41.57 26 *i* P **P 01 05 03.1 -1.9**
UPNV IAmb IAmb 01 05 04.2
comp=Z,28nm,0.9s
DAG Danmarks Havn 45.30 12 *i* P **P 01 05 34.9 0.0**
DAG IAmb IAmb 01 05 35.7
comp=Z,11nm,0.7s
NRIK Noril'sk 45.62 333 P **P 01 05 37.7 +0.3**
comp=Z,2.8nm,0.4s,baz=64,slow=8.8,SNR=8.1
comp=Z,2.8nm,0.4s
VHRN Van Horn 46.03 99 P **P 01 05 42.8 +1.5**
VHRN IAmb IAmb 01 05 45.3
comp=Z,6.6nm,1.1s
SPITS Spitsbergen Ar 46.05 1 P **P 01 05 40.0 -0.7**
comp=Z,2.4nm,0.4s,baz=69,slow=9.3,SNR=1.6
comp=Z,2.4nm,0.4s
DBG Daneborg 47.27 14 *i* P **P 01 05 50.4 +0.1**
DBG IAmb IAmb 01 05 51.2
comp=Z,12nm,0.9s
TX31 Lajitas Ar. Si 47.87 99 **P 01 05 55.8 +0.2**
TX31 IAmb IAmb 01 05 58.5
comp=Z,5.2nm,1.0s
TXAR Lajitas Array 47.88 99 P **P 01 05 57.8 +2.1**
comp=Z,2.7nm,0.9s,baz=308,slow=6.2,SNR=12
comp=Z,2.7nm,0.9s
TXAR Lajitas Array 47.88 99 P **P 01 05 57.5 +1.9**
OZNA Ozona 48.08 96 P **P 01 05 57.8 +0.6**
SCHQ Schefferville 49.19 50 P **P 01 06 05.8 +0.5**
comp=Z,3.3nm,0.3s,baz=328,slow=7.2,SNR=20
comp=Z,3.3nm,0.3s
SCHQ Schefferville 49.19 50 P **P 01 06 05.6 +0.4**
SCHQ IAmb IAmb 01 06 18.5
comp=Z,13nm,1.1s
TLY Talaya 52.23 308 LR LR 01 30 05.1
comp=Z,123nm,18.3s,baz=92,slow=38
E62A Clayton Lake 53.69 59 P **P 01 06 38.1 -0.6**
SONM Songino Array 53.72 303 P **P 01 06 39.5 +0.3**
comp=Z,0.7nm,0.6s,baz=64,slow=6.9,SNR=4.2
comp=Z,0.7nm,0.6s
SONM Songino Array 53.72 303 P **P 01 06 38.5 -0.7**
ARCES ARCESS Array B 54.67 357 P **P 01 06 44.2 -1.3**
comp=Z,5.9nm,0.8s,baz=16,slow=9.2,SNR=6.7
comp=Z,5.9nm,0.8s
ARCES ARCESS Array B 54.67 357 P **P 01 06 44.5 -1.0**
ZALV Zalesovo Beam 58.03 321 P **P 01 07 09.2 -0.4**
comp=Z,0.3nm,0.3s,baz=12,slow=7.6,SNR=3.7
comp=Z,0.3nm,0.3s
ZALV Zalesovo Beam 58.03 321 P **P 01 07 08.2 -1.3**
FINES FINESS Array B 62.76 356 P **P 01 07 41.0 -0.4**
comp=Z,4.4nm,0.5s,baz=18,slow=7.5,SNR=52
comp=Z,4.4nm,0.5s
FINES FINESS Array B 62.76 356 P **P 01 07 40.6 -0.9**
NC204 NORSAR Array S 62.85 5 P **P 01 07 42.2 0.0**
KURK Kurchatov 62.86 322 P **P 01 07 42.2 0.0**
KURK Kurchatov 62.86 322 IAmb IAmb 01 07 42.9
comp=Z,1.7nm,0.7s
NC303 NORSAR Array S 62.93 4 P **P 01 07 42.7 +0.1**
NC303 IAmb IAmb 01 07 49.1
comp=Z,3.0nm,0.8s
KURBB Kurchatov Arra 62.97 322 P **P 01 07 42.2 -0.8**
comp=Z,1.0nm,0.9s,baz=22,slow=7.3,SNR=6.6
comp=Z,1.0nm,0.9s
NB2 NORSAR Subarra 63.11 4 P **P 01 07 43.9 +0.1**
comp=Z,7.5nm,0.8s,baz=356,slow=6.5
NOA NORSAR Array B 63.11 4 P **P 01 07 44.0 +0.1**
comp=Z,2.7nm,0.7s,baz=355,slow=6.7,SNR=11
comp=Z,2.7nm,0.7s
BVAR Borovoye Array 63.51 328 P **P 01 07 46.5 -0.1**
comp=Z,6.4nm,0.6s,baz=31,slow=7.0,SNR=30
comp=Z,6.4nm,0.6s
BORK Borovoye 63.52 328 P **P 01 07 46.9 +0.4**
BORK IAmb IAmb 01 07 47.2
comp=Z,2.9nm,0.6s
ARTI Arti 63.58 337 P **P 01 07 46.6 -0.3**
HFS Hagfors 64.11 3 P **P 01 07 50.2 -0.1**
comp=Z,4.2nm,0.4s,baz=20,slow=4.7,SNR=32
comp=Z,4.2nm,0.4s
KONO Kongsberg 64.42 5 P **P 01 07 52.7 +0.4**
MKAR Makanchi Array 64.82 317 P **P 01 07 54.1 -1.1**
comp=Z,0.6nm,0.6s,baz=56,slow=6.5,SNR=7.0
comp=Z,0.6nm,0.6s
MKAR Makanchi Array 64.82 317 P **P 01 07 54.5 -0.7**
MAKZ Makanchi 64.92 318 P **P 01 07 55.1 -0.8**
MAKZ IAmb IAmb 01 08 14.3
comp=Z,4.0nm,1.1s
STRU Stroemstad 65.11 5 *i* P **P 01 07 57.2 +0.4**
SNART Snartemo 65.58 7 *i* P **P 01 08 00.6 +0.8**
TJOU Tjoern 66.13 5 *i* P **P 01 08 03.6 +0.3**
ONAU Onsala 66.78 4 *i* P **P 01 08 07.3 -0.2**
FABU Falkenberg 67.21 4 *i* P **P 01 08 10.2 0.0**
EKA Eskdalemuir Ar 67.50 14 P **P 01 08 13.1 +1.0**
comp=Z,3.3nm,0.5s,baz=348,slow=4.9,SNR=34
comp=Z,3.3nm,0.5s
ESK Eskdalemuir 67.50 14 P **P 01 08 12.5 +0.4**
DEL Delary 67.78 3 *i* P **P 01 08 14.0 +0.2**
BLEU Blekinge 68.00 2 *i* P **P 01 08 14.9 -0.3**
LUNU Lund 68.60 4 *i* P **P 01 08 19.1 +0.1**
BSD Bornholm Skovb 69.17 3 *i* P **P 01 08 22.5 +0.1**
BSD IAmb IAmb 01 08 26.5
comp=Z,58nm,1.3s
AB31 Akbulak array 69.78 333 P **P 01 08 26.4 +0.1**
ABKAR Akbulak array 69.78 333 P **P 01 08 26.4 +0.1**
KKAR Karatay Array 72.23 323 P **P 01 08 41.6 +0.4**
AK21 Malin Array Si 73.27 354 P **P 01 08 46.2 -1.0**
AK23 Malin Array Si 73.28 354 P **P 01 08 46.6 -0.6**
AK22 Malin Array Si 73.28 354 P **P 01 08 46.5 -0.7**
AK20 Malin Array Si 73.31 354 P **P 01 08 46.6 -0.8**
AK04 Malin Array Si 73.32 354 P **P 01 08 46.5 -0.9**
AKASG Malin Array Be 73.33 353 P **P 01 08 46.9 -0.6**
comp=Z,5.7nm,0.3s,baz=10,slow=5.9,SNR=37
comp=Z,5.7nm,0.3s
AKBB Malin Array Si 73.33 353 P **P 01 08 46.9 -0.6**
KIEV Kiev 73.34 354 P **P 01 08 46.6 -0.9**
KIEV Kiev 73.34 354 P **P 01 08 46.9 -0.7**
comp=Z,64nm,0.7s
DPC Dobruska-Polom 73.97 2 P **P 01 08 52.0 +0.7**
comp=Z,4.1nm,1.0s
LUBAR Lubar, Ukraine 74.20 354 P **P 01 08 51.7 -0.9**
MORC Moravsky Berou 74.56 1 *eP* **P 01 08 54.2 -0.6**
VRAC Vranov 75.02 2 *eP* **P 01 08 58.0 +0.6**
KHC Kasperske Hory 75.11 4 P **P 01 08 59.0 +1.1**
GERES GERESS Array B 75.40 4 P **P 01 09 00.4 +0.8**
comp=Z,0.9nm,0.5s,baz=354,slow=4.9,SNR=12
comp=Z,0.9nm,0.5s
GERES GERESS Array B 75.40 4 P **P 01 08 59.9 +0.3**
KMPD K-Podol'skiy 75.62 355 P **P 01 08 59.7 -1.1**
SORM Soroca 75.95 354 P **P 01 09 01.8 -0.8**
comp=Z,9.7nm,1.2s
WINA Alland / Wiene 76.21 2 *i* P **P 01 09 05.2 +1.1**
comp=Z,0.9nm,0.4s
CONA Conrad Observa 76.38 2 *i* P **P 01 09 05.6 +0.4**
comp=Z,1.4nm,0.6s
WATA Walderalm 76.81 5 *i* P **P 01 09 08.4 +0.6**
comp=Z,0.4nm,0.2s
WTTA Wattenberg 76.88 5 *i* P **P 01 09 09.0 +0.8**
comp=Z,1.2nm,0.4s
SQTA Sankt Quirin 76.90 6 *i* P **P 01 09 08.6 +0.4**
comp=Z,1.2nm,0.4s
SESA Seetaler Alpe, 77.16 3 *eP* **P 01 09 10.4 +0.7**
comp=Z,1.0nm,0.6s
SOKA Soboth 77.61 3 *i* P **P 01 09 12.7 +0.6**
comp=Z,1.2nm,0.3s
OBKA Obir 77.76 3 *i* P **P 01 09 13.8 +0.9**
comp=Z,3.9nm,0.3s
KIV Kislovodsk 78.47 343 P **P 01 09 17.0 +0.1**
KIV pP **pP 01 09 53.0 -1.2**
KBZ Khabaz 78.66 343 P **P 01 09 19.1 +1.4**
comp=Z,3.1nm,0.9s,baz=356,slow=3.1,SNR=4.9
comp=Z,3.1nm,0.9s
ESDC Sonseca Array 82.63 18 P **P 01 09 39.6 +0.5**
comp=Z,1.3nm,0.8s,baz=338,slow=5.0,SNR=7.9
comp=Z,1.3nm,0.8s
ESDC Sonseca Array 82.63 18 P **P 01 09 38.9 -0.2**
BRTR Keskin Array B 83.86 349 P **P 01 09 46.2 +0.7**
comp=Z,0.6nm,0.5s,baz=26,slow=1.3,SNR=8.0
BRTR LR LR 01 54 33.3
comp=Z,58nm,18.4s,baz=210,slow=41
comp=Z,0.6nm,0.5s
BRTR Keskin Array B 83.86 349 P **P 01 09 45.2 -0.3**
QSPA South Pole Qui 145.80 180 PKPbc **PKPdf 01 16 52.7 +0.8**
comp=Z,2.2nm,0.5s,baz=60,slow=0.9,SNR=11
QSPA South Pole Qui 145.80 180 **PKPbc 01 16 52.9 +0.1**

CATAC ***30*** *01:14:23.2±0.4, 7.7°N±2.7°×7.7°W±2.7°, h150km±5km, M3.7/12, mb3.8/2, mB3.9/1, MLv3.6/12, Mw(mB)2.9/1, Error ellipse: s-maj=6.8km s-min=4.4km az=114.9, confirmed*
RSNC ***30*** *01:14:23.2±0.0, 7.7°N±3.1°×7.7°W±2.7°, h143km±5km, M3.2, mB4.3, mb3.9, ML2.9, Mw(mB)3.5*
FUNV ***30*** *01:14:23.9, 6.82N×73.10W, h156km, MW3.9, Presumed earthquake*

ISC 30 01:14:22.3±1.3, 6.84N±0.03×73.10W±0.03, h154km±8km, n54, σ1s23/96, 1C, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.26**	**199**	P	**Pn**	**01 14 43.9**	**+0.3**
BARC				S	**Sn**	**01 14 58.8**	**-1.0**
BRJC	**Barrancabermej**	**0.66**	**282**	P	**Pn**	**01 14 45.6**	**+0.6**
BRJC				S	**Sn**	**01 15 02.2**	**-0.1**
RUSC	**La Rusia**	**0.94**	**179**	P	**Pn**	**01 14 48.1**	**+0.5**
RUSC				S	**Sn**	**01 15 06.8**	**-0.1**
RUSC	**La Rusia**	**0.94**	**179**	P	**Pn**	**01 14 47.9**	**+0.3**
RUSC				S	**Sn**	**01 15 06.0**	**-1.0**
RUSC	**La Rusia**	**0.94**	**179**	*eP*	**Pn**	**01 14 47.8**	**+0.2**
RUSC				*eS*	**Sn**	**01 15 05.9**	**-1.0**
CAPV	**Capacho**	**1.28**	**37**	*i*P	**Pn**	**01 14 51.9**	**+1.6**
CAPV				*eS*	**Sn**	**01 15 11.5**	**-0.2**
TAMC	**Tame, Arauca**	**1.36**	**107**	P	**Pn**	**01 14 52.2**	**+1.4**
TAMC				S	**Sn**	**01 15 13.5**	**+0.9**
PTBC	**PUERTO BERRIO,**	**1.38**	**258**	P	**Pn**	**01 14 50.7**	**-0.3**
PTBC				S	**Sn**	**01 15 12.2**	**-0.8**
OCAC	**Ocana**	**1.41**	**351**	P	**Pn**	**01 14 52.2**	**+0.8**
OCAC				S	**Sn**	**01 15 13.9**	**+0.1**
SPBC	**San Pablo de B**	**1.53**	**219**	P	**Pn**	**01 14 52.9**	**+0.3**
SPBC				S	**Sn**	**01 15 15.0**	**-0.8**
ZARC	**Zaragoza, Cauc**	**1.86**	**290**	P	**Pn**	**01 14 56.8**	**+0.7**
ZARC				S	**Sn**	**01 15 22.8**	**+0.6**
CHIC	**Chingaza**	**2.29**	**196**	P	**Pn**	**01 15 02.1**	**+0.6**
CHIC				S	**Sn**	**01 15 31.1**	**-0.6**
ROSC	**El Rosal**	**2.33**	**212**	P	**Pn**	**01 15 03.7**	**+1.7**
ROSC				S	**Sn**	**01 15 34.7**	**+2.1**
CVER	**Cruz Verde, Cu**	**2.50**	**203**	P	**Pn**	**01 15 05.4**	**+1.3**
CVER				S	**Sn**	**01 15 36.3**	**-0.1**
HELC	**Santa Helena**	**2.50**	**255**	P	**Pn**	**01 15 06.2**	**+2.2**
HELC				S	**Sn**	**01 15 35.5**	**-0.6**
HELC	**Santa Helena**	**2.50**	**255**	P	**Pn**	**01 15 04.5**	**+0.5**
HELC				S	**Sn**	**01 15 35.3**	**-0.8**
HELC	**Santa Helena**	**2.50**	**255**	*eP*	**Pn**	**01 15 04.8**	**+0.8**
HELC				*eS*	**Sn**	**01 15 35.6**	**-0.6**
UREC	**San Jos de Ur**	**2.58**	**291**	P	**Pn**	**01 15 04.2**	**-0.4**
UREC				S	**Sn**	**01 15 36.3**	**-1.0**
GUY2C	**Guyana, Caldas**	**2.77**	**235**	P	**Pn**	**01 15 08.5**	**+1.1**
GUY2C				S	**Sn**	**01 15 42.1**	**-0.1**
PTGC	**Puerto Gaitan,**	**2.79**	**160**	P	**Pn**	**01 15 07.2**	**-0.1**
PTGC				S	**Sn**	**01 15 39.3**	**-2.8**
CBOC	**Ciudad Bolivar**	**3.06**	**252**	P	**Pn**	**01 15 12.2**	**+1.5**
CBOC				S	**Sn**	**01 15 47.9**	**-0.3**
SDV	**Santo Domingo**	**3.17**	**50**	P	**Pn**	**01 15 13.6**	**+1.4**
SDV				S	**Sn**	**01 15 50.5**	**-0.4**
SDV	**Santo Domingo**	**3.17**	**50**	*eP*	**Pn**	**01 15 13.7**	**+1.4**
SDV				*eS*	**Sn**	**01 15 49.4**	**-1.5**
ARGC	**Ariguani, Magd**	**3.21**	**339**	P	**Pn**	**01 15 15.3**	**+2.8**
ARGC				S	**Sn**	**01 15 53.4**	**+2.0**
PRAC	**Prado**	**3.58**	**210**	P	**Pn**	**01 15 17.7**	**+0.3**
PRAC				S	**Sn**	**01 16 00.2**	**+0.2**
PRAC	**Prado**	**3.58**	**210**	P	**Pn**	**01 15 17.2**	**-0.1**
PRAC				S	**Sn**	**01 16 00.5**	**+0.4**
APAC	**Apartado, Choc**	**3.61**	**287**	P	**Pn**	**01 15 18.4**	**+0.8**
APAC				S	**Sn**	**01 16 01.4**	**+0.8**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**01 15 18.6**	**+0.9**
ORTC				S	**Sn**	**01 16 01.1**	**+0.3**
SJCC	**San Jacinto, C**	**3.67**	**326**	P	**Pn**	**01 15 18.2**	**-0.2**
SJCC				S	**Sn**	**01 15 59.7**	**-2.4**
SJCC	**San Jacinto, C**	**3.67**	**326**	P	**Pn**	**01 15 18.2**	**-0.2**
SJCC				S	**Sn**	**01 15 59.7**	**-2.4**
SJCC	**San Jacinto, C**	**3.67**	**326**	*eP*	**Pn**	**01 15 18.4**	**-0.1**
SJCC				*eS*	**Sn**	**01 15 59.5**	**-2.6**
PLMC	**San Jos del P**	**3.71**	**239**	P	**Pn**	**01 15 20.1**	**+1.1**
PLMC				S	**Sn**	**01 16 02.6**	**-0.4**
URMC	**La Uribe, Meta**	**3.79**	**200**	P	**Pn**	**01 15 21.1**	**+1.0**
URMC				S	**Sn**	**01 16 05.4**	**+0.4**
LCBC	**Los crdobas,**	**3.81**	**302**	P	**Pn**	**01 15 20.8**	**+0.6**
LCBC				S	**Sn**	**01 16 06.6**	**+1.4**
CRJC	**Cerrejon, Guaj**	**4.16**	**3**	P	**Pn**	**01 15 24.6**	**-0.2**
CRJC				S	**Sn**	**01 16 12.1**	**-1.4**
GUVC	**San Jose del G**	**4.29**	**174**	P	**Pn**	**01 15 26.5**	**0.0**
GUVC				S	**Sn**	**01 16 13.6**	**-3.0**
YOTC	**Yotoco, Valle**	**4.30**	**229**	P	**Pn**	**01 15 26.6**	**-0.2**
SMRC	**Santa Marta, M**	**4.44**	**346**	P	**Pn**	**01 15 27.8**	**+0.4**
SMRC				S	**Sn**	**01 16 17.8**	**-2.2**
MACC	**Macarena, Meta**	**4.72**	**189**	P	**Pn**	**01 15 31.3**	**-0.9**
MACC				S	**Sn**	**01 16 23.2**	**-3.6**
BETC	**Betania**	**4.75**	**210**	P	**Pn**	**01 15 32.8**	**+0.3**
URI	**Uribia**	**4.95**	**13**	P	**Pn**	**01 15 35.1**	**0.0**
URIC	**Uribia, Colomb**	**4.95**	**13**	P	**Pn**	**01 15 34.5**	**-0.6**
URIC				S	**Sn**	**01 16 30.9**	**-1.2**
TEPV	**Terepaima**	**4.95**	**51**	*eP*	**Pn**	**01 15 35.7**	**+0.5**
UPD2	**Meteti**	**5.16**	**289**	P	**Pn**	**01 15 36.8**	**-1.1**
UPD2	22nm,2.1s						
				S	**Sn**	**01 16 35.2**	**-1.8**
UPD2	22nm,2.1s						
				AML	AML		
GARC	**Garzon, Huila**	**5.20**	**207**	P	**Pn**	**01 15 38.2**	**-0.6**
GARC				S	**Sn**	**01 16 37.0**	**-1.5**
MAPV	**Macapo**	**5.47**	**57**	*eP*	**Pn**	**01 15 42.1**	**+0.1**
POPC	**Popayan, Colom**	**5.57**	**220**	P	**Pn**	**01 15 43.5**	**0.0**
POPC				S	**Sn**	**01 16 47.6**	**+0.6**
FLOC	**Florencia**	**5.81**	**206**	P	**Pn**	**01 15 47.2**	**+0.6**
FLOC	**Florencia**	**5.81**	**206**	P	**Pn**	**01 15 46.6**	**0.0**
BENV	**Beln**	**6.26**	**60**	*eP*	**Pn**	**01 15 51.4**	**-1.2**
TURV	**Turiamo**	**6.31**	**55**	*eP*	**Pn**	**01 15 52.7**	**-0.5**
BBAC	**Balboa, Cauca**	**6.33**	**221**	P	**Pn**	**01 15 55.1**	**+1.5**
BBAC				S	**Sn**	**01 17 04.8**	**-0.4**
CRUC	**La Cruz**	**6.50**	**216**	P	**Pn**	**01 15 59.3**	**+3.3**
CACV	**CAICARA DEL OR**	**6.54**	**83**	*eP*	Pn	01 16 02.4	+6.1

IDC 30 01:17:29.1±2.6, 7.62N×93.99E, h0km, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=147.2km s-min=23.2km az=56.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
H08S3	**Diego Garcia H**	**26.25**	**235**	T	T	01 49 58.4	
	baz=54,slow=76,SNR=140						
H08S2	**Diego Garcia H**	**26.25**	**235**	T	T	01 49 51.0	
	baz=54,slow=76,SNR=127						
H08S1	**Diego Garcia H**	**26.27**	**235**	T	T	01 49 55.8	
	baz=54,slow=76,SNR=58						
MKAR	**Makanchi Array**	**40.30**	**348**	P	P	01 25 09.3	+1.2
	0.2nm,0.6s,baz=152,slow=9.4,SNR=2.7						
	0.2nm,0.6s						
ZALV	**Zalesovo Beam**	**46.78**	**353**	P	P	01 25 59.6	-0.7
	0.9nm,0.3s,baz=173,slow=8.6,SNR=5.2						
	0.9nm,0.3s						
WRA	**Warramunga Arr**	**48.24**	**125**	P	P	01 26 11.6	-0.6
	0.3nm,0.5s,baz=306,slow=8.3,SNR=5.2						
	0.3nm,0.5s						
ASAR	**Alice Springs**	**49.87**	**130**	P	P	01 26 25.0	+0.3
	0.6nm,0.6s,baz=308,slow=7.5,SNR=6.0						
	0.6nm,0.6s						
H04N2	**CROZET ISLANDS**	**65.43**	**211**	T	T	02 39 14.0	
	baz=47,slow=74,SNR=18						
H04N1	**CROZET ISLANDS**	**65.44**	**211**	T	T	02 39 29.7	
	baz=47,slow=74,SNR=19						
H04N3	**CROZET ISLANDS**	**65.45**	**211**	T	T	02 39 25.7	
	baz=47,slow=74,SNR=18						
FINES	**FINESS Array B**	**72.86**	**332**	P	P	01 28 59.3	-0.4
	2.6nm,1.0s,baz=90,slow=4.2,SNR=4.7						
	2.6nm,1.0s						

IDC ***30*** *01:34:05.9±2.4, 35.80N×140.36E, h69km±19km, mb3.5/11, mbtmp3.8/14, MS3.1/2, Error ellipse: s-maj=29.8km s-min=7.6km az=65.0*
NEIC ***30*** *01:34:06.9±1.2, 35.86N±0.05×140.35E±0.07, h76km±9km, mb4.3/9, Error ellipse: s-maj=10.9km s-min=3.8km az=132.0*
JMA ***30*** *01:34:08.2±0.1, 35.9N±0.4×140.1E±0.6, h74km±1km, MV3.2/40, SOUTHERN IBARAKI PREF*

ISC 30 01:34:07.7±0.7, 35.81N±0.04×140.13E±0.04, h82km±6km, n59, σ0s98/66, mb4.1/16, 4D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JSMT	**Sammumatsuo**	**0.31**	**123**	*eP*	**Pn**	**01 34 21.0**	**+0.7**
JSMT				*eS*	**Sn**	**01 34 31.0**	**+1.4**
JIHU	**Itakohorinouch**	**0.36**	**65**	P	**Pn**	**01 34 20.7**	**+0.1**
JIHU				*eS*	**Sn**	**01 34 29.4**	**-0.7**
JYT	**Yasato**	**0.42**	**7**	⇓P	**Pn**	**01 34 20.4**	**-0.6**
JYT				⇓S	**Sn**	**01 34 29.1**	**-1.7**
JAG	**Ashikaga**	**0.82**	**318**	P	**Pn**	**01 34 24.5**	**-0.3**
JAG				S	**Sn**	**01 34 36.7**	**-0.9**
JOD2	**Odawara 2**	**1.01**	**237**	P	**Pn**	**01 34 26.4**	**-0.6**
JOD2				*eS*	**Sn**	**01 34 40.2**	**-1.2**
JRY	**Ryogami san**	**1.02**	**282**	P	**Pn**	**01 34 27.4**	**+0.3**
JRY				*eS*	**Sn**	**01 34 41.3**	**-0.3**
BSO3	**Boso 3**	**1.06**	**163**	⇓P	**Pn**	**01 34 27.2**	**0.0**
BSO3				⇓*eS*	**Sn**	**01 34 43.2**	**+1.3**
JIM2	**Oshima 3**	**1.23**	**208**	P	**Pn**	**01 34 28.8**	**-1.0**
JIM2				*eS*	**Sn**	**01 34 44.2**	**-2.0**
JYN	**Shimob**	**1.33**	**257**	P	**Pn**	**01 34 30.9**	**-0.1**
JYN				S	**Sn**	**01 34 48.3**	**-0.2**
BSO1	**Boso 1**	**1.35**	**149**	P	**Pn**	**01 34 30.9**	**+0.2**
BSO1				*eS*	**Sn**	**01 34 48.7**	**+0.7**
JIZS	**Izushimoda**	**1.50**	**223**	P	**Pn**	**01 34 32.6**	**-0.4**
JIZS				S	**Sn**	**01 34 51.2**	**-1.0**
JFY	**Yanaizu**	**1.63**	**348**	P	**Pn**	**01 34 35.6**	**+0.8**
JFY				*eS*	**Sn**	**01 34 55.4**	**+0.1**
MJAR	**Matsushiro Arr**	**1.71**	**296**	P	**Pn**	**01 34 36.7**	**+0.8**
	39nm,0.3s,baz=98,slow=14,SNR=67						
MJAR				S	**Sn**	**01 34 58.4**	**+1.1**
	58nm,0.5s,baz=106,slow=5.4,SNR=6.1						
MJAR				LR	LR	01 35 16.2	
	comp=Z,147nm,20.9s,baz=56,slow=37						
MAJO	**Matsushiro**	**1.72**	**296**	Pn	**Pn**	**01 34 36.6**	**+0.6**
MJB9	**Matsu-Tunnel**	**1.72**	**296**	Pn	**Pn**	**01 34 36.4**	**+0.5**
JGF	**Kuroka**	**2.27**	**265**	Pn	**Pn**	**01 34 44.7**	**+1.5**
INU	**Inuyama**	**2.58**	**261**	Pn	**Pn**	**01 34 47.1**	**-0.3**
JHJ	**Hachijo jima 2**	**2.70**	**186**	P	**Pn**	**01 34 49.3**	**+0.2**
	9.2nm,0.3s,baz=1.3,slow=15,SNR=27						
JHJ				S	**Sn**	**01 35 19.0**	**-1.8**
	22nm,0.3s,baz=34,slow=23,SNR=15						
JHJ2	**Mitsune**	**2.71**	**186**	Pn	**Pn**	**01 34 48.7**	**-0.4**
JTM	**Tenmabayashi**	**5.02**	**8**	Pn	**Pn**	**01 35 20.4**	**-0.1**
JMN	**Monobe**	**5.55**	**250**	Pn	**Pn**	**01 35 29.4**	**+1.6**
ERM	**Erimo**	**6.63**	**20**	Pn	**Pn**	**01 35 39.6**	**-2.8**
KSRS	**Korea Array**	**9.95**	**283**	P	**Pn**	**01 36 29.5**	**+1.8**
	3.8nm,0.9s,baz=99,slow=14,SNR=7.5						
KSRS				LR	LR	01 40 04.6	
	comp=Z,53nm,19.7s,baz=10.0,slow=35						
USRK	**Ussuriysk Ar.**	**10.44**	**326**	P	**Pn**	**01 36 33.8**	**-0.5**
	1.9nm,0.8s,baz=146,slow=16,SNR=2.6						
SONM	**Songino Array**	**27.64**	**306**	P	**P**	**01 39 47.9**	**+0.3**
	0.6nm,0.6s,baz=108,slow=11,SNR=4.0						
	0.6nm,0.6s						
SONM	**Songino Array**	**27.64**	**306**	P	**P**	**01 39 47.2**	**-0.4**
H11N2	**WAKE ISLAND Hy**	**28.47**	**117**	T	T	02 09 37.9	
	baz=308,slow=75						
H11N1	**WAKE ISLAND Hy**	**28.47**	**117**	T	T	02 09 51.4	
	baz=308,slow=75						
H11N3	**WAKE ISLAND Hy**	**28.48**	**117**	T	T	02 09 53.0	
	baz=308,slow=75						
H11S1	**WAKE ISLAND Hy**	**29.12**	**119**	T	T	02 10 36.5	
	baz=310						
H11S3	**WAKE ISLAND Hy**	**29.12**	**119**	T	T	02 10 28.3	
	baz=310						
H11S2	**WAKE ISLAND Hy**	**29.13**	**119**	T	T	02 10 41.4	
	baz=310						
ZAA0	**Zalesovo Array**	**41.98**	**313**	P	**P**	**01 41 50.7**	**+0.3**
ZAA0				IAmb	IAmb	01 41 53.0	
	comp=Z,3.1nm,1.1s						
ZALV	**Zalesovo Beam**	**41.98**	**313**	P	**P**	**01 41 51.1**	**+0.7**
	comp=Z,1.3nm,0.8s,baz=106,slow=7.9,SNR=6.6						
	comp=Z,1.3nm,0.8s						
ZALV	**Zalesovo Beam**	**41.98**	**313**	P	**P**	**01 41 50.9**	**+0.4**
SHL	**Shillong**	**42.36**	**270**	P	**P**	**01 41 55.5**	**+1.4**
MKAR	**Makanchi Array**	**43.90**	**303**	P	**P**	**01 42 07.0**	**+0.9**
	comp=Z,2.2nm,0.8s,baz=92,slow=10.0,SNR=16						
	comp=Z,2.2nm,0.8s						
MKAR	**Makanchi Array**	**43.90**	**303**	P	**P**	**01 42 06.4**	**+0.4**
MAKZ	**Makanchi**	**44.11**	**303**	P	**P**	**01 42 08.1**	**+0.4**
MAKZ				IAmb	IAmb	01 42 09.0	
	comp=Z,3.1nm,0.9s						
KURK	**Kurchatov**	**45.88**	**309**	P	**P**	**01 42 21.4**	**-0.2**
KURBB	**Kurchatov Arra**	**45.95**	**309**	P	**P**	**01 42 22.3**	**+0.2**
	comp=Z,2.3nm,0.7s,baz=85,slow=7.7,SNR=19						
	comp=Z,2.3nm,0.7s						
PDGK	**Podgornoye**	**46.44**	**299**	P	**P**	**01 42 26.9**	**+0.6**
BVAR	**Borovoye Array**	**50.63**	**313**	P	**P**	**01 42 58.8**	**+0.6**
	comp=Z,0.9nm,0.7s,baz=104,slow=6.1,SNR=2.5						
	comp=Z,0.9nm,0.7s						
ILAR	**Eielson Array**	**51.08**	**32**	P	**P**	**01 42 59.4**	**-1.9**
	comp=Z,0.6nm,1.1s,baz=273,slow=8.5,SNR=3.5						
	comp=Z,0.6nm,1.1s						
LEM	**Lembang**	**52.28**	**222**	LR	LR	02 06 16.9	
	comp=Z,41nm,19.5s,baz=182,slow=37						
KKAR	**Karatay Array**	**52.84**	**301**	P	**P**	**01 43 14.6**	**-0.3**
CRQM	**Cirque**	**53.20**	**37**	P	**P**	**01 43 15.0**	**-2.4**
WB0	**Warramunga Arr**	**55.54**	**187**	P	**P**	**01 43 34.8**	**+0.3**
WR8	**Warramunga Arr**	**55.72**	**186**	P	**P**	**01 43 34.8**	**-1.0**
WR8				IAmb	IAmb	01 43 54.5	
	comp=Z,2.9nm,1.1s						
WRA	**Warramunga Arr**	**55.72**	**187**	P	**P**	**01 43 35.6**	**-0.2**
	comp=Z,0.3nm,0.5s,baz=0.3,slow=7.5,SNR=6.9						
	comp=Z,0.3nm,0.5s						
ARTI	**Arti**	**56.70**	**319**	P	**P**	**01 43 42.5**	**+0.2**
ARTI				IAmb	IAmb	01 43 43.5	
	comp=Z,5.2nm,0.7s						
AB31	**Akbulak array**	**57.94**	**310**	P	**P**	**01 43 50.6

TXAR	**Lajitas Array**	**82.74**	**56**	P		P		01 48 15.1	+3.0
	1.0nm,0.9s,baz=190,slow=6.2,SNR=4.4								
	1.0nm,0.9s								
PDAR	**Pinedale Array**	**84.53**	**42**	P		P		01 48 24.4	+3.3
	1.0nm,0.9s,baz=217,slow=3.7,SNR=8.5								
	1.0nm,0.9s								
ILAR	**Eielson Array**	**84.54**	**12**	P		P		01 48 23.7	+3.3
	1.4nm,1.1s,baz=229,slow=5.6,SNR=5.0								
	1.4nm,1.1s								
H03S2	**Juan Fernandez**	**85.25**	**124**	T		T		03 22 05.5	
	baz=250,slow=74,SNR=28								
H03S1	**Juan Fernandez**	**85.26**	**124**	T		T		03 22 06.5	
	baz=250,slow=74,SNR=31								
H03S3	**Juan Fernandez**	**85.27**	**124**	T		T		03 22 05.3	
	baz=250,slow=74,SNR=25								
CMAR	**Chiang Mai Arr**	**91.97**	**289**	P		**P**		**01 48 57.9**	**+0.9**
	0.9nm,0.3s,baz=124,slow=3.7,SNR=3.7								
	0.9nm,0.3s								
CLL	**Collm**	**145.49**	**351**	*i* PKPbc		**PKiKP**		**01 55 29.1**	**-0.5**
	comp=Z,9.0nm,1.1s								
CLL				*i* (PKiKP)		**pPKPdf**		**01 55 33.2**	**-3.3**
	comp=Z,5.0nm,1.0s								
BRG	**Berggiesshubel**	**145.77**	**350**	*e*P		**PKiKP**		**01 55 29.7**	**-0.6**
BRG				Amp				01 55 30.5	
	comp=Z,3.7nm,1.0s								
BRG	**Berggiesshubel**	**145.77**	**350**	*e*P		PKiKP		01 55 38.4	+8.1
BRG				Amp				01 55 39.5	
	comp=Z,4.8nm,1.1s								
KRLC	**Kraliky**	**145.99**	**347**	*e*P		**PKiKP**		**01 55 30.9**	**+0.1**
BRTR	**Keskin Array B**	**146.73**	**318**	PKPbc		**PKiKP**		**01 55 33.0**	**+0.2**
	comp=Z,1.4nm,0.8s,baz=132,slow=1.8,SNR=9.1								
KHC	**Kasperske Hory**	**147.52**	**350**	*e*P		**PKPab**		**01 55 35.4**	**+1.5**
ABNA	**Allensteig Bun**	**147.61**	**347**	*i* PKP		**PKPab**		**01 55 36.4**	**+2.1**
	comp=Z,4.5nm,1.1s								
CKRC	**Cesky Krumlov**	**147.69**	**349**	*e*P		**PKPab**		**01 55 36.1**	**+1.6**
GERES	**GERESS Array B**	**147.77**	**349**	PKPbc		**PKPab**		**01 55 36.2**	**+1.3**
	comp=Z,1.3nm,0.8s,baz=0,0,slow=2.7,SNR=8.0								
CONA	**Conrad Observa**	**148.22**	**346**	*i* PKP		**PKPab**		**01 55 37.6**	**+0.8**
	comp=Z,4.8nm,1.2s								
RONA	**Rosalia, Austr**	**148.33**	**346**	*i* PKP		**PKPab**		**01 55 37.0**	**-0.2**
	comp=Z,3.7nm,1.0s								
MMAI	**Mount Meron Ar**	**148.67**	**306**	PKPbc		**PKPab**		**01 55 38.1**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=344,slow=3.6,SNR=2.1								
BIOA	**Bad Ischl, Aus**	**148.90**	**349**	*i* PKP		**PKPab**		**01 55 38.8**	**-0.6**
	comp=Z,7.1nm,1.3s								
MOTA	**Moosalm**	**149.63**	**352**	*e*PKP		**PKPab**		**01 55 40.8**	**-1.8**
	comp=Z,7.6nm,1.1s								
SQTA	**Sankt Quirin**	**149.74**	**352**	*i* PKP		**PKPab**		**01 55 41.2**	**-1.7**
	comp=Z,6.2nm,1.1s								
ESDC	**Sonseca Array**	**156.29**	**18**	PKPab		**PKPab**		**01 56 13.2**	**+2.5**
	comp=Z,0.8nm,1.2s,baz=318,slow=3.4,SNR=3.2								

*DJA **30** 01:40:49.1±0.4,2°N±3°×12°7E±°, h56km±7km, M4.3/7, mB5.5/2, mb4.5/3, mb4.5/3, mB5.5/2, ML4.0/6, MLv4.1/8, MLv4.2/7, Mw(mB)5.0/2, Mw(mB)5.0/2*
*IDC **30** 01:40:55.5±4.4, 1°.32N×126°.92E, h156km±47km, mb3.7/9, mbtmp4.1/11, Error ellipse: s-maj=65.1km s-min=13.4km az=74.0*

ISC 30 01:40:48.8±0.8, 1°.62N±0°.08×127°.36E±0°.08, h100km, n17, σ1°08/17, mb4.0/9, Halmahera

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GAMI	**Galela, Maluku**	**0.48**	**63**	P		P	**Pn**	**01 41 03.4**	**-1.0**
GAMI				S		S	**Sn**	**01 41 14.4**	**-1.8**
GAMI				AML		AML			
GAMI				AML		AML			
GAMI				AML		AML			
KMSI	**Cibinong**	**3.53**	**253**	P		P	**Pn**	**01 41 40.8**	**-0.9**
SANI	**Sanana**	**3.89**	**201**	P		P	**Pn**	**01 41 45.7**	**-0.8**
GTOI	**Gorontalo**	**4.46**	**257**	P		P	**Pn**	**01 41 52.5**	**-1.6**
SIJI	**Sorong**	**4.62**	**122**	P		Pn		01 42 07.6	+11
	12nm,0.4s,baz=295,slow=19,SNR=2.3								
NLAI	**Namlea**	**4.83**	**183**	P		P	**Pn**	**01 41 59.8**	**+0.6**
LUWI	**Luwuk**	**5.29**	**240**	P		P	**Pn**	**01 42 05.4**	**-0.1**
	7µm7µm34nm,1.3s								
FITZ	**Fitzroy Crossi**	**19.66**	**185**	P		**P**	**01 45 08.9**		**-1.0**
	1.9nm,0.5s,baz=15,slow=11,SNR=9.0								
WRA	**Warramunga Arr**	**22.49**	**163**	P		**P**	**01 45 40.0**		**-0.2**
	5.1nm,0.6s,baz=340,slow=11,SNR=45								
	5.1nm,0.6s								
ASAR	**Alice Springs**	**25.93**	**166**	P		**P**	**01 46 12.2**		**+0.3**
	1.2nm,0.5s,baz=342,slow=8.0,SNR=14								
	1.2nm,0.5s								
STKA	**Stephens Creek**	**35.95**	**159**	P		**P**	**01 47 40.2**		**+0.4**
	4.2nm,0.7s,baz=0.3,slow=8.5,SNR=7.4								
	4.2nm,0.7s								
SONM	**Songino Array**	**49.49**	**342**	P		**P**	**01 49 30.6**		**+1.5**
	0.5nm,0.6s,baz=156,slow=10,SNR=4.0								
	0.5nm,0.6s								
MKAR	**Makanchi Array**	**59.64**	**326**	P		**P**	**01 50 43.5**		**+1.0**
	2.1nm,0.5s,baz=121,slow=8.1,SNR=43								
	2.1nm,0.5s								
ZALV	**Zalesovo Beam**	**62.74**	**333**	P		**P**	**01 51 04.6**		**+1.4**
	0.8nm,0.4s,baz=136,slow=5.2,SNR=3.9								
	0.8nm,0.4s								
KURBB	**Kurchatov Arra**	**63.85**	**328**	P		**P**	**01 51 11.1**		**+0.5**
	4.6nm,0.5s,baz=127,slow=5.9,SNR=46								
	4.6nm,0.5s								
BVAR	**Borovoye Array**	**69.42**	**327**	P		**P**	**01 51 46.6**		**+0.6**
	1.1nm,0.8s,baz=98,slow=11,SNR=3.7								
	1.1nm,0.8s								
VNDA	**Vanda**	**81.27**	**173**	P		**P**	**01 52 52.4**		**-1.0**
	0.3nm,0.4s,baz=327,slow=5.1,SNR=1.7								
	0.3nm,0.4s								

*SDD **30** 01:54:48.8±0.8, 19°.29N×69°.83W, h12km±44km, MD3.1, ML2.5, MW2.3, Presumed earthquake*
*OSPL **30** 01:55:35.7±0.9, 18°.22N×71°.38W, h12km±6km, ML1.7, Presumed earthquake*

ISC 30 01:54:47.8±2.7, 19°.22N±0°.08×69°.8W±0°.1, h10km, n10, σ2°09/16, 5C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
BANI	**BANI**	**0.97**	**212**	⇑*e*Pg		**Pg**		**01 55 07.5**	**+1.0**
BANI				*e*Sg		**Sg**		**01 55 20.8**	**+1.5**
MADR	**Mao Valverde**	**1.26**	**286**	*e*Pg		**Pn**		**01 55 11.2**	**-0.3**
MADR				*e*Sg		**Sb**		**01 55 27.4**	**-0.6**
MADR				IAML				01 55 48.6	
	comp=N,47nm,3.6s								
LONE3	**El Aguacate, B**	**1.67**	**249**	*i* P		**Sg**		**01 55 43.5**	**+1.9**
LONE3				IAML				01 55 52.4	
	comp=Z,15nm,0.3s								
NEDR	**Neiba UASD**	**1.69**	**244**	*e*Pg		**Pb**		**01 55 19.4**	**+0.5**
NEDR				⇑*e*Sg		**Sg**		**01 55 43.0**	**+0.9**
NEDR				IAML				01 55 48.8	
	comp=N,74nm,0.4s								
PODR	**Polo**	**1.74**	**233**	⇑*e*Pg		**Pb**		**01 55 20.9**	**+0.9**
PODR				IAML				01 55 47.6	
	comp=N,101nm,0.5s								
PODR	**Polo**	**1.74**	**233**	*i* P		**Sn**		**01 55 38.5**	**-2.2**
PODR				*e*S		**Sb**		**01 55 41.0**	**-1.0**
PODR				IAML				01 55 44.4	
	comp=Z,2µm,0.3s								
LODU1	**El Espartillar**	**1.79**	**241**	*i* P		**Sn**		**01 55 38.7**	**-3.0**
LODU1				*e*S		**Sb**		**01 55 41.7**	**-1.6**
LODU1				IAML				01 55 42.2	
	comp=Z,186nm,0.4s								
LOVI	**El Cajuil, Ovi**	**2.04**	**226**	*i* P		**Sn**		**01 55 43.5**	**-4.4**
LOVI				IAML				01 55 54.3	
	comp=Z,77nm,0.9s								
JIDR	**Jimani**	**2.06**	**250**	⇑*e*Pg		**Pb**		**01 55 26.1**	**+0.9**
JIDR				⇑*e*Sg		**Sb**		**01 55 53.7**	**+2.8**
JIDR				IAML				01 56 24.4	
	comp=N,29nm,2.5s								
LOBH	**Bahia de las A**	**2.20**	**232**	*i* P		Pg		01 55 43.4	+13
LOBH				*e*S		**Sn**		**01 55 50.0**	**-1.6**
LOBH				IAML				01 55 52.7	
	comp=Z,49nm,1.4s								

*IDC **30** 01:56:56.8±5.2, 24°.43N×121°.94E, h0km, mb3.7/7, mbtmp3.7/7, Error ellipse: s-maj=143.0km s-min=53.0km az=15.0*
*JMA **30** 01:57:11.6±0.3, 24°.8N±0°.8×12°1E±°, h84km±2km, MV3.7/19, TAIWAN REGION*
*TAP **30** 01:57:12.1, 24°.83N×121°.55E, h85km, ML4.3, B*

ISC 30 01:57:11.3±0.8, 24°.84N±0°.03×121°.55E±0°.02, h88km±4km, n174, σ0°87/273, mb3.6/7, 45C-6D, Taiwan

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
NWLT	**Wulai**	**0.07**	**214**	⇑*i*P			**Pn**	**01 57 24.1**	**+0.3**
NWLT				*i* S			**Sn**	**01 57 32.4**	**-0.7**
FUSB	**Fushanzhiwuyua**	**0.09**	**153**	⇑*i*P			**Pn**	**01 57 24.2**	**+0.3**
FUSB				S			**Sn**	**01 57 32.2**	**-0.9**
NHDH	**Xindian Distri**	**0.13**	**352**	⇑*e*P			**Pn**	**01 57 24.4**	**+0.6**
TATO	**Taipei**	**0.15**	**339**	P			**Pn**	**01 57 24.6**	**+0.7**
TATO	**Taipei**	**0.15**	**339**	S			**Sn**	**01 57 33.2**	**0.0**
TATO	**Taipei**	**0.15**	**339**	*i* P			**Pn**	**01 57 24.2**	**+0.3**
TATO				*i* S			**Sn**	**01 57 32.8**	**-0.4**
TWA	**Mucha**	**0.15**	**14**	⇑*i*P			**Pn**	**01 57 24.6**	**+0.6**
TWA				S			**Sn**	**01 57 33.0**	**-0.2**
TWE	**Neicheng**	**0.16**	**136**	⇑*i*P			**Pn**	**01 57 24.6**	**+0.6**
TWE				S			**Sn**	**01 57 33.2**	**0.0**
BACT	**New Taipei Cit**	**0.19**	**330**	P			**Pn**	**01 57 24.6**	**+0.6**
BACT				S			**Sn**	**01 57 33.7**	**+0.3**
ILA	**Ilan**	**0.20**	**111**	⇑*e*P			**Pn**	**01 57 24.7**	**+0.7**
ILA				*e*S			**Sn**	**01 57 33.8**	**+0.3**
NHY	**Taipei**	**0.20**	**6**	*e*P			**Pn**	**01 57 24.8**	**+0.7**
NHY				*e*S			**Sn**	**01 57 33.5**	**0.0**
TAP	**Taipei**	**0.21**	**350**	P			**Pn**	**01 57 24.6**	**+0.5**
TAP				*e*S			**Sn**	**01 57 33.3**	**-0.3**
YHNB	**Yeheng**	**0.23**	**223**	P			**Pn**	**01 57 24.5**	**+0.3**
YHNB	**Yeheng**	**0.23**	**223**	⇑*i*P			**Pn**	**01 57 24.6**	**+0.3**
YHNB				*i* S			**Sn**	**01 57 33.1**	**-0.7**
NSK	**Sanguang**	**0.23**	**227**	⇑*i*P			**Pn**	**01 57 24.6**	**+0.4**
NSK				*i* S			**Sn**	**01 57 33.3**	**-0.6**
NDT	**Datong Townshi**	**0.23**	**187**	⇑*i*P			**Pn**	**01 57 24.8**	**+0.6**
NDT				*i* S			**Sn**	**01 57 33.7**	**-0.1**
NDS	**Dongshan**	**0.25**	**142**	⇑P			**Pn**	**01 57 24.9**	**+0.6**
NDS				S			**Sn**	**01 57 34.0**	**+0.1**
NTC	**Toucheng**	**0.26**	**86**	*e*P			**Pn**	**01 57 24.8**	**+0.6**
NTC				*e*S			**Sn**	**01 57 34.2**	**+0.8**
NTY	**Taoyuan**	**0.28**	**306**	⇑*e*P			**Pn**	**01 57 25.2**	**+0.8**
TIPB	**Shuangxi**	**0.29**	**62**	⇓*i*P			**Pn**	**01 57 25.1**	**+0.6**
TIPB				S			**Sn**	**01 57 33.9**	**-0.4**
TWS1	**Kuangyinshan**	**0.29**	**336**	⇑*i*P			**Pn**	**01 57 25.3**	**+0.8**
TWS1				*e*S			**Sn**	**01 57 34.6**	**+0.4**
LATG	**Datong**	**0.30**	**183**	⇑*i*P			**Pn**	**01 57 25.4**	**+0.8**
LATG				*i* S			**Sn**	**01 57 34.8**	**+0.3**
YM01	**YM01**	**0.31**	**4**	P			**Pn**	**01 57 25.1**	**+0.5**
YM01				S			**Sn**	**01 57 34.3**	**-0.3**
WFSB	**Wu-fen Shan**	**0.32**	**42**	⇓*i*P			**Pn**	**01 57 25.3**	**+0.7**
WFSB				S			**Sn**	**01 57 34.3**	**-0.2**
ZUZH	**Zhuzihu**	**0.33**	**360**	⇑P			**Pn**	**01 57 25.2**	**+0.5**
ZUZH				*e*S			**Sn**	**01 57 34.1**	**-0.5**
NTST	**Danshui**	**0.34**	**345**	*e*P			**Pn**	**01 57 25.5**	**+0.7**
NTST				*e*S			**Sn**	**01 57 35.1**	**+0.4**
KSHI	**Guanxi Townshi**	**0.34**	**260**	⇑P			**Pn**	**01 57 25.6**	**+0.9**
ANP	**Anpu**	**0.35**	**356**	*e*P			**Pn**	**01 57 25.4**	**+0.5**
ANP				*e*S			**Sn**	**01 57 34.6**	**-0.4**
EGS		**0.35**	**88**	*e*P			**Pn**	**01 57 25.5**	**+0.7**
NCU	**National Centr**	**0.35**	**292**	*e*P			**Pn**	**01 57 25.6**	**+0.8**
YM08	**YM08**	**0.35**	**7**	*e*P			**Pn**	**01 57 25.3**	**+0.5**
YM08				*e*S			**Sn**	**01 57 34.0**	**-0.9**
TWC	**Suao**	**0.36**	**129**	⇑*i*P			**Pn**	**01 57 25.5**	**+0.7**
TWC				*e*S			**Sn**	**01 57 35.0**	**+0.2**
ESAO	**Su ao**	**0.38**	**134**	*e*P			**Pn**	**01 57 25.4**	**+0.4**
ESAO				*e*S			**Sn**	**01 57 35.1**	**+0.1**
TNOU	**National Taiwa**	**0.38**	**33**	P			**Pn**	**01 57 25.4**	**+0.5**
TNOU				S			**Sn**	**01 57 34.8**	**-0.3**
NWRT	**Kuosheng**	**0.38**	**16**	*e*P			**Pn**	**01 57 25.2**	**+0.2**
NWRT				*e*S			**Sn**	**01 57 34.6**	**-0.5**
SXI1	**Grass Mountain**	**0.40**	**49**	⇓*i*P			**Pn**	**01 57 25.6**	**+0.4**
SXI1				*e*S			**Sn**	**01 57 35.0**	**-0.5**
NNS	**Nan Shan**	**0.42**	**202**	⇑*i*P			**Pn**	**01 57 26.1**	**+0.6**
NNS				S			**Sn**	**01 57 35.9**	**-0.1**
NJD	**Zhudong**	**0.43**	**257**	*e*P			**Pn**	**01 57 27.1**	**+1.8**
NJD				*e*S			**Sn**	**01 57 35.9**	**+1.2**
NNSB	**Datong**	**0.43**	**200**	⇑*i*P			**Pn**	**01 57 26.1**	**+0.6**
NNSB				S			**Sn**	**01 57 35.9**	**-0.2**
NNSH	**Datong**	**0.43**	**200**	⇑P			**Pn**	**01 57 26.1**	**+0.6**
NNSH				*e*S			**Sn**	**01 57 36.0**	**0.0**
TWB1	**Santiao Chiao**	**0.44**	**67**	⇓*i*P			**Pn**	**01 57 26.1**	**+0.8**
TWB1				S			**Sn**	**01 57 35.6**	**-0.2**
NFF	**Wufeng Townshi**	**0.44**	**243**	⇑*i*P			**Pn**	**01 57 26.0**	**+0.5**
NFF				S			**Sn**	**01 57 35.7**	**-0.3**
TWY	**Chenhua**	**0.44**	**6**	*e*P			**Pn**	**01 57 26.1**	**+0.7**
TWY				*e*S			**Sn**	**01 57 35.6**	**-0.2**
ENA	**Nanau**	**0.44**	**156**	⇑*e*P			**Pn**	**01 57 25.5**	**+0.1**
HSN1	**Hsinchu**	**0.48**	**263**	P			**Pn**	**01 57 26.6**	**+0.9**
HSN1				S			**Sn**	**01 57 37.1**	**+0.7**
NHW	**Xinwu Township**	**0.48**	**291**	*e*P			**Pn**	**01 57 26.7**	**+1.0**
NHW				*e*S			**Sn**	**01 57 37.7**	**+1.2**
SBCB	**Hsinchu**	**0.51**	**265**	⇑*i*P			**Pn**	**01 57 26.9**	**+1.0**
SBCB				*e*S			**Sn**	**01 57 37.2**	**+0.3**
LIOB	**Emei**	**0.52**	**249**	⇑P			**Pn**	**01 57 26.9**	**+0.8**
LIOB				*e*S			**Sn**	**01 57 37.2**	**+0.3**
HSN	**Hsinchu**	**0.52**	**266**	⇑*i*P			**Pn**	**01 57 26.6**	**+0.6**
HSN				S			**Sn**	**01 57 37.0**	**0.0**
EAHA	**Aohua**	**0.53**	**161**	*e*P			**Pn**	**01 57 26.3**	**+0.2**
NSTT	**Nanjuang**	**0.54**	**248**	⇑*i*P			**Pn**	**01 57 26.9**	**+0.8**
NSTT				*i* S			**Sn**	**01 57 37.3**	**+0.1**
ETLH	**Xiulin Townshi**	**0.63**	**185**	⇑*i*P			**Pn**	**01 57 27.6**	**+0.5**
NJN	**Zhunan**	**0.63**	**256**	*e*P			**Pn**	**01 57 27.9**	**+0.9**
NJN				*e*S			**Sn**	**01 57 39.6**	**+0.9**
FUSS	**Fushou**	**0.65**	**205**	⇑*i*P			**Pn**	**01 57 28.7**	**+1.3**
FUSS				S			**Sn**	**01 57 40.2**	**+0.8**
NACB	**Ninganchiao**	**0.66**	**176**	P			**Pn**	**01 57 26.7**	**-0.6**
NACB	**Ninganchiao**	**0.66**	**176**	⇑*i*P			**Pn**	**01 57 26.8**	**-0.5**
NACB				S			**Sn**	**01 57 38.7**	**-0.4**
TWT	**Tachien**	**0.67**	**210**	⇑*i*P			**Pn**	**01 57 28.9**	**+1.3**
TWT				*i* S			**Sn**	**01 57 40.4**	**+0.7**
ETL	**Fush Village**	**0.68**	**174**	*e*P			**Pn**	**01 57 26.9**	**-0.6**
TDCB	**Techi**	**0.68**	**211**	⇑*i*P			**Pn**	**01 57 28.8**	**+1.1**
TDCB				*i* S			**Sn**	**01 57 40.0**	**+0.2**
WHF	**Hehuan Shan**	**0.73**	**200**	⇑*i*P			**Pn**	**01 57 29.7**	**+1.2**
WHF				*e*S			**Sn**	**01 57 42.2**	**+1.0**
NMLH	**Miaoli**	**0.75**	**247**	*e*P			**Pn**	**01 57 29.0**	**+0.9**
NMLH				*e*S			**Sn**	**01 57 41.8**	**+1.1**
EOS2	**EOS2**	**0.75**	**123**	*e*P			**Pn**	**01 57 30.0**	**+2.0**
WHP	**Taichung City**	**0.78**	**225**	⇑*i*P			**Pn**	**01 57 29.7**	**+1.1**
WHP				S			**Sn**	**01 57 41.7**	**+0.3**
NSY	**Sanyi**	**0.83**	**240**	⇑*i*P			**Pn**	**01 57 30.2**	**+1.2**
NSY				S			**Sn**	**01 57 43.1**	**+1.0**
TWQ1	**Liyutan**	**0.85**	**236**	P			**Pn**	**01 57 30.1**	**+0.9**
TWQ1				S			**Sn**	**01 57 43.1**	**+0.4**
HWA	**Hwalien**	**0.86**	**176**	*e*P			**Pn**	**01 57 28.9**	**-0.3**
ETM	**Tongmen**	**0.87**	**183**	*e*P			**Pn**	**01 57 28.8**	**-0.6**
ETM				*e*S			**Sn**	**01 57 41.5**	**-1.4**
EOS3	**EOS3**	**0.89**	**128**	⇑*e*P			**Pn**	**01 57 31.2**	**+1.7**
PCYT	**Pengchaiyu**	**0.92**	**31**	⇓P			**Pn**	**01 57 30.7**	**+0.7**
WUSB	**Renai**	**0.93**	**205**	⇑*i*P			**Pn**	**01 57 31.3**	**+1.1**
WUSB				S			**Sn**	**01 57 44.9**	**+0.6**
OWD	**Renai**	**0.94**	**201**	*e*P			**Pn**	**01 57 31.4**	**+1.0**
WDJ	**Dajia District**	**0.96**	**240**	*e*P			**Pn**	**01 57 31.5**	**+1.2**
WDJ				*e*S			**Sn**	**01 57 45.8**	**+1.1**
TEYL	**Yanliau Villag**	**0.96**	**177**	*e*P			**Pn**	**01 57 30.4**	**0.0**
TEYL				*e*S			**Sn**	**01 57 44.8**	**0.0**
WCS	**Beigang Elemen**	**0.97**	**217**	⇑*i*P			**Pn**	**01 57 31.8**	**+1.3**
WCS				S			**Sn**	**01 57 45.3**	**+0.4**
DPDB	**Guoxing**	**0.98**	**215**	⇑*i*P			**Pn**	**01 57 31.9**	**+1.2**
DPDB				*e*S			**Sn**	**01 57 46.3**	**+1.1**
EOS4	**EOS4**	**1.00**	**135**	*e*P			**Pn**	**01 57 31.3**	**+0.8**
ESL	**Shilin**	**1.02**	**186**	*e*P			**Pn**	**01 57 30.4**	**-0.8**
SHUL	**Shoufeng**	**1.04**	**179**	*e*P			**Pn**	**01 57 31.1**	**-0.2**
TCU	**Taichung**	**1.05**	**229**	*e*P			**Pn**	**01 57 32.6**	**+1.2**
TCU				*e*S			**Sn**	**01 57 47.4**	**+0.9**
WWF	**Wufeng**	**1.10**	**225**	⇑P			**Pn**	**01 57 33.2**	**+1.2**
WWF				*e*S			**Sn**	**01 57 48.9**	**+1.2**
SMLT	**Sun Moon Lake**	**1.12**	**212**	⇑*i*P			**Pn**	**01 57 33.5**	**+1.2**
SMLT				*i* S			**Sn**	**01 57 48.8**	**+0.7**
TYC	**Yuchr**	**1.12**	**214**	⇑*i*P			**Pn**	**01 57 33.4**	**+1.2**
TYC				S			**Sn**	**01 57 48.7**	**+0.7**
TEGC	**Jichi Village**	**1.12**	**180**	*e*P			**Pn**	**01 57 32.2**	**-0.1**
VWDT	**VWDT**	**1.14**	**199**	⇑*i*P			**Pn**	**01 57 34.1**	**+1.6**
VWDT				S			**Sn**	**01 57 49.9**	**+1.5**
EGFH	**Guangfu**	**1.17**	**185**	*e*P			**Pn**	**01 57 32.0**	**-0.9**
WCHH	**Zhanghua**	**1.17**	**230**	*e*P			**Pn**	**01 57 33.9**	**+1.0**
WCHH				*e*S			**Sn**	**01 57 50.3**	**+1.1**
SSLB	**Suanglung**	**1.18**	**207**	P			**Pn**	**01 57 33.9**	**+0.9**
SSLB	**Suanglung**	**1.18**	**207**	⇑*i*P			**Pn**	**01 57 34.1**	**+1.1**
SSLB				S			**Sn**	**01 57 49.6**	**+0.3**
WNT1	**Nantou City**	**1.22**	**221**	*e*P			**Pn**	**01 57 34.5**	**+1.1**
WNT1				*e*S			**Sn**	**01 57 51.1**	**+1.0**
WNT	**Mingjian**	**1.24**	**220**	⇑*i*P			**Pn**	**01 57 34.9**	**+1.2**
WNT				S			**Sn**	**01 57 51.4**	**+0.9**
WYL	**Yuanlin Townsh**	**1.24**	**225**	*e*P			**Pn**	**01 57 34.6**	**+0.9**
WYL				*e*S			**Sn**	**01 57 51.6**	**+1.1**
WJS	**Zhushan**	**1.25**	**217**	*e*P			**Pn**	**01 57 35.0**	**+1.1**
WJS				*e*S			**Sn**	**01 57 51.7**	**+0.8**
WHYT	**Xinyi Township**	**1.30**	**209**	⇑*e*P			**Pn**	**01 57 35.8**	**+1.3**
WHYT				*e*S			**Sn**	**01 57 53.2**	**+1.3**
JYNG	**Yonagunijimaku**	**1.33**	**106**	P			**Pn**	**01 57 36.0**	**+1.2**
JYNG				*e*S			**Sn**	**01 57 53.0**	**+0.4**
EHY	**Hungye**	**1.34**	**189**	*e*P			**Pn**	**01 57 34.1**	**-0.9**
EHYH	**Wanrong**	**1.35**	**188**	*e*P			**Pn**	**01 57 34.0**	**-1.1**
YOJ	**Yonaguni jima**	**1.38**	**105**	*e*P			**Pn**	**01 57 36.4**	**+0.9**
YOJ				*e*S			**Sn**	**01 57 54.2**	**+0.5**
YOJ	**Yonaguni jima**	**1.38**	**105**	P			**Pn**	**01 57 36.5**	**+1.1**
YOJ				S			**Sn**	**01 57 54.4**	**+0.6**
WRL	**Guolierlin Hig**	**1.42**	**229**	*e*P			**Pn**	**01 57 36.4**	**+0.5**
RLNB	**Erlin**	**1.43**	**229**	*e*P			**Pn**	**01 57 37.1**	**+1.0**
RLNB				*e*S			**Sn**	**01 57 55.2**	**+0.4**
WGK	**Gukeng**	**1.46**	**218**	*e*P			**Pn**	**01 57 36.9**	**+0.5**
WGK				*e*S			**Sn**	**01 57 57.0**	**+1.7**
YULB	**Yu-li**	**1.46**	**189**	P			**Pn**	**01 57 36.8**	**+0.4**
YULB	**Yu-li**	**1.46**	**189**	*e*P			**Pn**	**01 57 35.3**	**-1.2**
CHN5	**Tsauling**	**1.47**	**213**	*e*P			**Pn**	**01 57 37.8**	**+1.2**
CHN5				*e*S			**Sn**	**01 57 56.3**	**+0.6**
ALS	**Alishan**	**1.48**	**207**	⇑*i*P			**Pn**	**01 57 38.3**	**+1.2**
ALS				S			**Sn**	**01 57 57.7**	**+1.2**
TWF1	**Yuli**	**1.50**	**189**	*e*P			**Pn**	**01 57 35.9**	**-1.1**
EYUL	**Yuli**	**1.50**	**188**	*e*P			**Pn**	**01 57 36.9**	**0.0**
ECBN	**Changbin**	**1.52**	**183**	*e*P			**Pn**	**01 57 36.4**	**-0.7**
WTK	**Tuku**	**1.56**	**223**	*e*P			**Pn**	**01 57 38.4**	**+0.7**
WTK				*e*S			**Sn**	**01 57 58.9**	**+1.3**
CHN2	**Minshiung**	**1.62**	**217**	*e*P			**Pn**	**01 57 39.9**	**+1.4**
CHN2				*e*S			**Sn**	**01 58 00.4**	**+1.2**
WCKO	**Fanlu**	**1.64**	**212**	*e*P			**Pn**	**01 57 39.9**	**+1.2**
WCKO				*e*S			**Sn**	**01 58 00.5**	**+1.0**
CHKH	**Chenggong**	**1.64**	**185**	*e*P			**Pn**	**01 57 38.2**	**-0.3**
FULB	**Fuli**	**1.65**	**188**	*e*P			**Pn**	**01 57 38.6**	**-0.2

comp=N,157nm,0.4s
LONE3 El Aguacate, B 0.65 20 *i* P **Pb 02 19 07.8 +0.6**
LONE3 *e*S **Sb 02 19 17.1 +1.1**
LONE3 IAML 02 19 19.9
comp=Z,28nm,1.0s
SDDR Presa de Saban 1.06 21⇑*e*Pg **Pn 02 19 12.8 -0.4**
SDDR ⇑*e*Sg **Sb 02 19 27.6 +0.1**
ABDR Alto Bandera 1.30 51⇑*e*Pg **Pn 02 19 16.5 -0.3**
ABDR ⇑*e*Sg **Sn 02 19 33.7 +0.3**
BANI BANI 1.33 72⇓*e*Pg **Pn 02 19 17.1 0.0**
BANI ⇓*e*Sg **Sn 02 19 34.6 +0.7**

*SDD **30** 02:28:30.5±1.2, 18°.06N×71°.42W, h20km±14km, MD2.5, ML2.1, MW2.5, Presumed earthquake*
*OSPL **30** 02:28:32.1±0.7, 18°.20N×71°.43W, h8km±9km, ML1.9, Presumed earthquake*
ISC 30 02:28:31.4±1.2, 18°.15N±0°.04×71°.44W±0°.04, h8km±9km, n10, σ0s68/16, 1C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.15**	**84**	*e*P	**Pg**	**02 28 34.8**	**+0.1**
PODR				IAML		02 28 41.9	
	comp=N,349nm,0.4s						
PODR				IAML		02 28 42.3	
	comp=E,403nm,0.3s						
PODR	**Polo**	**0.15**	**84**	*i* P	**Pg**	**02 28 34.8**	**+0.1**
PODR				*e*S	**Sg**	**02 28 37.8**	**+0.8**
PODR				IAML		02 28 39.6	
	comp=Z,3μm,0.1s						
LODU1	**El Espartillar**	**0.20**	**351**	*i* P	**Pg**	**02 28 34.9**	**-0.6**
LODU1				*e*S	**Sg**	**02 28 37.7**	**-0.7**
LODU1				IAML		02 28 38.5	
	comp=Z,346nm,0.3s						
NEDR	**Neiba UASD**	**0.33**	**4**	*e*Pg	**Pg**	**02 28 38.1**	**+0.2**
NEDR				*e*Sg	**Sb**	**02 28 44.7**	**-0.4**
LOBH	**Bahia de las A**	**0.34**	**214**	*i* P	**Pb**	**02 28 39.4**	**-0.4**
LOBH				IAML		02 28 48.6	
	comp=Z,38nm,0.9s						
LOVI	**El Cajuil, Ovi**	**0.36**	**169**	*i* P	**Pb**	**02 28 39.6**	**-0.4**
LOVI				IAML		02 28 52.0	
	comp=Z,61nm,0.9s						
LONE3	**El Aguacate, B**	**0.45**	**358**	*i* P	**Pg**	**02 28 39.9**	**-0.4**
LONE3				IAML		02 28 49.2	
	comp=Z,60nm,0.4s						
JIDR	**Jimani**	**0.52**	**311**	*e*Pg	**Pg**	**02 28 41.8**	**+0.4**
JIDR				⇑*e*Sg	**Sb**	**02 28 50.8**	**+0.3**
REDR	**Restauracion**	**1.01**	**2**	*e*Pg	**Pb**	**02 28 51.3**	**+0.1**
REDR				*e*Sg	**Sn**	**02 29 07.2**	**+0.9**
ABDR	**Alto Bandera**	**1.01**	**49**	*e*Pg	**Pg**	**02 28 49.5**	**-1.4**
ABDR				*e*Sg	**Sb**	**02 29 05.8**	**+0.7**

IDC 30 02:41:56.6±3.6, 6°.78N×125°.82E, h589km±41km, mb2.9/5, mbtmp4.0/5, Error ellipse: s-maj=157.0km s-min=11.1km az=66.0, Mindanao

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**27.85**	**163**	P	P	02 47 00.2	-0.3
	0.9nm,0.3s,baz=342,slow=9.2,SNR=18						
WRA				PcP	PcP	02 49 56.8	+0.1
	0.5nm,1.1s,baz=306,slow=2.9,SNR=2.0						
WRA				S	S	02 51 04.8	+1.2
	0.2nm,0.5s,baz=339,slow=15,SNR=4.7						
	0.9nm,0.3s						
ASAR	**Alice Springs**	**31.28**	**166**	P	P	02 47 29.9	0.0
	0.4nm,0.5s,baz=343,slow=6.8,SNR=7.7						
ASAR				PcP	PcP	02 50 03.5	-2.2
	0.2nm,0.4s,baz=345,slow=2.7,SNR=4.3						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**54.55**	**324**	P	P	02 50 30.3	0.0
	1.6nm,0.4s,baz=120,slow=7.8,SNR=38						
MKAR				PcP	PcP	02 51 25.3	+1.0
	0.5nm,0.5s,baz=111,slow=5.3,SNR=4.8						
	1.6nm,0.4s						
KURBB	**Kurchatov Arra**	**58.70**	**327**	P	P	02 50 58.9	+0.3
	1.7nm,0.7s,baz=132,slow=6.5,SNR=17						
	1.7nm,0.7s						
BVAR	**Borovoye Array**	**64.29**	**326**	P	P	02 51 33.7	-1.2
	0.9nm,0.8s,baz=157,slow=7.8,SNR=2.7						
	0.9nm,0.8s						

*IDC **30** 02:45:32.7±0.9, 8°.04N×127°.21E, h0km, mb3.9/8, mbtmp3.9/8, Error ellipse: s-maj=22.5km s-min=15.0km az=116.0*
*MAN **30** 02:45:34.0, 7°.62N×127°.13E, h14km, MS3.6*
ISC 30 02:45:35.4±2.0, 7°.91N±0°.05×127°.13E±0°.07, h17km±11km, n18, σ1s06/28, mb3.9/8, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
BIPH	**Bislig**	**0.81**	**290**	*i* P	**Pb**	**02 45 51.7**	**+0.8**
BIPH				*i* S	**Sg**	**02 46 01.4**	**-0.5**
DAV	**Davao City (W)**	**1.75**	**242**	Pn	**Pb**	**02 46 06.2**	**-0.9**
	116nm,0.3s,baz=28,slow=2.6,SNR=16						
DAV				Lg	Lg	02 46 32.3	
	136nm,0.3s,baz=65,slow=22,SNR=14						
DAV				LR	LR	02 46 54.9	
	comp=Z,467nm,20.6s,baz=3.0,slow=44						
DMPH	**Davao City--Mi**	**1.81**	**243**	*e*P	**Pb**	**02 46 07.3**	**-0.7**
DMPH				*i* S	**Sn**	**02 46 29.8**	**+1.5**
KCP	**Kidapawan**	**2.21**	**246**	*i* P	**Pn**	**02 46 12.4**	**+1.1**
KCP				*i* S	**Sn**	**02 46 38.6**	**+0.2**
SCPH	**Surigao**	**2.46**	**319**	*e*P	**Pb**	**02 46 19.2**	**0.0**
SCPH				*e*S	**Sg**	**02 46 53.9**	**-0.8**
CGP	**Cagayan de Oro**	**2.47**	**283**	*e*P	**Pb**	**02 46 17.9**	**-1.4**
CGP				*e*S	**Sb**	**02 46 50.6**	**+1.1**
GSPH	**General Santos**	**2.82**	**230**	*i* P	**Pg**	**02 46 30.0**	**+0.5**
GSPH				*i* S	**Sn**	**02 46 51.7**	**-1.8**
TBP	**Tagbilaran**	**3.68**	**299**	*e*P	**Pn**	**02 46 32.1**	**+0.6**
PLP	**Palo**	**3.87**	**327**	*e*P	**Pb**	**02 46 43.2**	**+0.1**
PLP				*e*S	**Sb**	**02 47 30.8**	**+1.2**
LLP	**Lapu-Lapu**	**3.93**	**308**	*e*P	**Pg**	**02 46 51.3**	**+0.5**
LLP				*e*S	**Sg**	**02 47 40.3**	**-1.5**
FITZ	**Fitzroy Crossi**	**25.89**	**183**	P	**P**	**02 51 06.7**	**+0.2**
	3.1nm,0.8s,baz=0.5,slow=10.0,SNR=11						
	3.1nm,0.8s						
WRA	**Warramunga Arr**	**28.57**	**166**	P	**P**	**02 51 32.7**	**+2.0**
	0.7nm,0.7s,baz=349,slow=9.8,SNR=4.7						
	0.7nm,0.7s						
KSRS	**Korea Array**	**29.42**	**1**	P	**P**	**02 51 38.0**	**0.0**
	0.4nm,0.3s,baz=185,slow=6.1,SNR=2.8						
	0.4nm,0.3s						
PETK	**Petropavlovsk-**	**51.44**	**23**	P	**P**	**02 54 38.5**	**-1.0**
	3.1nm,0.9s,baz=221,slow=7.0,SNR=1.8						
PETK				PcP	**PcP**	**02 55 54.3**	**+0.5**
	4.9nm,1.1s,baz=241,slow=4.8,SNR=4.2						
	3.1nm,0.9s						
MKAR	**Makanchi Array**	**54.41**	**323**	P	**P**	**02 55 01.4**	**-0.2**
	1.0nm,0.6s,baz=125,slow=8.4,SNR=10						
MKAR				PcP	**PcP**	**02 56 04.0**	**-1.2**
	0.4nm,0.7s,baz=106,slow=5.1,SNR=2.9						
	1.0nm,0.6s						
ZALV	**Zalesovo Beam**	**57.09**	**332**	P	**P**	**02 55 19.4**	**-1.2**
	0.7nm,0.7s,baz=128,slow=9.3,SNR=1.9						
	0.7nm,0.7s						
KURBB	**Kurchatov Arra**	**58.49**	**326**	P	**P**	**02 55 29.8**	**-0.7**
	0.2nm,0.3s,baz=123,slow=6.7,SNR=7.5						
	0.2nm,0.3s						
BVAR	**Borovoye Array**	**64.08**	**326**	P	**P**	**02 56 07.4**	**-1.0**
	0.7nm,0.5s,baz=120,slow=8.8,SNR=3.0						
	0.7nm,0.5s						

IDC 30 03:04:38.9±4.6, 23°.80S×148°.31E, h0km, mbtmp3.2/3, ML3.2/3, Error ellipse: s-maj=43.7km s-min=27.2km az=76.0, Queensland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**10.00**	**215**	Pn	Pn	03 07 02.8	-1.0
	0.3nm,0.3s,baz=37,slow=15,SNR=2.1						
STKA				Lg	Lg	03 09 54.5	
	0.2nm,0.3s,baz=295,slow=18,SNR=3.0						
	0.8nm,0.5s						
STKA				AML	AML		
ASAR	**Alice Springs**	**13.19**	**268**	Pn	Pn	03 07 46.3	-1.3
	0.2nm,0.3s,baz=90,slow=14,SNR=5.2						
ASAR				Lg	Lg	03 11 35.4	
	baz=88,slow=27,SNR=3.1						
	0.3nm,0.4s						
ASAR				AML	AML		
WRA	**Warramunga Arr**	**13.52**	**284**	Pn	Pn	03 07 49.4	-2.7
	0.1nm,0.3s,baz=110,slow=12,SNR=1.5						
WRA				Lg	Lg	03 11 42.9	
	0.1nm,0.3s,baz=112,slow=27,SNR=5.0						
	0.3nm,0.9s						
WRA				AML	AML		
I07AU	**WARRAMUNGA INF**	**13.54**	**284**	I	I	04 24 30.0	
	baz=108,slow=312,SNR=1.7						

*IDC **30** 03:11:10.9±8.6, 17°.89S×177°.93W, h561km±100km, mb2.8/4, mbtmp3.7/4, Error ellipse: s-maj=55.6km s-min=36.8km az=7.0*
ISC 30 03:11:13.0±1.4, 18°.0S±0°.2×178°.0W±0°.3, h590km, n6, σ0s18/7, mb3.1/3, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**20.68**	**191**	P	**P**	**03 15 13.0**	**-0.1**
	2.5nm,0.4s,baz=0.0,slow=3.0,SNR=1.7						
	2.5nm,0.4s						
WRA	**Warramunga Arr**	**45.05**	**260**	P	**P**	**03 18 37.5**	**-0.2**
	0.2nm,0.5s,baz=95,slow=6.9,SNR=9.4						
WRA				PcP	**PcP**	**03 20 05.9**	**+0.2**
	0.9nm,1.2s,baz=91,slow=3.3,SNR=2.2						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**45.19**	**254**	P	**P**	**03 18 39.0**	**+0.2**
	0.7nm,0.4s,baz=90,slow=8.1,SNR=11						
	0.4nm,1.0s						
ILAR	**Eielson Array**	**85.84**	**13**	P	**P**	**03 22 50.5**	**-0.1**
	0.4nm,1.0s,baz=209,slow=5.1,SNR=6.0						
	0.4nm,1.0s						
BRTR	**Keskin Array B**	**145.13**	**315**	PKPbc	**PKPbc**	**03 29 45.5**	**0.0**
	0.2nm,0.4s,baz=98,slow=4.0,SNR=1.8						
GERES	**GERESS Array B**	**147.78**	**346**	PKPbc	**PKPbc**	**03 29 52.5**	**+0.1**
	0.2nm,0.4s,baz=20,slow=3.3,SNR=2.0						

*SJA **30** 03:19:24.1±0.7, 21°.46S×69°.07W, h106km±3km, ML3.7, MW3.8*
*GUC **30** 03:19:25.4±0.7, 21°.48S×68°.96W, h97km±3km, ML3.7, Presumed earthquake*
ISC 30 03:19:26.3±1.3, 21°.48S±0°.03×69°.10W±0°.05, h96km±8km, n39, σ1s56/66, 12C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PB09	**IPOC Station P**	**0.34**	**204**	*e*P	**Pn**	**03 19 40.3**	**-0.6**
PB09				*e*S	**Sn**	**03 19 52.2**	**+0.5**
PB09				IAML		03 19 52.5	
	comp=Z,3μm,0.5s						
PB09	**IPOC Station P**	**0.34**	**204**⇓	*e*P	**Pn**	**03 19 40.2**	**-0.7**
PB09				*e*S	**Sn**	**03 19 51.9**	**+0.1**
PB09				IAML		03 19 53.5	
	comp=E,3μm,0.2s						
PB01	**IPOC Station P**	**0.57**	**320**	*e*P	**Pn**	**03 19 41.6**	**-0.9**
PB01				*e*S	**Sn**	**03 19 54.9**	**+0.5**
PB01				IAML		03 19 55.7	
	comp=Z,5μm,0.2s						
PB01	**IPOC Station P**	**0.57**	**320**⇑	*e*P	**Pn**	**03 19 41.5**	**-0.9**
PB01				*e*S	**Sn**	**03 19 54.4**	**0.0**
PB02	**IPOC Station P**	**0.76**	**282**	*e*P	**Pn**	**03 19 43.8**	**-0.3**
PB02				*e*S	**Sn**	**03 19 58.6**	**+1.2**
PB02				IAML		03 20 00.6	
	comp=Z,5μm,0.2s						
PB02	**IPOC Station P**	**0.76**	**282**⇑	*e*P	**Pn**	**03 19 43.8**	**-0.3**
PB02				*e*S	**Sn**	**03 19 58.5**	**+1.0**
PB02				IAML		03 20 00.5	
	comp=N,4μm,0.2s						
PB07	**IPOC Station P**	**0.77**	**252**	*e*P	**Pn**	**03 19 44.0**	**-0.3**
PB07				*e*S	**Sn**	**03 19 58.8**	**+1.0**
PB07				IAML		03 19 59.9	
	comp=Z,3μm,0.3s						
PB07	**IPOC Station P**	**0.77**	**252**⇑	*i* P	**Pn**	**03 19 44.0**	**-0.3**
PB07				*e*S	**Sn**	**03 19 58.6**	**+0.8**
PB07				IAML		03 19 59.1	
	comp=N,4μm,0.3s						
PB03	**IPOC Station P**	**0.83**	**227**	*e*P	Pn	03 19 39.0	-5.8
PB03				*e*P	Sn	03 19 44.6	-14
PB03				*e*S		03 19 59.5	
PB03				IAML		03 20 02.4	
	comp=Z,1μm,0.2s						
PB03	**IPOC Station P**	**0.83**	**227**⇑	*e*P	**Pn**	**03 19 44.5**	**-0.4**
PB03				*e*S	**Sn**	**03 19 59.2**	**+0.5**
PB03				IAML		03 20 00.1	
	comp=E,4μm,0.2s						
PB06	**IPOC Station P**	**1.29**	**200**	*e*P	**Pn**	**03 19 49.7**	**-0.4**
PB06				*e*S	**Sn**	**03 20 08.7**	**+0.7**
PB06				IAML		03 20 09.7	
	comp=Z,457nm,0.5s						
PB06	**IPOC Station P**	**1.29**	**200**⇑	*e*P	**Pn**	**03 19 49.6**	**-0.4**
PB06				*e*S	**Sn**	**03 20 08.5**	**+0.5**
PB06				IAML		03 20 09.2	
	comp=E,1μm,0.4s						
PB08	**IPOC Station P**	**1.34**	**358**	*e*P	**Pn**	**03 19 49.9**	**-0.9**
PB08				*e*S	**Sn**	**03 20 09.7**	**+0.5**
PB08				IAML		03 20 10.5	
	comp=Z,392nm,0.1s						
PB08	**IPOC Station P**	**1.34**	**358**⇑	*e*P	**Pn**	**03 19 49.9**	**-0.9**
PB08				*e*S	**Sn**	**03 20 09.2**	**0.0**
PB08				IAML		03 20 11.3	
	comp=E,979nm,0.3s						
TA01	**Diego Aracena**	**1.36**	**312**	*e*P	**Pn**	**03 19 50.1**	**-0.6**
TA01				*e*S	**Sn**	**03 20 11.8**	**+2.6**
TA01				IAML		03 20 15.9	
	comp=Z,447nm,0.2s						
TA01	**Diego Aracena**	**1.36**	**312**⇑	*e*P	**Pn**	**03 19 50.1**	**-0.6**
TA01				*e*S	**Sn**	**03 20 09.6**	**+0.4**
TA01				IAML		03 20 12.9	
	comp=E,1μm,0.2s						
TA02	**Huaiquique**	**1.55**	**321**	*e*P	**Pn**	**03 19 52.1**	**-0.9**
TA02				*e*S	**Sn**	**03 20 16.9**	**+3.7**
TA02				IAML		03 20 18.9	
	comp=Z,680nm,0.3s						
TA02	**Huaiquique**	**1.55**	**321**⇑	*e*P	**Pn**	**03 19 52.1**	**-0.9**
TA02				*e*S	**Sn**	**03 20 13.8**	**+0.6**
AF01	**San Pedro de A**	**1.69**	**150**	*e*P	**Pn**	**03 19 54.6**	**-0.5**
AF01				IAML		03 20 32.2	
	comp=Z,392nm,0.9s						
AF01	**San Pedro de A**	**1.69**	**150**⇑	*e*P	**Pn**	**03 19 54.5**	**-0.6**
AF01				*e*S	**Sn**	**03 20 18.5**	**+1.6**
AF01				IAML		03 20 39.5	
	comp=N,803nm,0.4s						
PB05	**IPOC Station P**	**1.71**	**217**	*e*P	**Pn**	**03 19 54.8**	**-0.3**
PB05				*e*S	**Sn**	**03 20 18.1**	**+1.2**
PB05	**IPOC Station P**	**1.71**	**217**	*e*P	**Pn**	**03 19 54.4**	**-0.7**
PB05				*e*S	**Sn**	**03 20 16.5**	**-0.5**
PB11	**IPOC Station P**	**1.79**	**343**	*e*P	**Pn**	**03 19 54.9**	**-1.4**
PB11				*e*P		03 19 55.0	
PB11				*e*S	**Sn**	**03 20 19.7**	**+0.7**
PB11				IAML		03 20 21.2	
	comp=Z,594nm,0.5s						
PB11	**IPOC Station P**	**1.79**	**343**⇑	*e*P	**Pn**	**03 19 54.9**	**-1.4**
PB11				*e*S	**Sn**	**03 20 18.1**	**-0.9**
PB11				IAML		03 20 23.5	
	comp=N,1μm,0.3s						
GO01	**Chusmiza**	**1.81**	**357**	*e*P	**Pn**	**03 19 55.8**	**-1.0**
GO01				*e*S	**Sn**	**03 20 21.4**	**+1.5**
GO01				IAML		03 20 24.7	
	comp=Z,436nm,0.5s						
GO01	**Chusmiza**	**1.81**	**357**⇑	*e*P	**Pn**	**03 19 55.8**	**-1.0**
GO01				*e*S	**Sn**	**03 20 20.7**	**+0.8**
PSGCX	**Pisagua**	**2.11**	**333**	*e*P	**Pn**	**03 19 58.5**	**-1.9**
PSGCX				*e*S	**Sn**	**03 20 25.2**	**-1.0**
PSGCX				IAML		03 20 30.5	
	comp=Z,321nm,0.3s						
PSGCX	**Pisagua**	**2.11**	**333**⇑	*e*P	**Pn**	**03 19 58.4**	**-1.9**
PSGCX				*e*S	**Sn**	**03 20 25.3**	**-1.0**
PB10	**IPOC Station P**	**2.43**	**213**	*e*P	**Pn**	**03 20 04.2**	**-0.2**
PB10				*e*S	**Sn**	**03 20 32.3**	**-1.3**
PB10	**IPOC Station P**	**2.43**	**213**	*e*P	**Pn**	**03 20 04.0**	**-0.4**
PB12	**IPOC Station P**	**3.08**	**338**	*e*P	**Pn**	**03 20 10.7**	**-2.5**
PB12				*e*S	Sn	03 20 58.0	+8.7
PB12				IAML		03 21 10.3	
	comp=Z,152nm,0.5s						
PB12	**IPOC Station P**	**3.08**	**338**	*e*P	**Pn**	**03 20 10.5**	**-2.8**
PB16	**IPOC Station P**	**3.16**	**353**	*e*P	**Pn**	**03 20 14.0**	**-0.7**
PB16	**IPOC Station P**	**3.16**	**353**	*e*P	**Pn**	**03 20 13.8**	**-0.9**
AP01	**Chacalluta**	**3.31**	**339**	*e*P	**Pn**	**03 20 15.0**	**-1.2**
AP01				*e*S	**Sn**	**03 21 03.0**	**+8.3**
AP01				IAML		03 21 15.1	
	comp=Z,224nm,0.5s						
PB14	**IPOC Station P**	**3.35**	**201**	*e*P	**Pn**	**03 20 17.0**	**-0.1**
PB14				*e*S	Sn	03 20 39.0	-17
SALTA		**3.73**	**138**	*e*P	**Pn**	**03 20 22.3**	**0.0**
SLA	**San Lorenzo**	**4.62**	**135**	*e*P	**Pn**	**03 20 33.9**	**-0.1**
AC02	**Maricunga**	**5.33**	**180**	*e*P	**Pn**	**03 20 41.9**	**-2.0**

*UPP **30** 03:30:05.0±0.1, 67°.19N×20°.65E, h0km, ML2.6, Confirmed Induced event*
*HEL **30** 03:30:05.0±0.3, 67°.17N×20°.54E, h0km, ML0.8, Suspected explosion*
ISC 30 03:30:05.0±0.9, 67°.19N±0°.03×20°.66E±0°.03, h0km, n16, σ0s79/23, Sweden

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.07**	**209**	P	**Pg**	**03 30 06.8**	**+0.3**
DUNU				S	**Sg**	**03 30 08.0**	**+0.6**
MASU	**Masugnsbyn**	**0.58**	**62**	P	**Pg**	**03 30 16.3**	**+0.1**
MASU				S	**Sg**	**03 30 24.2**	**+0.4**
KUA	**Kurravaara**	**0.78**	**351**	P	**Pg**	**03 30 19.4**	**-0.6**
KUA				S	**Sg**	**03 30 30.2**	**+0.1**
SALU	**Saltoluokta**	**0.86**	**284**	P	**Pg**	**03 30 21.1**	**-0.3**
ERTU	**Ertsjaerv**	**0.88**	**136**	P	**Pg**	**03 30 21.1**	**-0.7**
ERTU	**Ertsjaerv**	**0.88**	**136**	PG	**Pg**	**03 30 21.1**	**-0.7**
	baz=315						
ERTU				SB	**Sg**	**03 30 33.4**	**+0.2**
NIKU	**Nikkaluokta**	**0.93**	**318**	P	**Pg**	**03 30 22.2**	**-0.6**
LANU	**Lannavaara**	**1.00**	**30**	PG	**Pg**	**03 30 23.9**	**-0.4**
KLF	**Kolari**	**1.29**	**86**	PG	**Pg**	**03 30 28.8**	**-0.8**
KLF				MSG		03 30 45.4	
	comp=Z,0.5nm,0.2s						
KLF				SG	**Sg**	**03 30 46.6**	**+0.3**
HEF	**Hetta**	**1.68**	**41**	PG	**Pn**	**03 30 35.4**	**-0.1**
	baz=225						
HEF				MSG		03 30 56.3	
	comp=Z,0.5nm,0.2s						
HEF				SG	**Sn**	**03 30 58.0**	**+0.3**
TOF	**Tornio**	**1.83**	**126**	PG	**Pn**	**03 30 38.6**	**+0.8**
TOF				MSG		03 31 00.7	
	comp=Z,0.4nm,0.2s						
TOF				SG	**Sb**	**03 31 02.9**	**+0.1**
KTK1	**Kautokeino**	**2.07**	**27**	SG	**Sb**	**03 31 10.4**	**+0.6**
RNF	**Rovaniemi**	**2.19**	**103**	SG	**Sb**	**03 31 13.5**	**+0.5**
BURU	**Burvik**	**2.63**	**173**	PG	**Pb**	**03 30 51.3**	**-1.6**
ARA0	**ARCESS Array S**	**2.96**	**35**	SG	**Sb**	**03 31 37.2**	**+1.9**
OUL	**Oulu**	**3.00**	**132**	PB	**Pn**	**03 30 54.9**	**+1.2**
	baz=317						

*JMA **30** 03:58:00.3±0.1, 29°.3N±0°.3×130°.4E±0°.6, h56km±2km, MV3.4/34, NEAR AMAMI-OSHIMA ISLAND*
*NEIC **30** 03:58:00.5±1.7, 29°.24N±0°.06×130°.43E±0°.09, h32km±6km, mb4.4/20, Error ellipse: s-maj=12.0km s-min=8.0km az=99.0*
*IDC **30** 03:58:02.2±1.4, 29°.29N×130°.52E, h50km±12km, mb3.6/14, mbtmp3.8/19, ML3.4/5, MS3.3/7, Error ellipse: s-maj=18.6km s-min=9.1km az=108.0*
ISC 30 03:57:59.6±1.4, 29°.25N±0°.04×130°.47E±0°.06, h28km±10km, n70, σ1s00/78, mb4.3/24, MS3.1/5, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JYAK	**Yakushimahirau**	**0.98**	**2**	P	**Pn**	**03 58 18.1**	**+0.6**
JYAK				*e*S	**Sn**	**03 58 30.9**	**+0.2**
JZK	**Kikaishima**	**1.03**	**205**	P	**Pn**	**03 58 19.1**	**+0.9**
JZK				*e*S	**Sn**	**03 58 31.9**	**+0.1**
JTAJ	**Takarajima**	**1.11**	**265**	*e*P	**Pb**	**03 58 19.9**	**-0.3**
JTAJ				*e*S	**Sn**	**03 58 33.9**	**+0.1**
JAM	**Amami Oshima**	**1.13**	**222**	P	**Pb**	**03 58 20.0**	**-0.5**
JAM				*e*S	**Sn**	**03 58 34.4**	**+0.1**
JMTN	**Minamitane**	**1.20**	**18**	P	**Pb**	**03 58 21.0**	**-0.8**
JMTN				*e*S	**Sn**	**03 58 36.6**	**+0.6**
JKC	**Kuchinoerabu**	**1.23**	**349**	P	**Pb**	**03 58 21.8**	**-0.4**
JKC				*e*S	**Sb**	**03 58 37.6**	**-0.1**
JTN	**Tanegashima 3**	**1.47**	**17**	P	**Pn**	**03 58 24.7**	**+0.4**
JTN				*e*S	**Sb**	**03 58 44.9**	**+0.4**
JAMN	**Amaminishikomi**	**1.52**	**229**	*e*P	**Pn**	**03 58 25.3**	**+0.3**
JTSR	**Tashiro 2**	**1.95**	**11**	P	**Pn**	**03 58 31.7**	**+0.8**
JTSR				*e*S	**Sn**	**03 58 55.8**	**+1.3**
JTK	**Tokunoshima**	**1.98**	**223**	P	**Pn**	**03 58 31.8**	**+0.5**
JSU	**Suzuyama**	**2.25**	**360**	Pn	**Pn**	**03 58 35.5**	**+0.5**
JSU	**Suzuyama**	**2.25**	**360**	P	**Pn**	**03 58 35.6**	**+0.6**
JSU				*e*S	**Sn**	**03 59 02.2**	**+0.4**
JNAR	**Kushima--Naru**	**2.37**	**17**	P	**Pn**	**03 58 37.8**	**+1.1**
JNAR				*e*S	**Sn**	**03 59 05.8**	**+0.9**
JOKE	**Okinoerabujima**	**2.52**	**222**	*e*P	**Pn**	**03 58 39.8**	**+1.0**
JYRO	**Yoronjima**	**2.85**	**219**	*e*P	**Pn**	**03 58 43.1**	**-0.1**
JOW	**Kunigami**	**3.10**	**219**	P	**Pn**	**03 58 49.0**	**+2.3**
	10nm,0.3s,baz=19,slow=18,SNR=7.1						
JOW				S	**Sn**	**03 59 26.4**	**+3.6**
	63nm,0.8s,baz=84,slow=17,SNR=2.5						
	11nm,0.3s						
JOW				AML	AML		
JOW	**Kunigami**	**3.10**	**219**	Pn	**Pn**	**03 58 45.5**	**-1.2**
JMZ	**Minamidaito 2**	**3.48**	**169**	Pn	**Pn**	**03 58 54.3**	**+2.3**
JNU	**Nakatsue**	**3.87**	**5**	P	**Pn**	**03 58 59.0**	**+1.6**
	3.7nm,0.3s,baz=184,slow=14,SNR=19						
JNU				S	**Sn**	**03 59 42.7**	**+0.7**
	27nm,0.7s,baz=150,slow=20,SNR=7.0						
	16nm,0.5s						
JNU				AML	AML		
JMN	**Monobe**	**5.33**	**32**	Pn	**Pn**	**03 59 17.2**	**-0.1**
INU	**Inuyama**	**8.22**	**41**	Pn	**Pn**	**03 59 58.8**	**+1.7**
KSRS	**Korea Array**	**8.45**	**346**	P	**Pn**	**04 00 03.3**	**+3.1**
	0.2nm,0.3s,baz=165,slow=14,SNR=4.5						
KSRS				LR	LR	04 03 37.1	
	comp=Z,106nm,19.0s,baz=165,slow=40						
	0.8nm,0.5s						
KSRS				AML	AML		
JGF	**Kuroka**	**8.60**	**41**	Pn	**Pn**	**04 00 02.4**	**+0.2**
JHJ	**Hachijo jima 2**	**8.86**	**62**	P	**Pn**	**04 00 07.2**	**+1.3**
	1.0nm,0.3s,baz=228,slow=18,SNR=1.5

G18K	**Tagagawik**	**55.89**	**28**	P	**P**	**04 07 34.4**	**-0.1**
G18K				IAmb	IAmb	04 07 36.7		
	comp=Z,6.5nm,1.4s							
AB31	**Akbulak array**	**56.07**	**312**	P	**P**	**04 07 35.4**	**-0.7**
AB31				IAmb	IAmb	04 07 36.4		
	comp=Z,2.6nm,0.7s							
ABKAR	**Akbulak array**	**56.07**	**312**	P	**P**	**04 07 35.5**	**-0.6**
J19K	**Poorman**	**57.10**	**30**	P	**P**	**04 07 43.9**	**+0.7**
J19K				IAmb	IAmb	04 07 56.4		
	comp=Z,5.6nm,1.4s							
AKTO	**Aktyubinsk**	**57.16**	**313**	LR	LR	04 34 15.9		
	comp=Z,79nm,19.1s,baz=42,slow=38							
J20K	**Nowinta River**	**57.75**	**30**	P	**P**	**04 07 48.7**	**+1.0**
J20K				IAmb	IAmb	04 08 29.1		
	comp=Z,8.4nm,1.4s							
H22K	**Ishtalitna Cre**	**58.87**	**28**	P	**P**	**04 07 56.4**	**+0.8**
MLY	**Manley**	**59.18**	**29**	P	**P**	**04 07 58.0**	**+0.2**
MLY				IAmb	IAmb	04 08 10.6		
	comp=Z,5.4nm,1.5s							
RND	**Reindeer**	**60.14**	**31**	P	**P**	**04 08 04.5**	**0.0**
ILAR	**Eielson Array**	**60.84**	**29**	P	**P**	**04 08 09.0**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=282,slow=6.8,SNR=9.2							
	comp=Z,0.5nm,0.7s							
ILAR	**Eielson Array**	**60.84**	**29**	P	**P**	**04 08 08.8**	**-0.4**
SCRK	**Sand Creek**	**62.21**	**30**	P	**P**	**04 08 17.3**	**-1.2**
I27K	**Kandik River**	**62.91**	**28**	P	**P**	**04 08 23.8**	**+0.7**
I27K				IAmb	IAmb	04 09 03.9		
	comp=Z,7.0nm,1.4s							
I28M	**Miner Creek**	**63.62**	**28**	P	**P**	**04 08 28.7**	**+0.8**
I28M				IAmb	IAmb	04 09 09.3		
	comp=Z,6.0nm,1.4s							
F30M	**Barrier River**	**64.71**	**25**	P	**P**	**04 08 35.7**	**+0.8**
H31M	**Peel River**	**65.77**	**27**	P	**P**	**04 08 42.1**	**+0.3**
KBZ	**Khabaz**	**68.80**	**309**	P	**P**	**04 09 01.6**	**+0.3**
	comp=Z,2.4nm,0.9s,baz=63,slow=2.3,SNR=2.9							
	comp=Z,2.4nm,0.9s							
FINES	**FINESS Array B**	**71.22**	**331**	P	**P**	**04 09 16.2**	**+0.4**
	comp=Z,2.8nm,1.0s,baz=47,slow=6.7,SNR=3.5							
	comp=Z,2.8nm,1.0s							
AKASG	**Malin Array Be**	**74.53**	**320**	P	**P**	**04 09 35.1**	**-0.6**
	comp=Z,0.8nm,0.6s,baz=57,slow=7.1,SNR=3.4							
	comp=Z,0.8nm,0.6s							
YKA	**Yellowknife Ar**	**74.95**	**26**	P	**P**	**04 09 37.3**	**-0.6**
	comp=Z,0.3nm,0.6s,baz=298,slow=6.6,SNR=3.2							
	comp=Z,0.3nm,0.6s							
BRTR	**Keskin Array B**	**76.74**	**308**	P	**P**	**04 09 48.7**	**-0.1**
	comp=Z,0.7nm,0.7s,baz=84,slow=4.5,SNR=5.7							
	comp=Z,0.7nm,0.7s							
BRTR	**Keskin Array B**	**76.74**	**308**	P	**P**	**04 09 49.0**	**+0.2**
BURAR	**Bucovina Array**	**78.32**	**318**	P	**P**	**04 09 56.4**	**-1.0**
NVAR	**Mina Array Bea**	**86.99**	**47**	P	**P**	**04 10 42.4**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=302,slow=5.1,SNR=4.1							
	comp=Z,0.3nm,0.6s							
NVAR	**Mina Array Bea**	**86.99**	**47**	P	**P**	**04 10 41.7**	**-1.1**

*IDC **30** 04:34:27.0±2.0,35°.66S×178°.17E,h198km±15km,mb4.0/5, mbtmp4.6/7,Error ellipse: s-maj=26.2km s-min=15.8km az=49.0*

*NOU **30** 04:34:27.0,36°.02S×178°.12E,h254km,MLv4.7/13,Off E. Coast of N. Island, N.Z.*

*NEIC **30** 04:34:30.7±2.0,36°.1S±0°.1×177°.8E±0°.2,h213km±6km, mb4.4/14,Error ellipse: s-maj=20.3km s-min=17.2km az=222.0*

*WEL **30** 04:34:30.6,35°.87S×178°.25E,ML4.6,Mw4.3,Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr1.38; Mθθ0.14; Mφφ-2.35; Mrθ-1.55; Mθφ-2.32; Mφr2.51; Fault plane solution: M₀4.22000×10¹⁵ NP1: φs353.00000°,δ73.00000°,λ48.00000°. NP2: φs245.00000°,δ45.00000°,λ156.00000°. Principal axes: T 4.4624, Plg45.0000°, Azm221.0000°; N -0.5796, Plg40.0000°, Azm8.0000°; P -3.8829, Plg17.0000°, Azm113.0000°; Stations used: GRZ HAZ MKAZ MXZ OPRZ TOZ URZ WCZ WSRZ OBLIQUE FAULTING*

*WEL **30** 04:34:30.1±0.9,36°S±9°×17°8E±°,h201km±12km,M4.6/86, ML4.3/8,MLv4.6/86 Error ellipse: s-maj=12.9km s-min=8.0km az=36.0*

ISC 30 04:34:30.9±0.9,36°.04S±0°.07×178°.10E±0°.07,h233km±6km, n198,σ2°18/206,mb4.4/13,3C,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**1.53**	**174**	P	**Pn**	**04 35 05.5**	**-2.2**
MXZ	**Matakaoa Point**	**1.53**	**174**		**Pn**	**04 35 05.5**	**-2.2**
MXZ	**Matakaoa Point**	**1.53**	**174**	P	**Pn**	**04 35 05.8**	**-1.9**
MXZ				S	**S**	**04 35 33.5**	**-3.3**
MXZ				AML	AML		
MXZ				AML	AML		
WSRZ	**White Island S**	**1.65**	**206**	P	**Pn**	**04 35 07.4**	**-1.4**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**1.65**	**206**	P	**Pn**	**04 35 07.1**	**-1.7**
WIZ				AML	AML		
WIZ				AML	AML		
HAZ	**Te Kaha**	**1.73**	**188**	P	**Pn**	**04 35 07.5**	**-1.9**
HAZ				S	**S**	**04 35 37.2**	**-2.5**
HAZ				AML	AML		
HAZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.79**	**172**	P	**Pn**	**04 35 08.5**	**-1.5**
WMGZ				S	**S**	**04 35 38.6**	**-2.2**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.82**	**180**	P	**Pn**	**04 35 08.9**	**-1.4**
PKGZ				AML	AML		
MYRZ	**Mayor Island**	**1.94**	**230**	P	**Pn**	**04 35 09.8**	**-1.6**
MYRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.95**	**190**	P	**Pn**	**04 35 09.6**	**-2.0**
RUGZ				S	**S**	**04 35 41.3**	**-2.3**
RUGZ				AML	AML		
RUGZ				AML	AML		
WHRZ	**Whale Island**	**2.02**	**206**	P	**Pn**	**04 35 12.2**	**0.0**
WHRZ				AML	AML		
PUZ	**Puketiti**	**2.03**	**176**	P	**Pn**	**04 35 10.7**	**-1.6**
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	**Tauwhareparae**	**2.13**	**183**	P	**Pn**	**04 35 12.5**	**-0.7**
TWGZ				S	**S**	**04 35 46.0**	**-0.5**
TWGZ				AML	AML		
TWGZ				AML	AML		
GRZ	**Great Barrier**	**2.15**	**264**	P	**Pn**	**04 35 11.2**	**-2.2**
GRZ				AML	AML		
OPRZ	**Ohinepanea**	**2.18**	**214**	P	**Pn**	**04 35 13.0**	**-0.7**
OPRZ				S	**S**	**04 35 48.3**	**+1.0**
OPRZ				AML	AML		
TGRZ	**Tauranga**	**2.24**	**221**	P	**Pn**	**04 35 13.5**	**-0.7**
TGRZ				AML	AML		
MARZ	**Manawahe**	**2.25**	**210**	P	**Pn**	**04 35 14.1**	**-0.3**
MARZ				AML	AML		
EDRZ	**Edgecumbe**	**2.33**	**207**	P	**Pn**	**04 35 14.7**	**-0.5**
EDRZ				AML	AML		
EDRZ				AML	AML		
MWZ	**Matawai**	**2.33**	**191**	P	**Pn**	**04 35 14.6**	**-0.6**
MWZ				S	**S**	**04 35 48.7**	**-1.4**
MWZ				AML	AML		
URZ	**Urewera**	**2.35**	**199**	P	**Pn**	**04 35 13.9**	**-1.4**
	184nm,0.3s,baz=266,slow=4.2,SNR=654						
URZ				S	**S**	**04 35 49.3**	**-1.0**
	388nm,0.3s,baz=22,slow=2.1,SNR=5.2						
URZ	**Urewera**	**2.35**	**199**	P	**Pn**	**04 35 13.7**	**-1.6**
URZ	**Urewera**	**2.35**	**199**	S	**S**	**04 35 50.0**	**-0.3**
URZ	**Urewera**	**2.35**	**199**	P	**Pn**	**04 35 14.0**	**-1.4**
URZ				AML	AML		
TKGZ	**Te Karaka**	**2.40**	**185**	P	**Pn**	**04 35 14.6**	**-1.2**
TKGZ				AML	AML		
TKGZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.44**	**178**	P	**Pn**	**04 35 15.2**	**-1.0**
CNGZ				AML	AML		
KARZ	**Kaharoa**	**2.47**	**216**	P	**Pn**	**04 35 16.2**	**-0.4**
KARZ				AML	AML		
KMRZ	**Kaimai**	**2.50**	**223**	P	**Pn**	**04 35 16.7**	**-0.2**
KMRZ				AML	AML		
WIAZ	**Waiheke Island**	**2.51**	**252**	P	**Pn**	**04 35 16.1**	**-0.9**
WIAZ				AML	AML		
RAGZ	**Rawiri**	**2.51**	**192**	P	**Pn**	**04 35 16.4**	**-0.7**
RAGZ				AML	AML		
TARZ	**Mount Tarawera**	**2.53**	**210**	P	**Pn**	**04 35 17.4**	**+0.1**
TARZ				S	**S**	**04 35 55.0**	**+1.1**
TARZ				AML	AML		
MKAZ	**Moumakai**	**2.59**	**245**	P	**Pn**	**04 35 17.2**	**-0.6**
MKAZ				AML	AML		
HLRZ	**Highlands Stat**	**2.61**	**212**	P	**Pn**	**04 35 18.3**	**+0.2**
HLRZ				AML	AML		
RRRZ	**Republican Roa**	**2.62**	**208**	P	**Pn**	**04 35 18.3**	**+0.2**
RRRZ				AML	AML		
MUGZ	**Murupara**	**2.65**	**203**	P	**Pn**	**04 35 17.6**	**-0.9**
MUGZ				S	**S**	**04 35 54.2**	**-1.8**
MUGZ				AML	AML		
RIGZ	**Rimuhau**	**2.67**	**186**	P	**Pn**	**04 35 17.4**	**-1.4**
RIGZ				S	**S**	**04 35 55.3**	**-1.2**
RIGZ				AML	AML		
TOZ	**Tahuroa Road**	**2.68**	**230**	Pn	**Pn**	**04 35 17.8**	**-1.0**
TOZ	**Tahuroa Road**	**2.68**	**230**	P	**Pn**	**04 35 18.9**	**+0.1**
TOZ				AML	AML		
MBAZ	**Motutapu North**	**2.68**	**253**	P	**Pn**	**04 35 18.1**	**-0.7**
MBAZ				AML	AML		
ABAZ	**Army Bay**	**2.70**	**257**	P	**Pn**	**04 35 18.3**	**-0.7**
ABAZ				AML	AML		
ETAZ	**East Tamaki Re**	**2.71**	**249**	P	**Pn**	**04 35 18.8**	**-0.4**
ETAZ				AML	AML		
RTZ	**Ruatahuna**	**2.72**	**199**	Pn	**Pn**	**04 35 17.7**	**-1.6**
RTZ	**Ruatahuna**	**2.72**	**199**	P	**Pn**	**04 35 18.4**	**-0.9**
RTZ				S	**S**	**04 35 56.1**	**-1.3**
RTZ				AML	AML		
HRRZ	**Handcock Road**	**2.76**	**211**	P	**Pn**	**04 35 19.8**	**+0.1**
HRRZ				AML	AML		
GRRZ	**Galatos Road**	**2.80**	**214**	P	**Pn**	**04 35 20.3**	**+0.2**
GRRZ				AML	AML		
PRRZ	**Plateau Road**	**2.81**	**209**	P	**Pn**	**04 35 19.9**	**-0.2**
PRRZ				AML	AML		
EPAZ	**Eden Park BICE**	**2.83**	**252**	P	**Pn**	**04 35 20.1**	**-0.3**
EPAZ				AML	AML		
HBAZ	**Herne Bay Bore**	**2.83**	**252**	P	**Pn**	**04 35 20.1**	**-0.3**
HBAZ				AML	AML		
ALRZ	**Allen Road**	**2.88**	**209**	P	**Pn**	**04 35 20.6**	**-0.4**
ALRZ				AML	AML		
PRGZ	**Paritu Road**	**2.88**	**183**	P	**Pn**	**04 35 20.0**	**-1.0**
PRGZ				AML	AML		
WPRZ	**Whakapapatarin**	**2.92**	**211**	P	**Pn**	**04 35 21.6**	**+0.2**
WPRZ				AML	AML		
RVAZ	**Riverhead Bore**	**2.93**	**255**	P	**Pn**	**04 35 21.0**	**-0.5**
RVAZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**2.96**	**249**	P	**Pn**	**04 35 21.5**	**-0.3**
AWAZ				AML	AML		
WTAZ	**Waiatarua**	**2.98**	**252**	P	**Pn**	**04 35 21.7**	**-0.3**
WTAZ				AML	AML		
MTHZ	**Maungataniwha**	**2.98**	**199**	P	**Pn**	**04 35 21.0**	**-1.0**
MTHZ				AML	AML		
RAHZ	**Arahi**	**2.98**	**195**	P	**Pn**	**04 35 21.1**	**-1.0**
RAHZ				AML	AML		
KNZ	**Kokohu**	**2.99**	**186**	P	**Pn**	**04 35 20.5**	**-1.7**
KNZ				AML	AML		
KUTZ	**Kaahu Road**	**3.04**	**216**	P	**Pn**	**04 35 23.4**	**+0.6**
KUTZ				AML	AML		
WCZ	**Waipu Caves**	**3.05**	**271**	P	**Pn**	**04 35 21.1**	**-1.7**
WCZ				AML	AML		
TLZ	**Tolley Road**	**3.06**	**221**	P	**Pn**	**04 35 23.4**	**+0.3**
TLZ				AML	AML		
MRHZ	**Matea Rd**	**3.09**	**205**	P	**Pn**	**04 35 22.2**	**-1.1**
MRHZ				AML	AML		
WHHZ	**Waihua**	**3.11**	**193**	P	**Pn**	**04 35 22.5**	**-1.0**
WHHZ				AML	AML		
MHGZ	**Mahia Peninsul**	**3.11**	**183**	P	**Pn**	**04 35 22.5**	**-1.0**
MHGZ				AML	AML		
NMHZ	**Naumai**	**3.22**	**198**	P	**Pn**	**04 35 24.4**	**-0.5**
NMHZ				AML	AML		
WATZ	**Wairara**	**3.26**	**215**	P	**Pn**	**04 35 25.5**	**+0.2**
WATZ				AML	AML		
HATZ	**Hinemaiaia**	**3.26**	**209**	P	**Pn**	**04 35 24.6**	**-0.7**
HATZ				AML	AML		
ARHZ	**Aropaoanui**	**3.33**	**195**	P	**Pn**	**04 35 25.2**	**-0.9**
ARHZ				AML	AML		
BKZ	**Black Stump Fm**	**3.37**	**202**	P	**Pn**	**04 35 25.0**	**-1.5**
BKZ	**Black Stump Fm**	**3.37**	**202**	P	Pn	04 36 10.0	+43
BKZ	**Black Stump Fm**	**3.37**	**202**	P	**Pn**	**04 35 25.2**	**-1.3**
BKZ				AML	AML		
RATZ	**Rangitukua**	**3.37**	**213**	P	**Pn**	**04 35 26.6**	**0.0**
RITZ	**Rihia Road**	**3.43**	**211**	P	**Pn**	**04 35 26.9**	**-0.2**
RITZ				AML	AML		
HIZ	**Hauiti**	**3.57**	**225**	Pn	**Pn**	**04 35 28.7**	**-0.1**
HIZ	**Hauiti**	**3.57**	**225**	P	**Pn**	**04 35 29.9**	**+1.1**
MCHZ	**McNeill Hill**	**3.57**	**198**	P	**Pn**	**04 35 27.9**	**-0.9**
MCHZ				AML	AML		
NTVZ	**North Tongarir**	**3.61**	**212**	P	**Pn**	**04 35 29.0**	**-0.4**
NTVZ				AML	AML		
TMVZ	**Te Maari**	**3.61**	**211**	P	**Pn**	**04 35 28.9**	**-0.5**
TMVZ				AML	AML		
KRVZ	**Karewarewa**	**3.62**	**212**	P	**Pn**	**04 35 29.5**	**0.0**
KRVZ				AML	AML		
ETVZ	**East Tongariro**	**3.62**	**211**	P	**Pn**	**04 35 29.0**	**-0.6**
ETVZ				AML	AML		
KWHZ	**Kaweka Forest**	**3.63**	**201**	P	**Pn**	**04 35 28.0**	**-1.5**
KWHZ				AML	AML		
WTVZ	**West Tongariro**	**3.66**	**212**	P	**Pn**	**04 35 29.3**	**-0.6**
WTVZ				AML	AML		
OTVZ	**Oturere**	**3.67**	**211**	P	**Pn**	**04 35 29.3**	**-0.8**
OTVZ				AML	AML		
TWVZ	**Taurewa**	**3.69**	**214**	P	**Pn**	**04 35 30.0**	**-0.3**
TWVZ				AML	AML		
SNVZ	**South Ngauruho**	**3.70**	**211**	P	**Pn**	**04 35 30.1**	**-0.4**
SNVZ				AML	AML		
CKHZ	**Cape Kidnapper**	**3.70**	**192**	P	**Pn**	**04 35 28.9**	**-1.4**
CKHZ				AML	AML		
NGZ	**Ngauruhoe**	**3.70**	**212**	P	**Pn**	**04 35 30.4**	**-0.1**
NGZ				AML	AML		
COVZ	**Chateau Observ**	**3.75**	**212**	P	**Pn**	**04 35 28.0**	**-3.0**
COVZ				AML	AML		
OUZ	**Omahuta**	**3.76**	**281**	P	**Pn**	**04 35 28.6**	**-2.5**
OUZ	**Omahuta**	**3.76**	**281**	P	**Pn**	**04 35 28.7**	**-2.3**
OUZ				AML	AML		
FWVZ	**Far West T-bar**	**3.79**	**211**	P	**Pn**	**04 35 30.9**	**-0.7**
MAVZ	**Matarangi**	**3.80**	**211**	P	**Pn**	**04 35 31.1**	**-0.7**
MAVZ				AML	AML		
WHVZ	**Whangaehu Hut**	**3.80**	**211**	P	**Pn**	**04 35 30.8**	**-0.9**
WHVZ				AML	AML		
BHHZ	**Black Hill Sta**	**3.80**	**205**	P	**Pn**	**04 35 29.9**	**-1.7**
BHHZ				AML	AML		
WNVZ	**Wahianoa**	**3.83**	**210**	P	**Pn**	**04 35 31.1**	**-1.0**
WNVZ				AML	AML		
MOVZ	**Moawhango**	**3.84**	**208**	P	**Pn**	**04 35 30.4**	**-1.6**
MOVZ				AML	AML		
KRHZ	**Kereru**	**3.85**	**200**	P	**Pn**	**04 35 30.1**	**-1.9**
KRHZ				AML	AML		
KAHZ	**Kahuranaki**	**3.87**	**194**	P	**Pn**	**04 35 31.0**	**-1.4**
KAHZ				AML	AML		
VRZ	**Vera Road**	**4.06**	**220**	P	**Pn**	**04 35 35.7**	**+1.1**
PXZ	**Pawanui**	**4.10**	**193**	P	**Pn**	**04 35 33.0**	**-2.0**
PXZ				AML	AML		
PNHZ	**Pukenui**	**4.15**	**201**	P	**Pn**	**04 35 33.5**	**-2.2**
PNHZ				AML	AML		
WPHZ	**Waipukurau**	**4.22**	**198**	P	**Pn**	**04 35 34.8**	**-1.8**
WPHZ				AML	AML		
TSZ	**Takapari Road**	**4.35**	**202**	P	**Pn**	**04 35 36.0**	**-2.2**
TSZ				AML	AML		
PRHZ	**Porangahau**	**4.37**	**195**	P	**Pn**	**04 35 36.4**	**-2.0**
PRHZ				AML	AML		
WAZ	**Wanganui**	**4.45**	**213**	P	**Pn**	**04 35 38.3**	**-1.0**
DVHZ	**Dannevirke**	**4.51**	**199**	P	**Pn**	**04 35 37.7**	**-2.4**
DVHZ				AML	AML		
ANWZ	**Angora Road**	**4.59**	**196**	P	**Pn**	**04 35 39.3**	**-1.7**
ANWZ				AML	AML		
NBEZ	**Newall Road No**	**4.65**	**225**	P	**Pn**	**04 35 42.7**	**+1.0**
POWZ	**Post Office Ro**	**4.71**	**202**	P	**Pn**	**04 35 40.4**	**-2.1**
POWZ				AML	AML		
PRWZ	**Pori Road**	**4.81**	**200**	P	**Pn**	**04 35 41.6**	**-2.1**
PRWZ				AML	AML		
BFZ	**Birch Farm**	**4.86**	**197**	P	**Pn**	**04 35 41.9**	**-2.5**
BFZ	**Birch Farm**	**4.86**	**197**	Pn	**Pn**	**04 35 41.8**	**-2.5**
BFZ	**Birch Farm**	**4.86**	**197**	P	**Pn**	**04 35 41.8**	**-2.5**
BFZ				AML	AML		
MRZ	**Mangatainoka R**	**5.02**	**202**	Pn	**Pn**	**04 35 43.4**	**-2.9**
MRZ	**Mangatainoka R**	**5.02**	**202**	P	**Pn**	**04 35 43.7**	**-2.6**
MRZ				AML	AML		
TIWZ	**Tintock**	**5.04**	**200**	P	**Pn**	**04 35 44.2**	**-2.4**
TIWZ				AML	AML		
CPWZ	**Castlepoint**	**5.08**	**196**	P	**Pn**	**04 35 45.6**	**-1.4**
CPWZ				AML	AML		
HOWZ	**Holdsworth Sta**	**5.25**	**202**	P	**Pn**	**04 35 46.1**	**-3.2**
HOWZ				AML	AML		
OGWZ	**Otaki Gorge**	**5.29**	**205**	P	**Pn**	**04 35 46.8**	**-2.9**
OGWZ				AML	AML		
TMWZ	**Te Maipa**	**5.34**	**198**	P	**Pn**	**04 35 47.6**	**-2.8**
TMWZ				AML	AML		
KIW	**Kapiti Island**	**5.42**	**207**	P	**Pn**	**04 35 48.4**	**-3.0**
KIW				AML	AML		
MTW	**Mount Morrison**	**5.50**	**201**	P	**Pn**	**04 35 49.2**	**-3.1**
MTW				AML	AML		
CAW	**Cannon Point**	**5.59**	**204**	P	**Pn**	**04 35 50.2**	**-3.2**
CAW				AML	AML		
TRWZ	**Traveller**	**5.67**	**199**	P	**Pn**	**04 35 51.6**	**-2.8**
TRWZ				AML	AML		
PAWZ	**Paruwai Farm**	**5.73**	**201**	P	**Pn**	**04 35 51.8**	**-3.4**
PAWZ				AML	AML		
DUWZ	**D'Urville Isla**	**5.77**	**213**	P	**Pn**	**04 35 53.0**	**-2.8**
DUWZ				AML	AML		
MSWZ	**Moikau Station**	**5.81**	**202**	P	**Pn**	**04 35 52.6**	**-3.6**
MSWZ				AML	AML		
WEL	**Wellington**	**5.85**	**205**	P	**Pn**	**04 35 53.4**	**-3.2**
WEL				AML	AML		
SNZO	**South Karori**	**5.89**	**206**	P	**Pn**	**04 35 53.8**	**-3.4**
SNZO	**South Karori**	**5.89**	**206**	Pn	**Pn**	**04 35 53.4**	**-3.8**
BHW	**Baring Head**	**5.92**	**204**	Pn	**Pn**	**04 35 53.6**	**-3.9**
BHW	**Baring Head**	**5.92**	**204**	P	**Pn**	**04 35 53.9**	**-3.7**
BHW				AML	AML		
PLWZ	**Palliser**	**5.95**	**201**	P	**Pn**	**04 35 54.3**	**-3.7**
PLWZ				AML	AML		
TCW	**Tory Channel**	**5.96**	**209**	P	**Pn**	**04 35 54.5**	**-3.6**
TUWZ	**Tuamarina**	**6.28**	**210**	P	**Pn**	**04 35 58.8**	**-3.4**
TUWZ				AML	AML		
NNZ	**Nelson**	**6.35**	**214**	P	**Pn**	**04 35 59.3**	**-3.7**
TKNZ	**Takaka Hill**	**6.41**	**217**	P	**Pn**	**04 35 59.9**	**-3.8**
TKNZ				AML	AML		
QRZ	**Quartz Range**	**6.47**	**221**	P	**Pn**	**04 36 00.7**	**-3.9**
QRZ	**Quartz Range**	**6.47**	**221**	Pn	**Pn**	**04 36 01.9**	**-2.7**
QRZ	**Quartz Range**	**6.47**	**221**	P	**Pn**	**04 36 01.8**	**-2.7**
BSWZ	**Blackbirch Sta**	**6.55**	**209**	P	**Pn**	**04 36 02.2**	**-3.4**
BSWZ				AML	AML		
MRNZ	**Matariki Terra**	**6.79**	**216**	P	**Pn**	**04 36 04.5**	**-4.0**
MRNZ				AML	AML		
THZ	**Tophouse**	**7.00**	**214**	Pn	**Pn**	**04 36 07.7**	**-3.6**
THZ	**Tophouse**	**7.00**	**214**	P	**Pn**	**04 36 08.4**	**-2.9**
THZ				AML	AML		
KHZ	**Kahutara**	**7.28**	**208**	P	**Pn**	**04 36 10.9**	**-3.9**
KHZ	**Kahutara**	**7.28**	**208**	P	**Pn**	**04 36 11.0**	**-3.8**
KHZ				AML	AML		
DSZ	**Denniston Nort**	**7.52**	**219**	P	**Pn**	**04 36 15.6**	**-2.3**
GVZ	**Greta Valley S**	**7.95**	**208**	Pn	**Pn**	**04 36 19.7**	**-3.6**
GVZ	**Greta Valley S**	**7.95**	**208**	P	**Pn**	**04 36 20.0**	**-3.3**
LTZ	**Lake Taylor**	**8.10**	**212**	P	**Pn**	**04 36 21.4**	**-3.9**
AMCZ	**Amberley**	**8.27**	**209**	P	**Pn**	**04 36 24.2**	**-3.3**
INZ	**Inchbonnie**	**8.43**	**216**	P	**Pn**	**04 36 25.5**	**-4.0**
OKCZ	**Okains Bay**	**8.59**	**205**	P	**Pn**	**04 36 28.6**	**-3.0**
OXZ	**Oxford**	**8.64**	**211**	P	**Pn**	**04 36 28.1**	**-4.2**
MQZ	**McQueen's Vall**	**8.72**	**207**	P	Pn	04 36 28.6	-4.6
RACZ	**Rakaia**	**8.94**	**209**	P	**Pn**	**04 36 31.9**	**-4.0**
MHCZ	**Mount Hutt**	**9.01**	**212**	P	**Pn**	**04 36 34.0**	**-3.0**
WVZ	**Waitaha Valley**	**9.03**	**217**	P	**Pn**	**04 36 33.7**	**-3.5**
RPZ	**Rata Peaks**	**9.38**	**213**	P	**Pn**	**04 36 38.2**	**-3.4**
	3.1nm,0.3s,baz=315,slow=3.5,SNR=16						
RPZ				S	S	04 38 17.7	-9.5
	3.2nm,0.3s,baz=124,slow=23,SNR=11						
RPZ	**Rata Peaks**	**9.38**	**213**	P	**Pn**	**04 36 38.1**	**-3.6**
RPZ	**Rata Peaks**	**9.38**	**213**	Pn	**Pn**	**04 36 38.1**	**-3.6**
RPZ	**Rata Peaks**	**9.38**	**213**	P	**Pn**	**04 36 37.8**	**-3.8**
ARCZ	**Arundel**	**9.51**	**212**	P	**Pn**	**04 36 39.4**	**-4.0**
FOZ	**Fox Glacier**	**9.82**	**218**	P	**Pn**	**04 36 43.1**	**-4.2**
TMZ	**Timaru**	**9.94**	**211**	P	**Pn**	**04 36 45.1**	**-3.6**
LBZ	**Lake Benmore**	**10.29**	**214**	P	**Pn**	**04 36 50.0**	**-3.3**
ODZ	**Otahua Downs**	**10.63**	**210**	P	**Pn**	**04 36 54.3**	**-3.2**
ODZ	**Otahua Downs**	**10.63**	**210**	P	**Pn**	**04 36 54.3**	**-3.2**
JCZ	**Jackson Bay**	**10.73**	**219**	P	Pn	04 36 54.2	-4.7
JCZ	**Jackson Bay**	**10.73**	**219**	P	Pn	04 36 54.0	-4.9
MLZ	**Mavora Lakes**	**11.99**	**216**	Pn	**Pn**	**04 37 11.2**	**-3.5**
DCZ	**Deep Cove**	**12.54**	**218**	Pn	**Pn**	**04 37 17.9**	**-3.5**
MSVF	**Nonsavu**	**18.24**	**360**	P	**P**	**04 38 23.3**	**-3.9**
	5.5nm,0.5s,baz=108,slow=23,SNR=7.4						
EIDS	**Eidsvold**	**25.47**	**287**	P	**P**	**04 39 38.0**	**+0.2**
EIDS				IAmb	IAmb	04 39 51.8	
	comp=Z,18nm,1.4s						
STKA	**Stephens Creek**	**30.45**	**267**	P	**P**	**04 40 22.1**	**+0.3**
	comp=Z,1.9nm,0.5s,baz=115,slow=12,SNR=4.5						
	comp=Z,1.9nm,0.5s						
STKA	**Stephens Creek**	**30.45**	**267**	P	**P**	**04 40 23.5**	**+1.6**
CTAO	**Charters Tower**	**32.10**	**291**	P	**P**	**04 40 36.2**	**-0.2**
CTAO				IAmb	IAmb	04 40 37.8	
	comp=Z,9.5nm,1.0s						
BBOO	**Buckleboo**	**34.63**	**263**	P	**P**	**04 40 57.7**	**-0.5**
AS31	**Alice Springs**	**39.95**	**276**	P	**P**	**04 41 41.6**	**-1.2**
ASAR	**Alice Springs**	**39.95**	**276**	P	**P**	**04 41 42.7**	**-0.2**
	comp=Z,5.6nm,0.6s,baz=115,slow=7.7,SNR=61						
	comp=Z,5.6nm,0.6s						
ASAR	**Alice Springs**	**39.95**	**276**	P	**P**	**04 41 42.1**	**-0.8**
WR8	**Warramunga Arr**	**41.34**	**281**	P	**P**	**04 41 53.2**	**-0.9**
WR8				IAmb	IAmb	04 41 54.3	
	comp=Z,13

PVV	Pavlof Volcano	1.78	317			Pn		04 55 50.0	-0.5
HAG	Hague Volcano	1.79	314			Pn		04 55 50.4	-0.3
PS4A	Pavlof South-4	1.79	315			Pn		04 55 50.2	-0.4
PS4A						Sn		04 56 11.2	-1.0
PS1A	Pavlof South-1	1.80	318			Pn		04 55 50.3	-0.4
PS1A						Sn		04 56 12.2	-0.2
DT1	Dutton Round H	1.83	304			Pn		04 55 50.1	-1.2
DT1						Sn		04 56 11.7	-1.5
DTNA	Dutton South F	1.84	306			Pn		04 55 50.7	-0.7
PN7A	Pavlof North-7	1.91	315			Pn		04 55 52.4	+0.1
VNWF	Veniaminof 8	2.06	1			Pn		04 55 54.8	+0.4
S12K	Black Hills	2.13	320	Pn		Pn		04 55 54.1	-1.2
S12K				IAML				04 56 41.8	
	comp=N,463nm,0.8s								
CHGN	Chignik	2.32	17	Pn		Pn		04 55 57.8	-0.1
CHGN				IAML				04 56 43.4	
	comp=E,320nm,1.1s								
CHGN				IAML				04 56 44.8	
	comp=N,217nm,0.7s								
ISLZ	Isanotski Laza	2.46	286			Pn		04 55 59.7	-0.1
ISLZ								04 55 59.9	
SSBA	Shishaldin	2.70	286			Pn		04 56 03.6	+0.4
SSBA						Sn		04 56 36.1	+1.4
WTUG	Tugumak	2.87	287			Pn		04 56 06.0	+0.5
WTUG						Sn		04 56 39.1	+0.4
CHIR	Chirikof Islan	2.89	52	P		Pn		04 56 05.3	-0.5
CHIR	Chirikof Islan	2.89	52	Pn		Pn		04 56 04.8	-1.0
CHIR				IAML				04 57 11.0	
	comp=N,180nm,0.8s								
CHIR				IAML				04 57 16.8	
	comp=E,167nm,1.0s								
WESN	West Dahl Nort	2.93	281			Pn		04 56 06.8	+0.5
WESP	Westdahl Peak	3.00	280			Pn		04 56 07.6	+0.3
WECS	Westdahl Cape	3.04	280	Pn		Pn		04 56 07.1	-0.7
WECS				IAML				04 57 36.6	
	comp=E,198nm,1.4s								
AKSA	Akutan Strait	3.56	273			Pn		04 56 15.0	0.0
AKSA						Sn		04 56 54.5	-1.3
AKUT	Akutan	3.60	273	Pn		Pn		04 56 14.9	-0.6
AKUT				IAML				04 57 09.8	
	comp=N,84nm,1.3s								
AKUT				IAML				04 58 34.5	
	comp=E,78nm,1.2s								
AHB	Akutan Harbor	3.63	273			Pn		04 56 15.9	0.0
AHB								04 56 16.3	
AKLV	Akutan Long Va	3.71	274			Pn		04 56 17.5	+0.4
ZRO	Akutan Zero	3.73	272			Pn		04 56 17.4	+0.2
ZRO						Sn		04 56 59.4	-0.6
SII	Sitkinak Islan	3.98	49	P		Pn		04 56 20.7	0.0
SII	Sitkinak Islan	3.98	49	Pn		Pn		04 56 19.1	-1.6
SII				IAML				04 58 20.3	
	comp=N,93nm,1.4s								
UNV	Unalaska Valle	4.06	269	P		Pn		04 56 21.4	-0.4
UNV	Unalaska Valle	4.06	269	Pn		Pn		04 56 21.2	-0.6
UNV				Sn		Sn		04 57 05.8	-2.3
MTBL	Makushin Table	4.15	271			Pn		04 56 23.3	+0.2
MNAT	Makushin Natee	4.16	270			Pn		04 56 23.0	-0.2
MREP	Makushin Rep't	4.20	269			Pn		04 56 23.9	+0.1
MSW	Makushin Switc	4.21	270			Pn		04 56 23.7	-0.3
MAPS	Pakushin South	4.32	269			Pn		04 56 25.5	+0.1
Q17K	Contact Creek	4.67	25			Pn		04 56 30.6	+0.3
MGLS	Mageik Landsli	4.76	30			Pn		04 56 31.4	0.0
OHAK	Old Harbor	4.77	46	Pn		Pn		04 56 30.5	-1.0
KABR	Katmai Barrier	4.81	31			Pn		04 56 32.0	-0.2
KABU	Katmai Buttres	4.84	28			Pn		04 56 32.7	+0.1
P16K	Nushagak River	5.03	10	Pn		Pn		04 56 35.7	+0.6
OKTU	Okmok Mt. Tuli	5.03	265			Pn		04 56 35.6	+0.4
O15K	Ungalikthiuk R	5.09	359	Pn		Pn		04 56 35.9	-0.1
O15K				IAML				04 58 20.9	
	comp=E,24nm,1.1s								
KARR	Katmai Rainbow	5.20	30			Pn		04 56 37.7	+0.2
Q18K	Katmai Hardscr	5.24	28			Pn		04 56 38.3	+0.2
O14K	Tigyukauivet M	5.24	351	Pn		Pn		04 56 38.1	+0.1
O14K				IAML				04 58 21.1	
	comp=N,24nm,0.9s								
O14K				IAML				04 58 37.9	
	comp=E,26nm,1.5s								
KDAK	Kodiak Island	5.42	44			Pn		04 56 39.7	-0.8
KDAK	Kodiak Island	5.42	44	Pn		Pn		04 56 38.9	-1.6
O16K	Kokwok River B	5.57	8	Pn		Pn		04 56 43.7	+1.1
Q19K	Cape Douglas,	5.87	32	Pn		Pn		04 56 46.8	+0.1
N14K	Kuskokwak Cree	5.94	350	Pn		Pn		04 56 46.3	-1.3
N15K	Kwethluk River	6.09	358	Pn		Pn		04 56 50.1	+0.4
N17K	Nushagak Hills	6.58	11	Pn		Pn		04 56 57.3	+0.9
M13K	Dall Lake	6.64	344	Pn		Pn		04 56 57.3	+0.1
ILSW	Iliamna Southw	6.88	28	Pn		Pn		04 56 59.4	-1.3
M16K	Timber Creek	6.95	3	Pn		Pn		04 57 00.1	-1.4
CNPM	China Poot	7.13	37	Pn		Pn		04 57 04.1	+0.1
N19K	Bonanza Creek	7.28	20	Pn		Pn		04 57 06.8	+0.7
M17K	Holitna River	7.42	8	Pn		Pn		04 57 08.2	+0.3
BRLK	Bradley Lake	7.43	37	Pn		Pn		04 57 07.1	-0.9
SEW	Seward	8.18	39	Pn		Pn		04 57 18.4	+0.1
SLKM	Skilak Lake	8.20	35	Pn		Pn		04 57 19.8	+1.2
K15K	Wolf Creek Mou	8.28	354	Pn		Pn		04 57 19.8	+0.1
L18K	Granite Mounta	8.29	10	Pn		Pn		04 57 20.1	+0.3
M20K	Styx River	8.53	21	Pn		Pn		04 57 23.7	+0.5
SUA	Susitna One	8.77	29	Pn		Pn		04 57 26.9	+0.3
RC01	Rabbit Creek A	8.79	33	Pn		Pn		04 57 27.8	+1.1
PWL	Port Wells	9.10	37	Pn		Pn		04 57 31.0	0.0
KNK	Knik Glacier	9.45	35	Pn		Pn		04 57 35.4	-0.3
HIN	Hinchinbrook I	9.51	43	Pn		Pn		04 57 36.4	-0.1
GHO	Glory Hole Cre	9.56	32	Pn		Pn		04 57 37.6	+0.3
FID	Port Fidalgo	9.72	41	Pn		Pn		04 57 38.3	-1.2
SML	Sawmill	9.78	33	Pn		Pn		04 57 40.1	-0.1
EYAK	Cordova Ski Ar	9.90	44	P		Pn		04 57 42.0	+0.2
EYAK	Cordova Ski Ar	9.90	44	Pn		Pn		04 57 41.7	-0.1
SCM	Sheep Creek Mo	10.13	35	Pn		Pn		04 57 44.9	-0.1
KLU	Klutina	10.40	39	Pn		Pn		04 57 48.1	-0.7
BERG	Berg Lake	10.68	47	Pn		Pn		04 57 52.3	-0.2
DHY	Denali Highway	11.02	30	Pn		Pn		04 57 57.6	+0.3
GLB	Gilahina Butte	11.18	43	Pn		Pn		04 57 59.1	-0.3
TGL	Tana Glacier	11.23	47	Pn		Pn		04 58 00.4	+0.2
YAH	Yahtse	11.53	50	Pn		Pn		04 58 05.8	+1.4
PAX	Paxson	11.54	34	Pn		Pn		04 58 04.6	+0.1
GRNC	Granite Creek	11.69	48	Pn		Pn		04 58 06.7	+0.2
M26K	Nabesna, AK	12.05	40	Pn		Pn		04 58 11.6	+0.3
MENT	Mentasta	12.12	37	P		Pn		04 58 13.0	+0.8
RIDG	Independent Ri	12.29	32	Pn		Pn		04 58 14.2	-0.3
O28M	Mount Upton	12.40	50	Pn		Pn		04 58 17.0	+0.7
J25K	Salcha River,	12.77	29	Pn		Pn		04 58 19.9	-1.2
BCAR	Beaver Creek A	12.89	39	Pn		Pn		04 58 21.6	-1.2
O29M	Mount Kennedy	12.97	53	Pn		Pn		04 58 25.6	+1.7
S31K	Pelican	13.62	64	Pn		Pn		04 58 32.0	-0.7
M29M	Somme Creek	13.87	45	Pn		Pn		04 58 35.8	-0.4
I26K	Coal Creek Min	13.92	30	Pn		Pn		04 58 36.1	-0.7
O30N	Mendenhall	14.28	53	Pn		Pn		04 58 38.8	-3.0
SKAG	Skagway	14.32	58	P		Pn		04 58 43.9	+1.7
SKAG	Skagway	14.32	58	Pn		Pn		04 58 43.6	+1.4
R32K	Eaglecrest	14.56	63	Pn		Pn		04 58 45.0	-0.5
WHY	Whitehorse	14.82	54	Pn		Pn		04 58 50.1	+1.0
P33M	Teslin, Yukon	15.71	56			Pn		04 59 02.5	+1.7
P33M				IAmb		IAmb		04 59 04.5	
	comp=Z,8.8nm,1.3s								
Q32M	Nakina River	15.80	61	P		P		04 59 04.7	-0.9
H29M	Whitestone	16.00	32			P		04 59 09.7	+2.2
H29M				IAmb		IAmb		04 59 50.8	
	comp=Z,10nm,1.4s								
R33M	Jennings River	16.52	60	P		P		04 59 13.5	+0.1
R33M				IAmb		IAmb		04 59 40.2	
	comp=Z,8.8nm,1.3s								
G29M	Pine Creek	16.55	31	P		P		04 59 15.7	+2.1
EPYK	Eagle Plains	16.61	33	P		P		04 59 16.9	+2.5
H31M	Peel River	17.10	37	Pn		Pn		04 59 17.7	-0.6
H31M				IAmb		IAmb		04 59 29.7	
	comp=Z,7.1nm,1.2s								
G30M	tAoh Zraii Nji	17.14	32			Pn		04 59 19.7	+0.9
G30M				IAmb		IAmb		04 59 28.8	
	comp=Z,16nm,1.4s								
F30M	Barrier River	17.66	31			Pn		04 59 25.9	+0.7
F30M				IAmb		IAmb		04 59 44.0	
	comp=Z,5.2nm,0.9s								
F31M	Tsiigehtchic	18.20	33	P		Pn		04 59 30.5	-1.2
INK	Inuvik	18.77	31	P		P		04 59 38.2	+0.2
INK				IAmb		IAmb		04 59 51.1	
	comp=Z,4.9nm,1.2s								

*BGR **30** 04:59:07.3,52˚.17N×167˚.35W,h33km,mb5.1*
*MOS **30** 04:59:08.1±0.9,52˚.82N×168˚.44W,h34km,mb5.2/61, MS5.0/24,Error ellipse: s-maj=8.6km s-min=4.7km az=99.7*

*GFZ **30** 04:59:08.7,52˚.89N×168˚.43W,h34km,Mw5.5/57, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.42; $M_{\theta\theta}$-0.76; $M_{\phi\phi}$-0.66; $M_{r\theta}$0.34; $M_{r\phi}$-0.93; $M_{\theta\phi}$-1.36; Fault plane solution: M_o2.08366×10^{17} NP1:ϕ_s25.50492°, δ67.05921°,λ,70.70775°. NP2:ϕ_s247.43048°,δ29.63475°, λ,127.97504°. Principal axes: T 2.0939, Plg62.9021°, Azm264.6497°; N -0.0206, Plg17.7134°, Azm33.2744°; P -2.0733, Plg19.8158°, Azm129.8832°;*
*BJI **30** 04:59:08.2,53˚.16N×168˚.43W,h37km,mB5.4/43, mb5.0/71,Ms5.3/66,Ms7 5.2/65*
*NEIC **30** 04:59:09.2,52˚.73N×168˚.36W,h31km*
*GFZ **30** 04:59:09.1±0.3,53˚N±3˚×16˚8W±˚,h24km±1km,M5.2/114, mb5.1/114,Error ellipse: s-maj=6.6km s-min=3.9km az=172.3,confirmed*
*NEIC **30** 04:59:10.0±2.3,52˚.75N±0˚.06×168˚.26W±0˚.10,h34km±1km, mb5.0/472,ML5.3/22,Ms_20 5.0/357,Mwb5.4/125, Mww5.5/59,Error ellipse: s-maj=10.2km s-min=9.0km az=230.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.41; $M_{\theta\theta}$-0.69; $M_{\phi\phi}$-0.72; $M_{r\theta}$0.33; $M_{\theta\phi}$-0.53; $M_{r\phi}$0.68; Fault plane solution: M_o1.53000×10^{17} NP1:ϕ_s35.91000°,δ59.80000°,λ,82.48000°. NP2: ϕ_s230.62000°,δ31.03000°,λ,102.68000°. Principal axes: T 1.6184, Plg74.0000°, Azm286.0000°; N -0.2018, Plg6.0000°, Azm40.0000°; P -1.4165, Plg14.0000°, Azm131.0000°;*
*AEIC **30** 04:59:09.9±3.0,52˚.75N±0˚.05×168˚.15W±0˚.09,h26km±3km Error ellipse: s-maj=8.0km s-min=7.4km az=126.0*
*NEIC **30** 04:59:09.9,52˚.74N×168˚.27W,h34km*
*IDC **30** 04:59:09.4±2.0,52˚.91N×168˚.42W,h30km±13km,mb4.6/36, mbtmp4.8/39,ML4.6/3,MS4.8/92,Error ellipse: s-maj=15.6km s-min=8.8km az=174.0*
*GCMT **30** 04:59:11.9±0.1,52˚.66N±0˚.01×168˚.20W±0˚.01,h38km, MW5.5/154,Moment Tensor Solution. s135,c258; s154,c300; Duration: 1s5 Moment tensor: Scale 10^{17} Nm; M_{rr}1.79±.03; $M_{\theta\theta}$-1.00±.03; $M_{\phi\phi}$-0.78±.03; $M_{r\theta}$0.50±.04; $M_{\theta\phi}$-1.44±.02; $M_{\phi r}$1.62±.04; Best double couple: M_o2.70400×10^{17} NP1:ϕ_s250.00000°,δ32.00000°, λ,129.00000°. NP2:ϕ_s27.00000°,δ66.00000°,λ,69.00000°. Principal axes: T 2.5820, Plg63.0000°, Azm263.0000°; N 0.2490, Plg19.0000°, Azm36.0000°; P -2.8270, Plg18.0000°, Azm132.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **30** 04:59:16.4,52˚.74N×168˚.27W,h36km,Moment Tensor Solution. Duration: 2s9 Moment tensor: Scale 10^{17}Nm; M_{rr}1.68; $M_{\theta\theta}$-0.99; $M_{\phi\phi}$-0.69; $M_{r\theta}$0.24; $M_{r\phi}$-1.10; $M_{\theta\phi}$1.27; Fault plane solution: M_o2.24000×10^{17} NP1: ϕ_s249.65000°,δ34.14000°,λ,126.48000°. NP2: ϕ_s27.87000°,δ63.18000°,λ,68.04000°. Principal axes: T 2.2517, Plg65.0000°, Azm260.0000°; N -0.0148, Plg19.0000°, Azm38.0000°; P -2.2369, Plg15.0000°, Azm134.0000°;*

ISC 30 04:59:10.1±0.3,52˚.74N±0˚.04×168˚.31W±0˚.03,h42km±1km, h42km:pP-P,n1253,o1957/990,mb5.0/425,MS5.0/295, 35C-35D,Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKTU	Okmok Mt. Tuli	0.67	14		Pn	04 59 22.8	-0.4
OKCE	Okmok Cone E	0.69	7		Pn	04 59 23.3	-0.2
OKCE					Sn	04 59 32.5	-0.6
OKWR	Okmok West Rim	0.70	5		Pn	04 59 23.5	-0.1
OKNC	Okmok New Cone	0.73	9		Pn	04 59 24.0	+0.1
OKNC					Sn	04 59 33.5	-0.4
MAPS	Pakushin South	1.35	37		Pn	04 59 32.2	-0.2
MAPS					Sn	04 59 48.6	-0.5
MGOD	Makushin Gods	1.36	39		Pn	04 59 31.6	-1.1
MGOD						04 59 32.1	
MGOD					Sn	04 59 49.4	-0.2
MREP	Makushin Rep't	1.43	41		Pn	04 59 32.4	-1.1
MSW	Makushin Switc	1.49	37		Pn	04 59 33.9	-0.5
MNAT	Makushin Natee	1.50	40		Pn	04 59 34.7	+0.1
MNAT					Sn	04 59 51.6	-1.3
UNV	Unalaska Valle	1.55	44	P	Pn	04 59 34.3	-0.8
UNV	Unalaska Valle	1.55	44	S	Sn	04 59 54.0	0.0
UNV	Unalaska Valle	1.55	44	Pn	Pn	04 59 33.9	-1.2
UNV	Unalaska Valle	1.55	44		Sn	04 59 52.9	-1.1
UNV	Unalaska Valle	1.55	44	IAML		04 59 55.0	
	comp=N,23μm,0.5s						
UNV				IAML		05 00 02.5	
	comp=E,23μm,0.5s						
MTBL	Makushin Table	1.57	38		Pn	04 59 35.2	-0.3
MTBL						04 59 35.8	
MTBL					Sn	04 59 55.1	+0.4
AKRB	Akutan Reef Bi	1.93	43		Pn	04 59 41.4	+1.0
AKRB					Sn	05 00 04.9	+1.5
ZRO	Akutan Zero	1.94	45		Pn	04 59 40.5	-0.1
AKBBA	Akutan Broad B	1.97	45		Pn	04 59 40.5	-0.4
LVA	Lava Point	1.97	43		Sn	05 00 04.2	-0.2
LVA	Lava Point	1.97	43		Pn	04 59 41.2	+0.2
LVA	Lava Point	1.97	43	IAML		05 00 12.7	
	comp=E,35μm,0.5s						
LVA				IAML		05 00 22.0	
	comp=N,74μm,0.6s						
AKV	Akutan Volcano	1.98	44		Pn	04 59 41.0	-0.1
AKGG	Akutan Green G	2.01	43		Pn	04 59 42.0	+0.5
AKGG					Sn	05 00 05.3	-0.2
AKUT	Akutan	2.06	46	P	Pn	04 59 42.0	-0.2
AKUT	Akutan	2.06	46	S	Sn	05 00 07.1	+0.5
AKUT	Akutan	2.06	46	Pn	Pn	04 59 41.8	-0.4
AKUT				IAML		05 00 18.7	
	comp=E,16μm,0.6s						
AKUT	Akutan	2.06	46		Sn	05 00 06.5	-0.1
WECS	Westdahl Cape	2.76	48	Pn	Pn	04 59 51.6	-0.2
WECS				IAML		05 00 34.5	
	comp=E,12μm,0.6s						
WECS				IAML		05 00 38.2	
	comp=N,19μm,0.7s						
WESP	Westdahl Peak	2.77	49		Pn	04 59 52.0	+0.1
WESP					Sn	05 00 25.4	+1.3
WEBT	Westdahl Beart	2.81	47		Pn	04 59 54.0	+1.5
WEBT					Sn	05 00 26.7	+1.5
WTUG	Tugumak	3.14	46		Pn	04 59 57.3	+0.3
SSBA	Shishaldin	3.21	49		Pn	04 59 58.1	+0.1
ISLZ	Isanotski Laza	3.38	52		Pn	05 00 00.6	+0.3
KOSE	Korovin Southe	3.53	266		Pn	05 00 05.1	+2.8
KOFP	Korovin Flat P	3.57	265		Pn	05 00 06.1	+3.3
ATKA	Atka Island	3.64	264	P	Pn	05 00 06.8	+3.0
ATKA	Atka Island	3.64	264	S	Sn	05 00 48.6	+3.2
ATKA	Atka Island	3.64	264	Pn	Pn	05 00 06.5	+2.7
ATKA				IAML		05 01 04.5	
	comp=E,4μm,0.7s						
ATKA				IAML		05 01 05.8	
	comp=N,4μm,0.8s						
DT1	Dutton Round H	4.28	54		Pn	05 00 12.9	+0.3
DTNA	Dutton South F	4.32	54		Pn	05 00 13.4	+0.3
DOL	Dolgoi Island	4.51	55		Pn	05 00 16.1	+0.4
SPIA	Saint Paul Isl	4.58	347	P	Pn	05 00 19.3	+2.5
SPIA	Saint Paul Isl	4.58	347	S	Sn	05 01 12.4	+3.7
SPIA	Saint Paul Isl	4.58	347	Pn	Pn	05 00 19.7	+2.9
SPIA				IAML		05 01 18.2	
	comp=E,2μm,0.7s						
SPIA				IAML		05 01 20.9	
	comp=N,2μm,0.5s						
PN7A	Pavlof North-7	4.59	52		Pn	05 00 18.4	+1.5
PS4A	Pavlof South-4	4.61	53		Pn	05 00 18.7	+1.6
PS1A	Pavlof South-1	4.71	53		Pn	05 00 20.0	+1.5
S12K	Black Hills	4.72	49	Pn	Pn	05 00 20.2	+1.6
GSIG	Igitkin Island	4.73	264		Pn	05 00 21.6	+2.8
GSTR	Great Sitkin T	4.79	265	Pn	Pn	05 00 24.2	+4.6
GSMY	Great Sitkin M	4.80	265		Pn	05 00 22.7	+3.0
GSCK	Great Sitkin C	4.87	265		Pn	05 00 23.5	+2.8
ETKA	Kagalaska Isla	5.05	263		Pn	05 00 25.8	+2.6
ADAG	Mount Adagdak	5.14	265		Pn	05 00 27.4	+3.0
ADK	Adak	5.21	264	P	Pn	05 00 28.1	+2.8
ADK	Adak	5.21	264	S	Sn	05 01 27.3	+3.2
ADK	Adak	5.21	264	P	Pn	05 00 27.9	+2.6
ADK	Adak	5.21	264	Pn	Pn	05 00 27.9	+2.6
ADK	Adak	5.21	264	P	Pn	05 00 28.1	+2.8
	comp=Z,772nm,0.9s						
SDPT	Sand Point	5.30	57	P	Pn	05 00 26.6	0.0
SDPT	Sand Point	5.30	57	S	Sn	05 01 26.4	0.0
SDPT	Sand Point	5.30	57	Pn	Pn	05 00 26.8	+0.1
SDPT				IAML		05 01 56.1	
	comp=E,2μm,1.4s						
SDPT				IAML		05 01 58.3	
	comp=N,2μm,1.4s						
KIWB	Kanaga Island	5.50	264	Pn	Pn	05 00 32.7	+3.4
KIKV	Kanaga Island	5.50	265		Pn	05 00 32.6	+3.2
KIMD	Kanaga Island	5.57	263		Pn	05 00 33.1	+2.8
CNBA	Chernabura Isl	5.58	65	Pn	Pn	05 00 29.5	-0.9
CHNA	Chernabura Isl	5.58	64	P	Pn	05 00 30.1	-0.3
CHNA	Chernabura Isl	5.58	64	S	Sn	05 01 32.8	-0.3
TAFL	Tanaga Flats	5.97	264		Pn	05 00 38.9	+3.1
GANO	Gareloi North	6.51	266	Pn	Pn	05 00 47.2	+4.0
GAKI	Gareloi-Kavalg	6.57	264		Pn	05 00 46.6	+2.6
O14K	Tigyukauivet M	7.63	28		Pn	05 01 00.0	+2.0
M11K	Mekoryuk	7.75	8		Pn	05 01 02.6	+2.5
R16K	Pilot Point	7.82	48	Pn	Pn	05 01 04.2	+3.2
O15K	Ungalikthiuk R	8.01	33		Pn	05 01 05.8	+2.0
CHIR	Chirikof Islan	8.04	62	P	Pn	05 01 03.8	-0.3
CHIR	Chirikof Islan	8.04	62	Pn	Pn	05 01 04.9	+0.7
N14K	Kuskokwak Cree	8.08	24		Pn	05 01 07.2	+2.5
PLBL	Peulik Blue Cr	8.23	48		Pn	05 01 09.5	+2.7
PLK5	Peulik 5	8.37	46		Pn	05 01 10.8	+2.2
PLK1	Peulik 1	8.38	48		Pn	05 01 10.1	+1.3
R17L	Mt. Peulik Vol	8.41	50		Pn	05 01 11.4	+2.2
PLK3	Peulik 3	8.48	49		Pn	05 01 12.5	+2.4
PLK2	Peulik 2	8.49	49		Pn	05 01 12.4	+2.1
P16K	Nushagak River	8.56	38	Pn	Pn	05 01 14.2	+3.0
N15K	Kwethluk River	8.72	28	Pn	Pn	05 01 16.3	+2.8
M14K	Bethel	8.75	21		Pn	05 01 16.4	+2.5
O16K	Kokwok River B	8.92	36		Pn	05 01 18.3	+2.2
Q17K	Contact Creek	8.96	47		Pn	05 01 18.5	+1.7
M15K	Kasigluk River	9.00	25		Pn	05 01 19.0	+1.7
SII	Sitkinak Islan	9.04	59	P	Pn	05 01 16.9	-0.9
SII	Sitkinak Islan	9.04	59	Pn	Pn	05 01 17.2	-0.6
L14K	Kuka Creek	9.15	17		Pn	05 01 21.6	+2.3
MGLS	Mageik Landsli	9.21	49		Pn	05 01 21.8	+1.5
KABU	Katmai Buttres	9.23	48		Pn	05 01 21.8	+1.3
P17K	Kvichak River	9.27	41	Pn	Pn	05 01 25.1	+4.1
KABR	Katmai Barrier	9.30	49		Pn	05 01 23.1	+1.6
KAKN	Katmai Knife C	9.34	48		Pn	05 01 23.9	+1.8
KAWH	Katmai	9.51	48		Pn	05 01 26.0	+1.7
Q18K	Katmai Hardscr	9.55	46		Pn	05 01 26.6	+1.6
KARR	Katmai Rainbow	9.61	48		Pn	05 01 27.5	+1.9
KAHG	Katmai Hook Gl	9.68	48		Pn	05 01 28.8	+2.2
L15K	Ungalak Mounta	9.69	20		Pn	05 01 28.9	+2.3
OHAK	Old Harbor	9.73	57		Pn	05 01 25.9	-1.3
M16K	Timber Creek	9.74	28		Pn	05 01 29.5	+2.1
P18K	Big Mountain,	9.88	42		Pn	05 01 31.5	+2.1
N17K	Nushagak Hills	9.91	34		Pn	05 01 31.9	+2.2
KDAK	Kodiak Island	10.29	54	Pn	Pn	05 01 33.7	-1.2
	comp=N,12nm,0.3s,baz=234,slow=5.1,SNR=79 comp=N,41nm,0.5s						
KDAK				AML	AML		
KDAK	Kodiak Island	10.29	54	*i* P	Pn	05 01 34.3	-0.6
KDAK	Kodiak Island	10.29	54	P	Pn	05 01 33.5	-1.3
	comp=Z,93nm,0.7s						
Q19K	Cape Douglas,	10.30	47	Pn	Pn	05 01 36.5	+1.4
SHEM	Shemya Is, Ala	10.67	277	Pn	Pn	05 01 40.0	-0.1
	comp=E,4.0nm,0.3s,baz=69,slow=8.6,SNR=1.4						
SHEM				LR	LR	05 05 30.6	
	comp=Z,9μm,20.9s,baz=94,slow=36 comp=Z,39nm,0.5s						
SHEM				AML	AML		
SMY	Shemya	10.67	277	P	Pn	05 01 43.4	+3.3
SMY	Shemya	10.67	277	Pn	Pn	05 01 43.4	+3.3
O19K	Port Alsworth	10.74	40	Pn	Pn	05 01 43.4	+2.4
ILSW	Iliamna Southw	11.09	43	Pn	Pn	05 01 49.4	+3.4
CNPM	China Poot	11.68	48	Pn	Pn	05 01 54.7	+0.8
I17K	Unalakleet	11.86	17	Pn	Pn	05 01 57.7	+1.4
SPU	Mount Spurr	12.22	40	Pn	Pn	05 02 03.9	+2.5
O22K	Cooper Landing	12.80	45	Pn	Pn	05 02 09.2	0.0
RC01	Rabbit Creek A	13.11	43		Pn	05 02 13.4	0.0
PWL	Port Wells	13.59	45	Pn	Pn	05 02 18.6	-1.3
PMR	Palmer	13.62	42	P	Pn	05 02 22.2	+1.9
GHO	Glory Hole Cre	13.80	41	Pn	Pn	05 02 22.9	0.0
SML	Sawmill	14.06	42	Pn	Pn	05 02 26.2	-0.1
GL

BILL Bilibino 19.58 331 P **Pn** **05 03 35.7 0.0**
BILL IAmb IAmb 05 03 43.2
comp=Z,54nm,1.0s
BESE Bessie Mountai 19.61 59 P **Pn** **05 03 35.3 -0.8**
BESE IAmb IAmb 05 03 50.7
comp=Z,55nm,0.9s
S32K Killisnoo 19.73 63 IAmb IAmb 05 03 51.5
comp=Z,44nm,0.8s
JIS Juneau Island 19.84 60 P **Pn** **05 03 38.5 -0.4**
PET Petropavlovsk 19.85 284 *eP* **Pn** **05 03 38.7 -0.2**
PET *eS* **Sn** **05 07 19.9 -1.0**
PET pmax pmax
comp=Z,119nm,0.8s
PET pmax pmax
comp=Z,2µm,15.9s
PET pmax pmax
comp=Z,2µm,15.8s
PET MLR MLR
comp=Z,4µm,18.0s
PET MLR MLR
comp=Z,3µm,17.0s
PET Petropavlovsk 19.85 284 P **Pn** **05 03 38.3 -0.7**
PET IAmb IAmb 05 03 41.3
comp=Z,82nm,0.8s
PET Petropavlovsk 19.85 284 P **P** **05 03 37.1 0.0**
comp=Z,109nm,0.8s
PET Petropavlovsk 19.85 284 P **Pn** **05 03 38.4 -0.5**
comp=Z,115nm,0.8s
H29M Whitestone 20.05 36 IAmb IAmb 05 03 54.9
comp=Z,88nm,0.7s
F28M Old Crow 20.25 32 P **P** **05 03 41.4 -0.1**
P32M Atlin 20.26 57 P Pn 05 03 42.8 -1.0
P32M IAmb IAmb 05 03 54.4
comp=Z,53nm,0.7s
C26K Camden Bay 20.31 23 IAmb IAmb 05 03 56.9
comp=Z,48nm,0.7s
PEA0B Petropavlovsk- 20.39 285 P **P** **05 03 43.8 +0.8**
PEA0B pmax pmax
comp=Z,39nm,0.8s
PEA0B Petropavlovsk- 20.39 285 P **P** **05 03 43.8 +0.8**
PEA0B IAmb IAmb 05 03 59.9
comp=Z,39nm,0.8s
PETK Petropavlovsk- 20.39 285 P **P** **05 03 43.6 +0.6**
comp=Z,34nm,0.7s,baz=82,slow=15,SNR=42
PETK LR LR 05 11 51.9
comp=Z,4µm,20.9s,baz=92,slow=38
comp=Z,34nm,0.7s
PETK Petropavlovsk- 20.39 285 P **P** **05 03 43.3 +0.3**
C27K Jago River 20.40 25 IAmb IAmb 05 04 01.3
comp=Z,43nm,0.7s
CRAG Craig 20.68 68 P Pn 05 03 47.6 -1.0
P33M Teslin, Yukon 20.76 55 P **P** **05 03 47.7 +0.6**
P33M IAmb IAmb 05 03 56.4
comp=Z,55nm,0.8s
G30M tAoh Zraii Nji 21.17 35 IAmb IAmb 05 04 07.2
comp=Z,72nm,0.9s
E29M Blow River 21.30 31 IAmb IAmb 05 04 12.7
comp=Z,48nm,1.0s
H31M Peel River 21.38 39 IAmb IAmb 05 04 05.3
comp=Z,51nm,0.8s
V35K Ketchikan 21.55 68 IAMs_20 IAMs_20 05 09 46.0
comp=Z,6µm,18.0s
F30M Barrier River 21.60 34 IAmb IAmb 05 04 13.4
comp=Z,47nm,0.7s
SKR Severo-Kuril's 22.00 279 *eP* P 05 03 52.0 -8.3
SKR pmax pmax
comp=Z,1µm,3.1s
SKR MLR MLR
comp=N,2µm,18.0s
SKR MLR MLR
comp=Z,2µm,18.0s
SKR MLR MLR
comp=E,3µm,16.0s
DLBC Dease Lake 22.14 60 P **P** **05 04 03.5 +1.6**
comp=E,9.5nm,0.6s,baz=242,slow=9.9,SNR=13
DLBC LR LR 05 13 14.2
comp=E,1µm,18.4s,baz=267,slow=38
F31M Tsiigehtchic 22.24 35 P **P** **05 04 01.2 -1.5**
F31M IAmb IAmb 05 04 17.3
comp=Z,130nm,1.8s
INK Inuvik 22.68 33 P **P** **05 04 06.0 -1.4**
comp=Z,13nm,0.5s,baz=231,slow=11,SNR=62
comp=Z,13nm,0.5s
INK Inuvik 22.68 33 P **P** **05 04 05.1 -2.3**
INK IAmb IAmb 05 04 22.5
comp=Z,48nm,0.8s
INK Inuvik 22.68 33 P **P** **05 04 06.4 -1.0**
comp=Z,58nm,1.1s
WTLY Watson Lake, Y 22.76 55 P **P** **05 04 10.6 +2.1**
SEY Seymchan 22.90 312 P **P** **05 04 09.1 -0.7**
comp=Z,15nm,0.6s,baz=103,slow=9.7,SNR=20
SEY LR LR 05 12 43.7
comp=Z,4µm,21.1s,baz=120,slow=36
comp=Z,15nm,0.6s
SEY Seymchan 22.90 312 *i* P **P** **05 04 09.7 -0.1**
SEY pmax pmax
comp=Z,35nm,0.9s
MA2 Magadan 23.48 303 P **P** **05 04 15.2 -0.4**
comp=Z,26nm,0.8s,baz=95,slow=9.8,SNR=9.3
MA2 LR LR 05 12 21.4
comp=Z,3µm,21.7s,baz=102,slow=34
comp=Z,26nm,0.8s
MA2 Magadan 23.48 303 *ceP* **P** **05 04 17.2 +1.7**
MA2 pmax pmax
comp=Z,19nm,0.7s
MA2 Magadan 23.48 303 P **P** **05 04 14.2 -1.3**
MA2 IAmb IAmb 05 04 19.8
comp=Z,29nm,0.9s
MA2 Magadan 23.48 303 P **P** **05 04 15.1 -0.4**
comp=Z,38nm,0.9s
MA2 Magadan 23.48 303 P **P** **05 04 15.8 +0.3**
comp=Z,35nm,0.9s
BBB Bella Bella 24.28 75 LR LR 05 12 04.0
comp=Z,2µm,20.7s,baz=286,slow=32
WRGLY Wrigley 25.44 48 P **P** **05 04 34.0 +0.6**
C36M Paulatuk 26.26 34 IAmb IAmb 05 04 58.5
comp=Z,20nm,0.7s
A36M Sachs Harbour 26.78 28 P **P** **05 04 45.5 0.0**
A36M IAmb IAmb 05 05 23.9
comp=Z,30nm,0.8s
LLLB Lillooet 28.49 75 P **P** **05 05 02.5 +1.4**
LLLB IAmb IAmb 05 05 58.1
comp=Z,33nm,1.6s
NLWA Neilton Lookou 28.66 83 IAMs_20 IAMs_20 05 13 47.6
comp=Z,4µm,20.0s
YKA Yellowknife Ar 29.51 49 P **P** **05 05 10.4 +0.6**
comp=Z,4.0nm,0.5s,baz=275,slow=7.7,SNR=48
YKA PcP **PcP** **05 08 14.7 +0.6**
comp=Z,4.3nm,0.9s,baz=278,slow=2.4,SNR=7.1
YKA ScP **ScP** **05 11 54.6 +2.4**
comp=Z,2.3nm,1.0s,baz=279,slow=2.8,SNR=8.3
YKA LR LR 05 19 23.2
comp=Z,3µm,19.2s,baz=270,slow=41
comp=Z,4.0nm,0.5s
YKA Yellowknife Ar 29.51 49 P **P** **05 05 11.0 +1.1**
YKAW1 Yellowknife Wh 29.57 49 P **P** **05 05 10.7 +0.3**
YKAW1 IAmb IAmb 05 06 06.9
comp=Z,29nm,1.6s
LON Longmire 30.20 82 P **P** **05 05 18.0 +1.7**
LON pmax pmax
comp=Z,7.0nm,0.9s
LON Longmire 30.20 82 P **P** **05 05 18.0 +1.7**
COR Corvallis 30.39 87 IAMs_20 IAMs_20 05 14 26.4
comp=Z,4µm,20.0s
BUCK Buck Mountain 30.79 88 P **P** **05 05 23.2 +1.6**
BUCK IAmb IAmb 05 06 01.6
comp=Z,27nm,0.9s
HOOD Mount Hood Mea 31.01 85 P **P** **05 05 24.2 +0.7**
HOOD IAmb IAmb 05 06 15.0
comp=Z,31nm,1.1s
I04A Tendick Farm, 31.36 88 IAmb IAmb 05 05 49.5
comp=Z,27nm,0.9s
E07A Sunnyside 31.47 82 P **P** **05 05 29.0 +1.5**
WAH2 Wahluke Slope 31.55 81 IAmb IAmb 05 06 11.6
comp=Z,17nm,0.9s
KSXB Camp Six Broad 31.57 92 IAMs_20 IAMs_20 05 14 32.7
comp=Z,4µm,22.0s
YSS Yuzhno-Sakhali 31.57 279 *eP* **P** **05 05 29.1 +0.9**
YSS *e**PP **pP** **05 05 41.0 +1.4**
YSS *e* 05 06 32.5
YSS *eS* **S** **05 10 31.0 -2.8**
YSS *eSS* **SnSn** **05 12 25.0 +3.4**
YSS pmax pmax
comp=Z,30nm,1.4s
YSS smax smax
comp=N,300nm,7.2s
YSS MLR MLR
comp=Z,1µm,16.0s
YSS MLR MLR
comp=E,1µm,14.0s
WIFE Three Sisters- 31.57 87 P **P** **05 05 30.2 +1.6**
WIFE IAmb IAmb 05 06 13.6
comp=Z,23nm,1.0s
BBOR Butler Butte 31.70 90 P **P** **05 05 31.6 +2.0**
BBOR IAmb IAmb 05 05 59.8
comp=Z,24nm,1.4s
KRMB Red Mountain 31.73 93 P **P** **05 05 32.1 +2.2**
KRMB IAmb IAmb 05 05 59.9
comp=Z,47nm,1.3s
KRMB IAMs_20 IAMs_20 05 14 47.0
comp=Z,3µm,21.0s
HAWA Hanford 31.75 82 P **P** **05 05 32.0 +2.1**
HAWA IAmb IAmb 05 05 57.8
comp=Z,12nm,0.8s
KHMM Horse Mountain 32.22 93 IAMs_20 IAMs_20 05 15 20.0
comp=Z,4µm,20.0s
NEW Newport 32.29 77 LR LR 05 16 30.2
comp=Z,2µm,20.6s,baz=296,slow=32
NEW Newport 32.29 77 P **P** **05 05 35.7 +1.1**
NEW pmax pmax
comp=Z,15nm,0.8s
NEW Newport 32.29 77 P **P** **05 05 35.7 +1.1**
NEW IAmb IAmb 05 05 50.3
comp=Z,15nm,0.8s
NEW Newport 32.29 77 P **P** **05 05 36.4 +1.7**
comp=Z,22nm,0.9s
YBH Yreka Blue Hor 32.34 91 LR LR 05 15 32.7
comp=Z,4µm,21.3s,baz=305,slow=30
YBH Yreka Blue Hor 32.34 91 P **P** **05 05 37.2 +2.0**
YBH pmax pmax
comp=Z,16nm,0.9s
YBH Yreka Blue Hor 32.34 91 P **P** **05 05 37.2 +2.0**
YBH IAmb IAmb 05 05 57.6
comp=Z,16nm,0.8s
M02C Callahan 32.45 92 IAMs_20 IAMs_20 05 15 12.9
comp=Z,4µm,22.0s
E09A Wood Farm, Sta 32.52 81 IAmb IAmb 05 06 19.9
comp=Z,17nm,1.0s
KMRM Mail Ridge 32.63 94 P **P** **05 05 40.7 +3.0**
KMRM IAmb IAmb 05 05 54.5
comp=Z,27nm,0.9s
KHBM Hayfork Bally 32.66 93 IAMs_20 IAMs_20 05 15 23.6
comp=Z,4µm,22.0s
TIXI Tiksi 32.75 329 LR LR 05 19 30.8
comp=Z,2µm,22.0s,baz=105,slow=38
TIXI Tiksi 32.75 329 *ceP* **P** **05 05 38.9 +0.6**
TIXI pmax pmax
comp=Z,14nm,1.7s
TIXI Tiksi 32.75 329 P **P** **05 05 38.5 +0.1**
O02D Mt. Diablo Mer 33.22 94 IAmb IAmb 05 06 04.0
comp=Z,31nm,0.9s
O02D IAMs_20 IAMs_20 05 16 05.3
comp=Z,3µm,20.0s
DCMP DeCamp, Califo 33.32 95 IAmb IAmb 05 06 10.5
comp=Z,12nm,0.8s
F10A Beach Ranch, E 33.34 81 IAmb IAmb 05 06 24.4
comp=Z,15nm,0.9s
YAK Yakutsk 33.42 311 LR LR 05 19 25.7
comp=Z,3µm,19.9s,baz=90,slow=37
YAK Yakutsk 33.42 311 *eP* **P** **05 05 42.8 -1.4**
YAK *e**PP **pP** **05 05 52.1 -3.5**
YAK *e*PPP PPP 05 06 59.8
YAK *e* 05 08 24.6
YAK *eS* **S** **05 11 00.9 -1.3**
YAK *e**SS **sS** **05 11 17.5 -2.4**
YAK *eSS* **SnSn** **05 13 02.1 -3.9**
YAK pmax pmax
comp=Z,47nm,0.9s
YAK pmax pmax
comp=N,5.0nm,0.8s
YAK pmax pmax
comp=E,5.0nm,1.0s
YAK pmax pmax
comp=Z,382nm,4.7s
YAK pmax pmax
comp=N,195nm,3.5s
YAK pmax pmax
comp=E,418nm,6.3s
YAK smax smax
comp=E,203nm,5.7s
YAK smax smax
comp=N,158nm,2.3s
YAK MLR MLR
comp=N,1µm,23.0s
YAK MLR MLR
comp=Z,3µm,20.0s
YAK MLR MLR
comp=E,2µm,22.0s
YAK Yakutsk 33.42 311 IAMs_20 IAMs_20 05 19 07.7
comp=Z,3µm,20.0s
MOD Modoc Plateau 33.70 89 IAMs_20 IAMs_20 05 16 20.1
comp=Z,4µm,21.0s
O03E Paynes Creek 33.74 93 P **P** **05 05 48.9 +1.4**
BMO Blue Mountains 33.88 83 IAMs_20 IAMs_20 05 17 04.8
comp=Z,3µm,20.0s
J08A Circle Bar Ran 33.99 86 IAmb IAmb 05 06 21.5
comp=Z,16nm,0.9s
ELFS Eagle Lake Fie 34.20 91 IAMs_20 IAMs_20 05 16 32.2
comp=Z,4µm,21.0s
WVOR Wild Horse Val 34.41 87 IAmb IAmb 05 06 35.0
comp=Z,23nm,1.1s
WVOR IAMs_20 IAMs_20 05 17 07.8
comp=Z,3µm,20.0s
WVOR Wild Horse Val 34.41 87 P **P** **05 05 55.9 +2.6**
comp=Z,26nm,1.7s
SUTB Sutter Butte 34.41 94 IAmb IAmb 05 06 12.8
comp=Z,18nm,1.0s
MCCM Marconi Confer 34.44 97 IAMs_20 IAMs_20 05 16 37.5
comp=Z,3µm,20.0s
CVS Carmenet Viney 34.56 96 IAMs_20 IAMs_20 05 16 13.9
comp=Z,3µm,21.0s
FARB Farallon Islan 34.65 97 IAMs_20 IAMs_20 05 16 01.2
comp=Z,3µm,21.0s
MSO Missoula 34.88 77 IAmb IAmb 05 06 18.1
comp=Z,14nm,1.1s
BEKR Beckworth 34.88 92 IAmb IAmb 05 06 26.6
comp=Z,12nm,0.9s
C15A Salmond Ranch, 35.19 75 IAmb IAmb 05 06 26.9
comp=Z,30nm,0.9s
JRSC Jasper Ridge 35.30 97 IAMs_20 IAMs_20 05 16 20.4
comp=Z,3µm,22.0s
MFID Camas Ranch 35.56 84 IAmb IAmb 05 06 06.7
comp=Z,15nm,1.1s
PAHR Pah Rah Range 35.57 92 IAmb IAmb 05 06 23.7
comp=Z,33nm,1.2s
MHC Mount Hamilton 35.70 97 IAMs_20 IAMs_20 05 16 56.0
comp=Z,3µm,20.0s
GBMT Granite Butte, 35.74 76 IAmb IAmb 05 06 18.1
comp=Z,21nm,1.0s
RES Resolute Bay 35.76 26 LR LR 05 23 51.3
comp=Z,1µm,18.4s,baz=276,slow=42
CMB Columbia Colle 36.02 95 IAMs_20 IAMs_20 05 17 16.3
comp=Z,3µm,20.0s
FORD Fort Ord Natur 36.05 98 IAMs_20 IAMs_20 05 16 40.2
comp=Z,3µm,22.0s
SAO San Andreas Ge 36.20 97 IAMs_20 IAMs_20 05 16 44.2
comp=Z,4µm,22.0s
HLID Hailey 36.33 82 IAmb IAmb 05 06 45.3
comp=Z,34nm,1.6s
HLID IAMs_20 IAMs_20 05 17 58.5
comp=Z,3µm,22.0s
HLID Hailey 36.33 82 P **P** **05 06 12.0 +2.2**
DLMT Dillon 36.44 79 IAmb IAmb 05 06 43.0
comp=Z,24nm,1.4s
BMN Battle Mountai 36.45 89 P **P** **05 06 12.6 +1.8**
BMN pmax pmax
comp=Z,14nm,0.9s
BMN Battle Mountai 36.45 89 P **P** **05 06 12.6 +1.8**
BMN IAmb IAmb 05 06 37.4
comp=Z,14nm,0.9s
HULI Fort Hunter Li 36.82 98 IAMs_20 IAMs_20 05 17 00.6
comp=Z,3µm,22.0s
KLR Kul'dur 36.95 289 *i* P **P** **05 06 15.0 +0.3**
KLR pmax pmax
comp=Z,15nm,1.4s
NVAR Mina Array Bea 37.03 92 P **P** **05 06 17.2 +1.3**
comp=Z,3.4nm,0.7s,baz=302,slow=8.5,SNR=15
NVAR PcP **PcP** **05 08 37.4 +1.5**
comp=Z,1.9nm,0.6s,baz=258,slow=4.1,SNR=5.7
NVAR ScP **ScP** **05 12 19.8 +0.6**
comp=Z,1.9nm,1.0s,baz=288,slow=4.0,SNR=3.8
NVAR LR LR 05 18 26.7
comp=Z,1µm,21.1s,baz=299,slow=31
comp=Z,3.4nm,0.7s
NVAR Mina Array Bea 37.03 92 P **P** **05 06 18.4 +2.5**
MDPB Devils Postpil 37.06 94 IAmb IAmb 05 06 36.4
comp=Z,18nm,0.8s
WSRE Westside REC, 37.28 97 IAMs_20 IAMs_20 05 17 41.7
comp=Z,3µm,20.0s
PKD Bear Valley Ra 37.29 97 IAMs_20 IAMs_20 05 17 39.0
comp=Z,2µm,19.0s
BLKN Baker Lake 37.33 43 P **P** **05 06 18.1 +0.3**
ZEA Zeya 37.39 298 *eP* **P** **05 06 17.9 -0.6**
ZEA *e* 05 07 52.4
ZEA *eS* **S** **05 11 55.4 -8.0**
ZEA pmax pmax
comp=Z,20nm,0.8s
ZEA smax smax
comp=N,200nm,15.0s
ZEA smax smax
comp=E,200nm,15.0s
ZEA MLR MLR
comp=E,800nm,17.0s
ZEA MLR MLR
comp=Z,4µm,17.0s
ZEA MLR MLR
comp=N,500nm,19.0s
ZEA MLR MLR
comp=Z,1µm,19.0s
ELK Elko 37.46 87 LR LR 05 19 06.6
comp=Z,3µm,21.3s,baz=312,slow=32
ELK Elko 37.46 87 IAMs_20 IAMs_20 05 18 44.6
comp=Z,3µm,21.0s
KARE Kearney REC, C 37.48 96 IAMs_20 IAMs_20 05 18 30.9
comp=Z,2µm,20.0s
YHL Hebgen Lake 37.55 79 IAmb IAmb 05 06 36.8
comp=Z,23nm,1.1s
YHH Holmes Hill 37.79 78 IAmb IAmb 05 07 01.7
comp=Z,20nm,0.9s
TIN Tinemaha, Big 37.95 94 IAMs_20 IAMs_20 05 18 06.7
comp=Z,3µm,22.0s
YFT Old Faithful 37.98 79 P **P** **05 06 25.7 +1.9**
YFT IAmb IAmb 05 07 21.4
comp=Z,17nm,1.1s
H11N2 WAKE ISLAND Hy 38.15 220 T T 05 47 22.5
baz=24,slow=76,SNR=5286
H11N3 WAKE ISLAND Hy 38.16 220 T T 05 47 23.1
baz=24,slow=76,SNR=5408
H11N1 WAKE ISLAND Hy 38.17 220 T T 05 47 14.5
baz=24,slow=76,SNR=4701
YMP Mirror Lake Pl 38.23 78 IAmb IAmb 05 07 13.4
comp=Z,19nm,1.1s
VES Vestal, Richgr 38.24 96 IAMs_20 IAMs_20 05 18 52.1
comp=Z,2µm,20.0s
CWC Cottonwood Cre 38.45 95 IAMs_20 IAMs_20 05 18 15.7
comp=Z,3µm,22.0s
RLMT Red Lodge 38.54 77 IAmb IAmb 05 07 00.8
comp=Z,19nm,1.0s
SNOW Snow King Moun 38.58 80 IAmb IAmb 05 06 56.0
comp=Z,45nm,1.8s
SNOW IAMs_20 IAMs_20 05 20 18.5
comp=Z,2µm,19.0s
ISA Isabella, Lake 38.73 96 IAmb IAmb 05 06 58.5
comp=Z,80nm,1.9s
ISA IAMs_20 IAMs_20 05 18 26.1
comp=Z,3µm,21.0s
AHID Auburn Hatcher 38.77 81 IAMs_20 IAMs_20 05 20 04.3
comp=Z,3µm,21.0s
AHID Auburn Hatcher 38.77 81 P **P** **05 06 33.1 +2.6**
comp=Z,15nm,1.0s
SPUT South Promonto 38.82 84 P **P** **05 06 32.4 +1.6**
HEH HeiHe 38.91 293 *eP* **P** **05 06 29.8 -1.5**
HEH S **S** **05 12 18.5 -7.9**
HEH pmax pmax
comp=Z,11nm,1.2s
HEH L L
comp=Z,2µm,21.8s
HEH L L
comp=Z,3µm,21.5s
HEH L L
comp=Z,5µm,22.0s
MPMC Manual Prospec 39.06 95 IAMs_20 IAMs_20 05 19 36.9
comp=Z,2µm,20.0s
HWUT Hardware Ranch 39.17 83 IAMs_20 IAMs_20 05 19 53.8
comp=Z,2µm,21.0s
HWUT Hardware Ranch 39.17 83 P **P** **05 06 34.8 +1.0**
comp=Z,7.4nm,1.1s
TPNV Topopah Spring 39.23 92 IAMs_20 IAMs_20 05 19 39.3
comp=Z,2µm,20.0s
DUG Dugway, Tooele 39.27 86 IAmb IAmb 05 06 54.6
comp=Z,20nm,1.1s
DUG IAMs_20 IAMs_20 05 19 41.3
comp=Z,3µm,22.0s
DUG Dugway, Tooele 39.27 86 P **P** **05 06 37.4 +2.9**
comp=Z,22nm,1.2s
OSI Osito Audit: C 39.28 97 IAMs_20 IAMs_20 05 18 50.8
comp=Z,2µm,20.0s
LRMC Laurel Mtn Rad 39.33 95 P **P** **05 06 36.6 +1.5**
LRMC IAMs_20 IAMs_20 05 19 29.0
comp=Z,2µm,20.0s
H11S1 WAKE ISLAND Hy 39.34 219 T T 05 48 44.0
baz=24,slow=76
H11S2 WAKE ISLAND Hy 39.35 219 T T 05 48 48.7
baz=24,slow=76
H11S3 WAKE ISLAND Hy 39.35 219 T T 05 48 52.9
baz=24,slow=76,SNR=7264
USA0B Ussuriysk Arra 39.45 282 *i* P **P** **05 06 34.6 -1.2**
USRK Ussuriysk Ar. 39.45 282 P **P** **05 06 33.6 -2.2**
USRK comp=Z,3.4nm,0.6s,baz=57,slow=7.9,SNR=7.7
PcP **PcP** **05 08 44.2 +1.2**
comp=Z,6.4nm,0.8s,baz=58,slow=1.2,SNR=7.3
comp=Z,3.4nm,0.6s
PSUT Pine Spring 39.67 89 IAmb IAmb 05 07 08.8
comp=Z,20nm,1.0s
PDAR Pinedale Array 39.70 80 P **P** **05 06 38.8 +0.5**
comp=Z,4.3nm,0.5s,baz=300,slow=3.8,SNR=61
PDAR ScP **ScP** **05 12 31.0 +1.7**
comp=Z,0.9nm,0.9s,baz=321,slow=2.1,SNR=3.8
PDAR LR LR 05 20 57.2
comp=Z,2µm,20.6s,baz=297,slow=33
comp=Z,4.3nm,0.5s
PDAR Pinedale Array 39.70 80 P **P** **05 06 38.2 -0.1**
DGMT Dagmar 39.71 70 IAMs_20 IAMs_20 05 21 51.0
comp=Z,3µm,21.0s
PASC Pasadena Art C 39.91 97 IAMs_20 IAMs_20 05 18 58.4
comp=Z,2µm,21.0s
MWC Mount Wilson 39.95 97 IAMs_20 IAMs_20 05 19 00.5
comp=Z,3µm,21.0s
ALE Alert 40.08 11 P **P** **05 06 41.5 +0.8**
ALE PcP **PcP** **05 08 45.8 +1.4**
BFSC Mount Baldy Ra 40.18 97 IAMs_20 IAMs_20 05 19 18.6
comp=Z,3µm,21.0s
FCC Fort Churchill 40.20 51 IAmb IAmb 05 06 46.0
comp=Z,20nm,0.7s
MJAR Matsushiro Arr 40.35 268 P **P** **05 06 43.7 +0.2**
comp=Z,13nm,0.8s,baz=50,slow=6.5,SNR=21
MJAR LR LR 05 21 39.1
comp=Z,3µm,21.9s,baz=47,slow=34
comp=Z,13nm,0.8s
MJAR Matsushiro Arr 40.35 268 P **P** **05 06 44.1 +0.6**
MJAR pmax pmax
comp=Z,29nm,1.4s
MJAR Matsushiro Arr 40.35 268 P **P** **05 06 44.1 +0.6**
MJAR IAmb IAmb 05 06 46.7
comp=Z,29nm,1.4s
MAJO Matsushiro 40.36 268 P **P** **05 06 44.3 +0.8**
MAJO Matsushiro 40.36 268 P **P** **05 06 44.0 +0.5**
MAJO pmax pmax
comp=Z,77nm,1.1s
MAJO Matsushiro 40.36 268 P **P** **05 06 44.0 +0.5**
MAJO Matsushiro 40.36 268 P **P** **05 06 45.1 +1.6**
comp=Z,66nm,1.2s
MAJO Matsushiro 40.36 268 P **P** **05 06 44.5 +1.0**
TCRU Three Creeks R 40.47 87 P **P** **05 06 45.9 +1.1**
TCRU IAmb IAmb 05 07 21.7
comp=Z,36nm,1.5s
MDJ Mudanjiang 40.63 284 P **P** **05 06 45.3 -0.3**
MDJ PP **PP** **05 08 17.5 -2.0**
MDJ S **S** **05 12 51.8 -0.5**
MDJ sS sS 05 13 07.0 -3.3
MDJ SS **SS** **05 15 51.0 -2.1**
MDJ pmax pmax
comp=Z,390nm,12.0s
MDJ L L
comp=Z,1µm,20.6s
MDJ L L
comp=Z,2µm,19.9s
MDJ L L
comp=Z,2µm,19.2s
TMUT Trail Mountain 40.80 86 IAmb IAmb 05 07 03.8
comp=Z,17nm,0.8s

RDMU Red Mountain 41.00 83 IAmb IAmb 05 07 26.7
comp=Z,36nm,1.1s
Q16A Castle Valley 41.05 86 IAmb IAmb 05 07 09.7
comp=Z,23nm,1.0s
P18A Preston Nutter 41.17 85 P **P** **05 06 52.2 +1.6**
P18A IAmb IAmb 05 07 29.0
comp=Z,24nm,1.0s
BNX BinXian 41.28 287 ⇓P **P** **05 06 52.0 +1.0**
BNX pP **pP** **05 07 02.5 +0.1**
BNX sP **sP** **05 07 07.3 0.0**
BNX S **S** **05 13 00.5 -1.4**
BNX sS **sS** **05 13 19.0 -0.9**
BNX pmax pmax
comp=Z,11nm,1.0s
BNX pmax pmax
comp=Z,230nm,5.7s
BNX L L
comp=Z,560nm,16.3s
BNX L L
comp=Z,2µm,22.8s
BNX L L
comp=Z,2µm,20.6s
SRU San Rafael Swe 41.33 85 IAmb IAmb 05 07 11.1
comp=Z,18nm,0.7s
PFO Pinyon Flats O 41.33 96 LR LR 05 20 38.6
comp=Z,2µm,20.5s,baz=300,slow=31
PFO Pinyon Flats O 41.33 96 P **P** **05 06 53.6 +1.9**
PFO pmax pmax
comp=Z,17nm,1.2s
PFO Pinyon Flats O 41.33 96 P **P** **05 06 53.6 +1.9**
PFO Pinyon Flats O 41.33 96 IAMs_20 IAMs_20 05 20 06.2
comp=Z,3µm,22.0s
PFO Pinyon Flats O 41.33 96 P **P** **05 06 54.2 +2.5**
comp=Z,13nm,1.1s
BELC Belle Mtn. Jos 41.35 96 IAMs_20 IAMs_20 05 20 21.5
comp=Z,2µm,21.0s
JGF Kuroka 41.49 268 P **P** **05 06 54.0 +1.1**
JGF Kuroka 41.49 268 IAmb IAmb 05 07 00.1
comp=Z,43nm,0.9s
JGF Kuroka 41.49 268 P **P** **05 06 54.5 +1.6**
comp=Z,52nm,0.9s
JHJ Hachijo jima 2 41.71 263 LR LR 05 22 05.3
comp=Z,145nm,21.9s,baz=44,slow=33
INU Inuyama 41.87 268 IAmb IAmb 05 06 59.0
comp=Z,36nm,1.0s
INU Inuyama 41.87 268 P **P** **05 06 56.9 +1.0**
comp=Z,38nm,1.5s
INU Inuyama 41.87 268 P **P** **05 06 56.7 +0.9**
INU PcP **PcP** **05 08 52.9 +1.9**
BC3 Big Chuckawall 41.91 96 IAMs_20 IAMs_20 05 20 59.5
comp=Z,2µm,20.0s
HMU Henry Mountain 41.94 87 IAmb IAmb 05 07 17.2
comp=Z,34nm,0.8s
U15A North Rim 41.97 90 IAmb IAmb 05 07 25.1
comp=Z,17nm,0.9s
O20A White River Ci 42.07 83 IAmb IAmb 05 07 34.1
comp=Z,29nm,0.7s
RSSD Black Hills 42.19 75 P **P** **05 06 58.4 -0.4**
RSSD pmax pmax
comp=Z,9.0nm,0.7s
RSSD Black Hills 42.19 75 P **P** **05 06 58.4 -0.4**
RSSD Black Hills 42.19 75 P **P** **05 06 59.7 +1.0**
comp=Z,12nm,0.7s
BOD Bodaibo 42.26 309 *e*P **P** **05 06 57.5 -1.3**
BOD pmax pmax
comp=Z,22nm,0.9s
PV21 Cone Mtn., Par 42.61 85 IAmb IAmb 05 07 25.1
comp=Z,24nm,0.7s
MDND Maddock 42.65 68 IAMs_20 IAMs_20 05 23 55.6
comp=Z,2µm,20.0s
PV23 Carpenter Ridg 42.66 85 IAmb IAmb 05 07 36.4
comp=Z,36nm,0.8s
PV10 Paradox Valley 42.69 85 IAmb IAmb 05 07 06.3
comp=Z,38nm,0.9s
PV14 Lion Creek, Pa 42.70 85 IAmb IAmb 05 07 19.0
comp=Z,26nm,0.8s
GLA Glamis 42.71 96 IAMs_20 IAMs_20 05 21 01.5
comp=Z,2µm,20.0s
E28A Huff 42.73 70 IAmb IAmb 05 07 38.0
comp=Z,67nm,1.3s
E28A IAMs_20 IAMs_20 05 22 51.9
comp=Z,2µm,19.0s
PV20 West Nyswonger 42.76 85 IAmb IAmb 05 07 48.3
comp=Z,33nm,0.8s
PV04 Paradox Valley 42.76 85 IAmb IAmb 05 07 18.0
comp=Z,26nm,0.6s
ESJX Sierra Juarez 42.76 98 P **P** **05 07 04.7 +1.3**
PV16 Nyswonger Mesa 42.80 85 IAmb IAmb 05 07 19.8
comp=Z,36nm,0.8s
PV05 Paradox Valley 42.84 86 IAmb IAmb 05 07 38.7
comp=Z,35nm,0.9s
PV12 Saucer Basin, 42.87 85 IAmb IAmb 05 07 41.4
comp=Z,48nm,0.9s
PV03 Paradox Valley 42.88 85 IAmb IAmb 05 07 20.3
comp=Z,35nm,0.8s
PV07 Paradox Valley 42.89 85 IAmb IAmb 05 07 27.8
comp=Z,37nm,0.8s
PV15 Paradox Valley 43.05 85 IAmb IAmb 05 07 25.4
comp=Z,42nm,0.8s
WUAZ Wupatki 43.13 90 P **P** **05 07 06.6 +0.2**
WUAZ IAmb IAmb 05 07 29.5
comp=Z,27nm,0.9s
ULM Lac du Bonnet 43.40 63 P **P** **05 07 09.3 +1.1**
comp=Z,3.2nm,0.8s,baz=280,slow=8.8,SNR=4.2
ULM LR LR 05 25 56.2
comp=Z,966nm,18.1s,baz=306,slow=37
comp=Z,3.2nm,0.8s
ULM Lac du Bonnet 43.40 63 P **P** **05 07 10.0 +1.8**
ULM pmax pmax
comp=Z,11nm,0.9s
ULM Lac du Bonnet 43.40 63 P **P** **05 07 10.0 +1.8**
HILR Hailar Array B 43.51 296 P **P** **05 07 08.5 -0.6**
comp=Z,1.2nm,0.3s,baz=79,slow=11,SNR=5.3
comp=Z,1.2nm,0.3s
HIA Hailar 43.67 296 IAMs_20 IAMs_20 05 24 51.1
comp=Z,2µm,22.0s
MVCO Mesa Verde 43.77 86 IAmb IAmb 05 07 47.3
comp=Z,25nm,1.1s
MVCO Mesa Verde 43.77 86 P **P** **05 07 13.6 +2.0**
comp=Z,16nm,0.9s
ISCO Idaho Springs 43.86 81 P **P** **05 07 15.3 +2.9**
NEEM North Greenlan 44.45 16 *i* P **P** **05 07 16.4 -0.3**
NEEM IAmb IAmb 05 07 18.8
comp=Z,7.7nm,0.4s
AGMN Agassiz Nation 44.48 65 IAmb IAmb 05 07 45.5
comp=Z,16nm,0.8s
AGMN IAMs_20 IAMs_20 05 24 59.2
comp=Z,2µm,20.0s
AGMN Agassiz Nation 44.48 65 P **P** **05 07 18.8 +1.9**
comp=Z,24nm,0.9s
JCJ Chichijima 44.63 255 LR LR 05 23 39.3
comp=Z,443nm,21.8s,baz=112,slow=33
Q24A Divide 44.66 82 IAMs_20 IAMs_20 05 23 38.2
comp=Z,2µm,20.0s
JMN Monobe 44.87 269 P **P** **05 07 21.1 +1.0**
comp=Z,82nm,0.8s
EPLO Experimental L 44.88 63 IAmb IAmb 05 07 42.0
comp=Z,19nm,0.7s
SUSD Miller 44.96 72 IAMs_20 IAMs_20 05 24 20.9
comp=Z,2µm,19.0s
NOR Nord 45.04 6 *i* P **P** **05 07 20.2 -0.6**
KULLO Kullorsuaq 45.05 21 *i* P **P** **05 07 20.8 -0.2**
KULLO IAmb IAmb 05 07 23.7
comp=Z,12nm,0.8s
OGNE Ogallala 45.28 77 IAmb IAmb 05 07 26.4
comp=Z,17nm,0.8s
F33A 5 Mile Ranch, 45.66 68 IAMs_20 IAMs_20 05 25 26.3
comp=Z,2µm,20.0s
TUC Tucson 45.67 93 P **P** **05 07 28.5 +1.9**
TUC pmax pmax
comp=Z,14nm,1.2s
TUC Tucson 45.67 93 P **P** **05 07 28.5 +1.9**
TUC IAmb IAmb 05 07 38.0
comp=Z,14nm,1.1s
TUC Tucson 45.67 93 P **P** **05 07 27.7 +1.1**
comp=Z,11nm,1.1s
TUC Tucson 45.67 93 P **P** **05 07 29.2 +2.6**
KSRS Korea Array 46.00 277 P **P** **05 07 29.1 +0.2**
comp=Z,5.6nm,0.5s,baz=50,slow=7.8,SNR=24
KSRS PcP **PcP** **05 09 06.2 +1.2**
comp=Z,5.1nm,0.9s,baz=62,slow=3.6,SNR=5.7
comp=Z,5.6nm,0.5s
KS19 Wonju Array Si 46.01 277 P **P** **05 07 29.8 +0.8**
KS19 IAmb IAmb 05 08 10.9
comp=Z,47nm,1.5s
KSCO Kaye Shedlock' 46.15 80 IAmb IAmb 05 07 33.7
comp=Z,24nm,0.7s
KSCO IAMs_20 IAMs_20 05 24 38.4
comp=Z,2µm,21.0s
T25A Trinidad 46.29 83 IAmb IAmb 05 07 49.7
comp=Z,27nm,1.0s
T25A IAMs_20 IAMs_20 05 24 33.1
comp=Z,2µm,21.0s
UPNV Upernavik 46.40 22 *i* P **P** **05 07 32.1 +0.4**
UPNV IAmb IAmb 05 07 33.2
comp=Z,20nm,0.8s
NRIK Noril'sk 46.41 332 P **P** **05 07 31.6 -0.2**
comp=Z,9.2nm,0.9s,baz=76,slow=9.1,SNR=8.9
NRIK PcP **PcP** **05 09 06.5 +0.6**
comp=Z,8.3nm,0.9s,baz=46,slow=4.8,SNR=3.6
NRIK LR LR 05 29 23.5
comp=Z,2µm,20.1s,baz=78,slow=39
comp=Z,9.2nm,0.9s
NRIK Noril'sk 46.41 332 P **P** **05 07 31.4 -0.4**
TASM ASL Pad, Albuq 46.50 87 IAMs_20 IAMs_20 05 24 48.8
comp=Z,2µm,21.0s
TASM ASL Pad, Albuq 46.50 87 IAMs_20 IAMs_20 05 24 27.8
comp=Z,2µm,21.0s
ANMO Albuquerque 46.50 87 LR LR 05 24 49.4
comp=Z,3µm,20.9s,baz=308,slow=33
ANMO Albuquerque 46.50 87 P **P** **05 07 34.4 +1.2**
ANMO pmax pmax
comp=Z,8.0nm,1.0s
ANMO Albuquerque 46.50 87 P **P** **05 07 34.4 +1.2**
ANMO Albuquerque 46.50 87 IAMs_20 IAMs_20 05 24 48.8
comp=Z,2µm,21.0s
ANMO Albuquerque 46.50 87 P **P** **05 07 35.0 +1.7**
comp=Z,10nm,1.0s
ANMO Albuquerque 46.50 87 P **P** **05 07 35.3 +2.1**
ANMO PcP **PcP** **05 09 09.8 +2.7**
ALQ Albuquerque 46.50 87 IAMs_20 IAMs_20 05 24 27.9
comp=Z,2µm,21.0s
ALQ Albuquerque 46.50 87 IAmb IAmb 05 07 57.6
comp=Z,8.2nm,1.0s
ALQ IAMs_20 IAMs_20 05 24 27.9
comp=Z,2µm,21.0s
ABQ Albuquerque 46.50 87 IAMs_20 IAMs_20 05 24 27.9
comp=Z,2µm,21.0s
ECSD EROS Data Cent 46.74 71 IAmb IAmb 05 08 02.8
comp=Z,16nm,1.1s
ECSD EROS Data Cent 46.74 71 IAMs_20 IAMs_20 05 25 36.9
comp=Z,2µm,21.0s
ECSD EROS Data Cent 46.74 71 P **P** **05 07 34.6 -0.2**
comp=Z,18nm,1.0s
INCN Inchon 46.76 278 IAMs_20 IAMs_20 05 25 07.3
comp=Z,2µm,22.0s
CRNM Carthage 47.01 88 P **P** **05 07 38.2 +1.1**
TJN Taejon 47.05 276 P **P** **05 07 38.8 +1.6**
TJN Taejon 47.05 276 *i* P **P** **05 07 37.6 +0.4**
JTU Tsushima 47.05 273 P **P** **05 07 40.3 +3.0**
JTU Tsushima 47.05 273 P **P** **05 07 39.6 +2.3**
comp=Z,62nm,1.0s
JNU Nakatsue 47.11 270 LR LR 05 26 07.3
comp=Z,3µm,22.0s,baz=58,slow=34
121A Cookes Peak, D 47.34 90 IAmb IAmb 05 07 59.9
comp=Z,19nm,1.0s
RTBA Rita Blanca 47.76 83 IAmb IAmb 05 07 59.0
comp=Z,18nm,1.1s
HSIG 47.90 96 IAmb IAmb 05 07 46.7
comp=Z,18nm,1.2s
FRB Frobisher Bay 48.30 36 LR LR 05 29 58.4
comp=Z,3µm,21.8s,baz=300,slow=38
I37A Lemond, Waseca 48.40 69 P **P** **05 07 47.1 -0.5**
JSU Suzuyama 48.49 269 P **P** **05 07 48.7 +0.2**
comp=Z,86nm,0.9s
EPT El Paso 48.65 90 IAmb IAmb 05 08 10.5
comp=Z,26nm,0.9s
EPT IAMs_20 IAMs_20 05 25 59.7
comp=Z,1µm,20.0s
DL2 Dalian 48.83 283 P **P** **05 07 53.0 +2.1**
DL2 S **S** **05 14 50.3 -0.7**
DL2 pmax pmax
comp=Z,36nm,1.0s
DL2 pmax pmax
comp=Z,200nm,4.4s
DL2 L L
comp=Z,1µm,14.6s
DL2 L L
comp=Z,520nm,13.3s
DL2 L L
comp=Z,1µm,18.4s
XLT XiLinHaoTe 48.87 292 *e*P **P** **05 07 52.5 +1.2**
XLT pmax pmax
comp=Z,15nm,0.8s
XLT pmax pmax
comp=Z,230nm,10.5s
XLT L L
comp=Z,2µm,19.5s
XLT L L
comp=Z,3µm,19.4s
SPA0 Spitsbergen Ar 49.31 359 *e*P **P** **05 07 54.6 +0.4**
SPITS Spitsbergen Ar 49.31 359 P **P** **05 07 53.5 -0.8**
comp=Z,10.0nm,0.9s,baz=46,slow=6.0,SNR=11
SPITS LR LR 05 30 30.5
comp=Z,956nm,18.4s,baz=3.5,slow=38
comp=Z,10.0nm,0.9s
DAG Danmarks Havn 49.33 9 *i* P **P** **05 07 53.0 -1.3**
DAG IAmb IAmb 05 07 55.3
comp=Z,4.3nm,0.5s
MNTX Cornudas Mount 49.38 89 IAmb IAmb 05 08 22.7
comp=Z,14nm,0.8s
MNTX Cornudas Mount 49.38 89 P **P** **05 07 57.8 +2.4**
comp=Z,22nm,1.6s
MSTX Muleshoe 49.40 85 IAmb IAmb 05 08 20.6
comp=Z,22nm,0.9s
G40A Rib Lake 49.41 65 IAMs_20 IAMs_20 05 29 36.6
comp=Z,1µm,19.0s
AMTX Amarillo 49.44 83 IAmb IAmb 05 08 11.3
comp=Z,20nm,1.1s
KSU1 Kansas State U 49.67 76 IAmb IAmb 05 08 30.4
comp=Z,15nm,0.9s
SCIA State Center 49.83 71 IAMs_20 IAMs_20 05 27 00.7
comp=Z,2µm,21.0s
I40A Norwalk 50.04 67 IAMs_20 IAMs_20 05 27 53.3
comp=Z,2µm,20.0s
OK038 West end E0370 50.13 80 IAMs_20 IAMs_20 05 27 10.8
comp=Z,2µm,20.0s
SMWD Samnorwood 50.15 82 P **P** **05 08 01.8 +0.6**
SMWD IAmb IAmb 05 08 21.9
comp=Z,20nm,0.9s
SUMG Summit 50.23 18 P **P** **05 08 00.7 -1.0**
SUMG pmax pmax
comp=Z,70nm,1.6s
SUMG Summit 50.23 18 P **P** **05 08 00.7 -1.0**
SUMG IAMs_20 IAMs_20 05 28 27.6
comp=Z,2µm,22.0s
SUMG Summit 50.23 18 P **P** **05 08 01.1 -0.6**
comp=Z,32nm,1.6s
SUMG Summit 50.23 18 *i* P **P** **05 08 01.9 +0.2**
SUMG IAmb IAmb 05 08 05.8
comp=Z,13nm,0.7s
N38A Joes South For 50.54 72 IAMs_20 IAMs_20 05 27 44.4
comp=Z,1µm,22.0s
TLY Talaya 50.64 306 LR LR 05 29 04.4
comp=Z,1µm,21.9s,baz=39,slow=36
TLY Talaya 50.64 306 *ce*P **P** **05 08 03.9 -0.7**
TLY pmax pmax
comp=Z,25nm,1.0s
TLY Talaya 50.64 306 P **P** **05 08 04.0 -0.7**
TLY IAmb IAmb 05 08 07.3
comp=Z,18nm,0.8s
TLY Talaya 50.64 306 P **P** **05 08 04.0 -0.6**
comp=Z,26nm,0.9s
TLY Talaya 50.64 306 P **P** **05 08 04.9 +0.3**
DKNS Dickens 50.72 84 IAmb IAmb 05 08 07.7
comp=Z,14nm,0.8s
ODSA Odessa 50.81 87 IAmb IAmb 05 08 17.1
comp=Z,17nm,1.0s
129A Stewart Farms, 50.87 86 IAmb IAmb 05 08 31.3
comp=Z,19nm,1.1s
TPB01 Permian Basin 50.88 89 IAmb IAmb 05 08 29.0
comp=Z,16nm,0.9s
I42A Draeger Farm, 50.99 66 IAMs_20 IAMs_20 05 29 02.4
comp=Z,2µm,19.0s
P38A Dawn 51.13 73 P **P** **05 08 07.8 -0.5**
P38A IAmb IAmb 05 08 42.1
comp=Z,22nm,0.8s
P38A IAMs_20 IAMs_20 05 27 51.0
comp=Z,1µm,20.0s
SN07 Snyder 07 51.14 85 IAmb IAmb 05 08 23.9
comp=Z,50nm,1.7s
T35A Sooner Cattle 51.17 78 IAmb IAmb 05 08 29.3
comp=Z,46nm,1.5s
TPB05 Hovey Rd 51.18 88 IAmb IAmb 05 08 34.7
comp=Z,20nm,1.0s
MNHN Monahans 51.23 88 IAmb IAmb 05 08 35.0
comp=Z,17nm,0.8s
OK048 Pawnee Station 51.25 79 IAmb IAmb 05 08 10.7
comp=Z,19nm,0.7s
WMOK Wichita Mounta 51.28 81 IAmb IAmb 05 08 54.4
comp=Z,13nm,0.8s
WMOK Wichita Mounta 51.28 81 IAMs_20 IAMs_20 05 27 07.4
comp=Z,1µm,22.0s
WMOK Wichita Mounta 51.28 81 P **P** **05 08 11.0 +1.4**
comp=Z,17nm,1.0s
BJI2 Beijing 51.30 288 P **P** **05 08 08.5 -1.2**
BJI2 pP **pP** **05 08 17.8 -3.6**
BJI2 sP **sP** **05 08 22.5 -3.8**
BJI2 PP **PP** **05 10 05.5 -1.1**
BJI2 S **S** **05 15 21.0 -4.5**
BJI2 pmax pmax
comp=Z,7.0nm,0.7s
BJI2 pmax pmax
comp=Z,280nm,6.5s
BJI2 L L
comp=Z,2µm,21.4s
BJI2 L L
comp=Z,1µm,22.2s
BJI2 L L
comp=Z,3µm,21.8s
ULN Ulaanbaatar 51.30 301 P **P** **05 08 09.0 -0.8**
ULN pmax pmax
comp=Z,25nm,0.7s
ULN MLR MLR
comp=Z,2µm,18.0s
ULN Ulaanbaatar 51.30 301 P **P** **05 08 09.0 -0.8**
ULN Ulaanbaatar 51.30 301 P **P** **05 08 09.7 -0.1**
ULN Ulaanbaatar 51.30 301 P **P** **05 08 09.6 -0.1**
comp=Z,35nm,0.9s
XMAS Kiritimati 51.33 166 IAMs_20 IAMs_20 05 25 16.0
comp=Z,2µm,20.0s
ALPN Alpine 51.37 89 IAmb IAmb 05 08 32.3
comp=Z,13nm,0.9s
TMB01 Midkiff 51.41 87 IAmb IAmb 05 08 36.1
comp=Z,18nm,0.8s
DBG Daneborg 51.43 11 P **P** **05 08 10.6 +0.4**
comp=Z,16nm,0.8s
DBG Daneborg 51.43 11 *i* P **P** **05 08 09.2 -0.9**
DBG IAmb IAmb 05 08 12.2
comp=Z,9.2nm,0.9s
APMT Aspermont 51.44 84 IAmb IAmb 05 08 36.2
comp=Z,20nm,1.1s
OK052 Battle Ridge R 51.62 79 IAmb IAmb 05 08 15.4
comp=Z,22nm,0.8s
ZAK Zakamensk 51.63 305 *e*P **P** **05 08 11.7 -0.5**
ZAK pmax pmax
comp=Z,8.0nm,1.2s
SONM Songino Array 51.66 301 P **P** **05 08 11.6 -0.8**
comp=Z,10nm,0.8s,baz=61,slow=6.3,SNR=33
SONM PcP **PcP** **05 09 26.9 +1.3**
comp=Z,4.0nm,0.5s,baz=71,slow=2.4,SNR=9.4
SONM ScP **ScP** **05 13 20.5 +1.9**
comp=Z,1.7nm,0.9s,baz=90,slow=3.0,SNR=4.1
SONM LR LR 05 29 47.8
comp=Z,2µm,21.5s,baz=52,slow=36
comp=Z,10nm,0.8s
SONM Songino Array 51.66 301 P **P** **05 08 12.4 0.0**
SONM IAmb IAmb 05 08 16.7
comp=Z,22nm,1.2s
SFJD Kangerlussuaq 51.76 26 LR LR 05 33 45.7
comp=Z,884nm,18.1s,baz=314,slow=40
SFJD Kangerlussuaq 51.76 26 *i* P **P** **05 08 12.4 -0.2**
FNO Franklin 51.76 80 IAmb IAmb 05 08 55.0
comp=Z,22nm,0.7s
LPIG La Paz 51.91 100 LR LR 05 25 01.4
comp=Z,1µm,21.5s,baz=308,slow=30
E46A Sault Ste Mari 51.92 61 IAMs_20 IAMs_20 05 31 16.6
comp=Z,2µm,19.0s
MOY Mondy 51.94 308 *e*P **P** **05 08 14.1 -0.3**
MOY pmax pmax
comp=Z,20nm,1.0s
P40A Paris 52.05 72 P **P** **05 08 14.6 -0.7**
P40A IAMs_20 IAMs_20 05 28 42.5
comp=Z,2µm,20.0s
TX31 Lajitas Ar. Si 52.10 90 IAmb IAmb 05 08 41.6
comp=Z,22nm,0.9s
TXAR Lajitas Array 52.10 90 P **P** **05 08 16.5 +0.6**
comp=Z,9.5nm,0.7s,baz=306,slow=5.8,SNR=50
TXAR LR LR 05 28 32.1
comp=Z,2µm,19.7s,baz=310,slow=34
comp=Z,9.5nm,0.7s
TXAR Lajitas Array 52.10 90 P **P** **05 08 16.1 +0.3**
W35A Tecumseh 52.14 80 IAmb IAmb 05 08 57.5
comp=Z,20nm,0.9s
ABTX Abilene, Hawle 52.22 84 IAmb IAmb 05 08 41.7
comp=Z,25nm,1.1s
ABTX IAMs_20 IAMs_20 05 28 11.2
comp=Z,1µm,21.0s
TUL3 Leonard 52.27 78 P **P** **05 08 16.9 -0.1**
TUL3 IAmb IAmb 05 08 18.4
comp=Z,11nm,0.6s
I45A Fountain 52.38 64 IAMs_20 IAMs_20 05 31 26.8
comp=Z,2µm,21.0s
OZNA Ozona 52.51 87 IAmb IAmb 05 08 44.1
comp=Z,15nm,0.9s
S39A Bolivar 52.53 75 IAmb IAmb 05 08 28.8
comp=Z,10.0nm,0.9s
S39A IAMs_20 IAMs_20 05 29 01.3
comp=Z,1µm,20.0s
SAND Sanderson 52.59 88 IAmb IAmb 05 09 01.3
comp=Z,12nm,1.0s
HPIG 52.62 94 IAmb IAmb 05 08 32.6
comp=Z,11nm,1.0s
HPIG 52.62 94 P **P** **05 08 21.9 +2.1**
comp=Z,11nm,1.1s
R40A Maddies Statio 52.75 74 P **P** **05 08 18.9 -1.6**
R40A IAmb IAmb 05 08 22.5
comp=Z,18nm,0.6s
R40A IAMs_20 IAMs_20 05 28 50.0
comp=Z,2µm,22.0s
U38A Gravette 52.75 77 IAmb IAmb 05 08 54.1
comp=Z,11nm,0.8s
PLPT Palo Pinto 52.89 83 IAmb IAmb 05 08 24.2
comp=Z,24nm,1.0s
HHAR Hobbs 53.12 77 IAmb IAmb 05 09 00.4
comp=Z,10nm,0.9s
JOW Kunigami 53.16 267 LR LR 05 28 52.1
comp=Z,348nm,21.6s,baz=28,slow=34
Z35A Perchaven, San 53.17 82 IAMs_20 IAMs_20 05 29 12.3
comp=Z,2µm,20.0s
TIA Tai'an 53.28 283 P **P** **05 08 25.0 +0.5**
TIA pmax pmax
comp=Z,22nm,0.8s
TIA pmax pmax
comp=Z,340nm,4.6s
TIA L L
comp=Z,800nm,22.7s
TIA L L
comp=Z,480nm,22.0s
TIA L L
comp=Z,2µm,24.0s
HHC Hu-ho-hao-te 53.39 291 *e*P **P** **05 08 26.3 +1.0**
HHC pP pP 05 08 34.5 -2.6
HHC S **S** **05 15 50.5 -3.8**
HHC pmax pmax
comp=Z,11nm,1.0s
HHC L L
comp=Z,2µm,17.8s
HHC L L
comp=Z,2µm,20.2s
HHC L L
comp=Z,3µm,21.0s
P43A Skaggs, Pawnee 53.43 71 IAMs_20 IAMs_20 05 29 44.0
comp=Z,2µm,21.0s
CCM Cathedral Cave 53.50 73 P **P** **05 08 25.4 -0.6**
BRDY Brady 53.55 85 IAmb IAmb 05 09 01.8
comp=Z,18nm,0.9s
JCT Junction City 53.63 86 IAmb IAmb 05 08 41.9
comp=Z,20nm,0.8s
JCT IAMs_20 IAMs_20 05 29 18.6
comp=Z,2µm,21.0s
GUMO Guam 53.85 241 LR LR 05 30 01.1
comp=Z,406nm,20.0s,baz=67,slow=34
HNS HongShan 53.90 286 ⇑P **P** **05 08 29.8 +0.9**
HNS sP **sP** **05 08 45.0 -0.6**
HNS S **S** **05 16 07.5 +6.5**
HNS pmax pmax
comp=Z,38nm,1.0s
HNS L L
comp=Z,800nm,23.6s
HNS L L

	comp=Z,990nm,24.5s								
HNS					L	L			
	comp=Z,2µm,22.4s								
FVM	**French Village**	**54.03**	**73**		IAmb	IAmb	05 09 03.1		
	comp=Z,15nm,0.9s								
KNGR	**Kungurtug, Tuv**	**54.29**	**308**	*i*	P	**P**	**05 08 31.8**	**0.0**	
KNGR					pmax	pmax			
	comp=Z,27nm,0.9s								
SSE	**Sheshan**	**54.40**	**276**		P	**P**	**05 08 33.0**	**+0.4**	
SSE					S	**S**	**05 16 07.3**	**-0.6**	
SSE					pmax	pmax			
	comp=Z,7.0nm,0.6s								
SSE					pmax	pmax			
	comp=Z,230nm,3.2s								
SSE					L	L			
	comp=Z,510nm,25.6s								
SSE					L	L			
	comp=Z,390nm,25.7s								
BTO2	**Baotou**	**54.41**	**292**	*e*	P	**P**	**05 08 33.5**	**+0.7**	
BTO2					pP	**sP**	**05 08 46.3**	**-2.9**	
BTO2					sP	**pP**	**05 08 51.5**	**+7.0**	
BTO2					S	**S**	**05 16 08.5**	**+0.3**	
BTO2					sS	**sS**	**05 16 27.5**	**-0.5**	
BTO2					SS	**SS**	**05 19 47.5**	**-2.7**	
BTO2					pmax	pmax			
	comp=Z,25nm,0.9s								
BTO2					pmax	pmax			
	comp=Z,770nm,8.6s								
BTO2					L	L			
	comp=Z,4µm,19.0s								
BTO2					L	L			
	comp=Z,6µm,20.8s								
BTO2					L	L			
	comp=Z,8µm,22.2s								
MIAR	**Mount Ida**	**54.53**	**78**		IAmb	IAmb	05 09 08.0		
	comp=Z,17nm,0.9s								
MIAR	**Mount Ida**	**54.53**	**78**		P	**P**	**05 08 34.8**	**+1.3**	
	comp=Z,16nm,1.9s								
HNDO	**Hondo**	**54.62**	**86**		IAmb	IAmb	05 08 58.7		
	comp=Z,8.0nm,0.8s								
SCO	**Scoresbysund**	**54.72**	**13**		IAMs_20	IAMs_20	05 36 07.8		
	comp=Z,1µm,20.0s								
SCO	**Scoresbysund**	**54.72**	**13**		P	**P**	**05 08 33.9**	**-0.5**	
	comp=Z,12nm,1.2s								
SCO	**Scoresbysund**	**54.72**	**13**	*i*	P	**P**	**05 08 33.4**	**-1.0**	
SCO					IAmb	IAmb	05 08 35.4		
	comp=Z,9.1nm,1.2s								
SCHQ	**Schefferville**	**54.72**	**44**		P	**P**	**05 08 34.4**	**-0.3**	
	comp=Z,21nm,0.8s,baz=310,slow=7.3,SNR=11								
SCHQ					LR	LR	05 33 52.4		
	comp=Z,1µm,18.4s,baz=316,slow=38								
	comp=Z,21nm,0.8s								
SCHQ	**Schefferville**	**54.72**	**44**		P	**P**	**05 08 34.7**	**0.0**	
SCHQ					IAmb	IAmb	05 08 38.2		
	comp=Z,22nm,0.9s								
435B	**Jarrell**	**54.76**	**84**		IAmb	IAmb	05 09 00.9		
	comp=Z,16nm,0.8s								
P46A	**Rosedale**	**54.77**	**69**		IAMs_20	IAMs_20	05 31 10.4		
	comp=Z,2µm,21.0s								
PBMO	**Poplar Bluff**	**54.84**	**74**		IAmb	IAmb	05 09 11.4		
	comp=Z,10nm,0.8s								
OLIL	**Olney**	**54.86**	**70**		IAmb	IAmb	05 09 04.8		
	comp=Z,24nm,0.8s								
S44A	**Carbondale**	**54.90**	**72**		IAMs_20	IAMs_20	05 29 47.0		
	comp=Z,2µm,20.0s								
LCAR	**Lake Charles**	**54.91**	**75**		IAmb	IAmb	05 09 10.1		
	comp=Z,27nm,1.6s								
TIY	**Taiyuan**	**55.01**	**288**		P	**P**	**05 08 39.5**	**+2.4**	
TIY					sP	**sP**	**05 08 53.0**	**-0.8**	
TIY					PP	**PP**	**05 10 41.0**	**+0.9**	
TIY					S	**S**	**05 16 17.5**	**+1.4**	
TIY					pmax	pmax			
	comp=Z,270nm,4.3s								
TIY					L	L			
	comp=Z,1µm,20.6s								
TIY					L	L			
	comp=Z,990nm,22.7s								
TIY					L	L			
	comp=Z,1µm,22.0s								
NJ2	**Nanjing**	**55.13**	**279**	‖	P	**P**	**05 08 38.5**	**+0.6**	
NJ2					pmax	pmax			
	comp=Z,29nm,0.7s								
NJ2					L	L			
	comp=Z,1µm,16.1s								
NJ2					L	L			
	comp=Z,820nm,18.5s								
NJ2					L	L			
	comp=Z,5µm,20.8s								
833A	**Chaparral WMA,**	**55.42**	**88**		IAmb	IAmb	05 09 05.7		
	comp=Z,25nm,0.9s								
H06N1	**SOCORRO T-PHAS**	**55.53**	**105**		T	T	06 09 15.2		
	SNR=11								
N49A	**Columbus Grove**	**55.58**	**66**		IAMs_20	IAMs_20	05 32 02.9		
	comp=Z,2µm,19.0s								
H06S1	**SOCORRO T**	**55.65**	**105**		T	T	06 09 04.8		
	SNR=5.4								
SADO	**Sadowa**	**55.70**	**60**		LR	LR	05 33 45.5		
	comp=Z,651nm,18.3s,baz=342,slow=37								
T45A	**Paducah**	**55.72**	**72**		IAMs_20	IAMs_20	05 30 32.6		
	comp=Z,2µm,22.0s								
JMIC	**Jan Mayen**	**55.83**	**81**		IAmb	IAmb	05 09 05.2		
	comp=Z,513nm,18.3s,baz=32,slow=39								
NATX	**Nacogdoches**	**55.83**	**81**		LR	LR	05 35 31.9		
	comp=Z,26nm,1.1s								
M50A	**Fremont**	**55.89**	**65**		IAMs_20	IAMs_20	05 33 09.6		
	comp=Z,1µm,20.0s								
735A	**Kenedy**	**56.00**	**86**		IAMs_20	IAMs_20	05 30 33.3		
	comp=Z,2µm,21.0s								
ANGG	**Ammassalik, Gr**	**56.10**	**22**		IAMs_20	IAMs_20	05 33 36.8		
	comp=Z,2µm,21.0s								
WCI	**Wyandotte Cave**	**56.24**	**70**		IAMs_20	IAMs_20	05 31 32.2		
	comp=Z,2µm,21.0s								
WCI	**Wyandotte Cave**	**56.24**	**70**		P	**P**	**05 08 46.0**	**+0.3**	
	comp=Z,18nm,0.9s								
HKT	**Hockley**	**56.41**	**83**	*i*	P	**P**	**05 08 48.6**	**+1.6**	
HKT					pmax	pmax			
	comp=Z,17nm,1.4s								
HKT	**Hockley**	**56.41**	**83**		P	**P**	**05 08 47.6**	**+0.6**	
HKT					IAmb	IAmb	05 08 49.9		
	comp=Z,23nm,1.2s								
HKT	**Hockley**	**56.41**	**83**		IAMs_20	IAMs_20	05 30 15.8		
	comp=Z,2µm,22.0s								
HKT	**Hockley**	**56.41**	**83**		P	**P**	**05 08 49.1**	**+2.1**	
	comp=Z,16nm,1.6s								
HKT	**Hockley**	**56.41**	**83**		P	**P**	**05 08 49.2**	**+2.1**	
T47A	**Sharon Grove**	**56.63**	**71**		IAMs_20	IAMs_20	05 31 11.7		
	comp=Z,2µm,21.0s								
VADS	**Vadso**	**56.78**	**353**	*e*	P	**P**	**05 08 49.3**	**+0.2**	
WVT	**Waverly**	**56.81**	**73**		P	**P**	**05 08 50.1**	**+0.2**	
WVT					pmax	pmax			
	comp=Z,26nm,1.2s								
WVT	**Waverly**	**56.81**	**73**		P	**P**	**05 08 50.1**	**+0.2**	
WVT					IAmb	IAmb	05 09 05.5		
	comp=Z,26nm,1.1s								
WVT	**Waverly**	**56.81**	**73**		IAMs_20	IAMs_20	05 31 05.4		
	comp=Z,1µm,21.0s								
WVT	**Waverly**	**56.81**	**73**		P	**P**	**05 08 50.5**	**+0.7**	
	comp=Z,23nm,1.1s								
WVT	**Waverly**	**56.81**	**73**		P	**P**	**05 08 50.5**	**+0.7**	
WVT					pP	**pP**	**05 09 00.8**	**-0.5**	
WVT					sP	**sP**	**05 09 05.0**	**-0.9**	
WVT					PcP	**PcP**	**05 09 45.4**	**+0.1**	
IVI	**Ivigtut**	**56.85**	**30**		IAMs_20	IAMs_20	05 33 56.1		
	comp=Z,2µm,20.0s								
IVI	**Ivigtut**	**56.85**	**30**	*i*	P	**P**	**05 08 48.5**	**-1.3**	
OXF	**Oxford**	**57.01**	**75**		IAMs_20	IAMs_20	05 30 45.0		
	comp=Z,1µm,22.0s								
ERPA	**Erie**	**57.06**	**62**		IAMs_20	IAMs_20	05 33 56.6		
	comp=Z,1µm,21.0s								
143A	**Socs Landing,**	**57.11**	**78**		P	**P**	**05 08 52.5**	**+0.4**	
LYN	**LuoYang**	**57.18**	**285**		P	**P**	**05 08 52.8**	**+0.3**	
LYN					S	**S**	**05 16 49.5**	**+4.7**	
LYN					pmax	pmax			
	comp=Z,50nm,0.6s								
LYN					pmax	pmax			
	comp=Z,560nm,5.7s								
LYN					L	L			
	comp=Z,2µm,22.8s								
LYN					L	L			
	comp=Z,2µm,17.6s								
LYN					L	L			
	comp=Z,3µm,25.5s								
R50A	**Paris**	**57.32**	**68**		IAmb	IAmb	05 09 28.0		
	comp=Z,17nm,1.0s								
J55A	**Hilton**	**57.43**	**60**		IAMs_20	IAMs_20	05 32 45.2		
	comp=Z,1µm,18.0s								
O52A	**Adamsville**	**57.44**	**65**		IAmb	IAmb	05 09 13.2		
	comp=Z,20nm,0.9s								
O52A					IAMs_20	IAMs_20	05 34 42.9		
	comp=Z,1µm,18.0s								
LDAQ	**Lac Daran**	**57.48**	**52**		IAmb	IAmb	05 09 07.5		
	comp=Z,12nm,0.8s								
ZAA0	**Zalesovo Array**	**57.58**	**318**		IAmb	IAmb	05 09 51.3		
	comp=Z,9.8nm,0.7s								
ZAIG	**Zacatecas**	**57.58**	**95**		IAmb	IAmb	05 09 07.4		
	comp=Z,11nm,0.9s								
ZAIG	**Zacatecas**	**57.58**	**95**		P	**P**	**05 08 57.8**	**+2.0**	
	comp=Z,16nm,1.4s								
ZALV	**Zalesovo Beam**	**57.58**	**318**		P	**P**	**05 08 54.0**	**-1.1**	
	comp=Z,2.3nm,0.5s,baz=47,slow=6.5,SNR=13								
ZALV					PcP	**PcP**	**05 09 48.3**	**+0.3**	
	comp=Z,9.2nm,0.5s,baz=40,slow=4.3,SNR=13								
ZALV					LR	LR	05 34 38.9		
	comp=Z,2µm,21.5s,baz=42,slow=37								
	comp=Z,2.3nm,0.5s								
ZALV	**Zalesovo Beam**	**57.58**	**318**		P	**P**	**05 08 54.0**	**-1.1**	
ARA0	**ARCESS Array S**	**57.62**	**354**	*e*	P	**P**	**05 08 56.1**	**+1.0**	
ARCES	**ARCESS Array B**	**57.62**	**354**		P	**P**	**05 08 54.2**	**-1.0**	
	comp=Z,3.1nm,0.6s,baz=351,slow=5.3,SNR=14								
ARCES					PcP	**PcP**	**05 09 48.5**	**+0.6**	
	comp=Z,7.0nm,0.7s,baz=12,slow=3.3,SNR=7.2								
ARCES					LR	LR	05 34 11.3		
	comp=Z,787nm,21.1s,baz=10,slow=37								
	comp=Z,3.1nm,0.6s								
V48A	**Smith Brothers**	**57.66**	**72**		IAMs_20	IAMs_20	05 31 42.1		
	comp=Z,2µm,21.0s								
CLTN	**Cedars of Leba**	**57.70**	**72**		IAmb	IAmb	05 09 11.1		
	comp=Z,11nm,1.1s								
NRS	**Narsarsuaq**	**57.70**	**29**	*i*	P	**P**	**05 08 54.1**	**-1.7**	
U49A	**Red Boiling Sp**	**57.72**	**71**		IAmb	IAmb	05 09 20.2		
	comp=Z,34nm,1.6s								
TRO	**Tromso**	**57.82**	**357**	*e*	P	**P**	**05 08 57.3**	**+0.8**	
JETT	**Jettan, Norway**	**57.85**	**356**	*e*	P	**P**	**05 08 56.9**	**+0.1**	
T50A	**Nancy**	**57.91**	**70**		IAMs_20	IAMs_20	05 32 36.4		
	comp=Z,2µm,20.0s								
WCNY	**West Carthage**	**58.06**	**58**		IAMs_20	IAMs_20	05 35 38.5		
	comp=Z,1µm,21.0s								
P53A	**Whipple**	**58.12**	**66**		IAMs_20	IAMs_20	05 34 01.0		
	comp=Z,1µm,20.0s								
O54A	**Avella**	**58.19**	**64**		IAmb	IAmb	05 09 12.7		
	comp=Z,18nm,0.9s								
O54A					IAMs_20	IAMs_20	05 34 31.6		
	comp=Z,1µm,19.0s								
KTK1	**Kautokeino**	**58.27**	**355**	*e*	P	**P**	**05 09 00.0**	**+0.4**	
J57A	**Williamstown**	**58.28**	**59**		IAMs_20	IAMs_20	05 33 11.8		
	comp=Z,1µm,20.0s								
L56A	**Greenwood**	**58.35**	**61**		IAMs_20	IAMs_20	05 35 02.7		
	comp=Z,1µm,19.0s								
X48A	**Hartselle**	**58.44**	**73**		IAmb	IAmb	05 09 15.8		
	comp=Z,19nm,1.1s								
X48A					IAMs_20	IAMs_20	05 32 04.7		
	comp=Z,1µm,22.0s								
146A	**Union**	**58.55**	**76**		IAMs_20	IAMs_20	05 35 56.6		
	comp=Z,1µm,18.0s								
NCB	**Newcomb**	**58.80**	**57**		IAMs_20	IAMs_20	05 33 56.1		
	comp=Z,1µm,18.0s								
WHN	**Wuhan**	**58.91**	**281**		P	**P**	**05 09 05.3**	**+0.7**	
WHN					pmax	pmax			
	comp=Z,84nm,0.9s								
APA	**Apatity**	**58.91**	**350**	*e*	P	P	05 09 11.1	+7.0	
APA				*e*			05 09 53.7		
APA				*e*			05 11 13.4		
APA					pmax	pmax			
	comp=Z,10.0nm,1.4s								
APA					MLR	MLR			
	comp=Z,2µm,22.2s								
J59A	**Piesco**	**59.01**	**58**		IAMs_20	IAMs_20	05 35 57.8		
	comp=Z,1µm,20.0s								
BINY	**Binghamton**	**59.14**	**60**		IAMs_20	IAMs_20	05 33 59.5		
	comp=Z,1µm,19.0s								
BINY	**Binghamton**	**59.14**	**60**		P	**P**	**05 09 07.6**	**+1.5**	
	comp=Z,38nm,0.9s								
M57A	**Sunshine Farm,**	**59.14**	**61**		IAMs_20	IAMs_20	05 30 22.6		
	comp=Z,1µm,18.0s								
D62A	**Allapoint, All**	**59.15**	**52**		IAMs_20	IAMs_20	05 35 57.4		
	comp=Z,2µm,19.0s								
FPAL	**Fort Paine**	**59.21**	**72**		IAmb	IAmb	05 09 21.5		
	comp=Z,9.6nm,0.9s								
SSPA	**Standing Stone**	**59.23**	**62**		P	**P**	**05 09 07.1**	**+0.3**	
SSPA					IAmb	IAmb	05 09 36.9		
	comp=Z,24nm,1.1s								
SSPA	**Standing Stone**	**59.23**	**62**		P	**P**	**05 09 07.8**	**+1.0**	
	comp=Z,20nm,1.2s								
SSPA	**Standing Stone**	**59.23**	**62**		P	**P**	**05 09 07.5**	**+0.7**	
VT1	**Waterbury**	**59.29**	**56**		IAMs_20	IAMs_20	05 36 20.4		
	comp=Z,1µm,18.0s								
MCVT	**Middlebury Col**	**59.44**	**57**		IAMs_20	IAMs_20	05 35 07.1		
	comp=Z,1µm,20.0s								
TKL	**Tuckaleechee C**	**59.48**	**70**		LR	LR	05 33 35.8		
	comp=Z,2µm,21.1s,baz=324,slow=35								
XAN	**Xi'an**	**59.61**	**287**		P	**P**	**05 09 10.0**	**+0.5**	
XAN					PcP	**PcP**	**05 09 57.5**	**+1.1**	
XAN					pmax	pmax			
	comp=Z,23nm,1.5s								
XAN					L	L			
	comp=Z,1µm,17.9s								
XAN					L	L			
	comp=Z,970nm,21.3s								
XAN					L	L			
	comp=Z,1µm,20.6s								
STEI	**Steigen**	**59.62**	**358**	*e*	P	**P**	**05 09 09.7**	**+0.7**	
Q56A	**Snyder Ridge,**	**59.65**	**64**		IAMs_20	IAMs_20	05 36 01.2		
	comp=Z,1µm,20.0s								
KSPA	**Keystone Colle**	**59.70**	**60**		IAMs_20	IAMs_20	05 32 45.6		
	comp=Z,1µm,20.0s								
LBNH	**Lisbon**	**59.77**	**56**		IAMs_20	IAMs_20	05 35 36.9		
	comp=Z,1µm,18.0s								
W52A	**Murphy**	**59.79**	**71**		IAMs_20	IAMs_20	05 33 33.3		
	comp=Z,2µm,20.0s								
SSLB	**Suanglung**	**59.86**	**270**		P	**P**	**05 09 12.1**	**+0.8**	
SSLB	**Suanglung**	**59.86**	**270**		P	**P**	**05 09 12.5**	**+1.1**	
	comp=Z,166nm,0.9s								
H62A	**Milan**	**59.92**	**55**		IAMs_20	IAMs_20	05 35 51.8		
	comp=Z,1µm,20.0s								
YULB	**Yu-li**	**59.94**	**270**		P	**P**	**05 09 12.5**	**+0.6**	
	comp=Z,58nm,1.2s								
TRY	**Troy**	**59.97**	**58**		IAMs_20	IAMs_20	05 36 36.0		
	comp=Z,1µm,20.0s								
HNH	**Hanover**	**59.98**	**56**		IAMs_20	IAMs_20	05 35 32.2		
	comp=Z,1µm,20.0s								
BORG	**Borgarnes**	**60.10**	**16**		LR	LR	05 37 48.0		
	comp=Z,502nm,19.9s,baz=338,slow=39								
BLA	**Blacksburg**	**60.27**	**67**		P	**P**	**05 09 14.5**	**+0.5**	
BLA					pmax	pmax			
	comp=Z,36nm,1.1s								
BLA	**Blacksburg**	**60.27**	**67**		P	**P**	**05 09 14.5**	**+0.5**	
F64A	**Sherman**	**60.37**	**52**		IAmb	IAmb	05 09 31.3		
	comp=Z,19nm,1.0s								
BATG	**Bathurst New B**	**60.42**	**50**		P	**P**	**05 09 16.4**	**+1.5**	
QZH2	**Quanzhou**	**60.43**	**273**		P	**P**	**05 09 16.5**	**+1.3**	
QZH2					pmax	pmax			
	comp=Z,90nm,0.9s								
RNF	**Rovaniemi**	**60.48**	**353**		P	**P**	**05 09 16.1**	**+1.1**	
I63A	**Otisfield**	**60.59**	**55**		IAMs_20	IAMs_20	05 36 14.3		
	comp=Z,1µm,19.0s								
ODNJ	**Ogdensburg**	**60.66**	**60**		IAMs_20	IAMs_20	05 34 47.7		
	comp=Z,1µm,18.0s								
WVL	**Waterville**	**60.67**	**54**		IAMs_20	IAMs_20	05 36 34.5		
	comp=Z,1µm,18.0s								
L61B	**Northampton**	**60.68**	**58**		IAMs_20	IAMs_20	05 36 56.8		
	comp=Z,1µm,19.0s								
S57A	**Dark Hollow, R**	**60.69**	**65**		IAMs_20	IAMs_20	05 36 01.0		
	comp=Z,1µm,20.0s								
K62A	**Royalston**	**60.75**	**57**		IAMs_20	IAMs_20	05 36 58.7		
	comp=Z,1µm,19.0s								
KSCT	**Kent School, K**	**60.78**	**59**		IAmb	IAmb	05 09 47.7		
	comp=Z,16nm,0.9s								
GTA2	**Gaotai**	**60.86**	**298**	*e*	P	**P**	**05 09 17.5**	**-0.6**	
GTA2					sS	sS	05 17 52.0	-0.9	
GTA2					pmax	pmax			
	comp=Z,8.0nm,0.7s								
GTA2					pmax	pmax			
	comp=Z,230nm,10.2s								
GTA2					L	L			
	comp=Z,1µm,19.7s								
GTA2					L	L			
	comp=Z,2µm,19.7s								
GTA2					L	L			
	comp=Z,3µm,21.3s								
BRNJ	**Basking Ridge**	**60.97**	**60**		IAMs_20	IAMs_20	05 34 56.9		
	comp=Z,1µm,19.0s								
LZH	**Lanzhou**	**61.05**	**292**	*e*	P	**P**	**05 09 19.8**	**+0.3**	
LZH					sP	sP	05 09 34.5	-1.6	
LZH					pmax	pmax			
	comp=Z,28nm,1.0s								
LZH					L	L			
	comp=Z,2µm,19.6s								
LZH					L	L			
	comp=Z,2µm,18.6s								
LZH					L	L			
	comp=Z,3µm,19.0s								
PAL	**Palisades**	**61.08**	**60**		IAMs_20	IAMs_20	05 35 07.9		
	comp=Z,1µm,19.0s								
RAUS	**Rausandaksla**	**61.14**	**359**	*e*	P	**P**	**05 09 20.2**	**+0.8**	
HRV	**Adam Dziewonsk**	**61.21**	**57**		IAMs_20	IAMs_20	05 35 38.9		
	comp=Z,1µm,19.0s								
LZDM	**Lanzhou Array**	**61.23**	**292**		P	**P**	**05 09 21.4**	**+0.5**	
	comp=Z,3.7nm,0.4s,baz=128,slow=2.4,SNR=6.5								
LZDM					LR	LR	05 37 31.8		
	comp=Z,2µm,20.4s,baz=35,slow=38								
	comp=Z,3.7nm,0.4s								
G65A	**Princeton**	**61.23**	**52**		IAMs_20	IAMs_20	05 38 15.3		
	comp=Z,1µm,19.0s								
KMSC	**Kings Mountain**	**61.23**	**69**		IAmb	IAmb	05 09 35.2		
	comp=Z,23nm,1.1s								
WSPT	**Westport, CT**	**61.26**	**59**		IAMs_20	IAMs_20	05 37 47.7		
	comp=Z,1µm,19.0s								
CNSH	**ChangSha**	**61.47**	**280**		P	**P**	**05 09 23.0**	**+0.8**	
CNSH					pmax	pmax			
	comp=Z,30nm,0.9s								
P61A	**Hammonton**	**61.57**	**61**		IAMs_20	IAMs_20	05 36 27.0		
	comp=Z,1µm,20.0s								
EMMW	**East Machias**	**61.64**	**53**		IAMs_20	IAMs_20	05 37 32.2		
	comp=Z,1µm,18.0s								
M63A	**Gales Ferry**	**61.76**	**58**		IAMs_20	IAMs_20	05 37 31.4		
	comp=Z,1µm,21.0s								
L64A	**Middleborough**	**61.99**	**57**		IAMs_20	IAMs_20	05 34 25.5		
	comp=Z,1µm,18.0s								
ENH	**Enshi**	**61.99**	**284**		IAMs_20	IAMs_20	05 37 54.1		
	comp=Z,1µm,21.0s								
ENH	**Enshi**	**61.99**	**284**		P	**P**	**05 09 26.4**	**+0.6**	
	comp=Z,42nm,0.9s								
OUL	**Oulu**	**62.00**	**353**		P	**P**	**05 09 25.8**	**+0.6**	
	comp=Z,26nm,1.9s								
LMN	**Caledonia Moun**	**62.06**	**50**		P	**P**	**05 09 26.7**	**+0.7**	
SEM	**Semipalatinsk**	**62.10**	**318**	*e*	P	**P**	**05 09 26.3**	**-0.1**	
SEM	**Semipalatinsk**	**62.10**	**318**	*e*	P	**P**	**05 09 26.3**	**-0.1**	
R61A	**Willards**	**62.25**	**63**		IAMs_20	IAMs_20	05 34 04.0		
	comp=Z,1µm,21.0s								
M65A	**Busby, Falmout**	**62.36**	**57**		IAMs_20	IAMs_20	05 34 35.4		
	comp=Z,1µm,20.0s								
ZSN	**Zaisan**	**62.38**	**313**	*e*	P	**P**	**05 09 28.0**	**-0.1**	
ZSN					pmax	pmax			
	comp=Z,13nm,1.1s								
ZSN	**Zaisan**	**62.38**	**313**	*e*	P	**P**	**05 09 28.0**	**-0.1**	
	comp=Z,13nm,1.1s								
KURK	**Kurchatov**	**62.52**	**319**	*ce*	P	**P**	**05 09 29.0**	**0.0**	
KURK					pmax	pmax			
	comp=Z,11nm,1.0s								
KURK	**Kurchatov**	**62.52**	**319**		P	**P**	**05 09 27.7**	**-1.2**	
KURK					IAmb	IAmb	05 09 31.4		
	comp=Z,8.1nm,0.8s								
KURK	**Kurchatov**	**62.52**	**319**		P	**P**	**05 09 28.9**	**-0.1**	
	comp=Z,11nm,0.9s								
S61A	**Accomac**	**62.54**	**63**		IAMs_20	IAMs_20	05 37 15.8		
	comp=Z,1µm,19.0s								
KURBB	**Kurchatov Arra**	**62.63**	**319**		P	**P**	**05 09 28.9**	**-0.8**	
	comp=Z,8.6nm,0.9s,baz=45,slow=7.5,SNR=43								
KURBB					LR	LR	05 37 52.2		
	comp=Z,4µm,21.4s,baz=8.5,slow=37								
	comp=Z,8.6nm,0.9s								
NSS	**Namsos**	**63.06**	**360**	*e*	P	**P**	**05 09 33.1**	**+0.7**	
SVE	**Sverdlovsk**	**63.66**	**332**	*e*	P	**P**	**05 09 36.9**	**+0.5**	
SVE					pmax	pmax			
	comp=Z,19nm,1.0s								
BVAR	**Borovoye Array**	**63.77**	**325**		P	**P**	**05 09 37.0**	**-0.2**	
	comp=Z,22nm,0.6s,baz=48,slow=6.7,SNR=48								
	comp=Z,22nm,0.6s								
BORK	**Borovoye**	**63.78**	**325**	*ci*	P	**P**	**05 09 37.0**	**-0.3**	
BORK					pmax	pmax			
	comp=Z,17nm,0.9s								
BORK	**Borovoye**	**63.78**	**325**		P	**P**	**05 09 36.7**	**-0.5**	
WMQ	**Urumqi**	**63.81**	**308**	*e*	P	**P**	**05 09 39.3**	**+1.6**	
WMQ					PcP	**PcP**	**05 10 14.0**	**+0.7**	
WMQ					S	**S**	**05 18 05.5**	**-4.0**	
WMQ					pmax	pmax			
	comp=Z,8.0nm,1.1s								
WMQ					pmax	pmax			
	comp=Z,150nm,5.1s								
WMQ					L	L			
	comp=Z,1µm,19.5s								
WMQ					L	L			
	comp=Z,960nm,21.9s								
WMQ					L	L			
	comp=Z,920nm,23.9s								
TLIG	**Tlapa**	**63.96**	**95**		P	**P**	**05 09 39.9**	**+0.8**	
TLIG					IAmb	IAmb	05 10 01.7		
	comp=Z,22nm,1.1s								
MK31	**Makanchi Array**	**64.02**	**314**	*di*	P	**P**	**05 09 38.0**	**-1.0**	
MKAR	**Makanchi Array**	**64.02**	**314**		P	**P**	**05 09 37.1**	**-1.8**	
	comp=Z,4.2nm,0.7s,baz=52,slow=5.9,SNR=33								
MKAR					LR	LR	05 38 33.4		
	comp=Z,2µm,19.2s,baz=28,slow=37								
	comp=Z,4.2nm,0.7s								
MKAR	**Makanchi Array**	**64.02**	**314**

GOMU GeErMu 65.92 298 P **P** 05 09 51.0 -0.9
GOMU S **S** 05 18 35.3 -1.1
GOMU pmax pmax
comp=Z,7.0nm,0.6s
GOMU L L
comp=Z,1μm,18.2s
GOMU L L
comp=Z,1μm,18.4s
GOMU L L
comp=Z,2μm,18.8s
KRVT Keravat (AS076 65.95 224 LR LR 05 35 14.5
comp=Z,530nm,19.9s,baz=32,slow=33
AFI Afiamalu 66.44 184 LR LR 05 36 08.4
comp=Z,352nm,18.3s,baz=25,slow=33
GYA Guiyang 66.48 283 ⇑P **P** 05 09 56.0 +0.7
GYA pmax pmax
comp=Z,34nm,0.8s
CMIG Matias Romero 66.56 92 LR LR 05 34 49.8
comp=Z,1μm,21.6s,baz=307,slow=32
NB2 NORSAR Subarra 66.57 0 P **P** 05 09 54.3 -1.0
comp=Z,4.3nm,0.8s,baz=360,slow=6.2
NB2 NORSAR Subarra 66.57 0 P **P** 05 09 54.0 -1.3
NB2 AMP 05 09 54.0
NOA NORSAR Array B 66.57 0 P **P** 05 09 53.5 -1.7
comp=Z,3.5nm,0.9s,baz=0.6,slow=6.4,SNR=7.7
NOA LR LR 05 39 14.5
comp=Z,312nm,20.2s,baz=355,slow=36
comp=Z,3.5nm,0.9s
SKAR Skarsila 66.90 2 *e*P **P** 05 09 58.2 +0.9
HFS Hagfors 67.47 359 P **P** 05 10 00.0 -0.9
comp=Z,4.0nm,0.3s,baz=46,slow=4.3,SNR=30
HFS LR LR 05 39 19.6
comp=Z,381nm,21.9s,baz=4.5,slow=36
comp=Z,4.0nm,0.3s
ARBE Arbavere 67.58 352 P **P** 05 10 01.7 0.0
comp=Z,77nm,0.6s
HNR Honiara 67.61 214 LR LR 05 35 28.9
comp=Z,378nm,20.9s,baz=96,slow=32
PDGK Podgornoye 67.96 313 P **P** 05 10 03.1 -1.4
PDGK Podgornoye 67.96 313 P **P** 05 10 03.1 -1.4
SHLS Shalkode 68.11 313 *e*P **P** 05 10 04.3 -1.1
SHLS pmax pmax
comp=Z,10.0nm,1.0s
SHLS Shalkode 68.11 313 *e*P **P** 05 10 04.3 -1.1
comp=Z,9.6nm,1.0s
KPKS Kokpek 68.21 314 *e*P **P** 05 10 06.2 +0.2
KPKS Kokpek 68.21 314 *e*P **P** 05 10 06.2 +0.2
UZB Uzynbulak 68.31 313 *e*P **P** 05 10 06.7 0.0
UZB Uzynbulak 68.31 313 *e*P **P** 05 10 06.8 0.0
VSU Vasula 68.48 352 *ce*P **P** 05 10 08.6 +1.3
VSU pmax pmax
comp=Z,32nm,1.7s
VSU Vasula 68.48 352 P **P** 05 10 06.4 -0.9
comp=Z,23nm,0.8s
SATY Saty 68.66 314 *e*P **P** 05 10 08.8 -0.1
SATY Saty 68.66 314 *e*P **P** 05 10 08.8 -0.1
MDOK Medeo 69.17 315 *e*P **P** 05 10 11.9 -0.1
MDOK Medeo 69.17 315 *e*P **P** 05 10 12.0 -0.1
AAA Alma-Ata 69.19 315 *e*P **P** 05 10 12.0 0.0
AAA Alma-Ata 69.19 315 *e*P **P** 05 10 12.1 0.0
TNSS Tian-Shan 69.31 315 *e*P **P** 05 10 12.9 -0.3
TNSS Tian-Shan 69.31 315 *e*P **P** 05 10 13.0 -0.3
SOR Soroa 69.41 79 P **P** 05 10 14.7 +1.1
comp=Z,17nm,1.2s
TJOU Tjoern 69.59 0 *i* P **P** 05 10 12.9 -1.2
JAY Jayapura 69.65 236 LR LR 05 36 55.0
comp=Z,620nm,20.5s,baz=360,slow=32
SLIT Slitere, Latvi 69.65 354 P **P** 05 10 14.0 -0.5
comp=Z,218nm,0.9s
PETF Flores 69.75 89 IAmb IAmb 05 10 31.9
comp=Z,14nm,0.9s
KMI2 Kunming 69.78 285 ⇑P **P** 05 10 17.0 +0.9
KMI2 pP sP 05 10 31.5 -1.5
KMI2 S **S** 05 19 19.8 -2.6
KMI2 pmax pmax
comp=Z,59nm,0.8s
KMI2 pmax pmax
comp=Z,370nm,11.8s
KMI2 L L
comp=Z,1μm,24.5s
KMI2 L L
comp=Z,580nm,26.7s
KMI2 L L
comp=Z,1μm,24.9s
WUS Wushi 69.78 312 IAmb IAmb 05 10 41.5
comp=Z,10nm,0.8s
WUS Wushi 69.78 312 P **P** 05 10 15.8 0.0
comp=Z,14nm,0.8s
MOS Moscow 69.79 345 *e*P P 05 10 08.6 -6.8
MOS *e* 05 10 16.3
TARG Taragay, Kyrgy 69.99 313 IAmb IAmb 05 10 44.8
comp=Z,11nm,0.8s
TARG Taragay, Kyrgy 69.99 313 P **P** 05 10 17.9 +0.5
comp=Z,16nm,0.8s
AKTO Aktyubinsk 70.01 331 LR LR 05 44 17.6
comp=Z,912nm,20.0s,baz=30,slow=39
DAV Davao City (W) 70.03 255 LR LR 05 37 06.2
comp=Z,1μm,21.1s,baz=54,slow=32
QIZ Qiongzhong 70.19 276 P **P** 05 10 20.5 +2.0
QIZ S **S** 05 19 27.3 +0.4
QIZ L L
comp=Z,990nm,20.4s
QIZ L L
comp=Z,520nm,16.1s
QIZ L L
comp=Z,950nm,23.9s
QIZ Qiongzhong 70.19 276 P **P** 05 10 19.9 +1.4
comp=Z,60nm,0.9s
QIZ Qiongzhong 70.19 276 P **P** 05 10 19.9 +1.4
QIZ sP **sP** 05 10 35.2 -0.2
ONAU Onsala 70.22 360 *i* P **P** 05 10 16.6 -1.5
AB31 Akbulak array 70.46 329 IAmb IAmb 05 10 22.2
comp=Z,16nm,0.7s
ABKAR Akbulak array 70.46 329 P **P** 05 10 18.6 -1.1
OBN Obninsk 70.56 345 LR LR 05 46 23.1
comp=Z,757nm,19.0s,baz=9.5,slow=40
OBN Obninsk 70.56 345 *e*P **P** 05 10 18.8 -1.3
OBN *i* *P 05 10 33.3 +1.0
OBN *i* 05 10 40.4
OBN *i* SSS SSS 05 27 03.1
OBN pmax pmax
comp=Z,28nm,1.3s
FABU Falkenberg 70.62 359 *i* P **P** 05 10 18.9 -1.5
AAK Ala-Archa 70.69 316 LR LR 05 43 19.0
comp=Z,979nm,19.2s,baz=37,slow=38
AAK Ala-Archa 70.69 316 *ce*P **P** 05 10 21.1 -0.3
AAK pmax pmax
comp=Z,7.0nm,0.8s
AAK Ala-Archa 70.69 316 P **P** 05 10 21.0 -0.3
AAK IAmb IAmb 05 10 24.4
comp=Z,6.5nm,0.6s
AAK Ala-Archa 70.69 316 IAMs_20 IAMs_20 05 43 08.2
comp=Z,998nm,20.0s
AAK Ala-Archa 70.69 316 P **P** 05 10 22.0 +0.6
comp=Z,9.7nm,0.7s
AAK Ala-Archa 70.69 316 P **P** 05 10 22.0 +0.6
AAK pP **pP** 05 10 33.2 -0.5
AAK PcP **PcP** 05 10 42.1 0.0
BELG Belogornoye 70.99 338 LR LR 05 43 50.3
comp=Z,1μm,21.0s,baz=27,slow=38
BELG Belogornoye 70.99 338 *i* P **P** 05 10 23.4 +0.6
BELG pmax pmax
comp=Z,4.0nm,1.0s
NRN Naryn 71.02 314 IAmb IAmb 05 10 47.4
comp=Z,10nm,0.9s
DEL Delary 71.14 359 *i* P **P** 05 10 23.4 -0.2
MSVF Nonsavu 71.17 194 LR LR 05 35 21.9
comp=Z,650nm,20.1s,baz=355,slow=30
ASAI AK-SAY(Kyrgyzs 71.21 314 P **P** 05 10 25.3 +0.4
comp=Z,12nm,0.9s
BLEU Blekinge 71.27 358 *i* P **P** 05 10 22.8 -1.6
IDGL Inch Island, C 71.38 12 P **P** 05 10 25.5 +0.3
comp=Z,49nm,1.9s
IDGL pP **pP** 05 10 32.8 -4.5
EKA Eskdalemuir Ar 71.59 9 P **P** 05 10 26.2 -0.2
comp=Z,8.0nm,0.9s,baz=352,slow=5.0,SNR=10
comp=Z,8.0nm,0.9s
PABE Paberze 71.64 353 P **P** 05 10 26.1 -0.6
PABE IAMs_20 IAMs_20 05 44 23.6
comp=Z,1μm,20.0s
PABE Paberze 71.64 353 P **P** 05 10 26.8 +0.1
comp=Z,59nm,0.9s
DZA Taraz 71.79 318 *e*P **P** 05 10 27.9 +0.1
DZA pmax pmax
comp=Z,7.0nm,0.5s
DZA Taraz 71.79 318 *e*P **P** 05 10 28.0 +0.1
comp=Z,7.2nm,0.5s
PPT Papeete 71.88 161 LR LR 05 34 10.9
comp=Z,936nm,21.8s,baz=341,slow=29
PPT2 Papeete2 71.89 161 *e*P **P** 05 10 25.4 -3.3
comp=Z,98nm,27.2s
PPT2 *e*S **S** 05 19 40.9 -5.5
comp=Z,765nm,29.0s
PPT2 *e*SS **SS** 05 24 18.9 -5.1
comp=Z,537nm,28.0s
PPT2 *e*LQ LQ 05 28 52.8
comp=Z,842nm,24.0s
PPT2 *e*LR LR 05 32 17.2
comp=Z,2μm,24.5s
PPT2 *e*LR LR 05 32 25.1
comp=Z,2μm,23.8s
KK31 Karatay Array 71.94 319 IAmb IAmb 05 10 30.7
comp=Z,15nm,1.3s
KKAR Karatay Array 71.94 319 P **P** 05 10 27.9 -0.9
KKAR Karatay Array 71.94 319 P **P** 05 10 27.9 -0.9
LUNU Lund 71.98 359 *i* P **P** 05 10 28.8 0.0
MTO3 Montecristo 71.99 90 IAmb IAmb 05 10 40.8
comp=Z,13nm,1.1s
SLVN Son La 72.00 282 IAMs_20 IAMs_20 05 42 53.5
comp=Z,939nm,20.0s
SLVN Son La 72.00 282 P **P** 05 10 31.0 +1.5
comp=Z,43nm,1.2s
BRLS Borolday 72.27 319 *e*P **P** 05 10 32.4 +1.7
BRLS Borolday 72.27 319 *e*P **P** 05 10 32.5 +1.7
MNK Minsk 72.28 350 *i* P **P** 05 10 30.2 -0.3
MNK *i* *PP **sP** 05 10 46.0 -1.5
MNK *i* 05 10 50.1
MNK *i* 05 13 10.4
MNK *i* PPP PPP 05 14 54.4
MNK *i* S **S** 05 19 47.5 -2.6
MNK *i* *SS **sS** 05 20 15.9 +5.1
MNK *i* SS **SS** 05 24 26.1 -1.0
MNK *i* SSS SSS 05 27 46.1
MNK pmax pmax
comp=N,10.0nm,0.8s
MNK pmax pmax
comp=E,23nm,0.9s
MNK pmax pmax
comp=Z,26nm,0.9s
MNK MLR MLR
comp=N,625nm,19.0s
MNK MLR MLR
comp=E,792nm,20.0s
MNK MLR MLR
comp=Z,753nm,19.0s
MNK Minsk 72.28 350 *i* P **P** 05 10 30.2 -0.3
comp=E,23nm,0.9s
MNK *i* P **P** 05 10 30.2 -0.3
comp=N,10.0nm,0.8s
MNK *i* P **P** 05 10 30.2 -0.3
comp=Z,26nm,0.9s,baz=10
MNK *i* pP **sP** 05 10 46.1 -1.5
MNK *i* sP PcP 05 11 02.0 +14
MNK *i* PP **PP** 05 13 10.4 -0.3
MNK *i* PPP PPP 05 14 54.4
MNK *i* S **S** 05 19 47.5 -2.6
MNK *i* sS **sS** 05 20 15.9 +5.1
MNK *i* SS **SS** 05 24 26.1 -1.0
MNK *i* SSS SSS 05 27 46.1
MNK *i* LQ LQ 05 39 03.0
MNK *i* LR LR 05 41 35.0
MNK *i* LRM MLR 05 44 53.1
comp=N,625nm,19.4s
MNK *i* LRM MLR 05 45 22.4
comp=E,792nm,19.9s
MNK *i* LRM MLR 05 45 36.1
comp=Z,753nm,18.5s
ILTH Belurgan, Co L 72.55 11 P **P** 05 10 33.8 +1.7
LPSR Galich'ya Gora 72.58 343 *e*P P 05 10 41.0 +8.7
LPSR pmax pmax
comp=Z,9.0nm,0.9s
PMG Port Moresby 72.62 226 LR LR 05 37 22.9
comp=Z,683nm,21.4s,baz=12,slow=32
PMG Port Moresby 72.62 226 P **P** 05 10 34.0 +1.0
PMG pmax pmax
comp=Z,28nm,0.9s
PMG Port Moresby 72.62 226 P **P** 05 10 34.0 +1.0
PMG Port Moresby 72.62 226 IAMs_20 IAMs_20 05 37 31.9
comp=Z,723nm,20.0s
IGLA Glengowla, Co 72.76 13 P **P** 05 10 34.7 +1.3
IUG Iuzhnay 72.94 319 *e*P **P** 05 10 34.8 0.0
IUG pmax pmax
comp=Z,9.0nm,0.6s
IUG Iuzhnay 72.94 319 *e*P **P** 05 10 34.8 0.0
comp=Z,9.1nm,0.6s
CHM Chimkent 72.96 319 *e*P **P** 05 10 34.9 0.0
CHM pmax pmax
comp=Z,16nm,1.0s
CHM Chimkent 72.96 319 *e*P **P** 05 10 34.9 0.0
comp=Z,16nm,1.0s
KSH2 Kashi 73.08 313 P **P** 05 10 36.0 +0.2
KSH2 ScS **SKSac** 05 20 40.5 +2.3
KSH2 pmax pmax
comp=Z,9.0nm,0.6s
KSH2 L L
comp=Z,1μm,20.3s
KSH2 L L
comp=Z,1μm,17.5s
KSH2 L L
comp=Z,2μm,19.2s
SUW Suwalki 73.19 353 *e*P **P** 05 10 34.6 -1.3
SIJI Sorong 73.26 245 LR LR 05 38 11.4
comp=Z,566nm,21.7s,baz=66,slow=32
DSB Dublin 73.31 11 P **P** 05 10 37.6 +0.9
VRH Novokhopyorsk 73.38 341 *e*P **P** 05 10 36.4 -0.7
VRH pmax pmax
comp=Z,13nm,0.6s
VORR Voronezh 73.42 343 *e*P **P** 05 10 38.6 +1.3
VORR pmax pmax
comp=Z,46nm,0.5s
TGUH Tegucigalpa,Un 73.53 88 IAMs_20 IAMs_20 05 39 56.8
comp=Z,933nm,21.0s
TGUH Tegucigalpa,Un 73.53 88 P **P** 05 10 40.9 +2.2
comp=Z,33nm,0.9s
TGUH pP **pP** 05 10 48.9 -1.1
MOKO MOKOCHONG 73.62 292 *i* P **P** 05 10 35.0 -4.1
VSR Storozhevoye 73.86 342 *e*P **P** 05 10 38.7 -1.2
VSR pmax pmax
comp=Z,10.0nm,0.6s
STNC Stoke 73.90 9 P **P** 05 10 41.6 +1.5
comp=Z,61nm,1.1s
RAR Rarotonga 74.01 172 LR LR 05 35 13.7
comp=Z,538nm,20.5s,baz=350,slow=29
VAL Valentia 74.08 14 P **P** 05 10 41.9 +0.7
IWEX Carrickbyrne, 74.12 12 P **P** 05 10 42.1 +0.7
KOHI KOHIMA 74.32 292 *i* P **P** 05 10 39.2 -4.0
KOHI IAmb IAmb 05 10 46.5
comp=Z,41nm,0.6s
TEZP TEZPUR 74.36 293 *i* P **P** 05 10 39.4 -3.9
BTK Batken 74.37 317 IAmb IAmb 05 11 06.3
comp=Z,9.9nm,0.8s
BTK Batken 74.37 317 P **P** 05 10 43.3 +0.1
RETH Rethem/Aller, 74.88 1 P **P** 05 10 44.6 -1.2
comp=Z,16nm,1.0s
IMP Imphal 75.10 291 *i* P **P** 05 10 43.2 -4.5
IMP IAmb IAmb 05 10 50.1
comp=Z,32nm,0.8s
IBBN Ibbenburen 75.27 2 P **P** 05 10 48.8 +0.7
comp=Z,22nm,1.1s
FLTG Flechtingen 75.30 0 P **P** 05 10 48.6 +0.4
comp=Z,13nm,1.1s
ASSE Asse, Remlinge 75.50 1 P **P** 05 10 49.3 0.0
comp=Z,13nm,1.0s
ASSE pP **pP** 05 10 56.4 -5.2
RNPP8 Varash 75.61 351 P **P** 05 10 49.7 -0.4
SHL Shillong 75.69 293 *i* P **P** 05 10 46.7 -4.5
RNPP5 Staryi Chortor 75.72 351 P **P** 05 10 50.1 -0.6
CLZ Clausthal 75.78 1 P **P** 05 10 51.0 -0.1
comp=Z,19nm,1.0s
AK21 Malin Array Si 75.82 349 P **P** 05 10 50.7 -0.6
AK23 Malin Array Si 75.83 349 P **P** 05 10 50.7 -0.6
AK22 Malin Array Si 75.83 349 P **P** 05 10 50.7 -0.6
AK03 Malin Array Si 75.85 349 P **P** 05 10 50.8 -0.6
AK20 Malin Array Si 75.86 349 P **P** 05 10 50.9 -0.6
AK04 Malin Array Si 75.86 349 P **P** 05 10 50.7 -0.8
AK18 Malin Array Si 75.87 349 P **P** 05 10 50.7 -0.9
AKASG Malin Array Be 75.87 349 P **P** 05 10 50.4 -1.2
comp=Z,10nm,0.5s,baz=15,slow=5.7,SNR=26
AKASG LR LR 05 50 13.3
comp=Z,832nm,19.0s,baz=19,slow=40
comp=Z,10nm,0.5s
AKBB Malin Array Si 75.88 349 *e*P **P** 05 10 51.1 -0.5
AKBB pmax pmax
comp=Z,21nm,0.9s
AKBB Malin Array Si 75.88 349 P **P** 05 10 50.5 -1.1
AK19 Malin Array Si 75.88 349 P **P** 05 10 50.6 -1.0
KIEV Kiev 75.88 349 ⇑P **P** 05 10 50.6 -1.0
KIEV Kiev 75.88 349 P **P** 05 10 49.6 -2.0
KIEV IAmb IAmb 05 10 53.1
comp=Z,18nm,0.7s
KIEV Kiev 75.88 349 ⇑P **P** 05 10 50.6 -1.0
KIEV Kiev 75.88 349 P **P** 05 10 50.7 -0.9
comp=Z,104nm,1.0s
KIEV Kiev 75.88 349 P **P** 05 10 50.4 -1.2
comp=Z,26nm,1.0s
KIEV Kiev 75.88 349 P **P** 05 10 50.4 -1.2
AK01 Malin Array Si 75.89 349 P **P** 05 10 50.6 -1.0
AK15 Malin Array Si 75.89 349 P **P** 05 10 50.6 -1.1
AK11 Malin Array Si 75.90 349 P **P** 05 10 50.7 -1.0
AK17 Malin Array Si 75.91 349 P **P** 05 10 50.7 -1.1
AK16 Malin Array Si 75.92 349 P **P** 05 10 50.8 -1.0
AK02 Malin Array Si 75.92 349 P **P** 05 10 50.8 -1.0
AK08 Malin Array Si 75.94 349 P **P** 05 10 50.9 -1.0
AK12 Malin Array Si 75.94 349 P **P** 05 10 50.9 -1.0
AK09 Malin Array Si 75.95 349 P **P** 05 10 51.2 -0.8
AK14 Malin Array Si 75.96 349 P **P** 05 10 51.2 -0.8
AK13 Malin Array Si 75.96 349 P **P** 05 10 51.2 -0.9
AK10 Malin Array Si 75.97 349 P **P** 05 10 51.2 -0.9
AK10 pP **PcP** 05 11 06.0 +1.6
GTTG Gottingen 76.08 1 P **P** 05 10 52.3 -0.4
comp=Z,41nm,1.0s
WIMM Wimmelburg 76.11 0 P **P** 05 10 53.3 +0.4
comp=Z,52nm,1.0s
CLL Collm 76.32 359 *i* P **P** 05 10 55.1 +1.0
CLL *i* *SP **sP** 05 11 12.3 +1.2
CLL *e*S **S** 05 20 35.0 -0.4
CLL pmax pmax
comp=Z,11nm,1.0s
CLL MLR MLR
comp=Z,600nm,20.5s
CLL Collm 76.32 359 IAmb IAmb 05 10 56.6
comp=Z,9.4nm,0.9s
CLL Collm 76.32 359 P **P** 05 10 53.3 -0.8
comp=Z,14nm,1.0s
CLL pP **pP** 05 11 07.5 +1.1
comp=Z,14nm,1.0s
CLL Collm 76.32 359 P **P** 05 10 53.7 -0.4
comp=Z,14nm,1.0s
CLL Collm 76.32 359 *i* P **P** 05 10 55.1 +1.0
comp=Z,11nm,1.0s
CLL *i* (sP) **sP** 05 11 12.3 +1.2
CLL *e*PP **PP** 05 13 48.0 +3.0
CLL *e*S **S** 05 20 35.0 -0.4
CLL *e*PS **PnS** 05 21 16.0 -0.5
CLL *e*PPS PPS 05 21 30.0
CLL *e*SS SS 05 25 42.0 +13
CLL *e*SSS SSS 05 28 48.0
CLL *e*SSSS 05 31 16.0
CLL LQ LQ 05 33 00.0
CLL L L 05 36 00.0
CLL AMS AMS 05 51 00.0
comp=N,500nm,20.1s
CLL AMS AMS 05 51 00.0
comp=E,200nm,19.8s
CLL AMS AMS 05 51 00.0
comp=Z,600nm,20.5s
ALCI Alchi Leh 76.39 309 *i* P **P** 05 10 54.6 -0.7
ALCI IAmb IAmb 05 11 39.8
comp=Z,14nm,1.0s
NEUB Neuenburg 76.43 360 P **P** 05 10 55.3 +0.6
comp=Z,24nm,1.0s
EVN Everest 76.57 298 IAmb IAmb 05 11 20.6
comp=Z,17nm,0.7s
EVN Everest 76.57 298 P **P** 05 10 56.9 +0.2
comp=Z,25nm,0.8s
AZL Aizawl 76.67 292 *i* P P 05 10 51.7 -4.9
AZL IAmb IAmb 05 11 00.3
comp=Z,284nm,1.4s
HNLY HANLEY 76.70 307 *i* P **P** 05 10 56.9 -0.4
BRG Berggiesshubel 76.74 359 P **P** 05 10 56.6 +0.1
comp=Z,12nm,1.0s
BRG Berggiesshubel 76.74 359 *e*P **P** 05 10 56.7 +0.2
BRG Amp 05 10 59.4
comp=Z,11nm,0.9s
BRG pP **pP** 05 11 09.5 +0.7
BRG Amp 05 11 11.3
comp=Z,7.4nm,1.1s
BRG sP **sP** 05 11 13.8 +0.3
BRG Amp 05 11 14.7
comp=Z,5.8nm,0.9s
BRG Berggiesshubel 76.74 359 S **S** 05 20 42.0 +1.9
HGN Heimansgroeve 76.76 4 P **P** 05 10 56.9 +0.4
CHTO Chiang Mai 76.89 284 P **P** 05 10 57.0 -0.8
CHTO pmax pmax
comp=Z,26nm,1.0s
CHTO MLR MLR
comp=Z,1μm,20.0s
CHTO Chiang Mai 76.89 284 P **P** 05 10 57.0 -0.8
CHTO IAmb IAmb 05 11 00.6
comp=Z,26nm,0.9s
CHTO IAMs_20 IAMs_20 05 46 12.8
comp=Z,959nm,20.0s
CHTO Chiang Mai 76.89 284 P **P** 05 10 58.3 +0.5
comp=Z,33nm,1.1s
CHTO Chiang Mai 76.89 284 P **P** 05 10 58.5 +0.6
comp=Z,33nm,1.1s
CHTO Chiang Mai 76.89 284 P **P** 05 10 58.2 +0.4
CHTO pP **PcP** 05 11 09.0 +0.2
MEM Membach 76.91 4 *d*P **P** 05 10 57.1 -0.4
comp=Z,9.3nm,1.0s
MOX Moxa 76.99 0 P **P** 05 10 58.1 +0.1
comp=Z,15nm,1.1s
OSTC Ostas 77.01 357 *e*P **P** 05 10 58.2 +0.1
OSTC MLR MLR
comp=Z,700nm,19.9s
OSTC Ostas 77.01 357 *e*P **P** 05 10 58.2 +0.1
OSTC AMS AMS 05 52 10.0
comp=Z,700nm,19.9s
HSKC Hora Svate Kat 77.02 359 *e*P **P** 05 10 58.2 +0.1
HSKC AMS AMS 05 54 50.0
comp=Z,500nm,19.1s
HSKC Hora Svate Kat 77.02 359 P **P** 05 10 58.4 +0.2
UPC Upice 77.06 357 *e*P **P** 05 10 58.7 +0.4
UPC MLR MLR
comp=Z,600nm,17.4s
UPC Upice 77.06 357 *e*P **P** 05 10 58.7 +0.4
UPC AMS AMS 05 52 10.0
comp=Z,600nm,17.4s
UPC Upice 77.06 357 P **P** 05 10 58.5 +0.1
RICC Richard 77.07 358 *e*P **P** 05 11 00.4 +2.0
BCLA Clavier 77.07 4 *d*P **P** 05 10 58.7 +0.3
comp=Z,6.7nm,1.1s
BCLA *d*pP **PcP** 05 11 08.4 -0.8
PVCC Panska Ves 77.08 358 AMS AMS 05 50 50.0
comp=Z,600nm,17.3s
PVCC Panska Ves 77.08 358 P **P** 05 10 58.5 +0.1
CMAR Chiang Mai Arr 77.16 283 P **P** 05 11 00.4 +1.0
comp=Z,44nm,0.8s,baz=25,slow=6.5,SNR=131
CMAR LR LR 05 46 31.7
comp=Z,658nm,21.1s,baz=35,slow=37
comp=Z,44nm,0.8s
CMAR Chiang Mai Arr 77.16 283 P **P** 05 10 59.6 +0.2
BMRD Maredsous 77.17 5 *d*P **P** 05 10 58.9 0.0
comp=Z,13nm,0.9s
SANI Sanana 77.18 249 P **P** 05 11 00.8 +1.3
SANI Sanana 77.18 249 P **P** 05 10 59.3 -0.2
comp=Z,49nm,0.9s
OJC Ojcow 77.19 355 *e*P **P** 05 11 00.8 +1.7
OJC Ojcow 77.19 355 P **P** 05 10 58.4 -0.6
comp=Z,15nm,1.0s
OJC Ojcow 77.19 355 P **P** 05 10 59.5 +0.5
DPC Dobruska-Polom 77.21 357 *e*P **P** 05 10 59.8 +0.6
DPC pmax pmax
comp=Z,7.0nm,0.6s
DPC MLR MLR
comp=Z,600nm,17.2s
DPC Dobruska-Polom 77.21 357 *e*P **P** 05 10 59.8 +0.6
comp=Z,6.6nm,0.6s
DPC AMS AMS 05 51 30.0
comp=Z,600nm,17.2s
DPC Dobruska-Polom 77.21 357 P **P** 05 10 58.6 -0.6
comp=Z,20nm,1.0s
DPC Dobruska-Polom 77.21 357 P **P** 05 10 59.8 +0.6
TANN Tannenbergstha 77.22 359 P **P** 05 10 59.9 +0.6
comp=Z,14nm,1.9s
RCHB Rochefort 77.33 4 *d*P **P** 05 10 59.7 -0.1

comp=Z,9.3nm,0.9s
RCHB Rochefort 77.33 4 P **P** **05 11 00.1 +0.3**
comp=Z,16nm,0.9s
DOU Dourbes 77.36 5 *d*P **P** **05 11 00.0 0.0**
comp=Z,7.5nm,0.9s
DOU *d*pP **pP** **05 11 11.1 -1.2**
DOU *d*PP **PP** **05 13 51.4 -2.4**
TNS Taunus Mts 77.38 2 P **P** **05 11 00.1 -0.1**
comp=Z,12nm,1.0s
NKC Novy Kostel 77.40 360 *e*P **P** **05 11 00.6 +0.3**
NKC MLR MLR
comp=Z,800nm,16.0s
NKC Novy Kostel 77.40 360 *e*P **P** **05 11 00.6 +0.3**
NKC AMS AMS 05 51 40.0
comp=Z,800nm,16.0s
NKC Novy Kostel 77.40 360 P **P** **05 11 00.0 -0.2**
comp=Z,17nm,1.1s
KRLC Kraliky 77.47 357 *e*P **P** **05 11 01.0 +0.3**
KRLC MLR MLR
comp=Z,600nm,16.7s
KRLC Kraliky 77.47 357 *e*P **P** **05 11 01.0 +0.3**
KRLC AMS AMS 05 52 40.0
comp=Z,600nm,16.7s
KRLC Kraliky 77.47 357 P **P** **05 11 00.8 +0.2**
comp=Z,20nm,1.0s
TBI Tubuai 77.53 162 *e*S **S** **05 20 47.2 -1.7**
comp=Z,6µm,30.8s
TBI *e*LR LR 05 35 00.3
comp=Z,6µm,25.0s
TBI *e*LR LR 05 35 01.5
comp=Z,2µm,32.8s
STEB Steborice 77.57 356 *e*P **P** **05 11 01.5 +0.3**
KWP Kalwaria Pacla 77.58 353 P **P** **05 11 00.9 -0.3**
comp=Z,73nm,1.1s
OKC Ostrava-Krasne 77.65 356 *e*P **P** **05 11 02.4 +0.7**
OKC MLR MLR
comp=Z,600nm,18.3s
OKC Ostrava-Krasne 77.65 356 *e*P **P** **05 11 02.4 +0.7**
OKC AMS AMS 05 47 00.0
comp=Z,600nm,18.3s
OKC Ostrava-Krasne 77.65 356 P **P** **05 11 02.3 +0.7**
MORC Moravsky Berou 77.74 356 ⇓P **P** **05 11 02.2 0.0**
MORC Moravsky Berou 77.74 356 IAmb IAmb 05 11 04.8
comp=Z,16nm,1.2s
MORC Moravsky Berou 77.74 356 *e*P **P** **05 11 01.9 -0.3**
MORC Moravsky Berou 77.74 356 ⇓P **P** **05 11 02.2 0.0**
MORC Moravsky Berou 77.74 356 P **P** **05 11 02.4 +0.2**
comp=Z,11nm,1.0s
NPW Naypyitaw 77.78 286 P **P** **05 11 03.5 +0.7**
comp=Z,190nm,0.9s
WLF Walferdange 77.86 4 *d*P **P** **05 11 03.7 +0.9**
comp=Z,8.0nm,0.9s
WLF *d*PP **PP** **05 13 57.6 -0.4**
JTS Las Juntas de 77.87 89 LR LR 05 43 10.7
comp=Z,251nm,20.3s,baz=316,slow=34
GRA3 Grafenberg Arr 77.87 0 P **P** **05 11 03.2 +0.3**
comp=Z,13nm,1.1s
GRA1 Grafenberg Arr 77.94 0 P **P** **05 11 03.2 0.0**
GRA1 IAmb IAmb 05 11 06.7
comp=Z,15nm,0.8s
GRA1 Grafenberg Arr 77.94 0 P **P** **05 11 03.7 +0.4**
comp=Z,21nm,1.0s
GRF Grafenberg Arr 77.94 0 P **P** **05 11 03.3 0.0**
GRF pmax pmax
comp=Z,15nm,0.8s
GRF Grafenberg Arr 77.94 0 *e*P **P** **05 11 03.5 +0.2**
comp=Z,17nm,0.9s,baz=356,slow=4.9
GRFO Grafenberg 77.94 0 P **P** **05 11 05.6 +2.3**
GRFO Grafenberg 77.94 0 P **P** **05 11 05.6 +2.3**
GRA2 Grafenberg Arr 77.98 0 P **P** **05 11 05.0 +1.5**
KLP Kalpa 78.07 307 *i*P **P** **05 11 03.2 -1.5**
KLP IAmb IAmb 05 11 08.4
comp=Z,27nm,0.6s
BRDH Bariadhala 78.09 292 LR LR 05 49 27.9
comp=Z,1µm,18.5s,baz=27,slow=39
MAUC Maruska 78.14 356 *e*P **P** **05 11 05.0 +0.6**
GRB4 Grafenberg Arr 78.17 0 P **P** **05 11 04.7 +0.1**
comp=Z,33nm,1.0s
ZVC Zvikov 78.17 358 *e*P **P** **05 11 04.8 +0.2**
ZVC AMS AMS 05 52 50.0
comp=Z,600nm,17.8s
LUWI Luwuk 78.21 252 P **P** **05 11 03.9 -1.3**
LUWI Luwuk 78.21 252 P **P** **05 11 06.7 +1.5**
LUWI Luwuk 78.21 252 P **P** **05 11 04.8 -0.4**
comp=Z,120nm,0.8s
JOSI Joshimath 78.23 305 *i*P **P** **05 11 03.2 -2.3**
JOSI IAmb IAmb 05 11 17.2
comp=Z,69nm,1.3s
VRAC Vranov 78.24 357 LR LR 05 46 47.9
comp=Z,226nm,20.5s,baz=10,slow=37
VRAC Vranov 78.24 357 ⇓P **P** **05 11 05.4 +0.5**
VRAC Vranov 78.24 357 *e*P **P** **05 11 04.9 -0.1**
VRAC Vranov 78.24 357 ⇓P **P** **05 11 05.4 +0.5**
VRAC Vranov 78.24 357 P **P** **05 11 05.5 +0.5**
comp=Z,6.6nm,1.0s
GRB1 Grafenberg Arr 78.24 0 P **P** **05 11 05.6 +0.6**
LANS Liptovska Anna 78.27 355 *e*P **P** **05 11 06.3 +1.2**
LANS pmax pmax
comp=Z,12nm,0.7s
LANS Liptovska Anna 78.27 355 *e*P **P** **05 11 06.3 +1.2**
TREC Trest 78.29 357 P **P** **05 11 04.8 -0.5**
comp=Z,13nm,1.0s
GRB3 Grafenberg Arr 78.29 360 P **P** **05 11 05.8 +0.5**
KMPD K-Podol'skiy 78.29 350 P **P** **05 11 04.0 -1.2**
KOLS Kolonicke sedl 78.31 353 *e*P **P** **05 11 06.2 +0.9**
KOLS pmax pmax
comp=Z,13nm,0.8s
KOLS Kolonicke sedl 78.31 353 *e*P **P** **05 11 06.2 +0.9**
KOLS Kolonicke sedl 78.31 353 P **P** **05 11 05.9 +0.6**
comp=Z,13nm,0.9s
GRB2 Grafenberg Arr 78.36 0 P **P** **05 11 05.5 -0.1**
comp=Z,27nm,0.9s
WET Wettzell 78.49 359 P **P** **05 11 06.4 +0.1**
comp=Z,6.5nm,1.1s
KHC Kasperske Hory 78.49 359 *ce*P **P** **05 11 07.5 +1.1**
KHC pmax pmax
comp=Z,15nm,1.3s
KHC Kasperske Hory 78.49 359 IAmb IAmb 05 11 09.8
comp=Z,8.9nm,0.9s
KHC IAMs_20 IAMs_20 05 48 38.7
comp=Z,779nm,21.0s
KHC Kasperske Hory 78.49 359 *e*P **P** **05 11 05.7 -0.7**
comp=Z,3.8nm,0.6s
KHC AMS AMS 05 49 20.0
comp=Z,900nm,26.3s
KHC Kasperske Hory 78.49 359 P **P** **05 11 05.6 -0.8**
comp=Z,14nm,1.3s
KHC Kasperske Hory 78.49 359 P **P** **05 11 06.8 +0.4**
KRUC Moravsky 78.50 357 *e*P **P** **05 11 06.3 0.0**
KRUC Moravsky 78.50 357 P **P** **05 11 06.3 0.0**
comp=Z,12nm,1.4s
SORM Soroca 78.50 349 ⇑P **P** **05 11 05.3 -1.1**
SORM Soroca 78.50 349 ⇑P **P** **05 11 05.3 -1.1**
SORM Soroca 78.50 349 P **P** **05 11 05.6 -0.8**
comp=Z,21nm,1.0s
GRB5 Grafenberg Arr 78.53 0 P **P** **05 11 06.3 -0.2**
comp=Z,20nm,0.9s
GRC4 Grafenberg Arr 78.55 0 P **P** **05 11 07.9 +1.3**
GRC1 Grafenberg Arr 78.64 0 P **P** **05 11 07.8 +0.6**
JAVC Velka Javorina 78.65 356 *e*P **P** **05 11 08.2 +0.9**
JAVC Velka Javorina 78.65 356 P **P** **05 11 08.9 +1.6**
comp=Z,27nm,1.0s
NIL Nilore 78.68 312 P **P** **05 11 07.4 -0.3**
NIL pmax pmax
comp=Z,18nm,0.9s
NIL Nilore 78.68 312 P **P** **05 11 07.4 -0.3**
NIL IAmb IAmb 05 11 40.7
comp=Z,18nm,0.9s
NIL Nilore 78.68 312 P **P** **05 11 08.1 +0.5**
comp=Z,18nm,0.7s
PTH Pithoragarh 78.70 304 *i*P **P** **05 11 05.3 -2.7**
PTH IAmb IAmb 05 11 15.6
comp=Z,15nm,0.9s
GRC3 Grafenberg Arr 78.75 0 P **P** **05 11 07.2 -0.5**
GEC2 GERESS Array S 78.78 359 P **P** **05 11 07.8 -0.2**
comp=Z,10.0nm,1.9s
GERES GERESS Array B 78.78 359 P **P** **05 11 07.9 -0.1**
comp=Z,3.9nm,0.7s,baz=6.8,slow=3.4,SNR=21
comp=Z,3.9nm,0.7s
GERES GERESS Array B 78.78 359 P **P** **05 11 07.3 -0.7**
CKRC Cesky Krumlov 78.79 358 *e*P **P** **05 11 08.2 +0.2**
CKRC *e* 05 11 19.0
CKRC MLR MLR
comp=Z,800nm,17.9s
CKRC Cesky Krumlov 78.79 358 *e*P **P** **05 11 08.2 +0.2**
CKRC *ex* x 05 11 19.0

CKRC AMS AMS 05 51 40.0
comp=Z,800nm,17.9s
ERBR Yeremizino-Bor 78.86 340 *e*P **P** **05 11 08.7 +0.3**
ERBR *e*S **S** **05 21 03.1 0.0**
ERBR pmax pmax
comp=Z,57nm,0.9s
LGTI Lohaghat 78.91 304 *i*P **P** **05 11 06.9 -2.2**
ABNA Allensteig Bun 78.92 357 *e*P **P** **05 11 09.0 +0.3**
comp=Z,9.7nm,0.8s
VYHS Vyhne 78.96 355 *e*P **P** **05 11 09.4 +0.5**
VYHS pmax pmax
comp=Z,22nm,1.1s
VYHS Vyhne 78.96 355 *e*P **P** **05 11 09.4 +0.5**
VYHS Vyhne 78.96 355 P **P** **05 11 09.9 +1.0**
comp=Z,8.4nm,1.0s
SMOL Smolenice 79.00 356 *e*P **P** **05 11 10.0 +0.9**
SMOL pmax pmax
comp=Z,6.0nm,0.9s
ABAH Abaujker 79.01 354 P **P** **05 11 11.2 +2.0**
comp=Z,21nm,1.0s
TRPA Tarpa 79.08 353 P **P** **05 11 09.8 +0.3**
comp=Z,28nm,1.0s
MODS Modra-Piesok 79.15 356 *e*P **P** **05 11 11.0 +1.0**
MODS pmax pmax
comp=Z,46nm,1.2s
MODS Modra-Piesok 79.15 356 *e*P **P** **05 11 11.0 +1.0**
MODS Modra-Piesok 79.15 356 P **P** **05 11 10.6 +0.6**
comp=Z,42nm,1.0s
SDDR Presa de Saban 79.26 73 IAMs_20 IAMs_20 05 44 18.1
comp=Z,864nm,22.0s
BFO Black Forest 79.27 2 P **P** **05 11 10.8 +0.2**
BFO pmax pmax
comp=Z,33nm,1.7s
BFO Black Forest 79.27 2 P **P** **05 11 10.8 +0.2**
BFO IAmb IAmb 05 11 36.9
comp=Z,33nm,1.7s
BUR08 Bucovina Ar. S 79.33 351 IAmb IAmb 05 11 13.6
comp=Z,12nm,0.9s
ECH Echery 79.35 3 IAmb IAmb 05 11 14.0
comp=Z,10nm,0.8s
ECH Echery 79.35 3 P **P** **05 11 11.5 +0.4**
comp=Z,15nm,0.9s
ECH Echery 79.35 3 P **P** **05 11 11.0 0.0**
ECH pP **pP** **05 11 22.1 -1.4**
ECH sP **sP** **05 11 26.9 -1.2**
BURAR Bucovina Array 79.36 351 ⇓P **P** **05 11 11.7 +0.5**
BURAR Bucovina Array 79.36 351 P **P** **05 11 10.3 -0.9**
BURAR IAmb IAmb 05 11 14.0
comp=Z,12nm,0.8s
BURAR Bucovina Array 79.36 351 ⇓P **P** **05 11 11.7 +0.5**
WINA Alland / Wiene 79.46 357 *e*P **P** **05 11 12.1 +0.4**
comp=Z,16nm,1.0s
PSZ Piszkesteto 79.47 354 ⇓P **P** **05 11 12.3 +0.5**
PSZ Piszkesteto 79.47 354 IAmb IAmb 05 11 15.5
comp=Z,21nm,1.1s
PSZ IAMs_20 IAMs_20 05 48 56.7
comp=Z,908nm,22.0s
PSZ Piszkesteto 79.47 354 ⇓P **P** **05 11 12.3 +0.5**
PSZ Piszkesteto 79.47 354 P **P** **05 11 12.2 +0.3**
comp=Z,21nm,1.1s
CONA Conrad Observa 79.65 357 *i*P **P** **05 11 13.2 +0.5**
comp=Z,16nm,0.8s
MOA Molln 79.76 358 *i*P **P** **05 11 13.3 0.0**
comp=Z,9.9nm,1.3s
MOA Molln 79.76 358 P **P** **05 11 13.4 0.0**
comp=Z,14nm,1.0s
KBL Kabul 79.78 315 P **P** **05 11 11.9 -2.0**
KBL pmax pmax
comp=Z,13nm,1.0s
KBL Kabul 79.78 315 P **P** **05 11 11.9 -2.0**
KBL IAmb IAmb 05 11 15.2
comp=Z,13nm,1.0s
KBL Kabul 79.78 315 P **P** **05 11 12.3 -1.6**
comp=Z,16nm,0.9s
MAK Makhachkala 79.80 334 *e*P **P** **05 11 12.4 -1.1**
MAK *e* 05 14 20.6
MAK *e*PPP PPP 05 16 04.8
MAK *e*S **S** **05 21 09.8 -3.2**
MAK *e*SS **SS** **05 26 25.1 +4.0**
MAK *e*SSS SSS 05 29 47.0
MAK pmax pmax
comp=Z,419nm,1.2s
LABN Labinsk 79.84 339 *e*P **P** **05 11 14.1 +0.4**
LABN *e*S **S** **05 21 12.9 -0.6**
LABN pmax pmax
comp=Z,39nm,0.9s
SLE Schleitheim 79.84 2 P **P** **05 11 13.1 -0.6**
comp=Z,9.1nm,1.0s
RONA Rosalia, Austr 79.86 357 *i*P **P** **05 11 14.6 +0.7**
comp=Z,5.3nm,0.8s
SOP Sopron 79.87 357 P **P** **05 11 15.0 +1.2**
comp=Z,11nm,1.1s
RJOB Jochberg 79.90 359 P **P** **05 11 14.1 +0.1**
comp=Z,10nm,0.8s
BIOA Bad Ischl, Aus 79.93 359 *i*P **P** **05 11 15.2 +0.9**
comp=Z,12nm,1.0s
BIZ Bicaz 79.94 350 ⇑P **P** **05 11 14.0 -0.2**
UBR Ueberruh 79.95 1 P **P** **05 11 14.6 +0.2**
comp=Z,12nm,1.0s
ARCR ARCALIA 79.97 351 ⇓P **P** **05 11 15.0 +0.7**
KVAR Kislovodsk Arr 80.05 338 LR LR 05 50 47.5
comp=Z,804nm,21.2s,baz=266,slow=39
KIV Kislovodsk 80.05 338 P **P** **05 11 14.5 -0.6**
KIV IAMs_20 IAMs_20 05 50 30.3
comp=Z,938nm,21.0s
KIV Kislovodsk 80.05 338 P **P** **05 11 15.9 +0.8**
comp=Z,31nm,0.9s
LOR Lormes 80.14 5 P **P** **05 11 15.9 +0.5**
comp=Z,9.1nm,0.9s
RETA Reutte 80.15 1 *i*P **P** **05 11 15.9 +0.4**
comp=Z,7.5nm,0.8s
BOURR Bourrignon 80.17 3 P **P** **05 11 15.6 0.0**
comp=Z,20nm,0.9s
LESA Schwarzleotal 80.21 359 *i*P **P** **05 11 16.1 +0.3**
comp=Z,6.2nm,0.9s
KBZ Khabaz 80.22 338 P **P** **05 11 16.8 +1.1**
comp=Z,16nm,0.9s,baz=341,slow=1.3,SNR=17
KBZ LR LR 05 50 58.1
comp=Z,936nm,20.7s,baz=1.0,slow=39
comp=Z,16nm,0.9s
NCK Nalchik 80.28 337 *i*P **P** **05 11 17.3 +1.1**
NCK pmax pmax
comp=Z,53nm,0.9s
MOTA Mosalm 80.29 0 *i*P **P** **05 11 16.3 0.0**
comp=Z,20nm,0.9s
WATA Walderalm 80.30 0 *i*P **P** **05 11 16.3 -0.1**
comp=Z,18nm,1.0s
ARSA Arzberg 80.33 357 IAmb IAmb 05 11 19.6
comp=Z,17nm,1.3s
ARSA Arzberg 80.33 357 *e*P **P** **05 11 17.1 +0.7**
comp=Z,7.3nm,0.6s
ARSA Arzberg 80.33 357 P **P** **05 11 17.7 +1.3**
comp=Z,16nm,1.0s
DAVA Damuels 80.34 1 *e*P **P** **05 11 16.5 -0.1**
comp=Z,6.2nm,0.8s
MPLH Magyarpolny 80.34 356 P **P** **05 11 15.9 -0.5**
comp=Z,67nm,1.1s
MPLH Magyarpolny 80.34 356 P **P** **05 11 17.4 +1.0**
comp=Z,26nm,1.1s
ANN Anapa 80.35 342 *e*P **P** **05 11 13.2 -3.3**
ANN pmax pmax
comp=Z,24nm,0.9s
ANN MLR MLR
comp=E,917nm,20.0s
WTTA Wattenberg 80.37 0 *e*P **P** **05 11 17.4 +0.5**
comp=E,15nm,0.7s
WTTA Wattenberg 80.37 0 P **P** **05 11 17.5 +0.7**
comp=Z,23nm,0.9s
BOK Bokaro 80.40 297 *i*P **P** **05 11 12.9 -4.2**
BOK IAmb IAmb 05 11 20.4
comp=Z,47nm,0.9s
DRGR 80.40 352 ⇓P **P** **05 11 17.4 +0.6**
DRGR 80.40 352 ⇓P **P** **05 11 17.4 +0.6**
DRGR 80.40 352 P **P** **05 11 16.5 -0.3**
comp=Z,9.0nm,1.0s
SQTA Sankt Quirin 80.42 0 *e*P **P** **05 11 17.6 +0.6**
comp=Z,22nm,0.9s,SNR=13
MARR Marisel-Cluj 80.48 352 ⇑P **P** **05 11 17.4 +0.1**
SESA Seetaler Alpe, 80.49 358 *e*P **P** **05 11 18.3 +0.8**
comp=Z,11nm,0.7s,SNR=4.2
ONER Baraj Valea Uz 80.50 350 ⇓P **P** **05 11 17.7 +0.4**
MFF Saint Martin d 80.52 8 P **P** **05 11 18.0 +0.6**
comp=Z,7.7nm,1.1s
KBA Koelnbreinsper 80.55 359 *i*P **P** **05 11 18.5 +0.8**
comp=Z,40nm,0.9s
KBA Koelnbreinsper 80.55 359 P **P** **05 11 18.8 +1.1**

comp=Z,58nm,1.0s
FETA Feichten 80.61 1 *e*P **P** **05 11 18.6 +0.5**
comp=Z,31nm,0.9s,SNR=27
GHRR 80.66 349 P **P** **05 11 17.5 -0.6**
BNALP Bannalp 80.73 2 P **P** **05 11 19.3 +0.6**
comp=Z,30nm,0.9s
VAR Varanasi 80.76 300 *i*P **P** **05 11 16.0 -3.0**
SIM Simferopol' 80.80 344 *e*P **P** **05 11 17.0 -1.9**
SIM *e* 05 11 25.0
SIM *e*S S 05 21 14.0 -10
SIM pmax pmax
comp=Z,13nm,0.8s
SIM MLR MLR
comp=Z,2µm,22.8s
ABTA Abfaltersbach 80.89 359 *i*P **P** **05 11 19.6 +0.1**
comp=Z,18nm,0.9s
SOKA Soboth 80.92 358 *e*P **P** **05 11 20.2 +0.6**
comp=Z,18nm,1.0s,SNR=11
RKT Rikitea 80.93 149 *e*LR LR 05 36 30.1
comp=Z,10µm,23.2s
VRI Vrincioaia 80.93 349 ⇓P **P** **05 11 21.0 +1.3**
PLOR Plostina 80.95 349 ⇑P **P** **05 11 19.4 -0.3**
PLOR Plostina 80.95 349 ⇑P **P** **05 11 19.4 -0.3**
DOPR Dopca 80.97 350 ⇓P **P** **05 11 20.4 +0.6**
MYKA Terra Mystica 80.99 359 *e*P **P** **05 11 21.0 +1.0**
comp=Z,13nm,1.5s
SIRR Siria 81.00 353 ⇓P **P** **05 11 21.0 +1.0**
FUORN Ofenpass-Fuorn 81.01 1 IAmb IAmb 05 11 24.0
comp=Z,13nm,0.9s
FUORN Ofenpass-Fuorn 81.01 1 P **P** **05 11 20.9 +0.5**
comp=Z,17nm,0.9s
SOC Sochi 81.06 340 *e*P **P** **05 11 20.2 -0.1**
SOC *e* 05 14 23.8
SOC *e*PPP PPP 05 16 17.9
SOC *e*S **S** **05 21 22.8 -3.5**
SOC *e*SS **SS** **05 26 37.9 -2.1**
SOC *e*SSS SSS 05 29 59.4
SOC pmax pmax
comp=Z,25nm,0.9s
SOC MLR MLR
comp=Z,2µm,26.0s
SAHR Sahastru 81.07 349 ⇓P **P** **05 11 21.0 +0.5**
OBKA Obir 81.10 358 *e*P **P** **05 11 20.8 +0.2**
comp=Z,11nm,0.8s
TUE Stuetta 81.14 2 P **P** **05 11 21.2 +0.2**
TUE Stuetta 81.14 2 P **P** **05 11 21.7 +0.7**
comp=Z,8.7nm,0.7s
PRED Cave del Predi 81.18 359 IAmb IAmb 05 11 23.7
comp=Z,10nm,0.9s
PRED Cave del Predi 81.18 359 P **P** **05 11 21.4 +0.3**
comp=Z,13nm,1.0s
TLCR 81.35 348 ⇑P **P** **05 11 21.5 -0.3**
ALBI Allahabad 81.35 301 *i*P **P** **05 11 18.3 -3.8**
ALBI IAmb IAmb 05 11 24.3
comp=Z,55nm,0.7s
MLR Muntele Rosu 81.39 350 LR LR 05 51 52.1
comp=Z,505nm,20.9s,baz=0.0,slow=39
MLR Muntele Rosu 81.39 350 ⇑P **P** **05 11 24.1 +1.9**
MLR Muntele Rosu 81.39 350 ⇑P **P** **05 11 24.1 +1.9**
TNR Turnu Rosu 81.39 351 ⇑P **P** **05 11 21.5 -0.6**
TNR Turnu Rosu 81.39 351 ⇑P **P** **05 11 21.5 -0.6**
KKSI Kolaka, Sulawe 81.39 251 P **P** **05 11 23.9 +1.5**
comp=Z,34nm,0.5s
CFR Carcaliu 81.44 348 ⇑P **P** **05 11 21.6 -0.7**
CFR Carcaliu 81.44 348 ⇑P **P** **05 11 21.6 -0.7**
SURR Surduc 81.48 353 ⇑P **P** **05 11 23.2 +0.7**
VOIR 81.53 351 ⇓P **P** **05 11 22.8 -0.1**
VOIR 81.53 351 ⇓P **P** **05 11 22.8 -0.1**
VOIR 81.53 351 P **P** **05 11 24.4 +1.5**
TTSI Tana Toraja 81.55 254 P **P** **05 11 25.9 +2.7**
MTSU Mount Surprise 81.61 225 P **P** **05 11 26.2 +2.8**
comp=Z,8.9nm,1.2s,comp=Z,0.0nm,0.1s
MTSU Mount Surprise 81.61 225 P **P** **05 11 25.3 +1.9**
comp=Z,8.9nm,1.2s
ARR Arges 81.64 351 ⇓P **P** **05 11 23.8 +0.3**
ARR Arges 81.64 351 P **P** **05 11 25.1 +1.6**
comp=Z,6.8nm,0.9s
BZS Buzias 81.65 353 P **P** **05 11 23.5 +0.1**
comp=Z,12nm,1.1s
KUDL Kundal 81.73 306 *i*P **P** **05 11 21.6 -2.5**
CGRP Cima Grappa 81.76 360 P **P** **05 11 24.7 +0.5**
comp=Z,17nm,0.7s
MMSI Mamuju 81.79 255 P **P** **05 11 24.5 -0.1**
comp=Z,973nm,0.8s
SALO Salr 82.02 1 IAmb IAmb 05 11 56.1
comp=Z,18nm,0.8s
TIRR Tirgusor 82.12 348 ⇑P **P** **05 11 25.9 0.0**
TIRR Tirgusor 82.12 348 ⇑P **P** **05 11 25.9 0.0**
SSB Saint Sauveur 82.17 5 IAmb IAmb 05 11 29.6
comp=Z,12nm,0.9s
SSB Saint Sauveur 82.17 5 P **P** **05 11 27.0 +0.8**
comp=Z,16nm,1.1s
EPOS Posof 82.37 337 P **P** **05 11 28.7 +1.3**
BNI Bardonecchia 82.49 4 P **P** **05 11 30.1 +2.1**
comp=Z,37nm,1.0s
KDU Kakadu 82.51 238 P **P** **05 11 28.7 +0.6**
comp=Z,14nm,1.3s,comp=Z,0.0nm,0.1s
CTA Charters Tower 82.53 222 LR LR 05 43 03.9
comp=Z,366nm,21.1s,baz=30,slow=32
CTAO Charters Tower 82.53 222 P **P** **05 11 28.3 +0.1**
CTAO pmax pmax
comp=Z,238nm,1.6s
CTAO Charters Tower 82.53 222 P **P** **05 11 28.3 +0.1**
CTAO Charters Tower 82.53 222 P **P** **05 11 29.0 +0.8**
comp=Z,20nm,1.0s
CTAO Charters Tower 82.53 222 P **P** **05 11 28.1 -0.1**
CTAO pP **pP** **05 11 39.0 -0.9**
ORIF Oris-en-Rattie 82.59 4 P **P** **05 11 29.5 +1.0**
comp=Z,14nm,0.9s
BLY Banja Luka 82.78 356 IAMs_20 IAMs_20 05 54 45.0
comp=Z,624nm,20.0s
JHNI Jhansi 82.88 303 *i*P **P** **05 11 26.6 -3.5**
JHNI IAmb IAmb 05 11 31.9
comp=Z,41nm,0.6s
SJG San Juan 82.91 70 LR LR 05 48 14.5
comp=Z,633nm,20.9s,baz=310,slow=36
SJG San Juan 82.91 70 IAMs_20 IAMs_20 05 47 51.6
comp=Z,715nm,20.0s
GNI Garni 83.15 335 LR LR 05 56 56.2
comp=Z,743nm,18.0s,baz=15,slow=42
GNI Garni 83.15 335 IAMs_20 IAMs_20 05 53 32.4
comp=Z,849nm,21.0s
KAPI Kappang 83.17 253 LR LR 05 45 41.3
comp=Z,171nm,20.7s,baz=32,slow=34
DIGO Kars 83.24 336 P **P** **05 11 33.1 +1.0**
BWNR Bhubaneshwar 83.28 295 *i*P P 05 11 26.8 -5.5
BWNR IAmb IAmb 05 11 35.5
comp=Z,81nm,1.0s
MTN Manton Dam 83.33 239 P **P** **05 11 33.6 +1.1**
comp=Z,19nm,0.9s,comp=Z,0.0nm,0.1s
MTN Manton Dam 83.33 239 IAmb IAmb 05 11 35.5
comp=Z,13nm,0.8s
PLVB Pleven 83.60 351 ⇓P **P** **05 11 34.0 +0.4**
MTLF Montolieu 83.95 7 P **P** **05 11 37.0 +1.6**
comp=Z,23nm,1.2s
KELT Kelkit 84.45 339 P **P** **05 11 39.4 +1.2**
SMRT St. Maarten 84.69 67 IAMs_20 IAMs_20 05 48 57.8
comp=Z,818nm,20.0s
OZAP Van, Ozalp-Mer 84.74 335 ⇑P **P** **05 11 41.0 +1.3**
PDG Podgorica 84.98 354 IAMs_20 IAMs_20 05 51 37.4
comp=Z,668nm,22.0s
EDFI Ende, Flores 85.09 249 P **P** **05 11 40.8 -0.8**
comp=Z,34nm,0.9s
BATI Baumata 85.17 246 LR LR 05 45 01.8
comp=Z,252nm,19.6s,baz=47,slow=32
BHPL Bhopal 85.31 303 *i*P **P** **05 11 38.9 -3.8**
BHPL IAmb IAmb 05 11 44.9
comp=Z,38nm,0.7s
RAGD RAYAGADA 85.39 296 *i*P P 05 11 37.7 -5.2
KEMA Kemaliye 85.46 339 P **P** **05 11 44.6 +1.4**
YLV Yalova 85.81 347 P **P** **05 11 44.6 -0.3**
comp=Z,28nm,1.1s
QIS Mount Isa 85.82 228 P **P** **05 11 45.5 +0.6**
comp=Z,5.4nm,1.1s,comp=Z,0.0nm,0.7s
QIS Mount Isa 85.82 228 P **P** **05 11 45.5 +0.6**
comp=Z,5.4nm,1.1s
HAKT HAKKARI 85.86 335 P **P** **05 11 45.9 +0.5**
BR106 Keskin Array S 85.95 343 P **P** **05 11 45.3 -0.4**
comp=Z,104nmcomp=Z,15nm,1.0s
BR131 Keskin Array S 85.96 343 *i*P **P** **05 11 45.9 +0.2**
BRTR Keskin Array B 85.96 343 P **P** **05 11 45.5 -0.2**
comp=Z,12nm,0.8s,baz=32,slow=2.2,SNR=42
BRTR LR LR 05 57 20.2
comp=Z,302nm,18.6s,baz=9.5,slow=41
comp=Z,12nm,0.8s
BRTR Keskin Array B 85.96 343 P **P** **05 11 45.1 -0.6**

BR105	**Keskin Array S**	**85.97 343**	P		**P**	**05 11 45.4**	**-0.4**
	comp=Z,124nmcomp=Z,18nm,0.9s						
KNT	**Kendrikon**	**85.97 352**	P		**P**	**05 11 45.9**	**+0.3**
BR104	**Keskin Array S**	**85.98 343**	P		**P**	**05 11 45.4**	**-0.4**
	comp=Z,133nmcomp=Z,21nm,0.9s						
NGP	**Nagpur**	**86.18 300**	*i* P		P	05 11 41.9	-5.0
GRG	**Griva**	**86.22 352**	P		**P**	**05 11 46.9**	**+0.1**
BNN	**Bunyan**	**86.40 341**	IAmb		IAmb	05 11 51.1	
	comp=Z,14nm,1.0s						
KULM	**Kulim**	**86.46 274**	P		**P**	**05 11 50.0**	**+1.7**
KULM	**Kulim**	**86.46 274**	IAMs_20		IAMs_20	05 47 15.9	
	comp=Z,660nm,22.0s						
KULM	**Kulim**	**86.46 274**	P		**P**	**05 11 51.1**	**+2.8**
	comp=Z,32nm,1.0s						
KULM	**Kulim**	**86.46 274**	P		**P**	**05 11 49.5**	**+1.2**
	comp=Z,32nm,1.0s						
KIRS	**Kirsehir-Merke**	**86.49 343**	⇑P		**P**	**05 11 49.8**	**+1.6**
KKUL	**Konya-Kulu**	**86.62 344**	P		**P**	**05 11 50.5**	**+1.5**
IPM	**Ipoh**	**86.87 273**	P		**P**	**05 11 52.6**	**+2.2**
	comp=Z,511nmcomp=Z,28nm,0.8s						
IPM	**Ipoh**	**86.87 273**	P		**P**	**05 11 50.8**	**+0.4**
	comp=Z,28nm,0.8s						
KNRA	**Kununurra**	**86.94 239**	P		**P**	**05 11 51.9**	**+1.4**
	comp=Z,6.8nm,1.1s,comp=Z,0.0nm,4.8s						
ESDC	**Sonseca Array**	**86.96 12**	P		**P**	**05 11 50.6**	**+0.1**
	comp=Z,5.3nm,0.6s,baz=343,slow=4.6,SNR=34						
ESDC			LR		LR	05 53 35.4	
	comp=Z,393nm,18.6s,baz=7.0,slow=38						
	comp=Z,5.3nm,0.6s						
ESDC	**Sonseca Array**	**86.96 12**	P		**P**	**05 11 49.5**	**-1.0**
CUC	**Castrocucco**	**87.57 357**	IAMs_20		IAMs_20	05 54 15.9	
	comp=Z,593nm,22.0s						
SDV	**Santo Domingo**	**87.62 79**	LR		LR	05 52 02.2	
	comp=Z,425nm,20.5s,baz=320,slow=36						
WR8	**Warramunga Arr**	**87.68 232**	IAmb		IAmb	05 11 56.1	
	comp=Z,12nm,0.8s						
WRAB	**Tennant Creek**	**87.73 232**	P		**P**	**05 11 54.9**	**+0.7**
WRAB	**Tennant Creek**	**87.73 232**	*ce*P		**P**	**05 11 54.7**	**+0.5**
WRAB			pmax		pmax		
	comp=Z,24nm,1.3s						
WRAB	**Tennant Creek**	**87.73 232**	P		**P**	**05 11 52.9**	**-1.3**
WRAB			IAmb		IAmb	05 11 56.5	
	comp=Z,14nm,0.9s						
WRAB	**Tennant Creek**	**87.73 232**	P		**P**	**05 11 54.3**	**0.0**
WRA	**Warramunga Arr**	**87.74 232**	P		**P**	**05 11 54.4**	**+0.1**
	comp=Z,9.2nm,0.8s,baz=37,slow=5.9,SNR=42						
	comp=Z,9.2nm,0.8s						
WRA	**Warramunga Arr**	**87.74 232**	P		**P**	**05 11 53.5**	**-0.8**
ISP	**Isparta**	**88.33 345**	*ce*P		**P**	**05 11 58.7**	**+1.5**
ISP			pmax		pmax		
	comp=Z,8.0nm,0.6s						
ROSC	**El Rosal**	**88.60 84**	LR		LR	05 51 24.3	
	comp=Z,305nm,21.9s,baz=349,slow=35						
PSI	**Prapat**	**89.47 274**	LR		LR	05 52 12.8	
	comp=Z,321nm,21.2s,baz=29,slow=36						
PSI	**Prapat**	**89.47 274**	P		**P**	**05 12 04.4**	**+1.6**
PSI	**Prapat**	**89.47 274**	P		**P**	**05 12 06.4**	**+3.6**
	comp=Z,29nm,0.8s						
HYB	**Hyderabad**	**89.54 299**	*e*P		**P**	**05 12 03.9**	**+0.8**
HYB			*e*PcP		**PcP**	**05 12 05.0**	**+0.7**
HYB			*e*PP		**PP**	**05 15 34.9**	**+0.6**
HYB			*e*S		**S**	**05 22 51.9**	**+1.2**
HYB	**Hyderabad**	**89.54 299**	*i* P		P	05 11 57.2	-5.9
RPSI	**Rantau Prapat**	**89.56 274**	P		**P**	**05 12 04.1**	**+1.0**
	comp=Z,29nm,0.8s						
FITZ	**Fitzroy Crossi**	**90.59 240**	P		**P**	**05 12 09.0**	**+1.3**
	comp=Z,5.6nm,1.6s						
FITZ	**Fitzroy Crossi**	**90.59 240**	LR		LR	05 48 55.6	
	comp=Z,490nm,21.7s,baz=47,slow=33						
FITZ	**Fitzroy Crossi**	**90.59 240**	P		**P**	**05 12 08.6**	**+0.9**
	comp=Z,5.6nm,1.6s						
CSS	**Mathiatis**	**90.65 342**	P		**P**	**05 12 07.1**	**-0.8**
KARP	**Karpathos**	**91.05 347**	IAMs_20		IAMs_20	05 57 00.2	
	comp=Z,715nm,22.0s						
AS01	**Alice Springs**	**91.11 231**	P		**P**	**05 12 10.7**	**+0.7**
AS31	**Alice Springs**	**91.13 231**	IAmb		IAmb	05 12 13.2	
	comp=Z,3.4nm,0.8s						
ASAR	**Alice Springs**	**91.13 231**	P		**P**	**05 12 10.8**	**+0.7**
	comp=Z,12nm,0.8s,baz=33,slow=4.8,SNR=49						
ASAR			LR		LR	05 47 48.9	
	comp=Z,591nm,21.8s,baz=35,slow=32						
	comp=Z,12nm,0.8s						
ASAR	**Alice Springs**	**91.13 231**	P		**P**	**05 12 09.7**	**-0.5**
URZ	**Urewera**	**91.51 191**	LR		LR	05 50 17.8	
	comp=Z,743nm,18.8s,baz=19,slow=34						
IDI	**Anoyia**	**91.59 349**	LR		LR	05 59 10.2	
	comp=Z,322nm,19.4s,baz=12,slow=39						
LEM	**Lembang**	**91.80 261**	LR		LR	05 52 57.4	
	comp=Z,166nm,19.9s,baz=186,slow=35						
MMAI	**Mount Meron Ar**	**92.13 340**	P		**P**	**05 12 15.8**	**+0.9**
	comp=Z,1.9nm,0.5s,baz=12,slow=8.7,SNR=4.3						
MMAI			LR		LR	06 01 49.8	
	comp=Z,452nm,18.0s,baz=358,slow=41						
	comp=Z,1.9nm,0.5s						
ASF	**Jabal al Asfar**	**92.63 339**	LR		LR	05 57 37.9	
	comp=Z,141nm,21.0s,baz=17,slow=38						
CMSA	**Cobar Meteorol**	**93.02 218**	P		**P**	**05 12 19.9**	**+1.3**
UOSS	**Minazif**	**93.47 320**	IAMs_20		IAMs_20	05 57 41.4	
	comp=Z,735nm,22.0s						
MDT	**Midelt**	**93.62 14**	LR		LR	05 57 44.9	
	comp=Z,142nm,19.7s,baz=358,slow=38						
GHAJ	**Ghor Haditha**	**93.75 340**	IAMs_20		IAMs_20	05 59 55.9	
	comp=Z,552nm,21.0s						
RPN	**Rapa Nui**	**94.63 130**	LR		LR	05 45 45.9	
	comp=Z,511nm,20.8s,baz=329,slow=30						
STKA	**Stephens Creek**	**94.90 221**	LR		LR	05 49 46.2	
	comp=Z,306nm,21.8s,baz=18,slow=32						
EIL	**Elat**	**95.46 340**	LR		LR	06 01 46.5	
	comp=Z,341nm,19.1s,baz=44,slow=39						
PALK	**Pallekele**	**96.67 291**	LR		LR	05 59 24.9	
	comp=Z,550nm,21.3s,baz=28,slow=37						
RPZ	**Rata Peaks**	**97.71 195**	LR		LR	05 50 24.3	
	comp=Z,100nm,20.8s,baz=7.0,slow=31						
RAYN	**Ar Rayn**	**98.55 329**	P		**P**	**05 12 42.9**	**-1.4**
RAYN			pmax		pmax		
	comp=Z,7.0nm,0.8s						
RAYN	**Ar Rayn**	**98.55 329**	P		**P**	**05 12 42.9**	**-1.4**
RAYN	**Ar Rayn**	**98.55 329**	IAMs_20		IAMs_20	06 05 36.3	
	comp=Z,588nm,19.0s						
FURI	**Furi**	**114.42 330**	IAMs_20		IAMs_20	06 13 50.8	
	comp=Z,447nm,19.0s						
H03N2	**Juan Fernandez**	**115.46 112**	T		T	07 24 01.5	
	baz=313,slow=76,SNR=300						
H03N1	**Juan Fernandez**	**115.48 112**	T		T	07 23 59.7	
	baz=309,slow=76,SNR=456						
RCBR	**Riachuelo**	**119.21 57**	IAMs_20		IAMs_20	06 12 45.5	
	comp=Z,363nm,18.0s						
KMBO	**Kilima Mbogo**	**124.33 329**	IAMs_20		IAMs_20	06 23 08.5	
	comp=Z,402nm,20.0s						
PLCA	**Paso Flores**	**125.34 113**	PKP		**PKPdf**	**05 18 05.7**	**+0.1**
	comp=Z,1.9nm,0.8s,baz=137,slow=1.6,SNR=4.4						
QSPA	**South Pole Qui**	**142.50 180**	PKP		**PKPdf**	**05 18 36.6**	**-0.2**
	comp=Z,3.0nm,0.8s,baz=207,slow=1.2,SNR=12						
QSPA	**South Pole Qui**	**142.50 180**			**PKPdf**	**05 18 33.6**	**-3.2**
TSUM	**Tsumeb**	**146.22 350**			**PKPbc**	**05 18 45.9**	**-0.1**
MPHEP	**Siloam, Limpop**	**147.03 328**	*e*P		**PKPdf**	**05 18 44.4**	**-1.7**
MOPA	**Mopani**	**147.19 325**	*e*P		**PKPbc**	**05 18 47.9**	**-0.6**
CRAIL	**Swartwater, Li**	**147.54 331**	*e*P		**PKPbc**	**05 18 49.5**	**0.0**
GRTLG	**Ghanzi**	**147.83 343**	P		**PKiKP**	**05 18 51.7**	**-0.7**
LEPH	**Lephalale, Lim**	**148.66 331**	*e*P		**PKPdf**	**05 18 48.5**	**-0.2**
PILG	**Pilgrimsrest,**	**148.73 325**	*e*P		**PKPdf**	**05 18 47.5**	**-1.5**
KDWAN	**Kaudwane**	**149.06 336**	P		**PKiKP**	**05 18 54.3**	**-0.5**
WIN	**Windhoek**	**149.59 350**	P		**PKiKP**	**05 18 57.3**	**+1.3**
SKOMA	**Sekoma**	**150.32 337**	P		**PKiKP**	**05 18 57.5**	**+0.2**
LKGWB	**Lokgwabe**	**150.51 342**	PKPbc		**PKPbc**	**05 18 57.3**	**+0.2**
LKGWB	**Lokgwabe**	**150.51 342**	P		**PKiKP**	**05 18 57.8**	**0.0**
HRAO	**HartRAO**	**150.61 330**	*e*P		**PKPdf**	**05 18 52.7**	**+0.9**
MAW	**Mawson**	**151.57 219**	P		**PKiKP**	**05 18 59.9**	**+1.5**
MAW	**Mawson**	**151.57 219**	PKPbc		**PKiKP**	**05 18 58.5**	**+0.1**
	comp=Z,21nm,0.9s,baz=199,slow=1.0,SNR=14						
MAW	**Mawson**	**151.57 219**	PKPbc		**PKPbc**	**05 18 58.2**	**+0.2**
NWCL	**Newcastle**	**151.58 324**	*e*P		**PKPdf**	**05 18 52.6**	**-0.6**
BOSA	**Boshof**	**153.88 332**	PKP		**PKPdf**	**05 18 55.8**	**-0.8**
	comp=Z,2.9nm,0.8s,baz=51,slow=3.4,SNR=3.6						
BOSA			PKPbc		**PKiKP**	**05 19 05.3**	**+0.7**
	comp=Z,3.3nm,0.4s,baz=16,slow=2.1,SNR=18						
BOSA	**Boshof**	**153.88 332**	PKPbc		**PKiKP**	**05 19 04.9**	**+0.3**
BOSA	**Boshof**	**153.88 332**	*e*P		**PKPbc**	**05 19 02.1**	**-2.4**
ALKP	**Alkanpan, Nort**	**155.93 337**			**PKPdf**	**05 19 06.5**	**+7.1**
BFON	**Badsfontein, M**	**157.33 333**	*e*P		**PKPdf**	**05 19 08.8**	**+7.6**
ELIB	**Princess Elisa**	**160.05 191**	*d*PKPdf		**PKPdf**	**05 19 03.6**	**+0.5**
ELIB			*d*PKP		**PKPab**	**05 19 42.5**	**-0.8**

*SDD **30** 05:16:47.0±2.3, 18°.04N×71°.37W, h10km±17km, MD2.7, ML2.3, MW2.6, Presumed earthquake*
*OSPL **30** 05:16:48.6±1.1, 18°.19N×71°.37W, h4km±6km, ML2.1, Presumed earthquake*

ISC 30 05:16:47.5±1.1, 18°.13N±0°.05×71°.36W±0°.04, h10km±7km, n11, σ1s 00/19, 11C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.08**	**61**	⇑*e*Pg		**Pg**	**Pg**	**05 16 49.7**	**-0.5**
PODR				⇑*e*Sg		**Sg**	**Sg**	**05 16 52.8**	**+0.8**
PODR				IAML				05 16 56.0	
	comp=N,2μm,0.2s								
PODR	**Polo**	**0.08**	**61**	*i* P		**Pg**	**Pg**	**05 16 49.7**	**-0.5**
PODR				*e*S		**Sg**	**Sg**	**05 16 52.2**	**+0.2**
PODR				IAML				05 16 54.3	
	comp=Z,21μm,0.3s								
LODU1	**El Espartillar**	**0.25**	**334**	*i* P		**Pg**	**Pg**	**05 16 51.5**	**-1.2**
LODU1				*e*S		**Sg**	**Sg**	**05 16 55.0**	**-1.1**
LODU1				IAML				05 16 56.4	
	comp=Z,320nm,0.4s								
LOVI	**El Cajuil, Ovi**	**0.33**	**182**	*i* P		**Pb**	**Pb**	**05 16 55.6**	**+0.2**
LOVI				IAML				05 17 11.3	
	comp=Z,89nm,1.6s								
NEDR	**Neiba UASD**	**0.36**	**351**	⇑*e*Pg		**Pg**	**Pg**	**05 16 54.1**	**-0.6**
NEDR				⇑*e*Sg		**Sg**	**Sg**	**05 17 01.2**	**+1.7**
NEDR				IAML				05 17 01.5	
	comp=N,143nm,0.5s								
LOBH	**Bahia de las A**	**0.38**	**226**	*i* P		**Pb**	**Pb**	**05 16 56.3**	**0.0**
LOBH				IAML				05 17 09.4	
	comp=Z,111nm,0.5s								
LONE3	**El Aguacate, B**	**0.49**	**348**	*i* P		**Pg**	**Pg**	**05 16 56.3**	**-0.8**
LONE3				IAML				05 17 06.2	
	comp=Z,54nm,0.5s								
JIDR	**Jimani**	**0.59**	**308**	⇑*e*Pg		**Pg**	**Pg**	**05 16 58.9**	**-0.2**
JIDR				⇑*e*Sg		**Sg**	**Sb**	**05 17 08.7**	**+0.2**
SDDR	**Presa de Saban**	**0.85**	**4**	⇑*e*Pg		**Pg**	**Pg**	**05 17 04.1**	**+0.1**
SDDR				*i* Sg		**Sg**	**Sg**	**05 17 15.6**	**+0.4**
ABDR	**Alto Bandera**	**0.97**	**45**	⇑*e*Pg		**Pg**	**Pg**	**05 17 04.3**	**-2.0**
ABDR				⇑*e*Sg		**Sg**	**Sb**	**05 17 20.7**	**+1.0**
BANI	**BANI**	**0.98**	**74**	⇑*e*Pg		**Pg**	**Pg**	**05 17 05.4**	**-1.1**
BANI				IAML				05 17 19.7	
	comp=N,66nm,2.8s								
BANI				⇑*e*Sg			**Sg**	**05 17 20.4**	**+1.0**

*IDC **30** 05:17:32.1±3.0, 51°.22N×179°.08W, h0km, mb3.3/4, mbtmp3.5/5, ML3.8/1, Error ellipse: s-maj=73.2km s-min=29.2km az=178.0*
*NEIC **30** 05:17:36.8±0.8, 51°.22N±0°.05×179°.2W±0°.1, h31km±9km, mb3.8/16, ML3.8/6, ML3.4(AEIC), Error ellipse: s-maj=11.0km s-min=7.8km az=85.0*
*AEIC **30** 05:17:38.1±1.5, 51°.25N±0°.05×179°.1W±0°.1, h25km±7km, Error ellipse: s-maj=11.7km s-min=7.9km az=99.0*

ISC 30 05:17:35.9±2.3, 51°.22N±0°.10×179°.20W±0°.09, h26km±13km, n52, σ0s 68/52, mb3.8/10, Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
GAKI	**Gareloi-Kavalg**	**0.42**	**36**				**Pn**	**05 17 46.3**	**+0.1**
GAKI							**Sn**	**05 17 52.6**	**-0.5**
GASW	**Gareloi Southw**	**0.60**	**21**				**Pn**	**05 17 49.1**	**+0.3**
GALAA	**Gareloi Lava P**	**0.61**	**26**				**Pn**	**05 17 49.5**	**+0.6**
GALAA							**Sn**	**05 17 58.1**	**+0.3**
GAEA	**Gareloi East**	**0.63**	**26**				**Pn**	**05 17 49.7**	**+0.5**
GAEA							**Sn**	**05 17 58.8**	**+0.3**
GANO	**Gareloi North**	**0.65**	**22**				**Pn**	**05 17 49.8**	**+0.3**
GANO						Sg	**Sb**	**05 17 57.3**	**-0.1**
GANO						IAML		05 18 02.4	
	comp=N,7μm,0.2s								
GANE	**Gareloi Northe**	**0.66**	**24**				**Pn**	**05 17 49.9**	**+0.3**
TACS	**Tanaga Cape Sa**	**0.93**	**45**				**Pn**	**05 17 53.8**	**+0.5**
TACS							**Sn**	**05 18 06.1**	**+0.3**
TASE	**Tanaga Southea**	**0.95**	**49**				**Pn**	**05 17 54.2**	**+0.5**
TASE							**Sn**	**05 18 06.7**	**+0.2**
TAFL	**Tanaga Flats**	**0.98**	**56**				**Pb**	**05 17 54.4**	**+0.2**
TAFL							**Sn**	**05 18 06.9**	**0.0**
TAPA	**Tanaga Point A**	**1.05**	**55**				**Pb**	**05 17 55.6**	**+0.1**
TAPA							**Sn**	**05 18 09.2**	**+0.3**
KIMD	**Kanaga Island**	**1.34**	**65**				**Pb**	**05 17 59.6**	**-0.7**
KIKV	**Kanaga Island**	**1.43**	**62**				**Pn**	**05 18 00.9**	**+0.7**
KIKV							**Sn**	**05 18 18.6**	**+0.4**
KIWB	**Kanaga Island**	**1.43**	**63**		Pn		**Pb**	**05 18 01.6**	**-0.2**
KIWB					IAML			05 18 24.7	
	comp=E,1μm,0.5s								
ADK	**Adak**	**1.71**	**66**				**Pn**	**05 18 04.8**	**+0.8**
ADK					IAML			05 18 31.8	
	comp=E,914nm,0.4s								
ADK					IAML			05 18 32.9	
	comp=E,777nm,0.5s								
ADK	**Adak**	**1.71**	**66**		Sn		**Sn**	**05 18 24.7**	**-0.2**
ETKA	**Kagalaska Isla**	**1.86**	**69**				**Pn**	**05 18 06.9**	**+0.8**
GSCK	**Great Sitkin C**	**2.06**	**66**				**Pn**	**05 18 09.7**	**+0.9**
GSIG	**Igitkin Island**	**2.18**	**68**				**Pn**	**05 18 11.2**	**+0.7**
SDPT	**Sand Point**	**11.94**	**62**		Pn		**Pn**	**05 20 23.9**	**-0.3**
KDAK	**Kodiak Island**	**16.72**	**57**		Pn		**Pn**	**05 21 25.0**	**-3.1**
	comp=E,0.3nm,0.3s,baz=248,slow=3.5,SNR=16								
	comp=E,2.2nm,0.4s								
KDAK					AML		AML		
SKT	**Skwentna**	**18.50**	**44**		P		**Pn**	**05 21 49.9**	**-0.1**
SKT					IAmb		IAmb	05 21 52.1	
	comp=Z,15nm,1.4s								
CAST	**Castle Rocks**	**18.88**	**39**		P		**Pn**	**05 21 55.3**	**+0.6**
BPAW	**Bear Paw Mtn.**	**19.63**	**38**		P		**Pn**	**05 22 03.2**	**-0.5**
BPAW					IAmb		IAmb	05 22 40.4	
	comp=Z,8.4nm,1.4s								
G21K	**Allakaket**	**20.05**	**30**		P		Pn	05 22 07.7	-0.9
G21K					IAmb		IAmb	05 22 32.4	
	comp=Z,6.5nm,1.3s								
RND	**Reindeer**	**20.19**	**41**		P		**P**	**05 22 08.3**	**-0.1**
D20K	**Etivluk River**	**20.64**	**23**		P		**P**	**05 22 13.6**	**+0.5**
DHY	**Denali Highway**	**20.69**	**43**		P		**P**	**05 22 13.9**	**+0.1**
CCB	**Clear Creek Bu**	**21.12**	**39**		P		**P**	**05 22 18.1**	**-0.1**
CCB					IAmb		IAmb	05 22 38.2	
	comp=Z,5.2nm,1.4s								
IL31		**21.53**	**39**		P		**P**	**05 22 22.4**	**-0.2**
IL31					IAmb		IAmb	05 22 25.1	
	comp=Z,8.3nm,1.5s								
ILAR	**Eielson Array**	**21.53**	**39**		P		**P**	**05 22 22.1**	**-0.5**
	comp=Z,0.6nm,1.0s,baz=234,slow=8.1,SNR=4.3								
	comp=Z,0.6nm,1.0s								
ILAR	**Eielson Array**	**21.53**	**39**		P		**P**	**05 22 22.6**	**0.0**
J25K	**Salcha River,**	**22.07**	**40**		P		**P**	**05 22 27.2**	**-1.4**
J25K					IAmb		IAmb	05 23 00.6	
	comp=Z,4.8nm,1.3s								
D23K	**Nanushuk River**	**22.40**	**27**		P		**P**	**05 22 31.5**	**-0.5**
SCRK	**Sand Creek**	**22.42**	**42**		P		**P**	**05 22 32.4**	**0.0**
F24K	**Squaw Lake**	**22.43**	**32**		P		**P**	**05 22 33.3**	**+0.9**
BCAR	**Beaver Creek A**	**23.12**	**45**		P		**P**	**05 22 38.6**	**-1.1**
K27K	**Chicken**	**23.24**	**42**		P		**P**	**05 22 40.8**	**0.0**
K27K					IAmb		IAmb	05 23 15.0	
	comp=Z,2.5nm,1.0s								
G26K	**Porcupine Rive**	**23.58**	**35**		P		**P**	**05 22 44.0**	**-0.1**
M29M	**Somme Creek**	**24.51**	**47**		P		**P**	**05 22 52.8**	**-0.1**
M29M					IAmb		IAmb	05 23 07.9	
	comp=Z,4.8nm,1.4s								
H11N2	**WAKE ISLAND Hy**	**33.28**	**204**		T		T	05 59 40.0	
	baz=16,slow=76,SNR=6.2								
H11N3	**WAKE ISLAND Hy**	**33.29**	**204**		T		T	05 59 34.9	
	baz=16,slow=76,SNR=6.9								
H11N1	**WAKE ISLAND Hy**	**33.30**	**204**		T		T	05 59 35.4	
	baz=16,slow=76,SNR=6.6								
H11S1	**WAKE ISLAND Hy**	**34.50**	**204**		T		T	06 01 04.9	
	baz=15,slow=76,SNR=15								
H11S2	**WAKE ISLAND Hy**	**34.52**	**204**		T		T	06 01 05.7	
	baz=15,slow=76,SNR=22								
H11S3	**WAKE ISLAND Hy**	**34.52**	**204**		T		T	06 01 05.2	
	baz=15,slow=76,SNR=12								
YKA	**Yellowknife Ar**	**35.52**	**46**		P		**P**	**05 24 29.1**	**-1.0**
	comp=Z,0.2nm,0.6s,baz=286,slow=7.3,SNR=5.6								
	comp=Z,0.2nm,0.6s								
SONM	**Songino Array**	**46.49**	**297**		P		**P**	**05 26 00.8**	**0.0**
	comp=Z,0.3nm,0.6s,baz=72,slow=9.5,SNR=2.2								
	comp=Z,0.3nm,0.6s								
BW06	**Boulder Array**	**46.60**	**72**		P		**P**	**05 26 02.1**	**+0.3**
PDAR	**Pinedale Array**	**46.60**	**72**		P		**P**	**05 26 01.8**	**0.0**
	comp=Z,0.6nm,0.6s,baz=328,slow=3.6,SNR=8.1								
	comp=Z,0.6nm,0.6s								
SPITS	**Spitsbergen Ar**	**50.52**	**356**		P		**P**	**05 26 31.9**	**+0.7**
	comp=Z,14nm,1.1s,baz=39,slow=9.3,SNR=5.0								
H03N2	**Juan Fernandez**	**121.34**	**106**		T		T	07 49 33.8	
	baz=313,slow=76,SNR=9.4								
H03N1	**Juan Fernandez**	**121.36**	**106**		T		T	07 49 34.5	
	baz=309,slow=76,SNR=9.6								

IDC 30 05:21:08.7±1.5, 4°.04N×124°.29E, h0km, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=136.3km s-min=18.5km az=67.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**22.03**	**177**	P		P	P	05 26 05.1	0.0
	4.2nm,1.2s,baz=352,slow=6.4,SNR=9.4								
	4.2nm,1.2s								
WRA	**Warramunga Arr**	**25.79**	**158**	P		P	P	05 26 42.0	+0.3
	1.0nm,0.3s,baz=337,slow=9.5,SNR=23								
	1.0nm,0.3s								
ASAR	**Alice Springs**	**29.09**	**162**	P		P	P	05 27 10.8	-0.4
	0.6nm,0.4s,baz=341,slow=6.9,SNR=8.6								
	0.6nm,0.4s								
MKAR	**Makanchi Array**	**55.94**	**326**	P		P	P	05 30 49.1	+0.4
	0.8nm,0.4s,baz=125,slow=7.9,SNR=19								
	0.8nm,0.4s								
KURBB	**Kurchatov Arra**	**60.19**	**328**	P		P	P	05 31 17.8	-0.6
	0.3nm,0.5s,baz=136,slow=6.4,SNR=7.5								
	0.3nm,0.5s								

*ASRS **30** 05:59:47.0±1.0, 54°.10N×86°.50E, h0km, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 30 05:59:50.9±3.6, 54°.10N×86°.42E, h0km, mbtmp3.1/2, ML2.7/2, Error ellipse: s-maj=31.0km s-min=14.3km az=72.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.96**	**262**	I		I	I	06 05 40.0	
	baz=81,slow=343,SNR=4.9								
ZALV	**Zalesovo Beam**	**0.96**	**262**	Pg		Pg	Pg	06 00 08.0	-1.3
	0.8nm,0.3s,baz=78,slow=17,SNR=8.7								
ZALV				Lg		Lg	Lg	06 00 23.1	
	1.9nm,0.3s,baz=81,slow=31,SNR=9.3								
KURBB	**Kurchatov Arra**	**5.96**	**237**	Pn		Pn	Pn	06 01 21.7	+1.4
	0.1nm,0.3s,baz=54,slow=14,SNR=2.5								
	0.8nm,0.3s								
KURBB				AML		AML	AML		
MKAR	**Makanchi Array**	**7.77**	**201**	Pn		Pn	Pn	06 01 46.3	+1.0
	0.2nm,0.3s,baz=26,slow=14,SNR=8.8								
	0.3nm,0.3s								
MKAR				AML		AML	AML		

*IDC **30** 06:03:44.7±1.0, 52°.81N×168°.40W, h0km, mb3.8/11, mbtmp3.8/13, ML3.3/2, MS3.6/1, Error ellipse: s-maj=30.8km s-min=16.5km az=164.0*
*NEIC **30** 06:03:49.9±1.7, 52°.71N±0°.06×168°.16W±0°.08, h35km±2km, mb3.8/17, ML4.0/16, ML3.6(AEIC), Error ellipse: s-maj=9.6km s-min=8.0km az=195.0*
*AEIC **30** 06:03:51.5±2.3, 52°.84N±0°.05×168°.05W±0°.07, h33km±4km, Error ellipse: s-maj=7.6km s-min=6.0km az=187.0*

ISC 30 06:03:51.1±1.5, 52°.8N±0°.1×168°.24W±0°.06, h48km±12km, n97, σ0s 93/97, mb3.9/12, Fox Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
OKTU	**Okmok Mt. Tuli**	**0.58**	**12**				**Pn**	**06 04 03.1**	**-0.1**
OKCE	**Okmok Cone E**	**0.61**	**4**				**Pn**	**06 04 03.6**	**0.0**
OKCE							**Sn**	**06 04 12.9**	**+0.2**
OKWR	**Okmok West Rim**	**0.62**	**2**				**Pn**	**06 04 04.0**	**+0.2**
OKFG	**Magazine Ridge**	**0.63**	**18**				**Pn**	**06 04 03.5**	**-0.3**
OKNC	**Okmok New Cone**	**0.65**	**6**				**Pn**	**06 04 04.4**	**+0.4**
OKNC							**Sn**	**06 04 14.2**	**+0.8**

D25K	**Kavik River**	**19.44**	**23**	P		**Pn**	**06 08 14.3**	**-0.4**
D25K				IAmb		IAmb	06 08 42.4	
	comp=Z,7.1nm,1.5s							
PEA0B	**Petropavlovsk-**	**20.41**	**284**	P		**P**	**06 08 23.7**	**-0.1**
PETK	**Petropavlovsk-**	**20.41**	**284**	P		**P**	**06 08 24.0**	**+0.1**
	comp=Z,1.5nm,0.6s,baz=80,slow=13,SNR=5.9							
	comp=Z,1.5nm,0.6s							
PETK	**Petropavlovsk-**	**20.41**	**284**	P		**P**	**06 08 24.1**	**+0.2**
G29M	**Pine Creek**	**20.42**	**35**	P		**P**	**06 08 23.5**	**-0.4**
G30M	**tAoh Zrail Nji**	**21.08**	**35**	P		**P**	**06 08 29.2**	**-1.8**
G30M				IAmb		IAmb	06 08 46.1	
	comp=Z,6.6nm,1.2s							
F30M	**Barrier River**	**21.52**	**34**	P		**P**	**06 08 34.7**	**-0.9**
F30M				IAmb		IAmb	06 09 07.0	
	comp=Z,5.0nm,1.3s							
YKAW3	**Yellowknife Wh**	**29.42**	**49**	P		**P**	**06 09 49.5**	**-0.1**
YKA	**Yellowknife Ar**	**29.43**	**50**	P		**P**	**06 09 50.1**	**+0.5**
	comp=Z,0.1nm,0.4s,baz=276,slow=9.1,SNR=6.2							
	comp=Z,0.1nm,0.4s							
YKA	**Yellowknife Ar**	**29.43**	**50**	P		**P**	**06 09 49.4**	**-0.3**
YAK	**Yakutsk**	**33.40**	**311**	LR		LR	06 26 50.3	
	comp=Z,97nm,18.2s,baz=281,slow=42							
H11N2	**WAKE ISLAND Hy**	**38.24**	**220**	T		T	06 52 12.4	
	baz=24,slow=76,SNR=225							
H11N3	**WAKE ISLAND Hy**	**38.24**	**220**	T		T	06 52 07.5	
	baz=24,slow=76,SNR=228							
H11N1	**WAKE ISLAND Hy**	**38.25**	**220**	T		T	06 52 13.8	
	baz=24,slow=76,SNR=246							
H11S1	**WAKE ISLAND Hy**	**39.42**	**219**	T		T	06 53 35.7	
	baz=24,slow=76,SNR=308							
H11S2	**WAKE ISLAND Hy**	**39.44**	**219**	T		T	06 53 36.8	
	baz=24,slow=76,SNR=218							
H11S3	**WAKE ISLAND Hy**	**39.44**	**219**	T		T	06 53 35.4	
	baz=24,slow=76,SNR=204							
PDAR	**Pinedale Array**	**39.65**	**80**	P		**P**	**06 11 19.4**	**+1.2**
	comp=Z,0.2nm,0.5s,baz=295,slow=6.1,SNR=3.2							
	comp=Z,0.2nm,0.5s							
SONM	**Songino Array**	**51.66**	**301**	P		**P**	**06 12 53.1**	**+0.2**
	comp=Z,0.3nm,0.4s,baz=68,slow=5.4,SNR=2.2							
	comp=Z,0.3nm,0.4s							
SONM	**Songino Array**	**51.66**	**301**	P		**P**	**06 12 53.6**	**+0.7**
SONM				IAmb		IAmb	06 13 20.1	
	comp=Z,2.0nm,1.4s							
TXAR	**Lajitas Array**	**52.05**	**90**	P		**P**	**06 12 57.1**	**+1.1**
	comp=Z,0.6nm,0.6s,baz=302,slow=8.0,SNR=2.7							
	comp=Z,0.6nm,0.6s							
BVAR	**Borovoye Array**	**63.74**	**325**	P		**P**	**06 14 17.5**	**+0.1**
	comp=Z,2.1nm,0.6s,baz=46,slow=8.3,SNR=6.1							
	comp=Z,2.1nm,0.6s							
MK31	**Makanchi Array**	**63.99**	**314**	P		**P**	**06 14 18.7**	**-0.5**
MKAR	**Makanchi Array**	**63.99**	**314**	P		**P**	**06 14 18.6**	**-0.6**
FINES	**FINESS Array B**	**65.52**	**352**	P		**P**	**06 14 28.5**	**-0.3**
	comp=Z,2.9nm,1.1s,baz=358,slow=7.5,SNR=4.1							
	comp=Z,2.9nm,1.1s							
HFS	**Hagfors**	**67.39**	**359**	P		**P**	**06 14 39.9**	**-0.9**
	comp=Z,0.5nm,0.3s,baz=14,slow=3.0,SNR=6.0							
	comp=Z,0.5nm,0.3s							
AB31	**Akbulak array**	**70.41**	**329**	P		**P**	**06 14 59.5**	**-0.2**
ABKAR	**Akbulak array**	**70.41**	**329**	P		**P**	**06 14 59.9**	**+0.1**
CMAR	**Chiang Mai Arr**	**77.19**	**284**	P		**P**	**06 15 40.0**	**+0.1**
	comp=Z,1.8nm,0.6s,baz=19,slow=6.2,SNR=8.2							
	comp=Z,1.8nm,0.6s							
CMAR	**Chiang Mai Arr**	**77.19**	**284**	P		**P**	**06 15 39.1**	**-0.8**
WRA	**Warramunga Arr**	**87.82**	**232**	P		**P**	**06 16 34.5**	**-0.6**
	comp=Z,0.8nm,0.9s,baz=28,slow=5.2,SNR=3.8							
	comp=Z,0.8nm,0.9s							
PMOZ	**Porto Moniz, M**	**91.06**	**24**	P		**P**	**06 16 50.1**	**-0.3**
ASAR	**Alice Springs**	**91.21**	**231**	P		**P**	**06 16 50.9**	**0.0**
	comp=Z,0.5nm,0.7s,baz=27,slow=3.5,SNR=4.8							
	comp=Z,0.5nm,0.7s							
ASAR	**Alice Springs**	**91.21**	**231**	P		**P**	**06 16 50.7**	**-0.2**
H03N2	**Juan Fernandez**	**115.45**	**112**	T		T	08 28 29.2	
	baz=313,slow=76,SNR=9.3							
H03N1	**Juan Fernandez**	**115.47**	**112**	T		T	08 28 30.4	
	baz=309,slow=76,SNR=10.0							

*IDC **30** 06:05:26.0±1.8,21°.70S×68°.22W,h107km±16km,mb3.6/7, mbtmp3.9/12,Error ellipse: s-maj=20.7km s-min=13.1km az=88.0*

*SJA **30** 06:05:27.6±0.9,21°.57S×68°.51W,h140km,ML3.8,MW3.8*

*VAO **30** 06:05:27.6±0.6,21°.59S×68°.42W,h142km,mb4.2, Presumed earthquake*

*NEIC **30** 06:05:28.7±1.2,21°.57S±0°.05×68°.56W±0°.07,h138km±5km, mb4.2/9,ML4.1(GUC),Error ellipse: s-maj=9.3km s-min=7.2km az=97.0*

*GUC **30** 06:05:29.1±0.7,21°.56S×68°.52W,h138km±4km,ML4.1, Presumed earthquake*

ISC 30 06:05:27.8±0.6,21°.62S±0°.03×68°.49W±0°.04,h139km±6km, n125,σ1§39/167,mb4.3/8,14C-1D,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	**IPOC Station P**	**0.72**	**255**	*eP*	**Pn**	**06 05 50.2**	**+0.8**
PB09				*eS*	**Sn**	**06 06 07.0**	**+1.1**
PB09				IAML		06 06 07.9	
	comp=Z,2μm,0.4s						
PB09	**IPOC Station P**	**0.72**	**255**		**Pn**	**06 05 50.3**	**+0.8**
PB09					**Sn**	**06 06 05.7**	**-0.3**
PB09	**IPOC Station P**	**0.72**	**255**	*eP*	**Pn**	**06 05 50.2**	**+0.8**
PB09				*eS*	**Sn**	**06 06 06.2**	**+0.3**
PB09				IAML		06 06 08.1	
	comp=N,3μm,0.3s						
PB01	**IPOC Station P**	**1.09**	**301**	*eP*	**Pn**	**06 05 52.6**	**+0.1**
PB01				*eS*	**Sn**	**06 06 11.3**	**+0.1**
PB01				IAML		06 06 14.0	
	comp=Z,830nm,0.3s						
PB01	**IPOC Station P**	**1.09**	**301**		**Pn**	**06 05 52.5**	**+0.1**
PB01					**Sn**	**06 06 10.4**	**-0.9**
PB01	**IPOC Station P**	**1.09**	**301**	*eP*	**Pn**	**06 05 52.4**	**-0.1**
PB01				*eS*	**Sn**	**06 06 10.5**	**-0.7**
PB01				IAML		06 06 11.9	
	comp=N,3μm,0.3s						
PB03	**IPOC Station P**	**1.25**	**250**	*eP*	**Pn**	**06 05 54.6**	**+0.5**
PB03				*eS*	**Sn**	**06 06 14.7**	**+0.6**
PB03				IAML		06 06 16.3	
	comp=Z,2μm,0.3s						
PB03	**IPOC Station P**	**1.25**	**250**		**Pn**	**06 05 54.7**	**+0.5**
PB03					**Sn**	**06 06 14.1**	**0.0**
PB03	**IPOC Station P**	**1.25**	**250**	*eP*	**Pn**	**06 05 54.8**	**+0.7**
PB03				*eS*	**Sn**	**06 06 14.3**	**+0.2**
PB03				IAML		06 06 15.1	
	comp=E,4μm,0.4s						
PB07	**IPOC Station P**	**1.30**	**265**	*eP*	**Pn**	**06 05 55.2**	**+0.5**
PB07				*eP*	**Pn**	**06 05 55.3**	**+0.7**
PB07				*eS*	**Sn**	**06 06 15.8**	**+0.7**
PB07				IAML		06 06 16.1	
	comp=Z,2μm,0.1s						
PB07	**IPOC Station P**	**1.30**	**265**		**Pn**	**06 05 55.4**	**+0.7**
PB07					**Sn**	**06 06 15.0**	**0.0**
PB07	**IPOC Station P**	**1.30**	**265**	*eP*	**Pn**	**06 05 55.3**	**+0.7**
PB07				*eS*	**Sn**	**06 06 15.1**	**0.0**
PB07				IAML		06 06 16.2	
	comp=N,7μm,0.1s						
PB02	**IPOC Station P**	**1.34**	**282**	*eP*	**Pn**	**06 05 55.3**	**+0.4**
PB02				*eS*	**Sn**	**06 06 15.8**	**+0.1**
PB02	**IPOC Station P**	**1.34**	**282**	Pn	**Pn**	**06 05 55.4**	**+0.4**
PB02	**IPOC Station P**	**1.34**	**282**	*eP*	**Pn**	**06 05 55.3**	**+0.4**
PB02				*eS*	**Sn**	**06 06 15.3**	**-0.3**
PB02				IAML		06 06 16.0	
	comp=N,11μm,0.2s						
AF01	**San Pedro de A**	**1.36**	**168**	*eP*	**Pn**	**06 05 57.4**	**+2.0**
AF01				*eS*	Sn	06 06 34.1	+18
AF01				IAML		06 06 47.4	
	comp=Z,343nm,0.8s						
AF01	**San Pedro de A**	**1.36**	**168**		**Pn**	**06 05 57.2**	**+1.7**
AF01	**San Pedro de A**	**1.36**	**168**	*eP*	**Pn**	**06 05 57.1**	**+1.7**
AF01				*eS*	**Sn**	**06 06 18.5**	**+1.9**
PB06	**IPOC Station P**	**1.48**	**222**	*eP*	**Pn**	**06 05 57.6**	**+1.1**
PB06				*eS*	**Sn**	**06 06 19.8**	**+1.4**
PB06				IAML		06 06 21.0	
	comp=Z,1μm,0.2s						
PB06	**IPOC Station P**	**1.48**	**222**		**Pn**	**06 05 57.6**	**+1.1**
PB06	**IPOC Station P**	**1.48**	**222**	*eP*	**Pn**	**06 05 57.6**	**+1.1**
PB06				*eS*	**Sn**	**06 06 19.3**	**+0.9**
PB06				IAML		06 06 20.0	
	comp=E,2μm,0.4s						
PB08	**IPOC Station P**	**1.59**	**337**	*eP*	**Pn**	**06 05 58.3**	**+0.3**
PB08				*eS*	**Sn**	**06 06 22.8**	**+1.8**
PB08				IAML		06 06 23.9	
	comp=Z,775nm,0.5s						
PB08	**IPOC Station P**	**1.59**	**337**	Pn	**Pn**	**06 05 58.4**	**+0.4**
PB08	**IPOC Station P**	**1.59**	**337**	*eP*	**Pn**	**06 05 58.3**	**+0.3**
PB08				*eS*	**Sn**	**06 06 20.6**	**-0.4**
PB08				IAML		06 06 22.7	
	comp=E,1μm,0.5s						
TA01	**Diego Aracena**	**1.89**	**303**	*eP*	**Pn**	**06 06 00.9**	**-0.1**
TA01				*eS*	**Sn**	**06 06 26.3**	**-0.1**
TA01				IAML		06 06 26.8	
	comp=Z,612nm,0.4s						
TA01	**Diego Aracena**	**1.89**	**303**		**Pn**	**06 06 00.8**	**-0.2**
TA01	**Diego Aracena**	**1.89**	**303**	*eP*	**Pn**	**06 06 00.7**	**-0.2**
TA01				*eS*	**Sn**	**06 06 25.6**	**-0.7**
TA01				IAML		06 06 27.1	
	comp=E,3μm,0.3s						
PB05	**IPOC Station P**	**2.00**	**232**	*eP*	**Pn**	**06 06 03.3**	**+0.9**
PB05				*eP*	**Pn**	**06 06 03.4**	**+0.9**
PB05				*eS*	**Sn**	**06 06 29.0**	**0.0**
PB05				*eS*	**Sn**	**06 06 30.0**	**+0.9**
PB05				IAML		06 06 38.4	
	comp=Z,437nm,0.4s						
PB05	**IPOC Station P**	**2.00**	**232**		**Pn**	**06 06 03.4**	**+0.9**
PB05	**IPOC Station P**	**2.00**	**232**	*eP*	**Pn**	**06 06 03.4**	**+0.9**
PB05				*eS*	**Sn**	**06 06 29.1**	**0.0**
PB05				IAML		06 06 30.5	
	comp=N,619nm,0.5s						
TA02	**Huaiquique**	**2.03**	**311**	*eP*	**Pn**	**06 06 02.1**	**-0.6**
TA02				*eP*	**Pn**	**06 06 02.4**	**-0.3**
TA02				*eS*	**Sn**	**06 06 30.0**	**+0.6**
TA02				IAML		06 06 34.0	
	comp=Z,1μm,0.1s						
TA02	**Huaiquique**	**2.03**	**311**	*eP*	**Pn**	**06 06 02.1**	**-0.6**
TA02				*eS*	**Sn**	**06 06 28.8**	**-0.6**
TA02				IAML		06 06 29.2	
	comp=N,2μm,0.2s						
GO01	**Chusmiza**	**2.04**	**341**	*eP*	**Pn**	**06 06 03.4**	**0.0**
GO01				*eS*	**Sn**	**06 06 31.5**	**+1.0**
GO01				IAML		06 06 32.5	
	comp=Z,397nm,0.3s						
GO01	**Chusmiza**	**2.04**	**341**			**06 06 03.4**	**0.0**
GO01	**Chusmiza**	**2.04**	**341**	*eP*	**Pn**	**06 06 03.2**	**-0.1**
GO01				*eS*	**Sn**	**06 06 30.1**	**-0.4**
GO01				IAML		06 06 34.1	
	comp=N,2μm,0.1s						
PB11	**IPOC Station P**	**2.14**	**329**	*eP*	**Pn**	**06 06 03.8**	**-0.4**
PB11				*eS*	**Sn**	**06 06 31.5**	**-0.6**
PB11				IAML		06 06 33.1	
	comp=Z,698nm,0.8s						
PB11	**IPOC Station P**	**2.14**	**329**		**Pn**	**06 06 03.6**	**-0.6**
PB11	**IPOC Station P**	**2.14**	**329**	*eP*	**Pn**	**06 06 03.5**	**-0.6**
PB11				*eS*	**Sn**	**06 06 30.9**	**-1.2**
PB11				IAML		06 06 31.7	
	comp=E,2μm,0.3s						
PSGCX	**Pisagua**	**2.52**	**322**	*eP*	Pn	06 05 55.3	-14
PSGCX				*eP*	**Pn**	**06 06 07.9**	**-1.0**
PSGCX				*eS*	**Sn**	**06 06 39.8**	**-0.6**
PSGCX				IAML		06 06 41.8	
	comp=Z,286nm,0.2s						
PSGCX	**Pisagua**	**2.52**	**322**	Pn	**Pn**	**06 06 07.8**	**-1.0**
PSGCX	**Pisagua**	**2.52**	**322**	*eP*	**Pn**	**06 06 07.6**	**-1.2**
PSGCX				*eS*	**Sn**	**06 06 38.4**	**-2.0**
PB10	**IPOC Station P**	**2.68**	**225**	*eP*	**Pn**	**06 06 11.3**	**+0.6**
PB10				*eS*	**Sn**	**06 06 43.8**	**0.0**
PB10				IAML		06 06 46.8	
	comp=Z,152nm,0.5s						
PB10	**IPOC Station P**	**2.68**	**225**	Pn	**Pn**	**06 06 11.4**	**+0.7**
PB10	**IPOC Station P**	**2.68**	**225**	*eP*	**Pn**	**06 06 11.3**	**+0.6**
PB10				*eS*	**Sn**	**06 06 42.6**	**-1.2**
PB10				IAML		06 06 46.8	
	comp=N,244nm,0.1s						
YJA	**Yavi**	**2.82**	**102**	*eP*	**Pn**	**06 06 14.8**	**+1.9**
YJA				*eS*	**Sn**	**06 06 48.8**	**+1.2**
SALTA		**3.27**	**143**	*eP*	**Pn**	**06 06 20.9**	**+2.2**
PB16	**IPOC Station P**	**3.40**	**344**	*eP*	Pn	06 06 09.6	-11
PB16				*eP*	**Pn**	**06 06 20.9**	**+0.4**
PB16				IAML		06 07 07.8	
	comp=Z,96nm,0.8s						
PB16	**IPOC Station P**	**3.40**	**344**		**Pn**	**06 06 20.5**	**0.0**
PB16	**IPOC Station P**	**3.40**	**344**	*eP*	**Pn**	**06 06 20.5**	**0.0**
PB16				*eS*	**Sn**	**06 06 07.0**	**-0.3**
PB12	**IPOC Station P**	**3.45**	**330**	*eP*	Pn	06 06 09.6	-11
PB12				*eS*	**Sn**	**06 06 59.4**	**-2.2**
PB12				IAML		06 07 07.6	
	comp=Z,186nm,0.4s						
PB12	**IPOC Station P**	**3.45**	**330**	*eP*	**Pn**	**06 06 18.9**	**-1.8**
PB14	**IPOC Station P**	**3.47**	**210**	*eP*	**Pn**	**06 06 21.6**	**+0.4**
PB14				*eS*	**Sn**	**06 07 02.1**	**-0.4**
PB14				IAML		06 07 05.4	
	comp=Z,86nm,0.3s						
PB14	**IPOC Station P**	**3.47**	**210**		**Pn**	**06 06 22.5**	**+1.3**
AP01	**Chacalluta**	**3.67**	**331**	*eP*	**Pn**	**06 06 22.2**	**-1.3**
AP01				*eS*	**Sn**	**06 07 07.6**	**+1.1**
AP01				IAML		06 07 13.7	
	comp=Z,298nm,0.3s						
AP01	**Chacalluta**	**3.67**	**331**	*eP*	**Pn**	**06 06 21.9**	**-1.5**
AC01	**Pan de Azucar**	**4.91**	**203**	*eS*	**Sn**	**06 07 33.2**	**-2.7**
AC01				IAML		06 07 38.4	
	comp=Z,43nm,0.9s						
AC01	**Pan de Azucar**	**4.91**	**203**	Pn	**Pn**	**06 06 39.5**	**-0.3**
AC02	**Maricunga**	**5.23**	**186**	*eP*	**Pn**	**06 06 45.7**	**+1.1**
AC02				IAML		06 07 55.0	
	comp=Z,27nm,0.2s						
AC02	**Maricunga**	**5.23**	**186**		**Pn**	**06 06 45.5**	**+1.0**
LPAZ	**La Paz**	**5.31**	**4**	P	**Pn**	**06 06 46.1**	**+0.3**
	comp=Z,9.0nm,0.4s,baz=178,slow=4.5,SNR=93						
LPAZ				S	**Sn**	**06 07 46.9**	**+0.3**
	comp=Z,3.6nm,0.5s,baz=236,slow=24,SNR=1.2						
LPAZ	**La Paz**	**5.31**	**4**	*eP*	**Pn**	**06 06 47.3**	**+1.5**
LPAZ	**La Paz**	**5.31**	**4**		**Pn**	**06 06 46.8**	**+0.9**
LPAZ	**La Paz**	**5.31**	**4**	*eP*	**Pn**	**06 06 44.9**	**-0.9**
AC06	**Mina Casimiro**	**5.96**	**196**	Pn	**Pn**	**06 06 52.6**	**-1.3**
AC04	**Llanos de Chal**	**6.97**	**199**	Pn	**Pn**	**06 07 04.7**	**-2.7**
LCO	**Las Campanas**	**7.63**	**195**	Pn	**Pn**	**06 07 14.1**	**-2.4**
BBSD	**Serra de San D**	**8.64**	**61**	*eP*	**Pn**	**06 07 26.2**	**-3.8**
SIV	**San Ignacio**	**8.98**	**53**	P	**Pn**	**06 07 30.9**	**-3.6**
	comp=Z,5.3nm,0.3s,baz=243,slow=9.5,SNR=61						
SIV				S	Sn	06 09 04.6	-10
	comp=Z,3.6nm,0.7s,baz=298,slow=21,SNR=10						
CO02	**Combarbal**	**9.81**	**193**	Pn	**Pn**	**06 07 41.8**	**-3.8**
CFA	**Coronel Fontan**	**9.95**	**179**	P	**Pn**	**06 07 44.5**	**-2.9**
	comp=Z,0.9nm,0.3s,baz=9.9,slow=11,SNR=20						
CFA				S	**Sn**	**06 09 30.3**	**-7.1**
	comp=Z,1.2nm,0.4s,baz=118,slow=23,SNR=10.0						
MURT	**Porto Murtinho**	**10.12**	**92**	*eP*	**Pn**	**06 07 46.5**	**-3.1**
COIM	**Forte Coimbra**	**10.16**	**82**	*eP*	Pn	06 07 45.3	-4.9
PTLB	**Pontes e Lacer**	**10.79**	**57**	*eP*	**Pn**	**06 07 56.2**	**-2.3**
BDQN	**Bodoquena, MS**	**11.03**	**86**	*eP*	**Pn**	**06 07 58.4**	**-3.3**
CPUP	**Villa Florida**	**11.23**	**117**	P	**Pn**	**06 08 00.4**	**-4.0**
	comp=Z,2.6nm,0.8s,baz=301,slow=12,SNR=7.6						
CPUP	**Villa Florida**	**11.23**	**117**	Pn	**Pn**	**06 08 02.6**	**-1.7**
CPUP	**Villa Florida**	**11.23**	**117**	*eP*	**Pn**	**06 08 03.2**	**-1.1**
VILB	**Vilhena**	**11.70**	**44**		**Pn**	**06 08 09.4**	**-1.1**
VILB	**Vilhena**	**11.70**	**44**	*eP*	**Pn**	**06 08 08.9**	**-1.7**
MT02	**Curacav**	**11.83**	**191**	Pn	**Pn**	**06 08 11.3**	**-0.9**
SJPY	**San Joaquin**	**11.87**	**109**	*eP*	**Pn**	**06 08 12.2**	**-0.6**
AQDB	**Aquidauana**	**12.00**	**87**	*eP*	**Pn**	**06 08 14.7**	**+0.2**
SALV	**Santo Antonio**	**13.39**	**67**	*eP*	**Pn**	**06 08 32.7**	**+0.3**
PTGB	**Pitanga**	**15.42**	**105**	*eP*	**P**	**06 08 59.7**	**+0.1**
ANCO	**Parque Anchore**	**15.66**	**146**	*eP*	**Pn**	**06 08 59.2**	**-1.6**
ITAB	**Concordia**	**15.91**	**114**		**P**	**06 09 05.4**	**+0.5**
ITAB	**Concordia**	**15.91**	**114**	*eP*	**Pn**	**06 09 02.6**	**-1.5**
PCMB	**Pacaembu**	**16.03**	**93**	*eP*	**Pn**	**06 09 04.8**	**-0.7**
LDASE	**Londrina, Braz**	**16.16**	**100**	*eP*	**Pn**	**06 09 07.3**	**+0.2**
CLDB	**Colider**	**16.20**	**51**	*eP*	**Pn**	**06 09 04.3**	**-3.3**
ARAG	**Araguaiana, MT**	**16.86**	**72**	*eP*	**P**	**06 09 14.4**	**-1.0**
CNLB	**Canela**	**17.67**	**119**	*eP*	**P**	**06 09 23.8**	**-0.5**
GO06	**Curarrehue**	**18.09**	**187**	P	**Pn**	**06 09 30.6**	**+0.2**
TEFE	**Tefe**	**18.39**	**12**	*eP*	**P**	**06 09 32.1**	**0.0**
BB19B	**Bebedouro**	**18.61**	**92**	*eP*	**P**	**06 09 33.6**	**-1.0**
SNDB	**Serra Nova Dou**	**19.04**	**63**	*eP*	**P**	**06 09 38.6**	**-0.7**
PLCA	**Paso Flores**	**19.14**	**185**	P	**Pn**	**06 09 41.7**	**-0.9**
	comp=Z,0.8nm,0.6s,baz=347,slow=11,SNR=4.8						
PLCA	**Paso Flores**	**19.14**	**185**	P	**P**	**06 09 40.5**	**+0.3**
NPGB	**Novo Progresso**	**19.26**	**43**	*eP*	**P**	**06 09 41.7**	**0.0**
IPMB	**Ipameri, GO**	**19.42**	**83**	*eP*	**P**	**06 09 43.0**	**-0.5**
PET01	**Itanhaem-SP**	**19.72**	**102**	*eP*	**P**	**06 09 46.9**	**+0.3**
MACA	**Manacapuru-AM**	**19.85**	**24**	P	**P**	**06 09 48.0**	**-0.2**
MACA					IAmb	IAmb	06 09 50.8	
	comp=Z,5.8nm,0.7s						
MACA	**Manacapuru-AM**	**19.85**	**24**	*eP*	**P**	**06 09 47.9**	**-0.2**
VAO	**Valinhos**	**19.97**	**98**	P	**P**	**06 09 48.9**	**-0.4**
VAO	**Valinhos**	**19.97**	**98**	*eP*	**P**	**06 09 49.0**	**-0.4**
BDFB	**Brasilia**	**20.29**	**76**	P	**P**	**06 09 51.9**	**-1.0**
	comp=Z,2.7nm,0.4s,baz=237,slow=6.6,SNR=10						
	comp=Z,2.7nm,0.4s						
BDFB	**Brasilia**	**20.29**	**76**	P	**P**	**06 09 53.0**	**+0.1**
BDFB					IAmb	IAmb	06 09 55.0	
	comp=Z,9.4nm,1.3s						
CANS	**Sao Roque de M**	**20.68**	**90**	*eP*	**P**	**06 09 56.8**	**-0.3**
PMNB	**Patos De Minas**	**20.94**	**86**	*eP*	**P**	**06 09 59.2**	**-0.6**
ITTB	**Itaituba**	**21.15**	**38**	*eP*	**P**	**06 10 01.0**	**-1.0**
PARB	**Paraibuna**	**21.20**	**99**	*eP*	**P**	**06 10 01.7**	**-0.9**
DIAM	**Diamantina, MG**	**23.56**	**86**	*eP*	**P**	**06 10 25.1**	**-0.9**
SMTB	**Santa Maria do**	**23.78**	**61**	P	**P**	**06 10 28.5**	**+0.6**
SMTB				IAmb	IAmb	06 10 28.7	
	comp=Z,6.2nm,0.5s						
SMTB	**Santa Maria do**	**23.78**	**61**	*eP*	**P**	**06 10 26.7**	**-1.2**
SDBA	**SAO DESIDERIO**	**24.32**	**72**	*eP*	**P**	**06 10 31.7**	**-1.1**
SNAA	**Sanae**	**62.05**	**161**	P	**P**	**06 15 34.3**	**+1.2**
SNAA				IAmb	IAmb	06 15 36.8	
	comp=Z,7.3nm,1.5s						
DBIC	**Dimbokro**	**68.40**	**73**	P	**P**	**06 16 15.5**	**+0.6**
	comp=Z,4.2nm,0.9s,baz=270,slow=6.1,SNR=3.7						
	comp=Z,4.2nm,0.9s						
QSPA	**South Pole Qui**	**68.58**	**180**	P	**P**	**06 16 16.6**	**+1.2**
QSPA				IAmb	IAmb	06 16 50.8	
	comp=Z,6.2nm,1.4s						
PDAR	**Pinedale Array**	**74.40**	**330**	P	**P**	**06 16 53.2**	**+2.6**
	comp=Z,0.2nm,0.5s,baz=127,slow=5.0,SNR=2.6						
	comp=Z,0.2nm,0.5s						
ULM	**Lac du Bonnet**	**75.54**	**342**	P	**P**	**06 16 58.2**	**+1.5**
	comp=Z,0.9nm,0.5s,baz=142,slow=4.2,SNR=4.1						
	comp=Z,0.9nm,0.5s						
NVAR	**Mina Array Bea**	**75.82**	**322**	P	**P**	**06 17 01.6**	**+2.7**
	comp=Z,0.3nm,0.6s,baz=137,slow=3.8,SNR=3.2						
	comp=Z,0.3nm,0.6s						
TORD	**Torodi Ar. Bea**	**77.03**	**70**	P	**P**	**06 17 06.7**	**+0.8**
	comp=Z,0.7nm,0.6s,baz=240,slow=7.0,SNR=2.1						
	comp=Z,0.7nm,0.6s						
YKA	**Yellowknife Ar**	**91.42**	**340**	P	**P**	**06 18 20.1**	**+2.5**
	comp=Z,2.0nm,0.6s,baz=137,slow=4.5,SNR=41						
	comp=Z,2.0nm,0.6s						
EZN	**Ezine**	**107.09**	**53**	P	**Pdif**	**06 19 27.3**	**-1.4**
MKAR	**Makanchi Array**	**145.50**	**36**	PKPbc	**PKiKP**	**06 24 52.1**	**-1.3**
	comp=Z,0.2nm,0.5s,baz=302,slow=4.6,SNR=2.5						

IDC 30 06:44:40.2±6.4,17°.78S×174°.91W,h0km,mb3.8/3, mbtmp3.8/3,MS2.4/1,Error ellipse: s-maj=306.9km s-min=35.6km az=143.0,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.89**	**38**	LR	LR	06 47 14.3	
	comp=Z,39nm,18.3s,baz=212,slow=32						
WRA	**Warramunga Arr**	**47.93**	**259**	P	P	06 53 20.5	-0.3
	0.6nm,0.8s,baz=98,slow=7.9,SNR=3.6						
	0.6nm,0.8s						
ASAR	**Alice Springs**	**48.03**	**254**	P	P	06 53 21.6	0.0
	2.2nm,0.7s,baz=88,slow=8.3,SNR=21						
	2.2nm,0.7s						
ILAR	**Eielson Array**	**85.05**	**12**	P	P	06 57 17.1	-0.2
	0.7nm,1.0s,baz=205,slow=4.9,SNR=4.1						
	0.7nm,1.0s						
BRTR	**Keskin Array B**	**147.01**	**317**	PKPbc	PKPbc	07 04 24.9	-0.5
	0.8nm,0.9s,baz=18,slow=5.0,SNR=5.0						
GERES	**GERESS Array B**	**148.24**	**349**	PKPbc	PKPbc	07 04 27.6	-0.8
	0.2nm,0.3s,baz=18,slow=3.7,SNR=3.5						

*ASRS **30** 07:09:31.0±1.2,54°.34N×86°.84E,h0km,M2.9(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

**IDC 30 07:09:34.7±4

BKZ Black Stump Fm 18.92 193 P **P** 07 16 15.9 -1.3
ETVZ East Tongariro 19.06 194 P **P** 07 16 18.5 -0.1
BFZ Birch Farm 20.43 192 P **P** 07 16 29.8 -1.0
KHZ Kahutara 22.70 196 P **P** 07 16 50.1 -0.9
SAVO Savo Central 24.02 295 P **P** 07 17 03.3 +0.1
TATA Tatamba Isabel 24.43 297 P **P** 07 17 06.1 -0.7
JCZ Jackson Bay 25.65 202 P **P** 07 17 17.0 -0.2
ARMA Armidale 28.70 244 P **P** 07 17 44.8 +0.6
CTA Charters Tower 33.17 265 P **P** 07 18 22.2 -0.2
comp=Z,11nm,0.5s,baz=92,slow=10,SNR=16
comp=Z,11nm,0.5s
CTA Charters Tower 33.17 265 P **P** 07 18 22.4 0.0
CTAO Charters Tower 33.17 265 P **P** 07 18 22.4 0.0
CTAO Charters Tower 33.17 265 P **P** 07 18 22.8 +0.4
CTAO Charters Tower 33.17 265 P **P** 07 18 23.2 +0.7
comp=Z,15nm,0.6s
CMSA Cobar Meteorol 33.92 244 P **P** 07 18 28.9 +0.3
comp=Z,16nm,2.0s
QLP Quilpie 34.71 253 P **P** 07 18 35.5 +0.3
comp=Z,26nm,0.9s
MTSU Mount Surprise 35.28 268 P **P** 07 18 40.2 +0.1
comp=Z,13nm,0.5s
STKA Stephens Creek 37.42 244 P **P** 07 18 57.9 +0.4
comp=Z,3.9nm,0.6s,baz=261,slow=2.7,SNR=3.9
STKA PcP **PcP** 07 21 01.6 +0.8
comp=Z,1.9nm,0.5s,baz=97,slow=3.4,SNR=3.5
comp=Z,3.9nm,0.6s
STKA Stephens Creek 37.42 244 P **P** 07 18 58.2 +0.7
STKA Stephens Creek 37.42 244 P **P** 07 18 58.5 +1.0
STKA **PcP** 07 21 01.3 +0.6
INKA Innaminka 37.85 251 P **P** 07 19 02.0 +1.0
QIS Mount Isa 39.29 263 P **P** 07 19 12.9 +0.1
HTT Hallett 39.86 242 P **P** 07 19 17.5 +0.3
BBOO Buckleboo 42.18 244 P **P** 07 19 35.5 0.0
BBOO Buckleboo 42.18 244 P **P** 07 19 36.1 +0.6
BBOO IAmb IAmb 07 19 36.6
comp=Z,13nm,0.8s
BBOO Buckleboo 42.18 244 P **P** 07 19 35.9 +0.3
comp=Z,25nm,1.9s
JAY Jayapura 43.83 289 P **P** 07 19 49.3 +0.7
comp=Z,40nm,0.6s
WR8 Warramunga Arr 44.12 262 **P** 07 19 50.6 -0.2
WR8 IAmb IAmb 07 19 52.0
comp=Z,24nm,1.4s
AS01 Alice Springs 44.13 257 P **P** 07 19 50.8 -0.1
AS31 Alice Springs 44.18 257 **P** 07 19 51.5 +0.3
ASAR Alice Springs 44.18 257 P **P** 07 19 51.3 +0.1
comp=Z,12nm,0.5s,baz=98,slow=7.4,SNR=235
ASAR PcP **PcP** 07 21 23.8 +0.4
comp=Z,3.2nm,0.6s,baz=104,slow=4.2,SNR=11
ASAR S **S** 07 25 42.0 -1.5
comp=Z,1.7nm,0.9s,baz=90,slow=14,SNR=9.9
comp=Z,12nm,0.5s
WB0 Warramunga Arr 44.25 263 **P** 07 19 51.7 -0.1
WB0 IAmb IAmb 07 19 52.2
comp=Z,14nm,0.6s
WRAB Tennant Creek 44.27 262 P **P** 07 19 51.2 -0.7
WRAB Tennant Creek 44.27 262 P **P** 07 19 51.4 -0.5
comp=Z,10nm,0.9s
WRA Warramunga Arr 44.27 262 P **P** 07 19 51.6 -0.4
comp=Z,6.5nm,0.5s,baz=98,slow=7.5,SNR=138
WRA PcP **PcP** 07 21 23.7 0.0
comp=Z,2.3nm,0.8s,baz=94,slow=3.7,SNR=6.0
WRA S **S** 07 25 42.8 -2.2
comp=Z,1.4nm,1.0s,baz=97,slow=13,SNR=5.5
comp=Z,6.5nm,0.5s
WRA Warramunga Arr 44.27 262 **P** 07 19 51.8 -0.2
WRA **PcP** 07 21 23.7 0.0
KHLU Kahalu`u 45.68 30 P **P** 07 20 03.0 +0.2
HUH Hualalai 45.79 30 P **P** 07 20 04.0 +0.2
BYL Byron's Ledge 45.83 31 P **P** 07 20 03.9 +0.1
SMPI Sarmi 45.84 288 P **P** 07 20 04.3 +0.4
comp=Z,26nm,0.6s
HMH Humu'ula Sheep 45.89 31 P **P** 07 20 04.9 +0.4
MTN Manton Dam 48.87 271 P **P** 07 20 26.5 -0.1
FORT Forrest 48.93 247 P **P** 07 20 27.2 +0.3
FORT PcP **PcP** 07 21 40.9 +0.6
KNRA Kununurra 50.35 266 P **P** 07 20 37.9 +0.4
FITZ Fitzroy Crossi 52.70 263 **P** 07 20 54.9 +0.5
FITZ Fitzroy Crossi 52.70 263 P **P** 07 20 54.6 +0.2
comp=Z,2.8nm,1.1s
SIJI Sorong 53.00 285 P **P** 07 20 57.3 +0.7
comp=Z,42nm,0.8s
NLAI Namlea 55.85 281 P **P** 07 21 16.6 +0.1
comp=Z,16nm,1.2s
SOEI Soe 56.21 272 P **P** 07 21 19.7 +0.5
SOEI Soe 56.21 272 P **P** 07 21 21.2 +2.1
comp=Z,38nm,0.8s
MBWA Marble Bar 57.51 258 P **P** 07 21 27.6 -0.2
MBWA Marble Bar 57.51 258 P **P** 07 21 28.1 +0.2
MBWA IAmb IAmb 07 21 28.4
comp=Z,14nm,0.6s
MBWA Marble Bar 57.51 258 P **P** 07 21 27.7 -0.1
comp=Z,22nm,1.1s
MEEK Meekatharra 57.56 251 P **P** 07 21 27.8 -0.3
MEEK Meekatharra 57.56 251 P **P** 07 21 27.9 -0.3
comp=Z,21nm,1.6s
VNDA Vanda 57.67 185 P **P** 07 21 29.9 +1.9
comp=Z,0.7nm,0.6s,baz=341,slow=7.0,SNR=7.2
comp=Z,0.7nm,0.6s
VNDA Vanda 57.67 185 P **P** 07 21 30.4 +2.4
NWAO Narrogin (SRO) 58.00 243 P **P** 07 21 31.5 +0.5
NWAO Narrogin (SRO) 58.00 243 P **P** 07 21 31.4 +0.5
NWAO Narrogin (SRO) 58.00 243 P **P** 07 21 31.7 +0.7
NWAO IAmb IAmb 07 21 59.7
comp=Z,58nm,1.3s
BLDU Ballidu 58.69 246 P **P** 07 21 35.6 -0.1
EDFI Ende, Flores 58.94 272 P **P** 07 21 37.7 0.0
comp=Z,17nm,1.3s
MORW Morawa 59.47 248 P **P** 07 21 41.3 +0.4
DBNI Kabupaten Domp 62.18 271 P **P** 07 21 58.7 -0.2
comp=Z,42nm,0.6s
GIRL Giralia 62.20 255 P **P** 07 22 00.2 +1.3
PLAI Plampang 62.58 271 P **P** 07 22 01.1 -0.3
PLAI Plampang 62.58 271 P **P** 07 22 01.4 0.0
comp=Z,38nm,0.8s
TOLI2 Tolitoli 63.36 282 P **P** 07 22 06.2 -0.3
TOLI2 IAmb IAmb 07 22 14.8
comp=Z,20nm,0.9s
QSPA South Pole Qui 69.35 180 P **P** 07 22 44.2 +1.4
comp=Z,1.4nm,0.7s,baz=277,slow=1.3,SNR=11
comp=Z,1.4nm,0.7s
QSPA South Pole Qui 69.35 180 P **P** 07 22 44.6 +1.9
UGM Wanagama 69.66 269 P **P** 07 22 45.4 0.0
UGM Wanagama 69.66 269 P **P** 07 22 45.4 0.0
JGF Kuroka 70.00 323 P **P** 07 22 46.9 0.0
JGF IAmb IAmb 07 23 07.5
comp=Z,39nm,1.5s
MJAR Matsushiro Arr 70.21 324 P **P** 07 22 47.1 -0.9
comp=Z,4.6nm,0.6s,baz=153,slow=5.9,SNR=11
comp=Z,4.6nm,0.6s
MJAR Matsushiro Arr 70.21 324 P **P** 07 22 48.3 +0.2
MAJO Matsushiro 70.21 324 P **P** 07 22 48.2 +0.1
MAJO IAmb IAmb 07 22 48.8
comp=Z,10.0nm,0.9s
MJB9 Matsu-Tunnel 70.21 324 P **P** 07 22 48.4 +0.2
MJB9 IAmb IAmb 07 22 48.7
comp=Z,9.3nm,0.8s
JTM Tenmabayashi 71.89 329 P **P** 07 22 58.4 +0.5
JNU Nakatsue 72.23 317 P **P** 07 22 59.9 -0.2
comp=Z,13nm,0.9s,baz=102,slow=6.2,SNR=6.5
comp=Z,13nm,0.9s
ADK Adak 72.30 1 P **P** 07 22 59.8 -0.1
BBJI Bungbulang 72.50 269 P **P** 07 23 01.9 -0.1
BBJI IAmb IAmb 07 23 19.2
comp=Z,26nm,1.3s
TWG Pinlang 73.25 303 P **P** 07 23 05.2 -0.8
JKA Kamikawa-asahi 73.77 332 P **P** 07 23 10.0 +1.5
SSLB Suanglung 73.84 304 P **P** 07 23 08.5 -0.9
SSLB Suanglung 73.84 304 P **P** 07 23 08.8 -0.7
OKNC Okmok New Cone 74.39 6 P **P** 07 23 12.0 +0.2
UNV Unalaska Valle 74.95 7 P **P** 07 23 14.1 -0.8
UNV Unalaska Valle 74.95 7 P **P** 07 23 15.7 +0.9
AKUT Akutan 75.32 8 P **P** 07 23 17.2 +0.3
PEA0B Petropavlovsk- 76.40 345 P **P** 07 23 23.1 +0.1
PEA0B IAmb IAmb 07 23 23.8
comp=Z,30nm,1.0s
PETK Petropavlovsk- 76.40 345 P **P** 07 23 23.1 0.0
comp=Z,9.2nm,0.6s,baz=130,slow=6.5,SNR=14
comp=Z,9.2nm,0.6s
PETK Petropavlovsk- 76.40 345 P **P** 07 23 22.9 0.0
KSRS Korea Array 76.85 319 P **P** 07 23 26.9 +1.2
comp=Z,2.8nm,0.6s,baz=127,slow=6.2,SNR=8.7
comp=Z,2.8nm,0.6s
KSAR Wonju Array Be 76.87 319 P **P** 07 23 26.9 +1.0

S12K Black Hills 77.36 9 P **P** 07 23 27.6 -0.5
JRSC Jasper Ridge 78.27 42 P **P** 07 23 33.5 +0.1
PMPB Monarch Peak 78.48 44 P **P** 07 23 34.1 -0.6
PMPB IAmb IAmb 07 24 06.5
comp=Z,21nm,1.3s
MHC Mount Hamilton 78.61 43 P **P** 07 23 35.9 +0.5
CHIR Chirikof Islan 78.63 13 P **P** 07 23 34.8 -0.1
CVS Carmenet Viney 78.71 42 P **P** 07 23 37.0 +1.2
CVS IAmb IAmb 07 23 37.7
comp=Z,20nm,1.1s
KCPM Cahto Peak 78.85 40 P **P** 07 23 37.7 +1.1
KCPM IAmb IAmb 07 23 39.0
comp=Z,26nm,1.2s
USRK Ussuriysk Ar. 78.97 326 P **P** 07 23 38.4 +1.4
comp=Z,7.6nm,0.7s,baz=116,slow=3.2,SNR=9.8
comp=Z,7.6nm,0.7s
USRK Ussuriysk Ar. 78.97 326 P **P** 07 23 37.8 +0.8
KMPM Mount Pierce 78.99 39 P **P** 07 23 38.3 +0.9
KMPM IAmb IAmb 07 23 39.9
comp=Z,21nm,0.9s
PASC Pasadena Art C 79.05 47 P **P** 07 23 38.7 +1.0
KMRM Mail Ridge 79.11 39 **P** 07 23 40.0 +2.1
MWC Mount Wilson 79.17 47 P **P** 07 23 38.5 -0.1
DPP Dos Picos Cty 79.27 49 P **P** 07 23 40.0 +1.1
ELS Elsinore Mount 79.28 48 P **P** 07 23 40.6 +1.6
ESJX Sierra Juarez 79.44 50 P **P** 07 23 40.3 +0.3
SII Sitkinak Islan 79.62 13 P **P** 07 23 40.4 +0.2
O02D Mt. Diablo Mer 79.63 40 **P** 07 23 41.7 +0.9
O02D IAmb IAmb 07 23 43.4
comp=Z,16nm,0.7s
NJ2 Nanjing 79.79 310 *eP* **P** 07 23 43.0 +1.4
NJ2 pmax pmax
comp=Z,9.0nm,0.6s
YUH Yuha Desert 79.80 49 P **P** 07 23 42.5 +0.9
CMB Columbia Colle 79.82 43 P **P** 07 23 42.9 +1.2
PFO Pinyon Flats O 79.94 48 P **P** 07 23 42.8 +0.2
AFDM Forest Hills D 80.00 42 **P** 07 23 43.2 +0.6
O03E Paynes Creek 80.30 40 IAmb IAmb 07 23 46.8
comp=Z,13nm,0.9s
M02C Callahan 80.35 39 IAmb IAmb 07 23 47.2
comp=Z,15nm,0.8s
CCCA Chr Cany lake 80.37 46 P **P** 07 23 46.2 +1.6
CLC China Lake 80.37 46 IAmb IAmb 07 23 46.7
comp=Z,15nm,1.3s
MDPB Devils Postpil 80.43 44 **P** 07 23 45.8 +0.6
BELC Belle Mtn. Jos 80.47 48 P **P** 07 23 45.9 +0.6
MDJ Mudanjiang 80.52 325 P **P** 07 23 46.5 +1.4
MDJ pmax pmax
comp=Z,15nm,1.4s
MPMC Manual Prospec 80.58 46 **P** 07 23 46.9 +1.0
YBH Yreka Blue Hor 80.64 39 **P** 07 23 47.5 +1.6
YBH IAmb IAmb 07 23 48.4
comp=Z,15nm,0.8s
TIN Tinemaha, Big 80.65 45 P **P** 07 23 47.7 +1.6
TIN IAmb IAmb 07 23 48.3
comp=Z,20nm,0.9s
BC3 Big Chuckawall 80.67 49 **P** 07 23 47.8 +1.5
GLA Glamis 80.79 50 P **P** 07 23 48.7 +1.8
GLA IAmb IAmb 07 23 49.5
comp=Z,15nm,1.1s
MPK Martis Peak 80.79 42 **P** 07 23 48.5 +1.4
HATC Hat Creek Radi 80.82 40 P **P** 07 23 48.2 +1.3
HATC IAmb IAmb 07 23 49.2
comp=Z,26nm,0.9s
PNTR Pine Nut 80.94 42 P **P** 07 23 48.9 +1.1
PNTR IAmb IAmb 07 23 49.9
comp=Z,21nm,0.8s
LHV Little Huntoon 81.16 44 IAmb IAmb 07 23 50.9
comp=Z,13nm,0.9s
L04D Klamath Falls 81.18 39 IAmb IAmb 07 23 50.9
comp=Z,18nm,0.8s
SHOC Shoshone, Teco 81.31 47 P **P** 07 23 49.9 +0.4
NVAR Mina Array Bea 81.39 43 P **P** 07 23 51.2 +1.2
comp=Z,6.2nm,0.7s,baz=223,slow=9.0,SNR=22
comp=Z,6.2nm,0.7s
NVAR Mina Array Bea 81.39 43 P **P** 07 23 51.0 +1.0
113A Mohawk Valley, 81.41 50 P **P** 07 23 51.4 +1.4
PAHR Pah Rah Range 81.44 42 **P** 07 23 51.2 +1.0
PAHR IAmb IAmb 07 23 52.1
comp=Z,21nm,1.3s
NV11 Mina Array Sit 81.48 44 P **P** 07 23 51.4 +0.9
NV11 IAmb IAmb 07 23 52.4
comp=Z,11nm,1.0s
KVN Kaiserville 81.87 43 IAmb IAmb 07 23 54.1
comp=Z,8.6nm,0.7s
TPH Tonopah 81.89 44 IAmb IAmb 07 23 54.4
comp=Z,12nm,0.9s
TPNV Topopah Spring 81.91 46 **P** 07 23 54.0 +1.3
TPNV IAmb IAmb 07 23 54.6
comp=Z,9.7nm,0.8s
MOD Modoc Plateau 82.17 40 IAmb IAmb 07 23 55.8
comp=Z,12nm,0.7s
BNX BinXian 82.43 325 ⇑P **P** 07 23 55.0 +0.2
BNX pmax pmax
comp=Z,15nm,0.8s
WIFE Three Sisters- 82.60 37 IAmb IAmb 07 23 58.2
comp=Z,17nm,0.8s
S11A Rachel 82.62 45 IAmb IAmb 07 23 58.0
comp=Z,11nm,0.7s
PRN Pahroc Range 82.96 46 IAmb IAmb 07 24 00.2
comp=Z,11nm,0.8s
I05D Terrebonne, OR 83.04 37 IAmb IAmb 07 24 00.1
comp=Z,17nm,0.9s
TUC Tucson 83.35 52 **P** 07 24 01.3 +1.4
TUC IAmb IAmb 07 24 02.7
comp=Z,9.1nm,0.9s
RED Redoubt Volcan 83.47 12 P **P** 07 23 59.4 -0.4
RED IAmb IAmb 07 23 59.8
comp=Z,11nm,1.0s
WVOR Wild Horse Val 83.49 40 P **P** 07 24 01.5 +1.1
WVOR IAmb IAmb 07 24 02.5
comp=Z,13nm,1.1s
KULM Kulim 83.50 278 P **P** 07 23 59.9 -1.1
KULM Kulim 83.50 278 P **P** 07 24 00.1 -0.9
comp=Z,100nm,0.8s
M17K Holitna River 83.54 10 P **P** 07 24 00.5 +0.5
M17K IAmb IAmb 07 24 02.0
comp=Z,14nm,0.9s
K15K Wolf Creek Mou 83.80 8 P **P** 07 24 02.3 +1.1
MA2 Magadan 83.91 345 P **P** 07 24 02.0 +0.1
comp=Z,25nm,1.9s
X16A Lo Mia Camp, P 83.91 50 IAmb IAmb 07 24 05.2
comp=Z,8.6nm,1.1s
LCMT Little Creek M 83.97 47 P **P** 07 24 03.4 +0.5
319A Douglas 84.02 53 IAmb IAmb 07 24 06.0
comp=Z,21nm,1.1s
SLKM Skilak Lake 84.09 14 **P** 07 24 02.8 0.0
J08A Circle Bar Ran 84.12 39 **P** 07 24 04.8 +1.3
J08A IAmb IAmb 07 24 05.6
comp=Z,13nm,1.3s
RPSI Rantau Prapat 84.18 275 P **P** 07 24 04.4 +0.2
RPSI IAmb IAmb 07 24 05.1
comp=Z,9.2nm,1.0s
U15A North Rim 84.33 48 IAmb IAmb 07 24 07.2
comp=Z,11nm,0.7s
PSUT Pine Spring 84.36 45 **P** 07 24 05.9 +1.0
L18K Granite Mounta 84.43 10 IAmb IAmb 07 24 06.0
comp=Z,7.0nm,0.7s
WUAZ Wupatki 84.51 49 **P** 07 24 05.8 +0.2
L19K White Mountain 84.70 11 IAmb IAmb 07 24 07.0
comp=Z,7.4nm,0.9s
RC01 Rabbit Creek A 84.72 14 IAmb IAmb 07 24 06.4
comp=Z,14nm,1.0s
PKCU Pink Cliffs 84.83 47 IAmb IAmb 07 24 10.1
comp=Z,8.9nm,0.8s
SUA Susitna One 84.84 13 IAmb IAmb 07 24 06.8
comp=Z,14nm,0.8s
GSI Gunungsitoli 84.94 273 **P** 07 24 08.5 +0.4
GSI Gunungsitoli 84.94 273 P **P** 07 24 09.7 +1.7
comp=Z,38nm,0.8s
G08A Pilot Rock 84.97 38 IAmb IAmb 07 24 09.5
comp=Z,11nm,0.8s
L20K Fawell, AK 85.15 11 IAmb IAmb 07 24 08.4
comp=Z,11nm,1.1s
E07A Sunnyside 85.22 36 IAmb IAmb 07 24 10.7
comp=Z,12nm,1.0s
HAWA Hanford 85.30 36 **P** 07 24 10.3 +1.4
HAWA IAmb IAmb 07 24 11.2
comp=Z,9.0nm,0.8s
HEH HeiHe 85.34 328 *eP* **P** 07 24 09.0 0.0
WAH2 Wahluke Slope 85.50 36 IAmb IAmb 07 24 12.8
comp=Z,9.6nm,1.0s
J18K Innoko River 85.60 10 IAmb IAmb 07 24 11.1
comp=Z,21nm,1.4s
E08A Dider Farm, El 85.62 37 IAmb IAmb 07 24 12.5
comp=Z,8.1nm,0.8s
LYN LuoYang 85.66 309 ⇑P **P** 07 24 12.5 +1.5
LYN pmax pmax
comp=Z,32nm,0.7s
BMO Blue Mountains 85.67 39 IAmb IAmb 07 24 12.5
comp=Z,6.2nm,0.8s
121A Cookes Peak, D 85.68 53 IAmb IAmb 07 24 14.0
comp=Z,6.5nm,0.9s
MFID Camas Ranch 85.74 40 **P** 07 24 12.4 +1.1
BJI2 Beijing 85.83 316 P **P** 07 24 12.5 +0.9
BJI2 pmax pmax
comp=Z,8.0nm,0.6s
ENH Enshi 85.91 304 P **P** 07 24 13.5 +1.2
comp=Z,22nm,0.9s
D08A Wollman Farm, 86.03 36 IAmb IAmb 07 24 14.4
comp=Z,14nm,0.9s
E09A Wood Farm, Sta 86.15 37 IAmb IAmb 07 24 15.2
comp=Z,10nm,1.0s
CAST Castle Rocks 86.35 11 IAmb IAmb 07 24 13.0
comp=Z,11nm,0.8s
ELIB Princess Elisa 86.39 187 *d*P **P** 07 24 14.3 +0.3
comp=Z,3.8nm,0.8s
ELIB *d*pP **pP** 07 26 17.3 0.0
SEY Seymchan 86.52 347 P **P** 07 24 14.7 +0.3
comp=Z,11nm,0.7s,baz=142,slow=5.8,SNR=26
comp=Z,11nm,0.7s
TMUT Trail Mountain 86.52 46 IAmb IAmb 07 24 17.6
comp=Z,9.2nm,1.2s
LLLB Lillooet 86.63 32 IAmb IAmb 07 24 16.9
comp=Z,11nm,1.1s
HLID Hailey 86.69 41 IAmb IAmb 07 24 18.1
comp=Z,7.2nm,0.9s
TRF Thorofare Moun 86.72 12 **P** 07 24 15.1 -0.5
C09A Chrisman Ranch 86.82 36 IAmb IAmb 07 24 17.8
comp=Z,11nm,0.8s
SRU San Rafael Swe 86.89 46 IAmb IAmb 07 24 18.6
comp=Z,8.0nm,0.9s
P17A Butcher Ranch, 86.92 46 IAmb IAmb 07 24 19.2
comp=Z,8.0nm,1.3s
VHRN Van Horn 87.02 56 IAmb IAmb 07 24 20.1
comp=Z,9.9nm,0.9s
MNTX Cornudas Mount 87.12 55 **P** 07 24 19.0 +1.0
MNTX IAmb IAmb 07 24 20.2
comp=Z,12nm,1.1s
TCUT Toone Canyon 87.31 44 IAmb IAmb 07 24 20.7
comp=Z,6.0nm,0.8s
TX31 Lajitas Ar. Si 87.42 57 **P** 07 24 20.7 +1.2
TX31 IAmb IAmb 07 24 22.1
comp=Z,10nm,1.1s
TXAR Lajitas Array 87.42 57 P **P** 07 24 20.4 +0.9
comp=Z,5.2nm,0.9s,baz=224,slow=5.2,SNR=20
comp=Z,5.2nm,0.9s
TXAR Lajitas Array 87.42 57 **P** 07 24 21.2 +1.7
BSUT Blindstream Ca 87.44 45 IAmb IAmb 07 24 22.6
comp=Z,8.7nm,1.2s
M26K Nabesna, AK 87.45 16 P **P** 07 24 19.3 +0.5
M26K IAmb IAmb 07 24 20.1
comp=Z,8.1nm,1.0s
HWUT Hardware Ranch 87.45 44 P **P** 07 24 20.0 +0.5
PV10 Paradox Valley 87.54 47 P **P** 07 24 20.7 +0.6
PV10 IAmb IAmb 07 24 21.3
comp=Z,6.2nm,0.7s
PV14 Lion Creek, Pa 87.55 47 IAmb IAmb 07 24 21.6
comp=Z,7.1nm,0.8s
PV20 West Nyswonger 87.57 47 IAmb IAmb 07 24 21.7
comp=Z,8.6nm,0.9s
PV23 Carpenter Ridg 87.60 47 IAmb IAmb 07 24 21.9
comp=Z,11nm,0.9s
PV04 Paradox Valley 87.64 47 IAmb IAmb 07 24 22.0
comp=Z,6.2nm,0.8s
PV02 Paradox Valley 87.67 48 IAmb IAmb 07 24 22.1
comp=Z,8.9nm,1.0s
PV21 Cone Mtn., Par 87.67 47 IAmb IAmb 07 24 22.3
comp=Z,8.9nm,0.8s
PV12 Saucer Basin, 87.68 48 IAmb IAmb 07 24 21.7
comp=Z,7.3nm,1.0s
PV01 Paradox Valley 87.75 48 IAmb IAmb 07 24 22.3
comp=Z,5.6nm,0.8s
ALQ Albuquerque 87.77 51 IAmb IAmb 07 24 23.0
comp=Z,6.8nm,1.1s
ALQ Albuquerque 87.77 51 IAmb IAmb 07 24 22.9
comp=Z,6.8nm,1.1s
ANMO Albuquerque 87.77 51 **P** 07 24 22.3 +1.1
ANMO IAmb IAmb 07 24 22.9
comp=Z,6.0nm,1.1s
TPB28 87.78 55 IAmb IAmb 07 24 23.4
comp=Z,9.6nm,1.3s
PV22 Blue Mesa, Par 87.79 47 IAmb IAmb 07 24 22.8
comp=Z,6.8nm,1.0s
ALPN Alpine 87.89 57 IAmb IAmb 07 24 23.9
comp=Z,7.8nm,0.7s
NEA2 Nenana 87.99 12 IAmb IAmb 07 24 21.3
comp=Z,5.5nm,0.6s
TPB01 Permian Basin 88.02 56 IAmb IAmb 07 24 24.3
comp=Z,8.8nm,0.9s
XAN Xi'an 88.03 307 P **P** 07 24 23.5 +1.3
XAN pmax pmax
comp=Z,18nm,0.7s
MLY Manley 88.06 11 **P** 07 24 21.0 -0.7
G19K Purcell Mounta 88.07 8 IAmb IAmb 07 24 22.5
comp=Z,6.7nm,0.8s
DOT Dot Lake 88.25 15 IAmb IAmb 07 24 23.4
comp=Z,7.3nm,0.9s
H21K Melozitna Rive 88.27 10 IAmb IAmb 07 24 24.5
comp=Z,6.1nm,0.7s
MCMT McKenzie Canyo 88.31 40 P **P** 07 24 25.0 +1.4
AHID Auburn Hatcher 88.34 43 IAmb IAmb 07 24 25.6
comp=Z,14nm,1.4s
TPB05 Hovey Rd 88.37 56 P **P** 07 24 25.3 +1.4
TPB05 IAmb IAmb 07 24 26.2
comp=Z,11nm,1.0s
IMAR Indian Mountai 88.42 10 P **P** 07 24 23.5 +0.3
I23K Minto, Yukon-K 88.43 12 IAmb IAmb 07 24 23.5
comp=Z,5.2nm,0.6s
COLA College 88.48 13 P **P** 07 24 22.9 -0.6
COLA College 88.48 13 P **P** 07 24 23.2 -0.3
SCRK Sand Creek 88.55 14 IAmb IAmb 07 24 26.1
comp=Z,5.0nm,0.8s
IL31 88.59 13 **P** 07 24 23.5 -0.4
ILAR Eielson Array 88.59 13 P **P** 07 24 23.3 -0.7
comp=Z,3.7nm,0.4s,baz=217,slow=5.3,SNR=80
comp=Z,3.7nm,0.4s
F19K Shaleruckik Mo 88.63 8 P **P** 07 24 24.3 +0.2
F19K IAmb IAmb 07 24 24.8
comp=Z,6.0nm,0.8s
DLMT Illon 88.74 40 IAmb IAmb 07 24 27.4
comp=Z,8.8nm,0.9s
J25K Salcha River, 88.78 14 IAmb IAmb 07 24 25.5
comp=Z,6.7nm,0.7s
HILR Hailar Array B 88.85 325 P **P** 07 24 25.9 +0.2
comp=Z,4.2nm,0.6s,baz=131,slow=8.1,SNR=5.3
comp=Z,4.2nm,0.6s
SAND Sanderson 88.90 57 IAmb IAmb 07 24 27.8
comp=Z,6.6nm,1.0s
O20A White River Ci 88.92 46 IAmb IAmb 07 25 09.4
comp=Z,8.9nm,1.4s
F20K Avaraart Lake 89.11 9 IAmb IAmb 07 24 27.3
comp=Z,6.5nm,0.8s
HHC Hu-ho-hao-te 89.29 314 *eP* **P** 07 24 31.0 +3.0
BW06 Boulder Array 89.32 43 IAmb IAmb 07 24 29.4
comp=Z,6.8nm,0.7s
PD31 Pinedale Array 89.32 43 **P** 07 24 28.8 +0.4
PD31 IAmb IAmb 07 24 29.4
comp=Z,6.7nm,0.7s
PDAR Pinedale Array 89.32 43 P **P** 07 24 28.7 +0.4
comp=Z,5.6nm,0.6s,baz=213,slow=3.4,SNR=63
comp=Z,5.6nm,0.6s
PDAR Pinedale Array 89.32 43 **P** 07 24 28.5 +0.3
YFT Old Faithful 89.35 41 IAmb IAmb 07 24 31.5
comp=Z,7.0nm,0.9s
YMR Madison River 89.38 41 IAmb IAmb 07 24 31.0
comp=Z,3.6nm,0.8s
BOZ Bozeman (W) 89.45 40 P **P** 07 24 29.9 +1.2
BOZ IAmb IAmb 07 24 30.6
comp=Z,6.7nm,0.9s
H17A Grant Village 89.48 42 IAmb IAmb 07 24 32.5
comp=Z,8.0nm,0.9s
YHH Holmes Hill 89.51 41 IAmb IAmb 07 24 32.6
comp=Z,4.8nm,1.1s
GBMT Granite Butte, 89.60 39 IAmb IAmb 07 24 32.8
comp=Z,7.5nm,1.3s
128A Castleberry Fa 89.73 55 P **P** 07 24 31.3 +1.1
128A IAmb IAmb 07 24 31.7
comp=Z,4.8nm,0.7s
CMAR Chiang Mai Arr 89.91 290 P **P** 07 24 33.0 +1.7
comp=Z,5.9nm,0.7s,baz=129,slow=2.9,SNR=23
comp=Z,5.9nm,0.7s

CHTO	Chiang Mai	90.03	290		P		P	07 24 33.7	+1.9	
	comp=Z,16nm,0.7s									
K29M	Barlow Dome	90.07	17				P	07 24 31.9	+0.8	
K29M					IAmb		IAmb	07 24 32.1		
	comp=Z,7.7nm,0.8s									
MSTX	Muleshoe	90.08	54				P	07 24 32.4	+0.6	
MSTX					IAmb		IAmb	07 24 33.1		
	comp=Z,7.2nm,0.8s									
OZNA	Ozona	90.08	57		IAmb		IAmb	07 24 33.5		
	comp=Z,4.5nm,0.8s									
YNE	Yellowstone No	90.14	41		P		P	07 24 31.9	-0.1	
YNE					IAmb		IAmb	07 24 34.3		
	comp=Z,4.6nm,0.9s									
G26K	Porcupine Rive	91.12	13		IAmb		IAmb	07 24 37.9		
	comp=Z,4.8nm,0.8s									
D22K	Ayikyak River	91.25	9		IAmb		IAmb	07 24 37.5		
	comp=Z,5.0nm,0.7s									
BMAR	Burnt Mountain	91.37	12		P		P	07 24 37.9	+0.9	
D23K	Nanushuk River	91.64	10		IAmb		IAmb	07 24 39.4		
	comp=Z,7.1nm,1.1s									
EPYK	Eagle Plains	92.27	16		P		P	07 24 41.5	+0.4	
EPYK					IAmb		IAmb	07 24 55.6		
	comp=Z,3.1nm,1.0s									
EDM	Edmonton	92.45	33		P		P	07 24 42.6	+0.4	
EDM					IAmb		IAmb	07 24 48.8		
	comp=Z,9.2nm,1.5s									
G30M	tAoh Zrail Nji	92.88	15		IAmb		IAmb	07 24 44.4		
	comp=Z,5.6nm,0.8s									
YKA	Yellowknife Ar	96.83	25		P		P	07 25 01.5	-0.2	
	comp=Z,0.7nm,0.7s,baz=240,slow=4.3,SNR=10.0									
	comp=Z,0.7nm,0.7s									
YKA	Yellowknife Ar	96.83	25		P		P	07 25 01.9	+0.2	
ZALV	Zalesovo Beam	110.47	321		PKiKP		PKiKP	07 29 58.6	-0.9	
	comp=Z,1.7nm,0.6s,baz=116,slow=1.1,SNR=9.2									
MKAR	Makanchi Array	111.13	313		PKiKP		PKiKP	07 30 00.1	-1.0	
	comp=Z,1.2nm,0.5s,baz=182,slow=0.8,SNR=17									
KURBB	Kurchatov Arra	114.00	317		PKP		PKPdf	07 30 05.4	-1.0	
	comp=Z,1.9nm,0.6s,baz=100,slow=1.8,SNR=22									
BVAR	Borovoye Array	119.05	320		PKP		PKPdf	07 30 15.5	-0.6	
	comp=Z,6.5nm,0.4s,baz=122,slow=1.9,SNR=32									
BORK	Borovoye	119.09	320				PKPdf	07 30 15.8	-0.4	
SPITS	Spitsbergen Ar	122.06	356		PKP		PKPdf	07 30 20.9	-0.3	
	comp=Z,6.2nm,0.7s,baz=72,slow=2.7,SNR=7.8									
ARTI	Arti	125.31	325				PKPdf	07 30 28.0	0.0	
AB31	Akbulak array	126.04	316				PKPdf	07 30 29.3	-0.2	
ARCES	ARCESS Array B	129.08	349		PKP		PKPdf	07 30 34.6	-0.1	
	comp=Z,2.3nm,0.4s,baz=48,slow=1.2,SNR=25									
KSANE	Kasane	135.33	213				PKPdf	07 30 46.0	-2.3	
FINES	FINESS Array B	135.89	343		PKhKP		PKPpre	07 30 35.2		
	comp=Z,1.5nm,0.7s,baz=48,slow=2.8,SNR=4.2									
FINES					PKP		PKPdf	07 30 46.5	-1.3	
	comp=Z,1.8nm,0.5s,baz=38,slow=3.6,SNR=9.6									
NB2	NORSAR Subarra	139.16	353		PKP		PKPdf	07 30 44.9	-9.0	
	comp=Z,1.8nm,0.6s,baz=14,slow=4.6									
NOA	NORSAR Array B	139.16	353		PKhKP		PKPpre	07 30 44.5		
	comp=Z,1.1nm,0.6s,baz=16,slow=2.5,SNR=5.3									
NOA					PKP		PKiKP	07 30 55.8	-0.6	
	comp=Z,1.3nm,0.6s,baz=13,slow=4.0,SNR=4.2									
HFS	Hagfors	139.70	351		PKhKP		PKPpre	07 30 46.2		
	comp=Z,3.1nm,0.4s,baz=22,slow=1.6,SNR=21									
STRU	Stroemstad	141.11	352	*i*	P		PKPdf	07 30 51.7	-5.6	
TJOU	Tjoern	142.03	351	*i*	P		PKPdf	07 30 54.3	-4.7	
HOMB	Homborsund	142.16	354	*i*	P		PKPdf	07 30 54.9	-4.4	
MARD	Mardin	142.32	305				PKPdf	07 30 57.9	-2.5	
ONAU	Onsala	142.60	351	*i*	P		PKPdf	07 30 56.7	-3.4	
FABU	Falkenberg	142.85	350	*i*	P		PKPdf	07 30 57.4	-3.1	
BLEU	Blekinge	142.93	347	*i*	P		PKPdf	07 30 57.4	-3.2	
LODK	Lodwar	142.98	247				PKPdf	07 31 00.7	-1.5	
KPL	Plockton	143.03	7	*e*	P		PKPab	07 30 57.8	-0.7	
AK03	Malin Array Si	143.04	331		PKP		PKPab	07 30 55.8	-3.0	
AKASG	Malin Array Be	143.06	331		PKhKP		PKPpre	07 30 58.3		
	comp=Z,20nm,0.4s,baz=44,slow=4.3,SNR=132									
AKBB	Malin Array Si	143.06	331		PKP		PKPab	07 30 56.4	-2.4	
AK23	Malin Array Si	143.06	331		PKP		PKPab	07 30 56.0	-2.8	
KIEV	Kiev	143.07	331	⇓	P		PKPab	07 30 58.5	-0.4	
KIEV	Kiev	143.07	331		PKP		PKPab	07 30 56.4	-2.5	
DEL	Delary	143.16	349	*i*	P		PKPab	07 30 58.8	-0.3	
DRUM	Mains of Drumt	143.72	4	*e*	P		PKPbc	07 31 00.3	-0.8	
MUD	Monsted U'grnd	143.88	353	*i*	P		PKPab	07 31 01.8	+0.1	
RNPP9	Sopachiv	143.99	334		PKP		PKPbc	07 30 55.8	-6.3	
LUNU	Lund	144.03	349	*i*	P		PKPbc	07 31 01.9	-0.3	
RNPP8	Varash	144.06	334		PKP		PKPbc	07 30 56.7	-5.7	
INVG	Invergeldie, C	144.09	5	*e*	P		PKPbc	07 31 01.0	-1.3	
LAWE	Loch Awe, Argy	144.12	7	*e*	P		PKPbc	07 31 01.7	-0.6	
BSD	Bornholm Skovb	144.23	347	*i*	P		PKPbc	07 31 02.2	-0.5	
LUBAR	Lubar, Ukraine	144.27	331		PKP		PKPbc	07 30 58.6	-4.5	
EAB	Aberfoyle	144.29	6	*e*	P		PKPbc	07 31 02.4	-0.5	
EKA	Eskdalemuir Ar	144.29	5		PKPbc		PKPdf	07 31 05.2	+0.4	
	comp=Z,6.7nm,0.5s,baz=345,slow=2.7,SNR=11									
EDMD	Edmundbyers	145.83	4	*e*	P		PKPbc	07 31 06.9	-0.7	
KMPD	K-Podol'skiy	145.84	330		PKP		PKPdf	07 31 01.1	-4.8	
KMPD	K-Podol'skiy	145.84	330		PKP		PKPdf	07 31 06.4	+0.5	
ILGA	Ilgaz	146.12	314		PKPbc		PKPbc	07 31 10.0	+0.9	
IOMK	Kirk Michael	146.17	7	*e*	P		PKPbc	07 31 07.9	-0.6	
MNTR	Muntenesti	146.57	327	⇑	P		PKPbc	07 31 09.9	+0.1	
BR131	Keskin Array S	146.76	312		PKPbc		PKPbc	07 31 10.8	0.0	
BRTR	Keskin Array B	146.76	312		PKPbc		PKPbc	07 31 10.4	-0.4	
	comp=Z,5.6nm,0.6s,baz=138,slow=4.5,SNR=27									
BRTR	Keskin Array B	146.76	312		PKPbc		PKPbc	07 31 10.8	0.0	
KIRS	Kirsehir-Merke	146.81	311	⇑	P		PKPbc	07 31 11.2	+0.3	
TLCR		146.91	324	⇓	P		PKPbc	07 31 11.0	+0.2	
DSB	Dublin	146.94	9		PKPbc		PKPbc	07 31 10.7	+0.1	
BUR08	Bucovina Ar. S	147.09	330		PKPbc		PKPbc	07 31 11.6	+0.3	
GHRR		147.10	326	⇑	P		PKiKP	07 31 12.6	-0.4	
BIZ	Bicaz	147.16	329	⇑	P		PKiKP	07 31 12.5	-0.6	
OJC	Ojcow	147.25	338	*e*	PKPbc		PKPbc	07 31 11.4	-0.2	
OJC	Ojcow	147.25	338				PKPbc	07 31 11.8	+0.2	
CFR	Carcaliu	147.28	324	⇑	P		PKPbc	07 31 12.3	+0.5	
TPGR	Topolog	147.33	324	⇓	P		PKiKP	07 31 13.0	-0.6	
KOLS	Kolonicke sedl	147.38	335	*e*	PKP		PKPbc	07 31 12.6	+0.7	
KOLS				*e*				07 31 16.2		
ONER	Baraj Valea Uz	147.43	327	⇑	P		PKiKP	07 31 13.2	-0.5	
VRI	Vrincioaia	147.58	327	⇑	P		PKPbc	07 31 12.7	+0.1	
PLOR	Plostina	147.63	327	⇑	P		PKPbc	07 31 12.7	0.0	
MMAI	Mount Meron Ar	147.66	299		PKPbc		PKPbc	07 31 13.8	+0.5	
	comp=Z,6.3nm,0.4s,baz=42,slow=8.9,SNR=13									
FOEL	Foel Wylfa	147.66	6	*e*	P		PKPbc	07 31 12.2	-0.4	
KSP	Ksiaz	147.81	343	*e*	PKPbc		PKPbc	07 31 13.4	+0.5	
TURR	Turia	147.82	327	⇓	P		PKiKP	07 31 14.4	-0.2	
COVR	Voineasa-Covas	147.87	327	⇓	P		PKPbc	07 31 13.2	-0.1	
HLM1	Long Mynd	148.06	5	*e*	P		PKPbc	07 31 13.0	-0.5	
OSTC	Ostas	148.09	342	⇑	*e*	PKP	PKiKP	07 31 14.5	-0.5	
NEHR	Nehoiu	148.10	326	⇓	P		PKPbc	07 31 13.6	-0.4	
SAHE	Sakarya_HENDEK	148.12	316	⇑	P		PKPbc	07 31 14.2	+0.1	
STEB	Steborice	148.17	340	⇑	*e*	PKP	PKPbc	07 31 14.5	+0.6	
STEB					*e*	PKPAB	PKPab	07 31 19.8	+0.8	
UPC	Upice	148.19	343	⇑	*e*	PKP	PKiKP	07 31 14.7	-0.5	
DOPR	Dopca	148.19	328	⇑	P		PKiKP	07 31 15.2	-0.2	
CLL	Collm	148.20	346	*e*	PKPdf		PKPdf	07 31 10.0	+0.2	
CLL				⇓	*i*	PKPbc	PKPbc	07 31 14.3	+0.4	
	comp=Z,32nm,0.7s									
CLL				⇑	*i*	PKPab	PKPab	07 31 18.8	-0.3	
	comp=Z,15nm,0.7s									
CLL					*e*	pPKPab	pPKPdf	07 33 24.0	+0.9	
DPC	Dobruska-Polom	148.24	342	⇑	*e*	PKP	PKiKP	07 31 14.8	-0.5	
MLR	Muntele Rosu	148.24	327	⇑	P		PKPbc	07 31 14.5	+0.1	
LANS	Liptovska Anna	148.27	338	*e*	PKP		PKiKP	07 31 15.7	+0.3	
LANS				*e*				07 31 20.8		
KRLC	Kraliky	148.35	341	⇑	*e*	PKP	PKiKP	07 31 15.0	-0.6	
MORC	Moravsky Berou	148.38	340	*e*	PKP		PKPbc	07 31 15.0	+0.5	
BRG	Berggiesshubel	148.39	345	⇓	*e*	PKPdf	PKPdf	07 31 10.4	+0.3	
BRG					Amp			07 31 11.8		
	comp=Z,2.9nm,0.9s									
BRG				⇑	PKP		PKiKP	07 31 15.0	-0.5	
BRG					Amp			07 31 15.8		
	comp=Z,12nm,0.8s									
BRG					PKPab		PKPab	07 31 20.1	+0.2	
BRG					Amp			07 31 20.6		
	comp=Z,7.8nm,0.7s									
KECS	Kecovo	148.44	336	*e*	PKP		PKPab	07 31 21.0	+0.8	
CJR	Cluj-Napoca	148.51	331	⇓	P		PKiKP	07 31 15.9	-0.1	
PVCC	Panska Ves	148.56	344	⇑	*e*	PKP	PKiKP	07 31 15.6	-0.3	
MAUC	Maruska	148.64	340	⇑	*e*	PKP	PKPbc	07 31 15.6	+0.5	
VOIR		148.73	327	⇑	P		PKPbc	07 31 15.6	+0.1	
MONM	Monmouth	148.74	5	*e*	P		PKPbc	07 31 14.8	-0.5	
MARR	Marisel-Cluj	148.76	331	⇑	P		PKPbc	07 31 15.9	+0.3	
HSKC	Hora Svate Kat	148.76	346	⇑	*e*	PKP	PKPbc	07 31 15.8	+0.4	
DRGR		148.86	332	⇑	P		PKPbc	07 31 16.0	+0.2	
ARR	Arges	148.99	328	⇑	P		PKiKP	07 31 17.2	+0.1	
VYHS	Vyhne	149.04	338	*e*	PKP		PKiKP	07 31 16.8	-0.2	
VYHS				*e*				07 31 23.5		
VRAC	Vranov	149.09	341	*e*	PKP		PKPbc	07 31 16.0	-0.2	
PSZ	Piszkesteto	149.13	336	⇑	P		PKPbc	07 31 16.7	+0.2	
JAVC	Velka Javorina	149.13	339	*e*	PKP		PKiKP	07 31 18.0	+0.8	
NKC	Novy Kostel	149.33	346	⇑	*e*	PKP	PKiKP	07 31 17.3	-0.3	
NKC					*e*	PKPAB	PKPab	07 31 24.1	+0.2	
KRUC	Moravsky	149.37	341		*e*	PKP	PKPbc	07 31 17.0	+0.2	
KEPZ	Antalya-Kepez	149.38	308	⇓	P		PKPbc	07 31 16.4	-0.9	
ZVC	Zvikov	149.65	344	⇑	*e*	PKP	PKiKP	07 31 18.1	-0.1	
ZVC					*e*	PKPAB	PKPab	07 31 25.6	+0.4	
MODS	Modra-Piesok	149.69	339		*e*	PKP	PKiKP	07 31 18.8	+0.5	
MODS					*e*			07 31 26.3		
SIRR	Siria	149.72	332	⇑	P		PKiKP	07 31 18.4	-0.1	
SURR	Surduc	149.91	331	⇑	P		PKPbc	07 31 18.4	+0.2	
MEM	Membach	149.97	354		*d*	PKP	PKiKP	07 31 18.5	-0.3	
BTNL	Ternell	149.99	354		*d*	PKP	PKPbc	07 31 18.4	+0.1	
ABNA	Allensteig Bun	150.00	342		*i*	PKP	PKiKP	07 31 18.9	-0.1	
	comp=Z,6.9nm,0.7s									
KHC	Kasperske Hory	150.09	344	⇑	*e*	PKP	PKiKP	07 31 19.2	0.0	
KHC					*e*	PKPAB	PKPab	07 31 27.4	+0.3	
CKRC	Cesky Krumlov	150.19	343	⇑	*e*	PKP	PKiKP	07 31 19.1	-0.3	
BZS	Buzias	150.24	331	⇑	P		PKiKP	07 31 19.3	-0.2	
WINA	Alland / Wiene	150.31	340		*i*	PKP	PKiKP	07 31 19.6	0.0	
	comp=Z,9.4nm,0.6s									
GEC2	GERESS Array S	150.32	344				PKiKP	07 31 19.7	-0.1	
GERES	GERESS Array B	150.32	344		PKP		PKPdf	07 31 12.9	-0.5	
	comp=Z,0.5nm,0.7s,baz=222,slow=1.8,SNR=5.0									
GERES					PKPbc		PKiKP	07 31 19.5	-0.2	
	comp=Z,4.5nm,0.5s,baz=22,slow=1.4,SNR=33									
GERES	GERESS Array B	150.32	344				PKPdf	07 31 13.9	+0.5	
PLVB	Pleven	150.37	325	⇑	P		PKiKP	07 31 20.0	+0.1	
BMRD	Maredsous	150.37	356		*d*	PKP	PKiKP	07 31 19.5	-0.1	
HERR	Herculane	150.43	329	⇓	P		PKPbc	07 31 19.5	+0.1	
CONA	Conrad Observa	150.53	340		*i*	PKP	PKiKP	07 31 20.1	-0.1	
	comp=Z,11nm,0.7s									
DOU	Dourbes	150.59	356		*d*	PKP	PKiKP	07 31 20.1	0.0	
DOU					*d*	PKPab	PKPab	07 31 28.6	-0.4	
RONA	Rosalia, Austr	150.60	340		*i*	PKP	PKiKP	07 31 20.1	-0.2	
	comp=Z,14nm,0.5s									
MDVR	Moldovita	150.83	330	⇑	P		PKPbc	07 31 20.2	-0.3	
WLF	Walferdange	150.90	354		*d*	PKP	PKiKP	07 31 21.4	+0.6	
MORH	Mrgy, Hungar	151.02	335	⇑	P		PKiKP	07 31 20.9	-0.2	
MOA	Molln	151.08	342		*i*	PKP	PKPbc	07 31 20.7	-0.2	
	comp=Z,4.4nm,0.5s									
MOA					*i*	PKP	PKPab	07 31 31.7	+0.5	
	comp=Z,8.0nm,1.5s									
BLKB	Belogradchik	151.22	327	⇓	P		PKPbc	07 31 21.2	-0.2	
BIOA	Bad Ischl, Aus	151.40	343		*i*	PKP	PKPbc	07 31 21.2	-0.5	
	comp=Z,1.9nm,0.4s									
BIOA					*i*	PKP	PKPab	07 31 33.1	+0.6	
	comp=Z,14nm,1.0s									
SESA	Seetaler Alpe,	151.66	341		*i*	PKP	PKPbc	07 31 22.0	-0.4	
	comp=Z,15nm,0.6s									
BOVS	Bovan	151.69	328	⇑	P		PKiKP	07 31 22.8	+0.2	
LESA	Schwarzleotal	151.90	344		*e*	PKP	PKPbc	07 31 22.4	-0.4	
	comp=Z,4.2nm,0.5s									
LESA					*i*	PKP	PKPab	07 31 35.2	+0.5	
	comp=Z,10nm,0.9s									
SOKA	Soboth	151.90	340		*i*	PKP	PKPbc	07 31 22.3	-0.6	
	comp=Z,5.9nm,0.9s									
BFO	Black Forest	151.93	351				PKPbc	07 31 22.1	-0.7	
WATA	Walderalm	152.25	345		*i*	PKP	PKPbc	07 31 23.3	-0.4	
	comp=Z,5.7nm,0.5s									
WATA					*i*	PKP	PKPab	07 31 36.7	+0.3	
	comp=Z,5.5nm,0.6s									
RETA	Reutte	152.30	347		*e*	PKP	PKPbc	07 31 23.6	-0.1	
	comp=Z,2.8nm,0.5s									
RETA					*i*	PKP	PKPab	07 31 36.6	+0.2	
	comp=Z,9.0nm,1.0s									
WTTA	Wattenberg	152.31	345		*i*	PKP	PKPbc	07 31 23.7	-0.1	
	comp=Z,8.9nm,0.4s									
WTTA					*i*	PKP	PKPab	07 31 37.1	+0.5	
	comp=Z,7.3nm,0.5s									
MOTA	Moosalm	152.36	346		*i*	PKP	PKPbc	07 31 23.7	-0.3	
	comp=Z,10nm,1.0s									
MOTA					*i*	PKP	PKPab	07 31 36.8	0.0	
	comp=Z,4.1nm,0.6s									
MYKA	Terra Mystica	152.37	342		*i*	PKP	PKPbc	07 31 22.9	-1.0	
	comp=Z,6.2nm,0.6s									
SQTA	Sankt Quirin	152.45	346		*e*	PKP	PKPbc	07 31 23.9	-0.2	
	comp=Z,4.6nm,0.5s									
SQTA					*i*	PKP	PKPab	07 31 37.5	+0.3	
	comp=Z,3.8nm,0.6s									
ABTA	Abfaltersbach	152.57	344		*e*	PKP	PKPbc	07 31 23.7	-0.6	
	comp=Z,12nm,0.6s									
ABTA					*i*	PKP	PKPab	07 31 38.0	+0.4	
	comp=Z,5.4nm,0.6s									
DAVA	Damuels	152.67	348		*e*	PKP	PKiKP	07 31 24.7	0.0	
	comp=Z,1.4nm,0.4s									
DAVA					*i*	PKP	PKPab	07 31 38.0	-0.2	
	comp=Z,3.4nm,0.7s									
FETA	Feichten	152.75	346		*i*	PKP	PKPbc	07 31 24.7	-0.1	
	comp=Z,5.6nm,0.7s									
FETA					*i*	PKP	PKPab	07 31 38.2	-0.3	
	comp=Z,6.7nm,1.4s									
TUE	Stuetta	153.56	348				PKiKP	07 31 27.3	+0.6	
ESDC	Sonseca Array	160.49	13		PKPab		PKPab	07 32 11.8	-0.3	
	comp=Z,2.1nm,0.9s,baz=341,slow=4.4,SNR=8.7									
ESDC	Sonseca Array	160.49	13				PKPab	07 32 12.4	+0.3	
TORD	Torodi Ar. Bea	172.47	180		PKP		PKPdf	07 31 34.5	-2.2	
	comp=Z,0.9nm,0.6s,baz=55,slow=1.7,SNR=4.4									
TORD	Torodi Ar. Bea	172.47	180				PKPdf	07 31 36.0	-0.6	

*ASRS **30** 07:15:02.0±1.9, 54°.62N×83°.66E, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 30 07:15:03.3±1.9, 54°.64N×83°.72E, h0km, mbtmp2.8/3, ML2.4/3, Error ellipse: s-maj=18.1km s-min=11.6km az=161.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
I46RU	ZALESOVO INFRA	0.95	137	I		I	07 20 20.0	
	baz=316,slow=334,SNR=6.7							
ZALV	Zalesovo Beam	0.95	137	Pg		Pg	07 15 21.1	-0.3
	2.1nm,0.3s,baz=323,slow=17,SNR=16							
ZALV				Lg		Lg	07 15 34.0	
	6.6nm,0.3s,baz=317,slow=27,SNR=25							
KURBB	Kurchatov Arra	5.12	220	Pn		Pn	07 16 21.8	+0.6
	0.1nm,0.3s,baz=41,slow=14,SNR=10							
KURBB				Lg		Lg	07 17 47.1	
	0.1nm,0.3s,baz=45,slow=34,SNR=4.3							
	0.3nm,0.3s							
KURBB				AML		AML		
MKAR	Makanchi Array	7.91	187	Pn		Pn	07 16 59.7	+0.2
	0.1nm,0.3s,baz=7.0,slow=13,SNR=2.2							
	0.2nm,0.4s							
MKAR				AML		AML		
BVAR	Borovoye Array	8.05	264	Pn		Pn	07 17 00.5	-0.9
	baz=71,slow=15,SNR=5.1							
	0.6nm,0.4s							

*TIR **30** 07:15:57.2, 41°.47N×19°.67E, h10km, ML2.3, ML2.3, Presumed earthquake*
*PDG **30** 07:15:57.6±0.2, 41°.47N×19°.62E, h16km, ML2.6/13, Error ellipse: s-maj=0.9km s-min=1.1km az=0.0*
*BEO **30** 07:15:58.9±1.0, 41°.50N×19°.86E, h10km±5km, ML2.4/3*
ISC 30 07:15:57.4±1.0, 41°.46N±0°.03×19°.62E±0°.03, h12km±8km, n37, σ0°.96/68, 2C-11D, Albania

Code	Station Name	Δ°	AZ°	Phase	ID		Time	Res
				Op		ISC	h m s	ISC
TIR	Tirane	0.21	122	P		Pg	07 16 02.0	0.0
TIR				S		Sg	07 16 04.5	-0.6
TIR				IAML			07 16 05.1	
	1μm,0.2s							
ULC	Ulcinj	0.58	331	⇓	*i*	Pg	07 16 08.7	0.0
ULC				*i*	Sg	Sb	07 16 17.7	0.0
SDA	Shkodra	0.60	351	P		Pg	07 16 09.0	-0.1
SDA				S		Sb	07 16 17.7	-0.5
SDA				IAML			07 16 21.9	
	143nm,0.5s							
PUK	Puka	0.61	19	P		Pg	07 16 08.7	-0.7
PUK				S		Sg	07 16 17.6	+0.1
PUK				IAML			07 16 22.6	
	250nm,0.3s							
PHP	Peshkopia	0.65	70	P		Pg	07 16 09.2	-0.9
PHP				S		Sg	07 16 18.1	-0.7
DRME	Dracevica, Mon	0.80	336	⇓	*i*	Pg	07 16 12.2	-0.6
DRME				*i*	Sg	Sb	07 16 25.2	+1.2
BERA	Berati	0.80	162	P		Pg	07 16 12.7	-0.1
BERA				S		Sb	07 16 24.3	+0.3
BERA				IAML			07 16 28.0	
	143nm,0.2s							
BCI	Bajram Curri	0.96	20	P		Pg	07 16 15.6	-0.4
BCI				S		Sn	07 16 29.6	-0.9
BCI				IAML			07 16 36.9	
	107nm,0.4s							
BUM	Brajici-Budva	1.00	327	⇑	*i*	Pg	07 16 16.8	+0.1
BUM					*i*	Sn	07 16 31.4	-0.1
PDG	Podgorica	1.00	344		*e*	Pg	07 16 17.9	+0.5
PDG					*e*	Sn	07 16 32.8	+1.3
PDG	Podgorica	1.00	344	⇓	*i*	Pg	07 16 16.1	-0.7
PDG					*i*	Sn	07 16 31.9	+0.4
PVY	Plav	1.16	12	⇓	*i*	Pb	07 16 18.9	-0.6
PVY					*i*	Sn	07 16 36.9	+1.4
CEME	Cevo	1.21	334	⇓	*i*	Pn	07 16 19.8	-0.4
CEME					*i*	Sn	07 16 38.3	+1.7
KBN	Korca	1.22	133		S	Sn	07 16 36.8	0.0
HCY	Herceg Novi	1.30	320	⇓	*i*	Pg	07 16 21.3	-0.1
HCY					*i*	Sg	07 16 41.1	+1.9
KOME	Kolasin	1.39	357	⇓	*i*	Pb	07 16 23.4	0.0
KOME					*i*	Sg	07 16 43.7	+1.5
NKME	Niksic	1.40	339	⇓	*i*	Pn	07 16 23.0	+0.2
NKME					*i*	Sg	07 16 43.6	+1.2
IVA	Berane	1.42	8	⇓	*i*	Pb	07 16 23.9	-0.1
IVA					*i*	Sg	07 16 44.6	+1.3
SRN	Sarande	1.61	170		S	Sg	07 16 50.9	+1.8
SRN					IAML		07 17 08.0	
	71nm,1.0s							
DBRK	Dubrovnik	1.63	318		*e*	Pn	07 16 27.0	+1.0
DBRK						Sn	07 16 47.9	+0.9
BRY	Bratogost	1.65	331	⇓	*i*	Pn	07 16 26.9	+0.5
BRY					*i*	Sg	07 16 50.1	-0.4
SJES	Sjenica	1.82	8		*e*	Pg	07 16 30.6	-0.1
SJES					*e*	Sg	07 16 55.2	-0.7
UPM	Unac-Piva	1.82	343	⇓	*i*	Pn	07 16 29.3	+0.5
UPM					*i*	Sn	07 16 54.6	+0.9
PLE	Pljevlja	1.88	355	⇑	*i*	Pn	07 16 29.7	+0.2
PLE					*i*	Sn	07 16 55.4	+0.2
STON	Ston	2.01	315		*e*	Pn	07 16 30.4	-0.7
STON						Sn	07 16 56.0	-0.2
STON	Ston	2.01	315		*e*	Pn	07 16 31.4	+0.2
STON					*e*	Sn	07 17 00

JAM	**Amami Oshima**	**4.44**	**66**	S	**S**	08 11 19.9	-2.1
JMZ	**Minamidaito 2**	**5.65**	**97**	P	**Pn**	08 10 45.9	+0.8
JMZ				S	**S**	08 11 45.6	-4.5
KSRS	**Korea Array**	**11.03**	**12**	P	**Pn**	08 11 52.8	-1.9
	1.0nm,0.8s,baz=194,slow=12,SNR=2.2						
SONM	**Songino Array**	**25.68**	**330**	P	**P**	08 14 33.7	0.0
	0.2nm,0.4s,baz=144,slow=12,SNR=9.1						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**39.09**	**312**	P	**P**	08 16 31.2	+1.3
	0.7nm,0.5s,baz=100,slow=9.5,SNR=13						
	0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**40.16**	**324**	P	**P**	08 16 39.4	+0.8
	1.0nm,0.5s,baz=106,slow=11,SNR=4.0						
	1.0nm,0.5s						
KURBB	**Kurchatov Arra**	**42.55**	**317**	P	**P**	08 16 58.4	+0.4
	0.6nm,0.4s,baz=106,slow=8.8,SNR=4.9						
	0.6nm,0.4s						
WRA	**Warramunga Arr**	**47.21**	**168**	P	**P**	08 17 34.8	-0.3
	0.6nm,0.7s,baz=349,slow=7.8,SNR=3.2						
	0.6nm,0.7s						
ASAR	**Alice Springs**	**50.77**	**169**	P	**P**	08 18 03.3	+1.2
	0.3nm,0.8s,baz=0.5,slow=14,SNR=4.4						
	0.3nm,0.8s						
YKA	**Yellowknife Ar**	**79.33**	**24**	P	**P**	08 21 06.0	+0.7
	0.2nm,0.6s,baz=301,slow=5.9,SNR=2.9						
	0.2nm,0.6s						

SGS 30 08:40:09.0, 25°.18N×37°.97E, h43km, MI0.6, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LNY01	**LNY01**	**0.04**	**353**	P	Pn	08 40 15.6	-0.5
LNY01				S	Sn	08 40 20.4	-0.6
LNY01	**LNY01**	**0.04**	**353**	P	Pn	08 40 15.5	-0.5
LNY01				S	Sn	08 40 20.4	-0.6
LNYS	**LNYS**	**0.10**	**192**	P	Pn	08 40 15.7	-0.5
LNYS	**LNYS**	**0.10**	**192**	P	Pn	08 40 15.7	-0.5
LNYS				S	Sn	08 40 20.7	-0.5
LNY02	**LNY02**	**0.10**	**248**	P	Pn	08 40 15.7	-0.6
LNY02				S	Sn	08 40 20.8	-0.5
LNY02	**LNY02**	**0.10**	**248**	P	Pn	08 40 15.7	-0.6
LNY02				S	Sn	08 40 20.7	-0.6
LNY10	**LNY10**	**0.13**	**315**	P	Pn	08 40 15.9	-0.5
LNY10	**LNY10**	**0.13**	**315**	P	Pn	08 40 16.0	-0.4
LNY10				S	Sn	08 40 21.0	-0.5
LNY17	**LNY17**	**0.16**	**294**	P	Pn	08 40 16.2	-0.4
LNY08	**LNY08**	**0.18**	**216**	P	Pn	08 40 16.0	-0.6
LNY08				S	Sn	08 40 21.5	-0.5
LNY14	**LNY14**	**0.20**	**293**	P	Pn	08 40 16.3	-0.5
LNY14	**LNY14**	**0.20**	**293**	P	Pn	08 40 16.3	-0.4
LNY14				S	Sn	08 40 21.9	-0.3
LNY03	**LNY03**	**0.23**	**333**	P	Pn	08 40 16.3	-0.7
LNY03	**LNY03**	**0.23**	**333**	P	Pn	08 40 16.5	-0.4
LNY03				S	Sn	08 40 22.0	-0.6
LNY05	**LNY05**	**0.28**	**242**	P	Pn	08 40 16.8	-0.6
LNY05	**LNY05**	**0.28**	**242**	P	Pn	08 40 16.8	-0.6
LNY05				S	Sn	08 40 22.6	-0.7
LNY13	**LNY13**	**0.30**	**269**	P	Pn	08 40 17.3	-0.3
LNY13	**LNY13**	**0.30**	**269**	P	Pn	08 40 17.4	-0.3
LNY04	**LNY04**	**0.30**	**288**	P	Pn	08 40 17.2	-0.5
LNY04	**LNY04**	**0.30**	**288**	P	Pn	08 40 17.1	-0.6
LNY04				S	Sn	08 40 23.1	-0.7
MURBA	**Al Muraba'a**	**0.35**	**48**	P	Pn	08 40 17.5	-0.6
MURBA	**Al Muraba'a**	**0.35**	**48**	P	Pn	08 40 17.4	-0.7
LNY07	**LNY07**	**0.36**	**263**	P	Pn	08 40 17.7	-0.5
LNY07	**LNY07**	**0.36**	**263**	P	Pn	08 40 17.8	-0.5
TRAS	**Al Qrash**	**0.56**	**102**	P	Pn	08 40 20.1	-0.6
TRAS	**Al Qrash**	**0.56**	**102**	P	Pn	08 40 20.1	-0.6
FGALY	**Al Ais**	**0.56**	**145**	P	Pn	08 40 20.2	-0.6

IDC 30 08:48:45.8±1.5, 18°.21S×177°.37W, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=44.9km s-min=38.6km az=146.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**45.55**	**260**	P	P	08 57 06.8	-0.9
	0.2nm,0.5s,baz=97,slow=7.2,SNR=5.4						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**45.66**	**254**	P	P	08 57 08.9	+0.4
	0.8nm,0.4s,baz=91,slow=8.4,SNR=17						
	0.8nm,0.4s						
QSPA	**South Pole Qui**	**71.85**	**180**	P	P	09 00 10.5	+0.2
	0.9nm,0.8s,baz=34,slow=16,SNR=6.7						
	0.9nm,0.8s						
ILAR	**Eielson Array**	**85.96**	**13**	P	P	09 01 27.4	-0.1
	0.4nm,0.8s,baz=213,slow=5.1,SNR=4.7						
	0.4nm,0.8s						

*CATAC **30** 08:59:59.2±0.5, 13°.N±3°×9°.0W±°, h13km±2km, M3.1/18, MLv3.1/18, Error ellipse: s-maj=6.0km s-min=4.5km az=15.2, confirmed*
*SNET **30** 09:00:00.1±3.9, 13°.22N×89°.97W, h15km, ML3.2, Presumed earthquake*
*GCG **30** 09:00:01.2±0.7, 13°.28N×89°.93W, h27km±4km, MD3.6, Presumed earthquake*

ISC 30 08:59:58.9±2.4, 13°.17N±0°.08×89°.94W±0°.07, h16km±9km, n35, σ0°.71/55, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACAJ	**Puerto de Acaj**	**0.42**	**14**	*eP*	**Pb**	**09 00 09.6**	**+1.6**
ACAJ				*eS*	**Sn**	**09 00 16.2**	**-1.6**
FAME	**Alcaldia de Sa**	**0.68**	**354**	P	**Pb**	**09 00 12.7**	**+0.2**
JAYA	**Jayaque - finc**	**0.68**	**44**	P	**Pb**	**09 00 13.1**	**+0.5**
JAYA				S	**Sb**	**09 00 22.5**	**+0.7**
JAYA	**Jayaque - finc**	**0.68**	**44**	*i* P	**Pb**	**09 00 13.1**	**+0.5**
JAYA				*i* S	**Sb**	**09 00 21.6**	**-0.2**
CEVE	**Cerro Verde**	**0.72**	**25**	P	**Pb**	**09 00 13.8**	**+0.5**
CEVE				S	**Sn**	**09 00 24.7**	**-1.0**
CEVE	**Cerro Verde**	**0.72**	**25**	*eP*	**Pb**	**09 00 13.9**	**+0.5**
CEVE				*eS*	**Sn**	**09 00 25.6**	**-0.1**
NUBE	**Las Nubes**	**0.75**	**12**	P	**Pb**	**09 00 14.0**	**+0.2**
NUBE				S	**Sb**	**09 00 24.4**	**+0.6**
NUBE	**Las Nubes**	**0.75**	**12**	*i* P	**Pb**	**09 00 13.9**	**+0.2**
NUBE				*i* S	**Sb**	**09 00 23.8**	**0.0**
PMON	**Piamonte**	**0.81**	**48**	P	**Pg**	**09 00 15.0**	**+0.2**
PMON				S	**Sb**	**09 00 26.9**	**+1.2**
CEDA	**San Andres**	**0.82**	**40**	S	**Sb**	**09 00 26.6**	**+0.8**
BOQS	**Boqueron**	**0.85**	**48**	*eP*	**Pg**	**09 00 15.6**	**0.0**
PANCS	**Alcalda de**	**0.86**	**59**	S	**Sg**	**09 00 26.7**	**-0.3**
SLOZ	**Alcaldia de Sa**	**0.87**	**10**	P	**Pg**	**09 00 16.0**	**+0.1**
UEES	**Universidad Ev**	**0.87**	**51**	P	**Pg**	**09 00 15.7**	**-0.2**
UEES				S	**Sb**	**09 00 28.3**	**+1.0**
SEMO	**Seminario San**	**0.88**	**52**	P	**Pg**	**09 00 16.0**	**0.0**
SEMO				S	**Sb**	**09 00 28.4**	**+1.0**
UTEC	**Universidad Te**	**0.89**	**53**	P	**Pb**	**09 00 15.9**	**-0.3**
UTEC				S	**Sb**	**09 00 28.7**	**+0.9**
UNIC	**Universidad Ca**	**0.89**	**25**	P	**Pb**	**09 00 16.5**	**+0.3**
UNIC				S	**Sb**	**09 00 28.5**	**+0.6**
UDBS	**Universidad Do**	**0.94**	**54**	P	**Pb**	**09 00 16.8**	**-0.1**
UDBS				S	**Sg**	**09 00 29.7**	**+0.3**
PAVA	**Las Pavas**	**1.11**	**61**	P	**Pb**	**09 00 20.0**	**0.0**
PAVA				S	**Sn**	**09 00 35.8**	**+0.6**
COEG	**Centro de Oper**	**1.12**	**66**	P	**Pb**	**09 00 19.2**	**-0.8**
COEG	**Centro de Oper**	**1.12**	**66**	*eP*	**Pb**	**09 00 19.3**	**-0.8**
COEG				*eS*	**Sb**	**09 00 34.2**	**-0.2**
JUAM	**Asuncion Mita**	**1.18**	**11**	*i* P	**Pb**	**09 00 20.5**	**-0.6**
JUAM				*i* S	**Sb**	**09 00 35.9**	**-0.4**
TECO	**Alcaldia de Te**	**1.18**	**72**	S	**Sb**	**09 00 35.3**	**-0.9**
ALJI	**Alcalda de J**	**1.34**	**83**	S	**Sn**	**09 00 38.8**	**-1.8**
ALJI	**Alcalda de J**	**1.34**	**83**	*eS*	**Sn**	**09 00 39.0**	**-1.5**
MTO3	**Montecristo**	**1.35**	**24**	P	**Pn**	**09 00 23.0**	**-0.4**
MTO3				S	**Sg**	**09 00 41.7**	**-0.9**
MTO3	**Montecristo**	**1.35**	**24**	*i* P	**Pn**	**09 00 22.9**	**-0.4**
ESQI	**Esquipulas**	**1.50**	**23**	P	**Pn**	**09 00 25.2**	**-0.2**
ESQI				S	**Sb**	**09 00 45.8**	**+0.4**
PACA	**Pacayal**	**1.60**	**79**	P	**Pn**	**09 00 26.9**	**+0.2**
PACA				S	**Sn**	**09 00 47.5**	**+0.2**
RANC	**El Ranchito**	**1.63**	**80**	S	**Sn**	**09 00 47.6**	**-0.2**
SARH	**Santa Rosa de**	**1.97**	**35**	P	**Pn**	**09 00 32.0**	**+0.3**
SARH	**Santa Rosa de**	**1.97**	**35**	*i* P	**Pn**	**09 00 31.9**	**+0.1**
LCND	**La Caada**	**2.00**	**86**	P	**Pn**	**09 00 32.4**	**+0.3**
CNCH	**Conchagua**	**2.05**	**87**	P	**Pn**	**09 00 33.4**	**+0.5**
CNCH				S	**Sn**	**09 00 59.0**	**+0.7**
CSGN	**Cosiguina Volc**	**2.32**	**94**	S	**Sn**	**09 01 05.8**	**+0.8**

*MEX **30** 09:04:09.6±1.0, 14°.48N×93°.53W, h23km±60km, MD4.4, Presumed earthquake*
*IDC **30** 09:04:10.5±5.8, 14°.69N×93°.44W, h42km±36km, mb3.4/4, mbtmp3.7/6, ML4.1/2, MS2.8/2, Error ellipse: s-maj=93.9km s-min=18.3km az=38.0*
*SNET **30** 09:04:12.3±1.7, 14°.46N×93°.19W, h30km, ML4.0, Presumed earthquake*
*GCG **30** 09:04:15.0±1.5, 14°.45N×92°.99W, h35km±999km, MD4.7, Presumed earthquake*

ISC 30 09:04:03.6±1.3, 14°.47N±0°.05×93°.60W±0°.03, h15km±7km, n55, σ2s55/66, mb3.8/4, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCIG		**1.29**	**17**	*eP*	**Pg**	**09 04 28.3**	**-0.1**
PCIG				*eS*	**Sg**	**09 04 43.1**	**-2.1**
THIG		**1.36**	**71**	*eP*	**Pb**	**09 04 29.6**	**+0.7**
THIG				*eS*	**Sg**	**09 04 45.0**	**-2.6**
PATR	**El Naranjo**	**1.47**	**64**	*eP*	**Pn**	**09 04 30.9**	**+1.1**
PATR				*eS*	**Sg**	**09 04 47.4**	**-3.7**
PAVE	**Pavencul**	**1.56**	**62**	*eP*	**Pn**	**09 04 32.3**	**+1.3**
PAVE				*eS*	**Sn**	**09 04 48.1**	**-2.9**
CHUJ	**Union Juarez**	**1.57**	**66**	*eP*	**Pn**	**09 04 32.0**	**+0.8**
CHUJ				*eS*	**Sn**	**09 04 49.1**	**-2.4**
RTAL	**Retalhuleu**	**1.84**	**88**	*eP*	**Pn**	**09 04 36.4**	**+1.6**
RTAL				*eS*	**Sn**	**09 04 57.1**	**-0.8**
QUEO	**Labor Ovalle**	**2.06**	**78**	*i* P	**Pn**	**09 04 39.9**	**+2.0**
STG8	**El Palmar, Qui**	**2.18**	**90**	*i* P	**Pn**	**09 04 37.7**	**-1.8**
HUEH	**Huehuetenango**	**2.20**	**67**	*i* P	**Pb**	**09 04 42.8**	**-0.4**
HUEH	**Huehuetenango**	**2.20**	**67**	*eP*	**Pn**	**09 04 41.9**	**+2.1**
HUEH				*eS*	**Sn**	**09 05 08.0**	**+1.1**
CCIG	**Comitan**	**2.29**	**38**	*eP*	**Pb**	**09 04 45.1**	**+0.3**
CCIG				*eS*	**Sn**	**09 05 10.6**	**+1.5**
TGIG		**2.34**	**11**	*eP*	**Pb**	**09 04 45.1**	**-0.5**
TGIG				*eS*	**Sn**	**09 05 12.8**	**+2.4**
HUIG	**Huatulco**	**2.75**	**298**	*eP*	**Pn**	**09 04 48.5**	**+1.3**
HUIG				*eS*	**Sn**	**09 05 16.1**	**-4.0**
UXUV	**UXUV**	**2.88**	**350**	*eP*	**Pn**	**09 04 52.9**	**+3.9**
UXUV				*eS*	**Sn**	**09 05 25.5**	**+1.9**
CMIG	**Matias Romero**	**2.89**	**335**	P	**Pn**	**09 04 51.7**	**+2.5**
	37nm,0.3s,baz=186,slow=10.0,SNR=157						
CMIG				S	**Sn**	**09 05 24.8**	**+1.1**
	98nm,0.3s,baz=108,slow=22,SNR=8.7						
CMIG				LR	LR	09 06 01.1	
	comp=Z,134nm,19.6s,baz=116,slow=40						
	67nm,0.3s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**2.89**	**335**	*eP*	**Pn**	**09 04 51.6**	**+2.5**
CMIG				*i* S	**Sn**	**09 05 23.0**	**-0.7**
APG	**El Apazote**	**3.08**	**80**	P	**Pn**	**09 04 54.4**	**+2.5**
	1.1nm,0.3s,baz=151,slow=10,SNR=14						
APG	**El Apazote**	**3.08**	**80**	*i* P	**Pn**	**09 04 54.7**	**+2.7**
PCG5	**San Vicente Pa**	**3.13**	**94**	*i* P	**Pn**	**09 04 51.0**	**-1.6**
PCG5				*i* S	Sn	09 05 20.4	-10
NUBE	**Las Nubes**	**3.75**	**98**	*i* P	**Pn**	**09 05 03.1**	**+2.0**
NUBE				*i* S	**Sn**	**09 05 39.2**	**-5.8**
PEIG	**Puerto Escondi**	**3.75**	**294**	*eP*	**Pn**	**09 05 02.9**	**+2.0**
PEIG				*eS*	**Sn**	**09 05 40.3**	**-4.6**
NEUV	**Arroyo Zacate**	**3.86**	**327**	*eP*	**Pn**	**09 05 04.6**	**+2.1**
NEUV				*eS*	**Sn**	**09 05 45.1**	**-2.6**
CEVE	**Cerro Verde**	**3.91**	**99**	*eP*	**Pn**	**09 05 05.0**	**+1.6**
CEVE				*eS*	**Sn**	**09 05 49.3**	**+0.1**
VHO	**Vista Hermosa**	**3.98**	**311**	*eP*	**Pn**	**09 05 08.6**	**+4.3**
VHO				*eS*	**Sn**	**09 05 50.2**	**-0.6**
JAYA	**Jayaque - finc**	**4.11**	**101**	*i* P	**Pn**	**09 05 07.7**	**+1.7**
JAYA	**Jayaque - finc**	**4.11**	**101**	*eP*	**Pn**	**09 05 07.8**	**+1.7**
JAYA				*eS*	**Sn**	**09 05 51.6**	**-2.4**
YOIG	**Yosondua**	**4.48**	**303**	*eP*	Pn	09 05 16.1	+4.8
YOIG				*eS*	**Sn**	**09 06 00.7**	**-2.7**
COEG	**Centro de Oper**	**4.66**	**100**	*eP*	**Pn**	**09 05 16.2**	**+2.7**
PNIG	**Pinotepa**	**4.77**	**294**	*eP*	**Pn**	**09 05 18.0**	**+3.0**
PNIG				*eS*	**Sn**	**09 06 05.5**	**-4.5**
TXIG	**Tlaxiaco**	**4.88**	**305**	*eP*	Pn	09 05 21.4	+4.6
TXIG				*eS*	Sn	09 06 06.6	-6.5
TOIG	**Toxpalan**	**4.91**	**318**	*eP*	Pn	09 05 21.4	+4.4
TOIG				*eS*	**Sn**	**09 06 12.8**	**-0.9**
HLIG	**Huajuapan de L**	**5.25**	**310**	*eP*	Pn	09 05 26.7	+5.0
HLIG				*eS*	**Sn**	**09 06 23.1**	**+1.0**
TPIG	**Tehuac#an**	**5.34**	**318**	*eP*	**Pn**	**09 05 27.0**	**+4.8**
FTIG	**Fresnillo de T**	**5.54**	**309**	*eP*	Pn	09 05 30.9	+5.2
FTIG				*eS*	**Sn**	**09 06 26.1**	**-3.1**
MGIG	**Malinaltepec**	**5.57**	**300**	*eP*	Pn	09 05 31.2	+5.0
MGIG				*eS*	**Sn**	**09 06 28.4**	**-1.7**
LCND	**La Caada**	**5.66**	**101**	*eP*	**Pn**	**09 05 29.4**	**+2.2**
TLIG	**Tlapa**	**5.68**	**303**	*eP*	**Pn**	**09 05 27.6**	**-0.1**
JAUV	**Jalcomulco**	**5.76**	**328**	*eP*	**Pn**	**09 05 29.6**	**+1.0**
JAUV				*eS*	Sn	09 06 27.9	-6.6
CRIG	**Cruz Grande**	**5.79**	**294**	*eP*	**Pn**	**09 05 32.8**	**+3.8**
CRIG				*eS*	Sn	09 06 29.4	-5.9
DAIG	**Los Arroyos**	**6.36**	**294**	*eP*	**Pn**	**09 05 41.1**	**+4.2**
MEIG	**Mezcala**	**6.73**	**302**	*i* P	Pn	09 05 47.7	+5.7
YAIG	**Yautepec**	**6.82**	**311**	*eP*	Pn	09 05 49.4	+6.0
PLIG	**Platanillo**	**6.88**	**305**	*eP*	Pn	09 05 50.2	+6.1
CAIG	**El Cayaco**	**6.91**	**293**	*eP*	**Pn**	**09 05 48.6**	**+4.1**
MAVM	**Malinalco, Edo**	**7.20**	**309**	*eP*	Pn	09 05 54.4	+5.8
ARIG	**Puente Sto Nin**	**7.50**	**301**	*i* P	Pn	09 05 58.8	+6.1
ZIIG	**Zihuatanejo**	**8.18**	**293**	*i* P	Pn	09 06 07.2	+5.3
MOIG	**Morelia**	**8.92**	**307**	*eP*	Pn	09 06 19.3	+7.1
TXAR	**Lajitas Array**	**17.48**	**329**	P	**P**	**09 08 11.1**	**+2.8**
	0.1nm,0.3s,baz=138,slow=8.4,SNR=6.0						
	1.3nm,0.9s						
TXAR				AML	AML		
SJG	**San Juan**	**26.58**	**78**	LR	LR	09 19 43.1	
	comp=Z,27nm,19.3s,baz=291,slow=35						
PDAR	**Pinedale Array**	**31.37**	**337**	P	**P**	**09 10 25.4**	**+1.3**
	0.2nm,0.6s,baz=106,slow=7.0,SNR=2.1						
	0.2nm,0.6s						
NVAR	**Mina Array Bea**	**32.35**	**322**	P	**P**	**09 10 36.3**	**+3.6**
	0.6nm,0.7s,baz=150,slow=6.7,SNR=4.9						
	0.6nm,0.7s						
YKA	**Yellowknife Ar**	**50.23**	**347**	P	**P**	**09 13 00.7**	**+1.8**
	1.3nm,0.6s,baz=156,slow=7.3,SNR=21						
	1.3nm,0.6s						
ILAR	**Eielson Array**	**61.81**	**337**	P	**P**	**09 14 23.6**	**+2.0**
	0.9nm,1.0s,baz=155,slow=5.0,SNR=7.1						
	0.9nm,1.0s						
CMAR	**Chiang Mai Arr**	**145.03**	**339**	PKP	**PKPbc**	**09 23 42.1**	**+1.5**
	1.1nm,0.3s,baz=355,slow=4.6,SNR=6.0						

*DJA **30** 09:17:28.0±0.9, 6°.5S×12°.8E±°, h377km±14km, M4.2/12, mB4.7/2, mB4.7/2, mb4.1/5, mb4.1/5, MLv4.3/11, MLv4.3/12, Mw(mB)4.0/2, Mw(mB)3.9/2*
*IDC **30** 09:17:30.1±1.4, 6°.22S×127°.60E, h400km±17km, mb3.2/2, mbtmp4.4/7, Error ellipse: s-maj=23.6km s-min=12.7km az=78.0*
*NEIC **30** 09:17:33.8±2.5, 6°.67S×0°.09×128°.23E±0°.03, h302km±13km, mb4.5/4, Error ellipse: s-maj=12.5km s-min=4.3km az=173.0*

ISC 30 09:17:29.9±0.7, 6°.37S±0°.06×128°.00E±0°.08, h353km, n30, σ2s12/32, mb4.0/3, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSAI	**Masohi**	**3.15**	**17**	P	**Pn**	**09 18 31.7**	**+0.8**
NLAI	**Namlea**	**3.24**	**344**	P	**Pn**	**09 18 34.2**	**+2.5**
NLAI				S	**S**	**09 19 23.6**	**+2.2**
NLAI				AML	AML		
NLAI				AML	AML		
SAUI	**Saumlaki**	**3.64**	**116**	Pn	**Pn**	**09 18 31.3**	**-4.2**
SAUI				Sn	S	09 19 09.9	-19
SAUI	**Saumlaki**	**3.64**	**116**	P	Pn	09 18 31.1	-4.4
SAUI				AML	AML		
SAUI				AML	AML		
SANI	**Sanana**	**4.74**	**335**	P	**Pn**	**09 18 44.8**	**-2.1**
SANI				AML	AML		
SANI				AML	AML		
SOEI	**Soe**	**4.99**	**227**		**Pn**	**09 18 51.3**	**+1.6**
SOEI					**S**	**09 19 49.5**	**-4.8**
SOEI	**Soe**	**4.99**	**227**	P	**Pn**	**09 18 51.8**	**+2.1**
SOEI				AML	AML		
FAKI	**Fak Fak**	**5.45**	**51**		**Pn**	**09 18 57.6**	**+3.0**
FAKI				Sn	**S**	**09 20 03.2**	**-0.1**
BATI	**Baumata**	**5.74**	**228**	P	**Pn**	**09 18 59.9**	**+2.0**
	50nm,0.3s,baz=45,slow=2.1,SNR=10						
BATI				S	**S**	**09 20 07.9**	**-1.3**
	61nm,0.3s,baz=204,slow=17,SNR=6.6						
BATI	**Baumata**	**5.74**	**228**	P	**Pn**	**09 19 00.0**	**+2.1**
	1µm1µm66nm,0.7s						
SIJI	**Sorong**	**6.37**	**31**	P	**Pn**	**09 19 06.3**	**+1.3**
	14nm,0.3s,baz=273,slow=23,SNR=8.6						
SIJI				S	**S**	**09 20 19.1**	**-3.2**
	21nm,0.5s,baz=106,slow=23,SNR=9.3						
EDFI	**Ende, Flores**	**6.69**	**249**	P	**Pn**	**09 19 08.0**	**-0.8**
	0.1nm0.1nm11nm,1.1s,11nm,1.1s						
EDFI				AML	AML		
EDFI				AML	AML		
MTN	**Manton Dam**	**7.13**	**155**		**Pn**	**09 19 11.8**	**-2.1**
KAPI	**Kappang**	**8.32**	**279**	Pn	**Pn**	**09 19 30.9**	**+3.1**
KNRA	**Kununurra**	**9.28**	**175**		**Pn**	**09 19 40.7**	**+1.5**
FITZ	**Fitzroy Crossi**	**11.88**	**191**	P	**P**	**09 20 10.9**	**+0.9**
	2.3nm,0.3s,baz=5.4,slow=6.8,SNR=28						
FITZ				S	S	09 22 10.1	-12
	5.5nm,0.3s,baz=160,slow=23,SNR=9.5						
FITZ	**Fitzroy Crossi**	**11.88**	**191**	P	**P**	**09 20 10.5**	**+0.5**
WB0	**Warramunga Arr**	**14.69**	**156**		**Pn**	**09 20 43.8**	**+0.7**
WRAB	**Tennant Creek**	**14.82**	**156**		**Pn**	**09 20 45.3**	**+0.6**
WRA	**Warramunga Arr**	**14.83**	**156**	P	**Pn**	**09 20 45.0**	**+0.3**
	19nm,0.6s,baz=333,slow=11,SNR=223						
WRA				S	S	09 23 12.6	-10
	2.1nm,0.4s,baz=332,slow=22,SNR=10						
WRA	**Warramunga Arr**	**14.83**	**156**		**P**	**09 20 43.9**	**+1.4**
WR8	**Warramunga Arr**	**14.90**	**156**		**Pn**	**09 20 46.2**	**+0.6**
AS31	**Alice Springs**	**18.11**	**162**	P	**P**	**09 21 20.0**	**+2.1**
AS31				IAmb	IAmb	09 21 20.8	
	comp=Z,5.0nm,0.3s						
ASAR	**Alice Springs**	**18.11**	**162**	P	**P**	**09 21 19.8**	**+1.8**
	comp=Z,9.4nm,0.5s,baz=347,slow=12,SNR=168						
ASAR				S	**S**	**09 24 27.0**	**0.0**
	comp=Z,1.6nm,0.8s,baz=335,slow=19,SNR=9.4						
STKA	**Stephens Creek**	**28.38**	**155**	P	**P**	**09 22 52.6**	**-0.3**
	comp=Z,0.8nm,0.3s,baz=313,slow=8.1,SNR=7.9						
	comp=Z,0.8nm,0.3s						
STKA	**Stephens Creek**	**28.38**	**155**	P	**P**	**09 22 53.6**	**+0.7**
STKA				IAmb	IAmb	09 22 55.9	
	comp=Z,35nm,1.4s						
YOJ	**Yonaguni jima**	**31.03**	**351**	P	P	09 23 26.4	+10
KSH2	**Kashi**	**66.31**	**318**	P	**P**	**09 27 39.0**	**-2.7**
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MKAR	**Makanchi Array**	**66.63**	**328**	P	P	09 27 37.0	-6.4
	comp=Z,0.5nm,0.4s,baz=111,slow=7.9,SNR=9.2						
	comp=Z,0.5nm,0.4s						
VNDA	**Vanda**	**73.31**	**173**	P	P	09 28 28.9	+5.8

TRN 30 09:39:27.0, 16°.02N×61°.46W, h18km, MD3.9, Near South of Guadeloupe., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MAGL	**Barre de l'ile**	**0.18**	**113**	*eP*	Pb	09 39 33.7	+2.0
MAGL				*eS*	Sb	09 39 37.0	+2.1
DHSZ	**Broadband at M**	**0.39**	**310**	*eP*	Pn	09 39 37.3	-0.5
DHSZ				*eS*	Sn	09 39 43.2	-1.5
DWS	**Wesley**	**0.47**	**163**	*eP*	Pn	09 39 39.1	+0.2
DWS				*eS*	Sn	09 39 46.9	+0.1
DSDZ	**La Diserade, G**	**0.47**	**52**	*eP*	Pn	09 39 38.1	-0.9
DSDZ				*eS*	Sn	09 39 46.9	0.0
DSLB	**Salisbury**	**0.58**	**177**	*eP*	Pn	09 39 41.1	+0.6
DSLB				*eS*	Sn	09 39 50.0	+0.4
DLPL	**La Plaine**	**0.72**	**163**	*eP*	Pn	09 39 43.0	+0.7
DLPL				*eS*	Sn	09 39 53.4	+0.5
ILAM	**Ilet Lapin Mar**	**1.36**	**156**	*eP*	Pg	09 39 53.1	-0.2
ILAM				*eS*	Sg	09 40 11.6	+0.5
BIM	**Bigot**	**1.54**	**166**	*eP*	Pg	09 39 56.1	-0.7
BIM				*eS*	Sg	09 40 16.3	-0.6
ANWB	**Willy Bob**	**1.67**	**349**	*eP*	Pb	09 39 57.1	-0.1
ANWB				*eS*	Sb	09 40 18.6	+0.7
SKI	**Saint Kitts**	**1.79**	**317**	*eP*	Pb	09 39 59.2	-0.2
SKI				*eS*	Sb	09 40 22.7	+1.2
SLBI	**Saint Lucia, B**	**2.04**	**167**	*eP*	Pb	09 40 03.4	-0.2
SLBI				*eS*	Sb	09 40 28.9	+0.2
SLCP	**Castries, St.**	**2.05**	**167**	*eP*	Pn	09 40 02.0	+1.3
SLCP				*eS*	Sb	09 40 28.5	-0.5
SEUS	**St. Eustatius**	**2.07**	**315**	*eP*	Pb	09 40 02.9	-1.2
SEUS				*eS*	Sb	09 40 29.0	-0.

0.2nm,0.6s

*JSO **30** 10:25:08.8±0.8,30°N±5°×3°6E±°, h10km,M2.7/9,MLv2.7/9*
GII 30 10:24:56.3±0.0,29°509N±0°002×36°534E±0°001,h0km, confirmed,Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HSNJ	**Maan**	**1.05**	**316**	P	Pg	10 25 15.5	-0.9
HSNJ				AML	AML		
AQBJ	**Aqaba**	**1.31**	**280**	P	Pn	10 25 23.7	+1.8
AQBJ				AML	AML		
YTVT	**Yotvata**	**1.34**	**287**	P	Pg	10 25 21.7	-0.3
YTVT				S	Sb	10 25 40.4	+0.4
EIL	**Elat**	**1.39**	**277**	P	Pb	10 25 25.1	+2.0
EIL				AML	AML		
EIL	**Elat**	**1.39**	**277**	P	Pg	10 25 22.8	-0.2
EIL				S	Sn	10 25 42.1	+0.1
HRFI	**Mount Harif**	**1.40**	**292**	P	Pb	10 25 23.5	+0.1
HRFI				AML	AML		
HRFI	**Mount Harif**	**1.40**	**292**	P	Pn	10 25 22.8	-0.5
HRFI				S	Sn	10 25 43.1	+0.6
HRFI	**Mount Harif**	**1.40**	**292**	P	Pn	10 25 23.1	-0.1
HRFI				S	Sn	10 25 42.4	0.0
PRNI	**Paran**	**1.57**	**303**	P	Pn	10 25 25.4	-0.1
PRNI				AML	AML		
ZFRI	**Zfri**	**1.57**	**312**	P	Pn	10 25 24.9	-0.5
ZFRI				S	Sg	10 25 46.8	0.0
HZVA	**Hazeva**	**1.66**	**319**	P	Pn	10 25 26.1	-0.6
HZVA				S	Sn	10 25 48.9	+0.1
IDAN	**Idan**	**1.71**	**321**	P	Pn	10 25 27.5	+0.1
IDAN				S	Sn	10 25 49.9	-0.2
RMNI	**Mount Ramon**	**1.88**	**306**	P	Pn	10 25 29.2	-0.6
RMNI				S	Sn	10 25 54.6	+0.3
GHAJ	**Ghor Haditha**	**1.97**	**335**	P	Pb	10 25 32.3	-0.8
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**1.97**	**335**	P	Pn	10 25 30.6	-0.5
GHAJ				S	Sn	10 25 57.0	+0.5
MSBI	**Mazada**	**2.06**	**331**	P	Pn	10 25 32.2	0.0
MSBI				S	Sn	10 25 58.4	-0.3
KZIT	**Kziot**	**2.31**	**308**	P	Pb	10 25 38.6	-0.4
KZIT				AML	AML		
KZIT	**Kziot**	**2.31**	**308**	P	Pn	10 25 36.0	+0.2
KZIT				S	Sn	10 26 04.8	-0.1
KZIT	**Kziot**	**2.31**	**308**	P	Pn	10 25 35.6	-0.1
KZIT				S	Sn	10 26 05.1	+0.2
ASF	**Jabal al Asfar**	**2.67**	**6**	P	Pg	10 25 49.8	+2.2

*IDC **30** 10:27:14.4±1.3, 17°.65S×178°.86W, h523km±15km, mb3.3/8, mbtmp4.1/10, Error ellipse: s-maj=22.0km s-min=14.7km az=144.0*
*NEIC **30** 10:27:15.4±1.7, 17°.7S±0°.1×178°.8W±0°.1, h535km±10km, mb4.3/18, Error ellipse: s-maj=18.2km s-min=16.8km az=133.0*
ISC 30 10:27:15.1±0.7, 17°.6S±0°.1×178°.8W±0°.1, h539km, n30, σ0s.94/27, mb4.1/17, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.99**	**268**	P	**P**	**10 28 28.7**	**-0.6**
	6.8nm,0.6s,baz=139,slow=8.4,SNR=6.5						
FUTU	**Fugatoga**	**3.37**	**12**	P	**P**	**10 28 31.4**	**-0.4**
AFI	**Afiamalu**	**7.72**	**62**	P	**P**	**10 29 07.7**	**-2.2**
	35nm,0.5s						
MARNC	**Mare, Loyalty**	**12.97**	**251**	P	**P**	**10 30 03.1**	**-0.7**
PINNC	**Pines Island,**	**13.82**	**247**	P	**P**	**10 30 12.1**	**-0.4**
URZ	**Urewera**	**20.86**	**189**	P	**P**	**10 31 17.6**	**-1.7**
	3.6nm,0.3s,baz=234,slow=2.5,SNR=8.8						
	3.6nm,0.3s						
KHZ	**Kahutara**	**25.55**	**193**	P	**P**	**10 31 59.9**	**-1.2**
WKZ	**Wanaka**	**28.97**	**198**	P	**P**	**10 32 30.0**	**-1.1**
EIDS	**Eidsvold**	**29.00**	**249**	P	**P**	**10 32 31.8**	**+0.2**
EIDS				IAmb	IAmb	10 32 38.9	
	comp=Z,18nm,1.4s						
MLZ	**Mavora Lakes**	**29.73**	**199**	P	**P**	**10 32 38.2**	**+0.5**
MLZ				IAmb	IAmb	10 32 43.1	
	comp=Z,25nm,1.2s						
ARMA	**Armidale**	**29.74**	**239**	P	**P**	**10 32 38.6**	**+0.5**
ARMA				IAmb	IAmb	10 32 39.9	
	comp=Z,18nm,1.1s						
CTAO	**Charters Tower**	**33.11**	**260**	P	**P**	**10 33 06.3**	**-0.6**
CTAO				IAmb	IAmb	10 33 12.9	
	comp=Z,6.9nm,1.2s						
STKA	**Stephens Creek**	**38.42**	**241**	P	**P**	**10 33 51.5**	**+0.8**
	comp=Z,2.9nm,0.5s,baz=94,slow=10,SNR=12						
	comp=Z,2.9nm,0.5s						
INKA	**Innaminka**	**38.49**	**247**	P	**P**	**10 33 51.7**	**+0.3**
BBOO	**Buckleboo**	**43.20**	**241**	P	**P**	**10 34 29.2**	**+0.4**
WR0	**Warramunga Arr**	**44.11**	**259**	P	**P**	**10 34 36.0**	**0.0**
WR0				IAmb	IAmb	10 35 09.2	
	comp=Z,5.7nm,1.3s						
WB0	**Warramunga Arr**	**44.26**	**260**	P	**P**	**10 34 37.3**	**+0.1**
WB0				IAmb	IAmb	10 35 19.6	
	comp=Z,7.4nm,1.4s						
WB2	**Warramunga Arr**	**44.29**	**259**	P	P	10 34 30.8	-6.7
WB2				IAmb	IAmb	10 34 55.3	
	comp=Z,14nm,1.4s						
WRA	**Warramunga Arr**	**44.30**	**259**	P	**P**	**10 34 36.4**	**-1.1**
	comp=Z,0.8nm,0.6s,baz=97,slow=7.3,SNR=18						
	comp=Z,0.8nm,0.6s						
WRA	**Warramunga Arr**	**44.30**	**259**	IAmb	IAmb	10 34 37.3	
	comp=Z,0.5nm,1.4s						
AS31	**Alice Springs**	**44.49**	**254**	P	**P**	**10 34 38.9**	**0.0**
AS31				IAmb	IAmb	10 34 39.4	
	comp=Z,4.0nm,0.5s						
ASAR	**Alice Springs**	**44.49**	**254**	P	**P**	**10 34 38.9**	**-0.1**
	comp=Z,11nm,0.5s,baz=89,slow=8.2,SNR=210						
	comp=Z,11nm,0.5s						
FORT	**Forrest**	**49.77**	**244**	P	**P**	**10 35 18.5**	**-0.1**
FORT				IAmb	IAmb	10 35 42.0	
	comp=Z,25nm,1.3s						
KNRA	**Kununurra**	**50.13**	**264**	P	**P**	**10 35 21.5**	**+0.1**
KNRA				IAmb	IAmb	10 35 58.0	
	comp=Z,10nm,1.4s						
FITZ	**Fitzroy Crossi**	**52.69**	**260**	P	**P**	**10 35 39.8**	**0.0**
QSPA	**South Pole Qui**	**72.42**	**180**	P	**P**	**10 37 48.1**	**+1.5**
	comp=Z,2.0nm,0.7s,baz=292,slow=0.7,SNR=20						
	comp=Z,2.0nm,0.7s						
QSPA	**South Pole Qui**	**72.42**	**180**	IAmb	IAmb	10 37 51.3	
	comp=Z,3.7nm,1.4s						
NVAR	**Mina Array Bea**	**79.50**	**44**	P	**P**	**10 38 27.7**	**+1.4**
	comp=Z,0.5nm,0.7s,baz=228,slow=9.7,SNR=4.6						
	comp=Z,0.5nm,0.7s						
ILAR	**Eielson Array**	**85.71**	**13**	P	**P**	**10 38 56.6**	**0.0**
	comp=Z,0.8nm,0.8s,baz=221,slow=5.4,SNR=6.8						
	comp=Z,0.8nm,0.8s						
PDAR	**Pinedale Array**	**87.42**	**44**	P	**P**	**10 39 07.1**	**+1.5**
	comp=Z,0.3nm,0.5s,baz=215,slow=2.8,SNR=4.5						
	comp=Z,0.3nm,0.5s						

UCR 30 11:03:06.9±1.2, 5°.34N×83°.31W, h32km, MW3.5, Presumed earthquake, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EDPE	**Pejibaye, P**	**3.81**	**356**	*e*P	Pn	11 04 03.1	-0.3
SAJE	**San Jernim**	**3.99**	**357**	*e*P	Pn	11 04 06.3	+0.3
ABE2	**San Pablo**	**4.40**	**350**	*e*P	Pn	11 04 12.1	+0.3
LAES	**El Progreso Va**	**4.40**	**3**	*e*P	Pn	11 04 11.0	-0.5
LCR2	**La Lucha 2**	**4.43**	**351**	*e*P	Pn	11 04 12.1	0.0
VERH	**Veragua Rainfo**	**4.56**	**1**	*e*P	Pn	11 04 15.1	+1.3
VTCV	**VTCV, Calle Va**	**4.63**	**355**	*e*P	Pn	11 04 15.4	+0.5
VICA	**Volcano Irazu**	**4.65**	**353**	*e*P	Pn	11 04 15.6	+0.3
ABRB	**Las Abras (San**	**4.66**	**355**	*e*P	Pn	11 04 16.8	+1.6
CVTV	**Tajo**	**4.66**	**355**	*e*P	Pn	11 04 16.0	+0.6
CVTQ	**Turrialba Volc**	**4.66**	**354**	*e*P	Pn	11 04 15.8	+0.4
VTR0	**Volcan Turrial**	**4.67**	**355**	*e*P	Pn	11 04 17.9	+2.3
CVTR	**Volcan Turrial**	**4.67**	**355**	*e*P	Pn	11 04 17.0	+1.4
RESJ	**San Isidro (Tu**	**4.67**	**356**	*e*P	Pn	11 04 16.7	+1.3
VARE2	**V. Arenal**	**5.28**	**345**	*e*P	Pn	11 04 26.2	+2.5
CUI	**Cuipilapa**	**5.60**	**341**	*e*P	Pn	11 04 29.3	+1.3
LAPC	**Finca la Perla**	**5.79**	**339**	*e*P	Pn	11 04 31.4	+0.8

*SDD **30** 11:12:37.9±1.9, 18°.02N×71°.51W, h15km±17km, MD4.0, ML4.4, MW4.7, Presumed earthquake*
*SSNC **30** 11:12:38.9±1.8, 18°.16N×71°.24W, h7km±150km, MD4.1, ML4.4, MW4.6, Presumed earthquake*
*IDC **30** 11:12:38.7±0.4, 18°.15N×71°.40W, h0km, mb4.5/24, mbtmp4.5/28, ML3.8/5, MS3.6/32, Error ellipse: s-maj=11.9km s-min=9.5km az=84.0*
*GFZ **30** 11:12:40.7±0.3, 18°N±4°×7°1W±°, h10km, M5.2/7, mb5.2/7, Mw4.6/8, Error ellipse: s-maj=9.2km s-min=8.2km az=96.4, confirmed*
*RSNC **30** 11:12:40.3±0.5, 18°N±2°×7°1W±°, h6km±4km, M4.9, mB5.3, mb5.1, ML4.0, Mw(mB)4.7, MwMwp6.3, Mwp6.2*
*PTWC **30** 11:12:40, 18°.20N×71°.50W, Ml4.5/26*
*OSPL **30** 11:12:40.9±1.7, 18°.21N×71°.45W, h5km±4km, ML4.7, Presumed earthquake*
*NEIC **30** 11:12:41.5, 18°.21N×71°.45W, h10km*
*CATAC **30** 11:12:41.2±0.5, 18°N±2°×7°2W±°, h10km±4km, M4.9/8, mb5.0/8, mB5.3/7, MLv5.0/8, Mw(mB)4.7/7, Error ellipse: s-maj=4.5km s-min=3.4km az=99.7, confirmed*
*NEIC **30** 11:12:41.4±1.3, 18°.28N±0°.05×71°.38W±0°.04, h10km±1km, mb4.7/246, Mwr4.5/27, Error ellipse: s-maj=8.8km s-min=5.0km az=215.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr5.75; Mθθ-2.20; Mϕϕ-3.54; Mrθ-1.28; Mθϕ3.36; Mϕr1.11; Fault plane solution: M₀6.28000×10¹⁵ NP1:φ₁317.75000°, δ52.81000°, λ86.39000°. NP2:φ₂143.70000°, δ37.34000°, λ94.74000°. Principal axes: T 5.9863, Plg82.0000°, Azm210.0000°; N 0.5424, Plg3.0000°, Azm320.0000°; P -6.5287, Plg8.0000°, Azm50.0000°;*
ISC 30 11:12:40.7±0.6, 18°.21N±0°.02×71°.45W±0°.02, h12km±3km, n459, σ1s45/408, mb4.7/139, MS3.5/29, 7C-15D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LODU1	**El Espartillar**	**0.14**	**350**	↑*iP*	**Pg**	**11 12 42.9**	**-1.3**
LODU1				*e*S	**Sg**	**11 12 45.0**	**-1.6**
LODU1				*e*		11 12 45.0	
LODU1				IAML		11 12 46.1	
	comp=Z,405μm,0.9s						
PODR	**Polo**	**0.17**	**106**	Pg	**Pg**	**11 12 43.6**	**-1.0**
PODR				Sg	**Sg**	**11 12 47.5**	**+0.1**
PODR	**Polo**	**0.17**	**106**	*e*P	**Pg**	**11 12 43.5**	**-1.2**
PODR				*e*S	**Sg**	**11 12 47.2**	**-0.3**
PODR				IAML		11 12 48.6	
	comp=N,33nm,0.3s						
PODR	**Polo**	**0.17**	**106**	↓*iP*	**Pg**	**11 12 43.3**	**-1.4**
PODR				*e*S	**Sg**	**11 12 46.1**	**-1.4**
PODR				IAML		11 12 50.0	
	comp=Z,1393μm,0.5s						
NEDR	**Neiba UASD**	**0.27**	**6**	↑*e*Pg	**Pg**	**11 12 46.0**	**-0.3**
NEDR				*e*Sg	**Sb**	**11 12 52.3**	**+0.2**
NEDR				IAML		11 12 53.1	
	comp=N,13nm,0.3s						
LONE3	**El Aguacate, B**	**0.39**	**359**	↑*iP*	**Pg**	**11 12 47.8**	**-0.8**
LONE3				*e*S	**Sb**	**11 12 55.4**	**-0.2**
LONE3				IAML		11 12 58.8	
	comp=Z,58μm,0.8s						
LOBH	**Bahia de las A**	**0.39**	**207**	*i*P	**Pg**	**11 12 48.5**	**0.0**
LOBH				IAML		11 12 59.9	
	comp=Z,94μm,0.6s						
LOVI	**El Cajuil, Ovi**	**0.42**	**169**	↑*iP*	**Pg**	**11 12 48.6**	**-0.4**
LOVI				IAML		11 13 03.0	
	comp=Z,101μm,0.6s						
JIDR	**Jimani**	**0.47**	**306**	*e*Pg	**Pg**	**11 12 49.9**	**-0.1**
JIDR				IAML		11 13 00.8	
	comp=N,97μm,0.5s						
SDDR	**Presa de Saban**	**0.78**	**11**	P	**Pg**	**11 12 54.5**	**-1.4**
SDDR				S	**Sn**	**11 13 08.2**	**-1.0**
SDDR	**Presa de Saban**	**0.78**	**11**		**Pg**	**11 12 54.4**	**-1.4**
SDDR	**Presa de Saban**	**0.78**	**11**	P	**Pg**	**11 12 54.4**	**-1.4**
SDDR	**Presa de Saban**	**0.78**	**11**	P	**Pg**	**11 12 54.3**	**-1.5**
SDDR				S	**Sb**	**11 13 06.6**	**-0.2**
SDDR	**Presa de Saban**	**0.78**	**11**	P	**Pg**	**11 12 54.4**	**-1.4**
SDDR	**Presa de Saban**	**0.78**	**11**	↓*e*Pg	**Pg**	**11 12 54.4**	**-1.4**
SDDR				IAML		11 13 15.4	
	comp=N,13μm,0.8s						
SDDR	**Presa de Saban**	**0.78**	**11**	*e*P	**Pg**	**11 12 54.0**	**-1.8**
SDDR				*e*S	**Sg**	**11 13 02.8**	**-3.3**
SDDR				IAML		11 13 07.9	
	comp=N,10μm,0.3s						
SDDR				IAML		11 13 08.2	
	comp=N,1μm,0.2s						
SDDR	**Presa de Saban**	**0.78**	**11**	↓*iP*	**Pg**	**11 12 54.3**	**-1.5**
SDDR				*e*S	**Sg**	**11 13 04.9**	**-1.2**
SDDR				IAML		11 13 12.7	
	comp=Z,8μm,0.4s						
SDDR	**Presa de Saban**	**0.78**	**11**	P	**Pg**	**11 12 54.4**	**-1.4**
REDR	**Restauracion**	**0.95**	**3**	↓*e*Pg	**Pn**	**11 12 59.7**	**-0.1**
REDR				IAML		11 13 18.7	
	comp=N,12μm,0.2s						
ABDR	**Alto Bandera**	**0.98**	**52**	↑*e*Pg	**Pg**	**11 12 58.2**	**-1.5**
ABDR				↓*e*Sg	**Sn**	**11 13 14.1**	**-0.5**
ABDR				IAML		11 13 18.8	
	comp=N,17μm,0.8s						
BANI	**BANI**	**1.05**	**80**		**Pg**	**11 12 59.7**	**-1.3**
BANI					**Sb**	**11 13 15.4**	**+0.8**
BANI	**BANI**	**1.05**	**80**	*e*Pg	**Pg**	**11 12 59.2**	**-1.7**
BANI				IAML		11 13 19.9	
	comp=N,20μm,0.6s						
LGNH	**Logne**	**1.14**	**285**	P	**Pb**	**11 13 01.1**	**-1.2**
LGNH				S	**Sn**	**11 13 19.9**	**+2.0**
LGNH	**Logne**	**1.14**	**285**	P	**Pb**	**11 13 01.2**	**-1.1**
LGNH	**Logne**	**1.14**	**285**	*i*P	**Pb**	**11 13 01.4**	**-0.8**
LOSC1	**San Cristbal**	**1.29**	**81**	*i*P	**Pn**	**11 13 03.8**	**-0.6**
LOSC1				IAML		11 13 29.4	
	comp=Z,13μm,0.6s						
LODA1	**ITESIL, Dajabo**	**1.35**	**350**		**Pn**	**11 13 04.0**	**-1.3**
LODA1				Sn	**Sb**	**11 13 22.7**	**-0.3**
MADR	**Mao Valverde**	**1.39**	**14**	↓*e*Pg	**Pn**	**11 13 04.8**	**-1.0**
MADR				IAML		11 13 28.4	
	comp=N,19μm,0.7s						
SC01	**Santiago de lo**	**1.39**	**29**	P	**Pn**	**11 13 05.4**	**-0.5**
SC01	**Santiago de lo**	**1.39**	**29**		**Pn**	**11 13 05.4**	**-0.5**
SC01	**Santiago de lo**	**1.39**	**29**	P	**Pn**	**11 13 05.3**	**-0.5**
SC01	**Santiago de lo**	**1.39**	**29**	↓*e*Pg	**Pn**	**11 13 05.1**	**-0.7**
SC01				IAML		11 13 36.0	
	comp=N,9μm,0.6s						
SC01	**Santiago de lo**	**1.39**	**29**	↓*iP*	**Pn**	**11 13 05.3**	**-0.5**
SC01				*e*S	**Sb**	**11 13 24.1**	**-0.1**
SC01				IAML		11 13 31.9	
	comp=Z,4μm,1.4s						
SDD	**Santo Domingo**	**1.48**	**80**	P	**Pn**	**11 13 06.0**	**-1.0**
SDD				S	**Sg**	**11 13 29.7**	**+1.4**
SDD	**Santo Domingo**	**1.48**	**80**		**Pn**	**11 13 06.2**	**-0.9**
SDD	**Santo Domingo**	**1.48**	**80**	P	**Pn**	**11 13 06.1**	**-0.9**
SDD	**Santo Domingo**	**1.48**	**80**	↓*e*Pg	**Pn**	**11 13 06.0**	**-1.0**
SDD				IAML		11 13 35.1	
	comp=N,3μm,0.8s						
SDD	**Santo Domingo**	**1.48**	**80**	↓*iP*	**Pn**	**11 13 06.1**	**-1.0**
SDD				*e*S	**Sn**	**11 13 25.9**	**-0.4**
SDD				IAML		11 13 36.9	
	comp=Z,5μm,0.8s						
SFDR	**San Fco. de Ma**	**1.56**	**47**	P	**Pn**	**11 13 08.0**	**-0.3**
SFDR	**San Fco. de Ma**	**1.56**	**47**	↓*e*Pg	**Pn**	**11 13 07.9**	**-0.3**
SFDR				IAML		11 13 31.3	
	comp=N,19μm,0.7s						
MCDR	**Montecristi**	**1.68**	**353**	P	**Pn**	**11 13 09.6**	**-0.3**
MCDR	**Montecristi**	**1.68**	**353**	↓*e*Pg	**Pn**	**11 13 09.4**	**-0.4**
MCDR				IAML		11 13 39.3	
	comp=N,5μm,1.4s						
LUDR	**Luperon**	**1.74**	**16**	*e*Pg	**Pn**	**11 13 11.4**	**+0.8**
SODR	**Sosua Marina B**	**1.74**	**28**	↓*e*Pg	**Pb**	**11 13 12.0**	**-0.5**
SODR				IAML		11 13 40.0	
	comp=N,16μm,1.1s						
NADR	**Nagua**	**1.89**	**53**	P	**Pn**	**11 13 12.7**	**0.0**
NADR	**Nagua**	**1.89**	**53**	↓*e*Pg	**Pn**	**11 13 12.7**	**0.0**
NADR				IAML		11 13 47.4	
	comp=N,13μm,0.5s						
CADR	**Cabrera**	**2.03**	**44**	*e*Pg	**Pb**	**11 13 17.3**	**-0.2**
CADR				IAML		11 14 00.1	
	comp=N,10μm,0.8s						
SMDR	**Samana, DR**	**2.39**	**63**	P	**Pn**	**11 13 21.0**	**+1.3**
SMDR	**Samana, DR**	**2.39**	**63**	↑*e*Pg	**Pn**	**11 13 20.9**	**+1.3**
SADR	**Isla Saona**	**2.54**	**90**	P	**Pn**	**11 13 22.1**	**+0.5**
SADR	**Isla Saona**	**2.54**	**90**	*e*Pg	**Pn**	**11 13 21.9**	**+0.3**
SADR				IAML		11 14 16.7	
	comp=N,3μm,0.8s						
HIDR	**Higuey Centro**	**2.62**	**81**	*e*Pg	**Pn**	**11 13 23.7**	**+0.9**
HIDR				IAML		11 14 06.3	
	comp=N,3μm,0.8s						
PCDR	**Punta Cana, DR**	**2.93**	**84**	Pn	**Pn**	**11 13 27.2**	**+0.2**
PCDR	**Punta Cana, DR**	**2.93**	**84**	P	**Pn**	**11 13 28.5**	**+1.5**
PCDR	**Punta Cana, DR**	**2.93**	**84**	↑*e*Pg	**Pn**	**11 13 28.6**	**+1.5**
PCDR				IAML		11 14 16.5	
	comp=N,2μm,1.9s						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GRTK	**Grand Turk**	**3.29**	**5**	P	**Pn**	**11 13 32.7**	**+0.6**
GRTK				S	**Sn**	**11 14 11.9**	**+0.7**
GRTK	**Grand Turk**	**3.29**	**5**		**Pn**	**11 13 32.6**	**+0.5**
GRTK	**Grand Turk**	**3.29**	**5**		**Pn**	**11 13 32.4**	**+0.4**
GRTK				S	**Sn**	**11 14 12.2**	**+1.0**
GRTK	**Grand Turk**	**3.29**	**5**	*e*P	**Pn**	**11 13 32.5**	**+0.4**
GRTK				*e*S	**Sn**	**11 14 12.8**	**+1.6**
GRTK				IAML		11 14 13.9	
	comp=N,1μm,0.2s						
GRTK				IAML		11 14 15.8	
	comp=N,397nm,0.8s						
GRTK	**Grand Turk**	**3.29**	**5**	P	**Pn**	**11 13 33.0**	**+0.9**
QMBU	**Quimbuelo**	**3.74**	**302**	P	**Pn**	**11 13 37.0**	**-1.3**
QMBU				S	**Sn**	**11 14 26.9**	**+4.6**
QMBU	**Quimbuelo**	**3.74**	**302**	*e*P	**Pn**	**11 13 36.5**	**-1.7**
QMBU				IAML		11 14 28.2	
	comp=N,183nm,0.6s						
GTBY	**Guantanamo Bay**	**3.86**	**297**	P	**Pn**	**11 13 40.6**	**+0.7**
GTBY	**Guantanamo Bay**	**3.86**	**297**		**Pn**	**11 13 39.9**	**0.0**
GTBY	**Guantanamo Bay**	**3.86**	**297**	P	**Pn**	**11 13 40.1**	**+0.3**
GTBY	**Guantanamo Bay**	**3.86**	**297**	P	**Pn**	**11 13 39.8**	**0.0**
GTBY				S	**Sn**	**11 14 28.9**	**+3.8**
GTBY	**Guantanamo Bay**	**3.86**	**297**	P	**Pn**	**11 13 40.5**	**+0.7**
GTBY	**Guantanamo Bay**	**3.86**	**297**	*e*P	**Pn**	**11 13 39.3**	**-0.5**
GTBY				*e*S	**Sn**	**11 14 27.2**	**+2.1**
GTBY				IAML		11 14 36.7	
	comp=N,728nm,0.9s						
GTBY				IAML		11 14 37.2	
	comp=N,254nm,0.6s						
GTBY	**Guantanamo Bay**	**3.86**	**297**	P	**Pn**	**11 13 40.5**	**+0.6**
NMDO	**Nuevo Mundo**	**4.07**	**306**	P	**Pn**	**11 13 43.3**	**+0.5**
NMDO	**Nuevo Mundo**	**4.07**	**306**		**Pn**	**11 13 43.1**	**+0.4**
NMDO	**Nuevo Mundo**	**4.07**	**306**	P	**Pn**	**11 13 42.0**	**-0.8**
NMDO	**Nuevo Mundo**	**4.07**	**306**	*e*P	**Pn**	**11 13 42.9**	**+0.2**
NMDO				*e*S	**Sn**	**11 14 31.4**	**+1.1**
NMDO				IAML		11 14 35.8	
	comp=N,135nm,0.8s						
NMDO				IAML		11 14 36.9	
	comp=E,202nm,0.7s						
PRSN	**Puerto Rico Se**	**4.09**	**89**	Pn	**Pn**	**11 13 43.2**	**+0.2**
MOAC	**Moa**	**4.11**	**307**	*e*P	**Pn**	**11 13 43.0**	**-0.3**
MOAC				*e*S	**Sn**	**11 14 31.5**	**+0.2**
MOAC				IAML		11 14 41.0	
	comp=N,359nm,1.4s						
MOAC				IAML		11 14 41.9	
	comp=E,437nm,1.1s						
CRPR	**Cabo Rojo, PR**	**4.13**	**92**		**Pn**	**11 13 43.6**	**0.0**
CRPR	**Cabo Rojo, PR**	**4.13**	**92**	P	**Pn**	**11 13 44.2**	**+0.6**
MLPR	**Magueyes Islan**	**4.20**	**93**		**Pn**	**11 13 45.0**	**+0.6**
MLPR	**Magueyes Islan**	**4.20**	**93**	P	**Pn**	**11 13 44.6**	**+0.1**
SABCS	**La Quijada**	**4.23**	**301**	*e*P	**Pn**	**11 13 44.9**	**-0.1**
SABCS				*e*S	**Sn**	**11 14 37.4**	**+3.1**
SABCS				IAML		11 14 38.3	
	comp=E,232nm,0.3s						
SABCS				IAML		11 14 39.4	
	comp=N,368nm,0.5s						
RCC	**Rio Carpintero**	**4.39**	**294**	*e*P	**Pn**	**11 13 46.2**	**-1.0**
RCC				*e*S	**Sn**	**11 14 38.5**	**+0.3**
RCC				IAML		11 14 46.4	
	comp=E,187nm,0.6s						
RCC				IAML		11 14 46.6	
	comp=N,163nm,1.1s						
AOPR	**Arecibo Observ**	**4.46**	**88**		**Pn**	**11 13 48.8**	**+0.6**
AOPR	**Arecibo Observ**	**4.46**	**88**	P	**Pn**	**11 13 48.9**	**+0.7**
MARVS	**Santiago de Cu**	**4.57**	**294**	↓*e*P	**Pn**	**11 13 49.4**	**-0.2**
OBIP	**Obispado Ponce**	**4.61**	**91**		**Pn**	**11 13 50.8**	**+0.7**
OBIP	**Obispado Ponce**	**4.61**	**91**	P	**Pn**	**11 13 50.6**	**+0.5**
CELP	**Cerrillos**	**4.63**	**91**		**Pn**	**11 13 50.8**	**+0.3**
PINC	**Pinares de May**	**4.68**	**300**	*e*P	**Pn**	**11 13 51.2**	**0.0**
PINC				*e*S	**Sn**	**11 14 45.3**	**-0.1**
ECPR	**Experimental S**	**4.83**	**88**		**Pn**	**11 13 54.4**	**+1.1**
SJG	**San Juan**	**5.04**	**90**	Pn	**Pn**	**11 13 56.1**	**+0.1**
	comp=N,18nm,0.3s,baz=261,slow=11,SNR=21						
SJG				Sn	**Sn**	**11 15 00.1**	**+5.9**
	comp=N,20nm,0.3s,baz=108,slow=24,SNR=6.7						
	comp=N,19nm,0.2s						
SJG				AML	AML		
SJG	**San Juan**	**5.04**	**90**		**Pn**	**11 13 56.7**	**+0.7**
SJG	**San Juan**	**5.04**	**90**	P	**Pn**	**11 13 58.7**	**+2.7**
SJG	**San Juan**	**5.04**	**90**	P	**Pn**	**11 13 59.3**	**+3.3**
	comp=N,2μmcomp=N,3μmcomp=N,244nm,0.7s						
SJG				AML	AML		
SJG	**San Juan**	**5.04**	**90**	P	**Pn**	**11 13 55.9**	**-0.1**
	comp=Z,244nm,0.8s						
GCPR	**Guaynabo City**	**5.10**	**88**		**Pn**	**11 13 58.1**	**+1.2**
HLGC	**Holguin**	**5.10**	**302**	*e*P	**Pn**	**11 13 58.7**	**+1.8**
HLGC				*e*S	**Sn**	**11 14 59.8**	**+4.0**
STH	**Stony Hill**	**5.10**	**269**	P	**Pn**	**11 13 57.0**	**+0.1**
PDPR	**Patillas Dam,**	**5.16**	**91**		**Pn**	**11 13 58.1**	**+0.4**
HUMP	**Col San Antoni**	**5.32**	**90**		**Pn**	**11 13 60.0**	**0.0**
**LMGC

comp=Z,868nmcomp=Z,54nm,0.7s
UPA Univ. de Panam 12.08 222 P Pn 11 15 31.0 -1.7
BCIP Isla Barro Col 12.13 223 P Pn 11 15 30.8 -2.6
BCIP S Sn 11 17 37.9 -11
BCIP Isla Barro Col 12.13 223 P Pn 11 15 30.8 -2.6
RUSC La Rusia 12.35 188 P Pn 11 15 36.9 +0.1
RUSC La Rusia 12.35 188 Pn 11 15 37.0 +0.2
RUSC La Rusia 12.35 188 P Pn 11 15 38.1 +1.3
comp=Z,594nmcomp=Z,62nm,0.9s
HELC Santa Helena 12.60 199 P Pn 11 15 41.5 +1.4
HELC S Sn 11 17 59.9 -0.6
HELC Santa Helena 12.60 199 Pn 11 15 41.8 +1.7
HELC Santa Helena 12.60 199 P Pn 11 15 42.9 +2.8
HELC Santa Helena 12.60 199 P Pn 11 15 42.2 +2.1
comp=Z,1µmcomp=Z,138nm,0.6s
PTAC Punta Ardita, 12.62 210 P Pn 11 15 40.7 +0.6
comp=Z,5µmcomp=Z,210nm,0.8s
PTAC Punta Ardita, 12.62 210 P Pn 11 15 40.6 +0.5
comp=Z,5µmcomp=Z,248nm,0.6s
SPBC San Pablo de B 12.74 192 P Pn 11 15 44.2 +2.3
comp=Z,716nmcomp=Z,43nm,0.6s
CBOC Ciudad Bolivar 13.06 201 P Pn 11 15 46.1 -0.1
comp=Z,2µmcomp=Z,95nm,1.1s
CBOC Ciudad Bolivar 13.06 201 P Pn 11 15 47.5 +1.3
comp=Z,2µmcomp=Z,95nm,1.1s
SOLC Bahia Solano 13.26 207 P Pn 11 15 51.0 +2.2
GUY2C Guyana, Caldas 13.46 197 P Pn 11 15 53.9 +1.8
comp=Z,937nmcomp=Z,102nm,0.6s
GUY2C Guyana, Caldas 13.46 197 P Pn 11 15 53.5 +1.4
comp=Z,935nmcomp=Z,96nm,0.7s
ROSC El Rosal 13.58 192 Pn Pn 11 15 54.2 +0.6
comp=Z,3.4nm,0.3s,baz=82,slow=7.8,SNR=12
ROSC LR LR 11 21 29.7
comp=Z,364nm,18.1s,baz=40,slow=39
comp=Z,45nm,0.8s
ROSC AML AML
ROSC El Rosal 13.58 192 Pn 11 15 54.0 +0.4
ROSC El Rosal 13.58 192 P Pn 11 15 52.4 -1.2
comp=Z,93nm,0.9s
CHIC Chingaza 13.68 190 P Pn 11 15 56.9 +1.9
comp=Z,85nm,0.8s
PLMC San Jos del P 14.04 200 P Pn 11 16 01.3 +1.7
comp=Z,971nmcomp=Z,80nm,0.8s
PLMC San Jos del P 14.04 200 P Pn 11 16 01.3 +1.7
comp=Z,971nmcomp=Z,120nm,0.8s
GMAL Guarumal, Vera 14.09 224 P Pn 11 15 58.9 -1.3
comp=Z,16µmcomp=Z,41nm,0.9s
CACAO El Cacao, Vera 14.17 222 P Pn 11 15 59.6 -1.6
CDITO Canoas 14.66 231 S Sn 11 18 46.1 -4.6
ORTC Ortega, Tolima 14.69 195 P Pn 11 16 09.6 +1.1
comp=Z,763nmcomp=Z,52nm,1.0s
ORTC Ortega, Tolima 14.69 195 P Pn 11 16 09.9 +1.4
comp=Z,769nmcomp=Z,97nm,1.0s
PRAC Prado 14.80 194 P Pn 11 16 09.8 -0.1
PRAC S Sn 11 19 00.9 +7.0
PRAC Prado 14.80 194 P Pn 11 16 10.4 +0.5
comp=Z,64nm,0.8s
LCR2 La Lucha 2 14.80 237 Pn Pn 11 16 10.6 +0.4
BOAB BOACO BROADBAN 14.86 249 Pn 11 16 12.4 +1.7
TCS1 Tacares 14.87 239 P Pn 11 16 03.6 -7.3
YOTC Yotoco, Valle 14.93 199 P Pn 11 16 12.7 +0.9
comp=Z,41nm,0.9s
URMC La Uribe, Meta 15.15 191 P Pn 11 16 14.5 -0.2
comp=Z,762nmcomp=Z,54nm,1.0s
JTS Las Juntas de 15.27 241 Pn Pn 11 16 16.9 +0.8
comp=Z,2.3nm,0.3s,baz=16,slow=11,SNR=7.6
JTS LR LR 11 21 28.6
comp=Z,44nm,19.1s,baz=62,slow=35
comp=Z,6.1nm,0.4s
JTS AML AML
JTS Las Juntas de 15.27 241 Pn 11 16 17.2 +1.0
JTS IAmb IAmb 11 16 26.0
comp=Z,46nm,1.1s
JTS Las Juntas de 15.27 241 P Pn 11 16 15.9 -0.3
JTS Las Juntas de 15.27 241 P Pn 11 16 16.3 +0.1
comp=Z,46nm,1.3s
JAMC Jamundi, Valle 15.76 200 P Pn 11 16 23.1 +0.3
TEIG Tepich 16.02 280 Pn Pn 11 16 26.2 +0.3
TEIG IAmb IAmb 11 16 37.1
comp=Z,50nm,0.8s
TEIG Tepich 16.02 280 P P 11 16 29.4 +0.1
POPC Popayan, Colom 16.40 199 P Pn 11 16 31.8 +0.8
POPC Popayan, Colom 16.40 199 P Pn 11 16 32.3 +1.3
comp=Z,39nm,0.9s
FLOC Florencia 17.03 194 P Pn 11 16 38.5 -0.4
FLOC Florencia 17.03 194 P P 11 16 40.8 +0.1
BBAC Balboa, Cauca 17.07 200 P Pn 11 16 39.0 -0.5
BBAC Balboa, Cauca 17.07 200 P P 11 16 43.9 +2.7
comp=Z,465nmcomp=Z,37nm,0.9s
CMBC Cumbal 18.27 201 P P 11 16 58.2 +3.4
APG El Apazote 18.50 263 P Pn 11 16 57.2 0.0
baz=93,slow=13,SNR=3.9
BOAV Boa Vista 19.02 144 P 11 17 02.3 -0.3
BOAV Boa Vista 19.02 144 P P 11 17 01.3 -1.3
BOAV Boa Vista 19.02 144 eP P 11 17 02.2 -0.3
CUSE Cuicocha Este 19.06 202 P Pn 11 17 06.4 +2.2
comp=Z,15µmcomp=Z,73nm,0.8s
OTAV Otavalo 19.14 202 P Pn 11 17 06.5 +1.2
OTAV IAmb IAmb 11 17 10.8
comp=Z,48nm,1.1s
OTAV Otavalo 19.14 202 P Pn 11 17 06.9 +1.7
OTAV Otavalo 19.14 202 P Pn 11 17 07.1 +1.9
comp=Z,972nmcomp=Z,49nm,1.1s
OTAV Otavalo 19.14 202 eP P 11 17 04.5 +0.2
CCIG Comitan 19.85 268 P P 11 17 12.2 +0.3
CCIG IAmb IAmb 11 17 17.6
comp=Z,36nm,1.0s
SLOR San Lorenzo - 20.06 201 P Pn 11 17 16.8 +0.6
SLOR IAmb IAmb 11 17 19.2
comp=Z,34nm,0.9s
PIAT Ana Tenorio 20.23 200 P Pn 11 17 19.0 +0.9
LRAL Lakeview Retre 20.32 320 P Pn 11 17 17.8 -0.8
TKL Tuckaleechee C 20.52 330 P P 11 17 20.0 +1.2
comp=Z,5.8nm,0.8s,baz=142,slow=6.5,SNR=7.5
TKL LR LR 11 25 59.9
comp=Z,206nm,18.5s,baz=146,slow=39
comp=Z,5.8nm,0.8s
TKL Tuckaleechee C 20.52 330 P P 11 17 18.1 -0.8
TKL IAmb IAmb 11 17 28.2
comp=Z,29nm,1.2s
Y49A Blount Mountai 20.54 322 P P 11 17 18.9 -0.2
Y49A IAmb IAmb 11 17 57.6
comp=Z,42nm,1.5s
FPAL Fort Paine 20.59 325 P P 11 17 19.6 0.0
Z47A Carrollton 21.10 318 P P 11 17 26.5 +1.5
Z47A IAmb IAmb 11 17 31.2
comp=Z,28nm,0.8s
TZTN Tazewell 21.15 332 P P 11 17 25.8 +0.2
TZTN IAmb IAmb 11 17 40.5
comp=Z,80nm,1.5s
X48A Hartselle 21.33 322 P 11 17 27.5 0.0
Q56A Snyder Ridge, 21.82 344 P P 11 17 33.3 +0.6
Q56A IAmb IAmb 11 17 46.0
comp=Z,32nm,1.1s
T50A Nancy 22.13 331 P 11 17 35.9 -0.3
V48A Smith Brothers 22.14 325 P 11 17 35.5 -0.8
V48A IAmb IAmb 11 17 45.6
comp=Z,45nm,1.3s
Q54A Coxs Mills 22.25 340 IAmb IAmb 11 17 51.0
comp=Z,43nm,1.4s
CMIG Matias Romero 22.36 271 LR LR 11 27 00.7
comp=Z,106nm,18.0s,baz=93,slow=38
Y45A Yeager Farm, C 22.47 317 P P 11 17 40.6 +0.8
TEFE Tefe 22.61 162 eP P 11 17 41.8 +0.4
Q52A Bidwell 22.72 338 IAmb IAmb 11 17 53.1
comp=Z,31nm,1.0s
WVT Waverly 22.98 324 P P 11 17 46.0 +0.8
WVT IAmb IAmb 11 17 50.5
comp=Z,17nm,0.9s
Q52A Adamsville 23.60 340 P P 11 17 51.8 +0.4
O52A IAmb IAmb 11 18 10.1
comp=Z,19nm,0.9s
MACA Manacapuru-AM 23.74 152 eP P 11 17 53.2 +0.3
LCAR Lake Charles 24.89 320 IAmb IAmb 11 18 11.7
comp=Z,20nm,1.4s
HKT Hockley 25.09 302 P P 11 18 05.3 +0.2
HKT IAmb IAmb 11 18 10.7
comp=Z,30nm,1.4s
WHAR Wooly Hollow 25.12 317 IAmb IAmb 11 18 42.5
comp=Z,20nm,1.2s
FCAR Ozark Folk Cen 25.39 318 IAmb IAmb 11 18 19.2
comp=Z,11nm,0.8s
FVM French Village 25.76 324 IAmb IAmb 11 18 17.1
comp=Z,33nm,1.2s
CZSB Cruzeiro do Su 25.81 183 P P 11 18 11.0 -0.8
CZSB IAmb IAmb 11 18 14.6
comp=Z,23nm,0.8s
CZSB Cruzeiro do Su 25.81 183 eP P 11 18 11.1 -0.7
TLIG Tlapa 25.81 273 P P 11 18 13.2 +1.2
TLIG IAmb IAmb 11 18 19.5
comp=Z,27nm,1.1s
ATAH Atahualpa 26.10 196 LR LR 11 29 40.5
comp=Z,138nm,21.5s,baz=8.1,slow=39
435B Jarrell 26.80 303 IAmb IAmb 11 18 27.0
comp=Z,25nm,1.1s
R40A Maddies Statio 27.02 322 IAmb IAmb 11 18 30.3
comp=Z,21nm,0.9s
SADO Sadowa 27.25 348 LR LR 11 27 42.3
comp=Z,80nm,21.7s,baz=197,slow=33
S39A Bolivar 27.27 320 IAmb IAmb 11 18 30.6
comp=Z,16nm,1.1s
ITTB Itaituba 27.27 144 eP P 11 18 24.5 -0.6
TUL3 Leonard 27.82 314 IAmb IAmb 11 18 39.2
comp=Z,14nm,0.9s
BRDY Brady 28.11 303 IAmb IAmb 11 18 37.8
comp=Z,12nm,1.0s
PLPT Palo Pinto 28.17 306 IAmb IAmb 11 18 37.8
comp=Z,13nm,1.1s
T35A Sooner Cattle 28.85 315 IAmb IAmb 11 18 41.0
comp=Z,12nm,0.8s
NPGB Novo Progresso 29.70 146 eP P 11 18 45.8 -1.0
DKNS Dickens 30.51 306 IAmb IAmb 11 18 55.6
comp=Z,8.4nm,0.9s
SMWD Samnorwood 30.59 309 IAmb IAmb 11 18 59.6
comp=Z,9.7nm,1.1s
229A Bryant Ranch, 30.60 302 IAmb IAmb 11 18 59.7
comp=Z,7.8nm,0.9s
TMB01 Midkiff 30.72 302 IAmb IAmb 11 19 00.4
comp=Z,13nm,1.4s
POST Post 30.73 305 IAmb IAmb 11 18 57.7
comp=Z,11nm,0.9s
R32A Long Quarter, 31.14 316 IAmb IAmb 11 19 07.4
comp=Z,12nm,0.8s
ODSA Odessa 31.24 302 IAmb IAmb 11 19 06.0
comp=Z,19nm,1.2s
128A Castleberry Fa 31.35 303 IAmb IAmb 11 19 07.3
comp=Z,7.5nm,0.9s
TXAR Lajitas Array 31.40 297 P P 11 19 02.5 +0.8
comp=Z,1.4nm,0.8s,baz=106,slow=9.2,SNR=5.8
TXAR PcP PcP 11 21 55.9 +0.5
comp=Z,1.4nm,0.7s,baz=107,slow=3.2,SNR=7.0
comp=Z,1.4nm,0.8s
TXAR Lajitas Array 31.40 297 P P 11 19 02.3 +0.5
TX31 Lajitas Ar. Si 31.40 297 P 11 19 02.8 +1.0
TX31 IAmb IAmb 11 19 07.8
comp=Z,10nm,1.4s
TPB05 Hovey Rd 31.51 300 IAmb IAmb 11 19 08.8
comp=Z,8.7nm,1.3s
AMTX Amarillo 31.57 308 IAmb IAmb 11 19 08.9
comp=Z,10nm,0.9s
ALPN Alpine 31.63 299 IAmb IAmb 11 19 09.4
comp=Z,8.7nm,0.9s
TPB01 Permian Basin 31.90 300 IAmb IAmb 11 19 11.6
comp=Z,6.3nm,0.9s
MSTX Muleshoe 32.05 305 IAmb IAmb 11 19 14.2
comp=Z,7.6nm,0.7s
TPB28 32.69 301 IAmb IAmb 11 19 24.8
comp=Z,6.6nm,1.1s
CLDB Colider 32.77 151 eP P 11 19 12.9 -0.9
VHRN Van Horn 32.85 299 IAmb IAmb 11 19 20.2
comp=Z,8.8nm,1.0s
VILB Vilhena 32.90 160 eP P 11 19 14.9 0.0
RTBA Rita Blanca 32.99 310 IAmb IAmb 11 19 20.9
comp=Z,12nm,1.1s
PDRB Porto dos Gac 33.00 153 eP P 11 19 15.1 -0.7
ECSD EROS Data Cent 33.11 326 IAmb IAmb 11 19 17.6
comp=Z,8.6nm,0.9s
MNTX Cornudas Mount 33.42 300 IAmb IAmb 11 19 24.8
comp=Z,12nm,1.1s
F33A 5 Mile Ranch, 34.40 329 IAmb IAmb 11 19 30.2
comp=Z,9.3nm,1.0s
LPAZ La Paz 34.44 174 P P 11 19 28.9 -0.1
comp=Z,7.5nm,0.8s,baz=347,slow=12,SNR=26
LPAZ LR LR 11 34 26.2
comp=Z,152nm,18.6s,baz=356,slow=38
comp=Z,7.5nm,0.8s
LPAZ La Paz 34.44 174 eP P 11 19 28.7 -0.3
T25A Trinidad 34.51 310 IAmb IAmb 11 19 40.4
comp=Z,11nm,1.0s
ALQ Albuquerque 35.24 305 IAmb IAmb 11 19 40.6
comp=Z,7.9nm,1.0s
ALQ Albuquerque 35.24 305 IAmb IAmb 11 19 40.5
comp=Z,7.6nm,1.0s
ANMO Albuquerque 35.24 305 LR LR 11 35 40.7
comp=Z,63nm,18.3s,baz=116,slow=39
ANMO Albuquerque 35.24 305 P P 11 19 36.3 +0.9
TASM ASL Pad, Albuq 35.25 305 IAmb IAmb 11 19 40.6
comp=Z,7.9nm,1.0s
TASM ASL Pad, Albuq 35.25 305 IAmb IAmb 11 19 40.6
comp=Z,7.3nm,1.0s
Y22A Socorro 35.33 303 IAmb IAmb 11 19 39.0
comp=Z,7.6nm,1.0s
PTLB Pontes e Lacer 35.58 159 P P 11 19 37.6 -0.5
PTLB Pontes e Lacer 35.58 159 eP P 11 19 37.6 -0.5
121A Cookes Peak, D 35.60 301 P P 11 19 39.6 +1.1
121A IAmb IAmb 11 19 54.0
comp=Z,10nm,0.9s
PB18 Visviri 35.63 177 P P 11 19 38.1 -1.0
SMTB Santa Maria do 35.76 137 P P 11 19 39.3 -0.4
SMTB Santa Maria do 35.76 137 eP P 11 19 39.3 -0.4
AGMN Agassiz Nation 35.98 332 P P 11 19 41.0 -0.2
SNDB Serra Nova Dou 35.99 145 eP P 11 19 41.2 -0.5
ISCO Idaho Springs 36.49 313 P P 11 19 46.4 +0.3
319A Douglas 36.58 298 P 11 19 47.0 +0.3
319A IAmb IAmb 11 19 49.8
comp=Z,15nm,0.9s
LPIG La Paz 36.63 286 LR LR 11 36 30.5
comp=Z,47nm,19.3s,baz=127,slow=39
SCHQ Schefferville 36.72 4 P P 11 19 48.2 +0.6
comp=Z,4.5nm,0.7s,baz=182,slow=3.8,SNR=6.7
SCHQ LR LR 11 35 56.8
comp=Z,47nm,18.0s,baz=188,slow=38
comp=Z,15nm,0.7s
SCHQ Schefferville 36.72 4 P P 11 19 48.5 +0.9
SCHQ IAmb IAmb 11 20 06.3
comp=Z,15nm,1.2s
BBSD Serra de San D 36.76 163 eP P 11 19 47.4 -0.8
NBPS Pedro II - PI 37.14 124 eP P 11 19 50.1 -1.5
E28A Huff 37.15 326 P P 11 19 51.8 +0.4
ULM Lac du Bonnet 37.46 334 P P 11 19 53.3 -0.5
comp=Z,6.9nm,0.9s,baz=151,slow=9.8,SNR=6.5
comp=Z,6.9nm,0.9s
ULM Lac du Bonnet 37.46 334 IAmb IAmb 11 20 02.4
comp=Z,9.2nm,1.0s
HSIG 37.60 294 P P 11 19 55.8 +0.4
HSIG IAmb IAmb 11 19 58.0
comp=Z,9.3nm,0.9s
X18A Snowflake 37.87 303 P P 11 19 58.7 +1.0
X18A IAmb IAmb 11 20 04.4
comp=Z,8.7nm,0.9s
PV01 Paradox Valley 37.94 309 IAmb IAmb 11 20 10.5
comp=Z,9.6nm,1.0s
PV15 Paradox Valley 37.95 310 IAmb IAmb 11 20 11.5
comp=Z,6.6nm,0.9s
PV02 Paradox Valley 38.09 309 P P 11 20 00.1 +0.5
PV02 IAmb IAmb 11 20 05.3
comp=Z,17nm,1.3s
PV13 Radium Mtn., P 38.13 309 IAmb IAmb 11 20 11.5
comp=Z,8.9nm,0.8s
PV05 Paradox Valley 38.31 309 IAmb IAmb 11 20 06.8
comp=Z,19nm,1.3s
K22A Casper 38.41 317 IAmb IAmb 11 20 11.7
comp=Z,14nm,1.1s
TA01 Diego Aracena 38.56 178 P P 11 20 02.3 -1.0
ARAG Araguaiana, MT 38.86 149 eP P 11 20 05.3 -0.7
PB07 IPOC Station P 39.72 178 IAmb IAmb 11 20 12.6
comp=Z,15nm,0.8s
COIM Forte Coimbra 40.19 160 eP P 11 20 16.3 -0.7
DGMT Dagmar 40.19 326 IAmb IAmb 11 20 23.4
comp=Z,25nm,1.1s
PD31 Pinedale Array 40.45 316 P 11 20 20.0 +0.6
PDAR Pinedale Array 40.45 316 P P 11 20 19.9 +0.6
comp=Z,2.8nm,0.7s,baz=123,slow=10,SNR=33
PDAR PcP PcP 11 22 21.6 -0.5
comp=Z,2.6nm,0.6s,baz=114,slow=5.2,SNR=12
comp=Z,2.8nm,0.7s
PDAR Pinedale Array 40.45 316 P 11 20 19.7 +0.4
PDAR PcP 11 22 21.8 -0.3
BDFB Brasilia 40.80 144 P P 11 20 22.1 -0.1
comp=Z,9.2nm,0.8s,baz=328,slow=8.1,SNR=12
comp=Z,9.2nm,0.8s
BDFB Brasilia 40.80 144 P P 11 20 22.3 0.0
BDFB IAmb IAmb 11 20 22.8
comp=Z,16nm,0.9s
BDQN Bodoquena, MS 41.04 159 eP P 11 20 23.6 -0.4
NBMA Muriti-CE 41.07 125 eP P 11 20 23.8 -0.6
HWUT Hardware Ranch 41.36 313 IAmb IAmb 11 20 35.7
comp=Z,11nm,0.9s
AHID Auburn Hatcher 41.49 315 IAmb IAmb 11 20 36.9
comp=Z,9.9nm,0.8s
SNOW Snow King Moun 41.54 316 P P 11 20 28.1 -0.3
SPUT South Promonto 41.87 312 IAmb IAmb 11 20 41.9
comp=Z,12nm,0.9s
IRM Iron Mountain 41.97 301 IAmb IAmb 11 20 38.5
comp=Z,13nm,1.0s
BGU Big Grassy Mou 42.14 311 IAmb IAmb 11 20 44.4
comp=Z,12nm,0.9s
NBPN Ponto Novo - B 42.25 131 eP P 11 20 33.3 -0.9
IPMB Ipameri, GO 42.61 146 eP P 11 20 36.0 -1.0
NBTA Tacaratu-PE 42.71 127 eP P 11 20 36.4 -1.5
PFO Pinyon Flats O 42.95 300 LR LR 11 40 40.1
comp=Z,48nm,18.9s,baz=294,slow=39
FFC Flin Flon 43.28 335 P P 11 20 42.1 +0.1
TPNV Topopah Spring 43.43 305 IAmb IAmb 11 20 50.1
comp=Z,12nm,1.2s
GSC Goldstone, Bar 43.53 302 IAmb IAmb 11 20 50.7
comp=Z,12nm,1.2s
ELK Elko 43.67 310 LR LR 11 40 58.4
comp=Z,170nm,19.5s,baz=98,slow=39
WCT Wildcat Mounta 43.69 304 IAmb IAmb 11 20 53.1
comp=Z,8.8nm,1.0s
CCCA Chr Cany lake 44.02 303 IAmb IAmb 11 20 55.5
comp=Z,14nm,1.1s
LRMC Laurel Mtn Rad 44.27 302 IAmb IAmb 11 20 56.2
comp=Z,9.7nm,1.0s
FSA Cafayete 44.38 173 eP P 11 20 49.2 -2.1
TPH Tonopah 44.44 306 IAmb IAmb 11 20 58.4
comp=Z,11nm,1.0s
C15A Salmond Ranch, 44.60 321 IAmb IAmb 11 21 00.6
comp=Z,7.2nm,1.0s
TPO Tropico Hills 44.60 301 IAmb IAmb 11 21 13.4
comp=Z,20nm,1.3s
CWC Cottonwood Cre 44.76 304 IAmb IAmb 11 21 01.2
comp=Z,11nm,1.2s
AC02 Maricunga 44.84 177 eP P 11 20 54.9 -0.4
MFID Camas Ranch 44.94 314 IAmb IAmb 11 21 10.1
comp=Z,7.1nm,1.1s
KVN Kaiserville 45.33 307 IAmb IAmb 11 21 05.7
comp=Z,9.4nm,1.0s
NVAR Mina Array Bea 45.35 306 P P 11 20 59.8 +0.7
comp=Z,1.5nm,0.9s,baz=91,slow=7.4,SNR=13
NVAR PcP PcP 11 22 38.4 -0.2
comp=Z,1.8nm,0.8s,baz=119,slow=4.7,SNR=4.8
NVAR LR LR 11 41 53.7
comp=Z,121nm,19.1s,baz=256,slow=39
comp=Z,1.5nm,0.9s
NVAR Mina Array Bea 45.35 306 P P 11 21 00.4 +1.3
NVAR PcP 11 22 38.7 +0.1
LHV Little Huntoon 45.46 306 IAmb IAmb 11 21 23.3
comp=Z,8.2nm,1.1s
SJPY San Joquin 45.48 160 eP P 11 20 58.2 -1.6
FRB Frobisher Bay 45.54 2 LR LR 11 40 31.1
comp=Z,72nm,18.2s,baz=142,slow=37
MDPB Devils Postpil 45.78 305 IAmb IAmb 11 21 08.7
comp=Z,8.2nm,1.2s
LDASE Londrina, Braz 45.87 154 eP P 11 21 02.2 -0.8
TINO Tinogasta 46.16 175 eP P 11 21 04.4 -0.9
CPUP Villa Florida 46.35 162 P P 11 21 05.3 -1.4
comp=Z,7.6nm,1.1s,baz=13,slow=9.7,SNR=6.8
CPUP PcP PcP 11 22 40.8 -1.0
comp=Z,2.2nm,0.9s,baz=270,slow=3.0,SNR=3.1
comp=Z,7.6nm,1.1s
CPUP Villa Florida 46.35 162 P 11 21 05.5 -1.2
CPUP PcP 11 22 40.7 -1.1
WVOR Wild Horse Val 46.60 312 IAmb IAmb 11 21 20.1
comp=Z,9.1nm,1.0s
J08A Circle Bar Ran 46.76 313 IAmb IAmb 11 21 20.9
comp=Z,8.8nm,0.9s
AC05 El Transito 46.79 179 P P 11 21 10.3 0.0
comp=Z,51nm,0.8s
NEW Newport 47.55 320 LR LR 11 41 11.5
comp=Z,90nm,21.5s,baz=202,slow=36
EDM Edmonton 47.65 327 P 11 21 17.1 +0.4
MOD Modoc Plateau 47.66 310 IAmb IAmb 11 21 18.4
comp=Z,5.7nm,0.9s
AROD Rodeo 48.14 178 eP P 11 21 22.1 +1.1
SUTB Sutter Butte 48.17 307 IAmb IAmb 11 21 30.0
comp=Z,6.8nm,0.9s
O03E Paynes Creek 48.40 308 IAmb IAmb 11 21 56.6
comp=Z,10nm,1.1s
ACCO Cerro Coronel 48.57 177 eP P 11 21 24.4 +0.1
AVFE Valle Fertil 48.74 175 eP P 11 21 25.1 -0.3
BLKN Baker Lake 48.98 346 IAmb IAmb 11 21 30.1
comp=Z,12nm,1.1s
RTLL Cerro Villicun 49.34 177 eP P 11 21 29.7 -0.2
ZON Zonda 49.55 177 P 11 21 31.3 -0.1
CO04 Los Peladeros 49.97 179 P 11 21 35.2 +0.2
SFJD Kangerlussuaq 50.59 10 LR LR 11 43 03.5
comp=Z,39nm,18.9s,baz=198,slow=36
MT08 Bocatoma Ro 51.38 178 P P 11 21 46.2 +0.6
YKAW1 Yellowknife Wh 53.29 337 IAmb IAmb 11 22 03.1
comp=Z,8.5nm,1.1s
YKA Yellowknife Ar 53.34 337 P P 11 21 59.5 0.0
comp=Z,5.4nm,0.8s,baz=122,slow=7.0,SNR=69
comp=Z,5.4nm,0.8s
YKA Yellowknife Ar 53.34 337 P P 11 21 59.6 +0.1
YKAW3 Yellowknife Wh 53.38 337 P 11 22 00.1 +0.3
YKAW3 IAmb IAmb 11 22 03.7
comp=Z,9.1nm,1.1s
KULLO Kullorsuaq 56.92 5 *i* **P P 11 22 25.2 +0.1**
KULLO IAmb IAmb 11 22 25.6
comp=Z,5.7nm,0.6s
BORG Borgarnes 57.18 23 LR LR 11 42 26.4
comp=Z,73nm,22.0s,baz=248,slow=31
SUMG Summit 57.56 11 P 11 22 30.9 +0.6
SUMG Summit 57.56 11 *i* **P P 11 22 31.0 +0.8**
SUMG IAmb IAmb 11 22 35.7
comp=Z,14nm,1.0s
RES Resolute Bay 57.91 353 LR LR 11 48 21.4
comp=Z,35nm,18.9s,baz=49,slow=37
RES Resolute Bay 57.91 353 P P 11 22 33.0 +0.9
RES IAmb IAmb 11 22 35.4
comp=Z,5.8nm,1.1s
RPN Rapa Nui 58.15 220 LR LR 11 42 07.2
comp=Z,27nm,21.2s,baz=52,slow=30
DLBC Dease Lake 58.34 328 LR LR 11 49 34.8
comp=Z,120nm,18.1s,baz=128,slow=38
PLCA Paso Flores 58.65 179 P P 11 22 37.5 -0.3
comp=Z,17nm,0.8s,baz=356,slow=8.1,SNR=38
comp=Z,17nm,0.8s
PLCA Paso Flores 58.65 179 P 11 22 37.7 -0.1
PLCA Paso Flores 58.65 179 eP P 11 22 37.4 -0.4
AVE Averroes 58.78 62 P P 11 22 38.9 -0.1
NEEM North Greenlan 60.13 5 *i* **P P 11 22 48.0 +0.1**
NEEM IAmb IAmb 11 22 50.8
comp=Z,6.1nm,0.9s
LL02 Futaleuf 61.10 180 P 11 22 54.6 +0.1
PAB San Pablo 61.12 54 P P 11 22 55.8 +0.8
MDT Midelt 61.16 62 LR LR 11 45 53.9
comp=Z,29nm,20.5s,baz=278,slow=33
ESDC Sonseca Array 61.41 54 P P 11 22 57.3 +0.3
comp=Z,4.4nm,0.7s,baz=276,slow=7.3,SNR=23
ESDC LR LR 11 45 58.8
comp=Z,22nm,19.1s,baz=294,slow=33
comp=Z,4.4nm,0.7s
ESDC Sonseca Array 61.41 54 P 11 22 57.4 +0.3
DBG Daneborg 62.55 14 *i* **P P 11 23 03.5 -0.5**
EKA Eskdalemuir Ar 62.88 37 P P 11 23 05.6 -0.8
comp=Z,3.8nm,0.8s,baz=280,slow=4.7,SNR=5.2
EKA LR LR 11 43 39.5
comp=Z,35nm,20.7s,baz=344,slow=30
comp=Z,3.8nm,0.8s
E29M Blow River 64.58 338 P 11 23 17.7 +0.3
E29M IAmb IAmb 11 23 22.8
comp=Z,7.2nm,1.1s
BCAR Beaver Creek A 65.03 332 P 11 23 21.6 +1.1
G27K Doyon Strip 65.62 336 IAmb IAmb 11 23 29.3
comp=Z,5.7nm,1.1s
DBIC Dimbokro 65.74 91 P P 11 23 25.0 -0.9
comp=Z,2.8nm,0.7s,baz=309,slow=11,SNR=3.5
DBIC LR LR 11 47 13.5
comp=Z,36nm,21.9s,baz=315,slow=32
comp=Z,2.8nm,0.7s
DBIC Dimbokro 65.74 91 P P 11 23 25.8 -0.1
DBIC IAmb IAmb 11 23 52.5
comp=Z,5.3nm,0.9s
E27K Coleen River 65.87 337 IAmb IAmb 11 23 58.0
comp=Z,10.0nm,1.4s

BMAR	**Burnt Mountain**	**66.86**	**336**			**P**		**11 23 33.0**	**+0.8**
NOR	**Nord**	**67.17**	**7**	*i*	P	**P**		**11 23 33.5**	**-0.5**
NOR					IAmb	IAmb		11 23 37.7	
	comp=Z,7.4nm,1.3s								
ILAR	**Eielson Array**	**67.47**	**333**		P	**P**		**11 23 36.2**	**+0.1**
	comp=Z,2.4nm,0.9s,baz=108,slow=4.5,SNR=20								
	comp=Z,2.4nm,0.9s								
ILAR	**Eielson Array**	**67.47**	**333**		P	**P**		**11 23 36.5**	**+0.4**
E23K	**Chandalar**	**68.83**	**337**		IAmb	IAmb		11 23 48.8	
	comp=Z,4.8nm,0.8s								
TOLK	**Toolik Lake Re**	**68.86**	**337**		P	**P**		**11 23 45.5**	**+0.7**
TOLK					IAmb	IAmb		11 23 50.8	
	comp=Z,5.6nm,0.8s								
G23K	**Bananza Creek**	**68.91**	**335**		IAmb	IAmb		11 23 47.1	
	comp=Z,6.7nm,0.9s								
ECH	**Echery**	**69.11**	**45**			**P**		**11 23 46.7**	**-0.1**
ECH	**Echery**	**69.11**	**45**		P	**P**		**11 23 48.0**	**+1.3**
	comp=Z,13nm,1.1s								
MLY	**Manley**	**69.13**	**333**		IAmb	IAmb		11 23 49.9	
	comp=Z,6.5nm,1.0s								
BRLK	**Bradley Lake**	**69.14**	**328**		P	**P**		**11 23 47.7**	**+1.0**
SENIN	**Lac Senin/Sane**	**69.36**	**47**			**P**		**11 23 48.0**	**-0.5**
SENIN					IAmb	IAmb		11 23 57.1	
	comp=Z,6.8nm,0.9s								
KDAK	**Kodiak Island**	**70.08**	**326**		LR	LR		11 53 55.6	
	comp=Z,159nm,20.1s,baz=236,slow=35								
TORD	**Torodi Ar. Bea**	**70.20**	**82**		P	**P**		**11 23 52.8**	**-1.2**
	comp=Z,1.1nm,0.8s,baz=282,slow=7.4,SNR=4.8								
	comp=Z,1.1nm,0.8s								
TORD	**Torodi Ar. Bea**	**70.20**	**82**		P	**P**		**11 23 53.4**	**-0.6**
IMAR	**Indian Mountai**	**70.39**	**334**		P	**P**		**11 23 54.7**	**+0.5**
E21K	**Killik River**	**70.47**	**337**		IAmb	IAmb		11 24 09.5	
	comp=Z,7.2nm,0.9s								
NB2	**NORSAR Subarra**	**70.70**	**31**		P	**P**		**11 23 57.3**	**+1.0**
	comp=Z,12nm,1.1s,baz=273,slow=6.5								
NOA	**NORSAR Array B**	**70.70**	**31**		P	**P**		**11 23 57.2**	**+0.9**
	comp=Z,1.8nm,0.7s,baz=274,slow=6.3,SNR=5.2								
	comp=Z,1.8nm,0.7s								
DAVA	**Damuels**	**71.03**	**45**	*eP*		**P**		**11 23 59.4**	**+0.7**
	comp=Z,7.6nm,1.2s								
DAVOX	**Davos/Dischmat**	**71.08**	**46**		LR	LR		11 53 13.0	
	comp=Z,35nm,18.1s,baz=261,slow=34								
FUORN	**Ofenpass-Fuorn**	**71.37**	**46**			**P**		**11 24 01.1**	**+0.2**
FUORN					IAmb	IAmb		11 24 10.8	
	comp=Z,8.4nm,0.9s								
D20K	**Etivluk River**	**71.43**	**337**		IAmb	IAmb		11 24 27.4	
	comp=Z,8.3nm,1.1s								
RETA	**Reutte**	**71.60**	**45**	*iP*		**P**		**11 24 03.2**	**+1.2**
	comp=Z,7.2nm,1.2s								
FETA	**Feichten**	**71.63**	**46**	*iP*		**P**		**11 24 03.1**	**+0.8**
	comp=Z,8.3nm,1.1s								
E19K	**Redstone River**	**71.72**	**336**		IAmb	IAmb		11 24 11.9	
	comp=Z,7.2nm,0.9s								
MOTA	**Moosalm**	**71.85**	**45**	*iP*		**P**		**11 24 04.8**	**+1.2**
	comp=Z,4.8nm,0.9s								
SPITS	**Spitsbergen Ar**	**71.85**	**13**		P	**P**		**11 24 04.4**	**+1.5**
	comp=Z,7.4nm,0.8s,baz=337,slow=3.3,SNR=6.1								
	comp=Z,7.4nm,0.8s								
SPB2	**Spitsbergen Ar**	**71.86**	**13**		P	**P**		**11 24 04.0**	**+1.0**
SQTA	**Sankt Quirin**	**71.93**	**45**	*eP*		**P**		**11 24 04.5**	**+0.4**
	comp=Z,4.6nm,0.6s								
WATA	**Walderalm**	**72.17**	**45**	*eP*		**P**		**11 24 06.7**	**+1.1**
	comp=Z,8.1nm,1.2s								
WTTA	**Wattenberg**	**72.22**	**45**	*iP*		**P**		**11 24 06.2**	**+0.3**
	comp=Z,5.4nm,1.2s								
KEST	**Kesra**	**72.28**	**57**		P	**P**		**11 24 06.4**	**+0.1**
	comp=Z,6.5nm,0.8s,baz=21,slow=1.0,SNR=5.5								
KEST					LR	LR		11 51 11.5	
	comp=Z,34nm,19.5s,baz=270,slow=32								
	comp=Z,6.5nm,0.8s								
KEST	**Kesra**	**72.28**	**57**		P	**P**		**11 24 06.5**	**+0.1**
CLL	**Collm**	**72.57**	**41**	*eP*		**P**		**11 24 08.0**	**+0.3**
CLL					LV			11 47 00.0	
ABTA	**Abfaltersbach**	**72.88**	**46**	*eP*		**P**		**11 24 09.8**	**0.0**
	comp=Z,13nm,1.3s								
BRG	**Berggiesshubel**	**73.22**	**41**	*eP*		**P**		**11 24 16.2**	**+4.7**
BRG					Amp			11 24 21.0	
	comp=Z,4.4nm,0.9s								
KHC	**Kasperske Hory**	**73.24**	**43**		P	**P**		**11 24 12.2**	**+0.4**
KHC					IAmb	IAmb		11 24 20.9	
	comp=Z,10.0nm,1.1s								
KHC	**Kasperske Hory**	**73.24**	**43**	*eP*		**P**		**11 24 12.5**	**+0.8**
KHC				*ex*		x		11 24 19.8	
KHC	**Kasperske Hory**	**73.24**	**43**		P	P		11 24 16.7	+5.0
KHC	**Kasperske Hory**	**73.24**	**43**		P	**P**		**11 24 13.0**	**+1.3**
	comp=Z,10nm,1.0s								
GEC2	**GERESS Array S**	**73.36**	**43**		P	**P**		**11 24 12.9**	**+0.3**
GEC2					IAmb	IAmb		11 24 21.3	
	comp=Z,4.8nm,0.8s								
GERES	**GERESS Array B**	**73.36**	**43**		P	**P**		**11 24 13.2**	**+0.7**
	comp=Z,1.9nm,0.8s,baz=276,slow=4.8,SNR=12								
	comp=Z,1.9nm,0.8s								
BIOA	**Bad Ischl, Aus**	**73.50**	**45**	*iP*		**P**		**11 24 13.3**	**0.0**
	comp=Z,4.8nm,0.9s								
MOA	**Molln**	**73.89**	**44**	*iP*		**P**		**11 24 16.3**	**+0.7**
	comp=Z,9.9nm,1.3s								
OBKA	**Obir**	**74.31**	**46**	*iP*		**P**		**11 24 18.7**	**+0.6**
	comp=Z,6.8nm,0.8s								
ABNA	**Allensteig Bun**	**74.52**	**43**	*iP*		**P**		**11 24 20.0**	**+0.8**
	comp=Z,3.4nm,1.0s								
SOKA	**Soboth**	**74.61**	**45**	*iP*		**P**		**11 24 19.5**	**-0.3**
	comp=Z,9.7nm,1.5s								
ARSA	**Arzberg**	**74.83**	**45**	*eP*		**P**		**11 24 20.7**	**-0.4**
	comp=Z,3.5nm,1.0s								
VRAC	**Vranov**	**75.16**	**43**		LR	LR		11 53 31.3	
	comp=Z,46nm,19.8s,baz=294,slow=33								
ARCES	**ARCESS Array B**	**75.50**	**21**		P			**11 24 24.4**	**-0.1**
	comp=Z,12nm,1.2s,baz=282,slow=5.6,SNR=6.2								
	comp=Z,12nm,1.2s								
ARCES	**ARCESS Array B**	**75.50**	**21**		P	**P**		**11 24 24.9**	**+0.5**
ARCES					IAmb	IAmb		11 24 29.0	
	comp=Z,12nm,1.1s								
MODS	**Modra-Piesok**	**75.78**	**43**	*eP*		**P**		**11 24 27.2**	**+0.7**
VAE	**Valguarnera**	**75.95**	**55**		LR	LR		11 51 29.1	
	comp=Z,67nm,22.0s,baz=300,slow=31								
VYHS	**Vyhne**	**76.77**	**43**	*eP*		**P**		**11 24 33.1**	**+1.0**
FINES	**FINESS Array B**	**77.72**	**29**		P	**P**		**11 24 37.9**	**+0.7**
	comp=Z,9.3nm,1.1s,baz=232,slow=2.2,SNR=3.9								
	comp=Z,9.3nm,1.1s								
FINES	**FINESS Array B**	**77.72**	**29**		P	**P**		**11 24 38.2**	**+1.0**
UNV	**Unalaska Valle**	**78.43**	**323**		P	**P**		**11 24 42.4**	**+1.2**
MLR	**Muntele Rosu**	**82.25**	**45**		P	**P**		**11 25 03.4**	**+1.2**
	comp=Z,12nm,0.7s,baz=198,slow=4.3,SNR=12								
	comp=Z,12nm,0.7s								
PPT	**Papeete**	**84.64**	**250**		LR	LR		11 59 12.0	
	comp=Z,31nm,18.9s,baz=108,slow=33								
BRTR	**Keskin Array B**	**89.60**	**48**		P	**P**		**11 25 38.9**	**+0.2**
	comp=Z,1.9nm,0.7s,baz=259,slow=4.2,SNR=9.4								
	comp=Z,1.9nm,0.7s								
ARTI	**Arti**	**94.61**	**25**		LR	LR		12 05 21.8	
	comp=Z,16nm,20.7s,baz=332,slow=33								
HHC	**Hu-ho-hao-te**	**121.17**	**357**	*eP*		**PKPdf**		**11 31 30.0**	**-3.9**
LZH	**Lanzhou**	**125.81**	**5**	*eP*		**PKiKP**		**11 31 45.5**	**+2.1**
NJ2	**Nanjing**	**129.06**	**349**	*eP*		**PKPdf**		**11 31 49.5**	**+0.4**
NJ2					pmax	pmax			
	comp=Z,9.0nm,0.5s								
CTA	**Charters Tower**	**144.38**	**261**		PKP	**PKPab**		**11 32 15.8**	**+0.1**
	comp=Z,2.8nm,0.7s,baz=123,slow=5.4,SNR=5.5								
MGBR	**Mount Gambier**	**145.93**	**229**		PKPdf	**PKPdf**		**11 32 20.1**	**+0.4**
STKA	**Stephens Creek**	**147.26**	**239**		PKPbc	**PKPdf**		**11 32 23.2**	**+1.0**
	comp=Z,4.5nm,0.8s,baz=65,slow=1.6,SNR=6.9								
STKA	**Stephens Creek**	**147.26**	**239**			**PKPbc**		**11 32 24.0**	**-0.5**
WRA	**Warramunga Arr**	**155.57**	**262**		PKP	**PKPdf**		**11 32 34.0**	**-1.2**
	comp=Z,0.9nm,0.8s,baz=81,slow=1.0,SNR=12								
WRA					PKPbc	**sPKPdf**		**11 32 43.0**	**+1.6**
	comp=Z,2.0nm,0.8s,baz=86,slow=1.9,SNR=13								
WRA					PKPab	**PKPab**		**11 33 01.3**	**+0.2**
	comp=Z,1.6nm,0.9s,baz=87,slow=3.7,SNR=5.2								
WRA	**Warramunga Arr**	**155.57**	**262**			**PKPdf**		**11 32 34.0**	**-1.2**
ASAR	**Alice Springs**	**155.72**	**253**		PKP	**PKPdf**		**11 32 34.0**	**-1.3**
	comp=Z,0.5nm,0.7s,baz=63,slow=2.0,SNR=6.6								
ASAR					PKPbc	**sPKPdf**		**11 32 43.7**	**+2.2**
	comp=Z,1.7nm,0.9s,baz=103,slow=2.3,SNR=8.5								
ASAR					PKPab	**PKPab**		**11 33 01.4**	**-0.3**
	comp=Z,4.0nm,0.7s,baz=108,slow=5.0,SNR=17								
ASAR	**Alice Springs**	**155.72**	**253**			**PKPab**		**11 33 01.5**	**-0.2**

IDC 30 11:15:14.5±999.0, 54°36N×3°03E, h0km, Error ellipse: s-maj=436.3km s-min=163.5km az=112.0, North Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I26DE	**FREYUNG INFRAS**	**8.64**	**125**	I	I	12 10 20.0	
	baz=313,slow=324,SNR=0.3						
I43RU	**DUBNA INFRASON**	**19.37**	**69**	I	I	13 15 30.0	
	baz=278,slow=329,SNR=1.6						
I31KZ	**AKTYUBINSK INF**	**33.08**	**74**	I	I	14 40 00.0	
	baz=297,slow=342,SNR=0.7						

IDC 30 11:15:46.6±1.3, 39°75S×46°85E, h0km, mb3.8/4, mbtmp3.8/4, MS3.1/5, Error ellipse: s-maj=91.7km s-min=30.0km az=22.0, Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04N1	**CROZET ISLANDS**	**7.36**	**152**	T	T	11 25 47.5	
	baz=335,slow=76,SNR=30						
H04N2	**CROZET ISLANDS**	**7.37**	**152**	T	T	11 25 49.8	
	baz=335,slow=76,SNR=40						
H04N3	**CROZET ISLANDS**	**7.37**	**152**	T	T	11 25 46.7	
	baz=335,slow=76,SNR=32						
BOSA	**Boshof**	**20.98**	**295**	P	P	11 20 30.4	-1.2
	2.0nm,0.9s,baz=125,slow=12,SNR=3.8						
BOSA				LR	LR	11 27 40.0	
	comp=Z,30nm,18.1s,baz=210,slow=34						
	2.0nm,0.9s						
MAW	**Mawson**	**29.29**	**168**	LR	LR	11 30 51.3	
	comp=Z,45nm,20.4s,baz=82,slow=31						
LSZ	**Lusaka**	**29.34**	**321**	LR	LR	11 31 35.5	
	comp=Z,45nm,20.2s,baz=170,slow=32						
TSUM	**Tsumeb**	**32.45**	**301**	LR	LR	11 32 56.0	
	comp=Z,35nm,20.2s,baz=10.0,slow=32						
SNAA	**Sanae**	**40.37**	**202**	LR	LR	11 38 36.1	
	comp=Z,22nm,19.3s,baz=8.0,slow=34						
H01W2	**Cape Leeuwin H**	**52.59**	**107**	T	T	12 21 25.2	
	baz=245,slow=75,SNR=19						
H01W3	**Cape Leeuwin H**	**52.60**	**107**	T	T	12 21 26.3	
	baz=245,slow=75,SNR=19						
H01W1	**Cape Leeuwin H**	**52.61**	**107**	T	T	12 21 28.3	
	baz=245,slow=75,SNR=22						
ASAR	**Alice Springs**	**73.11**	**107**	P	P	11 27 19.3	+0.2
	0.9nm,0.7s,baz=238,slow=5.5,SNR=9.0						
	0.9nm,0.7s						
WRA	**Warramunga Arr**	**75.66**	**104**	P	P	11 27 33.2	-0.8
	0.9nm,0.8s,baz=226,slow=4.7,SNR=7.5						
	0.9nm,0.8s						
MKAR	**Makanchi Array**	**91.78**	**23**	P	P	11 28 56.6	+0.7
	0.4nm,0.8s,baz=197,slow=4.5,SNR=2.1						
	0.4nm,0.8s						
TXAR	**Lajitas Array**	**153.69**	**256**	PKPbc	PKiKP	11 35 48.8	+1.0
	0.5nm,0.9s,baz=123,slow=4.6,SNR=3.6						

*NEIC **30** 11:36:16.1±1.4, 15°.6S±0°.1×178°.6W±0°.2, h448km±7km, mb4.1/37, Error ellipse: s-maj=24.1km s-min=16.5km az=132.0*
*IDC **30** 11:36:16.2±1.9, 15°.50S×178°.68W, h454km±22km, mb3.4/7, mbtmp4.2/8, Error ellipse: s-maj=78.8km s-min=15.7km az=151.0*

ISC 30 11:36:15.9±0.6, 15°.6S±0°.1×178°.7W±0°.1, h450km, n65, σ0s63/65, mb4.0/24, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	**1.35**	**23**	P	**P**	**11 37 13.1**	**-0.4**
MSVF	**Nonsavu**	**3.82**	**235**	P	**P**	**11 37 30.5**	**+1.0**
	127nm,0.5s,baz=142,slow=22,SNR=230						
FUNA	**Funafuti**	**7.29**	**343**	P	**P**	**11 38 03.0**	**-0.9**
SANVU	**Saraoutou**	**13.62**	**269**	P	**P**	**11 39 13.0**	**+0.7**
LHI	**Lord Howe Isla**	**25.79**	**228**	P	**P**	**11 41 08.5**	**-0.8**
BBOO	**Buckleboo**	**44.36**	**239**	P	**P**	**11 43 44.0**	**-0.9**
BBOO				IAmb	IAmb	11 44 00.7	
	comp=Z,9.0nm,1.1s						
WR0	**Warramunga Arr**	**44.67**	**257**	P	**P**	**11 43 47.3**	**-0.2**
WR8	**Warramunga Arr**	**44.71**	**257**	P	**P**	**11 43 47.7**	**-0.1**
WRA	**Warramunga Arr**	**44.86**	**257**	P	**P**	**11 43 48.5**	**-0.5**
	comp=Z,0.5nm,0.3s,baz=91,slow=7.9,SNR=42						
WRA				PcP	**PcP**	**11 45 21.5**	**-0.1**
	comp=Z,0.5nm,0.8s,baz=93,slow=3.4,SNR=4.9						
	comp=Z,0.5nm,0.3s						
AS31	**Alice Springs**	**45.23**	**252**	P	**P**	**11 43 51.7**	**-0.2**
ASAR	**Alice Springs**	**45.23**	**252**	P	**P**	**11 43 51.7**	**-0.1**
	comp=Z,3.0nm,0.6s,baz=84,slow=7.9,SNR=68						
ASAR				PcP	**PcP**	**11 45 22.3**	**-0.6**
	comp=Z,0.7nm,0.7s,baz=93,slow=4.8,SNR=5.4						
	comp=Z,3.0nm,0.6s						
ASAR	**Alice Springs**	**45.23**	**252**	P	**P**	**11 43 51.3**	**-0.5**
MTN	**Manton Dam**	**48.65**	**266**	P	**P**	**11 44 18.9**	**+1.0**
MTN				IAmb	IAmb	11 44 32.7	
	comp=Z,11nm,1.3s						
KNRA	**Kununurra**	**50.51**	**262**	P	**P**	**11 44 32.2**	**+0.6**
FITZ	**Fitzroy Crossi**	**53.20**	**259**	P	**P**	**11 44 52.0**	**+0.8**
PETK	**Petropavlovsk-**	**71.36**	**345**	P	**P**	**11 46 50.8**	**+1.9**
QSPA	**South Pole Qui**	**74.48**	**180**	P	**P**	**11 47 07.2**	**+0.1**
KMRM	**Mail Ridge**	**75.39**	**40**	P	**P**	**11 47 13.3**	**+0.9**
OHAK	**Old Harbor**	**75.52**	**14**	P	**P**	**11 47 13.3**	**+0.7**
O02D	**Mt. Diablo Mer**	**75.94**	**41**	P	**P**	**11 47 15.9**	**+0.4**
O02D				IAmb	IAmb	11 47 17.0	
	comp=Z,3.6nm,0.8s						
KDAK	**Kodiak Island**	**76.19**	**14**	P	**P**	**11 47 16.8**	**+0.4**
NVAR	**Mina Array Bea**	**77.92**	**44**	P	**P**	**11 47 26.5**	**-0.2**
	comp=Z,1.6nm,0.7s,baz=227,slow=8.7,SNR=14						
	comp=Z,1.6nm,0.7s						
NVAR	**Mina Array Bea**	**77.92**	**44**	P	**P**	**11 47 26.7**	**+0.1**
GLB	**Gilahina Butte**	**81.59**	**16**	P	**P**	**11 47 45.2**	**-0.1**
HLID	**Hailey**	**83.03**	**41**	P	**P**	**11 47 53.6**	**+0.4**
HLID				IAmb	IAmb	11 47 54.1	
	comp=Z,4.8nm,0.8s						
TMUT	**Trail Mountain**	**83.19**	**46**	P	**P**	**11 47 54.7**	**+0.4**
TMUT				IAmb	IAmb	11 47 55.5	
	comp=Z,6.0nm,1.1s						
CCB	**Clear Creek Bu**	**83.36**	**13**	P	**P**	**11 47 53.8**	**-0.4**
IMAR	**Indian Mountai**	**83.42**	**10**	P	**P**	**11 47 54.9**	**+0.5**
BCAR	**Beaver Creek A**	**83.47**	**16**	P	**P**	**11 47 55.1**	**+0.3**
SRU	**San Rafael Swe**	**83.59**	**47**	P	**P**	**11 47 55.6**	**-0.6**
SRU				IAmb	IAmb	11 47 56.0	
	comp=Z,3.3nm,0.8s						
WHY	**Whitehorse**	**83.65**	**20**	P	**P**	**11 47 56.3**	**+0.5**
SCRK	**Sand Creek**	**83.66**	**15**	P	**P**	**11 47 56.2**	**+0.4**
SCRK				IAmb	IAmb	11 47 56.3	
	comp=Z,2.1nm,0.7s						
IL31		**83.67**	**13**	P	**P**	**11 47 55.7**	**+0.1**
IL31				IAmb	IAmb	11 47 56.2	
	comp=Z,2.5nm,0.8s						
ILAR	**Eielson Array**	**83.67**	**13**	P	**P**	**11 47 55.3**	**-0.4**
	comp=Z,2.1nm,0.8s,baz=231,slow=5.3,SNR=31						
	comp=Z,2.1nm,0.8s						
E19K	**Redstone River**	**84.26**	**8**	P	**P**	**11 47 58.7**	**+0.1**
E19K				IAmb	IAmb	11 48 25.8	
	comp=Z,6.8nm,1.4s						
PV10	**Paradox Valley**	**84.33**	**48**	P	**P**	**11 47 59.2**	**-0.8**
PV10				IAmb	IAmb	11 48 00.1	
	comp=Z,4.0nm,0.9s						
MNTX	**Cornudas Mount**	**84.44**	**55**	P	**P**	**11 47 59.8**	**-0.6**
MNTX				IAmb	IAmb	11 47 59.8	
	comp=Z,3.2nm,1.4s						
ALQ	**Albuquerque**	**84.84**	**52**	P	**P**	**11 48 01.7**	**-0.8**
DAWY	**Dawson**	**84.91**	**16**	P	**P**	**11 48 02.2**	**+0.2**
DAWY				IAmb	IAmb	11 48 03.4	
	comp=Z,6.7nm,1.3s						
TX31	**Lajitas Ar. Si**	**84.96**	**58**	P	**P**	**11 48 03.3**	**+0.3**
TXAR	**Lajitas Array**	**84.96**	**58**	P	**P**	**11 48 03.0**	**0.0**
	comp=Z,1.1nm,0.9s,baz=220,slow=7.0,SNR=7.1						
	comp=Z,1.1nm,0.9s						
TXAR	**Lajitas Array**	**84.96**	**58**	P	**P**	**11 48 03.2**	**+0.2**
PD31	**Pinedale Array**	**85.83**	**44**	P	**P**	**11 48 06.5**	**-0.7**
PDAR	**Pinedale Array**	**85.83**	**44**	P	**P**	**11 48 06.2**	**-0.9**
	comp=Z,1.0nm,0.6s,baz=212,slow=3.1,SNR=13						
	comp=Z,1.0nm,0.6s						
PDAR	**Pinedale Array**	**85.83**	**44**	P	**P**	**11 48 06.5**	**-0.7**
D22K	**Ayikyak River**	**86.24**	**9**	P	**P**	**11 48 08.8**	**+0.6**
D22K				IAmb	IAmb	11 48 19.1	
	comp=Z,8.3nm,1.4s						
BMAR	**Burnt Mountain**	**86.43**	**13**	P	**P**	**11 48 09.9**	**+0.7**
TOLK	**Toolik Lake Re**	**86.53**	**10**	P	**P**	**11 48 10.0**	**+0.3**
TOLK				IAmb	IAmb	11 48 26.8	
	comp=Z,7.8nm,1.5s						
E28M	**Babbage River**	**88.49**	**13**	P	**P**	**11 48 19.2**	**+0.4**
E28M				IAmb	IAmb	11 48 31.3	
	comp=Z,3.0nm,1.3s						
INK	**Inuvik**	**89.70**	**15**	P	**P**	**11 48 24.9**	**+0.6**
INK				IAmb	IAmb	11 48 40.7	
	comp=Z,3.8nm,1.4s						
YKA	**Yellowknife Ar**	**92.31**	**25**	P	**P**	**11 48 35.9**	**-0.7**
	comp=Z,6.0nm,0.7s,baz=247,slow=4.4,SNR=9.3						
	comp=Z,0.6nm,0.7s						
YKA	**Yellowknife Ar**	**92.31**	**25**	P	**P**	**11 48 36.2**	**-0.4**
YKAW3	**Yellowknife Wh**	**92.35**	**25**	P	**P**	**11 48 36.5**	**-0.2**
YKAW3				IAmb	IAmb	11 49 00.6	
	comp=Z,2.1nm,1.1s						
GO06	**Curarrehue**	**92.92**	**132**	P	**P**	**11 48 41.0**	**+0.8**
A36M	**Sachs Harbour**	**94.28**	**15**	P	**P**	**11 48 45.5**	**+0.1**
ARCES	**ARCESS Array B**	**123.97**	**350**	PKP	**PKPdf**	**11 54 20.5**	**-1.0**
	comp=Z,3.8nm,0.9s,baz=352,slow=2.5,SNR=6.9						
BRTR	**Keskin Array B**	**142.93**	**317**	PKP	**PKPdf**	**11 54 56.2**	**-1.6**
	comp=Z,4.0nm,0.9s,baz=64,slow=2.9,SNR=16						
MLR	**Muntele Rosu**	**143.69**	**330**	PKP	PKPbc	11 54 58.2	+0.7
	comp=Z,3.5nm,0.4s,baz=309,slow=4.3,SNR=4.6						
MLR	**Muntele Rosu**	**143.69**	**330**		**PKPdf**	**11 54 58.8**	**-0.2**
LODK	**Lodwar**	**144.41**	**254**	PKPbc	PKPbc	11 54 58.7	-2.0
MMAI	**Mount Meron Ar**	**144.62**	**306**	PKP	**PKPab**	**11 55 01.7**	**+0.4**
	comp=Z,1.8nm,0.4s,baz=70,slow=7.2,SNR=3.8						
KHC	**Kasperske Hory**	**145.05**	**346**	PKPdf	**PKPdf**	**11 55 00.5**	**-0.6**
GEC2	**GERESS Array S**	**145.29**	**346**	PKPdf	**PKPdf**	**11 55 01.1**	**-0.5**
GERES	**GERESS Array B**	**145.29**	**346**	PKPbc	**PKPdf**	**11 55 02.0**	**+0.4**
	comp=Z,1.2nm,0.8s,baz=45,slow=2.1,SNR=7.0						
GERES	**GERESS Array B**	**145.29**	**346**	PKPdf	**PKPdf**	**11 55 01.3**	**-0.3**

IDC 30 11:53:43.2±7.3, 7°36S×129°65E, h211km±81km, mb2.9/1, mbtmp3.5/3, Error ellipse: s-maj=129.5km s-min=33.3km az=72.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**13.31**	**160**	P	Pn	11 56 42.6	-1.7
	0.5nm,0.5s,baz=340,slow=13,SNR=22						
WRA				S	S	11 59 06.3	-5.5
	0.8nm,0.3s,baz=334,slow=22,SNR=11						
ASAR	**Alice Springs**	**16.72**	**166**	P	Pn	11 57 26.4	+0.7
	0.5nm,0.4s,baz=344,slow=9.7,SNR=25						
ASAR				S	S	12 00 27.5	-0.9
	0.5nm,0.5s,baz=353,slow=28,SNR=6.2						
MKAR	**Makanchi Array**	**68.33**	**327**	P	P	12 04 21.6	-0.1
	0.3nm,0.6s,baz=120,slow=8.5,SNR=2.7						
	0.3nm,0.6s						

*SDD **30** 11:53:50.3±2.3, 18°.06N×71°.50W, h15km±15km, MD2.9, ML2.6, MW2.9, Presumed earthquake*
*OSPL **30** 11:53:51.4±1.1, 18°.24N×71°.40W, h12km±4km, ML2.6, Presumed earthquake*

ISC 30 11:53:50.8±1.0, 18°.20N±0°.03×71°.44W±0°.04, h12km±6km, n14, σ0s75/22, 9C, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.16**	**101**	↑*e*P*g*	**Pg**	**11 53 54.4**	**-0.3**
PODR				*e*S*g*	**Sb**	**11 53 58.6**	**+1.3**
PODR				IAML		11 53 60.0	
	comp=N,4μm,0.2s						
PODR	**Polo**	**0.16**	**101**	*i* P	**Pg**	**11 53 54.3**	**-0.3**
PODR				*e*S	**Sg**	**11 53 57.5**	**+0.2**
PODR				IAML		11 53 59.5	
	comp=Z,32μm,0.1s						
LODU1	**El Espartillar**	**0.16**	**349**	*i* P	**Pg**	**11 53 53.9**	**-0.7**
LODU1				*e*S	**Sg**	**11 53 56.8**	**-0.3**
LODU1				IAML		11 53 57.2	
	comp=Z,4μm,0.4s						
NEDR	**Neiba UASD**	**0.29**	**5**	↑*e*P*g*	**Pg**	**11 53 56.8**	**+0.1**
NEDR				↑*e*S*g*	**Sb**	**11 54 03.0**	**+0.3**
NEDR				IAML		11 54 04.0	
	comp=N,1μm,0.2s						
LOBH	**Bahia de las A**	**0.38**	**209**	*i* P	**Pb**	**11 53 59.2**	**-0.4**
LOBH				*e*S	**Sb**	**11 54 06.1**	**+0.8**
LOBH				IAML		11 54 09.8	
	comp=Z,340nm,0.4s						
LOVI	**El Cajuil, Ovi**	**0.40**	**170**	*i* P	**Pb**	**11 53 59.2**	**-0.7**
LO

*NAO **30** 12:07:18.3±0.6, 76°.87N×7°.63E, h10km, ML3.1*
*IDC **30** 12:07:19.1±1.3, 76°.74N×7°.54E, h0km, mb3.4/4, mbtmp3.5/6, ML3.4/2, MS3.2/22, Error ellipse: s-maj=21.9km s-min=16.7km az=47.0*
*BER **30** 12:07:20.6±3.8, 76°.97N×7°.45E, h10km, Mw4.2, ML3.1(NAO), Confirmed Earthquake*
*DNK **30** 12:07:20.5±3.4, 76°.79N×7°.69E, h36km±38km, ML2.2, Presumed earthquake*

ISC 30 12:07:19.1±0.8, 76°.92N±0°.06×7°.64E±0°.06, h10km, n58, σ2s50/47, mb3.4/4, MS3.2/17, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BRBB	**Barentsburg B**	**1.86**	**47**	Pn	**Pn**	**12 07 50.4**	**-0.4**
BRBB				Sn	**Sn**	**12 08 11.6**	**-2.8**
BRBB	**Barentsburg B**	**1.86**	**47**	Pn	**Pn**	**12 07 50.4**	**-0.4**
BRBB				Sn	**Sn**	**12 08 11.6**	**-2.8**
KBS	**Kingsbay**	**2.21**	**22**	Pn	**Pn**	**12 07 55.5**	**-0.3**
KBS				Sn	**Sn**	**12 08 20.3**	**-2.8**
KBS	**Kingsbay**	**2.21**	**22**	*e*P	**Pn**	**12 07 55.3**	**-0.5**
KBS				*i* S	**Sn**	**12 08 20.0**	**-3.2**
KBS	**Kingsbay**	**2.21**	**22**	*e*P	**Pn**	**12 07 55.3**	**-0.5**
KBS				*i* S	**Sn**	**12 08 20.0**	**-3.2**
SPA0	**Spitsbergen Ar**	**2.28**	**52**	Pn	**Pn**	**12 07 57.5**	**+0.8**
	baz=226,slow=14						
SPA0				Sn	**Sn**	**12 08 24.2**	**-0.6**
	baz=241,slow=37						
SPA0	**Spitsbergen Ar**	**2.28**	**52**	Pn	**Pn**	**12 07 57.5**	**+0.8**
SPA0				Sn	**Sn**	**12 08 24.2**	**-0.6**
SPITS	**Spitsbergen Ar**	**2.28**	**52**	Pn	**Pn**	**12 07 57.4**	**+0.7**
	baz=222,slow=14						
SPITS				Sn	**Sn**	**12 08 24.1**	**-0.7**
	baz=240,slow=23						
	10.0nm,0.3s						
BJO1	**Bjornoya**	**3.71**	**125**	*e*P	**Pn**	**12 08 15.5**	**-0.8**
BJO1				*e*S	**Sn**	**12 08 53.7**	**-6.4**
BEAR	**Bear Island, N**	**3.72**	**125**	Pn	**Pn**	**12 08 15.6**	**-0.8**
	baz=318,slow=18						
BEAR				Sn	**Sn**	**12 08 53.7**	**-6.5**
	baz=318,slow=37						
HOPEN	**Hopen**	**4.02**	**87**	Pn	**Pn**	**12 08 20.4**	**-0.2**
HOPEN				Sn	**Sn**	**12 09 04.7**	**-3.0**
HOPEN	**Hopen**	**4.02**	**87**	*e*P	**Pn**	**12 08 20.5**	**-0.1**
HOPEN				*e*S	**Sn**	**12 09 04.5**	**-3.2**
HOPEN				IAML		12 09 06.5	
	comp=Z,19nm,0.5s						
DAG	**Danmarks Havn**	**5.97**	**281**	*i* P	Pn	12 08 43.5	-3.9
DAG				*i* S	Sn	12 09 46.5	-9.2
DAG				IAML		12 09 48.5	
	comp=Z,15nm,0.6s						
DAG	**Danmarks Havn**	**5.97**	**281**	*i* P	Pn	12 08 43.5	-3.9
DAG				*i* S	Sn	12 09 46.5	-9.2
DAG				IAML		12 09 48.5	
	comp=Z,15nm,0.6s						
NOR	**Nord**	**6.46**	**327**	Pn	**Pn**	**12 08 52.5**	**-1.6**
NOR				Sn	**Sn**	**12 10 03.2**	**-4.5**
NOR	**Nord**	**6.46**	**327**	*i* P	Pn	12 08 52.0	-2.1
NOR				*i* S	**Sn**	**12 10 02.9**	**-4.9**
NOR				IAML		12 10 04.8	
	comp=Z,6.6nm,0.5s						
NOR	**Nord**	**6.46**	**327**	*i* P	Pn	12 08 52.0	-2.1
NOR				*i* S	**Sn**	**12 10 02.9**	**-4.9**
NOR				IAML		12 10 04.8	
	comp=Z,6.6nm,0.5s						
DBG	**Daneborg**	**7.36**	**263**	Pn	**Pn**	**12 09 05.4**	**-1.0**
DBG				Sn	Sn	12 10 20.6	-9.2
DBG	**Daneborg**	**7.36**	**263**	*i* P	**Pn**	**12 09 04.2**	**-2.1**
DBG				*i* S	Sn	12 10 18.5	-11
DBG				IAML		12 10 26.8	
	comp=Z,4.2nm,0.9s						
DBG	**Daneborg**	**7.36**	**263**	*i* P	**Pn**	**12 09 04.2**	**-2.1**
DBG				*i* S	Sn	12 10 18.5	-11
DBG				IAML		12 10 26.8	
	comp=Z,4.2nm,0.9s						
ARA0	**ARCESS Array S**	**8.97**	**136**	Pn	**Pn**	**12 09 26.5**	**-2.1**
	baz=329,slow=12						
ARA0				Sn	Sn	12 10 58.5	-11
	baz=341,slow=22						
ARA0	**ARCESS Array S**	**8.97**	**136**	Pn	**Pn**	**12 09 26.5**	**-2.1**
ARA0				Sn	Sn	12 10 58.5	-11
ARCES	**ARCESS Array B**	**8.97**	**136**	Pn	**Pn**	**12 09 26.2**	**-2.3**
	comp=Z,0.2nm,0.3s,baz=332,slow=13,SNR=7.0						
ARCES				Sn	Sn	12 10 58.4	-11
	comp=Z,0.5nm,0.3s,baz=332,slow=20,SNR=8.0						
ARCES				LR	LR	12 12 55.0	
	comp=Z,67nm,21.2s,baz=22,slow=38						
	comp=Z,3.9nm,0.8s						
ARCES				AML	AML		
LOF	**Lofoten**	**9.00**	**166**	*e*P	**Pn**	**12 09 27.6**	**-1.2**
STEI	**Steigen**	**9.31**	**162**	*e*P	**Pn**	**12 09 32.7**	**-0.3**
SALU	**Saltoluokta**	**10.12**	**155**	*e*P	**Pn**	**12 09 44.9**	**+0.7**
VAGH	**Vaagaholmen**	**10.38**	**168**	*e*P	**Pn**	**12 09 47.2**	**-0.5**
KONS	**Konsvik**	**10.60**	**168**	*e*P	**Pn**	**12 09 51.4**	**+0.6**
RAUS	**Rausandaksla**	**10.71**	**166**	*e*P	**Pn**	**12 09 52.7**	**+0.4**
STOK	**Stokkvaagen**	**10.76**	**168**	*e*P	**Pn**	**12 09 52.5**	**-0.5**
LEIR	**Leirfjorden**	**10.99**	**168**	*e*P	**Pn**	**12 09 56.2**	**+0.1**
NEEM	**North Greenlan**	**12.58**	**301**	*i* P	Pn	12 10 14.0	-4.0
NEEM	**North Greenlan**	**12.58**	**301**	*i* P	Pn	12 10 14.0	-4.0
BORG	**Borgarnes**	**15.19**	**232**	LR	LR	12 14 58.7	
	comp=Z,54nm,19.1s,baz=317,slow=30						
FINES	**FINESS Array B**	**16.71**	**148**	LR	LR	12 16 58.6	
	comp=Z,74nm,18.1s,baz=350,slow=35						
HFS	**Hagfors**	**16.99**	**170**	LR	LR	12 16 23.0	
	comp=Z,35nm,18.7s,baz=272,slow=32						
SFJD	**Kangerlussuaq**	**19.53**	**271**	LR	LR	12 18 21.3	
	comp=Z,56nm,20.1s,baz=8.0,slow=34						
NRIK	**Noril'sk**	**22.41**	**66**	LR	LR	12 23 56.8	
	comp=Z,54nm,20.0s,baz=348,slow=44						
FRB	**Frobisher Bay**	**26.32**	**283**	LR	LR	12 22 15.2	
	comp=Z,81nm,18.9s,baz=314,slow=44						
AKASG	**Malin Array Be**	**27.60**	**150**	LR	LR	12 23 47.1	
	comp=Z,60nm,19.4s,baz=358,slow=36						
AKTO	**Aktyubinsk**	**32.70**	**114**	LR	LR	12 28 03.5	
	comp=Z,49nm,18.2s,baz=336,slow=38						
ZALV	**Zalesovo Beam**	**35.39**	**84**	LR	LR	12 32 15.4	
	comp=Z,24nm,18.2s,baz=10.0,slow=42						
YKA	**Yellowknife Ar**	**36.30**	**318**	PcP	**PcP**	**12 16 48.4**	**+1.9**
	comp=Z,0.2nm,0.6s,baz=23,slow=3.0,SNR=2.7						
KBZ	**Khabaz**	**36.34**	**135**	LR	LR	12 29 15.9	
	comp=Z,34nm,20.2s,baz=358,slow=36						
KURBB	**Kurchatov Arra**	**37.05**	**93**	P	**P**	**12 14 31.0**	**+2.3**
	comp=Z,0.3nm,0.4s,baz=332,slow=7.5,SNR=2.1						
	comp=Z,0.3nm,0.4s						
ILAR	**Eielson Array**	**37.67**	**342**	P	**P**	**12 14 37.1**	**+3.4**
	comp=Z,0.4nm,0.9s,baz=7.9,slow=6.9,SNR=5.5						
	comp=Z,0.4nm,0.9s						
BRTR	**Keskin Array B**	**38.95**	**147**	LR	LR	12 31 29.7	
	comp=Z,13nm,19.1s,baz=28,slow=37						
GNI	**Garni**	**40.12**	**134**	LR	LR	12 31 12.8	
	comp=Z,20nm,20.8s,baz=354,slow=36						
MKAR	**Makanchi Array**	**41.50**	**91**	P	**P**	**12 15 08.4**	**+2.5**
	comp=Z,0.5nm,0.9s,baz=342,slow=7.6,SNR=3.8						
MKAR				LR	LR	12 34 52.5	
	comp=Z,35nm,20.1s,baz=14,slow=40						
	comp=Z,0.5nm,0.9s						
AAK	**Ala-Archa**	**43.68**	**101**	LR	LR	12 36 29.9	
	comp=Z,38nm,18.5s,baz=329,slow=40						
ULM	**Lac du Bonnet**	**44.57**	**297**	LR	LR	12 33 56.9	
	comp=Z,64nm,18.3s,baz=80,slow=36						
MMAI	**Mount Meron Ar**	**45.78**	**147**	LR	LR	12 35 14.7	
	comp=Z,14nm,21.8s,baz=66,slow=37						
SADO	**Sadowa**	**46.17**	**280**	LR	LR	12 36 40.9	
	comp=Z,64nm,19.5s,baz=15,slow=38						
EIL	**Elat**	**49.02**	**148**	LR	LR	12 37 07.4	
	comp=Z,23nm,18.8s,baz=304,slow=37						
PDAR	**Pinedale Array**	**54.40**	**306**	LR	LR	12 39 49.4	
	comp=Z,102nm,18.0s,baz=300,slow=36						
TKL	**Tuckaleechee C**	**55.91**	**281**	LR	LR	12 40 16.2	
	comp=Z,46nm,18.8s,baz=326,slow=35						
ANMO	**Albuquerque**	**61.39**	**301**	LR	LR	12 44 54.2	
	comp=Z,49nm,18.4s,baz=324,slow=37						
TXAR	**Lajitas Array**	**66.28**	**297**	P	**P**	**12 18 08.3**	**+1.1**
	comp=Z,0.3nm,0.6s,baz=22,slow=6.1,SNR=4.5						
	comp=Z,0.3nm,0.6s						

*VIE **30** 12:29:30.9±0.7, 46°.20N×16°.53E, h0km, mb1.9/3, ml1.9/4, Error ellipse: s-maj=4.5km s-min=2.4km az=91.0 19 km SE of Varazdin Suspected Mining explosion.*

KRSZO 30 12:29:32.7±1.0, 46°.13N×16°.37E, h2km, ML1.9/4, Error ellipse: s-maj=7.8km s-min=4.1km az=138.0,

Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KOGS	**Kog**	**0.33**	**346**	Lg	Lg	12 29 43.3	
PTJ	**Puntijarka**	**0.36**	**231**	Pg	Pg	12 29 39.4	-0.2
PTJ				Lg	Lg	12 29 45.9	
PTJ				AML	AML		
BEHE	**Becsehely**	**0.44**	**40**	Pg	Pg	12 29 41.9	+0.8
BEHE				Lg	Lg	12 29 47.0	
BEHE				AML	AML		
CRES	**Cresnjevec Ost**	**0.70**	**244**	Pg	Pb	12 29 47.5	-0.2
CRES				AML	AML		
SOKA	**Soboth**	**1.07**	**301**	*i* Pg	Pg	12 29 52.4	-0.8
	1.6nm,0.3s						
SOKA				*e*Sg	Sb	12 30 08.4	-0.1
	5.2nm,0.4s						
KOVH	**Kovagotottos**	**1.21**	**92**	Pg	Pn	12 29 56.6	0.0
KOVH				Lg	Lg	12 30 11.4	
KOVH				AML	AML		
ARSA	**Arzberg**	**1.26**	**333**	Lg	Lg	12 30 12.8	
ARSA	**Arzberg**	**1.26**	**333**	*i* Sg	Sg	12 30 12.7	-0.4
	4.0nm,0.3s						
OBKA	**Obir**	**1.31**	**287**	*e*Sg	Sn	12 30 16.2	-0.2
	2.5nm,0.3s						
SESA	**Seetaler Alpe,**	**1.58**	**309**	*i* Pg	Pb	12 30 02.8	0.0
	1.8nm,0.3s						
SESA				*e*Sg	Sn	12 30 23.0	-0.1
	1.6nm,0.2s						

LJU 30 12:29:44.8, 46°.27N×13°.67E, h7km, ML0.1, Presumed earthquake, Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CADS	**Cadrg**	**0.06**	**135**	*i* Pg	Pg	12 29 46.6	0.0
CADS				*i* Sg	Sg	12 29 47.9	+0.1
CADS				IAML		12 29 48.0	
	comp=Z,6.4nm,0.1s						
ROBS	**Robic**	**0.12**	**256**	*i* Pg	Pg	12 29 47.4	+0.1
ROBS				*i* Sg	Sg	12 29 49.3	+0.3
ROBS				IAML		12 29 49.9	
	comp=Z,1.1nm,0.1s						
GORS	**Gorjuse**	**0.23**	**79**	*i* Pg	Pg	12 29 49.6	+0.2
GORS				*e*Sg	Sg	12 29 53.3	+0.8
GORS				IAML		12 29 54.0	
	comp=Z,1.7nm,0.1s						

*NEIC **30** 12:32:37.7±1.4, 36°.34N±0°.06×70°.57E±0°.09, h180km±8km, mb4.0/22, Error ellipse: s-maj=10.9km s-min=8.2km az=87.0*
*IDC **30** 12:32:39.0±2.5, 36°.42N×70°.80E, h192km±21km, mb3.4/8, mbtmp4.0/13, Error ellipse: s-maj=24.4km s-min=14.1km az=79.0*
*NNC **30** 12:32:43.8±2.6, 36°.89N×70°.57E, h196km±32km, mb3.2, mpv4.4, Error ellipse: s-maj=25.0km s-min=14.3km az=16.0*

ISC 30 12:32:38.3±0.6, 36°.33N±0°.05×70°.66E±0°.06, h200km, n80, σ2s04/90, mb4.0/15, 2C-3D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.22**	**217**		**Pn**	**12 33 17.0**	**-2.4**
KBL				Sn	**Sn**	**12 33 46.7**	**-4.6**
DRK	**Karamyk**	**3.27**	**16**	Pn	**Pn**	**12 33 30.0**	**-1.4**
DRK				Sn	**Sn**	**12 34 10.4**	**-2.7**
NIL	**Nilore**	**3.42**	**141**		**Pn**	**12 33 33.4**	**+0.4**
NIL				Sn	**Sn**	**12 34 14.5**	**-1.2**
BTK	**Batken**	**3.72**	**2**	Pn	**Pn**	**12 33 35.7**	**-1.0**
KSH2	**Kashi**	**4.80**	**53**	Pn	**Pn**	**12 33 51.8**	**+1.6**
KSH2				Sn	**Sn**	**12 34 47.5**	**+0.6**
KSH2				smax	smax		
	comp=N,490nm,0.5s						
KSH2				smax	smax		
	comp=E,400nm,0.5s						
JMU	**Jammu**	**4.94**	**135**	*i* P	**Pn**	**12 33 49.3**	**-2.6**
ARSB	**Arslanbob**	**5.31**	**19**	Pn	**Pn**	**12 33 54.6**	**-2.0**
ALCI	**Alchi Leh**	**5.74**	**110**	*i* S	**Sn**	**12 35 06.7**	**-2.3**
IUG	**Iuzhnay**	**5.83**	**355**	Pg	**Pn**	**12 34 02.1**	**-1.3**
	comp=E,96nm,0.2s						
IUG				Lg	Lg	12 35 03.9	
	comp=E,87nm,0.5s						
DHRM	**DHARAMSHALA**	**6.19**	**129**	*i* P	**Pn**	**12 34 07.5**	**-0.8**
DHRM				*i* S	**Sn**	**12 35 13.8**	**-5.6**
UCH	**Uchtor**	**6.60**	**26**	⇓P	**Pn**	**12 34 12.4**	**-1.3**
	SNR=16						
MRKS	**Merke**	**6.71**	**16**	Pg	**Pn**	**12 34 13.4**	**-1.3**
	comp=E,33nm,0.3s						
MRKS				Lg	Lg	12 35 24.0	
	comp=E,61nm,0.4s						
BRLS	**Borolday**	**6.72**	**355**	Pg	Pn	12 34 09.8	-5.0
	comp=E,8.9nm,0.2s						
BRLS				Lg	Lg	12 35 17.5	
	comp=E,25nm,0.3s						
EKS2	**Erkin-Say**	**6.77**	**20**	P	**Pn**	**12 34 14.7**	**-0.8**
	SNR=20						
KK31	**Karatay Array**	**6.77**	**359**	P	**Pn**	**12 34 13.3**	**-2.1**
	comp=E,2.9nm,0.2s,baz=195,slow=18,SNR=76						
KK31				⇓S	**Sn**	**12 35 24.0**	**-8.5**
	comp=E,4.3nm,0.3s,baz=180,slow=16,SNR=10.0						
KK31	**Karatay Array**	**6.77**	**359**		**Pn**	**12 34 13.6**	**-1.8**
KKAR	**Karatay Array**	**6.77**	**359**		**Pn**	**12 34 13.4**	**-1.9**
AAK	**Ala-Archa**	**6.96**	**24**	P	**Pn**	**12 34 16.9**	**-1.1**
	comp=E,11nm,0.3s,baz=180,slow=7.1,SNR=43						
AAK				S	**Sn**	**12 35 32.7**	**-4.6**
	comp=E,35nm,0.7s,baz=162,slow=19,SNR=14						
AAK	**Ala-Archa**	**6.96**	**24**	P	**Pn**	**12 34 17.5**	**-0.5**
	SNR=11						
AAK	**Ala-Archa**	**6.96**	**24**	⇓P	**Pn**	**12 34 17.7**	**-0.3**
	comp=E,2.3nm,0.4s						
AAK				⇑S	**Sn**	**12 35 32.2**	**-5.1**
	comp=E,11nm,0.5s						
AAK	**Ala-Archa**	**6.96**	**24**		**Pn**	**12 34 17.1**	**-0.9**
KBK	**Karagaybulak**	**7.13**	**26**	P	**Pn**	**12 34 19.9**	**-0.4**
	SNR=5.2						
CHMS	**Chumysh**	**7.37**	**24**	P	**Pn**	**12 34 22.1**	**-1.2**
	SNR=5.7						
USP	**Ospenovka**	**7.53**	**22**	P	**Pn**	**12 34 24.3**	**-1.1**
	SNR=11						
TKM2	**Tokmak 2**	**7.60**	**29**	P	**Pn**	**12 34 25.5**	**-0.9**
	SNR=7.3						
KDJ	**Kajisay**	**7.69**	**39**	Pn	**Pn**	**12 34 26.4**	**-1.2**
TARG	**Taragay, Kyrgy**	**7.74**	**44**	Pn	**Pn**	**12 34 26.9**	**-1.5**
KST	**Kastek**	**7.85**	**30**	Pg	**Pn**	**12 34 29.5**	**-0.1**
	comp=E,2.7nm,0.4s						
KST				Lg	Lg	12 35 53.1	
	comp=E,20nm,0.9s						
WUS	**Wushi**	**8.26**	**51**	Pn	**Pn**	**12 34 34.3**	**-0.7**
KOTS	**Kotyrbulak**	**8.49**	**34**	P	**Pn**	**12 34 38.3**	**+0.3**
UTK	**UTTARKASHI**	**8.57**	**128**	*i* P	**Pn**	**12 34 38.5**	**-0.6**
UTK				*i* S	**Sn**	**12 36 09.2**	**-6.1**
PDGK	**Podgornoye**	**9.74**	**41**	Pn	**Pn**	**12 34 52.9**	**-1.2**
MAKZ	**Makanchi**	**13.45**	**35**		**Pn**	**12 35 41.5**	**+0.2**
MK31	**Makanchi Array**	**13.59**	**36**	P	**Pn**	**12 35 43.0**	**0.0**
	comp=E,5.7nm,0.7s,baz=218,slow=11,SNR=50						
MKAR	**Makanchi Array**	**13.59**	**36**	P	**Pn**	**12 35 43.2**	**+0.2**
	comp=E,7.6nm,0.7s,baz=227,slow=12,SNR=37						
WMQ	**Urumqi**	**15.02**	**55**	*e*P	**P**	**12 36 02.5**	**+1.2**
AB31	**Akbulak array**	**15.10**	**332**	P	**Pn**	**12 36 01.6**	**0.0**
	comp=E,0.5nm,0.3s,baz=169,slow=11,SNR=46						
AB31	**Akbulak array**	**15.10**	**332**	Pn	**Pn**	**12 36 00.4**	**-1.1**
AB31				IAmb	IAmb	12 36 14.7	
	comp=Z,4.8nm,1.3s						
ABKAR	**Akbulak array**	**15.10**	**332**	Pn	**Pn**	**12 36 00.5**	**-1.1**
KURBB	**Kurchatov Arra**	**15.37**	**19**	P	**Pn**	**12 36 04.1**	**-0.7**
	comp=Z,0.7nm,0.3s,baz=210,slow=9.9,SNR=8.2						
KURK	**Kurchatov**	**15.48**	**19**		**P**	**12 36 07.2**	**+1.0**
KURK				IAmb	IAmb	12 36 10.0	
	comp=Z,2.2nm,0.5s						
EVN	**Everest**	**16.01**	**117**		**Pn**	**12 36 13.8**	**+0.4**
EVN				IAmb	IAmb	12 36 18.3	
	comp=Z,7.7nm,0.6s						
BVAR	**Borovoye Array**	**16.70**	**359**	P	**P**	**12 36 20.0**	**+0.4**
	comp=Z,1.2nm,0.4s,baz=156,slow=10.0,SNR=7.9						
BORK	**Borovoye**	**16.72**	**359**	P	**P**	**12 36 19.7**	**-0.1**
AKTO	**Aktyubinsk**	**16.79**	**331**	P	**Pn**	**12 36 21.7**	**-0.2**
	comp=Z,1.5nm,0.5s,baz=152,slow=9.4,SNR=5.8						
AKTO				S	**S**	**12 39 24.7**	**-1.0**
	comp=Z,0.7nm,0.4s,baz=45,slow=17,SNR=1.8						
AKTO	**Aktyubinsk**	**16.79**	**331**	⇑P	**P**	**12 36 20.7**	**0.0**
	comp=Z,3.2nm,1.1s						
UOSS	**Minazif**	**16.82**	**232**	P	**P**	**12 36 21.0**	**-0.2**
UOSS				IAmb	IAmb	12 36 24.5	
	comp=Z,5.5nm,1.1s						
ZAA0	**Zalesovo Array**	**20.18**	**25**		**P**	**12 36 58.3**	**+0.9**
ZALV	**Zalesovo Beam**	**20.18**	**25**	P	**P**	**12 36 58.3**	**+1.0**
	comp=Z,15nm,0.5s,baz=218,slow=11,SNR=96						
ZALV				S	**S**	**12 40 32.0**	**-0.6**
	comp=Z,0.9nm,0.6s,baz=216,slow=20,SNR=4.1						
	comp=Z,15nm,0.5s						
ZALV	**Zalesovo Beam**	**20.18**	**25**		**P**	**12 36 58.2**	**+0.8**
SONM	**Songino Array**	**28.66**	**55**	P	**P**	**12 38 18.5**	**+2.1**
	comp=Z,0.4nm,0.7s,baz=259,slow=14,SNR=2.9						
	comp=Z,0.4nm,0.7s						
SONM	**Songino Array**	**28.66**	**55**	P	**P**	**12 38 17.2**	**+0.9**
CMAR	**Chiang Mai Arr**	**30.61**	**118**	P	**P**	**12 38 34.9**	**+1.1**
	comp=Z,0.6nm,0.3s,baz=295,slow=7.3,SNR=5.0						
	comp=Z,0.6nm,0.3s						
CMAR	**Chiang Mai Arr**	**30.61**	**118**	P	**P**	**12 38 34.4**	**+0.6**
HHC	**Hu-ho-hao-te**	**32.08**	**69**	*e*P	**P**	**12 38 48.8**	**+2.3**
HHC				pmax	pmax		
	comp=Z,17nm,0.7s						
MANT	**Manisa**	**33.30**	**287**	P	**P**	**12 38 58.9**	**+1.6**
BALB	**Balikesir**	**33.65**	**289**	P	**P**	**12 39 01.3**	**+1.3**
ARG	**Arkhangelos**	**34.09**	**283**	P	**P**	**12 39 04.9**	**+1.1**
IDI	**Anoyia**	**36.87**	**282**	P	**P**	**12 39 28.2**	**+0.7**
FINES	**FINESS Array B**	**37.47**	**326**	P	**P**	**12 39 33.2**	**+1.0**
ARCES	**ARCESS Array B**	**41.20**	**338**	P	**P**	**12 40 04.8**	**+1.9**
	comp=Z,5.3nm,0.9s,baz=119,slow=7.2,SNR=2.6						
	comp=Z,5.3nm,0.9s						
ARCES	**ARCESS Array B**	**41.20**	**338**	P	**P**	**12 40 03.7**	**+0.8**
D19K	**Kuna River**	**69.39**	**17**	P	**P**	**12 43 25.8**	**+1.8**
D19K				IAmb	IAmb	12 43 53.9	
	comp=Z,7.3nm,1.4s						
D22K	**Ayikyak River**	**70.31**	**15**	P	**P**	**12 43 31.8**	**+2.3**
D22K				IAmb	IAmb	12 43 55.6	
	comp=Z,4.7nm,1.5s						
TOLK	**Toolik Lake Re**	**71.16**	**14**	P	**P**	**12 43 36.8**	**+2.1**
F21K	**Alatna River**	**71.48**	**17**	P	**P**	**12 43 38.8**	**+2.2**
F21K				IAmb	IAmb	12 44 02.4	
	comp=Z,4.2nm,1.5s						
H19K	**Roundabout Mou**	**72.10**	**19**	P	**P**	**12 43 42.7**	**+2.4**
H19K				IAmb	IAmb	12 43 46.1	
	comp=Z,4.0nm,1.1s						
IMAR	**Indian Mountai**	**72.42**	**17**	P	**P**	**12 43 44.4**	**+2.2**
INK	**Inuvik**	**74.12**	**9**	P	**P**	**12 43 54.4**	**+2.4**
INK				IAmb	IAmb	12 44 16.8	
	comp=Z,5.5nm,1.4s						
CAST	**Castle Rocks**	**74.93**	**18**	P	**P**	**12 43 59.0**	**+2.2**
CAST				IAmb	IAmb	12 44 03.3	
	comp=Z,6.5nm,1.5s						
ILAR	**Eielson Array**	**75.02**	**16**	P	**P**	**12 43 58.6**	**+1.3**
	comp=Z,0.7nm,1.0s,baz=313,slow=6.0,SNR=6.6						
	comp=Z,0.7nm,1.0s						
ILAR	**Eielson Array**	**75.02**	**16**	P	**P**	**12 43 59.1**	**+1.8**
DOT	**Dot Lake**	**76.61**	**15**	P	**P**	**12 44 08.4**	**+2.0**
YKA	**Yellowknife Ar**	**81.43**	**2**	P	**P**	**12 44 33.2**	**+0.8**
	comp=Z,0.4nm,0.7s,baz=357,slow=4.9,SNR=7.5						
	comp=Z,0.4nm,0.7s						
YKA	**Yellowknife Ar**	**81.43**	**2**	P	**P**	**12 44 33.5**	**+1.0**
WRA	**Warramunga Arr**	**82.13**	**122**	P	**P**	**12 44 37.5**	**+0.7**
	comp=Z,0.6nm,0.8s,baz=313,slow=5.2,SNR=10.0						
	comp=Z,0.6nm,0.8s						
WRA	**Warramunga Arr**	**82.13**	**122**	P	**P**	**12 44 38.0**	**+1.2**
WRAB	**Tennant Creek**	**82.14**	**122**	P	**P**	**12 44 37.6**	**+0.9**
WRAB				IAmb	IAmb	12 44 58.2	
	comp=Z,4.7nm,1.3s						
ASAR	**Alice Springs**	**84.38**	**125**	P	**P**	**12 44 48.7**	**+0.5**
	comp=Z,0.2nm,0.6s,baz=314,slow=5.5,SNR=6.4						
	comp=Z,0.2nm,0.6s						
ASAR	**Alice Springs**	**84.38**	**125**	P	**P**	**12 44 48.6**	**+0.3**

*KRNET **30** 12:41:55.5±0.1, 40°.95N×71°.35E, h14km, mb3.0*
*SOME **30** 12:41:57.6, 41°.00N×71°.23E, h10km*
*NNC **30** 12:41:58.2±2.5, 41°.03N×71°.20E, h0km, mb3.3, mpv3.1, Error ellipse: s-maj=20.3km s-min=7.4km az=12.0*

ISC 30 12:41:55.1±1.1, 40°.98N±0°.03×71°.26E±0°.03, h12km±11km, n22, σ1s00/37, 10C-11D, Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TRKS	**Terek-Say**	**0.55**	**351**	⇓*i*P	**Pb**	**12 42 05.8**	**-1.0**
TRKS				⇓*i*S	**Sg**	**12 42 13.4**	**0.0**
FRG	**Fergana**	**0.73**	**147**	P	**Pn**	**12 42 13.9**	**+2.7**
ARK	**Arkit**	**0.97**	**33**	⇓*i*P	**Pn**	**12 42 13.9**	**-0.7**
ARK				*i*S	**Sn**	**12 42 27.7**	**-0.7**
BTK	**Batken**	**0.98**	**200**	⇓*e*P	**Pn**	**12 42 14.4**	**-0.3**
BTK				⇓*e*S	**Sn**	**12 42 28.1**	**-0.5**
CHMG	**Chimgan**	**1.10**	**301**	P	**Pn**	**12 42 17.0**	**+0.6**
OHH	**Osh**	**1.25**	**111**	⇑*e*P	**Pb**	**12 42 18.0**	**-0.5**
OHH				⇑*e*S	**Sb**	**12 42 34.2**	**-0.3**
TVKS	**Tavaksay**	**1.35**	**297**	P	**Pg**	**12 42 21.2**	**+0.2**
IUG	**Iuzhnay**	**1.48**	**322**

KUSD				AML	AML				
GCAM	**G?zelcaml?**	**0.30**	**127**	P	**Pg**	**12 45 41.0**	**0.0**		
GCAM				IAML		12 45 45.0			
	comp=E,2µm,0.3s								
GCAM				S	**Sg**	**12 45 45.2**	**+0.1**		
GCAM				IAML		12 45 46.0			
	comp=N,2µm,0.2s								
GCAM	**G?zelcaml?**	**0.30**	**127**	Pg	**Pg**	**12 45 40.9**	**0.0**		
GCAM				Sg	**Sg**	**12 45 45.6**	**+0.5**		
GCAM				AML	AML				
BEYE	**izmir**	**0.34**	**0**	P	**Pg**	**12 45 41.6**	**-0.1**		
BEYE				S	**Sg**	**12 45 46.1**	**-0.2**		
BEYE				IAML		12 45 47.0			
	comp=E,652nm,0.2s								
BEYE				IAML		12 45 47.0			
	comp=N,711nm,0.3s								
ZEYE	**Izmir, Urla-Ze**	**0.49**	**317**	P	**Pg**	**12 45 44.2**	**-0.1**		
ZEYE				IAML		12 45 51.0			
	comp=N,771nm,0.3s								
ZEYE				S	**Sg**	**12 45 51.4**	**+0.6**		
ZEYE				IAML		12 45 55.0			
	comp=E,503nm,0.2s								
BLCB	**Balcova**	**0.51**	**10**	P	**Pg**	**12 45 44.6**	**-0.1**		
BLCB	**Balcova**	**0.51**	**10**	Pg	**Pg**	**12 45 44.8**	**0.0**		
BLCB				Sg	**Sb**	**12 45 52.5**	**-0.5**		
BLCB				AML	AML				
URLA	**Izmir**	**0.54**	**332**	P	**Pg**	**12 45 45.0**	**-0.4**		
URLA				S	**Sg**	**12 45 52.8**	**+0.2**		
URLA				IAML		12 45 53.0			
	comp=N,299nm,0.5s								
URLA				IAML		12 45 57.0			
	comp=E,242nm,0.3s								
URLA	**Izmir**	**0.54**	**332**	Pg	**Pg**	**12 45 45.3**	**-0.1**		
URLA				Sg	**Sb**	**12 45 53.8**	**-0.2**		
URLA				AML	AML				
DIDI	**Didim-Aydin**	**0.56**	**154**	Pg	**Pg**	**12 45 45.6**	**-0.1**		
DIDI				Sg	**Sb**	**12 45 55.0**	**+0.5**		
DIDI				AML	AML				
CESE	**eme**	**0.67**	**312**	Pg	**Pb**	**12 45 48.7**	**+0.4**		
CESE				Sg	**Sb**	**12 45 58.1**	**+0.6**		
CESE				AML	AML				
AYDB	**Zeytinkoy-Aydi**	**0.77**	**85**	Pg	**Pg**	**12 45 49.5**	**-0.1**		
AYDB				Sg	**Sb**	**12 46 00.3**	**-0.2**		
AYDB				AML	AML				
KRBN	**Karaburun**	**0.77**	**338**	Pg	**Pb**	**12 45 49.9**	**-0.1**		
KRBN				Sg	**Sb**	**12 46 00.9**	**+0.5**		
KRBN				AML	AML				
BAGT	**Foa**	**0.77**	**356**	P	**Pg**	**12 45 49.3**	**-0.5**		
BAGT				S	**Sg**	**12 45 59.8**	**-0.1**		
BAGT				IAML		12 46 01.0			
	comp=E,222nm,0.4s								
BAGT				IAML		12 46 29.0			
	comp=N,257nm,1.4s								
AYDN	**Tasoluk**	**0.79**	**106**	P	**Pg**	**12 45 49.8**	**-0.3**		
AYDN				S	**Sg**	**12 46 00.1**	**-0.2**		
AYDN				IAML		12 46 04.0			
	comp=E,296nm,0.4s								
AYDN				IAML		12 46 04.0			
	comp=N,280nm,0.4s								
YKAV	**Yalikavak-Bodr**	**0.81**	**159**	Pg	**Pb**	**12 45 51.2**	**+0.5**		
YKAV				Sg	**Sb**	**12 46 02.6**	**+1.0**		
YKAV				AML	AML				
FOCM	**Foa**	**0.84**	**350**	Pg	**Pb**	**12 45 51.7**	**+0.4**		
FOCM				Sg	**Sn**	**12 46 04.2**	**-0.5**		
FOCM				AML	AML				
CHOS	**Chios island**	**0.85**	**307**	P	**Pg**	**12 45 51.1**	**-0.1**		
CHOS				S	**Sb**	**12 46 03.2**	**+0.3**		
CHOS				AML	AML				
CHOS	**Chios island**	**0.85**	**307**	Pg	**Pn**	**12 45 52.3**	**-0.3**		
CHOS				Sg	**Sb**	**12 46 04.2**	**+1.3**		
CHOS				AML	AML				
BODT	**Bodrum**	**0.88**	**159**	P	**Pg**	**12 45 51.0**	**-0.7**		
BODT				S	**Sg**	**12 46 03.4**	**+0.3**		
BODT				AML	AML				
BODT	**Bodrum**	**0.88**	**159**	Pg	**Pb**	**12 45 52.1**	**+0.2**		
BODT				Sg	**Sb**	**12 46 04.6**	**+1.1**		
BODT				AML	AML				
KARB	**zmir-Karabur**	**0.88**	**333**	P	**Pg**	**12 45 50.9**	**-0.8**		
KARB				S	**Sg**	**12 46 03.2**	**0.0**		
KARB				IAML		12 46 06.0			
	comp=N,253nm,0.4s								
KARB				IAML		12 46 07.0			
	comp=E,148nm,0.2s								
MLSB	**Milas**	**0.90**	**131**	Pg	**Pb**	**12 45 52.5**	**+0.3**		
MLSB				Sg	**Sb**	**12 46 04.6**	**+0.5**		
MLSB				AML	AML				
BDRM	**Kayabasi**	**0.92**	**153**	P	**Pg**	**12 45 52.0**	**-0.4**		
BDRM				S	**Sg**	**12 46 03.6**	**-0.7**		
BDRM				IAML		12 46 08.0			
	comp=E,138nm,0.4s								
BDRM				IAML		12 46 08.0			
	comp=N,152nm,0.6s								
CAMT	**Merkez**	**0.92**	**19**	P	**Pb**	**12 45 52.3**	**-0.2**		
CAMT				S	**Sb**	**12 46 05.5**	**+0.7**		
CAMT				IAML		12 46 08.0			
	comp=E,479nm,0.4s								
CAMT				IAML		12 46 09.0			
	comp=N,538nm,0.5s								
BODA	**Bodrum-Mula**	**0.94**	**154**	Pg	**Pn**	**12 45 53.7**	**0.0**		
NAZL	**Nazilli-Aydin**	**1.08**	**85**	Pg	**Pn**	**12 45 55.6**	**-0.2**		
NAZL				AML	AML				
ZEDA	**zmir-Bergama**	**1.09**	**6**	P	**Pb**	**12 45 55.6**	**+0.1**		
ZEDA				S	**Sb**	**12 46 09.6**	**-0.1**		
ZEDA				IAML		12 46 14.0			
	comp=E,259nm,0.5s								
ZEDA				IAML		12 46 15.0			
	comp=N,145nm,0.5s								
GOMA	**Golmarmara-Man**	**1.14**	**43**	Pn	**Pn**	**12 45 56.6**	**+0.2**		
GOMA				AML	AML				
DKL	**Dikili**	**1.19**	**359**	Pn	**Pg**	**12 45 57.7**	**+0.1**		
DKL				AML	AML				
KIRA	**zmir-Kiraz**	**1.21**	**74**	P	**Pn**	**12 45 57.5**	**0.0**		
KIRA				S	**Sb**	**12 46 12.2**	**-1.0**		
KIRA				IAML		12 46 17.0			
	comp=N,87nm,0.3s								
KIRA				IAML		12 46 17.0			
	comp=E,66nm,0.3s								
AKHS	**Akhisar**	**1.22**	**35**	P	**Pg**	**12 45 57.6**	**-0.5**		
AKHS				S	**Sn**	**12 46 13.8**	**-0.2**		
AKHS				IAML		12 46 15.0			
	comp=N,229nm,0.4s								
AKS	**Akhisar**	**1.22**	**35**	Pn	**Pg**	**12 45 57.9**	**-0.2**		
AKS				AML	AML				
DAT	**Datca**	**1.26**	**155**	P	**Pn**	**12 45 57.4**	**-0.9**		
DAT				AML	AML				
DAT	**Datca**	**1.26**	**155**	Pn	**Pb**	**12 45 58.7**	**+0.1**		
DAT				AML	AML				
DATC	**Datca-Mugla**	**1.27**	**152**	Pn	**Pb**	**12 45 58.7**	**+0.2**		
DATC				AML	AML				
YAZI	**Mula-Dat§a-**	**1.27**	**160**	P	**Pn**	**12 45 58.5**	**+0.1**		
YAZI				S	**Sn**	**12 46 16.4**	**+1.2**		
YAZI				IAML		12 46 21.0			
	comp=E,48nm,0.4s								
SOMA	**Soma-Manisa**	**1.36**	**20**	Pn	**Pb**	**12 46 00.1**	**0.0**		
SOMA				AML	AML				
APE	**Apeiranthos**	**1.38**	**234**	P	**Pn**	**12 45 58.5**	**-1.3**		
APE				AML	AML				
APE	**Apeiranthos**	**1.38**	**234**	Pn	**Pn**	**12 46 00.3**	**+0.5**		
APE				AML	AML				
GORD	**Gordes-Manisa**	**1.42**	**43**	Pn	**Pb**	**12 46 00.9**	**-0.3**		
GORD				AML	AML				
KULA	**Kula-Manisa**	**1.51**	**65**	Pn	**Pb**	**12 46 02.6**	**-0.1**		
KULA				AML	AML				
TURN	**Turunc**	**1.53**	**136**	P	**Pn**	**12 46 01.4**	**-0.4**		
TURN				S	**Sn**	**12 46 19.4**	**-2.2**		
TURN				IAML		12 46 29.0			
	comp=N,26nm,0.5s								
BUHA	**Balikesir, Bur**	**1.62**	**4**	P	**Pg**	**12 46 05.7**	**-0.2**		
BUHA				S	**Sg**	**12 46 26.8**	**-0.1**		
BUHA				IAML		12 46 30.0			
	comp=N,116nm,0.6s								
BUHA				IAML		12 46 30.0			
	comp=E,133nm,0.4s								
YAYO	**Edremit-Balk**	**1.73**	**4**	Pn	**Pn**	**12 46 05.4**	**+0.8**		
YAYO				AML	AML				
DALY	**Dalyan (Mula)**	**1.74**	**127**	Pn	**Pb**	**12 46 05.9**	**-0.7**		
DALY				AML	AML				
BAYC	**CANAKKALE_Bayr**	**1.88**	**351**	P	**Pn**	**12 46 07.2**	**+0.5**		
BAYC				S	**Sg**	**12 46 35.1**	**0.0**		
BAYC				IAML		12 46 38.0			
	comp=E,36nm,0.6s								
BAYC				IAML		12 46 43.0			
	comp=N,25nm,0.5s								
THERA	**Ancient Thera,**	**1.91**	**218**	P	**Pn**	**12 46 06.5**	**-0.6**		
BALB	**Balikesir**	**1.91**	**23**	Pn	**Pn**	**12 46 07.7**	**+0.6**		
BALB				AML	AML				
ARG	**Arkhangelos**	**1.92**	**150**	Pn	**Pn**	**12 46 08.1**	**+0.8**		
ARG				AML	AML				
APMY	**Acipayam-Deniz**	**1.93**	**102**	Pn	**Pn**	**12 46 08.4**	**+0.9**		
APMY				AML	AML				
CAME	**Cameli-Denizli**	**2.11**	**116**	Pn	**Pn**	**12 46 11.3**	**+1.3**		
FETY	**Fethiye**	**2.12**	**125**	Pn	**Pn**	**12 46 11.3**	**+1.2**		

*IDC **30** 12:48:12.1±2.0,5.˚88S×129.˚93E, h0km, mb3.5/1, mbtmp3.8/4, ML4.0/3, Error ellipse: s-maj=51.4km s-min=22.0km az=87.0*

ISC 30 12:48:18.9±1.0,**6.70S**±0.˚07×**130.˚7E**±0.˚1,**h90**km,**n11**, σ3°**08/13**,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**2.29**	**341**	P	**Pn**	**12 48 57.1**	**+2.1**
FAKI	**Fak Fak**	**4.08**	**23**	P	**Pn**	**12 49 18.9**	**-0.1**
DRS	**Darwin Rock St**	**5.70**	**178**	P	Pn	12 49 49.3	+8.2
SANI	**Sanana**	**6.56**	**315**	P	**Pn**	**12 49 53.2**	**+0.4**
FITZ	**Fitzroy Crossi**	**12.34**	**203**	Pn	**Pn**	**12 51 13.0**	**+1.6**
	1.0nm,0.3s,baz=28,slow=11,SNR=60						
FITZ				Sn	**Sn**	**12 53 25.1**	**-2.1**
	0.7nm,0.3s,baz=30,slow=20,SNR=5.2						
	2.4nm,0.3s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**12.34**	**203**	P	**P**	**12 51 16.0**	**-3.9**
WRAB	**Tennant Creek**	**13.63**	**165**	P	**P**	**12 51 32.7**	**-1.5**
WRA	**Warramunga Arr**	**13.64**	**165**	Pn	**P**	**12 51 32.4**	**-1.9**
	0.5nm,0.3s,baz=338,slow=13,SNR=34						
WRA				Sn	**Sn**	**12 53 59.2**	**+0.5**
	0.8nm,0.3s,baz=341,slow=22,SNR=7.7						
	0.4nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.15**	**170**	Pn	**P**	**12 52 19.6**	**+6.3**
	0.4nm,0.3s,baz=341,slow=9.8,SNR=33						
ASAR				Sn	**Sn**	**12 55 22.8**	**-0.8**
	0.2nm,0.3s,baz=351,slow=28,SNR=5.7						
	1.3nm,0.6s						
ASAR				AML	AML		
AS01	**Alice Springs**	**17.16**	**170**	P	**P**	**12 52 17.4**	**+4.0**
MKAR	**Makanchi Array**	**68.34**	**326**	P	**P**	**12 59 08.3**	**-2.3**
	0.2nm,0.4s,baz=120,slow=5.7,SNR=3.0						
	0.2nm,0.4s						

*SSNC **30** 12:53:22.1±1.7,17.˚89N×70.˚95W, h7km±18km, MD3.6, ML3.2, Presumed earthquake*
*SDD **30** 12:53:25.9±2.2,18.˚02N×71.˚58W, h15km±15km, MD2.7, ML3.3, MW3.3, Presumed earthquake*
*OSPL **30** 12:53:29.1±1.5,18.˚20N×71.˚43W, h5km±4km, ML3.3, Presumed earthquake*

ISC 30 12:53:26.4±1.3,**18.11N**±0.˚04×**71.51W**±0.˚03,**h7**km±10km, **n31**, σ1°**82/43**,**1C-2D**,**Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.22**	**75**	*e*P	**Pg**	**12 53 31.6**	**+0.7**
PODR				IAML		12 53 37.2	
	comp=N,32µm,0.1s						
PODR	**Polo**	**0.22**	**75**	*i* P	**Pg**	**12 53 31.4**	**+0.5**
PODR				*e*S	**Sg**	**12 53 34.5**	**+0.5**
PODR				IAML		12 53 37.4	
	comp=Z,208µm,0.1s						
LODU1	**El Espartillar**	**0.25**	**8**	*i* P	**Pg**	**12 53 31.1**	**-0.1**
LODU1				*e*S	**Sg**	**12 53 34.1**	**-0.5**
LODU1				IAML		12 53 34.6	
	comp=Z,34µm,0.4s						
LOBH	**Bahia de las A**	**0.27**	**207**	*i* P	Pb	12 53 36.4	+2.7
LOBH				IAML		12 53 47.1	
	comp=Z,4µm,0.6s						
LOVI	**El Cajuil, Ovi**	**0.34**	**156**	*i* P	**Pn**	**12 53 36.5**	**-1.2**
LOVI				IAML		12 53 51.5	
	comp=Z,4µm,0.4s						
NEDR	**Neiba UASD**	**0.38**	**13**	*e*P	**Pg**	**12 53 34.2**	**+0.3**
NEDR				IAML		12 53 41.2	
	comp=N,14µm,0.2s						
LONE3	**El Aguacate, B**	**0.50**	**5**	*i* P	**Pg**	**12 53 36.2**	**+0.2**
LONE3				*e*S	**Sg**	**12 53 42.7**	**+0.2**
LONE3				IAML		12 53 44.9	
	comp=Z,2µm,0.3s						
JIDR	**Jimani**	**0.50**	**320**	*e*Pg	**Pb**	**12 53 37.8**	**+0.2**
JIDR				IAML		12 53 49.0	
	comp=N,3µm,0.5s						
SDDR	**Presa de Saban**	**0.90**	**13**	*i* P	**Pb**	**12 53 42.4**	**-1.9**
SDDR				*i* S	**Sb**	**12 53 55.8**	**-0.7**
SDDR				IAML		12 54 05.1	
	comp=N,372nm,1.0s						
SDDR	**Presa de Saban**	**0.90**	**13**	*e*P	**Pb**	**12 53 42.3**	**-2.1**
SDDR				*e*S	**Sb**	**12 53 55.0**	**-1.5**
SDDR				IAML		12 54 05.8	
	comp=N,315nm,0.5s						
SDDR				IAML		12 54 05.8	
	comp=N,259nm,0.8s						
SDDR	**Presa de Saban**	**0.90**	**13**	*i* P	**Pb**	**12 53 42.5**	**-1.9**
SDDR				IAML		12 53 58.3	
	comp=Z,252nm,0.2s						
REDR	**Restauracion**	**1.06**	**6**	*e*Pg	**Pb**	**12 53 47.8**	**+0.7**
REDR				*e*Sg	**Sg**	**12 54 03.6**	**+3.1**
REDR				IAML		12 54 07.7	
	comp=N,781nm,0.2s						
ABDR	**Alto Bandera**	**1.09**	**50**	*e*Pg	**Pn**	**12 53 46.2**	**-2.3**
ABDR				*e*Sg	**Sb**	**12 54 03.8**	**+1.3**
ABDR				IAML		12 54 09.1	
	comp=N,552nm,1.1s						
LGNH	**Logne**	**1.12**	**291**	*i* P	**Pg**	**12 53 50.1**	**+2.3**
LGNH				IAML		12 54 15.7	
	comp=Z,73nm,0.4s						
BANI	**BANI**	**1.13**	**75**	*e*Pg	**Pn**	**12 53 47.6**	**-1.2**
BANI				*e*Sg	**Sb**	**12 54 03.6**	**+0.3**
BANI				IAML		12 54 07.8	
	comp=N,1µm,0.3s						
MADR	**Mao Valverde**	**1.50**	**15**	*e*Pg	**Pn**	**12 53 53.7**	**-0.1**
MADR				IAML		12 54 16.4	
	comp=N,544nm,0.7s						
SC01	**Santiago de lo**	**1.51**	**29**	*e*Pg	**Pn**	**12 53 52.9**	**-1.0**
SC01				IAML		12 54 23.9	
	comp=N,223nm,0.5s						
SDD	**Santo Domingo**	**1.56**	**77**	*e*Pg	**Pn**	**12 53 53.8**	**-0.8**
SDD				IAML		12 54 18.1	
	comp=N,91nm,0.4s						
LOPP1	**Punta Rusia, P**	**1.76**	**10**	*i* P	**Pn**	**12 53 57.9**	**+0.5**
LOPP1				IAML		12 54 27.7	
	comp=Z,245nm,0.4s						
MCDR	**Montecristi**	**1.78**	**355**	*e*Pg	**Pn**	**12 53 57.8**	**+0.2**
MCDR				IAML		12 54 27.9	
	comp=N,162nm,0.6s						
LUDR	**Luperon**	**1.85**	**16**	*e*Pg	**Pb**	**12 54 00.1**	**-0.6**
SODR	**Sosua Marina B**	**1.86**	**28**	*e*Pg	**Pb**	**12 54 00.9**	**+0.2**
SODR				IAML		12 54 32.1	
	comp=N,280nm,0.7s						
SMDR	**Samana, DR**	**2.49**	**61**	*e*Pg	**Pb**	**12 54 10.8**	**-0.8**
SMDR				IAML		12 54 53.1	
	comp=N,91nm,0.8s						
HIDR	**Higuey Centro**	**2.69**	**79**	*e*Pg	**Pn**	**12 54 12.4**	**+2.2**
QMBU	**Quimbuelo**	**3.75**	**304**	IAML		12 55 43.1	
	comp=N,18nm,2.6s						
QMBU	**Quimbuelo**	**3.75**	**304**	*e*P	**Pn**	**12 54 25.5**	**+0.7**
QMBU				*e*S	**Sb**	**12 55 14.4**	**-4.4**
QMBU				IAML		12 55 26.2	
	comp=E,13nm,1.0s						
GTBY	**Guantanamo Bay**	**3.86**	**299**	*e*P	**Pn**	**12 54 28.4**	**+2.1**
GTBY				*e*S	**Sb**	**12 55 22.0**	**+0.2**
GTBY				IAML		12 55 27.5	
	comp=E,18nm,0.6s						
GTBY				*e*Sg	**Sg**	**12 55 27.6**	**-2.8**
GTBY				IAML		12 55 35.6	
	comp=E,22nm,1.4s						
NMDO	**Nuevo Mundo**	**4.09**	**307**	*e*P	**Pn**	**12 54 30.4**	**+1.1**
NMDO				*e*S	**Sn**	**12 55 20.4**	**+2.9**
NMDO				IAML		12 55 51.4	
	comp=N,9.6nm,1.0s						
NMDO				IAML		12 56 03.0	
	comp=E,11nm,0.9s						
SABCS	**La Quijada**	**4.24**	**303**	*e*P	**Pn**	**12 54 32.5**	**+1.0**
SABCS				*e*S	**Sb**	**12 55 30.2**	**-2.6**
RCC	**Rio Carpintero**	**4.38**	**296**	*e*P	**Pn**	**12 54 34.8**	**+1.4**
RCC				*e*S	**Sb**	**12 55 31.6**	**-5.3**
PINC	**Pinares de May**	**4.69**	**301**	*e*P	**Pn**	**12 54 38.3**	**+0.7**

*IDC **30** 13:03:57.9±1.1,6.˚06S×128.˚55E, h304km±12km, mb3.2/8, mbtmp4.3/14, Error ellipse: s-maj=13.5km s-min=8.5km az=86.0*
*NEIC **30** 13:03:58.8±0.7,6.˚01S±0.˚06×128.˚52E±0.˚07, h308km±6km, mb4.6/26, Error ellipse: s-maj=10.7km s-min=8.0km az=58.0*
*DJA **30** 13:03:58.2±1.3,6.˚S±8.˚×12.˚9E±.˚, h352km±21km, M4.5/5, mb3.5/1, mb3.5/1, MLv4.3/5, MLv4.5/5*

ISC 30 13:03:59.4±0.4,**6.06S**±0.˚05×**128.˚52E**±0.˚05,**h322**km,**n72**, σ1°**35/76**,**mb4.4**/19,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**2.06**	**42**	P	**Pn**	**13 04 49.0**	**+0.3**
BNDI	**Bandanaira**	**2.06**	**42**	S	**S**	**13 05 28.7**	**+0.7**
BNDI	**Bandanaira**	**2.06**	**42**	P	**Pn**	**13 04 48.9**	**+0.3**
BNDI				AML	AML		
BNDI				AML	AML		
NLAI	**Namlea**	**3.14**	**333**	P	**Pn**	**13 04 59.8**	**+1.7**
NLAI				AML	AML		
SAUI	**Saumlaki**	**3.35**	**125**	Pn	**Pn**	**13 04 58.9**	**-1.3**
SANI	**Sanana**	**4.72**	**328**	P	**Pn**	**13 05 14.5**	**-0.2**
SANI	**Sanana**	**4.72**	**328**	P	**Pn**	**13 05 14.5**	**-0.2**
SANI				AML	AML		
FAKI	**Fak Fak**	**4.86**	**50**		**Pn**	**13 05 14.6**	**-1.7**
FAKI	**Fak Fak**	**4.86**	**50**	P	**Pn**	**13 05 14.9**	**-1.4**
SOEI	**Soe**	**5.58**	**229**	P	**Pn**	**13 05 25.2**	**+0.5**
SOEI	**Soe**	**5.58**	**229**	S	**S**	**13 06 32.1**	**-1.4**
SOEI	**Soe**	**5.58**	**229**	Pn	**Pn**	**13 05 24.7**	**0.0**
SIJI	**Sorong**	**5.84**	**28**	P	**Pn**	**13 05 25.6**	**-2.1**
	43nm,0.2s,baz=252,slow=20,SNR=79						
SIJI				S	**S**	**13 06 32.2**	**-6.7**
	158nm,0.2s,baz=220,slow=20,SNR=16						
BATI	**Baumata**	**6.33**	**229**	P	**Pn**	**13 05 33.6**	**+0.3**
	618nm,0.4s,baz=36,slow=2.4,SNR=103						
BATI				S	**S**	**13 06 46.8**	**-2.4**
	243nm,0.6s,baz=46,slow=18,SNR=13						
DRS	**Darwin Rock St**	**6.75**	**160**	P	**Pn**	**13 05 38.5**	**+0.3**
MTN	**Manton Dam**	**7.21**	**159**		**Pn**	**13 05 43.3**	**-0.5**
KNRA	**Kununurra**	**9.56**	**179**		**Pn**	**13 06 12.0**	**-0.1**
TOLI2	**Tolitoli**	**10.51**	**312**	P	**P**	**13 06 25.1**	**-0.8**
FITZ	**Fitzroy Crossi**	**12.29**	**193**	P	**Pn**	**13 06 44.2**	**-0.9**
	25nm,0.6s,baz=14,slow=14,SNR=181						
FITZ				S	**S**	**13 09 01.5**	**-0.2**
	3.9nm,0.3s,baz=5.3,slow=17,SNR=2.0						
FITZ	**Fitzroy Crossi**	**12.29**	**193**	P	**Pn**	**13 06 44.4**	**-0.7**
FITZ	**Fitzroy Crossi**	**12.29**	**193**		**Pn**	**13 06 44.3**	**-0.7**
JAY	**Jayapura**	**12.65**	**74**	P	**Pn**	**13 06 48.8**	**-0.8**
	16nm,0.7s,baz=232,slow=12,SNR=9.1						
JAGI	**Jajag, Banyuwa**	**14.45**	**260**		**P**	**13 07 09.9**	**+0.5**
WB0	**Warramunga Arr**	**14.77**	**158**		**P**	**13 07 13.2**	**+0.2**
WRAB	**Tennant Creek**	**14.91**	**158**	P	**P**	**13 07 14.6**	**+0.2**
WRAB	**Tennant Creek**	**14.91**	**158**	P	**P**	**13 07 14.7**	**+0.3**
WRA	**Warramunga Arr**	**14.91**	**158**	P	**P**	**13 07 14.5**	**0.0**
	16nm,0.5s,baz=338,slow=13,SNR=200						
WRA				S	**S**	**13 09 52.0**	**-4.4**
	9.9nm,0.8s,baz=337,slow=21,SNR=12						
WR8	**Warramunga Arr**	**14.98**	**158**		**P**	**13 07 15.4**	**+0.1**
MBWA	**Marble Bar**	**17.25**	**209**	P	**P**	**13 07 39.9**	**0.0**
MBWA				IAmb	IAmb	13 07 53.0	
	comp=Z,28nm,1.2s						
AS31	**Alice Springs**	**18.25**	**164**		**P**	**13 07 51.1**	**+0.5**
AS31				IAmb	IAmb	13 07 52.5	
	comp=Z,12nm,0.6s						
ASAR	**Alice Springs**	**18.25**	**164**	P	**P**	**13 07 51.1**	**+0.4**
	comp=Z,20nm,0.5s,baz=345,slow=12,SNR=549						
ASAR				S	**S**	**13 11 00.5**	**-2.0**
	comp=Z,21nm,0.9s,baz=343,slow=20,SNR=47						
ASAR	**Alice Springs**	**18.25**	**164**		**P**	**13 07 51.2**	**+0.5**
AS01	**Alice Springs**	**18.26**	**164**	P	**P**	**13 07 51.5**	**+0.7**
AUALC	**St Philip's Co**	**18.27**	**164**	P	**P**	**13 07 51.6**	**+0.8**
PMG	**Port Moresby**	**18.77**	**101**	P	**P**	**13 07 57.0**	**+0.9**
	comp=Z,21nm,0.7s,baz=290,slow=7.3,SNR=12						
PMG	**Port Moresby**	**18.77**	**101**	P	**P**	**13 07 58.5**	**+2.3**
PMG	**Port Moresby**	**18.77**	**101**	P	**P**	**13 07 58.4**	**+2.3**
PMG	**Port Moresby**	**18.77**	**101**		**P**	**13 07 56.2**	**+0.1**
PMG				IAmb	IAmb	13 07 58.9	
	comp=Z,23nm,0.7s						
BBJI	**Bungbulang**	**20.77**	**265**	P	**P**	**13 08 16.3**	**-0.4**
GIRL	**Giralia**	**21.49**	**218**	P	**P**	**13 08 24.2**	**+1.0**
CTA	**Charters Tower**	**22.16**	**131**	P	**P**	**13 08 30.4**	**+1.0**
	comp=Z,2.5nm,0.3s,baz=316,slow=11,SNR=7.5						
	comp=Z,2.5nm,0.3s						
CTAO	**Charters Tower**	**22.16**	**131**	P	**P**	**13 08 30.2**	**+0.8**
FORT	**Forrest**	**24.59**	**181**	P	**P**	**13 08 51.5**	**+0.3**
FORT				IAmb	IAmb	13 08 52.1	
	comp=Z,20nm,1.0s						
MORW	**Morawa**	**25.74**	**206**	P	**P**	**13 09 01.6**	**0.0**
MORW				IAmb	IAmb	13 09 09.5	
	comp=Z,47nm,1.4s						
BBOO	**Buckleboo**	**27.52**	**166**	P	**P**	**13 09 17.7**	**+0.4**
BBOO				IAmb	IAmb	13 09 49.1	
	comp=Z,30nm,1.4s						
STKA	**Stephens Creek**	**28.44**	**156**	P	**P**	**13 09 25.7**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=329,slow=12,SNR=1.4						
	comp=Z,0.9nm,0.5s						
STKA	**Stephens Creek**	**28.44**	**156**	IAmb	IAmb	13 10 07.7	
	comp=Z,35nm,1.3s						
NWAO	**Narrogin (SRO)**	**28.72**	**200**	P	**P**	**13 09 27.9**	**0.0**
MGBR	**Mount Gambier**	**33.37**	**162**	P	**P**	**13 10 08.7**	**+0.3**
MGBR				IAmb	IAmb	13 10 15.5	
	comp=Z,22nm,1.5s						
CAN	**Canberra**	**34.69**	**150**	P	**P**	**13 10 20.5**	**+0.8**
CAN				IAmb	IAmb	13 10 27.3	
	comp=Z,42nm,1.5s						
CMAR	**Chiang Mai Arr**

BRJC	**Barrancabermej**	**0.64**	**280**	P		**Pn**	**13 08 19.0**	**+0.8**
BRJC				S		**Sn**	**13 08 36.1**	**+0.3**
RUSC	**La Rusia**	**0.97**	**178**	P		**Pn**	**13 08 21.4**	**+0.3**
RUSC				S		**Sn**	**13 08 40.0**	**-0.9**
RUSC	**La Rusia**	**0.97**	**178**	*eP*		**Pn**	**13 08 21.8**	**+0.7**
RUSC				*eS*		**Sn**	**13 08 37.9**	**-3.0**
CAPV	**Capacho**	**1.27**	**38**	*eP*		**Pn**	**13 08 25.6**	**+2.3**
CAPV				*eS*		**Sn**	**13 08 45.1**	**0.0**
PTBC	**PUERTO BERRIO,**	**1.38**	**256**	P		**Pn**	**13 08 23.9**	**-0.2**
PTBC				S		**Sn**	**13 08 45.0**	**-1.4**
OCAC	**Ocana**	**1.38**	**351**	P		**Pn**	**13 08 25.4**	**+1.0**
OCAC				S		**Sn**	**13 08 48.4**	**+1.5**
SPBC	**San Pablo de B**	**1.54**	**218**	P		**Pn**	**13 08 26.0**	**+0.1**
SPBC				S		**Sn**	**13 08 48.4**	**-1.1**
ZARC	**Zaragoza, Cauc**	**1.84**	**290**	P		**Pn**	**13 08 32.1**	**+3.1**
ZARC				S		**Sn**	**13 08 55.2**	**+0.1**
CHIC	**Chingaza**	**2.31**	**196**	P		**Pn**	**13 08 35.6**	**+0.8**
CHIC				S		**Sn**	**13 09 05.3**	**-0.1**
HELC	**Santa Helena**	**2.50**	**255**	P		**Pn**	**13 08 40.2**	**+3.2**
HELC	**Santa Helena**	**2.50**	**255**	*eP*		**Pn**	**13 08 37.5**	**+0.5**
HELC				*eS*		**Sn**	**13 09 03.9**	**-5.3**
UREC	**San Jos de Ur**	**2.56**	**290**	P		**Pn**	**13 08 37.6**	**+0.2**
UREC				S		**Sn**	**13 09 08.7**	**-1.4**
GUY2C	**Guyana, Caldas**	**2.77**	**234**	P		**Pn**	**13 08 43.7**	**+3.2**
GUY2C				S		**Sn**	**13 09 17.3**	**+1.8**
PTGC	**Puerto Gaitan,**	**2.82**	**160**	P		**Pn**	**13 08 40.4**	**-0.3**
PTGC				S		**Sn**	**13 09 13.7**	**-2.3**
PRAC	**Prado**	**3.59**	**210**	P		**Pn**	**13 08 51.2**	**+0.7**
PRAC				S		**Sn**	**13 09 33.1**	**-0.4**
ORTC	**Ortega, Tolima**	**3.63**	**216**	P		**Pn**	**13 08 52.2**	**+1.3**
ORTC				S		**Sn**	**13 09 34.8**	**+0.6**
SJCC	**San Jacinto, C**	**3.64**	**326**	*eP*		**Pn**	**13 08 51.3**	**+0.2**
SJCC				*eS*		**Sn**	**13 09 28.6**	**-6.0**
URMC	**La Uribe, Meta**	**3.81**	**199**	P		**Pn**	**13 08 54.4**	**+1.1**
URMC				S		**Sn**	**13 09 38.4**	**-0.1**

*IDC **30** 13:23:04.4±1.4, 34°.04N×139°.73E, h0km, mb3.3/3, mbtmp3.3/4, ML2.6/1, MS2.5/1, Error ellipse: s-maj=49.5km s-min=17.8km az=75.0*

*NIED **30** 13:23:06.0, 34°.08N×139°.39E, h12km, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁴Nm; Mrr-0.83; Mθθ2.51; Mφφ-1.68; Mrθ-0.85; Mθφ-2.54; Mφr-1.58; Fault plane solution: Mo3.81000×10¹⁴ NP1: φs336.00000°, δ68.00000°, λ-21.00000°. NP2:φs74.00000°, δ70.00000°, λ-157.00000°.*

*JMA **30** 13:23:06.0±0.1, 34°.1N±0°.3×139°.4E±0°.3, h12km, MV3.3/36, NEAR MIYAKEJIMA ISLAND*

JMA Felt I J1 at NEAR MIYAKEJIMA ISLAND .

ISC 30 13:23:06.0±0.9, 34°.10N±0°.05×139°.41E±0°.06, h13km±6km, n17, σ0s85/22, mb3.3/3, 2D, Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
JMYK	**Miyake Tsubota**	**0.12**	**107**	P		**Pg**	**13 23 09.3**	**+0.1**
JMYK				*eS*		**Sg**	**13 23 11.2**	**-0.3**
JKO	**Kozu shima**	**0.24**	**292**	⇓P		**Pg**	**13 23 10.9**	**-0.3**
JKO				⇓S		**Sg**	**13 23 15.1**	**+0.5**
JMKN	**Mikurajimanish**	**0.25**	**143**	P		**Pb**	**13 23 11.6**	**-0.8**
JMKN				S		**Sb**	**13 23 16.0**	**-0.7**
JNIO	**Niijimaoohara**	**0.28**	**337**	P		**Pg**	**13 23 11.9**	**+0.1**
JNIO				S		**Sb**	**13 23 16.6**	**-0.9**
JSKK	**Shikinejimakit**	**0.29**	**325**	P		**Pg**	**13 23 11.9**	**0.0**
JSKK				*eS*		**Sg**	**13 23 16.6**	**+0.7**
JTHY	**Toshimahigashi**	**0.44**	**347**	P		**Pb**	**13 23 15.1**	**-0.5**
JTHY				*eS*		**Sb**	**13 23 22.2**	**+0.2**
JIM2	**Oshima 3**	**0.62**	**2**	P		**Pb**	**13 23 18.1**	**-0.6**
JIZS	**Izushimoda**	**0.76**	**325**	P		**Pg**	**13 23 19.9**	**-0.9**
JIZS				*eS*		**Sg**	**13 23 30.3**	**-0.4**
KTJ3	**Kamata3**	**0.88**	**342**	P		**Pb**	**13 23 21.9**	**-1.2**
KTJ3				*eS*		**Sb**	**13 23 34.0**	**-0.8**
MJAR	**Matsushiro Arr**	**2.63**	**338**	Pn		**Pn**	**13 23 50.0**	**+1.9**
	1.1nm,0.3s,baz=153,slow=14,SNR=76							
MJAR				Sn		**Sb**	**13 24 24.6**	**-0.6**
	0.7nm,0.3s,baz=145,slow=28,SNR=9.6							
	29nm,0.6s							
MJAR				AML	AML			
KSRS	**Korea Array**	**9.91**	**293**	LR		LR	13 29 27.6	
	comp=Z,23nm,18.8s,baz=75,slow=38							
H11N2	**WAKE ISLAND Hy**	**28.27**	**113**	T		T	13 57 54.1	
	baz=306							
H11N1	**WAKE ISLAND Hy**	**28.28**	**113**	T		T	13 57 54.0	
	baz=306,SNR=4.0							
H11N3	**WAKE ISLAND Hy**	**28.29**	**113**	T		T	13 57 56.3	
	baz=306							
ILAR	**Eielson Array**	**52.85**	**31**	P		**P**	**13 32 20.8**	**-0.1**
	0.2nm,0.6s,baz=270,slow=7.5,SNR=1.9							
	0.2nm,0.6s							
WRA	**Warramunga Arr**	**53.95**	**186**	P		**P**	**13 32 28.7**	**-0.8**
	0.3nm,0.9s,baz=3.9,slow=7.5,SNR=1.7							
	0.3nm,0.9s							
ASAR	**Alice Springs**	**57.68**	**186**	P		**P**	**13 32 57.6**	**+1.4**
	0.5nm,0.9s,baz=11,slow=15,SNR=1.9							
	0.5nm,0.9s							

*IDC **30** 13:40:21.4±0.8, 15°.46S×167°.83E, h0km, mb4.0/8, mbtmp4.0/10, ML4.6/2, MS3.4/21, Error ellipse: s-maj=21.2km s-min=15.9km az=110.0*

*NOU **30** 13:40:22.6, 15°.65S×168°.14E, h4km, MLv4.8/16, Vanuatu Islands*

*NEIC **30** 13:40:27.8±1.3, 15°.65S±0°.06×167°.79E±0°.06, h44km±8km, mb4.7/17, Error ellipse: s-maj=11.8km s-min=4.1km az=220.0*

ISC 30 13:40:26.8±0.5, 15°.65S±0°.06×167°.87E±0°.07, h35km, n59, σ1s29/45, mb4.3/16, MS3.4/17, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.67**	**287**	P		**Pn**	**13 40 39.5**	**-0.3**
SANVU	**Saraoutou**	**0.67**	**287**			**Pn**	**13 40 39.4**	**-0.4**
SANVU				Sn		**Sn**	**13 40 48.6**	**-0.4**
DVP	**Devils Point**	**2.09**	**172**	P		**Pn**	**13 40 59.4**	**+0.1**
RTV	**Rentapao**	**2.20**	**166**	P		**Pn**	**13 40 58.3**	**-2.5**
MARNC	**Mare, Loyalty**	**5.80**	**178**	P		**Pn**	**13 41 49.3**	**-1.1**
MARNC	**Mare, Loyalty**	**5.80**	**178**	Pn		**Pn**	**13 41 49.5**	**-0.9**
KOUNC	**Koumac, New Ca**	**5.95**	**214**	P		**Pn**	**13 41 53.7**	**+1.3**
KOUNC	**Koumac, New Ca**	**5.95**	**214**			**Pn**	**13 41 52.7**	**+0.4**
YATNC	**Mamie plateau,**	**6.44**	**188**	P		**Pn**	**13 41 58.1**	**-1.1**
DZM	**Mont Dzumac**	**6.53**	**192**	Pn		**Pn**	**13 42 00.9**	**+0.4**
	6.1nm,0.3s,baz=37,slow=20,SNR=78							
DZM				Sn		**Sn**	**13 43 13.6**	**-0.3**
	5.1nm,0.3s,baz=322,slow=19,SNR=3.3							
DZM				LR		LR	13 43 27.6	
	comp=Z,47nm,19.2s,baz=30,slow=28							
	25nm,0.4s							
DZM				AML	AML			
NOUC	**Port Laguerre**	**6.59**	**193**	P		**Pn**	**13 42 01.7**	**+0.5**
OUENC	**Ouen Island, N**	**6.80**	**188**			**Pn**	**13 42 04.4**	**+0.3**
PINNC	**Pines Island,**	**6.94**	**183**	P		**Pn**	**13 42 05.5**	**-0.5**
PINNC	**Pines Island,**	**6.94**	**183**			**Pn**	**13 42 06.3**	**+0.3**
NGOA	**Tingoa Renbel**	**8.61**	**297**	P		**Pn**	**13 42 31.6**	**+2.6**
HNR	**Honiara**	**9.89**	**308**	LR		LR	13 46 06.6	
	comp=Z,131nm,20.7s,baz=296,slow=35							
MSVF	**Nonsavu**	**9.98**	**103**	Pn		**Pn**	**13 42 51.2**	**+3.4**
	0.3nm,0.3s,baz=270,slow=10,SNR=7.7							
MSVF				LR		LR	13 45 36.9	
	comp=Z,194nm,18.9s,baz=298,slow=31							
	15nm,0.9s							
MSVF				AML	AML			
MSVF	**Nonsavu**	**9.98**	**103**			**Pn**	**13 42 50.7**	**+2.9**
TATA	**Tatamba Isabel**	**10.69**	**312**	P		**Pn**	**13 43 00.6**	**+3.1**
RABL	**Rabaul**	**19.18**	**305**	P		**P**	**13 44 45.8**	**-1.9**
AFI	**Afiamalu**	**19.76**	**88**	LR		LR	13 50 30.9	
	comp=Z,62nm,21.4s,baz=172,slow=31							
CTA	**Charters Tower**	**21.03**	**255**	LR		LR	13 52 12.2	
	comp=Z,60nm,18.4s,baz=58,slow=34							
URZ	**Urewera**	**23.95**	**162**	LR		LR	13 53 24.6	
	comp=Z,108nm,18.6s,baz=350,slow=32							
CAN	**Canberra**	**25.87**	**217**	P		**P**	**13 45 53.8**	**-1.6**
CAN				IAmb		IAmb	13 46 08.5	
	comp=Z,12nm,1.2s							
GVZ	**Greta Valley S**	**27.59**	**172**	P		**P**	**13 46 11.2**	**+0.5**
RPZ	**Rata Peaks**	**28.11**	**175**	LR		LR	13 56 15.3	
	comp=Z,22nm,18.7s,baz=222,slow=34							
WB0	**Warramunga Arr**	**32.12**	**258**	P		**P**	**13 46 50.4**	**-0.8**
WB0				IAmb		IAmb	13 47 06.4	
	comp=Z,5.9nm,1.1s							
WRA	**Warramunga Arr**	**32.17**	**257**	P		**P**	**13 46 51.6**	**0.0**
	comp=Z,0.7nm,0.8s,baz=84,slow=9.1,SNR=6.3							
	comp=Z,0.7nm,0.8s							
AS31	**Alice Springs**	**32.90**	**251**	P		**P**	**13 46 56.5**	**-1.4**
ASAR	**Alice Springs**	**32.90**	**251**	P		**P**	**13 46 58.0**	**0.0**
	comp=Z,1.6nm,0.8s,baz=82,slow=8.9,SNR=23							
ASAR				LR		LR	13 59 39.2	
	comp=Z,112nm,18.0s,baz=90,slow=35							
	comp=Z,1.6nm,0.8s							
ASAR	**Alice Springs**	**32.90**	**251**	P		**P**	**13 46 56.9**	**-1.0**
BBOO	**Buckleboo**	**33.48**	**234**	P		**P**	**13 47 02.7**	**-0.3**
GUMO	**Guam**	**36.89**	**321**	LR		LR	14 03 45.7	
	comp=Z,33nm,19.3s,baz=136,slow=38							
FITZ	**Fitzroy Crossi**	**40.42**	**260**	LR		LR	14 04 15.7	
	comp=Z,122nm,18.2s,baz=120,slow=36							
BATI	**Baumata**	**43.36**	**272**	LR		LR	14 05 23.8	
	comp=Z,74nm,18.4s,baz=148,slow=35							
KAPI	**Kappang**	**48.39**	**277**	LR		LR	14 07 28.7	
	comp=Z,20nm,21.5s,baz=136,slow=34							
HON	**Honolulu**	**49.72**	**43**	P		**P**	**13 49 15.1**	**-0.6**
JYT	**Yasato**	**57.85**	**334**	P		**P**	**13 50 14.6**	**-0.4**
MJAR	**Matsushiro Arr**	**58.98**	**332**	LR		LR	14 12 21.8	
	comp=Z,31nm,21.8s,baz=40,slow=33							
VNDA	**Vanda**	**61.96**	**181**	LR		LR	14 13 54.1	
	comp=Z,22nm,20.8s,baz=342,slow=32							
ASAJ	**Asahikawa**	**63.80**	**340**	LR		LR	14 14 06.0	
	comp=Z,54nm,21.1s,baz=80,slow=32							
SHEM	**Shemya Is, Ala**	**68.31**	**4**	LR		LR	14 14 35.2	
	comp=Z,45nm,20.0s,baz=107,slow=30							
PETK	**Petropavlovsk-**	**69.03**	**353**	P		**P**	**13 51 27.1**	**-1.6**
	comp=Z,1.7nm,0.8s,baz=191,slow=7.0,SNR=2.2							
PETK				LR		LR	14 14 08.0	
	comp=Z,40nm,21.1s,baz=115,slow=29							
	comp=Z,1.7nm,0.8s							
KLR	**Kul'dur**	**72.08**	**336**	LR		LR	14 22 03.5	
	comp=Z,21nm,19.2s,baz=44,slow=35							
QSPA	**South Pole Qui**	**74.38**	**180**	P		**P**	**13 52 01.4**	**+0.4**
	comp=Z,1.7nm,0.8s,baz=26,slow=0.7,SNR=7.4							
QSPA				LR		LR	14 20 00.6	
	comp=Z,30nm,21.3s,baz=32,slow=32							
	comp=Z,1.7nm,0.8s							
QSPA	**South Pole Qui**	**74.38**	**180**	P		**P**	**13 52 01.6**	**+0.6**
QSPA				IAmb		IAmb	13 52 41.7	
	comp=Z,5.8nm,1.3s							
MA2	**Magadan**	**76.24**	**351**	LR		LR	14 20 29.0	
	comp=Z,22nm,21.9s,baz=127,slow=32							
MA2	**Magadan**	**76.24**	**351**	P		**P**	**13 52 10.6**	**-0.7**
KDAK	**Kodiak Island**	**80.12**	**20**	LR		LR	14 23 11.9	
	comp=Z,93nm,18.9s,baz=236,slow=32							
ILSW	**Iliamna Southw**	**81.68**	**19**	P		**P**	**13 52 42.3**	**+1.0**
ILSW				IAmb		IAmb	13 52 44.5	
	comp=Z,20nm,1.3s							
SONM	**Songino Array**	**83.57**	**323**	P		**P**	**13 52 52.0**	**+0.5**
	comp=Z,1.1nm,0.9s,baz=123,slow=5.3,SNR=4.3							
	comp=Z,1.1nm,0.9s							
RC01	**Rabbit Creek A**	**83.60**	**19**	P		**P**	**13 52 51.6**	**+0.4**
RC01				IAmb		IAmb	13 53 09.8	
	comp=Z,18nm,1.4s							
KNK	**Knik Glacier**	**84.25**	**20**	P		**P**	**13 52 54.9**	**+0.4**
KNK				IAmb		IAmb	13 53 33.6	
	comp=Z,16nm,1.4s							
ELS	**Elsinore Mount**	**86.32**	**54**	P		**P**	**13 53 05.0**	**-0.6**
ELS				IAmb		IAmb	13 53 05.5	
	comp=Z,2.0nm,0.6s							
WRH	**Wood River Hil**	**86.65**	**18**	P		**P**	**13 53 06.8**	**+0.5**
WRH				IAmb		IAmb	13 53 23.9	
	comp=Z,7.8nm,1.3s							
ILAR	**Eielson Array**	**87.22**	**18**	P		**P**	**13 53 08.3**	**-0.9**
	comp=Z,0.7nm,0.7s,baz=233,slow=5.5,SNR=8.0							
	comp=Z,0.7nm,0.7s							
D19K	**Kuna River**	**87.41**	**12**	P		**P**	**13 53 10.2**	**+0.2**
D19K				IAmb		IAmb	13 53 35.0	
	comp=Z,11nm,1.4s							
NVAR	**Mina Array Bea**	**87.43**	**49**	P		**P**	**13 53 10.2**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=237,slow=5.6,SNR=4.0							
	comp=Z,0.1nm,0.3s							
YKA	**Yellowknife Ar**	**98.09**	**27**	P		**P**	**13 53 57.9**	**-1.5**
	comp=Z,0.6nm,0.8s,baz=253,slow=4.6,SNR=7.1							
	comp=Z,0.6nm,0.8s							

*TIR **30** 13:45:26.9, 39°.98N×19°.84E, h30km±1km, ML2.6, ML2.6, Presumed earthquake*

*ATH **30** 13:45:29.1, 40°.11N×19°.92E, h6km±1km, ML2.4/9, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 30 13:45:28.0±1.1, 40°.06N±0°.03×19°.87E±0°.03, h19km±4km, n31, σ0s77/39, Albania

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
SRN	**Sarande**	**0.21**	**151**	P		**Pg**	**13 45 32.9**	**-0.3**
SRN				S		**Sg**	**13 45 37.6**	**+0.9**
SRN				IAML			13 45 39.1	
	2μm,0.2s							
KEK	**Kerkira**	**0.35**	**189**	P		**Pg**	**13 45 33.8**	**-1.8**
KEK				S		**Sg**	**13 45 39.7**	**-0.9**
VLO	**Vlora**	**0.50**	**325**	P		**Pg**	**13 45 37.5**	**-0.6**
VLO				S		**Sg**	**13 45 45.0**	**+0.1**
VLO				IAML			13 45 51.5	
	929nm,0.3s							
IGT	**Igoumenitsa**	**0.64**	**146**	P		**Pn**	**13 45 41.9**	**-0.1**
IGT				S		**Sn**	**13 45 50.8**	**-0.8**
BERA	**Berati**	**0.64**	**5**	P		**Pb**	**13 45 39.3**	**-1.3**
BERA				S		**Sg**	**13 45 49.8**	**+0.3**
BERA				IAML			13 45 51.6	
	286nm,0.5s							
JAN	**Janina**	**0.86**	**118**	P		**Pn**	**13 45 45.6**	**+0.5**
JAN				S		**Sn**	**13 45 56.5**	**-0.6**
JAN				AML	AML			
KBN	**Korca**	**0.90**	**51**	P		**Pb**	**13 45 45.1**	**+0.1**
KBN				S		**Sn**	**13 45 58.4**	**+0.2**
KBN				IAML			13 45 59.6	
	71nm,0.4s							
NEST	**Nestorio**	**0.97**	**68**	P		**Pb**	**13 45 45.8**	**-0.5**
NEST	**Nestorio**	**0.97**	**68**	P		**Pn**	**13 45 46.8**	**+0.1**
NEST				AML	AML			
PENT	**Pentalofos**	**0.98**	**82**	P		**Pg**	**13 45 47.3**	**+0.2**
SCTE	**Santa Cesarea**	**1.08**	**271**	P		**Pg**	**13 45 50.7**	**+1.8**
SCTE				S		**Sg**	**13 46 04.7**	**+1.7**
SCTE				AML	AML			
PRMD	**Pramanda**	**1.08**	**119**	P		**Pg**	**13 45 50.1**	**+1.1**
PRMD				AML	AML			
KPRO	**Kipourio**	**1.15**	**95**	P		**Pg**	**13 45 50.6**	**+0.2**
KPRO				AML	AML			
TIR	**Tirane**	**1.28**	**360**	P		**Pg**	**13 45 52.5**	**-0.3**
TETR	**Tetrakomo, Epi**	**1.30**	**123**	P		**Pg**	**13 45 53.4**	**+0.3**
TETR				AML	AML			
TSLK	**Tsoukalades, L**	**1.38**	**154**	P		**Pg**	**13 45 55.1**	**+0.5**
LKD2	**Lefkada island**	**1.41**	**154**	P		**Pg**	**13 45 55.8**	**+0.6**
LKD2				AML	AML			
DRAG	**Dragano-Lefkad**	**1.48**	**158**	P		**Pg**	**13 45 56.0**	**-0.6**
AMPL	**Ampelaki**	**1.54**	**137**	P		**Pg**	**13 45 57.0**	**-0.8**
AMPL				AML	AML			
EVGI	**Lefkada island**	**1.56**	**157**	P		**Pg**	**13 45 58.0**	**-0.1**
EVGI				AML	AML			
PHP	**Peshkopia**	**1.68**	**15**	P		**Pb**	**13 45 58.5**	**+0.2**
THL	**Klokotos Trika**	**1.72**	**106**	P		**Pb**	**13 45 59.6**	**+0.5**
PDO	**Prodromos**	**1.78**	**145**	P		**Pb**	**13 46 00.4**	**+0.3**
TYRN	**Tyrnavos**	**1.85**	**100**	P		**Pb**	**13 46 01.4**	**+0.2**
EVR	**Evrytania**	**1.89**	**127**	P		**Pb**	**13 46 02.1**	**+0.2**
PVO	**Paravola**	**1.93**	**138**	P		**Pb**	**13 46 02.7**	**+0.1**
PUK	**Puka**	**1.98**	**0**	P		**Pb**	**13 46 02.6**	**-0.9**
LIT	**Litokhoron**	**2.01**	**88**	P		**Pb**	**13 46 03.6**	**-0.4**
GRG	**Griva**	**2.13**	**64**	P		**Pb**	**13 46 05.3**	**-0.7**
ANX	**Ano Chora**	**2.16**	**132**	P		**Pb**	**13 46 05.7**	**-0.9**
AGG	**Agios Georgios**	**2.17**	**118**	P		**Pb**	**13 46 06.1**	**-0.5**

*NEIC **30** 13:46:10.2±1.2, 15°.63N±0°.05×93°.90W±0°.05, h67km±10km, mb4.2/5, Md4.3/90(MEX), Error ellipse: s-maj=9.1km s-min=5.4km az=221.0*

*MEX **30** 13:46:11.0±0.7, 15°.58N×93°.93W, h73km±9km, MD4.3, Presumed earthquake*

ISC 30 13:46:09.3±0.8, 15°.55N±0°.04×93°.94W±0°.02, h60km±12km, n78, σ1s92/142, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase	ID Op	ISC	Time h m s	Res ISC
PCIG		**0.71**	**78**			**Pn**	**13 46 24.4**	**+0.7**
PCIG						**Sn**	**13 46 35.2**	**+1.0**
PCIG		**0.71**	**78**	*eP*		**Pn**	**13 46 24.4**	**+0.7**
PCIG				*eS*		**Sn**	**13 46 35.2**	**+1.0**
TGIG		**1.45**	**33**			**Pn**	**13 46 33.2**	**-0.2**
TGIG						**Sn**	**13 46 49.5**	**-2.0**
TGIG		**1.45**	**33**	*eP*		**Pn**	**13 46 33.2**	**-0.2**
TGIG				*eS*		**Sn**	**13 46 49.5**	**-2.0**
PATR	**El Naranjo**	**1.70**	**105**			**Pn**	**13 46 37.2**	**+0.2**
PATR						**Sn**	**13 46 58.2**	**+0.2**
PATR	**El Naranjo**	**1.70**	**105**	*eP*		**Pn**	**13 46 37.2**	**+0.2**
PATR				*eS*		**Sn**	**13 46 58.2**	**+0.2**
PAVE	**Pavencul**	**1.74**	**102**			**Pn**	**13 46 38.2**	**+0.7**
PAVE						**Sn**	**13 46 59.7**	**+1.0**
PAVE	**Pavencul**	**1.74**	**102**	*eP*		**Pn**	**13 46 38.2**	**+0.7**
PAVE				*eS*		**Sn**	**13 46 59.7**	**+1.0**
THIG		**1.74**	**111**			**Pn**	**13 46 37.5**	**+0.3**
THIG						**Sn**	**13 46 58.2**	**-0.2**
THIG		**1.74**	**111**	*eP*		**Pn**	**13 46 37.5**	**+0.3**
THIG				*eS*		**Sn**	**13 46 58.2**	**-0.2**
UXUV	**UXUV**	**1.77**	**354**			**Pn**	**13 46 38.3**	**+0.7**
UXUV						**Sn**	**13 46 58.4**	**-0.7**
UXUV	**UXUV**	**1.77**	**354**	*eP*		**Pn**	**13 46 38.3**	**+0.7**
UXUV				*eS*		**Sn**	**13 46 58.4**	**-0.7**
CMIG	**Matias Romero**	**1.78**	**330**			**Pn**	**13 46 38.1**	**+0.3**
CMIG						**Sn**	**13 46 59.7**	**+0.3**
CMIG	**Matias Romero**	**1.78**	**330**	*eP*		**Pn**	**13 46 38.1**	**+0.3**
CMIG				*eS*		**Sn**	**13 46 59.7**	**+0.3**
CHUJ	**Union Juarez**	**1.83**	**104**	*eP*		**Pn**	**13 46 39.0**	**+0.3**
CHUJ				*eS*		**Sn**	**13 47 01.3**	**+0.4**
CCIG	**Comitan**	**1.88**	**67**			**Pn**	**13 46 39.3**	**-0.1**
CCIG	**Comitan**	**1.88**	**67**			**Sn**	**13 46 57.0**	**-5.2**
CCIG	**Comitan**	**1.88**	**67**	*eP*		**Pn**	**13 46 39.6**	**+0.3**
CCIG				*eS*		**Sn**	**13 46 57.0**	**-5.2**
HUIG	**Huatulco**	**2.10**	**276**			**Pn**	**13 46 42.1**	**0.0**
HUIG						**Sn**	**13 47 04.8**	**-2.4**
HUIG	**Huatulco**	**2.10**	**276**	*eP*		**Pn**	**13 46 42.1**	**0.0**
HUIG				*eS*		**Sn**	**13 47 04.8**	**-2.4**
HUEH	**Huehuetenango**	**2.36**	**95**			**Pn**	**13 46 46.3**	**+0.3**
HUEH	**Huehuetenango**	**2.36**	**95**	*eP*		**Pn**	**13 46 47.8**	**+1.8**
HUEH				*eS*		**Sn**	**13 47 13.5**	**-0.5**
RTAL	**Retalhuleu**	**2.40**	**115**			**Pn**	**13 46 47.4**	**+1.1**
RTAL	**Retalhuleu**	**2.40**	**115**	*eP*		**Pn**	**13 46 47.4**	**+1.1**
RTAL				*eS*		**Sn**	**13 47 14.8**	**+0.3**
NEUV	**Arroyo Zacate**	**2.79**	**321**			**Pn**	**13 46 52.4**	**+0.8**
NEUV						**Sn**	**13 47 24.4**	**+0.2**
NEUV	**Arroyo Zacate**	**2.79**	**321**	*eP*		**Pn**	**13 46 52.4**	**+0.8**
NEUV				*eS*		**Sn**	**13 47 24.4**	**+0.2**
OXLC	**Oaxaca**	**3.05**	**300**			**Pn**	**13 46 55.9**	**+0.5**
OXLC						**Sn**	**13 47 31.2**	**+0.5**
OXLC	**Oaxaca**	**3.05**	**300**	*eP*		**Pn**	**13 46 55.9**	**+0.5**
OXLC				*eS*		**Sn**	**13 47 31.2**	**+0.5**
OXIG	**Oaxaca**	**3.08**	**300**			**Pn**	**13 46 56.6**	**+0.8**
OXIG						**Sn**	**13 47 31.6**	**+0.1**
VHO	**Vista Hermosa**	**3.08**	**300**	*eP*		**Pn**	**13 46 56.6**	**+0.9**
VHO				*eS*		**Sn**	**13 47 31.6**	**+0.1**
PEIG	**Puerto Escondi**	**3.12**	**279**			**Pn**	**13 46 56.1**	**0.0**
PEIG						**Sn**	**13 47 28.0**	**-4.2**
PEIG	**Puerto Escondi**	**3.12**	**279**	*eP*		**Pn**	**13 46 56.1**	**0.0**
PEIG				*eS*		**Sn**	**13 47 28.0**	**-4.2**
YOIG	**Yosondua**	**3.70**	**291**			**Pn**	**13 47 06.2**	**+1.9**
YOIG						**Sn**	**13 47 47.1**	**+0.3**
YOIG	**Yosondua**	**3.70**	**291**	*eP*		**Pn**	**13 47 06.2**	**+1.9**
YOIG				*eS*		**Sn**	**13 47 47.1**	**+0.3**
TOIG	**Toxpalan**	**3.92**	**311**			**Pn**	**13 47 09.2**	**+2.1**
TOIG						**Sn**	**13 47 51.9**	**0.0**
TOIG	**Toxpalan**	**3.92**	**311**	*eP*		**Pn**	**13 47 09.2**	**+2.1**
TOIG				*eS*		**Sn**	**13 47 51.9**	**0.0**
TXIG	**Tlaxiaco**	**4.04**	**295**			**Pn**	**13 47 10.1**	**+1.1**
TXIG						**Sn**	**13 47 54.6**	**-0.7**
TXIG	**Tlaxiaco**	**4.04**	**295**	*eP*		**Pn**	**13 47 10.1**	**+1.1**
TXIG				*eS*		**Sn**	**13 47 54.6**	**-0.7**
PNIG	**Pinotepa**	**4.11**	**282**			**Pn**	**13 47 10.3**	**+0.6**
PNIG						**Sn**	**13 47 52.8**	**-3.8**
PNIG	**Pinotepa**	**4.11**	**282**	*eP*		**Pn**	**13 47 10.3**	**+0.6**
PNIG				*eS*		**Sn**	**13 47 52.8**	**-3.8**
PETF	**Flores**	**4.14**	**70**			**Pn**	**13 47 10.4**	**+0.3**

P -1.4800, Plg58.0000°, Azm323.0000°;
*AFAD **30** 13:47:04.2, 35˚.15N×36˚.92E, h1^{km}±2^{km}, MW3.9*
*GFZ **30** 13:47:04.4±0.3, 35˚N±2˚×3˚7E±˚, h10^{km}, M4.3/12, mb4.3/12, ML4.2/8, Error ellipse: s-maj=8.0km s-min=5.1km az=101.4, confirmed*
*NEIC **30** 13:47:05.1±1.1, 35˚.22N±0˚.03×36˚.91E±0˚.05, h14^{km}±3^{km}, mb4.4/24, Error ellipse: s-maj=6.6km s-min=4.4km az=115.0*
*MCSM **30** 13:47:05.1±0.6, 35˚N±4˚×3˚7E±˚, h14^{km}±4^{km}, mb4.0, mB3.9, MLv3.7, Mw(mB)2.8*
*GRAL **30** 13:47:06.7±0.3, 35˚.34N×36˚.33E, h0^{km}±2^{km}, MD4.0*
*DSN **30** 13:47:06.9±0.4, 35˚.28N×37˚.39E, h10^{km}, mb4.3/9, Error ellipse: s-maj=8.1km s-min=5.9km az=47.0*

ISC 30 13:47:04.3±0.9, 35˚25N±0˚.02×36˚84E±0˚.03, h12^{km}±6^{km}, n198, σ1^{s}50/232, mb4.3/25, MS3.0/5, Jordan-Syria region

Code	Station Name	Δ°	AZ°	Phase	Op	ID	Time	Res
							h m s	ISC
BEIL	**Beino**	**0.89**	**218**	*eP*	**Pb**		**13 47 21.2**	**-0.5**
BEIL				*eS*	**Sg**		**13 47 31.9**	**-1.1**
YAYL	**Yayladag**	**0.99**	**323**	P	**Pn**		**13 47 24.5**	**+0.3**
YAYL				S	**Sn**		**13 47 38.3**	**+0.2**
YAYL				IAML			13 47 39.0	
	comp=N,1μm,0.5s							
YAYL				IAML			13 47 41.0	
	comp=E,8μm,0.3s							
RHAN	**Hatay/Reyhanl**	**1.03**	**349**	P	**Pb**		**13 47 24.5**	**+0.4**
RHAN				S	**Sn**		**13 47 39.0**	**0.0**
RHAN				IAML			13 47 39.0	
	comp=N,1μm,0.4s							
RHAN				IAML			13 47 39.0	
	comp=E,1μm,0.8s							
HWQ	**Hawqa**	**1.22**	**218**	*eP*	**Pn**		**13 47 26.5**	**-0.8**
HWQ				*eS*	**Sb**		**13 47 41.2**	**-1.9**
TAHT	**Tahtakopru-Hat**	**1.25**	**335**	Pn	**Pn**		**13 47 27.8**	**+0.2**
TAHT				Sn	**Sb**		**13 47 44.7**	**+0.8**
TAHT				AML	AML			
HASA	**Hatay-Hassa-Ha**	**1.53**	**349**	P	**Pn**		**13 47 31.4**	**-0.1**
HASA				S	**Sb**		**13 47 53.1**	**+1.1**
HASA				IAML			13 47 54.0	
	comp=N,4μm,0.6s							
HASA				IAML			13 47 56.0	
	comp=E,5μm,0.6s							
KUZU	**Kuzuini**	**1.53**	**7**	P	**Pb**		**13 47 32.5**	**-0.3**
KUZU				IAML			13 47 53.0	
	comp=E,1μm,0.3s							
KUZU				S	**Sb**		**13 47 53.0**	**+0.8**
KUZU				IAML			13 47 54.0	
	comp=N,8μm,0.7s							
ZAHL	**Zahle**	**1.59**	**210**	*eP*	**Pn**		**13 47 33.4**	**+0.8**
BHL	**Bhannes**	**1.66**	**217**	*eP*	**Pn**		**13 47 33.8**	**+0.4**
BHL				*eS*	**Sn**		**13 47 53.9**	**-0.8**
DQRL	**Deir Qamar**	**1.86**	**215**	*eP*	**Pn**		**13 47 37.0**	**+0.8**
NZIP	**Nizip/Gaziante**	**1.92**	**20**	P	**Pn**		**13 47 36.9**	**0.0**
NZIP				S	**Sn**		**13 48 01.2**	**+0.2**
NZIP				IAML			13 48 10.0	
	comp=E,2μm,0.5s							
NZIP				IAML			13 48 10.0	
	comp=N,2μm,0.5s							
GAZ	**Gaziantep**	**1.94**	**9**		**Pn**		**13 47 38.1**	**+0.9**
GAZ	**Gaziantep**	**1.94**	**9**	Pn	**Pn**		**13 47 37.6**	**+0.3**
GAZ				AML	AML			
QRWL	**Qaraoun**	**1.95**	**210**	*eP*	**Pn**		**13 47 38.6**	**+1.3**
CEYT	**Ceyhan**	**1.97**	**334**	Pn	**Pn**		**13 47 37.9**	**+0.4**
CEYT				AML	AML			
KHMR	**Kahramanmara**	**2.09**	**1**	P	**Pb**		**13 47 40.9**	**-1.4**
KHMR				S	**Sb**		**13 48 10.0**	**+1.7**
KHMR				IAML			13 48 18.0	
	comp=N,453nm,0.5s							
KHMR				IAML			13 48 23.0	
	comp=E,678nm,0.7s							
SHBL	**Chebaa**	**2.10**	**206**	*eP*	**Pn**		**13 47 41.1**	**+1.6**
CY602	**RAF Akrotiri,**	**2.11**	**245**	Pn	**Pn**		**13 47 39.8**	**+0.5**
CY606	**RAF Akrotiri,**	**2.11**	**245**	Pn	**Pn**		**13 47 39.9**	**+0.6**
CY604	**RAF Akrotiri,**	**2.12**	**245**	Pn	**Pn**		**13 47 39.7**	**+0.3**
NATI	**Neve Ativ**	**2.18**	**205**	P	**Pn**		**13 47 42.2**	**+1.7**
NATI				S	**Sb**		**13 48 13.0**	**+2.3**
GZT	**Gaziantep**	**2.18**	**15**	P	**Pn**		**13 47 40.9**	**+0.3**
GZT				S	**Sb**		**13 48 09.7**	**-1.3**
GZT				IAML			13 48 19.0	
	comp=E,1μm,1.2s							
GZT				IAML			13 48 23.0	
	comp=N,1μm,0.5s							
EREN	**Erenkoy**	**2.20**	**278**	P	**Pn**		**13 47 41.6**	**+0.9**
EREN				S	**Sn**		**13 48 09.6**	**+1.7**
EREN				IAML			13 48 21.0	
	comp=E,406nm,0.6s							
EREN				IAML			13 48 25.0	
	comp=N,394nm,0.5s							
EREN	**Erenkoy**	**2.20**	**278**	Pn	**Pn**		**13 47 40.8**	**+0.1**
EREN				AML	AML			
GEM	**Giv'at Ha'Em**	**2.25**	**206**	P	**Pb**		**13 47 44.1**	**-0.9**
GEM	**Giv'at Ha'Em**	**2.25**	**206**	P	**Pb**		**13 47 43.5**	**-1.5**
GEM				S	**Sb**		**13 48 15.3**	**+2.5**
KMRS	**Kahramanmaras**	**2.25**	**1**	Pn	**Pn**		**13 47 41.8**	**+0.3**
KMRS				AML	AML			
KAHM	**Kahramanmaras,**	**2.27**	**3**	P	**Pb**		**13 47 44.8**	**-0.5**
KAHM				S	**Sg**		**13 48 15.4**	**-1.8**
KAHM				IAML			13 48 21.0	
	comp=E,875nm,0.4s							
KAHM				IAML			13 48 21.0	
	comp=N,704nm,0.5s							
KIRY	**Kiryat Shemona**	**2.29**	**208**	P	**Pn**		**13 47 44.0**	**+2.0**
KIRY				S	**Sb**		**13 48 15.6**	**+1.6**
ANDN	**Andirin**	**2.36**	**350**	P	**Pn**		**13 47 43.5**	**+0.4**
ANDN				S	**Sb**		**13 48 18.6**	**+2.6**
ANDN				IAML			13 48 23.0	
	comp=E,716nm,0.4s							
ANDN				IAML			13 48 27.0	
	comp=N,1μm,0.5s							
ANDN	**Andirin**	**2.36**	**350**	P	**Pn**		**13 47 43.6**	**+0.5**
ANDN				AML	AML			
KOZT	**Kozan**	**2.37**	**340**	Pn	**Pn**		**13 47 43.1**	**0.0**
KOZT				AML	AML			
KSHT	**Keshet**	**2.42**	**201**	P	**Pb**		**13 47 46.1**	**-1.7**
KSHT				S	**Sb**		**13 48 18.6**	**+1.0**
HULT	**Hulata**	**2.42**	**205**	P	**Pb**		**13 47 45.9**	**-1.8**
HULT				S	**Sb**		**13 48 20.1**	**+2.6**
AKO	**Adana**	**2.48**	**333**	P	**Pn**		**13 47 45.4**	**+0.8**
AKO				S	**Sg**		**13 48 23.3**	**-0.7**
AKO				IAML			13 48 32.0	
	comp=E,190nm,0.9s							
AKO				IAML			13 48 34.0	
	comp=N,188nm,0.7s							
ZRT	**Zar'it**	**2.50**	**211**	P	**Pn**		**13 47 46.3**	**+1.4**
ZRT				S	**Sb**		**13 48 21.4**	**+1.5**
KIZK	**Mersin**	**2.51**	**300**	P	**Pn**		**13 47 46.1**	**+1.1**
KIZK				S	**Sn**		**13 48 14.7**	**-0.9**
KIZK				IAML			13 48 27.0	
	comp=E,277nm,0.6s							
KIZK				IAML			13 48 32.0	
	comp=N,223nm,0.4s							
KIZK	**Mersin**	**2.51**	**300**	Pn	**Pn**		**13 47 45.4**	**+0.4**
KIZK				AML	AML			
MMA0B	**Mount Meron ar**	**2.53**	**209**	P	**Pn**		**13 47 47.0**	**+1.7**
MMA0B				S	**Sb**		**13 48 22.2**	**+1.4**
MMAI	**Mount Meron Ar**	**2.53**	**209**	Pn	**Pn**		**13 47 46.5**	**+1.2**
	24nm,0.3s,baz=20,slow=15,SNR=28							
MMAI				Sn		**Sb**	**13 48 21.9**	**+1.1**
	291nm,0.3s,baz=26,slow=31,SNR=7.4							
MMAI				LR	LR		13 49 08.0	
	comp=Z,36nm,19.9s,baz=343,slow=48 6.4nm,0.2s							
MMAI				AML	AML			
ZEFT	**Zefat**	**2.53**	**207**	P	**Pn**		**13 47 47.7**	**+2.3**
ZEFT				S	**Sb**		**13 48 22.7**	**+1.7**
HNTI	**Hanita**	**2.56**	**213**	P	**Pn**		**13 47 47.9**	**+2.2**
HNTI				S	**Sb**		**13 48 23.2**	**+1.4**
KNHM	**Kefar Nahum**	**2.58**	**204**	P	**Pb**		**13 47 49.0**	**-1.6**
KNHM				S	**Sb**		**13 48 24.2**	**+1.9**
RMOT	**Ramot**	**2.58**	**203**	P	**Pb**		**13 47 47.9**	**+2.0**
RMOT				S	**Sb**		**13 48 23.9**	**+1.6**
TVER	**Teveria**	**2.69**	**204**	P	**Pb**		**13 47 50.4**	**-1.9**
TVER				S	**Sb**		**13 48 27.5**	**+2.2**
URFA	**Urfa**	**2.71**	**36**	Pn	**Pn**		**13 47 48.0**	**+0.2**
URFA				AML	AML			
KARG	**Kargicak-Mersi**	**2.72**	**291**	Pn	**Pn**		**13 47 48.3**	**+0.4**
TISA	**Tisan-Mersin**	**2.73**	**290**	Pn	**Pn**		**13 47 48.7**	**+0.7**
TISA				AML	AML			
IKL	**Isikli**	**2.75**	**292**	Pn	**Pn**		**13 47 48.7**	**+0.4**
IKL				AML	AML			
YESI	**Yesilovacik-Me**	**2.77**	**291**	Pn	**Pn**		**13 47 48.8**	**+0.3**
YESI				AML	AML			
KEBE	**Keben-Mersin**	**2.81**	**296**	Pn	**Pn**		**13 47 50.0**	**+0.8**
KEBE				AML	AML			
BECE	**Buyukeceli-Mer**	**2.82**	**290**	Pn	**Pn**		**13 47 49.9**	**+0.6**
BECE				AML	AML			
AKK1	**Akkuyu-Mersin**	**2.83**	**289**	Pn	**Pn**		**13 47 50.0**	**+0.6**
AKK1				AML	AML			
CMRD	**Camardi-Nigde**	**2.83**	**329**	Pn	**Pn**		**13 47 50.1**	**+0.5**
CMRD				AML	AML			
GULN	**MERSIN_Gulnar**	**2.84**	**290**	P	**Pn**		**13 47 49.6**	**0.0**
GULN				S	**Sn**		**13 48 24.4**	**+0.7**
GULN				IAML			13 48 33.0	
	comp=N,261nm,0.4s							
GULN				IAML			13 48 34.0	
	comp=E,168nm,0.6s							
TEPK	**Tepekoy-MERSIN**	**2.85**	**291**	Pn	**Pn**		**13 47 50.4**	**+0.6**
TEPK				AML	AML			
BLGI	**Bet Lehem HaGe**	**2.86**	**209**	P	**Pn**		**13 47 52.3**	**+2.6**
CSS	**Mathiatis**	**2.89**	**265**		**Pn**		**13 47 50.1**	**-0.2**
CSS	**Mathiatis**	**2.89**	**265**	P	**Pn**		**13 47 51.0**	**+0.7**
CSS				AML	AML			
CSS	**Mathiatis**	**2.89**	**265**	P	**Pn**		**13 47 52.2**	**+1.9**
CSS				AML	AML			
CSS				AML	AML			
CSS	**Mathiatis**	**2.89**	**265**	P	**Pn**		**13 47 50.9**	**+0.7**
CSS				AML	AML			
CSS	**Mathiatis**	**2.89**	**265**	P	**Pn**		**13 47 51.7**	**+1.4**
TEVE	**Tevekalti-Mers**	**3.00**	**294**	Pn	**Pn**		**13 47 52.3**	**+0.4**
TEVE				AML	AML			
MMLI	**Mount Malkishu**	**3.04**	**203**	P	**Pn**		**13 47 54.1**	**+1.7**
MMLI				S	**Sb**		**13 48 35.8**	**+0.2**
OFRI	**`Ofer**	**3.04**	**211**	P	**Pn**		**13 47 54.7**	**+2.4**
OFRI				S	**Sb**		**13 48 35.8**	**+0.3**
ASF	**Jabal al Asfar**	**3.07**	**180**	Pn	**Pn**		**13 47 53.6**	**+0.9**
	18nm,0.3s,baz=0.0,slow=2.0,SNR=20							
ASF				Sn	**Sb**		**13 48 34.7**	**-1.7**
	108nm,0.3s,baz=49,slow=20,SNR=12							
ASF				LR	LR		13 49 12.0	
	comp=Z,140nm,21.4s,baz=16,slow=41 27nm,0.2s							
ASF				AML	AML			
ASF	**Jabal al Asfar**	**3.07**	**180**	P	**Pn**		**13 47 54.7**	**+1.9**
ASF				AML	AML			
ASF				AML	AML			
KERG	**Konya-Eregli**	**3.08**	**315**	P	**Pn**		**13 47 55.5**	**+2.5**
KERG				S	**Sb**		**13 48 35.2**	**-1.5**
KERG				IAML			13 48 44.0	
	comp=E,247nm,0.5s							
KERG				IAML			13 48 47.0	
	comp=N,376nm,0.5s							
QRNJ	**Al-Qirein**	**3.09**	**200**	P	**Pb**		**13 47 56.7**	**-2.5**
QRNJ				AML	AML			
QRNJ				AML	AML			
SARI	**SarD1z-Kayseri**	**3.17**	**354**	Pn	**Pn**		**13 47 54.7**	**+0.4**
SARI				AML	AML			
HSUJ	**Al Zarqa**	**3.18**	**190**	P	**Pb**		**13 48 02.6**	**+1.8**
ROII	**Roi**	**3.20**	**201**	P	**Pn**		**13 47 56.9**	**+2.4**
ROII				S	**Sb**		**13 48 38.9**	**-1.1**
RGMN	**Argaman**	**3.26**	**200**	P	**Pn**		**13 47 57.2**	**+1.9**
RGMN				S	**Sb**		**13 48 40.9**	**-1.0**
DARE	**Darende-Malaty**	**3.36**	**9**	Pn	**Pn**		**13 47 57.4**	**+0.7**
DARE				AML	AML			
SALP	**Salfit**	**3.46**	**204**	P	**Pb**		**13 48 02.9**	**-2.6**
SALP				AML	AML			
SALP				AML	AML			
KRMN	**Karaman**	**3.47**	**305**	Pn	**Pn**		**13 47 59.5**	**+1.2**
KRMN				AML	AML			
ERMK	**Ermenek**	**3.48**	**295**	P	**Pb**		**13 48 03.0**	**-3.0**
ERMK				S	**Sb**		**13 48 48.4**	**+0.1**
ERMK				IAML			13 48 59.0	
	comp=N,214nm,0.7s							
ERMK				IAML			13 49 03.0	
	comp=E,180nm,0.5s							
BNN	**Bunyan**	**3.69**	**348**		**Pn**		**13 48 02.2**	**+0.9**
BNN	**Bunyan**	**3.69**	**348**	Pn	**Pn**		**13 48 02.1**	**+0.9**
BNN				AML	AML			
SVRC	**Sivrice-ELAZID**	**3.70**	**32**	Pn	**Pn**		**13 48 02.2**	**+0.7**
SVRC				AML	AML			
KKBE	**Karaman, Kazim**	**3.72**	**303**	P	**Pn**		**13 48 03.4**	**+1.7**
KKBE				S	**Sn**		**13 48 46.3**	**+0.8**
KKBE				IAML			13 48 57.0	
	comp=E,60nm,0.9s							
KKBE				IAML			13 49 05.0	
	comp=N,56nm,0.5s							
GULA	**Gulagac**	**3.73**	**327**	Pn	**Pn**		**13 48 03.1**	**+1.2**
GULA				AML	AML			
DYBB	**Diyarbakir**	**3.79**	**44**	Pn	**Pn**		**13 48 03.1**	**+0.5**
DYBB				AML	AML			
MARD	**Mardin**	**3.79**	**56**		**Pn**		**13 48 01.8**	**-0.9**
ARPR	**Arapgir-MALATY**	**4.02**	**17**		**Pn**		**13 48 06.2**	**+0.3**
ARPR	**Arapgir-MALATY**	**4.02**	**17**	P	**Pn**		**13 48 06.5**	**+0.6**
ARPR				AML	AML			
ARPR	**Arapgir-MALATY**	**4.02**	**17**	Pn	**Pn**		**13 48 06.2**	**+0.3**
ARPR				AML	AML			
AMAZ	**Amatzia**	**4.04**	**204**	P	**Pg**		**13 48 25.1**	**+3.4**
AMAZ	**Amatzia**	**4.04**	**204**	P	**Pg**		**13 48 19.9**	**-1.9**
AMAZ				AML	AML			
AMAZ	**Amatzia**	**4.04**	**204**	P	**Pn**		**13 48 09.8**	**+3.7**
AMAZ				S	**Sb**		**13 49 01.1**	**-3.2**
GHAJ	**Ghor Haditha**	**4.08**	**196**	P	**Pg**		**13 48 26.7**	**+4.3**
GHAJ	**Ghor Haditha**	**4.08**	**196**	Pg	**Pg**		**13 48 20.0**	**-2.4**
GHAJ				AML	AML			
MSBI	**Mazada**	**4.12**	**198**	P	**Pg**		**13 48 22.3**	**-0.9**
MSBI	**Mazada**	**4.12**	**198**	Pg	**Pg**		**13 48 23.6**	**+0.4**
MSBI				AML	AML			
LISJ	**El Lisan**	**4.16**	**196**	P	**Pn**		**13 48 10.8**	**+3.2**
LISJ				AML	AML			
LISJ				AML	AML			
KEMA	**Kemaliye**	**4.22**	**18**	P	**Pn**		**13 48 08.7**	**+0.1**
KEMA				AML	AML			
YOZ	**Yozgat**	**4.55**	**345**	Pn	**Pn**		**13 48 14.2**	**+1.0**
YOZ				AML	AML			
SVSK	**Karacayir**	**4.66**	**1**	Pn	**Pn**		**13 48 15.9**	**+1.3**
SVSK				AML	AML			
KZIT	**Kziot**	**4.79**	**206**	P	**Pg**		**13 48 33.1**	**-3.0**
KZIT	**Kziot**	**4.79**	**206**	P	**Pn**		**13 48 19.2**	**+2.9**
KZIT				S	**Sb**		**13 49 19.3**	**-6.6**
KKUL	**Konya-Kulu**	**5.01**	**323**	P	**Pn**		**13 48 22.2**	**+2.7**
	comp=Z,0.1nmcomp=Z,29nm,0.9s							
KKUL				AML	AML			
PRNI	**Paran**	**5.12**	**198**	P	**Pn**		**13 48 23.8**	**+2.9**
PRNI				AML	AML			
PRNI				AML	AML			
BR104	**Keskin Array S**	**5.13**	**331**	P	**Pn**		**13 48 22.3**	**+1.2**
	comp=Z,0.0nmcomp=Z,90nmcomp=Z,9.4nm,0.7s							
BR104				AML	AML			
BR131	**Keskin Array S**	**5.14**	**331**		**Pn**		**13 48 22.6**	**+1.3**
BRTR	**Keskin Array B**	**5.14**	**331**	Pn	**Pn**		**13 48 22.6**	**+1.3**
	comp=Z,0.7nm,0.3s,baz=157,slow=14,SNR=26							
BRTR				LR	LR		13 49 51.2	
	comp=Z,18nm,21.2s,baz=136,slow=33 comp=Z,4.1nm,0.5s							
BRTR				AML	AML			
BRTR	**Keskin Array B**	**5.14**	**331**		**Pn**		**13 48 22.4**	**+1.0**
BR105	**Keskin Array S**	**5.15**	**331**	P	**Pn**		**13 48 23.1**	**+1.7**
	comp=Z,0.1nmcomp=Z,125nmcomp=Z,8.0nm,0.8s							
BR105				AML	AML			
BR106	**Keskin Array S**	**5.16**	**331**	P	**Pn**		**13 48 22.5**	**+1.0**
	comp=Z,0.0nmcomp=Z,99nmcomp=Z,11nm,0.8s							
BR106				AML	AML			
KELT	**Kelkit**	**5.25**	**21**	P	**Pn**		**13 48 23.5**	**+0.6**
	comp=Z,0.3nmcomp=Z,92nm,1.1s							
KELT				AML	AML			
GURO	**Guroymak-BITLI**	**5.31**	**50**		**Pn**		**13 48 23.3**	**-0.3**
EIL	**Elat**	**5.79**	**197**	Pn	**Pn**		**13 48 32.2**	**+2.1**
	comp=Z,0.6nm,0.3s,baz=16,slow=7.4,SNR=2.3							
EIL				Lg	Lg		13 50 06.7	
	comp=Z,6.1nm,0.3s,baz=98,slow=11,SNR=3.7							
EIL				LR	LR		13 50 57.9	
	comp=Z,75nm,21.6s,baz=2.0,slow=40 comp=Z,3.2nm,0.6s							
EIL				AML	AML			
EIL	**Elat**	**5.79**	**197**	P	**Pb**		**13 48 47.3**	**+2.1**
GEVA	**Gevas**	**5.85**	**57**		**Pn**		**13 48 31.0**	**-0.1**
HAKT	**HAKKARI**	**6.00**	**65**	P	**Pn**		**13 48 33.2**	**+0.1**
	comp=Z,2.8nmcomp=Z,234nm,0.8s							
HAKT				AML	AML			
ILGA	**Ilgaz**	**6.30**	**338**	Pn	**Pn**		**13 48 38.9**	**+1.7**
MANT	**Manisa**	**7.39**	**298**	Pn	**Pn**		**13 48 53.4**	**+1.2**
KBZ	**Khabaz**	**9.67**	**27**	LR	LR		13 53 12.2	
	comp=Z,39nm,20.0s,baz=332,slow=38							
IDI	**Anoyia**	**9.77**	**274**	Pn	**Pn**		**13 49 24.2**	**-0.6**
	comp=Z,3.3nm,0.3s,baz=96,slow=16,SNR=13							
IDI				Sn	**Sn**		**13 51 08.9**	**-5.6**
	comp=Z,3.1nm,0.3s,baz=40,slow=17,SNR=6.7 comp=Z,8.1nm,0.3s							
IDI				AML	AML			
IDI	**Anoyia**	**9.77**	**274**		**Pn**		**13 49 24.6**	**-0.3**
MLR	**Muntele Rosu**	**13.16**	**324**	LR	LR		13 56 09.2	
	comp=Z,94nm,18.8s,baz=134,slow=42							
MLR	**Muntele Rosu**	**13.16**	**324**	P	**Pn**		**13 50 12.4**	**+1.2**
	comp=Z,8.3nm,1.5s							
KMPD	**K-Podol'skiy**	**15.37**	**333**	P	**Pn**		**13 50 42.2**	**+1.3**
LUBAR	**Lubar, Ukraine**	**16.10**	**338**	P	**Pn**		**13 50 51.6**	**+1.2**
AK10	**Malin Array Si**	**16.30**	**343**	P	**P**		**13 50 57.3**	**+1.3**
AK10	**Malin Array Si**	**16.30**	**343**	P	**Pn**		**13 50 54.2**	**+1.2**
AK06	**Malin Array Si**	**16.30**	**342**	P	**Pn**		**13 50 54.2**	**+1.2**
AK09	**Malin Array Si**	**16.31**	**343**	P	**Pn**		**13 50 54.3**	**+1.2**
AK05	**Malin Array Si**	**16.34**	**342**	P	**Pn**		**13 50 54.6**	**+1.2**
AK08	**Malin Array Si**	**16.34**	**343**	P	**Pn**		**13 50 54.6**	**+1.2**
AK13	**Malin Array Si**	**16.36**	**342**	P	**Pn**		**13 50 55.0**	**+1.2**
AK14	**Malin Array Si**	**16.37**	**342**	P	**Pn**		**13 50 55.0**	**+1.1**
KIEV	**Kiev**	**16.40**	**343**	P	**P**		**13 50 58.5**	**+1.5**
KIEV	**Kiev**	**16.40**	**343**	Pn	**Pn**		**13 50 54.7**	**+0.5**
KIEV	**Kiev**	**16.40**	**343**	P	**P**		**13 50 57.7**	**+0.7**
	comp=Z,17nm,1.3s							
AKASG	**Malin Array Be**	**16.41**	**343**	Pn	**Pn**		**13 50 54.5**	**+0.2**
	comp=Z,0.7nm,0.3s,baz=162,slow=10,SNR=12 comp=Z,2.0nm,0.7s							
AKASG				AML	AML			
TIP	**Timpagrande**	**16.47**	**290**	Pn	**Pn**		**13 50 56.5**	**+1.2**
CUC	**Castrocucco**	**17.31**	**292**	P	**P**		**13 51 08.3**	**+1.0**
CUC	**Castrocucco**	**17.31**	**292**	P	**P**		**13 51 08.0**	**+0.7**
	comp=Z,21nm,0.9s							
NAZ	**Nazwa, Dubai**	**19.20**	**117**	P	**P**		**13 51 26.3**	**-1.8**
FAQ	**Al Faqa, Dubai**	**19.29**	**118**	P	**P**		**13 51 28.3**	**-0.8**
MSFE	**Esma-Masafi**	**19.34**	**115**	P	**P**		**13 51 27.2**	**-2.6**
MDH	**Madha**	**19.48**	**115**	P	**P**		**13 51 29.7**	**-1.5**
UOSS	**Minazif**	**19.62**	**116**	P	**P**		**13 51 32.2**	**-0.5**
UOSS	**Minazif**	**19.62**	**116**		**Pn**		**13 51 32.8**	**-1.3**
UOSS				IAmb	IAmb		13 51 33.7	
	comp=Z,12nm,0.8s							
UOSS	**Minazif**	**19.62**	**116**	P	**Pn**		**13 51 32.9**	**-1.3**
	comp=Z,19nm,0.8s							
HATD	**Hatta, Dubai**	**19.64**	**117**	P	**P**		**13 51 31.6**	**-1.4**
ASHO	**Ashiyiah**	**19.66**	**117**	P	**P**		**13 51 31.6**	**-1.7**
NRCA	**Norcia**	**19.89**	**300**	P	**Pn**		**13 51 37.3**	**+0.1**
NRCA				IAmb	IAmb		13 52 09.5	
	comp=Z,28nm,1.4s							
SOHO	**SOHO**	**20.34**	**118**	P	**P**		**13 51 39.3**	**-1.2**
VRAC	**Vranov**	**20.45**	**320**	LR	LR		14 01 57.8	
	comp=Z,28nm,20.3s,baz=111,slow=44							
ACOM	**Acomizza, Ital**	**20.86**	**310**	P	**P**		**13 51 47.8**	**+1.6**
	comp=Z,12nm,1.2s							
NACGM	**Naroch**	**20.86**	**344**	*eP*	**P**		**13 51 45.8**	**-0.1**
	comp=Z,22nm,0.8s,baz=156							
TREC	**Trest**	**21.04**	**318**	P	**P**		**13 51 52.0**	**+4.0**
	comp=Z,7.8nm,1.5s							
KSP	**Ksiaz**	**21.53**	**323**	P	**P**		**13 51 54.3**	**+1.0**
	comp=Z,7.1nm,0.8s							
AKTO	**Aktyubinsk**	**21.60**	**39**	P	**P**		**13 51 53.7**	**-0.3**
	comp=Z,0.9nm,0.6s,baz=236,slow=9.6,SNR=4.0 comp=Z,0.9nm,0.6s							
TEOL	**Teolo**	**21.61**	**305**	P	**P**		**13 51 55.6**	**+1.4**
TEOL				IAmb	IAmb		13 51 56.5	
	comp=Z,17nm,0.9s							
GEC2	**GERESS Array S**	**21.80**	**316**	P	**P**		**13 51 57.8**	**+1.6**
	comp=Z,5.9nm,1.6s							
GERES	**GERESS Array B**	**21.80**	**316**	P	**P**		**13 51 56.0**	**-0.2**
	comp=Z,1.8nm,0.6s,baz=112,slow=11,SNR=13 comp=Z,1.8nm,0.6s							
GERES	**GERESS Array B**	**21.80**	**316**	P	**P**		**13 51 56.0**	**-0.2**
PABE	**Paberze**	**22.11**	**340**	P	**P**		**13 52 00.0**	**+0.6**
PABE				IAmb	IAmb		13 52 00.4	
	comp=Z,16nm,0.7s							
PABE	**Paberze**	**22.11**	**340**	P	**P**		**13 51 59.5**	**+0.1**
	comp=Z,28nm,1.0s							
PVCC	**Panska Ves**	**22.23**	**320**	P	**P**		**13 52 02.1**	**+1.5**
	comp=Z,10nm,0.9s							
BRG	**Berggiesshubel**	**22.75**	**320**	P	**P**		**13 52 08.0**	**+1.7**
	comp=Z,6.4nm,1.1s							
BRG	**Berggiesshubel**	**22.75**	**320**	*eP*	**P**		**13 52 08.2**	**+1.9**
BRG				Amp			13 52 09.4	
	comp=Z,5.2nm,0.9s							
GRC2	**Grafenberg Arr**	**23.16**	**314**	P	**P**		**13 52 10.4**	**-0.2**
	comp=Z,14nm,0.9s							
DAVOX	**Davos/Dischmat**	**23.26**	**308**	LR	LR		14 02 15.5	
	comp=Z,52nm,18.9s,baz=58,slow=39							
CLL	**Collm**	**23.48**	**320**	P	**P**		**13 52 14.7**	**+1.0**
	comp=Z,9.5nm,1.2s							
CLL	**Collm**

s-maj=11.5km s-min=8.4km az=167.0
*NEIC **30** 13:58:26.7±2.0, 40.59N×0.04×63.41E±0.10, h10km±1km, mb4.6/26, Error ellipse: s-maj=12.7km s-min=6.2km az=257.0*
*ISU **30** 13:58:31, 40.46N×63.40E, h18km*
ISC 30 13:58:26.1±0.4, 40.51N±0.03×63.34E±0.03, h13km, n105, σ1§89/113, mb4.4/34, MS3.3/11, 1C-4D, Northwestern Uzbekistan

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GZLY	**Gazly**	**0.39**	**167**	P	**Pg**	**13 58 31.6**	**-2.2**
GZLY				S	**Sg**	**13 58 37.2**	**-1.8**
ALTU	**Alat**	**1.13**	**159**	P	**Pb**	**13 58 46.2**	**-1.2**
ALTU				S	**Sb**	**13 59 00.8**	**-1.1**
TMD	**Tamdy-Bulak**	**1.59**	**38**	P	**Pg**	**13 58 57.0**	**+0.5**
TMD				S	**Sg**	**13 59 17.0**	**-0.1**
AGL	**Agalyk**	**2.90**	**109**	P	**Pb**	**13 59 20.2**	**+2.6**
AGL				S	**Sb**	**13 59 52.6**	**-0.4**
PKMR	**Pachkamar**	**3.07**	**129**	P	**Pb**	**13 59 18.2**	**-2.3**
PKMR				S	**Sn**	**13 59 51.7**	**+0.8**
ZRB	**Zarabog**	**3.32**	**135**	P	**Pb**	**13 59 25.4**	**+0.5**
ZRB				S	**Sb**	**14 00 05.5**	**+0.2**
BTK	**Batken**	**5.74**	**92**		**Pn**	**13 59 50.3**	**-0.7**
MINT	**Mingtut**	**5.83**	**88**	P	Pg	14 00 29.3	+12
KK31	**Karatay Array**	**5.96**	**62**	Pg	**Pg**	**14 00 17.5**	**-2.6**
	9.7nm,0.5s,baz=250,slow=17,SNR=18						
KK31				⇑Lg	Lg	14 01 37.7	
	140nm,0.7s,baz=241,slow=28,SNR=5.7						
KK31	**Karatay Array**	**5.96**	**62**		**Pn**	**13 59 53.0**	**-0.9**
KKAR	**Karatay Array**	**5.96**	**62**		**Pn**	**13 59 53.4**	**-0.6**
FRG	**Fergana**	**6.45**	**88**	S	**Sn**	**14 01 18.1**	**+4.0**
DRK	**Karamyk**	**6.58**	**96**		**Pn**	**14 00 02.5**	**-0.2**
TSTA	**Tashata**	**6.96**	**86**	S	**Sn**	**14 01 29.9**	**+3.0**
ARSB	**Arslanbob**	**7.35**	**80**		**Pn**	**14 00 11.8**	**-1.4**
KBL	**Kabul**	**7.48**	**141**		**Pn**	**14 00 16.7**	**+1.6**
AAK	**Ala-Archa**	**8.63**	**72**	Pn	**Pn**	**14 00 31.3**	**+0.5**
	1.8nm,0.3s,baz=239,slow=18,SNR=12						
AAK				Sn	**Sn**	**14 02 09.5**	**+1.4**
	0.4nm,0.3s,baz=229,slow=19,SNR=1.4						
AAK				Lg	Lg	14 03 02.6	
	2.3nm,0.3s,baz=252,slow=20,SNR=5.4						
	5.7nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**8.63**	**72**	⇓Pg	**Pg**	**14 01 10.0**	**-1.2**
	1.3nm,0.4s						
AAK				⇓Lg	Lg	14 03 09.9	
	16nm,0.8s						
AB31	**Akbulak array**	**9.07**	**346**	Pg	Sn	14 01 15.2	-63
	0.9nm,0.3s,baz=155,slow=15,SNR=17						
AB31				⇓Lg	Lg	14 03 20.0	
	33nm,0.7s,baz=155,slow=32,SNR=5.6						
AB31	**Akbulak array**	**9.07**	**346**	Pn	**Pn**	**14 00 37.3**	**+0.6**
KSH2	**Kashi**	**9.51**	**94**	P	**Pn**	**14 00 42.0**	**-0.8**
KSH2				S	**Sn**	**14 02 27.3**	**-2.3**
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.4s						
KSH2				L	L		
	comp=N,400nm,3.8s						
AKTO	**Aktyubinsk**	**10.61**	**341**	Pn	**Pn**	**14 00 55.3**	**-2.3**
	0.2nm,0.3s,baz=160,slow=10,SNR=4.3						
AKTO				Sn	**Sn**	**14 02 50.8**	**-5.4**
	0.5nm,0.3s,baz=184,slow=19,SNR=1.4						
AKTO				Lg	Lg	14 04 01.8	
	1.1nm,0.3s,baz=163,slow=20,SNR=4.4						
AKTO				LR	LR	14 05 38.0	
	comp=Z,96nm,18.5s,baz=62,slow=41						
	6.5nm,0.7s						
AKTO				AML	AML		
TARG	**Taragay, Kyrgy**	**10.99**	**79**	Pn	**Pn**	**14 01 02.5**	**-0.8**
BVAR	**Borovoye Array**	**13.41**	**19**	Pn	**Pn**	**14 01 34.3**	**-1.7**
	0.5nm,0.3s,baz=204,slow=14,SNR=28						
BVAR				Sn	Sn	14 03 55.0	-10
	0.1nm,0.3s,baz=204,slow=20,SNR=3.7						
BVAR				Lg	Lg	14 05 29.5	
	baz=191,slow=26						
	2.9nm,0.4s						
BVAR				AML	AML		
BORK	**Borovoye**	**13.42**	**18**		**Pn**	**14 01 35.3**	**-0.7**
GNI	**Garni**	**14.19**	**275**	Pn	**Pn**	**14 01 44.4**	**-2.5**
	1.1nm,0.3s,baz=112,slow=19,SNR=1.8						
GNI				Sn	**Sn**	**14 04 28.9**	**+4.6**
	2.9nm,0.3s,baz=165,slow=20,SNR=3.1						
	2.8nm,0.3s						
GNI				AML	AML		
GNI	**Garni**	**14.19**	**275**		**Pn**	**14 01 47.8**	**+0.9**
KURBB	**Kurchatov Arra**	**14.65**	**41**	Pn	**Pn**	**14 01 48.8**	**-4.2**
	0.1nm,0.3s,baz=238,slow=14,SNR=11						
KURBB				Sn	Sn	14 04 24.0	-11
	0.1nm,0.3s,baz=228,slow=30,SNR=2.6						
KURBB				Lg	Lg	14 06 03.9	
	0.1nm,0.3s,baz=231,slow=28,SNR=4.2						
	0.7nm,0.5s						
KURBB				AML	AML		
KURK	**Kurchatov**	**14.76**	**41**		**Pn**	**14 01 51.7**	**-2.6**
KURK	**Kurchatov**	**14.76**	**41**		Sn	14 04 24.0	-14
MAKZ	**Makanchi**	**14.88**	**59**		**Pn**	**14 01 54.5**	**-1.6**
MK31	**Makanchi Array**	**15.08**	**59**	⇓Pn	**Pn**	**14 01 56.4**	**-2.3**
	1.8nm,0.6s,baz=244,slow=11,SNR=6.1						
MKAR	**Makanchi Array**	**15.08**	**59**	Pn	**Pn**	**14 01 56.3**	**-2.5**
	1.1nm,0.3s,baz=250,slow=14,SNR=30						
MKAR				Lg	Lg	14 06 15.6	
	baz=254,slow=31						
	5.1nm,0.5s						
MKAR				AML	AML		
KBZ	**Khabaz**	**15.50**	**289**	Pn	**Pn**	**14 02 00.3**	**-3.9**
	0.2nm,0.3s,baz=104,slow=9.6,SNR=5.7						
KBZ				Sn	**Sn**	**14 04 50.8**	**-5.0**
	0.5nm,0.3s,baz=127,slow=5.1,SNR=5.8						
KBZ				LR	LR	14 09 59.4	
	comp=Z,63nm,18.2s,baz=90,slow=45						
	2.9nm,0.7s						
KBZ				AML	AML		
ARTI	**Arti**	**16.22**	**350**	Pn	**Pn**	**14 02 12.3**	**-1.2**
	0.2nm,0.3s,baz=174,slow=18,SNR=4.2						
ARTI				Sn	**Sn**	**14 05 04.6**	**-8.5**
	0.2nm,0.3s,baz=204,slow=19,SNR=1.7						
ARTI				Lg	Lg	14 06 54.6	
	0.2nm,0.3s,baz=162,slow=20,SNR=1.0						
ARTI				LR	LR	14 09 14.7	
	comp=Z,42nm,20.2s,baz=168,slow=40						
	4.9nm,0.7s						
ARTI				AML	AML		
ARTI	**Arti**	**16.22**	**350**		**Pn**	**14 02 11.5**	**-2.0**
ARTI				IAmb	IAmb	14 02 21.2	
	comp=Z,25nm,0.5s						
WMQ	**Urumqi**	**18.34**	**72**	*e*P	**P**	**14 02 42.0**	**+1.8**
WMQ				pmax	pmax		
	comp=Z,12nm,0.7s						
ZAA0	**Zalesovo Array**	**19.73**	**40**	P	**P**	**14 02 55.8**	**+0.5**
ZALV	**Zalesovo Beam**	**19.73**	**40**	P	**P**	**14 02 55.3**	**0.0**
	comp=Z,0.6nm,0.3s,baz=238,slow=11,SNR=20						
ZALV				S	**S**	**14 06 35.1**	**-2.2**
	comp=Z,0.6nm,0.4s,baz=224,slow=18,SNR=2.4						
ZALV				Lg	Lg	14 08 46.1	
	comp=Z,0.1nm,0.3s,baz=234,slow=20,SNR=2.4						
	comp=Z,3.3nm,0.5s						
ZALV				AML	AML		
ZALV	**Zalesovo Beam**	**19.73**	**40**	P	**P**	**14 02 55.6**	**+0.4**
KIRV	**Kirov**	**20.15**	**339**	P	Pn	14 03 00.5	-1.1
	comp=Z,11nm,0.7s,baz=137,slow=6.0,SNR=2.6						
KIRV				LR	LR	14 11 31.8	
	comp=Z,86nm,19.3s,baz=182,slow=39						
	comp=Z,11nm,0.7s						
BNN	**Bunyan**	**21.19**	**274**	P	**P**	**14 03 13.4**	**+2.0**
BNN				IAmb	IAmb	14 03 14.7	
	comp=Z,8.7nm,0.8s						
BR131	**Keskin Array S**	**22.68**	**278**	P	**P**	**14 03 28.3**	**+1.0**
BRTR	**Keskin Array B**	**22.68**	**278**	P	**P**	**14 03 27.4**	**0.0**
	comp=Z,3.2nm,0.9s,baz=89,slow=7.6,SNR=14						
	comp=Z,3.2nm,0.9s						
BRTR	**Keskin Array B**	**22.68**	**278**	P	**P**	**14 03 28.4**	**+1.1**
EVN	**Everest**	**23.02**	**116**	P	**P**	**14 03 31.9**	**+0.4**
MDUB	**Mudurnu**	**24.38**	**280**	P	**P**	**14 03 45.2**	**+1.2**
GOMU	**GeErMu**	**24.98**	**90**	P	**P**	**14 03 50.8**	**+1.0**
GOMU				pP	pP	14 03 54.0	+0.2
GOMU				sP	sP	14 03 58.3	+2.8
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.5s						
AKASG	**Malin Array Be**	**25.74**	**305**	P	**P**	**14 03 55.5**	**-0.6**
	comp=Z,1.1nm,0.5s,baz=90,slow=7.6,SNR=9.3						
	comp=Z,1.1nm,0.5s						
KIEV	**Kiev**	**25.75**	**305**	P	**P**	**14 03 57.4**	**+1.2**
KIEV				IAmb	IAmb	14 03 59.1	
	comp=Z,23nm,1.4s						
HYB	**Hyderabad**	**26.50**	**146**	*e*P	**P**	**14 04 04.4**	**+1.1**
HYB				IVmBBB		14 06 04.2	
	comp=Z,142nm,2.1s						
HYB				*e*S	**S**	**14 08 39.8**	**+2.7**
MNK	**Minsk**	**27.40**	**313**	*i* P	**P**	**14 04 12.1**	**+1.1**
	comp=E,8.0nm,0.8s						
MNK				*i* P	**P**	**14 04 12.1**	**+1.1**
	comp=N,4.0nm,0.6s						
MNK				*i* P	**P**	**14 04 12.1**	**+1.1**
	comp=Z,6.0nm,0.6s,baz=105						
MNK				*i* PP	**PnPn**	**14 04 56.0**	**+0.8**
MNK				*i* PPP	PPP	14 05 04.2	
MNK				*i* S	**S**	**14 08 52.9**	**+2.2**
MNK				*i* SS	**SnSn**	**14 09 58.9**	**-0.9**
MNK				*i* SSS	SSS	14 10 20.4	
MNK				*i* LQ	LQ	14 13 27.7	
MNK				*i* LR	LR	14 14 41.1	
MNK				*i* LRM	MLR	14 16 36.7	
	comp=E,55nm,13.6s						
MNK				*i* LRM	MLR	14 17 42.6	
	comp=Z,55nm,14.4s						
NACGM	**Naroch**	**28.12**	**313**	*e*P	**P**	**14 04 19.1**	**+1.6**
	comp=Z,29nm,0.9s,baz=106						
BRDH	**Bariadhala**	**29.77**	**118**	LR	LR	14 19 23.0	
	comp=Z,41nm,19.3s,baz=358,slow=42						
IDI	**Anoyia**	**30.61**	**273**	P	**P**	**14 04 40.0**	**+0.1**
IDI				IAmb	IAmb	14 05 17.2	
	comp=E,11nm,1.0s						
FIA1	**FINESS Array S**	**30.79**	**325**	P	**P**	**14 04 41.9**	**+0.9**
FINES	**FINESS Array B**	**30.79**	**325**	P	**P**	**14 04 41.2**	**+0.1**
	comp=Z,2.5nm,0.5s,baz=112,slow=8.1,SNR=18						
	comp=Z,2.5nm,0.5s						
FINES	**FINESS Array B**	**30.79**	**325**	P	**P**	**14 04 42.6**	**+1.5**
SONM	**Songino Array**	**31.41**	**62**	P	**P**	**14 04 48.3**	**+1.4**
	comp=Z,0.8nm,0.8s,baz=275,slow=7.9,SNR=4.9						
	comp=Z,0.8nm,0.8s						
SONM	**Songino Array**	**31.41**	**62**	P	**P**	**14 04 47.2**	**+0.3**
NRIK	**Noril'sk**	**31.61**	**16**	LR	LR	14 18 40.2	
	comp=Z,33nm,20.0s,baz=306,slow=38						
LZH	**Lanzhou**	**31.90**	**85**	*e*P	**P**	**14 04 49.5**	**-1.8**
LZH				pmax	pmax		
	comp=Z,12nm,1.0s						
MORC	**Moravsky Berou**	**33.15**	**302**	*e*P	**P**	**14 05 02.0**	**0.0**
VRAC	**Vranov**	**33.78**	**301**	LR	LR	14 21 36.2	
	comp=Z,12nm,18.9s,baz=90,slow=41						
VRAC	**Vranov**	**33.78**	**301**	*e*P	**P**	**14 05 09.7**	**+2.2**
KRUC	**Moravsky**	**33.92**	**301**	*e*P	**P**	**14 05 11.9**	**+3.2**
ARCES	**ARCESS Array B**	**35.17**	**338**	P	**P**	**14 05 20.9**	**+1.7**
	comp=Z,5.2nm,0.9s,baz=122,slow=8.5,SNR=6.9						
ARCES				LR	LR	14 20 25.4	
	comp=Z,75nm,18.1s,baz=189,slow=38						
	comp=Z,5.2nm,0.9s						
ARCES	**ARCESS Array B**	**35.17**	**338**	P	**P**	**14 05 20.7**	**+1.5**
ARCES				IAmb	IAmb	14 05 50.7	
	comp=Z,9.2nm,1.1s						
CUC	**Castrocucco**	**35.93**	**285**	P	**P**	**14 05 27.4**	**+1.3**
CUC				IAmb	IAmb	14 06 09.6	
	comp=Z,22nm,1.3s						
HFS	**Hagfors**	**36.17**	**320**	P	**P**	**14 05 27.4**	**-0.5**
	comp=Z,2.9nm,0.8s,baz=101,slow=6.0,SNR=5.6						
HFS				LR	LR	14 22 43.5	
	comp=Z,124nm,18.7s,baz=75,slow=40						
	comp=Z,2.9nm,0.8s						
HHC	**Hu-ho-hao-te**	**36.21**	**73**	*e*P	**P**	**14 05 28.5**	**-0.1**
HHC				pmax	pmax		
	comp=Z,15nm,0.7s						
PALK	**Pallekele**	**36.55**	**150**	LR	LR	14 22 15.5	
	comp=Z,46nm,18.4s,baz=33,slow=39						
FDMO	**Fiordimonte**	**37.11**	**291**	P	**P**	**14 05 38.2**	**+2.0**
NB2	**NORSAR Subarra**	**37.53**	**321**	P	**P**	**14 05 40.3**	**+0.8**
	comp=Z,1.2nm,0.5s,baz=100,slow=8.6						
NOA	**NORSAR Array B**	**37.53**	**321**	P	**P**	**14 05 39.4**	**-0.1**
	comp=Z,1.5nm,0.6s,baz=96,slow=8.3,SNR=4.6						
NOA				LR	LR	14 23 36.6	
	comp=Z,40nm,18.6s,baz=105,slow=40						
	comp=Z,1.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**37.62**	**115**	P	**P**	**14 05 39.6**	**-1.1**
	comp=Z,0.3nm,0.4s,baz=299,slow=8.9,SNR=4.2						
CMAR				PcP	**PcP**	**14 07 58.1**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=310,slow=2.5,SNR=5.7						
	comp=Z,0.3nm,0.4s						
NBO00	**NORSAR Array S**	**37.74**	**321**	P	**P**	**14 05 42.0**	**+0.8**
NBO00				IAmb	IAmb	14 06 08.8	
	comp=Z,25nm,1.4s						
NC204	**NORSAR Array S**	**37.78**	**321**	P	**P**	**14 05 42.3**	**+0.6**
KEST	**Kesra**	**42.19**	**281**	P	**P**	**14 06 20.3**	**+1.7**
	comp=Z,7.8nm,1.0s,baz=100,slow=6.1,SNR=4.1						
	comp=Z,7.8nm,1.0s						
KEST	**Kesra**	**42.19**	**281**	IAmb	IAmb	14 06 24.2	
	comp=Z,10nm,1.1s						
NJ2	**Nanjing**	**44.91**	**83**	*e*P	**P**	**14 06 40.3**	**-0.1**
NJ2				pmax	pmax		
	comp=Z,3.0nm,0.5s						
CN2	**Changchun**	**45.21**	**64**	*e*P	**P**	**14 06 44.0**	**+1.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KSRS	**Korea Array**	**49.29**	**71**	P	**P**	**14 07 13.1**	**-1.5**
	comp=Z,1.6nm,0.8s,baz=264,slow=5.3,SNR=4.6						
	comp=Z,1.6nm,0.8s						
USRK	**Usuvskaya Ar.**	**49.52**	**62**	P	**P**	**14 07 16.0**	**-0.2**
	comp=Z,2.1nm,0.5s,baz=303,slow=9.2,SNR=9.5						
	comp=Z,2.1nm,0.5s						
ESDC	**Sonseca Array**	**50.32**	**292**	P	**P**	**14 07 21.7**	**-0.7**
	comp=Z,1.1nm,0.9s,baz=61,slow=7.7,SNR=5.6						
	comp=Z,1.1nm,0.9s						
BORG	**Borgarnes**	**52.06**	**327**	LR	LR	14 29 58.9	
	comp=Z,37nm,19.5s,baz=42,slow=36						
TORD	**Torodi Ar. Bea**	**60.06**	**262**	P	**P**	**14 08 33.0**	**0.0**
	comp=Z,1.2nm,0.7s,baz=52,slow=6.7,SNR=6.5						
	comp=Z,1.2nm,0.7s						
TORD	**Torodi Ar. Bea**	**60.06**	**262**	P	**P**	**14 08 33.7**	**+0.7**
TORD				IAmb	IAmb	14 08 33.8	
	comp=Z,1.2nm,0.8s						
DAV	**Davao City (W)**	**64.43**	**103**	LR	LR	14 37 26.5	
	comp=Z,55nm,19.2s,baz=6.5,slow=36						
D19K	**Kuna River**	**67.00**	**15**	P	**P**	**14 09 18.9**	**+0.7**
D19K				IAmb	IAmb	14 09 55.7	
	comp=Z,8.0nm,1.4s						
D25K	**Kavik River**	**68.31**	**11**	P	**P**	**14 09 27.6**	**+1.2**
D25K				IAmb	IAmb	14 09 31.7	
	comp=Z,4.5nm,1.1s						
C36M	**Paulatuk**	**70.33**	**3**	P	**P**	**14 09 39.6**	**+0.9**
C36M				IAmb	IAmb	14 09 49.6	
	comp=Z,11nm,1.4s						
ILAR	**Eielson Array**	**72.41**	**13**	P	**P**	**14 09 52.3**	**+0.8**
	comp=Z,0.4nm,0.8s,baz=336,slow=2.0,SNR=5.0						
	comp=Z,0.4nm,0.8s						
ILAR	**Eielson Array**	**72.41**	**13**	P	**P**	**14 09 52.8**	**+1.3**
SKT	**Skwentna**	**74.05**	**16**	P	**P**	**14 10 01.8**	**+0.6**
SKT				IAmb	IAmb	14 10 05.3	
	comp=Z,4.0nm,0.9s						
BCAR	**Beaver Creek A**	**74.83**	**12**	P	**P**	**14 10 07.2**	**+1.4**
BRLK	**Bradley Lake**	**76.18**	**17**	P	**P**	**14 10 14.5**	**+0.9**
YKA	**Yellowknife Ar**	**77.34**	**359**	P	**P**	**14 10 20.8**	**+0.9**
	comp=Z,1.2nm,0.7s,baz=2.0,slow=5.8,SNR=17						
	comp=Z,1.2nm,0.7s						
BATG	**Bathurst New B**	**81.70**	**328**	P	**P**	**14 10 44.7**	**+0.7**
WRA	**Warramunga Arr**	**89.19**	**117**	P	**P**	**14 11 21.2**	**-0.4**
	comp=Z,1.1nm,0.9s,baz=310,slow=4.7,SNR=4.8						
	comp=Z,1.1nm,0.9s						
WRA	**Warramunga Arr**	**89.19**	**117**	IAmb	IAmb	14 11 22.4	
	comp=Z,0.1nm,1.0s						
WRAB	**Tennant Creek**	**89.19**	**117**	P	**P**	**14 11 22.2**	**+0.5**
WRAB				IAmb	IAmb	14 11 47.0	
	comp=Z,5.3nm,1.2s						
ASAR	**Alice Springs**	**91.47**	**120**	P	**P**	**14 11 32.1**	**-0.2**
	comp=Z,1.1nm,0.9s,baz=314,slow=4.6,SNR=9.2						
	comp=Z,1.1nm,0.9s						
QSPA	**South Pole Qui**	**130.31**	**180**	PKP	**PKPdf**	**14 17 34.4**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=244,slow=1.4,SNR=2.0						
PLCA	**Paso Flores**	**145.31**	**254**	PKPbc	**PKPdf**	**14 18 04.2**	**+0.9**
	comp=Z,4.5nm,0.9s,baz=84,slow=7.0,SNR=8.0						

*SDD **30** 14:15:38.5±1.9, 18.05N×71.55W, h12km±30km, MD3.7, ML3.7, MW3.7, Presumed earthquake*
*SSNC **30** 14:15:39.3±3.6, 18.06N×71.33W, h7km±38km, MD3.8, ML3.3, Presumed earthquake*
*OSPL **30** 14:15:41.1±1.4, 18.23N×71.43W, h5km±5km, ML3.7, Presumed earthquake*
ISC 30 14:15:38.6±1.1, 18.16N±0.04×71.45W±0.03, h13km±7km, n33, σ1§40/39, 4C-3D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
PODR	**Polo**	**0.16**	**88**	*e*Pg	**Pb**	**14 15 43.8**	**+0.2**
PODR				*e*Sg	**Sb**	**14 15 47.6**	**+0.8**
PODR				IAML		14 15 50.6	
	comp=N,59μm,0.6s						
PODR	**Polo**	**0.16**	**88**	*i* P	**Pb**	**14 15 43.7**	**+0.2**
PODR				*e*S	**Sb**	**14 15 46.3**	**-0.5**
PODR				IAML		14 15 49.2	
	comp=Z,378μm,0.2s						
LODU1	**El Espartillar**	**0.19**	**353**	*i* P	**Pg**	**14 15 43.0**	**0.0**
LODU1				*e*S	**Sg**	**14 15 45.9**	**0.0**
LODU1				IAML		14 15 46.2	
	comp=Z,107μm,0.5s						
NEDR	**Neiba UASD**	**0.32**	**5**	*e*Pg	**Pb**	**14 15 46.1**	**-0.1**
NEDR				*e*Sg	**Sn**	**14 15 52.3**	**-3.3**
NEDR				IAML		14 15 53.2	
	comp=N,22μm,0.3s						
LOBH	**Bahia de las A**	**0.35**	**211**	*i* P	**Pn**	**14 15 48.6**	**-0.7**
LOBH				IAML		14 15 59.8	
	comp=Z,6μm,0.5s						
LOVI	**El Cajuil, Ovi**	**0.37**	**168**	*i* P	**Pn**	**14 15 48.8**	**-0.8**
LOVI				IAML		14 16 02.9	
	comp=Z,6μm,0.8s						
LONE3	**El Aguacate, B**	**0.44**	**359**	*i* P	**Pb**	**14 15 48.1**	**-0.2**
LONE3				IAML		14 15 57.2	
	comp=Z,8μm,0.4s						
JIDR	**Jimani**	**0.50**	**311**	⇓*e*Pg	**Pb**	**14 15 49.7**	**+0.4**
JIDR				IAML		14 16 00.1	
	comp=N,6μm,1.1s						
SDDR	**Presa de Saban**	**0.83**	**11**	⇓*e*Pg	**Pg**	**14 15 54.4**	**-0.3**
SDDR				IAML		14 16 26.2	
	comp=N,1μm,2.2s						
SDDR	**Presa de Saban**	**0.83**	**11**	*e*P	**Pb**	**14 15 54.1**	**-0.9**
SDDR				*e*S	**Sn**	**14 16 07.1**	**-1.1**
SDDR				IAML		14 16 16.9	
	comp=N,792nm,0.9s						
SDDR				IAML		14 16 17.0	
	comp=N,1μm,1.1s						
SDDR	**Presa de Saban**	**0.83**	**11**	*i* P	**Pg**	**14 15 54.4**	**-0.3**
SDDR				IAML		14 16 10.1	
	comp=Z,547nm,0.3s						
REDR	**Restauracion**	**1.00**	**3**	⇓*e*Pg	**Pn**	**14 15 59.7**	**+1.4**
REDR				⇑*e*Sg	**Sn**	**14 16 16.0**	**+3.7**
REDR				IAML		14 16 24.5	
	comp=N,985nm,0.2s						
ABDR	**Alto Bandera**	**1.01**	**50**	*e*Pg	**Pn**	**14 15 58.2**	**-0.6**
ABDR				IAML		14 16 23.3	
	comp=N,2μm,0.3s						
BANI	**BANI**	**1.06**	**77**	*e*Pg	**Pg**	**14 15 59.6**	**+0.6**
BANI				⇑*e*Sg	**Sn**	**14 16 15.2**	**+1.2**
BANI				IAML		14 16 19.0	
	comp=N,3μm,0.5s						
SC01	**Santiago de Io**	**1.43**	**28**	*e*Pg	**Pg**	**14 16 05.5**	**-0.7**
SC01				IAML		14 16 32.0	
	comp=N,755nm,0.5s						
SC01	**Santiago de Io**	**1.43**	**28**	*i* P	**Pb**	**14 16 04.2**	**-1.0**
SC01				IAML		14 16 33.0	
	comp=Z,463nm,0.4s						
MADR	**Mao Valverde**	**1.44**	**13**	*e*Pg	**Pg**	**14 16 05.2**	**-1.0**
MADR				IAML		14 16 28.0	
	comp=N,2μm,0.6s						
SDD	**Santo Domingo**	**1.49**	**78**	*e*Sg	**Sg**	**14 16 27.9**	**+1.4**
SDD				IAML		14 16 30.0	
	comp=N,298nm,0.6s						
SFDR	**San Fco. de Ma**	**1.60**	**45**	⇑*e*Pg	**Pg**	**14 16 08.5**	**-0.9**
SFDR				IAML		14 16 31.3	
	comp=N,2μm,0.5s						
LOPP1	**Punta Rusia, P**	**1.70**	**8**	*i* P	**Pb**	**14 16 09.8**	**+0.1**
LOPP1				IAML		14 16 39.6	
	comp=Z,750nm,0.4s						
MCDR	**Montecristi**	**1.73**	**354**	*e*Pg	**Pb**	**14 16 09.6**	**-0.6**
MCDR				IAML		14 16 39.8	
	comp=N,410nm,0.5s						
SODR	**Sosua Marina B**	**1.79**	**27**	*e*Pg	**Pg**	**14 16 12.7**	**-0.2**
SODR				IAML		14 16 44.2	
	comp=N,938nm,0.7s						
LUDR	**Luperon**	**1.79**	**15**	*e*Pg	**Pg**	**14 16 11.6**	**-1.3**
NADR	**Nagua**	**1.92**	**52**	IAML		14 16 50.4	
	comp=N,1μm,1.4s						
CADR	**Cabrera**	**2.07**	**43**	IAML		14 16 50.5	
	comp=N,917nm,0.8s						
SMDR	**Samana, DR**	**2.42**	**62**	⇑*e*Pg	**Pb**	**14 16 21.4**	**-0.5**
SMDR				IAML		14 17 02.5	
	comp=N,390nm,0.5s						
HIDR	**Higuey Centro**	**2.63**	**80**	*e*Pg	**Pb**	**14 16 24.7**	**-0.9**
HIDR				IAML		14 17 06.3	
	comp=N,304nm,0.7s						
QMBU	**Quimbuelo**	**3.77**	**303**	IAML		14 17 47.9	
	comp=N,37nm,1.3s						
QMBU	**Quimbuelo**	**3.77**	**303**	*e*P	**Pn**	**14 16 35.2**	**-1.3**
QMBU				*e*S	**Sn**	**14 17 21.9**	**+1.2**
QMBU				*e*Sg	**Sb**	**14 17 29.8**	**-0.9**
NMDO	**Nuevo Mundo**	**4.10**	**306**	IAML		14 17 57.3	
	comp=N,23nm,1.1s						
NMDO	**Nuevo Mundo**	**4.10**	**306**	*e*P	**Pn**	**14 16 42.6**	**+1.6**
SABCS	**La Quijada**	**4.26**	**302**	*e*P	**Pn**	**14 16 46.9**	**+3.7**
SABCS				*e*S	**Sb**	**14 17 42.6**	**-2.1**
RCC	**Rio Carpintero**	**4.41**	**295**	*e*P	**Pn**	**14 16 46.9**	**+1.6**

*RSNC **30** 14:22:40.2±0.0, 11.N±2×7.2W

WRA	**Warramunga Arr**	**46.39**	**261**		IAmb	IAmb	14 31 16.7	
	comp=Z,0.5nm,1.3s							
KNRA	**Kununurra**	**52.41**	**265**		P	**P**	**14 31 58.8**	**-0.3**
KNRA					IAmb	IAmb	14 32 30.9	
	comp=Z,8.1nm,1.4s							
FITZ	**Fitzroy Crossi**	**54.81**	**261**		P	**P**	**14 32 16.9**	**+0.5**
MMRI	**Maumere**	**60.44**	**271**		P	**P**	**14 32 56.2**	**+0.7**
MORW	**Morawa**	**61.67**	**247**		P	**P**	**14 33 03.7**	**+0.2**
TWG	**Pinlang**	**74.45**	**302**		P	**P**	**14 34 24.7**	**+2.1**
KRMB	**Red Mountain**	**77.86**	**37**		P	**P**	**14 34 41.1**	**-0.3**
K15K	**Wolf Creek Mou**	**82.64**	**7**		P	**P**	**14 35 07.4**	**+1.3**
K17K	**Iditarod**	**83.45**	**8**		P	**P**	**14 35 11.6**	**+1.4**
K17K					IAmb	IAmb	14 35 21.1	
	comp=Z,14nm,1.4s							
J16K	**Anvik River**	**83.71**	**7**		P	**P**	**14 35 12.9**	**+1.4**
J16K					IAmb	IAmb	14 35 13.0	
	comp=Z,8.6nm,1.2s							
J17K	**VABM Dome**	**84.00**	**8**		P	**P**	**14 35 14.0**	**+1.0**
J17K					IAmb	IAmb	14 35 20.2	
	comp=Z,7.5nm,1.2s							
J18K	**Innoko River**	**84.38**	**9**		P	**P**	**14 35 16.0**	**+1.1**
J18K					IAmb	IAmb	14 35 41.8	
	comp=Z,9.2nm,1.4s							
CRNM	**Carthage**	**84.98**	**51**		P	**P**	**14 35 17.1**	**-1.7**
IMAR	**Indian Mountai**	**87.19**	**9**		P	**P**	**14 35 28.9**	**+0.4**
D19K	**Kuna River**	**89.02**	**7**		P	**P**	**14 35 38.1**	**+1.0**
D19K					IAmb	IAmb	14 35 55.6	
	comp=Z,11nm,1.5s							
D20K	**Etivluk River**	**89.40**	**7**		P	**P**	**14 35 39.4**	**+0.5**
D20K					IAmb	IAmb	14 35 53.5	
	comp=Z,12nm,1.5s							
D22K	**Ayikyak River**	**90.05**	**8**		P	**P**	**14 35 42.7**	**+0.8**
CLL	**Collm**	**147.73**	**349**	*i* PKPbc		**PKPbc**	**14 42 26.2**	**+0.4**
	comp=Z,5.0nm,1.0s							
GERES	**GERESS Array B**	**149.95**	**347**	PKPbc		**PKPbc**	**14 42 31.2**	**-0.3**
	comp=Z,0.4nm,0.5s,baz=22,slow=1.1,SNR=4.0							

*MAN **30** 14:31:28.0, 13°.48N × 120°.20E, h10 km, MS3.5*
*IDC **30** 14:31:28.4±1.3, 13°.04N × 120°.64E, h0 km, mb3.7/4, mbtmp3.7/4, Error ellipse: s-maj=184.8km s-min=21.9km az=67.0*

ISC 30 14:31:29.8±1.2, **13°23N**±0°.08 × **120°.62E**±0°.08, **h10** km, **n7, σ 2° 14/10, mb3.6/4, Mindoro**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
TGY	**Tagaytay City**	**0.92**	**19**	*e*P			**Pg**	**14 31 46.9**	**-0.7**
TGY				*e*S			**Sn**	**14 32 00.5**	**-1.7**
LQP	**Lukban**	**1.25**	**45**	*e*P			**Pg**	**14 31 53.7**	**-0.2**
LQP				*e*S			**Sb**	**14 32 07.3**	**-2.6**
GQP	**Guinayangan**	**1.90**	**69**	*e*P			**Pg**	**14 32 05.6**	**-0.6**
GQP				*e*S			**Sg**	**14 32 34.4**	**+3.6**
WRA	**Warramunga Arr**	**35.62**	**157**	P			**P**	**14 38 26.4**	**-1.5**
	2.0nm,0.5s,baz=337,slow=9.5,SNR=19								
	2.0nm,0.5s								
SONM	**Songino Array**	**36.49**	**344**	P			**P**	**14 38 37.0**	**+1.7**
	0.4nm,0.7s,baz=147,slow=8.6,SNR=2.1								
	0.4nm,0.7s								
ASAR	**Alice Springs**	**38.90**	**160**	P			**P**	**14 38 54.5**	**-1.2**
	1.2nm,0.6s,baz=342,slow=9.1,SNR=42								
	1.2nm,0.6s								
MKAR	**Makanchi Array**	**46.37**	**324**	P			**P**	**14 39 57.5**	**+1.2**
	0.3nm,0.8s,baz=117,slow=8.8,SNR=1.8								
	0.3nm,0.8s								

*SDD **30** 14:39:28.7±1.4, 18°.05N × 71°.49W, h5 km±2.6 km, MD2.6, ML2.2, MW2.6, Presumed earthquake*
*OSPL **30** 14:39:29.8±0.9, 18°.23N × 71°.40W, h10 km±7 km, ML2.5, Presumed earthquake*

ISC 30 14:39:29.2±1.1, **18°17N**±0°.04 × **71°44W**±0°.04, **h8** km±8 km, **n10, σ 0° 62/16, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.15**	**92**	*e*P			**Pg**	**14 39 32.5**	**-0.1**
PODR				*e*S			**Sg**	**14 39 36.2**	**+1.2**
PODR				IAML				14 39 38.3	
	comp=N,2μm,0.2s								
PODR	**Polo**	**0.15**	**92**	*i* P			**Pg**	**14 39 32.6**	**-0.1**
PODR				*e*S			**Sg**	**14 39 35.2**	**+0.2**
PODR				IAML				14 39 37.7	
	comp=Z,21μm,0.1s								
LODU1	**El Espartillar**	**0.18**	**351**	*i* P			**Pg**	**14 39 32.3**	**-0.7**
LODU1				*e*S			**Sg**	**14 39 35.2**	**-0.4**
LODU1				IAML				14 39 35.7	
	comp=Z,2μm,0.4s								
LOBH	**Bahia de las A**	**0.36**	**211**	*i* P			**Pb**	**14 39 37.5**	**-0.3**
LOBH				*e*S			**Sb**	**14 39 43.9**	**+0.3**
LOBH				IAML				14 39 48.1	
	comp=Z,145nm,0.7s								
LOVI	**El Cajuil, Ovi**	**0.38**	**169**	*i* P			**Pb**	**14 39 37.6**	**-0.5**
LOVI				IAML				14 39 51.4	
	comp=Z,159nm,0.5s								
LONE3	**El Aguacate, B**	**0.43**	**358**	*i* P			**Pg**	**14 39 37.4**	**-0.3**
LONE3				IAML				14 39 46.1	
	comp=Z,124nm,0.3s								
JIDR	**Jimani**	**0.50**	**309**	*e*Pg			**Pg**	**14 39 39.2**	**+0.3**
JIDR				IAML				14 39 50.5	
	comp=N,144nm,0.5s								
SDDR	**Presa de Saban**	**0.82**	**10**	*e*Pg			**Pg**	**14 39 45.7**	**+0.7**
SDDR				*e*Sg			**Sb**	**14 39 57.8**	**+0.9**
SDDR				IAML				14 40 14.1	
	comp=N,20nm,0.8s								
ABDR	**Alto Bandera**	**1.00**	**50**	*e*Pg			**Pg**	**14 39 47.7**	**-0.9**
ABDR				*e*Sg			**Sn**	**14 40 04.3**	**-0.1**
ABDR				IAML				14 40 16.0	
	comp=N,67nm,0.6s								
BANI	**BANI**	**1.05**	**78**	*e*Pg			**Pg**	**14 39 49.3**	**-0.2**
BANI				IAML				14 40 08.2	
	comp=N,53nm,0.7s								

*NEIC **30** 14:40:30.8±1.2, 53°.80N±0°.06 × 159°.35W±0°.04, h15 km±9 km, mb3.6/6, ML3.5/22, ML3.2(AEIC), Error ellipse: s-maj=9.0km s-min=3.0km az=170.0*
*AEIC **30** 14:40:31.2±2.4, 53°.62N±0°.06 × 159°.43W±0°.07, h14 km±6 km, Error ellipse: s-maj=8.6km s-min=5.5km az=200.0*
*IDC **30** 14:40:31.9±2.7, 54°.31N × 159°.83W, h0 km, mb3.3/2, mbtmp3.3/5, ML3.3/3, Error ellipse: s-maj=59.0km s-min=18.9km az=150.0*

ISC 30 14:40:28.9±2.1, **53°72N**±0°.07 × **159°36W**±0°.04, **h10** km±13 km, **n69, σ 1° 50/72, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**1.11**	**353**				**Pg**	**14 40 51.0**	**+0.7**
CNBA	**Chernabura Isl**	**1.11**	**353**				**Sn**	**14 41 07.7**	**+1.7**
CNBA	**Chernabura Isl**	**1.11**	**353**	IAML				14 41 08.9	
	comp=N,114nm,0.4s								
CNBA				IAML				14 41 09.1	
	comp=E,147nm,0.3s								
SDPT	**Sand Point**	**1.76**	**339**				**Pn**	**14 41 00.2**	**+0.8**
DOL	**Dolgoi Island**	**2.05**	**315**				**Pn**	**14 41 03.8**	**+0.4**
DOL							**Sn**	**14 41 28.8**	**-0.2**
DOL							**Sb**	**14 41 29.1**	**-2.6**
PVV	**Pavlof Volcano**	**2.18**	**321**				**Pn**	**14 41 06.4**	**+1.2**
HAG	**Hague Volcano**	**2.18**	**318**				**Pn**	**14 41 06.6**	**+1.3**
PS4A	**Pavlof South-4**	**2.19**	**319**				**Pn**	**14 41 05.5**	**+0.2**
PS4A							**Sn**	**14 41 32.2**	**-0.2**
PS4A							**Sb**	**14 41 34.4**	**-1.3**
PS1A	**Pavlof South-1**	**2.20**	**322**				**Pn**	**14 41 06.5**	**+1.0**
PS1A							**Sb**	**14 41 34.1**	**-2.0**
DT1	**Dutton Round H**	**2.20**	**310**				**Pn**	**14 41 05.8**	**+0.3**
DT1							**Sn**	**14 41 32.6**	**-0.2**
DTNA	**Dutton South F**	**2.22**	**311**				**Pn**	**14 41 06.4**	**+0.7**
DTNA							**Pb**	**14 41 06.7**	**-2.4**
PN7A	**Pavlof North-7**	**2.31**	**319**				**Pn**	**14 41 08.4**	**+1.4**
VNSW	**Veniaminof 7**	**2.36**	**357**				**Pn**	**14 41 09.9**	**+2.1**
VNSW							**Pb**	**14 41 10.0**	**-1.5**
VNHG	**Veniaminof 1**	**2.51**	**2**				**Pn**	**14 41 12.2**	**+2.4**
S12K	**Black Hills**	**2.53**	**323**	Pn			**Pn**	**14 41 11.2**	**+1.1**
S12K				IAML				14 41 34.1	
	comp=E,155nm,2.5s								
S12K	**Black Hills**	**2.53**	**323**				**Sb**	**14 41 42.4**	**-3.2**
S12K	**Black Hills**	**2.53**	**323**	IAML				14 41 50.3	
	comp=N,153nm,2.4s								
CHGN	**Chignik**	**2.65**	**11**	Pn			**Pn**	**14 41 11.4**	**-0.2**
CHGN				IAML				14 41 48.6	
	comp=E,143nm,0.1s								
ISLZ	**Isanotski Laza**	**2.75**	**293**				**Pn**	**14 41 12.9**	**-0.1**
ISLZ							**Sn**	**14 41 45.6**	**-0.7**
CHIR	**Chirikof Islan**	**3.02**	**44**	Pn			**Pn**	**14 41 16.1**	**-0.7**
CHIR				IAML				14 43 04.7	
	comp=N,182nm,2.8s								
CHIR				IAML				14 43 08.7	
	comp=E,117nm,2.2s								
WTUG	**Tugumak**	**3.16**	**293**				**Pn**	**14 41 20.1**	**+1.4**
WTUG							**Sn**	**14 41 57.0**	**+0.6**
WECS	**Westdahl Cape**	**3.29**	**287**	Pn			**Pn**	**14 41 21.6**	**+1.1**
WECS	**Westdahl Cape**	**3.29**	**287**				**Sn**	**14 41 58.2**	**-1.6**
AKSA	**Akutan Strait**	**3.77**	**279**				**Pn**	**14 41 27.1**	**0.0**
AKSA							**Sn**	**14 42 08.1**	**-3.4**
AKUT	**Akutan**	**3.81**	**279**	Pn			**Pn**	**14 41 28.2**	**+0.5**
AKBBA	**Akutan Broad B**	**3.91**	**278**				**Pn**	**14 41 28.5**	**-0.4**
AKBBA							Pb	14 41 29.6	-8.2
AKLV	**Akutan Long Va**	**3.92**	**279**				**Pn**	**14 41 29.2**	**0.0**
AKLV							Pb	14 41 29.5	-8.6
AKGG	**Akutan Green G**	**3.95**	**280**				**Pn**	**14 41 30.2**	**+0.7**
SII	**Sitkinak Islan**	**4.11**	**44**	Pn			**Pn**	**14 41 31.9**	**+0.1**
SII				IAML				14 42 15.3	
	comp=N,149nm,2.8s								
SII				IAML				14 42 24.3	
	comp=E,125nm,2.1s								
UNV	**Unalaska Valle**	**4.24**	**275**	Pn			**Pn**	**14 41 33.0**	**-0.5**
UNV				IAML				14 43 28.4	
	comp=E,112nm,4.2s								
R17L	**Mt. Peulik Vol**	**4.27**	**22**				**Pn**	**14 41 36.3**	**+2.3**
R17L							Pb	14 41 36.8	-7.3
MNAT	**Makushin Natee**	**4.35**	**275**				**Pn**	**14 41 34.6**	**-0.3**
MSW	**Makushin Switc**	**4.40**	**276**				**Pn**	**14 41 35.5**	**-0.3**
MSW							Pb	14 41 35.6	-11
MGOD	**Makushin Gods**	**4.46**	**274**				**Pn**	**14 41 36.3**	**-0.3**
MAPS	**Pakushin South**	**4.50**	**274**				**Pn**	**14 41 36.8**	**-0.3**
OHAK	**Old Harbor**	**4.92**	**42**	Pn			**Pn**	**14 41 43.0**	**+0.1**
OHAK				IAML				14 44 31.2	
	comp=E,28nm,2.1s								
OHAK				IAML				14 44 31.9	
	comp=N,30nm,2.3s								
Q17K	**Contact Creek**	**4.96**	**22**				**Pn**	**14 41 44.8**	**+1.4**
ANCK	**Angle Creek**	**4.99**	**24**				**Pn**	**14 41 45.6**	**+1.8**
MGLS	**Mageik Landsli**	**5.02**	**26**				**Pn**	**14 41 45.8**	**+1.6**
MGLS							Pb	14 41 46.2	-11
KABR	**Katmai Barrier**	**5.07**	**27**				**Pn**	**14 41 46.5**	**+1.6**
O15K	**Ungalikthiuk R**	**5.48**	**357**				**Pn**	**14 41 52.3**	**+1.8**
O15K							Pb	14 41 52.7	-12
O15K	**Ungalikthiuk R**	**5.48**	**357**	IAML				14 43 39.5	
	comp=N,26nm,2.6s								
O15K				IAML				14 45 19.0	
	comp=E,26nm,2.9s								
Q18K	**Katmai Hardscr**	**5.51**	**24**				**Pn**	**14 41 52.8**	**+1.8**
KDAK	**Kodiak Island**	**5.59**	**40**	Pn			**Pn**	**14 41 51.7**	**-0.3**
	comp=E,0.6nm,0.3s,baz=226,slow=8.6,SNR=30								
KDAK					Sn		**Sn**	**14 42 50.6**	**-5.6**
	comp=E,0.5nm,0.3s,baz=270,slow=13,SNR=6.1								
	comp=E,2.0nm,0.3s								
KDAK					AML	AML			
KDAK	**Kodiak Island**	**5.59**	**40**				**Pn**	**14 41 51.9**	**-0.1**
KDAK					Sn		**Sn**	**14 42 53.0**	**-3.1**
CNPM	**China Poot**	**7.34**	**34**	Pn			**Pn**	**14 42 16.4**	**+0.3**
BRLK	**Bradley Lake**	**7.64**	**34**	Pn			**Pn**	**14 42 20.3**	**+0.1**
EYAK	**Cordova Ski Ar**	**10.06**	**42**	Pn			**Pn**	**14 42 53.2**	**-0.1**
KAIM	**Kayak Island**	**10.27**	**47**	Pn			**Pn**	**14 42 56.8**	**+0.7**
MCARA	**McCarthy VSAT**	**11.63**	**42**	Pn			**Pn**	**14 43 14.6**	**-0.2**
PCA	**Pinnacle**	**12.21**	**51**	Pn			**Pn**	**14 43 23.2**	**+0.5**
K24K	**Donnelly Dome**	**12.29**	**29**	Pn			**Pn**	**14 43 24.2**	**+0.4**
ILAR	**Eielson Array**	**12.76**	**25**	Pn			Pn	14 43 25.5	-4.7
	comp=E,0.1nm,0.3s,baz=211,slow=12,SNR=4.1								
ILAR					Sn		Sn	14 45 42.2	-10
	baz=213,slow=15								
	comp=E,0.4nm,0.8s								
ILAR					AML	AML			
P32M	**Atlin**	**15.22**	**57**	Pn			**Pn**	**14 44 03.8**	**+0.1**
P32M				IAmb		IAmb		14 44 21.4	
	comp=Z,11nm,1.3s								
U33K	**Whale Pass**	**15.24**	**70**	Pn			**Pn**	**14 44 04.6**	**+0.6**
D25K	**Kavik River**	**16.77**	**16**	Pn			**Pn**	**14 44 23.9**	**+0.3**
D25K				IAmb		IAmb		14 44 39.0	
	comp=Z,2.1nm,1.3s								
INK	**Inuvik**	**19.01**	**30**	P			**P**	**14 44 51.5**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=233,slow=10,SNR=8.0								
	comp=Z,1.0nm,0.9s								
INK					AML	AML			
YKA	**Yellowknife Ar**	**24.74**	**51**	P			**P**	**14 45 53.5**	**+3.4**
	comp=Z,0.2nm,0.8s,baz=263,slow=9.9,SNR=2.0								
	comp=Z,0.2nm,0.8s								
PEA0B	**Petropavlovsk-**	**25.32**	**286**	P			**P**	**14 45 56.2**	**+0.7**
PETK	**Petropavlovsk-**	**25.32**	**286**	P			**P**	**14 45 55.9**	**+0.4**
	comp=Z,0.9nm,0.5s,baz=72,slow=12,SNR=9.2								
	comp=Z,0.9nm,0.5s								
PETK	**Petropavlovsk-**	**25.32**	**286**	P			**P**	**14 45 56.4**	**+0.9**
BOZ	**Bozeman (W)**	**31.42**	**85**	P			**P**	**14 46 51.2**	**+1.0**
ULM	**Lac du Bonnet**	**38.10**	**69**	P			**P**	**14 47 47.5**	**0.0**
H11N2	**WAKE ISLAND Hy**	**42.66**	**231**	T			T	15 35 12.2	
	baz=28								
H11N3	**WAKE ISLAND Hy**	**42.66**	**231**	T			T	15 35 16.5	
	baz=28								
H11N1	**WAKE ISLAND Hy**	**42.67**	**231**	T			T	15 35 04.8	
	baz=28								
H11S1	**WAKE ISLAND Hy**	**43.81**	**230**	T			T	15 36 45.0	
	baz=27								
H11S2	**WAKE ISLAND Hy**	**43.82**	**230**	T			T	15 36 43.9	
	baz=27								
H11S3	**WAKE ISLAND Hy**	**43.83**	**230**	T			T	15 36 44.1	
	baz=27								

*KRSC **30** 14:46:22.6±0.8, 53°.78N × 158°.94E, h175 km±8 km, Ml4.5*
*MOS **30** 14:46:22.8±0.8, 53°.85N × 158°.63E, h175 km, mb4.5/22, Error ellipse: s-maj=10.5km s-min=4.5km az=85.6*
*NEIC **30** 14:46:24.5±1.1, 53°.97N±0°.09 × 158°.5E±0°.2, h167 km±6 km, mb4.5/99, Error ellipse: s-maj=14.1km s-min=12.1km az=134.0*
*IDC **30** 14:46:24.2±0.6, 53°.91N × 158°.56E, h171 km±5 km, mb3.8/31, mbtmp4.2/35, MS4.1/1, Error ellipse: s-maj=11.3km s-min=9.1km az=151.0*

ISC 30 14:46:23.6±0.4, **53°83N**±0°.04 × **158°79E**±0°.04, **h166** km±3 km, **n271, σ 1° 98/303, mb4.4/104, 9C-4D, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase	Op	ID	ISC	Time h m s	Res ISC
KII	**Karymskiy**	**0.44**	**62**	PN			**Pn**	**14 46 47.3**	**+0.8**
KII	**Karymskiy**	**0.44**	**62**	*e*P			**Pn**	**14 46 47.3**	**+0.8**
KRX	**Arik**	**0.48**	**190**	PN			**Pn**	**14 46 47.8**	**+1.0**
KRX	**Arik**	**0.48**	**190**	*e*P			**Pn**	**14 46 47.8**	**+1.0**
KRER	**Koryakskii**	**0.53**	**183**	PN			**Pn**	**14 46 48.1**	**+1.0**
KRER	**Koryakskii**	**0.53**	**183**	*e*P			**Pn**	**14 46 48.2**	**+1.0**
KOK	**Koryaka**	**0.55**	**190**	PN			**Pn**	**14 46 48.3**	**+1.2**
KOK	**Koryaka**	**0.55**	**190**	*e*P			**Pn**	**14 46 48.3**	**+1.2**
SDLR	**Sedlovina**	**0.56**	**174**	PN			**Pn**	**14 46 48.1**	**+0.9**
SDLR	**Sedlovina**	**0.56**	**174**	*e*P			**Pn**	**14 46 48.1**	**+0.9**
AVH	**Avacha**	**0.57**	**183**	PN			**Pn**	**14 46 48.3**	**+1.1**
AVH	**Avacha**	**0.57**	**183**	*e*P			**Pn**	**14 46 48.3**	**+1.1**
UGLR	**Uglovaya**	**0.62**	**178**	PN			**Pn**	**14 46 48.1**	**+0.6**
UGLR	**Uglovaya**	**0.62**	**178**	*e*P			**Pn**	**14 46 48.1**	**+0.6**
NLC	**Nalytchevo**	**0.74**	**153**	PN			**Pn**	**14 46 48.4**	**+0.4**
NLC				S			**Sn**	**14 47 07.1**	**+0.4**
NLC	**Nalytchevo**	**0.74**	**153**	*e*P			**Pn**	**14 46 48.4**	**+0.4**
NLC				*e*S			**Sn**	**14 47 07.1**	**+0.4**
INSR	**Institute**	**0.77**	**188**	PN			**Pn**	**14 46 49.1**	**+0.9**
INSR	**Institute**	**0.77**	**188**	*i* P			**Pn**	**14 46 49.2**	**+0.9**
DALK	**Dalny**	**0.80**	**182**	PN			**Pn**	**14 46 49.1**	**+0.7**
DALK				S			**Sn**	**14 47 08.2**	**+0.8**
DALK	**Dalny**	**0.80**	**182**	*e*P			**Pn**	**14 46 49.1**	**+0.7**
DALK				*e*S			**Sn**	**14 47 08.3**	**+0.8**
PET	**Petropavlovsk**	**0.81**	**186**	*k i*PN			**Pn**	**14 46 49.3**	**+0.8**
PET				*e*S			**Sn**	**14 47 08.7**	**+1.1**
PET				pmax			pmax		
	comp=Z,4μm,0.6s								
PET				smax			smax		
	comp=N,2μm,1.0s								
PET				smax			smax		
	comp=E,868nm,0.8s								
PET	**Petropavlovsk**	**0.81**	**186**				**Pn**	**14 46 49.2**	**+0.8**
PET	**Petropavlovsk**	**0.81**	**186**	*e*P			**Pn**	**14 46 49.2**	**+0.8**
PET				*e*S			**Sn**	**14 47 08.6**	**+1.1**
PET	**Petropavlovsk**	**0.81**	**186**	P			**Pn**	**14 46 48.8**	**+0.3**
PEA0B	**Petropavlovsk-**	**0.97**	**222**	PN			**Pn**	**14 46 50.4**	**+0.7**
PEA0B				S			**Sn**	**14 47 10.7**	**+1.0**
PEA0B	**Petropavlovsk-**	**0.97**	**222**				**Pn**	**14 46 50.1**	**+0.4**
PEA0B							**Sn**	**14 47 10.0**	**+0.3**
PETK	**Petropavlovsk-**	**0.97**	**222**	P			**Pn**	**14 46 50.4**	**+0.7**
	comp=E,802nm,0.5s,baz=61,slow=11,SNR=2953								
PETK				S			**Sn**	**14 47 11.4**	**+1.7**
	comp=E,82nm,0.6s,baz=56,slow=22,SNR=2.6								
PETK				LR			LR	14 47 25.9	
	comp=E,92nm,21.7s,baz=37,slow=64								
SPN	**Mys Shipunski**	**1.04**	**134**	PN			**Pn**	**14 46 50.5**	**+0.4**
SPN				S			**Sn**	**14 47 09.9**	**-0.6**
SPN	**Mys Shipunski**	**1.04**	**134**	*e*P			**Pn**	**14 46 50.5**	**+0.4**
SPN				*e*S			**Sn**	**14 47 10.0**	**-0.6**
KRMR	**Karymshinskiy**	**1.08**	**202**	PN			**Pn**	**14 46 51.3**	**+0.8**
KRMR	**Karymshinskiy**	**1.08**	**202**	*i* P			**Pn**	**14 46 51.3**	**+0.8**
APC	**Apacha**	**1.33**	**228**	PN			**Pn**	**14 46 54.0**	**+1.3**
APC				S			**Sn**	**14 47 17.2**	**+2.1**
APC	**Apacha**	**1.33**	**228**	*i* P			**Pn**	**14 46 54.1**	**+1.3**
APC				*e*S			**Sn**	**14 47 17.2**	**+2.1**
GRL	**Gorelyy**	**1.35**	**199**	PN			**Pn**	**14 46 54.3**	**+1.3**
GRL	**Gorelyy**	**1.35**	**199**	*e*P			**Pn**	**14 46 54.3**	**+1.3**
MTVR	**Mutnovka**	**1.40**	**195**	PN			**Pn**	**14 46 54.6**	**+1.1**
MTVR	**Mutnovka**	**1.40**	**195**	*e*P			**Pn**	**14 46 54.6**	**+1.1**
RUS	**Russkaya**	**1.41**	**187**	PN			**Pn**	**14 46 53.5**	**+0.1**
RUS				S			**Sn**	**14 47 15.9**	**-0.5**
RUS	**Russkaya**	**1.41**	**187**	*i* P			**Pn**	**14 46 53.5**	**+0.1**
RUS				*e*S			**Sn**	**14 47 15.9**	**-0.5**
ASAK	**Asacha**	**1.54**	**201**	PN			**Pn**	**14 46 56.0**	**+1.1**
ASAK	**Asacha**	**1.54**	**201**	*e*P			**Pn**	**14 46 56.0**	**+1.1**
KZV	**Kizimen**	**1.56**	**34**	PN			**Pn**	**14 46 56.4**	**+1.4**
KZV	**Kizimen**	**1.56**	**34**	*e*P			**Pn**	**14 46 56.5**	**+1.4**
TUMR	**Tumrok**	**1.66**	**28**	PN			**Pn**	**14 46 58.1**	**+2.1**
TUMR				S			**Sn**	**14 47 23.4**	**+2.2**
TUMR	**Tumrok**	**1.66**	**28**	*e*P			**Pn**	**14 46 58.1**	**+2.1**
TUMR				*e*S			**Sn**	**14 47 23.4**	**+2.2**
MKZ	**Mys Kozlova**	**1.88**	**66**	PN			**Pn**	**14 46 58.3**	**+0.1**
MKZ				S			**Sn**	**14 47 23.7**	**-1.3**
MKZ	**Mys Kozlova**	**1.88**	**66**	*e*P			**Pn**	**14 46 58.3**	**+0.1**
MKZ				*e*S			**Sn**	**14 47 23.8**	**-1.3**
MIPR	**Malaya Ipel'ka**	**1.98**	**219**	PN			**Pn**	**14 47 00.3**	**+0.9**
MIPR	**Malaya Ipel'ka**	**1.98**	**219**	*e*P			**Pn**	**14 47 00.3**	**+0.9**
KDTR	**Khodutka, Kamc**	**2.07**	**192**	PN			**Pn**	**14 47 00.1**	**-0.3**
KDTR				S			**Sn**	**14 47 28.3**	**-0.6**
KDTR	**Khodutka, Kamc**	**2.07**	**192**	*e*P			**Pn**	**14 47 00.2**	**-0.3**
KDTR				*e*S			**Sn**	**14 47 28.4**	**-0.6**
ESO	**Esso**	**2.10**	**359**	PN			**Pn**	**14 47 01.6**	**+0.9**
ESO	**Esso**	**2.10**	**359**	*e*P			**Pn**	**14 47 01.6**	**+0.9**
KMNR	**Kamenistaya**	**2.10**	**23**	PN			**Pn**	**14 47 00.9**	**+0.1**
KMNR	**Kamenistaya**	**2.10**	**23**	*e*P			**Pn**	**14 47 01.0**	**+0.1**
SRDR	**Sredinnyy**	**2.55**	**12**	PN			**Pn**	**14 47 07.7**	**+1.7**
SRDR	**Sredinnyy**	**2.55**	**12**	*e*P			**Pn**	**14 47 07.8**	**+1.7**
PAU	**Pauzhetka**	**2.66**	**208**	PN			**Pn**	**14 47 08.1**	**+0.8**
PAU	**Pauzhetka**	**2.66**	**208**	*e*P			**Pn**	**14 47 08.1**	**+0.8**
SRKR	**Sorokina**	**3.14**	**25**	PN			**Pn**	**14 47 15.5**	**+2.3**
SRKR	**Sorokina**	**3.14**	**25**	*e*P			**Pn**	**14 47 15.6**	**+2.3**
KBG	**Krutoberegovo**	**3.31**	**41**	PN			**Pn**	**14 47 15.6**	**+0.3**
KBG				S			**Sn**	**14 47 55.8**	**+0.1**
KBG	**Krutoberegovo**	**3.31**	**41**	*e*P			**Pn**	**14 47 15.6**	**+0.3**
KBG				*e*S			**Sn**	**14 47 55.9**	**+0.1**
KBTR	**Krutoberegovo**	**3.33**	**43**	PN			**Pn**	**14 47 15.7**	**+0.2**
KBTR	**Krutoberegovo**	**3.33**	**43**	*e*P			**Pn**	**14 47 15.8**	**+0.2**
SKR	**Severo-Kuril's**	**3.55**	**209**	*e*PN			**Pn**	**14 47 19.1**	**+0.6**
SKR				*e*S			**Sn**	**14 48 01.9**	**+0.7**
SKR				pmax			pmax		
	comp=Z,

CCB Clear Creek Bu 28.47 46 P **P** **14 52 03.6 +1.0**
IL31 28.86 46 **P** **14 52 07.0 +1.0**
ILAR Eielson Array 28.86 46 P **P** **14 52 06.0 +0.1**
comp=Z,2.0nm,0.7s,baz=272,slow=8.8,SNR=20
comp=Z,2.0nm,0.7s
D25K Kavik River 29.06 37 IAmb IAmb 14 52 09.2
comp=Z,13nm,0.9s
F25K Christian Rive 29.27 40 P **P** **14 52 10.9 +1.3**
FYU Fort Yukon 29.45 42 P **P** **14 52 12.6 +1.5**
FYU IAmb IAmb 14 52 13.1
comp=Z,14nm,1.2s
C26K Camden Bay 29.61 36 IAmb IAmb 14 52 15.6
comp=Z,17nm,1.1s
BMAR Burnt Mountain 29.68 41 P **P** **14 52 14.7 +1.4**
G26K Porcupine Rive 30.01 42 P **P** **14 52 17.7 +1.7**
SCRK Sand Creek 30.19 48 P **P** **14 52 18.3 +0.4**
SCRK IAmb IAmb 14 52 19.3
comp=Z,9.2nm,1.5s
D27M Malcolm River 30.98 37 IAmb IAmb 14 52 26.7
comp=Z,6.1nm,0.9s
F28M Old Crow 31.48 40 **P** **14 52 30.4 +1.4**
E29M Blow River 32.15 38 IAmb IAmb 14 52 37.4
comp=Z,10nm,1.2s
G29M Pine Creek 32.27 41 IAmb IAmb 14 52 38.7
comp=Z,8.1nm,0.9s
L29M L29M 32.93 48 P **P** **14 52 43.5 +1.7**
L29M IAmb IAmb 14 53 02.4
comp=Z,11nm,1.4s
G30M tAoh Zrail Nji 32.96 41 IAmb IAmb 14 52 43.4
comp=Z,4.0nm,0.5s
SONM Songino Array 32.98 281 P **P** **14 52 41.5 -1.0**
comp=Z,0.6nm,0.4s,baz=55,slow=7.9,SNR=6.6
SONM PcP **PcP** **14 55 22.7 +0.4**
comp=Z,0.4nm,0.3s,baz=71,slow=1.0,SNR=3.7
comp=Z,0.6nm,0.4s
INK Inuvik 33.77 38 P **P** **14 52 50.2 +1.3**
comp=Z,4.8nm,0.3s,baz=279,slow=7.5,SNR=59
comp=Z,4.8nm,0.3s
INK Inuvik 33.77 38 **P** **14 52 50.1 +1.3**
INK IAmb IAmb 14 52 50.6
comp=Z,7.0nm,0.5s
F31M Tsiigehtchic 33.84 40 **P** **14 52 50.6 +1.2**
F31M IAmb IAmb 14 52 51.3
comp=Z,8.7nm,0.5s
HHC Hu-ho-hao-te 33.89 267 *eP* **P** **14 52 51.0 +0.6**
HHC pmax pmax
comp=Z,6.0nm,0.7s
H31M Peel River 33.93 43 P **P** **14 52 51.5 +1.1**
NJ2 Nanjing 35.78 249 *eP* **P** **14 53 06.8 +0.3**
NJ2 pmax pmax
comp=Z,11nm,0.7s
A36M Sachs Harbour 35.89 31 P **P** **14 53 08.3 +1.3**
A36M IAmb IAmb 14 53 09.7
comp=Z,16nm,0.9s
C36M Paulatuk 36.89 35 IAmb IAmb 14 53 17.4
comp=Z,13nm,0.8s
ZALV Zalesovo Beam 41.72 301 P **P** **14 53 54.3 -1.4**
comp=Z,2.2nm,0.6s,baz=58,slow=5.7,SNR=10
ZALV PcP **PcP** **14 55 47.8 -1.0**
comp=Z,0.5nm,0.4s,baz=47,slow=4.8,SNR=3.0
comp=Z,2.2nm,0.6s
ZALV Zalesovo Beam 41.72 301 P **P** **14 53 54.8 -0.9**
ZALV 14 55 47.8
ZALV Zalesovo Beam 41.72 301 P **P** **14 53 54.8 -0.9**
GTA2 Gaotai 41.74 275 *eP* **P** **14 53 56.0 -0.2**
GTA2 pmax pmax
comp=Z,14nm,0.7s
RES Resolute Bay 42.93 22 P **P** **14 54 06.0 +0.8**
RES pmax pmax
comp=Z,7.0nm,1.0s
RES Resolute Bay 42.93 22 P **P** **14 54 06.0 +0.8**
YKAW3 Yellowknife Wh 43.11 43 P **P** **14 54 07.8 +1.1**
YKA Yellowknife Ar 43.15 43 P **P** **14 54 07.8 +0.8**
comp=Z,1.2nm,0.4s,baz=300,slow=8.1,SNR=21
YKA PcP **PcP** **14 55 53.9 +0.5**
comp=Z,0.2nm,0.6s,baz=316,slow=3.4,SNR=2.5
comp=Z,1.2nm,0.4s
SPITS Spitsbergen Ar 46.27 350 P **P** **14 54 31.0 -0.6**
comp=Z,2.6nm,0.4s,baz=48,slow=12,SNR=20
comp=Z,2.6nm,0.4s
SPITS Spitsbergen Ar 46.27 350 P **P** **14 54 31.3 -0.3**
SPITS pmax pmax
comp=Z,48nm,1.4s
SPB2 Spitsbergen Ar 46.28 350 P **P** **14 54 31.5 -0.1**
KURK Kurchatov 46.68 301 P **P** **14 54 34.8 -0.3**
KURK 14 56 05.1
KURK Kurchatov 46.68 301 **P** **14 54 33.7 -1.4**
KURBB Kurchatov Arra 46.78 301 P **P** **14 54 34.8 -1.1**
comp=Z,11nm,0.5s,baz=58,slow=7.6,SNR=85
KURBB PcP **PcP** **14 56 05.1 -1.1**
comp=Z,0.6nm,0.3s,baz=54,slow=2.9,SNR=2.7
comp=Z,11nm,0.5s
MKAR Makanchi Array 47.13 294 P **P** **14 54 37.5 -1.2**
comp=Z,6.5nm,0.5s,baz=56,slow=7.4,SNR=87
comp=Z,6.5nm,0.5s
MKAR Makanchi Array 47.13 294 **P** **14 54 37.3 -1.4**
MAKZ Makanchi 47.30 294 P **P** **14 54 38.6 -1.4**
MAKZ pmax pmax
comp=Z,7.0nm,0.7s
MAKZ Makanchi 47.30 294 **P** **14 54 38.6 -1.4**
MAKZ IAmb IAmb 14 54 39.3
comp=Z,7.3nm,0.7s
BLKN Baker Lake 48.92 34 P **P** **14 54 52.5 +0.4**
BLKN IAmb IAmb 14 54 53.0
comp=Z,8.0nm,0.5s
BVAR Borovoye Array 49.32 307 P **P** **14 54 54.1 -1.2**
comp=Z,10nm,0.6s,baz=57,slow=8.2,SNR=23
BVAR PcP **PcP** **14 56 14.7 -0.7**
comp=Z,1.4nm,0.4s,baz=47,slow=3.0,SNR=6.3
comp=Z,10nm,0.6s
BORK Borovoye 49.34 307 P **P** **14 54 54.2 -1.2**
BORK pmax pmax
comp=Z,7.0nm,0.6s
BORK Borovoye 49.34 307 P **P** **14 54 54.2 -1.2**
BORK IAmb IAmb 14 54 54.8
comp=Z,6.7nm,0.6s
ILON Igloolik, Nuna 49.46 24 P **P** **14 54 56.6 +0.5**
ILON IAmb IAmb 14 54 57.2
comp=Z,7.8nm,0.5s
ARCES ARCESS Array B 52.34 341 P **P** **14 55 16.1 -1.5**
comp=Z,2.7nm,0.8s,baz=35,slow=7.0,SNR=6.0
comp=Z,2.7nm,0.8s
ARTI Arti 52.42 316*c iP* **P** **14 55 17.5 -0.9**
ARTI *PP **pP** **14 55 52.8 -3.6**
ARTI 14 57 13.3
ARTI S **S** **15 02 32.3 +1.2**
ARTI SS **SS** **15 06 08.2 -2.3**
ARTI pmax pmax
comp=Z,5.0nm,0.6s
ARTI Arti 52.42 316 P **P** **14 55 17.2 -1.2**
ARTI IAmb IAmb 14 55 18.0
comp=Z,8.2nm,0.6s
TARG Taragay, Kyrgy 52.87 292 P **P** **14 55 21.2 -1.2**
TARG pmax pmax
comp=Z,10.0nm,1.3s
TARG Taragay, Kyrgy 52.87 292 P **P** **14 55 21.2 -1.2**
TARG IAmb IAmb 14 55 33.4
comp=Z,10nm,1.3s
KDJ Kajisay 52.94 293 P **P** **14 55 21.9 -0.8**
KDJ pmax pmax
comp=Z,15nm,0.7s
KDJ Kajisay 52.94 293 P **P** **14 55 21.9 -0.8**
SUMG Summit 53.32 6 P **P** **14 55 25.5 +0.3**
SUMG pmax pmax
comp=Z,12nm,1.0s
SUMG Summit 53.32 6 P **P** **14 55 25.5 +0.3**
SUMG IAmb IAmb 14 55 26.3
comp=Z,11nm,1.0s
FCC Fort Churchill 53.39 38 P **P** **14 55 26.2 +0.8**
FCC pmax pmax
comp=Z,10.0nm,1.2s
FCC Fort Churchill 53.39 38 P **P** **14 55 26.2 +0.8**
FCC IAmb IAmb 14 55 27.1
comp=Z,10nm,1.2s
AAK Ala-Archa 54.05 295 P **P** **14 55 30.1 -0.6**
AAK pmax pmax
comp=Z,7.0nm,0.9s
AAK Ala-Archa 54.05 295 P **P** **14 55 30.1 -0.6**
AAK IAmb IAmb 14 55 31.0
comp=Z,7.5nm,0.9s
ARSB Arslanbob 55.78 295 P **P** **14 55 42.9 -0.2**
ARSB pmax pmax
comp=Z,5.0nm,0.7s
ARSB Arslanbob 55.78 295 P **P** **14 55 42.9 -0.2**
ARSB IAmb IAmb 14 55 44.0
comp=Z,4.7nm,0.7s

KK31 Karatay Array 55.85 298 P **P** **14 55 41.9 -1.5**
KK31 pmax pmax
comp=Z,5.0nm,0.7s
KK31 Karatay Array 55.85 298 **P** **14 55 41.9 -1.5**
KK31 IAmb IAmb 14 55 42.7
comp=Z,4.8nm,0.7s
KKAR Karatay Array 55.85 298 P **P** **14 55 41.8 -1.6**
KKAR Karatay Array 55.85 298 **P** **14 55 41.8 -1.6**
KSH2 Kashi 55.89 291 P **P** **14 55 43.3 -0.6**
KSH2 pmax pmax
comp=Z,5.0nm,0.8s
NVAR Mina Array Bea 56.22 70 P **P** **14 55 46.8 +0.4**
comp=Z,0.4nm,0.4s,baz=318,slow=8.2,SNR=3.6
comp=Z,0.4nm,0.4s
AB31 Akbulak array 56.72 309 **P** **14 55 48.0 -1.4**
AB31 IAmb IAmb 14 55 49.3
comp=Z,3.0nm,0.6s
ABKAR Akbulak array 56.72 309 P **P** **14 55 48.0 -1.4**
SFJD Kangerlussuaq 57.48 13 P **P** **14 55 54.0 -0.4**
SFJD pmax pmax
comp=Z,23nm,1.3s
SFJD Kangerlussuaq 57.48 13 P **P** **14 55 54.0 -0.4**
CMAR Chiang Mai Arr 57.58 256 P **P** **14 55 54.6 -1.3**
comp=Z,0.6nm,0.6s,baz=47,slow=7.7,SNR=5.9
comp=Z,0.6nm,0.6s
CMAR Chiang Mai Arr 57.58 256*ce*P **P** **14 55 55.0 -0.9**
CMAR pmax pmax
comp=Z,1.0nm,0.8s
DRK Karamyk 57.72 294 IAmb IAmb 14 55 57.3
comp=Z,8.1nm,0.8s
BW06 Boulder Array 57.84 60 P **P** **14 55 59.5 +1.8**
PD31 Pinedale Array 57.84 60 P **P** **14 55 59.4 +1.7**
PDAR Pinedale Array 57.84 60 P **P** **14 55 58.3 +0.7**
comp=Z,1.3nm,0.6s,baz=317,slow=6.6,SNR=6.8
comp=Z,1.3nm,0.6s
PDAR Pinedale Array 57.84 60 P **P** **14 55 59.7 +2.0**
ULM Lac du Bonnet 58.88 46 P **P** **14 56 04.2 -0.2**
comp=Z,1.8nm,0.3s,baz=316,slow=7.0,SNR=6.3
comp=Z,1.8nm,0.3s
ULM Lac du Bonnet 58.88 46 P **P** **14 56 05.4 +1.0**
ULM pmax pmax
comp=Z,9.0nm,1.4s
ULM Lac du Bonnet 58.88 46 P **P** **14 56 05.4 +1.0**
ULM IAmb IAmb 14 56 07.4
comp=Z,9.1nm,1.4s
FIA1 FINESS Array S 59.13 336 P **P** **14 56 05.4 -0.5**
FINES FINESS Array B 59.13 336 P **P** **14 56 04.6 -1.4**
comp=Z,2.3nm,0.3s,baz=38,slow=7.1,SNR=37
FINES PcP **PcP** **14 56 51.2 -1.5**
comp=Z,4.7nm,1.1s,baz=98,slow=2.8,SNR=3.4
comp=Z,2.3nm,0.3s
FINES FINESS Array B 59.13 336 P **P** **14 56 05.4 -0.5**
RSSD Black Hills 59.64 56 P **P** **14 56 11.8 +1.7**
RSSD pmax pmax
comp=Z,7.0nm,0.6s
RSSD Black Hills 59.64 56 P **P** **14 56 11.8 +1.7**
RSSD IAmb IAmb 14 56 12.6
comp=Z,6.7nm,0.6s
BELG Belogornoye 59.65 319*ce*P **P** **14 56 09.0 -0.7**
BELG pmax pmax
comp=Z,4.0nm,0.6s
PV05 Paradox Valley 61.48 64 P **P** **14 56 24.7 +2.0**
PV05 IAmb IAmb 14 56 26.3
comp=Z,4.2nm,0.7s
NC405 NORSAR Array S 62.45 343 P **P** **14 56 27.7 -0.7**
NC204 NORSAR Array S 62.47 343 P **P** **14 56 28.0 -0.6**
NB201 NORSAR Array S 62.59 343 P **P** **14 56 28.8 -0.6**
NB2 NORSAR Subarra 62.61 343 P **P** **14 56 28.9 -0.6**
comp=Z,0.7nm,0.4s,baz=25,slow=6.9
NOA NORSAR Array B 62.61 343 P **P** **14 56 28.9 -0.6**
comp=Z,1.7nm,0.6s,baz=22,slow=6.6,SNR=10
comp=Z,1.7nm,0.6s
TBO Thunder Bay 62.82 44 P **P** **14 56 31.9 +0.8**
HFS Hagfors 63.00 341 P **P** **14 56 31.3 -0.7**
comp=Z,1.2nm,0.4s,baz=57,slow=5.3,SNR=8.5
comp=Z,1.2nm,0.4s
E38A The Farm, Brul 63.52 46 P **P** **14 56 36.5 +0.8**
MNK Minsk 64.67 331 *i* P **P** **14 56 42.8 -0.2**
MNK *i* 14 57 15.3
MNK *i *PP **pP** **14 57 23.5 +1.1**
MNK *i* 14 59 06.7
MNK *i* PPP PPP 15 00 40.5
MNK *i* S **S** **15 05 09.8 +0.5**
MNK *i *SS **sS** **15 06 16.1 -1.1**
MNK *i* SS **SS** **15 09 24.4 +2.3**
MNK pmax pmax
comp=Z,6.0nm,0.7s
MNK pmax pmax
comp=N,9.0nm,0.8s
MNK pmax pmax
comp=E,39nm,0.8s
MNK Minsk 64.67 331 *i* P **P** **14 56 42.8 -0.2**
comp=E,39nm,0.8s
MNK *i* P **P** **14 56 42.8 -0.2**
comp=N,9.0nm,0.8s
MNK *i* P **P** **14 56 42.8 -0.2**
comp=Z,6.0nm,0.7s,baz=30
MNK *i* pP **pP** **14 57 23.5 +1.1**
MNK *i* sP sP 14 57 53.0 +13
MNK *i* PP **PP** **14 59 06.7 0.0**
MNK *i* PPP PPP 15 00 40.5
MNK *i* S **S** **15 05 09.9 +0.5**
MNK *i* sS **sS** **15 06 16.2 -1.1**
MNK *i* SS **SS** **15 09 24.4 +2.3**
MNK *i* SSS SSS 15 12 06.1
SCHQ Schefferville 65.35 27 P **P** **14 56 47.3 -0.1**
comp=Z,2.7nm,0.6s,baz=319,slow=9.3,SNR=1.8
comp=Z,2.7nm,0.6s
AKASG Malin Array Be 67.58 328 P **P** **14 57 00.5 -1.1**
comp=Z,0.8nm,0.3s,baz=31,slow=6.4,SNR=6.3
comp=Z,0.8nm,0.3s
KBZ Khabaz 68.46 315 P **P** **14 57 06.5 -0.7**
comp=Z,4.6nm,0.8s,baz=45,slow=1.4,SNR=9.5
comp=Z,4.6nm,0.8s
I49A Point Hope 69.31 43 P **P** **14 57 14.2 +1.7**
LDAQ Lac Daran 70.09 33 P **P** **14 57 17.7 +0.4**
LDAQ IAmb IAmb 14 57 19.0
comp=Z,17nm,1.3s
EKA Eskdalemuir Ar 70.19 349 P **P** **14 57 17.4 -0.2**
comp=Z,2.5nm,0.4s,baz=14,slow=5.6,SNR=17
comp=Z,2.5nm,0.4s
TXAR Lajitas Array 71.06 66 P **P** **14 57 23.9 +0.4**
comp=Z,0.7nm,0.5s,baz=318,slow=6.9,SNR=7.5
TXAR LR LR 15 27 50.1
comp=Z,117nm,19.1s,baz=260,slow=35
comp=Z,0.7nm,0.5s
CLL Collm 71.38 338 P **P** **14 57 24.7 -0.3**
CLL pmax pmax
comp=Z,6.0nm,0.6s
CLL Collm 71.38 338 P **P** **14 57 24.6 -0.3**
CLL IAmb IAmb 14 57 25.1
comp=Z,6.3nm,0.6s
CLL Collm 71.38 338⇓ *iP* **P** **14 57 24.6 -0.3**
comp=Z,7.0nm,0.6s
S44A Carbondale 71.67 51 P **P** **14 57 27.6 +0.7**
S44A IAmb IAmb 14 57 28.1
comp=Z,8.6nm,0.8s
MORC Moravsky Berou 71.73 335 *eP* **P** **14 57 27.3 +0.2**
LANS Liptovska Anna 71.80 333 *eP* **P** **14 57 28.6 +1.1**
LANS Liptovska Anna 71.80 333 *eP* **P** **14 57 28.6 +1.1**
E62A Clayton Lake 71.83 33 P **P** **14 57 28.1 +0.3**
E62A IAmb IAmb 14 57 28.4
comp=Z,5.7nm,0.7s
BATG Bathurst New B 72.32 30 P **P** **14 57 31.2 +0.6**
BATG IAmb IAmb 14 57 59.9
comp=Z,16nm,1.3s
VRAC Vranov 72.40 335 *eP* **P** **14 57 31.5 +0.4**
VYHS Vyhne 72.57 333 *eP* **P** **14 57 32.5 +0.4**
VYHS Vyhne 72.57 333 *eP* **P** **14 57 32.5 +0.4**
KRUC Moravsky 72.68 335 *eP* **P** **14 57 33.0 +0.3**
F64A Sherman 72.88 32 P **P** **14 57 34.3 +0.4**
KHC Kasperske Hory 73.29 337⇑ *eP* **P** **14 57 36.9 +0.6**
KHC pmax pmax
comp=Z,8.0nm,2.5s
GERES GERESS Array B 73.53 337 P **P** **14 57 37.3 -0.5**
comp=Z,1.3nm,0.5s,baz=26,slow=6.0,SNR=11
comp=Z,1.3nm,0.5s
G65A Princeton 73.72 32 P **P** **14 57 39.5 +0.6**
CONA Conrad Observa 73.86 335 *i* P **P** **14 57 40.7 +0.9**
comp=Z,2.9nm,0.6s
SESA Seetaler Alpe, 74.94 336 *i* P **P** **14 57 47.0 +0.9**
comp=Z,5.2nm,0.6s
LESA Schwarzleotal 75.10 337 *i* P **P** **14 57 47.6 +0.7**
comp=Z,2.8nm,0.6s
SOKA Soboth 75.23 335 *i* P **P** **14 57 48.3 +0.6**
comp=Z,3.4nm,0.5s

KBA Koelnbreinsper 75.27 336 *i* P **P** **14 57 49.2 +1.3**
comp=Z,10.0nm,0.6s
WATA Walderalm 75.44 338 *i* P **P** **14 57 49.6 +0.7**
comp=Z,2.5nm,0.5s
RETA Reutte 75.47 338 *i* P **P** **14 57 49.5 +0.5**
comp=Z,2.6nm,0.6s
WTTA Wattenberg 75.49 338 *i* P **P** **14 57 49.6 +0.3**
comp=Z,3.1nm,0.5s
MOTA Moosalm 75.53 338 *i* P **P** **14 57 50.0 +0.6**
comp=Z,1.8nm,0.4s
BR131 Keskin Array S 75.55 319⇑ *i*P **P** **14 57 49.2 -0.5**
BRTR Keskin Array B 75.55 319 P **P** **14 57 49.2 -0.5**
comp=Z,1.6nm,0.7s,baz=50,slow=2.6,SNR=9.4
comp=Z,1.6nm,0.7s
MYKA Terra Mystica 75.62 336 *i* P **P** **14 57 50.6 +0.7**
comp=Z,1.9nm,0.4s
SQTA Sankt Quirin 75.63 338 *i* P **P** **14 57 50.8 +0.8**
comp=Z,6.4nm,0.8s
ABTA Abfaltersbach 75.78 337 *i* P **P** **14 57 51.2 +0.5**
comp=Z,7.8nm,0.9s
DAVA Damuels 75.86 339 *i* P **P** **14 57 51.6 +0.3**
comp=Z,12nm,1.8s
FETA Feichten 75.92 338 *i* P **P** **14 57 52.5 +0.9**
comp=Z,3.7nm,0.6s
FUORN Ofenpass-Fuorn 76.41 338 P **P** **14 57 54.5 -0.1**
WRA Warramunga Arr 76.43 204 P **P** **14 57 55.5 +0.9**
comp=Z,1.3nm,0.8s,baz=16,slow=5.8,SNR=7.0
comp=Z,1.3nm,0.8s
WRA Warramunga Arr 76.43 204*ce*P **P** **14 57 55.7 +1.2**
WRA pmax pmax
comp=Z,1.0nm,0.7s
TUE Stuetta 76.75 339 **P** **14 57 56.5 +0.1**
TUE IAmb IAmb 14 57 57.7
comp=Z,9.2nm,0.7s
SSB Saint Sauveur 78.85 342 P **P** **14 58 08.4 +0.6**
SSB pmax pmax
comp=Z,4.0nm,0.7s
SSB Saint Sauveur 78.85 342 P **P** **14 58 08.4 +0.6**
FDMO Fiordimonte 79.13 335 P **P** **14 58 09.8 +0.5**
AS31 Alice Springs 80.12 203 P **P** **14 58 16.1 +1.4**
ASAR Alice Springs 80.12 203 P **P** **14 58 16.2 +1.5**
comp=Z,1.3nm,0.7s,baz=16,slow=6.4,SNR=29
comp=Z,1.3nm,0.7s
ASAR Alice Springs 80.12 203 P **P** **14 58 16.1 +1.3**
MMAI Mount Meron Ar 80.64 315 P **P** **14 58 17.7 0.0**
comp=Z,1.6nm,0.5s,baz=50,slow=12,SNR=2.7
comp=Z,1.6nm,0.5s
ITM Ithomi 82.00 327 P **P** **14 58 23.5 -1.2**
RAYN Ar Rayn 84.00 302 P **P** **14 58 34.6 -0.7**
RAYN pmax pmax
comp=Z,10.0nm,1.5s
RAYN Ar Rayn 84.00 302 P **P** **14 58 34.6 -0.7**
RAYN IAmb IAmb 14 58 35.5
comp=Z,9.6nm,1.4s
ESDC Sonseca Array 85.69 347 P **P** **14 58 43.4 0.0**
comp=Z,2.3nm,0.6s,baz=7.2,slow=4.3,SNR=4.2
comp=Z,2.3nm,0.6s
QSPA South Pole Qui 143.58 180 PKP PKPbc 15 05 34.3 -0.6
comp=Z,2.0nm,0.9s,baz=66,slow=0.0,SNR=11
PLCA Paso Flores 144.79 89 PKP PKPbc 15 05 38.7 -0.7
comp=Z,1.7nm,0.9s,baz=270,slow=7.1,SNR=3.5

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*SOME **30** 14:54:37.5, 44°.12N×83°.60E, h10km*
*NNC **30** 14:54:38.1±1.8, 44°.04N×83°.56E, h22km±11km, mb4.2, mpv3.9, Error ellipse: s-maj=15.2km s-min=6.2km az=127.0*

ISC 30 14:54:38.0±1.7, **44°.03N**±0°.07×**83°.54E**±0°.08, **h10**km, **n26, σ2s02/37, 3C-6D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase	ID Op	ID ISC	Time h m s	Res ISC
KTMS	**Ketmen** 21nm,0.3s	**2.38**	**257**	Pg	**Pg**	**Pg**	**14 55 22.9**	**-0.7**
KTMS	68nm,0.4s			Lg	Lg	Lg	14 55 56.2	
KTMS	**Ketmen** 21nm,0.3s	**2.38**	**257**	*e*P	**Pg**	**Pg**	**14 55 22.9**	**-0.7**
KTMS	68nm,0.4s			*e*S	**Sg**	**Sg**	**14 55 56.2**	**+1.7**
DJR	**Jarkent** 29nm,0.3s	**2.71**	**278**	Pg	**Pb**	**Pb**	**14 55 26.8**	**+0.1**
DJR	58nm,0.2s			Lg	Lg	Lg	14 56 02.8	
DJR	**Jarkent** 29nm,0.3s	**2.71**	**278**	*e*P	**Pb**	**Pb**	**14 55 26.8**	**+0.1**
DJR	58nm,0.2s			*e*S	**Sb**	**Sb**	**14 56 02.8**	**+2.8**
MK31	**Makanchi Array** 2.0nm,0.3s,baz=158,slow=17,SNR=31	**2.91**	**343**	⇓Pg	**Pg**	**Pg**	**14 55 32.4**	**-1.2**
MK31	4.9nm,0.5s,baz=155,slow=21,SNR=3.6			⇑Sn	**Sn**	**Sn**	**14 55 57.6**	**-1.6**
MK31	6.6nm,0.2s,baz=159,slow=27,SNR=13			⇑Lg	Lg	Lg	14 56 09.1	
MAKZ	**Makanchi** 10.0nm,0.5s	**2.99**	**339**	⇓Pg	**Pg**	**Pg**	**14 55 33.7**	**-1.6**
MAKZ				Lg	Lg	Lg	14 56 12.0	
PDGK	**Podgornoye** 6.5nm,0.3s	**3.02**	**258**	⇓Pg	**Pb**	**Pb**	**14 55 32.1**	**+0.2**
SHLS	**Shalkode** 14nm,0.3s	**3.09**	**255**	Pg	**Pn**	**Pn**	**14 55 29.6**	**+2.7**
SHLS	219nm,0.3s			Lg	Lg	Lg	14 56 07.7	
KAPS	**Kapalarasan** 7.6nm,0.2s	**3.24**	**294**	Pg	**Pg**	**Pg**	**14 55 38.8**	**-1.2**
KAPS	55nm,0.1s			Lg	Lg	Lg	14 56 23.1	
KAPS	**Kapalarasan** 7.6nm,0.2s	**3.24**	**294**	*e*P	**Pg**	**Pg**	**14 55 38.8**	**-1.2**
KAPS	55nm,0.1s			*e*S	**Sg**	**Sg**	**14 56 23.1**	**+1.1**
UZB	**Uzynbulak** 6.4nm,0.3s	**3.40**	**257**	Pg	**Pb**	**Pb**	**14 55 37.6**	**-0.7**
UZB	18nm,0.3s			Lg	Lg	Lg	14 56 21.6	
UZB	**Uzynbulak** 6.3nm,0.3s	**3.40**	**257**	*e*P	**Pb**	**Pb**	**14 55 40.1**	**+1.7**
UZB	32nm,0.2s			*e*S	**Sg**	**Sg**	**14 56 24.9**	**-2.1**
ZSN	**Zaisan** 18nm,0.1s	**3.55**	**15**	Pg	**Pb**	**Pb**	**14 55 40.5**	**-0.3**
ZSN	42nm,0.5s			Lg	Lg	Lg	14 56 26.3	
ZSN	**Zaisan** 18nm,0.1s	**3.55**	**15**	*e*P	**Pb**	**Pb**	**14 55 40.5**	**-0.3**
ZSN	42nm,0.5s			*e*S	**Sb**	**Sb**	**14 56 26.3**	**+2.4**
KURS	**Kuram** 11nm,0.4s	**3.93**	**264**	Pg	**Pg**	**Pg**	**14 55 52.0**	**-1.1**
KURS	17nm,0.5s			Lg	Lg	Lg	14 56 46.0	
KURS	**Kuram** 2.1nm,0.3s	**3.93**	**264**	*e*P	**Pb**	**Pb**	**14 55 49.9**	**+2.6**
KURS	17nm,0.5s			*e*S	**Sg**	**Sg**	**14 56 41.9**	**-2.1**
ARXS	**Arharly** 46nm,0.3s	**4.12**	**275**	Pg	**Pg**	**Pg**	**14 55 54.8**	**-2.1**
ARXS	33nm,0.3s			Lg	Lg	Lg	14 56 50.4	
ARXS	**Arharly** 46nm,0.3s	**4.12**	**275**	*e*P	**Pg**	**Pg**	**14 55 54.8**	**-2.1**
ARXS	33nm,0.3s			*e*S	**Sg**	**Sg**	**14 56 50.4**	**+0.2**
KOTS	**Kotyrbulak** 7.8nm,0.5s	**4.73**	**263**	Pg	**Pg**	**Pg**	**14 56 06.2**	**-2.5**
KOTS	38nm,0.5s			Lg	Lg	Lg	14 57 10.5	
KOTS	**Kotyrbulak** 7.8nm,0.5s	**4.73**	**263**	*e*P	**Pg**	**Pg**	**14 56 06.2**	**-2.5**
KOTS	38nm,0.5s			*e*S	**Sg**	**Sg**	**14 57 10.6**	**+0.6**
MDOK	**Medeo** 9.2nm,0.4s	**4.79**	**262**	Pg	**Pg**	**Pg**	**14 56 06.5**	**-3.2**
MDOK	17nm,0.4s			Lg	Lg	Lg	14 57 10.7	
MDOK	**Medeo** 9.2nm,0.4s	**4.79**	**262**	*e*P	**Pg**	**Pg**	**14 56 06.5**	**-3.2**
MDOK	17nm,0.4s			*e*S	**Sg**	**Sg**	**14 57 10.7**	**-1.1**
DGS	**Degeres** 2.8nm,0.3s	**5.69**	**265**	Pg	**Pg**	**Pg**	**14 56 22.9**	**-4.0**
DGS	13nm,0.4s			Lg	Lg	Lg	14 57 39.0	
DGS	**Degeres** 2.8nm,0.3s	**5.69**	**265**	*e*P	**Pg**	**Pg**	**14 56 22.9**	**-4.0**
DGS	13nm,0.4s			*e*S	**Sg**	**Sg**	**14 57 39.0**	**-1.7**

KURBB	**Kurchatov Arra**	**7.42**	**335**	⇓Sn		**Sn**	**14 57 50.1**	**-0.4**
	4.7nm,0.6s							
KURBB				⇓Lg		Lg	14 58 33.9	
	38nm,0.7s							
KURK	**Kurchatov**	**7.48**	**335**	⇓Sn		**Sn**	**14 57 49.7**	**-2.1**
	1.0nm,0.4s							
KURK				⇑Lg		Lg	14 58 32.8	
	8.1nm,0.6s							

*SDD **30** 15:03:15.2±2.3, 18°.14N×71°.45W, h12km±12km, MD2.7, ML2.2, MW2.7, Presumed earthquake*
*OSPL **30** 15:03:15.6±0.6, 18°.24N×71°.43W, h4km±8km, ML2.2, Presumed earthquake*

ISC 30 15:03:15.1±1.0, **18°.23N**±0°.03×**71°.44W**±0°.03, **h8**km±7km, **n13**, σ**0°64**/21, **2C**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
LODU1	**El Espartillar**	**0.13**	**346**	*i* P	**Pg**	**15 03 17.6**	**-0.4**
LODU1				*e*S	**Sg**	**15 03 19.7**	**-0.1**
LODU1				IAML		15 03 20.6	
	comp=Z,2μm,0.4s						
PODR	**Polo**	**0.17**	**112**	⇑*e*P	**Pg**	**15 03 18.3**	**-0.3**
PODR				*e*Sg	**Sb**	**15 03 22.3**	**+1.2**
PODR				IAML		15 03 25.2	
	comp=N,780nm,0.5s						
PODR	**Polo**	**0.17**	**112**	*i* P	**Pg**	**15 03 18.3**	**-0.3**
PODR				*e*S	**Sg**	**15 03 20.9**	**-0.2**
PODR				IAML		15 03 24.1	
	comp=Z,8μm,0.1s						
NEDR	**Neiba UASD**	**0.25**	**5**	*e*Pg	**Pg**	**15 03 20.5**	**+0.3**
NEDR				*e*Sg	**Sb**	**15 03 26.8**	**+0.3**
NEDR				IAML		15 03 27.6	
	comp=N,416nm,0.5s						
LONE3	**El Aguacate, B**	**0.37**	**358**	*i* P	**Pg**	**15 03 22.6**	**+0.1**
LONE3				IAML		15 03 31.5	
	comp=Z,151nm,0.4s						
LOBH	**Bahia de las A**	**0.41**	**207**	*i* P	**Pg**	**15 03 23.2**	**+0.1**
LOBH				*e*S	**Sg**	**15 03 29.0**	**+0.5**
LOBH				IAML		15 03 37.1	
	comp=Z,162nm,4.0s						
LOVI	**El Cajuil, Ovi**	**0.43**	**171**	*i* P	**Pg**	**15 03 23.5**	**0.0**
LOVI				IAML		15 03 35.6	
	comp=Z,68nm,1.0s						
JIDR	**Jimani**	**0.47**	**304**	*e*Pg	**Pg**	**15 03 24.5**	**+0.3**
JIDR				*e*Sg	**Sb**	**15 03 33.3**	**+0.7**
SDDR	**Presa de Saban**	**0.76**	**11**	*e*Pg	**Pb**	**15 03 30.6**	**-0.1**
SDDR	**Presa de Saban**	**0.76**	**11**	*i* P	**Pb**	**15 03 29.2**	**-1.5**
SDDR				IAML		15 03 47.3	
	comp=Z,23nm,3.5s						
REDR	**Restauracion**	**0.93**	**3**	⇑*e*Pg	**Pn**	**15 03 34.2**	**-0.3**
REDR				IAML		15 03 51.0	
	comp=N,47nm,0.2s						
ABDR	**Alto Bandera**	**0.97**	**53**	*e*Pg	**Pb**	**15 03 33.9**	**-0.4**
ABDR				IAML		15 03 47.4	
	comp=N,44nm,1.2s						
ABDR				*i* S	**Sg**	**15 03 47.6**	**+1.2**
BANI	**BANI**	**1.04**	**81**	*e*Pg	**Pg**	**15 03 35.6**	**+0.4**
BANI				*e*Sg	**Sg**	**15 03 48.6**	**-0.1**
BANI				IAML		15 03 55.1	
	comp=N,41nm,0.5s						

*IDC **30** 15:03:21.0±1.3, 2°.05N×127°.81E, h0km, mb3.6/5, mbtmp3.8/6, ML4.3/1, MS2.9/2, Error ellipse: s-maj=46.9km s-min=20.4km az=56.0*
*DJA **30** 15:03:30.8±0.8, 2°.N×7°×12°.8E±°, h23km±6km, M4.0/6, mb4.3/1, mb4.3/1, ML3.8/6, MLv3.9/6, MLv4.0/3*
*NEIC **30** 15:03:30.6±1.4, 2°.20N±0°.08×128°.45E±0°.06, h71km±9km, mb4.7/13, Error ellipse: s-maj=11.6km s-min=8.6km az=208.0*

ISC 30 15:03:28.5±0.6, **2°.17N**±0°.06×**128°.54E**±0°.09, **h50**km, **n34**, σ**1°76**/30, **mb4.2**/**9**, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GAMI	**Galela, Maluku**	**0.82**	**246**	P	**Pn**	**15 03 43.4**	**-0.5**
GAMI				S	**Sn**	**15 03 54.1**	**-1.0**
GAMI				AML	AML		
GAMI				AML	AML		
TNTI	**Ternate**	**1.82**	**220**		**Pn**	**15 03 58.1**	**+0.7**
TNTI	**Ternate**	**1.82**	**220**	P	**Pn**	**15 03 58.1**	**+0.7**
SIJI	**Sorong**	**4.07**	**138**	Pn	**Pn**	**15 04 30.6**	**+2.3**
	16nm,0.3s,baz=336,slow=22,SNR=64						
SIJI				Sn	**Sn**	**15 05 17.2**	**+2.5**
	9.3nm,0.3s,baz=192,slow=23,SNR=16						
SIJI				LR	LR	15 06 27.6	
	comp=Z,54nm,21.5s,baz=23,slow=41						
	35nm,0.3s						
SIJI				AML	AML		
DAV	**Davao City (W)**	**5.69**	**329**	Pn	**Pn**	**15 04 51.9**	**+1.3**
KCP	**Kidapawan**	**5.91**	**325**	*i* P	**Pn**	**15 04 58.2**	**+4.6**
KCP				*e*S	**Sn**	**15 06 04.3**	**+4.3**
FAKI	**Fak Fak**	**6.27**	**144**	Pn	**Pn**	**15 05 01.2**	**+2.7**
LUWI	**Luwuk**	**6.59**	**241**	Pn	**Pn**	**15 05 04.5**	**+1.6**
MTN	**Manton Dam**	**15.14**	**170**	Pn	**Pn**	**15 06 59.6**	**+0.3**
MTN				IAmb	IAmb	15 07 05.5	
	comp=Z,10nm,1.4s						
FITZ	**Fitzroy Crossi**	**20.34**	**188**	P	P	15 07 55.7	-5.2
	comp=Z,2.4nm,1.0s,baz=28,slow=15,SNR=1.9						
	comp=Z,2.4nm,1.0s						
COEN	**Coen**	**21.62**	**138**	P	**P**	**15 08 15.6**	**+1.0**
PMG	**Port Moresby**	**21.83**	**122**	LR	LR	15 18 13.3	
	comp=Z,77nm,19.2s,baz=208,slow=40						
WB0	**Warramunga Arr**	**22.55**	**165**	P	**P**	**15 08 25.4**	**+0.9**
WB0				IAmb	IAmb	15 08 28.5	
	comp=Z,26nm,1.9s						
WRA	**Warramunga Arr**	**22.70**	**166**	P	**P**	**15 08 26.0**	**-0.2**
	comp=Z,1.0nm,0.7s,baz=343,slow=11,SNR=7.0						
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	**22.70**	**166**	P	**P**	**15 08 25.7**	**-0.5**
WR8	**Warramunga Arr**	**22.75**	**165**	P	**P**	**15 08 26.7**	**-0.1**
WR8				IAmb	IAmb	15 08 29.9	
	comp=Z,18nm,1.6s						
AS31	**Alice Springs**	**26.21**	**169**	P	**P**	**15 08 59.4**	**+0.6**
ASAR	**Alice Springs**	**26.21**	**169**	P	**P**	**15 08 58.8**	**0.0**
	comp=Z,0.6nm,0.7s,baz=353,slow=7.5,SNR=21						
ASAR				PcP	**PcP**	**15 12 23.2**	**-1.7**
	comp=Z,0.4nm,0.6s,baz=345,slow=1.9,SNR=6.9						
	comp=Z,0.6nm,0.7s						
JHJ2	**Mitsune**	**32.55**	**18**	P	**P**	**15 09 54.4**	**-0.5**
BBOO	**Buckleboo**	**35.51**	**169**	P	**P**	**15 10 20.0**	**-0.6**
BBOO				IAmb	IAmb	15 10 53.9	
	comp=Z,41nm,1.5s						
STKA	**Stephens Creek**	**36.06**	**161**	P	**P**	**15 10 25.4**	**0.0**
	comp=Z,1.5nm,0.4s,baz=343,slow=9.7,SNR=8.9						
	comp=Z,1.5nm,0.4s						
NWAO	**Narrogin (SRO)**	**36.51**	**196**	P	**P**	**15 10 28.7**	**-0.5**
H11S3	**WAKE ISLAND Hy**	**40.74**	**64**	T	T	15 54 29.7	
	baz=252						
H11S2	**WAKE ISLAND Hy**	**40.76**	**64**	T	T	15 54 29.5	
	baz=252						
H11S1	**WAKE ISLAND Hy**	**40.76**	**64**	T	T	15 54 34.8	
	baz=252						
H11N1	**WAKE ISLAND Hy**	**41.33**	**62**	T	T	15 55 07.7	
	baz=252,slow=75						
H11N2	**WAKE ISLAND Hy**	**41.34**	**62**	T	T	15 55 18.6	
	baz=252						
H11N3	**WAKE ISLAND Hy**	**41.35**	**62**	T	T	15 55 15.0	
	baz=252,slow=75						
PETK	**Petropavlovsk-**	**56.21**	**21**	P	**P**	**15 13 03.3**	**-0.2**
MKAR	**Makanchi Array**	**59.86**	**325**	P	**P**	**15 13 27.0**	**-2.2**
	comp=Z,0.3nm,0.4s,baz=115,slow=8.0,SNR=6.3						
	comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	**59.86**	**325**	P	**P**	**15 13 26.7**	**-2.5**
H19K	**Roundabout Mou**	**81.84**	**24**	P	**P**	**15 15 41.4**	**-0.7**
H19K				IAmb	IAmb	15 17 58.2	
	comp=Z,36nm,1.9s						
RC01	**Rabbit Creek A**	**84.10**	**29**	P	**P**	**15 15 52.9**	**-1.0**
SML	**Sawmill**	**84.84**	**28**	P	**P**	**15 15 56.9**	**-0.8**
SML				IAmb	IAmb	15 17 45.3	
	comp=Z,44nm,1.6s						

*NORS **30** 15:09:50.3, 41°.28N×43°.89E, h10km, MPVA4.0*
*MOS **30** 15:09:50.2, 41°.27N×43°.85E, h10km, MPVA4.0*
*ISK **30** 15:09:51.9, 41°.35N×43°.96E, h9km, ML2.7/9*
*DRS **30** 15:09:51.3, 41°.14N×43°.68E, h27km*
*TIF **30** 15:09:52.0, 41°.37N×43°.95E, h11km*
*AFAD **30** 15:09:53.2, 41°.37N×43°.97E, h12km±2km, ML2.9*
*AZER **30** 15:09:53.3, 41°.44N×44°.16E, h8km, ml2.9*

ISC 30 15:09:52.1±0.9, **41°.34N**±0°.01×**43°.96E**±0°.01, **h10**km±7km, **n103**, σ**1°32**/192, **Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TRLG	**Trialeti**	**0.23**	**28**	P	**Pg**	**15 09 57.2**	**+0.3**
TRLG				S	**Sg**	**15 10 00.5**	**+0.4**
TRLG	**Trialeti**	**0.23**	**28**	PG	**Pg**	**15 09 57.2**	**+0.3**
BGD	**Bogdanovka**	**0.28**	**255**	P	**Pb**	**15 09 58.4**	**-1.0**
BGD				S	**Sg**	**15 10 02.6**	**+0.9**
BGD	**Bogdanovka**	**0.28**	**255**	PG	**Pb**	**15 09 58.4**	**-1.0**
BGD				S	**Sg**	**15 10 02.6**	**+0.9**
KZRT	**Kazreti**	**0.34**	**82**	P	Pg	15 09 53.2	-5.6
KZRT				S	**Sg**	**15 09 57.9**	**-5.4**
AKH	**Akhalkalaki**	**0.36**	**282**	P	**Pg**	**15 09 59.4**	**+0.1**
AKH				S	**Sg**	**15 10 04.2**	**+0.2**
AKH	**Akhalkalaki**	**0.36**	**282**	PG	**Pg**	**15 09 59.4**	**+0.1**
AKH				S	**Sg**	**15 10 04.2**	**+0.2**
EAK	**Akyaka**	**0.70**	**202**	P	**Pb**	**15 10 06.2**	**-0.5**
EAK				S	**Sb**	**15 10 15.8**	**-0.6**
TBLG	**Delisi**	**0.70**	**56**	P	**Pg**	**15 10 05.8**	**0.0**
TBLG				S	**Sb**	**15 10 15.8**	**-0.6**
TBLG	**Delisi**	**0.70**	**56**	PG	**Pg**	**15 10 05.8**	**0.0**
TBLG				S	**Sb**	**15 10 15.8**	**-0.6**
TBLG	**Delisi**	**0.70**	**56**	Pg	**Pb**	**15 10 06.1**	**-0.5**
TBLG				Sg	**Sb**	**15 10 15.8**	**-0.6**
TBLG				AML	AML		
BTNK	**Botanikuri**	**0.72**	**61**	PG	**Pg**	**15 10 06.0**	**0.0**
BTNK				S	**Sb**	**15 10 16.1**	**-0.7**
SEAG	**Tbilisi Sea**	**0.76**	**56**	P	**Pb**	**15 10 07.2**	**-0.4**
SEAG				S	**Sb**	**15 10 18.0**	**-0.1**
SEAG	**Tbilisi Sea**	**0.76**	**56**	PG	**Pb**	**15 10 07.2**	**-0.4**
SEAG				S	**Sb**	**15 10 18.0**	**-0.1**
EPOS	**Posof**	**0.94**	**280**	P	**Pg**	**15 10 10.0**	**-0.2**
EPOS				S	**Sg**	**15 10 22.2**	**-0.3**
KARS	**Kars**	**0.97**	**223**	Pg	**Pb**	**15 10 11.1**	**-0.1**
KARS				AML	AML		
AHAN	**Ardahan-Merkez**	**1.02**	**261**	P	Pg	15 10 05.1	-6.7
AHAN				S	**Sg**	**15 10 18.7**	**-6.3**
DIGO	**Kars**	**1.02**	**206**	P	**Pb**	**15 10 11.9**	**-0.2**
DIGO				S	**Sb**	**15 10 25.8**	**+0.1**
DIGO				IAML		15 10 28.0	
	comp=E,399nm,0.4s						
DIGO				IAML		15 10 34.0	
	comp=N,276nm,0.6s						
BOZK	**Kars-Merkez-Bo**	**1.05**	**225**	P	**Pb**	**15 10 12.5**	**-0.1**
BOZK				S	**Sb**	**15 10 27.0**	**+0.5**
QZX	**Qazax, Azerbai**	**1.10**	**104**	P	**Pb**	**15 10 12.7**	**-0.7**
QZX				S	**Sb**	**15 10 27.9**	**+0.1**
GOLE	**Ardahan-G¶le**	**1.14**	**244**	P	**Pn**	**15 10 14.3**	**-0.1**
GOLE				S	**Sn**	**15 10 29.8**	**-0.5**
GOLE				IAML		15 10 32.0	
	comp=N,210nm,0.5s						
GOLE				IAML		15 10 32.0	
	comp=E,346nm,0.4s						
GUDG	**Gudauri**	**1.19**	**19**	P	**Pb**	**15 10 14.5**	**-0.4**
GUDG				S	**Sn**	**15 10 31.1**	**-0.3**
GUDG	**Gudauri**	**1.19**	**19**	PG	**Pb**	**15 10 14.5**	**-0.4**
GUDG				S	**Sn**	**15 10 31.1**	**-0.3**
CHRG	**Chargali**	**1.23**	**36**	P	**Pn**	**15 10 15.1**	**-0.4**
CHRG				S	**Sg**	**15 10 31.6**	**0.0**
TKB	**Tkibuli**	**1.24**	**325**	P	**Pg**	**15 10 15.5**	**-0.5**
TKB				S	**Sn**	**15 10 32.2**	**-0.2**
TKB	**Tkibuli**	**1.24**	**325**	PG	**Pg**	**15 10 15.5**	**-0.5**
TKB				S	**Sn**	**15 10 32.2**	**-0.2**
GNI	**Garni**	**1.33**	**153**	*e*Pg	**Pg**	**15 10 17.9**	**+0.3**
GNI				*e*Sg	**Sg**	**15 10 37.1**	**+2.2**
GNI	**Garni**	**1.33**	**153**	*e*PG	**Pg**	**15 10 18.0**	**+0.3**
GNI				*e*S	**Sg**	**15 10 37.1**	**+2.2**
GNI	**Garni**	**1.33**	**153**	Pn	**Pb**	**15 10 17.2**	**-0.1**
GNI				Sn	**Sg**	**15 10 36.7**	**+1.8**
GNI				AML	AML		
TASB	**TASBURUN-IGDIR**	**1.37**	**171**	Pn	**Pb**	**15 10 17.8**	**-0.1**
TASB				Sn	**Sg**	**15 10 36.6**	**+0.4**
TASB				AML	AML		
SENK	**Senkaya-Erzuru**	**1.44**	**238**	Pn	**Pb**	**15 10 18.8**	**-0.5**
SENK				AML	AML		
IGDI	**IGDIR**	**1.47**	**176**	P	**Pn**	**15 10 19.1**	**+0.3**
IGDI				S	**Sb**	**15 10 38.9**	**+0.5**
GDB	**GEDABAY**	**1.49**	**114**	Pg	**Pn**	**15 10 18.9**	**-0.3**
GDB				Sg	**Sn**	**15 10 38.2**	**-0.6**
LACR	**Lac**	**1.51**	**10**	*e*Pg	**Pb**	**15 10 20.3**	**0.0**
LACR				*e*Sg	**Sg**	**15 10 41.5**	**+0.8**
LACR	**Lac**	**1.51**	**10**	*e*PG	**Pb**	**15 10 20.3**	**0.0**
LACR				*e*S	**Sg**	**15 10 41.5**	**+0.8**
DAGI	**Agillar**	**1.56**	**261**	P	**Pb**	**15 10 21.3**	**+0.1**
DAGI				S	**Sg**	**15 10 41.5**	**-0.9**
DIGR	**Digorskoe uzhe**	**1.58**	**350**	*e*PN	**Pb**	**15 10 21.6**	**-0.1**
DIGR				*e*S	**Sg**	**15 10 43.4**	**+0.3**
DDFL	**Dedoflistskaro**	**1.63**	**86**	P	**Pg**	**15 10 24.3**	**+0.9**
DDFL				S	**Sg**	**15 10 46.3**	**+1.8**
DDFL	**Dedoflistskaro**	**1.63**	**86**	PN	**Pg**	**15 10 24.3**	**+0.9**
DDFL				S	**Sg**	**15 10 46.3**	**+1.8**
KOTA	**Agri, Merkez-K**	**1.64**	**201**	P	**Pg**	**15 10 24.3**	**+0.8**
DBOC	**Borcka**	**1.73**	**271**	P	**Pb**	**15 10 24.0**	**+0.1**
DBOC				S	**Sb**	**15 10 45.6**	**-0.1**
DDEM	**Demirkent**	**1.73**	**256**	P	**Pb**	**15 10 23.5**	**-0.5**
DDEM				S	**Sb**	**15 10 46.0**	**+0.2**
DDEM				IAML		15 10 47.0	
	comp=N,321nm,0.3s						
DBAD	**Bademkaya**	**1.74**	**260**	P	**Pb**	**15 10 24.0**	**-0.2**
DBAD				S	**Sb**	**15 10 46.6**	**+0.5**
DBAD				IAML		15 10 47.0	
	comp=N,147nm,0.6s						
KORR	**Kora**	**1.75**	**3**	*e*Pg	**Pg**	**15 10 25.7**	**+0.1**
KORR				*e*Sg	**Sg**	**15 10 50.2**	**+1.9**
KORR	**Kora**	**1.75**	**3**	*e*PN	**Pg**	**15 10 25.7**	**+0.1**
KORR				*e*S	**Sg**	**15 10 50.2**	**+1.9**
HYR	**Heyderabad**	**1.76**	**157**	Pg	**Pg**	**15 10 26.1**	**+0.3**
HYR				Sg	**Sg**	**15 10 49.5**	**+0.9**
LGD	**Lagodekhi**	**1.78**	**73**	P	**Pb**	**15 10 24.6**	**-0.4**
LGD				S	**Sg**	**15 10 50.2**	**+0.7**
LGD	**Lagodekhi**	**1.78**	**73**	PN	**Pb**	**15 10 24.6**	**-0.4**
LGD				S	**Sg**	**15 10 50.2**	**+0.7**
KMGR	**Komgaron**	**1.84**	**21**	*i* Pg	**Pg**	**15 10 27.2**	**-0.3**
KMGR				*e*Sg	**Sg**	**15 10 53.6**	**+2.2**
KMGR	**Komgaron**	**1.84**	**21**	*i* PN	**Pg**	**15 10 27.2**	**-0.3**
KMGR				*e*S	**Sg**	**15 10 53.6**	**+2.2**
EATA	**Eleskirt**	**1.85**	**218**	P	**Pg**	**15 10 27.4**	**-0.2**
ARNR	**Ardon**	**1.86**	**7**	*e*Pg	**Pg**	**15 10 27.7**	**0.0**
ARNR				*e*Sg	**Sg**	**15 10 53.0**	**+1.2**
ARNR	**Ardon**	**1.86**	**7**	*e*PN	**Pg**	**15 10 27.7**	**0.0**
ARNR				*e*S	**Sg**	**15 10 53.0**	**+1.2**
HOPA	**Hopa-Artvin**	**1.89**	**272**	Pn	**Pn**	**15 10 25.1**	**+0.6**
HOPA				AML	AML		
AGRB	**Hanur-Agry**	**1.91**	**203**	Pn	**Pn**	**15 10 25.7**	**+0.8**
AGRB				AML	AML		
GANJ	**Ganja**	**1.92**	**110**	Pg	**Pb**	**15 10 26.0**	**-1.2**
GANJ				Sg	**Sb**	**15 10 50.8**	**-0.5**
LSNR	**Lesken**	**1.94**	**357**	*e*PN	**Pg**	**15 10 28.6**	**-0.7**
LSNR				*e*S	**Sg**	**15 10 51.5**	**+0.8**
TLTR	**Tlyarata**	**1.95**	**66**	*e*Pg	**Pb**	**15 10 27.2**	**-0.7**
TLTR				*e*Sg	**Sg**	**15 10 54.6**	**-0.2**
TLTR	**Tlyarata**	**1.95**	**66**	*e*PN	**Pb**	**15 10 27.2**	**-0.7**
TLTR				pmax	pmax		
	comp=Z,20nm,0.5s						
ZKTA	**Zakatala**	**2.02**	**81**	Pn	**Pb**	**15 10 28.5**	**-0.5**
ZKTA				Sn	**Sg**	**15 10 55.8**	**-1.4**
STDR	**Stavd-Durt**	**2.03**	**2**	*e*Pg	**Pg**	**15 10 31.4**	**+0.3**
STDR				*e*Sg	**Sg**	**15 10 59.5**	**+2.1**
STDR	**Stavd-Durt**	**2.03**	**2**	*e*PN	**Pg**	**15 10 31.4**	**+0.3**
STDR				*e*S	**Sg**	**15 10 59.5**	**+2.1**
KOPR	**Koprukoy-ERZUR**	**2.09**	**231**	Pn	**Pb**	**15 10 28.7**	**-1.6**
KOPR				AML	AML		
NEUR	**Neytrino**	**2.14**	**335**	*e*Pg	**Pb**	**15 10 30.9**	**-0.1**
NEUR				*e*Sg	**Sg**	**15 10 59.2**	**-1.6**
NEUR	**Neytrino**	**2.14**	**335**	*e*PN	**Pb**	**15 10 30.9**	**-0.1**
NEUR				*e*S	**Sg**	**15 10 59.2**	**-1.6**
BTLR	**Botlikh**	**2.15**	**51**	*e*Pn	**Pb**	**15 10 30.4**	**-0.8**
BTLR				*e*Sn	**Sg**	**15 10 59.4**	**-1.7**
BTLR	**Botlikh**	**2.15**	**51**	*e*PN	**Pg**	**15 10 33.1**	**-0.2**
BTLR				*e*S	**Sg**	**15 10 59.7**	**-1.4**
NCK	**Nalchik**	**2.17**	**353**	*e*PN	**Pn**	**15 10 29.3**	**+0.9**
NCK				pmax	pmax		
	comp=Z,65nm,0.3s						
DVE	**Vedeno**	**2.28**	**44**	*e*Pn	**Pb**	**15 10 33.1**	**-0.4**
DVE				*e*Sn	**Sg**	**15 11 04.1**	**-1.4**
DVE	**Vedeno**	**2.28**	**44**	*e*PN	**Pb**	**15 10 33.1**	**-0.4**
DVE				*e*S	**Sg**	**15 11 04.1**	**-1.4**
DVE				pmax	pmax		
	comp=Z,37nm,0.3s						
SBZ	**Shahbuz**	**2.29**	**147**	Pn	**Pg**	**15 10 35.0**	**-1.1**
SBZ				Sn	**Sg**	**15 11 06.0**	**+0.3**
GROC	**Groznyy**	**2.31**	**36**	*e*PN	**Pb**	**15 10 33.4**	**-0.5**
GROC				*e*S	**Sg**	**15 11 04.8**	**-1.5**
GROC				pmax	pmax		
	comp=Z,35nm,0.2s						
XNZR	**Khunzakh**	**2.38**	**59**	*e*Pn	**Pb**	**15 10 34.7**	**-0.4**
XNZR				*e*Sn	**Sg**	**15 11 07.1**	**-1.4**
HNZR	**Khunzah**	**2.39**	**58**	*e*PN	**Pb**	**15 10 34.7**	**-0.7**
HNZR				*e*S	**Sg**	**15 11 07.0**	**-2.0**
HNZR				pmax	pmax		
	comp=Z,11nm,0.4s						
CHOM	**Cayeli-Rize**	**2.42**	**265**	Pn	**Pn**	**15 10 32.9**	**+1.1**
CHOM				AML	AML		
MNGR	**Mingechevir, A**	**2.43**	**102**	Pg	**Pb**	**15 10 35.3**	**-0.6**
MNGR				Sg	**Sg**	**15 11 10.0**	**-0.2**
SEKA	**Sheki**	**2.45**	**92**	Pn	**Pb**	**15 10 34.8**	**-1.5**
SEKA				Sn	**Sb**	**15 11 08.2**	**+1.7**
NAX	**Nakhchivan**	**2.46**	**151**	Pg	**Pg**	**15 10 38.0**	**-1.3**
NAX				Sg	**Sg**	**15 11 13.2**	**+2.0**
GNBR	**Gunib**	**2.48**	**64**	*e*Pn	**Pb**	**15 10 35.9**	**-0.9**
GNBR				*e*Sn	**Sb**	**15 11 09.0**	**+1.6**
GNBR	**Gunib**	**2.48**	**64**	*e*PN	**Pb**	**15 10 35.9**	**-0.9**
GNBR				*e*S	**Sb**	**15 11 09.0**	**+1.6**
GNBR				pmax	pmax		
	comp=Z,13nm,0.8s						
KMKR	**Kumukh**	**2.48**	**70**	*e*Pn	**Pb**	**15 10 35.9**	**-1.1**
KMKR				*e*Sn	**Sb**	**15 11 08.9**	**+1.2**
KMKR	**Kumukh**	**2.48**	**70**	*e*PN	**Pb**	**15 10 35.9**	**-1.1**
KMKR				*e*S	**Sb**	**15 11 08.9**	**+1.2**
KBZ	**Khabaz**	**2.51**	**342**	*e*PN	**Pb**	**15 10 35.8**	**-1.5**
UNCR	**Uncukul**	**2.52**	**56**	*e*PN	**Pb**	**15 10 36.6**	**-0.9**
UNCR				*e*S	**Sg**	**15 11 10.7**	**-2.4**
UNCR				pmax	pmax		
	comp=Z,12nm,0.4s						
ARKR	**Arakani**	**2.59**	**60**	*e*Pn	**Pb**	**15 10 37.0**	**-1.8**
ARKR				*e*Sn	**Sb**	**15 11 11.1**	**+0.4**
ARKR	**Arakani**	**2.59**	**60**	*e*PN	**Pb**	**15 10 37.0**	**-1.8**
ARKR				*e*S	**Sb**	**15 11 11.1**	**+0.4**
IZDR	**Rize**	**2.63**	**259**	P	**Pb**	**15 10 39.8**	**+0.5**
IZDR				S	**Sb**	**15 11 11.8**	**+0.2**
KRNR	**Karanay**	**2.65**	**55**	*e*Pn	**Pb**	**15 10 38.5**	**-1.3**
KRNR				*e*Sn	**Sb**	**15 11 13.8**	**+1.3**
KRNR	**Karanay**	**2.65**	**55**	*e*PN	**Pb**	**15 10 38.5**	**-1.3**
KRNR				*e*S	**Sb**	**15 11 13.8**	**+1.3**
BRDA	**Brd**	**2.67**	**113**	Pg	**Pb**	**15 10 39.5**	**-0.5**
BRDA				Sg	**Sg**	**15 11 18.7**	**+0.8**
AGDM	**Agdam**	**2.69**	**116**	Pg	**Pb**	**15 10 39.9**	**-0.6**
AGDM				Sg	**Sb**	**15 11 16.0**	**+2.5**
DBC	**Dubki**	**2.72**	**51**	*e*Pn	**Pb**	**15 10 39.4**	**-1.6**
DBC				*e*Sn	**Sb**	**15 11 15.6**	**+1.2**
DBC	**Dubki**	**2.72**	**51**	*e*PN	**Pb**	**15 10 39.3**	**-1.6**
DBC				*e*S	**Sb**	**15 11 15.5**	**+1.2**
DBC				pmax	pmax		
	comp=Z,8.0nm,0.5s						
AKT	**Akhty**	**2.84**	**86**	*e*PN	**Pn**	**15 10 39.7**	**+2.0**
AKT				*e*S	**Sb**	**15 11 16.1**	**-1.8**
AKT				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ORD	**Ordubad**	**2.87**	**146**	Pg	**Pb**	**15 10 45.0**	**+1.5**
ORD				Sg	**Sg**	**15 11 23.4**	**-0.9**
ZRD	**Zardab**	**3.02**	**109**	Pg	**Pb**	**15 10 45.5**	**-0.5**
ZRD				Sg	**Sg**	**15 11 29.1**	**-0.1**
XNQ	**Khinaliq**	**3.16**	**92**	Pg	**Pb**	**15 10 46.1**	**-2.3**
XNQ				Sg	**Sb**	**15 11 28.3**	**+1.1**
BLQ	**Beylaqan**	**3.19**	**119**	Pg	**Pb**	**15 10 48.3**	**-0.5**
BLQ				Sg	**Sg**	**15 11 31.1**	**-3.3**
IML	**Ismayilli**	**3.24**	**98**	Pg	**Pb**	**15 10 48.5**	**-1.3**
IML				Sg	**Sb**	**15 11 32.1**	**+2.7**
PQL	**Pirkuli**	**3.55**	**97**	Pg	**Pb**	**15 10 53.9**	**-1.2**
PQL				Sg	**Sg**	**15 11 43.3**	**-2.8**
SOC	**Sochi**	**3.86**	**307**	*e*PN	**Pn**	**15 10 54.2**	**+2.7**
SOC				*e*		15 11 00.0	
SOC				*e*PPP	PPP	15 11 06.1	
SOC				*e*		15 11 41.4	
SOC				*e*SS	**Sg**	**15 11 52.0**	**-3.9**
SOC				*e*SSS	SSS	15 11 57.4	
SOC				MLR	MLR		
	comp=Z,132nm,17.0s						
YRD	**Yardimli**	**4.08**	**125**	Pg	**Pb**	**15 11 05.2**	**+1.1**
YRD				Sg	**Sg**	**15 11 58.8**	**-4.3**
LRK	**Lerik**	**4.31**	**127**	Pg	**Pb**	**15 11 08.9**	**+0.8**

TECO				*e*S	**Sn**	**15 24 53.2**	**+0.4**
SJTE	**Alçalda de S**	**0.67**	**355**	*e*P	**Pn**	**15 24 44.4**	**-0.4**
SJTE				*e*S	**Sn**	**15 24 54.5**	**+0.3**
COEG	**Centro de Oper**	**0.68**	**6**	P	**Pn**	**15 24 44.3**	**-0.5**
COEG	**Centro de Oper**	**0.68**	**6**	*e*P	**Pn**	**15 24 44.5**	**-0.4**
COEG				*e*S	**Sn**	**15 24 54.6**	**+0.3**
TECA	**Tecapa**	**0.70**	**38**	*i* P	**Pn**	**15 24 45.1**	**-0.2**
TECA				⇓*i*P		15 24 45.1	
TECA				*e*S	**Sn**	**15 24 55.9**	**+0.8**
PANCS	**Alcalda de**	**0.71**	**342**	P	**Pn**	**15 24 44.9**	**-0.3**
PANCS				S	**Sn**	**15 24 54.0**	**-0.9**
JUCU	**Jucuar¡n**	**0.75**	**65**	*e*P	**Pn**	**15 24 45.2**	**-0.6**
JUCU				*e*S	**Sn**	**15 24 55.6**	**-0.5**
PAVA	**Las Pavas**	**0.77**	**1**	P	**Pn**	**15 24 45.4**	**-0.7**
PAVA				S	**Sn**	**15 24 57.0**	**+0.4**
PAVA	**Las Pavas**	**0.77**	**1**	*e*P	**Pn**	**15 24 45.9**	**-0.2**
PAVA				*e*S	**Sn**	**15 24 57.2**	**+0.6**
UTEC	**Universidad Te**	**0.80**	**342**	S	**Sn**	**15 24 57.1**	**-0.1**
UDBS	**Universidad Do**	**0.80**	**346**	S	**Sn**	**15 24 56.8**	**-0.4**
PACA	**Pacayal**	**0.81**	**49**	P	**Pn**	**15 24 46.2**	**-0.4**
PACA				S	**Sn**	**15 24 57.6**	**+0.1**
PACA	**Pacayal**	**0.81**	**49**	*e*P	**Pn**	**15 24 46.4**	**-0.3**
PACA				*e*S	**Sn**	**15 24 58.4**	**+0.9**
SEMO	**Seminario San**	**0.81**	**341**	S	**Sn**	**15 24 57.1**	**-0.3**
RANC	**El Ranchito**	**0.81**	**53**	P	**Pn**	**15 24 46.6**	**-0.1**
RANC				S	**Sn**	**15 24 58.5**	**+0.9**
LFU	**La Fuente**	**0.82**	**349**	*e*P	**Pn**	**15 24 46.5**	**-0.2**
LFU				*e*S	**Sn**	**15 24 57.7**	**-0.1**
UEES	**Universidad Ev**	**0.82**	**340**	P	**Pn**	**15 24 46.2**	**-0.6**
UEES				S	**Sn**	**15 24 57.7**	**-0.2**
PMON	**Piamonte**	**0.85**	**335**	P	**Pn**	**15 24 46.4**	**-0.8**
PMON	**Piamonte**	**0.85**	**335**	*e*P	**Pn**	**15 24 46.6**	**-0.6**
PMON				*e*S	**Sn**	**15 24 58.5**	**+0.9**
BOQS	**Boqueron**	**0.85**	**338**	*e*P	**Pn**	**15 24 47.1**	**-0.3**
PIC2	**El Picacho**	**0.85**	**340**	*e*P	**Pn**	**15 24 47.3**	**-0.1**
JAYA	**Jayaque - finc**	**0.86**	**326**	P	**Pn**	**15 24 46.9**	**-0.5**
JAYA	**Jayaque - finc**	**0.86**	**326**	*e*P	**Pn**	**15 24 47.1**	**-0.3**
JAYA				*e*S	**Sn**	**15 24 58.6**	**-0.3**
INTP	**Intipuca**	**0.91**	**73**	*e*P	**Pn**	**15 24 47.4**	**-0.5**
INTP				*e*S	**Sn**	**15 24 59.7**	**-0.1**
CEDA	**San Andres**	**0.96**	**333**	S	**Sn**	**15 25 01.0**	**-0.2**
LCND	**La Caada**	**1.10**	**70**	P	**Pn**	**15 24 50.1**	**-0.3**
LCND	**La Caada**	**1.10**	**70**	*e*P	**Pn**	**15 24 50.5**	**0.0**
CEVE	**Cerro Verde**	**1.10**	**323**	P	**Pn**	**15 24 50.8**	**0.0**
CEVE				S	**Sn**	**15 25 04.4**	**-0.5**
CEVE	**Cerro Verde**	**1.10**	**323**	*e*P	**Pn**	**15 24 51.0**	**+0.3**
CEVE				*e*S	**Sn**	**15 25 06.8**	**+2.0**
SBLS	**San Blas**	**1.11**	**324**	*e*P	**Pn**	**15 24 51.0**	**+0.1**
SBLS				*e*S	**Sn**	**15 25 06.2**	**+1.1**
SNJE	**San Jose**	**1.12**	**325**	*e*P	**Pn**	**15 24 50.7**	**-0.3**
SNJE				*e*S	**Sn**	**15 25 05.9**	**+0.5**
CNCH	**Conchagua**	**1.14**	**73**	P	**Pn**	**15 24 50.4**	**-0.8**
CNCH	**Conchagua**	**1.14**	**73**	*e*P	**Pn**	**15 24 50.5**	**-0.6**
CNCH				*e*S	**Sn**	**15 25 06.1**	**+0.5**
UNIC	**Universidad Ca**	**1.19**	**331**	P	**Pn**	**15 24 51.7**	**-0.1**
UNIC				S	**Sn**	**15 25 07.3**	**+0.5**
NUBE	**Las Nubes**	**1.25**	**320**	P	**Pn**	**15 24 52.4**	**-0.4**
NUBE	**Las Nubes**	**1.25**	**320**	*e*P	**Pn**	**15 24 52.5**	**-0.2**
NUBE				*e*S	**Sn**	**15 25 08.3**	**-0.3**
CSGN	**Cosiguina Volc**	**1.36**	**88**	P	**Pn**	**15 24 53.7**	**-0.4**
FAME	**Alcaldia de Sa**	**1.37**	**311**	P	**Pn**	**15 24 54.9**	**+0.7**
FAME				S	**Sn**	**15 25 10.9**	**-0.3**
POTN	**Potosi Cosigui**	**1.41**	**87**	P	**Pn**	**15 24 54.5**	**-0.2**
POTN				S	**Sn**	**15 25 12.9**	**+0.8**
MTO3	**Montecristo**	**1.51**	**345**	P	**Pn**	**15 24 56.1**	**-0.2**
ESQI	**Esquipulas**	**1.66**	**347**	P	**Pn**	**15 24 58.3**	**+0.1**
ESQI				S	**Sn**	**15 25 15.9**	**+0.5**
SARH	**Santa Rosa de**	**1.83**	**6**	P	**Pn**	**15 25 00.9**	**+0.2**
PKGN	**Cerro Pekin**	**1.94**	**98**	P	**Pn**	**15 25 02.1**	**0.0**
PKGN				S	**Sn**	**15 25 25.2**	**-0.1**
TGUH	**Tegucigalpa,Un**	**1.97**	**56**	P	**Pn**	**15 25 02.0**	**-0.6**
POLN	**Al Sur del Vol**	**2.10**	**98**	P	**Pn**	**15 25 03.3**	**-1.1**
ROCN	**Rota Cerro Neg**	**2.19**	**101**	P	**Pn**	**15 25 05.6**	**+0.1**
ILCN	**San Idelfonso**	**2.22**	**99**	P	**Pn**	**15 25 04.9**	**-1.0**
CNGA	**Al SSO del Vol**	**2.24**	**101**	P	**Pn**	**15 25 05.3**	**-0.8**
CNGN	**Cerro Negro**	**2.24**	**101**	P	**Pn**	**15 25 06.7**	**+0.5**
MOMN	**Momotombo**	**2.41**	**102**	P	**Pn**	**15 25 09.1**	**+0.5**
MOMN				S	**Sn**	**15 25 36.9**	**0.0**
MOM3	**MOM3**	**2.41**	**100**	P	**Pn**	**15 25 08.8**	**+0.3**
COPN	**Copaltepe**	**2.42**	**108**	P	**Pn**	**15 25 08.6**	**-0.1**
LIMN	**Finca el Limon**	**2.52**	**87**	P	**Pn**	**15 25 09.5**	**-0.7**
LIMN				S	**Sn**	**15 25 40.0**	**+0.3**

*SDD **30** 15:29:25.5±1.8, 18°.04N×71°.49W, h10km±6km, MD2.8, ML2.5, MW2.8, Presumed earthquake*
*OSPL **30** 15:29:27.0±0.6, 18°.20N×71°.39W, h8km±3km, ML2.4, Presumed earthquake*
ISC 30 15:29:26.2±1.1**, 18°.14N**±0°.03×**71°.44W**±0°.04**, h7**km±9km**, n13**, σ0**°72**/20**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.15**	**80**	*i* P	**Pg**	**15 29 29.6**	**+0.1**
PODR				*i* S	**Sg**	**15 29 33.3**	**+1.4**
PODR				IAML		15 29 34.9	
	comp=N,2μm,0.5s						
PODR	**Polo**	**0.15**	**80**	*i* P	**Pg**	**15 29 29.4**	**-0.2**
PODR				*e*S	**Sg**	**15 29 31.4**	**-0.4**
PODR				IAML		15 29 33.2	
	comp=Z,15μm,0.1s						
LODU1	**El Espartillar**	**0.21**	**352**	*i* P	**Pg**	**15 29 29.9**	**-0.6**
LODU1				*e*S	**Sg**	**15 29 33.1**	**-0.4**
LODU1				IAML		15 29 35.8	
	comp=Z,1μm,0.3s						
LOBH	**Bahia de las A**	**0.33**	**214**	*i* P	**Pb**	**15 29 34.4**	**-0.1**
LOBH				*e*S	**Sb**	**15 29 40.1**	**+0.1**
LOBH				IAML		15 29 42.6	
	comp=Z,352nm,0.4s						
NEDR	**Neiba UASD**	**0.34**	**4**	*i* P	**Pg**	**15 29 33.0**	**0.0**
NEDR				*i* S	**Sb**	**15 29 40.1**	**-0.2**
NEDR				IAML		15 29 40.4	
	comp=N,864nm,0.3s						
LOVI	**El Cajuil, Ovi**	**0.35**	**168**	*i* P	**Pb**	**15 29 34.3**	**-0.4**
LOVI				IAML		15 29 47.4	
	comp=Z,166nm,0.4s						
LONE3	**El Aguacate, B**	**0.46**	**358**	*i* P	**Pg**	**15 29 34.9**	**-0.4**
LONE3				IAML		15 29 44.1	
	comp=Z,296nm,0.3s						
JIDR	**Jimani**	**0.52**	**312**	*i* P	**Pg**	**15 29 36.6**	**+0.2**
JIDR				IAML		15 29 49.3	
	comp=N,156nm,0.5s						
SDDR	**Presa de Saban**	**0.85**	**10**	*i* P	**Pb**	**15 29 43.7**	**+0.3**
SDDR	**Presa de Saban**	**0.85**	**10**	*i* P	**Pg**	**15 29 41.2**	**-1.5**
SDDR				IAML		15 29 57.7	
	comp=Z,22nm,0.4s						
ABDR	**Alto Bandera**	**1.02**	**49**	*i* P	**Pg**	**15 29 44.9**	**-1.1**
ABDR				*i* S	**Sb**	**15 30 00.5**	**+0.2**
REDR	**Restauracion**	**1.02**	**2**	*i* P	**Pb**	**15 29 46.4**	**+0.2**
REDR				*i* S	**Sn**	**15 30 02.6**	**+1.1**
REDR				IAML		15 30 08.3	
	comp=N,41nm,0.2s						
BANI	**BANI**	**1.06**	**76**	*i* P	**Pg**	**15 29 46.1**	**-0.5**
BANI				IAML		15 30 08.6	
	comp=N,56nm,1.1s						

IDC 30 15:37:52.1±374.0**, 4°.20N×136°.02W, h0km, Error ellipse: s-maj=275.5km s-min=147.0km az=121.0, North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I21FR	**MARQUESAS ISLA**	**13.62**	**198**	I	I	17 08 30.0	
	0.1nm,2.4s,baz=17,slow=326,SNR=1.8						
I24FR	**TAHITI-TARAVAO**	**25.44**	**211**	I	I	18 12 00.0	
	baz=32,slow=314,SNR=1.6						
I57US	**PINON FLAT INF**	**34.48**	**30**	I	I	19 08 40.0	
	baz=212,slow=308,SNR=1.0						

*ISK **30** 15:41:18.7, 38°.76N×26°.53E, h7km, ML2.7/16*
*AFAD **30** 15:41:19.2, 38°.73N×26°.55E, h10km±1km, ML2.3*
*ATH **30** 15:41:19.4, 38°.76N×26°.43E, h31km±1km, ML2.6/5, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*THE **30** 15:41:20.6, 39°.N±2°×2°.7E±°, h13km±3km, M2.5/8, MLh2.5/8*
ISC 30 15:41:19.1±0.8**, 38°.75N**±0°.02×**26°.53E**±0°.02**, h15**km±6km**, n45**, σ0**°62**/68**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARB	**zmir-Karabur**	**0.12**	**228**	P	**Pg**	**15 41 22.9**	**+0.2**
KARB				S	**Sg**	**15 41 25.1**	**0.0**
KARB				IAML		15 41 26.0	
	comp=N,1μm,0.3s						
KARB				IAML		15 41 26.0	
	comp=E,1μm,0.6s						
KRBN	**Karaburun**	**0.15**	**173**	Pg	**Pg**	**15 41 22.8**	**-0.3**
KRBN				AML	AML		
FOCM	**Foa**	**0.16**	**102**	Pg	**Pg**	**15 41 22.6**	**-0.6**
FOCM				Sg	**Sg**	**15 41 25.5**	**-0.4**
FOCM				AML	AML		
BAGT	**Foa**	**0.27**	**110**	P	**Pg**	**15 41 24.9**	**+0.1**
BAGT				S	**Sg**	**15 41 28.8**	**0.0**
EAG2	**Marmaro, Chios**	**0.39**	**239**	P	**Pg**	**15 41 27.4**	**+0.4**
EAG2				S	**Sg**	**15 41 33.3**	**+0.9**
URLA	**Izmir**	**0.39**	**173**	P	**Pg**	**15 41 26.9**	**-0.2**
URLA				S	**Sg**	**15 41 33.5**	**+1.0**
URLA				IAML		15 41 35.0	
	comp=N,540nm,0.4s						
URLA				IAML		15 41 35.0	
	comp=E,498nm,0.4s						
URLA	**Izmir**	**0.39**	**173**	Pg	**Pg**	**15 41 27.0**	**0.0**
URLA				Sg	**Sg**	**15 41 33.4**	**+1.0**
URLA				AML	AML		
DKL	**Dikili**	**0.44**	**42**	Pg	**Pg**	**15 41 27.7**	**-0.2**
DKL				AML	AML		
CESE	**eme**	**0.45**	**204**	Pg	**Pg**	**15 41 28.1**	**-0.1**
CESE				Sg	**Sg**	**15 41 35.3**	**+1.0**
CESE				AML	AML		
ZEDA	**zmir-Bergama**	**0.48**	**63**	P	**Pb**	**15 41 29.3**	**0.0**
ZEDA				S	**Sg**	**15 41 34.8**	**-0.4**
ZEYE	**Izmir, Urla-Ze**	**0.51**	**182**	P	**Pg**	**15 41 29.2**	**+0.1**
ZEYE				S	**Sb**	**15 41 37.2**	**+0.3**
ZEYE				IAML		15 41 38.0	
	comp=N,448nm,0.2s						
ZEYE				IAML		15 41 40.0	
	comp=E,444nm,0.3s						
CHOS	**Chios island**	**0.52**	**226**	P	**Pg**	**15 41 29.8**	**+0.4**
CHOS				S	**Sg**	**15 41 36.7**	**+0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**0.52**	**226**	Pg	**Pg**	**15 41 29.3**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**0.52**	**226**	P	**Pg**	**15 41 29.8**	**+0.4**
CHOS				S	**Sg**	**15 41 36.6**	**+0.2**
CHOS				AML	AML		
PRK	**Paraskevi**	**0.54**	**338**	P	**Pg**	**15 41 30.0**	**+0.2**
PRK				S	**Sb**	**15 41 37.9**	**+0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**0.54**	**338**	P	**Pg**	**15 41 30.0**	**+0.2**
PRK				S	**Sg**	**15 41 37.3**	**+0.4**
PRK				AML	AML		
BLCB	**Balcova**	**0.54**	**132**	P	**Pg**	**15 41 29.8**	**0.0**
BLCB				S	**Sg**	**15 41 37.1**	**+0.1**
BLCB	**Balcova**	**0.54**	**132**	Pg	**Pg**	**15 41 29.8**	**0.0**
BLCB				AML	AML		
AYVA	**Ayvalik**	**0.57**	**12**	P	**Pg**	**15 41 30.5**	**+0.1**
AYVA				S	**Sb**	**15 41 39.2**	**+0.4**
AYVA				IAML		15 41 43.0	
	comp=N,178nm,0.5s						
BEYE	**izmir**	**0.61**	**149**	P	**Pg**	**15 41 30.7**	**-0.3**
BEYE				S	**Sg**	**15 41 39.4**	**+0.3**
BEYE				IAML		15 41 43.0	
	comp=N,126nm,0.3s						
BEYE				IAML		15 41 44.0	
	comp=E,169nm,0.4s						
CAMT	**Merkez**	**0.61**	**90**	P	**Pg**	**15 41 31.1**	**0.0**
CAMT				S	**Sb**	**15 41 39.9**	**-0.1**
CAMT				IAML		15 41 45.0	
	comp=N,142nm,0.4s						
GMLD	**Gumuldur**	**0.73**	**156**	Pg	**Pg**	**15 41 33.3**	**-0.1**
GMLD				AML	AML		
DGB	**zmir**	**0.75**	**158**	P	**Pg**	**15 41 33.2**	**-0.5**
DGB				S	**Sg**	**15 41 43.6**	**0.0**
DGB				IAML		15 41 46.0	
	comp=N,120nm,0.6s						
DGB				IAML		15 41 46.0	
	comp=E,156nm,0.2s						
SOMA	**Soma-Manisa**	**0.88**	**62**	Pg	**Pg**	**15 41 36.1**	**-0.1**
SOMA				AML	AML		
DUVT	**Torbali**	**0.89**	**126**	P	**Pn**	**15 41 37.5**	**+0.3**
DUVT				S	**Sg**	**15 41 47.8**	**-0.3**
DUVT				IAML		15 41 52.0	
	comp=E,138nm,0.2s						
YAYO	**Edremit-Balk**	**0.96**	**26**	Pg	**Pb**	**15 41 37.3**	**-0.1**
YAYO				AML	AML		
SAM2	**Drakei, Karlov**	**0.99**	**176**	P	**Pb**	**15 41 37.4**	**-0.5**
SAM2				S	**Sb**	**15 41 51.4**	**+0.6**
SAM2				AML	AML		
AKS	**Akhisar**	**1.01**	**82**	Pg	**Pb**	**15 41 38.6**	**+0.3**
SMG	**Samos**	**1.06**	**167**	P	**Pb**	**15 41 38.8**	**-0.4**
SMG				S	**Sb**	**15 41 53.0**	**0.0**
SMG				AML	AML		
SMG	**Samos**	**1.06**	**167**	P	**Pb**	**15 41 38.9**	**-0.4**
KUSD	**Kusadasi-Aydin**	**1.07**	**146**	Pn	**Pb**	**15 41 39.8**	**+0.5**
KUSD				AML	AML		
EZN	**Ezine**	**1.09**	**352**	Pg	**Pb**	**15 41 39.6**	**0.0**
EZN				AML	AML		
BOZC	**Bozcaada**	**1.15**	**341**	Pn	**Pb**	**15 41 40.9**	**+0.1**
BOZC				AML	AML		
GCAM	**G?zelcaml?**	**1.18**	**152**	P	**Pn**	**15 41 41.4**	**+0.3**
GCAM				S	**Sb**	**15 41 57.4**	**+1.0**
GCAM				IAML		15 41 59.0	
	comp=N,74nm,0.3s						
GCAM				IAML		15 41 59.0	
	comp=E,50nm,0.2s						
GCAM	**G?zelcaml?**	**1.18**	**152**	Pn	**Pn**	**15 41 41.2**	**+0.1**
GCAM				AML	AML		
IZMR	**zmir-demi**	**1.27**	**118**	P	**Pb**	**15 41 43.3**	**+0.6**
IZMR				S	**Sb**	**15 41 58.1**	**-0.8**
GORD	**Gordes-Manisa**	**1.30**	**82**	Pn	**Pb**	**15 41 43.8**	**+0.6**
GORD				AML	AML		
YENI	**Yenice-Canakka**	**1.31**	**25**	Pn	**Pg**	**15 41 44.3**	**0.0**
GADA	**Gvkgeada**	**1.52**	**341**	P	**Pb**	**15 41 47.8**	**+0.8**
GADA				AML	AML		
LIA	**Limnos Island**	**1.55**	**318**	P	**Pg**	**15 41 48.5**	**-0.5**
LIA				AML	AML		
APE	**Apeiranthos**	**1.85**	**206**	P	**Pn**	**15 41 49.7**	**-0.7**
APE				AML	AML		
APE	**Apeiranthos**	**1.85**	**206**	P	**Pn**	**15 41 49.1**	**-1.3**
SMTH	**Samothraki Isl**	**1.89**	**336**	P	**Pn**	**15 41 49.2**	**-1.6**
AOS2	**Alonissos-2**	**2.13**	**282**	P	**Pn**	**15 41 51.9**	**-2.3**
ALN	**Alexandroupoli**	**2.18**	**350**	P	**Pn**	**15 41 56.5**	**+1.7**

*IDC **30** 15:51:15.2±2.3, 3°.24S×134°.57E, h0km, mb3.6/2, mbtmp3.7/5, ML3.5/3, MS1.9/1, Error ellipse: s-maj=53.5km s-min=18.2km az=61.0*
*DJA **30** 15:51:16.4±1.1, 3°.5S±6°×13°.5E±°, h160km±20km, M3.7/7, MLv3.7/7, MLv3.7/7*
ISC 30 15:51:16.0±1.1**, 3°.33S**±0°.09×**134°.71E**±0°.07**, h10**km**, n8, σ1**°20**/9**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MWPI	**Manokwari, Pap**	**2.47**	**344**	P	**Pn**	**15 51 57.5**	**+1.2**
MWPI				AML	AML		
MWPI				AML	AML		
FAKI	**Fak Fak**	**2.49**	**279**	P	**Pn**	**15 51 57.4**	**+0.9**
SMPI	**Sarmi**	**4.21**	**72**	P	**Pn**	**15 52 20.1**	**-0.2**
SIJI	**Sorong**	**4.22**	**305**	Pn	**Pn**	**15 52 19.6**	**-0.8**
	2.6nm,0.3s,baz=162,slow=20,SNR=19						
SIJI				Sn	**Sn**	**15 53 08.7**	**-1.1**
	2.7nm,0.3s,baz=119,slow=23,SNR=7.8						
SIJI				LR	LR	15 53 51.5	
	comp=Z,18nm,21.6s,baz=194,slow=38 7.6nm,0.2s						
SIJI				AML	AML		
WRA	**Warramunga Arr**	**16.52**	**181**	Pn	**Pn**	**15 55 06.6**	**-1.3**
	0.2nm,0.3s,baz=360,slow=12,SNR=9.9 0.6nm,0.7s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**17.16**	**211**	P	**Pn**	**15 55 15.4**	**-0.5**
	0.2nm,0.3s,baz=23,slow=13,SNR=5.8 1.3nm,0.7s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**20.24**	**182**	P	**P**	**15 55 53.2**	**+1.7**
	3.5nm,0.7s,baz=5.5,slow=12,SNR=28 3.5nm,0.7s						
MKAR	**Makanchi Array**	**67.88**	**324**	P	**P**	**16 02 14.7**	**0.0**
	0.2nm,0.4s,baz=113,slow=7.7,SNR=5.2						

*KOLA **30** 15:59:18.6, 69°.30N×30°.73E, h0km, ML1.8, Zapolyarny City, Mines*
HEL 30 15:59:20.8±0.3**, 69°.38N×30°.80E, h0**km**, ML1.4, Suspected explosion, Norway-Murmansk border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VADS	**Vadso**	**0.90**	**327**	P	Pg	15 59 34.5	-3.5
VADS				S	Sg	15 59 47.3	-2.3
RAJF	**Raja-Jooseppi**	**1.28**	**226**	PG	Pg	15 59 43.7	-1.5
RAJF				SG	Sg	16 00 00.2	-1.5
KEV	**Kevo**	**1.38**	**288**	PG	Pg	15 59 45.6	-1.6
	baz=105						
KEV				SB	Sg	16 00 03.3	-1.9
VRF	**Varrio**	**1.70**	**195**	MSG		16 00 11.3	
	comp=Z,1.4nm,0.2s						
VRF				SN	Sn	16 00 13.9	-0.1
ARA0	**ARCESS Array S**	**1.87**	**277**	PG	Pn	15 59 54.5	+0.5
ARA0				SG	Sn	16 00 17.6	-0.7
APA0	**Apatity Array**	**1.96**	**155**	P	Pn	15 59 51.6	-3.6
APA	**Apatity**	**2.06**	**151**	S	Sn	16 00 20.9	-1.9
HEF	**Hetta**	**2.76**	**253**	MSG		16 00 42.2	
	comp=Z,1.6nm,0.2s						
LANU	**Lannavaara**	**3.48**	**252**	PB	Pn	16 00 18.4	+2.4

*IDC **30** 16:36:14.6±0.6, 7°.18N×82°.29W, h0km, mb4.2/13, mbtmp4.3/20, ML3.4/4, MS3.8/25, Error ellipse: s-maj=19.7km s-min=10.0km az=49.0*
*RSNC **30** 16:36:15.9±0.3, 7°.N±2°×8°.2W±°, h0km, M4.9, mb4.9, mB5.3, ML3.8, Mw(mB)4.8, MwMwp4.9, Mwp5.2*
*UPA **30** 16:36:15.4±1.3, 7°.16N×82°.38W, h13km±11km, MW4.8, Presumed earthquake*
*UCR **30** 16:36:15.2±1.1, 7°.27N×82°.38W, h0km±100km, MW4.8, Presumed earthquake*
*GFZ **30** 16:36:16.4, 7°.26N×82°.26W, h13km, Mw4.8/15, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.07; $M_{\theta\theta}$-0.06; $M_{\phi\phi}$-0.02; $M_{r\theta}$0.23; $M_{\theta\phi}$2.16; $M_{\phi r}$-0.15; Fault plane solution: $M_0$2.17813×10^{16} NP1: ϕ_s359.93175°, δ84.25054°, λ-176.23664°. NP2: ϕ_s269.55420°, δ86.25560°, λ-5.76180°. Principal axes: T 2.1257, Plg1.4130°, Azm314.8257°; N 0.1013, Plg83.1318°, Azm56.6428°; P -2.2270, Plg6.7199°, Azm224.6592°;*
*GFZ **30** 16:36:16.4±0.1, 7°.N±2°×8°.2W±°, h10km, M4.6/36, mb4.6/36*
*CATAC **30** 16:36:18.5±0.9, 7°.N±9°×8°.2W±°, h32km±24km, M4.6/15, MLv4.6/15, Error ellipse: s-maj=20.6km s-min=4.2km az=11.1, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.22; $M_{\theta\theta}$-0.39; $M_{\phi\phi}$-0.83; $M_{r\theta}$0.89; $M_{\theta\phi}$2.84; $M_{\phi r}$-0.08; Fault plane solution: $M_0$3.17044×10^{16} NP1: ϕ_s95.81841°, δ78.00068°, λ24.46733°. NP2: ϕ_s0.41417°, δ66.10106°, λ166.85615°. Principal axes: T 2.5322, Plg25.6882°, Azm320.2413°; N 1.0236, Plg62.9122°, Azm120.3734°; P -3.5558, Plg8.0165°, Azm226.3569°; confirmed*
*NEIC **30** 16:36:18.2±1.1, 7°.31N±0°.07×82°.38W±0°.08, h10km±1km, mb4.6/160 Error ellipse: s-maj=15.0km s-min=9.8km az=229.0*
*GCMT **30** 16:36:19.2±0.3, 7°.17N±0°.02×82°.26W±0°.02, h25km±1km, MW5.0/110, Moment Tensor Solution. s31,c33; s110,c140; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.46±.13; $M_{\theta\theta}$-0.24±.12; $M_{\phi\phi}$0.70±.14; $M_{r\theta}$-0.56±.21; $M_{\theta\phi}$3.44±.10; $M_{\phi r}$-0.22±.24; Best double couple: $M_0$3.52000×10^{16} NP1:ϕ_s176.00000°, δ81.00000°, λ179.00000°. NP2:ϕ_s266.00000°, δ89.00000°, λ9.00000°. Principal axes: T 3.7690, Plg7.0000°, Azm131.0000°; N -0.4990, Plg81.0000°, Azm273.0000°; P -3.2700, Plg6.0000°, Azm41.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 30 16:36:16.2±1.3**, 7°.24N**±0°.03×**82°.28W**±0°.03**, h10**km±8km**, n388**, σ1**°40**/347**, mb4.6**/104**, MS3.8**/21**, 5C-10D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LIMO3	**Limones**	**1.04**	**326**	*e*P	**Pg**	**16 36 34.7**	**-1.5**
PVID3	**Puerto Vidal,**	**1.04**	**39**	*i* P	**Pg**	**16 36 35.5**	**-0.8**
PVID3				*i* S	**Sn**	**16 36 51.7**	**+0.2**
REME3	**Remedios, Chir**	**1.08**	**24**	*i* P	**Pg**	**16 36 36.7**	**-0.2**
REME3				*e*S	**Sb**	**16 36 51.0**	**-0.1**
PTPM	**Petroterminale**	**1.13**	**328**	*e*P	**Pb**	**16 36 35.6**	**-2.3**
NANC3	**Nancito, Chiri**	**1.13**	**28**	⇓*i*P	**Pb**	**16 36 37.2**	**-0.7**
NANC3				*i* S	**Sg**	**16 36 50.3**	**-2.4**
CHIR3	**Chiriqui UPA,**	**1.15**	**357**	*e*P	**Pb**	**16 36 37.4**	**-0.8**
GMAL	**Guarumal, Vera**	**1.16**	**63**	P	**Pb**	**16 36 36.9**	**-1.4**
GMAL	**Guarumal, Vera**	**1.16**	**63**	*e*P	**Pb**	**16 36 37.1**	**-1.2**
GMAL				*i* S	**Sb**	**16 36 53.0**	**-0.5**
ARIEL	**Armuelles**	**1.19**	**331**	*e*P	**Pg**	**16 36 43.0**	**+3.9**
LOMA3	**Las Lomas, Chi**	**1.19**	**354**	*e*P	**Pb**	**16 36 38.1**	**-0.8**
PDCAN	**Manzana , Fuen**	**1.19**	**29**	*e*P	**Pb**	**16 36 38.1**	**-0.9**
PDCAN	**Manzana , Fuen**	**1.19**	**29**	⇓*i*P	**Pb**	**16 36 38.1**	**-0.9**
DVD	**David**	**1.20**	**352**	*e*P	**Pb**	**16 36 38.0**	**-1.1**
BAGA3	**Bagala, Chiriq**	**1.25**	**348**	*e*P	**Pn**	**16 36 37.5**	**-2.2**
BGUAL	**Bijagual, Pana**	**1.26**	**357**	*e*P	**Pn**	**16 36 38.5**	**-1.4**
BGUAL	**Bijagual, Pana**	**1.26**	**357**	⇑*i*P	**Pn**	**16 36 38.5**	**-1.4**
GUAL3	**Gualaca, Chiri**	**1.28**	**359**	*e*P	**Pn**	**16 36 39.4**	**-0.9**
RSUS3	**Rio de Jesus,**	**1.33**	**56**	⇓*e*P	**Pn**	**16 36 40.0**	**-0.8**
RSUS3				*e*S	**Sn**	**16 36 58.6

LAES El Progreso Va 2.62 343 eP Pn 16 36 59.2 +0.5
VERH Veragua Rainfo 2.82 341 eP Pn 16 37 01.2 -0.2
PIEC Cerro El Cedra 2.89 325 eP Pn 16 37 01.5 -1.2
ZANG Zanguenga, Cho 2.93 54 eP Pn 16 37 03.8 +0.8
ZANG Zanguenga, Cho 2.93 54 eP Pn 16 37 03.6 +0.7
VINA Juan Vinas 3.01 331 eP Pn 16 37 03.8 -0.4
ABE2 San Pablo 3.02 324 eP Pn 16 37 02.7 -1.6
LCR2 La Lucha 2 3.02 326 P Pn 16 37 02.7 -1.6
LCR2 La Lucha 2 3.02 326 Pn 16 37 02.4 -1.9
LCR2 La Lucha 2 3.02 326 eP Pn 16 37 02.2 -2.1
PICV PH. Pirrs 3.04 321 eP Pn 16 37 03.0 -1.5
BCIP Isla Barro Col 3.08 51 P Pn 16 37 05.7 +0.7
BCIP Isla Barro Col 3.08 51 P Pn 16 37 05.6 +0.7
BCIP S Sb 16 37 45.8 -3.0
BCIP Isla Barro Col 3.08 51 eP Pn 16 37 05.6 +0.7
BCIP Isla Barro Col 3.08 51 P Pn 16 37 06.1 +1.1
BCIP Isla Barro Col 3.08 51 eP Pn 16 37 05.7 +0.7
VTCV VTCV, Calle Va 3.08 332 eP Pn 16 37 04.4 -0.7
ABRB Las Abras (San 3.10 333 eP Pn 16 37 05.0 -0.4
LCOCO El Coco 3.10 336 eP Pn 16 37 05.6 +0.4
RAFA San Farael, Vo 3.10 331 Pn Pn 16 37 05.1 -0.5
TABO3 Taboga, Panama 3.11 60 eP Pn 16 37 06.7 +1.4
ARRA3 Arraijan, Pana 3.11 56 eP Pn 16 37 03.9 -1.4
CVTV Tajo 3.11 332 eP Pn 16 37 04.8 -0.8
MLIR Monte Lirio 3.12 50 eP Pn 16 37 07.8 +2.3
CVTQ Turrialba Volc 3.12 332 eP Pn 16 37 04.7 -1.1
VTR0 Volcan Turrial 3.13 332 eP Pn 16 37 05.6 -0.4
CVTR Volcan Turrial 3.13 332 eP Pn 16 37 05.4 -0.6
RVLA Villa Bonita 3.13 336 eP Pn 16 37 06.2 +0.5
VICA Volcano Irazu 3.14 330 eP Pn 16 37 05.7 -0.4
ACOS Acosta 3.15 324 eP Pn 16 37 04.8 -1.3
GAMB1 Gamboa 3.15 53 eP Pn 16 37 06.8 +0.8
AMPA Desamparados 3.18 326 eP Pn 16 37 05.8 -0.6
FLAM Flamenco Islan 3.18 58 eP Pn 16 37 07.9 +1.5
FRIJ El Hiral 3.20 52 eP Pn 16 37 07.5 +0.9
UPA Univ. de Panam 3.22 57 P Pn 16 37 07.7 +0.8
UPA Univ. de Panam 3.22 57 eP Pn 16 37 08.0 +1.1
CVTG V. Turrialba, 3.25 333 eP Pn 16 37 06.9 -0.4
HDC Heredia 3.29 327 Pn 16 37 06.9 -1.1
HDC Heredia 3.29 327 P Pn 16 37 07.8 -0.1
HDC Heredia 3.29 327 eP Pn 16 37 07.6 -0.4
HDC eS Sn 16 37 46.7 -0.6
HEME Heredia, Merce 3.30 326 eP Pn 16 37 07.1 -1.0
BELE Belen 3.31 325 eP Pn 16 37 07.5 -0.7
VBV1 V. Barva 3.38 328 eP Pn 16 37 08.7 -0.6
TRB2 Turrubares 3.42 321 P Pn 16 37 08.3 -1.4
CARI Cariari 3.42 335 eP Pn 16 37 10.4 +0.7
TCS1 Tacares 3.43 324 P Pn 16 37 09.7 -0.2
TRT2 Tortugero 3.60 336 eP Pn 16 37 11.9 -0.2
CHPO Chepo, Panama 3.67 58 eP Pn 16 37 14.0 +0.9
ARE1 Arenal 1 4.01 323 eP Pn 16 37 18.5 +0.8
VARE2 V. Arenal 4.01 323 eP Pn 16 37 18.0 +0.2
CEDE Laguna Cedeo 4.02 324 eP Pn 16 37 17.5 -0.4
JTS Las Juntas de 4.02 319 Pn Pn 16 37 16.5 -1.5
416nm,0.4s,baz=144,slow=3.6,SNR=320
JTS Sn Sn 16 38 00.5 -4.8
baz=315,slow=19
JTS LR LR 16 38 00.5
comp=Z,561nm,21.5s,baz=73,slow=26
JTS Las Juntas de 4.02 319 P Pn 16 37 16.4 -1.6
JTS S Sn 16 38 02.6 -2.6
JTS Las Juntas de 4.02 319 Pn 16 37 16.0 -2.0
JTS Las Juntas de 4.02 319 Sn 16 38 00.5 -4.8
JTS Las Juntas de 4.02 319 P Pn 16 37 16.2 -1.8
JTS Las Juntas de 4.02 319 eP Pn 16 37 16.3 -1.6
JTS Las Juntas de 4.02 319 P Pn 16 37 16.7 -1.3
JTS Las Juntas de 4.02 319 eP Pn 16 37 16.5 -1.5
INDI Punta indio, G 4.12 310 P Pn 16 37 17.5 -1.8
QUEB Quebradon, Cot 4.24 323 eP Pn 16 37 21.0 0.0
NICO Nicoya 4.25 313 eP Pn 16 37 19.8 -1.3
UPD2 Meteti 4.42 73 P Pn 16 37 24.4 +1.1
UPD2 Meteti 4.42 73 eP Pn 16 37 25.3 +1.9
PTAC Punta Ardita, 4.43 91 P Pn 16 37 22.2 -1.4
PTAC S Sn 16 38 07.7 -7.6
CUI Cuipilapa 4.44 320 eP Pn 16 37 23.6 0.0
COLC Colonia 4.47 320 eP Pn 16 37 24.0 -0.1
CLARA Aguas Claras 4.54 321 eP Pn 16 37 25.4 +0.3
LAPC Finca la Perla 4.69 319 eP Pn 16 37 26.6 -0.6
BUAI Buenos Aires 4.71 320 eP Pn 16 37 27.3 -0.1
SOLC Bahia Solano 4.94 101 P Pn 16 37 29.3 -1.2
SOLC S Sn 16 38 21.4 -6.3
BLUN Bluefields 4.96 343 P Pn 16 37 30.8 0.0
BLUN Bluefields 4.96 343 P Pn 16 37 29.1 -1.7
CARN Rivas 5.07 321 P Pn 16 37 31.1 -1.1
CARN Rivas 5.07 321 Pn 16 37 32.7 +0.4
SAIC Isla e San And 5.29 6 P Pn 16 37 34.8 -0.6
4µm126nm,1.0s
SAIC AML AML
PIZC Pizarro, Choco 5.38 115 P Pn 16 37 35.9 -0.8
233nm,0.9s
PIZC S Sn 16 38 34.5 -4.3
233nm,0.9s
PIZC AML AML
APAC Apartado, Choc 5.69 83 P Pn 16 37 41.3 +0.5
2µm70nm,0.8s
APAC AML AML
LCBC Los crdobas, 6.07 74 Pn Pn 16 37 49.6 +3.6
BOAB BOACO BROADBAN 6.16 327 Pn 16 37 47.2 -0.1
BOAB BOACO BROADBAN 6.16 327 P Pn 16 37 47.5 +0.2
comp=Z,340nm,0.8s
MGAN Managua 6.25 322 Pn 16 37 48.8 +0.2
MGAN Managua 6.25 322 P Pn 16 37 48.7 +0.1
comp=Z,263nm,0.9s
CBOC Ciudad Bolivar 6.37 102 P Pn 16 37 49.5 -0.9
comp=Z,1µmcomp=Z,37nm,0.5s
PLMC San Jos del P 6.39 111 P Pn 16 37 49.1 -1.5
UREC San Jos de Ur 6.71 85 P Pn 16 37 55.5 +0.7
comp=Z,559nmcomp=Z,48nm,0.7s
UREC San Jos de Ur 6.71 85 eP Pn 16 37 56.0 +1.1
YOTC Yotoco, Valle 6.73 118 P Pn 16 37 54.7 -0.6
comp=Z,965nmcomp=Z,39nm,0.5s
HELC Santa Helena 6.78 98 Pn 16 37 58.4 +2.2
HELC Santa Helena 6.78 98 P Pn 16 37 57.0 +0.8
comp=Z,731nmcomp=Z,42nm,1.0s
CNGN Cerro Negro 6.80 321 P Pn 16 37 56.2 -0.1
comp=Z,83nm,0.5s
JAMC Jamundi, Valle 6.86 125 P Pn 16 37 57.0 -0.2
comp=Z,3µmcomp=Z,7µmcomp=Z,36nm,0.6s
GUY2C Guyana, Caldas 7.16 106 P Pn 16 38 01.8 +0.4
comp=Z,36nm,0.6s
BBAC Balboa, Cauca 7.21 136 P Pn 16 38 01.9 0.0
comp=Z,3µmcomp=Z,6µmcomp=Z,240nm,0.6s
RECRC Villamaria, Ca 7.25 108 P Pb 16 38 22.6 +0.1
POPC Popayan, Colom 7.27 130 P Pn 16 38 02.2 -0.6
comp=Z,1µmcomp=Z,79nm,0.7s
ZARC Zaragoza, Cauc 7.36 88 P Pn 16 38 04.6 +0.7
SJCC San Jacinto, C 7.50 69 Pn 16 38 07.1 +1.3
SJCC San Jacinto, C 7.50 69 P Pn 16 38 06.2 +0.4
comp=Z,30nm,0.6s
ORTC Ortega, Tolima 7.74 115 P Pn 16 38 10.4 +1.3
comp=Z,2µmcomp=Z,109nm,0.7s
CRUC La Cruz 7.74 136 P Pn 16 38 10.6 +1.2
PAC1 Pacto, Paraso 7.75 153 P Pn 16 38 08.0 -1.3
comp=Z,2µmcomp=Z,54nm,0.5s
PTBC PUERTO BERRIO, 7.79 95 P Pn 16 38 11.0 +1.2
comp=Z,26nm,0.8s
CUSE Cuicocha Este 7.90 151 P Pn 16 38 11.0 -0.6
comp=Z,71µmcomp=Z,3µmcomp=Z,135nm,0.7s
FLF1 Flavio Alfaro- 7.93 162 P Pn 16 38 11.5 -0.1
comp=Z,2µmcomp=Z,145nm,1.1s
OTAV Otavalo 7.93 151 P Pn 16 38 10.8 -1.3
comp=Z,2µmcomp=Z,29nm,0.8s
OTAV Otavalo 7.93 151 P Pn 16 38 13.2 +1.1
comp=Z,29nm,0.7s
OTAV Otavalo 7.93 151 eP Pn 16 38 12.2 +0.1
PRAC Prado 8.15 115 P Pn 16 38 15.9 +1.2
comp=Z,1µmcomp=Z,62nm,0.6s
BETC Betania 8.18 123 P Pn 16 38 16.1 +1.0
ROSC El Rosal 8.26 106 Pn Pn 16 38 18.3 +1.8
comp=Z,5.1nm,0.3s,baz=285,slow=21,SNR=6.4
ROSC LR LR 16 40 55.3
comp=Z,628nm,20.1s,baz=265,slow=34
comp=Z,18nm,0.5s
ROSC AML AML
ROSC El Rosal 8.26 106 P Pn 16 38 20.4 +3.8
comp=Z,35nm,0.8s
TGUH Tegucigalpa,Un 8.37 324 Pn 16 38 17.1 -0.7
TGUH Tegucigalpa,Un 8.37 324 P Pn 16 38 18.4 +0.7
comp=Z,78nm,0.8s
GARC Garzon, Huila 8.42 126 P Pn 16 38 20.5 +1.9
CVER Cruz Verde, Cu 8.59 108 P Pn 16 38 24.8 +3.6
comp=Z,53nm,0.6s
FLOC Florencia 8.67 130 P Pn 16 38 23.5 +1.7
comp=Z,1µmcomp=Z,60nm,1.0s
URMC La Uribe, Meta 8.81 116 P Pn 16 38 25.1 +1.3
comp=Z,1µmcomp=Z,77nm,1.1s
PPLP Puerto Lpez 8.85 170 P Pn 16 38 23.7 -0.7
CHIC Chingaza 8.88 106 P Pn 16 38 28.5 +3.4
comp=Z,34nm,0.7s
BARC Barichara 9.05 94 P Pn 16 38 28.3 +1.0
comp=Z,71nm,1.1s
VILC Villavicencio, 9.09 110 P Pn 16 38 30.2 +2.5
RUSC La Rusia 9.23 98 Pn 16 38 32.9 +2.9
RUSC La Rusia 9.23 98 P Pn 16 38 32.5 +2.6
comp=Z,17nm,1.1s
MACC Macarena, Meta 9.80 121 P Pn 16 38 38.7 +1.3
MTO3 Montecristo 9.95 316 Pn 16 38 39.8 +0.2
PAYG Puerto Ayora 11.21 226 P Pn 16 38 58.1 +1.4
comp=Z,76nm,2.0s
SDV Santo Domingo 11.64 81 Pn Pn 16 39 03.3 +0.6
comp=Z,0.4nm,0.3s,baz=253,slow=7.9,SNR=9.4
SDV LR LR 16 44 52.1
comp=Z,843nm,18.1s,baz=259,slow=44
comp=Z,6.7nm,0.6s
SDV AML AML
SDV Santo Domingo 11.64 81 Pn 16 39 04.5 +1.8
SDV Santo Domingo 11.64 81 P Pn 16 39 03.8 +1.0
comp=Z,83nm,0.9s
TEIG Tepich 14.16 336 P Pn 16 39 35.7 -1.2
comp=Z,37nm,2.0s
GTBY Guantanamo Bay 14.40 28 P Pn 16 39 39.7 -0.6
comp=Z,41nm,1.3s
ATAH Atahualpa 14.79 165 Pn Pn 16 39 46.4 +0.3
comp=Z,0.4nm,0.3s,baz=338,slow=22,SNR=5.7
ATAH LR LR 16 44 38.4
comp=Z,511nm,19.8s,baz=345,slow=34
comp=Z,6.0nm,0.7s
ATAH AML AML
PODR Polo 15.25 44 Pn Pn 16 39 54.4 +2.4
PODR IAmb IAmb 16 40 02.0
comp=Z,24nm,1.1s
CMIG Matias Romero 15.73 310 Pn Pn 16 39 58.4 +0.3
comp=Z,0.8nm,0.3s,baz=123,slow=9.1,SNR=8.7
comp=Z,10nm,1.0s
CMIG AML AML
SDDR Presa de Saban 15.82 41 P Pn 16 39 59.9 +0.6
comp=Z,30nm,0.8s
CZSB Cruzeiro do Su 17.67 147 eP Pn 16 40 21.0 -1.6
CELP Cerrillos 18.70 53 P Pn 16 40 37.5 +2.1
CELP IAmb IAmb 16 40 39.6
comp=Z,50nm,1.2s
AOPR Arecibo Observ 18.72 52 P Pn 16 40 36.9 +1.4
ECPR Experimental S 19.01 53 P Pn 16 40 40.1 +1.0
ECPR IAmb IAmb 16 40 40.8
comp=Z,21nm,0.7s
SJG San Juan 19.07 54 P Pn 16 40 40.1 +0.4
comp=Z,26nm,0.6s,baz=236,slow=8.6,SNR=6.5
PDPR Patillas Dam, 19.12 54 P Pn 16 40 41.4 +1.0
PDPR IAmb IAmb 16 40 42.4
comp=Z,36nm,1.2s
GCPR Guaynabo City 19.23 54 P Pn 16 40 42.5 +0.9
GCPR IAmb IAmb 16 40 43.1
comp=Z,31nm,0.7s
NNA Nana 19.85 164 P P 16 40 47.3 -0.3
comp=Z,16nm,0.7s,baz=326,slow=6.6,SNR=4.2
TEFE Tefe 20.59 121 eP Pn 16 40 56.9 -1.0
SMRT St. Maarten 21.57 58 P P 16 41 04.6 -1.6
comp=Z,49nm,1.0s
GDHS Morne Mazeau, 21.98 64 P P 16 41 11.1 +0.5
comp=Z,98nm,1.0s
CBE Ff, Capester 22.04 65 P P 16 41 11.2 -0.1
comp=Z,127nm,1.8s
BOAV Boa Vista 22.20 101 P 16 41 15.6 +2.6
BOAV Boa Vista 22.20 101 eP P 16 41 15.5 +2.6
MPOM Morne Pois Mar 22.21 69 P P 16 41 15.5 +2.5
MPOM Morne Pois Mar 22.21 69 P P 16 41 12.3 -0.7
comp=Z,135nm,1.2s
ANWB Willy Bob 22.51 61 P P 16 41 15.3 -0.9
comp=Z,95nm,0.9s
MACA Manacapuru-AM 23.90 115 eP P 16 41 30.8 +0.4
ZAIG Zacatecas 24.90 311 P P 16 41 39.2 -0.6
comp=Z,12nm,1.1s
HKT Hockley 25.94 332 P P 16 41 47.6 -1.2
comp=Z,6.2nm,0.6s
LPAZ La Paz 27.25 149 P P 16 42 01.8 +0.3
comp=Z,3.3nm,0.8s,baz=341,slow=8.1,SNR=11
LPAZ LR LR 16 54 39.5
comp=Z,221nm,18.3s,baz=314,slow=41
comp=Z,3.3nm,0.8s
LPAZ La Paz 27.25 149 P P 16 42 01.6 +0.1
LPAZ La Paz 27.25 149 P P 16 42 02.3 +0.8
comp=Z,6.4nm,0.9s
LPAZ La Paz 27.25 149 eP P 16 42 02.1 +0.7
PB18 Visviri 27.72 153 P P 16 42 07.6 +2.0
PB18 Visviri 27.72 153 P P 16 42 03.6 -2.0
comp=Z,21nm,2.1s
PB12 IPOC Station P 28.26 156 P P 16 42 11.3 +1.4
PB12 IAmb IAmb 16 42 14.3
comp=Z,11nm,0.7s
PB12 IPOC Station P 28.26 156 P P 16 42 09.7 -0.2
comp=Z,21nm,1.4s
TKL Tuckaleechee C 28.32 357 LR LR 16 54 02.2
comp=Z,183nm,18.4s,baz=181,slow=38
PB16 IPOC Station P 28.36 154 P P 16 42 10.8 -0.6
comp=Z,20nm,1.0s
PSGCX Pisagua 29.23 156 P P 16 42 18.6 0.0
comp=Z,8.9nm,1.1s
WHAR Wooly Hollow 29.39 343 P P 16 42 20.0 +0.2
WHAR IAmb IAmb 16 42 51.6
comp=Z,22nm,1.4s
PLPT Palo Pinto 29.49 332 IAmb IAmb 16 42 22.6
comp=Z,22nm,1.4s
MDP Montagnes des 29.54 92 LR LR 16 55 39.9
comp=Z,267nm,18.3s,baz=290,slow=39
PEBM Pemiscott Bayo 29.57 347 P P 16 42 21.9 +0.7
PB11 IPOC Station P 29.57 155 P P 16 42 22.1 +0.5
comp=Z,15nm,2.0s
GO01 Chusmiza 29.68 154 IAmb IAmb 16 42 27.7
comp=Z,6.5nm,0.7s
GO01 Chusmiza 29.68 154 P P 16 42 23.7 +0.7
comp=Z,11nm,1.2s
VILB Vilhena 29.72 132 eP P 16 42 23.5 +0.6
TXAR Lajitas Array 29.81 320 P P 16 42 24.2 +0.5
comp=Z,2.0nm,1.0s,baz=122,slow=9.0,SNR=8.3
TXAR LR LR 16 56 09.5
comp=Z,111nm,19.6s,baz=148,slow=40
comp=Z,2.0nm,1.0s
LCAR Lake Charles 29.82 345 P 16 42 23.4 -0.1
LCAR IAmb IAmb 16 42 23.9
comp=Z,6.1nm,0.7s
NPGB Novo Progresso 30.37 117 eP P 16 42 30.0 +1.4
PB01 IPOC Station P 30.79 156 P P 16 42 32.7 +0.4
comp=Z,13nm,2.1s
PB07 IPOC Station P 31.25 157 P P 16 42 38.3 +1.8
WMOK Wichita Mounta 31.30 333 P P 16 42 37.6 +0.8
PB09 IPOC Station P 31.56 156 P P 16 42 38.9 -0.3
comp=Z,17nm,2.2s
PB03 IPOC Station P 31.59 157 P P 16 42 38.8 -0.7
comp=Z,12nm,1.6s
CLDB Colider 31.91 124 P P 16 42 41.4 -0.9
comp=Z,3.6nm,1.9s
PB05 IPOC Station P 32.16 159 P P 16 42 42.9 -1.5
comp=Z,14nm,1.7s
BBSD Serra de San D 32.37 139 eP P 16 42 46.0 -0.2
MNTX Cornudas Mount 32.51 322 P 16 42 47.7 +0.4
MNTX IAmb IAmb 16 42 49.3
comp=Z,6.2nm,0.9s
MNTX Cornudas Mount 32.51 322 P P 16 42 47.4 +0.1
RTBA Rita Blanca 34.55 330 IAmb IAmb 16 43 08.4
comp=Z,7.2nm,0.8s
SALTA 34.92 154 P P 16 43 08.6 -0.4
comp=Z,4.1nm,2.3s
SALV Santo Antonio 34.95 131 eP P 16 43 08.6 -0.1
Y22A Socoro 35.02 323 IAmb IAmb 16 43 13.2
comp=Z,11nm,0.9s
ALQ Albuquerque 35.42 325 P 16 43 13.1 +0.3
ANMO Albuquerque 35.42 325 P P 16 43 13.1 +0.3
comp=Z,4.8nm,0.8s,baz=137,slow=8.2,SNR=8.7
ANMO LR LR 17 01 24.2
comp=Z,97nm,19.9s,baz=123,slow=43
comp=Z,4.8nm,0.8s
ANMO Albuquerque 35.42 325 P P 16 43 13.2 +0.3
ANMO Albuquerque 35.42 325 P P 16 43 13.5 +0.6
comp=Z,6.7nm,1.1s
COIM Forte Coimbra 36.17 139 eP P 16 43 18.3 -0.9
TUC Tucson 36.41 317 P P 16 43 22.1 +1.0
comp=Z,8.1nm,1.4s
J59A Piesco 36.72 9 P P 16 43 24.6 +1.0
J59A IAmb IAmb 16 43 30.8
comp=Z,9.8nm,1.2s
SDCO Great Sand Dun 36.96 329 P P 16 43 26.2 +0.2
X18A Snowflake 37.25 321 IAmb IAmb 16 43 32.0
comp=Z,14nm,1.1s
SADO Sadowa 37.49 4 LR LR 16 59 31.3
comp=Z,265nm,18.2s,baz=255,slow=37
AQDB Aquidauana 37.96 137 P P 16 43 33.8 -0.6
comp=Z,9.4nm,1.1s
MVCO Mesa Verde 38.19 325 P P 16 43 37.6 +1.1
comp=Z,8.7nm,1.6s
ECSD EROS Data Cent 38.46 343 P P 16 43 37.4 -1.0
comp=Z,10nm,2.7s
ISCO Idaho Springs 38.59 331 P P 16 43 39.4 -0.5
comp=Z,4.3nm,1.2s
113A Mohawk Valley, 38.72 315 P P 16 43 41.4 +0.7
113A IAmb IAmb 16 43 44.0
comp=Z,18nm,1.3s
PV15 Paradox Valley 38.99 326 IAmb IAmb 16 43 48.5
comp=Z,19nm,1.0s
PV02 Paradox Valley 39.03 326 IAmb IAmb 16 43 47.3
comp=Z,12nm,0.9s
PV13 Radium Mtn., P 39.04 326 P P 16 43 43.9 +0.3
PV13 IAmb IAmb 16 43 46.4
comp=Z,12nm,0.9s
PV03 Paradox Valley 39.12 326 IAmb IAmb 16 43 47.2
comp=Z,13nm,0.8s
PV05 Paradox Valley 39.14 326 IAmb IAmb 16 43 46.7
comp=Z,12nm,0.8s
PV07 Paradox Valley 39.15 326 IAmb IAmb 16 43 46.7
comp=Z,9.7nm,0.9s
PV12 Saucer Basin, 39.15 326 IAmb IAmb 16 43 49.3
comp=Z,15nm,0.8s
PV18 Skein Mesa, Pa 39.15 326 IAmb IAmb 16 43 47.4
comp=Z,15nm,0.8s
PV16 Nyswonger Mesa 39.20 326 IAmb IAmb 16 43 49.9
comp=Z,18nm,1.2s
PV17 East Wray Mesa 39.20 326 IAmb IAmb 16 43 47.8
comp=Z,15nm,0.9s
PV04 Paradox Valley 39.26 326 IAmb IAmb 16 43 55.7
comp=Z,11nm,1.1s
PV10 Paradox Valley 39.32 326 IAmb IAmb 16 43 55.1
comp=Z,14nm,1.0s
CO02 Combarbal 39.72 165 P P 16 43 48.4 -0.7
comp=Z,31nm,2.1s
BLYC Blythe 39.80 316 P P 16 43 50.0 +0.3
U15A North Rim 39.93 321 IAmb IAmb 16 43 54.9
comp=Z,24nm,1.5s
HMU Henry Mountain 39.98 324 IAmb IAmb 16 43 54.7
comp=Z,11nm,1.0s
F64A Sherman 40.32 15 P P 16 43 55.0 +1.2
F64A IAmb IAmb 16 44 33.8
comp=Z,19nm,1.4s
CO04 Los Peladeros 40.52 165 P P 16 43 57.8 +1.8
CO04 IAmb IAmb 16 44 23.9
comp=Z,24nm,1.2s
PKCU Pink Cliffs 40.59 322 IAmb IAmb 16 44 00.2
comp=Z,16nm,1.0s
KNB Kanab 40.63 321 IAmb IAmb 16 44 00.4
comp=Z,13nm,1.1s
SRU San Rafael Swe 40.66 326 IAmb IAmb 16 43 59.7
comp=Z,8.3nm,0.7s
BDFB Brasilia 40.85 124 P P 16 43 58.4 -0.3
comp=Z,2.2nm,0.5s,baz=281,slow=4.6,SNR=3.3
BDFB LR LR 17 00 23.4
comp=Z,195nm,20.3s,baz=305,slow=36
comp=Z,2.2nm,0.5s
BORC Borrego Spring 40.86 314 IAmb IAmb 16 44 02.5
comp=Z,13nm,1.3s
BELC Belle Mtn. Jos 40.96 315 IAmb IAmb 16 44 02.6
comp=Z,11nm,1.1s
PFO Pinyon Flats O 41.07 314 LR LR 17 01 09.9
comp=Z,196nm,18.5s,baz=117,slow=36
PFO Pinyon Flats O 41.07 314 P P 16 44 01.6 +1.2
comp=Z,8.1nm,1.1s
SZCU Shurtz Canyon 41.16 322 IAmb IAmb 16 44 04.4
comp=Z,12nm,1.2s
DNR Dunn Ranch,Anz 41.17 314 IAmb IAmb 16 44 06.5
comp=Z,21nm,1.3s
CPUP Villa Florida 41.23 145 P P 16 44 01.1 -0.5
comp=Z,0.6nm,0.3s,baz=242,slow=15,SNR=2.3
CPUP LR LR 17 03 56.7
comp=Z,130nm,18.1s,baz=334,slow=40
comp=Z,0.6nm,0.3s
CPUP Villa Florida 41.23 145 IAmb IAmb 16 44 04.1
comp=Z,4.2nm,1.3s
CPUP Villa Florida 41.23 145 P P 16 44 00.9 -0.6
LMN Caledonia Moun 41.33 19 P P 16 44 03.7 +1.6
RSSD Black Hills 41.37 336 P P 16 44 01.4 -1.4
comp=Z,10.0nm,1.8s
MT02 Curacav 41.64 166 P P 16 44 06.7 +1.9
KAPO Kapuskasing 42.07 360 P P 16 44 07.0 -1.2
GSC Goldstone, Bar 42.22 316 IAmb IAmb 16 44 13.2
comp=Z,9.8nm,1.1s
PSUT Pine Spring 42.22 322 IAmb IAmb 16 44 13.1
comp=Z,11nm,1.1s
BATG Bathurst New B 42.24 16 P P 16 44 11.0 +1.5
PRN Pahroc Range 42.27 320 IAmb IAmb 16 44 13.9
comp=Z,11nm,1.1s
AGMN Agassiz Nation 42.51 347 P P 16 44 10.3 -1.5
DUG Dugway, Tooele 42.69 325 P P 16 44 14.9 +1.3
comp=Z,4.4nm,1.3s
CCCA Chr Cany lake 42.73 316 IAmb IAmb 16 44 19.8
comp=Z,22nm,1.2s
BO01 Tunca 42.74 166 P P 16 44 14.7 +0.9
comp=Z,13nm,2.1s
TPNV Topopah Spring 42.77 319 IAmb IAmb 16 44 18.5
comp=Z,21nm,1.4s
BW06 Boulder Array 42.78 330 P P 16 44 14.7 +0.3
PDAR Pinedale Array 42.78 330 P P 16 44 14.4 +0.1
comp=Z,0.8nm,0.5s,baz=127,slow=10.0,SNR=9.7
PDAR PcP PcP 16 46 04.8 -0.9
comp=Z,0.2nm,0.4s,baz=75,slow=2.3,SNR=2.5
PDAR LR LR 17 04 02.8
comp=Z,105nm,20.6s,baz=118,slow=39
comp=Z,0.8nm,0.5s
FURC Furnace Creek, 42.91 318 IAmb IAmb 16 44 21.9
comp=Z,16nm,1.0s
HWUT Hardware Ranch 42.97 327 P P 16 44 16.3 +0.4
HWUT Hardware Ranch 42.97 327 P P 16 44 14.8 -1.0
comp=Z,7.4nm,1.6s
RPN Rapa Nui 43.06 216 LR LR 16 58 28.3
comp=Z,56nm,18.3s,baz=107,slow=31
EPLO Experimental L 43.37 349 IAmb IAmb 16 44 18.3
comp=Z,18nm,1.1s
TPH Tonopah 44.05 319 IAmb IAmb 16 44 28.6
comp=Z,10nm,1.1s
ULM Lac du Bonnet 44.35 348 P P 16 44 25.6 -1.0
comp=Z,8.0nm,0.9s,baz=157,slow=8.3,SNR=10
comp=Z,8.0nm,0.9s
ULM Lac du Bonnet 44.35 348 IAmb IAmb 16 44 25.9
comp=Z,11nm,0.9s
RLMT Red Lodge 44.41 333 IAmb IAmb 16 44 28.5
comp=Z,4.5nm,0.7s
NV11 Mina Array Sit 44.86 319 IAmb IAmb 16 44 34.6
comp=Z,5.6nm,0.8s
NVAR Mina Array Bea 44.95 319 P P 16 44 33.5 +1.6
comp=Z,4.6nm,0.6s,baz=126,slow=7.0,SNR=30
NVAR PcP PcP 16 46 12.6 -0.6
comp=Z,0.2nm,0.3s,baz=133,slow=2.7,SNR=1.6
comp=Z,4.6nm,0.6s
NVAR Mina Array Bea 44.95 319 P P 16 44 32.4 +0.5
LHV Little Huntoon 44.98 319 IAmb IAmb 16 44 42.8
comp=Z,8.9nm,1.1s
MDPB Devils Postpil 45.02 318 IAmb IAmb 16 44 39.3
comp=Z,7.8nm,0.9s
HLID Hailey 45.84 327 P P 16 44 38.7 -0.1
comp=Z,7.3nm,2.2s
WVOR Wild Horse Val 47.50 323 P P 16 44 52.2 +0.5
comp=Z,24nm,1.3s
ORV Oroville 47.66 319 P P 16 44 53.3 +0.5
J08A Circle Bar Ran 47.96 325 IAmb IAmb 16 44 59.1
comp=Z,6.5nm,1.2s
RCBR Riachuelo 48.06 104 LR LR 17 07 22.5
comp=Z,666nm,19.0s,baz=3.0,slow=39
GUA01 Guaratinga, BA 48.22 120 eP P 16 44 59.0 +1.5
BMO Blue Mountains 48.25 327 IAmb IAmb 16 45 07.2
comp=Z,11nm,1.4s
O02D Mt. Diablo Mer 48.83 319 P P 16 45 02.3 +0.3
O02D IAmb IAmb 16 45 03.3
comp=Z,4.0nm,0.8s
PLCA Paso Flores 48.94 168 P P 16 45 02.8 +0.1
comp=Z,5.0nm,0.9s,baz=331,slow=9.4,SNR=9.6
comp=Z,5.0nm,0.9s
PLCA Paso Flores 48.94 168 P P 16 45 03.1 +0.3
PLCA IAmb IAmb 16 45 06.4
comp=Z,4.7nm,0.8s
PLCA Paso Flores 48.94 168 eP P 16 45 02.4 -0.4
SCHQ Schefferville 49.05 12 LR LR 17 05 47.6
comp=Z,117nm,21.9s,baz=185,slow=36

BBOR	**Butler Butte**	**50.20**	**322**	P	**P**	**16 45 13.1**	**+0.6**
BBOR				IAmb	IAmb	16 45 26.3	
	comp=Z,17nm,1.5s						
KSXB	**Camp Six Broad**	**50.38**	**320**	P	**P**	**16 45 14.2**	**+0.3**
YKAW1	**Yellowknife Wh**	**59.95**	**343**	P	**P**	**16 46 22.0**	**-0.4**
YKAW1				IAmb	IAmb	16 46 36.6	
	comp=Z,8.3nm,1.2s						
YKA	**Yellowknife Ar**	**59.99**	**343**	P	**P**	**16 46 22.2**	**-0.6**
	comp=Z,1.5nm,0.6s,baz=137,slow=7.1,SNR=18						
	comp=Z,1.5nm,0.6s						
YKAW3	**Yellowknife Wh**	**60.05**	**343**	P	**P**	**16 46 22.9**	**-0.2**
YKAW3				IAmb	IAmb	16 46 33.1	
	comp=Z,7.6nm,1.2s						
ILON	**Igloolik, Nuna**	**62.05**	**0**	P	**P**	**16 46 35.9**	**-0.7**
WRAK	**Wrangell Islan**	**62.75**	**331**	P	**P**	**16 46 42.5**	**+1.0**
SFJD	**Kangerlussuaq**	**63.45**	**13**	P	**P**	**16 46 46.5**	**+0.6**
DAWY	**Dawson**	**69.56**	**337**	P	**P**	**16 47 25.6**	**+0.5**
DAWY				IAmb	IAmb	16 47 54.2	
	comp=Z,4.8nm,1.2s						
INK	**Inuvik**	**69.69**	**342**	P	**P**	**16 47 26.6**	**+0.8**
INK	**Inuvik**	**69.69**	**342**	P	**P**	**16 47 25.8**	**0.0**
MCARA	**McCarthy VSAT**	**69.93**	**333**	P	**P**	**16 47 28.5**	**+1.0**
BCAR	**Beaver Creek A**	**70.08**	**335**	P	**P**	**16 47 28.4**	**0.0**
F28M	**Old Crow**	**71.38**	**340**	P	**P**	**16 47 37.2**	**+0.9**
F28M				IAmb	IAmb	16 47 42.6	
	comp=Z,3.9nm,0.9s						
IL31		**72.82**	**336**	P	**P**	**16 47 45.1**	**+0.3**
IL31				IAmb	IAmb	16 47 57.0	
	comp=Z,12nm,1.4s						
ILAR	**Eielson Array**	**72.82**	**336**	P	**P**	**16 47 45.2**	**+0.4**
	comp=Z,0.8nm,0.6s,baz=99,slow=4.7,SNR=10						
	comp=Z,0.8nm,0.6s						
ILAR	**Eielson Array**	**72.82**	**336**	P	**P**	**16 47 45.1**	**+0.2**
BMAR	**Burnt Mountain**	**72.93**	**339**	P	**P**	**16 47 46.6**	**+1.1**
I23K	**Minto, Yukon-K**	**73.94**	**336**	P	**P**	**16 47 52.5**	**+1.1**
I23K				IAmb	IAmb	16 48 08.3	
	comp=Z,12nm,1.4s						
C26K	**Camden Bay**	**74.04**	**341**	P	**P**	**16 47 53.0**	**+1.1**
D25K	**Kavik River**	**74.28**	**341**	IAmb	IAmb	16 47 59.9	
	comp=Z,6.2nm,1.1s						
D23K	**Nanushuk River**	**75.61**	**340**	P	**P**	**16 48 01.5**	**+0.4**
D23K				IAmb	IAmb	16 48 09.6	
	comp=Z,11nm,1.4s						
MDT	**Midelt**	**75.76**	**58**	LR	LR	17 16 20.9	
	comp=Z,51nm,18.9s,baz=290,slow=32						
G21K	**Allakaket**	**75.96**	**337**	P	**P**	**16 48 04.1**	**+1.0**
G21K				IAmb	IAmb	16 48 12.4	
	comp=Z,8.7nm,1.2s						
F21K	**Alatna River**	**76.13**	**338**	IAmb	IAmb	16 48 09.9	
	comp=Z,4.2nm,1.0s						
ESDC	**Sonseca Array**	**76.42**	**51**	P	**P**	**16 48 07.4**	**+1.0**
	comp=Z,2.1nm,0.8s,baz=273,slow=6.1,SNR=9.0						
ESDC				LR	LR	17 15 01.6	
	comp=Z,86nm,20.8s,baz=280,slow=30						
	comp=Z,2.1nm,0.8s						
ESDC	**Sonseca Array**	**76.42**	**51**	P	**P**	**16 48 07.4**	**+1.0**
ESDC				IAmb	IAmb	16 48 11.3	
	comp=Z,6.2nm,1.1s						
DBIC	**Dimbokro**	**76.76**	**85**	LR	LR	17 19 07.1	
	comp=Z,51nm,21.2s,baz=276,slow=34						
F20K	**Avaraart Lake**	**76.94**	**337**	P	**P**	**16 48 10.1**	**+1.4**
F20K				IAmb	IAmb	16 48 44.4	
	comp=Z,5.2nm,1.3s						
TORD	**Torodi Ar. Bea**	**82.54**	**78**	P	**P**	**16 48 40.7**	**+0.7**
	comp=Z,0.6nm,0.8s,baz=297,slow=3.7,SNR=5.2						
TORD				LR	LR	17 23 56.6	
	comp=Z,54nm,21.8s,baz=195,slow=35						
	comp=Z,0.6nm,0.8s						
TORD	**Torodi Ar. Bea**	**82.54**	**78**	IAmb	IAmb	16 48 55.9	
	comp=Z,5.2nm,1.5s						
SPITS	**Spitsbergen Ar**	**84.74**	**12**	LR	LR	17 32 19.2	
	comp=Z,126nm,18.6s,baz=340,slow=40						
NOA	**NORSAR Array B**	**85.41**	**29**	LR	LR	17 24 52.5	
	comp=Z,20nm,20.0s,baz=345,slow=34						
TEOL	**Teolo**	**87.67**	**45**	P	**P**	**16 49 06.8**	**+1.5**
CLL	**Collm**	**87.70**	**39**	L	L	17 17 00.0	
VRAC	**Vranov**	**90.31**	**40**	LR	LR	17 23 06.8	
	comp=Z,98nm,21.5s,baz=336,slow=31						
VAE	**Valguarnera**	**90.92**	**52**	LR	LR	17 24 33.0	
	comp=Z,85nm,20.8s,baz=314,slow=32						
H11S1	**WAKE ISLAND Hy**	**107.35**	**292**	T	T	18 50 33.6	
	baz=77,slow=75,SNR=4.0						
H11S2	**WAKE ISLAND Hy**	**107.35**	**292**	T	T	18 50 32.9	
	baz=77,slow=75,SNR=4.0						
H11S3	**WAKE ISLAND Hy**	**107.37**	**292**	T	T	18 50 32.9	
	baz=77,slow=75,SNR=5.7						
HHC	**Hu-ho-hao-te**	**130.48**	**346**	*eP*	**PKPdf**	**16 55 25.0**	**-2.8**
NJ2	**Nanjing**	**136.03**	**334**	*eP*	**PKPdf**	**16 55 38.3**	**0.0**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ASAR	**Alice Springs**	**141.65**	**241**	PKP	**PKPdf**	**16 55 48.8**	**-0.1**
	comp=Z,1.4nm,0.7s,baz=97,slow=2.3,SNR=7.8						
WRA	**Warramunga Arr**	**142.34**	**247**	PKP	**PKPdf**	**16 55 49.8**	**-0.3**
	comp=Z,1.5nm,0.8s,baz=109,slow=1.9,SNR=12						
H01W1	**Cape Leeuwin H**	**148.60**	**207**	T	T	19 42 45.9	
	baz=150						
H01W2	**Cape Leeuwin H**	**148.60**	**206**	T	T	19 42 42.8	
	baz=150						
H01W3	**Cape Leeuwin H**	**148.62**	**206**	T	T	19 42 48.4	
	baz=150						
FITZ	**Fitzroy Crossi**	**150.75**	**246**	PKPbc	**PKPbc**	**16 56 09.2**	**-0.6**
	comp=Z,3.8nm,0.8s,baz=160,slow=4.5,SNR=6.1						
CMAR	**Chiang Mai Arr**	**154.44**	**357**	PKPbc	**PKPbc**	**16 56 18.1**	**0.0**
	comp=Z,0.5nm,0.3s,baz=284,slow=1.6,SNR=4.4						
CMAR				PKPab	**PKPab**	**16 56 30.8**	**-1.3**
	comp=Z,0.6nm,0.5s,baz=0.6,slow=3.5,SNR=4.3						

*UPA **30** 16:44:22.1±1.4, 7.°18N×82.°38W, h17km±25km, MW4.1, Presumed earthquake*
*UCR **30** 16:44:22.4±1.8, 7.°20N×82.°29W, h20km±8km, MW3.7, Presumed earthquake*

ISC 30 16:44:21.4±2.5, 7.°21N±0.°09×82.°29W±0.°04, h9km±13km, n56, σ1°32/83, 1D, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REME3	**Remedios, Chir**	**1.11**	**24**	*eP*	Pb	16 44 20.6	-22
PTPA	**Petro Terminal**	**1.14**	**330**	*eP*	**Pb**	**16 44 41.7**	**-1.6**
PTPM	**Petroterminale**	**1.15**	**329**	*eP*	**Pb**	**16 44 42.3**	**-1.2**
PTPM				*eS*	Sb	16 44 48.2	-10
GMAL	**Guarumal, Vera**	**1.18**	**62**	*eP*	**Pb**	**16 44 43.5**	**-0.4**
GMAL				*eS*	**Sg**	**16 44 58.7**	**-0.7**
GMAL	**Guarumal, Vera**	**1.18**	**62**	*eP*	**Pb**	**16 44 43.6**	**-0.4**
GMAL				*eS*	**Sg**	**16 45 00.0**	**+0.6**
BAGA3	**Bagala, Chiriq**	**1.27**	**349**	*eP*	**Pn**	**16 44 43.7**	**-1.7**
BAGA3				*eS*	**Sb**	**16 44 59.2**	**-2.9**
BGUAL	**Bijagual, Pana**	**1.29**	**358**	*eP*	**Pn**	**16 44 45.4**	**-0.2**
BGUAL				*eS*	**Sg**	**16 45 03.4**	**+0.3**
BGUAL	**Bijagual, Pana**	**1.29**	**358**	*eP*	**Pn**	**16 44 44.7**	**-0.9**
BGUAL				*eS*	**Sg**	**16 45 03.4**	**+0.3**
CACAO	**El Cacao, Vera**	**1.42**	**84**	*eP*	**Pn**	**16 44 47.7**	**+0.4**
CACAO				*eS*	**Sn**	**16 45 04.2**	**-2.0**
LPPC	**Paso Canoas**	**1.43**	**337**	*eP*	**Pn**	**16 44 45.8**	**-1.7**
CDITO	**Canoas**	**1.48**	**337**	*eP*	**Pn**	**16 44 46.5**	**-1.6**
CDITO				*eS*	**Sg**	**16 45 13.2**	**+4.3**
BQSF3	**Alto Boquete,**	**1.53**	**355**	*eP*	**Pn**	**16 44 48.4**	**-0.7**
BQSF3				*eS*	**Sb**	**16 45 08.6**	**-1.1**
BQTLY	**Boquete Panama**	**1.55**	**354**	*eP*	**Pn**	**16 44 47.9**	**-1.4**
BQTLY	**Boquete Panama**	**1.55**	**354**	*eP*	**Pn**	**16 44 48.1**	**-1.2**
BQTLY				*eS*	**Sg**	**16 45 10.9**	**-0.4**
CLLRA	**Cordillera,**	**1.56**	**348**	*eP*	**Pn**	**16 44 48.7**	**-0.7**
CLLRA				*eS*	**Sb**	**16 45 10.2**	**-0.3**
CLLRA	**Cordillera,**	**1.56**	**348**	*eP*	**Pn**	**16 44 48.5**	**-1.0**
CLLRA				*eS*	**Sb**	**16 45 10.5**	**0.0**
STIA3	**Santiago, Vera**	**1.57**	**56**	*eP*	**Pb**	**16 44 50.4**	**-0.3**
STIA3				*eS*	**Sg**	**16 45 11.3**	**-0.8**
NELY	**Ciudad Neily**	**1.57**	**335**	*eP*	**Pn**	**16 44 48.3**	**-1.3**
NELY	**Ciudad Neily**	**1.57**	**335**	*eP*	**Pn**	**16 44 48.2**	**-1.3**
BRU2	**Volcan**	**1.63**	**346**	*eP*	**Pn**	**16 44 49.3**	**-1.1**
BRU2				*eS*	**Sb**	**16 45 11.4**	**-1.0**
BRU2	**Volcan**	**1.63**	**346**	*eP*	**Pn**	**16 44 49.8**	**-0.6**
BRU2				*eS*	**Sb**	**16 45 11.5**	**-0.8**
MLIR3	**Monte Lirio, C**	**1.66**	**341**	*eP*	**Pn**	**16 44 48.3**	**-2.5**
MLIR3				*eS*	**Sg**	**16 45 15.3**	**+0.4**
SFRA3	**San Francisco,**	**1.66**	**51**	*eP*	**Pb**	**16 44 51.5**	**-0.7**
SFRA3				*eS*	**Sg**	**16 45 16.0**	**+1.1**
RBALA	**Bur**	**1.67**	**5**	*eP*	**Pn**	**16 44 50.9**	**+0.1**
RBALA				*eS*	**Sb**	**16 45 12.2**	**-1.2**
RBALA	**Bur**	**1.67**	**5**	*eP*	**Pn**	**16 44 50.8**	**+0.1**
RBALA				*eS*	**Sb**	**16 45 12.3**	**-1.1**
CTCR	**Cotoan**	**1.74**	**344**	*eP*	**Pn**	**16 44 51.5**	**-0.5**
CHIT3	**Chitre**	**2.00**	**68**	*eP*	**Pn**	**16 44 56.6**	**+1.3**
CHIT3				*eS*	**Sb**	**16 45 20.9**	**-1.9**
EDP2	**Potrero Grande**	**2.00**	**334**	*eP*	**Pn**	**16 44 55.3**	**-0.1**
EDP2				*eS*	**Sn**	**16 45 21.3**	**+0.7**
FIMO	**Fila Mora**	**2.06**	**329**	*eP*	**Pn**	**16 44 56.0**	**-0.3**
FIMO				*eS*	**Sn**	**16 45 22.9**	**+0.7**
EDPE	**Pejibaye, P**	**2.32**	**327**	*eP*	**Pn**	**16 44 59.2**	**-0.6**
EDPE				*eS*	**Sn**	**16 45 28.4**	**-0.1**
VERH	**Veragua Rainfo**	**2.84**	**342**	*eP*	**Pn**	**16 45 08.3**	**+1.3**
VERH				*eS*	**Sn**	**16 45 41.9**	**+0.4**
PIEC	**Cerro El Cedra**	**2.91**	**326**	*eP*	**Pn**	**16 45 08.5**	**+0.3**
PIEC				*eS*	**Sn**	**16 45 45.2**	**+1.7**
ZANG	**Zanguenga, Cho**	**2.96**	**54**	*eP*	**Pn**	**16 45 09.9**	**+1.4**
ZANG	**Zanguenga, Cho**	**2.96**	**54**	*eP*	**Pn**	**16 45 10.4**	**+1.9**
ABE2	**San Pablo**	**3.04**	**325**	*eP*	**Pn**	**16 45 09.2**	**-0.6**
LCR2	**La Lucha 2**	**3.04**	**326**	*eP*	**Pn**	**16 45 09.7**	**-0.2**
LCR2				*eS*	**Sn**	**16 45 48.2**	**+1.7**
PICV	**PH. Pirrs**	**3.06**	**322**	*eP*	**Pn**	**16 45 08.7**	**-1.3**
VTCV	**VTCV, Calle Va**	**3.10**	**333**	*eP*	**Pn**	**16 45 11.3**	**+0.6**
BCIP	**Isla Barro Col**	**3.11**	**51**	*eP*	**Pn**	**16 45 13.6**	**+3.0**
RESJ	**San Isidro (Tu**	**3.11**	**334**	*eP*	**Pn**	**16 45 11.2**	**+0.4**
RESJ				*eS*	**Sn**	**16 45 49.9**	**+1.9**
ABRB	**Las Abras (San**	**3.12**	**333**	*eP*	**Pn**	**16 45 11.5**	**+0.5**
ABRB				*eS*	**Sn**	**16 45 50.3**	**+1.7**
LCOCO	**El Coco**	**3.12**	**336**	*eP*	**Pn**	**16 45 12.9**	**+2.1**
CVTV	**Tajo**	**3.13**	**333**	*eP*	**Pn**	**16 45 12.0**	**+0.8**
CVTV				*eS*	**Sn**	**16 45 50.6**	**+1.7**
VTR0	**Volcan Turrial**	**3.15**	**333**	*eP*	**Pn**	**16 45 12.0**	**+0.5**
RVLA	**Villa Bonita**	**3.16**	**336**	*eP*	**Pn**	**16 45 13.3**	**+2.0**
VICA	**Volcano Irazu**	**3.16**	**331**	*eP*	**Pn**	**16 45 11.7**	**-0.1**
FRIJ	**El Hiral**	**3.23**	**52**	*eP*	**Pn**	**16 45 13.1**	**+0.8**
CVTG	**V. Turrialba,**	**3.27**	**333**	*eP*	**Pn**	**16 45 13.8**	**+0.9**
HDC	**Heredia**	**3.31**	**327**	*eP*	**Pn**	**16 45 13.8**	**+0.2**
VBV1	**V. Barva**	**3.40**	**328**	*eP*	**Pn**	**16 45 15.4**	**+0.5**
VACR	**Volcan Arenal**	**4.01**	**324**	*eP*	**Pn**	**16 45 25.1**	**+1.9**
ARE1	**Arenal 1**	**4.03**	**324**	*eP*	**Pn**	**16 45 25.6**	**+2.3**
VARE2	**V. Arenal**	**4.03**	**324**	*eP*	**Pn**	**16 45 25.6**	**+2.2**
JTS	**Las Juntas de**	**4.04**	**319**	*eP*	**Pn**	**16 45 23.7**	**+0.2**
CANAL	**Canalete**	**4.52**	**323**	*eP*	**Pn**	**16 45 30.9**	**+0.8**
MESS	**Mesas**	**4.54**	**321**	*eP*	**Pn**	**16 45 31.2**	**+0.9**

*IDC **30** 16:49:53.8±2.7, 13.°32S×167.°84E, h0km, mb3.8/4, mbtmp3.8/4, MS3.0/2, Error ellipse: s-maj=131.5km s-min=29.8km az=135.0*
*NEIC **30** 16:49:59.1±2.0, 14.°09S±0.°10×167.°8E±0.°1, h10km±1km, mb4.5/11, Error ellipse: s-maj=26.1km s-min=12.3km az=297.0*

ISC 30 16:49:58.4±0.8, 14.°1S±0.°1×167.°8E±0.°1, h10km, n22, σ1°05/19, mb4.1/8, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**1.46**	**203**	Pn	**Pn**	**16 51 23.9**	**-0.9**
SANVU				Sn	**Sn**	**16 50 44.8**	**+0.9**
KOUNC	**Koumac, New Ca**	**7.24**	**207**	Pn	**Pn**	**16 51 43.5**	**-0.8**
MARNC	**Mare, Loyalty**	**7.34**	**178**	Pn	Pn	16 51 41.5	-4.3
DZM	**Mont Dzumac**	**8.03**	**189**	LR	LR	16 54 56.3	
	comp=Z,51nm,18.4s,baz=312,slow=34						
OUENC	**Ouen Island, N**	**8.32**	**186**	Pn	**Pn**	**16 51 59.2**	**0.0**
PINNC	**Pines Island,**	**8.47**	**182**	Pn	**Pn**	**16 52 00.0**	**-1.2**
AFI	**Afiamalu**	**19.82**	**92**	P	**P**	**16 54 29.4**	**-0.1**
PMG	**Port Moresby**	**20.73**	**281**	LR	LR	17 01 32.7	
	comp=Z,55nm,18.7s,baz=318,slow=34						
PMG	**Port Moresby**	**20.73**	**281**	P	**P**	**16 54 38.3**	**-1.0**
INKA	**Innaminka**	**28.60**	**237**	P	**P**	**16 55 55.7**	**+0.7**
INKA				IAmb	IAmb	16 56 03.2	
	comp=Z,5.8nm,1.4s						
STKA	**Stephens Creek**	**29.79**	**229**	P	**P**	**16 56 07.3**	**+1.7**
	comp=Z,0.9nm,0.4s,baz=40,slow=7.9,SNR=5.8						
	comp=Z,0.9nm,0.4s						
STKA	**Stephens Creek**	**29.79**	**229**	P	**P**	**16 56 06.4**	**+0.9**
WB0	**Warramunga Arr**	**32.41**	**255**	P	**P**	**16 56 28.5**	**-0.4**
WB0				IAmb	IAmb	16 56 29.2	
	comp=Z,11nm,1.3s						
WRA	**Warramunga Arr**	**32.48**	**255**	P	**P**	**16 56 28.3**	**-1.1**
	comp=Z,0.3nm,0.5s,baz=84,slow=8.9,SNR=2.2						
	comp=Z,0.3nm,0.5s						
AS31	**Alice Springs**	**33.38**	**248**	P	**P**	**16 56 37.4**	**+0.1**
ASAR	**Alice Springs**	**33.38**	**248**	P	**P**	**16 56 37.1**	**-0.2**
	comp=Z,0.4nm,0.5s,baz=77,slow=9.7,SNR=7.9						
	comp=Z,0.4nm,0.5s						
CAST	**Castle Rocks**	**83.25**	**17**	P	**P**	**17 02 24.9**	**+0.1**
KMRM	**Mail Ridge**	**83.30**	**46**	P	**P**	**17 02 24.8**	**-1.0**
RND	**Reindeer**	**84.18**	**18**	P	**P**	**17 02 30.2**	**+0.5**
RND				IAmb	IAmb	17 02 32.6	
	comp=Z,4.9nm,1.1s						
F19K	**Shaleruckik Mo**	**84.59**	**13**	P	**P**	**17 02 33.1**	**+1.5**
F19K				IAmb	IAmb	17 02 49.9	
	comp=Z,6.4nm,1.4s						
E19K	**Redstone River**	**85.23**	**13**	P	**P**	**17 02 36.7**	**+1.9**
ILAR	**Eielson Array**	**85.78**	**18**	P	P	17 02 30.9	-6.7
	comp=Z,0.8nm,0.6s,baz=236,slow=5.3,SNR=10						
	comp=Z,0.8nm,0.6s						

*HEL **30** 16:51:29.3±0.4, 67.°83N×20.°33E, h0km, ML1.1, Suspected explosion*

UPP 30 16:51:26.4±0.2, 67.°82N×20.°27E, h0km, ML2.1, Presumed earthquake, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.14**	**11**	P	Pg	16 51 29.2	+0.2
KUA				S	Sg	16 51 31.3	+0.6
KUA	**Kurravaara**	**0.14**	**11**	P	Pg	16 51 29.1	+0.2
KUA				S	Sg	16 51 31.2	+0.5
RATU	**Laukkuluspa**	**0.26**	**271**	P	Pg	16 51 31.7	+0.4
RATU				S	Sg	16 51 35.1	+0.5
RATU	**Laukkuluspa**	**0.26**	**271**	P	Pg	16 51 31.8	+0.5
RATU				S	Sg	16 51 34.5	-0.1
KOVU	**Salmi**	**0.40**	**354**	P	Pg	16 51 34.3	+0.2
KOVU				S	Sg	16 51 39.7	+0.3
KOVU	**Salmi**	**0.40**	**354**	P	Pg	16 51 34.3	+0.2
KOVU				S	Sg	16 51 39.2	-0.1
NIKU	**Nikkaluokta**	**0.47**	**276**	P	Pg	16 51 35.0	-0.4
NIKU	**Nikkaluokta**	**0.47**	**276**	P	Pg	16 51 34.9	-0.5
LANU	**Lannavaara**	**0.69**	**70**	P	Pb	16 51 41.2	-0.1
LANU	**Lannavaara**	**0.69**	**70**	PG	Pb	16 51 41.1	-0.2
LANU				SG	Sb	16 51 50.0	-1.4
HEF	**Hetta**	**1.40**	**64**	PG	Pb	16 51 53.5	+0.1
HEF				MSG		16 52 10.8	
	comp=Z,1.1nm,0.2s						
HEF				SB	Sn	16 52 12.4	+0.1
ERTU	**Ertsjaerv**	**1.48**	**149**	PB	Pb	16 51 55.2	+0.5
ERTU				SG	Sn	16 52 16.2	+2.0
KLF	**Kolari**	**1.54**	**111**	PG	Pg	16 51 56.8	+1.0
KLF				MSG		16 52 14.9	
	comp=Z,1.0nm,0.2s						
KLF				SN	Sg	16 52 18.1	+2.3
KTK1	**Kautokeino**	**1.62**	**41**	PN	Pg	16 51 59.3	+1.8
KTK1				SN	Sg	16 52 19.7	+1.2
TRO	**Tromso**	**1.88**	**346**	SG	Sg	16 52 26.7	-0.1
TOF	**Tornio**	**2.37**	**136**	PB	Pb	16 52 09.6	-0.3
TOF				MSG		16 52 39.0	
	comp=Z,0.8nm,0.2s						
TOF				SG	Sg	16 52 42.6	+0.2
RNF	**Rovaniemi**	**2.55**	**116**	PB	Pb	16 52 12.9	0.0
RNF				SB	Sb	16 52 46.3	+1.6
ARA0	**ARCESS Array S**	**2.57**	**46**	PG	Pb	16 52 13.6	+0.2
ARA0				SB	Sb	16 52 45.0	-0.5
RAJF	**Raja-Jooseppi**	**3.08**	**74**	SG	Sb	16 53 01.4	+1.4
KEV	**Kevo**	**3.13**	**49**	SB	Sb	16 52 59.4	-1.9
RANF	**Ranua**	**3.15**	**122**	SG	Sg	16 53 05.7	-1.6
VRF	**Varrio**	**3.55**	**87**	SG	Sg	16 53 18.4	-1.9
OBF8	**Ulkokalla**	**3.74**	**158**	PN	Pn	16 52 28.4	+3.2
OBF8				SG	Sg	16 53 26.1	-0.2
OLKF	**Oulanka, Finla**	**3.88**	**109**	SG	Sg	16 53 29.9	-1.0
UMAU	**Umeaa**	**3.96**	**177**	PN	Pn	16 52 31.0	+2.7

*BGR **30** 17:00:00.9, 51.°79N×167.°35W, h33km, mb5.0*
*MOS **30** 17:00:03.7±0.8, 52.°90N×168.°35W, h34km, mb5.1/39, MS4.1/5, Error ellipse: s-maj=11.2km s-min=5.7km az=103.4*
*GFZ **30** 17:00:04.2±0.3, 53.°N±4.°, 16.°8W±.°, h23km±1km, M5.5/77, mb5.0/77, Error ellipse: s-maj=7.9km s-min=4.8km az=174.1, confirmed*
*BJI **30** 17:00:05.0, 52.°90N×168.°20W, h60km, mB5.2/9, mb4.9/57, Ms4.7/13, Ms7 4.6/13*
*IDC **30** 17:00:06.1±2.2, 52.°88N×168.°38W, h39km±19km, mb4.5/40, mbtmp4.7/42, ML4.2/2, MS4.1/65, Error ellipse: s-maj=13.3km s-min=9.5km az=166.0*
*AEIC **30** 17:00:07.3±1.8, 53.°04N±0.°08×168.°31W±0.°09, h56km±4km, Error ellipse: s-maj=12.8km s-min=6.6km az=157.0*
*NEIC **30** 17:00:07.0±1.5, 52.°90N±0.°07×168.°31W±0.°09, h48km±5km, mb4.8/349, ML4.9/20, ML4.7(AEIC), Error ellipse: s-maj=11.6km s-min=7.0km az=151.0*
*GCMT **30** 17:00:08.0±0.2, 52.°66N±0.°02×168.°22W±0.°02, h37km±1km, MW5.0/106, Moment Tensor Solution. s67,c87; s106,c154; Duration: 0 Moment tensor: Scale 10^16^Nm; Mrr2.73±.16; Mθθ-1.39±.13; Mϕϕ-1.33±.11; Mrθ0.07±.12; Mθϕ-2.06±.07; Mrϕ2.69±.12; Best double couple: Ms4.12800×10^16^ NP1:ϕs250.00000°, δ35.00000°, λ136.00000°. NP2:ϕs19.00000°, δ67.00000°, λ64.00000°. Principal axes: T 4.2140, Plg60.0000°, Azm251.0000°; N -0.1610, Plg24.0000°, Azm30.0000°; P -4.0420, Plg18.0000°, Azm128.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 30 17:00:07.1±0.4, 52.°85N±0.°05×168.°26W±0.°04, h52km±2km, h52km:pP-P,n716, σ1°06/612, mb4.8/307, MS4.2/71, 8C-17D, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKTU	**Okmok Mt. Tuli**	**0.55**	**13**		**Pn**	**17 00 18.5**	**-0.7**
OKFG	**Magazine Ridge**	**0.60**	**20**		**Pn**	**17 00 18.8**	**-0.9**
OKFG					**Sn**	**17 00 27.9**	**-0.9**
OKER	**Okmok East Rim**	**0.62**	**11**		**Pn**	**17 00 19.7**	**-0.4**
MAPS	**Pakushin South**	**1.25**	**39**		**Pn**	**17 00 27.0**	**-1.2**
MAPS					**Sn**	**17 00 42.5**	**-1.4**
MGOD	**Makushin Gods**	**1.26**	**41**		**Pn**	**17 00 27.0**	**-1.4**
MGOD					**Sn**	**17 00 43.7**	**-0.7**
MREP	**Makushin Rep't**	**1.32**	**43**		**Pn**	**17 00 28.1**	**-1.2**
MSW	**Makushin Switc**	**1.39**	**39**		**Pn**	**17 00 29.1**	**-1.0**
MNAT	**Makushin Natee**	**1.40**	**42**		**Pn**	**17 00 29.4**	**-0.9**
MNAT					**Sn**	**17 00 46.4**	**-1.3**
UNV	**Unalaska Valle**	**1.45**	**46**		**Pn**	**17 00 29.4**	**-1.5**
UNV	**Unalaska Valle**	**1.45**	**46**		**Sn**	**17 00 47.9**	**-0.9**
UNV	**Unalaska Valle**	**1.45**	**46**	IAML		17 00 51.2	
	comp=E,8μm,0.8s						
UNV				IAML		17 01 06.0	
	comp=N,9μm,0.9s						
MTBL	**Makushin Table**	**1.47**	**39**		**Pn**	**17 00 30.9**	**-0.4**
MTBL					**Sn**	**17 00 48.1**	**-1.3**
AKRB	**Akutan Reef Bi**	**1.83**	**45**		**Pn**	**17 00 36.4**	**+0.3**
AKRB					**Sn**	**17 00 56.9**	**-1.3**
LVA	**Lava Point**	**1.87**	**44**		**Pn**	**17 00 36.7**	**+0.1**
LVA	**Lava Point**	**1.87**	**44**		**Sn**	**17 00 59.9**	**+0.8**
LVA	**Lava Point**	**1.87**	**44**	IAML		17 01 10.7	
	comp=E,12μm,0.7s						
AKBBA	**Akutan Broad B**	**1.87**	**47**		**Sn**	**17 00 59.6**	**+0.5**
AKLV	**Akutan Long Va**	**1.90**	**45**		**Sn**	**17 01 01.6**	**+1.6**
AKGG	**Akutan Green G**	**1.91**	**44**		**Pn**	**17 00 37.5**	**+0.3**
AHB	**Akutan Harbor**	**1.93**	**48**		**Pn**	**17 00 36.8**	**-0.8**
AKUT	**Akutan**	**1.97**	**48**		**Pn**	**17 00 36.9**	**-1.0**
AKUT				IAML		17 01 10.6	
	comp=E,6μm,0.8s						
AKUT				IAML		17 01 18.1	
	comp=N,6μm,1.0s						
AKSA	**Akutan Strait**	**2.00**	**49**		**Pn**	**17 00 37.6**	**-0.9**
WECS	**Westdahl Cape**	**2.67**	**49**		**Pn**	**17 00 47.8**	**+0.2**
WECS				IAML		17 01 26.4	
	comp=E,4μm,0.8s						
WESP	**Westdahl Peak**	**2.67**	**50**		**Pn**	**17 00 47.7**	**0.0**
WESP					**Sn**	**17 01 17.8**	**-1.1**
WESP					LR	17 01 21.1	
WTUG	**Tugumak**	**3.04**	**47**		**Pn**	**17 00 53.1**	**+0.4

MLY Manley 15.12 29 lAmb lAmb 17 03 43.1
comp=Z,41nm,1.0s
HARP HAARP 15.55 43 lAmb lAmb 17 03 47.0
comp=Z,54nm,1.0s
H22K Ishtalitna Cre 15.57 26 **P** **17 03 46.2 -0.1**
CRQM Cirque 15.79 50 lAmb lAmb 17 03 52.6
comp=Z,92nm,1.2s
COLA College 15.92 33 *e*P **Pn** **17 03 46.5 -0.7**
COLA College 15.92 33 **Pn** **17 03 47.1 -0.2**
COLA College 15.92 33 P **Pn** **17 03 48.4 +1.2**
comp=Z,37nm,1.0s
TGL Tana Glacier 15.93 50 lAmb lAmb 17 03 55.9
comp=Z,70nm,0.8s
ILAR Eielson Array 16.18 34 Pn **Pn** **17 03 48.5 -2.1**
comp=Z,0.5nm,0.3s,baz=231,slow=11,SNR=16
ILAR PcP **PcP** **17 08 42.4 -0.1**
comp=Z,1.1nm,0.7s,baz=249,slow=3.0,SNR=4.8
ILAR LR LR 17 10 28.9
comp=Z,737nm,21.9s,baz=213,slow=38
comp=Z,3.7nm,0.8s
ILAR AML AML
ILAR Eielson Array 16.18 34 **Pn** **17 03 51.0 +0.4**
GRNC Granite Creek 16.43 51 lAmb lAmb 17 04 01.8
comp=Z,82nm,0.8s
BARN Barnard Glacie 16.57 50 lAmb lAmb 17 04 02.8
comp=Z,69nm,1.6s
LOGN Logan Glacier 16.81 51 lAmb lAmb 17 04 05.1
comp=Z,46nm,0.8s
PCA Pinnacle 16.98 54 lAmb lAmb 17 04 09.5
comp=Z,85nm,1.4s
O28M Mount Upton 17.18 51 lAmb lAmb 17 04 11.5
comp=Z,33nm,0.8s
BCAR Beaver Creek A 17.24 43 P **Pn** **17 04 03.9 0.0**
O29M Mount Kennedy 17.85 54 lAmb lAmb 17 04 19.9
comp=Z,31nm,0.6s
P29M Windy Craggy 18.14 56 lAmb lAmb 17 04 21.9
comp=Z,73nm,1.5s
HYT Haines Junctio 18.47 52 lAmb lAmb 17 04 31.2
comp=Z,46nm,0.7s
BMAR Burnt Mountain 18.58 29 P **P** **17 04 19.6 +0.1**
N30M Aishikik Lake 18.80 50 lAmb lAmb 17 04 34.6
comp=Z,57nm,0.8s
O30N Mendenhall 19.14 53 lAmb lAmb 17 04 40.8
comp=Z,68nm,0.7s
J29N Klondike Camp 19.25 41 lAmb lAmb 17 04 36.9
comp=Z,21nm,0.6s
SKAG Skagway 19.34 57 lAmb lAmb 17 04 40.7
comp=Z,38nm,0.6s
BILI Bilibino, Chuk 19.46 331 P **Pn** **17 04 31.4 +0.8**
comp=Z,30nm,1.4s
BILL Bilibino 19.50 331 *i* P **P** **17 04 28.4 -1.1**
BILL Bilibino 19.50 331 P **Pn** **17 04 30.7 -0.4**
BESE Bessie Mountai 19.52 60 lAmb lAmb 17 04 41.7
comp=Z,48nm,0.8s
S32K Killisnoo 19.66 63 lAmb lAmb 17 04 42.2
comp=Z,48nm,1.0s
R32K Eaglecrest 19.69 61 lAmb lAmb 17 04 43.5
comp=Z,109nm,1.8s
WHY Whitehorse 19.71 53 lAmb lAmb 17 04 42.8
comp=Z,78nm,0.9s
PET Petropavlovsk 19.85 284 *e*P **P** **17 04 33.7 +0.3**
PET *e*S **S** **17 08 14.9 +1.0**
PET pmax pmax
comp=Z,70nm,0.8s
PET pmax pmax
comp=Z,600nm,5.7s
PET MLR MLR
comp=Z,700nm,17.0s
PET MLR MLR
comp=Z,1μm,17.0s
PET Petropavlovsk 19.85 284 P **P** **17 04 33.8 +0.3**
PET lAmb lAmb 17 04 35.4
comp=Z,49nm,0.8s
PET Petropavlovsk 19.85 284 P **P** **17 04 33.3 -0.1**
comp=Z,61nm,0.8s
F28M Old Crow 20.15 32 P **P** **17 04 36.2 -0.3**
P32M Atlin 20.17 57 P **P** **17 04 36.9 -0.1**
P32M lAmb lAmb 17 04 49.0
comp=Z,36nm,0.8s
C26K Camden Bay 20.20 23 lAmb lAmb 17 04 54.7
comp=Z,95nm,1.2s
C27K Jago River 20.29 25 lAmb lAmb 17 04 54.9
comp=Z,54nm,1.1s
PEA0B Petropavlovsk- 20.40 284 *e*P **P** **17 04 39.1 -0.2**
PEA0B Petropavlovsk- 20.40 284 P **P** **17 04 39.4 +0.1**
PETK Petropavlovsk- 20.40 284 P **P** **17 04 39.3 0.0**
comp=Z,14nm,0.7s,baz=81,slow=13,SNR=58
PETK LR LR 17 12 36.6
comp=Z,493nm,20.8s,baz=94,slow=37
comp=Z,14nm,0.7s
PETK Petropavlovsk- 20.40 284 P **P** **17 04 38.9 -0.5**
P33M Teslin, Yukon 20.67 55 P **P** **17 04 43.1 +0.7**
P33M lAmb lAmb 17 04 59.7
comp=Z,32nm,0.8s
E29M Blow River 21.19 31 lAmb lAmb 17 05 03.8
comp=Z,30nm,0.9s
H31M Peel River 21.27 39 lAmb lAmb 17 04 55.6
comp=Z,57nm,0.9s
V35K Ketchikan 21.48 69 lAmb lAmb 17 04 58.1
comp=Z,46nm,1.1s
DLBC Dease Lake 22.06 60 LR LR 17 14 08.6
comp=Z,332nm,19.2s,baz=274,slow=38
F31M Tsiigehtchic 22.13 35 P **P** **17 04 57.7 -0.1**
F31M lAmb lAmb 17 05 13.9
comp=Z,19nm,0.8s
INK Inuvik 22.57 33 P **P** **17 05 00.1 -2.4**
INK lAmb lAmb 17 05 17.9
comp=Z,43nm,1.1s
INK Inuvik 22.57 33 P **P** **17 05 00.9 -1.6**
comp=Z,39nm,1.2s
SEY Seymchan 22.85 312 *e*P **P** **17 05 05.5 0.0**
SEY pmax pmax
comp=Z,19nm,0.9s
MA2 Magadan 23.45 303 LR LR 17 13 16.1
comp=Z,370nm,21.6s,baz=104,slow=34
C36M Paulatuk 26.15 34 P **P** **17 05 34.6 -1.2**
A36M Sachs Harbour 26.67 28 P **P** **17 05 40.5 -0.1**
A36M lAmb lAmb 17 06 18.6
comp=Z,23nm,0.9s
YKA Yellowknife Ar 29.41 50 P **P** **17 06 05.8 +0.7**
comp=Z,2.7nm,0.7s,baz=276,slow=7.7,SNR=24
YKA PcP **PcP** **17 09 10.4 +0.8**
comp=Z,4.2nm,0.7s,baz=285,slow=2.2,SNR=12
YKA ScP **ScP** **17 12 49.1 +2.5**
comp=Z,0.9nm,1.0s,baz=261,slow=2.4,SNR=5.1
YKA LR LR 17 19 25.2
comp=Z,439nm,18.4s,baz=252,slow=39
comp=Z,2.7nm,0.7s
YKA Yellowknife Ar 29.41 50 **P** **17 06 05.3 +0.1**
TYV Tymovskoe 29.92 286 *e*P P 17 06 16.5 +6.8
TYV pmax pmax
comp=Z,300nm,3.3s
TYV pmax pmax
comp=Z,19nm,1.3s
YSS Yuzhno-Sakhali 31.59 279 *e*P **P** **17 06 24.0 -0.4**
YSS *e*S **S** **17 11 27.3 -2.0**
YSS pmax pmax
comp=Z,10.0nm,1.1s
YSS MLR MLR
comp=Z,600nm,15.0s
NEW Newport 32.24 77 LR LR 17 17 04.0
comp=Z,322nm,21.0s,baz=285,slow=32
NEW Newport 32.24 77 **P** **17 06 31.2 +1.0**
NEW lAmb lAmb 17 06 41.3
comp=Z,9.6nm,0.8s
NEW Newport 32.24 77 P **P** **17 06 30.7 +0.4**
comp=Z,14nm,0.9s
YBH Yreka Blue Hor 32.31 92 LR LR 17 16 56.2
comp=Z,460nm,18.8s,baz=298,slow=31
YBH Yreka Blue Hor 32.31 92 **P** **17 06 32.9 +1.9**
EDM Edmonton 32.33 67 lAmb lAmb 17 06 50.0
comp=Z,13nm,0.7s
TIXI Tiksi 32.68 329 LR LR 17 22 04.5
comp=Z,247nm,18.6s,baz=83,slow=40
KCPM Cahto Peak 33.02 95 lAmb lAmb 17 07 13.9
comp=Z,21nm,1.0s
ASAJ Asahikawa 33.15 275 LR LR 17 19 27.0
comp=Z,280nm,20.0s,baz=82,slow=35
O02D Mt. Diablo Mer 33.19 94 **P** **17 06 40.5 +1.8**
O02D lAmb lAmb 17 07 07.6
comp=Z,19nm,1.1s
DCMP DeCamp, Califo 33.30 95 lAmb lAmb 17 06 55.0
comp=Z,9.2nm,0.9s
YAK Yakutsk 33.37 311 LR LR 17 20 20.4
comp=Z,348nm,20.1s,baz=80,slow=36
YAK Yakutsk 33.37 311 *e*P **P** **17 06 38.9 -1.0**
YAK *e**PP **pP** **17 06 53.7 +0.4**
YAK *e* 17 07 51.1
YAK *e* 17 09 19.3
YAK *e*S **S** **17 11 55.8 -0.9**
YAK *e*SS **SnSn** **17 14 02.4 +0.9**
YAK *e* 17 16 59.6
YAK pmax pmax
comp=Z,38nm,1.4s
YAK pmax pmax
comp=N,6.0nm,1.5s
YAK pmax pmax
comp=E,13nm,1.8s
YAK pmax pmax
comp=Z,148nm,4.1s
YAK pmax pmax
comp=E,120nm,4.1s
YAK pmax pmax
comp=N,97nm,3.3s
YAK smax smax
comp=E,68nm,2.3s
YAK smax smax
comp=N,61nm,3.3s
YAK MLR MLR
comp=N,279nm,33.0s
YAK MLR MLR
comp=Z,459nm,26.0s
YAK MLR MLR
comp=E,225nm,17.0s
YAK Yakutsk 33.37 311 P **P** **17 06 38.5 -1.4**
YAK pP **pP** **17 06 51.2 -2.2**
YAK PcP **PcP** **17 09 20.5 +0.3**
J08A Circle Bar Ran 33.95 86 lAmb lAmb 17 07 13.9
comp=Z,17nm,1.2s
WVOR Wild Horse Val 34.37 87 lAmb lAmb 17 07 20.3
comp=Z,12nm,1.1s
WVOR Wild Horse Val 34.37 87 P **P** **17 06 49.3 +0.3**
comp=Z,16nm,1.7s
WVOR P **P** **17 06 51.0 +2.1**
comp=Z,14nm,1.7s
BEKR Beckworth 34.85 92 lAmb lAmb 17 07 11.4
comp=Z,7.4nm,1.0s
MPK Martis Peak 35.41 93 lAmb lAmb 17 07 17.0
comp=Z,21nm,1.0s
MFID Camas Ranch 35.51 84 lAmb lAmb 17 07 00.8
comp=Z,13nm,1.1s
PAHR Pah Rah Range 35.54 92 pwP 17 07 14.0 +1.8
RES Resolute Bay 35.65 26 LR LR 17 23 42.4
comp=Z,220nm,18.1s,baz=228,slow=40
GBMT Granite Butte, 35.68 77 lAmb lAmb 17 07 14.4
comp=Z,10.0nm,0.9s
CMB Columbia Colle 35.99 95 **pwP** **17 07 18.7 -0.8**
CMB lAmb lAmb 17 07 31.0
comp=Z,13nm,1.2s
HLID Hailey 36.28 83 lAmb lAmb 17 07 07.7
comp=Z,14nm,1.4s
HLID Hailey 36.28 83 P **P** **17 07 06.8 +1.3**
comp=Z,8.7nm,2.5s
KVN Kaiserville 36.73 92 lAmb lAmb 17 07 35.4
comp=Z,17nm,1.5s
KLR Kul'dur 36.94 289 LR LR 17 22 55.8
comp=Z,514nm,19.8s,baz=57,slow=37
KLR Kul'dur 36.94 289 *e*P **P** **17 07 09.9 -0.8**
KLR pmax pmax
comp=Z,5.0nm,1.0s
LHV Little Huntoon 36.99 93 lAmb lAmb 17 07 48.2
comp=Z,11nm,0.9s
NVAR Mina Array Bea 37.00 93 P **P** **17 07 13.4 +1.8**
comp=Z,3.1nm,0.8s,baz=294,slow=8.7,SNR=18
NVAR PcP **PcP** **17 09 32.3 +0.7**
comp=Z,2.5nm,0.8s,baz=278,slow=4.5,SNR=4.3
NVAR LR LR 17 19 20.3
comp=Z,235nm,21.4s,baz=288,slow=31
comp=Z,3.1nm,0.8s
NVAR Mina Array Bea 37.00 93 P **P** **17 07 13.0 +1.4**
MDPB Devils Postpil 37.04 94 lAmb lAmb 17 07 31.3
comp=Z,14nm,0.9s
NV11 Mina Array Sit 37.09 92 lAmb lAmb 17 07 37.5
comp=Z,9.1nm,1.1s
BLKN Baker Lake 37.23 43 lAmb lAmb 17 07 30.1
comp=Z,20nm,1.3s
ZEA Zeya 37.37 298 *e*P **P** **17 07 13.6 -0.7**
ZEA pmax pmax
comp=Z,10.0nm,0.9s
ZEA MLR MLR
comp=E,200nm,15.0s
ZEA MLR MLR
comp=N,100nm,16.0s
ZEA MLR MLR
comp=Z,200nm,17.0s
ELK Elko 37.42 87 LR LR 17 20 00.6
comp=Z,515nm,18.8s,baz=314,slow=32
ELK Elko 37.42 87 P **P** **17 07 15.5 +0.3**
YHL Hebgen Lake 37.50 79 lAmb lAmb 17 07 31.1
comp=Z,12nm,1.0s
YMR Madison River 37.73 79 lAmb lAmb 17 07 34.3
comp=Z,7.8nm,1.1s
YHH Holmes Hill 37.73 79 lAmb lAmb 17 07 36.8
comp=Z,11nm,0.9s
YNR Norris Junctio 37.87 79 lAmb lAmb 17 07 38.7
comp=Z,14nm,1.0s
TPH Tonopah 37.88 92 lAmb lAmb 17 07 47.3
comp=Z,16nm,1.3s
MZP Montezuma Peak 38.02 93 lAmb lAmb 17 07 44.7
comp=Z,9.8nm,1.1s
YNE Yellowstone No 38.11 78 lAmb lAmb 17 07 38.6
comp=Z,7.2nm,1.0s
H17A Grant Village 38.11 79 lAmb lAmb 17 07 40.9
comp=Z,15nm,1.2s
H11N2 WAKE ISLAND Hy 38.25 220 T T 17 48 10.6
baz=24,slow=76,SNR=938
H11N3 WAKE ISLAND Hy 38.26 220 T T 17 48 03.6
baz=24,slow=76,SNR=823
H11N1 WAKE ISLAND Hy 38.27 220 T T 17 48 11.2
baz=24,slow=76,SNR=939
RLMT Red Lodge 38.49 77 lAmb lAmb 17 07 42.9
comp=Z,14nm,0.9s
GRAC Grapevine Rang 38.49 94 lAmb lAmb 17 07 48.4
comp=Z,14nm,1.0s
HEH HeiHe 38.90 293 *e*P **P** **17 07 26.5 -0.7**
HEH pmax pmax
comp=Z,14nm,0.9s
MPMC Manual Prospec 39.03 95 lAmb lAmb 17 07 56.1
comp=Z,9.8nm,1.0s
HWUT Hardware Ranch 39.13 83 P **P** **17 07 29.9 +0.4**
comp=Z,7.1nm,1.0s
CLC China Lake 39.13 95 lAmb lAmb 17 07 56.1
comp=Z,7.5nm,0.9s
FURC Furnace Creek, 39.14 94 lAmb lAmb 17 07 53.9
comp=Z,21nm,0.9s
TPNV Topopah Spring 39.20 93 lAmb lAmb 17 07 54.5
comp=Z,20nm,0.9s
DUG Dugway, Tooele 39.23 86 lAmb lAmb 17 07 32.6
comp=Z,14nm,1.1s
DUG Dugway, Tooele 39.23 86 P **P** **17 07 31.6 +1.4**
comp=Z,14nm,1.1s
H11S1 WAKE ISLAND Hy 39.44 219 T T 17 49 38.3
baz=24,slow=76,SNR=2044
GWY Greenwater Val 39.45 94 lAmb lAmb 17 07 50.7
comp=Z,7.2nm,0.8s
H11S2 WAKE ISLAND Hy 39.45 219 T T 17 49 36.6
baz=24,slow=76,SNR=1717
H11S3 WAKE ISLAND Hy 39.46 219 T T 17 49 33.5
baz=24,slow=76,SNR=1914
USRK Ussuriysk Ar. 39.46 282 P **P** **17 07 31.1 -0.8**
comp=Z,4.6nm,0.9s,baz=46,slow=9.7,SNR=4.4
USRK PcP **PcP** **17 09 39.4 +0.6**
comp=Z,4.8nm,0.9s,baz=77,slow=3.1,SNR=5.5
comp=Z,4.6nm,0.9s
TCUT Toone Canyon 39.52 84 lAmb lAmb 17 07 34.9
comp=Z,12nm,1.0s
PRN Pahroc Range 39.63 91 lAmb lAmb 17 07 58.9
comp=Z,26nm,1.0s
PSUT Pine Spring 39.63 89 lAmb lAmb 17 08 19.9
comp=Z,8.1nm,0.9s
PD31 Pinedale Array 39.65 80 lAmb lAmb 17 07 56.5
comp=Z,8.6nm,1.0s
PDAR Pinedale Array 39.65 80 P **P** **17 07 34.8 +0.9**
comp=Z,4.4nm,0.9s,baz=298,slow=6.2,SNR=22
PDAR LR LR 17 21 30.2
comp=Z,345nm,21.7s,baz=295,slow=32
comp=Z,4.4nm,0.9s
PDAR Pinedale Array 39.65 80 **P** **17 07 34.0 +0.1**
NLU North Lily Min 39.82 86 lAmb lAmb 17 07 37.3
comp=Z,8.9nm,0.9s
GSC Goldstone, Bar 39.95 95 lAmb lAmb 17 08 00.4
comp=Z,17nm,0.9s
ALE Alert 39.97 11 P **P** **17 07 36.5 +0.7**
ALE PcP **PcP** **17 09 40.3 +0.5**
FCC Fort Churchill 40.11 51 P **P** **17 07 37.6 +0.4**
FCC lAmb lAmb 17 07 54.2
comp=Z,20nm,0.8s
BFSC Mount Baldy Ra 40.16 97 lAmb lAmb 17 07 57.1
comp=Z,15nm,0.9s
BSUT Blindstream Ca 40.26 84 P **P** **17 07 40.0 +0.9**
BSUT lAmb lAmb 17 08 20.4
comp=Z,20nm,1.5s
MJAR Matsushiro Arr 40.39 268 P **P** **17 07 40.1 +0.3**
comp=Z,14nm,0.9s,baz=43,slow=7.3,SNR=25
MJAR LR LR 17 22 46.8
comp=Z,372nm,21.8s,baz=43,slow=34
comp=Z,14nm,0.9s
MJAR Matsushiro Arr 40.39 268 **P** **17 07 39.0 -0.8**
MJAR lAmb lAmb 17 07 41.3
comp=Z,25nm,1.3s
MJB9 Matsu-Tunnel 40.39 268 P **P** **17 07 41.0 +1.2**
MAJO Matsushiro 40.39 268 *de*P **P** **17 07 40.6 +0.8**
MAJO pmax pmax
comp=Z,49nm,1.0s
MAJO Matsushiro 40.39 268 P **P** **17 07 39.7 -0.1**
MAJO Matsushiro 40.39 268 P **P** **17 07 40.5 +0.7**
comp=Z,61nm,1.1s
MAJO Matsushiro 40.39 268 P **P** **17 07 40.1 +0.3**
ELS Elsinore Mount 40.71 97 P **P** **17 07 41.9 -0.6**
ELS lAmb lAmb 17 08 11.4
comp=Z,17nm,1.1s
TMUT Trail Mountain 40.75 86 P **P** **17 07 43.6 +0.5**
TMUT lAmb lAmb 17 07 45.5
comp=Z,14nm,0.9s
RDMU Red Mountain 40.95 83 P **P** **17 07 45.9 +1.2**
RDMU lAmb lAmb 17 07 47.4
comp=Z,25nm,1.1s
LCMT Little Creek M 40.98 90 lAmb lAmb 17 08 10.3
comp=Z,23nm,1.5s
Q16A Castle Valley 41.01 86 lAmb lAmb 17 07 47.7
comp=Z,16nm,1.0s
P18A Preston Nutter 41.13 85 P **P** **17 07 46.0 -0.2**
P18A lAmb lAmb 17 07 49.2
comp=Z,22nm,1.1s
BNX BinXian 41.28 287 ⇓P **P** **17 07 43.8 -3.2**
BNX pmax pmax
comp=Z,8.0nm,1.1s
SRU San Rafael Swe 41.28 86 P **P** **17 07 47.6 +0.3**
SRU lAmb lAmb 17 07 50.3
comp=Z,12nm,0.9s
PFO Pinyon Flats O 41.31 97 LR LR 17 21 22.7
comp=Z,468nm,20.7s,baz=309,slow=31
PFO Pinyon Flats O 41.31 97 P **P** **17 07 48.2 +0.6**
comp=Z,11nm,1.1s
BELC Belle Mtn. Jos 41.32 96 P **P** **17 07 46.6 -1.0**
BELC lAmb lAmb 17 08 10.7
comp=Z,9.8nm,0.8s
JGF Kuroka 41.53 268 P **P** **17 07 49.0 -0.2**
comp=Z,46nm,1.3s
BORC Borrego Spring 41.58 97 lAmb lAmb 17 08 13.8
comp=Z,17nm,1.0s
JHJ Hachijo jima 2 41.76 263 LR LR 17 22 38.3
comp=Z,30nm,22.0s,baz=48,slow=32
W13A Hualapai Mount 41.86 93 lAmb lAmb 17 08 15.9
comp=Z,9.6nm,0.8s
HMU Henry Mountain 41.90 87 P **P** **17 07 52.3 -0.1**
HMU lAmb lAmb 17 07 54.6
comp=Z,23nm,0.8s
INU Inuyama 41.91 268 P **P** **17 07 51.7 -0.5**
INU lAmb lAmb 17 07 53.5
comp=Z,33nm,1.1s
INU Inuyama 41.91 268 P **P** **17 07 52.4 +0.2**
comp=Z,27nm,1.1s
INU Inuyama 41.91 268 P **P** **17 07 52.1 -0.1**
U15A North Rim 41.94 90 lAmb lAmb 17 08 17.8
comp=Z,12nm,0.9s
O20A White River Ci 42.02 83 P **P** **17 07 52.8 -0.6**
O20A lAmb lAmb 17 08 26.3
comp=Z,26nm,0.9s
RSSD Black Hills 42.13 75 **P** **17 07 54.5 +0.2**
RSSD Black Hills 42.13 75 P **P** **17 07 54.4 +0.2**
comp=Z,9.6nm,1.0s
RSSD pP **pP** **17 08 01.1 -6.1**
RSSD Black Hills 42.13 75 P **P** **17 07 54.7 +0.4**
RSSD pP **pP** **17 08 08.9 +1.6**
RSSD PcP **PcP** **17 09 48.2 +0.4**
BLYC Blythe 42.39 95 **P** **17 07 55.1 -1.1**
BLYC lAmb lAmb 17 08 20.2
comp=Z,19nm,0.8s
PV21 Cone Mtn., Par 42.57 85 lAmb lAmb 17 08 26.4
comp=Z,16nm,0.5s
PV23 Carpenter Ridg 42.62 85 P **P** **17 07 58.4 +0.1**
PV23 lAmb lAmb 17 08 32.4
comp=Z,23nm,0.9s
PV10 Paradox Valley 42.65 85 P **P** **17 07 59.1 +0.5**
PV14 Lion Creek, Pa 42.66 85 lAmb lAmb 17 08 39.8
comp=Z,43nm,1.5s
PV22 Blue Mesa, Par 42.70 85 P **P** **17 07 59.3 +0.4**
PV20 West Nyswonger 42.71 85 lAmb lAmb 17 08 17.5
comp=Z,23nm,0.8s
PV04 Paradox Valley 42.72 85 lAmb lAmb 17 08 00.6
comp=Z,23nm,0.8s
ESJX Sierra Juarez 42.74 98 lAmb lAmb 17 08 23.5
comp=Z,19nm,1.2s
PV16 Nyswonger Mesa 42.76 85 lAmb lAmb 17 08 17.5
comp=Z,23nm,0.8s
PV05 Paradox Valley 42.80 86 lAmb lAmb 17 08 28.1
comp=Z,24nm,1.0s
PV18 Skein Mesa, Pa 42.81 85 P **P** **17 07 59.7 -0.1**
PV12 Saucer Basin, 42.83 85 lAmb lAmb 17 08 17.0
comp=Z,28nm,0.9s
PV03 Paradox Valley 42.84 85 P **P** **17 07 59.4 -0.7**
PV03 lAmb lAmb 17 08 01.5
comp=Z,27nm,0.9s
PV07 Paradox Valley 42.84 85 lAmb lAmb 17 08 40.6
comp=Z,20nm,0.8s
PV15 Paradox Valley 43.01 85 lAmb lAmb 17 08 26.7
comp=Z,31nm,1.0s
WUAZ Wupatki 43.10 90 lAmb lAmb 17 08 26.9
comp=Z,11nm,0.8s
ULM Lac du Bonnet 43.33 63 P **P** **17 08 03.6 +0.1**
comp=Z,3.3nm,0.9s,baz=304,slow=11,SNR=3.4
ULM LR LR 17 26 41.4
comp=Z,186nm,19.0s,baz=358,slow=37
comp=Z,3.3nm,0.9s
ULM Lac du Bonnet 43.33 63 lAmb lAmb 17 08 26.9
comp=Z,56nm,2.0s
HILR Hailar Array B 43.49 296 P **P** **17 08 04.4 -0.6**
comp=Z,1.9nm,0.5s,baz=92,slow=10,SNR=3.9
comp=Z,1.9nm,0.5s
CN2 Changchun 43.54 286 *e*P **P** **17 08 06.8 +1.5**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
MVCO Mesa Verde 43.73 86 P **P** **17 08 07.8 +0.6**
comp=Z,12nm,1.7s
AGMN Agassiz Nation 44.41 65 P **P** **17 08 11.9 -0.3**
comp=Z,13nm,0.9s
JMN Monobe 44.91 269 **P** **17 08 17.0 +0.6**
JMN Monobe 44.91 269 P **P** **17 08 16.8 +0.3**
comp=Z,52nm,0.9s
SDCO Great Sand Dun 45.19 83 P **P** **17 08 18.9 -0.1**
SDCO lAmb lAmb 17 08 37.6
comp=Z,11nm,1.1s
TUC Tucson 45.65 93 P **P** **17 08 23.0 +0.7**
TUC lAmb lAmb 17 08 46.9
comp=Z,6.6nm,0.9s
TUC Tucson 45.65 93 P **P** **17 08 22.8 +0.5**
comp=Z,9.2nm,1.0s
TUC Tucson 45.65 93 P **P** **17 08 23.1 +0.7**
TUC pP **pP** **17 08 36.2 +1.0**
KSRS Korea Array 46.02 277 P **P** **17 08 25.6 +0.4**
comp=Z,4.3nm,0.5s,baz=56,slow=7.4,SNR=20
KSRS PcP **PcP** **17 10 01.1 +0.3**
comp=Z,4.2nm,0.9s,baz=42,slow=3.7,SNR=5.8
comp=Z,4.3nm,0.5s
KSCO Kaye Shedlock' 46.10 80 P **P** **17 08 25.4 -0.5**
T25A Trinidad 46.24 83 lAmb lAmb 17 09 04.9
comp=Z,16nm,1.0s
NRIK Noril'sk 46.33 332 P **P** **17 08 27.4 +0.3**
comp=Z,7.5nm,1.0s,baz=66,slow=12,SNR=7.7
NRIK LR LR 17 30 27.9
comp=Z,307nm,19.5s,baz=69,slow=39
comp=Z,7.5nm,1.0s
NRIK Noril'sk 46.33 332 *e*P **P** **17 08 27.5 +0.3**
NRIK pmax pmax
comp=Z,9.0nm,1.0s
NRIK Noril'sk 46.33 332 P **P** **17 08 27.3 +0.1**
NRIK lAmb lAmb 17 10 03.3
comp=Z,18nm,1.4s
ANMO Albuquerque 46.46 87 LR LR 17 26 04.3
comp=Z,372nm,18.1s,baz=309,slow=34
ANMO Albuquerque 46.46 87 *e*P **P** **17 08 29.0 +0.1**

ANMO pmax pmax
comp=Z,5.0nm,1.1s
ANMO Albuquerque 46.46 87 P **P** **17 08 29.4 +0.5**
ANMO Albuquerque 46.46 87 P **P** **17 08 28.6 -0.3**
comp=Z,6.3nm,1.2s
ANMO Albuquerque 46.46 87 P **P** **17 08 29.6 +0.7**
ANMO pP **pP** **17 08 43.0 +0.7**
ANMO PcP **PcP** **17 10 03.8 +1.0**
ALQ Albuquerque 46.46 87 IAmb IAmb 17 10 05.4
comp=Z,5.5nm,1.0s
Y22A Socorro 46.84 88 IAmb IAmb 17 08 43.5
comp=Z,16nm,0.8s
EYMN Ely 47.00 63 pP 17 08 46.7 +0.2
JNU Nakatsue 47.14 270 LR LR 17 27 13.6
comp=Z,401nm,21.8s,baz=66,slow=35
121A Cookes Peak, D 47.31 90 IAmb IAmb 17 08 56.0
comp=Z,8.0nm,0.8s
L34A Svendsen Farm, 47.91 73 P **P** **17 08 39.8 0.0**
FRB Frobisher Bay 48.19 36 LR LR 17 31 13.6
comp=Z,443nm,20.5s,baz=291,slow=39
JSU Suzuyama 48.52 269 P **P** **17 08 45.6 +0.9**
comp=Z,84nm,1.1s
XLT XiLinHaoTe 48.86 292 *eP* **P** **17 08 48.3 +1.1**
XLT pmax pmax
comp=Z,5.0nm,0.7s
XLT pmax pmax
comp=Z,160nm,5.9s
XLT L L
comp=Z,330nm,22.4s
XLT L L
comp=Z,420nm,20.5s
SPITS Spitsbergen Ar 49.21 359 P **P** **17 08 49.6 +0.2**
comp=Z,6.4nm,0.7s,baz=67,slow=4.6,SNR=4.7
SPITS PcP **PcP** **17 10 11.6 0.0**
comp=Z,5.1nm,0.7s,baz=78,slow=5.4,SNR=5.3
comp=Z,6.4nm,0.7s
MNTX Cornudas Mount 49.35 89 IAmb IAmb 17 09 02.8
comp=Z,10nm,0.9s
MNTX Cornudas Mount 49.35 89 P **P** **17 08 51.2 +0.2**
comp=Z,12nm,1.1s
MNTX P **P** **17 08 52.7 +1.7**
comp=Z,12nm,1.1s
MSTX Muleshoe 49.35 85 IAmb IAmb 17 09 16.3
comp=Z,12nm,0.9s
TPB28 49.90 89 IAmb IAmb 17 08 57.9
comp=Z,11nm,0.9s
TPB11 China Draw 50.00 88 IAmb IAmb 17 09 16.4
comp=Z,10nm,0.9s
SMWD Samnorwood 50.11 82 P **P** **17 08 56.8 0.0**
SMWD IAmb IAmb 17 09 20.0
comp=Z,9.9nm,0.7s
SUMG Summit 50.12 18 **P** **17 08 56.6 -0.2**
SUMG Summit 50.12 18 P **P** **17 08 57.5 +0.7**
comp=Z,22nm,0.9s
VHRN Van Horn 50.23 90 IAmb IAmb 17 09 12.6
comp=Z,12nm,0.9s
128A Castleberry Fa 50.46 86 IAmb IAmb 17 09 24.0
comp=Z,13nm,0.8s
CROK Carrier 50.51 79 P **P** **17 08 59.7 -0.1**
TLY Talaya 50.60 306 *de*P **P** **17 09 00.6 +0.3**
TLY pmax pmax
comp=Z,16nm,0.9s
TLY Talaya 50.60 306 P **P** **17 09 00.1 -0.2**
TLY IAmb IAmb 17 09 01.7
comp=Z,16nm,1.0s
TLY Talaya 50.60 306 P **P** **17 09 00.9 +0.6**
comp=Z,16nm,0.9s
DKNS Dickens 50.68 84 IAmb IAmb 17 09 12.2
comp=Z,11nm,0.7s
TPB01 Permian Basin 50.85 89 P **P** **17 09 03.5 +1.0**
TPB01 IAmb IAmb 17 09 24.9
comp=Z,8.2nm,0.8s
SN07 Snyder 07 51.10 85 IAmb IAmb 17 09 28.5
comp=Z,8.3nm,0.8s
TPB05 Hovey Rd 51.14 88 IAmb IAmb 17 09 06.3
comp=Z,8.4nm,0.8s
MNHN Monahans 51.19 88 IAmb IAmb 17 09 25.0
comp=Z,10nm,0.7s
WMOK Wichita Mounta 51.23 82 IAmb IAmb 17 09 28.3
comp=Z,12nm,1.0s
WMOK Wichita Mounta 51.23 82 P **P** **17 09 06.1 +0.8**
comp=Z,14nm,1.0s
ULN Ulaanbaatar 51.27 301 *ce*P **P** **17 09 05.1 -0.5**
ULN pmax pmax
comp=Z,16nm,1.0s
ULN Ulaanbaatar 51.27 301 **P** **17 09 04.8 -0.8**
ULN Ulaanbaatar 51.27 301 P **P** **17 09 05.4 -0.2**
comp=Z,20nm,0.8s
ULN Ulaanbaatar 51.27 301 P **P** **17 09 05.1 -0.5**
ULN PcP **PcP** **17 10 20.3 +0.3**
ALPN Alpine 51.34 89 IAmb IAmb 17 09 26.7
comp=Z,8.4nm,0.8s
TMB01 Midkiff 51.37 87 IAmb IAmb 17 09 30.6
comp=Z,9.8nm,0.8s
APMT Aspermont 51.40 84 IAmb IAmb 17 09 36.9
comp=Z,19nm,1.4s
ZAK Zakamensk 51.60 305 *eP* **P** **17 09 07.1 -0.8**
ZAK pmax pmax
comp=Z,7.0nm,1.4s
SONM Songino Array 51.64 301 P **P** **17 09 08.4 +0.1**
comp=Z,14nm,1.1s,baz=71,slow=4.2,SNR=31
SONM PcP **PcP** **17 10 21.2 0.0**
comp=Z,2.6nm,0.6s,baz=64,slow=2.4,SNR=6.5
comp=Z,14nm,1.1s
SONM Songino Array 51.64 301 **P** **17 09 06.7 -1.5**
SONM IAmb IAmb 17 09 10.6
comp=Z,10nm,1.0s
SFJD Kangerlussuaq 51.65 26 LR LR 17 35 15.4
comp=Z,118nm,18.3s,baz=308,slow=41
MOY Mondy 51.90 308 *eP* **P** **17 09 10.2 +0.1**
MOY pmax pmax
comp=Z,19nm,1.2s
LPIG La Paz 51.90 100 LR LR 17 25 55.3
comp=Z,146nm,21.4s,baz=286,slow=30
TX31 Lajitas Ar. Si 52.06 90 IAmb IAmb 17 09 13.4
comp=Z,11nm,0.8s
TXAR Lajitas Array 52.06 90 P **P** **17 09 12.2 +0.6**
comp=Z,6.4nm,0.7s,baz=296,slow=5.5,SNR=57
comp=Z,6.4nm,0.7s
TXAR Lajitas Array 52.06 90 P **P** **17 09 12.1 +0.5**
W35A Tecumseh 52.09 80 P **P** **17 09 11.7 +0.1**
OZNA Ozona 52.47 87 IAmb IAmb 17 09 34.5
comp=Z,10nm,0.9s
SAND Sanderson 52.56 88 IAmb IAmb 17 09 35.2
comp=Z,7.7nm,0.8s
TIA Tai'an 53.29 283 P **P** **17 09 20.5 0.0**
TIA pmax pmax
comp=Z,15nm,1.0s
HHC Hu-ho-hao-te 53.38 291 *eP* **P** **17 09 21.3 +0.1**
HHC pmax pmax
comp=Z,9.0nm,0.9s
BRDY Brady 53.50 85 IAmb IAmb 17 09 46.1
comp=Z,13nm,0.9s
HNS HongShan 53.90 286 ⇑P **P** **17 09 25.5 +0.6**
HNS pmax pmax
comp=Z,24nm,1.2s
KNGR Kungurtug, Tuv 54.25 308 ⇓*eP* **P** **17 09 28.1 +0.7**
KNGR pmax pmax
comp=Z,20nm,1.0s
FCAR Ozark Folk Cen 54.40 76 IAmb IAmb 17 09 39.2
comp=Z,12nm,0.8s
SCHQ Schefferville 54.62 44 P **P** **17 09 29.9 0.0**
comp=Z,19nm,0.9s,baz=308,slow=6.9,SNR=11
SCHQ LR LR 17 34 36.6
comp=Z,244nm,18.1s,baz=314,slow=38
comp=Z,19nm,0.9s
NJ2 Nanjing 55.15 279 *eP* **P** **17 09 34.0 0.0**
NJ2 pmax pmax
comp=Z,19nm,0.5s
H06N1 SOCORRO T-PHAS 55.52 105 T T 18 09 58.1
SNR=2.8
SADO Sadowa 55.62 60 LR LR 17 33 00.4
comp=Z,115nm,21.6s,baz=335,slow=36
LYN LuoYang 57.18 285 P **P** **17 09 49.3 +0.8**
LYN pmax pmax
comp=Z,32nm,0.9s
ARCES ARCESS Array B 57.52 354 P **P** **17 09 49.9 -0.5**
comp=Z,5.8nm,1.0s,baz=38,slow=6.1,SNR=4.8
ARCES PcP **PcP** **17 10 43.4 +0.2**
comp=Z,11nm,0.9s,baz=8.9,slow=8.6,SNR=5.2
ARCES LR LR 17 35 05.4
comp=Z,89nm,20.8s,baz=349,slow=36
comp=Z,5.8nm,1.0s
ZAA0 Zalesovo Array 57.53 318 IAmb IAmb 17 10 44.7
comp=Z,6.6nm,0.8s
ZALV Zalesovo Beam 57.53 318 P **P** **17 09 49.6 -1.0**
comp=Z,1.6nm,0.6s,baz=32,slow=8.7,SNR=9.0
ZALV PcP **PcP** **17 10 43.7 +0.2**
comp=Z,5.4nm,0.6s,baz=29,slow=3.4,SNR=12
ZALV LR LR 17 35 33.5
comp=Z,294nm,21.6s,baz=41,slow=37
comp=Z,1.6nm,0.6s
ZALV Zalesovo Beam 57.53 318 P **P** **17 09 50.0 -0.6**
ZALV **PcP** **17 10 44.0 +0.5**
ZAIG Zacatecas 57.56 95 pP 17 10 04.9 0.0
ZAIG Zacatecas 57.56 95 P **P** **17 09 51.2 -0.4**
comp=Z,12nm,0.9s
APA Apatity 58.81 350 *eP* **P** **17 09 58.7 -0.7**
APA *e* 17 10 43.0
APA *e* 17 12 08.8
APA pmax pmax
comp=Z,11nm,1.3s
APA MLR MLR
comp=Z,1μm,4.1s
WHN Wuhan 58.92 281 P **P** **17 10 01.0 +0.3**
WHN sP **sP** **17 10 19.0 -1.9**
WHN pmax pmax
comp=Z,100nm,1.2s
SSPA Standing Stone 59.15 62 P **P** **17 10 01.8 -0.4**
TKL Tuckaleechee C 59.41 70 LR LR 17 34 29.8
comp=Z,295nm,20.4s,baz=323,slow=35
XAN Xi'an 59.61 287 P **P** **17 10 05.3 -0.2**
XAN sP sP 17 10 28.8 +3.1
XAN PcP **PcP** **17 10 52.0 -0.2**
XAN pmax pmax
comp=Z,23nm,1.1s
XAN L L
comp=Z,600nm,16.5s
XAN L L
comp=Z,520nm,13.1s
XAN L L
comp=Z,1μm,18.6s
SSLB Suanglung 59.89 270 P **P** **17 10 07.8 +0.3**
comp=Z,160nm,1.2s
BORG Borgarnes 59.99 16 LR LR 17 37 33.7
comp=Z,83nm,20.9s,baz=331,slow=38
GTA2 Gaotai 60.84 298 P **P** **17 10 13.3 -0.6**
GTA2 pmax pmax
comp=Z,10.0nm,0.7s
LZH Lanzhou 61.04 292 *eP* **P** **17 10 17.0 +1.7**
LZH pP sP 17 10 35.3 -0.4
LZH pmax pmax
comp=Z,40nm,1.0s
LZDM Lanzhou Array 61.22 292 P **P** **17 10 16.5 -0.2**
comp=Z,4.0nm,0.5s,baz=45,slow=8.6,SNR=4.6
comp=Z,4.0nm,0.5s
CNSH ChangSha 61.48 280 P **P** **17 10 18.5 +0.3**
CNSH pmax pmax
comp=Z,37nm,1.0s
ENH Enshi 62.00 284 P **P** **17 10 22.1 +0.3**
comp=Z,34nm,1.0s
ENH Enshi 62.00 284 P **P** **17 10 21.6 -0.1**
ENH pP **pP** **17 10 36.0 -0.2**
SEM Semipalatinsk 62.04 318 *eP* **P** **17 10 21.6 -0.4**
SEM Semipalatinsk 62.04 318 *eP* **P** **17 10 21.6 -0.4**
ZSN Zaisan 62.33 313 *eP* **P** **17 10 23.4 -0.3**
ZSN pmax pmax
comp=Z,6.0nm,0.9s
ZSN Zaisan 62.33 313 *eP* **P** **17 10 23.4 -0.3**
comp=Z,5.8nm,0.9s
KURK Kurchatov 62.47 319 P **P** **17 10 24.6 +0.1**
KURK Kurchatov 62.47 319 P **P** **17 10 23.5 -1.0**
KURK IAmb IAmb 17 10 24.9
comp=Z,4.0nm,0.7s
KURK Kurchatov 62.47 319 P **P** **17 10 24.1 -0.3**
comp=Z,8.8nm,0.8s
KURK Kurchatov 62.47 319 P **P** **17 10 24.0 -0.5**
KURK PcP **PcP** **17 11 04.0 +0.6**
KURBB Kurchatov Arra 62.57 319 P **P** **17 10 24.6 -0.6**
comp=Z,4.7nm,0.8s,baz=48,slow=7.4,SNR=44
KURBB LR LR 17 38 46.9
comp=Z,469nm,21.7s,baz=148,slow=37
comp=Z,4.7nm,0.8s
SVE Sverdlovsk 63.58 332 *eP* **P** **17 10 32.3 +0.5**
SVE pmax pmax
comp=Z,10.0nm,0.8s
BVAR Borovoye Array 63.71 325 P **P** **17 10 32.7 0.0**
comp=Z,21nm,0.8s,baz=50,slow=7.2,SNR=80
comp=Z,21nm,0.8s
BORK Borovoye 63.71 325 *ce*P **P** **17 10 32.5 -0.2**
BORK pmax pmax
comp=Z,10.0nm,0.9s
BORK Borovoye 63.71 325 P **P** **17 10 32.4 -0.3**
BORK IAmb IAmb 17 10 33.6
comp=Z,8.5nm,0.7s
WMQ Urumqi 63.77 308 *eP* **P** **17 10 38.0 +4.6**
WMQ PcP **PcP** **17 11 09.8 +0.9**
WMQ pmax pmax
comp=Z,16nm,0.7s
WMQ L L
comp=Z,290nm,24.3s
WMQ L L
comp=Z,370nm,21.3s
WMQ L L
comp=Z,140nm,24.7s
MK31 Makanchi Array 63.97 314 *de*P **P** **17 10 33.7 -0.9**
MKAR Makanchi Array 63.97 314 P **P** **17 10 33.7 -0.8**
comp=Z,3.9nm,0.8s,baz=54,slow=5.9,SNR=32
MKAR LR LR 17 39 28.6
comp=Z,210nm,19.3s,baz=64,slow=37
comp=Z,3.9nm,0.8s
MKAR Makanchi Array 63.97 314 P **P** **17 10 33.2 -1.4**
MAKZ Makanchi 64.09 314 P **P** **17 10 34.4 -1.0**
MAKZ Makanchi 64.09 314 P **P** **17 10 34.0 -1.4**
MAKZ PcP **PcP** **17 11 10.6 +0.5**
ARTI Arti 64.59 333 LR LR 17 42 57.5
comp=Z,146nm,18.4s,baz=36,slow=40
ARTI Arti 64.59 333 *c* iP **P** **17 10 38.5 +0.1**
ARTI *PP **pP** **17 10 52.8 -0.1**
ARTI 17 12 56.3
ARTI S **S** **17 19 15.0 +1.4**
ARTI pmax pmax
comp=Z,18nm,0.8s
ARTI Arti 64.59 333 P **P** **17 10 37.9 -0.5**
ARTI Arti 64.59 333 P **P** **17 10 38.4 +0.1**
ARTI pP **pP** **17 10 53.1 +0.2**
ARTI PcP **PcP** **17 11 12.1 +0.2**
KIRV Kirov 64.80 339 LR LR 17 43 04.1
comp=Z,128nm,18.1s,baz=26,slow=40
KIRV Kirov 64.80 339 *eP* **P** **17 10 39.8 +0.1**
CD2 Chengdu 64.87 288 P **P** **17 10 41.3 +0.6**
CD2 pmax pmax
comp=Z,60nm,0.9s
FINES FINESS Array B 65.49 352 P **P** **17 10 43.0 -1.1**
comp=Z,6.6nm,0.8s,baz=22,slow=7.0,SNR=10.0
FINES LR LR 17 41 25.6
comp=Z,88nm,20.4s,baz=30,slow=38
comp=Z,6.6nm,0.8s
FINES FINESS Array B 65.49 352 *i* P **P** **17 10 44.2 +0.1**
FINES pmax pmax
comp=Z,7.0nm,0.8s
TAOE Nuku Hiva Isla 65.98 149 *e*LR LR 17 30 39.5
comp=Z,324nm,22.5s
NB2 NORSAR Subarra 66.46 0 P **P** **17 10 50.0 -0.5**
comp=Z,1.4nm,0.7s,baz=1.2,slow=6.2
NOA NORSAR Array B 66.46 0 P **P** **17 10 50.5 0.0**
comp=Z,4.3nm,0.9s,baz=0.5,slow=6.4,SNR=7.2
NOA LR LR 17 40 08.1
comp=Z,37nm,20.3s,baz=355,slow=36
comp=Z,4.3nm,0.9s
GYA Guiyang 66.49 283 ⇑P **P** **17 10 51.5 +0.2**
GYA pmax pmax
comp=Z,45nm,0.9s
CMIG Matias Romero 66.53 93 LR LR 17 35 44.0
comp=Z,157nm,21.7s,baz=357,slow=32
HFS Hagfors 67.36 359 P **P** **17 10 55.4 -0.7**
comp=Z,2.3nm,0.3s,baz=338,slow=2.4,SNR=20
HFS LR LR 17 40 35.8
comp=Z,43nm,19.7s,baz=12,slow=36
comp=Z,2.3nm,0.3s
HNR Honiara 67.72 214 LR LR 17 36 44.4
comp=Z,50nm,19.9s,baz=111,slow=32
SHLS Shalkode 68.06 313 *eP* **P** **17 10 59.6 -1.4**
SHLS pmax pmax
comp=Z,5.0nm,0.9s
SHLS Shalkode 68.06 313 *eP* **P** **17 10 59.6 -1.4**
comp=Z,5.4nm,0.9s
KPKS Kokpek 68.16 314 *eP* **P** **17 11 01.4 -0.2**
KPKS Kokpek 68.16 314 *eP* **P** **17 11 01.5 -0.2**
UZB Uzynbulak 68.27 313 *eP* **P** **17 11 01.9 -0.4**
UZB Uzynbulak 68.27 313 *eP* **P** **17 11 01.9 -0.4**
VSU Vasula 68.38 352 *eP* **P** **17 11 01.8 -0.7**
VSU pmax pmax
comp=Z,18nm,0.9s
SATY Saty 68.61 314 *eP* **P** **17 11 03.8 -0.6**
SATY Saty 68.61 314 *eP* **P** **17 11 03.9 -0.6**
MDOK Medeo 69.11 315 *eP* **P** **17 11 07.1 -0.5**
MDOK Medeo 69.11 315 *eP* **P** **17 11 07.2 -0.5**
AAA Alma-Ata 69.13 315 *eP* **P** **17 11 07.1 -0.5**
AAA pmax pmax
comp=Z,12nm,0.9s
AAA Alma-Ata 69.13 315 *eP* **P** **17 11 07.2 -0.5**
comp=Z,12nm,0.9s
TNSS Tian-Shan 69.26 315 *eP* **P** **17 11 07.9 -0.9**
TNSS Tian-Shan 69.26 315 *eP* **P** **17 11 07.9 -0.9**
PZH PanZhiHua 69.34 287 P **P** **17 11 09.8 +0.6**
PZH pmax pmax
comp=Z,10.0nm,1.1s
MOS Moscow 69.69 345 *eP* **P** **17 11 14.2 +3.5**
MOS pmax pmax
comp=Z,30nm,0.6s
WUS Wushi 69.74 312 P **P** **17 11 11.6 +0.1**
comp=Z,7.7nm,1.0s
WUS pP pP 17 11 18.9 -7.2
KMI2 Kunming 69.78 285 ⇑P **P** **17 11 13.0 +0.9**
KMI2 pmax pmax
comp=Z,35nm,0.8s
AKTO Aktyubinsk 69.93 331 LR LR 17 45 22.3
comp=Z,127nm,19.0s,baz=36,slow=39
QIZ Qiongzhong 70.21 276 P **P** **17 11 15.7 +1.2**
QIZ PcP **sP** **17 11 36.8 +1.8**
AB31 Akbulak array 70.38 329 IAmb IAmb 17 11 16.0
comp=Z,11nm,1.1s
ABKAR Akbulak array 70.38 329 P **P** **17 11 14.5 -0.6**
OBN Obninsk 70.46 345 LR LR 17 47 46.1
comp=Z,96nm,18.4s,baz=200,slow=41
OBN Obninsk 70.46 345 *i* P **P** **17 11 15.1 -0.3**
OBN *i* 17 11 36.6
OBN pmax pmax
comp=Z,12nm,1.1s
AAK Ala-Archa 70.63 316 *ce*P **P** **17 11 17.1 +0.1**
AAK pmax pmax
comp=Z,4.0nm,0.8s
AAK Ala-Archa 70.63 316 P **P** **17 11 16.1 -0.8**
AAK IAmb IAmb 17 11 17.9
comp=Z,4.3nm,0.7s
AAK Ala-Archa 70.63 316 P **P** **17 11 16.7 -0.2**
comp=Z,7.9nm,0.8s
AAK Ala-Archa 70.63 316 P **P** **17 11 17.1 +0.1**
AAK pP **pP** **17 11 31.5 -0.1**
BELG Belogornoye 70.91 338 LR LR 17 44 33.2
comp=Z,146nm,20.1s,baz=76,slow=38
BELG Belogornoye 70.91 338 *eP* **P** **17 11 18.5 +0.3**
BELG pmax pmax
comp=Z,3.0nm,1.0s
ASAI AK-SAY(Kyrgyzs 71.16 314 P **P** **17 11 20.2 -0.2**
comp=Z,5.8nm,1.0s
MSVF Nonsavu 71.28 194 LR LR 17 36 57.9
comp=Z,87nm,20.8s,baz=5.9,slow=31
EKA Eskdalemuir Ar 71.48 9 P **P** **17 11 22.3 +0.6**
comp=Z,4.9nm,0.8s,baz=1.1,slow=4.4,SNR=5.4
comp=Z,4.9nm,0.8s
PABE Paberze 71.54 353 P **P** **17 11 22.6 +0.6**
comp=Z,61nm,0.8s
DZA Taraz 71.73 318 *eP* **P** **17 11 23.0 -0.4**
DZA Taraz 71.73 318 *eP* **P** **17 11 23.1 -0.4**
KK31 Karatay Array 71.88 319 IAmb IAmb 17 11 25.0
comp=Z,10nm,1.2s
KKAR Karatay Array 71.88 319 P **P** **17 11 23.8 -0.5**
PPT Papeete 71.97 161 LR LR 17 34 55.2
comp=Z,150nm,21.0s,baz=327,slow=29
PPT2 Papeete2 71.99 161 *e*LR LR 17 33 20.5
comp=Z,238nm,23.5s
PPT2 *e*LR LR 17 33 28.7
comp=Z,220nm,24.5s
SLVN Son La 72.01 282 P **P** **17 11 25.7 +0.3**
comp=Z,32nm,1.1s
MNK Minsk 72.18 350 *i* P **P** **17 11 25.6 -0.2**
MNK *i* 17 11 43.4
MNK *i* *SP **sP** **17 11 46.3 -0.1**
MNK *i* 17 14 06.3
MNK *i* PPP PPP 17 15 50.4
MNK *i* S **S** **17 20 45.0 +1.1**
MNK *i* *SS **sS** **17 21 09.4 +0.7**
MNK *i* SS **SS** **17 25 18.1 -2.7**
MNK pmax pmax
comp=N,5.0nm,0.7s
MNK pmax pmax
comp=E,7.0nm,0.7s
MNK pmax pmax
comp=Z,15nm,0.8s
MNK MLR MLR
comp=Z,66nm,16.0s
MNK MLR MLR
comp=N,95nm,17.0s
MNK MLR MLR
comp=E,155nm,18.0s
MNK Minsk 72.18 350 *i* P **P** **17 11 25.7 -0.2**
comp=E,7.0nm,0.7s
MNK *i* P **P** **17 11 25.7 -0.2**
comp=N,5.0nm,0.7s
MNK *i* P **P** **17 11 25.7 -0.2**
comp=Z,15nm,0.8s,baz=10
MNK *i* sP **sP** **17 11 46.3 -0.1**
MNK *i* PP **PP** **17 14 06.3 +0.4**
MNK *i* PPP PPP 17 15 50.4
MNK *i* S **S** **17 20 45.0 +1.1**
MNK *i* sS **sS** **17 21 09.5 +0.7**
MNK *i* SS **SS** **17 25 18.2 -2.7**
MNK *i* SSS SSS 17 28 44.4
MNK *i* LQ LQ 17 39 08.0
MNK *i* LR LR 17 42 38.8
MNK *i* LRM MLR 17 46 08.9
comp=Z,66nm,16.1s
MNK *i* LRM MLR 17 46 35.3
comp=N,95nm,17.3s
MNK *i* LRM MLR 17 47 08.1
comp=E,155nm,18.1s
BRLS Boroldaу 72.21 319 *eP* **P** **17 11 27.2 +1.0**
BRLS Boroldaу 72.21 319 *eP* **P** **17 11 27.3 +1.0**
LPSR Galich'ya Gora 72.48 343 *eP* **P** **17 11 27.0 -0.7**
LPSR pmax pmax
comp=Z,11nm,0.9s
PMG Port Moresby 72.71 227 P **P** **17 11 29.4 -0.1**
comp=Z,21nm,0.9s,baz=52,slow=2.5,SNR=8.4
PMG LR LR 17 38 18.4
comp=Z,133nm,19.9s,baz=322,slow=32
comp=Z,21nm,0.9s
PMG Port Moresby 72.71 227 P **P** **17 11 29.3 -0.1**
PMG Port Moresby 72.71 227 P **P** **17 11 29.6 +0.2**
comp=Z,32nm,0.9s
IUG Iuzhnay 72.88 319 *eP* **P** **17 11 30.1 -0.2**
IUG pmax pmax
comp=Z,16nm,1.4s
IUG Iuzhnay 72.88 319 *eP* **P** **17 11 30.2 -0.2**
comp=Z,16nm,1.4s
CHM Chimkent 72.90 319 *eP* **P** **17 11 30.0 -0.4**
CHM pmax pmax
comp=Z,8.0nm,0.9s
CHM Chimkent 72.90 319 *eP* **P** **17 11 30.0 -0.4**
comp=Z,7.7nm,0.9s
KSH2 Kashi 73.03 313 P **P** **17 11 32.0 +0.6**
KSH2 pmax pmax
comp=Z,6.0nm,0.6s
VRH Novokhopyorsk 73.29 341 *eP* **P** **17 11 30.9 -1.6**
VRH pmax pmax
comp=Z,8.0nm,0.6s
VORR Voronezh 73.33 343 *eP* **P** **17 11 28.8 -3.9**
VORR pmax pmax
comp=Z,29nm,0.4s
SIJI Sorong 73.33 245 P **P** **17 11 33.3 +0.1**
comp=Z,62nm,0.8s,baz=30,slow=6.6,SNR=28
SIJI LR LR 17 39 37.6
comp=Z,75nm,19.8s,baz=20,slow=32
comp=Z,62nm,0.8s
VSR Storozhevoye 73.77 342 *eP* **P** 17 11 28.6 -6.7
VSR pmax pmax
comp=Z,13nm,0.8s
RAR Rarotonga 74.11 172 LR LR 17 39 23.2
comp=Z,66nm,20.4s,baz=249,slow=32
BTK Batken 74.31 317 IAmb IAmb 17 12 26.5
comp=Z,10nm,1.1s
BTK Batken 74.31 317 P **P** **17 11 39.1 +0.3**
comp=Z,7.5nm,0.8s
FAKI Fak Fak 74.50 243 P **P** **17 11 39.1 -0.9**
FAKI Fak Fak 74.50 243 P **P** **17 11 40.8 +0.7**
comp=Z,57nm,1.4s
MORE Moreh 75.36 291 IAmb IAmb 17 11 47.0
comp=Z,17nm,1.0s

RNPP1 **Kostyukhnivka** 75.51 351 P **P** 17 11 45.4 +0.1
RNPP8 **Varash** 75.51 351 P **P** 17 11 44.9 -0.5
RNPP5 **Staryi Chortor** 75.62 351 P **P** 17 11 44.9 -1.1
CLZ **Clausthal** 75.68 1 P **P** 17 11 47.2 +0.8
comp=Z,20nm,1.0s
AK21 **Malin Array Si** 75.72 349 P **P** 17 11 45.6 -1.0
AK23 **Malin Array Si** 75.73 349 P **P** 17 11 45.4 -1.2
AK22 **Malin Array Si** 75.74 349 P **P** 17 11 45.5 -1.1
AK03 **Malin Array Si** 75.75 349 P **P** 17 11 45.9 -0.8
AK20 **Malin Array Si** 75.76 349 P **P** 17 11 45.7 -1.1
AK04 **Malin Array Si** 75.76 349 P **P** 17 11 46.0 -0.8
AK18 **Malin Array Si** 75.77 349 P **P** 17 11 46.0 -0.9
AKASG **Malin Array Be** 75.78 349 P **P** 17 11 46.0 -0.9
comp=Z,5.6nm,0.6s,baz=14,slow=5.6,SNR=27
AKASG LR LR 17 51 07.8
comp=Z,130nm,18.9s,baz=16,slow=40
comp=Z,5.6nm,0.6s
AKBB **Malin Array Si** 75.78 349 || *e*P **P** 17 11 46.3 -0.6
AKBB pmax pmax
comp=Z,16nm,0.9s
AKBB **Malin Array Si** 75.78 349 P **P** 17 11 46.0 -0.9
AK19 **Malin Array Si** 75.78 349 P **P** 17 11 46.1 -0.8
KIEV **Kiev** 75.78 349 P **P** 17 11 45.6 -1.2
KIEV IAmb IAmb 17 11 46.9
comp=Z,10nm,0.7s
KIEV **Kiev** 75.78 349 P **P** 17 11 46.0 -1.0
comp=Z,70nm,0.9s
KIEV **Kiev** 75.78 349 P **P** 17 11 45.7 -1.2
comp=Z,18nm,0.9s
KIEV **Kiev** 75.78 349 P **P** 17 11 45.9 -1.0
KIEV PcP **PcP** 17 11 57.9 -1.5
KIEV sP **sP** 17 12 06.3 -1.2
AK01 **Malin Array Si** 75.79 349 P **P** 17 11 46.1 -0.8
AK15 **Malin Array Si** 75.79 349 P **P** 17 11 46.1 -0.9
AK11 **Malin Array Si** 75.81 349 P **P** 17 11 46.2 -0.8
AK17 **Malin Array Si** 75.81 349 P **P** 17 11 46.2 -0.9
AK16 **Malin Array Si** 75.82 349 P **P** 17 11 46.3 -0.8
AK02 **Malin Array Si** 75.82 349 P **P** 17 11 46.3 -0.8
AK08 **Malin Array Si** 75.84 349 P **P** 17 11 46.4 -0.8
AK12 **Malin Array Si** 75.84 349 P **P** 17 11 46.4 -0.9
CLL **Collm** 76.21 359 *i* P **P** 17 11 49.4 0.0
CLL pmax pmax
comp=Z,7.0nm,0.8s
CLL **Collm** 76.21 359 IAmb IAmb 17 11 50.4
comp=Z,6.0nm,0.8s
CLL **Collm** 76.21 359 *i* P **P** 17 11 49.4 0.0
comp=Z,7.0nm,0.8s
CLL *i* PcP **PcP** 17 12 01.6 +0.4
CLL *e*(sP) **sP** 17 12 12.0 +1.9
CLL LV 17 37 00.0
CLL AMS AMS 17 52 00.0
comp=Z,100nm,19.3s
EVN **Everest** 76.55 298 IAmb IAmb 17 11 53.8
comp=Z,7.6nm,0.7s
EVN **Everest** 76.55 298 P **P** 17 11 51.6 -0.9
comp=Z,10nm,1.0s
EVN pP **PcP** 17 11 59.0 -4.9
BRG **Berggiesshubel** 76.64 359 P **P** 17 11 52.2 +0.4
comp=Z,9.5nm,1.0s
BRG **Berggiesshubel** 76.64 359 *e*P **P** 17 11 52.4 +0.6
BRG Amp 17 11 53.2
comp=Z,7.0nm,0.9s
BRG pP **PcP** 17 12 04.0 +0.9
BRG Amp 17 12 07.3
comp=Z,3.8nm,0.8s
LUBAR **Lubar, Ukraine** 76.71 349 P **P** 17 11 50.7 -1.5
MOX **Moxa** 76.88 0 P **P** 17 11 52.8 -0.4
comp=Z,8.6nm,0.8s
CHTO **Chiang Mai** 76.89 284 P **P** 17 11 52.5 -1.2
CHTO **Chiang Mai** 76.89 284 P **P** 17 11 54.1 +0.3
comp=Z,27nm,1.2s
CHTO **Chiang Mai** 76.89 284 P **P** 17 11 53.7 0.0
CHTO PcP **PcP** 17 12 05.5 +0.8
OSTC **Ostas** 76.90 357 *e*P **P** 17 11 54.3 +1.0
OSTC **Ostas** 76.90 357 *e*P **P** 17 11 54.3 +1.0
HSKC **Hora Svate Kat** 76.91 359 *e*P **P** 17 11 53.6 +0.2
HSKC **Hora Svate Kat** 76.91 359 P **P** 17 11 53.5 +0.1
comp=Z,17nm,1.0s
UPC **Upice** 76.96 357 P **P** 17 11 54.3 +0.6
comp=Z,17nm,1.0s
PVCC **Panska Ves** 76.97 358 *e*P **P** 17 11 54.7 +1.0
PVCC **Panska Ves** 76.97 358 *e*P **P** 17 11 54.7 +1.0
PVCC **Panska Ves** 76.97 358 P **P** 17 11 54.1 +0.5
comp=Z,20nm,1.0s
BMRD **Maredsous** 77.06 5 *d*P **P** 17 11 54.3 +0.2
comp=Z,11nm,0.9s
BMRD *d*PcP **PcP** 17 12 04.6 -0.3
OJC **Ojcow** 77.08 355 P **P** 17 11 53.7 -0.6
comp=Z,11nm,1.4s
OJC **Ojcow** 77.08 355 P **P** 17 11 54.6 +0.3
comp=Z,11nm,1.4s
DPC **Dobruska-Polom** 77.11 357 *e*P **P** 17 11 55.2 +0.7
DPC pmax pmax
comp=Z,6.0nm,0.6s
DPC **Dobruska-Polom** 77.11 357 *e*P **P** 17 11 55.2 +0.7
comp=Z,6.2nm,0.6s
DPC **Dobruska-Polom** 77.11 357 P **P** 17 11 54.4 -0.1
comp=Z,16nm,0.9s
DPC **Dobruska-Polom** 77.11 357 P **P** 17 11 55.5 +1.0
comp=Z,16nm,0.9s
CMAR **Chiang Mai Arr** 77.17 284 P **P** 17 11 56.0 +0.8
comp=Z,37nm,0.9s,baz=26,slow=6.6,SNR=179
CMAR LR LR 17 47 16.4
comp=Z,96nm,21.2s,baz=70,slow=37
comp=Z,37nm,0.9s
CMAR **Chiang Mai Arr** 77.17 284 P **P** 17 11 55.6 +0.3
DOU **Dourbes** 77.25 5 *d*P **P** 17 11 55.7 +0.4
comp=Z,6.9nm,1.0s
DOU *d*PcP **PcP** 17 12 05.0 -0.7
DOU *d*pP **pP** 17 12 10.2 +0.2
DOU *d*sP **sP** 17 12 16.7 +0.8
DOU *d*PP **PP** 17 14 48.5 -0.4
NKC **Novy Kostel** 77.29 360 *e*P **P** 17 11 56.1 +0.6
NKC **Novy Kostel** 77.29 360 *e*P **P** 17 11 56.1 +0.6
NKC **Novy Kostel** 77.29 360 P **P** 17 11 56.5 +0.9
comp=Z,14nm,0.9s
KRLC **Kraliky** 77.36 357 *e*P **P** 17 11 56.4 +0.4
KRLC **Kraliky** 77.36 357 *e*P **P** 17 11 56.4 +0.4
KRLC **Kraliky** 77.36 357 P **P** 17 11 56.8 +0.9
comp=Z,18nm,0.9s
KRLC pP **PcP** 17 12 05.8 -0.5
STEB **Steborice** 77.47 356 *e*P **P** 17 11 57.1 +0.6
KWP **Kalwaria Pacla** 77.48 353 P **P** 17 11 56.5 0.0
comp=Z,45nm,1.4s
OKC **Ostrava-Krasne** 77.55 356 P **P** 17 11 57.3 +0.4
comp=Z,17nm,1.0s
MORC **Moravsky Berou** 77.63 356 IAmb IAmb 17 11 58.5
comp=Z,7.5nm,0.9s
MORC **Moravsky Berou** 77.63 356 *e*P **P** 17 11 57.7 +0.2
MORC **Moravsky Berou** 77.63 356 P **P** 17 11 58.1 +0.7
comp=Z,12nm,1.5s
WLF **Walferdange** 77.75 4 *d*P **P** 17 11 58.7 +0.6
NPW **Naypyitaw** 77.78 286 P **P** 17 11 59.1 +0.4
comp=Z,117nm,1.0s
JTS **Las Juntas de** 77.83 89 LR LR 17 45 46.3
comp=Z,43nm,21.8s,baz=332,slow=35
GRF **Grafenberg Arr** 77.84 0 *e*P **P** 17 11 59.3 +0.7
comp=Z,14nm,0.9s,baz=357,slow=5.0
GRA2 **Grafenberg Arr** 77.87 0 P **P** 17 11 58.6 -0.2
comp=Z,22nm,1.1s
GRB4 **Grafenberg Arr** 78.06 0 P **P** 17 12 00.8 +1.0
comp=Z,26nm,1.1s
BRDH **Bariadhala** 78.08 292 LR LR 17 50 13.2
comp=Z,165nm,19.0s,baz=12,slow=39
VRAC **Vranov** 78.14 357 *e*P **P** 17 12 00.9 +0.7
VRAC **Vranov** 78.14 357 P **P** 17 12 01.3 +1.0
comp=Z,5.6nm,1.2s
LANS **Liptovska Anna** 78.17 355 *e*P **P** 17 12 02.0 +1.6
LANS pmax pmax
comp=Z,9.0nm,0.7s
LANS **Liptovska Anna** 78.17 355 *e*P **P** 17 12 02.0 +1.6
KMPD **K-Podol'skiy** 78.19 350 P **P** 17 11 59.5 -1.0
KOLS **Kolonicke sedl** 78.20 353 *e*P **P** 17 12 01.1 +0.5
KOLS pmax pmax
comp=Z,8.0nm,1.0s
KOLS **Kolonicke sedl** 78.20 353 *e*P **P** 17 12 01.1 +0.5
KOLS **Kolonicke sedl** 78.20 353 P **P** 17 12 01.6 +1.0
comp=Z,7.6nm,0.9s
LUWI **Luwuk** 78.27 252 P **P** 17 12 00.8 -0.6
comp=Z,76nm,1.1s
KHC **Kasperske Hory** 78.39 359 *e*P **P** 17 12 02.5 +0.9
KHC pmax pmax
comp=Z,3.0nm,0.6s
KHC **Kasperske Hory** 78.39 359 IAmb IAmb 17 12 03.6
comp=Z,13nm,1.2s
KHC **Kasperske Hory** 78.39 359 *e*P **P** 17 12 02.5 +0.9
comp=Z,2.7nm,0.6s
KHC **Kasperske Hory** 78.39 359 P **P** 17 12 02.0 +0.4
comp=Z,10nm,1.1s
KHC **Kasperske Hory** 78.39 359 P **P** 17 12 02.2 +0.6
comp=Z,10nm,1.1s
KRUC **Moravsky** 78.39 357 *e*P **P** 17 12 01.7 +0.1
SORM **Soroca** 78.41 349 P **P** 17 12 00.7 -1.0
JAVC **Velka Javorina** 78.55 356 *e*P **P** 17 12 04.1 +1.6
JAVC **Velka Javorina** 78.55 356 P **P** 17 12 04.5 +1.9
comp=Z,20nm,1.2s
NIL **Nilore** 78.63 312 P **P** 17 12 03.3 0.0
NIL IAmb IAmb 17 12 16.7
comp=Z,8.9nm,0.8s
NIL **Nilore** 78.63 312 P **P** 17 12 03.5 +0.2
comp=Z,11nm,0.8s
GEC2 **GERESS Array S** 78.67 359 IAmb IAmb 17 12 04.7
comp=Z,6.2nm,1.0s
GERES **GERESS Array B** 78.67 359 P **P** 17 12 03.8 +0.5
comp=Z,3.7nm,0.8s,baz=353,slow=5.4,SNR=24
comp=Z,3.7nm,0.8s
GERES **GERESS Array B** 78.67 359 P **P** 17 12 03.0 -0.2
CKRC **Cesky Krumlov** 78.69 358 *e*P **P** 17 12 03.9 +0.6
CKRC **Cesky Krumlov** 78.69 358 *e*P **P** 17 12 03.9 +0.6
ERBR **Yeremizino-Bor** 78.77 340 *e*P **P** 17 12 04.2 +0.4
ERBR pmax pmax
comp=Z,57nm,0.9s
ABNA **Allensteig Bun** 78.81 358 *i* P **P** 17 12 04.6 +0.6
comp=Z,8.8nm,0.8s
VYHS **Vyhne** 78.86 355 *e*P **P** 17 12 05.2 +1.0
VYHS pmax pmax
comp=Z,5nm,1.0s
VYHS **Vyhne** 78.86 355 *e*P **P** 17 12 05.2 +1.0
VYHS **Vyhne** 78.86 355 P **P** 17 12 05.3 +1.1
comp=Z,5.5nm,1.0s
SMOL **Smolenice** 78.90 356 *e*P **P** 17 12 06.2 +1.8
TRPA **Tarpa** 78.98 353 P **P** 17 12 05.6 +0.7
MODS **Modra-Piesok** 79.05 356 *e*P **P** 17 12 06.5 +1.2
MODS pmax pmax
comp=Z,35nm,1.1s
MODS **Modra-Piesok** 79.05 356 *e*P **P** 17 12 06.5 +1.2
MODS **Modra-Piesok** 79.05 356 P **P** 17 12 06.8 +1.5
comp=Z,29nm,1.0s
BFO **Black Forest** 79.16 2 *i* P **P** 17 12 07.0 +1.1
ECH **Echery** 79.24 3 IAmb IAmb 17 12 07.8
comp=Z,9.4nm,0.9s
ECH **Echery** 79.24 3 P **P** 17 12 07.2 +0.8
comp=Z,14nm,1.9s
ECH **Echery** 79.24 3 P **P** 17 12 06.9 +0.6
ECH PcP **PcP** 17 12 15.3 +0.8
SAUI **Saumlaki** 79.24 241 P **P** 17 12 08.3 +1.6
comp=Z,185nm,1.0s
WINA **Allnd / Wiene** 79.36 357 *i* P **P** 17 12 08.0 +1.1
comp=Z,10nm,1.0s,SNR=4.1
PSZ **Piszkesteto** 79.37 354 IAmb IAmb 17 12 09.2
comp=Z,17nm,1.2s
PSZ **Piszkesteto** 79.37 354 P **P** 17 12 08.6 +1.5
comp=Z,13nm,1.2s
CONA **Conrad Observa** 79.54 357 *i* P **P** 17 12 09.0 +1.0
comp=Z,14nm,0.9s,SNR=10
MOA **Molln** 79.66 358 *e*P **P** 17 12 09.1 +0.5
comp=Z,3.7nm,0.7s
SLE **Schleitheim** 79.73 2 P **P** 17 12 09.6 +0.6
comp=Z,8.2nm,1.0s
KBL **Kabul** 79.73 315 P **P** 17 12 07.9 -1.5
KBL IAmb IAmb 17 12 09.5
comp=Z,11nm,1.0s
KBL **Kabul** 79.73 315 P **P** 17 12 08.6 -0.9
comp=Z,10.0nm,0.6s
LABN **Labinsk** 79.75 339 *e*P **P** 17 12 10.0 +0.9
RONA **Rosalia, Austr** 79.76 357 *i* P **P** 17 12 10.3 +1.2
comp=Z,7.7nm,1.2s
RJOB **Joberg** 79.79 359 P **P** 17 12 10.2 +0.9
comp=Z,9.6nm,0.9s
BIOA **Bad Ischl, Aus** 79.83 359 *i* P **P** 17 12 10.1 +0.6
comp=Z,9.7nm,1.1s
KVAR **Kislovodsk Arr** 79.96 338 LR LR 17 51 40.9
comp=Z,138nm,19.6s,baz=268,slow=39
KIV **Kislovodsk** 79.97 338 P **P** 17 12 11.0 +0.6
KIV **Kislovodsk** 79.97 338 P **P** 17 12 10.6 +0.2
LOR **Lormes** 80.03 5 P **P** 17 12 11.1 +0.4
comp=Z,19nm,1.2s
RETA **Retzte** 80.04 1 *i* P **P** 17 12 11.2 +0.4
comp=Z,4.9nm,0.6s
LESA **Schwarzleotal** 80.10 359 *i* P **P** 17 12 11.8 +0.7
comp=Z,2.9nm,0.7s
KBZ **Khabaz** 80.13 338 P **P** 17 12 12.2 +1.1
comp=Z,6.9nm,0.9s,baz=10,slow=0.9,SNR=12
KBZ LR LR 17 52 33.5
comp=Z,121nm,18.8s,baz=356,slow=39
comp=Z,6.9nm,0.9s
KBZ **Khabaz** 80.13 338 *e*P **P** 17 12 12.6 +1.4
KBZ pmax pmax
comp=Z,8.0nm,0.9s
SHA1 **Shidzhatmaz** 80.18 338 *de*P **P** 17 12 12.9 +1.1
MOTA **Moosalm** 80.19 0 *e*P **P** 17 12 12.3 +0.7
comp=Z,14nm,0.9s,SNR=6.9
WATA **Walderalm** 80.19 0 *i* P **P** 17 12 12.3 +0.7
comp=Z,9.6nm,0.8s
ARSA **Arzberg** 80.23 357 IAmb IAmb 17 12 13.8
comp=Z,10.0nm,1.0s
ARSA **Arzberg** 80.23 357 *i* P **P** 17 12 12.9 +1.2
comp=Z,7.7nm,0.9s,SNR=5.8
ARSA **Arzberg** 80.23 357 P **P** 17 12 13.1 +1.4
DAVA **Damuels** 80.23 1 *i* P **P** 17 12 12.2 +0.3
comp=Z,5.4nm,0.7s
MPLH **Magyarpolny** 80.24 356 P **P** 17 12 13.1 +1.4
comp=Z,20nm,1.1s
ANN **Anapa** 80.26 342 *e*P **P** 17 12 10.7 -1.1
ANN *e*S **S** 17 22 09.4 -3.4
ANN pmax pmax
comp=Z,32nm,1.0s
WTTA **Wattenberg** 80.27 0 *i* P **P** 17 12 13.2 +1.1
comp=Z,13nm,0.7s
WTTA **Wattenberg** 80.27 0 P **P** 17 12 13.5 +1.4
comp=Z,23nm,1.4s
DRGR 80.30 352 P **P** 17 12 12.6 +0.4
comp=Z,7.6nm,0.9s
SQTA **Sankt Quirin** 80.31 0 *e*P **P** 17 12 13.0 +0.8
comp=Z,25nm,0.9s,SNR=9.2
SESA **Seelaer Alpe,** 80.39 358 *i* P **P** 17 12 14.0 +1.2
comp=Z,12nm,1.3s
MFF **Saint Martin d** 80.41 8 P **P** 17 12 12.2 -0.4
comp=Z,5.9nm,0.9s
KBA **Koelnbreinsper** 80.44 359 *i* P **P** 17 12 14.4 +1.3
comp=Z,40nm,0.9s,SNR=9.3
KBA **Koelnbreinsper** 80.44 359 P **P** 17 12 14.6 +1.5
comp=Z,50nm,0.9s
FETA **Feichten** 80.51 1 *i* P **P** 17 12 14.4 +1.0
comp=Z,21nm,0.9s,SNR=8.2
BNALP **Bannalp** 80.62 2 P **P** 17 12 15.1 +1.1
comp=Z,19nm,0.9s
SIM **Simferopol'** 80.70 344 *e*P **P** 17 12 10.2 -4.0
SIM *e* 17 12 18.0
SIM pmax pmax
comp=Z,10.0nm,0.8s
SIM MLR MLR
comp=Z,200nm,19.7s
ABTA **Abfaltersbach** 80.78 359 *i* P **P** 17 12 15.2 +0.4
comp=Z,15nm,1.0s,SNR=5.3
SOKA **Soboth** 80.81 358 *i* P **P** 17 12 15.7 +0.8
comp=Z,17nm,1.0s,SNR=7.2
MYKA **Terra Mystica** 80.89 359 *e*P **P** 17 12 15.8 +0.5
comp=Z,8.3nm,1.0s
FUORN **Ofenpass-Fuorn** 80.90 1 IAmb IAmb 17 12 17.9
comp=Z,17nm,1.1s
FUORN **Ofenpass-Fuorn** 80.90 1 P **P** 17 12 17.1 +1.4
comp=Z,16nm,1.0s
OBKA **Obir** 80.99 358 *i* P **P** 17 12 16.7 +0.8
comp=Z,18nm,0.9s,SNR=7.8
OBKA **Obir** 80.99 358 P **P** 17 12 15.3 -0.6
comp=Z,27nm,1.1s
RKT **Rikitea** 81.00 149 *e*LR LR 17 37 45.8
comp=Z,9µm,37.8s
TUE **Stuetta** 81.04 2 P **P** 17 12 17.6 +1.3
TUE IAmb IAmb 17 12 18.4
comp=Z,9.8nm,0.8s
TUE **Stuetta** 81.04 2 P **P** 17 12 17.5 +1.3
comp=Z,15nm,0.8s
PRED **Cave del Predi** 81.08 359 IAmb IAmb 17 12 17.4
comp=Z,8.0nm,0.9s
MLR **Muntele Rosu** 81.29 350 LR LR 17 54 27.7
comp=Z,91nm,18.2s,baz=24,slow=40
BZS **Buzias** 81.55 353 P **P** 17 12 18.7 0.0
comp=Z,8.6nm,1.0s
MTSU **Mount Surprise** 81.71 225 P **P** 17 12 20.4 +0.6
comp=Z,5.9nm,1.0s
MTSU **Mount Surprise** 81.71 225 P **P** 17 12 20.4 +0.6
comp=Z,5.9nm,1.0s
SSB **Saint Sauveur** 82.06 5 P **P** 17 12 22.2 +0.8
SSB IAmb IAmb 17 12 23.3
comp=Z,9.0nm,0.9s
SSB **Saint Sauveur** 82.06 5 P **P** 17 12 22.3 +0.8
comp=Z,13nm,1.0s
EPOS **Posof** 82.28 337 P **P** 17 12 24.3 +1.5
comp=Z,10nm,1.1s
BNI **Bardonecchia** 82.38 4 P **P** 17 12 25.4 +2.1
comp=Z,31nm,1.0s
ORIF **Oris-en-Rattie** 82.48 4 P **P** 17 12 25.5 +1.7
comp=Z,12nm,0.9s
KDU **Kakadu** 82.59 238 P **P** 17 12 24.0 -0.4
comp=Z,10nm,1.1s
CTA **Charters Tower** 82.64 223 P **P** 17 12 23.9 -0.6
comp=Z,6.2nm,0.8s,baz=44,slow=7.3,SNR=6.6
comp=Z,6.2nm,0.8s
CTA **Charters Tower** 82.64 223 P **P** 17 12 24.0 -0.6
CTAO **Charters Tower** 82.64 223 P **P** 17 12 24.6 0.0
CTAO IAmb IAmb 17 12 25.5
comp=Z,11nm,1.1s
SJG **San Juan** 82.84 70 LR LR 17 48 57.9
comp=Z,96nm,20.9s,baz=329,slow=35
DIGO **Kars** 83.16 336 P **P** 17 12 28.7 +1.1
comp=Z,38nm,1.0s
MTN **Manton Dam** 83.42 239 P **P** 17 12 28.8 +0.1
MTN **Manton Dam** 83.42 239 IAmb IAmb 17 12 30.0
comp=Z,11nm,0.8s
KOPT **Kop Dagi** 84.21 338 IAmb IAmb 17 12 36.3
comp=Z,13nm,1.0s
KELT **Kelkit** 84.36 339 P **P** 17 12 35.1 +1.5
comp=Z,93nm,1.1s
KEMA **Kemaliye** 85.37 339 P **P** 17 12 40.2 +1.6
comp=Z,21nm,1.1s
ARPR **Arapgir-MALATY** 85.57 340 P **P** 17 12 40.5 +0.9
comp=Z,17nm,1.1s
HAKT **HAKKARI** 85.78 335 P **P** 17 12 41.6 +0.8
comp=Z,23nm,0.9s
BR131 **Keskin Array S** 85.87 343 *de*P **P** 17 12 42.1 +1.0
BRTR **Keskin Array B** 85.87 343 P **P** 17 12 41.9 +0.8
comp=Z,9.0nm,0.8s,baz=47,slow=2.6,SNR=45
BRTR LR LR 17 56 60.0
comp=Z,47nm,19.4s,baz=24,slow=40
comp=Z,9.0nm,0.8s
BRTR **Keskin Array B** 85.87 343 P **P** 17 12 41.7 +0.6
KKUL **Konya-Kulu** 86.53 344 P **P** 17 12 46.1 +1.8
comp=Z,32nm,0.9s
ESDC **Sonseca Array** 86.85 12 P **P** 17 12 46.4 +0.6
comp=Z,5.5nm,0.8s,baz=344,slow=4.5,SNR=32
comp=Z,5.5nm,0.8s
ESDC **Sonseca Array** 86.85 12 P **P** 17 12 46.2 +0.4
SDV **Santo Domingo** 87.56 79 LR LR 17 52 24.4
comp=Z,69nm,20.6s,baz=306,slow=36
WRAB **Tennant Creek** 87.82 232 || *e*P **P** 17 12 50.2 -0.3
WRAB pmax pmax
comp=Z,14nm,1.0s
WRAB **Tennant Creek** 87.82 232 P **P** 17 12 50.0 -0.5
WRAB **Tennant Creek** 87.82 232 P **P** 17 12 49.9 -0.6
comp=Z,18nm,1.0s
WRAB **Tennant Creek** 87.82 232 P **P** 17 12 49.5 -1.0
WB2 **Warramunga Arr** 87.83 232 P **P** 17 12 49.5 -1.0
WRA **Warramunga Arr** 87.83 232 P **P** 17 12 50.0 -0.5
comp=Z,9.6nm,0.8s,baz=38,slow=5.8,SNR=64
comp=Z,9.6nm,0.8s
WRA **Warramunga Arr** 87.83 232 P **P** 17 12 49.7 -0.9
RUSC **La Rusia** 88.47 82 P **P** 17 12 54.8 +0.4
ROSC **El Rosal** 88.56 84 LR LR 17 52 18.3
comp=Z,53nm,22.0s,baz=231,slow=35
QLP **Quilpie** 89.25 221 P **P** 17 12 58.3 +1.3
comp=Z,27nm,1.5s
QLP **Quilpie** 89.25 221 P **P** 17 12 57.4 +0.3
comp=Z,28nm,1.5s
PSI **Prapat** 89.50 274 P **P** 17 12 58.6 -0.1
comp=Z,14nm,1.0s,baz=158,slow=13,SNR=4.3
PSI LR LR 17 51 12.8
comp=Z,57nm,21.9s,baz=24,slow=34
comp=Z,14nm,1.0s
RPSI **Rantau Prapat** 89.58 274 P **P** 17 12 59.4 +0.3
comp=Z,22nm,0.9s
FITZ **Fitzroy Crossi** 90.68 240 P **P** 17 13 04.2 +0.3
comp=Z,7.8nm,0.8s,baz=14,slow=6.4,SNR=7.4
comp=Z,7.8nm,0.8s
FITZ **Fitzroy Crossi** 90.68 240 IAmb IAmb 17 13 04.6
comp=Z,1.9nm,0.9s
AS31 **Alice Springs** 91.22 231 P **P** 17 13 06.5 +0.1
AS31 **PcP** 17 13 06.7 -0.7
AS31 IAmb IAmb 17 13 07.7
comp=Z,3.3nm,0.9s
ASAR **Alice Springs** 91.22 231 P **P** 17 13 06.3 -0.1
comp=Z,10nm,0.8s,baz=32,slow=4.7,SNR=64
ASAR LR LR 17 49 19.3
comp=Z,117nm,20.2s,baz=336,slow=32
comp=Z,10nm,0.8s
ASAR **Alice Springs** 91.22 231 P **P** 17 13 06.0 -0.4
ASAR **P** 17 13 06.2 -0.1
INKA **Innaminka** 91.71 224 P **P** 17 13 09.2 +0.7
INKA IAmb IAmb 17 13 10.2
comp=Z,6.1nm,1.0s
MMAI **Mount Meron Ar** 92.04 340 P **P** 17 13 11.5 +1.2
comp=Z,3.5nm,0.8s,baz=14,slow=24,SNR=3.9
MMAI LR LR 18 02 45.4
comp=Z,66nm,18.2s,baz=24,slow=41
comp=Z,3.5nm,0.8s
RPN **Rapa Nui** 94.68 130 LR LR 17 46 39.7
comp=Z,90nm,20.5s,baz=84,slow=30
STKA **Stephens Creek** 95.00 221 P **P** 17 13 23.5 0.0
comp=Z,1.9nm,0.8s,baz=67,slow=7.7,SNR=2.2
comp=Z,1.9nm,0.8s
PALK **Pallekele** 96.67 291 P **P** 17 13 31.6 -0.2
comp=Z,14nm,1.1s,baz=247,slow=3.5,SNR=2.6
PALK LR LR 18 00 19.9
comp=Z,77nm,21.4s,baz=25,slow=37
comp=Z,14nm,1.1s
PALK **Pallekele** 96.67 291 IAmb IAmb 17 13 36.0
comp=Z,55nm,1.4s
RAYN **Ar Rayn** 98.47 329 P **P** 17 13 39.4 -0.4
RAYN Pdif 17 13 39.6 -0.2
RAYN **Ar Rayn** 98.47 329 P Pdif 17 13 40.0 +0.2
comp=Z,10.0nm,1.0s
TORD **Torodi Ar. Bea** 113.71 11 PKiKP **PKiKP** 17 18 40.0 +0.2
comp=Z,0.4nm,0.8s,baz=356,slow=2.8,SNR=1.5
H03N2 **Juan Fernandez** 115.47 112 T T 19 24 58.0
baz=313,slow=76,SNR=62
H03N1 **Juan Fernandez** 115.48 112 T T 19 24 59.2
baz=309,slow=76,SNR=78
KMBO **Kilima Mbogo** 124.25 329 PKP **PKiKP** 17 19 01.0 +0.3
baz=18,slow=3.2
KMBO **Kilima Mbogo** 124.25 329 PKiKP **PKiKP** 17 19 01.0 +0.3
PLCA **Paso Flores** 125.35 113 PKP **PKPdf** 17 19 01.3 -0.1
comp=Z,7.2nm,0.8s,baz=236,slow=4.4,SNR=6.8
QSPA **South Pole Qui** 142.61 180 PKP **PKPdf** 17 19 30.8 -1.9
comp=Z,6.2nm,0.9s,baz=66,slow=1.4,SNR=14
TSUM **Tsumeb** 146.12 350 **PKPab** 17 19 42.0 -0.1
MAW **Mawson** 151.67 219 PKPbc **PKiKP** 17 19 54.4 0.0
comp=Z,16nm,0.8s,baz=294,slow=4.1,SNR=5.5
MAW PKPab **PKPab** 17 20 02.6 -0.4
comp=Z,17nm,0.9s,baz=356,slow=5.9,SNR=4.8
BOSA **Boshof** 153.81 332 PKPbc **PKPbc** 17 19 59.5 -0.7
comp=Z,1.5nm,0.5s,baz=324,slow=6.2,SNR=3.3

NEIC ***30*** *17:01:07.7±1.5,* ***18°.6S±0°.1×176°.9W±0°.1,h305km±11km,***
mb4.2/14, *Error ellipse: s-maj=20.4km s-min=13.3km*
az=198.0
IDC ***30*** *17:01:09.0±2.9,* ***18°.69S×177°.02W,h312km±35km,mb3.4/5,***
mbtmp4.2/6, Error ellipse: s-maj=37.1km s-min=23.4km
az=156.0

ISC 30 17:01:07.6±0.8, 18°.6S±0°.2×177°.0W±0°.2, h300km, n23,
σ1§10/24, mb4.1/13, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**6.84**	**47**	P	**Pn**	**17 02 49.7**	**+2.5**
	26nm,0.6s,baz=221,slow=5.4,SNR=6.4						
AFI				S	**S**	**17 04 05.6**	**-2.1**
	6.8nm,0.3s,baz=39,slow=22,SNR=1.4						
AFI	**Afiamalu**	**6.84**	**47**		**Pn**	**17 02 46.5**	**-0.7**
ARMA	**Armidale**	**30.79**	**242**	P	**P**	**17 06 57.3**	**+1.1**
ARMA				IAmb	IAmb	17 07 28.9	
	comp=Z,17nm,1.3s						
CAN	**Canberra**	**34.38**	**234**	P	**P**	**17 07 27.0**	**0.0**
CTAO	**Charters Tower**	**34.69**	**261**	P	**P**	**17 07 29.7**	**-0.2**
CTAO				IAmb	IAmb	17 07 30.2	
	comp=Z,16nm,1.4s						
STKA	**Stephens Creek**	**39.50**	**242**	P	**P**	**17 08 10.6**	**+0.7**
	comp=Z,3.9nm,0.6s,baz=90,slow=10,SNR=8.7						

comp=Z,3.9nm,0.6s
STKA Stephens Creek 39.50 242 P P 17 08 10.3 +0.4
BBOO Buckleboo 44.27 242 P P 17 08 47.8 -0.5
BBOO IAmb IAmb 17 09 26.4
comp=Z,31nm,1.4s
WR8 Warramunga Arr 45.71 260 P P 17 08 58.1 -1.6
WR8 IAmb IAmb 17 09 32.2
comp=Z,12nm,1.5s
WRA Warramunga Arr 45.86 260 P P 17 08 59.8 -1.1
comp=Z,0.8nm,0.5s,baz=97,slow=6.3,SNR=12
comp=Z,0.8nm,0.5s
WRA Warramunga Arr 45.86 260 P P 17 08 59.4 -1.5
AS31 Alice Springs 45.92 255 P P 17 09 00.9 -0.5
AS31 IAmb IAmb 17 09 01.8
comp=Z,3.6nm,0.4s
ASAR Alice Springs 45.92 255 P P 17 09 01.0 -0.4
comp=Z,7.7nm,0.5s,baz=91,slow=8.7,SNR=330
comp=Z,7.7nm,0.5s
ASAR Alice Springs 45.92 255 P P 17 09 00.2 -1.2
MTN Manton Dam 50.16 269 P P 17 09 34.1 +0.5
MTN IAmb IAmb 17 09 53.3
comp=Z,7.8nm,1.3s
FORT Forrest 50.95 245 P P 17 09 38.5 -0.8
FORT IAmb IAmb 17 10 14.2
comp=Z,18nm,1.1s
KNRA Kununurra 51.79 264 P P 17 09 45.0 -0.6
KNRA IAmb IAmb 17 10 20.5
comp=Z,11nm,1.3s
FITZ Fitzroy Crossi 54.27 261 P P 17 10 03.9 +0.3
MBWA Marble Bar 59.23 256 P P 17 10 37.4 -1.0
QSPA South Pole Qui 71.42 180 P P 17 11 55.2 -0.3
comp=Z,0.7nm,0.7s,baz=15,slow=0.6,SNR=5.4
comp=Z,0.7nm,0.7s
QSPA South Pole Qui 71.42 180 P P 17 11 55.4 -0.1
ILAR Eielson Array 86.29 12 P P 17 13 16.2 +0.9
comp=Z,0.5nm,0.9s,baz=208,slow=4.9,SNR=4.7
comp=Z,0.5nm,0.9s
CLL Collm 146.46 349 *e*(PKiKP) **PKiKP 17 20 17.0 +1.0**

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*SDD **30** 17:11:33.0±1.6, 18°.03N×71°.49W, h10km±5km, MD3.0, ML2.5, MW2.9, Presumed earthquake*
*OSPL **30** 17:11:34.9±0.9, 18°.20N×71°.44W, h8km±4km, ML2.5, Presumed earthquake*
ISC 30 17:11:34.1±1.1, 18°.14N±0°.04×71°.45W±0°.04, h9km±9km, n13, σ1§12/22, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.17**	**81**	*i* P		**Pg**	**17 11 37.6**	**-0.1**
PODR				*i* S		**Sg**	**17 11 41.7**	**+1.5**
PODR				IAML			17 11 45.9	
	comp=N,3μm,0.2s							
PODR	**Polo**	**0.17**	**81**	*i* P		**Pg**	**17 11 37.4**	**-0.3**
PODR				*e*S		**Sg**	**17 11 40.9**	**+0.7**
PODR				IAML			17 11 44.3	
	comp=Z,30μm,0.2s							
LODU1	**El Espartillar**	**0.21**	**355**	*i* P		**Pg**	**17 11 37.8**	**-0.7**
LODU1				*e*S		**Sg**	**17 11 40.4**	**-1.0**
LODU1				IAML			17 11 41.6	
	comp=Z,4μm,0.4s							
LOBH	**Bahia de las A**	**0.33**	**213**	*i* P		**Pb**	**17 11 42.1**	**-0.1**
LOBH				IAML			17 11 50.1	
	comp=Z,417nm,0.4s							
NEDR	**Neiba UASD**	**0.34**	**6**	*i* P		**Pg**	**17 11 41.2**	**+0.3**
NEDR				*i* S		**Sb**	**17 11 47.5**	**-0.5**
NEDR				IAML			17 11 48.0	
	comp=N,837nm,0.2s							
LOVI	**El Cajuil, Ovi**	**0.35**	**167**	*i* P		**Pb**	**17 11 42.1**	**-0.4**
LOVI				IAML			17 11 50.1	
	comp=Z,195nm,0.3s							
LONE3	**El Aguacate, B**	**0.46**	**359**	*i* P		**Pg**	**17 11 42.7**	**-0.5**
LONE3				IAML			17 11 52.1	
	comp=Z,414nm,0.4s							
JIDR	**Jimani**	**0.51**	**313**	*i* P		**Pg**	**17 11 43.3**	**-0.8**
JIDR				*i* S		**Sg**	**17 11 51.6**	**+0.8**
JIDR				IAML			17 11 58.5	
	comp=N,194nm,0.5s							
SDDR	**Presa de Saban**	**0.85**	**11**	*i* P		**Pg**	**17 11 48.9**	**-1.7**
SDDR				*i* S		**Sb**	**17 12 03.0**	**+0.3**
SDDR				IAML			17 12 11.6	
	comp=N,53nm,0.5s							
SDDR	**Presa de Saban**	**0.85**	**11**	*i* P		**Pg**	**17 11 48.9**	**-1.7**
SDDR				IAML			17 12 05.6	
	comp=Z,17nm,1.4s							
REDR	**Restauracion**	**1.02**	**3**	*i* P		**Pb**	**17 11 54.3**	**+0.3**
REDR				*i* S		**Sn**	**17 12 11.8**	**+2.7**
REDR				IAML			17 12 14.2	
	comp=N,79nm,0.2s							
ABDR	**Alto Bandera**	**1.03**	**49**	*i* P		**Pg**	**17 11 53.1**	**-0.9**
ABDR				*i* S		**Sg**	**17 12 06.4**	**-1.0**
ABDR				IAML			17 12 13.6	
	comp=N,101nm,0.5s							
BANI	**BANI**	**1.07**	**76**	*i* P		**Pg**	**17 11 53.5**	**-1.2**
BANI				*i* S		**Sg**	**17 12 07.9**	**-0.7**
BANI				IAML			17 12 14.4	
	comp=N,102nm,0.2s							

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*IDC **30** 17:12:16.6±2.9, 5°.99S×146°.31E, h139km±35km, mb3.2/5, mbtmp3.7/8, Error ellipse: s-maj=32.0km s-min=25.6km az=121.0*
ISC 30 17:12:13.8±1.1, 5°.8S±0°.1×146°.2E±0°.2, h100km, n8, σ1§57/9, mb3.5/5, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.69**	**166**	P		**Pn**	**17 13 10.3**	**+1.4**
	23nm,0.3s,baz=290,slow=13,SNR=65							
PMG				S		**Sn**	**17 13 51.8**	**+0.3**
	64nm,0.4s,baz=141,slow=20,SNR=23							
SIJI	**Sorong**	**15.72**	**288**	P		**Pn**	**17 15 51.8**	**+2.0**
	4.4nm,0.4s,baz=104,slow=8.3,SNR=8.9							
WRA	**Warramunga Arr**	**18.20**	**218**	P		**P**	**17 16 17.1**	**-1.9**
	0.7nm,0.7s,baz=39,slow=11,SNR=3.7							
ASAR	**Alice Springs**	**21.36**	**213**	P		**P**	**17 16 51.8**	**-1.4**
	0.5nm,0.7s,baz=48,slow=8.3,SNR=6.0							
	0.5nm,0.7s							
FITZ	**Fitzroy Crossi**	**23.53**	**237**	P		**P**	**17 17 14.0**	**-1.1**
	1.7nm,0.8s,baz=41,slow=12,SNR=2.0							
	1.7nm,0.8s							
KSRS	**Korea Array**	**46.30**	**340**	P		**P**	**17 20 29.7**	**+0.2**
	1.4nm,0.7s,baz=152,slow=8.8,SNR=4.0							
	1.4nm,0.7s							
CMAR	**Chiang Mai Arr**	**52.49**	**298**	P		**P**	**17 21 17.5**	**+0.5**
	0.7nm,0.5s,baz=109,slow=7.4,SNR=2.2							
	0.7nm,0.5s							
ILAR	**Eielson Array**	**85.60**	**23**	P		**P**	**17 24 39.6**	**-1.2**
	0.4nm,0.7s,baz=246,slow=5.0,SNR=5.7							
	0.4nm,0.7s							

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*MOS **30** 17:14:10.7±0.9, 3°.16N×96°.22E, h29km, mb5.1/39, Error ellipse: s-maj=9.1km s-min=5.0km az=116.4*
*BJI **30** 17:14:11.4, 3°.06N×96°.09E, h45km, mB5.2/13, mb4.8/64, Ms4.5/40, Ms7 4.3/40*
*NEIC **30** 17:14:12.0±1.5, 3°.07N±0°.06×96°.14E±0°.08, h28km±4km, mb5.0/71, Error ellipse: s-maj=11.2km s-min=7.8km az=71.0*
*DJA **30** 17:14:12.9±0.5, 3°N±2°×9°6E±°, h31km±8km, M4.9/32, mB5.4/16, mb5.1/17, mb5.1/17, mB5.4/16, ML5.0/31, MLv5.0/32, MLv5.0/32, Mw(mB)4.8/16, Mw(mB)4.8/16*
*GFZ **30** 17:14:13.6±0.1, 3°N±2°×9°6E±°, h39km, M4.7/61, mb4.9/61*
*IDC **30** 17:14:14.9±2.9, 3°.10N×96°.24E, h52km±25km, mb4.4/35, mbtmp4.6/38, ML4.3/3, MS4.1/41, Error ellipse: s-maj=14.7km s-min=9.5km az=52.0*
ISC 30 17:14:12.6±0.4, 3°.06N±0°.03×96°.20E±0°.04, h34km±1km, h35km:pP-P, n494, σ1§29/472, mb4.9/170, MS4.2/55, 42C-25D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase	ID	ISC	Time h m s	Res ISC
SNSI	**Sinabang, Aceh**	**0.66**	**169**	P		**Pb**	**17 14 26.0**	**+0.2**
SNSI				AML		AML		
SNSI				AML		AML		
SNSI				AML		AML		
SNSI	**Sinabang, Aceh**	**0.66**	**169**	P		**Pb**	**17 14 25.8**	**0.0**
TPTI		**1.00**	**78**	P		**Pn**	**17 14 31.0**	**+0.7**
TPTI				S		**Sb**	**17 14 45.6**	**+1.2**
TPTI				AML		AML		
TPTI		**1.00**	**78**	P		**Pn**	**17 14 30.9**	**+0.7**
MLSI	**Meulaboh, Aceh**	**1.22**	**10**	P		**Pb**	**17 14 35.2**	**0.0**
MLSI				S		**Sb**	**17 14 53.9**	**+3.3**
MLSI	**Meulaboh, Aceh**	**1.22**	**10**	P		**Pb**	**17 14 35.3**	**+0.2**
KCSI	**Kotacane, Aceh**	**1.64**	**74**	P		**Pb**	**17 14 41.4**	**-0.8**
KCSI				AML		AML		
KCSI				AML		AML		
KCSI				AML		AML		
KCSI	**Kotacane, Aceh**	**1.64**	**74**	P		**Pb**	**17 14 41.4**	**-0.8**
GSI	**Gunungsitoli**	**2.22**	**142**			**Pn**	**17 14 47.3**	**+0.2**
GSI	**Gunungsitoli**	**2.22**	**142**	P		**Pn**	**17 14 47.8**	**+0.8**
GSI				S		**Sn**	**17 15 14.4**	**+1.1**
GSI	**Gunungsitoli**	**2.22**	**142**	P		**Pn**	**17 14 48.2**	**+1.2**
LHMI	**Lhok Sumawe**	**2.28**	**19**			**Pn**	**17 14 49.4**	**+1.5**
LHMI	**Lhok Sumawe**	**2.28**	**19**	P		**Pn**	**17 14 50.5**	**+2.6**
LHMI				AML		AML		
LHMI				AML		AML		
LHMI				AML		AML		
LHMI	**Lhok Sumawe**	**2.28**	**19**	P		**Pb**	**17 14 51.0**	**-2.2**
TSI	**Tuntungan**	**2.40**	**79**	P		**Pb**	**17 14 52.6**	**-2.6**
TSI				AML		AML		
TSI				AML		AML		
TSI				AML		AML		
TSI	**Tuntungan**	**2.40**	**79**	P		**Pb**	**17 14 52.9**	**-2.3**
BSI	**Banda Aceh**	**2.58**	**340**	P		**Pn**	**17 14 52.6**	**+0.5**
BSI				AML		AML		
BSI				AML		AML		
BSI				AML		AML		
PSI	**Prapat**	**2.73**	**95**	P		**Pn**	**17 14 57.2**	**+3.0**
	11nm,0.3s,baz=281,slow=9.5,SNR=54							
PSI				LR		LR	17 16 23.8	
	comp=Z,4μm,19.9s,baz=270,slow=48							
	32nm,0.2s							
PSI				AML		AML		
PSI	**Prapat**	**2.73**	**95**	P		**Pn**	**17 14 56.1**	**+1.9**
PSI	**Prapat**	**2.73**	**95**	P		**Pn**	**17 14 56.3**	**+2.1**
PSI				P		**Pb**	**17 14 57.0**	**-3.9**
RPSI	**Rantau Prapat**	**2.75**	**97**			**Pn**	**17 14 56.1**	**+1.8**
RPSI	**Rantau Prapat**	**2.75**	**97**			**Pn**	**17 14 57.2**	**+3.0**
RPSI	**Rantau Prapat**	**2.75**	**97**	P		**Pn**	**17 14 57.2**	**+3.0**
RPSI	**Rantau Prapat**	**2.75**	**97**	P		**Pn**	**17 14 56.6**	**+2.3**
TRSI	**Tarutung**	**2.94**	**110**	P		**Pn**	**17 14 59.5**	**+2.4**
PBSI	**Pulau Batu**	**3.73**	**146**	P		**Pn**	**17 15 08.9**	**+1.2**
PBSI				S		**Sn**	**17 15 48.2**	**-2.3**
PBSI				AML		AML		
PBSI				AML		AML		
PBSI				AML		AML		
PBSI	**Pulau Batu**	**3.73**	**146**	P		**Pn**	**17 15 09.0**	**+1.2**
KULM	**Kulim**	**4.96**	**63**			**Pn**	**17 15 26.0**	**+1.2**
KULM	**Kulim**	**4.96**	**63**	P		**Pn**	**17 15 26.2**	**+1.4**
KULM				AML		AML		
KULM				AML		AML		
KULM				AML		AML		
KULM	**Kulim**	**4.96**	**63**	P		**Pn**	**17 15 27.5**	**+2.7**
	comp=Z,111nm,0.9s							
IPM	**Ipoh**	**5.02**	**74**			**Pn**	**17 15 26.9**	**+1.3**
IPM	**Ipoh**	**5.02**	**74**	P		**Pn**	**17 15 28.5**	**+2.9**
	comp=Z,0.9nmcomp=Z,1.3nmcomp=Z,1.3nmcomp=Z,2μm							
	comp=Z,2μmcomp=Z,99nm,0.6s,comp=Z,99nm,0.6s							
IPM				AML		AML		
IPM				AML		AML		
IPM				AML		AML		
IPM	**Ipoh**	**5.02**	**74**	P		**Pn**	**17 15 28.2**	**+2.6**
	comp=Z,99nm,0.6s							
SISI	**Saibi**	**5.23**	**146**	P		**Pn**	**17 15 29.2**	**+0.8**
SISI				S		**Sn**	**17 16 25.4**	**-2.1**
SISI				AML		AML		
SISI				AML		AML		
SISI				AML		AML		
SISI	**Saibi**	**5.23**	**146**	P		**Pn**	**17 15 28.7**	**+0.3**
	comp=Z,54nm,1.2s							
PPI	**Padang Panjang**	**5.46**	**130**	P		**Pn**	**17 15 34.3**	**+2.7**
BKNI	**Bangkinang**	**5.55**	**119**	P		**Pn**	**17 15 35.2**	**+2.4**
	comp=Z,1.6nmcomp=Z,1.5nmcomp=Z,1.5nmcomp=Z,2μm							
	comp=Z,2μmcomp=Z,151nm,0.7s,comp=Z,151nm,0.7s							
BKNI				AML		AML		
BKNI				AML		AML		
BKNI				AML		AML		
BKNI	**Bangkinang**	**5.55**	**119**	P		**Pn**	**17 15 33.8**	**+1.0**
	comp=Z,150nm,1.0s							
SDSI	**Sungai Dareh**	**6.56**	**127**	P		**Pn**	**17 15 48.4**	**+1.7**
SDSI				AML		AML		
SDSI				AML		AML		
SDSI				AML		AML		
SDSI	**Sungai Dareh**	**6.56**	**127**	P		**Pn**	**17 15 47.7**	**+1.0**
	comp=Z,20nm,0.6s							
KRJI	**Kerinci**	**7.34**	**134**	P		**Pn**	**17 16 00.0**	**+2.5**
	comp=Z,4μmcomp=Z,4μmcomp=Z,252nm,0.7s,comp=Z,252nm,0.7s							
KRJI	**Kerinci**	**7.34**	**134**	P		**Pn**	**17 15 59.6**	**+2.1**
	comp=Z,240nm,0.8s							
MASI	**Maura Aman, Be**	**8.62**	**136**	P		**Pn**	**17 16 17.1**	**+2.0**
	comp=Z,120nm,0.8s,comp=Z,120nm,0.8s							
UBSI	**University, Be**	**9.10**	**138**	P		**Pn**	**17 16 22.1**	**+0.5**
KSI	**Kapahiang**	**9.23**	**136**	P		**Pn**	**17 16 24.0**	**+0.5**
MNAI	**Manna**	**9.99**	**137**	Pn		**Pn**	**17 16 33.9**	**0.0**
MNAI	**Manna**	**9.99**	**137**	P		**Pn**	**17 16 33.9**	**0.0**
	comp=Z,225nm,1.0s,comp=Z,225nm,1.0s							
MDSI	**Maura Dua**	**10.94**	**133**	P		**Pn**	**17 16 46.9**	**0.0**
	comp=Z,711nmcomp=Z,711nmcomp=Z,67nm,0.8s							
MDSI	**Maura Dua**	**10.94**	**133**	P		**Pn**	**17 16 47.3**	**+0.4**
	comp=Z,64nm,0.9s							
KASI	**Kota Agung**	**11.89**	**136**	P		**Pn**	**17 16 58.5**	**-1.3**
	comp=Z,24nm,0.8s							
CGJI	**Cibinong**	**13.50**	**135**	P		**Pn**	**17 17 17.2**	**-4.6**
CM31	**Chiang Mai Arr**	**15.54**	**10**	P		**P**	**17 17 52.3**	**-1.0**
CMAR	**Chiang Mai Arr**	**15.54**	**10**	P		**Pn**	**17 17 50.4**	**+1.0**
	comp=Z,1.0nm,0.3s,baz=196,slow=11,SNR=54							
CMAR				LR		LR	17 24 38.7	
	comp=Z,1μm,18.2s,baz=195,slow=40							
	comp=Z,12nm,0.8s							
CMAR				AML		AML		
CMAR	**Chiang Mai Arr**	**15.54**	**10**	P		**Pn**	**17 17 49.2**	**-0.1**
CMAR	**Chiang Mai Arr**	**15.54**	**10**			**Pn**	**17 17 49.2**	**-0.1**
STKI	**Sintang**	**15.56**	**101**	P		**Pn**	**17 17 51.3**	**+1.7**
	comp=Z,22nm,1.0s							
CHTO	**Chiang Mai**	**15.89**	**10**	P		**Pn**	**17 17 53.2**	**-0.6**
CHTO				pmax		pmax		
	comp=Z,40nm,1.5s							
CHTO	**Chiang Mai**	**15.89**	**10**			**Pn**	**17 17 53.2**	**-0.6**
CHTO	**Chiang Mai**	**15.89**	**10**	P		**Pn**	**17 17 53.9**	**+0.1**
	comp=Z,20nm,1.5s							
PALK	**Pallekele**	**15.99**	**286**	P		**P**	**17 17 57.6**	**-0.8**
	comp=Z,2.0nm,0.3s,baz=98,slow=11,SNR=17							
PALK				S		Sn	17 20 36.6	-15
	comp=Z,16nm,0.6s,baz=203,slow=14,SNR=8.9							
PALK				LR		LR	17 23 41.4	
	comp=Z,654nm,19.5s,baz=109,slow=35							
	comp=Z,55nm,0.9s							
PALK				AML		AML		
PALK	**Pallekele**	**15.99**	**286**	P		**Pn**	**17 17 54.6**	**-0.6**
PALK				pmax		pmax		
	comp=Z,75nm,1.0s							
PALK	**Pallekele**	**15.99**	**286**			**Pn**	**17 17 54.6**	**-0.6**
PALK				IAmb		IAmb	17 18 01.7	
	comp=Z,75nm,0.9s							
PALK	**Pallekele**	**15.99**	**286**	P		**P**	**17 17 56.9**	**-1.4**
	comp=Z,86nm,1.2s							
KPJI	**Karang Pucung**	**16.37**	**129**	P		**Pn**	**17 18 01.2**	**+1.2**
	comp=Z,9.1nm,1.2s							
NPW	**Naypyitaw**	**16.62**	**360**	P		**Pn**	**17 18 02.5**	**-0.6**
	comp=Z,50nm,1.0s							
SLVN	**Son La**	**19.65**	**22**			**P**	**17 18 38.6**	**-0.2**
SLVN	**Son La**	**19.65**	**22**	P		**P**	**17 18 39.4**	**+0.6**
	comp=Z,32nm,0.9s							
BRDH	**Bariadhala**	**20.00**	**348**	LR		LR	17 27 46.2	
	comp=Z,579nm,21.6s,baz=175,slow=41							
KKM	**Kota Kinabalu**	**20.17**	**81**	P		**P**	**17 18 44.3**	**-0.2**
KKM	**Kota Kinabalu**	**20.17**	**81**	P		**P**	**17 18 45.2**	**+0.6**
	comp=Z,36nm,1.0s							
QIZ	**Qiongzhong**	**20.74**	**39**	P		**P**	**17 18 51.5**	**+1.0**
QIZ				S		**S**	**17 22 43.5**	**+3.1**
QIZ				L		L		
	comp=Z,580nm,15.1s							
QIZ				L		L		
	comp=Z,830nm,15.9s							
QIZ				L		L		
	comp=Z,910nm,18.2s							
BKB	**Balikpapan**	**21.13**	**101**	P		**P**	**17 18 53.4**	**-1.4**
	comp=Z,64nm,1.3s							
MORE	**Moreh**	**21.14**	**355**			**P**	**17 18 50.7**	**-4.0**
MORE				IAmb		IAmb	17 18 53.5	
	comp=Z,59nm,0.9s							
TNCH	**TengChong**	**21.96**	**6**	P		**P**	**17 19 05.3**	**+1.5**
TNCH				pP		pP	17 19 14.3	+1.8
TNCH				sP		sP	17 19 20.8	+3.7
TNCH				PP		**PnPn**	**17 19 33.3**	**+7.2**
TNCH				S		**S**	**17 22 59.3**	**-5.3**
TNCH				pmax		pmax		
	comp=Z,29nm,0.9s							
TNCH				pmax		pmax		
	comp=Z,220nm,4.6s							
TNCH				L		L		
	comp=Z,630nm,15.4s							
SRBI	**Singaraja**	**21.96**	**120**	P		**P**	**17 19 05.0**	**+1.4**
	comp=Z,50nm,1.0s							
HYB	**Hyderabad**	**22.44**	**311**	*e*P		**P**	**17 19 06.8**	**-2.1**
HYB				IVmB_BB			17 19 11.5	
	comp=Z,272nm,1.4s							
HYB				*e*S		**S**	**17 23 13.9**	**+0.5**
HYB				IVMs_BB		IVMs_BB	17 23 28.4	
	comp=Z,249nm,4.5s							
SHL	**Shillong**	**22.76**	**350**	P		**P**	**17 19 09.2**	**-3.1**
SHL	**Shillong**	**22.76**	**350**			**P**	**17 19 09.2**	**-3.1**
KMI2	**Kunming**	**22.85**	**15**	P		**P**	**17 19 13.3**	**0.0**
KMI2				sP		sP	17 19 26.3	-0.3
KMI2				pmax		pmax		
	comp=Z,35nm,1.2s							
KMI2				L		L		
	comp=Z,1μm,15.8s							
KMI2				L		L		
	comp=Z,190nm,17.5s							
KMI2				L		L		
	comp=Z,1μm,16.9s							
KAAM	**Kaadhehdhoo**	**23.33**	**264**	P		**P**	**17 19 17.6**	**-0.5**
	comp=Z,60nm,1.1s							
MMSI	**Mamuju**	**23.41**	**104**	P		**P**	**17 19 18.2**	**-0.7**
	comp=Z,493nm,1.1s							
TOLI2	**Tolitoli**	**24.64**	**94**	P		**P**	**17 19 29.5**	**-0.9**
TOLI2				IAmb		IAmb	17 19 42.5	
	comp=Z,44nm,1.1s							
TOLI2	**Tolitoli**	**24.64**	**94**	P		**P**	**17 19 31.0**	**+0.7**
	comp=Z,39nm,1.2s							
KAPI	**Kappang**	**24.86**	**109**	P		**P**	**17 19 32.1**	**-0.2**
	comp=Z,9.7nm,0.8s,baz=49,slow=13,SNR=2.0							
KAPI				LR		LR	17 30 28.0	
	comp=Z,552nm,18.9s,baz=278,slow=39							
	comp=Z,9.7nm,0.8s							
KAPI	**Kappang**	**24.86**	**109**	P		**P**	**17 19 32.1**	**-0.2**
KAPI				pmax		pmax		
	comp=Z,35nm,1.2s							
KAPI	**Kappang**	**24.86**	**109**	IAmb		IAmb	17 20 03.9	
	comp=Z,35nm,1.1s							
DBNI	**Kabupaten Domp**	**24.86**	**118**	P		**P**	**17 19 32.0**	**-0.3**
	comp=Z,6.9nm,1.2s							
BKSI	**Bulukumba**	**25.31**	**109**	P		**P**	**17 19 37.6**	**+1.2**
	comp=Z,45nm,1.0s							
GYA	**Guiyang**	**25.34**	**22**	⇑P		**P**	**17 19 37.0**	**+0.3**
GYA				pmax		pmax		
	comp=Z,37nm,1.0s							
H08S2	**Diego Garcia H**	**25.93**	**246**	T		T	17 45 55.4	
	baz=66,slow=76,SNR=1241							
H08S3	**Diego Garcia H**	**25.93**	**246**	T		T	17 46 01.0	
	baz=66,slow=76,SNR=1436							
H08S1	**Diego Carcia H**	**25.95**	**246**	T		T	17 45 56.7	
	baz=66,slow=76,SNR=414							
EVN	**Everest**	**26.33**	**341**			**P**	**17 19 44.6**	**-1.6**
EVN	**Everest**	**26.33**	**341**	P		**P**	**17 19 46.0**	**-0.2**
LSA	**Lhasa**	**26.93**	**350**	P		**P**	**17 19 48.0**	**-3.4**
LSA				pmax		pmax		
	comp=Z,31nm,0.9s							
CD2	**Chengdu**	**28.61**	**14**	P		**P**	**17 20 04.3**	**-1.6**
CD2				pmax		pmax		
	comp=Z,20nm,1.0s							
CD2				L		L		
	comp=Z,1μm,15.2s							
CD2				L		L		
	comp=Z,660nm,11.4s							
CD2				L		L		
	comp=Z,910nm,15.2s							
DAV	**Davao City (W)**	**29.53**	**81**	LR		LR	17 35 42.1	
	comp=Z,143nm,18.6s,baz=277,slow=44							
ENH	**Enshi**	**29.85**	**24**	P		**P**	**17 20 16.0**	**-0.9**
	comp=Z,15nm,0.9s							
BATI	**Baumata**	**30.36**	**116**	P		**P**	**17 20 20.8**	**-0.8**
	comp=Z,13nm,0.5s,baz=184,slow=9.5,SNR=4.6							
	comp=Z,13nm,0.5s							
BATI	**Baumata**	**30.36**	**116**	P		**P**	**17 20 22.5**	**+0.9**
	comp=Z,23nm,1.4s							
WHN	**Wuhan**	**32.28**	**30**	P		**P**	**17 20 38.8**	**+0.5**
XAN	**Xi'an**	**33.03**	**20**	P		**P**	**17 20 44.0**	**-0.9**
XAN				pmax		pmax		
	comp=Z,17nm,0.9s							
LZDM	**Lanzhou Array**	**33.46**	**11**	P		**P**	**17 20 48.1**	**-0.9**
	comp=Z,3.7nm,0.4s,baz=210,slow=10.0,SNR=4.7							
	comp=Z,3.7nm,0.4s							
LZH	**Lanzhou**	**33.62**	**11**	*e*P		P	17 20 55.0	+4.9
LZH				sP		sP	17 21 11.0	+7.0
LZH				pmax		pmax		
	comp=Z,24nm,0.9s							
LZH				L		L		
	comp=Z,410nm,17.4s							
LZH				L		L		
	comp=Z,480nm,19.4s							
LZH				L		L		
	comp=Z,580nm,19.9s							
LYN	**LuoYang**	**34.80**	**24**	P		**P**	**17 21 00.5**	**+0.3**
LYN				pmax		pmax		
	comp=Z,34nm,0.9s							
LYN				L		L		
	comp=Z,840nm,11.8s							
LYN				L		L		
	comp=Z,730nm,14.2s							
LYN				L		L		
	comp=Z,770nm,14.7s							
SIJI	**Sorong**	**35.27**	**96**	P		**P**	**17 21 04.7**	**+0.1**
	comp=Z,3.6nm,0.6s,baz=247,slow=13,SNR=2.1							
	comp=Z,3.6nm,0.6s							
FITZ	**Fitzroy Crossi**	**35.83**	**127**	P		**P**	**17 21 09.2**	**0.0**
	comp=Z,2.1nm,0.7s,baz=295,slow=17,SNR=2.6							
FITZ				PcP		**PcP**	**17 23 36.9**	**+0.4**
	comp=Z,1.8nm,0.8s,baz=274,slow=4.0,SNR=1.5							
	comp=Z,2.1nm,0.7s							
FITZ	**Fitzroy Crossi**	**35.83**	**127**	IAmb		IAmb	17 21 18.7	
	comp=Z,7.5nm,1.8s							
FITZ	**Fitzroy Crossi**	**35.83**	**127**	P		**P**	**17 21 10.4**	**+1.2**
	comp=Z,2.5nm,1.8s							
NJ2	**Nanjing**	**35.85**	**34**	*e*P		**P**	**17 21 11.5**	**+2.2**
NJ2				pmax		pmax		
	comp=Z,9.0nm,0.6s							
GTA2	**Gaotai**	**36.41**	**5**	*e*P		**P**	**17 21 13.3**	**-0.8**
GTA2				pmax		pmax		
	comp=Z,10.0nm,0.9s							
GTA2				L		L		
	comp=Z,210nm,19.0s							
GTA2				L		L		
	comp=Z,270nm,19.0s							
GTA2				L		L		
	comp=Z,650nm,19.7s							
NIL	**Nilore**	**37.22**	**327**	P		**P**	**17 21 18.4**	**-2.6**
NIL				pmax		pmax		

BTO2 pmax pmax
comp=Z,170nm,4.8s
BTO2 L L
comp=Z,1μm,17.9s
BTO2 L L
comp=Z,980nm,16.2s
BTO2 L L
comp=Z,1μm,20.3s
HHC Hu-ho-hao-te 40.09 18⇓ *i*P **P 17 21 46.3 +1.2**
HHC sP sP 17 21 59.3 +0.5
HHC S **S 17 27 53.8 +4.5**
HHC pmax pmax
comp=Z,19nm,0.9s
HHC L L
comp=Z,260nm,18.5s
HHC L L
comp=Z,260nm,17.7s
HHC L L
comp=Z,320nm,19.3s
KSH2 Kashi 40.53 335 P **P 17 21 49.0 +0.2**
KSH2 pmax pmax
comp=Z,16nm,0.7s
WUS Wushi 40.93 340 IAmb IAmb 17 21 53.3
comp=Z,23nm,0.8s
WUS Wushi 40.93 340 P **P 17 21 52.3 +0.2**
comp=Z,31nm,0.8s
NWAO Narrogin (SRO) 40.96 153 LR LR 17 37 15.6
comp=Z,260nm,20.4s,baz=3.0,slow=34
BJT Baijiatuau 41.00 24 IAmb IAmb 17 22 08.6
comp=Z,33nm,1.2s
BJT Baijiatuau 41.00 24 P **P 17 21 53.9 +1.4**
comp=Z,19nm,1.2s
BJI2 Beijing 41.00 24 P **P 17 21 53.3 +0.8**
BJI2 pP **pP 17 22 03.3 +1.2**
BJI2 sP **sP 17 22 07.5 +1.3**
BJI2 PP **PnPn 17 23 32.3 +0.4**
BJI2 S **S 17 28 05.0 +2.4**
BJI2 pmax pmax
comp=Z,15nm,1.2s
BJI2 L L
comp=Z,190nm,16.5s
BJI2 L L
comp=Z,190nm,19.4s
BJI2 L L
comp=Z,170nm,21.4s
WMQ Urumqi 41.29 351 *e*P **P 17 21 55.0 +0.1**
WMQ pmax pmax
comp=Z,16nm,1.1s
WMQ L L
comp=Z,310nm,24.2s
WMQ L L
comp=Z,370nm,21.9s
WMQ L L
comp=Z,200nm,24.0s
H01W3 Cape Leeuwin H 41.33 157 T T 18 05 15.8
baz=333,slow=76,SNR=120
H01W2 Cape Leeuwin H 41.34 157 T T 18 05 15.7
baz=333,slow=76,SNR=105
H01W1 Cape Leeuwin H 41.35 157 T T 18 05 16.9
baz=333,slow=76,SNR=105
ASAI AK-SAY(Kyrgyzs 41.66 337 P **P 17 21 58.0 -0.3**
comp=Z,6.9nm,0.7s
TARG Taragay, Kyrgy 41.89 339 IAmb IAmb 17 22 02.6
comp=Z,22nm,0.8s
TARG Taragay, Kyrgy 41.89 339 P **P 17 22 01.2 +1.0**
comp=Z,33nm,0.9s
NRN Naryn 42.30 337 IAmb IAmb 17 22 05.0
comp=Z,21nm,0.9s
KDJ Kajisay 42.47 339 IAmb IAmb 17 22 06.6
comp=Z,47nm,0.9s
KDJ Kajisay 42.47 339 P **P 17 22 05.2 +0.5**
comp=Z,57nm,0.9s
DRK Karamyk 42.49 332 P **P 17 22 06.4 +1.4**
comp=Z,130nm,0.6s
DL2 Dalian 42.54 30 P **P 17 22 05.3 +0.2**
DL2 S **S 17 28 23.0 -2.4**
DL2 pmax pmax
comp=Z,50nm,1.1s
DL2 pmax pmax
comp=Z,180nm,4.4s
DL2 L L
comp=Z,290nm,17.5s
DL2 L L
comp=Z,390nm,18.5s
DL2 L L
comp=Z,420nm,10.8s
SHLS Shalkode 42.62 342 *e*P **P 17 22 05.2 -0.6**
SHLS pmax pmax
comp=Z,9.0nm,0.7s
SHLS Shalkode 42.62 342 *e*P **P 17 22 05.2 -0.6**
comp=Z,8.6nm,0.7s
UZB Uzynbulak 42.75 341 *e*P **P 17 22 07.3 +0.4**
UZB pmax pmax
comp=Z,6.0nm,0.5s
UZB Uzynbulak 42.75 341 *e*P **P 17 22 07.3 +0.4**
comp=Z,6.3nm,0.5s
SATY Saty 42.87 341 *e*P **P 17 22 08.3 +0.5**
SATY pmax pmax
comp=Z,12nm,0.7s
SATY Saty 42.87 341 *e*P **P 17 22 08.3 +0.5**
comp=Z,12nm,0.7s
OHH Osh 42.88 334 P **P 17 22 07.6 -0.3**
comp=Z,31nm,1.0s
KPKS Kokpek 43.14 341 *e*P **P 17 22 10.2 +0.2**
KPKS Kokpek 43.14 341 *e*P **P 17 22 10.2 +0.2**
TNSS Tian-Shan 43.34 339 *e*P **P 17 22 12.1 +0.1**
TNSS Tian-Shan 43.34 339 *e*P **P 17 22 12.2 +0.1**
BTK Batken 43.41 331 IAmb IAmb 17 22 17.0
comp=Z,18nm,0.8s
BTK Batken 43.41 331 P **P 17 22 13.7 +1.4**
comp=Z,26nm,1.6s
MDOK Medeo 43.42 340 *e*P **P 17 22 12.7 +0.4**
MDOK Medeo 43.42 340 *e*P **P 17 22 12.8 +0.4**
AAA Alma-Ata 43.51 339 *e*P **P 17 22 13.3 +0.4**
AAA pmax pmax
comp=Z,19nm,0.7s
AAA Alma-Ata 43.51 339 *e*P **P 17 22 13.3 +0.4**
comp=Z,19nm,0.7s
UCH Uchtor 43.56 337 P **P 17 22 14.7 +0.8**
SNR=21
TKM2 Tokmak 2 43.73 338 P **P 17 22 15.9 +1.0**
SNR=11
KBK Karagaybulak 43.75 337 P **P 17 22 16.9 +1.8**
SNR=16
WB0 Warramunga Arr 43.84 123 **P 17 22 15.4 -0.4**
WB0 IAmb IAmb 17 22 32.5
comp=Z,54nm,2.0s
WRA Warramunga Arr 43.87 123 P **P 17 22 16.4 +0.2**
comp=Z,4.7nm,0.9s,baz=298,slow=9.4,SNR=24
WRA PcP **PcP 17 24 01.9 -0.2**
comp=Z,0.8nm,0.5s,baz=301,slow=3.4,SNR=1.8
comp=Z,4.7nm,0.9s
WRA Warramunga Arr 43.87 123 P **P 17 22 14.9 -1.3**
TJN Taejon 43.87 37 P **P 17 22 15.3 -0.6**
comp=Z,77nm,0.9s
WRAB Tennant Creek 43.88 123 *de*P **P 17 22 16.3 +0.2**
WRAB pmax pmax
comp=Z,25nm,2.5s
WRAB Tennant Creek 43.88 123 P **P 17 22 15.8 -0.4**
WRAB IAmb IAmb 17 22 33.1
comp=Z,30nm,1.5s
WRAB Tennant Creek 43.88 123 P **P 17 22 16.4 +0.2**
comp=Z,15nm,0.9s
AAK Ala-Archa 43.91 337 P **P 17 22 18.7 +2.4**
SNR=6.1
AAK Ala-Archa 43.91 337 *ce*P **P 17 22 17.0 +0.7**
AAK pmax pmax
comp=Z,49nm,2.5s
AAK Ala-Archa 43.91 337 **P 17 22 15.9 -0.4**
AAK Ala-Archa 43.91 337 P **P 17 22 17.1 +0.7**
comp=Z,22nm,0.9s
JNU Nakatsue 44.12 43 LR LR 17 43 27.4
comp=Z,170nm,18.3s,baz=226,slow=40
CHMS Chumysh 44.12 337 P **P 17 22 18.8 +1.0**
SNR=5.1
EKS2 Erkin-Say 44.22 336 P **P 17 22 20.0 +1.3**
SNR=13
XLT XiLinHaoTe 44.32 21 *e*P **P 17 22 19.5 0.0**
XLT pmax pmax
comp=Z,9.0nm,1.7s
XLT pmax pmax
comp=Z,94nm,3.9s
XLT L L
comp=Z,69nm,20.0s
XLT L L
comp=Z,310nm,19.8s
XLT L L
comp=Z,930nm,18.2s
USP Ospenovka 44.44 337 P **P 17 22 20.8 +0.4**
SNR=30
KSRS Korea Array 44.92 36 P **P 17 22 23.1 -1.2**
comp=Z,3.3nm,0.9s,baz=228,slow=9.6,SNR=9.2
KSRS LR LR 17 43 27.5
comp=Z,304nm,18.4s,baz=225,slow=39
comp=Z,3.3nm,0.9s
MK31 Makanchi Array 45.21 347 *d*P **P 17 22 26.4 -0.1**
MKAR Makanchi Array 45.21 347 P **P 17 22 26.0 -0.4**
comp=Z,35nm,0.8s,baz=164,slow=7.8,SNR=207
comp=Z,35nm,0.8s
MKAR Makanchi Array 45.21 347 **P 17 22 25.5 -1.0**
ZSN Zaisan 45.30 349 *e*P **P 17 22 27.4 +0.3**
ZSN pmax pmax
comp=Z,10.0nm,0.9s
ZSN Zaisan 45.30 349 *e*P **P 17 22 27.5 +0.3**
comp=Z,9.8nm,0.9s
MAKZ Makanchi 45.30 346 P **P 17 22 25.8 -1.4**
MAKZ pmax pmax
comp=Z,25nm,0.8s
MAKZ Makanchi 45.30 346 **P 17 22 25.8 -1.4**
MAKZ IAmb IAmb 17 22 27.7
comp=Z,25nm,0.8s
MAKZ Makanchi 45.30 346 P **P 17 22 26.8 -0.3**
comp=Z,37nm,0.8s
ASAR Alice Springs 45.31 128 P **P 17 22 27.9 +0.2**
comp=Z,2.9nm,0.6s,baz=298,slow=8.0,SNR=55
ASAR PcP **PcP 17 24 07.7 +0.6**
comp=Z,1.0nm,0.7s,baz=298,slow=3.6,SNR=4.3
comp=Z,2.9nm,0.6s
IUG luzhnay 45.42 333 *e*P **P 17 22 28.8 +0.6**
IUG pmax pmax
comp=Z,15nm,0.7s
IUG luzhnay 45.42 333 *e*P **P 17 22 28.9 +0.6**
comp=Z,15nm,0.7s
SONM Songino Array 45.47 10 P **P 17 22 28.7 +0.1**
comp=Z,26nm,0.8s,baz=186,slow=10.0,SNR=156
SONM PcP **PcP 17 24 07.2 0.0**
comp=Z,1.6nm,0.7s,baz=190,slow=4.5,SNR=1.9
SONM LR LR 17 43 43.5
comp=Z,583nm,19.6s,baz=135,slow=39
comp=Z,26nm,0.8s
SONM Songino Array 45.47 10 **P 17 22 27.7 -0.9**
SONM IAmb IAmb 17 22 29.4
comp=Z,28nm,0.9s
ULN Ulaanbaatar 45.61 10 *c*P **P 17 22 29.2 -0.6**
ULN pmax pmax
comp=Z,19nm,0.8s
ULN Ulaanbaatar 45.61 10 P **P 17 22 28.2 -1.5**
ULN IAmb IAmb 17 22 30.5
comp=Z,21nm,1.0s
ULN Ulaanbaatar 45.61 10 P **P 17 22 30.0 +0.2**
comp=Z,22nm,1.3s
CHM Chimkent 45.75 332 *e*P **P 17 22 31.5 +0.7**
CHM pmax pmax
comp=Z,6.0nm,0.7s
CHM Chimkent 45.75 332 *e*P **P 17 22 31.6 +0.7**
comp=Z,6.1nm,0.7s
KKAR Karatay Array 45.96 334 P **P 17 22 32.0 -0.5**
KKAR Karatay Array 45.96 334 **P 17 22 32.0 -0.5**
KNGR Kungurtug, Tuv 47.39 1⇑ *i*P **P 17 22 44.5 +0.9**
KNGR pmax pmax
comp=Z,18nm,1.0s
ZAK Zakamensk 47.54 6 *e*P **P 17 22 44.1 -0.6**
ZAK pmax pmax
comp=Z,14nm,1.2s
CN2 Changchun 48.13 28 *e*P **P 17 22 51.8 +2.4**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
TLY Talaya 48.86 6 LR LR 17 46 31.4
comp=Z,309nm,18.3s,baz=162,slow=40
TLY Talaya 48.86 6 *de*P **P 17 22 55.6 +0.8**
TLY pmax pmax
comp=Z,12nm,0.8s
TLY Talaya 48.86 6 **P 17 22 54.6 -0.2**
TLY IAmb IAmb 17 22 56.7
comp=Z,13nm,0.8s
TLY Talaya 48.86 6 P **P 17 22 55.9 +1.1**
comp=Z,19nm,0.9s
GUMO Guam 49.19 75 LR LR 17 42 36.0
comp=Z,203nm,21.8s,baz=243,slow=35
KURBB Kurchatov Arra 49.69 345 P **P 17 23 01.6 +0.4**
comp=Z,16nm,0.7s,baz=167,slow=7.0,SNR=212
comp=Z,16nm,0.7s
KURK Kurchatov 49.75 345 *c i*P **P 17 23 01.6 0.0**
KURK pmax pmax
comp=Z,24nm,0.9s
KURK Kurchatov 49.75 345 **P 17 23 01.1 -0.6**
KURK Kurchatov 49.75 345 P **P 17 23 01.8 +0.2**
comp=Z,38nm,1.4s
JCJ Chichijima 50.02 57 LR LR 17 41 46.1
comp=Z,138nm,21.5s,baz=115,slow=33
HIA Hailar 50.23 20 IAmb IAmb 17 23 06.4
comp=Z,21nm,1.0s
HIA Hailar 50.23 20 P **P 17 23 05.9 +0.6**
comp=Z,22nm,1.0s
HILR Hailar Array B 50.48 20 P **P 17 23 07.5 +0.3**
comp=Z,2.9nm,0.5s,baz=176,slow=12,SNR=6.7
comp=Z,2.9nm,0.5s
BNX BinXian 50.51 28 ⇓P **P 17 23 06.8 -0.7**
BNX pmax pmax
comp=Z,21nm,1.1s
JHJ Hachijo jima 2 50.52 49 LR LR 17 45 06.1
comp=Z,12nm,19.9s,baz=296,slow=37
MDJ Mudanjiang 50.76 30 P **P 17 23 10.0 +0.6**
MDJ pmax pmax
comp=Z,13nm,1.0s
MDJ pmax pmax
comp=Z,430nm,11.9s
CIT Chita 50.90 14 *e*P **P 17 23 09.4 -1.0**
CIT *e* 17 23 18.0
CIT *e* 17 23 24.0
CIT *e* 17 24 32.0
CIT pmax pmax
comp=Z,40nm,1.1s
MJAR Matsushiro Arr 51.03 44 LR LR 17 47 06.2
comp=Z,106nm,18.2s,baz=229,slow=39
ZAA0 Zalesovo Array 51.58 351 IAmb IAmb 17 23 16.1
comp=Z,24nm,0.9s
ZALV Zalesovo Beam 51.58 351 P **P 17 23 15.4 0.0**
comp=Z,13nm,0.6s,baz=175,slow=7.0,SNR=79
comp=Z,13nm,0.6s
ZALV Zalesovo Beam 51.58 351 *i* P **P 17 23 15.3 -0.1**
ZALV pmax pmax
comp=Z,13nm,0.6s
ZALV Zalesovo Beam 51.58 351 **P 17 23 14.2 -1.1**
USA0B Ussuriysk Arra 51.73 32 *de*P **P 17 23 16.9 +0.3**
USRK Ussuriysk Ar. 51.73 32 P **P 17 23 16.5 -0.1**
comp=Z,4.4nm,0.7s,baz=234,slow=6.4,SNR=7.4
USRK LR LR 17 46 10.3
comp=Z,163nm,18.7s,baz=208,slow=37
comp=Z,4.4nm,0.7s
USRK Ussuriysk Ar. 51.73 32 P **P 17 23 14.9 -1.7**
USRK Ussuriysk Ar. 51.73 32 **P 17 23 14.9 -1.7**
INKA Innaminka 52.68 129 P **P 17 23 25.0 +1.0**
ABPO Ambohimpanom 52.91 243 *i* P **P 17 23 27.7 +1.6**
ABPO Ambohimpanom 52.91 243 **P 17 23 23.4 -2.7**
ABPO Ambohimpanom 52.91 243 P **P 17 23 23.7 -2.4**
comp=Z,13nm,1.0s
RAYN Ar Rayn 53.01 297 P **P 17 23 26.5 -0.1**
RAYN pmax pmax
comp=Z,10.0nm,0.8s
RAYN Ar Rayn 53.01 297 **P 17 23 26.5 -0.1**
RAYN IAmb IAmb 17 23 28.2
comp=Z,9.5nm,0.8s
RAYN Ar Rayn 53.01 297 P **P 17 23 26.8 +0.2**
comp=Z,20nm,1.3s
RAYN pP **pP 17 23 37.7 +1.2**
ATD Arta Tunnel 53.51 282 LR LR 17 43 00.0
comp=Z,31nm,21.9s,baz=18,slow=32
HEH HeiHe 53.92 24 *e*P **P 17 23 32.5 -0.3**
HEH pmax pmax
comp=Z,22nm,1.3s
BVAR Borovoye Array 54.18 341 P **P 17 23 34.5 -0.1**
comp=Z,7.0nm,0.7s,baz=27,slow=17,SNR=12
comp=Z,7.0nm,0.7s
BORK Borovoye 54.22 341 *de*P **P 17 23 34.7 -0.2**
BORK pmax pmax
comp=Z,10.0nm,0.8s
BORK Borovoye 54.22 341 **P 17 23 34.4 -0.5**
BORK IAmb IAmb 17 23 49.4
comp=Z,19nm,0.9s
CTA Charters Tower 54.23 117 P **P 17 23 35.8 +0.2**
comp=Z,3.3nm,0.7s,baz=283,slow=9.5,SNR=5.3
comp=Z,3.3nm,0.7s
KLR Kul'dur 55.07 28 P **P 17 23 41.2 +0.1**
comp=Z,17nm,0.9s,baz=276,slow=7.9,SNR=31
KLR LR LR 17 50 44.1
comp=Z,221nm,18.0s,baz=210,slow=40
comp=Z,17nm,0.9s
KLR Kul'dur 55.07 28 *c i*P **P 17 23 41.2 +0.1**
KLR pmax pmax
comp=Z,24nm,1.0s
STKA Stephens Creek 55.34 133 P **P 17 23 43.3 -0.1**
comp=Z,4.5nm,0.7s,baz=316,slow=6.8,SNR=6.8
STKA LR LR 17 49 38.1
comp=Z,116nm,20.4s,baz=10,slow=38
comp=Z,4.5nm,0.7s
STKA Stephens Creek 55.34 133⇓ *i*P **P 17 23 44.3 +0.9**
AB31 Akbulak array 55.41 332 IAmb IAmb 17 24 04.3
comp=Z,18nm,1.0s
ABKAR Akbulak array 55.41 332 **P 17 23 42.9 -0.7**
ZEA Zeya 56.58 22 *e*P **P 17 23 52.3 +0.5**
ZEA pmax pmax
comp=Z,20nm,0.8s
ZEA MLR MLR
comp=N,200nm,17.0s
ZEA MLR MLR
comp=Z,200nm,21.0s
ASAJ Asahikawa 57.81 38 LR LR 17 49 21.3
comp=Z,159nm,21.0s,baz=282,slow=36
CMSA Cobar Meteorol 58.25 130 P **P 17 24 05.4 +1.4**
comp=Z,13nm,1.2s
KIBK Kibwezi 58.38 265 **P 17 24 04.9 -0.5**
KIBK IAmb IAmb 17 24 07.7
comp=Z,11nm,1.1s
KIBK Kibwezi 58.38 265 P **P 17 24 06.6 +1.3**
comp=Z,9.8nm,1.1s
HAKT HAKKARI 58.98 313 P **P 17 24 09.6 +0.3**
comp=Z,19nm,1.1s
KMBO Kilima Mbogo 59.07 267 P **P 17 24 10.4 +0.1**
KMBO Kilima Mbogo 59.07 267 *de*P **P 17 24 11.7 +1.3**
KMBO Kilima Mbogo 59.07 267 **P 17 24 08.0 -2.4**
KMBO IAmb IAmb 17 24 13.1
comp=Z,7.6nm,0.9s
KMBO Kilima Mbogo 59.07 267 P **P 17 24 11.9 +1.5**
comp=Z,10nm,1.2s
GURO Guroymak-BITLI 60.58 313 IAmb IAmb 17 24 21.7
comp=Z,15nm,0.9s
LODK Lodwar 60.73 272 **P 17 24 22.3 +0.7**
LODK Lodwar 60.73 272 P **P 17 24 22.0 +0.4**
comp=Z,7.1nm,1.1s
MARD Mardin 61.06 311 **P 17 24 23.4 -0.1**
ARTI Arti 61.13 337 *d i*P **P 17 24 22.4 -1.1**
ARTI 17 25 05.0
ARTI S **S 17 32 41.2 +0.8**
ARTI pmax pmax
comp=Z,33nm,3.8s
ARTI Arti 61.13 337 **P 17 24 22.3 -1.1**
EPOS Posof 61.22 316 P **P 17 24 24.4 -0.1**
comp=Z,11nm,1.1s
HOMI Horasan 61.23 315⇑ P **P 17 24 24.4 -0.3**
NEUR Neytrino 61.96 318⇓ *e*P **P 17 24 30.7 +1.2**
NEUR pmax pmax
comp=Z,8.0nm,1.3s
KBZ Khabaz 62.02 319 P **P 17 24 30.1 +0.4**
comp=Z,5.0nm,0.8s,baz=131,slow=7.3,SNR=8.5
comp=Z,5.0nm,0.8s
KBZ Khabaz 62.02 319⇑ *e*P **P 17 24 30.0 +0.4**
KBZ pmax pmax
comp=Z,9.0nm,1.0s
SHA1 Shidzhatmaz 62.19 319⇓ *e*P **P 17 24 31.3 +0.2**
H04N2 CROZET ISLANDS 62.75 213 T T 18 32 07.5
baz=52,slow=75,SNR=1591
H04N1 CROZET ISLANDS 62.76 213 T T 18 32 12.9
baz=52,slow=75,SNR=6196
H04N3 CROZET ISLANDS 62.77 213 T T 18 32 11.6
baz=52,slow=75,SNR=6474
H04S1 CROZET ISLANDS 63.11 213 T T 18 32 40.2
baz=52,slow=74,SNR=496
H04S3 CROZET ISLANDS 63.12 213 T T 18 32 36.1
baz=52,slow=74,SNR=593
H04S2 CROZET ISLANDS 63.13 213 T T 18 32 39.7
baz=52,slow=74,SNR=470
KELT Kelkit 63.16 314 P **P 17 24 38.6 +1.0**
comp=Z,37nm,1.3s
KEMA Kemaliye 63.41 313 P **P 17 24 39.6 +0.5**
comp=Z,66nm,0.9s
BELG Belogornoye 63.46 329⇑ *e*P **P 17 24 38.2 -0.9**
BELG pmax pmax
comp=Z,4.0nm,1.1s
ARPR Arapgir-MALATY 63.47 313 IAmb IAmb 17 24 41.4
comp=Z,11nm,1.1s
ARPR Arapgir-MALATY 63.47 313 P **P 17 24 40.8 +1.1**
comp=Z,12nm,1.2s
EIL Elat 63.63 302 P **P 17 24 41.6 +0.9**
comp=Z,12nm,1.1s
HRFI Mount Harif 63.64 302 P **P 17 24 39.9 -0.9**
comp=Z,17nm,1.3s
VSLR Vesyoloye 63.82 318 *de*P **P 17 24 42.4 +0.7**
VSLR pmax pmax
comp=Z,15nm,1.1s
YAK Yakutsk 63.94 17 P **P 17 24 42.1 +0.1**
comp=Z,27nm,0.6s,baz=208,slow=4.1,SNR=14
YAK LR LR 17 55 35.4
comp=Z,343nm,18.0s,baz=237,slow=39
comp=Z,27nm,0.6s
YAK Yakutsk 63.94 17 *e*P **P 17 24 42.1 +0.1**
YAK *e**PP **pP 17 24 52.2 +0.1**
YAK *e* 17 25 17.7
YAK *e* 17 27 02.4
YAK *e*PPP PPP 17 28 31.9
YAK *e*S **S 17 33 15.0 -0.3**
YAK *e**SS **sS 17 33 32.5 0.0**
YAK *e* 17 34 32.9
YAK *e*SS **SS 17 37 18.3 -5.9**
YAK pmax pmax
comp=Z,63nm,1.3s
YAK pmax pmax
comp=E,13nm,1.0s
YAK pmax pmax
comp=N,22nm,1.6s
YAK pmax pmax
comp=Z,104nm,3.3s
YAK pmax pmax
comp=N,59nm,2.7s
YAK pmax pmax
comp=E,124nm,3.2s
YAK smax smax
comp=E,148nm,3.0s
YAK smax smax
comp=N,84nm,3.3s
YAK MLR MLR
comp=Z,321nm,16.0s
YAK MLR MLR
comp=N,222nm,16.0s
YAK MLR MLR
comp=E,186nm,18.0s
YAK Yakutsk 63.94 17 P **P 17 24 42.4 +0.4**
MMAI Mount Meron Ar 64.02 305 P **P 17 24 43.8 +0.6**
comp=E,4.3nm,0.9s,baz=40,slow=11,SNR=4.1
comp=E,4.3nm,0.9s
KZIT Kziot 64.36 303 P **P 17 24 45.6 +0.2**
comp=Z,18nm,1.4s
ANDN Andirin 64.49 310 P **P 17 24 46.7 +0.3**
comp=Z,61nm,1.2s
MBAR Mbarara 65.53 268 LR LR 17 51 16.7
comp=Z,111nm,19.5s,baz=80,slow=34
MBAR Mbarara 65.53 268⇓ *e*P **P 17 24 55.1 +1.5**
MBAR pmax pmax
comp=Z,11nm,1.0s
MBAR Mbarara 65.53 268 P **P 17 24 52.2 -1.4**
MBAR IAmb IAmb 17 24 56.2
comp=Z,15nm,1.1s
MBAR Mbarara 65.53 268 P **P 17 24 52.4 -1.2**
comp=Z,11nm,1.1s
VRH Novokhopyorsk 66.03 326 *e*P **P 17 24 54.9 -1.0**
VRH pmax pmax
comp=Z,18nm,0.7s
KIRV Kirov 66.22 335⇑ *e*P **P 17 24 57.6 +0.7**
NRIK Noril'sk 66.43 357 P **P 17 24 57.7 -0.3**
comp=Z,9.0nm,0.9s,baz=148,slow=7.2,SNR=10
NRIK LR LR 17 57 17.7
comp=Z,155nm,20.9s,baz=162,slow=39
comp=Z,9.0nm,0.9s
NRIK Noril'sk 66.43 357 *de*P **P 17 24 58.0 -0.1**
NRIK pmax pmax
comp=Z,10.0nm,1.0s
NRIK Noril'sk 66.43 357 **P 17 24 57.2 -0.9**
KIRS Kirsehir-Merke 66.76 311 ⇑P **P 17 25 00.1 -0.8**
BR104 Keskin Array S 67.12 312 P **P 17 25 02.6 -0.7**
comp=Z,50nmcomp=Z,4.2nm,0.9s
BR131 Keskin Array S 67.13 312 *de*P **P 17 25 02.5 -0.8**

BR131 Keskin Array S 67.13 312 P 17 25 01.9 -1.5
BRTR Keskin Array B 67.13 312 P **P 17 25 03.0 -0.3**
comp=Z,3.1nm,0.7s,baz=130,slow=6.9,SNR=21
comp=Z,3.1nm,0.7s
BRTR Keskin Array B 67.13 312 P 17 25 02.3 -1.1
BR105 Keskin Array S 67.14 312 P **P 17 25 02.8 -0.6**
comp=Z,5.3nm,1.6s
BR106 Keskin Array S 67.15 312 P **P 17 25 02.6 -0.8**
comp=Z,47nmcomp=Z,5.3nm,1.0s
ILGA Ilgaz 67.44 313 IAmb IAmb 17 25 15.8
comp=Z,23nm,1.2s
VSR Storozhevoye 67.48 325 *e*P **P 17 25 02.3 -2.8**
VSR pmax pmax
comp=Z,9.0nm,0.6s
VORR Voronezh 67.65 326 *e*P **P 17 25 01.5 -4.7**
VORR pmax pmax
comp=Z,29nm,0.5s
KEPZ Antalya-Kepez 67.97 309 ⇑P **P 17 25 08.2 -0.4**
LSZ Lusaka 69.69 253 LR LR 17 52 48.4
comp=Z,134nm,19.4s,baz=91,slow=33
LSZ Lusaka 69.69 253 P **P 17 25 20.3 +0.6**
LSZ pmax pmax
comp=Z,60nm,2.0s
LSZ Lusaka 69.69 253 P 17 25 20.3 +0.6
MA2 Magadan 70.11 26 LR LR 17 58 07.3
comp=Z,109nm,20.2s,baz=235,slow=38
MA2 Magadan 70.11 26 P **P 17 25 20.9 -0.4**
comp=Z,28nm,1.8s
MOS Moscow 70.23 329 *e*P **P 17 25 22.0 -0.1**
MOS *e* 17 25 37.2
MOS MLR MLR
comp=Z,400nm,20.0s
MATP Matopo 70.30 247 LR LR 17 53 34.0
comp=Z,284nm,18.7s,baz=94,slow=34
OBN Obninsk 70.52 328 *i* P **P 17 25 22.8 -1.1**
OBN *i* 17 25 30.2
OBN *i* 17 25 39.0
OBN pmax pmax
comp=Z,14nm,1.4s
PETK Petropavlovsk- 70.76 34 LR LR 17 59 50.4
comp=Z,111nm,19.2s,baz=247,slow=39
TIXI Tiksi 71.55 10 LR LR 18 00 01.9
comp=Z,251nm,19.1s,baz=214,slow=38
TIXI Tiksi 71.55 10⇓ *e*P **P 17 25 32.2 +2.4**
TIXI pmax pmax
comp=Z,7.0nm,1.0s
TIXI Tiksi 71.55 10 P **P 17 25 30.2 +0.4**
comp=Z,15nm,1.1s
PURM Purcari 71.63 318 P **P 17 25 30.7 -0.1**
KLMR Klimovskoe 71.66 334 *e*P **P 17 25 31.8 +1.1**
KLMR pmax pmax
comp=Z,41nm,1.4s
SEY Seymchan 72.46 23 P **P 17 25 34.8 -0.6**
comp=Z,3.0nm,0.9s,baz=128,slow=1.3,SNR=6.6
comp=Z,3.0nm,0.9s
SORM Soroca 73.05 320 ⇓P **P 17 25 39.0 -0.2**
SORM Soroca 73.05 320 ⇓P **P 17 25 39.0 -0.2**
SORM Soroca 73.05 320 P **P 17 25 39.1 -0.2**
comp=Z,30nm,1.8s
AK09 Malin Array Si 73.12 322 P **P 17 25 39.2 -0.4**
AK10 Malin Array Si 73.14 322 P **P 17 25 39.1 -0.6**
LOZB Loznitsa 73.14 322 ⇑P **P 17 25 50.2 0.0**
AK08 Malin Array Si 73.15 322 P **P 17 25 39.1 -0.7**
AK07 Malin Array Si 73.16 322 P **P 17 25 39.2 -0.6**
GHRR 73.17 317 P **P 17 25 39.3 -0.7**
AK06 Malin Array Si 73.17 322 P **P 17 25 39.2 -0.7**
AK05 Malin Array Si 73.17 322 P **P 17 25 39.3 -0.6**
AK02 Malin Array Si 73.18 322 P **P 17 25 39.3 -0.7**
AKASG Malin Array Be 73.19 322 P **P 17 25 39.5 -0.5**
comp=Z,1.5nm,0.4s,baz=88,slow=5.6,SNR=21
comp=Z,1.5nm,0.4s
AKBB Malin Array Si 73.19 322 P **P 17 25 39.3 -0.7**
AK01 Malin Array Si 73.19 322 P **P 17 25 39.4 -0.6**
KIEV Kiev 73.19 322 ⇑P **P 17 25 39.6 -0.4**
KIEV Kiev 73.19 322 P **P 17 25 39.2 -0.9**
KIEV Kiev 73.19 322 ⇑P **P 17 25 39.6 -0.4**
KIEV Kiev 73.19 322 P **P 17 25 39.3 -0.7**
AK03 Malin Array Si 73.19 322 P **P 17 25 39.4 -0.6**
AK12 Malin Array Si 73.21 322 P **P 17 25 39.5 -0.7**
MNTR Muntenesti 73.25 318 ⇑P **P 17 25 39.1 -1.4**
ODBI Odobesti 73.34 317 ⇑P **P 17 25 41.5 +0.5**
VRI Vrincioaia 73.58 317 ⇑P **P 17 25 42.5 0.0**
VRI Vrincioaia 73.58 317 ⇑P **P 17 25 42.5 0.0**
VRI Vrincioaia 73.58 317 P **P 17 25 42.8 +0.2**
comp=Z,19nm,1.8s
PLOR Plostina 73.63 317 ⇑P **P 17 25 43.5 +0.7**
PLOR Plostina 73.63 317 ⇑P **P 17 25 43.5 +0.7**
TESR Tescani 73.78 318 ⇓P **P 17 25 43.9 +0.2**
MI30 MI30,Zelenitsa 73.83 322 P **P 17 25 44.2 +0.4**
comp=Z,17nm,1.4s
LUBAR Lubar, Ukraine 73.88 321 P **P 17 25 43.7 -0.4**
MI29 MI29, Kamyanyy 73.95 322 P **P 17 25 44.0 -0.5**
comp=Z,88nm,2.2s
MLR Muntele Rosu 74.04 316 ⇑P **P 17 25 47.0 +1.6**
MLR Muntele Rosu 74.04 316 **P 17 25 45.1 -0.2**
MLR IAmb IAmb 17 25 46.7
comp=Z,19nm,1.1s
MLR Muntele Rosu 74.04 316 ⇑P **P 17 25 47.0 +1.6**
MLR Muntele Rosu 74.04 316 P **P 17 25 44.7 -0.6**
MLR Muntele Rosu 74.04 316 P **P 17 25 44.4 -0.9**
comp=Z,16nm,1.4s
BIZ Bicaz 74.24 318 ⇓P **P 17 25 46.9 +0.6**
PRAR RASCA 74.25 318 ⇑P **P 17 25 46.4 0.0**
MAW Mawson 74.29 193 LR LR 17 54 55.4
comp=Z,79nm,18.1s,baz=75,slow=33
KDWAN Kaudwane 74.35 245 IAmb IAmb 17 25 49.6
comp=Z,19nm,0.9s
KMPD K-Podol'skiy 74.38 320 P **P 17 25 46.6 -0.4**
PLVB Pleven 74.55 314 ⇓P **P 17 25 47.6 -0.6**
VOIR 74.64 316 ⇑P **P 17 25 49.0 +0.2**
VOIR 74.64 316 ⇑P **P 17 25 49.0 +0.2**
MAKGR Makgori 74.68 242 IAmb IAmb 17 25 51.2
comp=Z,17nm,0.9s
BOSA Boshof 74.84 239 P **P 17 25 50.5 +0.2**
comp=Z,4.2nm,0.7s,baz=88,slow=5.0,SNR=8.3
BOSA LR LR 17 56 27.8
comp=Z,145nm,18.1s,baz=40,slow=34
comp=Z,4.2nm,0.7s
BOSA Boshof 74.84 239 P **P 17 25 50.5 +0.2**
BOSA pmax pmax
comp=Z,49nm,1.7s
BURAR Bucovina Array 74.98 319 ⇑P **P 17 25 51.7 +1.0**
BURAR Bucovina Array 74.98 319 ⇑P **P 17 25 51.7 +1.0**
MNK Minsk 75.03 326 *i* P **P 17 25 50.2 -0.5**
MNK *i* 17 26 04.4
MNK *i* 17 28 38.8
MNK *i* PPP PPP 17 30 24.8
MNK *i* S **S 17 35 27.0 +0.7**
MNK pmax pmax
comp=Z,15nm,0.8s
MNK pmax pmax
comp=N,7.0nm,0.7s
MNK pmax pmax
comp=E,6.0nm,0.9s
MNK Minsk 75.03 326 *i* P **P 17 25 50.2 -0.5**
comp=E,6.0nm,0.9s
MNK *i* P **P 17 25 50.2 -0.5**
comp=N,7.0nm,0.7s
MNK *i* P **P 17 25 50.2 -0.5**
comp=Z,15nm,0.8s,baz=106
MNK *i* PcP **sP 17 26 04.5 -0.2**
MNK *i* PP **PP 17 28 38.8 0.0**
MNK *i* PPP PPP 17 30 24.9
MNK *i* S **S 17 35 27.1 +0.7**
RNPP5 Staryi Chortor 75.36 322 P **P 17 25 52.4 -0.3**
RNPP9 Sopachiv 75.40 322 P **P 17 25 52.6 -0.3**
RNPP8 Varash 75.41 322 P **P 17 25 52.6 -0.3**
BLKB Belogradchik 75.99 314 ⇑P **P 17 25 56.5 0.0**
MARR Marisel-Cluj 76.20 317 ⇑P **P 17 25 57.7 -0.1**
HERR Herculane 76.38 315 ⇑P **P 17 25 58.1 -0.5**
DRGR 76.50 317 ⇑P **P 17 26 00.2 +0.8**
DRGR 76.50 317 ⇑P **P 17 26 00.2 +0.8**
DRGR 76.50 317 P **P 17 25 59.3 -0.1**
comp=Z,9.3nm,1.2s
BOVS Bovan 76.69 314 ⇑P **P 17 25 59.9 -0.5**
SURR Surduc 76.72 316 ⇑P **P 17 26 00.5 0.0**
TRPA Tarpa 76.85 319 P **P 17 26 01.8 +0.6**
comp=Z,13nm,1.8s
BZS Buzias 77.05 316 ⇑P **P 17 26 02.8 +0.4**
BZS Buzias 77.05 316 ⇑P **P 17 26 02.8 +0.4**
SIRR Siria 77.12 317 ⇑P **P 17 26 03.7 +0.8**
KOLS Kolonicke sedl 77.16 319 *e*P **P 17 26 04.3 +1.3**
KOLS pmax pmax
comp=N,10.0nm,0.5s
KOLS Kolonicke sedl 77.16 319 *e*P **P 17 26 04.3 +1.3**
KOLS *e* 17 27 14.1
KOLS Kolonicke sedl 77.16 319 P **P 17 26 04.4 +1.4**
comp=Z,13nm,0.7s
FINES FINESS Array B 77.90 332 P **P 17 26 06.6 -0.2**
comp=Z,3.3nm,0.5s,baz=98,slow=4.7,SNR=36
comp=Z,3.3nm,0.5s
FINES FINESS Array B 77.90 332 *i* P **P 17 26 06.8 0.0**
FINES pmax pmax
comp=Z,3.0nm,0.4s
PSZ Piszkesteto 78.56 318 ⇓P **P 17 26 11.4 +0.5**
PSZ Piszkesteto 78.56 318 IAmb IAmb 17 26 33.5
comp=Z,11nm,1.0s
PSZ Piszkesteto 78.56 318 ⇓P **P 17 26 11.4 +0.5**
PSZ Piszkesteto 78.56 318 P **P 17 26 11.7 +0.8**
comp=Z,12nm,1.0s
LANS Liptovska Anna 79.02 319 *e*P **P 17 26 14.4 +1.1**
LANS Liptovska Anna 79.02 319 *e*P **P 17 26 14.4 +1.1**
MORH Mrgy, Hungar 79.19 316 ⇑P **P 17 26 14.4 +0.2**
MORH Mrgy, Hungar 79.19 316 P **P 17 26 13.6 -0.7**
comp=Z,12nm,2.4s
SUR Sutherland 79.34 236 LR LR 17 57 22.2
comp=Z,167nm,18.1s,baz=60,slow=33
MPLH Magyarpolny 80.05 317 P **P 17 26 19.7 +0.7**
comp=Z,15nm,1.0s
JAVC Velka Javorina 80.16 319 *e*P **P 17 26 20.7 +1.2**
STEB Steborice 80.22 320 *e*P **P 17 26 20.7 +0.9**
SHEM Shemya Is, Ala 80.25 37 LR LR 18 06 57.8
comp=Z,39nm,18.2s,baz=246,slow=39
TSUM Tsumeb 80.27 250 LR LR 17 59 40.2
comp=Z,107nm,19.0s,baz=63,slow=34
MORC Moravsky Berou 80.35 320 ⇑P **P 17 26 21.9 +1.4**
MORC Moravsky Berou 80.35 320 *e*P **P 17 26 21.1 +0.6**
MORC Moravsky Berou 80.35 320 ⇑P **P 17 26 21.9 +1.4**
MODS Modra-Piesok 80.36 318 *e*P **P 17 26 21.3 +0.7**
MODS Modra-Piesok 80.36 318 *e*P **P 17 26 21.3 +0.7**
ARA0 ARCESS Array S 80.46 340 *e*P **P 17 26 21.3 +0.6**
ARCES ARCESS Array B 80.46 340 P **P 17 26 21.0 +0.3**
comp=Z,5.8nm,0.8s,baz=98,slow=4.7,SNR=27
ARCES LR LR 18 04 53.0
comp=Z,82nm,21.8s,baz=164,slow=38
comp=Z,5.8nm,0.8s
ARCES ARCESS Array B 80.46 340 P **P 17 26 21.0 +0.3**
ARCES pmax pmax
comp=Z,121nm,1.9s
KRLC Kraliky 80.87 320 *e*P **P 17 26 24.6 +1.3**
KRLC Kraliky 80.87 320 *e*P **P 17 26 24.6 +1.3**
KRLC Kraliky 80.87 320 P **P 17 26 24.5 +1.3**
comp=Z,30nm,0.8s
VRAC Vranov 80.91 319 *e*P **P 17 26 23.9 +0.4**
KRUC Moravsky 81.01 319 *e*P **P 17 26 24.1 0.0**
KTK1 Kautokeino 81.09 340 *e*P **P 17 26 24.3 +0.2**
WINA Alland / Wiene 81.14 318 *i* P **P 17 26 24.7 -0.1**
comp=Z,4.0nm,0.9s
DPC Dobruska-Polom 81.19 320 *e*P **P 17 26 26.2 +1.2**
DPC pmax pmax
comp=Z,2.0nm,0.5s
DPC Dobruska-Polom 81.19 320 *e*P **P 17 26 26.2 +1.2**
comp=Z,1.9nm,0.5s
RPZ Rata Peaks 81.22 135 LR LR 18 03 04.9
comp=Z,25nm,21.1s,baz=300,slow=36
HAMF Hammerfest 81.37 341 *e*P **P 17 26 25.7 +0.2**
CHVC Chvalec 81.39 321 *e*P **P 17 26 27.1 +1.1**
CHVC Chvalec 81.39 321 *e*P **P 17 26 27.1 +1.1**
ARSA Arzberg 81.43 317 *i* P **P 17 26 27.2 +0.8**
comp=Z,7.6nm,1.2s
ARSA Arzberg 81.43 317 P **P 17 26 27.2 +0.8**
comp=Z,10.0nm,1.7s
ABNA Allensteig Bun 81.61 319 *i* P **P 17 26 28.0 +0.8**
comp=Z,8.9nm,1.5s
SOKA Soboth 81.72 317 *i* P **P 17 26 28.7 +0.7**
comp=Z,12nm,1.3s
SESA Seetaler Alpe, 82.07 317 *i* P **P 17 26 30.6 +0.6**
comp=Z,14nm,1.3s
JETT Jetlan, Norway 82.20 340 *e*P **P 17 26 30.7 +0.7**
CKRC Cesky Krumlov 82.36 319 *e*P **P 17 26 32.0 +0.8**
CKRC Cesky Krumlov 82.36 319 *e*P **P 17 26 32.0 +0.8**
MYKA Terra Mystica 82.67 316 *e*P **P 17 26 33.4 +0.4**
comp=Z,8.2nm,1.1s
BIOA Bad Ischl, Aus 82.74 318 *e*P **P 17 26 33.3 +0.1**
comp=Z,2.4nm,0.7s
BRG Berggiesshubel 82.75 321 *e*P **P 17 26 33.8 +0.7**
BRG Amp 17 26 35.5
comp=Z,1.9nm,0.8s
BRG pP **pP 17 26 44.5 +1.0**
BRG Amp 17 26 47.3
comp=Z,4.1nm,0.9s
GEC2 GERESS Array S 82.77 319 IAmb IAmb 17 28 08.6
comp=Z,9.3nm,1.0s
GEC2 GERESS Array S 82.77 319 P **P 17 26 34.2 +0.8**
comp=Z,9.1nm,1.4s
GERES GERESS Array B 82.77 319 P **P 17 26 34.0 +0.5**
comp=Z,1.7nm,0.5s,baz=103,slow=5.0,SNR=19
comp=Z,1.7nm,0.5s
GERES GERESS Array B 82.77 319 P **P 17 26 33.2 -0.2**
GERES GERESS Array B 82.77 319 **P 17 26 33.2 -0.2**
KHC Kasperske Hory 82.86 319 *e*P **P 17 26 33.8 -0.1**
KHC pmax pmax
comp=Z,1.0nm,0.5s
KHC Kasperske Hory 82.86 319 *e*P **P 17 26 33.8 -0.1**
comp=Z,0.7nm,0.5s
KBA Koelnbreinsper 82.90 317 *i* P **P 17 26 34.1 -0.1**
comp=Z,4.4nm,0.6s
CLL Collm 83.37 321 *e*sP sP 17 26 48.0 -2.4
LESA Schwarzleotal 83.37 317 *e*P **P 17 26 36.3 -0.3**
comp=Z,5.8nm,0.9s
ABTA Abfaltersbach 83.45 317 *e*P **P 17 26 36.7 -0.3**
comp=Z,3.7nm,1.0s
HFS Hagfors 83.62 330 P **P 17 26 37.9 +0.4**
comp=Z,2.4nm,0.5s,baz=114,slow=3.6,SNR=12
comp=Z,2.4nm,0.5s
FAUS Fauske 83.69 337 *e*P **P 17 26 37.8 +0.1**
STEI Steigen 83.78 338 *e*P **P 17 26 38.3 +0.3**
RAUS Rausandaksla 84.07 336 *e*P **P 17 26 39.9 +0.3**
WTTA Wattenberg 84.07 317 *i* P **P 17 26 40.1 -0.2**
comp=Z,6.5nm,1.0s
WATA Walderalm 84.12 317 *e*P **P 17 26 39.9 -0.5**
comp=Z,5.0nm,0.9s
SQTA Sankt Quirin 84.36 317 *i* P **P 17 26 41.6 -0.1**
comp=Z,4.7nm,0.5s
LEIR Leirfjorden 84.41 336 *e*P **P 17 26 42.0 +0.7**
LOF Lofoten 84.44 338 *e*P **P 17 26 41.7 +0.3**
MOTA Moosalm 84.44 317 *i* P **P 17 26 41.7 -0.4**
comp=Z,4.6nm,0.8s
RETA Reutte 84.67 317 *i* P **P 17 26 43.3 +0.2**
comp=Z,5.6nm,0.6s
FETA Feichten 84.69 317 *e*P **P 17 26 42.5 -0.9**
comp=Z,7.0nm,1.4s
URZ Urewera 84.75 129 LR LR 18 05 55.6
comp=Z,81nm,20.5s,baz=278,slow=37
NSS Namsos 84.77 334 *e*P **P 17 26 43.6 +0.5**
NOA NORSAR Array B 84.91 331 P **P 17 26 43.7 -0.3**
comp=Z,1.8nm,0.9s,baz=93,slow=6.0,SNR=3.5
NOA LR LR 18 08 03.9
comp=Z,71nm,20.4s,baz=85,slow=38
comp=Z,1.8nm,0.9s
SPA0 Spitsbergen Ar 84.94 348 *e*P **P 17 26 44.5 +0.6**
SPITS Spitsbergen Ar 84.94 348 P **P 17 26 43.5 -0.4**
comp=Z,2.6nm,0.6s,baz=99,slow=10,SNR=7.4
SPITS LR LR 18 10 13.8
comp=Z,152nm,21.0s,baz=98,slow=40
comp=Z,2.6nm,0.6s
FUORN Ofenpass-Fuorn 85.00 316 IAmb IAmb 17 27 03.0
comp=Z,12nm,1.2s
DAVA Damuels 85.27 317 *i* P **P 17 26 46.5 +0.2**
comp=Z,14nm,2.2s
KEST Kesra 85.67 305 P **P 17 26 49.5 +1.1**
comp=Z,8.8nm,0.8s,baz=30,slow=3.6,SNR=6.9
comp=Z,8.8nm,0.8s
BFO Black Forest 86.32 318 *i* P **P 17 26 51.6 +0.3**
MOL Molde 86.68 332 *e*P **P 17 26 53.8 +1.1**
SENIN Lac Senin/Sane 87.05 316 IAmb IAmb 17 27 55.8
comp=Z,24nm,1.7s
ELIB Princess Elisa 87.62 197 *d*P **P 17 27 00.1 +2.8**
comp=Z,5.2nm,1.1s
TAM Tamanrasset 89.45 293 P **P 17 27 07.0 0.0**
comp=Z,5.8nm,0.8s
NOR Nord 90.27 352 P **P 17 27 09.6 +0.2**
comp=Z,12nm,1.0s
NOR pP **sP 17 27 22.1 -1.5**
QSPA South Pole Qui 92.99 180 P **P 17 27 22.7 +0.3**
QSPA LR LR 18 04 56.0
comp=Z,2.0nm,1.0s,baz=273,slow=4.4,SNR=6.6
comp=Z,191nm,19.0s,baz=332,slow=33
comp=Z,2.0nm,1.0s
D20K Etivluk River 93.35 20 P 17 27 24.6 +0.6
TORD Torodi Ar. Bea 93.69 283 P **P 17 27 26.7 +0.1**
comp=Z,2.3nm,1.0s,baz=95,slow=3.6,SNR=8.7
TORD LR LR 18 06 37.5
comp=Z,90nm,21.6s,baz=337,slow=34
comp=Z,2.3nm,1.0s
TORD Torodi Ar. Bea 93.69 283 P **P 17 27 27.1 +0.5**
G21K Allakaket 95.18 22 P **P 17 27 32.1 -0.2**
ILAR Eielson Array 98.39 23 LR LR 18 15 38.7
comp=Z,109nm,21.5s,baz=264,slow=38
PPT2 Papeete2 114.00 108 *e*LR LR 18 06 54.1
comp=Z,59nm,26.2s
TAOE Nuku Hiva Isla 123.71 99 *e*LR LR 18 11 31.2
comp=Z,149nm,26.8s
NVAR Mina Array Bea 127.85 34 PKP **PKPdf 17 33 14.8 -0.7**
comp=Z,0.4nm,0.6s,baz=314,slow=4.1,SNR=2.5
PDAR Pinedale Array 128.79 24 PKP **PKPdf 17 33 17.3 +0.1**
comp=Z,0.3nm,0.6s,baz=322,slow=2.3,SNR=4.4
PLCA Paso Flores 140.63 196 PKP **PKPdf 17 33 38.9 -0.3**
comp=Z,0.5nm,0.3s,baz=165,slow=15,SNR=2.4
TXAR Lajitas Array 142.58 29 PKP **PKPdf 17 33 42.4 -0.6**
comp=Z,0.3nm,0.5s,baz=328,slow=2.2,SNR=3.9
CPUP Villa Florida 145.65 225 PKPbc **PKPdf 17 33 48.3 0.0**
comp=Z,7.0nm,0.8s,baz=114,slow=3.0,SNR=21
CPUP Villa Florida 145.65 225 PKP2 **PKPab 17 33 48.9 0.0**
CPUP Villa Florida 145.65 225 **PKPab 17 33 48.9 0.0**
ZON Zonda 148.28 205 PKP2 **PKPbc 17 33 55.9 -0.1**
ZON Zonda 148.28 205 **PKPbc 17 33 55.9 -0.1**
LPAZ La Paz 159.74 229 PKP **PKPdf 17 34 08.5 -1.4**
comp=Z,0.4nm,0.3s,baz=188,slow=2.8,SNR=3.9

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*IDC **30** 17:25:15.9±1.1,21°.80S×171°.33E,h0km,mb4.1/5, mbtmp4.1/5,ML2.7/1, Error ellipse: s-maj=37.8km s-min=21.0km az=173.0*
*NEIC **30** 17:25:33.7±1.6,21°.81S±0°.09×170°.8E±0°.1,h122km±7km, mb4.3/14, Error ellipse: s-maj=17.0km s-min=7.9km az=49.0*
ISC 30 17:25:30.5±0.7,21°.7S±0°.1×170°.91E±0°.08,h100km,n44, σ1s23/47,mb4.2/10,Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
MARNC	**Mare, Loyalty**	**2.69**	**275**		**Pn**	**17 26 14.4**	**+2.3**
MARNC				Sn	**Sn**	**17 26 43.8**	**-0.3**
PINNC	**Pines Island,**	**3.32**	**254**		**Pn**	**17 26 23.0**	**+2.5**
OUENC	**Ouen Island, N**	**3.83**	**259**		**Pn**	**17 26 28.6**	**+1.2**
OUENC				Sn	**Sn**	**17 27 12.6**	**+1.2**
DZM	**Mont Dzumac**	**4.16**	**265**	Pn	Pn	17 26 26.3	-5.6
	0.4nm,0.3s,baz=105,slow=15,SNR=22						
DZM				Sn	**Sn**	**17 27 17.1**	**-2.4**
	1.8nm,0.3s,baz=94,slow=17,SNR=3.1						
DZM				AML	AML		
FUNA	**Funafuti**	**15.38**	**33**	Pn	**Pn**	**17 29 00.8**	**-1.2**
HNR	**Honiara**	**16.15**	**318**		**P**	**17 29 13.9**	**+0.8**
ARMA	**Armidale**	**19.33**	**239**	P	**P**	**17 29 48.0**	**-0.1**
ARMA				IAmb	IAmb	17 30 21.3	
	comp=Z,20nm,1.4s						
BFZ	**Birch Farm**	**19.42**	**168**	Pn	**Pn**	**17 29 52.0**	**+1.1**
CAN	**Canberra**	**23.46**	**230**	P	**P**	**17 30 30.9**	**-0.2**
CAN				IAmb	IAmb	17 30 39.2	
	comp=Z,13nm,1.1s						
WR8	**Warramunga Arr**	**34.02**	**266**	P	**P**	**17 32 03.3**	**-1.8**
WR8				IAmb	IAmb	17 32 22.5	
	comp=Z,4.9nm,1.2s						
AS31	**Alice Springs**	**34.13**	**260**	P	**P**	**17 32 03.5**	**-2.5**
ASAR	**Alice Springs**	**34.13**	**260**	P	**P**	**17 32 05.8**	**-0.2**
	comp=Z,2.7nm,0.8s,baz=75,slow=8.2,SNR=43						
ASAR				PcP	**PcP**	**17 34 41.1**	**-0.1**
	comp=Z,0.5nm,0.7s,baz=101,slow=2.0,SNR=5.3						
	comp=Z,2.7nm,0.8s						
ASAR	**Alice Springs**	**34.13**	**260**	P	**P**	**17 32 04.3**	**-1.7**
WB0	**Warramunga Arr**	**34.15**	**267**	P	**P**	**17 32 04.5**	**-1.8**
WB0				IAmb	IAmb	17 32 16.9	
	comp=Z,7.7nm,1.2s						
WRA	**Warramunga Arr**	**34.17**	**266**	P	**P**	**17 32 05.3**	**-1.1**
	comp=Z,1.1nm,0.6s,baz=100,slow=7.9,SNR=8.8						
	comp=Z,1.1nm,0.6s						
MTN	**Manton Dam**	**38.90**	**276**	P	**P**	**17 32 45.5**	**-1.1**
MTN				IAmb	IAmb	17 33 02.2	
	comp=Z,6.8nm,1.1s						
FITZ	**Fitzroy Crossi**	**42.60**	**267**	P	**P**	**17 33 15.8**	**-1.3**
MBWA	**Marble Bar**	**47.45**	**261**	P	**P**	**17 33 54.3**	**-1.1**
MBWA				IAmb	IAmb	17 34 19.0	
	comp=Z,15nm,1.1s						
QSPA	**South Pole Qui**	**68.32**	**180**	P	**P**	**17 36 18.7**	**-2.1**
	comp=Z,2.6nm,1.0s,baz=356,slow=2.7,SNR=4.4						
	comp=Z,2.6nm,1.0s						
QSPA	**South Pole Qui**	**68.32**	**180**	P	**P**	**17 36 20.7**	**-0.1**
QSPA				IAmb	IAmb	17 36 24.0	
	comp=Z,4.5nm,1.2s						
CMAR	**Chiang Mai Arr**	**80.95**	**294**	P	**P**	**17 37 33.9**	**-0.4**
	comp=Z,0.5nm,0.3s,baz=155,slow=4.3,SNR=7.6						
	comp=Z,0.5nm,0.3s						
SONM	**Songino Array**	**90.15**	**323**	P	**P**	**17 38 19.8**	**+0.3**
	comp=Z,1.4nm,0.9s,baz=134,slow=4.3,SNR=7.5						
	comp=Z,1.4nm,0.9s						
SONM	**Songino Array**	**90.15**	**323**	P	**P**	**17 38 18.8**	**-0.7**
SONM				IAmb	IAmb	17 38 21.8	
	comp=Z,1.4nm,1.0s						
MORC	**Moravsky Berou**	**145.00**	**330**	*e*PKP	PKPbc	17 44 56.2	+0.7
JAVC	**Velka Javorina**	**145.57**	**328**	*e*PKP	**PKPab**	**17 44 59.7**	**+2.0**
VRAC	**Vranov**	**145.77**	**330**	*e*PKP	**PKPab**	**17 44 59.0**	**+0.6**
BRG	**Berggiesshubel**	**145.79**	**334**	*e*P	**PKPbc**	**17 44 58.8**	**+0.9**
BRG				Amp		17 44 60.0	
	comp=Z,2.9nm,0.7s						
CLL	**Collm**	**145.84**	**335**	*i* PKPbc	**PKPbc**	**17 44 58.9**	**+1.0**
	comp=Z,11nm,1.3s						
KRUC	**Moravsky**	**146.04**	**330**	*e*PKP	**PKPbc**	**17 44 59.5**	**+0.9**
EKA	**Eskdalemuir Ar**	**146.16**	**354**	PKPbc	**PKPdf**	**17 44 57.8**	**+0.2**
	comp=Z,3.3nm,0.6s,baz=7.9,slow=3.5,SNR=5.5						
ABNA	**Allensteig Bun**	**146.77**	**330**	*e*PKP	**PKPbc**	**17 45 02.1**	**+1.3**
	comp=Z,6.0nm,1.2s						
GEC2	**GERESS Array S**	**147.43**	**332**	PKPbc	**PKPbc**	**17 45 02.9**	**+0.2**
GERES	**GERESS Array B**	**147.43**	**332**	PKPbc	**PKPdf**	**17 45 02.1**	**+1.9**
	comp=Z,1.5nm,0.7s,baz=29,slow=3.0,SNR=10						
GERES	**GERESS Array B**	**147.43**	**332**		**PKPbc**	**17 45 02.5**	**-0.2**
SESA	**Seetaler Alpe,**	**148.28**	**329**	*i* PKP	**PKPbc**	**17 45 06.0**	**+0.8**
	comp=Z,3.1nm,0.9s						
LESA	**Schwarzleotal**	**148.94**	**331**	*i* PKP	**PKPbc**	**17 45 07.0**	**+0.2**
	comp=Z,2.6nm,0.5s						
WATA	**Walderalm**	**149.50**	**332**	*i* PKP	**PKPbc**	**17 45 08.3**	**+0.1**
	comp=Z,2.7nm,0.6s						
WATA				*i* PKiKP	**PKPab**	**17 45 12.4**	**-1.0**
	comp=Z,1.7nm,0.5s						
ABTA	**Abfaltersbach**	**149.52**	**330**	*i* PKP	**PKPbc**	**17 45 08.6**	**+0.4**
	comp=Z,5.0nm,1.3s						
MOTA	**Moosalm**	**149.70**	**332**	*i* PKP	**PKPbc**	**17 45 08.9**	**+0.2**
	comp=Z,3.1nm,0.7s						
SQTA	**Sankt Quirin**	**149.75**	**332**	*i* PKP	**PKPbc**	**17 45 09.1**	**+0.4**
	comp=Z,3.0nm,0.5s						
FETA	**Feichten**	**150.11**	**332**	*i* PKP	**PKPbc**	**17 45 10.4**	**+0.7**
	comp=Z,3.2nm,0.9s						
DAVA	**Damuels**	**150.26**	**333**	*i* PKP	**PKiKP**	**17 45 11.5**	**+0.7**
	comp=Z,2.5nm,0.6s						
FUORN	**Ofenpass-Fuorn**	**150.62**	**332**	PKPbc	**PKPbc**	**17 45 12.0**	**+0.9**
TUE	**Stuetta**	**151.13**	**333**	PKPbc	**PKPbc**	**17 45 12.4**	**+0.2**

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*VIE **30** 17:26:20.5±0.4,50°.10N×18°.42E,h0km,mb2.3/3,ml2.4/5, ml2.3/5, Error ellipse: s-maj=5.2km s-min=2.5km az=158.0 32 km NNE of Ostrava Suspected Mining induced.*
*IPEC **30** 17:26:20.9±0.1,50°.07N×18°.48E,h1km,ML2.2/6, Error ellipse: s-maj=1.7km s-min=0.9km az=167.0*
PRU 30 17:26:23.2,50°.05N×18°.33E,h0km,Poland

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	**0.09**	**291**	*e*PG	Pg	17 26 25.3	+0.3
RAC				*e*SG	Sg	17 26 28.5	+2.3
RAC	**Raciborz**	**0.09**	**291**	*e*	Pg	17 26 28.5	+3.5
RAC	**Raciborz**	**0.09**	**291**	*e*P	Pg	17 26 25.3	+0.3
OKC	**Ostrava-Krasne**	**0.24**	**209**	*e*	Pg	17 26 32.2	+4.4
OKC	**Ostrava-Krasne**	**0.24**	**209**	*e*PG	Pg	17 26 27.3	-0.5
OKC				*e*SG	Sg	17 26 32.2	+1.2
	comp=Z,144nm,0.6s						
OKC				AML	AML		
OKC	**Ostrava-Krasne**	**0.24**	**209**	*e*P	Pg	17 26 27.3	-0.5
STEB	**Steborice**	**0.38**	**252**	*e*PG	Pg	17 26 30.5	+0.1
STEB				*e*SG	Sg	17 26 36.6	+1.3
	comp=Z,144nm,0.4s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**0.58**	**242**	*e*Pg	Pg	17 26 33.5	-0.8
	baz=64						
MORC				*e*Sg	Sg	17 26 42.2	+0.5
	46nm,0.4s,baz=64						

MORC				AML	AML			
ANAC	**Anensky vrch**	**0.61**	**273**	*e*Pg	Pg	17 26 34.3	-0.6
	baz=90							
ANAC				*e*Sg	Sg	17 26 43.3	+0.4
	35nm,0.3s,baz=90							
ANAC				AML	AML			
LOSC	**Losov**	**0.75**	**236**	*e*Pg	Pg	17 26 37.0	-0.6
	baz=58							
LOSC				*e*Sg	Sg	17 26 47.2	-0.2
	37nm,0.4s,baz=58							
LOSC				AML	AML			
OJC	**Ojcow**	**0.96**	**79**	*e*Pg	Pg	17 26 37.5	-4.1
OJC				*e*Sg	Sg	17 26 49.6	-4.4
KRLC	**Kraliky**	**1.00**	**272**	*e*PG	Pg	17 26 40.6	-1.7
KRLC				*e*SG	Sg	17 26 54.7	-0.5
	comp=Z,49nm,0.4s							
KRLC				AML	AML			
LANS	**Liptovska Anna**	**1.17**	**140**	*e*PG	Pg	17 26 43.0	-2.5
LANS				*e*SG	Sg	17 27 00.4	-0.2
LANS				*e*LG	Lg	17 27 03.1	
JAVC	**Velka Javorina**	**1.27**	**200**	*e*Pg	Pg	17 26 46.1	-1.4
	baz=23							
DPC	**Dobruska-Polom**	**1.32**	**284**	*e*PG	Pg	17 26 47.0	-1.6
DPC				*e*SG	Sg	17 27 05.6	-0.1
	comp=Z,54nm,0.5s							
DPC				AML	AML			
VRAC	**Vranov**	**1.35**	**237**	*e*Pg	Pg	17 26 47.4	-1.7
	baz=58							
VRAC				*e*Sg	Sg	17 27 06.2	-0.3
	18nm,0.4s,baz=58							
VRAC				AML	AML			
OSTC	**Ostas**	**1.45**	**291**	*e*PG	Pn	17 26 49.0	-1.7
OSTC				*e*SG	Sg	17 27 09.8	+0.1
	comp=Z,16nm,0.6s							
OSTC				AML	AML			
KSP	**Ksiaz**	**1.52**	**302**	*e*Pg	Pn	17 26 50.0	-1.7
KSP				*e*Sg	Sg	17 27 11.7	-0.5
CHVC	**Chvalec**	**1.56**	**291**	*e*PG	Pn	17 26 50.7	-1.4
CHVC				*e*SG	Sn	17 27 12.7	-0.3
UPC	**Upice**	**1.56**	**288**	*e*PG	Pn	17 26 50.8	-1.3
UPC				*e*SG	Sn	17 27 12.7	-0.3
	comp=Z,14nm,0.4s							
UPC				AML	AML			
VYHS	**Vyhne**	**1.59**	**168**	*e*PG	Pn	17 26 49.9	-2.7
VYHS				*e*SG	Sn	17 27 11.5	-2.4
VYHS				*e*LG	Lg	17 27 13.3	
KRUC	**Moravsky**	**1.60**	**233**	*e*Pn	Pn	17 26 51.3	-1.5
	baz=53							
KRUC				*e*Sg	Sn	17 27 13.8	-0.3
	24nm,0.6s,baz=53							
KRUC				AML	AML			
MODS	**Modra-Piesok**	**1.81**	**203**	*e*PG	Pn	17 26 53.8	-1.9
MODS				*e*		17 45 01.2		
KECS	**Kecovo**	**2.11**	**137**	*e*PN	Pn	17 26 56.5	-3.2
KECS				*e*SN	Sn	17 27 22.4	-4.3
KECS				*e*LG	Lg	17 27 27.6	
ABNA	**Allensteig Bun**	**2.34**	**235**	*i* Sn	Sn	17 27 32.0	-0.4
	2.2nm,0.1s							
CONA	**Conrad Observa**	**2.67**	**218**	*e*Pn	Pn	17 27 05.3	-2.2
	1.3nm,0.3s							
CONA				*e*Sn	Sn	17 27 38.7	-2.0
	2.2nm,0.4s							
RONA	**Rosalia, Austr**	**2.71**	**210**	*i* Pn	Pn	17 27 06.5	-1.5
	0.2nm,0.1s							
ZVC	**Zvikov**	**2.75**	**259**	*e*PG	Pb	17 27 13.3	0.0
ZVC				*e*SG	Sg	17 27 50.0	-1.6
	comp=Z,7.5nm,0.7s							
ZVC				AML	AML			
KOLS	**Kolonicke sedl**	**2.80**	**112**	*e*SN	Sn	17 27 39.9	-3.9
KOLS				*e*LG	Lg	17 27 53.7	
CKRC	**Cesky Krumlov**	**2.90**	**246**	*e*PG	Pb	17 27 15.8	0.0
CKRC				*e*SG	Sg	17 27 55.4	-0.9
	comp=Z,11nm,0.7s							
CKRC				AML	AML			
BRG	**Berggiesshubel**	**2.92**	**288**	Pg	Pb	17 27 16.1	-0.1
BRG				Sg	Sg	17 27 55.0	-2.1
BRG				Amp		17 27 59.3	
	comp=Z,5.4nm,0.5s							
KHC	**Kasperske Hory**	**3.23**	**255**	*e*PG	Pb	17 27 21.9	+0.6
KHC				*e*SG	Sg	17 28 04.4	-2.4
	comp=Z,8.0nm,0.4s							
KHC				AML	AML			
MOA	**Molln**	**3.47**	**232**	*e*Pn	Pn	17 27 16.0	-2.5
	comp=Z,0.8nm,0.2s							
MOA				*e*Pg	Pb	17 27 27.0	+1.5
	comp=Z,1.9nm,0.4s							
MOA				Sg	Sg	17 28 12.6	-2.0
	comp=Z,4.1nm,0.4s							
NKC	**Novy Kostel**	**3.79**	**275**	*e*SG	Sg	17 28 23.0	-1.8

*UPA **30** 17:26:47.5±2.1, 7°.24N×82°.31W, h10km±28km, MW3.7, Presumed earthquake*
*UCR **30** 17:26:47.3±1.6, 7°.24N×82°.35W, h8km±11km, MW3.5, Presumed earthquake*
ISC 30 17:26:47.1±3.2, **7°.2N**±0°.1×**82°.30W**±0°.06, **h16**km±17km, **n34,** σ1§**26**/47, **1C, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPA	**Petro Terminal**	**1.15**	**331**	*e*P	**Pn**	**17 27 06.3**	**-2.4**
GMAL	**Guarumal, Vera**	**1.20**	**62**	*e*P	**Pn**	**17 27 08.7**	**-0.7**
GMAL	**Guarumal, Vera**	**1.20**	**62**	*e*P	**Pn**	**17 27 08.8**	**-0.6**
GMAL				*e*S	**Sb**	**17 27 20.9**	**-4.0**
BGUAL	**Bijagual, Pana**	**1.31**	**359**	*e*P	**Pn**	**17 27 10.0**	**-0.9**
BGUAL				*e*S	**Sn**	**17 27 27.6**	**-0.4**
MARI3	**Mariato, Verag**	**1.38**	**71**	*e*P	**Pn**	**17 27 12.1**	**+0.3**
MARI3				*e*S	**Sb**	**17 27 30.8**	**+0.8**
CCOL	**Caracol de Cor**	**1.38**	**331**	*e*P	**Pn**	**17 27 10.9**	**-0.9**
CACAO	**El Cacao, Vera**	**1.44**	**84**	*e*P	**Pn**	**17 27 12.6**	**0.0**
CACAO				*e*S	**Sn**	**17 27 30.2**	**-0.9**
BQSF3	**Alto Boquete,**	**1.55**	**355**	*e*P	**Pn**	**17 27 13.0**	**-1.3**
CLLRA	**Cordillera,**	**1.57**	**349**	*e*P	**Pn**	**17 27 13.5**	**-1.1**
CLLRA				*e*S	**Sn**	**17 27 36.0**	**+1.2**
LNBQ3	**Los Naranjos,**	**1.59**	**355**	*e*P	**Pn**	**17 27 14.2**	**-0.7**
BRU2	**Volcan**	**1.64**	**346**	*e*P	**Pn**	**17 27 14.4**	**-1.2**
BRU2				*e*S	**Sn**	**17 27 37.4**	**+1.0**
BRU2	**Volcan**	**1.64**	**346**	*e*P	**Pn**	**17 27 14.7**	**-0.8**
BRU2				*e*S	**Sn**	**17 27 37.2**	**+0.8**
MLIR3	**Monte Lirio, C**	**1.67**	**342**	*e*P	**Pn**	**17 27 16.0**	**0.0**
MLIR3				*e*S	**Sg**	**17 27 41.7**	**+0.6**
RBALA	**Bur**	**1.68**	**5**	*e*P	**Pn**	**17 27 16.3**	**+0.3**
RBALA				*e*S	**Sn**	**17 27 37.4**	**+0.1**
CHGR2	**Aguacate**	**1.74**	**5**	*e*P	**Pn**	**17 27 16.5**	**-0.3**
CHGR2				*e*S	**Sn**	**17 27 37.6**	**-1.1**
CTCR	**Cotoan**	**1.75**	**345**	*e*P	**Pn**	**17 27 16.3**	**-0.8**
EDP2	**Potrero Grande**	**2.01**	**334**	↑P	**Pn**	**17 27 20.3**	**-0.2**
FIMO	**Fila Mora**	**2.07**	**330**	*e*P	**Pn**	**17 27 20.4**	**-1.0**
FIMO				*e*S	**Sn**	**17 27 47.7**	**+0.8**
DRK0	**Durika**	**2.26**	**336**	*e*P	Pn	17 27 07.9	-16
VERH	**Veragua Rainfo**	**2.86**	**342**	*e*P	**Pn**	**17 27 32.9**	**+0.7**
VERH				*e*S	**Sn**	**17 28 06.3**	**0.0**
PIEC	**Cerro El Cedra**	**2.92**	**326**	*e*P	**Pn**	**17 27 32.9**	**-0.4**
ZANG	**Zanguenga, Cho**	**2.98**	**54**	*e*P	**Pn**	**17 27 34.8**	**+1.0**
ABE2	**San Pablo**	**3.04**	**325**	*e*P	**Pn**	**17 27 34.5**	**-0.4**
LCR2	**La Lucha 2**	**3.04**	**326**	*e*P	**Pn**	**17 27 34.5**	**-0.4**
LCR2	**La Lucha 2**	**3.04**	**326**	*e*P	**Pn**	**17 27 34.9**	**0.0**
VTCV	**VTCV, Calle Va**	**3.11**	**333**	*e*P	**Pn**	**17 27 36.1**	**+0.2**
ABRB	**Las Abras (San**	**3.13**	**333**	*e*P	**Pn**	**17 27 36.1**	**0.0**
BCIP	**Isla Barro Col**	**3.13**	**51**	*e*P	**Pn**	**17 27 39.2**	**+3.3**
LCOCO	**El Coco**	**3.13**	**337**	*e*P	**Pn**	**17 27 37.5**	**+1.5**
CVTV	**Tajo**	**3.14**	**333**	*e*P	**Pn**	**17 27 36.9**	**+0.6**
VTR0	**Volcan Turrial**	**3.16**	**333**	*e*P	**Pn**	**17 27 36.8**	**+0.1**
VTR0				*e*S	**Sn**	**17 28 16.3**	**+2.0**
CVTR	**Volcan Turrial**	**3.16**	**333**	*e*P	**Pn**	**17 27 37.1**	**+0.4**
CVTR				*e*S	**Sn**	**17 28 17.3**	**+3.0**
VICA	**Volcano Irazu**	**3.17**	**331**	*e*P	**Pn**	**17 27 37.3**	**+0.5**
VBV1	**V. Barva**	**3.40**	**329**	*e*P	**Pn**	**17 27 40.1**	**+0.1**

*IDC **30** 17:29:58.7±2.8, 47°.28N×147°.72E, h0km, mb3.7/4, mbtmp3.7/4, Error ellipse: s-maj=93.0km s-min=37.1km az=69.0*
*JMA **30** 17:30:41.7±0.3, 47°N.2°×14°7E±°, h390km, MV3.1/7, SOUTHERN SEA OF OKHOTSK*
ISC 30 17:30:39.8±1.6, **47°.1N**±0°.1×**146°.3E**±0°.3, **h350**km, **n8,** σ1§**06/11, mb3.1/4, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**3.79**	**186**	P	**Pn**	**17 31 47.6**	**+0.9**
NEM2				*e*S	**S**	**17 32 39.4**	**-1.2**
JAK	**Akkeshi**	**4.29**	**196**	*e*P	**Pn**	**17 31 52.7**	**+0.9**
JAK				*e*S	**S**	**17 32 49.0**	**-0.9**
JCH	**Churui**	**4.97**	**206**	*e*P	**Pn**	**17 32 00.2**	**+1.1**
JCH				*e*S	**S**	**17 33 02.0**	**-1.2**
JNBK	**Urakawa-nobuka**	**5.46**	**209**	*e*P	**Pn**	**17 32 05.5**	**+1.0**
MKAR	**Makanchi Array**	**42.55**	**294**	P	**P**	**17 38 02.5**	**+0.4**
	0.6nm,0.5s,baz=70,slow=7.3,SNR=4.9							
	0.6nm,0.5s							
KURBB	**Kurchatov Arra**	**43.28**	**301**	P	**P**	**17 38 08.0**	**+0.2**
	0.7nm,0.5s,baz=71,slow=8.8,SNR=6.1							
	0.7nm,0.5s							
FINES	**FINESS Array B**	**61.59**	**332**	P	**P**	**17 40 19.5**	**-1.0**
	2.2nm,1.0s,baz=51,slow=6.4,SNR=4.4							
	2.2nm,1.0s							
ASAR	**Alice Springs**	**71.35**	**192**	P	**P**	**17 41 22.5**	**+0.2**
	0.3nm,0.9s,baz=14,slow=7.7,SNR=1.2							
	0.3nm,0.9s							

PRU 30 17:41:04.7, 50°.17N×19°.05E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STEB	**Steborice**	**0.86**	**254**	*e*SG	Sg	17 41 32.1	-0.1
MORC	**Moravsky Berou**	**1.05**	**249**	*e*PG	Pg	17 41 24.3	-0.5
MORC				*e*SG	Sg	17 41 36.9	-1.5
LANS	**Liptovska Anna**	**1.06**	**165**	*e*PG	Pb	17 41 25.9	0.0
LANS				*e*SG	Sg	17 41 38.9	+0.3
KRLC	**Kraliky**	**1.46**	**267**	*e*SG	Sg	17 41 50.3	-1.4
KRLC	**Kraliky**	**1.46**	**267**	*e*	Sg	17 41 50.3	-1.4
VYHS	**Vyhne**	**1.68**	**185**	*e*SN	Sg	17 42 00.0	+1.3
VYHS				*e*		17 44 57.8	
DPC	**Dobruska-Polom**	**1.76**	**277**	*e*SG	Sb	17 42 00.7	+0.2

*IDC **30** 18:22:19.2±0.9, 28°.15N×128°.16E, h0km, mb3.6/7, mbtmp3.6/9, ML2.6/2, MS3.6/31, Error ellipse: s-maj=28.2km s-min=15.2km az=80.0*
*NIED **30** 18:22:20.7, 28°.07N×128°.00E, h14km, MW4.5, Moment Tensor Solution. s3 Moment tensor: Scale 10¹⁵Nm; Mrr-1.70; Mθθ2.63; Mφφ-0.93; Mrθ-1.87; Mθφ2.24; Mφr-4.22; Fault plane solution: M₀5.62000×10¹⁵ NP1: φs281.00000°, δ31.00000°, λ-20.00000°. NP2:φs29.00000°, δ80.00000°, λ-119.00000°.*
*JMA **30** 18:22:20.7±0.3, 28°.1N±0°.5×128°.0E±0°.6, h14km±2km, MV3.9/14, NW OFF OKINAWAJIMA IS*
ISC 30 18:22:20.1±1.5, **28°.07N**±0°.04×**128°.07E**±0°.05, **h6**km±10km, **n50,** σ0§**61/30, mb3.7/8, MS3.7/29, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTK	**Tokunoshima**	**0.83**	**110**	*e*P	**Pn**	**18 22 37.5**	**-0.9**
JTK				S	**Sb**	**18 22 49.0**	**+0.5**
JOKE	**Okinoerabujima**	**0.84**	**148**	P	**Pb**	**18 22 37.0**	**-0.1**
JOKE				*e*S	**Sb**	**18 22 48.4**	**-0.2**
JAMN	**Amaminishikomi**	**0.99**	**80**	P	**Pn**	**18 22 40.2**	**-0.4**
JAMN				*e*S	**Sn**	**18 22 54.3**	**-0.7**
JIH	**Iheya**	**1.04**	**185**	P	**Pg**	**18 22 39.6**	**-0.4**
JIH				*e*S	**Sg**	**18 22 53.3**	**-0.1**
JYRO	**Yoronjima**	**1.10**	**162**	*i* P	**Pg**	**18 22 41.1**	**0.0**
JYRO				*e*S	**Sg**	**18 22 56.0**	**+0.6**
JOW	**Kunigami**	**1.25**	**171**	Pn	**Pn**	**18 22 43.2**	**-0.9**
	549nm,0.3s,baz=34,slow=9.6,SNR=129							
JOW				Sn	**Sb**	**18 22 59.7**	**-0.7**
	260nm,0.3s,baz=186,slow=18,SNR=5.5							
JOW	**Kunigami**	**1.25**	**171**	*e*P	**Pn**	**18 22 43.2**	**-0.9**
JAM	**Amami Oshima**	**1.40**	**76**	P	**Pg**	**18 22 46.9**	**0.0**
JAM				*e*S	**Sg**	**18 23 05.7**	**+0.6**
JTAJ	**Takarajima**	**1.47**	**43**	*e*P	**Pb**	**18 22 47.1**	**-0.8**
JNTH	**Nagotoyohara**	**1.55**	**181**	P	**Pn**	**18 22 48.4**	**+0.2**
JNTH				*e*S	**Sn**	**18 23 08.7**	**0.0**
JAGN	**Aguni-jima**	**1.65**	**207**	*e*P	**Pn**	**18 22 49.3**	**-0.3**
JZK	**Kikaishima**	**1.70**	**81**	*e*P	**Pg**	**18 22 52.3**	**-0.4**
JJT3	**Tamagusuku3**	**1.94**	**188**	*e*P	**Pn**	**18 22 53.9**	**+0.3**
JNU	**Nakatsue**	**5.59**	**25**	Pn	Pb	18 23 50.1	-7.9
	2.8nm,0.3s,baz=336,slow=6.6,SNR=16							
KSRS	**Korea Array**	**9.36**	**359**	Pn	**Pn**	**18 24 35.6**	**+0.1**
	0.1nm,0.3s,baz=145,slow=11,SNR=2.7							
KSRS				LR	LR	18 28 17.5		
	comp=Z,364nm,19.1s,baz=180,slow=39							
	0.8nm,0.8s							
KSRS				AML	AML			
MJAR	**Matsushiro Arr**	**12.03**	**43**	Pn	**Pn**	**18 25 13.6**	**+1.4**
	baz=242,slow=14,SNR=2.0							
MJAR				LR	LR	18 29 44.9		
	comp=Z,138nm,19.6s,baz=227,slow=37							
	0.6nm,0.5s							
USRK	**Ussuriysk Ar.**	**16.40**	**10**	LR	LR	18 31 55.6		
	comp=Z,121nm,19.8s,baz=204,slow=35							
DAV	**Davao City (W)**	**21.02**	**187**	LR	LR	18 34 59.5		
	comp=Z,82nm,21.8s,baz=352,slow=36							
GUMO	**Guam**	**21.27**	**129**	LR	LR	18 34 07.4		
	comp=Z,156nm,19.6s,baz=350,slow=33							
KLR	**Kul'dur**	**21.32**	**7**	LR	LR	18 35 11.9		
	comp=Z,84nm,20.1s,baz=185,slow=36							
HILR	**Hailar Array B**	**22.38**	**346**	LR	LR	18 36 57.7		
	comp=Z,145nm,20.5s,baz=120,slow=39							
SONM	**Songino Array**	**25.95**	**325**	P	**P**	**18 27 54.5**	**+1.1**
	0.4nm,0.5s,baz=136,slow=9.4,SNR=4.7							
SONM				LR	LR	18 40 03.2		
	comp=Z,90nm,18.1s,baz=162,slow=41							
	0.4nm,0.5s							
GTA2	**Gaotai**	**26.03**	**303**	*e*P	P	18 28 01.8	+7.5
GTA2				pmax	pmax			
	comp=Z,6.0nm,0.9s							
GTA2				LR	LR			
	comp=N,480nm,16.8s							
GTA2				LR	LR			
	comp=E,260nm,16.2s							
GTA2				LR	LR			
	comp=Z,330nm,14.3s							
CMAR	**Chiang Mai Arr**	**28.35**	**257**	LR	LR	18 40 58.0		
	comp=Z,65nm,19.3s,baz=70,slow=39							
TLY	**Talaya**	**29.86**	**329**	LR	LR	18 41 19.4		
	comp=Z,108nm,20.0s,baz=113,slow=38							
PETK	**Petropavlovsk-**	**32.22**	**33**	LR	LR	18 43 29.7		
	comp=Z,60nm,18.0s,baz=215,slow=38							
BRDH	**Bariadhala**	**33.26**	**269**	LR	LR	18 44 39.2		
	comp=Z,150nm,18.5s,baz=178,slow=40							
YAK	**Yakutsk**	**33.98**	**1**	LR	LR	18 43 01.9		
	comp=Z,110nm,19.4s,baz=161,slow=37							
MA2	**Magadan**	**35.13**	**20**	LR	LR	18 43 12.9		
	comp=Z,34nm,19.5s,baz=156,slow=36							
MKAR	**Makanchi Array**	**40.22**	**310**	P	**P**	**18 29 57.3**	**-0.2**
	comp=Z,0.5nm,0.7s,baz=98,slow=7.4,SNR=6.9							
MKAR				LR	LR	18 47 56.4		
	comp=Z,35nm,20.4s,baz=108,slow=38							
	comp=Z,0.5nm,0.7s							
ZALV	**Zalesovo Beam**	**40.71**	**322**	LR	LR	18 48 47.0		
	comp=Z,108nm,18.1s,baz=93,slow=39							
KURBB	**Kurchatov Arra**	**43.44**	**315**	P	**P**	**18 30 23.4**	**-0.3**
	comp=Z,0.6nm,0.5s,baz=103,slow=8.6,SNR=6.7							
KURBB				LR	LR	18 49 59.5		
	comp=Z,129nm,18.4s,baz=188,slow=38							
	comp=Z,0.6nm,0.5s							
TIXI	**Tiksi**	**43.62**	**0**	LR	LR	18 48 33.0		
	comp=Z,132nm,18.9s,baz=188,slow=36							
NRIK	**Noril'sk**	**47.46**	**342**	LR	LR	18 52 40.3		
	comp=Z,172nm,19.5s,baz=130,slow=38							
WRA	**Warramunga Arr**	**48.12**	**172**	P	**P**	**18 31 00.9**	**0.0**
	comp=Z,1.3nm,0.8s,baz=354,slow=8.4,SNR=8.5							
	comp=Z,1.3nm,0.8s							
BVAR	**Borovoye Array**	**48.82**	**317**	P	**P**	**18 31 05.6**	**-0.5**
	comp=Z,0.5nm,0.6s,baz=68,slow=4.0,SNR=3.6							
	comp=Z,0.5nm,0.6s							
PALK	**Pallekele**	**49.26**	**254**	LR	LR	18 53 38.9		
	comp=Z,32nm,19.2s,baz=50,slow=38							
ASAR	**Alice Springs**	**51.74**	**173**	P	**P**	**18 31 29.0**	**+0.5**
	comp=Z,0.6nm,0.8s,baz=349,slow=9.0,SNR=7.4							
	comp=Z,0.6nm,0.8s							
ARTI	**Arti**	**55.97**	**321**	LR	LR	18 56 41.7		
	comp=Z,62nm,19.1s,baz=94,slow=37							
KIRV	**Kirov**	**60.67**	**324**	LR	LR	19 01 50.3		
	comp=Z,110nm,19.1s,baz=93,slow=39							
STKA	**Stephens Creek**	**60.99**	**167**	LR	LR	18 58 39.9		
	comp=Z,106nm,21.9s,baz=11,slow=36							
KBZ	**Khabaz**	**67.89**	**309**	LR	LR	19 06 42.2		
	comp=Z,25nm,21.7s,baz=24,slow=39							
ARCES	**ARCESS Array B**	**68.25**	**338**	LR	LR	19 09 37.3		
	comp=Z,64nm,18.1s,baz=158,slow=42							
FINES	**FINESS Array B**	**71.20**	**330**	LR	LR	19 10 23.9		
	comp=Z,51nm,18.2s,baz=44,slow=40							
AKASG	**Malin Array Be**	**74.04**	**319**	LR	LR	19 09 15.3		
	comp=Z,101nm,18.8s,baz=53,slow=38							
YKA	**Yellowknife Ar**	**76.92**	**25**	P	**P**	**18 34 12.9**	**-0.1**
	comp=Z,0.4nm,0.5s,baz=300,slow=6.0,SNR=5.5							
	comp=Z,0.4nm,0.5s							
HFS	**Hagfors**	**77.13**	**332**	LR	LR	19 09 53.6		
	comp=Z,60nm,21.9s,baz=64,slow=37							
NOA	**NORSAR Array B**	**77.60**	**334**	LR	LR	19 11 54.4		
	comp=Z,49nm,18.5s,baz=20,slow=38							
DAVOX	**Davos/Dischmat**	**86.95**	**323**	LR	LR	19 17 48.5		
	comp=Z,52nm,19.0s,baz=64,slow=38							
EKA	**Eskdalemuir Ar**	**87.05**	**335**	LR	LR	19 16 37.9		
	comp=Z,43nm,19.0s,baz=4.5,slow=37							

*SCB **30** 18:22:24.5±1.5, 21°.19S×67°.65W, h183km, ML3.7/2, Error ellipse: s-maj=9.2km s-min=7.8km az=1.0*
*GUC **30** 18:22:25.4±0.7, 21°.14S×67°.76W, h200km±10km, ML3.5, Presumed earthquake*
ISC 30 18:22:23.6±1.8, **21°.13S**±0°.05×**67°.67W**±0°.06, **h194**km±16km, **n31,** σ1§**38/42, 1C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	**IPOC Station P**	**1.61**	**245**	*e*P	**Pn**	**18 22 59.8**	**+1.8**
PB09				*e*S	**Sn**	**18 23 25.3**	**+0.6**
PB09	**IPOC Station P**	**1.61**	**245**	P	**Pn**	**18 22 59.2**	**+1.2**
PB01	**IPOC Station P**	**1.70**	**273**	*e*P	**Pn**	**18 23 00.2**	**+1.4**
PB01				*e*S	**Sn**	**18 23 25.8**	**-0.3**
PB01				IAML		18 23 27.5	
	comp=N,354nm,0.3s							
PB01	**IPOC Station P**	**1.70**	**273**	P	**Pn**	**18 23 00.2**	**+1.4**
MOCB	**Mochara**	**1.90**	**94**	P	**Pn**	**18 23 01.3**	**+0.2**
GO01	**Chusmiza**	**2.04**	**315**	*e*P	**Pn**	**18 23 03.4**	**+0.7**
GO01				*i* S	**Sn**	**18 23 33.4**	**+0.4**
GO01				IAML		18 23 42.6	
	comp=E,291nm,0.1s							
GO01	**Chusmiza**	**2.04**	**315**	P	**Pn**	**18 23 03.2**	**+0.5**
PB02	**IPOC Station P**	**2.09**	**264**	*e*P	**Pn**	**18 23 03.4**	**+0.6**
PB02				IAML		18 23 33.0	
	comp=N,265nm,0.2s							
PB02	**IPOC Station P**	**2.09**	**264**	P	**Pn**	**18 23 03.8**	**+1.1**
PB02				S	**Sn**	**18 23 32.0**	**-1.1**
PB02				IAML		18 23 33.9	
	comp=N,231nm,0.3s							
PB03	**IPOC Station P**	**2.15**	**244**	*e*P	**Pn**	**18 23 04.4**	**+1.0**
PB03				IAML		18 23 34.6	
	comp=N,107nm,0.1s							
PB07	**IPOC Station P**	**2.15**	**254**	*e*P	**Pn**	**18 23 04.5**	**+1.0**
PB07				*e*S	**Sn**	**18 23 33.6**	**-0.9**
PB07				IAML		18 23 34.3	
	comp=N,414nm,0.3s							
YJA	**Yavi**	**2.25**	**118**	P	**Pn**	**18 23 05.3**	**+0.4**
PB11	**IPOC Station P**	**2.31**	**306**	*e*P	**Pn**	**18 23 05.7**	**+0.5**
PB11				*i* S	**Sn**	**18 23 36.3**	**-1.2**
PB11	**IPOC Station P**	**2.31**	**306**	P	**Pn**	**18 23 05.9**	**+0.7**
PB11				S	**Sn**	**18 23 37.4**	**-0.2**
PB11				IAML		18 23 39.3	
	comp=N,303nm,0.2s							
PB06	**IPOC Station P**	**2.37**	**228**	*e*P	**Pn**	**18 23 06.5**	**+0.7**
PB06				*e*S	**Sn**	**18 23 38.0**	**-0.7**
PB06				IAML		18 23 39.7	
	comp=N,194nm,0.4s							
PB06	**IPOC Station P**	**2.37**	**228**	P	**Pn**	**18 23 06.5**	**+0.7**
TA01	**Diego Aracena**	**2.42**	**283**	*e*P	**Pn**	**18 23 06.6**	**+0.4**
TA01				*e*S	**Sn**	**18 23 37.4**	**-2.0**
TA01				IAML		18 23 39.5	
	comp=E,83nm,0.1s							
SOEO	**Opoqueri**	**2.56**	**355**	P	**Pn**	**18 23 10.0**	**+1.6**
PSGCX	**Pisagua**	**2.77**	**303**	*e*P	**Pn**	**18 23 10.4**	**+0.1**
PSGCX				*i* S	**Sn**	**18 23 44.4**	**-2.3**
PB05	**IPOC Station P**	**2.91**	**233**	↑*e*P	**Pn**	**18 23 12.8**	**+0.7**
PB05				IAML		18 23 50.7	
	comp=N,73nm,0.5s							
SOET	**ToroToro**	**3.47**	**31**	P	**Pn**	**18 23 20.0**	**+1.0**
PB12	**IPOC Station P**	**3.54**	**314**	*e*P	**Pn**	**18 23 18.9**	**-0.7**
PB12				*i* S	**Sn**	**18 24 00.0**	**-3.4**
PB10	**IPOC Station P**	**3.58**	**228**	*e*P	**Pn**	**18 23 20.4**	**+0.5**
BBOJ	**La Paz, Jacaqu**	**4.16**	**353**	P	**Pn**	**18 23 30.4**	**+2.6**
SOEJ	**Jacaque**	**4.16**	**353**	P	**Pn**	**18 23 30.4**	**+2.6**
PB14	**IPOC Station P**	**4.30**	**215**	*e*P	**Pn**	**18 23 30.1**	**+0.9**
PB14	**IPOC Station P**	**4.30**	**215**	P	**Pn**	**18 23 29.6**	**+0.4**
BBOD	**La Paz, Gloria**	**4.55**	**349**	P	**Pn**	**18 23 35.0**	**+2.2**
LPAZ	**La Paz**	**4.84**	**355**	P	**Pn**	**18 23 38.0**	**+1.6**
BBOB	**La Paz, Bander**	**4.98**	**355**	P	**Pn**	**18 23 39.7**	**

JHJ Hachijo jima 2 36.27 349 LR LR 18 59 04.6
comp=Z,16nm,18.0s,baz=139,slow=36
LEM Lembang 40.09 263 LR LR 19 02 45.4
comp=Z,88nm,18.2s,baz=180,slow=39
NWAO Narrogin (SRO) 41.51 220 LR LR 19 04 03.3
comp=Z,748nm,18.0s,baz=60,slow=39
AFI Afiamalu 41.64 108 LR LR 19 01 27.4
comp=Z,168nm,19.1s,baz=166,slow=33
URZ Urewera 44.59 147 LR LR 19 02 11.3
comp=Z,448nm,19.6s,baz=315,slow=32
GSI Gunungsitoli 50.19 274 P **P** **18 46 35.1 +1.5**
CMAR Chiang Mai Arr 52.27 296 LR LR 19 07 08.2
comp=Z,56nm,20.8s,baz=105,slow=35
CMAR Chiang Mai Arr 52.27 296 P **P** **18 46 46.2 -3.0**
CHTO Chiang Mai 52.38 296 P **P** **18 46 49.6 -0.4**
CHTO IAmb IAmb 18 47 16.8
comp=Z,10nm,1.5s
TAOE Nuku Hiva Isla 72.05 98 P **P** **18 49 02.7 +0.5**
INK Inuvik 88.26 21 P P 18 50 35.1 +6.7
comp=Z,1.9nm,1.0s,baz=238,slow=6.6,SNR=3.8
comp=Z,1.9nm,1.0s
NVAR Mina Array Bea 94.78 52 P P 18 51 08.1 +8.5
comp=Z,0.3nm,0.6s,baz=289,slow=4.5,SNR=2.3
comp=Z,0.3nm,0.6s
YKA Yellowknife Ar 95.87 28 P P 18 51 11.6 +7.8
comp=Z,0.8nm,0.7s,baz=277,slow=4.9,SNR=5.7
comp=Z,0.8nm,0.7s

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*NIED **30** 18:43:51.1, 28˚.10N× 128˚.00E, h10km, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-1.37; $M_{\theta\theta}$4.98; $M_{\phi\phi}$-3.62; $M_{r\theta}$5.30; $M_{\theta\phi}$0.14; $M_{\phi r}$3.41; Fault plane solution: $M_0$7.65000×10^{14} NP1: ϕ_s133.00000°, δ32.00000°, λ-13.00000°. NP2: ϕ_s234.00000°, δ83.00000°, λ-121.00000°.*
*IDC **30** 18:43:51.0±1.1, 28˚.00N× 127˚.77E, h0km, mb3.4/4, mbtmp3.4/5, ML3.0/1 Error ellipse: s-maj=31.3km s-min=15.5km az=73.0*
*JMA **30** 18:43:51.1±0.3, 28˚.1N±0˚.5× 128˚.0E±0˚.6, h10km±2km, MV3.4/13, NW OFF OKINAWAJIMA IS*
ISC 30 18:43:50.7±3.4, 28˚.07N±0˚.05× 128˚.04E±0˚.05, h4km±24km, n17, σ0°80/25, mb3.3/4, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.85**	**146**	P	**Pb**	**18 44 08.0**	**0.0**
JOKE				*eS*	**Sb**	**18 44 20.2**	**+0.5**
JTK	**Tokunoshima**	**0.85**	**109**	P	**Pb**	**18 44 08.1**	**0.0**
JTK				S	**Sb**	**18 44 19.8**	**-0.1**
JAMN	**Amaminishikomi**	**1.02**	**80**	P	**Pb**	**18 44 10.7**	**-0.1**
JAMN				S	**Sb**	**18 44 24.6**	**0.0**
JIH	**Iheya**	**1.03**	**184**	*i* P	**Pb**	**18 44 10.8**	**-0.3**
JIH				*eS*	**Sb**	**18 44 24.9**	**-0.1**
JYRO	**Yoronjima**	**1.10**	**161**	*i* P	**Pn**	**18 44 12.4**	**-0.5**
JYRO				*eS*	**Sb**	**18 44 27.3**	**+0.2**
JOW	**Kunigami**	**1.25**	**170**	Pn	**Pn**	**18 44 14.3**	**-0.6**
	220nm,0.3s,baz=334,slow=13,SNR=103						
JOW				Sn	**Sb**	**18 44 33.3**	**+2.0**
	199nm,0.3s,baz=112,slow=29,SNR=13						
JOW	**Kunigami**	**1.25**	**170**	P	**Pn**	**18 44 14.4**	**-0.6**
JOW				*eS*	**Sn**	**18 44 31.6**	**-0.7**
JAM	**Amami Oshima**	**1.42**	**76**	P	**Pb**	**18 44 17.4**	**-0.4**
JNTH	**Nagotoyohara**	**1.55**	**181**	P	**Pn**	**18 44 18.9**	**-0.1**
JNTH				*eS*	**Sn**	**18 44 39.2**	**-0.4**
JAGN	**Aguni-jima**	**1.64**	**206**	*eP*	**Pb**	**18 44 20.9**	**-0.5**
JAGN				*eS*	**Sb**	**18 44 42.4**	**0.0**
JZK	**Kikaishima**	**1.72**	**81**	*eP*	**Pb**	**18 44 23.0**	**+0.1**
JJT3	**Tamagusuku3**	**1.93**	**187**	P	**Pn**	**18 44 25.6**	**+1.3**
JNU	**Nakatsue**	**5.60**	**25**	Pn	Pb	18 45 20.9	-8.1
	0.4nm,0.3s,baz=197,slow=4.7,SNR=4.3						
	6.9nm,1.0s						
JNU				AML	AML		
SONM	**Songino Array**	**25.93**	**325**	P	**P**	**18 49 25.6**	**+1.5**
	0.4nm,0.8s,baz=150,slow=9.4,SNR=2.3						
	0.4nm,0.8s						
MKAR	**Makanchi Array**	**40.20**	**310**	P	**P**	**18 51 26.6**	**-1.7**
	0.3nm,0.7s,baz=95,slow=10,SNR=2.4						
	0.3nm,0.7s						
KURBB	**Kurchatov Arra**	**43.42**	**315**	P	**P**	**18 51 55.1**	**+0.7**
	0.4nm,0.5s,baz=104,slow=8.5,SNR=2.4						
	0.4nm,0.5s						
WRA	**Warramunga Arr**	**48.12**	**172**	P	**P**	**18 52 31.9**	**0.0**
	0.7nm,0.9s,baz=354,slow=8.2,SNR=4.8						
	0.7nm,0.9s						

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*NIED **30** 18:47:05.5, 28˚.10N× 128˚.00E, h8km, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.53; $M_{\theta\theta}$1.26; $M_{\phi\phi}$-0.73; $M_{r\theta}$0.86; $M_{\theta\phi}$-0.03; $M_{\phi r}$0.81; Fault plane solution: $M_0$1.61000×10^{15} NP1: ϕ_s129.00000°, δ38.00000°, λ-20.00000°. NP2: ϕ_s234.00000°, δ78.00000°, λ-127.00000°.*
*IDC **30** 18:47:05.8±1.0, 27˚.98N× 127˚.76E, h0km, mb3.8/5, mbtmp3.9/6, ML3.5/1, MS3.4/4 Error ellipse: s-maj=27.2km s-min=14.2km az=75.0*
*JMA **30** 18:47:05.5±0.3, 28˚.1N±0˚.4× 128˚.0E±0˚.6, h8km±2km, MV3.5/15, NW OFF OKINAWAJIMA IS*
ISC 30 18:47:05.6±1.7, 28˚.08N±0˚.04× 128˚.01E±0˚.06, h6km±11km, n24, σ0°69/28, mb3.6/5, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.88**	**145**	P	**Pg**	**18 47 22.7**	**+0.3**
JOKE				*eS*	**Sg**	**18 47 35.2**	**+1.4**
JTK	**Tokunoshima**	**0.89**	**109**	P	**Pg**	**18 47 22.6**	**0.0**
JTK				S	**Sg**	**18 47 34.4**	**+0.3**
JAMN	**Amaminishikomi**	**1.04**	**81**	P	**Pg**	**18 47 25.4**	**-0.2**
JAMN				S	**Sg**	**18 47 39.6**	**+0.4**
JIH	**Iheya**	**1.04**	**182**	*i* P	**Pb**	**18 47 25.6**	**-0.5**
JIH				S	**Sb**	**18 47 40.0**	**0.0**
JYRO	**Yoronjima**	**1.13**	**159**	P	**Pg**	**18 47 27.0**	**-0.2**
JYRO				*eS*	**Sg**	**18 47 42.2**	**+0.4**
JOW	**Kunigami**	**1.27**	**169**	Pn	**Pn**	**18 47 29.2**	**-0.7**
	166nm,0.3s,baz=331,slow=15,SNR=44						
JOW				Sn	**Sn**	**18 47 47.8**	**+0.6**
	174nm,0.3s,baz=129,slow=20,SNR=15						
JOW	**Kunigami**	**1.27**	**169**	*i* P	**Pn**	**18 47 29.1**	**-0.7**
JOW				*eS*	**Sb**	**18 47 46.6**	**+0.1**
JAM	**Amami Oshima**	**1.45**	**77**	*eP*	**Pn**	**18 47 32.2**	**-0.1**
JAM				*eS*	**Sn**	**18 47 50.7**	**-1.0**
JTAJ	**Takarajima**	**1.50**	**44**	*eP*	**Pn**	**18 47 32.4**	**-0.6**
JNTH	**Nagotoyohara**	**1.56**	**179**	P	**Pn**	**18 47 33.5**	**-0.3**
JNTH				*eS*	**Sn**	**18 47 53.9**	**-0.4**
JAGN	**Aguni-jima**	**1.64**	**205**	*eP*	**Pb**	**18 47 35.2**	**-0.9**
JZK	**Kikaishima**	**1.75**	**82**	*eP*	**Pb**	**18 47 37.5**	**-0.6**
JJT3	**Tamagusuku3**	**1.94**	**186**	*eP*	**Pb**	**18 47 40.1**	**-1.3**
JKE	**Kume jima 2**	**2.06**	**212**	*eP*	**Pb**	**18 47 42.6**	**-0.8**
JNU	**Nakatsue**	**5.60**	**26**	Pn	Pn	18 48 35.8	+6.4
	1.3nm,0.3s,baz=199,slow=12,SNR=11						
	30nm,0.8s						
JNU				AML	AML		
KSRS	**Korea Array**	**9.35**	**360**	LR	LR	18 53 02.4	
	comp=Z,160nm,19.4s,baz=175,slow=38						
USRK	**Ussuriysk Ar.**	**16.40**	**10**	LR	LR	18 57 27.9	
	comp=Z,86nm,18.4s,baz=169,slow=38						
KLR	**Kul'dur**	**21.31**	**7**	LR	LR	18 59 28.1	
	comp=Z,106nm,19.4s,baz=164,slow=35						
SONM	**Songino Array**	**25.91**	**325**	P	**P**	**18 52 39.7**	**+1.3**
	0.9nm,0.9s,baz=134,slow=11,SNR=4.6						
	0.9nm,0.9s						
PSI	**Prapat**	**37.44**	**233**	LR	LR	19 09 17.5	
	comp=Z,98nm,19.1s,baz=84,slow=36						
MKAR	**Makanchi Array**	**40.17**	**310**	P	**P**	**18 54 43.0**	**+0.4**
	0.7nm,0.8s,baz=107,slow=10.0,SNR=7.4						
	0.7nm,0.8s						
KURBB	**Kurchatov Arra**	**43.39**	**315**	P	**P**	**18 55 09.0**	**+0.2**
	2.0nm,0.2s,baz=101,slow=8.8,SNR=1.8						
	2.0nm,0.2s						
WRA	**Warramunga Arr**	**48.13**	**172**	P	**P**	**18 55 46.3**	**-0.3**
	0.8nm,0.7s,baz=354,slow=8.3,SNR=5.2						
	0.8nm,0.7s						
ASAR	**Alice Springs**	**51.76**	**173**	P	**P**	**18 56 14.8**	**+0.7**
	0.8nm,1.0s,baz=347,slow=8.6,SNR=4.6						
	0.8nm,1.0s						

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*IDC **30** 18:48:01.9±1.1, 28˚.02N× 127˚.76E, h0km, mb3.6/4, mbtmp3.7/5, ML3.5/1, Error ellipse: s-maj=30.5km s-min=15.6km az=78.0*
*NIED **30** 18:48:02.7, 28˚.10N× 128˚.01E, h14km, MW4.1, Moment Tensor Solution. s1 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.41; $M_{\theta\theta}$1.35; $M_{\phi\phi}$-0.94; $M_{r\theta}$-0.18; $M_{\theta\phi}$-0.00; $M_{\phi r}$-0.94; Fault plane solution: $M_0$1.52000×10^{15} NP1: ϕ_s308.00000°, δ59.00000°, λ-23.00000°. NP2: ϕ_s50.00000°, δ70.00000°, λ-147.00000°.*
*JMA **30** 18:48:02.7±0.2, 28˚.1N±0˚.4× 128˚.0E±0˚.6, h14km±2km, MV3.7/11, NW OFF OKINAWAJIMA IS*
ISC 30 18:48:03.2±2.5, 28˚.08N±0˚.05× 128˚.02E±0˚.07, h16km±16km, n15, σ0°51/23, mb3.6/4, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.87**	**146**	P	**Pb**	**18 48 19.5**	**-0.4**
JOKE				*eS*	**Sb**	**18 48 31.3**	**0.0**
JTK	**Tokunoshima**	**0.87**	**109**	P	**Pb**	**18 48 19.2**	**-0.8**
JTK				S	**Sb**	**18 48 30.8**	**-0.6**
JAMN	**Amaminishikomi**	**1.03**	**81**	P	**Pb**	**18 48 22.3**	**-0.4**
JAMN				S	**Sb**	**18 48 35.9**	**-0.1**
JIH	**Iheya**	**1.04**	**183**	P	**Pb**	**18 48 22.1**	**-0.8**
JIH				*eS*	**Sb**	**18 48 35.9**	**-0.5**
JYRO	**Yoronjima**	**1.12**	**160**	P	**Pn**	**18 48 23.7**	**-0.5**
JYRO				*eS*	**Sb**	**18 48 38.5**	**0.0**
JOW	**Kunigami**	**1.27**	**170**	Pn	**Pn**	**18 48 25.9**	**-0.3**
	194nm,0.3s,baz=339,slow=15,SNR=7.0						
JOW				Sn	**Sg**	**18 48 45.1**	**+0.9**
	135nm,0.3s,baz=149,slow=20,SNR=5.8						
JOW	**Kunigami**	**1.27**	**170**	P	**Pn**	**18 48 26.0**	**-0.3**
JOW				*eS*	**Sb**	**18 48 42.7**	**-0.1**
JAM	**Amami Oshima**	**1.44**	**76**	*eP*	**Pn**	**18 48 29.0**	**+0.4**
JAM				S	**Sn**	**18 48 47.4**	**+0.3**
JTAJ	**Takarajima**	**1.49**	**44**	*eP*	**Pn**	**18 48 28.9**	**-0.4**
JNTH	**Nagotoyohara**	**1.56**	**180**	P	**Pn**	**18 48 30.4**	**+0.1**
JNTH				*eS*	**Sn**	**18 48 50.4**	**+0.3**
JNU	**Nakatsue**	**5.59**	**25**	Pn	Pn	18 49 31.9	+6.1
	1.5nm,0.3s,baz=184,slow=11,SNR=6.7						
	29nm,0.8s						
JNU				AML	AML		
MKAR	**Makanchi Array**	**40.18**	**310**	P	**P**	**18 55 39.2**	**+0.5**
	0.5nm,0.7s,baz=102,slow=11,SNR=3.8						
	0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**43.40**	**315**	P	**P**	**18 56 04.6**	**-0.3**
	1.0nm,0.3s,baz=101,slow=8.7,SNR=1.9						
	1.0nm,0.3s						
WRA	**Warramunga Arr**	**48.13**	**172**	P	**P**	**18 56 43.0**	**+0.5**
	0.7nm,0.6s,baz=353,slow=8.2,SNR=7.0						
	0.7nm,0.6s						
ASAR	**Alice Springs**	**51.76**	**173**	P	**P**	**18 57 10.4**	**+0.3**
	0.4nm,0.9s,baz=2.3,slow=11,SNR=4.3						
	0.4nm,0.9s						

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*NEIC **30** 19:14:14.8±1.9, 2˚.86S±0˚.06× 147˚.73E±0˚.08, h10km±1km, mb4.8/28, Mwb5.3/13, Mww5.4/16, Error ellipse: s-maj=14.0km s-min=9.0km az=67.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.18; $M_{\theta\theta}$0.44; $M_{\phi\phi}$-0.61; $M_{r\theta}$0.27; $M_{\theta\phi}$1.04; $M_{\phi r}$-0.22; Fault plane solution: $M_0$1.23000×10^{17} NP1: ϕ_s14.05000°, δ75.91000°, λ-176.50000°. NP2: ϕ_s283.19000°, δ86.60000°, λ-14.12000°. Principal axes: T 1.0912, Plg7.0000°, Azm329.0000°; N 0.2351, Plg75.0000°, Azm90.0000°; P -1.3262, Plg12.0000°, Azm238.0000°;*
*IDC **30** 19:14:15.0±0.5, 2˚.98S× 147˚.74E, h0km, mb4.2/18, mbtmp4.2/23, ML3.5/3, MS4.7/59 Error ellipse: s-maj=14.1km s-min=8.9km az=105.0*
*NEIC **30** 19:14:15, 2˚.87S× 147˚.82E, h10km*
*GFZ **30** 19:14:17.1, 2˚.87S× 147˚.86E, h19km, Mw5.3/19, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}7.16; $M_{\theta\theta}$-4.04; $M_{\phi\phi}$-3.12; $M_{r\theta}$3.08; $M_{\theta\phi}$7.15; $M_{\phi r}$0.19; Fault plane solution: $M_0$9.96401×10^{16} NP1: ϕ_s111.36763°, δ56.30839°, λ60.17793°. NP2: ϕ_s337.30700°, δ43.79238°, λ126.71994°. Principal axes: T 8.4313, Plg64.5119°, Azm326.5646°; N 2.5641, Plg24.4424°, Azm129.0071°; P -10.9955, Plg6.7870°, Azm222.1079°;*
*BJI **30** 19:14:17.0, 2˚.57S× 147˚.70E, h10km, mB5.5/25, mb4.6/43, Ms5.2/45, Ms7 5.0/45*
*GFZ **30** 19:14:17.6±0.3, 3˚S±3˚× 14˚8E±˚, h10km, M5.1/25, mb4.8/25, confirmed*
*GCMT **30** 19:14:18.8±0.1, 2˚.95S±0˚.01× 147˚.59E±0˚.01, h12km, MW5.5/143, Moment Tensor Solution. s118, c196; s143, c272; Duration: 1s3 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.03±.02; $M_{\theta\theta}$0.39±.02; $M_{\phi\phi}$-0.36±.02; $M_{r\theta}$1.53±.04; $M_{\theta\phi}$1.21±.01; $M_{\phi r}$-0.30±.05; Best double couple: $M_0$2.00800×10^{17} NP1: ϕ_s10.00000°, δ39.00000°, λ-179.00000°. NP2: ϕ_s279.00000°, δ89.00000°, λ-51.00000°. Principal axes: T 1.9790, Plg33.0000°, Azm337.0000°; N 0.0580, Plg39.0000°, Azm98.0000°; P -2.0370, Plg34.0000°, Azm221.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*DJA **30** 19:14:20.0±0.5, 3˚S±8˚× 14˚8E±˚, h10km, M5.1/15, mB5.6/14, mB5.6/12, mb4.8/15, mb4.8/14, MLv5.4/5, MLv5.4/5, Mw(mB)5.0/12, Mw(mB)5.1/14, MwMwp5.1/6, MwMwp5.1/6, Mwp5.4/6, Mwp5.4/6*
ISC 30 19:14:16.0±0.3, 2˚.93S±0˚.04× 147˚.80E±0˚.05, h10km, n203, σ2813/175, mb4.7/64, MS4.8/76, 3D, Admiralty Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MANU	**Manus Island**	**0.98**	**334**		**Pg**	**19 14 31.2**	**-3.7**
KRVT	**Keravat (AS076**	**4.44**	**108**	Pn	**Pn**	**19 15 24.2**	**+0.8**
	164nm,0.4s,baz=127,slow=12,SNR=16						
RABL	**Rabaul**	**4.54**	**106**		**Pn**	**19 15 23.3**	**-1.4**
PMG	**Port Moresby**	**6.47**	**186**	Pn	**Pn**	**19 15 51.5**	**+0.2**
	8.6nm,0.7s,baz=58,slow=4.7,SNR=8.9						
PMG				Sn	**Sn**	**19 17 08.3**	**+3.1**
	0.8nm,0.3s,baz=289,slow=3.2,SNR=4.1						
PMG	**Port Moresby**	**6.47**	**186**		**Pn**	**19 15 50.0**	**-1.3**
PMG	**Port Moresby**	**6.47**	**186**	P	**Pn**	**19 15 49.8**	**-1.5**
	comp=Z,58nm,0.8s						
JAY	**Jayapura**	**7.10**	**273**	Pn	**Pn**	**19 16 00.6**	**+0.6**
	comp=Z,0.4nm,0.3s,baz=94,slow=5.8,SNR=8.5						
	comp=Z,52nm,1.0s						
JAY				AML	AML		
JAY	**Jayapura**	**7.10**	**273**	P	Pn	19 16 03.9	+3.9
	comp=Z,2μmcomp=Z,2μmcomp=Z,56nm,1.0s,comp=Z,56nm,1.0s						
GENI	**Genyem**	**7.63**	**272**	P	**Pn**	**19 16 09.1**	**+1.8**
	comp=Z,8μmcomp=Z,8μmcomp=Z,6μmcomp=Z,6μm						
	comp=Z,208nm,1.2s,comp=Z,208nm,1.2s						
GENI	**Genyem**	**7.63**	**272**	P	**Pn**	**19 16 07.7**	**+0.5**
	comp=Z,208nm,1.3s						
SMPI	**Sarmi**	**9.13**	**276**	P	Pn	19 16 32.0	+4.2
	comp=Z,7μmcomp=Z,7μmcomp=Z,166nm,2.1s,comp=Z,166nm,2.1s						
HNR	**Honiara**	**13.69**	**119**	LR	LR	19 23 08.4	
	comp=Z,4μm,19.4s,baz=9.5,slow=39						
HNR	**Honiara**	**13.69**	**119**	P	**Pn**	**19 17 33.5**	**+3.1**
	comp=Z,122nm,1.1s						
PATS	**Pohnpei**	**14.29**	**47**	P	**P**	**19 17 41.8**	**-4.0**
	comp=Z,232nm,1.9s,comp=Z,0.0nm,3.3s						
MTSU	**Mount Surprise**	**15.49**	**192**	P	**Pn**	**19 17 56.3**	**+1.6**
	comp=Z,11nm,1.1s						
MTSU	**Mount Surprise**	**15.49**	**192**	P	**Pn**	**19 17 55.5**	**+0.8**
	comp=Z,11nm,1.1s,comp=Z,0.0nm,0.3s						
MTSU	**Mount Surprise**	**15.49**	**192**	P	**Pn**	**19 17 55.3**	**+0.6**
	comp=Z,11nm,1.1s						
FAKI	**Fak Fak**	**15.53**	**270**	Pn	**Pn**	**19 17 54.5**	**-0.7**
FAKI	**Fak Fak**	**15.53**	**270**	P	**Pn**	**19 17 53.3**	**-1.9**
	comp=Z,46nm,2.7s						
SIJI	**Sorong**	**16.65**	**277**	Pn	**P**	**19 18 10.5**	**-1.5**
	comp=Z,0.3nm,0.3s,baz=80,slow=7.5,SNR=9.8						
	comp=Z,10nm,0.9s						
SIJI				AML	AML		
GUMO	**Guam**	**16.67**	**350**	LR	LR	19 23 51.7	
	comp=Z,1μm,18.5s,baz=165,slow=34						
GUMO	**Guam**	**16.67**	**350**	P	**P**	**19 18 11.7**	**-0.5**
	comp=Z,214nm,1.1s						
CTA	**Charters Tower**	**17.12**	**185**	P	**P**	**19 18 16.4**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=351,slow=15,SNR=2.5						
CTA				LR	LR	19 24 45.1	
	comp=Z,4μm,19.2s,baz=4.0,slow=37						
	comp=Z,1.9nm,0.7s						
CTA				AML	AML		
CTAO	**Charters Tower**	**17.12**	**185**		**Pn**	**19 18 11.4**	**-4.2**
CTAO	**Charters Tower**	**17.12**	**185**	P	**Pn**	**19 18 15.7**	**+0.1**
	comp=Z,20nm,1.6s						
SAUI	**Saumlaki**	**17.17**	**252**		**Pn**	**19 18 12.9**	**-3.3**
SAUI				IAmb	IAmb	19 18 21.2	
	comp=Z,61nm,1.2s						
SAUI	**Saumlaki**	**17.17**	**252**	P	**P**	**19 18 19.7**	**+1.9**
	comp=Z,3μmcomp=Z,3μmcomp=Z,133nm,1.9s,comp=Z,133nm,1.9s						
SAUI	**Saumlaki**	**17.17**	**252**	P	**P**	**19 18 16.6**	**-1.1**
	comp=Z,133nm,1.9s						
BNDI	**Bandanaira**	**17.92**	**264**	P	**Pn**	**19 18 23.6**	**-2.0**
	comp=Z,182nm,1.4s						
KDU	**Kakadu**	**18.00**	**237**	P	**Pn**	**19 18 24.8**	**-1.7**
	comp=Z,42nm,1.0s						
KDU	**Kakadu**	**18.00**	**237**	P	**Pn**	**19 18 24.6**	**-1.9**
	comp=Z,42nm,1.0s						
KDU	**Kakadu**	**18.00**	**237**	P	**Pn**	**19 18 24.1**	**-2.4**
	comp=Z,42nm,1.0s,comp=Z,0.0nmcomp=Z,0.0nm,13.6s						
MTN	**Manton Dam**	**19.20**	**238**	P	**Pn**	**19 18 40.8**	**-0.4**
	comp=Z,36nm,1.0s,comp=Z,0.0nm						
MTN	**Manton Dam**	**19.20**	**238**	P	**Pn**	**19 18 40.6**	**-0.5**
	comp=Z,36nm,1.0s,comp=Z,0.0nmcomp=Z,0.0nm,16.9s,						
	comp=Z,0.0nm						
MTN	**Manton Dam**	**19.20**	**238**		**P**	**19 18 36.0**	**-4.2**
MTN				IAmb	IAmb	19 18 47.4	
	comp=Z,73nm,1.4s						
AAI	**Ambon**	**19.58**	**267**	P	**Pn**	**19 18 44.6**	**-1.1**
	comp=Z,49nm,1.5s						
WB0	**Warramunga Arr**	**21.25**	**217**		**P**	**19 18 58.8**	**-3.7**
WB0				IAmb	IAmb	19 19 09.9	
	comp=Z,130nm,1.7s						
WR8	**Warramunga Arr**	**21.33**	**217**		**P**	**19 19 01.5**	**-1.9**
WR8				IAmb	IAmb	19 19 09.7	
	comp=Z,67nm,1.2s						
WRAB	**Tennant Creek**	**21.40**	**217**	P	**P**	**19 19 02.6**	**-1.5**
WRAB				IAmb	IAmb	19 19 14.6	
	comp=Z,48nm,0.9s						
WRAB	**Tennant Creek**	**21.40**	**217**	P	**P**	**19 19 03.8**	**-0.3**
	comp=Z,62nm,1.2s						
WRA	**Warramunga Arr**	**21.41**	**217**	P	**P**	**19 19 03.7**	**-0.6**
	comp=Z,20nm,0.8s,baz=42,slow=10,SNR=49						
WRA				S	**S**	**19 23 04.7**	**+2.6**
	comp=Z,0.8nm,1.1s,baz=45,slow=19,SNR=7.4						
WRA				LR	LR	19 28 02.3	
	comp=Z,6μm,18.9s,baz=90,slow=39						
	comp=Z,20nm,0.8s						
WRA	**Warramunga Arr**	**21.41**	**217**		**P**	**19 19 00.6**	**-3.6**
SANI	**Sanana**	**21.81**	**272**	P	**P**	**19 19 07.0**	**-1.5**
	comp=Z,40nm,1.7s						
EIDS	**Eidsvold**	**22.53**	**172**	P	**P**	**19 19 17.6**	**+1.4**
	comp=Z,22nm,2.0s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**22.53**	**172**	P	**P**	**19 19 17.6**	**+1.4**
	comp=Z,22nm,2.0s,comp=Z,0.0nmcomp=Z,0.0nm,7.2s,						
	comp=Z,0.0nm						
EIDS	**Eidsvold**	**22.53**	**172**		**P**	**19 19 14.7**	**-1.5**
EIDS	**Eidsvold**	**22.53**	**172**	P	**P**	**19 19 16.7**	**+0.5**
	comp=Z,22nm,2.0s						
KNRA	**Kununurra**	**22.62**	**235**	P	**P**	**19 19 17.7**	**+0.5**
	comp=Z,27nm,1.9s,comp=Z,0.0nm						
KNRA	**Kununurra**	**22.62**	**235**	P	**P**	**19 19 17.6**	**+0.3**
	comp=Z,27nm,1.9s,comp=Z,0.0nmcomp=Z,0.0nm,16.0s,						
	comp=Z,0.0nm						
KNRA	**Kununurra**	**22.62**	**235**		**P**	**19 19 15.2**	**-2.0**
KNRA				IAmb	IAmb	19 19 23.0	
	comp=Z,24nm,1.1s						
QLP	**Quilpie**	**23.77**	**188**	P	**P**	**19 19 29.3**	**+0.6**
QLP	**Quilpie**	**23.77**	**188**	P	**P**	**19 19 29.1**	**+0.4**
	comp=Z,0.0nmcomp=Z,0.0nm,12.2s						
QLP	**Quilpie**	**23.77**	**188**	P	**P**	**19 19 29.3**	**+0.6**
KMSI	**Cibinong**	**24.06**	**278**	P	P	19 19 47.7	+16
SOEI	**Soe**	**24.34**	**253**	P	P	19 19 43.9	+10
SOEI	**Soe**	**24.34**	**253**	P	**P**	**19 19 34.5**	**+0.1**
	comp=Z,68nm,1.2s						
AS31	**Alice Springs**	**24.61**	**212**		**P**	**19 19 34.6**	**-2.0**
ASAR	**Alice Springs**	**24.61**	**212**	P	**P**	**19 19 35.6**	**-1.0**
	comp=Z,9.7nm,0.5s,baz=38,slow=7.3,SNR=96						
ASAR				S	**S**	**19 23 57.6**	**-0.4**
	comp=Z,1.2nm,0.8s,baz=36,slow=7.7,SNR=6.1						
ASAR				LR	LR	19 30 05.0	
	comp=Z,5μm,20.6s,baz=39,slow=39						
	comp=Z,9.7nm,0.5s						
ASAR	**Alice Springs**	**24.61**	**212**		**P**	**19 19 35.2**	**-1.5**
BATI	**Baumata**	**25.03**	**252**	LR	LR	19 31 02.3	
	comp=Z,1μm,19.4s,baz=89,slow=40						
BATI	**Baumata**	**25.03**	**252**	P	**P**	**19 19 44.5**	**+4.0**
	comp=Z,2μmcomp=Z,59nm,0.9s,comp=Z,59nm,0.9s						
GTOI	**Gorontalo**	**25.03**	**278**	P	P	19 19 49.2	+8.7
	comp=Z,2μmcomp=Z,2μmcomp=Z,59nm,2.3s,comp=Z,59nm,2.3s						
LUWI	**Luwuk**	**25.08**	**274**		**P**	**19 19 37.4**	**-3.6**
LUWI	**Luwuk**	**25.08**	**274**	P	**P**	**19 19 45.3**	**+4.3**
LUWI	**Luwuk**	**25.08**	**274**	P	**P**	**19 19 42.5**	**+1.5**
	comp=Z,122nm,1.4s						
INKA	**Innaminka**	**25.58**	**195**		**P**	**19 19 43.2**	**-2.1**
INKA				IAmb	IAmb	19 19 59.6	
	comp=Z,25nm,1.1s						
MMRI	**Maumere**	**26.04**	**256**	P	**P**	**19 19 48.7**	**-1.1**
	comp=Z,48nm,1.1s						
DZM	**Mont Dzumac**	**26.27**	**138**	LR	LR	19 28 50.6	
	comp=Z,5μm,19.1s,baz=314,slow=33						
FITZ	**Fitzroy Crossi**	**26.43**	**234**	P	**P**	**19 19 52

QIZ S **S** **19 28 45.5 +0.3**
QIZ L L
comp=Z,850nm,15.0s
QIZ L L
comp=Z,1μm,23.1s
QIZ L L
comp=Z,2μm,22.9s
URZ Urewera 44.20 146 LR LR 19 38 49.8
comp=Z,3μm,21.5s,baz=311,slow=33
KSRS Korea Array 44.22 337 P **P** **19 22 25.2 -0.2**
comp=Z,0.7nm,0.4s,baz=148,slow=9.8,SNR=4.2
KSRS LR LR 19 38 43.1
comp=Z,978nm,20.1s,baz=150,slow=33
comp=Z,0.7nm,0.4s
KSAR Wonju Array Be 44.22 337 **P** **19 22 21.9 -3.6**
NJ2 Nanjing 44.33 324 *e*P **P** **19 22 25.8 -0.6**
NJ2 pmax pmax
comp=Z,13nm,0.6s
RPZ Rata Peaks 45.55 156 LR LR 19 40 34.3
comp=Z,114nm,18.8s,baz=330,slow=35
DL2 Dalian 48.12 332 P **P** **19 22 57.0 +0.9**
DL2 S **S** **19 29 56.0 +1.1**
DL2 pmax pmax
comp=Z,17nm,1.1s
DL2 pmax pmax
comp=Z,380nm,4.9s
DL2 L L
comp=Z,890nm,19.4s
DL2 L L
comp=Z,820nm,16.9s
DL2 L L
comp=Z,2μm,19.6s
TIA Tai'an 48.33 326 P **P** **19 22 57.0 -0.9**
TIA pP **sP** **19 22 59.3 -2.4**
TIA pmax pmax
comp=Z,13nm,1.4s
TIA L L
comp=Z,1μm,16.5s
TIA L L
comp=Z,2μm,16.5s
TIA L L
comp=Z,3μm,18.6s
USRK Ussuriysk Ar. 49.01 345 LR LR 19 42 46.4
comp=Z,483nm,19.1s,baz=160,slow=35
PSI Prapat 49.18 276 LR LR 19 45 44.7
comp=Z,637nm,21.9s,baz=106,slow=38
ENH Enshi 49.27 315 P **P** **19 23 03.1 -2.2**
ENH IAmb IAmb 19 23 11.8
comp=Z,22nm,1.2s
ENH Enshi 49.27 315 P **P** **19 23 07.1 +1.8**
comp=Z,20nm,2.1s
SNY Shenyang 49.69 336 P P 19 23 02.5 -5.6
SNY S **S** **19 30 21.0 +4.1**
SNY pmax pmax
comp=Z,310nm,9.6s
SNY LR LR
comp=N,540nm,31.6s
SNY LR LR
comp=E,570nm,17.0s
SNY LR LR
comp=Z,810nm,19.0s
LYN LuoYang 49.92 321 *e*P **P** **19 23 10.8 +0.8**
LYN S **S** **19 30 25.0 +4.5**
LYN pmax pmax
comp=Z,620nm,4.9s
LYN L L
comp=Z,2μm,14.7s
LYN L L
comp=Z,3μm,19.2s
LYN L L
comp=Z,3μm,19.6s
GSI Gunungsitoli 50.38 274 **P** **19 23 10.4 -3.5**
GSI Gunungsitoli 50.38 274 P **P** **19 23 14.7 +0.7**
comp=Z,25nm,1.2s
HNS HongShan 50.53 326 ⇓P **P** **19 23 15.8 +1.2**
HNS S **S** **19 30 30.5 +1.6**
HNS pmax pmax
comp=Z,17nm,1.6s
HNS L L
comp=Z,2μm,20.2s
HNS L L
comp=Z,1μm,18.4s
HNS L L
comp=Z,2μm,20.6s
CN2 Changchun 50.67 339 *e*P **P** **19 23 17.8 +2.3**
CN2 pmax pmax
comp=Z,10.0nm,0.5s
BJT Baijiatuau 51.65 329 P **P** **19 23 24.3 +1.4**
comp=Z,5.2nm,0.4s
BNX BinXian 51.73 342 ⇓P **P** **19 23 24.8 +1.3**
BNX pP **pwP** **19 23 27.8 +1.5**
BNX sP **sP** **19 23 29.5 +2.1**
BNX S **S** **19 30 46.8 +1.6**
BNX sS **sS** **19 30 52.8 +2.8**
BNX pmax pmax
comp=Z,10.0nm,1.8s
BNX pmax pmax
comp=Z,360nm,5.2s
BNX L L
comp=Z,580nm,27.1s
BNX L L
comp=Z,820nm,24.4s
BNX L L
comp=Z,730nm,23.9s
KMI2 Kunming 51.83 305 P P 19 23 28.3 +3.4
KMI2 S **S** **19 30 53.5 +5.8**
KMI2 SS **SS** **19 34 21.3 -3.3**
KMI2 pmax pmax
comp=Z,16nm,1.4s
KMI2 L L
comp=Z,760nm,24.7s
KMI2 L L
comp=Z,610nm,20.3s
KMI2 L L
comp=Z,1μm,20.3s
XAN Xi'an 51.88 319 P **P** **19 23 22.8 -2.1**
XAN S **S** **19 30 47.5 -0.3**
XAN pmax pmax
comp=Z,8.0nm,1.4s
XAN L L
comp=Z,1μm,17.9s
XAN L L
comp=Z,970nm,19.9s
XAN L L
comp=Z,2μm,20.6s
CMAR Chiang Mai Arr 52.57 296 P **P** **19 23 30.9 +0.6**
comp=Z,1.2nm,0.6s,baz=118,slow=6.3,SNR=8.5
CMAR LR LR 19 43 35.6
comp=Z,418nm,21.5s,baz=110,slow=34
comp=Z,1.2nm,0.6s
CMAR Chiang Mai Arr 52.57 296 **P** **19 23 26.2 -4.0**
CD2 Chengdu 53.76 312 P **P** **19 23 41.5 +2.6**
CD2 S **S** **19 31 13.0 -0.6**
CD2 pmax pmax
comp=Z,20nm,1.0s
CD2 pmax pmax
comp=Z,790nm,4.7s
CD2 L L
comp=Z,2μm,15.9s
CD2 L L
comp=Z,2μm,17.8s
CD2 L L
comp=Z,2μm,20.3s
KLR Kul'dur 53.78 347 LR LR 19 45 10.4
comp=Z,398nm,21.1s,baz=162,slow=34
RAR Rarotonga 54.09 114 LR LR 19 45 02.5
comp=Z,274nm,20.3s,baz=282,slow=34
XLT XiLinHaoTe 54.62 332 *e*P **P** **19 23 47.3 +2.4**
XLT S **S** **19 31 25.8 +1.0**
XLT pmax pmax
comp=Z,10.0nm,1.6s
XLT pmax pmax
comp=Z,280nm,9.8s
XLT L L
comp=Z,730nm,19.6s
XLT L L
comp=Z,1μm,19.0s
HHC Hu-ho-hao-te 54.69 327 *e*P **P** **19 23 46.5 +1.0**
HHC pmax pmax
comp=Z,7.0nm,0.7s
TNCH TengChong 55.27 303 P **P** **19 23 53.0 +2.9**
TNCH S **S** **19 31 40.8 +6.4**
TNCH SS **SS** **19 35 18.5 -0.4**
TNCH pmax pmax
comp=Z,18nm,2.0s
TNCH pmax pmax
comp=Z,310nm,4.9s
TNCH L L
comp=Z,890nm,21.9s
BTO2 Baotou 55.55 326 *e*P **P** **19 23 54.5 +2.7**
BTO2 pP **sP** **19 24 00.8 +5.1**
BTO2 sP pP 19 24 03.5 +8.8
BTO2 S **S** **19 31 39.5 +1.9**
BTO2 pmax pmax
comp=Z,15nm,0.8s
BTO2 pmax pmax
comp=Z,450nm,6.0s
BTO2 L L
comp=Z,2μm,21.6s
BTO2 L L
comp=Z,3μm,20.3s
BTO2 L L
comp=Z,4μm,20.7s
PETK Petropavlovsk- 56.45 7 P **P** **19 23 58.9 +1.1**
comp=Z,3.7nm,0.6s,baz=179,slow=5.6,SNR=10
PETK LR LR 19 45 14.1
comp=Z,455nm,21.3s,baz=193,slow=33
comp=Z,3.7nm,0.6s
PETK Petropavlovsk- 56.45 7 P **P** **19 23 59.2 +1.4**
LZH Lanzhou 56.45 318 *e*P **P** **19 24 01.0 +2.6**
LZH sP sP 19 24 06.3 +4.0
LZH S **S** **19 31 51.0 +1.2**
LZH SS **SS** **19 35 35.5 -1.7**
LZH pmax pmax
comp=Z,51nm,1.1s
LZH pmax pmax
comp=Z,340nm,4.5s
LZH L L
comp=Z,640nm,16.0s
LZH L L
comp=Z,810nm,13.7s
LZH L L
comp=Z,910nm,20.3s
LZDM Lanzhou Array 56.48 317 LR LR 19 48 20.3
comp=Z,229nm,18.2s,baz=60,slow=36
MORE Moreh 58.56 301 **P** **19 24 10.2 -3.0**
MORE IAmb IAmb 19 24 44.1
comp=Z,6.2nm,0.8s
BRDH Bariadhala 60.38 298 LR LR 19 50 36.3
comp=Z,401nm,21.5s,baz=120,slow=36
GTA2 Gaotai 61.01 319 *e*P **P** **19 24 32.5 +2.5**
GTA2 S **S** **19 32 51.5 +2.6**
GTA2 pmax pmax
comp=Z,5.0nm,1.7s
GTA2 pmax pmax
comp=Z,360nm,5.4s
GTA2 L L
comp=Z,550nm,19.4s
GTA2 L L
comp=Z,460nm,20.9s
GTA2 L L
comp=Z,880nm,20.6s
ULN Ulaanbaatar 61.84 330 P **P** **19 24 37.0 +1.5**
comp=Z,7.9nm,2.4s
SONM Songino Array 62.15 330 P **P** **19 24 40.0 +2.5**
comp=Z,0.8nm,0.6s,baz=142,slow=8.1,SNR=6.3
SONM LR LR 19 50 13.2
comp=Z,710nm,20.9s,baz=131,slow=35
comp=Z,0.8nm,0.6s
SONM Songino Array 62.15 330 P **P** **19 24 36.5 -1.1**
SONM IAmb IAmb 19 24 41.8
comp=Z,13nm,1.7s
MA2 Magadan 62.36 2 LR LR 19 49 00.7
comp=Z,282nm,21.9s,baz=186,slow=33
PPT Papeete 63.05 108 LR LR 19 48 02.9
comp=Z,173nm,19.5s,baz=278,slow=32
PPT2 Papeete2 63.05 108 *e*P P 19 24 48.4 +4.4
comp=Z,63nm,23.0s
PPT2 *e*S S 19 33 05.0 -10
comp=Z,274nm,25.8s
PPT2 *e*LQ LQ 19 40 44.1
comp=Z,2μm,32.2s
PPT2 *e*LR LR 19 43 25.8
comp=Z,593nm,24.0s
PPT2 *e*LR LR 19 43 26.2
comp=Z,433nm,25.5s
TBI Tubuai 63.87 114 *e*S **S** **19 33 25.9 +0.7**
comp=Z,2μm,30.5s
TBI *e*SS **SS** **19 37 31.6 -2.1**
comp=Z,2μm,30.0s
TBI *e*LQ LQ 19 41 11.0
comp=Z,6μm,28.5s
SEY Seymchan 65.78 2 P **P** **19 25 02.9 +1.9**
comp=Z,3.2nm,1.0s,baz=163,slow=7.0,SNR=5.6
SEY LR LR 19 51 23.1
comp=Z,230nm,21.1s,baz=158,slow=34
comp=Z,3.2nm,1.0s
TLY Talaya 66.02 332 LR LR 19 52 32.5
comp=Z,878nm,21.4s,baz=125,slow=35
EVN Everest 66.11 302 **P** **19 25 03.2 -1.5**
EVN Everest 66.11 302 P **P** **19 25 04.2 -0.4**
comp=Z,14nm,1.0s
YAK Yakutsk 66.25 351 LR LR 19 52 30.8
comp=Z,315nm,21.1s,baz=164,slow=35
WMQ Urumqi 71.02 318 *e*P **P** **19 25 36.3 +2.0**
WMQ S **S** **19 34 53.0 +2.4**
WMQ SKS **SKSac** **19 35 38.0 +0.8**
WMQ pmax pmax
comp=Z,11nm,0.7s
WMQ pmax pmax
comp=Z,250nm,5.1s
WMQ L L
comp=Z,470nm,18.3s
WMQ L L
comp=Z,590nm,20.5s
WMQ L L
comp=Z,540nm,20.5s
HYB Hyderabad 71.17 289 *e*P **P** **19 25 32.9 -2.8**
HYB IVmB_BB 19 26 04.8
comp=Z,169nm,2.4s
HYB *e*PP **PP** **19 28 10.6 -3.0**
HYB *e*S **S** **19 34 49.9 -3.3**
HYB IVMs_BB IVMs_BB 19 50 22.6
comp=Z,215nm,3.8s
TAOE Nuku Hiva Isla 71.83 98 *e*LR LR 19 47 36.1
comp=Z,873nm,27.3s
VNDA Vanda 74.91 177 P **P** **19 25 56.8 +0.1**
comp=Z,1.3nm,0.6s,baz=336,slow=6.8,SNR=12
VNDA LR LR 19 56 48.6
comp=Z,532nm,19.9s,baz=350,slow=34
comp=Z,1.3nm,0.6s
VNDA Vanda 74.91 177 **P** **19 25 54.7 -2.0**
VNDA IAmb IAmb 19 26 25.8
comp=Z,16nm,1.9s
MKAR Makanchi Array 75.66 320 P **P** **19 26 02.7 +1.2**
comp=Z,0.7nm,0.9s,baz=102,slow=5.3,SNR=4.8
MKAR LR LR 19 59 53.6
comp=Z,789nm,19.1s,baz=90,slow=36
comp=Z,0.7nm,0.9s
MKAR Makanchi Array 75.66 320 **P** **19 25 59.2 -2.3**
WUS Wushi 76.00 314 P **P** **19 26 01.2 -2.5**
KDAK Kodiak Island 76.84 28 LR LR 19 53 51.0
comp=Z,663nm,22.0s,baz=244,slow=31
ZALV Zalesovo Beam 76.86 327 P **P** **19 26 08.8 +0.7**
comp=Z,0.6nm,0.7s,baz=112,slow=4.0,SNR=3.6
ZALV LR LR 19 59 20.7
comp=Z,878nm,20.9s,baz=114,slow=35
comp=Z,0.6nm,0.7s
ZALV Zalesovo Beam 76.86 327 P **P** **19 26 06.1 -2.1**
RKT Rikitea 77.11 113 *e*LR LR 19 50 01.1
comp=Z,5μm,32.0s
L19K White Mountain 78.00 24 P **P** **19 26 12.8 -1.6**
L19K IAmb IAmb 19 26 23.8
comp=Z,15nm,1.2s
KSH2 Kashi 78.17 311 P **P** **19 26 18.5 +2.5**
KSH2 S **S** **19 36 15.8 +4.8**
KSH2 pmax pmax
comp=Z,4.0nm,1.4s
KSH2 L L
comp=Z,290nm,18.5s
KSH2 L L
comp=Z,480nm,20.6s
KSH2 L L
comp=Z,520nm,18.2s
NIL Nilore 78.81 305 P **P** **19 26 17.3 -2.2**
NIL IAmb IAmb 19 26 27.2
comp=Z,11nm,0.9s
NIL Nilore 78.81 305 P **P** **19 26 21.2 +1.7**
comp=Z,16nm,0.9s
KURK Kurchatov 79.25 323 **P** **19 26 19.6 -1.9**
KURK IAmb IAmb 19 26 24.4
comp=Z,11nm,1.4s
KURK Kurchatov 79.25 323 P **P** **19 26 23.2 +1.7**
comp=Z,5.0nm,1.0s
KURBB Kurchatov Arra 79.28 323 P **P** **19 26 22.0 +0.4**
comp=Z,0.6nm,0.9s,baz=102,slow=4.0,SNR=6.8
KURBB LR LR 20 00 48.6
comp=Z,643nm,20.3s,baz=142,slow=35
comp=Z,0.6nm,0.9s
AAK Ala-Archa 79.78 314 LR LR 20 01 00.3
comp=Z,789nm,22.0s,baz=100,slow=35
ILAR Eielson Array 82.36 23 P **P** **19 26 38.4 +0.5**
comp=Z,1.3nm,0.9s,baz=250,slow=5.3,SNR=9.3
ILAR LR LR 20 00 31.7
comp=Z,249nm,21.6s,baz=249,slow=34
comp=Z,1.3nm,0.9s
ILAR Eielson Array 82.36 23 P **P** **19 26 37.0 -0.9**
NRIK Noril'sk 82.62 342 P **P** **19 26 39.5 +0.4**
comp=Z,2.1nm,0.7s,baz=176,slow=6.0,SNR=4.4
NRIK LR LR 20 03 43.6
comp=Z,301nm,18.5s,baz=124,slow=36
comp=Z,2.1nm,0.7s
NRIK Noril'sk 82.62 342 **P** **19 26 36.8 -2.3**
J25K Salcha River, 82.90 24 P **P** **19 26 39.7 -1.1**
BMAR Burnt Mountain 84.26 21 P **P** **19 26 46.7 -1.0**
BVAR Borovoye Array 84.78 324 P **P** **19 26 50.7 +0.2**
comp=Z,1.1nm,0.6s,baz=110,slow=8.5,SNR=6.9
comp=Z,1.1nm,0.6s
DAWY Dawson 85.17 25 P **P** **19 26 49.0 -3.4**
MAW Mawson 85.37 203 LR LR 20 02 17.5
comp=Z,267nm,20.8s,baz=81,slow=34
QSPA South Pole Qui 87.02 180 LR LR 20 06 00.6
comp=Z,418nm,20.1s,baz=7.0,slow=36
DLBC Dease Lake 88.38 31 LR LR 20 00 48.0
comp=Z,935nm,20.2s,baz=266,slow=32
INK Inuvik 88.52 21 LR LR 20 04 32.8
comp=Z,778nm,19.9s,baz=246,slow=34
BBB Bella Bella 88.66 38 LR LR 20 00 01.5
comp=Z,1μm,20.3s,baz=258,slow=31
YBH Yreka Blue Hor 91.55 48 LR LR 20 01 20.4
comp=Z,864nm,20.2s,baz=294,slow=31
ARTI Arti 92.09 326 LR LR 20 09 01.6
comp=Z,1μm,21.4s,baz=99,slow=36
AKTO Aktyubinsk 92.10 320 LR LR 20 08 43.4
comp=Z,988nm,20.9s,baz=64,slow=36
NVAR Mina Array Bea 94.86 52 P **P** **19 27 40.8 +1.9**
comp=Z,0.7nm,0.7s,baz=264,slow=6.5,SNR=5.5
NVAR LR LR 20 03 09.4
comp=Z,953nm,21.2s,baz=272,slow=31
comp=Z,0.7nm,0.7s
NVAR Mina Array Bea 94.86 52 P **P** **19 27 35.9 -3.0**
NEW Newport 95.56 42 LR LR 20 04 36.1
comp=Z,291nm,19.8s,baz=264,slow=32
YKA Yellowknife Ar 96.10 28 P **P** **19 27 44.2 +0.5**
comp=Z,1.7nm,0.7s,baz=274,slow=4.7,SNR=11
YKA LR LR 20 08 02.5
comp=Z,305nm,19.5s,baz=266,slow=34
comp=Z,1.7nm,0.7s
YKA Yellowknife Ar 96.10 28 P **P** **19 27 42.2 -1.4**
PFO Pinyon Flats O 96.39 57 LR LR 20 04 45.9
comp=Z,692nm,19.0s,baz=270,slow=31
KIRV Kirov 96.86 329 LR LR 20 13 30.4
comp=Z,831nm,18.8s,baz=88,slow=37
ELK Elko 97.18 49 LR LR 20 04 49.2
comp=Z,501nm,20.9s,baz=262,slow=31
ELIB Princess Elisa 97.35 195 *d*P Pdif 19 27 49.5 +0.1
BELG Belogornoye 98.52 322 LR LR 20 14 16.6
comp=Z,163nm,19.2s,baz=87,slow=37
RES Resolute Bay 99.83 14 LR LR 20 13 35.9
comp=Z,218nm,18.8s,baz=336,slow=36
CLL Collm 118.76 329 LH 20 10 00.0
CLL LV 20 12 00.0
CLL AMS AMS 20 25 00.0
comp=N,600nm,21.5s
CLL AMS AMS 20 25 00.0
comp=E,600nm,22.5s
CLL AMS AMS 20 25 00.0
comp=Z,1μm,21.2s
GERES GERESS Array B 119.81 327 PKP **PKiKP** **19 33 08.2 +1.3**
comp=Z,0.4nm,0.7s,baz=169,slow=1.0,SNR=4.6
LPAZ La Paz 139.69 119 PKP **PKiKP** **19 33 46.9 -1.4**
comp=Z,0.7nm,0.4s,baz=230,slow=3.8,SNR=5.3
LPAZ La Paz 139.69 119 **PKPdf** **19 33 44.9 -1.0**
TORD Torodi Ar. Bea 144.98 289 PKP **PKPdf** **19 33 54.4 -0.2**
comp=Z,1.1nm,0.8s,baz=61,slow=3.3,SNR=5.7
TORD Torodi Ar. Bea 144.98 289 **PKPab** **19 33 49.1 -4.8**

*OSPL **30** 19:20:47.3±1.4, 18°.37N×71°.78W, h2km±265km, ML1.8, Presumed earthquake*
*SDD **30** 19:20:48.5±1.7, 18°.31N×71°.76W, h18km±6km, MD2.5, ML2.0, MW2.5, Presumed earthquake*
ISC 30 19:20:47.8±1.1, 18°.33N±0°.03×71°.72W±0°.05, h15km±9km, n12, σ1s04/20, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JIDR	**Jimani**	**0.20**	**323**	*i* P	**Pb**	**19 20 52.5**	**-0.6**
JIDR				*i* S	**Sg**	**19 20 57.2**	**+1.8**
LODU1	**El Espartillar**	**0.24**	**85**	*i* P	**Pg**	**19 20 52.3**	**-0.7**
LODU1				*e*S	**Sg**	**19 20 55.5**	**-1.0**
LODU1				IAML		19 20 57.0	
	comp=Z,204nm,0.3s						
NEDR	**Neiba UASD**	**0.33**	**63**	*i* P	**Pg**	**19 20 54.2**	**-0.3**
NEDR				*i* S	**Sg**	**19 21 00.4**	**+1.3**
NEDR				IAML		19 21 01.9	
	comp=N,136nm,0.3s						
LONE3	**El Aguacate, B**	**0.37**	**43**	*i* P	**Pg**	**19 20 54.8**	**-0.5**
LONE3				IAML		19 21 03.1	
	comp=Z,101nm,0.3s						
PODR	**Polo**	**0.45**	**111**	*i* P	**Pg**	**19 20 57.0**	**+0.2**
PODR				*i* S	**Sg**	**19 21 03.8**	**+0.8**
PODR				IAML		19 21 05.5	
	comp=N,119nm,0.2s						
PODR	**Polo**	**0.45**	**111**	*i* P	**Pg**	**19 20 56.5**	**-0.4**
PODR				*e*S	**Sg**	**19 21 04.0**	**+0.9**
PODR				IAML		19 21 08.5	
	comp=Z,880nm,0.1s						
LOBH	**Bahia de las A**	**0.48**	**170**	*i* P	**Pg**	**19 20 55.8**	**-1.4**
LOBH				IAML		19 21 10.3	
	comp=Z,20nm,0.5s						
LOVI	**El Cajuil, Ovi**	**0.63**	**147**	*i* P	**Pg**	**19 21 00.3**	**+0.2**
LOVI				IAML		19 21 13.0	
	comp=Z,31nm,0.9s						
SDDR	**Presa de Saban**	**0.77**	**33**	*i* P	**Pg**	**19 21 03.1**	**+0.4**
SDDR				*i* S	**Sg**	**19 21 12.7**	**-0.1**
SDDR	**Presa de Saban**	**0.77**	**33**	*i* P	**Pg**	**19 21 01.0**	**-1.7**
SDDR				*e*S	**Sg**	**19 21 11.3**	**-1.5**
SDDR				IAML		19 21 16.3	
	comp=Z,12nm,1.2s						
REDR	**Restauracion**	**0.89**	**21**	*i* P	**Pg**	**19 21 04.9**	**0.0**
REDR				*i* S	**Sb**	**19 21 17.5**	**+0.9**
REDR				IAML		19 21 18.6	
	comp=N,29nm,0.2s						
BANI	**BANI**	**1.30**	**87**	*i* P	**Pn**	**19 21 11.9**	**+0.4**
BANI				IAML		19 22 12.7	
	comp=N,33nm,0.6s						

*IDC **30** 19:22:35.7±4.4, 52°.31N×177°.91E, h156km±28km, mb3.4/7, mbtmp3.9/9, Error ellipse: s-maj=47.7km s-min=25.5km az=100.0*
*AEIC **30** 19:22:35.4±2.1, 52°.3N±0°.2×177°.9E±0°.1, h158km±6km, Error ellipse: s-maj=22.8km s-min=9.9km az=187.0*
*NEIC **30** 19:22:35.2±1.1, 52°.3N±0°.2×177°.9E±0°.1, h145km±9km, mb4.1/14, ML3.3/8, ML3.2(AEIC), Error ellipse: s-maj=24.2km s-min=10.0km az=187.0*
ISC 30 19:22:35.3±0.9, 52°.2N±0°.2×177°.94E±0°.06, h150km, n28, σ0s69/29, mb4.0/12, Rat Islands

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
GANO	**Gareloi North**	**2.05**	**101**	Pn	**Pn**	**19 23 10.9**	**0.0**
SHEM	**Shemya Is, Ala**	**2.40**	**283**	P	**Pn**	**19 23 15.5**	**+0.4**
	54nm,0.3s,baz=172,slow=3.7,SNR=19						
SHEM				S	**Sn**	**19 23 46.5**	**+0.8**
	64nm,0.3s,baz=210,slow=17,SNR=12						
SHEM	**Shemya Is, Ala**	**2.40**	**283**		**Pn**	**19 23 14.4**	**-0.7**
SMY	**Shemya**	**2.40**	**283**	Pn	**Pn**	**19 23 14.2**	**-0.8**
SMY				IAML		19 23 46.1	
	comp=N,140nm,0.7s						
SMY				IAML		19 23 48.2	
	comp=E,143nm,1.0s						
KIWB	**Kanaga Island**	**3.05**	**95**	Pn	**Pn**	**19 23 23.2**	**-0.1**
KIWB				IAML		19 25 00.5	
	comp=N,49nm,1.1s						
KIWB				IAML		19 25 21.9	
	comp=E,49nm,1.1s						
PETK	**Petropavlovsk-**	**12.32**	**282**	P	**Pn**	**19 25 26.3**	**+0.9**

comp=E,2.2nm,0.7s,baz=88,slow=19,SNR=6.4
K15K Wolf Creek Mou 14.91 40 P P 19 26 00.1 -0.1
SPU Mount Spurr 18.58 49 P P 19 26 39.4 -1.2
SPU IAmb IAmb 19 26 43.8
comp=Z,6.3nm,1.2s
CNPM China Poot 18.62 55 P P 19 26 41.3 +0.3
GHO Glory Hole Cre 20.18 49 P P 19 26 57.3 -0.6
GHO IAmb IAmb 19 27 04.4
comp=Z,21nm,1.4s
SML Sawmill 20.46 49 P P 19 27 01.8 +0.9
SML IAmb IAmb 19 27 39.3
comp=Z,25nm,1.4s
SCM Sheep Creek Mo 20.94 49 P P 19 27 05.3 -0.6
TOLK Toolik Lake Re 22.51 31 P P 19 27 22.8 +0.8
TOLK IAmb IAmb 19 27 24.5
comp=Z,8.9nm,1.4s
L27K Beaver Creek, 23.67 47 P P 19 27 32.9 +0.2
L27K IAmb IAmb 19 27 35.9
comp=Z,3.0nm,0.7s
BCAR Beaver Creek A 23.69 47 P P 19 27 32.4 -0.6
C26K Camden Bay 24.58 30 P P 19 27 42.1 +1.3
C26K IAmb IAmb 19 27 51.1
comp=Z,11nm,1.4s
C27K Jago River 24.83 31 P P 19 27 43.9 +0.8
I28M Miner Creek 24.90 42 P P 19 27 43.6 -0.3
L29M L29M 25.34 47 P P 19 27 48.3 +0.4
L29M IAmb IAmb 19 28 18.8
comp=Z,15nm,1.5s
SPITS Spitsbergen Ar 49.35 355 P P 19 31 07.7 -0.9
comp=Z,12nm,1.0s,baz=30,slow=5.8,SNR=9.6
comp=Z,12nm,1.0s
SPB2 Spitsbergen Ar 49.36 355 P P 19 31 08.4 -0.2
KURK Kurchatov 56.95 312 P P 19 32 04.3 0.0
KURK IAmb IAmb 19 32 17.4
comp=Z,3.5nm,1.4s
KURBB Kurchatov Arra 57.05 312 P P 19 32 04.5 -0.6
comp=Z,0.5nm,0.7s,baz=42,slow=6.8,SNR=6.1
comp=Z,0.5nm,0.7s
MKAR Makanchi Array 57.90 306 P P 19 32 10.1 -1.1
comp=Z,0.2nm,0.3s,baz=46,slow=7.2,SNR=4.2
comp=Z,0.2nm,0.3s
BVAR Borovoye Array 58.91 318 P P 19 32 17.5 -0.6
comp=Z,1.1nm,0.4s,baz=54,slow=6.8,SNR=6.4
comp=Z,1.1nm,0.4s
AKASG Malin Array Be 74.07 340 P P 19 33 54.0 -0.2
comp=Z,0.6nm,0.5s,baz=21,slow=6.3,SNR=3.5
comp=Z,0.6nm,0.5s
WRA Warramunga Arr 81.29 221 P P 19 34 34.1 -0.4
comp=Z,0.4nm,0.6s,baz=33,slow=6.0,SNR=4.7
comp=Z,0.4nm,0.6s
ASAR Alice Springs 84.81 220 P P 19 34 53.0 +0.4
comp=Z,0.3nm,0.7s,baz=26,slow=5.2,SNR=1.5
comp=Z,0.3nm,0.7s

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*IDC **30** 19:26:03.6±0.9, 8˚.09S×159˚.21E, h0km, mb3.9/9, mbtmp3.9/10, ML4.4/1, Error ellipse: s-maj=24.8km s-min=17.0km az=67.0*
*NEIC **30** 19:26:05.4±1.8, 8˚.15S±0˚.08×159˚.3E±0˚.1, h10km±1km, mb4.4/8, Error ellipse: s-maj=23.9km s-min=8.1km az=238.0*
ISC 30 19:26:08.4±0.6, **8˚.18S**±0˚.09×**159˚.2E**±0˚.1, **h35**km, **n32**, σ0s**93**/24, **mb4.0**/12, **Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TATA	**Tatamba Isabel**	**0.62**	**110**	P	**Pn**	**19 26 18.9**	**-1.8**
SAVO	**Savo Central**	**1.13**	**149**	P	**Pn**	**19 26 26.3**	**-1.5**
HNR	**Honiara**	**1.44**	**150**	Pn	**Pn**	**19 26 31.3**	**-0.7**
	21nm,0.3s,baz=87,slow=2.0,SNR=8.7						
HNR				Sn	**Sn**	**19 26 50.4**	**+0.8**
	21nm,0.3s,baz=218,slow=3.0,SNR=8.4						
HNR	**Honiara**	**1.44**	**150**	P	**Pn**	**19 26 33.4**	**+1.4**
HNR	**Honiara**	**1.44**	**150**		**Pn**	**19 26 32.1**	**+0.1**
NGOA	**Tingoa Renbel**	**3.46**	**166**	P	Pn	19 27 02.2	+2.4
RABL	**Rabaul**	**8.05**	**299**	Pn	**Pn**	**19 28 02.7**	**-0.3**
JAY	**Jayapura**	**19.27**	**286**	P	**Pn**	**19 30 30.8**	**-0.7**
	1.1nm,0.3s,baz=73,slow=2.7,SNR=5.2 6.9nm,0.6s						
JAY				AML	AML		
WRA	**Warramunga Arr**	**26.77**	**241**	P	**P**	**19 31 45.1**	**-0.2**
	0.7nm,0.6s,baz=67,slow=9.3,SNR=11 0.7nm,0.6s						
WRA	**Warramunga Arr**	**26.77**	**241**	IAmb	IAmb	19 31 51.4	
	comp=Z,0.1nm,0.9s						
H11S2	**WAKE ISLAND Hy**	**27.51**	**16**	T	T	20 00 22.3	
	baz=196,slow=76,SNR=116						
H11S3	**WAKE ISLAND Hy**	**27.51**	**15**	T	T	20 00 18.7	
	baz=196,slow=76,SNR=78						
H11S1	**WAKE ISLAND Hy**	**27.53**	**16**	T	T	20 00 20.4	
	baz=196,slow=76,SNR=76						
STKA	**Stephens Creek**	**28.72**	**212**	P	**P**	**19 32 03.6**	**+1.1**
	comp=Z,2.6nm,1.0s,baz=42,slow=14,SNR=3.3 comp=Z,2.6nm,1.0s						
ASAR	**Alice Springs**	**28.72**	**235**	P	**P**	**19 32 02.5**	**-0.2**
	comp=Z,0.6nm,0.7s,baz=68,slow=8.9,SNR=7.6 comp=Z,0.6nm,0.7s						
H11N1	**WAKE ISLAND Hy**	**28.73**	**15**	T	T	20 01 47.7	
	baz=196,slow=76,SNR=116						
H11N3	**WAKE ISLAND Hy**	**28.74**	**15**	T	T	20 01 48.4	
	baz=196,slow=76,SNR=205						
H11N2	**WAKE ISLAND Hy**	**28.75**	**15**	T	T	20 01 51.4	
	baz=196,slow=76,SNR=252						
FITZ	**Fitzroy Crossi**	**34.09**	**250**	P	**P**	**19 32 49.0**	**-0.9**
PETK	**Petropavlovsk-**	**61.06**	**359**	P	**P**	**19 36 18.7**	**+0.1**
CMAR	**Chiang Mai Arr**	**65.07**	**295**	P	**P**	**19 36 46.5**	**+0.6**
	comp=Z,0.9nm,0.8s,baz=114,slow=5.3,SNR=4.3 comp=Z,0.9nm,0.8s						
VNDA	**Vanda**	**69.32**	**179**	P	**P**	**19 37 10.9**	**-0.9**
VNDA				IAmb	IAmb	19 37 45.9	
	comp=Z,3.6nm,1.4s						
SONM	**Songino Array**	**72.63**	**326**	P	**P**	**19 37 33.3**	**+0.8**
	comp=Z,4.2nm,1.3s,baz=130,slow=6.7,SNR=5.0 comp=Z,4.2nm,1.3s						
SONM	**Songino Array**	**72.63**	**326**	P	**P**	**19 37 32.5**	**-0.1**
SONM				IAmb	IAmb	19 37 38.7	
	comp=Z,1.3nm,1.0s						
ILAR	**Eielson Array**	**82.98**	**20**	P	**P**	**19 38 29.4**	**-0.3**
	comp=Z,0.2nm,0.4s,baz=267,slow=6.3,SNR=4.4 comp=Z,0.2nm,0.4s						
J25K	**Salcha River,**	**83.41**	**21**	P	**P**	**19 38 32.6**	**+0.7**
SCRK	**Sand Creek**	**83.55**	**22**	P	**P**	**19 38 33.7**	**+1.0**
SCRK				IAmb	IAmb	19 39 05.7	
	comp=Z,7.5nm,1.5s						
MKAR	**Makanchi Array**	**87.07**	**318**	P	**P**	**19 38 50.4**	**-0.2**
	comp=Z,0.7nm,0.7s,baz=92,slow=5.4,SNR=6.9 comp=Z,0.7nm,0.7s						
KURK	**Kurchatov**	**90.36**	**321**	P	**P**	**19 39 07.3**	**+1.4**
KURK	**Kurchatov**	**90.36**	**321**	IAmb	IAmb	19 39 17.8	
	comp=Z,1.8nm,0.8s						
KURBB	**Kurchatov Arra**	**90.40**	**321**	P	**P**	**19 39 07.4**	**+1.2**
	comp=Z,0.2nm,0.5s,baz=99,slow=4.9,SNR=2.7 comp=Z,0.2nm,0.5s						
YKA	**Yellowknife Ar**	**95.42**	**28**	P	**P**	**19 39 28.6**	**-0.5**
	comp=Z,0.5nm,0.6s,baz=260,slow=4.7,SNR=4.8 comp=Z,0.5nm,0.6s						

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*WEL **30** 19:35:24.0±1.2, 38˚S±10˚×177˚E±˚, h133km±9km, M3.5/59, ML2.6/7, MLv3.5/59, Error ellipse: s-maj=13.0km s-min=8.5km az=4.4*
*NOU **30** 19:35:27.2, 38˚.71S×176˚.37E, h193km, MLv4.6/11, North Island, New Zealand*
ISC 30 19:35:18.5±1.7, **38˚.10S**±0˚.05×**176˚.58E**±0˚.05, **h179**km±9km, **n133**, σ2s**23**/143, **North Island**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
TARZ	**Mount Tarawera**	**0.15**	**203**	P	**Pn**	**19 35 43.8**	**+1.5**
TARZ				AML	AML		
TARZ				AML	AML		
LIRZ	**Lichensteins R**	**0.18**	**302**	P	**Pn**	**19 35 43.3**	**+1.0**
LIRZ				AML	AML		
HLRZ	**Highlands Stat**	**0.24**	**230**	P	**Pn**	**19 35 43.8**	**+1.5**
HLRZ				AML	AML		
HLRZ				AML	AML		
RRRZ	**Republican Roa**	**0.25**	**192**	P	**Pn**	**19 35 43.7**	**+1.3**
RRRZ				S	**Sn**	**19 35 59.0**	**-1.9**
RRRZ				AML	AML		
OPRZ	**Ohinepanea**	**0.26**	**355**	P	**Pn**	**19 35 43.0**	**+0.6**
OPRZ				AML	AML		
KARZ	**Kaharoa**	**0.28**	**286**	P	**Pn**	**19 35 43.5**	**+1.0**
KARZ				AML	AML		
NGRZ	**Ngongotaha**	**0.31**	**269**	P	**Pn**	**19 35 43.9**	**+1.4**
NGRZ				AML	AML		
HRRZ	**Handcock Road**	**0.37**	**219**	P	**Pn**	**19 35 44.2**	**+1.5**
HRRZ				AML	AML		
MUGZ	**Murupara**	**0.41**	**158**	P	**Pn**	**19 35 44.1**	**+1.3**
MUGZ				S	**Sn**	**19 35 59.8**	**-1.9**
MUGZ				AML	AML		
MUGZ				AML	AML		
PRRZ	**Plateau Road**	**0.43**	**200**	P	**Pn**	**19 35 44.3**	**+1.5**
PRRZ				AML	AML		
PRRZ				AML	AML		
GRRZ	**Galatos Road**	**0.45**	**236**	P	**Pn**	**19 35 44.6**	**+1.7**
GRRZ				AML	AML		
TGRZ	**Tauranga**	**0.45**	**325**	P	**Pn**	**19 35 43.9**	**+0.9**
TGRZ				AML	AML		
TGRZ				AML	AML		
URZ	**Urewera**	**0.45**	**111**	P	**Pn**	**19 35 43.9**	**+1.0**
URZ				S	**Sn**	**19 35 59.4**	**-2.3**
URZ				AML	AML		
URZ				AML	AML		
ALRZ	**Allen Road**	**0.50**	**202**	P	**Pn**	**19 35 44.8**	**+1.7**
ALRZ				AML	AML		
WPRZ	**Whakapapatarin**	**0.53**	**218**	P	**Pn**	**19 35 45.0**	**+1.7**
WPRZ				AML	AML		
KMRZ	**Kaimai**	**0.56**	**296**	P	**Pn**	**19 35 44.7**	**+1.2**
KMRZ				S	**Sn**	**19 36 01.4**	**-1.2**
KMRZ				AML	AML		
RTZ	**Ruatahuna**	**0.60**	**149**	P	**Pn**	**19 35 45.5**	**+1.8**
RTZ				S	**Sn**	**19 36 01.6**	**-1.6**
RTZ				AML	AML		
RTZ				AML	AML		
MRHZ	**Matea Rd**	**0.74**	**190**	P	**Pn**	**19 35 46.5**	**+2.0**
MRHZ				AML	AML		
RAGZ	**Rawiri**	**0.77**	**121**	P	**Pn**	**19 35 46.5**	**+1.9**
RAGZ				S	**Sn**	**19 36 03.8**	**-1.0**
RAGZ				AML	AML		
MTHZ	**Maungataniwha**	**0.78**	**165**	P	**Pn**	**19 35 46.9**	**+2.3**
MTHZ				AML	AML		
MWZ	**Matawai**	**0.78**	**108**	P	**Pn**	**19 35 46.4**	**+1.7**
MWZ				S	**Sn**	**19 36 03.7**	**-1.1**
MWZ				AML	AML		
TLZ	**Tolley Road**	**0.85**	**254**	P	**Pn**	**19 35 47.1**	**+2.0**
TLZ				S	**Sn**	**19 36 05.3**	**-0.3**
RUGZ	**Raukumara Rang**	**0.88**	**82**	P	**Pn**	**19 35 45.9**	**+0.5**
RUGZ				S	**Sn**	**19 36 02.7**	**-3.4**
RUGZ				AML	AML		
HATZ	**Hinemaiaia**	**0.88**	**206**	P	**Pn**	**19 35 47.4**	**+2.1**
HATZ				AML	AML		
WATZ	**Wairara**	**0.90**	**227**	P	**Pn**	**19 35 47.6**	**+2.2**
RAHZ	**Arahi**	**0.91**	**154**	P	**Pn**	**19 35 48.2**	**+2.8**
RAHZ				AML	AML		
TOZ	**Tahuroa Road**	**0.93**	**293**	P	**Pn**	**19 35 47.2**	**+1.7**
HAZ	**Te Kaha**	**1.01**	**71**	P	**Pn**	**19 35 46.9**	**+0.7**
HAZ				S	**Sn**	**19 36 04.7**	**-2.7**
HAZ				AML	AML		
NMHZ	**Naumai**	**1.01**	**170**	P	**Pn**	**19 35 49.5**	**+3.3**
NMHZ				AML	AML		
RITZ	**Rihia Road**	**1.04**	**213**	P	**Pn**	**19 35 49.1**	**+2.7**
RITZ				AML	AML		
TKGZ	**Te Karaka**	**1.05**	**109**	P	**Pn**	**19 35 49.0**	**+2.5**
TKGZ				AML	AML		
BKZ	**Black Stump Fm**	**1.07**	**184**	P	**Pn**	**19 35 48.9**	**+2.2**
WHHZ	**Waihua**	**1.10**	**153**	P	**Pn**	**19 35 49.8**	**+3.0**
WHHZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.11**	**94**	P	**Pn**	**19 35 49.4**	**+2.4**
TWGZ				AML	AML		
RIGZ	**Rimuhau**	**1.11**	**124**	P	**Pn**	**19 35 49.9**	**+3.0**
RIGZ				AML	AML		
ARHZ	**Aropaoanui**	**1.21**	**165**	P	**Pn**	**19 35 50.9**	**+3.2**
ARHZ				AML	AML		
PKGZ	**Pakihiroa**	**1.21**	**79**	P	**Pn**	**19 35 49.5**	**+1.8**
PKGZ				AML	AML		
KRVZ	**Karewarewa**	**1.24**	**216**	P	**Pn**	**19 35 50.4**	**+2.3**
KNZ	**Kokohu**	**1.26**	**137**	P	**Pn**	**19 35 50.9**	**+2.8**
OTVZ	**Oturere**	**1.28**	**214**	P	**Pn**	**19 35 51.4**	**+2.8**
OTVZ				AML	AML		
PRGZ	**Paritu Road**	**1.31**	**129**	P	**Pn**	**19 35 51.6**	**+3.0**
PRGZ				AML	AML		
SNVZ	**South Ngauruho**	**1.31**	**214**	P	**Pn**	**19 35 51.7**	**+2.9**
SNVZ				AML	AML		
NGZ	**Ngauruhoe**	**1.32**	**215**	P	**Pn**	**19 35 51.7**	**+2.9**
NGZ				AML	AML		
TWVZ	**Taurewa**	**1.32**	**222**	P	**Pn**	**19 35 51.2**	**+2.4**
TWVZ				AML	AML		
PUZ	**Puketiti**	**1.32**	**89**	P	**Pn**	**19 35 50.5**	**+1.8**
KWHZ	**Kaweka Forest**	**1.33**	**185**	P	**Pn**	**19 35 51.7**	**+2.9**
KWHZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.34**	**107**	P	**Pn**	**19 35 52.0**	**+3.2**
CNGZ				AML	AML		
MCHZ	**McNeill Hill**	**1.35**	**176**	P	**Pn**	**19 35 52.4**	**+3.5**
MCHZ				AML	AML		
COVZ	**Chateau Observ**	**1.37**	**216**	P	**Pn**	**19 35 51.8**	**+2.6**
TUVZ	**Tukino**	**1.37**	**212**	P	**Pn**	**19 35 51.1**	**+1.7**
TUVZ				AML	AML		
MAVZ	**Matarangi**	**1.41**	**214**	P	**Pn**	**19 35 52.6**	**+2.7**
WHVZ	**Whangaehu Hut**	**1.41**	**213**	P	**Pn**	**19 35 52.5**	**+2.7**
HIZ	**Hauiti**	**1.42**	**253**	P	**Pn**	**19 35 52.2**	**+2.7**
BHHZ	**Black Hill Sta**	**1.45**	**196**	P	**Pn**	**19 35 52.4**	**+2.5**
BHHZ				AML	AML		
WNVZ	**Wahianoa**	**1.45**	**212**	P	**Pn**	**19 35 52.7**	**+2.7**
WNVZ				AML	AML		
MOVZ	**Moawhango**	**1.46**	**206**	P	**Pn**	**19 35 52.3**	**+2.3**
MOVZ				AML	AML		
MXZ	**Matakaoa Point**	**1.47**	**69**	P	**Pn**	**19 35 52.2**	**+2.2**
WMGZ	**Waiomatatini S**	**1.48**	**80**	P	**Pn**	**19 35 52.2**	**+2.1**
WMGZ				AML	AML		
MHGZ	**Mahia Peninsul**	**1.48**	**136**	P	**Pn**	**19 35 53.5**	**+3.3**
MHGZ				AML	AML		
MKAZ	**Moumakai**	**1.50**	**311**	P	**Pn**	**19 35 52.3**	**+1.9**
PKVZ	**Pokaka**	**1.53**	**219**	P	**Pn**	**19 35 53.4**	**+2.7**
PKVZ				AML	AML		
CKHZ	**Cape Kidnapper**	**1.60**	**166**	P	**Pn**	**19 35 54.8**	**+3.5**
CKHZ				AML	AML		
KAHZ	**Kahuranaki**	**1.71**	**172**	P	**Pn**	**19 35 55.9**	**+3.4**
KAHZ				AML	AML		
WIAZ	**Waiheke Island**	**1.74**	**318**	P	**Pn**	**19 35 54.8**	**+2.0**
WIAZ				AML	AML		
ETAZ	**East Tamaki Re**	**1.74**	**311**	P	**Pn**	**19 35 55.0**	**+2.3**
ETAZ				AML	AML		
VRZ	**Vera Road**	**1.76**	**234**	P	**Pn**	**19 35 55.9**	**+3.1**
PNHZ	**Pukenui**	**1.84**	**189**	P	**Pn**	**19 35 56.3**	**+2.5**
PNHZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**1.85**	**303**	P	**Pn**	**19 35 56.1**	**+2.2**
AWAZ				AML	AML		
MBAZ	**Motutapu North**	**1.89**	**314**	P	**Pn**	**19 35 56.6**	**+2.3**
MBAZ				AML	AML		
PXZ	**Pawanui**	**1.94**	**174**	P	**Pn**	**19 35 58.0**	**+3.2**
WPHZ	**Waipukurau**	**1.97**	**183**	P	**Pn**	**19 35 57.9**	**+2.8**
WPHZ				AML	AML		
WTAZ	**Waiatarua**	**1.98**	**305**	P	**Pn**	**19 35 57.6**	**+2.3**
TSZ	**Takapari Road**	**2.02**	**194**	P	**Pn**	**19 35 58.2**	**+2.6**
ABAZ	**Army Bay**	**2.04**	**317**	P	**Pn**	**19 35 58.5**	**+2.5**
ABAZ				AML	AML		
GRZ	**Great Barrier**	**2.05**	**334**	P	**Pn**	**19 35 59.0**	**+2.9**
WAZ	**Wanganui**	**2.07**	**216**	P	**Pn**	**19 35 59.3**	**+3.1**
PRHZ	**Porangahau**	**2.17**	**179**	P	**Pn**	**19 36 00.0**	**+2.8**
PRHZ				AML	AML		
DVHZ	**Dannevirke**	**2.22**	**188**	P	**Pn**	**19 36 00.3**	**+2.4**
DVHZ				AML	AML		
PKE	**Pukeiti**	**2.31**	**241**	P	**Pn**	**19 36 03.3**	**+4.4**
POWZ	**Post Office Ro**	**2.38**	**195**	P	**Pn**	**19 36 02.2**	**+2.6**
POWZ				AML	AML		
PRWZ	**Pori Road**	**2.50**	**191**	P	**Pn**	**19 36 04.0**	**+2.9**
PRWZ				AML	AML		
BFZ	**Birch Farm**	**2.59**	**186**	P	**Pn**	**19 36 04.5**	**+2.3**
BFZ	**Birch Farm**	**2.59**	**186**	S	**Sn**	**19 36 34.8**	**-1.5**
BFZ	**Birch Farm**	**2.59**	**186**	P	**Pn**	**19 36 04.7**	**+2.5**
MRZ	**Mangatainoka R**	**2.67**	**197**	P	**Pn**	**19 36 05.4**	**+2.3**
TIWZ	**Tintock**	**2.73**	**191**	P	**Pn**	**19 36 06.4**	**+2.6**
TIWZ				AML	AML		
WCZ	**Waipu Caves**	**2.80**	**320**	P	**Pn**	**19 36 07.3**	**+2.6**
CPWZ	**Castlepoint**	**2.82**	**186**	P	**Pn**	**19 36 08.1**	**+3.3**
HOWZ	**Holdsworth Sta**	**2.91**	**196**	P	**Pn**	**19 36 08.1**	**+2.1**
HOWZ				AML	AML		
OGWZ	**Otaki Gorge**	**2.93**	**201**	P	**Pn**	**19 36 08.6**	**+2.4**
OGWZ				AML	AML		
KIW	**Kapiti Island**	**3.05**	**205**	P	**Pn**	**19 36 09.5**	**+1.9**
KIW				AML	AML		
TMWZ	**Te Maipa**	**3.05**	**190**	P	**Pn**	**19 36 10.1**	**+2.4**
TMWZ				AML	AML		
MTW	**Mount Morrison**	**3.17**	**195**	P	**Pn**	**19 36 10.9**	**+1.8**
MTW				AML	AML		
CAW	**Cannon Point**	**3.22**	**201**	P	**Pn**	**19 36 11.7**	**+1.9**
CAW				AML	AML		
TRWZ	**Traveller**	**3.37**	**192**	P	**Pn**	**19 36 13.5**	**+2.0**
DUWZ	**D'Urville Isla**	**3.40**	**216**	P	**Pn**	**19 36 13.7**	**+1.8**
DUWZ				AML	AML		
PAWZ	**Paruwai Farm**	**3.40**	**195**	P	**Pn**	**19 36 13.6**	**+1.7**
PAWZ				AML	AML		
MSWZ	**Moikau Station**	**3.47**	**197**	P	**Pn**	**19 36 14.3**	**+1.5**
MSWZ				AML	AML		
SNZO	**South Karori**	**3.52**	**204**	P	**Pn**	**19 36 14.8**	**+1.4**
SNZO	**South Karori**	**3.52**	**204**	P	**Sn**	**19 36 53.4**	**-3.0**
BHW	**Baring Head**	**3.56**	**201**	P	**Pn**	**19 36 15.5**	**+1.6**
BHW				AML	AML		
TCW	**Tory Channel**	**3.58**	**209**	P	**Pn**	**19 36 15.6**	**+1.4**
TCW				AML	AML		
PLWZ	**Palliser**	**3.61**	**196**	P	**Pn**	**19 36 16.1**	**+1.4**
PLWZ				AML	AML		
OUZ	**Omahuta**	**3.74**	**319**	P	**Pn**	**19 36 19.6**	**+3.3**
TUWZ	**Tuamarina**	**3.90**	**211**	P	**Pn**	**19 36 20.0**	**+1.9**
NNZ	**Nelson**	**3.98**	**217**	P	**Pn**	**19 36 21.0**	**+1.8**
TKNZ	**Takaka Hill**	**4.05**	**223**	P	**Pn**	**19 36 21.6**	**+1.4**
TKNZ				AML	AML		
QRZ	**Quartz Range**	**4.15**	**228**	P	**Pn**	**19 36 23.0**	**+1.6**
QRZ	**Quartz Range**	**4.15**	**228**	S	**Sn**	**19 37 09.5**	**-1.3**
QRZ	**Quartz Range**	**4.15**	**228**	P	**Pn**	**19 36 22.8**	**+1.4**
BSWZ	**Blackbirch Sta**	**4.17**	**209**	P	**Pn**	**19 36 23.3**	**+1.6**
BSWZ				AML	AML		
MRNZ	**Matariki Terra**	**4.42**	**221**	P	**Pn**	**19 36 26.2**	**+1.3**
MRNZ				AML	AML		
THZ	**Tophouse**	**4.62**	**217**	P	**Pn**	**19 36 29.1**	**+1.5**
KHZ	**Kahutara**	**4.90**	**207**	P	**Pn**	**19 36 32.2**	**+1.2**
KHZ	**Kahutara**	**4.90**	**207**	S	**Sn**	**19 37 22.5**	**-5.5**
KHZ	**Kahutara**	**4.90**	**207**	P	**Pn**	**19 36 32.3**	**+1.3**
GVZ	**Greta Valley S**	**5.56**	**208**	P	**Pn**	**19 36 40.5**	**+0.8**
LTZ	**Lake Taylor**	**5.72**	**214**	P	**Pn**	**19 36 42.4**	**+0.6**
INZ	**Inchbonnie**	**6.06**	**219**	P	**Pn**	**19 36 48.1**	**+2.0**
OKCZ	**Okains Bay**	**6.22**	**204**	P	**Pn**	**19 36 49.1**	**+0.8**
OXZ	**Oxford**	**6.26**	**212**	P	**Pn**	**19 36 49.0**	**+0.2**
MQZ	**McQueen's Vall**	**6.34**	**207**	P	**Pn**	**19 36 49.7**	**-0.1**
AKCZ	**Akaroa Harbour**	**6.40**	**205**	P	**Pn**	**19 36 51.2**	**+0.6**
RACZ	**Rakaia**	**6.55**	**209**	P	**Pn**	**19 36 52.6**	**0.0**
MHCZ	**Mount Hutt**	**6.62**	**213**	P	**Pn**	**19 36 54.2**	**+0.5**
WACZ	**Wakanui South**	**6.85**	**210**	P	**Pn**	**19 36 56.8**	**+0.3**
RPZ	**Rata Peaks**	**7.00**	**215**	P	**Pn**	**19 37 00.3**	**+1.8**
ARCZ	**Arundel**	**7.13**	**213**	P	**Pn**	**19 37 00.8**	**+0.6**
TMZ	**Timaru**	**7.55**	**212**	P	**Pn**	**19 37 06.8**	**+1.0**
LBZ	**Lake Benmore**	**7.91**	**215**	P	**Pn**	**19 37 12.4**	**+1.8**
ODZ	**Otahua Downs**	**8.24**	**211**	P	**Pn**	**19 37 15.2**	**+0.4**
JCZ	**Jackson Bay**	**8.38**	**222**	P	**Pn**	**19 37 18.7**	**+1.9**
JCZ	**Jackson Bay**	**8.38**	**222**	P	**Pn**	**19 37 18.1**	**+1.3**

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*IDC **30** 19:36:26.1±0.8, 8˚.04S×159˚.03E, h0km, mb4.0/9, mbtmp4.0/10, ML4.5/1, MS4.0/4, Error ellipse: s-maj=24.3km s-min=16.2km az=61.0*
*NEIC **30** 19:36:26.4±0.8, 8˚.1S±0˚.1×159˚.2E±0˚.1, h3km±5km, mb4.5/9, Error ellipse: s-maj=22.6km s-min=8.0km az=50.0*
ISC 30 19:36:31.1±0.7, **8˚.13S**±0˚.10×**159˚.1E**±0˚.1, **h35**km, **n35**, σ1s**26**/29, **mb4.0**/12, **MS4.1**/3, **Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**1.55**	**146**	Pn	**Pn**	**19 36 54.5**	**-1.7**
	41nm,0.3s,baz=22,slow=3.7,SNR=9.7						
HNR				Sn	**Sn**	**19 37 17.7**	**+2.5**
	56nm,0.3s,baz=182,slow=22,SNR=6.1						
HNR	**Honiara**	**1.55**	**146**		**Pn**	**19 36 54.5**	**-1.7**
HNR					**Sn**	**19 37 14.8**	**-0.4**
RABL	**Rabaul**	**7.91**	**299**	Pn	**Pn**	**19 38 23.3**	**-0.4**
CTA	**Charters Tower**	**17.19**	**225**	LR	LR	19 45 50.4	
	comp=Z,410nm,18.8s,baz=349,slow=33						
JAY	**Jayapura**	**19.12**	**286**	P	**P**	**19 40 49.1**	**-2.2**
	1.4nm,0.3s,baz=115,slow=7.1,SNR=6.3 7.4nm,0.7s						
JAY				AML	AML		
WRA	**Warramunga Arr**	**26.67**	**241**	P	**P**	**19 42 06.9**	**-0.2**
	1.0nm,0.5s,baz=65,slow=9.1,SNR=9.2						
WRA				PcP	**PcP**	**19 45 30.4**	**0.0**
	0.6nm,0.9s,baz=69,slow=2.8,SNR=3.0 1.0nm,0.5s						
H11S3	**WAKE ISLAND Hy**	**27.50**	**16**	T	T	20 10 44.1	
	baz=196,slow=76,SNR=359						
H11S2	**WAKE ISLAND Hy**	**27.50**	**16**	T	T	20 10 44.1	
	baz=196,slow=76,SNR=297						
H11S1	**WAKE ISLAND Hy**	**27.52**	**16**	T	T	20 10 44.0	
	baz=196,slow=76,SNR=242						
ASAR	**Alice Springs**	**28.64**	**234**	P	**P**	**19 42 24.4**	**-0.3**
	0.9nm,0.7s,baz=59,slow=8.9,SNR=9.1						
ASAR				PcP	**PcP**	**19 45 33.8**	**-1.3**
	0.4nm,0.8s,baz=70,slow=2.6,SNR=1.5 0.9nm,0.7s						
ASAR	**Alice Springs**	**28.64**	**234**	P	**P**	**19 42 24.7**	**0.0**
STKA	**Stephens Creek**	**28.68**	**212**	P	**P**	**19 42 25.8**	**+0.9**
	2.0nm,0.7s,baz=38,slow=14,SNR=4.3 2.0nm,0.7s						
STKA	**Stephens Creek**	**28.68**	**212**	P	**P**	**19 42 25.6**	**+0.7**
H11N1	**WAKE ISLAND Hy**	**28.72**	**15**	T	T	20 12 13.6	
	baz=196,slow=76,SNR=413						
H11N3	**WAKE ISLAND Hy**	**28.73**	**15**	T	T	20 12 15.8	
	baz=196,slow=76,SNR=496						
H11N2	**WAKE ISLAND Hy**	**28.74**	**15**	T	T	20 12 15.0	
	baz=196,slow=76,SNR=540						
AFI	**Afiamalu**	**29.16**	**104**	LR	LR	19 51 19.2	
	comp=Z,212nm,19.3s,baz=262,slow=31						
KNRA	**Kununur

AV05				S		Sg	19 51 50.3	0.0
PIAT	**Ana Tenorio**	**0.81**	**268**	P		Pg	19 51 40.2	+0.1
ANTS	**Antisana-Sarah**	**0.86**	**303**	P		Pg	19 51 41.1	+0.1
ANTI	**Antisana**	**0.88**	**306**	P		Pg	19 51 41.3	-0.1
ANTM	**Antisana-La Mi**	**0.89**	**299**	P		Pg	19 51 41.4	-0.1
ANTM				S		Sg	19 51 52.9	-0.2
APS4	**Papallacta**	**0.89**	**312**	P		Pn	19 51 44.0	+0.5
LAV4	**Lava4-Reventad**	**0.89**	**348**	P		Pg	19 51 41.4	-0.2
ANTG	**Antisana-Guama**	**0.93**	**300**	P		Pg	19 51 42.1	-0.2
ANTG				S		Sg	19 51 54.3	-0.2
PIS1	**Pisayambo**	**0.94**	**265**	P		Pg	19 51 42.9	+0.4
TAMB	**Tambo**	**0.96**	**287**	P		Pg	19 51 43.2	+0.3
VCES	**Cotopaxi**	**0.96**	**280**	P		Pg	19 51 43.2	+0.3
BTAM	**Cotopaxi Volca**	**0.99**	**287**	P		Pg	19 51 43.8	+0.3
VC1	**Cotopaxi 1**	**1.01**	**289**	P		Pg	19 51 44.0	+0.2
BVC2	**Cotopaxi Volca**	**1.01**	**288**	P		Pg	19 51 44.2	+0.3
BREF	**Cotopaxi Volca**	**1.03**	**287**	P		Pg	19 51 44.8	+0.4
BMOR	**Cotopaxi Volca**	**1.04**	**283**	P		Pg	19 51 44.4	+0.1
PITA	**Cotopaxi Volc**	**1.06**	**293**	P		Pg	19 51 44.7	-0.2
NAS2	**Nasa**	**1.07**	**288**	P		Pg	19 51 45.2	+0.3
SLOR	**San Lorenzo -**	**1.07**	**283**	P		Pg	19 51 45.2	+0.2
TOMA	**Boca Toma-Volc**	**1.09**	**296**	P		Pg	19 51 45.2	-0.2
SUCR	**Mariscal Sucre**	**1.09**	**288**	P		Pg	19 51 45.8	+0.3
JUI6	**Juive**	**1.11**	**246**	P		Pg	19 51 45.7	-0.1
BPAT	**Tungurahua Vol**	**1.12**	**242**	P		Pb	19 51 46.1	-0.1
CAYR	**Refugio Cayamb**	**1.13**	**330**	P		Pg	19 51 45.6	-0.5
ARRY	**Arrayan**	**1.14**	**242**	P		Pg	19 51 46.2	0.0
SRAM	**San Ramn-Vol**	**1.14**	**281**	P		Pb	19 51 46.6	+0.1
BBIL	**Ulba Tungurahu**	**1.14**	**245**	P		Pg	19 51 46.2	-0.2
ASLC	**Ecuador-Salced**	**1.14**	**267**	P		Pb	19 51 46.9	+0.3
ANGU	**Angureal**	**1.16**	**331**	P		Pg	19 51 45.9	-0.7
BIL2	**Estacion Bilba**	**1.16**	**245**	P		Pg	19 51 46.6	0.0
TING	**Casa Alexandra**	**1.21**	**304**	P		Pn	19 51 48.2	+0.3
PUEM	**Granja Avicola**	**1.24**	**312**	P		Pg	19 51 48.3	+0.2
ILLI	**Illinizas Sur**	**1.30**	**281**	P		Pg	19 51 50.2	+0.8
JUA2	**San Juan 2**	**1.38**	**303**	P		Pn	19 51 50.2	-0.2
GGPT	**Toaza - Volcan**	**1.39**	**302**	P		Pn	19 51 50.4	+0.1
GGPC	**Guagua Pichinc**	**1.39**	**305**	P		Pn	19 51 50.7	+0.1
TAIS	**Taisha**	**1.40**	**182**	P		Pg	19 51 52.6	+1.3
TERV	**Terraza Guagua**	**1.40**	**304**	P		Pn	19 51 51.0	+0.3
YANA	**Yana**	**1.41**	**307**	P		Pn	19 51 51.0	+0.3
SANGA	**Volcan Sangay**	**1.41**	**221**	P		Pg	19 51 51.6	+0.1
PULU	**Pululahua**	**1.44**	**313**	P		Pn	19 51 51.7	+0.5
TAMH	**Tambohuasha Ch**	**1.45**	**247**	P		Pg	19 51 52.3	+0.2
IMBA	**Imbabura, San**	**1.45**	**329**	P		Pg	19 51 53.5	+1.2
YAHU	**Yahuarcocha**	**1.47**	**335**	P		Pn	19 51 51.8	+0.2
CHSH	**Refugio Sur-Vo**	**1.51**	**250**	P		Pg	19 51 53.3	-0.2
CUIC	**Cuicocha-Domo**	**1.56**	**324**	P		Pb	19 51 54.0	+0.2
OTAV	**Otavalo**	**1.56**	**320**	P		Pn	19 51 53.4	+0.5
OTAV	**Otavalo**	**1.56**	**320**	P		Pn	19 51 53.0	+0.1
COTA	**Cotacachi**	**1.57**	**326**	P		Pb	19 51 54.4	+0.3
CUSE	**Cuicocha Este**	**1.58**	**323**	P		Pn	19 51 53.9	+0.7
CUSE	**Cuicocha Este**	**1.58**	**323**	P		Pn	19 51 53.7	+0.5
URCU	**Urcuqui**	**1.62**	**330**	P		Pb	19 51 55.1	+0.4
JSCH	**Cashca Totoras**	**1.70**	**244**	P		Pn	19 51 55.2	+0.6
TULM	**Tulcn-Chalpat**	**1.71**	**349**	P		Pn	19 51 51.3	-3.6
LNGL	**El Angel-Carch**	**1.79**	**342**	P		Pb	19 51 57.7	-0.1
PAC1	**Pacto, Paraso**	**1.82**	**313**	P		Pb	19 51 58.2	+0.1
CHL1	**Volc¡n Chiles**	**1.82**	**344**	P		Pb	19 51 58.0	-0.3
CHL2	**Volc¡n Chiles**	**1.82**	**345**	P		Pg	19 52 01.5	+2.1
ECEN	**Cerro Negro**	**1.86**	**344**	P		Pb	19 51 58.7	-0.3
CMBC	**Cumbal**	**1.94**	**349**	P		Pb	19 51 59.7	-0.5
CRUC	**La Cruz**	**2.57**	**11**	P		Pb	19 52 12.4	+1.4
PTLC	**Puerto Leguiza**	**2.89**	**67**	P		Pn	19 52 10.2	-0.5
BBAC	**Balboa, Cauca**	**2.98**	**4**	P		Pb	19 52 19.6	+1.7
FLOC	**Florencia**	**3.11**	**35**	P		Pn	19 52 13.3	-0.5
POPC	**Popayan, Colom** 6.6nm,0.7s	**3.57**	**13**	P		Pb	19 52 30.5	+2.5
POPC				AML	AML			
GARC	**Garzon, Huila**	**3.70**	**32**	P		Pn	19 52 21.7	-0.4
GARC				AML	AML			
BETC	**Betania**	**4.15**	**29**	P		Pb	19 52 40.4	+2.7
BETC				AML	AML			
MACC	**Macarena, Meta** 4µm34nm,0.6s	**4.75**	**49**	P		Pg	19 52 52.4	-3.0
URMC	**La Uribe, Meta** 716nm24nm,0.6s	**5.20**	**36**	P		Pn	19 52 42.8	+0.3
PRAC	**Prado** 13nm,0.5s	**5.31**	**29**	P		Pb	19 52 51.6	-6.0

*IDC **30** 20:48:07.2±1.6,46°68N×27°37W,h0km,mb3.8/9, mbtmp3.8/10,ML4.1/1,MS3.8/2,Error ellipse: s-maj=55.3km s-min=19.6km az=3.0*
*NEIC **30** 20:48:09.6±1.3,46°8N±0°2×27°4W±0°2,h10km±2km, mb4.2/6,Error ellipse: s-maj=33.2km s-min=9.7km az=210.0*

ISC 30 20:48:09.8±1.1,46°7N±0°3×27°4W±0°1,h16km,n28, σ0ᵗ72/20,mb3.9/11,Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PAB	**San Pablo**	**18.23**	**105**		**Pn**	**20 52 22.4**	**+0.2**
ESDC	**Sonseca Array**	**18.43**	**104**	P	**P**	**20 52 24.7**	**+0.3**
	0.1nm,0.3s,baz=300,slow=13,SNR=16 1.5nm,0.7s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**18.43**	**104**	P	**P**	**20 52 23.9**	**-0.5**
ESBB	**Sonseca Array**	**18.43**	**104**	P	**P**	**20 52 24.0**	**-0.4**
ESBB				IAmb	IAmb	20 52 26.1	
	comp=Z,13nm,1.5s						
CEST	**Esterri de Car**	**20.73**	**91**		**P**	**20 52 51.4**	**+1.8**
CEST				IAmb	IAmb	20 53 03.3	
	comp=Z,14nm,1.2s						
GERES	**GERESS Array B**	**27.46**	**70**	LR	LR	21 03 56.4	
	comp=Z,124nm,21.7s,baz=42,slow=35						
AKASG	**Malin Array Be**	**36.79**	**62**	P	**P**	**20 55 16.0**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=289,slow=8.3,SNR=1.6 comp=Z,0.2nm,0.3s						
BRTR	**Keskin Array B**	**44.03**	**76**	PP	**PP**	**20 57 59.5**	**+0.4**
	comp=Z,1.5nm,1.0s,baz=336,slow=8.7,SNR=3.5						
YKA	**Yellowknife Ar**	**48.85**	**322**	P	**P**	**20 56 54.2**	**+0.2**
	comp=Z,0.7nm,0.8s,baz=63,slow=7.6,SNR=3.3 comp=Z,0.7nm,0.8s						
H10N2	**ASCENSION HYDR**	**55.49**	**164**	T	T	21 57 16.0	
	baz=349,slow=75,SNR=6.2						
H10N3	**ASCENSION HYDR**	**55.50**	**164**	T	T	21 57 19.9	
	baz=349,slow=75,SNR=5.0						
H10N1	**ASCENSION HYDR**	**55.51**	**164**	T	T	21 57 18.2	
	baz=349,slow=75,SNR=7.2						
PDAR	**Pinedale Array**	**55.95**	**298**	P	**P**	**20 57 47.8**	**+0.4**
	comp=Z,1.0nm,0.3s,baz=24,slow=5.9,SNR=13 comp=Z,1.0nm,0.3s						
H10S3	**ASCENSION HYDR**	**56.56**	**165**	T	T	21 58 33.8	
	baz=349,slow=74,SNR=12						
H10S2	**ASCENSION HYDR**	**56.57**	**165**	T	T	21 58 38.5	
	baz=231,slow=74,SNR=15						
BVAR	**Borovoye Array**	**58.53**	**45**	P	**P**	**20 58 06.0**	**+0.8**
	comp=Z,0.9nm,0.7s,baz=322,slow=4.4,SNR=5.3 comp=Z,0.9nm,0.7s						
ILAR	**Eielson Array**	**59.32**	**334**	P	**P**	**20 58 10.3**	**-0.1**
	comp=Z,0.4nm,0.8s,baz=52,slow=6.6,SNR=4.0 comp=Z,0.4nm,0.8s						
TXAR	**Lajitas Array**	**60.26**	**282**	P	**P**	**20 58 17.8**	**+0.3**
	comp=Z,0.5nm,0.7s,baz=60,slow=7.3,SNR=3.6 comp=Z,0.5nm,0.7s						
KVN	**Kaiserville**	**63.35**	**299**	P	**P**	**20 58 38.1**	**-0.2**
MZP	**Montezuma Peak**	**63.78**	**298**	P	**P**	**20 58 41.7**	**+0.5**
MZP				IAmb	IAmb	20 58 49.2	
	comp=Z,2.8nm,1.0s						
NVAR	**Mina Array Bea**	**63.87**	**299**	P	**P**	**20 58 41.8**	**0.0**
	comp=Z,0.2nm,0.4s,baz=18,slow=8.5,SNR=2.3 comp=Z,0.2nm,0.4s						
KURK	**Kurchatov**	**63.93**	**43**	P	**P**	**20 58 41.1**	**-0.6**
KURK	**Kurchatov**	**63.93**	**43**	IAmb	IAmb	20 58 50.4	
	comp=Z,1.4nm,0.7s						
KURBB	**Kurchatov Arra**	**63.95**	**43**	P	**P**	**20 58 41.1**	**-0.7**
	comp=Z,1.9nm,0.2s,baz=313,slow=6.2,SNR=1.6 comp=Z,1.9nm,0.2s						
PFO	**Pinyon Flats O**	**65.86**	**294**	LR	LR	21 26 21.7	
	comp=Z,97nm,18.7s,baz=60,slow=35						
MKAR	**Makanchi Array**	**68.41**	**44**	P	**P**	**20 59 11.2**	**+0.6**
	comp=Z,0.8nm,0.8s,baz=315,slow=5.2,SNR=5.4 comp=Z,0.8nm,0.8s						
WRA	**Warramunga Arr**	**149.40**	**35**	PKPbc	**PKPbc**	**21 07 57.2**	**-1.0**
	comp=Z,0.7nm,0.9s,baz=323,slow=3.0,SNR=3.4						
ASAR	**Alice Springs**	**152.53**	**40**	PKPbc	**PKPbc**	**21 08 04.3**	**-1.1**
	comp=Z,0.5nm,0.8s,baz=336,slow=4.3,SNR=2.9						

*IDC **30** 20:53:34.8±2.6,14°45N×51°97E,h0km,mb3.7/8, mbtmp3.7/8,MS3.8/2,Error ellipse: s-maj=60.2km s-min=31.3km az=42.0*

*OMAN **30** 20:53:43.3±1.2,15°00N×52°54E,h10km,ml3.5/5,Error ellipse: s-maj=15.5km s-min=9.2km az=136.0*

ISC 30 20:53:39.1±1.2,14°8N±0°1×52°4E±0°1,h10km,n29, σ1ᵍ40/33,mb3.6/8,Eastern Gulf of Aden

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABTO	**Aybut**	**2.71**	**19**	P	**Pn**	**20 54 23.0**	**+0.2**
	SNR=188						
ABTO				S	**Sn**	20 54 55.1	-0.7
RBK	**Rabkut**	**3.23**	**32**	P	**Pn**	**20 54 30.9**	**+1.0**
	SNR=10						
WHFO	**Wadi Hawf**	**3.40**	**23**	P	**Pn**	**20 54 33.3**	**+1.0**
	SNR=44						
DMTO	**DMTO**	**3.82**	**40**	P	**Pn**	**20 54 39.2**	**+1.2**
	SNR=23						
DOK	**Doka**	**4.17**	**23**	P	**Pn**	**20 54 43.7**	**+0.8**
	SNR=30						
DOK				S	**Sn**	20 55 31.6	-0.1
MHTO	**MHTO**	**8.15**	**40**	P	**Pn**	**20 55 38.0**	**+0.6**
MHTO				S	**Sn**	20 57 08.8	-0.9
MZR	**Muzera**	**8.25**	**7**	P	**Pn**	**20 55 37.9**	**-1.0**
UMZA	**Um Al Zommool**	**8.32**	**18**	P	**Pn**	**20 55 40.2**	**+0.3**
BSY	**Bisya**	**9.15**	**29**	P	**Pn**	**20 55 52.4**	**+1.2**
SLWR	**Sila**	**9.27**	**356**	P	**Pn**	**20 55 56.4**	**+3.5**
JMDO	**Jabal Madar**	**9.30**	**35**	P	**Pn**	**20 55 54.3**	**+1.0**
JMDO				S	**Sn**	20 57 37.2	-0.8
ARQ	**Araqi**	**9.37**	**24**	P	**Pn**	**20 55 56.1**	**+1.8**
SMDO	**Samad**	**9.83**	**32**	P	**Pn**	**20 56 00.3**	**-0.3**
SMDO				S	**Sn**	20 57 48.3	-2.9
JLN	**Jalan Bani Buh**	**9.91**	**41**	P	**Pn**	**20 56 03.3**	**+1.6**
JLN				S	**Sn**	20 57 53.0	0.0
HOQ	**Hoqain**	**9.92**	**27**	P	**Pn**	**20 56 03.7**	**+1.8**
WBK	**Wadi Bani Khal**	**9.98**	**38**	P	**Pn**	**20 56 03.2**	**+0.5**
ASUD	**Al Ashush, Dub** SNR=6.4	**10.19**	**15**	P	**Pn**	**20 56 07.4**	**+1.9**
BIDO	**Bidbid**	**10.25**	**31**	P	**Pn**	**20 56 07.3**	**+0.9**
ASHO	**Ashiyiah**	**10.45**	**19**	P	**Pn**	**20 56 09.1**	**+0.1**
KBZ	**Khabaz**	**29.98**	**346**	LR	LR	21 13 53.4	
	comp=Z,80nm,20.6s,baz=244,slow=40						
AKASG	**Malin Array Be**	**40.44**	**337**	P	**P**	**21 01 16.4**	**-1.1**
	0.8nm,0.7s,baz=150,slow=7.5,SNR=2.2 0.8nm,0.7s						
MKAR	**Makanchi Array**	**40.51**	**32**	P	**P**	**21 01 20.4**	**+2.1**
	0.7nm,0.6s,baz=222,slow=7.7,SNR=6.5 0.7nm,0.6s						
BVAR	**Borovoye Array**	**40.74**	**17**	P	**P**	**21 01 19.7**	**-0.4**
	0.7nm,0.8s,baz=211,slow=9.3,SNR=2.2 0.7nm,0.8s						
CMAR	**Chiang Mai Arr**	**44.67**	**79**	P	**P**	**21 01 53.6**	**+1.1**
	0.4nm,0.3s,baz=270,slow=8.7,SNR=8.2 0.4nm,0.3s						
ZALV	**Zalesovo Beam**	**46.61**	**26**	P	**P**	**21 02 08.4**	**+1.1**
	0.8nm,0.6s,baz=239,slow=10.0,SNR=3.7 0.8nm,0.6s						
FINES	**FINESS Array B**	**50.29**	**344**	P	**P**	**21 02 34.0**	**-1.6**
	3.6nm,0.9s,baz=123,slow=9.4,SNR=5.1 3.6nm,0.9s						
SONM	**Songino Array**	**55.23**	**42**	P	**P**	**21 03 12.4**	**-0.1**
	0.4nm,0.8s,baz=241,slow=5.9,SNR=3.7 0.4nm,0.8s						
MA2	**Magadan**	**81.58**	**31**	LR	LR	21 44 56.0	
	comp=Z,138nm,19.6s,baz=89,slow=38						
ASAR	**Alice Springs**	**88.30**	**115**	P	**P**	**21 06 29.9**	**-1.6**
	0.4nm,0.8s,baz=283,slow=4.4,SNR=2.3 0.4nm,0.8s						

*IDC **30** 20:54:23.2±2.3,23°75N×142°05E,h91km±21km,mb3.5/7, mbtmp3.8/10,Error ellipse: s-maj=29.3km s-min=15.8km az=93.0*
*NEIC **30** 20:54:24.7±1.1,23°68N±0°09×141°8E±0°2,h94km±8km, mb4.3/8,Error ellipse: s-maj=28.5km s-min=13.3km az=94.0*

ISC 30 20:54:24.3±0.8,23°72N±0°08×141°9E±0°2,h100km,n23, σ1ᵍ36/25,mb4.2/11,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**3.38**	**5**	P	**Pn**	**20 55 14.9**	**-0.2**
	220nm,0.3s,baz=324,slow=23,SNR=126						
JCJ				S	**Sn**	20 55 52.2	-2.1
	243nm,0.5s,baz=238,slow=24,SNR=27						
JCJ	**Chichijima**	**3.38**	**5**		**Pn**	**20 55 18.7**	**+3.5**
JGF	**Kuroka**	**12.48**	**343**	Pn	**Pn**	**20 57 18.6**	**+0.3**
MJAR	**Matsushiro Arr**	**13.17**	**347**	P	**Pn**	**20 57 26.2**	**-1.2**
	0.8nm,0.4s,baz=153,slow=12,SNR=6.1						
MAJO	**Matsushiro**	**13.17**	**347**	Pn	**Pn**	**20 57 25.2**	**-2.3**
KSRS	**Korea Array**	**18.19**	**322**	P	**P**	**20 58 29.4**	**+0.2**
	0.8nm,0.8s,baz=134,slow=12,SNR=5.4						
MTN	**Manton Dam**	**37.83**	**197**	P	**P**	**21 01 31.2**	**-0.2**
MTN				IAmb	IAmb	21 02 07.6	
	comp=Z,5.5nm,1.2s						
WB0	**Warramunga Arr**	**43.83**	**190**	P	**P**	**21 02 20.7**	**0.0**
WB0				IAmb	IAmb	21 03 03.8	
	comp=Z,5.3nm,1.2s						
WRA	**Warramunga Arr**	**44.01**	**190**	P	**P**	**21 02 21.9**	**-0.2**
	comp=Z,1.6nm,0.3s,baz=7.8,slow=7.9,SNR=43						
WRA				PcP	**PcP**	**21 04 06.0**	**-0.1**
	comp=Z,0.4nm,0.9s,baz=15,slow=3.9,SNR=4.5 comp=Z,1.6nm,0.3s						
WRA	**Warramunga Arr**	**44.01**	**190**	P	**P**	**21 02 21.1**	**-1.0**
FITZ	**Fitzroy Crossi**	**44.48**	**202**	P	**P**	**21 02 24.3**	**-1.5**
ASAR	**Alice Springs**	**47.73**	**190**	P	**P**	**21 02 51.0**	**-0.3**
	comp=Z,0.5nm,0.6s,baz=19,slow=12,SNR=11 comp=Z,0.5nm,0.6s						
MKAR	**Makanchi Array**	**52.46**	**312**	P	**P**	**21 03 27.1**	**+0.2**
	comp=Z,0.2nm,0.4s,baz=83,slow=9.3,SNR=6.4						
MKAR				PcP	**PcP**	**21 04 36.3**	**+0.1**
	comp=Z,0.2nm,0.6s,baz=106,slow=3.2,SNR=1.5 comp=Z,0.2nm,0.4s						
KURK	**Kurchatov**	**55.19**	**316**	P	**P**	**21 03 47.2**	**+0.6**
KURK	**Kurchatov**	**55.19**	**316**	IAmb	IAmb	21 04 28.6	
	comp=Z,2.7nm,0.9s						
KURBB	**Kurchatov Arra**	**55.24**	**316**	P	**P**	**21 03 47.2**	**+0.2**
	comp=Z,1.2nm,0.3s,baz=93,slow=8.3,SNR=1.9 comp=Z,1.2nm,0.3s						
D20K	**Etivluk River**	**57.86**	**22**	P	**P**	**21 04 06.8**	**+1.6**
D20K				IAmb	IAmb	21 04 09.4	
	comp=Z,5.8nm,1.3s						
D22K	**Ayikyak River**	**59.28**	**23**	P	**P**	**21 04 17.2**	**+2.0**
D23K	**Nanushuk River**	**60.00**	**23**	P	**P**	**21 04 22.0**	**+2.0**
BVAR	**Borovoye Array**	**60.36**	**319**	P	**P**	**21 04 23.5**	**+0.7**
	comp=Z,0.4nm,0.5s,baz=77,slow=5.0,SNR=2.5 comp=Z,0.4nm,0.5s						
ILAR	**Eielson Array**	**60.81**	**28**	P	**P**	**21 04 25.3**	**-0.3**
	comp=Z,0.3nm,0.6s,baz=259,slow=5.1,SNR=2.9 comp=Z,0.3nm,0.6s						
YKA	**Yellowknife Ar**	**75.24**	**28**	P	**P**	**21 05 54.5**	**-1.4**
	comp=Z,1.1nm,0.4s,baz=295,slow=5.9,SNR=13 comp=Z,1.1nm,0.4s						
LPAZ	**La Paz**	**150.89**	**81**	PKPbc	**PKPbc**	**21 14 06.6**	**-0.3**
	comp=Z,1.3nm,0.5s,baz=271,slow=1.7,SNR=4.9						

*ATH **30** 21:12:59.1,38°42N×20°44E,h18km,ML3.1/27,Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **30** 21:13:00.1,38°4N±0°3×20°5E±0°7,h9km±1km,M3.0/18, MLh3.0/18*

ISC 30 21:12:59.5±0.8,38°43N±0°02×20°46E±0°03,h16km±5km, n72,σ0ᵗ39/98,Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VSK1	**VASILIKIADES**	**0.08**	**102**	P	**Pg**	**21 13 02.3**	**-0.5**
VSK1				S	**Sg**	21 13 04.0	-0.9
DMLN	**Damoulianata-K**	**0.20**	**201**	P	**Pg**	21 13 04.4	+0.2
DMLN				S	**Sg**	21 13 07.9	+0.5
DMLN	**Damoulianata-K**	**0.20**	**201**	P	**Pg**	21 13 04.2	-0.1
DMLN				S	**Sb**	21 13 08.1	-0.3
LXR1	**Lixouri, Cepha**	**0.23**	**185**	P	**Pg**	21 13 04.9	+0.3
LXR1				S	**Sb**	21 13 08.7	-0.3
EVGI	**Lefkada island**	**0.25**	**38**	P	**Pg**	21 13 05.1	+0.1
EVGI				S	**Sg**	21 13 09.2	+0.4
EVGI				AML	AML		
EVGI	**Lefkada island**	**0.25**	**38**	P	**Pg**	21 13 05.1	+0.1
EVGI				S	**Sg**	21 13 09.2	+0.4
EVGI				AML	AML		
VLS	**Valsamata**	**0.27**	**158**	P	**Pg**	21 13 05.3	-0.1
VLS				S	**Sg**	21 13 09.6	+0.4
VLS				AML	AML		
VLS	**Valsamata**	**0.27**	**158**	P	**Pg**	21 13 05.3	-0.1
VLS				S	**Sg**	21 13 09.7	+0.4
VLS				AML	AML		
DRAG	**Dragano-Lefkad**	**0.27**	**19**	P	**Pg**	**21 13 05.5**	**0.0**
DRAG				S	**Sg**	21 13 09.6	+0.1
DRAG	**Dragano-Lefkad**	**0.27**	**19**	P	**Pg**	21 13 05.5	0.0
DRAG				S	**Sg**	21 13 10.1	+0.5
PSDA	**Pessada-Kefalo**	**0.33**	**163**	P	**Pg**	21 13 06.4	0.0
PSDA				S	**Sg**	21 13 11.2	+0.2
PSDA				AML	AML		
PSDA	**Pessada-Kefalo**	**0.33**	**163**	P	**Pg**	21 13 06.3	0.0
PSDA				S	**Sg**	21 13 11.4	+0.4
PSDA				AML	AML		
NYDR	**Nydri-Lefkada**	**0.34**	**32**	P	**Pg**	21 13 06.6	0.0
NYDR				S	**Sg**	21 13 11.6	+0.1
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.34**	**32**	P	**Pg**	21 13 06.6	0.0
NYDR				S	**Sg**	21 13 11.9	+0.4
LKD2	**Lefkada island**	**0.39**	**23**	P	**Pg**	21 13 07.5	-0.1
LKD2				S	**Sg**	21 13 13.1	+0.1
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.39**	**23**	P	**Pg**	21 13 07.5	-0.1
LKD2				S	**Sb**	21 13 13.9	-0.1
LKD2				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.42**	**145**	P	**Pg**	21 13 08.0	-0.1
RTZL				S	**Sb**	21 13 14.8	0.0
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.42**	**145**	P	**Pg**	21 13 08.0	-0.1
RTZL				S	**Sg**	21 13 14.3	+0.4
TSLK	**Tsoukalades, L**	**0.43**	**21**	P	**Pg**	21 13 08.2	+0.1
TSLK				S	**Sg**	21 13 14.3	+0.3
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**0.43**	**21**	P	**Pg**	21 13 08.3	+0.1
TSLK				S	**Sg**	21 13 14.5	+0.5
TSLK				AML	AML		
AST1	**Astakos**	**0.51**	**77**	P	**Pg**	21 13 09.7	+0.1
AST1				S	**Sg**	21 13 16.7	+0.4
PDO	**Prodromos**	**0.59**	**73**	P	**Pg**	21 13 11.0	-0.1
PDO				AML	AML		
PDO	**Prodromos**	**0.59**	**73**	P	**Pg**	21 13 11.1	-0.1
PDO				S	**Sb**	21 13 19.9	+0.4
PDO				AML	AML		
KYPS	**Kipseli, Zakin**	**0.67**	**155**	P	**Pg**	21 13 12.8	+0.1
KYPS				S	**Sg**	21 13 21.5	0.0
PLEV	**Plevrona-Mesol**	**0.74**	**91**	P	**Pg**	21 13 14.0	0.0
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**0.74**	**91**	P	**Pg**	21 13 13.9	-0.1
PLEV				S	**Sb**	21 13 24.5	+0.6
PLEV				AML	AML		
CLEM	**Kyllini,Ilia,G**	**0.75**	**135**	P	**Pg**	21 13 13.9	-0.2
AXS	**Araxos**	**0.75**	**107**	P	**Pg**	21 13 14.0	-0.2
AXS				AML	AML		
AXS	**Araxos**	**0.75**	**107**	P	**Pg**	21 13 14.0	-0.2
AXS				S	**Sg**	21 13 24.2	0.0
MSL1	**Messolongi**	**0.76**	**94**	P	**Pg**	21 13 14.1	-0.2
AMPL	**Ampelaki**	**0.77**	**50**	P	**Pg**	21 13 14.2	-0.3
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.77**	**50**	P	**Pg**	21 13 14.2	-0.3
LTHK	**Lithakia**	**0.77**	**158**	P	**Pg**	21 13 14.1	-0.4
LTHK				S	**Sb**	21 13 25.8	+1.0
LTHK				AML	AML		
LTHK	**Lithakia**	**0.77**	**158**	P	**Pg**	21 13 14.2	-0.4
LTHK				AML	AML		
ART2	**Arta**	**0.83**	**30**	P	**Pb**	21 13 15.8	+0.2
ARTB	**Arta**	**0.83**	**29**	P	**Pg**	21 13 15.4	-0.4
ARTB				AML	AML		
PVO	**Paravola**	**0.85**	**77**	P	**Pb**	21 13 16.5	+0.5
PVO				AML	AML		
PVO	**Paravola**	**0.85**	**77**	P	**Pg**	21 13 16.1	-0.1
PVO				AML	AML		
PRGA	**Parga**	**0.86**	**357**	P	**Pg**	21 13 16.2	-0.1
RLS	**Riolos of Patr**	**0.87**	**115**	P	**Pg**	21 13 16.3	-0.1
RLS				AML	AML		
RLS	**Riolos of Patr**	**0.87**	**115**	P	**Pg**	21 13 16.1	-0.4
AGRP	**Agrapidokambos**	**0.99**	**91**	P	**Pb**	21 13 18.0	-0.3
AGRP				AML	AML		
PATG	**Patra B**	**1.01**	**100**	P	**Pg**	21 13 19.1	0.0
VVK	**Vomvokou**	**1.06**	**90**	P	**Pb**	21 13 19.2	-0.3
VVK				AML	AML		
DRO	**Drossia**	**1.09**	**115**	P	**Pb**	21 13 20.1	+0.1
DRO				AML	AML		
DRO	**Drossia**	**1.09**	**115**	P	**Pb**	21 13 20.1	+0.1
DRO				AML	AML		
IGT	**Igoumenitsa**	**1.11**

TACS Tanaga Cape Sa 5.30 81 Pn 21 37 06.7 -1.3
TAFP Tanaga Falls P 5.40 80 Pn 21 37 07.6 -1.7
TAFL Tanaga Flats 5.45 82 Pn 21 37 08.5 -1.4
TAPA Tanaga Point A 5.50 81 Pn 21 37 09.1 -1.6
KIKV Kanaga Island 5.90 81 Pn 21 37 14.8 -1.4
KIWB Kanaga Island 5.91 81 Pn Pn 21 37 14.4 -1.9
ADK Adak 6.20 81 Pn Pn 21 37 17.9 -2.3
GSCK Great Sitkin C 6.53 80 Pn 21 37 23.5 -1.3
GSMY Great Sitkin M 6.59 79 Pn 21 37 24.0 -1.7
KOWE Korovin West 7.72 77 Pn 21 37 40.4 -0.7
ATKA Atka Island 7.75 79 Pn Pn 21 37 40.7 -0.8
PET Petropavlovsk 9.23 286 Pn Pn 21 38 01.8 0.0
PEA0B Petropavlovsk- 9.81 287 Pn Pn 21 38 09.6 -0.2
PETK Petropavlovsk- 9.81 287 Pn Pn 21 38 09.9 +0.1
comp=N,3.1nm,0.3s,baz=101,slow=18,SNR=46
PETK Sn **Sn** **21 39 55.9 -3.0**
comp=N,3.2nm,0.3s,baz=4.4,slow=27,SNR=7.1
PETK LR LR 21 41 26.8
comp=N,113nm,21.5s,baz=91,slow=34
comp=N,18nm,0.7s
PETK AML AML
PETK Petropavlovsk- 9.81 287 Pn Pn 21 38 09.6 -0.2
UNV Unalaska Valle 12.47 70 Pn Pn 21 38 46.0 -0.1
M13K Dall Lake 15.83 46 P P 21 39 34.3 -0.6
K13K Kusilvak Mount 16.00 40 Pn P 21 39 34.8 -1.9
SEY Seymchan 16.21 324 Pn P 21 39 38.5 -0.6
comp=N,0.4nm,0.3s,baz=124,slow=12,SNR=10.0
comp=N,3.3nm,0.6s
SEY AML AML
O14K Tigyukauivet M 16.39 51 Pn P 21 39 37.8 -3.2
O14K IAmb IAmb 21 39 44.9
comp=Z,78nm,1.4s
N14K Kuskokwak Cree 16.41 49 Pn P 21 39 39.2 -2.1
N14K IAmb IAmb 21 39 41.1
comp=Z,55nm,0.8s
L14K Kuka Creek 16.53 43 P 21 39 41.8 -0.8
L14K IAmb IAmb 21 39 45.8
comp=Z,51nm,1.2s
O15K Ungalikthiuk R 17.08 52 Pn P 21 39 46.6 -2.0
N15K Kwethluk River 17.25 49 P 21 39 50.3 -0.3
N15K IAmb IAmb 21 39 55.1
comp=Z,42nm,1.1s
ANM Nome 17.29 32 P 21 39 51.8 +0.9
K15K Wolf Creek Mou 17.45 41 P 21 39 53.4 +0.6
M16K Timber Creek 18.06 47 P 21 40 00.1 +0.5
J16K Anvik River 18.30 39 P P 21 40 03.3 +1.2
I17K Unalakleet 18.57 37 P Pn 21 40 06.5 +1.2
N17K Nushagak Hills 18.73 49 P Pn 21 40 07.3 -0.1
G16K Koyuk River 18.81 32 P Pn 21 40 08.6 +0.2
M17K Holitna River 18.88 46 P Pn 21 40 10.0 +0.8
M17K IAmb IAmb 21 40 12.1
comp=Z,59nm,1.0s
J17K VABM Dome 18.96 40 P Pn 21 40 10.9 +0.7
J17K IAmb IAmb 21 40 13.5
comp=Z,30nm,0.9s
K17K Iditarod 18.99 42 P Pn 21 40 10.3 -0.2
K17K IAmb IAmb 21 40 14.0
comp=Z,78nm,1.2s
N18K Kilae Creek 19.39 49 P Pn 21 40 14.7 -0.7
H17K Granite Mounta 19.40 35 P Pn 21 40 15.1 -0.4
L18K Granite Mounta 19.50 44 P Pn 21 40 16.1 -0.5
L18K IAmb IAmb 21 40 19.2
comp=Z,22nm,0.9s
F17K Baldwin Pennin 19.81 31 P Pn 21 40 20.1 -0.1
F17K IAmb IAmb 21 40 24.4
comp=Z,47nm,0.9s
J18K Innoko River 19.95 41 P Pn 21 40 21.3 -0.7
J18K IAmb IAmb 21 40 33.8
comp=Z,41nm,1.5s
H18K Honhosa River 20.08 36 P Pn 21 40 22.2 -1.3
H18K IAmb IAmb 21 40 24.7
comp=Z,32nm,1.2s
N19K Bonanza Creek 20.09 49 P Pn 21 40 22.6 -1.1
OHAK Old Harbor 20.19 60 P P 21 40 20.3 -2.4
L19K White Mountain 20.30 45 P Pn 21 40 24.5 -1.5
G18K Tagagawik 20.36 34 P Pn 21 40 25.5 -1.2
G18K IAmb IAmb 21 40 26.8
comp=Z,22nm,0.9s
RDOG Red Dog Mine 20.38 26 P Pn 21 40 26.1 -0.8
KDAK Kodiak Island 20.60 58 P P 21 40 25.8 -1.4
comp=Z,21nm,0.5s,baz=236,slow=3.1,SNR=31
comp=Z,21nm,0.5s
J19K Poorman 20.61 40 P Pn 21 40 27.6 -2.1
J19K IAmb IAmb 21 40 43.2
comp=Z,33nm,1.4s
L20K Farewell, AK 20.82 45 P Pn 21 40 31.5 -0.7
K20K Telida 21.02 43 P 21 40 32.5
K20K IAmb IAmb 21 40 37.9
comp=Z,24nm,1.2s
F19K Shaleruckik Mo 21.17 32 P P 21 40 33.5 +0.2
J20K Nowinta River 21.28 40 P P 21 40 34.8 +0.2
J20K IAmb IAmb 21 40 36.1
comp=Z,29nm,0.9s
SPU Mount Spurr 21.33 49 P P 21 40 35.9 +0.7
CNPM China Poot 21.46 54 P P 21 40 35.9 -0.6
CNPM IAmb IAmb 21 40 40.6
comp=Z,30nm,0.8s
PPLA Purkeypile 21.69 44 P P 21 40 41.7 +2.6
PPLA IAmb IAmb 21 40 49.5
comp=Z,38nm,1.1s
E19K Redstone River 21.69 31 P P 21 40 39.3 +0.4
SKT Skwentna 21.75 47 P P 21 40 42.0 +2.4
SKT IAmb IAmb 21 40 44.0
comp=Z,26nm,1.0s
JKA Kamikawa-asahi 21.83 263 P P 21 40 40.6 +0.1
JKA Kamikawa-asahi 21.83 263 IAmb IAmb 21 41 12.1
comp=Z,59nm,1.3s
ASAJ Asahikawa 21.83 263 P P 21 40 40.6 +0.1
comp=Z,19nm,0.9s,baz=122,slow=7.2,SNR=3.6
ASAJ LR LR 21 47 42.1
comp=Z,79nm,21.8s,baz=277,slow=33
comp=Z,19nm,0.9s
CAST Castle Rocks 21.89 43 P P 21 40 41.7 +0.7
CAST IAmb IAmb 21 40 45.6
comp=Z,33nm,1.0s
D19K Kuna River 22.02 28 IAmb IAmb 21 40 45.2
comp=Z,24nm,1.1s
IMAR Indian Mountai 22.16 36 P P 21 40 44.1 +0.1
MLY Manley 22.96 40 IAmb IAmb 21 40 55.5
comp=Z,19nm,1.1s
H22K Ishtalitna Cre 23.02 37 P P 21 40 52.7 -0.3
SML Sawmill 23.20 48 P P 21 40 55.1 +0.1
MCK McKinley 23.33 43 P P 21 40 55.7 -0.5
MCK IAmb IAmb 21 40 58.1
comp=Z,21nm,1.0s
I23K Minto, Yukon-K 23.55 40 IAmb IAmb 21 41 00.4
comp=Z,14nm,0.8s
SCM Sheep Creek Mo 23.68 48 P P 21 40 59.6 -0.1
SCM IAmb IAmb 21 41 01.9
comp=Z,22nm,0.7s
WRH Wood River Hil 23.88 42 IAmb IAmb 21 41 04.2
comp=Z,21nm,0.9s
CCB Clear Creek Bu 24.04 41 P P 21 41 03.0 +0.1
CCB IAmb IAmb 21 41 05.6
comp=Z,17nm,1.0s
H24K Noodor Dome 24.35 39 IAmb IAmb 21 41 10.7
comp=Z,14nm,0.8s
IL31 24.45 41 P P 21 41 07.0 +0.3
IL31 IAmb IAmb 21 41 08.2
comp=Z,7.3nm,0.7s
ILAR Eielson Array 24.45 41 P P 21 41 06.4 -0.3
comp=Z,5.6nm,0.5s,baz=250,slow=8.2,SNR=63
comp=Z,5.6nm,0.5s
ILAR Eielson Array 24.45 41 P P 21 41 06.1 -0.6
PAX Paxson 24.70 46 IAmb IAmb 21 41 11.1
comp=Z,11nm,1.0s
TOLK Toolik Lake Re 24.78 32 P P 21 41 10.5 +0.8
J25K Salcha River, 25.05 42 IAmb IAmb 21 41 14.0
comp=Z,6.0nm,0.5s
PRP Porcupine Dome 25.20 40 IAmb IAmb 21 41 17.2
comp=Z,20nm,0.9s
GLB Gilahina Butte 25.30 50 IAmb IAmb 21 41 17.4
comp=Z,14nm,0.9s
DOT Dot Lake 25.44 45 IAmb IAmb 21 41 16.8
comp=Z,10.0nm,0.6s
SCRK Sand Creek 25.52 44 P P 21 41 16.6 +0.1
SCRK IAmb IAmb 21 41 29.4
comp=Z,16nm,1.2s
C24K Franklin Bluff 25.54 30 IAmb IAmb 21 41 18.1
comp=Z,9.8nm,0.7s
M26K Nabesna, AK 25.76 48 IAmb IAmb 21 41 22.0
comp=Z,14nm,1.2s
BMAR Burnt Mountain 26.08 36 P P 21 41 22.7 +1.1
G26K Porcupine Rive 26.25 37 IAmb IAmb 21 41 28.6
comp=Z,25nm,1.2s

M27K Edge Creek, AK 26.28 48 IAmb IAmb 21 41 30.3
comp=Z,25nm,1.3s
F26K Sheenjek River 26.32 36 IAmb IAmb 21 41 27.8
comp=Z,8.6nm,0.7s
BARN Barnard Glacie 26.32 51 IAmb IAmb 21 41 43.1
comp=Z,20nm,1.0s
L27K Beaver Creek, 26.36 46 IAmb IAmb 21 41 27.1
comp=Z,9.0nm,0.9s
O28M Mount Upton 27.04 51 IAmb IAmb 21 41 44.6
comp=Z,17nm,0.9s
M29M Somme Creek 27.87 48 IAmb IAmb 21 41 51.9
comp=Z,7.2nm,0.9s
L29M L29M 28.04 46 IAmb IAmb 21 41 41.7
comp=Z,15nm,1.1s
H29M Whitestone 28.22 40 P P 21 41 41.1 +0.4
H29M IAmb IAmb 21 41 42.2
comp=Z,12nm,1.4s
E28M Babbage River 28.23 35 P P 21 41 41.1 +0.4
HYT Haines Junctio 28.36 51 IAmb IAmb 21 42 00.4
comp=Z,10nm,1.0s
G29M Pine Creek 28.46 38 P P 21 41 44.3 +1.5
G29M IAmb IAmb 21 41 45.3
comp=Z,14nm,1.0s
E29M Blow River 28.77 35 IAmb IAmb 21 41 59.6
comp=Z,15nm,1.5s
J30M Hart River 28.91 43 P P 21 41 47.2 +0.3
J30M IAmb IAmb 21 42 01.3
comp=Z,13nm,1.4s
MJAR Matsushiro Arr 29.01 253 P P 21 41 47.0 -1.0
comp=Z,0.9nm,0.6s,baz=46,slow=8.4,SNR=2.2
comp=Z,0.9nm,0.6s
F30M Barrier River 29.42 37 IAmb IAmb 21 42 07.8
comp=Z,17nm,1.4s
F31M Tsiigehtchic 30.18 38 P P 21 41 58.1 +0.1
F31M IAmb IAmb 21 42 10.0
comp=Z,11nm,1.4s
BNX BinXian 30.57 278 ⇑P P 21 42 01.0 -0.7
BNX pmax pmax
comp=Z,6.0nm,0.9s
P33M Teslin, Yukon 30.72 52 P P 21 42 03.8 +0.9
P33M IAmb IAmb 21 42 16.9
comp=Z,19nm,1.4s
R33M Jennings River 31.77 53 P P 21 42 13.5 +1.2
R33M IAmb IAmb 21 42 28.2
comp=Z,11nm,1.0s
DLBC Dease Lake 32.44 55 LR LR 21 56 26.4
comp=Z,91nm,18.1s,baz=270,slow=38
HILR Hailar Array B 33.59 289 P P 21 42 28.2 0.0
comp=Z,3.2nm,0.6s,baz=75,slow=8.0,SNR=5.6
comp=Z,3.2nm,0.6s
KSRS Korea Array 34.76 265 P P 21 42 38.7 +0.4
comp=Z,1.6nm,0.9s,baz=60,slow=7.3,SNR=2.8
comp=Z,1.6nm,0.9s
BBB Bella Bella 35.37 65 LR LR 21 58 05.4
comp=Z,57nm,18.1s,baz=270,slow=38
YKAW3 Yellowknife Wh 38.76 45 P P 21 43 12.6 +0.5
YKA Yellowknife Ar 38.78 45 P P 21 43 13.4 +1.1
comp=Z,3.6nm,0.6s,baz=288,slow=7.4,SNR=31
YKA PcP **PcP 21 45 22.8 -0.3**
comp=Z,0.7nm,0.6s,baz=284,slow=3.3,SNR=4.8
comp=Z,3.6nm,0.6s
YKA Yellowknife Ar 38.78 45 P P 21 43 12.6 +0.3
RES Resolute Bay 41.80 23 P P 21 43 39.0 +1.9
ULN Ulaanbaatar 41.84 292 P P 21 43 38.9 +0.9
SONM Songino Array 42.24 293 P P 21 43 41.9 +0.7
comp=Z,1.8nm,0.5s,baz=67,slow=7.3,SNR=19
SONM PcP **PcP 21 45 34.4 -0.3**
comp=Z,1.4nm,0.8s,baz=87,slow=2.2,SNR=7.2
SONM LR LR 22 04 10.8
comp=Z,65nm,18.0s,baz=72,slow=40
comp=Z,1.8nm,0.5s
SONM Songino Array 42.24 293 P P 21 43 41.7 +0.5
HHC Hu-ho-hao-te 42.95 281 eP P 21 43 47.5 +0.4
HHC pmax pmax
comp=Z,10.0nm,0.6s
EDM Edmonton 43.04 58 P P 21 43 48.0 +0.4
EDM IAmb IAmb 21 43 51.3
comp=Z,23nm,1.2s
BBOR Butler Butte 43.05 75 P P 21 43 48.6 +0.7
BBOR IAmb IAmb 21 43 53.1
comp=Z,17nm,1.4s
HNS HongShan 43.07 275 ⇑P P 21 43 48.8 +0.9
HNS pmax pmax
comp=Z,13nm,1.0s
HNS L L
comp=Z,600nm,14.1s
HNS L L
comp=Z,340nm,16.2s
NEW Newport 43.43 66 LR LR 22 01 47.0
comp=Z,101nm,18.4s,baz=289,slow=36
YBH Yreka Blue Hor 43.69 77 IAmb IAmb 21 43 55.3
comp=Z,6.7nm,0.8s
NJ2 Nanjing 43.93 266 eP P 21 43 55.0 +0.1
NJ2 pmax pmax
comp=Z,6.0nm,0.5s
BTO2 Baotou 44.05 282 eP P 21 43 57.5 +1.5
BTO2 pP **sP 21 44 05.0 -0.1**
BTO2 sP **pwP 21 44 08.5 -2.0**
BTO2 pmax pmax
comp=Z,57nm,1.1s
BTO2 pmax pmax
comp=Z,370nm,6.3s
BTO2 L L
comp=Z,750nm,15.4s
BTO2 L L
comp=Z,640nm,15.2s
BTO2 L L
comp=Z,380nm,22.9s
K05A Summer Lake 44.22 74 P P 21 43 58.7 +1.3
MOD Modoc Plateau 45.06 75 IAmb IAmb 21 44 05.7
comp=Z,8.0nm,0.7s
O03E Paynes Creek 45.09 78 IAmb IAmb 21 44 05.9
comp=Z,13nm,1.2s
POIN Pond Inlet 46.94 23 P P 21 44 20.5 +2.3
POIN IAmb IAmb 21 44 43.6
comp=Z,11nm,1.3s
BMN Battle Mountai 47.80 75 P P 21 44 25.3 -0.3
BMN IAmb IAmb 21 44 56.4
comp=Z,5.4nm,0.8s
NVAR Mina Array Bea 48.38 77 P P 21 44 30.1 0.0
comp=Z,1.3nm,0.7s,baz=292,slow=7.7,SNR=7.9
comp=Z,1.3nm,0.7s
YHB Horse Butte 48.78 66 IAmb IAmb 21 44 44.8
comp=Z,4.8nm,0.9s
ELK Elko 48.80 73 LR LR 22 03 34.1
comp=Z,58nm,18.2s,baz=317,slow=34
ELK Elko 48.80 73 P P 21 44 33.9 +0.5
ELK IAmb IAmb 21 44 34.8
comp=Z,3.8nm,0.7s
YHH Holmes Hill 48.95 66 IAmb IAmb 21 44 38.6
comp=Z,8.0nm,1.3s
FCC Fort Churchill 49.45 43 P P 21 44 38.4 +0.6
FCC IAmb IAmb 21 44 44.7
comp=Z,8.1nm,1.3s
SPITS Spitsbergen Ar 50.02 354 P P 21 44 42.8 +0.9
comp=Z,1.3nm,0.5s,baz=12,slow=7.4,SNR=4.4
comp=Z,1.3nm,0.5s
ZALV Zalesovo Beam 50.43 310 P P 21 44 45.5 +0.2
comp=Z,0.6nm,0.6s,baz=46,slow=8.3,SNR=6.7
ZALV PcP **PcP 21 46 03.5 +0.3**
comp=Z,0.9nm,0.7s,baz=66,slow=5.0,SNR=3.7
comp=Z,0.6nm,0.6s
ZALV Zalesovo Beam 50.43 310 P P 21 44 44.8 -0.5
DUG Dugway, Tooele 50.60 72 IAmb IAmb 21 44 59.3
comp=Z,9.7nm,0.9s
LZH Lanzhou 50.65 281 eP P 21 44 38.8 -8.6
LZH sP pP 21 44 49.8 -4.2
LZH pmax pmax
comp=Z,84nm,1.1s
LZH LR LR
comp=N,550nm,13.6s
LZH LR LR
comp=E,320nm,11.9s
LZH LR LR
comp=Z,240nm,13.1s
PDAR Pinedale Array 50.92 68 P P 21 44 47.4 -2.0
comp=Z,2.6nm,0.6s,baz=306,slow=4.3,SNR=14
PDAR LR LR 22 05 49.2
comp=Z,43nm,18.3s,baz=297,slow=35
comp=Z,2.6nm,0.6s
GTA2 Gaotai 50.97 287 P P 21 44 50.8 +1.1
GTA2 pP pP 21 44 55.8 -0.3
GTA2 pmax pmax
comp=Z,11nm,1.2s
GTA2 L L
comp=Z,290nm,14.9s
GTA2 L L
comp=Z,250nm,13.0s
GTA2 L L
comp=Z,340nm,14.9s
PSUT Pine Spring 51.02 74 P P 21 44 50.5 +0.2
SRU San Rafael Swe 52.65 72 P P 21 45 02.9 +0.6
SRU IAmb IAmb 21 45 15.2
comp=Z,7.7nm,0.7s
HMU Henry Mountain 53.28 73 P P 21 45 08.1 +1.0
HMU IAmb IAmb 21 45 09.1
comp=Z,9.1nm,0.9s
U15A North Rim 53.33 75 IAmb IAmb 21 45 14.5
comp=Z,9.2nm,1.3s
O20A White River Ci 53.34 69 IAmb IAmb 21 45 12.8
comp=Z,7.4nm,0.8s
ULM Lac du Bonnet 53.71 53 P P 21 45 10.4 +0.7
comp=Z,3.1nm,0.9s,baz=296,slow=5.1,SNR=4.8
ULM LR LR 22 08 23.6
comp=Z,58nm,18.6s,baz=13,slow=36
comp=Z,3.1nm,0.9s
ULM Lac du Bonnet 53.71 53 IAmb IAmb 21 45 21.9
comp=Z,9.6nm,1.2s
PV21 Cone Mtn., Par 53.93 71 P P 21 45 11.9 +0.1
PV23 Carpenter Ridg 53.98 71 IAmb IAmb 21 45 17.5
comp=Z,9.3nm,0.8s
SUMG Summit 54.43 11 P P 21 45 16.3 +1.2
SUMG IAmb IAmb 21 45 19.5
comp=Z,6.0nm,1.3s
PV01 Paradox Valley 54.45 71 IAmb IAmb 21 45 16.9
comp=Z,6.8nm,0.7s
WMQ Urumqi 55.18 298 eP P 21 45 22.0 +1.4
WMQ pmax pmax
comp=Z,13nm,0.7s
KURK Kurchatov 55.42 310 P P 21 45 22.4 +0.3
KURBB Kurchatov Arra 55.52 310 P P 21 45 23.3 +0.5
comp=Z,8.5nm,0.7s,baz=52,slow=7.1,SNR=27
comp=Z,8.5nm,0.7s
FRB Frobisher Bay 55.53 28 LR LR 22 11 45.1
comp=Z,30nm,18.5s,baz=274,slow=39
MKAR Makanchi Array 56.14 304 P P 21 45 27.3 -0.1
comp=Z,3.5nm,0.7s,baz=51,slow=7.2,SNR=32
comp=Z,3.5nm,0.7s
MKAR Makanchi Array 56.14 304 P P 21 45 27.1 -0.3
MAKZ Makanchi 56.29 304 P P 21 45 28.4 -0.1
MAKZ IAmb IAmb 21 45 29.2
comp=Z,6.5nm,0.8s
ARCES ARCESS Array B 57.20 347 P P 21 45 34.7 +0.1
comp=Z,5.8nm,0.9s,baz=34,slow=8.9,SNR=6.2
comp=Z,5.8nm,0.9s
ARCES ARCESS Array B 57.20 347 P P 21 45 35.0 +0.4
BVAR Borovoye Array 57.66 316 P P 21 45 38.9 +0.9
comp=Z,8.1nm,0.5s,baz=61,slow=7.4,SNR=54
comp=Z,8.1nm,0.5s
BORK Borovoye 57.68 316 P P 21 45 38.8 +0.6
ANMO Albuquerque 57.84 73 LR LR 22 10 20.9
comp=Z,30nm,19.0s,baz=314,slow=36
PDGK Podgornoye 59.94 303 P P 21 45 53.7 -0.5
ARTI Arti 60.05 324 P P 21 45 55.3 +0.8
MNTX Cornudas Mount 60.74 75 P P 21 46 00.3 +0.7
MNTX IAmb IAmb 21 46 14.3
comp=Z,3.6nm,0.9s
SCHQ Schefferville 62.96 34 P P 21 46 14.8 +0.6
comp=Z,1.3nm,0.5s,baz=4.5,slow=14,SNR=1.2
SCHQ LR LR 22 15 32.3
comp=Z,36nm,18.7s,baz=304,slow=38
comp=Z,1.3nm,0.5s
SCHQ Schefferville 62.96 34 P P 21 46 14.3 +0.1
TXAR Lajitas Array 63.45 76 P P 21 46 18.3 +0.3
comp=Z,1.3nm,0.7s,baz=297,slow=3.9,SNR=12
comp=Z,1.3nm,0.7s
TXAR Lajitas Array 63.45 76 P P 21 46 17.8 -0.1
FINES FINESS Array B 64.61 343 P P 21 46 25.3 +0.4
comp=Z,5.8nm,0.7s,baz=29,slow=8.7,SNR=15
comp=Z,5.8nm,0.7s
KK31 Karatay Array 64.70 308 P P 21 46 25.8 0.0
KK31 IAmb IAmb 21 46 27.1
comp=Z,3.4nm,0.9s
KKAR Karatay Array 64.70 308 P P 21 46 26.2 +0.3
AB31 Akbulak array 64.89 318 P P 21 46 27.9 +0.9
ABKAR Akbulak array 64.89 318 P P 21 46 27.6 +0.5
KSH2 Kashi 64.99 302 P P 21 46 29.0 +1.0
KSH2 pmax pmax
comp=Z,8.0nm,1.1s
CMAR Chiang Mai Arr 66.14 270 P P 21 46 35.0 -0.4
comp=Z,1.6nm,0.8s,baz=28,slow=7.4,SNR=11
comp=Z,1.6nm,0.8s
EVN Everest 66.67 286 P P 21 46 39.7 +0.1
EVN IAmb IAmb 21 46 43.0
comp=Z,8.6nm,1.5s
NC204 NORSAR Array S 66.91 351 P P 21 46 40.7 +0.8
NB2 NORSAR Subarra 67.10 351 P P 21 46 42.3 +1.3
comp=Z,0.8nm,0.5s,baz=12,slow=6.5
NOA NORSAR Array B 67.10 351 P P 21 46 41.5 +0.5
comp=Z,5.3nm,1.1s,baz=358,slow=4.5,SNR=7.3
comp=Z,5.3nm,1.1s
HFS Hagfors 67.71 349 P P 21 46 45.2 +0.3
comp=Z,2.3nm,0.5s,baz=280,slow=4.4,SNR=12
comp=Z,2.3nm,0.5s
TKL Tuckaleechee C 70.22 58 LR LR 22 16 43.0
comp=Z,37nm,20.9s,baz=325,slow=35
DZM Mont Dzumac 73.31 187 LR LR 22 14 05.2
comp=Z,44nm,21.3s,baz=237,slow=32
AKASG Malin Array Be 73.92 337 P P 21 47 23.6 +0.9
comp=Z,1.8nm,0.5s,baz=28,slow=6.2,SNR=6.7
comp=Z,1.8nm,0.5s
KIEV Kiev 73.92 337 P P 21 47 22.8 +0.1
PPT Papeete 75.84 144 LR LR 22 20 16.6
comp=Z,20nm,18.4s,baz=6.5,slow=35
KBZ Khabaz 76.08 325 P P 21 47 36.6 +1.3
comp=Z,5.0nm,0.8s,baz=12,slow=2.0,SNR=8.7
comp=Z,5.0nm,0.8s
KOLS Kolonicke sedl 77.13 341 eP P 21 47 43.3 +2.1
MORC Moravsky Berou 77.21 344 eP P 21 47 43.3 +1.6
LANS Liptovska Anna 77.47 343 eP P 21 47 46.9 +3.7
BUR08 Bucovina Ar. S 77.72 339 P P 21 47 46.1 +1.5
BURAR Bucovina Array 77.74 339 P P 21 47 46.1 +1.4
BURAR IAmb IAmb 21 47 47.4
comp=Z,6.0nm,0.7s
VRAC Vranov 77.83 345 eP P 21 47 46.8 +1.7
JAVC Velka Javorina 78.08 344 eP P 21 47 49.7 +3.1
KRUC Moravsky 78.10 345 eP P 21 47 48.5 +1.9
VYHS Vyhne 78.22 343 eP P 21 47 49.5 +2.2
VYHS e 21 57 11.0
BMRD Maredsous 78.31 353 dP P 21 47 47.9 +0.2
GNI Garni 78.50 322 LR LR 22 26 59.4
comp=Z,20nm,18.0s,baz=26,slow=39
ABNA Allensteig Bun 78.63 345 iP P 21 47 51.6 +2.0
comp=Z,4.3nm,1.3s
GERES GERESS Array B 78.73 346 P P 21 47 51.4 +1.2
comp=Z,0.9nm,0.6s,baz=16,slow=6.9,SNR=7.4
comp=Z,0.9nm,0.6s
GERES GERESS Array B 78.73 346 P P 21 47 50.9 +0.7
WRA Warramunga Arr 78.78 217 P P 21 47 48.4 -2.2
comp=Z,3.1nm,1.1s,baz=30,slow=6.0,SNR=8.3
comp=Z,3.1nm,1.1s
WINA Alland / Wiene 79.08 345 iP P 21 47 54.4 +2.4
comp=Z,8.2nm,1.2s
CONA Conrad Observa 79.28 345 iP P 21 47 55.7 +2.4
comp=Z,6.6nm,1.3s
RONA Rosalia, Austr 79.43 344 iP P 21 47 56.8 +2.7
comp=Z,6.1nm,1.0s
MLR Muntele Rosu 79.57 337 P P 21 47 55.8 +0.9
MLR IAmb IAmb 21 47 58.0
comp=Z,6.0nm,0.9s
MOA Molln 79.61 346 iP P 21 47 56.9 +1.9
comp=Z,6.4nm,1.7s
BIOA Bad Ischl, Aus 79.86 346 iP P 21 47 58.3 +2.0
comp=Z,6.6nm,1.0s
ARSA Arzberg 80.00 345 iP P 21 47 59.7 +2.7
comp=Z,9.1nm,1.6s
LESA Schwarzleotal 80.27 347 iP P 21 47 59.8 +1.2
comp=Z,6.8nm,1.8s
SESA Seetaler Alpe, 80.28 346 iP P 21 48 01.4 +2.6
comp=Z,4.7nm,1.1s
RETA Reutte 80.46 348 iP P 21 48 02.2 +2.6
comp=Z,3.5nm,1.1s
WATA Walderalm 80.50 348 iP P 21 48 02.0 +2.0
comp=Z,4.8nm,0.6s
KBA Koelnbreinsper 80.51 346 iP P 21 48 02.8 +2.8
comp=Z,6.7nm,0.6s
MOTA Moosalm 80.56 348 iP P 21 48 01.9 +1.7
comp=Z,9.0nm,1.1s
WTTA Wattenberg 80.57 348 iP P 21 48 02.6 +2.3
comp=Z,16nm,1.7s
SOKA Soboth 80.63 345 iP P 21 48 02.8 +2.2
comp=Z,15nm,1.4s
SQTA Sankt Quirin 80.67 348 iP P 21 48 02.9 +2.1
comp=Z,5.3nm,0.9s

FITZ	**Fitzroy Crossi**	**80.74**	**226**	P		**P**	**21 47 59.5**	**-1.7**
DAVA	**Damuels**	**80.77**	**349**	*i* P		**P**	**21 48 02.7**	**+1.3**
	comp=Z,9.3nm,1.4s							
OBKA	**Obir**	**80.88**	**345**	*i* P		**P**	**21 48 04.1**	**+2.2**
	comp=Z,4.7nm,0.7s							
MYKA	**Terra Mystica**	**80.90**	**346**	*i* P		**P**	**21 48 03.4**	**+1.4**
	comp=Z,6.5nm,1.2s							
FETA	**Feichten**	**80.92**	**348**	*i* P		**P**	**21 48 03.6**	**+1.4**
	comp=Z,6.9nm,1.5s							
ABTA	**Abfaltersbach**	**80.95**	**347**	*e*P		**P**	**21 48 03.8**	**+1.5**
	comp=Z,8.5nm,1.2s							
FUORN	**Ofenpass-Fuorn**	**81.38**	**348**	P		**P**	**21 48 06.3**	**+1.6**
FUORN				IAmb	IAmb		21 48 08.8	
	comp=Z,4.2nm,0.9s							
ILGA	**Ilgaz**	**81.53**	**330**	P		**P**	**21 48 07.8**	**+2.1**
ASAR	**Alice Springs**	**82.34**	**216**	P		**P**	**21 48 07.9**	**-1.7**
	comp=Z,1.3nm,0.6s,baz=22,slow=5.3,SNR=11							
	comp=Z,1.3nm,0.6s							
ASAR	**Alice Springs**	**82.34**	**216**	P		**P**	**21 48 08.1**	**-1.5**
BRTR	**Keskin Array B**	**82.77**	**330**	P		**P**	**21 48 13.2**	**+1.2**
	comp=Z,1.7nm,0.5s,baz=51,slow=3.3,SNR=12							
	comp=Z,1.7nm,0.5s							
BRTR	**Keskin Array B**	**82.77**	**330**	P		**P**	**21 48 13.1**	**+1.1**
UOSS	**Minazif**	**86.22**	**306**	P		**P**	**21 48 28.2**	**-1.3**
UOSS				IAmb	IAmb		21 48 29.3	
	comp=Z,3.9nm,0.8s							
ASF	**Jabal al Asfar**	**88.50**	**324**	LR		LR	22 34 15.2	
	comp=Z,17nm,19.1s,baz=29,slow=40							
QSPA	**South Pole Qui**	**141.05**	**180**	PKP		**PKPdf**	**21 55 15.9**	**-0.9**
	comp=Z,2.1nm,0.4s,baz=341,slow=1.1,SNR=7.0							
QSPA	**South Pole Qui**	**141.05**	**180**			**PKPdf**	**21 55 16.8**	**0.0**
BOSA	**Boshof**	**147.11**	**301**	PKPbc		**PKPbc**	**21 55 30.2**	**-0.6**
	comp=Z,1.4nm,0.6s,baz=357,slow=4.9,SNR=4.4							
BOSA	**Boshof**	**147.11**	**301**			**PKPdf**	**21 55 28.2**	**-0.5**
ALKP	**Alkanpan, Nort**	**149.75**	**304**	PKPbc		**PKiKP**	**21 55 37.4**	**-1.2**
BELA	**Belgrano 2**	**151.40**	**168**	PKPdf		**PKPbc**	**21 55 37.6**	**-2.4**

*SDD **30** 21:37:21.3±1.8, 18°.03N×71°.54W, h11km±6km, MD2.8, ML3.0, MW3.1, Presumed earthquake*
*OSPL **30** 21:37:23.6±1.0, 18°.20N×71°.44W, h0km±7km, ML3.0, Presumed earthquake*
ISC 30 21:37:22.7±1.1, 18°.13N±0°.04×71°.46W±0°.04, h9km±8km, n14, σ1ş09/22, 7C-6D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.17**	**77**	⇑*i*P	**Pg**	**21 37 26.2**	**-0.2**
PODR				⇓*i*S	**Sg**	**21 37 30.4**	**+1.4**
PODR				IAML		21 37 31.4	
	comp=N,10μm,0.2s						
PODR	**Polo**	**0.17**	**77**	*i* P	**Pg**	**21 37 26.1**	**-0.4**
PODR				*e*S	**Sg**	**21 37 28.6**	**-0.5**
PODR				IAML		21 37 32.2	
	comp=Z,126μm,0.1s						
LODU1	**El Espartillar**	**0.23**	**356**	*i* P	**Pg**	**21 37 26.2**	**-1.1**
LODU1				IAML		21 37 30.1	
	comp=Z,13μm,0.5s						
LOBH	**Bahia de las A**	**0.31**	**213**	*i* P	**Pb**	**21 37 30.6**	**+0.1**
LOBH				IAML		21 37 39.8	
	comp=Z,1μm,0.4s						
LOVI	**El Cajuil, Ovi**	**0.34**	**165**	*i* P	**Pb**	**21 37 30.6**	**-0.2**
LOVI				*e*S	**Sb**	**21 37 36.6**	**+0.2**
LOVI				IAML		21 37 39.6	
	comp=Z,965nm,0.7s						
NEDR	**Neiba UASD**	**0.36**	**6**	⇓*i*P	**Pg**	**21 37 29.4**	**-0.4**
NEDR				⇑*i*S	**Sg**	**21 37 35.9**	**+1.4**
NEDR				IAML		21 37 36.6	
	comp=N,3μm,0.2s						
LONE3	**El Aguacate, B**	**0.48**	**360**	*i* P	**Pg**	**21 37 31.2**	**-0.8**
LONE3				IAML		21 37 40.5	
	comp=Z,1μm,0.4s						
JIDR	**Jimani**	**0.52**	**314**	⇓*i*P	**Pg**	**21 37 32.6**	**-0.2**
JIDR				IAML		21 37 46.6	
	comp=N,738nm,0.1s						
SDDR	**Presa de Saban**	**0.87**	**11**	⇑*i*P	**Pg**	**21 37 37.5**	**-2.0**
SDDR				⇑*i*S	**Sg**	**21 37 50.9**	**+0.1**
SDDR				IAML		21 38 10.0	
	comp=N,117nm,1.1s						
SDDR	**Presa de Saban**	**0.87**	**11**	*i* P	**Pg**	**21 37 37.4**	**-2.0**
SDDR				IAML		21 37 51.5	
	comp=Z,80nm,0.4s						
REDR	**Restauracion**	**1.04**	**3**	⇓*i*P	**Pg**	**21 37 42.6**	**0.0**
REDR				⇓*i*S	**Sn**	**21 37 58.4**	**+0.3**
REDR				IAML		21 38 04.1	
	comp=N,234nm,0.5s						
ABDR	**Alto Bandera**	**1.04**	**49**	⇑*i*P	**Pg**	**21 37 41.4**	**-1.4**
ABDR				⇑*i*S	**Sb**	**21 37 58.4**	**+1.3**
ABDR				IAML		21 38 03.8	
	comp=N,209nm,0.3s						
BANI	**BANI**	**1.08**	**76**	⇓*i*P	**Pg**	**21 37 42.4**	**-1.1**
BANI				⇑*i*S	**Sb**	**21 37 59.3**	**+1.4**
BANI				IAML		21 38 02.0	
	comp=N,393nm,0.5s						
LOPP1	**Punta Rusia, P**	**1.74**	**8**	*i* P	**Pn**	**21 37 52.7**	**-0.4**
LOPP1				IAML		21 38 18.8	
	comp=Z,80nm,1.9s						

DJA 30 21:42:28.2±0.4, 9°S±3°×107°9E±°, h10km, M4.1/24, mb4.7/3, mb4.7/3, ML3.9/25, MLv3.8/25, MLv3.8/24, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMJI	**Cimerak**	**0.78**	**342**	P	Pb	21 42 44.0	+0.1
CMJI				AML	AML		
CMJI				AML	AML		
CMJI				AML	AML		
SCJI	**Gunung Srandil**	**0.97**	**29**	P	Pg	21 42 46.5	-0.3
SCJI				S	Sg	21 42 59.2	-0.3
SCJI				AML	AML		
KPJI	**Karang Pucung**	**1.21**	**11**	P	Pg	21 42 51.8	+0.3
KPJI				AML	AML		
KPJI				AML	AML		
BBJI	**Bungbulang**	**1.48**	**316**	P	Pn	21 42 53.7	-1.3
BBJI				AML	AML		
UGM	**Wanagama**	**1.92**	**71**	P	Pn	21 42 59.3	-1.6
UGM				AML	AML		
UGM				AML	AML		
UGM				AML	AML		
SMRI	**Semarang**	**2.27**	**50**	P	Pn	21 43 06.9	+1.0
SMRI				AML	AML		
SMRI				AML	AML		
PCJI	**Pacitan**	**2.48**	**82**	P	Pn	21 43 07.7	-1.0
PCJI				AML	AML		
PCJI				AML	AML		
PCJI				AML	AML		
SKJI	**Sukabumi**	**2.60**	**305**	P	Pn	21 43 10.1	-0.3
SKJI				AML	AML		
PWJI	**Pagerwojo**	**3.12**	**81**	P	Pn	21 43 16.7	-0.8
PWJI				AML	AML		
PWJI				AML	AML		
PWJI				AML	AML		
SNJI	**Sawahan-Nganju**	**3.13**	**76**	P	Pn	21 43 19.3	+1.5
SNJI				AML	AML		
SNJI				AML	AML		
SJI	**Sawahan**	**3.15**	**76**	P	Pn	21 43 19.3	+1.4
JAGI	**Jajag, Banyuwa**	**5.40**	**90**	P	Pn	21 43 48.9	0.0
	0.1nm0.2nm0.2nm16nm,0.4s,16nm,0.4s						
JAGI				AML	AML		
JAGI				AML	AML		
JAGI				AML	AML		
RTBI	**Rangdo, Negare**	**6.18**	**90**	P	Pn	21 44 00.3	+0.6
	0.1nm51nm,0.7s,51nm,0.7s						
RTBI				AML	AML		
MNAI	**Manna**	**7.04**	**306**	P	Pn	21 44 11.0	-0.5
	130nm,1.2s						

*NIED **30** 21:51:41.3, 28°.10N×128°.00E, h15km, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}=1.08; $M_{\theta\theta}$=2.22; $M_{\phi\phi}$=-1.13; $M_{r\theta}$=0.38; $M_{\theta\phi}$=0.54; $M_{\phi r}$=1.46; Fault plane solution: M_o=2.49000×10^{15} NP1: ϕ_s=297.00000°, δ51.00000°, λ=-27.00000°. NP2:ϕ_s=45.00000°, δ69.00000°, λ=-137.00000°.*
*JMA **30** 21:51:41.3±0.2, 28°.1N±0°.4×128°.0E±0°.6, h15km±2km, MV3.6/11, NW OFF OKINAWAJIMA IS*
*IDC **30** 21:51:41.1±0.8, 27°.95N×127°.76E, h0km, mb3.7/9, mbtmp3.8/13, ML3.2/4, MS3.4/18, Error ellipse: s-maj=21.2km s-min=12.5km az=79.0*
*NEIC **30** 21:51:43.5±1.4, 27°.94N±0°.04×127°.8E±0°.1, h10km±1km, mb4.2/8, Error ellipse: s-maj=22.3km s-min=3.9km az=72.0*
ISC 30 21:51:43.8±1.3, 27°.99N±0°.04×128°.15E±0°.05, h19km±4km, n54, σ1ş41/46, mb3.9/13, MS3.4/16, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.73**	**149**	P	**Pb**	**21 51 58.1**	**+0.2**
JOKE				S	**Sn**	**21 52 10.5**	**+0.8**
JTK	**Tokunoshima**	**0.74**	**106**	P	**Pb**	**21 51 58.1**	**0.0**
JTK				S	**Sn**	**21 52 09.6**	**-0.5**
JAMN	**Amaminishikomi**	**0.94**	**74**	*i* P	**Pb**	**21 52 00.8**	**-0.8**
JAMN				S	**Sg**	**21 52 14.5**	**-0.2**
JIH	**Iheya**	**0.96**	**189**	P	**Pb**	**21 52 01.0**	**-0.9**
JIH				S	**Sg**	**21 52 15.2**	**0.0**
JYRO	**Yoronjima**	**1.00**	**164**	P	**Pb**	**21 52 02.2**	**-0.3**
JYRO				S	**Sn**	**21 52 17.4**	**+1.1**
JOW	**Kunigami**	**1.16**	**174**	Pn	**Pn**	**21 52 04.7**	**-0.3**
	142nm,0.3s,baz=73,slow=26,SNR=93						
JOW				Sn	**Sg**	**21 52 22.6**	**+1.2**
	52nm,0.3s,baz=25,slow=11,SNR=5.3						
JOW	**Kunigami**	**1.16**	**174**		**Pn**	**21 52 04.6**	**-0.4**
JOW	**Kunigami**	**1.16**	**174**	P	**Pn**	**21 52 04.4**	**-0.6**
JAM	**Amami Oshima**	**1.36**	**71**	P	**Pn**	**21 52 07.3**	**-0.4**
JAM				S	**Sb**	**21 52 25.9**	**+0.3**
JNTH	**Nagotoyohara**	**1.47**	**184**	P	**Pn**	**21 52 09.0**	**-0.2**
JNTH				S	**Sb**	**21 52 29.5**	**+0.7**
JTAJ	**Takarajima**	**1.49**	**38**	*e*P	**Pn**	**21 52 07.6**	**-2.0**
JMZ	**Minamidaito 2**	**3.50**	**127**	Pn	**Pb**	**21 52 41.7**	**-3.4**
JSU	**Suzuyama**	**4.04**	**29**	Pn	**Pn**	**21 52 47.3**	**+2.6**
JNU	**Nakatsue**	**5.63**	**24**	Pn	Pn	21 53 11.3	+4.7
	1.3nm,0.3s,baz=196,slow=8.7,SNR=11						
	58nm,1.0s						
JNU				AML	AML		
KSRS	**Korea Array**	**9.44**	**359**	Pn	**Pn**	**21 54 00.1**	**+1.3**
	0.2nm,0.3s,baz=182,slow=16,SNR=1.9						
KSRS				LR	LR	21 57 37.4	
	comp=Z,247nm,19.6s,baz=170,slow=38						
	0.5nm,0.4s						
KSRS				AML	AML		
MJAR	**Matsushiro Arr**	**12.05**	**42**	Pn	P	21 54 41.1	-6.2
	baz=208,slow=10,SNR=3.1						
	2.9nm,1.1s						
USRK	**Ussuriysk Ar.**	**16.47**	**10**	Pn	**P**	**21 55 38.3**	**+1.9**
	0.2nm,0.3s,baz=193,slow=12,SNR=4.7						
USRK				LR	LR	22 01 16.7	
	comp=Z,97nm,19.0s,baz=169,slow=35						
	4.0nm,0.7s						
USRK				AML	AML		
DAV	**Davao City (W)**	**20.95**	**187**	LR	LR	22 04 50.9	
	comp=Z,49nm,19.8s,baz=344,slow=38						
GUMO	**Guam**	**21.17**	**129**	LR	LR	22 03 27.7	
	comp=Z,61nm,20.7s,baz=106,slow=33						
KLR	**Kul'dur**	**21.39**	**6**	LR	LR	22 04 32.7	
	comp=Z,72nm,20.1s,baz=170,slow=36						
SONM	**Songino Array**	**26.05**	**325**	P	**P**	**21 57 15.3**	**-0.8**
	2.1nm,1.0s,baz=144,slow=10,SNR=10						
	2.1nm,1.0s						
SONM	**Songino Array**	**26.05**	**325**		**P**	**21 57 15.9**	**-0.2**
CMAR	**Chiang Mai Arr**	**28.40**	**257**	LR	LR	22 09 24.4	
	comp=Z,41nm,19.1s,baz=80,slow=38						
TLY	**Talaya**	**29.97**	**329**	LR	LR	22 11 09.7	
	comp=Z,104nm,18.2s,baz=114,slow=39						
PETK	**Petropavlovsk-**	**33.26**	**33**	LR	LR	22 12 39.6	
	comp=Z,50nm,19.0s,baz=108,slow=38						
YAK	**Yakutsk**	**34.06**	**1**	LR	LR	22 12 21.1	
	comp=Z,78nm,19.4s,baz=136,slow=36						
MA2	**Magadan**	**35.19**	**20**	LR	LR	22 13 20.7	
	comp=Z,51nm,19.1s,baz=93,slow=37						
BATI	**Batata**	**38.21**	**187**	LR	LR	22 15 55.4	
	comp=Z,75nm,19.4s,baz=295,slow=38						
MKAR	**Makanchi Array**	**40.33**	**310**	P	**P**	**21 59 17.9**	**-2.2**
	2.3nm,0.9s,baz=106,slow=8.9,SNR=8.5						
MKAR				LR	LR	22 16 17.2	
	comp=Z,48nm,19.4s,baz=40,slow=37						
	2.3nm,0.9s						
MKAR	**Makanchi Array**	**40.33**	**310**	P	**P**	**21 59 18.2**	**-1.9**
ZALV	**Zalesovo Beam**	**40.82**	**322**	P	**P**	**21 59 22.3**	**-1.7**
	0.9nm,0.7s,baz=76,slow=12,SNR=3.6						
	0.9nm,0.7s						
ZALV	**Zalesovo Beam**	**40.82**	**322**	P	**P**	**21 59 23.3**	**-0.6**
TARG	**Taragay, Kyrgy**	**42.94**	**302**	P	**P**	**21 59 40.6**	**-1.4**
TARG				IAmb	IAmb	21 59 46.9	
	comp=Z,3.9nm,0.9s						
KURBB	**Kurchatov Arra**	**43.54**	**315**	P	**P**	**21 59 44.4**	**-1.8**
	comp=Z,1.5nm,0.7s,baz=102,slow=8.6,SNR=4.8						
	comp=Z,1.5nm,0.7s						
TIXI	**Tiksi**	**43.71**	**0**	LR	LR	22 19 16.0	
	comp=Z,106nm,18.5s,baz=192,slow=38						
FITZ	**Fitzroy Crossi**	**45.88**	**183**	P	**P**	**22 00 06.3**	**+1.3**
NRIK	**Noril'sk**	**47.56**	**342**	LR	LR	22 22 00.0	
	comp=Z,78nm,18.5s,baz=146,slow=38						
WB0	**Warramunga Arr**	**47.86**	**172**	P	**P**	**22 00 20.4**	**-0.2**
WRA	**Warramunga Arr**	**48.02**	**172**	P	**P**	**22 00 20.9**	**-1.0**
	comp=Z,1.2nm,0.6s,baz=355,slow=8.3,SNR=10						
	comp=Z,1.2nm,0.6s						
WR8	**Warramunga Arr**	**48.05**	**172**	P	**P**	**22 00 22.4**	**+0.3**
KK31	**Karatay Array**	**48.35**	**304**	P	**P**	**22 00 22.4**	**-2.0**
KK31				IAmb	IAmb	22 00 27.4	
	comp=Z,2.7nm,1.1s						
KKAR	**Karatay Array**	**48.35**	**304**	P	**P**	**22 00 22.4**	**-2.0**
BVAR	**Borovoye Array**	**48.93**	**317**	P	**P**	**22 00 27.7**	**-0.9**
	comp=Z,1.3nm,0.9s,baz=92,slow=10,SNR=5.1						
	comp=Z,1.3nm,0.9s						
BORK	**Borovoye**	**48.97**	**317**	P	**P**	**22 00 27.7**	**-1.2**
BORK				IAmb	IAmb	22 00 42.9	
	comp=Z,1.6nm,0.8s						
ASAR	**Alice Springs**	**51.65**	**173**	P	**P**	**22 00 49.5**	**0.0**
	comp=Z,0.3nm,0.6s,baz=352,slow=9.2,SNR=1.8						
	comp=Z,0.3nm,0.6s						
ABKAR	**Akbulak array**	**55.40**	**312**	P	**P**	**22 01 18.0**	**+1.2**
AKTO	**Aktyubinsk**	**56.56**	**314**	LR	LR	22 28 13.5	
	comp=Z,49nm,18.1s,baz=349,slow=39						
E24K	**Your Creek**	**61.90**	**25**	P	**P**	**22 02 03.5**	**+1.7**
E24K				IAmb	IAmb	22 02 07.3	
	comp=Z,1.6nm,1.1s						
F24K	**Squaw Lake**	**62.18**	**26**	P	**P**	**22 02 06.1**	**+2.4**
ILAR	**Eielson Array**	**62.93**	**29**	P	**P**	**22 02 10.6**	**+2.0**
	comp=Z,0.2nm,0.6s,baz=266,slow=6.1,SNR=2.1						
	comp=Z,0.2nm,0.6s						
BMAR	**Burnt Mountain**	**63.46**	**26**	P	**P**	**22 02 14.6**	**+2.4**
FINES	**FINESS Array B**	**71.30**	**330**	LR	LR	22 40 02.1	
	comp=Z,41nm,18.1s,baz=41,slow=41						
AKASG	**Malin Array Be**	**74.15**	**319**	LR	LR	22 37 51.1	
	comp=Z,72nm,18.1s,baz=12,slow=38						
BRTR	**Keskin Array B**	**75.90**	**308**	P	**P**	**22 03 29.1**	**-0.4**
	comp=Z,0.4nm,0.8s,baz=63,slow=9.4,SNR=1.7						
BRTR				LR	LR	22 39 03.5	
	comp=Z,13nm,21.8s,baz=32,slow=38						
	comp=Z,0.4nm,0.8s						

*JMA **30** 21:56:21.5±0.7, 47°.N±4°.×15°.0E±°, h432km, MV4.0/17, KURILE ISLANDS REGION*
*SKHL **30** 21:56:21.1±0.5, 47°.70N×148°.80E, h378km±7km, mb4.5/6, msha5.3/2*
*NEIC **30** 21:56:23.9±1.1, 48°.3N±0°.2×148°.5E±0°.2, h390km±14km, mb4.0/17, Error ellipse: s-maj=27.0km s-min=13.8km az=155.0*
*IDC **30** 21:56:23.3±1.5, 48°.19N×148°.59E, h394km±17km, mb3.0/17, mbtmp3.8/23, Error ellipse: s-maj=16.7km s-min=12.2km az=151.0*
ISC 30 21:56:20.5±0.5, 47°.93N±0°.07×148°.77E±0°.07, h367km, n68, σ1ş57/72, mb3.5/26, Northwest of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**2.77**	**193**	*e*P	**Pn**	**21 57 20.4**	**+1.2**
YSS	**Yuzhno-Sakhali**	**4.20**	**259**	Pn	Pn	21 57 36.6	+4.2
YSS	**Yuzhno-Sakhali**	**4.20**	**259**	*e*P	**Pn**	**21 57 35.0**	**+2.6**
YSS				AMB	AMB	21 57 37.2	
	40nm,0.5s						
SHO	**Shikotan**	**4.28**	**199**	*e*P	Pn	21 57 54.6	+21
SHO				AMB	AMB	21 57 56.9	
	30nm,0.4s						
SHO				*e*S	S	21 58 51.1	+19
SHO				A	A	21 58 54.6	
	110nm,0.4s						
SHO				A	A	21 58 54.6	
	150nm,0.4s						
YUK	**Yuzh-Kuril'sk**	**4.39**	**209**	*e*P	**Pn**	**21 57 34.5**	**0.0**
YUK				AMB	AMB	21 57 36.3	
	70nm,0.3s						
UGL	**Uglegorsk**	**4.60**	**287**	*e*P	**Pn**	**21 57 39.7**	**+3.2**
UGL				AMB	AMB	21 57 41.5	
	60nm,0.8s						

TYV	**Tymovskoe**	**4.95**	**309**	*e*P		**Pn**	**21 57 42.9**	**+2.7**
NEM2	**Nemuro 2**	**5.03**	**206**	P		**Pn**	**21 57 41.7**	**+0.4**
NEM2				*e*S		**S**	**21 58 44.4**	**-2.3**
NMR	**Nemuro--Hokkai**	**5.03**	**206**	*e*P		**Pn**	**21 57 41.4**	**+0.1**
NMR				*e*S		**S**	**21 58 45.4**	**-1.3**
JNK	**Nakash**	**5.19**	**215**	*e*S		**S**	**21 58 53.2**	**+3.5**
JTKR	**Abashiri--Toko**	**5.21**	**222**	*e*P		Pn	21 57 47.0	+3.9
SKR	**Severo-Kuril's**	**5.54**	**57**	*e*P		**Pn**	**21 57 49.8**	**+3.2**
AKK	**Akkeshi**	**5.63**	**211**	*e*P		**Pn**	**21 57 48.4**	**+0.6**
AKK				*e*S		**S**	**21 58 57.1**	**-1.6**
JAK	**Akkeshi**	**5.70**	**212**	P		**Pn**	**21 57 49.3**	**+0.7**
JAK				*e*S		**S**	**21 58 57.9**	**-2.2**
JKA	**Kamikawa-asahi**	**5.74**	**231**	Pn		Pn	21 57 53.2	+4.1
ASAJ	**Asahikawa**	**5.74**	**231**	P		Pn	21 57 53.6	+4.6
	20nm,0.4s,baz=104,slow=9.6,SNR=10							
JAR	**Ashorobuto**	**5.81**	**219**	*e*P		**Pn**	**21 57 52.1**	**+2.4**
JAR				*e*S		**S**	**21 59 04.4**	**+2.2**
JKK2	**Kamakawa 2**	**5.84**	**228**	*e*P		Pn	21 57 54.0	+3.9
JOB	**Onbets**	**6.11**	**216**	*e*P		**Pn**	**21 57 54.2**	**+1.1**
JOB				*e*S		**S**	**21 59 06.8**	**-1.5**
JCH	**Churui**	**6.54**	**218**	*e*P		**Pn**	**21 57 58.6**	**+0.6**
JCH				*e*S		**S**	**21 59 14.7**	**-2.6**
ERM	**Erimo**	**7.13**	**216**	Pn		**P**	**21 58 06.1**	**+0.3**
NKL	**Nikolayevsk**	**7.34**	**318**	*e*P		**P**	**21 58 11.9**	**+3.9**
PEA0B	**Petropavlovsk-**	**7.70**	**44**	Pn		**P**	**21 58 12.1**	**-0.1**
PETK	**Petropavlovsk-**	**7.70**	**44**	P		**P**	**21 58 12.5**	**+0.3**
	2.5nm,0.7s,baz=239,slow=10,SNR=5.2							
PETK	**Petropavlovsk-**	**7.70**	**44**	Pn		**P**	**21 58 13.2**	**+1.0**
KLR	**Kul'dur**	**11.35**	**283**	P		**Pn**	**21 58 55.2**	**+1.0**
	1.2nm,0.5s,baz=352,slow=14,SNR=2.7							
KLR	**Kul'dur**	**11.35**	**283**	*e*P		**Pn**	**21 58 56.4**	**+2.2**
MJAR	**Matsushiro Arr**	**13.79**	**218**	P		**Pn**	**21 59 25.4**	**+2.4**
	1.6nm,0.6s,baz=25,slow=11,SNR=5.4							
KSRS	**Korea Array**	**18.50**	**243**	P		**P**	**22 00 13.7**	**+1.9**
	1.1nm,0.5s,baz=54,slow=10,SNR=2.2							
HILR	**Hailar Array B**	**19.16**	**286**	P		**P**	**22 00 17.0**	**-1.6**
	1.5nm,0.5s,baz=80,slow=17,SNR=2.2							
SONM	**Songino Array**	**28.16**	**286**	P		**P**	**22 01 39.2**	**-1.2**
	0.4nm,0.6s,baz=67,slow=9.4,SNR=2.6							
SONM				PcP		**PcP**	**22 04 42.5**	**-0.9**
	0.4nm,0.7s,baz=90,slow=1.4,SNR=2.2							
	0.4nm,0.6s							
N15K	**Kwethluk River**	**31.58**	**48**	P		**P**	**22 02 11.1**	**+1.1**
C18K	**Utukok River**	**32.13**	**32**	P		**P**	**22 02 15.2**	**+0.6**
C18K				IAmb		IAmb	22 02 19.4	
	comp=Z,14nm,1.4s							
M16K	**Timber Creek**	**32.13**	**46**	P		**P**	**22 02 16.1**	**+1.4**
G18K	**Tagagawik**	**32.58**	**37**	P		**P**	**22 02 18.8**	**+0.2**
G18K				IAmb		IAmb	22 02 51.7	
	comp=Z,13nm,1.5s							
F19K	**Shaleruckik Mo**	**33.06**	**36**	P		**P**	**22 02 22.1**	**-0.5**
F19K				IAmb		IAmb	22 02 23.3	
	comp=Z,5.5nm,1.1s							
G19K	**Purcell Mounta**	**33.25**	**37**	P		**P**	**22 02 23.7**	**-0.5**
G19K				IAmb		IAmb	22 02 58.9	
	comp=Z,8.6nm,1.4s							
H19K	**Roundabout Mou**	**33.45**	**38**	P		**P**	**22 02 26.7**	**+0.8**
H19K				IAmb		IAmb	22 02 53.8	
	comp=Z,14nm,1.5s							
IMAR	**Indian Mountai**	**34.59**	**37**	P		**P**	**22 02 35.7**	**0.0**
H21K	**Melozitna Rive**	**34.97**	**38**	P		**P**	**22 02 38.7**	**-0.2**
LZDM	**Lanzhou Array**	**35.12**	**267**	P		**P**	**22 02 41.7**	**+0.8**
	comp=Z,0.9nm,0.3s,baz=56,slow=3.7,SNR=3.8							
	comp=Z,0.9nm,0.3s							
F24K	**Squaw Lake**	**36.95**	**35**	P		**P**	**22 02 55.2**	**-0.2**
F24K				IAmb		IAmb	22 03 09.2	
	comp=Z,8.8nm,1.5s							
ILAR	**Eielson Array**	**37.49**	**39**	P		**P**	**22 03 00.2**	**+0.2**
	comp=Z,0.6nm,0.7s,baz=253,slow=6.5,SNR=6.6							
	comp=Z,0.6nm,0.7s							
D25K	**Kavik River**	**37.50**	**32**	P		**P**	**22 02 59.8**	**-0.4**
D25K				IAmb		IAmb	22 03 35.3	
	comp=Z,8.0nm,1.5s							
BMAR	**Burnt Mountain**	**38.22**	**35**	P		**P**	**22 03 05.9**	**-0.1**
ZALV	**Zalesovo Beam**	**39.51**	**303**	P		**P**	**22 03 14.8**	**-2.0**
	comp=Z,0.5nm,0.3s,baz=119,slow=5.1,SNR=2.5							
	comp=Z,0.5nm,0.3s							
GRNC	**Granite Creek**	**40.50**	**45**	P		**P**	**22 03 25.5**	**+0.6**
INK	**Inuvik**	**42.25**	**33**	P		**P**	**22 03 38.0**	**-0.5**
MKAR	**Makanchi Array**	**43.77**	**294**	P		**P**	**22 03 50.3**	**-0.7**
	comp=Z,1.2nm,0.4s,baz=65,slow=6.6,SNR=32							
MKAR				PcP		**PcP**	**22 05 29.4**	**-0.8**
	comp=Z,0.2nm,0.5s,baz=56,slow=2.6,SNR=1.9							
	comp=Z,1.2nm,0.4s							
MKAR	**Makanchi Array**	**43.77**	**294**	P		**P**	**22 03 49.6**	**-1.4**
KURK	**Kurchatov**	**44.24**	**301**	P		**P**	**22 03 53.3**	**-1.2**
KURBB	**Kurchatov Arra**	**44.33**	**301**	P		**P**	**22 03 53.8**	**-1.4**
	comp=Z,0.8nm,0.6s,baz=69,slow=8.3,SNR=6.8							
KURBB				PcP		**PcP**	**22 05 30.7**	**-1.2**
	comp=Z,0.2nm,0.6s,baz=68,slow=3.3,SNR=2

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.11**	**15**	P	Pg	22 21 10.9	+0.3
KUA				S	Sg	22 21 12.3	+0.2
RATU	**Laukkuluspa**	**0.26**	**266**	P	Pg	22 21 13.6	+0.2
RATU				S	Sg	22 21 16.9	+0.3
KOVU	**Salmi**	**0.38**	**354**	P	Pg	22 21 15.9	+0.1
KOVU				S	Sg	22 21 21.6	+0.9
NIKU	**Nikkaluokta**	**0.47**	**273**	P	Pg	22 21 17.3	-0.1
LANU	**Lannavaara**	**0.69**	**72**	PG	Pb	22 21 22.8	-0.5
LANU				SG	Sg	22 21 31.0	+0.5
HEF	**Hetta** baz=247	**1.39**	**64**	PG	Pb	22 21 35.5	+0.1
HEF	comp=Z,1.0nm,0.2s			MSG		22 21 52.3	
HEF				SG	Sg	22 21 53.4	+0.2
ERTU	**Ertsjaerv**	**1.50**	**149**	PN	Pg	22 21 37.2	+0.1
ERTU				SN	Sn	22 21 57.7	+0.9
KLF	**Kolari**	**1.55**	**112**	PN	Pg	22 21 38.2	0.0
KLF	comp=Z,1.1nm,0.2s			MSG		22 21 55.7	
KLF				SN	Sg	22 21 59.2	+1.0
KTK1	**Kautokeino**	**1.61**	**42**	PG	Pg	22 21 39.6	+0.3
KTK1				SN	Sg	22 22 02.0	+1.9
TRO	**Tromso**	**1.86**	**345**	SG	Sg	22 22 08.8	+0.6
TOF	**Tornio** comp=Z,0.6nm,0.2s	**2.39**	**136**	MSG		22 22 19.5	
TOF				SG	Sb	22 22 23.1	+0.9
RNF	**Rovaniemi**	**2.56**	**116**	PG	Pb	22 21 54.5	-0.7
RNF				SG	Sb	22 22 27.5	+0.4
ARA0	**ARCESS Array S**	**2.56**	**46**	SG	Sb	22 22 28.1	+1.0
KEV	**Kevo**	**3.11**	**49**	SN	Sn	22 22 36.3	-0.3
RANF	**Ranua**	**3.16**	**123**	SG	Sb	22 22 46.5	+2.1
OBF8	**Ulkokalla**	**3.76**	**158**	SN	Sn	22 22 51.2	-1.2
KU2	**Taivalkoski**	**3.81**	**120**	SN	Sn	22 22 54.2	+0.3
MSF	**Maaselka**	**3.97**	**115**	PB	Pb	22 22 15.0	-4.2

NIED ***30*** *22:21:32.1,28.09N×127.99E,h15km,MW3.8,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-0.11; $M_{\theta\theta}$1.73; $M_{\phi\phi}$-1.62; $M_{r\theta}$2.43; $M_{\theta\phi}$ 1.65; $M_{\phi r}$5.70; Fault plane solution: $M_0$6.63000×10^{14} NP1: ϕ_s112.00000°,δ21.00000°,λ-1.00000°. NP2:ϕ_s203.00000°, δ89.00000°,λ-111.00000°.*

JMA 30 22:21:32.1±0.2, 28.1N±0.4×128.0E±0.6, h15km±2km, MV3.6/10, NW OFF OKINAWAJIMA IS, Northwest of Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.89**	**144**	P	Pb	22 21 48.9	-0.4
JTK	**Tokunoshima**	**0.90**	**109**	eP	Pb	22 21 49.0	-0.5
JTK				S	Sb	22 22 00.7	-0.7
JIH	**Iheya**	**1.05**	**181**	P	Pb	22 21 51.3	-0.7
JIH				S	Sb	22 22 05.6	+0.1
JAMN	**Amaminishikomi**	**1.06**	**81**	P	Pb	22 21 51.8	-0.4
JYRO	**Yoronjima**	**1.14**	**159**	P	Pb	22 21 53.1	-0.4
JYRO				S	Sb	22 22 08.2	+0.2
JOW	**Kunigami**	**1.28**	**168**	P	Pn	22 21 55.2	-0.3
JAM	**Amami Oshima**	**1.46**	**77**	eP	Pn	22 21 58.2	+0.2
JNTH	**Nagotoyohara**	**1.56**	**179**	P	Pn	22 21 59.6	+0.2

SDD ***30*** *22:33:14.6±2.5, 18.00N×71.55W, h8km±9km, MD2.8, ML3.1, MW3.1, Presumed earthquake*
OSPL ***30*** *22:33:17.2±1.3, 18.19N×71.43W, h0km±8km, ML2.9, Presumed earthquake*

ISC 30 22:33:16.0±1.4, 18.12N±0.05×71.48W±0.05, h3km±12km, n14, σ1§11/22, 6C-7D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PODR	**Polo**	**0.19**	**75**	⇓*i* P	**Pg**	**22 33 19.3**	**-0.4**
PODR				⇓*i* S	**Sg**	**22 33 24.1**	**+1.8**
PODR	comp=N,13μm,0.2s			IAML		22 33 25.0	
PODR	**Polo**	**0.19**	**75**	*i* P	**Pg**	**22 33 19.3**	**-0.4**
PODR				*e*S	**Sg**	**22 33 22.0**	**-0.3**
PODR	comp=Z,101μm,0.1s			IAML		22 33 23.2	
LODU1	**El Espartillar**	**0.23**	**0**	*i* P	**Pg**	**22 33 19.8**	**-0.7**
LODU1				*e*S	**Sg**	**22 33 22.9**	**-0.7**
LODU1	comp=Z,7μm,1.1s			IAML		22 33 24.3	
LOBH	**Bahia de las A**	**0.30**	**212**	*i* P	**Pb**	**22 33 24.3**	**+0.4**
LOBH	comp=Z,2μm,0.4s			IAML		22 33 32.8	
LOVI	**El Cajuil, Ovi**	**0.33**	**162**	*i* P	**Pb**	**22 33 24.2**	**-0.4**
LOVI	comp=Z,589nm,0.5s			IAML		22 33 35.9	
NEDR	**Neiba UASD**	**0.37**	**8**	⇑*i* P	**Pg**	**22 33 23.1**	**0.0**
NEDR				⇑*i* S	**Sg**	**22 33 29.9**	**+2.0**
NEDR	comp=N,3μm,0.3s			IAML		22 33 30.4	
LONE3	**El Aguacate, B**	**0.48**	**2**	*i* P	**Pg**	**22 33 24.9**	**-0.4**
LONE3	comp=Z,1μm,0.3s			IAML		22 33 34.1	
JIDR	**Jimani**	**0.52**	**316**	⇓*i* P	**Pb**	**22 33 27.0**	**-0.6**
JIDR	comp=N,661nm,0.4s			IAML		22 33 43.1	
SDDR	**Presa de Saban**	**0.88**	**12**	⇓*i* P	**Pg**	**22 33 31.6**	**-1.3**
SDDR				⇓*i* S	**Sg**	**22 33 45.3**	**+1.1**
SDDR	comp=N,142nm,0.9s			IAML		22 33 51.9	
SDDR	**Presa de Saban**	**0.88**	**12**	*i* P	**Pg**	**22 33 31.1**	**-1.7**
SDDR	comp=Z,91nm,0.3s			IAML		22 33 48.0	
REDR	**Restauracion**	**1.04**	**4**	⇑*i* P	**Pg**	**22 33 36.5**	**+0.4**
REDR				⇓*i* S	**Sn**	**22 33 52.6**	**+0.1**
REDR	comp=N,233nm,0.2s			IAML		22 33 52.7	
ABDR	**Alto Bandera**	**1.06**	**49**	⇑*i* P	**Pg**	**22 33 34.9**	**-1.5**
ABDR				⇓*i* S	**Sb**	**22 33 52.9**	**+1.3**
ABDR	comp=N,261nm,0.6s			IAML		22 33 58.5	
BANI	**BANI**	**1.09**	**75**	⇑*i* P	**Pg**	**22 33 35.8**	**-1.3**
BANI				⇑*i* S	**Sg**	**22 33 52.2**	**+1.0**
BANI	comp=N,363nm,0.5s			IAML		22 33 55.5	
LOPP1	**Punta Rusia, P**	**1.75**	**9**	*i* P	**Pn**	**22 33 46.9**	**-0.3**
LOPP1	comp=Z,96nm,0.5s			IAML		22 34 17.5	

IDC ***30*** *22:35:00.5±2.8, 28.05N×129.00E, h0km, mb3.6/6, mbtmp3.7/6, MS2.9/1, Error ellipse: s-maj=114.6km s-min=22.8km az=64.0*
NIED ***30*** *22:35:01.2, 28.09N×127.97E, h16km, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.21; $M_{\theta\theta}$0.45; $M_{\phi\phi}$-0.24; $M_{r\theta}$0.64; $M_{\theta\phi}$0.24; $M_{\phi r}$0.78; Fault plane solution: $M_0$1.10000×10^{15} NP1: ϕ_s112.00000°,δ21.00000°,λ-18.00000°. NP2: ϕ_s220.00000°,δ83.00000°,λ-110.00000°.*
JMA ***30*** *22:35:01.2±0.2, 28.1N±0.4×128.0E±0.5, h16km±2km, MV3.5/10, NW OFF OKINAWAJIMA IS*

ISC 30 22:35:03.8±0.9, 27.96N±0.05×128.14E±0.06, h10km, n15, σ1§42/18, mb3.6/6, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOKE	**Okinoerabujima**	**0.71**	**147**	P	**Pg**	**22 35 17.9**	**+0.5**
JOKE				S	**Sb**	**22 35 30.0**	**+2.0**
JTK	**Tokunoshima**	**0.74**	**103**	P	**Pg**	**22 35 18.3**	**+0.2**
JTK				S	**Sb**	**22 35 30.3**	**+1.3**
JIH	**Iheya**	**0.93**	**189**	P	**Pg**	**22 35 20.6**	**-1.1**
JIH				S	**Sb**	**22 35 34.8**	**+0.3**
JAMN	**Amaminishikomi**	**0.96**	**72**	P	**Pg**	**22 35 21.0**	**-1.3**
JYRO	**Yoronjima**	**0.97**	**163**	P	**Pg**	**22 35 22.2**	**-0.3**
JYRO				S	**Sn**	**22 35 37.4**	**+0.1**
JOW	**Kunigami**	**1.13**	**174**	P	**Pb**	**22 35 24.2**	**-1.1**
JOW				eS	**Sg**	**22 35 41.4**	**+1.2**
JAM	**Amami Oshima**	**1.37**	**70**	P	**Pn**	**22 35 27.4**	**-1.7**
JNTH	**Nagotoyohara**	**1.44**	**184**	P	**Pn**	**22 35 28.6**	**-1.3**
KSRS	**Korea Array** comp=Z,66nm,18.3s,baz=180,slow=38	**9.47**	**359**	LR	LR	22 40 57.7	
LZDM	**Lanzhou Array** 0.9nm,0.3s,baz=88,slow=11,SNR=1.5 0.9nm,0.3s	**22.18**	**297**	P	P	22 40 05.9	+5.4
SONM	**Songino Array** 1.2nm,1.1s,baz=142,slow=7.3,SNR=4.6 1.2nm,1.1s	**26.08**	**325**	P	**P**	**22 40 39.3**	**+1.6**
MKAR	**Makanchi Array** 0.5nm,0.6s,baz=87,slow=9.4,SNR=5.2 0.5nm,0.6s	**40.34**	**310**	P	**P**	**22 42 43.2**	**+1.6**
KURBB	**Kurchatov Arra** 0.4nm,0.5s,baz=102,slow=8.9,SNR=4.3 0.4nm,0.5s	**43.56**	**315**	P	**P**	**22 43 09.9**	**+2.2**
FITZ	**Fitzroy Crossi** 2.4nm,0.9s,baz=349,slow=10,SNR=1.9 2.4nm,0.9s	**45.85**	**183**	P	**P**	**22 43 25.3**	**-0.9**
WRA	**Warramunga Arr** 0.5nm,0.7s,baz=349,slow=7.4,SNR=2.4 0.5nm,0.7s	**47.99**	**172**	P	**P**	**22 43 41.3**	**-1.8**

SGS 30 22:38:16.7, 25.18N×37.98E, h42km, MI0.6, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LNY01	**LNY01**	**0.04**	**337**	P	Pn	22 38 23.0	-0.5
LNY01				S	Sn	22 38 27.8	-0.5
LNY01	**LNY01**	**0.04**	**337**	P	Pn	22 38 23.0	-0.5
LNY01				S	Sn	22 38 27.8	-0.5
LNYS	**LNYS**	**0.10**	**198**	P	Pn	22 38 23.3	-0.5
LNYS				S	Sn	22 38 28.1	-0.5
LNYS	**LNYS**	**0.10**	**198**	P	Pn	22 38 23.2	-0.5
LNYS				S	Sn	22 38 28.1	-0.5
LNY10	**LNY10**	**0.14**	**310**	P	Pn	22 38 23.5	-0.4
LNY10				S	Sn	22 38 28.5	-0.5
LNY10	**LNY10**	**0.14**	**310**	P	Pn	22 38 23.4	-0.5
LNY10				S	Sn	22 38 28.3	-0.6
LNY17	**LNY17**	**0.17**	**291**	P	Pn	22 38 23.6	-0.5
LNY08	**LNY08**	**0.19**	**219**	P	Pn	22 38 23.6	-0.7
LNY08				S	Sn	22 38 29.0	-0.5
LNY14	**LNY14**	**0.21**	**291**	P	Pn	22 38 23.9	-0.5
LNY12	**LNY12**	**0.21**	**296**	P	Pn	22 38 23.9	-0.5
LNY12	**LNY12**	**0.21**	**296**	P	Pn	22 38 23.9	-0.5
LNY03	**LNY03**	**0.23**	**331**	P	Pn	22 38 24.1	-0.5
LNY11	**LNY11**	**0.23**	**306**	P	Pn	22 38 24.2	-0.4
LNY13	**LNY13**	**0.31**	**269**	P	Pn	22 38 24.9	-0.4
LNY13	**LNY13**	**0.31**	**269**	P	Pn	22 38 24.9	-0.4
MURBA	**Al Muraba'a**	**0.34**	**47**	P	Pn	22 38 25.0	-0.6
TRAS	**Al Qrash**	**0.55**	**103**	P	Pn	22 38 27.5	-0.6
FGALY	**Al Ais**	**0.56**	**146**	P	Pn	22 38 27.6	-0.8

IDC ***30*** *22:43:53.6±0.8, 0.67S×127.60E, h0km, mb4.0/9, mbtmp4.0/12, ML3.5/3, MS2.9/3, Error ellipse: s-maj=18.6km s-min=15.0km az=36.0*
DJA ***30*** *22:43:57.7±0.3, 1.5S×12.8E±°, h10km, M4.2/6, mB4.8/3, mB4.8/3, mb4.4/6, mb4.5/5, MLv4.0/6, MLv4.0/6, Mw(mB)4.0/3, Mw(mB)4.0/3*

ISC 30 22:43:59.4±0.7, 0.70S±0.08×127.69E±0.07, h41km, n19, σ1§18/17, mb4.0/8, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.50**	**347**	P	**Pn**	**22 44 22.3**	**-1.4**
TNTI				AML	AML		
TNTI				AML	AML		
SANI	**Sanana**	**2.17**	**232**	P	**Pn**	**22 44 33.3**	**+0.3**
GAMI	**Galela, Maluku**	**2.52**	**2**	P	Pn	22 44 43.3	+5.4
NLAI	**Namlea**	**2.59**	**193**	P	**Pn**	**22 44 39.9**	**+1.1**
NLAI				AML	AML		
NLAI				AML	AML		
SIJI	**Sorong** 2.9nm,0.3s,baz=283,slow=24,SNR=8.0	**3.58**	**93**	Pn	**Pn**	**22 44 52.3**	**-0.1**
SIJI	2.3nm,0.3s,baz=235,slow=23,SNR=1.8			Sn	**Sn**	**22 45 34.5**	**+1.0**
SIJI	comp=Z,136nm,18.0s,baz=150,slow=43 7.1nm,0.3s			LR	LR	22 46 30.3	
SIJI				AML	AML		
KDI	**Kendari** 19nm,0.8s	**6.01**	**237**	P	**Pn**	**22 45 29.2**	**+3.3**
KAPI	**Kappang** 0.8nm,0.3s,baz=83,slow=24,SNR=1.0 2.4nm,0.3s	**9.01**	**241**	Pn	**Pn**	**22 46 06.4**	**-0.6**
KAPI				AML	AML		
BATI	**Baumata** comp=Z,115nm,21.7s,baz=32,slow=38	**10.26**	**203**	LR	LR	22 50 19.3	
FITZ	**Fitzroy Crossi** 0.1nm,0.3s,baz=82,slow=8.3,SNR=3.2	**17.41**	**187**	P	**P**	**22 47 59.3**	**-0.9**
FITZ	comp=Z,35nm,19.9s,baz=56,slow=41 3.5nm,1.0s			LR	LR	22 55 41.3	
FITZ				AML	AML		
WRA	**Warramunga Arr** 3.1nm,1.2s,baz=339,slow=12,SNR=8.0 3.1nm,1.2s	**20.20**	**162**	P	**P**	**22 48 30.1**	**-0.8**
ASAR	**Alice Springs** 4.5nm,0.8s,baz=346,slow=12,SNR=24 4.5nm,0.8s	**23.61**	**166**	P	**P**	**22 49 06.9**	**+0.1**
LZDM	**Lanzhou Array** comp=Z,669nm,20.6s,baz=80,slow=38	**42.77**	**331**	LR	LR	23 11 00.9	
HILR	**Hailar Array B** 1.4nm,0.5s,baz=170,slow=8.8,SNR=1.8 1.4nm,0.5s	**50.52**	**353**	P	**P**	**22 52 52.8**	**-0.7**
SONM	**Songino Array** 0.4nm,0.6s,baz=156,slow=9.1,SNR=3.8 0.4nm,0.6s	**51.77**	**342**	P	**P**	**22 53 02.5**	**-0.6**
PETK	**Petropavlovsk-** 3.5nm,0.9s,baz=228,slow=8.1,SNR=2.5 3.5nm,0.9s	**59.18**	**21**	P	**P**	**22 53 57.1**	**+1.1**
MKAR	**Makanchi Array** 0.7nm,0.6s,baz=119,slow=8.2,SNR=8.0 0.7nm,0.6s	**61.73**	**326**	P	**P**	**22 54 13.7**	**0.0**
KURBB	**Kurchatov Arra** 1.0nm,0.8s,baz=129,slow=6.2,SNR=8.0 1.0nm,0.8s	**65.97**	**328**	P	**P**	**22 54 41.0**	**-0.4**
BVAR	**Borovoye Array** 0.9nm,0.7s,baz=112,slow=6.4,SNR=1.5 0.9nm,0.7s	**71.54**	**328**	P	**P**	**22 55 15.9**	**-0.2**
NRIK	**Noril'sk** 2.5nm,0.6s,baz=146,slow=7.3,SNR=4.3 2.5nm,0.6s	**74.93**	**346**	P	**P**	**22 55 35.3**	**-0.4**

SKHL ***30*** *22:54:32.7±0.3, 48.10N×140.80E, h613km±2km, mb6.9/19, mbv6.8/6, ms6.5/3, msh7.1/10, msha7.1/18*
MOS ***30*** *22:54:33.8±0.8, 48.21N×140.86E, h594km, mb6.2/72, MS5.3/5, Error ellipse: s-maj=6.5km s-min=4.0km az=111.5 Broadband fault plane solution: P waves. NP1:ϕ_s179.00000°,δ35.00000°,λ-150.00000°. NP2: ϕ_s63.00000°,δ73.00000°,λ-59.00000°. Principal axes: T Plg22.0000°, Azm130.0000°; N Plg29.0000°, Azm233.0000°; P Plg52.0000°, Azm9.0000°;*
MOS Fault plane solution: P-wave C25, D62 . Felt (III) at Sinegorsk, Troickoe, Tomari.
JMA ***30*** *22:54:33.0±0.3, 48°N±2°×14°1E±°, h619km, MD6.7/39, MW6.4/39, SOUTH SAKHALIN*
JMA Felt III J1 at SOUTH SAKHALIN .
NIED ***30*** *22:54:33.0, 48.10N×141.18E, h619km, MW6.4, Moment Tensor Solution. s3 Moment tensor: Scale 10^{18}Nm; M_{rr}-3.14; $M_{\theta\theta}$2.09; $M_{\phi\phi}$1.05; $M_{r\theta}$-2.33; $M_{\theta\phi}$2.26; $M_{\phi r}$0.32; Fault plane solution: $M_0$4.28000×10^{18} NP1: ϕ_s208.00000°,δ38.00000°,λ-131.00000°. NP2: ϕ_s75.00000°,δ62.00000°,λ-63.00000°.*
NEIC ***30*** *22:54:34.6, 48.26N×140.81E, h586km*
GFZ ***30*** *22:54:34.9±0.2, 48°N±1.1°×14°1E±°, h585km±3km, M6.0/204, mB6.3/183, mb6.2/204, Mw(mB)6.0/183, MwMwp6.0/133, Mwp6.0/133*
NEIC ***30*** *22:54:34.6±1.9, 48.25N±0.05×140.8E±0.1, h589km±1km, mb6.3/893, Mwb6.5/226, Mww6.4/60, Error ellipse: s-maj=13.2km s-min=6.2km az=242.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}-4.28; $M_{\theta\theta}$1.06; $M_{\phi\phi}$3.23; $M_{r\theta}$-4.22; $M_{\theta\phi}$2.61; $M_{\phi r}$-0.86; Fault plane solution: $M_0$6.35000×10^{18} NP1:ϕ_s190.95000°, δ32.85000°,λ-134.55000°. NP2:ϕ_s60.47000°,δ67.26000°, λ-65.63000°. Principal axes: T 6.0123, Plg19.0000°, Azm133.0000°; N 0.6202, Plg22.0000°, Azm231.0000°; P -6.6325, Plg60.0000°, Azm6.0000°;*
BJI ***30*** *22:54:34.9, 48.23N×140.81E, h600km, mB6.0/38, mb6.5/92*
NEIC ***30*** *22:54:34.6, 48.26N×140.81E, h588km*
GFZ ***30*** *22:54:34.8, 48.25N×140.79E, h593km, Mw6.4/200, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}-2.35; $M_{\theta\theta}$0.23; $M_{\phi\phi}$2.11; $M_{r\theta}$-3.01; $M_{\theta\phi}$2.10; $M_{\phi r}$-0.54; Fault plane solution: $M_0$4.33361×10^{18} NP1:*
ϕ_s183.28129°,δ35.59457°,λ-145.55912°. NP2: ϕ_s64.13585°,δ70.78103°,λ-59.44596°. Principal axes: T 4.2451, Plg20.0124°, Azm131.6437°; N 0.1719, Plg28.6867°, Azm233.1392°; P -4.4170, Plg53.8770°, Azm11.7070°;
IDC ***30*** *22:54:35.0±0.3, 48.27N×140.82E, h592km±3km, mb5.6/35, mbtmp6.6/46 Error ellipse: s-maj=4.9km s-min=4.8km az=39.0*
PTWC ***30*** *22:54:35, 48.30N×140.90E, h596km, Mwp6.2/28*
GCMT ***30*** *22:54:37.6±0.1, 48.30N±0.01×140.61E±0.01, h600km, MW6.4/162, Moment Tensor Solution. s162,c380; s140,c212; Duration: 3s9 Moment tensor: Scale 10^{18}Nm; M_{rr}-3.04±.03; $M_{\theta\theta}$0.66±.04; $M_{\phi\phi}$2.38±.04; $M_{r\theta}$-3.52±.04; $M_{\theta\phi}$2.44±.04; $M_{\phi r}$-0.71±.04; Best double couple: $M_0$5.14800×10^{18} NP1:ϕ_s188.00000°,δ34.00000°, λ-141.00000°. NP2:ϕ_s64.00000°,δ69.00000°, λ-63.00000°. Principal axes: T 5.0670, Plg20.0000°, Azm134.0000°; N 0.1640, Plg25.0000°, Azm234.0000°; P -5.2280, Plg57.0000°, Azm10.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s. Triangular moment-rate function*
BGR ***30*** *22:54:38.3, 49.20N×140.74E, h576km±5km, mb6.8, mB_BB7.1*
NEIC ***30*** *22:54:41.9, 48.26N×140.81E, h600km, Moment Tensor Solution. Duration: 7s9 Moment tensor: Scale 10^{18}Nm; M_{rr}-2.52; $M_{\theta\theta}$0.38; $M_{\phi\phi}$2.14; $M_{r\theta}$-3.44; $M_{\theta\phi}$ 1.74; $M_{\phi r}$-0.76; Fault plane solution: $M_0$4.58000×10^{18} NP1: ϕ_s186.23000°,δ30.30000°,λ-143.08000°. NP2: ϕ_s63.26000°,δ72.36000°,λ-64.96000°. Principal axes: T 4.2942, Plg23.0000°, Azm134.0000°; N 0.5275, Plg24.0000°, Azm235.0000°; P -4.8216, Plg56.0000°, Azm5.0000°;*

ISC 30 22:54:35.0±0.2, 48.23N±0.02×140.82E±0.02, h594km±1km, h593km:pP-P, n2481, σ1§34/2798, mb6.3/893, 138C-342D, Primorye

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UGL	**Uglegorsk**	**1.19**	**44**	⇓*i* P	**P**	**22 55 47.2**	**+1.4**
UGL				*e*S	**S**	**22 56 43.4**	**-0.6**
UGL	comp=Z,11μm,0.6s			pmax	pmax		
UGL	comp=Z,118μm,4.2s			pmax	pmax		
UGL	comp=E,232μm,2.2s			smax	smax		
UGL	comp=N,690μm,4.9s			smax	smax		
UGL	**Uglegorsk**	**1.19**	**44**	*i* P	**P**	**22 55 47.2**	**+1.4**
UGL	comp=N,72μm,2.0s			AMB	AMB	22 55 48.8	
UGL	comp=N,15μm,0.7s			AMB	AMB	22 55 49.6	
UGL				*e*S	**S**	**22 56 45.3**	**+1.3**
UGL	comp=N,690μm,4.0s			A	A	22 56 47.1	
UGL	comp=N,232μm,4.0s			A	A	22 56 47.1	
UGL	comp=N,33μm,1.0s			A	A	22 56 47.2	
UGL	comp=N,38μm,1.0s			A	A	22 56 47.2	
KHLM	**Kholmsk**	**1.44**	**144**	*e*P	**P**	**22 55 47.5**	**+0.7**
KHLM	comp=N,258μm,3.0s			AMB	AMB	22 55 49.0	
KHLM	comp=N,69μm,0.9s			AMB	AMB	22 55 49.1	
KHLM				*e*S	**S**	**22 56 46.3**	**+1.1**
KHLM	comp=N,317μm,4.0s			A	A	22 56 47.9	
KHLM	comp=N,327μm,4.0s			A	A	22 56 47.9	
KHLM	comp=N,41μm,1.0s			A	A	22 56 48.1	
KHLM	comp=N,62μm,1.0s			A	A	22 56 48.1	
YSS	**Yuzhno-Sakhali**	**1.83**	**133**	P	**P**	**22 55 47.9**	**-0.2**
YSS	**Yuzhno-Sakhali**	**1.83**	**133**	*i* P	**P**	**22 55 48.6**	**+0.5**
YSS				*e*S	**S**	**22 56 47.2**	**-0.4**
YSS	comp=Z,45μm,4.8s			pmax	pmax		
YSS	comp=E,49μm,4.1s			pmax	pmax		
YSS	comp=E,320μm,5.9s			smax	smax		
YSS	comp=N,49μm,1.0s			smax	smax		
YSS	comp=E,59μm,0.9s			smax	smax		
YSS	**Yuzhno-Sakhali**	**1.83**	**133**		**P**	**22 55 48.3**	**+0.3**
YSS	**Yuzhno-Sakhali**	**1.83**	**133**	P	**P**	**22 55 48.3**	**+0.3**
YSS	**Yuzhno-Sakhali**	**1.83**	**133**	⇓P	**P**	**22 55 48.5**	**+0.4**
YSS	**Yuzhno-Sakhali**	**1.83**	**133**	*i* P	**P**	**22 55 48.4**	**+0.3**
YSS				AMB	AMB	22 55 50.0	
YSS	comp=E,272μm,2.0s			AMB	AMB	22 55 50.2	
YSS	comp=E,136μm,0.9s			*e*S	**S**	**22 56 47.0**	**-0.6**
YSS				A	A	22 56 49.1	
YSS	comp=E,223μm,3.0s			A	A	22 56 49.1	
YSS	comp=E,261μm,3.0s			A	A	22 56 49.3	
YSS	comp=E,47μm,1.0s			A	A	22 56 49.3	
YSS	comp=E,49μm,1.0s			A	A	22 56 50.4	
YSS	**Yuzhno-Sakhali**	**1.83**	**133**	P	**P**	**22 55 48.6**	**+0.5**
KRS4	**Mayak Korsakov**	**2.11**	**139**	*e*P	**P**	**22 55 49.4**	**+0.2**
KRS4	comp=E,208μm,2.0s			AMB	AMB	22 55 50.6	
KRS4	comp=E,87μm,0.8s			AMB	AMB	22 55 50.8	
KRS4				*e*S	**S**	**22 56 49.3**	**-0.3**
KRS4	comp=E,80μm,0.8s			A	A	22 56 50.0	
KRS4	comp=E,116μm,0.8s			A	A	22 56 50.0	
KRS4	comp=E,191μm,3.0s			A	A	22 56 50.4	
KRS4	comp=E,433μm,3.0s			A	A	22 56 50.4	
JRBN	**Rebuntou**	**2.81**	**176**	⇓*i* P	**P**	**22 55 52.2**	**-0.4**
JRBN	comp=N,175nm,2.7s,comp=E,271nm,2.6s			A	A	22 55 52.2	
JRBN				⇓S	**S**	**22 56 54.9**	**-0.9**
TYV	**Tymovskoe**	**2.90**	**24**	*e*P	**P**	**22 55 55.0**	**+2.2**
TYV				*e*S	**S**	**22 56 58.4**	**+1.7**
TYV	comp=Z,7μm,0.6s			pmax	pmax		
TYV	comp=Z,21μm,1.9s			pmax	pmax		
TYV	comp=N,13μm,1.2s			smax	smax		
TYV	comp=E,11μm,1.2s			smax	smax		
TYV	comp=N,417μm,4.5s			smax	smax		
TYV	comp=E,136μm,4.5s			smax	smax		
TYV	**Tymovskoe**	**2.90**	**24**	*e*P	**P**	**22 55 54.0**	**+1.2**
TYV	comp=E,7μm,0.6s			AMB	AMB	22 55 56.2	
TYV	comp=E,21μm,2.0s			AMB	AMB	22 55 56.4	
TYV				*e*S	**S**	**22 56 59.7**	**+3.0**
TYV	comp=E,13μm,1.2s			A	A	22 57 00.5	
TYV	comp=E,11μm,1.2s			A	A	22 57 00.5	
TYV	comp=E,446μm,5.0s			A	A	22 57 00.6	
TYV	comp=E,136μm,5.0s			A	A	22 57 00.6	
JWK2	**Keihoku**	**3.01**	**165**	*i* P	**P**	**22 55 53.3**	**-0.4**
JWK2	comp=N,392nm,3.0s,comp=E,316nm,2.5s			A	A	22 55 53.3	
JWK2				S	**S**	**22 56 57.0**	**-0.8**
JRR	**Rishiri** comp=N,746nm,3.4s,comp=E,746nm,2.5s	**3.11**	**174**	A	A	22 55 53.9	
JSE	**Soyaes**	**3.49**	**159**	⇓*i* P	**P**	**22 55 55.5**	**-1.2**
JSE	comp=N,171nm,1.3s,comp=E,530nm,2.9s			A	A	22 55 55.5	

JSE ⇓S **S** **22 57 00.1 -3.0**
JYG Yagishiri 3.83 173 A A 22 55 58.1
comp=N,221nm,3.0s,comp=E,316nm,2.4s
GRNR Gornyy 3.83 313 ⇑*i*P **P** **22 56 00.0 +1.3**
GRNR *e*S **S** **22 57 04.6 -2.7**
GRNR pmax pmax
comp=E,7μm,0.6s
GRNR pmax pmax
comp=N,4μm,0.8s
GRNR pmax pmax
comp=Z,20μm,1.0s
GRNR smax smax
comp=E,1μm,1.1s
GRNR MLR MLR
comp=N,12μm,10.0s
GRNR Gornyy 3.83 313 *e*P **P** **22 55 59.8 +1.1**
GRNR AMB AMB 22 56 00.4
comp=N,18μm,0.5s
GRNR *e*S **S** **22 57 08.3 +1.0**
GRNR A A 22 57 10.8
comp=N,19μm,1.1s
GRNR A A 22 57 10.8
comp=N,9μm,1.1s
GRNR AMS AMS 22 59 28.0
comp=N,12μm,10.0s
ASAJ Asahikawa 4.29 163 P **P** **22 56 00.8 -1.4**
comp=N,9μm,0.8s,baz=296,slow=8.2,SNR=938
ASAJ S **S** **22 57 10.8 -2.5**
comp=N,6μm,0.9s,baz=43,slow=19,SNR=6.6
ASAJ Asahikawa 4.29 163 A A 22 56 00.9
comp=N,109nm,3.8s,comp=E,302nm,3.4s
TEY Ternei 4.31 224 ⇑*i*P **P** **22 55 58.6 -3.7**
TEY pmax pmax
comp=N,2μm,0.6s
TEY pmax pmax
comp=Z,6μm,0.6s
TEY pmax pmax
comp=Z,68μm,2.6s
TEY pmax pmax
comp=E,3μm,0.5s
TEY pmax pmax
comp=N,22μm,2.6s
TEY pmax pmax
comp=E,24μm,2.6s
TEY Ternei 4.31 224 *e*P **P** **22 55 58.0 -4.3**
TEY AMB AMB 22 55 59.9
comp=E,68μm,3.0s
TEY AMB AMB 22 56 00.2
comp=E,9μm,0.9s
TEY *e*S **S** **22 57 08.5 -5.0**
TEY A A 22 57 09.6
comp=E,77μm,4.0s
TEY A A 22 57 09.6
comp=E,74μm,4.0s
TEY A A 22 57 12.5
comp=E,10μm,1.3s
TEY A A 22 57 12.5
comp=E,5μm,1.3s
JHR Hokuryu 4.53 172 ⇓P **P** **22 56 03.1 -0.8**
JHR A A 22 56 03.1
comp=N,285nm,4.1s,comp=E,166nm,5.0s
JHR ⇓*e*S **S** **22 57 15.1 -1.3**
JKK2 Kamakawa 2 4.56 162 ⇓*i*P **P** **22 56 02.7 -1.4**
JKK2 A A 22 56 02.7
comp=N,99nm,6.0s,comp=E,222nm,4.8s
JKK2 ⇓*e*S **S** **22 57 14.3 -2.6**
JMP Maruseppu 4.58 156 A A 22 56 02.8
comp=N,97nm,4.7s,comp=E,177nm,3.3s
JTKR Abashiri--Toko 4.77 152 ⇓*i*P **P** **22 56 04.2 -1.5**
JTKR A A 22 56 04.2
comp=N,77nm,3.1s,comp=E,208nm,4.1s
JTKR ⇓*e*S **S** **22 57 16.6 -3.1**
JAB Ashibetsu 4.83 168 A A 22 56 04.8
comp=N,98nm,4.1s,comp=E,156nm,4.6s
JSK Shakotan 4.88 183 A A 22 56 05.7
comp=N,80nm,5.1s,comp=E,183nm,2.8s
NKL Nikolayevsk 4.93 359 *e*P **P** **22 56 06.0 -0.6**
NKL *e*S **S** **22 57 20.9 -1.0**
NKL pmax pmax
comp=E,28μm,0.6s
NKL pmax pmax
comp=N,25μm,1.0s
NKL pmax pmax
comp=Z,113μm,0.9s
NKL smax smax
comp=E,136μm,2.8s
NKL smax smax
comp=N,65μm,2.6s
NKL MLR MLR
comp=E,35μm,7.0s
NKL MLR MLR
comp=N,21μm,8.0s
NKL MLR MLR
comp=Z,42μm,7.0s
NKL Nikolayevsk 4.93 359 *e*P **P** **22 56 07.9 +1.3**
NKL AMB AMB 22 56 10.0
comp=Z,66μm,2.0s
NKL AMB AMB 22 56 10.2
comp=Z,34μm,0.8s
NKL *e*S **S** **22 57 23.6 +1.7**
NKL A A 22 57 24.7
comp=Z,6μm,1.2s
NKL A A 22 57 24.7
comp=Z,12μm,1.2s
NKL A A 22 57 25.9
comp=Z,69μm,4.0s
NKL A A 22 57 25.9
comp=Z,220μm,4.0s
NKL AMS AMS 22 58 09.0
comp=Z,21μm,8.0s
NKL AMS AMS 22 58 09.0
comp=Z,35μm,8.0s
NKL AMS AMS 22 58 09.0
comp=Z,42μm,8.0s
JISS Ishikarishitsu 4.97 175 A A 22 56 06.1
comp=N,220nm,4.7s,comp=E,479nm,2.0s
RUSJ Misakicho 5.15 142 ⇓*i*P **P** **22 56 07.6 -1.1**
RUSJ *i* S **S** **22 57 23.4 -1.8**
JFR Furan 5.21 166 A A 22 56 07.8
comp=N,42nm,1.9s,comp=E,112nm,2.9s
JRA Rausu 5.23 143 *i* P **P** **22 56 08.1 -1.3**
JRA A A 22 56 08.1
comp=N,77nm,1.6s,comp=E,240nm,2.4s
JRA S **S** **22 57 23.5 -2.9**
JNSB Nemuroshibetsu 5.32 145 A A 22 56 08.1
comp=N,357nm,2.4s,comp=E,370nm,2.3s
JAR Ashorobuto 5.35 156 ⇓*i*P **P** **22 56 08.9 -1.5**
JAR A A 22 56 08.9
comp=N,115nm,1.6s,comp=E,222nm,2.3s
JAR ⇓*e*S **S** **22 57 26.1 -2.1**
JNK Nakash 5.38 148 A A 22 56 08.6
comp=N,66nm,2.7s,comp=E,152nm,2.4s
JEW Eniwo 5.41 175 ⇓*i*P **P** **22 56 09.8 -1.1**
JEW A A 22 56 09.8
comp=N,238nm,2.1s,comp=E,301nm,2.9s
JEW ⇓S **S** **22 57 26.2 -2.9**
YUK Yuzh-Kuril'sk 5.47 138 *de*P **P** **22 56 09.4 -1.9**
YUK pmax pmax
comp=Z,2.0nm,1.5s
YUK Yuzh-Kuril'sk 5.47 138 *e*P **P** **22 56 10.1 -1.2**
YUK AMB AMB 22 56 10.8
comp=Z,9μm,0.5s
YUK *e*S **S** **22 57 27.3 -2.7**
YUK A A 22 57 34.3
comp=Z,58μm,1.0s
YUK A A 22 57 34.3
comp=Z,49μm,1.0s
OKH Okha 5.50 13 *c i*P P 22 56 02.6 -8.6
OKH *i* S **S** **22 57 22.1 -8.1**
OKH pmax pmax
comp=Z,13μm,13.9s
OKH smax smax
comp=N,37μm,10.6s
OKH smax smax
comp=E,98μm,12.6s
OKH Okha 5.50 13 *i* P P 22 56 02.6 -8.6
OKH AMB AMB 22 56 11.3
comp=E,13μm,14.0s
OKH *i* S **S** **22 57 22.1 -8.1**
OKH A A 22 57 31.1
comp=E,37μm,12.0s
OKH A A 22 57 31.1
comp=E,98μm,12.0s
JBT2 Biratori 2 5.56 168 A A 22 56 10.5
comp=N,78nm,1.3s,comp=E,178nm,1.8s
JSH Shimam 5.61 186 A A 22 56 11.5
comp=N,60nm,4.5s,comp=E,93nm,2.6s

JIAM Iburiatsuma 5.66 172 A A 22 56 11.4
comp=N,172nm,2.9s,comp=E,232nm,5.9s
KUR Kuril'sk 5.70 119 *e*P **P** **22 56 11.1 -2.1**
KUR *e*S **S** **22 57 29.4 -4.1**
KUR pmax pmax
comp=Z,4μm,0.7s
KUR pmax pmax
comp=E,338nm,0.6s
KUR pmax pmax
comp=N,543nm,0.8s
KUR pmax pmax
comp=Z,17μm,1.8s
KUR smax smax
comp=N,5μm,1.3s
KUR smax smax
comp=E,2μm,1.0s
KUR smax smax
comp=N,159μm,8.2s
KUR smax smax
comp=E,69μm,8.6s
KUR MLR MLR
comp=Z,38μm,6.0s
KUR Kuril'sk 5.70 119 *e*P **P** **22 56 12.6 -0.6**
KUR AMB AMB 22 56 13.1
comp=Z,17μm,1.0s
KUR AMB AMB 22 56 13.3
comp=Z,6μm,0.8s
KUR *e*S **S** **22 57 29.6 -3.9**
KUR A A 22 57 31.7
comp=Z,140μm,4.0s
KUR A A 22 57 31.7
comp=Z,100μm,4.0s
KUR A A 22 57 31.9
comp=Z,19μm,1.0s
KUR A A 22 57 31.9
comp=Z,6μm,1.0s
KUR AMS AMS 22 58 25.0
comp=Z,38μm,6.0s
JOB Onbets 5.73 157 A A 22 56 11.6
comp=N,207nm,3.5s,comp=E,199nm,2.6s
JNB Noboribetsu 5.76 178 A A 22 56 12.5
comp=N,72nm,4.7s,comp=E,123nm,2.9s
JHST Hiyamasetana 5.84 187 A A 22 56 13.5
comp=N,121nm,2.8s,comp=E,205nm,1.9s
JCH Churui 5.89 161 *i* P **P** **22 56 12.1 -2.9**
JCH A A 22 56 12.1
comp=N,75nm,2.2s,comp=E,120nm,2.4s
JCH S **S** **22 57 29.8 -6.8**
JAK Akkeshi 5.90 151 P **P** **22 56 12.1 -2.8**
JAK A A 22 56 12.1
comp=N,82nm,4.7s,comp=E,153nm,3.9s
JAK S **S** **22 57 31.0 -5.6**
AKK Akkeshi 5.93 150 *e*P **P** **22 56 12.5 -2.7**
JSHD Hidakashinhida 5.93 168 A A 22 56 13.6
comp=N,186nm,2.8s,comp=E,219nm,1.8s
NMR Nemuro--Hokkai 5.95 143 ⇓*i*P **P** **22 56 11.5 -3.9**
NMR *i* S S 22 57 28.3 -9.1
NMR Nemuro--Hokkai 5.95 143 *e*P **P** **22 56 12.5 -2.9**
NMR *e*S **S** **22 57 29.6 -7.8**
NEM2 Nemuro 2 5.96 143 *i* P **P** **22 56 11.8 -3.6**
NEM2 A A 22 56 11.8
comp=N,49nm,2.6s,comp=E,65nm,5.7s
NEM2 S **S** **22 57 29.5 -8.1**
JKHN Kushirohamanak 5.98 148 A A 22 56 13.4
comp=N,87nm,3.3s,comp=E,114nm,4.9s
KLR Kul'dur 6.08 283 P **P** **22 56 17.0 +0.6**
comp=E,14μm,0.8s
KLR PKiKP **PKiKP** **23 09 59.3 -0.7**
comp=E,13nm,0.8s,baz=0.0,slow=5.1,SNR=6.5
KLR Kul'dur 6.08 283 *e*P **P** **22 56 17.2 +0.8**
JNBK Urakawa-nobuka 6.10 166 P **P** **22 56 15.2 -1.6**
JNBK A A 22 56 15.2
comp=N,198nm,3.9s,comp=E,478nm,1.7s
JNBK *e*S **S** **22 57 36.4 -3.5**
JYM2 Yakumo 2 6.12 183 A A 22 56 15.6
comp=N,74nm,3.1s,comp=E,75nm,1.8s
JTHR Tokachihiroo 6.19 163 A A 22 56 15.5
comp=N,74nm,2.6s,comp=E,75nm,3.3s
JOSM Okushiri--Mats 6.22 189 ⇓*i*P **P** **22 56 16.3 -1.5**
JOSM A A 22 56 16.3
comp=N,89nm,2.6s,comp=E,143nm,2.3s
JOSM ⇓S **S** **22 57 38.3 -3.4**
JKB Kayabe 6.34 179 A A 22 56 17.3
comp=N,113nm,5.6s,comp=E,141nm,3.0s
JEM Erimo 6.43 164 P **P** **22 56 18.8 -0.8**
JEM Erimo 6.43 164 A A 22 56 17.6
comp=N,239nm,3.3s,comp=E,277nm,4.3s
ERM Erimo 6.43 164 P **P** **22 56 18.8 -0.8**
ERM Erimo 6.43 164 *de*P **P** **22 56 17.9 -1.7**
ERM Erimo 6.43 164 P **P** **22 56 17.5 -2.1**
ERM Erimo 6.43 164 P **P** **22 56 17.7 -1.9**
ERM Erimo 6.43 164 P **P** **22 56 18.1 -1.6**
comp=Z,387μmcomp=Z,43μm,1.0s
JOT Ohata 6.85 179 P **P** **22 56 21.4 -2.0**
JOT S **S** **22 57 46.9 -5.2**
EKMR Ekimchan 6.96 317 *e*P **P** **22 56 24.7 +0.5**
EKMR AMB AMB 22 56 25.7
comp=Z,17μm,1.0s
EKMR *e*S **S** **22 57 53.8 0.0**
EKMR A A 22 57 56.7
comp=Z,3μm,1.0s
EKMR A A 22 57 56.7
comp=Z,3μm,1.0s
USA0B Ussuriysk Arra 7.33 240 *de*P **P** **22 56 27.2 -0.5**
USA0B Ussuriysk Arra 7.33 240 P **P** **22 56 26.6 -1.2**
USRK Ussuriysk Ar. 7.33 240 P **P** **22 56 27.1 -0.7**
comp=Z,10μm,0.8s,baz=55,slow=9.7,SNR=1539
USRK S **S** **22 57 57.6 -2.5**
comp=Z,300nm,0.7s,baz=52,slow=15,SNR=2.8
USRK ScP **ScP** **23 04 35.5 -0.1**
comp=Z,20nm,0.7s,baz=22,slow=0.6,SNR=4.0
USRK PKiKP **PKiKP** **23 10 00.0 -0.4**
comp=Z,3.1nm,0.5s,baz=234,slow=1.3,SNR=5.8
USRK Ussuriysk Ar. 7.33 240 P **P** **22 56 26.3 -1.4**
I45RU USSURIYSK INFR 7.33 240 P **P** **22 56 30.0 +2.2**
baz=59,slow=9.1,SNR=2.9
JTM Tenmabayashi 7.44 179 P **P** **22 56 27.0 -1.9**
JTM Tenmabayashi 7.44 179 P **P** **22 56 27.3 -1.6**
comp=Z,277μmcomp=Z,22μm,1.3s,comp=Z,102μm
VLA Vladivostok 8.07 234 *ce*P **P** **22 56 33.9 -0.9**
VLA pmax pmax
comp=Z,9μm,0.7s
VLA Vladivostok 8.07 234 *e*P **P** **22 56 33.9 -0.9**
MDJ Mudanjiang 8.55 249 P **P** **22 56 38.5 -0.9**
MDJ S **S** **22 58 19.0 -2.4**
MDJ ScP **ScP** **23 04 37.5 +0.6**
MDJ ScS **ScS** **23 08 11.3 +0.4**
MDJ pmax pmax
comp=Z,13μm,0.8s
HEH HeiHe 9.00 288 *e*P **P** **22 56 43.0 -0.6**
HEH S **S** **22 58 27.5 -1.7**
HEH pmax pmax
comp=Z,21μm,0.8s
JMK Ichinoseki 9.28 178 *i* P **P** **22 56 45.2 -1.3**
JMK *e*S **S** **22 58 31.3 -3.2**
BNX BinXian 9.50 260 ⇑P **P** **22 56 47.5 -1.1**
BNX S **S** **22 58 32.3 -6.0**
BNX ScS **ScS** **23 08 11.8 -0.6**
BNX pmax pmax
comp=Z,8μm,2.3s
ZEA Zeya 10.17 308 *e*P **P** **22 56 54.6 -0.5**
ZEA *e*S **S** **22 58 45.2 -5.0**
ZEA pmax pmax
comp=E,3μm,1.0s
ZEA pmax pmax
comp=N,3μm,1.1s
ZEA pmax pmax
comp=Z,9μm,1.1s
ZEA pmax pmax
comp=N,3μm,0.7s
ZEA pmax pmax
comp=E,3μm,0.8s
ZEA pmax pmax
comp=Z,7μm,0.8s
ZEA smax smax
comp=E,46μm,8.1s
ZEA Zeya 10.17 308 *e*P **P** **22 56 54.4 -0.7**
ZEA AMB AMB 22 56 57.2
comp=E,5μm,0.8s
SKR Severo-Kuril's 10.26 70 *e*P **P** **22 56 54.7 -1.3**
SKR *e*S **S** **22 58 47.3 -4.6**
SKR pmax pmax
comp=Z,10μm,6.2s
SKR pmax pmax
comp=Z,4μm,1.1s
SKR MLR MLR
comp=Z,28μm,16.0s
SKR Severo-Kuril's 10.26 70 *e*P **P** **22 56 55.3 -0.7**
SKR AMB AMB 22 56 58.4
comp=Z,3μm,1.1s
SKR *e*S **S** **22 58 48.2 -3.7**
SKR A A 22 58 50.5
comp=Z,2μm,1.2s
SKR AMS AMS 22 59 17.0
comp=Z,28μm,16.0s
PAU Pauzhetka 10.82 67 *e*P **P** **22 57 00.9 -0.7**
PAU AMB AMB 22 57 01.4
comp=Z,2μm,1.3s
PAU *e*S **S** **22 58 58.6 -3.6**
PAU A A 22 59 06.2
comp=Z,3μm,0.9s
PAU A A 22 59 06.2
comp=Z,3μm,0.9s
CN2 Changchun 11.56 253 ⇑*i*P **P** **22 57 07.5 -1.7**
CN2 S **S** **22 59 11.8 -4.2**
CN2 ScS **ScS** **23 08 14.3 -2.1**
CN2 pmax pmax
comp=Z,900nm,0.9s
CN2 pmax pmax
comp=Z,3μm,3.0s
PEA0B Petropavlovsk- 11.77 59 *de*P **P** **22 57 10.5 -0.6**
PEA0B Petropavlovsk- 11.77 59 P **P** **22 57 09.3 -1.8**
PETK Petropavlovsk- 11.77 59 P **P** **22 57 10.0 -1.1**
comp=Z,211nm,0.6s,baz=252,slow=8.2,SNR=113
PETK S **S** **22 59 20.2 +0.7**
comp=Z,316nm,1.1s,baz=286,slow=21,SNR=3.1
PETK ScP **ScP** **23 04 41.2 +0.4**
comp=Z,18nm,0.8s,baz=233,slow=0.5,SNR=4.6
PETK ScS **ScS** **23 08 16.4 -0.2**
comp=Z,14nm,0.9s,baz=356,slow=16,SNR=7.9
PETK PKiKP **PKiKP** **23 10 00.7 -0.5**
comp=Z,13nm,0.8s,baz=55,slow=4.2,SNR=6.4
PETK Petropavlovsk- 11.77 59 P **P** **22 57 09.9 -1.2**
MJB9 Matsu-Tunnel 11.83 190 P **P** **22 57 11.4 -0.7**
MAJO Matsushiro 11.84 190 P **P** **22 57 11.3 -0.8**
MAJO Matsushiro 11.84 190 *de*P **P** **22 57 10.7 -1.4**
MAJO Matsushiro 11.84 190 P **P** **22 57 10.4 -1.7**
MAJO Matsushiro 11.84 190 ⇓P **P** **22 57 10.8 -1.4**
MAJO Matsushiro 11.84 190 P **P** **22 57 10.7 -1.4**
MAJO S **S** **22 59 20.2 -1.0**
MAJO Matsushiro 11.84 190 P **P** **22 57 10.9 -1.2**
comp=Z,34μmcomp=Z,4μm,0.7s,comp=Z,16μm
MJAR Matsushiro Arr 11.84 190 P **P** **22 57 11.3 -0.8**
comp=Z,2μm,0.7s,baz=354,slow=13,SNR=1671
MJAR S **S** **22 59 22.2 +0.9**
comp=Z,648nm,1.0s,baz=354,slow=19,SNR=14
MJAR ScP **ScP** **23 04 41.8 +0.5**
comp=Z,66nm,0.9s,baz=61,slow=0.7,SNR=7.3
MJAR ScS **ScS** **23 08 17.4 0.0**
comp=Z,7.0nm,1.0s,baz=56,slow=6.6,SNR=5.8
MJAR PKiKP **PKiKP** **23 10 00.6 -1.1**
comp=Z,4.5nm,0.8s,baz=189,slow=1.2,SNR=5.1
MJAR Matsushiro Arr 11.84 190 P **P** **22 57 10.1 -2.1**
JRY Ryogami san 12.28 187 *i* P **P** **22 57 15.1 -1.6**
JRY *e*S **S** **22 59 22.4 -7.3**
PET Petropavlovsk 12.29 60 P **P** **22 57 15.8 -0.6**
PET Petropavlovsk 12.29 60 *e*P **P** **22 57 15.4 -1.0**
PET *e*S **S** **22 59 26.3 -2.9**
PET pmax pmax
comp=Z,2μm,2.8s
PET pmax pmax
comp=Z,6μm,2.1s
PET pmax pmax
comp=Z,2μm,1.4s
PET Petropavlovsk 12.29 60 P **P** **22 57 14.8 -1.6**
PET Petropavlovsk 12.29 60 ⇑P **P** **22 57 14.7 -1.6**
PET Petropavlovsk 12.29 60 P **P** **22 57 14.8 -1.6**
comp=Z,21μmcomp=Z,2μm,1.1s
PET Petropavlovsk 12.29 60 *e*P **P** **22 57 15.7 -0.6**
PET AMB AMB 22 57 18.1
comp=Z,1μm,1.0s
PET *e*S **S** **22 59 27.2 -2.0**
PET Petropavlovsk 12.29 60 P **P** **22 57 15.7 -0.6**
comp=Z,22μmcomp=Z,2μm,1.1s
MA2 Magadan 12.77 23 P **P** **22 57 20.3 -0.9**
comp=Z,6μm,0.6s,baz=224,slow=9.0,SNR=2124
MA2 S **S** **22 59 37.2 -0.7**
comp=Z,636nm,0.9s,baz=292,slow=22,SNR=9.4
MA2 Magadan 12.77 23 P **P** **22 57 20.7 -0.4**
MA2 Magadan 12.77 23 S **S** **22 59 37.5 -0.4**
MA2 Magadan 12.77 23 P **P** **22 57 20.5 -0.6**
MA2 Magadan 12.77 23 P **P** **22 57 20.8 -0.4**
MA2 Magadan 12.77 23 ⇑P **P** **22 57 20.6 -0.6**
MA2 Magadan 12.77 23 P **P** **22 57 20.8 -0.4**
comp=Z,23μmcomp=Z,75μmcomp=Z,9μm,0.6s
JGF Kuroka 12.88 193 P **P** **22 57 21.8 -0.9**
JGF Kuroka 12.88 193 S **S** **22 59 40.4 -0.2**
JGF Kuroka 12.88 193 P **P** **22 57 21.0 -1.7**
JGF Kuroka 12.88 193 ⇓P **P** **22 57 21.4 -1.3**
JGF Kuroka 12.88 193 P **P** **22 57 21.6 -1.0**
comp=Z,18μmcomp=Z,1μm,0.9s,comp=Z,9μm
JOD2 Odawara 2 13.02 186 P **P** **22 57 22.0 -2.1**
JOD2 S **S** **22 59 40.2 -2.9**
JOI OKI 13.17 208 P **P** **22 57 25.0 -0.6**
INU Inuyama 13.17 194 P **P** **22 57 24.9 -0.8**
INU Inuyama 13.17 194 S **S** **22 59 46.4 +0.5**
INU Inuyama 13.17 194 P **P** **22 57 23.4 -2.3**
INU Inuyama 13.17 194 ⇓P **P** **22 57 24.0 -1.7**
INU Inuyama 13.17 194 P **P** **22 57 24.3 -1.4**
comp=Z,19μmcomp=Z,2μm,0.8s,comp=Z,7μm
BSO1 Boso 1 13.56 179 P **P** **22 57 29.8 +0.8**
JSG Sagara 13.68 189 P **P** **22 57 31.0 +0.1**
JSG Sagara 13.68 189 P **P** **22 57 30.3 -0.6**
JSG Sagara 13.68 189 ⇓P **P** **22 57 30.1 -0.8**
JSG Sagara 13.68 189 P **P** **22 57 31.4 +0.6**
comp=Z,48μmcomp=Z,4μm,1.3s,comp=Z,12μm
SNY Shenyang 13.76 249 P **P** **22 57 30.0 -1.5**
SNY PcS **PcS** **23 05 43.5 +2.3**
SNY ScS ScS 23 08 18.5 -3.0
SNY pmax pmax
comp=Z,1μm,0.9s
SNY pmax pmax
comp=Z,3μm,9.5s
HILR Hailar Array B 13.92 283 P **P** **22 57 31.5 -1.5**
comp=Z,2μm,0.7s,baz=88,slow=11,SNR=1464
HILR S **S** **22 59 58.4 -0.5**
comp=Z,567nm,0.9s,baz=90,slow=16,SNR=4.3
HILR PcP **PcP** **23 02 08.0 +1.5**
comp=Z,32nm,0.4s,baz=100,slow=5.0,SNR=2.0
HILR ScP **ScP** **23 04 44.6 +0.2**
comp=Z,100nm,0.8s,baz=87,slow=3.5,SNR=6.4
HIA Hailar 13.94 282 P **P** **22 57 31.2 -2.0**
HIA Hailar 13.94 282 S **S** **22 59 58.8 -0.4**
HIA Hailar 13.94 282 P **P** **22 57 30.8 -2.5**
HIA Hailar 13.94 282 P **P** **22 57 30.8 -2.5**
JIE Ise 14.16 194 P **P** **22 57 34.4 -1.2**
JIE *e*S **S** **23 00 03.9 +0.6**
KS19 Wonju Array Si 14.30 226 P **P** **22 57 36.6 -0.3**
KSRS Korea Array 14.31 226 P **P** **22 57 36.6 -0.3**
comp=Z,1μm,0.7s,baz=36,slow=10,SNR=570
KSRS S **S** **23 00 07.7 +2.0**
comp=Z,70nm,1.0s,baz=48,slow=19,SNR=4.2
KSRS PcP **PcP** **23 02 08.7 +1.5**
comp=Z,60nm,0.9s,baz=32,slow=1.5,SNR=6.4
KSRS ScP **ScP** **23 04 46.0 +0.8**
comp=Z,150nm,0.8s,baz=14,slow=1.3,SNR=37
KSRS PKiKP **PKiKP** **23 10 01.4 -0.9**
comp=Z,4.5nm,0.8s,baz=304,slow=1.1,SNR=5.1
KSAR Wonju Array Be 14.34 226 P **P** **22 57 37.0 -0.2**
KSAR Wonju Array Be 14.34 226 P **P** **22 57 37.0 -0.2**
JHS Saijyo 14.41 206 P **P** **22 57 37.7 -0.2**
JHS *e*S **S** **23 00 09.5 +2.0**
TTO1 TONANKAI O.B.S 14.90 193 P **P** **22 57 43.0 +0.9**
JTNC Tanabenakahech 14.91 197 P **P** **22 57 42.3 -0.3**
INCN Inchon 14.92 229 S **S** **23 00 17.5 +1.5**
INCN Inchon 14.92 229 P **P** **22 57 43.1 +0.5**
INCN S **S** **23 00 18.1 +2.1**
INCN Inchon 14.92 229 P **P** **22 57 42.5 -0.2**
INCN Inchon 14.92 229 P **P** **22 57 43.2 +0.5**
INCN Inchon 14.92 229 ⇓P **P** **22 57 43.0 +0.4**
INCN Inchon 14.92 229 P **P** **22 57 43.2 +0.5**
comp=Z,42μmcomp=Z,5μm,1.1s,comp=Z,9μmcomp=Z,42μm
JHJ Hachijo jima 2 15.11 183 P **P** **22 57 44.5 +0.1**
comp=Z,780nm,0.8s,baz=156,slow=2.6,SNR=87
JHJ S **S** **23 00 18.9 -0.3**
comp=Z,175nm,0.9s,baz=55,slow=23,SNR=5.6
JHJ2 Mitsune 15.12 183 S **S** **23 00 21.0 +1.8**
JHJ2 Mitsune 15.12 183 P **P** **22 57 45.0 +0.5**
JHJ2 Mitsune 15.12 183 ⇑P **P** **22 57 44.5 0.0**

JHJ2 **Mitsune** 15.12 183 P **P** 22 57 45.1 +0.7
comp=Z,122µcomp=Z,10µm,1.1s,comp=Z,47µm
JHJ2 **Mitsune** 15.12 183 P **P** 22 57 44.8 +0.3
YAK **Yakutsk** 15.19 340 P **P** 22 57 43.7 -0.9
comp=Z,10µm,0.6s,baz=145,slow=5.0,SNR=899
YAK S **S** 23 00 18.2 -1.3
comp=Z,5µm,0.8s,baz=317,slow=18,SNR=18
YAK ScS **ScS** 23 08 24.2 -0.3
comp=Z,93nm,0.8s,baz=349,slow=24,SNR=8.9
YAK Yakutsk 15.19 340 *e*P **P** 22 57 43.8 -0.9
YAK *e*S **S** 23 00 19.2 -0.3
YAK pmax pmax
comp=Z,10µm,0.9s
YAK pmax pmax
comp=N,3µm,1.0s
YAK pmax pmax
comp=E,2µm,1.1s
YAK smax smax
comp=E,35µm,1.7s
YAK smax smax
comp=N,26µm,1.6s
YAK Yakutsk 15.19 340 P **P** 22 57 43.8 -0.9
JMN Monobe 15.39 202 P **P** 22 57 47.5 +0.4
JMN Monobe 15.39 202 S **S** 23 00 25.4 +1.6
JMN Monobe 15.39 202 IAmb IAmb 22 57 50.1
comp=Z,3µm,1.2s
JMN Monobe 15.39 202 P **P** 22 57 48.5 +1.4
JMN Monobe 15.39 202 P **P** 22 57 48.5 +1.4
comp=Z,27µmcomp=Z,2µm,1.6s
TJN Taejon 15.44 225 P **P** 22 57 48.5 +1.1
TJN Taejon 15.44 225 S **S** 23 00 26.7 +2.3
TJN Taejon 15.44 225 P **P** 22 57 48.1 +0.7
TJN pmax pmax
comp=Z,12µm,1.3s
TJN Taejon 15.44 225 P **P** 22 57 48.1 +0.7
TJN Taejon 15.44 225 P **P** 22 57 48.3 +0.9
TJN Taejon 15.44 225 P **P** 22 57 48.4 +0.9
comp=Z,79µmcomp=Z,7µm,1.1s,comp=Z,27µmcomp=Z,79µm
SEY Seymchan 16.08 19 P **P** 22 57 53.5 +0.7
comp=Z,6µm,1.0s,baz=212,slow=7.8,SNR=2416
SEY S **S** 23 00 33.6 -0.5
comp=Z,432nm,1.1s,baz=204,slow=19,SNR=8.7
SEY PKiKP **PKiKP** 23 10 01.9 -0.3
comp=Z,13nm,0.9s,baz=162,slow=6.4,SNR=2.6
JTU Tsushima 16.12 216 P **P** 22 57 54.0 +0.3
JTU Tsushima 16.12 216 P **P** 22 57 53.4 -0.4
JTU IAmb IAmb 22 57 56.6
comp=Z,2µm,1.1s
JTU Tsushima 16.12 216 P **P** 22 57 54.6 +0.8
comp=Z,5µmcomp=Z,12µmcomp=Z,1µm,0.9s
JTU Tsushima 16.12 216 P **P** 22 57 54.1 +0.3
JTU S **S** 23 00 37.4 +1.7
DL2 Dalian 16.70 243 ⇑*i*P **P** 22 57 58.8 -0.1
DL2 sP sP 23 00 08.3 -13
DL2 S **S** 23 00 44.0 -1.0
DL2 PcP **PcP** 23 02 12.8 +2.1
DL2 pmax pmax
comp=Z,3µm,1.1s
DL2 pmax pmax
comp=Z,2µm,4.1s
JNU Nakatsue 16.84 210 P **P** 22 58 01.2 +0.8
comp=Z,602nm,0.9s,baz=346,slow=2.1,SNR=174
JNU S **S** 23 00 48.2 +0.6
comp=Z,87nm,1.1s,baz=312,slow=20,SNR=9.9
JNU ScP **ScP** 23 04 50.0 -0.2
comp=Z,47nm,0.9s,baz=44,slow=7.2,SNR=4.1
JNU ScS **ScS** 23 08 30.3 -0.1
comp=Z,8.1nm,0.8s,baz=303,slow=23,SNR=6.2
XLT XiLinHaoTe 17.67 265 *e*P **P** 22 58 08.5 +0.6
XLT S **S** 23 01 00.0 -0.8
XLT PcP **PcP** 23 02 18.0 +5.6
XLT ScP **ScP** 23 04 52.5 +0.6
XLT pmax pmax
comp=Z,5µm,0.6s
XLT pmax pmax
comp=Z,11µm,8.2s
CIT Chita 17.84 293 *e*P **P** 22 58 10.0 +0.8
CIT *e*S **S** 23 01 00.6 -2.7
CIT pmax pmax
comp=Z,13µm,1.7s
CIT Chita 17.84 293 *e*P **P** 22 58 10.0 +0.8
JSU Suzuyama 18.47 209 P **P** 22 58 16.2 +1.0
JSU Suzuyama 18.47 209 S **S** 23 01 14.9 +1.1
JSU Suzuyama 18.47 209 P **P** 22 58 16.1 +1.0
JSU Suzuyama 18.47 209 P **P** 22 58 16.1 +1.0
comp=Z,4µmcomp=Z,171nm,1.0s,comp=Z,4µm
BOD Bodaibo 18.65 311 *e*P **P** 22 58 16.4 0.0
BOD pmax pmax
comp=Z,3µm,0.8s
BOD Bodaibo 18.65 311 *e*P **P** 22 58 16.4 0.0
BJI2 Beijing 19.44 254 P **P** 22 58 24.0 +0.1
BJI2 sP **sP** 23 00 49.0 -3.0
BJI2 S **S** 23 01 28.0 -1.1
BJI2 pmax pmax
comp=Z,2µm,1.0s
BJT Baijiatuao 19.44 254 P **P** 22 58 24.2 +0.3
BJT Baijiatuao 19.44 254 P **P** 22 58 23.8 -0.1
BJT pmax pmax
comp=Z,1µm,0.7s
BJT Baijiatuao 19.44 254 P **P** 22 58 23.8 -0.1
JCJ Chichijima 21.12 177 P **P** 22 58 34.7 -4.5
comp=Z,887nm,0.7s,baz=39,slow=2.2,SNR=30
JCJ S **S** 23 01 57.3 +1.3
comp=Z,158nm,0.5s,baz=230,slow=22,SNR=1.6
JCJ ScP **ScP** 23 04 58.0 -2.1
comp=Z,249nm,0.5s,baz=75,slow=2.2,SNR=3.8
JCJ ScS **ScS** 23 08 43.6 -1.2
comp=Z,268nm,1.1s,baz=264,slow=21,SNR=5.8
JCJ Chichijima 21.12 177 P **P** 22 58 38.4 -0.7
JCJ Chichijima 21.12 177 P **P** 22 58 37.5 -1.6
JCJ Chichijima 21.12 177 P **P** 22 58 38.8 -0.4
JCJ Chichijima 21.12 177 ⇑P **P** 22 58 38.0 -1.2
JCJ Chichijima 21.12 177 P **P** 22 58 38.5 -0.7
comp=Z,27µmcomp=Z,2µm,0.9s,comp=Z,27µm
TIA Tai'an 21.16 244 P **P** 22 58 39.5 +0.1
TIA sP **sP** 23 01 13.3 +2.2
TIA S S 23 02 08.8 +12
TIA PcP **PcP** 23 02 20.0 +1.1
TIA ScS **ScS** 23 08 44.0 -0.7
TIA pmax pmax
comp=Z,280nm,0.6s
TIA pmax pmax
comp=Z,920nm,3.9s
SHEM Shemya Is, Ala 21.53 65 P **P** 22 58 43.3 +0.9
comp=Z,2µm,0.9s,baz=349,slow=3.8,SNR=45
SHEM S **S** 23 02 01.8 0.0
comp=Z,2µm,0.9s,baz=274,slow=23,SNR=22
SHEM PcP **PcP** 23 02 19.9 +0.6
comp=Z,266nm,0.8s,baz=297,slow=4.5,SNR=1.8
SHEM ScP **ScP** 23 05 00.7 +0.1
comp=Z,116nm,0.6s,baz=165,slow=0.2,SNR=7.0
comp=Z,2µm,0.9s
SMY Shemya 21.53 65 P **P** 22 58 43.1 +0.7
SMY Shemya 21.53 65 S **S** 23 02 03.0 +1.3
SMY Shemya 21.53 65 P **P** 22 58 42.6 +0.2
SMY pmax pmax
comp=Z,3µm,1.1s
SMY Shemya 21.53 65 P **P** 22 58 42.6 +0.2
SMY Shemya 21.53 65 ⇓P **P** 22 58 43.3 +0.9
HNS HongShan 21.89 250 ⇑P **P** 22 58 46.5 +0.6
HNS sP **sP** 23 01 21.5 +2.4
HNS S **S** 23 02 09.0 +1.2
HNS PcP **PcP** 23 02 22.0 +1.7
HNS ScP **ScP** 23 05 02.8 +0.9
HNS ScS **ScS** 23 08 47.0 -0.3
HNS pmax pmax
comp=Z,680nm,1.1s
HHC Hu-ho-hao-te 22.02 261 ⇑*i*P **P** 22 58 47.8 +0.7
HHC sP sP 23 01 22.8 +2.2
HHC S **S** 23 02 06.5 -3.5
HHC pmax pmax
comp=Z,1µm,1.0s
ULN Ulaanbaatar 22.48 282 P **P** 22 58 51.8 +0.8
ULN Ulaanbaatar 22.48 282 *ce*P **P** 22 58 51.6 +0.5
ULN pmax pmax
comp=Z,1µm,1.1s
ULN Ulaanbaatar 22.48 282 P **P** 22 58 51.1 0.0
ULN Ulaanbaatar 22.48 282 P **P** 22 58 51.9 +0.8
ULN Ulaanbaatar 22.48 282 ⇑P **P** 22 58 51.7 +0.6
ULN Ulaanbaatar 22.48 282 P **P** 22 58 51.3 +0.2
ULN Ulaanbaatar 22.48 282 *e*P **P** 22 58 51.6 +0.5
ULN Ulaanbaatar 22.48 282 P **P** 22 58 51.9 +0.8
comp=Z,12µmcomp=Z,31µmcomp=Z,3µm,0.9s,comp=Z,31µm
SSE Sheshan 22.72 228 P **P** 22 58 54.0 +0.7

SONM Songino Array 22.91 282 P **P** 22 58 55.4 +0.4
comp=Z,579nm,0.8s,baz=83,slow=8.9,SNR=2159
SONM PcP **PcP** 23 02 23.2 +0.7
comp=Z,146nm,0.7s,baz=157,slow=2.5,SNR=5.5
SONM ScP **ScP** 23 05 04.8 +0.2
comp=Z,110nm,0.9s,baz=133,slow=3.7,SNR=7.0
SONM PKiKP **PKiKP** 23 10 05.3 -0.6
comp=Z,3.0nm,0.6s,baz=180,slow=1.8,SNR=5.3
SONM P3KPbc 23 32 07.2
comp=Z,2.2nm,1.0s,baz=209,slow=3.0,SNR=5.5
SONM P3KP 23 32 51.8
comp=Z,3.7nm,1.0s,baz=181,slow=2.8,SNR=6.4
comp=Z,579nm,0.8s
SONM Songino Array 22.91 282 P **P** 22 58 55.0 0.0
SONM **PcP** 23 02 22.9 +0.4
TIY Taiyuan 23.15 254 P **P** 22 58 58.3 +1.2
TIY sP **sP** 23 01 38.0 +5.1
TIY S **S** 23 02 28.0 +0.2
TIY pmax pmax
comp=Z,850nm,0.9s
NJ2 Nanjing 23.18 234 ⇓P **P** 22 58 57.5 +0.2
NJ2 sP **sP** 23 01 38.3 +5.2
NJ2 PcP **PcP** 23 02 24.5 +1.4
NJ2 S **S** 23 02 26.8 -1.3
NJ2 ScP **ScP** 23 05 06.0 +0.6
NJ2 ScS **ScS** 23 08 52.0 -0.5
NJ2 pmax pmax
comp=Z,130nm,0.6s
NJ2 pmax pmax
comp=Z,1µm,5.5s
BTO2 Baotou 23.19 263 *e*P **P** 22 58 58.0 +0.5
BTO2 sP **sP** 23 01 37.3 +3.8
BTO2 S **S** 23 02 27.8 -0.7
BTO2 pmax pmax
comp=Z,1µm,1.1s
BTO2 pmax pmax
comp=Z,4µm,4.9s
JOW Kunigami 23.50 209 P **P** 22 59 00.7 +0.4
comp=Z,546nm,0.6s,baz=8.7,slow=6.3,SNR=41
JOW PcP **PcP** 23 02 24.3 +0.4
comp=Z,158nm,0.8s,baz=234,slow=2.5,SNR=4.4
JOW ScP **ScP** 23 05 07.1 +0.8
comp=Z,118nm,0.5s,baz=51,slow=4.8,SNR=8.2
comp=Z,546nm,0.6s
JOW Kunigami 23.50 209 P **P** 22 59 00.3 0.0
JOW Kunigami 23.50 209 IAmb IAmb 22 59 02.8
comp=Z,507nm,0.7s
JOW Kunigami 23.50 209 ⇑P **P** 22 59 00.7 +0.4
JOW Kunigami 23.50 209 P **P** 22 59 00.9 +0.7
comp=Z,7µmcomp=Z,872nm,0.7s
IRK Irkutsk 23.55 294 *e*P **P** 22 58 59.8 -0.6
IRK *e*S **S** 23 02 30.8 -2.8
IRK pmax pmax
comp=Z,1µm,1.3s
IRK Irkutsk 23.55 294 *e*P **P** 22 58 59.8 -0.6
BILL Bilibino 23.64 24 *de*P **P** 22 59 01.0 0.0
BILL pmax pmax
comp=Z,3µm,1.0s
BILL Bilibino 23.64 24 P **P** 22 58 60.0 -1.0
BILL Bilibino 23.64 24 *e*P **P** 22 59 01.2 +0.2
BILI Bilibino, Chuk 23.70 24 P **P** 22 59 01.2 -0.3
BILI Bilibino, Chuk 23.70 24 P **P** 22 59 01.2 -0.3
comp=Z,9µmcomp=Z,31µmcomp=Z,3µm,1.0s,comp=Z,31µm
TLY Talaya 23.99 292 P **P** 22 59 05.3 +0.9
comp=Z,550nm,0.8s,baz=96,slow=4.8,SNR=200
TLY PcP **PcP** 23 02 25.9 +1.2
comp=Z,139nm,0.6s,baz=359,slow=0.3,SNR=8.2
TLY S **S** 23 02 41.2 +0.6
comp=Z,79nm,1.0s,baz=210,slow=23,SNR=6.1
TLY ScP **ScP** 23 05 07.1 -0.2
comp=Z,62nm,0.7s,baz=323,slow=0.3,SNR=5.6
comp=Z,550nm,0.8s
TLY Talaya 23.99 292 P **P** 22 59 05.0 +0.6
TLY S **S** 23 02 44.3 +3.8
TLY Talaya 23.99 292 P **P** 22 59 04.3 -0.1
TLY IAmb IAmb 22 59 07.1
comp=Z,538nm,0.8s
TLY Talaya 23.99 292 P **P** 22 59 05.5 +1.1
comp=Z,6µmcomp=Z,9µmcomp=Z,922nm,1.0s,comp=Z,9µm
TIXI Tiksi 24.15 351 *de*P **P** 22 59 04.7 -0.7
TIXI pmax pmax
comp=Z,545nm,0.6s
TIXI Tiksi 24.15 351 P **P** 22 59 03.9 -1.5
TIXI IAmb IAmb 22 59 05.9
comp=Z,618nm,0.7s
TIXI Tiksi 24.15 351 P **P** 22 59 04.9 -0.5
TIXI Tiksi 24.15 351 ⇑P **P** 22 59 04.7 -0.7
TIXI Tiksi 24.15 351 *e*P **P** 22 59 04.7 -0.7
TIXI Tiksi 24.15 351 P **P** 22 59 04.8 -0.5
comp=Z,12µmcomp=Z,1µm,1.0s,comp=Z,12µm
ZAK Zakamensk 24.40 289 *e*P **P** 22 59 08.3 +0.2
ZAK pmax pmax
comp=Z,1µm,1.1s
ZAK Zakamensk 24.40 289 *e*P **P** 22 59 08.3 +0.2
LYN LuoYang 25.11 247 ⇑P **P** 22 59 14.8 +0.4
LYN sP sP 23 01 55.0 +1.0
LYN PcP **PcP** 23 02 29.8 +2.4
LYN S **S** 23 02 57.3 -1.1
LYN ScP **ScP** 23 05 11.5 +0.7
LYN ScS **ScS** 23 09 00.0 -0.4
LYN pmax pmax
comp=Z,320nm,0.6s
LYN pmax pmax
comp=Z,570nm,5.4s
MOY Mondy 25.63 293 *e*P **P** 22 59 19.9 +1.0
MOY *e* 23 02 00.8
MOY pmax pmax
comp=Z,805nm,2.0s
MOY Mondy 25.63 293 *e*P **P** 22 59 19.9 +1.0
GANO Gareloi North 25.95 67 IAmb IAmb 22 59 23.5
comp=Z,824nm,1.0s
WHN Wuhan 26.82 238 ⇑*i*P **P** 22 59 29.5 0.0
WHN sP **sP** 23 02 09.0 -2.9
WHN PcP **PcP** 23 02 33.3 +1.8
WHN S **S** 23 03 24.3 -0.9
WHN ScP **ScP** 23 05 16.8 +0.9
WHN ScS **ScS** 23 09 07.0 -1.1
WHN pmax pmax
comp=Z,670nm,0.4s
WHN pmax pmax
comp=Z,6µm,6.5s
KIWB Kanaga Island 26.96 66 P **P** 22 59 28.5 -1.9
ADK Adak 27.24 66 P **P** 22 59 33.1 +0.3
ADK Adak 27.24 66 S **S** 23 03 32.0 +0.8
ADK Adak 27.24 66 P **P** 22 59 31.9 -0.9
ADK pmax pmax
comp=Z,1µm,1.0s
ADK Adak 27.24 66 P **P** 22 59 31.9 -0.9
ADK IAmb IAmb 22 59 34.8
comp=Z,1µm,1.0s
ADK Adak 27.24 66 ⇑P **P** 22 59 32.2 -0.6
ADK Adak 27.24 66 P **P** 22 59 32.4 -0.4
comp=Z,1µm,1.1s
XAN Xi'an 27.66 251 ⇑P **P** 22 59 36.5 -0.3
XAN sP sP 23 02 22.8 +3.1
XAN PcP **PcP** 23 02 35.8 +2.1
XAN S **S** 23 03 37.5 -0.8
XAN PcS **PcS** 23 06 18.8 +2.3
XAN pmax pmax
comp=Z,290nm,1.2s
XAN pmax pmax
comp=Z,820nm,6.5s
TATO Taipei 27.76 220 P **P** 22 59 39.8 +2.1
TATO Taipei 27.76 220 P **P** 22 59 38.9 +1.2
KNGR Kungurtug, Tuv 27.98 291 *ce*P **P** 22 59 40.1 +0.7
KNGR pmax pmax
comp=Z,889nm,1.3s
YHNB Yeheng 28.08 220 P **P** 22 59 41.6 +1.0
YHNB Yeheng 28.08 220 P **P** 22 59 42.1 +1.5
comp=Z,352nm,0.9s
NACB Ninganchiao 28.42 219 P **P** 22 59 43.7 +0.2
NACB Ninganchiao 28.42 219 P **P** 22 59 42.5 -1.0
NACB Ninganchiao 28.42 219 P **P** 22 59 41.5 -2.0
comp=Z,132nm,0.8s
ATKA Atka Island 28.70 65 P **P** 22 59 45.2 -0.3
ATKA Atka Island 28.70 65 IAmb IAmb 22 59 49.7
comp=Z,788nm,0.9s
ATKA Atka Island 28.70 65 ⇑P **P** 22 59 44.0 -1.5
SSLB Suanglung 29.04 220 P **P** 22 59 49.3 +0.5
SSLB Suanglung 29.04 220 P **P** 22 59 47.6 -1.2
SSLB Suanglung 29.04 220 P **P** 22 59 49.4 +0.6
comp=Z,226nm,0.9s
QZH2 Quanzhou 29.09 225 P **P** 22 59 50.0 +0.8
QZH2 sP **sP** 23 02 30.5 -2.1
QZH2 S **S** 23 04 01.8 +1.3
QZH2 ScS **ScS** 23 09 19.3 +0.5
QZH2 pmax pmax
comp=Z,310nm,0.7s
YULB Yu-li 29.24 219 P **P** 22 59 51.0 +0.5
YULB Yu-li 29.24 219 P **P** 22 59 51.3 +0.7
comp=Z,6µmcomp=Z,153nm,0.9s
CNSH ChangSha 29.42 237 P **P** 22 59 52.0 0.0
CNSH S **S** 23 04 06.3 +0.9
CNSH pmax pmax
comp=Z,700nm,0.7s
TPUB Ta-pu 29.60 220 P **P** 22 59 53.8 +0.1
TPUB Ta-pu 29.60 220 P **P** 22 59 53.4 -0.3
TPUB IAmb IAmb 22 59 56.1
comp=Z,363nm,0.7s
TPUB Ta-pu 29.60 220 P **P** 22 59 54.4 +0.7
comp=Z,511nm,0.9s
LZH Lanzhou 29.68 260 P **P** 22 59 55.3 +0.9
LZH sP PcP 23 02 42.0 +3.0
LZH S **S** 23 04 05.3 -4.4
LZH ScP **ScP** 23 05 26.5 +1.4
LZH ScS **ScS** 23 09 21.0 -0.8
LZH pmax pmax
comp=Z,2µm,1.3s
LZH pmax pmax
comp=Z,3µm,5.4s
TWGBT Beinan 29.84 219 P **P** 22 59 56.2 +0.5
TWG Pinlang 29.84 219 P **P** 22 59 56.4 +0.7
comp=Z,432nm,0.8s
LZDM Lanzhou Array 29.86 260 P **P** 22 59 56.9 +0.8
comp=Z,909nm,0.6s,baz=56,slow=2.7,SNR=733
LZDM PcP **sP** 23 02 40.2 +0.3
comp=Z,87nm,0.5s,baz=245,slow=2.5,SNR=5.0
LZDM S **S** 23 04 12.1 -0.6
comp=Z,7.0nm,0.4s,baz=52,slow=17,SNR=2.6
LZDM ScP **ScP** 23 05 26.9 +0.9
comp=Z,48nm,0.6s,baz=245,slow=3.1,SNR=6.2
LZDM P3KPbc 23 31 36.1
comp=Z,4.4nm,0.5s,baz=208,slow=6.0,SNR=9.9
comp=Z,909nm,0.6s
ENH Enshi 29.88 245 P **P** 22 59 55.7 -0.3
ENH Enshi 29.88 245 IAmb IAmb 22 59 58.5
comp=Z,720nm,0.6s
GAMB Gambell 29.90 41 IAmb IAmb 22 59 57.8
comp=Z,892nm,1.2s
GAMB Gambell 29.90 41 ⇓P **P** 22 59 55.1 -0.5
SPIA Saint Paul Isl 30.36 54 P **P** 22 59 59.9 +0.2
SPIA Saint Paul Isl 30.36 54 IAmb IAmb 23 00 01.8
comp=Z,1µm,1.0s
GTA2 Gaotai 30.56 269 P **P** 23 00 03.0 +1.2
GTA2 sP sP 23 02 48.5 +2.7
GTA2 S **S** 23 04 21.0 -2.0
GTA2 ScP **ScP** 23 05 28.5 +0.6
GTA2 ScS **ScS** 23 09 25.5 -0.5
GTA2 pmax pmax
comp=Z,2µm,0.9s
GTA2 pmax pmax
comp=Z,4µm,5.3s
TNA Tin City 31.76 38 P **P** 23 00 11.0 -0.5
TNA Tin City 31.76 38 ⇓P **P** 23 00 11.4 -0.1
GZH2 Guangzhou 32.63 231 P **P** 23 00 19.5 +0.1
GZH2 PcP **PcP** 23 02 49.5 +2.5
GZH2 S **S** 23 04 54.5 -0.1
GZH2 ScP **ScP** 23 05 35.8 +0.7
GZH2 ScS **ScS** 23 09 36.8 +0.1
GZH2 pmax pmax
comp=Z,2µm,0.6s
ANM Nome 32.74 40 IAmb IAmb 23 00 21.8
comp=Z,1µm,1.3s
UNV Unalaska Valle 32.95 60 P **P** 23 00 20.0 -1.6
CD2 Chengdu 33.00 252 ⇑P **P** 23 00 22.8 +0.3
CD2 sP sP 23 03 09.0 +1.5
CD2 S **S** 23 04 58.5 -1.6
CD2 ScS **ScS** 23 09 36.8 -1.8
CD2 pmax pmax
comp=Z,1µm,0.8s
K13K Kusilvak Mount 33.00 45 IAmb IAmb 23 00 23.2
comp=Z,1µm,0.9s
GULI GuiLin 33.10 237 P **P** 23 00 26.0 +2.7
GULI S **S** 23 05 00.8 -0.8
GULI pmax pmax
comp=Z,280nm,0.6s
DPSS Saipan 33.15 171 P **P** 23 00 19.8 -4.0
DPSS IAmb IAmb 23 00 23.0
comp=Z,693nm,0.6s
LVA Lava Point 33.15 59 IAmb IAmb 23 00 24.5
comp=Z,622nm,0.6s
NRIK Noril'sk 33.16 329 P **P** 23 00 23.0 -0.3
comp=Z,142nm,0.5s,baz=126,slow=2.8,SNR=214
NRIK PcP **PcP** 23 02 48.7 +0.9
comp=Z,266nm,0.5s,baz=97,slow=1.2,SNR=12
NRIK S **S** 23 05 00.9 -0.6
comp=Z,204nm,0.9s,baz=104,slow=23,SNR=8.2
NRIK ScP **ScP** 23 05 36.2 0.0
comp=Z,130nm,0.7s,baz=86,slow=6.1,SNR=5.7
comp=Z,142nm,0.5s
NRIK Noril'sk 33.16 329 P **P** 23 00 22.5 -0.8
AKUT Akutan 33.31 59 P **P** 23 00 24.0 -0.7
AKUT Akutan 33.31 59 IAmb IAmb 23 00 26.9
comp=Z,496nm,0.9s
J14K Nanvaranak Lak 33.50 44 IAmb IAmb 23 00 28.6
comp=Z,767nm,1.0s
HKPS Hong Kong Po S 33.52 229 P **P** 23 00 27.6 +0.7
HKPS Hong Kong Po S 33.52 229 P **P** 23 00 25.7 -1.2
comp=Z,262nm,0.8s
WECS Westdahl Cape 33.79 58 P **P** 23 00 27.1 -1.7
WECS IAmb IAmb 23 00 30.2
comp=Z,684nm,0.6s
GYA Guiyang 34.35 243 ⇑P **P** 23 00 34.0 0.0
GYA pmax pmax
comp=Z,400nm,0.6s
GUMO Guam 34.70 173 P **P** 23 00 35.1 -1.7
GUMO Guam 34.70 173 P **P** 23 00 34.6 -2.1
GUMO IAmb IAmb 23 00 40.0
comp=Z,887nm,1.1s
GUMO Guam 34.70 173 ⇑P **P** 23 00 35.5 -1.2
GUMO Guam 34.70 173 P **P** 23 00 34.3 -2.5
comp=Z,15µmcomp=Z,14µmcomp=Z,864nm,1.1s
GUMO Guam 34.70 173 P **P** 23 00 34.0 -2.7
SZP Santa 34.82 216 P **P** 23 00 39.2 +1.4
SZP Santa 34.82 216 IAmb IAmb 23 00 41.5
comp=Z,1µm,1.1s
ZAA0 Zalesovo Array 34.84 301 P **P** 23 00 37.5 +0.1
ZALV Zalesovo Beam 34.84 301 P **P** 23 00 37.4 -0.1
comp=Z,250nm,0.5s,baz=71,slow=7.3,SNR=443
ZALV PcP **PcP** 23 02 53.4 +0.5
comp=Z,473nm,0.6s,baz=79,slow=2.7,SNR=22
ZALV S **S** 23 05 28.5 +1.5
comp=Z,55nm,0.9s,baz=78,slow=7.5,SNR=3.6
ZALV ScP **ScP** 23 05 42.1 -0.4
comp=Z,135nm,0.6s,baz=74,slow=4.2,SNR=8.7
ZALV PKiKP **PKiKP** 23 10 11.8 -1.2
comp=Z,13nm,0.4s,baz=139,slow=1.4,SNR=11
ZALV P3KPbc 23 31 14.3
comp=Z,1.4nm,0.5s,baz=249,slow=4.2,SNR=4.5
ZALV P3KP 23 32 41.9
comp=Z,2.4nm,0.7s,baz=336,slow=3.3,SNR=3.8
comp=Z,250nm,0.5s
ZALV Zalesovo Beam 34.84 301 P **P** 23 00 37.2 -0.2
ZALV **PcP** 23 02 53.1 +0.2
O14K Tigyukauivet M 34.88 50 IAmb IAmb 23 00 40.6
comp=Z,1µm,1.0s
S12K Black Hills 35.07 56 IAmb IAmb 23 00 42.5
comp=Z,956nm,0.8s
H11N2 WAKE ISLAND Hy 35.38 134 P **P** 23 00 42.3 +0.2
baz=293,slow=6.8,SNR=17
H11N1 WAKE ISLAND Hy 35.40 134 P **P** 23 00 42.9 +0.6
baz=293,slow=6.8,SNR=26
H11N3 WAKE ISLAND Hy 35.40 134 P **P** 23 00 43.8 +1.5
baz=293,slow=6.8,SNR=14
J17K VABM Dome 35.51 42 IAmb IAmb 23 00 44.5
comp=Z,1µm,1.0s
GOMU GeErMu 35.62 268 P **P** 23 00 44.0 -0.6
GOMU S **S** 23 05 31.8 -8.1
GOMU pmax pmax
comp=Z,1µm,0.8s
WAKE Wake Island 35.65 135 P **P** 23 00 45.0 +0.4
WAKE Wake Island 35.65 135 P **P** 23 00 44.1 -0.5
WAKE IAmb IAmb 23 00 47.0
comp=Z,1µm,1.3s
WAKE Wake Island 35.65 135 P **P** 23 00 45.0 +0.4
comp=Z,13µmcomp=Z,778nm,1.4s,comp=Z,13µm
SDPT Sand Point 36.03 56 P **P** 23 00 45.7 -1.5
SDPT Sand Point 36.03 56 IAmb IAmb 23 01 07.8
comp=Z,616nm,0.9s

E19K **Redstone River** 36.17 35 P 23 00 47.8 -0.5
H11S1 **WAKE ISLAND Hy** 36.34 136 P P 23 00 50.4 +0.2
baz=261,slow=4.2,SNR=10
H11S3 **WAKE ISLAND Hy** 36.35 136 P P 23 00 50.1 0.0
baz=261,slow=4.2,SNR=10
H11S2 **WAKE ISLAND Hy** 36.36 136 P P 23 00 50.2 0.0
baz=261,slow=4.2,SNR=12
O16K **Kokwok River B** 36.43 49 IAmb IAmb 23 00 53.2
comp=Z,913nm,0.9s
WMQ **Urumqi** 36.53 283 ⇑P P 23 00 53.0 +1.3
WMQ sP sP 23 03 41.0 +2.3
WMQ ScP **ScP** 23 05 49.5 +0.4
WMQ S **S** 23 05 53.5 +0.8
WMQ ScS **ScS** 23 09 55.5 -2.3
WMQ pmax pmax
comp=Z,600nm,0.9s
WMQ pmax pmax
comp=Z,1μm,3.6s
WMQ **Urumqi** 36.53 283 P P 23 00 52.8 +1.1
WMQ pP **pP** 23 02 31.5 +0.7
WMQ PcP **PcP** 23 03 00.5 +2.1
J18K **Innoko River** 36.57 42 IAmb IAmb 23 00 52.5
comp=Z,830nm,0.8s
CHNA **Chernabura Isl** 36.65 57 P P 23 00 51.1 -1.2
CNBA **Chernabura Isl** 36.66 57 IAmb IAmb 23 00 52.6
comp=Z,823nm,0.7s
N17K **Nushagak Hills** 36.72 47 IAmb IAmb 23 00 54.6
comp=Z,1μm,1.1s
F20K **Avaraart Lake** 36.76 36 IAmb IAmb 23 00 54.9
comp=Z,1μm,0.8s
ZSN **Zaisan** 36.85 290 *c iP* P 23 00 54.9 +0.8
ZSN *eS* **S** 23 05 58.7 +1.5
ZSN **Zaisan** 36.85 290 ⇑*iP* P 23 00 54.9 +0.8
ZSN *eS* **S** 23 05 58.8 +1.5
J19K **Poorman** 37.00 41 P P 23 00 54.2 -0.8
J19K IAmb IAmb 23 00 56.0
comp=Z,1μm,0.9s
N18K **Kilae Creek** 37.33 46 IAmb IAmb 23 00 59.7
comp=Z,1μm,0.9s
IMAR **Indian Mountai** 37.61 38 P P 23 00 59.6 -0.4
KMI2 **Kunming** 37.69 246 ⇓P P 23 01 01.8 +0.3
KMI2 PcP **PcP** 23 03 04.3 +1.8
KMI2 sP sP 23 03 48.0 -0.6
KMI2 ScP **ScP** 23 05 54.3 +0.4
KMI2 S **S** 23 06 09.0 -1.5
KMI2 sS sS 23 09 11.3 -2.6
KMI2 ScS **ScS** 23 10 03.8 -1.6
KMI2 pmax pmax
comp=Z,1μm,0.7s
KMI2 pmax pmax
comp=Z,2.0nm,2.8s
KMI **Kunming** 37.71 246 P P 23 01 01.5 -0.2
KMI pP **pP** 23 02 42.4 +0.9
KMI PcP **PcP** 23 03 03.6 +1.0
K20K **Telida** 37.76 42 IAmb IAmb 23 01 02.7
comp=Z,1μm,0.8s
M19K **Big River Lodg** 37.84 44 IAmb IAmb 23 01 04.9
comp=Z,881nm,1.1s
MIDW **Midway** 37.86 107 P P 23 01 03.5 +1.0
MIDW **Midway** 37.86 107 P P 23 01 03.2 +0.7
MIDW IAmb IAmb 23 01 04.5
comp=Z,876nm,0.9s
MIDW **Midway** 37.86 107 ⇓P P 23 01 03.8 +1.3
MIDW **Midway** 37.86 107 P P 23 01 04.0 +1.5
comp=Z,1μm,0.9s
L20K **Farewell, AK** 37.98 43 IAmb IAmb 23 01 04.5
comp=Z,789nm,1.0s
N19K **Bonanza Creek** 37.98 46 IAmb IAmb 23 01 05.0
comp=Z,976nm,0.9s
H21K **Melozitna Rive** 38.02 38 IAmb IAmb 23 01 06.0
comp=Z,1μm,1.1s
O19K **Port Alsworth** 38.18 47 IAmb IAmb 23 01 07.6
comp=Z,704nm,1.0s
I21K **Tanana** 38.42 39 IAmb IAmb 23 01 08.1
comp=Z,1μm,0.9s
QIZ **Qiongzhong** 38.43 232 P P 23 01 07.8 +0.5
QIZ S **S** 23 06 23.0 +1.9
QIZ sS **sS** 23 09 24.0 -1.2
QIZ **Qiongzhong** 38.43 232 P P 23 01 09.4 +2.1
QIZ PcP **PcP** 23 03 06.9 +2.2
QIZ ScP **ScP** 23 05 58.4 +1.9
CHIR **Chirikof Islan** 38.57 54 P P 23 01 07.7 -0.2
CHIR **Chirikof Islan** 38.57 54 IAmb IAmb 23 01 11.1
comp=Z,1μm,0.7s
SEM **Semipalatinsk** 38.59 297 *eP* P 23 01 08.2 -0.2
SEM pmax pmax
comp=Z,548nm,0.6s
SEM **Semipalatinsk** 38.59 297 *eP* P 23 01 08.2 -0.2
comp=Z,548nm,0.6s
MK31 **Makanchi Array** 38.73 291 *de*P P 23 01 09.8 +0.4
MKAR **Makanchi Array** 38.73 291 P P 23 01 09.8 +0.4
comp=Z,1μm,0.7s,baz=73,slow=8.2,SNR=2568
MKAR PcP **PcP** 23 03 05.5 +0.3
comp=Z,333nm,0.8s,baz=49,slow=2.3,SNR=10
MKAR ScP **ScP** 23 05 57.2 -0.1
comp=Z,167nm,0.9s,baz=54,slow=4.0,SNR=9.8
MKAR S **S** 23 06 25.2 +0.4
comp=Z,201nm,1.1s,baz=69,slow=17,SNR=8.4
MKAR ScS **ScS** 23 10 07.8 -2.6
comp=Z,21nm,0.8s,baz=79,slow=6.3,SNR=4.3
MKAR PKiKP **PKiKP** 23 10 15.7 -0.8
comp=Z,5.8nm,0.5s,baz=272,slow=2.7,SNR=4.3
MKAR P3KPbc 23 30 58.9
comp=Z,4.7nm,0.8s,baz=243,slow=4.6,SNR=15
MKAR P4KPbc 23 39 09.6
comp=Z,1.0nm,0.4s,baz=66,slow=4.7,SNR=16
comp=Z,1μm,0.7s
MKAR **Makanchi Array** 38.73 291 P P 23 01 09.6 +0.2
MKAR PcP **PcP** 23 03 04.9 -0.3
MK01 **Makanchi Array** 38.73 290 P P 23 01 09.8 +0.4
Q19K **Cape Douglas,** 38.80 49 IAmb IAmb 23 01 10.5
comp=Z,1μm,0.9s
ILSW **Iliamna Southw** 38.81 47 IAmb IAmb 23 01 12.1
comp=Z,812nm,1.2s
RED **Redoubt Volcan** 38.89 46 IAmb IAmb 23 01 12.4
comp=Z,901nm,1.1s
MAKZ **Makanchi** 38.92 291 P P 23 01 10.5 -0.3
MAKZ IAmb IAmb 23 01 14.5
comp=Z,1μm,0.7s
MAKZ **Makanchi** 38.92 291 ⇓P P 23 01 11.2 +0.4
MAKZ **Makanchi** 38.92 291 P P 23 01 11.4 +0.5
comp=Z,2μmcomp=Z,17μmcomp=Z,2μm,0.7s
MAKZ **Makanchi** 38.92 291 P P 23 01 11.4 +0.5
MAKZ PcP **PcP** 23 03 06.7 +0.8
MAKZ ScP **ScP** 23 05 58.3 +0.2
MLY **Manley** 38.97 39 IAmb IAmb 23 01 14.0
comp=Z,2μm,1.7s
MLY **Manley** 38.97 39 P P 23 01 11.3 +0.3
BPAW **Bear Paw Mtn.** 39.01 40 IAmb IAmb 23 01 14.1
comp=Z,2μm,1.3s
SPU **Mount Spurr** 39.07 45 P P 23 01 11.8 -0.1
SPU IAmb IAmb 23 01 13.7
comp=Z,1μm,1.0s
SII **Sitkinak Islan** 39.13 53 P P 23 01 12.1 -0.4
SII **Sitkinak Islan** 39.13 53 IAmb IAmb 23 01 30.0
comp=Z,969nm,1.0s
SII **Sitkinak Islan** 39.13 53 P P 23 01 11.6 -0.9
L22K **Petersville** 39.39 43 IAmb IAmb 23 01 15.3
comp=Z,2μm,1.4s
OHAK **Old Harbor** 39.42 51 P P 23 01 13.8 -0.9
OHAK **Old Harbor** 39.42 51 IAmb IAmb 23 01 16.4
comp=Z,1μm,1.0s
OHAK **Old Harbor** 39.42 51 P P 23 01 14.3 -0.4
TRF **Thorofare Moun** 39.42 41 P P 23 01 14.9 0.0
KURK **Kurchatov** 39.44 298 P P 23 01 15.3 +0.3
KURK S **S** 23 06 33.1 -1.9
KURK **Kurchatov** 39.44 298 P P 23 01 15.8 +0.8
KURK *PP **pP** 23 02 57.2 +1.2
KURK 23 03 08.1
KURK S **S** 23 06 35.6 +0.6
KURK *i* 23 10 15.9
KURK **Kurchatov** 39.44 298 P P 23 01 14.7 -0.3
KURK IAmb IAmb 23 01 18.6
comp=Z,2μm,1.1s
KURK **Kurchatov** 39.44 298 *eP* P 23 01 15.8 +0.8
KURK **Kurchatov** 39.44 298 P P 23 01 15.3 +0.3
comp=Z,2μmcomp=Z,16μmcomp=Z,2μm,1.1s,comp=Z,16μm
KURBB **Kurchatov Arra** 39.53 298 P P 23 01 15.8 +0.1
comp=Z,592nm,0.5s,baz=73,slow=8.4,SNR=1550
KURBB pP **pP** 23 02 57.2 +0.5
comp=Z,164nm,1.0s,baz=76,slow=9.4,SNR=3.3
KURBB PcP **PcP** 23 03 08.1 +0.4
comp=Z,234nm,0.5s,baz=77,slow=3.1,SNR=13
KURBB ScP **ScP** 23 06 00.5 +0.2
comp=Z,85nm,0.8s,baz=75,slow=3.9,SNR=6.4
KURBB S **S** 23 06 35.6 -0.7
comp=Z,134nm,1.0s,baz=76,slow=17,SNR=9.0
KURBB PKiKP **PKiKP** 23 10 15.9 -1.1
comp=Z,5.4nm,0.5s,baz=48,slow=1.1,SNR=5.3
KURBB P3KPbc 23 30 55.7
comp=Z,1.1nm,0.5s,baz=251,slow=5.1,SNR=9.7
KURBB P4KPbc 23 39 13.8
comp=Z,1.2nm,0.6s,baz=74,slow=3.6,SNR=11
comp=Z,592nm,0.5s
SUA **Susitna One** 39.62 44 IAmb IAmb 23 01 17.1
comp=Z,771nm,0.9s
KDAK **Kodiak Island** 39.63 50 P P 23 01 14.7 -1.7
KDAK **Kodiak Island** 39.63 50 ⇓P P 23 01 15.4 -0.9
KDAK **Kodiak Island** 39.63 50 P P 23 01 15.8 -0.6
comp=Z,12μmcomp=Z,15μmcomp=Z,1μm,1.0s,comp=Z,15μm
KDAK **Kodiak Island** 39.63 50 P P 23 01 15.2 -1.2
KDAK PcP **PcP** 23 03 08.4 +0.5
KDAK ScP **ScP** 23 06 00.5 -0.1
M22K **Willow** 39.85 44 IAmb IAmb 23 01 19.4
comp=Z,966nm,1.1s
CNPM **China Poot** 39.85 47 IAmb IAmb 23 01 20.3
comp=Z,1μm,1.1s
SLVN **Son La** 39.88 241 P P 23 01 19.3 +0.3
SLVN **Son La** 39.88 241 P P 23 01 18.5 -0.5
SLVN IAmb IAmb 23 01 22.3
comp=Z,590nm,0.8s
SLVN **Son La** 39.88 241 P P 23 01 19.7 +0.8
SLVN **Son La** 39.88 241 P P 23 01 19.7 +0.8
comp=Z,6μmcomp=Z,814nm,0.8s,comp=Z,6μm
FIS **Fire Island** 39.95 45 IAmb IAmb 23 01 20.7
comp=Z,1μm,0.9s
BRLK **Bradley Lake** 39.96 47 IAmb IAmb 23 01 19.3
comp=Z,643nm,0.8s
MCK **McKinley** 39.96 41 IAmb IAmb 23 01 20.7
comp=Z,2μm,1.1s
MCK **McKinley** 39.96 41 P P 23 01 18.8 -0.2
H24K **Noodor Dome** 40.02 37 IAmb IAmb 23 01 21.3
comp=Z,1μm,0.9s
RND **Reindeer** 40.07 41 IAmb IAmb 23 01 22.6
comp=Z,1μm,1.1s
SLKM **Skilak Lake** 40.10 46 IAmb IAmb 23 01 20.4
comp=Z,1μm,1.1s
RC01 **Rabbit Creek A** 40.19 45 IAmb IAmb 23 01 21.6
comp=Z,1μm,0.8s
COLA **College** 40.20 39 *de*P P 23 01 21.3 +0.5
COLA pmax pmax
comp=Z,4μm,0.9s
COLA **College** 40.20 39 P P 23 01 20.2 -0.6
COLA **College** 40.20 39 ⇓P P 23 01 20.8 0.0
COLA **College** 40.20 39 P P 23 01 21.1 +0.3
COLA **College** 40.20 39 P P 23 01 21.1 +0.3
comp=Z,16μmcomp=Z,33μmcomp=Z,4μm,1.4s
CCB **Clear Creek Bu** 40.27 39 IAmb IAmb 23 01 23.2
comp=Z,998nm,0.8s
POKR **Poker Plat Res** 40.33 38 IAmb IAmb 23 01 24.5
comp=Z,1μm,0.7s
PMR **Palmer** 40.35 44 P P 23 01 21.6 -0.4
SEW **Seward** 40.57 46 IAmb IAmb 23 01 24.4
comp=Z,1μm,0.9s
F25K **Christian Rive** 40.59 34 IAmb IAmb 23 01 26.7
comp=Z,1μm,1.0s
IL31 40.63 39 P P 23 01 23.7 -0.4
ILAR **Eielson Array** 40.63 39 P P 23 01 23.7 -0.5
comp=Z,1μm,0.7s,baz=280,slow=6.3,SNR=3925
ILAR PcP **PcP** 23 03 10.3 -0.8
comp=Z,115nm,0.8s,baz=278,slow=4.0,SNR=5.4
ILAR ScP **ScP** 23 06 05.1 +0.6
comp=Z,15nm,0.7s,baz=287,slow=4.0,SNR=2.5
ILAR S **S** 23 06 50.6 -1.3
comp=Z,26nm,1.1s,baz=241,slow=4.3,SNR=4.5
ILAR PKiKP **PKiKP** 23 10 16.9 -0.6
comp=Z,3.2nm,0.6s,baz=298,slow=2.7,SNR=4.6
ILAR P3KPbc 23 30 52.6
comp=Z,0.6nm,0.7s,baz=85,slow=3.5,SNR=6.1
ILAR P3KP 23 32 21.9
comp=Z,0.8nm,0.7s,baz=245,slow=3.3,SNR=4.7
comp=Z,1μm,0.7s
ILAR **Eielson Array** 40.63 39 P P 23 01 23.3 -0.9
ILAR PcP **PcP** 23 03 09.8 -1.3
SML **Sawmill** 40.67 44 P 23 01 23.9 -0.7
SML **Sawmill** 40.67 44 P P 23 01 21.9 -2.7
KNK **Knik Glacier** 40.70 44 P P 23 01 24.4 -0.5
DHY **Denali Highway** 40.79 41 P 23 01 24.8 -1.0
PWL **Port Wells** 40.91 45 P P 23 01 24.8 -1.7
PWL IAmb IAmb 23 01 27.7
comp=Z,1μm,1.1s
FYU **Fort Yukon** 40.94 36 P P 23 01 27.5 +0.9
BMAR **Burnt Mountain** 41.02 35 P 23 01 27.6 +0.3
SCM **Sheep Creek Mo** 41.12 43 IAmb IAmb 23 01 30.3
comp=Z,1μm,0.6s
GLI **Glacier Island** 41.48 45 IAmb IAmb 23 01 31.9
comp=Z,1μm,0.8s
PAX **Paxson** 41.66 41 IAmb IAmb 23 01 38.9
comp=Z,2μm,1.6s
ZIRO **ZIRO** 41.66 258 *eP* P 23 01 34.2 +1.1
ZIRO IAmb IAmb 23 01 35.0
comp=Z,434nm,0.7s
ZIRO *i* x x 23 03 17.2
ZIRO **ZIRO** 41.66 258 *eP* P 23 01 34.2 +1.1
ZIRO IAmb IAmb 23 01 35.0
comp=Z,434nm,0.7s
ZIRO *ep*P **pP** 23 03 16.3 +0.5
ZIRO *i* x 23 04 22.2
RIDG **Independent Ri** 41.73 40 P P 23 01 31.5 -1.5
HIN **Hinchinbrook I** 41.90 45 IAmb IAmb 23 01 35.6
comp=Z,895nm,0.9s
E27K **Coleen River** 41.98 33 IAmb IAmb 23 01 38.8
comp=Z,804nm,0.9s
D27M **Malcolm River** 41.98 31 IAmb IAmb 23 01 36.5
comp=Z,783nm,0.8s
ITAN **ITANAGAR** 42.01 257 *eP* P 23 01 37.1 +1.5
ITAN IAmb IAmb 23 01 39.2
comp=Z,1μm,0.4s
LSA **Lhasa** 42.01 262 ⇓*eP* P 23 01 33.5 -2.6
LSA pmax pmax
comp=Z,670nm,0.6s
DIV **Divide** 42.03 44 IAmb IAmb 23 01 36.9
comp=Z,1μm,0.9s
I26K **Coal Creek Min** 42.05 37 IAmb IAmb 23 01 37.3
comp=Z,1μm,1.0s
MOKO **MOKOCHONG** 42.05 256 *eP* P 23 01 37.7 +1.5
MOKO IAmb IAmb 23 01 39.9
comp=Z,1μm,0.7s
MOKO *i* x x 23 03 19.1
PDGK **Podgornoye** 42.05 287 P P 23 01 36.1 +0.2
PDGK **Podgornoye** 42.05 287 P P 23 01 36.1 +0.2
DOT **Dot Lake** 42.09 40 IAmb IAmb 23 01 36.8
comp=Z,1μm,0.9s
SHLS **Shalkode** 42.15 287 *c iP* P 23 01 35.1 -1.6
SHLS *eS* **S** 23 07 12.2 -2.4
SHLS pmax pmax
comp=Z,230nm,0.5s
SHLS **Shalkode** 42.15 287 ⇑*iP* P 23 01 35.2 -1.6
comp=Z,230nm,0.5s
SHLS *eS* **S** 23 07 12.3 -2.4
EYAK **Cordova Ski Ar** 42.21 45 P P 23 01 37.3 +0.6
EYAK **Cordova Ski Ar** 42.21 45 IAmb IAmb 23 01 38.5
comp=Z,2μm,1.2s
G27K **Doyon Strip** 42.27 35 IAmb IAmb 23 01 39.4
comp=Z,871nm,0.8s
MENT **Mentasta** 42.44 41 P P 23 01 38.7 +0.2
UZB **Uzynbulak** 42.44 287 *c iP* P 23 01 39.5 +0.6
UZB *eS* **S** 23 07 20.1 +1.4
UZB **Uzynbulak** 42.44 287 ⇑*iP* P 23 01 39.6 +0.6
UZB *eS* **S** 23 07 20.1 +1.4
KPKS **Kokpek** 42.50 288 *eP* P 23 01 40.2 +0.8
KPKS **Kokpek** 42.50 288 *eP* P 23 01 40.2 +0.8
E28M **Babbage River** 42.63 32 IAmb IAmb 23 01 41.5
comp=Z,1μm,0.8s
KOHI **KOHIMA** 42.73 255 *eP* P 23 01 42.5 +1.0
KOHI IAmb IAmb 23 01 44.0
comp=Z,657nm,0.8s
F28M **Old Crow** 42.75 34 IAmb IAmb 23 01 44.6
comp=Z,1μm,0.9s
SATY **Saty** 42.88 287 *eP* P 23 01 43.1 +0.8
SATY *eS* **S** 23 07 26.3 +1.4
SATY pmax pmax
comp=Z,279nm,0.7s
SATY **Saty** 42.88 287 *eP* P 23 01 43.2 +0.8
comp=Z,279nm,0.7s
SATY *eS* **S** 23 07 26.4 +1.4
TEZP **TEZPUR** 42.97 258 *eP* P 23 01 43.5 +0.5
TEZP IAmb IAmb 23 01 45.2
comp=Z,347nm,0.7s
DAV **Davao City (W)** 43.01 202 P P 23 01 44.5 +0.9
DAV **Davao City (W)** 43.01 202 P P 23 01 43.8 +0.3
DAV IAmb IAmb 23 01 46.0
comp=Z,1μm,1.6s
DAV **Davao City (W)** 43.01 202 P P 23 01 44.4 +0.9
comp=Z,6μmcomp=Z,6μmcomp=Z,9μmcomp=Z,9μm
comp=Z,470nm,1.6s,comp=Z,470nm,1.6s
DAV **Davao City (W)** 43.01 202 P P 23 01 44.5 +0.9
comp=Z,9μmcomp=Z,9μmcomp=Z,470nm,1.6s
KAIM **Kayak Island** 43.04 45 IAmb IAmb 23 01 45.4
comp=Z,1μm,0.9s
PRZ **Przheval'sk** 43.16 287 IAmb IAmb 23 01 49.1
comp=Z,824nm,0.7s
BCAR **Beaver Creek A** 43.25 40 P P 23 01 45.3 +0.5
BVAR **Borovoye Array** 43.29 304 P P 23 01 45.3 +0.1
comp=Z,155nm,0.3s,baz=69,slow=8.3,SNR=351
BVAR PcP **PcP** 23 03 20.9 +0.6
comp=Z,589nm,0.4s,baz=72,slow=3.0,SNR=38
BVAR ScP **ScP** 23 06 16.2 +0.8
comp=Z,38nm,0.6s,baz=89,slow=3.6,SNR=2.5
BVAR S **S** 23 07 29.7 -0.5
comp=Z,163nm,0.9s,baz=78,slow=14,SNR=7.0
BVAR ScS **ScS** 23 10 35.4 -3.0
comp=Z,62nm,1.0s,baz=30,slow=9.9,SNR=5.6
BVAR PKKP **PKKPdf** 23 24 55.1 +0.6
comp=Z,0.5nm,0.4s,baz=303,slow=26,SNR=2.5
BVAR P4KPbc 23 39 30.3
comp=Z,3.3nm,0.5s,baz=73,slow=3.8,SNR=13
comp=Z,155nm,0.3s
BORK **Borovoye** 43.32 304 *de*P P 23 01 45.5 +0.1
BORK pmax pmax
comp=Z,689nm,1.0s
BORK **Borovoye** 43.32 304 P P 23 01 45.3 -0.1
BORK IAmb IAmb 23 03 23.1
comp=Z,508nm,0.6s
IMP **Imphal** 43.46 255 *eP* P 23 01 47.3 +0.3
IMP IAmb IAmb 23 01 49.1
comp=Z,480nm,0.6s
MORE **Moreh** 43.65 254 P P 23 01 46.8 -1.6
MORE IAmb IAmb 23 01 52.0
comp=Z,383nm,0.6s
MDOK **Medeo** 43.69 288 *eP* P 23 01 49.6 +0.9
MDOK *eS* **S** 23 07 38.0 +1.6
MDOK **Medeo** 43.69 288 *eP* P 23 01 49.6 +0.9
MDOK *eS* **S** 23 07 38.1 +1.6
AAA **Alma-Ata** 43.75 288 *eP* P 23 01 49.9 +0.9
AAA pmax pmax
comp=Z,1μm,1.3s
AAA **Alma-Ata** 43.75 288 *eP* P 23 01 50.0 +0.9
comp=Z,1μm,1.3s
TNSS **Tian-Shan** 43.82 288 *eP* P 23 01 50.5 +0.6
TNSS **Tian-Shan** 43.82 288 *eP* P 23 01 50.5 +0.6
PATS **Pohnpei** 43.85 154 P P 23 01 52.0 +2.0
comp=Z,843nm,1.1s,comp=Z,0.0nm
PATS **Pohnpei** 43.85 154 P P 23 01 50.3 +0.3
comp=Z,848nm,1.1s,comp=Z,0.0nm
PATS **Pohnpei** 43.85 154 P P 23 01 51.0 +1.0
PATS **Pohnpei** 43.85 154 P 23 01 50.8 +0.8
PATS IAmb IAmb 23 01 53.0
comp=Z,794nm,1.0s
PATS **Pohnpei** 43.85 154 P P 23 01 51.6 +1.6
comp=Z,5μmcomp=Z,14μmcomp=Z,842nm,1.1s
TARG **Taragay, Kyrgy** 43.93 286 IAmb IAmb 23 01 56.0
comp=Z,466nm,0.7s
TARG **Taragay, Kyrgy** 43.93 286 P P 23 01 52.2 +1.4
comp=Z,3μmcomp=Z,7μmcomp=Z,706nm,0.8s,comp=Z,7μm
DAWY **Dawson** 43.95 39 IAmb IAmb 23 01 51.4
comp=Z,856nm,1.1s
GRNC **Granite Creek** 44.02 44 IAmb IAmb 23 01 53.4
comp=Z,2μm,1.2s
KDJ **Kajisay** 44.12 287 IAmb IAmb 23 01 56.4
comp=Z,1μm,0.8s
YAH **Yahtse** 44.15 44 P P 23 01 51.8 -0.2
SHL **Shillong** 44.28 257 P P 23 01 53.5 0.0
SNR=284
SHL **Shillong** 44.28 257 *eP* P 23 01 53.8 +0.4
SHL IAmb IAmb 23 01 55.8
comp=Z,2μm,0.5s
J29N **Klondike Camp** 44.31 38 IAmb IAmb 23 01 56.3
comp=Z,880nm,0.8s
LOGN **Logan Glacier** 44.33 43 IAmb IAmb 23 01 55.0
comp=Z,1μm,0.8s
ULHL **Ulahol** 44.66 287 P P 23 01 57.0 +0.8
SNR=153
O28M **Mount Upton** 44.72 43 IAmb IAmb 23 01 58.3
comp=Z,957nm,0.8s
BOOM **Boomskoye usch** 44.73 288 IAmb IAmb 23 02 02.1
comp=Z,1μm,0.9s
TKM2 **Tokmak 2** 44.73 289 P P 23 01 57.5 +0.8
SNR=547
CHTO **Chiang Mai** 44.77 244 P P 23 01 57.5 +0.5
CHTO **Chiang Mai** 44.77 244 P P 23 01 57.5 +0.5
CHTO S **S** 23 07 52.3 +0.5
CHTO **Chiang Mai** 44.77 244 P P 23 01 57.0 -0.1
CHTO pmax pmax
comp=Z,402nm,0.6s
CHTO **Chiang Mai** 44.77 244 P 23 01 57.0 -0.1
CHTO IAmb IAmb 23 02 00.7
comp=Z,402nm,0.6s
CHTO **Chiang Mai** 44.77 244 ⇓P P 23 01 57.3 +0.2
CHTO **Chiang Mai** 44.77 244 P P 23 01 56.7 -0.3
comp=Z,6μmcomp=Z,6μmcomp=Z,610nm,0.9s,comp=Z,610nm,0.9s
CHTO **Chiang Mai** 44.77 244 P P 23 01 57.4 +0.3
CHTO **Chiang Mai** 44.77 244 P P 23 01 57.5 +0.5
comp=Z,6μmcomp=Z,610nm,0.9s,comp=Z,6μm
CHTO **Chiang Mai** 44.77 244 P P 23 01 57.2 +0.2
CHTO PcP **PcP** 23 03 27.4 +1.4
CHTO pP **pP** 23 03 43.6 +1.6
CHTO ScP **ScP** 23 06 22.5 +0.5
INK **Inuvik** 44.84 32 P4KPbc 23 39 34.5
comp=Z,2.2nm,0.8s,baz=301,slow=1.3,SNR=6.5
INK **Inuvik** 44.84 32 ⇑P P 23 01 56.5 -0.4
INK **Inuvik** 44.84 32 P P 23 01 57.4 +0.5
comp=Z,51μmcomp=Z,6μm,1.1s,comp=Z,51μm
PCA **Pinnacle** 44.94 44 IAmb IAmb 23 01 59.5
comp=Z,1μm,0.8s
AZL **Aizawl** 45.04 255 *eP* P 23 02 00.0 +0.8
AZL IAmb IAmb 23 02 01.6
comp=Z,716nm,0.5s
AZL *i* x x 23 03 46.2
CM31 **Chiang Mai Arr** 45.04 244 P P 23 02 00.1 +1.0
SNR=51
CMAR **Chiang Mai Arr** 45.04 244 P P 23 01 59.5 +0.4
comp=Z,78nm,0.5s,baz=29,slow=7.8,SNR=169
CMAR PcP **PcP** 23 03 28.4 +1.4
comp=Z,84nm,0.8s,baz=11,slow=2.9,SNR=13
CMAR pP **pP** 23 03 44.8 +0.5
comp=Z,71nm,1.0s,baz=30,slow=8.0,SNR=3.3
CMAR ScP **ScP** 23 06 24.1 +1.0
comp=Z,50nm,0.7s,baz=16,slow=3.3,SNR=12
CMAR S **S** 23 07 57.4 +1.6
comp=Z,1.4nm,0.5s,baz=317,slow=31,SNR=2.2
CMAR PKiKP **PKiKP** 23 10 22.6 -0.3
comp=Z,3.9nm,0.5s,baz=298,slow=1.0,SNR=4.1
CMAR P4KPbc 23 39 37.1
comp=Z,1.4nm,0.7s,baz=3.9,slow=3.5,SNR=6.7
comp=Z,78nm,0.5s
CMAR **Chiang Mai Arr** 45.04 244 P P 23 01 58.5 -0.6
DLV **Lat** 45.10 228 P P 23 01 59.9 +0.1
DLV **Lat** 45.10 228 P P 23 02 00.3 +0.4
DLV **Lat** 45.10 228 ⇑P P 23 02 01.4 +1.6
DLV **Lat** 45.10 228 P P 23 02 01.8 +1.9
comp=Z,323nm,0.8s
ASAI **AK-SAY(Kyrgyzs** 45.18 286 P P 23 02 01.5 +1.2
comp=Z,3μmcomp=Z,9μmcomp=Z,1μm,1.0s,comp=Z,9μm
DHUB **DHUBRI** 45.21 259 *eP* P 23 02 00.4 +0.1
DHUB IAmb IAmb 23 02 02.8
comp=Z,659nm,0.7s
DHUB *i* x x 23 03 46.7
CHMS **Chumysh** 45.23 289 P P 23 02 00.8 +0.5
SNR=103
USP **Ospenovka** 45.25 290 P P 23 02 01.3 +0.8
SNR=77
KBK **Karagaybulak** 45.28 289 P P 23 02 01.7 +0.8
SNR=53
BCPM **Bancas Point** 45.28 44 IAmb IAmb 23 02 03.1
comp=Z,817nm,0.8s
COBR **COOCHBEHAR** 45.38 260 *eP* P 23 02 03.3 +1.7
COBR IAmb IAmb 23 02 04.0
comp=Z,650nm,0.5s
FRU1 **Bishkek** 45.40 289 IAmb IAmb 23 02 05.6
comp=Z,533nm,0.7s
PNL **Peninsula** 45.50 44 P P 23 02 02.4 +0.3
AAK **Ala-Archa** 45.57 289 P4KPbc 23 39 39.6
comp=Z,7.7nm,0.7s,baz=95,slow=2.0,SNR=7.2
AAK **Ala-Archa** 45.57 289 P P 23 02 03.7 +0.6
SNR=152

AAK **Ala-Archa** 45.57 289 *i* P P 23 02 03.5 +0.4
SNR=140
AAK **Ala-Archa** 45.57 289 P P 23 02 03.7 +0.6
AAK S S 23 08 03.9 +1.0
AAK **Ala-Archa** 45.57 289 *de* P P 23 02 03.6 +0.6
AAK pmax pmax
comp=Z,357nm,1.0s
AAK **Ala-Archa** 45.57 289 P P 23 02 03.5 +0.4
AAK **Ala-Archa** 45.57 289 ⇓P P 23 02 03.5 +0.4
AAK **Ala-Archa** 45.57 289 P P 23 02 03.3 +0.3
AAK S S 23 08 04.5 +1.6
AAK **Ala-Archa** 45.57 289 P P 23 02 03.8 +0.7
comp=Z,3μmcomp=Z,4μmcomp=Z,566nm,1.0s,comp=Z,4μm
AAK **Ala-Archa** 45.57 289 P P 23 02 03.6 +0.6
AAK PcP PcP 23 03 29.3 +0.6
NPW **Naypyitaw** 45.74 248 P P 23 02 05.1 +0.6
comp=Z,1μmcomp=Z,10μmcomp=Z,1μm,0.9s
AGT **Agartala** 45.86 256 *e* P P 23 02 07.5 +2.3
AGT IAmb IAmb 23 02 09.4
comp=Z,2μm,0.6s
AGT *i* x x 23 03 49.1
AGT *e* S S 23 08 07.0 -0.1
N30M **Aishikik Lake** 45.86 42 IAmb IAmb 23 02 07.2
comp=Z,585nm,0.8s
EKS2 **Erkin-Say** 46.02 289 P P 23 02 07.1 +0.7
SNR=538
O30N **Mendenhall** 46.58 42 IAmb IAmb 23 02 12.7
comp=Z,1μm,0.8s
KSH2 **Kashi** 46.75 284 P P 23 02 13.0 +1.0
KSH2 PcP PcP 23 03 33.5 +0.5
KSH2 pP pP 23 04 01.0 +2.6
KSH2 sP sP 23 05 06.3 +2.4
KSH2 S S 23 08 20.8 +1.5
KSH2 ScS ScS 23 11 01.5 -0.3
KSH2 pmax pmax
comp=Z,880nm,0.7s
SVE **Sverdlovsk** 46.86 312 *c* P P 23 02 12.7 +0.4
SVE *e* 23 03 32.6
SVE *e* 23 04 00.2
SVE *i* S S 23 08 19.7 -0.2
SVE *e* 23 10 58.7
SVE pmax pmax
comp=Z,843nm,0.7s
KKM **Kota Kinabalu** 46.97 214 P P 23 02 14.0 +0.2
KKM **Kota Kinabalu** 46.97 214 P P 23 02 13.8 0.0
KKM **Kota Kinabalu** 46.97 214 ⇑P P 23 02 14.3 +0.5
KKM **Kota Kinabalu** 46.97 214 P P 23 02 13.6 -0.2
comp=Z,4μmcomp=Z,4μmcomp=Z,590nm,0.9s,comp=Z,590nm,0.9s
KKM **Kota Kinabalu** 46.97 214 P P 23 02 14.6 +0.7
comp=Z,2μmcomp=Z,4μmcomp=Z,589nm,0.9s
ARSB **Arslanbob** 47.22 288 IAmb IAmb 23 02 20.3
comp=Z,1μm,0.8s
DZA **Taraz** 47.43 291 *e* P P 23 02 17.7 +0.8
DZA pmax pmax
comp=Z,371nm,0.8s
DZA **Taraz** 47.43 291 *e* P P 23 02 17.8 +0.8
comp=Z,371nm,0.8s
SKAG **Skagway** 47.48 44 P P 23 02 18.0 +1.1
SKAG **Skagway** 47.48 44 IAmb IAmb 23 02 19.6
comp=Z,916nm,0.8s
SKAG **Skagway** 47.48 44 ⇓P P 23 02 18.4 +1.5
GAMI **Galela, Maluku** 47.56 198 P P 23 02 17.7 -0.4
comp=Z,7μmcomp=Z,7μmcomp=Z,283nm,0.8s,comp=Z,283nm,0.8s
S31K **Pelican** 47.71 46 IAmb IAmb 23 02 22.6
comp=Z,2μm,1.2s
N32M **Quiet Lake** 47.75 41 IAmb IAmb 23 02 21.0
comp=Z,2μm,0.9s
KK31 **Karatay Array** 47.83 292 IAmb IAmb 23 02 23.2
comp=Z,651nm,0.7s
KKAR **Karatay Array** 47.83 292 P P 23 02 19.6 -0.2
KKAR **Karatay Array** 47.83 292 P P 23 02 19.6 -0.2
BESE **Bessie Mountai** 48.09 44 IAmb IAmb 23 02 24.1
comp=Z,1μm,0.9s
P32M **Atlin** 48.16 43 IAmb IAmb 23 02 24.6
comp=Z,622nm,0.9s
ARTI **Arti** 48.17 312 S S 23 08 36.9 -1.0
ARTI P4KPbc 23 39 49.5
comp=Z,14nm,0.7s,baz=86,slow=1.4,SNR=24
ARTI **Arti** 48.17 312 *d* P P 23 02 22.0 -0.1
ARTI 23 03 37.0
ARTI *PP pP 23 04 09.6 0.0
ARTI 23 04 22.7
ARTI *SP sP 23 05 15.7 +0.9
ARTI S S 23 08 38.0 0.0
ARTI 23 11 07.6
ARTI *SS sS 23 11 52.6 +1.1
ARTI SS SS 23 12 17.9 +0.9
ARTI pmax pmax
comp=Z,1μm,1.1s
ARTI **Arti** 48.17 312 P P 23 02 21.8 -0.3
ARTI IAmb IAmb 23 02 25.1
comp=Z,1μm,0.7s
ARTI **Arti** 48.17 312 ⇑P P 23 02 21.8 -0.3
ARTI **Arti** 48.17 312 P P 23 02 21.8 -0.3
ARTI PcP PcP 23 03 37.9 +0.3
ARTI pP pP 23 04 10.3 +0.6
ARTI sP sP 23 05 15.2 +0.4
ARTI ScP ScP 23 06 35.2 -0.6
BRLS **Borolday** 48.29 292 *e* P P 23 02 25.4 +2.2
BRLS **Borolday** 48.29 292 *e* P P 23 02 25.5 +2.2
R32K **Eaglecrest** 48.38 45 IAmb IAmb 23 02 26.5
comp=Z,990nm,1.1s
JMUI **Jamui** 48.44 261 *e* P P 23 02 24.3 -0.2
JIS **Juneau Island** 48.45 45 P P 23 02 25.0 +0.9
ALCI **Alchi Leh** 48.53 278 *ex* P P 23 02 26.1 +0.6
ALCI IAmb IAmb 23 02 29.4
comp=Z,2μm,0.6s
ALCI *i* x x 23 04 12.9
ALCI *ex* x x 23 05 18.6
SIT **Sitka** 48.56 46 P P 23 02 26.4 +1.5
SIT **Sitka** 48.56 46 IAmb IAmb 23 02 28.0
comp=Z,2μm,1.0s
IUG **Iuzhnay** 48.64 291 *e* P P 23 02 26.9 +1.0
IUG pmax pmax
comp=Z,832nm,0.9s
IUG **Iuzhnay** 48.64 291 *e* P P 23 02 26.9 +1.0
comp=Z,832nm,0.9s
TNTI **Ternate** 48.68 198 P P 23 02 26.4 0.0
TNTI **Ternate** 48.68 198 P P 23 02 25.5 -0.9
TNTI **Ternate** 48.68 198 ⇑P P 23 02 25.8 -0.7
TNTI **Ternate** 48.68 198 P P 23 02 27.1 +0.7
comp=Z,2μmcomp=Z,2μmcomp=Z,3μmcomp=Z,3μm
comp=Z,184nm,0.7s,comp=Z,184nm,0.7s
TNTI **Ternate** 48.68 198 P P 23 02 26.6 +0.1
comp=Z,2μmcomp=Z,3μmcomp=Z,187nm,0.7s
S32K **Killisnoo** 48.73 46 IAmb IAmb 23 02 30.1
comp=Z,882nm,1.0s
TARAI **Tarakan** 48.99 211 P P 23 02 31.1 +2.4
DRK **Karamyk** 48.99 287 IAmb IAmb 23 02 33.6
comp=Z,856nm,0.7s
GKPR **Gorakhpur** 49.07 266 *e* P P 23 02 30.1 +0.9
GKPR IAmb IAmb 23 02 31.9
comp=Z,1μm,0.5s
Q32M **Nakina River** 49.11 43 IAmb IAmb 23 02 32.1
comp=Z,703nm,0.9s
HOPEN **Hopen** 49.12 344 *e* P P 23 02 28.9 +0.1
HOPEN IVmB_BB 23 02 29.6
comp=Z,14μm,1.1s
HOPEN *ep* P pP 23 04 16.2 -0.5
HOPEN *es* P sP 23 05 22.2 +0.3
HOPEN *e* S S 23 08 50.3 -0.1
GAYA **Gaya** 49.18 262 *e* P P 23 02 29.9 -0.1
GAYA IAmb IAmb 23 02 33.8
comp=Z,628nm,0.7s
JOSI **Joshimath** 49.19 272 *e* P P 23 02 30.9 +0.5
JOSI *i* x x 23 03 42.6
BTK **Batken** 49.29 288 IAmb IAmb 23 02 34.7
comp=Z,697nm,0.7s
MWPI **Manokwari, Pap** 49.31 189 P P 23 02 32.3 +1.2
SPA0 **Spitsbergen Ar** 49.49 347 *e* P P 23 02 31.2 -0.2
SPA0 IVmB_BB 23 02 32.0
comp=Z,5μm,1.0s
SPA0 *ep* P pP 23 04 18.6 -1.0
SPA0 *es* P sP 23 05 26.4 +1.4
SPA0 *e* S S 23 08 55.4 -0.1
SPITS **Spitsbergen Ar** 49.49 347 P P 23 02 31.3 -0.2
comp=Z,255nm,0.6s,baz=60,slow=7.1,SNR=353
SPITS PcP PcP 23 03 42.0 -0.1
comp=Z,102nm,0.5s,baz=87,slow=5.9,SNR=6.4
comp=Z,255nm,0.6s
SPB2 **Spitsbergen Ar** 49.49 347 IAmb IAmb 23 02 39.5
comp=Z,690nm,1.0s
R33M **Jennings River** 49.49 42 IAmb IAmb 23 02 35.0
comp=Z,997nm,1.1s

KBS **Kingsbay** 49.58 349 ⇓P P 23 02 32.4 +0.2
KBS **Kingsbay** 49.58 349 P P 23 02 32.8 +0.7
comp=Z,14μmcomp=Z,14μmcomp=Z,1μm,1.0s,comp=Z,14μm
KBS **Kingsbay** 49.58 349 *i* P P 23 02 32.5 +0.4
SIJI **Sorong** 49.60 193 S S 23 08 57.3 -1.2
comp=Z,27nm,1.0s,baz=121,slow=22,SNR=2.1
KMSI **Cibinong** 49.66 202 P P 23 02 33.5 -0.1
comp=Z,5μmcomp=Z,5μmcomp=Z,1μm,0.9s,comp=Z,1μm,0.9s
GTOI **Gorontalo** 49.85 204 P P 23 02 33.6 -1.4
comp=Z,4μmcomp=Z,4μmcomp=Z,337nm,1.2s,comp=Z,337nm,1.2s
NOR **Nord** 49.86 356 ⇓P P 23 02 33.4 -0.8
NOR **Nord** 49.86 356 P P 23 02 33.6 -0.6
comp=Z,11μmcomp=Z,8μmcomp=Z,584nm,1.1s
NOR **Nord** 49.86 356 *i* P P 23 02 33.5 -0.6
NOR IAmb IAmb 23 02 34.6
comp=Z,407nm,0.9s
TOLI2 **Tolitoli** 50.03 207 P P 23 02 35.5 -0.8
TOLI2 **Tolitoli** 50.03 207 P P 23 02 35.4 -0.9
TOLI2 **Tolitoli** 50.03 207 P P 23 02 35.9 -0.4
comp=Z,3μmcomp=Z,6μmcomp=Z,633nm,1.0s,comp=Z,6μm
SMPI **Sarmi** 50.05 183 P P 23 02 37.0 +0.6
U33K **Whale Pass** 50.08 47 IAmb IAmb 23 02 40.6
comp=Z,1μm,1.1s
WRAK **Wrangell Islan** 50.31 46 IAmb IAmb 23 02 42.1
comp=Z,1μm,1.2s
WRAK **Wrangell Islan** 50.31 46 ⇓P P 23 02 39.2 +1.5
MANU **Manus Island** 50.39 171 P P 23 02 38.5 -0.4
MANU **Manus Island** 50.39 171 ⇑P P 23 02 39.0 +0.1
CRAG **Craig** 50.40 47 P P 23 02 39.7 +1.3
CRAG **Craig** 50.40 47 IAmb IAmb 23 02 42.8
comp=Z,1μm,1.0s
CRAG **Craig** 50.40 47 ⇓P P 23 02 40.3 +1.9
JAY **Jayapura** 50.53 180 S S 23 09 12.0 +0.9
comp=Z,3,6nm,0.6s,baz=7.8,slow=21,SNR=0.7
JAY **Jayapura** 50.53 180 P P 23 02 40.3 +0.3
comp=Z,430nm,0.9s,comp=Z,430nm,0.9s
GENI **Genyem** 50.62 181 P P 23 02 40.9 +0.4
GENI **Genyem** 50.62 181 ⇑P P 23 02 41.1 +0.6
GENI **Genyem** 50.62 181 P P 23 02 41.0 +0.4
comp=Z,11μmcomp=Z,11μmcomp=Z,11μmcomp=Z,11μm
comp=Z,1μm,0.9s,comp=Z,1μm,0.9s
GENI **Genyem** 50.62 181 P P 23 02 41.2 +0.6
comp=Z,11μmcomp=Z,11μmcomp=Z,1μm,0.9s,comp=Z,11μm
BHK **Bhakra** 50.79 275 *e* P P 23 02 42.1 +0.4
AB31 **Akbulak array** 50.86 303 IAmb IAmb 23 02 45.7
comp=Z,2μm,1.4s
ABKAR **Akbulak array** 50.86 303 P P 23 02 42.0 +0.1
CGRH **CHANDIGARH** 50.94 274 *e* P P 23 02 43.5 +0.7
CGRH IAmb IAmb 23 02 45.9
comp=Z,3μm,0.6s
JMU **Jammu** 50.96 278 *e* P P 23 02 43.6 +0.7
T35M **Bob Quinn** 51.02 45 IAmb IAmb 23 02 47.9
comp=Z,2μm,1.4s
ALBI **Allahabad** 51.11 265 *e* P P 23 02 43.0 -1.1
ALBI IAmb IAmb 23 02 45.1
comp=Z,472nm,0.6s
JOHN **Johnston Islan** 51.13 110 P P 23 02 45.2 +0.9
JOHN **Johnston Islan** 51.13 110 P P 23 02 44.5 +0.2
JOHN IAmb IAmb 23 02 46.4
comp=Z,702nm,0.8s
AKTO **Aktyubinsk** 51.30 306 S S 23 09 19.5 -1.0
comp=Z,41nm,0.8s,baz=304,slow=21,SNR=4.2
AKTO P4KPbc 23 40 01.9
comp=Z,4.3nm,0.7s,baz=77,slow=6.6,SNR=11
KIRV **Kirov** 51.33 318 S S 23 09 20.0 -0.5
comp=Z,79nm,0.6s,baz=80,slow=6.4,SNR=3.9
KIRV **Kirov** 51.33 318 *de* P P 23 02 45.0 -0.1
NIL **Nilore** 51.47 280 P P 23 02 47.6 +1.0
NIL **Nilore** 51.47 280 P P 23 02 47.1 +0.5
NIL IAmb IAmb 23 02 50.8
comp=Z,2μm,0.9s
NIL **Nilore** 51.47 280 ⇓P P 23 02 47.2 +0.7
NIL **Nilore** 51.47 280 P P 23 02 47.3 +0.8
comp=Z,4μmcomp=Z,16μmcomp=Z,2μm,0.8s,comp=Z,16μm
FAKI **Fak Fak** 51.48 191 P P 23 02 46.0 -0.8
FAKI **Fak Fak** 51.48 191 P P 23 02 46.1 -0.7
FAKI IAmb IAmb 23 02 49.1
comp=Z,1μm,0.8s
FAKI **Fak Fak** 51.48 191 ⇑P P 23 02 46.4 -0.4
FAKI **Fak Fak** 51.48 191 P P 23 02 46.3 -0.5
FAKI **Fak Fak** 51.48 191 P P 23 02 46.7 -0.2
comp=Z,6μmcomp=Z,14μmcomp=Z,2μm,0.8s,comp=Z,14μm
LUWI **Luwuk** 51.52 203 P P 23 02 44.2 -2.9
LUWI S S 23 09 17.0 -7.2
LUWI **Luwuk** 51.52 203 P P 23 02 45.9 -1.2
LUWI **Luwuk** 51.52 203 P P 23 02 44.4 -2.7
comp=Z,3μmcomp=Z,3μmcomp=Z,9μmcomp=Z,9μm
comp=Z,724nm,1.4s,comp=Z,724nm,1.4s
LUWI **Luwuk** 51.52 203 P P 23 02 44.7 -2.4
comp=Z,3μmcomp=Z,9μmcomp=Z,560nm,0.9s,comp=Z,9μm
BJO1 **Bjornoya** 51.58 343 *e* P P 23 02 46.8 +0.1
BJO1 IVmB_BB 23 02 47.0
comp=Z,5μm,1.0s
BJO1 *ep* P pP 23 04 37.0 +0.8
BJO1 *es* P sP 23 05 40.0 -1.0
BJO1 *e* S S 23 09 26.2 +2.8
APSI **Ampana** 51.70 205 P P 23 02 48.0 -0.4
comp=Z,8μmcomp=Z,8μmcomp=Z,769nm,1.2s,comp=Z,769nm,1.2s
SANI **Sanana** 51.72 199 P P 23 02 47.1 -1.3
SANI S S 23 09 22.8 -4.0
SANI **Sanana** 51.72 199 P P 23 02 46.9 -1.6
comp=Z,5μmcomp=Z,5μmcomp=Z,8μmcomp=Z,8μm
comp=Z,582nm,0.8s,comp=Z,582nm,0.8s
SANI **Sanana** 51.72 199 P P 23 02 47.4 -1.1
comp=Z,5μmcomp=Z,8μmcomp=Z,574nm,0.8s,comp=Z,8μm
LVZ **Lovozero** 51.84 332 *de* P P 23 02 48.3 -0.4
LVZ pmax pmax
comp=Z,720nm,0.9s
LVZ **Lovozero** 51.84 332 P P 23 02 48.1 -0.6
LVZ PcP PcP 23 03 51.0 -0.2
LVZ pP pP 23 04 37.5 -0.9
DIB **Dawson Inlet,** 51.90 50 IAmb IAmb 23 02 53.5
comp=Z,2μm,1.0s
H02S1 **DAWSON INLET T** 51.90 50 P P 23 02 49.9 +0.7
SNR=122
H02S2 **DAWSON INLET T** 51.90 50 P P 23 02 50.5 +1.3
SNR=118
RES **Resolute Bay** 51.92 16 ⇓P P 23 02 48.6 -0.5
RES **Resolute Bay** 51.92 16 P P 23 02 48.8 -0.3
comp=Z,16μmcomp=Z,24μmcomp=Z,3μm,0.9s
BWNR **Bhubaneshwar** 51.97 258 *e* P P 23 02 50.4 +0.1
BWNR IAmb IAmb 23 02 53.0
comp=Z,432nm,0.7s
BWNR *i* pP PcP 23 03 59.2 +6.8
BWNR *es* P pP 23 04 37.9 -2.3
VADS **Vadso** 52.05 336 *e* P P 23 02 50.0 -0.1
VADS IVmB_BB 23 02 50.7
comp=Z,14μm,0.7s
VADS *ep* P pP 23 04 39.5 -0.4
VADS *es* P sP 23 05 42.5 -2.1
VADS *e* S S 23 09 31.2 +1.5
KMPI **Kaimana, Papua** 52.05 189 P P 23 02 50.2 -0.6
MOBC **Moresby Island** 52.19 50 IAmb IAmb 23 02 55.1
comp=Z,1μm,1.2s
PCI **Palu** 52.22 207 P P 23 02 51.5 -0.6
comp=Z,8μmcomp=Z,8μmcomp=Z,760nm,1.0s,comp=Z,760nm,1.0s
RUBB **Prince Rupert** 52.41 48 IAmb IAmb 23 02 55.4
comp=Z,697nm,0.8s
APA **Apatity** 52.42 332 *i* P P 23 02 50.5 -2.3
APA *i* 23 03 52.5
APA *i* *PP pP 23 04 37.9 -4.9
APA *i* S S 23 09 28.7 -6.1
APA *i* 23 11 34.5
APA pmax pmax
comp=Z,655nm,0.8s
SMKI **Samarinda** 52.63 210 P P 23 02 58.0 +3.0
comp=Z,546nm,1.0s,comp=Z,546nm,1.0s
NLAI **Namlea** 52.64 197 P P 23 02 56.3 +1.3
comp=Z,5μmcomp=Z,5μmcomp=Z,4μmcomp=Z,4μm
comp=Z,371nm,1.0s,comp=Z,371nm,1.0s
KEV **Kevo** 52.91 336 P P 23 02 56.1 0.0
KEV IAmb IAmb 23 02 57.5
comp=Z,952nm,0.8s
KEV **Kevo** 52.91 336 ⇓P P 23 02 56.2 0.0
KEV **Kevo** 52.91 336 P P 23 02 56.2 0.0
KEV S S 23 09 39.8 -1.3
KEV **Kevo** 52.91 336 P P 23 02 56.6 +0.4
comp=Z,12μmcomp=Z,12μmcomp=Z,1μm,0.8s
KEV **Kevo** 52.91 336 P P 23 02 56.3 +0.1
KEV PcP PcP 23 03 56.5 +1.4
ADZR **Andozero** 52.92 327 *d* P P 23 02 56.4 +0.1
ADZR *e* 23 03 52.5
ADZR *e* *PP pP 23 04 46.5 -0.2
ADZR *e* S S 23 09 40.5 -0.9
ADZR pmax pmax
comp=Z,2μm,0.8s
HG4B **Hotspring** 53.04 50 IAmb IAmb 23 02 59.5
comp=Z,717nm,0.8s
RABL **Rabaul** 53.14 166 IAmb IAmb 23 03 01.1
comp=Z,1μm,0.7s
RABL **Rabaul** 53.14 166 ⇑P P 23 02 58.7 +0.1
JHNI **Jhansi** 53.15 268 *e* P P 23 02 57.7 -0.9
JHNI IAmb IAmb 23 02 59.9
comp=Z,997nm,0.5s
HAMF **Hammerfest** 53.18 338 *e* P P 23 02 57.7 -0.3
HAMF IVmB_BB 23 02 58.2
comp=Z,7μm,1.0s
HAMF *ep* P pP 23 04 48.1 -0.6
HAMF *es* P sP 23 05 51.2 -2.0
HAMF *e* S S 23 09 44.8 +0.1
BNDI **Bandanaira** 53.39 194 P P 23 03 00.6 +0.2
BNDI **Bandanaira** 53.39 194 ⇑P P 23 02 59.8 -0.6
BNDI **Bandanaira** 53.39 194 P P 23 03 01.0 +0.6
comp=Z,6μmcomp=Z,6μmcomp=Z,1μm,0.9s,comp=Z,1μm,0.9s
BNDI **Bandanaira** 53.39 194 P P 23 03 00.8 +0.4
comp=Z,6μmcomp=Z,11μmcomp=Z,1μm,1.0s,comp=Z,11μm
ARA0 **ARCESS Array S** 53.45 337 *e* P P 23 03 00.3 +0.3
ARA0 IVmB_BB 23 03 00.6
comp=Z,6μm,1.7s
ARA0 *ep* P pP 23 04 48.1 -2.7
ARA0 *es* P sP 23 05 54.9 -0.4
ARA0 *e* S S 23 09 48.5 +0.1
ARCES **ARCESS Array B** 53.45 337 P P 23 03 00.1 +0.1
comp=Z,246nm,0.8s,baz=34,slow=7.2,SNR=373
ARCES PcP PcP 23 03 57.5 +0.3
comp=Z,215nm,0.9s,baz=56,slow=6.5,SNR=5.6
ARCES S S 23 09 48.9 +0.5
comp=Z,20nm,0.9s,baz=83,slow=14,SNR=2.8
ARCES PKPPKP P'P'df 23 33 09.8 -2.0
comp=Z,4.1nm,0.9s,baz=282,slow=1.1,SNR=4.3
ARCES P4KPbc 23 40 11.4
comp=Z,3.2nm,0.7s,baz=78,slow=6.3,SNR=6.3
comp=Z,246nm,0.8s
ARCES **ARCESS Array B** 53.45 337 P P 23 02 59.9 -0.1
ARCES PcP PcP 23 03 56.8 -0.5
BKB **Balikpapan** 53.50 210 P P 23 03 01.8 +0.7
BKB **Balikpapan** 53.50 210 ⇑P P 23 03 01.6 +0.5
BKB **Balikpapan** 53.50 210 P P 23 03 02.1 +1.0
comp=Z,4μmcomp=Z,4μmcomp=Z,10μmcomp=Z,10μm
comp=Z,918nm,1.1s,comp=Z,918nm,1.1s
BKB **Balikpapan** 53.50 210 P P 23 03 01.8 +0.7
comp=Z,4μmcomp=Z,10μmcomp=Z,928nm,1.2s
KBL **Kabul** 53.68 283 P P 23 03 01.7 -0.8
SNR=314
KBL **Kabul** 53.68 283 P P 23 03 01.6 -0.9
KBL pmax pmax
comp=Z,939nm,0.8s
KBL **Kabul** 53.68 283 P P 23 03 01.6 -0.9
KBL IAmb IAmb 23 03 05.2
comp=Z,939nm,0.8s
KBL **Kabul** 53.68 283 P P 23 03 01.6 -0.9
comp=Z,3μmcomp=Z,9μmcomp=Z,1μm,0.8s,comp=Z,9μm
KEKH **Kekaha** 53.70 97 P P 23 03 03.0 +0.5
KEKH **Kekaha** 53.70 97 P P 23 03 03.1 +0.5
comp=Z,878nm,1.0s
PBA **Port Blair** 54.06 244 P P 23 03 05.9 +0.8
TULEG **Thule** 54.08 8 ⇓P P 23 03 03.7 -0.6
TULEG **Thule** 54.08 8 P P 23 03 03.8 -0.6
comp=Z,21μmcomp=Z,2μm,1.0s
TULEG **Thule** 54.08 8 *i* P P 23 03 03.5 -0.8
TULEG IAmb IAmb 23 03 04.7
comp=Z,1μm,0.8s
MMSI **Mamuju** 54.19 207 P P 23 03 05.4 -0.7
comp=Z,5μmcomp=Z,5μmcomp=Z,404nm,1.5s,comp=Z,404nm,1.5s
KLMR **Klimovskoe** 54.25 324 *c* P P 23 03 03.2 -2.6
KLMR *e* *PP pP 23 04 55.8 -1.2
KLMR *e* 23 05 13.5
KLMR S S 23 09 56.3 -2.7
KLMR SS SS 23 13 52.6 +0.3
KLMR pmax pmax
comp=Z,995nm,1.0s
TTSI **Tana Toraja** 54.26 206 P P 23 03 06.1 -0.4
STKI **Sintang** 54.29 217 P P 23 03 07.6 +0.9
comp=Z,10μmcomp=Z,728nm,0.9s,comp=Z,728nm,0.9s
TARA **Tarawa** 54.29 139 P P 23 03 07.9 +1.2
TARA **Tarawa** 54.29 139 ⇑P P 23 03 06.4 -0.3
TARA **Tarawa** 54.29 139 P P 23 03 08.2 +1.5
comp=Z,11μmcomp=Z,13μmcomp=Z,637nm,1.9s
KDI **Kendari** 54.36 203 P P 23 03 07.0 -0.1
comp=Z,4μmcomp=Z,4μmcomp=Z,4μmcomp=Z,4μm
comp=Z,325nm,1.1s,comp=Z,325nm,1.1s
NEEM **North Greenlan** 54.38 3 ⇑P P 23 03 05.5 -1.3
NEEM **North Greenlan** 54.38 3 *i* P P 23 03 06.5 -0.4
NEEM IAmb IAmb 23 03 07.7
comp=Z,2μm,1.1s
KTK1 **Kautokeino** 54.40 337 *e* P P 23 03 07.0 +0.2
KTK1 IVmB_BB 23 03 07.4
comp=Z,10μm,0.8s
KTK1 *ep* P pP 23 04 58.0 -0.1
KTK1 *es* P sP 23 06 02.3 0.0
KTK1 *e* S S 23 10 00.9 +0.1
YKAW3 **Yellowknife Wh** 54.48 33 IAmb IAmb 23 03 08.6
comp=Z,1μm,1.1s
YKA **Yellowknife Ar** 54.52 33 P P 23 03 07.5 -0.2
comp=Z,779nm,0.8s,baz=308,slow=6.5,SNR=2741
YKA PcP PcP 23 04 01.9 +0.5
comp=Z,137nm,0.8s,baz=316,slow=3.5,SNR=7.3
YKA S S 23 10 03.0 +0.5
comp=Z,70nm,1.1s,baz=307,slow=12,SNR=5.9
YKA PKPPKP 23 33 02.2
comp=Z,2.2nm,0.7s,baz=155,slow=2.8,SNR=8.2
YKA P4KPbc 23 40 18.6
comp=Z,6.3nm,0.8s,baz=311,slow=4.3,SNR=46
comp=Z,779nm,0.8s
YKA **Yellowknife Ar** 54.52 33 P P 23 03 07.0 -0.6
YKA PcP PcP 23 04 01.4 0.0
SGF **Sodankyl** 54.56 334 P P 23 03 08.1 +0.3
comp=Z,11μmcomp=Z,13μmcomp=Z,1μm,1.3s,comp=Z,13μm
YKAW1 **Yellowknife Wh** 54.57 33 IAmb IAmb 23 03 09.3
comp=Z,1μm,1.1s
DAG **Danmarks Havn** 54.59 354 ⇓P P 23 03 07.4 -0.6
DAG **Danmarks Havn** 54.59 354 P P 23 03 07.6 -0.4
comp=Z,12μmcomp=Z,17μmcomp=Z,2μm,1.0s
DAG **Danmarks Havn** 54.59 354 *i* P P 23 03 07.5 -0.4
DAG IAmb IAmb 23 03 08.6
comp=Z,1μm,0.9s
BBB **Bella Bella** 54.67 49 IAmb IAmb 23 03 11.1
comp=Z,1μm,0.9s
BBB **Bella Bella** 54.67 49 ⇑P P 23 03 09.7 +0.8
BBB **Bella Bella** 54.67 49 P P 23 03 10.2 +1.3
comp=Z,11μmcomp=Z,17μmcomp=Z,2μm,1.1s,comp=Z,17μm
JETT **Jettan, Norway** 54.74 338 *e* P P 23 03 09.5 +0.4
JETT IVmB_BB 23 03 09.8
comp=Z,16μm,0.7s
JETT *ep* P pP 23 04 59.2 -1.5
JETT *es* P sP 23 06 03.5 -1.4
JETT *e* S S 23 10 05.8 +0.5
KULM **Kulim** 54.77 232 P P 23 03 10.9 +0.8
KULM **Kulim** 54.77 232 P P 23 03 12.0 +1.9
comp=Z,234nm,0.9s,comp=Z,234nm,0.9s
KULM **Kulim** 54.77 232 P P 23 03 11.9 +1.8
comp=Z,2μmcomp=Z,234nm,0.9s,comp=Z,2μm
MSF **Maaselka** 54.81 332 P P 23 03 10.0 +0.3
comp=Z,10μmcomp=Z,13μmcomp=Z,1μm,1.0s,comp=Z,13μm
KKSI **Kolaka, Sulawe** 54.81 204 P P 23 03 11.5 +1.1
PMSI **Majene** 54.96 207 P P 23 03 11.9 +0.5
comp=Z,2μmcomp=Z,2μmcomp=Z,3μmcomp=Z,3μm
comp=Z,227nm,1.2s,comp=Z,227nm,1.2s
BKNR **BIKANER** 55.02 274 *e* P P 23 03 11.8 +0.2
BKNR IAmb IAmb 23 03 14.3
comp=Z,3μm,0.6s
TRO **Tromso** 55.05 339 *e* P P 23 03 11.3 +0.1
TRO IVmB_BB 23 03 11.7
comp=Z,16μm,0.7s
TRO *ep* P pP 23 05 00.5 -2.5
TRO *es* P sP 23 06 06.0 -1.1
TRO *e* S S 23 10 10.8 +1.6
TRO *e* 23 13 16.2
AJM **Ajmer** 55.16 272 *e* P P 23 03 12.6 -0.2
AJM IAmb IAmb 23 03 15.4
comp=Z,821nm,0.6s
AJM *i* x x 23 06 09.4
AJM *i* x x 23 10 09.9
AJM *i* x x 23 13 29.6
AJM *ex* x x 23 15 55.8
KIP **Kipapa** 55.22 96 P P 23 03 13.7 +0.6
KIP **Kipapa** 55.22 96 *ce* P P 23 03 14.6 +1.5
KIP pmax pmax
comp=Z,342nm,0.9s
KIP **Kipapa** 55.22 96 P P 23 03 13.3 +0.2

KIP Kipapa 55.22 96 P **P** **23 03 14.2 +1.1**
comp=Z,638nm,0.8s
KIP Kipapa 55.22 96 P **P** **23 03 14.0 +0.9**
IPM Ipoh 55.26 231 P **P** **23 03 12.9 -0.6**
IPM Ipoh 55.26 231 P **P** **23 03 14.0 +0.5**
comp=Z,246nm,0.7s,comp=Z,246nm,0.7s
IPM Ipoh 55.26 231 P **P** **23 03 13.5 0.0**
comp=Z,2μmcomp=Z,247nm,0.7s,comp=Z,2μm
RNF Rovaniemi 55.27 334 P **P** **23 03 13.0 +0.2**
comp=Z,9μmcomp=Z,18μmcomp=Z,2μm,0.9s,comp=Z,18μm
HON Honolulu 55.30 96 P **P** **23 03 15.6 +1.9**
comp=Z,577nm,0.9s
PKKI Palangkaraya 55.44 213 P **P** **23 03 15.3 +0.6**
BELG Belogornoye 55.61 312 S **S** **23 10 14.9 -2.0**
comp=Z,93nm,1.0s,baz=144,slow=19,SNR=13
BELG P4KPbc 23 40 23.9
comp=Z,31nm,0.8s,baz=95,slow=2.3,SNR=12
BELG Belogornoye 55.61 312 *de*P **P** **23 03 15.3 -0.1**
BELG pmax pmax
comp=Z,197nm,0.9s
BBSI Bau Bau 55.84 202 P **P** **23 03 19.2 +1.8**
comp=Z,4μmcomp=Z,4μmcomp=Z,5μmcomp=Z,5μm
comp=Z,413nm,1.0s,comp=Z,413nm,1.0s
KAPI Kappang 56.15 206 S **S** **23 10 24.8 +0.1**
comp=Z,16nm,0.9s,baz=212,slow=23,SNR=9.4
KAPI Kappang 56.15 206 P **P** **23 03 19.1 -0.4**
KAPI Kappang 56.15 206 P **P** **23 03 19.4 -0.1**
KAPI Kappang 56.15 206 *ce*P **P** **23 03 19.2 -0.3**
KAPI pmax pmax
comp=Z,428nm,1.1s
KAPI Kappang 56.15 206 P **P** **23 03 18.9 -0.7**
KAPI Kappang 56.15 206 ⇑P **P** **23 03 19.5 -0.1**
KAPI Kappang 56.15 206 P **P** **23 03 20.2 +0.7**
comp=Z,3μmcomp=Z,3μmcomp=Z,3μmcomp=Z,7μm
comp=Z,254nm,1.7s,comp=Z,254nm,1.7s
KAPI Kappang 56.15 206 P **P** **23 03 19.5 -0.1**
KAPI S **S** **23 10 23.8 -0.9**
KAPI Kappang 56.15 206 P **P** **23 03 19.7 +0.2**
comp=Z,4μmcomp=Z,7μmcomp=Z,487nm,1.7s,comp=Z,7μm
KAPI Kappang 56.15 206 P **P** **23 03 19.4 -0.1**
KAPI pP **pwP** **23 05 13.4 -0.3**
BBKI Banjar Baru 56.26 212 P **P** **23 03 21.1 +0.8**
comp=Z,6μmcomp=Z,444nm,1.2s,comp=Z,444nm,1.2s
BKSI Bulukumba 56.33 205 P **P** **23 03 20.3 -0.5**
comp=Z,3μmcomp=Z,3μmcomp=Z,2μmcomp=Z,2μm
comp=Z,239nm,1.1s,comp=Z,239nm,1.1s
OUL Oulu 56.34 333 P **P** **23 03 20.2 0.0**
comp=Z,10μmcomp=Z,16μmcomp=Z,2μm,0.8s,comp=Z,16μm
MKS Makassar 56.42 206 P **P** **23 03 23.2 +1.8**
comp=Z,11μmcomp=Z,11μmcomp=Z,1μm,1.3s,comp=Z,1μm,1.3s
BTDF Bukit Timah Da 56.56 226 P **P** **23 03 23.1 +0.7**
BTDF Bukit Timah Da 56.56 226 P **P** **23 03 23.8 +1.4**
comp=Z,197nm,0.9s,comp=Z,197nm,0.9s
TPRI Tanjung Pinang 56.58 225 P **P** **23 03 23.9 +1.3**
comp=Z,4μmcomp=Z,4μmcomp=Z,468nm,0.9s,comp=Z,468nm,0.9s
SAUI Saumlaki 56.59 191 P **P** **23 03 22.9 +0.4**
SAUI Saumlaki 56.59 191 IAmb IAmb 23 03 25.8
comp=Z,2μm,1.0s
SAUI Saumlaki 56.59 191 ⇑P **P** **23 03 23.3 +0.7**
SAUI Saumlaki 56.59 191 P **P** **23 03 23.0 +0.4**
SAUI Saumlaki 56.59 191 P **P** **23 03 23.3 +0.7**
comp=Z,9μmcomp=Z,21μmcomp=Z,2μm,1.1s,comp=Z,21μm
KHLH Kahului Airpor 56.64 96 P **P** **23 03 25.4 +2.5**
comp=Z,1μm,1.0s
LHMI Lhok Sumawe 56.81 236 P **P** **23 03 25.3 +1.2**
LHMI Lhok Sumawe 56.81 236 ⇑P **P** **23 03 26.2 +2.1**
LHMI Lhok Sumawe 56.81 236 P **P** **23 03 27.3 +3.2**
comp=Z,2μmcomp=Z,2μmcomp=Z,7μmcomp=Z,7μm
comp=Z,782nm,0.8s,comp=Z,782nm,0.8s
LHMI Lhok Sumawe 56.81 236 P **P** **23 03 27.7 +3.6**
comp=Z,2μmcomp=Z,7μmcomp=Z,786nm,0.8s,comp=Z,7μm
HLK Haleakala 56.86 96 P **P** **23 03 25.7 +1.0**
HLK Haleakala 56.86 96 P **P** **23 03 26.7 +1.9**
comp=Z,931nm,1.3s
KULLO Kullorsuaq 56.88 6 ⇓P **P** **23 03 23.1 -0.7**
KULLO Kullorsuaq 56.88 6 *i* P **P** **23 03 23.0 -0.7**
KULLO IAmb IAmb 23 03 24.2
comp=Z,1μm,1.0s
BSSI Bau Bau, Buton 57.01 204 P **P** **23 03 25.9 +0.4**
comp=Z,4μmcomp=Z,4μmcomp=Z,351nm,1.1s,comp=Z,351nm,1.1s
DBG Daneborg 57.09 354 ⇓P **P** **23 03 24.4 -0.8**
DBG Daneborg 57.09 354 *i* P **P** **23 03 24.5 -0.6**
DBG IAmb IAmb 23 03 25.8
comp=Z,376nm,0.7s
STEI Steigen 57.22 339 *eP* **P** **23 03 25.7 -0.4**
STEI IVmB_BB 23 03 26.3
comp=Z,7μm,0.9s
STEI *ep*P **pP** **23 05 21.5 +2.3**
STEI *es*P **sP** **23 06 22.1 -0.9**
STEI *eS* **S** **23 10 38.0 +0.9**
STEI *e* 23 14 00.7
TSI Tuntungan 57.38 233 P **P** **23 03 30.4 +2.4**
LOF Lofoten 57.47 339 *eP* **P** **23 03 27.1 -0.7**
LOF IVmB_BB 23 03 28.3
comp=Z,7μm,0.9s
LOF *ep*P **pP** **23 05 20.4 -0.6**
LOF *es*P **sP** **23 06 24.2 -0.7**
LOF *eS* **S** **23 10 43.2 +3.0**
AKL Akola 57.47 265 *eP* **P** **23 03 28.4 -0.2**
AKL IAmb IAmb 23 03 30.7
comp=Z,537nm,0.6s
BSI Banda Aceh 57.51 237 P **P** **23 03 29.0 +0.1**
FAUS Fauske 57.63 338 *eP* **P** **23 03 28.8 -0.1**
FAUS IVmB_BB 23 03 29.4
comp=Z,17μm,0.7s
FAUS *ep*P **pP** **23 05 21.6 -0.6**
FAUS *es*P **sP** **23 06 25.0 -0.9**
FAUS *eS* **S** **23 10 43.8 +1.5**
PMG Port Moresby 57.66 173 S **S** **23 10 43.9 0.0**
comp=Z,5.1nm,0.4s,baz=95,slow=23,SNR=7.4
PMG Port Moresby 57.66 173 P **P** **23 03 29.4 -0.3**
PMG Port Moresby 57.66 173 P **P** **23 03 29.2 -0.6**
PMG Port Moresby 57.66 173 ⇑P **P** **23 03 29.6 -0.2**
PMG Port Moresby 57.66 173 P **P** **23 03 29.5 -0.3**
comp=Z,9μmcomp=Z,9μmcomp=Z,6μmcomp=Z,6μm
comp=Z,643nm,0.8s,comp=Z,643nm,0.8s
PMG Port Moresby 57.66 173 P **P** **23 03 29.8 0.0**
comp=Z,9μmcomp=Z,6μmcomp=Z,658nm,0.8s,comp=Z,6μm
HPAH Hawaii Prepara 57.73 96 P **P** **23 03 31.7 +1.3**
comp=Z,14μmcomp=Z,1μm,1.1s
PSI Prapat 57.77 232 P **P** **23 03 31.4 +0.6**
PSI Prapat 57.77 232 P **P** **23 03 31.3 +0.5**
comp=Z,228nm,0.8s,comp=Z,228nm,0.8s,comp=Z,277nm,0.8s,
comp=Z,277nm,0.8s
PSI P **P** **23 03 31.7 +0.9**
comp=Z,228nm,0.8s,comp=Z,228nm,0.8s,comp=Z,277nm,0.8s,
comp=Z,277nm,0.8s
KCSI Kotacane, Aceh 57.78 234 P **P** **23 03 30.3 -0.5**
DSRI Dabo 57.78 224 P **P** **23 03 31.6 +0.9**
comp=Z,4μmcomp=Z,4μmcomp=Z,483nm,0.8s,comp=Z,483nm,0.8s
RPSI Rantau Prapat 57.86 232 P **P** **23 03 31.4 +0.1**
comp=Z,2μmcomp=Z,276nm,0.8s,comp=Z,2μm
MLSI Meulaboh, Aceh 57.91 235 P **P** **23 03 32.1 +0.5**
comp=Z,4μmcomp=Z,4μmcomp=Z,4μmcomp=Z,4μm
comp=Z,549nm,0.9s,comp=Z,549nm,0.9s
KHLU Kahalu`u 57.91 96 P **P** **23 03 33.3 +1.6**
comp=Z,1μm,1.0s
POHA Pohakuloa 58.04 96 P **P** **23 03 33.7 +1.0**
POHA Pohakuloa 58.04 96 P **P** **23 03 33.1 +0.4**
POHA IAmb IAmb 23 03 35.6
comp=Z,1μm,0.8s
POHA Pohakuloa 58.04 96 ⇑P **P** **23 03 34.0 +1.2**
POHA Pohakuloa 58.04 96 P **P** **23 03 33.9 +1.2**
comp=Z,15μmcomp=Z,2μm,1.0s,comp=Z,15μm
MLOA Mauna Loa Obse 58.16 96 P **P** **23 03 35.1 +1.3**
comp=Z,1μm,1.1s
MOS Moscow 58.20 320 *eP* **P** **23 03 32.1 -0.8**
MOS *e* 23 04 16.1
MOS *e**PP **pP** **23 05 25.0 -1.6**
MOS *e* 23 05 50.0
MOS *e**SP **sP** **23 06 28.4 -1.6**
MOS *eS* **S** **23 10 48.3 -1.5**
MOS *e* 23 12 20.4
MOS pmax pmax
comp=Z,1μm,1.8s
MOS pmax pmax
comp=Z,456nm,1.0s
MOS pmax pmax
comp=N,500nm,1.4s
MOS pmax pmax
comp=E,400nm,1.7s
MOS smax smax
comp=N,4μm,1.9s
MOS smax smax
comp=E,8μm,2.3s
TRH Trail 58.27 96 P **P** **23 03 34.6 +0.1**

OVEH Oceanview Est 58.31 97 IAmb IAmb 23 03 37.5
comp=Z,978nm,0.8s
MLH Mauna Loa 58.32 96 IAmb IAmb 23 03 37.5
comp=Z,1μm,0.8s
TPTI 58.32 234 P **P** **23 03 33.6 -0.8**
comp=Z,2μmcomp=Z,296nm,0.7s,comp=Z,296nm,0.7s
TPI Tanjungpandan 58.43 220 P **P** **23 03 35.8 +0.8**
comp=Z,2μmcomp=Z,274nm,0.8s,comp=Z,274nm,0.8s
PUL Pulkovo 58.47 326 P **P** **23 03 34.8 +0.2**
comp=Z,18μmcomp=Z,2μm,0.8s,comp=Z,18μm
SPT South Point 58.49 97 P **P** **23 03 36.2 +0.7**
ILON Igloolik, Nuna 58.60 16 IAmb IAmb 23 03 35.6
comp=Z,3μm,0.9s
VAGH Vaagaholmen 58.64 338 *eP* **P** **23 03 35.2 -0.5**
VAGH IVmB_BB 23 03 35.8
comp=Z,8μm,0.7s
VAGH *ep*P **pP** **23 05 28.4 -1.2**
VAGH *es*P **sP** **23 06 35.1 +1.9**
VAGH *eS* **S** **23 10 56.0 +1.1**
VAGH *e* 23 14 22.2
RAUS Rausandaksla 58.67 338 *eP* **P** **23 03 35.7 -0.2**
RAUS IVmB_BB 23 03 36.1
comp=Z,9μm,1.4s
RAUS *ep*P **pP** **23 05 31.2 +1.2**
RAUS *es*P **sP** **23 06 34.1 +0.6**
RAUS *eS* **S** **23 10 56.0 +0.5**
RAUS *e* 23 14 18.6
UPNV Upernavik 58.71 6 P **P** **23 03 35.9 -0.2**
comp=Z,14μmcomp=Z,1μm,1.0s,comp=Z,14μm
UPNV Upernavik 58.71 6 *i* P **P** **23 03 35.0 -1.1**
UPNV IAmb IAmb 23 03 38.3
comp=Z,1μm,1.1s
HYB Hyderabad 58.78 261 *eP* **P** **23 03 36.0 -1.4**
HYB IVmB_BB 23 03 39.5
comp=Z,3μm,0.8s
HYB *e*PcP **PcP** **23 04 19.1 -0.1**
HYB *ep*P **pP** **23 05 31.9 +0.2**
HYB *e*PP **PP** **23 05 56.9 -0.2**
HYB *es*P **sP** **23 06 35.2 +0.5**
HYB *e*ScP **ScP** **23 07 22.6 -0.2**
HYB *eS* **S** **23 10 55.7 -2.6**
HYB *e*ScS **ScS** **23 12 27.1 -0.6**
HYB IVMs_BB IVMs_BB 23 15 16.6
comp=Z,4μm,4.5s
MOR8 Moi Rana 58.78 338 *eP* **P** **23 03 35.2 -1.5**
MOR8 IVmB_BB 23 03 35.8
comp=Z,23μm,0.7s
MOR8 *ep*P **pP** **23 05 30.3 -0.4**
MOR8 *es*P **sP** **23 06 33.2 -1.0**
MOR8 *eS* **S** **23 10 56.0 -0.9**
MOR8 *e* 23 14 18.6
BKNI Bangkinang 58.80 228 P **P** **23 03 38.0 +0.5**
BKNI S **S** **23 10 59.9 +1.5**
BKNI Bangkinang 58.80 228 P **P** **23 03 38.7 +1.2**
BKNI Bangkinang 58.80 228 ⇓P **P** **23 03 38.6 +1.0**
BKNI Bangkinang 58.80 228 P **P** **23 03 39.3 +1.8**
BKNI Bangkinang 58.80 228 P **P** **23 03 39.1 +1.6**
comp=Z,9μmcomp=Z,1μm,0.9s,comp=Z,9μm
TATA Tatamba Isabel 58.81 158 P **P** **23 03 38.1 +0.5**
FINES FINESS Array B 58.83 329 P **P** **23 03 36.7 -0.3**
comp=Z,2μm,0.6s,baz=45,slow=7.9,SNR=4383
FINES PcP **PcP** **23 04 18.6 +0.1**
comp=Z,128nm,0.5s,baz=54,slow=3.1,SNR=5.6
FINES pP **pP** **23 05 29.2 -1.8**
comp=Z,210nm,0.9s,baz=33,slow=12,SNR=3.0
FINES S **S** **23 10 56.4 -1.2**
comp=Z,60nm,0.7s,baz=45,slow=15,SNR=11
FINES P4KPbc 23 40 37.8
comp=Z,8.8nm,0.9s,baz=93,slow=3.8,SNR=10
comp=Z,2μm,0.6s
FINES FINESS Array B 58.83 329 P **P** **23 03 36.3 -0.8**
FINES PcP **PcP** **23 04 18.0 -0.5**
KONS Konsvik 58.86 338 *eP* **P** **23 03 36.9 -0.2**
KONS IVmB_BB 23 03 37.2
comp=Z,7μm,1.9s
KONS *ep*P **pP** **23 05 31.2 0.0**
KONS *es*P **sP** **23 06 34.1 -0.6**
KONS *eS* **S** **23 10 58.8 +1.0**
KONS *e* 23 14 21.3
MMRI Maumere 58.95 202 P **P** **23 03 37.8 -0.7**
MMRI Maumere 58.95 202 P **P** **23 03 38.0 -0.5**
comp=Z,5μmcomp=Z,5μmcomp=Z,1μm,1.1s,comp=Z,1μm,1.1s
MMRI Maumere 58.95 202 P **P** **23 03 37.9 -0.5**
comp=Z,5μmcomp=Z,14μmcomp=Z,1μm,1.1s,comp=Z,14μm
STOK Stokkvaagen 59.01 338 *eP* **P** **23 03 37.8 -0.4**
STOK IVmB_BB 23 03 38.2
comp=Z,6μm,1.4s
STOK *ep*P1 23 05 30.3
STOK *es*P **sP** **23 06 36.0 +0.1**
STOK *eS* **S** **23 11 01.5 +1.8**
STOK *e* 23 14 24.9
JNW Jan Mayen West 59.02 349 *eP* **P** **23 03 38.0 -0.1**
JNW IVmB_BB 23 03 39.7
comp=Z,7μm,1.1s
JNW *ep*P **pP** **23 05 33.9 +1.6**
JNW *es*P **sP** **23 06 35.1 -0.6**
JNW *eS* **S** **23 11 03.3 +3.6**
JNW *e* 23 14 26.8
JNE Jan Mayen East 59.04 349 *eP* **P** **23 03 39.0 +0.7**
JNE IVmB_BB 23 03 39.6
comp=Z,7μm,2.7s
JNE *ep*P **pP** **23 05 33.9 +1.5**
JNE *eS* **S** **23 11 05.1 +5.2**
JNE *e* 23 14 24.9
C03A Quillayute Air 59.05 51 IAmb IAmb 23 03 43.0
comp=Z,3μm,1.2s
OBN Obninsk 59.07 320 S **S** **23 11 00.2 -0.5**
comp=Z,51nm,0.8s,baz=43,slow=22,SNR=11
OBN Obninsk 59.07 320 *d* *i* P **P** **23 03 38.1 -0.6**
OBN *i* 23 04 18.8
OBN *i* *PP **pP** **23 05 32.4 -0.5**
OBN *i* 23 05 56.4
OBN *i* S **S** **23 10 57.9 -2.8**
OBN *i* SSS SSS 23 18 14.1
OBN pmax pmax
comp=Z,574nm,0.9s
OBN Obninsk 59.07 320 *eP* **P** **23 03 38.1 -0.6**
OBN Obninsk 59.07 320 P **P** **23 03 37.9 -0.8**
OBN PcP **PcP** **23 05 32.9 -0.1**
OBN pP **pP** **23 05 31.9 -1.0**
JMIC Jan Mayen 59.07 349 *eP* **P** **23 03 39.2 +0.7**
JMIC IVmB_BB 23 03 39.9
comp=Z,5μm,1.3s
JMIC *ep*P **pP** **23 05 32.9 +0.2**
JMIC *eS* **S** **23 11 05.1 +4.8**
JMIC *e* 23 14 29.0
JMIC Jan Mayen 59.07 349 *i* P **P** **23 03 39.2 +0.7**
JMI Jan Mayen 59.15 349 *eP* **P** **23 03 39.0 -0.1**
JMI *ep*P **pP** **23 05 32.9 -0.4**
JMI *eS* **S** **23 11 06.2 +4.8**
LEIR Leirfjorden 59.16 338 *eP* **P** **23 03 38.6 -0.6**
LEIR IVmB_BB 23 03 39.3
comp=Z,6μm,1.0s
LEIR *ep*P **pP** **23 05 34.9 +1.5**
LEIR *eS* **S** **23 11 03.0 +1.5**
LEIR *e* 23 14 32.1
PGC Sidney 59.19 50 IAmb IAmb 23 03 41.5
comp=Z,899nm,0.7s
EDFI Ende, Flores 59.20 202 P **P** **23 03 38.2 -2.1**
comp=Z,4μmcomp=Z,4μmcomp=Z,430nm,1.1s,comp=Z,430nm,1.1s
JMBI JAMBI 59.23 225 P **P** **23 03 43.6 +3.2**
comp=Z,9μmcomp=Z,9μmcomp=Z,948nm,0.8s,comp=Z,948nm,0.8s
VRH Novokhopyorsk 59.24 314 *eP* **P** **23 03 37.5 -2.4**
VRH *e**PP **pP** **23 05 32.0 -2.2**
VRH *e**SP **sP** **23 06 36.3 -1.2**
VRH *e*PPP PPP 23 07 36.1
VRH *eS* **S** **23 10 58.1 -4.9**
VRH *e*SSS SSS 23 18 08.6
VRH pmax pmax
comp=Z,760nm,0.9s
VRH smax smax
comp=E,7μm,14.3s
BWJI Bawean 59.26 213 P **P** **23 03 42.5 +1.9**
comp=E,9μmcomp=E,603nm,1.2s,comp=E,603nm,1.2s
BLKN Baker Lake 59.35 25 IAmb IAmb 23 03 40.9
comp=Z,2μm,0.9s
LBFI Labuhan Bajo, 59.41 204 P **P** **23 03 40.3 -1.3**
SNSI Sinabang, Aceh 59.49 234 P **P** **23 03 43.6 +1.4**
SUMG Summit 59.50 360 P **P** **23 03 42.2 +0.4**
SUMG S **S** **23 11 06.7 +0.3**
SUMG Summit 59.50 360 P **P** **23 03 41.6 -0.2**
SUMG IAmb IAmb 23 03 44.9
comp=Z,2μm,0.9s

SUMG Summit 59.50 360 ⇓P **P** **23 03 42.5 +0.6**
SUMG Summit 59.50 360 P **P** **23 03 42.7 +0.9**
comp=Z,16μmcomp=Z,26μmcomp=Z,2μm,1.4s,comp=Z,26μm
SUMG Summit 59.50 360 *i* P **P** **23 03 42.3 +0.5**
SUMG IAmb IAmb 23 03 43.4
comp=Z,1μm,0.8s
A04D Lummi Island 59.52 50 IAmb IAmb 23 03 44.2
comp=Z,2μm,1.1s
SAVO Savo Central 59.55 158 P **P** **23 03 42.4 -0.1**
SOEI Soe 59.56 199 P **P** **23 03 40.9 -1.8**
SOEI S **S** **23 11 04.4 -3.7**
SOEI Soe 59.56 199 ⇑P **P** **23 03 41.4 -1.3**
SOEI Soe 59.56 199 P **P** **23 03 41.4 -1.3**
comp=Z,3μmcomp=Z,3μmcomp=Z,4μmcomp=Z,4μm
comp=Z,427nm,1.0s,comp=Z,427nm,1.0s
SOEI Soe 59.56 199 P **P** **23 03 41.6 -1.1**
comp=Z,3μmcomp=Z,4μmcomp=Z,432nm,1.0s,comp=Z,4μm
LPSR Galich'ya Gora 59.65 316 *eP* **P** **23 03 40.4 -2.3**
LPSR *e**PP **pP** **23 05 34.2 -3.0**
LPSR *e**SP **sP** **23 06 38.0 -2.4**
LPSR *e*PPP PPP 23 07 37.9
LPSR *e*SSS SSS 23 18 21.9
LPSR pmax pmax
comp=Z,690nm,0.8s
SDSI Sungai Dareh 59.69 227 P **P** **23 03 43.9 +0.4**
comp=Z,229nm,0.9s,comp=Z,229nm,0.9s
GSI Gunungsitoli 59.75 232 P **P** **23 03 45.1 +1.2**
GSI Gunungsitoli 59.75 232 P **P** **23 03 45.2 +1.3**
comp=Z,4μmcomp=Z,4μmcomp=Z,363nm,0.6s,comp=Z,363nm,0.6s
GSI Gunungsitoli 59.75 232 P **P** **23 03 45.2 +1.3**
comp=Z,4μmcomp=Z,360nm,0.6s,comp=Z,4μm
NLWA Neilton Lookou 59.77 52 IAmb IAmb 23 03 46.3
comp=Z,1μm,0.8s
NLWA Neilton Lookou 59.77 52 ⇓P **P** **23 03 45.2 +1.6**
PPI Padang Panjang 59.79 229 P **P** **23 03 44.4 +0.3**
comp=Z,255nm,0.8s,comp=Z,255nm,0.8s
HNR Honiara 59.85 158 P **P** **23 03 45.4 +0.9**
HNR Honiara 59.85 158 P **P** **23 03 44.8 +0.4**
HNR Honiara 59.85 158 ⇑P **P** **23 03 44.2 -0.3**
HNR Honiara 59.85 158 P **P** **23 03 45.6 +1.2**
comp=Z,11μmcomp=Z,12μmcomp=Z,989nm,0.8s,comp=Z,12μm
PMBI Palembang 59.85 223 P **P** **23 03 46.0 +1.5**
PMBI Palembang 59.85 223 P **P** **23 03 47.5 +3.0**
comp=Z,807nm,0.9s,comp=Z,807nm,0.9s
SHUK Shuksan-Mt. Ba 59.96 49 IAmb IAmb 23 03 46.8
comp=Z,1μm,0.8s
WISH Wishkah 60.00 52 IAmb IAmb 23 03 48.1
comp=Z,1μm,0.9s
BATI Baumata 60.13 200 S **S** **23 11 16.2 +1.2**
comp=Z,55nm,1.0s,baz=275,slow=20,SNR=3.7
BATI PKPPKP 23 32 58.9
comp=Z,9.7nm,0.5s,baz=135,slow=6.9,SNR=4.0
BATI Baumata 60.13 200 P **P** **23 03 45.6 -0.7**
comp=Z,3μmcomp=Z,3μmcomp=Z,5μmcomp=Z,270nm,0.5s,
comp=Z,270nm,0.5s
VORR Voronezh 60.13 315 *eP* **P** **23 03 44.3 -1.6**
VORR *e* 23 04 19.6
VORR *e**PP **pP** **23 05 39.6 -1.1**
VORR *e**SP **sP** **23 06 41.8 -2.0**
VORR *e*PPP PPP 23 07 43.7
VORR *eS* **S** **23 11 08.6 -5.5**
VORR *e*SSS SSS 23 18 29.5
VORR pmax pmax
comp=Z,410nm,0.9s
VORR smax smax
comp=E,440nm,3.9s
ARBE Arbavere 60.29 328 P **P** **23 03 47.0 +0.2**
comp=Z,57μmcomp=Z,7μm,1.0s,comp=Z,57μm
GRJI Gresik 60.30 213 P **P** **23 03 49.4 +1.9**
PLAI Plampang 60.34 206 P **P** **23 03 46.5 -1.2**
PLAI Plampang 60.34 206 P **P** **23 03 45.7 -2.0**
comp=Z,6μmcomp=Z,6μmcomp=Z,655nm,0.9s,comp=Z,655nm,0.9s
PLAI Plampang 60.34 206 P **P** **23 03 46.0 -1.8**
comp=Z,2μmcomp=Z,6μmcomp=Z,658nm,0.9s,comp=Z,6μm
RADR Rader Ridge 60.43 52 IAmb IAmb 23 03 52.4
comp=Z,2μm,1.2s
TBJI Tambak Boyo 60.45 214 P **P** **23 03 50.3 +1.9**
comp=Z,5μmcomp=Z,5μmcomp=Z,482nm,0.8s,comp=Z,482nm,0.8s
SRBI Singaraja 60.45 209 P **P** **23 03 48.3 -0.1**
comp=Z,9μmcomp=Z,9μmcomp=Z,948nm,0.9s,comp=Z,948nm,0.9s
VSR Storozhevoye 60.45 315 *eP* **P** **23 03 45.9 -2.1**
VSR *e* 23 04 24.0
VSR *e**PP **pP** **23 05 41.4 -1.5**
VSR *e**SP **sP** **23 06 44.8 -1.2**
VSR *e*PPP PPP 23 07 46.5
VSR pmax pmax
comp=Z,510nm,0.8s
ABJI Asem Bagus 60.51 211 P **P** **23 03 49.1 +0.3**
comp=Z,6μmcomp=Z,6μmcomp=Z,676nm,0.9s,comp=Z,676nm,0.9s
PBSI Pulau Batu 60.53 231 P **P** **23 03 50.5 +1.5**
comp=Z,3μmcomp=Z,3μmcomp=Z,306nm,0.7s,comp=Z,306nm,0.7s
TWSI Taliwang, Sumb 60.53 207 P **P** **23 03 47.8 -1.2**
comp=Z,3μmcomp=Z,3μmcomp=Z,365nm,1.1s,comp=Z,365nm,1.1s
VORD Divnogorie 60.56 315 *eP* **P** **23 03 47.3 -1.4**
VORD *e**PP **pP** **23 05 43.4 -0.3**
VORD *e**SP **sP** **23 06 46.0 -0.8**
VORD *e*PPP PPP 23 07 48.9
VORD *eS* **S** **23 11 14.3 -5.1**
VORD *e*SSS SSS 23 18 38.1
VORD pmax pmax
comp=Z,540nm,0.9s
VORD smax smax
comp=E,3μm,7.8s
KHKI Kahang-Kahang 60.58 209 P **P** **23 03 49.4 +0.1**
comp=E,3μmcomp=E,3μmcomp=E,210nm,0.8s,comp=E,210nm,0.8s
KRJI Kerinci 60.68 227 P **P** **23 03 51.1 +1.0**
BLJI Banyuglugur 60.68 211 P **P** **23 03 50.3 +0.4**
comp=E,12μmcomp=E,12μmcomp=E,292nm,1.0s,comp=E,292nm,1.0s
VSU Vasula 60.71 327 *de*P **P** **23 03 48.4 -1.2**
VSU pmax pmax
comp=Z,2μm,0.7s
VSU Vasula 60.71 327 ⇓P **P** **23 03 48.4 -1.2**
VSU Vasula 60.71 327 P **P** **23 03 48.6 -0.9**
comp=Z,10μmcomp=Z,17μmcomp=Z,2μm,0.9s,comp=Z,17μm
NSS Namsos 60.72 337 *eP* **P** **23 03 49.3 -0.2**
NSS IVmB_BB 23 03 49.7
comp=Z,8μm,1.0s
NSS *ep*P **pP** **23 05 45.3 +0.6**
NSS *es*P **sP** **23 06 47.4 -0.4**
NSS *eS* **S** **23 11 21.7 +0.7**
NSS *e* 23 14 46.6
NIAQ Niaqornat 60.84 5 *i* P **P** **23 03 50.3 +0.1**
NIAQ IAmb IAmb 23 03 51.5
comp=Z,829nm,0.8s
D05A Enumclaw 60.88 51 IAmb IAmb 23 03 55.0
comp=Z,2μm,1.0s
RTBI Rangdo, Negare 60.89 210 P **P** **23 03 50.8 -0.6**
comp=Z,5μmcomp=Z,5μmcomp=Z,752nm,0.9s,comp=Z,752nm,0.9s
SAATT Saattut 60.93 5 *i* P **P** **23 03 50.3 -0.5**
SAATT IAmb IAmb 23 03 51.7
comp=Z,2μm,0.9s
SCO Scoresbysund 60.94 353 P **P** **23 03 50.6 -0.2**
SCO pmax pmax
comp=Z,753nm,1.0s
SCO Scoresbysund 60.94 353 P **P** **23 03 50.6 -0.2**
SCO Scoresbysund 60.94 353 ⇓P **P** **23 03 50.9 0.0**
SCO Scoresbysund 60.94 353 *i* P **P** **23 03 50.9 0.0**
SCO IAmb IAmb 23 03 52.3
comp=Z,707nm,1.0s
DNP Denpasar 61.01 209 P **P** **23 03 52.6 +0.5**
comp=Z,441nm,1.0s,comp=Z,441nm,1.0s
EDM Edmonton 61.02 41 P **P** **23 03 51.4 -0.4**
EDM pmax pmax
comp=Z,2μm,1.1s
EDM Edmonton 61.02 41 P **P** **23 03 51.4 -0.4**
EDM IAmb IAmb 23 03 53.1
comp=Z,2μm,1.1s
DRS Darwin Rock St 61.03 191 P **P** **23 03 51.8 -0.4**
F04D Rainier, OR 61.06 52 IAmb IAmb 23 03 56.6
comp=Z,2μm,0.9s
KDU Kakadu 61.09 189 P **P** **23 03 52.7 +0.1**
comp=Z,513nm,0.9s
KDU Kakadu 61.09 189 P **P** **23 03 52.5 -0.1**
comp=Z,513nm,0.9s
IGBI Denpasar 61.16 209 P **P** **23 03 52.7 -0.4**
comp=Z,4μmcomp=Z,4μmcomp=Z,220nm,0.9s,comp=Z,220nm,0.9s
JAGI Jajag, Banyuwa 61.16 210 P **P** **23 03 53.0 -0.1**
JAGI Jajag, Banyuwa 61.16 210 P **P** **23 03 50.4 -2.7**
JAGI Jajag, Banyuwa 61.16 210 ⇑P **P** **23 03 50.6 -2.5**
JAGI Jajag, Banyuwa 61.16 210 P **P** **23 03 51.6 -1.5**
JAGI Jajag, Banyuwa 61.16 210 P **P** **23 03 50.8 -2.4**
comp=Z,75nm,0.7s
SMRI Semarang 61.19 215 P **P** **23 03 53.6 +0.3**
SMRI Semarang 61.19 215 ⇑P **P** **23 03 53.7 +0.4**
SMRI Semarang 61.19 215 P **P** **23 03 54.1 +0.8**

comp=Z,6µmcomp=Z,6µmcomp=Z,742nm,1.0s,comp=Z,742nm,1.0s
SMRI Semarang 61.19 215 P **P 23 03 53.9 +0.6**
comp=Z,6µmcomp=Z,732nm,0.9s,comp=Z,6µm
SISI Saibi 61.20 229 P **P 23 03 54.1 +0.7**
comp=Z,4µmcomp=Z,454nm,0.7s,comp=Z,454nm,0.7s
MASI Maura Aman, Be 61.22 225 P **P 23 03 54.1 +0.5**
SJI Sawahan 61.32 213 P **P 23 03 54.0 -0.3**
comp=Z,828nm,0.7s,comp=Z,828nm,0.7s
HURO Huro Makira 61.35 156 P **P 23 03 54.2 -0.1**
SNJI Sawahan-Nganju 61.37 213 P **P 23 03 55.3 +0.7**
comp=Z,218nm,0.9s,comp=Z,218nm,0.9s
MTN Manton Dam 61.41 191 P **P 23 03 54.9 +0.3**
comp=Z,535nm,0.8s,comp=Z,0.0nm
MTN Manton Dam 61.41 191 P **P 23 03 54.7 0.0**
comp=Z,535nm,0.8s,comp=Z,0.0nm
MTN Manton Dam 61.41 191 P **P 23 03 54.1 -0.5**
G03D McMinnville, O 61.50 53 IAmb IAmb 23 03 59.0
comp=Z,1µm,1.1s
KSI Kapahiang 61.50 225 P **P 23 03 55.8 +0.4**
comp=Z,11µmcomp=Z,11µmcomp=Z,244nm,0.7s,comp=Z,244nm,0.7s
MDSI Maura Dua 61.50 223 P **P 23 03 54.9 -0.4**
comp=Z,165nm,0.8s,comp=Z,165nm,0.8s
MAK Makhachkala 61.54 304*c* *i*P P 23 03 50.3 -4.9
MAK *e**PP pP 23 05 48.8 -2.2
MAK *e* 23 06 20.0
MAK *e*S **S 23 11 23.9 -7.8**
MAK *e*SS **SS 23 15 49.6 +2.9**
MAK pmax pmax
comp=Z,585nm,0.7s
PWJI Pagerwojo 61.57 213 P **P 23 03 54.5 -1.3**
comp=Z,4µmcomp=Z,4µmcomp=Z,531nm,1.1s,comp=Z,531nm,1.1s
MTSE Matsula 61.58 328 P **P 23 03 55.4 +0.2**
comp=Z,69µmcomp=Z,10µm,0.8s,comp=Z,69µm
SAQQ Saqqaq 61.71 5 *i* P **P 23 03 55.3 -0.5**
SAQQ IAmb IAmb 23 03 56.5
comp=Z,1µm,0.8s
WOJI Wonogiri, Jawa 61.73 214 P **P 23 03 56.7 -0.1**
comp=Z,3µmcomp=Z,3µmcomp=Z,345nm,0.9s,comp=Z,345nm,0.9s
UBSI University, Be 61.74 225 P **P 23 03 57.5 +0.6**
comp=Z,7µmcomp=Z,7µmcomp=Z,549nm,0.9s,comp=Z,549nm,0.9s
COR Corvallis 61.89 54 P **P 23 03 58.7 +1.2**
COR pmax pmax
comp=Z,2µm,1.0s
COR Corvallis 61.89 54 P **P 23 03 58.7 +1.2**
COR IAmb IAmb 23 04 02.1
comp=Z,2µm,0.9s
COR Corvallis 61.89 54 P **P 23 03 59.8 +2.4**
comp=Z,5µmcomp=Z,8µmcomp=Z,860nm,1.3s,comp=Z,8µm
I02E Swisshome, OR 61.91 54 IAmb IAmb 23 04 02.0
comp=Z,1µm,0.9s
NGOA Tingoa Renbel 61.92 159 P **P 23 03 58.5 +0.5**
YOGI Yogyakarta 61.95 215 P **P 23 03 59.2 +1.0**
comp=Z,4µmcomp=Z,4µmcomp=Z,524nm,1.1s,comp=Z,524nm,1.1s
MNAI Manna 61.95 224 P **P 23 03 58.9 +0.6**
MNAI Manna 61.95 224 P **P 23 03 57.1 -1.2**
MNAI Manna 61.95 224 ⇑P **P 23 03 57.1 -1.2**
MNAI Manna 61.95 224 P **P 23 03 59.8 +1.5**
comp=Z,448nm,0.7s,comp=Z,448nm,0.7s
MNAI Manna 61.95 224 P **P 23 03 58.8 +0.5**
comp=Z,455nm,0.7s
UGM Wanagama 61.95 214 P **P 23 03 57.7 -0.6**
UGM Wanagama 61.95 214 P **P 23 03 58.8 +0.5**
comp=Z,436nm,1.1s,comp=Z,436nm,1.1s
UGM Wanagama 61.95 214 P **P 23 03 59.0 +0.7**
comp=Z,438nm,1.1s
PCJI Pacitan 61.96 214 P **P 23 03 58.8 +0.5**
comp=Z,387nm,1.2s,comp=Z,387nm,1.2s
KPJI Karang Pucung 62.04 216 P **P 23 03 57.8 -1.0**
comp=Z,5µmcomp=Z,5µmcomp=Z,617nm,0.7s,comp=Z,617nm,0.7s
BUCK Buck Mountain 62.31 54 IAmb IAmb 23 04 04.9
comp=Z,2µm,1.1s
GDH Godhavn 62.36 6 *i* P **P 23 03 59.7 -0.4**
GDH IAmb IAmb 23 04 00.7
comp=Z,829nm,0.8s
C09A Chrisman Ranch 62.36 48 IAmb IAmb 23 04 02.4
comp=Z,1µm,0.9s
E07A Sunnyside 62.40 50 IAmb IAmb 23 04 04.4
comp=Z,853nm,0.9s
WAH2 Wahluke Slope 62.41 50 IAmb IAmb 23 04 02.7
comp=Z,1µm,0.7s
I03D Drain, OR 62.45 54 P **P 23 04 02.5 +1.4**
I03D IAmb IAmb 23 04 05.5
comp=Z,1µm,0.9s
J01E Myrtle Point 62.48 55 IAmb IAmb 23 04 05.7
comp=Z,1µm,0.8s
ILULI Ilulissat 62.55 5 *i* P **P 23 04 00.6 -0.7**
ILULI IAmb IAmb 23 04 01.9
comp=Z,1µm,0.9s
NEW Newport 62.62 47 ⇓P **P 23 04 02.7 +0.4**
NEW Newport 62.62 47 P **P 23 04 02.9 +0.7**
comp=Z,11µmcomp=Z,8µmcomp=Z,726nm,1.1s
KHAM Kharkiv 62.65 315 P **P 23 04 01.6 -0.7**
BBJI Bungbulang 62.67 218 P **P 23 04 01.5 -1.5**
BBJI Bungbulang 62.67 218 P **P 23 04 01.2 -1.8**
BBJI Bungbulang 62.67 218 P **P 23 04 02.6 -0.4**
BBJI Bungbulang 62.67 218 P **P 23 04 01.9 -1.0**
comp=Z,51nm,0.8s
HAWA Hanford 62.67 50 IAmb IAmb 23 04 06.0
comp=Z,995nm,0.8s
HAWA Hanford 62.67 50 ⇓P **P 23 04 03.3 +0.8**
SKJI Sukabumi 62.71 219 P **P 23 04 02.0 -1.1**
comp=Z,6µmcomp=Z,6µmcomp=Z,600nm,0.9s,comp=Z,600nm,0.9s
CGJI Cibinong 62.73 220 P **P 23 04 01.6 -1.6**
comp=Z,3µmcomp=Z,3µmcomp=Z,358nm,0.7s,comp=Z,358nm,0.7s
F07A Phinny Hill Vi 62.80 51 IAmb IAmb 23 04 07.1
comp=Z,1µm,1.0s
E08A Dider Farm, El 62.85 50 IAmb IAmb 23 04 05.7
comp=Z,882nm,0.9s
G06A Carlson Farm, 62.87 52 IAmb IAmb 23 04 07.8
comp=Z,2µm,1.6s
I04A Tendick Farm, 62.89 54 IAmb IAmb 23 04 07.7
comp=Z,1µm,1.0s
SLIT Slitere, Latvi 62.93 328 ⇑P **P 23 04 03.4 -0.6**
K02D Willamette Mer 62.94 55 IAmb IAmb 23 04 08.3
comp=Z,1µm,1.0s
I05D Terrebonne, OR 63.10 53 IAmb IAmb 23 04 08.6
comp=Z,3µm,1.8s
MNK Minsk 63.13 323 *i* P **P 23 04 05.6 +0.4**
MNK *i* 23 04 36.4
MNK *i**PP **pP 23 06 00.7 -0.9**
MNK *i* 23 06 34.5
MNK *i**SP **sP 23 07 04.8 +0.5**
MNK *i*S **S 23 11 52.8 +2.1**
MNK *i*SS **SS 23 16 14.5 +3.9**
MNK pmax pmax
comp=N,367nm,0.8s
MNK pmax pmax
comp=Z,1µm,0.7s
MNK pmax pmax
comp=E,658nm,0.9s
MNK Minsk 63.13 323 *i* P **P 23 04 05.7 +0.4**
comp=E,658nm,0.9s,baz=44
MNK *i* P **P 23 04 05.7 +0.4**
comp=N,367nm,0.8s
MNK *i* P **P 23 04 05.7 +0.4**
comp=Z,1µm,0.7s
MNK *i* pP **pP 23 06 00.8 -0.9**
MNK *i* sP **sP 23 07 04.9 +0.5**
MNK *i* S **S 23 11 52.8 +2.1**
MNK *i* sS **sS 23 15 19.5 +1.1**
MNK *i* SS **SS 23 16 14.6 +3.9**
YPT Yellepit 63.20 50 IAmb IAmb 23 04 08.1
comp=Z,1µm,0.9s
NACGM Naroch 63.27 324 *e*PcP **PcP 23 04 37.0 +0.2**
NACGM ⇓*i*P **P 23 04 05.8 -0.3**
comp=Z,2µm,0.9s,baz=43
NACGM ⇑*i*P **P 23 04 06.2 0.0**
NACGM ⇑*i*P **P 23 04 06.3 +0.2**
NACGM *ep*P **pP 23 06 03.4 +0.7**
NACGM *e*PP **PP 23 06 30.8 -4.4**
NACGM *i*S **S 23 11 50.8 -1.6**
NACGM ScS **ScS 23 13 07.3 +6.7**
NACGM sS **sS 23 15 23.5 +3.2**
NACGM SS **SS 23 16 14.4 +1.6**
NACGM SSS SSS 23 19 35.5
E09A Wood Farm, Sta 63.30 49 IAmb IAmb 23 04 08.7
comp=Z,1µm,0.9s
KSXB Camp Six Broad 63.40 56 IAmb IAmb 23 04 11.6
comp=Z,1µm,1.1s
J04A Umpqua Nationa 63.42 54 IAmb IAmb 23 04 11.6
comp=Z,2µm,0.8s
MOL Molde 63.46 338 *e*P **P 23 04 07.4 +0.2**
MOL IVmB_BB 23 04 07.9
comp=Z,6µm,1.1s
MOL *ep*P **pP 23 06 02.9 -1.0**
MOL *e*S **S 23 11 55.8 +1.3**
ERBR Yeremizino-Bor 63.48 310 ⇓*i*P **P 23 04 08.2 +0.5**
ERBR *e**PP **pP 23 06 05.6 +1.2**
ERBR *e* 23 06 35.1
ERBR *i*S **S 23 11 56.3 +1.0**
ERBR pmax pmax
comp=Z,2µm,0.8s
KIV Kislovodsk 63.51 307 *i* P **P 23 04 08.8 +0.7**
SNR=523
KIV Kislovodsk 63.51 307 P **P 23 04 08.7 +0.7**
KIV S **S 23 11 57.9 +1.9**
KIV Kislovodsk 63.51 307 P **P 23 04 08.6 +0.6**
KIV Kislovodsk 63.51 307 P **P 23 04 08.5 +0.4**
KIV Kislovodsk 63.51 307 ⇓P **P 23 04 08.6 +0.6**
KIV Kislovodsk 63.51 307 ⇓P **P 23 04 08.7 +0.6**
KIV Kislovodsk 63.51 307 P **P 23 04 08.8 +0.7**
KIV S **S 23 11 57.0 +1.0**
KIV Kislovodsk 63.51 307 P **P 23 04 07.2 -0.8**
comp=Z,15µmcomp=Z,2µm,1.0s
KIV Kislovodsk 63.51 307 P **P 23 04 08.8 +0.7**
comp=Z,9µmcomp=Z,20µmcomp=Z,2µm,1.0s,comp=Z,20µm
KIV Kislovodsk 63.51 307 P **P 23 04 08.7 +0.7**
KIV pP **pP 23 06 06.7 +1.8**
DOMB Dombas 63.51 337 *e*P **P 23 04 07.4 -0.2**
DOMB IVmB_BB 23 04 08.0
comp=Z,13µm,0.7s
DOMB *ep*P **pP 23 06 03.9 -0.5**
DOMB *e*S **S 23 11 54.8 -0.5**
DOMB *e* 23 15 18.7
KBZ Khabaz 63.55 307 P **P 23 04 08.7 +0.6**
comp=Z,707nm,0.8s,baz=53,slow=6.0,SNR=614
KBZ S **S 23 11 58.2 +2.1**
comp=Z,55nm,1.0s,baz=33,slow=21,SNR=14
comp=Z,707nm,0.8s
NC405 NORSAR Array S 63.56 335 IAmb IAmb 23 04 08.9
comp=Z,1µm,0.7s
NC303 NORSAR Array S 63.57 335 IAmb IAmb 23 04 09.0
comp=Z,1µm,0.8s
KRMB Red Mountain 63.58 57 IAmb IAmb 23 04 12.8
comp=Z,916nm,1.1s
SHA1 Shidzhatmaz 63.67 307*de*P **P 23 04 09.9 +0.6**
PINE Pine Mountain 63.68 53 IAmb IAmb 23 04 12.0
comp=Z,1µm,0.8s
NC204 NORSAR Array S 63.69 336 P **P 23 04 08.2 -0.6**
NC204 IAmb IAmb 23 04 09.9
comp=Z,1µm,0.8s
NB201 NORSAR Array S 63.73 335 IAmb IAmb 23 04 10.0
comp=Z,1µm,0.8s
NB2 NORSAR Subarra 63.76 335 P **P 23 04 08.9 -0.4**
comp=Z,997nm,0.8s,baz=36,slow=6.5
NB2 PCP **PcP 23 04 39.1 +0.3**
comp=Z,74nm,0.7s,baz=42,slow=4.6
NB2 PP **pP 23 06 08.1 +1.9**
comp=Z,54nm,0.8s,baz=35,slow=6.9
NB2 NORSAR Subarra 63.76 335 P **P 23 04 08.0 -1.3**
NOA NORSAR Array B 63.76 335 P **P 23 04 08.9 -0.4**
comp=Z,904nm,0.7s,baz=35,slow=6.3,SNR=2769
NOA pP **pP 23 06 06.8 +0.7**
comp=Z,86nm,0.8s,baz=36,slow=6.7,SNR=4.3
NOA S **S 23 11 59.6 +1.3**
comp=Z,7.0nm,0.8s,baz=55,slow=13,SNR=4.6
comp=Z,904nm,0.7s
HFS Hagfors 63.78 334 P **P 23 04 08.9 -0.4**
comp=Z,1µm,0.6s,baz=61,slow=7.0,SNR=99
HFS pP **pP 23 06 06.9 +0.6**
comp=Z,100nm,0.8s,baz=172,slow=4.5,SNR=3.9
HFS S **S 23 11 57.2 -1.2**
comp=Z,53nm,0.9s,baz=33,slow=3.5,SNR=8.7
comp=Z,1µm,0.6s
J05D Fort Rock, OR 63.87 54 IAmb IAmb 23 04 14.5
comp=Z,1µm,0.9s
NBO00 NORSAR Array S 63.89 335 IAmb IAmb 23 04 11.0
comp=Z,1µm,0.8s
PABE Paberze 63.91 326 P **P 23 04 09.6 -0.6**
PABE IAmb IAmb 23 04 11.3
comp=Z,1µm,0.9s
PABE Paberze 63.91 326 P **P 23 04 10.2 0.0**
comp=Z,16µmcomp=Z,2µm,1.1s,comp=Z,16µm
NC602 NORSAR Array S 63.92 335 *e*P **P 23 04 09.0 -1.2**
NC602 IVmB_BB 23 04 10.2
comp=Z,4µm,0.8s
NC602 *ep*P **pP 23 06 07.0 -0.2**
NC602 *es*P **sP 23 07 10.2 +0.3**
AKN Aaknes 63.93 338 *e*P **P 23 04 10.6 +0.3**
AKN IVmB_BB 23 04 11.1
comp=Z,8µm,0.9s
AKN *ep*P **pP 23 06 07.0 -0.2**
AKN *e*S **S 23 12 01.0 +0.7**
NEUR Neytrino 63.97 306*de*P **S 23 04 11.4 +0.3**
NEUR pmax pmax
comp=Z,187nm,1.0s
JCC Jacoby Creek, 63.99 57 IAmb IAmb 23 04 15.2
comp=Z,2µm,1.1s
L04D Klamath Falls 64.00 55 IAmb IAmb 23 04 13.7
comp=Z,1µm,0.8s
NAO01 NORSAR Array S 64.01 335 IAmb IAmb 23 04 11.6
comp=Z,772nm,0.8s
NAO01 NORSAR Array S 64.01 335 P **P 23 04 10.6 -0.3**
comp=Z,2µmcomp=Z,5µmcomp=Z,594nm,0.8s
LABN Labinsk 64.08 309 *e*P **P 23 04 12.3 +0.8**
LABN *e**PP **pP 23 06 08.2 -0.5**
LABN *e* 23 06 43.0
LABN *e*PPP PPP 23 08 26.0
LABN *e*S **S 23 12 04.2 +1.6**
LABN pmax pmax
comp=Z,1µm,0.8s
YBH Yreka Blue Hor 64.11 56 P **P 23 04 13.0 +1.1**
YBH pmax pmax
comp=Z,716nm,1.1s
YBH Yreka Blue Hor 64.11 56 P **P 23 04 13.0 +1.1**
KHMM Horse Mountain 64.12 57 IAmb IAmb 23 04 16.3
comp=Z,2µm,1.0s
MALK Mahakanadarawa 64.16 253 P **P 23 04 11.4 -1.0**
MALK S **S 23 12 01.9 -2.3**
MALK Mahakanadarawa 64.16 253 ⇑P **P 23 04 12.1 -0.3**
MALK Mahakanadarawa 64.16 253 P **P 23 04 13.1 +0.7**
comp=Z,3µmcomp=Z,2µmcomp=Z,210nm,0.8s
KMPM Mount Pierce 64.20 58 IAmb IAmb 23 04 15.5
comp=Z,1µm,0.9s
M02C Callahan 64.26 56 IAmb IAmb 23 04 17.2
comp=Z,674nm,0.8s
FCC Fort Churchill 64.26 28 P **P 23 04 11.7 -0.6**
FCC pmax pmax
comp=Z,2µm,1.0s
FCC Fort Churchill 64.26 28 P **P 23 04 11.7 -0.6**
PBUR Paburge 64.28 327 P **P 23 04 12.6 +0.1**
comp=Z,11µmcomp=Z,22µmcomp=Z,3µm,0.9s,comp=Z,22µm
K05A Summer Lake 64.43 54 IAmb IAmb 23 04 18.2
comp=Z,2µm,1.1s
KNRA Kununurra 64.52 193 P **P 23 04 14.9 +0.4**
comp=Z,354nm,0.9s,comp=Z,0.0nm
KNRA Kununurra 64.52 193 P **P 23 04 14.6 +0.1**
comp=Z,354nm,0.9s,comp=Z,0.0nm
KNRA Kununurra 64.52 193 P **P 23 04 14.4 -0.1**
KHBM Hayfork Bally 64.55 57 IAmb IAmb 23 04 18.7
comp=Z,1µm,1.3s
KMRM Mail Ridge 64.57 58 IAmb IAmb 23 04 17.7
comp=Z,857nm,0.9s
FFC Flin Flon 64.64 35 *i* P **P 23 04 14.6 -0.2**
FFC Flin Flon 64.64 35 P **P 23 04 14.1 -0.7**
FFC IAmb IAmb 23 04 16.1
comp=Z,2µm,1.0s
FFC Flin Flon 64.64 35 ⇑P **P 23 04 13.8 -1.1**
FFC Flin Flon 64.64 35 P **P 23 04 14.9 0.0**
comp=Z,14µmcomp=Z,22µmcomp=Z,2µm,1.3s,comp=Z,22µm
FFC Flin Flon 64.64 35 P **P 23 04 14.9 0.0**
FFC PcP **PcP 23 04 42.5 0.0**
M03C McCloud 64.74 56 IAmb IAmb 23 04 18.4
comp=Z,956nm,0.9s
SFJD Kangerlussuaq 64.78 5 P **P 23 04 14.5 -1.0**
SFJD pmax pmax
comp=Z,963nm,1.0s
SFJD Kangerlussuaq 64.78 5 P **P 23 04 14.5 -1.0**
SFJD IAmb IAmb 23 04 18.2
comp=Z,963nm,0.9s
SFJD Kangerlussuaq 64.78 5 ⇓P **P 23 04 15.0 -0.4**
SFJD Kangerlussuaq 64.78 5 P **P 23 04 15.1 -0.4**
SFJD Kangerlussuaq 64.78 5 P **P 23 04 15.2 -0.2**
comp=Z,11µmcomp=Z,1µm,1.0s,comp=Z,11µm
SFJD Kangerlussuaq 64.78 5 *i* P **P 23 04 15.2 -0.2**
SFJD IAmb IAmb 23 04 18.0
comp=Z,1µm,1.0s
OSL Oslo 64.81 335 *e*P **P 23 04 15.2 -0.6**
OSL *ep*P **pP 23 06 13.2 0.0**
OSL *e*S **S 23 12 10.3 -0.4**
SKAR Skarslia 64.86 336 *e*P **P 23 04 16.1 -0.1**
SKAR IVmB_BB 23 04 17.0
comp=Z,6µm,1.2s
SKAR *ep*P **pP 23 06 12.2 -1.4**
SKAR *e*S **S 23 12 12.4 +1.0**
BMO Blue Mountains 64.86 50 IAmb IAmb 23 04 18.9
comp=Z,777nm,0.9s
BMO Blue Mountains 64.86 50 ⇑P **P 23 04 17.3 +0.7**
PALK Pallekele 64.91 252 *i* P **P 23 04 17.1 -0.1**
SNR=100
PALK Pallekele 64.91 252 P **P 23 04 17.5 +0.2**
PALK Pallekele 64.91 252 *i* P **P 23 04 17.6 +0.4**
PALK Pallekele 64.91 252 P **P 23 04 16.8 -0.4**
PALK Pallekele 64.91 252 P **P 23 04 17.6 +0.4**
comp=Z,3µmcomp=Z,3µmcomp=Z,2µmcomp=Z,2µm
comp=Z,308nm,0.7s,comp=Z,308nm,0.7s
PALK Pallekele 64.91 252 P **P 23 04 17.2 -0.1**
PALK S **S 23 12 11.8 -1.6**
PALK Pallekele 64.91 252 P **P 23 04 17.4 +0.2**
comp=Z,3µmcomp=Z,5µmcomp=Z,618nm,0.7s,comp=Z,5µm
PALK Pallekele 64.91 252 P **P 23 04 17.5 +0.2**
PALK pP **pP 23 06 14.9 0.0**
FOO Floro 64.91 338 *e*P **P 23 04 16.1 -0.3**
FOO IVmB_BB 23 04 17.1
comp=Z,8µm,0.8s
FOO *ep*P **pP 23 06 12.2 -1.7**
FOO *e*S **S 23 12 13.4 +1.6**
GNI Garni 64.95 303 S **S 23 12 13.3 -0.2**
comp=Z,73nm,1.2s,baz=322,slow=13,SNR=3.5
GNI Garni 64.95 303 P **P 23 04 18.7 +1.4**
GNI Garni 64.95 303 P **P 23 04 18.8 +1.4**
GNI Garni 64.95 303*de*P **P 23 04 18.5 +1.2**
GNI pmax pmax
comp=Z,216nm,0.8s
GNI Garni 64.95 303 P **P 23 04 18.3 +1.0**
GNI Garni 64.95 303 ⇓P **P 23 04 18.6 +1.3**
GNI Garni 64.95 303 P **P 23 04 17.1 -0.2**
comp=Z,7µmcomp=Z,619nm,0.8s
GNI Garni 64.95 303 P **P 23 04 18.9 +1.6**
comp=Z,9µmcomp=Z,7µmcomp=Z,622nm,0.8s
HYA Hoyanger 65.00 338 *e*P **P 23 04 16.9 0.0**
HYA IVmB_BB 23 04 17.6
comp=Z,12µm,0.8s
HYA *e*S **S 23 12 14.5 +1.6**
KCPM Cahto Peak 65.00 58 IAmb IAmb 23 04 21.4
comp=Z,715nm,0.8s
O02D Mt. Diablo Mer 65.12 57 IAmb IAmb 23 04 21.1
comp=Z,784nm,0.9s
MSO Missoula 65.17 47 IAmb IAmb 23 04 21.8
comp=Z,1µm,1.1s
MSO Missoula 65.17 47 ⇓P **P 23 04 18.8 +0.3**
VSLR Vesyoloye 65.26 308*de*P **P 23 04 19.3 +0.4**
VSLR pmax pmax
comp=Z,836nm,0.9s
J08A Circle Bar Ran 65.29 52 IAmb IAmb 23 04 21.9
comp=Z,927nm,1.1s
AK03 Malin Array Si 65.31 319 P **P 23 04 18.1 -1.0**
AK23 Malin Array Si 65.33 320 P **P 23 04 18.0 -1.2**
AKASG Malin Array Be 65.33 319 P **P 23 04 18.6 -0.7**
comp=Z,446nm,0.7s,baz=42,slow=6.6,SNR=973
AKASG pP **pP 23 06 16.4 -0.4**
comp=Z,92nm,0.7s,baz=41,slow=8.1,SNR=7.8
AKASG S **S 23 12 15.6 -1.6**
comp=Z,24nm,0.9s,baz=38,slow=12,SNR=12
AKASG PKPPKP **P'P'df 23 32 51.3 -2.3**
comp=Z,1.0nm,0.6s,baz=236,slow=4.0,SNR=5.4
AKASG P4KPbc 23 40 56.2
comp=Z,1.6nm,0.7s,baz=45,slow=4.3,SNR=5.5
comp=Z,446nm,0.7s
AKBB Malin Array Si 65.33 319*de*P **P 23 04 18.6 -0.6**
AKBB pmax pmax
comp=Z,707nm,0.9s
AKBB Malin Array Si 65.33 319 P **P 23 04 18.2 -1.0**
SOC Sochi 65.34 308 *e*P **P 23 04 18.1 -1.3**
SOC *e**PP **pP 23 06 16.8 -0.4**
SOC *e* 23 06 53.4
SOC *e*SP **sP 23 07 20.4 +0.9**
SOC *e*PPP PPP 23 08 34.5
SOC *e*S **S 23 12 14.9 -2.7**
SOC *e*SSS SSS 23 19 59.2
SOC pmax pmax
comp=Z,339nm,0.6s
AK04 Malin Array Si 65.34 319 P **P 23 04 18.0 -1.3**
AK01 Malin Array Si 65.34 319 P **P 23 04 18.3 -1.0**
KIEV Kiev 65.34 319 *i* P **P 23 04 18.7 -0.6**
SNR=348
KIEV Kiev 65.34 319 P **P 23 04 18.5 -0.8**
KIEV Kiev 65.34 319 P **P 23 04 18.2 -1.1**
KIEV Kiev 65.34 319 ⇓P **P 23 04 18.6 -0.6**
KIEV Kiev 65.34 319 ⇓P **P 23 04 18.6 -0.8**
KIEV Kiev 65.34 319 P **P 23 04 18.2 -1.1**
comp=Z,36µmcomp=Z,3µm,1.3s
KIEV Kiev 65.34 319 P **P 23 04 18.8 -0.6**
comp=Z,9µmcomp=Z,9µmcomp=Z,838nm,1.3s,comp=Z,9µm
KIEV Kiev 65.34 319 P **P 23 04 18.6 -0.8**
KIEV PcP **PcP 23 04 45.0 -0.5**
SUW Suwalki 65.34 325 *e*P **P 23 04 18.4 -0.9**
SUW *e*S **S 23 12 14.9 -2.3**
SUW Suwalki 65.34 325 ⇓P **P 23 04 18.5 -0.7**
AK22 Malin Array Si 65.35 320 P **P 23 04 18.3 -1.1**
AK21 Malin Array Si 65.36 320 P **P 23 04 18.2 -1.2**
AK08 Malin Array Si 65.37 319 P **P 23 04 18.7 -0.7**
AK09 Malin Array Si 65.37 319 P **P 23 04 18.6 -0.9**
KONO Kongsberg 65.37 335*de*P **P 23 04 19.2 -0.1**
KONO pmax pmax
comp=Z,327nm,0.8s
KONO Kongsberg 65.37 335 P **P 23 04 18.8 -0.5**
KONO Kongsberg 65.37 335 IVmB_BB 23 04 19.2
comp=Z,3µm,1.1s
KONO *e*P **P 23 04 19.2 -0.1**
KONO *ep*P pP 23 06 17.4 +0.3
KONO *e*S **S 23 12 17.6 +0.2**
KONO *e* 23 15 37.3
KONO Kongsberg 65.37 335 ⇓P **P 23 04 19.1 -0.2**
KONO Kongsberg 65.37 335 P **P 23 04 19.4 +0.1**
comp=Z,11µmcomp=Z,6µmcomp=Z,468nm,0.9s,comp=Z,6µm
AK02 Malin Array Si 65.37 319 P **P 23 04 18.6 -0.9**
AK11 Malin Array Si 65.37 319 P **P 23 04 18.5 -1.0**
AK15 Malin Array Si 65.38 319 P **P 23 04 18.5 -1.0**
AK18 Malin Array Si 65.38 320 P **P 23 04 18.5 -1.1**
AK10 Malin Array Si 65.39 319 P **P 23 04 18.6 -1.0**
AK20 Malin Array Si 65.39 320 P **P 23 04 18.6 -1.0**
AK05 Malin Array Si 65.40 319 P **P 23 04 18.6 -1.1**
AK12 Malin Array Si 65.40 319 P **P 23 04 18.7 -1.0**
AK16 Malin Array Si 65.41 319 P **P 23 04 18.7 -1.0**
AK19 Malin Array Si 65.41 320 P **P 23 04 18.7 -1.0**
AK17 Malin Array Si 65.42 319 P **P 23 04 18.7 -1.1**
HATC Hat Creek Radi 65.42 56 IAmb IAmb 23 04 23.9
comp=Z,1µm,0.9s
STRU Stroemstad 65.42 334 *i* P **P 23 04 19.5 -0.1**
AK06 Malin Array Si 65.43 319 P **P 23 04 18.8 -1.0**
AK14 Malin Array Si 65.43 319 P **P 23 04 18.8 -1.1**
AK07 Malin Array Si 65.45 319 P **P 23 04 19.0 -1.0**
SUE Sulen 65.45 338 *e*P **P 23 04 19.5 -0.2**
SUE *e*S **S 23 12 19.6 +1.4**
AK13 Malin Array Si 65.47 319 P **P 23 04 19.1 -1.0**
O03E Paynes Creek 65.59 56 IAmb IAmb 23 04 24.9
comp=Z,2µm,1.1s
BATM Batumi 65.65 306 P **P 23 04 22.1 +0.7**
BATM Batumi 65.65 306 ⇓P **P 23 04 21.9 +0.5**
ANN Anapa 65.67 311*c* *i*P **P 23 04 21.2 -0.2**
ANN *e**PP **pP 23 06 19.1 -0.4**
ANN *e* 23 06 59.2
ANN *e*PPP PPP 23 08 39.6
ANN *e*S **S 23 12 20.5 -0.9**
ANN *e*SS **SS 23 16 57.9 +7.7**
ANN *e*SSS SSS 23 20 08.1
ANN pmax pmax
comp=Z,383nm,0.6s
AONC Vina, CA USA 65.69 57 IAmb IAmb 23 04 24.9
comp=Z,1µm,0.8s
ASK Askoy 65.84 338 *e*P **P 23 04 22.1 -0.1**
ASK IVmB_BB 23 04 23.1
comp=Z,16µm,0.8s
ASK *ep*P **pP 23 06 20.5 +0.3**
ASK *e*S **S 23 12 24.8 +2.0**
WVOR Wild Horse Val 65.84 53 IAmb IAmb 23 04 26.5
comp=Z,769nm,1.0s
WVOR Wild Horse Val 65.84 53 ⇓P **P 23 04 23.6 +0.9**
WVOR Wild Horse Val 65.84 53 P **P 23 04 23.9 +1.1**
comp=Z,10µmcomp=Z,11µmcomp=Z,851nm,1.4s,comp=Z,11µm
FUNA Funafuti 65.86 138 P **P 23 04 24.4 +1.5**
FUNA Funafuti 65.86 138 P **P 23 04 22.6 -0.4**
FUNA Funafuti 65.86 138 ⇓P **P 23 04 24.5 +1.5**

FUNA **Funafuti** 65.86 138 P P 23 04 23.4 +0.4
comp=Z,438nm,0.9s
GBMT **Granite Butte,** 65.87 46 IAmb IAmb 23 04 25.7
comp=Z,1µm,1.2s
BER **Bergen** 65.89 338 *e*P **P** 23 04 22.1 -0.4
BER IVmB_BB 23 04 23.4
comp=Z,13µm,0.8s
BER *e*pP **pP** 23 06 21.2 +0.8
BER *e*sP **sP** 23 07 23.4 +0.7
BER *e*S **S** 23 12 25.9 +2.5
BER *e* 23 16 10.9
BER **Bergen** 65.89 338 P P 23 04 23.0 +0.6
comp=Z,15µmcomp=Z,2µm,1.0s,comp=Z,15µm
ODD1 **Odda** 65.95 337 *e*P **P** 23 04 23.5 +0.5
ODD1 *e*pP **pP** 23 06 19.4 -1.6
ODD1 *e*sP **sP** 23 07 22.8 -0.4
FRB **Frobisher Bay** 66.00 14 ⇓P **P** 23 04 22.5 -0.6
FRB **Frobisher Bay** 66.00 14 P P 23 04 22.7 -0.4
comp=Z,15µmcomp=Z,37µmcomp=Z,5µm,1.0s,comp=Z,37µm
GDXM **Geysers** 66.05 58 IAmb IAmb 23 04 28.1
comp=Z,2µm,1.2s
TJOU **Tjoern** 66.12 333 *i* P P 23 04 23.3 -0.6
MTSU **Mount Surprise** 66.13 176 P P 23 04 24.9 +0.3
comp=Z,181nm,0.9s
MTSU **Mount Surprise** 66.13 176 P P 23 04 24.7 0.0
comp=Z,181nm,0.9s
MTSU **Mount Surprise** 66.13 176 P P 23 04 24.6 0.0
MTSU **Mount Surprise** 66.13 176 P P 23 04 24.8 +0.3
comp=Z,1µmcomp=Z,181nm,0.9s,comp=Z,1µm
BLEU **Blekinge** 66.20 330 *i* P P 23 04 23.3 -1.2
RNPP9 **Sopachiv** 66.22 322 P P 23 04 24.1 -0.6
RNPP2 **Kostyukhnivka** 66.29 322 P P 23 04 24.2 -1.0
RNPP8 **Varash** 66.29 322 P P 23 04 24.3 -0.9
EGMT **Eagleton** 66.31 44 ⇓P P 23 04 26.1 +0.6
SUTB **Sutter Butte** 66.33 57 IAmb IAmb 23 04 28.5
comp=Z,741nm,0.8s
RNPP5 **Staryi Chortor** 66.36 322 P P 23 04 24.7 -0.9
OZAP **Van, Ozalp-Mer** 66.39 302 ⇑P P 23 04 28.0 +1.6
BLS5 **Blasjo** 66.42 336 *e*P P 23 04 25.8 0.0
BLS5 *i* 23 11 31.9
BLS5 *e* 23 16 02.5
BUT **Butte** 66.42 47 IAmb IAmb 23 04 29.8
comp=Z,881nm,0.9s
MCCM **Marconi Confer** 66.45 59 IAmb IAmb 23 04 29.4
comp=Z,757nm,1.1s
MCCM **Marconi Confer** 66.45 59 ⇑P P 23 04 26.5 +0.1
ANGG **Ammassalik, Gr** 66.49 359 ⇓P P 23 04 25.6 -0.5
ANGG **Ammassalik, Gr** 66.49 359 *i* P P 23 04 25.0 -1.1
ANGG IAmb IAmb 23 04 26.3
comp=Z,675nm,0.8s
BORG **Borgarnes** 66.50 352 *i* P P 23 04 28.2 +1.9
BORG **Borgarnes** 66.50 352 P P 23 04 27.5 +1.3
BORG IAmb IAmb 23 04 29.0
comp=Z,624nm,0.8s
BORG **Borgarnes** 66.50 352 ⇓P P 23 04 27.9 +1.6
BORG **Borgarnes** 66.50 352 P P 23 04 28.1 +1.9
comp=Z,15µmcomp=Z,12µmcomp=Z,978nm,1.0s,comp=Z,12µm
LUBAR **Lubar, Ukraine** 66.54 320 P P 23 04 26.2 -0.6
ONAU **Onsala** 66.56 333 *i* P P 23 04 26.0 -0.7
ISOG **Isortoq, Green** 66.56 360 ⇓P P 23 04 26.1 -0.4
ISOG **Isortoq, Green** 66.56 360 *i* P P 23 04 25.9 -0.6
ISOG IAmb IAmb 23 04 27.0
comp=Z,1µm,0.9s
HOMI **Horasan** 66.61 304 ⇓P P 23 04 28.8 +1.1
MFID **Camas Ranch** 66.63 51 IAmb IAmb 23 04 29.9
comp=Z,1µm,0.9s
FABU **Falkenberg** 66.63 332 *i* P P 23 04 26.3 -0.8
BEKR **Beckworth** 66.69 56 IAmb IAmb 23 04 31.4
comp=Z,766nm,0.8s
FARB **Farallon Islan** 66.69 59 IAmb IAmb 23 04 31.0
comp=Z,891nm,1.1s
DEL **Delary** 66.70 331 *i* P P 23 04 26.7 -0.9
HOMB **Homborsund** 66.83 335 *e*P **P** 23 04 27.9 -0.5
HOMB IVmB_BB 23 04 28.8
comp=Z,6µm,1.0s
HOMB *e*pP **pP** 23 06 26.9 0.0
HOMB *e*sP **sP** 23 07 28.6 -0.3
HOMB *i* 23 11 32.5
HOMB *e*S **S** 23 12 36.0 +1.4
HOMB **Homborsund** 66.83 335 *i* P P 23 04 28.3 -0.1
KMY **Karmoy** 66.92 337 *e*P **P** 23 04 29.3 +0.4
KMY *e*pP **pP** 23 06 25.7 -1.7
KMY *e*sP **sP** 23 07 28.4 -1.0
KMY *i* 23 11 32.2
KMY *e*S **S** 23 12 37.1 +1.5
AFDM **Forest Hills D** 66.98 57 IAmb IAmb 23 04 32.9
comp=Z,1µm,1.3s
KTUT **Trabzon** 67.12 306 ⇑P P 23 04 32.9 +2.4
OVD **Ostervraa, Den** 67.14 333 *i* P P 23 04 30.2 -0.1
OVD IAmb IAmb 23 04 31.2
comp=Z,2µm,0.8s
SNART **Snartemo** 67.14 336 *e*P **P** 23 04 30.2 -0.1
SNART IVmB_BB 23 04 31.0
comp=Z,8µm,0.9s
SNART *i* 23 11 33.4
SNART *e*S **S** 23 12 39.8 +1.6
SNART **Snartemo** 67.14 336 *i* P P 23 04 30.3 +0.1
BOZ **Bozeman (W)** 67.18 47 IAmb IAmb 23 04 33.2
comp=Z,1µm,0.9s
BOZ **Bozeman (W)** 67.18 47 ⇓P P 23 04 31.7 +0.7
SIM **Simferopol'** 67.23 312 *d i* P P 23 04 30.8 -0.3
SIM *e* 23 04 54.0
SIM *e* 23 07 10.0
SIM *i* S **S** 23 12 38.0 -1.7
SIM pmax pmax
comp=Z,792nm,0.8s
HLID **Hailey** 67.25 50 IAmb IAmb 23 06 57.2
comp=Z,731nm,0.8s
HLID **Hailey** 67.25 50 ⇓P P 23 04 32.4 +0.9
HLID **Hailey** 67.25 50 P P 23 04 32.5 +1.1
comp=Z,11µmcomp=Z,11µmcomp=Z,649nm,0.9s,comp=Z,11µm
JRSC **Jasper Ridge** 67.33 59 IAmb IAmb 23 04 35.0
comp=Z,964nm,0.9s
PAHR **Pah Rah Range** 67.33 55 IAmb IAmb 23 04 34.1
comp=Z,1µm,0.9s
FITZ **Fitzroy Crossi** 67.41 196 P P 23 04 32.7 +0.3
FITZ **Fitzroy Crossi** 67.41 196 P P 23 04 32.5 +0.1
comp=Z,97nm,1.0s
FITZ **Fitzroy Crossi** 67.41 196 S S 23 12 41.9 -0.3
comp=Z,14nm,1.1s,baz=114,slow=22,SNR=11
FITZ **Fitzroy Crossi** 67.41 196 P P 23 04 32.3 -0.1
FITZ **Fitzroy Crossi** 67.41 196 P P 23 04 31.9 -0.4
FITZ **Fitzroy Crossi** 67.41 196 P P 23 04 32.7 +0.3
comp=Z,841nmcomp=Z,97nm,1.0s,comp=Z,841nm
BSD **Bornholm Skovb** 67.46 330 ⇓P P 23 04 31.8 -0.5
BSD **Bornholm Skovb** 67.46 330 *i* P P 23 04 32.1 -0.1
BSD IAmb IAmb 23 04 32.9
comp=Z,2µm,0.8s
R9F13 **Warsaw-Wawer** 67.51 325 *e*SS SS 23 17 19.0 +1.2
comp=Z,7.3nm,0.5s
LUNU **Lund** 67.52 331 *i* P P 23 04 32.5 -0.1
GURO **Guroymak-BITLI** 67.58 303 IAmb IAmb 23 04 36.0
comp=Z,523nm,0.8s
GURO **Guroymak-BITLI** 67.58 303 ⇓P P 23 04 34.6 +1.1
SORM **Soroca** 67.61 318 P P 23 04 32.5 -0.8
SORM **Soroca** 67.61 318 ⇑P P 23 04 32.4 -0.9
BANOM **Banah** 67.61 284 *i* P P 23 04 33.6 -0.2
SNR=463
BANOM **Banah** 67.61 284 P P 23 04 34.0 +0.2
SNR=122
SHME **Shamm** 67.63 284 *i* P P 23 04 33.4 -0.5
SNR=573
SHME **Shamm** 67.63 284 P P 23 04 33.5 -0.3
SNR=121
PNTR **Pine Nut** 67.65 56 IAmb IAmb 23 04 37.7
comp=Z,1µm,0.7s
LRW **Lerwick** 67.66 341 ⇓P P 23 04 33.6 +0.2
LRW **Lerwick** 67.66 341 *e*P P 23 04 32.9 -0.5
LRW IAmb IAmb 23 04 34.7
comp=Z,359nm,0.6s
COP **Copenhagen** 67.81 331 *i* P P 23 04 34.7 +0.3
COP IAmb IAmb 23 04 35.5
comp=Z,3µm,0.8s
YHL **Hebgen Lake** 67.94 47 P P 23 04 35.9 +0.2
YHL IAmb IAmb 23 04 38.1
comp=Z,1µm,0.9s
BEL **Belsk** 67.94 325 *e*P **P** 23 04 35.6 +0.3
BEL *e*S **S** 23 12 47.2 -0.5
CMB **Columbia Colle** 67.95 57 IAmb IAmb 23 04 39.1
comp=Z,1µm,1.1s
WSAR **Wadi Sarin** 67.95 281 P P 23 04 36.5 +0.7
SNR=25
YHB **Horse Butte** 68.00 47 IAmb IAmb 23 04 38.4
comp=Z,1µm,0.8s

BMN **Battle Mountai** 68.00 54 IAmb IAmb 23 04 38.5
comp=Z,692nm,0.8s
SQUM **Sultan Qaboos** 68.01 281 P P 23 04 36.2 +0.1
MDH **Madha** 68.05 284 *i* P P 23 04 35.1 -1.3
SNR=144
MDH **Madha** 68.05 284 P P 23 04 36.1 -0.3
SNR=45
MASF **Masafi** 68.09 284 P P 23 04 36.6 -0.1
SNR=90
BIDO **Bidbid** 68.09 281 P P 23 04 37.8 +1.2
SNR=74
WRAB **Tennant Creek** 68.09 187 P P 23 04 35.6 -0.9
WRAB **Tennant Creek** 68.09 187 *ce*P P 23 04 35.8 -0.8
WRAB pmax pmax
comp=Z,324nm,1.0s
WRAB **Tennant Creek** 68.09 187 P P 23 04 35.2 -1.3
WRAB **Tennant Creek** 68.09 187 P P 23 04 36.3 -0.3
comp=Z,4µmcomp=Z,4µmcomp=Z,351nm,1.1s,comp=Z,4µm
WRAB **Tennant Creek** 68.09 187 P P 23 04 35.7 -0.8
WRAB PcP **PcP** 23 04 55.8 -1.5
WRAB pP **pP** 23 06 32.8 -2.9
FORD **Fort Ord Natur** 68.09 59 IAmb IAmb 23 04 40.0
comp=Z,850nm,0.8s
MSFE **Esma-Masafi** 68.09 284 *i* P P 23 04 36.3 -0.4
SNR=222
WRA **Warramunga Arr** 68.10 187 P P 23 04 36.0 -0.6
comp=Z,121nm,0.5s,baz=2.5,slow=6.7,SNR=401
WRA pP **pP** 23 06 35.5 -0.3
comp=Z,93nm,1.0s,baz=3.2,slow=6.7,SNR=8.0
WRA S **S** 23 12 49.3 -1.0
comp=Z,6.3nm,1.0s,baz=357,slow=10,SNR=4.8
WRA ScS **ScS** 23 13 39.6 +0.7
comp=Z,8.8nm,0.5s,baz=141,slow=3.1,SNR=26
WRA PKPPKP **P'P'df** 23 32 47.4 +2.4
comp=Z,7.0nm,0.8s,baz=178,slow=2.4,SNR=12
comp=Z,121nm,0.5s
WRA **Warramunga Arr** 68.10 187 P P 23 04 35.5 -1.1
PURM **Purcari** 68.11 316 ⇓P P 23 04 35.9 -0.4
KMPD **K-Podol'skiy** 68.12 319 P P 23 04 35.3 -1.1
YHH **Holmes Hill** 68.14 47 IAmb IAmb 23 04 39.3
comp=Z,825nm,0.9s
LLD **Lille Linde** 68.17 331 *i* P P 23 04 36.6 +0.1
LLD IAmb IAmb 23 04 37.6
comp=Z,2µm,1.1s
WBK **Wadi Bani Khal** 68.17 280 P P 23 04 37.9 +0.7
SNR=162
MUD **Monsted U'grnd** 68.17 333 *i* P P 23 04 37.0 +0.5
MUD IAmb IAmb 23 04 37.9
comp=Z,772nm,0.8s
YMR **Madison River** 68.17 47 IAmb IAmb 23 04 41.0
comp=Z,688nm,1.1s
CTAO **Charters Tower** 68.17 174 P P 23 04 36.4 -0.7
CTAO **Charters Tower** 68.17 174 P P 23 04 36.6 -0.4
comp=Z,4µmcomp=Z,3µmcomp=Z,220nm,1.1s
JLN **Jalan Bani Buh** 68.20 279 P P 23 04 38.0 +0.6
SNR=36
SAO **San Andreas Ge** 68.23 59 IAmb IAmb 23 04 40.6
comp=Z,805nm,1.2s
SAO **San Andreas Ge** 68.23 59 ⇓P P 23 04 37.9 +0.6
KIS **Kishinev** 68.24 317 ⇓P P 23 04 36.7 -0.5
KIS **Kishinev** 68.24 317 P P 23 04 36.9 -0.3
KIS **Kishinev** 68.24 317 ⇓P P 23 04 36.7 -0.5
KIS **Kishinev** 68.24 317 P P 23 04 36.1 -1.1
comp=Z,6µmcomp=Z,794nm,0.8s
YNM **Yellowstone No** 68.26 47 IAmb IAmb 23 04 41.9
comp=Z,773nm,1.1s
YNR **Norris Junctio** 68.28 47 IAmb IAmb 23 04 42.2
comp=Z,894nm,1.0s
UMQ **Umm Al-Quwin** 68.30 284 *i* P P 23 04 38.2 +0.3
SNR=20
UMQ **Umm Al-Quwin** 68.30 284 P P 23 04 38.9 +1.0
SNR=23
DRBR **Darabani** 68.33 319 ⇓P P 23 04 36.9 -0.7
UOSS **Minazif** 68.35 284 *i* P P 23 04 37.4 -0.8
SNR=496
UOSS **Minazif** 68.35 284 P P 23 04 37.9 -0.4
UOSS **Minazif** 68.35 284 P P 23 04 37.1 -1.1
UOSS IAmb IAmb 23 04 40.4
comp=Z,457nm,0.6s
UOSS **Minazif** 68.35 284 ⇓P P 23 04 37.3 -1.0
UOSS **Minazif** 68.35 284 P P 23 04 37.6 -0.7
UOSS **Minazif** 68.35 284 P P 23 04 37.5 -0.8
comp=Z,5µmcomp=Z,6µmcomp=Z,673nm,0.7s
YFT **Old Faithful** 68.40 47 IAmb IAmb 23 04 42.1
comp=Z,1µm,0.8s
RGN **Rugen** 68.46 330 ⇓P P 23 04 38.9 +0.6
RGN **Rugen** 68.46 330 *e*P P 23 04 38.9 +0.6
comp=Z,2µm,1.0s,baz=33,slow=5.8
RGN *es*PP 23 09 58.8
baz=35,slow=7.7
RGN *e*S **S** 23 12 54.3 +0.7
baz=32,slow=11
SMDO **Samad** 68.46 281 P P 23 04 39.1 +0.1
SNR=124
DGMT **Dagmar** 68.47 40 ⇓P P 23 04 38.8 +0.3
QIS **Mount Isa** 68.48 181 P P 23 04 37.9 -1.0
HATD **Hatta, Dubai** 68.48 283 *i* P P 23 04 38.9 -0.1
SNR=764
HATD **Hatta, Dubai** 68.48 283 P P 23 04 39.1 0.0
SNR=183
KVN **Kaiserville** 68.50 55 IAmb IAmb 23 04 41.5
comp=Z,1µm,0.9s
YMP **Mirror Lake Pl** 68.52 46 IAmb IAmb 23 04 43.2
comp=Z,1µm,1.2s
LKWY **Lake** 68.53 47 IAmb IAmb 23 04 43.0
comp=Z,867nm,0.9s
YPP **Pitchstone Pla** 68.54 47 IAmb IAmb 23 04 44.2
comp=Z,647nm,0.9s
HOQ **Hoqain** 68.58 282 P P 23 04 39.6 0.0
SNR=104
ASHO **Ashiyiah** 68.63 283 *i* P P 23 04 39.7 -0.3
SNR=326
ASHO **Ashiyiah** 68.63 283 P P 23 04 40.0 0.0
SNR=113
RLMT **Red Lodge** 68.66 46 IAmb IAmb 23 04 42.4
comp=Z,1µm,0.8s
IASR **Iasi** 68.67 318 ⇑P P 23 04 40.0 +0.2
NAZ **Nazwa, Dubai** 68.68 284 *i* P P 23 04 39.7 -0.5
SNR=254
NAZ **Nazwa, Dubai** 68.68 284 P P 23 04 40.0 -0.2
SNR=56
SOHO **SOHO** 68.70 283 *i* P P 23 04 39.7 -0.6
SNR=213
SOHO **SOHO** 68.70 283 P P 23 04 40.2 -0.2
SNR=92
SNOP **Sinop** 68.79 310 ⇓P P 23 04 40.9 +0.3
NVAR **Mina Array Bea** 68.83 56 P P 23 04 42.2 +1.0
comp=Z,656nm,0.7s,baz=295,slow=5.5,SNR=2332
NVAR pP **pP** 23 06 38.7 -1.6
comp=Z,12nm,0.7s,baz=261,slow=14,SNR=2.1
NVAR SKKP **SKKPdf** 23 27 00.7 -1.3
comp=Z,3.4nm,1.0s,baz=268,slow=5.2,SNR=3.6
NVAR PKPPKP **P'P'df** 23 32 44.4 -3.8
comp=Z,2.0nm,0.7s,baz=122,slow=4.6,SNR=4.7
NVAR P4KPbc 23 41 17.2
comp=Z,2.2nm,0.8s,baz=301,slow=6.1,SNR=9.7
comp=Z,656nm,0.7s
NVAR **Mina Array Bea** 68.83 56 P P 23 04 42.0 +0.8
ELK **Elko** 68.84 52 ⇓P P 23 04 42.0 +0.7
SSRD **Sdr. Stenderup** 68.86 333 *i* P P 23 04 41.3 +0.6
SSRD IAmb IAmb 23 04 42.3
comp=Z,1µm,0.9s
HULI **Fort Hunter Li** 68.88 59 IAmb IAmb 23 04 44.9
comp=Z,1µm,0.8s
FAQ **Al Faqa, Dubai** 68.89 284 *i* P P 23 04 40.8 -0.6
SNR=67
FAQ **Al Faqa, Dubai** 68.89 284 P P 23 04 41.1 -0.4
SNR=102
KWP **Kalwaria Pacla** 68.89 322 *e*P **P** 23 04 41.4 +0.3
KWP *e*S **S** 23 12 57.8 -1.1
KWP **Kalwaria Pacla** 68.89 322 ⇓P P 23 04 41.5 +0.3
JMDO **Jabal Madar** 68.91 280 P P 23 04 41.6 0.0
SNR=59
NV11 **Mina Array Sit** 68.91 56 IAmb IAmb 23 04 45.1
comp=Z,674nm,0.9s
LAO **LASA Array** 68.91 43 IAmb IAmb 23 04 44.8
comp=Z,1µm,0.9s
LAO **LASA Array** 68.91 43 ⇓P P 23 04 41.8 +0.4
VASR **Vaslui** 68.98 317 ⇑P P 23 04 42.3 +0.7
PMPB **Monarch Peak** 68.99 59 P P 23 04 42.7 +0.8
PMPB IAmb IAmb 23 04 52.9
comp=Z,892nm,1.1s
NGRR **Negresti** 68.99 318 ⇑P P 23 04 41.5 -0.2
MNTR **Muntenesti** 69.01 317 ⇓P P 23 04 41.7 -0.1
LNIZ **Loecknitz** 69.02 329 P P 23 04 42.2 +0.6
comp=Z,12µmcomp=Z,18µmcomp=Z,2µm,1.2s,comp=Z,18µm

PDRR **Padureni** 69.03 318 ⇓P P 23 04 42.0 +0.1
DMBR **Dumbraveni** 69.09 318 ⇓P P 23 04 42.4 +0.1
PRAR **RASCA** 69.14 319 ⇑P P 23 04 41.9 -0.7
ASUD **Al Ashush, Dub** 69.14 284 *i* P P 23 04 42.8 -0.2
SNR=86
ASUD **Al Ashush, Dub** 69.14 284 P P 23 04 43.2 +0.2
SNR=93
MARD **Mardin** 69.15 303 IAmb IAmb 23 04 45.2
comp=Z,661nm,0.8s
Q09A **Carvers** 69.16 55 IAmb IAmb 23 04 46.7
comp=Z,916nm,0.9s
BSY **Bisya** 69.24 281 P P 23 04 44.0 +0.4
SNR=109
ALNE **Al Ain** 69.27 283 *i* P P 23 04 43.6 -0.2
SNR=616
ALNE **Al Ain** 69.27 283 P P 23 04 43.7 0.0
SNR=215
ARQ **Araqi** 69.27 282 P P 23 04 43.8 +0.1
SNR=57
GIRR **Girov** 69.32 318 ⇑P P 23 04 44.2 +0.5
PKD **Bear Valley Ra** 69.33 59 IAmb IAmb 23 04 47.3
comp=Z,1µm,0.9s
BIR **Birlad** 69.34 317 P P 23 04 45.1 +1.4
BIR **Birlad** 69.34 317 ⇑P P 23 04 45.1 +1.4
BURAR **Bucovina Array** 69.39 319 P P 23 04 44.1 -0.1
BURAR **Bucovina Array** 69.39 319 P P 23 04 43.8 -0.4
BURAR IAmb IAmb 23 04 45.9
comp=Z,562nm,0.8s
BURAR **Bucovina Array** 69.39 319 ⇑P P 23 04 43.8 -0.4
AJN **Ajban** 69.41 284 *i* P P 23 04 43.9 -0.7
SNR=56
AJN **Ajban** 69.41 284 P P 23 04 43.9 -0.7
SNR=76
VLDR **Vladesti** 69.45 316 ⇓P P 23 04 44.2 -0.2
BZK **Bozkurt** 69.45 310 IAmb IAmb 23 04 46.1
comp=Z,492nm,0.7s
BZK **Bozkurt** 69.45 310 ⇑P P 23 04 43.8 -0.6
AHID **Auburn Hatcher** 69.50 48 IAmb IAmb 23 06 44.5
comp=Z,756nm,0.9s
AHID **Auburn Hatcher** 69.50 48 ⇓P P 23 04 45.7 +0.7
AHID **Auburn Hatcher** 69.50 48 P P 23 04 45.9 +0.8
comp=Z,11µmcomp=Z,8µmcomp=Z,605nm,1.2s
BIZ **Bicaz** 69.51 318 ⇓P P 23 04 45.1 +0.3
VARL **Varlezi** 69.51 317 ⇑P P 23 04 44.9 +0.1
SKMB **Sankelmark Bun** 69.56 332 P P 23 04 46.1 +1.2
comp=Z,12µmcomp=Z,23µmcomp=Z,2µm,1.0s
GHRR 69.59 317 ⇓P P 23 04 46.1 +0.9
GHRR 69.59 317 P P 23 04 46.2 +0.9
comp=Z,26µmcomp=Z,4µm,0.8s,comp=Z,26µm
TESR **Tescani** 69.59 318 ⇑P P 23 04 45.1 -0.2
TESR **Tescani** 69.59 318 P P 23 04 45.4 +0.1
comp=Z,12µmcomp=Z,1µm,0.9s,comp=Z,12µm
TLCR 69.60 316 P P 23 04 45.4 +0.1
TLCR 69.60 316 ⇑P P 23 04 45.1 -0.2
OJC **Ojcow** 69.60 324 *e*P P 23 04 45.5 +0.2
OJC *e*S **S** 23 13 05.1 -1.8
OJC **Ojcow** 69.60 324 P P 23 04 45.6 +0.4
comp=Z,10µmcomp=Z,13µmcomp=Z,1µm,1.0s,comp=Z,13µm
SCTR **Scanteiesti** 69.61 316 ⇓P P 23 04 45.9 +0.5
KOLS **Kolonicke sedl** 69.62 322 *e*P P 23 04 45.5 +0.1
KOLS pmax pmax
comp=Z,425nm,0.8s
KOLS **Kolonicke sedl** 69.62 322 *e*P P 23 04 45.5 +0.1
KOLS **Kolonicke sedl** 69.62 322 P P 23 04 45.8 +0.4
comp=Z,3µmcomp=Z,399nm,0.7s,comp=Z,3µm
TATR **Tatarca** 69.65 316 ⇓P P 23 04 45.9 +0.3
GIUM **Giurgiulesti** 69.66 316 ⇓P P 23 04 46.8 +1.2
TPH **Tonopah** 69.68 55 IAmb IAmb 23 04 49.8
comp=Z,1µm,0.9s
BIGH **Upper Bighouse** 69.75 341 *e*P P 23 04 46.4 +0.4
BIGH IAmb IAmb 23 04 47.7
comp=Z,745nm,0.7s
BIGH **Upper Bighouse** 69.75 341 P P 23 04 46.9 +0.9
comp=E,7µmcomp=E,767nm,0.8s
GISR **Galati** 69.76 316 ⇓P P 23 04 46.9 +0.6
GISR **Galati** 69.76 316 ⇓P P 23 04 46.9 +0.6
NEGRR **Negrea** 69.77 316 ⇑P P 23 04 46.5 +0.2
COSR **Cosmesti PH** 69.79 317 ⇓P P 23 04 47.5 +1.1
IZVR **Izvoarele** 69.82 316 ⇓P P 23 04 47.4 +0.8
SCHL **Schela** 69.82 316 ⇓P P 23 04 47.0 +0.4
TUDR 69.82 317 ⇓P P 23 04 47.0 +0.4
ONER **Baraj Valea Uz** 69.84 318 ⇓P P 23 04 47.4 +0.6
SCHLR **Schela** 69.84 316 ⇓P P 23 04 47.1 +0.3
UZHM **Uzhgorod** 69.85 322 P P 23 04 46.0 -0.7
TIN **Tinemaha, Big** 69.85 57 P P 23 04 48.3 +1.2
TIN pmax pmax
comp=Z,1µm,1.1s
TIN **Tinemaha, Big** 69.85 57 P P 23 04 48.3 +1.2
TIN IAmb IAmb 23 04 50.3
comp=Z,1µm,1.1s
PANC **Panciu** 69.85 317 ⇓P P 23 04 47.7 +0.9
BGU **Big Grassy Mou** 69.86 51 IAmb IAmb 23 04 51.1
comp=Z,2µm,1.8s
SPUT **South Promonto** 69.88 50 IAmb IAmb 23 06 42.3
comp=Z,3µm,1.9s
JURR **Jurilovca** 69.89 315 ⇓P P 23 04 47.7 +0.7
CFR **Carcaliu** 69.92 316 P P 23 04 47.7 +0.5
CFR **Carcaliu** 69.92 316 ⇑P P 23 04 47.7 +0.5
BSEG **Bad Segeberg** 69.95 331 *e*P P 23 04 47.7 +0.5
comp=Z,926nm,0.8s,baz=33,slow=5.8
BSEG *es*PP 23 10 16.2
baz=35,slow=7.7
BSEG *e*S **S** 23 13 08.8 -1.8
baz=32,slow=11
BSEG **Bad Segeberg** 69.95 331 P P 23 04 47.8 +0.6
comp=Z,13µmcomp=Z,13µmcomp=Z,1µm,0.9s,comp=Z,13µm
XMAS **Kiritimati** 69.95 110 P P 23 04 48.9 +1.0
XMAS **Kiritimati** 69.95 110 ⇑P P 23 04 49.0 +1.1
XMAS **Kiritimati** 69.95 110 P P 23 04 49.6 +1.7
comp=Z,384nm,1.0s
MHTO **MHTO** 69.97 279 P P 23 04 48.4 +0.5
SNR=140
ODBI **Odobesti** 69.98 317 ⇑P P 23 04 48.9 +1.4
RUE **Ruedersdorf** 70.00 329 *e*P P 23 04 47.9 +0.3
comp=Z,1µm,1.0s,baz=33,slow=5.8
RUE *e*pP **pP** 23 06 48.3 +0.7
RUE *es*PP 23 10 15.8
baz=35,slow=7.7
RUE *e*S **S** 23 13 09.8 -1.4
baz=32,slow=11
TPGR **Topolog** 70.03 316 ⇓P P 23 04 48.1 +0.2
CIDE **Kastamonu/Cide** 70.04 311 ⇑P P 23 04 48.2 +0.2
VRI **Vrincioaia** 70.05 317 P P 23 04 48.4 +0.4
VRI **Vrincioaia** 70.05 317 ⇓P P 23 04 48.2 +0.1
VRI **Vrincioaia** 70.05 317 P P 23 04 48.5 +0.5
comp=Z,10µmcomp=Z,8µmcomp=Z,413nm,0.9s,comp=Z,8µm
BMR **Baia Mare** 70.08 320 P P 23 04 48.8 +0.6
BMR **Baia Mare** 70.08 320 ⇓P P 23 04 48.8 +0.6
BMR **Baia Mare** 70.08 320 P P 23 04 48.8 +0.6
comp=Z,8µmcomp=Z,8µmcomp=Z,700nm,0.8s,comp=Z,8µm
PLOR **Plostina** 70.09 317 P P 23 04 48.6 +0.3
PLOR **Plostina** 70.09 317 ⇑P P 23 04 48.4 +0.1
HWUT **Hardware Ranch** 70.12 49 IAmb IAmb 23 04 51.1
comp=Z,1µm,0.8s
HWUT **Hardware Ranch** 70.12 49 ⇓P P 23 04 49.5 +0.8
HWUT **Hardware Ranch** 70.12 49 P P 23 04 49.8 +1.1
comp=Z,11µmcomp=Z,16µmcomp=Z,2µm,1.3s
TRPA **Tarpa** 70.13 321 P P 23 04 49.1 +0.7
comp=Z,11µmcomp=Z,16µmcomp=Z,2µm,0.8s,comp=Z,16µm
HMDM **Hanimaadhoo** 70.14 258 P P 23 04 50.0 +1.0
SNR=7.0
HMDM **Hanimaadhoo** 70.14 258 IAmb IAmb 23 04 52.1
comp=Z,1µm,0.7s
HMDM **Hanimaadhoo** 70.14 258 ⇑P P 23 04 49.4 +0.4
HMDM **Hanimaadhoo** 70.14 258 P P 23 04 49.8 +0.8
HMDM **Hanimaadhoo** 70.14 258 P P 23 04 49.2 +0.3
comp=Z,10µmcomp=Z,1µm,0.8s,comp=Z,10µm
ARCR **ARCALIA** 70.17 319 ⇓P P 23 04 49.8 +1.1
TURR **Turia** 70.22 318 ⇑P P 23 04 49.8 +0.7
ILGA **Ilgaz** 70.26 310 IAmb IAmb 23 04 55.5
comp=Z,560nm,0.9s
BW06 **Boulder Array** 70.26 47 ⇓P P 23 04 50.0 +0.3
PDAR **Pinedale Array** 70.27 47 P P 23 04 50.0 +0.3
comp=Z,1µm,0.7s,baz=332,slow=1.9,SNR=4043
PDAR S **S** 23 13 15.4 +0.3
comp=Z,6.8nm,1.1s,baz=286,slow=33,SNR=7.3
PDAR PKPPKP **P'P'df** 23 32 38.5 -7.2
comp=Z,11nm,0.9s,baz=134,slow=4.3,SNR=23
PDAR P4KPbc 23 41 19.8
comp=Z,1.2nm,0.9s,baz=323,slow=0.7,SNR=7.6
comp=Z,1µm,0.7s
OZUR 70.30 318 ⇑P P 23 04 50.2 +0.7
BISRR **Bisoca** 70.30 317 ⇑P P 23 04 50.6 +1.0
COVR **Voineasa-Covas** 70.30 318 ⇓P P 23 04 50.2 +0.7
GRER 70.31 317 ⇓P P 23 04 51.6 +2.1

TIRR Tirgusor 70.34 315 ⇓P P 23 04 49.6 -0.1
TIRR Tirgusor 70.34 315 ⇓P P 23 04 49.8 +0.1
TIRR Tirgusor 70.34 315 P P 23 04 50.0 +0.3
comp=Z,10µmcomp=Z,5µmcomp=Z,415nm,0.9s,comp=Z,5µm
LINV Loch Inver, As 70.34 342 eP P 23 04 49.6 +0.1
LINV IAmb IAmb 23 04 52.3
comp=Z,404nm,0.8s
CWC Cottonwood Cre 70.37 57 IAmb IAmb 23 04 53.7
comp=Z,908nm,1.4s
HARR Harsova 70.39 316 P P 23 04 50.3 +0.3
HARR Harsova 70.39 316 ⇓P P 23 04 50.3 +0.3
GORT1 Trebel 70.42 330 eP P 23 04 50.8 +0.8
comp=Z,1µm,1.0s,baz=33,slow=5.8
GORT1 Trebel 70.42 330 P P 23 04 50.8 +0.8
comp=Z,16µmcomp=Z,1µm,1.2s,comp=Z,16µm
MCD Coleburn Disti 70.44 340 eP P 23 04 50.0 0.0
MCD IAmb IAmb 23 04 51.3
comp=Z,467nm,0.7s
KSP Ksiaz 70.44 326 eP P 23 04 50.5 +0.3
KSP eS S 23 13 15.2 -1.2
KSP Ksiaz 70.44 326 ⇓P P 23 04 50.6 +0.3
TLBR Topalu 70.44 316 ⇓P P 23 04 49.8 -0.5
ULM Lac du Bonnet 70.47 35 P P 23 04 49.6 -0.7
comp=Z,1µm,0.7s,baz=326,slow=6.1,SNR=1907
ULM PKPPKP P'P'df 23 32 36.5 -8.4
comp=Z,8.1nm,0.7s,baz=156,slow=1.8,SNR=8.3
comp=Z,1µm,0.7s
ULM Lac du Bonnet 70.47 35 deP P 23 04 49.8 -0.6
ULM Lac du Bonnet 70.47 35 IAmb IAmb 23 04 50.9
comp=Z,1µm,0.8s
HLG Helgoland 70.50 333 ⇓P P 23 04 51.1 +0.7
HLG Helgoland 70.50 333 eP P 23 04 50.8 +0.4
comp=Z,2µm,0.7s,baz=33,slow=5.8
HLG esPP 23 10 22.8
baz=35,slow=7.7
HLG eS S 23 13 15.8 -0.9
baz=32,slow=11
DUG Dugway, Tooele 70.51 51 IAmb IAmb 23 04 54.9
comp=Z,1µm,0.9s
DUG Dugway, Tooele 70.51 51 ⇓P P 23 04 52.0 +1.0
DUG Dugway, Tooele 70.51 51 P P 23 04 52.2 +1.2
comp=Z,11µmcomp=Z,14µmcomp=Z,1µm,1.3s
CEI Carei 70.51 321 P P 23 04 52.0 +1.3
CEI Carei 70.51 321 ⇓P P 23 04 52.0 +1.3
EFOR EFORIE 70.52 315 ⇓P P 23 04 51.3 +0.5
TGMR Targu Mures 70.53 319 ⇑P P 23 04 52.1 +1.3
JRN Qarnain Island 70.53 286 P P 23 04 50.2 -1.0
SNR=33
NOQ North Oquirrh 70.53 50 IAmb IAmb 23 04 54.9
comp=Z,1µm,1.4s
ABAH Abaujker 70.54 322 P P 23 04 51.6 +0.7
comp=Z,10µmcomp=Z,8µmcomp=Z,600nm,1.2s,comp=Z,8µm
MFTR Murfatlar 70.54 315 ⇑P P 23 04 51.0 +0.1
OKC Ostrava-Krasne 70.55 325 ⇓iP P 23 04 51.3 +0.4
OKC eS S 23 13 16.8 -0.8
OKC Ostrava-Krasne 70.55 325 ⇓iP P 23 04 51.3 +0.4
OKC epP pP 23 06 46.9 -4.2
OKC eS S 23 13 16.8 -0.8
TCUT Toone Canyon 70.56 50 IAmb IAmb 23 04 55.1
comp=Z,1µm,0.9s
DOPR Dopca 70.57 318 ⇓P P 23 04 52.1 +1.0
NEHR Nehoiu 70.58 317 ⇑P P 23 04 52.1 +0.9
LANS Liptovska Anna 70.58 324 eP P 23 04 52.5 +1.4
LANS pmax pmax
comp=Z,559nm,0.8s
LANS Liptovska Anna 70.58 324 eP P 23 04 52.5 +1.4
UMZA Um Al Zommool 70.59 283 P P 23 04 51.1 -0.5
CVDA Cernavoda 70.61 315 ⇑P P 23 04 52.0 +0.8
STEB Steborice 70.62 325 ⇓iP P 23 04 51.6 +0.3
PGOR Pogoanele 70.66 316 ⇑P P 23 04 53.1 +1.5
IVI Ivigtut 70.68 5 ⇓P P 23 04 50.9 -0.5
IVI Ivigtut 70.68 5 P P 23 04 51.3 -0.1
comp=Z,15µmcomp=Z,2µm,1.0s,comp=Z,15µm
IVI Ivigtut 70.68 5 iP P 23 04 50.9 -0.5
IVI IAmb IAmb 23 04 52.2
comp=Z,1µm,0.8s
MLR Muntele Rosu 70.69 317 P P 23 04 52.0 +0.1
MLR Muntele Rosu 70.69 317 ⇑P P 23 04 51.8 -0.2
MLR Muntele Rosu 70.69 317 P P 23 04 52.2 +0.2
comp=Z,10µmcomp=Z,5µmcomp=Z,492nm,0.9s,comp=Z,5µm
MZWR Madinat Zayed 70.69 284 P P 23 04 51.1 -1.0
CTU Camp Tracy 70.69 50 P P 23 04 52.2 +0.1
ISR Istrita 70.70 317 P P 23 04 51.1 -0.8
ISR Istrita 70.70 317 ⇓P P 23 04 51.2 -0.8
OSTC Ostas 70.70 326 ⇓iP P 23 04 52.2 +0.4
OSTC eS S 23 13 19.4 0.0
OSTC Ostas 70.70 326 ⇓iP P 23 04 52.2 +0.4
OSTC eS S 23 13 19.4 0.0
KECS Kecovo 70.70 323 eP P 23 04 52.5 +0.7
KECS pmax pmax
comp=Z,323nm,0.8s
KECS Kecovo 70.70 323 eP P 23 04 52.5 +0.7
KECS Kecovo 70.70 323 P P 23 04 52.4 +0.6
comp=Z,2µmcomp=Z,218nm,0.8s,comp=Z,2µm
AMRR Amara 70.72 316 P P 23 04 52.8 +0.8
AMRR Amara 70.72 316 ⇓P P 23 04 52.7 +0.8
MESR Meseseni 70.72 320 ⇓P P 23 04 53.1 +1.2
CHVC Chvalec 70.74 326 ⇓iP P 23 04 52.6 +0.6
CHVC eS S 23 13 20.0 +0.2
CHVC Chvalec 70.74 326 ⇓iP P 23 04 52.6 +0.6
CHVC eS S 23 13 20.0 +0.2
MANR Mangalia 70.74 315 ⇑P P 23 04 53.0 +1.0
BNN Bunyan 70.75 307 ⇑P P 23 04 52.8 +0.4
CJR Cluj-Napoca 70.78 320 P P 23 04 53.2 +0.8
CJR Cluj-Napoca 70.78 320 ⇓P P 23 04 53.3 +0.8
S11A Rachel 70.80 55 IAmb IAmb 23 04 56.5
comp=Z,1µm,0.9s
UPC Upice 70.82 326 ⇓iP P 23 04 52.9 +0.4
UPC e 23 07 55.5
UPC eS S 23 13 20.3 -0.3
UPC Upice 70.82 326 ⇓iP P 23 04 52.9 +0.4
UPC epP pP 23 06 47.9 -4.9
UPC ex x 23 07 55.5
UPC eS S 23 13 20.3 -0.3
DPC Dobruska-Polom 70.83 326 ⇓iP P 23 04 53.0 +0.4
DPC eS S 23 13 20.4 -0.5
DPC pmax pmax
comp=Z,226nm,0.6s
DPC MLR MLR
comp=Z,2µm,15.6s
DPC Dobruska-Polom 70.83 326 ⇓iP P 23 04 53.0 +0.4
comp=Z,226nm,0.6s
DPC eS S 23 13 20.4 -0.5
DPC AMS AMS 23 34 20.0
comp=Z,2µm,15.6s
MORC Moravsky Berou 70.83 325 P P 23 04 53.3 +0.7
MORC Moravsky Berou 70.83 325 IAmb IAmb 23 04 54.5
comp=Z,1µm,0.8s
MORC Moravsky Berou 70.83 325 ⇓iP P 23 04 53.2 +0.7
MORC epP pP 23 06 52.2 -0.8
MORC esP sP 23 07 55.7 +1.2
MORC eS S 23 13 20.0 -0.9
MORC Moravsky Berou 70.83 325 ⇓P P 23 04 53.1 +0.5
MORC Moravsky Berou 70.83 325 P P 23 04 53.4 +0.7
comp=Z,11µmcomp=Z,14µmcomp=Z,1µm,1.2s,comp=Z,14µm
NRS Narsarsuaq 70.85 3 iP P 23 04 51.5 -0.9
NRS IAmb IAmb 23 04 53.2
comp=Z,485nm,0.8s
DRUM Mains of Drumt 70.87 340 eP P 23 04 52.5 -0.1
DRUM IAmb IAmb 23 04 55.1
comp=Z,1µm,0.8s
DRUM Mains of Drumt 70.87 340 P P 23 04 53.0 +0.4
comp=Z,10µmcomp=Z,14µmcomp=Z,1µm,0.9s
ICOR Ion Corvin 70.88 315 ⇓P P 23 04 53.9 +1.0
KRLC Kraliky 70.88 326 ⇓iP P 23 04 53.3 +0.4
KRLC Kraliky 70.88 326 ⇓iP P 23 04 53.3 +0.4
MDB Medias 70.89 319 P P 23 04 54.5 +1.6
MDB Medias 70.89 319 ⇑P P 23 04 53.8 +0.9
SHAB Shabla 70.94 315 ⇑P P 23 04 53.7 +0.5
MPMC Manual Prospec 70.98 57 IAmb IAmb 23 04 57.3
comp=Z,867nm,1.2s
LTVH Ltavrtes, Hu 70.98 321 ⇓P P 23 04 54.3 +0.9
LTVH Ltavrtes, Hu 70.98 321 ⇑P P 23 04 54.0 +0.5
LTVH Ltavrtes, Hu 70.98 321 P P 23 04 54.5 +1.1
comp=Z,12µmcomp=Z,9µmcomp=Z,658nm,0.8s,comp=Z,9µm
FLTG Flechtingen 71.00 330 ⇓P P 23 04 53.2 -0.2
FLTG Flechtingen 71.00 330 eP P 23 04 53.2 -0.2
comp=Z,2µm,0.8s,baz=33,slow=5.8
FLTG epP pP 23 06 53.6 -0.3
FLTG esPP 23 10 23.0
baz=35,slow=7.7
FLTG eS S 23 13 20.4 -2.0
baz=32,slow=11
FLTG Flechtingen 71.00 330 P P 23 04 53.4 0.0
comp=Z,10µmcomp=Z,16µmcomp=Z,2µm,0.9s,comp=Z,16µm
DQM DQM 71.00 279 P P 23 04 53.9 -0.1
DQM P P 23 04 56.0 +2.0
SNR=6.0
MARR Marisel-Cluj 71.02 320 ⇓P P 23 04 53.9 +0.1
TPNV Topopah Spring 71.03 56 IAmb IAmb 23 04 56.4
comp=Z,819nm,0.8s
TPNV Topopah Spring 71.03 56 ⇓P P 23 04 54.9 +0.8
MAUC Maruska 71.06 325 ⇓iP P 23 04 54.5 +0.6
LEHL Lehliu 71.07 316 ⇑P P 23 04 54.3 +0.4
PSN Preselentsi 71.09 315 P P 23 04 54.8 +0.7
CLC China Lake 71.09 57 P P 23 04 54.9 +0.5
CLC pmax pmax
comp=Z,804nm,0.9s
CLC China Lake 71.09 57 P P 23 04 54.9 +0.5
CLC IAmb IAmb 23 04 57.8
comp=Z,804nm,0.9s
PLAR PLOIESTI 71.09 317 ⇓P P 23 04 54.3 +0.2
DRGR 71.11 320 P P 23 04 54.5 +0.2
DRGR 71.11 320 ⇓P P 23 04 54.6 +0.2
DRGR 71.11 320 P P 23 04 54.7 +0.4
comp=Z,6µmcomp=Z,334nm,0.8s,comp=Z,6µm
VOIR 71.13 318 P P 23 04 55.0 +0.5
VOIR 71.13 318 ⇑P P 23 04 54.9 +0.4
VOIR 71.13 318 P P 23 04 55.1 +0.5
comp=Z,6µmcomp=Z,574nm,0.8s
SULR 71.17 317 ⇓P P 23 04 54.5 -0.1
SULR 71.17 317 P P 23 04 55.1 +0.5
comp=Z,19µmcomp=Z,1µm,1.0s,comp=Z,19µm
PSUT Pine Spring 71.17 53 IAmb IAmb 23 04 57.3
comp=Z,524nm,0.8s
CICN Ciocanesti 71.18 316 ⇑P P 23 04 55.4 +0.8
KPL Plockton 71.18 342 eP P 23 04 54.7 +0.3
KPL IAmb IAmb 23 04 56.2
comp=Z,2µm,0.8s
CLL Collm 71.25 328 ⇓iP P 23 04 55.1 +0.2
CLL e*PP pP 23 06 55.0 -0.5
CLL i *SP sP 23 07 54.8 -2.2
CLL eS S 23 13 24.0 -1.4
CLL i 23 14 01.8
CLL pmax pmax
comp=Z,2µm,0.7s
CLL Collm 71.25 328 eP P 23 04 54.7 -0.2
comp=Z,2µm,0.7s,baz=33,slow=5.8
CLL esPP 23 10 22.2
baz=35,slow=7.7
CLL eS S 23 13 22.3 -3.0
baz=32,slow=11
CLL Collm 71.25 328 P P 23 04 54.9 0.0
comp=Z,10µmcomp=Z,20µmcomp=Z,3µm,0.8s,comp=Z,20µm
CLL Collm 71.25 328 ⇓iP P 23 04 55.1 +0.2
comp=Z,2µm,0.7s
CLL ePmax 23 04 56.0
comp=Z,0.0nm,0.7s
CLL ePlp 23 04 57.0
comp=Z,2µm,17.0s
CLL epP pP 23 06 55.0 -0.5
CLL ePP PP 23 07 44.0 +0.9
CLL i sP sP 23 07 54.8 -2.2
CLL ePPP PPP 23 09 31.0
CLL esPP 23 10 30.0
CLL ePPPP 23 11 06.0
CLL esPPP 23 12 12.0
CLL eS S 23 13 24.0 -1.4
comp=N,1µm,19.5s
CLL eS S 23 13 24.0 -1.4
comp=E,3µm,24.8s
CLL eS S 23 13 24.0 -1.4
comp=Z,2µm,18.5s
CLL i x x 23 13 48.2
CLL i SKSac SKKSac 23 14 01.8 +0.7
CLL esS sS 23 16 58.0 -1.9
CLL esSKSac sSKSac 23 17 54.0 -3.9
CLL eSS SS 23 18 36.0 +21
CLL eSSS SSS 23 21 40.0
CLL ex x 23 25 06.0
CLL i PKPPKPdf P'P'df 23 32 37.0 -6.5
CLL ex x 23 34 43.0
CLL ex x 23 35 08.0
CLL eSKPPKPdf 23 35 20.0
CLL ex x 23 36 46.0
BORR Bors 71.27 321 ⇓P P 23 04 55.9 +0.8
RETH Rethem/Aller, 71.27 331 eP P 23 04 55.3 +0.4
comp=Z,939nm,0.9s,baz=33,slow=5.8
RETH epP pP 23 06 54.6 -1.0
RETH Rethem/Aller, 71.27 331 P P 23 04 55.5 +0.6
comp=Z,10µmcomp=Z,17µmcomp=Z,2µm,1.0s,comp=Z,17µm
BRG Berggiesshubel 71.27 328 eP P 23 04 55.1 +0.1
comp=Z,434nm,0.9s,baz=33,slow=5.8
BRG epP pP 23 06 55.7 0.0
BRG esPP 23 10 25.4
baz=35,slow=7.7
BRG eS S 23 13 23.5 -2.2
baz=32,slow=11
BRG Berggiesshubel 71.27 328 P P 23 04 55.3 +0.2
comp=Z,10µmcomp=Z,7µmcomp=Z,619nm,1.2s,comp=Z,7µm
BRG Berggiesshubel 71.27 328 ⇓iP P 23 04 55.2 +0.1
BRG Amp 23 04 56.5
comp=Z,430nm,0.9s
BRG Berggiesshubel 71.27 328 Amp 23 05 27.8
comp=Z,113nm,0.9s
BRG pP pP 23 06 58.1 +2.4
BRG Amp 23 06 59.3
comp=Z,70nm,1.0s
BRG Berggiesshubel 71.27 328 sP sP 23 07 58.0 +0.8
BRG Amp 23 09 26.3
comp=Z,44nm,1.1s
BRG Berggiesshubel 71.27 328 S S 23 13 25.0 -0.7
BRG Berggiesshubel 71.27 328 sS sS 23 17 06.0 +5.8
BR131 Keskin Array S 71.27 309 P P 23 04 55.8 +0.3
SNR=85
BR131 Keskin Array S 71.27 309 deP P 23 04 55.5 +0.1
BRTR Keskin Array B 71.28 309 P P 23 04 55.6 +0.1
comp=Z,138nm,0.8s,baz=72,slow=4.0,SNR=573
BRTR pP pP 23 06 57.0 +1.0
comp=Z,32nm,0.8s,baz=69,slow=4.2,SNR=2.7
BRTR PKPPKP P'P'df 23 32 36.6 -7.2
comp=Z,3.6nm,1.0s,baz=195,slow=3.8,SNR=5.6
comp=Z,138nm,0.8s
BRTR Keskin Array B 71.28 309 P P 23 04 55.2 -0.3
SAKB Bahrain 71.28 288 P P 23 04 55.0 -0.5
MTUR Matau 71.29 318 P P 23 04 56.2 +0.8
MTUR Matau 71.29 318 ⇓P P 23 04 56.3 +0.8
TNR Turnu Rosu 71.31 319 P P 23 04 56.7 +1.2
TNR Turnu Rosu 71.31 319 ⇓P P 23 04 56.7 +1.2
BSUT Blindstream Ca 71.32 50 IAmb IAmb 23 04 58.5
comp=Z,655nm,1.0s
OSI Osito Audit: C 71.32 59 IAmb IAmb 23 04 57.9
comp=Z,696nm,0.8s
PVCC Panska Ves 71.33 327 ⇓iP P 23 04 55.9 +0.5
PVCC e 23 07 58.0
PVCC eS S 23 13 26.1 -0.3
PVCC Panska Ves 71.33 327 ⇓iP P 23 04 55.9 +0.5
PVCC esP sP 23 07 58.0 +0.5
PVCC eS S 23 13 26.1 -0.3
GWY Greenwater Val 71.34 56 IAmb IAmb 23 04 59.5
comp=Z,1µm,0.8s
ASSE Asse, Remlinge 71.35 330 eP P 23 04 55.8 +0.4
comp=Z,486nm,0.9s,baz=33,slow=5.8
ASSE esPP 23 10 27.2
baz=35,slow=7.7
ASSE eS S 23 13 24.7 -1.7
baz=32,slow=11
ASSE Asse, Remlinge 71.35 330 P P 23 04 55.8 +0.4
comp=Z,10µmcomp=Z,10µmcomp=Z,590nm,1.0s
VYHS Vyhne 71.36 323 eP P 23 04 56.5 +0.9
VYHS pmax pmax
comp=Z,685nm,0.8s
VYHS Vyhne 71.36 323 eP P 23 04 56.5 +0.9
VYHS Vyhne 71.36 323 P P 23 04 56.6 +0.9
comp=Z,3µmcomp=Z,304nm,1.1s,comp=Z,3µm
ARR Arges 71.37 318 ⇓P P 23 04 57.1 +1.2
ARR Arges 71.37 318 P P 23 04 57.1 +1.2
comp=Z,8µmcomp=Z,987nm,1.0s,comp=Z,8µm
PSZ Piszkesteto 71.39 322 IAmb IAmb 23 04 58.0
comp=Z,626nm,0.8s
PSZ Piszkesteto 71.39 322 ⇓P P 23 04 56.5 +0.5
PSZ Piszkesteto 71.39 322 ⇓P P 23 04 56.2 +0.3
PSZ Piszkesteto 71.39 322 P P 23 04 56.7 +0.8
comp=Z,10µmcomp=Z,10µmcomp=Z,896nm,1.1s,comp=Z,10µm
INCR INCERC-Sediu C 71.39 317 ⇓P P 23 04 56.1 +0.2
MZR Muzera 71.48 284 iP P 23 04 56.0 -0.8
SNR=49
MZR Muzera 71.48 284 P P 23 04 56.2 -0.7
SNR=112
RICC Richard 71.49 327 ⇓iP P 23 04 57.2 +0.9
RICC ex x 23 07 59.9
RICC eS S 23 13 28.0 -0.1
JAVC Velka Javorina 71.53 324 ⇓iP P 23 04 58.2 +1.5
JAVC esP sP 23 08 01.1 +2.3
JAVC eS SKiKP 23 13 30.6 -1.5
JAVC Velka Javorina 71.53 324 P P 23 04 58.4 +1.8
comp=Z,11µmcomp=Z,16µmcomp=Z,2µm,0.9s,comp=Z,16µm
BUC1 Bucharest 71.53 317 P P 23 04 58.5 +1.9
BUC1 Bucharest 71.53 317 ⇑P P 23 04 58.5 +1.9
KIRS Kirsehir-Merke 71.57 308 ⇑P P 23 04 57.4 +0.3
VRAC Vranov 71.58 325 P P 23 04 57.7 +0.8
VRAC Vranov 71.58 325 ⇓iP P 23 04 57.6 +0.8
VRAC epP pP 23 06 56.5 -1.1
VRAC esP sP 23 08 00.6 +1.5
VRAC eS S 23 13 29.4 +0.2
VRAC Vranov 71.58 325 ⇓P P 23 04 57.7 +0.8
VRAC Vranov 71.58 325 P P 23 04 57.8 +0.9
comp=Z,3µmcomp=Z,4µmcomp=Z,338nm,1.3s,comp=Z,4µm
WIMM Wimmelburg 71.58 329 P P 23 04 56.9 +0.1
comp=Z,26µmcomp=Z,3µm,0.9s,comp=Z,26µm
MBWA Marble Bar 71.61 201 P P 23 04 57.3 -0.1
MBWA Marble Bar 71.61 201 P P 23 04 57.1 -0.2
comp=Z,253nm,1.2s
MBWA Marble Bar 71.61 201 P P 23 04 57.1 -0.2
MBWA Marble Bar 71.61 201 P P 23 04 57.0 -0.4
MBWA Marble Bar 71.61 201 P P 23 04 56.7 -0.6
MBWA Marble Bar 71.61 201 ⇑P P 23 04 56.9 -0.4
MBWA Marble Bar 71.61 201 P P 23 04 57.6 +0.2
MBWA S S 23 13 29.6 -0.5
MBWA Marble Bar 71.61 201 P P 23 04 57.2 -0.1
comp=Z,2µmcomp=Z,252nm,1.2s
MBWA Marble Bar 71.61 201 P P 23 04 56.7 -0.6
MBWA pP pP 23 06 57.5 -0.2
STFAR Stefanesti-Arg 71.62 318 ⇑P P 23 04 57.6 +0.4
KOUNC Koumac, New Ca 71.62 157 P P 23 04 58.9 +1.5
KOUNC Koumac, New Ca 71.62 157 ⇑P P 23 04 58.7 +1.3
SGRR Singureni 71.65 317 ⇑P P 23 04 56.9 -0.4
INVG Invergeldie, C 71.67 340 eP P 23 04 57.2 -0.1
INVG IAmb IAmb 23 04 58.7
comp=Z,379nm,0.8s
COCO West Island 71.67 226 P P 23 04 58.1 +0.3
COCO West Island 71.67 226 P P 23 04 60.0 +2.2
COCO West Island 71.67 226 P P 23 04 58.7 +0.9
COCO pmax pmax
comp=Z,2µm,1.9s
COCO West Island 71.67 226 P P 23 04 58.7 +0.9
COCO IAmb IAmb 23 07 05.8
comp=Z,2µm,1.9s
COCO West Island 71.67 226 ⇓P P 23 05 00.5 +2.7
COCO West Island 71.67 226 P P 23 05 01.2 +3.4
comp=Z,4µmcomp=Z,4µmcomp=Z,151nm,1.3s,comp=Z,151nm,1.3s
COCO West Island 71.67 226 P P 23 04 59.2 +1.4
comp=Z,8µmcomp=Z,296nm,1.3s
HSKC Hora Svate Kat 71.67 328 ⇓iP P 23 04 57.7 +0.2
HSKC ex x 23 08 01.5
HSKC eS S 23 13 30.2 -0.1
LOT Lotru 71.69 319 ⇑P P 23 04 57.9 0.0
LOT Lotru 71.69 319 P P 23 04 57.8 0.0
comp=Z,3µmcomp=Z,225nm,0.8s,comp=Z,3µm
CLZ Clausthal 71.70 330 eP P 23 04 58.1 +0.5
comp=Z,1µm,0.8s,baz=33,slow=5.8
CLZ epP pP 23 06 57.8 -0.6
CLZ esPP 23 10 30.2
baz=35,slow=7.7
CLZ eS S 23 13 28.7 -1.8
baz=32,slow=11
CLZ Clausthal 71.70 330 P P 23 04 58.2 +0.7
comp=Z,11µmcomp=Z,16µmcomp=Z,2µm,0.9s,comp=Z,16µm
AVR AVREN 71.70 315 P P 23 04 58.4 +0.7
BSZH Besenyszg 71.73 322 ⇓P P 23 04 59.0 +1.2
BSZH Besenyszg 71.73 322 P P 23 04 59.0 +1.2
comp=Z,16µmcomp=Z,2µm,1.1s,comp=Z,16µm
DEV Deva 71.73 319 P P 23 04 58.3 +0.5
DEV Deva 71.73 319 ⇓P P 23 04 58.4 +0.5
DEV Deva 71.73 319 P P 23 04 58.4 +0.5
comp=Z,5µmcomp=Z,488nm,1.2s
EPLO Experimental L 71.74 34 IAmb IAmb 23 04 58.0
comp=Z,922nm,1.0s
NEUB Neuenburg 71.75 329 eP P 23 04 57.9 +0.1
comp=Z,2µm,0.8s,baz=33,slow=5.8
NEUB eS S 23 13 27.5 -3.6
baz=32,slow=11
NEUB Neuenburg 71.75 329 P P 23 04 58.1 +0.3
comp=Z,12µmcomp=Z,16µmcomp=Z,2µm,1.1s,comp=Z,16µm
PRA Prague 71.76 327 ⇓iP P 23 04 58.9 +1.0
PRA Prague 71.76 327 ⇓iP P 23 04 58.9 +1.0
PRD Provadia 71.79 315 P P 23 04 58.9 +0.7
AS01 Alice Springs 71.83 187 P P 23 04 58.4 -0.2
K22A Casper 71.83 46 IAmb IAmb 23 05 00.8
comp=Z,724nm,0.8s
ASAR Alice Springs 71.83 187 P P 23 04 58.8 +0.2
comp=Z,138nm,0.6s,baz=1.3,slow=5.4,SNR=497
ASAR pP pP 23 06 59.1 -0.4
comp=Z,68nm,1.0s,baz=2.3,slow=5.4,SNR=4.5
ASAR S SKiKP 23 13 34.8 +1.8
comp=Z,5.9nm,0.8s,baz=20,slow=22,SNR=8.6
ASAR SKKP SKKPdf 23 27 02.9 -1.0
comp=Z,9.2nm,0.9s,baz=337,slow=4.6,SNR=5.8
ASAR PKPPKP P'P'df 23 32 36.5 -2.1
comp=Z,38nm,0.9s,baz=169,slow=2.4,SNR=18
comp=Z,138nm,0.6s
ASAR Alice Springs 71.83 187 P P 23 04 58.5 -0.2
KRUC Moravsky 71.85 325 ⇓iP P 23 04 59.1 +0.6
KRUC epP pP 23 06 59.2 -0.2
KRUC esP sP 23 08 02.0 +1.3
KRUC eS SKiKP 23 13 32.7 +0.2
KRUC Moravsky 71.85 325 P P 23 04 59.3 +0.8
comp=Z,10µmcomp=Z,13µmcomp=Z,1µm,1.4s,comp=Z,13µm
AUALC St Philip's Co 71.86 187 P P 23 04 58.8 0.0
SAHE Sakarya_HENDEK 71.86 311 ⇓P P 23 04 58.4 -0.3
HUMR Humele 71.87 317 ⇓P P 23 04 58.1 -0.5
HUMR Humele 71.87 317 P P 23 04 57.9 -0.8
comp=Z,497nm,0.8s
TCRU Three Creeks R 71.87 52 IAmb IAmb 23 05 03.2
comp=Z,575nm,0.8s
RSSD Black Hills 71.87 43 P P 23 04 58.8 -0.2
RSSD pmax pmax
comp=Z,2µm,0.9s
RSSD Black Hills 71.87 43 P P 23 04 58.8 -0.2
RSSD IAmb IAmb 23 05 00.5
comp=Z,2µm,0.9s
RSSD Black Hills 71.87 43 P P 23 04 59.2 +0.3
comp=Z,11µmcomp=Z,18µmcomp=Z,2µm,1.4s
SLWR Sila 71.89 286 P P 23 04 58.5 -0.6
SMOL Smolenice 71.90 324 eP P 23 04 59.8 +1.0
SMOL pmax pmax
comp=Z,368nm,0.7s
GSC Goldstone, Bar 71.91 57 IAmb IAmb 23 05 02.6
comp=Z,1µm,1.1s
EDI Edinburgh 71.94 340 eP P 23 04 58.5 -0.2
EDI IAmb IAmb 23 05 01.2
comp=Z,295nm,0.8s
PASC Pasadena Art C 71.94 59 IAmb IAmb 23 05 02.3
comp=Z,727nm,0.9s
SHPR Sheep Range 71.95 55 IAmb IAmb 23 05 03.4
comp=Z,724nm,1.0s
EAB Aberfoyle 71.96 340 eP P 23 04 59.1 +0.2
EAB IAmb IAmb 23 05 01.8
comp=Z,639nm,0.9s
SIRR Siria 71.97 320 ⇑P P 23 04 59.6 +0.4
MDUB Mudurnu 71.97 311 IAmb IAmb 23 05 01.1
comp=Z,806nm,0.8s
TREC Trest 72.01 326 ⇓iP P 23 04 59.9 +0.5
TREC Trest 72.01 326 ⇓iP P 23 04 59.9 +0.5
TMUT Trail Mountain 72.01 51 P P 23 05 00.4 +0.5
TMUT IAmb IAmb 23 05 02.1
comp=Z,712nm,0.8s
LOZB Loznitsa 72.02 316 ⇓P P 23 04 59.6 +0.1
AGMN Agassiz Nation 72.05 36 IAmb IAmb 23 05 00.1
comp=Z,1µm,0.8s
AGMN Agassiz Nation 72.05 36 ⇑P P 23 04 58.7 -0.9
AGMN Agassiz Nation 72.05 36 P P 23 04 59.0 -0.7
comp=Z,10µmcomp=Z,14µmcomp=Z,2µm,1.5s
COPA Copaceanca 72.06 317 ⇓P P 23 04 59.5 -0.3
MODS Modra-Piesok 72.07 324 eP P 23 05 00.9 +1.1
MODS pmax pmax
comp=Z,1µm,1.0s
MODS Modra-Piesok 72.07 324 eP P 23 05 00.9 +1.1
MODS Modra-Piesok 72.07 324 P P 23 05 01.0 +1.2
comp=Z,22µmcomp=Z,18µmcomp=Z,1µm,1.1s,comp=Z,18µm
GTTG Gottingen 72.08 330 eP P 23 05 00.2 +0.5
comp=Z,851nm,0.9s,baz=33,slow=5.8
GTTG epP pP 23 06 59.1 -1.8

GTTG esPP 23 10 27.6
baz=35,slow=7.7

GTTG eS **SKiKP** **23 13 33.1 +0.4**
baz=32,slow=11

GTTG Gottingen 72.08 030 P **P** **23 05 00.2 +0.5**
comp=Z,16µmcomp=Z,17µmcomp=Z,2µm,1.1s

BUD Budapest 72.09 323 P **P** **23 05 00.5 +0.6**
comp=Z,10µmcomp=Z,863nm,1.2s,comp=Z,10µm

SRO Srobarova 72.11 323 P **P** **23 05 01.4 +1.4**
comp=Z,14µmcomp=Z,2µm,0.9s

P17A Butcher Ranch, 72.12 50 IAmb IAmb 23 05 04.1
comp=Z,1µm,1.2s

LAWE Loch Awe, Argy 72.12 341 *e*P **P** **23 05 00.1 +0.2**
LAWE IAmb IAmb 23 05 01.6
comp=Z,789nm,0.7s

IBBN Ibbenburen 72.15 332 ⇑P **P** **23 05 00.1 +0.1**
IBBN Ibbenburen 72.15 332 *e*P **P** **23 05 00.2 +0.1**
comp=Z,1µm,0.8s,baz=33,slow=5.8

IBBN esPP 23 10 31.1
baz=35,slow=7.7

IBBN eS **SKiKP** **23 13 33.1 +0.3**
baz=32,slow=11

IBBN Ibbenburen 72.15 332 P **P** **23 05 00.3 +0.3**
comp=Z,11µmcomp=Z,15µmcomp=Z,2µm,1.0s,comp=Z,15µm

SURR Surduc 72.17 320 ⇓P **P** **23 05 00.7 +0.3**
FUTU Fugatoga 72.17 138 P **P** **23 05 02.5 +1.8**
FUTU Fugatoga 72.17 138 P **P** **23 05 03.6 +2.9**
FUTU Fugatoga 72.17 138 P **P** **23 05 02.0 +1.3**
FUTU pP **pP** **23 07 03.5 +1.9**
TANN Tannenbergstha 72.18 328 *e*P **P** **23 05 00.6 +0.2**
comp=Z,207nm,0.9s,baz=33,slow=5.8

TANN *e*pP **pP** **23 06 59.3 -2.2**
TANN esPP 23 10 32.9
baz=35,slow=7.7

TANN eS **SKiKP** **23 13 34.5 +1.5**
baz=32,slow=11

TANN Tannenbergstha 72.18 328 P **P** **23 05 00.6 +0.2**
comp=Z,20µmcomp=Z,11µmcomp=Z,610nm,1.0s

BFSC Mount Baldy Ra 72.20 58 IAmb IAmb 23 05 04.1
comp=Z,1µm,1.1s

PLN Plauen 72.23 328 *e*P **P** **23 05 00.9 +0.2**
comp=Z,124nm,0.8s,baz=33,slow=5.8

PLN esPP 23 10 31.3
baz=35,slow=7.7

PLN eS **SKiKP** **23 13 33.8 +0.8**
baz=32,slow=11

GGERF Dalmarnock 72.25 340 *e*P **P** **23 05 01.1 +0.6**
GGERF IAmb IAmb 23 05 04.0
comp=Z,1µm,0.7s

LVN Las Vegas 72.25 56 IAmb IAmb 23 05 03.8
comp=Z,1µm,0.9s

MOX Moxa 72.28 329 *e*P **P** **23 05 01.2 +0.2**
comp=Z,622nm,1.1s,baz=33,slow=5.8

MOX *e*pP **pP** **23 07 00.4 -1.7**
MOX esPP 23 10 31.1
baz=35,slow=7.7

MOX eS **S** **23 13 35.3 -1.7**
baz=32,slow=11

MOX Moxa 72.28 329 P **P** **23 05 01.2 +0.2**
comp=Z,10µmcomp=Z,9µmcomp=Z,642nm,1.1s,comp=Z,9µm

AMBH Ambrzfalva 72.30 321 ⇓P **P** **23 05 01.9 +0.8**
AMBH Ambrzfalva 72.30 321 P **P** **23 05 01.9 +0.8**
comp=Z,11µmcomp=Z,13µmcomp=Z,1µm,1.0s,comp=Z,13µm

NKC Novy Kostel 72.34 328 ⇓*i*P **P** **23 05 00.7 -0.6**
NKC Novy Kostel 72.34 328 ⇓*i*P **P** **23 05 00.7 -0.6**
PGBU Glenifferbraes 72.34 340 *e*P **P** **23 05 01.5 +0.4**
PGBU IAmb IAmb 23 05 03.1
comp=Z,2µm,0.8s

GD1S Gladstone Soft 72.34 170 P **P** **23 05 02.7 +1.3**
ZVC Zvikov 72.37 327 ⇓*i*P **P** **23 05 01.9 +0.4**
ZVC *e*pP **pP** **23 07 02.9 +0.3**
SZH Strazhitsa 72.39 316 P **P** **23 05 01.8 +0.1**
EKA Eskdalemuir Ar 72.47 339 P **P** **23 05 01.9 +0.1**
comp=Z,296nm,0.7s,baz=21,slow=5.0,SNR=730

EKA pP **pP** **23 07 02.7 -0.3**
comp=Z,26nm,0.7s,baz=19,slow=4.1,SNR=3.9
comp=Z,296nm,0.7s

ESK Eskdalemuir 72.49 339 *i* P **P** **23 05 02.2 +0.1**
ESK Eskdalemuir 72.49 339 P **P** **23 05 01.7 -0.4**
ESK Eskdalemuir 72.49 339 *e*P **P** **23 05 02.1 +0.1**
ESK IAmb IAmb 23 05 03.2
comp=Z,281nm,0.6s

ESK Eskdalemuir 72.49 339 P **P** **23 05 02.5 +0.4**
comp=Z,13µmcomp=Z,9µmcomp=Z,625nm,1.1s

ESK Eskdalemuir 72.49 339 P **P** **23 05 02.5 +0.4**
comp=Z,13µmcomp=Z,8µmcomp=Z,624nm,1.1s

ESK Eskdalemuir 72.49 339 P **P** **23 05 02.1 +0.1**
ESK PcP **PcP** **23 05 14.6 -1.2**
ESK pP **pP** **23 07 04.7 +1.5**
BZS Buzias 72.50 320 P **P** **23 05 02.0 -0.2**
BZS Buzias 72.50 320 ⇓P **P** **23 05 02.0 -0.2**
BZS Buzias 72.50 320 ⇓P **P** **23 05 02.0 -0.2**
BZS Buzias 72.50 320 P **P** **23 05 02.3 0.0**
comp=Z,8µmcomp=Z,8µmcomp=Z,690nm,0.9s,comp=Z,8µm

SRU San Rafael Swe 72.50 51 IAmb IAmb 23 06 27.5
comp=Z,656nm,0.8s

ABNA Allensteig Bun 72.54 325 *i* P **P** **23 05 03.1 +0.6**
comp=Z,718nm,0.8s

ABNA *e*pP **pP** **23 07 03.5 -0.2**
comp=Z,297nm,2.5s

ABNA eS **sP** **23 08 03.4 -1.5**
comp=Z,3µm,5.3s

ABNA *e*PKiKP **PKiKP** **23 10 54.8 -1.0**
comp=Z,365nm,3.5s

ABNA S **S** **23 13 38.2 -1.7**
comp=Z,845nm,4.5s

VLAD Vladila 72.54 317 ⇑P **P** **23 05 02.8 +0.3**
CRAR CRAIOVA 72.56 318 P **P** **23 05 03.0 +0.4**
CRAR CRAIOVA 72.56 318 ⇓P **P** **23 05 03.0 +0.4**
SRE Strehaia 72.56 318 P **P** **23 05 02.8 +0.2**
SRE Strehaia 72.56 318 ⇓P **P** **23 05 02.8 +0.2**
TIM Timisoara 72.57 320 P **P** **23 05 03.4 +0.8**
TIM Timisoara 72.57 320 ⇓P **P** **23 05 03.4 +0.8**
EDMD Edmundbyers 72.64 338 *e*P **P** **23 05 02.9 0.0**
EDMD IAmb IAmb 23 05 05.5
comp=Z,447nm,0.7s

EDMD Edmundbyers 72.64 338 P **P** **23 05 03.0 +0.1**
comp=Z,12µmcomp=Z,7µmcomp=Z,713nm,0.8s

CTYL Yalíkoy Yolu 72.66 313 ⇓P **P** **23 05 03.8 +0.6**
JMB Yambol 72.72 315 P **P** **23 05 04.0 +0.4**
HERR Herculane 72.73 319 ⇓P **P** **23 05 03.5 -0.2**
WINA Alland / Wiene 72.75 325 *i* P **P** **23 05 04.7 +0.9**
comp=Z,942nm,0.8s,SNR=296

WINA *e*pP **pP** **23 07 06.0 +1.0**
comp=Z,480nm,3.9s

WINA eS **sP** **23 08 04.0 -2.3**
comp=Z,3µm,5.1s

WINA S **S** **23 13 43.1 +0.8**
comp=Z,1µm,6.5s

ELS Elsinore Mount 72.76 59 IAmb IAmb 23 05 07.2
comp=Z,592nm,0.9s

RMGR Halanga-Turnu 72.78 319 ⇑P **P** **23 05 04.9 +1.0**
PKCU Pink Cliffs 72.80 53 IAmb IAmb 23 05 09.0
comp=Z,1µm,0.9s

CKRC Cesky Krumlov 72.84 326 ⇓*i*P **P** **23 05 04.5 +0.3**
CKRC *e* 23 08 04.5
CKRC eS **S** **23 13 43.3 +0.1**
CKRC Cesky Krumlov 72.84 326 ⇓*i*P **P** **23 05 04.5 +0.3**
CKRC *ex* x 23 08 04.5
CKRC eS **S** **23 13 43.3 +0.1**
KHC Kasperske Hory 72.85 327 *de*P **P** **23 05 04.9 +0.6**
KHC pmax pmax
comp=Z,755nm,0.9s

KHC Kasperske Hory 72.85 327 IAmb IAmb 23 05 06.2
comp=Z,863nm,0.7s

KHC Kasperske Hory 72.85 327 ⇓*i*P **P** **23 05 04.9 +0.6**
comp=Z,547nm,0.6s

KHC *e*pP **pP** **23 07 00.3 -5.3**
KHC *e*sP **sP** **23 08 08.5 +1.7**
KHC eS **S** **23 13 43.4 0.0**
KHC AMS AMS 23 35 50.0
comp=Z,4µm,19.5s

PVL Pavlikeni 72.87 316 P **P** **23 05 04.4 0.0**
KASTN Kahler Asten 72.88 331 *e*P **P** **23 05 04.7 +0.3**
comp=Z,597nm,0.9s,baz=33,slow=5.8

KASTN *e*sPP 23 10 34.4
baz=35,slow=7.7

KASTN eS **S** **23 13 39.4 -4.2**
baz=32,slow=11

BANR Banloc 72.89 320 ⇓P **P** **23 05 05.2 +0.8**
O20A White River Ci 72.89 49 IAmb IAmb 23 05 06.7
comp=Z,1µm,0.8s

PHSR Pinarhisar 72.91 314 ⇓P **P** **23 05 05.5 +0.8**
SOP Sopron 72.91 324 P **P** **23 05 05.9 +1.3**
comp=Z,11µmcomp=Z,15µmcomp=Z,2µm,1.0s,comp=Z,15µm

NEWG New Galloway 72.92 340 *e*P **P** **23 05 04.4 -0.1**
NEWG IAmb IAmb 23 05 06.1
comp=Z,192nm,0.8s

PLVB Pleven 72.92 317 ⇓P **P** **23 05 04.4 -0.2**
MPLH Magyarpolny 72.94 323 P **P** **23 05 05.6 +0.8**
comp=Z,10µmcomp=Z,12µmcomp=Z,1µm,1.0s,comp=Z,12µm

PUNG Punghina 72.98 318 ⇓P **P** **23 05 04.8 -0.2**
CONA Conrad Observa 72.98 325 *i* P **P** **23 05 06.2 +1.0**
comp=Z,973nm,0.8s,SNR=273

CONA *e*pP **pP** **23 07 07.5 +1.0**
comp=Z,470nm,2.3s

CONA *es*P **sP** **23 08 05.7 -2.0**
comp=Z,4µm,5.0s

CONA S **S** **23 13 43.1 -1.9**
comp=Z,330nm,2.4s

BAIL Bailesti 73.00 318 ⇓P **P** **23 05 05.7 +0.6**
RONA Rosalia, Austr 73.00 324 *i* P **P** **23 05 06.3 +1.2**
comp=Z,1µm,0.9s,SNR=389

RONA *e*pP **pP** **23 07 07.9 +1.4**
comp=Z,528nm,2.3s

RONA *es*P **sP** **23 08 05.6 -2.1**
comp=Z,3µm,5.0s

RONA S **S** **23 13 44.8 -0.3**
comp=Z,1µm,4.8s

GEC2 GERESS Array S 73.04 327 *e*P **P** **23 05 05.5 +0.1**
comp=Z,307nm,0.8s,baz=33,slow=5.8

GEC2 *e*pP **pP** **23 07 05.0 -1.8**
GEC2 *es*PP 23 10 37.3
baz=35,slow=7.7

GEC2 eS **S** **23 13 43.2 -2.4**
baz=32,slow=11

GEC2 GERESS Array S 73.04 327 P **P** **23 05 05.8 +0.3**
comp=Z,7µmcomp=Z,554nm,0.9s

GERES GERESS Array B 73.04 327 P **P** **23 05 05.5 +0.1**
comp=Z,259nm,0.7s,baz=32,slow=5.2,SNR=1350

GERES pP **pP** **23 07 06.5 -0.3**
comp=Z,34nm,0.8s,baz=46,slow=3.9,SNR=4.3

GERES ScS **ScS** **23 14 20.1 +2.1**
comp=Z,12nm,1.0s,baz=23,slow=8.7,SNR=5.3
comp=Z,259nm,0.7s

GERES GERESS Array B 73.04 327 P **P** **23 05 05.1 -0.3**
BUG Bochum--Univer 73.05 332 *e*P **P** **23 05 05.4 +0.1**
comp=Z,1µm,0.9s,baz=33,slow=5.8

BUG *es*PP 23 10 35.1
baz=35,slow=7.7

BUG eS **S** **23 13 42.7 -2.6**
baz=32,slow=11

BUG Bochum--Univer 73.05 332 P **P** **23 05 05.5 +0.2**
comp=Z,13µmcomp=Z,1µm,1.0s

HAYD Hayden 73.09 48 IAmb IAmb 23 05 09.9
comp=Z,869nm,1.1s

WET Wettzell 73.09 327 *e*P **P** **23 05 06.4 +0.7**
comp=Z,850nm,0.9s,baz=33,slow=5.8

WET *es*PP 23 10 36.5
baz=35,slow=7.7

WET eS **S** **23 13 44.0 -2.0**
baz=32,slow=11

WET Wettzell 73.09 327 P **P** **23 05 06.4 +0.7**
comp=Z,11µmcomp=Z,12µmcomp=Z,1µm,1.0s

MDVR Moldovita 73.12 319 ⇓P **P** **23 05 05.5 -0.4**
KESW Keswick, Cumbr 73.14 339 *e*P **P** **23 05 05.9 +0.2**
KESW IAmb IAmb 23 05 07.7
comp=Z,1µm,0.8s

VALD Valchedram 73.22 318 P **P** **23 05 07.0 +0.6**
GRF Grafenberg Arr 73.22 328 *e*P **P** **23 05 07.0 +0.7**
comp=Z,2µm,0.8s,baz=33,slow=5.8

GRF *es*PP 23 10 35.7
baz=35,slow=7.7

GRF eS **S** **23 13 44.6 -2.8**
baz=32,slow=11

GRFO Grafenberg 73.22 328 P **P** **23 05 06.8 +0.5**
GRFO pmax pmax
comp=Z,1µm,0.7s

GRFO Grafenberg 73.22 328 P **P** **23 05 06.8 +0.5**
GRFO IAmb IAmb 23 05 08.2
comp=Z,1µm,0.7s

GAL1 Galloway 73.26 340 *e*P **P** **23 05 06.5 +0.1**
GAL1 IAmb IAmb 23 05 08.0
comp=Z,868nm,0.8s

MORH Mrgy, Hungar 73.27 322 ⇑P **P** **23 05 06.2 -0.4**
MORH Mrgy, Hungar 73.27 322 ⇓*i*P **P** **23 05 06.4 -0.2**
MORH Mrgy, Hungar 73.27 322 P **P** **23 05 06.5 -0.1**
comp=Z,9µmcomp=Z,6µmcomp=Z,505nm,1.0s

BELC Belle Mtn. Jos 73.31 58 IAmb IAmb 23 05 10.4
comp=Z,727nm,1.0s

PFO Pinyon Flats O 73.33 58 *i* P **P** **23 05 07.8 +0.3**
PFO Pinyon Flats O 73.33 58 P **P** **23 05 07.7 +0.3**
PFO IAmb IAmb 23 05 10.7
comp=Z,1µm,1.1s

PFO Pinyon Flats O 73.33 58 P **P** **23 05 08.1 +0.7**
comp=Z,11µmcomp=Z,13µmcomp=Z,1µm,1.1s

MPEP Malo Peshtene 73.34 317 P **P** **23 05 07.5 +0.4**
CLGH Cloghs, Cushen 73.37 341 *e*P **P** **23 05 07.6 +0.6**
CLGH IAmb IAmb 23 05 09.9
comp=Z,2µm,0.8s

LMK Market Rasen 73.47 337 P **P** **23 05 08.1 +0.5**
comp=Z,13µmcomp=Z,15µmcomp=Z,2µm,0.9s

DPP Dos Picos Cty 73.51 59 IAmb IAmb 23 05 11.4
comp=Z,837nm,1.1s

MARNC Mare, Loyalty 73.55 154 P **P** **23 05 10.0 +1.6**
MARNC Mare, Loyalty 73.55 154 ⇑P **P** **23 05 10.1 +1.6**
U15A North Rim 73.57 54 IAmb IAmb 23 05 11.6
comp=Z,1µm,0.9s

KOVH Kovagotottos 73.59 322 ⇓P **P** **23 05 08.2 -0.3**
BAND Balkesir-Ban 73.60 313 ⇓P **P** **23 05 09.2 +0.5**
MSVF Nonsavu 73.60 143 P **P** **23 05 10.4 +1.5**
MSVF Nonsavu 73.60 143 *ce*P **P** **23 05 11.0 +2.1**
MSVF pmax pmax
comp=Z,184nm,1.1s

MSVF Nonsavu 73.60 143 P **P** **23 05 10.6 +1.7**
MSVF Nonsavu 73.60 143 P **P** **23 05 11.3 +2.4**
comp=Z,12µmcomp=Z,205nm,0.9s

MSVF Nonsavu 73.60 143 P **P** **23 05 10.9 +2.0**
BORC Borrego Spring 73.61 58 IAmb IAmb 23 05 12.1
comp=Z,995nm,1.0s

BLKB Belogradchik 73.61 318 ⇓P **P** **23 05 08.4 -0.3**
SHAO Shalim 73.62 279 *i* P **P** **23 05 09.0 -0.1**
SNR=153

SHAO Shalim 73.62 279 P **P** **23 05 09.2 +0.1**
SNR=15

FRGS Fruska Gora 73.64 321 ⇓*i*P **P** **23 05 08.7 -0.1**
NOUC Port Laguerre 73.64 155 P **P** **23 05 10.2 +1.2**
MOA Molln 73.66 326 *i* P **P** **23 05 09.4 +0.6**
comp=Z,311nm,0.8s,SNR=156

MOA *e*pP **pP** **23 07 11.4 +0.9**
comp=Z,330nm,2.4s

MOA *es*P **sP** **23 08 10.2 -1.4**
comp=Z,3µm,5.0s

MOA *e*PKiKP **PKiKP** **23 10 54.5 -2.9**
comp=Z,1µm,8.0s

MOA S **S** **23 13 49.8 -2.5**
comp=Z,1µm,4.4s

MOA Molln 73.66 326 P **P** **23 05 09.5 +0.6**
comp=Z,8µmcomp=Z,600nm,0.9s

ARSA Arzberg 73.67 325 *i* P **P** **23 05 09.7 +0.7**
comp=Z,658nm,1.2s,SNR=153

ARSA *e*pP **pP** **23 07 12.1 +1.4**
comp=Z,177nm,1.9s

ARSA *es*P **sP** **23 08 09.0 -2.7**
comp=Z,3µm,5.7s

ARSA *e*PKiKP **PKiKP** **23 10 55.3 -2.2**
comp=Z,497nm,4.5s

ARSA Arzberg 73.67 325 P **P** **23 05 09.7 +0.7**
comp=Z,12µmcomp=Z,8µmcomp=Z,546nm,1.2s

IRM Iron Mountain 73.68 57 IAmb IAmb 23 05 13.0
comp=Z,1µm,1.1s

IDGL Inch Island, C 73.68 342 P **P** **23 05 09.0 +0.2**
IDGL Inch Island, C 73.68 342 *e*P **P** **23 05 09.2 +0.4**
IDGL IAmb IAmb 23 05 10.8
comp=Z,1µm,0.9s

IDGL Inch Island, C 73.68 342 P **P** **23 05 09.3 +0.5**
comp=Z,12µmcomp=Z,20µmcomp=Z,2µm,1.0s

TNS Taunus Mts 73.71 330 *e*P **P** **23 05 09.5 +0.3**
comp=Z,536nm,0.9s,baz=33,slow=5.8

TNS *e*pP **pP** **23 07 08.6 -2.3**
TNS *es*PP 23 10 40.9
baz=35,slow=7.7

TNS eS **S** **23 13 48.3 -4.5**
baz=32,slow=11

TNS Taunus Mts 73.71 330 P **P** **23 05 09.4 +0.3**
comp=Z,10µmcomp=Z,8µmcomp=Z,692nm,1.1s

YATNC Mamie plateau, 73.77 155 P **P** **23 05 11.1 +1.4**
IOMK Kirk Michael 73.78 340 *e*P **P** **23 05 09.2 -0.2**
IOMK IAmb IAmb 23 05 10.6
comp=Z,158nm,0.7s

WRKA Warakurna 73.79 192 P **P** **23 05 10.2 +0.4**

WRKA Warakurna 73.79 192 P **P** **23 05 09.6 -0.2**
comp=Z,147nm,0.8s

PGB Panagyurishte 73.80 317 P **P** **23 05 10.4 +0.6**
BEHE Becsehely 73.82 323 ⇓*i*P **P** **23 05 09.9 +0.1**
BEHE Becsehely 73.82 323 P **P** **23 05 10.3 +0.5**
comp=Z,4µmcomp=Z,3µmcomp=Z,271nm,1.0s

EIDS Eidsvold 73.83 170 P **P** **23 05 10.9 +0.9**
EIDS Eidsvold 73.83 170 P **P** **23 05 10.6 +0.6**
comp=Z,334nm,1.0s,comp=Z,0.0nm

EIDS Eidsvold 73.83 170 P **P** **23 05 10.3 +0.3**
EIDS Eidsvold 73.83 170 P **P** **23 05 09.7 -0.3**
EIDS Eidsvold 73.83 170 P **P** **23 05 10.8 +0.8**
comp=Z,4µmcomp=Z,3µmcomp=Z,334nm,1.0s

BOPT Opiter 73.84 332 *dP* **P** **23 05 09.7 -0.1**
F33A 5 Mile Ranch, 73.87 38 IAmb IAmb 23 05 10.9
comp=Z,1µm,1.0s

WACR West Acre 73.87 336 *e*P **P** **23 05 10.1 +0.2**
WACR IAmb IAmb 23 05 12.1
comp=Z,1µm,0.9s

BC3 Big Chuckawall 73.87 58 IAmb IAmb 23 05 13.9
comp=Z,932nm,1.1s

SUSD Miller 73.88 40 P **P** **23 05 09.7 -0.4**
LBWR Ladybower, Pea 73.88 338 *e*P **P** **23 05 10.4 +0.5**
LBWR IAmb IAmb 23 05 12.8
comp=Z,2µm,0.8s

BAR Barrett 73.89 59 IAmb IAmb 23 05 13.6
comp=Z,746nm,0.8s

BMOL Mol 73.92 333 *dP* **P** **23 05 10.4 +0.2**
comp=Z,1µm,1.0s

BMOL *d*PcP **PcP** **23 05 20.8 -1.1**
BMOL *dp*P **pP** **23 07 12.4 +0.4**
PV12 Saucer Basin, 73.98 50 IAmb IAmb 23 05 16.5
comp=Z,974nm,0.8s

EYMN Ely 74.00 34 IAmb IAmb 23 05 11.3
comp=Z,2µm,1.0s

EYMN Ely 74.00 34 ⇑P **P** **23 05 08.4 -2.4**
EYMN Ely 74.00 34 P **P** **23 05 10.2 -0.6**
comp=Z,12µmcomp=Z,17µmcomp=Z,2µm,0.9s

BIOA Bad Ischl, Aus 74.02 326 *i* P **P** **23 05 11.6 +0.6**
comp=Z,957nm,1.0s,SNR=237

BIOA *e*pP **pP** **23 07 13.9 +1.1**
comp=Z,143nm,1.2s

BIOA *es*P **sP** **23 08 11.6 -2.3**
comp=Z,3µm,5.1s

BIOA *e*PKiKP **PKiKP** **23 10 59.4 +1.5**
comp=Z,762nm,4.2s

BIOA eS **S** **23 13 54.9 -1.3**
comp=Z,752nm,3.7s

BOVS Bovan 74.03 319 ⇓P **P** **23 05 10.7 -0.3**
OUENC Ouen Island, N 74.09 155 P **P** **23 05 13.3 +1.8**
OUENC Ouen Island, N 74.09 155 P **P** **23 05 13.0 +1.5**
PV02 Paradox Valley 74.10 50 IAmb IAmb 23 05 19.4
comp=Z,956nm,0.8s

BTNL Ternell 74.15 332 *dP* **P** **23 05 11.6 0.0**
comp=Z,391nm,0.8s

BTNL *dp*P **pP** **23 07 13.7 +0.2**
VTS Vitosha 74.15 317 P **P** **23 05 12.5 +0.6**
SESA Seetaler Alpe, 74.15 325 *i* P **P** **23 05 12.6 +0.7**
comp=Z,993nm,0.7s,SNR=417

SESA *e*pP **pP** **23 07 15.2 +1.4**
comp=Z,118nm,0.9s

SESA *es*P **sP** **23 08 12.5 -2.3**
comp=Z,4µm,5.1s

SESA *e*PKiKP **PKiKP** **23 10 59.5 +1.1**
comp=Z,181nm,2.2s

MEM Membach 74.17 332 *dP* **P** **23 05 11.4 -0.2**
comp=Z,884nm,0.9s

MEM *d*PcP **PcP** **23 05 22.5 -0.5**
MEM *dp*P **pP** **23 07 16.5 +3.0**
MEM Membach 74.17 332 P **P** **23 05 11.8 +0.1**
comp=Z,7µmcomp=Z,12µmcomp=Z,1µm,1.3s,comp=Z,12µm

CBX Cerro Bola 74.17 59 IAmb IAmb 23 05 15.4
comp=Z,1µm,0.9s

TBO Thunder Bay 74.17 32 IAmb IAmb 23 06 27.4
comp=Z,855nm,1.0s

DOK Doka 74.18 280 P **P** **23 05 12.0 -0.3**
SNR=45

PV01 Paradox Valley 74.24 50 IAmb IAmb 23 05 16.1
comp=Z,1µm,0.9s

STNC Stoke 74.28 338 *e*P **P** **23 05 12.4 +0.2**
STNC IAmb IAmb 23 05 16.2
comp=Z,625nm,0.7s

STNC Stoke 74.28 338 P **P** **23 05 12.9 +0.7**
comp=Z,12µmcomp=Z,11µmcomp=Z,1µm,0.9s

CAVK Edirne/Enez-Ca 74.28 314 ⇑P **P** **23 05 13.4 +0.9**
DMTO DMTO 74.29 279 P **P** **23 05 12.6 -0.3**
SNR=6.5

RJOB Jochberg 74.30 326 P **P** **23 05 13.4 +0.9**
comp=Z,8µmcomp=Z,6µmcomp=Z,632nm,0.8s

ISP Isparta 74.31 310 *de*P **P** **23 05 12.4 -0.4**
ISP pmax pmax
comp=Z,426nm,0.8s

ISP Isparta 74.31 310 ⇓P **P** **23 05 12.4 -0.4**
BLYC Blythe 74.32 57 IAmb IAmb 23 05 16.6
comp=Z,1µm,0.9s

SOKA Soboth 74.33 325 *i* P **P** **23 05 13.2 +0.5**
comp=Z,1µm,1.1s,SNR=234

SOKA *e*pP **pP** **23 07 15.4 +0.6**
comp=Z,441nm,2.4s

SOKA *es*P **sP** **23 08 14.1 -1.6**
comp=Z,4µm,5.9s

SOKA eS **S** **23 14 00.0 +0.3**
comp=Z,1µm,5.2s

PERS Pernice 74.34 324 *i* P **P** **23 05 13.0 +0.3**
PERS *e* 23 07 15.5
PERS *es*P **sP** **23 08 17.4 +1.7**
PERS eS **S** **23 13 59.2 -0.5**
ELMS Elmsett, Ipswi 74.34 336 *e*P **P** **23 05 12.9 +0.4**
ELMS IAmb IAmb 23 05 13.9
comp=Z,1µm,0.6s

YUH Yuha Desert 74.35 59 IAmb IAmb 23 05 16.3
comp=Z,812nm,1.0s

CWF Charnwood Fore 74.37 337 *e*P **P** **23 05 12.7 0.0**
CWF IAmb IAmb 23 05 13.9
comp=Z,331nm,0.7s

ILTH Belurgan, Co L 74.40 341 P **P** **23 05 12.4 -0.4**
ILTH Belurgan, Co L 74.40 341 *e*P **P** **23 05 12.6 -0.3**
ILTH IAmb IAmb 23 05 14.3
comp=Z,210nm,0.7s

ILTH Belurgan, Co L 74.40 341 P **P** **23 05 13.0 +0.2**
comp=N,4µmcomp=N,279nm,0.9s

KEPZ Antalya-Kepez 74.44 308 ⇑P **P** **23 05 13.4 -0.1**
ISCO Idaho Springs 74.45 47 P **P** **23 05 14.2 +0.3**
ISCO pmax pmax
comp=Z,513nm,1.0s

ISCO Idaho Springs 74.45 47 P **P** **23 05 14.2 +0.3**
ISCO Idaho Springs 74.45 47 ⇓P **P** **23 05 14.4 +0.6**
ISCO Idaho Springs 74.45 47 P **P** **23 05 14.8 +0.9**
comp=Z,10µmcomp=Z,7µmcomp=Z,616nm,1.3s,comp=Z,7µm

PINNC Pines Island, 74.45 155 P **P** **23 05 14.8 +1.3**
GIRL Giralia 74.47 205 P **P** **23 05 16.6 +3.1**
GIRL Giralia 74.47 205 P **P** **23 05 16.4 +2.8**
FUR Furstenfeldbru 74.49 328 *e*P **P** **23 05 14.1 +0.6**
comp=Z,2µm,0.9s,baz=33,slow=5.8

FUR eS **S** **23 13 58.6 -2.7**
baz=32,slow=11

FUR Furstenfeldbru 74.49 328 P **P** **23 05 14.2 +0.7**
comp=Z,11µmcomp=Z,17µmcomp=Z,2µm,0.9s

UCC Uccle 74.51 333 *dP* **P** **23 05 13.2 -0.3**
comp=Z,324nm,0.9s

UCC *dp*P **pP** **23 07 14.5 -1.0**
QLP Quilpie 74.53 177 P **P** **23 05 14.8 +0.9**
QLP Quilpie 74.53 177 P **P** **23 05 14.5 +0.7**
comp=Z,720nm,0.9s

QLP Quilpie 74.53 177 P **P** **23 05 14.1 +0.3**
QLP Quilpie 74.53 177 P **P** **23 05 14.6 +0.7**
comp=Z,8µmcomp=Z,720nm,0.9s

BOST Ostende 74.54 334 *dP* **P** **23 05 13.2 -0.5**
comp=Z,384nm,0.9s

BOST *dp*P **pP** **23 07 12.0 -3.7**
BCLA Clavier 74.55 332 *dP* **P** **23 05 13.6 -0.1**
comp=Z,531nm,1.0s

BCLA *d*PcP **PcP** **23 05 26.0 +1.3**
BCLA *dp*P **pP** **23 07 18.5 +2.6**
LESA Schwarzleotal 74.61 326 *i* P **P** **23 05 15.0 +0.7**
comp=Z,1µm,0.7s,SNR=558

LESA *e*pP **pP** **23 07 17.7 +1.4**
comp=Z,244nm,1.0s

LESA *es*P **sP** **23 08 16.8 -0.6**
comp=Z,3µm,4.6s

LESA *e*PKiKP **PKiKP** **23 11 03.7 +4.8**
comp=Z,257nm,2.8s

LESA eS **S** **23 14 03.6 +0.9**
comp=Z,697nm,3.3s

KBA Koelnbreinsper 74.65 326 *i* P **P** **23 05 15.3 +0.6**
comp=Z,1µm,0.8s,SNR=509

KBA *epP* **pP** **23 07 18.1 +1.3**
comp=Z,280nm,1.1s

KBA *esP* **sP** **23 08 15.2 -2.6**
comp=Z,4μm,6.3s

KBA *ePKiKP* **PKiKP** **23 11 01.7 +2.6**
comp=Z,825nm,3.7s

KBA *eS* **S** **23 14 01.0 -2.3**
comp=Z,185nm,1.7s

KBA Koelnbreinsper 74.65 326 P **P** **23 05 15.3 +0.6**
comp=Z,13μmcomp=Z,17μmcomp=Z,2μm,1.1s

OBKA Obir 74.66 325 *i* P **P** **23 05 14.9 +0.4**
comp=Z,468nm,0.8s,SNR=121

OBKA *epP* **pP** **23 07 17.5 +0.8**
comp=Z,159nm,1.0s

OBKA *esP* **PP** **23 08 14.8 +2.9**
comp=Z,3μm,4.3s

OBKA *ePKiKP* **PKiKP** **23 11 00.6 +1.6**
comp=Z,674nm,5.9s

OBKA *eS* **S** **23 14 00.0 -3.3**
comp=Z,444nm,2.5s

OBKA Obir 74.66 325 P **P** **23 05 15.0 +0.4**
comp=Z,12μmcomp=Z,10μmcomp=Z,806nm,1.1s

GLA Glamis 74.67 58 IAmb IAmb 23 05 18.6
comp=Z,1μm,1.1s

SCHQ Schefferville 74.70 16 P **P** **23 05 14.4 -0.2**
comp=Z,753nm,0.8s,baz=351,slow=5.1,SNR=767

SCHQ PKP2ab 23 32 28.2
comp=Z,5.3nm,0.8s,baz=185,slow=5.9,SNR=3.6

SCHQ Schefferville 74.70 16 IAmb IAmb 23 05 15.7
comp=Z,753nm,0.8s
comp=Z,1μm,1.0s

STU Stuttgart 74.70 329 IAmb IAmb 23 05 16.2
comp=Z,859nm,0.8s

STU Stuttgart 74.70 329 ⇓P **P** **23 05 14.8 0.0**

STU Stuttgart 74.70 329 *eP* **P** **23 05 15.0 +0.3**
comp=Z,2μm,0.8s,baz=33,slow=5.8

STU *epP* **pP** **23 07 14.6 -2.2**

STU *esPP* 23 10 54.9
baz=35,slow=7.7

STU *eS* **S** **23 13 59.4 -4.1**
baz=32,slow=11

STU Stuttgart 74.70 329 P **P** **23 05 15.0 +0.3**
comp=Z,9μmcomp=Z,10μmcomp=Z,1μm,1.1s,comp=Z,10μm

RMQ Roma 74.71 173 P **P** **23 05 16.4 +1.5**

RMQ Roma 74.71 173 P **P** **23 05 15.6 +0.7**
comp=Z,152nm,0.9s

RMQ Roma 74.71 173 P **P** **23 05 16.1 +1.2**

FOEL Foel Wylfa 74.71 338 *eP* **P** **23 05 15.3 +0.6**

FOEL IAmb IAmb 23 05 16.6
comp=Z,2μm,0.9s

BSKQ Steenkerk 74.73 333 *dP* **P** **23 05 14.7 -0.1**
comp=Z,286nm,1.0s

WUAZ Wupatki 74.74 54 IAmb IAmb 23 05 19.4
comp=Z,1μm,1.1s

WUAZ Wupatki 74.74 54 ⇓P **P** **23 05 16.6 +1.2**

MANT Manisa 74.80 311 IAmb IAmb 23 05 17.0
comp=Z,537nm,0.8s

ESJX Sierra Juarez 74.81 59 IAmb IAmb 23 05 19.3
comp=Z,1μm,0.9s

RCHB Rochefort 74.81 332 *dP* **P** **23 05 15.0 -0.2**
comp=Z,500nm,1.0s

RCHB *dpP* **pP** **23 07 16.7 -0.7**

RCHB Rochefort 74.81 332 P **P** **23 05 15.2 0.0**
comp=Z,10μmcomp=Z,901nm,1.1s

KKB Krupnik 74.81 317 P **P** **23 05 16.0 +0.6**

BMRD Maredsous 74.82 333 *dP* **P** **23 05 15.2 -0.1**
comp=Z,1μm,0.9s

BMRD *dpP* **pP** **23 07 15.4 -2.1**

AFI Afiamalu 74.82 132 P **P** **23 05 16.9 +1.1**

AFI Afiamalu 74.82 132 P **P** **23 05 15.8 0.0**

AFI pmax pmax
comp=Z,176nm,1.0s

AFI Afiamalu 74.82 132 **P** **23 05 15.8 0.0**

BBLS Lazi&#263i 74.85 320 ⇓*iP* **P** **23 05 16.1 +0.4**

PDKS Podkum 74.86 324 *i* P **P** **23 05 15.6 0.0**

EZN Ezine 74.88 313 P **P** **23 05 16.1 +0.3**

EZN Ezine 74.88 313 ⇑P **P** **23 05 16.2 +0.3**

MYKA Terra Mystica 74.91 325 *i* P **P** **23 05 16.0 0.0**
comp=Z,624nm,0.7s,SNR=170

MYKA *epP* **pP** **23 07 18.8 +0.5**
comp=Z,133nm,1.0s

MYKA *esP* **PP** **23 08 15.6 +1.8**
comp=Z,3μm,5.2s

MYKA *eS* **S** **23 14 03.5 -2.5**
comp=Z,462nm,3.1s

WHFO Wadi Hawf 74.92 280 P **P** **23 05 16.0 -0.5**
SNR=25

RBK Rabkut 74.93 279 P **P** **23 05 16.0 -0.5**
SNR=8.8

WLF Walferdange 74.94 331 P **P** **23 05 15.7 -0.3**

WLF S **S** **23 14 05.9 -0.1**

WLF Walferdange 74.94 331 *dP* **P** **23 05 15.8 -0.3**
comp=Z,240nm,1.0s

WLF *dpP* **pP** **23 07 18.9 +0.6**

WLF Walferdange 74.94 331 ⇓P **P** **23 05 16.1 +0.1**

WLF Walferdange 74.94 331 *eP* **P** **23 05 16.2 +0.3**
comp=Z,370nm,1.0s,baz=33,slow=5.8

WLF *esPP* 23 10 53.5
baz=35,slow=7.7

WLF *eS* **S** **23 14 01.3 -4.7**
baz=32,slow=11

WLF Walferdange 74.94 331 P **P** **23 05 16.3 +0.3**
comp=Z,10μmcomp=Z,6μmcomp=Z,378nm,1.0s

HLM1 Long Mynd 74.97 338 *eP* **P** **23 05 16.0 -0.1**

HLM1 IAmb IAmb 23 05 18.4
comp=Z,275nm,0.7s

MVCO Mesa Verde 74.98 51 IAmb IAmb 23 05 20.3
comp=Z,1μm,0.9s

MVCO Mesa Verde 74.98 51 ⇓P **P** **23 05 17.4 +0.7**

MVCO Mesa Verde 74.98 51 P **P** **23 05 17.6 +0.9**
comp=Z,11μmcomp=Z,14μmcomp=Z,1μm,1.1s,comp=Z,14μm

CSS Mathiatis 74.98 306 IAmb IAmb 23 05 19.4
comp=Z,530nm,0.7s

CSS Mathiatis 74.98 306 ⇓P **P** **23 05 16.4 -0.1**

CSS Mathiatis 74.98 306 P **P** **23 05 16.7 +0.2**

CSS Mathiatis 74.98 306 P **P** **23 05 16.7 +0.2**
comp=Z,7μmcomp=Z,7μmcomp=Z,807nm,0.8s

GEM Giv'at Ha'Em 75.00 303 ⇓P **P** **23 05 17.1 +0.5**

GEM Giv'at Ha'Em 75.00 303 P **P** **23 05 17.4 +0.8**

GEM AML AML

KAAM Kaadhehdhoo 75.00 253 P **P** **23 05 17.6 +0.7**
SNR=5.0

KAAM Kaadhehdhoo 75.00 253 ⇑P **P** **23 05 17.2 +0.3**

KAAM Kaadhehdhoo 75.00 253 P **P** **23 05 17.8 +1.0**
comp=Z,408nm,0.7s,comp=Z,408nm,0.7s

KAAM Kaadhehdhoo 75.00 253 P **P** **23 05 17.9 +1.0**
comp=Z,415nm,0.7s

DOU Dourbes 75.06 333 *dP* **P** **23 05 16.3 -0.3**

DOU *dPcP* **PcP** **23 05 28.1 +1.2**

DOU *dpP* **pP** **23 07 18.9 0.0**

LJU Ljubljana 75.06 324 *i* P **P** **23 05 16.5 -0.2**

LJU *e* 23 07 19.8

LJU *e* 23 12 45.0

LJU *eS* **S** **23 14 04.8 -2.6**

LJU *eSS* SS 23 18 58.8 -13

BLY Banja Luka 75.06 322 ⇓P **P** **23 05 16.5 -0.3**

BLY Banja Luka 75.06 322 ⇓P **P** **23 05 16.8 0.0**

BLY Banja Luka 75.06 322 ⇓*iP* **P** **23 05 16.5 -0.3**

BLY Banja Luka 75.06 322 P **P** **23 05 16.8 0.0**
comp=Z,10μmcomp=Z,5μmcomp=Z,267nm,0.7s

ASF Jabal al Asfar 75.07 302 S **S** **23 14 10.8 +2.6**
comp=Z,12nm,1.1s,baz=257,slow=22,SNR=10

ASF Jabal al Asfar 75.07 302 P **P** **23 05 17.9 +0.7**

ASF AML AML

WATA Walderalm 75.08 327 *i* P **P** **23 05 17.5 +0.5**
comp=Z,1μm,0.7s,SNR=524

WATA *epP* **pP** **23 07 20.1 +0.8**
comp=Z,719nm,2.3s

WATA *esP* **sP** **23 08 18.9 -1.5**
comp=Z,4μm,5.5s

WATA *ePKiKP* **PKiKP** **23 11 04.1 +4.4**
comp=Z,850nm,4.5s

WATA *eS* **S** **23 14 08.3 +0.3**
comp=Z,594nm,2.1s

SJES Sjenica 75.09 320 ⇓*iP* **P** **23 05 17.4 +0.3**

WTTA Wattenberg 75.12 327 *i* P **P** **23 05 18.0 +0.7**
comp=Z,2μm,0.7s,SNR=558

WTTA *epP* **pP** **23 07 20.6 +1.0**
comp=Z,411nm,1.4s

WTTA *esP* **sP** **23 08 19.7 -1.0**
comp=Z,3μm,4.8s

WTTA *ePKiKP* **PKiKP** **23 11 04.7 +4.9**
comp=Z,2μm,4.9s

WTTA *eS* **S** **23 14 08.8 +0.3**
comp=Z,534nm,2.1s

WTTA Wattenberg 75.12 327 P **P** **23 05 18.1 +0.7**
comp=Z,11μmcomp=Z,20μmcomp=Z,2μm,1.1s

CRNS Crni Vrh 75.13 325 *i* P **P** **23 05 16.5 -0.7**

CRNS *e* 23 07 19.5

DSB Dublin 75.13 340 P **P** **23 05 17.1 +0.1**

DSB Dublin 75.13 340 P **P** **23 05 16.9 0.0**

DSB S **S** **23 14 07.4 -0.5**

DSB Dublin 75.13 340 IAmb IAmb 23 05 18.5
comp=Z,658nm,0.8s

DSB Dublin 75.13 340 ⇓P **P** **23 05 17.1 +0.1**

DSB Dublin 75.13 340 *eP* **P** **23 05 17.3 +0.3**

DSB IAmb IAmb 23 05 18.4
comp=Z,478nm,0.6s

DSB Dublin 75.13 340 P **P** **23 05 17.5 +0.5**
comp=Z,11μmcomp=Z,1μm,0.9s

ELSH Elham, Standar 75.14 335 *eP* **P** **23 05 17.1 +0.1**

ELSH IAmb IAmb 23 05 19.9
comp=Z,1μm,0.8s

PTCC Patocco-Chiusa 75.20 325 ⇓P **P** **23 05 16.0 -1.6**

ABTA Abfaltersbach 75.23 326 *i* P **P** **23 05 17.4 -0.4**
comp=Z,697nm,1.6s,SNR=92

ABTA *epP* **pP** **23 07 20.4 +0.3**
comp=Z,529nm,3.0s

ABTA *esP* **PP** **23 08 17.7 +1.1**
comp=Z,999nm,3.9s

ABTA *eS* **S** **23 14 08.9 -0.6**
comp=Z,209nm,1.6s

MOTA Moosalm 75.25 327 *i* P **P** **23 05 18.4 +0.4**
comp=Z,2μm,0.8s,SNR=561

MOTA *epP* **pP** **23 07 22.0 +1.7**
comp=Z,210nm,1.2s

MOTA *esP* **sP** **23 08 19.4 -2.0**
comp=Z,3μm,4.7s

MOTA *ePKiKP* **PKiKP** **23 11 04.9 +5.0**
comp=Z,1μm,5.8s

MOTA *eS* **S** **23 14 10.0 +0.2**
comp=Z,510nm,2.0s

RETA Reutte 75.25 328 *i* P **P** **23 05 18.3 +0.4**
comp=Z,2μm,1.6s,SNR=170

RETA *epP* **pP** **23 07 21.3 +1.0**
comp=Z,911nm,3.7s

RETA *esP* **PP** **23 08 18.8 +2.2**
comp=Z,2μm,4.4s

RETA *ePKiKP* **PKiKP** **23 11 03.5 +3.7**
comp=Z,230nm,2.4s

RETA *eS* **S** **23 14 09.7 +0.1**
comp=Z,874nm,4.6s

OGNE Ogallala 75.27 44 ⇓P **P** **23 05 18.3 +0.2**

PLE Pljevlja 75.28 320 ⇓*iP* **P** **23 05 18.6 +0.4**

DRE Drenchia 75.29 325 P **P** **23 05 17.2 -0.8**
comp=Z,4μmcomp=Z,348nm,0.9s

MMAI Mount Meron Ar 75.29 303 P **P** **23 05 18.9 +0.6**
comp=Z,205nm,0.6s,baz=26,slow=14,SNR=362

MMAI pP **pP** **23 07 20.7 -0.1**
comp=Z,20nm,0.8s,baz=32,slow=20,SNR=3.5
comp=Z,205nm,0.6s

VOJS Vojsko 75.31 325 *i* P **P** **23 05 17.3 -1.0**

VOJS *eSS* SS 23 18 56.8 -19

SQTA Sankt Quirin 75.32 327 *i* P **P** **23 05 19.0 +0.7**
comp=Z,1μm,0.7s,SNR=352

SQTA *epP* **pP** **23 07 22.5 +1.9**
comp=Z,344nm,1.6s

SQTA *esP* **PP** **23 08 19.3 +2.0**
comp=Z,3μm,5.0s

SQTA *ePKiKP* **PKiKP** **23 11 04.3 +4.2**
comp=Z,1μm,5.6s

SQTA *eS* **S** **23 14 10.3 -0.1**
comp=Z,565nm,2.0s

UBR Ueberruh 75.32 328 *eP* **P** **23 05 18.2 -0.1**
comp=Z,248nm,0.8s,baz=33,slow=5.8

UBR *epP* **pP** **23 07 18.5 -2.2**

UBR *eS* **S** **23 14 07.6 -2.7**
baz=32,slow=11

UBR Ueberruh 75.32 328 P **P** **23 05 18.4 +0.1**
comp=Z,11μmcomp=Z,6μmcomp=Z,395nm,1.6s

FUSE Fusea 75.33 326 P **P** **23 05 17.5 -0.8**
comp=Z,6μmcomp=Z,7μmcomp=Z,809nm,0.7s

BFO Black Forest 75.38 329 *i* P **P** **23 05 18.4 -0.1**

BFO Black Forest 75.38 329 P **P** **23 05 18.1 -0.5**

BFO Black Forest 75.38 329 *eP* **P** **23 05 18.6 +0.1**
comp=Z,545nm,0.9s,baz=33,slow=5.8

BFO *esPP* 23 10 57.1
baz=35,slow=7.7

BFO *eS* **S** **23 14 06.8 -4.1**
baz=32,slow=11

TAVA DENIZLI_Tavas 75.41 310 ⇓P **P** **23 05 19.0 0.0**

IVA Berane 75.44 319 ⇓*iP* **P** **23 05 18.8 -0.2**

ECSD EROS Data Cent 75.44 39 IAmb IAmb 23 05 19.8
comp=Z,1μm,0.8s

ECSD EROS Data Cent 75.44 39 ⇓P **P** **23 05 18.5 -0.5**

ECSD EROS Data Cent 75.44 39 P **P** **23 05 18.6 -0.3**
comp=Z,12μmcomp=Z,18μmcomp=Z,2μm,1.0s

ELL Elmali 75.44 309 IAmb IAmb 23 05 20.7
comp=Z,572nm,0.7s

STRD Stroud 75.47 337 *eP* **P** **23 05 19.0 +0.2**

STRD IAmb IAmb 23 05 23.7
comp=Z,968nm,0.6s

113A Mohawk Valley, 75.48 57 IAmb IAmb 23 05 22.7
comp=Z,752nm,1.0s

VAY Valandovo 75.48 317 *i* P **P** **23 05 19.5 +0.4**

HSUJ Al Zarqa 75.52 302 P **P** **23 05 20.5 +0.9**

HSUJ AML AML

STAL STALIGIAL 75.57 326 P **P** **23 05 18.0 -1.6**

STAL IAmb IAmb 23 05 19.8
comp=Z,606nm,0.7s

MONM Monmouth 75.57 338 *eP* **P** **23 05 19.5 0.0**

MONM IAmb IAmb 23 05 24.9
comp=Z,570nm,0.9s

UPM Unac-Piva 75.59 320 ⇓*iP* **P** **23 05 19.5 -0.5**

UPM Unac-Piva 75.59 320 ⇓*iP* **P** **23 05 19.5 -0.5**

SWN1 Swindon 75.61 337 *eP* **P** **23 05 20.2 +0.6**

SWN1 IAmb IAmb 23 05 21.7
comp=Z,2μm,0.7s

IGLA Glengowla, Co 75.62 342 P **P** **23 05 19.3 -0.3**

HMNX Herstmonceux 75.62 335 *eP* **P** **23 05 20.4 +0.8**

HMNX IAmb IAmb 23 05 21.9
comp=Z,2μm,0.9s

HMNX Herstmonceux 75.62 335 P **P** **23 05 20.7 +1.0**
comp=Z,14μmcomp=Z,32μmcomp=Z,4μm,0.9s

KOME Kolasin 75.62 320 ⇓*iP* **P** **23 05 19.2 -0.8**

TRI Trieste 75.63 325 IAmb IAmb 23 05 20.2
comp=Z,645nm,0.8s

PVY Plav 75.63 319 ⇓*iP* **P** **23 05 20.2 +0.1**

ABTO Aybut 75.64 280 P **P** **23 05 20.1 -0.4**
SNR=16

FETA Feichten 75.66 327 *i* P **P** **23 05 20.7 +0.5**
comp=Z,884nm,0.9s,SNR=371

FETA *epP* **pP** **23 07 24.0 +1.2**
comp=Z,664nm,2.5s

FETA *esP* **sP** **23 08 22.8 -1.0**
comp=Z,3μm,5.5s

FETA *esPKiKP* **sPKiKP** **23 14 13.8 -1.4**
comp=Z,725nm,2.7s

OLDB Oldbury-Upon-S 75.67 337 *eP* **P** **23 05 20.0 0.0**

OLDB IAmb IAmb 23 05 21.0
comp=Z,180nm,0.7s

QRNJ Al-Qirein 75.70 303 P **P** **23 05 21.4 +0.9**

QRNJ AML AML

DAVA Damuels 75.74 328 *i* P **P** **23 05 20.1 -0.6**
comp=Z,1μm,0.7s,SNR=346

DAVA *epP* **pP** **23 07 24.6 +1.3**
comp=Z,181nm,1.5s

DAVA *esP* **PP** **23 08 21.9 +1.1**
comp=Z,2μm,4.6s

DAVA *ePKiKP* PKiKP 23 11 09.4 +8.7
comp=Z,487nm,2.8s

DAVA *esPKiKP* **sPKiKP** **23 14 13.9 -1.4**
comp=Z,560nm,3.7s

DAVA Damuels 75.74 328 P **P** **23 05 21.1 +0.4**
comp=Z,13μmcomp=Z,16μmcomp=Z,2μm,1.2s

KLINJ Klinje 75.76 320 *eP* **P** **23 05 18.8 -2.0**

SPMN Marine on St. 75.77 36 IAmb IAmb 23 05 21.4
comp=Z,865nm,1.0s

BALJ Balqa 75.85 302 IAmb IAmb 23 05 25.0
comp=Z,1μm,0.7s

BALJ Balqa 75.85 302 P **P** **23 05 22.2 +0.8**
comp=Z,8μmcomp=Z,10μmcomp=Z,1μm,0.8s

ECH Echery 75.87 330 IAmb IAmb 23 05 22.4
comp=Z,825nm,0.9s

ECH Echery 75.87 330 P **P** **23 05 21.3 +0.1**
comp=Z,11μmcomp=Z,10μmcomp=Z,997nm,1.0s,comp=Z,10μm

W18A Petrified Fore 75.92 53 IAmb IAmb 23 06 07.9
comp=Z,698nm,1.0s

NKME Niksic 75.93 320 ⇓*iP* **P** **23 05 21.2 -0.5**

RSBS Rosebush, Pemb 75.95 339 *eP* **P** **23 05 21.6 0.0**

RSBS IAmb IAmb 23 05 23.1
comp=Z,545nm,0.7s

AKAS Kas 76.00 309 IAmb IAmb 23 05 23.7
comp=Z,753nm,0.8s

BRY Bratogost 76.00 320 ⇓*iP* **P** **23 05 21.2 -1.0**

BRY Bratogost 76.00 320 ⇓*iP* **P** **23 05 21.5 -0.7**

IWEX Carrickbyrne, 76.03 340 P **P** **23 05 22.2 +0.2**

IWEX Carrickbyrne, 76.03 340 P **P** **23 05 22.6 +0.7**
comp=Z,13μmcomp=Z,21μmcomp=Z,3μm,0.9s

PDG Podgorica 76.07 319 IAmb IAmb 23 05 23.4
comp=Z,875nm,0.9s

PDG Podgorica 76.07 319 ⇓P **P** **23 05 22.1 -0.3**

PDG Podgorica 76.07 319 ⇑P **P** **23 05 21.8 -0.6**

PDG Podgorica 76.07 319 ⇓*iP* **P** **23 05 22.1 -0.3**

PDG Podgorica 76.07 319 P **P** **23 05 22.3 0.0**
comp=Z,10μmcomp=Z,10μmcomp=Z,1μm,0.9s

PDG Podgorica 76.07 319 ⇓*iP* **P** **23 05 22.2 -0.1**

TW1H Toowoomba 1 Ha 76.09 170 P **P** **23 05 24.3 +1.7**

AUTOO Toowoomba Stat 76.09 170 P **P** **23 05 23.8 +1.2**

SDCO Great Sand Dun 76.09 48 ⇓P **P** **23 05 23.4 +0.5**

SALP Salfit 76.11 303 ⇓P **P** **23 05 23.4 +0.6**

SALP Salfit 76.11 303 P **P** **23 05 23.6 +0.8**

SALP AML AML

CEME Cevo 76.12 320 ⇓*iP* **P** **23 05 22.3 -0.4**

CTI Castel Tesino 76.15 326 IAmb IAmb 23 05 23.2
comp=Z,692nm,0.7s

FUORN Ofenpass-Fuorn 76.17 327 IAmb IAmb 23 05 25.1
comp=Z,1μm,0.9s

DAVOX Davos/Dischmat 76.17 328 S **S** **23 14 21.1 +1.4**
comp=Z,18nm,0.9s,baz=335,slow=21,SNR=8.2

RAYN Ar Rayn 76.22 290 *i* P **P** **23 05 23.5 0.0**
SNR=306

RAYN Ar Rayn 76.22 290 P **P** **23 05 23.5 0.0**

RAYN Ar Rayn 76.22 290 P **P** **23 05 23.2 -0.3**

RAYN Ar Rayn 76.22 290 P **P** **23 05 23.6 +0.1**
comp=Z,8μmcomp=Z,6μmcomp=Z,656nm,0.7s

TREB Trebinje 76.23 320 *eP* **P** **23 05 22.4 -0.8**

DRME Dracevica, Mon 76.30 319 ⇓*iP* **P** **23 05 23.5 -0.1**

DRME Dracevica, Mon 76.30 319 ⇓*iP* **P** **23 05 23.8 +0.2**

BUM Brajici-Budva 76.33 320 ⇓*iP* **P** **23 05 23.2 -0.7**

HCY Herceg Novi 76.39 320 ⇓*iP* **P** **23 05 23.1 -1.0**

HCY Herceg Novi 76.39 320 ⇓*iP* **P** **23 05 23.5 -0.6**

OHR Ohrid 76.45 318 *i* P **P** **23 05 25.1 +0.6**

ULC Ulcinj 76.45 319 ⇓*iP* **P** **23 05 24.3 -0.2**

BDRM Kayabasi 76.46 311 ⇓P **P** **23 05 24.8 +0.2**

GHAJ Ghor Haditha 76.47 302 P **P** **23 05 25.5 +0.7**

GHAJ AML AML

GHAJ Ghor Haditha 76.47 302 P **P** **23 05 25.5 +0.7**
comp=Z,9μmcomp=Z,7μmcomp=Z,450nm,0.6s

KSCO Kaye Shedlock' 76.51 46 IAmb IAmb 23 05 28.0
comp=Z,2μm,1.3s

PIX Pinacate 76.55 58 IAmb IAmb 23 05 28.6
comp=Z,786nm,1.0s

LISJ El Lisan 76.57 302 P **P** **23 05 26.4 +1.2**

LISJ AML AML

MSBI Mazada 76.58 302 P **P** **23 05 26.1 +0.7**
comp=Z,10μmcomp=Z,5μmcomp=Z,218nm,1.0s

TUE Stuetta 76.62 328 ⇓P **P** **23 05 25.8 +0.2**

TUE Stuetta 76.62 328 P **P** **23 05 25.9 +0.3**
comp=Z,10μmcomp=Z,9μmcomp=Z,767nm,1.0s

AMAZ Amatzia 76.67 302 P **P** **23 05 26.7 +0.8**

AMAZ AML AML

TEOL Teolo 76.72 326 P **P** **23 05 24.6 -1.3**

TEOL IAmb IAmb 23 05 26.8
comp=Z,1μm,1.0s

HTL Hartland 76.77 338 *eP* **P** **23 05 26.4 +0.4**

HTL IAmb IAmb 23 05 28.0
comp=Z,538nm,0.9s

HTL Hartland 76.77 338 P **P** **23 05 26.8 +0.8**
comp=Z,3μmcomp=Z,3μmcomp=Z,286nm,0.9s

ARG Arkhangelos 76.77 310 IAmb IAmb 23 05 27.7
comp=Z,912nm,0.8s

GC1S Gold Coast 1 S 76.89 169 P **P** **23 05 28.4 +1.6**

L34A Svendsen Farm, 76.99 40 IAmb IAmb 23 05 27.9
comp=Z,1μm,0.9s

T25A Trinidad 77.11 48 IAmb IAmb 23 05 31.6
comp=Z,1μm,0.9s

MEEK Meekatharra 77.14 200 P **P** **23 05 28.3 0.0**

MEEK Meekatharra 77.14 200 P **P** **23 05 27.8 -0.5**
comp=Z,149nm,1.2s

MEEK Meekatharra 77.14 200 P **P** **23 05 28.4 +0.1**

DYA Yadsworthy 77.15 338 *eP* **P** **23 05 28.1 0.0**

DYA IAmb IAmb 23 05 30.6
comp=Z,726nm,0.7s

HSNJ Maan 77.19 301 P **P** **23 05 30.2 +1.4**

HSNJ AML AML

VAL Valentia 77.19 342 P **P** **23 05 28.5 +0.3**

VAL Valentia 77.19 342 P **P** **23 05 28.3 0.0**

VAL Valentia 77.19 342 P **P** **23 05 29.0 +0.7**
comp=Z,15μmcomp=Z,20μmcomp=Z,2μm,0.8s

APE Apeiranthos 77.42 312 P **P** **23 05 28.3 -1.6**

APE Apeiranthos 77.42 312 ⇓P **P** **23 05 28.3 -1.6**

APE Apeiranthos 77.42 312 P **P** **23 05 28.6 -1.2**
comp=Z,9μmcomp=Z,4μmcomp=Z,303nm,0.7s

KZIT Kziot 77.43 302 P **P** **23 05 30.5 +0.5**

KZIT AML AML

TUC Tucson 77.48 55 P **P** **23 05 31.1 +0.8**

TUC Tucson 77.48 55 ⇓P **P** **23 05 31.2 +0.9**

PRNI Paran 77.50 302 P **P** **23 05 31.2 +0.8**

PRNI AML AML

AULRC Lightning Ridg 77.57 174 P **P** **23 05 31.2 +0.7**

CCA1 Carnmenellis 77.70 338 *eP* **P** **23 05 31.1 0.0**

CCA1 IAmb IAmb 23 05 33.3
comp=Z,665nm,0.8s

HRFI Mount Harif 77.72 301 P **P** **23 05 32.2 +0.6**

HRFI AML AML

I40A Norwalk 77.74 35 IAmb IAmb 23 05 32.1
comp=Z,1μm,0.9s

ANMO Albuquerque 77.77 51 *de* P **P** **23 05 33.2 +1.2**

ANMO pmax pmax
comp=Z,570nm,1.0s

ANMO Albuquerque 77.77 51 P **P** **23 05 32.6 +0.6**

ALQ Albuquerque 77.78 51 IAmb IAmb 23 05 34.7
comp=Z,655nm,1.1s

LOR Lormes 77.78 332 P **P** **23 05 31.5 -0.1**
comp=Z,9μmcomp=Z,12μmcomp=Z,1μm,1.4s

JSA Saint Aubin 77.83 336 *eP* **P** **23 05 31.5 -0.2**

JSA IAmb IAmb 23 05 34.3
comp=Z,1μm,0.7s

E46A Sault Ste Mari 77.89 30 IAmb IAmb 23 06 08.0
comp=Z,977nm,0.8s

AQBJ Aqaba 77.95 301 P **P** **23 05 33.6 +0.8**

AQBJ AML AML

KEK Kerkira 78.03 317 IAmb IAmb 23 05 34.7
comp=Z,629nm,0.7s

EIL Elat 78.05 301 P **P** **23 05 33.9 +0.6**

EIL AML AML

EIL Elat 78.05 301 P **P** **23 05 33.9 +0.6**
comp=Z,8μmcomp=Z,7μmcomp=Z,688nm,0.9s

FDMO Fiordimonte 78.13 324 P **P** **23 05 33.3 -0.3**

FDMO IAmb IAmb 23 05 38.2
comp=Z,1μm,1.0s

MURB Monte Urbino 78.16 324 IAmb IAmb 23 05 36.1
comp=Z,892nm,0.8s

NRCA Norcia 78.29 324 IAmb IAmb 23 05 36.2
comp=Z,2μm,0.8s

SCTE Santa Cesarea 78.33 319 IAmb IAmb 23 05 35.5
comp=Z,1μm,0.7s

SCIA State Center 78.37 38 IAmb IAmb 23 05 36.0
comp=Z,1μm,0.9s

RTBA Rita Blanca 78.49 47 IAmb IAmb 23 05 37.0
comp=Z,1μm,0.9s

AQU L'Aquila 78.58 323 P **P** **23 05 36.1 +0.1**

AQU S **S** **23 14 44.8 -0.1**

AQU L'Aquila 78.58 323 IAmb IAmb 23 05 41.2
comp=Z,1μm,0.9s

AQU L'Aquila 78.58 323 ⇓*iP* **P** **23 05 36.3 +0.3**

AQU L'Aquila 78.58 323 P **P** **23 05 36.5 +0.5**
comp=Z,10μmcomp=Z,15μmcomp=Z,2μm,0.9s

MATE Matera 78.63 320 ⇓P **P** **23 05 37.0 +0.8**

INTR Introdacqua 78.67 323 P **P** **23 05 36.0 -0.5**

INTR IAmb IAmb 23 05 38.5
comp=Z,866nm,0.7s

JFWS Jewell Farm 78.71 36 IAmb IAmb 23 05 57.2
comp=Z,606nm,0.7s

BNI Bardonecchia 78.79 329 P **P** **23 05 37.5 +0.3**
comp=Z,10μmcomp=Z,5μmcomp=Z,608nm,0.9s

ACER Acerenza 78.84 321 IAmb IAmb 23 05 38.9
comp=Z,1μm,0.7s

ARMA Armidale 78.89 170 P **P** **23 05 39.0 +1.3**

ARMA Armidale 78.89 170 P **P** **23 05 38.8 +1.1**
comp=Z,142nm,1.1s

ARMA Armidale 78.89 170 P **P** **23 05 38.7 +1.1**

121A Cookes Peak, D 78.94 53 IAmb IAmb 23 05 41.0
comp=Z,938nm,0.9s

319A Douglas 79.02 55 IAmb IAmb 23 05 41.1

comp=Z,1µm,0.9s
L40A Anamosa 79.05 37 IAmb IAmb 23 05 38.7
comp=Z,1µm,0.9s
ITM Ithomi 79.08 315 P **P** **23 05 37.5 -1.2**
ITM IAmb IAmb 23 05 39.0
comp=Z,1µm,0.8s
GLMI Grayling 79.14 31 IAmb IAmb 23 05 39.6
comp=Z,2µm,0.8s
IDI Anoyia 79.14 311 P **P** **23 05 37.6 -1.5**
IDI S **S** **23 14 44.0 -6.8**
IDI Anoyia 79.14 311 S **S** **23 14 47.5 -3.4**
comp=Z,126nm,1.0s,baz=292,slow=22,SNR=14
ORIF Oris-en-Rattie 79.18 329 P **P** **23 05 39.6 +0.4**
comp=Z,9µmcomp=Z,7µmcomp=Z,560nm,0.8s
KSU1 Kansas State U 79.23 42 IAmb IAmb 23 05 40.1
comp=Z,954nm,0.8s
I45A Fountain 79.25 33 IAmb IAmb 23 05 40.5
comp=Z,2µm,1.2s
KTHA Kythira Island 79.27 313 P **P** **23 05 38.7 -1.0**
comp=Z,8µmcomp=Z,7µmcomp=Z,634nm,0.8s
N38A Joes South For 79.29 39 IAmb IAmb 23 05 40.6
comp=Z,1µm,0.8s
SSB Saint Sauveur 79.31 330 P **P** **23 05 40.1 +0.3**
comp=Z,12µmcomp=Z,7µmcomp=Z,496nm,1.3s
SSB Saint Sauveur 79.31 330 P **P** **23 05 39.5 -0.3**
SSB pP **pP** **23 07 44.1 -0.1**
ISO Isola 79.42 328 P **P** **23 05 39.8 -0.6**
comp=Z,5µmcomp=Z,331nm,0.7s,comp=Z,8µm
FORT Forrest 79.47 191 P **P** **23 05 40.8 +0.2**
FORT Forrest 79.47 191 P **P** **23 05 40.5 -0.1**
comp=Z,167nm,0.9s
CMSA Cobar Meteorol 79.52 176 P **P** **23 05 41.7 +0.9**
comp=Z,258nm,0.9s
CMSA Cobar Meteorol 79.52 176 P **P** **23 05 41.2 +0.4**
CUC Castrocucco 79.55 320 P **P** **23 05 40.3 -0.8**
comp=Z,9µmcomp=Z,4µmcomp=Z,308nm,0.9s
ESCA l'Escarene 79.61 328 P **P** **23 05 41.0 -0.4**
comp=Z,8µmcomp=Z,893nm,1.0s
K43A Burlington 79.63 35 IAmb IAmb 23 05 52.6
comp=Z,1µm,0.8s
ICQ Pointe Anglais 79.66 18 IAmb IAmb 23 05 42.6
comp=Z,1µm,0.8s
MON Monaco 79.68 328 P **P** **23 05 42.2 +0.6**
comp=Z,9µmcomp=Z,9µmcomp=Z,914nm,0.9s
PH02 Texas Public H 79.71 48 IAmb IAmb 23 05 45.3
comp=Z,1µm,0.9s
L42A Oliver, Polo 79.71 36 IAmb IAmb 23 05 42.0
comp=Z,936nm,0.8s
STKA Stephens Creek 79.74 179 P **P** **23 05 42.5 +0.6**
comp=Z,1µm,1.0s
STKA Stephens Creek 79.74 179 P **P** **23 05 42.3 +0.3**
comp=Z,198nm,0.9s,baz=339,slow=6.7,SNR=110
STKA pP **pP** **23 07 47.0 +0.7**
comp=Z,98nm,1.2s,baz=353,slow=5.5,SNR=4.5
STKA PKKPbc **PKKPbc** **23 24 22.8 +0.3**
comp=Z,6.5nm,0.7s,baz=133,slow=3.1,SNR=4.3
comp=Z,198nm,0.9s
STKA Stephens Creek 79.74 179 P **P** **23 05 41.9 -0.1**
STKA Stephens Creek 79.74 179 IAmb IAmb 23 05 44.9
comp=Z,967nm,0.9s
TIP Timpagrande 79.82 319 ⇑P **P** **23 05 43.2 +0.6**
TIP Timpagrande 79.82 319 P **P** **23 05 42.9 +0.3**
comp=Z,10µmcomp=Z,9µmcomp=Z,677nm,1.2s
CALF Calern 79.84 328 P **P** **23 05 42.3 -0.3**
comp=Z,8µmcomp=Z,7µmcomp=Z,461nm,0.8s
GVD Gavdhos 79.89 312 P **P** **23 05 42.6 -0.4**
comp=Z,10µmcomp=Z,13µmcomp=Z,2µm,0.8s,comp=Z,13µm
MORW Morawa 80.09 202 P **P** **23 05 43.6 -0.2**
comp=Z,144nm,1.3s
MORW Morawa 80.09 202 P **P** **23 05 44.0 +0.1**
NIUE Niue 80.14 133 P **P** **23 05 45.7 +1.5**
NIUE Niue 80.14 133 P **P** **23 05 45.8 +1.5**
RUSF Rustrel 80.17 329 P **P** **23 05 44.8 +0.5**
comp=Z,4µmcomp=Z,220nm,1.0s,comp=Z,10µm
LDAQ Lac Daran 80.23 21 IAmb IAmb 23 05 45.3
comp=Z,878nm,1.0s
L44A Lake County Fo 80.24 35 IAmb IAmb 23 05 45.4
comp=Z,2µm,1.0s
AUDCS Dubbo College 80.40 173 P **P** **23 05 46.8 +1.4**
J47A Sunmer 80.45 32 IAmb IAmb 23 05 46.9
comp=Z,1µm,0.8s
I49A Point Hope 80.53 30 P **P** **23 05 45.5 -0.5**
I49A IAmb IAmb 23 05 47.0
comp=Z,2µm,0.8s
ARBF Arbois 80.62 329 P **P** **23 05 47.2 +0.7**
comp=Z,10µmcomp=Z,7µmcomp=Z,421nm,1.1s
BBOO Buckleboo 80.78 184 P **P** **23 05 47.3 -0.1**
comp=Z,134nm,0.9s
BBOO Buckleboo 80.78 184 P **P** **23 05 47.5 +0.2**
LMQ La Malbaie 80.84 21 IAmb IAmb 23 05 48.4
comp=Z,903nm,0.9s
CEL Celeste 80.96 319 IAmb IAmb 23 05 49.8
comp=Z,873nm,0.9s
CEL Celeste 80.96 319 P **P** **23 05 47.5 -1.0**
comp=Z,8µmcomp=Z,8µmcomp=Z,1µm,0.9s
KMBL Kambalda 81.03 196 P **P** **23 05 48.4 -0.2**
comp=Z,52nm,1.0s
LHI Lord Howe Isla 81.06 164 P **P** **23 05 50.7 +2.0**
comp=Z,73nm,0.9s
HTT Hallett 81.31 182 P **P** **23 05 50.8 +0.6**
comp=Z,117nm,1.0s
HTT Hallett 81.31 182 P **P** **23 05 50.7 +0.6**
NTLH Newcastle Hard 81.35 171 P **P** **23 05 51.7 +1.5**
BLDU Ballidu 81.41 201 P **P** **23 05 50.6 0.0**
comp=Z,132nm,1.3s
BLDU Ballidu 81.41 201 P **P** **23 05 50.5 -0.1**
DGAR Diego Garcia 81.42 249 P **P** **23 05 51.2 +0.2**
DGAR Diego Garcia 81.42 249 *de*P **P** **23 05 52.2 +1.2**
DGAR pmax pmax
comp=Z,279nm,0.8s
DGAR Diego Garcia 81.42 249 P **P** **23 05 51.0 0.0**
DGAR Diego Garcia 81.42 249 P **P** **23 05 51.0 0.0**
DGAR pP **pP** **23 07 56.9 +0.4**
H08S3 Diego Garcia H 81.56 249 P **P** **23 05 51.8 +0.3**
baz=2.9,slow=9.9,SNR=26
D62A Allapoint, All 81.57 20 IAmb IAmb 23 05 52.3
comp=Z,882nm,0.8s
H08S2 Diego Garcia H 81.57 249 P **P** **23 05 52.6 +1.1**
baz=2.9,slow=9.9,SNR=24
H08S1 Diego Garcia H 81.58 249 P **P** **23 05 52.5 +0.9**
baz=2.9,slow=9.9,SNR=25
DRLN Deer Lake 81.61 12 IAmb IAmb 23 05 54.9
comp=Z,769nm,1.0s
AUKHS Kincumber High 81.87 171 P **P** **23 05 54.2 +1.4**
E62A Clayton Lake 81.90 21 P **P** **23 05 51.7 -1.3**
E62A IAmb IAmb 23 05 53.8
comp=Z,740nm,0.8s
KLBR Kellerberrin 82.10 200 P **P** **23 05 53.9 -0.2**
comp=Z,103nm,0.8s
KLBR Kellerberrin 82.10 200 P **P** **23 05 54.2 +0.1**
SYDH Sydney Hard Ro 82.10 172 P **P** **23 05 55.2 +1.2**
RIV Riverview 82.21 171 P **P** **23 05 57.1 +2.6**
comp=Z,132nm,0.9s
RIV Riverview 82.21 171 P **P** **23 05 56.4 +1.9**
EJON La Jonquera 82.38 330 P **P** **23 05 55.0 -0.6**
YNG Young 82.44 174 P **P** **23 05 56.8 +1.0**
comp=Z,211nm,1.0s
RAFF Raffo Rosso 82.49 320 IAmb IAmb 23 05 58.0
comp=Z,444nm,0.6s
WOLH Wollongong Har 82.75 172 P **P** **23 05 59.1 +1.8**
CEST Esterri de Car 82.78 331 IAmb IAmb 23 05 59.9
comp=Z,895nm,0.9s
AUKUL Kulin High Sch 83.05 199 P **P** **23 05 58.9 +0.1**
CORI Orista 83.08 330 IAmb IAmb 23 06 00.9
comp=Z,590nm,0.8s
VT1 Waterbury 83.22 24 IAmb IAmb 23 06 01.0
comp=Z,1µm,0.8s
AUMTS Mt Stromlo 83.50 173 P **P** **23 06 02.1 +1.1**
CAN Canberra 83.50 173 P **P** **23 06 02.4 +1.3**
comp=Z,98nm,1.1s
CAN Canberra 83.50 173 P **P** **23 06 02.2 +1.2**
CAN Canberra 83.50 173 P **P** **23 06 01.4 +0.3**
CAN pP **pP** **23 08 08.3 +1.2**
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 01.2 +0.2**
comp=Z,252nm,1.0s
NWAO Narrogin (SRO) 83.50 200 PKKPbc PKKPbc 23 24 14.4 +0.6
comp=Z,20nm,0.9s,baz=171,slow=7.5,SNR=4.3
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 00.5 -0.6**
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 00.7 -0.3**
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 00.8 -0.3**
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 00.5 -0.6**
NWAO pmax pmax
comp=Z,275nm,1.0s
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 00.5 -0.6**
NWAO Narrogin (SRO) 83.50 200 P **P** **23 06 00.5 -0.6**
NWAO pP **pP** **23 08 07.6 +0.9**

CNB Canberra Magne 83.52 173 P **P** **23 06 02.3 +1.1**
comp=Z,49nm,1.7s
TXAR Lajitas Array 83.63 52 P **P** **23 06 03.1 +0.9**
comp=Z,208nm,0.8s,baz=295,slow=3.9,SNR=53
TXAR pP **pP** **23 08 08.3 +0.2**
comp=Z,10nm,0.9s,baz=263,slow=2.9,SNR=1.1
TXAR PP **PP** **23 09 25.3 -0.1**
comp=Z,30nm,0.9s,baz=329,slow=2.2,SNR=3.5
TXAR PKKPbc **PKKPbc** **23 24 12.6 -0.1**
comp=Z,6.9nm,0.8s,baz=153,slow=5.8,SNR=16
TXAR PKPPKP **P'P'df** **23 32 20.2 -1.5**
comp=Z,2.4nm,0.9s,baz=169,slow=2.6,SNR=6.1
comp=Z,208nm,0.8s
TXAR Lajitas Array 83.63 52 P **P** **23 06 02.6 +0.4**
LPIG La Paz 84.02 60 PKPPKP **P'P'df** **23 32 17.6 -3.2**
comp=Z,56nm,0.3s,baz=164,slow=2.2,SNR=4.5
MAHO Mahon 84.17 328 P **P** **23 06 04.3 -0.1**
MAHO Mahon 84.17 328 IAmb IAmb 23 06 05.7
comp=Z,673nm,0.9s
GNAR Gosnell 84.71 39 IAmb IAmb 23 06 09.0
comp=Z,2µm,1.1s
GNAR Gosnell 84.71 39 IAmb IAmb 23 06 09.0
comp=Z,2µm,1.1s
ETOS Mallorca 84.79 329 P **P** **23 06 07.4 -0.2**
ETOS S **S** **23 15 45.4 -1.4**
LNXT Lenox 84.82 39 IAmb IAmb 23 06 09.4
comp=Z,2µm,0.8s
LNXT Lenox 84.82 39 IAmb IAmb 23 06 09.4
comp=Z,2µm,0.8s
UNH University of 84.87 23 IAmb IAmb 23 06 09.3
comp=Z,860nm,0.8s
HALT Halls 85.04 39 IAmb IAmb 23 06 12.4
comp=Z,4µm,1.6s
HALT Halls 85.04 39 IAmb IAmb 23 06 12.4
comp=Z,4µm,1.6s
RKGY Rocky Gully 85.18 200 P **P** **23 06 12.0 +2.8**
comp=Z,43nm,0.9s
MILA Mila 85.23 173 P **P** **23 06 10.9 +1.4**
comp=Z,39nm,1.4s
HRV Adam Dziewonsk 85.24 23 P **P** **23 06 09.4 -0.2**
HRV pmax pmax
comp=Z,772nm,0.9s
HRV Adam Dziewonsk 85.24 23 P **P** **23 06 09.4 -0.2**
HRV IAmb IAmb 23 06 11.1
comp=Z,772nm,0.9s
HRV Adam Dziewonsk 85.24 23 IAmb IAmb 23 06 11.1
comp=Z,772nm,0.9s
WES Weston 85.42 23 IAmb IAmb 23 06 11.8
comp=Z,1µm,0.9s
BRAT Ballarat 85.45 178 P **P** **23 06 11.1 +0.7**
MET Memphis--Engin 85.47 40 IAmb IAmb 23 06 14.1
comp=Z,3µm,1.3s
MET Memphis--Engin 85.47 40 IAmb IAmb 23 06 14.1
comp=Z,3µm,1.3s
BCX Boston College 85.50 23 IAmb IAmb 23 06 12.0
comp=Z,460nm,0.9s
AUMTC Mt Clear Colle 85.50 178 P **P** **23 06 12.0 +1.4**
CCAR Cane Creek 85.69 41 IAmb IAmb 23 06 15.7
comp=Z,2µm,0.9s
CCAR Cane Creek 85.69 41 IAmb IAmb 23 06 15.7
comp=Z,2µm,0.9s
ECAL Calabor 85.75 336 P **P** **23 06 11.3 -0.9**
ECAL S **S** **23 15 55.5 -0.5**
KEST Kesra 85.87 322 P **P** **23 06 12.3 -0.6**
comp=Z,407nm,0.8s,baz=29,slow=0.9,SNR=290
comp=Z,407nm,0.8s
KEST Kesra 85.87 322 P **P** **23 06 12.8 -0.1**
SNR=52
KEST Kesra 85.87 322 P **P** **23 06 12.1 -0.8**
KEST IAmb IAmb 23 06 14.9
comp=Z,354nm,0.8s
PBRG Braganca 85.88 336⇓*e*P **P** **23 06 12.2 -0.5**
PBRG IAmb IAmb 23 06 13.8
comp=Z,336nm,0.9s
EIBI Ibiza 85.96 330 P **P** **23 06 13.3 +0.1**
EIBI S **S** **23 15 58.1 +0.2**
L64A Middleborough 85.96 23 IAmb IAmb 23 06 14.4
comp=Z,1µm,0.8s
L64A Middleborough 85.96 23 IAmb IAmb 23 06 14.4
comp=Z,1µm,0.8s
WSPT Westport, CT 86.00 25 IAmb IAmb 23 06 13.8
comp=Z,451nm,1.2s
WSPT Westport, CT 86.00 25 IAmb IAmb 23 06 13.8
comp=Z,451nm,1.2s
BRNJ Basking Ridge 86.09 26 IAmb IAmb 23 06 14.9
comp=Z,726nm,0.9s
BRNJ Basking Ridge 86.09 26 IAmb IAmb 23 06 14.9
comp=Z,726nm,0.9s
H01W3 Cape Leeuwin H 86.11 202 P **P** **23 06 16.0 +2.7**
baz=43,slow=4.6,SNR=6.0
H01W1 Cape Leeuwin H 86.11 202 P **P** **23 06 14.2 +0.8**
baz=43,slow=4.6,SNR=3.0
H01W2 Cape Leeuwin H 86.12 202 P **P** **23 06 15.6 +2.2**
baz=43,slow=4.6,SNR=4.7
PGAV Gavieira, Arco 86.13 337⇓*e*P **P** **23 06 13.2 -0.8**
PGAV IAmb IAmb 23 06 17.4
comp=Z,453nm,1.1s
M63A Gales Ferry 86.14 24 IAmb IAmb 23 06 14.7
comp=Z,574nm,0.8s
ECHE Chera 86.21 331 P **P** **23 06 14.4 0.0**
ECHE S **S** **23 16 00.5 +0.1**
UCM Universidad Co 86.27 333 P **P** **23 06 14.5 -0.1**
UCM S **S** **23 16 00.2 -0.6**
PCAB Cabril 86.30 337⇓*e*P **P** **23 06 14.4 -0.4**
PCAB IAmb IAmb 23 06 17.4
comp=Z,417nm,1.3s
M65A Busby, Falmout 86.36 23 IAmb IAmb 23 06 16.1
comp=Z,489nm,0.8s
R55A Marlinton 86.49 31 P **P** **23 06 15.1 -0.7**
R55A IAmb IAmb 23 06 17.1
comp=Z,740nm,0.9s
SDMD Soldier's Deli 86.56 28 IAmb IAmb 23 06 16.8
comp=Z,255nm,0.9s
SDMD Soldier's Deli 86.56 28 IAmb IAmb 23 06 16.8
comp=Z,255nm,0.9s
POLO Lamas de Olo 86.56 337⇓*e*P **P** **23 06 15.7 -0.4**
POLO IAmb IAmb 23 06 17.2
comp=Z,348nm,1.1s
SNAG San Augustine 86.60 44 IAmb IAmb 23 06 20.0
comp=Z,714nm,1.2s
PVRL Vila Real 86.63 337⇓*e*P **P** **23 06 16.0 -0.3**
PVRL IAmb IAmb 23 06 19.1
comp=Z,556nm,1.1s
ATD Arta Tunnel 86.74 284 P **P** **23 06 18.6 +1.4**
SNR=27
ATD Arta Tunnel 86.74 284 P **P** **23 06 18.0 +0.7**
ATD pP **pP** **23 08 27.1 +2.4**
P61A Hammonton 86.95 27 IAmb IAmb 23 06 20.0
comp=Z,1µm,1.1s
PTO Porto 86.99 337⇓*e*P **P** **23 06 17.5 -0.4**
PTO IAmb IAmb 23 06 20.6
comp=Z,496nm,1.4s
ESBB Sonseca Array 87.06 334 IAmb IAmb 23 06 19.6
comp=Z,297nm,0.7s
ESDC Sonseca Array 87.06 334 P **P** **23 06 18.3 -0.1**
comp=Z,315nm,0.7s,baz=16,slow=4.1,SNR=2295
ESDC pP **pP** **23 08 26.2 +0.3**
comp=Z,27nm,0.9s,baz=26,slow=3.3,SNR=3.9
ESDC PKKPbc **PKKPbc** **23 24 05.4 +0.3**
comp=Z,3.5nm,0.9s,baz=214,slow=0.8,SNR=8.5
comp=Z,315nm,0.7s
ESDC Sonseca Array 87.06 334 P **P** **23 06 17.9 -0.5**
ESDC IAmb IAmb 23 06 19.4
comp=Z,749nm,0.8s
RAR Rarotonga 87.13 126 P **P** **23 06 19.9 +1.2**
RAR Rarotonga 87.13 126 P **P** **23 06 19.7 +1.0**
RAR IAmb IAmb 23 07 15.5
comp=Z,731nm,1.6s
RAR Rarotonga 87.13 126 P **P** **23 06 19.3 +0.5**
RAR pP **pP** **23 08 27.9 +1.7**
PVIS Viseu 87.20 337⇓*e*P **P** **23 06 18.5 -0.5**
ETOB Tobarra 87.26 331 P **P** **23 06 19.6 +0.2**
ETOB S **S** **23 16 12.1 +1.8**
PAB San Pablo 87.30 334 P **P** **23 06 20.5 +1.0**
PAB San Pablo 87.30 334 P **P** **23 06 19.0 -0.5**
PAB IAmb IAmb 23 06 20.6
comp=Z,292nm,0.8s
MTE Manteigas 87.40 336 IAmb IAmb 23 06 20.9
comp=Z,373nm,0.8s
MTE Manteigas 87.40 336⇓*e*P **P** **23 06 19.6 -0.4**
MTE IAmb IAmb 23 06 21.1
comp=Z,506nm,1.0s
CBN Corbin Frederi 87.48 29 IAmb IAmb 23 06 21.6
comp=Z,874nm,0.8s
CBN Corbin Frederi 87.48 29 IAmb IAmb 23 06 21.6
comp=Z,874nm,0.8s

H06N1 SOCORRO T-PHAS 87.64 64 P **P** **23 06 21.8 +0.5**
SNR=12
441A DeRidder 87.71 44 IAmb IAmb 23 06 24.3
comp=Z,750nm,1.0s
H06S1 SOCORRO T 87.75 64 P **P** **23 06 23.3 +1.5**
SNR=32
PCBR Castelo Branco 87.91 336 *e*P **P** **23 06 21.8 -0.4**
PCBR IAmb IAmb 23 06 24.8
comp=Z,305nm,1.3s
PCAS Casmilo, Conde 87.98 337⇓*e*P **P** **23 06 21.6 -1.0**
PCAS IAmb IAmb 23 06 25.1
comp=Z,536nm,1.6s
CART Cartagena 88.05 331 P **P** **23 06 21.2 -1.7**
KVTX Kingsville 88.07 49 P **P** **23 06 24.7 +1.5**
PMRV Marv??o 88.27 336 *e*P **P** **23 06 23.5 -0.5**
PMRV IAmb IAmb 23 06 27.3
comp=Z,359nm,1.3s
PSARD Sardoal 88.32 337 *e*P **P** **23 06 23.3 -0.9**
PSARD IAmb IAmb 23 06 26.5
comp=Z,263nm,1.5s
PSBE So Bento 88.57 337 *e*P **P** **23 06 25.0 -0.4**
PSBE IAmb IAmb 23 06 28.0
comp=Z,506nm,1.2s
EADA Adamuz 88.64 333 P **P** **23 06 25.9 +0.2**
PMTG Montargil 88.83 336⇓*e*P **P** **23 06 25.6 -0.9**
PMTG IAmb IAmb 23 06 28.9
comp=Z,390nm,1.2s
PESTR Estremoz 88.85 336 *e*P **P** **23 06 26.1 -0.6**
PESTR IAmb IAmb 23 06 29.1
comp=Z,274nm,1.6s
346A Big Creek Wild 88.86 41 IAmb IAmb 23 06 29.3
comp=Z,412nm,0.9s
ECAB El Cabril 88.97 334 P **P** **23 06 27.2 -0.1**
PARRA Arraiolos 89.02 336⇓*e*P **P** **23 06 26.8 -0.7**
PARRA IAmb IAmb 23 06 29.8
comp=Z,343nm,1.4s
PMOR Pomariorio Ree 89.08 114 *e*P **P** **23 06 29.4 +1.5**
comp=Z,2µm,0.9s
PMOR *e*pP **pwP** **23 08 38.2 +0.4**
comp=Z,427nm,1.3s
PMOR Pomariorio Ree 89.08 114 *e*LR LR 23 30 03.3
comp=Z,4µm,22.2s
PMOR Pomariorio Ree 89.08 114 *e*P **P** **23 06 29.9 +2.0**
comp=Z,2µm,0.9s
EQTA Presa de Quent 89.17 332 P **P** **23 06 27.7 -0.7**
PMAFR Mafra 89.22 337 P **P** **23 06 27.9 -0.4**
PMAFR Mafra 89.22 337⇓*e*P **P** **23 06 27.4 -1.0**
PMAFR IAmb IAmb 23 06 30.7
comp=Z,734nm,1.1s
EVO Evora 89.28 336 P **P** **23 06 25.7 -2.9**
EBER Berja 89.28 332 P **P** **23 06 29.8 +0.9**
TAOE Nuku Hiva Isla 89.31 104 *e*SS SS 23 22 41.1 -2.1
comp=Z,2µm,24.5s
PBAR Barrancos 89.34 335⇓*e*P **P** **23 06 28.4 -0.6**
PBAR IAmb IAmb 23 06 32.4
comp=Z,429nm,1.3s
MOE Montemor 89.38 336⇓*e*P **P** **23 06 28.5 -0.6**
MOE IAmb IAmb 23 06 31.8
comp=Z,384nm,1.4s
LIS Lisbon 89.41 337 *e*P **P** **23 06 28.9 -0.3**
LIS IAmb IAmb 23 06 30.5
comp=Z,561nm,1.7s
LIS Lisbon 89.41 337 *e*P **P** **23 06 29.2 0.0**
LIS IAmb IAmb 23 06 31.7
comp=Z,448nm,1.4s
VAH Vaihoa 89.43 114 *e*P **P** **23 06 27.9 -1.6**
comp=Z,2µm,1.0s
VAH *e*pP **pwP** **23 08 40.2 +0.6**
comp=Z,320nm,1.4s
VAH Vaihoa 89.43 114 *e*P **P** **23 06 28.0 -1.6**
comp=Z,2µm,1.0s
EGOR Sierra Gorda, 89.47 333 P **P** **23 06 29.4 -0.4**
ELGU Los Guajares, 89.54 332 P **P** **23 06 29.6 -0.4**
JSC Jenkinsville 89.66 34 IAmb IAmb 23 06 31.8
comp=Z,536nm,0.9s
PLOUS Minas do Lousa 89.86 336 *e*P **P** **23 06 30.9 -0.4**
PLOUS IAmb IAmb 23 06 34.1
comp=Z,435nm,1.5s
W59A Clinton 89.88 31 IAmb IAmb 23 06 32.9
comp=Z,650nm,0.8s
W59A Clinton 89.88 31 IAmb IAmb 23 06 32.9
comp=Z,650nm,0.8s
EMAL Malaga-Limoner 89.89 333 P **P** **23 06 30.7 -0.8**
EMAL S **S** **23 16 33.0 -1.1**
V61A Roper 89.94 30 IAmb IAmb 23 06 34.7
comp=Z,2µm,1.2s
V61A Roper 89.94 30 IAmb IAmb 23 06 34.7
comp=Z,2µm,1.2s
MESJ Messejana 89.98 336 *e*P **P** **23 06 31.7 -0.3**
MESJ Messejana 89.98 336⇓*e*P **P** **23 06 31.7 -0.3**
PPT Papeete 90.05 117 P **P** **23 06 33.2 +0.8**
comp=Z,467nm,0.9s,baz=79,slow=3.4,SNR=43
PPT pP **pP** **23 08 41.3 +1.0**
comp=Z,178nm,1.1s,baz=247,slow=9.0,SNR=4.0
comp=Z,467nm,0.9s
PPT Papeete 90.05 117 P **P** **23 06 33.2 +0.8**
PPT2 Papeete2 90.06 117 *e*P **P** **23 06 33.0 +0.5**
comp=Z,764nm,1.3s
PPT2 *e*pP **pP** **23 08 43.3 +2.9**
comp=Z,317nm,1.4s
PPT2 *e*S **S** **23 16 34.6 -1.6**
comp=Z,7µm,28.8s
PPT2 *e*sS **sS** **23 20 23.6 +2.0**
comp=Z,3µm,24.0s
PPT2 Papeete2 90.06 117 *e*P **P** **23 06 33.4 +0.9**
comp=Z,764nm,1.3s
PPTF Pamatai, Papee 90.07 117 P **P** **23 06 34.1 +1.5**
PPTF Pamatai, Papee 90.07 117 P **P** **23 06 34.6 +2.0**
PAE Paea 90.12 117 *e*P **P** **23 06 33.2 +0.5**
comp=Z,1µm,1.1s
PAE *e*pP **pwP** **23 08 43.9 +1.4**
comp=Z,376nm,1.3s
PAE Paea 90.12 117 *e*P **P** **23 06 33.1 +0.4**
comp=Z,1µm,1.1s
PCVE Castro Verde 90.13 336⇓*e*P **P** **23 06 32.4 -0.2**
PCVE IAmb IAmb 23 06 35.4
comp=Z,290nm,1.8s
TIAR Tiarei 90.18 116 *e*P **P** **23 06 32.9 -0.1**
comp=Z,1µm,0.9s
TIAR *e*pP **pP** **23 08 43.9 +3.0**
comp=Z,2µm,1.3s
TIAR Tiarei 90.18 116 *e*P **P** **23 06 32.8 -0.2**
comp=Z,1µm,0.9s
Y57A Sumter 90.22 33 IAmb IAmb 23 06 34.2
comp=Z,390nm,1.0s
PVAQ Vaqueiros 90.25 335⇓*e*P **P** **23 06 32.8 -0.4**
PVAQ IAmb IAmb 23 06 35.9
comp=Z,293nm,1.7s
MSEY Mahe Island 90.34 263 P **P** **23 06 35.8 +1.8**
MSEY Mahe Island 90.34 263 *i*P **P** **23 06 36.3 +2.3**
PTEO Sao Teotonio 90.40 336⇓*e*P **P** **23 06 33.5 -0.3**
PTEO IAmb IAmb 23 06 36.7
comp=Z,618nm,1.6s
TVO Taravao 90.41 116 *e*P **P** **23 06 31.3 -2.8**
comp=Z,1µm,1.3s
TVO *e*pP **pwP** **23 08 45.4 +1.3**
comp=Z,501nm,1.4s
TVO Taravao 90.41 116 *e*LR LR 23 30 11.4
comp=Z,2µm,23.9s
TVO Taravao 90.41 116 *e*P **P** **23 06 31.1 -3.0**
comp=Z,1µm,1.3s
MOO Moorlands 90.46 175 P **P** **23 06 35.0 +1.3**
comp=Z,79nm,1.1s
MOO Moorlands 90.46 175 P **P** **23 06 35.0 +1.3**
PBDV Barranco-do-Ve 90.46 336 *e*P **P** **23 06 34.1 -0.1**
PBDV IAmb IAmb 23 06 37.2
comp=Z,276nm,1.8s
Y58A Scranton 90.58 33 IAmb IAmb 23 06 35.9
comp=Z,453nm,0.8s
MORF Marmelete 90.60 336 *e*P **P** **23 06 34.6 -0.2**
MORF IAmb IAmb 23 06 38.0
comp=Z,260nm,1.2s
MORF Marmelete 90.60 336⇓*e*P **P** **23 06 34.0 -0.9**
MORF IAmb IAmb 23 06 37.8
comp=Z,532nm,1.5s
SFS San Fernando 90.70 334 P **P** **23 06 35.1 -0.1**
PFVI Vila Bisbo 90.81 336 IAmb IAmb 23 06 36.8
comp=Z,280nm,1.2s
PFVI Vila Bisbo 90.81 336 *e*P **P** **23 06 34.4 -1.4**
PFVI IAmb IAmb 23 06 38.6
comp=Z,459nm,1.5s
NHSC New Hope 91.11 33 P **P** **23 06 36.9 -0.3**
451A Vernon 91.12 39 IAmb IAmb 23 06 41.2
comp=Z,1µm,1.2s
451A Vernon 91.12 39 IAmb IAmb 23 06 41.2
comp=Z,1µm,1.2s

TIGA	**Tifton**	**91.28**	**37**	IAmb	IAmb	23 06 41.5	
	comp=Z,661nm,0.9s						
TIGA	**Tifton**	**91.28**	**37**	IAmb	IAmb	23 06 41.5	
	comp=Z,661nm,0.9s						
FURI	**Furi**	**91.41**	**285**	P	**P**	**23 06 40.4**	**+1.1**
553A	**Crawfordville**	**92.04**	**38**	IAmb	IAmb	23 06 43.5	
	comp=Z,385nm,0.9s						
RTZ	**Ruatahuna**	**92.25**	**152**	IAmb	IAmb	23 08 55.9	
	comp=Z,392nm,1.1s						
456A	**Hilliard**	**92.53**	**36**	IAmb	IAmb	23 06 47.0	
	comp=Z,429nm,0.8s						
MOIG	**Morelia**	**92.69**	**56**	IAmb	IAmb	23 06 48.3	
	comp=Z,276nm,0.8s						
IFR	**Ifrane**	**93.10**	**332**	P	**P**	**23 06 44.9**	**-1.7**
IFR				S	**S**	**23 17 06.0**	**+3.1**
CMLA	**Cha da Macela**	**93.53**	**349**	*i* P	**P**	**23 06 48.5**	**+0.3**
CMLA	**Cha da Macela**	**93.53**	**349**	P	**P**	**23 06 46.9**	**-1.3**
CMLA				IAmb	IAmb	23 06 48.7	
	comp=Z,380nm,0.8s						
MD01	**Midelt array s**	**93.59**	**332**	P	**P**	**23 06 47.8**	**-0.9**
MD31	**MD31**	**93.59**	**332**	IAmb	IAmb	23 07 06.5	
	comp=Z,312nm,1.7s						
AVE	**Averroes**	**94.00**	**334**	P	**P**	**23 06 49.3**	**-1.1**
AVE	**Averroes**	**94.00**	**334**	IAmb	IAmb	23 07 02.2	
	comp=Z,254nm,0.8s						
TBI	**Tubuai**	**94.59**	**120**	*e*sS	**sS**	**23 21 07.5**	**+0.5**
	comp=Z,17μm,31.0s						
TBI				*e*SS	**SS**	**23 23 55.1**	**-2.6**
	comp=Z,17μm,28.0s						
TBI				*e*LR	LR	23 38 21.6	
	comp=Z,6μm,22.8s						
PMPS	**Porto Santo**	**96.53**	**341**	*e*P	**P**	**23 07 01.5**	**-0.4**
BBSR	**BB Station**	**96.57**	**22**	P	**P**	**23 07 01.8**	**-0.2**
BBSR				IAmb	IAmb	23 07 05.3	
	comp=Z,211nm,1.2s						
PMAR	**Madeira**	**96.98**	**341**	*e*P	**P**	**23 07 03.9**	**-0.2**
LODK	**Lodwar**	**97.69**	**284**	P	**P**	**23 07 07.5**	**+0.1**
	SNR=8.0						
CMIG	**Matias Romero**	**98.23**	**53**	PKKPbc	PKKPbc	23 23 36.5	+0.1
	comp=Z,3.4nm,1.0s,baz=202,slow=3.8,SNR=3.6						
KMBO	**Kilima Mbogo**	**99.86**	**279**	Pdiff	**Pdif**	**23 07 17.4**	**+0.1**
KIBK	**Kibwezi**	**100.24**	**278**	P	**Pdif**	**23 07 18.8**	**+0.1**
KIBK	**Kibwezi**	**100.24**	**278**	P	**Pdif**	**23 07 20.1**	**+1.4**
	SNR=7.4						
TORD	**Torodi Ar. Bea**	**108.93**	**318**	PKiKP	**PKiKP**	**23 11 57.6**	**-0.4**
	comp=Z,8.2nm,0.5s,baz=18,slow=1.4,SNR=13						
TORD				PP	**PP**	**23 12 34.5**	**-2.3**
	comp=Z,21nm,0.9s,baz=17,slow=7.9,SNR=5.4						
SACV	**Santiago Islan**	**115.57**	**343**		**PKiKP**	**23 12 10.8**	**+0.1**
LSZ	**Lusaka**	**116.29**	**276**	PKKPbc	PKKPbc	23 22 40.5	-0.7
	comp=Z,4.7nm,1.0s,baz=266,slow=23,SNR=2.5						
ACRG	**Accra**	**116.41**	**316**		**PKPdf**	**23 12 11.2**	**-1.1**
CASY	**Casey**	**116.51**	**193**	PKPdf	**PKPdf**	**23 12 10.5**	**-0.3**
SDV	**Santo Domingo**	**116.72**	**35**	PKPdf	**PKPdf**	**23 12 11.9**	**-1.3**
DBIC	**Dimbokro**	**117.56**	**321**	PKP	**PKPdf**	**23 12 14.0**	**-0.6**
	comp=Z,108nm,0.8s,baz=21,slow=3.1,SNR=29						
DBIC				PP	**PP**	**23 13 33.8**	**-3.1**
	comp=Z,47nm,0.8s,baz=25,slow=8.7,SNR=6.6						
DBIC				PKKPbc	**PKKPbc**	**23 22 36.1**	**-1.0**
	comp=Z,11nm,0.8s,baz=219,slow=7.2,SNR=4.7						
DBIC	**Dimbokro**	**117.56**	**321**	PKiKP	**PKPdf**	**23 12 14.0**	**-0.6**
ROSC	**El Rosal**	**119.85**	**41**	PP	**PP**	**23 13 44.6**	**-1.6**
	comp=Z,170nm,1.1s,baz=339,slow=19,SNR=5.7						
MATP	**Matopo**	**119.74**	**272**	PKKPbc	PKKPbc	23 22 28.0	-1.1
	comp=Z,72nm,1.1s,baz=225,slow=3.5,SNR=6.3						
MOPA	**Mopani**	**119.94**	**267**	*e*P	**PKPdf**	**23 12 16.9**	**-2.0**
MPHEP	**Siloam, Limpop**	**120.34**	**269**	*e*P	**PKiKP**	**23 12 20.0**	**+0.2**
OTAV	**Otavalo**	**120.97**	**48**	⇓PKiKP	**PKiKP**	**23 12 22.1**	**+0.2**
OTAV	**Otavalo**	**120.97**	**48**	PKPdf	**PKPdf**	**23 12 21.1**	**-0.6**
SOOWA	**Sowa**	**121.36**	**274**	P	**PKiKP**	**23 12 22.3**	**+0.4**
CRAIL	**Swartwater, Li**	**121.56**	**270**	*e*P	**PKPdf**	**23 12 21.1**	**-1.0**
H04S1	**CROZET ISLANDS**	**122.13**	**234**	PKP	**PKiKP**	**23 12 23.9**	**+1.6**
	baz=5.6,slow=3.4,SNR=5.3						
H04S3	**CROZET ISLAND**	**122.14**	**234**	PKP	**PKiKP**	**23 12 24.9**	**+2.7**
	baz=5.6,slow=3.4,SNR=4.2						
H04S2	**CROZET ISLANDS**	**122.15**	**234**	PKP	**PKiKP**	**23 12 24.8**	**+2.5**
	baz=5.6,slow=3.4,SNR=7.2						
POGA	**Pongola**	**122.31**	**264**	P	**PKPdf**	**23 12 23.3**	**+0.1**
LEPH	**Lephalale, Lim**	**122.58**	**270**	*e*P	**PKPdf**	**23 12 23.2**	**-0.8**
NWCL	**Newcastle**	**123.77**	**265**	*e*P	**PKiKP**	**23 12 26.4**	**-0.1**
LBTB	**Lobatse**	**124.83**	**270**	PKKPbc	PKKPbc	23 22 09.6	-0.5
	comp=Z,9.8nm,1.0s,baz=246,slow=16,SNR=4.2						
GRTLG	**Ghanzi**	**125.25**	**277**	P	**PKiKP**	**23 12 29.8**	**+0.2**
MDP	**Montagnes des**	**125.60**	**17**	PKP	**PKPdf**	**23 12 29.9**	**-0.1**
	comp=Z,113nm,0.7s,baz=355,slow=0.5,SNR=11						
TSUM	**Tsumeb**	**126.11**	**280**	P	**PKPdf**	**23 12 31.0**	**0.0**
VNDA	**Vanda**	**126.16**	**174**	PKP	**PKPdf**	**23 12 29.2**	**+0.1**
	comp=Z,46nm,0.7s,baz=326,slow=4.7,SNR=32						
VNDA				pPKP	**pPKPdf**	**23 14 47.5**	**+1.5**
	comp=Z,28nm,1.1s,baz=329,slow=4.8,SNR=5.4						
VNDA				PKKPbc	**PKKPbc**	**23 22 05.5**	**+0.5**
	comp=Z,12nm,1.0s,baz=232,slow=4.4,SNR=9.4						
BOAV	**Boa Vista**	**126.26**	**27**	PKP	**PKPdf**	**23 12 31.3**	**+0.1**
BOAV	**Boa Vista**	**126.26**	**27**	*e*P	**PKPdf**	**23 12 31.3**	**+0.1**
SBA	**Scott Base**	**126.82**	**173**	PKiKP	**PKPdf**	**23 12 30.3**	**0.0**
SBA	**Scott Base**	**126.82**	**173**	PKPdf	**PKPdf**	**23 12 30.3**	**0.0**
KOOLE	**Kule**	**127.06**	**276**	P	**PKPdf**	**23 12 32.4**	**-0.2**
LKGWB	**Lokgwabe**	**127.15**	**275**	P	**PKiKP**	**23 12 33.1**	**-0.3**
BOSA	**Boshof**	**127.44**	**267**	PKP	**PKiKP**	**23 12 33.7**	**-0.1**
	comp=Z,59nm,0.8s,baz=70,slow=1.7,SNR=11						
BOSA				SKPbc	SKPbc	23 14 57.4	
	comp=Z,59nm,1.0s,baz=54,slow=2.4,SNR=6.6						
BOSA				PKKPbc	**pSKSdf**	**23 22 01.4**	**-2.2**
	comp=Z,7.0nm,1.0s,baz=257,slow=3.7,SNR=5.0						
BOSA	**Boshof**	**127.44**	**267**	PKPdf	**PKPdf**	**23 12 33.1**	**-0.1**
BOSA	**Boshof**	**127.44**	**267**	PKP	**PKPdf**	**23 12 33.4**	**+0.2**
BOSA	**Boshof**	**127.44**	**267**	P	**PKiKP**	**23 12 33.7**	**-0.1**
MAW	**Mawson**	**129.29**	**209**	P	**PKiKP**	**23 12 37.1**	**+1.0**
MAW	**Mawson**	**129.29**	**209**	PKP	**PKiKP**	**23 12 37.0**	**+0.9**
	comp=Z,56nm,0.7s,baz=86,slow=1.7,SNR=25						
MAW				SKPbc	SKPbc	23 15 02.9	+1.0
	comp=Z,110nm,0.8s,baz=56,slow=5.5,SNR=22						
MAW	**Mawson**	**129.29**	**209**	PKIKP	**PKiKP**	**23 12 37.0**	**+0.9**
MAW	**Mawson**	**129.29**	**209**	PKPdf	**PKiKP**	**23 12 36.1**	**+0.1**
TEFE	**Tefe**	**130.38**	**34**	PKP	**PKPdf**	**23 12 38.8**	**-0.3**
CZSB	**Cruzeiro do Su**	**130.68**	**46**	PKP	**PKPdf**	**23 12 40.0**	**+0.3**
NNA	**Nana**	**132.18**	**54**	PKIKP	**PKPdf**	**23 12 42.4**	**-0.1**
NNA	**Nana**	**132.18**	**54**	PKPdf	**PKPdf**	**23 12 42.4**	**-0.1**
MAL2	**Monte Alegre,**	**132.18**	**20**	PKP	**PKiKP**	**23 12 43.3**	**-0.4**
BMO1	**UHE Belo Monte**	**133.81**	**18**	PKP	**PKPdf**	**23 12 46.0**	**+0.4**
ATM1	**UHE Belo Monte**	**133.85**	**18**	PKP	**PKPdf**	**23 12 45.7**	**+0.1**
ITTB	**Itaituba**	**134.06**	**23**	PKP	**PKPdf**	**23 12 46.6**	**+0.6**
NBMO	**Morrinhos-CE**	**135.25**	**1**	PKP	**PKPdf**	**23 12 48.6**	**+0.4**
NBCL	**Cascavel-CE**	**136.15**	**359**	PKP	**PKPdf**	**23 12 49.9**	**+0.1**
NBPS	**Pedro II - PI**	**136.28**	**3**	PKP	**PKPdf**	**23 12 50.1**	**-0.1**
NPGB	**Novo Progresso**	**136.72**	**24**	PKP	**PKPdf**	**23 12 51.0**	**+0.1**
NBPB	**Pedra_Branca-C**	**137.47**	**1**	PKP	**PKPdf**	**23 12 52.2**	**-0.1**
QSPA	**South Pole Qui**	**137.96**	**180**	PKhKP	PKPpre	23 12 43.9	
	comp=Z,17nm,0.5s,baz=332,slow=1.8,SNR=7.7						
QSPA				PKP	**PKPdf**	**23 12 51.4**	**-0.2**
	comp=Z,51nm,0.8s,baz=358,slow=1.5,SNR=4.4						
QSPA				SKPbc	**SKPbc**	**23 15 29.4**	**-0.8**
	comp=Z,218nm,0.9s,baz=8.9,slow=2.0,SNR=16						
QSPA	**South Pole Qui**	**137.96**	**180**	PKPpre	PKPpre	23 12 41.6	
PAL2	**UHE Estreito -**	**138.09**	**12**	PKP	**PKPdf**	**23 12 53.4**	**0.0**
SMTB	**Santa Maria do**	**140.13**	**13**	PKP	**PKPdf**	**23 12 56.7**	**-0.5**
LPAZ	**La Paz**	**140.28**	**47**	PKhKP	PKPpre	23 12 50.4	
	comp=Z,41nm,0.8s,baz=356,slow=9.1,SNR=7.8						
LPAZ				PKP	**PKPdf**	**23 12 55.4**	**-2.7**
	comp=Z,102nm,0.8s,baz=346,slow=4.5,SNR=16						
LPAZ				SKPbc	**SKPbc**	**23 15 36.7**	**-2.1**
	comp=Z,45nm,1.0s,baz=336,slow=1.8,SNR=4.3						
TA01	**Diego Aracena**	**142.82**	**53**	PKPdf	**PKPdf**	**23 12 59.2**	**-2.5**
PB08	**IPOC Station P**	**143.01**	**51**	PKP	PKPbc	23 13 01.4	+0.6
SIV	**San Ignacio**	**143.16**	**37**	PKP	PKPbc	23 13 00.8	-0.1
	comp=Z,1μm,0.8s,baz=314,slow=2.5,SNR=458						
ELIB	**Princesa Elisa**	**143.39**	**208**	*d*PKPdf	PKPbc	23 13 00.4	+0.3
SDBA	**SAO DESIDERIO**	**143.97**	**10**	PKP	PKPbc	23 13 03.2	-0.3
SALV	**Santo Antonio**	**145.02**	**28**	PKP	**PKPbc**	**23 13 06.2**	**-0.3**
ARAG	**Araguaiana, MT**	**145.94**	**22**	PKP	**PKPdf**	**23 13 08.1**	**+0.9**
BDFB	**Brasilia**	**146.70**	**16**	PKPbc	**PKPdf**	**23 13 09.2**	**+0.6**
	comp=Z,525nm,0.8s,baz=179,slow=0.9,SNR=42						
CMC01	**Camacan, BA**	**147.22**	**1**	PKP	**PKPdf**	**23 13 09.8**	**+0.5**
NVL	**N'lazarevskaya**	**147.24**	**208**	*e*PKiKP	**PKPdf**	**23 13 06.6**	**-1.1**
NVL				*e*		23 16 17.1	
NVL				*e*SS	SS	23 34 56.9	-1.7
NVL				pmax	pmax		
	comp=Z,427nm,0.8s						
AC04	**Llanos de Chal**	**148.28**	**62**	*e*P	**PKiKP**	**23 13 16.1**	**-0.1**
GUA01	**Guaratinga, BA**	**148.44**	**1**	PKP	**PKPdf**	**23 13 11.6**	**+0.3**
JQT1	**Jequitai-MG**	**148.81**	**10**	PKP	**PKPdf**	**23 13 11.7**	**-0.2**
IPMB	**Ipameri, GO**	**148.95**	**17**	PKP	**PKPdf**	**23 13 12.3**	**+0.1**
ITU3	**Corumbazu**	**149.04**	**18**	PKP	**PKPdf**	**23 13 12.6**	**+0.4**
LCO	**Las Campanas**	**149.10**	**63**	*e*P	**PKiKP**	**23 13 18.3**	**+0.2**
AC05	**El Transito**	**149.22**	**62**	*e*P	**PKiKP**	**23 13 18.4**	**+0.2**
AQDB	**Aquidauana**	**149.28**	**31**		**PKPdf**	**23 13 12.3**	**-0.3**
AQDB					**PKPbc**	**23 13 17.2**	**-0.4**
AQDB					**PKPab**	**23 13 24.0**	**-0.7**
AQDB	**Aquidauana**	**149.28**	**31**	PKP	**PKPdf**	**23 13 12.7**	**+0.2**
TROLL	**Troll, Antarti**	**149.53**	**204**	PKPbc	**PKiKP**	**23 13 17.2**	**-0.3**
	comp=Z,27μm,0.7s						
TROLL				⇑pPKiKP	**pPKPab**	**23 15 37.2**	**+2.0**
	comp=Z,10μm,0.9s						
PMNB	**Patos De Minas**	**149.80**	**14**	PKP	**PKPdf**	**23 13 14.1**	**+0.6**
GO04	**Tololo Observa**	**149.88**	**65**	*e*P	**PKiKP**	**23 13 19.5**	**-0.2**
ITRB	**Iturama**	**150.14**	**22**	PKP	**PKPdf**	**23 13 14.4**	**+0.5**
CO01	**Juntas del Tor**	**150.16**	**64**	*e*P	**PKiKP**	**23 13 20.8**	**+0.5**
CO03	**El Pedregal**	**150.42**	**66**	*e*P	**PKPbc**	**23 13 20.4**	**+0.2**
CO02	**Combarbal**	**150.48**	**66**	*e*P	**PKPbc**	**23 13 20.4**	**0.0**
SJMB	**Sao Joao De Ma**	**150.50**	**4**	PKP	**PKPdf**	**23 13 14.9**	**+0.4**
BSFB	**Barra de Sao F**	**150.65**	**3**	PKP	**PKPdf**	**23 13 15.0**	**+0.3**
AROD	**Rodeo**	**150.67**	**63**	*e*P	**PKiKP**	**23 13 22.9**	**+1.5**
ACDV	**Cuesta del Vie**	**150.88**	**63**	*e*P	**PKiKP**	**23 13 22.9**	**+1.2**
SNAA	**Sanae**	**151.14**	**203**	⇑PKPbc	**PKPbc**	**23 13 20.0**	**-0.5**
	comp=Z,2μm,0.4s						
SNAA				⇑pPKiKP	**pPKiKP**	**23 15 38.8**	**+1.4**
	comp=Z,3μm,0.8s						
SNAA	**Sanae**	**151.14**	**203**	PKP	**PKPdf**	**23 13 14.5**	**+0.6**
	comp=Z,30nm,0.3s,baz=164,slow=3.2,SNR=15						
SNAA				PKPbc	**PKPbc**	**23 13 20.1**	**-0.4**
	comp=Z,82nm,0.4s,baz=108,slow=3.5,SNR=28						
SNAA				PKPab	**PKPab**	**23 13 32.6**	**+1.3**
	comp=Z,86nm,0.6s,baz=168,slow=5.0,SNR=8.2						
SNAA				pPKPbc	**pPKPbc**	**23 15 37.2**	**+0.7**
	comp=Z,75nm,1.0s,baz=145,slow=2.4,SNR=6.0						
RIB01	**Linhares ES**	**151.14**	**2**	PKP	**PKPdf**	**23 13 15.6**	**+0.2**
ACCO	**Cerro Coronel**	**151.22**	**63**	*e*P	**PKiKP**	**23 13 23.7**	**+1.1**
VA01	**Torpederas**	**151.32**	**70**	*e*P	**PKiKP**	**23 13 22.2**	**-0.1**
DOCA	**Reserva Natura**	**151.47**	**64**	*e*P	**PKiKP**	**23 13 23.4**	**+0.2**
PCMB	**Pacaembu**	**151.73**	**24**	PKP	**PKPdf**	**23 13 17.1**	**+0.8**
MT02	**Curacav**	**151.79**	**70**	*e*P	**PKiKP**	**23 13 23.5**	**+0.2**
VA03	**San Esteban**	**151.83**	**68**	*e*P	**PKiKP**	**23 13 23.5**	**0.0**
BB19B	**Bebedouro**	**151.88**	**19**	PKP	**PKPdf**	**23 13 17.5**	**+1.0**
RTLS	**Leoncito**	**151.94**	**65**	*e*P	**PKiKP**	**23 13 24.7**	**+0.7**
PEL	**Peldehue**	**152.00**	**69**	*e*P	**PKiKP**	**23 13 24.0**	**+0.3**
RTLL	**Cerro Villicun**	**152.10**	**63**	*e*P	**PKiKP**	**23 13 24.7**	**+0.6**
MT01	**Popeta**	**152.12**	**71**	*e*P	**PKiKP**	**23 13 23.9**	**0.0**
MT05	**Renca**	**152.13**	**69**	*e*P	**PKiKP**	**23 13 24.1**	**+0.1**
MT05	**Renca**	**152.13**	**69**		**PKPdf**	**23 13 15.7**	**-0.9**
MT05					**PKPbc**	**23 13 23.2**	**-0.7**
MT05					**PKPab**	**23 13 36.6**	**0.0**
ZON	**Zonda**	**152.13**	**64**	*e*P	**PKiKP**	**23 13 24.3**	**+0.2**
SJA	**San Juan**	**152.19**	**64**	*e*P	**PKiKP**	**23 13 25.1**	**+0.9**
MT03	**Universidad Ad**	**152.34**	**69**	*e*P	**PKPbc**	**23 13 24.4**	**+0.1**
CFA	**Coronel Fontan**	**152.44**	**64**	*e*P	**PKiKP**	**23 13 25.3**	**+0.6**
MT04	**Ro Olivares**	**152.51**	**69**	*e*P	**PKiKP**	**23 13 25.9**	**+0.9**
MT08	**Bocatoma Ro**	**152.62**	**69**	*e*P	**PKiKP**	**23 13 26.5**	**+1.2**
MT13	**San Alfonso**	**152.65**	**70**	*e*P	**PKiKP**	**23 13 25.5**	**+0.4**
VNA2	**Neumayer--Watz**	**152.76**	**202**	⇑PKPbc	**PKPbc**	**23 13 23.9**	**-0.1**
	comp=Z,522nm,0.6s,baz=105,slow=2.0						
VNA2				pPKiKP	**pPKiKP**	**23 15 43.9**	**+3.2**
	comp=Z,147nm,0.7s,baz=112,slow=2.7						
ARCO	**CERRO ARCO**	**152.88**	**66**	*e*P	**PKiKP**	**23 13 26.6**	**+0.8**
VNA3	**Neumayer Olymp**	**153.10**	**201**	⇑PKPbc	**PKPbc**	**23 13 24.2**	**-0.6**
	comp=Z,133nm,0.6s						
VNA3				⇑pPKiKP	**pPKiKP**	**23 15 41.5**	**+0.1**
	comp=Z,61nm,0.8s						
AAGR	**Agrelo**	**153.11**	**67**	*e*P	**PKiKP**	**23 13 26.8**	**+0.7**
VNA1	**Neumayer--Stat**	**153.16**	**202**	PKPbc	**PKiKP**	**23 13 24.9**	**0.0**
	comp=Z,204nm,0.9s						
VNA1				⇑pPKiKP	**pPKiKP**	**23 15 45.4**	**+3.9**
	comp=Z,190nm,1.1s						
CAM01	**Campos-RJ**	**153.58**	**5**	PKP	**PKPdf**	**23 13 19.2**	**+0.3**
CPUP	**Villa Florida**	**153.93**	**39**	PKP	**PKPdf**	**23 13 19.4**	**+0.1**
	comp=Z,71nm,1.1s,baz=312,slow=2.9,SNR=13						
CPUP				PKPbc	**PKPbc**	**23 13 27.7**	**-0.2**
	comp=Z,54nm,0.8s,baz=316,slow=3.1,SNR=18						
CPUP				PKPab	**PKPab**	**23 13 44.9**	**+0.6**
	comp=Z,291nm,0.8s,baz=340,slow=5.5,SNR=37						
CPUP	**Villa Florida**	**153.93**	**39**		**PKPdf**	**23 13 18.7**	**-0.5**
CPUP					**PKPbc**	**23 13 27.3**	**-0.5**
CPUP				PKPab	**PKPab**	**23 13 44.8**	**+0.5**
CPUP	**Villa Florida**	**153.93**	**39**	PKP	**PKPdf**	**23 13 19.3**	**+0.1**
VABB	**Valinhos**	**154.07**	**17**	PKP	**PKPdf**	**23 13 20.2**	**+0.5**
PTGB	**Pitanga**	**154.42**	**28**	PKP	**PKPdf**	**23 13 20.4**	**+0.3**
PARB	**Paraibuna**	**154.64**	**14**	PKP	**PKPdf**	**23 13 21.3**	**+0.9**
PET01	**Itanhaem-SP**	**155.26**	**18**	PKP	**PKPdf**	**23 13 21.7**	**+0.5**
PLCA	**Paso Flores**	**156.52**	**83**	PKP	**PKPdf**	**23 13 22.3**	**0.0**
	comp=Z,24nm,0.8s,baz=352,slow=1.7,SNR=16						
PLCA				PKPbc	PKPbc	23 13 33.2	
	comp=Z,44nm,0.7s,baz=224,slow=2.0,SNR=31						
PLCA				PKPab	**PKPab**	**23 13 56.2**	**+0.9**
	comp=Z,153nm,1.0s,baz=303,slow=4.2,SNR=11						
PLCA				SKP	**SKPdf**	**23 16 01.5**	**+2.2**
	comp=Z,46nm,1.1s,baz=296,slow=3.8,SNR=3.1						
PLCA	**Paso Flores**	**156.52**	**83**	PKP	**PKPdf**	**23 13 22.4**	**0.0**
ITAB	**Concordia**	**156.74**	**30**	PKP	**PKPdf**	**23 13 23.0**	**0.0**
COYC	**Coyhaique**	**157.46**	**96**		**PKPdf**	**23 13 21.6**	**-1.7**
COYC				PKPab	**PKPab**	**23 13 59.2**	**0.0**
CNLB	**Canela**	**159.08**	**30**	PKP	**PKPdf**	**23 13 25.5**	**-0.3**
EFI	**East Falkland**	**167.37**	**113**	PKIKP	**PKPdf**	**23 13 30.3**	**-2.4**
EFI	**East Falkland**	**167.37**	**113**		**PKPdf**	**23 13 30.3**	**-2.4**
HOPE	**Hope Point**	**173.70**	**195**	PKIKP	**PKPdf**	**23 13 35.3**	**-0.6**
HOPE	**Hope Point**	**173.70**	**195**	PKPdf	**PKPdf**	**23 13 35.3**	**-0.6**

CATAC ***30*** *22:54:58.6±0.7, 25°S±3°×6°7W±°, h158km±6km, M6.2/7, mb5.9/7, mB6.2/7, MLv6.9/1, Mw(mB)5.9/7, MwMwp5.7/7, Mwp5.8/7, Error ellipse: s-maj=14.5km s-min=6.2km az=91.0, confirmed*

PTWC ***30*** *22:54:58, 24°40S×67°30W, h231km, Mwp6.1/15, CHILE-ARGENTINA BORDER REGION*

SJA ***30*** *22:54:59.8±1.1, 24°32S×67°23W, h188km±8km, ML6.1, MW5.9*

GFZ ***30*** *22:54:59.5, 24°33S×67°02W, h179km, Mw6.3/107, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr=2.57; Mθθ=0.07; Mϕϕ=2.65; Mrθ=0.93; Mθϕ=0.02; Mrϕ=-1.28; Fault plane solution: M₀3.05147×10¹⁸ NP1: ϕs196.09805°, δ34.13331°, λ-62.11698°. NP2: ϕs343.51107°, δ60.26582°, λ-107.59026°. Principal axes: T 2.9556, Plg13.5673°, Azm86.2100°; N 0.1834, Plg15.2136°, Azm352.4471°; P -3.1390, Plg69.3911°, Azm216.1305°;*

NEIC ***30*** *22:54:59.3, 24°34S×67°05W, h151km*

NEIC ***30*** *22:54:59.3, 24°34S×67°05W, h151km*

IPGP ***30*** *22:54:59.0, 24°38S×67°05W, h193km, Mw6.3, Fault plane solution: NP1:ϕs199.00000°, δ35.00000°, λ-58.00000°. NP2:ϕs342.00000°, δ61.00000°, λ-110.00000°.*

MOS ***30*** *22:54:59.8±1.1, 24°39S×67°07W, h179km, mb6.3/15, Error ellipse: s-maj=14.4km s-min=8.6km az=102.9*

IDC ***30*** *22:55:00.9±0.9, 24°35S×66°97W, h161km±7km, mb5.8/14, mbtmp6.3/21, MS5.5/14, Error ellipse: s-maj=9.2km s-min=6.5km az=80.0*

BJI ***30*** *22:55:01.5, 24°40S×66°95W, h160km, mB6.3/22*

GUC ***30*** *22:55:01.1±0.7, 24°29S×67°51W, h198km±6km, ML6.4, Presumed earthquake*

VAO ***30*** *22:55:01.2±0.3, 24°22S×66°97W, h178km±2km, mb6.3, Presumed earthquake*

OSUNB ***30*** *22:55:02.4±0.3, 24°18S×66°93W, h179km±3km, mB6.5/42, Error ellipse: s-maj=2.1km s-min=2.1km az=0.0*

GFZ ***30*** *22:55:02.5±0.1, 24°S±2°×6°7W±°, h175km±1km, M6.1/81, mB6.5/68, mb6.2/81, Mw(mB)6.2/68, Error ellipse: s-maj=4.6km s-min=3.5km az=64.4, confirmed*

NEIC ***30*** *22:55:03.9±2.1, 24°32S±0°06-67°01W±0°08, h189km±1km, mb6.5/444, Mwb6.3/136, Mww6.3/52, Mww6.3(GUC), Error ellipse: s-maj=13.0km s-min=10.3km az=259.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁸Nm; Mrr=2.90; Mθθ=0.08; Mϕϕ2.98; Mrθ1.37; Mθϕ0.36; Mrϕ-1.54; Fault plane solution: M₀3.61000×10¹⁸ NP1: ϕs205.96000°, δ35.94000°, λ-53.76000°. NP2: ϕs343.80000°, δ61.75000°, λ-113.20000°. Principal axes: T 3.3613, Plg14.0000°, Azm90.0000°; N 0.4583, Plg20.0000°, Azm355.0000°; P -3.8197, Plg65.0000°, Azm212.0000°;*

ISC-PP ***30*** *22:55:03, 24°32S×67°01W, h84km±2km, Mwppsm6.4, Moment Tensor Solution. s32 Moment tensor: Scale 10¹⁸Nm; Mrr=0.55±.14; Mθθ=0.04±.16; Mϕϕ=0.51±.18; Mrθ=-0.23±.12; Mθϕ=-0.40±.19; Mrϕ=0.09±.10; Fault plane solution: M₀5.50000×10¹⁸ NP1:ϕs179.90000°, δ26.40000°, λ249.30000°. NP2:ϕs22.80000°, δ65.40000°, λ-80.00000°.*

GCMT ***30*** *22:55:05.9±0.1, 24°33S×67°18W, h190km, MW6.3/167, Moment Tensor Solution. s166, c357; s167, c673; Duration: 3±5 Moment tensor: Scale 10¹⁸Nm; Mrr=2.95±.02; Mθθ=0.44±.02; Mϕϕ3.40±.02; Mrθ0.97±.01; Mθϕ=0.03±.02; Mrϕ=-1.59±.02; Best double couple: M₀3.70000×10¹⁸ NP1:ϕs198.00000°, δ34.00000°, λ-61.00000°. NP2:ϕs344.00000°, δ60.00000°, λ-108.00000°. Principal axes: T 3.7860, Plg14.0000°, Azm87.0000°; N -0.1650, Plg16.0000°, Azm353.0000°; P -3.6140, Plg69.0000°, Azm216.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

NEIC ***30*** *22:55:12.4, 24°34S×67°16W, h170km, Moment Tensor Solution. Duration: 6±6 Moment tensor: Scale 10¹⁸Nm; Mrr=2.54; Mθθ=0.09; Mϕϕ2.63; Mrθ0.79; Mθϕ=0.13; Mrϕ=-1.28; Fault plane solution: M₀3.00000×10¹⁸ NP1: ϕs190.66000°, δ32.99000°, λ-66.72000°. NP2: ϕs343.50000°, δ59.99000°, λ-104.39000°. Principal axes: T 2.9662, Plg14.0000°, Azm84.0000°; N 0.0638, Plg12.0000°, Azm351.0000°; P -3.0300, Plg71.0000°, Azm220.0000°;*

ISC 30 22:55:02.0±0.3, 24°29S±0°02-67°08W±0°03, h173km±2km, h173km:pP-P, n1564, σ1884/1650, mb6.4/327, 102C-105D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		**0.68**	**85**	*i* P	**Pn**	**22 55 27.7**	**+0.2**
SALTA				*i* S	**Sn**	**22 55 48.6**	**+1.7**
SALTA		**0.68**	**85**	P	**Pn**	**22 55 27.7**	**+0.2**
SALTA				S	**Sn**	**22 55 49.6**	**+2.7**
SLA	**San Lorenzo**	**1.50**	**107**	*i* P	**Pn**	**22 55 34.7**	**+1.2**
SLA				*e*S	**Sn**	**22 56 00.5**	**+2.6**
SLA	**San Lorenzo**	**1.50**	**107**	⇑*e*P	**Pn**	**22 55 34.6**	**+1.1**
YOCI	**Acelerografo,**	**1.62**	**87**	*i* P	**Pn**	**22 55 36.0**	**+1.3**
YOCI				*e*S	**

comp=Z,10µm,0.4s
PB11 IPOC Station P 5.10 332 Pn Pn 22 56 17.6 +0.3
ACLC CERRO LA CRUZ 5.12 179 *i* P **Pn 22 56 16.0 -1.5**
AC04 Llanos de Chal 5.30 222 *i* P **Pn 22 56 14.9 -4.7**
AC04 *i* S Sn 22 57 11.0 -10
AC04 Llanos de Chal 5.30 222 P Pn 22 56 14.6 -5.0
AC04 Llanos de Chal 5.30 222 ⇑*i*P Pn 22 56 14.4 -5.2
AC04 *i* S Sn 22 57 09.3 -11
AC05 El Transito 5.36 212 *i* P **Pn 22 56 16.6 -3.9**
AC05 IAML 22 57 27.1
comp=Z,13µm,0.7s
AC05 El Transito 5.36 212 P **Pn 22 56 16.6 -3.9**
PSGCX Pisagua 5.46 328 *i* P **Pn 22 56 17.6 -4.3**
PSGCX IAML 22 57 22.0
comp=Z,11µm,1.6s
PSGCX Pisagua 5.46 328 P **Pn 22 56 17.8 -4.1**
LCO Las Campanas 5.71 214 S Sn 22 57 18.1 -13
LCO Las Campanas 5.71 214 *eP* **Pn 22 56 20.8 -4.5**
LCO Las Campanas 5.71 214 P Pn 22 56 20.5 -4.8
LCO Las Campanas 5.71 214 ⇑P Pn 22 56 20.2 -5.1
PB16 IPOC Station P 6.34 339 Pn **Pn 22 56 33.9 -0.1**
PB16 IPOC Station P 6.34 339 P **Pn 22 56 32.2 -1.8**
AP01 Chacalluta 6.62 332 P **Pn 22 56 34.9 -2.3**
GO04 Tololo Observa 6.73 209 P Pn 22 56 33.4 -5.3
GO04 Tololo Observa 6.73 209 ⇑P Pn 22 56 33.2 -5.5
CFA Coronel Fontan 7.36 188 P **Pn 22 56 43.5 -3.3**
comp=Z,310nm,0.8s,baz=3.5,slow=13,SNR=175
CFA S **Sn 22 58 04.3 -5.4**
comp=Z,518nm,0.8s,baz=65,slow=20,SNR=14
ZON Zonda 7.37 191 ⇑P **Pn 22 56 44.2 -2.8**
CO02 Combarbal 7.71 206 P Pn 22 56 46.4 -5.2
CO02 Combarbal 7.71 206 ⇑P Pn 22 56 45.6 -6.0
LPAZ La Paz 8.02 353 P **Pn 22 56 55.5 -0.7**
comp=Z,1µm,0.4s,baz=159,slow=5.6,SNR=370
LPAZ S **Sn 22 58 25.0 -1.4**
comp=Z,1µm,0.7s,baz=119,slow=19,SNR=8.7
LPAZ LR LR 23 00 35.5
comp=Z,35µm,18.4s,baz=211,slow=41
LPAZ ScP **ScP 23 06 32.0 +1.2**
comp=Z,57nm,0.9s,baz=94,slow=2.8,SNR=4.3
LPAZ La Paz 8.02 353 P **Pn 22 56 56.2 0.0**
comp=Z,105µmcomp=Z,26µmcomp=Z,2µm,0.5s
LPAZ La Paz 8.02 353 ⇑P **Pn 22 56 55.3 -0.9**
LPAZ La Paz 8.02 353 P **Pn 22 56 55.8 -0.4**
LPAZ S **Sn 22 58 24.0 -2.4**
LPAZ La Paz 8.02 353 P **Pn 22 56 55.5 -0.7**
comp=Z,26µmcomp=Z,2µm,0.5s
LPAZ La Paz 8.02 353 *eP* **Pn 22 56 54.8 -1.4**
LPAZ *eS* **Sn 22 58 23.8 -2.5**
CPUP Villa Florida 9.06 105 P **Pn 22 57 06.0 -3.2**
comp=Z,357nm,0.7s,baz=282,slow=12,SNR=144
CPUP S Sn 22 58 36.3 -14
comp=Z,238nm,0.9s,baz=305,slow=13,SNR=1.1
CPUP ScP **ScP 23 06 31.6 +0.7**
comp=Z,97nm,1.1s,baz=262,slow=1.1,SNR=3.8
CPUP Villa Florida 9.06 105 Pn **Pn 22 57 08.0 -1.2**
CPUP Villa Florida 9.06 105 P **Pn 22 57 06.7 -2.5**
CPUP Villa Florida 9.06 105 ⇑P **Pn 22 57 06.5 -2.7**
CPUP Villa Florida 9.06 105 P **Pn 22 57 06.5 -2.7**
CPUP S **Sn 22 58 48.8 -1.3**
I41PY VILLA FLORIDA 9.07 105 P **Pn 22 57 10.0 +0.6**
baz=290,slow=15,SNR=1.1
MURT Porto Murtinho 9.11 75 *eP* **Pn 22 57 07.3 -2.7**
BBSD Serra de San D 9.30 42 *eP* **Pn 22 57 10.0 -2.5**
BBSD *eS* **Sn 22 58 54.1 -2.1**
PEL Peldehue 9.37 199 ⇑P **Pn 22 57 09.5 -3.9**
COIM Forte Coimbra 9.65 65 *eP* **Pn 22 57 14.3 -2.9**
MT13 San Alfonso 9.83 196 Pn **Pn 22 57 20.2 +0.8**
SIV San Ignacio 10.00 35 P **Pn 22 57 19.3 -2.4**
comp=Z,2µm,0.7s,baz=214,slow=11,SNR=752
SIV S **Sn 22 59 07.3 -5.7**
comp=Z,241nm,0.6s,baz=214,slow=14,SNR=6.0
SJPY San Joaquin 10.01 96 *eP* **Pn 22 57 19.4 -2.4**
BDQN Bodoquena, MS 10.29 70 *eP* **Pn 22 57 23.1 -2.4**
ITQB Itaqui 10.76 122 P **Pn 22 57 29.5 -1.9**
ITQB S **Sn 22 59 29.0 -1.9**
ITQB Itaqui 10.76 122 *eP* **Pn 22 57 29.4 -2.1**
PSAL Palomas, Salto 10.78 131 *eP* **Pn 22 57 30.3 -1.5**
PSAL *eS* **Sn 22 59 29.7 -1.7**
BO02 Sierra Bellavi 10.95 196 ⇓P **Pn 22 57 29.9 -4.1**
AQDB Aquidauana 11.19 72 Pn **Pn 22 57 35.0 -2.2**
AQDB Aquidauana 11.19 72 P **Pn 22 57 34.8 -2.4**
AQDB Aquidauana 11.19 72 *eP* **Pn 22 57 34.8 -2.4**
GO05 Hualane 11.48 200 Pn **Pn 22 57 38.8 -2.1**
GO05 Hualane 11.48 200 ⇑P **Pn 22 57 37.7 -3.2**
PTLB Pontes e Lacer 11.54 42 Pn **Pn 22 57 39.7 -2.0**
PTLB Pontes e Lacer 11.54 42 P **Pn 22 57 39.3 -2.4**
PTLB Pontes e Lacer 11.54 42 *eP* **Pn 22 57 39.1 -2.6**
PTLB *eS* **Sn 22 59 47.2 -2.6**
ANCO Parque Anchore 12.73 143 *eP* **Pn 22 57 53.9 -3.0**
VILB Vilhena 13.02 31 Pn **Pn 22 58 00.2 -0.6**
VILB Vilhena 13.02 31 P **Pn 22 57 59.7 -1.1**
PP1B Ponte de Pedra 13.19 62 *eP* **Pn 22 58 00.1 -2.8**
SALV Santo Antonio 13.56 54 P **Pn 22 58 05.8 -1.7**
SALV Santo Antonio 13.56 54 *eP* **Pn 22 58 05.2 -2.4**
CPSB Cacapava Do Su 13.56 120 Pn **Pn 22 58 06.3 -1.2**
CPSB Cacapava Do Su 13.56 120 P **Pn 22 58 05.6 -1.9**
CPSB Cacapava Do Su 13.56 120 *eP* **Pn 22 58 05.4 -2.1**
PTGB Pitanga 13.68 95 P **Pn 22 58 07.4 -1.6**
ITAB Concordia 13.79 105 P **Pn 22 58 09.0 -1.3**
ITAB S **Sn 23 00 43.3 -0.3**
ITAB Concordia 13.79 105 *eP* **Pn 22 58 08.4 -1.9**
ITAB *eS* **Sn 23 00 40.6 -3.0**
VA04 Juan Fernndez 13.87 225 ⇓P **Pn 22 58 08.0 -3.3**
H03S3 Juan Fernandez 14.04 225 P **Pn 22 58 10.5 -2.6**
baz=42,slow=15,SNR=836
H03S1 Juan Fernandez 14.04 225 P **Pn 22 58 11.6 -1.6**
baz=42,slow=15,SNR=689
H03S2 Juan Fernandez 14.05 225 P **Pn 22 58 11.1 -2.2**
baz=42,slow=15,SNR=752
LDASE Londrina, Braz 14.64 90 *eP* **Pn 22 58 19.1 -1.9**
PCMB Pacaembu 14.82 83 P **Pn 22 58 20.9 -2.3**
PCMB Pacaembu 14.82 83 *eP* **Pn 22 58 21.1 -2.1**
CNLB Canela 15.33 113 P **Pn 22 58 27.7 -1.8**
CNLB S **Sn 23 01 19.4 -1.2**
CNLB Canela 15.33 113 *eP* **Pn 22 58 26.4 -3.1**
NNA Nana 15.34 321 P **Pn 22 58 29.7 +0.1**
comp=Z,266nm,0.9s,baz=168,slow=14,SNR=50
NNA S **Sn 23 01 15.6 -5.5**
comp=Z,47nm,0.4s,baz=194,slow=16,SNR=2.4
NNA ScP **ScP 23 06 41.4 +0.9**
comp=Z,80nm,0.9s,baz=243,slow=4.5,SNR=8.0
NNA Nana 15.34 321 P **Pn 22 58 29.8 +0.1**
NNA Nana 15.34 321 P **Pn 22 58 28.1 -1.6**
comp=Z,40µmcomp=Z,10µmcomp=Z,553nm,1.9s
NNA Nana 15.34 321 ⇑P **Pn 22 58 28.9 -0.9**
NNA Nana 15.34 321 P **Pn 22 58 29.8 +0.1**
comp=Z,10µmcomp=Z,543nm,1.9s
GO06 Curarrehue 15.70 193 Pn **Pn 22 58 32.5 -1.4**
GO06 IAmb IAmb 22 58 37.6
comp=Z,2µm,0.8s
GO06 Curarrehue 15.70 193 ⇑P **Pn 22 58 31.5 -2.4**
LR03 Panguipulli 15.93 195 P **P 22 58 36.8 -0.1**
PDRB Porto dos Gac 15.98 40 P **Pn 22 58 36.2 -1.3**
PDRB S **S 23 01 31.0 -4.0**
PDRB Porto dos Gac 15.98 40 *eP* **Pn 22 58 35.5 -2.0**
PDRB *eS* **S 23 01 32.1 -2.9**
ITRB Iturama 16.16 77 P **P 22 58 38.2 -1.4**
ITRB S **S 23 01 36.9 -1.9**
ITRB Iturama 16.16 77 *eP* **P 22 58 38.1 -1.5**
LR05 Currie 16.43 193 P **P 22 58 40.8 -1.5**
LR05 IAmb IAmb 22 58 47.2
comp=Z,2µm,1.1s
LR04 Corral 16.44 197 P **P 22 58 41.0 -1.4**
LR04 IAmb IAmb 22 58 45.4
comp=Z,1µm,0.9s
PLCA Paso Flores 16.66 189 P **P 22 58 43.9 -0.9**
comp=Z,491nm,0.9s,baz=12,slow=13,SNR=175
PLCA S **S 23 01 48.9 -0.5**
comp=Z,24nm,0.8s,baz=45,slow=22,SNR=1.2
PLCA PcP **PcP 23 03 25.2 +0.9**
comp=Z,112nm,0.8s,baz=40,slow=1.2,SNR=5.9
PLCA ScP **ScP 23 06 43.5 +0.7**
comp=Z,97nm,1.0s,baz=346,slow=1.0,SNR=8.9
PLCA PKiKP **PKiKP 23 11 17.3 0.0**
comp=Z,6.8nm,0.8s,baz=223,slow=1.2,SNR=9.7
PLCA Paso Flores 16.66 189 P **P 22 58 43.5 -1.4**
PLCA IAmb IAmb 22 58 54.7
comp=Z,961nm,0.8s
PLCA Paso Flores 16.66 189 ⇓P **P 22 58 43.5 -1.4**
PLCA Paso Flores 16.66 189 P **P 22 58 43.7 -1.2**
PLCA Paso Flores 16.66 189 *eP* **P 22 58 44.1 -0.8**
PLCA *eS* **S 23 01 49.2 -0.2**

ARAG Araguaiana, MT 16.69 62 P **P 22 58 44.5 -0.9**
ARAG Araguaiana, MT 16.69 62 *eP* **P 22 58 43.3 -2.1**
CLDB Colider 17.12 41 P **P 22 58 48.8 -1.4**
CLDB S **S 23 01 55.4 -4.5**
CLDB Colider 17.12 41 *eP* **P 22 58 48.1 -2.0**
CLDB *eS* **S 23 01 55.5 -4.4**
CZSB Cruzeiro do Su 17.32 341 P **P 22 58 52.1 -0.3**
CZSB IAmb IAmb 22 59 02.6
comp=Z,2µm,0.7s
CZSB Cruzeiro do Su 17.32 341 P **P 22 58 50.5 -1.9**
comp=Z,25µmcomp=Z,21µmcomp=Z,2µm,0.8s
CZSB Cruzeiro do Su 17.32 341 P **P 22 58 51.5 -0.8**
CZSB Cruzeiro do Su 17.32 341 *eP* **P 22 58 51.0 -1.4**
BB19B Bebedouro 17.42 83 P **P 22 58 52.8 -0.7**
BB19B S **S 23 02 01.6 -4.4**
BB19B Bebedouro 17.42 83 *eP* **P 22 58 51.5 -1.9**
LL05 Los Muermos 17.89 196 P **P 22 58 58.6 +0.3**
LL05 Los Muermos 17.89 196 P **P 22 58 56.8 -1.5**
comp=Z,44µmcomp=Z,5µm,0.9s,comp=Z,44µm
SPB Sao Paulo 17.98 92 P **P 22 58 59.0 -0.4**
SPB Sao Paulo 17.98 92 P **P 22 58 58.6 -0.8**
SPB IAmb IAmb 22 59 03.4
comp=Z,2µm,1.1s
SPB Sao Paulo 17.98 92 ⇑P **P 22 58 58.7 -0.8**
SPB Sao Paulo 17.98 92 P **P 22 58 59.0 -0.4**
comp=Z,31µmcomp=Z,2µm,1.0s,comp=Z,31µm
SPB Sao Paulo 17.98 92 *eP* **P 22 58 57.9 -1.5**
SPB *eS* **S 23 02 14.9 -1.9**
ITU3 Corumbazu 18.01 74 P **P 22 58 59.8 -0.1**
ITU3 S **S 23 02 15.4 -2.2**
PET01 Itanhaem-SP 18.06 94 P **P 22 58 59.5 -0.8**
PET01 S **S 23 02 15.2 -3.2**
PET01 Itanhaem-SP 18.06 94 *eP* **P 22 58 58.5 -1.8**
PET01 *eS* **S 23 02 16.3 -2.1**
VABB Valinhos 18.47 90 P **P 22 59 04.1 -0.9**
VABB S **S 23 02 23.9 -2.9**
VAO Valinhos 18.48 90 P **P 22 59 03.9 -1.1**
VAO Valinhos 18.48 90 *eP* **P 22 59 03.0 -1.9**
VAO *eS* **S 23 02 24.2 -2.7**
IPMB Ipameri, GO 18.68 74 P **P 22 59 06.1 -0.6**
IPMB S **S 23 02 28.5 -2.4**
IPMB Ipameri, GO 18.68 74 *eP* **P 22 59 05.2 -2.0**
IPMB *eS* **S 23 02 27.8 -3.2**
LL07 Hotel Espejo d 19.24 194 P **P 22 59 13.4 +0.5**
LL07 Hotel Espejo d 19.24 194 P **P 22 59 11.6 -1.3**
comp=Z,107µmcomp=Z,12µm,1.0s,comp=Z,107µm
LL02 Futaleuf 19.26 191 P **P 22 59 13.3 +0.1**
LL02 Futaleuf 19.26 191 P **P 22 59 11.8 -1.4**
comp=Z,54µmcomp=Z,7µm,0.9s
SNDB Serra Nova Dou 19.34 53 P **P 22 59 12.7 -1.7**
SNDB S **S 23 02 39.6 -4.4**
SNDB Serra Nova Dou 19.34 53 *eP* **P 22 59 12.4 -2.0**
SNDB *eS* **S 23 02 40.1 -3.9**
GO07 Milladeo Hill, 19.55 195 P **P 22 59 14.8 -1.5**
GO07 Milladeo Hill, 19.55 195 P **P 22 59 14.8 -1.5**
comp=Z,94µmcomp=Z,7µm,0.6s,comp=Z,94µm
CANS Sao Roque de M 19.55 82 *eP* **P 22 59 14.6 -2.0**
CANS *epP* **pP 22 59 43.2 -3.0**
CANS *eS* **S 23 02 46.2 -2.0**
PARB Paraibuna 19.66 92 P **P 22 59 16.5 -1.2**
PARB S **S 23 02 47.8 -2.4**
PARB Paraibuna 19.66 92 P **P 22 59 17.2 -0.5**
comp=Z,143µmcomp=Z,15µm,1.0s,comp=Z,143µm
PARB Paraibuna 19.66 92 *eP* **P 22 59 15.9 -1.8**
PARB *eS* **S 23 02 47.5 -2.7**
I09BR BRASILIA INFRA 19.86 68 P **P 22 59 20.0 0.0**
baz=254,slow=7.3,SNR=10
BDFB Brasilia 19.86 68 P **P 22 59 18.9 -1.1**
comp=Z,5µm,0.9s,baz=244,slow=11,SNR=1002
BDFB S **S 23 02 53.4 -0.9**
comp=Z,402nm,1.2s,baz=218,slow=19,SNR=1.6
BDFB Brasilia 19.86 68 P **P 22 59 19.1 -0.9**
PMNB Patos De Minas 20.04 77 ⇑P **P 22 59 20.3 -1.6**
PMNB Patos De Minas 20.04 77 P **P 22 59 20.4 -1.5**
PMNB Patos De Minas 20.04 77 P **P 22 59 20.5 -1.4**
comp=Z,38µmcomp=Z,4µm,0.9s,comp=Z,38µm
PMNB Patos De Minas 20.04 77 *eP* **P 22 59 19.9 -2.0**
PMNB *eS* **S 23 02 55.4 -2.5**
ATAH Atahualpa 20.21 326 P **P 22 59 25.5 +1.4**
comp=Z,115nm,0.8s,baz=157,slow=8.4,SNR=74
ATAH S **S 23 03 04.8 +3.0**
comp=Z,34nm,0.8s,baz=128,slow=19,SNR=1.3
NPGB Novo Progresso 20.50 35 P **P 22 59 23.5 -3.2**
NPGB Novo Progresso 20.50 35 *eP* **P 22 59 23.1 -3.7**
NPGB *eS* **S 23 02 59.0 -7.9**
TEFE Tefe 20.79 7 P **P 22 59 27.8 -2.0**
TEFE S **S 23 03 08.1 -4.2**
TEFE Tefe 20.79 7 *eP* **P 22 59 27.7 -2.1**
TEFE *eS* **S 23 03 08.8 -3.6**
COYC Coyhaique 21.62 190 ⇓P **P 22 59 36.5 -1.9**
COYC Coyhaique 21.62 190 P **P 22 59 36.8 -1.6**
comp=Z,31µmcomp=Z,2µm,1.0s
VAS01 Vassouras-RJ 21.80 90 *eP* **P 22 59 38.8 -1.7**
VAS01 *epP* **pP 23 00 07.8 -3.2**
VAS01 *eS* **S 23 03 28.2 -1.6**
MACA Manacapuru-AM 21.89 17 P **P 22 59 39.7 -1.7**
MACA IAmb IAmb 22 59 42.6
comp=Z,2µm,0.7s
MACA Manacapuru-AM 21.89 17 P **P 22 59 38.8 -2.7**
MACA S **S 23 03 28.0 -3.3**
MACA Manacapuru-AM 21.89 17 *eP* **P 22 59 38.4 -3.0**
MACA *eS* **S 23 03 30.0 -1.3**
JQT1 Jequitai-MG 22.36 76 P **P 22 59 44.2 -1.8**
DIAM Diamantina, MG 22.60 79 P **P 22 59 46.5 -1.8**
DIAM Diamantina, MG 22.60 79 *eP* **P 22 59 46.3 -2.0**
DIAM *eS* **S 23 03 39.8 -3.2**
ITTB Itaituba 22.62 31 P **P 22 59 46.0 -2.3**
ITTB Itaituba 22.62 31 *eP* **P 22 59 45.4 -3.0**
ITTB *eS* **S 23 03 38.7 -4.5**
AY03 Cochrane 23.34 190 P **P 22 59 54.4 -0.2**
AY03 IAmb IAmb 22 59 57.3
comp=Z,735nm,1.0s
CAM01 Campos-RJ 23.51 89 P **P 22 59 55.2 -1.3**
CAM01 Campos-RJ 23.51 89 *eP* **P 22 59 54.7 -1.7**
SDBA SAO DESIDERIO 24.10 65 P **P 23 00 00.5 -1.4**
SDBA SAO DESIDERIO 24.10 65 *eP* **P 22 59 59.6 -2.3**
SMTB Santa Maria do 24.12 54 P **P 23 00 01.0 -1.0**
SMTB Santa Maria do 24.12 54 P **P 23 00 01.0 -1.0**
SMTB Santa Maria do 24.12 54 *eP* **P 23 00 00.5 -1.5**
GO08 Villa O'Higgin 24.52 189 P **P 23 00 05.4 +0.2**
comp=Z,21µmcomp=Z,2µm,1.0s
SJMB Sao Joao De Ma 24.71 82 P **P 23 00 05.6 -1.8**
SJMB Sao Joao De Ma 24.71 82 *eP* **P 23 00 05.0 -2.3**
BSFB Barra de Sao F 24.98 83 P **P 23 00 08.0 -1.8**
BSFB Barra de Sao F 24.98 83 P **P 23 00 08.0 -1.8**
comp=Z,23µmcomp=Z,2µm,1.0s
BSFB Barra de Sao F 24.98 83 *eP* **P 23 00 07.7 -2.1**
BSFB *eS* **S 23 04 17.0 -3.8**
RIB01 Linhares ES 25.25 84 P **P 23 00 10.5 -1.7**
RIB01 Linhares ES 25.25 84 *eP* **P 23 00 10.2 -2.0**
ATM1 UHE Belo Monte 25.33 37 P **P 23 00 11.4 -1.5**
MAL2 Monte Alegre, 25.41 31 P **P 23 00 12.7 -1.1**
PTLC Puerto Leguiza 25.44 342 P **P 23 00 10.2 -3.8**
comp=Z,12µmcomp=Z,3µmcomp=Z,226nm,1.1s
PIAT Ana Tenorio 25.56 333 P **P 23 00 17.1 +1.6**
comp=Z,32µmcomp=Z,4µmcomp=Z,211nm,0.8s
BMO1 UHE Belo Monte 25.70 37 P **P 23 00 15.0 -1.3**
PAL2 UHE Estreito - 25.75 51 P **P 23 00 15.6 -1.2**
GUA01 Guaratinga, BA 26.65 78 P **P 23 00 23.0 -1.8**
GUA01 Guaratinga, BA 26.65 78 *eP* **P 23 00 23.0 -1.8**
OTAV Otavalo 26.76 334 P **P 23 00 26.9 +0.6**
OTAV 23 03 46.2
OTAV pmax pmax
comp=Z,633nm,1.9s
OTAV Otavalo 26.76 334 P **P 23 00 26.9 +0.6**
OTAV PcP **PcP 23 03 46.2 +1.1**
OTAV Otavalo 26.76 334 P **P 23 00 26.5 +0.2**
comp=Z,18µmcomp=Z,3µmcomp=Z,110nm,1.6s
OTAV Otavalo 26.76 334 P **P 23 00 26.9 +0.6**
OTAV Otavalo 26.76 334 P **P 23 00 26.5 +0.2**
comp=Z,3µmcomp=Z,110nm,1.6s
OTAV Otavalo 26.76 334 *eP* **P 23 00 25.4 -0.9**
CUSE Cuicocha Este 26.80 334 P **P 23 00 27.7 +1.0**
comp=Z,7µmcomp=Z,246nm,1.4s
PAC1 Pacto, Paraso 26.92 333 P **P 23 00 27.7 +0.3**
comp=Z,6µmcomp=Z,301nm,1.4s
TULM Tulcn-Chalpat 26.94 336 P **P 23 00 25.7 -2.3**
comp=Z,8µmcomp=Z,276nm,0.7s
FLOC Florencia 27.03 341 P **P 23 00 28.0 -0.2**
FLOC Florencia 27.03 341 P **P 23 00 30.2 +1.9**
FLOC Florencia 27.03 341 P **P 23 00 27.3 -1.0**
comp=Z,13µmcomp=Z,9µmcomp=Z,793nm,1.3s

MACC Macarena, Meta 27.09 345 P **P 23 00 24.8 -3.9**
comp=Z,4µmcomp=Z,182nm,0.7s
CMBC Cumbal 27.16 336 P **P 23 00 30.5 +0.6**
GUVC San Jose del G 27.21 348 P **P 23 00 27.3 -2.5**
BOAV Boa Vista 27.28 14 P **P 23 00 29.6 -0.8**
BOAV Boa Vista 27.28 14 P **P 23 00 28.9 -1.5**
comp=Z,14µmcomp=Z,4µmcomp=Z,250nm,0.6s
BOAV Boa Vista 27.28 14 P **P 23 00 30.1 -0.3**
BOAV Boa Vista 27.28 14 *eP* **P 23 00 29.6 -0.8**
CMC01 Camacan, BA 27.36 76 P **P 23 00 29.5 -1.7**
CMC01 Camacan, BA 27.36 76 *eP* **P 23 00 29.1 -2.2**
GARC Garzon, Huila 27.56 342 P **P 23 00 32.2 -1.0**
comp=Z,16µmcomp=Z,10µmcomp=Z,937nm,1.2s
BBAC Balboa, Cauca 27.95 338 P **P 23 00 36.6 -0.1**
comp=Z,17µmcomp=Z,11µmcomp=Z,1µm,0.7s
EFI East Falkland 28.21 168 P **P 23 00 37.9 -0.4**
EFI East Falkland 28.21 168 ⇓P **P 23 00 37.2 -1.0**
EFI East Falkland 28.21 168 P **P 23 00 38.9 +0.6**
comp=Z,423nm,1.1s
POPC Popayan, Colom 28.25 339 P **P 23 00 40.3 +1.0**
comp=Z,13µmcomp=Z,11µmcomp=Z,925nm,1.4s
MG02 Cerro Sombrero 28.50 183 ⇑P **P 23 00 40.6 -0.2**
MG02 Cerro Sombrero 28.50 183 P **P 23 00 41.8 +0.9**
comp=Z,42µmcomp=Z,4µm,1.3s
PTGC Puerto Gaitan, 28.74 349 P **P 23 00 41.9 -1.5**
comp=Z,3µmcomp=Z,116nm,0.9s
NBPN Ponto Novo - B 28.83 67 P **P 23 00 42.6 -1.7**
NBPN Ponto Novo - B 28.83 67 *eP* **P 23 00 41.9 -2.4**
PRAC Prado 28.85 344 P **P 23 00 43.8 -0.6**
PRAC Prado 28.85 344 P **P 23 00 44.6 +0.2**
PRAC Prado 28.85 344 P **P 23 00 44.0 -0.4**
comp=Z,14µmcomp=Z,4µmcomp=Z,136nm,0.6s
JAMC Jamundi, Valle 28.89 340 P **P 23 00 44.0 -0.9**
comp=Z,14µmcomp=Z,7µmcomp=Z,575nm,1.3s
VILC Villavicencio, 28.95 346 P **P 23 00 44.0 -1.4**
GO10 Punta Arenas 28.98 185 PcP **PcP 23 03 50.0 +0.6**
GO10 Punta Arenas 28.98 185 ⇑P **P 23 00 45.7 +0.5**
GO10 Punta Arenas 28.98 185 P **P 23 00 46.0 +0.8**
comp=Z,3µm,1.0s
ORTC Ortega, Tolima 29.13 343 P **P 23 00 45.2 -1.7**
comp=Z,11µmcomp=Z,6µmcomp=Z,456nm,1.2s
CHIC Chingaza 29.46 346 P **P 23 00 48.4 -1.9**
comp=Z,12µmcomp=Z,6µmcomp=Z,399nm,1.3s
YOTC Yotoco, Valle 29.51 341 P **P 23 00 48.4 -2.0**
comp=Z,3µmcomp=Z,138nm,0.9s
MG03 Isla Dawson 29.63 184 IAmb IAmb 23 00 52.7
comp=Z,1µm,0.9s
ROSC El Rosal 29.80 345 P **P 23 00 54.0 +0.8**
comp=Z,108nm,0.5s,baz=120,slow=6.7,SNR=25
ROSC S **S 23 05 40.5 +3.1**
comp=Z,14nm,0.5s,baz=71,slow=23,SNR=1.3
ROSC LR LR 23 16 24.7
comp=Z,12µm,19.9s,baz=178,slow=43
comp=Z,108nm,0.5s
ROSC El Rosal 29.80 345 P **P 23 00 51.7 -1.5**
comp=Z,16µmcomp=Z,5µmcomp=Z,260nm,0.7s
PLMC San Jos del P 30.37 342 P **P 23 00 55.3 -2.6**
comp=Z,12µmcomp=Z,5µmcomp=Z,458nm,1.1s
GUY2C Guyana, Caldas 30.42 344 P **P 23 00 55.3 -3.5**
comp=Z,11µmcomp=Z,3µmcomp=Z,207nm,0.8s
SPBC San Pablo de B 30.53 346 P **P 23 00 55.3 -4.0**
comp=Z,11µmcomp=Z,4µmcomp=Z,316nm,1.1s
RUSC La Rusia 30.56 348 P **P 23 00 58.8 -1.2**
RUSC La Rusia 30.56 348 P **P 23 01 00.1 +0.1**
RUSC La Rusia 30.56 348 IAmb IAmb 23 01 01.6
comp=Z,759nm,1.0s
RUSC La Rusia 30.56 348 P **P 23 00 57.0 -3.0**
comp=Z,13µmcomp=Z,8µmcomp=Z,737nm,1.0s
TAMC Tame, Arauca 30.88 351 P **P** 23 00 57.0 -5.3
comp=Z,12µmcomp=Z,4µmcomp=Z,499nm,0.6s
CBOC Ciudad Bolivar 31.21 343 P **P 23 01 01.9 -3.5**
comp=Z,11µmcomp=Z,3µmcomp=Z,328nm,0.8s
HELC Santa Helena 31.39 344 P **P 23 01 06.1 -1.1**
HELC Santa Helena 31.39 344 P **P 23 01 05.6 -1.6**
HELC Santa Helena 31.39 344 P **P 23 01 02.7 -4.5**
comp=Z,4µmcomp=Z,562nm,1.2s
PTBC PUERTO BERRIO, 31.47 346 P **P 23 01 03.1 -4.4**
comp=Z,7µmcomp=Z,935nm,0.7s
NBPS Pedro II - PI 31.63 55 P **P 23 01 07.1 -1.9**
NBPS Pedro II - PI 31.63 55 *eP* **P 23 01 06.9 -2.1**
NBMA Muriti-CE 31.91 63 P **P 23 01 09.6 -1.8**
NBMA Muriti-CE 31.91 63 *eP* **P 23 01 09.7 -1.8**
NBPB Pedra_Branca-C 32.33 59 P **P 23 01 13.7 -1.4**
MPGF Montagnes des 32.43 28 ⇑P **P 23 01 14.3 -1.5**
MPGF Montagnes des 32.43 28 P **P 23 01 14.8 -1.1**
MPGF PcP **PcP 23 03 59.2 +0.1**
PAYG Puerto Ayora 32.50 313 P **P 23 01 16.7 +0.2**
PAYG PcP **PcP 23 03 57.9 -1.4**
PAYG Puerto Ayora 32.50 313 P **P 23 01 11.6 -4.9**
comp=Z,16µmcomp=Z,4µmcomp=Z,285nm,1.6s
PAYG Puerto Ayora 32.50 313 P **P 23 01 18.4 +1.9**
comp=Z,4µmcomp=Z,293nm,1.6s
PAYG Puerto Ayora 32.50 313 P **P 23 01 18.1 +1.6**
PAYG pP **pP 23 01 56.6 +3.2**
PAYG PcP **PcP 23 04 00.8 +1.4**
PAYG ScP **ScP 23 07 27.9 +1.0**
NBAN Anadia - AL 32.75 69 P **P 23 01 16.1 -2.6**
UREC San Jos de Ur 32.90 344 P **P 23 01 16.5 -3.4**
comp=Z,10µmcomp=Z,3µmcomp=Z,194nm,1.0s
PTAC Punta Ardita, 32.95 340 P **P 23 01 18.5 -1.9**
comp=Z,8µmcomp=Z,541nm,1.2s
SDV Santo Domingo 33.15 354 LR LR 23 16 43.6
comp=Z,11µm,19.7s,baz=190,slow=39
SDV Santo Domingo 33.15 354 P **P 23 01 20.1 -2.2**
SDV Santo Domingo 33.15 354 P **P 23 01 17.7 -4.6**
comp=Z,54µmcomp=Z,21µmcomp=Z,1µm,0.8s
SDV Santo Domingo 33.15 354 P **P 23 01 20.2 -2.2**
comp=Z,21µmcomp=Z,1µm,0.8s
APAC Apartado, Choc 33.31 343 P **P 23 01 21.8 -1.7**
comp=Z,10µmcomp=Z,3µmcomp=Z,225nm,1.0s
NBMO Morrinhos-CE 33.40 56 P **P 23 01 22.6 -1.7**
NBMO Morrinhos-CE 33.40 56 *eP* **P 23 01 22.2 -2.0**
NBLV Livramento - P 33.42 65 P **P 23 01 22.7 -1.9**
NBCL Cascavel-CE 34.16 59 P **P 23 01 29.6 -1.2**
NBPA Parau_RN 34.18 62 P **P 23 01 29.6 -1.4**
NBPA Parau_RN 34.18 62 *eP* **P 23 01 29.4 -1.6**
CACAO El Cacao, Vera 34.20 335 P **P 23 01 29.1 -2.0**
comp=Z,11µmcomp=Z,8µmcomp=Z,482nm,1.4s
ARGC Ariguani, Magd 34.65 348 P **P 23 01 32.4 -2.6**
comp=Z,10µmcomp=Z,11µmcomp=Z,877nm,0.7s
GMAL Guarumal, Vera 34.72 335 P **P 23 01 36.0 +0.4**
SJCC San Jacinto, C 34.88 346 P **P 23 01 35.4 -1.7**
SJCC San Jacinto, C 34.88 346 P **P 23 01 32.8 -4.3**
comp=Z,8µmcomp=Z,6µmcomp=Z,597nm,1.1s
PNME Penonome 35.05 337 P **P 23 01 38.5 +0.1**
comp=Z,11µmcomp=Z,10µmcomp=Z,678nm,1.4s
RCBR Riachuelo 35.12 64 P **P 23 01 38.4 -0.7**
RCBR IAmb IAmb 23 01 41.1
comp=Z,1µm,1.1s
RCBR Riachuelo 35.12 64 ⇑P **P 23 01 38.2 -1.0**
RCBR Riachuelo 35.12 64 P **P 23 01 38.2 -1.0**
RCBR Riachuelo 35.12 64 P **P 23 01 38.0 -1.2**
comp=Z,15µmcomp=Z,2µm,1.0s
RCBR Riachuelo 35.12 64 *eP* **P 23 01 37.4 -1.8**
RCBR Riachuelo 35.12 64 P **P 23 01 39.1 -0.1**
UPA Univ. de Panam 35.23 338 P **P 23 01 40.9 +0.9**
comp=Z,6µmcomp=Z,406nm,1.4s
NBPV Pedro Velho 35.29 65 P **P 23 01 39.6 -1.0**
NBPV Pedro Velho 35.29 65 *eP* **P 23 01 39.3 -1.2**
ZANG Zanguenga, Cho 35.32 338 *eP* **P 23 01 41.9 +1.1**
BCIP Isla Barro Col 35.51 338 P **P 23 01 41.7 -0.6**
comp=Z,447nmcomp=Z,4µmcomp=Z,354nm,1.0s
BCIP Isla Barro Col 35.51 338 ⇑P **P 23 01 43.8 +1.5**
BCIP Isla Barro Col 35.51 338 *eP* **P 23 01 43.7 +1.3**
BCIP Isla Barro Col 35.51 338 P **P 23 01 44.1 +1.8**
comp=Z,4µmcomp=Z,356nm,1.0s,comp=Z,4µm
PTPA Petro Terminal 35.78 333 *eP* **P 23 01 47.4 +2.7**
URIC Uribia, Colomb 36.09 352 PcP **PcP 23 04 08.3 -1.3**
RBALA Bur 36.10 334 *eP* **P 23 01 48.8 +1.4**
CLLRA Cordillera, 36.16 333 *eP* **P 23 01 49.8 +1.7**
NELY Ciudad Neily 36.22 333 *eP* **P 23 01 51.1 +2.7**
BRU2 Volcan 36.24 333 ⇓*i

EDP2	Potrero Grande	36.64	333	eP		P		23 01 54.8	+2.8	
FIMO	Fila Mora	36.69	332	eP		P		23 01 54.2	+1.7	
PANP	Palmar Norte	36.71	332	eP		P		23 01 55.5	+2.9	
GRSS	Sisters	36.75	9	eP		P		23 01 53.2	+0.3	
DRK0	Durika	36.89	333	eP		P	23 01 39.8	-15		
EDPE	Pejibaye, P	36.94	332	eP		P		23 01 58.0	+3.4	
SAJE	San Jernim	37.08	332	eP		P		23 01 57.4	+1.5	
CEUA	Cerro Uatsi, L	37.09	333	eP		P		23 01 58.8	+3.0	
VERH	Veragua Rainfo	37.47	333	eP		P		23 02 00.8	+1.7	
PIEC	Cerro El Cedra	37.52	332	eP		P		23 02 01.5	+1.8	
PICV	PH. Pirrs	37.62	332	eP		P		23 02 01.8	+1.5	
ABE2	San Pablo	37.63	332	eP		P		23 02 03.9	+3.3	
HOPE	Hope Point	37.63	151	*i* P		P		23 02 00.4	+0.5	
HOPE	Hope Point	37.63	151	P		P		23 01 59.4	-0.5	
HOPE	Hope Point	37.63	151	⇑P		P		23 01 59.9	0.0	
HOPE	Hope Point	37.63	151	P		P		23 02 00.3	+0.3	
	comp=Z,452nm,1.4s									
LCR2	La Lucha 2	37.64	332	P		P		23 02 01.6	+0.9	
LCR2				IAmb		IAmb	23 02 04.6			
	comp=Z,576nm,0.7s									
LCR2	La Lucha 2	37.64	332	eP		P		23 02 01.5	+0.8	
TURIB	Turrialba	37.66	333	eP		P		23 02 02.7	+2.1	
PCAYA	Pacayas	37.72	332	eP		P		23 02 04.5	+3.1	
VTCV	VTCV, Calle Va	37.74	333	eP		P		23 02 03.4	+1.9	
RESJ	San Isidro (Tu	37.75	333	eP		P		23 02 03.9	+2.5	
ABRB	Las Abras (San	37.76	333	eP		P		23 02 04.1	+2.4	
ACOS	Acosta	37.76	332	eP		P		23 02 03.8	+2.2	
LCOCO	El Coco	37.76	333	eP		P		23 02 03.8	+2.3	
SVB	Belmont	37.76	9	eP		P		23 01 57.1	-4.3	
CVTV	Tajo	37.77	333	eP		P		23 02 03.8	+1.9	
CVTQ	Turrialba Volc	37.78	333	eP		P		23 02 04.1	+2.1	
TRIO	Tres Rios	37.79	332	eP		P		23 02 03.6	+1.8	
VTR0	Volcan Turrial	37.79	333	eP		P		23 02 04.3	+2.1	
CVTR	Volcan Turrial	37.79	333	eP		P		23 02 04.3	+2.1	
VICA	Volcano Irazu	37.79	332	eP		P		23 02 03.9	+1.7	
AMPA	Desamparados	37.81	332	eP		P		23 02 04.8	+2.8	
ECI	Escuela Centro	37.84	332	eP		P		23 02 03.6	+1.3	
SJS3	Mercedes San J	37.84	332	eP		P		23 02 05.3	+3.1	
CORON	Coronado	37.85	332	eP		P		23 02 05.3	+3.0	
LUPE	Guadalupe	37.85	332	eP		P		23 02 04.6	+2.3	
CVIMO	Finca Echandi	37.87	332	eP		P	23 02 08.3	+5.7		
DOMI	Santo Domingo	37.90	332	eP		P		23 02 05.3	+2.6	
CVTG	V. Turrialba,	37.91	333	eP		P		23 02 03.6	+0.8	
HDC	Heredia	37.92	332	eP		P		23 02 05.0	+2.1	
HDC	Heredia	37.92	332	P		P		23 02 03.8	+0.9	
	comp=Z,20µmcomp=Z,2µm,0.7s									
HDC	Heredia	37.92	332	eP		P		23 02 02.6	-0.4	
HEME	Heredia, Merce	37.93	332	eP		P		23 02 06.2	+3.2	
BELE	Belen	37.93	332	eP		P		23 02 05.3	+2.4	
TRB2	Turrubares	37.99	331	eP		P		23 02 05.9	+2.5	
VBV1	V. Barva	38.02	332	eP		P		23 02 06.1	+2.1	
TCS1	Tacares	38.04	332	eP		P		23 02 06.9	+3.0	
RPN	Rapa Nui	38.05	256	P		P		23 02 06.3	+2.5	
	comp=Z,10µmcomp=Z,503nm,1.5s,comp=Z,10µm									
RPN	Rapa Nui	38.05	256	P		P		23 02 06.1	+2.3	
RPN				pP		pP		23 02 46.6	+4.5	
RPN				sP		sP		23 03 08.0	+5.7	
LAFE	Finca La Fe, P	38.10	331	eP		P		23 02 05.9	+1.6	
PALD	Palmares	38.11	332	eP		P		23 02 06.9	+2.4	
VPS5	V. Poas	38.11	332	eP		P		23 02 07.1	+2.1	
ZARE	Zarcero	38.20	332	eP		P		23 02 06.9	+3.5	
MCLT	Moule a Chique	38.24	10	eP		P		23 02 03.7	-1.7	
VPL1	V. Platanar	38.26	332	eP		P		23 02 08.7	+2.8	
TRT2	Tortugero	38.26	333	eP		P		23 02 06.6	+1.0	
ARTO	Ro Cuarto	38.27	332	eP		P		23 02 08.2	+2.4	
VPL2	V. Platanar	38.31	332	eP		P		23 02 08.9	+2.6	
JUNT	Juntas	38.54	331	eP		P		23 02 09.4	+1.4	
SLBI	Saint Lucia, B	38.54	10	eP		P		23 02 05.5	-2.4	
JTS	Las Juntas de	38.55	331	P		P		23 02 08.7	+0.7	
JTS	Las Juntas de	38.55	331	⇓P		P		23 02 09.3	+1.3	
JTS	Las Juntas de	38.55	331	eP		P		23 02 08.5	+0.5	
JTS	Las Juntas de	38.55	331	P		P		23 02 09.6	+1.5	
	comp=Z,9µmcomp=Z,513nm,1.4s,comp=Z,9µm									
JTS	Las Juntas de	38.55	331	P		P		23 02 09.0	+1.0	
JTS				pP		pP		23 02 49.5	+3.0	
JTS				PcP		PcP		23 04 18.2	+1.9	
TUNA	La Fortuna	38.57	332	eP		P		23 02 10.6	+2.4	
CASO	Castillo	38.58	331	eP		P		23 02 11.0	+2.7	
VACR	Volcan Arenal	38.59	332	eP		P		23 02 11.0	+2.6	
ARE1	Arenal 1	38.59	331	⇓*i*P		P		23 02 11.0	+2.5	
VARE2	V. Arenal	38.59	331	eP		P		23 02 09.9	+1.4	
CEDE	Laguna Cedeo	38.61	332	eP		P		23 02 10.6	+2.0	
NICO	Nicoya	38.63	330	eP		P		23 02 10.6	+1.9	
TABAC	Tabacon	38.65	331	eP		P		23 02 11.9	+2.9	
CNAS	Canas	38.73	331	eP		P		23 02 12.7	+3.2	
COTE	Lago Cote	38.78	331	eP		P		23 02 11.9	+1.8	
QUEB	Quebradon, Cot	38.82	331	eP		P		23 02 11.9	+1.6	
TIMP	Tierras Morena	38.84	331	eP		P		23 02 12.4	+1.9	
TENO	El Achiote	38.92	331	eP		P		23 02 12.6	+1.3	
DELF	Filadelfia	38.95	330	eP		P		23 02 11.9	+0.5	
CUI	Cuipilapa	38.97	331	eP		P		23 02 13.6	+2.1	
MPOM	Morne Pois Mar	38.97	10	P		P		23 02 10.3	-1.2	
MPOM	Morne Pois Mar	38.97	11	P		P		23 02 09.4	-2.1	
	comp=Z,7µmcomp=Z,543nm,0.8s									
MPOM				pP		pP		23 02 49.9	-0.1	
COLC	Colonia	38.99	331	eP		P		23 02 13.6	+1.9	
BIM	Bigot	39.01	9	IAmb		IAmb	23 02 15.0			
	comp=Z,808nm,0.8s									
BIM	Bigot	39.01	9	eP		P		23 02 09.7	-2.1	
BIM	Bigot	39.01	9	P		P		23 02 10.7	-1.2	
HORNC	Hornillas	39.02	331	eP		P		23 02 12.0	0.0	
MESS	Mesas	39.05	331	eP		P		23 02 13.3	+1.0	
CANAL	Canalete	39.07	331	eP		P		23 02 13.4	+1.1	
ALIBA	Liberia Airpor	39.08	330	eP		P		23 02 14.3	+1.9	
CLARA	Aguas Claras	39.08	331	eP		P		23 02 13.4	+0.9	
LCHIL	Los Chiles	39.11	332	eP		P		23 02 15.2	+2.6	
UPAL	Upala	39.11	331	eP		P		23 02 13.8	+1.1	
GPS2	Hotel Rincn d	39.13	331	eP		P		23 02 14.1	+1.2	
GPS3	Bodega del ICE	39.14	331	eP		P		23 02 15.9	+2.9	
VRLE	La Escondida,	39.17	331	eP		P		23 02 15.2	+1.9	
LAPC	Finca la Perla	39.18	331	eP		P		23 02 13.6	+0.3	
VORI	VORI	39.19	331	eP		P		23 02 13.8	+0.2	
FDFM	Morne la Roset	39.21	9	IAmb		IAmb	23 02 19.2			
	comp=Z,1µm,0.8s									
BUAI	Buenos Aires	39.23	331	eP		P		23 02 14.9	+1.1	
PEJA	Penjamo Buenos	39.24	331	eP		P		23 02 15.7	+1.9	
CXM	Morne La Croix	39.29	9	IAmb		IAmb	23 02 17.9			
	comp=Z,1µm,0.6s									
SAIC	Isla e San And	39.29	337	P		P		23 02 15.1	+0.9	
	comp=Z,15µmcomp=Z,18µmcomp=Z,1µm,1.5s									
ILAM	Ilet Lapin Mar	39.30	10	eP		P		23 02 11.2	-3.0	
ILAM	Ilet Lapin Mar	39.30	10	P		P		23 02 14.1	-0.1	
	comp=Z,8µmcomp=Z,557nm,1.0s									
LCRUZ	La Cruz	39.55	331	eP		P		23 02 17.7	+1.4	
BLUN	Bluefields	39.59	334	P		P		23 02 15.5	-1.1	
	comp=Z,4µmcomp=Z,180nm,1.2s									
CARN	Rivas	39.59	331	eP		P		23 02 18.4	+1.7	
ESPZ	Base Esperanza	39.67	173	IAmb		IAmb	23 02 18.6			
	comp=Z,1µm,1.3s									
ACON	Acoyapa	40.14	332	eP		P		23 02 22.4	+1.3	
CBE	Ff, Capester	40.47	8	P		P		23 02 22.4	-1.4	
	comp=Z,4µmcomp=Z,354nm,0.9s									
PMSA	Palmer Station	40.53	178	P		P		23 02 25.1	+1.3	
PMSA	Palmer Station	40.53	178	⇑P		P		23 02 24.1	+0.3	
PMSA	Palmer Station	40.53	178	P		P		23 02 25.3	+1.5	
	comp=Z,9µmcomp=Z,659nm,1.2s,comp=Z,9µm									
PMSA	Palmer Station	40.53	178	eP		P		23 02 22.6	-1.2	
GDHS	Morne Mazeau,	40.65	8	P		P		23 02 24.9	-0.4	
GDHS	Morne Mazeau,	40.65	8	P		P		23 02 23.4	-2.0	
	comp=Z,4µmcomp=Z,226nm,0.4s,comp=Z,4µm									
MGAN	Managua	40.77	331	P		P		23 02 23.2	-3.1	
	comp=Z,9µmcomp=Z,594nm,1.0s									
MGAN	Managua	40.77	331	P		P		23 02 27.0	+0.7	
	comp=Z,10µmcomp=Z,615nm,1.4s									
BOAB	BOACO BROADBAN	40.78	332	P		P		23 02 26.8	+0.4	
BOAB	BOACO BROADBAN	40.78	332	⇓P		P		23 02 26.1	-0.3	
BOAB	BOACO BROADBAN	40.78	332	P		P		23 02 27.1	+0.7	
	comp=Z,11µmcomp=Z,385nm,1.0s,comp=Z,11µm									
GDSD	La Dsirade Is	40.78	9	P		P		23 02 24.3	-2.0	
	comp=Z,3µmcomp=Z,323nm,0.7s,comp=Z,3µm									
GDSD				pP		pP		23 03 03.5	-1.6	
CNGN	Cerro Negro	41.28	330	P		P		23 02 30.3	-0.2	
	comp=Z,4µmcomp=Z,274nm,1.1s,comp=Z,4µm									
BILN	Bilwi Airport	41.29	336	eP		P		23 02 30.2	-0.4	
SIUN	Universidad Ur	41.54	334	P		P		23 02 33.1	+0.5	
CRIN	San Cristobal	41.62	330	P		P		23 02 34.2	+0.9	
	comp=Z,7µmcomp=Z,561nm,0.7s									
CRIN	San Cristobal	41.62	330	P		P		23 02 34.3	+0.9	
	comp=Z,573nm,0.7s									
SEUS	St. Eustatius	41.72	6	P		P		23 02 32.4	-1.6	
	comp=Z,48µmcomp=Z,308nm,1.0s									
SABA	Saba	41.82	5	P		P		23 02 32.8	-2.0	
	comp=Z,7µmcomp=Z,420nm,0.9s									
ANWB	Willy Bob	42.02	8	IAmb		IAmb	23 02 40.0			
	comp=Z,725nm,0.6s									
ANWB	Willy Bob	42.02	8	P		P	23 02 28.1	-8.3		
	comp=Z,9µmcomp=Z,11µmcomp=Z,1µm,0.7s									
ANWB	Willy Bob	42.02	8	⇓P		P		23 02 32.9	-3.6	
ANWB	Willy Bob	42.02	8	P		P		23 02 33.4	-3.0	
	comp=Z,11µmcomp=Z,1µm,0.7s,comp=Z,11µm									
SJG	San Juan	42.15	1	P		P	23 02 32.5	-5.0		
	comp=Z,10µmcomp=Z,6µmcomp=Z,646nm,1.2s									
SJG	San Juan	42.15	1	⇓P		P		23 02 34.5	-3.0	
SJG	San Juan	42.15	1	P		P		23 02 33.9	-3.6	
	comp=Z,6µmcomp=Z,647nm,1.2s									
SJG				pP		pP		23 03 15.2	-1.3	
SJG	San Juan	42.15	1	P		P		23 02 34.7	-2.8	
SJG				pP		pP		23 03 15.6	-0.9	
SMRT	St. Maarten	42.26	6	P		P		23 02 35.4	-3.0	
	comp=Z,465nm,1.1s									
PODR	Polo	42.40	354	P		P		23 02 39.0	-0.7	
AGPR	Aguadilla, PR	42.50	360	P		P		23 02 37.6	-2.6	
BANI	BANI	42.54	355	P		P		23 02 39.8	-1.1	
PCDR	Punta Cana, DR	42.56	358	IAmb		IAmb	23 02 41.6			
	comp=Z,770nm,0.9s									
SDD	Santo Domingo	42.58	356	IAmb		IAmb	23 02 40.7			
	comp=Z,1µm,1.1s									
TGUH	Tegucigalpa,Un	42.91	331	IAmb		IAmb	23 02 46.3			
	comp=Z,670nm,0.8s									
TGUH	Tegucigalpa,Un	42.91	331	P		P		23 02 43.1	-0.8	
	comp=Z,7µmcomp=Z,12µmcomp=Z,1µm,0.9s									
TGUH	Tegucigalpa,Un	42.91	331	⇓P		P		23 02 43.6	-0.3	
TGUH	Tegucigalpa,Un	42.91	331	P		P		23 02 43.8	0.0	
	comp=Z,12µmcomp=Z,1µm,0.9s									
SDDR	Presa de Saban	43.20	354	P		P		23 02 42.7	-3.3	
	comp=Z,9µmcomp=Z,3µmcomp=Z,160nm,0.7s									
SDDR	Presa de Saban	43.20	354	⇓P		P		23 02 43.4	-2.6	
SDDR	Presa de Saban	43.20	354	⇓*e*P		P		23 02 47.6	+1.5	
SDDR	Presa de Saban	43.20	354	P		P		23 02 44.6	-1.4	
	comp=Z,3µmcomp=Z,162nm,0.7s,comp=Z,3µm									
MTDJ	Mount Denham	43.47	345	P		P		23 02 48.4	+0.2	
	comp=Z,9µmcomp=Z,5µmcomp=Z,247nm,1.2s									
MTDJ	Mount Denham	43.47	345	⇓P		P		23 02 47.4	-0.8	
MTDJ	Mount Denham	43.47	345	P		P		23 02 48.1	-0.2	
	comp=Z,6µmcomp=Z,250nm,1.2s,comp=Z,6µm									
SMAI	San Martin Ant	43.85	180	P		P		23 02 51.8	+1.2	
GTBY	Guantanamo Bay	44.64	349	P		P		23 02 55.6	-1.8	
	comp=Z,8µmcomp=Z,4µmcomp=Z,322nm,0.8s									
GTBY	Guantanamo Bay	44.64	349	⇓P		P		23 02 55.3	-2.1	
GTBY	Guantanamo Bay	44.64	349	*e*P		P		23 02 56.6	-0.8	
GTBY	Guantanamo Bay	44.64	349	P		P		23 02 56.1	-1.3	
	comp=Z,4µmcomp=Z,327nm,0.8s									
RCC	Rio Carpintero	44.81	348	⇓*e*P		P		23 02 57.8	-1.0	
QMBU	Quimbuelo	44.85	350	*e*P		P		23 02 57.4	-1.7	
PILO	Pilon	45.07	346	*e*P		P		23 02 58.8	-2.0	
SABCS	La Quijada	45.10	349	*e*P		P		23 02 58.8	-2.2	
YAR	Yar	45.30	348	*e*P		P		23 03 02.6	0.0	
PINC	Pinares de May	45.31	348	*e*P		P		23 03 01.1	-1.5	
FSCY	Frank Sound, G	45.46	341	*e*P		P		23 03 03.7	-0.2	
CBCY	The Bluff, Cay	45.47	343	*e*P		P		23 03 03.8	-0.1	
LCCY	Blossom Villag	45.49	343	IAmb		IAmb	23 03 06.3			
	comp=Z,3µm,1.0s									
GRTK	Grand Turk	45.70	355	P		P		23 03 04.7	-1.0	
	comp=Z,18µmcomp=Z,9µmcomp=Z,833nm,0.8s									
GRTK	Grand Turk	45.70	355	⇓P		P		23 03 04.1	-1.6	
GRTK	Grand Turk	45.70	355	P		P		23 03 04.7	-1.0	
	comp=Z,9µmcomp=Z,836nm,1.1s,comp=Z,9µm									
HLGC	Holguin	45.75	348	⇓*e*P		P		23 03 05.6	-0.6	
CCCC	Cccc	46.39	346	⇓*e*P		P		23 03 09.5	-1.6	
CCIG	Comitan	47.16	326	⇑P		P		23 03 17.6	+0.2	
CAIB	Caibarien	48.03	345	IAmb		IAmb	23 03 25.9			
	comp=Z,989nm,0.8s									
CAIB	Caibarien	48.03	345	*e*P		P		23 03 22.9	-0.9	
TRIS	Tristan da Cun	48.20	119	P		P		23 03 24.2	-0.8	
TRIS	Tristan da Cun	48.20	119	P		P		23 03 24.5	-0.5	
	comp=Z,447nm,1.0s									
TEIG	Tepich	48.82	333	P		P		23 03 28.9	-0.9	
TEIG	Tepich	48.82	333	P		P		23 03 30.2	+0.3	
TEIG	Tepich	48.82	333	⇓P		P		23 03 28.8	-1.1	
TEIG	Tepich	48.82	333	P		P		23 03 28.9	-0.9	
	comp=Z,10µmcomp=Z,784nm,0.8s,comp=Z,10µm									
CAMR	Camarioca	49.07	342	IAmb		IAmb	23 03 34.0			
	comp=Z,2µm,0.7s									
CAMR	Camarioca	49.07	342	*e*P		P		23 03 30.4	-1.3	
SOR	Soroa	49.29	340	*e*P		P		23 03 32.3	-1.1	
SOR	Soroa	49.29	340	P		P		23 03 33.3	-0.1	
	comp=Z,10µmcomp=Z,970nm,1.1s,comp=Z,10µm									
SOR				pP		pP		23 04 15.2	+1.7	
TLIG	Tlapa	51.71	321	⇓P		P		23 03 52.4	+0.6	
H10N3	ASCENSION HYDR	52.78	81	P		P		23 03 59.4	0.0	
	baz=249,slow=5.6,SNR=9.7									
H10N1	ASCENSION HYDR	52.80	81	P		P		23 03 59.3	-0.3	
	baz=249,slow=5.6,SNR=13									
H10N2	ASCENSION HYDR	52.80	81	P		P		23 03 59.3	-0.3	
	baz=249,slow=5.6,SNR=9.5									
UNM	Universidad Na	53.46	321	P		P		23 04 07.5	+2.7	
	comp=Z,11µmcomp=Z,537nm,1.5s,comp=Z,11µm									
DWPF	Disney Wildern	53.90	344	P		P		23 04 07.1	-0.4	
DWPF	Disney Wildern	53.90	344	⇑P		P		23 04 07.5	+0.1	
DWPF	Disney Wildern	53.90	344	P		P		23 04 07.8	+0.3	
	comp=Z,8µmcomp=Z,511nm,1.5s									
DWPF	Disney Wildern	53.90	344	P		P		23 04 07.3	-0.1	
DWPF				pP		pP		23 04 49.9	+1.7	
DWPF				PcP		PcP		23 05 10.5	-0.2	
MOIG	Morelia	54.90	320	P		P		23 04 15.6	+0.5	
MOIG				IAmb		IAmb	23 04 18.0			
	comp=Z,352nm,0.7s									
656A	Willston	55.38	344	IAmb		IAmb	23 04 19.9			
	comp=Z,3µm,2.0s									
BELA	Belgrano 2	55.77	172	IAmb		IAmb	23 04 22.6			
	comp=Z,579nm,1.0s									
BBSR	BB Station	56.39	2	P		P		23 04 24.5	-0.7	
BBSR	BB Station	56.39	2	⇓P		P		23 04 24.1	-1.2	
BBSR	BB Station	56.39	2	P		P		23 04 25.6	+0.4	
	comp=Z,3µmcomp=Z,136nm,0.7s									
BBSR	BB Station	56.39	2	P		P		23 04 24.7	-0.5	
BBSR				PcP		PcP		23 05 20.1	-0.1	
456A	Hilliard	56.54	345	IAmb		IAmb	23 04 28.5			
	comp=Z,661nm,0.9s									
PTCN	Pitcairn Islan	56.78	255	P		P		23 04 30.9	+2.6	
PTCN	Pitcairn Islan	56.78	255	P		P		23 04 31.5	+3.2	
	comp=Z,843nm,1.9s									
VNA3	Neumayer Olymp	56.91	161	P		P		23 04 28.2	-0.3	
	comp=Z,10µmcomp=Z,1µm,0.9s									
VNA1	Neumayer--Stat	57.10	160	⇓P		P		23 04 29.9	+0.1	
	comp=Z,609nm,0.9s									
VNA1				⇑ScP		ScP		23 09 06.0	+0.2	
	comp=Z,34nm,1.0s									
VNA1				⇓P'P'bc		P'P'bc		23 34 28.6	-2.8	
	comp=Z,47nm,1.4s									
VNA2	Neumayer--Watz	57.47	160	P		P		23 04 32.2	-0.2	
	comp=Z,14µmcomp=Z,1µm,1.0s,comp=Z,14µm									
SACV	Santiago Islan	57.65	52	P		P		23 04 33.8	-0.7	
SACV	Santiago Islan	57.65	52	⇓P		P		23 04 34.0	-0.5	
SACV	Santiago Islan	57.65	52	P		P		23 04 34.3	-0.2	
	comp=Z,3µmcomp=Z,244nm,1.1s,comp=Z,3µm									
SHEL	Horse Pasture	57.80	94	*i* P		P		23 04 36.3	+0.6	
SHEL	Horse Pasture	57.80	94	⇑P		P		23 04 35.6	-0.1	
SHEL	Horse Pasture	57.80	94	P		P		23 04 35.9	+0.2	
	comp=Z,484nm,0.7s									
SHEL				pP		pP		23 05 18.6	+1.6	
SHEL	Horse Pasture	57.80	94	P		P		23 04 35.6	-0.1	
352A	Blakely	58.02	342	IAmb		IAmb	23 06 37.2			
	comp=Z,1µm,0.9s									
ZAIG	Zacatecas	58.10	321	P		P		23 04 38.8	+1.0	
	comp=Z,8µmcomp=Z,494nm,1.5s									
BRAL	Brewton	58.37	340	⇑P		P		23 04 38.6	-0.4	
NHSC	New Hope	58.42	347	⇑P		P		23 04 40.3	+0.9	
250A	Grady	58.88	341	IAmb		IAmb	23 06 32.6			
	comp=Z,1µm,0.9s									
Y58A	Scranton	59.10	348	IAmb		IAmb	23 04 46.5			
	comp=Z,935nm,0.7s									
SNAA	Sanae	59.10	161	⇓P		P		23 04 43.3	-0.5	
	comp=Z,9µm,0.8s									
SNAA				⇑S		S		23 12 37.4	+0.4	
	comp=N,1µm,1.3s									
SNAA				⇓SKS			23 22 54.2			
	comp=N,30nm,1.0s									
SNAA				⇓P'P'bc		P'P'bc		23 34 23.6	-3.3	
	comp=Z,121nm,0.9s									
SNAA	Sanae	59.10	161	P		P		23 04 43.1	-0.7	
	comp=Z,372nm,0.7s,baz=287,slow=6.7,SNR=299									
SNAA				S		S		23 12 37.4	+0.4	
	comp=Z,16nm,1.0s,baz=285,slow=20,SNR=12									
	comp=Z,372nm,0.7s									
SNAA	Sanae	59.10	161	P		P		23 04 42.7	-1.2	
SNAA				IAmb		IAmb	23 04 45.9			
	comp=Z,1µm,1.2s									
SNAA	Sanae	59.10	161	⇑P		P		23 04 43.3	-0.5	
SNAA	Sanae	59.10	161	P		P		23 04 43.5	-0.4	
	comp=Z,11µmcomp=Z,892nm,1.2s,comp=Z,11µm									
Y57A	Sumter	59.35	347	IAmb		IAmb	23 04 47.8			
	comp=Z,759nm,0.8s									
346A	Big Creek Wild	59.36	338	IAmb		IAmb	23 04 47.5			
	comp=Z,543nm,0.7s									
GOGA	Godfrey	59.46	344	IAmb		IAmb	23 06 33.3			
	comp=Z,609nm,0.9s									
GOGA	Godfrey	59.46	344	P		P		23 04 45.5	-1.1	
	comp=Z,7µmcomp=Z,495nm,1.4s									
KVTX	Kingsville	59.49	328	IAmb		IAmb	23 06 27.8			
	comp=Z,1µm,0.8s									
KVTX	Kingsville	59.49	328	P		P		23 04 49.0	+2.1	
	comp=Z,14µmcomp=Z,918nm,1.4s									
X58A	Rowland	59.67	348	IAmb		IAmb	23 04 49.9			
	comp=Z,1µm,0.8s									
JSC	Jenkinsville	59.78	346	IAmb		IAmb	23 04 50.7			
	comp=Z,650nm,0.9s									
HODGE	Hodges	59.96	345	IAmb		IAmb	23 06 30.4			
	comp=Z,572nm,0.9s									
BIRD	Birdtown, Kers	59.97	347	IAmb		IAmb	23 04 52.1			
	comp=Z,778nm,0.9s									
Y52A	Lilburn	60.05	344	P		P		23 04 49.2	-1.4	
Y52A				IAmb		IAmb	23 06 30.4			
	comp=Z,616nm,0.8s									
LRAL	Lakeview Retre	60.08	341	⇑P		P		23 04 48.2	-2.7	
PAULI	Pauline	60.42	346	IAmb		IAmb	23 06 28.4			
	comp=Z,732nm,0.9s									
VBMS	Vicksburg	60.48	337	IAmb		IAmb	23 06 23.9			
	comp=Z,2µm,0.9s									
735A	Kenedy	60.55	329	IAmb		IAmb	23 06 22.3			
	comp=Z,830nm,0.8s									
Z47A	Carrollton	60.56	340	IAmb		IAmb	23 06

TXAR PKPPKP **P'P'df** **23 34 07.2 +0.6**
comp=Z,5.2nm,1.1s,baz=273,slow=2.4,SNR=8.0
comp=Z,73nm,0.8s
TXAR Lajitas Array 63.87 325 P **P** **23 05 15.7 -0.7**
TX31 Lajitas Ar. Si 63.87 325 IAmb IAmb 23 06 05.8
comp=Z,958nm,1.3s
Q56A Snyder Ridge, 64.01 350 IAmb IAmb 23 06 15.3
comp=Z,505nm,1.0s
HICK Hickman 64.01 340 P **P** **23 05 16.0 -1.0**
PLPT Palo Pinto 64.12 331 IAmb IAmb 23 06 04.7
comp=Z,959nm,0.9s
LCAR Lake Charles 64.20 338 IAmb IAmb 23 06 05.9
comp=Z,752nm,0.9s
P57A Homestead Farm 64.26 351 IAmb IAmb 23 06 15.1
comp=Z,853nm,1.4s
R50A Paris 64.31 345 IAmb IAmb 23 06 09.8
comp=Z,1µm,1.2s
PSUB Penn St. - Bra 64.36 353 P **P** **23 05 18.6 -0.5**
Q52A Bidwell 64.51 347 IAmb IAmb 23 06 10.1
comp=Z,780nm,1.0s
R49A Shelbyville 64.52 344 IAmb IAmb 23 06 09.4
comp=Z,651nm,1.0s
MVL Millersville 64.54 352 P **P** **23 05 19.5 -0.8**
MVL IAmb IAmb 23 06 15.1
comp=Z,353nm,0.8s
ABTX Abilene, Hawle 64.56 330 IAmb IAmb 23 06 00.8
comp=Z,998nm,0.9s
MCWV Mont Chateau 64.72 349 ⇓P **P** **23 05 21.3 -0.2**
WCI Wyandotte Cave 64.75 343 P **P** **23 05 19.7 -2.0**
WCI Wyandotte Cave 64.75 343 ⇓P **P** **23 05 19.9 -1.9**
WCI Wyandotte Cave 64.75 343 P **P** **23 05 20.1 -1.6**
comp=Z,12µmcomp=Z,770nm,0.8s
PAGS Pennsylvania G 64.81 352 IAmb IAmb 23 06 13.2
comp=Z,746nm,0.8s
CGM3 Cape Girardeau 64.84 340 IAmb IAmb 23 06 04.9
comp=Z,954nm,1.3s
USIN University of 64.87 342 IAmb IAmb 23 06 06.8
comp=Z,889nm,0.9s
BRNJ Basking Ridge 65.01 354 P **P** **23 05 23.5 +0.2**
229A Bryant Ranch 65.05 328 IAmb IAmb 23 05 59.6
comp=Z,568nm,0.9s
CPNY Central Park 65.06 354 IAmb IAmb 23 06 15.1
comp=Z,396nm,0.8s
P52A Corning 65.12 347 IAmb IAmb 23 05 25.3
comp=Z,621nm,0.8s
N62A Caumsett State 65.16 355 IAmb IAmb 23 06 14.9
comp=Z,941nm,0.8s
P51A Williamsport 65.17 346 IAmb IAmb 23 06 06.3
comp=Z,696nm,0.9s
TPB01 Permian Basin 65.21 326 IAmb IAmb 23 05 58.8
comp=Z,780nm,0.9s
PAL Palisades 65.27 354 P **P** **23 05 24.8 -0.2**
PAL pmax pmax
comp=Z,584nm,0.8s
PAL Palisades 65.27 354 P **P** **23 05 24.8 -0.2**
PAL IAmb IAmb 23 06 14.1
comp=Z,584nm,0.8s
O54A Avella 65.32 349 IAmb IAmb 23 06 08.3
comp=Z,726nm,0.8s
HHAR Hobbs 65.37 336 IAmb IAmb 23 05 58.5
comp=Z,738nm,0.9s
SSPA Standing Stone 65.37 351 P **P** **23 05 25.1 -0.5**
SSPA IAmb IAmb 23 06 11.8
comp=Z,975nm,1.1s
SSPA Standing Stone 65.37 351 ⇓P **P** **23 05 25.2 -0.4**
SSPA Standing Stone 65.37 351 P **P** **23 05 26.2 +0.5**
comp=Z,12µmcomp=Z,249nm,2.0s,comp=Z,12µm
N58A Sunbury 65.41 352 IAmb IAmb 23 06 10.8
comp=Z,746nm,0.9s
TPB06 Permian Basin 65.48 326 IAmb IAmb 23 05 57.8
comp=Z,868nm,0.9s
SN07 Snyder 07 65.53 329 IAmb IAmb 23 05 28.6
comp=Z,516nm,0.8s
ODSA Odessa 65.53 327 P **P** **23 05 26.2 -0.9**
O53A New Philadelph 65.54 348 IAmb IAmb 23 06 06.5
comp=Z,871nm,0.9s
U38A Gravette 65.67 336 IAmb IAmb 23 05 57.0
comp=Z,846nm,1.0s
P48A Milroy 65.69 344 IAmb IAmb 23 06 02.3
comp=Z,1µm,0.9s
BLO Bloomington 65.70 344 IAmb IAmb 23 06 02.6
comp=Z,741nm,0.8s
FVM French Village 65.71 340 IAmb IAmb 23 05 29.3
comp=Z,1µm,1.3s
OLIL Olney 65.71 342 IAmb IAmb 23 06 00.6
comp=Z,904nm,0.9s
VHRN Van Horn 65.71 325 IAmb IAmb 23 05 56.8
comp=Z,2µm,1.1s
POST Post 65.80 329 P **P** **23 05 27.7 -0.9**
POST IAmb IAmb 23 05 54.5
comp=Z,961nm,0.9s
QSPA South Pole Qui 65.92 180 P **P** **23 05 29.1 -0.1**
comp=Z,784nm,0.8s,baz=160,slow=1.7,SNR=521
QSPA S **S** **23 13 57.7 -4.5**
comp=Z,7.1nm,0.6s,baz=180,slow=11,SNR=9.1
QSPA PKPPKP **P'P'df** **23 34 04.7 -0.5**
comp=Z,46nm,1.0s,baz=270,slow=1.7,SNR=16
comp=Z,784nm,0.8s
QSPA South Pole Qui 65.92 180 P **P** **23 05 28.7 -0.4**
QSPA IAmb IAmb 23 05 31.5
comp=Z,695nm,0.8s
QSPA South Pole Qui 65.92 180 P **P** **23 05 29.2 +0.1**
comp=Z,18µmcomp=Z,1µm,0.9s
WMOK Wichita Mounta 65.96 332 ⇓P **P** **23 05 28.1 -1.5**
WMOK Wichita Mounta 65.96 332 P **P** **23 05 28.3 -1.3**
comp=Z,11µmcomp=Z,820nm,1.2s
KSPA Keystone Colle 66.00 353 IAmb IAmb 23 06 08.9
comp=Z,452nm,0.9s
NPNY Mohonk Preserv 66.03 354 IAmb IAmb 23 06 11.4
comp=Z,528nm,0.8s
CCM Cathedral Cave 66.04 339 P **P** **23 05 28.9 -1.1**
CCM pP **pP** **23 06 13.2 +0.9**
O49A Covington 66.13 346 IAmb IAmb 23 06 01.1
comp=Z,914nm,0.9s
TPB28 66.16 325 IAmb IAmb 23 05 53.6
comp=Z,1µm,0.9s
PAOC Oil Creek Stat 66.50 350 IAmb IAmb 23 06 03.2
comp=Z,1µm,1.0s
R40A Maddies Statio 66.59 339 IAmb IAmb 23 05 55.1
comp=Z,892nm,0.9s
HRV Adam Dziewonsk 66.59 356 P **P** **23 05 33.3 -0.1**
HRV Adam Dziewonsk 66.59 356 P **P** **23 05 34.0 +0.6**
comp=Z,12µmcomp=Z,290nm,1.2s
MNTX Cornudas Mount 66.64 325 P **P** **23 05 33.1 -0.9**
comp=Z,9µmcomp=Z,875nm,1.3s
BINY Binghamton 66.66 353 IAmb IAmb 23 05 36.4
comp=Z,689nm,1.1s
BINY Binghamton 66.66 353 P **P** **23 05 34.7 +0.7**
comp=Z,9µmcomp=Z,746nm,1.1s
OK051 E0350 and S346 66.67 334 P **P** **23 05 34.1 0.0**
K62A Royalston 66.79 356 P **P** **23 05 35.2 +0.5**
K62A IAmb IAmb 23 06 09.5
comp=Z,480nm,0.9s
L56A Greenwood 66.80 352 IAmb IAmb 23 06 04.6
comp=Z,981nm,0.8s
T35A Sooner Cattle 66.90 335 P **P** **23 05 34.7 -0.9**
TRY Troy 66.96 355 IAmb IAmb 23 06 06.9
comp=Z,536nm,1.1s
M50A Fremont 67.01 347 IAmb IAmb 23 05 57.9
comp=Z,944nm,0.8s
BLOK Blackwell 67.04 334 P **P** **23 05 35.8 -0.6**
BLOK IAmb IAmb 23 05 49.6
comp=Z,1µm,0.9s
MSTX Muleshoe 67.14 328 IAmb IAmb 23 05 39.2
comp=Z,1µm,1.1s
K57A Scipio Center 67.25 352 IAmb IAmb 23 06 03.8
comp=Z,717nm,1.0s
ELIB Princess Elisa 67.26 160 *d*P **P** **23 05 37.4 -0.2**
comp=Z,482nm,0.6s
ELIB *d*PcP **PcP** **23 06 05.7 +1.6**
EPT El Paso 67.29 324 IAmb IAmb 23 05 48.3
comp=Z,798nm,1.0s
SRIG Santa Rosalia 67.31 317 P **P** **23 05 38.8 +0.5**
SRIG Santa Rosalia 67.31 317 P **P** **23 05 40.4 +2.1**
comp=Z,8µmcomp=Z,403nm,1.8s
AMTX Amarillo 67.38 330 IAmb IAmb 23 05 46.9
comp=Z,1µm,0.9s
J61A Chester 67.49 356 IAmb IAmb 23 06 05.9
comp=Z,446nm,0.8s
P40A Paris 67.64 339 P **P** **23 05 38.8 -1.3**
HSIG 67.74 319 P **P** **23 05 41.1 +0.1**
HSIG IAmb IAmb 23 05 46.4
comp=Z,1µm,1.3s
J59A Piesco 67.76 354 IAmb IAmb 23 06 01.9
comp=Z,683nm,0.8s
HNH Hanover 67.83 356 IAmb IAmb 23 06 07.0
comp=Z,546nm,1.1s

J57A Williamstown 67.86 353 IAmb IAmb 23 05 60.0
comp=Z,672nm,0.8s
MEDO Medina 67.93 351 IAmb IAmb 23 05 57.4
comp=Z,1µm,0.9s
DBIC Dimbokro 67.96 71 P **P** **23 05 42.1 -0.6**
comp=Z,210nm,0.7s,baz=239,slow=6.7,SNR=191
DBIC PKPPKP **P'P'df** **23 33 58.3 -3.8**
comp=Z,23nm,1.1s,baz=57,slow=4.0,SNR=5.6
comp=Z,210nm,0.7s
DBIC Dimbokro 67.96 71 P **P** **23 05 41.8 -0.9**
DBIC Dimbokro 67.96 71 P **P** **23 05 41.3 -1.4**
DBIC Dimbokro 67.96 71 P **P** **23 05 42.5 -0.2**
comp=Z,4µmcomp=Z,436nm,0.9s
DBIC Dimbokro 67.96 71 P **P** **23 05 41.7 -0.9**
DBIC PcP **PcP** **23 06 06.4 -1.4**
MCVT Middlebury Col 68.12 355 IAmb IAmb 23 06 03.9
comp=Z,1µm,1.7s
K50A Casco 68.25 348 IAmb IAmb 23 05 52.7
comp=Z,1µm,1.1s
LBNH Lisbon 68.34 356 P **P** **23 05 44.9 +0.5**
LBNH pmax pmax
comp=Z,364nm,0.9s
LBNH Lisbon 68.34 356 P **P** **23 05 44.9 +0.5**
N41A Harden Midland 68.34 341 IAmb IAmb 23 05 46.5
comp=Z,1µm,1.2s
WCNY West Carthage 68.39 353 IAmb IAmb 23 05 57.7
comp=Z,488nm,0.9s
PECO Prince Edward 68.49 352 IAmb IAmb 23 05 56.0
comp=Z,208nm,0.8s
WVL Wayville 68.56 358 IAmb IAmb 23 06 03.6
comp=Z,615nm,0.8s
EMMW East Machias 68.66 360 IAmb IAmb 23 06 05.5
comp=Z,708nm,0.9s
HAL Halifax 68.66 3 P **P** **23 05 46.1 -0.2**
HAL pmax pmax
comp=Z,546nm,1.0s
HAL Halifax 68.66 3 P **P** **23 05 46.1 -0.2**
HAL IAmb IAmb 23 06 10.0
comp=Z,546nm,1.0s
FLET Fletcher 68.88 356 IAmb IAmb 23 05 58.6
comp=Z,1µm,0.8s
LONY Lake Ozonia 68.91 354 IAmb IAmb 23 05 56.4
comp=Z,466nm,0.9s
GGN Saint George 69.07 0 P **P** **23 05 49.4 +0.6**
GGN IAmb IAmb 23 06 04.2
comp=Z,908nm,0.8s
DELO Deloro Mine 69.15 352 IAmb IAmb 23 05 52.5
comp=Z,1µm,1.0s
G65A Princeton 69.15 360 IAmb IAmb 23 06 03.2
comp=Z,955nm,0.8s
PKME Peaks-Kenny Pk 69.25 358 IAmb IAmb 23 06 00.9
comp=Z,742nm,0.8s
WBO Williamsburg 69.36 354 IAmb IAmb 23 05 53.5
comp=Z,967nm,0.8s
GBN Guysborough 69.55 4 P **P** **23 05 51.3 -0.4**
GBN IAmb IAmb 23 06 08.8
comp=Z,938nm,0.8s
SADO Sadowa 69.60 351 LR LR 23 41 17.7
comp=Z,1µm,18.2s,baz=204,slow=40
MNTQ Montreal, Queb 69.71 355 IAmb IAmb 23 05 53.7
comp=Z,861nm,0.8s
ANMO Albuquerque 69.74 326 PKPPKP 23 33 55.2
comp=Z,22nm,1.1s,baz=302,slow=4.8,SNR=12
ANMO Albuquerque 69.74 326 *de*P **P** **23 05 54.4 +0.9**
ANMO pmax pmax
comp=Z,393nm,1.0s
F64A Sherman 69.82 359 IAmb IAmb 23 05 58.9
comp=Z,965nm,0.9s
LMN Caledonia Moun 69.83 2 P **P** **23 05 53.0 -0.6**
LMN IAmb IAmb 23 06 03.1
comp=Z,1µm,0.8s
TAOE Nuku Hiva Isla 71.02 269 *e*P **P** **23 06 02.1 +0.5**
comp=Z,1µm,1.4s
TAOE *e*S **S** **23 15 00.7 -3.4**
comp=Z,5µm,26.7s
TAOE *e*LR LR 23 27 58.4
comp=Z,2µm,24.5s
TAOE Nuku Hiva Isla 71.02 269 P **P** **23 06 03.6 +2.0**
TAOE Nuku Hiva Isla 71.02 269 P **P** **23 06 04.7 +3.1**
comp=Z,14µmcomp=Z,761nm,1.6s
MACI Morro de la Ar 71.42 46 P **P** **23 06 03.2 -0.5**
MACI Morro de la Ar 71.42 46 P **P** **23 06 04.9 +1.1**
comp=Z,366nm,0.8s
ACRG Accra 71.53 75 P **P** **23 06 03.4 -1.2**
ACRG Accra 71.53 75 P **P** **23 06 04.1 -0.4**
comp=Z,4µmcomp=Z,224nm,0.6s
CALA Caldeira 72.14 31 *e*pP pP 23 06 45.5 -5.1
PCAN Candelaria 72.15 31 *e*pP pP 23 06 44.7 -5.9
PICO Pico 72.21 31 *e*pP pP 23 06 45.0 -6.0
PID Ribeirinha 72.31 31 *e*pP pP 23 06 45.5 -6.1
ROSA Rosais 72.47 31 *e*pP pP 23 06 49.0 -3.5
PSMN Pico do Norte, 72.69 34 *e*pP pP 23 06 49.8 -4.0
PGRA Graciosa 72.84 31 *e*pP pP 23 06 49.4 -5.3
ADH Angra Heroismo 72.90 32 *e*pP pP 23 06 50.9 -4.2
PAGU Agualva, Azore 73.01 32 *e*pP pP 23 06 51.2 -4.6
ISCO Idaho Springs 73.19 330 P **P** **23 06 16.1 +1.9**
comp=Z,7µmcomp=Z,541nm,1.3s
SBA Scott Base 73.40 190 P **P** **23 06 14.9 +0.4**
SBA pmax pmax
comp=Z,841nm,1.4s
SBA Scott Base 73.40 190 P **P** **23 06 14.8 +0.4**
SBA IAmb IAmb 23 06 18.3
comp=Z,841nm,1.4s
SBA Scott Base 73.40 190 P **P** **23 06 15.7 +1.2**
comp=Z,11µmcomp=Z,528nm,1.3s,comp=Z,11µm
PMOZ Porto Moniz, M 74.07 42 *e*P **P** **23 06 20.6 +1.4**
PMOZ *e*S **S** **23 15 37.3 -0.6**
TBI Tubuai 74.19 251 *e*P **P** **23 06 20.9 +0.8**
comp=Z,2µm,1.2s
TBI *e*LQ LQ 23 26 12.3
comp=Z,22µm,28.8s
TBI *e*LR LR 23 29 23.3
comp=Z,10µm,23.8s
TBI *e*LR LR 23 29 24.7
comp=Z,2µm,23.2s
PFO Pinyon Flats O 74.31 319 LR LR 23 35 27.6
comp=Z,1µm,20.0s,baz=120,slow=33
PFO Pinyon Flats O 74.31 319 *de*P **P** **23 06 21.7 +1.1**
PFO pmax pmax
comp=Z,370nm,0.9s
VNDA Vanda 74.41 190 P **P** **23 06 21.0 +0.6**
comp=Z,295nm,0.9s,baz=135,slow=5.3,SNR=285
VNDA PKPPKP 23 33 47.5
comp=Z,1.4nm,0.8s,baz=314,slow=7.3,SNR=3.8
comp=Z,295nm,0.9s
VNDA Vanda 74.41 190 P **P** **23 06 20.6 +0.2**
VNDA pmax pmax
comp=Z,383nm,1.1s
VNDA Vanda 74.41 190 P **P** **23 06 20.6 +0.2**
VNDA Vanda 74.41 190 P **P** **23 06 21.4 +1.0**
comp=Z,7µmcomp=Z,393nm,1.0s
VNDA Vanda 74.41 190 P **P** **23 06 20.9 +0.5**
VNDA PcP **PcP** **23 06 33.7 -0.5**
EYMN Ely 75.18 343 P **P** **23 06 24.3 -0.8**
comp=Z,7µmcomp=Z,513nm,1.1s
CVNA Calvinia 75.20 118 P **P** **23 06 26.8 +0.9**
comp=Z,2µmcomp=Z,157nm,1.1s
SUR Sutherland 75.74 119 LR LR 23 38 35.0
comp=Z,3µm,18.1s,baz=248,slow=35
SUR Sutherland 75.74 119 P **P** **23 06 29.4 +0.3**
SUR Sutherland 75.74 119 P **P** **23 06 30.1 +1.0**
comp=Z,261nm,1.0s
SUR Sutherland 75.74 119 P **P** **23 06 29.8 +0.7**
WIN Windhoek 76.02 109 P **P** **23 06 30.2 -0.6**
comp=Z,1µmcomp=Z,57nm,1.0s
WIN Windhoek 76.02 109 P **P** **23 06 30.1 -0.8**
RSSD Black Hills 76.03 334 P **P** **23 06 31.9 +1.6**
comp=Z,8µmcomp=Z,367nm,0.7s
PPT2 Papeete2 76.32 257 *e*S **S** **23 15 59.0 -4.4**
comp=Z,7µm,28.8s
PPT2 *e*SS **SS** **23 20 52.1 -9.0**
comp=Z,3µm,24.0s
PPT2 *e*LQ LQ 23 27 11.2
comp=Z,11µm,28.8s
PPT2 *e*LR LR 23 30 21.7
comp=Z,4µm,33.2s
PPT2 *e*LR LR 23 30 28.7
comp=Z,5µm,29.8s
OSI Osito Audit: C 76.36 318 IAmb IAmb 23 06 35.2
comp=Z,2µm,2.0s
AGMN Agassiz Nation 76.73 341 P **P** **23 06 34.8 +1.0**
comp=Z,8µmcomp=Z,538nm,1.0s
TORD Torodi Ar. Bea 76.74 69 P **P** **23 06 34.3 -0.4**
comp=Z,99nm,0.4s,baz=250,slow=5.5,SNR=200
TORD S **S** **23 16 05.1 -2.7**
comp=Z,22nm,1.1s,baz=258,slow=7.4,SNR=5.8

TORD PKKPbc **PKKPbc** **23 25 44.1 +1.1**
comp=Z,2.1nm,0.7s,baz=11,slow=3.0,SNR=3.6
TORD PKPPKP **P'P'df** **23 33 45.6 -1.1**
comp=Z,2.2nm,0.9s,baz=15,slow=2.0,SNR=4.3
TORD LR LR 23 40 38.1
comp=Z,5µm,19.4s,baz=26,slow=36
comp=Z,99nm,0.4s
TORD Torodi Ar. Bea 76.74 69 P **P** **23 06 33.3 -1.4**
PDAR Pinedale Array 77.36 329 P **P** **23 06 37.7 -0.1**
comp=Z,89nm,0.8s,baz=133,slow=7.3,SNR=5.7
PDAR PKKPbc **PKKPbc** **23 25 42.0 -2.0**
comp=Z,1.1nm,0.4s,baz=101,slow=1.5,SNR=4.2
PDAR PKPPKP **P'P'df** **23 33 45.4 +2.1**
comp=Z,1.4nm,1.0s,baz=89,slow=26,SNR=2.0
comp=Z,89nm,0.8s
PDAR Pinedale Array 77.36 329 P **P** **23 06 38.6 +0.8**
HWUT Hardware Ranch 77.43 327 P **P** **23 06 39.6 +1.4**
comp=Z,10µmcomp=Z,657nm,1.3s
TSUM Tsumeb 77.65 106 P **P** **23 06 39.0 -0.9**
TSUM Tsumeb 77.65 106 *i* P **P** **23 06 39.3 -0.6**
TSUM Tsumeb 77.65 106 P **P** **23 06 39.7 -0.2**
comp=Z,2µmcomp=Z,168nm,0.8s
TSUM Tsumeb 77.65 106 P **P** **23 06 39.6 -0.2**
TSUM Tsumeb 77.65 106 P **P** **23 06 39.0 -0.9**
TSUM PcP **PcP** **23 06 48.7 -0.7**
ALKP Alkanpan, Nort 77.74 117 P **P** **23 06 39.8 -0.5**
ALKP IAmb IAmb 23 06 42.4
comp=Z,358nm,0.7s
AHID Auburn Hatcher 78.08 328 P **P** **23 06 43.0 +1.3**
comp=Z,12µmcomp=Z,1µm,1.2s
ULM Lac du Bonnet 78.48 342 P **P** **23 06 43.1 -0.4**
comp=Z,344nm,0.8s,baz=139,slow=5.4,SNR=10
ULM PKKPbc **PKKPbc** **23 25 38.9 -2.8**
comp=Z,9.2nm,0.9s,baz=339,slow=2.3,SNR=5.8
comp=Z,344nm,0.8s
ULM Lac du Bonnet 78.48 342 *d* i P **P** **23 06 43.5 0.0**
ULM Lac du Bonnet 78.48 342 IAmb IAmb 23 06 45.0
comp=Z,491nm,0.9s
KOOLE Kule 78.53 110 P **P** **23 06 44.5 -0.2**
NVAR Mina Array Bea 78.72 321 P **P** **23 06 46.4 +1.1**
comp=Z,90nm,0.7s,baz=150,slow=5.3,SNR=10
NVAR PKKPbc **PKKPbc** **23 25 40.2 -0.4**
comp=Z,2.3nm,0.7s,baz=299,slow=1.5,SNR=5.8
NVAR PKPPKP **P'P'df** **23 33 42.4 +1.2**
comp=Z,3.6nm,1.0s,baz=255,slow=3.7,SNR=4.2
NVAR LR LR 23 42 08.1
comp=Z,917nm,19.3s,baz=128,slow=36
comp=Z,90nm,0.7s
NVAR Mina Array Bea 78.72 321 P **P** **23 06 46.1 +0.7**
SCHQ Schefferville 78.80 0 PKKPbc PKKPbc 23 25 39.0 -2.3
comp=Z,3.0nm,0.6s,baz=7.5,slow=6.4,SNR=3.9
LKGWB Lokgwabe 78.99 111 P **P** **23 06 49.1 +1.9**
TIO Tiouine 79.34 49 P **P** **23 06 50.4 +1.6**
TIO SKS **S** **23 16 37.5 +2.2**
TIO Tiouine 79.34 49 P **P** **23 06 50.8 +1.9**
TIO Tiouine 79.34 49 P **P** **23 06 49.9 +1.1**
comp=Z,6µmcomp=Z,633nm,1.1s,comp=Z,6µm
TIO pP **pP** **23 07 33.2 +0.8**
SAO San Andreas Ge 79.45 318 P **P** **23 06 50.2 +1.1**
SAO pmax pmax
comp=Z,108nm,0.9s
SAO San Andreas Ge 79.45 318 P **P** **23 06 50.2 +1.1**
GRHM Grahamstown, E 79.79 122 P **P** **23 06 50.9 -0.4**
GRTLG Ghanzi 80.01 109 P **P** **23 06 52.6 -0.2**
HLID Hailey 80.29 327 P **P** **23 06 55.4 +1.7**
comp=Z,12µmcomp=Z,1µm,1.0s
BOSA Boshof 80.67 117 P **P** **23 06 55.8 -0.4**
comp=Z,404nm,0.9s,baz=257,slow=4.1,SNR=440
BOSA PKKPbc **PKKPbc** **23 25 34.5 +0.3**
comp=Z,13nm,0.8s,baz=106,slow=1.6,SNR=9.2
BOSA PKPPKP **P'P'df** **23 33 39.3 -1.4**
comp=Z,4.3nm,0.9s,baz=16,slow=7.4,SNR=3.6
comp=Z,404nm,0.9s
BOSA Boshof 80.67 117 *i* P **P** **23 06 56.1 -0.1**
BOSA Boshof 80.67 117 P **P** **23 06 55.0 -1.1**
BOSA Boshof 80.67 117 P **P** **23 06 56.0 -0.2**
comp=Z,4µmcomp=Z,394nm,1.0s
BOSA Boshof 80.67 117 P **P** **23 06 56.0 -0.2**
BOSA Boshof 80.67 117 P **P** **23 06 55.8 -0.4**
FARB Farallon Islan 80.99 318 P **P** **23 06 57.1 -0.2**
MAW Mawson 81.18 163 P **P** **23 06 58.2 +0.3**
comp=Z,162nm,1.0s,comp=Z,0.0nm
MAW Mawson 81.18 163 P **P** **23 06 58.0 0.0**
comp=Z,511nm,0.8s,baz=214,slow=6.0,SNR=250
MAW PKKPbc **PKKPbc** **23 25 32.6 -1.4**
comp=Z,17nm,0.8s,baz=82,slow=4.1,SNR=6.3
MAW PKPPKP **P'P'df** **23 33 38.5 +0.3**
comp=Z,6.7nm,1.0s,baz=106,slow=9.1,SNR=2.6
comp=Z,511nm,0.8s
MAW Mawson 81.18 163 P **P** **23 06 57.5 -0.4**
MAW Mawson 81.18 163 P **P** **23 06 58.1 +0.3**
comp=Z,2µmcomp=Z,162nm,1.0s
SUTB Sutter Butte 81.26 320 IAmb IAmb 23 07 01.5
comp=Z,2µm,1.7s
J08A Circle Bar Ran 82.21 325 IAmb IAmb 23 07 06.8
comp=Z,546nm,0.9s
MDT Midelt 82.27 49 LR LR 23 45 32.9
comp=Z,2µm,18.1s,baz=280,slow=37
MORF Marmelete 82.29 43 *e*P **P** **23 07 04.4 +0.2**
MORF IAmb IAmb 23 07 07.7
comp=Z,365nm,1.9s
MORF *e*S **SKSac** **23 17 08.2 -0.4**
MORF Marmelete 82.29 43 *e*P **P** **23 07 04.8 +0.6**
MORF *e*tx tx 23 07 44.4
MORF Marmelete 82.29 43 *e*P **PKKPbc** **23 25 32.7 +0.7**
IFR Ifrane 82.32 48 P **P** **23 07 05.9 +1.3**
LBTB Lobatse 82.34 114 PKKPbc PKKPbc 23 25 29.4 -0.8
comp=Z,30nm,0.7s,baz=97,slow=2.7,SNR=17
LBTB PKPPKP **P'P'df** **23 33 34.6 -3.2**
comp=Z,5.2nm,1.0s,baz=64,slow=5.6,SNR=3.4
PTEO Sao Teotonio 82.40 43 *e*P **P** **23 07 06.7 +2.0**
PTEO IAmb IAmb 23 07 09.8
comp=Z,346nm,1.4s
PTEO *e*tx tx 23 07 50.9
PBDV Barranco-do-Ve 82.71 44 P **P** **23 07 10.9 +4.6**
PBDV Barranco-do-Ve 82.71 44 *e*P **P** **23 07 08.9 +2.6**
PBDV IAmb IAmb 23 07 11.4
comp=Z,248nm,1.2s
PBDV *e*tx tx 23 07 53.8
LIS Lisbon 82.86 42 *e*P **P** **23 07 07.4 +0.4**
LIS IAmb IAmb 23 07 08.7
comp=Z,298nm,1.4s
LIS *e*SKSac **SKSac** **23 17 13.9 +1.7**
LIS Lisbon 82.86 42 *e*P **P** **23 07 09.4 +2.4**
LIS *e*tx tx 23 07 55.0
PCVE Castro Verde 82.88 43 P **P** **23 07 09.4 +2.2**
PCVE Castro Verde 82.88 43 *e*P **P** **23 07 08.6 +1.4**
PCVE *e*tx tx 23 07 54.1
PCVE Castro Verde 82.88 43 *e*P **PKKPbc** **23 25 31.4 +0.8**
PLOUS Minas do Lousa 82.89 43 *e*P **P** **23 07 08.4 +1.2**
PLOUS IAmb IAmb 23 07 11.5
comp=Z,108nm,1.2s
PLOUS *e*tx tx 23 07 54.7
MESJ Messejana 82.89 43 *e*P **P** **23 07 07.5 +0.2**
MESJ *e*SKSac **SKSac** **23 17 14.0 +1.5**
MESJ Messejana 82.89 43 *e*P **P** **23 07 08.7 +1.5**
MESJ *e*tx tx 23 07 54.7
MESJ Messejana 82.89 43 *e*P **PKKPbc** **23 25 30.4 -0.2**
PMAFR Mafra 82.93 42 P **P** **23 07 10.8 +3.4**
PMAFR Mafra 82.93 42 *e*tx tx 23 07 54.4
PVAQ Vaqueiros 82.94 44 *e*P **P** **23 07 09.1 +1.6**
PVAQ IAmb IAmb 23 07 12.4
comp=Z,178nm,1.5s
PVAQ *e*tx tx 23 07 55.3
PVAQ *e*S **SKSac** **23 17 14.6 +1.8**
EGRO El Granado 83.17 44 P **P** **23 07 10.0 +1.3**
MOE Montemor 83.23 42 *e*P **P** **23 07 10.6 +1.6**
MOE IAmb IAmb 23 07 16.2
comp=Z,192nm,1.1s
MOE *e*tx tx 23 07 56.8
MOE Montemor 83.23 42 *e*P **PKKPbc** **23 25 30.6 +0.7**
PSBE So Bento 83.58 41 *e*P **P** **23 07 11.9 +1.1**
PSBE IAmb IAmb 23 07 15.9
comp=Z,351nm,1.2s
PSBE *e*tx tx 23 07 57.1
PSBE So Bento 83.58 41 *e*P **PKKPbc** **23 25 29.7 +0.6**
PARRA Arraiolos 83.61 42 *e*P **P** **23 07 11.3 +0.4**
PARRA IAmb IAmb 23 07 15.6
comp=Z,136nm,1.5s
PARRA *e*tx tx 23 07 57.9
PARRA Arraiolos 83.61 42 *e*P **PKKPbc** **23 25 28.9 -0.1**
PMTG Montargil 83.65 42 *e*P **P** **23 07 12.9 +1.8**
PMTG IAmb IAmb 23 07 17.6
comp=Z,260nm,2.3s
PMTG *e*tx tx 23 07 58.2

PBAR Barrancos 83.84 43 *e*P **P** **23 07 13.1 +1.0**
PBAR IAmb IAmb 23 07 19.1
comp=Z,85nm,0.9s
PBAR *e*tx tx 23 07 59.0
PBAR Barrancos 83.84 43 *e*P **PKKPbc** **23 25 28.3 -0.1**
RAR Rarotonga 83.85 250 P **P** **23 07 14.9 +2.3**
RAR Rarotonga 83.85 250 P **P** **23 07 13.1 +0.5**
RAR Rarotonga 83.85 250 P **P** **23 07 14.0 +1.4**
comp=Z,286nm,1.2s
PESTR Estremoz 83.91 43 *e*P **P** **23 07 13.3 +0.8**
PESTR IAmb IAmb 23 07 16.2
comp=Z,104nm,2.2s
PSARD Sardoal 84.01 42 *e*P **P** **23 07 14.6 +1.7**
PSARD IAmb IAmb 23 07 18.3
comp=Z,196nm,1.8s
PSARD *e*tx tx 23 07 60.0
PSARD Sardoal 84.01 42 *e*P **PKKPbc** **23 25 28.5 +0.4**
PCAS Casmilo, Conde 84.09 41 *e*P **P** **23 07 13.9 +0.5**
PCAS IAmb IAmb 23 07 18.5
comp=Z,316nm,1.7s
PCAS *e*tx tx 23 08 01.2
PCAS Casmilo, Conde 84.09 41 *e*P **PKKPbc** **23 25 28.2 +0.2**
KSXB Camp Six Broad 84.16 321 IAmb IAmb 23 07 16.8
comp=Z,1µm,1.8s
FFC Flin Flon 84.20 341 *i* P **P** **23 07 14.8 +1.3**
FFC Flin Flon 84.20 341 P **P** **23 07 13.8 +0.3**
PMRV Marv??o 84.38 42 IAmb IAmb 23 07 19.6
comp=Z,120nm,1.6s
PMRV *e*tx tx 23 08 02.3
PMRV *e*S **SKSac** **23 17 23.7 +1.6**
PMRV Marv??o 84.38 42 *e*P **PKKPbc** **23 25 27.6 +0.4**
I05D Terrebonne, OR 84.40 324 IAmb IAmb 23 07 17.8
comp=Z,436nm,0.8s
PCBR Castelo Branco 84.58 42 *e*P **P** **23 07 17.1 +1.3**
PCBR IAmb IAmb 23 07 20.7
comp=Z,161nm,2.2s
PCBR *e*tx tx 23 08 02.9
SOOWA Sowa 84.63 110 P **P** **23 07 17.3 +0.6**
PTO Porto 84.71 40 *e*P **P** **23 07 17.9 +1.5**
PTO IAmb IAmb 23 07 21.8
comp=Z,311nm,1.3s
PTO *e*tx tx 23 08 03.5
PVIS Viseu 84.86 41 *e*P **P** **23 07 18.0 +0.7**
PVIS *e*tx tx 23 08 03.5
MTE Manteigas 84.88 41 *e*P **P** **23 07 18.4 +1.0**
MTE IAmb IAmb 23 07 20.5
comp=Z,279nm,2.4s
MTE *e*tx tx 23 08 02.7
MTE *e*S **SKSac** **23 17 26.0 +0.7**
MTE Manteigas 84.88 41 *e*P **PKKPbc** **23 25 26.7 +0.5**
BUCK Buck Mountain 85.19 323 IAmb IAmb 23 07 21.2
comp=Z,584nm,0.8s
PVRL Vila Real 85.31 41 *e*P **P** **23 07 20.9 +1.4**
PVRL IAmb IAmb 23 07 24.8
comp=Z,318nm,1.2s
PVRL *e*tx tx 23 08 07.3
POLO Lamas de Olo 85.33 40 *e*P **P** **23 07 20.5 +0.9**
POLO IAmb IAmb 23 07 24.9
comp=Z,92nm,1.7s
POLO *e*tx tx 23 08 06.5
POLO Lamas de Olo 85.33 40 *e*P **PKKPbc** **23 25 25.4 +0.3**
PCAB Cabril 85.40 40 *e*P **P** **23 07 20.9 +1.1**
PCAB IAmb IAmb 23 07 22.0
comp=Z,197nm,1.4s
PCAB *e*tx tx 23 08 06.8
PGAV Gavieira, Arco 85.42 40 *e*P **P** **23 07 20.4 +0.3**
PGAV IAmb IAmb 23 07 27.0
comp=Z,195nm,1.0s
PGAV *e*tx tx 23 08 06.5
PGAV *e*S **SKSac** **23 17 29.4 +0.7**
PGAV Gavieira, Arco 85.42 40 *e*P **PKKPbc** **23 25 23.6 -1.4**
I02E Swisshome, OR 85.61 323 IAmb IAmb 23 07 23.6
comp=Z,512nm,0.8s
COR Corvallis 85.62 323 P **P** **23 07 20.9 +0.1**
COR pmax pmax
comp=Z,715nm,0.9s
COR Corvallis 85.62 323 P **P** **23 07 20.9 +0.1**
COR IAmb IAmb 23 07 23.8
comp=Z,715nm,0.8s
COR Corvallis 85.62 323 P **P** **23 07 22.3 +1.5**
comp=Z,6µmcomp=Z,397nm,1.2s
G03D McMinnville, O 86.00 324 IAmb IAmb 23 07 25.6
comp=Z,1µm,1.7s
JRO Jston Ridge Ob 86.15 325 IAmb IAmb 23 07 25.8
comp=Z,629nm,1.3s
PBRG Braganca 86.22 41 *e*P **P** **23 07 25.6 +1.7**
PBRG IAmb IAmb 23 07 31.1
comp=Z,237nm,1.0s
PBRG *e*tx tx 23 08 10.9
PAB San Pablo 86.34 44 P **P** **23 07 26.1 +1.5**
comp=Z,4µmcomp=Z,224nm,1.2s
PAB pP **pP** **23 08 09.9 +1.0**
POGA Pongola 86.39 118 P **P** **23 07 26.4 +1.2**
comp=Z,209nm,1.2s
POGA Pongola 86.39 118 P **P** **23 07 25.9 +0.6**
CTZ Chatham Island 86.53 223 P **P** **23 07 28.8 +3.3**
MATP Matopo 86.64 111 PKKPbc PKKPbc 23 25 20.2 -0.1
comp=Z,36nm,0.9s,baz=158,slow=1.3,SNR=6.5
MATP LR LR 23 43 43.5
comp=Z,11µm,19.1s,baz=268,slow=34
MATP Matopo 86.64 111 *i* P **P** **23 07 27.4 +0.8**
ESDC Sonseca Array 86.66 44 P **P** **23 07 27.4 +1.3**
comp=Z,85nm,1.0s,baz=230,slow=5.2,SNR=12
ESDC PKiKP **PKiKP** **23 12 33.1 +1.6**
comp=Z,3.8nm,1.0s,baz=246,slow=0.6,SNR=1.7
ESDC PKKPbc **PKKPbc** **23 25 20.8 -1.0**
comp=Z,3.1nm,0.6s,baz=17,slow=2.6,SNR=20
ESDC PKPPKP **P'P'df** **23 33 25.7 -1.1**
comp=Z,1.6nm,0.9s,baz=0.4,slow=4.3,SNR=4.7
comp=Z,85nm,1.0s
ESDC Sonseca Array 86.66 44 P **P** **23 07 26.1 0.0**
ESDC IAmb IAmb 23 07 30.6
comp=Z,1µm,1.6s
BLWY Bulawayo 86.85 111 *i* P **P** **23 07 28.2 +0.5**
DRV Dumont d'Urvil 87.05 190 P **P** **23 07 27.6 +0.1**
RADR Rader Ridge 87.07 325 IAmb IAmb 23 07 30.5
comp=Z,595nm,0.9s
WISH Wishkah 87.51 325 IAmb IAmb 23 07 32.8
comp=Z,493nm,0.9s
MOPA Mopani 87.78 115 *i* P **P** **23 07 32.9 +1.0**
B04A Port Angeles 87.98 326 P **P** **23 07 32.5 +0.3**
A04D Lummi Island 88.01 327 IAmb IAmb 23 07 34.6
comp=Z,482nm,0.8s
PGC Sidney 88.34 326 IAmb IAmb 23 07 36.2
comp=Z,479nm,1.0s
LSZ Lusaka 88.50 106 PKKPbc PKKPbc 23 25 17.2 +1.5
comp=Z,31nm,0.7s,baz=60,slow=2.2,SNR=28
LSZ PKPPKP **P'P'df** **23 33 22.2 -4.3**
comp=Z,4.3nm,1.0s,baz=55,slow=4.4,SNR=5.2
BFSB Bamfield 89.31 326 IAmb IAmb 23 07 40.6
comp=Z,273nm,0.7s
CASY Casey 89.70 179 P **P** **23 07 40.2 +0.1**
CASY IAmb IAmb 23 07 42.9
comp=Z,778nm,0.9s
CASY Casey 89.70 179 P **P** **23 07 40.7 +0.7**
comp=Z,11µmcomp=Z,1µm,1.0s
H04S2 CROZET ISLANDS 90.34 143 P **P** **23 07 43.9 +0.7**
baz=256,slow=3.4,SNR=8.2
H04S3 CROZET ISLANDS 90.34 143 P **P** **23 07 43.9 +0.7**
baz=256,slow=3.4,SNR=6.4
H04S1 CROZET ISLANDS 90.36 143 P **P** **23 07 43.9 +0.6**
baz=256,slow=3.4,SNR=6.0
CRZF Crozet Islands 90.58 143 P **P** **23 07 43.9 -0.7**
CRZF Crozet Islands 90.58 143 P **P** **23 07 44.6 +0.1**
comp=Z,92nm,1.1s
VAL Valentia 90.70 31 P **P** **23 07 49.3 +4.6**
IGLA Glengowla, Co 92.06 30 P **P** 23 07 57.8 +6.8
BFZ Birch Farm 92.63 223 P **P** **23 07 56.7 +2.5**
IWEX Carrickbyrne, 92.64 32 P **P** **23 07 56.1 +2.4**
PUZ Puketiti 92.83 226 P **P** **23 07 58.5 +3.3**
BBB Bella Bella 92.88 327 IAmb IAmb 23 07 57.0
comp=Z,178nm,0.9s
BBB Bella Bella 92.88 327 P **P** **23 07 55.0 +0.2**
comp=Z,239nm,1.0s
MQZ McQueen's Vall 92.97 219 P **P** **23 07 56.8 +1.1**
MRZ Mangatainoka R 93.06 223 P **P** **23 07 57.5 +1.3**
MXZ Matakaoa Point 93.08 226 P **P** **23 07 59.5 +3.2**
SYZ Scrubby Hill 93.11 215 P **P** **23 07 58.8 +2.6**
SYZ Scrubby Hill 93.11 215 P **P** **23 07 57.8 +1.6**
MWZ Matawai 93.16 225 P **P** **23 07 59.5 +2.8**
TSZ Takapari Road 93.17 223 P **P** **23 07 59.1 +2.3**
GVZ Greta Valley S 93.21 220 P **P** **23 07 58.9 +2.1**
TUZ Tuapeka 93.23 216 P **P** **23 07 58.2 +1.4**
KHZ Kahutara 93.25 220 P **P** **23 07 59.3 +2.4**

ODZ Otahua Downs 93.27 217 P **P** **23 07 57.4 +0.4**
ODZ Otahua Downs 93.27 217 P **P** **23 07 59.0 +2.0**
comp=Z,76nm,1.6s
HAZ Te Kaha 93.31 226 P **P** **23 08 00.3 +3.0**
BKZ Black Stump Fm 93.35 224 P **P** **23 08 00.1 +2.5**
BKZ Black Stump Fm 93.35 224 P **P** **23 08 00.0 +2.5**
DSB Dublin 93.36 32 P **P** 23 08 01.9 +4.9
NIUE Niue 93.38 247 P **P** **23 08 01.7 +3.6**
comp=Z,586nm,1.3s
NIUE Niue 93.38 247 P **P** **23 08 00.7 +2.7**
URZ Urewera 93.47 225 PKKPbc PKKPbc 23 25 03.7 0.0
comp=Z,12nm,0.8s,baz=340,slow=8.9,SNR=3.7
URZ LR LR 23 42 55.9
comp=Z,2µm,21.5s,baz=325,slow=31
URZ Urewera 93.47 225 P **P** **23 07 59.2 +1.1**
URZ Urewera 93.47 225 P **P** **23 08 00.2 +2.2**
comp=Z,54nm,0.8s
TMZ Timaru 93.48 218 P **P** **23 07 59.3 +1.3**
APZ The Paps 93.52 214 P **P** **23 07 59.4 +1.3**
KEST Kesra 93.64 52 PKKPbc PKKPbc 23 25 03.9 -0.1
comp=Z,12nm,0.5s,baz=210,slow=1.9,SNR=33
LTZ Lake Taylor 93.76 219 P **P** **23 08 01.3 +1.9**
ILTH Belurgan, Co L 93.85 31 P P 23 08 05.5 +6.3
EAZ Earnscleugh 93.87 216 P **P** **23 08 01.1 +1.3**
RPZ Rata Peaks 93.88 218 P **P** **23 08 00.5 +0.6**
RPZ Rata Peaks 93.88 218 P **P** **23 08 01.8 +1.9**
LBZ Lake Benmore 93.94 217 P **P** **23 08 00.9 +0.8**
THZ Tophouse 94.02 220 P **P** **23 08 02.7 +2.1**
NNZ Nelson 94.07 221 P **P** **23 08 01.1 +0.3**
INZ Inchbonnie 94.28 219 P **P** **23 08 03.4 +1.7**
MRNZ Matariki Terra 94.33 221 P **P** **23 08 04.2 +2.2**
YKA Yellowknife Ar 94.37 340 P **P** **23 08 01.5 +0.1**
comp=Z,188nm,0.8s,baz=134,slow=4.6,SNR=38
YKA PKiKP **PKiKP** **23 12 43.7 -0.1**
comp=Z,6.4nm,0.8s,baz=151,slow=1.5,SNR=4.9
YKA ScS **S** **23 18 59.2 +1.5**
comp=Z,8.3nm,1.1s,baz=135,slow=10,SNR=9.0
YKA PKKPbc **PKKPdf** **23 25 00.9 -1.7**
comp=Z,3.2nm,0.9s,baz=328,slow=1.3,SNR=7.8
YKA LR LR 23 56 18.8
comp=Z,2µm,18.1s,baz=138,slow=39
comp=Z,188nm,0.8s
YKA Yellowknife Ar 94.37 340 P **P** **23 08 00.7 -0.7**
MLZ Mavora Lakes 94.42 215 P **P** **23 08 03.4 +1.1**
WVZ Waitaha Valley 94.46 218 P **P** **23 08 03.9 +1.4**
VRZ Vera Road 94.47 223 P **P** **23 08 04.0 +1.3**
DSZ Denniston Nort 94.68 220 P **P** **23 08 04.1 +0.5**
HIZ Hauiti 94.77 224 P **P** **23 08 05.6 +1.5**
TOZ Tahuroa Road 94.81 225 P **P** **23 08 05.1 +0.8**
TOZ IAmb IAmb 23 08 51.7
comp=Z,420nm,1.4s
TOZ Tahuroa Road 94.81 225 P **P** **23 08 05.9 +1.6**
QRZ Quartz Range 94.81 221 P **P** **23 08 03.4 -0.8**
JCZ Jackson Bay 94.91 217 P **P** **23 08 06.5 +1.8**
JCZ Jackson Bay 94.91 217 P **P** **23 08 05.9 +1.2**
MSZ Milford Sound 94.98 216 P **P** **23 08 04.3 -0.6**
RUBB Prince Rupert 95.18 328 IAmb IAmb 23 08 07.5
comp=Z,309nm,1.6s
BORG Borgarnes 95.53 18 LR LR 23 47 48.1
comp=Z,1µm,20.0s,baz=237,slow=33
JOKA Jonika Flow 95.97 289 P **P** **23 08 10.5 +0.7**
JOKA IAmb IAmb 23 08 12.6
comp=Z,283nm,1.0s
STCH Steam Cracks 96.06 288 IAmb IAmb 23 08 12.9
comp=Z,244nm,1.0s
EKA Eskdalemuir Ar 96.11 31 PKiKP **PKiKP** **23 12 47.5 +0.4**
comp=Z,4.5nm,0.9s,baz=180,slow=1.4,SNR=1.6
EKA PKKPbc **PKKPbc** **23 24 56.0 -2.1**
comp=Z,4.4nm,0.8s,baz=47,slow=3.2,SNR=5.7
KHLU Kahalu`u 96.81 288 P **P** **23 08 15.9 +2.2**
comp=Z,283nm,1.0s
MBAR Mbarara 96.89 94 P **P** **23 08 14.4 +0.1**
comp=Z,429nmcomp=Z,16nm,1.0s
BOST Ostende 97.01 37 *d*P Pdif 23 08 14.8 +1.0
DOU Dourbes 97.36 38 *d*P Pdif 23 08 19.4 +4.1
BMRD Maredsous 97.56 38 *d*P Pdif 23 08 16.5 +0.2
UCC Uccle 97.57 37 *d*P **P** **23 08 16.2 0.0**
RCHB Rochefort 97.75 38 *d*P Pdif 23 08 17.1 0.0
BCLA Clavier 97.92 38 *d*P Pdif 23 08 18.9 +1.1
WLF Walferdange 98.04 39 *d*P **P** **23 08 18.3 -0.1**
BMOL Mol 98.18 37 *d*P P 23 08 14.1 -4.8
MEM Membach 98.40 38 *d*P P 23 08 14.9 -5.1
BTNL Ternell 98.46 38 *d*P P 23 08 15.4 -4.9
DAVOX Davos/Dischmat 98.95 43 PKiKP **PKiKP** **23 12 52.5 -0.1**
comp=Z,6.6nm,0.6s,baz=236,slow=3.6,SNR=2.3
DAVOX S **SKSac** **23 18 47.8 +3.3**
comp=Z,17nm,1.2s,baz=143,slow=5.1,SNR=6.0
DAVOX LR LR 23 55 27.6
comp=Z,2µm,18.1s,baz=250,slow=37
DAVA Damuels 99.17 42 *i* PKKP **PKKPbc** **23 24 49.1 -0.4**
comp=Z,23nm,0.8s
KIP Kipapa 99.34 289⇑ *e*P **Pdif** **23 08 23.9 -1.0**
KIP pmax pmax
comp=Z,60nm,1.1s
FETA Feichten 99.58 43 *i* PKKP **PKKPbc** **23 24 47.9 -0.5**
comp=Z,34nm,1.1s,SNR=8.2
RETA Reutte 99.80 42 *i* PKKP **PKKPbc** **23 24 47.5 -0.1**
comp=Z,12nm,0.8s,SNR=4.1
MOTA Moosalm 99.95 43 *e*PKKP **PKKPbc** **23 24 46.4 -0.9**
comp=Z,29nm,0.8s,SNR=9.1
SQTA Sankt Quirin 99.97 43 *e*PKKP **PKKPbc** **23 24 46.9 -0.3**
comp=Z,24nm,0.7s,SNR=8.9
WATA Walderalm 100.24 43 *i* PKKP **PKKPbc** **23 24 45.5 -0.9**
comp=Z,11nm,0.8s
WTTA Wattenberg 100.25 43 *i* PKKP **PKKPbc** **23 24 45.7 -0.7**
comp=Z,28nm,0.7s,SNR=9.6
TIP Timpagrande 100.44 52 ⇓P **PKKPbc** **23 24 46.7 +1.3**
ABTA Abfaltersbach 100.58 43 *i* PKKP **PKKPbc** **23 24 44.6 -0.8**
comp=Z,20nm,0.9s,SNR=8.3
LESA Schwarzleotal 100.96 43 *i* PKKP **PKKPbc** **23 24 43.7 -0.6**
comp=Z,18nm,0.6s,SNR=11
KBA Koelnbreinsper 101.24 43 *i* PKKP **PKKPbc** **23 24 42.7 -0.8**
comp=Z,26nm,1.3s,SNR=5.8
MYKA Terra Mystica 101.25 44 *i* PKKP **PKKPbc** **23 24 42.8 -0.6**
comp=Z,8.6nm,0.8s
BIOA Bad Ischl, Aus 101.66 43 *i* PKKP **PKKPbc** **23 24 41.3 -0.9**
comp=Z,13nm,1.0s
OBKA Obir 101.77 44 *i* PKKP **PKKPbc** **23 24 41.1 -0.8**
comp=Z,9.8nm,1.1s
SESA Seetaler Alpe, 102.02 44 *i* PKKP **PKKPbc** **23 24 40.6 -0.8**
comp=Z,20nm,0.9s,SNR=8.6
MOA Molln 102.11 43 *i* PKKP **PKKPbc** **23 24 40.4 -0.5**
comp=Z,13nm,0.8s,SNR=8.1
SOKA Soboth 102.15 44 *i* PKKP **PKKPbc** **23 24 40.6 -0.2**
comp=Z,13nm,1.0s
GERES GERESS Array B 102.15 42 PKiKP **PKiKP** **23 12 58.0 -0.2**
comp=Z,4.3nm,0.7s,baz=197,slow=1.0,SNR=5.4
GERES PKKPbc **PKKPbc** **23 24 40.4 -0.5**
comp=Z,11nm,0.8s,baz=90,slow=2.7,SNR=6.0
GERES PKPPKP **P'P'df** **23 32 56.0 -1.6**
comp=Z,1.7nm,0.9s,baz=90,slow=0.3,SNR=4.4
KHC Kasperske Hory 102.19 42 *de*P **Pdif** **23 08 36.1 -0.8**
KHC Kasperske Hory 102.19 42 *e*SP SP 23 21 34.8 -4.6
KHC *e*PKKP **PKKPbc** **23 24 40.5 -0.2**
ARSA Arzberg 102.67 44 *i* PKKP **PKKPbc** **23 24 38.9 -0.3**
comp=Z,7.9nm,1.2s
CLL Collm 102.70 39 *e*PP **PP** **23 12 50.0 -5.1**
CLL *i* SKSac **SKSac** **23 19 04.7 +2.8**
CLL *i* PKKPbc **PKKPbc** **23 24 38.5 -0.7**
CLL *i* PKKPab PKKPdf 23 25 00.1 +13
comp=Z,29nm,1.1s
CLL *e*PKPPKPdf **P'P'df** **23 32 58.0 +1.8**
CLL LH 23 37 00.0
CLL AMS AMS 23 50 00.0
comp=Z,2µm,23.2s
BLY Banja Luka 102.83 47 ⇑P **PKKPbc** **23 24 38.9 +0.4**
BRG Berggiesshubel 103.08 40 SP SP 23 21 49.0 +0.4
BRG PKKP **PKKPbc** **23 24 38.2 +0.1**
BRG Amp 23 24 39.0
comp=Z,20nm,1.1s
BRG Berggiesshubel 103.08 40 Amp 23 25 00.8
comp=Z,22nm,1.1s
BRG P PKKPdf 23 24 59.8 +14
BRG Berggiesshubel 103.08 40 SS SS 23 27 32.0 +5.2
BRG r 23 27 44.4
CONA Conrad Observa 103.14 43 *i* PKKP **PKKPbc** **23 24 38.2 +0.3**
comp=Z,16nm,0.6s,SNR=7.6
ABNA Allensteig Bun 103.15 42 *e*PKKP **PKKPbc** **23 24 34.7 -3.2**
comp=Z,12nm,1.8s
RONA Rosalia, Austr 103.33 44 *i* PKKP **PKKPbc** **23 24 37.3 0.0**
comp=Z,13nm,1.2s
WINA Alland / Wiene 103.34 43 *i* PKKP **PKKPbc** **23 24 37.8 +0.6**
comp=Z,32nm,0.6s,SNR=19
PDG Podgorica 103.40 49 ⇑P **PKKPbc** **23 24 30.1 -6.7**
KRUC Moravsky 103.88 42 *e*P **PKKPbc** **23 24 35.5 -0.1**

KRUC Moravsky 103.88 42 *e*P P'P'df 23 32 42.5 -12
MSVF Nonsavu 104.00 243 PKKPbc PKKPbc 23 24 32.9 -1.2
comp=Z,8.6nm,0.2s,baz=314,slow=23,SNR=7.4
VRAC Vranov 104.09 42 *e*P **PKKPbc** **23 24 33.9 -1.1**
VRAC Vranov 104.09 42 *e*P P'P'df 23 32 43.0 -11
MODS Modra-Piesok 104.18 43 *e* **SKSac** **23 19 10.5 +1.5**
MODS Modra-Piesok 104.18 43 *e* **PKKPbc** **23 24 35.1 +0.4**
MODS Modra-Piesok 104.18 43 *e* **PKKPab** **23 24 55.2 +4.0**
DPC Dobruska-Polom 104.30 41 *e*SP SP 23 21 31.5 -30
MORH Mrgy, Hungar 104.31 46⇑P **PKKPbc** **23 24 28.7 -5.5**
JAVC Velka Javorina 104.60 43 *e*P **PKKPbc** **23 24 34.3 +0.8**
MORC Moravsky Berou 104.83 42 *e*PDIFF **Pdif** **23 08 43.5 -5.2**
MORC Moravsky Berou 104.83 42 *e*P **PKKPbc** **23 24 32.5 -0.3**
MORC Moravsky Berou 104.83 42 *e*P P'P'df 23 32 38.1 -14
MORC Moravsky Berou 104.83 42⇑P **PKKPbc** **23 24 33.2 +0.3**
IDI Anoyia 105.12 58 PKKPbc PKKPbc 23 24 29.3 -2.1
comp=Z,6.9nm,0.6s,baz=263,slow=9.2,SNR=6.3
NB2 NORSAR Subarra 105.50 30 PKKP **PKKPbc** **23 24 28.0 -2.6**
comp=Z,12nm,1.1s,baz=70,slow=1.9
NB2 NORSAR Subarra 105.50 30 PKKP **PKKPbc** **23 24 28.0 -3.2**
NOA NORSAR Array B 105.50 30 PKKPbc PKKPbc 23 24 28.6 -2.6
comp=Z,4.2nm,1.0s,baz=261,slow=3.0,SNR=3.7
NOA PKPPKP **P'P'df** **23 32 51.0 +0.8**
comp=Z,1.7nm,1.1s,baz=72,slow=2.8,SNR=3.9
PSZ Piszkesteto 105.68 44⇑P **PKKPbc** **23 24 23.4 -6.8**
MDVR Moldovita 105.87 48⇑P **PKKPbc** **23 24 22.7 -6.8**
BZS Buzias 106.07 47⇑P **PKKPbc** **23 24 29.1 +0.3**
BLKB Belogradchik 106.16 49⇑P **PKKPbc** **23 24 29.3 +0.8**
SIRR Siria 106.30 46⇑P **PKKPbc** **23 24 24.1 -4.1**
HERR Herculane 106.38 48⇓P PKKPbc 23 24 16.0 -12
SURR Surduc 106.45 47⇑P **PKiKP** **23 13 06.7 +0.7**
SURR Surduc 106.45 47⇑P **PKKPbc** **23 24 20.9 -6.7**
SRE Strehaia 106.85 48⇓P PKKPbc 23 24 12.9 -14
DEV Deva 107.01 47⇓P **PKKPbc** **23 24 26.6 +0.7**
DRGR 107.15 46⇓P **PKiKP** **23 13 08.7 +1.3**
DRGR 107.15 46⇓P **PKKPbc** **23 24 25.5 -0.1**
MARR Marisel-Cluj 107.39 46⇑P **PKiKP** **23 13 08.4 +0.5**
MARR Marisel-Cluj 107.39 46⇓P **PKKPbc** **23 24 25.2 +0.3**
PLVB Pleven 107.44 50⇑P **PKKPbc** **23 24 25.2 +0.7**
LOT Lotru 107.46 48⇑P **PKKPbc** **23 24 24.6 0.0**
VLAD Vladila 107.47 49⇓P **PKKPbc** **23 24 31.8 +7.5**
ILAR Eielson Array 107.48 334 Pdiff **Pdif** **23 09 00.9 +0.8**
comp=Z,4.8nm,0.7s,baz=146,slow=2.5,SNR=4.3
ILAR PKiKP **PKiKP** **23 13 07.5 +0.2**
comp=Z,8.1nm,0.9s,baz=142,slow=1.1,SNR=7.8
ILAR S **SKSac** **23 19 24.6 +1.7**
comp=Z,1.5nm,0.9s,baz=52,slow=3.2,SNR=4.1
ILAR PKKPbc **PKKPbc** **23 24 22.7 -2.4**
comp=Z,2.4nm,0.6s,baz=290,slow=3.5,SNR=9.1
ILAR PKPPKP **P'P'df** **23 32 48.0 +1.8**
comp=Z,0.8nm,0.8s,baz=347,slow=2.3,SNR=4.5
KOLS Kolonicke sedl 107.50 44 *e* **PKKPbc** **23 24 25.4 +0.9**
KOLS Kolonicke sedl 107.50 44 *e* **PKKPdf** **23 24 41.1 +3.3**
EZN Ezine 107.62 54⇓P **PKKPbc** **23 24 25.8 +2.0**
CJR Cluj-Napoca 107.71 46⇑P **PKKPbc** **23 24 24.8 +1.0**
TNR Turnu Rosu 107.86 47⇓P **PKiKP** **23 13 09.7 +1.0**
TNR Turnu Rosu 107.86 47⇓P **PKKPbc** **23 24 25.1 +1.9**
BMR Baia Mare 107.92 45⇓P **PKKPbc** **23 24 24.3 +1.2**
HUMR Humele 108.02 49⇓P **PKiKP** **23 13 10.1 +1.1**
HUMR Humele 108.02 49⇓P PKKPbc 23 24 14.6 -8.0
MDB Medias 108.07 47⇑P **PKKPbc** **23 24 24.1 +1.5**
COPA Copaceanca 108.07 49⇑P **PKKPbc** **23 24 23.2 +0.8**
DOPR Dopca 108.70 47⇓P **PKKPbc** **23 24 19.5 -1.1**
LOZB Loznitsa 108.82 50⇓P **PKiKP** **23 13 11.3 +0.7**
TAVA DENIZLI_Tavas 108.88 57⇓P **PKiKP** **23 13 12.8 +1.8**
MLR Muntele Rosu 108.94 48 PKiKP **PKiKP** **23 13 11.0 +0.1**
comp=Z,48nm,1.2s,baz=99,slow=1.4,SNR=13
MLR S **SKSac** **23 19 32.7 +2.4**
comp=Z,16nm,1.1s,baz=281,slow=20,SNR=3.8
MLR PKKPbc **PKKPbc** **23 24 19.2 -0.8**
comp=Z,11nm,0.6s,baz=322,slow=3.0,SNR=23
MLR Muntele Rosu 108.94 48⇑P **PKiKP** **23 13 11.4 +0.6**
MLR Muntele Rosu 108.94 48⇓P **PKKPbc** **23 24 20.4 +0.4**
BURAR Bucovina Array 109.02 46⇑P **PKKPbc** **23 24 21.7 +2.0**
TURR Turia 109.14 47⇑P **PKKPbc** **23 24 20.6 +1.4**
COVR Voineasa-Covas 109.21 48⇑P **PKiKP** **23 13 11.3 +0.1**
COVR Voineasa-Covas 109.21 48⇑P **PKKPbc** **23 24 19.5 +0.5**
ISR Istrita 109.25 48⇑P **PKiKP** **23 13 13.8 +2.4**
BIZ Bicaz 109.43 47⇑P **PKiKP** **23 13 07.4 -4.2**
BIZ Bicaz 109.43 47⇓P **PKKPbc** **23 24 19.8 +1.5**
SAHR Sahastru 109.51 48⇓P **PKiKP** **23 13 11.7 -0.2**
SAHR Sahastru 109.51 48⇑P PKKPbc 23 24 27.9 +10
PLOR Plostina 109.51 48⇓P **PKiKP** **23 13 11.7 -0.2**
PLOR Plostina 109.51 48⇓P **PKKPbc** **23 24 22.6 +4.5**
VRI Vrincioaia 109.57 48⇓P **PKiKP** **23 13 12.3 +0.4**
VRI Vrincioaia 109.57 48⇓P **PKKPbc** **23 24 17.9 0.0**
TESR Tescani 109.68 47⇑P **PKiKP** **23 13 06.2 -5.9**
TESR Tescani 109.68 47⇓P **PKKPbc** **23 24 18.2 +0.8**
GIRR Girov 109.70 47⇑P **PKKPbc** **23 24 17.3 -0.1**
GHRR 110.08 48⇑P **PKiKP** **23 13 13.5 +0.7**
HARR Harsova 110.09 49⇓PKiKP **PKiKP** **23 13 13.8 +0.9**
HARR Harsova 110.09 49⇓P **PKiKP** **23 13 13.8 +0.9**
DMBR Dumbraveni 110.21 47⇑P **PKKPbc** **23 24 14.6 -1.2**
CFR Carcaliu 110.36 49⇑PKiKP **PKiKP** **23 13 12.8 -0.5**
CFR Carcaliu 110.36 49⇑P **PKiKP** **23 13 12.8 -0.5**
TIRR Tirgusor 110.37 49⇑PKiKP **PKiKP** **23 13 14.2 +0.8**
TIRR Tirgusor 110.37 49⇑P **PKiKP** **23 13 14.2 +0.8**
TATR Tatarca 110.40 48⇑P **PKiKP** **23 13 14.2 +0.8**
VLDR Vladesti 110.48 48⇓P **PKiKP** **23 13 13.8 +0.3**
VLDR Vladesti 110.48 48⇑P PKKPbc 23 24 23.6 +8.8
KEPZ Antalya-Kepez 110.79 58⇑P **PKKPbc** **23 24 13.6 0.0**
TLCR 110.82 49⇑PKiKP **PKiKP** **23 13 14.9 +0.7**
TLCR 110.82 49⇑P **PKiKP** **23 13 14.9 +0.7**
TLCR 110.82 49⇑P PKKPbc 23 24 25.3 +12
SORM Soroca 111.20 46⇑PKiKP **PKiKP** **23 13 14.2 -0.6**
SORM Soroca 111.20 46⇑P **PKiKP** **23 13 14.2 -0.6**
SORM Soroca 111.20 46⇓P **PKKPbc** **23 24 08.3 -4.2**
CSS Mathiatis 111.64 60 P **PKiKP** **23 13 17.9 +1.7**
CSS AML AML
NACGM Naroch 111.68 38 *e*Pdif **Pdif** **23 09 20.4 +1.5**
comp=Z,85nm,0.9s,baz=258
MNK Minsk 112.23 39 *i* PKiKP **PKiKP** **23 13 16.8 +0.3**
MNK *i* 23 14 04.7
MNK *i* 23 14 23.6
MNK *i* SS SS 23 29 34.3 +4.3
MNK *i* SSS SSS 23 33 46.9
MNK pmax pmax
comp=E,158nm,1.0s
MNK pmax pmax
comp=N,120nm,1.0s
MNK pmax pmax
comp=Z,134nm,1.0s
MNK Minsk 112.23 39 *i* PKiKP **PKiKP** **23 13 16.9 +0.3**
comp=E,158nm,1.0s,baz=259
MNK *i* PKiKP **PKiKP** **23 13 16.9 +0.3**
comp=N,120nm,1.0s
MNK *i* PKiKP **PKiKP** **23 13 16.9 +0.3**
comp=Z,134nm,1.0s
MNK *i* pPKiKP PP 23 13 56.6 -8.0
MNK *i* PP **PP** 23 14 04.7 +0.2
MNK *i* sPKiKP **sPKiKP** **23 14 23.6 +2.4**
MNK *i* PPP PPP 23 15 28.1
MNK *i* SKP 23 16 12.7
MNK *i* PKS 23 17 16.0
MNK *i* SKS SKSdf 23 19 26.9 -45
MNK *i* SS **SS** **23 29 34.4 +4.3**
MNK *i* SSS SSS 23 33 46.9
MNK Minsk 112.23 39 *i* SSS SSS 23 19 26.9
MNK Minsk 112.23 39 *i* SSS SSS 23 19 26.9
SPITS Spitsbergen Ar 112.26 13 PKiKP **PKiKP** **23 13 16.6 +0.5**
comp=Z,12nm,0.9s,baz=128,slow=3.5,SNR=6.1
SPITS PKKPbc **PKKPbc** **23 24 08.2 -1.6**
comp=Z,15nm,0.7s,baz=105,slow=9.6,SNR=7.6
SPITS PKKPab **PKKPab** **23 24 16.3 +1.8**
comp=Z,41nm,0.9s,baz=88,slow=9.3,SNR=12
KIEV Kiev 112.29 43⇑PKiKP **PKiKP** **23 13 17.1 +0.3**
KIEV Kiev 112.29 43⇑P **PKiKP** **23 13 17.1 +0.3**
KIEV Kiev 112.29 43⇑P **PKKPbc** **23 24 08.7 -0.3**
AKASG Malin Array Be 112.30 43 PKiKP **PKiKP** **23 13 16.6 -0.3**
comp=Z,8.2nm,0.3s,baz=276,slow=2.7,SNR=28
AKASG PKKPbc **PKKPbc** **23 24 07.5 -1.6**
comp=Z,15nm,0.6s,baz=65,slow=4.0,SNR=28
AKASG PKKPab **PKKPab** **23 24 17.0 +1.8**
comp=Z,18nm,0.7s,baz=67,slow=4.2,SNR=6.4
AKASG PKKP **PKKPdf** **23 24 29.7 +1.0**
comp=Z,2.9nm,0.6s,baz=67,slow=2.7,SNR=4.2
AKBB Malin Array Si 112.30 43*c* *i*PKiKP **PKiKP** **23 13 16.5 -0.4**
MSBI Mazada 112.32 65 P **PKiKP** **23

FINES FINESS Array B 112.51 31 PKiKP **PKiKP 23 13 17.7 +0.8**
comp=Z,8.9nm,0.9s,baz=350,slow=1.4,SNR=7.9
FINES PKKPbc **PKKPbc 23 24 07.0 -1.7**
comp=Z,6.3nm,0.6s,baz=91,slow=3.6,SNR=12
FINES PKPPKP 23 32 35.0
comp=Z,5.0nm,1.0s,baz=101,slow=2.9,SNR=4.4
MMAI Mount Meron Ar 112.80 63 PKiKP **PKiKP 23 13 18.4 -0.2**
comp=Z,4.4nm,0.4s,baz=28,slow=5.7,SNR=32
MMAI PKKPbc **PKKPbc 23 24 06.4 -0.4**
comp=Z,5.2nm,0.6s,baz=40,slow=9.2,SNR=14
MMAI PKKPab **PKKPab 23 24 16.2 +2.2**
comp=Z,14nm,0.9s,baz=46,slow=9.6,SNR=13
BR131 Keskin Array S 113.03 55*d* iPKiKP **PKiKP 23 13 18.8 -0.1**
BRTR Keskin Array B 113.03 55 Pdiff **Pdif 23 09 26.1 +0.6**
comp=Z,15nm,0.9s,baz=68,slow=18,SNR=3.3
BRTR PKiKP **PKiKP 23 13 18.8 -0.1**
comp=Z,19nm,0.9s,baz=201,slow=2.8,SNR=11
BRTR PP **PP 23 14 10.2 -0.8**
comp=Z,12nm,0.9s,baz=228,slow=5.2,SNR=4.4
BRTR PKKPbc **PKKPbc 23 24 06.0 -0.4**
comp=Z,0.9nm,0.5s,baz=134,slow=3.8,SNR=10
BRTR PKKPab **PKKPab 23 24 14.3 +1.6**
comp=Z,21nm,0.7s,baz=104,slow=4.3,SNR=46
GEM Giv'at Ha'Em 113.06 63 P **PKiKP 23 13 20.7 +1.8**
GEM AML AML
KIRS Kirsehir-Merke 113.11 56 ⇑P **PKKPbc 23 24 07.3 +1.2**
HSUJ Al Zarqa 113.21 64 P **PKiKP 23 13 21.2 +1.9**
HSUJ AML AML
ARCES ARCESS Array B 113.42 23 PKiKP **PKiKP 23 13 18.2 -0.2**
comp=Z,3.7nm,0.6s,baz=262,slow=3.2,SNR=8.7
ARCES PKKPbc **PKKPbc 23 24 03.3 -2.5**
comp=Z,4.8nm,0.8s,baz=67,slow=3.2,SNR=5.3
ARCES PKKPab **PKKPab 23 24 10.9 +1.3**
comp=Z,28nm,0.8s,baz=85,slow=4.7,SNR=11
ASF Jabal al Asfar 113.81 64 PKiKP **PKiKP 23 13 20.9 +0.4**
comp=Z,33nm,0.9s,baz=206,slow=0.6,SNR=9.4
ASF PKKPbc **PKKPbc 23 24 02.9 -0.5**
comp=Z,2.1nm,0.7s,baz=65,slow=11,SNR=2.3
ASF PKKPab **PKKPab 23 24 11.7 +2.0**
comp=Z,21nm,0.8s,baz=76,slow=2.6,SNR=22
PUL Pulkovo 114.35 33 *i* PKiKP **PKiKP 23 13 21.6 +1.1**
AUTOO Toowoomba Stat 116.17 219 P **PKiKP 23 13 27.9 +2.7**
TW1H Toowoomba 1 Ha 116.17 219 P **PKiKP 23 13 28.0 +2.7**
APA Apatity 116.20 25 *e* PKiKP **PKPdf 23 13 23.3 -0.5**
APA *e* 23 14 31.7
APA pmax pmax
comp=Z,25nm,1.0s
CMSA Cobar Meteorol 116.25 211 P **PKPdf 23 13 24.6 -0.6**
ANN Anapa 116.75 51 *i* PKiKP **PKPdf 23 13 25.5 -0.1**
ANN *e* 23 20 00.2
ANN pmax pmax
comp=Z,71nm,0.8s
OBN Obninsk 117.29 39 PKP **PKiKP 23 13 26.4 +0.1**
comp=Z,77nm,0.4s,baz=314,slow=0.3,SNR=24
OBN Obninsk 117.29 39 *i* PKiKP **PKPdf 23 13 26.1 -0.2**
OBN *i* 23 14 38.8
OBN pmax pmax
comp=Z,181nm,1.0s
HTT Hallett 117.49 204 P **PKPdf 23 13 26.6 -1.1**
STKA Stephens Creek 117.78 207 P **PKiKP 23 13 28.4 +0.2**
STKA Stephens Creek 117.78 207 PKP **PKiKP 23 13 28.8 +0.6**
comp=Z,32nm,0.9s,baz=155,slow=3.9,SNR=9.5
STKA PKKPbc **PKKPbc 23 23 48.9 -1.0**
comp=Z,16nm,0.8s,baz=345,slow=3.8,SNR=12
STKA Stephens Creek 117.78 207 P **PKiKP 23 13 29.0 +0.8**
STKA Stephens Creek 117.78 207 **PKPdf 23 13 28.0 -0.1**
KTUT Trabzon 117.87 55 ⇑P **PKiKP 23 13 31.7 +3.8**
MOS Moscow 117.93 38 *i* PKiKP **PKiKP 23 13 28.2 +0.7**
MOS *e* 23 14 34.9
MOS *e* 23 20 04.2
MOS *e*SS SS 23 30 54.2 +10
MOS pmax pmax
comp=Z,175nm,1.0s
SOC Sochi 118.20 52 *i* PKiKP **PKPdf 23 13 28.2 -0.2**
SOC *e* 23 14 11.1
SOC *e* 23 14 41.9
SOC *e*PPP PPP 23 17 17.5
SOC *e*SS SS 23 30 43.9 -4.9
SOC *e*SSS SSS 23 35 18.7
SOC pmax pmax
comp=Z,138nm,0.8s
EIDS Eidsvold 118.35 219 P **PKiKP 23 13 29.9 +0.5**
EIDS Eidsvold 118.35 219 P **PKiKP 23 13 31.0 +1.6**
VSLR Vesoyloye 118.42 52*d* iPKiKP **PKPdf 23 13 28.8 -0.1**
RAYN Ar Rayn 118.95 76 PKiKP **PKiKP 23 13 31.2 +0.6**
KLMR Klimovskoe 118.97 32 *e*PKiKP **PKPdf 23 13 28.2 -1.2**
KLMR pmax pmax
comp=Z,236nm,1.1s
ERBR Yeremizino-Bor 119.00 50 *i* PKiKP **PKPdf 23 13 29.4 -0.5**
ERBR *e* 23 20 11.5
ERBR pmax pmax
comp=Z,121nm,0.7s
LABN Labinsk 119.05 51 *i* PKiKP **PKiKP 23 13 31.3 +1.2**
LABN *e* 23 20 10.3
LABN pmax pmax
comp=Z,163nm,0.9s
NEUR Neytrino 120.33 53 ⇑ *i* PKiKP **PKiKP 23 13 33.4 +0.5**
KIV Kislovodsk 120.39 52 ⇓ PKiKP **PKiKP 23 13 33.6 +0.7**
KIV Kislovodsk 120.39 52 ⇓P **PKiKP 23 13 33.6 +0.7**
KIV Kislovodsk 120.39 52 PKP **PKPdf 23 13 31.4 -1.3**
KBZ Khabaz 120.52 52 PKP **PKiKP 23 13 33.6 +0.7**
comp=Z,141nm,0.9s,baz=22,slow=2.9,SNR=19
KBZ PKPPKP **P'P'df 23 32 18.4 -4.6**
comp=Z,8.9nm,1.0s,baz=142,slow=3.0,SNR=8.6
ADK Adak 120.71 317 P **PKiKP 23 13 33.5 +0.4**
ADK Adak 120.71 317 P **PKiKP 23 13 35.5 +2.4**
ADK Adak 120.71 317 PKiKP **PKPdf 23 13 32.7 -0.3**
ADK Adak 120.71 317 **PKPdf 23 13 32.7 -0.3**
OZAP Van, Ozalp-Mer 120.75 58 ⇓P **PKiKP 23 13 36.0 +2.0**
QLP Quilpie 121.07 213 P **PKiKP 23 13 35.1 +0.4**
QLP Quilpie 121.07 213 P **PKiKP 23 13 36.0 +1.3**
QLP Quilpie 121.07 213 P **PKiKP 23 13 36.9 +2.2**
GNI Garni 121.51 57 PKP **PKiKP 23 13 36.2 +0.9**
comp=Z,56nm,0.9s,baz=318,slow=3.6,SNR=7.4
GNI PKKPbc **PKKPbc 23 23 37.0 +0.7**
comp=Z,12nm,0.7s,baz=124,slow=6.5,SNR=9.1
NGOA Tingoa Renbel 121.79 238 P **PKiKP 23 13 38.5 +2.2**
NGOA Tingoa Renbel 121.79 238 P **PKiKP 23 13 38.6 +2.2**
FORT Forrest 123.36 196 P **PKiKP 23 13 39.1 0.0**
MAK Makhachkala 123.81 53 *i* P **Pdif 23 10 05.5 -7.7**
MAK *i* 23 13 37.8
MAK *i* 23 14 19.7
MAK *e*PPP PPP 23 18 00.4
MAK *e* 23 20 33.3
MAK pmax pmax
comp=Z,598nm,1.2s
BELG Belogornoye 123.84 42 PKP **PKiKP 23 13 39.1 -0.1**
comp=Z,403nm,0.9s,baz=20,slow=1.3,SNR=19
BELG Belogornoye 123.84 42 *i* PKiKP **PKiKP 23 13 39.5 +0.3**
TATA Tatamba Isabel 123.91 240 P **PKiKP 23 13 40.7 +0.1**
TATA Tatamba Isabel 123.91 240 P **PKiKP 23 13 41.2 +0.6**
KMBL Kambalda 124.00 189 P **PKiKP 23 13 40.7 +0.3**
KIRV Kirov 124.17 35 PKP **PKiKP 23 13 39.6 -0.1**
comp=Z,83nm,0.5s,baz=300,slow=0.8,SNR=26
KIRV Kirov 124.17 35*d* iPKiKP **PKiKP 23 13 39.9 +0.2**
KLBR Kellerberrin 124.24 185 P **PKPdf 23 13 40.5 -0.1**
KLBR Kellerberrin 124.24 185 P **PKiKP 23 13 40.8 -0.1**
KLBR Kellerberrin 124.24 185 P **PKiKP 23 13 41.4 +0.5**
CTA Charters Tower 125.23 219 PKP **PKPdf 23 13 42.9 +0.1**
comp=Z,138nm,0.8s,baz=168,slow=1.1,SNR=66
CTA Charters Tower 125.23 219 P **PKiKP 23 13 43.3 +0.2**
CTAO Charters Tower 125.23 219 P **PKiKP 23 13 43.4 +0.3**
CTAO Charters Tower 125.23 219 P **PKiKP 23 13 43.0 -0.1**
BLDU Ballidu 125.29 184 P **PKiKP 23 13 43.0 0.0**
BLDU Ballidu 125.29 184 P **PKiKP 23 13 42.9 0.0**
BLDU Ballidu 125.29 184 P **PKiKP 23 13 43.0 0.0**
BILL Bilibino 125.72 338 ⇑ PKiKP **PKiKP 23 13 43.0 +0.4**
BILL Bilibino 125.72 338 PKPdf **PKPdf 23 13 41.8 -0.4**
SHEM Shemya Is, Ala 126.31 319 PKP **PKPdf 23 13 43.8 +0.2**
comp=Z,243nm,0.9s,baz=318,slow=4.4,SNR=8.9
SMY Shemya 126.31 319 P **PKiKP 23 13 44.8 +0.7**
MORW Morawa 126.87 183 P **PKiKP 23 13 46.1 -0.1**
MORW Morawa 126.87 183 P **PKPdf 23 13 45.8 +0.1**
AJN Ajban 127.61 77 *i* PKiKP **PKiKP 23 13 48.1 +0.5**
SNR=7.7
MTSU Mount Surprise 127.89 219 P **PKiKP 23 13 48.6 +0.1**
MTSU Mount Surprise 127.89 219 P **PKiKP 23 13 48.6 +0.1**
MTSU Mount Surprise 127.89 219 P **PKiKP 23 13 50.0 +1.5**
ASUD Al Ashush, Dub 127.92 77 *i* PKiKP **PKiKP 23 13 48.4 +0.2**
SNR=11
ASAR Alice Springs 128.16 205 PKP **PKPdf 23 13 48.3 0.0**
comp=Z,174nm,0.8s,baz=148,slow=2.1,SNR=100
ASAR PP **PP 23 15 50.9 -1.7**
comp=Z,28nm,1.1s,baz=147,slow=5.4,SNR=4.1
ASAR PKKP **PKKPdf 23 23 57.6 +0.6**
comp=Z,1.6nm,0.4s,baz=359,slow=1.6,SNR=5.7
ASAR Alice Springs 128.16 205 PKPdf **PKPdf 23 13 47.5 -0.9**
ALNE Al Ain 128.18 78 *i* PKiKP **PKiKP 23 13 49.5 +0.7**
SNR=14
FAQ Al Faqa, Dubai 128.18 77 *i* PKPdf **PKPdf 23 13 47.8 -0.4**
SNR=8.7
QIS Mount Isa 128.41 212 P **PKiKP 23 13 49.5 0.0**
QIS Mount Isa 128.41 212 P **PKiKP 23 13 50.7 +1.2**
ASHO Ashiyiah 128.59 77 *i* PKiKP **PKPdf 23 13 48.9 -0.1**
SNR=13
HATD Hatta, Dubai 128.68 77 PKiKP **PKiKP 23 13 50.0 +0.2**
WRKA Warakurna 128.75 198 P **PKPdf 23 13 49.2 -0.2**
UOSS Minazif 128.77 77 *i* PKiKP **PKPdf 23 13 49.1 -0.2**
SNR=8.6
UOSS Minazif 128.77 77 PKP **PKPdf 23 13 48.7 -0.6**
MSFE Esma-Masafi 128.81 76 *i* PKiKP **PKPdf 23 13 49.6 +0.2**
SNR=6.4
SOHO SOHO 128.89 78 *i* PKPdf **PKPdf 23 13 49.0 -0.5**
SNR=15
MDH Madha 128.92 76 PKPdf **PKPdf 23 13 49.0 -0.5**
SHME Shamm 128.93 75 *i* PKiKP **PKPdf 23 13 49.5 -0.1**
SNR=9.4
BANOM Banah 129.05 76 PKPdf **PKPdf 23 13 49.1 -0.8**
MEEK Meekatharra 129.07 187 P **PKPdf 23 13 50.0 0.0**
MEEK Meekatharra 129.07 187 P **PKiKP 23 13 50.4 -0.3**
ARTI Arti 129.38 36 PKP **PKiKP 23 13 50.2 0.0**
comp=Z,90nm,0.6s,baz=273,slow=2.8,SNR=24
ARTI SKPbc SKPbc 23 16 56.4 +1.4
comp=Z,93nm,1.0s,baz=256,slow=4.1,SNR=14
ARTI Arti 129.38 36 *i* PKiKP **PKiKP 23 13 50.1 -0.1**
ARTI 23 15 59.8
WAKE Wake Island 130.10 275 P **PKiKP 23 13 54.4 +1.7**
WAKE Wake Island 130.10 275 P **PKiKP 23 13 54.7 +2.0**
AKTO Aktyubinsk 130.54 44 PKP **PKPdf 23 13 52.3 +0.4**
comp=Z,131nm,0.9s,baz=293,slow=1.0,SNR=28
AKTO SKPbc **SKPab 23 17 00.5 +0.9**
comp=Z,305nm,1.1s,baz=286,slow=2.5,SNR=56
AKTO PKKP **PKKPdf 23 23 53.8 +0.1**
comp=Z,3.0nm,0.7s,baz=87,slow=6.1,SNR=4.4
WRA Warramunga Arr 131.34 207 PKP **PKiKP 23 13 54.9 -0.5**
comp=Z,13nm,0.5s,baz=163,slow=1.7,SNR=4.8
WRA PP **PP 23 16 11.7 -1.6**
comp=Z,11nm,0.9s,baz=158,slow=5.5,SNR=7.6
WRA SKPbc **SKPbc 23 17 02.8 -0.6**
comp=Z,69nm,0.9s,baz=156,slow=3.8,SNR=18
WRA SKKPbc **SKKPbc 23 26 33.6 +0.9**
comp=Z,6.5nm,1.1s,baz=335,slow=5.8,SNR=4.5
WRA Warramunga Arr 131.34 207 PKPdf **PKPdf 23 13 54.0 -0.5**
WRAB Tennant Creek 131.34 207 P **PKiKP 23 13 56.7 +1.3**
WRAB Tennant Creek 131.34 207*d* iPKiKP **PKPdf 23 13 53.5 -0.9**
TIXI Tiksi 131.75 353 PKP **PKiKP 23 13 54.2 -0.3**
comp=Z,30nm,0.3s,baz=32,slow=3.5,SNR=13
TIXI SKPbc **SKPbc 23 17 03.0 -0.1**
comp=Z,286nm,0.9s,baz=52,slow=3.8,SNR=48
TIXI SKKPbc **SKKPbc 23 26 36.1 +0.3**
comp=Z,3.1nm,0.5s,baz=133,slow=0.4,SNR=4.5
ABKAR Akbulak array 131.99 45 PKPdf **PKPdf 23 13 54.6 0.0**
NRIK Noril'sk 132.46 12 PKP **PKPdf 23 13 55.2 +0.3**
comp=Z,50nm,0.9s,baz=107,slow=4.2,SNR=11
NRIK SKPbc **SKPab 23 17 06.5 -0.6**
comp=Z,23nm,0.9s,baz=60,slow=6.1,SNR=5.1
NRIK SKKPbc **SKKPbc 23 26 34.2 +1.0**
comp=Z,2.9nm,0.6s,baz=162,slow=3.2,SNR=3.8
KRVT Keravat (AS076 132.50 239 PKP **PKiKP 23 13 57.5 -0.3**
comp=Z,276nm,0.3s,baz=38,slow=2.7,SNR=6.0
PMG Port Moresby 132.68 229 PKhKP PKPpre 23 13 42.7
comp=Z,24nm,0.7s,baz=178,slow=4.1,SNR=5.9
PMG PKP **PKiKP 23 13 57.8 -0.3**
comp=Z,151nm,1.0s,baz=51,slow=2.5,SNR=20
PMG PP **PP 23 16 22.9 +0.3**
comp=Z,8.5nm,0.3s,baz=87,slow=6.5,SNR=5.1
PMG SKPbc **SKPab 23 17 09.3 -0.5**
comp=Z,172nm,1.1s,baz=72,slow=4.9,SNR=17
PMG Port Moresby 132.68 229 P **PKiKP 23 13 58.5 +0.3**
PMG Port Moresby 132.68 229 P **PKiKP 23 13 59.6 +1.4**
PMG Port Moresby 132.68 229 PKPdf **PKPdf 23 13 57.2 +0.2**
PATS Pohnpei 133.21 256 P **PKiKP 23 13 59.5 +0.3**
PATS Pohnpei 133.21 256 P **PKiKP 23 14 01.2 +2.0**
PATS Pohnpei 133.21 256 P **PKiKP 23 14 00.8 +1.6**
SEY Seymchan 133.31 336 PKhKP PKPpre 23 13 42.7
comp=Z,4.1nm,0.5s,baz=109,slow=4.0,SNR=5.9
SEY PKP **PKiKP 23 13 58.2 +0.3**
comp=Z,18nm,0.7s,baz=152,slow=4.1,SNR=8.9
SEY PP **PP 23 16 25.6 -0.4**
comp=Z,33nm,1.1s,baz=72,slow=6.4,SNR=6.9
SEY SKPbc **SKPbc 23 17 09.6 +0.8**
comp=Z,39nm,0.8s,baz=108,slow=4.2,SNR=10
SEY SKKPbc **SKKPbc 23 26 30.4 +0.6**
comp=Z,8.0nm,0.9s,baz=225,slow=1.4,SNR=4.2
MBWA Marble Bar 134.34 189 P **PKPdf 23 14 00.6 +0.6**
MBWA Marble Bar 134.34 189 PKPdf **PKPdf 23 13 58.3 -1.7**
PET Petropavlovsk 135.29 322 P **PKiKP 23 14 02.2 0.0**
PET Petropavlovsk 135.29 322 P **PKiKP 23 14 03.2 +1.0**
PEA0B Petropavlovsk- 135.79 322*de* PKiKP **PKPdf 23 14 02.1 +0.4**
PETK Petropavlovsk- 135.79 322 PKhKP PKPpre 23 13 49.3
comp=Z,26nm,0.7s,baz=69,slow=5.7,SNR=8.5
PETK PKP **PKiKP 23 14 03.1 -0.2**
comp=Z,153nm,0.8s,baz=45,slow=2.5,SNR=39
PETK SKPbc **SKPbc 23 17 17.9 +0.9**
comp=Z,110nm,0.9s,baz=81,slow=9.2,SNR=23
PETK Petropavlovsk- 135.79 322 PKPdf **PKiKP 23 14 02.5 -0.8**
MA2 Magadan 135.96 333 PKhKP PKPpre 23 13 50.0
comp=Z,21nm,0.7s,baz=121,slow=4.4,SNR=7.1
MA2 PKP **PKiKP 23 14 02.8 -0.6**
comp=Z,67nm,0.8s,baz=83,slow=4.2,SNR=16
MA2 SKPbc **SKPbc 23 17 17.8 +0.5**
comp=Z,69nm,1.0s,baz=50,slow=3.5,SNR=9.8
MA2 Magadan 135.96 333 P **PKiKP 23 14 03.2 -0.2**
MA2 Magadan 135.96 333 P **PKiKP 23 14 04.2 +0.8**
MA2 Magadan 135.96 333 PKPdf **PKPdf 23 14 01.5 -0.2**
FITZ Fitzroy Crossi 136.08 198 PKhKP PKPpre 23 13 49.9
comp=Z,27nm,0.9s,baz=204,slow=2.8,SNR=17
FITZ PKP **PKPdf 23 14 03.4 +0.1**
comp=Z,123nm,0.9s,baz=184,slow=9.7,SNR=18
FITZ PP **PP 23 16 42.8 -0.3**
comp=Z,11nm,0.8s,baz=120,slow=12,SNR=3.1
FITZ SKPbc **SKPbc 23 17 19.6 +0.5**
comp=Z,69nm,1.1s,baz=187,slow=1.1,SNR=12
FITZ Fitzroy Crossi 136.08 198 P **PKiKP 23 14 05.5 +0.5**
FITZ Fitzroy Crossi 136.08 198 PKPdf **PKPdf 23 14 01.6 -1.7**
BORK Borovoye 137.02 37*de* PKiKP **PKPdf 23 14 04.6 +0.7**
BVAR Borovoye Array 137.07 37 PKhKP PKPpre 23 13 52.2
comp=Z,5.9nm,0.6s,baz=317,slow=2.7,SNR=4.4
BVAR PKP **PKPdf 23 14 04.5 +0.5**
comp=Z,125nm,0.9s,baz=290,slow=2.7,SNR=27
BVAR SKPbc **SKPbc 23 17 21.9 +1.0**
comp=Z,28nm,0.9s,baz=286,slow=5.5,SNR=8.3
DRS Darwin Rock St 139.50 208 P **PKiKP 23 14 12.0 0.0**
BRLS Borolday 140.07 51 *e*PKiKP **PKPdf 23 14 10.5 +0.6**
BRLS Borolday 140.07 51 *e*PKP **PKPdf 23 14 10.5 +0.6**
IUG luzhnay 140.41 53 *e*PKiKP **PKPdf 23 14 11.5 +0.9**
IUG luzhnay 140.41 53 *e*PKP **PKPdf 23 14 11.6 +0.9**
KKAR Karatay Array 140.53 51 PKiKP **PKPdf 23 14 10.2 -0.5**
KKAR Karatay Array 140.53 51 PKPdf **PKPdf 23 14 10.2 -0.5**
YAK Yakutsk 140.59 348 PKhKP PKPpre 23 14 02.4
comp=Z,193nm,0.7s,baz=71,slow=0.6,SNR=21
YAK PKP **PKPdf 23 14 08.9 -1.2**
comp=Z,260nm,0.8s,baz=39,slow=1.1,SNR=13
YAK SKPbc **SKPbc 23 17 30.3 0.0**
comp=Z,86nm,0.9s,baz=70,slow=0.9,SNR=7.0
YAK Yakutsk 140.59 348 *e*PKHKP PKPpre 23 14 03.1
YAK *e*SS SS 23 35 21.4 -0.1
YAK pmax pmax
comp=N,34nm,1.5s
YAK pmax pmax
comp=Z,161nm,0.8s
YAK pmax pmax
comp=E,18nm,0.7s
YAK pmax pmax
comp=N,526nm,3.2s
YAK pmax pmax
comp=Z,673nm,3.3s
YAK pmax pmax
comp=E,310nm,3.3s
DZA Taraz 141.17 51 *e*PKiKP **PKPdf 23 14 12.9 +1.0**
DZA Taraz 141.17 51 *e*PKP **PKPdf 23 14 12.9 +1.0**
JAY Jayapura 142.06 229 PKhKP PKPpre 23 14 11.6
comp=E,91nm,0.8s,baz=220,slow=7.7,SNR=20
JAY SKPbc **SKiKP 23 17 36.8 -0.6**
comp=E,52nm,1.0s,baz=228,slow=3.0,SNR=6.6
GENI Genyem 142.38 229 P **PKiKP 23 14 17.5 -0.5**
KURBB Kurchatov Arra 142.65 36 PKhKP PKPpre 23 14 11.1
comp=E,83nm,1.0s,baz=313,slow=2.8,SNR=44
KURBB PKP **PKPdf 23 14 14.2 -0.1**
comp=E,156nm,1.1s,baz=308,slow=2.7,SNR=20
KURBB SKP **SKPdf 23 17 32.2 -0.2**
comp=E,28nm,0.8s,baz=310,slow=2.7,SNR=10.0
KURBB SKPbc **SKiKP 23 17 37.3 +0.1**
comp=E,29nm,0.8s,baz=310,slow=3.2,SNR=8.8
KURK Kurchatov 142.65 36 PKiKP **PKPdf 23 14 14.2 0.0**
KURK Kurchatov 142.65 36 PKPdf **PKPdf 23 14 11.2 -3.0**
EKS2 Erkin-Say 142.96 51 P **PKPdf 23 14 16.1 +0.8**
SNR=6.7
SAUI Saumlaki 143.25 211 P **PKPdf 23 14 15.7 -0.7**
SAUI Saumlaki 143.25 211 P **PKiKP 23 14 19.1 -0.7**
SAUI Saumlaki 143.25 211 PKPdf PKPbc 23 14 15.0 +1.1
USP Ospenovka 143.28 49 P **PKiKP 23 14 17.5 -1.5**
SNR=10
AAK Ala-Archa 143.47 50 P **PKPdf 23 14 15.8 -0.3**
SNR=6.4
AAK Ala-Archa 143.47 50 PKPdf PKPbc 23 14 15.0 +1.1
AAK Ala-Archa 143.47 50 PKiKP PKPbc 23 14 15.0 +1.0
AAK Ala-Archa 143.47 50 PKPdf PKPbc 23 14 15.0 +1.0
AAK Ala-Archa 143.47 50 PKP PKPbc 23 14 14.5 +0.6
CHMS Chumysh 143.54 50 P PKPbc 23 14 14.3 +0.4
SNR=12
ZALV Zalesovo Beam 143.68 28 PKP PKPbc 23 14 14.3 +0.3
comp=E,238nm,0.5s,baz=316,slow=4.4,SNR=171
ZALV SKP **SKPdf 23 17 34.6 +0.6**
comp=E,149nm,0.9s,baz=298,slow=3.2,SNR=13
ZALV SKPbc **SKiKP 23 17 39.5 +0.3**
comp=E,148nm,0.9s,baz=310,slow=3.1,SNR=18
KBK Karagaybulak 143.79 50 P **PKPdf 23 14 16.0 -0.7**
SNR=21
BATI Baumata 144.15 198 PKP PKPbc 23 14 16.8 +0.3
comp=E,925nm,0.8s,baz=175,slow=0.3,SNR=85
TKM2 Tokmak 2 144.15 50 P PKPbc 23 14 16.0 0.0
SNR=18
NIL Nilore 144.25 66 PKiKP **PKPab 23 14 16.0 0.0**
NIL Nilore 144.25 66 PKPdf **PKPab 23 14 16.0 0.0**
SOEI Soe 144.40 199 PKP PKPbc 23 14 17.4 0.0
SOEI Soe 144.40 199 P **PKPdf 23 14 18.7 +0.1**
SOEI Soe 144.40 199 P PKPbc 23 14 17.4 0.0
PALK Pallekele 144.82 113 PKPdf **PKPdf 23 14 19.3 +0.1**
PALK Pallekele 144.82 113 ⇑PKiKP **PKPdf 23 14 19.0 -0.2**
PALK Pallekele 144.82 113 PKP **PKPdf 23 14 19.0 -0.2**
ULHL Ulahol 144.82 50 P **PKPdf 23 14 19.0 +0.3**
SNR=70
TYV Tymovskoe 144.94 327 *e*PKiKP **PKPdf 23 14 18.7 +0.5**
TYV pmax pmax
comp=Z,9μm,4.1s
TYV pmax pmax
comp=Z,914nm,1.0s
AAA Alma-Ata 144.96 48 *e*PKiKP **PKPdf 23 14 19.6 +1.0**
AAA Alma-Ata 144.96 48 *e*PKP **PKPdf 23 14 19.6 +1.0**
TNSS Tian-Shan 145.05 49 *e*PKiKP **PKPdf 23 14 19.6 +0.4**
TNSS *e* 23 17 39.9
TNSS Tian-Shan 145.05 49 *e*PKP **PKPdf 23 14 19.6 +0.4**
TNSS *e*PP **PP 23 17 40.0 +0.5**
MDOK Medeo 145.07 48 *e*PKiKP **PKPab 23 14 19.4 +0.5**
MDOK Medeo 145.07 48 *e*PKP **PKPab 23 14 19.5 +0.5**
KSH2 Kashi 145.21 56 PKPbc **PKPab 23 14 19.5 -0.1**
KSH2 pPKP pPKPab 23 15 03.0 -2.1
KSH2 PP **PP 23 17 44.3 +3.9**
KSH2 PPMZ
comp=Z,2μm,8.6s
MALK Mahakanadarawa 145.27 112 PKP **PKPdf 23 14 19.2 -0.7**
AJM Ajmer 145.42 78 *e*P **PKPab 23 14 20.5 -0.1**
JMU Jammu 145.63 67 *e*P **PKPab 23 14 21.0 -0.2**
JMU *i* x x 23 15 08.7
SATY Saty 146.03 48 *e*PKP2 **PKPbc 23 14 21.3 -0.4**
SATY Saty 146.03 48 *e*PKP **PKPbc 23 14 21.3 -0.4**
MMRI Maumere 146.04 197 P **PKPdf 23 14 21.4 +0.1**
MMRI Maumere 146.04 197 P **PKPbc 23 14 22.4 +0.1**
KPKS Kokpek 146.06 47 *e*PKP2 **PKPbc 23 14 21.3 -0.4**
KPKS Kokpek 146.06 47 *e*PKP **PKPbc 23 14 21.3 -0.4**
UZB Uzynbulak 146.42 48 *e*PKP2 **PKPdf 23 14 21.9 +0.7**
UZB Uzynbulak 146.42 48 *e*PKP **PKPdf 23 14 21.9 +0.7**
MAKZ Makanchi 146.60 40 ⇓PKP2 **PKPbc 23 14 23.0 -0.1**
MAKZ Makanchi 146.60 40 PKPdf **PKPdf 23 14 20.7 -0.5**
YUK Yuzh-Kuril'sk 146.68 314*d* iPKP2 **PKPdf 23 14 21.1 -0.3**
YUK *i* 23 17 46.8
YUK *i* PPP PPP 23 21 04.1
YUK *i* SS SS 23 36 31.1 -2.0
AKL Akola 146.69 89 *e*P **PKPbc 23 14 23.4 -0.7**
AKL *i* pP pPKPab 23 15 12.9 +1.6
SHLS Shalkode 146.71 47 *e*PKP2 **PKPbc 23 14 22.8 -0.8**
SHLS Shalkode 146.71 47 *e*PKP **PKPbc 23 14 22.9 -0.8**
PLAI Plampang 146.75 189 P **PKPdf 23 14 23.2 +0.8**
PLAI Plampang 146.75 189 P **PKPbc 23 14 24.9 +0.5**
MK31 Makanchi Array 146.79 40*c* iPKP2 **PKPdf 23 14 21.6 0.0**
MKAR Makanchi Array 146.79 40 PKP **PKPdf 23 14 22.1 +0.5**
comp=Z,649nm,0.8s,baz=297,slow=1.0,SNR=266
MKAR PKPbc **PKPbc 23 14 23.5 -0.1**
comp=Z,661nm,0.8s,baz=297,slow=3.3,SNR=83
MKAR SKPbc **SKiKP 23 17 46.8 +0.8**
comp=Z,30nm,0.8s,baz=318,slow=3.3,SNR=3.9
MKAR Makanchi Array 146.79 40 PKPdf **PKPdf 23 14 21.6 +0.1**
BNDI Bandanaira 146.93 212 P **PKPbc 23 14 25.0 +0.1**
BNDI Bandanaira 146.93 212 P **PKPbc 23 14 25.4 +0.5**
BHK Bhakra 147.04 69 *e*P **PKPbc 23 14 24.0 -0.7**
BHK *i* x x 23 15 14.0
FAKI Fak Fak 147.06 217 P **PKPbc 23 14 24.4 -0.9**
FAKI Fak Fak 147.06 217 P **PKPbc 23 14 25.7 +0.4**
YSS Yuzhno-Sakhali 147.16 321 P **PKPdf 23 14 23.2 +1.1**
YSS Yuzhno-Sakhali 147.16 321 P **PKPbc 23 14 24.9 +0.3**
YSS Yuzhno-Sakhali 147.16 321 *i* PKP2 **PKPdf 23 14 22.5 +0.4**
YSS *e* 23 17 48.9
YSS *e*SS SS 23 36 36.7 -1.4
YSS pmax pmax
comp=Z,300nm,0.8s
YSS MLR MLR
comp=Z,800nm,16.0s
YSS Yuzhno-Sakhali 147.16 321 PKPdf **PKPdf 23 14 21.8 -0.3**
JAGI Jajag, Banyuwa 147.42 182 P **PKPdf 23 14 23.7 +0.1**
JAGI Jajag, Banyuwa 147.42 182 P **PKPbc 23 14 26.0 -0.2**
ALCI Alchi Leh 147.43 64 *e*P **PKPbc 23 14 25.0 -1.3**
ALCI *i* pP **pPKPab 23 15 16.4 +2.4**
ZSN Zaisan 147.88 37 *e*PKP2 **PKPdf 23 14 24.3 +1.0**
ZSN *e* 23 17 56.9
ZSN Zaisan 147.88 37 *e*PKP **PKPdf 23 14 24.3 +1.0**
ZSN *e*PP **PP 23 17 57.0 +1.7**
UGM Wanagama 147.91 176 P **PKPbc 23 14 26.1 -1.5**
UGM Wanagama 147.91 176 P **PKPbc 23 14 26.8 -0.8**
GRNR Gornyy 147.93 332 ⇓ *i* PKP2 **PKPdf 23 14 24.5 +1.2**
GRNR pmax pmax
comp=Z,60nm,1.0s
BBJI Bungbulang 148.03 170 P **PKPdf 23 14 25.5 +0.8**
BBJI Bungbulang 148.03 170 P **PKPbc 23 14 26.9 -1.1**
BBJI Bungbulang 148.03 170 PKPdf **PKPdf 23 14 24.0 -0.7**
GUMO Guam 148.04 256 PKP **PKPdf 23 14 24.4 0.0**
comp=Z,3μm,0.8s,baz=179,slow=3.9,SNR=42
GUMO PKPbc **PKPbc 23 14 27.3 -0.5**
comp=Z,3μm,0.8s,baz=180,slow=3.2,SNR=36
GUMO Guam 148.04 256 P **PKPdf 23 14 25.9 +1.4**
GUMO Guam 148.04 256 P **PKPbc 23 14 27.3 -0.5**
GUMO Guam 148.04 256 PKPdf **PKPdf 23 14 24.1 -0.4**
LEM Lembang 148.65 170 PKP **PKPdf 23 14 26.5 +0.7**
comp=Z,749nm,1.1s,baz=159,slow=3.5,SNR=19
LEM PKPbc **PKPbc 23 14 28.9 -0.8**
comp=Z,1μm,1.0s,baz=107,slow=7.2,SNR=8.4
ZEA Zeya 148.68 344 *e*PKiKP **PKPdf 23 14 25.2 +0.8**
ZEA pmax pmax
comp=Z,3μm,3.2s
ZEA pmax pmax
comp=N,40nm,0.5s
ZEA pmax pmax
comp=E,20nm,0.5s
ZEA pmax pmax
comp=Z,470nm,1.3s
JKA Kamikawa-asahi 148.73 317 **PKPdf 23 14 26.5 +1.7**
ASAJ Asahikawa 148.74 317 PKP **PKPdf 23 14 26.5 +1.7**
comp=Z,340nm,1.0s,baz=256,slow=7.3,SNR=30
ASAJ PKPbc **PKPbc 23 14 29.2 +0.4**
comp=Z,340nm,1.0s,baz=81,slow=3.9,SNR=28
ASAJ PP **PP 23 18 00.6 +0.2**
comp=Z,22nm,0.8s,baz=83,slow=5.3,SNR=2.5
SMRI Semarang 148.76 175 P **PKPdf 23 14 27.5 +1.7**
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JEM	**Erimo**	**149.34**	**313**	P		**PKPbc**	**23 14 28.6**	**-1.8**	
JOSI	**Joshimath**	**149.81**	**71**	*e*P		**PKPdf**	**23 14 29.6**	**+2.4**	
MNAI	**Manna**	**149.92**	**160**	P		**PKPdf**	**23 14 29.8**	**+2.2**	
KAPI	**Kappang**	**150.12**	**194**	PKP		**PKPdf**	**23 14 27.5**	**-0.5**	
	comp=Z,305nm,0.5s,baz=174,slow=0.1,SNR=45								
KAPI				PKPbc		**PKiKP**	**23 14 33.6**	**-0.3**	
	comp=Z,305nm,0.5s,baz=168,slow=1.1,SNR=53								
KAPI	**Kappang**	**150.12**	**194**	P		**PKPdf**	**23 14 29.7**	**+1.8**	
KAPI	**Kappang**	**150.12**	**194**	P		**PKPdf**	**23 14 30.4**	**+2.5**	
SANI	**Sanana**	**150.90**	**208**	PKP		**PKPdf**	**23 14 29.5**	**+0.3**	
SANI	**Sanana**	**150.90**	**208**	P		**PKPdf**	**23 14 30.0**	**+0.8**	
SANI	**Sanana**	**150.90**	**208**	P		**PKPdf**	**23 14 31.8**	**+2.6**	
KLR	**Kul'dur**	**151.05**	**334**	PKP		**PKPdf**	**23 14 28.0**	**-0.3**	
	comp=Z,53nm,0.9s,baz=16,slow=2.5,SNR=22								
KLR				PKPbc		**PKPbc**	**23 14 34.1**	**-0.1**	
	comp=Z,601nm,0.9s,baz=32,slow=3.2,SNR=98								
KLR				PP		**PP**	**23 18 10.8**	**-2.3**	
	comp=Z,23nm,1.2s,baz=39,slow=5.1,SNR=4.2								
MOY	**Mondy**	**151.17**	**15**	*e*PKIKP		**PKPdf**	**23 14 30.9**	**+2.3**	
MOY				pmax	pmax				
	comp=Z,920nm,2.4s								
JTM	**Tenmabayashi**	**151.29**	**312**	P		**PKPdf**	**23 14 31.7**	**+2.8**	
JTM	**Tenmabayashi**	**151.29**	**312**	P		**PKPdf**	**23 14 31.8**	**+2.8**	
IRK	**Irkutsk**	**151.32**	**11**	*e*PKIKP		**PKPdf**	**23 14 28.7**	**+0.1**	
IRK				pmax	pmax				
	comp=Z,700nm,2.3s								
WMQ	**Urumqi**	**151.61**	**40**	*e*PKPbc		**PKPdf**	**23 14 30.5**	**+1.1**	
WMQ				PKPab		**PKPab**	**23 14 46.8**	**+1.7**	
WMQ				SKKS			23 24 51.0		
HEH	**HeiHe**	**151.73**	**340**	*e*PKPbc		**PKPdf**	**23 14 28.5**	**-0.8**	
HEH				PPMZ					
	comp=Z,4μm,6.1s								
TLY	**Talaya**	**151.74**	**12**	PKP		**PKPdf**	**23 14 30.2**	**+0.9**	
	comp=Z,17nm,0.4s,baz=274,slow=1.7,SNR=11								
TLY				PKPbc		**PKPbc**	**23 14 35.8**	**0.0**	
	comp=Z,67nm,0.5s,baz=357,slow=1.0,SNR=44								
TLY				PKPab		**PKPab**	**23 14 45.5**	**+0.2**	
	comp=Z,149nm,0.9s,baz=264,slow=5.2,SNR=9.2								
TLY	**Talaya**	**151.74**	**12**	PKPdf		**PKPdf**	**23 14 29.6**	**+0.3**	
TLY						**PKiKP**	**23 14 36.4**	**+0.3**	
PMBI	**Palembang**	**151.81**	**163**	P		**PKPdf**	**23 14 32.9**	**+2.4**	
CIT	**Chita**	**152.31**	**359**	*e*PKIKP		**PKPdf**	**23 14 31.6**	**+1.4**	
CIT				*e*			23 15 16.5		
CIT				*e*			23 15 37.8		
CIT				pmax	pmax				
	comp=Z,999nm,1.2s								
GSI	**Gunungsitoli**	**152.75**	**145**	P		**PKPdf**	**23 14 34.0**	**+2.1**	
GSI	**Gunungsitoli**	**152.75**	**145**	P		**PKPdf**	**23 14 34.2**	**+2.3**	
TNTI	**Ternate**	**152.75**	**213**	P		**PKPdf**	**23 14 34.7**	**+2.8**	
ZAK	**Zakamensk**	**152.90**	**14**	*e*PKIKP		**PKPdf**	**23 14 32.1**	**+1.0**	
ZAK				pmax	pmax				
	comp=Z,124nm,1.1s								
LUWI	**Luwuk**	**153.07**	**202**	PKP		**PKPdf**	**23 14 32.9**	**+0.5**	
LUWI	**Luwuk**	**153.07**	**202**	P		**PKPdf**	**23 14 34.2**	**+1.8**	
LUWI	**Luwuk**	**153.07**	**202**	P		**PKPdf**	**23 14 35.1**	**+2.7**	
JCJ	**Chichijima**	**153.50**	**282**	PKPab		**PKPab**	**23 14 51.9**	**-1.6**	
	comp=Z,330nm,0.7s,baz=173,slow=1.8,SNR=8.5								
JCJ	**Chichijima**	**153.50**	**282**	P		**PKPdf**	**23 14 35.7**	**+3.1**	
BKNI	**Bangkinang**	**153.54**	**152**	PKP		**PKPdf**	**23 14 31.9**	**-1.2**	
BKNI	**Bangkinang**	**153.54**	**152**	P		**PKPdf**	**23 14 35.5**	**+2.4**	
HILR	**Hailar Array B**	**154.22**	**350**	PKP		**PKPdf**	**23 14 33.2**	**+0.3**	
	comp=Z,67nm,0.8s,baz=94,slow=2.1,SNR=30								
HILR				PKPbc		**PKiKP**	**23 14 41.6**	**+0.2**	
	comp=Z,34nm,0.3s,baz=27,slow=2.7,SNR=43								
HILR				PKPab		**PKPab**	**23 14 56.6**	**+0.8**	
	comp=Z,260nm,0.7s,baz=31,slow=3.5,SNR=26								
HILR				PP		**PP**	**23 18 30.2**	**-0.5**	
	comp=Z,48nm,1.0s,baz=0.0,slow=3.0,SNR=7.0								
BKB	**Balikpapan**	**154.31**	**189**	P		**PKPdf**	**23 14 36.8**	**+2.6**	
BKB	**Balikpapan**	**154.31**	**189**	P		**PKPdf**	**23 14 37.1**	**+2.9**	
HIA	**Hailar**	**154.50**	**350**	P		**PKPdf**	**23 14 34.2**	**+0.8**	
HIA	**Hailar**	**154.50**	**350**	P		**PKPdf**	**23 14 36.2**	**+2.8**	
BWNR	**Bhubaneshwar**	**154.62**	**94**	*e*P		**PKPdf**	**23 14 36.1**	**+1.8**	
PSI	**Prapat**	**154.72**	**146**	P		**PKPdf**	**23 14 35.4**	**+0.5**	
PSI	**Prapat**	**154.72**	**146**	P		**PKPdf**	**23 14 37.0**	**+2.1**	
USRK	**Ussuriysk Ar.**	**154.75**	**327**	PKP		**PKPdf**	**23 14 34.0**	**+0.1**	
	comp=Z,91nm,1.1s,baz=257,slow=1.1,SNR=42								
USRK				PKPbc		**PKiKP**	**23 14 42.8**	**+0.3**	
	comp=Z,157nm,1.0s,baz=1.7,slow=1.6,SNR=33								
USRK				PKPab		**PKPab**	**23 14 58.4**	**+0.2**	
	comp=Z,48nm,0.7s,baz=48,slow=2.5,SNR=8.7								
USRK				PP		**PP**	**23 18 35.2**	**+0.9**	
	comp=Z,10.0nm,0.9s,baz=13,slow=2.5,SNR=4.2								
USRK	**Ussuriysk Ar.**	**154.75**	**327**	PKPdf		**PKPdf**	**23 14 32.8**	**-1.0**	
USRK						**PKPbc**	**23 14 42.0**	**-0.5**	
USRK						**PKPab**	**23 14 57.4**	**-0.8**	
JHJ2	**Mitsune**	**154.88**	**297**	P		**PKPdf**	**23 14 37.5**	**+3.2**	
JHJ	**Hachijo jima 2**	**154.90**	**297**	PKPbc		**PKiKP**	**23 14 43.5**	**+0.3**	
	comp=Z,43nm,0.7s,baz=207,slow=8.9,SNR=10								
MJAR	**Matsushiro Arr**	**155.08**	**305**	PKP		**PKPdf**	**23 14 34.5**	**-0.1**	
	comp=Z,43nm,1.0s,baz=51,slow=0.3,SNR=43								
MJAR				PKPbc		PKPbc	23 14 44.0		
	comp=Z,51nm,0.7s,baz=77,slow=1.5,SNR=20								
MJAR				PKPab		**PKPab**	**23 15 00.4**	**+0.5**	
	comp=Z,86nm,0.6s,baz=159,slow=8.8,SNR=23								
MJAR				PP		**PP**	**23 18 36.6**	**-0.3**	
	comp=Z,16nm,1.0s,baz=71,slow=2.9,SNR=7.3								
MJAR	**Matsushiro Arr**	**155.08**	**305**			**PKPdf**	**23 14 33.9**	**-0.7**	
MJAR						PKPbc	23 14 43.8		
MJAR						**PKPab**	**23 15 00.5**	**+0.6**	
MAJO	**Matsushiro**	**155.09**	**305**	P		**PKPdf**	**23 14 35.0**	**+0.4**	
MAJO	**Matsushiro**	**155.09**	**305**	P		**PKPdf**	**23 14 37.6**	**+3.0**	
MAJO	**Matsushiro**	**155.09**	**305**	⇓PKP2		**PKPab**	**23 15 01.7**	**+1.7**	
BTDF	**Bukit Timah Da**	**155.55**	**157**	P		**PKPdf**	**23 14 36.8**	**+1.0**	
MDJ	**Mudanjiang**	**155.59**	**330**	PKP		**PKPdf**	**23 14 35.5**	**+0.6**	
BNX	**BinXian**	**155.60**	**335**	⇓PKP		**PKPdf**	**23 14 33.5**	**-1.4**	
BNX				SS	SS		23 38 15.5	+5.2	
BNX				PPMZ					
	comp=Z,2μm,5.4s								
LHMI	**Lhok Sumawe**	**155.60**	**138**	P		**PKPdf**	**23 14 36.8**	**+0.9**	
LHMI	**Lhok Sumawe**	**155.60**	**138**	P		**PKPdf**	**23 14 38.3**	**+2.4**	
TOLI2	**Tolitoli**	**155.74**	**199**	P		**PKPdf**	**23 14 36.5**	**+0.4**	
TOLI2	**Tolitoli**	**155.74**	**199**	P		**PKPdf**	**23 14 38.9**	**+2.8**	
SONM	**Songino Array**	**155.94**	**11**	PKP		**PKPdf**	**23 14 36.0**	**+0.6**	
	comp=Z,56nm,0.9s,baz=163,slow=0.9,SNR=34								
SONM				PKPbc	PKPbc		23 14 45.7		
	comp=Z,58nm,0.9s,baz=315,slow=1.6,SNR=34								
SONM				PKPab		**PKPab**	**23 15 03.3**	**0.0**	
	comp=Z,12nm,0.4s,baz=338,slow=1.2,SNR=7.2								
SONM				PP		**PP**	**23 18 41.1**	**+0.6**	
	comp=Z,11nm,1.0s,baz=275,slow=1.4,SNR=3.0								
SONM	**Songino Array**	**155.94**	**11**			**PKPdf**	**23 14 36.1**	**+0.6**	
SONM						**PKPab**	**23 15 04.0**	**+0.7**	
JGF	**Kuroka**	**156.07**	**304**	P		**PKPdf**	**23 14 36.6**	**+0.7**	
JGF	**Kuroka**	**156.07**	**304**	P		**PKPdf**	**23 14 39.0**	**+3.1**	
INU	**Inuyama**	**156.43**	**303**	P		**PKPdf**	**23 14 37.2**	**+0.9**	
INU	**Inuyama**	**156.43**	**303**	P		**PKPdf**	**23 14 39.4**	**+3.1**	
IPM	**Ipoh**	**157.22**	**148**	P		**PKPdf**	**23 14 38.5**	**+0.5**	
IPM	**Ipoh**	**157.22**	**148**	P		**PKPdf**	**23 14 39.8**	**+1.8**	
KULM	**Kulim**	**157.73**	**146**	P		**PKPdf**	**23 14 39.7**	**+1.1**	
KULM	**Kulim**	**157.73**	**146**	P		**PKPdf**	**23 14 41.2**	**+2.6**	
CN2	**Changchun**	**157.99**	**335**	PKP		**PKPdf**	**23 14 37.8**	**-0.2**	
CN2				pPKP		pPKPdf	23 15 20.8	-4.0	
CN2				PP		**PP**	**23 18 55.8**	**+4.0**	
CN2				SS	SS		23 38 38.0	+2.3	
CN2				PPMZ					
	comp=Z,700nm,10.0s								
DDMP	**Don Marcelino,**	**158.14**	**216**	PKIKP		**PKPdf**	**23 14 39.1**	**-0.1**	
DDMP				PKP		**PKPab**	**23 15 13.9**	**+0.3**	
DAV	**Davao City (W)**	**159.01**	**217**	PKPab		**PKPab**	**23 15 17.3**	**0.0**	
	comp=Z,65nm,0.3s,baz=111,slow=8.6,SNR=4.4								
CDOP	**Cateel, Davao**	**159.10**	**220**	PKIKP		**PKPdf**	**23 14 40.3**	**0.0**	
CDOP				PKP		**PKPab**	**23 15 16.9**	**-0.8**	
DHUB	**DHUBRI**	**159.18**	**80**	*e*P		**PKPdf**	**23 14 41.3**	**+1.3**	
DHUB				IVmB_BB			23 14 53.9		
	comp=Z,287nm,1.1s								
DHUB				*i* x	x		23 15 18.4		
JMN	**Monobe**	**159.43**	**302**	P		**PKPdf**	**23 14 42.2**	**+2.1**	
PICP	**Pikit**	**159.49**	**215**	PKIKP		**PKPdf**	**23 14 41.6**	**+0.9**	
PICP				PKP		**PKPab**	**23 15 20.5**	**+1.1**	
LCVP	**Laak**	**159.51**	**219**	PKIKP		**PKPdf**	**23 14 40.6**	**-0.2**	
LCVP				PKP		**PKPab**	**23 15 20.7**	**+1.2**	
BUKP	**Musuan**	**159.97**	**217**	PKIKP		**PKPdf**	**23 14 41.9**	**+0.6**	
BUKP				PKP		**PKPab**	**23 15 24.0**	**+2.5**	
TASP	**Talacogon, Agu**	**160.00**	**220**	PKIKP		**PKPdf**	**23 14 42.8**	**+1.5**	
AGT	**Agartala**	**160.21**	**87**	*e*P		**PKPdf**	**23 14 43.9**	**+2.7**	
AGT				IVmB_BB			23 14 49.2		
	comp=Z,415nm,0.3s								
AGT				*i* x	x		23 15 24.7		
TSSP	**Tandag City**	**160.24**	**222**	PKIKP	PKPdf		23 14 52.1	+11	
XLT	**XiLinHaoTe**	**160.26**	**353**	*e*PKP		**PKPdf**	**23 14 41.5**	**+0.7**	
XLT				PKPab		**PKPab**	**23 15 22.3**	**+0.2**	
XLT				L	L				
	comp=Z,470nm,20.2s								
XLT				L	L				
	comp=Z,710nm,18.3s								
MARP2	**New Provincial**	**160.50**	**216**	PKIKP	PKPdf		23 14 49.9	+8.0	
MARP2				PKP		**PKPab**	**23 15 26.2**	**+2.3**	
BLNP	**Bacolod Lanao**	**160.75**	**215**	PKIKP		**PKPdf**	**23 14 43.1**	**+1.0**	
BLNP				PKP		**PKPab**	**23 15 26.6**	**+1.7**	
PAGZ	**Pagadian**	**160.83**	**213**	PKIKP		**PKPdf**	**23 14 42.9**	**+0.8**	
PAGZ				PKP		**PKPab**	**23 15 26.2**	**+1.0**	
GLSP	**General Luna,**	**160.85**	**223**	PKIKP		**PKPab**	**23 15 25.7**	**+0.3**	
SHL	**Shillong**	**160.88**	**82**	*e*P		**PKPdf**	**23 14 42.9**	**+0.7**	
SHL				*i* x	x		23 15 26.3		
GTA2	**Gaotai**	**161.21**	**33**	*e*PKP		**PKPdf**	**23 14 42.0**	**0.0**	
GTA2				PKPab		**PKPab**	**23 15 27.0**	**+0.5**	
GTA2				SKKS			23 25 40.5		
GTA2				L	L				
	comp=Z,630nm,21.6s								
GTA2				L	L				
	comp=Z,610nm,21.9s								
GTA2				L	L				
	comp=Z,890nm,19.7s								
AZL	**Aizawl**	**161.51**	**88**	*e*P		**PKPdf**	**23 14 43.9**	**+1.2**	
AZL				*i* x	x		23 15 30.2		
KKM	**Kota Kinabalu**	**161.59**	**190**	P		**PKPdf**	**23 14 43.8**	**+0.7**	
KKM	**Kota Kinabalu**	**161.59**	**190**	P		**PKPdf**	**23 14 45.9**	**+2.8**	
LDIP	**Loreto**	**161.64**	**223**	PKIKP		**PKPdf**	**23 14 42.1**	**-0.9**	
LDIP				PKP		**pPKPdf**	**23 15 29.7**	**-0.4**	
KSRS	**Korea Array**	**161.64**	**319**	PKP		**PKPdf**	**23 14 42.5**	**+0.1**	
	comp=Z,90nm,1.0s,baz=80,slow=1.0,SNR=88								
KSRS				PKPab		**pPKPdf**	**23 15 29.4**	**+0.1**	
	comp=Z,68nm,0.8s,baz=57,slow=4.7,SNR=24								
KSRS				PP		**PP**	**23 19 12.5**	**+0.5**	
	comp=Z,6.6nm,1.0s,baz=61,slow=3.8,SNR=4.3								
TEZP	**TEZPUR**	**161.68**	**78**	*e*P		**PKPdf**	**23 14 42.9**	**+0.2**	
TEZP				IVmB_BB			23 14 45.5		
	comp=Z,400nm,1.0s								
TEZP				*i* x	x		23 15 29.2		
LSIP	**Lazi, Siquijor**	**161.78**	**216**	PKIKP		**PKPdf**	**23 14 43.0**	**-0.2**	
LSIP				PKP		**PKPab**	**23 15 28.8**	**-0.6**	
JNU	**Nakatsue**	**161.97**	**303**	PKP		**PKPdf**	**23 14 42.1**	**-0.8**	
	comp=Z,18nm,0.8s,baz=58,slow=1.9,SNR=7.8								
JNU				PKPab		**PKPab**	**23 15 30.8**	**+0.8**	
	comp=Z,98nm,0.9s,baz=55,slow=5.9,SNR=15								
TABP	**Talibon, Bohol**	**162.18**	**220**	PKIKP		**PKPdf**	**23 14 43.2**	**-0.3**	
TABP				PKP		**PKPab**	**23 15 32.1**	**+1.0**	
DACP	**Dalaguete, Ceb**	**162.37**	**217**	PKIKP		**PKPdf**	**23 14 43.2**	**-0.6**	
DACP				PKP		**PKPab**	**23 15 32.5**	**+0.5**	
INCN	**Inchon**	**162.38**	**321**	P		**PKPdf**	**23 14 44.1**	**+1.0**	
INCN	**Inchon**	**162.38**	**321**	P		**PKPdf**	**23 14 46.3**	**+3.2**	
ZIRO	**ZIRO**	**162.54**	**75**	*e*P		**PKPdf**	**23 14 44.4**	**+0.5**	
ZIRO				*i* pP		**PKPab**	**23 15 34.4**	**+1.5**	
SFCP	**San Francisco,**	**162.60**	**221**	PKIKP		**PKPdf**	**23 14 43.5**	**-0.5**	
SFCP				PKP		**PKPab**	**23 15 35.1**	**+2.2**	
TJN	**Taejon**	**162.69**	**317**	P		**PKPdf**	**23 14 44.3**	**+0.9**	
TJN	**Taejon**	**162.69**	**317**	P		**PKPdf**	**23 14 46.8**	**+3.4**	
IMP	**Imphal**	**162.73**	**84**	*e*P		**PKPdf**	**23 14 45.3**	**+1.4**	
IMP				IVmB_BB			23 15 01.0		
	comp=Z,363nm,1.3s								
IMP				*i* x	x		23 15 35.0		
KOHI	**KOHIMA**	**162.89**	**81**	*e*P		**PKPdf**	**23 14 44.9**	**+0.8**	
KOHI				*i* x	x		23 15 35.8		
CNOP	**Candoni, Negro**	**162.89**	**214**	PKIKP		**PKPdf**	**23 14 39.0**	**-5.3**	
CNOP				PKP		**PKPab**	**23 15 33.5**	**-0.8**	
GNOP	**Guihulngan Cit**	**162.90**	**217**	PKIKP		**PKPdf**	**23 14 43.2**	**-1.1**	
GNOP				PKP		**PKPab**	**23 15 34.6**	**+0.2**	
MOKO	**MOKOCHONG**	**163.23**	**79**	*e*P		**PKPdf**	**23 14 45.4**	**+0.9**	
MOKO				*i* pP		**PKPab**	**23 15 37.8**	**+1.9**	
MECP	**Medelin, Cebu**	**163.24**	**221**	PKIKP		**PKPdf**	**23 14 42.9**	**-1.7**	
MECP				PKP		**PKPab**	**23 15 37.7**	**+1.9**	
BTO2	**Baotou**	**163.39**	**8**	*e*PKP		**PKPdf**	**23 14 44.5**	**+0.3**	
BTO2				PPMZ					
	comp=Z,12μm,7.1s								
CADP	**Cadiz City**	**163.45**	**218**	PKIKP		**PKPdf**	**23 14 46.0**	**+1.2**	
CADP				PKP		**sPKPdf**	**23 15 56.3**	**+6.6**	
HHC	**Hu-ho-hao-te**	**163.45**	**4**	*e*PKP		**PKPdf**	**23 14 44.3**	**+0.1**	
HHC				PP		**PP**	**23 19 22.3**	**+1.5**	
HHC				SS	SS		23 39 33.3	+1.0	
GUIM	**Jordan**	**163.59**	**216**	PKIKP		**PKPdf**	**23 14 45.2**	**+0.2**	
GUIM				PKP		**PKPab**	**23 15 36.9**	**-0.4**	
DL2	**Dalian**	**163.66**	**335**	PKP		**PKPdf**	**23 14 45.3**	**+1.0**	
DL2				pPKP		**pPKPdf**	**23 15 28.5**	**-2.8**	
DL2				PKPab		**PKPab**	**23 15 37.0**	**0.0**	
DL2				PPMZ					
	comp=Z,1μm,8.8s								
CNP	**Catarman**	**163.85**	**226**	PKIKP	PKPdf		23 15 07.9	+23	
BJI2	**Beijing**	**164.08**	**351**	PKP		**PKPdf**	**23 14 44.3**	**-0.3**	
BJI2				sPKP		**sPKPdf**	**23 14 45.0**	**-5.7**	
BJI2				PP		**PP**	**23 19 26.5**	**+2.5**	
BJI2				SKS		**SKSdf**	**23 21 32.0**	**-0.8**	
BJI2				PPMZ					
	comp=Z,1μm,8.5s								
BJI2				L	L				
	comp=Z,600nm,21.9s								
BJI2				L	L				
	comp=Z,500nm,23.1s								
BJI2				L	L				
	comp=Z,1μm,22.7s								
BJT	**Baijiatuan**	**164.08**	**351**	P		**PKPdf**	**23 14 46.2**	**+1.6**	
BJT	**Baijiatuan**	**164.08**	**351**	P		**PKPdf**	**23 14 47.9**	**+3.3**	
ENPP	**El Nido**	**165.59**	**207**	PKIKP		**PKPdf**	**23 14 48.9**	**+2.2**	
ENPP				PKP		**PKPab**	**23 15 46.8**	**+0.7**	
CMAR	**Chiang Mai Arr**	**165.75**	**111**	PKP		**PKPdf**	**23 14 46.4**	**-0.3**	
	comp=Z,42nm,1.0s,baz=258,slow=2.0,SNR=46								
CMAR				PKPab		**PKPab**	**23 15 46.5**	**-0.4**	
	comp=Z,34nm,1.0s,baz=252,slow=4.8,SNR=12								
CMAR				PP		**PP**	**23 19 34.1**	**-0.5**	
	comp=Z,2.2nm,0.4s,baz=262,slow=5.7,SNR=4.5								
CMAR	**Chiang Mai Arr**	**165.75**	**111**			**PKPdf**	**23 14 45.9**	**-0.8**	
CMAR						**PKPab**	**23 15 46.3**	**-0.7**	
LZH	**Lanzhou**	**165.87**	**32**	*e*PKP		**PKPdf**	**23 14 48.3**	**+1.8**	
LZH				sPKP		sPKPdf	23 15 48.8	-2.7	
LZH				SKKS			23 26 05.8		
LZH				SS	SS		23 39 58.5	+0.2	
LZH				L	L				
	comp=Z,770nm,21.0s								
LZH				L	L				
	comp=Z,700nm,21.9s								
LZH				L	L				
	comp=Z,1μm,22.0s								
LZDM	**Lanzhou Array**	**165.91**	**32**	PKP		**PKPdf**	**23 14 47.1**	**+0.3**	
	comp=Z,75nm,1.0s,baz=323,slow=2.2,SNR=27								
LZDM				PKPab		**PKPab**	**23 15 48.0**	**+0.5**	
	comp=Z,12nm,0.6s,baz=343,slow=4.6,SNR=5.2								
LZDM				PP		**PP**	**23 19 35.4**	**+0.8**	
	comp=Z,0.9nm,0.3s,baz=256,slow=5.8,SNR=1.5								
CHTO	**Chiang Mai**	**165.91**	**110**	P		**PKPdf**	**23 14 47.3**	**+0.5**	
CHTO	**Chiang Mai**	**165.91**	**110**	P		**PKPdf**	**23 14 48.9**	**+2.1**	
JOW	**Kunigami**	**165.91**	**284**	PKP		**PKPdf**	**23 14 47.5**	**+0.9**	
	comp=Z,115nm,1.0s,baz=176,slow=2.0,SNR=5.0								
JOW				PKPab		**PKPab**	**23 15 48.3**	**+0.8**	
	comp=Z,59nm,0.7s,baz=125,slow=9.7,SNR=4.7								
BUSP	**Coron**	**165.97**	**211**	PKIKP		**PKPdf**	**23 14 47.3**	**+0.4**	
BUSP				PKP		**PKPab**	**23 15 49.3**	**+1.6**	
BOAC	**Boac**	**166.32**	**220**	PKIKP		**PKPdf**	**23 14 46.8**	**-0.4**	
BOAC				PKP		**sPKPdf**	**23 15 51.2**	**-1.0**	
JCNP	**Jose Panganiba**	**166.44**	**225**	PKIKP		**PKPdf**	**23 14 48.3**	**+1.0**	
JCNP				PKP		**sPKPdf**	**23 15 51.4**	**-0.8**	
AIQP	**LGU Evacuation**	**166.72**	**222**	PKIKP		**PKPdf**	**23 14 49.0**	**+1.5**	
HNS	**HongShan**	**166.84**	**354**	⇑PKP		**PKPdf**	**23 14 47.8**	**+0.8**	
HNS				PKPab		**PKPab**	**23 15 50.5**	**-0.5**	
HNS				L	L				
	comp=Z,1μm,18.1s								
HNS				L	L				
	comp=Z,490nm,20.4s								
HNS				L	L				
	comp=Z,1μm,19.0s								
TNCH	**TengChong**	**166.88**	**84**	PKP		**PKPdf**	**23 14 47.3**	**-0.4**	
TNCH				PP		**PP**	**23 19 41.8**	**+0.9**	
TNCH				PPMZ					
	comp=Z,1μm,7.8s								
TNCH				L	L				
	comp=Z,2μm,20.1s								
LBLP	**Los Banos, Lag**	**167.25**	**219**	PKIKP		**PKPdf**	**23 14 47.7**	**-0.2**	
LBLP				PKP		**PKPab**	**23 15 54.2**	**+0.8**	
PAKP	**Brgy Taft, Pak**	**167.27**	**221**	PKIKP		**PKPdf**	**23 14 49.2**	**+1.3**	
TIRP	**Brgy. Gulod. B**	**167.39**	**220**	PKIKP		**PKPdf**	**23 14 47.0**	**-1.0**	
TIRP				PKP		**PKPab**	**23 15 54.6**	**+0.6**	
LUBP	**Lubang**	**167.43**	**215**	PKIKP		**PKPdf**	**23 14 47.0**	**-1.1**	
TIA	**Tai'an**	**167.57**	**344**	PKP		**PKPdf**	**23 14 47.5**	**-0.1**	
MACP	**Maragondon, Ca**	**167.61**	**218**	PKIKP		**PKPdf**	**23 14 46.5**	**-1.6**	
RTBP	**Dona Remedios**	**167.97**	**221**	PKIKP		**PKPdf**	**23 14 49.4**	**+1.0**	
RTBP				PKP		**PKPab**	**23 15 57.6**	**+1.1**	
CAAP	**Casiguran, Aur**	**168.26**	**228**	PKIKP		**PKPdf**	**23 14 50.6**	**+2.1**	
CAAP				PKP		**PKPab**	**23 15 59.5**	**+1.6**	
PALP	**Palanan**	**168.57**	**233**	PKIKP		**PKPdf**	**23 14 54.9**	**+6.1**	
IBZP	**Iba, Zambales**	**168.92**	**218**	PKIKP		**PKPdf**	**23 14 49.8**	**+0.8**	
SCZP	**Santa Cruz**	**169.28**	**219**	PKIKP		**PKPdf**	**23 14 46.5**	**-2.7**	
AGIP	**Aguinaldo, Ifu**	**169.32**	**229**	PKIKP		**PKPdf**	**23 14 50.5**	**+1.1**	
AGIP				PKP		**PKPab**	**23 16 04.4**	**+1.6**	
TCKP	**Tabuk City, Ka**	**169.40**	**231**	PKIKP		**PKPdf**	**23 14 51.9**	**+2.6**	
CD2	**Chengdu**	**169.54**	**49**	PKP		**PKPdf**	**23 14 49.0**	**-0.1**	
CD2				PKPab		**PKPab**	**23 16 04.0**	**+0.6**	
CD2				SKKS			23 26 22.5		
CD2				SS	SS		**23 40 36.0**	**0.0**	
SAMP	**Sagada Mountai**	**169.65**	**228**	PKIKP		**PKPdf**	**23 14 48.8**	**-0.6**	
PZH	**PanZhiHua**	**169.66**	**75**	PKP		**PKPdf**	**23 14 49.5**	**+0.1**	
PZH				PP		**PP**	**23 20 01.5**	**+6.7**	
PZH				SKKS			23 26 23.5		
PZH				PPMZ					
	comp=Z,3μm,10.4s								
XAN	**Xi'an**	**169.68**	**19**	PKP		**PKPdf**	**23 14 49.5**	**+0.4**	
XAN				PKPab		**PKPab**	**23 16 03.0**	**-0.7**	
XAN				L	L				
	comp=Z,1μm,21.3s								
XAN				L	L				
	comp=Z,450nm,15.8s								
XAN				L	L				
	comp=Z,2μm,22.7s								
LYN	**LuoYang**	**169.76**	**2**	PKP		**PKPdf**	**23 14 49.0**	**0.0**	
LYN				PKPab		**PKPab**	**23 16 04.0**	**0.0**	
LYN				L	L				
	comp=Z,1μm,19.2s								
LYN				L	L				
	comp=Z,1μm,20.6s								
LYN				L	L				
	comp=Z,2μm,22.6s								
PACPP	**Pamplona Cagay**	**170.24**	**

	comp=E,6µm,0.4s						
SLA	**San Lorenzo**	**1.68**	**102**	*e*P	**Pn**	**23 03 14.1**	**-0.1**
SLA	**San Lorenzo**	**1.68**	**102**⇓	*e*P	**Pn**	**23 03 13.7**	**-0.4**
FSA	**Cafayete**	**2.11**	**145**	*e*P	**Pn**	**23 03 18.6**	**0.0**
PB06	**IPOC Station P**	**2.66**	**308**	*e*P	**Pn**	**23 03 25.7**	**+0.7**
PB06				IAML		23 04 04.2	
	comp=Z,5µm,0.4s						
PB06	**IPOC Station P**	**2.66**	**308**	Pn	**Pn**	**23 03 25.4**	**+0.4**
PB06				Sn	**Sn**	**23 03 59.3**	**-0.5**
PB06	**IPOC Station P**	**2.66**	**308**⇑	*e*P	**Pn**	**23 03 25.6**	**+0.7**
PB06				*e*S	**Sn**	**23 03 59.1**	**-0.6**
YJA	**Yavi**	**2.74**	**37**	*e*P	**Pn**	**23 03 26.9**	**+0.7**
PB14	**IPOC Station P**	**2.83**	**264**	*e*P	**Pn**	**23 03 27.7**	**+0.6**
PB14				IAML		23 04 09.1	
	comp=Z,1µm,0.6s						
PB14	**IPOC Station P**	**2.83**	**264**	Pn	**Pn**	**23 03 27.5**	**+0.4**
PB14				Sn	**Sn**	**23 04 03.0**	**-0.6**
PB14	**IPOC Station P**	**2.83**	**264**	*e*P	**Pn**	**23 03 27.5**	**+0.4**
PB14				IAML		23 04 07.5	
	comp=E,1µm,0.3s						
AC02	**Maricunga**	**2.95**	**213**	*e*P	**Pn**	**23 03 30.1**	**+1.4**
AC02				*e*S	**Sn**	**23 04 06.3**	**-0.2**
AC02	**Maricunga**	**2.95**	**213**	Pn	**Pn**	**23 03 29.7**	**+1.0**
AC02	**Maricunga**	**2.95**	**213**⇑	*e*P	**Pn**	**23 03 29.9**	**+1.2**
AHML	**Horco Molle**	**2.99**	**144**	*e*P	**Pn**	**23 03 28.3**	**-0.5**
PB05	**IPOC Station P**	**3.05**	**299**	*e*P	**Pn**	**23 03 30.3**	**+0.6**
PB05				IAML		23 04 17.3	
	comp=Z,1µm,0.4s						
PB05	**IPOC Station P**	**3.05**	**299**	Pn	**Pn**	**23 03 29.9**	**+0.3**
PB05				Sn	**Sn**	**23 04 07.8**	**-0.4**
PB05	**IPOC Station P**	**3.05**	**299**⇑	*e*P	**Pn**	**23 03 30.1**	**+0.4**
PB05				IAML		23 04 10.1	
	comp=N,2µm,0.3s						
PB10	**IPOC Station P**	**3.09**	**285**	*e*P	**Pn**	**23 03 30.8**	**+0.9**
PB10				IAML		23 04 13.2	
	comp=Z,1µm,0.3s						
PB10	**IPOC Station P**	**3.09**	**285**	Pn	**Pn**	**23 03 30.4**	**+0.5**
PB10	**IPOC Station P**	**3.09**	**285**	*e*P	**Pn**	**23 03 30.9**	**+1.0**
PB10				*e*S	**Sn**	**23 04 08.1**	**-0.6**
PB10				IAML		23 04 12.5	
	comp=N,2µm,0.2s						
PB09	**IPOC Station P**	**3.12**	**325**	*e*P	**Pn**	**23 03 31.4**	**+0.9**
PB09				IAML		23 04 15.4	
	comp=Z,2µm,0.4s						
PB09	**IPOC Station P**	**3.12**	**325**	Pn	**Pn**	**23 03 31.3**	**+0.7**
PB09				Sn	**Sn**	**23 04 09.6**	**-0.2**
PB09	**IPOC Station P**	**3.12**	**325**	*e*P	**Pn**	**23 03 31.6**	**+1.0**
PB09				*i* S	**Sn**	**23 04 09.4**	**-0.4**
PB09				IAML		23 04 12.6	
	comp=N,2µm,0.4s						
PB03	**IPOC Station P**	**3.23**	**315**	*e*P	**Pn**	**23 03 32.5**	**+0.7**
PB03				IAML		23 04 16.0	
	comp=Z,2µm,0.2s						
PB03	**IPOC Station P**	**3.23**	**315**	Pn	**Pn**	**23 03 32.2**	**+0.4**
PB03				Sn	**Sn**	**23 04 11.0**	**-1.0**
PB03	**IPOC Station P**	**3.23**	**315**⇑	*e*P	**Pn**	**23 03 32.0**	**+0.2**
AC01	**Pan de Azucar**	**3.46**	**239**	*e*P	**Pn**	**23 03 34.6**	**+0.1**
AC01				IAML		23 04 19.8	
	comp=Z,764nm,0.2s						
AC01	**Pan de Azucar**	**3.46**	**239**	Pn	**Pn**	**23 03 34.5**	**0.0**
AC01	**Pan de Azucar**	**3.46**	**239**⇑	*e*P	**Pn**	**23 03 34.5**	**0.0**
PB07	**IPOC Station P**	**3.54**	**318**	*e*P	**Pn**	**23 03 36.2**	**+0.5**
PB07				IAML		23 04 28.1	
	comp=Z,1µm,0.4s						
PB07	**IPOC Station P**	**3.54**	**318**	Pn	**Pn**	**23 03 35.7**	**-0.1**
PB07				Sn	**Sn**	**23 04 17.9**	**-1.3**
PB07	**IPOC Station P**	**3.54**	**318**⇑	*e*P	**Pn**	**23 03 35.8**	**-0.1**
TINO	**Tinogasta**	**3.68**	**184**	*e*P	**Pn**	**23 03 39.1**	**+1.8**
PB02	**IPOC Station P**	**3.86**	**321**	*e*P	**Pn**	**23 03 40.2**	**+0.5**
PB02				IAML		23 04 29.1	
	comp=Z,3µm,0.4s						
PB02	**IPOC Station P**	**3.86**	**321**	Pn	**Pn**	**23 03 38.7**	**-1.0**
PB02	**IPOC Station P**	**3.86**	**321**	*e*P	**Pn**	**23 03 39.6**	**-0.1**
PB01	**IPOC Station P**	**3.88**	**328**	*e*P	**Pn**	**23 03 40.2**	**+0.4**
PB01				IAML		23 04 30.2	
	comp=Z,697nm,0.2s						
PB01	**IPOC Station P**	**3.88**	**328**	Pn	**Pn**	**23 03 39.7**	**-0.1**
PB01	**IPOC Station P**	**3.88**	**328**	*e*P	**Pn**	**23 03 39.5**	**-0.4**
AC06	**Mina Casimiro**	**4.04**	**222**		**Pn**	**23 03 40.8**	**-1.0**
AC06	**Mina Casimiro**	**4.04**	**222**⇑	*e*P	**Pn**	**23 03 41.4**	**-0.4**
GO03	**Copiapo**	**4.15**	**219**	*e*P	**Pn**	**23 03 42.9**	**-0.3**
GO03				IAML		23 04 34.5	
	comp=Z,827nm,0.3s						
GO03	**Copiapo**	**4.15**	**219**	Pn	**Pn**	**23 03 42.5**	**-0.7**
GO03	**Copiapo**	**4.15**	**219**⇑	*e*P	**Pn**	**23 03 42.7**	**-0.5**
PB08	**IPOC Station P**	**4.54**	**338**	*e*P	**Pn**	**23 03 48.8**	**+0.1**
PB08				IAML		23 04 46.9	
	comp=Z,267nm,0.5s						
PB08	**IPOC Station P**	**4.54**	**338**	Pn	**Pn**	**23 03 48.1**	**-0.6**
TA01	**Diego Aracena**	**4.63**	**324**	*e*P	**Pn**	**23 03 48.7**	**-0.7**
TA01				*e*S	**Sn**	**23 04 41.3**	**-2.3**
TA01				IAML		23 04 44.2	
	comp=Z,296nm,1.5s						
TA01	**Diego Aracena**	**4.63**	**324**	Pn	**Pn**	**23 03 48.0**	**-1.4**
TA01	**Diego Aracena**	**4.63**	**324**	*e*P	**Pn**	**23 03 48.6**	**-0.7**
GO01	**Chusmiza**	**5.00**	**339**	*e*P	**Pn**	**23 03 54.5**	**-0.1**
GO01				*e*S	**Sn**	**23 04 48.1**	**-4.9**
GO01				IAML		23 04 52.5	
	comp=Z,253nm,0.3s						
GO01	**Chusmiza**	**5.00**	**339**	Pn	**Pn**	**23 03 54.2**	**-0.4**
PB11	**IPOC Station P**	**5.08**	**334**	*e*P	**Pn**	**23 03 54.1**	**-1.3**
PB11				IAML		23 04 58.1	
	comp=Z,294nm,0.4s						
PB11	**IPOC Station P**	**5.08**	**334**	Pn	**Pn**	**23 03 53.0**	**-2.4**
AC04	**Llanos de Chal**	**5.09**	**221**	*e*P	**Pn**	**23 03 54.4**	**-0.9**
AC04				*e*S	**Sn**	**23 04 52.8**	**-1.6**
AC04				IAML		23 04 55.6	
	comp=Z,316nm,0.4s						
AC04	**Llanos de Chal**	**5.09**	**221**	Pn	**Pn**	**23 03 53.8**	**-1.5**
AC04	**Llanos de Chal**	**5.09**	**221**	*e*P	**Pn**	**23 03 54.2**	**-1.1**
AC05	**El Transito**	**5.17**	**210**	*e*P	**Pn**	**23 03 56.6**	**+0.1**
AC05				*e*S	**Sn**	**23 04 55.6**	**-0.9**
AC05				IAML		23 04 58.6	
	comp=Z,175nm,0.7s						
AC05	**El Transito**	**5.17**	**210**	Pn	**Pn**	**23 03 55.8**	**-0.7**
PSGCX	**Pisagua**	**5.42**	**331**	Pn	**Pn**	**23 03 58.2**	**-1.6**
LCO	**Las Campanas**	**5.52**	**213**	Pn	**Pn**	**23 03 59.9**	**-1.3**
CO01	**Juntas del Tor**	**6.11**	**203**	Pn	**Pn**	**23 04 09.8**	**+1.0**
PB16	**IPOC Station P**	**6.35**	**341**	Pn	**Pn**	**23 04 10.0**	**-2.3**
PB12	**IPOC Station P**	**6.38**	**333**	Pn	**Pn**	**23 04 09.4**	**-2.9**
GO04	**Tololo Observa**	**6.55**	**207**	Pn	**Pn**	**23 04 14.2**	**-0.4**
CO03	**El Pedregal**	**7.10**	**204**	Pn	**Pn**	**23 04 20.9**	**-0.8**
CO06	**Fray Jorge**	**7.35**	**210**	Pn	**Pn**	**23 04 22.1**	**-2.8**
CO02	**Combarbal**	**7.54**	**205**	Pn	**Pn**	**23 04 25.2**	**-2.3**
CPSB	**Cacapava Do Su**	**13.71**	**119**	P	**Pn**	**23 05 47.1**	**0.0**
ITAB	**Concordia**	**13.97**	**105**	P	**Pn**	**23 05 51.6**	**+1.1**
VAO	**Valinhos**	**18.69**	**90**	P	**P**	**23 06 43.0**	**-1.9**
VAO				IAmb	IAmb	23 06 45.7	
	comp=Z,120nm,1.2s						
LL02	**Futaleuf**	**19.14**	**190**	P	**P**	**23 06 50.0**	**+0.5**
LL02				IAmb	IAmb	23 06 52.3	
	comp=Z,46nm,1.0s						
BDFB	**Brasilia**	**20.09**	**68**	P	**P**	**23 07 00.7**	**+0.6**
GO08	**Villa O'Higgin**	**24.40**	**188**	P	**P**	**23 07 43.0**	**+1.3**
GO08				IAmb	IAmb	23 07 46.2	
	comp=Z,13nm,0.9s						
BIM	**Bigot**	**39.13**	**10**	P	**P**	**23 09 50.6**	**+0.3**
CELP	**Cerrillos**	**42.20**	**1**	P	**P**	**23 10 14.3**	**-1.0**
CELP				IAmb	IAmb	23 10 23.3	
	comp=Z,42nm,1.1s						
CAMR	**Camarioca**	**49.09**	**343**	P	**P**	**23 11 09.5**	**+0.2**
SACV	**Santiago Islan**	**57.87**	**52**	P	**P**	**23 12 12.0**	**-1.4**
SACV				IAmb	IAmb	23 12 13.5	
	comp=Z,75nm,0.8s						
X58A	**Rowland**	**59.71**	**349**	P	**P**	**23 12 26.0**	**+0.4**
X58A				IAmb	IAmb	23 12 27.5	
	comp=Z,29nm,0.8s						
BIRD	**Birdtown, Kers**	**60.01**	**347**	P	**P**	**23 12 28.6**	**+1.0**
BIRD				IAmb	IAmb	23 12 43.7	
	comp=Z,32nm,1.0s						
V55A	**Taylorsville**	**61.33**	**347**	P	**P**	**23 12 37.4**	**+0.8**
V55A				IAmb	IAmb	23 12 38.4	
	comp=Z,19nm,0.8s						
X48A	**Hartselle**	**61.43**	**341**	P	**P**	**23 12 38.1**	**+0.8**
X48A				IAmb	IAmb	23 12 38.7	
	comp=Z,14nm,0.8s						
WVT	**Waverly**	**63.23**	**341**	P	**P**	**23 12 49.3**	**+0.2**
WVT				IAmb	IAmb	23 12 50.6	
	comp=Z,17nm,0.8s						
FVM	**French Village**	**65.72**	**340**	P	**P**	**23 13 04.4**	**-0.9**
FVM				IAmb	IAmb	23 13 12.3	
	comp=Z,18nm,1.1s						
ANMO	**Albuquerque**	**69.70**	**326**	P	**P**	**23 13 31.6**	**+1.1**
TASM	**ASL Pad, Albuq**	**69.70**	**326**	P	**P**	**23 13 30.5**	**-0.1**
PV23	**Carpenter Ridg**	**73.71**	**327**	P	**P**	**23 13 55.7**	**+1.1**
PV21	**Cone Mtn., Par**	**73.78**	**327**	P	**P**	**23 13 55.0**	**+0.1**
RSSD	**Black Hills**	**76.01**	**334**	P	**P**	**23 14 08.4**	**+0.9**
RSSD				IAmb	IAmb	23 14 21.4	
	comp=Z,11nm,0.9s						
GWY	**Greenwater Val**	**76.16**	**321**	P	**P**	**23 14 09.9**	**+1.5**
HWUT	**Hardware Ranch**	**77.39**	**328**	P	**P**	**23 14 15.6**	**+0.3**
LHV	**Little Huntoon**	**78.64**	**321**	P	**P**	**23 14 24.0**	**+2.1**
LHV				IAmb	IAmb	23 14 31.8	
	comp=Z,11nm,1.1s						
KVN	**Kaiserville**	**78.97**	**322**	P	**P**	**23 14 25.6**	**+1.6**
BMN	**Battle Mountai**	**79.45**	**324**	P	**P**	**23 14 28.0**	**+1.4**
PNTR	**Pine Nut**	**79.84**	**321**	P	**P**	**23 14 30.0**	**+1.2**
PNTR				IAmb	IAmb	23 14 32.3	
	comp=Z,11nm,0.9s						

SJA ***30*** *23:10:00.1±0.6,24.˚30S×67.˚24W,h180km±6km,ML3.7, MW3.6*
GUC ***30*** *23:10:01.7±0.6,24.˚20S×67.˚49W,h212km±5km,ML3.9, Presumed earthquake*

ISC 30 23:10:00.1±1.3,**24.˚30S**±0.˚03×**67.˚27W**±0.˚06,**h175**km,**n35,** σ1§**51**/61,**3C-4D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
SALTA		**0.85**	**85**	*e*P	**Pn**	**23 10 27.6**	**+0.8**
AF01	**San Pedro de A**	**1.58**	**328**	*i* P	Pn	23 10 35.2	+2.4
AF01				⇓*i*S	**Sn**	**23 11 01.2**	**+3.2**
FSA	**Cafayete**	**2.15**	**147**	*e*P	**Pn**	**23 10 39.5**	**+0.9**
PB06	**IPOC Station P**	**2.65**	**306**	*e*P	**Pn**	**23 10 45.8**	**+1.4**
PB06				*e*S	**Sn**	**23 11 19.4**	**+0.7**
PB06				IAML		23 11 21.6	
	comp=Z,160nm,0.3s						
PB06	**IPOC Station P**	**2.65**	**306**⇑	*i* P	**Pn**	**23 10 45.8**	**+1.4**
PB06				*i* S	**Sn**	**23 11 18.9**	**+0.1**
PB06				IAML		23 11 20.5	
	comp=N,449nm,0.7s						
PB14	**IPOC Station P**	**2.88**	**263**	*e*P	**Pn**	**23 10 48.6**	**+1.3**
PB14				*e*S	**Sn**	**23 11 25.0**	**+1.0**
PB14				*e*S		23 11 27.6	
PB14	**IPOC Station P**	**2.88**	**263**	*i* P	**Pn**	**23 10 48.2**	**+0.9**
AC02	**Maricunga**	**3.04**	**213**	*e*P	**Pn**	**23 10 51.1**	**+1.7**
AC02				*e*S	Sn	23 11 09.4	-18
AC02				IAML		23 11 09.5	
	comp=Z,198nm,0.9s						
PB05	**IPOC Station P**	**3.05**	**298**	*e*P	**Pn**	**23 10 50.5**	**+1.2**
PB05				*e*S	**Sn**	**23 11 27.8**	**+0.2**
PB05				IAML		23 11 29.7	
	comp=Z,73nm,0.7s						
PB05	**IPOC Station P**	**3.05**	**298**⇑	*i* P	**Pn**	**23 10 50.3**	**+1.0**
PB05				*i* S	**Sn**	**23 11 26.4**	**-1.2**
PB05				IAML		23 11 29.1	
	comp=N,135nm,0.6s						
PB09	**IPOC Station P**	**3.08**	**323**	*e*P	**Pn**	**23 10 51.6**	**+1.8**
PB09				*e*S	**Sn**	**23 11 29.3**	**+0.9**
PB09				IAML		23 11 29.8	
	comp=Z,191nm,0.8s						
PB09	**IPOC Station P**	**3.08**	**323**⇓	*i* P	**Pn**	**23 10 51.5**	**+1.8**
PB09				*i* S	**Sn**	**23 11 28.5**	**+0.1**
PB09				IAML		23 11 29.8	
	comp=N,189nm,0.4s						
PB10	**IPOC Station P**	**3.11**	**284**	*e*P	**Pn**	**23 10 51.2**	**+1.4**
PB10				*e*S	**Sn**	**23 11 28.6**	**+0.1**
PB10	**IPOC Station P**	**3.11**	**284**	*i* P	**Pn**	**23 10 51.0**	**+1.2**
PB10				*i* S	**Sn**	**23 11 28.2**	**-0.3**
PB10				IAML		23 11 32.6	
	comp=N,91nm,0.3s						
PB03	**IPOC Station P**	**3.20**	**314**	*e*P	**Pn**	**23 10 52.3**	**+1.1**
PB03				*e*S	**Sn**	**23 11 31.1**	**+0.1**
PB03				IAML		23 11 33.9	
	comp=Z,135nm,0.5s						
PB03	**IPOC Station P**	**3.20**	**314**	*i* P	**Pn**	**23 10 52.1**	**+1.0**
PB03				*i* S	**Sn**	**23 11 29.7**	**-1.2**
PB03				IAML		23 11 31.3	
	comp=E,242nm,0.3s						
PB07	**IPOC Station P**	**3.52**	**316**	*e*P	**Pn**	**23 10 56.2**	**+1.1**
PB07				*e*S	**Sn**	**23 11 37.6**	**-0.4**
PB07				IAML		23 11 38.2	
	comp=Z,202nm,0.4s						
PB07	**IPOC Station P**	**3.52**	**316**⇑	*i* P	**Pn**	**23 10 55.8**	**+0.6**
PB07				*i* S	**Sn**	**23 11 36.2**	**-1.9**
AC01	**Pan de Azucar**	**3.54**	**238**	*e*P	**Pn**	**23 10 55.4**	**+0.3**
AC01				*e*S	**Sn**	**23 11 37.7**	**-0.5**
AC01				IAML		23 11 41.9	
	comp=Z,75nm,0.2s						
AC01	**Pan de Azucar**	**3.54**	**238**	*i* P	**Pn**	**23 10 55.1**	**0.0**
AC01				*i* S	**Sn**	**23 11 36.8**	**-1.4**
TINO	**Tinogasta**	**3.76**	**184**	*e*P	**Pn**	**23 11 00.1**	**+2.0**
PB02	**IPOC Station P**	**3.83**	**320**	*e*P	**Pn**	**23 11 00.7**	**+1.7**
PB02				*e*S	**Sn**	**23 11 44.3**	**-0.8**
PB02				IAML		23 11 49.7	
	comp=Z,166nm,0.2s						
PB02	**IPOC Station P**	**3.83**	**320**	*i* P	**Pn**	**23 10 59.3**	**+0.2**
PB02				*i* S	**Sn**	**23 11 42.3**	**-2.7**
PB01	**IPOC Station P**	**3.83**	**327**	*e*P	**Pn**	**23 10 59.8**	**+0.7**
PB01				*e*S	**Sn**	**23 11 44.6**	**-0.5**
PB01				IAML		23 11 46.3	
	comp=Z,73nm,0.3s						
PB01	**IPOC Station P**	**3.83**	**327**	*i* P	**Pn**	**23 10 59.1**	**0.0**
PB01				*i* S	**Sn**	**23 11 43.1**	**-2.0**
AC06	**Mina Casimiro**	**4.12**	**222**	*i* P	**Pn**	**23 11 02.4**	**-0.2**
AC06				*i* S	**Sn**	**23 11 50.2**	**-1.4**
GO03	**Copiapo**	**4.23**	**219**	*e*P	**Pn**	**23 11 04.0**	**-0.1**
GO03				*e*S	**Sn**	**23 11 53.2**	**-0.9**
GO03	**Copiapo**	**4.23**	**219**	*i* P	**Pn**	**23 11 03.6**	**-0.4**
GO03				*i* S	**Sn**	**23 11 52.7**	**-1.4**
PB08	**IPOC Station P**	**4.49**	**337**	*e*P	**Pn**	**23 11 08.8**	**+1.0**
PB08				*e*S	**Sn**	**23 12 00.1**	**-0.6**
PB08	**IPOC Station P**	**4.49**	**337**⇓	*i*P	**Pn**	**23 11 09.0**	**+1.2**
PB08				*i* S	**Sn**	**23 11 58.9**	**-1.8**
GO01	**Chusmiza**	**4.94**	**338**	*e*P	**Pn**	**23 11 14.9**	**+1.1**
GO01				*e*S	**Sn**	**23 12 06.3**	**-5.1**
GO01	**Chusmiza**	**4.94**	**338**⇓	*i*P	**Pn**	**23 11 14.8**	**+1.1**
PB11	**IPOC Station P**	**5.03**	**333**	*e*P	**Pn**	**23 11 14.6**	**0.0**
PB11				*e*S	**Sn**	**23 12 08.6**	**-4.3**
ACLC	**CERRO LA CRUZ**	**5.11**	**177**	*e*P	**Pn**	**23 11 16.6**	**+1.0**
AC04	**Llanos de Chal**	**5.18**	**220**	*e*S	**Sn**	**23 12 13.7**	**-2.4**

IDC ***30*** *23:25:44.4±1.1,48.˚29N×8.˚98E,h0km,mbtmp3.6/8, ML3.0/7,Error ellipse: s-maj=11.7km s-min=10.6km az=2.0*
GFZ ***30*** *23:25:45.4±0.1,48.˚4N±0.˚9×9.˚0E±0.˚8,h8km±1km,M3.9/63, mb4.1/12,MLv3.8/63,Error ellipse: s-maj=2.0km s-min=1.6km az=138.6,confirmed*
ZUR ***30*** *23:25:46.5,48.˚31N×9.˚02E,h6km±1km,MLhc4.0/73,Error ellipse: s-maj=3097.1km s-min=543.7km az=206.0*
LDG ***30*** *23:25:46.4±0.1,48.˚31N×9.˚03E,h6km,Ml4.0/41,Error ellipse: s-maj=0.9km s-min=0.8km az=60.0*
BGR ***30*** *23:25:46.4±0.2,48.˚31N×9.˚03E,h10km,ML3.8/21,Error ellipse: s-maj=2.2km s-min=1.1km az=10.0*
PRU ***30*** *23:25:46.8,48.˚37N×9.˚08E,h10km*
BNS ***30*** *23:25:47.1±0.7,48.˚32N×9.˚00E,h5km,ML3.3*

ISC 30 23:25:45.1±0.7,**48.˚323N**±0.˚010×**8.˚99E**±0.˚01,**h14**km±3km, **n509,**σ1§**33**/846,**136C-110D,Germany**

Code	Station Name	Δ°	AZ°	Phase	ID	Time	Res
				Op	ISC	h m s	ISC
JUNG	**Jungingen**	**0.03**	**76**	⇓Pg	**Pg**	**23 25 47.9**	**+0.3**
JUNG				Sg	**Sg**	**23 25 49.1**	**-0.3**
ONST	**Albstadt-Onstm**	**0.04**	**175**	⇑Pg	**Pg**	**23 25 48.1**	**+0.4**
ONST				Sg	**Sg**	**23 25 49.3**	**-0.2**
BHBD	**Braunhartsberg**	**0.08**	**175**	⇑Pg	**Pg**	**23 25 48.4**	**+0.4**
MSGN	**Moessingen, Su**	**0.10**	**27**	⇓Pg	**Pg**	**23 25 48.9**	**+0.7**
MSGN				Sg	**Sg**	**23 25 50.7**	**+0.4**
BALG	**Balingen, Zoll**	**0.11**	**242**	⇑Pg	**Pb**	**23 25 49.3**	**+0.3**
BALG				Sg	**Sg**	**23 25 51.3**	**+0.8**
EBIN	**Albstadt-Ebing**	**0.12**	**168**	⇓Pg	**Pg**	**23 25 48.9**	**+0.5**
EBIN				Sg	**Sg**	**23 25 50.8**	**0.0**
ERPF	**Erpfingen**	**0.12**	**80**	⇑Pg	**Pb**	**23 25 49.0**	**-0.3**
FREU	**Neufra-Freuden**	**0.13**	**132**	⇓*i*Pg	**Pg**	**23 25 48.9**	**+0.2**
FREU				Sg	**Sg**	**23 25 50.4**	**-0.6**
A100A	**Rottenburg, We**	**0.14**	**341**	⇓Pg	**Pb**	**23 25 49.8**	**+0.3**
A100A				Sg	**Sg**	**23 25 52.2**	**+1.0**
A100A				AML	AML		
A100A	**Rottenburg, We**	**0.14**	**341**	⇓Pg	**Pb**	**23 25 49.8**	**+0.3**
A100A				Sg	**Sg**	**23 25 52.2**	**+1.0**
A100A				AML	AML		
A100A	**Rottenburg, We**	**0.14**	**341**	⇓Pg	**Pb**	**23 25 49.8**	**+0.3**
A100A				Sg	**Sg**	**23 25 52.3**	**+1.0**
MSS	**Messtetten**	**0.15**	**189**	*e*Pg	**Pb**	**23 25 49.6**	**-0.1**
MSS				*e*Sg	**Sg**	**23 25 51.9**	**+0.4**
MSS	**Messtetten**	**0.15**	**189**⇑	*i*Pg	**Pb**	**23 25 49.6**	**-0.1**
MSS				Sg	**Sg**	**23 25 51.9**	**+0.4**
TUEB	**Tuebingen, Eug**	**0.20**	**13**	⇓Pg	**Pb**	**23 25 50.6**	**+0.1**
TUEB				Sg	**Sg**	**23 25 53.5**	**+0.9**
TUBL	**Tuebingen-Lenn**	**0.21**	**16**	⇓Pg	**Pb**	**23 25 50.7**	**0.0**
TUBL				Sg	**Sg**	**23 25 53.7**	**+0.8**
A102A	**Sigmaringen, J**	**0.23**	**143**	⇓Pg	**Pg**	**23 25 50.6**	**+0.5**
A102A				Sg	**Sg**	**23 25 53.7**	**+0.2**
A102A				AML	AML		
A102A	**Sigmaringen, J**	**0.23**	**143**	⇓Pg	**Pg**	**23 25 50.6**	**+0.5**
A102A				Sg	**Sg**	**23 25 53.6**	**+0.1**
A102A				AML	AML		
REUL	**Reutlingen**	**0.23**	**42**	⇑Pg	**Pb**	**23 25 51.0**	**-0.1**
REUL				Sg	**Sg**	**23 25 54.3**	**+0.8**
GUT	**Gutenstein**	**0.27**	**162**	⇓Pg	**Pg**	**23 25 51.4**	**+0.7**
GUT				Sg	**Sg**	**23 25 54.9**	**+0.3**
GUT				AML	AML		
GUT	**Gutenstein**	**0.27**	**162**	⇓Pg	**Pg**	**23 25 51.4**	**+0.7**
GUT				Sg	**Sg**	**23 25 54.9**	**+0.3**
GUT				AML	AML		
GUT	**Gutenstein**	**0.27**	**162**	⇓*i*Pg	**Pg**	**23 25 51.4**	**+0.7**
GUT				Sg	**Sg**	**23 25 54.9**	**+0.3**
BUCH	**Bad Urach**	**0.27**	**62**	⇑Pg	**Pb**	**23 25 51.7**	**-0.1**
BUCH				Sg	**Sb**	**23 25 55.5**	**-0.8**
ROTE	**Rottweil**	**0.28**	**232**	⇑Pg	**Pb**	**23 25 52.1**	**+0.2**
ROTE				AML	AML		
ROTE	**Rottweil**	**0.28**	**232**	⇑Pg	**Pb**	**23 25 52.1**	**+0.2**
ROTE				AML	AML		
ROTE	**Rottweil**	**0.28**	**232**⇑	*i*Pg	**Pb**	**23 25 52.1**	**+0.2**
ROTE				Sg	**Sb**	**23 25 56.1**	**-0.3**
ZWI	**Zwiefalten, Ha**	**0.31**	**102**	⇑Pg	**Pg**	**23 25 52.0**	**+0.5**
ZWI				Sg	**Sg**	**23 25 55.9**	**+0.1**
A109A	**Bad Urach, See**	**0.33**	**69**	⇑Pg	**Pb**	**23 25 52.8**	**-0.1**
A109A				Sg	**Sb**	**23 25 57.2**	**-1.0**
A109A				AML	AML		
A109A	**Bad Urach, See**	**0.33**	**69**	⇑Pg	**Pb**	**23 25 52.8**	**-0.1**
A109A				Sg	**Sb**	**23 25 57.1**	**-1.0**
A109A				AML	AML		
A101B	**Rottweil, Deis**	**0.36**	**236**	⇑Pg	**Pb**	**23 25 53.7**	**+0.3**
A101B				AML	AML		
A101B	**Rottweil, Deis**	**0.36**	**236**	⇑Pg	**Pb**	**23 25 53.7**	**+0.3**
A101B				Sg	**Sb**	**23 25 58.7**	**-0.2**
A101B				AML	AML		
EMING	**Emmingen-Lipti**	**0.44**	**193**	⇑Pg	**Pb**	**23 25 54.8**	**+0.1**
EMING				Sg	**Sg**	**23 26 00.6**	**+0.7**
EMING				AML	AML		
EMING	**Emmingen-Lipti**	**0.44**	**193**	⇑Pg	**Pb**	**23 25 54.8**	**+0.1**
EMING				Sg	**Sg**	**23 26 00.5**	**+0.7**
EMING				AML	AML		
EMING	**Emmingen-Lipti**	**0.44**	**193**⇑	*i*Pg	**Pb**	**23 25 54.8**	**+0.1**
EMING				Sg	**Sg**	**23 26 00.6**	**+0.7**
BFO	**Black Forest**	**0.44**	**271**	⇑Pg	**Pb**	**23 25 55.4**	**+0.6**
BFO				Sg	**Sb**	**23 26 01.4**	**+0.1**
BFO				AML	AML		
BFO	**Black Forest**	**0.44**	**271**	⇑Pg	**Pb**	**23 25 55.4**	**+0.6**
BFO				Sg	**Sb**	**23 26 01.4**	**+0.1**
BFO				AML	AML		
BFO	**Black Forest**	**0.44**	**271**	⇑Pg	**Pb**	**23 25 55.4**	**+0.6**
BFO				Sg	**Sb**	**23 26 01.5**	**+0.1**
BFO	**Black Forest**	**0.44**	**271**	P	**Pb**	**23 25 55.4**	**+0.6**
SAUL	**Bad Saulgau**	**0.46**	**132**	⇓Pg	**Pb**	**23 25 55.0**	**-0.1**
SAUL				Sg	**Sg**	**23 26 01.1**	**+0.6**
A124A	**Enzklo

QEG02	Wil, Freihalte	0.77 205	⇑Pg	Pb	23 26 00.9 +0.6
QEG02			AML	AML	
TETT	Tettnang	0.78 148	⇓Pg	Pb	23 26 01.1 +0.6
TETT			Sg	Sb	23 26 11.6 +0.5
TETT			AML	AML	
TETT	Tettnang	0.78 148	⇓Pg	Pb	23 26 01.1 +0.6
TETT			Sg	Sb	23 26 11.5 +0.5
TETT			SmS		23 26 14.1
TETT			AML	AML	
TETT	Tettnang	0.78 148	⇓Pg	Pb	23 26 01.1 +0.6
TETT			PmP		23 26 02.5
TETT			SmS		23 26 14.4
METMA	Mettma DE	0.79 219	⇑Pg	Pb	23 26 01.3 +0.6
METMA			AML	AML	
METMA	Mettma DE	0.79 219	⇑Pg	Pb	23 26 01.3 +0.6
METMA			Sg	Sb	23 26 11.6 +0.4
METMA			AML	AML	
METMA	Mettma DE	0.79 219	⇑Pg	Pb	23 26 01.3 +0.6
METMA			SmS		23 26 14.1
ROMAN	Romanshorn, Fo	0.79 163	⇓Pg	Pb	23 26 01.3 +0.6
ROMAN			Sg	Sb	23 26 11.9 +0.6
ROMAN			AML	AML	
ROMAN	Romanshorn, Fo	0.79 163	⇓Pg	Pb	23 26 01.3 +0.6
ROMAN			Sg	Sg	23 26 11.6 +0.7
ROMAN			AML	AML	
ROMAN	Romanshorn, Fo	0.79 163	⇓Pg	Pb	23 26 01.2 +0.6
ROMAN			Sg	Sb	23 26 11.9 +0.6
WEIN	Weingarten	0.80 180	⇓Pg	Pb	23 26 01.5 +0.7
WEIN			Sg	Sb	23 26 12.0 +0.7
WEIN			AML	AML	
WEIN	Weingarten	0.80 180	⇓Pg	Pb	23 26 01.5 +0.7
WEIN			Sg	Sb	23 26 12.0 +0.7
WEIN			AML	AML	
FELD	Feldberg im Sc	0.80 236	⇑Pg	Pb	23 26 01.8 +0.8
FELD			AML	AML	
FELD	Feldberg im Sc	0.80 236	⇑Pg	Pb	23 26 01.8 +0.8
FELD			PmP		23 26 02.8
FELD			Sg	Sn	23 26 14.1 +0.1
QEG00	Eglisau, Reser	0.80 203	⇑Pg	Pb	23 26 01.6 +0.7
QEG00			AML	AML	
QEG00	Eglisau, Reser	0.80 203	⇑Pg	Pb	23 26 01.6 +0.7
QEG00			Sg	Sb	23 26 12.7 +1.1
QEG00			AML	AML	
FLACH	Flaach	0.80 201	⇑Pg	Pb	23 26 01.6 +0.7
FLACH			AML	AML	
FLACH	Flaach	0.80 201	⇑Pg	Pb	23 26 01.6 +0.7
FLACH			Sg	Sb	23 26 12.5 +0.8
FLACH			AML	AML	
KIZ	Kirchzarten	0.81 243	⇑Pg	Pn	23 26 01.9 -0.2
KIZ			AML	AML	
KIZ	Kirchzarten	0.81 243	⇑Pg	Pn	23 26 01.9 -0.2
KIZ			PmP		23 26 02.7
KIZ			Sg	Sn	23 26 13.8 -0.2
KIZ			AML	AML	
KIZ	Kirchzarten	0.81 243	⇑Pg	Pn	23 26 01.9 -0.2
KIZ			PmP		23 26 02.8
FBB	Freiburg im Br	0.83 248	⇑Pg	Pn	23 26 02.4 0.0
FBB			PmP		23 26 03.1
FREI	Freiburg, Haup	0.83 248	Pg	Pn	23 26 02.5 0.0
SWIS	Winterthur Spi	0.84 192	Sg	Sb	23 26 13.4 +0.8
SWIS			AML	AML	
SWIS	Winterthur Spi	0.84 192	Sg	Sb	23 26 13.4 +0.8
SWIS			AML	AML	
QEG01	Stadel, Weggab	0.85 205	⇑Pg	Pb	23 26 02.5 +0.9
QEG01			AML	AML	
QEG01	Stadel, Weggab	0.85 205	⇑Pg	Pb	23 26 02.5 +0.9
QEG01			Sg	Sb	23 26 14.2 +1.4
QEG01			AML	AML	
HDH	Heidenheim-Cha	0.85 72	⇑Pg	Pb	23 26 02.0 +0.3
HDH			PmP		23 26 02.7
STIEG	Stiegenhof Hun	0.86 196	⇑Pg	Pb	23 26 02.6 +0.8
STIEG			Sg	Sb	23 26 14.2 +1.1
STIEG			AML	AML	
STIEG	Stiegenhof Hun	0.86 196	⇑Pg	Pb	23 26 02.6 +0.8
STIEG			Sg	Sb	23 26 14.2 +1.1
STIEG			AML	AML	
SARE	Arbon, Evangel	0.86 160	⇓Pg	Pb	23 26 02.6 +0.7
SARE			Sg	Sb	23 26 14.1 +0.8
SARE			AML	AML	
SARE	Arbon, Evangel	0.86 160	⇓Pg	Pb	23 26 02.6 +0.7
SARE			Sg	Sb	23 26 14.0 +0.8
SARE			AML	AML	
SWIK	Wil, Kantonssc	0.86 178	Sg	Sb	23 26 14.2 +0.8
SWIK			AML	AML	
SWIK	Wil, Kantonssc	0.86 178	Sg	Sb	23 26 14.2 +0.8
SWIK			AML	AML	
SGT18	Golfpark Waldk	0.87 169	⇓Pg	Pb	23 26 02.8 +0.8
SGT18			Sg	Sb	23 26 14.3 +0.6
SGT18			AML	AML	
SGT18	Golfpark Waldk	0.87 169	⇓Pg	Pb	23 26 02.8 +0.8
SGT18			Sg	Sb	23 26 14.2 +0.6
SGT18			AML	AML	
ACHB	Acheberg	0.89 214	⇑Pg	Pb	23 26 03.2 +0.9
ACHB			AML	AML	
ACHB	Acheberg	0.89 214	⇑Pg	Pb	23 26 03.2 +0.9
ACHB			PmP		23 26 03.8
ACHB			Sg	Sb	23 26 15.4 +1.4
ACHB			AML	AML	
BOBI	Bbikon, Wasse	0.89 210	⇑Pg	Pn	23 26 03.4 +0.1
BOBI			AML	AML	
BOBI	Bbikon, Wasse	0.89 210	⇑Pg	Pn	23 26 03.4 +0.1
BOBI			PmP		23 26 04.0
BOBI			Sg	Sb	23 26 15.4 +1.2
BOBI			AML	AML	
SKLW	Kloten, Waffen	0.91 199	Pg	Pb	23 26 03.5 +0.9
SKLW			AML	AML	
SKLW	Kloten, Waffen	0.91 199	⇑Pg	Pb	23 26 03.5 +0.9
SKLW			Sg	Sb	23 26 15.6 +1.0
SKLW			AML	AML	
WILA	Wila	0.91 184	⇓Pg	Pn	23 26 03.7 +0.1
WILA			Sg	Sb	23 26 15.9 +1.2
WILA			AML	AML	
WILA	Wila	0.91 184	⇓Pg	Pn	23 26 03.7 +0.1
WILA			Sg	Sb	23 26 15.9 +1.2
WILA			AML	AML	
WILA	Wila	0.91 184	⇓Pg	Pn	23 26 03.7 +0.1
WILA			Sg	Sb	23 26 16.1 +1.3
VOGT	Vogtsburg - To	0.92 255	⇑Pg	Pn	23 26 04.0 +0.4
VOGT			AML	AML	
VOGT	Vogtsburg - To	0.92 255	⇑Pg	Pn	23 26 04.0 +0.4
VOGT			PmP		23 26 04.6
VOGT			Sg	Sn	23 26 16.8 +0.1
VOGT			AML	AML	
VOGT	Vogtsburg - To	0.92 255	⇑Pn	Pn	23 26 04.0 +0.4
VOGT			Pg	Pb	23 26 04.5 +1.7
VOGT			Sn	Sn	23 26 17.4 +0.7
SGT00	Sennhlsen	0.93 167	⇓Pg	Pb	23 26 03.7 +0.8
SGT00			Sg	Sb	23 26 15.9 +0.8
SGT00			AML	AML	
SGT00	Sennhlsen	0.93 167	⇓Pg	Pb	23 26 03.7 +0.8
SGT00			Sg	Sb	23 26 15.9 +0.8
SGT00			AML	AML	
SGT05	Eggersriet	0.94 160	⇓Pg	Pn	23 26 04.1 +0.1
SGT05			Sg	Sb	23 26 16.5 +1.1
SGT05			AML	AML	
SGT05	Eggersriet	0.94 160	⇓Pg	Pn	23 26 04.1 +0.1
SGT05			Sg	Sb	23 26 16.3 +0.9
SGT05			AML	AML	
STGK	St. Gallen Klo	0.94 164	Pg	Pn	23 26 04.0 +0.1
STGK			AML	AML	
STGK	St. Gallen Klo	0.94 164	⇓Pg	Pn	23 26 04.0 +0.1
STGK			Sg	Sb	23 26 16.5 +1.0
STGK			AML	AML	
SFEL	Villigen, Paul	0.94 213	Pg	Pn	23 26 04.3 +0.3
SFEL			AML	AML	
SFEL	Villigen, Paul	0.94 213	⇑Pg	Pn	23 26 04.2 +0.2
SFEL			PmP		23 26 04.9
SFEL			Sg	Sb	23 26 17.0 +1.4
SFEL			AML	AML	
ROTT	Steinweiler	0.98 326	Pn	Pn	23 26 05.6 +1.1
ROTT			Pg	Pb	23 26 06.3 +2.4
BREI	Breisach am Rh	0.99 253	Pn	Pn	23 26 05.2 +0.6
BREI			Pg	Pb	23 26 06.1 +2.1
UBR	Ueberruh	0.99 130	⇓Pg	Pn	23 26 05.0 +0.3
UBR			AML	AML	
UBR	Ueberruh	0.99 130	⇓Pg	Pn	23 26 05.0 +0.3
UBR			Sg	Sb	23 26 17.9 +1.0
UBR			AML	AML	
UBR	Ueberruh	0.99 130	⇓Pg	Pn	23 26 05.0 +0.3
UBR	Ueberruh	0.99 130	P	Pn	23 26 05.0 +0.3
UBR			S	Sb	23 26 18.1 +1.2
UBR			AML	AML	
SULZ	Cheisacher	0.99 217	⇑Pg	Pb	23 26 04.7 +0.6
SULZ			AML	AML	
SULZ	Cheisacher	0.99 217	⇑Pg	Pb	23 26 04.7 +0.6
SULZ			Sg	Sb	23 26 18.3 +1.2
SULZ			AML	AML	
SULZ	Cheisacher	0.99 217	⇓Pn	Pb	23 26 04.7 +0.6
ZUR	Degenried	0.99 196	Pg	Pn	23 26 05.1 +0.3
ZUR			AML	AML	
ZUR	Degenried	0.99 196	⇑Pg	Pn	23 26 05.0 +0.3
ZUR			PmP		23 26 05.6
ZUR			Sg	Sb	23 26 18.3 +1.2
ZUR			AML	AML	
SZUZ	Zrich, Zeugha	1.00 198	⇑Pg	Pn	23 26 05.6 +0.9
SZUZ			AML	AML	
SGT04	Schlatt-Haslen	1.00 166	⇓Pg	Pn	23 26 05.5 +0.6
SGT04			AML	AML	
SGT04	Schlatt-Haslen	1.00 166	⇓Pg	Pn	23 26 05.5 +0.6
SGT04			PmP		23 26 06.0
SGT04			Sg	Sb	23 26 18.8 +1.4
SGT04			SmS		23 26 20.4
SGT04			AML	AML	
BREM	Bremgarten	1.00 246	Pn	Pn	23 26 05.2 +0.4
BREM			Pg	Pb	23 26 06.4 +2.1
LDE	Landau	1.02 327	Pg	Pn	23 26 07.1 +2.0
SAPK	Appenzell, Kan	1.03 164	⇓Pn	Pn	23 26 05.8 +0.6
SAPK			SmS		23 26 19.3
ENDD	Endenburg	1.04 235	⇑Pn	Pb	23 26 05.3 +0.3
ENDD	Endenburg	1.04 235	⇑Pn	Pb	23 26 05.3 +0.3
ENDD			Pg	Pn	23 26 06.5 +1.1
EWZT2	Wettswil, ZR	1.04 199	⇑Pn	Pn	23 26 05.8 +0.4
LIENZ	Kamor/St.Gall	1.08 162	⇓Pn	Pn	23 26 06.9 +0.8
LIENZ			Sn	Sb	23 26 21.1 +1.3
LIENZ	Kamor/St.Gall	1.08 162	⇓Pg	Pn	23 26 06.9 +0.8
WOER	Woert	1.09 50	⇑Pn	Pg	23 26 05.9 -0.3
WOER			Pg	Pn	23 26 06.9 +0.9
HAUIG	Caf Hygge	1.09 233	⇑Pn	Pb	23 26 06.0 +0.2
HAUIG			AML	AML	
WLS	Welschbruch	1.10 275	Pn	Pn	23 26 06.4 +0.2
WLS			Pg	Pg	23 26 07.9 +1.6
WLS			eSg	Sn	23 26 22.3 +1.2
HEID	Heidelberg, We	1.10 350	Pn	Pn	23 26 06.8 +0.7
HEID			Pg	Pg	23 26 07.9 +1.6
SIND	Sindeldorf	1.10 21	⇑Pn	Pn	23 26 06.1 -0.1
SIND			Pg	Pg	23 26 07.3 +0.9
EMMET	Emmethof	1.10 217	⇑Pn	Pb	23 26 06.2 +0.2
EMMET			AML	AML	
ROTHE	Rothenfluh	1.11 221	⇑Pn	Pb	23 26 06.4 +0.2
ROTHE			AML	AML	
SAARA	Aarau, neue Ka	1.14 215	⇑Pn	Pb	23 26 06.6 +0.1
SAARA			AML	AML	
PEB	Petersbachel	1.14 311	⇓Pn	Pn	23 26 07.3 +0.6
PEB			Pg	Pg	23 26 08.6 +1.6
LOES	Loerrach-Stett	1.15 232	Pn	Pb	23 26 06.8 0.0
LOES			Pg	Pg	23 26 08.5 +1.3
LOES			Sg	Sn	23 26 24.0 +1.7
CDF	Champ du Feu	1.15 275	ePg	Pg	23 26 09.0 +1.8
CDF			eSg	Sn	23 26 23.7 +1.2
	2µm,0.2s				
CDF			AML	AML	
NORI	Noerdlinger Ri	1.16 69	ePg	Pg	23 26 07.1 -0.3
NORI			eSg	Sn	23 26 23.2 +0.7
SKAF	Kaiseraugst-Fr	1.16 228	⇑Pn	Pb	23 26 06.8 -0.2
SKAF			AML	AML	
SAUR	Augst-Roemermu	1.16 228	⇑Pn	Pb	23 26 06.9 -0.1
SAUR			AML	AML	
SRHH	Riehen, Zur Ho	1.17 231	⇑Pn	Pb	23 26 06.9 -0.2
SRHH			AML	AML	
HAMIK	Hmikon, Dlik	1.18 205	⇑Pn	Pn	23 26 07.6 +0.3
HAMIK			AML	AML	
WEIL	Weil am Rhein	1.19 233	Sg	Sn	23 26 25.6 +2.3
SFRA	Frenkendorf	1.19 227	⇑Pn	Pn	23 26 07.3 -0.1
SFRA			AML	AML	
SSCN	Schweizerhalle	1.19 229	⇑Pn	Pn	23 26 07.3 -0.1
SSCN			AML	AML	
SMZW	Muttenz-Waldha	1.19 230	⇑Pn	Pn	23 26 07.3 -0.1
SMZW			AML	AML	
OTER2	Otterbach 2 (B	1.19 232	Pn	Pn	23 26 06.7 -0.7
OTER2			AML	AML	
SBUH	Buchs, Hochsch	1.20 164	⇓Pn	Pg	23 26 08.4 +0.3
SBUH			AML	AML	
DAVA	Damuels	1.20 150	⇓Pn	Pg	23 26 08.6 +0.5
DAVA			Sn	Sn	23 26 25.0 +1.2
DAVA	Damuels	1.20 150	⇓Pg	Pg	23 26 08.6 +0.5
DAVA	Damuels	1.20 150	ePg	Pg	23 26 08.6 +0.5
	347nm,0.3s,SNR=559				
DAVA			eSg	Sn	23 26 25.1 +1.4
	903nm,0.2s				
DAVA	Damuels	1.20 150	⇓P	Pg	23 26 08.6 +0.5
DAVA			S	Sn	23 26 24.9 +1.2
DAVA			AML	AML	
SBIF2	Birsfelden, Fr	1.20 231	⇑Pn	Pn	23 26 07.4 -0.1
SBIF2			AML	AML	
SBUA2	Buchs, Altendo	1.21 164	⇓Pn	Pg	23 26 08.5 +0.2
SBUB	Buchserberg Ma	1.22 166	⇓Pn	Pg	23 26 08.7 +0.2
SBUB			Sn	Sg	23 26 24.5 +0.2
MANN	Mannheim	1.22 343	Pg	Pg	23 26 10.5 +2.0
MANN			Sg	Sn	23 26 28.7 +4.6
MUTEZ	Muttenz, alter	1.22 228	⇑Pn	Pn	23 26 07.7 -0.1
MUTEZ			AML	AML	
SWAS	Walenstadt, Sp	1.22 170	⇓Pn	Pg	23 26 08.7 +0.1
WGT	W¤gital, SZ	1.23 182	⇓Pn	Pb	23 26 08.6 +0.5
WGT			Sn	Sg	23 26 24.9 +0.3
MATTE	Schuetzenmatte	1.23 232	Pn	Pn	23 26 07.7 -0.2
MATTE			AML	AML	
SBIS2	Binningen	1.23 231	⇑Pn	Pn	23 26 08.0 +0.1
SBIS2			AML	AML	
ECH	Echery	1.23 266	⇑Pn	Pn	23 26 08.1 +0.2
ECH			AML	AML	
ECH	Echery	1.23 266	Pn	Pn	23 26 08.2 +0.2
ECH			Sg	Sn	23 26 26.6 +2.2
ECH	Echery	1.23 266	P	Pn	23 26 08.2 +0.2
ECH			Pg	Pg	23 26 10.3 +1.5
ECH			S	Sn	23 26 26.2 +1.8
ECH			AML	AML	
STUF	Presbytere Uff	1.24 238	⇑Pn	Pn	23 26 08.0 0.0
STUF			AML	AML	
SRER	Reinach, Raine	1.24 230	⇑Pn	Pn	23 26 08.1 0.0
SRER			AML	AML	
STRW	Triesenberg, W	1.26 163	⇓Pn	Pg	23 26 09.5 0.0
A105A	Obersdorf, Sch	1.27 136	⇓Pn	Pg	23 26 09.5 0.0
OBER	Oberstdorf	1.27 136	Pn	Pg	23 26 09.5 +0.1
DAGMA	Lutertal, Dagm	1.28 212	⇑Pn	Pn	23 26 08.7 +0.1
DAGMA			AML	AML	
PLONS	Plons/SG	1.30 168	⇓Pn	Pb	23 26 09.7 +0.3
PLONS			Sn	Sb	23 26 26.2 +0.2
PLONS			AML	AML	
BALST	Balsthal	1.32 222	⇑Pn	Pn	23 26 09.0 -0.2
BALST			AML	AML	
BALST	Balsthal	1.32 222	⇑Pn	Pn	23 26 09.0 -0.2
BALST			Pg	Pg	23 26 11.3 +0.9
ILLF	Illfurth	1.33 242	⇑Pn	Pn	23 26 09.3 0.0
ILLF			AML	AML	
WBA	Furth	1.34 355	⇓Pn	Pb	23 26 09.8 -0.2
ELM1	Schwanderberg,	1.34 177	⇓Pn	Pb	23 26 10.3 +0.2
ELM1			Sn	Sb	23 26 27.5 +0.2
ELM1			AML	AML	
SLUB	Luzern Bramber	1.35 200	Pn	Pn	23 26 09.8 +0.3
SLUB			AML	AML	
SLTM2	Linthal, Matt	1.40 180	Pn	Pn	23 26 10.9 +0.6
SLTM2			AML	AML	
ELM3	Stegerstafel,	1.43 176	⇓Pn	Pn	23 26 11.4 +0.7
ELM3			Sn	Sn	23 26 29.2 -0.1
ELM3			AML	AML	
RETA	Reutte	1.45 124	⇓Pn	Pn	23 26 11.8 +0.8
RETA			AML	AML	
RETA	Reutte	1.45 124	⇓Pn	Pn	23 26 11.9 +0.8
RETA	Reutte	1.45 124	i Pn	Pn	23 26 11.8 +0.8
	6.3nm,0.2s				
RETA			ePg	Pg	23 26 13.3 +0.2
	147nm,0.2s,SNR=206				
RETA			eSg	Sg	23 26 32.4 +0.4
	1µm,0.2s				
IMS	Imsbach	1.46 331	Pn	Pb	23 26 11.9 -0.2
SDES	Delmont, Spi	1.47 230	⇑Pn	Pn	23 26 11.0 -0.2
SDES			AML	AML	
LLS	Linth-Limmern	1.48 180	⇓Pn	Pn	23 26 12.1 +0.6
LLS			Sn	Sn	23 26 30.5 -0.2
LLS			AML	AML	
SOLZ	Solothurn, Zeu	1.49 222	Pn	Pn	23 26 11.3 -0.2
SOLZ			AML	AML	
SOLB	Solothurn Schu	1.50 222	Pn	Pn	23 26 11.4 -0.2
SOLB			AML	AML	
A060B	Romoos, Napf,	1.50 208	⇑Pn	Pn	23 26 12.0 +0.4
A060B			AML	AML	
PANIX	Pigniu (Panix)	1.50 177	⇓Pn	Pn	23 26 12.6 +0.8
PANIX			Sn	Sn	23 26 30.9 -0.3
PANIX			AML	AML	
BNALP	Bannalp	1.50 195	⇑Pn	Pn	23 26 12.4 +0.6
BNALP			AML	AML	
BNALP	Bannalp	1.50 195	P	Pn	23 26 12.5 +0.6
BNALP			Pg	Pg	23 26 15.3 +1.3
BNALP			S	Sg	23 26 34.5 +1.0
BNALP			AML	AML	
BOURR	Bourrignon	1.51 233	⇑Pn	Pn	23 26 11.7 -0.2
BOURR			AML	AML	
BOURR	Bourrignon	1.51 233	⇑Pn	Pn	23 26 11.7 -0.2
BOURR	Bourrignon	1.51 233	P	Pn	23 26 11.6 -0.2
BOURR			Pg	Pg	23 26 15.0 +0.9
BOURR			AML	AML	
SCUG	Chur Gewerbesc	1.51 166	⇓Pn	Pb	23 26 13.0 0.0
SCUG			Sn	Sn	23 26 31.8 +0.5
SCUG			AML	AML	
A037A	Kartellspeiche	1.52 145	⇓Pn	Pb	23 26 13.2 0.0
A037A			AML	AML	
MILB	Miltenberg	1.52 7	Pn	Pn	23 26 12.0 +0.1
MILB			Sn	Sn	23 26 30.8 -0.8
MILB			eSg	Sg	23 26 34.9 +0.9
SARK	Sarnen Kantons	1.52 200	Pn	Pn	23 26 12.4 +0.5
SARK			AML	AML	
HINF	Hinteralfeld	1.52 251	ePn	Pn	23 26 11.8 -0.2
HINF			ePg	Pg	23 26 14.7 +0.4
HINF			eSg	Sg	23 26 35.4 +1.3
	1µm,0.5s				
HINF			AML	AML	
FUR	Furstenfeldbru	1.53 95	ePn	Pb	23 26 13.1 -0.2
FUR			eSg	Sg	23 26 34.9 +0.5
FUR	Furstenfeldbru	1.53 95	P	Pb	23 26 13.1 -0.2
FUR			Pg	Pg	23 26 15.2 +0.7
FUR			S	Sg	23 26 34.8 +0.4
FUR			AML	AML	
WBB	Darmstadt	1.54 352	Pn	Pn	23 26 12.5 +0.3
MTI01	Mont Terri (ME	1.55 233	Pn	Pn	23 26 12.1 -0.2
MTI01			AML	AML	
MTI02	Mont Terri, (H	1.55 233	⇑Pn	Pn	23 26 12.0 -0.3
MTI02			AML	AML	
MTIA1	Mont Terri MTI	1.55 233	⇑Pn	Pn	23 26 12.1 -0.3
MTIA1			AML	AML	
MTI03	Mont Terri (fr	1.56 233	⇑Pn	Pn	23 26 12.2 -0.2
MTI03			AML	AML	
SIZS	Ilanz Schule G	1.56 175	⇓Pn	Pn	23 26 13.5 +1.1
SIZS			Sn	Sn	23 26 32.8 +0.3
SIZS			AML	AML	
SCHK	Churwalden Klo	1.58 166	⇓Pn	Pb	23 26 14.0 -0.1
SCHK			AML	AML	
SDAK	Davos, Kongres	1.63 159	⇓Pn	Pb	23 26 14.8 -0.2
SDAK			AML	AML	
SAIRA	Les Sairains D	1.64 232	Pn	Pn	23 26 13.5 -0.2
SAIRA			AML	AML	
DAVOX	Davos/Dischmat	1.66 158	⇓Pn	Pb	23 26 15.3 -0.2
DAVOX			AML	AML	
DAVOX	Davos/Dischmat	1.66 158	Pg	Pb	23 26 15.3 -0.2
	90nm,0.3s,baz=335,slow=14,SNR=190				
DAVOX			Lg	Lg	23 26 39.1
	102nm,0.3s,baz=94,slow=19,SNR=8.4				
HASLI	Hasliberg/Brie	1.67 200	⇑Pn	Pn	23 26 14.2 +0.2
HASLI			AML	AML	
SVAM	Vaz, Muldain	1.67 167	⇓Pn	Pb	23 26 15.4 -0.3
SVAM			AML	AML	
GRC2	Grafenberg Arr	1.67 70	P	Pn	23 26 14.1 +0.1
GRC2			Pg	Pg	23 26 17.1 -0.1
GRC2			AML	AML	
RONF	Ronchamp	1.69 250	⇑Pn	Pn	23 26 14.1 -0.2
RONF			AML	AML	
BRIZ2	Brienz, Instab	1.69 166	⇓Pn	Pb	23 26 15.9 -0.3
BRIZ2			AML	AML	
WOLEN	Wohlen bei Ber	1.72 220	Pn	Pn	23 26 14.4 -0.3
WOLEN			AML	AML	
MOTA	Moosalm	1.73 124	i Pn	Pn	23 26 15.7 +0.9
	3.0nm,0.2s,SNR=77				
MOTA			ePg	Pg	23 26 17.7 -0.6
	52nm,0.2s				
MOTA			eSg	Sg	23 26 40.2 -0.5
	866nm,0.2s				
NALPS	Val Nalps	1.74 186	⇓Pn	Pn	23 26 16.1 +0.9
NALPS			AML	AML	
GMS01	Gemsstock NE-G	1.74 189	⇓Pn	Pn	23 26 16.2 +0.9
GMS01			AML	AML	
GWBO	Ockenheim	1.74 338	Pg	Pg	23 26 19.9 +1.3
SARD	Ardez Schule,	1.75 152	⇓Pn	Pb	23 26 16.7 -0.4
SARD			AML	AML	
FETA	Feichten	1.75 137	⇓Pn	Pn	23 26 16.5 +1.3
FETA			AML	AML	
FETA	Feichten	1.75 137	ePn	Pn	23 26 16.6 +1.3
	11nm,0.1s,SNR=71				
FETA			ePg	Pg	23 26 19.2 +0.5
	36nm,0.2s				
FETA			eSn	Sb	23 26 39.2 +0.1
	40nm,0.2s				
SCUC	Scuol-Clozza	1.77 149	⇓Pn	Pb	23 26 17.0 -0.4
SCUC			AML	AML	
RA41	Rhonegletscher	1.78 194	⇓Pn	Pn	23 26 16.5 +0.8
RA41			AML	AML	
RA43	Rhonegletscher	1.79 194	⇓Pn	Pn	23 26 16.6 +0.8
RA43			AML	AML	
GSF03	Obergoms, Fort	1.79 193	Pn	Pn	23 26 16.7 +0.8
GSF03			AML	AML	
HAU	Haudompre	1.80 261	ePn	Pn	23 26 15.9 +0.1
HAU			ePg	Pg	23 26 20.5 +0.9
HAU			eSg	Sg	23 26 43.4 +0.4
	3µm,0.7s				
HAU			AML	AML	
GRIMS	Grimsel Gerste	1.81 195	Pn	Pn	23 26 16.7 +0.7
GRIMS			AML	AML	
GRC1	Grafenberg Arr	1.81 67	⇑Pn	Pn	23 26 15.9 0.0
GRC1	Grafenberg Arr	1.81 67	P	Pn	23 26 15.8 0.0
GRC1			Pg	Pg	23 26 19.3 -0.5
GRC1			AML	AML	
GRC3	Grafenberg Arr	1.81 71	P	Pn	23 26 15.9 0.0
GRC3			Pg	Pg	23 26 19.5 -0.4
GRC3			AML	AML	
BTAO	Waffenplatz Be	1.81 189	⇓Pn	Pn	23 26 17.0 +1.0
BTAO			AML	AML	
DUP	Duppenweiler	1.82 308	Pn	Pb	23 26 18.1 0.0
ABH	Alteburg	1.82 329	⇓Pn	Pb	23 26 17.3 -1.0
STHK	Thun, Kantonss	1.83 211	Pn	Pn	23 26 16.4 +0.2
STHK			AML	AML	
GRC4	Grafenberg Arr	1.84 65	P	Pn	23 26 16.5 +0.1
GRC4			Pg	Pg	23 26 20.0 -0.5
GRC4			AML	AML	
SQTA	Sankt Quirin	1.86 126	ePn	Pn	23 26 17.8 +1.1
	5.0nm,0.2s,SNR=96				
SQTA			ePg	Pg	23 26 20.3 -0.5
	60nm,0.2s				
SQTA			eSn	Sn	23 26 41.5 +1.5
	91nm,0.2s				
SQTA			eSg	Sg	23 26 44.0 -0.8
	369nm,0.2s				
GWBE	Wiesbaden	1.86 344	Pn	Pn	23 26 17.5 +0.9
WBG	Bieber	1.86 7	Pn	Pn	23 26 16.7 +0.1
TUE	Stuetta	1.87 172	⇓Pn	Pn	23 26 18.3 +1.4
TUE			AML	AML	
TUE	Stuetta	1.87 172	P	Pn	23 26 18.3 +1.4
TUE			Pg	Pg	23 26 22.7 +1.8
TUE			AML	AML	
VDL	Val di Lei	1.87 170	⇓Pn	Pn	23 26 18.3 +1.4
VDL			Sn	Sn	23 26 41.0 +0.6
VDL			AML	AML	
FUSIO	Fusio	1.88 187	⇓Pn	Pn	23 26 18.0 +1.0
FUSIO			AML	AML	
BTNF	Ladstafel, Nuf	1.90 193	Pn	Pn	23 26 18.2 +0.9
BTNF			AML	AML	
WIMIS	Wimmis	1.90 210	⇑Pn	Pn	23 26 17.2 0.0
WIMIS			AML	AML	
FUORN	Ofenpass-Fuorn	1.91 153	⇓Pn	Pb	23 26 19.2 -0.7
FUORN			AML	AML	
FUORN	Ofenpass-Fuorn	1.91 153	P	Pb	23 26 19.2 -0.7
FUORN			Pg	Pg	23 26 22.2 +0.5
FUORN			AML	AML	

CHMF	**Charmoille**	**1.91**	**237**	⇑Pn	**Pn**	**23 26 17.0**	**-0.3**
CHMF				AML	AML		
CHMF	**Charmoille**	**1.91**	**237**	⇑Pn	**Pn**	**23 26 17.0**	**-0.3**
GWBD	**Espenschied/He**	**1.93**	**339**	Pn	**Pn**	**23 26 18.7**	**+1.1**
TNS	**Taunus Mts**	**1.94**	**350**	⇓Pn	**Pn**	**23 26 18.5**	**+0.8**
TNS	**Taunus Mts**	**1.94**	**350**	P	**Pn**	**23 26 18.3**	**+0.6**
TNS				AML	AML		
SLCF	**La Chaux de Fo**	**1.94**	**231**	Pn	**Pn**	**23 26 17.4**	**-0.3**
SLCF				AML	AML		
STAF	**Tafers**	**1.94**	**219**	⇑Pn	**Pn**	**23 26 17.4**	**-0.3**
STAF				AML	AML		
GRB5	**Grafenberg Arr**	**1.94**	**65**	P	**Pn**	**23 26 17.7**	**0.0**
GRB5				Pg	**Pg**	**23 26 22.1**	**-0.3**
GRB5				AML	AML		
SCOU	**Cournillens**	**1.95**	**222**	Pn	**Pn**	**23 26 17.4**	**-0.4**
SCOU				AML	AML		
SFRS	**Frutigen, Schu**	**1.96**	**208**	⇑Pn	**Pn**	**23 26 18.3**	**+0.2**
SFRS				AML	AML		
FIESA	**Fiescheralp**	**1.98**	**198**	⇑Pn	**Pn**	**23 26 19.2**	**+0.7**
FIESA				AML	AML		
WATA	**Walderalm**	**2.00**	**119**	*e*Pn	**Pn**	**23 26 19.7**	**+1.1**
	2.3nm,0.3s,SNR=11						
WATA				*e*Pg	**Pg**	**23 26 23.4**	**-0.1**
	28nm,0.2s						
WATA				*e*Sn	**Sn**	**23 26 44.4**	**+0.9**
	55nm,0.2s						
WATA				*e*Sg	**Sg**	**23 26 49.2**	**-0.3**
	585nm,0.3s						
GRA1	**Grafenberg Arr**	**2.01**	**46**	P	**Pn**	**23 26 18.4**	**-0.2**
GRA1				Pg	**Pg**	**23 26 23.8**	**+0.2**
GRA1				AML	AML		
GRB2	**Grafenberg Arr**	**2.01**	**61**	⇑Pn	**Pn**	**23 26 18.6**	**-0.1**
GRB2	**Grafenberg Arr**	**2.01**	**61**	P	**Pn**	**23 26 18.5**	**-0.1**
GRB2				Pg	**Pg**	**23 26 23.3**	**-0.3**
GRB2				AML	AML		
GRF	**Grafenberg Arr**	**2.01**	**46**	⇑Pn	**Pn**	**23 26 18.2**	**-0.5**
MOSI	**Grossmontoni**	**2.01**	**148**	⇓Pn	**Pn**	**23 26 20.4**	**+1.6**
MOSI				AML	AML		
NAST	**IGS Nastaetten**	**2.02**	**339**	*e*Pn	**Pb**	**23 26 20.6**	**-0.9**
RIVT	**Riveris**	**2.02**	**314**	Pn	**Pb**	**23 26 20.4**	**-1.1**
BERNI	**Berninapass**	**2.04**	**160**	⇓Pn	**Pn**	**23 26 21.0**	**+1.8**
BERNI				AML	AML		
GRB4	**Grafenberg Arr**	**2.05**	**55**	P	**Pn**	**23 26 18.9**	**-0.3**
GRB4				Pg	**Pg**	**23 26 24.1**	**-0.3**
GRB4				AML	AML		
JAUN	**Jaun, Euschels**	**2.05**	**215**	⇑Pn	**Pn**	**23 26 19.2**	**-0.1**
JAUN				AML	AML		
GRA2	**Grafenberg Arr**	**2.05**	**49**	P	**Pn**	**23 26 18.8**	**-0.5**
GRA2				Pg	**Pg**	**23 26 24.9**	**+0.5**
GRA2				AML	AML		
GRB1	**Grafenberg Arr**	**2.06**	**58**	P	**Pn**	**23 26 19.0**	**-0.3**
GRB1				Pg	**Pg**	**23 26 24.2**	**-0.4**
GRB1				AML	AML		
BRMO	**Bormio**	**2.07**	**153**	⇓Pn	**Pn**	**23 26 21.4**	**+1.8**
BRMO				AML	AML		
WTTA	**Wattenberg**	**2.07**	**120**	*e*Pn	**Pn**	**23 26 20.9**	**+1.2**
	6.6nm,0.2s						
WTTA				*e*Sg	**Sg**	**23 26 50.5**	**-1.2**
	290nm,0.3s						
WTTA	**Wattenberg**	**2.07**	**120**	P	**Pn**	**23 26 20.9**	**+1.2**
WTTA				AML	AML		
PREO2	**Preonzo, Alpe**	**2.07**	**180**	⇑Pn	**Pn**	**23 26 21.3**	**+1.6**
PREO2				AML	AML		
PREO4	**Preonzo, Alpe**	**2.07**	**180**	⇑Pn	**Pn**	**23 26 21.3**	**+1.6**
PREO4				AML	AML		
TORNY	**Torny/Romont**	**2.08**	**222**	⇑Pn	**Pn**	**23 26 19.3**	**-0.3**
TORNY				AML	AML		
LAUCH	**Lauchernalp**	**2.08**	**204**	⇑Pn	**Pn**	**23 26 20.3**	**+0.4**
LAUCH				AML	AML		
GRA3	**Grafenberg Arr**	**2.10**	**46**	P	**Pn**	**23 26 19.4**	**-0.5**
GRA3				Pg	**Pg**	**23 26 25.3**	**-0.1**
GRA3				AML	AML		
GRB3	**Grafenberg Arr**	**2.12**	**60**	P	**Pn**	**23 26 19.8**	**-0.4**
GRB3				Pg	**Pg**	**23 26 25.4**	**-0.4**
GRB3				AML	AML		
GWBC	**Aumenau**	**2.13**	**347**	Pn	**Pb**	**23 26 21.8**	**-1.6**
BOUC	**Bouclans**	**2.14**	**241**	⇑Pn	**Pn**	**23 26 20.0**	**-0.4**
BOUC				AML	AML		
FACH	**Fachingen**	**2.14**	**343**	Pn	**Pn**	**23 26 21.5**	**+1.1**
ROSI	**Rosskopf**	**2.15**	**130**	⇓Pn	**Pn**	**23 26 22.4**	**+1.6**
ROSI				AML	AML		
LKBD2	**Leukerbad 2**	**2.15**	**206**	⇑Pn	**Pn**	**23 26 21.2**	**+0.4**
LKBD2				AML	AML		
NIE01	**Niedergesteln,**	**2.17**	**203**	Pn	**Pn**	**23 26 21.3**	**+0.4**
NIE01				AML	AML		
RAW1	**Lenk, BE**	**2.18**	**210**	⇑Pn	**Pn**	**23 26 21.1**	**+0.1**
RAW1				AML	AML		
SIMPL	**Simplonpass**	**2.19**	**198**	⇑Pn	**Pn**	**23 26 21.9**	**+0.7**
SIMPL				AML	AML		
PAGF	**Fort de Pagny**	**2.19**	**277**	*e*Pn	**Pn**	**23 26 21.7**	**+0.6**
PAGF				*e*Pg	**Pg**	**23 26 27.9**	**+0.8**
PAGF				*e*Sg	**Sg**	**23 26 55.8**	**+0.4**
	308nm,0.2s						
PAGF				AML	AML		
BRANT	**Les Verrieres**	**2.20**	**232**	⇑Pn	**Pn**	**23 26 21.0**	**-0.3**
BRANT				AML	AML		
ABSI	**Aberstueckl**	**2.24**	**134**	⇓Pn	**Pb**	**23 26 24.2**	**-1.3**
ABSI				AML	AML		
EMBD	**Embd, Matterta**	**2.25**	**201**	⇑Pn	**Pn**	**23 26 22.7**	**+0.6**
EMBD				AML	AML		
KOE	**Koeppel**	**2.26**	**339**	*e*Pn	**Pb**	**23 26 24.0**	**-1.7**
SENIN	**Lac Senin/Sane**	**2.27**	**211**	⇑Pn	**Pn**	**23 26 22.4**	**-0.1**
SENIN				AML	AML		
OCHT	**Ochtendung**	**2.28**	**333**	Pn	**Pn**	**23 26 23.9**	**+1.6**
SIE01	**Sierre, Farmho**	**2.29**	**207**	Pn	**Pn**	**23 26 23.0**	**+0.4**
SIE01				AML	AML		
WLF	**Walferdange**	**2.30**	**307**	Pn	**Pn**	**23 26 24.5**	**+1.8**
WLF	**Walferdange**	**2.30**	**307**	P	**Pn**	**23 26 24.4**	**+1.8**
WLF				Pg	**Pg**	**23 26 30.0**	**+0.8**
WLF				AML	AML		
RAW2	**Sanetsch, VS**	**2.31**	**210**	⇑Pn	**Pn**	**23 26 23.0**	**0.0**
RAW2				AML	AML		
VANNI	**Vissoie, Val d**	**2.32**	**205**	Pn	**Pn**	**23 26 23.5**	**+0.5**
VANNI				AML	AML		
BHE	**Schloss Buerre**	**2.35**	**330**	Pn	**Pn**	**23 26 25.0**	**+1.7**
MMK	**Mattmark**	**2.38**	**198**	Pn	**Pn**	**23 26 25.0**	**+1.1**
MMK				AML	AML		
NICK	**Nickenich**	**2.38**	**333**	Pn	**Pn**	**23 26 25.4**	**+1.7**
LAGB	**Langenfeld Gru**	**2.39**	**329**	Pn	**Pn**	**23 26 25.3**	**+1.5**
SHER	**Hrmence, R**	**2.40**	**208**	Pn	**Pn**	**23 26 24.6**	**+0.5**
SHER				AML	AML		
MUGIO	**Muggio**	**2.40**	**179**	Pn	**Pn**	**23 26 25.2**	**+1.1**
MUGIO				AML	AML		
VET01	**Vtroz, Route**	**2.41**	**210**	Pn	**Pn**	**23 26 24.4**	**+0.2**
VET01				AML	AML		
GRYON	**Gryon**	**2.44**	**212**	⇑Pn	**Pn**	**23 26 24.4**	**-0.2**
GRYON				AML	AML		
VARE	**Varese**	**2.46**	**184**	Pn	**Pn**	**23 26 25.9**	**+0.9**
VARE				AML	AML		
KOSI	**Kohlern**	**2.47**	**138**	Pn	**Pn**	**23 26 27.4**	**+2.3**
KOSI				AML	AML		
HILG	**Hillesheim**	**2.49**	**323**	*e*Pn	**Pn**	**23 26 27.3**	**+2.1**
HILG				*e*Sn	**Sb**	**23 26 57.7**	**-2.3**
	161nm,0.6s						
DIX	**Grande Dixence**	**2.49**	**206**	⇑Pn	**Pn**	**23 26 26.0**	**+0.5**
DIX				AML	AML		
FULLY	**Reservoir Maze**	**2.51**	**211**	⇑Pn	**Pn**	**23 26 25.6**	**+0.1**
FULLY				AML	AML		
MH44	**Zermatt, Posit**	**2.51**	**202**	Pn	**Pn**	**23 26 27.0**	**+1.1**
MH44				AML	AML		
BIW	**Bindweide**	**2.52**	**343**	Pn	**Pn**	**23 26 27.2**	**+1.5**
ILLEZ	**Chalet Vouargn**	**2.53**	**214**	Pn	**Pn**	**23 26 25.5**	**-0.4**
ILLEZ				AML	AML		
GIMEL	**St. Georges /**	**2.58**	**227**	Pn	**Pn**	**23 26 26.0**	**-0.5**
GIMEL				AML	AML		
GIMEL	**St. Georges /**	**2.58**	**227**	P	**Pn**	**23 26 25.9**	**-0.5**
GIMEL				Pg	**Pg**	**23 26 35.2**	**+0.7**
GIMEL				AML	AML		
WILW	**Wilwerwiltz**	**2.58**	**312**	Pn	**Pn**	**23 26 27.9**	**+1.4**
SALAN	**Lac Salanfe**	**2.58**	**213**	⇑Pn	**Pn**	**23 26 26.4**	**-0.2**
SALAN				AML	AML		
SAVF	**Savonnieres en**	**2.59**	**278**	*e*Pn	**Pn**	**23 26 28.3**	**+1.7**
SAVF				*e*P	**Pb**	**23 26 28.4**	**-2.9**
SAVF				*e*Pg	**Pg**	**23 26 34.2**	**-0.6**
SAVF				*e*Pg	Pg	23 26 34.8	0.0
SAVF				*e*Sg	**Sg**	**23 27 08.2**	**-0.1**
	562nm,0.4s						
SAVF				AML	AML		
A291A	**Badia**	**2.59**	**130**	⇓Pn	**Pn**	**23 26 29.2**	**+2.4**
A291A				AML	AML		
MDI	**Monti di Nese**	**2.59**	**169**	⇓Pn	**Pn**	**23 26 28.7**	**+1.9**
MDI				AML	AML		
RIVEL	**MONT RIVEL**	**2.60**	**234**	Pn	**Pn**	**23 26 26.5**	**-0.3**
RIVEL				AML	AML		
CABF	**La Chapelle**	**2.61**	**230**	*e*Pn	**Pn**	**23 26 26.7**	**-0.3**
CABF				*e*Pg	**Pg**	**23 26 35.0**	**-0.1**
CABF				*e*Sg	**Sg**	**23 27 09.7**	**+0.7**
	250nm,0.5s						
CABF				AML	AML		
RJOB	**Jochberg**	**2.62**	**102**	P	**Pn**	**23 26 29.3**	**+2.2**
RJOB				Pg	**Pg**	**23 26 37.1**	**+1.9**
RJOB				AML	AML		
MEZF	**Maizieres J'vi**	**2.63**	**275**	*e*Pn	**Pn**	**23 26 28.7**	**+1.5**
MEZF				*e*Pg	**Pg**	**23 26 35.8**	**+0.3**
	baz=92						
MEZF				*e*Sn	**Sn**	**23 26 59.0**	**+0.1**
MEZF				*e*Sg	**Sg**	**23 27 09.4**	**-0.2**
	283nm,0.3s						
MEZF				AML	AML		
LESA	**Schwarzleotal**	**2.64**	**109**	*e*Pn	**Pn**	**23 26 29.4**	**+2.1**
	7.5nm,0.2s,SNR=23						
LESA				*e*Sg	**Sg**	**23 27 07.7**	**-2.1**
	244nm,0.3s						
SFTF	**Sexfontaines**	**2.65**	**269**	*e*Pn	**Pn**	**23 26 28.2**	**+0.8**
SFTF				*e*Pg	**Pg**	**23 26 35.6**	**-0.2**
	baz=88						
SFTF				*e*Sn	**Sn**	**23 26 59.0**	**-0.3**
SFTF				*e*Sg	**Sg**	**23 27 10.5**	**+0.4**
	594nm,0.4s						
SFTF				AML	AML		
STB	**Steinbach**	**2.67**	**329**	*e*Pn	**Pn**	**23 26 29.6**	**+1.9**
MFERR	**Prayon, Val Fe**	**2.70**	**209**	⇑Pn	**Pn**	**23 26 28.5**	**+0.2**
MFERR				AML	AML		
WET	**Wettzell**	**2.70**	**71**	P	**Pn**	**23 26 28.5**	**+0.3**
WET				Pg	**Pg**	**23 26 35.8**	**-1.0**
WET				AML	AML		
LUSI	**Trento, Gardas**	**2.71**	**150**	Pn	**Pn**	**23 26 30.8**	**+2.4**
LUSI				AML	AML		
OGSI	**Sixt**	**2.73**	**215**	Pn	**Pn**	**23 26 28.3**	**-0.2**
OGSI				AML	AML		
CI19	**Les Bois**	**2.78**	**212**	Pn	**Pn**	**23 26 29.1**	**-0.1**
CI19				AML	AML		
BLANC	**P.ta Helbronne**	**2.85**	**210**	Pn	**Pn**	**23 26 30.7**	**+0.1**
BLANC				AML	AML		
ABTA	**Abfaltersbach**	**2.86**	**122**	*i* Pn	**Pn**	**23 26 33.2**	**+2.9**
	16nm,0.4s						
ABTA				*e*Pg	**Pg**	**23 26 40.2**	**+0.3**
	66nm,0.3s						
ABTA				*e*Sg	**Sg**	**23 27 15.2**	**-1.7**
	25nm,0.2s						
CI20	**La Palud, 9912**	**2.86**	**210**	Pn	**Pn**	**23 26 30.7**	**+0.2**
CI20				AML	AML		
HOBG	**Hohbusch**	**2.87**	**339**	*e*Pn	**Pn**	**23 26 32.1**	**+1.6**
MRGE	**Morge**	**2.88**	**208**	⇑Pn	**Pn**	**23 26 31.2**	**+0.5**
MRGE				AML	AML		
MOX	**Moxa**	**2.88**	**35**	P	**Pn**	**23 26 29.8**	**-0.8**
MOX				Pg	**Pg**	**23 26 39.5**	**-0.9**
MOX				AML	AML		
BNS	**Bensberg**	**2.90**	**337**	*e*Pn	**Pn**	**23 26 32.5**	**+1.7**
KLL	**Kalltalsperre**	**2.91**	**324**	*e*Pn	**Pn**	**23 26 32.7**	**+1.7**
DREG	**Dreilaegerbach**	**2.95**	**323**	*e*Pn	**Pn**	**23 26 33.4**	**+1.8**
NKC	**Novy Kostel**	**2.96**	**48**	*e*PN	**Pn**	**23 26 30.9**	**-0.8**
NKC				*e*PG	**Pg**	**23 26 40.7**	**-1.1**
NKC				*e*SG	**Sg**	**23 27 18.6**	**-1.6**
	243nm,0.4s						
NKC				AML	AML		
NKC	**Novy Kostel**	**2.96**	**48**	P	**Pn**	**23 26 31.1**	**-0.6**
NKC				Pg	**Pg**	**23 26 41.2**	**-0.6**
NKC				AML	AML		
MEM	**Membach**	**3.00**	**321**	Pn	**Pn**	**23 26 33.9**	**+1.6**
MEM	**Membach**	**3.00**	**321**	P	**Pn**	**23 26 34.0**	**+1.7**
MEM				Pg	**Pg**	**23 26 43.1**	**+0.4**
MEM				AML	AML		
RCHB	**Rochefort**	**3.08**	**308**	P	**Pn**	**23 26 35.2**	**+2.0**
RCHB				AML	AML		
TANN	**Tannenbergstha**	**3.08**	**46**	P	**Pn**	**23 26 32.6**	**-0.9**
TANN				Pg	**Pg**	**23 26 43.4**	**-0.8**
TANN				AML	AML		
RSL	**Roselend**	**3.09**	**212**	⇑Pn	**Pn**	**23 26 33.5**	**-0.2**
RSL				AML	AML		
CGRP	**Cima Grappa**	**3.11**	**141**	⇓Pn	**Pn**	**23 26 36.0**	**+2.1**
CGRP				AML	AML		
CGRP	**Cima Grappa**	**3.11**	**141**	P	**Pn**	**23 26 36.0**	**+2.1**
CGRP				Pg	**Pg**	**23 26 44.7**	**+0.1**
CGRP				AML	AML		
KHC	**Kasperske Hory**	**3.14**	**73**	*e*PN	**Pn**	**23 26 35.1**	**+0.9**
KHC				*e*PG	**Pg**	**23 26 43.4**	**-1.9**
KHC				*e*SN	**Sn**	**23 27 10.7**	**-0.8**
KHC				*e*SG	**Sg**	**23 27 24.5**	**-1.4**
	297nm,0.3s						
KHC				AML	AML		
KHC	**Kasperske Hory**	**3.14**	**73**	P	**Pn**	**23 26 34.9**	**+0.7**
KHC				Pg	**Pg**	**23 26 44.5**	**-0.8**
KHC				AML	AML		
HGN	**Heimansgroeve**	**3.15**	**322**	P	**Pn**	**23 26 36.3**	**+2.0**
HGN				Pg	**Pg**	**23 26 44.9**	**-0.6**
HGN				AML	AML		
GEEC2	**GERESS Array S**	**3.17**	**79**	P	**Pn**	**23 26 35.5**	**+0.9**
GEC2				Pg	**Pg**	**23 26 44.8**	**-1.0**
GEC2				AML	AML		
GERES	**GERESS Array B**	**3.17**	**79**	Pn	**Pn**	**23 26 35.6**	**+0.9**
	4.7nm,0.3s,baz=263,slow=13,SNR=516						
GERES				Pg	**Pg**	**23 26 44.8**	**-1.0**
	3.9nm,0.3s,baz=266,slow=17,SNR=20						
GERES				Sn	**Sn**	**23 27 12.4**	**+0.1**
	3.0nm,0.3s,baz=264,slow=26,SNR=5.6						
GERES				Lg	Lg	23 27 26.2	
	8.3nm,0.3s,baz=266,slow=32,SNR=17						
	55nm,0.3s						
GERES				AML	AML		
BIOA	**Bad Ischl, Aus**	**3.18**	**100**	*i* Pn	**Pn**	**23 26 36.5**	**+1.7**
	14nm,0.3s,SNR=23						
BIOA				*e*Pg	**Pg**	**23 26 46.1**	**+0.1**
	41nm,0.2s						
BIOA				*e*Sg	**Sg**	**23 27 27.3**	**0.0**
	196nm,0.3s						
KBA	**Koelnbreinsper**	**3.19**	**111**	*i* Pn	**Pn**	**23 26 37.6**	**+2.6**
	6.7nm,0.2s,SNR=20						
KBA				*i* Sg	**Sg**	**23 27 24.7**	**-2.9**
	37nm,0.2s						
KBA	**Koelnbreinsper**	**3.19**	**111**	P	**Pn**	**23 26 37.6**	**+2.6**
KBA				Pg	**Pg**	**23 26 47.2**	**+0.9**
KBA				AML	AML		
LPL	**La Plagne**	**3.21**	**210**	*e*Pn	**Pn**	**23 26 35.4**	**+0.1**
LPL				*e*Pg	**Pg**	**23 26 45.4**	**-1.1**
LPL				*e*Sg	**Sg**	**23 27 27.0**	**-1.1**
	60nm,0.3s						
LPL				AML	AML		
LPG	**La Plagne**	**3.22**	**209**	*e*Pn	**Pn**	**23 26 35.4**	**-0.1**
LPG				*e*Pg	**Pg**	**23 26 46.2**	**-0.5**
LPG				*e*Sg	**Sg**	**23 27 27.8**	**-0.6**
	107nm,0.4s						
LPG				AML	AML		
GIVF	**Givet**	**3.26**	**305**	*e*Pn	**Pn**	**23 26 37.5**	**+1.7**
GIVF				*e*Pg	**Pg**	**23 26 47.2**	**-0.4**
GIVF				*e*Sn	**Sn**	**23 27 13.3**	**-1.2**
GIVF				*e*Sg	**Sg**	**23 27 27.7**	**-2.1**
	123nm,0.2s						
GIVF				AML	AML		
GTTG	**Gottingen**	**3.29**	**11**	P	**Pn**	**23 26 36.0**	**-0.1**
GTTG				AML	AML		
LAUG	**Laupendahl**	**3.31**	**337**	*e*Pn	**Pn**	**23 26 38.0**	**+1.5**
BUG	**Bochum--Univer**	**3.31**	**341**	P	**Pn**	**23 26 37.9**	**+1.4**
BUG				AML	AML		
FUSE	**Fusea**	**3.33**	**124**	P	**Pn**	**23 26 39.7**	**+3.0**
FUSE				Pg	**Pg**	**23 26 49.1**	**+0.3**
FUSE				AML	AML		
NEUB	**Neuenburg**	**3.41**	**31**	P	**Pn**	**23 26 39.5**	**+1.7**
NEUB				Pg	**Pg**	**23 26 49.3**	**-1.0**
NEUB				AML	AML		
CKRC	**Cesky Krumlov**	**3.56**	**80**	*e*PN	**Pn**	**23 26 40.8**	**+0.8**
CKRC				*e*PG	**Pg**	**23 26 51.1**	**-2.3**
CKRC				*e*SG	**Sg**	**23 27 37.2**	**-2.3**
	189nm,0.4s						
CKRC				AML	AML		
MOA	**Molln**	**3.57**	**96**	*i* Pn	**Pn**	**23 26 41.6**	**+1.6**
	8.1nm,0.2s,SNR=17						
MOA				*e*Pg	**Pg**	**23 26 52.2**	**-1.1**
	47nm,0.3s						
MOA				*i* Sn	**Sn**	**23 27 22.3**	**+0.3**
	62nm,0.3s						
MOA				Sg	**Sg**	**23 27 37.7**	**-1.9**
	275nm,0.5s						
MOA	**Molln**	**3.57**	**96**	P	**Pn**	**23 26 41.5**	**+1.4**
MOA				Pg	**Pg**	**23 26 52.3**	**-1.1**
MOA				AML	AML		
MYKA	**Terra Mystica**	**3.58**	**117**	*i* Pn	**Pn**	**23 26 43.0**	**+2.7**
	8.8nm,0.3s,SNR=16						
MYKA				*e*Sg	**Sg**	**23 27 38.7**	**-1.2**
	48nm,0.4s						
BAIF	**Baives**	**3.59**	**301**	*e*Pn	**Pn**	**23 26 41.9**	**+1.6**
BAIF				*e*Pg	**Pg**	**23 26 52.7**	**-1.1**
BAIF				*e*Sg	**Sg**	**23 27 37.2**	**-3.1**
	47nm,0.2s						
BAIF				AML	AML		
WIMM	**Wimmelburg**	**3.59**	**26**	P	**Pn**	**23 26 40.2**	**-0.1**
WIMM				AML	AML		
ZVC	**Zvikov**	**3.61**	**70**	*e*PN	**Pn**	**23 26 41.0**	**+0.4**
ZVC				*e*PG	**Pg**	**23 26 52.2**	**-2.0**
ZVC				*e*SG	**Sg**	**23 27 38.6**	**-2.3**
	136nm,0.7s						
ZVC				AML	AML		
LOR	**Lormes**	**3.62**	**255**	*e*Pn	**Pn**	**23 26 41.6**	**+0.8**
LOR				*e*Pg	**Pg**	**23 26 54.1**	**-0.3**
	baz=72						
LOR				*e*Sg	**Sg**	**23 27 40.7**	**-0.6**
	203nm,0.2s						
LOR				AML	AML		
LOR	**Lormes**	**3.62**	**255**	P	**Pn**	**23 26 42.0**	**+1.3**
LOR				Pg	**Pg**	**23 26 54.5**	**+0.1**
LOR				AML	AML		
PRED	**Cave del Predi**	**3.63**	**120**	P	**Pn**	**23 26 43.6**	**+2.6**
PRED				Pg	**Pg**	**23 26 56.0**	**+1.4**
PRED				AML	AML		
CLZ	**Clausthal**	**3.63**	**14**	P	**Pn**	**23 26 40.0**	**-1.0**
CLZ				Pg	**Pg**	**23 26 55.6**	**+1.0**
CLZ				AML	AML		
BNI	**Bardonecchia**	**3.64**	**207**	P	**Pn**	**23 26 42.0**	**+0.9**
BNI				Pg	**Pg**	**23 26 55.1**	**+0.3**
BNI				AML	AML		
HSKC	**Hora Svate Kat**	**3.69**	**50**	*e*PN	**Pn**	**23 26 41.0**	**-0.7**
HSKC				*e*SG	**Sg**	**23 27 40.7**	**-2.8**
	108nm,0.4s						
HSKC				AML	AML		
HSKC	**Hora Svate Kat**	**3.69**	**50**	P	**Pn**	**23 26 41.0**	**-0.7**
HSKC				Pg	**Pg**	**23 26 55.4**	**-0.3**
HSKC				AML	AML		
ROBS	**Robic**	**3.71**	**122**	*i* Pn	**Pn**	**23 26 44.5**	**+2.5**
DRE	**Drenchia**	**3.83**	**122**	P	**Pn**	**23 26 45.6**	**+1.9**
DRE				Pg	**Pg**	**23 26 59.8**	**+1.4**
DRE				AML	AML		
CADS	**Cadrg**	**3.85**	**121**	*i* Pn	**Pn**	**23 26 46.0**	**+2.0**
SMF	**Signal de Mont**	**3.88**	**246**	*e*Pn	**Pn**	**23 26 44.7**	**+0.4**
SMF				*e*Pg	**Pg**	**23 26 58.5**	**-0.8**
SMF				*e*Sg	**Sg**	**23 27 48.1**	**-1.4**
	148nm,0.3s						
SMF				AML	AML		
UCC	**Uccle**	**3.90**	**311**	Pg	**Pg**	**23 26 59.3**	**-0.5**
MBDF	**Montbardon**	**3.91**	**204**	*e*Pn	**Pn**	**23 26 45.8**	**+0.9**
MBDF				*e*Pg	**Pg**	**23 26 58.2**	**-1.8**
MBDF				*e*Sg	**Sg**	**23 27 48.0**	**-2.6**
	40nm,0.3s						
MBDF				AML	AML		
WTSB	**Winterswijk**	**3.91**	**340**	P	**Pn**	**23 26 46.0**	**+1.3**
WTSB				AML	AML		
SSF	**Saint Saulge**	**3.92**	**253**	*e*Pn	**Pn**	**23 26 45.1**	**+0.3**
SSF				*e*Pg	**Pg**	**23 26 59.2**	**-0.9**
SSF				*e*Sg	**Sg**	**23 27 49.1**	**-1.7**
	140nm,0.3s						
SSF				AML	AML		
SESA	**Seetaler Alpe,**	**3.95**	**106**	*i* Pn	**Pn**	**23 26 47.9**	**+2.4**
	3.7nm,0.1s,SNR=13						
SESA				Sg	**Sg**	**23 27 50.2**	**-1.8**
	105nm,0.4s						
CLL	**Collm**	**3.96**	**39**	P	**Pn**	**23 26 44.1**	**-1.3**
CLL				Pg	**Pg**	**23 27 00.8**	**0.0**
CLL				AML	AML		
CLL	**Collm**	**3.96**	**39**	*e*Pn	**Pn**	**23 26 44.0**	**-1.3**
CLL				*ex*	x	23 26 47.0	
CLL				*ex*	x	23 26 51.0	
CLL				*e*Pg	**Pg**	**23 27 01.0**	**+0.1**
CLL				*ex*	x	23 27 42.0	
CLL				*e*Sg	**Sg**	**23 27 50.0**	**-2.1**
	comp=Z,154nm,0.5s						
ORIF	**Oris-en-Rattie**	**4.03**	**213**	*e*Pn	**Pn**	**23 26 45.7**	**-0.7**
ORIF				*e*Pg	**Pg**	**23 27 01.3**	**-0.9**
ORIF				*e*Sg	**Sg**	**23 27 52.6**	**-1.7**
	comp=Z,54nm,0.2s						
ORIF				AML	AML		
ORIF	**Oris-en-Rattie**	**4.03**	**213**	P	**Pn**	**23 26 46.2**	**-0.2**
ORIF				Pg	**Pg**	**23 27 02.4**	**+0.2**
ORIF				AML	AML		
VOJS	**Vojsko**	**4.05**	**123**	*i* Pn	**Pn**	**23 26 48.5**	**+1.8**
BRG	**Berggiesshubel**	**4.11**	**50**	P	**Pn**	**23 26 47.5**	**0.0**
BRG				Pg	**Pg**	**23 27 03.1**	**-0.6**
BRG				AML	AML		
BRG	**Berggiesshubel**	**4.11**	**50**	Pn	**Pn**	**23 26 49.6**	**+2.2**
BRG				Pg	**Pg**	**23 27 03.3**	**-0.4**
BRG	**Berggiesshubel**	**4.11**	**50**	Sg	**Sg**	**23 27 55.1**	**-1.8**
BRG				Amp		23 28 11.2	
	comp=Z,121nm,0.7s						
AVF	**Avril sur Loir**	**4.12**	**250**	*e*Pn	**Pn**	**23 26 47.2**	**-0.4**
AVF				*e*Pg	**Pg**	**23 27 02.6**	**-1.3**
AVF				*e*Sg	**Sg**	**23 27 55.8**	**-1.4**
	comp=Z,42nm,0.3s						
AVF				AML	AML		
OBKA	**Obir**	**4.18**	**114**	*i* Pn	**Pn**	**23 26 50.7**	**+2.1**
	comp=Z,6.0nm,0.3s,SNR

VIVF					*e*Sg	**Sg**	**23 28 09.4**	**-2.4**
	comp=Z,40nm,0.2s							
VIVF					AML	AML		
SBF	**Sospel**	**4.59**	**194**		*e*P	**Pn**	**23 26 57.3**	**+3.1**
SBF					*e*Sn	**Sn**	**23 27 46.0**	**-1.3**
	comp=Z,36nm,0.2s							
SBF					AML	AML		
CONA	**Conrad Observa**	**4.62**	**92**		*i* Pn	**Pn**	**23 26 55.8**	**+1.3**
	comp=Z,9.6nm,0.3s,SNR=20							
CONA					*i* Pg	**Pg**	**23 27 13.7**	**+0.2**
	comp=Z,7.9nm,0.2s							
CONA					*e*Sn	**Sn**	**23 27 45.6**	**-2.4**
	comp=Z,42nm,0.2s							
CONA					*i* Sg	**Sg**	**23 28 10.9**	**-2.3**
	comp=Z,75nm,0.3s							
WINA	**Alland / Wiene**	**4.74**	**90**		*i* Pn	**Pn**	**23 26 57.7**	**+1.6**
	comp=Z,5.4nm,0.1s,SNR=18							
WINA					*e*Pg	**Pg**	**23 27 14.7**	**-1.1**
	comp=Z,11nm,0.1s							
WINA					*i* Sn	**Sn**	**23 27 49.9**	**-1.0**
	comp=Z,20nm,0.2s							
WINA					*i* Sg	**Sg**	**23 28 14.2**	**-2.9**
	comp=Z,169nm,0.4s							
CALF	**Calern**	**4.79**	**198**		P	**Pn**	**23 26 59.2**	**+2.2**
CALF					AML	AML		
RONA	**Rosalia, Austr**	**4.94**	**95**		*e*Pn	**Pn**	**23 27 00.5**	**+1.5**
	comp=Z,5.3nm,0.3s,SNR=9.0							
RONA					*e*Pg	**Pg**	**23 27 18.7**	**-0.9**
	comp=Z,13nm,0.3s							
RONA					*i* Sn	**Sn**	**23 27 53.8**	**-2.2**
	comp=Z,18nm,0.2s							
RONA					*e*Sg	**Sg**	**23 28 21.4**	**-2.2**
	comp=Z,68nm,0.4s							
SMRF	**Simiane la Rot**	**4.95**	**210**		*e*Pn	**Pn**	**23 26 58.5**	**-0.6**
SMRF					*e*Pg	**Pg**	**23 27 18.4**	**-1.5**
SMRF					*e*Sn	**Sn**	**23 27 54.0**	**-2.3**
KRUC	**Moravsky**	**4.96**	**79**		*e*PN	**Pn**	**23 27 00.1**	**+1.0**
KRUC					*e*PG	**Pg**	**23 27 17.6**	**-2.4**
KRUC					*e*SG	**Sg**	**23 28 22.4**	**-1.8**
KRUC	**Moravsky**	**4.96**	**79**		P	**Pn**	**23 27 00.2**	**+1.1**
KRUC					Pg	**Pg**	**23 27 19.4**	**-0.5**
KRUC					AML	AML		
RUSF	**Rustrel**	**5.02**	**210**		P	**Pn**	**23 26 59.8**	**-0.2**
	comp=Z,10.0nm,1.1s,comp=Z,0.1nm							
RUSF					AML	AML		
TCF	**Toulx Ste Croi**	**5.04**	**249**		*e*Pn	**Pn**	**23 27 00.7**	**+0.3**
TCF					*e*Pg	**Pg**	**23 27 19.6**	**-2.0**
TCF					*e*Sg	**Sg**	**23 28 24.2**	**-2.7**
	comp=Z,30nm,0.2s							
TCF					AML	AML		
UPC	**Upice**	**5.08**	**62**		*e*PG	**Pg**	**23 27 17.9**	**-4.3**
UPC	**Upice**	**5.08**	**62**		P	**Pn**	**23 27 02.2**	**+1.5**
	comp=Z,91nm,0.8s,comp=Z,0.5nm							
UPC					Pg	**Pg**	**23 27 19.9**	**-2.4**
UPC					AML	AML		
VRAC	**Vranov**	**5.12**	**76**		Pn	**Pn**	**23 27 01.4**	**+0.1**
	comp=Z,0.5nm,0.3s,baz=262,slow=14,SNR=5.9							
VRAC					Pg	**Pg**	**23 27 20.5**	**-2.5**
	comp=Z,2.7nm,0.3s,baz=261,slow=14,SNR=6.4							
VRAC					Sn	**Sn**	**23 28 00.7**	**+0.5**
	comp=Z,3.3nm,0.3s,baz=209,slow=17,SNR=3.8							
VRAC					Lg	Lg	23 28 25.9	
	comp=Z,14nm,0.3s,baz=185,slow=9.0,SNR=11							
	comp=Z,1.6nm,0.3s							
VRAC					AML	AML		
VRAC	**Vranov**	**5.12**	**76**		*e*PN	**Pn**	**23 27 01.4**	**+0.1**
VRAC					*e*PG	**Pg**	**23 27 20.5**	**-2.5**
VRAC					*e*SG	**Sg**	**23 28 25.7**	**-3.6**
VRAC	**Vranov**	**5.12**	**76**		P	**Pn**	**23 27 01.4**	**+0.1**
	comp=Z,19nm,0.8s,comp=Z,0.1nm							
VRAC					Pg	**Pg**	**23 27 20.7**	**-2.3**
VRAC					AML	AML		
SOP	**Sopron**	**5.12**	**94**		P	**Pn**	**23 27 03.1**	**+1.8**
	comp=Z,30nm,0.5s,comp=Z,0.3nm							
SOP					AML	AML		
DPC	**Dobruska-Polom**	**5.20**	**64**		*e*PN	**Pn**	**23 27 02.8**	**+0.3**
DPC					*e*PG	**Pb**	**23 27 20.1**	**+4.2**
DPC					*e*SG	**Sg**	**23 28 27.8**	**-4.2**
	comp=Z,52nm,0.5s							
DPC					AML	AML		
DPC	**Dobruska-Polom**	**5.20**	**64**		P	**Pn**	**23 27 02.8**	**+0.3**
	comp=Z,17nm,0.9s,comp=Z,0.3nm							
DPC					AML	AML		
LMR	**La Mourre**	**5.28**	**200**		*e*Pn	**Pn**	**23 27 03.1**	**-0.5**
LMR					*e*Sn	**Sn**	**23 28 00.8**	**-3.5**
	comp=Z,8.7nm,0.3s							
LMR					AML	AML		
MODS	**Modra-Piesok**	**5.52**	**86**		*e*PN	**Pn**	**23 27 08.1**	**+1.2**
MODS					*e*SN	**Sn**	**23 28 07.3**	**-2.9**
MODS					*e*SG	**Sg**	**23 28 41.7**	**-0.6**
LASF	**Ste Croix**	**5.54**	**222**		*e*Pn	**Pn**	**23 27 05.6**	**-1.6**
LASF					*e*Pg	**Pg**	**23 27 29.2**	**-2.0**
LASF					*e*Sn	**Sn**	**23 28 07.0**	**-3.8**
LASF					*e*Sg	**Sg**	**23 28 40.1**	**-2.9**
	comp=Z,13nm,0.2s							
LASF					AML	AML		
BEHE	**Becsehely**	**5.60**	**106**		P	**Pn**	**23 27 09.5**	**+1.6**
	comp=Z,7.0nm,0.4s,comp=Z,0.1nm							
BEHE					AML	AML		
PGF	**Pioggiola**	**5.78**	**180**		*e*Pn	**Pn**	**23 27 10.6**	**+0.1**
PGF					*e*Sn	**Sn**	**23 28 13.5**	**-3.1**
	comp=Z,5.7nm,0.3s							
PGF					AML	AML		
JAVC	**Velka Javorina**	**5.78**	**81**		*e*PN	**Pn**	**23 27 11.2**	**+0.7**
MORC	**Moravsky Berou**	**5.81**	**72**		*e*PN	**Pn**	**23 27 11.6**	**+0.8**
MORC	**Moravsky Berou**	**5.81**	**72**		P	**Pn**	**23 27 10.8**	**-0.1**
	comp=Z,18nm,1.0s,comp=Z,0.3nm							
MORC					AML	AML		
CAF	**Calviac**	**5.86**	**237**		*e*Pn	**Pn**	**23 27 10.9**	**-0.6**
CAF					*e*Pg	**Pg**	**23 27 36.3**	**-0.9**
CAF					*e*Sg	**Sg**	**23 28 50.6**	**-2.4**
	comp=Z,8.4nm,0.2s							
CAF					AML	AML		
MPLH	**Magyarpolny**	**5.88**	**98**		P	**Pn**	**23 27 13.9**	**+2.2**
	comp=Z,13nm,0.8s,comp=Z,0.2nm							
MPLH					AML	AML		
RJF	**Les Rejaudoux**	**5.95**	**242**		*e*Pn	**Pn**	**23 27 12.7**	**-0.1**
RJF					*e*Pg	**Pg**	**23 27 37.0**	**-2.0**
RJF					*e*Sn	**Sn**	**23 28 18.0**	**-2.8**
RJF					*e*Sg	**Sg**	**23 28 53.9**	**-2.2**
	comp=Z,16nm,0.3s							
RJF					AML	AML		
LDF	**La Druitiere**	**6.07**	**276**		*e*Pn	**Pn**	**23 27 15.2**	**+0.8**
LDF					*e*Pg	**Pg**	**23 27 39.3**	**-2.0**
LDF					*e*Sg	**Sg**	**23 28 57.6**	**-2.2**
	comp=Z,54nm,0.4s							
LDF					AML	AML		
OKC	**Ostrava-Krasne**	**6.20**	**72**		*e*PG	**Pb**	**23 27 36.5**	**+3.7**
SRO	**Srobarova**	**6.27**	**91**		*e*SN	**Sn**	**23 28 25.0**	**-3.5**
FLN	**La Foliniere**	**6.31**	**278**		*e*Pn	**Pn**	**23 27 18.5**	**+0.8**
	baz=91							
FLN					*e*Sg	**Sg**	**23 29 04.5**	**-2.9**
	comp=Z,32nm,0.3s							
FLN					AML	AML		
MFF	**Saint Martin d**	**6.43**	**258**		*e*Pn	**Pn**	**23 27 18.5**	**-0.9**
MFF	**Saint Martin d**	**6.43**	**258**		*e*Pn	**Pn**	**23 27 18.8**	**-0.6**
MFF					*e*Pg	**Pg**	**23 27 45.2**	**-3.0**
MFF					*e*Pg	Pb	23 27 45.3	+8.5
MFF					*e*Sn	**Sn**	**23 28 28.5**	**-4.1**
MFF					*e*Sg	**Sg**	**23 29 08.5**	**-2.9**
	comp=Z,22nm,0.3s							
MFF					AML	AML		
MFF	**Saint Martin d**	**6.43**	**258**		P	**Pn**	**23 27 19.7**	**+0.3**
	comp=Z,4.7nm,0.8s							
VYHS	**Vyhne**	**6.56**	**85**		*e*PN	**Pn**	**23 27 21.7**	**+0.6**
VYHS					*e*SN	**Sn**	**23 28 32.1**	**-3.5**
VYHS					*e*SG	**Sg**	**23 29 10.7**	**-4.7**
VYHS	**Vyhne**	**6.56**	**85**		P	**Pn**	**23 27 21.4**	**+0.3**
	comp=Z,3.2nm,0.6s							
GRR	**Gorron**	**6.57**	**274**		*e*Pn	**Pn**	**23 27 21.8**	**+0.6**
GRR					*e*Pg	**Pg**	**23 27 50.3**	**-0.5**
GRR					*e*Sg	**Sg**	**23 29 13.7**	**-2.0**
	comp=Z,33nm,0.2s							
GRR					AML	AML		
LFF	**La Frestale**	**6.61**	**242**		*e*Pn	**Pn**	**23 27 22.0**	**+0.1**
LFF					*e*Pg	**Pg**	**23 27 49.1**	**-2.6**
LFF					*e*Sg	**Sg**	**23 29 14.5**	**-2.7**
	comp=Z,28nm,0.3s							
LFF					AML	AML		
KIJV	**Kijevo**	**6.72**	**127**		P	**Pn**	**23 27 25.0**	**+1.7**
	comp=Z,48nm,1.8s,comp=Z,0.3nm							
KIJV					AML	AML		
MTLF	**Montolieu**	**6.87**	**226**		*e*Pn	**Pn**	**23 27 24.4**	**-1.0**
MTLF					*e*Pg	**Pg**	**23 27 53.1**	**-3.5**
MTLF					*e*Sn	**Sn**	**23 28 39.4**	**-4.0**
MTLF					*e*Sg	**Sg**	**23 29 22.4**	**-3.1**
	comp=Z,12nm,0.5s							
MTLF					AML	AML		
MORH	**Mrgy, Hungar**	**6.90**	**104**		P	**Pn**	**23 27 25.9**	**+0.2**
	comp=Z,6.1nm,1.9s,comp=Z,0.1nm							
MORH					AML	AML		
LANS	**Liptovska Anna**	**6.98**	**79**		*e*PN	**Pn**	**23 27 29.2**	**+2.3**
LANS					*e*SN	**Sn**	**23 28 42.4**	**-3.6**
LANS					*e*SG	**Sg**	**23 29 28.4**	**-0.5**
KECS	**Kecovo**	**7.65**	**85**		*e*PN	**Pn**	**23 27 38.0**	**+1.9**
KECS					*e*SN	**Sn**	**23 28 59.8**	**-2.8**
SGMF	**Saint Gilles**	**7.71**	**274**		*e*Pn	**Pn**	**23 27 36.9**	**0.0**
SGMF					*e*Sn	**Sn**	**23 28 58.6**	**-5.3**
SGMF					*e*Sg	**Sg**	**23 29 49.7**	**-2.5**
	comp=Z,20nm,0.4s							
SGMF					AML	AML		
CWF	**Charnwood Fore**	**7.91**	**308**		P	**Pn**	**23 27 41.5**	**+1.9**
	comp=Z,24nm,1.2s,comp=Z,0.3nm							
CWF					AML	AML		
EPF	**Esparros**	**8.04**	**232**		*e*Pn	**Pn**	**23 27 41.2**	**-0.3**
EPF					*e*Pg	**Pg**	**23 28 14.9**	**-4.1**
EPF					*e*Sg	**Sg**	**23 29 57.6**	**-5.4**
	comp=Z,6.7nm,0.4s							
EPF					AML	AML		
QUIF	**Quistinic**	**8.15**	**272**		*e*Pn	**Pn**	**23 27 42.6**	**-0.3**
QUIF					*e*Sn	**Sn**	**23 29 07.8**	**-7.0**
	comp=Z,6.3nm,0.3s							
QUIF					AML	AML		
ROSF	**Rostrenen**	**8.18**	**275**		*e*Pn	**Pn**	**23 27 43.6**	**+0.3**
ROSF					*e*Sn	Sn	23 29 06.7	-8.8
ROSF					*e*Sg	**Sg**	**23 30 01.8**	**-5.5**
	comp=Z,14nm,0.4s							
ROSF					AML	AML		
BBLS	**Lazi&#263i**	**8.50**	**118**		P	**Pn**	**23 27 49.3**	**+1.6**
	comp=Z,16nm,1.4s							
ETSF	**Etsaut**	**8.61**	**235**		*e*Pn	**Pn**	**23 27 49.3**	**-0.1**
ETSF					*e*Sg	**Sg**	**23 30 15.3**	**-6.0**
	comp=Z,2.8nm,0.3s							
ETSF					AML	AML		
SJPF	**Ste Jean**	**8.84**	**238**		*e*Pn	**Pn**	**23 27 53.2**	**+0.7**
SJPF					*e*Sg	**Sg**	**23 30 22.7**	**-5.9**
	comp=Z,2.7nm,0.3s							
SJPF					AML	AML		
EKA	**Eskdalemuir Ar**	**10.28**	**318**		Pn	**Pn**	**23 28 13.2**	**+1.2**
	comp=Z,1.1nm,0.3s,baz=128,slow=13,SNR=19							
EKA					Sn	**Sn**	**23 30 04.4**	**-2.6**
	baz=119,slow=26							
MLR	**Muntele Rosu**	**11.94**	**97**		Pn	**Pn**	**23 28 37.8**	**+2.9**
	comp=Z,0.1nm,0.3s,baz=322,slow=19,SNR=5.8							
	comp=Z,1.6nm,0.8s							
MLR					AML	AML		
HFS	**Hagfors**	**12.14**	**11**		Pn	**Pn**	**23 28 40.0**	**+2.4**
	comp=Z,0.1nm,0.3s,baz=178,slow=16,SNR=1.7							
	comp=Z,2.1nm,0.8s							
HFS					AML	AML		
ESDC	**Sonseca Array**	**12.70**	**232**		Pn	**Pn**	**23 28 44.3**	**-1.0**
	baz=46,slow=14,SNR=1.8							
	comp=Z,0.3nm,0.8s							
NOA	**NORSAR Array B**	**12.81**	**5**		Pn	**Pn**	**23 28 46.4**	**-0.2**
	baz=191,slow=14,SNR=1.3							
	comp=Z,0.4nm,0.7s							
FINES	**FINESS Array B**	**16.34**	**30**		Pn	**Pn**	**23 29 33.5**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=230,slow=11,SNR=1.6							
	comp=Z,5.0nm,1.1s							
FINES					AML	AML		
KSH2	**Kashi**	**47.58**	**75**		P	**P**	**23 34 22.3**	**+1.9**
KSH2					pmax	pmax		
	comp=Z,9.0nm,1.3s							

*IDC **30** 23:30:39.8±1.4, 31°39S×72°14W, h0km, mb4.2/1, mbtmp4.2/1, ML2.3/1, MS4.7/3, Error ellipse: s-maj=97.3km s-min=23.4km az=5.0*

ISC 30 23:30:41.5±1.6, 31°6S±0.8×72°2W±0°1, h14km, n9, σ1§47/7, MS4.8/3, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase	ID	Op	ISC	Time h m s	Res ISC
CFA	**Coronel Fontan**	**3.38**	**92**	Pn		**Pn**		**23 31 32.1**	**-1.7**
	0.3nm,0.3s,baz=260,slow=15,SNR=1.7								
CFA				Sn		**Sn**		**23 32 15.2**	**+1.4**
	0.4nm,0.3s,baz=9.0,slow=19,SNR=5.0								
CFA				AML		AML			
BDFB	**Brasilia**	**27.14**	**60**	LR		LR		23 46 45.3	
	comp=Z,1μm,21.2s,baz=316,slow=36								
TXAR	**Lajitas Array**	**67.54**	**330**	LR		LR		00 07 22.3	
	comp=Z,515nm,18.8s,baz=14,slow=33								
BOSA	**Boshof**	**81.33**	**118**	LR		LR		00 15 58.4	
	comp=Z,442nm,19.0s,baz=7.5,slow=33								
TORD	**Torodi Ar. Bea**	**83.50**	**70**	P		**P**		**23 43 10.6**	**+1.3**
	1.9nm,0.9s,baz=252,slow=4.1,SNR=4.5								
	1.9nm,0.9s								
WRA	**Warramunga Arr**	**122.83**	**210**	PKP		**PKiKP**		**23 49 38.8**	**+0.8**
	1.9nm,0.9s,baz=153,slow=3.8,SNR=10								
KURBB	**Kurchatov Arra**	**151.13**	**40**	PKPbc		**PKiKP**		**23 50 34.4**	**+0.1**
	0.3nm,0.4s,baz=285,slow=3.6,SNR=1.5								
AAK	**Ala-Archa**	**151.39**	**58**	PKPbc		**PKiKP**		**23 50 34.8**	**-0.5**
	2.6nm,0.9s,baz=246,slow=2.1,SNR=5.3								
ZALV	**Zalesovo Beam**	**152.19**	**30**	PKPbc		**PKPbc**		**23 50 35.0**	**-1.1**
	0.2nm,0.3s,baz=289,slow=4.4,SNR=3.8								

ISC Computed Locations for November 2020

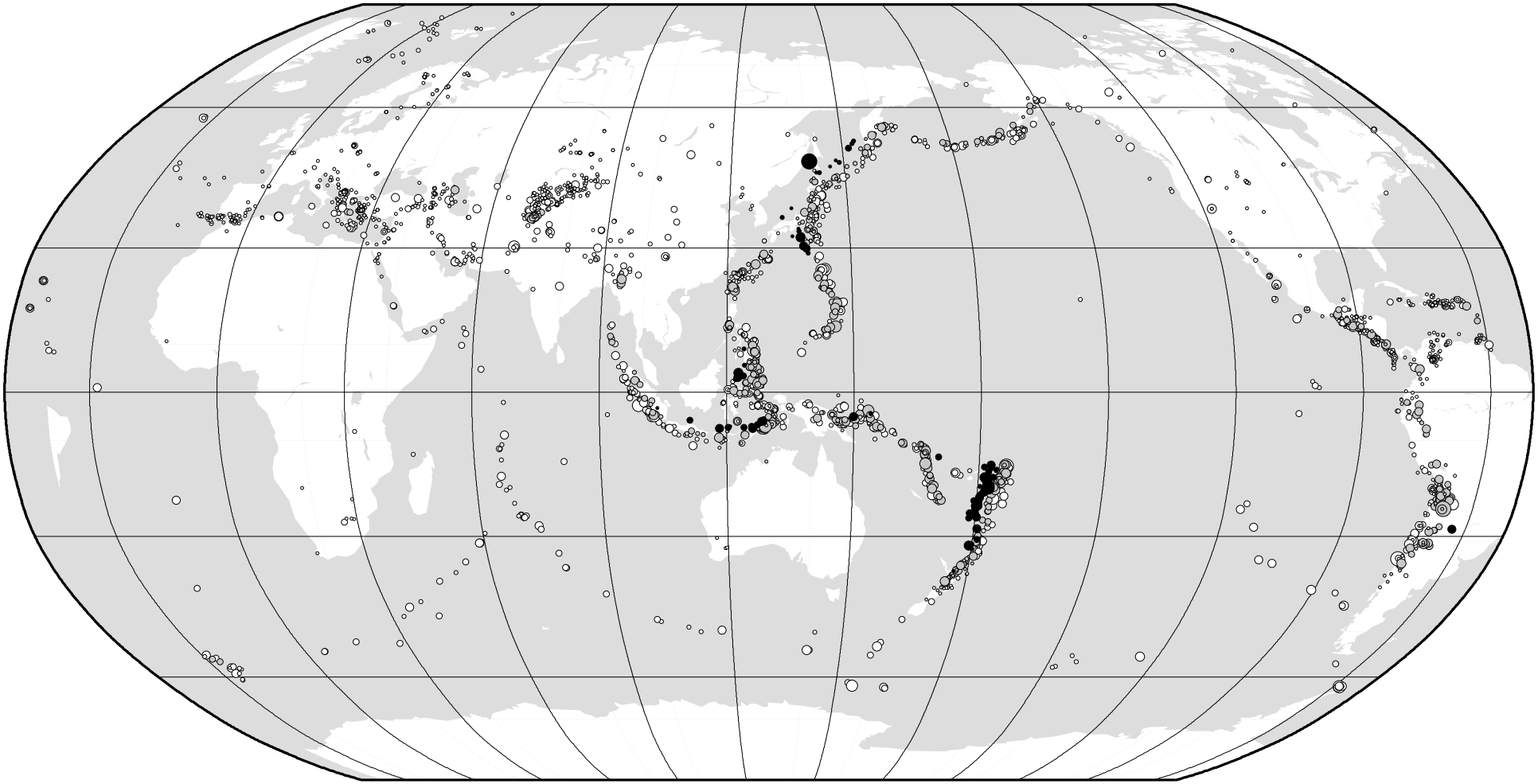

Depth (km)	0-70	70-300	>300
M=8			
M=6.5			
M=4			

Robinson Projection, centred on 0˚N,130˚E

3255 Events